BRENT SPENCE BRIDGE CORRIDOR PROJECT

RE-EVALUATION 1 APPENDICES

KYTC PROJECT ITEM NO. 6-17 | ODOT PID 89068
AUGUST 13, 2025

RE-EVALUATION 1 – APPENDICES: TABLE OF CONTENTS

Appendix A: Exhibits – pg. 3

Appendix B: Certified Traffic Report (September 2024) - pg. 31

Appendix C: Regulated Materials Coordination and Reporting - pg. 266

Appendix D: Addenda to Stream and Wetland Summary - pg. 857

Appendix E: Section 7 Consultation - pg. 885

Appendix F: Hydrological and Hydraulic Analyses - pg. 966

Appendix G: Section 106 Consultation - pg. 1,039

Appendix H: Air Quality Technical Memorandum: Mobile Source Air Toxics (December 2024) - pg. 1,301

Appendix I: Traffic Noise Impact Analysis – Northern Section - pg. 1,326

Appendix J: Traffic Noise Impact Analysis – Southern Section - pg. 1,671

Appendix K: ODOT Noise Outreach Summary - pg. 2,080

Appendix L: Express Sewer Preliminary Plans - pg. 2,151

Appendix M: Updated Section 4(f) Evaluation - pg. 2,157

Appendix N: Section 6(f) Coordination - pg. 2,400

Appendix O: Innovations Outreach - pg. 2,689

Appendix A: Exhibits

Exhibit 1: Concept I-W Base Design (W Pike St to W 3rd St)

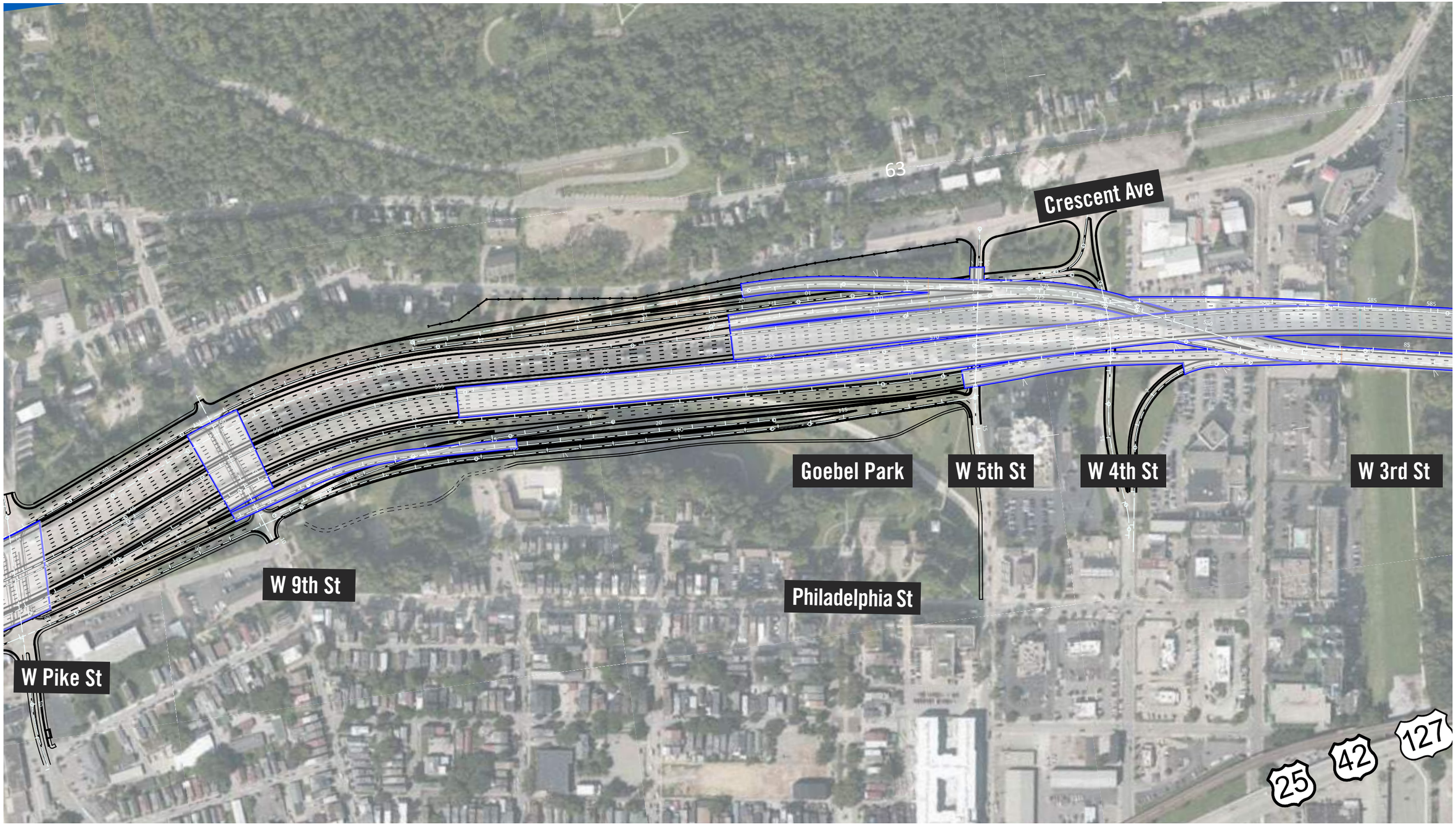


Exhibit 2: Kentucky Innovation 1 - Vertical Profile Optimization



Exhibit 3: Kentucky Innovation 1 - West 3rd Street and Crescent Avenue Roundabout



Exhibit 4: Kentucky Innovation 1 - West 3rd Street and Crescent Avenue Roundabout Aesthetics



Exhibit 5: Concept I-W Base Design - Pike Street Access

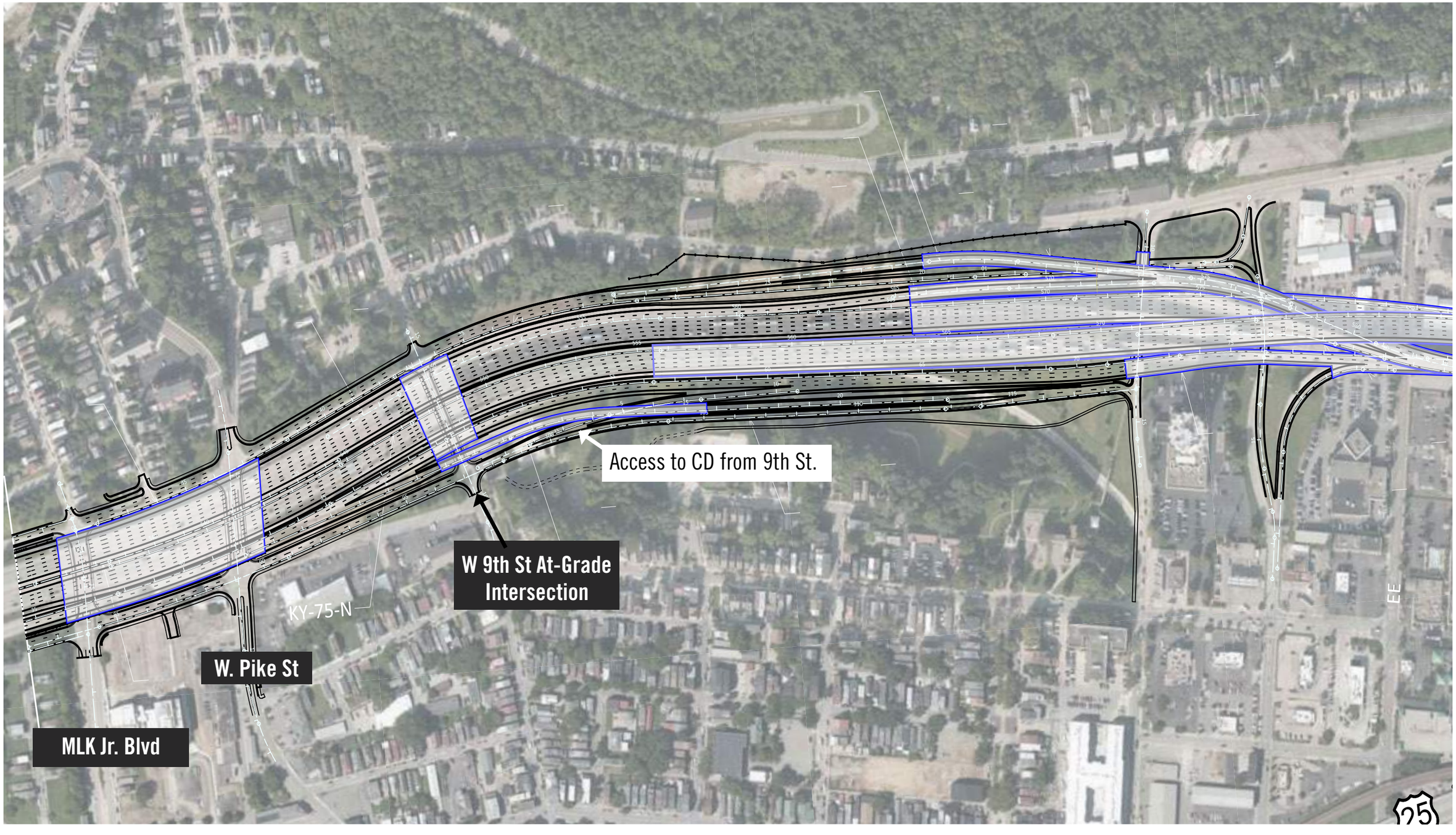
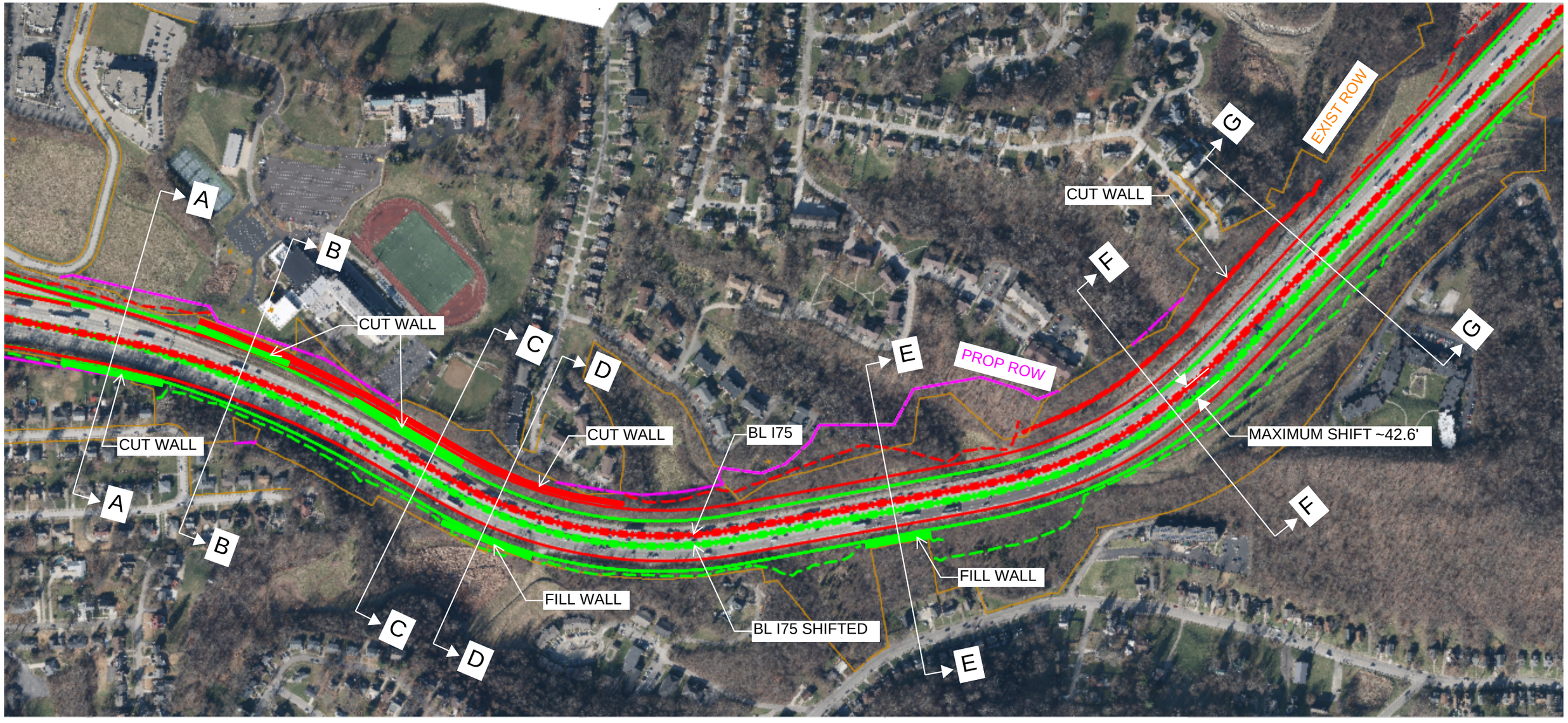


Exhibit 6: Kentucky Innovation 2 - Pike Street Access



Exhibit 7: Concept I-W Base Design vs. Kentucky Innovation 3 Plan View and Cross Sections



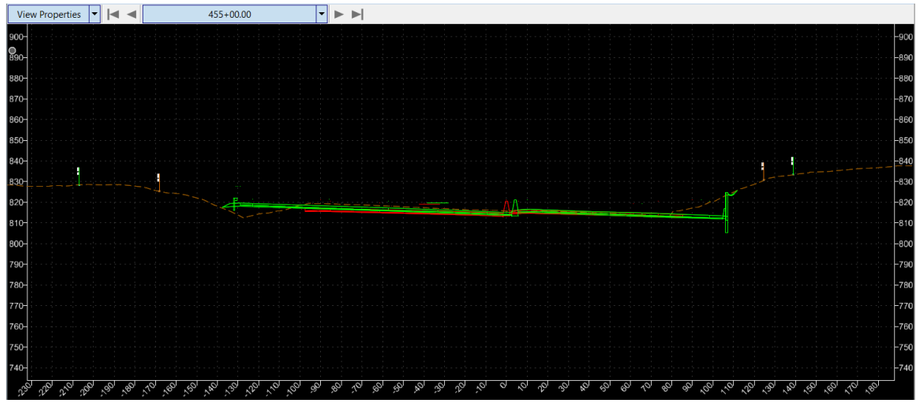
Concept I-W Base Design Limits

KY 3 Limits

Exhibit 7: Concept I-W Base Design vs. Kentucky Innovation 3 Plan View and Cross Sections

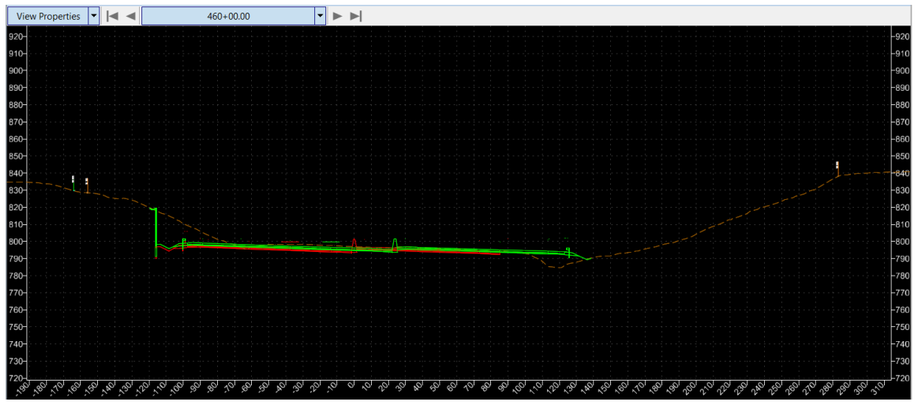
Concept I-W Base Design Limits

KY 3 Limits

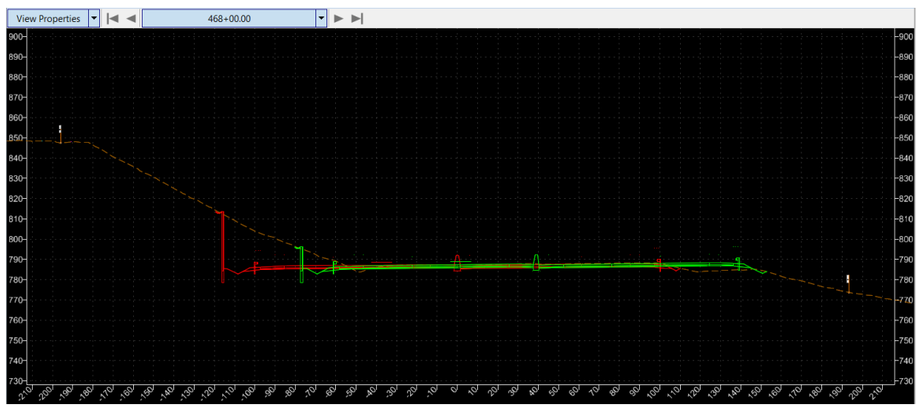


SECTION A-A
I75 STA 455+00

APPROXIMATE SOUTH END
OF ALIGNMENT SHIFT
STA 452+00



SECTION B-B
I75 STA 460+00

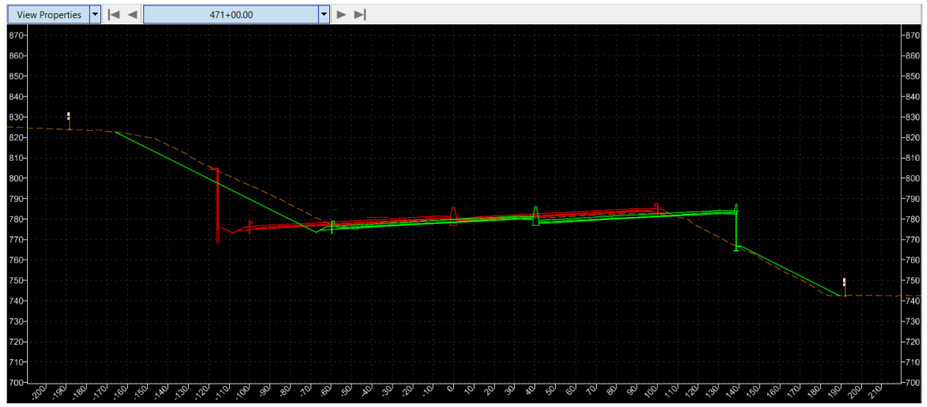


SECTION C-C
I75 STA 468+00

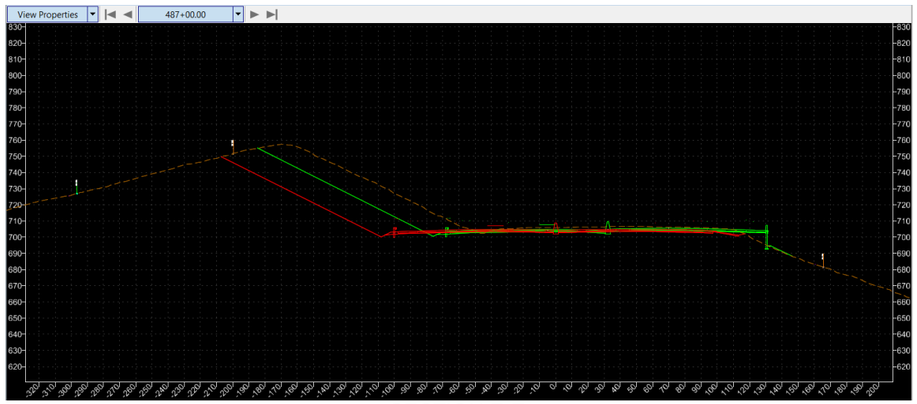
Exhibit 7: Concept I-W Base Design vs. Kentucky Innovation 3 Plan View and Cross Sections

Concept I-W Base Design Limits

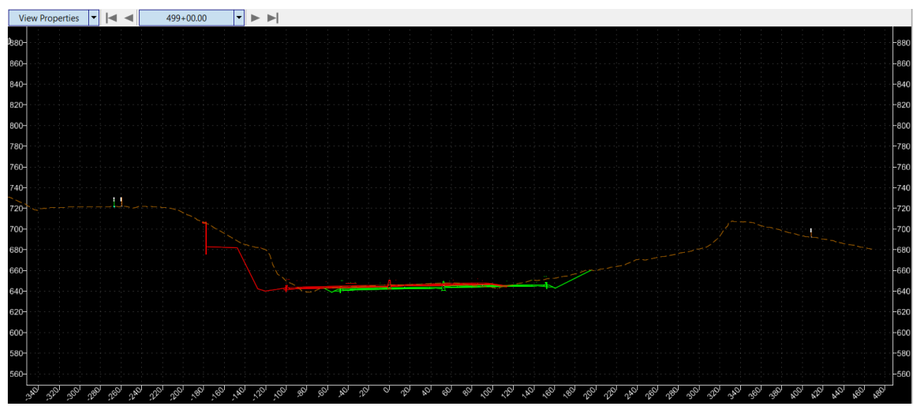
KY 3 Limits



SECTION D-D
I75 STA 471+00



SECTION E-E
I75 STA 487+00

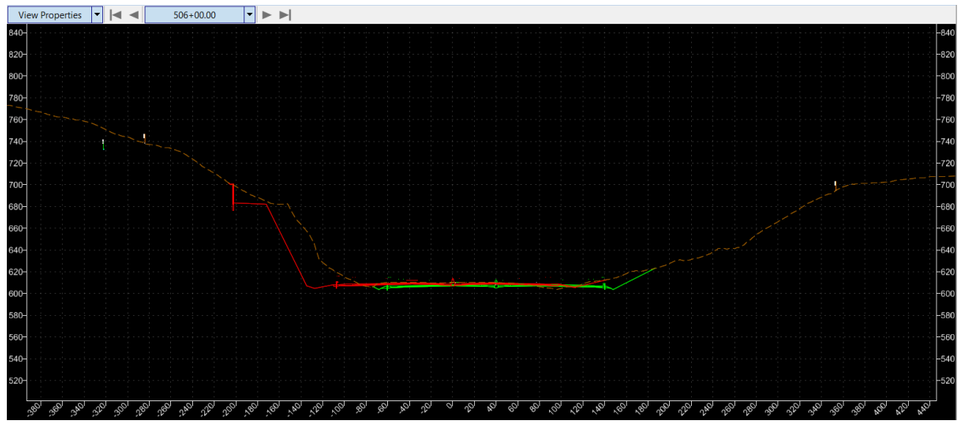


SECTION F-F
I75 STA 499+00

Exhibit 7: Concept I-W Base Design vs. Kentucky Innovation 3 Plan View and Cross Sections

Concept I-W Base Design Limits

KY 3 Limits



SECTION G-G
I75 STA 506+00

APPROXIMATE NORTH END
OF ALIGNMENT SHIFT
STA 508+00

Exhibit 8: Ohio Concept I-W Base Design

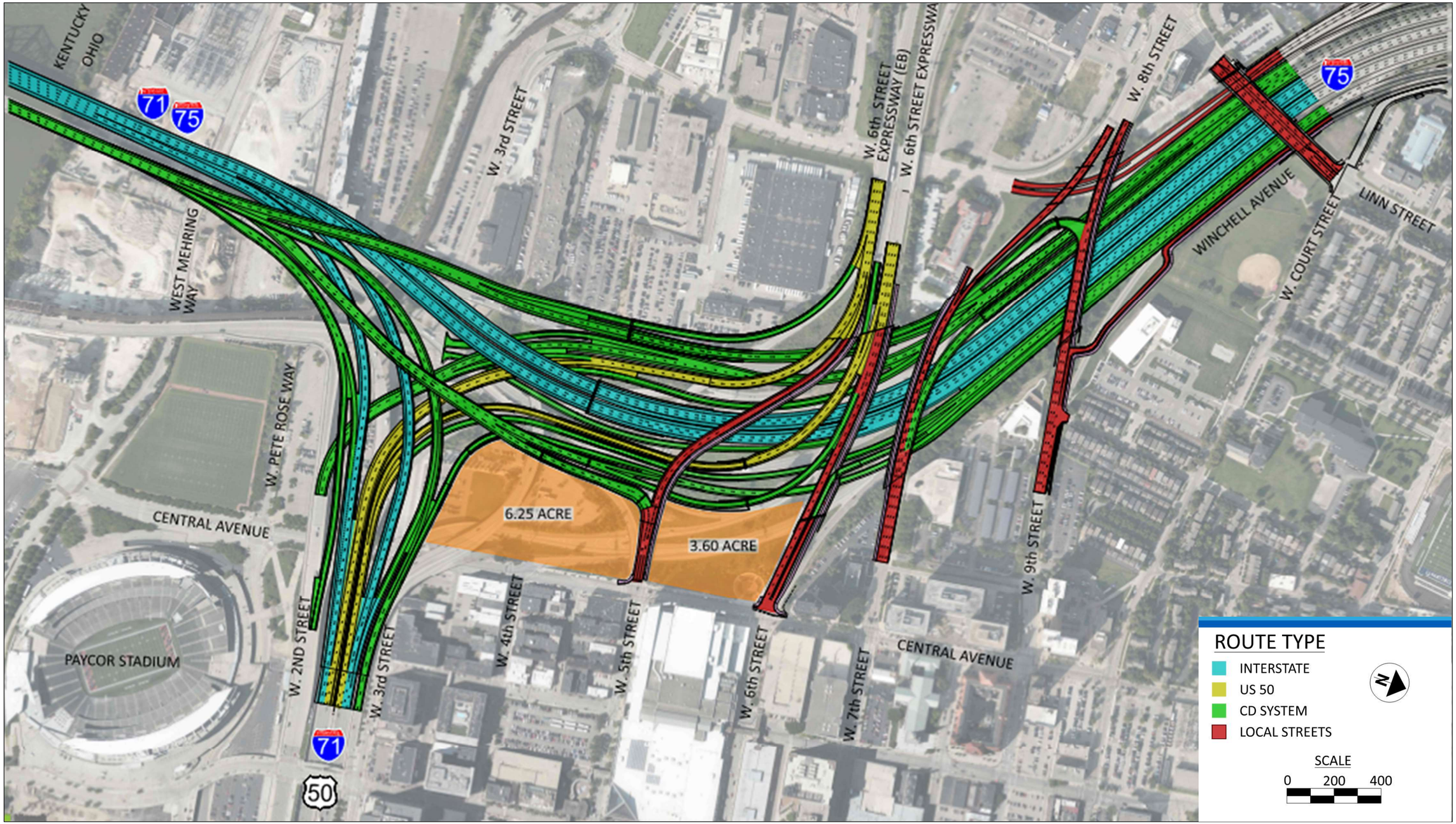


Exhibit 9: Ohio Build Innovations (OH 1 to OH 4)

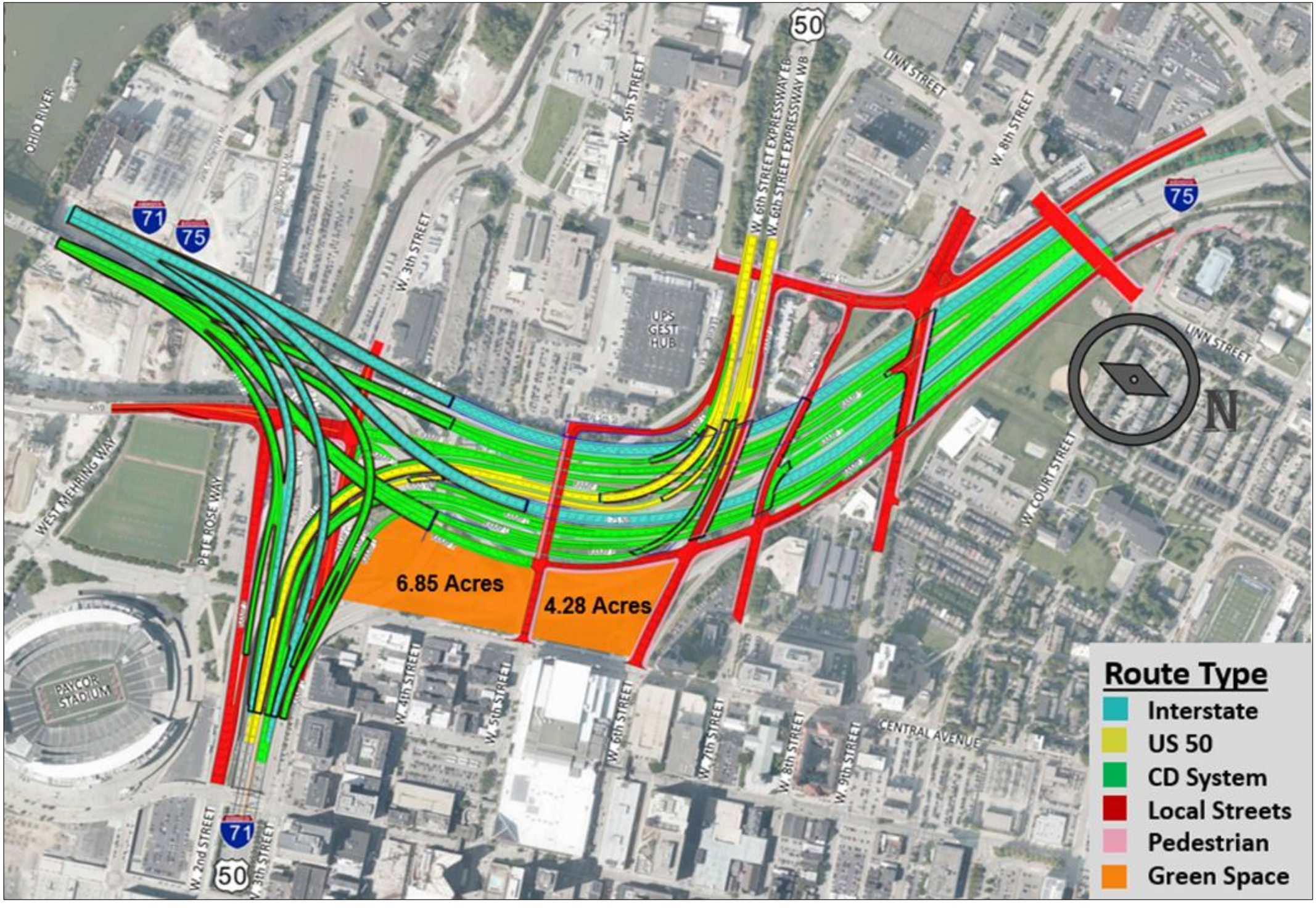


Exhibit 10: Kyles Lane - Detailed Design Progression

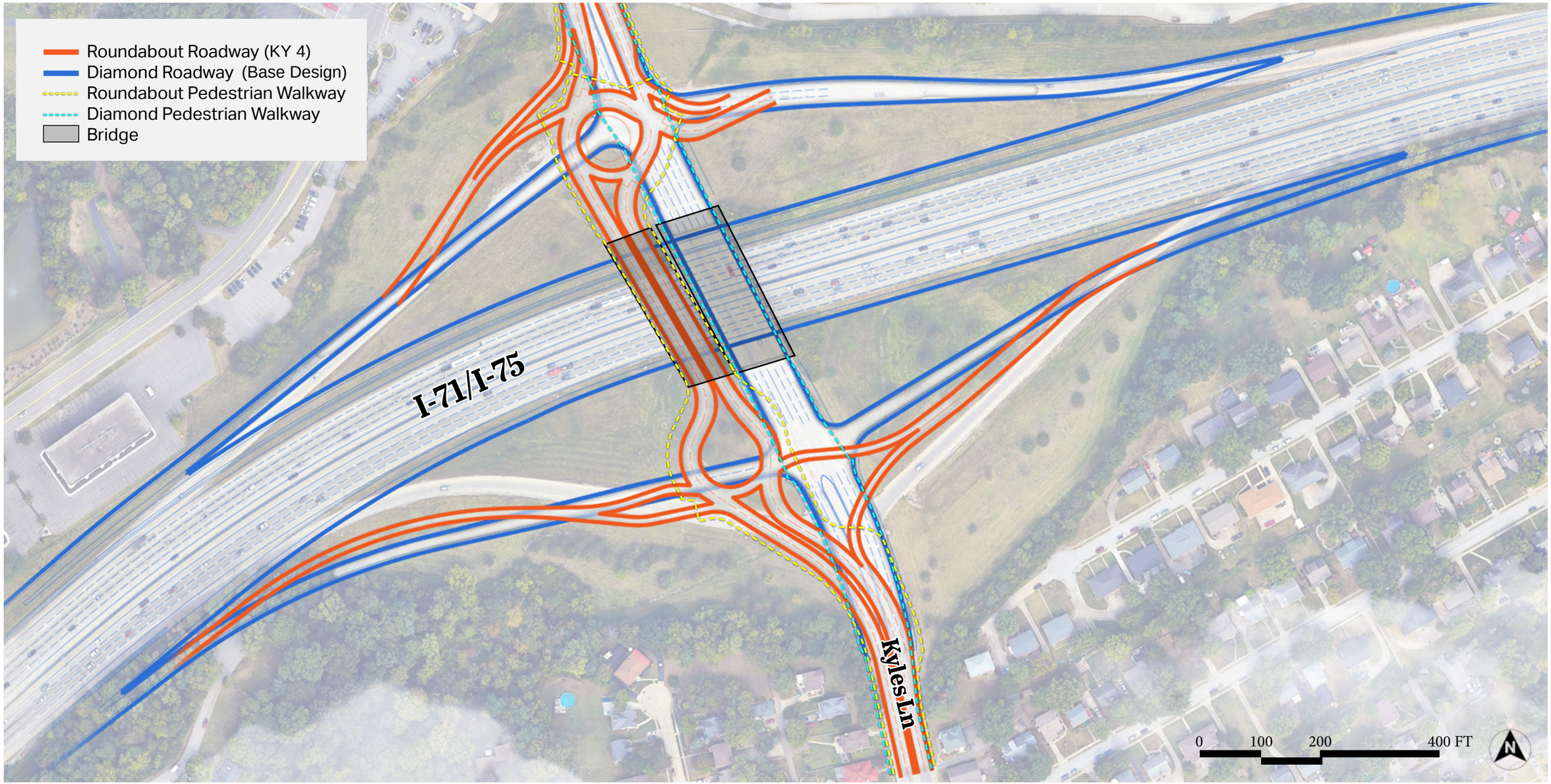


Exhibit 11: Dixie Highway - Detailed Design Progression

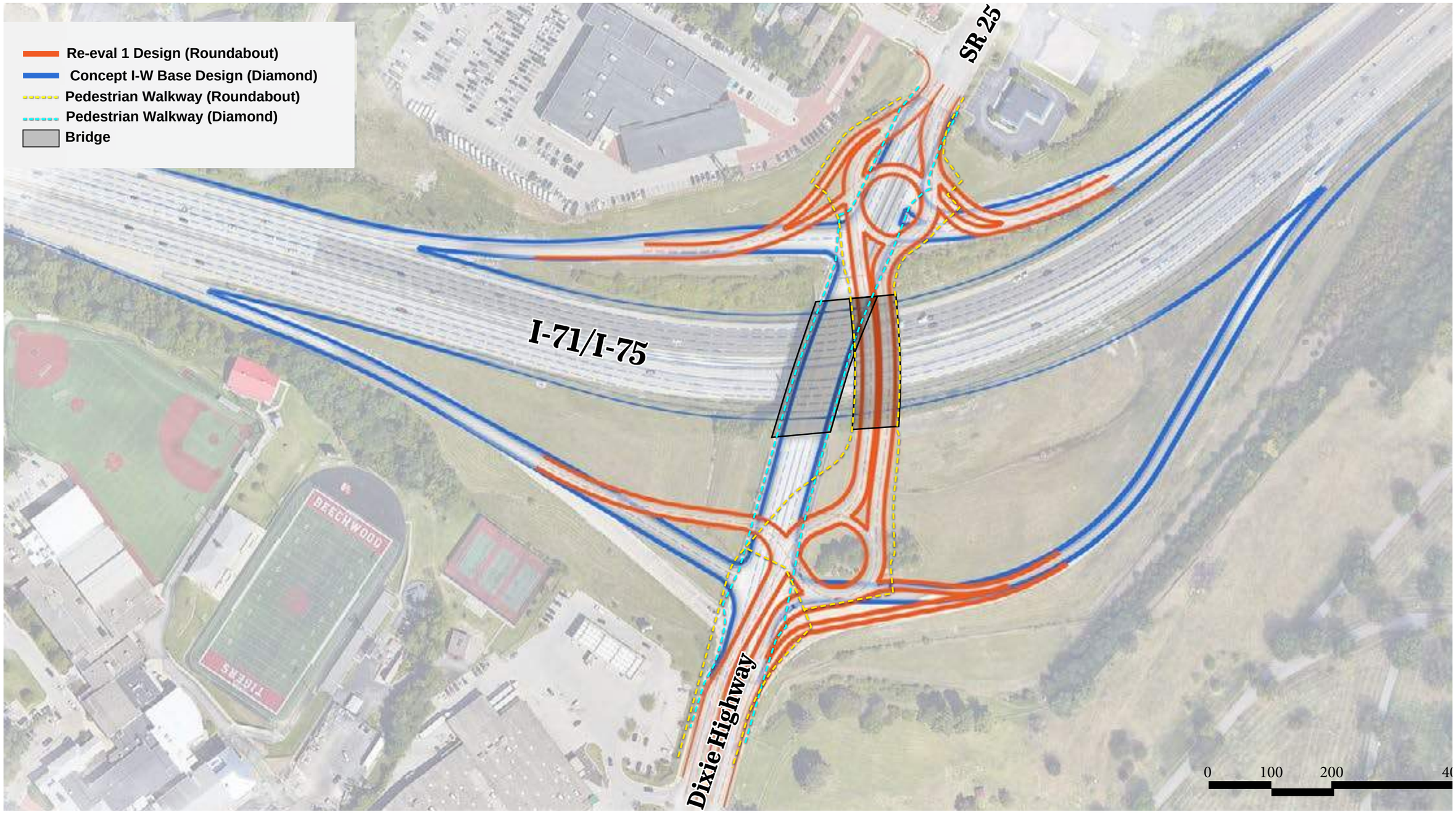
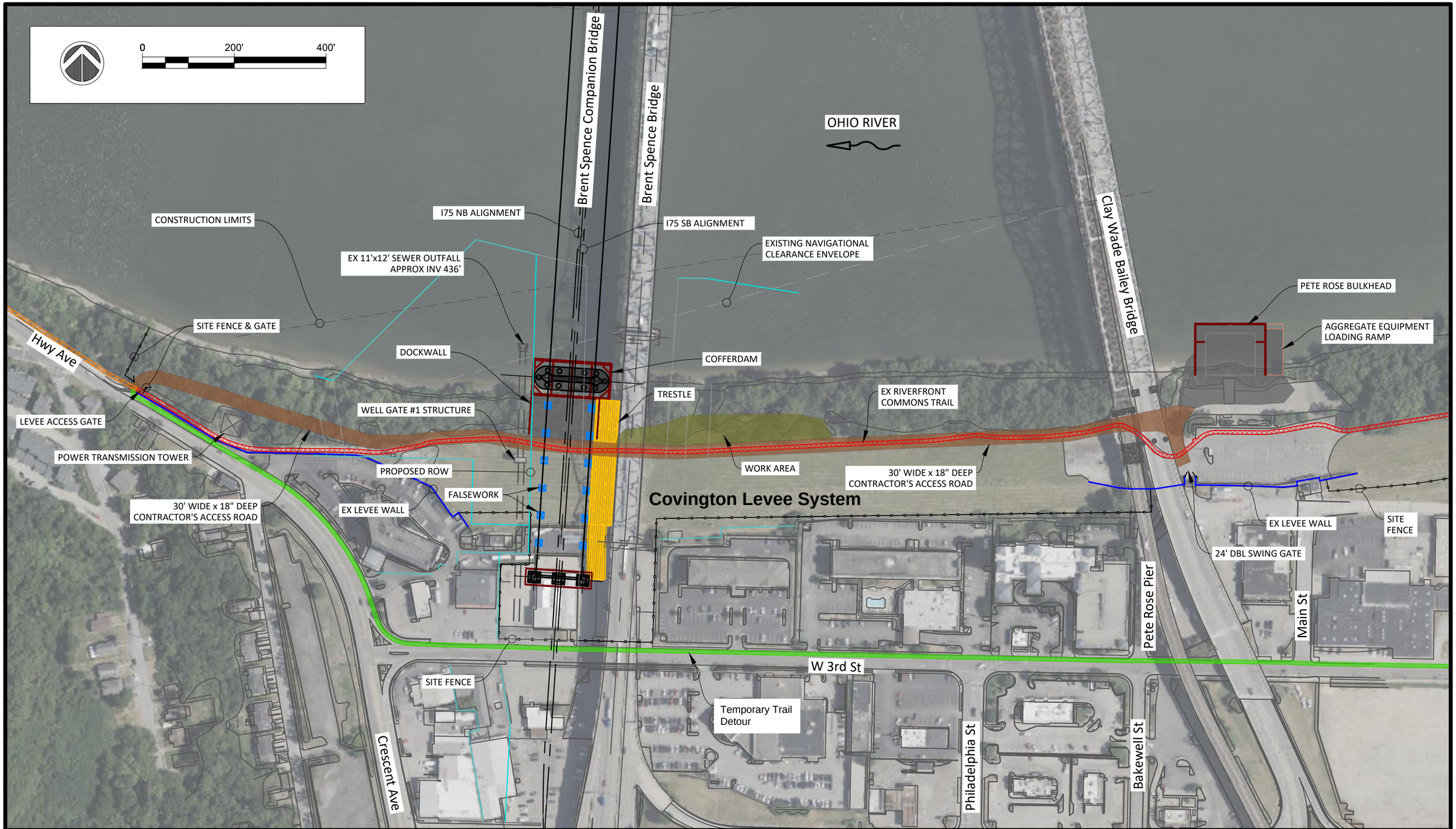


Exhibit 12: Temporary Works



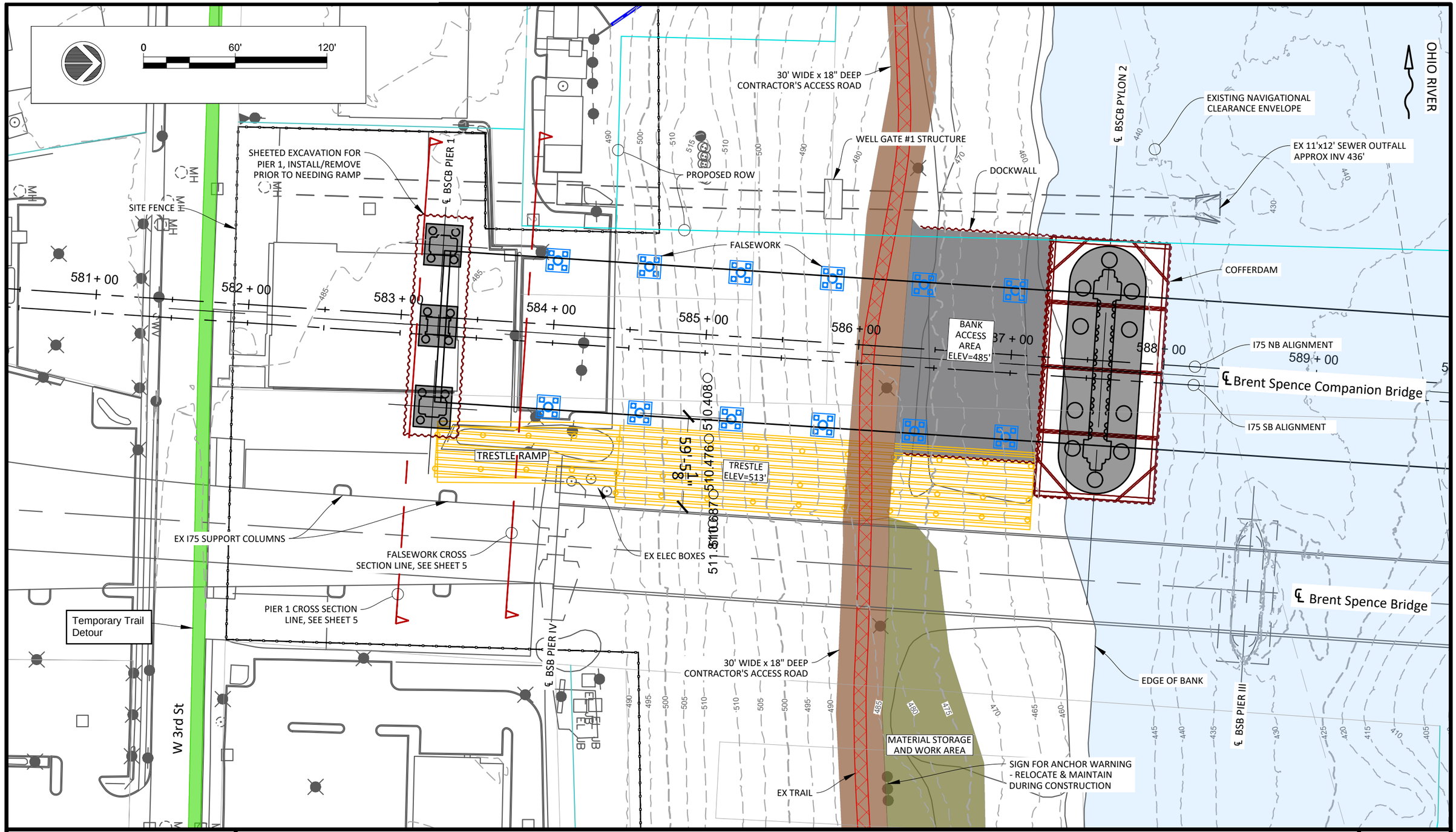
Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

SITE PLAN

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:14 PM Plot Scale: 1:200

Exhibit 12: Temporary Works



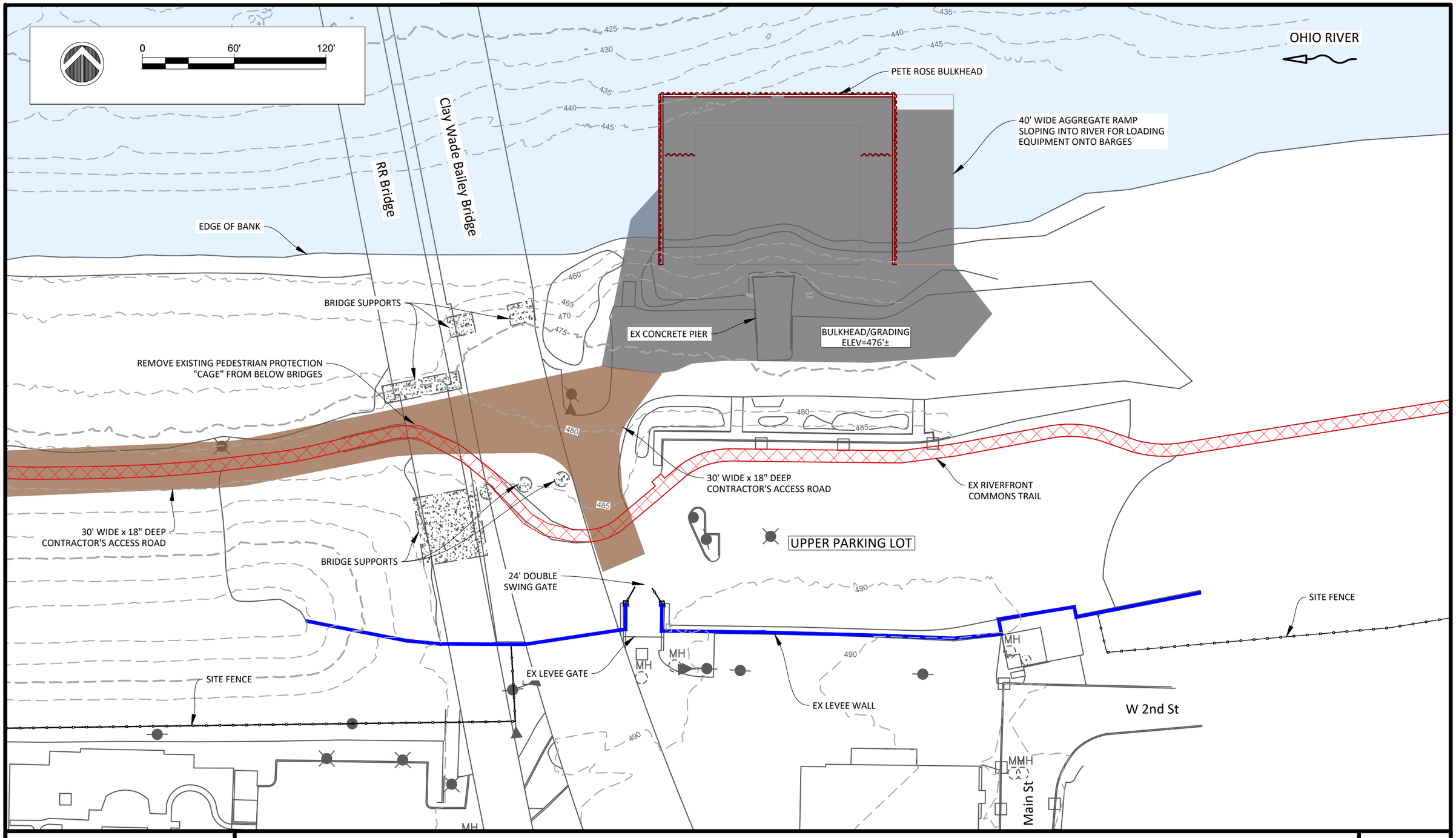
Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:15 PM Plot Scale: 1" = 60'

Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

COMPANION BRIDGE ACCESS PLAN

Exhibit 12: Temporary Works



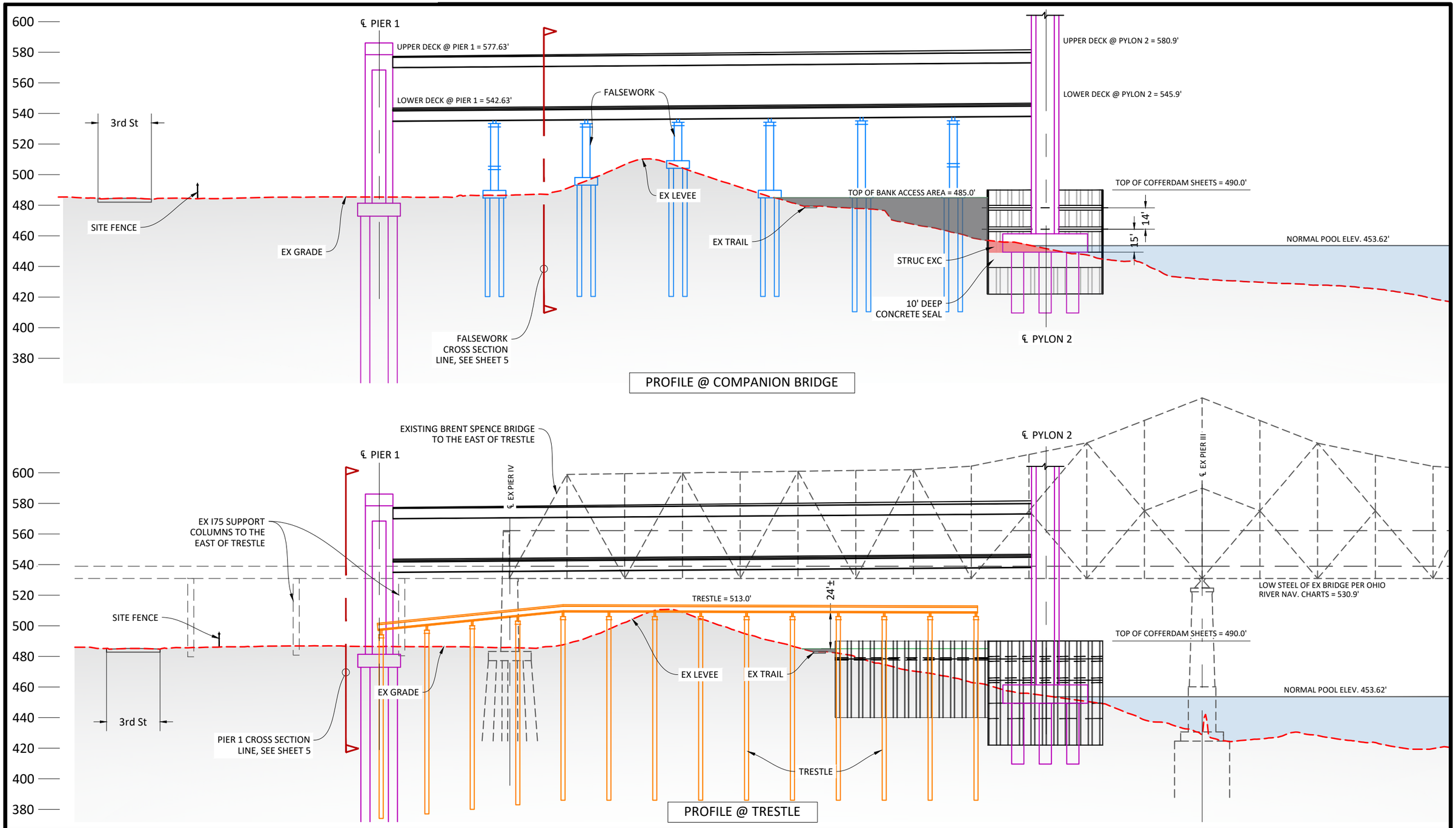
Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:15 PM Plot Scale: 1" = 60'

Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

PETE ROSE BULKHEAD PLAN

Exhibit 12: Temporary Works



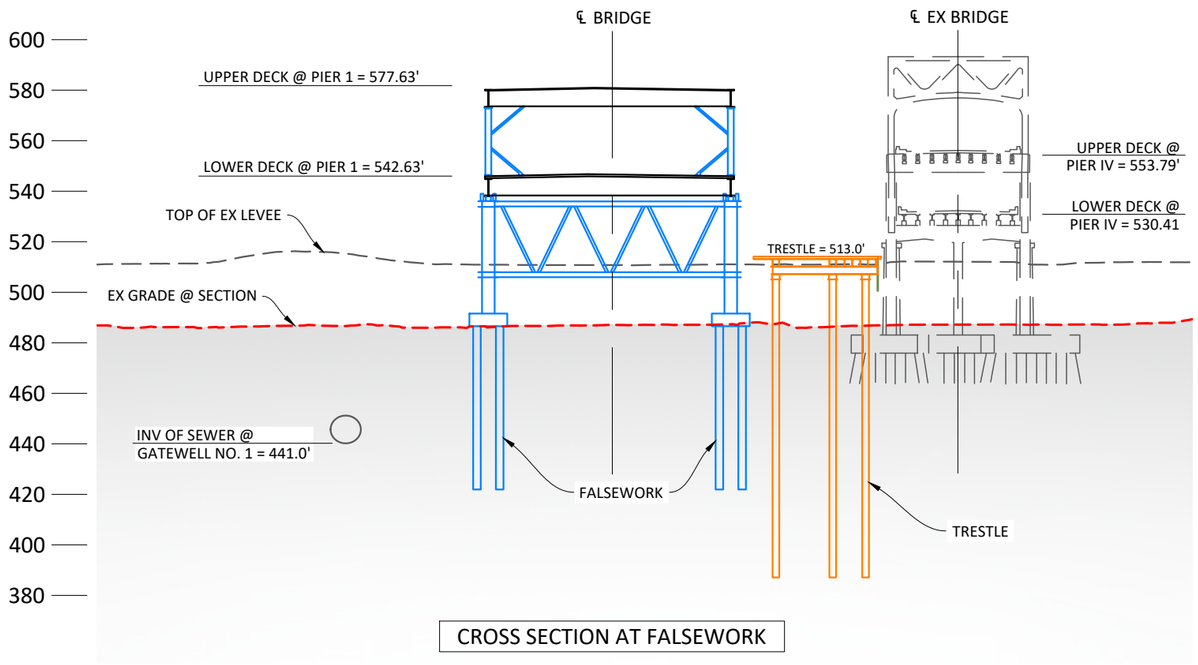
Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:16 PM Plot Scale: 1" = 60'

Walsh Kokosing JOINT VENTURE

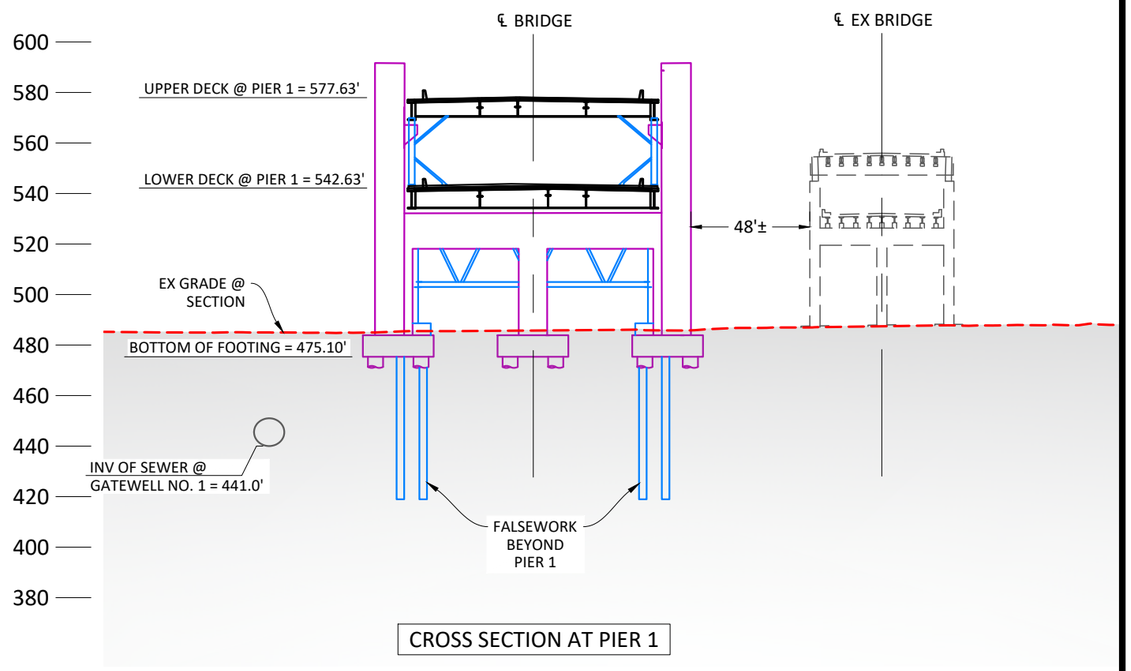
Brent Spence Corridor Project - KY Access Concept Plans

PROFILES AT TRESTLE AND COMPANION BRIDGE

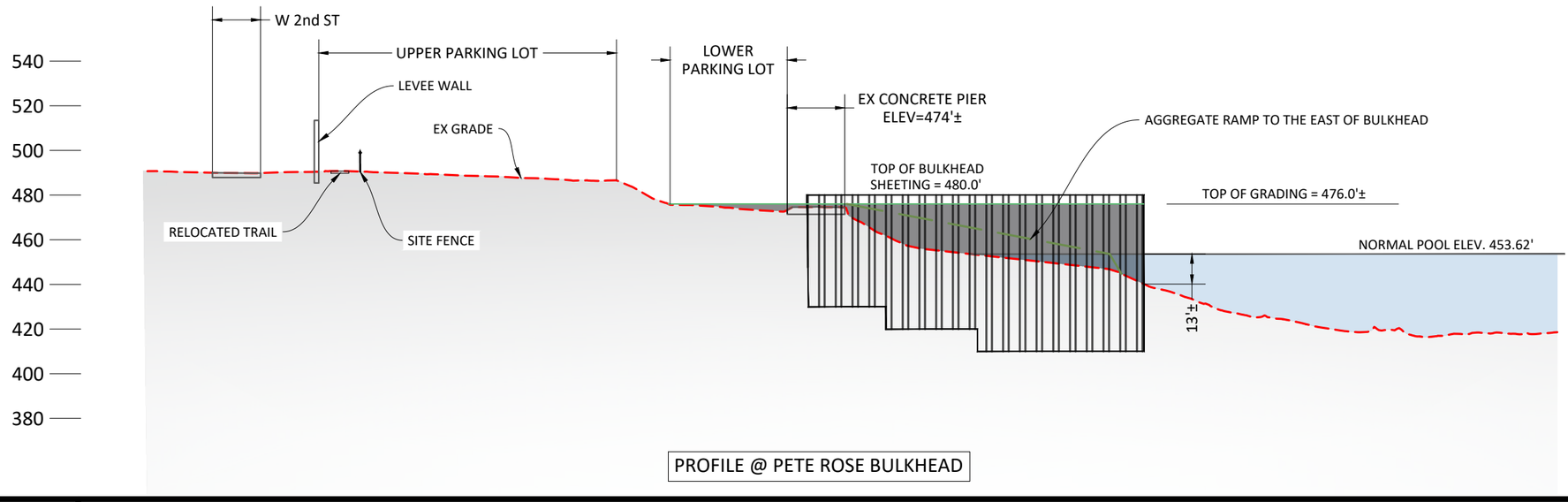
Exhibit 12: Temporary Works



CROSS SECTION AT FALSEWORK



CROSS SECTION AT PIER 1



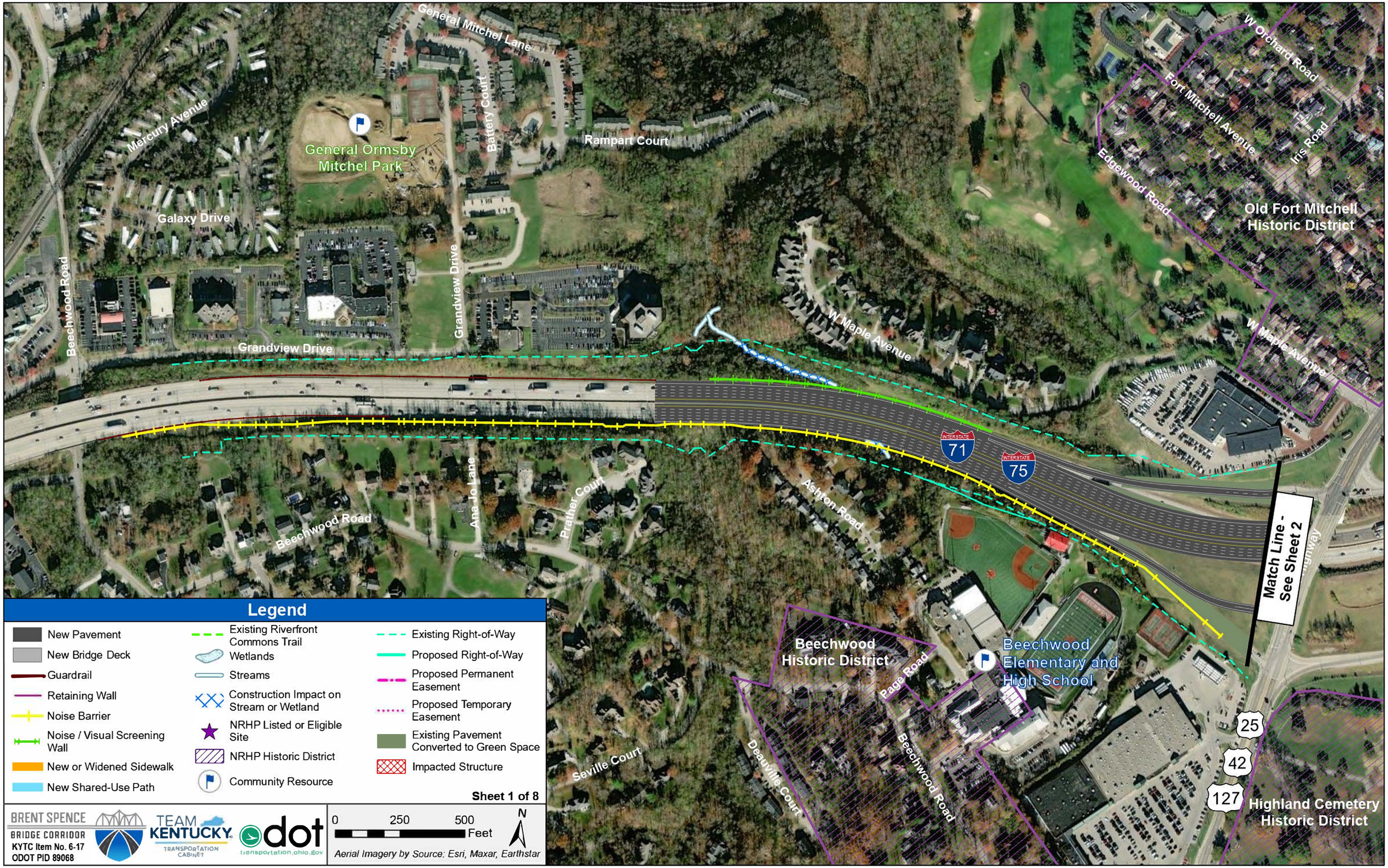
PROFILE @ PETE ROSE BULKHEAD

Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans
CROSS SECTIONS AND PROFILE AT PETE ROSE BULKHEAD

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:16 PM Plot Scale: 1" = 60'

Exhibit 13: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 1 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

odot transportation.ohio.gov

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 13: Re-evaluation 1 Design

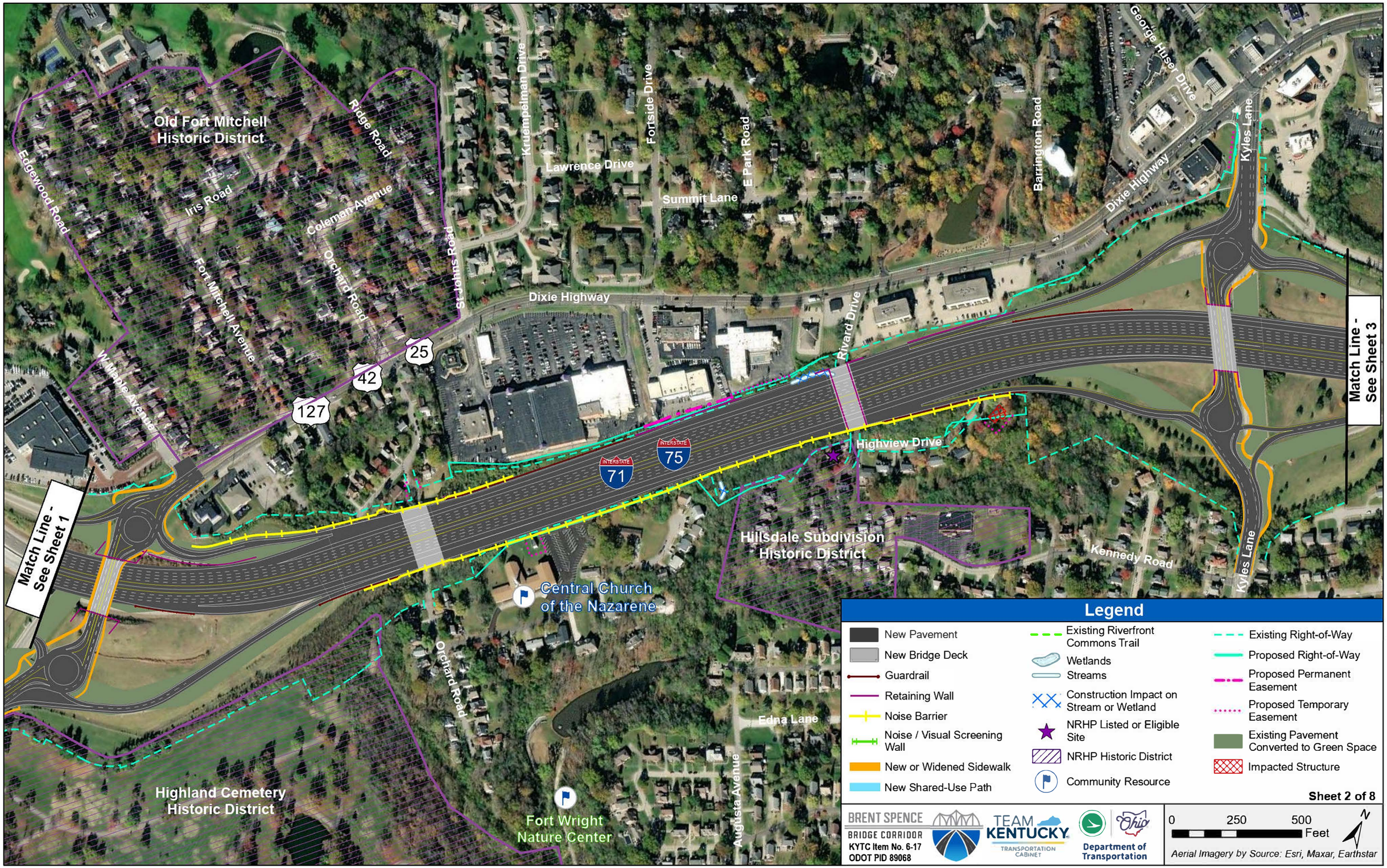
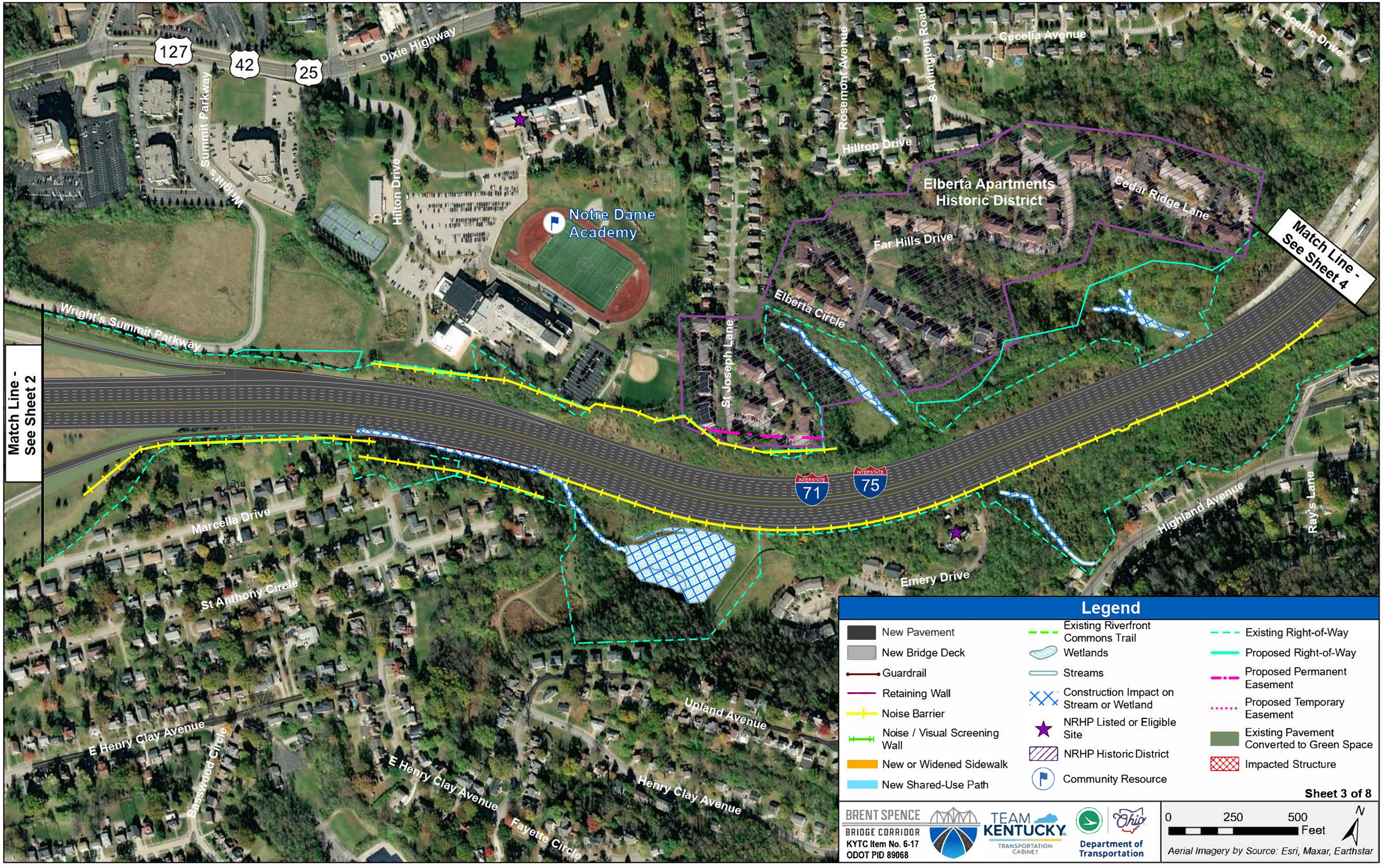


Exhibit 13: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 13: Re-evaluation 1 Design

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 4 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet

Aerial Imagery by Source: Esri, Maxar, Earthstar

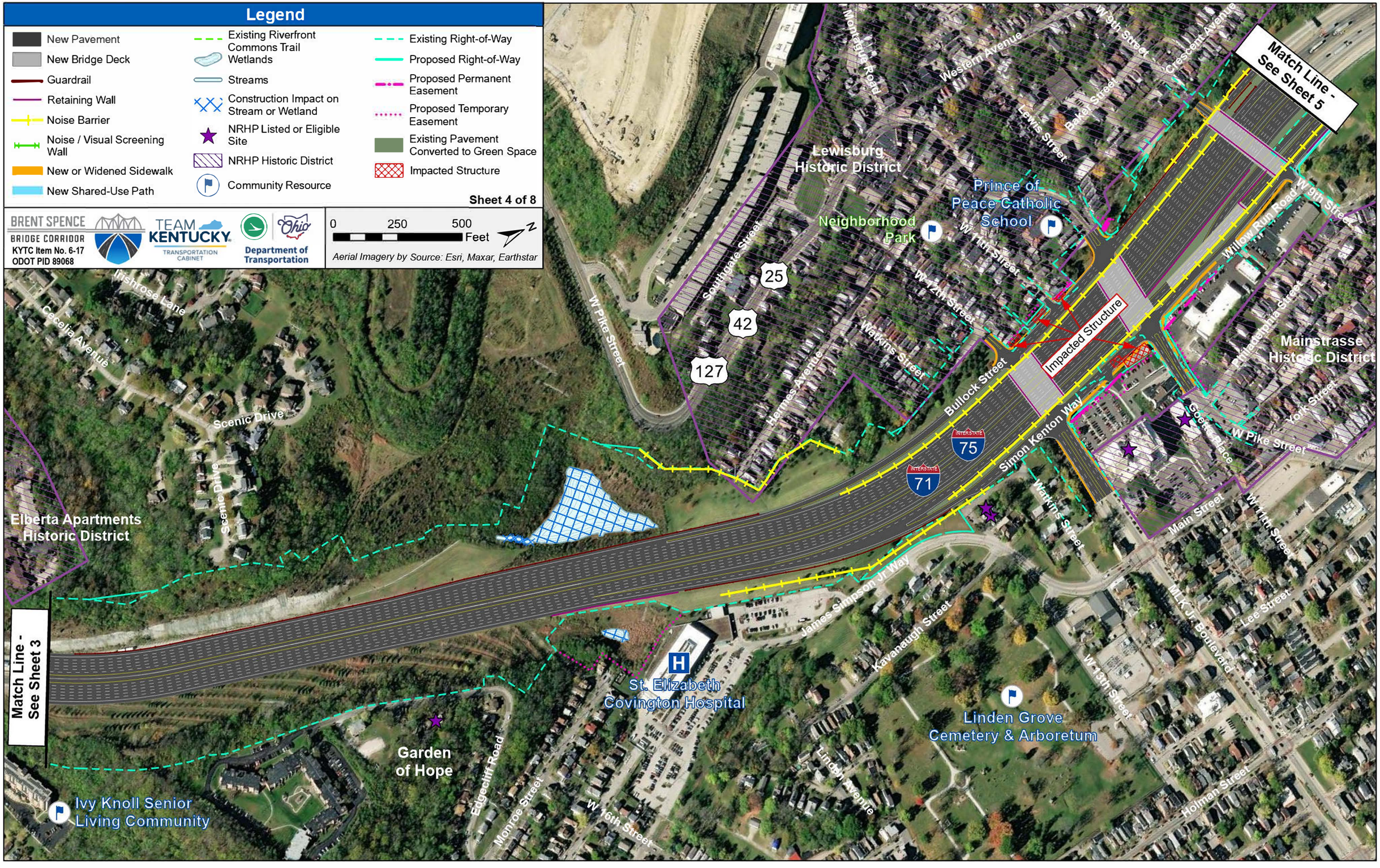
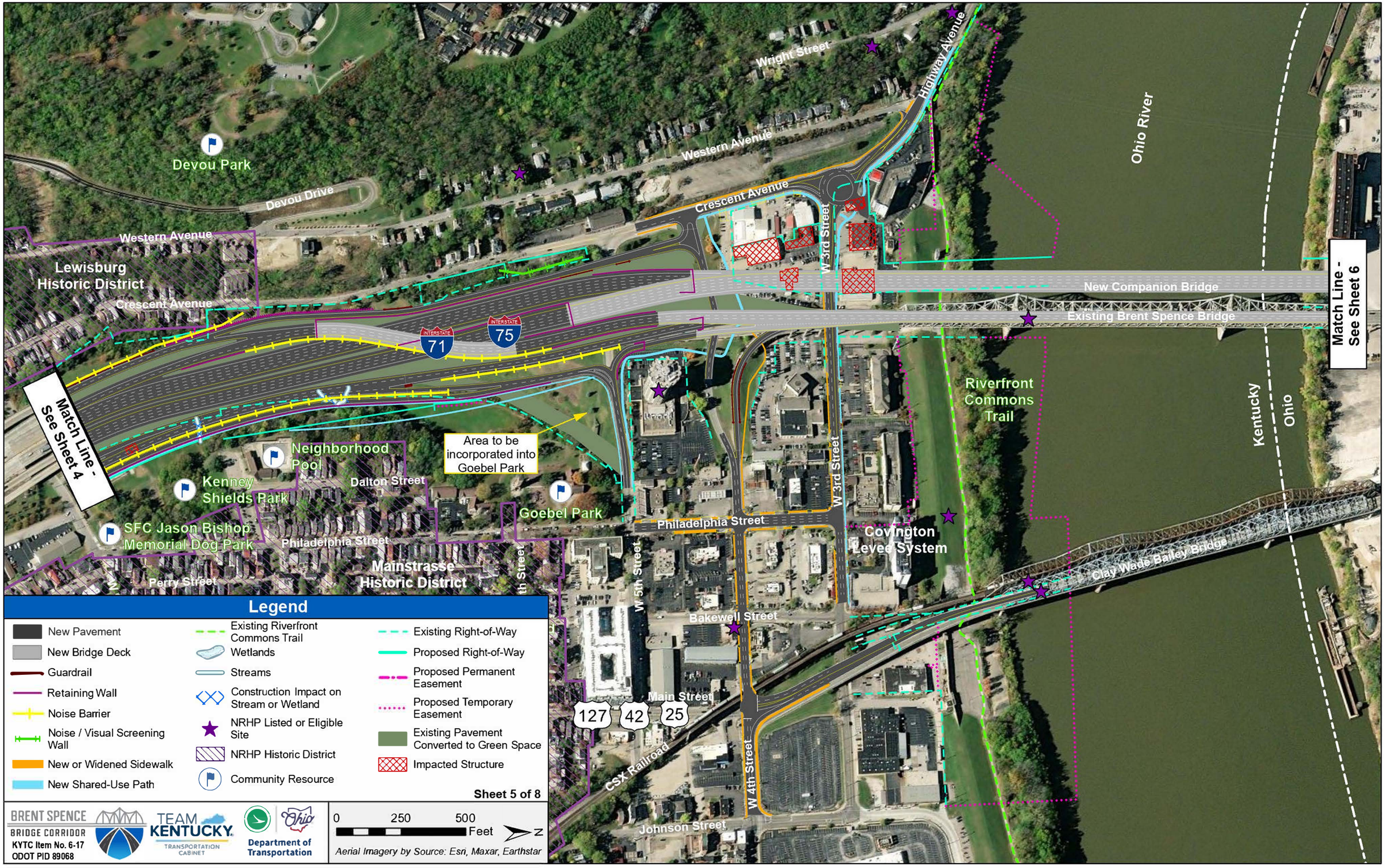


Exhibit 13: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 5 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

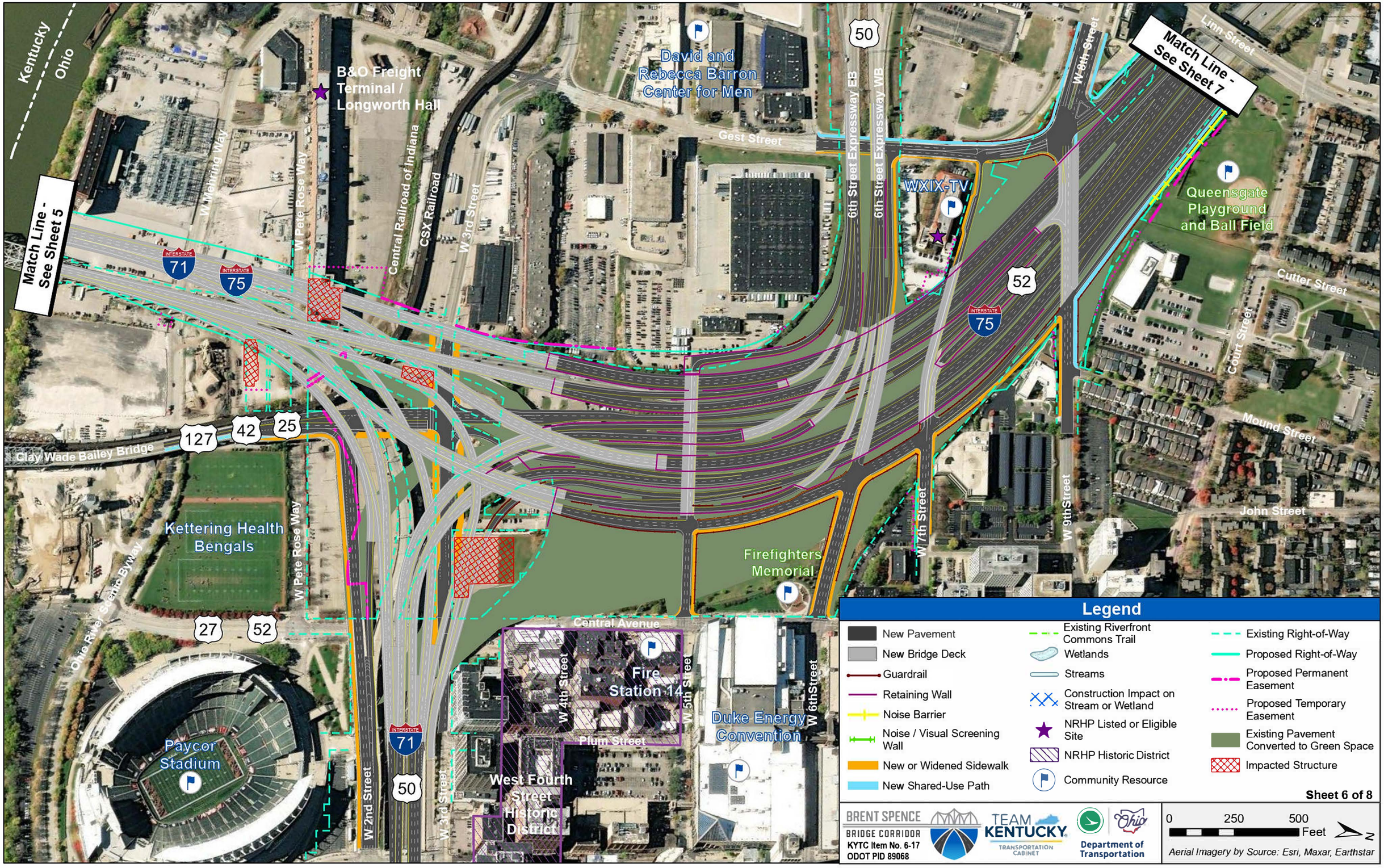
Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 13: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 6 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 13: Re-evaluation 1 Design

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 7 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Cincinnati Union Terminal
Post Office
Dalton Avenue
Match Line - See Sheet 8
Findlay Street
Lincoln Park - Union Terminal
Liberty Street
Cincinnati Job Corps Center
Western Avenue
Freeman Avenue
W 8th Street
Gest Street
52
75
West End Community Garden
Dayton Street Historic District
Winchell Avenue
Highway cap with green space
Sands Playground
Baymiller Street
Lincoln Community Center
CAA Head Start
Public Library
Ezzard Charles Drive
Wade Walk Baseball Field
Liberty Street
Linn Street
Linn Livingston Park
Match Line - See Sheet 6
St. Joseph Catholic School
Fire Station 29
Queensgate Playground and Ball Field
Court Street
Clark Street
Ezzard Charles Park
Derrick Turnbow Avenue
Wade Street
Laurel Park Drive
Laurel Playground
Poplar Street
Findlay Street
York Street
John Street
Cutter Street

Exhibit 13: Re-evaluation 1 Design

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 8 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Connection to City of Cincinnati Western Hills Viaduct project.

Western Hills Viaduct

Spring Grove Avenue

Dalton Avenue

Winchell Avenue

Match Line - See Sheet 7

Bank Street

Harrison Avenue

Patterson Street

Dayton Street Historic District

Colerain Avenue

Dyer Park

Central Avenue

Central Parkway

W McMicken Avenue

Kloter Avenue

Conroy Street

Central Parkway

W McMillan Street

West McMicken Avenue Historic District

Halstead Street

Western Hills Viaduct Subway Tunnel Portals

W McMicken Avenue

W McMillan Street

Fairview Park Road

Straight Street

Draper Street

Alfred Street

Cook Street

Straight Street

Colerain Avenue

52

75

127

27

Appendix B: Certified Traffic Report (September 2024)

BRENT SPENCE BRIDGE CORRIDOR PROJECT

CERTIFIED TRAFFIC REPORT

ODOT PID 89068 | KYTC PROJECT ITEM NO. 6-17
SEPTEMBER 19, 2024

TABLE OF CONTENTS

1. INTRODUCTION 1

2. PROJECT DESCRIPTION 2

2.1 Build Innovations 2

2.2 Local Projects 4

3. FORECAST PARAMETERS 6

4. OTHER STUDIES 7

4.1 OKI Recommended Projects 7

5. DATA SOURCES 8

5.1 Summary of Data Sources 8

5.2 Existing Traffic Volume 9

6. DESIGN TRAFFIC VOLUMES 9

6.1 Intersection Forecasting Process and Assumptions 10

6.2 Ramp and Mainline Forecasts 10

6.3 Forecast Balancing and Smoothing 11

6.4 Design Truck Factors 12

6.5 Certified Traffic Plates 12

6.6 TransModeler Origin-Destination Matrices 12

7. IMS FORECAST COMPARISON 15

LIST OF TABLES

Table 1: Kentucky Intersections 6
Table 2: Ohio Intersections 6
Table 3: Daily Traffic Forecast Comparison – Ohio River Screenline 16
Table 4: AM Peak Hour Traffic Forecast Comparison – Ohio River Screenline 16
Table 5: PM Peak Hour Traffic Forecast Comparison – Ohio River Screenline 17
Table 6: Traffic Forecast Comparison – SB I-71/75 Mainline and Ramps 18
Table 7: Traffic Forecast Comparison – NB I-71/75 Mainline and Ramps 19
Table 8: I-71 & I-75 Screenline Comparison 20

LIST OF FIGURES

Figure 1: Traffic Forecast Study Area 1
Figure 2: Ohio Innovations 2
Figure 3: Kentucky Innovation 1 3
Figure 4: Kentucky Innovation 2 3
Figure 5: Kentucky Innovation 3 4
Figure 6: OKI Traffic Analysis Zones – Covington 5
Figure 7: OKI Recommended Projects 8
Figure 8: AM Period O-D Proportions 14
Figure 9: PM Period O-D Proportions 14

APPENDICES

Appendix A – Certified Traffic Plates

- Appendix A-1: Daily Refined Alternative I (Concept I-W) Innovations (2029 & 2049)
- Appendix A-2: AM DHV Refined Alternative I (Concept I-W) Innovations (2029 & 2049)
- Appendix A-3: PM DHV Refined Alternative I (Concept I-W) Innovations (2029 & 2049)
- Appendix A-4: Truck Factors – Refined Alternative I (Concept I-W) Innovations (AM TD/PM TD/T24)

Appendix B – Reports

- Appendix B-1: Count Evaluation Memorandum and Attachments
  - Details on Traffic Counts
  - Proposed factors including seasonal, COVID-19, expansion, and DHV factors
  - Traffic Count Plates
    - Existing Daily Counts / 2019 AADT Targets
    - 2019 AADT Targets and Balanced
    - Existing AM and PM Traffic Counts
  - Covington Traffic Count Memorandum
- Appendix B-2: Project Travel Demand Model Overview

Appendix C – Exhibits

- Appendix C-1: Build Innovations Lane Diagram
- Appendix C-2: Existing Turning Movement Count Data
- Appendix C-3: Short-Term Count Data
- Appendix C-4: Daily 2020 Travel Demand Model Assignments
- Appendix C-5: Daily Innovations Travel Demand Model Assignments
- Appendix C-6: Forecast Targets versus Balanced – Table
- Appendix C-7: Traffic Weave Information

1. INTRODUCTION

ODOT and KYTC approved certified traffic for the Brent Spence Bridge (BSB) project in May 2023 for three roadway scenarios:

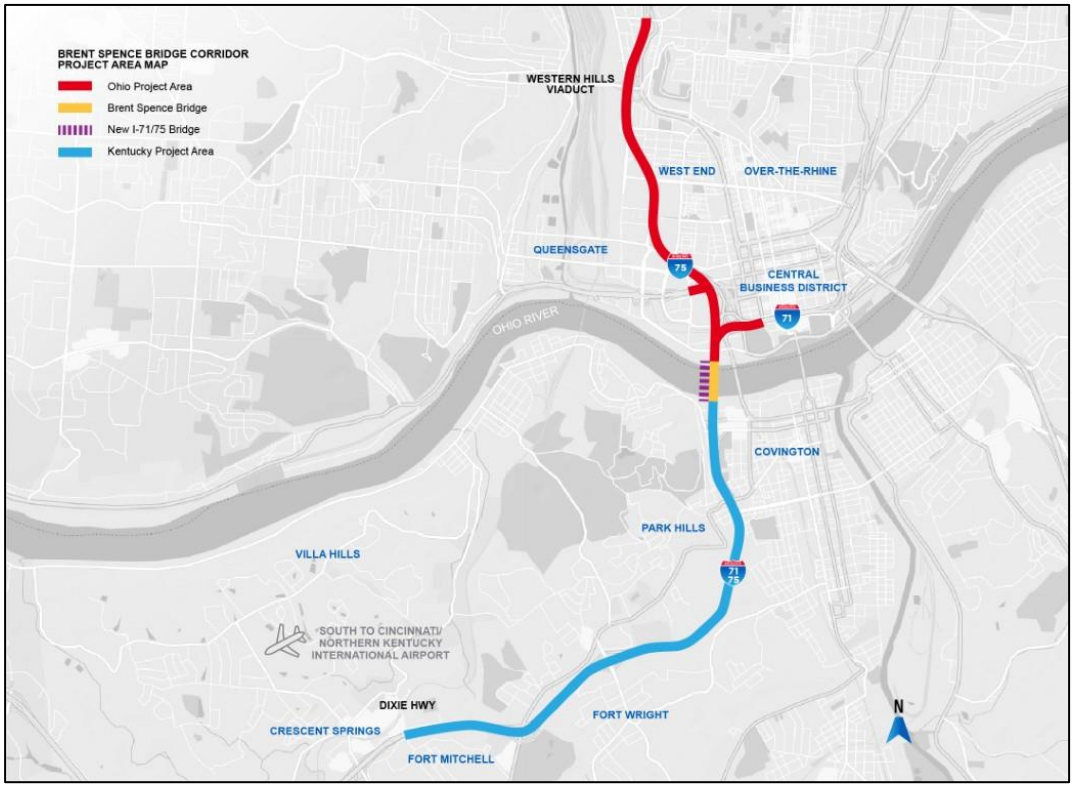
- 2029/2049 No Build
- 2029/2049 Selected Alternative I
- 2029/2049 Refined Alternative I (Concept I-W)

Since these forecasts, an Interchange Modification Study addendum was approved by FHWA in November 2023. Building upon the approved IMS, with preferred Refined Alternative I (Concept I-W), the BSB design-build team (DBT) has recommended design innovations. The alternative that enhances the approved IMS design is called Build Innovations in this report.

The forecasting methodology for Build Innovations follows the approved procedures outlined in the May 2023 certified traffic report, also documented in this report.

The forecasting limits for Build Innovations are unchanged from the other alternatives except for additional intersections in Covington along 3rd, 4th, and 5th Street to capture the impact of the 5th Street innovations. The forecast limits are outlined in **Figure 1**.

Figure 1: Traffic Forecast Study Area



2. PROJECT DESCRIPTION

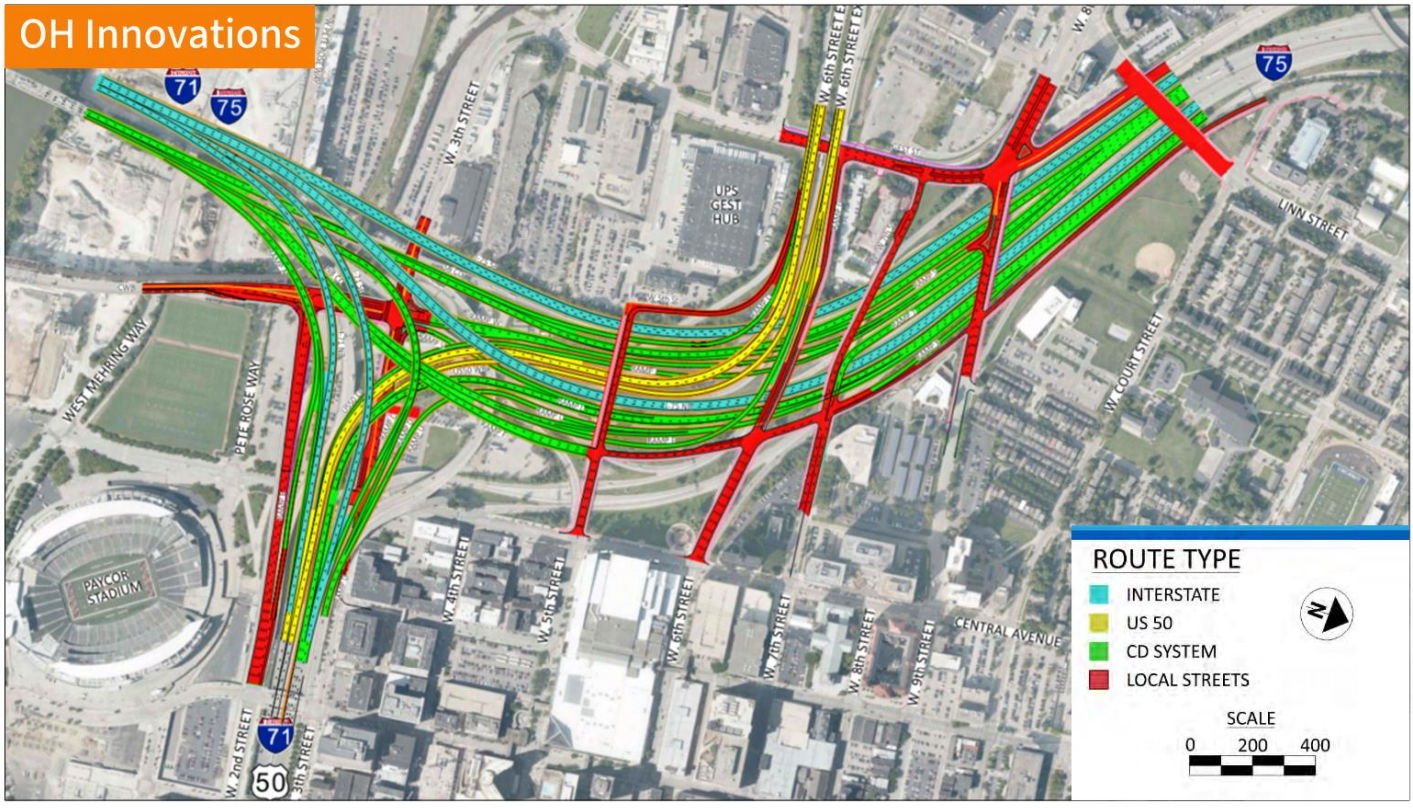
The purpose of the traffic forecasts is to support the Brent Spence Bridge IMS addendum for the Build Innovations alternative. In 2023, traffic forecasts were approved for an opening year 2029 and horizon year 2049 for a No Build, Selected Alternative I, and Refined Alternative I (Concept I-W). Refined Alternative I (Concept I-W) is the preferred alternative in the 2023 approved IMS. The forecasts for Build Innovations will have the same opening and horizon year and follow forecast procedures consistent with the traffic forecasts completed in 2023.

2.1 Build Innovations

A lane diagram of the Build Innovations alternative is provided in **Appendix C-1.** Figures of the design innovations are shown below. The Ohio innovations include:

1) The southbound I-71/75 roadway reconfiguration that removes the Western Avenue ramp to southbound I-75, among other roadway and safety improvements.
2) Combination of 2nd and 3rd Street connections.
3) The US-50 roadway consolidation removes the ramp from the westbound US-50 to Gest Street.
4) The Realization of the Street Grid Concept adds new intersections along 5th, 6th, 7th, and 9th Streets.

Figure 2: Ohio Innovations



The Kentucky innovations include:

1) Vertical profile optimization that results in the closure of 5th Street under I-71/I-75.
2) Pike Street access optimization that eliminates direct interstate access at 9th Street and maintains existing access at Pike Street.
3) Hillside cut alignment shift, which does not impact roadway access.

Figure 3: Kentucky Innovation 1



Figure 4: Kentucky Innovation 2



Figure 5: Kentucky Innovation 3



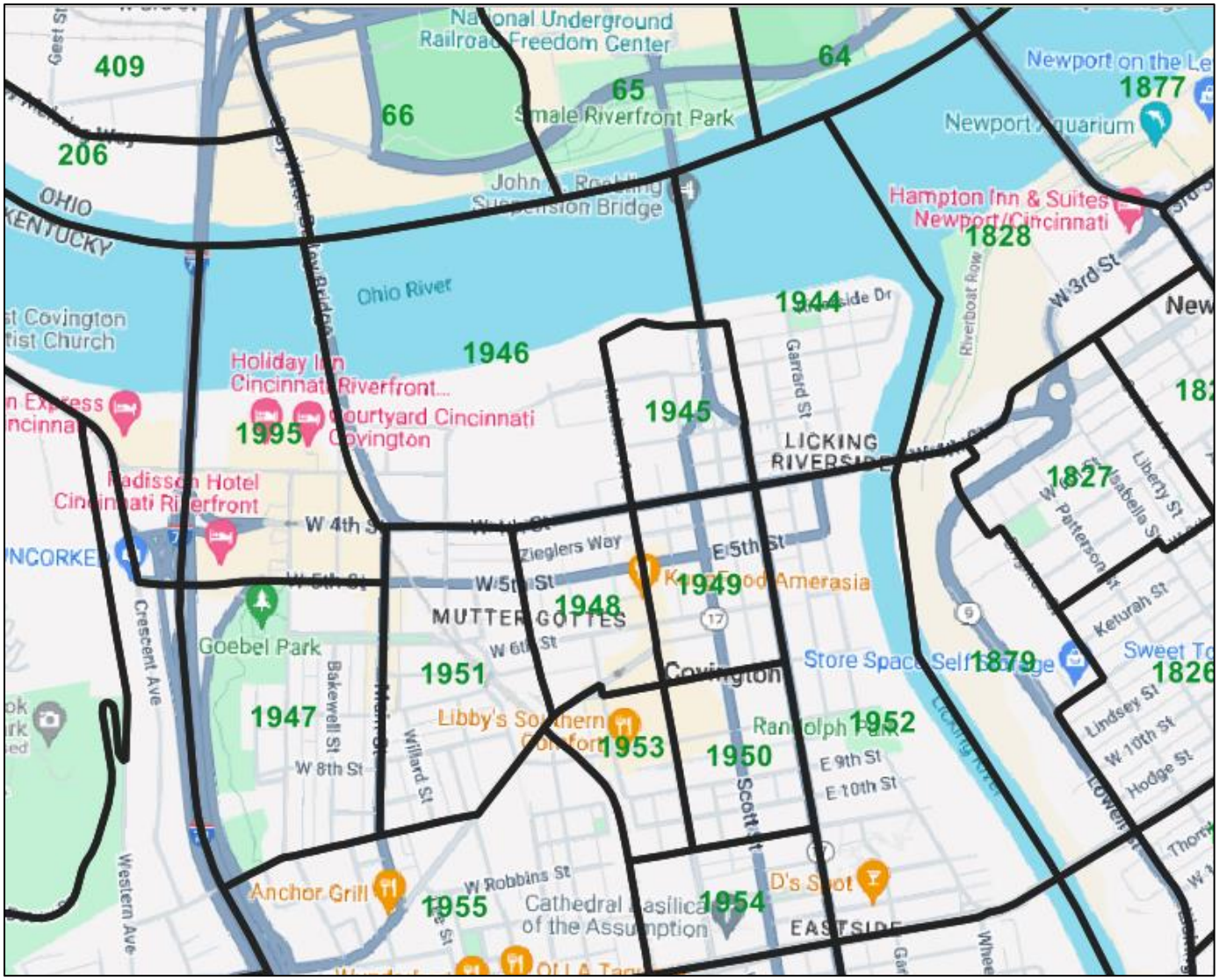
2.2 Local Projects

The Build Innovations forecast accounts for adjacent projects to the corridor limits. These include:

- Clay Wade Bailey with one lane in each direction
    - Included in OKI model for Build Innovations
- Elm Street closed between 5th and 6th Street due to the convention center's expansion.
    - Included in OKI model for Build Innovations
- IRS site development in Covington
    - The site plan is being finalized, with a Traffic Impact Analysis (TIA) being completed by 143Engineers. A draft traffic methodology report was provided to the BSB project team and considered as part of the forecasts. However, because the TIA forecasts were still in development, the BSB forecasts along Johnson Street will not be the same as those produced for the TIA.
    - The OKI model used for the forecasts includes development for this site with total (inbound and outbound) daily traffic demand for TAZ 1946 (as shown in **Figure 6**) of 20,785 (2020), 20,281 (2030), and 20,625 (2050). The 2020 traffic demand includes the IRS site, with the 2030 and 2050 demand assuming a development with traffic demand of similar magnitude to the IRS building.
    - As noted in the Covington Traffic Count memorandum (**Appendix B-1**), the 2019 balanced volumes on 4th and 5th Street include traffic demand from the IRS site.

- Forecasts are developed for intersections at 3rd Street and Johnson Street, including access to the IRS site. In conjunction with draft information from 143Engineers, OKI model results are used to forecast turn volumes at these intersections. Ultimately, the final traffic report from 143Engineers will be used to assess roadway improvements for 3rd and 4th Street intersections adjacent to the site. The level of detail included in the OKI model is adequate for assessing the traffic demand for the BSB project limits.

Figure 6: OKI Traffic Analysis Zones – Covington



3. FORECAST PARAMETERS

The forecast limits include the I-71/75 mainline and ramps between Buttermilk Pike and Hopple Street. The weave forecast is provided for I-75 NB between the Western Hills Viaduct (WHV) Interchange and Hopple Street Interchange. Other traffic weaves are evaluated with the origin-destination analysis described in **Section 6.6**. The study limits include 72 intersections, including Kentucky (**Table 1**) and Ohio (**Table 2**).

Table 1: Kentucky Intersections

Dixie Hwy @ I-71/I-75 NB	12th St @ I-71/ I-75 SB	Main St @ 5th St
Dixie Hwy @ I-71/I-75 SB	Pike St @ I-71/I-75 NB	Main St @ 4th St
Kyles Ln @ I-71/I-75 NB	Pike St @ I-71/I-75 SB	Philadelphia St @ 4th St
Kyles Ln @ I-71/I-75 SB	Philadelphia St @ 9th St	Crescent Ave @ 4th St
Kyles Ln @ US-25	Philadelphia St @ 5th St	9th St @ Simon Kenton Way
12th St @ I-71/I-75 NB	Pike St @ Main St	Crescent Ave @ 3rd St
Philadelphia St @ 3rd St	Bakewell St @ 4th St	Johnson St @ 3rd St
Johnson St @ 4th St	Johnson St @ 5th St	Bakewell St @ 5th St

Table 2: Ohio Intersections

9th St @ Central Ave	9th St @ Mound St	Central Pkwy @ Linn St
7th St @ Central Ave	8th St @ Linn St	Harrison Ave @ Spring Grove Ave
6th St @ Central Ave	Court St @ Linn St	Harrison Ave @ Winchell Ave
5th St @ Central Ave	Gest St @ Freeman Ave	Harrison Ave @ Patterson St
4th St @ Central Ave	Gest St @ Western Ave	Colerain Ave @ Harrison Ave
3rd St @ Central Ave	Gest St @ 7th St	Central Ave @ Brighton Pl
2nd St @ Elm St	Ezzard Charles @ Winchell Ave	Brighton Pl @ Central Pkwy
3rd St @ Elm St	Ezzard Charles @ Western Ave	Central Pkwy @ WHV
4th St @ Elm St	Ezzard Charles @ Linn St	Gest St & 8th St
3rd St @ Plum St	Liberty St @ Winchell Ave	WHV @ I-75 NB ramp
4th St @ Plum St	Liberty St @ Western Ave	Findlay St @ Dalton Ave
3rd St @ Race St	Findlay St @ Winchell Ave	Bank St. @ Dalton Ave

6th St WB @ Linn St	Findlay St @ Western Ave	NB Local & 5th Street
6th St EB @ Linn St	6th St @ Gest St	NB Local & 6th Street
3rd St @ US-42/US-127	Bank St. @ Winchell Ave	NB Local & 7th Street
2nd St @ CW Bailey Bridge	Bank St. @ Linn St	NB Local & 9th Street

The forecast years include an opening year of 2029 and a design year of 2049. The certified traffic plates include AADT, AM DHV, and PM DHV for an opening year and design year for Build Innovations. The traffic plates also compile the design-hour truck percentage (TD) and 24-hour truck percentage (T24). The truck factors reflect the percentages obtained with the base-year traffic counts and correlate to the build geometry.

4. OTHER STUDIES

The BSB IMS Addendum traffic forecasts were approved in May 2023. These updated forecasts adhere to the methodology used for that forecast. Other certified traffic forecasts in the study limits include the 2012 IMS and the ODOT study of I-75 between Linn Street and Hopple Street Interchange, which includes the WHV Interchange (PID 114161 and PID 113361). These certified traffic forecasts preceded the IMS addendum forecasts and were not reviewed for this forecast update.

4.1 OKI Recommended Projects

OKI published the metropolitan planning region's 2023-2027 Transportation Improvement Plan (TIP) and 2050 Long Range Transportation Plan (LRTP). A part of this plan surrounding the BSB corridor is shown in **Figure 7**. The TIP projects are displayed with green lines, and the LRTP projects are blue. The TIP includes the BSB project limits and a few adjacent improvement projects, including:

A) I-74/I-75 Roadway Widening

B) I-75 Roadway Widening

C) Arterial Improvements: Scott Street/Greenup Street (KY 17) one-way couplet to two-way street and upgrade Madison and Pike Streets

Notable projects in the LRTP include:

D) Buttermilk Interchange Reconstruction

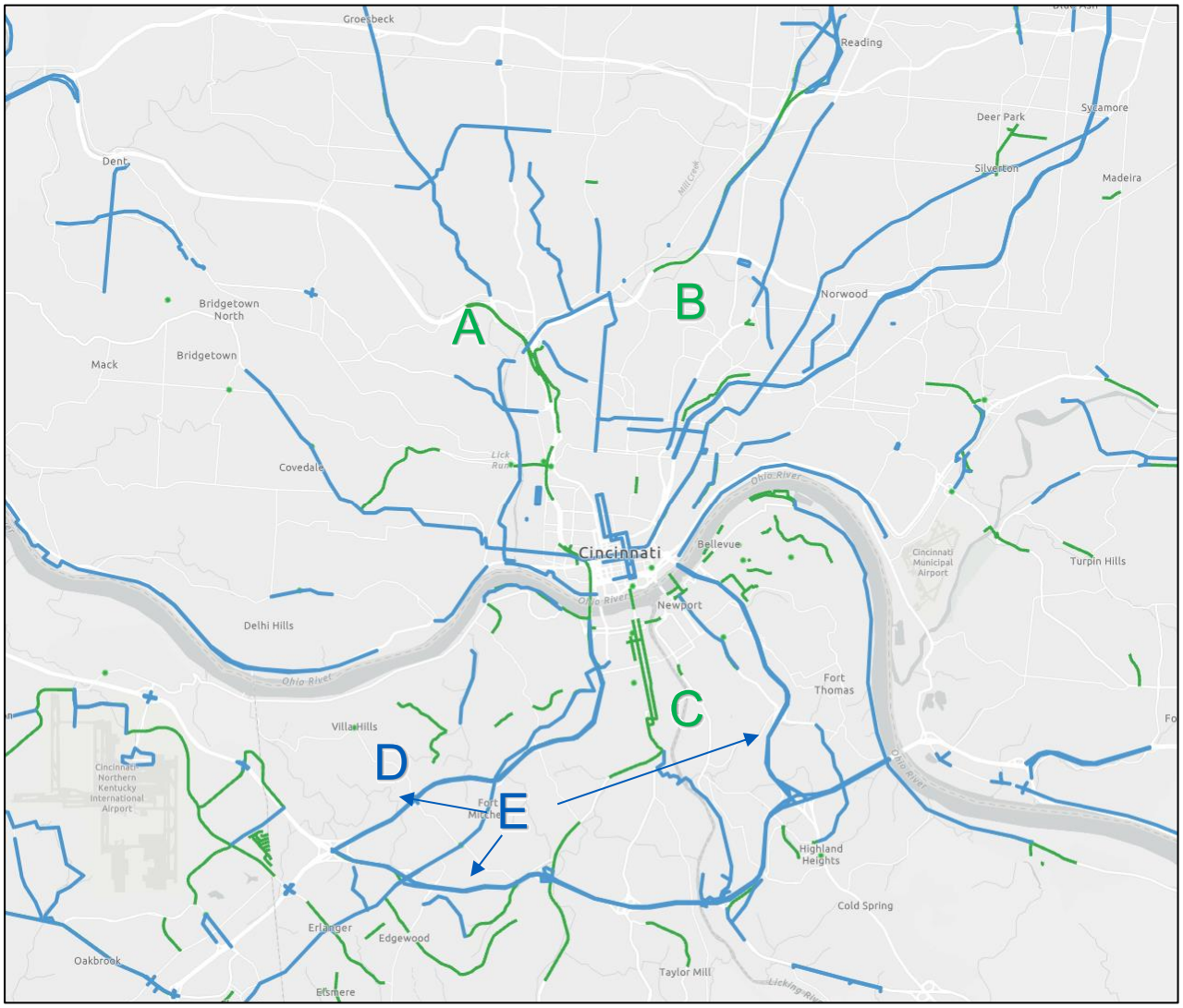
E) Transportation Systems Management and Operations (TSMO) Smart Lane (multiple corridors)

   a. I-71/I-75

   b. I-275

   c. I-471

Figure 7: OKI Recommended Projects



Source: https://2050update.oki.org/recommended-projects/

5. DATA SOURCES

5.1 Summary of Data Sources

No new traffic counts were obtained for this BSB-certified traffic report, except for the 3rd, 4th, and 5th Street corridors in Covington, with project counts taken in 2023 and 2024 and Streetlight volume estimates obtained for 2019. Details on all the traffic counts used for project forecasts are summarized in the count evaluation memorandum found in **Appendix B-1**. The details on the new intersections in Covington are outlined in a brief memorandum attached after the count evaluation memorandum. In general, the project uses traffic counts

collected between 2017 and 2022. The traffic counts were adjusted and balanced to a 2019 (pre COVID-19) condition. Existing AADTs were obtained from KYTC, ODOT, and OKI.

The study area land use assumptions rely on the OKI travel demand model. The project uses the OKI Model of Record (MOR) (as available in 2023), which has a calibration year of 2015 and has been updated by OKI to approximate 2020. OKI noted that they had made numerous updates from the 2015 model validation to 2020 for existing and future year networks. OKI is using 2020 as the region's base year for traffic analysis. The OKI TDM used for these traffic forecasts is the version used to develop traffic forecasts in May 2023. The OKI project level calibration is unchanged with the forecast update for the Build Innovations. The OKI model calibration process includes refining traffic analysis zones and reporting several validation measures. The validation results do not achieve all ODOT criteria; however, the forecast post-processing procedures account for the limitations. The details on the OKI model network updates and validation checks are summarized in **Appendix B-2**.

5.2 Existing Traffic Volume

The existing traffic volumes represent the year 2019. The balanced AADT and unbalanced peak-hour traffic counts are in **Appendix B-1**. The count evaluation memorandum details the methodology for adjusting the traffic counts to 2019 AADT. This includes discussing seasonal adjustment factors, expansion factors for turning movement counts, procedures for identifying count outliers, and an overview of the project design hour volume development factors.

6. DESIGN TRAFFIC VOLUMES

The design traffic volumes are developed using the NCHRP 255/765 forecasting approach with 2019 traffic counts, 2020 existing travel demand model assignments, and assignments from the 2030/2050 travel demand models for Build Innovations. ODOT's adjuster spreadsheets are used to calculate forecast targets. Note that the travel demand model years are in 5-year increments. The differences between model year and forecast year are accounted for using linear interpolation within the ODOT adjuster spreadsheets. The smoothing and balancing of the traffic volumes are completed outside the adjuster spreadsheet using a network-based analysis to minimize the difference between the balanced volumes and the target volumes. This balancing process also accounts for a target minimum, ensuring a non-negative target growth rate from 2019 to 2029 and 2029 to 2049. The non-negative growth rate check does not apply for growth between 2019 and 2029 for locations directly impacted by roadway access changes.

The key factors and constraints applied in the adjuster spreadsheets include the design hour factor for AM and PM counts (1.10 for freeway ramps and 1.15 for arterials). This factor is used globally for all ramp and arterial count locations. It is standardized for this project based on the review of the 2019 ODOT peak hour to design hour factors for urban interstates and urban arterials. Additional details are provided in **Appendix B-1** Count Evaluation Memorandum. The freeway mainline peak hour counts are adjusted using a proxy K-factor method. The proxy K-Factor method seeks to have mainline volumes consistent with the observed 30th highest hour K and D factors. The proxy K-method is applied at the BSB and I-71/I-75 external study limits, which include I-

71/I-75 south of Dixie Hwy, I-71/I-75 north of WHV, and I-71 east of I-75/I-75 system interchange. The resultant design hour factors for these mainline locations vary by site and are between 1.11 and 1.19.

6.1 Intersection Forecasting Process and Assumptions

The adjuster spreadsheet is set up for every intersection in the project corridor. The NCHRP255_link, 24_turns, PM_turns, and AM_Turns sheets are populated within the spreadsheet. The methodology and assumptions for each of the four sheets are listed below. The forecasts are first developed for total vehicles, then truck factors are derived as described in **Section 6.4.**

NCHRP255_link

This sheet holds the daily link forecasting data, which includes 2019 balanced AADT traffic counts, 2020 existing daily model assignment, 2030 daily model assignment, and 2050 daily model assignment. The growth rates are calculated using the NCHRP 255/765 process prescribed by ODOT's forecasting manual.

24_turns

The growth rates calculated from NCHRP255_link sheets are carried to the 24_turns sheet. Existing 2019 AADT by-turn movements are entered into the sheets. The total vehicle volumes are entered in the "pc" field. The truck factors are calculated outside the adjuster spreadsheets. Turn model volumes were entered to calculate turn-specific growth rates. The resultant 2029 and 2049 daily volumes are used as forecast targets in the balancing and smoothing methodology outside the adjuster spreadsheet. Volumes are not carried back into the spreadsheet after balancing; a summary table is provided to compare the target volumes for each turning movement and the resultant balanced volumes as a reasonableness check (**Appendix C-6**).

PM_turns

The growth rates calculated from NCHRP255_link sheets are carried to the PM_turns sheet. The balanced peak hour turn counts are entered into the sheets for total vehicles. The intersection adjuster spreadsheet uses a peak hour to design hour factor of 1.10 for freeway ramps and 1.15 for arterials, as identified from ODOT's 2019 tables and presented in the count evaluation memo. The DHV factor is entered directly into column N of the spreadsheet. The rest of the forecasting process follows the procedure outlined for the daily turn forecasts.

AM_turns

AM_turns sheet follows the same procedure as the PM, except the DHV factors are carried over from the PM_turns sheet.

6.2 Ramp and Mainline Forecasts

The ramp and mainline forecasts are also calculated using the adjuster spreadsheet, with the same DHV methodology described for the intersections. The ramp and mainline forecast targets are combined with the intersection forecast targets in the balancing and smoothing. The balanced volume is not reported in the

adjuster spreadsheet. The total BSB span was forecasted by direction using the model assignments for all the bridge spans. The target volume for each span was calculated using proportions from the OKI travel demand model for AM, PM, and Daily.

The weave volume for NB I-75 between WHV and Hopple Street Interchange is computed using ODOT's weave analysis spreadsheets. The input and output data from this analysis are summarized in **Appendix C-7.** Streetlight O-D patterns were used to calculate the weave distributions. Other traffic weaves will be evaluated using the origin-destination forecasts used in the TransModeler analysis.

6.3 Forecast Balancing and Smoothing

All the forecast targets developed with the adjuster spreadsheets are compiled in one database to complete a network-wide balancing procedure. The target forecasts were balanced to have a closed system of traffic volumes where the network "ins" equals the network "outs." The traffic balancing used a combination of automated optimization routines and manual inspection. The balancing optimization routine is similar to ODOT's balancing principle of the "split the difference" method, where the forecast targets are balanced to have values that are the best fit between all of the data points. The algorithm for the balancing optimization is built with the R scripting language. It employs the principles of entropy maximization, where the best solution is derived through random and iterative factoring of the forecast targets. Each factoring step optimizes the solution for a given forecast target location. The final solution is derived using a method of successive averages, where each location receives the same number of factoring iterations, which means an equal priority in the balancing process. The one exception to the equal weight rule is at the Ohio River crossing (Brent Spence Bridge and companion bridge), where this location serves as a control point for the study limit, and the balanced volume equals the target volume.

The result from the balancing process is then manually reviewed and adjusted to best conform with forecast targets, non-negative growth rates, and desired K-factors.

A comparison of the forecast target (as found in the adjuster spreadsheet) and the final balanced volumes are summarized in table form in **Appendix C-6**. The unsmoothed traffic forecasts can be viewed in diagram form in the adjuster spreadsheets found within the project files.

6.4 Design Truck Factors

Design truck factors are developed for Build Innovations. The truck factors are based on existing turn movement and short-term link counts. The build alternatives correlate traffic counts to compatible intersections, ramps, and mainline segments. A unique truck factor is derived for all project road segments by using a similar process to balance the traffic forecasts, where a balanced truck volume is derived that best matches the truck percentage targets. The BSB truck percentages are based on a 2017 classification count collected by KYTC, which indicates the following truck percentages for the bridge:

- NB I-71/75
    - AM Peak: 10%
    - PM Peak 12%
    - Daily: 17%
- SB I-71/75
    - AM Peak: 11%
    - PM Peak: 9%
    - Daily: 18%

The percentages across each bridge span are derived using the truck percentages at service ramps, intersections, and other mainline traffic counts. For instance, the BSB CD bridge span's truck percentages are influenced by observed truck volume on the ramps that will utilize the bridge in the build alternatives based on the OKI TDM. This leads to a lower truck percentage on the C-D bridge than the limited access I-71 and I-75 bridges.

6.5 Certified Traffic Plates

Certified traffic plates are developed for Build Innovations. The traffic plates are in **Appendix A** and are organized in the following sub-appendices:

- Appendix A-1: Daily Build Innovations (2029 & 2049)
- Appendix A-2: AM DHV Build Innovations (2029 & 2049)
- Appendix A-3: PM DHV Build Innovations (2029 & 2049)
- Appendix A-4: Truck Factors – Build Innovations (AM TD/PM TD/T24)

6.6 TransModeler Origin-Destination Matrices

TransModeler analysis is used by the BSB Corridor project to measure the traffic operations of the alternatives. As part of the analysis, origin-destination (O-D) matrices are developed for the peak periods that encapsulate the certified traffic forecasts. This work was previously completed for the No Build, Selected Alternative I, and Refined Alternative I (Concept I-W). The same procedures will be repeated for Build Innovations, and the O-Ds will be developed after the approval of the certified traffic. The methodology for the Origin-Destination Matrix

Estimation (ODME) is described below. Furthermore, critical traffic weave movements within the corridor are forecasted as part of this O-D development process.

Certified Traffic forecasts are developed for 2049 AM and PM design hour volumes. The Existing calibrated TransModeler model represents 6-10 AM and 2-7 PM peak periods. To ensure the models are consistent with the certified design hour volumes and the calibrated 2019 model, the project team created proportioning factors to convert the certified traffic into 15-minute bins that blend data from the calibrated 2019 models and the certified traffic forecasts. This procedure results in 15-minute origin-destination matrices in three vehicle classifications (autos, single-unit trucks, and multi-unit trucks) used as inputs for the TransModeler analysis. The process follows these three steps to derive O-D matrices for each of the 2049 model scenarios:

1) ODME was completed for the 1-hour AM and PM design hour traffic. The ODME uses the OKI travel demand model as a pattern O-D matrix. The outcome of this step is a 1-hour O-D matrix (auto and truck classifications) for the AM peak and one for the PM peak that replicates the forecasted traffic volumes at the roadway link and turn movements. The peak hours are 7:30-8:30 AM and 4:30-5:30 PM.
2) The 1-hour matrices are then proportioned into 15-minute loading matrices based on the traffic loading proportions from the Existing calibrated TransModeler models. The 15-minute proportions are shown in **Figure 8** (AM) and **Figure 9** (PM).
3) The truck matrices are then divided into single-unit and multi-unit classes using origin and destination proportions from the Existing calibrated TransModeler network. The final single-unit and multi-unit truck matrices are derived using Fratar Factoring.

The result of the ODME is TransModeler traffic inputs consistent with the certified traffic volumes, OKI travel demand model, and temporal distributions from the Existing calibrated TransModeler model.

Figure 8: AM Period O-D Proportions

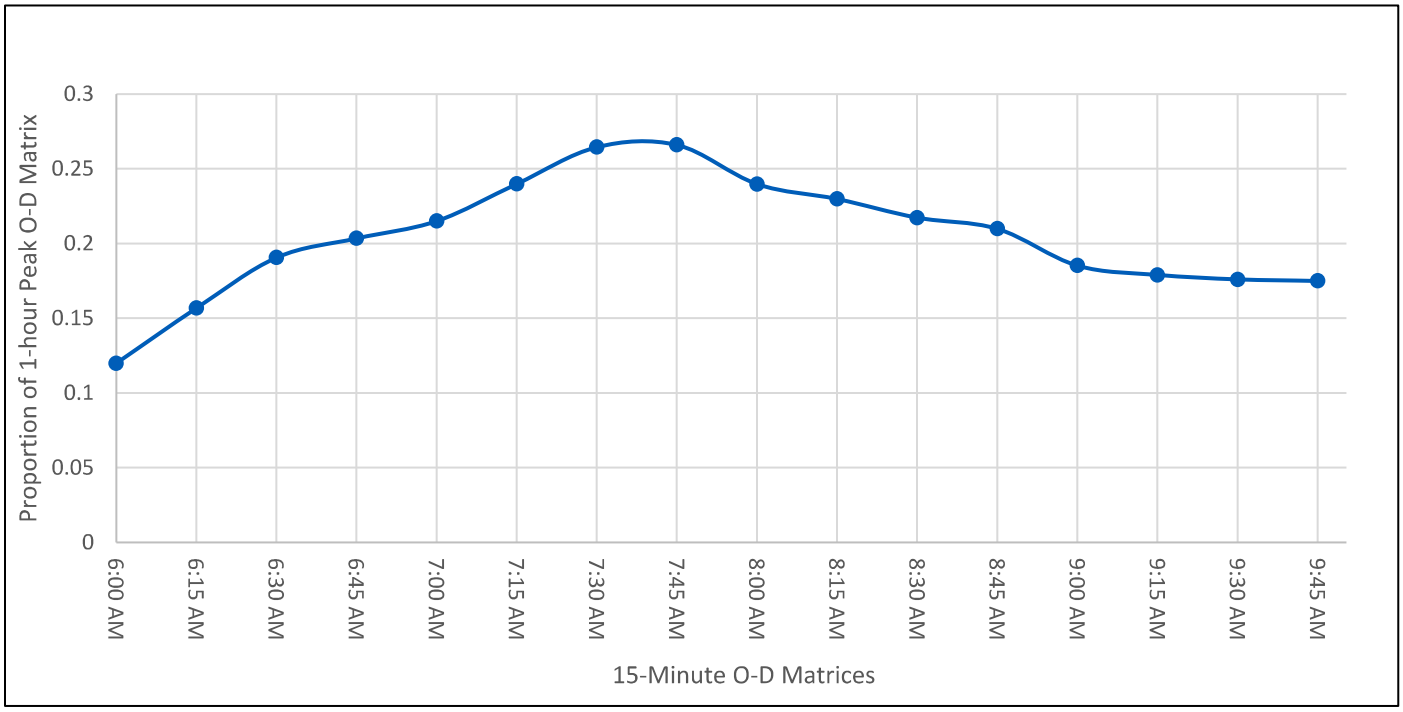
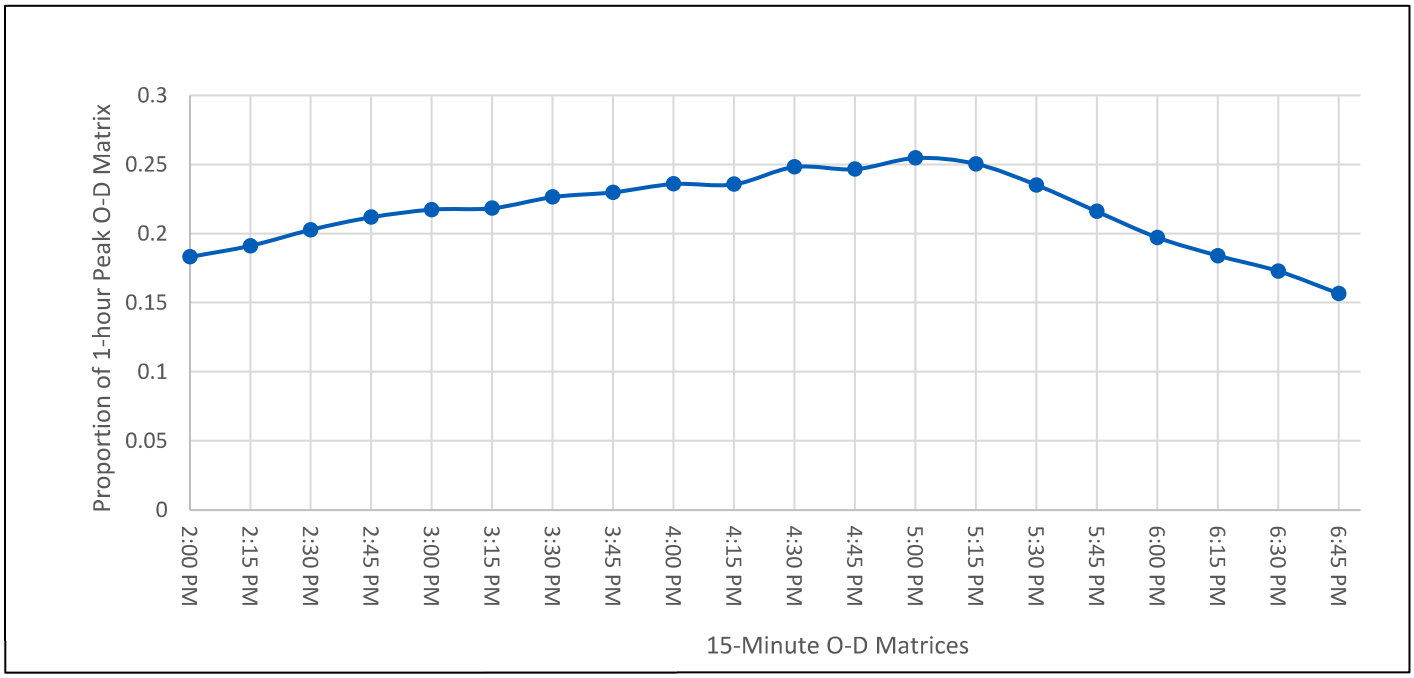


Figure 9: PM Period O-D Proportions



7. IMS FORECAST COMPARISON

A traffic forecast comparison is included for the No Build, Refined Alternative I (Concept I-W), and Build Innovations. Overall, the 2049 Refined Alternative I (Concept I-W) forecasts are similar to the Build Innovation forecasts, except at locations impacted by Build Innovation's access modifications. A list of the innovations and the impacts on the traffic forecasts are discussed below:

Kentucky Innovations

Vertical profile optimization

This innovation closes 5th Street between Crescent Avenue and Philadelphia Street. The closure reroutes traffic to 3rd Street and Crescent Avenue.

Pike Street Access Optimization

This innovation removes I-71/I-75 SB access to 9th Street at the Bullock Street intersection. The NB frontage road to NB CD road access has also been moved south from 9th Street to Pike Street. These changes result in local traffic shifts caused by access modifications.

Hillside Cut Alignment Shift

This innovation has no impact on traffic forecasts.

Ohio Innovations

Southbound Roadway Reconfiguration

I-71 Southbound is reconfigured, and the Western Avenue ramp has been removed to southbound I-75. Alternative routes to this ramp include the new proposed 9th Street entrance ramp and the existing Freeman Avenue Interchange. This is a low-volume movement, resulting in minor traffic redistribution.

Combination of 2nd and 3rd Street Connections

The SB I-75 2nd Street ramp is removed, and traffic is rerouted through upgraded at-grade 2nd and 3rd Street intersections. The additional delay at these intersections is anticipated to reroute some traffic to the upstream exit ramp at 7th Street.

US-50 Roadway Consolidation

The ramp from westbound US-50 to Gest Street has been removed; the primary traffic reroute is through the existing Linn Street exit ramp.

Realization of Street Grid Concept

This innovation includes new intersections along Gest Street and a new northbound road between 5th Street and 9th Street. The new connections result in several local routing changes that impact traffic demand on roads between 5th and 9th Street.

A screenline comparison of Brent Spence and Clay Wade Bailey bridges is shown in **Table 3** (Daily), **Table 4** (AM DHV), and **Table 5** (PM DHV). One notable difference between the No Build and Build alternatives is the Clay Wade Bailey Bridge, which has a higher traffic demand in the No Build due to the absence of the 4th Street entrance ramp. Traffic traveling between Covington and Cincinnati prefers the Clay Wade Bailey over using the turnaround at Pike Street.

Table 3: Daily Traffic Forecast Comparison – Ohio River Screenline

Facility			Daily		
Route	**Bridge**	**Direction**	**2049 No Build**	**2049 Refined Alt I (I-W)**	**2049 Build Innovations**
I-71/I-75	Brent Spence	NB I-71	86,900	57,550	58,050
		NB I-75			
		NB I-71/75 CD		38,750	38,000
		SB I-71	96,050	60,250	61,350
		SB I-75			
		SB I-71/75 CD		40,500	39,350
US-25/US-42/US-127	Clay Wade Bailey	NB	17,900	10,700	11,450
		SB	8,650	7,600	7,950
Screenline		NB	*104,800*	*108,400*	*107,500*
		SB	*104,700*	*108,150*	*108,650*
		Total	***209,500***	***215,350***	***216,150***

Table 4: AM Peak Hour Traffic Forecast Comparison – Ohio River Screenline

Facility			AM Peak Hour		
Route	**Bridge**	**Direction**	**2049 No Build**	**2049 Refined Alt I (I-W)**	**2049 Build Innovations**
I-71/I-75	Brent Spence	NB I-71	8,000	5,120	5,180
		NB I-75			
		NB I-71/75 CD		3,840	3,760
		SB I-71	6,460	4,230	4,290
		SB I-75			
		SB I-71/75 CD		2,530	2,440
US-25/US-42/US-127	Clay Wade Bailey	NB	2,320	1,300	1,520
		SB	410	350	460
Screenline		NB	*10,320*	*10,260*	*10,460*
		SB	*6,870*	*7,110*	*7,190*
		Total	***17,190***	***17,370***	***17,650***

Table 5: PM Peak Hour Traffic Forecast Comparison – Ohio River Screenline

Facility			PM Peak Hour		
Route	**Bridge**	**Direction**	**2049 No Build**	**2049 Refined Alt I (I-W)**	**2049 Build Innovations**
I-71/I-75	Brent Spence	NB I-71	6,630	4,530	4,530
		NB I-75			
		NB I-71/75 CD		2,910	2,890
		SB I-71	8,450	4,710	4,770
		SB I-75			
		SB I-71/75 CD		4,130	4,040
US-25/US-42/US-127	Clay Wade Bailey	NB	1,320	910	1,000
		SB	1,350	1,080	1,330
Screenline		NB	*7,950*	*8,350*	*8,420*
		SB	*9,800*	*9,920*	*10,140*
		Total	**17,750**	***18,270***	**18,560**

Daily volume comparisons for mainline and ramp locations are in **Table 6** (southbound I-71/75) and **Table 7** (northbound I-71/75). The main traffic forecast differences between Refined Alternative I (Concept I-W) and Build Innovations include:

- **SB Exit to 7th Street (Ohio):** traffic increases with the removal of direct ramp access to 2nd Street
- **SB Exit to 3rd Street/Clay Wade Bailey Bridge (Ohio)**: traffic increases with the removal of direct ramp access to 2nd Street
- **SB Entrance from 9th Street**: traffic increases due to additional ramp access from west of the I-75
- **SB Exit to 5th Street (Kentucky)**: traffic decreases due to removal of direct access to Crescent Avenue.
- **NB Exit to 5th Street/Central:** Traffic increases for this movement due to the additional access points the ramp serves.
- **NB Exit at Winchell/Ezzard Charles:** traffic increases due to access modification along 5th and 9th Street that enhances roadway connectivity to the exit ramp.
- **NB Exit ramp at Western Hills:** the Build Innovations OKI model was updated to restrict traffic from using this exit ramp and then turning right at the WHV loop ramp to Harrison Street.

Table 6: Traffic Forecast Comparison – SB I-71/75 Mainline and Ramps

Facility Name	No Build 2049 Daily	Refined Alt I (I-W) Daily 2049	Build Innovations Daily 2049
SB North of Western Hills Viaduct	97,050	96,500	95,750
SB Exit Ramp at Western Hills Viaduct	7,850	14,250	15,200
SB Entrance Ramp at Western Hills Viaduct	6,650	7,200	6,600
SB Mainline between Western Hills and Gest	95,850	89,450	87,150
SB Diverge to Gest	6,750	6,850	7,350
SB Entrance Ramp from Western Avenue	2,900	2,350	-
SB Exit to 7th Street	9,100	15,450	21,200
SB Exit to 5th Street/Central Avenue	4,150	–	-
SB Exit to 2nd	7,450	11,400	-
SB Exit to 3rd Street/Clay Wade Bailey Bridge	–	1,700	6,850
SB Entrance from 9th Street	6,700	6,400	11,800
SB Entrance from 6th Street	7,850	–	-
SB Entrance from 3rd Street	8,550	11,550	14,100
SB Exit to 5th St	8,800	7,850	5,500
SB Exit to Frontage	–	6,400	6,350
SB Mainline after Merge of BSB	96,050	86,500	88,850
SB Entrance from 12 St	8,100	12,250	11,650
SB Mainline north of Kyle	96,300	98,750	100,500
SB Exit to Kyle Ln	7,900	8,550	8,400
SB Entrance from Kyle Ln	5,500	5,150	4,900
SB Exit to Dixie Hwy	6,400	5,450	5,200
SB Entrance from Dixie Hwy	4,700	5,000	5,250
SB I-75 south of Dixie Hwy	92,200	94,900	97,050

Table 7: Traffic Forecast Comparison – NB I-71/75 Mainline and Ramps

Facility Name	No Build 2049 Daily	Refined Alt I (I-W) Daily 2049	Build Innovations Daily 2049
NB North of Western Hills Viaduct	99,500	98,850	97,150
NB Entrance Ramp at Western Hills	17,650	16,600	15,150
NB Exit ramp at Western Hills	8,750	11,050	8,300
NB Mainline btwn Ezzard Charles and WHV	90,600	93,300	90,300
NB Entrance from Gest	7,750	16,250	17,150
NB Exit at Winchell/Ezzard Charles	2,050	3,500	7,850
The ramp from 3rd St/Bailey Bridge to I-75 NB	–	3,050	5,500
NB Entrance from 4th St {3rd St Build Alts}	13,150	6,300	6,800
NB Exit to 6th Street	8,650	8,550	8,800
NB Exit to 5th St/Central	4,000	5,650	10,950
NB Exit to 2nd Street	5,400	5,600	5,400
NB Entrance from 4th St (Kentucky)	–	6,600	6,900
NB Entrance from Pike St/9th St to I-75/71	12,350	10,750	9,300
NB Exit to 12th St	6,900	7,050	6,050
NB I-75 North of Kyle Ln	88,300	92,100	94,150
NB Entrance from Kyle	7,650	8,300	8,250
NB Exit to Kyle	7,400	5,100	4,950
NB Entrance from Dixie Hwy	8,700	7,800	7,150
NB Exit to Dixie Hwy	5,650	4,500	4,100
NB I-75 south of Dixie Hwy	85,050	85,600	87,800

A comparison of forecasts along screenline locations of I-71 and I-75 are summarized in **Table 8.** This table compares the volumes on the freeway mainline, C-D, and frontage roads. The No Build does not have C-D roads in Kentucky, but it does have ramps running parallel to the freeway mainline in locations where C-D roads are located in the build alternatives. Therefore, as noted in the table below, a few ramps are included as C-D volumes for comparison.

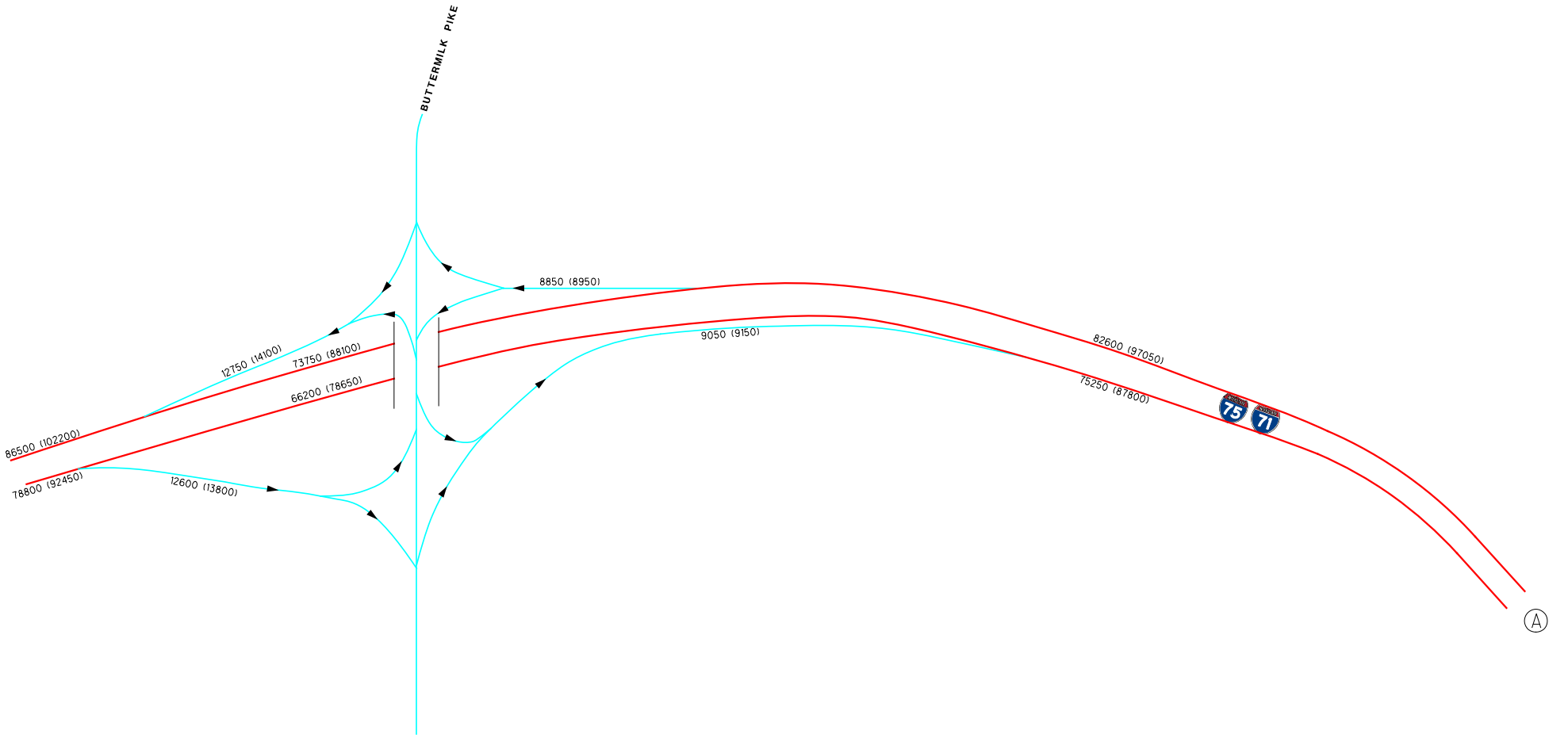
Table 8: I-71 & I-75 Screenline Comparison

I-71 & I-75 Screenlines	No Build 2049 Daily	Refined Alt I (I-W) Daily 2049	Build Innovations Daily 2049
I-71/I-75 Between Dixie Hwy and Kyles Lane (Kentucky)	182,000	184,250	187,850
NB C-D Road	-	12,450	11,650
NB Mainline	88,100	76,450	79,200
SB Mainline	93,900	85,050	87,200
SB C-D Road	-	10,300	9,800
I-71/I-75 at 9th Street (Kentucky)	192,450	198,300	200,900
Simon Kenton Way (NB Frontage)	-	12,400	1,100
NB C-D Road	19,200[1]	27,500	39,350
NB Mainline	74,550	57,550	58,050
SB Mainline	80,750	60,250	61,350
SB C-D Road	7,450[2]	26,250	27,500
Bullock Street (SB Frontage)	10,500	14,350	13,550
I-71 east of Elm Street (Ohio)	169,400	181,200	175,300
3rd Street	18,100	22,650	25,200
SB Mainline	67,500	71,650	70,500
NB Mainline	62,950	68,200	66,550
2nd Street	20,850	18,700	13,050
I-75 north of 9th Street (Ohio)	154,150	165,500	162,800
NB C-D Road	38,200[3]	44,300	49,850
NB Mainline	37,850	36,250	31,150
SB Mainline	40,250	47,900	31,150
SB C-D Road	37,850[4]	37,050	48,650

1 - Includes braided ramps in place of C-D Road
2 - Includes entrance ramp in place of C-D Road
3 - Includes Exit Ramp to Winchell Avenue
4 - Includes 7th Street Exit Ramp

NOTE

BUTTERMILK DDI CONFIGURATION IS NOT INCLUDED IN BRENT SPENCE BRIDGE PROJECT.



LEGEND

XXX (XXX) = 2029 AADT (2049 AADT)

I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

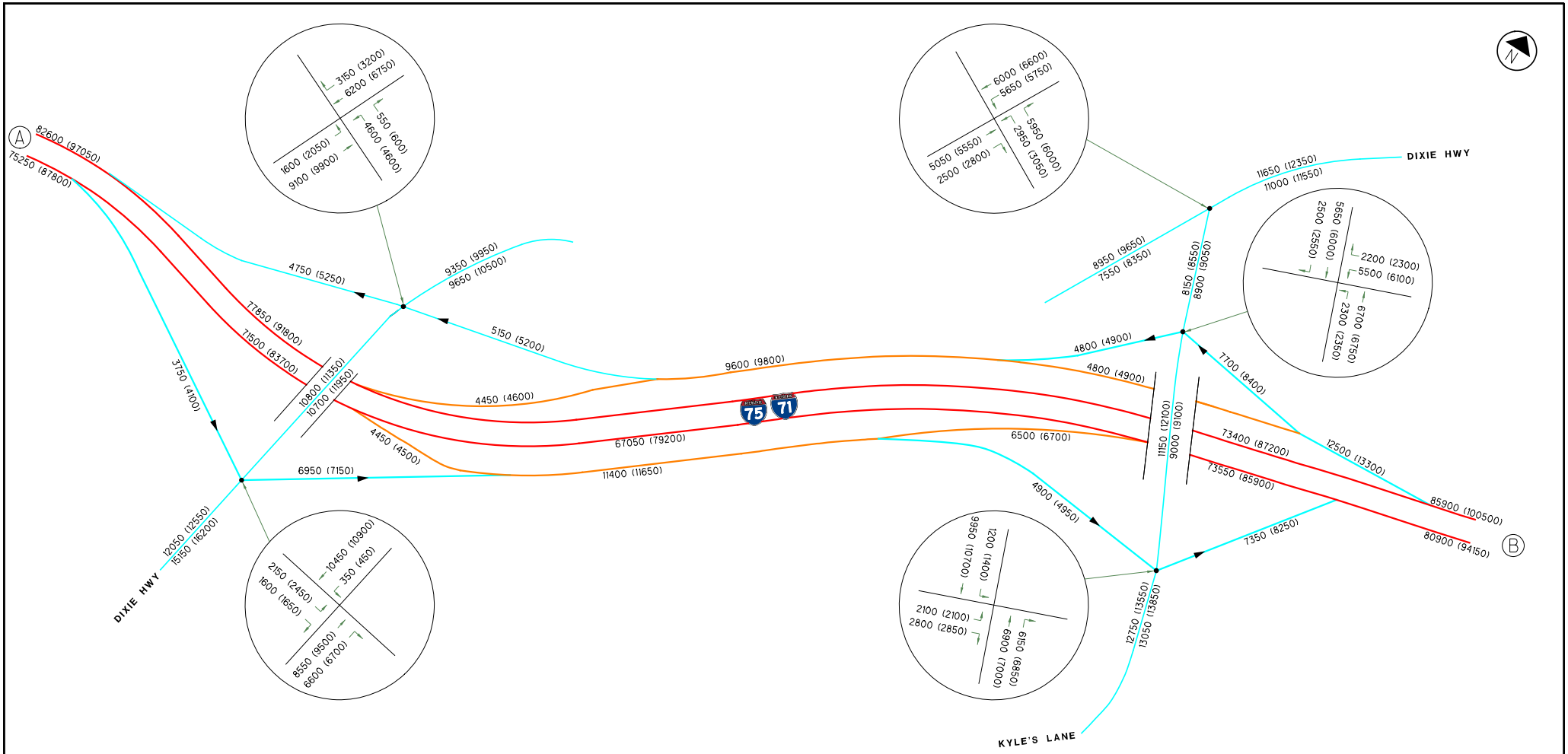
2029 & 2049 DAILY TRAFFIC FORECASTS

PLATE 1 OF 10 (KY)

REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024 | NOT TO SCALE

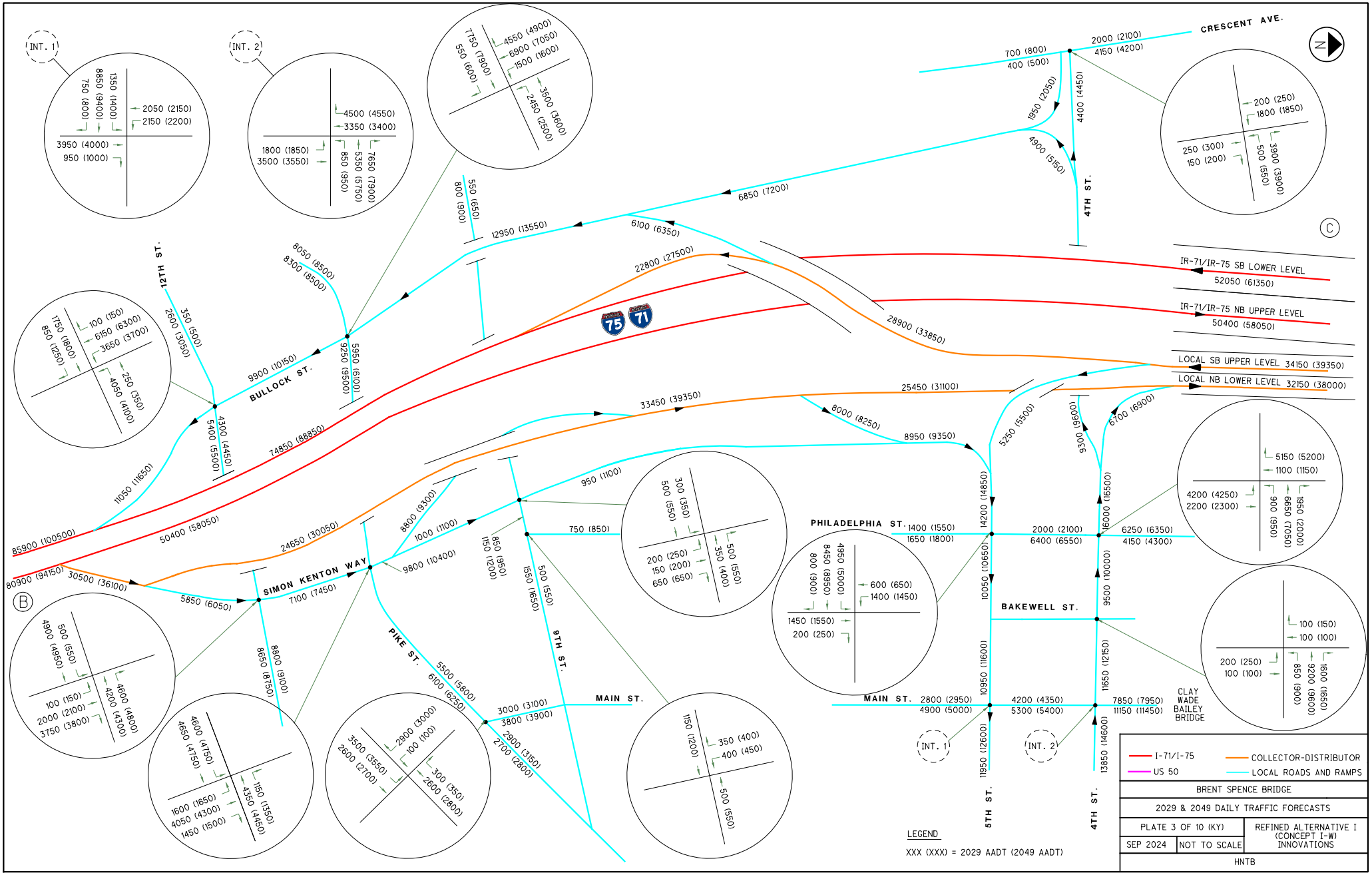
HNTB

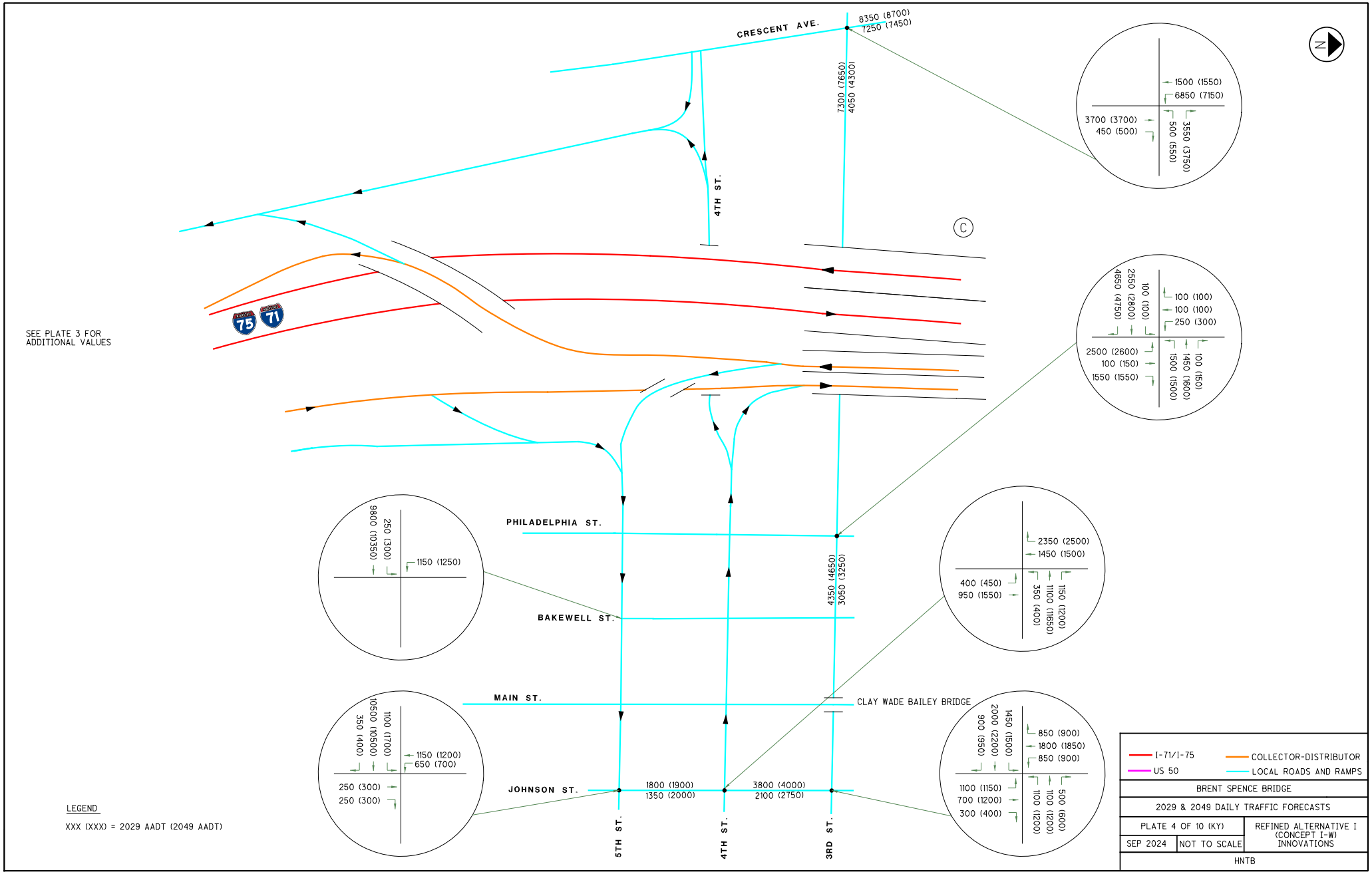


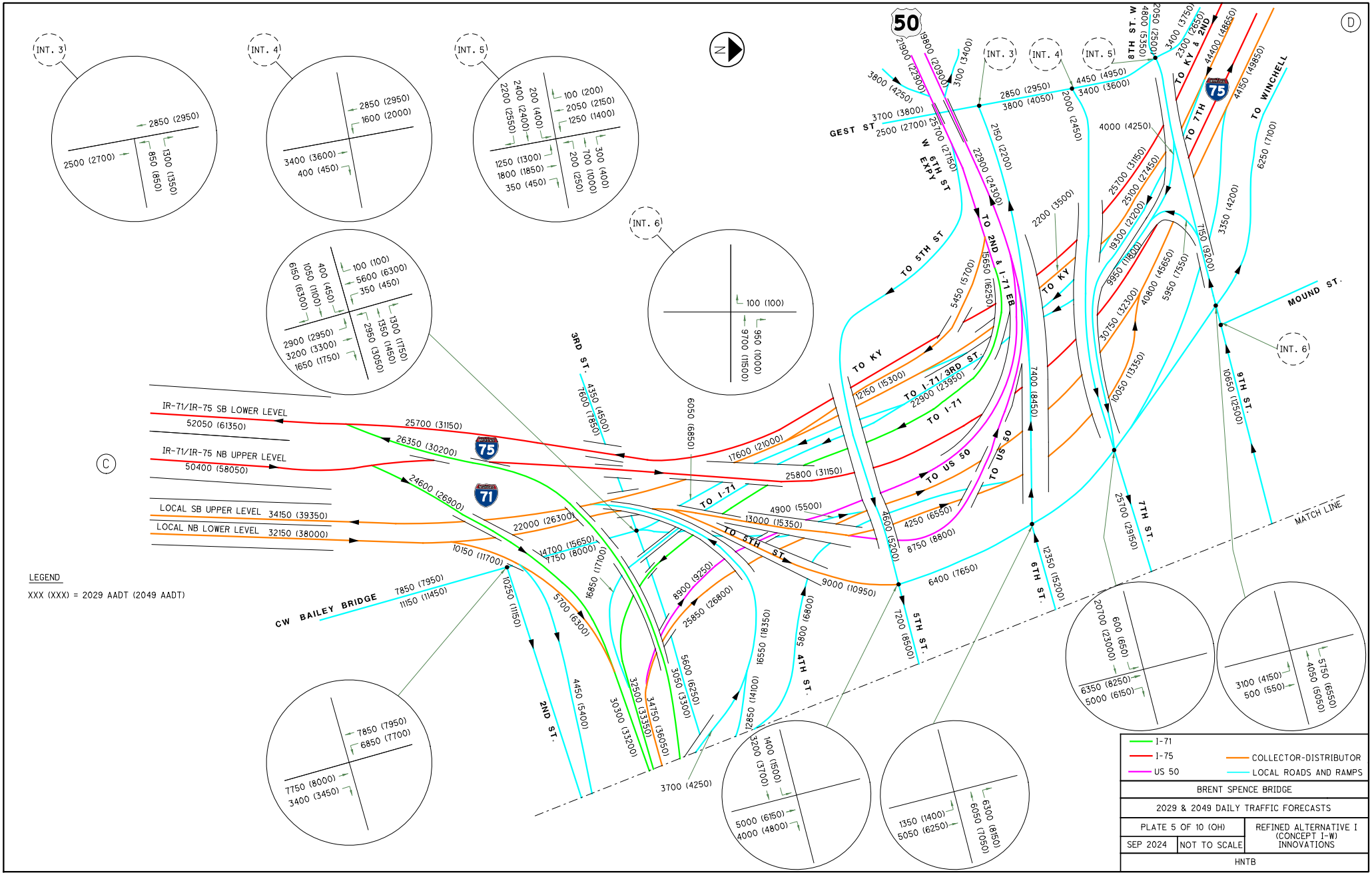
LEGEND

XXX (XXX) = 2029 AADT (2049 AADT)

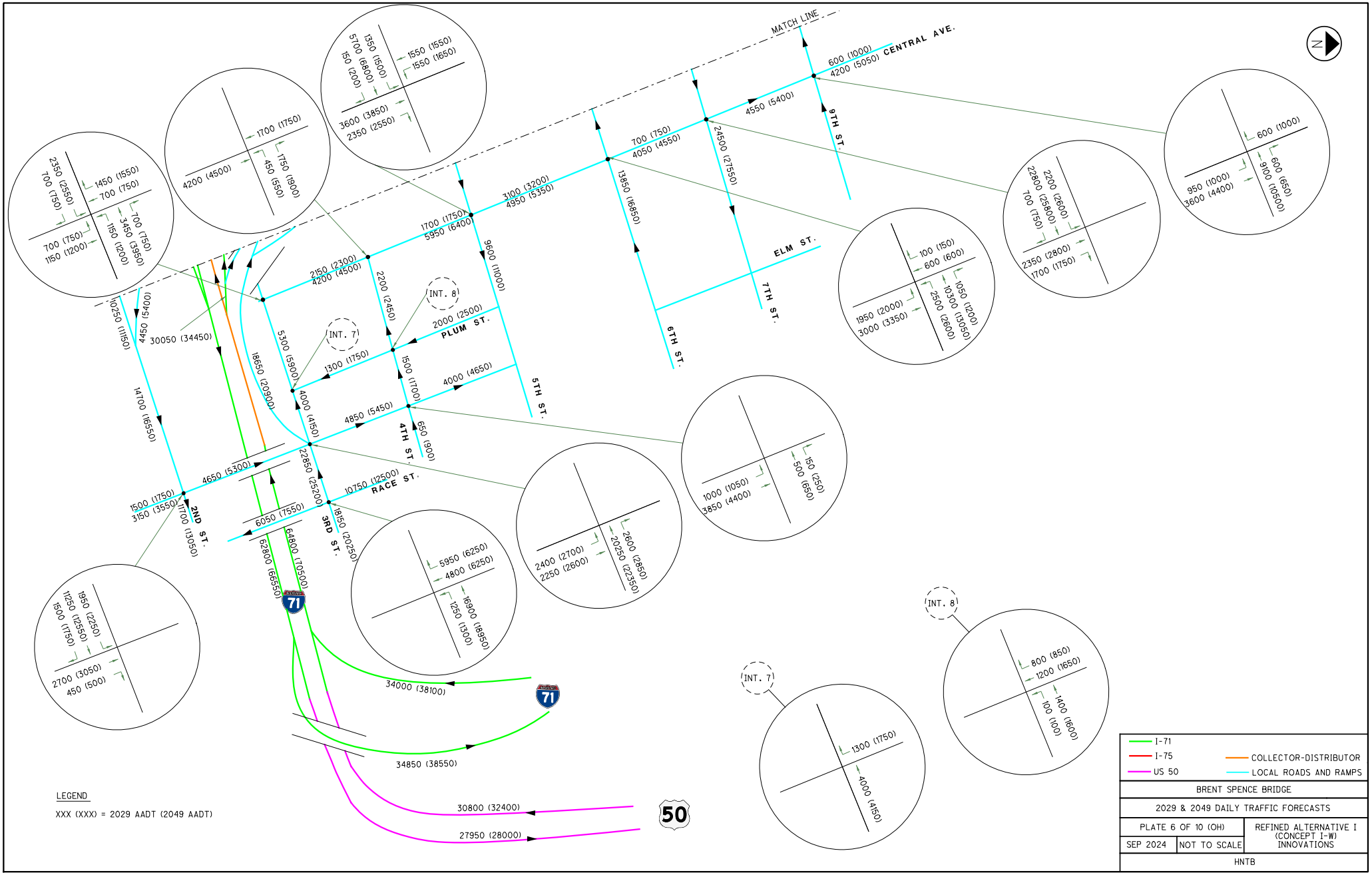
I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 DAILY TRAFFIC FORECASTS	
PLATE 2 OF 10 (KY)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	

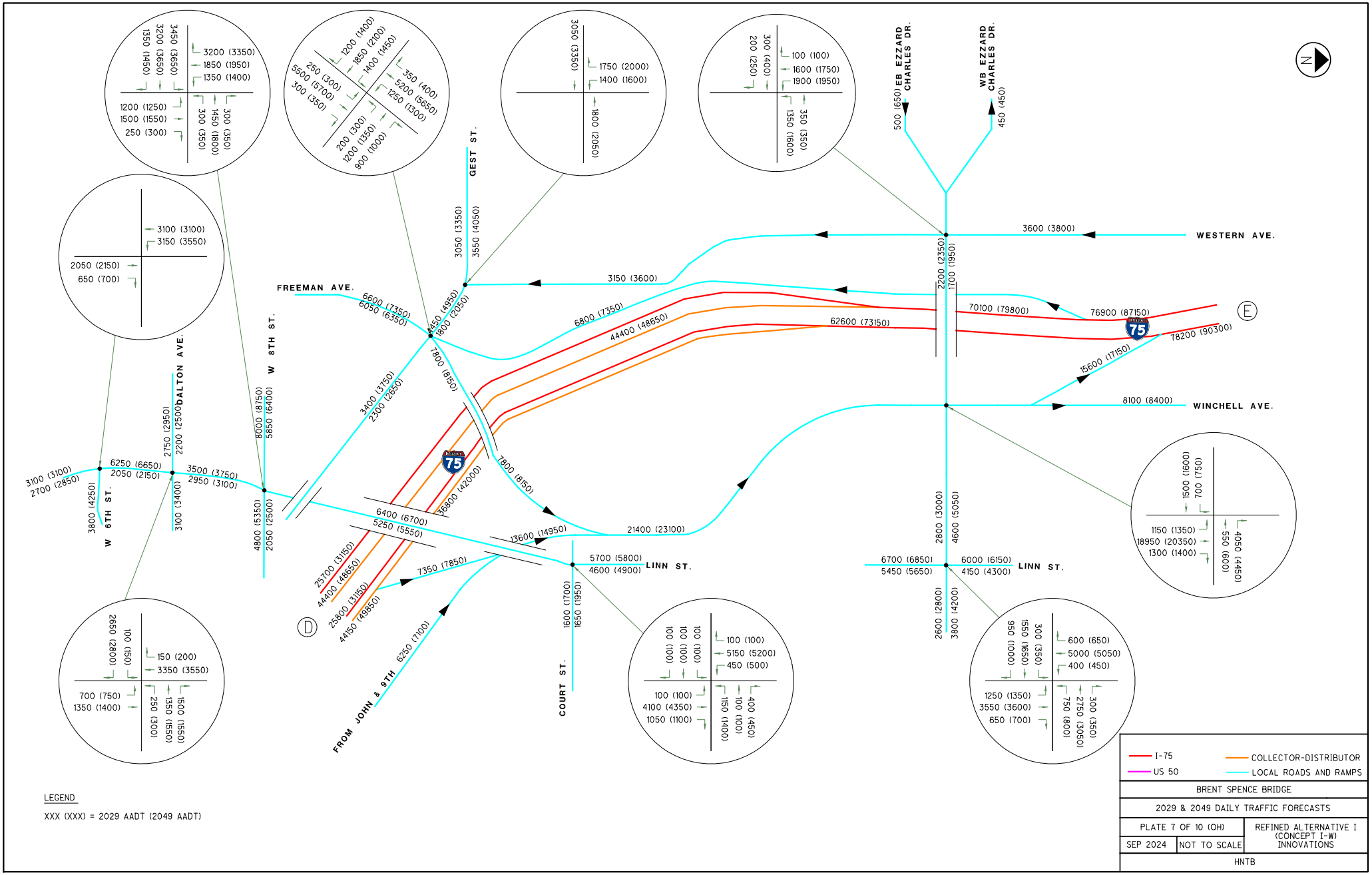

INT. 1
INT. 2
CRESCENT AVE.
4TH ST.
12TH ST.
BULLOCK ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
PHILADELPHIA ST.
BAKEWELL ST.
CLAY WADE BAILEY BRIDGE
IR-71/IR-75 SB LOWER LEVEL
52050 (61350)
IR-71/IR-75 NB UPPER LEVEL
50400 (58050)
LOCAL SB UPPER LEVEL 34150 (39350)
LOCAL NB LOWER LEVEL 32150 (38000)
700 (800)
400 (500)
2000 (2100)
4150 (4200)
1950 (2050)
4900 (5150)
4400 (4450)
6850 (7200)
6100 (6350)
12950 (13550)
550 (650)
800 (900)
8050 (8500)
8300 (8500)
22800 (27500)
28900 (33850)
25450 (31100)
8000 (8250)
8950 (9350)
33450 (39350)
74850 (88850)
85900 (100500)
50400 (58050)
24650 (30050)
80900 (94150)
30500 (36100)
5850 (6050)
7100 (7450)
8800 (9300)
1000 (1100)
9800 (10400)
950 (1100)
750 (850)
850 (950)
1150 (1200)
1550 (1650)
500 (550)
3000 (3100)
3800 (3900)
2900 (3350)
2700 (2800)
5500 (5800)
6100 (6250)
8650 (8750)
8800 (9100)
9900 (10150)
9250 (9500)
5950 (6100)
4300 (4450)
5400 (5500)
11050 (11650)
2600 (3050)
350 (500)
5250 (5500)
9300 (9600)
6700 (6900)
14200 (14850)
10050 (10650)
10950 (11600)
11950 (12600)
16000 (16500)
9500 (10000)
11650 (12150)
13850 (14600)
1400 (1550)
1650 (1800)
2000 (2100)
6400 (6550)
6250 (6350)
4150 (4300)
2800 (2950)
4900 (5000)
4200 (4350)
5300 (5400)
7850 (7950)
11150 (11450)
5TH ST.
4TH ST.
INT. 1
INT. 2
LEGEND
XXX (XXX) = 2029 AADT (2049 AADT)
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 DAILY TRAFFIC FORECASTS
PLATE 3 OF 10 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB

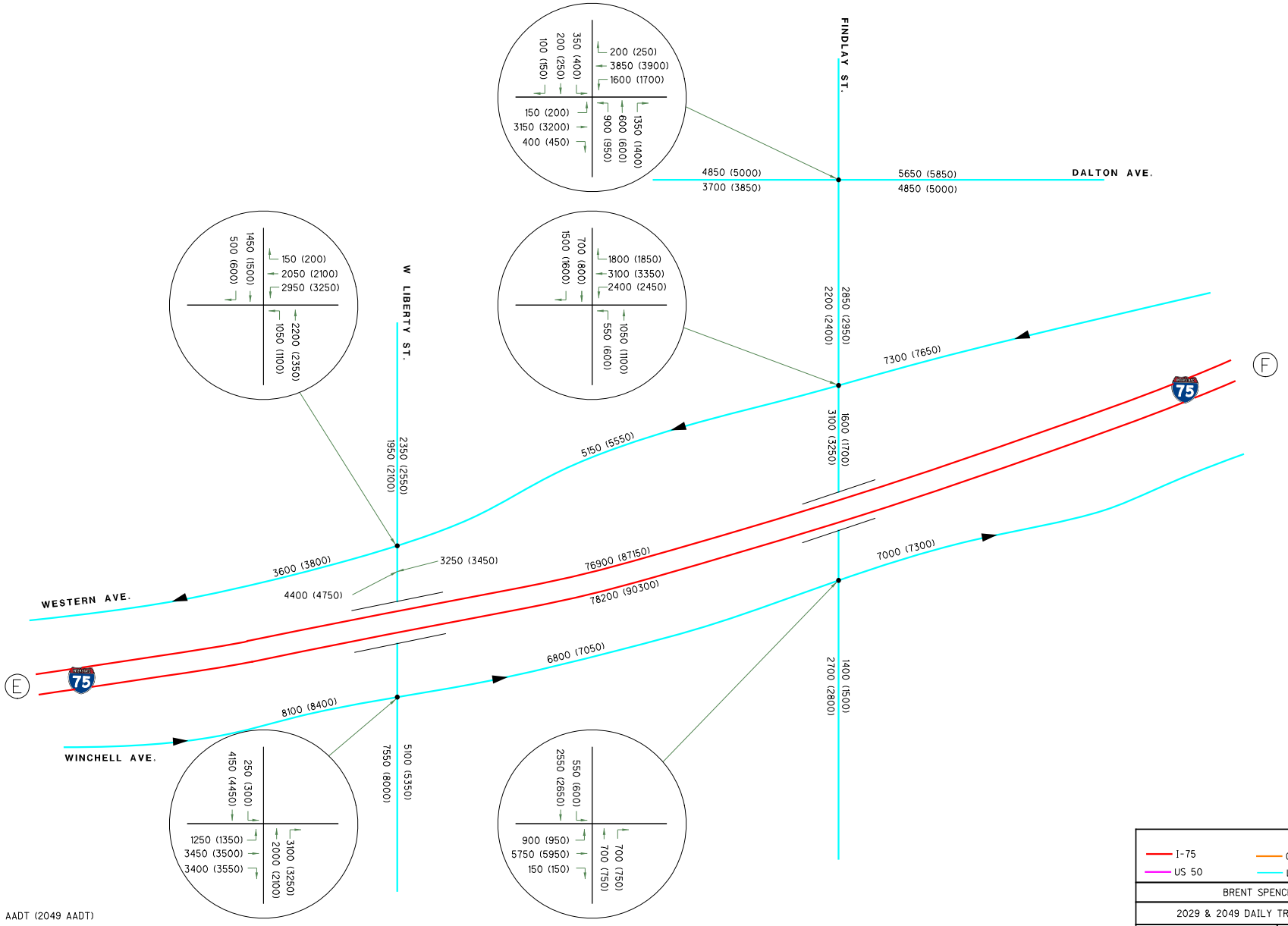

CRESCENT AVE.
8350 (8700)
7250 (7450)
7300 (7650)
4050 (4300)
4TH ST.
C
1500 (1550)
6850 (7150)
3700 (3700)
450 (500)
500 (550)
3550 (3750)
SEE PLATE 3 FOR ADDITIONAL VALUES
75
71
4650 (4750)
2550 (2800)
100 (100)
100 (100)
100 (100)
250 (300)
2500 (2600)
100 (150)
1550 (1550)
1500 (1500)
1450 (1600)
100 (150)
PHILADELPHIA ST.
9800 (10350)
250 (300)
1150 (1250)
4350 (4650)
3050 (3250)
2350 (2500)
1450 (1500)
400 (450)
950 (1550)
350 (400)
11100 (11650)
150 (1200)
BAKEWELL ST.
MAIN ST.
CLAY WADE BAILEY BRIDGE
10500 (10500)
350 (400)
1100 (1700)
1150 (1200)
650 (700)
250 (300)
250 (300)
JOHNSON ST.
1800 (1900)
1350 (2000)
3800 (4000)
2100 (2750)
2000 (2200)
1450 (1500)
900 (950)
850 (900)
1800 (1850)
850 (900)
1100 (1150)
700 (1200)
300 (400)
1100 (1200)
500 (600)
5TH ST.
4TH ST.
3RD ST.
LEGEND
XXX (XXX) = 2029 AADT (2049 AADT)
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 DAILY TRAFFIC FORECASTS
PLATE 4 OF 10 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



INT. 3
INT. 4
INT. 5
INT. 6
50
75
71
IR-71/IR-75 SB LOWER LEVEL
52050 (61350)
IR-71/IR-75 NB UPPER LEVEL
50400 (58050)
LOCAL SB UPPER LEVEL 34150 (39350)
LOCAL NB LOWER LEVEL 32150 (38000)
CW BAILEY BRIDGE
7850 (7950)
11150 (11450)
2ND ST.
3RD ST.
4TH ST.
5TH ST.
6TH ST.
7TH ST.
9TH ST.
MOUND ST.
GEST ST
W 6TH ST EXPY
TO 5TH ST
TO 2ND & I-71 EB
TO KY
TO I-71/3RD ST.
TO I-71
TO US 50
TO 7TH
TO WINCHELL
8TH ST. W
MATCH LINE
LEGEND
XXX (XXX) = 2029 AADT (2049 AADT)
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 DAILY TRAFFIC FORECASTS
PLATE 5 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


MATCH LINE
CENTRAL AVE.
9TH ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
ELM ST.
PLUM ST.
RACE ST.
INT. 7
INT. 8
600 (1000)
4200 (5050)
4550 (5400)
700 (750)
4050 (4550)
24500 (27550)
13850 (16850)
3100 (3200)
4950 (5350)
1700 (1750)
5950 (6400)
9600 (11000)
2150 (2300)
4200 (4500)
2200 (2450)
2000 (2500)
1300 (1750)
5300 (5900)
18650 (20900)
4000 (4150)
1500 (1700)
4000 (4650)
4850 (5450)
650 (900)
10250 (11150)
4450 (5400)
30050 (34450)
14700 (16550)
4650 (5300)
22850 (25200)
10750 (12500)
1500 (1750)
3150 (3550)
11700 (13050)
6050 (7550)
62800 (66550)
64800 (70500)
18150 (20250)
34000 (38100)
34850 (38550)
30800 (32400)
27950 (28000)
50
71
1350 (1500)
5700 (6800)
150 (200)
1550 (1550)
1550 (1650)
3600 (3850)
2350 (2550)
1700 (1750)
4200 (4500)
1750 (1900)
450 (550)
2350 (2550)
700 (750)
1450 (1550)
700 (750)
700 (750)
1150 (1200)
3450 (3950)
150 (1200)
2200 (2600)
22800 (25800)
100 (750)
2350 (2800)
1700 (1750)
600 (1000)
950 (1000)
3600 (4400)
600 (650)
9100 (10500)
100 (150)
600 (600)
1950 (2000)
3000 (3350)
2500 (2600)
1050 (1200)
10300 (13050)
1000 (1050)
3850 (4400)
150 (250)
500 (650)
2400 (2700)
2250 (2600)
2600 (2850)
20250 (22350)
5950 (6250)
4800 (6250)
1250 (1300)
16900 (18950)
1950 (2250)
11250 (12550)
1500 (1750)
2700 (3050)
450 (500)
1300 (1750)
4000 (4150)
800 (850)
1200 (1650)
100 (100)
1400 (1600)
LEGEND
XXX (XXX) = 2029 AADT (2049 AADT)
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 DAILY TRAFFIC FORECASTS
PLATE 6 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


FREEMAN AVE.
GEST ST.
W 8TH ST.
DALTON AVE.
W 6TH ST.
LINN ST.
COURT ST.
FROM JOHN & 9TH
WESTERN AVE.
WINCHELL AVE.
EB EZZARD CHARLES DR.
WB EZZARD CHARLES DR.
I-75
LEGEND
XXX (XXX) = 2029 AADT (2049 AADT)
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 DAILY TRAFFIC FORECASTS
PLATE 7 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

XXX (XXX) = 2029 AADT (2049 AADT)

I-75 — COLLECTOR-DISTRIBUTOR

US 50 — LOCAL ROADS AND RAMPS

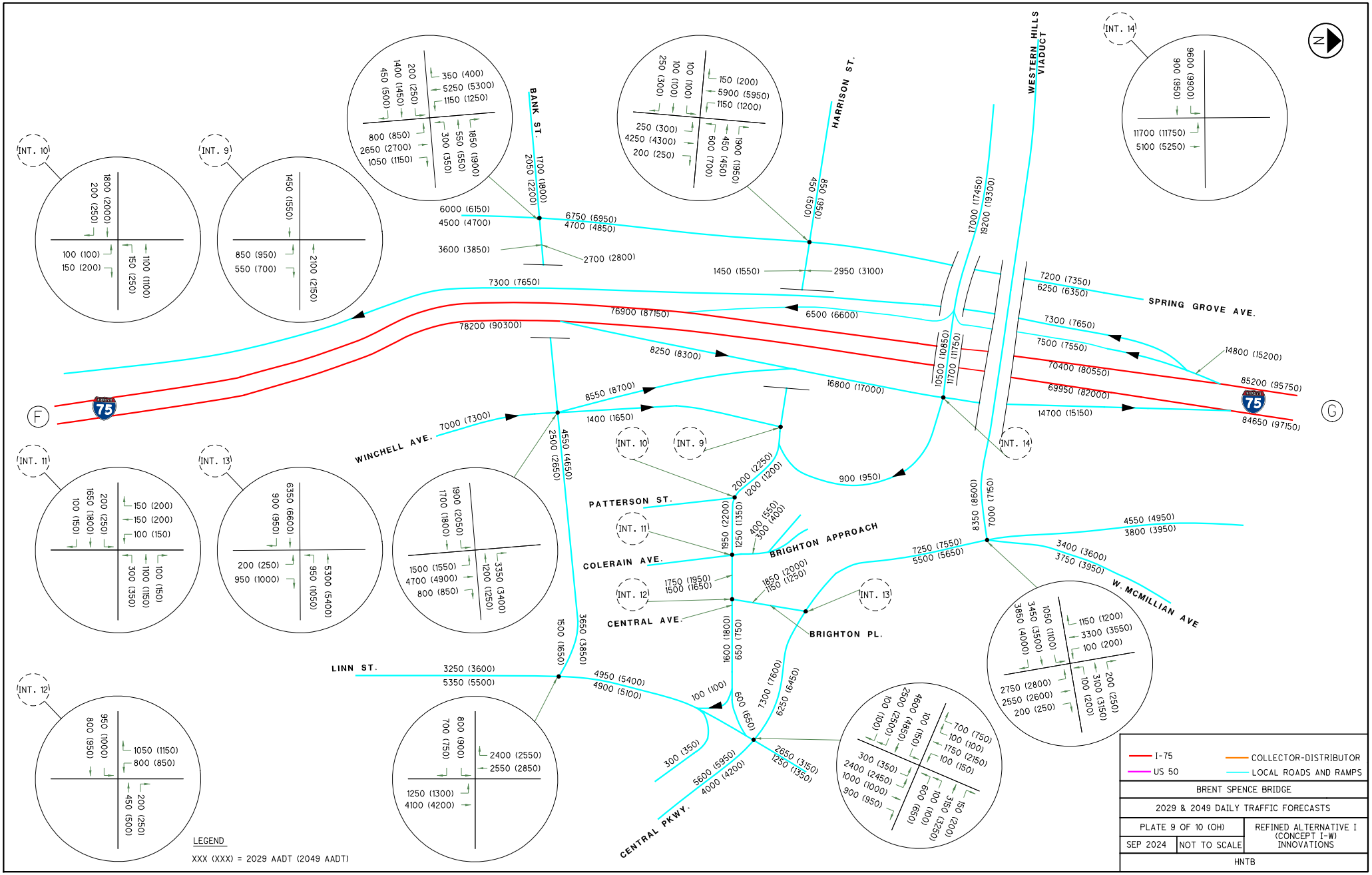
BRENT SPENCE BRIDGE

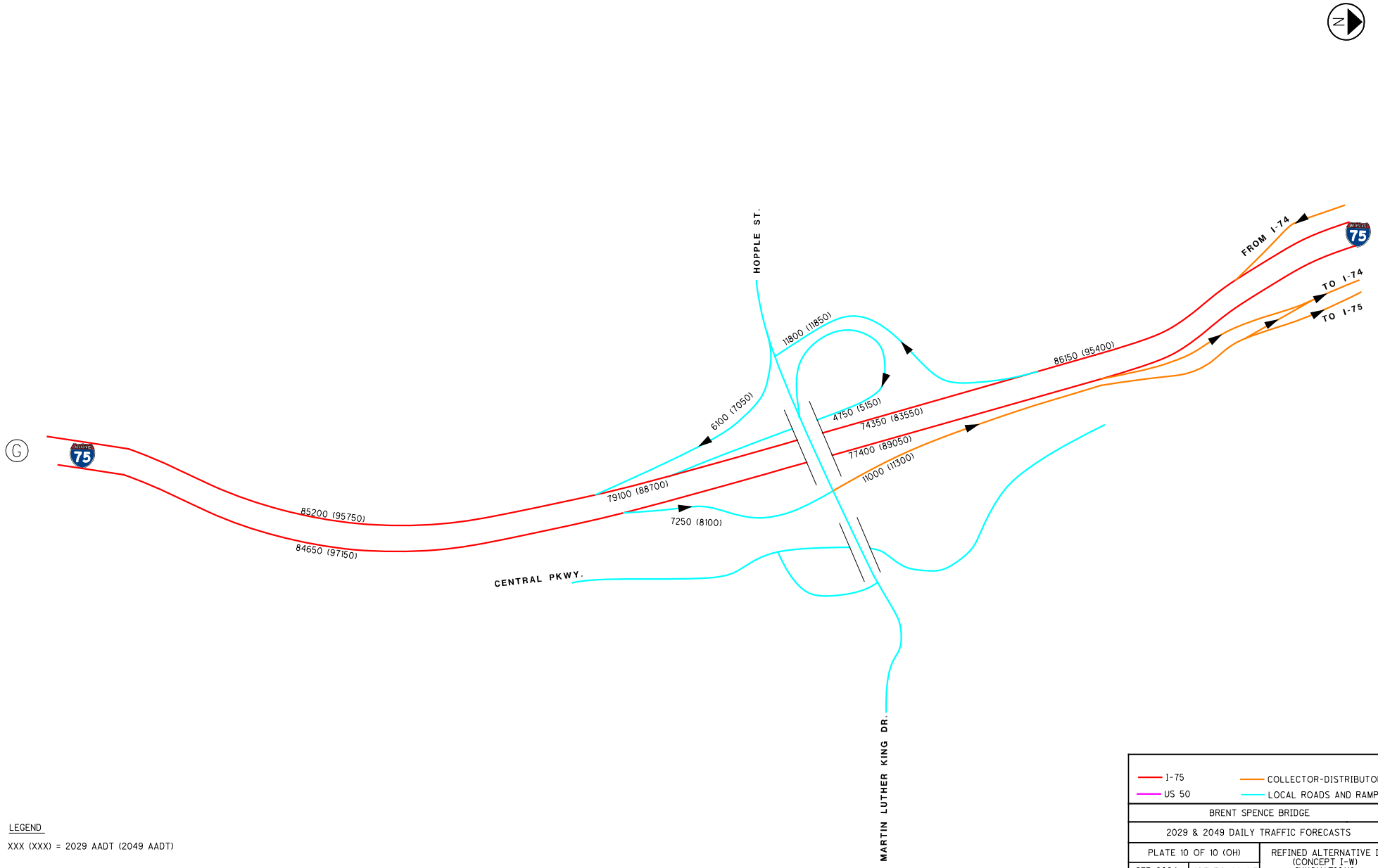
2029 & 2049 DAILY TRAFFIC FORECASTS

PLATE 8 OF 10 (OH) | REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024 | NOT TO SCALE

HNTB


INT. 10
INT. 9
INT. 14
INT. 11
INT. 13
INT. 12
BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APPROACH
CENTRAL AVE.
BRIGHTON PL.
LINN ST.
CENTRAL PKWY.
W. MCMILLIAN AVE
F
G
75
LEGEND
XXX (XXX) = 2029 AADT (2049 AADT)
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 DAILY TRAFFIC FORECASTS
PLATE 9 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



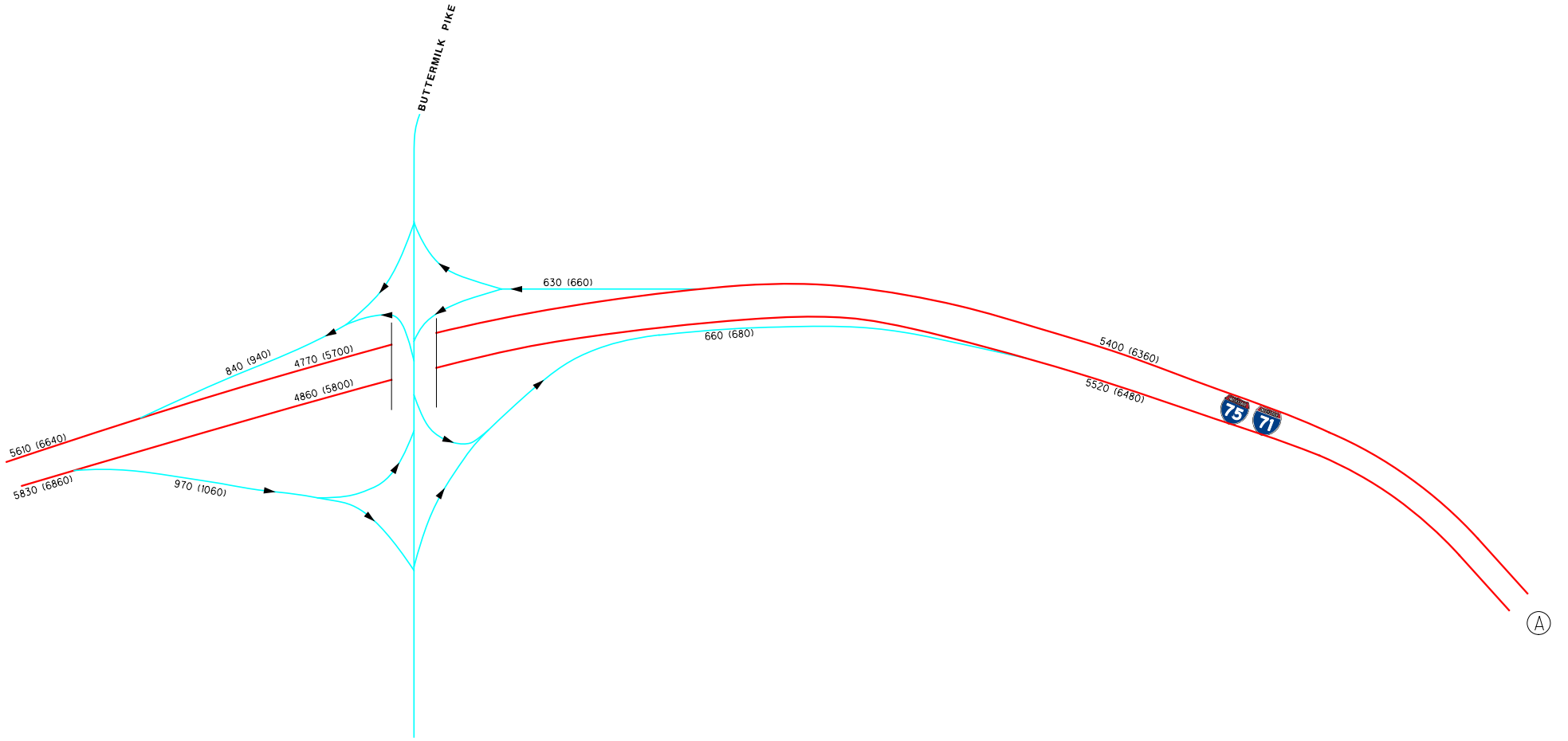
LEGEND

XXX (XXX) = 2029 AADT (2049 AADT)

I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 DAILY TRAFFIC FORECASTS	
PLATE 10 OF 10 (OH)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	

NOTE

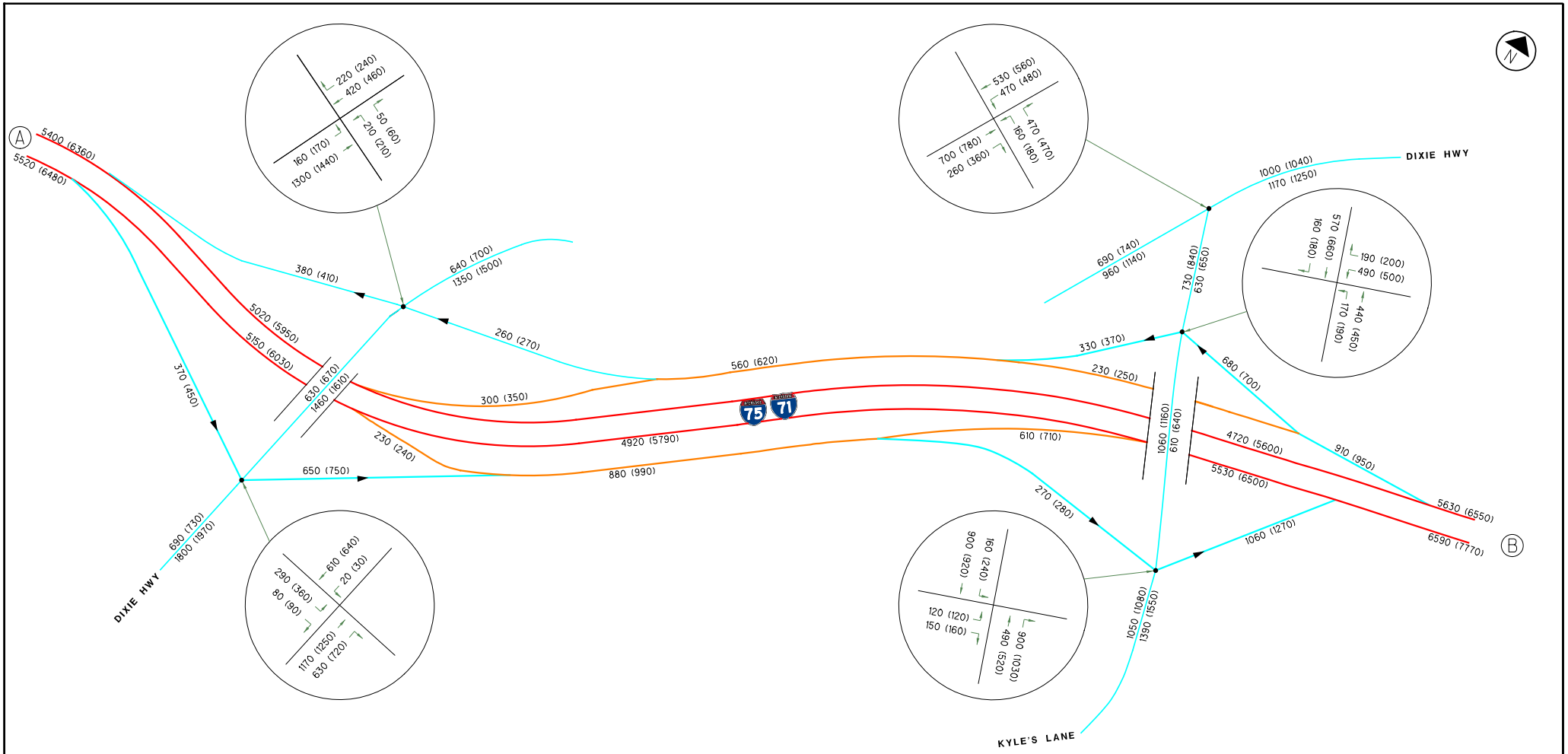
BUTTERMILK DDI CONFIGURATION IS NOT INCLUDED IN BRENT SPENCE BRIDGE PROJECT.



LEGEND

XXX (XXX) = 2029 AM DHV (2049 AM DHV)

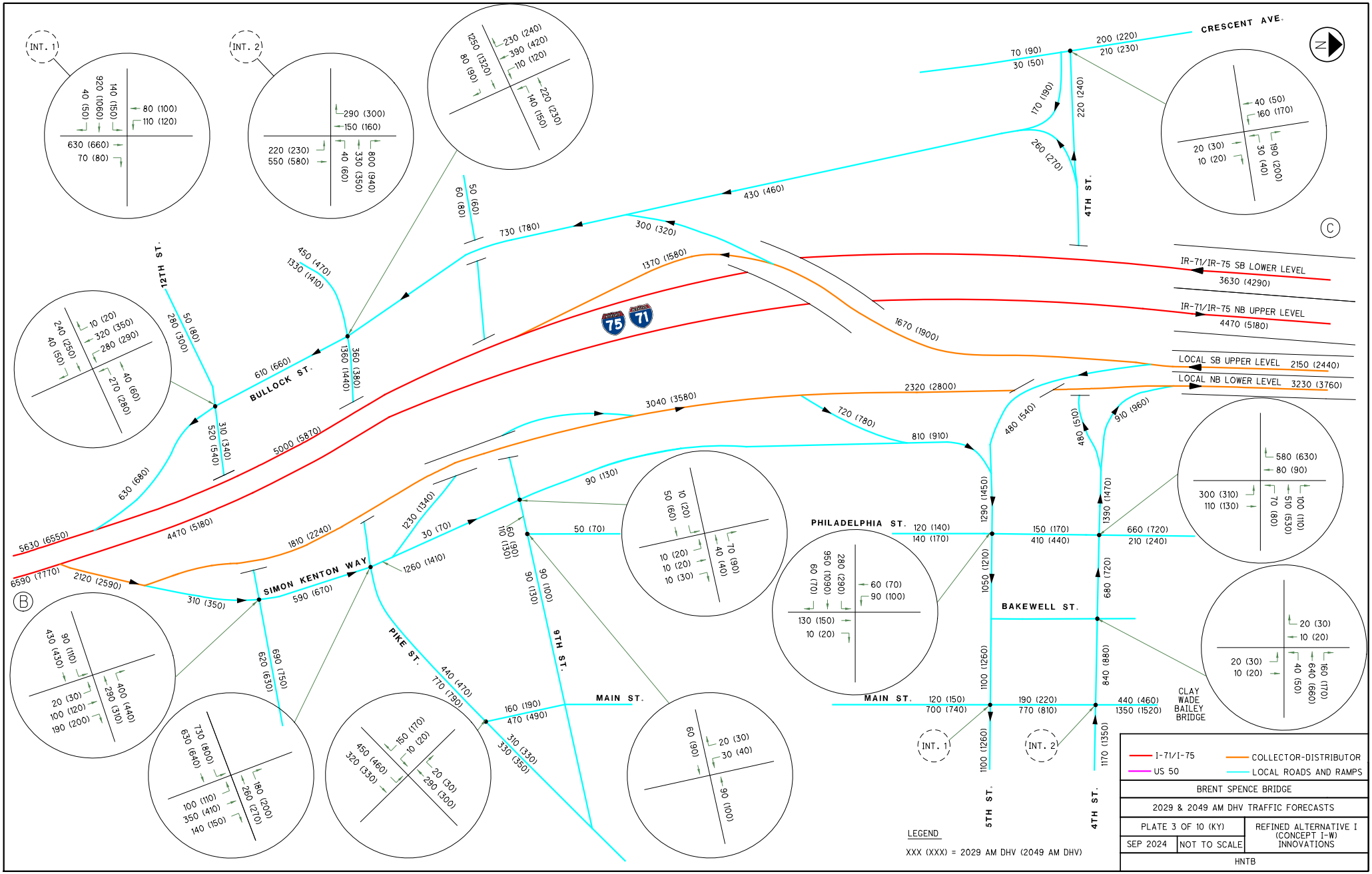
I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 AM DHV TRAFFIC FORECASTS	
PLATE 1 OF 10 (KY)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	

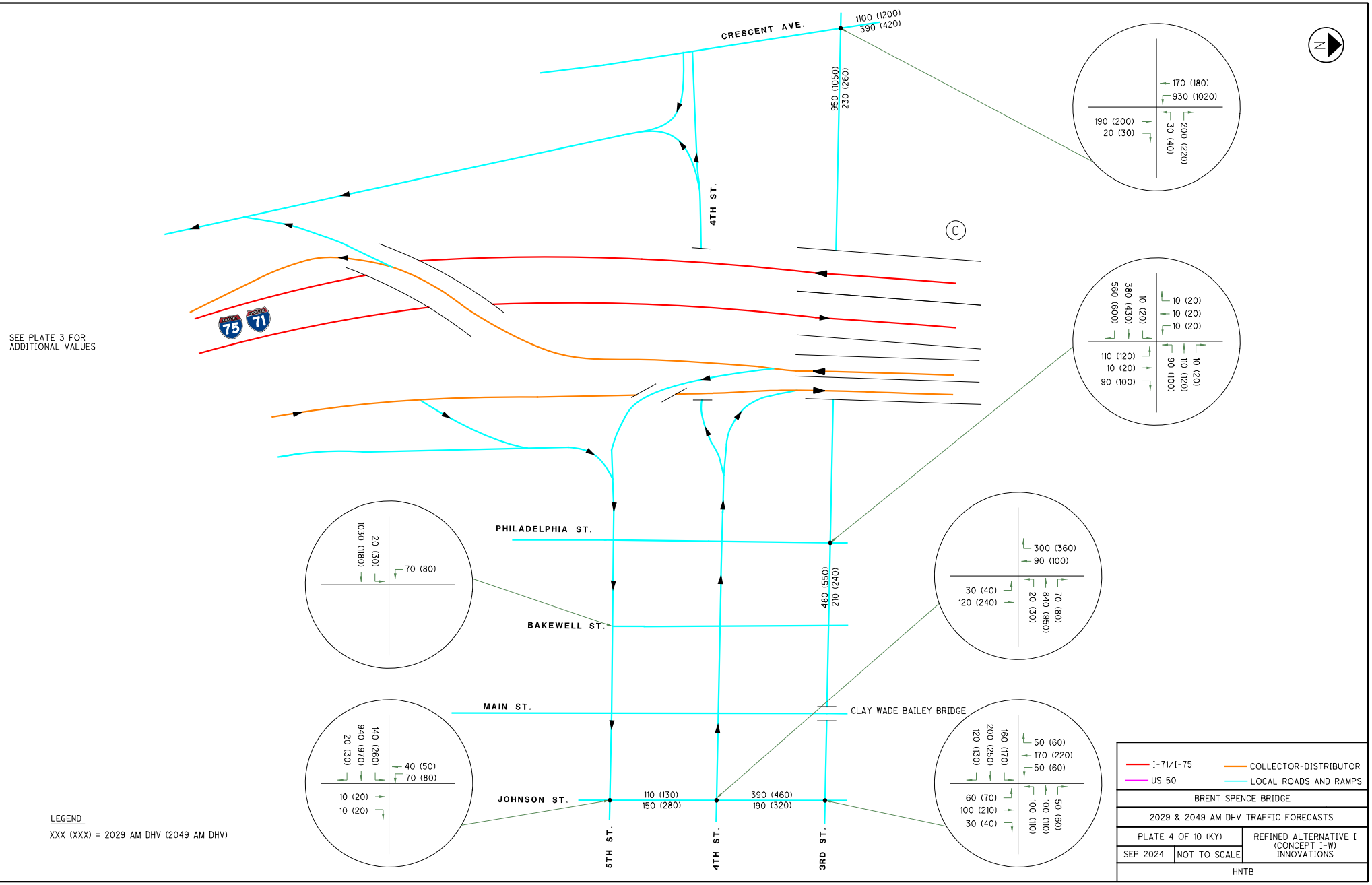


LEGEND

XXX (XXX) = 2029 AM DHV (2049 AM DHV)

I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 AM DHV TRAFFIC FORECASTS	
PLATE 2 OF 10 (KY)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	


INT. 1
INT. 2
CRESCENT AVE.
4TH ST.
12TH ST.
BULLOCK ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
PHILADELPHIA ST.
BAKEWELL ST.
5TH ST.
CLAY WADE BAILEY BRIDGE
IR-71/IR-75 SB LOWER LEVEL 3630 (4290)
IR-71/IR-75 NB UPPER LEVEL 4470 (5180)
LOCAL SB UPPER LEVEL 2150 (2440)
LOCAL NB LOWER LEVEL 3230 (3760)
LEGEND
XXX (XXX) = 2029 AM DHV (2049 AM DHV)
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 AM DHV TRAFFIC FORECASTS
PLATE 3 OF 10 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

XXX (XXX) = 2029 AM DHV (2049 AM DHV)

I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

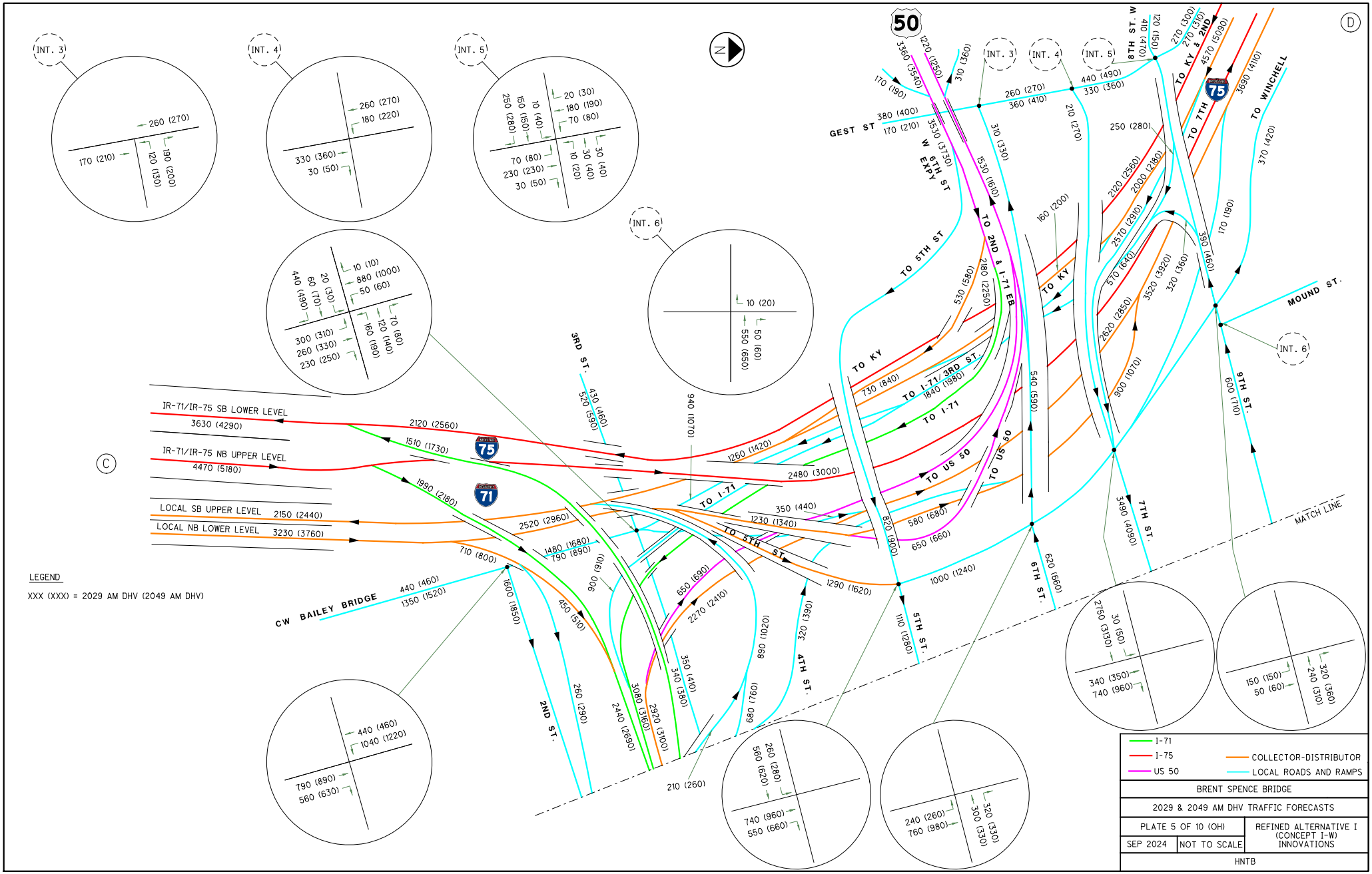
BRENT SPENCE BRIDGE

2029 & 2049 AM DHV TRAFFIC FORECASTS

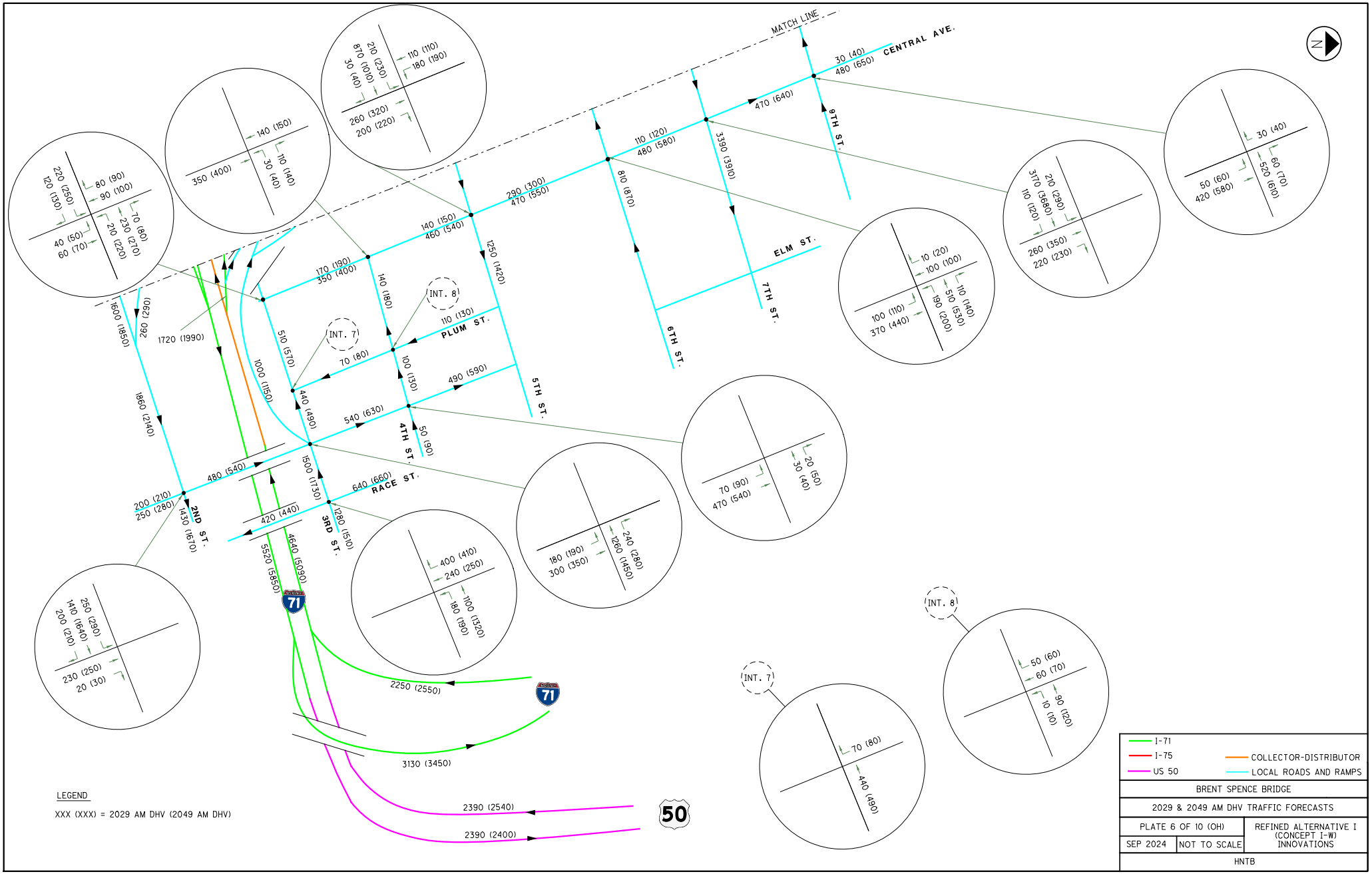
PLATE 4 OF 10 (KY) | REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

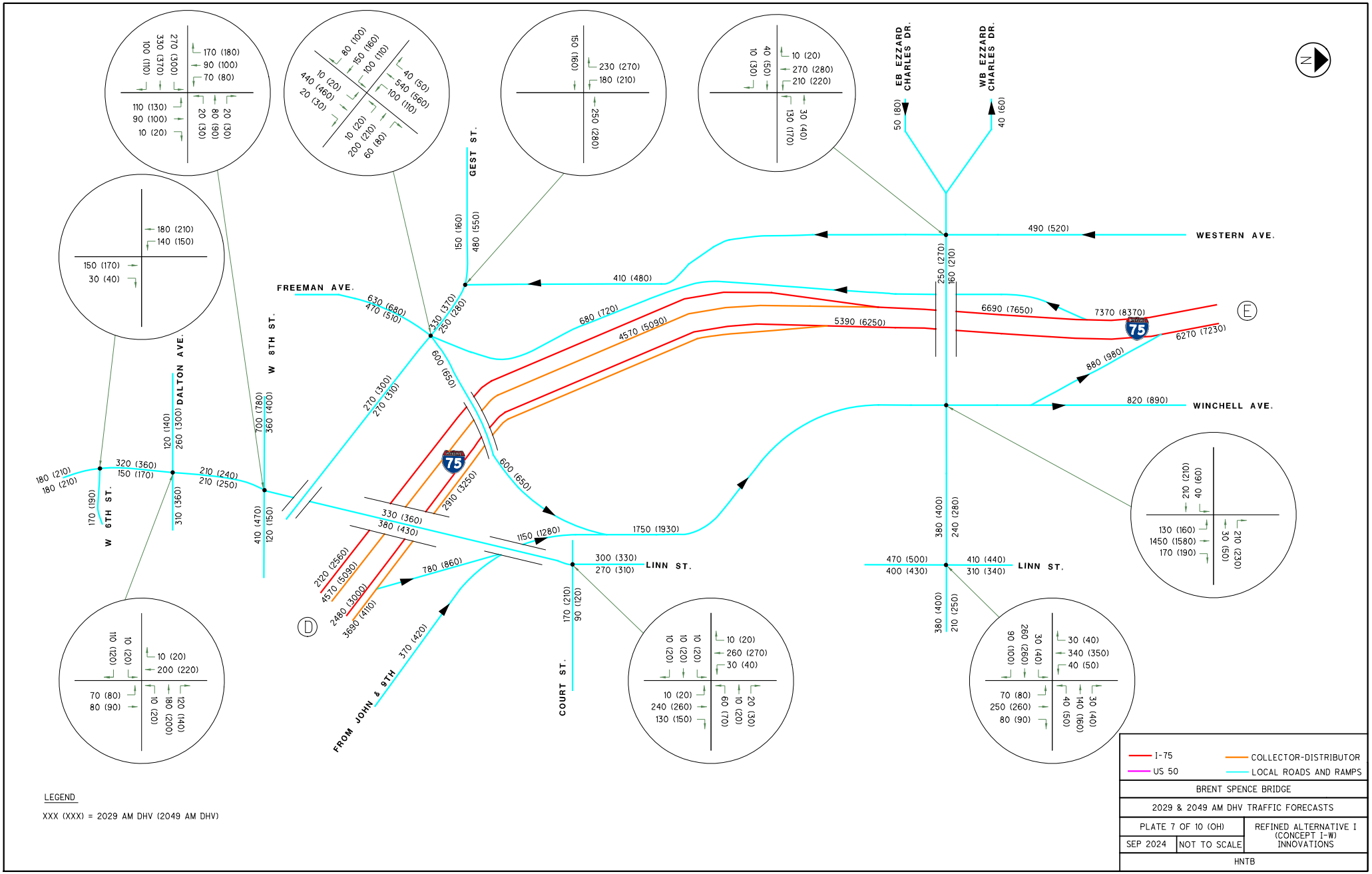
SEP 2024 | NOT TO SCALE

HNTB



INT. 3
INT. 4
INT. 5
INT. 6
50
75
71
N
C
D
IR-71/IR-75 SB LOWER LEVEL
3630 (4290)
IR-71/IR-75 NB UPPER LEVEL
4470 (5180)
LOCAL SB UPPER LEVEL 2150 (2440)
LOCAL NB LOWER LEVEL 3230 (3760)
CW BAILEY BRIDGE
440 (460)
1350 (1520)
2120 (2560)
1510 (1730)
1990 (2180)
2520 (2960)
1480 (1680)
790 (890)
710 (800)
1600 (1850)
450 (510)
900 (910)
2440 (2690)
3080 (3160)
2920 (3100)
340 (380)
350 (410)
2270 (2410)
650 (690)
1260 (1420)
2480 (3000)
350 (440)
1230 (1340)
1290 (1620)
1000 (1240)
820 (900)
580 (680)
650 (660)
540 (590)
620 (660)
3490 (4090)
3RD ST.
430 (460)
520 (590)
940 (1070)
2ND ST.
260 (290)
210 (260)
680 (760)
890 (1020)
320 (390)
4TH ST.
5TH ST.
1110 (1280)
6TH ST.
7TH ST.
9TH ST.
600 (710)
MOUND ST.
TO WINCHELL
370 (420)
TO KY & 2ND
4570 (5090)
3690 (4110)
TO 7TH
8TH ST. W
410 (470)
120 (150)
270 (300)
270 (310)
440 (490)
330 (360)
260 (270)
360 (410)
210 (270)
250 (280)
2120 (2560)
2000 (2180)
2570 (2910)
570 (640)
3520 (3920)
320 (360)
2620 (2850)
900 (1070)
390 (460)
170 (190)
160 (200)
TO KY
TO 2ND & I-71 EB
TO I-71/3RD ST.
1840 (1980)
TO I-71
TO US 50
TO 5TH ST
TO KY
530 (580)
2180 (2250)
1530 (1610)
310 (330)
3530 (3730)
W 6TH ST EXPY
GEST ST
380 (400)
170 (210)
170 (190)
3360 (3540)
1220 (1250)
310 (360)
MATCH LINE
LEGEND
XXX (XXX) = 2029 AM DHV (2049 AM DHV)
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 AM DHV TRAFFIC FORECASTS
PLATE 5 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


MATCH LINE
CENTRAL AVE.
9TH ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
ELM ST.
PLUM ST.
RACE ST.
INT. 7
INT. 8
30 (40)
480 (650)
470 (640)
110 (120)
480 (580)
3390 (3910)
810 (870)
290 (300)
470 (550)
140 (150)
460 (540)
1250 (1420)
170 (190)
350 (400)
140 (180)
110 (130)
70 (80)
100 (130)
490 (590)
510 (570)
440 (490)
540 (630)
50 (90)
1000 (1150)
1720 (1990)
1600 (1850)
260 (290)
1860 (2240)
480 (540)
200 (210)
250 (280)
1430 (1670)
420 (440)
1500 (1730)
640 (660)
280 (510)
4640 (5090)
5520 (5850)
2250 (2550)
3130 (3450)
2390 (2540)
2390 (2400)
50
N
LEGEND
XXX (XXX) = 2029 AM DHV (2049 AM DHV)
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 AM DHV TRAFFIC FORECASTS
PLATE 6 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



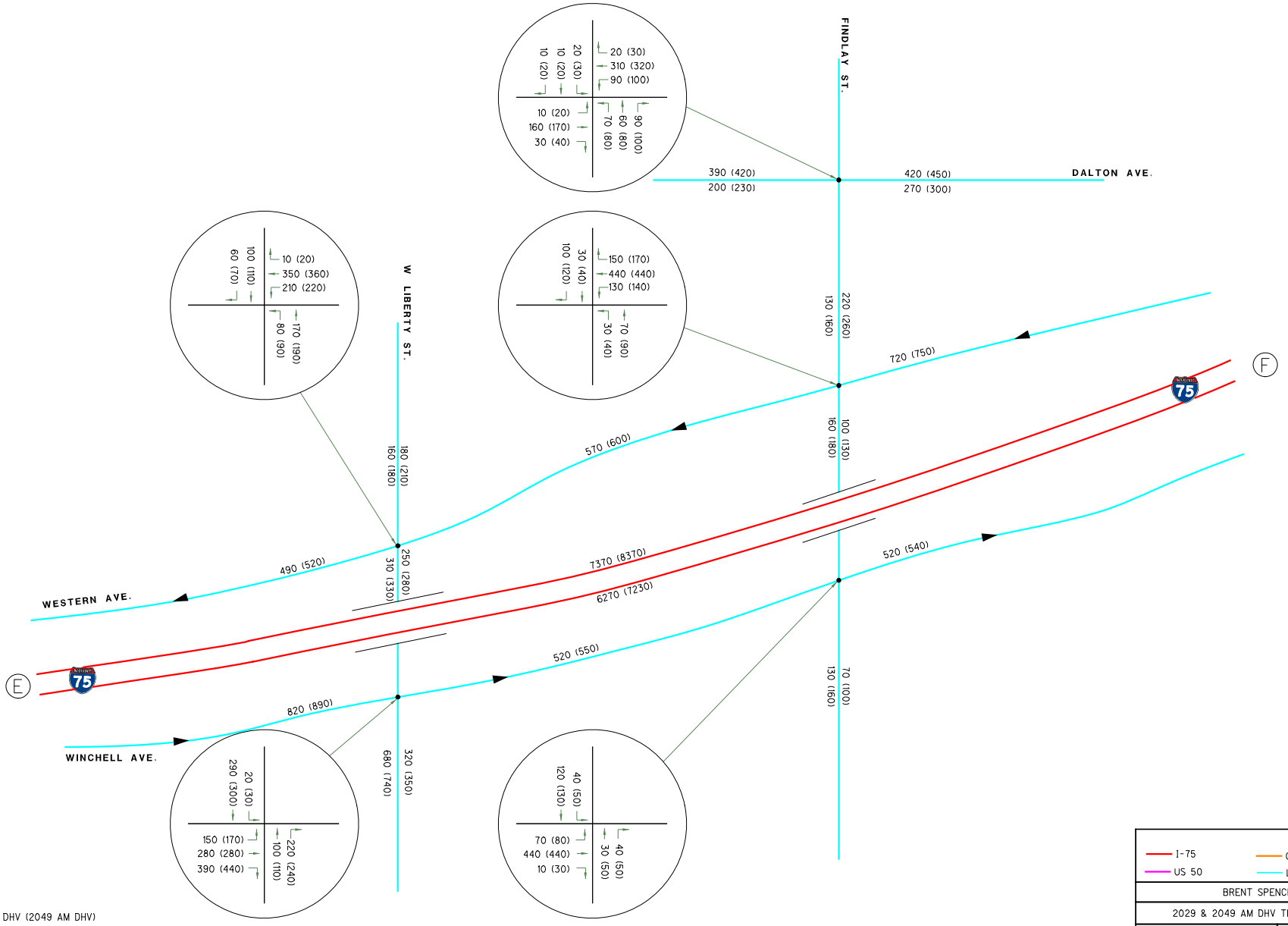
BRENT SPENCE BRIDGE

2029 & 2049 AM DHV TRAFFIC FORECASTS

PLATE 7 OF 10 (OH) | REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024 | NOT TO SCALE

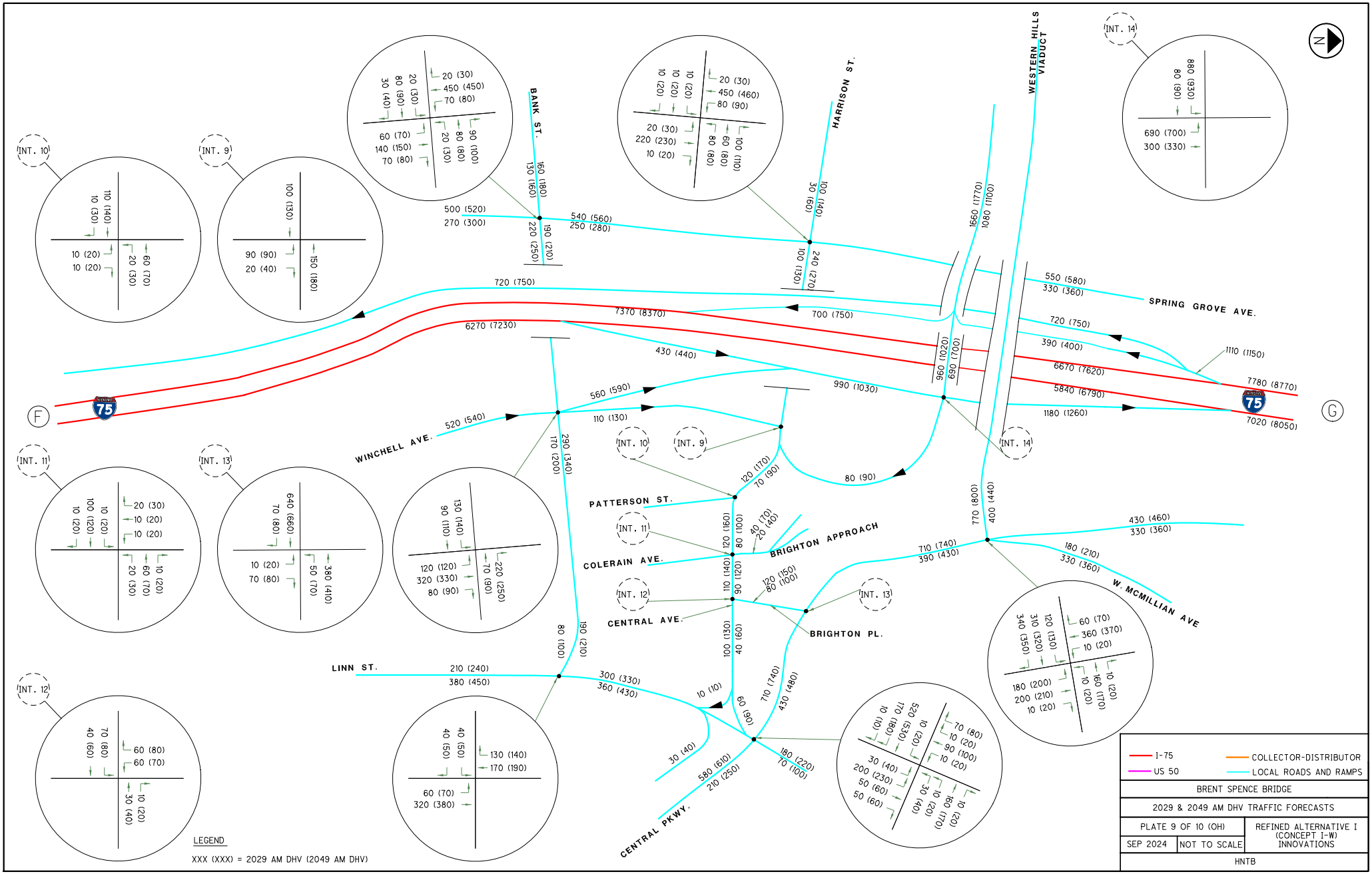
HNTB

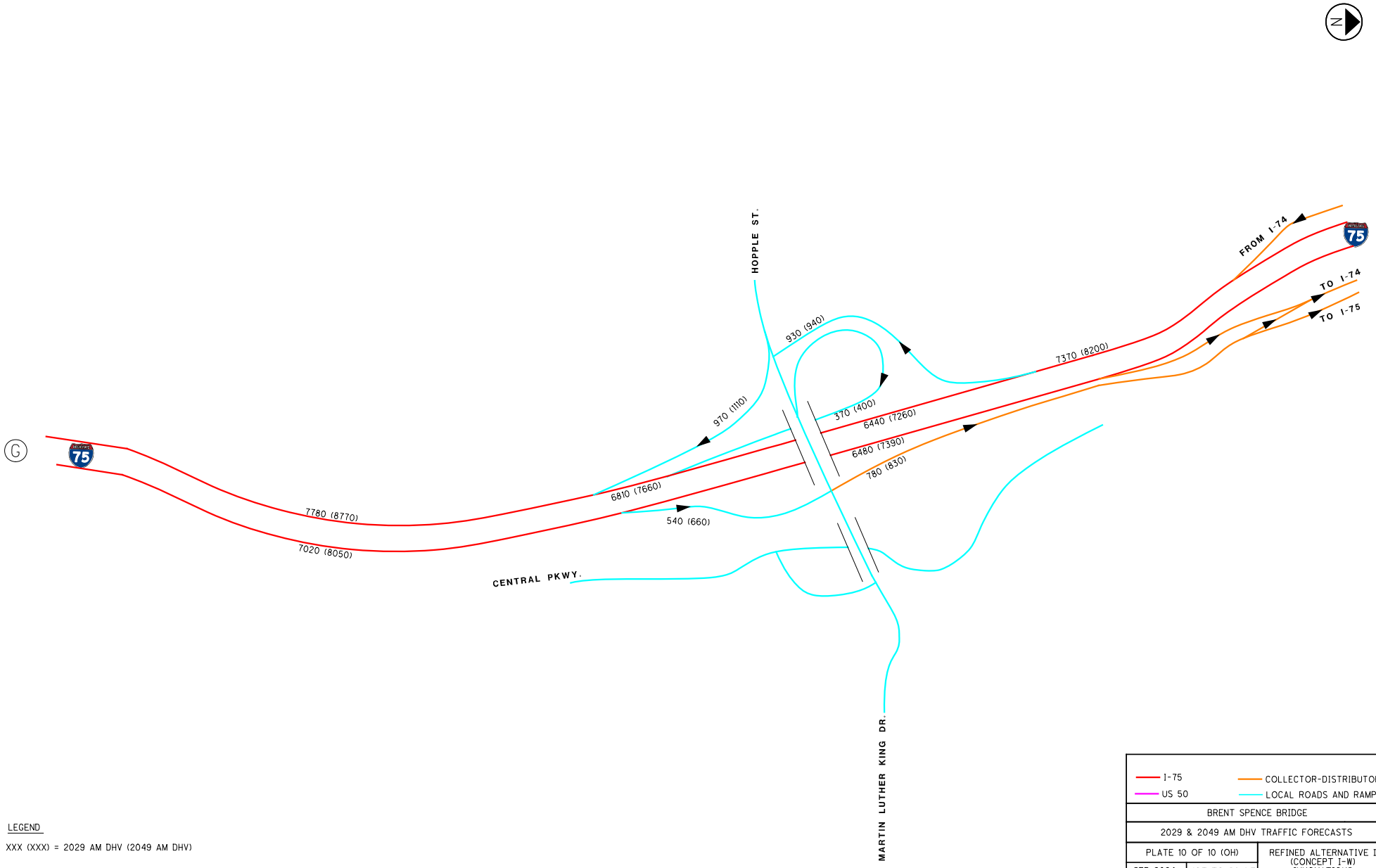


LEGEND

XXX (XXX) = 2029 AM DHV (2049 AM DHV)

I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 AM DHV TRAFFIC FORECASTS	
PLATE 8 OF 10 (OH)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	


INT. 10
INT. 9
INT. 11
INT. 13
INT. 12
INT. 14
BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APPROACH
CENTRAL AVE.
BRIGHTON PL.
LINN ST.
CENTRAL PKWY.
W. MCMILLIAN AVE
F
G
N
720 (750)
7370 (8370)
6270 (7230)
700 (750)
430 (440)
550 (580)
330 (360)
720 (750)
390 (400)
6670 (7620)
5840 (6790)
1180 (1260)
1110 (1150)
7780 (8770)
7020 (8050)
960 (1020)
690 (700)
990 (1030)
1660 (1770)
1080 (1100)
500 (520)
270 (300)
540 (560)
250 (280)
560 (590)
520 (540)
110 (130)
120 (170)
70 (90)
80 (90)
770 (800)
400 (440)
710 (740)
390 (430)
430 (460)
330 (360)
180 (210)
330 (360)
300 (330)
360 (430)
210 (240)
380 (450)
10 (10)
60 (90)
710 (740)
430 (480)
30 (40)
580 (610)
210 (250)
180 (220)
70 (100)
LEGEND
XXX (XXX) = 2029 AM DHV (2049 AM DHV)
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 AM DHV TRAFFIC FORECASTS
PLATE 9 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



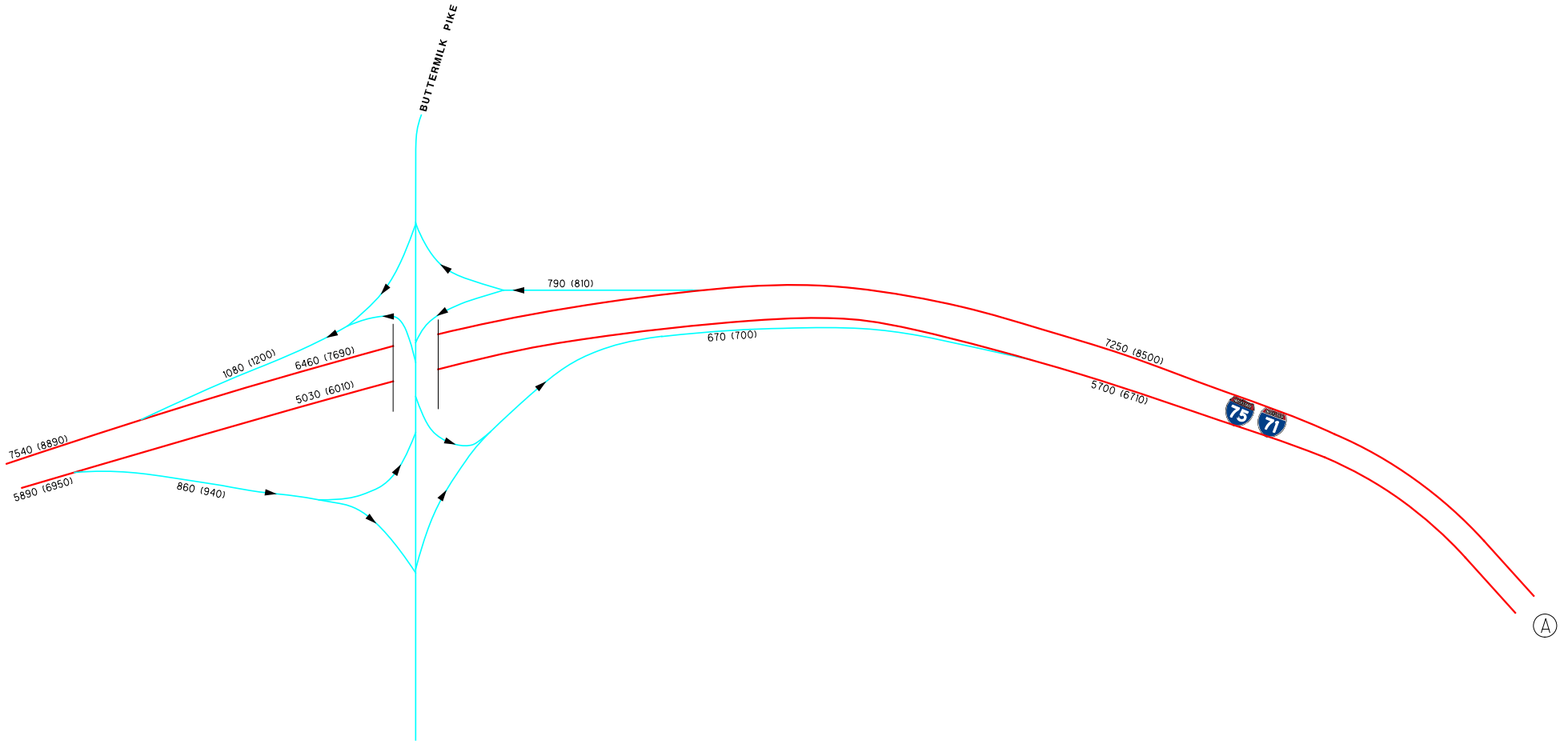
LEGEND

XXX (XXX) = 2029 AM DHV (2049 AM DHV)

I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 AM DHV TRAFFIC FORECASTS	
PLATE 10 OF 10 (OH)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	

NOTE

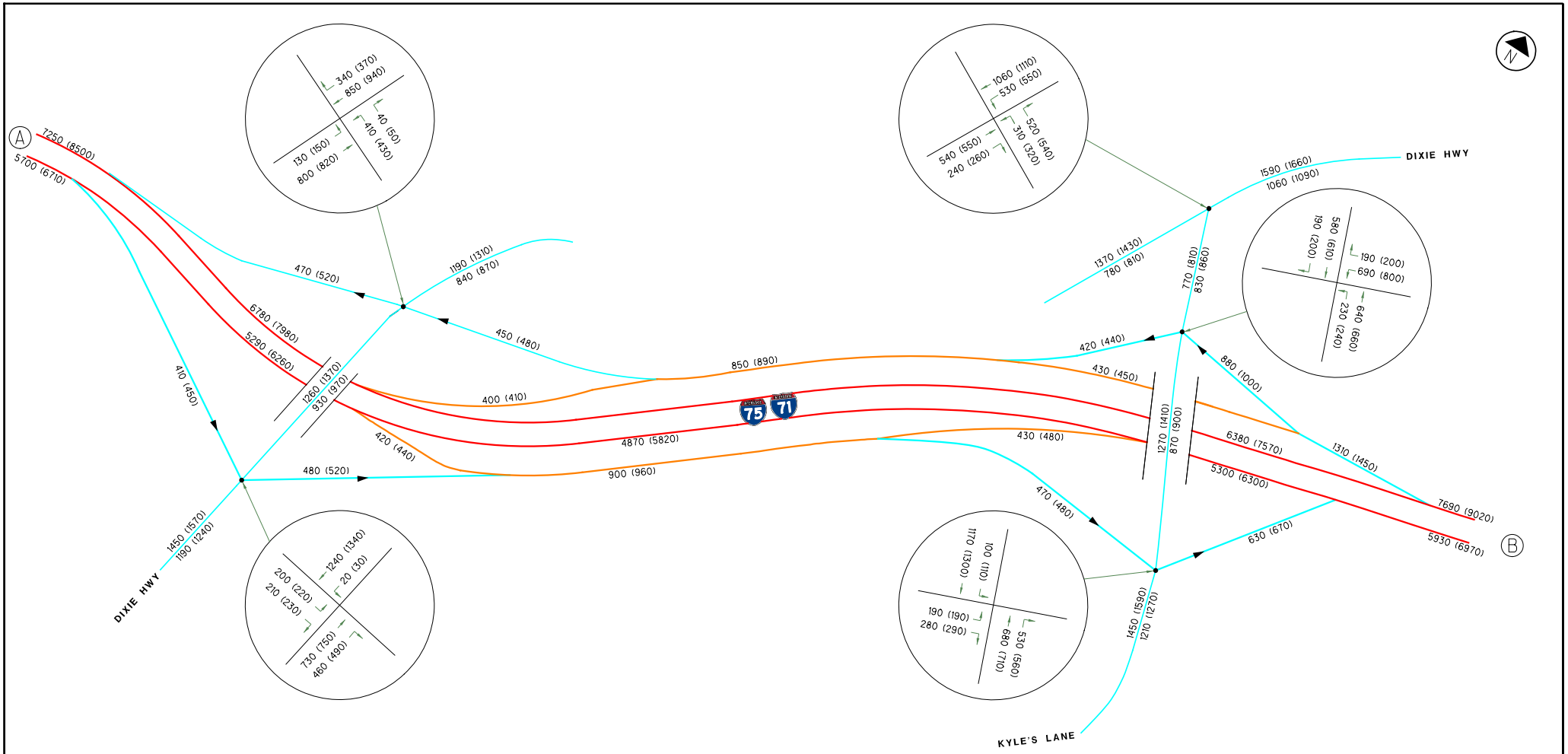
BUTTERMILK DDI CONFIGURATION IS NOT INCLUDED IN BRENT SPENCE BRIDGE PROJECT.



LEGEND

XXX (XXX) = 2029 PM DHV (2049 PM DHV)

I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 PM DHV TRAFFIC FORECASTS	
PLATE 1 OF 10 (KY)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	



LEGEND

XXX (XXX) = 2029 PM DHV (2049 PM DHV)

I-71/I-75 — COLLECTOR-DISTRIBUTOR

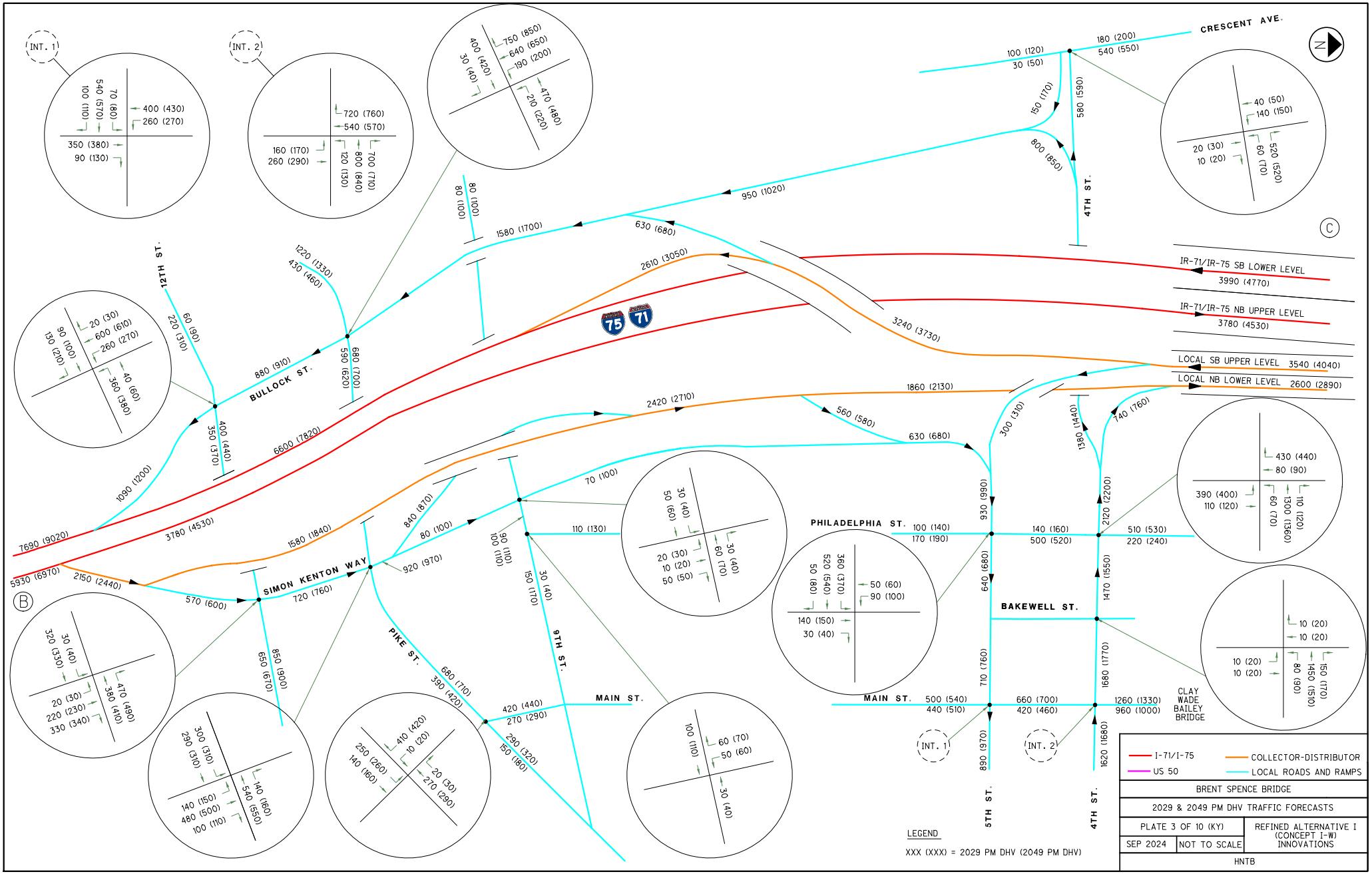
US 50 — LOCAL ROADS AND RAMPS

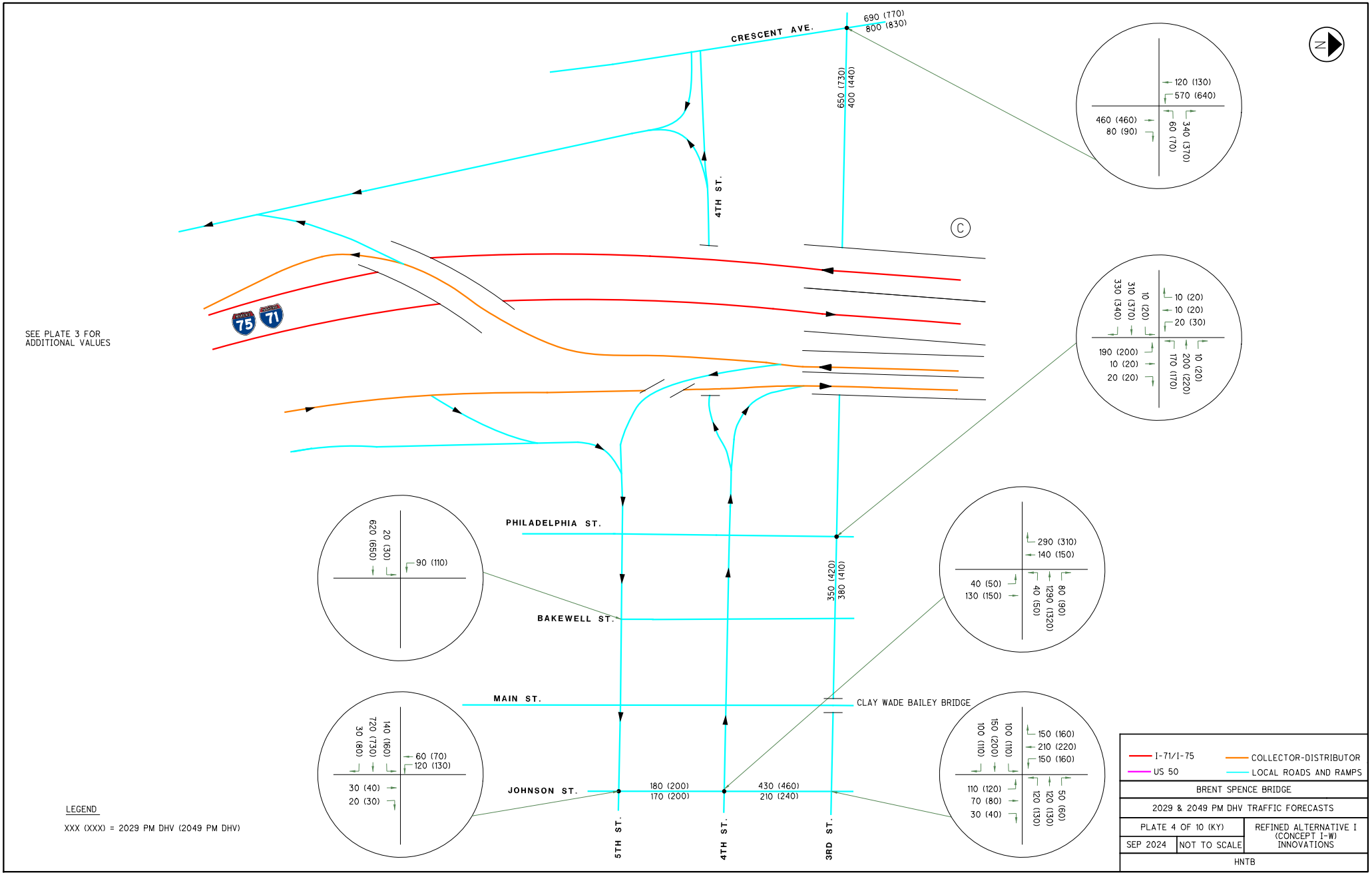
BRENT SPENCE BRIDGE

2029 & 2049 PM DHV TRAFFIC FORECASTS

PLATE 2 OF 10 (KY)		REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024	NOT TO SCALE	

HNTB


INT. 1
INT. 2
CRESCENT AVE.
4TH ST.
12TH ST.
BULLOCK ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
PHILADELPHIA ST.
BAKEWELL ST.
5TH ST.
IR-71/IR-75 SB LOWER LEVEL 3990 (4770)
IR-71/IR-75 NB UPPER LEVEL 3780 (4530)
LOCAL SB UPPER LEVEL 3540 (4040)
LOCAL NB LOWER LEVEL 2600 (2890)
CLAY WADE BAILEY BRIDGE
LEGEND
XXX (XXX) = 2029 PM DHV (2049 PM DHV)
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 PM DHV TRAFFIC FORECASTS
PLATE 3 OF 10 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

XXX (XXX) = 2029 PM DHV (2049 PM DHV)

I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

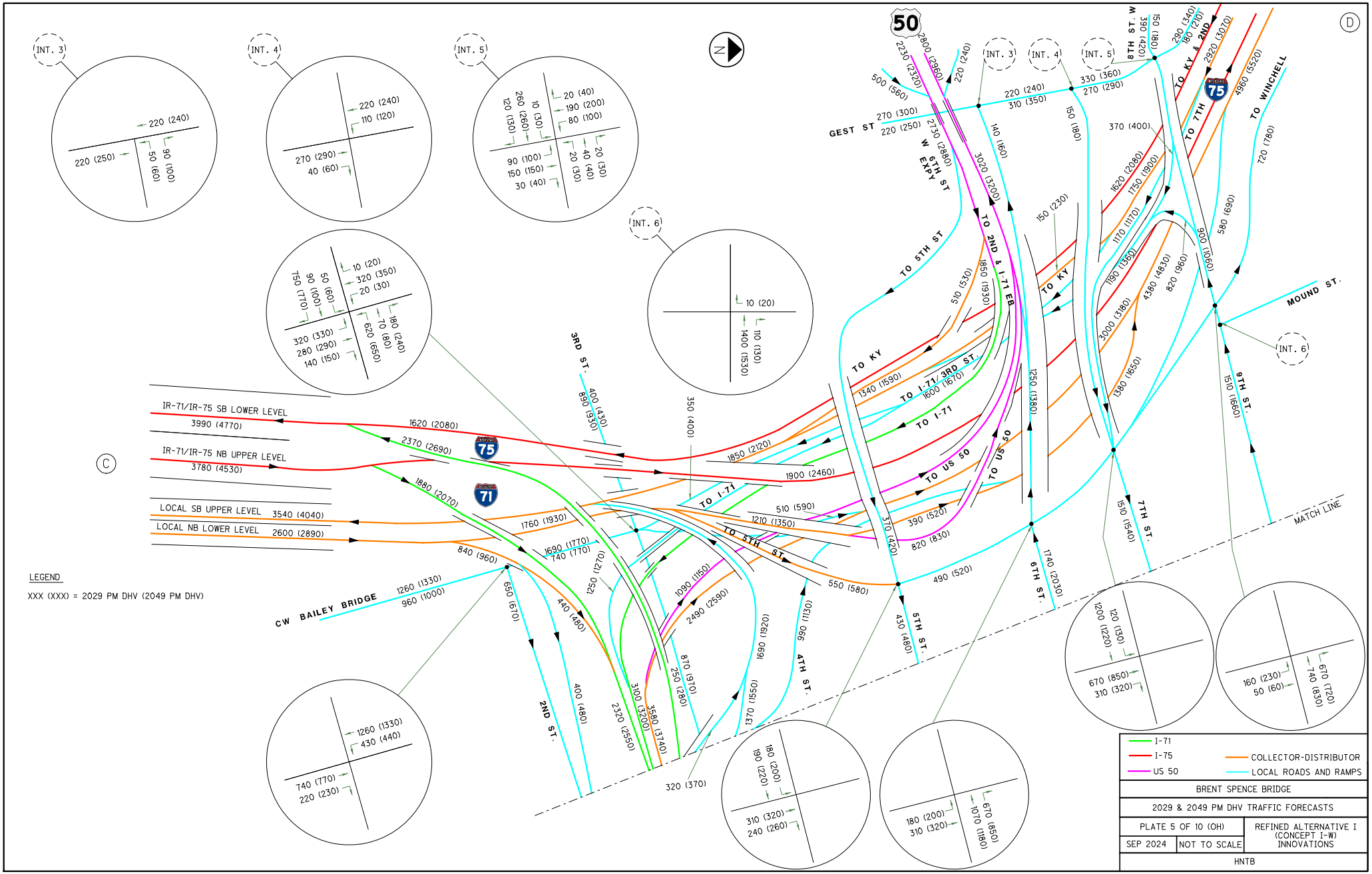
BRENT SPENCE BRIDGE

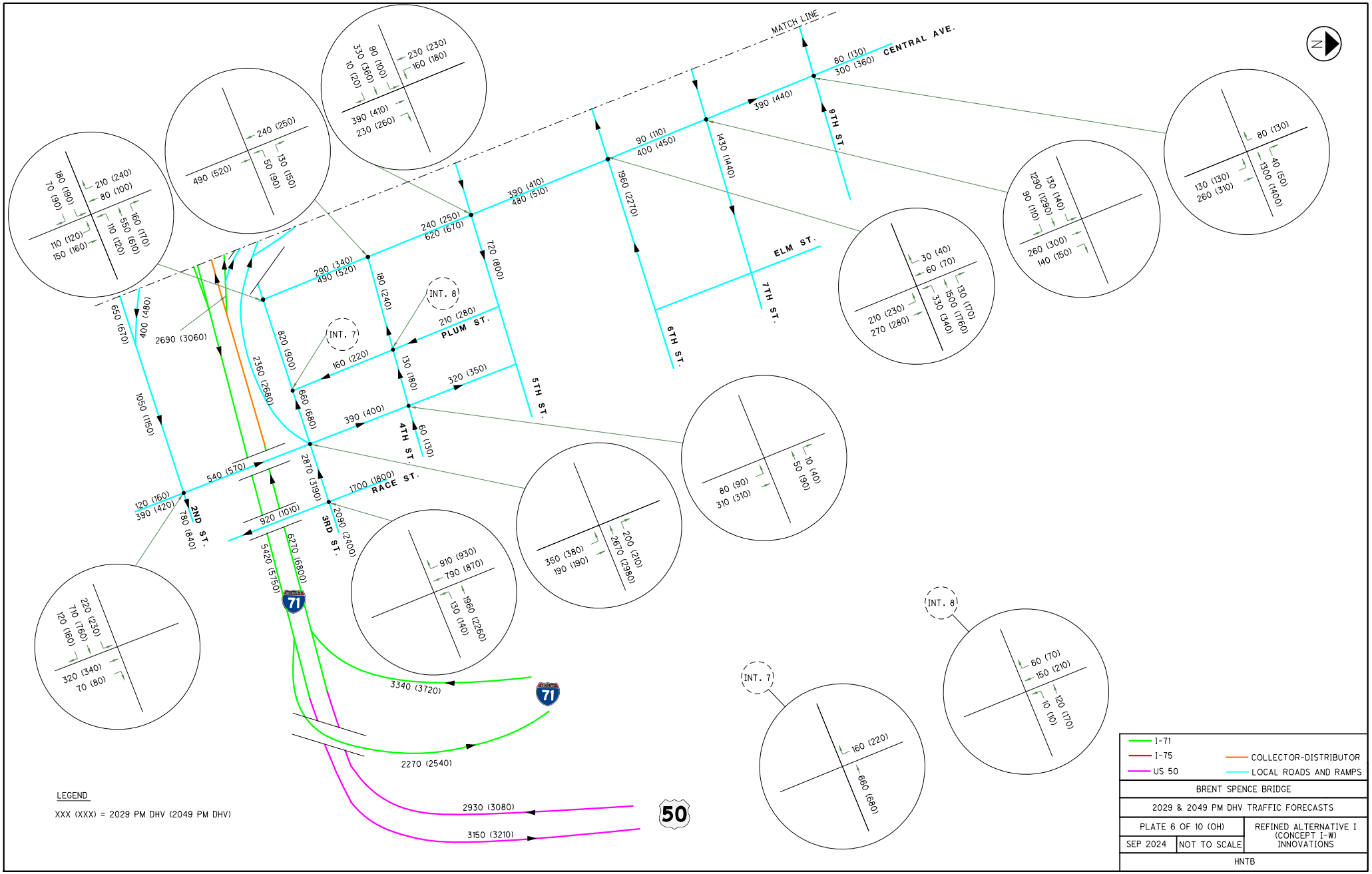
2029 & 2049 PM DHV TRAFFIC FORECASTS

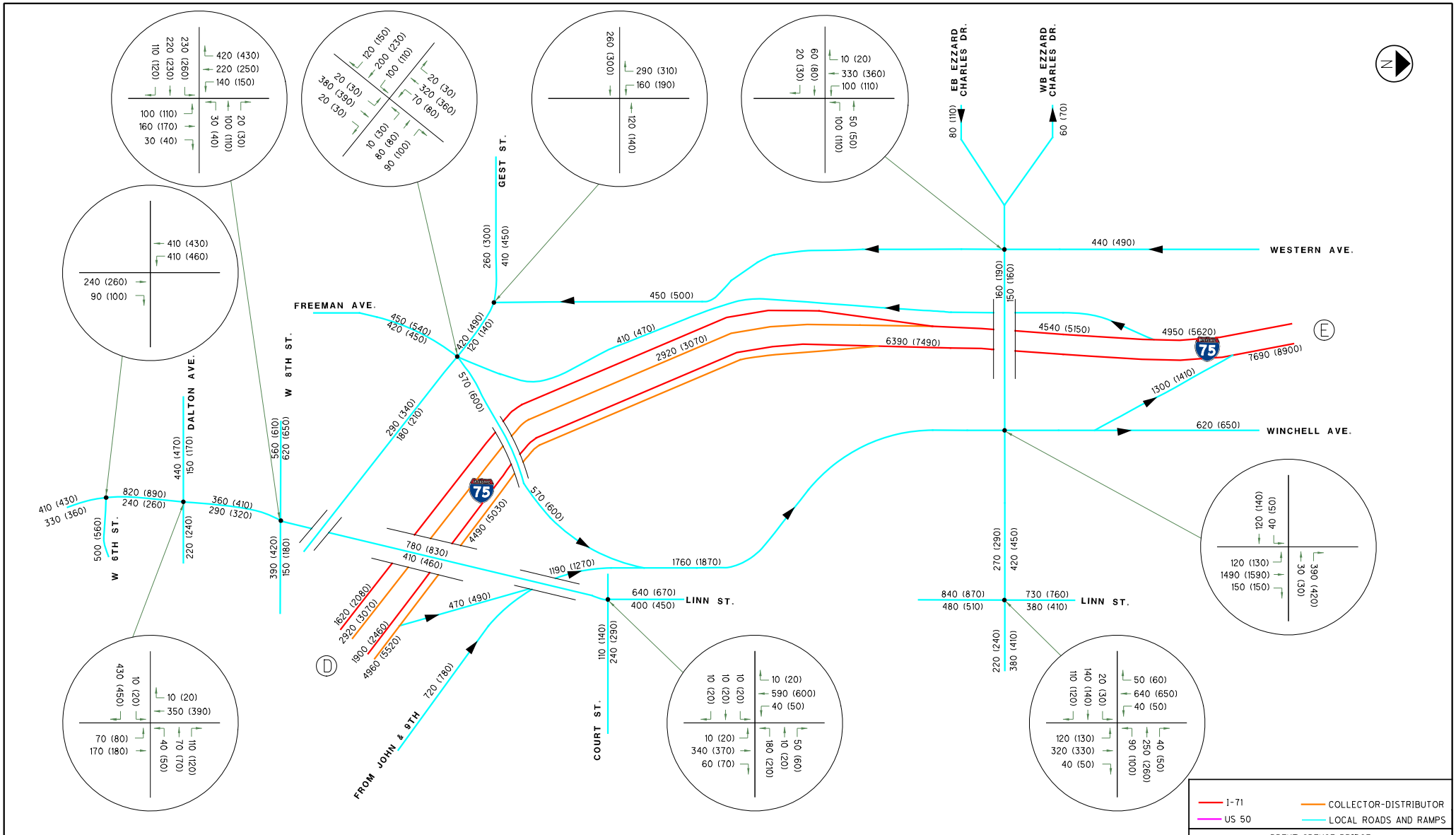
PLATE 4 OF 10 (KY) | REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024 | NOT TO SCALE

HNTB


INT. 3
INT. 4
INT. 5
INT. 6
N
50
75
71
IR-71/IR-75 SB LOWER LEVEL 3990 (4770)
IR-71/IR-75 NB UPPER LEVEL 3780 (4530)
LOCAL SB UPPER LEVEL 3540 (4040)
LOCAL NB LOWER LEVEL 2600 (2890)
LEGEND
XXX (XXX) = 2029 PM DHV (2049 PM DHV)
CW BAILEY BRIDGE
GEST ST
W 6TH EXPY ST
8TH ST. W
TO KY & 2ND
TO WINCHELL
TO 7TH
TO 5TH ST
TO 2ND & I-71 EB
TO KY
TO I-71/3RD ST
TO I-71
TO US 50
MOUND ST.
9TH ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
MATCH LINE
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 PM DHV TRAFFIC FORECASTS
PLATE 5 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


MATCH LINE
CENTRAL AVE.
9TH ST.
ELM ST.
7TH ST.
6TH ST.
5TH ST.
PLUM ST.
4TH ST.
RACE ST.
3RD ST.
2ND ST.
INT. 7
INT. 8
80 (130)
300 (360)
390 (440)
90 (110)
400 (450)
1430 (1440)
1960 (2270)
390 (410)
480 (510)
240 (250)
620 (670)
720 (800)
290 (340)
490 (520)
180 (240)
210 (280)
160 (220)
130 (180)
320 (350)
820 (900)
660 (680)
390 (400)
60 (130)
2360 (2680)
2690 (3060)
650 (670)
400 (480)
1050 (1150)
540 (570)
120 (160)
390 (420)
780 (840)
920 (1010)
2870 (3390)
1700 (1800)
2090 (2400)
5420 (5750)
6270 (6800)
3340 (3720)
2270 (2540)
2930 (3080)
3150 (3210)
50
N
LEGEND
XXX (XXX) = 2029 PM DHV (2049 PM DHV)
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 PM DHV TRAFFIC FORECASTS
PLATE 6 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

XXX (XXX) = 2029 PM DHV (2049 PM DHV)

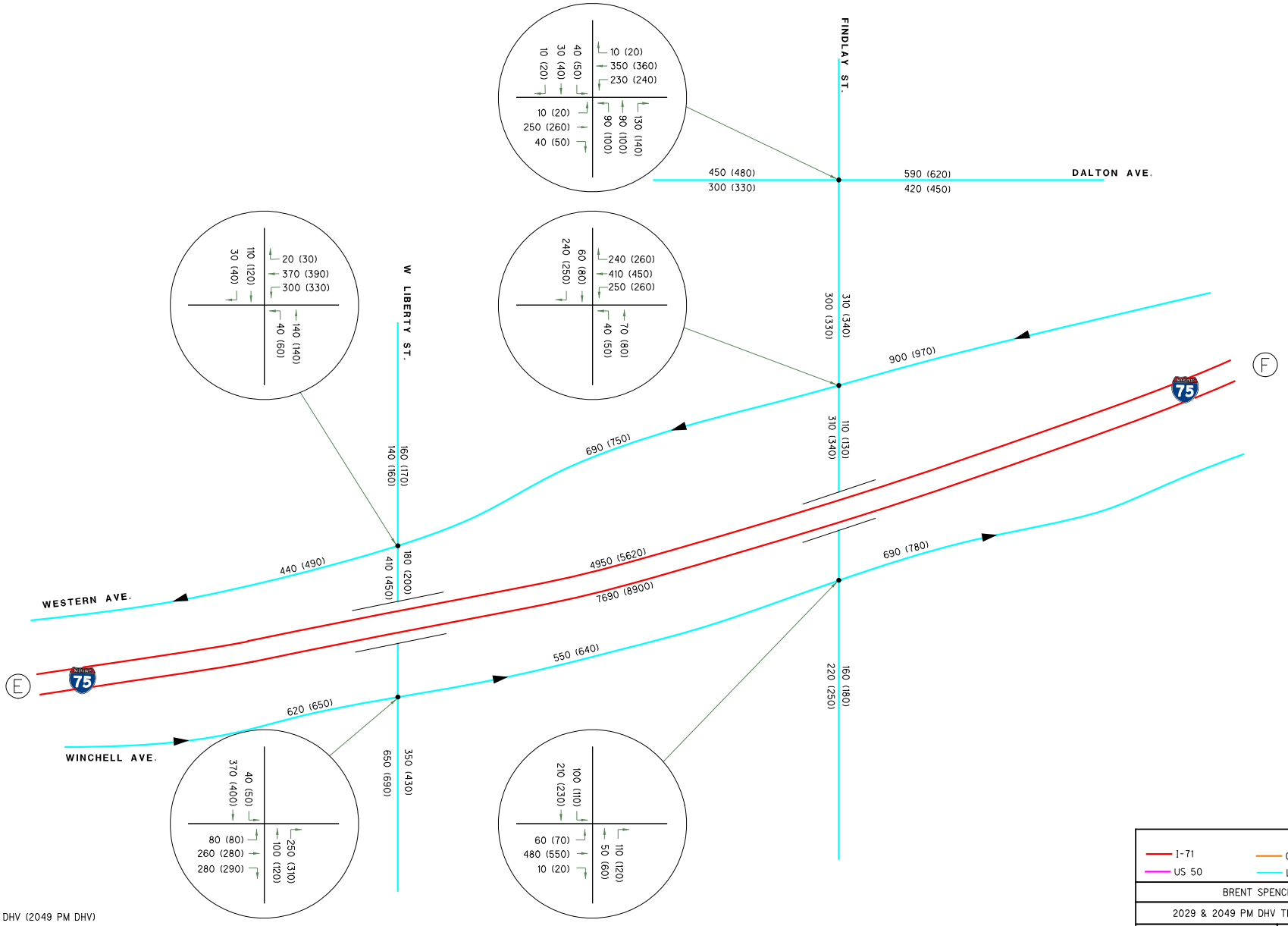
I-71	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

2029 & 2049 PM DHV TRAFFIC FORECASTS

PLATE 7 OF 10 (OH)		REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024	NOT TO SCALE	

HNTB



LEGEND

XXX (XXX) = 2029 PM DHV (2049 PM DHV)

I-71
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

2029 & 2049 PM DHV TRAFFIC FORECASTS

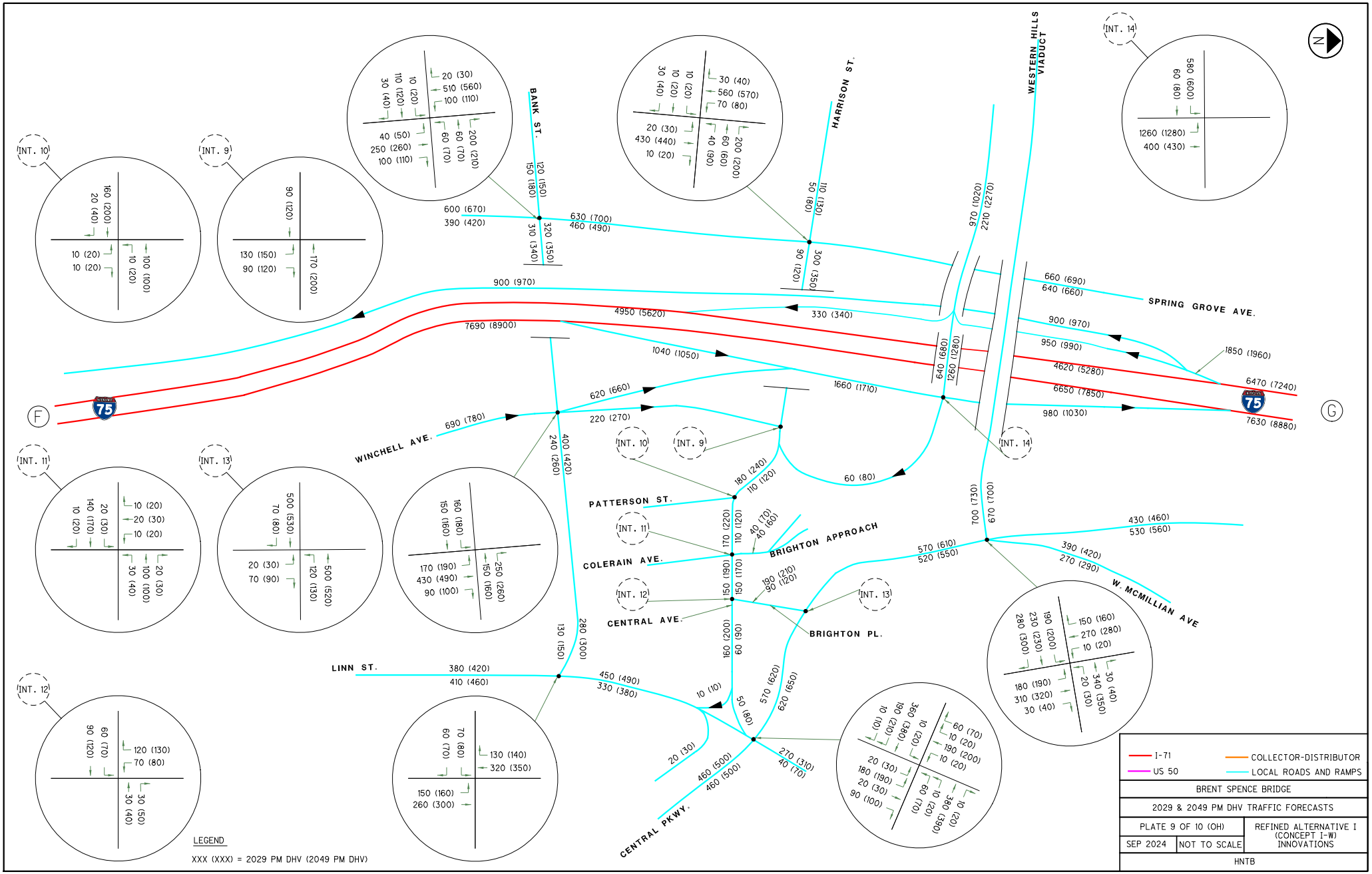
PLATE 8 OF 10 (OH)

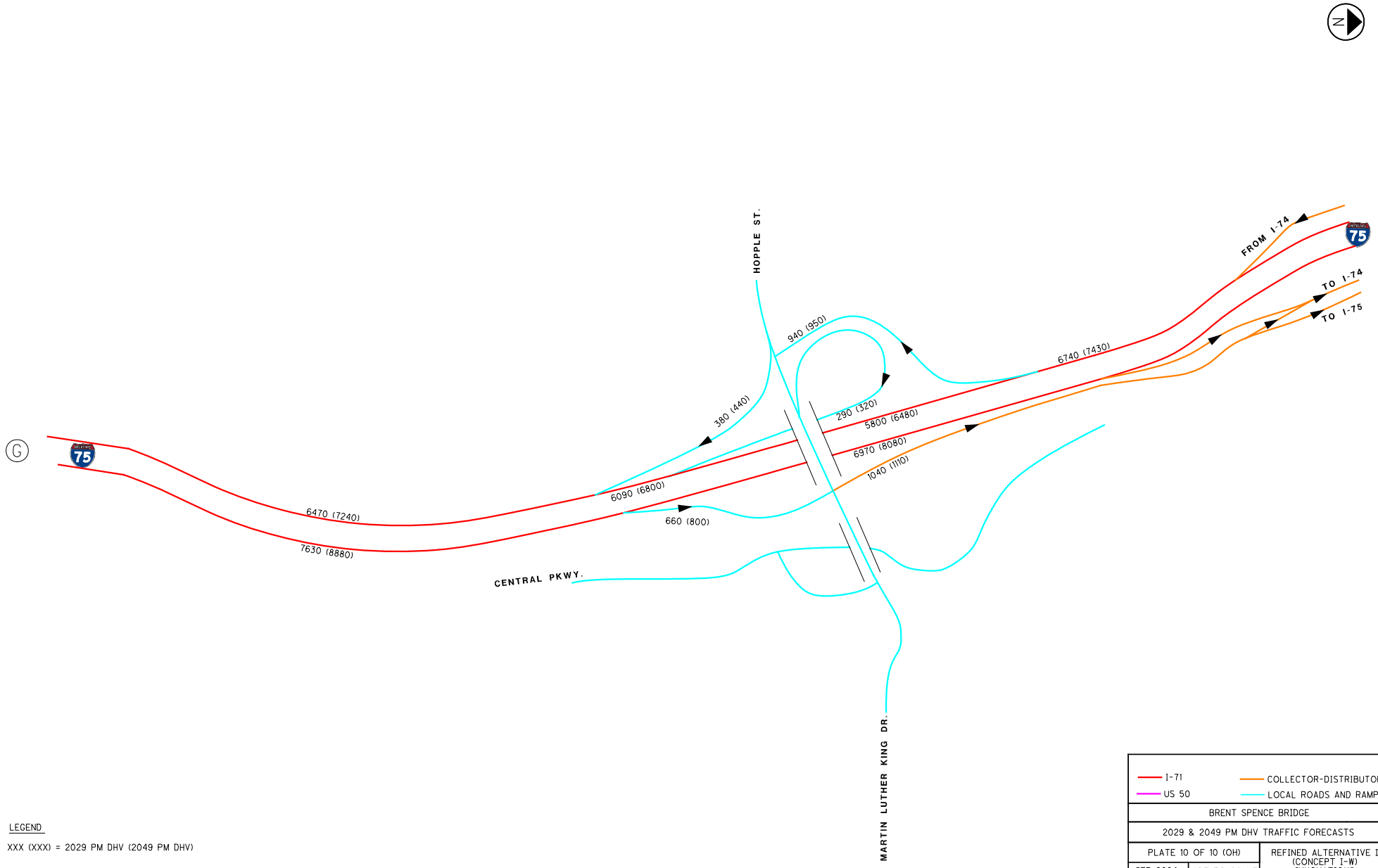
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024

NOT TO SCALE

HNTB


INT. 10
INT. 9
INT. 14
INT. 11
INT. 13
INT. 12
BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APPROACH
CENTRAL AVE.
BRIGHTON PL.
W. MCMILLIAN AVE
LINN ST.
CENTRAL PKWY.
F
G
N
75
LEGEND
XXX (XXX) = 2029 PM DHV (2049 PM DHV)
I-71
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2029 & 2049 PM DHV TRAFFIC FORECASTS
PLATE 9 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



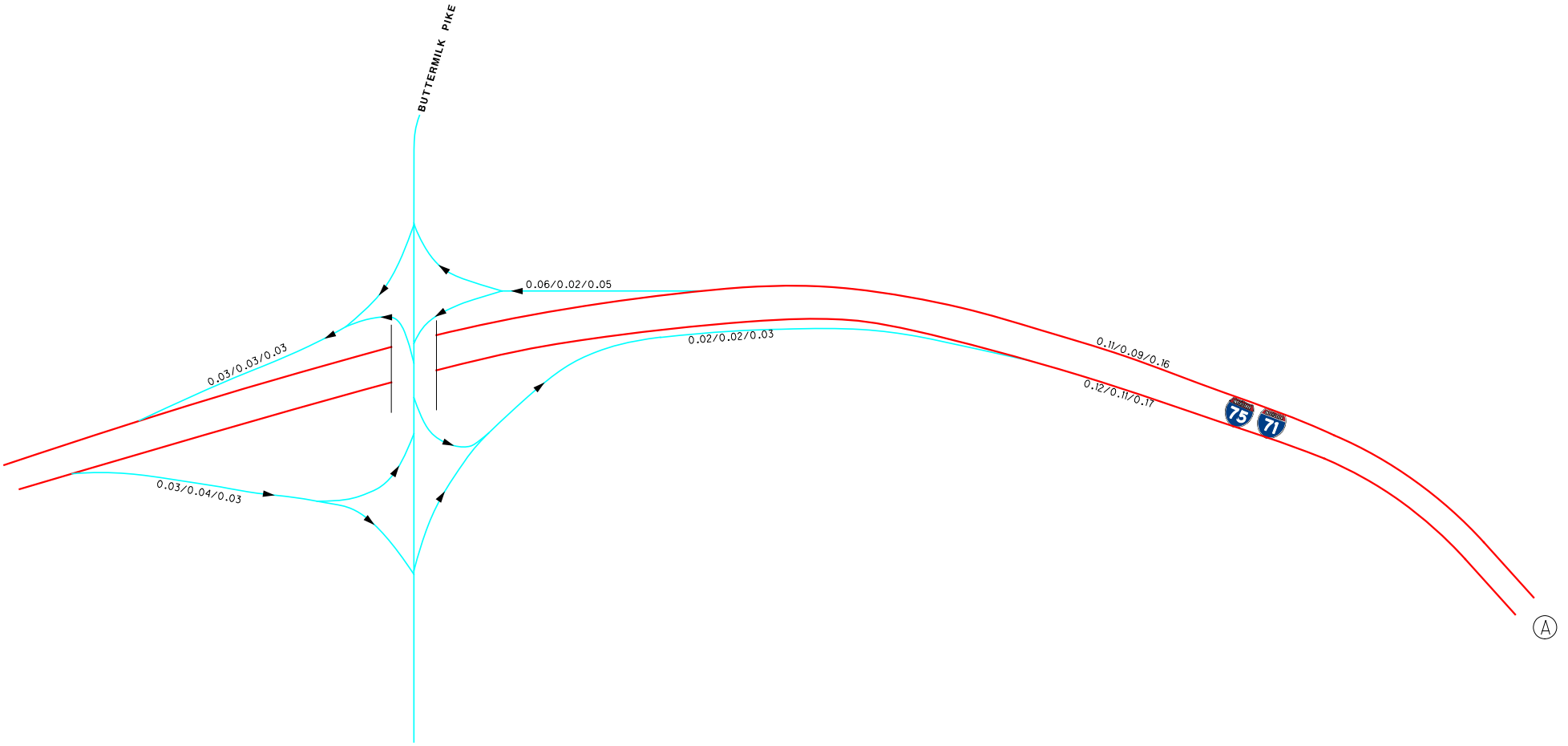
LEGEND

XXX (XXX) = 2029 PM DHV (2049 PM DHV)

I-71	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2029 & 2049 PM DHV TRAFFIC FORECASTS	
PLATE 10 OF 10 (OH)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	

NOTE

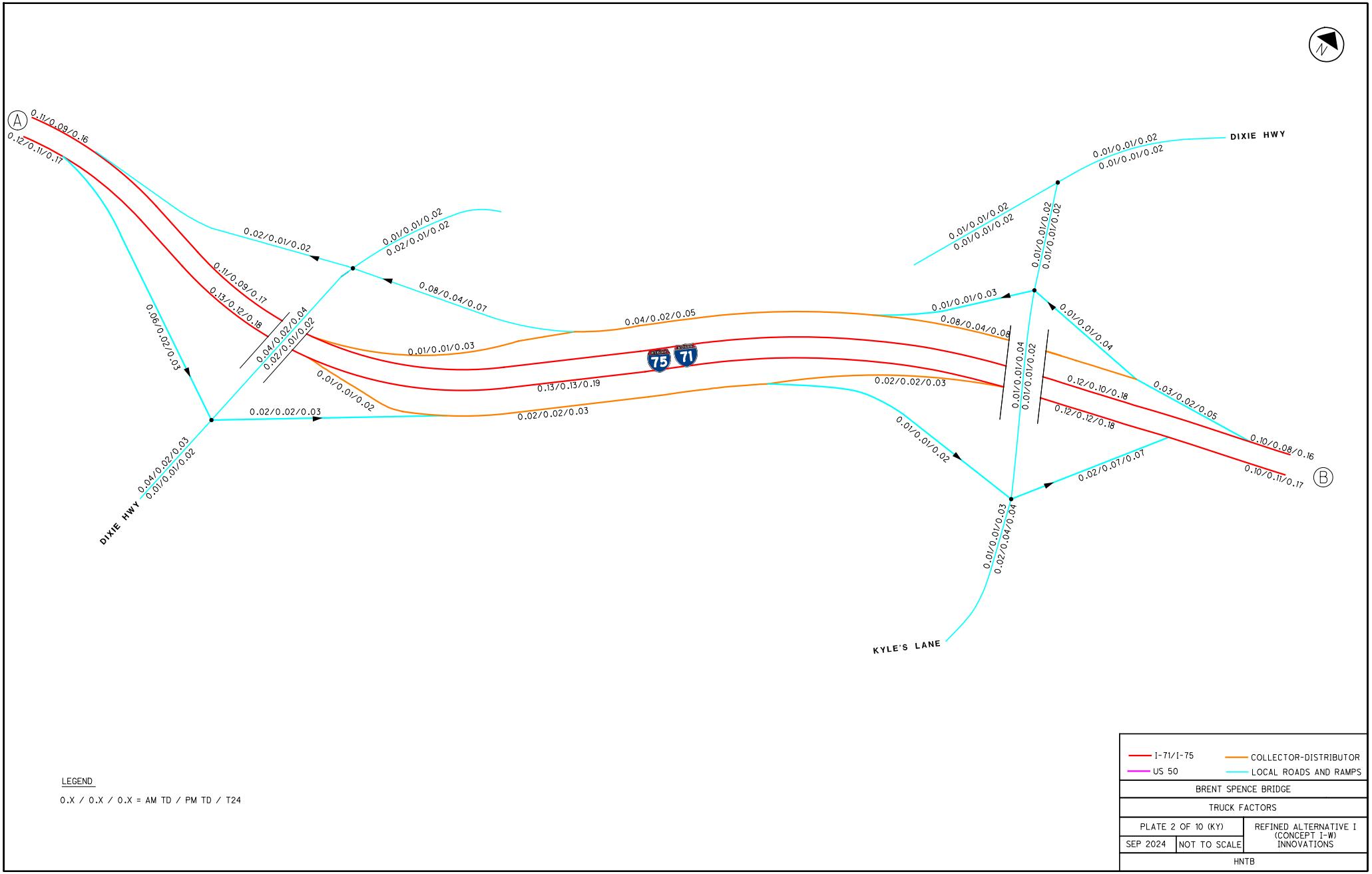
BUTTERMILK DDI CONFIGURATION IS NOT INCLUDED IN BRENT SPENCE BRIDGE PROJECT.



LEGEND

0.X / 0.X / 0.X = AM TD / PM TD / T24

I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
TRUCK FACTORS	
PLATE 1 OF 10 (KY)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	



LEGEND

0.X / 0.X / 0.X = AM TD / PM TD / T24

I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

TRUCK FACTORS

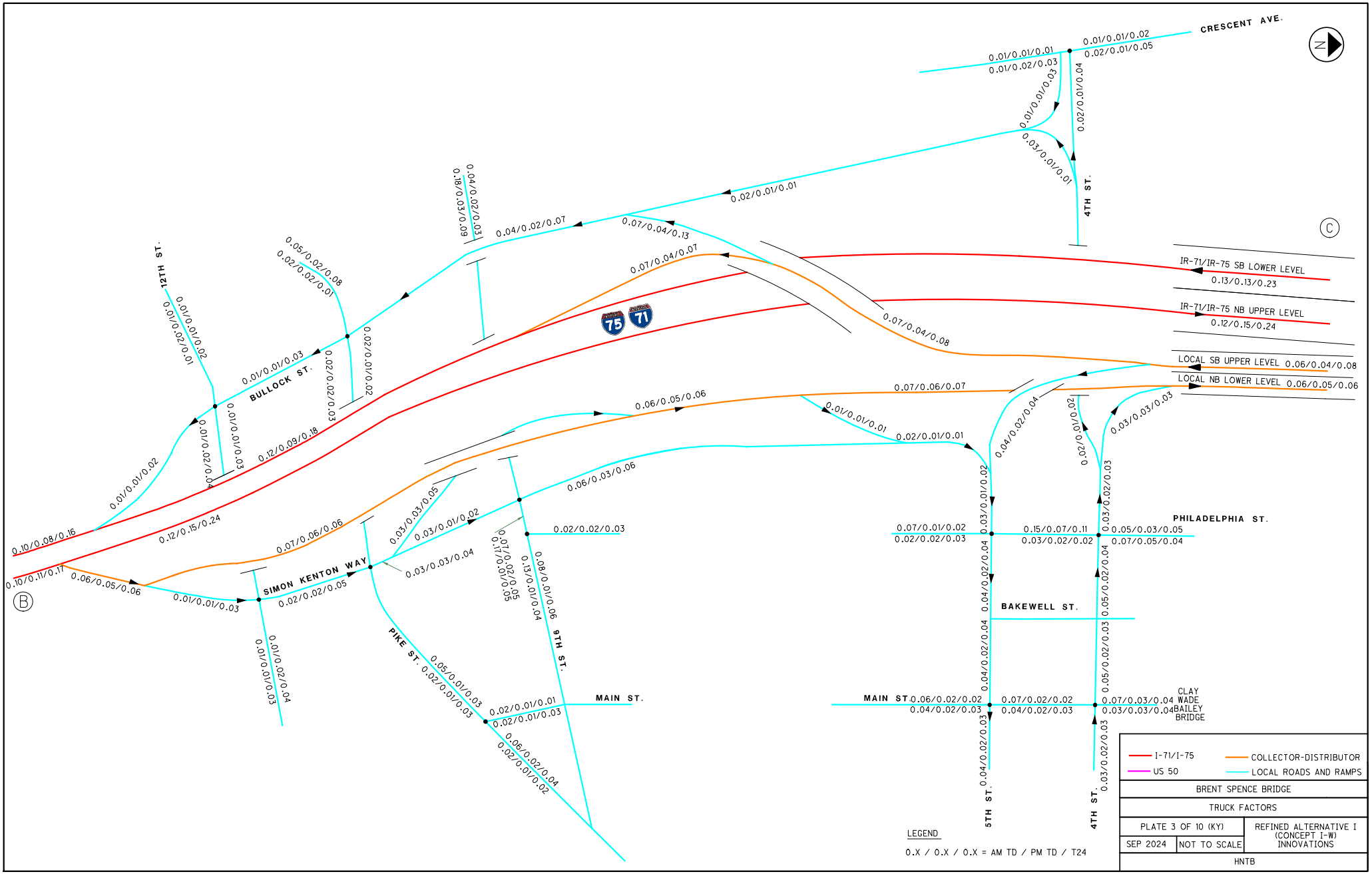
PLATE 2 OF 10 (KY)

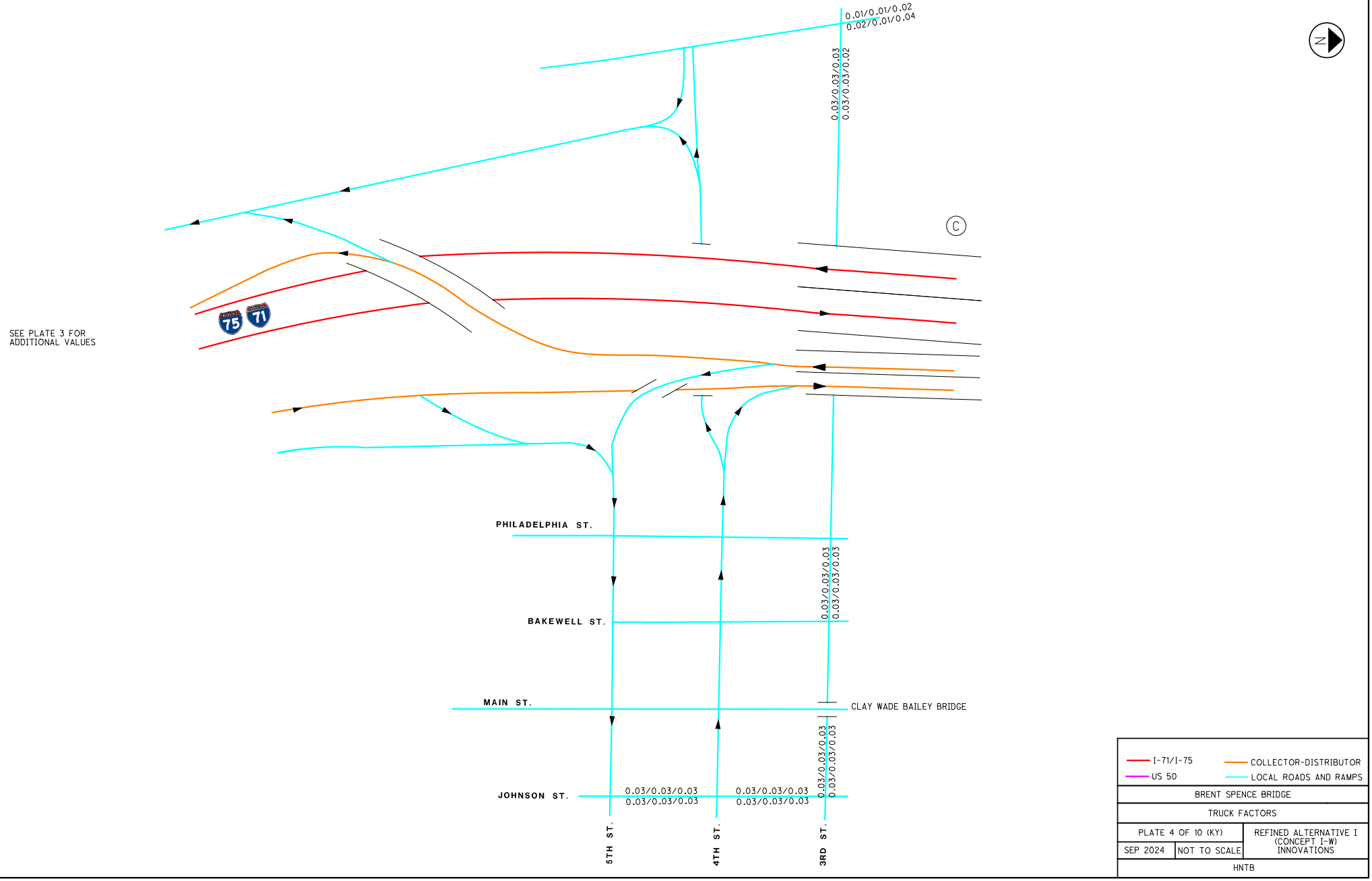
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

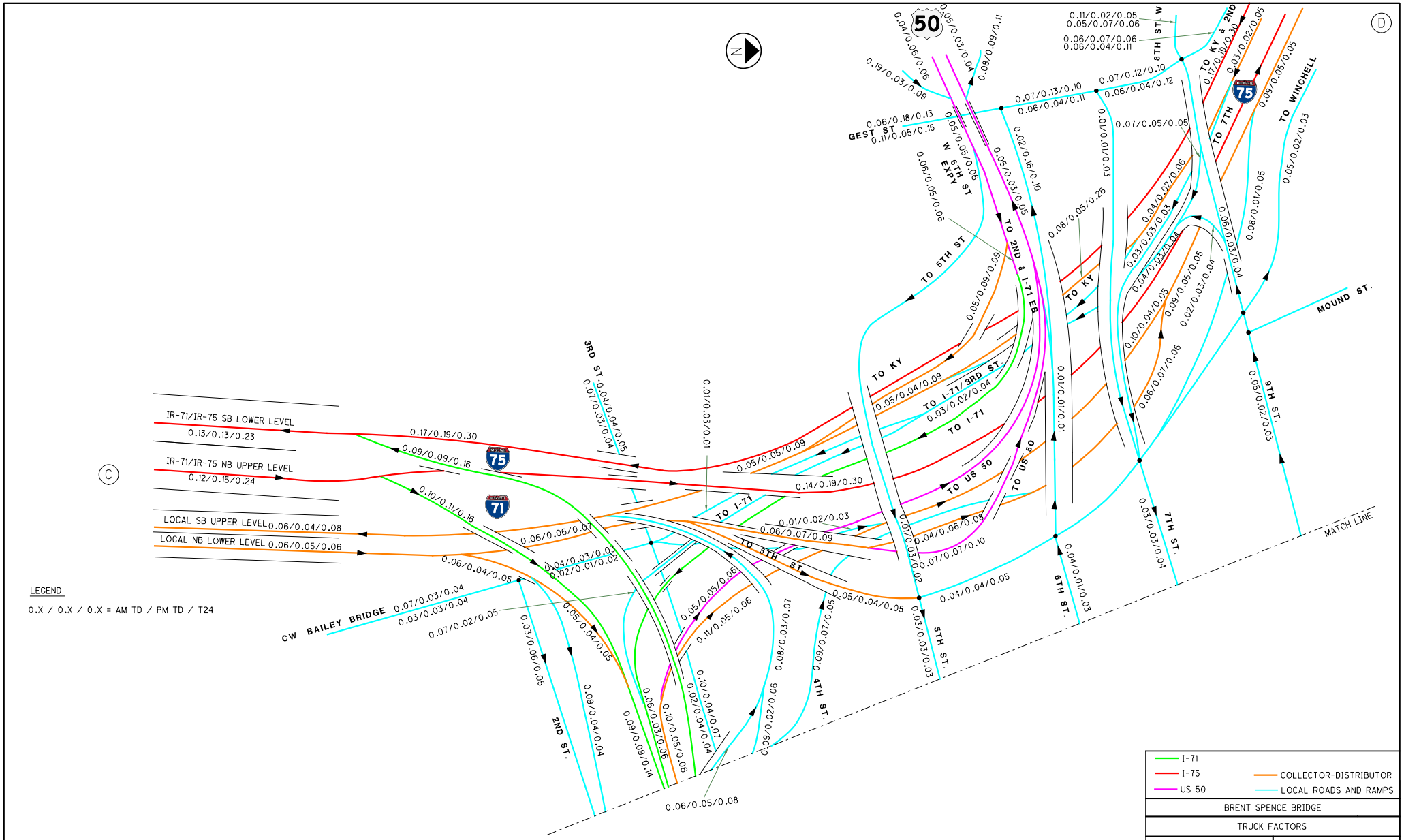
SEP 2024

NOT TO SCALE

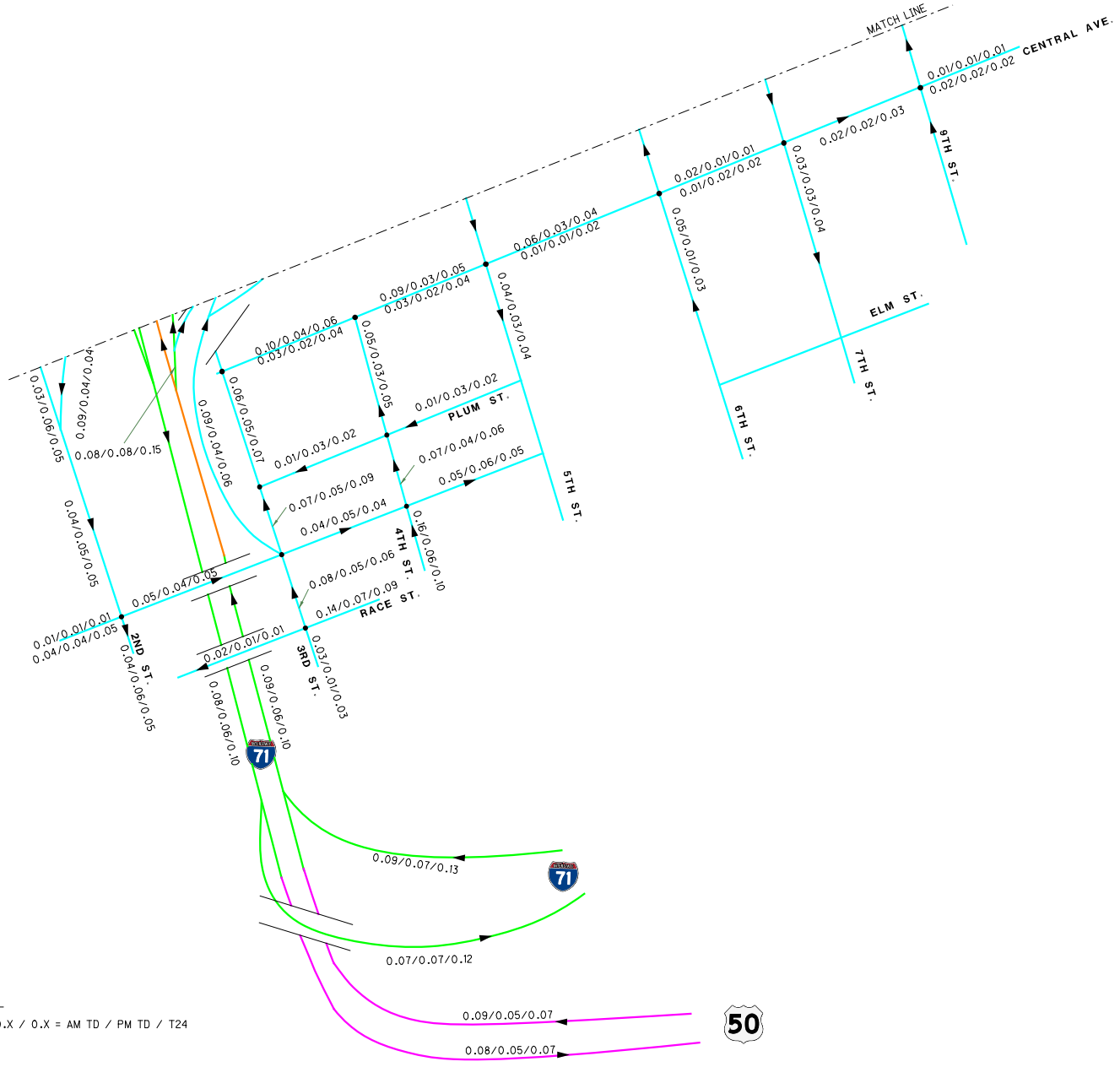
HNTB


CRESCENT AVE.
4TH ST.
12TH ST.
BULLOCK ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
BAKEWELL ST.
PHILADELPHIA ST.
5TH ST.
4TH ST.
CLAY WADE BAILEY BRIDGE
IR-71/IR-75 SB LOWER LEVEL
0.13/0.13/0.23
IR-71/IR-75 NB UPPER LEVEL
0.12/0.15/0.24
LOCAL SB UPPER LEVEL 0.06/0.04/0.08
LOCAL NB LOWER LEVEL 0.06/0.05/0.06
LEGEND
0.X / 0.X / 0.X = AM TD / PM TD / T24
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRUCK FACTORS
PLATE 3 OF 10 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


0.01/0.01/0.02
0.02/0.01/0.04
0.03/0.03/0.03
0.03/0.03/0.02
C
SEE PLATE 3 FOR
ADDITIONAL VALUES
PHILADELPHIA ST.
BAKEWELL ST.
MAIN ST.
CLAY WADE BAILEY BRIDGE
JOHNSON ST.
0.03/0.03/0.03
0.03/0.03/0.03
0.03/0.03/0.03
0.03/0.03/0.03
0.03/0.03/0.03
0.03/0.03/0.03
0.03/0.03/0.03
0.03/0.03/0.03
5TH ST.
4TH ST.
3RD ST.
N
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRUCK FACTORS
PLATE 4 OF 10 (KY)
REFINED ALTERNATIVE I
(CONCEPT I-W)
INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



IR-71/IR-75 SB LOWER LEVEL
0.13/0.13/0.23
IR-71/IR-75 NB UPPER LEVEL
0.12/0.15/0.24
LOCAL SB UPPER LEVEL 0.06/0.04/0.08
LOCAL NB LOWER LEVEL 0.06/0.05/0.06
CW BAILEY BRIDGE
0.07/0.03/0.04
0.03/0.03/0.04
0.07/0.02/0.05
0.03/0.06/0.05
2ND ST.
0.09/0.04/0.04
0.09/0.09/0.14
0.06/0.03/0.06
0.10/0.05/0.06
0.02/0.04/0.04
0.10/0.04/0.07
0.06/0.05/0.08
0.09/0.02/0.06
0.08/0.03/0.07
0.09/0.07/0.05
4TH ST.
0.05/0.04/0.05
0.03/0.03/0.03
5TH ST.
0.04/0.04/0.05
0.07/0.07/0.10
0.04/0.06/0.08
0.01/0.03/0.02
0.01/0.02/0.03
0.06/0.07/0.09
TO I-71
TO 5TH ST
0.14/0.19/0.30
0.05/0.05/0.09
0.01/0.03/0.01
3RD ST.
0.04/0.04/0.05
0.07/0.03/0.04
0.17/0.19/0.30
0.09/0.09/0.16
0.10/0.11/0.16
0.06/0.06/0.07
0.04/0.03/0.03
0.02/0.01/0.02
0.06/0.04/0.05
TO KY
0.05/0.04/0.09
TO I-71/3RD ST.
0.03/0.02/0.04
TO I-71
TO US 50
TO US 50
0.01/0.01/0.01
0.04/0.01/0.03
6TH ST.
0.03/0.03/0.04
7TH ST.
0.05/0.02/0.03
9TH ST.
MOUND ST.
0.06/0.03/0.04
0.08/0.01/0.05
0.05/0.02/0.03
TO WINCHELL
0.09/0.05/0.05
0.03/0.02/0.05
TO 7TH
0.17/0.19/0.30
TO KY & 2ND
0.11/0.02/0.05
0.05/0.07/0.06
0.06/0.07/0.06
0.06/0.04/0.11
8TH ST. W
0.07/0.12/0.10
0.06/0.04/0.12
0.07/0.13/0.10
0.06/0.04/0.11
0.07/0.05/0.05
0.01/0.01/0.03
0.08/0.05/0.26
0.02/0.16/0.10
0.05/0.03/0.05
TO 2ND & I-71 EB
0.05/0.09/0.09
TO 5TH ST
0.06/0.05/0.06
W 6TH ST EXPY
0.05/0.05/0.06
GEST ST
0.06/0.18/0.13
0.11/0.05/0.15
0.19/0.03/0.09
0.04/0.06/0.06
0.05/0.03/0.04
0.08/0.09/0.11
0.04/0.02/0.06
0.03/0.03/0.03
0.04/0.03/0.04
0.10/0.04/0.05
0.09/0.05/0.05
0.02/0.03/0.04
0.06/0.07/0.06
MATCH LINE
50
75
71
N
C
D
LEGEND
0.X / 0.X / 0.X = AM TD / PM TD / T24
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRUCK FACTORS
PLATE 5 OF 10 (OH)
SEP 2024
NOT TO SCALE
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
HNTB



LEGEND

0.X / 0.X / 0.X = AM TD / PM TD / T24

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

TRUCK FACTORS

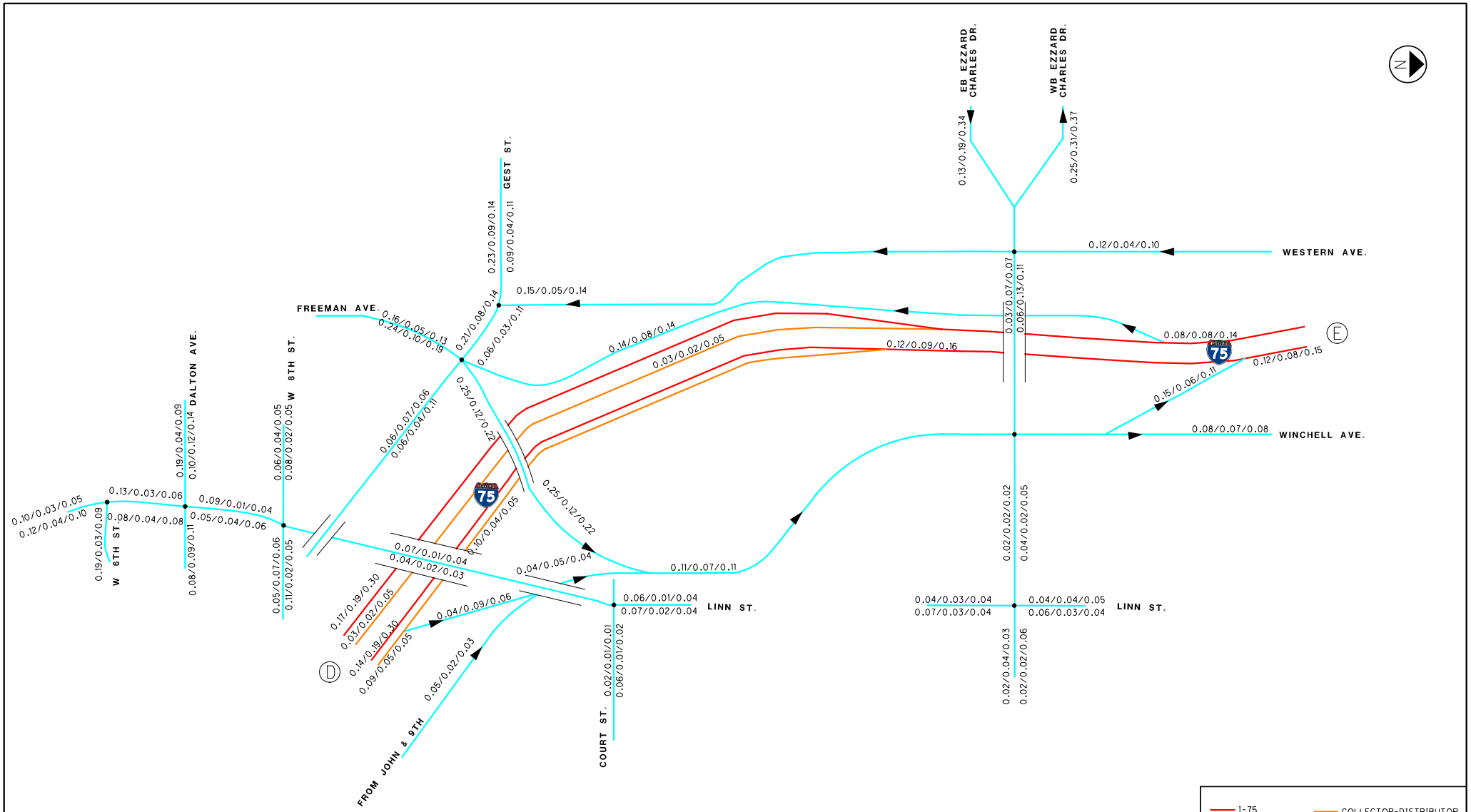
PLATE 6 OF 10 (OH)

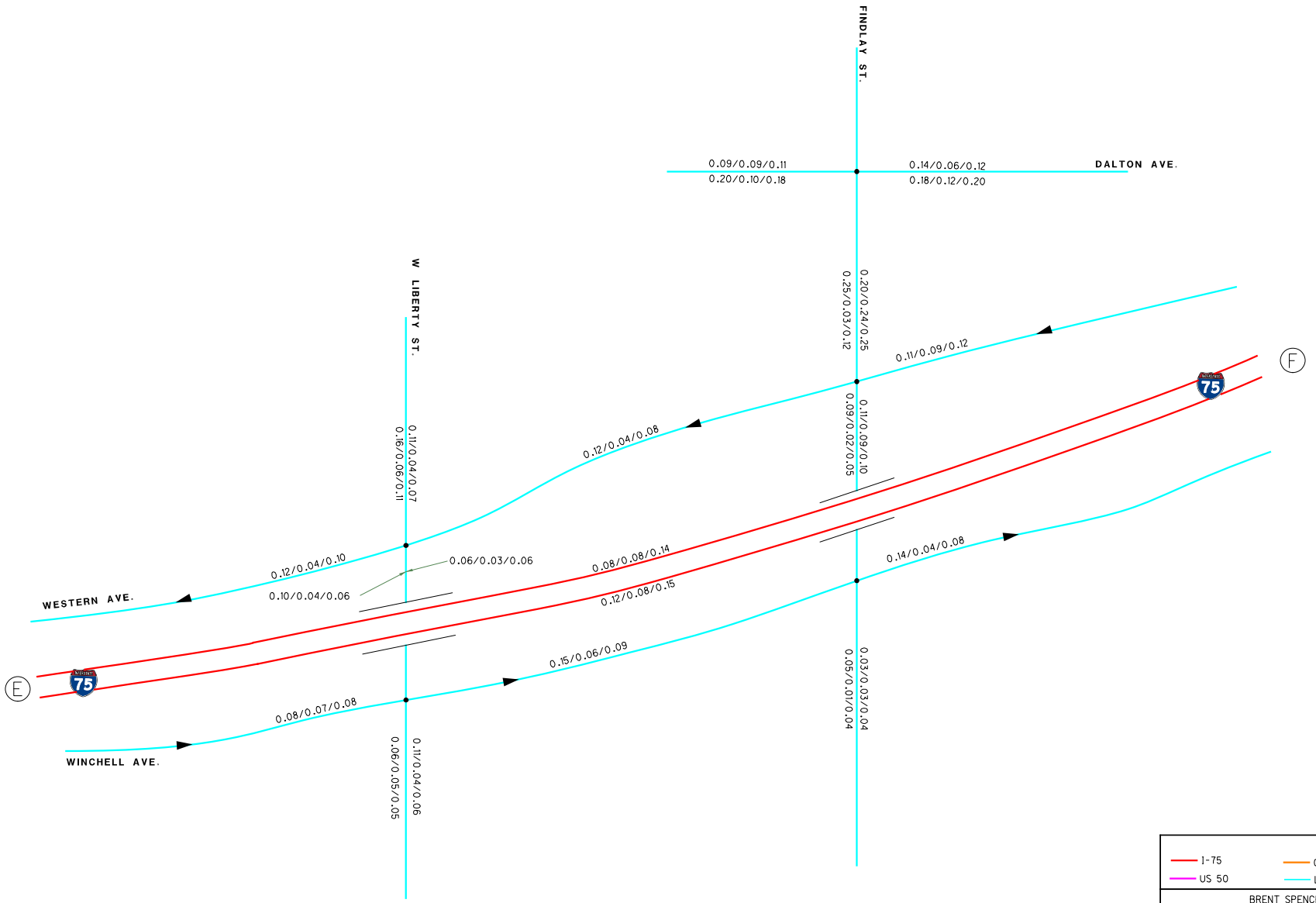
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024

NOT TO SCALE

HNTB


EB EZZARD CHARLES DR.
WB EZZARD CHARLES DR.
0.13/0.19/0.34
0.25/0.31/0.37
WESTERN AVE.
0.12/0.04/0.10
GEST ST.
0.23/0.09/0.14
0.09/0.04/0.11
0.15/0.05/0.14
FREEMAN AVE.
0.16/0.05/0.13
0.24/0.10/0.19
0.21/0.08/0.14
0.06/0.03/0.11
0.14/0.08/0.14
0.03/0.07/0.07
0.06/0.13/0.11
0.08/0.08/0.14
0.12/0.08/0.15
0.12/0.09/0.16
0.03/0.02/0.05
0.15/0.06/0.11
0.08/0.07/0.08
WINCHELL AVE.
W 8TH ST.
0.06/0.04/0.05
0.08/0.02/0.05
0.06/0.07/0.06
0.06/0.04/0.11
0.25/0.12/0.22
DALTON AVE.
0.19/0.04/0.09
0.10/0.12/0.14
0.13/0.03/0.06
0.09/0.01/0.04
0.10/0.03/0.05
0.12/0.04/0.10
0.08/0.04/0.08
0.05/0.04/0.06
W 6TH ST.
0.19/0.03/0.09
0.08/0.09/0.11
0.05/0.07/0.06
0.11/0.02/0.05
0.10/0.04/0.05
0.07/0.01/0.04
0.04/0.02/0.03
0.17/0.19/0.30
0.03/0.02/0.05
0.14/0.19/0.30
0.09/0.05/0.05
0.04/0.09/0.06
0.05/0.02/0.03
FROM JOHN & 9TH
0.04/0.05/0.04
0.11/0.07/0.11
0.06/0.01/0.04
0.07/0.02/0.04
LINN ST.
COURT ST.
0.02/0.01/0.01
0.06/0.01/0.02
0.02/0.02/0.02
0.04/0.02/0.05
0.04/0.03/0.04
0.07/0.03/0.04
0.04/0.04/0.05
0.06/0.03/0.04
LINN ST.
0.02/0.04/0.03
0.02/0.02/0.06
D
E
75
N
LEGEND
0.X / 0.X / 0.X = AM TD / PM TD / T24
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRUCK FACTORS
PLATE 7 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

0.X / 0.X / 0.X = AM TD / PM TD / T24

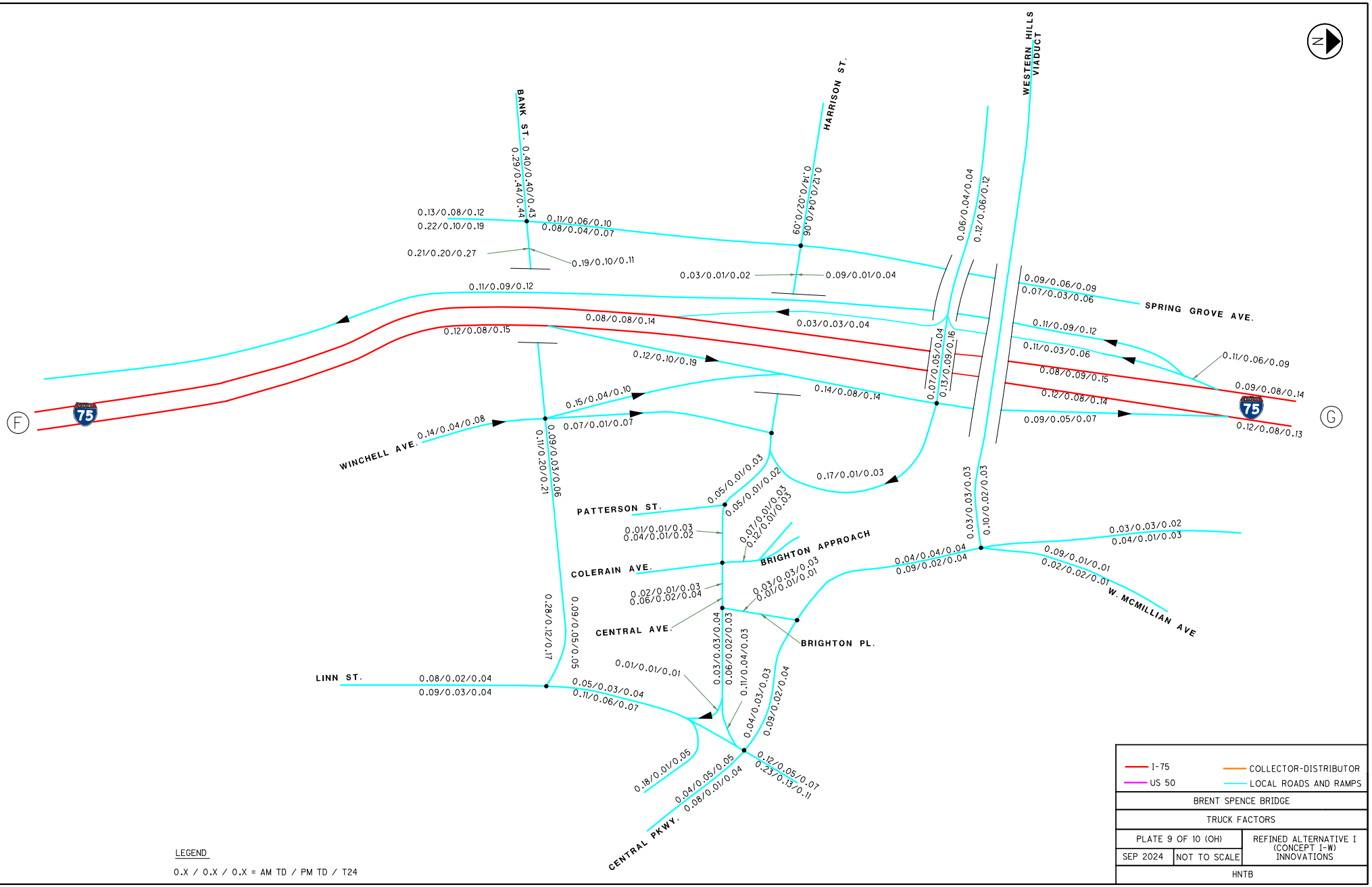
BRENT SPENCE BRIDGE

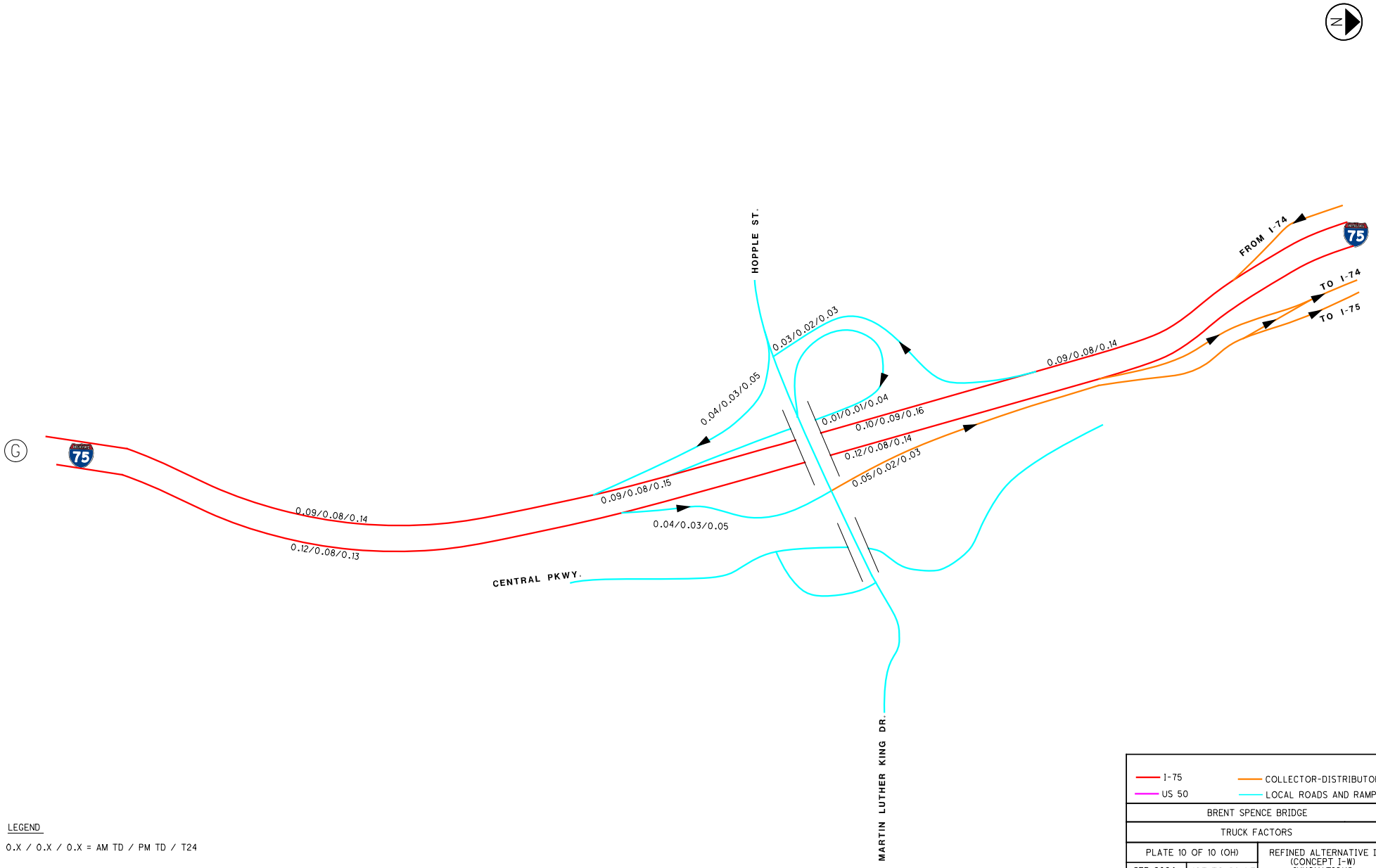
TRUCK FACTORS

PLATE 8 OF 10 (OH) | REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024 | NOT TO SCALE

HNTB


BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APPROACH
CENTRAL AVE.
BRIGHTON PL.
W. MCMILLIAN AVE
LINN ST.
CENTRAL PKWY.
F
G
0.13/0.08/0.12
0.22/0.10/0.19
0.11/0.06/0.10
0.08/0.04/0.07
0.40/0.40/0.43
0.29/0.44/0.44
0.21/0.20/0.27
0.19/0.10/0.11
0.03/0.01/0.02
0.09/0.01/0.04
0.14/0.04/0.09
0.12/0.04/0.09
0.06/0.04/0.04
0.12/0.06/0.12
0.11/0.09/0.12
0.08/0.08/0.14
0.12/0.08/0.15
0.03/0.03/0.04
0.12/0.10/0.19
0.07/0.05/0.04
0.13/0.09/0.16
0.14/0.08/0.14
0.09/0.06/0.09
0.07/0.03/0.06
0.11/0.09/0.12
0.11/0.03/0.06
0.08/0.09/0.15
0.12/0.08/0.14
0.09/0.05/0.07
0.11/0.06/0.09
0.09/0.08/0.14
0.12/0.08/0.13
0.15/0.04/0.10
0.07/0.01/0.07
0.14/0.04/0.08
0.09/0.03/0.06
0.11/0.20/0.21
0.17/0.01/0.03
0.05/0.01/0.03
0.05/0.01/0.02
0.07/0.01/0.03
0.12/0.01/0.03
0.01/0.01/0.03
0.04/0.01/0.02
0.02/0.01/0.03
0.06/0.02/0.04
0.03/0.03/0.03
0.01/0.01/0.01
0.03/0.03/0.04
0.06/0.02/0.03
0.09/0.05/0.05
0.28/0.12/0.17
0.03/0.03/0.03
0.10/0.02/0.03
0.04/0.04/0.04
0.09/0.02/0.04
0.03/0.03/0.02
0.04/0.01/0.03
0.09/0.01/0.01
0.02/0.02/0.01
0.08/0.02/0.04
0.09/0.03/0.04
0.05/0.03/0.04
0.11/0.06/0.07
0.01/0.01/0.01
0.11/0.04/0.03
0.04/0.03/0.03
0.09/0.02/0.04
0.18/0.01/0.05
0.04/0.05/0.05
0.08/0.01/0.04
0.12/0.05/0.07
0.23/0.13/0.11
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRUCK FACTORS
PLATE 9 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB
LEGEND
0.X / 0.X / 0.X = AM TD / PM TD / T24



LEGEND

0.X / 0.X / 0.X = AM TD / PM TD / T24

I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

TRUCK FACTORS

PLATE 10 OF 10 (OH)

REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024

NOT TO SCALE

HNTB

BRENT SPENCE BRIDGE CORRIDOR PROJECT

TRAFFIC COUNT EVALUATION

ODOT PID 89068 | KYTC PROJECT ITEM NO. 6-17

JANUARY 25, 2023

KENTUCKY TRANSPORTATION CABINET

HNTB

TABLE OF CONTENTS

1. BACKGROUND 1

2. 2019 AADT DEVELOPMENT 3

2.1 2021 ODOT Counts 3

2.2 2018 ODOT Counts 4

2.3 2017-2019 KYTC Counts 5

2.4 2020 KYTC Counts 6

2.5 Short Duration Project Counts 6

2.6 OKI Counts 6

2.7 Brent Spence Bridge Counts 7

2.8 Intersection Counts 8

2.9 AADT Traffic Smoothing 9

3. PEAK HOUR VOLUME DEVELOPMENT 11

3.1 Traffic Count Selection 11

3.2 Peak Hour Selection 12

3.3 AM and PM Peak Hour Traffic Smoothing 15

3.4 Design Hour Factors 17

LIST OF TABLES

Table 1: COVID 19 Pandemic Factor Calculation (PID 114161 & PID 113361) 4

Table 2: Seasonal Adjustment Factors for 2018 Traffic Counts 5

Table 3: 2020 AADT Factors 6

Table 4: Published AADT's for Brent Spence Bridge 7

Table 5: Default Period to Daily Expansion Factors 8

Table 6: Target and Balanced Discrepancies 10

Table 7: Balancing Example for SB I-75 in AM Peak Hour 17

Table 8: Design Hour Factor for I-75 Ramps 18

Table 9: Design Hour Factors for Arterials 19

LIST OF FIGURES

Figure 1: Traffic Forecast Study Area 2

Figure 2: 2019 BSB Daily Volume by Day of Week 8

Figure 3: Comparison of 2019 AADT and Target Volumes 9

Figure 4: NB BSB Representative Day Volumes – AM Period 13

Figure 5: SB BSB Representative Day Volumes – AM Period 13

Figure 6: NB BSB Representative Day Volumes – PM Period 14

Figure 7: SB BSB Representative Day Volumes – PM Period 14

Figure 8: Comparison of 2019 AM Peak Hour Volumes (Target Versus Balanced) 15

Figure 9: Comparison of 2019 PM Peak Hour Volumes (Target Versus Balanced) 16

APPENDICES

Appendix A: AADT Worksheets

Appendix B: Traffic Count Schematic

Appendix C: Existing 2019 AADT (Target versus Balanced Volumes)

Appendix D: Seasonal Adjustment Factors

Appendix E: Existing 2019 AM Peak Hour (Target versus Balanced Volumes)

Appendix F: Existing 2019 PM Peak Hour (Target versus Balanced Volumes)

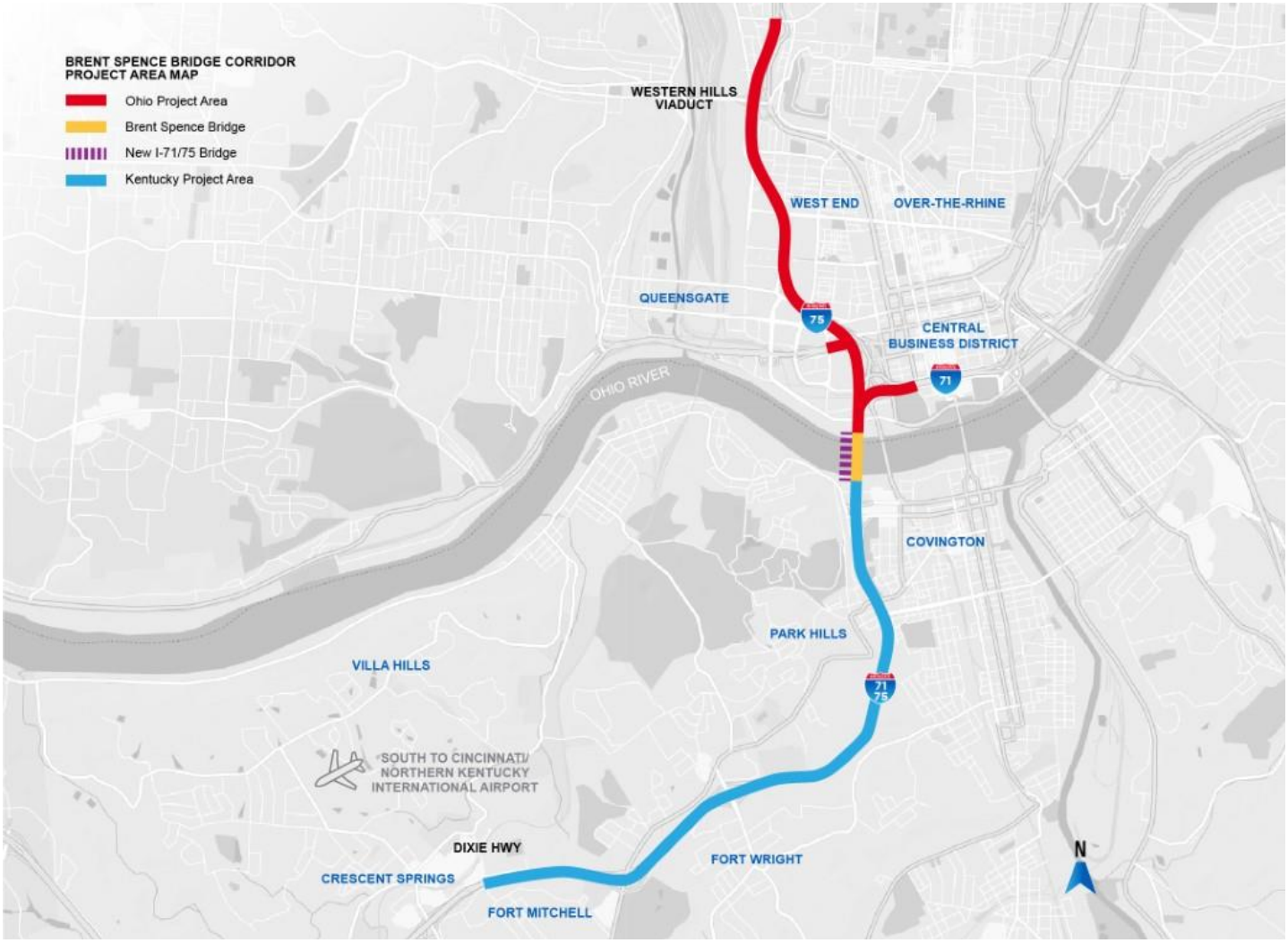
1. BACKGROUND

As part of the upcoming Brent Spence Bridge (BSB) Interchange Modification Study (IMS) addendum, certified traffic forecasts including design hours and Annual Average Daily Traffic (AADT) will be developed for years 2029 and 2049 for the project study limits. The study limit includes the I-71 and I-75 interstate between the Buttermilk Pike Interchange on the south and the Hopple Street Interchange on the north, and I-71 between the BSB and the US 50/I-471 Interchange (see Figure 1). Ramp terminal and adjacent arterial intersections are included in the forecast area.

The certified traffic forecasts will follow ODOT's forecasting procedures. One of the first steps of the ODOT procedure is to develop this Traffic Count Evaluation report. This report includes details on the existing traffic counts and proposed adjustment factors to convert the weekday peak hour and daily traffic counts to design hour and AADT volumes. The base count year for the forecast is 2019. Traffic counts were compiled over a 5-year period between 2017 and 2022. Counts taken prior to 2020 were prioritized to avoid the impacts of the COVID-19 pandemic. Due to variability in counts before and after the pandemic, short term growth rates were not applied to count targets to adjust for count years that differ from the base year 2019. Traffic counts used for the project were sourced from ODOT, KYTC, OKI, City of Cincinnati, and project counts including the Brent Spence Bridge Strategic Corridor Study (BSBSC) completed in 2017, and 2022 counts collected by the BSB project team.

In 2021, certified traffic forecasts were developed for the northern portion of the project limits of I-75 from Hopple Street to Linn Street, and at the Western Hills Viaduct Interchange as part of project ID (PID) 114161 and 113361. These forecasts use a base year 2021 with adjustments to pre-COVID conditions. Many of the traffic counts and proposed adjustment factors approved with this previous forecast are also proposed for the BSB forecast.

Figure 1: Traffic Forecast Study Area



2. 2019 AADT DEVELOPMENT

The project team reviewed available traffic counts and published AADT data. The available traffic counts vary in years from 2017 to 2022. The project is focused on a pre-COVID base year of 2019, so all available AADT data is adjusted to this base year prior to traffic balancing. Traffic balancing is the practice of smoothing traffic data so the values are in alignment and form a closed system where the traffic "ins" equal the traffic "outs". The 2019 AADT targets were developed through various means based on count year, count type, and count location. The methodology for establishing a 2019 AADT target for each location is described in the sections below. When available, the project team relied on published AADT data. These data sources are often established based on short term or continuous count stations and the data adjusted based on seasonal and day of week considerations to be an estimate of annual average daily volumes. ODOT published seasonal adjustment factors and count expansion factors (for intersection counts) were also used for project traffic counts that do not have a published AADT. These factors are also presented in the proceeding sections. The published AADT for ODOT, KYTC, and OKI are available at the following websites:

- ODOT – https://odot.ms2soft.com/TDMS.UI_Core/portal
- KYTC - https://transportation.ky.gov/Planning/Pages/Traffic-Counts.aspx
- OKI - https://traffic.oki.org/

Tables showing the available traffic data, the 2019 AADT target for the project, and the balanced 2019 project AADT are shown in Appendix A. A schematic view of the traffic count ID's is in Appendix B and a schematic of the target AADT and balanced AADT volumes is in Appendix C. The seasonal adjustment factors used for the project counts are provided in Appendix D.

2.1 2021 ODOT Counts

Certified traffic was completed in June 2021 for PID 114161 and PID 113361, which covers the northern limits of the BSB study area. This forecast used mostly January 2021 traffic counts and developed a base year 2021 AADT consistent with a pre-COVID condition. Thirteen count stations in the project corridor had both 2018 and 2021 traffic counts. The 2021 AADT were developed using a COVID adjustment factor instead of the traditional seasonal adjustment factors to account for traffic reductions in early 2021. The count evaluation memo for this project recommended a factor of 1.08 to convert weekday 2021 counts to 2021 AADT. As some count stations in Ohio have only 2021 counts, it was recommended that this 1.08 factor be applied to these counts to derive an AADT compatible with a 2019 condition. If 2018 ODOT counts were available, the procedure in section 2.2 was used. The count stations used for deriving the 1.08 COVID adjustment factor are shown in Table 1.

Table 1: COVID 19 Pandemic Factor Calculation (PID 114161 & PID 113361)

ODOT Count ID	Site Description	2018 AADT	2021 Daily Count	COVID-19 Factor
79831	EB Western Hills Viaduct to I-75 NB	6,902	8,321	0.83
79631	EB Western Hills Viaduct to I-75 SB	7,060	6,338	1.11
79531	I-75 SB to Western Hills Viaduct WB	6,766	7,133	0.95
89631	I-75 NB to WHV WB	7,327	6,896	1.06
79431	I-75 NB ramp to Hopple St	5,475	4,806	1.14
79331	I-75 NB ramp from Hopple St	8,258	6,628	1.25
138331	Winchell Ave (north of Bank St) to I-75 NB	7,257	6,518	1.11
89931	I-75 SB Exit at Ezzard Charles	3,658	3,076	1.19
81831	I-75 NB entrance from Ezzard Charles	2,638	2,283	1.16
90131	Western Entrance ramp to I-75 SB	2,862	3,428	0.84
13631	Central Pkwy btw WHV & Linn St	14,733	13,003	1.13
81531	I-75 SB Exit to 7th St	4,491	3,318	1.35
103199	Findlay St, btw Dalton & I-75	4,986	4,383	1.14
Total		82,413	76,131	**1.08**

2.2 2018 ODOT Counts

The Ohio AADT derived by ODOT is published on the MS2 Transportation Data Management System. These published AADT's were used for all available count locations when available. However, some I-75 ramp locations are identified as "adjusted for balancing". As traffic balancing was completed for the project corridor, an AADT target that is not pre-adjusted for balancing was desired for purposes of this project. Therefore, an unadjusted AADT target was calculated for these count locations using the raw traffic counts and the 2018 urban interstate seasonal adjustment factors summarized in Table 2.

Table 2: Seasonal Adjustment Factors for 2018 Traffic Counts

Group	URBAN INTERSTATE (U01)						
From Year:	2018			To Year:	2018		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.609	1.253	1.053	1.020	1.003	1.032	1.429
Feb	1.570	1.038	0.985	1.037	0.970	0.937	1.258
Mar	1.393	0.992	0.975	0.978	0.936	0.879	1.196
Apr	1.347	0.974	0.963	0.929	0.904	0.862	1.141
May	1.259	1.018	0.916	0.901	0.875	0.835	1.097
Jun	1.232	0.920	0.905	0.883	0.860	0.830	1.072
Jul	1.230	0.924	0.897	0.973	0.872	0.833	1.078
Aug	1.214	0.928	0.907	0.890	0.861	0.821	1.066
Sep	1.304	1.033	0.925	0.908	0.882	0.837	1.108
Oct	1.287	0.950	0.920	0.916	0.879	0.841	1.108
Nov	1.342	0.982	0.933	0.906	1.013	0.914	1.184
Dec	1.398	1.094	1.058	0.945	0.926	0.885	1.172

The published 2018 AADT and the project calculated AADT is summarized in Appendix A.

2.3 2017-2019 KYTC Counts

Published AADT data from KYTC traffic count maps were obtained for all available locations. The 2019 count data was prioritized when available. The 2019 AADT target was set equal to published AADT from 2017-2019 with no additional factoring. KYTC derives AADT data from short term and continuous count locations using observed count data and day of week and seasonal adjustment factors based on facility type.

2.4 2020 KYTC Counts

Ramp counts at Dixie Hwy and Buttermilk Pike Interchanges were taken in October 2020. These counts are not compatible with year 2019 counts due to the COVID-19 pandemic. Prior to 2020, these ramp counts were last taken in 2014. COVID adjustment factors for these counts were proposed specific for each site based on a comparison of 2014 data. The 2019 AADT targets is set equal to the 2014 count if it is greater than the 2020 count, otherwise the 2020 count is used for 2019 target.

Table 3: 2020 AADT Factors

Interchange	Ramp	KYTC Site ID	2020 AADT	2014 AADT	COVID Factor	2019 AADT Target
Dixie Hwy	SB Entrance	059N08	3,633	4,249	1.17	4,300
	SB Exit	059N07	3,084	4,738	1.54	4,700
	NB Entrance	059N06	5,513	6,774	1.23	6,800
	NB Exit	059N05	2,374	3,385	1.43	3,400
Buttermilk Pike	SB Entrance	059C50	7,872	12,140	1.54	12,100
	SB Exit	059C49	5,848	8,525	1.46	8,500
	NB Entrance (from WB)	059C48	4,176	1,893	1.00	4,200
	NB Exit	059C47	6,957	11,109	1.60	11,100
	NB Entrance (from EB)	059C46	1,062	5,871	5.53	5,900

2.5 Short Duration Project Counts

Project traffic counts taken with tube or video detection devices over a short-term period, usually 48-hours, were adjusted to AADT estimates using ODOT's published seasonal and day of week factors. These factors are available by year and facility type. A full list of the seasonal adjustment factors are provided in Appendix D. Only a few interstate ramp counts rely on short term project counts instead of published AADT. These sites and the source of the count information is listed below:

- SB I-71/I-75 Entrance Ramp from 12th Street (KY) – 2022 count collected for BSB IMS Addendum
- NB I-71/I-75 Entrance Ramp from Pike Street (KY) – 2017 BSBSC
- NB I-71/I-75 Exit Ramp to 5th Street (KY) – 2017 BSBSC
- SB I-71/I-75 Exit Ramp to 9th Street (KY) – 2017 BSBSC

2.6 OKI Counts

OKI AADT was included for 12 locations in 2018 and 8 locations for 2021. These AADT data points are published on the OKI traffic count website. These AADT targets were set equal to the 2019 AADT targets without additional factoring. In addition to the 20 published AADT locations, OKI provided the project team with year 2019 continuous count data for the BSB and the NB entrance from 4th Street and SB exit to 5th Street.

AADT estimates for the BSB and the two ramp locations were estimated using available seasonal adjustment factors provided by ODOT. More details on the BSB count target is provided in the next section.

2.7 Brent Spence Bridge Counts

ODOT, KYTC, and OKI have published AADT's for the BSB on their websites. A summary of these posted AADT's is provided in the table below. These AADT's were developed using different methods and count sources. The published AADT in 2013, 2014, 2018, 2019, 2020, and 2021 are similar between the reporting agencies. Greater inconsistencies are reported between 2015 and 2017. There are two AADT's published for the count base year of 2019; KYTC published 163,386 and ODOT published 152,333. The ODOT value is identified on the MS2 Count website as being derived from traffic count balancing. The KYTC location is station 059014 and is listed as a full coverage count.

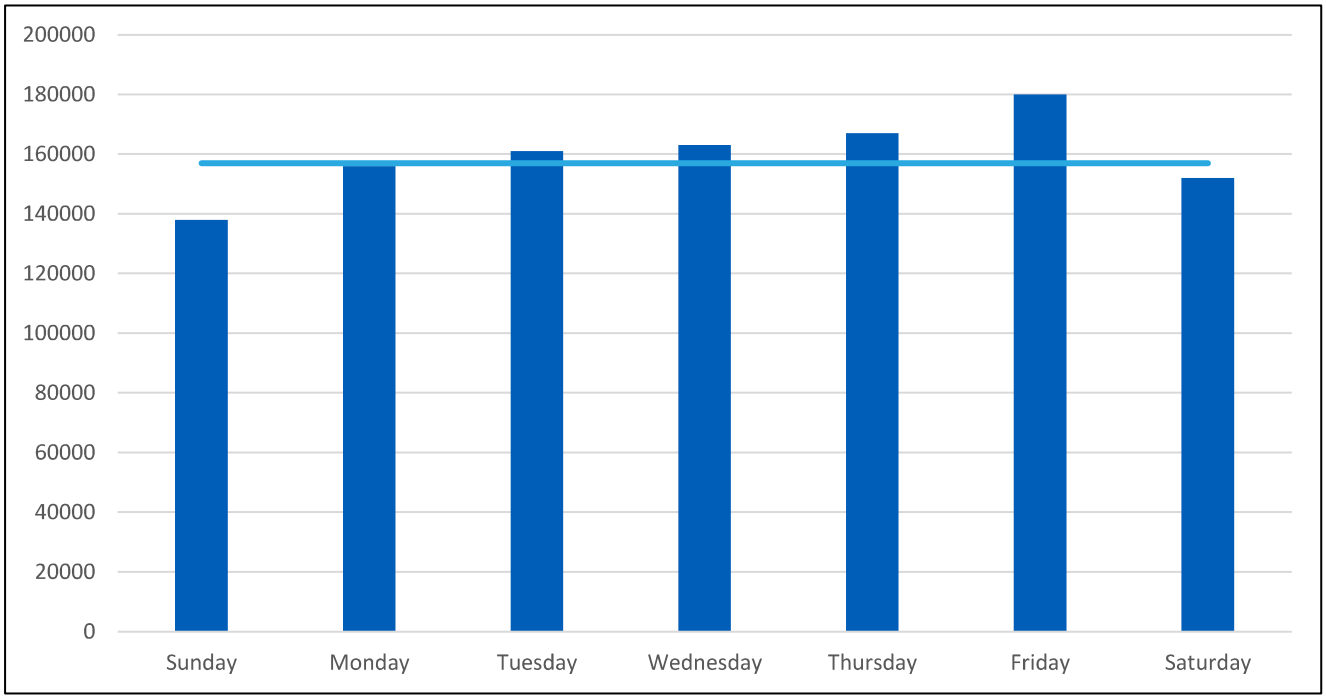
Table 4: Published AADT's for Brent Spence Bridge

Agency	2013	2014	2015	2016	2017	2018	2019	2020	2021
ODOT	174,200	175,292	134,785	154,626	154,475	151,877	152,333	124,761	148,639
KYTC	-	171,476	185,992	180,494	192,177	154,820	163,386	132,112	-
OKI	161,036	-	152,214	-	-	-	-	-	139,185
Average	167,618	173,384	157,664	167,560	173,326	153,349	157,860	128,437	143,912

OKI provided the project team continuous count data for May through October 2019. These counts were used as inputs for the AM and PM peak hours and relied on for the microsimulation analysis as the data is provided in 15-minute bins. The project team estimated a BSB AADT for 2019 using this data. An average daily volume was calculated by the project team by first averaging the data by day of week and then averaging again across the seven days without the use of seasonal adjustment data. The resultant from this calculation was an AADT estimate of 159,900. The calculation was repeated with the use of ODOT seasonal adjustment factors for year 2019 and the AADT was estimated as 159,000. As shown from Figure 2, the daily volume varies significantly by day of week with the lowest volume occurring on Sunday and the highest traffic volume occurring on Friday. The day of week averages varied from 138,000 to 180,000.

Based on a review of the published AADT and the continuous count data provided to the project team, the recommended target volume AADT for the BSB was set to 160,000.

Figure 2: 2019 BSB Daily Volume by Day of Week



2.8 Intersection Counts

Intersection turn movement AADT targets were estimated using period traffic counts, count expansion factors, and seasonal adjustment factors (see Appendix D). All the intersection counts include an AM period from 6-10 AM and PM periods that vary by count location (2-7 PM or 3-7 PM or 2-6 PM). The count expansion factors were estimated using adjacent 24-hour counts or default expansion factors based on ODOT's recommended factors for 2019. The expansion factors were calculated separately for auto and truck classes. If auto and truck classification counts are not available, the default factor was applied. The proposed count expansion factors for all turn movements are shown in Appendix A. The default period to daily expansion factors are summarized in Table 5.

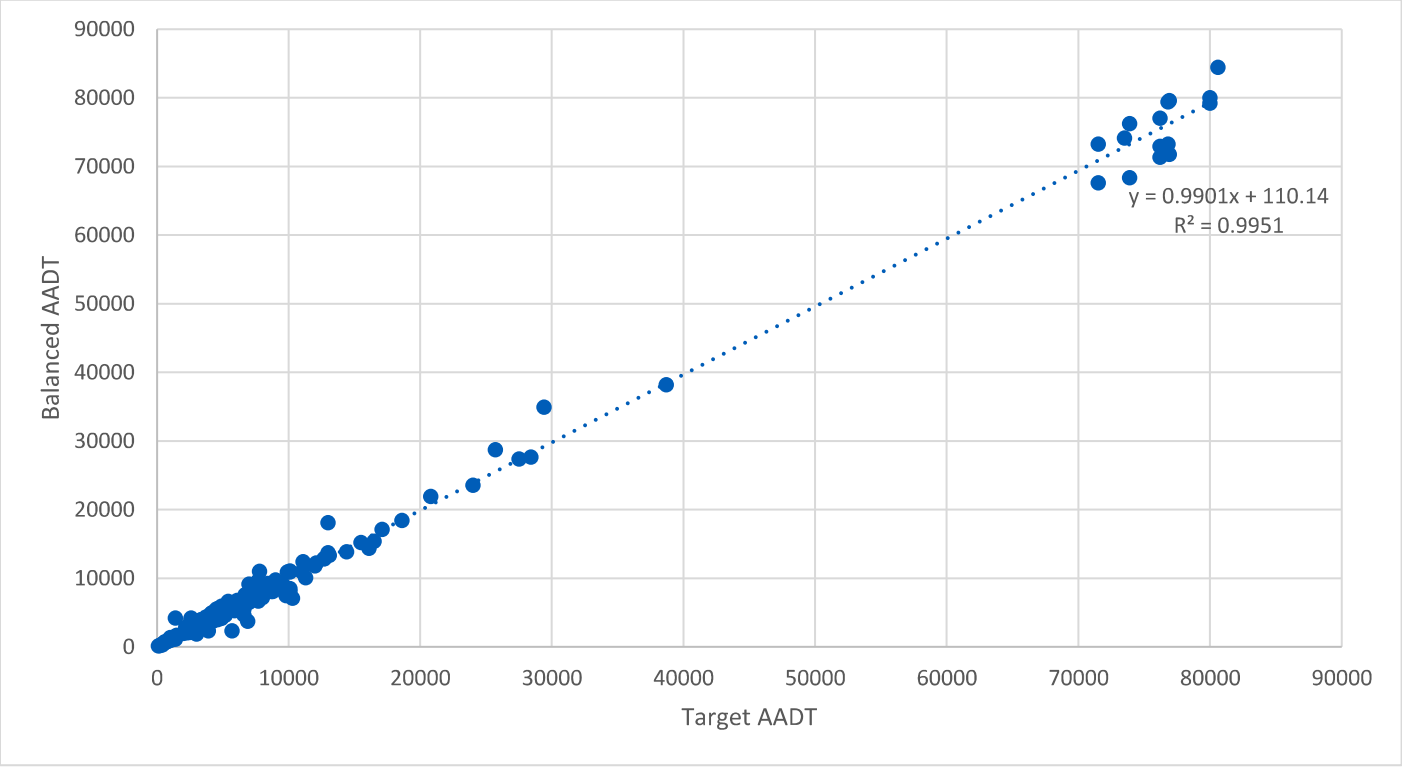
Table 5: Default Period to Daily Expansion Factors

Facility	6-10 am; 2-7 pm		6-10 am; 2-6 pm		6-10 am; 3-7 pm	
	Auto	Truck	Auto	Truck	Auto	Truck
U01: Urban Interstate	1.65	2.10	1.82	2.31	1.83	2.42
U02: Urban Freeway	1.62	1.98	1.79	2.12	1.81	2.28
U03: Urban Principal Arterial	1.69	1.94	1.88	2.08	1.91	2.25
U04: Urban Minor Arterial	1.70	1.80	1.91	1.92	1.93	2.08

2.9 AADT Traffic Smoothing

AADT targets were developed for segment and turn movements using the data and factoring methodologies outlined in sections 2.1 to 2.8. The target and balanced 2019 AADT's are shown in Appendix A and Appendix C. The target AADT's were balanced to have a closed system of traffic volumes where the network "ins" equal the network "outs". The traffic balancing used a combination of automated optimization routines and manual inspection. The balancing optimization routine is similar to ODOT's balancing principle of split the difference method, where the counts are balanced to have values that are the best fit between all of the data points. The algorithm for the balancing optimization is built with the R scripting language and employs the principles of entropy maximization where the best solution is derived through random and iterative factoring of target AADT's. Each factoring step optimizes the solution for a given AADT location. The final solution is derived using a method of successive averages, where each location receives the same number of factoring iterations, which means an equal priority in the balancing process. There are a few exceptions to the equal weight rule that were assigned during the manual inspection to provide a better data fit to priority locations. One of the exceptions is the Brent Spence Bridge, where the bridge balanced volume was forced to equal the target volume. A plot of the final balanced 2019 AADT values compared to the 2019 AADT target values is shown in Figure 3.

Figure 3: Comparison of 2019 AADT and Target Volumes



As is shown in Figure 3, the target values are on the x-axis and balanced values on Y-axis. The regression line of the data shows a good fit to the data with a slope near 1 and an R^2 of 0.99. Although, the balanced volumes are a good fit to the targets as a whole system, there are some locations with discrepancies between target and balanced volumes due to conflicts between adjacent counts. A list of the count locations that vary by more than 1,000 vehicles and 25% between target and balanced are listed in Table 6.

Table 6: Target and Balanced Discrepancies

Location	Target AADT	Balanced AADT	Reason for difference
Western Ave n/o Ezzard Charles	10,300	7,100	Upstream target = 7,210; Downstream target = 6,350
NB Linn St s/o of Gest	6,900	3,750	Upstream target = 3,100; Downstream Target = 2,900
WB Dixie Hwy w/o of SB I-75	7,700	9,650	Upstream Target = 10,650
EB Gest St e/o Linn St	3,000	1,850	Upstream Target = 1,600, downstream target = 1,080
EB 5th Street e/o Crescent Ave	5,700	2,350	Upstream Target = 1,450
EB Kyles Ln (btwn I-71/75 ramps)	7,800	11,000	Upstream Target = 11,960, downstream target = 11,940
WB 4th Street w/o Philadelphia	13,000	18,100	Upstream Target = 18,290, downstream target = 20,000
NB Philadelphia	6,600	4,650	Upstream Target = 1,570
SB CW Bailey btwn 2nd and 3rd St	7,000	9,150	Upstream Target = 7,807, downstream target = 9,540
EB Bank Street e/o Winchell	3,900	2,350	Upstream Target = 1,300
WB 3rd Street w/o Central Ave	1,400	4,200	Upstream Target = 4,010, downstream 5,010
NB Central btwn 6th and 7th St	2,600	3,900	Upstream Target = 3,240, downstream Target = 5,080
NB Main Street s/o 5th Str	2,600	4,200	Downstream target = 5,080
NBT @ Crescent Ave & 4th St	3,400	5,350	Balancing impacted by 5th Street targets
WBR @ Crescent Ave & 5th St	2,900	5,050	Balancing impacted by 5th Street targets
WBR @ Kyles & I-71/7 NB ramp	8,400	5,900	Balances to ramp target of 6,900
WBR @ Philadelphia & 4th St	800	2,250	Balance influenced by downstream link count
EBL @ Philadelphia & 5th St	1,000	2,700	Balancing impacted by 5th Street targets
EBT @ Philadelphia & 5th St	3,600	6,450	Balancing impacted by 5th Street targets
WBT @ 9th Street & Mound St	4,900	6,350	Balancing impacted by adjacent 9th Street counts
EBR @ CW Bailey & 3rd St	3,800	6,050	EB approach target = 4,270, upstream link target = 7,700
NBT @ Central & 7th St	3,200	2,250	NB approach target = 5,080, upstream link target = 2,600
WBL @ Central & 6th St	1,200	2,300	WB approach target = 7,200, upstream link target = 9,700
WBR @ Main St & 4th St	3,800	5,200	Downstream turn target = 6,450, downstream link = 8,100
EBT @ Main St & 5th St	3,900	6,000	EB approach target = 5,280, upstream link target = 8,800

3. PEAK HOUR VOLUME DEVELOPMENT

The objective of the peak hour volume development was to derive a balanced AM and PM peak hour volume that is consistent with a 2019 weekday condition. The balanced 2019 weekday volumes will be adjusted to a design hour volume for the 2029 and 2049 traffic forecasts. These adjustments and the count selection process are described in the sections below.

3.1 Traffic Count Selection

Traffic counts from ODOT, KYTC, OKI, City of Cincinnati, project counts from the 2017 BSBSC project, and 2022 counts collected by BSB project team were reviewed for the study limits. The traffic counts between 2017 and 2022 were considered for this project. The analysis year is 2019 to coincide with a pre-COVID pandemic condition. The data was reviewed at each count station and a count target was selected using available data. The methodology for selecting the peak hour weekday counts is detailed below.

Step 1: Identify traffic count date that best represents a 2019 condition

- In most cases a 2018 or 2019 traffic count is used when available
- ODOT, KYTC, and OKI data is prioritized. Counts collected by study teams and the City of Cincinnati are used when other data is not available

Step 2: Check for multiple days of count data

- Yes: Go to step 3
- No: Single day is count target

Step 3: Check for outlier counts

- Yes: Remove outlier counts
    - Use remaining count if only one day remains
    - Go to step 4 if there are still multiple days
- No: Go to Step 4

Step 4: Remove counts outside Tuesday, Wednesday, Thursday

Step 5: Use remaining count or average multiple count days

Summary tables and figures of the traffic counts identified for the peak hour volume development are identified in Appendix B and Appendix C.

3.2 Peak Hour Selection

The traffic counts at the intersection, ramps, and arterials indicate system peak hours of 7:30-8:30 AM and 4:30-5:30 PM. The counts from these hours were used as the AM and PM peak hours. Due to freeway traffic congestion, the peak observed traffic volumes on the Brent Spence Bridge and other freeway mainline locations do not align with the identified system peaks. Therefore, the target volumes for the mainline counts were selected using a local peak hour, which varies by site between 6:00 and 9:00 AM and 3:00 and 6:00 PM. The mainline design hour volumes will be further adjusted to align with the design hour volume (described in section 2.4) for the 2029 and 2049 forecasts.

The TransModeler calibration methodology uses FHWA Traffic Analysis Toolbox (TAT) III guidelines that considers a representative day chosen through cluster analysis. The volume of the model is validated at the bottleneck location, which is the BSB for northbound I-71/75 in the AM peak and southbound I-71/75 in the PM peak. The BSB has continuous traffic counts between May 28 and October 31, 2019. This data is used in the cluster analysis to identify the most common travel condition. The chosen representative day for the AM and PM peak periods, which is the condition that most matches the mean of the most common cluster is Wednesday October 2, 2019 for AM period and Wednesday June 12, 2019 for PM period. More details on the cluster analysis will be covered in the TransModeler analysis documentation. The representative day volumes and the variation envelopes which represent one and two standard deviations from the representative day are shown in the figures below. The balanced 2019 peak hour volumes are consistent with the representative day cluster. The AM Peak is 6,360 for NB and 4,585 for SB. The PM peak 5,285 for NB and 6,000 for SB. Latent traffic demand on the BSB is accounted for with the certified traffic process that applies a design hour factor based on the AADT and K30 factor, this methodology is described in section 3.4.

Figure 4: NB BSB Representative Day Volumes – AM Period

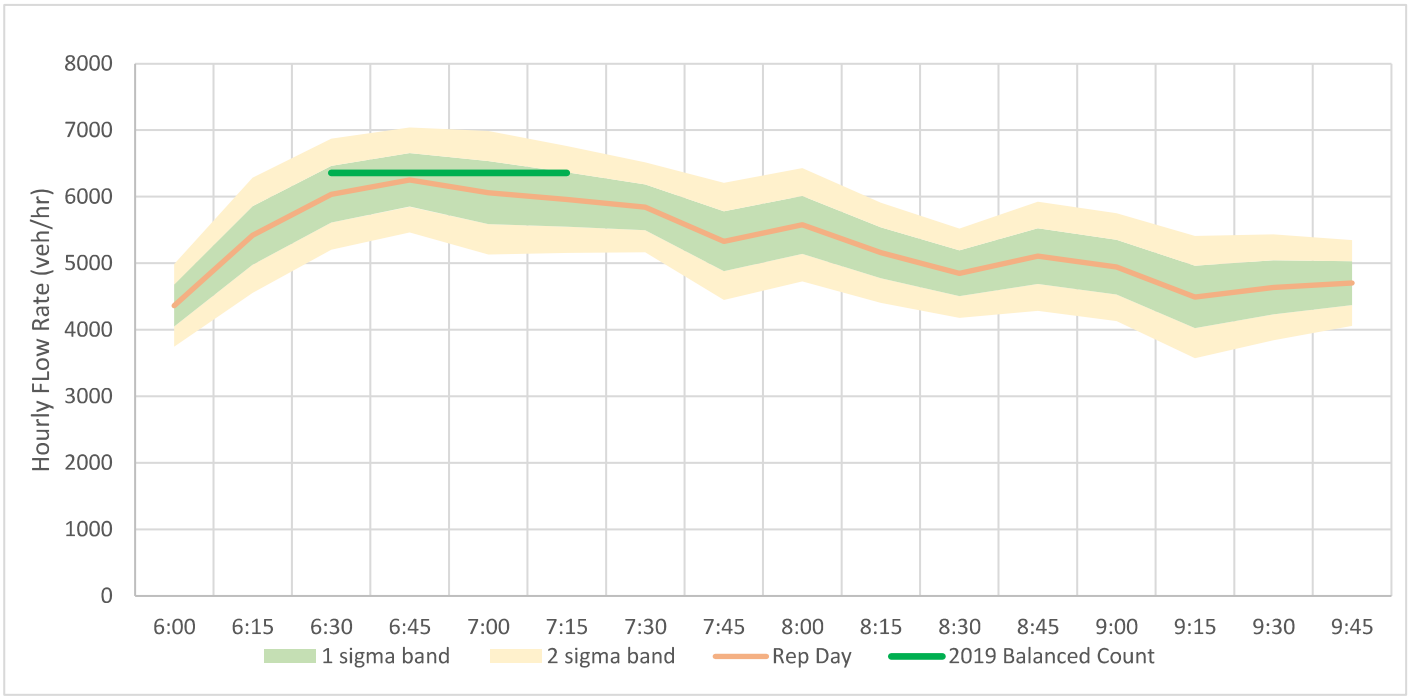


Figure 5: SB BSB Representative Day Volumes – AM Period

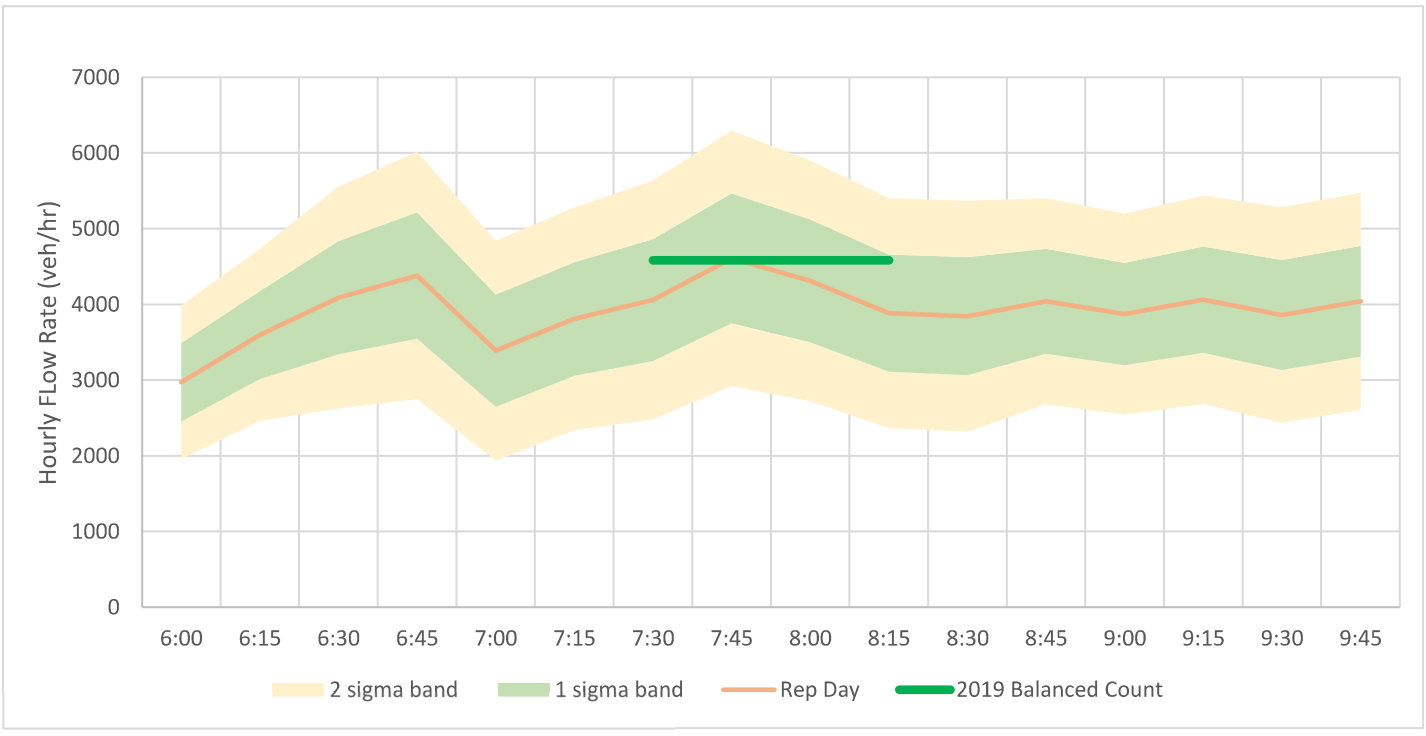


Figure 6: NB BSB Representative Day Volumes – PM Period

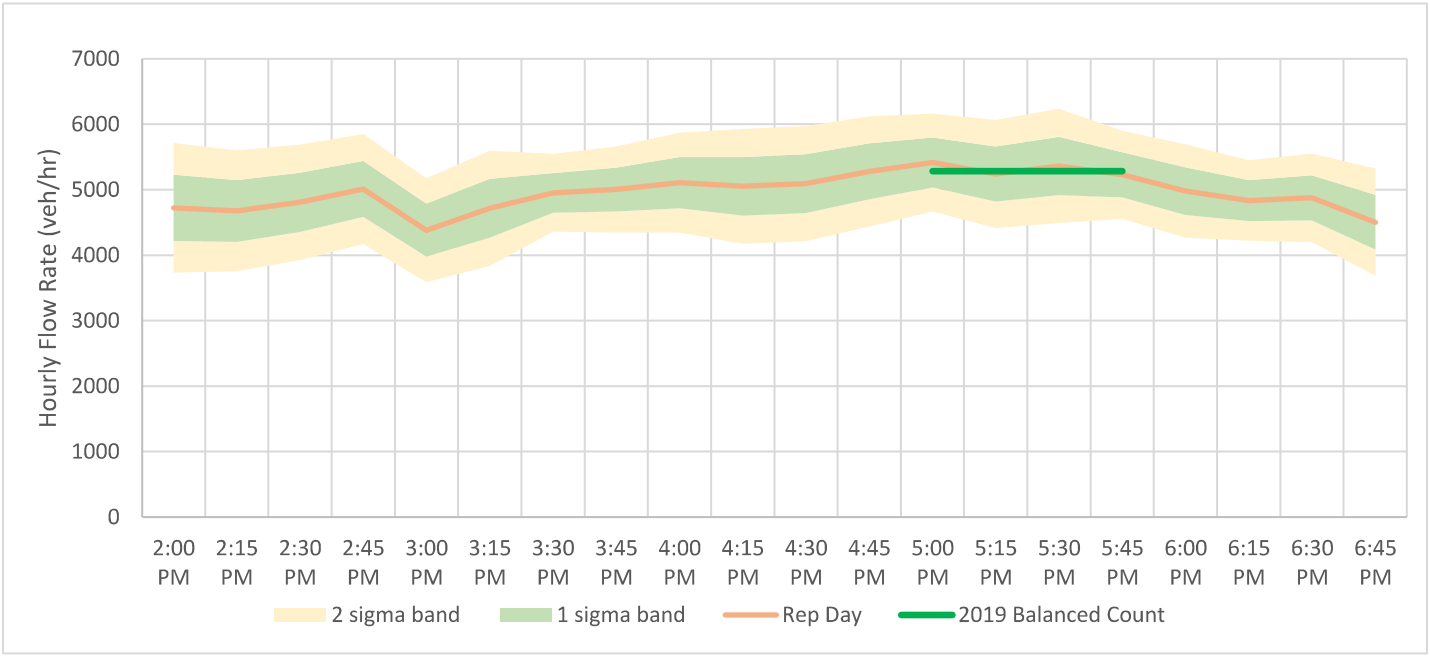
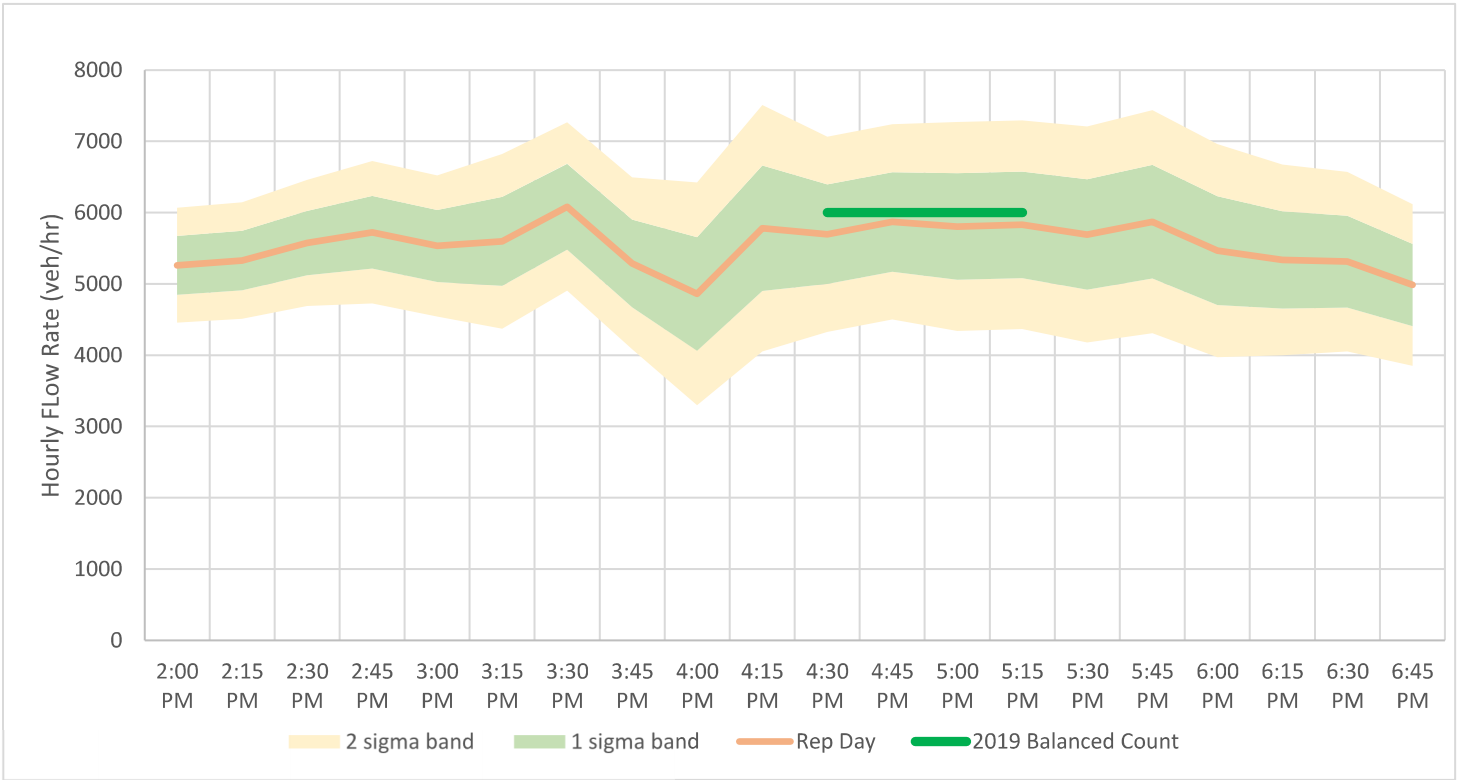


Figure 7: SB BSB Representative Day Volumes – PM Period



3.3 AM and PM Peak Hour Traffic Smoothing

The target AM and PM peak hour volumes were balanced using the same principles as the AADT traffic volumes. The plots of the balanced AM and PM peak hour volumes compared to the target volumes are shown in Figure 8 and Figure 9.

Figure 8: Comparison of 2019 AM Peak Hour Volumes (Target Versus Balanced)

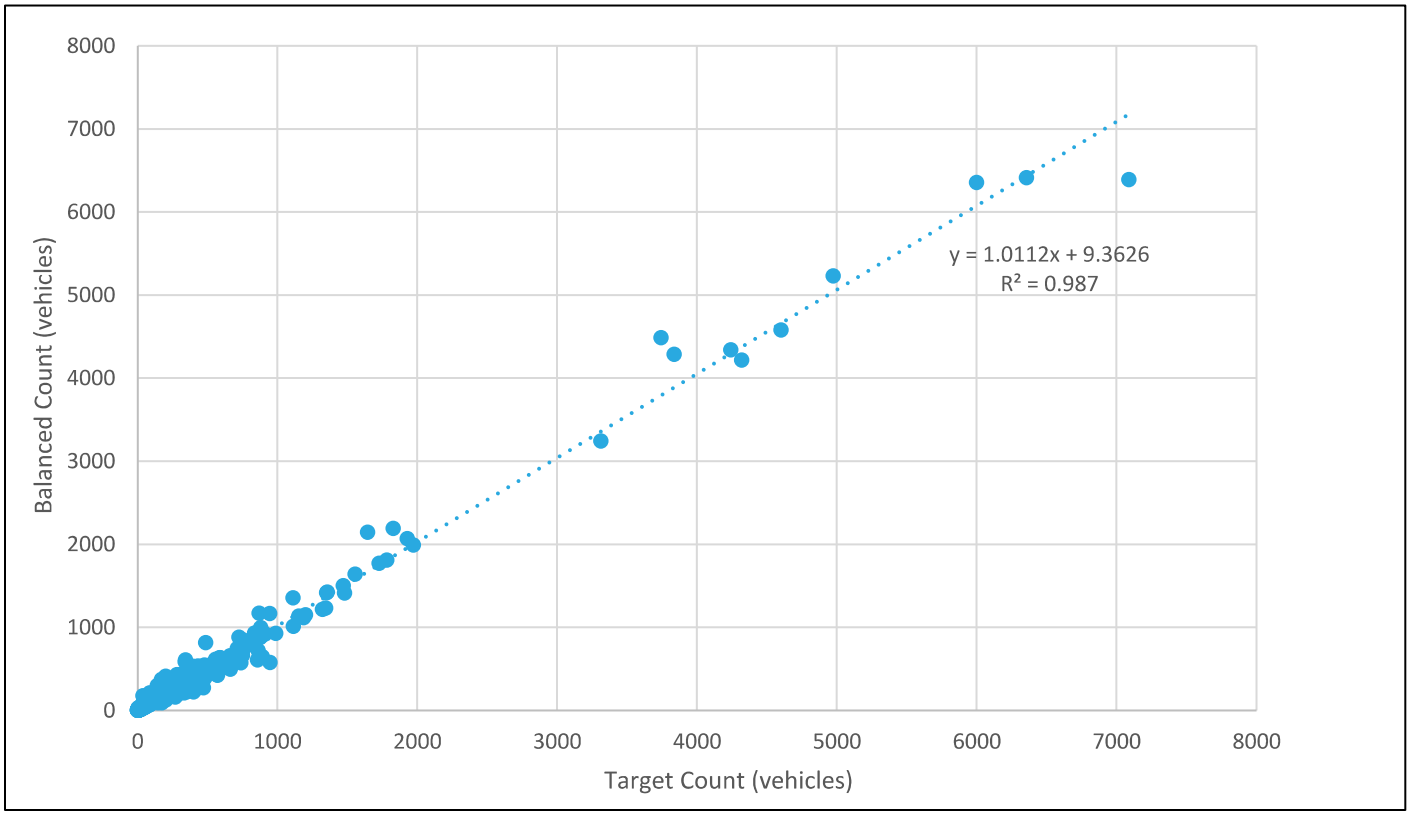
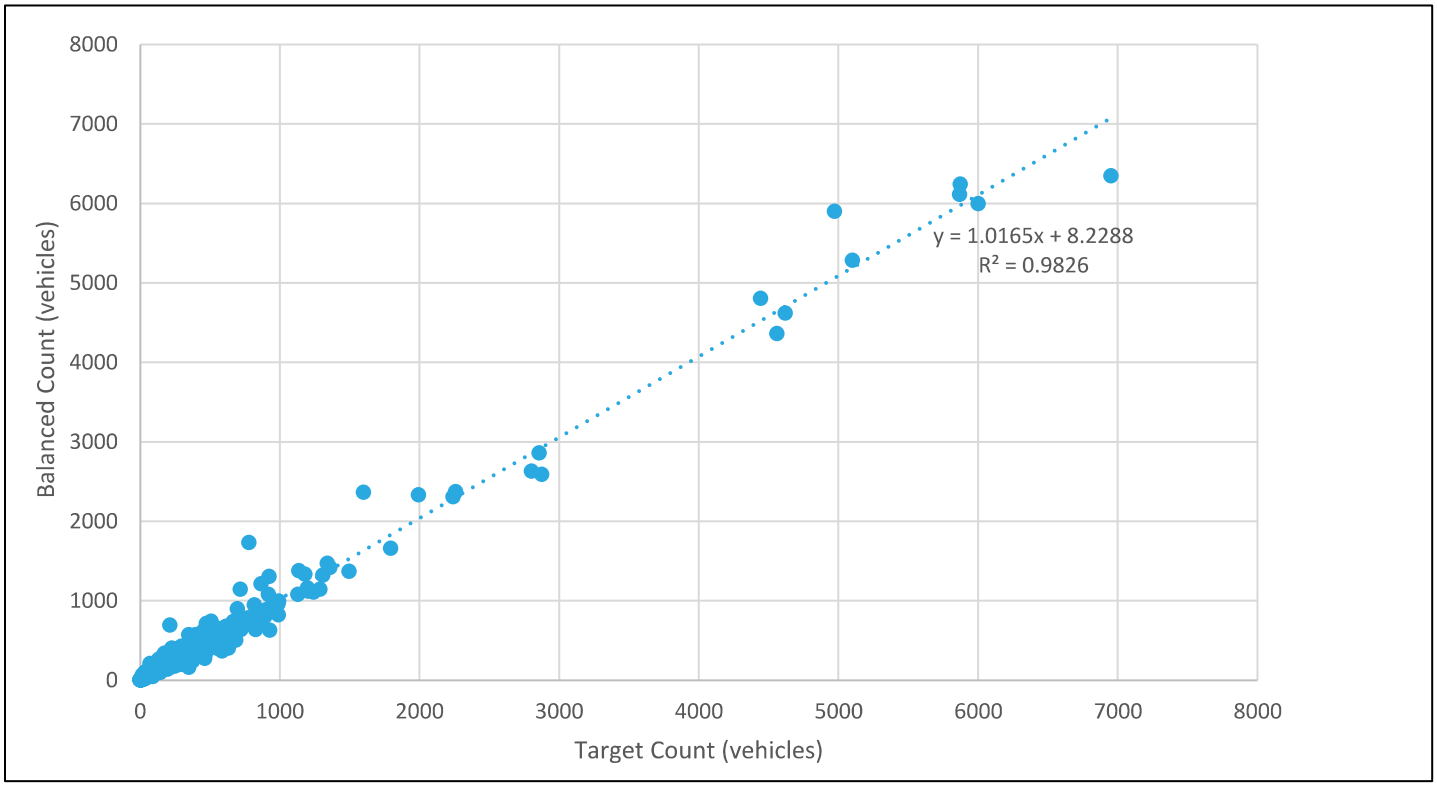


Figure 9: Comparison of 2019 PM Peak Hour Volumes (Target Versus Balanced)



As is shown in the figures, there is a good fit between the target counts and balanced counts with an R^2 of 0.99 and slope near 1. As discussed with the AADT balancing, although the system balance is a good fit to the target there are select locations with notable differences between target and balanced volumes. One of these locations is the SB I-75 mainline between Hopple Street and the Brent Spence Bridge. The balancing prioritizes the BSB count, which leads to discrepancies at another mainline count site near Findlay Avenue. A comparison the AM peak hour volumes for I-75 ramp and mainline locations between Hopple Street and Brent Spence Bridge are summarized in Table 7.

Table 7: Balancing Example for SB I-75 in AM Peak Hour

Facility	Target	Balanced	Difference
SB I-75 n/o Hopple Street	6,355	6,415	60
Exit to Hopple	875	880	5
Entrance from WB Hopple	240	235	-5
Entrance from EB Hopple	755	735	-20
Exit to WHV	220	230	10
Entrance from WHV	735	720	-15
Exit to Findlay	600	600	0
SB I-75 @ Findlay St	7,085	6,395	-690
Exit to Ezzard Charles	435	430	-5
Exit to Gest	555	550	-5
Entrance from Ezzard Charles	245	290	45
Exit to 7th	1,110	1,360	250
Exit to I-71 & Local Ramps	1,830	2,195	365
SB I-75	1,645	2,150	505
9th Street Entrance Ramp	135	130	-5
Entrance from 6th St	590	640	50
Entrance from 2nd Street	175	235	60
Entrance from I-71	1,360	1,430	70
SB BSB	4,600	4,585	-15

3.4 Design Hour Factors

The methodology for the design hour volumes used the 2019 K&D report[1] for an I-75 mainline traffic count, and statewide peak hour to design hour volume factors provided by ODOT. The I-71 and I-75 mainline design hour volumes were based on the K&D report for ATR site 137131 in Ohio. The I-75 ramps and arterial design hour volumes were calculated using ODOT's peak hour to design hour factors derived from statewide ATR counts. The data sources are listed as follows.

[1] https://www.dot.state.oh.us/TechnicalServices/KandDFactors/KandD_Factors_19_HPMS.pdf

ATR Data

Site 137131 in 2019 Report:

- K-Factor = 8.0%
- D-Factor = 57.9%

Statewide Peak Hour to Design Hour Factors

The 2022 Peak Hour to Design Hour Factor tables were used to convert the weekday traffic counts to design hour volumes. The I-75 ramps use the Urban Interstate factors (Table 8), and the remaining road segments use the Urban Arterial factors (Table 9). The tables are based on ATR stations in Ohio with traffic data from 2018, 2019, and 2021. These factors are derived based on day of week and month of traffic counts. Because traffic counts for the project were taken throughout the year and a balanced AM and PM weekday volume set was derived, a consistent design hour factor is recommended based on an average of the Monday-Thursday data. The result of this calculation was a peak hour to design hour factor of 1.15 for arterials and local roads, and a factor of 1.10 for freeway ramps.

Table 8: Design Hour Factor for I-75 Ramps

PEAK HOUR to DESIGN HOUR FACTORS
FUNCTIONAL CLASSIFICATION = 01u
(Urban Interstate)

Day / Month	Monthly Average by Day-of-Week							
	Y MON-THUR	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January	1.22	1.89	1.25	1.23	1.22	1.20	1.16	1.70
February	1.20	1.84	1.24	1.20	1.20	1.17	1.13	1.64
March	1.14	1.66	1.17	1.14	1.13	1.13	1.07	1.53
April	1.10	1.60	1.13	1.11	1.09	1.08	1.06	1.51
May	1.08	1.54	1.11	1.09	1.08	1.06	1.04	1.45
June	1.09	1.52	1.12	1.08	1.08	1.06	1.05	1.46
July	1.09	1.51	1.11	1.09	1.07	1.06	1.06	1.47
August	1.08	1.49	1.11	1.09	1.08	1.05	1.03	1.43
September	1.09	1.56	1.13	1.09	1.09	1.06	1.02	1.47
October	1.08	1.52	1.11	1.08	1.08	1.05	1.02	1.47
November	1.10	1.62	1.13	1.10	1.09	1.09	1.04	1.53
December	1.11	1.61	1.15	1.11	1.10	1.09	1.06	1.51

Table 9: Design Hour Factors for Arterials

PEAK HOUR to DESIGN HOUR FACTORS
FUNCTIONAL CLASSIFICATION = 03, 04, 05u
(Urban Principal Arterial, Urban Minor Arterial, & Urban Minor Collector)

Day / Month	Monthly Average by Day-of-Week							
	Y MON-THUR	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January	1.25	1.81	1.27	1.25	1.25	1.23	1.18	1.61
February	1.23	1.78	1.26	1.23	1.23	1.19	1.17	1.58
March	1.18	1.63	1.20	1.18	1.17	1.17	1.12	1.47
April	1.13	1.57	1.15	1.14	1.12	1.11	1.08	1.42
May	1.10	1.47	1.12	1.10	1.10	1.07	1.06	1.35
June	1.14	1.51	1.16	1.14	1.14	1.11	1.10	1.40
July	1.14	1.54	1.16	1.14	1.13	1.14	1.11	1.45
August	1.12	1.49	1.14	1.14	1.12	1.10	1.06	1.41
September	1.12	1.53	1.15	1.13	1.13	1.09	1.05	1.42
October	1.12	1.54	1.15	1.12	1.11	1.10	1.05	1.42
November	1.16	1.63	1.17	1.15	1.15	1.15	1.08	1.52
December	1.16	1.61	1.18	1.16	1.16	1.13	1.10	1.50

Appendix A:
AADT Worksheets

NB I-71/75 AADT WORKSHEET

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
059799	NB I-71/I-75, south of Buttermilk Pike	KYTC	KENTUCKY	78,854	-	-	76,903	62,090	54,191	-	-	76,900	72,550	Yes	2-way split half
059794	NB I-71/I-75, south of Dixie Hwy	KYTC	KENTUCKY	63,773	-	-	73,903	59,136	50,289	-	-	73,900	69,150	Yes	2-way split half
059801	NB I-71/I-75, south of Kyles Lane	KYTC	KENTUCKY	77,563	73,482	-	76,165	51,819	49,824	-	-	76,200	72,150	Yes	2-way split half
059P93	NB I-71/I-75, south of 12th St ramps	KYTC	KENTUCKY	76,682	75,935	-	76,829	-	-	-	-	76,800	74,050	Yes	2-way split half
059072	NB I-71/I-75, south of 12th St	KYTC	KENTUCKY	73,091	71,366	-	71,541	55,824	-	-	-	71,500	68,400	Yes	2-way split half
059077	NB I-71/I-75, south of 4th St ramp	KYTC	KENTUCKY	79,675	-	-	-	-	-	-	-	79,700	69,950	No	
22931	NB I-71/I-75 at Brent Spence Bridge	See count evaluation report for discussion on BSB Counts									-	80,000	80,000	Yes	
105831	I-75 NB, south of 5th St	ODOT	OHIO	38,482 (8)	37,342 (8)	21,353	37,454 (3)	30,675 (3)	20,682	-	-	37,300	36,250	No	The unbalanced counts are outliers
137131	I-75 NB, 250' north of Findlay St	ODOT	OHIO	74,065	76,156	-	73,439	60,147 (3)	68,327 (3)	-	-	76,200	73,700	Yes	

SB I-71/75 AADT WORKSHEET

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
HAM1804	SB I-75 N of Hopple St	OKI	OHIO	-	80,623	-	-	-	-	-	-	80,600	84,450	Yes	
137131	I-75 SB, 250' north of Findlay St	ODOT	OHIO	71,972	73,480	-	69,752	57,127 (3)	64,896 (3)	-	-	73,500	74,150	Yes	
105331	I-75 SB, btw 7th & 9th	ODOT	OHIO	32,424 (3)	29,398	-	29,486 (3)	24,149 (3)	30,093	-	-	29,400	34,900	Yes	
104431	I-71 SB, south of 3rd ramp	ODOT	OHIO	31,912 (3)	32,094	-	32,190 (3)	26,364 (3)	29,933	-	-	32,100	31,750	Yes	
151631	I-75 SB, north of Brent Spence Bridge	ODOT	OHIO	-	-	-	-	-	34,108	38,653	-	38,700	38,200	Yes	
22931	SB I-71/I-75 at Brent Spence Bridge	See count evaluation report for discussion on BSB Counts									-	80,000	80,000	Yes	
059072	SB I-71/I-75, south of 12th St	KYTC	KENTUCKY	73,091	71,366	-	71,541	55,824	-	-	-	71,500	73,250	Yes	2-way split half
059P93	SB I-71/I-75, south of 12th St ramps	KYTC	KENTUCKY	76,682	75,935	-	76,829	-	-	-	-	76,800	79,400	Yes	2-way split half
059801	SB I-71/I-75, south of Kyles Lane	KYTC	KENTUCKY	77,563	73,482	-	76,165	51,819	49,824	-	-	76,200	77,000	Yes	2-way split half
059794	SB I-71/I-75, south of Dixie Hwy	KYTC	KENTUCKY	63,773	-	-	73,903	59,136	50,289	-	-	73,900	76,250	Yes	2-way split half
059799	SB I-71/I-75, south of Buttermilk Pike	KYTC	KENTUCKY	78,854	-	-	76,903	62,090	54,191	-	-	76,900	79,600	Yes	2-way split half

NB I-71/75 RAMPS AADT WORKSHEET

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
059C47	Ramp from I-75 NB to Buttermilk Pike	KYTC	KENTUCKY	-	-	-	-	6,957	-	-	-	11,100	12,400	Yes	Uses COVID factors
059C46	I-75 NB ramp from Buttermilk Pike	KYTC	KENTUCKY	-	-	-	-	1,062	-	-	-	5,900	5,250	Yes	Uses COVID factors
059C48	Ramp from Buttermilk Pike to I-75 NB	KYTC	KENTUCKY	-	-	-	-	4,176	-	-	-	4,200	3,750	Yes	Uses COVID factors
059N05	Ramp from NB I-71/I-75 to Dixie Hwy	KYTC	KENTUCKY	-	-	-	-	2,374	-	-	-	3,400	3,800	Yes	Uses COVID factors
059N06	Ramp from Dixie Hwy to I-75 NB	KYTC	KENTUCKY	-	-	-	-	5,513	-	-	-	6,800	6,800	Yes	Uses COVID factors
059N01	Ramp from I-75 NB to Kyles Lane	KYTC	KENTUCKY	-	-	-	4,226	-	-	-	-	4,200	5,000	Yes	
059N02	Ramp from Kyles Lane to I-75 NB	KYTC	KENTUCKY	-	-	-	6,470	-	-	-	-	6,500	6,900	Yes	

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
059H34	Ramp from I-75 NB to 12th/MLK Blvd	KYTC	KENTUCKY	-	-	-	4,735	-	-	-	-	4,700	5,650	Yes	
059M55	Ramp, I-75 NB from Pike St	KYTC	KENTUCKY	-	-	-	7,970	-	-	-	-	8,000	7,550	Yes	
BSBSC44	Ramp, I-75 NB to 5th St	BSBSC	KENTUCKY	6,497*	-	-	-	-	-	-	-	6,600	6,000	Yes	Project counts
BSBSC41	12th Street to I-75 NB	BSBSC	KENTUCKY	7,701*	-	-	-	-	-	-	-	7,900	7,550	Yes	Project counts
059G86		KYTC	KENTUCKY	-	-	-	3,531	-	-	-	-				Used data provided by OKI for 2019
From OKI	Ramp, I-75 NB from 4th St	OKI	KENTUCKY				11,300*				-	11,300	10,050	Yes	
103631	Ramp, I-71 NB to 2nd St W	ODOT	OHIO	3,199 (3)	3,862	-	3,874 (3)	3,173 (3)	1,353	-	-	3,900	3,700	Yes	
104631	I-71/I-75 NB to I-71 NB	ODOT	OHIO	29,756	28,414	-	28,499	23,341	12,475	-	-	28,400	27,650	Yes	
104831	Ramp, I-75 NB to 5th St	ODOT	OHIO	4,071 (3)	3,657	-	3,668 (3)	3,004 (3)	2,161	-	-	3,700	4,100	Yes	
104931	Ramp, I-75 NB to US-50 WB	ODOT	OHIO	8,237 (3)	8,370	-	8,395 (3)	6,876 (3)	4,236	5,106	-	8,400	8,300	Yes	
105731	Ramp, I-71 SB to US-50 WB	ODOT	OHIO	12,900 (8)	13,118 (8)	12,962	13,433 (3)	11,391 (3)	15,189	-	-	13,000	13,700	Yes	
104331	Ramp, I-71 SB to I-75 NB	ODOT	OHIO	16,693 (8)	17,604 (8)	17,060	17,657 (3)	14,461 (3)	16,295	-	-	17,100	17,100	Yes	
140131	Ramp, US-50 to Gest St	ODOT	OHIO	4,116 (3)	4,639	-	4,750 (3)	4,028 (3)	3,750	-	-	4,600	3,950	Yes	Intersection count indicates a lower AADT
117131	Ramp, 4th to I-75 NB	ODOT	OHIO	5,970 (3)	6,543	-	6,563 (3)	5,375 (3)	7,754	-	-	6,500	5,850	Yes	
81631	Ramp, 6th St to I-75 NB	ODOT	OHIO	4,429 (3)	2,228	-	2,261 (3)	2,039 (3)	3,715	-	-	2,200	2,800	Yes	
139631	Ramp, I-71/Central Ave to Winchell/Ezzard	ODOT	OHIO	3,276 (3)	2,492	-	2,499 (3)	2,047 (3)	1,930	-	-	2,500	2,200	Yes	
139731	Winchell Ave, 350' northwest of 9th	ODOT	OHIO	6,399 (3)	4,998	-	5,048 (3)	4,422 (3)	3,802	-	-	5,000	4,550	Yes	
105131	Access Ramp, 6th St to I-75 NB	ODOT	OHIO	22,974 (3)	23,969	-	24,041 (3)	19,690 (3)	24,581	-	-	24,000	23,550	Yes	
90231	Ramp from Winchell Avenue to I-75 NB	ODOT	OHIO	4,437 (3)	4,571	-	4,585 (3)	3,755 (3)	3,488	-	-	4,600	4,250	Yes	
81731	I-75 NB entrance from Freeman	ODOT	OHIO	5,884 (3)	7,636	-	7,659 (3)	6,273 (3)	7,139	-	-	7,600	7,350	Yes	
81831	I-75 NB entrance from Ezzard Charles	ODOT	OHIO	2,288 (3)	2,638	-	2,646 (3)	2,167 (3)	2,245	-	-	2,600	2,300	Yes	
138331	Ramp, Winchell Ave (north of Bank St) to I-75 NB	ODOT	OHIO	-	6,724 (8)	6,667	6,744 (3)	5,523 (3)	6,396 (8)	-	-	6,700	6,950	Yes	
79831	EB Western Hills Viaduct to I-75 NB	ODOT	OHIO	6,842 (8)	6,192 (8)	6,139	6,211 (3)	5,087 (3)	8,066 (8)	-	-	6,100	6,750	Yes	
89631	Ramp, I-75 NB to WHV WB	ODOT	OHIO	7,470 (8)	6,546 (8)	6,603	6,566 (3)	5,378 (3)	7,630 (8)	-	-	6,600	6,150	Yes	
79331	I-75 NB ramp from Hopple St	ODOT	OHIO	6,691 (8)	7,560 (8)	7,335	7,583 (3)	6,210 (3)	6,456 (8)	-	-	7,300	7,150	Yes	
81931	Ramp, I-75 NB from Hopple St	ODOT	OHIO	4,430 (8)	11,011	-	11,044 (3)	9,045 (3)	11,799	-	-	11,000	10,950	Yes	

SB I-71/75 RAMPS AADT WORKSHEET

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
40231	Ramp I-75 SB to Hopple St	ODOT	OHIO	9,624 (8)	11,901 (8)	12,011	12,020 (3)	10,530 (3)	13,245	-	-	12,000	11,800	Yes	
85631	Ramp, I-75 SB from WB Hopple St	ODOT	OHIO	4,202 (8)	3,336 (8)	3,321	3,346 (3)	2,740 (3)	3,227	-	-	3,300	3,350	Yes	
79431	I-75 NB ramp to Hopple St	ODOT	OHIO	6,877 (8)	4,882 (8)	4,860	4,897 (3)	4,011 (3)	4,727	-	-	4,900	5,100	Yes	
79531	I-75 SB to Western Hills Viaduct WB	ODOT	OHIO	5,906 (8)	5,983 (8)	6,011	6,001 (3)	4,915 (3)	7,012	-	-	6,000	6,000	Yes	
79631	EB Western Hills Viaduct to I-75 SB	ODOT	OHIO	8,093 (8)	6,302 (8)	6,273	6,321 (3)	5,177 (3)	6,234	-	-	6,300	6,500	Yes	
79731	I-75 SB exit to Findlay St.	ODOT	OHIO	6,454 (8)	7,864 (8)	-	7,888 (3)	6,460 (3)	8,588	9,816	-	9,800	7,450	Yes	
89931	I-75 SB Exit at Ezzard Charles	ODOT	OHIO	3,105 (3)	3,658	-	3,669 (3)	3,005 (3)	3,027	-	-	3,700	2,700	Yes	
90031	I-75 SB Exit at Freeman	ODOT	OHIO	4,943 (3)	5,399	-	5,480 (3)	4,943 (3)	4,632	-	-	5,400	6,600	Yes	
90131	Western Entrance ramp to I-75 SB	ODOT	OHIO	3,911 (3)	2,862	-	2,871 (3)	2,351 (3)	3,370	-	-	2,900	2,900	Yes	
81531	I-75 SB Exit to Seventh St	ODOT	OHIO	4,994 (3)	4,491	-	4,504 (3)	3,689 (3)	3,265	-	-	4,500	5,500	Yes	
151531	I-75 SB South of 8th St	ODOT	OHIO	-	-	-	-	-	24,284	27,519	-	27,500	27,350	Yes	
108231	Ramp, I-75 SB to 5th St (Ohio)	ODOT	OHIO	4,285 (3)	4,081	-	4,093 (3)	3,352 (3)	3,131	3,666	-	3,700	4,350	Yes	
105231	Ramp, 9th to I-75 SB	ODOT	OHIO	3,224 (3)	3,317	-	3,327 (3)	2,725 (3)	2,847	-	-	3,300	3,300	Yes	
108131	Ramp, I-75 SB to 2nd St	ODOT	OHIO	4,408 (3)	5,134	-	5,149 (3)	4,217 (3)	3,691	-	-	5,100	5,150	Yes	
HAM4022	Ramp, I-75 SB to I-71 NB	OKI	OHIO	-	17,381	-	-	-	-	-	-	17,400	17,850	Yes	
105631	Ramp, US-50 EB to I-71 NB	ODOT	OHIO	14,649 (3)	14,447	-	14,794 (3)	12,545 (3)	13,703	-	-	14,400	13,850	Yes	
105431	Ramp, US-50 EB to I-75 SB	ODOT	OHIO	6,246 (3)	6,896	-	6,917 (3)	5,665 (3)	7,793	-	-	6,900	7,200	Yes	
18731	Ramp from US-50 EB to 2nd	ODOT	OHIO	1,221 (3)	1,093	-	1,096 (3)	898 (3)	953	-	-	1,100	1,100	Yes	
104531	Ramp, 3rd WB to I-7l SB	ODOT	OHIO	4,558 (3)	4,929	-	4,944 (3)	4,049 (3)	3,592	-	-	4,900	5,900	Yes	
117031	Ramp, I-71 SB to I-75 SB	ODOT	OHIO	27,277 (3)	25,692	-	25,769 (3)	21,105 (3)	28,125	32,996	-	25,700	28,700	Yes	
059G93	Ramp, SB I-71/I-75 to 5th St.	KYTC	KENTUCKY	-	-	-	11,750	-	-	-	-	6,700	7,000	Yes	Used OKI count
From OKI		OKI	KENTUCKY	-	-	-	6,700*				-				
BSBSC46	Ramp, I-71/I-75 SB to Pike St	BSBSC	KENTUCKY	6,400*	-	-	-	-	-	-	-	6,400	6,600	Yes	Project Count
059M56	Ramp from 4th Street to SB I-71/I-75	KYTC	KENTUCKY	-	-	-	6,675	-	-	-	-	6,700	6,850	Yes	
CSSRamp1	Ramp, I-75 SB from 12th St	BSB	KENTUCKY	-	-	-	-	-	-	-	6,740*	6,700	6,150	Yes	Project Count
059N03	Ramp from I-75 SB to Kyles Lane	KYTC	KENTUCKY	-	-	-	6,739	-	-	-	-	6,700	7,250	Yes	
059N04	Ramp from Kyles Lane to I-75 SB	KYTC	KENTUCKY	-	-	-	4,104	-	-	-	-	4,100	4,850	Yes	
059N07	Ramp from I-75 SB to Dixie Hwy	KYTC	KENTUCKY	-	-	-	-	3,084	-	-	-	4,700	5,200	Yes	Use Covid factors
059N08	Ramp from Dixie Hwy to I-75 SB	KYTC	KENTUCKY	-	-	-	-	3,633	-	-	-	4,300	4,450	Yes	Use Covid factors
059C49	Ramp from I-75 SB to Buttermilk Pike	KYTC	KENTUCKY	-	-	-	-	5,848	-	-	-	8,500	8,850	Yes	Use Covid factors

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
059C50	Ramp from Buttermilk Pike to I-75 SB	KYTC	KENTUCKY	-	-	-	-	7,872	-	-	-	12,100	12,200	Yes	Use Covid factors

ARTERIALS AND LOCAL ROAD AADT WORKSHEET

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
059D72	EB Kyles Lane btw I-75 and Kennedy Rd	KYTC	KENTUCKY	13,438	13,056	-	12,680	11,273	10,856	-	-	12,700	12,850	Yes	2-way split half
059D72	WB Kyles Lane btw I-75 and Kennedy Rd	KYTC	KENTUCKY	13,438	13,056	-	12,680	11,273	10,856	-	-	12,700	12,800	Yes	2-way split half
059D22	EB Kyles Lane at I-75	KYTC	KENTUCKY	7,770	8,036	-	7,772	5,962	8,665	-	-	7,800	9,050	Yes	2-way split half
059D22	WB Kyles Lane at I-75	KYTC	KENTUCKY	7,770	8,036	-	7,772	5,962	8,665	-	-	7,800	11,000	Yes	2-way split half
059C71	EB MLK Blvd btw Main St and Lee St	KYTC	KENTUCKY	-	7,608	-	-	-	7,590	-	-	7,600	8,850	Yes	Station away from site with access drives btwn; 2-way split half
059C71	EB MLK Blvd btw Main St and Lee St	KYTC	KENTUCKY	-	7,608	-	-	-	7,590	-	-	7,600	8,600	Yes	Station away from site with access drives btwn; 2-way split half
KEN0287	WB Pike, east of I-71/I-75	OKI	KENTUCKY	-	-	-	-	-	4,139	-	-	4,100	4,450	Yes	
KEN0287	EB Pike, east of I-71/I-75	OKI	KENTUCKY	-	-	-	-	-	5,637	-	-	5,600	6,300	Yes	
059D80	SB Main St, south of 9th St	KYTC	KENTUCKY	-	3,283	-	-	-	-	-	-	3,300	2,850	Yes	2-way split half
059D80	NB Main St, south of 9th St	KYTC	KENTUCKY	-	3,283	-	-	-	-	-	-	3,300	3,900	Yes	2-way split half
KEN0363	5th St, west of Main St	OKI	KENTUCKY	-	-	-	-	-	8,795	-	-	8,800	8,050	Yes	
059H28	SB Main St, south of 5th St	KYTC	KENTUCKY	2,611	-	-	-	2,106	-	-	-	2,600	2,900	Yes	2-way split half
059H28	NB Main St, south of 5th St	KYTC	KENTUCKY	2,611	-	-	-	2,106	-	-	-	2,600	4,200	Yes	2-way split half
KEN0348	5th St, west of Johnson St	OKI	KENTUCKY	-	-	-	-	-	8,894	-	-	8,900	8,900	Yes	
059C22	4th St, east of Main St	KYTC	KENTUCKY	16,493	-	-	-	9,661	-	-	-	16,500	15,400	Yes	Station away from site with access drives btwn
KEN0346	4th St, west of Clay Wade Bailey	OKI	KENTUCKY	-	-	-	-	-	15,544	-	-	15,500	15,200	Yes	
059C76	SB Philadelphia St btw 3rd St and 4th St	KYTC	KENTUCKY	-	-	-	6,620	-	-	-	-	6,600	5,450	Yes	2-way split half
059C76	NB Philadelphia St btw 3rd St and 4th St	KYTC	KENTUCKY	-	-	-	6,620	-	-	-	-	6,600	4,650	Yes	2-way split half
KEN0276	4th St, east of I-71/I-75	OKI	KENTUCKY	-	-	-	-	-	12,957	-	-	13,000	18,100	Yes	Intersection counts indicate a higher AADT
059D76	4th St btw I-75 and Philadephia St	KYTC	KENTUCKY	-	-	-	8,653	-	-	-	-	8,700	8,050	Yes	
059C78	4th St east of Crescent Ave	KYTC	KENTUCKY	-	1,491	-	-	-	2,145	-	-	1,500	1,700	Yes	

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
059D75	5th St btw Crescent Ave and I-75	KYTC	KENTUCKY	5,697	-	-	-	5,036	-	-	-	5,700	2,350	Yes	Intersection counts indicate a lower AADT
059M57	SB CD exit from I-71/I-75 to Pike St	KYTC	KENTUCKY	-	-	-	7,339	-	-	-	-	7,300	8,150	Yes	
059D21	WB Dixie Hwy, north of Kyles Ln	KYTC	KENTUCKY	9,276	10,008	-	10,076	-	-	-	-	10,100	8,500	Yes	Station away from site with access drives btwn; 2-way split half
059D21	EB Dixie Hwy, north of Kyles Ln	KYTC	KENTUCKY	9,276	10,008	-	10,076	-	-	-	-	10,100	8,050	Yes	Station away from site with access drives btwn; 2-way split half
KEN0017	NB Dixie Hwy, north of Kyles Ln	OKI	KENTUCKY	-	10,115	-	-	-	-	-	-	10,100	11,050	Yes	
KEN0017	SB Dixie Hwy, north of Kyles Ln	OKI	KENTUCKY	-	10,093	-	-	-	-	-	-	10,100	10,900	Yes	
059C19	WB Dixie Hwy btw Saint Johns Rd and Fortside Dr	KYTC	KENTUCKY	6,966	7,204	-	7,690	4,773	8,334	-	-	7,700	9,650	Yes	Station away from site with access drives btwn; 2-way split half
059C19	EB Dixie Hwy btw Saint Johns Rd and Fortside Dr	KYTC	KENTUCKY	6,966	7,204	-	7,690	4,773	8,334	-	-	7,700	8,750	Yes	Station away from site with access drives btwn; 2-way split half
124231	SB Clay Wade Bailey Bridge	ODOT	OHIO/KENTUCKY	-	7,501	-	7,576 (3)	6,637 (3)	7,294 (3)	-	-	7,500	7,450	Yes	
124231	NB Clay Wade Bailey Bridge	ODOT	OHIO/KENTUCKY	-	8,111	-	8,192 (3)	7,176 (3)	7,886 (3)	-	-	8,100	8,100	Yes	
HAM4034	SB Clay Wade Bailey Bridge, south of 3rd St	OKI	OHIO	-	-	-	-	-	6,958	-	-	7,000	9,150	Yes	
HAM4034	NB Clay Wade Bailey Bridge, south of 3rd St	OKI	OHIO	-	-	-	-	-	4,386	-	-	4,400	4,800	Yes	
93199	WB W 3rd St, btw Gest & Clay Wade Bailey	ODOT	OHIO	4,979	4,061	-	4,102 (3)	3,593 (3)	6,200	7,331	-	4,100	4,150	Yes	
93199	EB W 3rd St, btw Gest & Clay Wade Bailey	ODOT	OHIO	5,250	7,733	-	7,810 (3)	6,842 (3)	7,264	8,587	-	7,700	6,650	Yes	
15931	WB 3rd btw Clay Wade Bailey & Central Ave	ODOT	OHIO	2,133 (3)	1,404	-	1,418 (3)	1,242 (3)	4,544	-	-	1,400	4,200	Yes	Intersection counts plus 2021 AADT indicate a higher AADT
15931	EB 3rd btw Clay Wade Bailey & Central Ave	ODOT	OHIO	4,327 (3)	2,230	-	2,252 (3)	1,973 (3)	2,640	-	-	2,200	2,350	Yes	
12931	SB Central Ave btw Pete Rose Way & 3rd	ODOT	OHIO	2,828 (3)	2,616	-	2,642 (3)	2,314 (3)	1,358	1,570	-	2,600	2,300	Yes	
12931	NB Central Ave btw Pete Rose Way & 3rd	ODOT	OHIO	1,994 (3)	2,035	-	2,055 (3)	1,800 (3)	1,182	1,366	-	2,000	1,950	Yes	
13031	SB Central Ave btw McFarland & 4th	ODOT	OHIO	2,531 (3)	2,274	-	2,297 (3)	2,012 (3)	1,614	-	-	2,300	2,050	Yes	
13031	NB Central Ave btw McFarland & 4th	ODOT	OHIO	5,186 (3)	5,758	-	5,816 (3)	5,095 (3)	4,866	-	-	5,800	6,150	Yes	
9631	SB Central Ave btw 5th & 6th	ODOT	OHIO	2,824 (3)	2,975	-	3,005 (3)	2,632 (3)	2,452	-	-	3,000	2,900	Yes	
9631	NB Central Ave btw 5th & 6th	ODOT	OHIO	3,834 (3)	4,307	-	4,350 (3)	3,811 (3)	3,098	-	-	4,300	3,800	Yes	

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
27231	WB 6th Ramp to US-50 WB, west of Central Ave	ODOT	OHIO	4,429 (3)	2,228	-	2,261 (3)	2,039 (3)	3,715	-	-	2,200	2,900	Yes	
27531	WB 6th to Central Ave	ODOT	OHIO	10,599 (3)	9,722	-	9,819 (3)	8,601 (3)	8,007	-	-	9,700	8,000	Yes	
9731	SB Central Ave btw 6th & 7th	ODOT	OHIO	5,704 (3)	739	-	746 (3)	653 (3)	30	-	-	700	700	Yes	
9731	NB Central Ave btw 6th & 7th	ODOT	OHIO	814 (3)	2,639	-	2,665 (3)	2,335 (3)	3,756	-	-	2,600	3,900	Yes	
9831	EB 7th Ave to Plum St	ODOT	OHIO	7,079 (3)	9,361	-	9,455 (3)	8,283 (3)	5,690	-	-	9,400	8,950	Yes	
12531	WB 9th to Central Ave	ODOT	OHIO	9,566 (3)	9,626	-	9,722 (3)	8,516 (3)	9,077	10,298	-	9,600	9,000	Yes	
150331	WB 9th St, btw Winchell & Central	ODOT	OHIO	-	-	-	-	-	9,708	9,885	-	9,900	10,900	Yes	
149731	SB Linn St, south of Court St	ODOT	OHIO	-	-	-	-	-	8,732	9,318	-	9,300	4,450	No	Adjacent intersection counts indicate this is an outlier
149731	NB Linn St, south of Court St	ODOT	OHIO	-	-	-	-	-	10,300	10,992	-	11,000	5,650	No	Adjacent intersection counts indicate this is an outlier
149931	WB Court St, east of Linn St	ODOT	OHIO	-	-	-	-	-	888	950	-	1,000	950	Yes	
149931	EB Court St, east of Linn St	ODOT	OHIO	-	-	-	-	-	1,262	1,351	-	1,400	1,550	Yes	
149231	Winchell Ave, btw Liberty St & Ezzard Charles	ODOT	OHIO	-	-	-	-	-	6,100	6,526	-	6,500	6,550	Yes	
30931	NB Winchell Ave to Findlay St	ODOT	OHIO	6,731 (3)	5,425	-	5,463 (3)	5,059 (2)	5,515	-	-	5,400	5,400	Yes	
148831	Winchell Ave, btw Findlay & Bank	ODOT	OHIO	-	-	-	-	-	6,198	6,310	-	6,300	5,700	Yes	
148631	EB Bank St, btw Winchell & Colerain	ODOT	OHIO	-	-	-	-	-	3,745	3,927	-	3,900	2,350	Yes	
148631	WB Bank St, btw Winchell & Colerain	ODOT	OHIO	-	-	-	-	-	3,923	4,115	-	4,100	3,650	Yes	
147931	Winchell Ave, btw Bank & Harrison	ODOT	OHIO	-	-	-	-	-	660	381	-	400	400	Yes	
148031	WB Harrison Ave, btw Winchell Ave & Patterson St	ODOT	OHIO	-	-	-	-	-	940	957	-	1,000	1,350	Yes	
148031	EB Harrison Ave, btw Winchell Ave & Patterson St	ODOT	OHIO	-	-	-	-	-	1,342	1,366	-	1,400	1,100	Yes	
148231	SB Patterson St, south of Harrison Ave	ODOT	OHIO	-	-	-	-	-	235	249	-	200	200	Yes	
148231	NB Patterson St, south of Harrison Ave	ODOT	OHIO	-	-	-	-	-	118	125	-	100	150	Yes	
148131	EB Harrison Ave, east of Patterson St	ODOT	OHIO	-	-	-	-	-	1,332	1,356	-	1,400	1,350	Yes	
148131	WB Harrison Ave, east of Patterson St	ODOT	OHIO	-	-	-	-	-	1,143	1,163	-	1,200	1,150	Yes	
148331	SB Colerain Ave, south of Central Ave	ODOT	OHIO	-	-	-	-	-	459	487	-	500	500	Yes	
HAM1945	EB WHV (upper deck)	OKI	OHIO	-	6,697	-	-	-	-	-	-	6,700	7,600	Yes	

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
HAM1945	WB WHV (upper deck)	OKI	OHIO	-	8,027	-	-	-	-	-	-	8,000	7,200	Yes	
137631	SB Central Pkwy, 200' north of Brighton Pl	ODOT	OHIO	-	-	-	-	-	6,106	6,199	-	6,200	6,450	Yes	
137631	NB Central Pkwy, 200' north of Brighton Pl	ODOT	OHIO	-	-	-	-	-	5,299	5,379	-	5,400	5,850	Yes	
323199	EB McMillan St, east of WHV	ODOT	OHIO	-	3,238	-	3,270 (3)	2,865 (3)	2,933	3,390	-	3,200	3,750	Yes	
323199	WB McMillan St, east of WHV	ODOT	OHIO	-	3,173	-	3,205 (3)	2,808 (3)	3,125	3,612	-	3,200	3,350	Yes	
13731	SB Central Pkwy btw Addison St & Marshall Ave	ODOT	OHIO	6,015 (3)	4,800	-	4,848 (3)	4,247 (3)	4,745	-	-	4,800	4,550	Yes	
13731	NB Central Pkwy btw Addison St & Marshall Ave	ODOT	OHIO	5,674 (3)	3,424	-	3,458 (3)	3,029 (3)	5,129	-	-	3,400	3,950	Yes	
13631	EB Central Pkwy btw WHV & Linn St	ODOT	OHIO	7,646 (3)	7,049	-	7,119 (3)	6,236 (3)	7,154	7,262	-	7,000	6,850	Yes	
13631	WB Central Pkwy btw WHV & Linn St	ODOT	OHIO	7,465 (3)	7,684	-	7,761 (3)	6,799 (3)	6,679	6,781	-	7,700	6,500	Yes	
148431	SB Linn St, south of Central Pkwy	ODOT	OHIO	-	-	-	-	-	3,603	3,855	-	3,900	4,250	Yes	
148431	NB Linn St, south of Central Pkwy	ODOT	OHIO	-	-	-	-	-	3,281	3,510	-	3,500	3,500	Yes	
148731	WB Bank St, west of Linn St	ODOT	OHIO	-	-	-	-	-	2,580	2,760	-	2,800	3,450	Yes	
148731	EB Bank St, west of Linn St	ODOT	OHIO	-	-	-	-	-	1,315	1,407	-	1,400	1,450	Yes	
HAM1856	WB WHV (lower deck)	OKI	OHIO	-	8,966	-	-	-	-	-	-	9,000	9,750	Yes	
HAM1856	EB WHV (lower deck)	OKI	OHIO	-	9,065	-	-	-	-	-	-	9,100	9,500	Yes	
147731	WB WHV at Spring Grove Ave	ODOT	OHIO	-	-	-	-	-	12,251	13,106	-	13,100	13,350	Yes	
147731	EB WHV at Spring Grove Ave	ODOT	OHIO	-	-	-	-	-	15,083	16,136	-	16,100	14,350	Yes	
143531	WB Harrison Ave, btw I-75 & Winchell Ave	ODOT	OHIO	-	-	-	-	-	1,141	1,180	-	1,200	1,250	Yes	
143531	EB Harrison Ave, btw I-75 & Winchell Ave	ODOT	OHIO	-	-	-	-	-	1,124	1,163	-	1,200	1,100	Yes	
147831	SB Spring Grove Ave, btw Harrison Ave & Bank St	ODOT	OHIO	-	-	-	-	-	6,223	6,588	-	6,600	6,300	Yes	
147831	NB Spring Grove Ave, btw Harrison Ave & Bank St	ODOT	OHIO	-	-	-	-	-	12,503	13,234	-	13,200	5,500	No	This is an outlier count
148531	EB Bank St, btw Dalton & Winchell	ODOT	OHIO	-	-	-	-	-	2,272	2,314	-	2,300	2,600	Yes	
148531	WB Bank St, btw Dalton & Winchell	ODOT	OHIO	-	-	-	-	-	3,167	3,224	-	3,200	2,950	Yes	
5313198	SB Dalton Ave, btw Findlay & York St	ODOT	OHIO	-	-	-	-	-	5,556	5,874	-	5,900	5,550	Yes	
5313198	NB Dalton Ave, btw Findlay & York St	ODOT	OHIO	-	-	-	-	-	4,794	5,068	-	5,100	4,750	Yes	
5313198	SB Dalton Ave, btw Findlay & York St	ODOT	OHIO	-	-	-	-	-	5,556	5,748	-	5,700	5,550	Yes	

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
5313198	NB Dalton Ave, btw Findlay & York St	ODOT	OHIO	-	-	-	-	-	4,794	4,959	-	5,000	4,750	Yes	
103199	WB Findlay St, btw Dalton & I-75	ODOT	OHIO	3,029	2,444	-	2,481 (3)	2,238 (3)	2,673	-	-	2,400	2,750	Yes	
103199	EB Findlay St, btw Dalton & I-75	ODOT	OHIO	4,502	2,542	-	2,580 (3)	2,327 (3)	1,973	-	-	2,500	2,100	Yes	
5393198	SB Western Ave, btw Liberty St & Findlay St	ODOT	OHIO	4,664 (3)	4,706 (3)	-	4,739 (3)	4,388 (3)	4,424	4,733	-	4,700	5,000	Yes	
148931	WB Findlay St, btw Western & I-75	ODOT	OHIO	-	-	-	-	-	1,396	1,421	-	1,400	1,450	Yes	
148931	EB Findlay St, btw Western & I-75	ODOT	OHIO	-	-	-	-	-	3,164	3,221	-	3,200	3,250	Yes	
149031	WB Liberty St, btw Western & Winchell	ODOT	OHIO	-	-	-	-	-	3,330	3,391	-	3,400	3,250	Yes	
149031	EB Liberty St, btw Western & Winchell	ODOT	OHIO	-	-	-	-	-	4,853	4,941	-	4,900	4,150	Yes	
149131	Western Ave, btw Liberty St & Ezzard Charles	ODOT	OHIO	-	-	-	-	-	8,714	10,282	-	10,300	7,100	Yes	
149331	WB Ezzard Charles, btw Western & Winchell	ODOT	OHIO	-	-	-	-	-	760	813	-	800	800	Yes	
149431	EB Ezzard Charles, btw Western & Winchell	ODOT	OHIO	-	-	-	-	-	2,412	2,581	-	2,600	2,600	Yes	
149631	Western Ave north of Gest	ODOT	OHIO	-	-	-	-	-	2,480	2,653	-	2,700	2,350	Yes	
149531	WB Gest St btw Dalton & Western	ODOT	OHIO	-	-	-	-	-	2,764	2,958	-	3,000	3,100	Yes	
149531	EB Gest St btw Dalton & Western	ODOT	OHIO	-	-	-	-	-	2,521	2,697	-	2,700	2,800	Yes	
3131	SB Freeman Ave btw 8th & Gest	ODOT	OHIO	7,093 (3)	9,454	-	9,520 (3)	8,816 (3)	6,043	6,465	-	6,500	6,100	Yes	2018 is an outlier count
3131	NB Freeman Ave btw 8th & Gest	ODOT	OHIO	6,869 (3)	12,585	-	12,673 (3)	11,735 (3)	6,586	7,046	-	7,000	6,500	Yes	2018 is an outlier count
53199	Winchell Dr, ramp from Gest to Winchell Ave	ODOT	OHIO	9,870	8,382	-	8,441 (3)	7,816 (3)	9,869	-	-	8,400	9,250	Yes	
149831	WB Gest St, btw Freeman & Linn	ODOT	OHIO	-	-	-	-	-	2,956	3,010	-	3,000	2,950	Yes	
149831	EB Gest St, btw Freeman & Linn	ODOT	OHIO	-	-	-	-	-	2,654	2,706	-	2,700	2,750	Yes	
150431	EB Gest St, btw 6th St & 8th St	ODOT	OHIO	-	-	-	-	-	2,879	2,979	-	3,000	1,850	Yes	
150431	WB Gest St, btw 6th St & 8th St	ODOT	OHIO	-	-	-	-	-	4,825	5,211	-	5,200	4,600	Yes	
150031	SB Linn St, btw Gest St & 8th St	ODOT	OHIO	-	-	-	-	-	4,926	5,320	-	5,300	5,100	Yes	
150031	NB Linn St, btw Gest St & 8th St	ODOT	OHIO	-	-	-	-	-	6,232	6,850	-	6,900	3,750	Yes	
150131	EB 8th St east of Linn St	ODOT	OHIO	-	-	-	-	-	3,799	3,869	-	3,900	3,400	Yes	

Count ID	Site Description	Count Source	State	2017 AADT	2018 AADT		2019 AADT	2020 AADT	2021 AADT		2022 AADT	BSB Project 2019 AADT Target	BSB Project 2019 Balanced	Used for Traffic Balancing	Notes
					Published	Calculated			Published	Calculated					
150131	WB 8th St east of Linn St	ODOT	OHIO	-	-	-	-	-	3,604	3,670	-	3,700	4,200	Yes	
151331	Ramp from 7th St to Gest St	ODOT	OHIO	-	-	-	-	-	416	416	-	400	300	Yes	
151431	Ramp from Gest St to 7th St	ODOT	OHIO	-	-	-	-	-	632	632	-	600	750	Yes	
27131	EB Ramp conn US-50 EB to 5th	ODOT	OHIO	3,268 (3)	2,839	-	2,882 (3)	2,600 (3)	2,318	-	-	2,800	3,100	Yes	
HAM0903	WB US-50 E of Gest St	OKI	OHIO	-	22,392	-	-	-	-	-		22,400	20,950	Yes	
HAM1700	WB US-50 E of Linn St	OKI	OHIO	-	18,618	-	-	-	-	-		18,600	18,400	Yes	
HAM1700	EB US-50 E of Linn St	OKI	OHIO	-	20,752	-	-	-	-	-		20,800	21,900	Yes	
HAM0903	EB US-50 E of Gest St	OKI	OHIO	-	24,803	-	-	-	-	-		24,800	25,250	Yes	
104731	EB US-50, E of I-71 NB	ODOT	OHIO	25,760 (3)	27987	-	28,267 (3)	24,762 (3)	23309	-	-	28,000	27,400	Yes	
104231	WB US-50, to I-71 merge	ODOT	OHIO	25,238 (8)	27,266 (8)	27,996	27,539 (3)	24,124 (3)	25,168	-	-	28,000	27,750	Yes	

INTERSECTION TURN MOVEMENT AADT WORKSHEET

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
Dixie Hwy & SB Ramp Terminal Intersection	BSBC3	EBR	1791	3267	30	69	1821	3336	1/10/2017	1.083	3613	3050	059C19NEG	059N08Road	6-10 am; 2-6 pm	0	0	0	0	12992	7064	1.82	2.31
	BSBC3	EBT	3035	5536	44	102	3079	5638	1/10/2017	1.083	6106	5700	059C19NEG	0	6-10 am; 2-6 pm	0	0	0	0	8257	4468	1.82	2.31
	BSBC3	SBR	307	560	1	2	308	562	1/10/2017	1.083	609	550	059N07Road	059C19POS	6-10 am; 2-6 pm	0	0	0	0	14089	7881	1.82	2.31
	BSBC3	SBL	2260	4122	37	85	2297	4207	1/10/2017	1.083	4556	4650	059N07Road	0	6-10 am; 2-6 pm	0	0	0	0	4238	2184	1.82	2.31
	BSBC3	WBT	4974	9072	88	203	5062	9275	1/10/2017	1.083	10045	9100	0	059C19POS	6-10 am; 2-6 pm	0	0	0	0	9851	5697	1.82	2.31
	BSBC3	WBL	665	1213	11	25	676	1238	1/10/2017	1.083	1341	1400	0	059N08Road	6-10 am; 2-6 pm	0	0	0	0	4735	2596	1.82	2.31
Dixie Hwy & NB Ramp Terminal Intersection	BSBC4	WBR	4099	7476	51	118	4150	7594	1/10/2017	1.083	8224	6450	0	059N06Road	6-10 am; 2-6 pm	0	0	0	0	7631	3849	1.82	2.31
	BSBC4	WBT	4534	8270	67	155	4601	8425	1/10/2017	1.083	9124	8350	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.82	2.31
	BSBC4	NBR	793	1446	8	18	801	1464	1/10/2017	1.083	1586	1650	059N05Road	0	6-10 am; 2-6 pm	0	0	0	0	3066	1646	1.82	2.31
	BSBC4	NBL	1070	1952	24	55	1094	2007	1/10/2017	1.083	2174	2150	059N05Road	0	6-10 am; 2-6 pm	0	0	0	0	3066	1646	1.82	2.31
	BSBC4	EBT	5114	9328	70	162	5184	9490	1/10/2017	1.083	10278	10000	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.82	2.31
	BSBC4	EBL	206	376	8	18	214	394	1/10/2017	1.083	427	350	0	059N06Road	6-10 am; 2-6 pm	0	0	0	0	7631	3849	1.82	2.31
Dixie & Kyles Lane	CSS7	SBT	3441	5807	48	93	3489	5900	9/27/2022	0.945	5576	5250	0	-	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	CSS7	SBL	3722	6281	64	124	3786	6405	9/27/2022	0.945	6053	5650	0	059D22NEG	6-10 am; 2-7 pm	0	0	0	0	9975	6331	1.69	1.94
	CSS7	WBR	3609	6091	59	115	3668	6206	9/27/2022	0.945	5865	6000	059D22POS	0	6-10 am; 2-7 pm	0	0	0	0	8846	5082	1.69	1.94
	CSS7	WBL	1404	2369	15	29	1419	2398	9/27/2022	0.945	2266	2500	059D22POS	-	6-10 am; 2-7 pm	0	0	0	0	8846	5082	1.69	1.94
	CSS7	NBT	3303	5574	53	103	3356	5677	9/27/2022	0.945	5365	5050	-	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	CSS7	NBR	1474	2488	11	21	1485	2509	9/27/2022	0.945	2371	2400	-	059D22NEG	6-10 am; 2-7 pm	0	0	0	0	9975	6331	1.69	1.94
Kyles & SB Ramp Terminal Intersection	BSBC5	SBR	789	1439	15	35	804	1474	1/10/2017	1.083	1596	1800	059N03POS	059D22POS	6-10 am; 2-6 pm	0	0	0	0	17062	8657	1.82	2.31
	BSBC5	SBL	3098	5651	115	266	3213	5917	1/10/2017	1.083	6408	5450	059N03POS	0	6-10 am; 2-6 pm	0	0	0	0	8217	4159	1.82	2.31
	BSBC5	WBT	3165	5773	74	171	3239	5944	1/10/2017	1.083	6437	6700	0	059D22POS	6-10 am; 2-6 pm	0	0	0	0	8846	4499	1.82	2.31
	BSBC5	WBL	1443	2632	30	69	1473	2701	1/10/2017	1.083	2925	2350	0	059N04POS	6-10 am; 2-6 pm	0	0	0	0	5097	2526	1.82	2.31
	BSBC5	EBR	1197	2183	30	69	1227	2252	1/10/2017	1.083	2439	2500	059D22NEG	059N04POS	6-10 am; 2-6 pm	0	0	0	0	15072	8219	1.82	2.31
	BSBC5	EBT	2729	4978	66	152	2795	5130	1/10/2017	1.083	5556	5550	059D22NEG	0	6-10 am; 2-6 pm	0	0	0	0	9975	5693	1.82	2.31
Kyles & NB Ramp Terminal Intersection	BSBC6	WBR	4105	7487	130	300	4235	7787	1/10/2017	1.083	8433	5900	059D72POS	059N02POS	6-10 am; 2-6 pm	0	0	0	0	20652	11173	1.82	2.31
	BSBC6	WBT	3626	6614	84	194	3710	6808	1/10/2017	1.083	7373	6900	059D72POS	0	6-10 am; 2-6 pm	0	0	0	0	12683	6726	1.82	2.31
	BSBC6	NBR	1371	2501	24	55	1395	2556	1/10/2017	1.083	2768	2850	059N01POS	059D72NEG	6-10 am; 2-6 pm	0	0	0	0	16250	8191	1.82	2.31
	BSBC6	NBL	1019	1859	25	58	1044	1917	1/10/2017	1.083	2076	2150	059N01POS	0	6-10 am; 2-6 pm	0	0	0	0	5351	2406	1.82	2.31
	BSBC6	EBT	5171	9432	160	369	5331	9801	1/10/2017	1.083	10614	10000	0	059D72NEG	6-10 am; 2-6 pm	0	0	0	0	10899	5785	1.82	2.31
	BSBC6	EBL	652	1189	15	35	667	1224	1/10/2017	1.083	1326	1000	0	059N02POS	6-10 am; 2-6 pm	0	0	0	0	7969	4447	1.82	2.31
W 12 & NB Ramp Intersection	BSBC7	WBR	2376	4833	96	172	2472	5005	1/10/2017	1.013	5070	4300	059C71ndir	0	6-10 am; 2-6 pm	8637	4247	570	318	9207	4565	2.03	1.79
	BSBC7	WBT	2196	4466	63	113	2259	4579	1/10/2017	1.013	4639	4300	059C71ndir	0	6-10 am; 2-6 pm	8637	4247	570	318	9207	4565	2.03	1.79

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	BSBC7	NBR	1833	4110	53	108	1886	4218	1/10/2017	1.013	4273	3900	059H34Pos	059C71pdir	6-10 am; 2-6 pm	7021	3131	329	162	13461	5995	2.24	2.03
	BSBC7	NBT	771	1470	25	48	796	1518	1/10/2017	1.013	1538	1650	059H34Pos	0	6-10 am; 2-6 pm	0	0	0	0	6111	2702	1.91	1.92
	BSBC7	NBL	58	111	1	2	59	113	1/10/2017	1.013	114	100	059H34Pos	0	6-10 am; 2-6 pm	0	0	0	0	6111	2702	1.91	1.92
	BSBC7	EBT	2386	5350	104	211	2490	5561	1/10/2017	1.013	5633	4950	0	059C71pdir	6-10 am; 2-6 pm	7021	3131	329	162	7350	3293	2.24	2.03
	BSBC7	EBL	241	460	5	10	246	470	1/10/2017	1.013	476	450	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
W 12 & SB Ramp Intersection	BSBC8	SBR	62	118	0	0	62	118	1/10/2017	1.013	120	100	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC8	SBT	916	1747	9	17	925	1764	1/10/2017	1.013	1787	1800	0	CSSRamp1	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC8	SBL	1767	3370	90	173	1857	3543	1/10/2017	1.013	3589	3650	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC8	WBT	151	288	4	8	155	296	1/10/2017	1.013	300	250	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC8	WBL	2120	4043	56	108	2176	4151	1/10/2017	1.013	4205	4150	0	CSSRamp1	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC8	EBR	73	139	1	2	74	141	1/10/2017	1.013	143	200	0	CSSRamp1	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC8	EBT	878	1674	13	25	891	1699	1/10/2017	1.013	1721	1750	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
Simon Kenton Way & Pike St Intersection	BSBC9	WBR	719	1371	11	21	730	1392	1/12/2017	1.029	1432	950	0	BSBSC41	6-10 am; 2-6 pm	0	0	0	0	7701	4615	1.91	1.92
	BSBC9	WBT	1915	3652	58	111	1973	3763	1/12/2017	1.029	3872	3500	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC9	NBR	797	1520	22	42	819	1562	1/12/2017	1.029	1607	1500	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC9	NBT	1957	3732	82	157	2039	3889	1/12/2017	1.029	4002	3150	0	BSBSC41	6-10 am; 2-6 pm	0	0	0	0	7701	4615	1.91	1.92
	BSBC9	NBL	766	1461	17	33	783	1494	1/12/2017	1.029	1537	1750	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC9	EBT	2487	4743	68	131	2555	4874	1/12/2017	1.029	5015	4800	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC9	EBL	2151	4102	21	40	2172	4142	1/12/2017	1.029	4262	3450	0	BSBSC41	6-10 am; 2-6 pm	0	0	0	0	7701	4615	1.91	1.92
Bullock St & Pike St Intersection	BSBC10	SBL	0	0	0	0	709	1203	1/12/2017	1.029	1238	1250	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	BSBC10	SBT	0	0	0	0	1594	2707	1/12/2017	1.029	2786	3000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	BSBC10	SBR	0	0	0	0	2192	3722	1/12/2017	1.029	3830	3900	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	BSBC10	WBL	0	0	0	0	1230	2088	1/12/2017	1.029	2149	2000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	BSBC10	WBT	0	0	0	0	2168	3681	1/12/2017	1.029	3788	3250	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	BSBC10	EBT	0	0	0	0	4246	7211	1/12/2017	1.029	7420	7000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	BSBC10	EBR	0	0	0	0	291	494	1/12/2017	1.029	509	550	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Crescent & 4th Intersection	BSBC11	SBT	743	1417	7	13	750	1430	1/12/2017	1.029	1471	2100	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC11	SBL	965	1840	27	52	992	1892	1/12/2017	1.029	1947	1900	0	-	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC11	WBR	555	1058	17	33	572	1091	1/12/2017	1.029	1123	1200	059C78Neg	0	6-10 am; 2-6 pm	0	0	0	0	2293	991	1.91	1.92
	BSBC11	WBL	164	313	3	6	167	319	1/12/2017	1.029	328	500	059C78Neg	0	6-10 am; 2-6 pm	0	0	0	0	2293	991	1.91	1.92
	BSBC11	NBR	75	143	0	0	75	143	1/12/2017	1.029	147	150	0	-	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC11	NBT	1654	3154	56	108	1710	3262	1/12/2017	1.029	3357	5350	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
Crescent & 5th Intersection	BSBC12	SBT	285	543	3	6	288	549	1/12/2017	1.029	565	600	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC12	SBL	634	1209	6	12	640	1221	1/12/2017	1.029	1256	2000	0	059D75Pos	6-10 am; 2-6 pm	0	0	0	0	5915	2353	1.91	1.92
	BSBC12	WBR	1439	2744	45	86	1484	2830	1/12/2017	1.029	2912	5050	-	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	BSBC12	WBL	119	227	1	2	120	229	1/12/2017	1.029	236	400	-	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
	BSBC12	NBR	102	195	1	2	103	197	1/12/2017	1.029	203	350	0	059D75Pos	6-10 am; 2-6 pm	0	0	0	0	5915	2353	1.91	1.92
	BSBC12	NBT	246	469	9	17	255	486	1/12/2017	1.029	500	450	0	0	6-10 am; 2-6 pm	0	0	0	0	0	0	1.91	1.92
Main St & Pike St Intersection	CSS1	SBL	0	0	0	0	0	0	9/27/2022	0.918	0	50	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS1	SBR	1249	2121	12	22	1261	2143	9/27/2022	0.918	1967	2800	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS1	WBT	898	1525	35	63	933	1588	9/27/2022	0.918	1458	1650	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS1	WBR	207	352	3	5	210	357	9/27/2022	0.918	328	300	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS1	EBL	2611	4434	84	151	2695	4585	9/27/2022	0.918	4209	3600	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS1	EBT	1706	2897	43	77	1749	2974	9/27/2022	0.918	2730	2700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Philadelphia St & 9th St Intersection	CSS2	SBL	236	401	5	9	241	410	9/27/2022	0.918	376	400	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS2	SBR	114	194	4	7	118	201	9/27/2022	0.918	185	200	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS2	WBT	143	243	11	20	154	263	9/27/2022	0.918	241	250	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS2	EBT	218	370	13	23	231	393	9/27/2022	0.918	361	350	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Main St & 5th Intersection	CSS3	SBL	1045	1775	20	36	1065	1811	9/27/2022	0.918	1662	2150	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS3	SBT	1155	1961	16	29	1171	1990	9/27/2022	0.918	1827	2100	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS3	NBT	2596	4409	68	122	2664	4531	9/27/2022	0.918	4159	3450	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS3	NBR	559	949	29	52	588	1001	9/27/2022	0.918	919	750	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS3	EBL	426	723	44	79	470	802	9/27/2022	0.918	736	1250	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS3	EBT	2427	4122	83	149	2510	4271	9/27/2022	0.918	3921	6000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS3	EBR	388	659	12	22	400	681	9/27/2022	0.918	625	800	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Main St & 4th Intersection	CSS4	SBT	1819	3089	22	40	1841	3129	9/27/2022	0.918	2872	3500	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS4	SBR	2053	3486	163	293	2216	3779	9/27/2022	0.918	3469	3950	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS4	WBL	440	747	11	20	451	767	9/27/2022	0.918	704	750	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS4	WBT	6110	10376	144	259	6254	10635	9/27/2022	0.918	9763	9450	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS4	WBR	2304	3913	127	228	2431	4141	9/27/2022	0.918	3801	5200	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS4	NBL	1328	2255	48	86	1376	2341	9/27/2022	0.918	2149	1800	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS4	NBT	1632	2772	63	113	1695	2885	9/27/2022	0.918	2648	2900	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Philadelphia St & 4th St Intersection	CSS5	SBT	529	898	93	167	622	1065	9/27/2022	0.918	978	1000	059C76NEG	0	6-10 am; 2-7 pm	0	0	0	0	9033	5507	1.70	1.80
	CSS5	SBR	2700	4585	51	92	2751	4677	9/27/2022	0.918	4293	4450	059C76NEG	0	6-10 am; 2-7 pm	0	0	0	0	9033	5507	1.70	1.80
	CSS5	WBL	591	1004	20	36	611	1040	9/27/2022	0.918	955	950	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS5	WBT	7494	12727	175	314	7669	13041	9/27/2022	0.918	11972	12000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS5	WBR	515	875	13	23	528	898	9/27/2022	0.918	824	2250	0	059C76POS	6-10 am; 2-7 pm	0	0	0	0	5151	2415	1.70	1.80
	CSS5	NBL	1272	2160	24	43	1296	2203	9/27/2022	0.918	2022	1650	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS5	NBT	468	795	9	16	477	811	9/27/2022	0.918	744	2400	0	059C76POS	6-10 am; 2-7 pm	0	0	0	0	5151	2415	1.70	1.80
	CSS6	SBL	569	966	96	172	665	1138	9/27/2022	0.918	1045	1400	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
Philadelphia St & 5th St Intersection	CSS6	SBT	225	382	3	5	228	387	9/27/2022	0.918	355	550	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS6	NBT	774	1314	4	7	778	1321	9/27/2022	0.918	1213	1350	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS6	NBR	104	177	5	9	109	186	9/27/2022	0.918	171	200	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS6	EBL	592	1005	21	38	613	1043	9/27/2022	0.918	957	2700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS6	EBT	2275	3863	35	63	2310	3926	9/27/2022	0.918	3604	6450	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS6	EBR	269	457	6	11	275	468	9/27/2022	0.918	430	750	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Central Ave & 9th Intersection	CSS8	SBR	370	639	3	5	373	644	9/27/2022	0.945	609	550	0	150331WB	6-10 am; 2-7 pm	8854	5125	299	173	9153	5298	1.73	1.73
	CSS8	WBT	5245	9125	217	356	5462	9481	9/27/2022	0.945	8960	8650	12531WB	150331WB	6-10 am; 2-7 pm	18533	10653	789	481	19322	11134	1.74	1.64
	CSS8	WBR	208	364	3	5	211	369	9/27/2022	0.945	349	350	12531WB	0	6-10 am; 2-7 pm	9679	5528	490	308	10169	5836	1.75	1.59
	CSS8	NBL	896	1548	15	26	911	1574	9/27/2022	0.945	1487	1700	0	150331WB	6-10 am; 2-7 pm	8854	5125	299	173	9153	5298	1.73	1.73
	CSS8	NBT	1338	2258	38	74	1376	2332	9/27/2022	0.945	2204	2700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
Central Ave & 7th Intersection	137131	NBT	1961	3017	36	67	1997	3084	12/5/2017	1.028	3170	2250	9731NB	0	6-10 am; 2-7 pm	2669	1735	132	71	2801	1806	1.54	1.86
	137131	NBR	1183	1840	11	17	1194	1857	12/5/2017	1.028	1909	1650	9731NB	9831EB	6-10 am; 2-7 pm	11925	7667	741	468	12666	8135	1.56	1.59
	137131	EBL	1678	2832	21	41	1699	2873	12/5/2017	1.028	2953	2150	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	137131	EBT	4876	7608	226	347	5102	7955	12/5/2017	1.028	8178	7300	0	9831EB	6-10 am; 2-7 pm	9256	5932	609	397	9865	6329	1.56	1.54
	137131	EBR	488	774	0	0	488	774	12/5/2017	1.028	796	700	0	9731SB	6-10 am; 2-7 pm	760	479	25	13	785	492	1.59	1.92
Central Ave & 6th Intersection	CSS9	SBT	261	405	6	10	267	415	9/27/2022	0.945	392	600	9731SB	9631SB	6-10 am; 2-7 pm	5209	3357	232	139	5441	3496	1.55	1.67
	CSS9	SBR	77	128	2	3	79	131	9/27/2022	0.945	124	100	9731SB	27231WB	6-10 am; 2-7 pm	4880	2930	122	81	5002	3011	1.67	1.51
	CSS9	WBL	758	1175	46	73	804	1248	9/27/2022	0.945	1179	2300	27531WB	9631SB	6-10 am; 2-7 pm	14207	9164	678	426	14885	9590	1.55	1.59
	CSS9	WBT	3345	5313	87	134	3432	5447	9/27/2022	0.945	5147	4650	27531WB	27231WB	6-10 am; 2-7 pm	13878	8737	568	368	14446	9105	1.59	1.54
	CSS9	WBR	577	894	18	29	595	923	9/27/2022	0.945	872	1050	27531WB	9731NB	6-10 am; 2-7 pm	12427	8021	603	371	13030	8392	1.55	1.63
	CSS9	NBL	660	1086	7	11	667	1097	9/27/2022	0.945	1037	950	9631NB	27231WB	6-10 am; 2-7 pm	7135	4335	306	191	7441	4526	1.65	1.60
	CSS9	NBT	1570	2466	25	44	1595	2510	9/27/2022	0.945	2372	2850	9631NB	9731NB	6-10 am; 2-7 pm	5684	3619	341	194	6025	3813	1.57	1.76
Central Ave & 5th Intersection	483324	SBL	1262	1951	23	38	1285	1989	11/14/2017	0.947	1884	1500	9631SB	0	6-10 am; 2-7 pm	4449	2878	207	126	4656	3004	1.55	1.64
	483324	SBT	1328	2053	68	112	1396	2165	11/14/2017	0.947	2050	1400	9631SB	0	6-10 am; 2-7 pm	4449	2878	207	126	4656	3004	1.55	1.64
	483324	NBT	1881	3010	45	76	1926	3086	11/14/2017	0.947	2922	2500	0	9631NB	6-10 am; 2-7 pm	3015	1884	209	123	3224	2007	1.60	1.70
	483324	NBR	961	1622	59	115	1020	1737	11/14/2017	0.947	1645	1450	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	483324	EBL	1050	1680	2	3	1052	1683	11/14/2017	0.947	1594	1300	0	9631NB	6-10 am; 2-7 pm	3015	1884	209	123	3224	2007	1.60	1.70
	483324	EBT	7233	12207	149	289	7382	12496	11/14/2017	0.947	11834	10100	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	483324	EBR	125	211	0	0	125	211	11/14/2017	0.947	200	150	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
Central Ave & 4th Intersection	CSS10	SBT	809	1298	45	73	854	1371	9/27/2022	0.945	1296	1550	0	13031SB	6-10 am; 2-7 pm	2199	1371	215	133	2414	1504	1.60	1.62
	CSS10	WBL	260	417	30	48	290	465	9/27/2022	0.945	439	500	0	13031SB	6-10 am; 2-7 pm	2199	1371	215	133	2414	1504	1.60	1.62
	CSS10	WBT	1636	2738	76	110	1712	2848	9/27/2022	0.945	2691	2700	0	117131RAMP	6-10 am; 2-7 pm	6487	3876	342	236	6828	4112	1.67	1.45
	CSS10	WBR	519	876	18	35	537	911	9/27/2022	0.945	861	950	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	CSS10	NBL	2074	3489	66	102	2140	3591	9/27/2022	0.945	3393	3150	13031NB	117131RAMP	6-10 am; 2-7 pm	12106	7195	836	541	12941	7736	1.68	1.54

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	CSS10	NBT	1456	2465	42	68	1498	2533	9/27/2022	0.945	2394	3000	13031NB	0	6-10 am; 2-7 pm	5619	3319	494	305	6113	3624	1.69	1.62
Central Ave & 3rd Intersection	CSS11	SBT	304	460	41	64	345	524	9/27/2022	0.945	495	700	13031SB	12931SB	6-10 am; 2-7 pm	4654	3079	510	327	5164	3406	1.51	1.56
	CSS11	SBR	770	1255	34	60	804	1315	9/27/2022	0.945	1243	1350	13031SB	15931WB	6-10 am; 2-7 pm	3443	2113	555	315	3998	2428	1.63	1.76
	CSS11	WBL	636	914	79	120	715	1034	9/27/2022	0.945	977	1200	0	12931SB	6-10 am; 2-7 pm	2455	1708	295	194	2750	1902	1.44	1.52
	CSS11	WBT	1265	2121	157	293	1422	2414	9/27/2022	0.945	2281	2400	0	15931WB	6-10 am; 2-7 pm	1244	742	340	182	1584	924	1.68	1.87
	CSS11	WBR	1512	2560	30	49	1542	2609	9/27/2022	0.945	2466	2700	0	13031NB	6-10 am; 2-7 pm	5619	3319	494	305	6113	3624	1.69	1.62
	CSS11	NBL	323	492	10	18	333	510	9/27/2022	0.945	482	450	12931NB	15931WB	6-10 am; 2-7 pm	3243	2128	501	283	3744	2411	1.52	1.77
	CSS11	NBT	816	1321	44	71	860	1392	9/27/2022	0.945	1315	1500	12931NB	13031NB	6-10 am; 2-7 pm	7618	4705	655	406	8273	5111	1.62	1.61
	CSS11	EBL	1071	1767	36	61	1107	1828	9/27/2022	0.945	1727	1950	15931EB	13031NB	6-10 am; 2-7 pm	7929	4805	706	420	8635	5225	1.65	1.68
	CSS11	EBR	227	339	8	13	235	352	9/27/2022	0.945	333	400	15931EB	12931SB	6-10 am; 2-7 pm	4765	3194	507	309	5272	3503	1.49	1.64
4th St & Elm St Intersection	CSS12	WBT	1712	2907	112	201	1824	3108	9/27/2022	0.918	2853	2900	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS12	WBR	477	810	57	102	534	912	9/27/2022	0.918	837	850	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS12	NBL	661	1123	12	22	673	1145	9/27/2022	0.918	1051	1150	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS12	NBT	1344	2282	35	63	1379	2345	9/27/2022	0.918	2153	2600	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
2nd St & Elm St Intersection	469704	NBT	671	1140	28	50	699	1190	11/14/2017	0.914	1088	1400	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	469704	NBR	222	377	25	45	247	422	11/14/2017	0.914	386	400	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	469704	EBL	1461	2481	7	13	1468	2494	11/14/2017	0.914	2280	1700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	469704	EBT	7374	12523	226	406	7600	12929	11/14/2017	0.914	11817	12000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	469704	EBR	790	1342	9	16	799	1358	11/14/2017	0.914	1241	1250	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
3rd St & Elm St Intersection	483323	WBT	5815	10916	316	625	6131	11541	11/14/2017	0.914	10548	10200	0	104531Ramp	6-10 am; 2-7 pm	5003	2665	275	139	5278	2804	1.88	1.98
	483323	WBR	1355	2301	80	144	1435	2445	11/14/2017	0.914	2235	2050	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	483323	NBL	983	1845	51	101	1034	1946	11/14/2017	0.914	1779	1400	0	104531Ramp	6-10 am; 2-7 pm	5003	2665	275	139	5278	2804	1.88	1.98
	483323	NBT	1363	2315	84	151	1447	2466	11/14/2017	0.914	2254	1700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
3rd St & Race St Intersection	472684	SBT	2132	3621	25	45	2157	3666	11/14/2017	0.914	3351	3350	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	472684	SBR	1320	2242	270	485	1590	2727	11/14/2017	0.914	2492	2500	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	472684	WBL	707	1201	15	27	722	1228	11/14/2017	0.914	1122	1100	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	472684	WBT	6169	10476	194	349	6363	10825	11/14/2017	0.914	9894	9750	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
3rd St & CWB Bridge Intersection	483303	WBL	2251	3774	154	288	2405	4062	12/7/2017	0.984	3997	3100	15931WB	HAM4034SB	6-10 am; 2-7 pm	1244	742	340	182	1584	924	1.68	1.87
	483303	WBT	568	940	52	93	620	1033	12/7/2017	0.984	1016	1100	15931WB	93199WB	6-10 am; 2-7 pm	5170	3125	640	358	5810	3483	1.65	1.79
	483303	NBL	1650	2718	40	68	1690	2786	12/7/2017	0.984	2741	3050	HAM4034NB	93199WB	6-10 am; 2-7 pm	3926	2383	300	176	4226	2559	1.65	1.70
	483303	NBR	1264	1965	33	61	1297	2026	12/7/2017	0.984	1994	1750	HAM4034NB	15931EB	6-10 am; 2-7 pm	2310	1486	212	115	2522	1601	1.55	1.84
	483303	EBT	265	419	31	52	296	471	12/7/2017	0.984	463	600	93199EB	15931EB	6-10 am; 2-7 pm	9696	6138	771	457	10467	6594	1.58	1.69
	483303	EBR	2352	3735	84	137	2436	3872	12/7/2017	0.984	3810	6050	93199EB	HAM4034SB	6-10 am; 2-7 pm	7386	4652	559	342	7945	4993	1.59	1.64
2nd St & CWB Bridge Intersection	124231	SBL	600	1013	21	41	621	1054	4/10/2018	0.981	1034	1700	HAM4034SB	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.69	1.94
	124231	SBT	4589	8293	287	382	4876	8675	4/10/2018	0.981	8510	7450	HAM4034SB	059001NDir	6-10 am; 2-7 pm	6028	3336	1188	892	7216	4228	1.81	1.33

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	124231	NBT	3155	5368	72	104	3227	5472	4/10/2018	0.981	5368	4800	059001PDir	HAM4034NB	6-10 am; 2-7 pm	6380	3750	733	508	7112	4257	1.70	1.44
	124231	NBR	2004	3410	190	274	2194	3684	4/10/2018	0.981	3614	3300	059001PDir	0	6-10 am; 2-7 pm	6380	3750	733	508	7112	4257	1.70	1.44
3rd St & Plum St Intersection	CSS13	SBR	285	484	3	5	288	489	9/27/2022	0.918	449	600	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS13	WBT	3195	5426	261	469	3456	5895	9/27/2022	0.918	5412	5700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
4th St & Plum St Intersection	CSS14	SBT	192	326	6	11	198	337	9/27/2022	0.918	309	400	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS14	SBR	197	335	4	7	201	342	9/27/2022	0.918	314	300	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS14	WBL	126	214	2	4	128	218	9/27/2022	0.918	200	200	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS14	WBT	2204	3743	123	221	2327	3964	9/27/2022	0.918	3639	3850	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Spring Grove & WHV Intersection	CSS15	SBT	3430	5825	241	433	3671	6258	9/27/2022	0.918	5745	5700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS15	SBR	1153	1958	32	57	1185	2015	9/27/2022	0.918	1850	1800	0	HAM1856WB	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS15	NBL	1112	1888	80	144	1192	2032	9/27/2022	0.918	1865	1950	0	HAM1856WB	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS15	NBT	2782	4725	184	331	2966	5056	9/27/2022	0.918	4641	4100	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS15	EBL	1110	1885	66	119	1176	2004	9/27/2022	0.918	1840	1800	HAM1856EB	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS15	EBR	701	1190	68	122	769	1312	9/27/2022	0.918	1204	1200	HAM1856EB	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Dalton Ave & Linn St Intersection	CSS16	SBT	1915	3252	71	128	1986	3380	9/27/2022	0.918	3103	3150	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	SBR	96	163	7	13	103	176	9/27/2022	0.918	162	150	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	WBL	160	272	13	23	173	295	9/27/2022	0.918	271	250	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	WBT	520	883	126	226	646	1109	9/27/2022	0.918	1018	1000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	WBR	760	1291	30	54	790	1345	9/27/2022	0.918	1235	1300	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	NBL	457	776	34	61	491	837	9/27/2022	0.918	768	700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	NBT	577	980	57	102	634	1082	9/27/2022	0.918	993	1300	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	EBL	46	78	2	4	48	82	9/27/2022	0.918	75	100	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS16	EBR	1247	2118	124	223	1371	2341	9/27/2022	0.918	2149	2200	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
6th St & Linn St Intersection	CSS17	SBL	1544	2622	110	198	1654	2820	9/27/2022	0.918	2589	2700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS17	SBT	1776	3016	95	171	1871	3187	9/27/2022	0.918	2926	2900	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS17	NBT	1036	1759	93	167	1129	1926	9/27/2022	0.918	1768	2000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS17	NBR	343	582	48	86	391	668	9/27/2022	0.918	613	650	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
Ezzard Charles & Linn St Intersection	CSS18	SBL	227	386	9	16	236	402	9/27/2022	0.918	369	350	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	SBT	2131	3619	95	171	2226	3790	9/27/2022	0.918	3479	3500	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	SBR	347	589	13	23	360	612	9/27/2022	0.918	562	550	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	WBL	352	598	13	23	365	621	9/27/2022	0.918	570	550	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	WBT	949	1612	46	83	995	1695	9/27/2022	0.918	1556	2000	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	WBR	172	292	10	18	182	310	9/27/2022	0.918	285	300	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	NBL	577	980	13	23	590	1003	9/27/2022	0.918	921	950	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	NBT	2162	3672	104	187	2266	3859	9/27/2022	0.918	3543	3550	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	CSS18	NBR	398	676	12	22	410	698	9/27/2022	0.918	641	650	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	EBL	235	399	5	9	240	408	9/27/2022	0.918	375	400	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	EBT	1482	2517	33	59	1515	2576	9/27/2022	0.918	2365	2050	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
	CSS18	EBR	398	676	0	0	398	676	9/27/2022	0.918	621	700	0	0	6-10 am; 2-7 pm	0	0	0	0	0	0	1.70	1.80
6th St & Gest St Intersection	145431	~~WBR~~	~~5~~	~~8~~	~~0~~	~~0~~	~~5~~	~~8~~	~~1/14/2021~~	~~1.08~~	~~9~~	2950	~~140131WB~~	~~0~~	~~6-10 am; 3-7 pm~~	~~4444~~	~~2615~~	~~740~~	~~337~~	~~5184~~	~~2952~~	~~1.70~~	~~2.20~~
	145431	WBL	379	644	102	224	481	868	1/14/2021	1.08	937	1000	140131WB	0	6-10 am; 3-7 pm	4444	2615	740	337	5184	2952	1.70	2.20
	145431	NBT	1054	2033	123	256	1177	2289	1/14/2021	1.08	2472	2400	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	145431	SBT	633	1221	72	150	705	1371	1/14/2021	1.08	1481	2150	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
Linn St & Gest St Intersection	145531	EBR	148	285	9	19	157	304	1/21/2021	1.08	328	300	0	150031SB	6-10 am; 3-7 pm	0	0	0	0	4926	2334	1.93	2.08
	145531	EBL	359	692	7	15	366	707	1/21/2021	1.08	764	600	0	149731NB	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	145531	WBR	632	1219	12	25	644	1244	1/21/2021	1.08	1344	1300	0	149731NB	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	145531	WBL	121	233	21	44	142	277	1/21/2021	1.08	299	350	0	150031SB	6-10 am; 3-7 pm	0	0	0	0	4926	2334	1.93	2.08
	145531	NBT	1336	2576	53	110	1389	2686	1/21/2021	1.08	2901	3750	150031NB	149731NB	6-10 am; 3-7 pm	0	0	0	0	6343	2975	1.93	2.08
	145531	SBT	2004	3865	73	152	2077	4017	1/21/2021	1.08	4338	4450	149731SB	150031SB	6-10 am; 3-7 pm	0	0	0	0	4926	2334	1.93	2.08
Freeman Ave & Gest St Intersection	145631	EBR	417	814	46	103	463	917	1/20/2021	1.08	990	1050	0	3131WB	6-10 am; 3-7 pm	5190	2657	797	355	5987	3012	1.95	2.25
	145631	EBT	428	816	22	48	450	864	1/20/2021	1.08	933	1150	0	149831EB	6-10 am; 3-7 pm	2397	1258	109	50	2506	1308	1.91	2.17
	145631	EBL	595	1218	141	314	736	1532	1/20/2021	1.08	1655	1550	0	531991-WAY	6-10 am; 3-7 pm	8283	4047	2245	1009	10528	5056	2.05	2.22
	145631	WBR	629	1273	105	236	734	1509	1/20/2021	1.08	1630	1700	149831WB	531991-WAY	6-10 am; 3-7 pm	10770	5323	2545	1130	13315	6453	2.02	2.25
	145631	WBT	436	850	48	119	484	969	1/20/2021	1.08	1047	1050	149831WB	0	6-10 am; 3-7 pm	2487	1276	300	121	2787	1397	1.95	2.48
	145631	WBL	55	107	17	39	72	146	1/20/2021	1.08	158	200	149831WB	3131WB	6-10 am; 3-7 pm	7677	3933	1097	476	8774	4409	1.95	2.30
	145631	NBR	86	170	3	7	89	177	1/20/2021	1.08	191	250	3131EB	149831EB	6-10 am; 3-7 pm	7963	4026	1068	476	9030	4502	1.98	2.24
	145631	NBT	2387	4851	321	717	2708	5568	1/20/2021	1.08	6013	6000	3131EB	531991-WAY	6-10 am; 3-7 pm	13849	6815	3204	1435	17053	8250	2.03	2.23
	145631	NBL	109	219	8	18	117	237	1/20/2021	1.08	256	250	3131EB	0	6-10 am; 3-7 pm	5566	2768	959	426	6525	3194	2.01	2.25
	145631	SBR	144	308	37	92	181	400	1/20/2021	1.08	432	400	90031RAMP	0	6-10 am; 3-7 pm	5738	2683	590	238	6328	2921	2.14	2.48
	145631	SBT	2067	4230	341	797	2408	5027	1/20/2021	1.08	5429	4850	90031RAMP	3131WB	6-10 am; 3-7 pm	10928	5340	1387	593	12314	5933	2.05	2.34
	145631	SBL	496	1024	60	145	556	1169	1/20/2021	1.08	1263	1350	90031RAMP	149831EB	6-10 am; 3-7 pm	8135	3941	698	288	8833	4229	2.06	2.42
Western Ave & Gest St Intersection	145731	EBT	1087	2336	155	360	1242	2696	1/20/2021	1.08	2912	2800	149531EB	0	6-10 am; 3-7 pm	2224	1035	274	118	2498	1153	2.15	2.32
	145731	WBT	694	1462	92	211	786	1673	1/20/2021	1.08	1807	1700	0	149531WB	6-10 am; 3-7 pm	2418	1148	321	140	2739	1288	2.11	2.30
	145731	SBR	533	1129	63	148	596	1277	1/20/2021	1.08	1379	1400	1496311-WAY	149531WB	6-10 am; 3-7 pm	4660	2200	536	228	5195	2428	2.12	2.35
	145731	SBL	359	765	53	129	412	894	1/20/2021	1.08	966	950	1496311-WAY	0	6-10 am; 3-7 pm	2242	1052	215	89	2457	1141	2.13	2.43
Mound & 9th Intersection	145831	WBR	131	261	4	8	135	269	1/14/2021	1.08	291	300	150331WB	-	6-10 am; 3-7 pm	8854	4445	299	154	9153	4599	1.99	1.94
	145831	WBBR	1736	3294	47	89	1783	3383	1/14/2021	1.08	3654	4250	150331WB	139731Ramp	6-10 am; 3-7 pm	14428	7605	376	199	14804	7804	1.90	1.89
	145831	WBBL	2178	4339	99	192	2277	4531	1/14/2021	1.08	4893	6350	150331WB	0	6-10 am; 3-7 pm	8854	4445	299	154	9153	4599	1.99	1.94
	145831	SBHR	136	240	1	2	137	242	1/14/2021	1.08	261	300	-	139731Ramp	6-10 am; 3-7 pm	5574	3160	78	45	5652	3205	1.76	1.72
	145831	SBBR	134	258	0	0	134	258	1/14/2021	1.08	279	350	-	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
EB Ezzard Charles & Winchell Ave Intersection	145931	EBT	831	1610	30	60	861	1670	1/12/2021	1.08	1804	2350	1494311-WAY	0	6-10 am; 3-7 pm	2291	1183	99	50	2390	1232	1.94	1.99
	145931	EBL	132	256	8	16	140	272	1/12/2021	1.08	294	250	1494311-WAY	-	6-10 am; 3-7 pm	2291	1183	99	50	2390	1232	1.94	1.99
	145931	NBR	388	748	5	10	393	758	1/12/2021	1.08	819	800	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	145931	NBT	1451	2798	199	414	1650	3212	1/12/2021	1.08	3469	3600	0	-	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
W 8th St & Linn St Intersection	146031	EBR	383	739	18	37	401	776	1/20/2021	1.08	838	850	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146031	EBT	1128	2234	101	184	1229	2418	1/20/2021	1.08	2611	2900	0	150131EB	6-10 am; 3-7 pm	3367	1700	216	119	3583	1819	1.98	1.82
	146031	EBL	739	1425	17	35	756	1460	1/20/2021	1.08	1577	2100	0	150031NB	6-10 am; 3-7 pm	0	0	0	0	6343	2975	1.93	2.08
	146031	WBR	151	309	2	4	153	313	1/20/2021	1.08	338	450	150131WB	150031NB	6-10 am; 3-7 pm	3204	1567	195	98	9742	4639	2.05	1.99
	146031	WBT	1037	2121	79	158	1116	2279	1/20/2021	1.08	2461	2450	150131WB	0	6-10 am; 3-7 pm	3204	1567	195	98	3399	1664	2.05	1.99
	146031	WBL	215	440	9	18	224	458	1/20/2021	1.08	495	500	150131WB	0	6-10 am; 3-7 pm	3204	1567	195	98	3399	1664	2.05	1.99
	146031	NBR	90	178	5	9	95	187	1/20/2021	1.08	202	200	0	150131EB	6-10 am; 3-7 pm	3367	1700	216	119	3583	1819	1.98	1.82
	146031	NBT	528	1018	38	79	566	1097	1/20/2021	1.08	1185	1200	0	150031NB	6-10 am; 3-7 pm	0	0	0	0	6343	2975	1.93	2.08
	146031	NBL	622	1199	29	60	651	1259	1/20/2021	1.08	1360	1300	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146031	SBR	908	1751	43	89	951	1840	1/20/2021	1.08	1987	2050	150031SB	0	6-10 am; 3-7 pm	0	0	0	0	4926	2334	1.93	2.08
	146031	SBT	840	1620	36	75	876	1695	1/20/2021	1.08	1831	1950	150031SB	0	6-10 am; 3-7 pm	0	0	0	0	4926	2334	1.93	2.08
	146031	SBL	436	864	9	16	445	880	1/20/2021	1.08	950	1100	150031SB	150131EB	6-10 am; 3-7 pm	3367	1700	216	119	8509	4153	1.98	1.82
Court St & Linn St Intersection	146131	EBR	17	33	3	6	20	39	1/12/2021	1.08	42	50	0	149731SB	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146131	EBT	6	12	0	0	6	12	1/12/2021	1.08	13	50	0	149931EB	6-10 am; 3-7 pm	1238	628	13	7	1251	635	1.97	1.79
	146131	EBL	8	15	2	4	10	19	1/12/2021	1.08	21	50	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146131	WBR	145	313	5	9	150	322	1/12/2021	1.08	348	350	149931WB	0	6-10 am; 3-7 pm	864	401	16	9	880	409	2.16	1.88
	146131	WBT	13	28	0	0	13	28	1/12/2021	1.08	30	50	149931WB	0	6-10 am; 3-7 pm	864	401	16	9	880	409	2.16	1.88
	146131	WBL	219	472	1	2	220	474	1/12/2021	1.08	512	550	149931WB	149731SB	6-10 am; 3-7 pm	864	401	16	9	880	409	2.16	1.88
	146131	NBR	433	854	3	5	436	859	1/12/2021	1.08	928	1100	149731NB	149931EB	6-10 am; 3-7 pm	1238	628	13	7	1251	635	1.97	1.79
	146131	NBT	1788	3448	59	123	1847	3571	1/12/2021	1.08	3857	4500	149731NB	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146131	NBL	18	35	1	2	19	37	1/12/2021	1.08	40	50	149731NB	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146131	SBR	9	17	3	6	12	23	1/12/2021	1.08	25	50	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146131	SBT	1774	3421	57	118	1831	3539	1/12/2021	1.08	3822	3850	0	149731SB	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146131	SBL	180	355	4	7	184	362	1/12/2021	1.08	391	400	0	149931EB	6-10 am; 3-7 pm	1238	628	13	7	1251	635	1.97	1.79
EB Ezzard Charles & Western Ave Intersection	146231	EBR	17	33	12	25	29	58	1/12/2021	1.08	63	50	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146231	EBT	15	29	11	22	26	51	1/12/2021	1.08	55	100	0	1494311-WAY	6-10 am; 3-7 pm	2291	1183	99	50	2390	1232	1.94	1.99
	146231	SBT	2147	4140	234	486	2381	4626	1/12/2021	1.08	4996	5200	-	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146231	SBL	1041	2017	26	52	1067	2069	1/12/2021	1.08	2235	2500	-	1494311-WAY	6-10 am; 3-7 pm	2291	1183	99	50	2390	1232	1.94	1.99
Central Pkwy & WHV Intersection	146331	EBR	1218	2411	64	117	1282	2528	1/13/2021	1.08	2730	3100	HAM1945EB	137631SB	6-10 am; 3-7 pm	5563	2810	177	97	5740	2907	1.98	1.82
	146331	EBT	1713	3442	26	46	1739	3488	1/13/2021	1.08	3767	3450	HAM1945EB	5253198NB	6-10 am; 3-7 pm	3497	1740	158	89	3655	1829	2.01	1.78
	146331	EBL	614	1066	4	9	618	1075	1/13/2021	1.08	1161	1050	HAM1945EB	13731NB	6-10 am; 3-7 pm	3750	2159	123	56	3873	2215	1.74	2.20

Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	146331	NBR	81	169	4	8	85	177	1/13/2021	1.08	191	200	137631NB	5253198NB	6-10 am; 3-7 pm	8334	3989	302	156	8635	4145	2.09	1.93
	146331	NBT	1183	2305	39	85	1222	2390	1/13/2021	1.08	2581	2700	137631NB	13731NB	6-10 am; 3-7 pm	8587	4408	267	123	8854	4531	1.95	2.17
	146331	NBL	946	2035	59	126	1005	2161	1/13/2021	1.08	2334	2950	137631NB	HAM1945WB	6-10 am; 3-7 pm	4837	2249	144	67	4981	2316	2.15	2.14
	146331	SBR	534	958	4	8	538	966	1/13/2021	1.08	1043	1150	13731SB	HAM1945WB	6-10 am; 3-7 pm	5303	2956	124	61	5427	3017	1.79	2.03
	146331	SBT	1300	2450	38	72	1338	2522	1/13/2021	1.08	2724	3300	13731SB	137631SB	6-10 am; 3-7 pm	10866	5766	301	158	11167	5924	1.88	1.91
	146331	SBL	42	79	2	4	44	83	1/13/2021	1.08	90	100	13731SB	5253198NB	6-10 am; 3-7 pm	8800	4696	282	150	9082	4846	1.87	1.88
	146331	WBR	102	194	4	7	106	201	1/13/2021	1.08	217	200	5253198SB	13731NB	6-10 am; 3-7 pm	7171	3769	289	155	7460	3923	1.90	1.87
	146331	WBT	1286	2733	21	35	1307	2768	1/13/2021	1.08	2989	3100	5253198SB	HAM1945WB	6-10 am; 3-7 pm	3421	1610	166	99	3587	1708	2.13	1.69
	146331	WBL	18	37	0	0	18	37	1/13/2021	1.08	40	50	5253198SB	137631SB	6-10 am; 3-7 pm	8983	4420	343	196	9326	4615	2.03	1.75
Spring Grove & Harrison Intersection	146431	EBR	94	181	12	25	106	206	1/13/2021	1.08	222	250	-	147831SB	6-10 am; 3-7 pm	0	0	0	0	6100	3193	1.93	2.08
	146431	EBT	19	40	0	0	19	40	1/13/2021	1.08	43	50	-	143531EB	6-10 am; 3-7 pm	1044	490	33	15	1077	505	2.13	2.20
	146431	EBL	37	71	0	0	37	71	1/13/2021	1.08	77	50	-	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146431	WBR	372	860	9	20	381	880	1/13/2021	1.08	950	900	143531WB	0	6-10 am; 3-7 pm	1068	462	25	11	1093	473	2.31	2.27
	146431	WBT	21	49	1	2	22	51	1/13/2021	1.08	55	200	143531WB	-	6-10 am; 3-7 pm	1068	462	25	11	1093	473	2.31	2.27
	146431	WBL	58	134	5	11	63	145	1/13/2021	1.08	157	150	143531WB	147831SB	6-10 am; 3-7 pm	1068	462	25	11	7193	3666	2.31	2.27
	146431	NBR	85	181	0	0	85	181	1/13/2021	1.08	195	200	0	143531EB	6-10 am; 3-7 pm	1044	490	33	15	1077	505	2.13	2.20
	146431	NBT	2388	4605	169	351	2557	4956	1/13/2021	1.08	5352	5100	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146431	NBL	66	127	8	17	74	144	1/13/2021	1.08	156	200	0	-	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146431	SBR	60	116	1	2	61	118	1/13/2021	1.08	127	150	0	-	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146431	SBT	2440	4705	237	493	2677	5198	1/13/2021	1.08	5614	5900	0	147831SB	6-10 am; 3-7 pm	0	0	0	0	6100	3193	1.93	2.08
	146431	SBL	391	833	9	20	400	853	1/13/2021	1.08	921	850	0	143531EB	6-10 am; 3-7 pm	1044	490	33	15	1077	505	2.13	2.20
Winchell Ave & Harrison Intersection	146531	EBT	420	907	8	20	428	927	1/7/2021	1.08	1001	1100	143531EB	148031EB	6-10 am; 3-7 pm	2273	1053	69	28	2342	1081	2.16	2.46
	146531	WBT	362	810	8	17	370	827	1/7/2021	1.08	893	1100	148031WB	143531WB	6-10 am; 3-7 pm	1936	865	44	20	1979	885	2.24	2.18
	146531	NBR	82	181	6	15	88	196	1/7/2021	1.08	212	250	1479311-WAY	148031EB	6-10 am; 3-7 pm	1568	712	51	20	1618	732	2.20	2.53
	146531	NBL	63	145	4	9	67	154	1/7/2021	1.08	166	150	1479311-WAY	143531WB	6-10 am; 3-7 pm	1407	611	40	18	1446	629	2.30	2.19
Patterson St & Harrison Intersection	146631	EBR	36	79	4	9	40	88	1/7/2021	1.08	95	100	148031EB	148231SB	6-10 am; 3-7 pm	1445	660	51	22	1496	682	2.19	2.37
	146631	EBT	466	1015	14	40	480	1055	1/7/2021	1.08	1139	1250	148031EB	148131EB	6-10 am; 3-7 pm	2455	1127	66	23	2521	1150	2.18	2.85
	146631	WBT	362	776	7	14	369	790	1/7/2021	1.08	853	1050	148131WB	148031WB	6-10 am; 3-7 pm	1919	896	45	22	1963	917	2.14	2.07
	146631	WBL	44	94	0	0	44	94	1/7/2021	1.08	102	100	148131WB	148231SB	6-10 am; 3-7 pm	1267	590	41	21	1308	611	2.15	1.95
	146631	NBR	37	82	1	3	38	85	1/7/2021	1.08	92	100	148231NB	148131EB	6-10 am; 3-7 pm	1338	605	34	12	1371	617	2.21	2.79
	146631	NBL	4	9	0	0	4	9	1/7/2021	1.08	10	50	148231NB	148031WB	6-10 am; 3-7 pm	979	443	23	11	1002	454	2.21	2.05
Colerain Ave & Harrison Intersection	146731	EBR	47	105	1	3	48	108	1/7/2021	1.08	117	100	148131EB	148331SB	6-10 am; 3-7 pm	1652	738	54	22	1706	760	2.24	2.51
	146731	EBT	396	861	13	38	409	899	1/7/2021	1.08	971	1100	148131EB	0	6-10 am; 3-7 pm	1226	564	30	10	1256	574	2.17	2.95
	146731	EBL	63	137	1	3	64	140	1/7/2021	1.08	151	150	148131EB	0	6-10 am; 3-7 pm	1226	564	30	10	1256	574	2.17	2.95
	146731	WBR	58	112	1	2	59	114	1/7/2021	1.08	123	100	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08

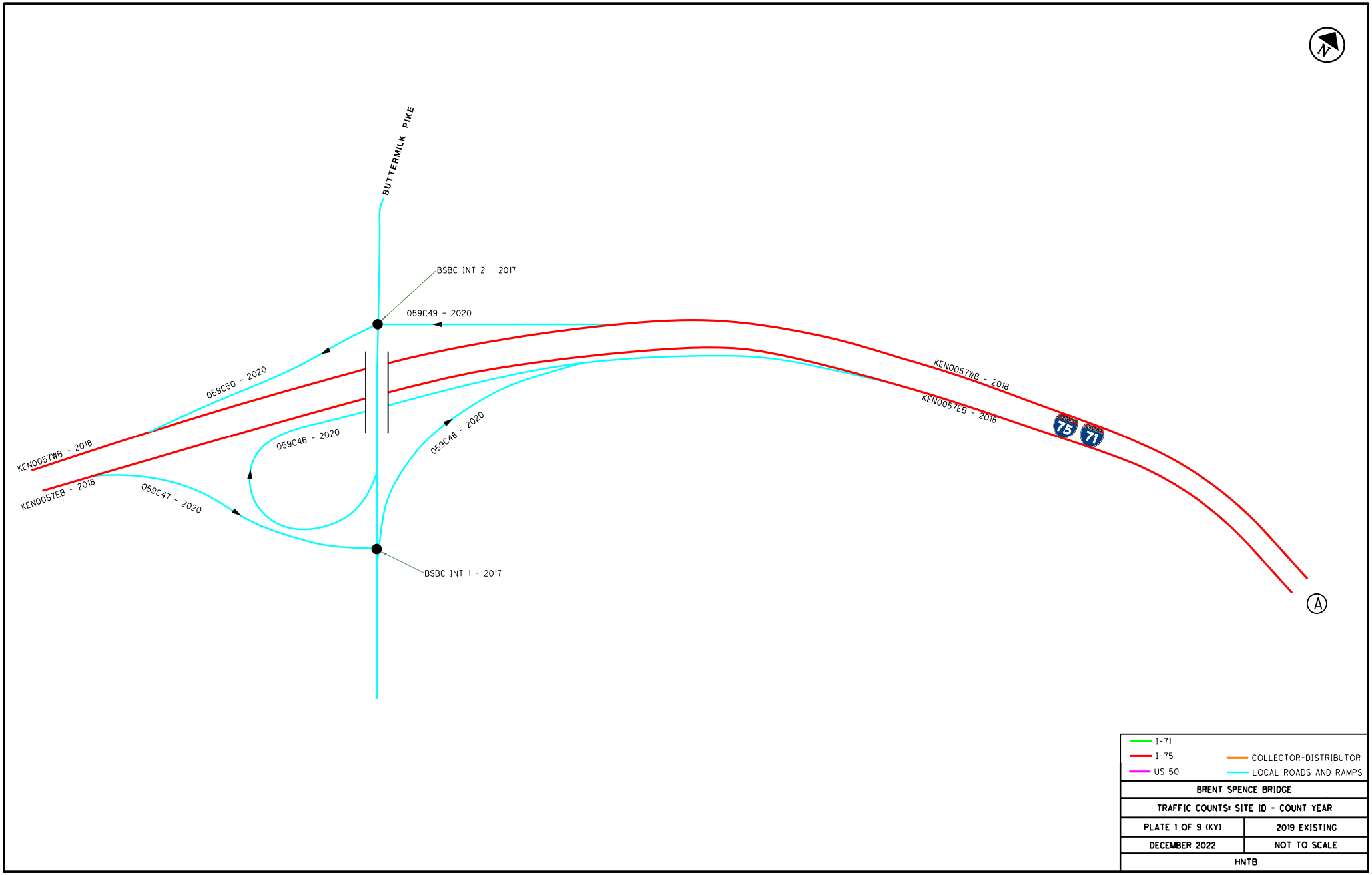
Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	146731	WBT	352	750	5	10	357	760	1/7/2021	1.08	821	1000	0	148131WB	6-10 am; 3-7 pm	1051	493	26	13	1077	506	2.13	2.08
	146731	WBL	103	252	6	13	109	265	1/7/2021	1.08	286	250	0	148331SB	6-10 am; 3-7 pm	426	174	25	12	451	186	2.45	2.13
	146731	SBR	55	117	2	4	57	121	1/7/2021	1.08	131	150	0	148131WB	6-10 am; 3-7 pm	1051	493	26	13	1077	506	2.13	2.08
	146731	SBT	55	135	1	2	56	137	1/7/2021	1.08	148	150	0	148331SB	6-10 am; 3-7 pm	426	174	25	12	451	186	2.45	2.13
	146731	SBL	41	79	3	6	44	85	1/7/2021	1.08	92	100	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
Spring Grove & Bank St Intersection	146831	EBR	58	110	114	224	172	334	1/7/2021	1.08	361	350	0	5313198SB	6-10 am; 3-7 pm	4729	2488	593	302	5322	2790	1.90	1.96
	146831	EBT	103	216	136	304	239	520	1/7/2021	1.08	562	750	0	148531EB	6-10 am; 3-7 pm	1556	742	587	262	2143	1004	2.10	2.24
	146831	EBL	80	154	39	81	119	235	1/7/2021	1.08	254	250	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	146831	WBR	966	1958	45	83	1011	2041	1/7/2021	1.08	2204	2150	148531WB	0	6-10 am; 3-7 pm	2694	1329	291	159	2985	1488	2.03	1.84
	146831	WBT	25	51	95	174	120	225	1/7/2021	1.08	243	150	148531WB	0	6-10 am; 3-7 pm	2694	1329	291	159	2985	1488	2.03	1.84
	146831	WBL	120	233	30	58	150	291	1/7/2021	1.08	314	300	148531WB	5313198SB	6-10 am; 3-7 pm	7423	3817	884	461	8307	4278	1.94	1.92
	146831	NBR	250	523	89	194	339	717	1/7/2021	1.08	774	1100	5313198NB	148531EB	6-10 am; 3-7 pm	5285	2529	1450	665	6735	3194	2.09	2.18
	146831	NBT	1364	2846	115	246	1479	3092	1/7/2021	1.08	3339	3100	5313198NB	0	6-10 am; 3-7 pm	3729	1787	863	403	4592	2190	2.09	2.14
	146831	NBL	63	131	168	360	231	491	1/7/2021	1.08	530	550	5313198NB	0	6-10 am; 3-7 pm	3729	1787	863	403	4592	2190	2.09	2.14
	146831	SBR	72	139	63	131	135	270	1/7/2021	1.08	292	300	147831SB	0	6-10 am; 3-7 pm	0	0	0	0	6100	3193	1.93	2.08
	146831	SBT	2142	4071	167	328	2309	4399	1/7/2021	1.08	4751	4900	147831SB	5313198SB	6-10 am; 3-7 pm	4729	2488	593	302	11422	5983	1.90	1.96
	146831	SBL	345	724	41	92	386	816	1/7/2021	1.08	881	1100	147831SB	148531EB	6-10 am; 3-7 pm	1556	742	587	262	8243	4197	2.10	2.24
Winchell Ave & Bank St Intersection	146931	EBT	301	632	93	208	394	840	1/7/2021	1.08	907	1650	148531EB	148631EB	6-10 am; 3-7 pm	1556	742	587	262	5779	2753	2.10	2.24
	146931	EBL	406	910	172	443	578	1353	1/7/2021	1.08	1461	1300	148531EB	138331RAMP	6-10 am; 3-7 pm	7876	3513	1524	591	9400	4104	2.24	2.58
	146931	WBR	903	2060	32	91	935	2151	1/7/2021	1.08	2323	2450	148631WB	138331RAMP	6-10 am; 3-7 pm	6320	2771	937	329	11067	4943	2.28	2.85
	146931	WBT	509	1032	60	110	569	1142	1/7/2021	1.08	1233	1200	148631WB	148531WB	6-10 am; 3-7 pm	2694	1329	291	159	6795	3330	2.03	1.84
	146931	NBR	161	335	14	25	175	360	1/7/2021	1.08	389	700	1488311-way	148631EB	6-10 am; 3-7 pm	5334	2566	509	287	9480	4602	2.08	1.77
	146931	NBT	1470	3210	87	204	1557	3414	1/7/2021	1.08	3687	3600	1488311-way	138331RAMP	6-10 am; 3-7 pm	11654	5337	1446	616	13100	5953	2.18	2.35
	146931	NBL	612	1262	108	194	720	1456	1/7/2021	1.08	1572	1400	1488311-way	148531WB	6-10 am; 3-7 pm	8028	3895	800	446	8828	4340	2.06	1.80
Central Pkwy & Linn St Intersection	147031	SBHR	126	243	2	4	128	247	1/14/2021	1.08	267	300	0	148431SB	6-10 am; 3-7 pm	3446	0	124	56	3570	1678	1.93	2.23
	147031	SBR	305	588	25	52	330	640	1/14/2021	1.08	691	700	0	13631NB	6-10 am; 3-7 pm	0	0	0	0	7707	3976	1.93	2.08
	147031	SBBR	59	114	1	2	60	116	1/14/2021	1.08	125	150	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147031	SBT	463	893	45	94	508	987	1/14/2021	1.08	1066	1250	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147031	SBL	40	77	0	0	40	77	1/14/2021	1.08	83	100	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147031	NWBR	67	129	3	6	70	135	1/14/2021	1.08	146	150	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147031	NWBT	1759	3392	71	148	1830	3540	1/14/2021	1.08	3823	4000	0	13631NB	6-10 am; 3-7 pm	0	0	0	0	7707	3976	1.93	2.08
	147031	NWBBL	43	83	2	4	45	87	1/14/2021	1.08	94	100	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147031	NWBL	227	438	12	25	239	463	1/14/2021	1.08	500	550	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147031	NEBHR	50	110	3	7	53	117	1/14/2021	1.08	126	100	148431NB	-	6-10 am; 3-7 pm	3129	1424	121	54	3250	1477	2.20	2.26
	147031	NEBR	197	433	48	109	245	542	1/14/2021	1.08	585	550	148431NB	0	6-10 am; 3-7 pm	3129	1424	121	54	3250	1477	2.20	2.26

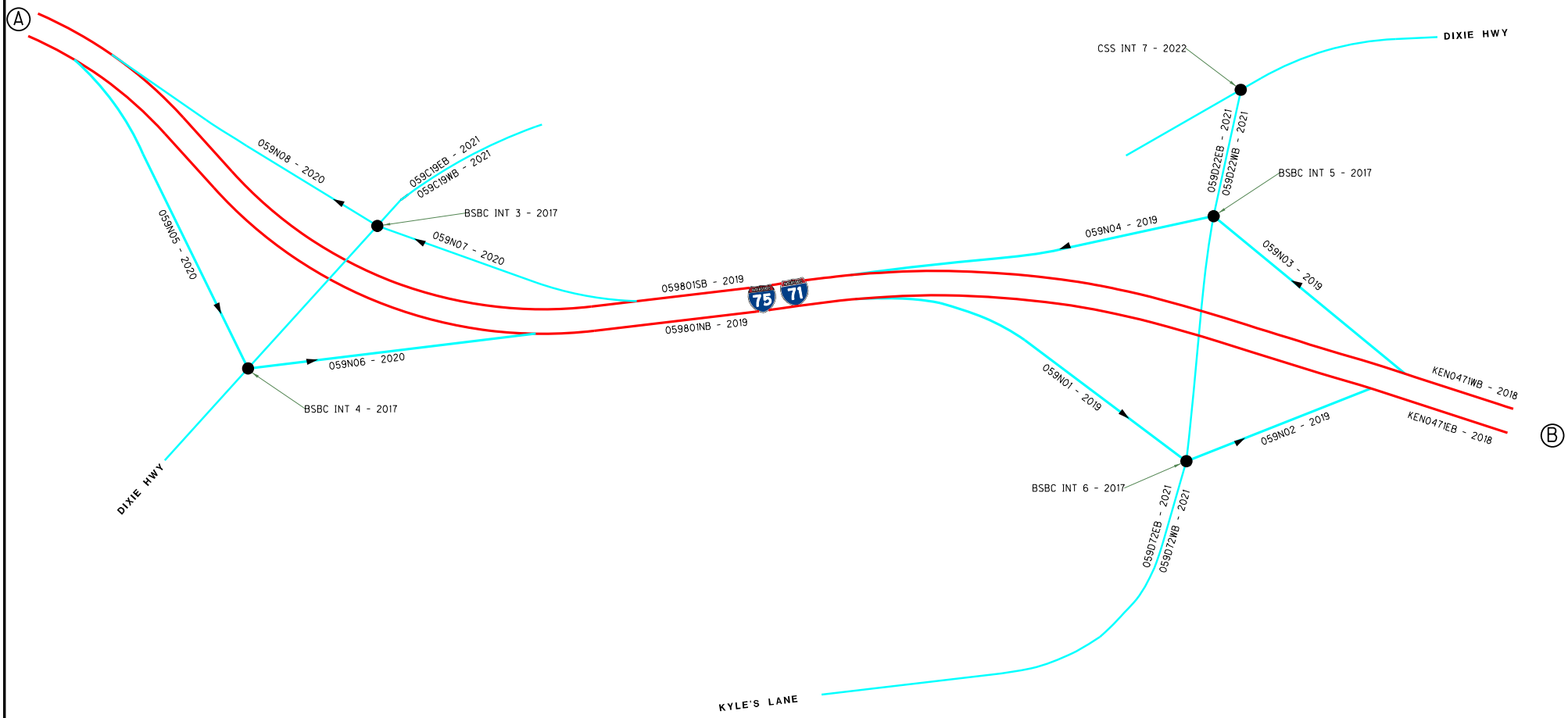
Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	147031	NEBT	383	842	37	84	420	926	1/14/2021	1.08	1000	1000	148431NB	0	6-10 am; 3-7 pm	3129	1424	121	54	3250	1477	2.20	2.26
	147031	NEBL	740	1627	21	47	761	1674	1/14/2021	1.08	1808	1800	148431NB	13631NB	6-10 am; 3-7 pm	3129	1424	121	54	10957	5453	2.20	2.26
	147031	NEBHL	1	2	0	0	1	2	1/14/2021	1.08	2	50	148431NB	0	6-10 am; 3-7 pm	3129	1424	121	54	3250	1477	2.20	2.26
	147031	SEBHR	24	46	2	4	26	50	1/14/2021	1.08	54	50	13631SB	0	6-10 am; 3-7 pm	0	0	0	0	7070	4068	1.93	2.08
	147031	SEBR	811	1564	22	46	833	1610	1/14/2021	1.08	1739	2150	13631SB	0	6-10 am; 3-7 pm	0	0	0	0	7070	4068	1.93	2.08
	147031	SEBT	2114	4077	67	139	2181	4216	1/14/2021	1.08	4553	4550	13631SB	0	6-10 am; 3-7 pm	0	0	0	0	7070	4068	1.93	2.08
	147031	SEBL	17	33	29	60	46	93	1/14/2021	1.08	100	100	13631SB	0	6-10 am; 3-7 pm	0	0	0	0	7070	4068	1.93	2.08
Linn St & Bank St Intersection	147131	SBR	569	2845	43	90	612	2935	1/13/2021	1.08	3170	2200	148431SB	148731WB	6-10 am; 3-7 pm	5845	1169	281	135	6126	2926	5.00	2.09
	147131	SBT	1057	2038	23	51	1080	2089	1/13/2021	1.08	2256	2050	148431SB	0	6-10 am; 3-7 pm	3446	0	124	56	3570	1678	1.93	2.23
	147131	NBT	1052	2312	32	72	1084	2384	1/13/2021	1.08	2575	2750	0	148431NB	6-10 am; 3-7 pm	3129	1424	121	54	3250	1477	2.20	2.26
	147131	NBL	625	1283	33	66	658	1349	1/13/2021	1.08	1457	1250	0	148731WB	6-10 am; 3-7 pm	2399	1169	157	79	2556	1248	2.05	1.99
	147131	EBR	279	600	30	53	309	653	1/13/2021	1.08	705	700	148731EB	0	6-10 am; 3-7 pm	1132	527	171	97	1303	624	2.15	1.76
	147131	EBL	239	522	68	132	307	654	1/13/2021	1.08	706	750	148731EB	148431NB	6-10 am; 3-7 pm	4261	1950	292	151	4553	2101	2.18	1.94
Winchell Ave & Findlay St Intersection	147231	EBT	997	2226	38	83	1035	2309	1/6/2021	1.08	2494	2650	148931EB	0	6-10 am; 3-7 pm	2857	1280	126	58	2983	1338	2.23	2.17
	147231	EBL	254	541	25	46	279	587	1/6/2021	1.08	634	600	148931EB	1488311-way	6-10 am; 3-7 pm	8191	3845	635	345	8826	4190	2.13	1.84
	147231	WBR	259	538	15	27	274	565	1/6/2021	1.08	610	550	0	1488311-way	6-10 am; 3-7 pm	5334	2566	509	287	5843	2853	2.08	1.77
	147231	WBT	255	567	7	14	262	581	1/6/2021	1.08	627	650	0	148931WB	6-10 am; 3-7 pm	1184	532	132	65	1316	597	2.22	2.03
	147231	NBR	22	43	3	6	25	49	1/6/2021	1.08	53	50	309311-way	0	6-10 am; 3-7 pm	5754	2958	517	269	6271	3227	1.95	1.92
	147231	NBT	1760	3533	189	349	1949	3882	1/6/2021	1.08	4193	4550	309311-way	1488311-way	6-10 am; 3-7 pm	11088	5524	1026	556	12114	6080	2.01	1.85
	147231	NBL	232	461	59	115	291	576	1/6/2021	1.08	622	800	309311-way	148931WB	6-10 am; 3-7 pm	6937	3490	649	334	7586	3824	1.99	1.94
Western Ave & Findlay St Intersection	147331	EBR	440	820	71	145	511	965	1/6/2021	1.08	1042	1450	103199EB	5393198SB	6-10 am; 3-7 pm	6611	3545	592	289	7203	3834	1.86	2.05
	147331	EBT	290	576	21	45	311	621	1/6/2021	1.08	671	650	103199EB	148931EB	6-10 am; 3-7 pm	5416	2726	387	179	5803	2905	1.99	2.16
	147331	WBT	320	697	61	132	381	829	1/6/2021	1.08	895	900	148931WB	103199WB	6-10 am; 3-7 pm	2983	1369	942	435	3925	1804	2.18	2.17
	147331	WBL	167	332	7	14	174	346	1/6/2021	1.08	374	550	148931WB	5393198SB	6-10 am; 3-7 pm	5235	2631	463	233	5698	2864	1.99	1.99
	147331	SBR	534	1017	231	485	765	1502	1/6/2021	1.08	1622	1850	79731RAMP	103199WB	6-10 am; 3-7 pm	9423	4946	1879	896	11301	5842	1.91	2.10
	147331	SBT	1131	2127	76	153	1207	2280	1/6/2021	1.08	2462	3000	79731RAMP	5393198SB	6-10 am; 3-7 pm	11675	6208	1400	694	13075	6902	1.88	2.02
	147331	SBL	951	1850	44	90	995	1940	1/6/2021	1.08	2095	2600	79731RAMP	148931EB	6-10 am; 3-7 pm	10480	5389	1195	584	11675	5972	1.94	2.05
Dalton Ave & Findlay St Intersection	147431	EBR	39	75	2	4	41	79	1/6/2021	1.08	85	100	-	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147431	EBT	78	138	2	4	80	142	1/6/2021	1.08	153	200	-	103199EB	6-10 am; 3-7 pm	2559	1446	261	121	2820	1567	1.77	2.16
	147431	EBL	157	303	2	4	159	307	1/6/2021	1.08	332	350	-	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147431	WBR	340	731	146	320	486	1051	1/6/2021	1.08	1135	1250	103199WB	0	6-10 am; 3-7 pm	1799	837	810	370	2609	1207	2.15	2.19
	147431	WBT	142	305	108	236	250	541	1/6/2021	1.08	584	650	103199WB	-	6-10 am; 3-7 pm	1799	837	810	370	2609	1207	2.15	2.19
	147431	WBL	334	718	24	53	358	771	1/6/2021	1.08	833	850	103199WB	0	6-10 am; 3-7 pm	1799	837	810	370	2609	1207	2.15	2.19
	147431	NBR	150	265	14	30	164	295	1/6/2021	1.08	319	400	0	103199EB	6-10 am; 3-7 pm	2559	1446	261	121	2820	1567	1.77	2.16
	147431	NBT	1184	2283	232	482	1416	2765	1/6/2021	1.08	2986	3150	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08

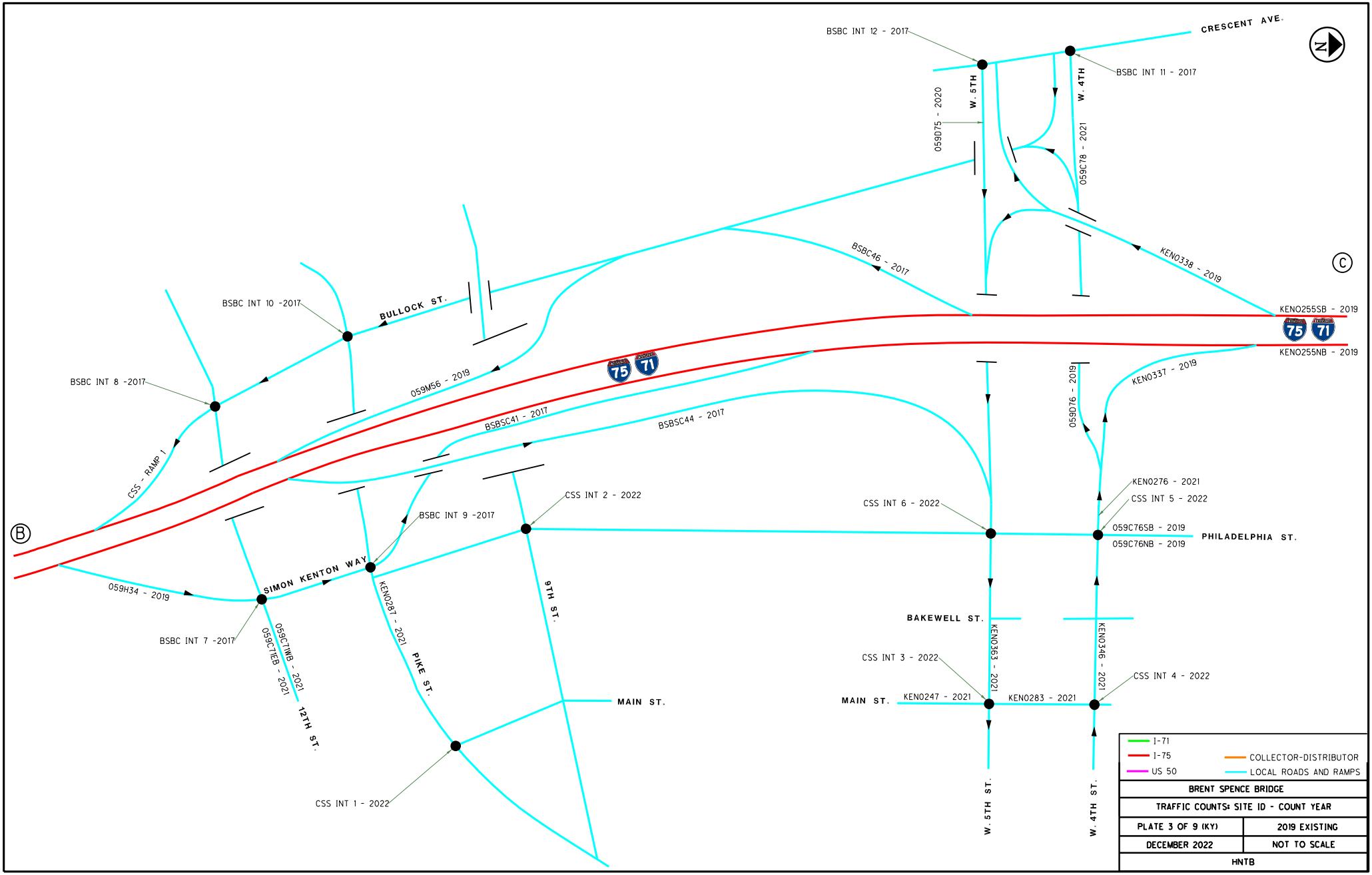
Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	147431	NBL	42	81	34	71	76	152	1/6/2021	1.08	164	150	0	-	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147431	SBR	83	160	4	8	87	168	1/6/2021	1.08	181	200	0	-	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147431	SBT	1698	3274	224	466	1922	3740	1/6/2021	1.08	4039	3850	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147431	SBL	497	880	71	153	568	1033	1/6/2021	1.08	1116	1500	0	103199EB	6-10 am; 3-7 pm	2559	1446	261	121	2820	1567	1.77	2.16
Western Ave & Liberty St Intersection	147531	EBR	233	449	41	85	274	534	1/14/2021	1.08	577	850	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	147531	EBT	496	1012	60	109	556	1121	1/14/2021	1.08	1211	1300	0	149031EB	6-10 am; 3-7 pm	4276	2097	300	165	4575	2262	2.04	1.82
	147531	WBT	719	1520	48	100	767	1620	1/14/2021	1.08	1750	1700	149031WB	0	6-10 am; 3-7 pm	2972	1406	168	81	3140	1487	2.11	2.07
	147531	WBL	440	930	27	56	467	986	1/14/2021	1.08	1065	1550	149031WB	0	6-10 am; 3-7 pm	2972	1406	168	81	3140	1487	2.11	2.07
	147531	SBR	65	125	6	12	71	137	1/14/2021	1.08	148	150	5393198SB	0	6-10 am; 3-7 pm	4052	2099	331	168	4383	2267	1.93	1.97
	147531	SBT	784	1513	110	217	894	1730	1/14/2021	1.08	1868	2000	5393198SB	0	6-10 am; 3-7 pm	4052	2099	331	168	4383	2267	1.93	1.97
	147531	SBL	1133	2249	64	121	1197	2370	1/14/2021	1.08	2560	2850	5393198SB	149031EB	6-10 am; 3-7 pm	8327	4196	631	333	8958	4529	1.98	1.89
Winchell Ave & Liberty St Intersection	147631	EBT	1528	3116	87	158	1615	3274	1/13/2021	1.08	3536	3900	149031EB	0	6-10 am; 3-7 pm	4276	2097	300	165	4575	2262	2.04	1.82
	147631	EBL	100	198	15	28	115	226	1/13/2021	1.08	244	250	149031EB	309311-way	6-10 am; 3-7 pm	10029	5055	817	434	10846	5489	1.98	1.88
	147631	WBR	1233	2398	53	102	1286	2500	1/13/2021	1.08	2700	2750	0	309311-way	6-10 am; 3-7 pm	5754	2958	517	269	6271	3227	1.95	1.92
	147631	WBT	896	1894	60	124	956	2018	1/13/2021	1.08	2179	2500	0	149031WB	6-10 am; 3-7 pm	2972	1406	168	81	3140	1487	2.11	2.07
	147631	NBR	438	897	30	51	468	948	1/13/2021	1.08	1024	1100	1492311-WAY	0	6-10 am; 3-7 pm	5616	2741	428	252	6043	2993	2.05	1.70
	147631	NBT	1025	2045	155	281	1180	2326	1/13/2021	1.08	2512	2400	1492311-WAY	309311-way	6-10 am; 3-7 pm	11369	5699	945	521	12314	6220	1.99	1.81
	147631	NBL	311	644	20	36	331	680	1/13/2021	1.08	734	750	1492311-WAY	149031WB	6-10 am; 3-7 pm	8587	4147	596	333	9183	4479	2.07	1.79
WB Ezzard Charles & Winchell Ave Intersection	150931	WBR	1080	2083	37	77	1117	2160	1/12/2021	1.08	2333	2950	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	150931	WBT	179	387	16	37	195	424	1/12/2021	1.08	458	550	0	1493311-WAY	6-10 am; 3-7 pm	686	317	68	30	753	347	2.16	2.29
	150931	NBT	1507	2906	188	391	1695	3297	1/12/2021	1.08	3561	3600	-	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	150931	NBL	86	186	18	41	104	227	1/12/2021	1.08	245	250	-	1493311-WAY	6-10 am; 3-7 pm	686	317	68	30	753	347	2.16	2.29
WB Ezzard Charles & Western Ave Intersection	151031	WBT	21	45	13	30	34	75	1/12/2021	1.08	81	100	1493311-WAY	0	6-10 am; 3-7 pm	686	317	68	30	753	347	2.16	2.29
	151031	WBL	248	536	23	53	271	589	1/12/2021	1.08	636	700	1493311-WAY	-	6-10 am; 3-7 pm	686	317	68	30	753	347	2.16	2.29
	151031	SBR	18	33	13	25	31	58	1/12/2021	1.08	63	100	1491311-WAY	0	6-10 am; 3-7 pm	8626	4702	895	474	9521	5176	1.83	1.89
	151031	SBT	2928	5372	241	455	3169	5827	1/12/2021	1.08	6293	7000	1491311-WAY	-	6-10 am; 3-7 pm	8626	4702	895	474	9521	5176	1.83	1.89
Central Pkwy & Brighton Pl Intersection	151831	EBR	226	447	9	16	235	463	4/13/2021	1.08	500	450	137631SB	0	6-10 am; 3-7 pm	5563	2810	177	97	5740	2907	1.98	1.82
	151831	EBT	2980	5899	112	204	3092	6103	4/13/2021	1.08	6591	6000	137631SB	13631SB	6-10 am; 3-7 pm	5563	2810	177	97	12810	6975	1.98	1.82
	151831	WBT	2687	5779	113	242	2800	6021	4/13/2021	1.08	6503	5700	13631NB	137631NB	6-10 am; 3-7 pm	4837	2249	144	67	12688	6292	2.15	2.14
	151831	WBL	335	638	14	31	349	669	4/13/2021	1.08	723	800	13631NB	0	6-10 am; 3-7 pm	0	0	0	0	7707	3976	1.91	2.25
	151831	NBR	330	629	0	0	330	629	4/13/2021	1.08	679	850	0	13631SB	6-10 am; 3-7 pm	0	0	0	0	7070	4068	1.91	2.25
	151831	NBL	70	151	1	2	71	153	4/13/2021	1.08	165	150	0	137631NB	6-10 am; 3-7 pm	4837	2249	144	67	4981	2316	2.15	2.14
Harrison St & Brighton Pl Intersection	151731	EBT	200	386	7	15	207	401	4/13/2021	1.08	433	400	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	151731	EBL	353	681	1	2	354	683	4/13/2021	1.08	738	800	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	151731	WBR	105	202	1	2	106	204	4/13/2021	1.08	220	200	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08

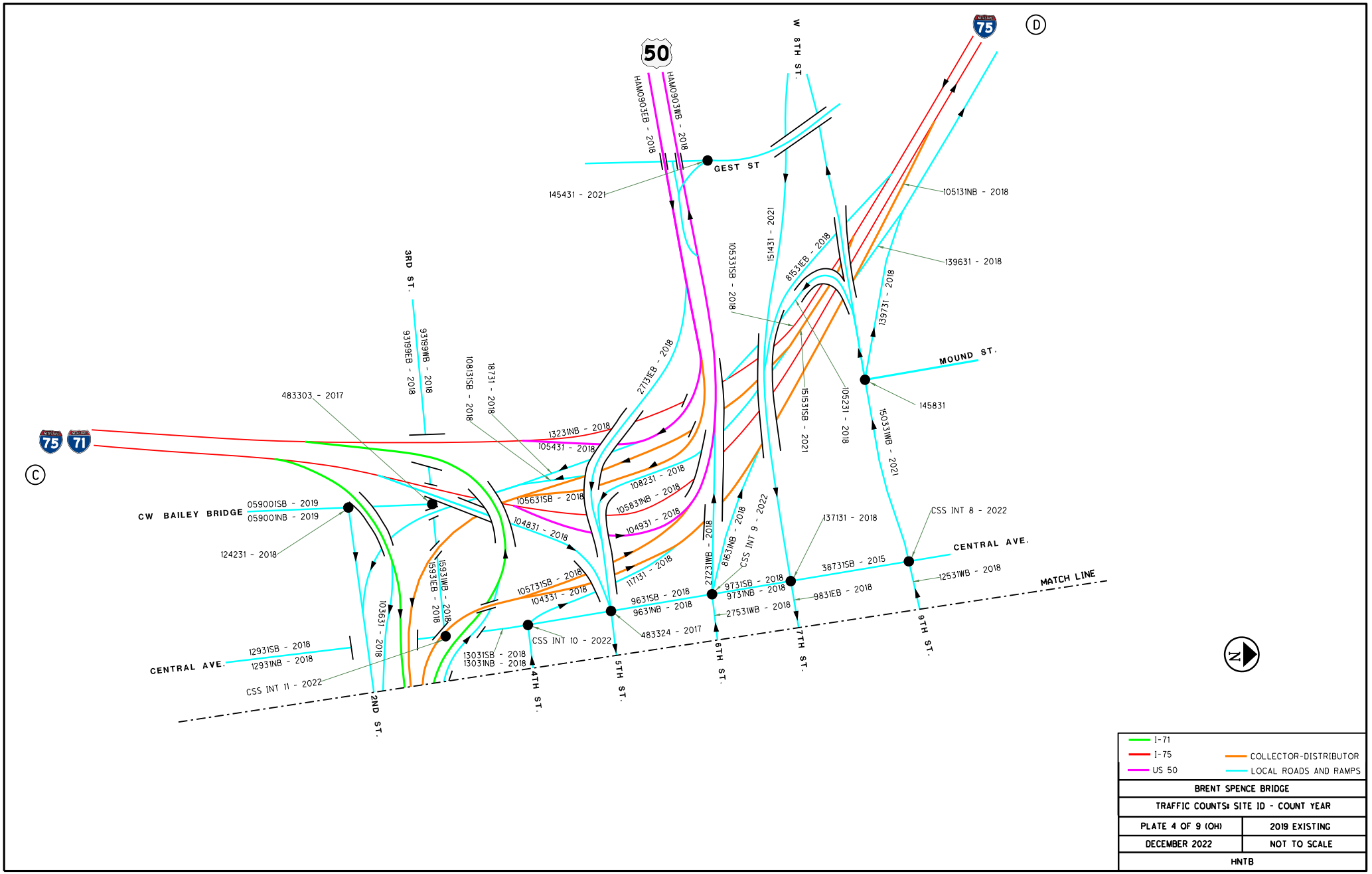
Intersections	Count ID	Movement	Autos		Trucks		Total		AADT Calculations				Expansion Factors									
			Period	Daily Estimate	Period	Daily Estimate	Period	Daily Estimate	Count Date	Seasonal Adj	AADT Target	AADT Balance	Upstream Count ID	Downstream Count ID	Count Period	Daily Auto	Period Auto	Daily Truck	Period Truck	Daily Total	Period Total	Auto Factor	Truck Factor
	151731	WBT	208	401	12	25	220	426	4/13/2021	1.08	460	500	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	151731	SBR	360	694	19	39	379	733	4/13/2021	1.08	792	850	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08
	151731	SBL	197	380	4	8	201	388	4/13/2021	1.08	419	400	0	0	6-10 am; 3-7 pm	0	0	0	0	0	0	1.93	2.08

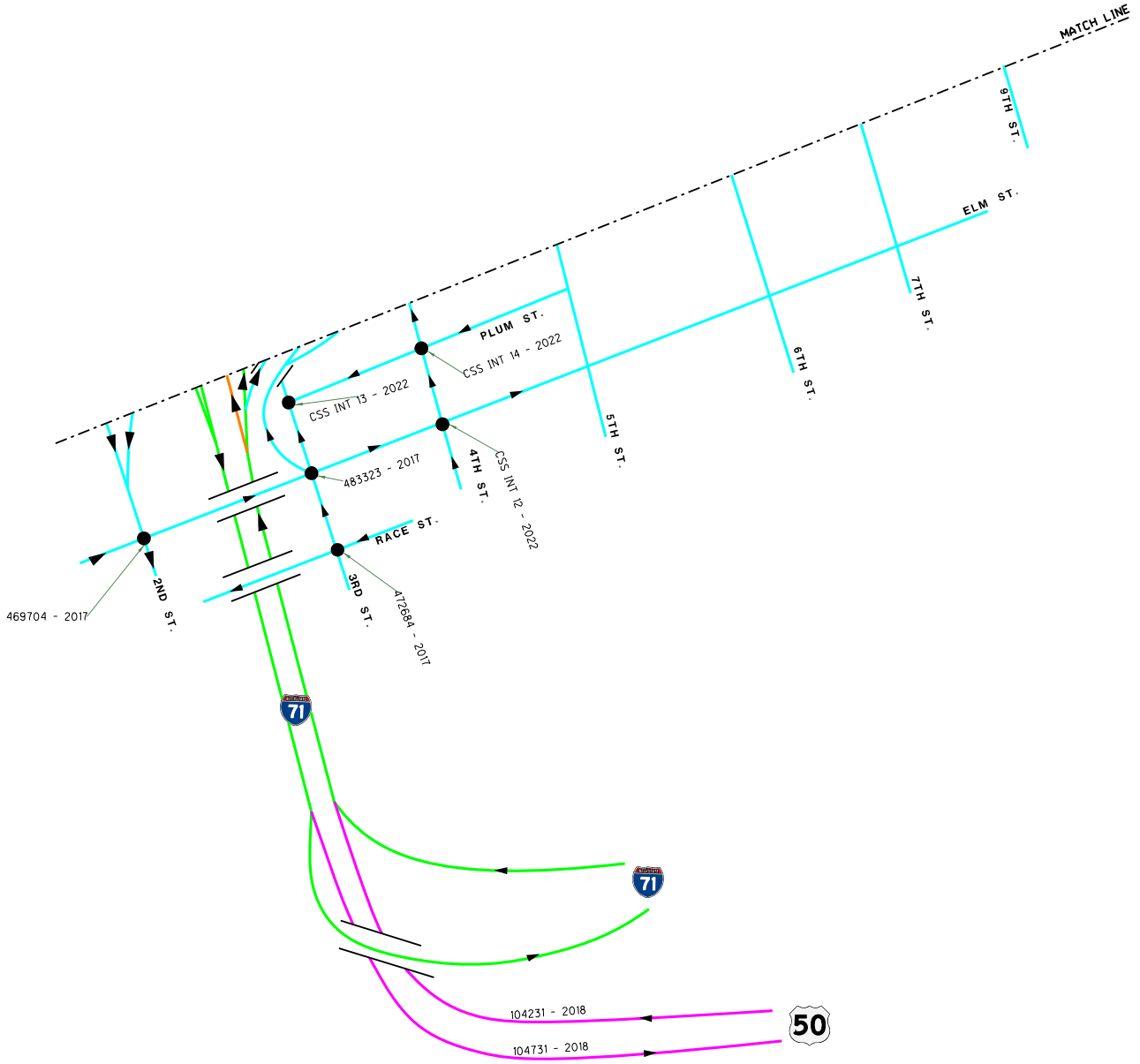
Appendix B:
Traffic Count Schematic

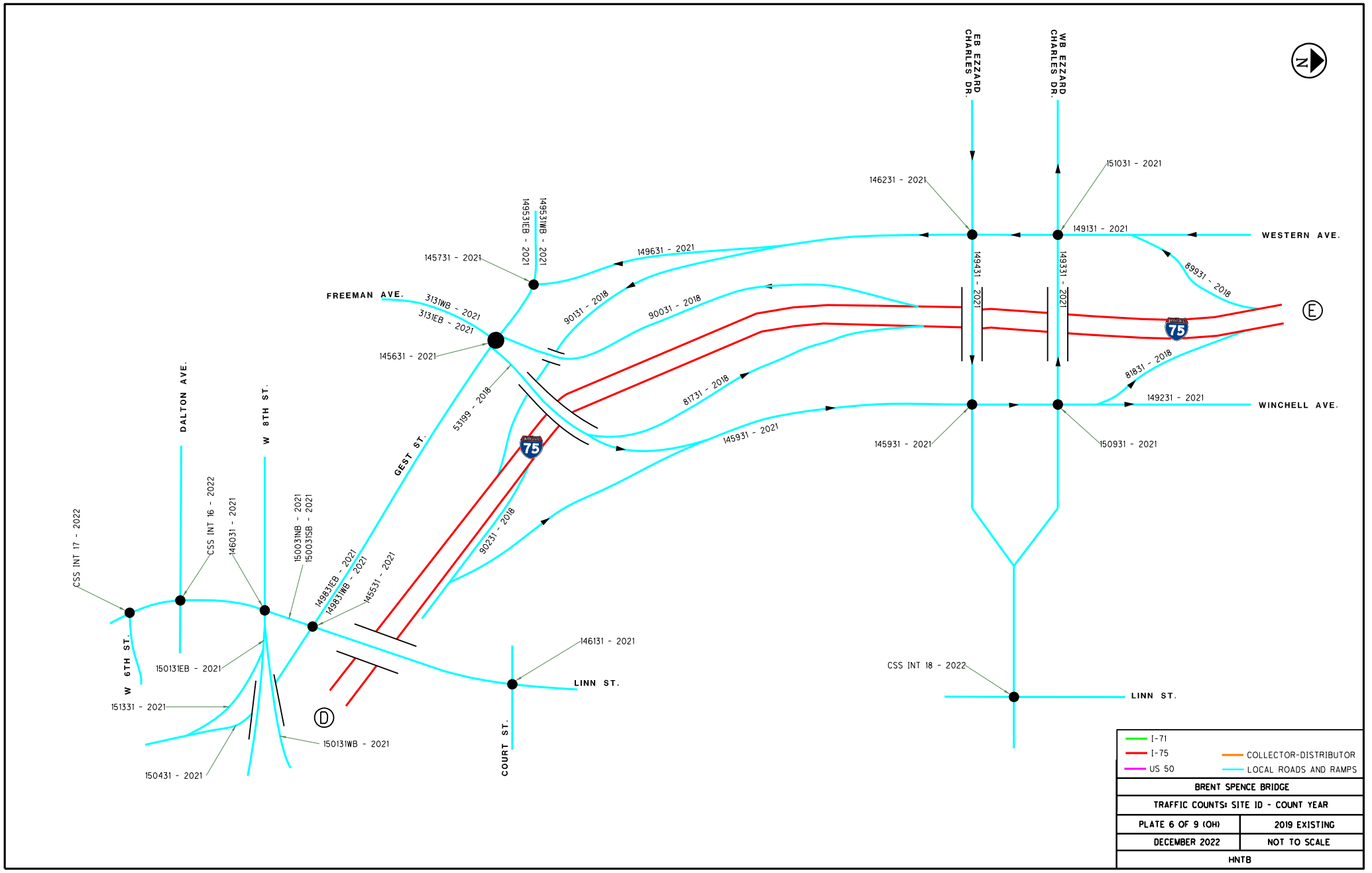

BUTTERMILK PIKE
BSBC INT 2 - 2017
059C49 - 2020
059C50 - 2020
KEN0057WB - 2018
KEN0057EB - 2018
059C46 - 2020
059C47 - 2020
059C48 - 2020
KEN0057WB - 2018
KEN0057EB - 2018
75
71
BSBC INT 1 - 2017
A
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 1 OF 9 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

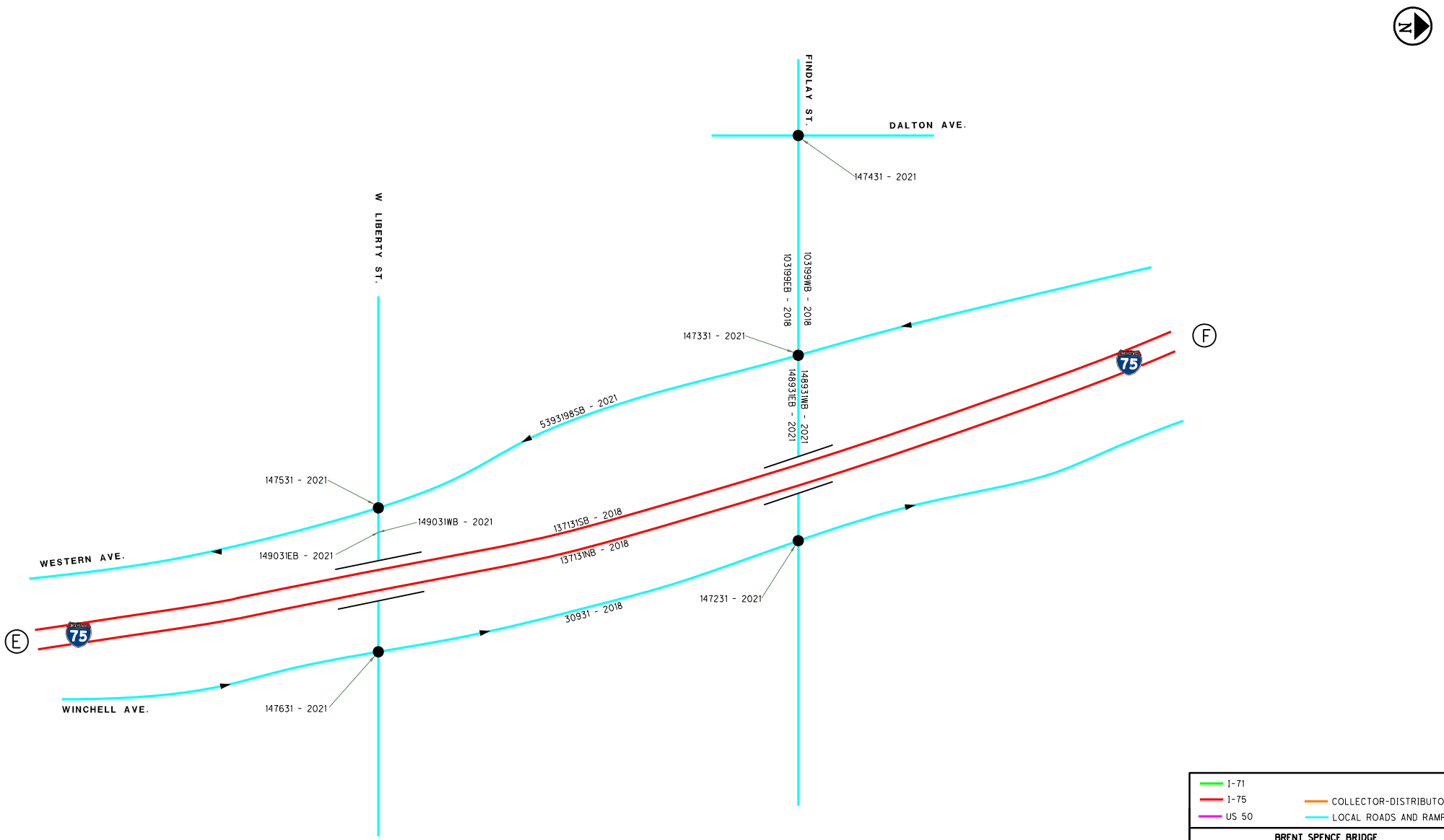

A
B
N
059N08 - 2020
059C19EB - 2021
059C19WB - 2021
BSBC INT 3 - 2017
059N07 - 2020
059N05 - 2020
059N06 - 2020
BSBC INT 4 - 2017
DIXIE HWY
059801SB - 2019
059801NB - 2019
75
71
CSS INT 7 - 2022
DIXIE HWY
059022EB - 2021
059022WB - 2021
BSBC INT 5 - 2017
059N04 - 2019
059N03 - 2019
KEN0471WB - 2018
KEN0471EB - 2018
059N01 - 2019
059N02 - 2019
BSBC INT 6 - 2017
059072EB - 2021
059072WB - 2021
KYLE'S LANE
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 2 OF 9 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

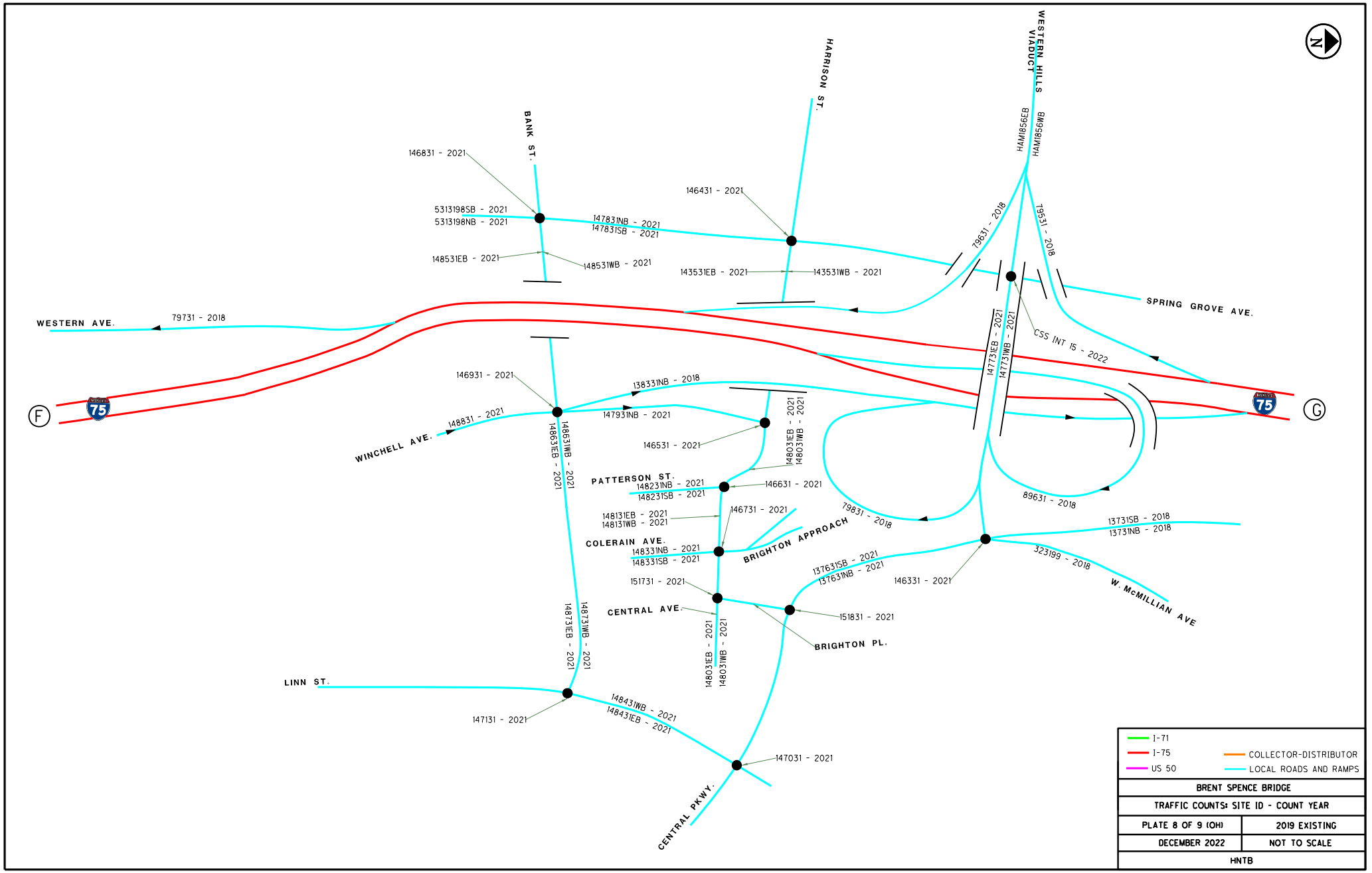

BSBC INT 12 - 2017
CRESCENT AVE.
BSBC INT 11 - 2017
W. 5TH
W. 4TH
059D75 - 2020
059C78 - 2021
BSBC46 - 2017
KEN0338 - 2019
C
BSBC INT 10 -2017
BULLOCK ST.
KEN0255SB - 2019
KEN0255NB - 2019
BSBC INT 8 -2017
059M56 - 2019
BSBSC41 - 2017
BSBSC44 - 2017
059D76 - 2019
KEN0337 - 2019
CSS - RAMP 1
CSS INT 2 - 2022
BSBC INT 9 -2017
CSS INT 6 - 2022
KEN0276 - 2021
CSS INT 5 - 2022
059C76SB - 2019
059C76NB - 2019
PHILADELPHIA ST.
B
059H34 - 2019
SIMON KENTON WAY
BSBC INT 7 -2017
059C71WB - 2021
059C71EB - 2021
12TH ST.
KEN0287 - 2021
PIKE ST.
9TH ST.
MAIN ST.
BAKEWELL ST.
KEN0393 - 2021
KEN0346 - 2021
CSS INT 3 - 2022
CSS INT 4 - 2022
MAIN ST.
KEN0247 - 2021
KEN0283 - 2021
CSS INT 1 - 2022
W. 5TH ST.
W. 4TH ST.
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 3 OF 9 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

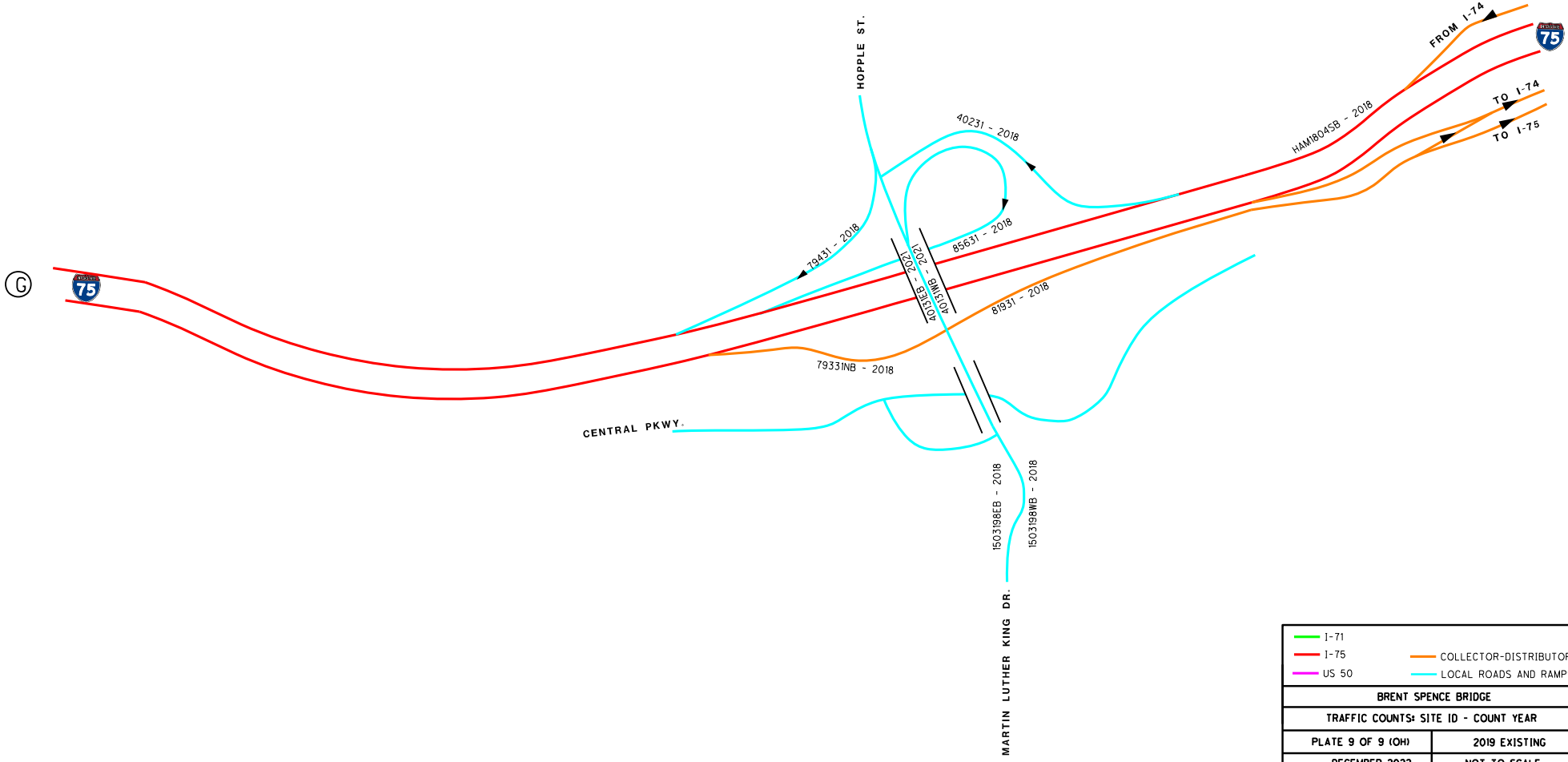

50
75
71
D
C
W 8TH ST.
GEST ST
HAM0903EB - 2018
HAM0903WB - 2018
145431 - 2021
3RD ST.
93199EB - 2018
93199WB - 2018
483303 - 2017
10813SB - 2018
18731 - 2018
13231NB - 2018
105431 - 2018
2713IEB - 2018
105333SB - 2018
151431 - 2021
81531EB - 2018
105131NB - 2018
139631 - 2018
139731 - 2018
MOUND ST.
145831
105231 - 2018
151531SB - 2021
150331WB - 2021
CW BAILEY BRIDGE
059001SB - 2019
059001NB - 2019
124231 - 2018
105631SB - 2018
104831 - 2018
10831 - 2018
10583INB - 2018
104931 - 2018
117131 - 2018
27231WB - 2018
8163INB - 2018
CSS INT 9 - 2022
137131 - 2018
CSS INT 8 - 2022
CENTRAL AVE.
387315B - 2015
125311WB - 2018
MATCH LINE
15931WB - 2018
15931EB - 2018
105731SB - 2018
104331 - 2018
9631SB - 2018
9631NB - 2018
9731SB - 2018
9731NB - 2018
9831EB - 2018
27531WB - 2018
483324 - 2017
10363I - 2018
CENTRAL AVE.
129315B - 2018
129311NB - 2018
CSS INT 11 - 2022
13031SB - 2018
13031NB - 2018
CSS INT 10 - 2022
2ND ST.
4TH ST.
5TH ST.
6TH ST.
7TH ST.
9TH ST.
N
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 4 OF 9 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB


MATCH LINE
N
9TH ST.
ELM ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
PLUM ST.
RACE ST.
CSS INT 13 - 2022
CSS INT 14 - 2022
CSS INT 12 - 2022
483323 - 2017
469704 - 2017
472684 - 2017
104231 - 2018
104731 - 2018
71
71
50
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 5 OF 9 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

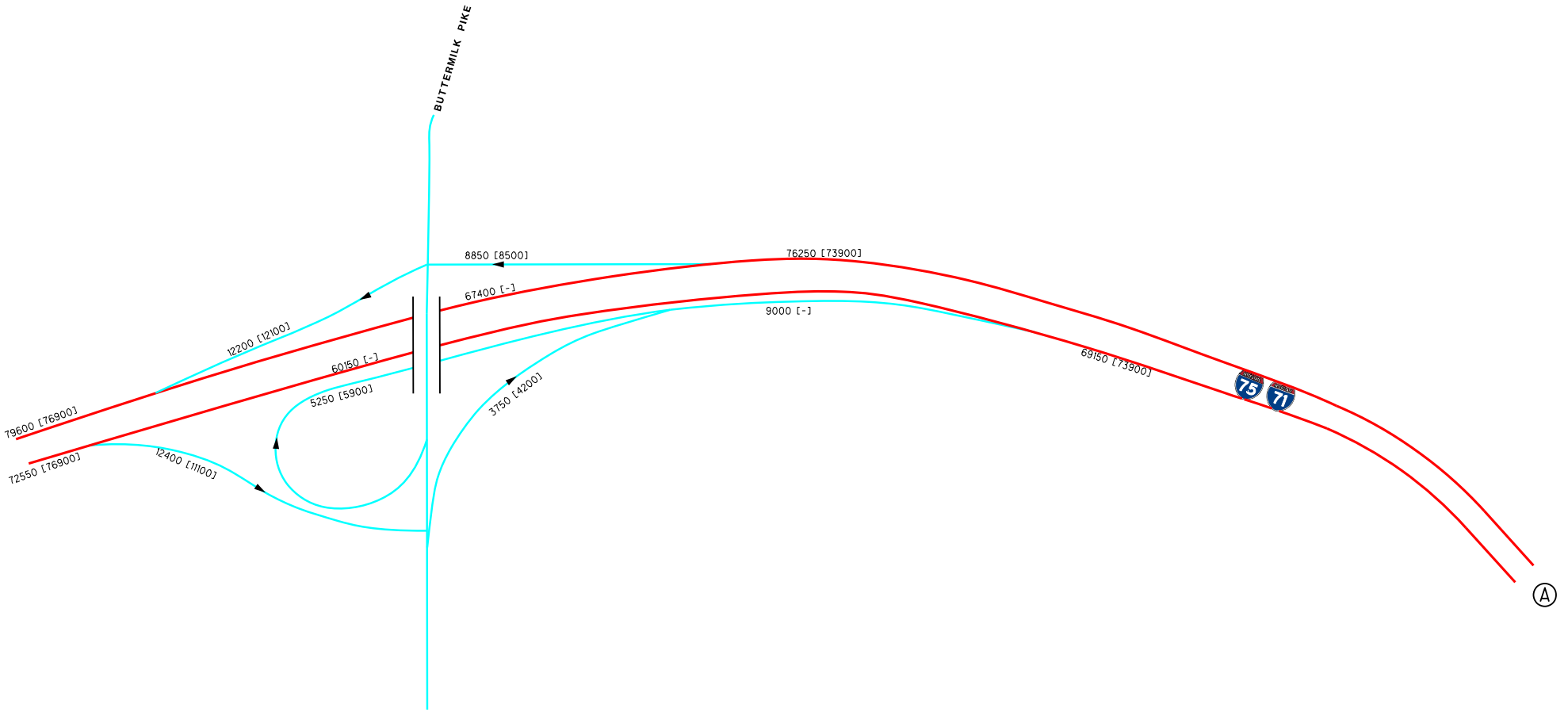

EB EZZARD CHARLES DR.
WB EZZARD CHARLES DR.
N
146231 - 2021
151031 - 2021
149131 - 2021
WESTERN AVE.
149631 - 2021
149531EB - 2021
149531WB - 2021
145731 - 2021
FREEMAN AVE.
3131WB - 2021
3131EB - 2021
145631 - 2021
90131 - 2018
90031 - 2018
89931 - 2018
149431 - 2021
149331 - 2021
E
81731 - 2018
81831 - 2018
149231 - 2021
WINCHELL AVE.
145931 - 2021
150931 - 2021
53199 - 2018
GEST ST.
DALTON AVE.
W 8TH ST.
CSS INT 17 - 2022
CSS INT 16 - 2022
146031 - 2021
150031NB - 2021
150031SB - 2021
149831EB - 2021
149831WB - 2021
145531 - 2021
90231 - 2018
W 6TH ST.
150131EB - 2021
151331 - 2021
150131WB - 2021
150431 - 2021
D
COURT ST.
146131 - 2021
LINN ST.
CSS INT 18 - 2022
LINN ST.
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 6 OF 9 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB


FINDLAY ST.
DALTON AVE.
147431 - 2021
W LIBERTY ST.
103199EB - 2018
103199WB - 2018
147331 - 2021
148931EB - 2021
148931WB - 2021
539319BSB - 2021
147531 - 2021
149031WB - 2021
149031EB - 2021
137131SB - 2018
137131NB - 2018
WESTERN AVE.
WINCHELL AVE.
30931 - 2018
147231 - 2021
147631 - 2021
E
F
75
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 7 OF 9 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB


WESTERN AVE.
79731 - 2018
WINCHELL AVE.
148831 - 2021
LINN ST.
BANK ST.
146831 - 2021
5313198SB - 2021
5313198NB - 2021
148531EB - 2021
148531WB - 2021
HARRISON ST.
146431 - 2021
147831NB - 2021
147831SB - 2021
143531EB - 2021
143531WB - 2021
WESTERN HILLS VIADUCT
HAM1856EB
HAM1856WB
79631 - 2018
79531 - 2018
SPRING GROVE AVE.
CSS INT 15 - 2022
147731EB - 2021
147731WB - 2021
146931 - 2021
138331NB - 2018
147931NB - 2021
146531 - 2021
148031EB - 2021
148031WB - 2021
PATTERSON ST.
148231NB - 2021
148231SB - 2021
146631 - 2021
148131EB - 2021
148131WB - 2021
146731 - 2021
COLERAIN AVE.
148331NB - 2021
148331SB - 2021
BRIGHTON APPROACH
79831 - 2018
89631 - 2018
137631SB - 2021
137631NB - 2021
146331 - 2021
13731SB - 2018
13731NB - 2018
323199 - 2018
W. McMILLIAN AVE
151731 - 2021
CENTRAL AVE.
151831 - 2021
BRIGHTON PL.
148631EB - 2021
148631WB - 2021
148731EB - 2021
148731WB - 2021
148031EB - 2021
148031WB - 2021
147131 - 2021
148431WB - 2021
148431EB - 2021
147031 - 2021
CENTRAL PKWY.
F
G
75
N
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 8 OF 9 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB


N
HOPPLE ST.
FROM I-74
TO I-74
TO I-75
HAM18043B - 2018
40231 - 2018
79431 - 2018
85631 - 2018
81931 - 2018
79331NB - 2018
CENTRAL PKWY.
MARTIN LUTHER KING DR.
1503198EB - 2018
1503198WB - 2018
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
TRAFFIC COUNTS: SITE ID - COUNT YEAR
PLATE 9 OF 9 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

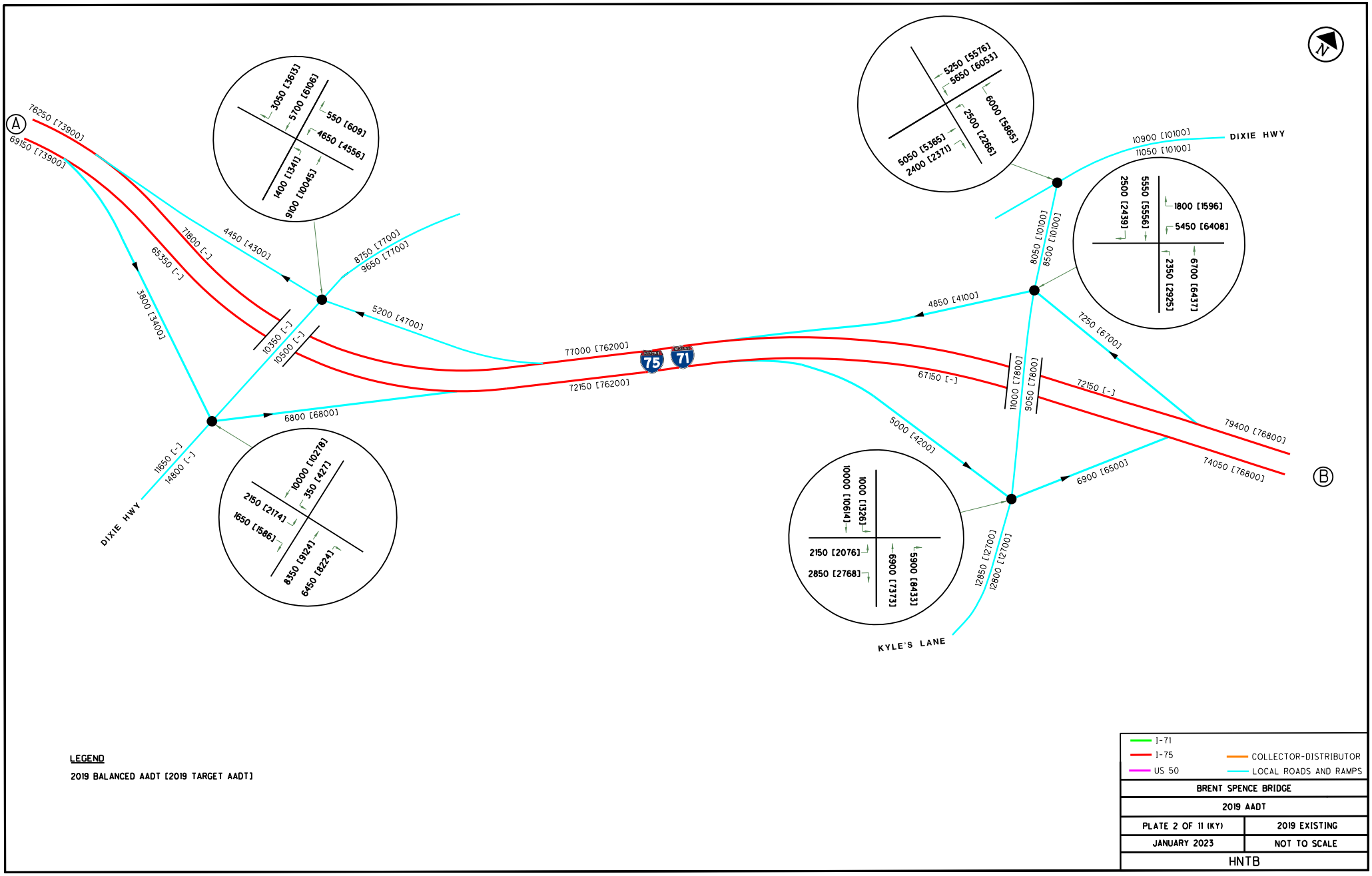
Appendix C:
Existing 2019 AADT (Target versus Balanced Volumes)



LEGEND

2019 BALANCED AADT [2019 TARGET AADT]

I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2019 AADT	
PLATE 1 OF 11 (KY)	2019 EXISTING
JANUARY 2023	NOT TO SCALE
HNTB	

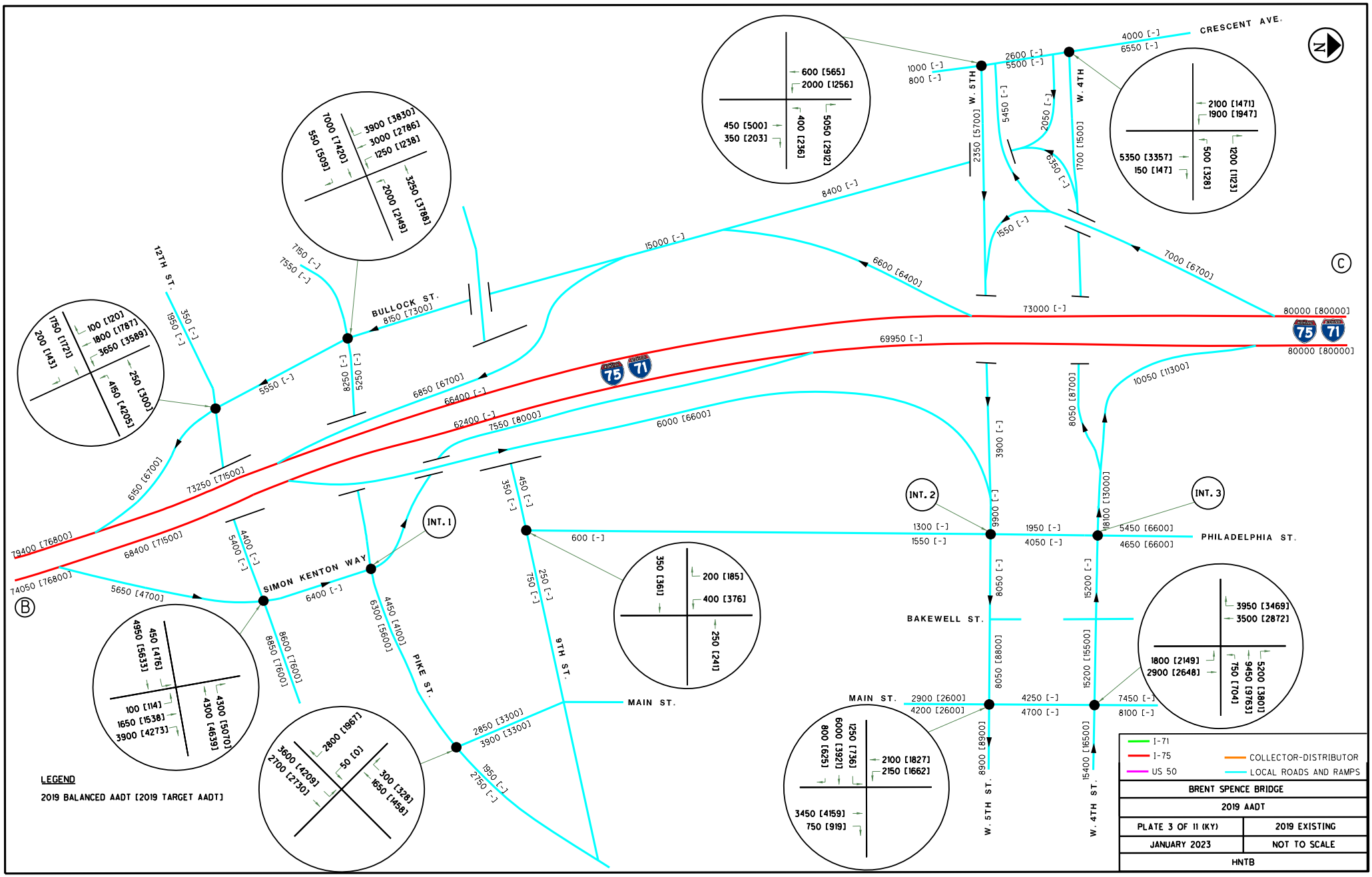


LEGEND

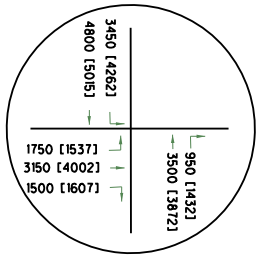
2019 BALANCED AADT [2019 TARGET AADT]

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE	
2019 AADT	
PLATE 2 OF 11 (KY)	2019 EXISTING
JANUARY 2023	NOT TO SCALE
HNTB	

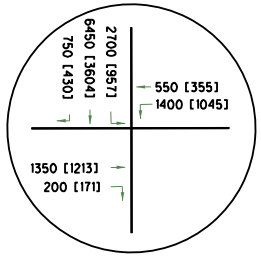

CRESCENT AVE.
W. 5TH
W. 4TH
BULLOCK ST.
8150 [7300]
12TH ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
BAKEWELL ST.
PHILADELPHIA ST.
W. 5TH ST.
W. 4TH ST.
INT. 1
INT. 2
INT. 3
75
71
80000 [80000]
79400 [76800]
74050 [76800]
68400 [71500]
73250 [71500]
69950 [-]
73000 [-]
15000 [-]
8400 [-]
6600 [6400]
7000 [6700]
6850 [6700]
66400 [-]
62400 [-]
7550 [8000]
6000 [66000]
6150 [6700]
5650 [4700]
6400 [-]
4450 [4100]
6300 [5600]
2850 [3300]
3900 [3300]
1950 [-]
2750 [-]
10050 [11300]
8050 [8700]
9900 [-]
8050 [8800]
8900 [8900]
15200 [15500]
15400 [16500]
5450 [6600]
4650 [6600]
4250 [-]
4700 [-]
7450 [-]
8100 [-]
2900 [2600]
4200 [2600]
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AADT
PLATE 3 OF 11 (KY)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB

INT. 1



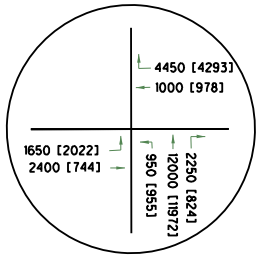
SIMON KENTON WAY & PIKE STREET

INT. 2



5TH STREET & PHILADELPHIA STREET

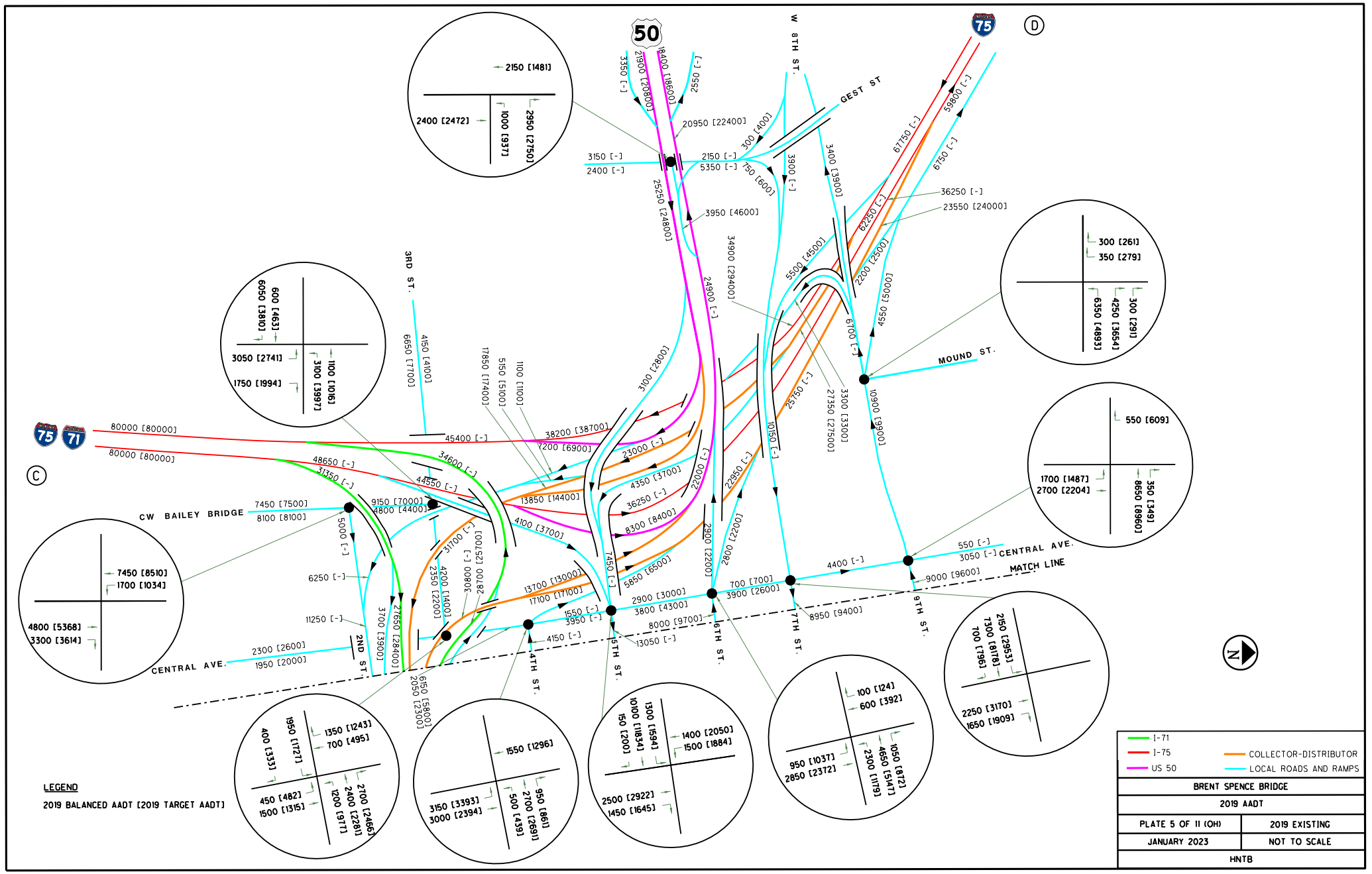
INT. 3

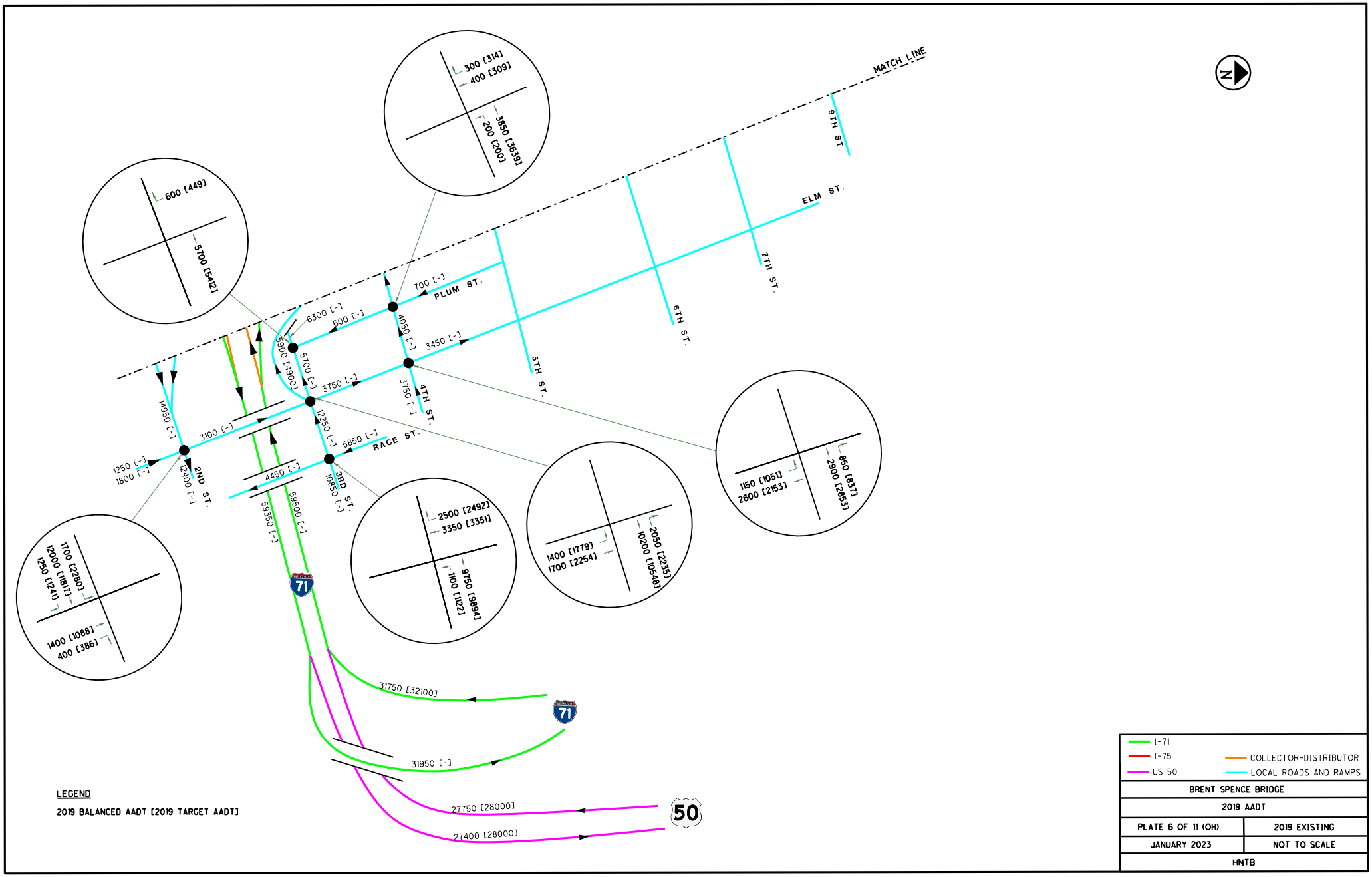


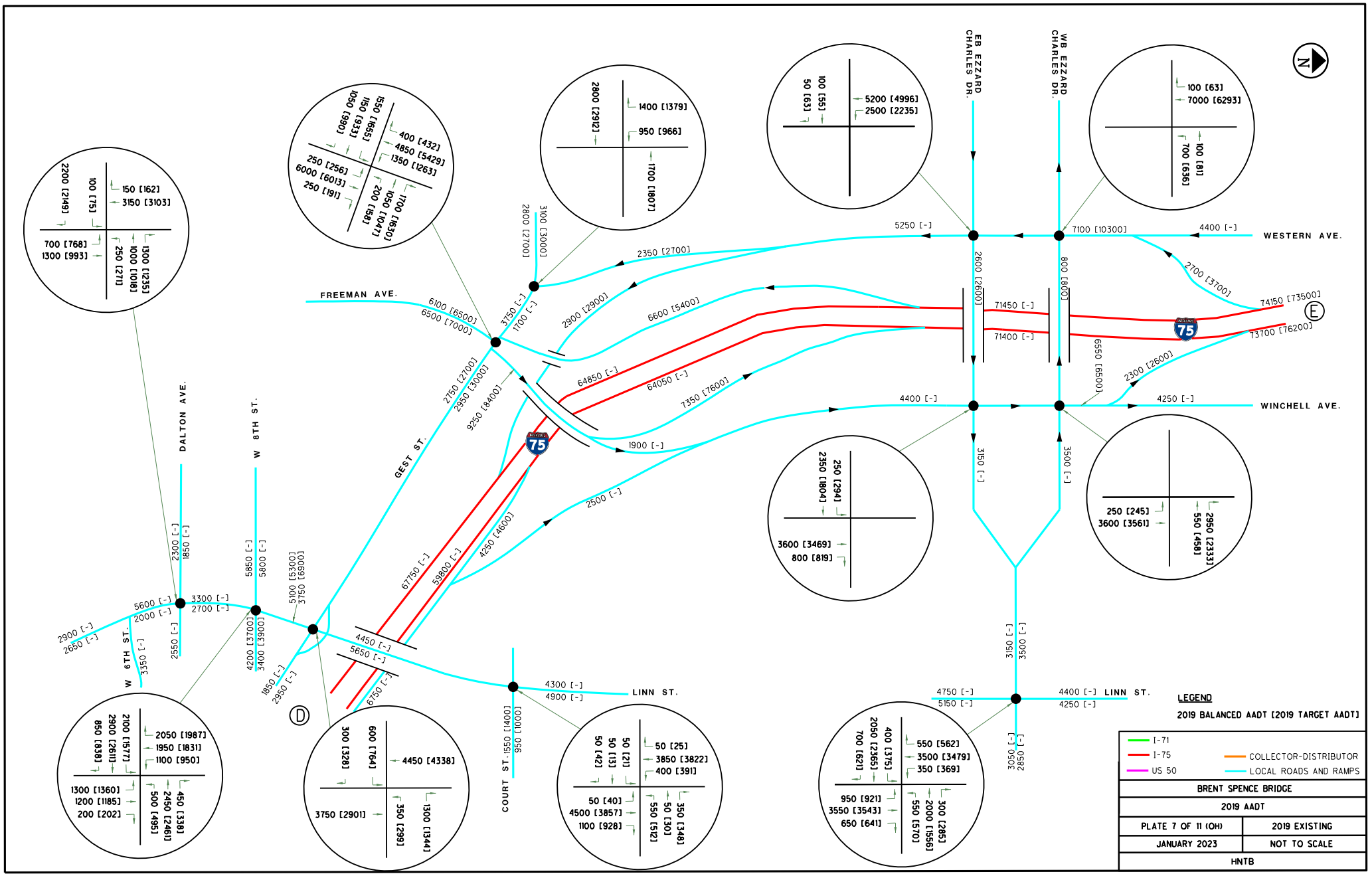
4TH STREET & PHILADELPHIA STREET

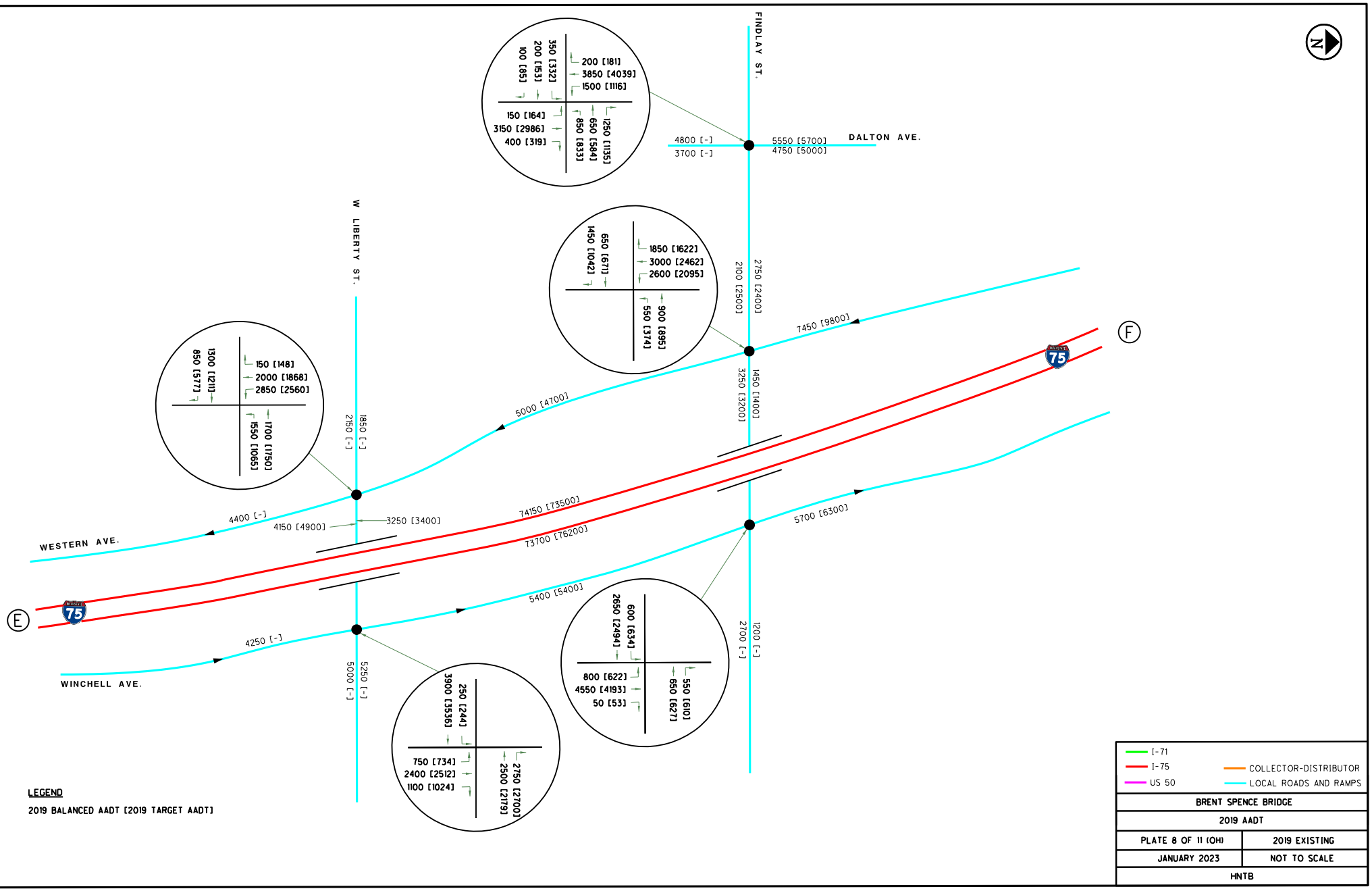
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

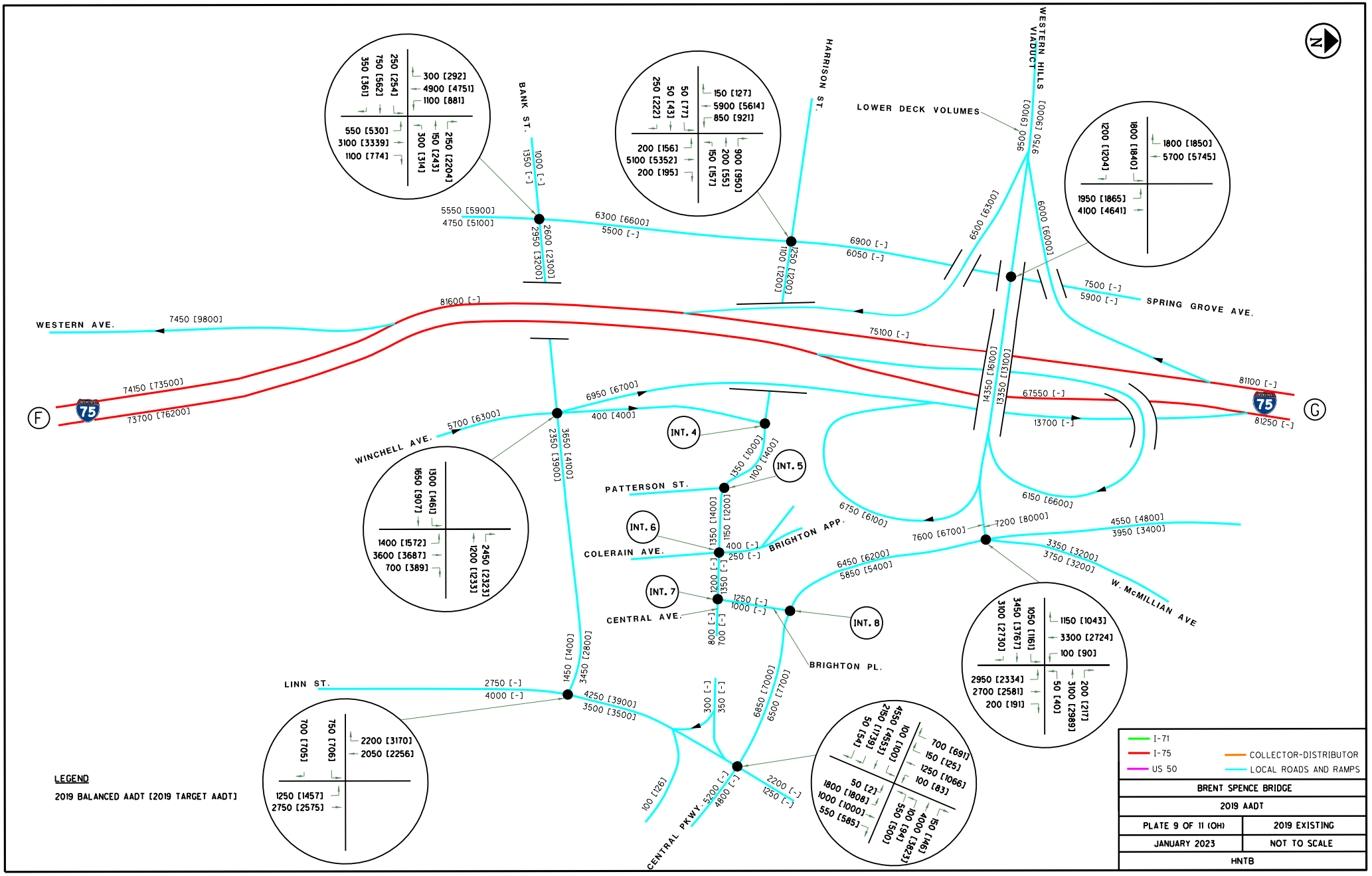
BRENT SPENCE BRIDGE	
2019 AADT	
PLATE 4 OF 11 (KY)	2019 EXISTING
JANUARY 2023	NOT TO SCALE
HNTB	


50
75
71
D
C
W 8TH ST.
GEST ST
3RD ST.
MOUND ST.
CW BAILEY BRIDGE
CENTRAL AVE.
MATCH LINE
2ND ST.
4TH ST.
5TH ST.
6TH ST.
7TH ST.
9TH ST.
2150 [1481]
2400 [2472]
1000 [937]
2950 [2750]
600 [463]
6050 [3801]
3050 [2741]
1750 [1994]
3300 [3997]
1100 [1016]
300 [261]
350 [279]
6350 [4893]
4250 [3654]
300 [291]
550 [609]
1700 [1487]
2700 [2204]
8650 [8960]
350 [349]
7450 [8510]
1700 [1034]
4800 [5368]
3300 [3614]
1350 [1243]
700 [495]
1950 [1727]
400 [333]
450 [482]
1500 [1315]
1200 [977]
2400 [2281]
2700 [2466]
1550 [1296]
3150 [3393]
3000 [2394]
500 [439]
950 [861]
2700 [2691]
1300 [15941]
1400 [2050]
10100 [11834]
150 [200]
1500 [1884]
2500 [2922]
1450 [1645]
100 [124]
600 [392]
950 [1037]
2850 [2372]
2300 [1179]
4650 [5147]
1050 [872]
2150 [2953]
7300 [8178]
700 [796]
2250 [3170]
1650 [1909]
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AADT
PLATE 5 OF 11 (OH)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB

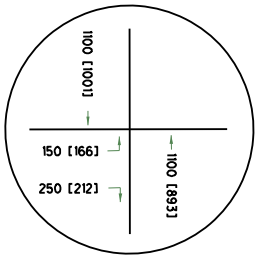

MATCH LINE
N
9TH ST.
ELM ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
PLUM ST.
RACE ST.
300 [314]
400 [309]
3850 [3639]
200 [200]
600 [449]
5700 [5422]
700 [-]
6300 [-]
600 [-]
4050 [-]
3450 [-]
5900 [4900]
5700 [-]
3750 [-]
3750 [-]
14950 [-]
3100 [-]
12250 [-]
5850 [-]
1250 [-]
1800 [-]
12400 [-]
4450 [-]
10850 [-]
59350 [-]
59500 [-]
1150 [1051]
2600 [2153]
850 [837]
2900 [2853]
2500 [2492]
3350 [3351]
1100 [1122]
9750 [9894]
1400 [1779]
1700 [2254]
2050 [2235]
10200 [10548]
1700 [2280]
12000 [11817]
1250 [1241]
1400 [1088]
400 [386]
71
31750 [32100]
31950 [-]
27750 [28000]
27400 [28000]
50
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AADT
PLATE 6 OF 11 (OH)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB


FREEMAN AVE.
GEST ST.
DALTON AVE.
W 8TH ST.
W 6TH ST.
COURT ST.
LINN ST.
LINN ST.
EB EZZARD CHARLES DR.
WB EZZARD CHARLES DR.
WESTERN AVE.
WINCHELL AVE.
I-75
I-71
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
US 50
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
BRENT SPENCE BRIDGE
2019 AADT
PLATE 7 OF 11 (OH)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB


FINDLAY ST.
DALTON AVE.
W LIBERTY ST.
WESTERN AVE.
WINCHELL AVE.
I-75
E
F
N
200 [181]
3850 [4039]
1500 [1116]
350 [332]
200 [153]
100 [85]
150 [164]
3150 [2986]
400 [319]
850 [833]
650 [584]
1250 [1135]
4800 [-]
3700 [-]
5550 [5700]
4750 [5000]
1850 [1622]
3000 [2462]
2600 [2095]
650 [671]
1450 [1042]
550 [374]
900 [895]
2100 [2500]
2750 [2400]
7450 [9800]
5000 [4700]
3250 [3200]
1450 [1400]
150 [148]
2000 [1868]
2850 [2560]
1300 [1211]
850 [577]
1550 [1065]
1700 [1750]
2150 [-]
1850 [-]
4400 [-]
4150 [4900]
3250 [3400]
74150 [73500]
73700 [76200]
5700 [6300]
5400 [5400]
4250 [-]
5000 [-]
5250 [-]
600 [634]
2650 [2494]
800 [622]
4550 [4193]
50 [53]
650 [627]
550 [610]
1200 [-]
2700 [-]
250 [244]
3900 [3536]
750 [734]
2400 [2512]
1100 [1024]
2500 [2179]
2750 [2700]
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AADT
PLATE 8 OF 11 (OH)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB

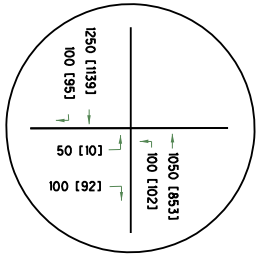

WESTERN AVE.
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
CENTRAL AVE.
BRIGHTON APP.
BRIGHTON PL.
W. McMILLIAN AVE
LINN ST.
CENTRAL PKWY.
BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
LOWER DECK VOLUMES
INT. 4
INT. 5
INT. 6
INT. 7
INT. 8
F
G
N
81600 [-]
7450 [9800]
74150 [73500]
73700 [76200]
75100 [-]
81100 [-]
81250 [-]
67550 [-]
13700 [-]
14350 [16100]
13350 [13100]
6950 [6700]
400 [400]
5700 [6300]
2350 [3900]
3650 [4100]
1350 [1000]
100 [1400]
1350 [1400]
1150 [1200]
400 [-]
250 [-]
1200 [-]
1350 [-]
1250 [-]
1000 [-]
800 [-]
700 [-]
1450 [1400]
3450 [2800]
2750 [-]
4000 [-]
4250 [3900]
3500 [3500]
300 [-]
350 [-]
6850 [7000]
6500 [7700]
100 [126]
5200 [-]
4800 [-]
2200 [-]
1250 [-]
6750 [6100]
6150 [66600]
7600 [6700]
7200 [8000]
4550 [4800]
3950 [3400]
3350 [3200]
3750 [3200]
6450 [6200]
5850 [5400]
5550 [5900]
4750 [5100]
6300 [6600]
5500 [-]
2690 [2300]
2950 [3200]
1000 [-]
1350 [-]
6900 [-]
6050 [-]
1100 [1200]
250 [1200]
6500 [6300]
9500 [9100]
9750 [10000]
6000 [6000]
7500 [-]
5900 [-]
300 [292]
4900 [4751]
1100 [881]
250 [254]
350 [361]
750 [562]
550 [530]
3100 [3339]
1100 [774]
300 [314]
150 [243]
250 [2204]
150 [127]
5900 [5614]
850 [921]
250 [222]
50 [43]
50 [77]
200 [156]
5100 [5352]
200 [195]
150 [57]
200 [55]
900 [950]
1800 [1850]
5700 [5745]
1200 [1204]
1800 [1840]
1950 [1865]
4100 [4641]
1150 [1043]
3300 [2724]
100 [90]
3100 [2730]
3450 [3767]
1050 [1161]
2950 [2334]
2700 [2581]
200 [191]
50 [40]
300 [2989]
200 [217]
700 [691]
150 [125]
1250 [1066]
100 [83]
450 [453]
250 [1739]
50 [54]
100 [100]
50 [2]
1800 [1808]
1000 [1000]
550 [585]
150 [146]
4000 [3823]
100 [94]
550 [500]
1300 [1461]
1650 [907]
1400 [1572]
3600 [3687]
700 [389]
2450 [2323]
1200 [1233]
2200 [3170]
2050 [2256]
700 [705]
750 [706]
1250 [1457]
2750 [2575]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
BRENT SPENCE BRIDGE
2019 AADT
PLATE 9 OF 11 (OH)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB

INT. 4



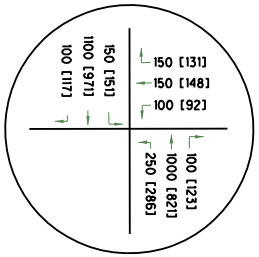
HARRISON STREET & WINCHELL AVENUE

INT. 5



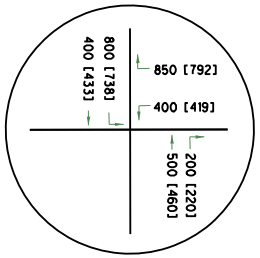
HARRISON STREET & PATTERSON STREET

INT. 6



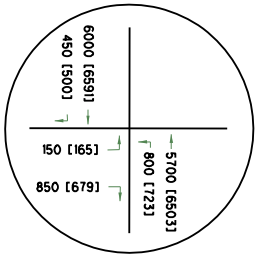
HARRISON STREET & COLERAIN AVENUE

INT. 7



CENTRAL AVENUE & BRIGHTON PLACE

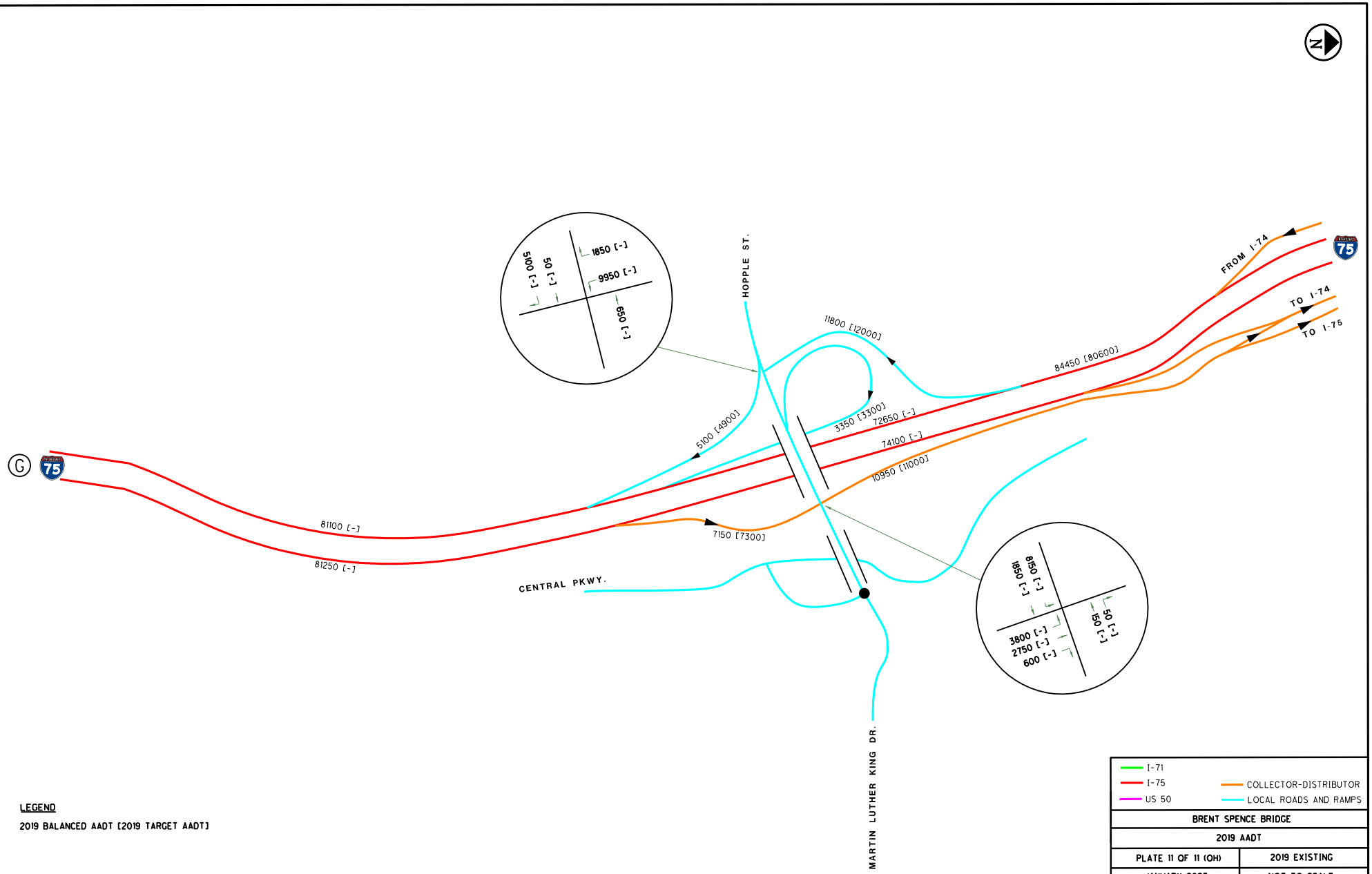
INT. 8



BRIGHTON PLACE & CENTRAL PARKWAY

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE	
2019 AADT	
PLATE 10 OF 11 (OH)	2019 EXISTING
JANUARY 2023	NOT TO SCALE
HNTB	


N
HOPPLE ST.
MARTIN LUTHER KING DR.
CENTRAL PKWY.
FROM I-74
TO I-74
TO I-75
5100 [-]
50 [-]
1850 [-]
9950 [-]
650 [-]
11800 [12000]
84450 [80600]
5100 [4900]
3350 [3300]
72650 [-]
74100 [-]
10950 [11000]
81100 [-]
81250 [-]
7150 [7300]
1850 [-]
8150 [-]
3800 [-]
2750 [-]
600 [-]
150 [-]
50 [-]
G
75
LEGEND
2019 BALANCED AADT [2019 TARGET AADT]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AADT
PLATE 11 OF 11 (OH)
2019 EXISTING
JANUARY 2023
NOT TO SCALE
HNTB

Appendix D:
Seasonal Adjustment Factors

2017 Urban Seasonal Adjustment Factors
(All Vehicles)

Group	URBAN INTERSTATE (U01)						
From Year:	2017			To Year:	2017		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.614	1.159	1.083	1.020	1.034	0.976	1.337
Feb	1.485	1.033	1.006	1.002	0.987	0.922	1.218
Mar	1.391	1.023	1.043	0.987	0.940	0.911	1.179
Apr	1.277	0.963	0.943	0.923	0.902	0.872	1.144
May	1.282	1.005	0.921	0.904	0.893	0.847	1.099
Jun	1.244	0.932	0.905	0.889	0.864	0.839	1.077
Jul	1.229	0.953	1.003	0.892	0.883	0.842	1.075
Aug	1.222	0.939	0.905	0.891	0.873	0.833	1.065
Sep	1.290	1.028	0.940	0.925	0.896	0.843	1.113
Oct	1.290	0.968	0.942	0.920	0.891	0.840	1.111
Nov	1.374	0.969	0.925	0.922	0.980	0.923	1.206
Dec	1.525	1.107	1.007	0.971	0.943	0.913	1.246

Group	URBAN FREEWAY EXPRESSWAY (U02)						
From Year:	2017			To Year:	2017		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.709	1.141	1.038	0.994	1.016	0.963	1.340
Feb	1.550	1.009	0.973	0.976	0.971	0.911	1.225
Mar	1.480	0.986	0.996	0.950	0.923	0.902	1.196
Apr	1.354	0.933	0.909	0.892	0.887	0.865	1.140
May	1.336	0.988	0.899	0.887	0.883	0.845	1.104
Jun	1.310	0.922	0.897	0.883	0.865	0.850	1.083
Jul	1.315	0.937	0.995	0.886	0.884	0.851	1.118
Aug	1.310	0.917	0.891	0.876	0.868	0.843	1.101
Sep	1.360	1.020	0.904	0.893	0.878	0.837	1.117
Oct	1.387	0.942	0.905	0.899	0.877	0.840	1.107
Nov	1.460	0.944	0.901	0.905	0.971	0.918	1.218
Dec	1.525	1.072	0.997	0.968	0.943	0.900	1.235

Group	URBAN OTHER PRINCIPAL ARTERIAL (U03)						
From Year:	2017			To Year:	2017		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.511	1.148	1.079	1.032	1.047	0.964	1.199
Feb	1.351	1.039	1.015	1.019	1.006	0.903	1.098
Mar	1.325	1.035	1.041	0.992	0.964	0.900	1.089
Apr	1.244	0.968	0.954	0.926	0.917	0.852	1.029
May	1.227	0.989	0.926	0.908	0.899	0.835	1.016
Jun	1.225	0.957	0.944	0.923	0.895	0.842	1.014
Jul	1.242	0.978	1.029	0.938	0.926	0.866	1.055
Aug	1.224	0.963	0.939	0.921	0.899	0.837	1.013
Sep	1.266	1.051	0.961	0.948	0.924	0.839	1.069
Oct	1.285	0.997	0.963	0.953	0.915	0.856	1.057
Nov	1.369	0.985	0.947	0.947	1.022	0.908	1.148
Dec	1.435	1.134	1.028	0.999	0.984	0.911	1.154

Group	URBAN MINOR ARTERIAL, COLLECTORS, LOCAL (U04,05,06,07)						
From Year:	2017			To Year:	2017		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.652	1.124	1.013	0.981	1.029	0.977	1.379
Feb	1.523	1.026	0.963	0.963	0.979	0.907	1.255
Mar	1.452	0.954	0.954	0.938	0.914	0.902	1.185
Apr	1.323	0.918	0.893	0.873	0.893	0.869	1.130
May	1.272	0.957	0.885	0.871	0.882	0.836	1.089
Jun	1.300	0.938	0.922	0.923	0.886	0.872	1.076
Jul	1.305	0.953	1.022	0.920	0.930	0.887	1.012
Aug	1.284	0.928	0.893	0.877	0.871	0.847	1.082
Sep	1.304	0.997	0.894	0.887	0.874	0.822	1.107
Oct	1.362	0.942	0.902	0.889	0.878	0.836	1.120
Nov	1.434	0.939	0.914	0.916	0.973	0.911	1.229
Dec	1.484	1.079	1.011	0.975	0.985	0.903	1.281

2018 Urban Seasonal Adjustment Factors
(All Vehicles)

Group	URBAN INTERSTATE (U01)						
From Year:	2018			To Year:	2018		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.609	1.253	1.053	1.020	1.003	1.032	1.429
Feb	1.570	1.038	0.985	1.037	0.970	0.937	1.258
Mar	1.393	0.992	0.975	0.978	0.936	0.879	1.196
Apr	1.347	0.974	0.963	0.929	0.904	0.862	1.141
May	1.259	1.018	0.916	0.901	0.875	0.835	1.097
Jun	1.232	0.920	0.905	0.883	0.860	0.830	1.072
Jul	1.230	0.924	0.897	0.973	0.872	0.833	1.078
Aug	1.214	0.928	0.907	0.890	0.861	0.821	1.066
Sep	1.304	1.033	0.925	0.908	0.882	0.837	1.108
Oct	1.287	0.950	0.920	0.916	0.879	0.841	1.108
Nov	1.342	0.982	0.933	0.906	1.013	0.914	1.184
Dec	1.398	1.094	1.058	0.945	0.926	0.885	1.172

Group	URBAN FREEWAY EXPRESSWAY (U02)						
From Year:	2018			To Year:	2018		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.676	1.236	1.031	0.992	0.974	1.014	1.446
Feb	1.634	1.013	0.952	1.017	0.948	0.928	1.270
Mar	1.461	0.960	0.953	0.962	0.929	0.897	1.215
Apr	1.434	0.950	0.946	0.909	0.887	0.853	1.164
May	1.344	1.015	0.898	0.884	0.868	0.841	1.137
Jun	1.343	0.920	0.897	0.885	0.862	0.843	1.120
Jul	1.333	0.920	0.892	0.978	0.884	0.850	1.117
Aug	1.313	0.905	0.888	0.873	0.855	0.824	1.103
Sep	1.386	1.034	0.895	0.878	0.863	0.829	1.128
Oct	1.378	0.923	0.889	0.884	0.862	0.828	1.128
Nov	1.439	0.955	0.916	0.896	1.001	0.909	1.221
Dec	1.468	1.058	1.040	0.938	0.915	0.884	1.199

Group	URBAN OTHER PRINCIPAL ARTERIAL (U03)						
From Year:	2018			To Year:	2018		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.483	1.307	1.087	1.047	1.008	1.011	1.308
Feb	1.439	1.044	0.989	1.041	0.977	0.917	1.134
Mar	1.268	0.997	0.997	1.003	0.944	0.870	1.075
Apr	1.299	0.967	0.981	0.938	0.906	0.838	1.048
May	1.228	1.007	0.908	0.898	0.870	0.815	1.043
Jun	1.259	0.954	0.937	0.922	0.884	0.835	1.058
Jul	1.275	0.973	0.942	1.010	0.918	0.863	1.076
Aug	1.231	0.955	0.946	0.925	0.896	0.829	1.027
Sep	1.314	1.058	0.950	0.942	0.913	0.846	1.091
Oct	1.301	0.980	0.945	0.941	0.901	0.841	1.081
Nov	1.321	0.999	0.951	0.932	1.048	0.901	1.133
Dec	1.362	1.094	1.096	0.971	0.947	0.890	1.126

Group	URBAN MINOR ARTERIAL, COLLECTORS, LOCAL (U04,05,06,07)						
From Year:	2018			To Year:	2018		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.643	1.301	1.096	1.015	1.001	1.007	1.520
Feb	1.610	1.027	0.930	1.023	0.947	0.915	1.280
Mar	1.381	0.937	0.957	0.991	0.929	0.878	1.177
Apr	1.370	0.924	0.928	0.884	0.856	0.814	1.117
May	1.238	0.957	0.864	0.859	0.841	0.802	1.061
Jun	1.302	0.923	0.933	0.906	0.889	0.853	1.080
Jul	1.323	0.929	0.912	0.975	0.902	0.874	1.128
Aug	1.257	0.894	0.890	0.894	0.860	0.834	1.095
Sep	1.347	1.018	0.888	0.882	0.875	0.838	1.119
Oct	1.382	0.922	0.891	0.903	0.869	0.854	1.163
Nov	1.408	0.968	0.937	0.921	1.042	0.915	1.242
Dec	1.418	1.032	1.081	0.976	0.947	0.912	1.229

2019 Urban Seasonal Adjustment Factors
(All Vehicles)

Group	URBAN INTERSTATE (U01)						
From Year:	2019		To Year:	2019			
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.888	1.107	1.128	1.077	1.033	0.944	1.588
Feb	1.580	1.046	1.003	1.029	0.956	0.948	1.239
Mar	1.437	1.010	0.966	0.949	0.930	0.879	1.168
Apr	1.329	0.959	0.929	0.912	0.887	0.873	1.137
May	1.268	1.011	0.918	0.901	0.880	0.829	1.084
Jun	1.237	0.940	0.902	0.895	0.870	0.818	1.078
Jul	1.208	0.924	0.903	0.877	0.959	0.861	1.093
Aug	1.202	0.929	0.921	0.893	0.859	0.817	1.062
Sep	1.271	0.998	0.926	0.910	0.885	0.834	1.089
Oct	1.246	0.953	0.927	0.920	0.897	0.830	1.100
Nov	1.379	0.982	0.946	0.913	0.996	0.904	1.186
Dec	1.353	1.008	1.057	1.075	0.948	0.889	1.155

Group	URBAN FREEWAY EXPRESSWAY (U02)						
From Year:	2019		To Year:	2019			
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.967	1.069	1.107	1.061	1.011	0.928	1.536
Feb	1.650	1.017	0.962	0.999	0.923	0.935	1.245
Mar	1.543	0.984	0.943	0.928	0.923	0.881	1.206
Apr	1.434	0.933	0.899	0.884	0.877	0.878	1.147
May	1.372	1.014	0.898	0.882	0.872	0.834	1.118
Jun	1.330	0.929	0.888	0.885	0.872	0.827	1.112
Jul	1.322	0.913	0.893	0.874	0.957	0.872	1.135
Aug	1.304	0.912	0.899	0.874	0.855	0.821	1.107
Sep	1.361	0.995	0.887	0.876	0.860	0.824	1.116
Oct	1.372	0.931	0.896	0.892	0.879	0.830	1.137
Nov	1.471	0.953	0.925	0.907	0.996	0.901	1.232
Dec	1.491	0.988	1.033	1.047	0.941	0.890	1.205

Group	URBAN OTHER PRINCIPAL ARTERIAL (U03)						
From Year:	2019		To Year:	2019			
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.733	1.109	1.150	1.110	1.054	0.933	1.424
Feb	1.456	1.053	1.013	1.036	0.951	0.928	1.146
Mar	1.378	1.024	0.987	0.973	0.961	0.883	1.093
Apr	1.306	0.960	0.937	0.916	0.902	0.861	1.038
May	1.240	1.000	0.915	0.903	0.888	0.817	1.016
Jun	1.242	0.962	0.926	0.927	0.908	0.835	1.050
Jul	1.250	0.943	0.929	0.901	0.978	0.875	1.078
Aug	1.221	0.946	0.945	0.912	0.881	0.826	1.033
Sep	1.283	1.013	0.934	0.922	0.900	0.846	1.067
Oct	1.257	0.969	0.939	0.934	0.907	0.834	1.056
Nov	1.353	0.991	0.959	0.943	1.030	0.893	1.158
Dec	1.380	1.003	1.045	1.081	0.953	0.891	1.132

Group	URBAN MINOR ARTERIAL, COLLECTORS, LOCAL (U04,05,06,07)						
From Year:	2019		To Year:	2019			
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.947	1.076	1.132	1.080	1.031	0.916	1.570
Feb	1.631	1.029	0.950	1.007	0.928	0.950	1.273
Mar	1.489	0.954	0.917	0.907	0.907	0.888	1.182
Apr	1.375	0.898	0.880	0.860	0.864	0.870	1.119
May	1.278	0.972	0.870	0.861	0.855	0.810	1.062
Jun	1.312	0.929	0.898	0.902	0.908	0.861	1.114
Jul	1.326	0.916	0.909	0.875	1.010	0.876	1.114
Aug	1.261	0.907	0.906	0.873	0.866	0.827	1.096
Sep	1.338	0.976	0.882	0.879	0.864	0.835	1.115
Oct	1.378	0.940	0.886	0.891	0.873	0.848	1.159
Nov	1.446	0.948	0.946	0.926	1.038	0.910	1.245
Dec	1.480	0.994	1.032	1.097	0.966	0.921	1.237

2021 Urban Seasonal Adjustment Factors
(All Vehicles)

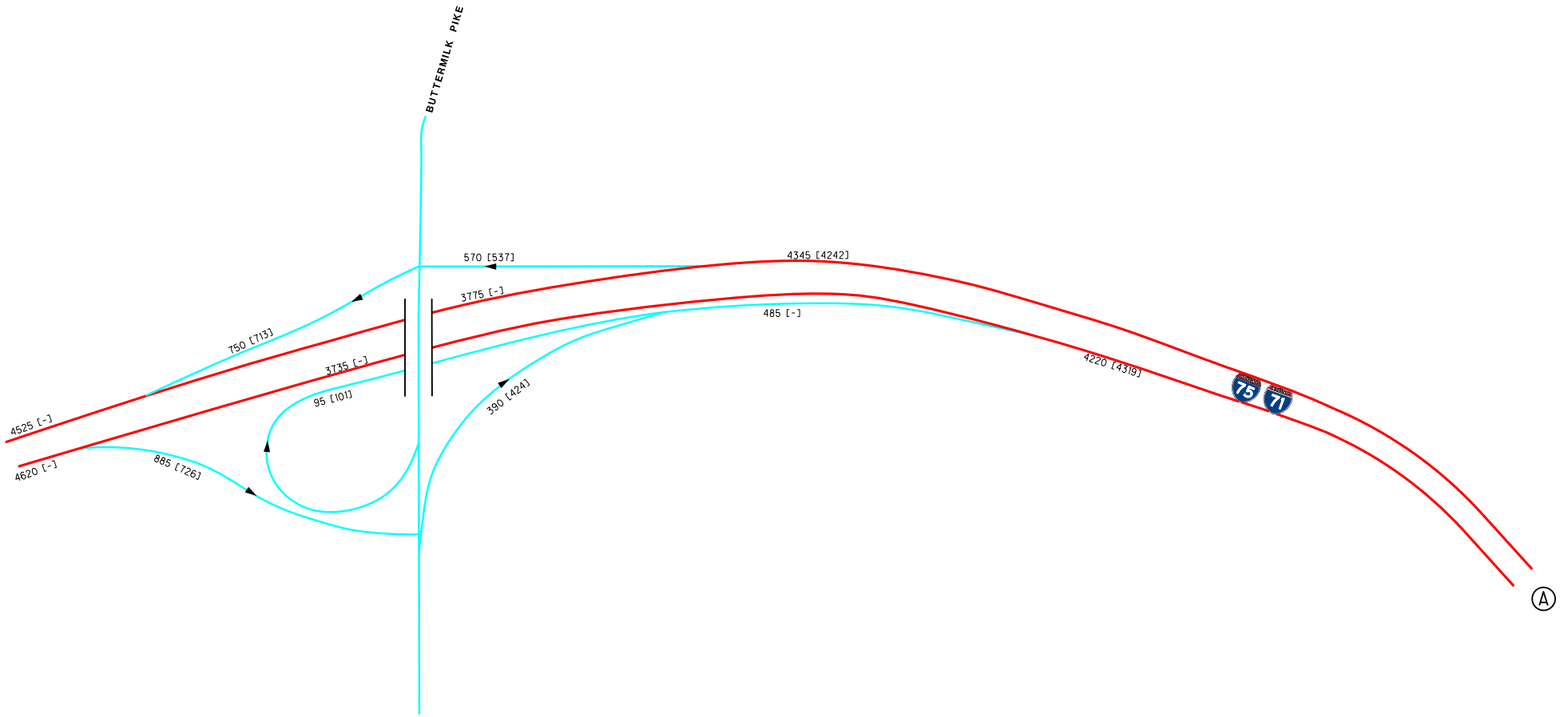
Group	URBAN INTERSTATE (U01)						
From Year:	2021			To Year:	2021		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.808	1.169	1.113	1.097	1.075	1.031	1.358
Feb	1.615	1.288	1.284	1.100	1.108	1.004	1.296
Mar	1.371	1.038	0.995	0.972	0.985	0.906	1.118
Apr	1.289	0.978	0.951	0.955	0.936	0.871	1.112
May	1.224	0.974	0.942	0.921	0.883	0.847	1.048
Jun	1.155	0.939	0.907	0.903	0.870	0.835	1.029
Jul	1.175	0.931	0.908	0.884	0.862	0.817	1.020
Aug	1.175	0.938	0.917	0.896	0.872	0.827	1.022
Sep	1.229	0.954	0.935	0.926	0.881	0.828	1.057
Oct	1.237	0.961	0.924	0.905	0.887	0.841	1.054
Nov	1.351	0.970	0.929	0.926	0.916	0.857	1.104
Dec	1.332	0.987	0.947	0.937	0.923	0.877	1.128

Group	URBAN FREEWAY EXPRESSWAY (U02)						
From Year:	2021			To Year:	2021		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.884	1.132	1.077	1.059	1.044	1.005	1.376
Feb	1.678	1.223	1.228	1.061	1.068	0.984	1.304
Mar	1.456	1.003	0.960	0.944	0.962	0.902	1.140
Apr	1.397	0.959	0.918	0.928	0.927	0.876	1.142
May	1.312	0.951	0.911	0.899	0.871	0.855	1.082
Jun	1.252	0.935	0.898	0.897	0.877	0.846	1.071
Jul	1.291	0.927	0.900	0.881	0.873	0.838	1.086
Aug	1.286	0.928	0.897	0.887	0.871	0.833	1.061
Sep	1.314	0.929	0.905	0.902	0.865	0.824	1.086
Oct	1.352	0.937	0.897	0.881	0.871	0.843	1.097
Nov	1.480	0.948	0.909	0.898	0.900	0.853	1.147
Dec	1.435	0.956	0.926	0.918	0.901	0.866	1.162

Group	URBAN OTHER PRINCIPAL ARTERIAL (U03)						
From Year:	2021			To Year:	2021		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.740	1.135	1.084	1.072	1.056	0.997	1.272
Feb	1.564	1.239	1.246	1.067	1.091	0.983	1.228
Mar	1.375	1.005	0.968	0.943	0.976	0.899	1.078
Apr	1.332	0.959	0.919	0.936	0.933	0.862	1.061
May	1.247	0.952	0.920	0.909	0.877	0.852	1.020
Jun	1.227	0.948	0.912	0.915	0.888	0.854	1.027
Jul	1.285	0.952	0.921	0.905	0.893	0.842	1.046
Aug	1.257	0.953	0.931	0.920	0.893	0.846	1.026
Sep	1.295	0.960	0.945	0.935	0.900	0.841	1.061
Oct	1.331	0.973	0.936	0.920	0.906	0.852	1.068
Nov	1.393	0.957	0.934	0.917	0.921	0.855	1.093
Dec	1.364	0.973	0.941	0.926	0.918	0.863	1.109

Group	URBAN MINOR ARTERIAL, COLLECTORS, LOCAL (U04,05,06,07)						
From Year:	2021			To Year:	2021		
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan	1.831	1.129	1.026	1.012	1.007	0.959	1.329
Feb	1.608	1.248	1.307	1.044	1.077	0.982	1.289
Mar	1.384	0.960	0.923	0.908	0.936	0.880	1.110
Apr	1.317	0.913	0.881	0.903	0.900	0.850	1.117
May	1.260	0.922	0.891	0.879	0.849	0.838	1.038
Jun	1.254	0.937	0.892	0.910	0.881	0.872	1.079
Jul	1.308	0.929	0.910	0.896	0.907	0.869	1.122
Aug	1.279	0.918	0.909	0.900	0.880	0.857	1.088
Sep	1.324	0.948	0.918	0.924	0.870	0.829	1.083
Oct	1.377	0.954	0.913	0.904	0.901	0.873	1.122
Nov	1.478	0.968	0.941	0.928	0.953	0.894	1.197
Dec	1.426	0.972	0.954	0.958	0.932	0.893	1.212

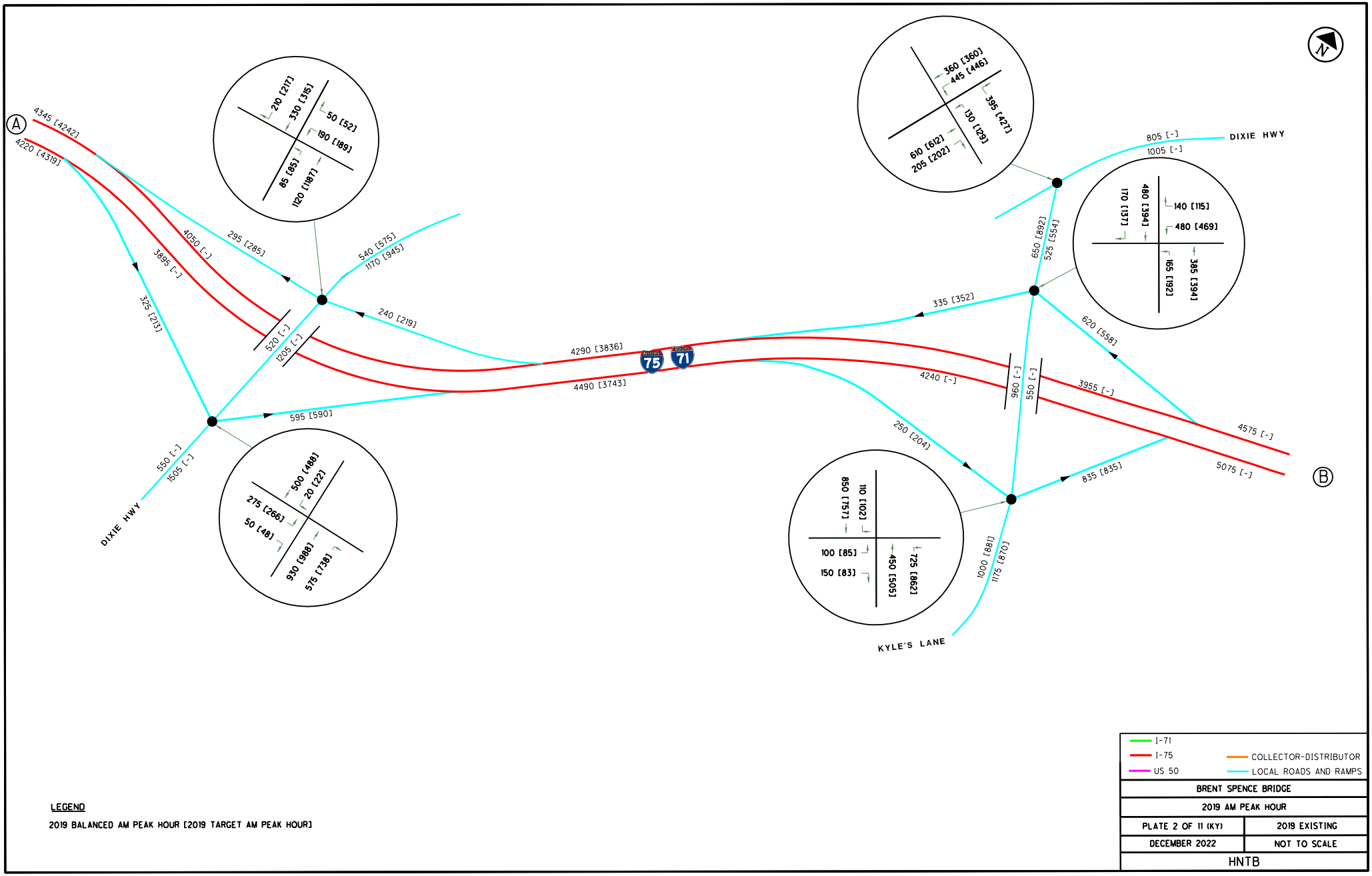
Appendix E:
Existing 2019 AM Peak Hour (Target versus Balanced Volumes)

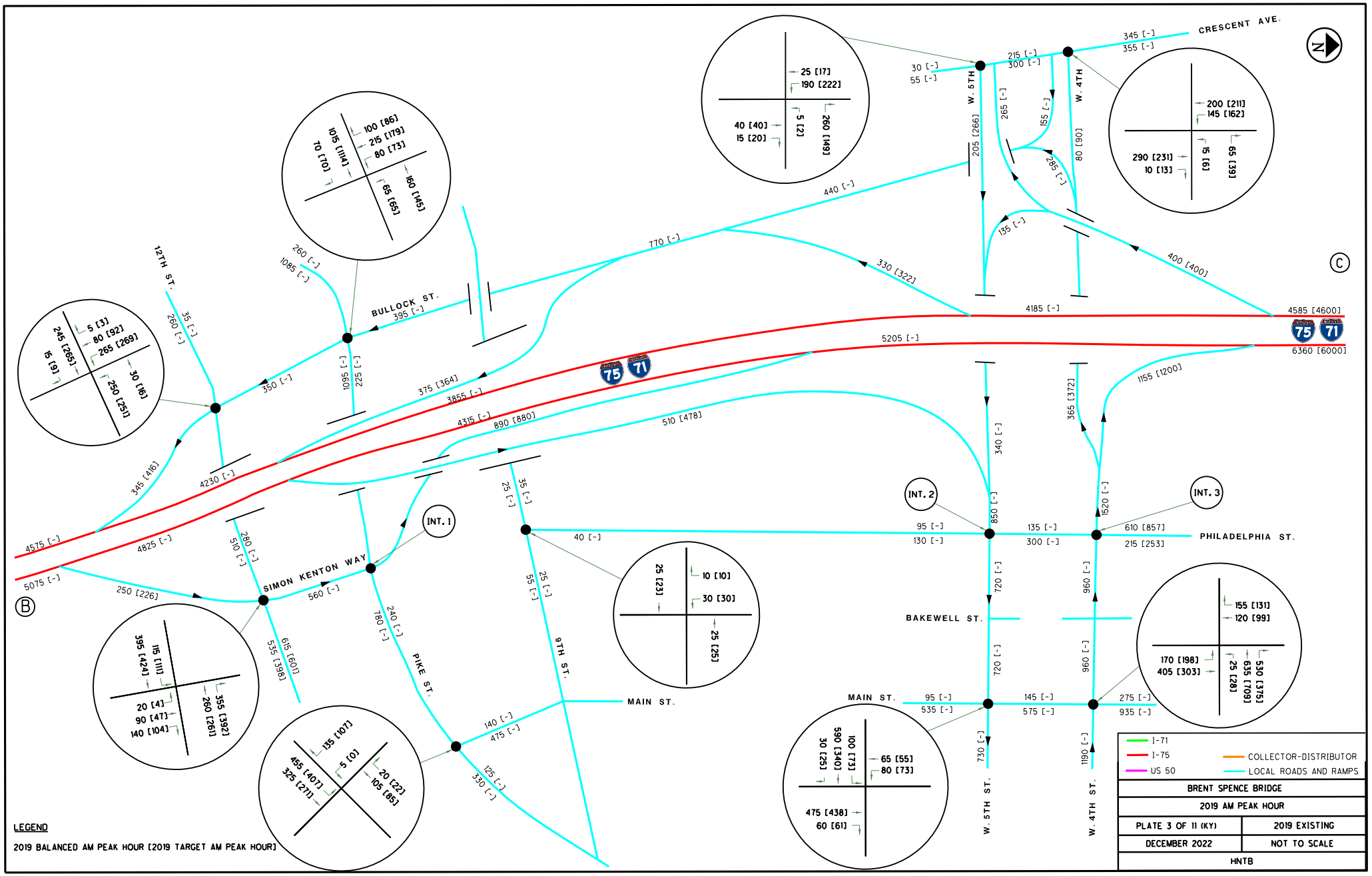


LEGEND

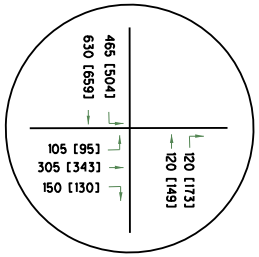
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]

I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2019 AM PEAK HOUR	
PLATE 1 OF 11 (KY)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	


A
B
4345 [4242]
4220 [4319]
4050 [-]
3895 [-]
295 [285]
325 [213]
540 [575]
1170 [945]
240 [219]
520 [-]
1205 [-]
210 [217]
330 [315]
50 [52]
190 [189]
85 [85]
120 [187]
4290 [3836]
4490 [3743]
595 [590]
550 [-]
1505 [-]
DIXIE HWY
500 [488]
20 [22]
275 [266]
50 [48]
930 [988]
575 [738]
360 [360]
445 [446]
395 [427]
130 [129]
610 [612]
205 [202]
650 [892]
525 [554]
335 [352]
805 [-]
1005 [-]
DIXIE HWY
480 [394]
140 [115]
480 [469]
170 [137]
165 [192]
385 [394]
620 [558]
4240 [-]
960 [-]
550 [-]
3955 [-]
4575 [-]
5075 [-]
250 [204]
835 [835]
110 [102]
850 [757]
100 [85]
150 [83]
450 [505]
725 [862]
1000 [881]
1175 [870]
KYLE'S LANE
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AM PEAK HOUR
PLATE 2 OF 11 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB
LEGEND
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]

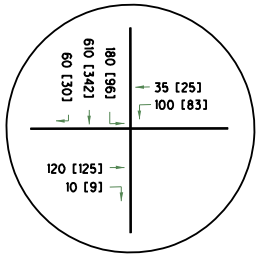

CRESCENT AVE.
W. 5TH
W. 4TH
BULLOCK ST.
12TH ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
BAKEWELL ST.
PHILADELPHIA ST.
W. 5TH ST.
W. 4TH ST.
INT. 1
INT. 2
INT. 3
75
71
B
C
N
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AM PEAK HOUR
PLATE 3 OF 11 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB
LEGEND
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]

INT. 1



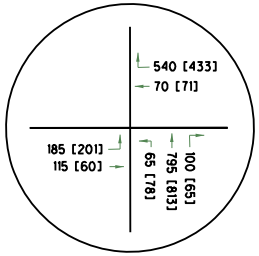
SIMON KENTON WAY & PIKE STREET

INT. 2



5TH STREET & PHILADELPHIA STREET

INT. 3



4TH STREET & PHILADELPHIA STREET

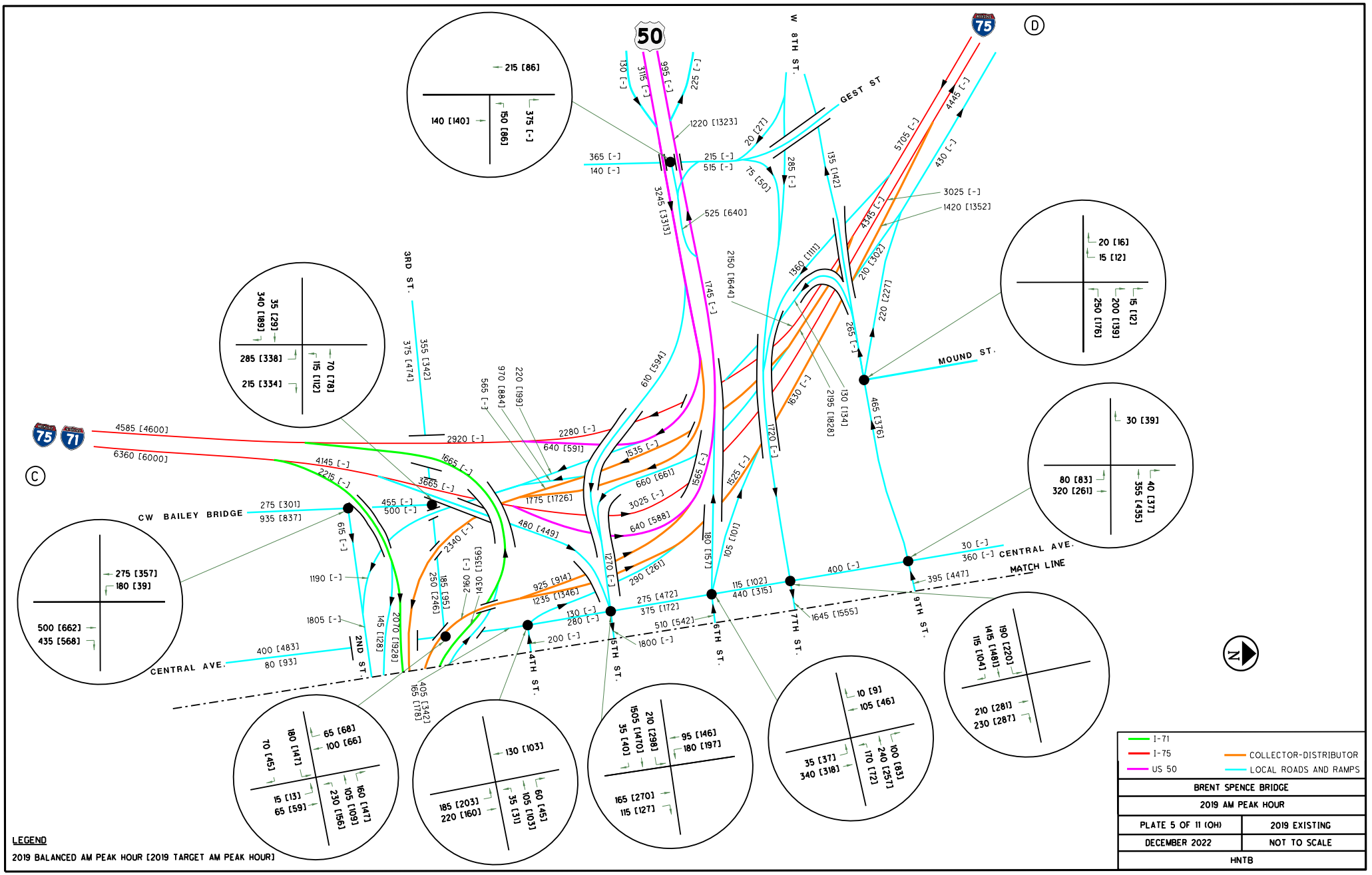
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

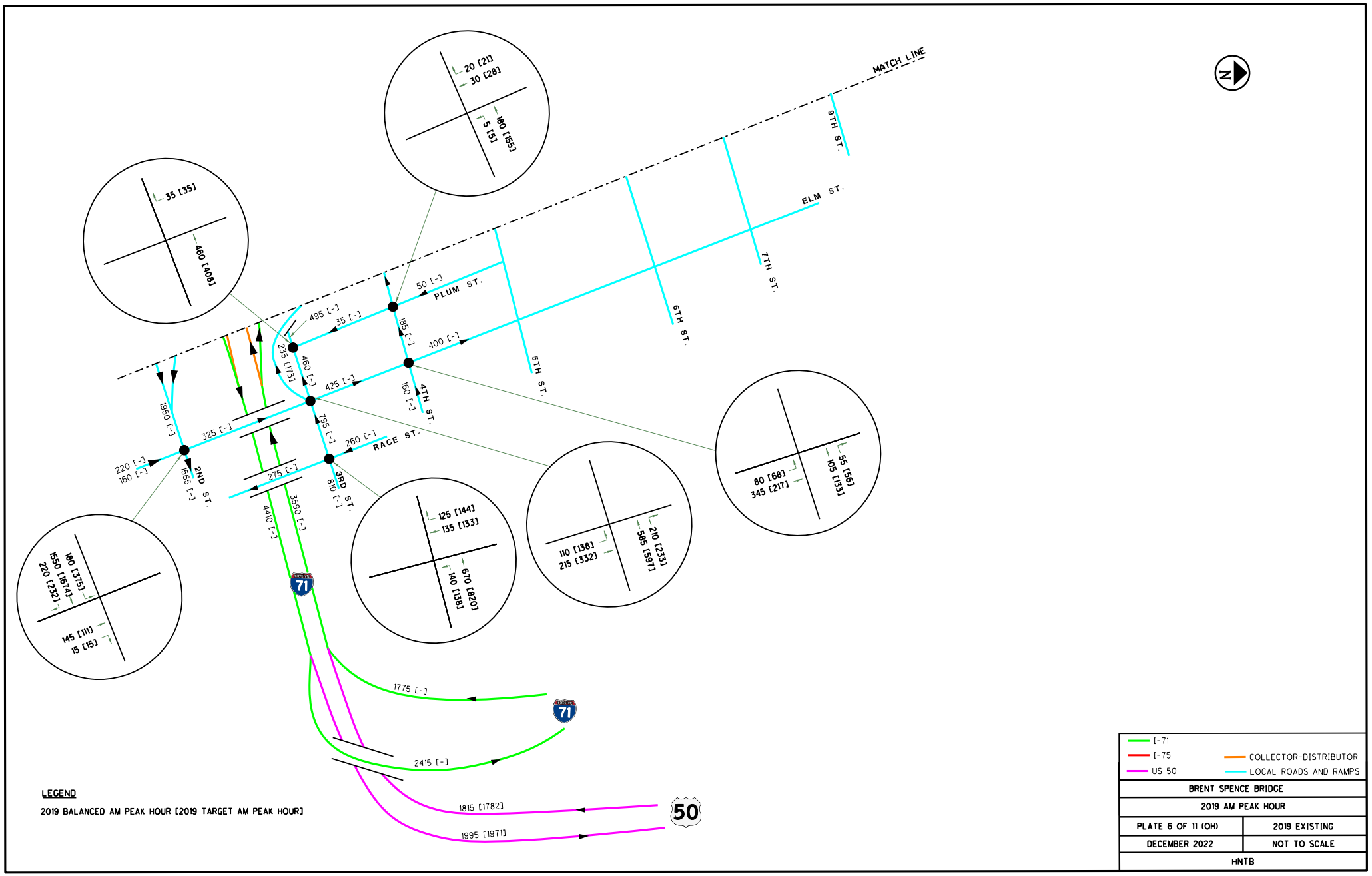
BRENT SPENCE BRIDGE

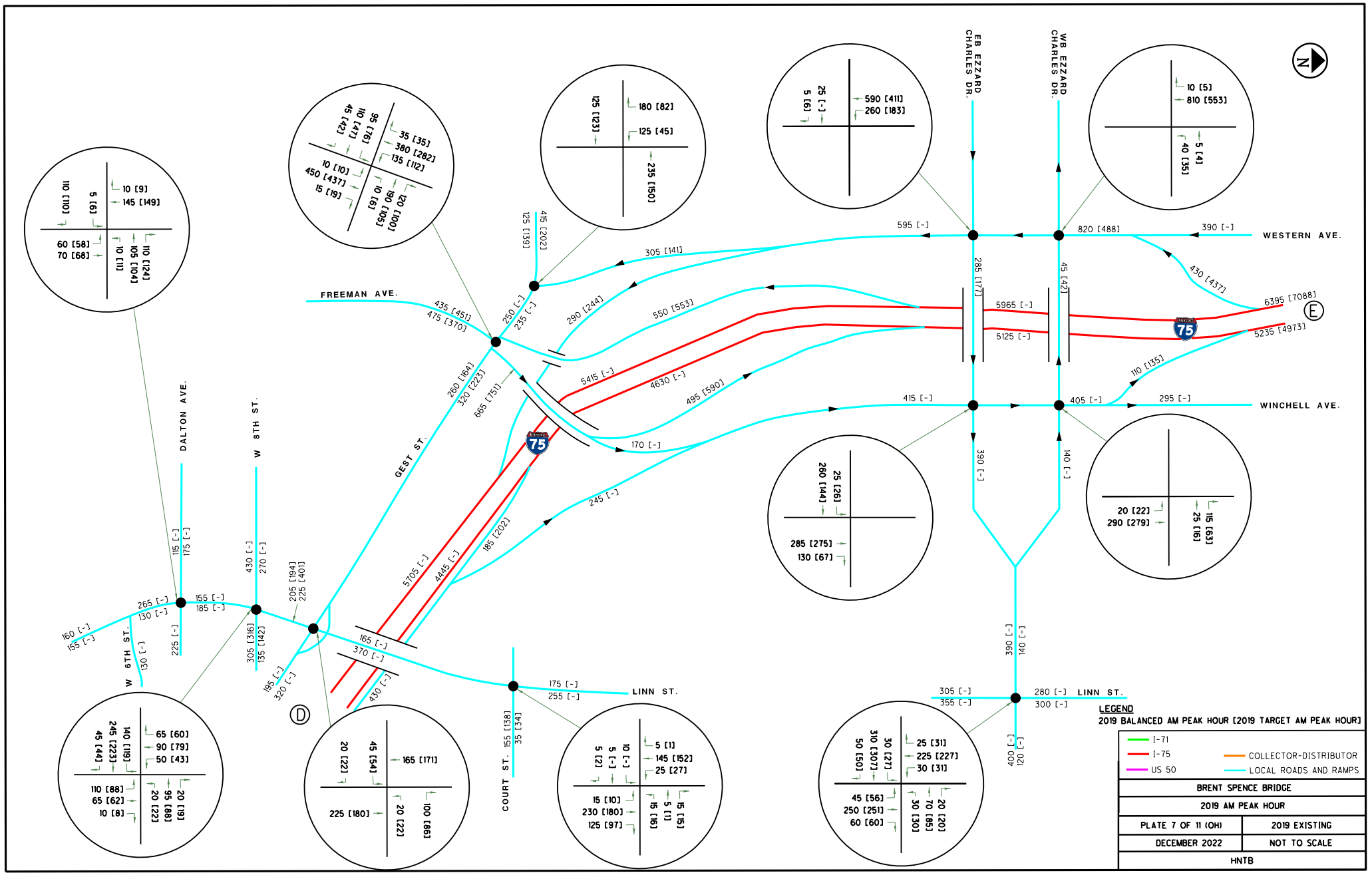
2019 AM PEAK HOUR

PLATE 4 OF 11 (KY)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE

HNTB


50
75
71
D
C
W 8TH ST.
GEST ST
3RD ST.
MOUND ST.
CW BAILEY BRIDGE
CENTRAL AVE.
2ND ST.
4TH ST.
5TH ST.
6TH ST.
7TH ST.
9TH ST.
MATCH LINE
215 [86]
140 [140]
150 [86]
375 [-]
340 [189]
35 [29]
285 [338]
215 [334]
115 [112]
70 [78]
20 [16]
15 [12]
250 [176]
200 [139]
15 [12]
30 [39]
80 [83]
320 [261]
355 [435]
40 [37]
275 [357]
180 [39]
500 [662]
435 [568]
10 [9]
105 [46]
35 [37]
340 [318]
170 [72]
240 [257]
100 [83]
190 [220]
115 [104]
415 [481]
210 [281]
230 [287]
65 [68]
100 [66]
70 [45]
180 [147]
15 [13]
65 [59]
230 [156]
105 [109]
160 [147]
130 [103]
185 [203]
220 [160]
35 [31]
105 [103]
60 [45]
210 [298]
1505 [1470]
35 [40]
95 [146]
180 [197]
165 [270]
115 [127]
LEGEND
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AM PEAK HOUR
PLATE 5 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB


MATCH LINE
N
9TH ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
ELM ST.
PLUM ST.
RACE ST.
20 [21]
30 [28]
5 [5]
80 [155]
35 [35]
460 [408]
50 [-]
495 [-]
35 [-]
185 [-]
400 [-]
235 [173]
460 [-]
425 [-]
160 [-]
1950 [-]
325 [-]
795 [-]
260 [-]
220 [-]
160 [-]
1585 [-]
275 [-]
810 [-]
4410 [-]
3590 [-]
125 [144]
135 [133]
140 [138]
670 [820]
110 [138]
215 [332]
210 [233]
585 [597]
80 [68]
345 [217]
55 [56]
105 [133]
180 [375]
1550 [1614]
220 [232]
145 [111]
15 [15]
71
1775 [-]
2415 [-]
1815 [1782]
1995 [1971]
50
LEGEND
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AM PEAK HOUR
PLATE 6 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

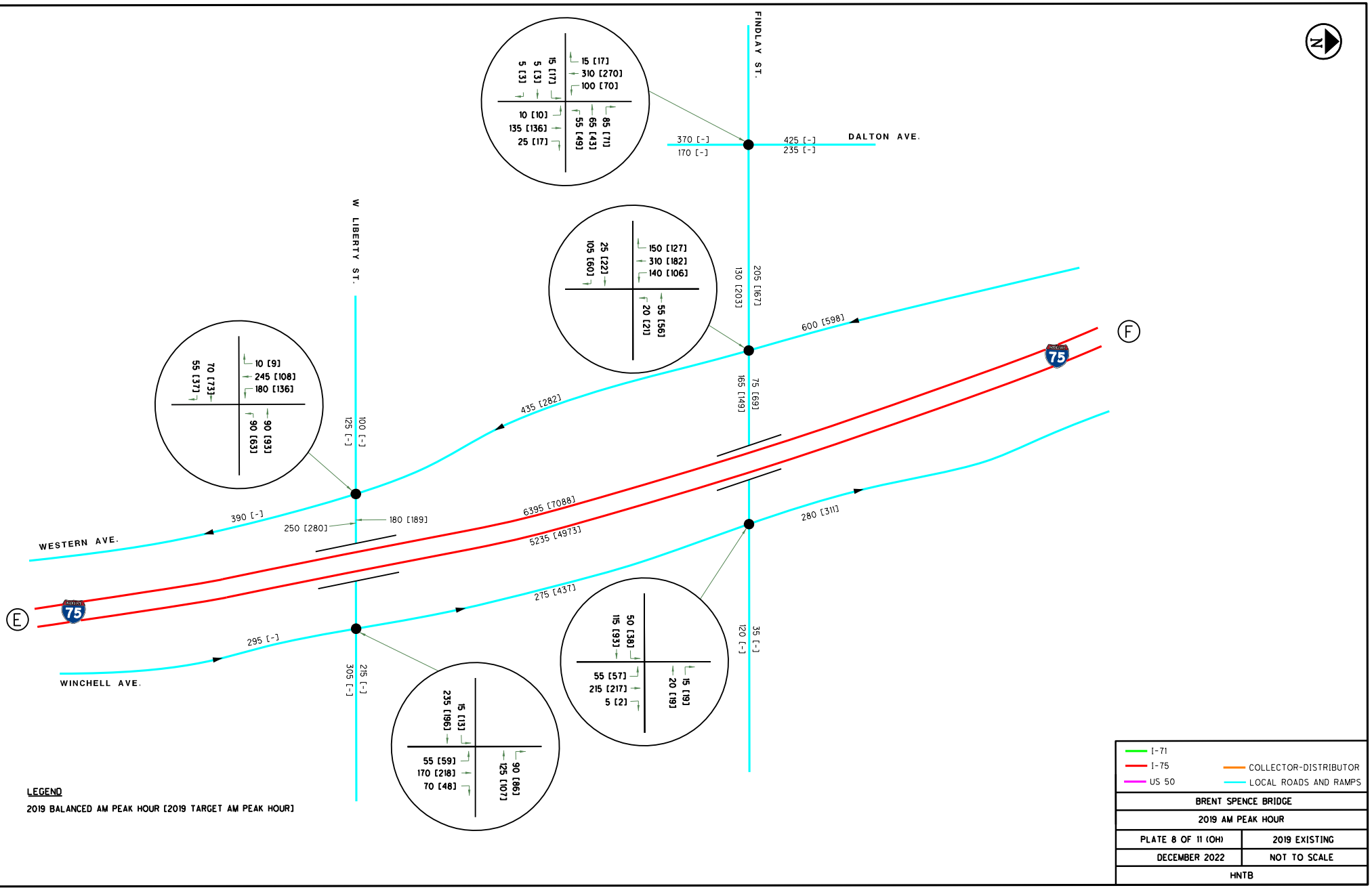


LEGEND

2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE	
2019 AM PEAK HOUR	
PLATE 7 OF 11 (OH)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	

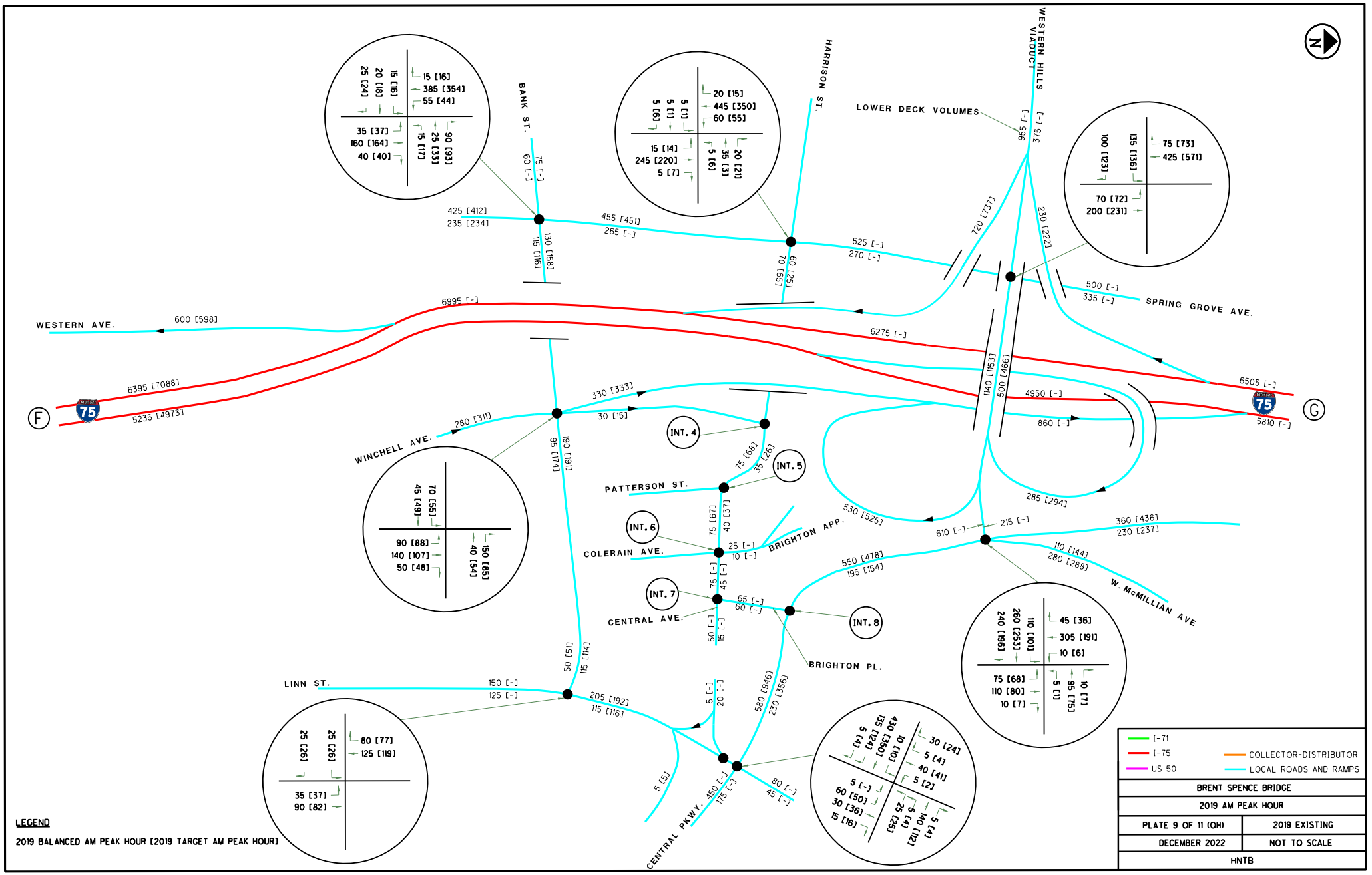


LEGEND

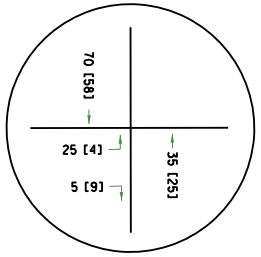
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE	
2019 AM PEAK HOUR	
PLATE 8 OF 11 (OH)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	

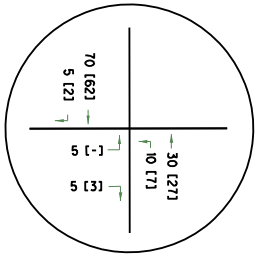

WESTERN AVE.
WINCHELL AVE.
BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
LOWER DECK VOLUMES
SPRING GROVE AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APP.
CENTRAL AVE.
BRIGHTON PL.
W. McMILLIAN AVE
LINN ST.
CENTRAL PKWY.
INT. 4
INT. 5
INT. 6
INT. 7
INT. 8
F
G
6995 [-]
6275 [-]
6395 [7088]
5235 [4973]
600 [598]
6505 [-]
5810 [-]
4950 [-]
1140 [1153]
500 [466]
720 [737]
955 [-]
375 [-]
230 [222]
500 [-]
335 [-]
525 [-]
270 [-]
455 [451]
265 [-]
425 [412]
235 [234]
330 [333]
30 [15]
280 [311]
860 [-]
285 [294]
530 [525]
610 [-]
215 [-]
360 [436]
230 [237]
110 [144]
280 [288]
550 [478]
195 [154]
580 [946]
230 [356]
150 [-]
125 [-]
205 [192]
115 [116]
450 [-]
175 [-]
80 [-]
45 [-]
190 [191]
95 [174]
50 [51]
115 [114]
LEGEND
2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 AM PEAK HOUR
PLATE 9 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

INT. 4



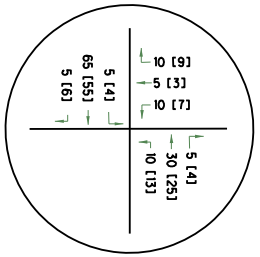
HARRISON STREET & WINCHELL AVENUE

INT. 5



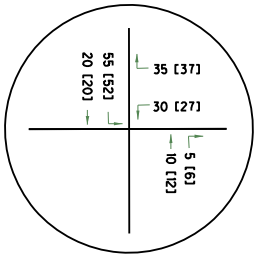
HARRISON STREET & PATTERSON STREET

INT. 6



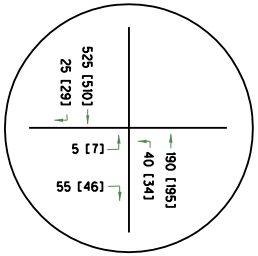
HARRISON STREET & COLERAIN AVENUE

INT. 7



CENTRAL AVENUE & BRIGHTON PLACE

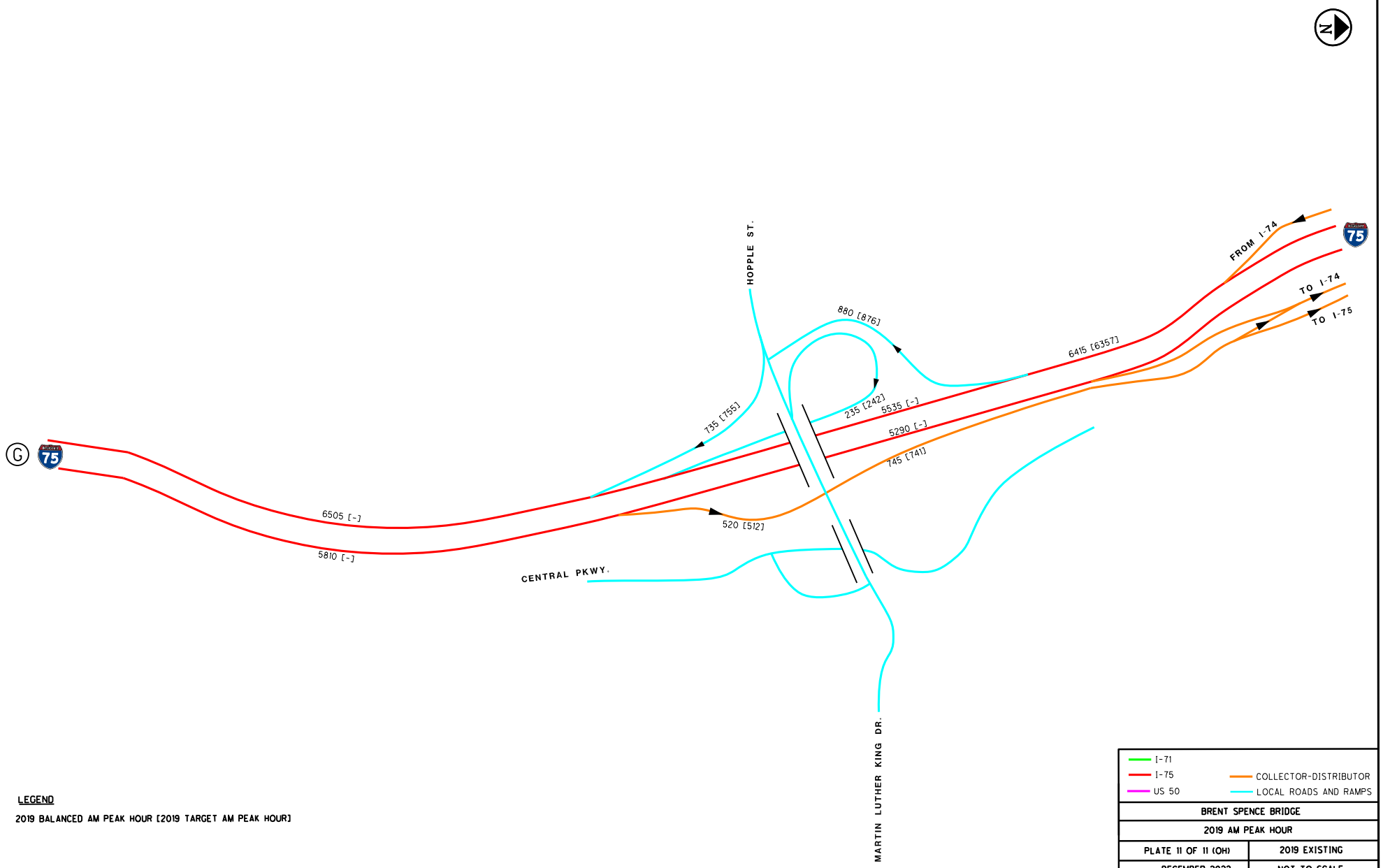
INT. 8



BRIGHTON PLACE & CENTRAL PARKWAY

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

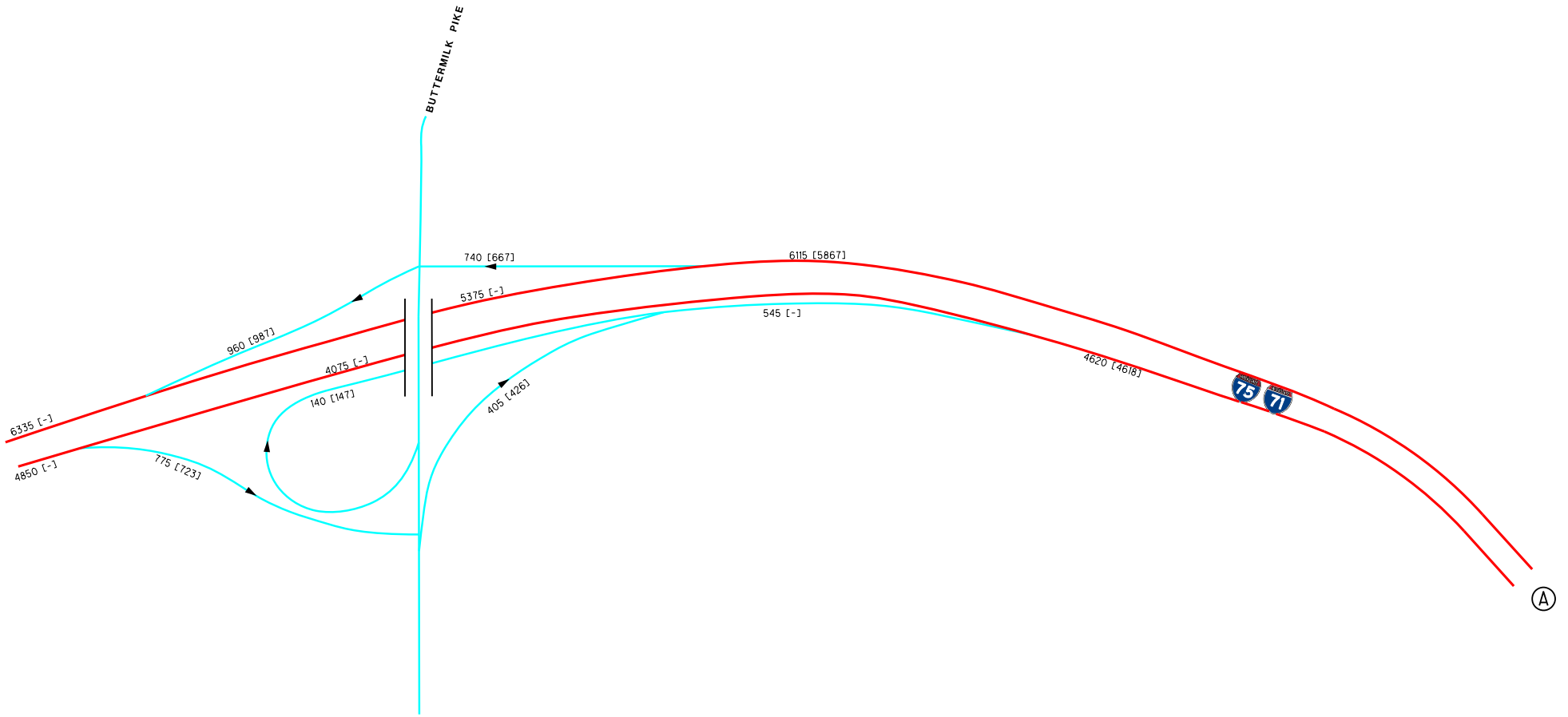
BRENT SPENCE BRIDGE	
2019 AM PEAK HOUR	
PLATE 10 OF 11 (OH)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	



LEGEND

2019 BALANCED AM PEAK HOUR [2019 TARGET AM PEAK HOUR]

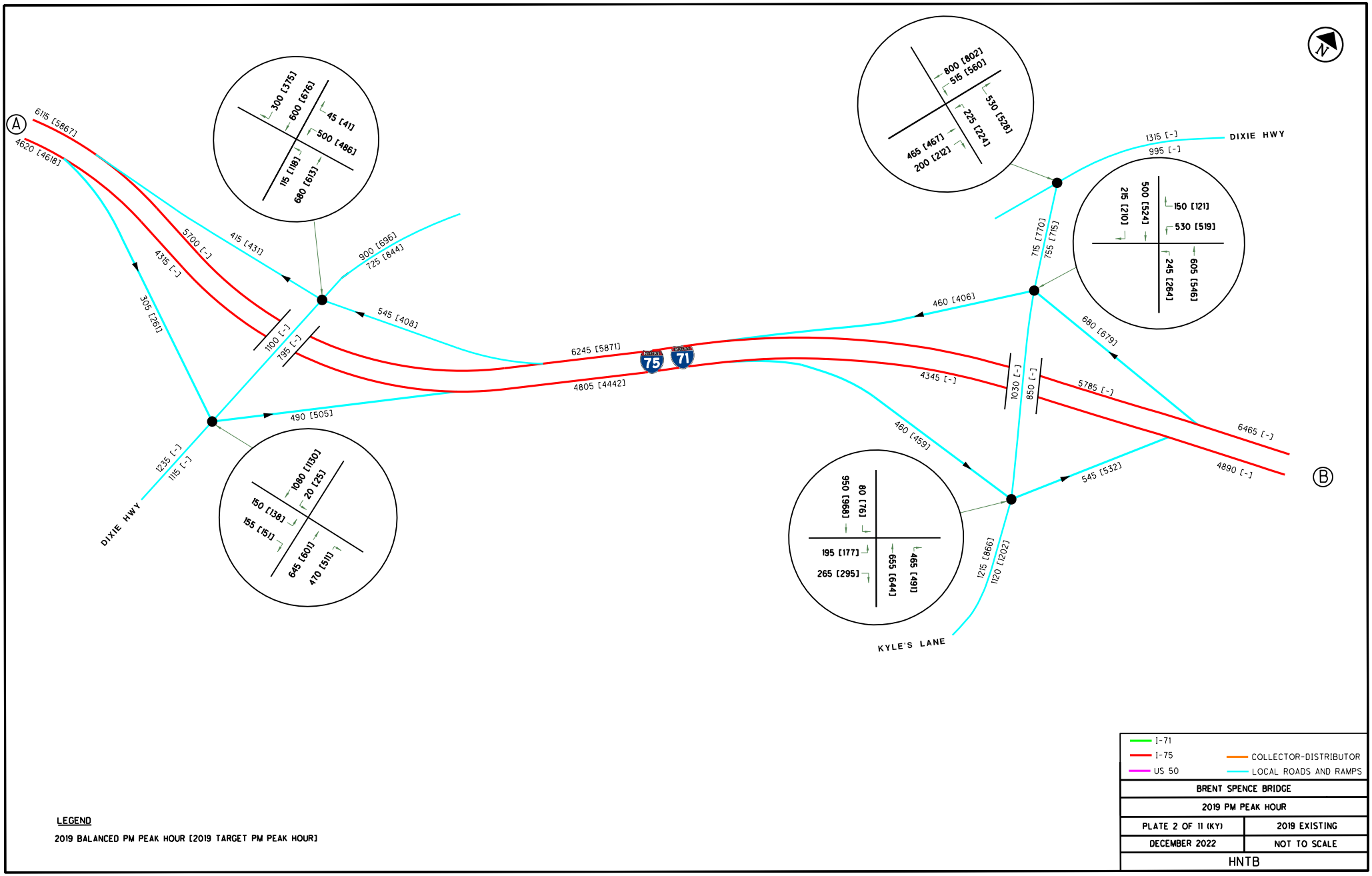
Appendix F:
Existing 2019 PM Peak Hour (Target Versus Balanced Volumes)

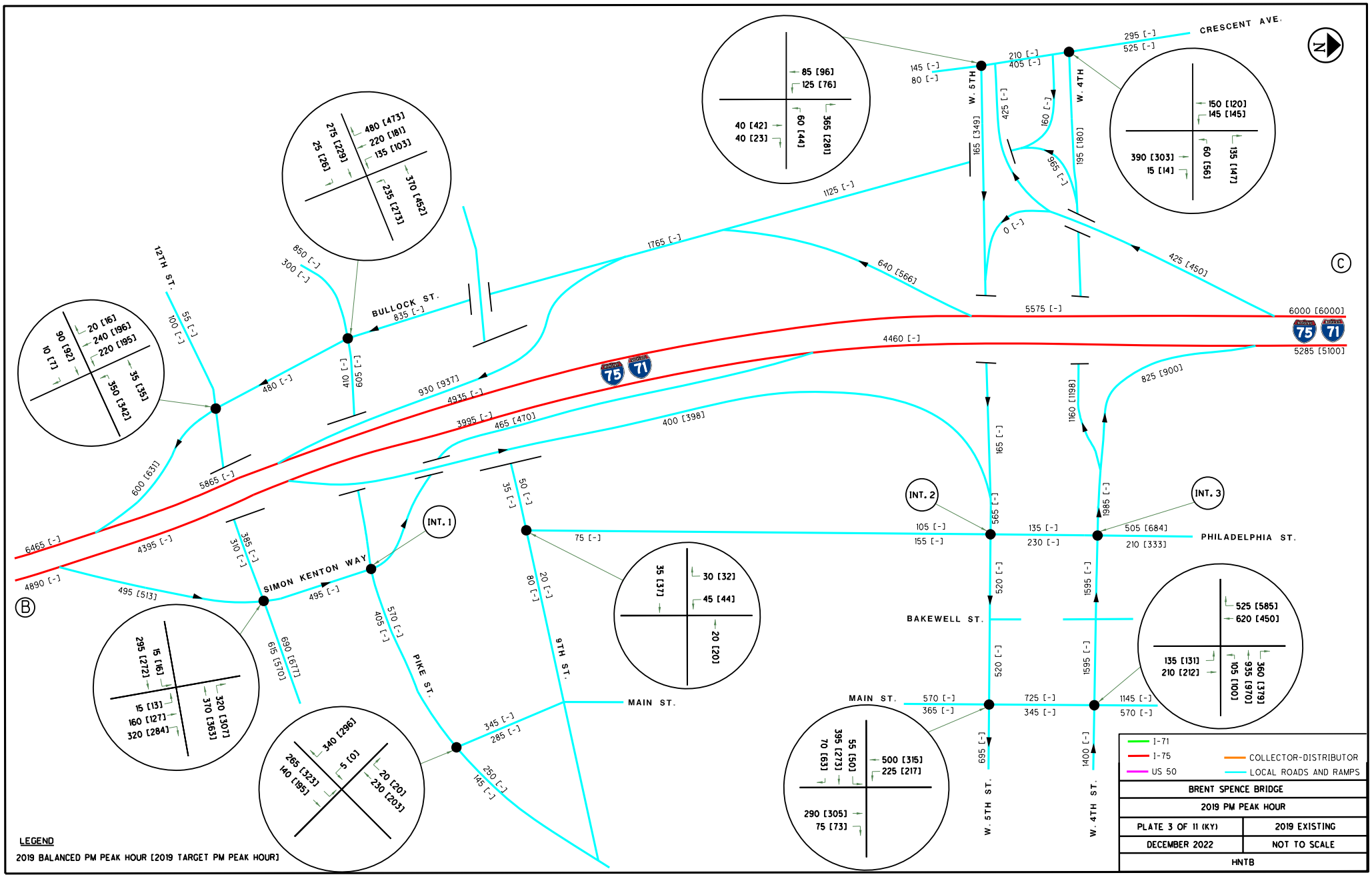


LEGEND

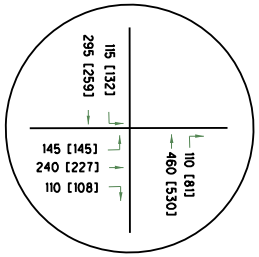
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]

I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
2019 PM PEAK HOUR	
PLATE 1 OF 11 (KY)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	


A
B
6115 [5867]
4620 [4618]
5700 [-]
4315 [-]
415 [431]
305 [261]
300 [375]
600 [676]
45 [41]
500 [486]
115 [118]
680 [633]
900 [696]
725 [844]
545 [408]
100 [-]
795 [-]
6245 [5871]
4805 [4442]
490 [505]
1235 [-]
1115 [-]
DIXIE HWY
1080 [1130]
20 [25]
150 [138]
155 [151]
645 [601]
470 [511]
800 [802]
515 [560]
530 [528]
225 [224]
465 [467]
200 [212]
1315 [-]
995 [-]
DIXIE HWY
215 [210]
500 [524]
150 [121]
530 [519]
245 [264]
605 [546]
715 [770]
755 [715]
460 [406]
680 [679]
4345 [-]
1030 [-]
850 [-]
5785 [-]
6465 [-]
4890 [-]
460 [459]
545 [532]
595 [563]
80 [76]
195 [177]
265 [295]
655 [644]
465 [491]
1215 [866]
1120 [1202]
KYLE'S LANE
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 2 OF 11 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]

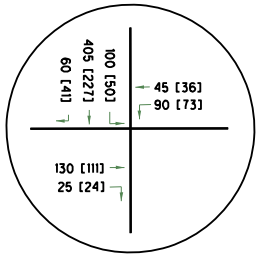

CRESCENT AVE.
W. 5TH
W. 4TH
12TH ST.
BULLOCK ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
BAKEWELL ST.
PHILADELPHIA ST.
W. 5TH ST.
W. 4TH ST.
INT. 1
INT. 2
INT. 3
I-75
I-71
B
C
N
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 3 OF 11 (KY)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

INT. 1



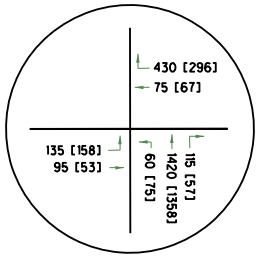
SIMON KENTON WAY & PIKE STREET

INT. 2



5TH STREET & PHILADELPHIA STREET

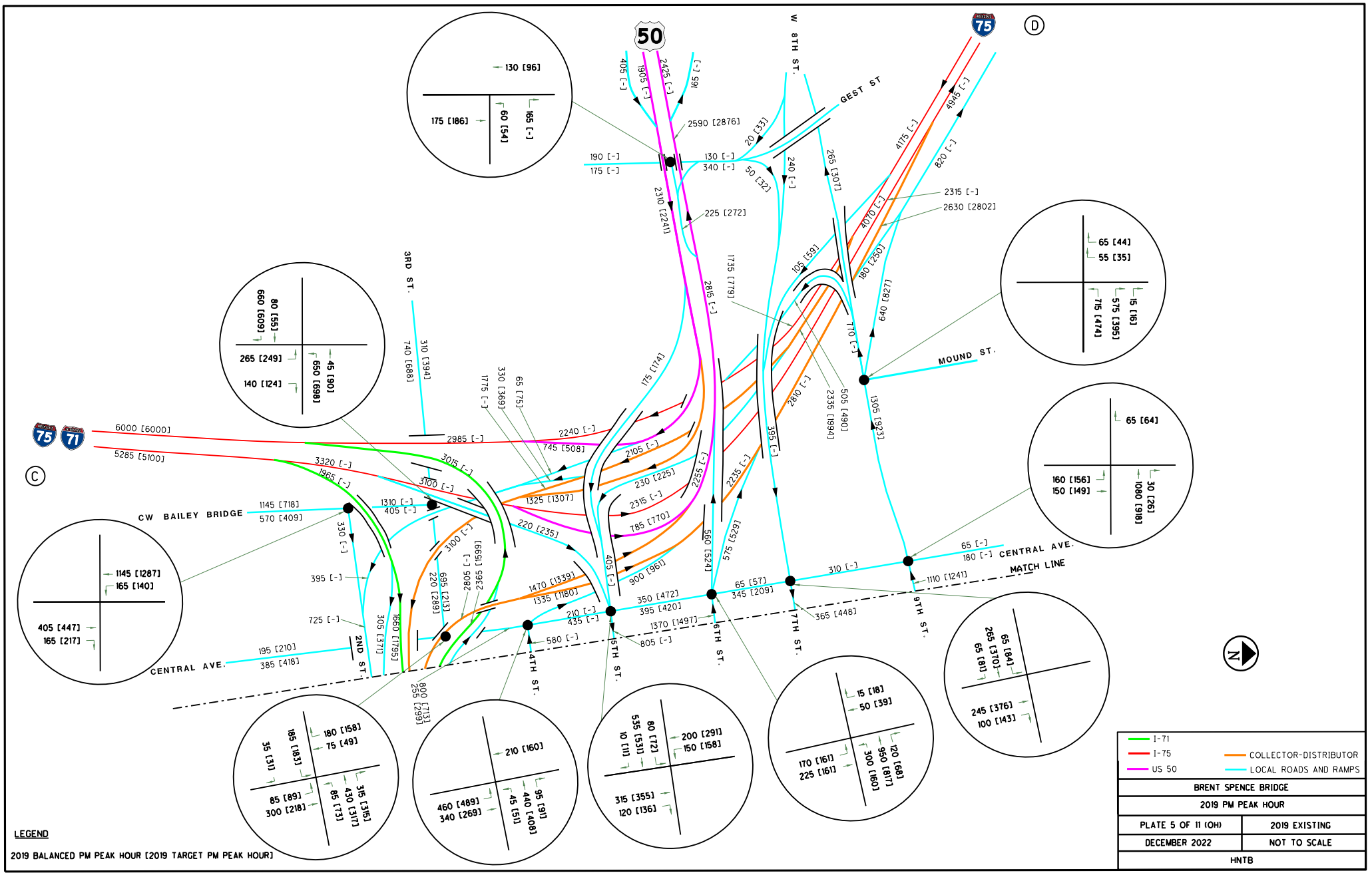
INT. 3



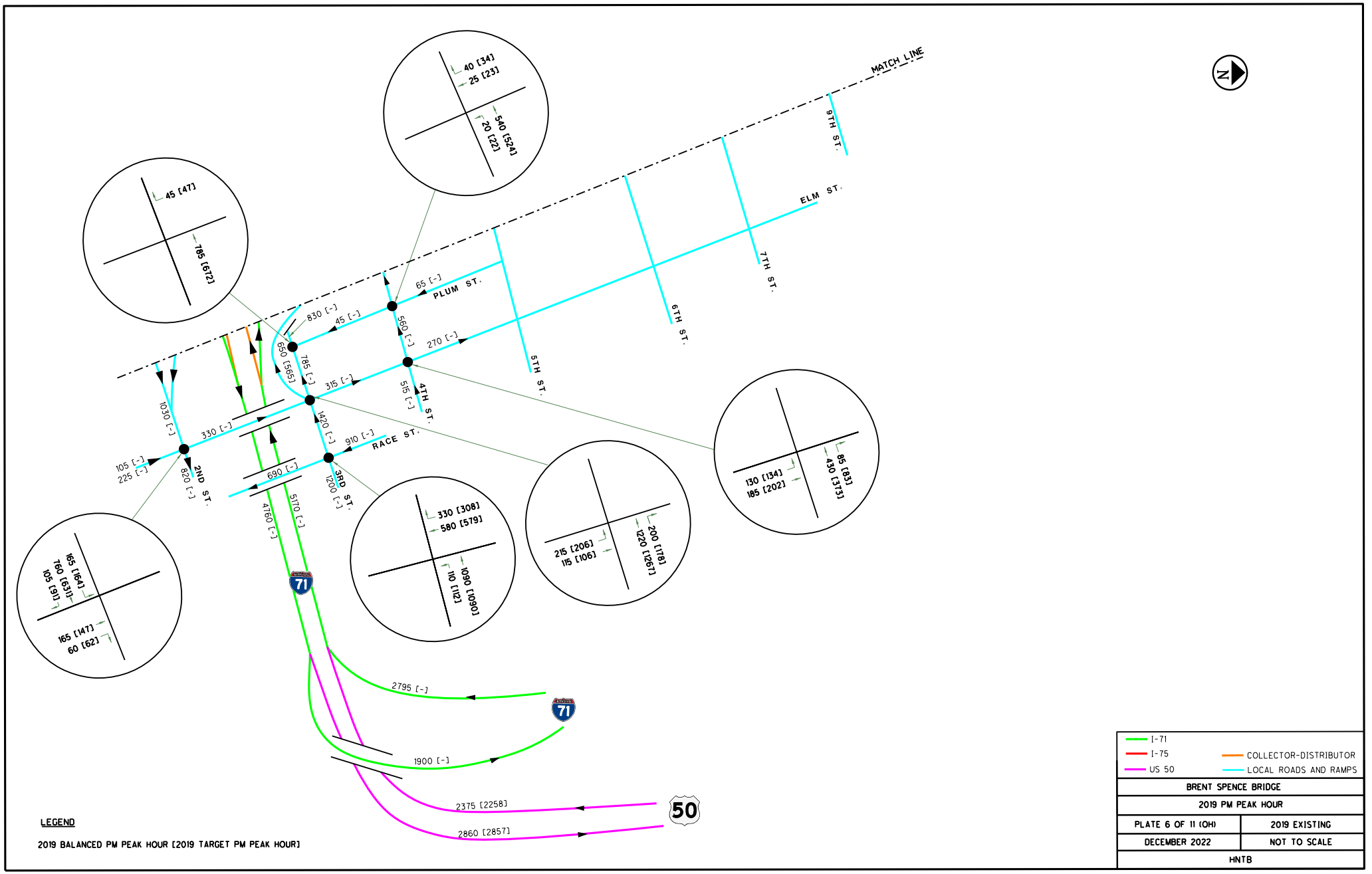
4TH STREET & PHILADELPHIA STREET

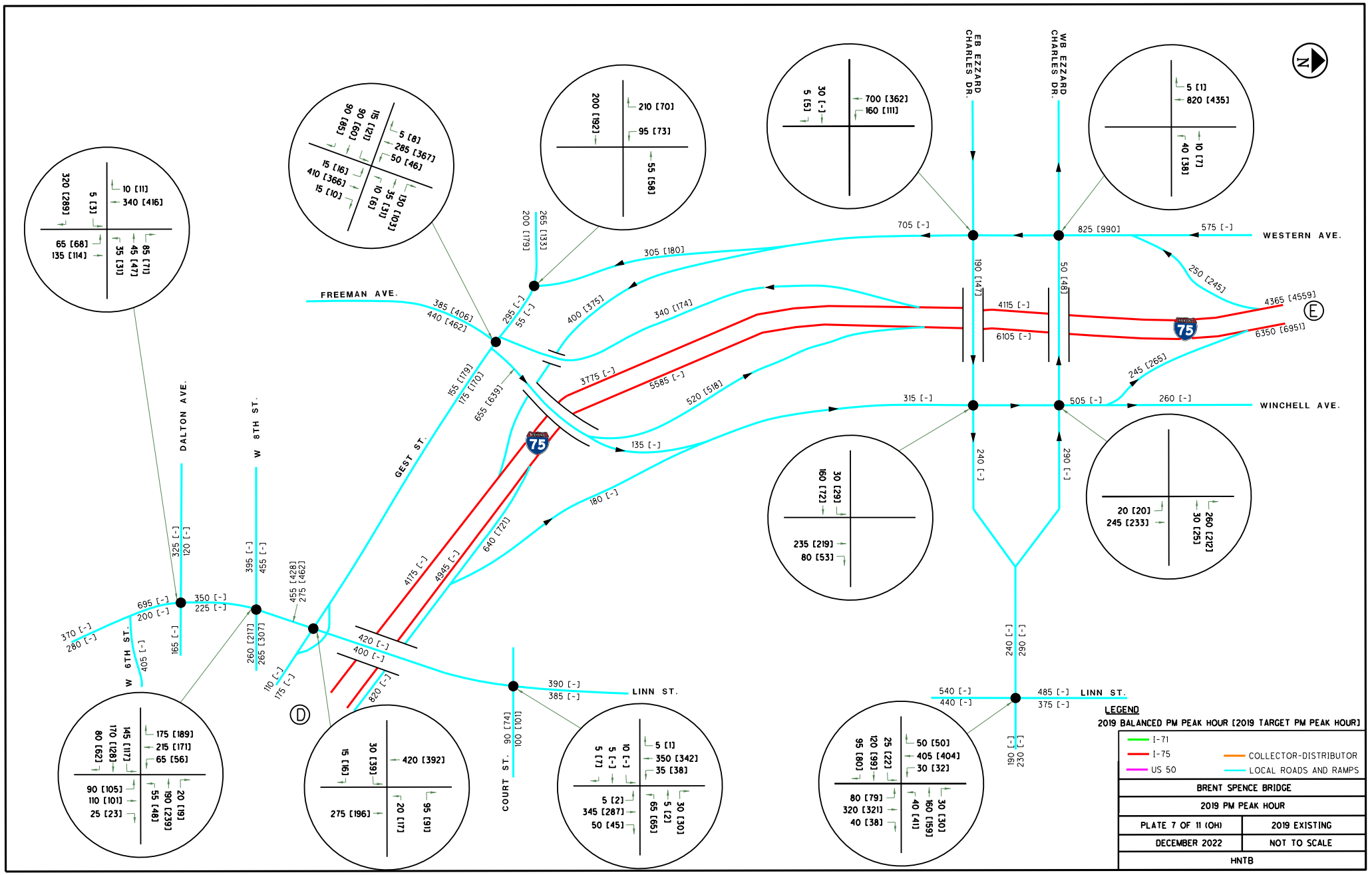
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE	
2019 PM PEAK HOUR	
PLATE 4 OF 11 (KY)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	

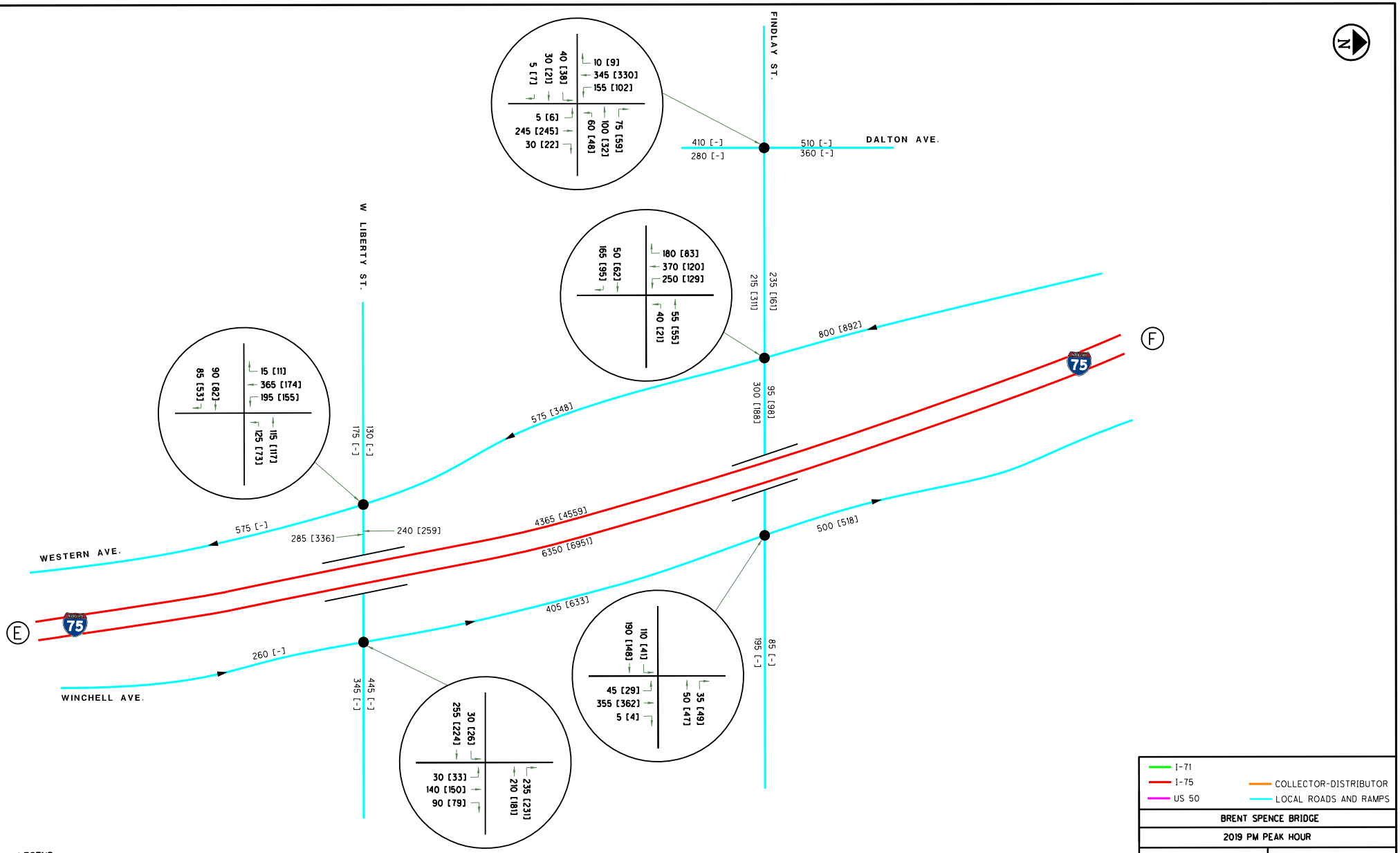


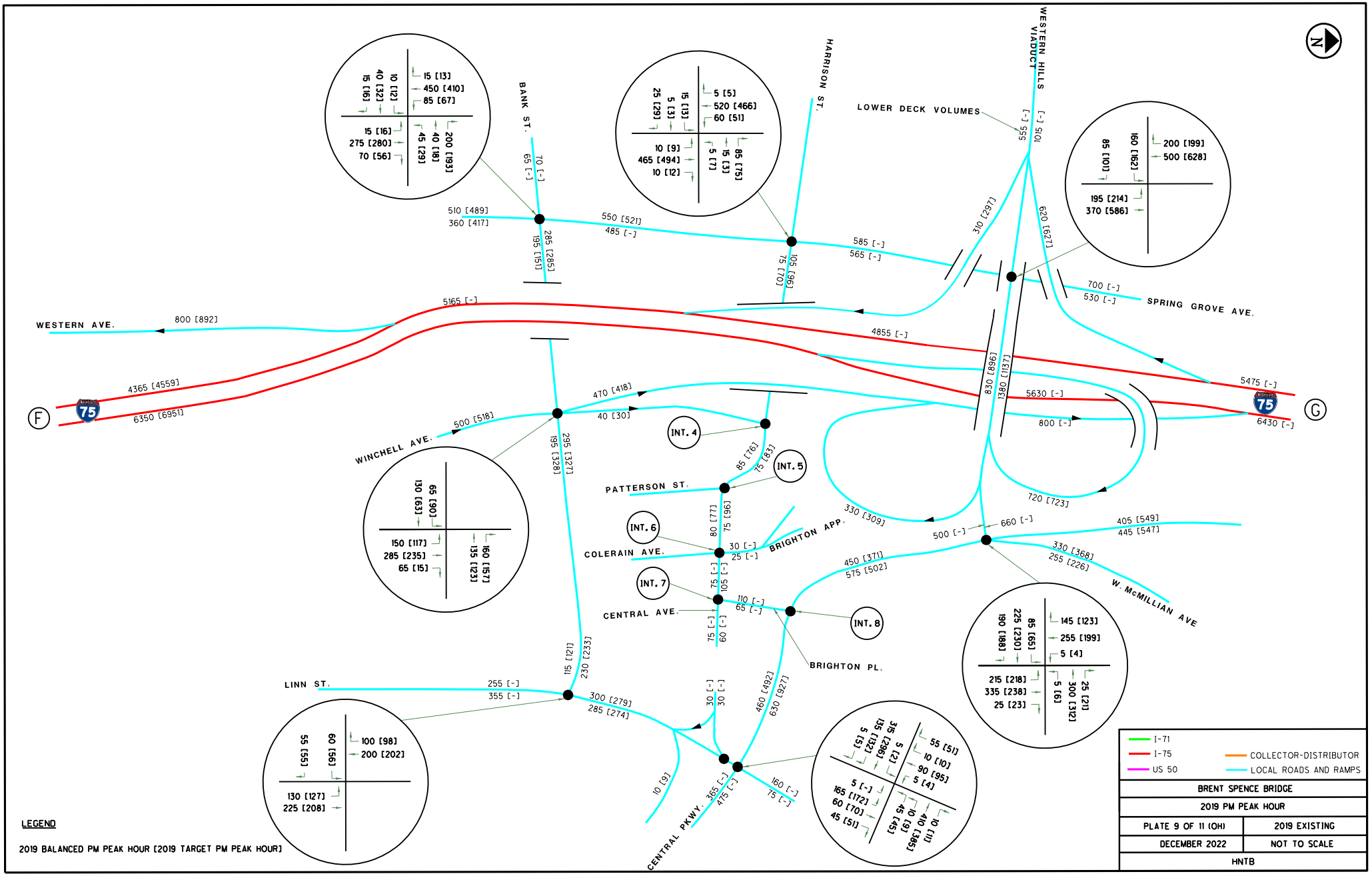
50
75
71
D
C
W 8TH ST.
GEST ST
MOUND ST.
3RD ST.
CW BAILEY BRIDGE
CENTRAL AVE.
MATCH LINE
2ND ST.
4TH ST.
5TH ST.
6TH ST.
7TH ST.
9TH ST.
N
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 5 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]


MATCH LINE
N
9TH ST.
ELM ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
PLUM ST.
RACE ST.
40 [34]
25 [23]
540 [524]
20 [22]
45 [47]
785 [672]
65 [-]
830 [-]
45 [-]
560 [-]
270 [-]
650 [565]
785 [-]
315 [-]
515 [-]
1030 [-]
330 [-]
105 [-]
225 [-]
820 [-]
1420 [-]
910 [-]
690 [-]
1200 [-]
4760 [-]
5170 [-]
130 [134]
185 [202]
85 [83]
430 [373]
330 [308]
580 [579]
110 [112]
1090 [1060]
215 [206]
115 [106]
200 [178]
1220 [1267]
165 [164]
760 [631]
105 [91]
165 [147]
60 [62]
71
2795 [-]
1900 [-]
2375 [2258]
2860 [28571]
50
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 6 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

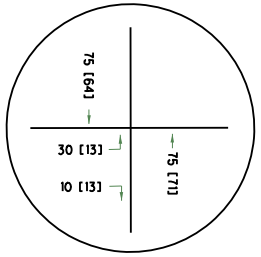


EB EZZARD CHARLES DR.
WB EZZARD CHARLES DR.
WESTERN AVE.
WINCHELL AVE.
LINN ST.
FREEMAN AVE.
GEST ST.
DALTON AVE.
W 8TH ST.
W 6TH ST.
COURT ST.
75
E
D
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 7 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB


FINDLAY ST.
W LIBERTY ST.
DALTON AVE.
WESTERN AVE.
WINCHELL AVE.
I-75
I-71
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 8 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

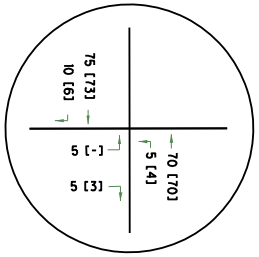

WESTERN AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
CENTRAL AVE.
LINN ST.
BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
LOWER DECK VOLUMES
SPRING GROVE AVE.
BRIGHTON APP.
BRIGHTON PL.
W. McMILLIAN AVE
CENTRAL PKWY.
INT. 4
INT. 5
INT. 6
INT. 7
INT. 8
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 9 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB

INT. 4



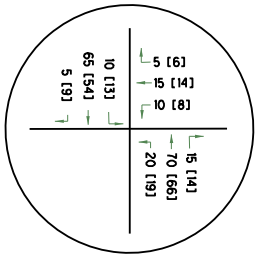
HARRISON STREET & WINCHELL AVENUE

INT. 5



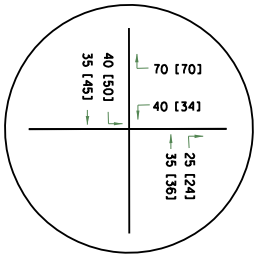
HARRISON STREET & PATTERSON STREET

INT. 6



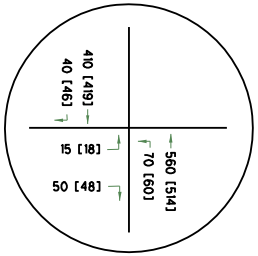
HARRISON STREET & COLERAIN AVENUE

INT. 7



CENTRAL AVENUE & BRIGHTON PLACE

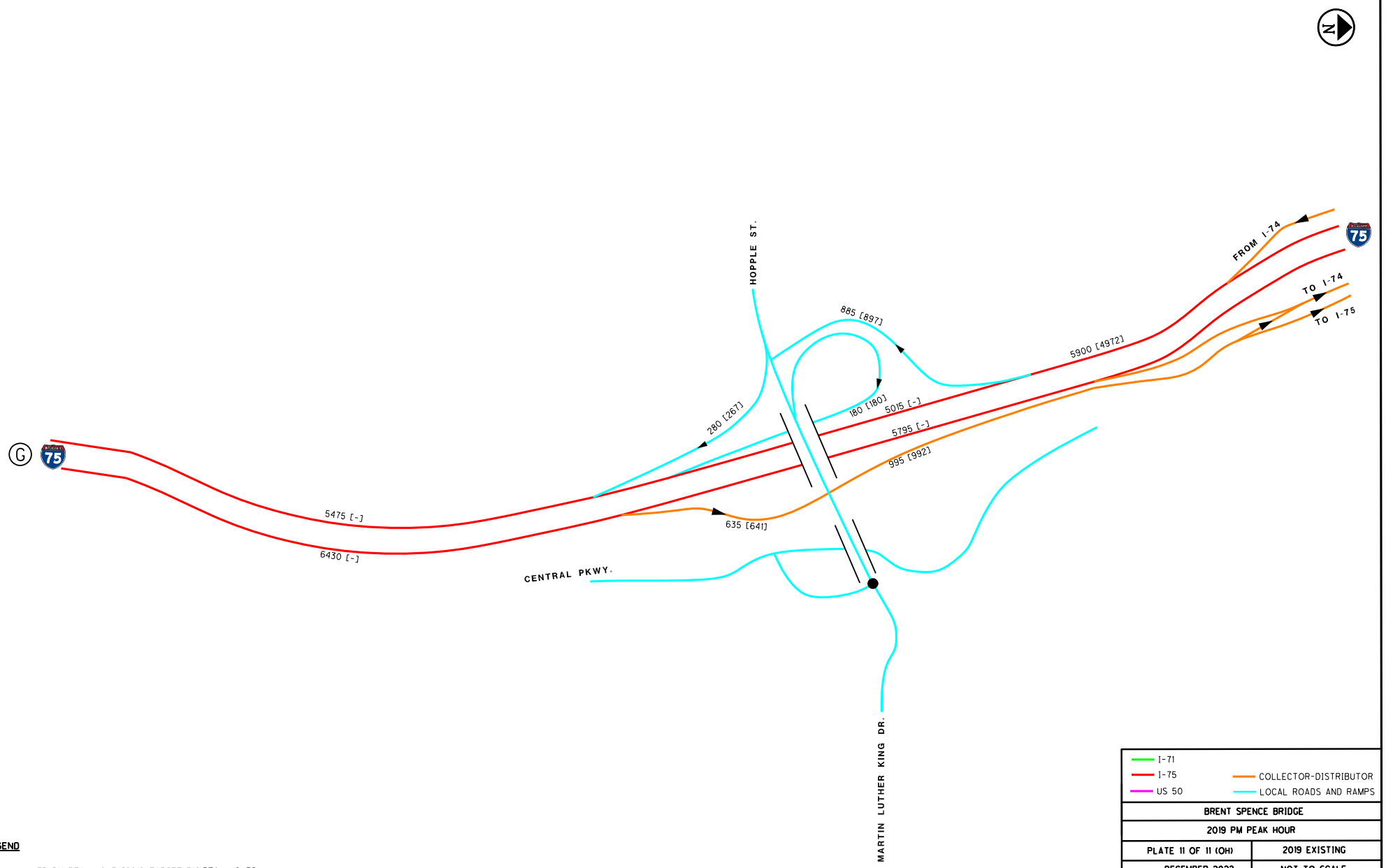
INT. 8



BRIGHTON PLACE & CENTRAL PARKWAY

I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE	
2019 PM PEAK HOUR	
PLATE 10 OF 11 (OH)	2019 EXISTING
DECEMBER 2022	NOT TO SCALE
HNTB	


N
HOPPLE ST.
FROM I-74
TO I-74
TO I-75
885 [897]
5900 [4972]
280 [267]
180 [180]
5015 [-]
5795 [-]
995 [992]
635 [641]
5475 [-]
6430 [-]
CENTRAL PKWY.
MARTIN LUTHER KING DR.
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
2019 PM PEAK HOUR
PLATE 11 OF 11 (OH)
2019 EXISTING
DECEMBER 2022
NOT TO SCALE
HNTB
LEGEND
2019 BALANCED PM PEAK HOUR [2019 TARGET PM PEAK HOUR]

Covington Traffic Counts

TO: BSMT

FROM: Eric Youngblom, HNTB

DATE: July 24, 2024

RE: Brent Spence Bridge Corridor Project | ODOT PID 89068 | KYTC Project Item No. 6-17

Introduction

As part of certified traffic for the Build Innovations, KYTC requested additional intersection forecasts to capture the full extent of traffic impacts from the 5th Street Innovation. The additional intersections include:

- Crescent Avenue & 3rd Street
- Philadelphia Avenue & 3rd Street
- Johnson Avenue & 3rd Street
- Johnson Avenue & 4th Street
- Johnson Avenue & 5th Street
- Bakewell Avenue & 4th Street
- Bakewell Avenue & 5th Street

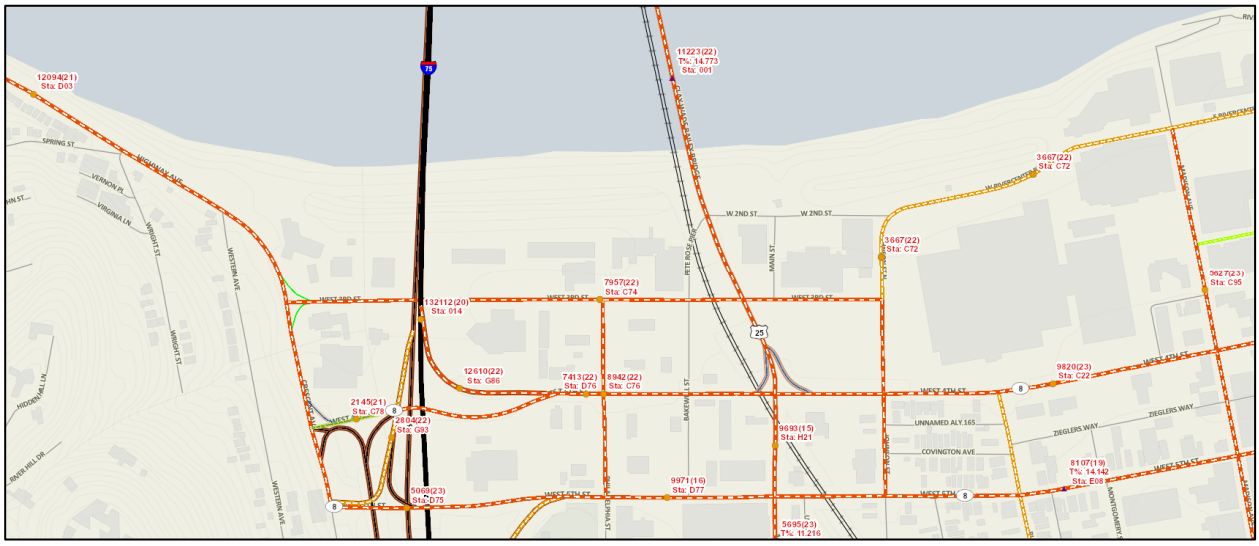
These intersections were not evaluated as part of the Count Evaluation Memo approved for the 2023 Certified Traffic. Therefore, this brief memorandum details the available traffic counts and the methods used to establish the base year 2019 traffic count for these additional locations.

One notable geometric difference between 2019 and post-2022 conditions in this corridor is the removal of the 4th Street Entrance ramp to I-71/I-75. Traffic balancing techniques account for this difference by blending the available traffic data at the new intersection with the current year 2019 volumes on 4th Street. This geometric difference leads to significant differences between traffic counts and balanced 2019 traffic counts used in the traffic forecasts. Because of these differences, 2019 Streetlight vehicle estimates were obtained to be consistent with the 2019 geometrics.

Traffic Counts

Short-duration turning movement counts are available from 2023 or 2024 for all intersections except Bakewell Avenue and 5th Street. KYTC also has 48-hour link counts surrounding the project intersection, as shown in Figure 1.

Figure 1: KYTC Traffic Counts



Streetlight traffic count estimates were obtained for 2019. The AM and PM peak hour data used February – May and September – October data for Tuesdays, Wednesdays, and Thursdays. The daily volume estimate is based on all days in 2019 to resemble an Annual Average Daily Traffic (AADT) count. A summary of the available data for each intersection and the balanced traffic data that blends with data approved for the BSB corridor projects are summarized in **Table 1**. The project count daily estimate is calculated by factoring in the partial day turn counts. Crescent Avenue & 3rd Street is a four-hour count, and the other sites were provided for a single AM and PM peak hour. The four-hour counts use a factor of 3.6, and the two-hour counts use a factor of 7.0 based on adjacent count sites. The traffic balancing targeted the 2019 Streetlight data, with the project counts used to confirm the Streetlight data.

Table 1: Traffic Counts

Intersection	Movement	2019 Balanced Volume			Streetlight			Project Counts (2023/2024)		
		AM	PM	AADT	AM	PM	AADT	AM	PM	Daily Estimate
Bakewell St & 4th St	NBL	20	10	190	8	8	187	6	15	150
	NBT	20	15	250	19	14	258	16	21	260
	WBL	20	70	860	26	87	862	5	40	310
	WBT	920	1580	13440	647	1531	13352	359	900	8790
	WBR	20	90	900	63	109	925	50	86	950
	SBT	20	20	350	19	24	346	14	31	310
	SBR	20	10	100	5	13	100	6	18	170
Crescent Ave & 3rd St	NBT	140	340	3650	165	408	3456	137	379	2920
	NBR	80	100	800	57	43	771	59	50	490
	WBL	30	50	500	8	44	273	26	57	430
	WBR	70	180	1975	39	203	1450	51	291	1950
	SBL	440	250	4000	631	251	3860	198	126	1350
	SBT	340	215	2870	221	166	1977	439	292	2820
Philadelphia St & 3rd St	EBT	110	95	875	174	89	1264	194	118	1230
	EBR	405	250	3875	355	181	2818	66	28	530
	NBL	80	100	1700	50	121	1207	33	148	1000
	NBT	5	9	70	0	0	0	3	6	40
	NBR	80	20	1100	70	32	582	50	57	450
	WBL	70	150	1500	20	53	425	23	64	400
	WBT	15	125	700	29	144	837	58	199	1410
	WBR	5	5	100	0	0	0	3	1	20
	SBL	5	5	75	0	0	0	4	2	20
	SBT	30	5	75	0	0	0	2	2	10
	SBR	5	5	75	0	0	0	1	0	0

Intersection	Movement	2019 Balanced Volume			Streetlight			Project Counts (2023/2024)		
		AM	PM	AADT	AM	PM	AADT	AM	PM	Daily Estimate
Johnson St & 3rd St	EBL	125	70	1350	160	104	1347	180	124	2120
	EBT	0	0	0	0	0	0	0	0	0
	EBR	70	50	700	101	56	692	211	195	2840
	NBL	40	100	1100	29	56	434	53	98	1050
	NBT	120	55	800	102	49	748	89	51	980
	NBR	0	0	0	0	0	0	0	0	0
	WBL	0	0	0	0	0	0	0	0	0
	WBT	0	0	0	0	0	0	0	0	0
	WBR	0	0	0	0	0	0	0	0	0
	SBL	0	0	0	0	0	0	0	0	0
	SBT	150	100	1100	31	84	777	64	93	1100
	SBR	50	180	1200	7	83	429	43	120	1140
Johnson St & 4th St	NBL	25	30	360	20	36	433	24	28	360
	NBT	95	75	870	97	49	723	93	68	1120
	WBL	10	40	340	6	41	215	7	41	340
	WBT	870	1365	12540	865	1196	12651	606	965	10970
	WBR	65	80	1030	66	65	564	65	83	1030
	SBT	80	60	700	65	56	645	34	61	660
	SBR	140	90	1100	67	113	1016	239	222	3220
Johnson St & 5th St	EBL	110	80	1010	114	83	1278	66	78	1010
	EBT	730	695	10500	418	658	8174	579	691	8870
	EBR	10	35	380	1	14	137	19	36	380
	NBT	10	25	220	12	11	127	8	23	220
	NBR	10	5	100	0	1	8	1	5	40
	SBT	25	55	300	9	47	281	14	31	310
	SBL	65	45	740	43	41	497	51	55	740
Bakewell St & 5th St	SBL	10	80	1100	41	88	1094			
	EBL	10	15	260	13	13	260			
	EBT	830	555	9940	515	483	7737			

The 2019 BSB corridor AADT compared to KYTC count sites are summarized in **Table 2**.

Table 2: AADT Comparison Near W 3rd Street Intersections

Site	Description	2019 Project AADT	2022 AADT	2021 AADT	2019 AADT	2018 AADT
059D03	Crescent Ave north of W 3rd St	12,495	-	12,094	-	10,437
059C74	W 3rd (west of Philadelphia)	7,275	7,957	-	11,151	-
059C72	Johnson Street north of W 3rd Street	4,450	3,667	-	4,617	-

The figures on the following pages provide scatter plots of the 2019 balanced volumes compared to the project counts and Streetlight data. The analysis indicates that the balancing procedures increase the traffic volumes compared to the project counts and Streetlight estimates. The Streetlight volume estimate more closely matches the balanced traffic counts. The balanced traffic counts presented in the Count Evaluation memorandum are developed using data from 2017-2022. The 4th and 5th Street corridors experienced a major traffic change around 2019 with the closure of the IRS building. Due to traffic balancing and multiple years of data blending, the base volumes along 4th and 5th Street include the IRS traffic demand, which explains the deviation between the 2019 Streetlight estimates and 2019 project balanced volumes.

Figure 2: AM Peak Hour Volume Comparison

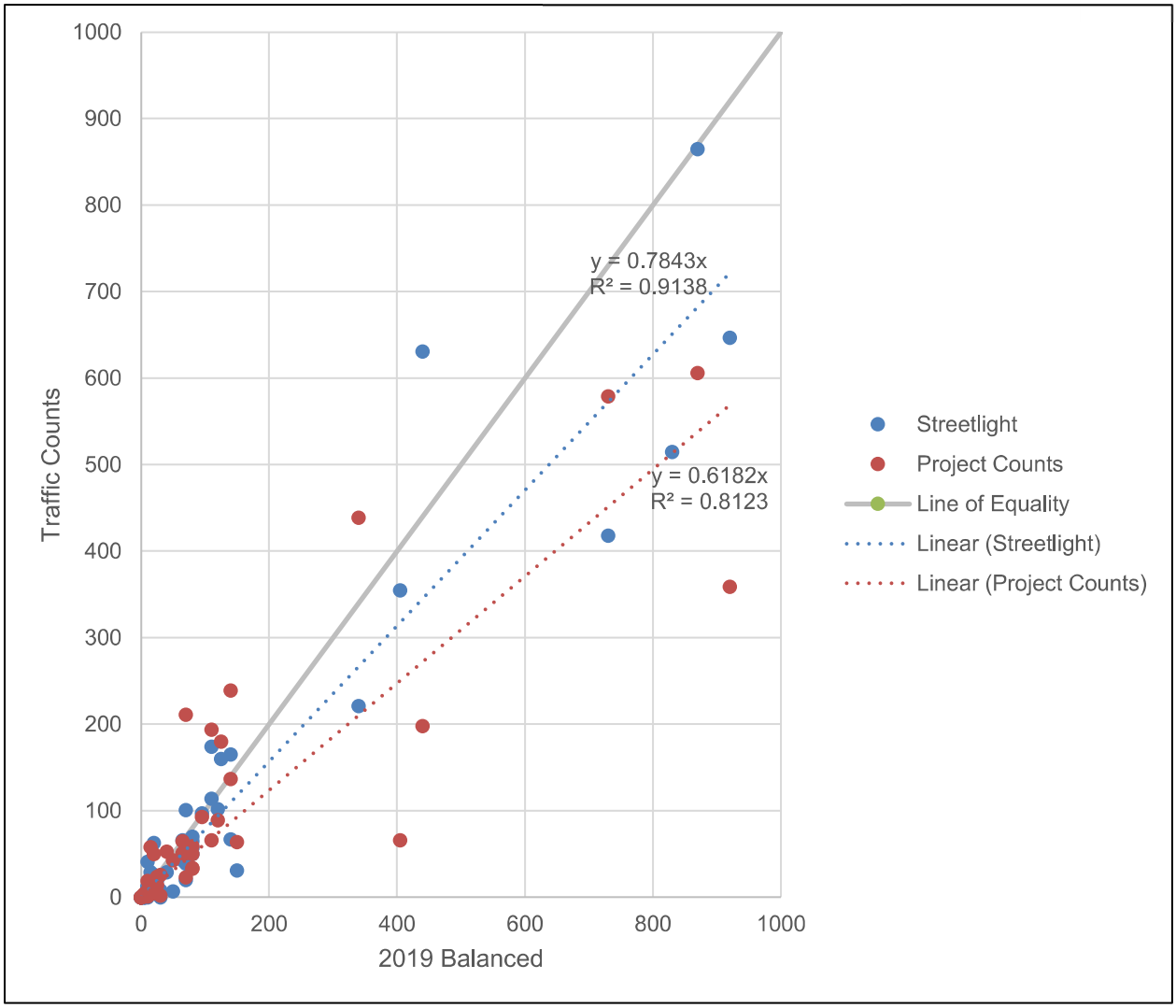


Figure 3: PM Peak Hour Volume Comparison

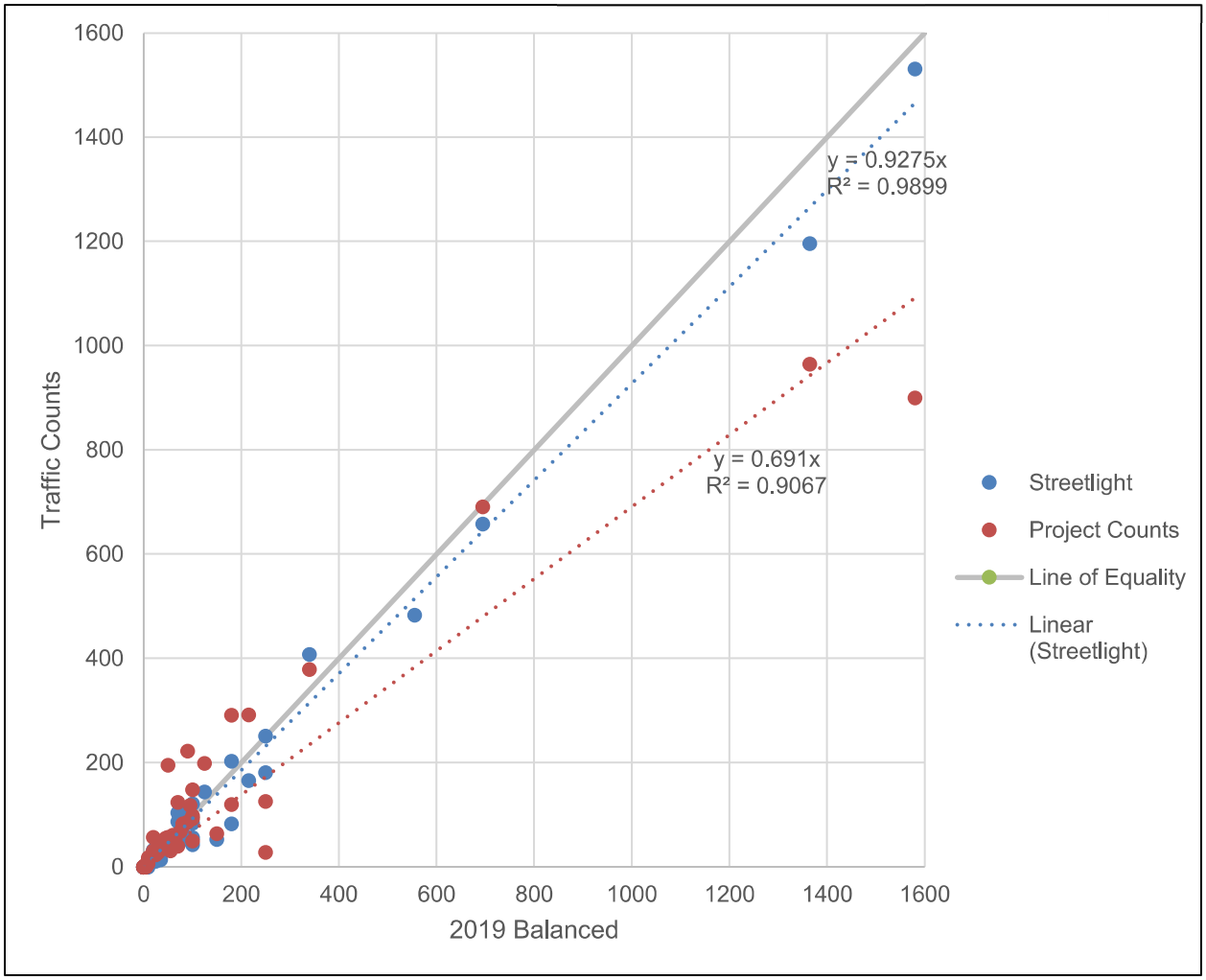
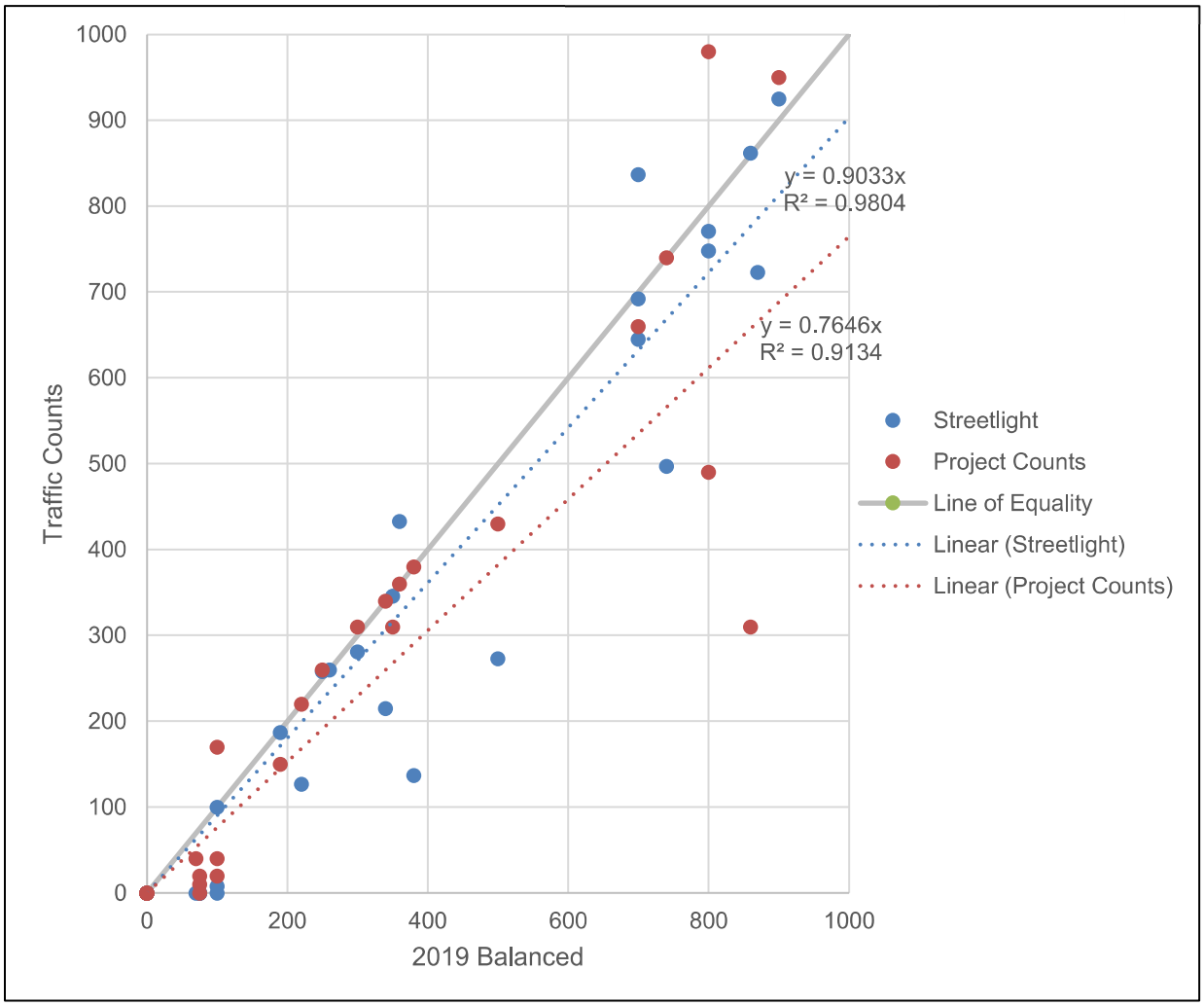


Figure 4: Daily Traffic Volume Comparison



Memorandum – Update by ODOT January 20, 2023

To: *Ohio DOT*
From: *CDM Smith*
Date: *October 31, 2022 – updated January 20, 2023*
Subject: *Brent Spence Bridge Project- OKI Subarea Validation Report*

Note that the original memo was dated 10/31/22 and was written by CDM Smith, who was contracted by ODOT. In response to comments received from FHWA. ODOT has updated this memo to include additional analyses and comments.

It is worth noting that the model results are but one input to the Certified Design Traffic, as noted in the Certified Design Traffic Procedures memo dated 9/29/22 from ODOT and HNTB to FHWA. As noted in NCHRP Report 255 Highway Traffic Data for Urbanized Area Project Planning and Design, and affirmed in NCHRP Report 765 Analytical Travel Forecasting Approaches for Project-Level Planning and Design, while model refinements are conducted for project level analysis, the additional procedures to generate a traffic forecast for design "enable the analyst to reduce the expected link traffic variations to reasonable ranges." (255, Chapter 2) In general, travel models may have systemic biases which persist into their future forecasts. Care is taken in model development and refinement to not over-specify the model. While it is possible to modify model parameters to match traffic counts, such over-specification leads to inflexible traffic responses to future year conditions. Figure 0 show ODOT's desired % Root Mean Square Error (%RMSE) compared to the Coefficient of Variation (CoV) for traffic counts. In general, a model's %RMSE should never be less that the CoV that is inherent in traffic counts, as that is an indicator that your model is potentially over-specified. So, given that a model's error is expected to be greater than those found in traffic counts, the model volumes are not used directly, but rather used in the NCHRP 765 procedures to produce a forecast that has the least amount of expected variation.

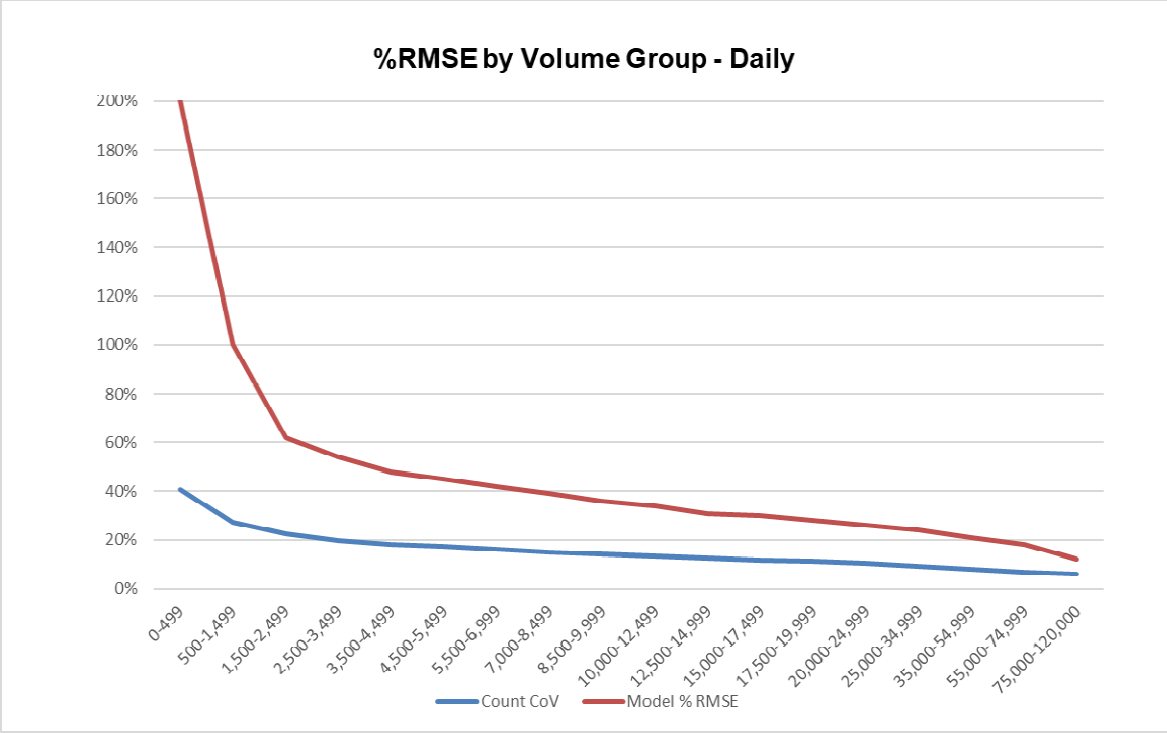


Figure 0: Model % RMSE vs. Count Coefficient of Variation.

CDM Smith has contracted with the Ohio DOT Division of Planning to provide services for helping validate and document the combined OKI-MVRPC regional travel demand model.

This work was done under the auspices of VAR- Statewide Travel Demand Model Update Contract No. 2021-1, PID No. 113346 and Agreement No. 35417 where CDM Smith is a subconsultant to WSP. The individual task orders follow:

- TDM21-1-8 OKI-BSB Modeling
- TDM21-1-10 Marysville Project Simulations – 100% Scenarios and BSB Part 2.

This memorandum focuses on the development of a subarea of the regional model that will be used for analysis of potential improvements to I-71/I-75 at the Brent Spence Bridge (BSB).

The memorandum has the following parts:

- Study Area and Traffic Counts
- Land Use Data and Traffic Analysis Zone Refinement
- Regional Model Statistics
- Subarea Model Validation Statistics

Liren Zhuo, the Travel Demand Model Manager for the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) confirmed by email to ODOT on 10/24/22 that the model used for all BSB

project analysis is the current Model of Record (MOR). OKI noted that they had made numerous updates from the 2015 model validation to the 2020, Existing and Committed and future year networks and that the 2015 model is not comparable to the current circa 2020 MOR. OKI is using 2020 as the base year for traffic analysis. 2020 has not yet been fully validated due to the lack of final Census data and the need to re-collect traffic counts originally scheduled for 2020.

Also of note is that many counts on the circa-2020 network outside of the BSB study area are not 2020 counts, but remain from 2015. Therefore, full model statistics are included for reference, but are not used when determining the suitability of the model for the BSB project.

Study Area and Traffic Counts

Figure 1 shows the established study area for the BSB traffic study within the larger region. **Figure 2** shows the 557 study area links with average daily traffic (ADT) counts. **Figure 3** provides a closer view of the BSB and the other nearby Ohio River crossings between Ohio and Kentucky.

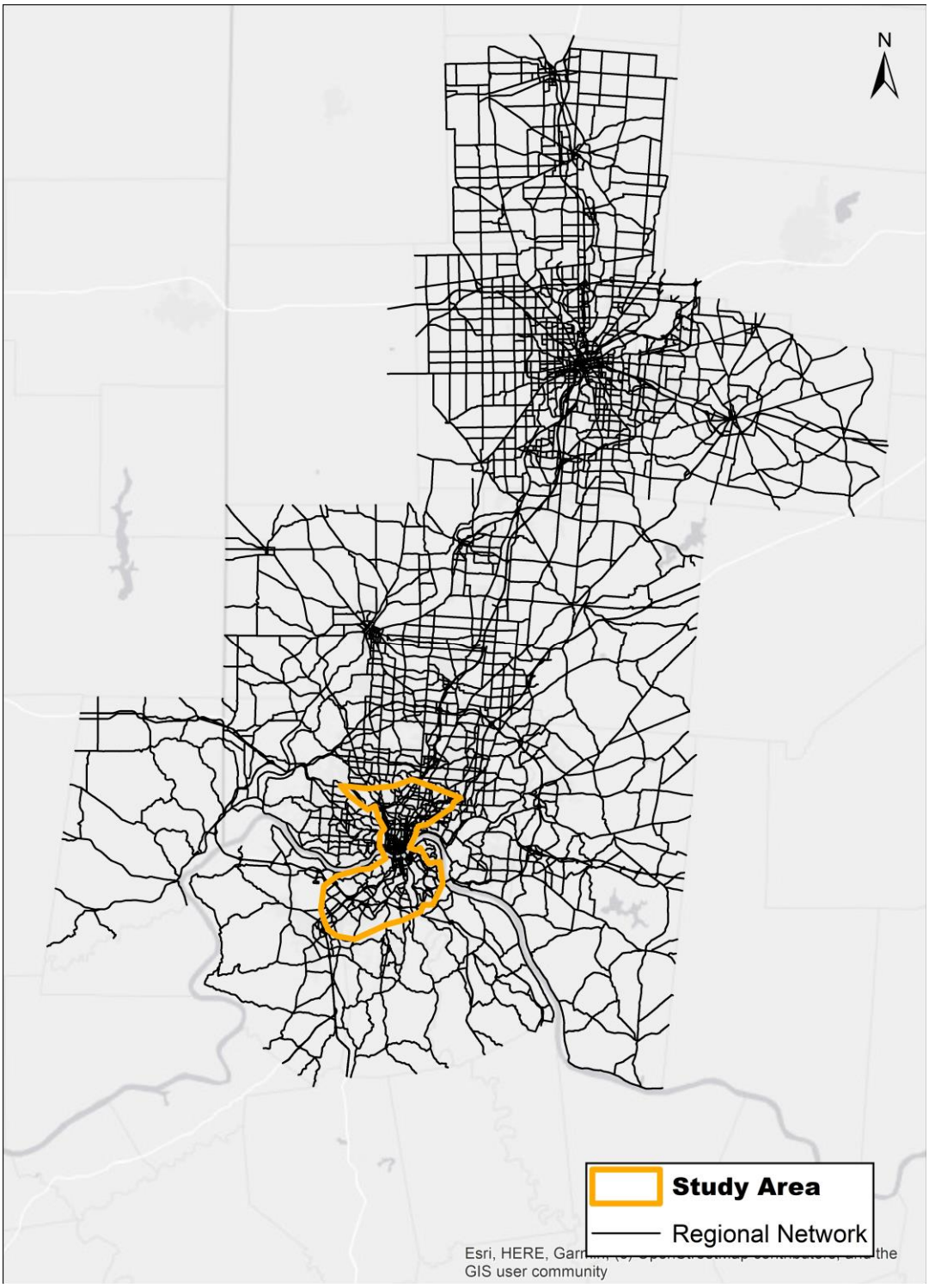


Figure 1: Study Area in the Combined OKI and MVRPC Region

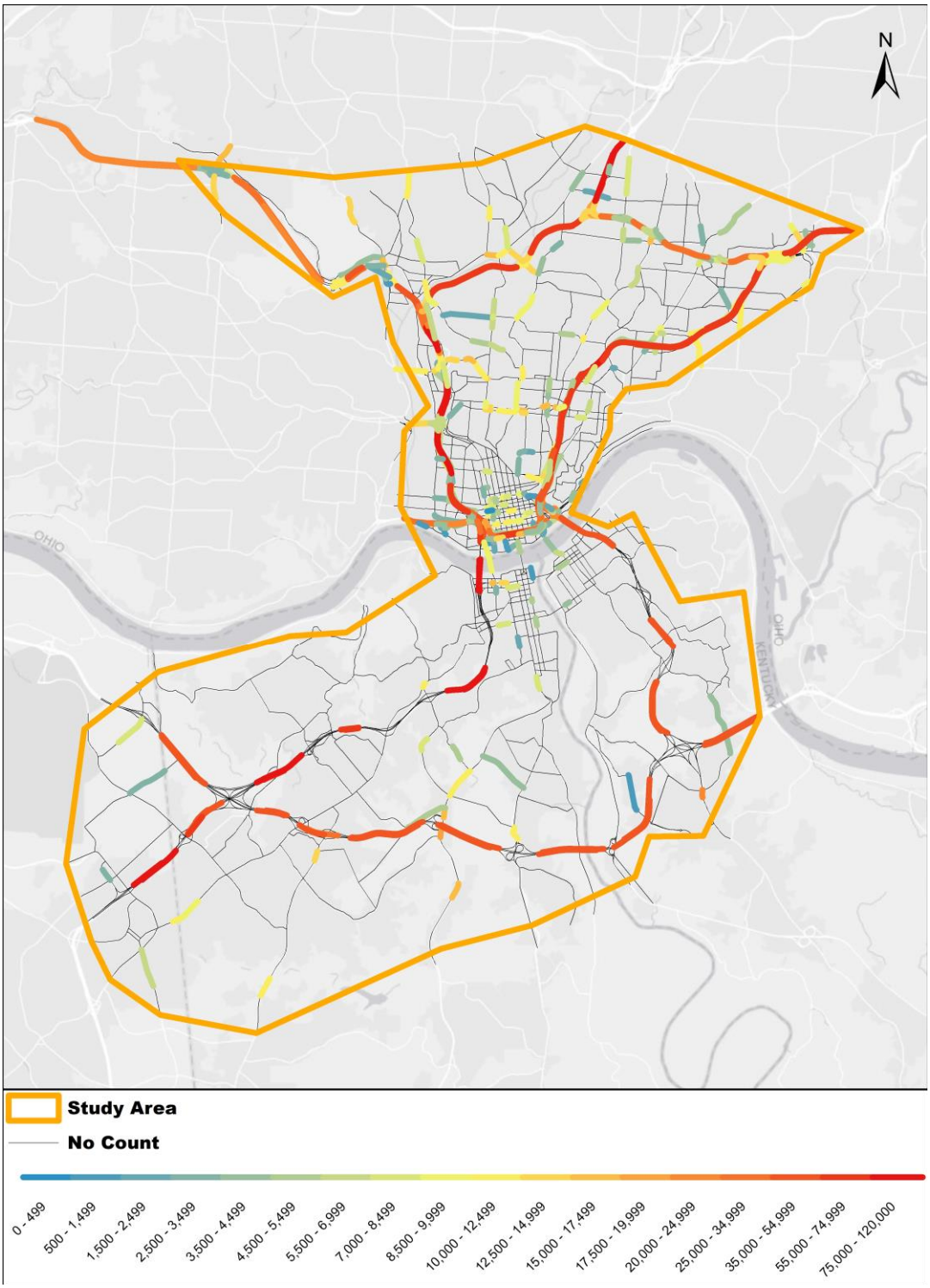


Figure 2: Study Area Traffic Counts

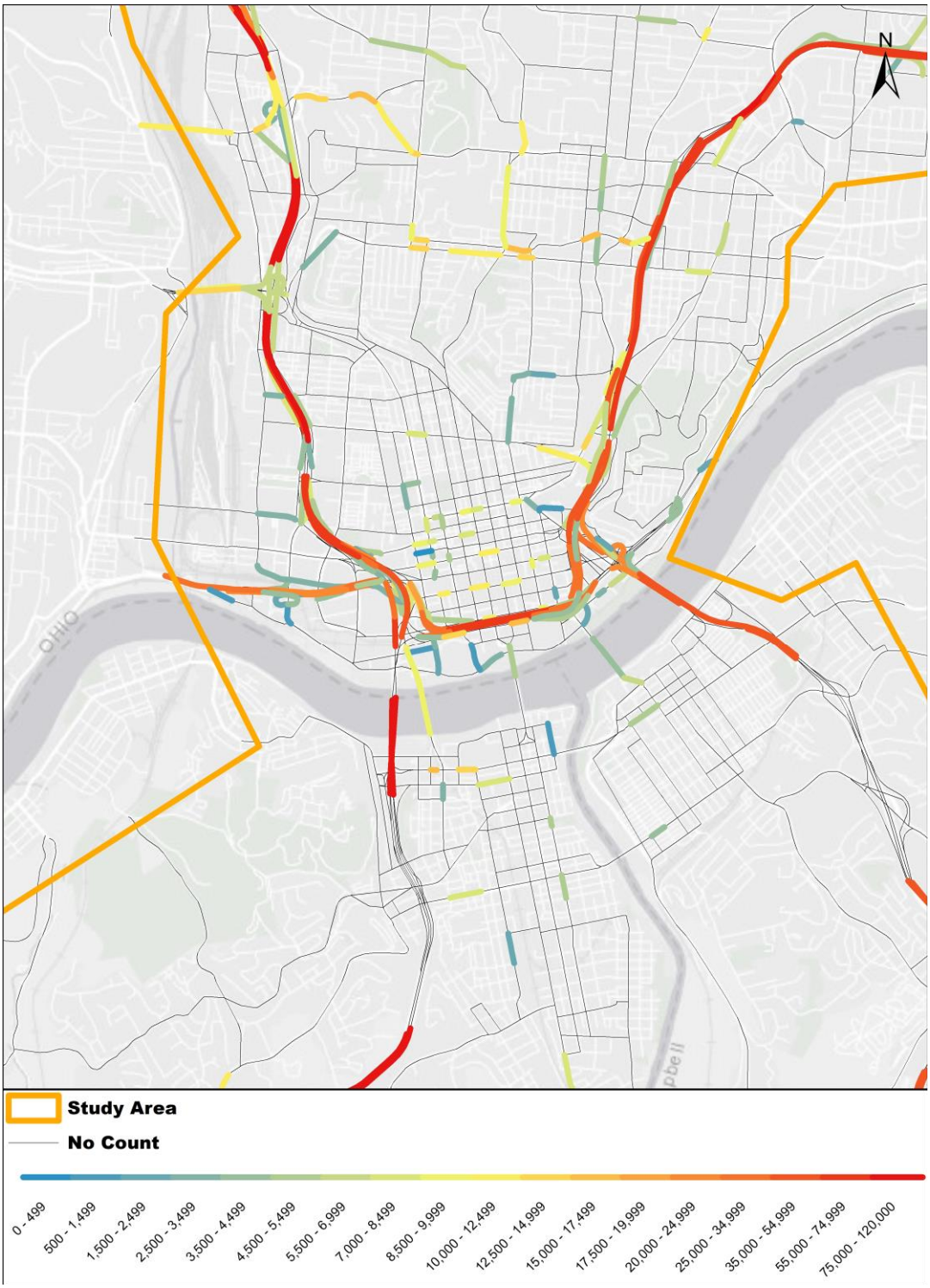


Figure 3: River Crossing Traffic Counts

Land Use Data and Traffic Analysis Zone Refinement

Before initiating the appropriate validation checks it was deemed necessary to refine the underlying traffic analysis zone (TAZ) geography along the I-71/I-75 corridor. **Figure 4** and **Figure *5***

show the refined TAZs (in red) and the original TAZs (in green) which were sourced from the OKI Model of Record at the initiation of the Study in September 2021. The refinement of the TAZ geography was intended to better capture the traffic entering and exiting the model network. Total population and employment were held constant with the original TAZ input population and employment data. Data from the US Census, the Quarterly Census of Employment and Wages (QCEW) in Ohio, and the Longitudinal Employer-Household Dynamics (LEHD) survey in Kentucky were used to estimate proportions of population and employment in each of the refined TAZs.

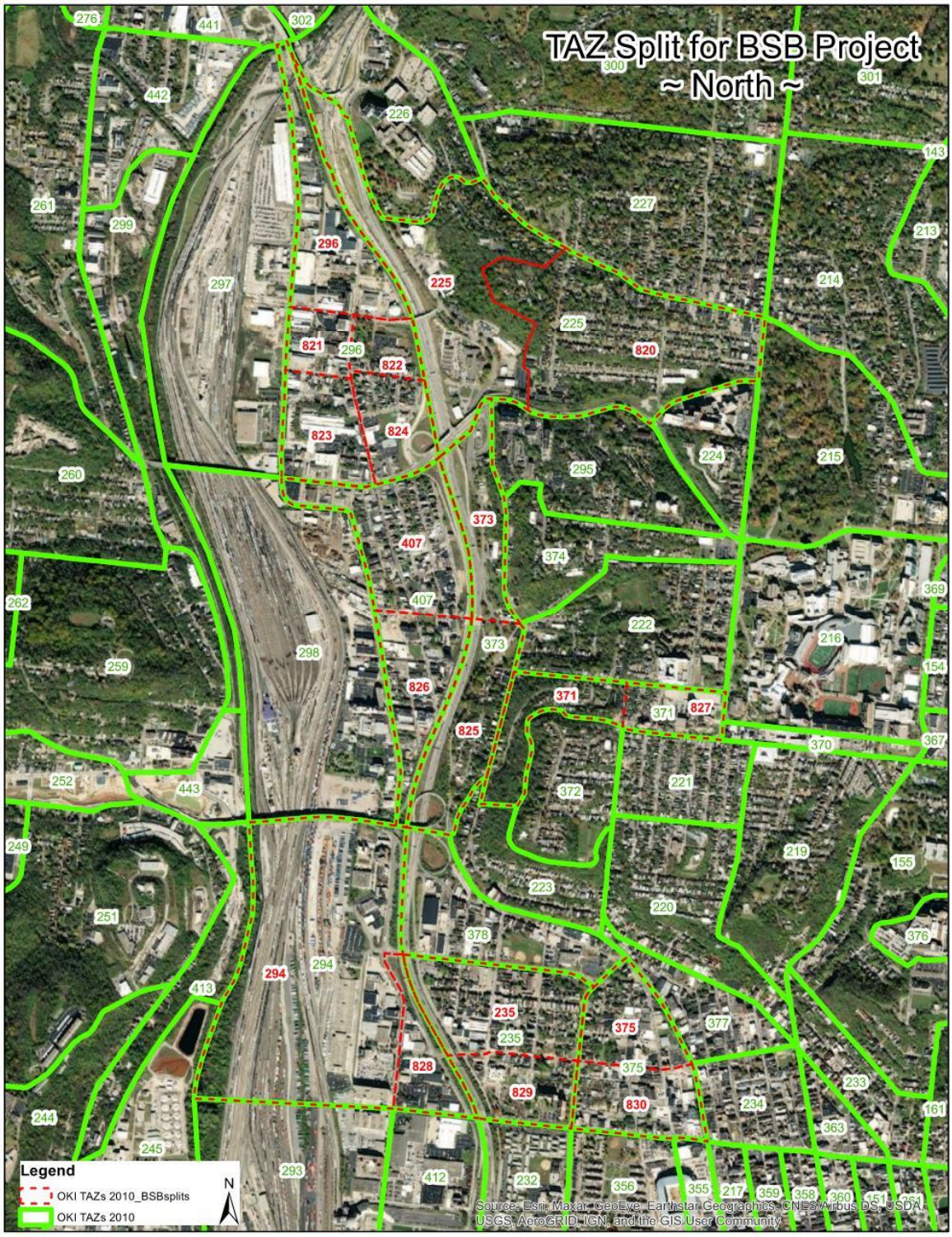


Figure 4: OKI Traffic Analysis Zone Splits – North

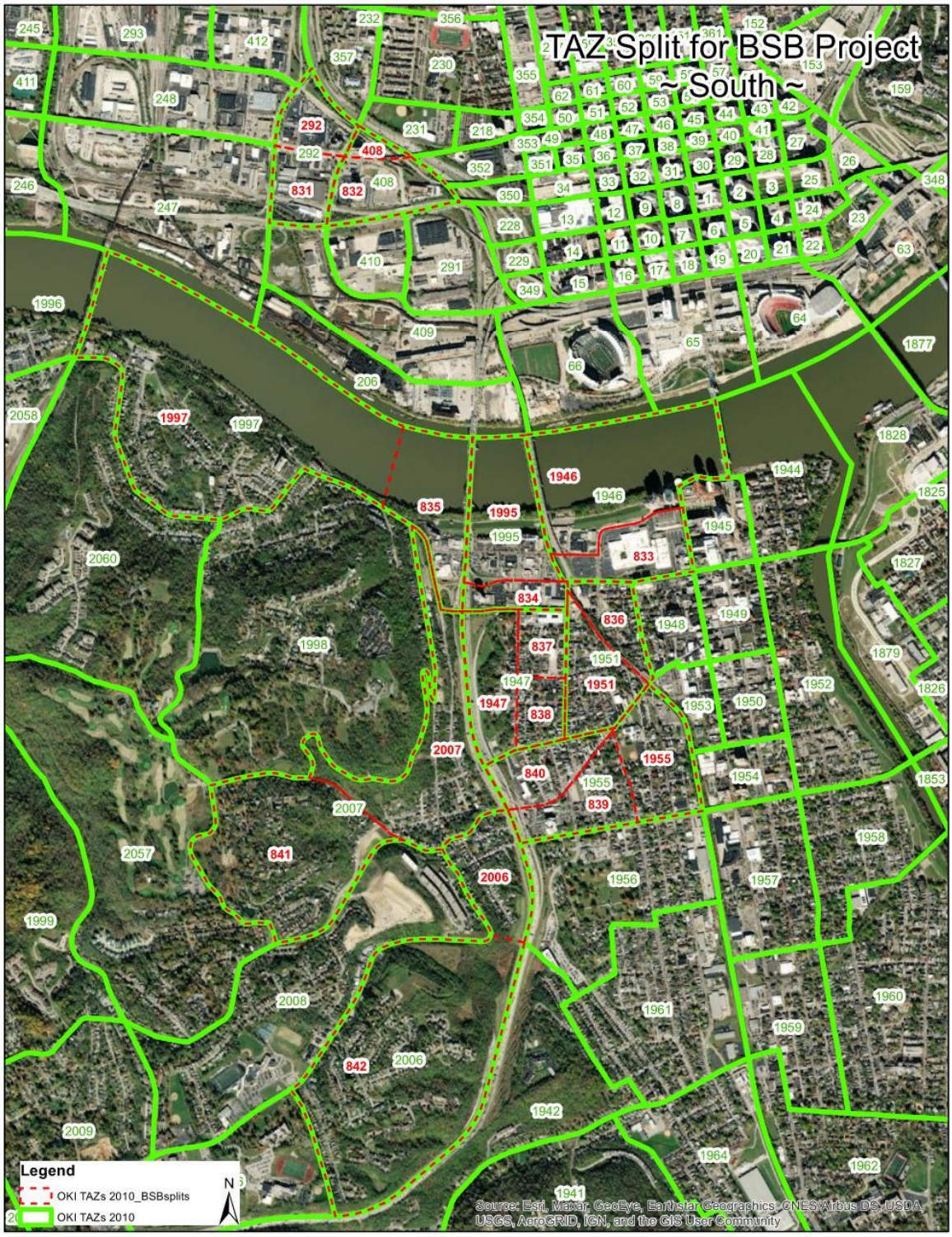


Figure 5: OKI Traffic Analysis Zone Splits – South

Regional Validation Statistics

During the course of the validation of the OKI model for use in this study, a need for improvement in the underlying destination-choice model calibration was identified. While ODOT has begun the

process to address this need, full model re-calibration goes beyond the scope of this individual study. At this time, while the model does not meet all of ODOT's recommended standards for validation, results comes close to the validation criteria and this model is considered the OKI MOR as discussed in the Introduction of this memorandum.

The validation checks presented in this memo, including percent root mean square error (%RMSE), vehicle miles traveled (VMT), Screenlines, and Volume-to-Ground Count Ratio (V/G), are presented for completeness.

% RMSE

Table 1 and **Figure 6** show the % RMSE for the combined OKI and MVRPC Region. As noted above, many of the established volume groups do not meet the validation targets, but most groups are near the threshold.

Table 1: Daily % RMSE by Volume Group for the Combined OKI and MVRPC Region

Count Range:	# Links	Avg. Count	Avg. Model	# Diff	% Diff	% RMSE	MAX % RMSE
0-499	260	294	401	107	36%	199.85%	200%
500-1,499	755	960	1,033	73	8%	115.79%	100%
1,500-2,499	553	1,966	1,896	-69	-4%	82.93%	62%
2,500-3,499	490	2,986	2,891	-95	-3%	64.05%	54%
3,500-4,499	453	3,975	3,867	-107	-3%	58.48%	48%
4,500-5,499	363	4,962	4,420	-541	-11%	48.16%	45%
5,500-6,999	471	6,191	5,972	-219	-4%	48.29%	42%
7,000-8,499	371	7,720	7,191	-529	-7%	44.29%	39%
8,500-9,999	300	9,237	9,031	-206	-2%	45.05%	36%
10,000-12,499	345	11,159	10,557	-602	-5%	36.07%	34%
12,500-14,999	146	13,642	13,783	141	1%	38.08%	31%
15,000-17,499	94	16,022	16,797	775	5%	40.84%	30%
17,500-19,999	46	18,664	17,107	-1,556	-8%	31.37%	28%
20,000-24,999	61	22,256	20,260	-1,996	-9%	26.97%	26%
25,000-34,999	91	29,719	29,866	147	0%	24.57%	24%
35,000-54,999	114	44,244	42,972	-1,272	-3%	32.43%	21%
55,000-74,999	103	63,332	63,177	-155	0%	22.66%	18%
75,000-120,000	21	79,196	78,503	-693	-1%	13.91%	12%
Total	5,037	8,140	7,926	-214	-3%	52.27%	

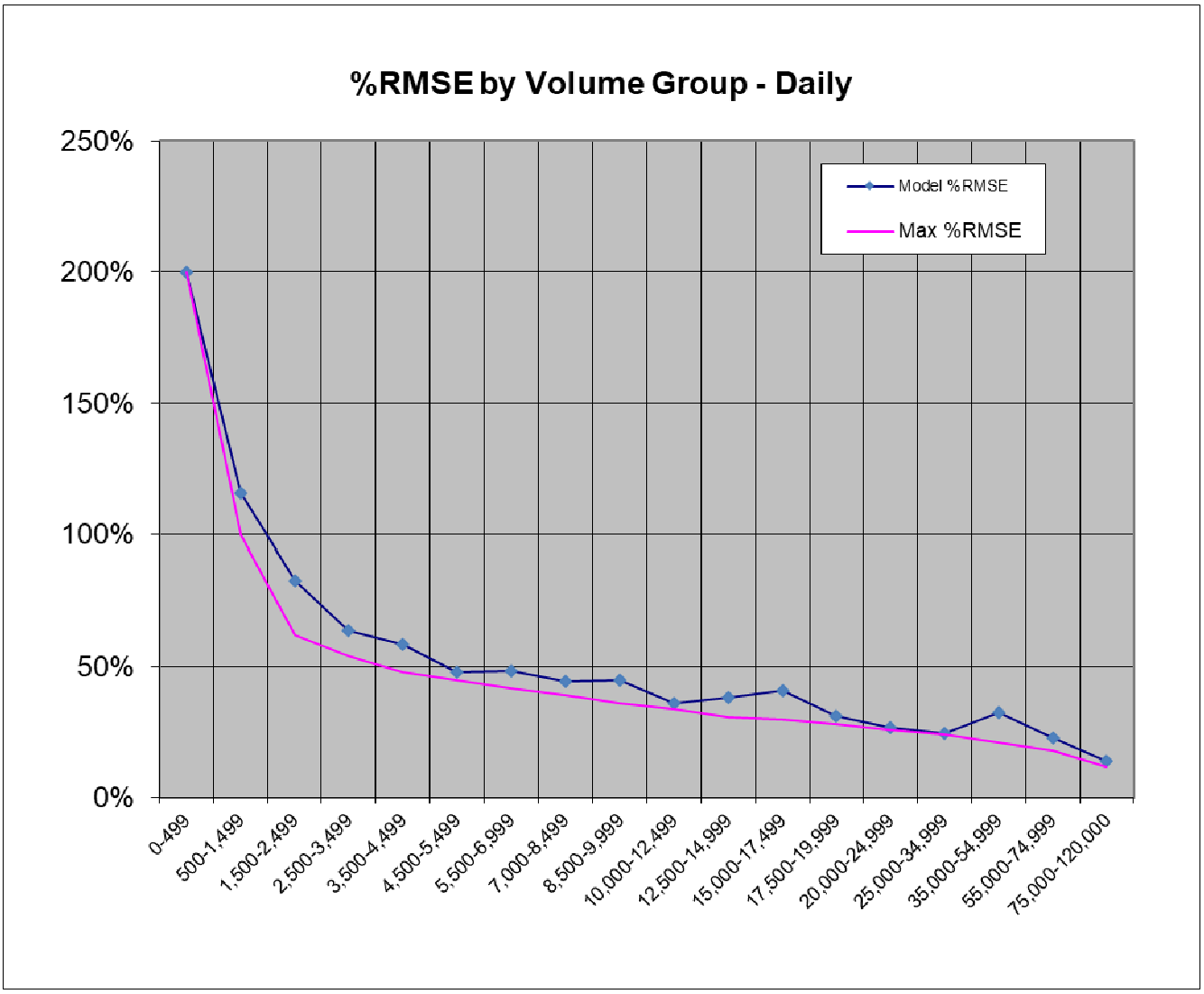


Figure 6: Daily % RMSE by Volume Group for the Combined OKI and MVRPC Region

VMT

Table 2 shows the comparison of count versus modeled VMT by functional class for the entire combined OKI and MVRPC region. Overall, modeled VMT was lower than counted VMT (slightly below the established threshold).

Table 2: Daily Observed vs. Modeled VMT by Functional Class for the Combined OKI and MVRPC Region

	Observed Traffic					Modeled Traffic				Abs Diff	Percent Difference			
Facility Type	# Links	Count	Count VMT	Count %	Count VMT %	Volume	Model VMT	Volume %	Model VMT %	Volume	Volume	VMT	Max. % VMT	% RMSE
1 Interstate	375	16,719,496	14,080,085	45%	63%	16,393,553	13,899,493	46%	64%	-325,943	-2%	-1%	7%	27%
2 Expressway	69	973,294	768,832	3%	3%	845,384	681,841	2%	3%	-127,910	-13%	-11%	10%	36%
3 Arterial	2,087	15,176,325	5,352,824	41%	24%	14,910,532	5,120,217	42%	24%	-265,793	-2%	-4%	10%	48%
4 Collector	1,486	3,788,354	1,996,736	10%	9%	3,198,792	1,656,553	9%	8%	-589,562	-16%	-17%	15%	70%
5 Local	400	402,807	237,116	1%	1%	377,399	211,415	1%	1%	-25,408	-6%	-11%	15%	139%
Total	**4,417**	**37,060,276**	**22,435,594**			**35,725,660**	**21,569,519**			**-1,334,616**	**-3.6%**	**-3.9%**	**3%**	**52%**

Screenlines

Figure 7 shows the screenlines for the OKI region. **Table 3** shows the difference in counted versus modeled volume for each screenline. Note that Screenline A covers all of the regional crossings of the Ohio River, including the 5 bridges within the Study Area and two I-275 bridges to the East and West of the Study Area.

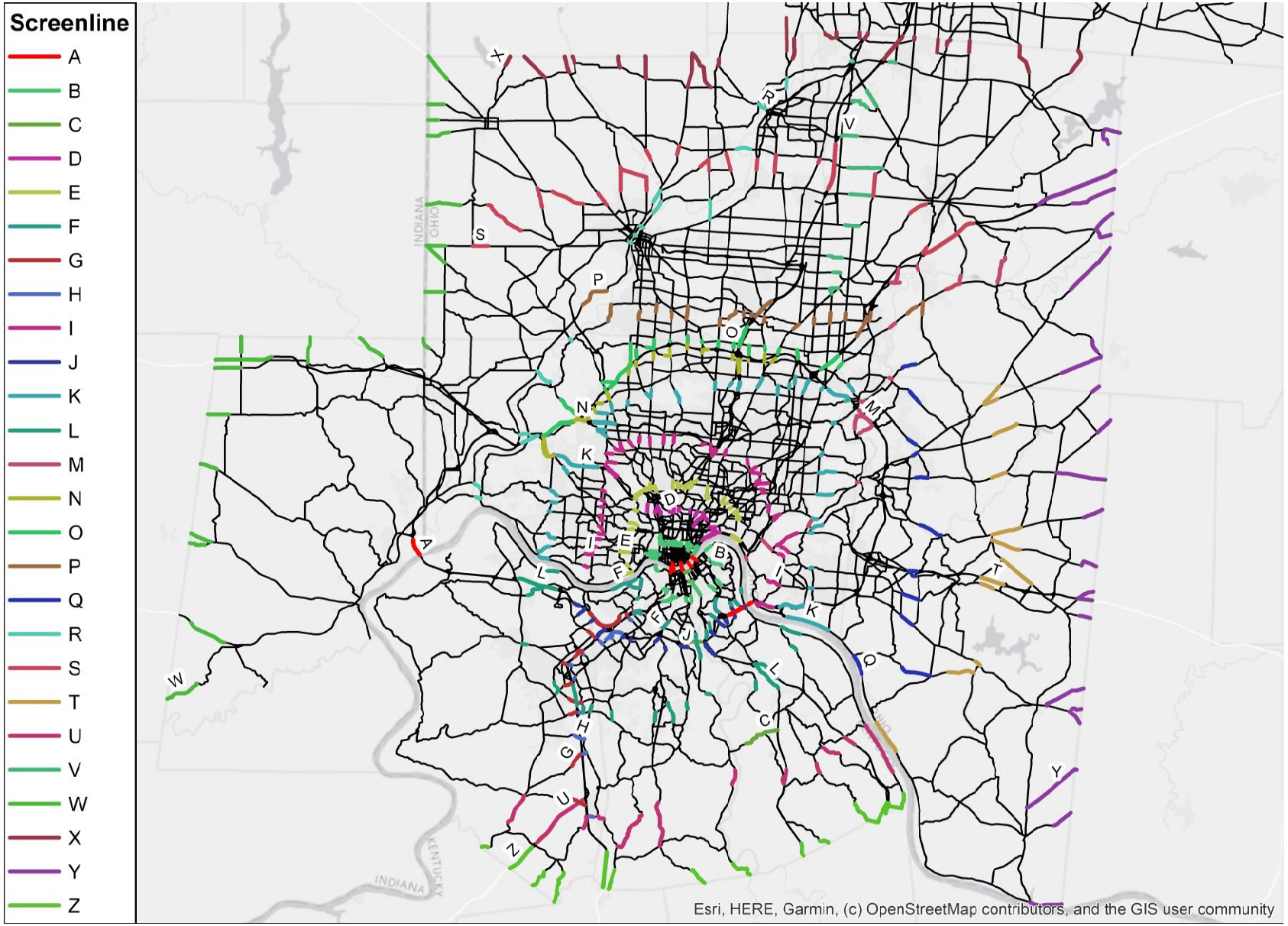


Figure 7: Screenlines for the OKI Region

Table 3: OKI Region Screenline Daily Counts vs. Model Volumes

		Total				Average				
SCREENLINE	# Links (1-WAY)	Count	Model	# Diff	% Diff	Count	Model	# Diff	% Diff	% RMSE
A	18	509,054	488,121	-20,933	-4%	28,281	27,118	-1,163	-4%	33%
B	16	433,474	425,018	-8,456	-2%	27,092	26,564	-529	-2%	93%
C	3	55,980	28,060			18,660	9,353			34%
D	12	586,684	466,208	-120,476	-21%	48,890	38,851	-10,040	-21%	53%
E	23	448,881	433,826	-15,055	-3%	19,517	18,862	-655	-3%	70%
F	12	289,200	272,784	-16,416	-6%	24,100	22,732	-1,368	-6%	82%
G	4	98,686	84,069			24,672	21,017			71%
H	4	116,879	72,279			29,220	18,070			65%
I	35	626,582	540,686	-85,896	-14%	17,902	15,448	-2,454	-14%	43%
J	8	112,990	101,463	-11,527	-10%	14,124	12,683	-1,441	-10%	14%
K	30	661,120	638,366	-22,754	-3%	22,037	21,279	-758	-3%	79%
L	8	79,360	64,925	-14,435	-18%	9,920	8,116	-1,804	-18%	178%
M	14	190,028	149,455	-40,573	-21%	13,573	10,675	-2,898	-21%	55%
N	14	275,727	277,207	1,480	1%	19,695	19,801	106	1%	42%
O	15	496,809	481,818	-14,991	-3%	33,121	32,121	-999	-3%	52%
P	11	250,346	261,195	10,849	4%	22,759	23,745	986	4%	45%
Q	2	5,420	10,214			2,710	5,107			65%
R	6	108,075	98,857	-9,218	-9%	18,013	16,476	-1,536	-9%	59%
S	12	214,150	267,235	53,085	25%	17,846	22,270	4,424	25%	80%
T	2	17,890	17,358			8,945	8,679			47%
U	4	5,720	4,439			1,430	1,110			37%
V	18	125,940	114,568	-11,372	-9%	6,997	6,365	-632	-9%	75%
W	0	0	0			0	0			31%
X	8	36,250	39,856	3,606	10%	4,531	4,982	451	10%	88%
Y	13	53,220	50,997	-2,223	-4%	4,094	3,923	-171	-4%	83%
Z	0	0	0			0	0			0%

Volume-to-Ground Count Ratio

Figure 8 shows daily V/G for the links in the combined OKI and MVRPC regions. Darker blue colors indicate model volumes significantly lower than counted volumes and darker reds indicate model volumes significantly higher than counted volumes.

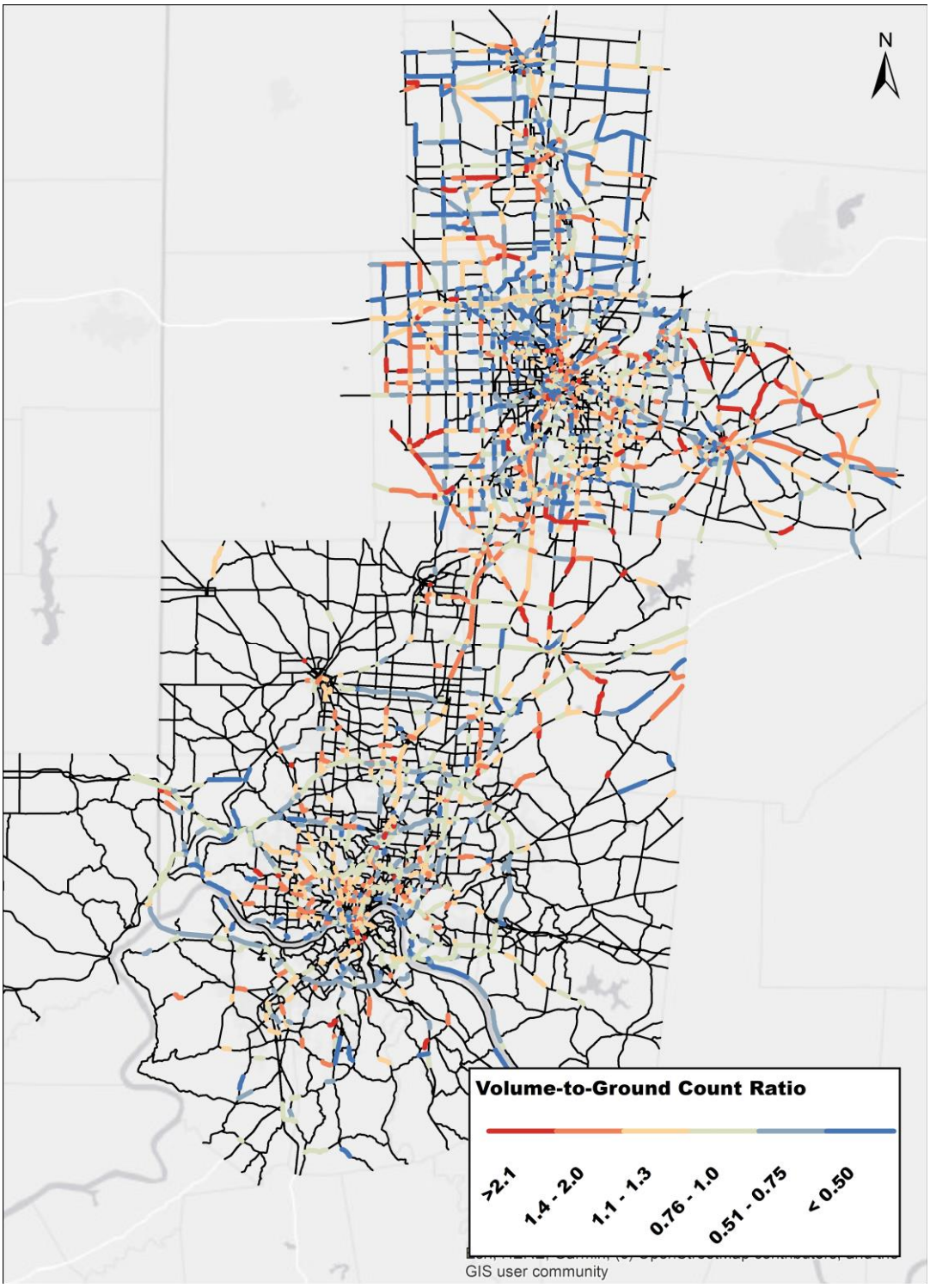
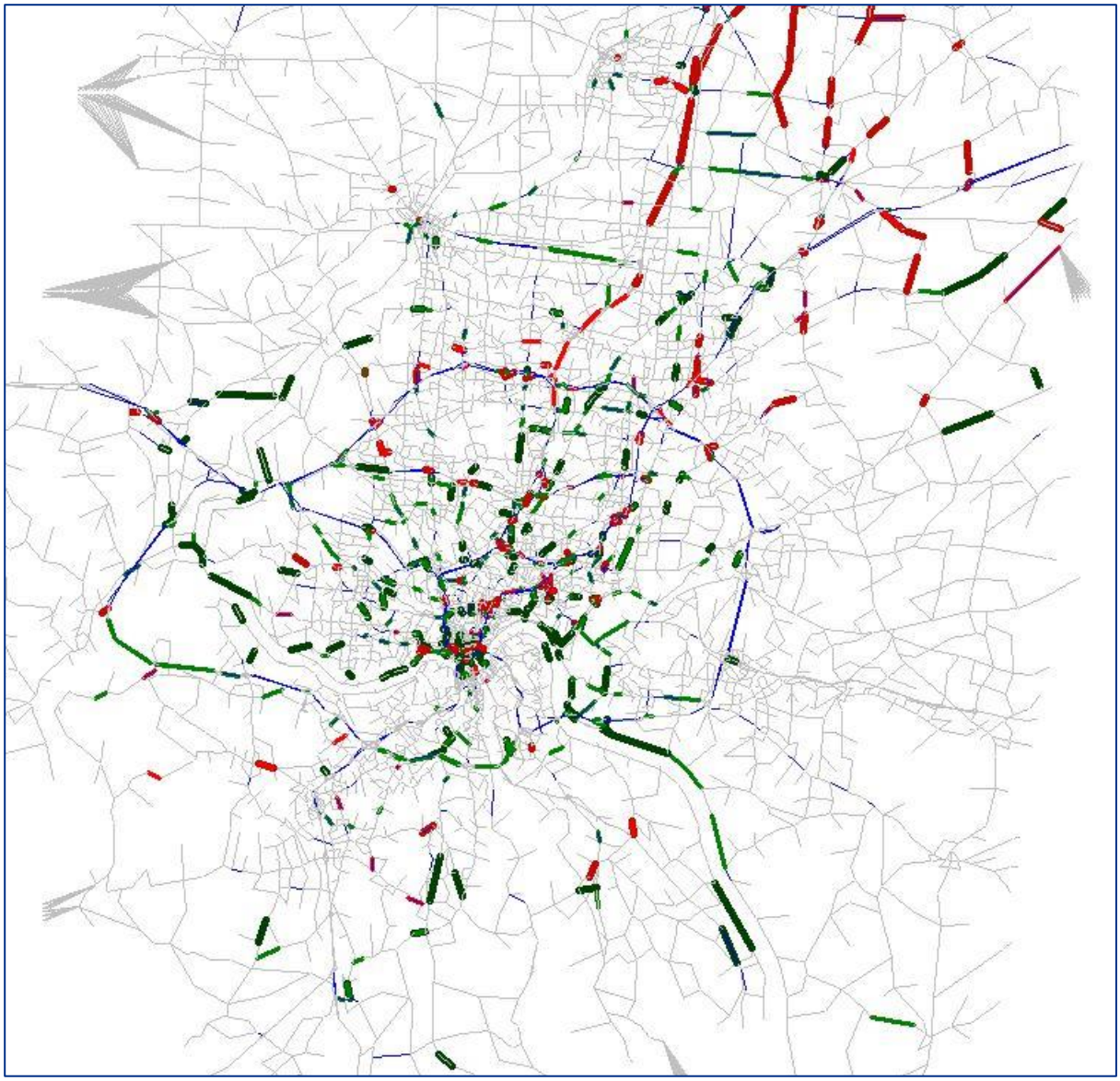


Figure 8: Volume-to Ground Count Ratio for the Combined OKI and MVRPC Region



Dark Red	V/G < 1.5
Red	1.25 < V/G < 1.5
Blue	0.75 < V/G < 1.25
Green	0.5 < V/G < 1.75
Dark Green	0.5 < V/G

Figure 8a: Volume-to Ground Count Ratio for OKI

It is worth noting here that the freeways within the IR 275 outerbelt are almost all close to the ground counts. The exception is that volumes on IR 275 through Kentucky are lower than the traffic counts.

Subarea Validation Statistics

The following subsections outline similar checks focused specifically on the BSB Study Area.

ODOT reviewed some of the traffic counts in the subarea and found them to be mis-coded. In other words, the counts were coded to a link either before or after a merge/diverge and therefore was not attributed to the correct location. The tables and figures in this section have been updated from the October memo.

The subarea of the Model of Record performs somewhat better than the entire model overall and indeed the subarea %RMSE of 30.6% is under the 40% threshold.

% RMSE

Table 4 and **Figure** 9 show the % RMSE results for the BSB Study Area. With some exceptions for lower volumes, most volume groups fall within a couple percentage points of the established thresholds.

Table 4: Daily % RMSE by Volume Group for the BSB Study Area

Count Range:	# Links	Avg. Count	Avg. Model	# Diff	% Diff	% RMSE	MAX % RMSE
0-499	1	210	15			0.0%	200%
500-1,499	15	1,140	871	-269	-24%	64.0%	100%
1,500-2,499	26	2,053	1,699	-354	-17%	54.5%	62%
2,500-3,499	40	3,027	2,799	-227	-8%	83.1%	54%
3,500-4,499	49	3,980	3,637	-344	-9%	59.6%	48%
4,500-5,499	37	5,054	4,493	-562	-11%	46.8%	45%
5,500-6,999	48	6,249	5,805	-444	-7%	43.5%	42%
7,000-8,499	47	7,784	6,331	-1,453	-19%	46.6%	39%
8,500-9,999	45	9,330	8,305	-1,025	-11%	37.3%	36%
10,000-12,499	50	11,121	10,945	-175	-2%	39.4%	34%
12,500-14,999	31	13,894	12,760	-1,133	-8%	33.5%	31%
15,000-17,499	22	16,027	12,055	-3,972	-25%	35.4%	30%
17,500-19,999	10	18,491	16,286	-2,204	-12%	36.2%	28%
20,000-24,999	13	22,621	22,316	-304	-1%	29.5%	26%
25,000-34,999	29	29,589	28,836	-753	-3%	16.9%	24%
35,000-54,999	37	47,058	42,492	-4,567	-10%	22.3%	21%
55,000-74,999	39	64,481	60,258	-4,223	-7%	16.7%	18%
75,000-120,000	18	79,271	76,502	-2,769	-3%	14.8%	12%
Total	557	17,987	16,625	-1,362	-8%	30.6%	40%

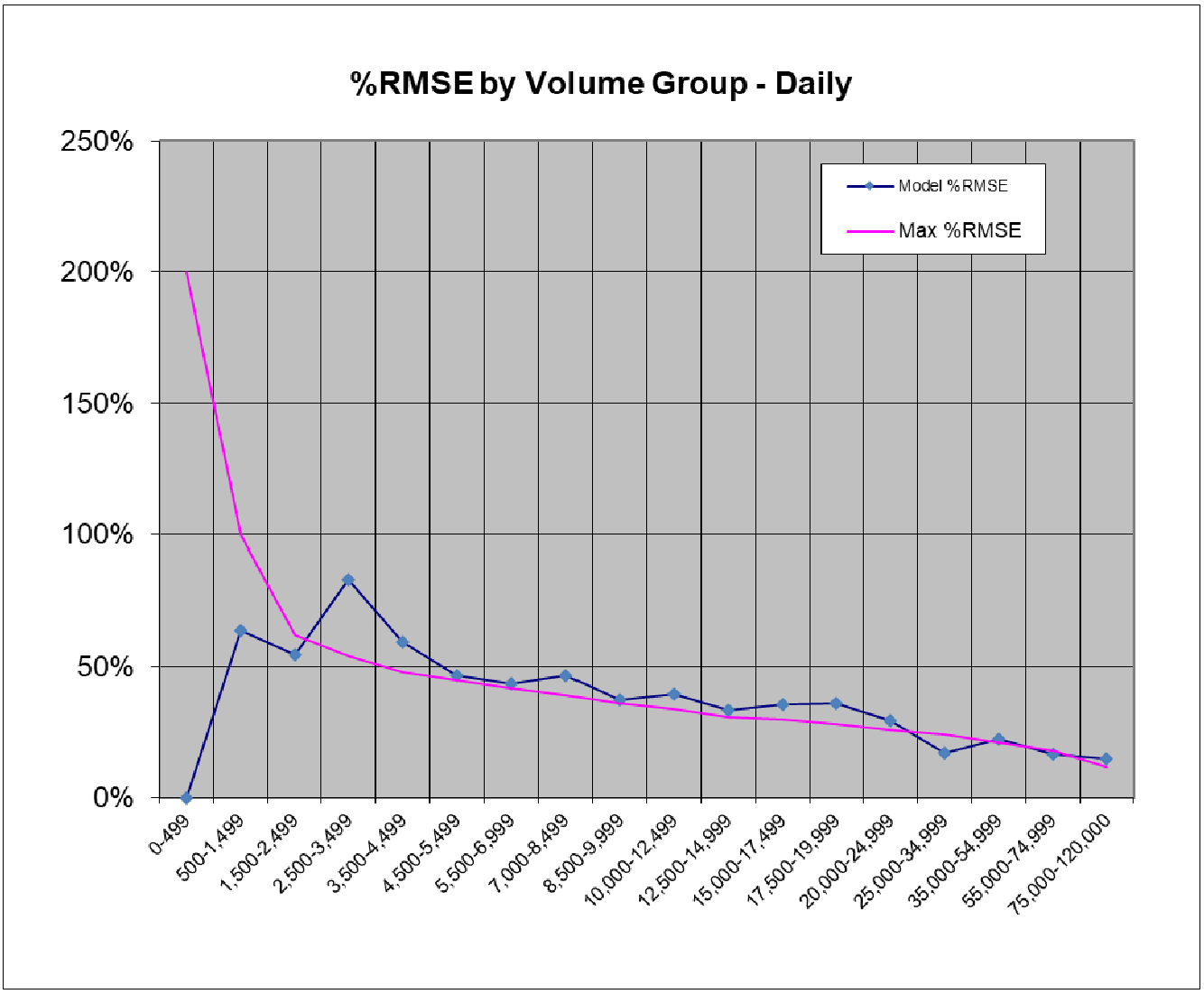


Figure 9: Daily % RMSE by Volume Group for the BSB Study Area

Figure 10 shows the absolute relative difference associated with each count in the study area (analogous to the volume group curve in **Figure 9**). Approximately 34% of counts fall above the maximum relative difference line (in red).

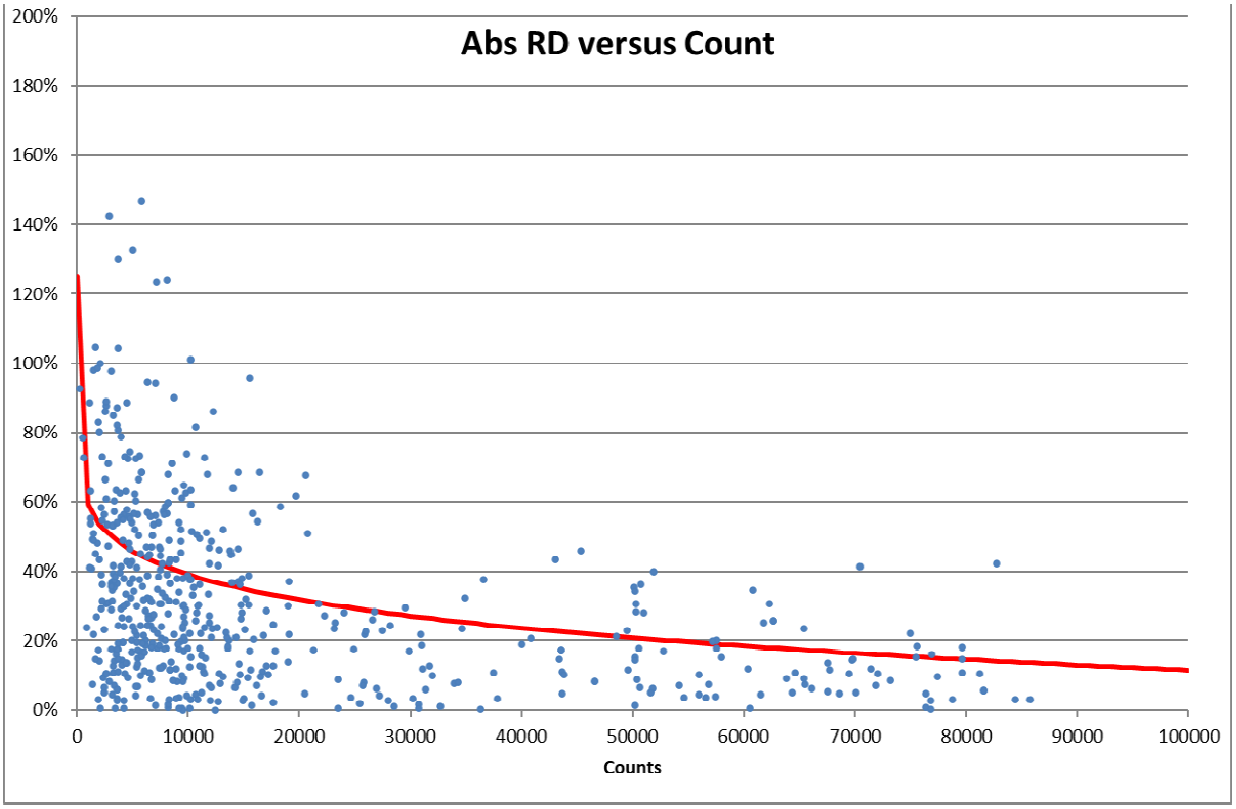


Figure 10: Daily Absolute Relative Difference Total Volume for the BSB Study Area

Figure 11 shows the same metric for truck volumes in the BSB study area. Just over 20% of study area counts fall above the established threshold.

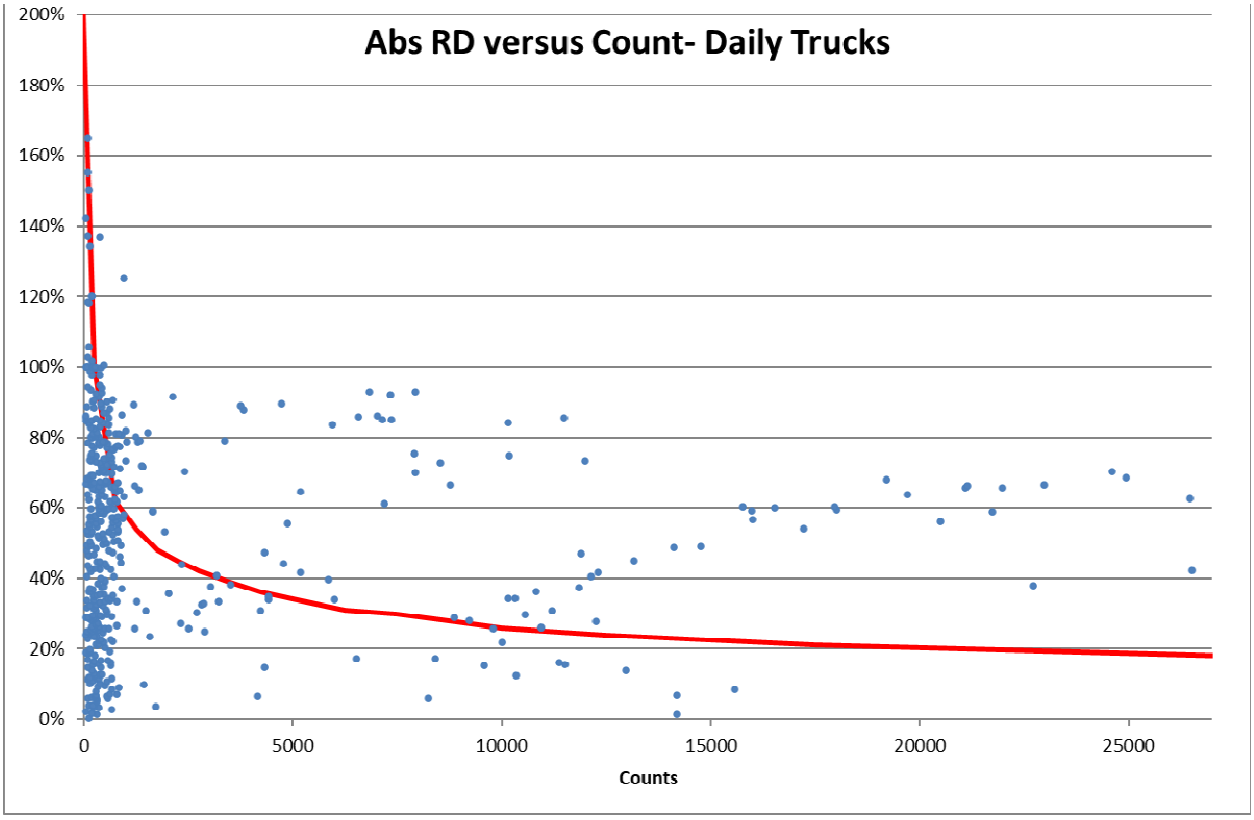


Figure 11: Daily Absolute Relative Difference Truck Volume for the BSB Study Area

Figure 12 through **Figure 15** show the absolute relative difference for each of the four model periods**.** On average each period has approximately 41% of counts falling above the established threshold (in red).

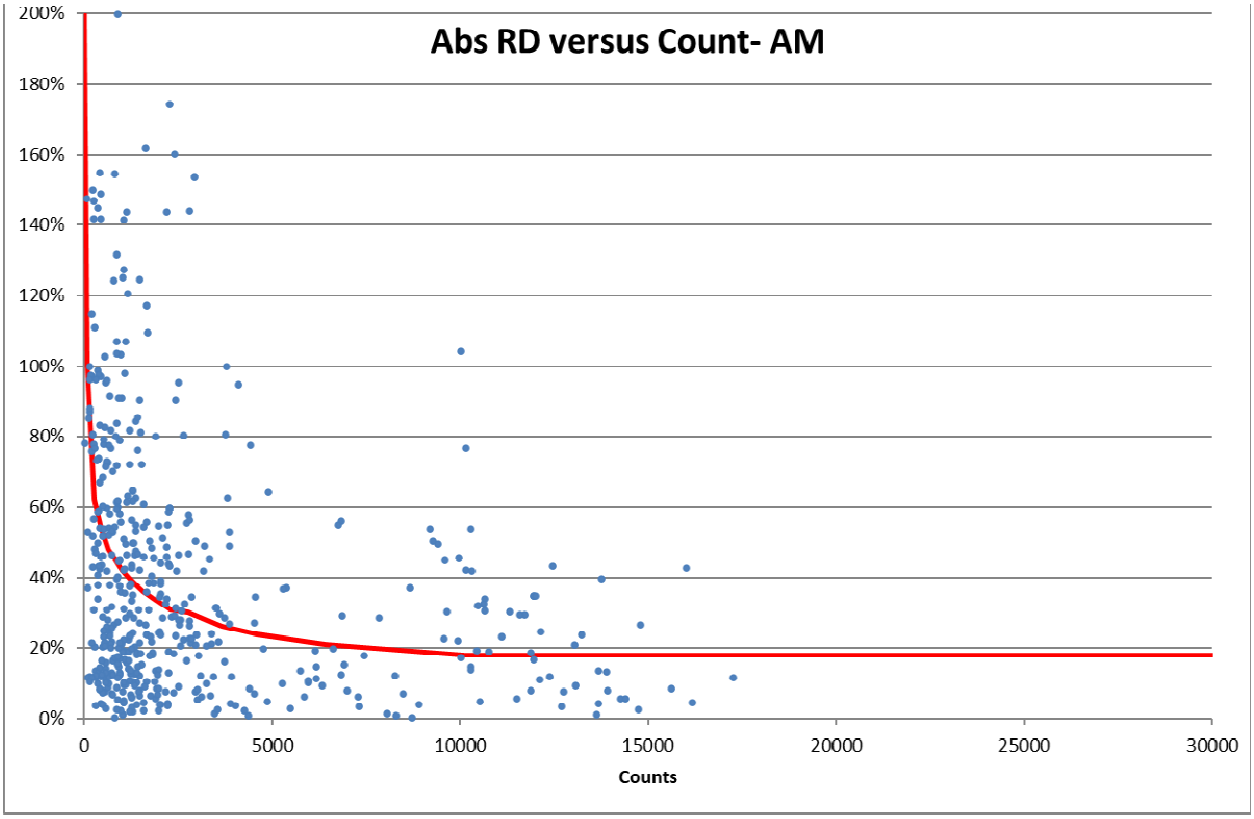


Figure 12: AM Absolute Relative Difference Total Volume for the BSB Study Area

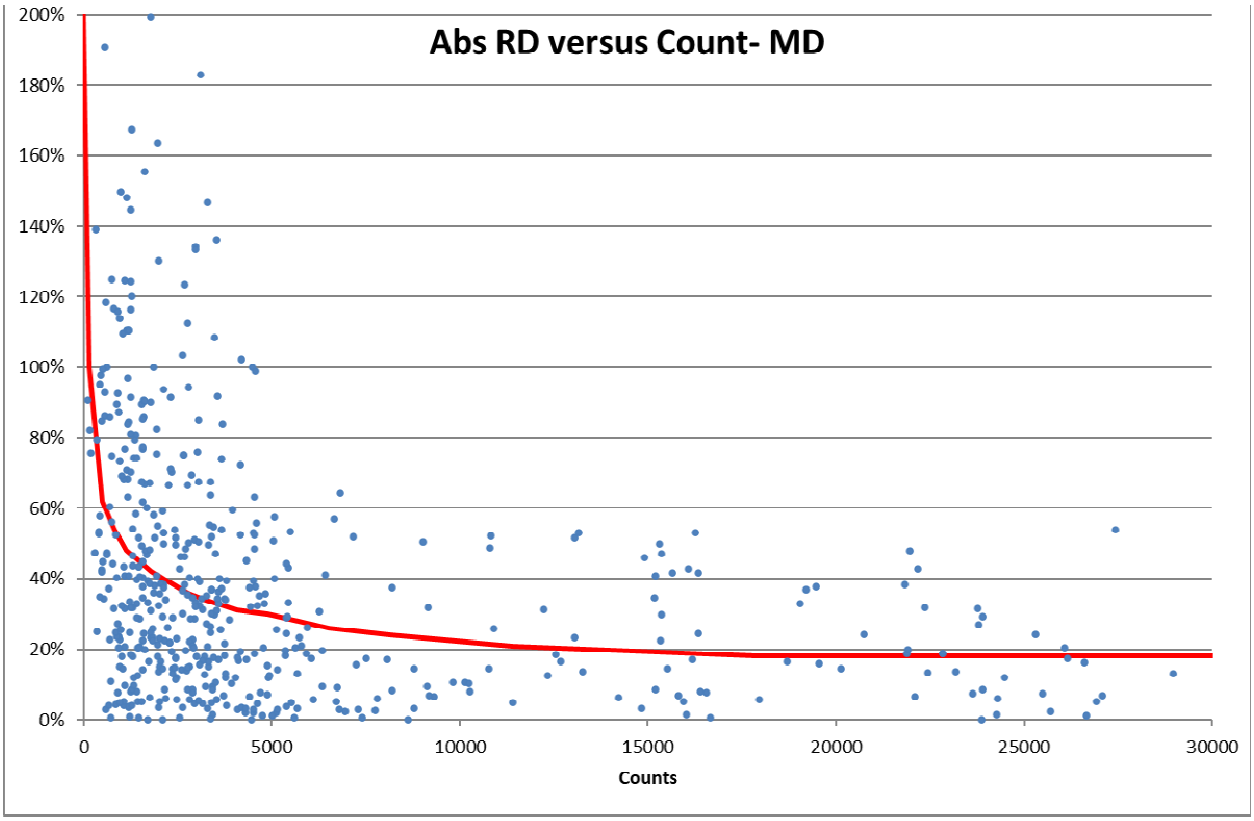


Figure 13: MD Absolute Relative Difference Total Volume for the BSB Study Area

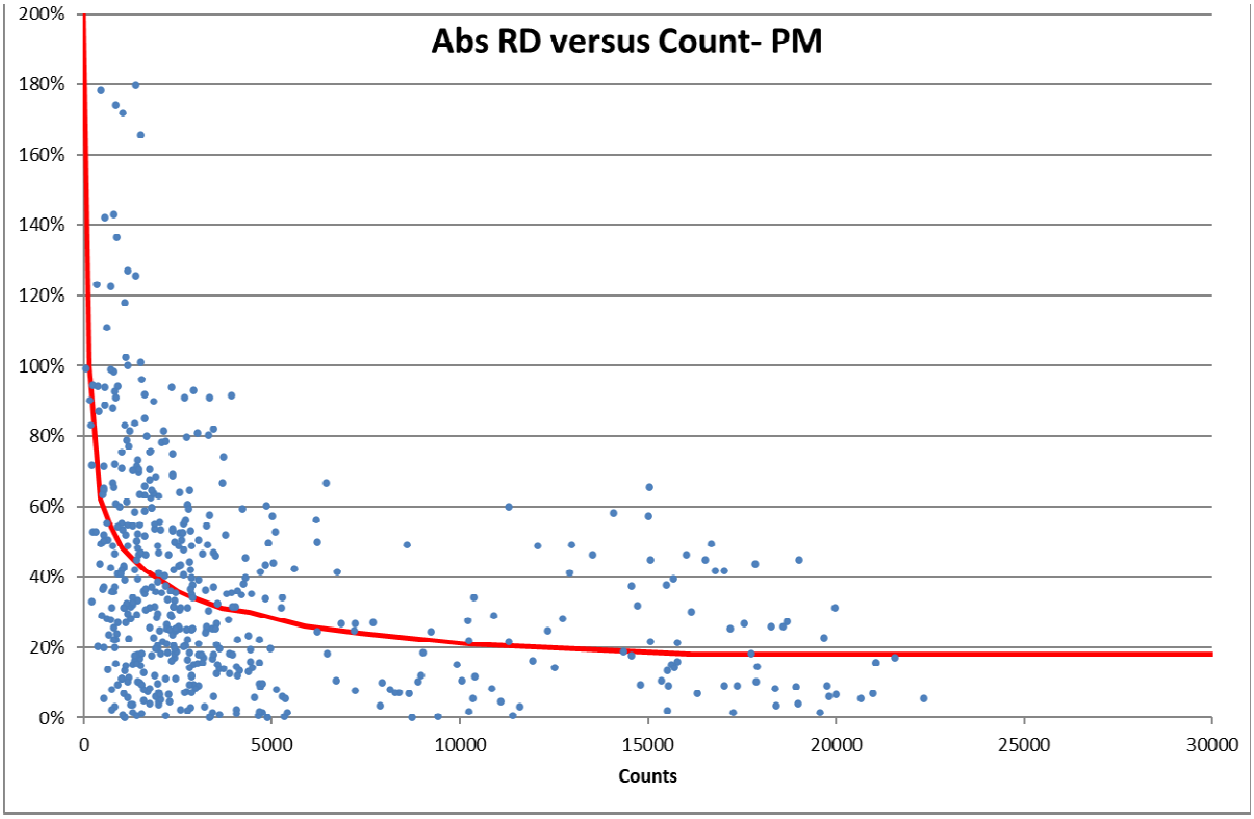


Figure 14: PM Absolute Relative Difference Total Volume for the BSB Study Area

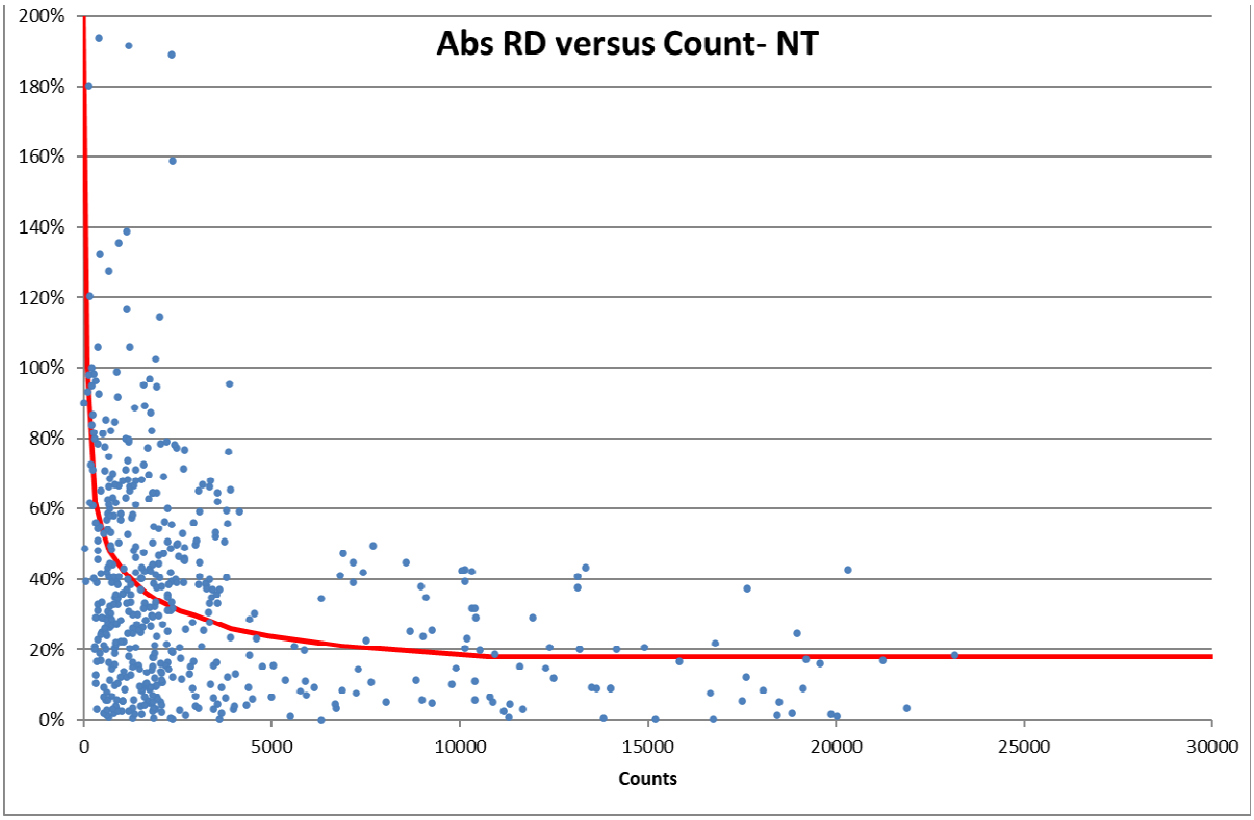


Figure 15: NT Absolute Relative Difference Total Volume for the BSB Study Area

VMT

Table 5 shows the VMT comparison for the BSB study area by functional class. Overall, traffic in the entire study area is low by 7%. Given that VMT is low for all functional classes, ODOT determined that this is a systemic error which can be accounted for in the Certified Design Traffic procedures. As is visible in the upcoming V/G map (**Figure 16**), this under estimation on Interstates is largely due to the underestimation of traffic on the I-275 bypass, which is likely related to the underlying model calibration issues indicated above. As seen in **Figure 17**, downtown Cincinnati bridges are matching traffic counts well, with the Clay Wade Bailey Bridge, which does not have a significant amount of traffic.

Table 5: Daily Observed vs. Modeled VMT by Functional Class for the BSB Study Area

Daily	Observed Traffic					Modeled Traffic				Abs Diff	Percent Difference			
Facility Type	# Links	Count	Count VMT	Count %	Count VMT %	Volume	Model VMT	Volume %	Model VMT %	Volume	Volume	VMT	Max. % VMT	% RMSE
1 Interstate	125	6,550,679	3,562,259	65%	83%	6,133,349	3,305,320	66%	83%	-417,330	-6%	-7%	7%	18%
2 Expressway	0	0	0	0%	0%	0	0	0%	0%	0	#DIV/0!	#DIV/0!	10%	0%
3 Ramp	124	1,044,568	273,060	10.4%	6%	1,120,629	292,687	12.1%	7%	76,061	7%	7%	15%	37%
4 Arterial	266	2,251,008	437,773	22%	10%	1,826,936	348,196	20%	9%	-424,072	-19%	-20%	10%	44%
5 Collector	36	156,560	38,586	2%	1%	167,315	32,683	2%	1%	10,755	7%	-15%	15%	78%
6 Local	6	15,900	4,182	0%	0%	11,954	2,953	0%	0%	-3,946	-25%	-29%	15%	77%
Total	**557**	**10,018,715**	**4,315,859**			**9,260,184**	**3,981,838**			**-758,531**	**-7.6%**	**-7.7%**	**3%**	**31%**

Volume-to-Ground Count Ratio

Figure 16 shows the V/G for the links in the BSB study area. **Figure 18** shows a closer view of the V/G around the Ohio River crossings. Figures 16a and 17a show the same areas, but with a different color scheme.

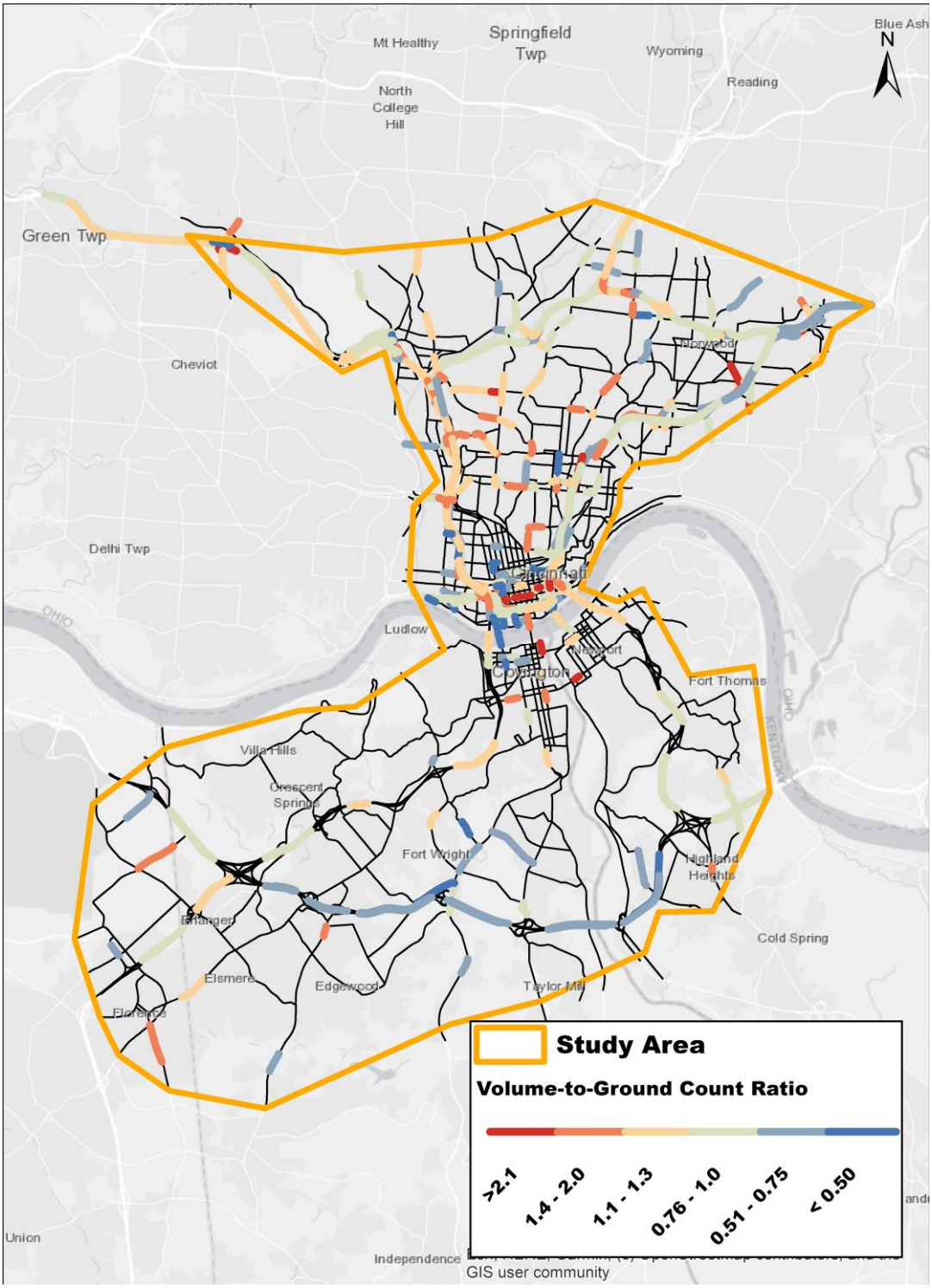
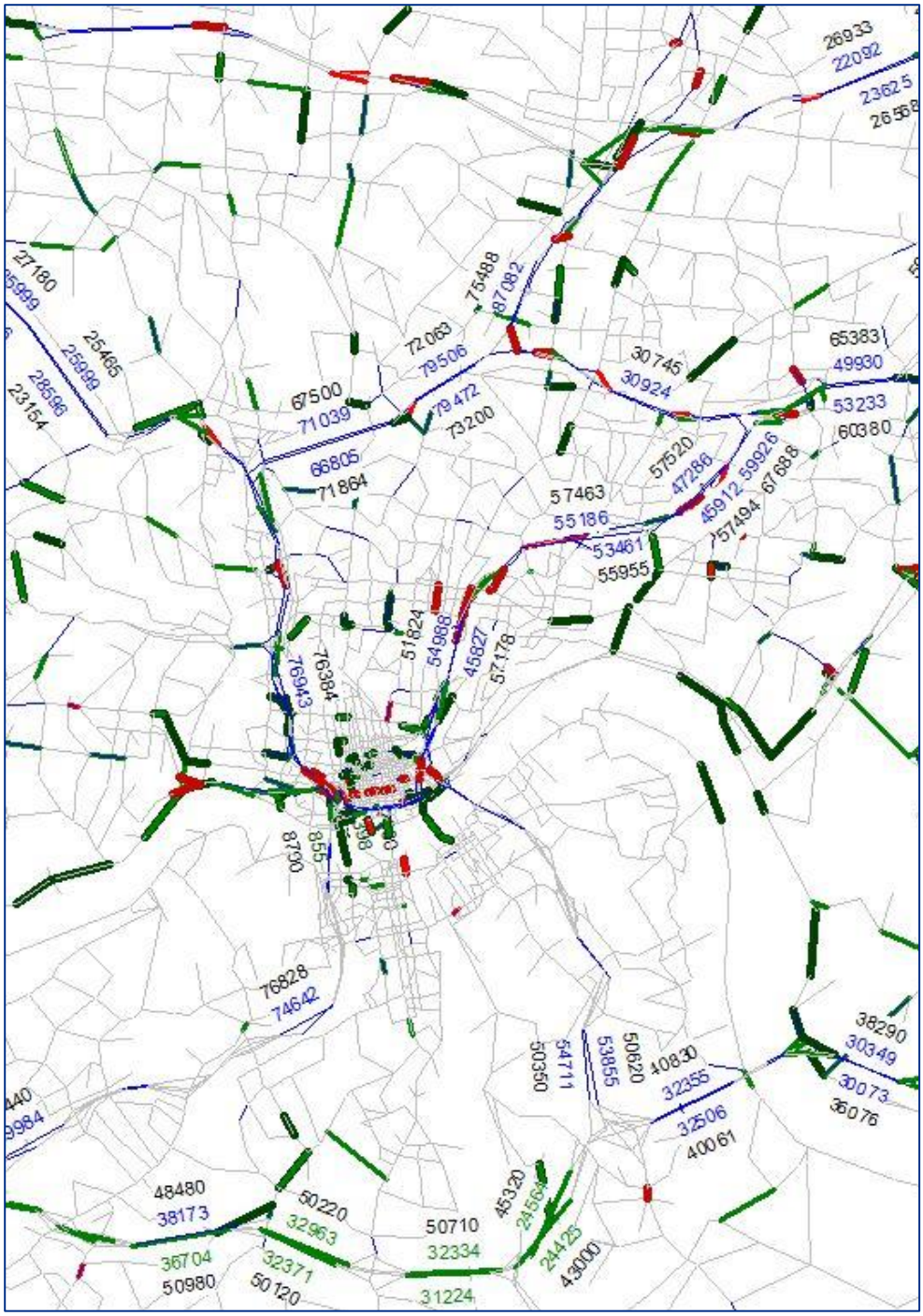


Figure 16: Volume-to Ground Count Ratio for the BSB Study Area



Dark Red	V/G < 1.5
Red	1.25 < V/G < 1.5
BIue	0.75 < V/G < 1.25
Green	0.5 < V/G < 1.75
Dark Green	0.5 < V/G

Volumes in color. Counts in black.

Figure 17a: Volume-to Ground Count Ratio for the BSB Study Area

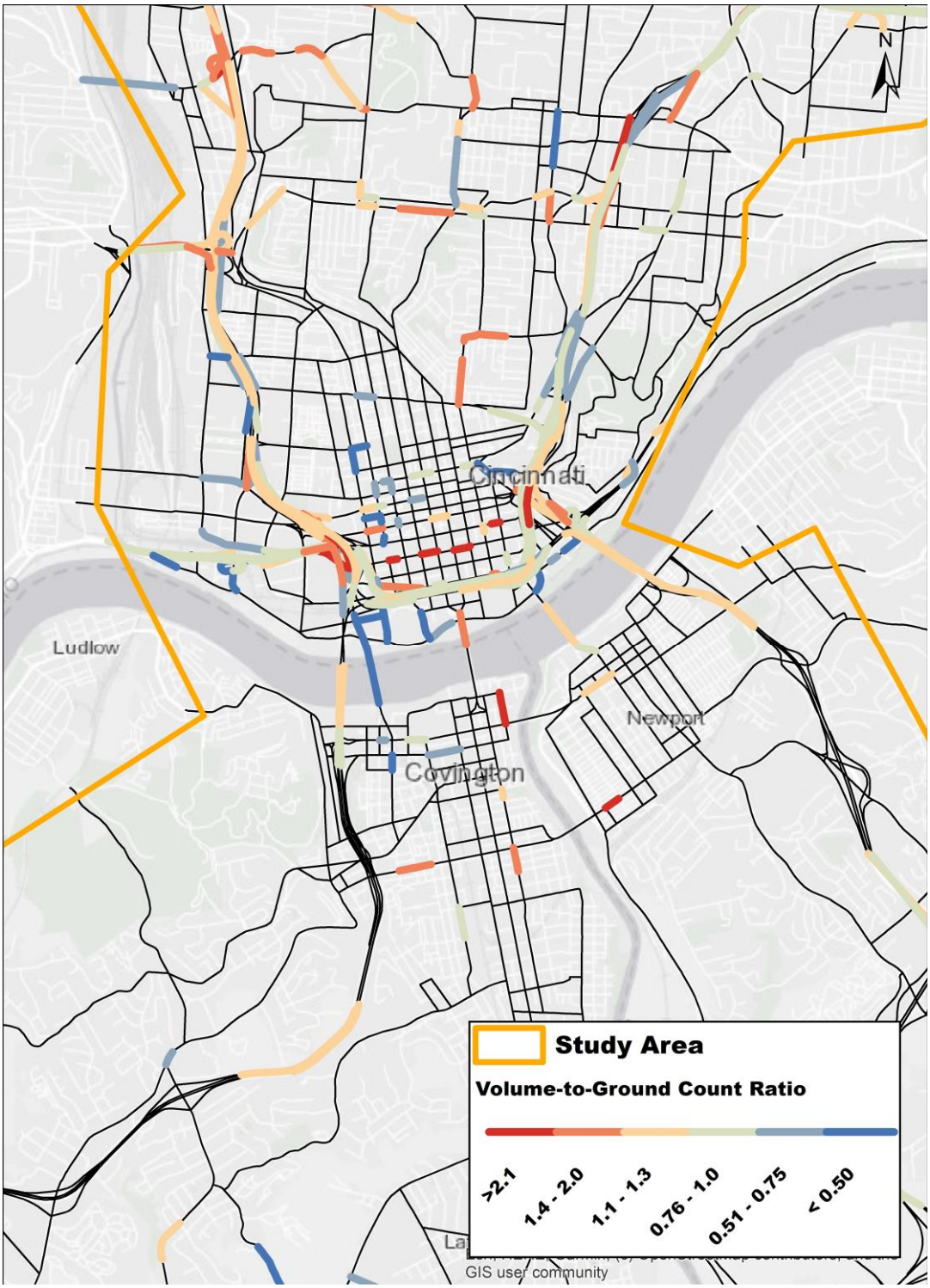
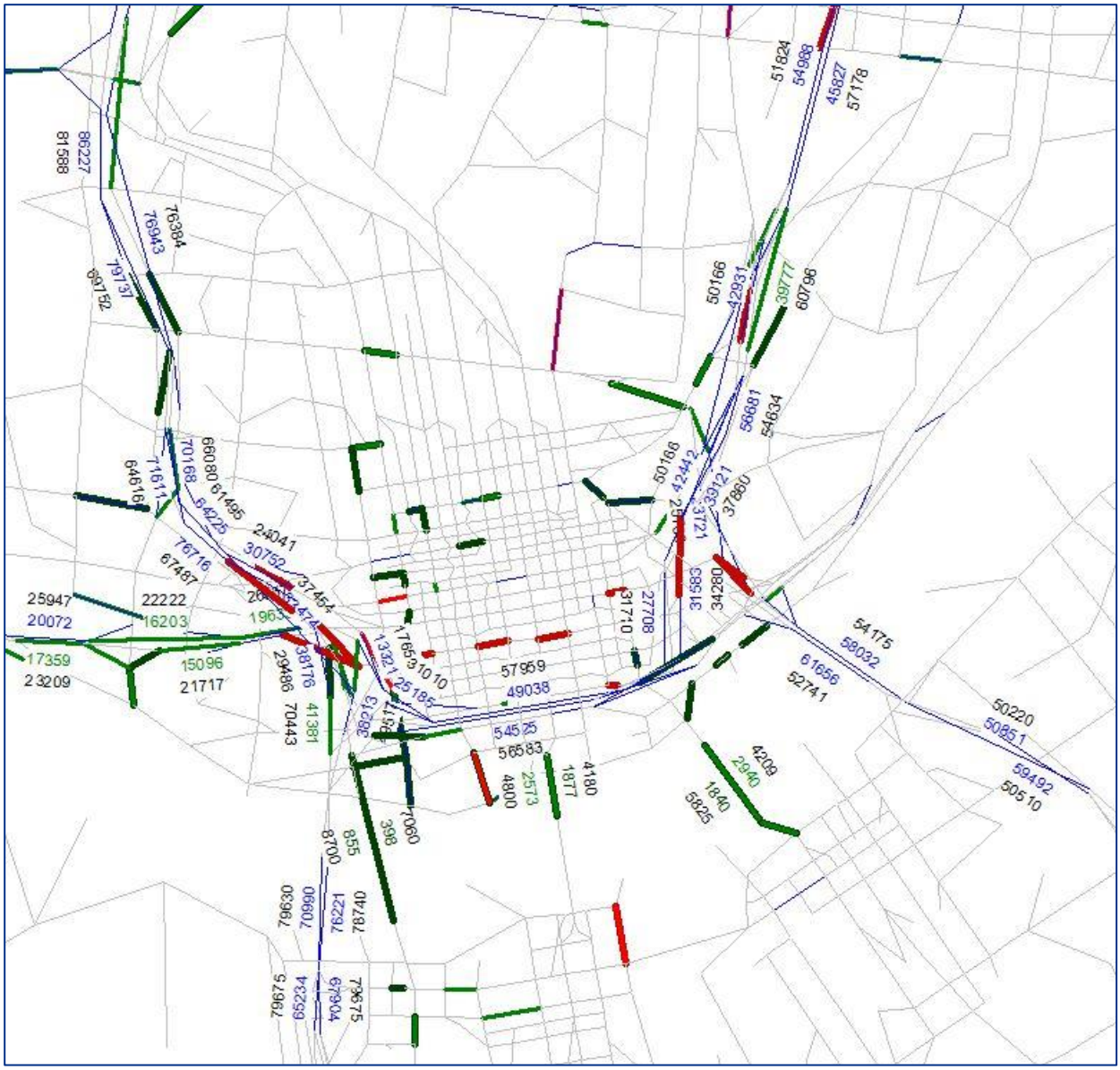


Figure 18: Volume-to Ground Count Ratio for River Crossings



Dark Red	V/G < 1.5
Red	1.25 < V/G < 1.5
Blue	0.75 < V/G < 1.25
Green	0.5 < V/G < 1.75
Dark Green	0.5 < V/G

Volumes in color. Counts in black.

Figure 19a: Volume-to Ground Count Ratio for River Crossings

Select Link Review

At FHWA's request, ODOT conducted select link analysis of traffic crossing the BSB and compared the model distribution with those from StreetLight. **Figures 18** and **19** show percent of total traffic by township crossing the BSB. **Figures 20** and **21** show only truck traffic.

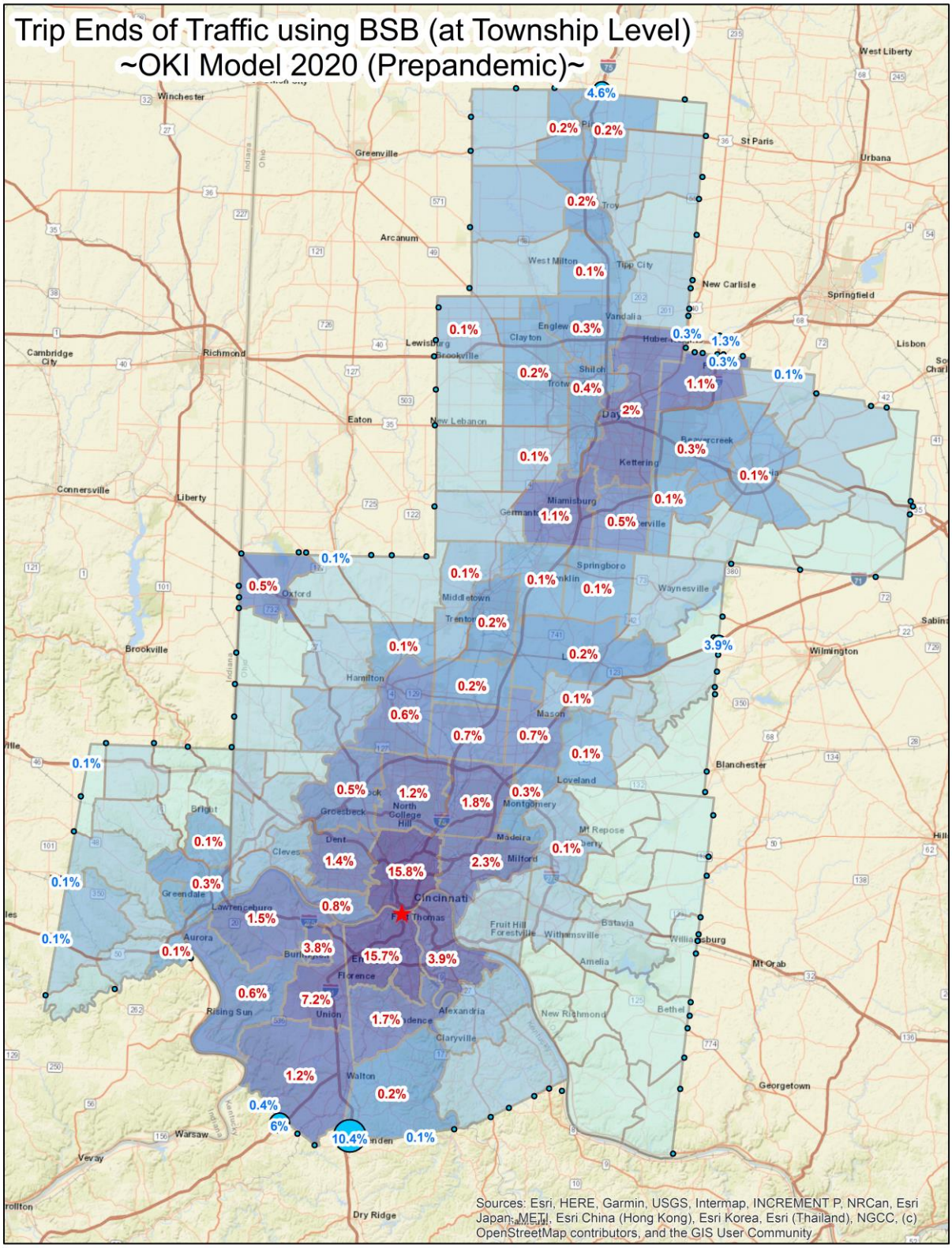


Figure 18: BSB Traffic by Township – Model Traffic

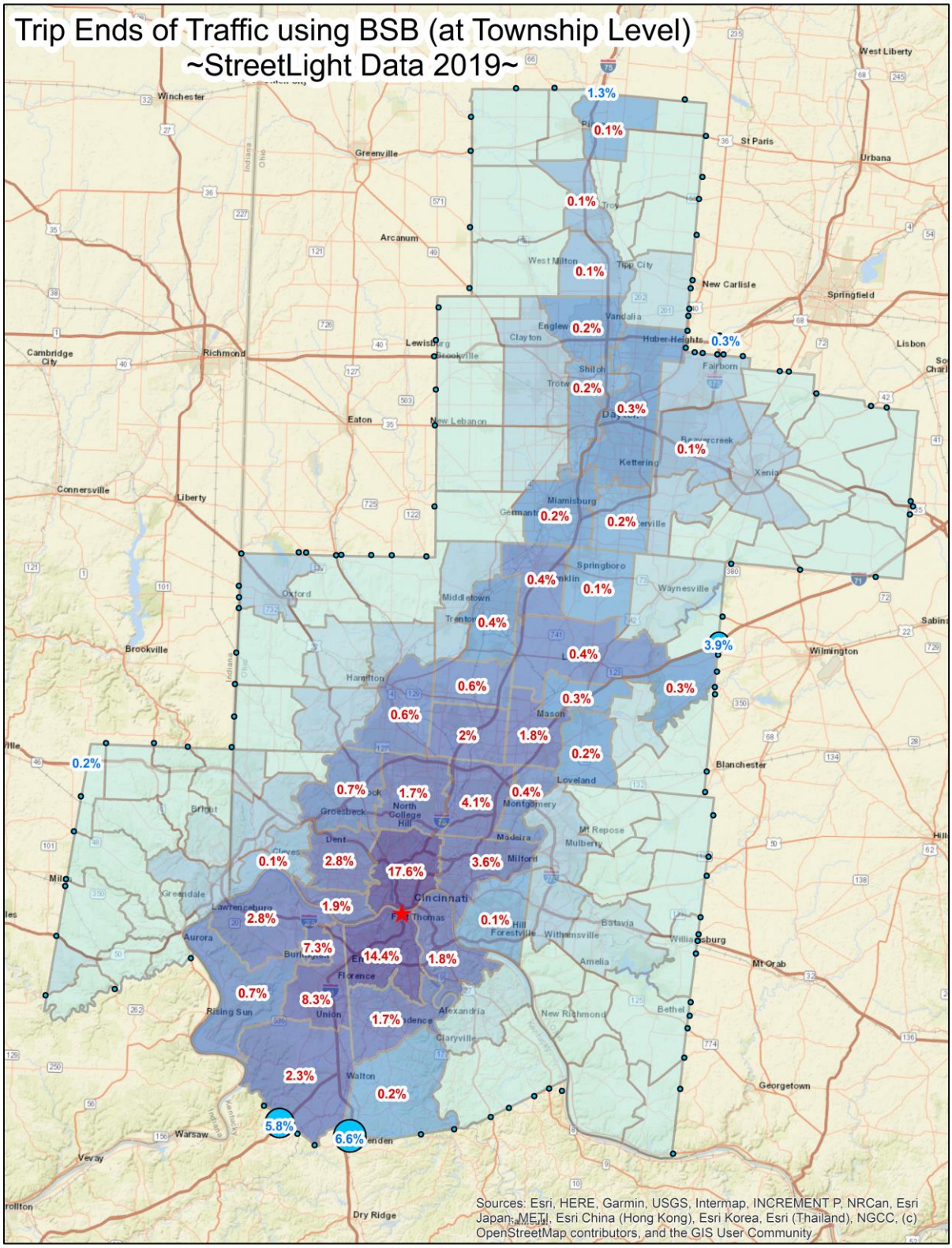


Figure 19: BSB Traffic by Township – StreetLight Traffic

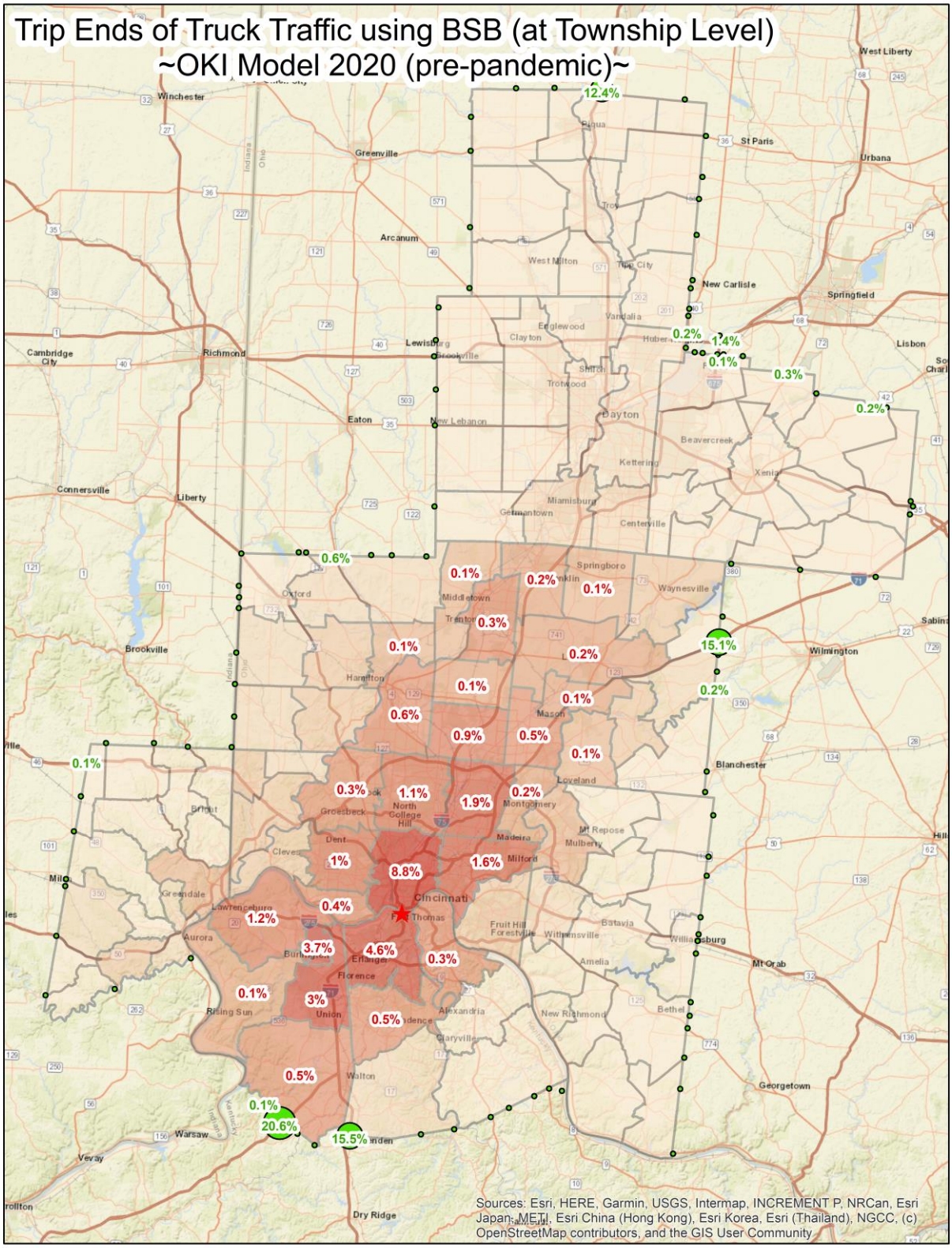


Figure 20: BSB Truck Traffic by Township – Model Traffic

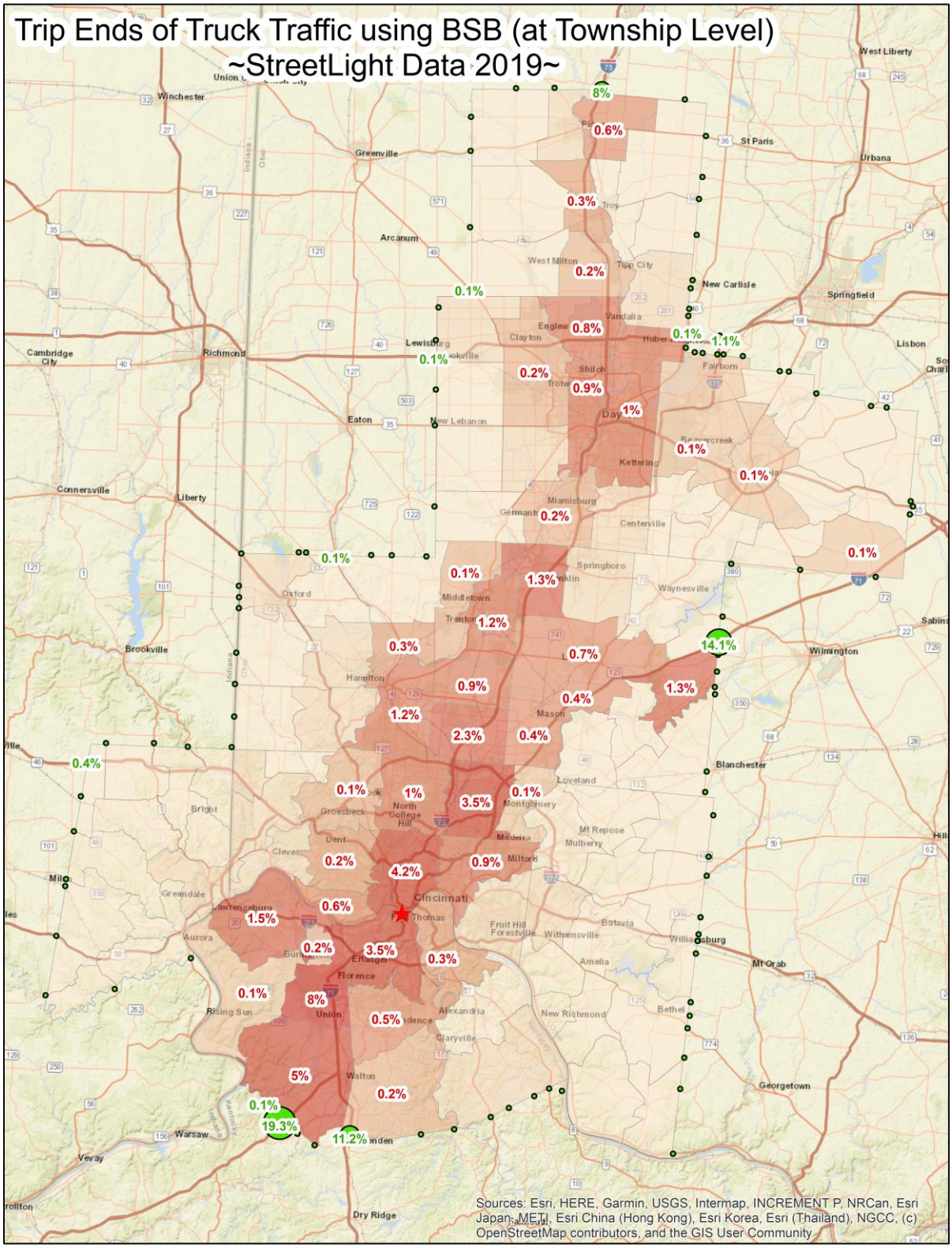
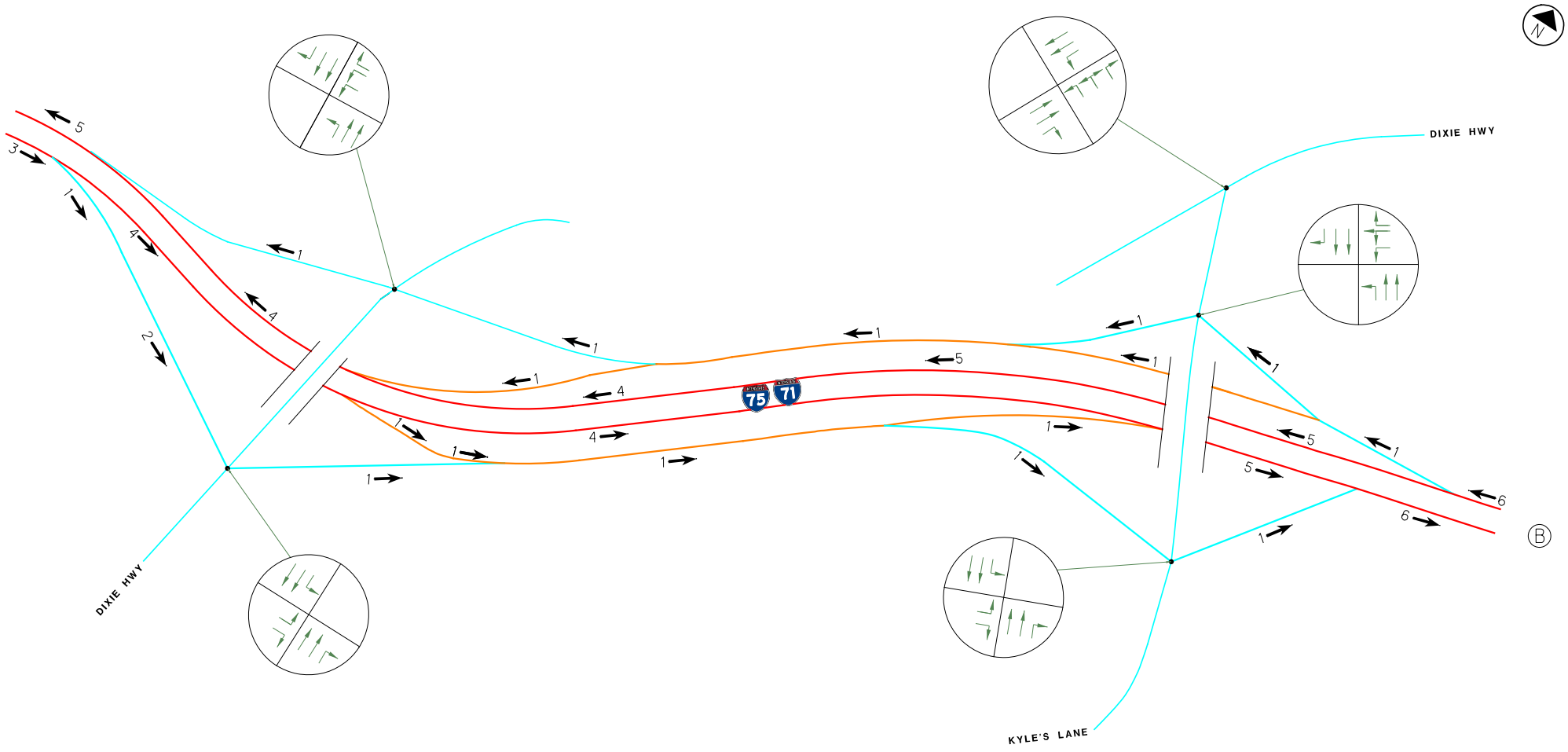


Figure 21: BSB Truck Traffic by Township – Model Traffic

Several observations are noted. First, truck traffic traveling through the entire region on IR 75 appears to be about 4% higher than that noted from the StreetLight analysis. Second, passenger car traffic from Montgomery County is over-represented and passenger car traffic from Warren County is under-represented in the model when compared to the StreetLight analysis. Third, the truck traffic coming from the Cincinnati airport (which is given its own zone) is generally missing from the StreetLight analysis. Initial thoughts are that the freight companies located near the airport are missing from StreetLight's LBS dataset.



LEGEND

= INTERSECTION CONFIGURATION

X = # OF LANES

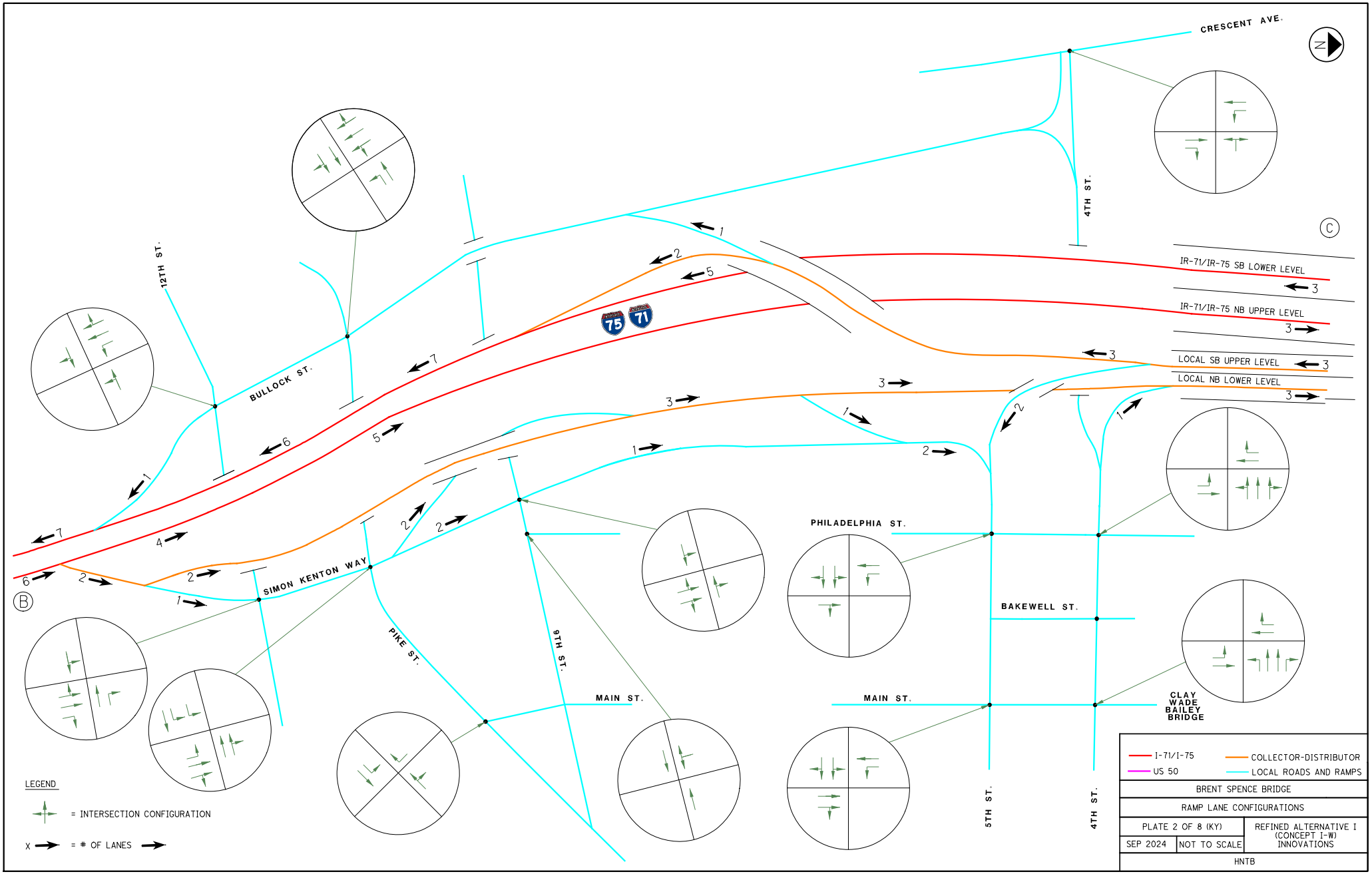
I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS

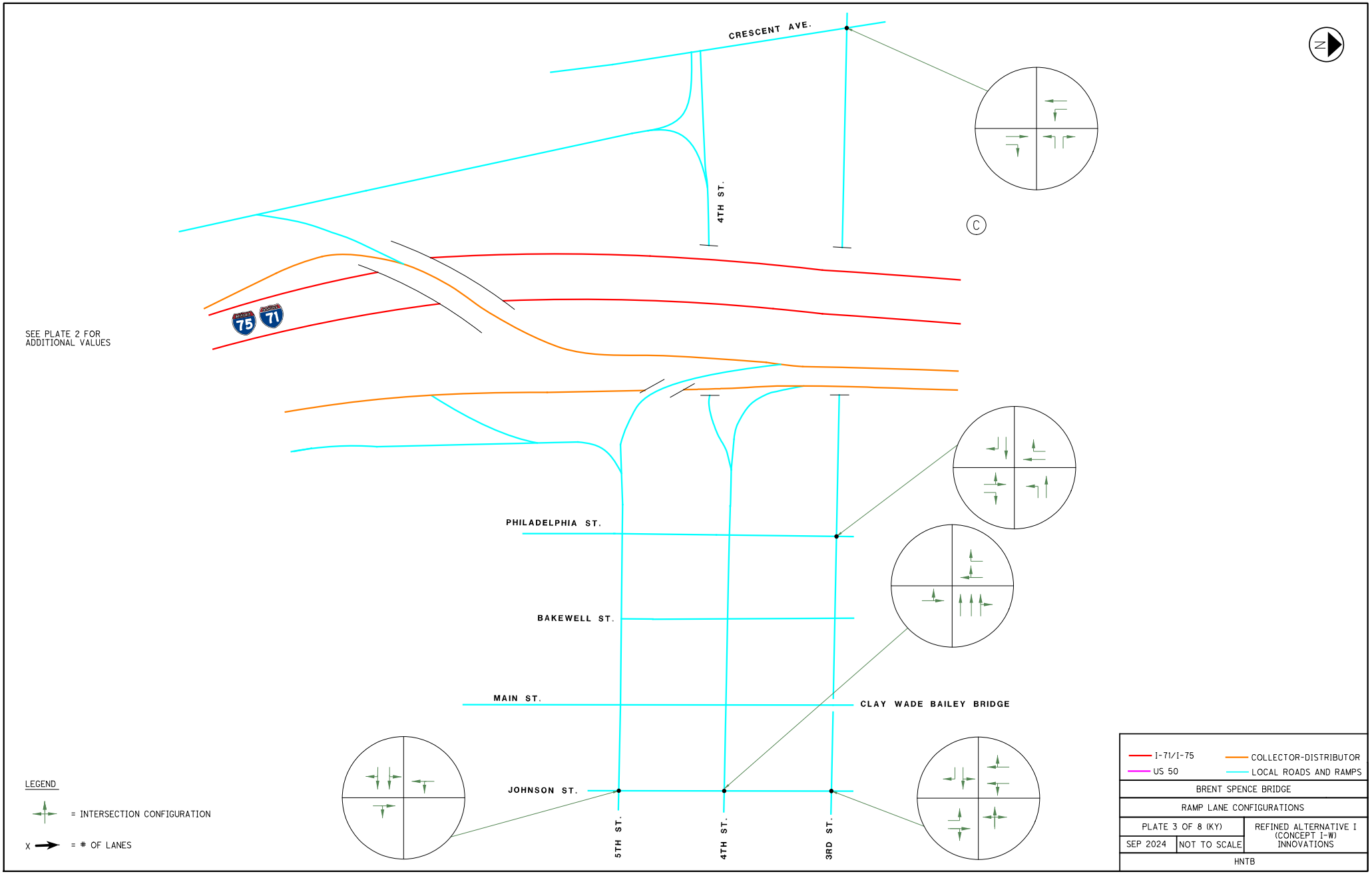
BRENT SPENCE BRIDGE

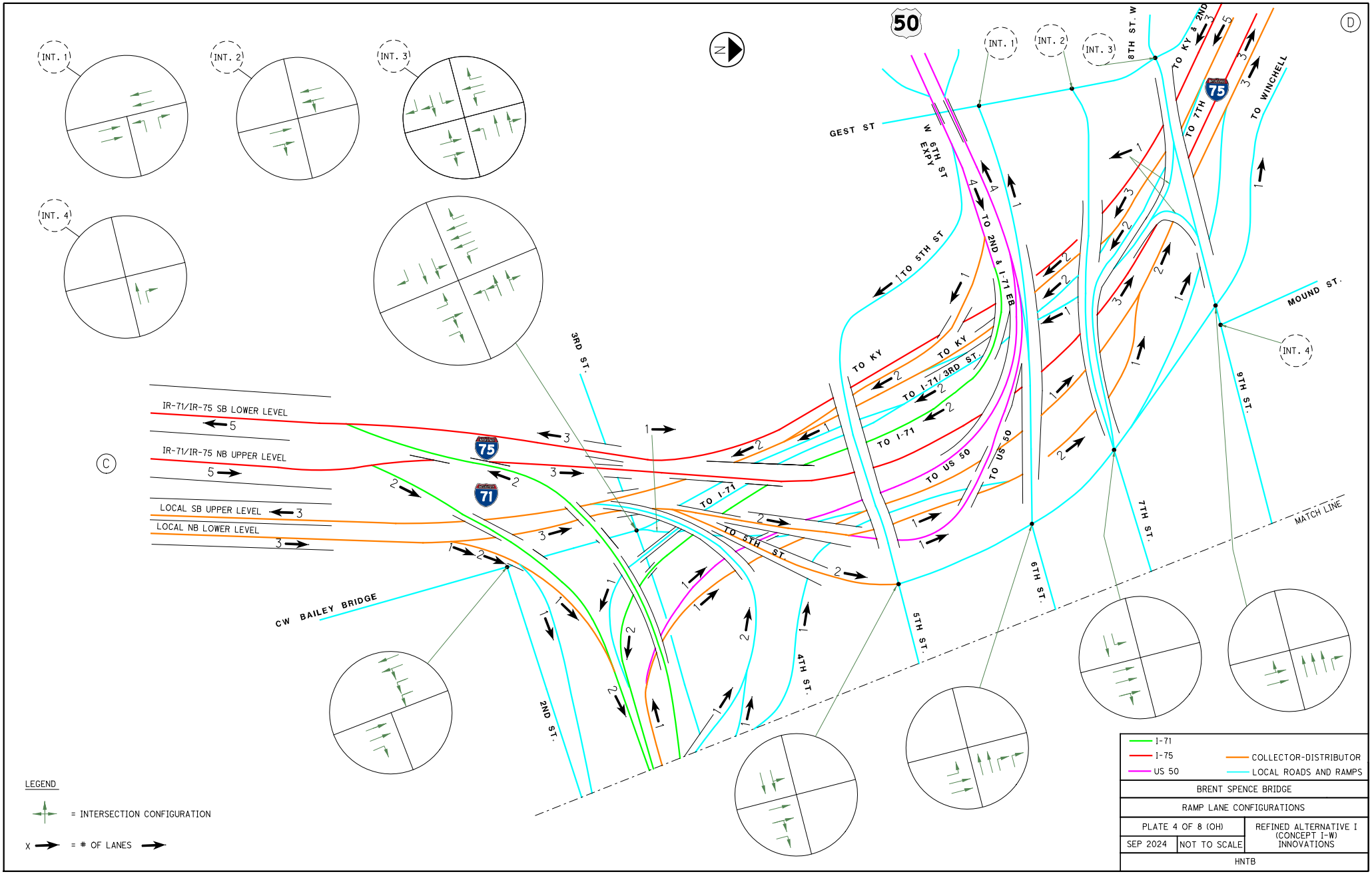
RAMP LANE CONFIGURATIONS

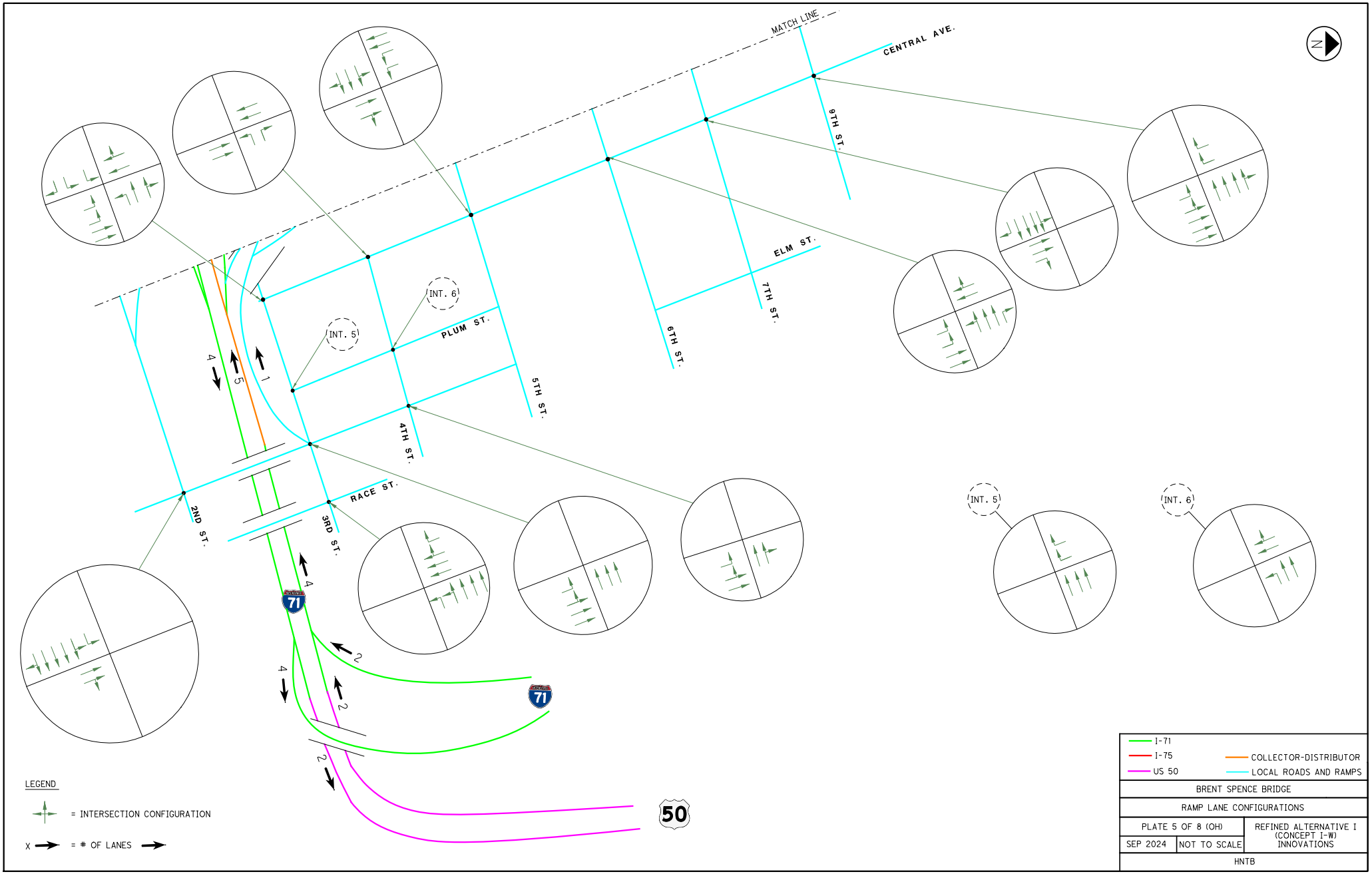
PLATE 1 OF 8 (KY)		REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024	NOT TO SCALE	

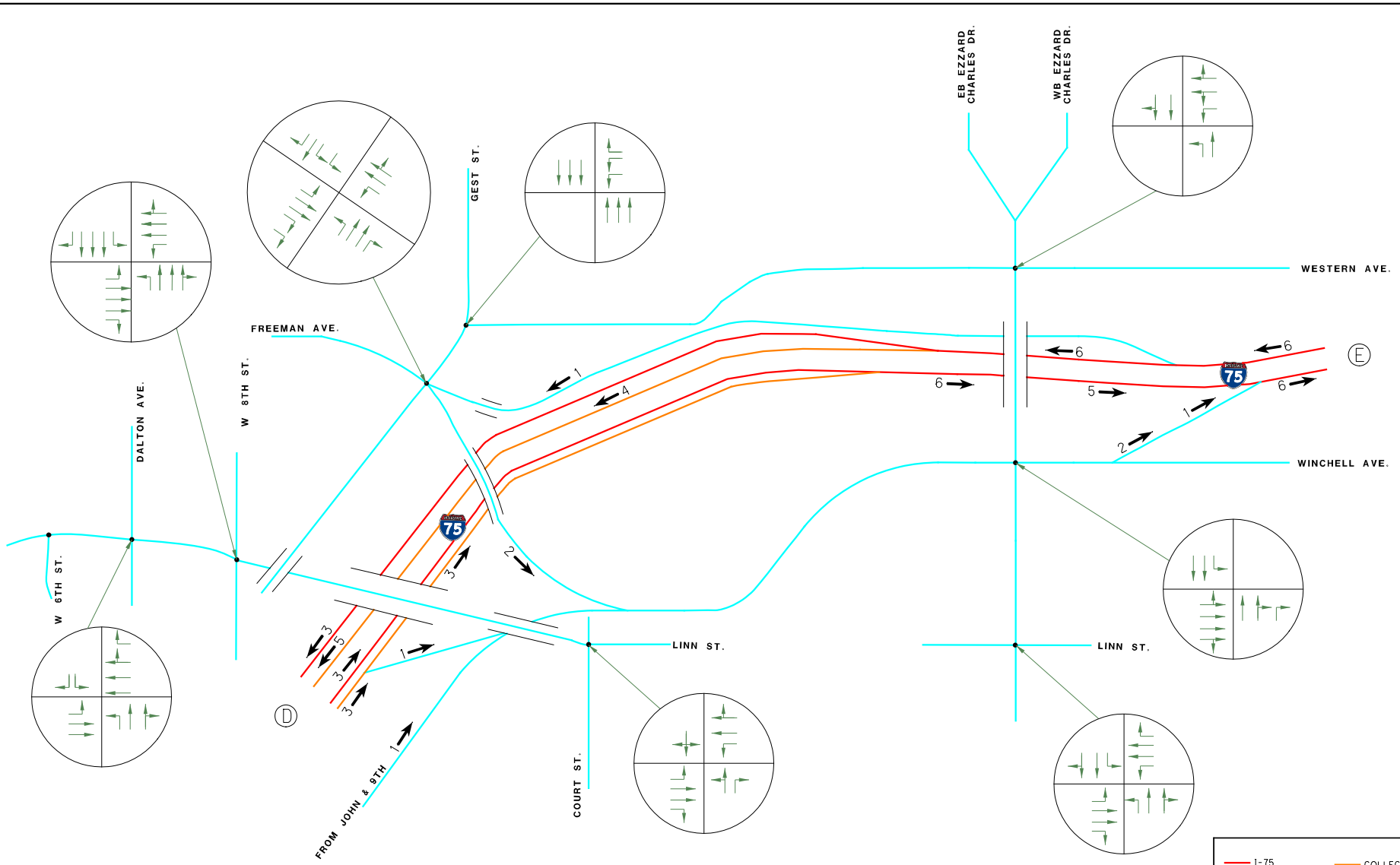
HNTB


CRESCENT AVE.
4TH ST.
12TH ST.
BULLOCK ST.
IR-71/IR-75 SB LOWER LEVEL
IR-71/IR-75 NB UPPER LEVEL
LOCAL SB UPPER LEVEL
LOCAL NB LOWER LEVEL
SIMON KENTON WAY
PIKE ST.
9TH ST.
PHILADELPHIA ST.
BAKEWELL ST.
MAIN ST.
MAIN ST.
5TH ST.
4TH ST.
CLAY WADE BAILEY BRIDGE
LEGEND
= INTERSECTION CONFIGURATION
X = # OF LANES
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
RAMP LANE CONFIGURATIONS
PLATE 2 OF 8 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


CRESCENT AVE.
4TH ST.
C
SEE PLATE 2 FOR
ADDITIONAL VALUES
PHILADELPHIA ST.
BAKEWELL ST.
MAIN ST.
CLAY WADE BAILEY BRIDGE
JOHNSON ST.
5TH ST.
4TH ST.
3RD ST.
N
LEGEND
= INTERSECTION CONFIGURATION
X = # OF LANES
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
RAMP LANE CONFIGURATIONS
PLATE 3 OF 8 (KY)
REFINED ALTERNATIVE I
(CONCEPT I-W)
INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


INT. 1
INT. 2
INT. 3
INT. 4
N
50
C
D
IR-71/IR-75 SB LOWER LEVEL
IR-71/IR-75 NB UPPER LEVEL
LOCAL SB UPPER LEVEL
LOCAL NB LOWER LEVEL
CW BAILEY BRIDGE
GEST ST
W 6TH EXPY ST
TO 5TH ST
TO 2ND & I-71 EB
TO KY
TO KY
TO I-71/3RD ST
TO I-71
TO US 50
TO US 50
TO I-71
TO 5TH ST
3RD ST.
2ND ST.
4TH ST.
5TH ST.
6TH ST.
7TH ST.
8TH ST. W
9TH ST.
MOUND ST.
TO KY & 2ND
TO 7TH
TO WINCHELL
MATCH LINE
LEGEND
= INTERSECTION CONFIGURATION
X = # OF LANES
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
RAMP LANE CONFIGURATIONS
PLATE 4 OF 8 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB


MATCH LINE
CENTRAL AVE.
9TH ST.
ELM ST.
7TH ST.
6TH ST.
PLUM ST.
5TH ST.
4TH ST.
RACE ST.
2ND ST.
3RD ST.
INT. 5
INT. 6
INT. 5
INT. 6
4
5
1
4
2
2
2
71
71
50
N
LEGEND
= INTERSECTION CONFIGURATION
X = # OF LANES
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
RAMP LANE CONFIGURATIONS
PLATE 5 OF 8 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

= INTERSECTION CONFIGURATION

X = # OF LANES

I-75

US 50

COLLECTOR-DISTRIBUTOR

LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

RAMP LANE CONFIGURATIONS

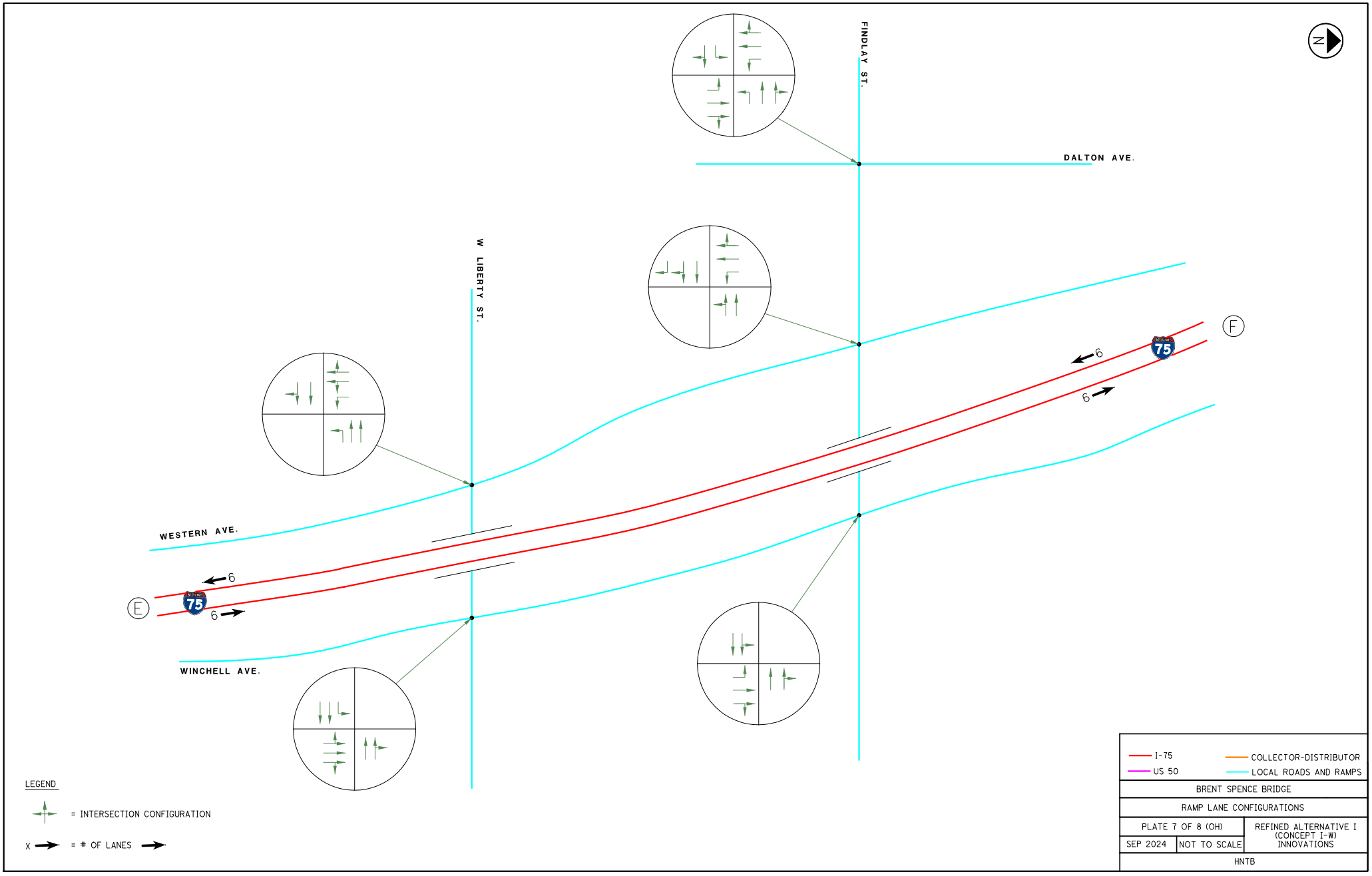
PLATE 6 OF 8 (OH)

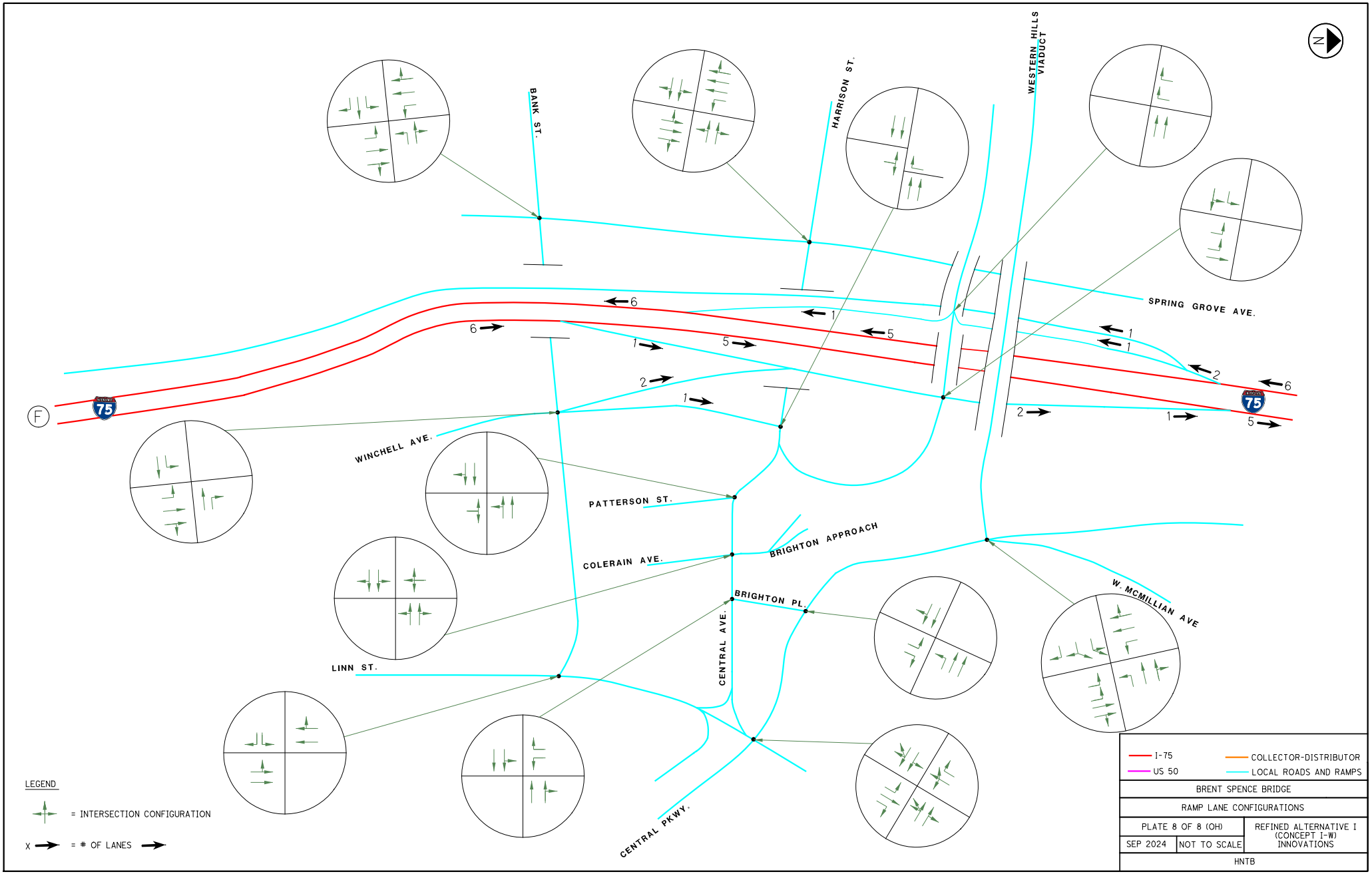
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

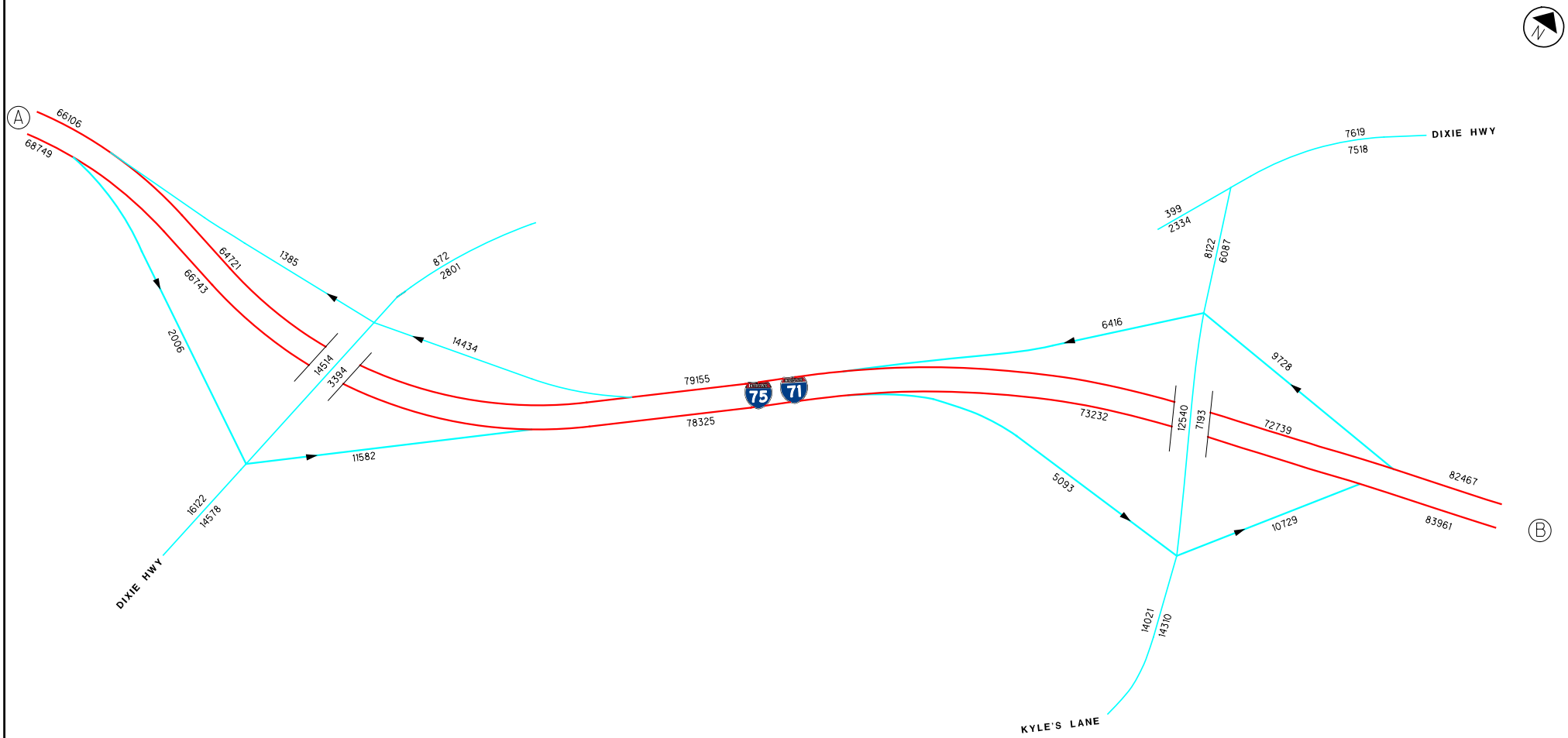
SEP 2024

NOT TO SCALE

HNTB


FINDLAY ST.
DALTON AVE.
W LIBERTY ST.
WESTERN AVE.
WINCHELL AVE.
E
F
6
6
6
6
75
75
N
LEGEND
= INTERSECTION CONFIGURATION
X = # OF LANES
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
RAMP LANE CONFIGURATIONS
PLATE 7 OF 8 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB

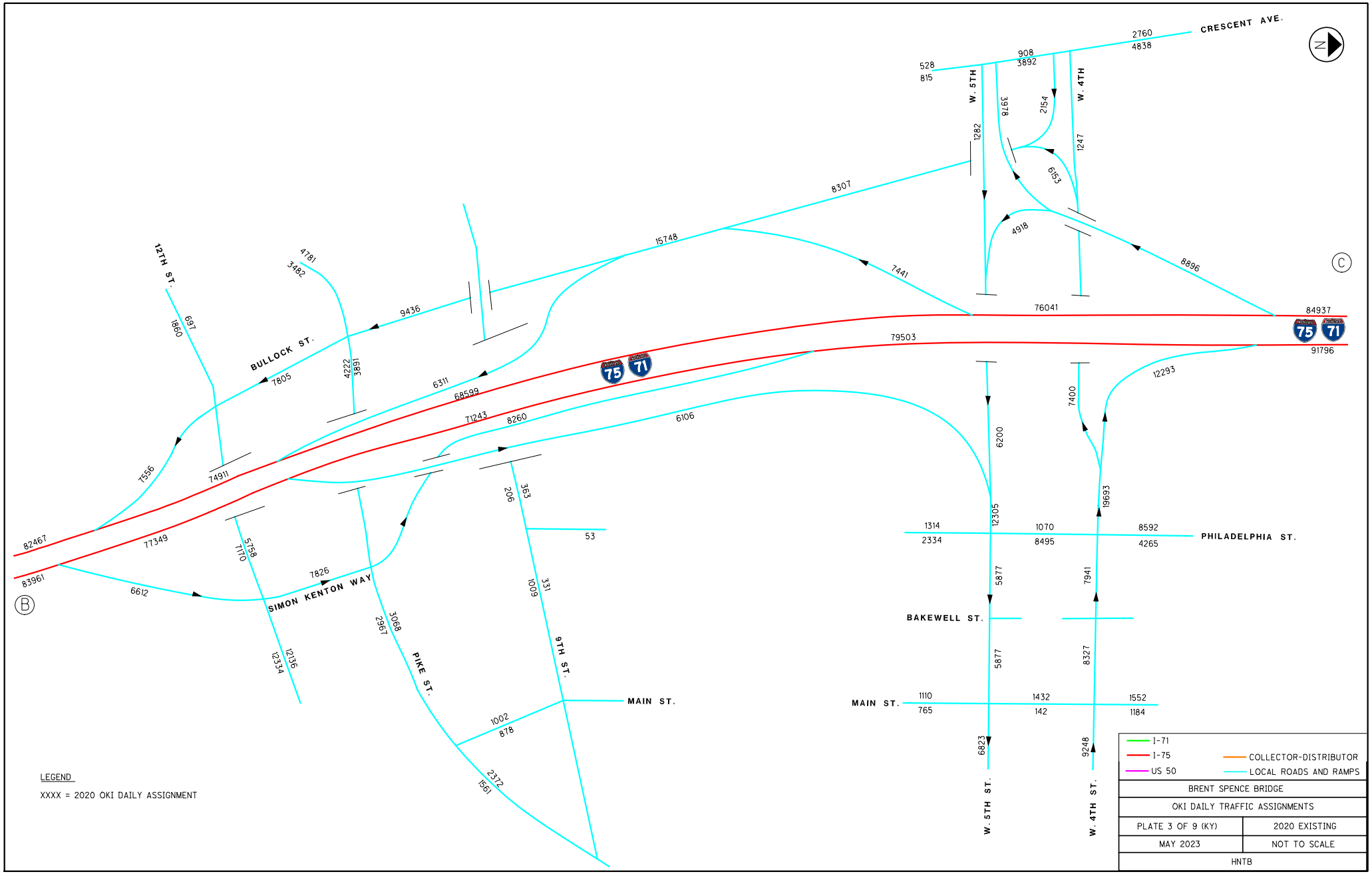

BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APPROACH
BRIGHTON PL.
W. MCMILLIAN AVE
CENTRAL AVE.
LINN ST.
CENTRAL PKWY.
F
75
N
LEGEND
= INTERSECTION CONFIGURATION
X = # OF LANES
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
RAMP LANE CONFIGURATIONS
PLATE 8 OF 8 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB

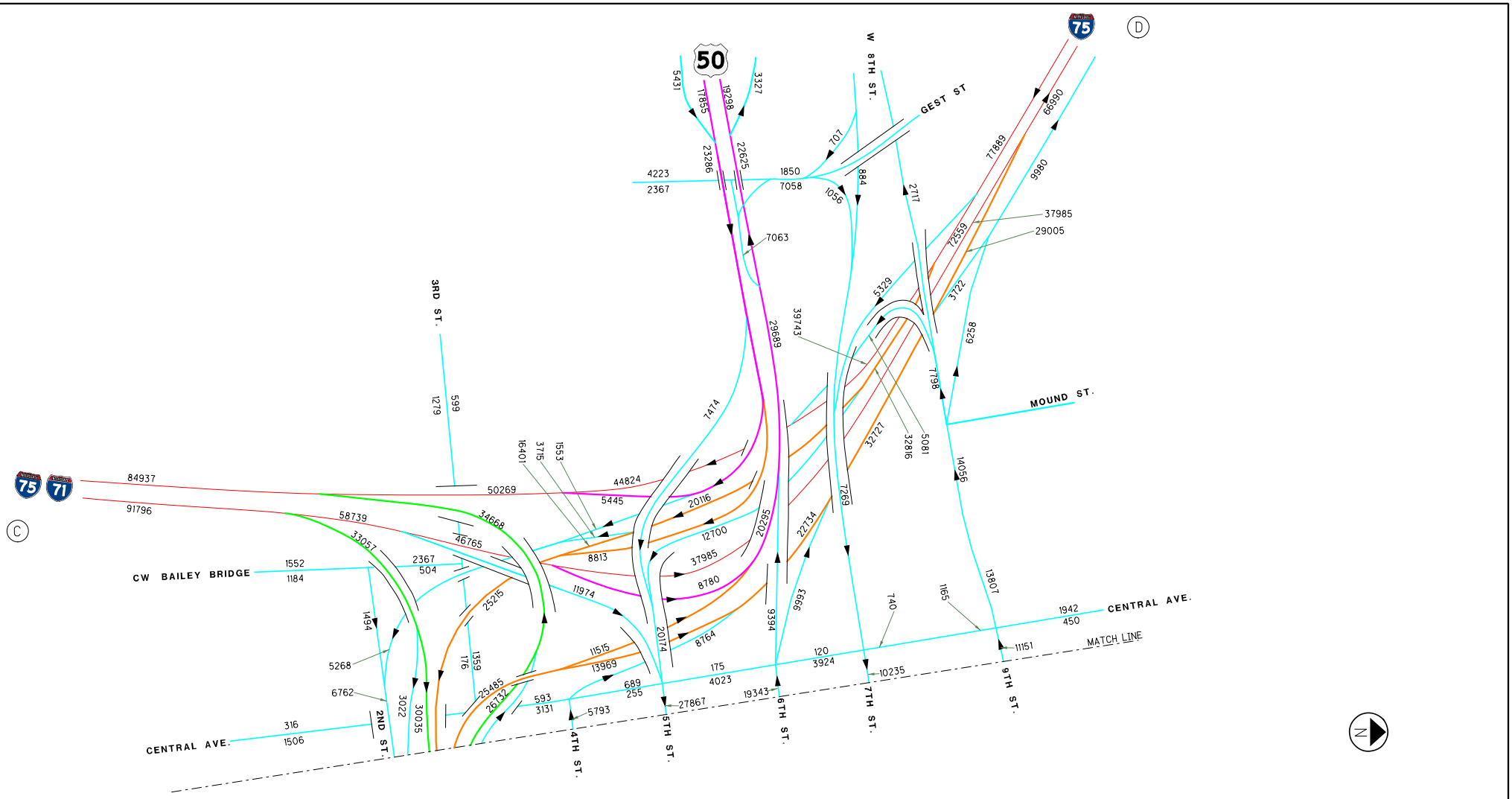


LEGEND

XXXX = 2020 OKI DAILY ASSIGNMENT

I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 2 OF 9 (KY)	2020 EXISTING
MAY 2023	NOT TO SCALE
HNTB	

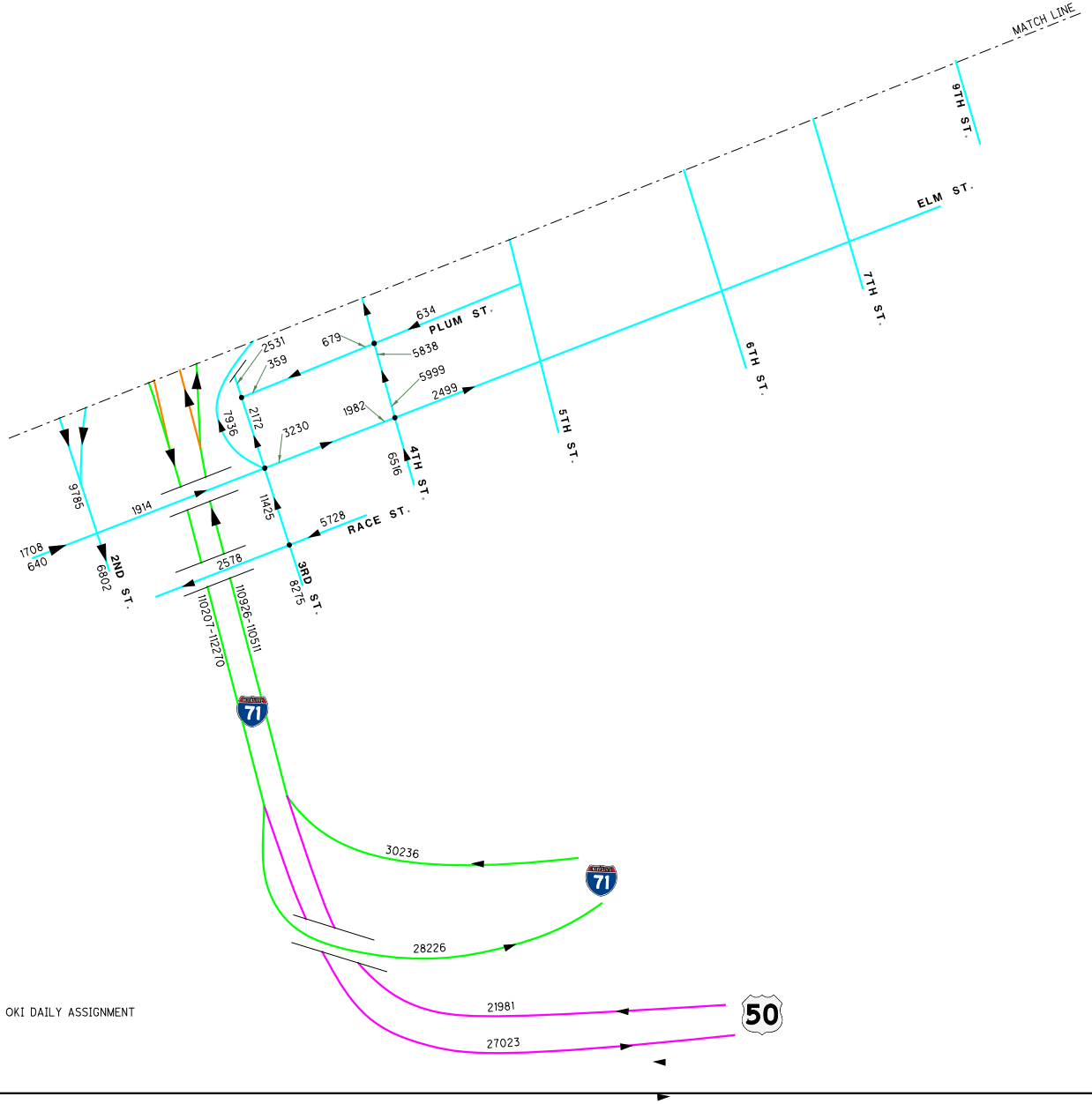

CRESCENT AVE.
W. 5TH
W. 4TH
BULLOCK ST.
12TH ST.
SIMON KENTON WAY
PIKE ST.
9TH ST.
MAIN ST.
BAKEWELL ST.
PHILADELPHIA ST.
W. 5TH ST.
W. 4TH ST.
75
71
82467
83961
77349
74911
68599
71243
79503
76041
84937
91796
15748
8307
8896
7441
6106
6311
9436
4781
3482
697
1860
7805
4222
3891
7556
6612
5758
7170
7826
12136
12334
3068
2967
1002
878
2372
1561
1009
331
206
363
53
6200
12305
1314
2334
1070
8495
8592
4265
5877
5877
1110
765
1432
142
1552
1184
6823
7400
19693
7941
8327
9248
12293
1282
3978
2154
1247
6153
4918
528
815
908
3892
2760
4838
B
C
LEGEND
XXXX = 2020 OKI DAILY ASSIGNMENT
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 3 OF 9 (KY)
2020 EXISTING
MAY 2023
NOT TO SCALE
HNTB

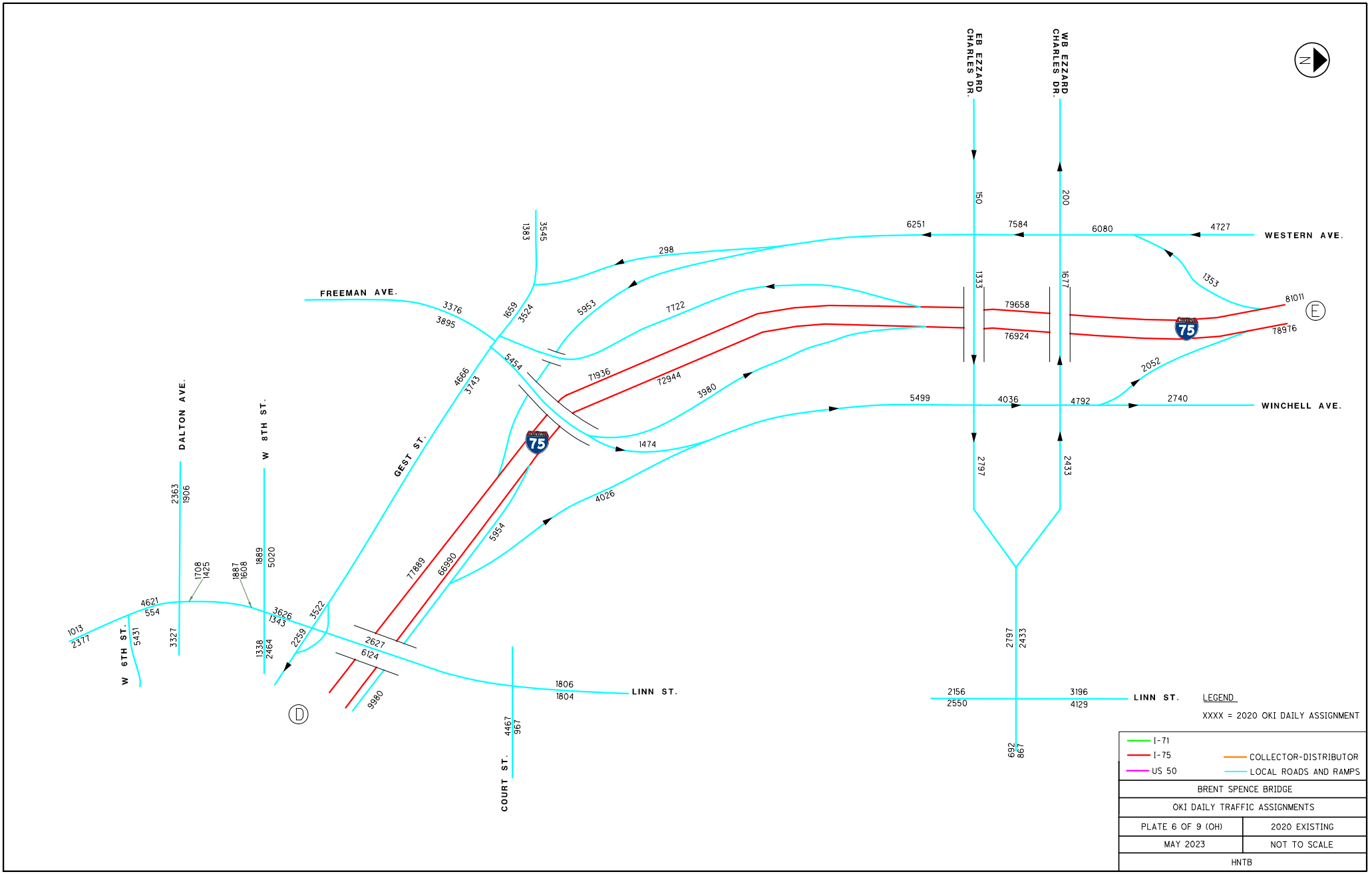


LEGEND

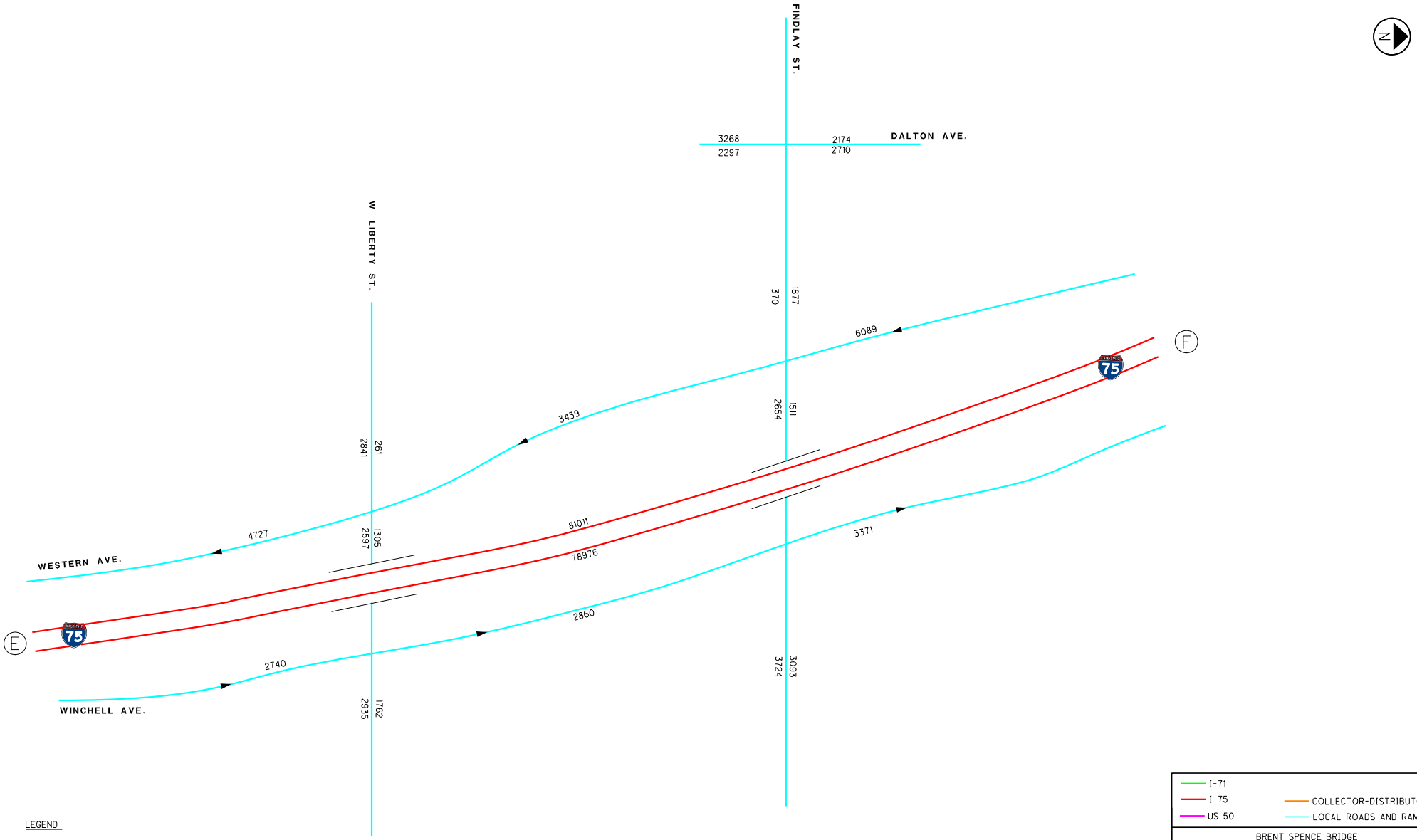
XXXX = 2020 OKI DAILY ASSIGNMENT

I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 4 OF 9 (OH)	2020 EXISTING
MAY 2023	NOT TO SCALE
HNTB	


MATCH LINE
N
9TH ST.
ELM ST.
7TH ST.
6TH ST.
5TH ST.
4TH ST.
3RD ST.
2ND ST.
PLUM ST.
RACE ST.
634
679
2531
359
5838
5999
2499
1982
7936
2172
3230
6516
9785
1914
11425
5728
1708
640
6802
2578
8275
110207-112270
110926-110511
71
30236
28226
21981
27023
50
LEGEND
XXXX = 2020 OKI DAILY ASSIGNMENT
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 5 OF 9 (OH)
2020 EXISTING
MAY 2023
NOT TO SCALE
HNTB



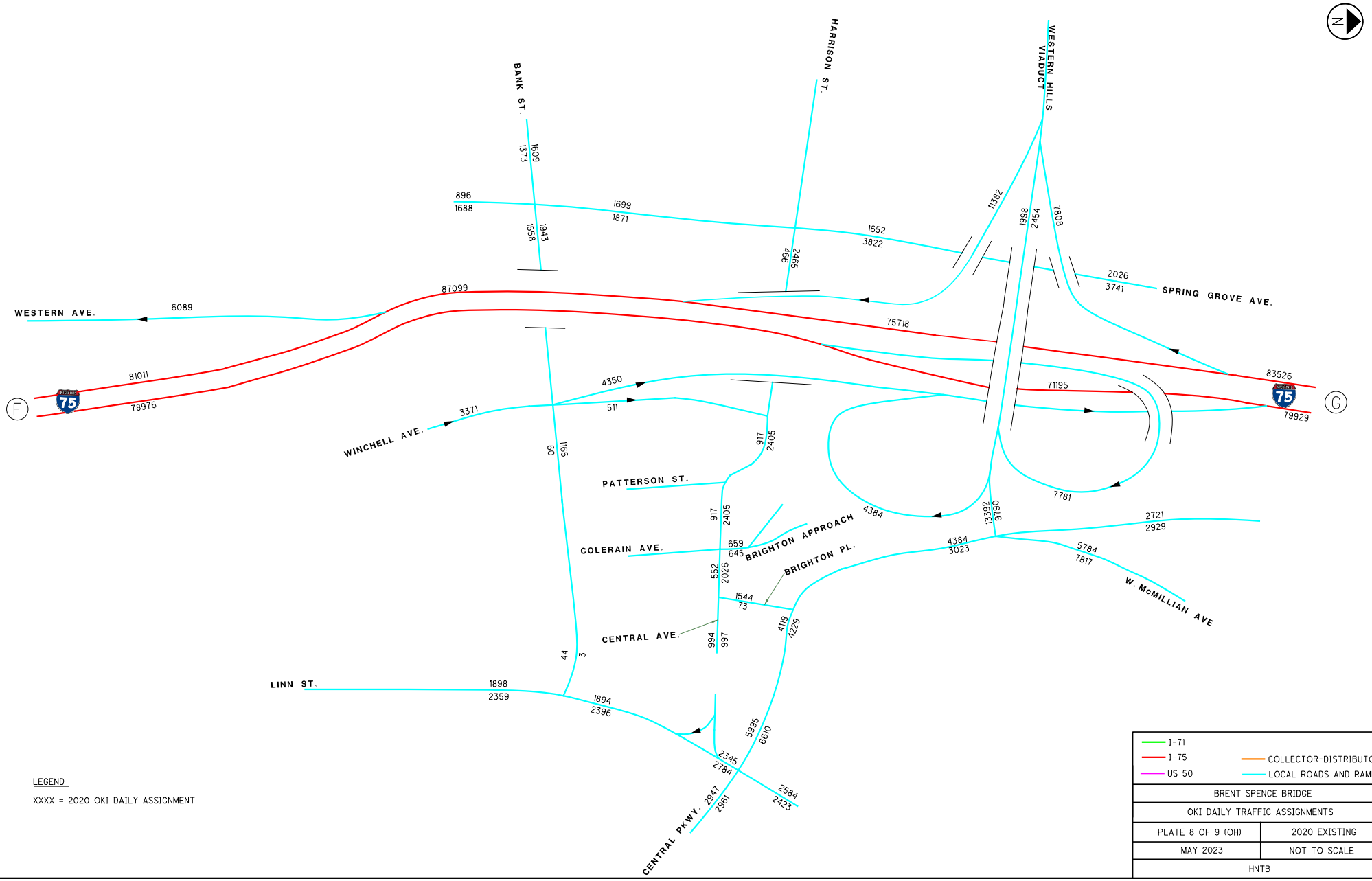
EB EZZARD CHARLES DR.
WB EZZARD CHARLES DR.
WESTERN AVE.
FREEMAN AVE.
WINCHELL AVE.
DALTON AVE.
W 8TH ST.
GEST ST.
W 6TH ST.
LINN ST.
COURT ST.
LINN ST.
75
75
E
D
150
200
6251
7584
6080
4727
1383
3545
298
1333
1677
1353
81011
3376
3895
1659
3524
5953
7722
79658
76924
78976
5454
71936
72944
3980
2052
4666
3743
5499
4036
4792
2740
1474
2797
2433
4026
5954
77889
66990
2363
1906
1889
5020
1708
1425
1887
1608
4621
554
3626
1343
3522
1013
2377
5431
3327
1338
2464
2259
2627
6124
9980
1806
1804
4467
967
2797
2433
2156
2550
3196
4129
692
867
LEGEND
XXXX = 2020 OKI DAILY ASSIGNMENT
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 6 OF 9 (OH)
2020 EXISTING
MAY 2023
NOT TO SCALE
HNTB



LEGEND

XXXX = 2020 OKI DAILY ASSIGNMENT

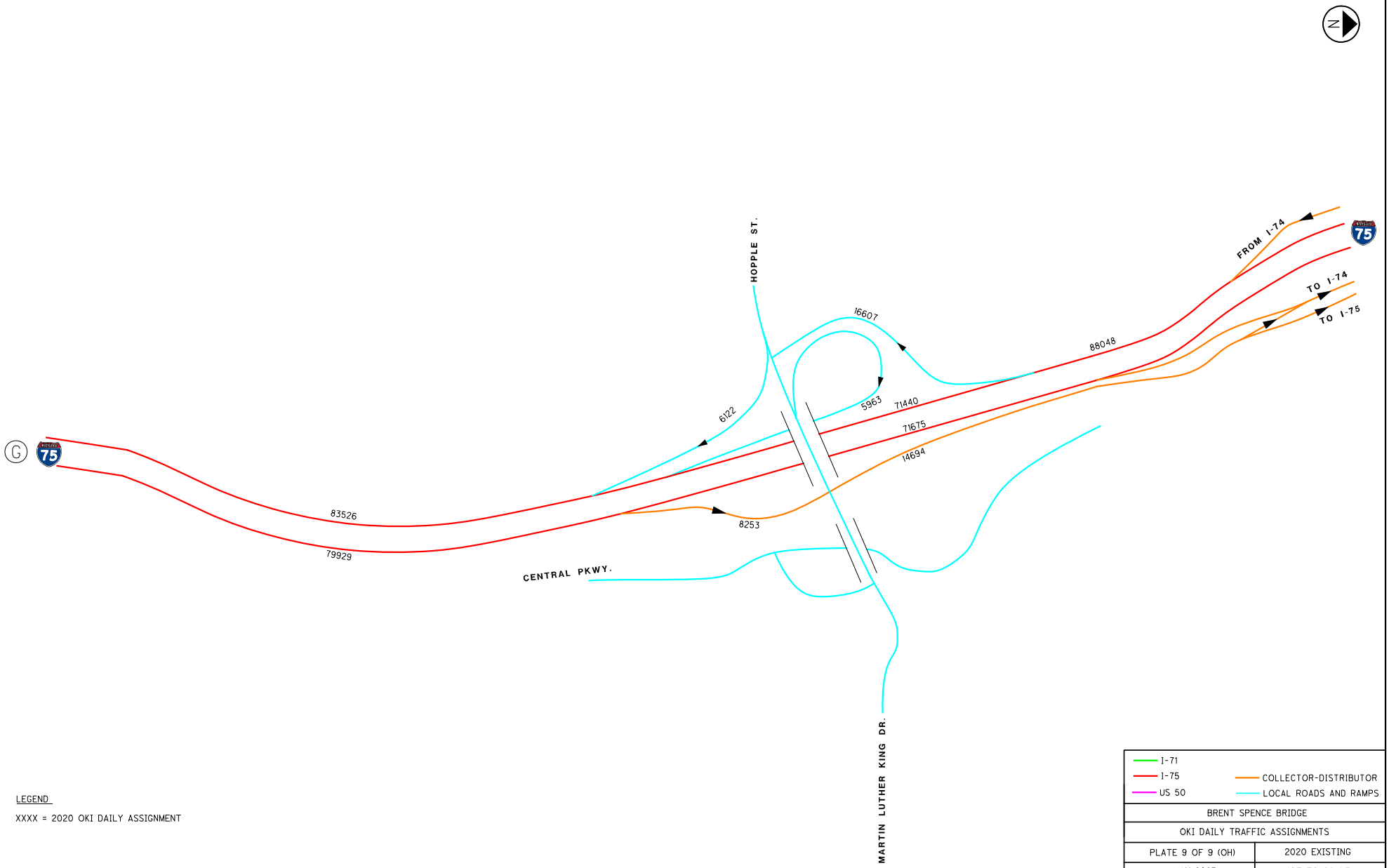
I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 7 OF 9 (OH)	2020 EXISTING
MAY 2023	NOT TO SCALE
HNTB	

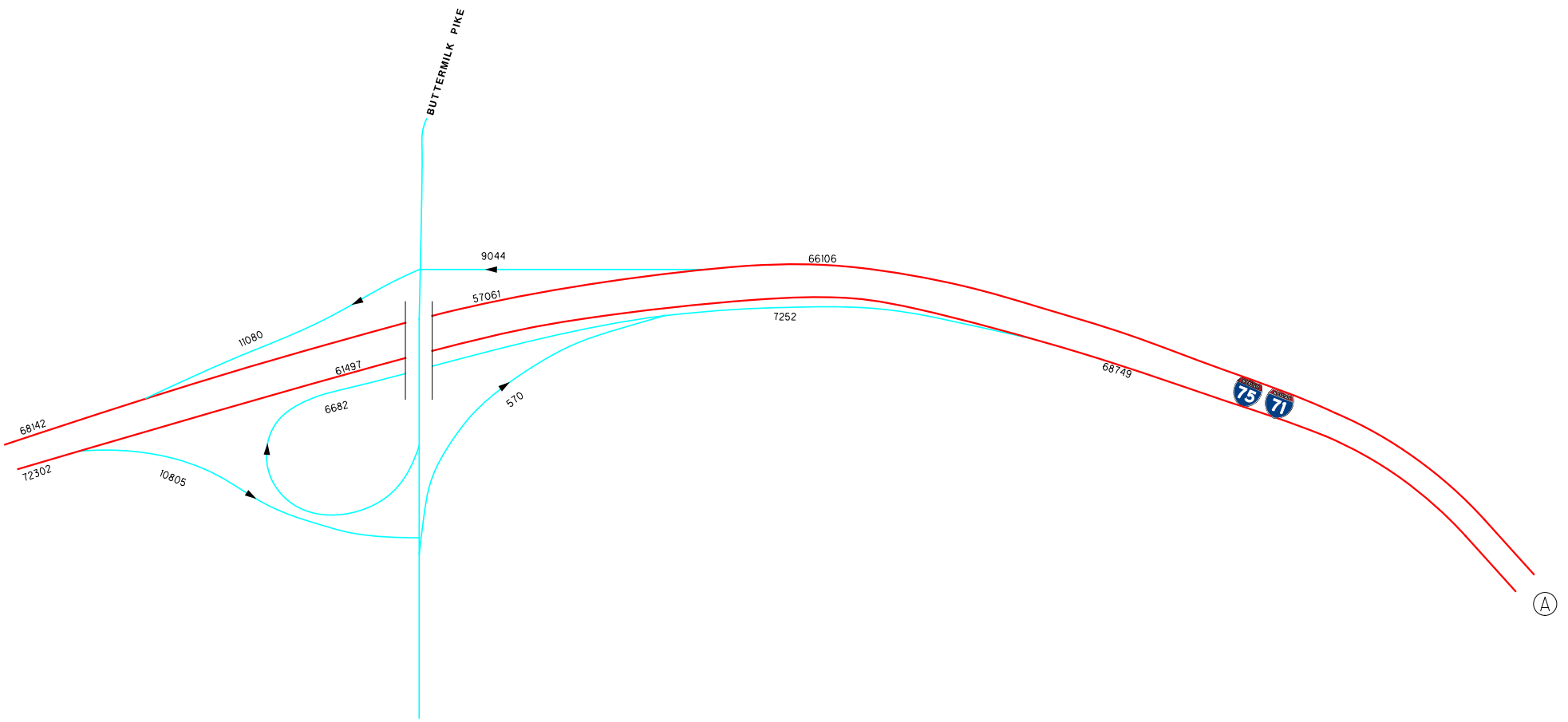


LEGEND

XXXX = 2020 OKI DAILY ASSIGNMENT

I-71	COLLECTOR-DISTRIBUTOR
I-75	LOCAL ROADS AND RAMPS
US 50	
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 8 OF 9 (OH)	2020 EXISTING
MAY 2023	NOT TO SCALE
HNTB	


N
HOPPLE ST.
FROM I-74
TO I-74
TO I-75
16607
88048
6122
5963
71440
71675
14694
83526
79929
8253
CENTRAL PKWY.
MARTIN LUTHER KING DR.
G
75
LEGEND
XXXX = 2020 OKI DAILY ASSIGNMENT
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 9 OF 9 (OH)
2020 EXISTING
MAY 2023
NOT TO SCALE
HNTB



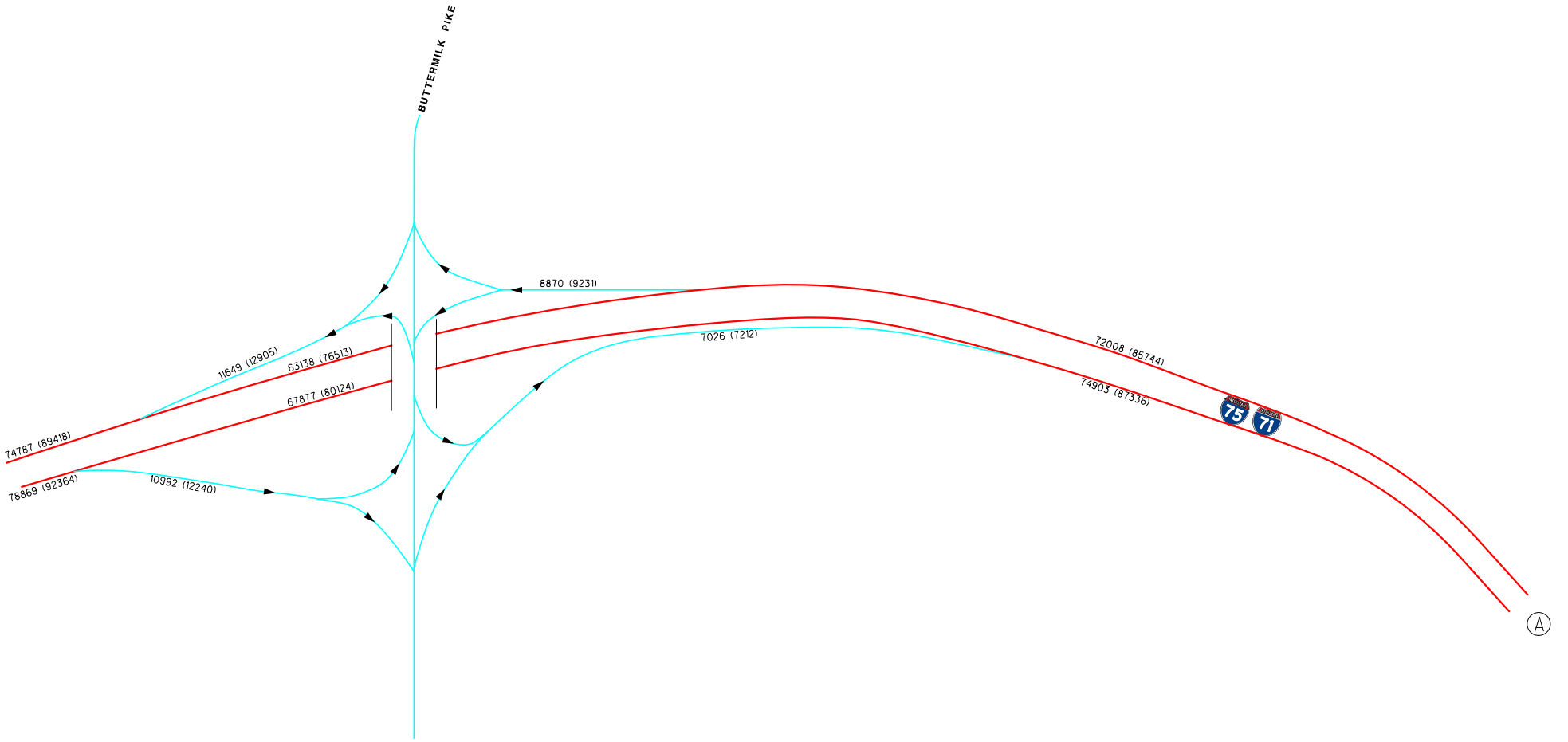
LEGEND

XXXX = 2020 OKI DAILY ASSIGNMENT

I-71	
I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 1 OF 9 (KY)	2020 EXISTING
MAY 2023	NOT TO SCALE
HNTB	

NOTE

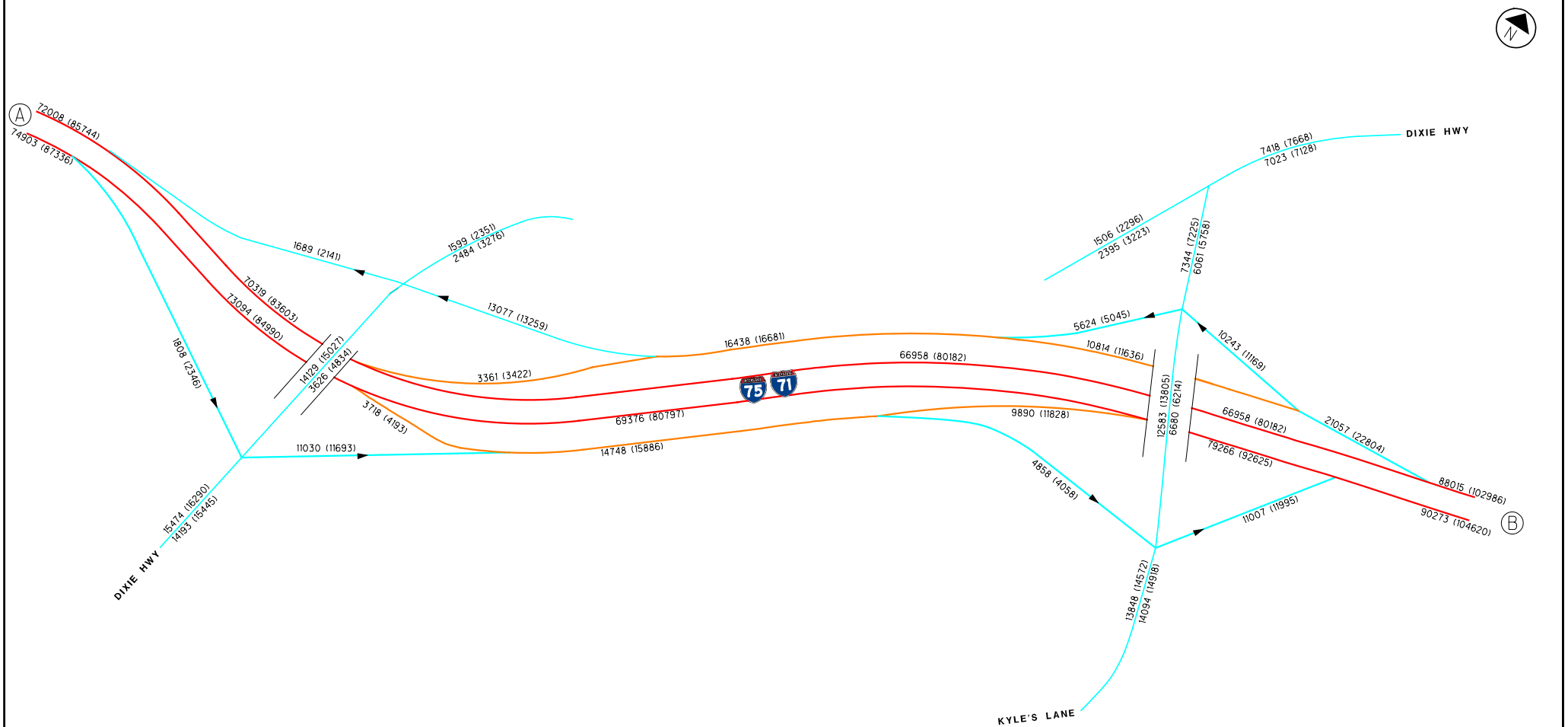
BUTTERMILK DDI CONFIGURATION IS NOT INCLUDED IN BRENT SPENCE BRIDGE PROJECT.



LEGEND

XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)

I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 1 OF 10 (KY)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	



LEGEND

XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)

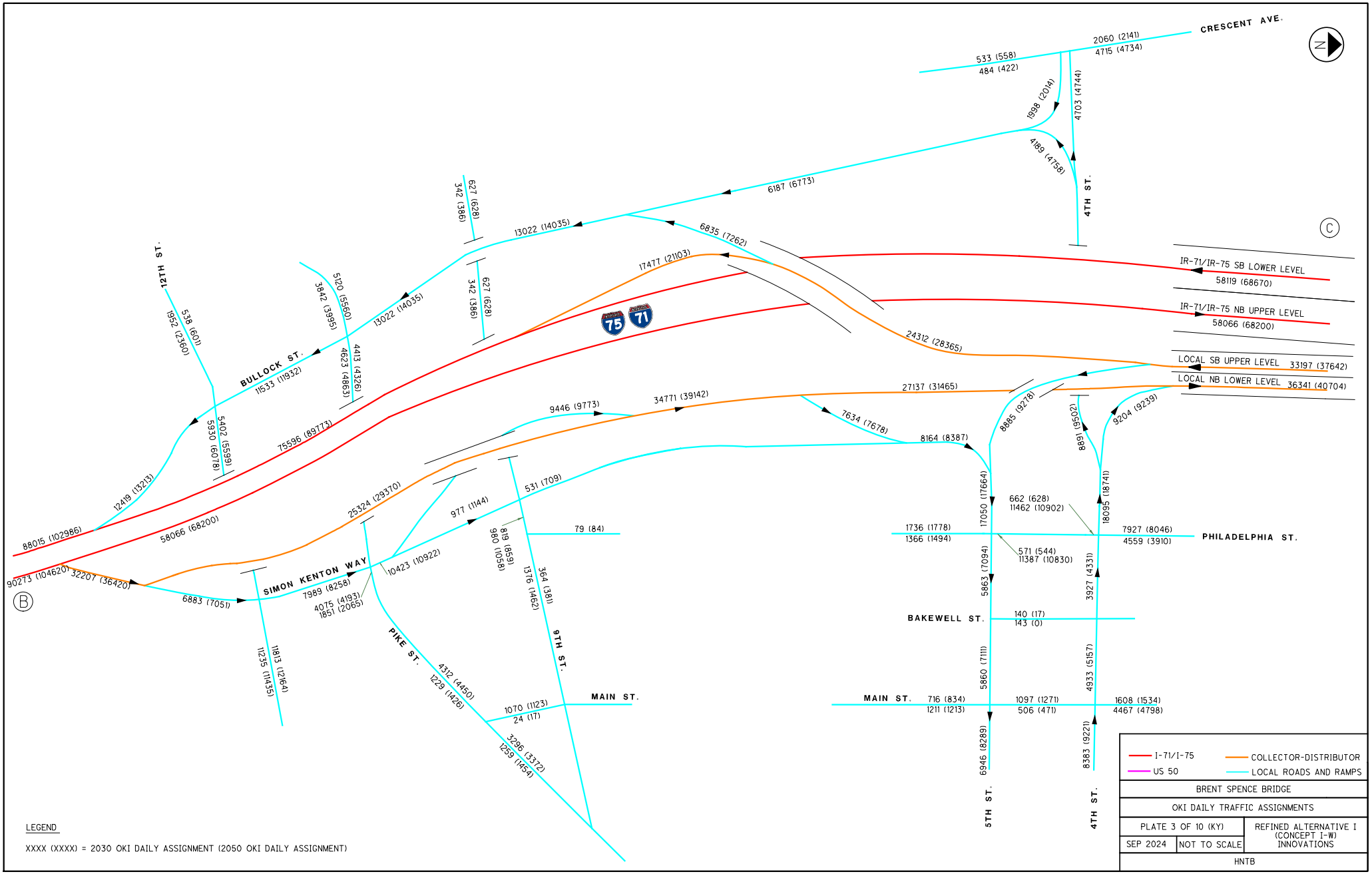
I-71/I-75	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS

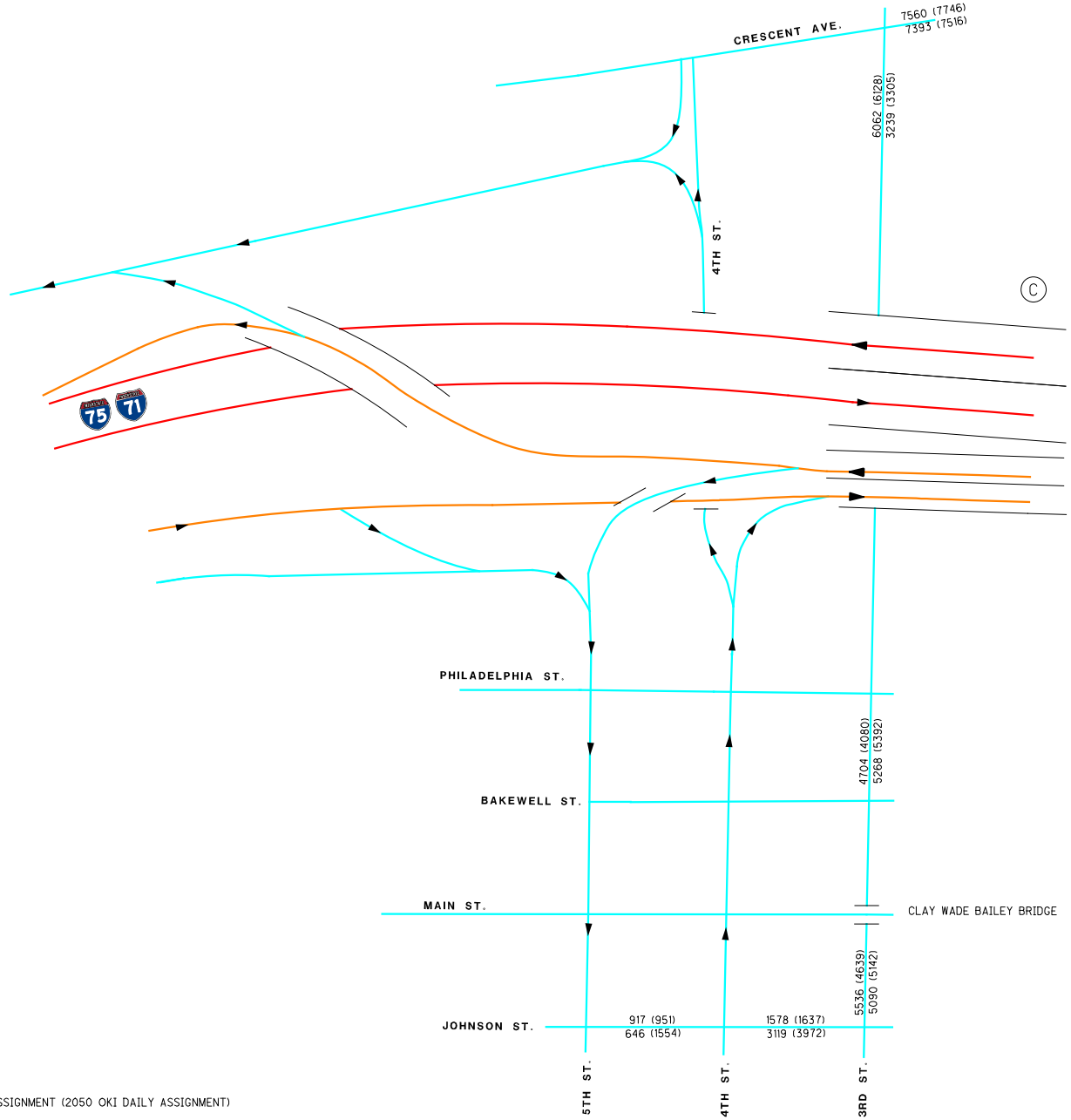
BRENT SPENCE BRIDGE

OKI DAILY TRAFFIC ASSIGNMENTS

PLATE 2 OF 10 (KY)		REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024	NOT TO SCALE	

HNTB


CRESCENT AVE.
533 (558)
484 (422)
2060 (2141)
4715 (4734)
1998 (2014)
4703 (4744)
4189 (4758)
4TH ST.
6187 (6773)
627 (628)
342 (386)
13022 (14035)
6835 (7262)
17477 (21103)
IR-71/IR-75 SB LOWER LEVEL
58119 (68670)
IR-71/IR-75 NB UPPER LEVEL
58066 (68200)
24312 (28365)
LOCAL SB UPPER LEVEL 33197 (37642)
LOCAL NB LOWER LEVEL 36341 (40704)
12TH ST.
1952 (2360)
538 (601)
5120 (5560)
3842 (3995)
13022 (14035)
627 (628)
342 (386)
BULLOCK ST.
11533 (11932)
4623 (4863)
4413 (4326)
5930 (6078)
5402 (5599)
75596 (89773)
12419 (13213)
88015 (102986)
58066 (68200)
90273 (104620)
32207 (36420)
6883 (7051)
SIMON KENTON WAY
7989 (8258)
4075 (4193)
185 (2065)
10423 (10922)
977 (1144)
25324 (29370)
9446 (9773)
34771 (39142)
27137 (31465)
7634 (7678)
8164 (8387)
531 (709)
819 (859)
980 (1058)
79 (84)
1376 (1462)
364 (381)
9TH ST.
PIKE ST.
4312 (4450)
1229 (1426)
11813 (12164)
11235 (11435)
1070 (1123)
24 (17)
MAIN ST.
3296 (3372)
1259 (1454)
8885 (9218)
8891 (9502)
9204 (9239)
17050 (17664)
18095 (18741)
662 (628)
11462 (10902)
1736 (1778)
1366 (1494)
7927 (8046)
4559 (3910)
PHILADELPHIA ST.
571 (544)
11387 (10830)
5863 (7094)
3927 (4331)
BAKEWELL ST.
140 (17)
143 (0)
5860 (7111)
4933 (5157)
MAIN ST.
716 (834)
1211 (1213)
1097 (1271)
506 (471)
1608 (1534)
4467 (4798)
6946 (8289)
8383 (9221)
5TH ST.
4TH ST.
I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 3 OF 10 (KY)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB
LEGEND
XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)



SEE PLATE 3 FOR ADDITIONAL VALUES

LEGEND

XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)

I-71/I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS

BRENT SPENCE BRIDGE

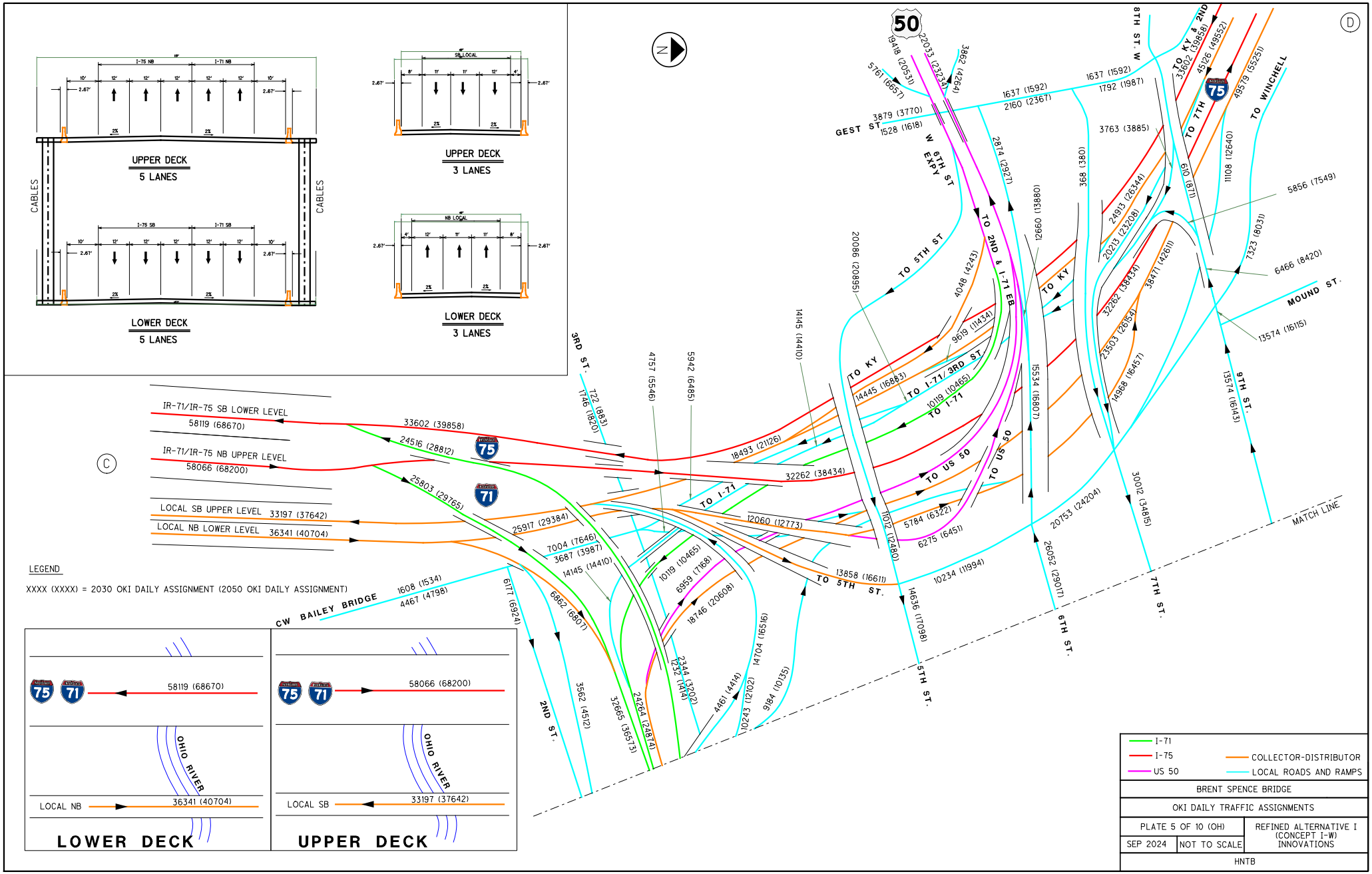
OKI DAILY TRAFFIC ASSIGNMENTS

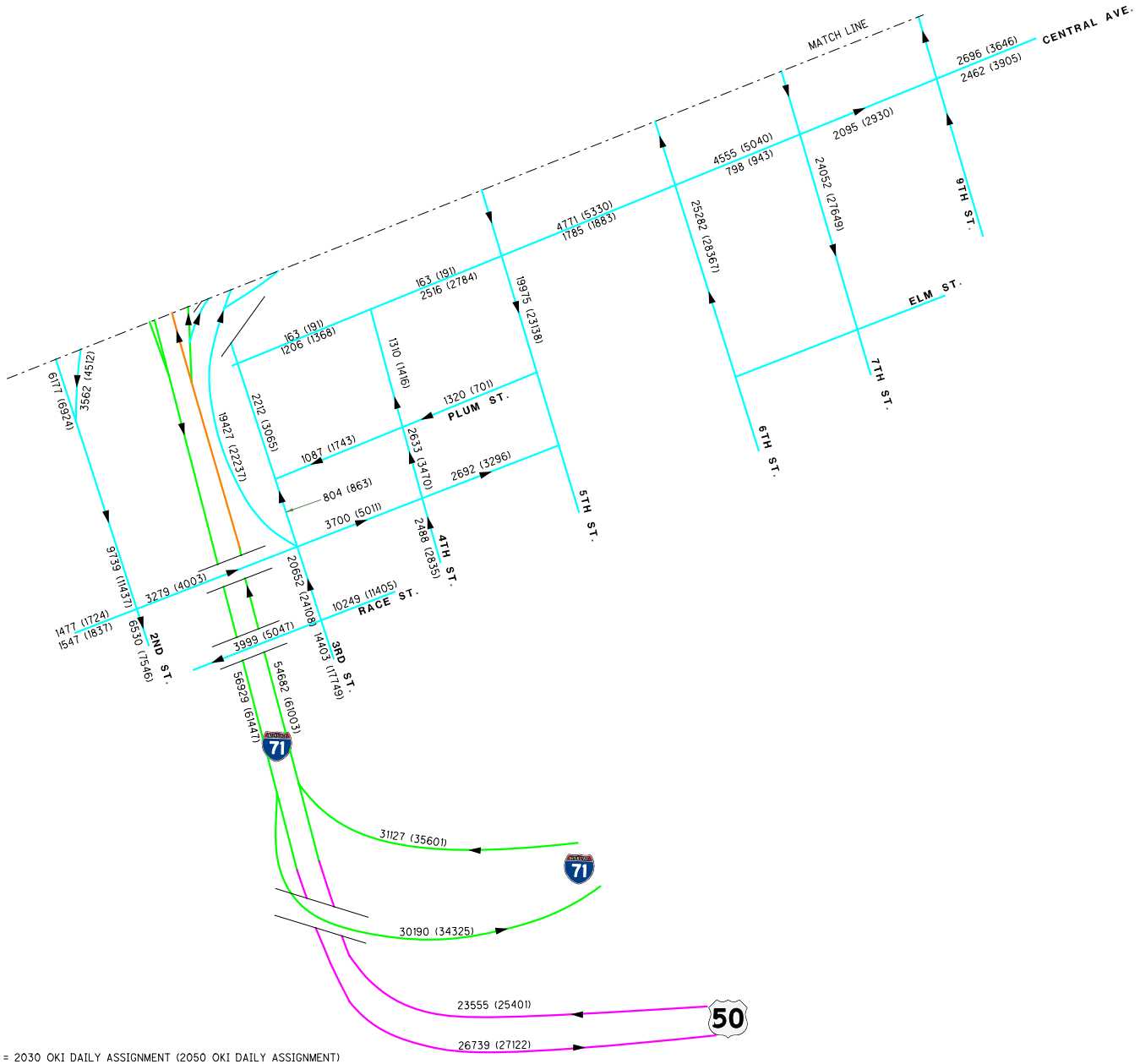
PLATE 4 OF 10 (KY)

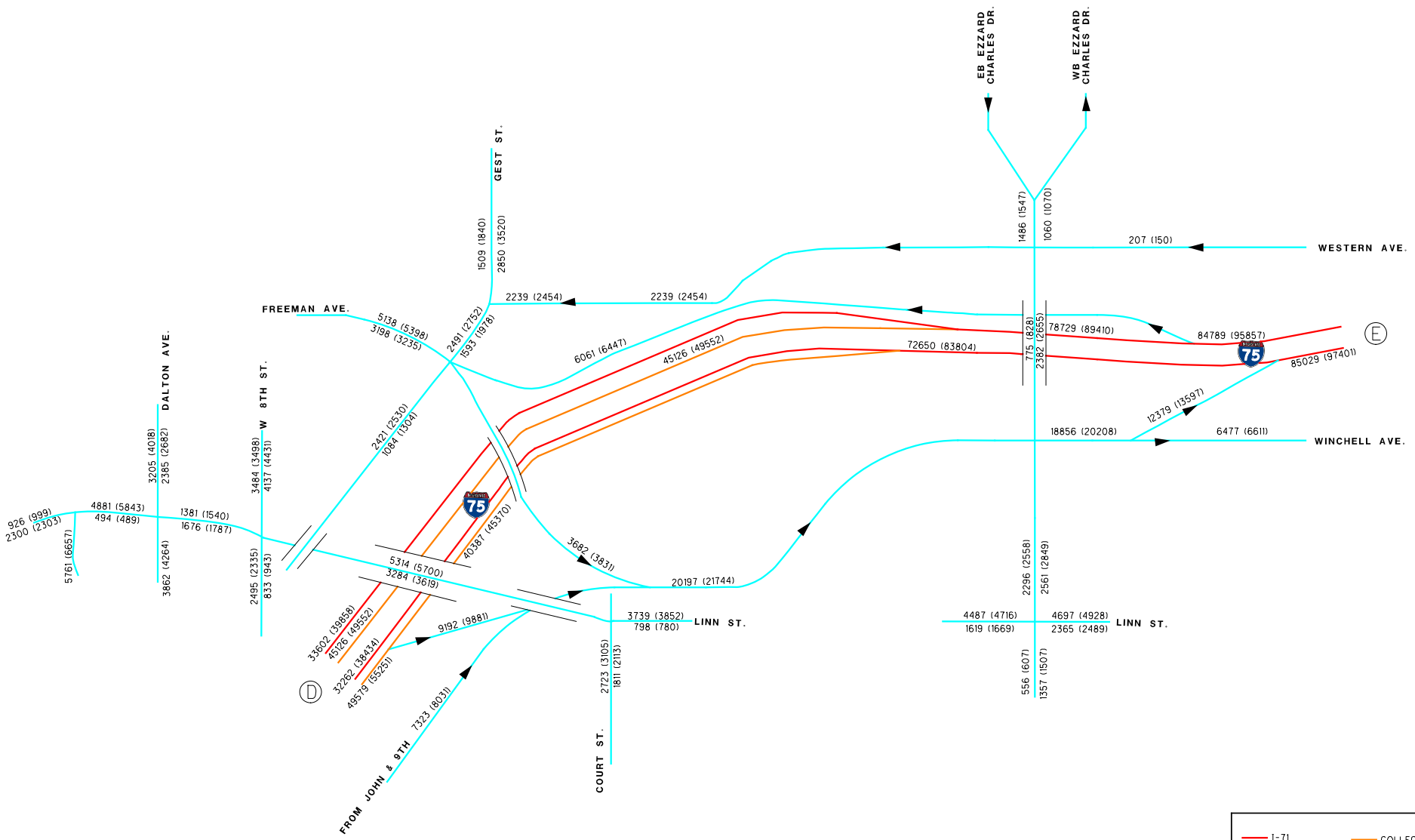
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS

SEP 2024 | NOT TO SCALE

HNTB


I-75 NB
I-71 NB
UPPER DECK
5 LANES
CABLES
LOWER DECK
5 LANES
SB LOCAL
UPPER DECK
3 LANES
NB LOCAL
LOWER DECK
3 LANES
N
D
C
50
IR-71/IR-75 SB LOWER LEVEL
58119 (68670)
IR-71/IR-75 NB UPPER LEVEL
58066 (68200)
LOCAL SB UPPER LEVEL 33197 (37642)
LOCAL NB LOWER LEVEL 36341 (40704)
33602 (39858)
24516 (28812)
25803 (29765)
25917 (29384)
7004 (7646)
3687 (3987)
14145 (14410)
1608 (1534)
4467 (4798)
CW BAILEY BRIDGE
6177 (6924)
6862 (6807)
3562 (4512)
32665 (35573)
24264 (24874)
2344 (3202)
1232 (1414)
4461 (4416)
10243 (12102)
14704 (16516)
9184 (10135)
18746 (20608)
6959 (7168)
10119 (10465)
4757 (5546)
5942 (6485)
722 (883)
1746 (1820)
3RD ST.
18493 (21126)
32262 (38434)
TO I-71
12060 (12773)
13858 (16611)
TO 5TH ST.
10234 (11994)
14636 (17098)
5TH ST.
2ND ST.
LEGEND
XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)
OHIO RIVER
LOCAL NB
36341 (40704)
LOWER DECK
LOCAL SB
33197 (37642)
UPPER DECK
19418 (20531)
22033 (23236)
3862 (4264)
5761 (6657)
GEST ST
3879 (3770)
1528 (1618)
1637 (1592)
2160 (2367)
W 6TH EXPY ST
TO 2ND & I-71 EB
TO 5TH ST
29086 (29895)
4048 (4243)
14145 (14410)
9619 (11434)
TO KY
14445 (16883)
TO I-71/3RD ST
10119 (10465)
TO I-71
TO US 50
11012 (12480)
5784 (6322)
6275 (6451)
TO US 50
2874 (2927)
2660 (13880)
15534 (16807)
368 (380)
3763 (3885)
1637 (1592)
1792 (1987)
8TH ST. W
TO KY & 2ND
33602 (39858)
45526 (49552)
49579 (55251)
TO WINCHELL
TO 7TH
610 (871)
1108 (12640)
24913 (26344)
20213 (23208)
32262 (38434)
38471 (42611)
23503 (26154)
14988 (16437)
5856 (7549)
7323 (8031)
6466 (8420)
MOUND ST.
13574 (16115)
9TH ST.
13574 (16143)
30012 (34815)
20753 (24204)
26052 (29017)
7TH ST.
6TH ST.
MATCH LINE
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 5 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB

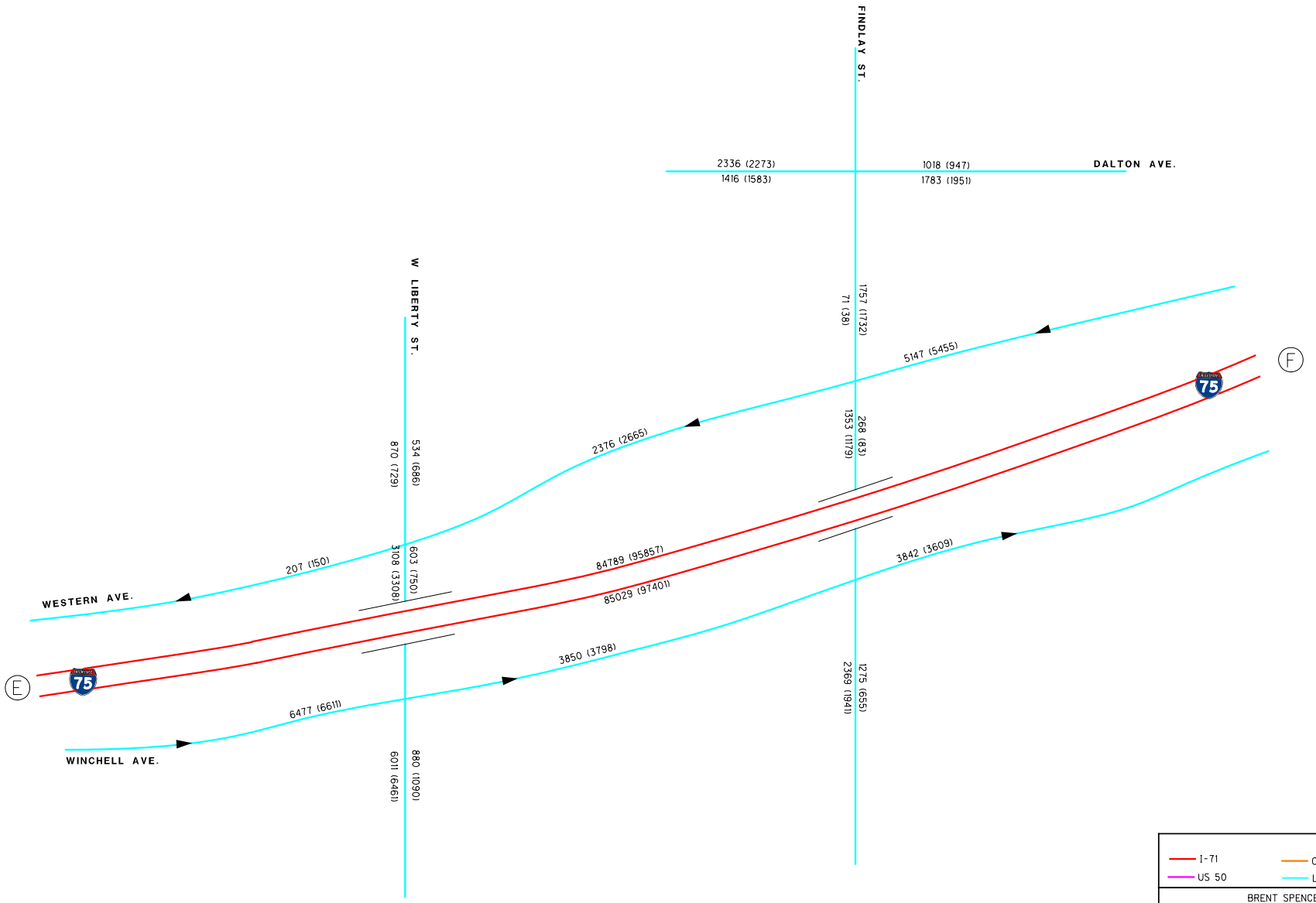

MATCH LINE
CENTRAL AVE.
2696 (3646)
2462 (3905)
4555 (5040)
798 (943)
2095 (2930)
24052 (27649)
9TH ST.
4771 (5330)
1785 (1883)
25282 (28367)
163 (191)
2516 (2784)
163 (191)
1206 (1368)
19975 (23138)
ELM ST.
1310 (1416)
1320 (701)
PLUM ST.
7TH ST.
6177 (6924)
3562 (4512)
2212 (3065)
19427 (22237)
1087 (1743)
2633 (3470)
6TH ST.
804 (863)
2692 (3296)
3700 (5011)
5TH ST.
2488 (2835)
4TH ST.
9139 (11437)
3279 (4003)
20652 (24108)
10249 (11405)
RACE ST.
1477 (1724)
1547 (1837)
6830 (7546)
2ND ST.
3999 (5047)
3RD ST.
14403 (17749)
56829 (61447)
54682 (61003)
71
31127 (35601)
30190 (34325)
23555 (25401)
50
26739 (27122)
N
LEGEND
XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)
I-71
I-75
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 6 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB



LEGEND

XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)

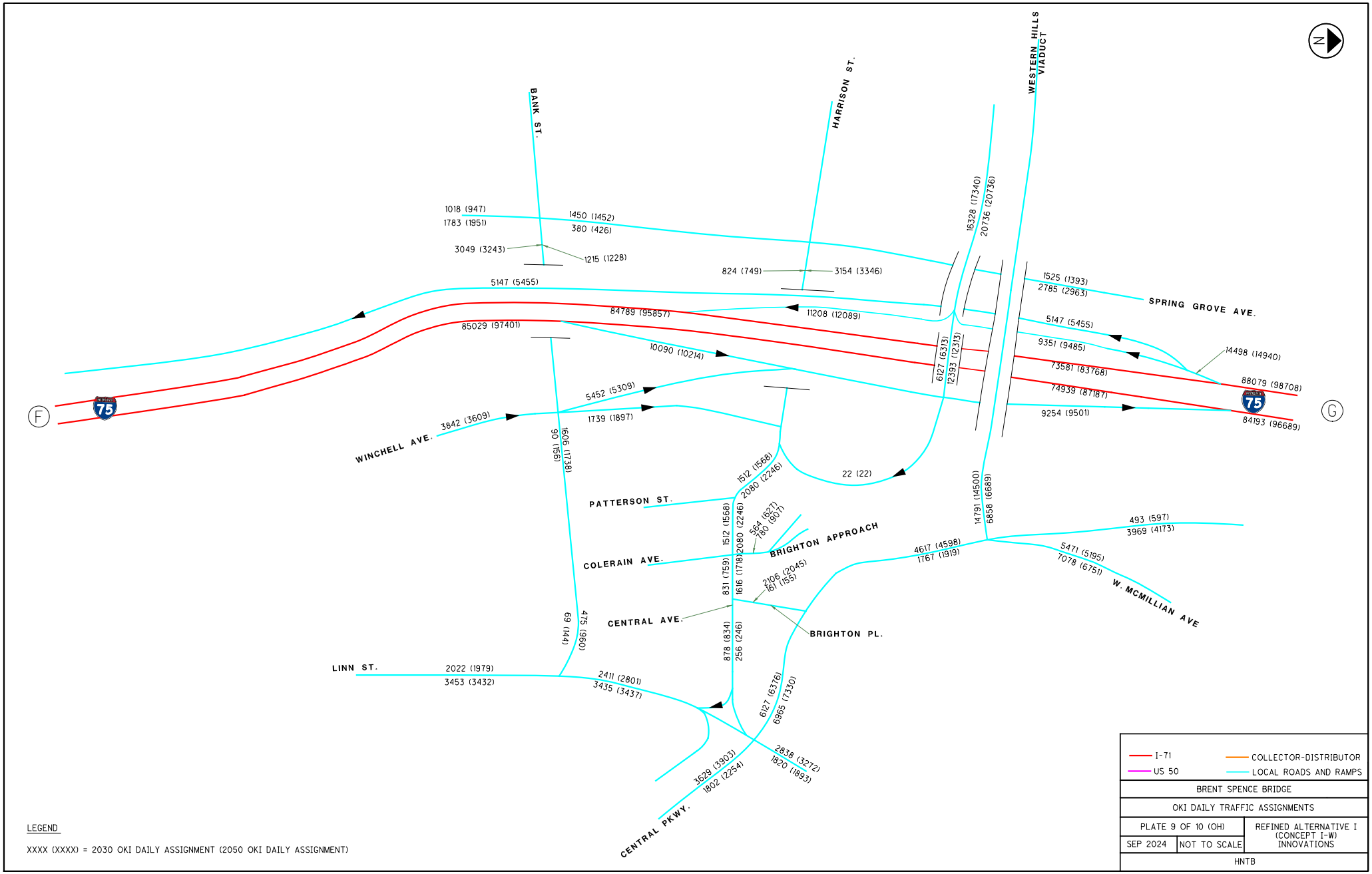
I-71	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 7 OF 10 (OH)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	

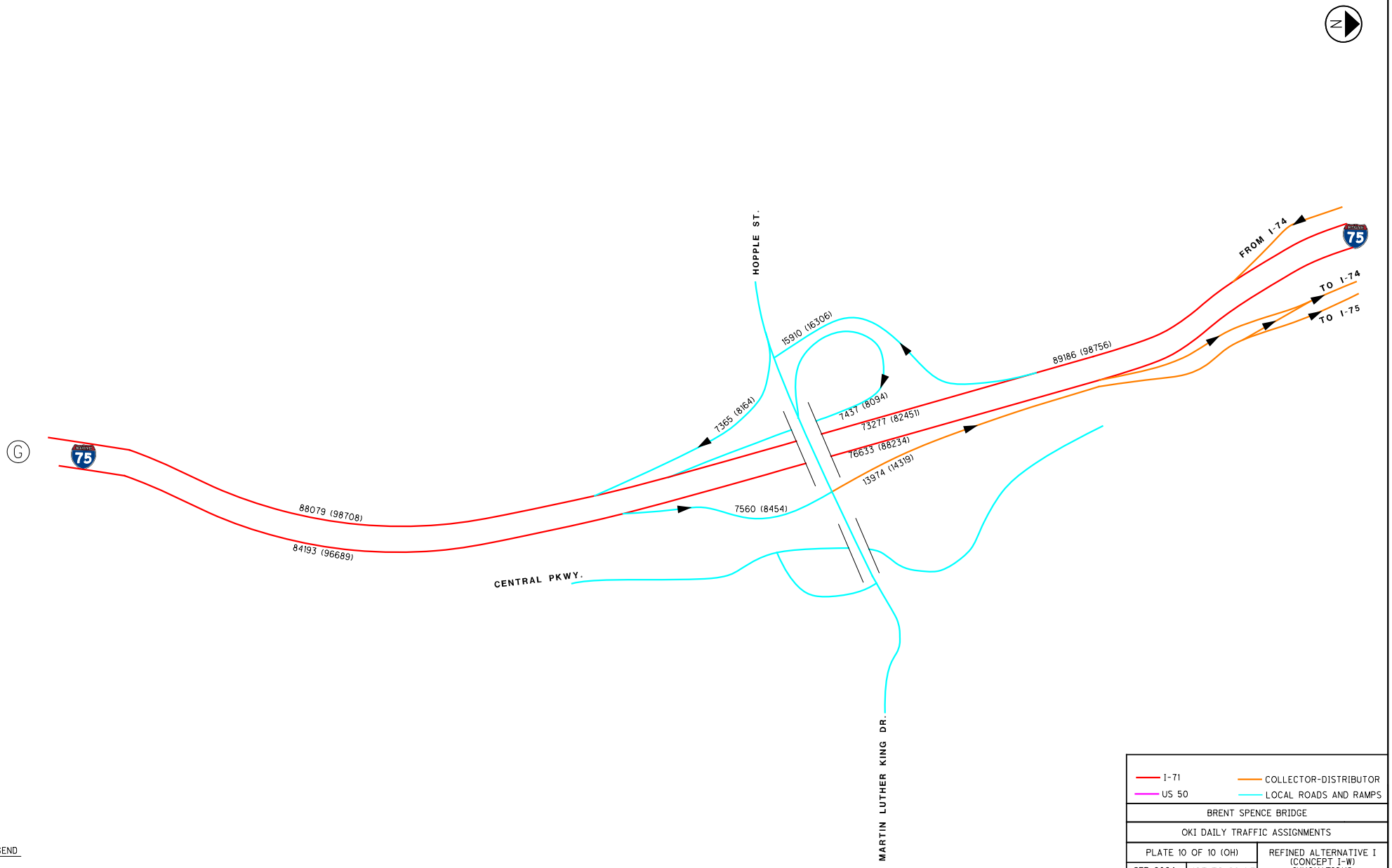


LEGEND

XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)

I-71	COLLECTOR-DISTRIBUTOR
US 50	LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE	
OKI DAILY TRAFFIC ASSIGNMENTS	
PLATE 8 OF 10 (OH)	REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024 / NOT TO SCALE	
HNTB	


BANK ST.
HARRISON ST.
WESTERN HILLS VIADUCT
SPRING GROVE AVE.
WINCHELL AVE.
PATTERSON ST.
COLERAIN AVE.
BRIGHTON APPROACH
CENTRAL AVE.
BRIGHTON PL.
LINN ST.
W. MCMILLIAN AVE
CENTRAL PKWY.
F
G
1018 (947)
1783 (1951)
1450 (1452)
380 (426)
3049 (3243)
1215 (1228)
824 (749)
3154 (3346)
16328 (17340)
20736 (20736)
1525 (1393)
2785 (2963)
5147 (5455)
84789 (95857)
85029 (97401)
11208 (12089)
10090 (10214)
6127 (6313)
12593 (12313)
9351 (9485)
14498 (14940)
73581 (83768)
88079 (98708)
74939 (87187)
84193 (96689)
9254 (9501)
5452 (5309)
1739 (1897)
3842 (3609)
90 (156)
1606 (1738)
1512 (1568)
2080 (2246)
22 (22)
564 (627)
180 (907)
831 (759)
1616 (1718)
2106 (2045)
161 (155)
69 (144)
475 (960)
878 (834)
256 (246)
2022 (1979)
3453 (3432)
2411 (2801)
3435 (3437)
6127 (6376)
6965 (7330)
2838 (3272)
1820 (1893)
3629 (3903)
1802 (2254)
14791 (14500)
6858 (6689)
493 (597)
3969 (4173)
4617 (4598)
1767 (1919)
5471 (5195)
7078 (6751)
I-71
US 50
COLLECTOR-DISTRIBUTOR
LOCAL ROADS AND RAMPS
BRENT SPENCE BRIDGE
OKI DAILY TRAFFIC ASSIGNMENTS
PLATE 9 OF 10 (OH)
REFINED ALTERNATIVE I (CONCEPT I-W) INNOVATIONS
SEP 2024
NOT TO SCALE
HNTB
LEGEND
XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)



LEGEND

XXXX (XXXX) = 2030 OKI DAILY ASSIGNMENT (2050 OKI DAILY ASSIGNMENT)

Appendix C-6 - Forecast Targets versus Balanced

		Adjuster Spreadsheet Target						Existing 2019 Volumes			Adjusted Forecast Targets							Balanced Forecasts					
Adjuster Spreadsheet	Turn	AM29	AM49	PM29	PM49	DY29	DY49	AM19	PM19	AADT19	AM29	AM49	PM29	PM49	DY29	DY49	Notes on target	AM29	AM49	PM29	PM49	DY29	DY49
AltInnovationVolumeAdjuster_5th at NB Local.xlsm	EBL	200	200	180	170	1170	1200				200	210	180	190	1170	1220	The target is a raw model assignment, lower priority during balancing	260	280	180	200	1400	1500
AltInnovationVolumeAdjuster_5th at NB Local.xlsm	EBT	420	440	200	240	2800	3270				420	440	200	240	2800	3270	The target is a raw model assignment, lower priority during balancing	560	620	190	220	3200	3700
AltInnovationVolumeAdjuster_5th at NB Local.xlsm	NBT	1080	1440	330	340	7150	8660				1080	1440	358	368	7150	8660	The target is a raw model assignment, lower priority during balancing	740	960	310	320	5000	6150
AltInnovationVolumeAdjuster_5th at NB Local.xlsm	NBR	880	1110	340	380	6590	7820				880	1110	340	380	6590	7820	The target is a raw model assignment, lower priority during balancing	550	660	240	260	4000	4800
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	EBL	130	130	20	20	300	300	115	15	450	80	90	23	33	450	500		90	110	30	40	500	550
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	EBT	390	380	320	330	4160	4260	395	295	4950	400	410	320	330	4950	5000		430	430	320	330	4900	4950
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	WBR	350	350	410	410	4320	4460	355	320	4300	360	370	410	420	4320	4460		400	440	470	490	4600	4800
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	WBT	280	290	400	430	4020	4200	260	370	4300	280	290	400	430	4300	4350		290	310	380	410	4200	4300
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	NBL	30	20	20	10	100	100	20	15	100	20	30	18	28	100	150		20	30	20	30	100	150
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	NBT	70	120	220	210	1960	2110	90	160	1650	100	120	220	230	1960	2110		100	120	220	230	2000	2100
AltInnovation_VolumeAdjuster_12th at I-75 NB.xlsm	NBR	190	180	370	370	3900	3940	140	320	3900	200	210	370	380	3900	3950		190	200	330	340	3750	3800
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	EBT	210	230	90	80	1190	1160	245	90	1750	250	260	90	100	1750	1800		240	250	90	100	1750	1800
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	EBR	40	30	150	270	860	1280	15	10	200	40	50	150	230	860	1280		40	50	130	210	850	1250
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	SBR	10	10	20	20	100	100	5	20	100	10	20	18	28	100	150		10	20	20	30	100	150
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	SBT	320	310	640	610	6360	6560	80	240	1800	320	330	640	650	6360	6560		320	350	600	610	6150	6300
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	SBL	280	270	240	260	3170	3290	265	220	3650	280	290	240	260	3650	3700		280	290	260	270	3650	3700
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	WBT	40	70	20	20	170	190	30	35	250	40	54	35	45	250	300		40	60	40	60	250	350
AltInnovation_VolumeAdjuster_12th at I-75 SB.xlsm	WBL	270	260	400	430	3990	4130	250	350	4150	270	280	400	430	4150	4200		270	280	360	380	4050	4100
AltInnovation_VolumeAdjuster_2nd at CWB Bridge.xlsm	SBT	410	300	1290	1350	7550	7500	275	1145	7450	410	420	1290	1350	7550	7600		440	460	1260	1330	7850	7950
AltInnovation_VolumeAdjuster_2nd at CWB Bridge.xlsm	SBL	890	1050	400	430	6510	7400	180	165	1700	890	1050	400	430	6510	7400		1040	1220	430	440	6850	7700
AltInnovation_VolumeAdjuster_2nd at CWB Bridge.xlsm	NBT	860	960	760	730	8010	8290	500	405	4800	860	960	760	770	8010	8290		790	890	740	770	7750	8000
AltInnovation_VolumeAdjuster_2nd at CWB Bridge.xlsm	NBR	510	530	200	200	3520	3580	435	165	3300	510	530	200	210	3520	3580		560	630	220	230	3400	3450
AltInnovation_VolumeAdjuster_2nd at Elm.xlsm	EBL	300	380	220	210	1840	2170	180	165	1700	300	380	230	240	1840	2170		250	290	220	230	1950	2250
AltInnovation_VolumeAdjuster_2nd at Elm.xlsm	EBT	1790	2230	730	750	11490	13160	1550	760	12000	1790	2230	760	770	12000	13160		1410	1640	710	760	11250	12550
AltInnovation_VolumeAdjuster_2nd at Elm.xlsm	EBR	240	270	130	160	1570	1820	220	105	1250	240	270	130	160	1570	1820		200	210	120	160	1500	1750
AltInnovation_VolumeAdjuster_2nd at Elm.xlsm	NBT	210	230	280	310	2390	2680	145	165	1400	210	230	280	310	2390	2680		230	250	320	340	2700	3050
AltInnovation_VolumeAdjuster_2nd at Elm.xlsm	NBR	20	20	70	80	430	440	15	60	400	20	30	70	80	430	480		20	30	70	80	450	500
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	EBL	240	270	220	230	2400	2580	180	185	1950	240	270	220	230	2400	2580		220	250	180	190	2350	2550
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	EBR	100	110	60	60	640	670	70	35	600	100	110	60	70	640	690		120	130	70	90	700	750
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	SBR	10	10	210	210	1120	1170	65	180	1350	70	80	210	220	1350	1400		80	90	210	240	1450	1550
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	SBT	100	100	80	80	570	600	100	75	700	100	110	80	90	700	750		90	100	80	100	700	750
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	WBR	90	70	230	230	770	730	160	315	2700	90	100	230	240	770	820	4th Street ramp change	70	80	160	170	700	750
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	WBT	200	220	600	680	3310	3910	105	430	2400	200	220	596	680	3310	3910		230	270	550	610	3450	3950
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	WBL	250	260	100	110	1200	1270	230	85	1200	220	230	100	110	1200	1270		210	220	110	120	1150	1200
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	NBL	20	30	120	130	650	710	15	85	450	30	40	117	128	650	710		40	50	110	120	700	750
AltInnovation_VolumeAdjuster_3rd at Central.xlsm	NBT	20	40	210	220	190	280	65	300	1500	20	40	210	220	1280	1250	4th Street ramp change	60	70	150	160	1150	1200
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	EBL	10	10	50	40	390	390				20	30	50	60	390	440		20	30	50	60	400	450
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	EBT	60	60	110	110	1100	1140	35	80	600	60	70	110	120	1100	1150		60	70	90	100	1050	1100
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	EBR	390	400	720	730	5430	5450	340	660	6050	390	400	720	730	6050	6100		440	490	750	770	6150	6300
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	SBR	0	0	10	10	30	30				0	10	5	15	30	80		10	10	10	20	100	100
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	SBT	750	800	260	290	5690	6330				750	800	285	295	5690	6330		880	1000	320	350	5600	6300
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	SBL	50	60	20	20	390	450				50	60	20	30	390	450		50	60	20	30	350	450
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	WBR	20	30	160	180	1250	1690				60	70	160	210	1250	1690		70	80	180	240	1300	1750
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	WBT	120	150	50	60	1350	1420	70	45	1100	120	150	68	78	1350	1420		120	140	70	80	1350	1450
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	WBL	130	130	710	750	2730	2910	115	650	3100	160	170	558	568	3100	3150		160	190	620	650	2950	3050
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	NBL	320	330	310	300	2910	2910	285	265	3050	320	330	310	320	3050	3100		300	310	320	330	2900	2950
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	NBT	250	320	270	240	3140	3330				250	320	270	280	3140	3330		260	330	280	290	3200	3300
AltInnovation_VolumeAdjuster_3rd at CWB.xlsm	NBR	280	310	170	180	1850	1940	215	140	1750	280	310	170	180	1850	1940		230	250	140	150	1650	1750
AltInnovation_VolumeAdjuster_3rd at Elm.xlsm	WBR	260	310	210	160	2680	2990	210	200	2050	260	310	210	220	2680	2990		240	280	200	210	2600	2850
AltInnovation_VolumeAdjuster_3rd at Elm.xlsm	WBT	1160	1310	2450	2760	19780	22520	585	1220	10200	1160	1310	2450	2760	19780	22520		1260	1450	2670	2980	20250	22350
AltInnovation_VolumeAdjuster_3rd at Elm.xlsm	WBL	170	180	340	360	2380	2570	110	215	1400	170	180	340	360	2380	2570		180	190	350	380	2400	2700
AltInnovation_VolumeAdjuster_3rd at Elm.xlsm	NBT	350	440	180	170	2330	2800	215	115	1700	350	440	180	190	2330	2800		300	350	190	190	2250	2600
AltInnovation_VolumeAdjuster_3rd at Plum.xlsm	SBR	60	60	180	270	1700	2340	35	45	600	90	100	180	270	1700	2340		70	80	160	220	1300	1750
AltInnovation_VolumeAdjuster_3rd at Plum.xlsm	WBT	480	500	750	750	4220	4270	460	785	5700	480	500	750	760	4220	4270	4th Street ramp change	440	490	660	680	4000	4150
AltInnovation_VolumeAdjuster_3rd at Race.xlsm	SBR	380	320	850	870	5610	5920	125	330	2500	380	390	850	870	5610	5920		400	410	910	930	5950	6250
AltInnovation_VolumeAdjuster_3rd at Race.xlsm	SBT	220	220	790	870	4810	6250	135	580	3350	220	240	790	870	4810	6250		240	250	780	870	4800	6250
AltInnovation_VolumeAdjuster_3rd at Race.xlsm	WBT	1040	1280	1840	2080	16820	19610	670	1090	9750	1040	1280	1840	2080	16820	19610		1100	1320	1960	2260	16900	18950
AltInnovation_VolumeAdjuster_3rd at Race.xlsm	WBL	180	170	130	130	1230	1220	140	110	1100	180	190	130	140	1230	1280		180	190	130	140	1250	1300
AltInnovation_VolumeAdjuster_4th at Central.xlsm	SBT	40	50	230	230	1270	1350	130	210	1550	130	140	230	240	1550	1600		140	150	240	250	1700	1750
AltInnovation_VolumeAdjuster_4th at Central.xlsm	WBR	100	130	10	10	2130	2160	60	95	950	110	130	107	117	2130	2180		110	140	130	150	1750	1900
AltInnovation_VolumeAdjuster_4th at Central.xlsm	WBL	30	30	50	50	420	420	30	45	500	40	50	50	60	500	550		30	40	50	90	450	550
AltInnovation_VolumeAdjuster_4th at Central.xlsm	NBT	90	130	430	450	3910	4140	220	340	3000	220	230	430	450	3910	4140		350	400	490	520	4200	4500
AltInnovation_VolumeAdjuster_4th at Elm.xlsm	WBR	50	60	10	40	130	260	55	85	850	20	50	10	40	130	260	Elm Street closure btwn 5th and 6th St	20	50	10	40	150	250
AltInnovation_VolumeAdjuster_4th at Elm.xlsm	WBT	50	60	80	190	780	1070	105	430	2900	50	60	80	190	780	1070	4th Street ramp changes	30	40	50	90	500	650
AltInnovation_VolumeAdjuster_4th at Elm.xlsm	NBL	140	150	180	130	1740	1780	80	130	1150	140	150	180	190	1740	1790		70	90	80	90	1000	1050
AltInnovation_VolumeAdjuster_4th at Elm.xlsm	NBT	440	480	300	270	3940	4410	345	185	2600	440	480	300	310	3940	4410		470	540	310	310	3850	4400
AltInnovation_VolumeAdjuster_4th at Plum.xlsm	SBR	40	40	80	90	670	670	20	40	300	40	50	80	90	670	720		50	60	60	70	800	850
AltInnovation_VolumeAdjuster_4th at Plum.xlsm	SBT	20	20	110	140	690	940	30	25	400	30	40	110	140	690	940		60	70	150	210	1200	1650
AltInnovation_VolumeAdjuster_4th at Plum.xlsm	WBT	30	50	70	90	580	600	180	540	3850	30	50	70	90	580	630	4th Street ramp change	90	120	120	170	5400	1600
AltInnovation_VolumeAdjuster_4th at Plum.xlsm	WBL	10	10	10	70	250	440	5	20	200	10	20	20	70	250	440		10	10	10	10	100	100
AltInnovation_VolumeAdjuster_5th at Central.xlsm	EBL	10	10	90	90	60	80	210	80	1300	210	220	90	100	1300	1350		210	230	90	100	1350	1500
AltInnovation_VolumeAdjuster_5th at Central.xlsm	EBT	830	970	300	350	4980	5870	1505	535	10100	830	970	300	350	4980	5870	Design changes	870	1010	330	360	5700	6800
AltInnovation_VolumeAdjuster_5th at Central.xlsm	EBR	40	40	10	10	150	140	35	10	150	30	40	10	20	150	200		30	40	10	20	150	200
AltInnovation_VolumeAdjuster_5th at Central.xlsm	SBT	110	120	230	240	1520	1610	90	200	1400	110	120	230	240	1520	1610		110	110	230	230	1550	1550
AltInnovation_VolumeAdjuster_5th at Central.xlsm	SBL	10	10	10	10	30	30	180	150	1500	180	190	150	160	1500	1550		180	190	160	180	1550	1650
AltInnovation_VolumeAdjuster_5th at Central.xlsm	NBT	260	290	10	10	3870	3930	165	315	2500	260	290	315	325	3870	3930		260	320	390	410	3600	3850
AltInnovation_VolumeAdjuster_5th at Central.xlsm	NBR	200	230	170	190	2220	2400	115	120	1450	200	230	170	190	2220	2400		200	220	230	260	2350	2550
AltInnovation_VolumeAdjuster_6th at Central.xlsm	SBR	10	10	30	30	180	210	10	15	100	10	20	30	40	180	230		10	20	30	40	100	150
AltInnovation_VolumeAdjuster_6th at Central.xlsm	SBT	10	10	10	10	30	30	105	50	600	110	120	50	60	600	650		100	100	60	70	600	600
AltInnovation_VolumeAdjuster_6th at Central.xlsm	WBR	100	120	140	170	960	1160	100	120	1050	100	120	140	170	1050	1160		110	140	130	170	1050	1200
AltInnovation_VolumeAdjuster_6th at Central.xlsm	WBT	430	470	1400	1580	10320	13350	240	950	4650	520	530	1400	1580	10320	13350		510	530	1500	1760	10300	13050
AltInnovation_VolumeAdjuster_6th at Central.xlsm	WBL	200	210	370	390	2380	2800	170	300	2300	200	210	370	390	2380	2800		190	200	330	340	2300	2600
AltInnovation_VolumeAdjuster_6th at Central.xlsm	NBL	40	40	10	10	1870	1820	35	170	950	90	100	170	180	1870	1920		100	110	210	230	1950	2000
AltInnovation_VolumeAdjuster_6th at Central.xlsm	NBT	20	30	260	270	300	430	340	225	2850	340	350	260	270	2850	2900		370	440	270	280	3000	3350
AltInnovation_VolumeAdjuster_6th at Linn EB.xlsm	SBT	160	170	430	420	2810	2870	160	370	2900	160	170	430	440	2900	2950		180	210	410	430	3100	3100
AltInnovation_VolumeAdjuster_6th at Linn EB.xlsm	SBL	100	120	300	370	2420	3200	105	325	2700	140	150	325	370	2700	3200		140	150	410	460	3150	3550
AltInnovation_VolumeAdjuster_6th at Linn EB.xlsm	NBT	150	150	240	230	1950	1940	130	200	2000	150	160	240	250	2000	2050		150	170	240	260	2050	2150
AltInnovation_VolumeAdjuster_6th at Linn EB.xlsm	NBR	30	30	90	90	640	650	25	80	650	30	40	80	100	650	700		30	40	90	100	650	700
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	EBL	10	10	10	10	30	30	5	5	100	10	20	10	20	100	150		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	EBR	10	10	10	10	30	30	110	320	2200	110	120	320	330	2200	2250		110	120	430	450	2650	2800
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	SBR	10	10	10	10	150	150	10	10	150	10	20	10	20	150	200		10	20	10	20	150	200
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	SBT	140	150	330	340	2560	2830	145	340	3150	160	170	340	350	3150	3200		200	220	350	390	3350	3550
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	WBR	120	150	120	120	1460	1580	110	85	1300	120	150	120	130	1460	1580		120	140	110	120	1500	1550
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	WBT	200	230	60	60	1490	1680	105	45	1000	200	230	75	85	1490	1680		200	200	70	70	1300	1550
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	WBL	10	10	40	40	190	190	10	35	250	10	20	40	50	250	300		10	20	40	50	250	300
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	NBL	70	70	70	80	650	660	60	65	700	70	80	70	80	700	750		70	80	70	80	700	750
AltInnovation_VolumeAdjuster_6th at Linn WB.xlsm	NBT	80	80	170	160	1300	1280	70	135	1300	80	90	170	180	1300	1350		80	90	170	180	1350	1400
AltInnovation_VolumeAdjuster_6th at NB Local.xlsm	WBR	370	410	1170	1320	3540	4100				370	410	637	738	3540	4100	The target is a raw model assignment, lower priority during balancing	320	330	670	850	6300	8150
AltInnovation_VolumeAdjuster_6th at NB Local.xlsm	WBT	510	550	860	930	8270	9480				510	550	860	930	8270	9480	The target is a raw model assignment, lower priority during balancing	300	330	1070	1180	6050	7050
AltInnovation_VolumeAdjuster_6th at NB Local.xlsm	NBL	110	120	20	20	780	820				110	120	30	40	780	830	The target is a raw model assignment, lower priority during balancing	240	260	180	200	1350	1400
AltInnovation_VolumeAdjuster_6th at NB Local.xlsm	NBT	1340	1600	480	470	9520	11080				1340	1600	480	490	9520	11080	The target is a raw model assignment, lower priority during balancing	760	980	310	320	5050	6250
AltInnovation_VolumeAdjuster_7th at Central.xlsm	EBL	220	520	30	60	1410	2430	190	65	2150	220	437	108	118	2150	2430		210	290	130	140	2200	2600
AltInnovation_VolumeAdjuster_7th at Central.xlsm	EBT	4170	4390	1310	1450	25900	29190	1415	265	7300	3630	4087	1310	1450	25900	29190		3170	3680	1290	1290	22800	25800
AltInnovation_VolumeAdjuster_7th at Central.xlsm	EBR	680	660	280	340	5000	5170	115	65	700	680	690	280	340	5000	5170		110	120	90	110	700	750
AltInnovation_VolumeAdjuster_7th at Central.xlsm	NBT	170	210	290	320	1960	2270	210	245	2250	210	220	290	320	2250	2300		260	350	260	300	2350	2800
AltInnovation_VolumeAdjuster_7th at Central.xlsm	NBR	30	40	20	20	220	280	230	100	1650	230	240	100	110	1650	1700		220	230	140	150	1700	1750
AltInnovation_VolumeAdjuster_7th at NB Local.xlsm	EBL	30	50	40	40	590	600				30	40	40	50	590	640	The target is a raw model assignment, lower priority during balancing	30	50	120	130	600	650
AltInnovation_VolumeAdjuster_7th at NB Local.xlsm	EBT	4070	4210	1230	1460	25840	28890				4070	4210	1292	1460	25840	28890	The target is a raw model assignment, lower priority during balancing	2750	3130	1200	1220	20700	23000
AltInnovation_VolumeAdjuster_7th at NB Local.xlsm	NBT	390	420	1150	1300	10840	12580				540	550	1150	1300	10840	12580	The target is a raw model assignment, lower priority during balancing	340	350	670	850	6350	8250
AltInnovation_VolumeAdjuster_7th at NB Local.xlsm	NBR	1450	1800	530	540	9870	11480				1450	1800	530	540	9870	11480	The target is a raw model assignment, lower priority during balancing	740	960	310	320	5000	6150

Appendix C-6 - Forecast Targets versus Balanced

		Adjuster Spreadsheet Target						Existing 2019 Volumes			Adjusted Forecast Targets							Balanced Forecasts					
Adjuster Spreadsheet	Turn	AM29	AM49	PM29	PM49	DY29	DY49	AM19	PM19	AADT19	AM29	AM49	PM29	PM49	DY29	DY49	Notes on target	AM29	AM49	PM29	PM49	DY29	DY49
AltInnovation_VolumeAdjuster_9th at Central.xlsm	SBR	30	10	80	110	190	940	30	65	550	30	40	80	110	550	940		30	40	80	130	600	1000
AltInnovation_VolumeAdjuster_9th at Central.xlsm	WBR	60	60	40	40	580	650	40	30	350	60	70	40	50	580	650		60	70	40	50	600	650
AltInnovation_VolumeAdjuster_9th at Central.xlsm	WBT	480	630	1180	1070	8930	9950	355	1080	8650	480	630	1180	1190	8930	9950		520	610	1300	1400	9100	10500
AltInnovation_VolumeAdjuster_9th at Central.xlsm	NBL	70	70	210	240	1760	1930	80	160	1700	80	100	210	240	1780	1930		50	60	130	130	950	1000
AltInnovation_VolumeAdjuster_9th at Central.xlsm	NBT	550	900	200	250	3960	5230	320	150	2700	550	900	200	250	3960	5230		420	580	260	310	3600	4400
AltInnovation_VolumeAdjuster_9th at N8 Local.xlsm	WBR	290	350	770	820	7130	7940				360	370	770	820	7130	7940	The target is a raw model assignment, lower priority during balancing	320	360	670	720	5750	6550
AltInnovation_VolumeAdjuster_9th at N8 Local.xlsm	WBT	420	470	1380	1780	9520	11900				480	490	1380	1780	9520	11900	The target is a raw model assignment, lower priority during balancing	240	310	740	830	4050	5050
AltInnovation_VolumeAdjuster_9th at N8 Local.xlsm	NBL	10	10	30	40	190	290				10	20	30	40	190	290	The target is a raw model assignment, lower priority during balancing	150	190	160	230	3100	4150
AltInnovation_VolumeAdjuster_9th at Simon Kenton.xlsm	EBT	50	50	50	50	510	510				50	60	50	60	510	560		50	60	50	60	500	550
AltInnovation_VolumeAdjuster_9th at Simon Kenton.xlsm	WBR	170	170	30	30	750	750				140	150	38	48	750	800		70	90	30	40	500	550
AltInnovation_VolumeAdjuster_9th at Simon Kenton.xlsm	WBT	50	50	80	80	580	580				50	60	80	90	580	630		40	40	60	70	350	400
AltInnovation_VolumeAdjuster_9th at Simon Kenton.xlsm	NBL	0	0	30	30	230	230				10	20	30	40	230	280		10	20	20	30	200	250
AltInnovation_VolumeAdjuster_9th at Simon Kenton.xlsm	NBT	80	80	0	0	180	180				30	41	9	19	180	230		10	20	10	20	150	200
AltInnovation_VolumeAdjuster_9th at Simon Kenton.xlsm	NBR	40	40	70	70	740	740				40	50	70	80	740	790		10	30	50	50	650	650
AltInnovation_VolumeAdjuster_Brighton at Central Avenue.xlsm	EBL	70	70	50	50	860	850	55	40	800	70	80	50	60	860	910		70	80	60	70	950	1000
AltInnovation_VolumeAdjuster_Brighton at Central Avenue.xlsm	EBT	20	20	60	60	550	490	20	35	400	30	40	60	70	550	600		40	60	90	120	800	950
AltInnovation_VolumeAdjuster_Brighton at Central Avenue.xlsm	SBR	20	20	140	140	1050	1160	35	70	850	50	60	140	150	1050	1160		60	80	120	130	1050	1150
AltInnovation_VolumeAdjuster_Brighton at Central Avenue.xlsm	SBL	50	30	60	50	710	460	30	40	400	50	60	60	70	710	760		60	70	70	80	800	850
AltInnovation_VolumeAdjuster_Brighton at Central Avenue.xlsm	WBR	10	10	30	30	200	210	5	25	200	10	20	30	40	200	250		10	20	30	50	200	250
AltInnovation_VolumeAdjuster_Brighton at Central Avenue.xlsm	WBT	10	10	10	10	110	110	10	35	500	30	40	35	45	500	550		30	40	30	40	450	500
AltInnovation_VolumeAdjuster_Brighton at Central Parkway.xlsm	EBT	610	620	440	460	5630	5870	525	410	6000	610	620	440	460	6000	6050		640	660	500	530	6350	6600
AltInnovation_VolumeAdjuster_Brighton at Central Parkway.xlsm	EBR	80	80	80	70	1020	850	25	40	450	80	90	80	90	1020	1070		70	80	70	80	900	950
AltInnovation_VolumeAdjuster_Brighton at Central Parkway.xlsm	WBT	260	270	340	340	3150	3130	190	560	5700	260	270	330	350	3180	3200	WHV Changes	380	410	500	520	5300	5600
AltInnovation_VolumeAdjuster_Brighton at Central Parkway.xlsm	WBL	20	20	120	120	820	830	40	70	800	40	50	120	130	820	870		50	70	120	130	950	1050
AltInnovation_VolumeAdjuster_Brighton at Central Parkway.xlsm	NBL	10	10	20	20	160	170	5	15	150	10	20	20	30	160	210		10	20	20	30	200	250
AltInnovation_VolumeAdjuster_Brighton at Central Parkway.xlsm	NBR	70	60	70	60	910	890	55	50	850	70	80	70	80	910	960		70	80	70	90	950	1000
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	EBL	120	120	350	410	1050	1040	110	85	1050	120	130	189	199	1050	1100		120	130	190	200	1050	1100
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	EBT	310	300	180	150	3330	3120	260	225	3450	310	320	225	235	3450	3500		310	320	230	230	3450	3500
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	EBR	330	320	270	260	3890	3790	240	190	3100	330	340	270	280	3890	3940		340	350	280	300	3850	4000
	SBL	0	0	0	0	0	0	10	5	100	10	5	15	100	150	150		10	20	10	20	100	200
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	SBR	40	40	10	10	30	40	45	145	1150	60	70	145	155	1150	1200		60	70	150	160	1150	1200
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	SBT	350	360	230	240	2560	2700	305	255	3300	350	360	255	265	3300	3350		360	370	270	280	3300	3550
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	WBR	10	10	30	30	200	200	10	25	200	10	20	30	40	200	250		10	20	30	40	200	250
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	WBT	110	100	340	340	2770	2610	95	300	3100	160	170	340	350	3100	3150		160	170	340	350	3100	3150
	WBL	10	10	20	20	120	130	5	5	50	10	20	20	30	120	170		10	20	20	30	100	200
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	NBL	130	130	110	110	1430	1360	75	215	2950	150	160	215	225	2950	3000		180	200	180	190	2750	2800
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	NBT	130	140	370	370	2500	2560	110	335	2700	140	150	370	380	2700	2750		200	210	310	320	2550	2600
AltInnovation_VolumeAdjuster_Central at WHV.xlsm	NBR	10	10	30	30	200	200	10	25	200	10	20	30	40	200	250		10	20	30	40	200	250
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	EBL	10	10	20	20	170	200	5	10	150	10	20	20	30	170	220		10	20	20	30	200	250
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	EBT	90	80	110	110	1430	1360	65	65	1100	90	100	110	120	1430	1480		100	120	140	170	1650	1800
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	EBR	10	10	10	10	110	110	5	5	100	10	20	10	20	110	160		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	SBR	30	30	10	10	170	230	10	5	150	30	40	10	20	170	230		20	30	10	20	150	200
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	SBT	10	10	20	20	150	150	5	5	150	10	20	20	30	150	200		10	20	20	30	150	200
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	SBL	10	10	10	10	30	30	10	10	100	10	20	10	20	100	150		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	WBR	10	10	20	20	50	50	5	15	100	10	20	18	28	100	150		10	20	20	30	100	150
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	WBT	10	20	80	80	740	780	30	70	1000	50	60	80	90	1000	1050		60	70	100	100	1100	1150
AltInnovation_VolumeAdjuster_Colerain at Central.xlsm	WBL	10	10	20	20	240	240	10	20	250	10	20	20	30	250	300		20	30	30	40	300	350
AltInnovation_VolumeAdjuster_Crescent at 4th.xlsm	SBT	170	170	60	60	220	250	200	150	2100	40	50	40	50	220	270	5th Street access change	40	50	40	50	200	250
AltInnovation_VolumeAdjuster_Crescent at 4th.xlsm	SBL	200	180	160	180	1920	1980	145	145	1900	200	210	160	180	1920	1980		160	170	140	150	1800	1850
AltInnovation_VolumeAdjuster_Crescent at 4th.xlsm	WBR	180	170	500	500	4620	4640	65	135	1200	230	240	500	510	4620	4670		190	200	520	520	3900	3900
AltInnovation_VolumeAdjuster_Crescent at 4th.xlsm	WBL	20	20	50	50	540	550	15	60	500	30	40	60	70	540	590		30	40	60	70	500	550
AltInnovation_VolumeAdjuster_Crescent at 4th.xlsm	NBT	20	20	20	20	280	260	290	390	5350	20	30	20	30	280	330	5th Street access change	20	30	20	30	250	300
AltInnovation_VolumeAdjuster_Crescent at 4th.xlsm	NBR	10	10	10	10	110	110	10	15	150	10	20	15	25	150	200		10	20	10	20	150	200
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	EBL	0	0	0	0	0	0	15	40	350	20	30	40	50	350	400		20	30	40	50	350	400
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	EBT	0	0	0	0	0	0	5	30	200	10	20	30	40	200	250		10	20	30	40	200	250
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	EBR	0	0	0	0	0	0	5	5	100	10	20	5	15	100	150		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	SBR	0	0	0	0	0	0	15	10	200	20	30	10	20	200	250		20	30	10	20	200	250
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	SBT	310	300	240	250	3050	3270	310	345	3850	310	320	345	355	3850	3900		310	320	350	360	3850	3900
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	SBL	110	110	270	280	1880	1710	100	155	1500	110	120	270	280	1880	1930		90	100	230	240	1600	1700
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	WBR	100	100	140	140	1460	1450	85	75	1250	100	110	140	150	1460	1510		90	100	130	140	1350	1400
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	WBT	0	0	0	0	0	0	65	100	650	70	80	100	110	650	700		60	80	90	100	600	600
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	WBL	80	70	100	90	960	900	55	60	850	80	90	100	110	960	1010		70	80	90	100	900	950
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	NBL	0	0	0	0	0	0	10	5	150	10	20	8	18	150	200		10	20	10	20	150	200
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	NBT	100	100	190	230	2180	2360	135	245	3150	160	170	245	255	3150	3200		160	170	250	260	3150	3200
AltInnovation_VolumeAdjuster_Dalton at Findlay.xlsm	NBR	30	30	40	30	380	360	25	30	400	30	40	40	50	400	450		30	40	40	50	400	450
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 NB.xlsm	EBL	20	20	20	20	350	360	20	20	350	20	30	20	30	350	400		20	30	20	30	350	450
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 NB.xlsm	EBT	500	440	1220	1410	9600	10370	500	1080	10000	500	510	1220	1410	10000	10370		610	640	1240	1340	10450	10900
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 NB.xlsm	WBR	670	750	470	450	6140	6330	575	470	6450	670	750	470	480	6450	6500		630	720	460	490	6650	6700
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 NB.xlsm	WBT	1160	1230	750	770	8520	9470	930	645	8350	1160	1230	750	770	8520	9470		1170	1250	730	750	8650	9500
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 NB.xlsm	NBL	310	410	160	170	2210	2470	275	150	2150	310	410	160	170	2210	2470		290	360	200	220	2150	2450
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 NB.xlsm	NBR	40	10	170	160	1360	1280	50	155	1650	80	90	170	180	1650	1700		80	90	210	230	1600	1650
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 SB.xlsm	EBT	490	530	850	900	6440	7050	330	600	5700	490	530	850	900	6440	7050		420	460	850	940	6200	6750
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 SB.xlsm	EBR	240	230	340	340	3160	3220	210	300	3050	240	250	340	350	3160	3220		220	240	340	370	3150	3200
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 SB.xlsm	SBR	50	50	50	50	540	540	50	45	550	50	60	50	60	550	600		50	60	40	50	550	600
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 SB.xlsm	SBL	150	120	490	550	4230	4320	190	300	4650	230	240	500	550	4650	4700		210	210	410	430	4600	4600
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 SB.xlsm	WBT	1310	1480	790	780	9170	9960	1120	680	9100	1310	1480	790	800	9170	9960		1300	1440	800	820	9100	9900
AltInnovation_VolumeAdjuster_Dixie Hwy at I-75 SB.xlsm	WBL	170	170	130	140	1590	2070	85	115	1400	170	180	130	140	1590	2070		160	170	130	150	1600	2050
AltInnovation_VolumeAdjuster_Gest at 6th.xlsm	SBT	240	230	130	130	1780	1780	215	130	2150	240	250	130	140	2150	2200		260	270	220	240	2850	2950
AltInnovation_VolumeAdjuster_Gest at 6th.xlsm	WBR	30	40	20	30	430	540	375	165	2950	380	390	165	175	2950	3000		190	200	90	100	1300	1350
AltInnovation_VolumeAdjuster_Gest at 6th.xlsm	WBL	150	140	70	70	930	910	150	60	1000	150	160	70	80	1000	1050		120	130	50	60	850	850
AltInnovation_VolumeAdjuster_Gest at 6th.xlsm	NBT	130	120	160	170	1650	1700	140	175	2400	140	150	175	185	2400	2450		170	210	220	250	2500	2700
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	EBL	100	110	80	110	1280	1420	95	115	1550	100	110	115	125	1550	1600		100	110	110	130	1400	1450
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	EBT	110	130	170	190	1460	1700	110	90	1150	110	130	170	190	1460	1700		150	160	200	230	1850	2100
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	EBR	60	60	110	110	1150	1100	45	90	1050	60	70	110	120	1150	1200		80	100	120	150	1200	1400
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	SBR	40	40	10	10	440	530	35	5	400	40	50	22	32	440	530		40	50	20	30	350	400
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	SBT	660	700	360	400	6550	7020	380	285	4850	660	700	360	400	6550	7020		540	560	320	360	5200	5650
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	SBL	30	30	10	10	280	280	130	50	1350	140	150	68	78	1350	1400		100	110	70	80	1250	1300
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	WBR	110	100	30	30	430	430	120	130	1700	120	130	130	140	1700	1750		80	80	80	100	900	1000
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	WBT	30	40	20	30	340	440	190	35	1050	190	200	53	63	1050	1100		200	210	80	80	1200	1350
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	WBL	10	10	10	10	170	180	10	10	200	10	20	10	20	200	250		10	20	10	30	200	300
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	NBL	10	10	20	20	40	40	10	15	250	10	20	20	30	250	300		10	20	20	30	250	300
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	NBT	380	390	460	480	5180	5340	450	410	6000	450	460	460	480	6000	6050		440	460	380	390	5500	5700
AltInnovation_VolumeAdjuster_Gest at Freeman.xlsm	NBR	20	20	20	20	230	230	15	15	250	20	30	20	30	250	300		20	30	20	30	300	350
AltInnovation_VolumeAdjuster_Kyles at I-75 NB.xlsm	EBL	170	240	90	100	1150	1360	110	80	1000	170	240	90	100	1150	1360		160	240	100	110	1200	1250
AltInnovation_VolumeAdjuster_Kyles at I-75 NB.xlsm	EBT	820	760	1190	1370	9910	10790	850	950	10000	850	860	1190	1370	10000	10790		900	920	1170	1300	9950	10700
AltInnovation_VolumeAdjuster_Kyles at I-75 NB.xlsm	WBR	990	1110	420	410	6000	6620	725	465	5900	990	1110	465	475	6000	6620		900	1030	530	560	6150	6850
AltInnovation_VolumeAdjuster_Kyles at I-75 NB.xlsm	WBT	500	540	690	710	6450	6590	450	655	6900	500	540	690	710	6900	6950		490	520	680	710	6900	7000
AltInnovation_VolumeAdjuster_Kyles at I-75 NB.xlsm	NBL	90	30	190	190	1980	1430	100	195	2150	110	120	195	205	2150	2200		120	120	190	190	2100	2100
AltInnovation_VolumeAdjuster_Kyles at I-75 NB.xlsm	NBR	150	60	300	300	2840	2570	150	265	2850	150	160	300	310	2850	2900		150	160	280	290	2800	2850
AltInnovation_VolumeAdjuster_Kyles at I-75 SB.xlsm	EBT	620	740	590	630	5630	6110	480	500	5550	620	740	590	630	5630	6110		570	660	580	610	5650	6000
AltInnovation_VolumeAdjuster_Kyles at I-75 SB.xlsm	EBR	120	90	140	120	1940	1650	170	215	2500	170	180	215	225	2500	2550		160	180	190	200	2500	2550
AltInnovation_VolumeAdjuster_Kyles at I-75 SB.xlsm	SBR	180	170	190	200	2140	2260	140	150	1800	180	190	190	200	2140	2260		190	200	190	200	2200	2300
AltInnovation_VolumeAdjuster_Kyles at I-75 SB.xlsm	SBL	420	340	670	820	5460	6090	480	530	5450	480	490	670	820	5460	6090		490	500	690	800	5500	6100
AltInnovation_VolumeAdjuster_Kyles at I-75 SB.xlsm	WBT	430	370	640	670	6370	5850	385	605	6700	430	440	640	670	6700	6750		440	450	640	660	6700	6750
AltInnovation_VolumeAdjuster_Kyles at I-75 SB.xlsm	WBL	170	160	250	240	2080	2080	165	245	2350	170	180	250	260	2350	2400		170	190	230	240	2300	2350
AltInnovation_VolumeAdjuster_Kyles at US-25.xlsm	SBT	530	560	1060	1110	6010	6590	360	800	5250	530	560	1060	1110	6010	6590		530	560	1060	1110	6000	6600
AltInnovation_VolumeAdjuster_Kyles at US-25.xlsm	SBL	420	390	460	450	4940	4670	445	515	5650	450	460	515	525	5650	5700		470	480	530	550	5650	5750
AltInnovation_VolumeAdjuster_Kyles at US-25.xlsm	WBR	440	370	520	550	5530	5070	395	530	6000	440	450	530	550	6000	6050		470	470	520	540	5950	6000
AltInnovation_VolumeAdjuster_Kyles at US-25.xlsm	WBL	160	180	310	320	2970	3090	130	225	2500	160	180	310	320	2970	3090		160	180	310	320	2950	3050
AltInnovation_VolumeAdjuster_Kyles at US-25.xlsm	NBT	700	780	540	520	5020	5560	610	465	5050	700	780	540	550	5050	5560		700	780	540	550	5050	5550

Appendix C-6 - Forecast Targets versus Balanced

		Adjuster Spreadsheet Target						Existing 2019 Volumes			Adjusted Forecast Targets							Balanced Forecasts					
Adjuster Spreadsheet	Turn	AM29	AM49	PM29	PM49	DY29	DY49	AM19	PM19	AADT19	AM29	AM49	PM29	PM49	DY29	DY49	Notes on target	AM29	AM49	PM29	PM49	DY29	DY49
AltInnovation_VolumeAdjuster_Kyles at US-25.xlsm	NBR	250	340	230	250	2490	2780	205	200	2400	250	340	230	250	2490	2780		260	360	240	260	2500	2800
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	EBL	280	310	240	270	3240	3500	140	145	2100	280	310	240	270	3240	3500		270	300	230	260	3450	3650
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	EBT	220	210	230	190	2680	2490	245	170	2900	250	260	230	240	2900	2950		330	370	220	230	3200	3650
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	EBR	120	120	110	120	1430	1450	65	80	850	120	130	110	120	1430	1480		100	110	110	120	1350	1450
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	SBR	70	60	400	410	3150	3280	65	175	2050	160	170	400	410	3150	3280		170	180	420	430	3200	3350
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	SBT	40	30	200	210	1100	1170	90	215	1950	100	110	215	225	1950	2000		90	100	220	250	1850	1950
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	SBL	110	100	200	130	2040	1730	50	65	1100	110	120	200	210	2040	2090		70	80	140	150	1350	1400
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	WBR	10	10	40	40	30	30	20	20	450	20	30	40	50	450	500		20	30	20	30	300	350
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	WBT	70	90	30	40	460	650	90	190	2450	120	130	190	200	2450	2500		80	90	100	110	1450	1800
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	WBL	20	20	60	60	420	440	20	55	500	30	40	60	70	500	550		20	30	30	40	300	350
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	NBL	120	120	100	90	1240	1220	110	90	1300	120	130	100	110	1300	1350		110	130	100	110	1200	1250
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	NBT	100	110	170	160	1550	1620	65	110	1200	100	110	170	180	1550	1620		90	100	160	170	1500	1550
AltInnovation_VolumeAdjuster_Linn at 8th.xlsm	NBR	10	10	40	40	340	290	10	25	200	20	30	40	50	340	390		10	20	30	40	250	300
AltInnovation_VolumeAdjuster_Linn at Bank.xlsm	EBL	30	30	70	70	810	870	25	60	750	40	50	70	80	810	870		40	50	70	80	800	900
AltInnovation_VolumeAdjuster_Linn at Bank.xlsm	EBR	30	30	60	60	610	570	25	55	700	40	50	60	70	700	750		40	50	60	70	700	750
AltInnovation_VolumeAdjuster_Linn at Bank.xlsm	SBR	100	100	120	120	2380	2450	80	100	2200	120	130	120	130	2380	2450		130	140	130	140	2400	2550
AltInnovation_VolumeAdjuster_Linn at Bank.xlsm	SBT	150	150	300	280	2530	2410	125	200	2050	150	160	300	310	2530	2580		170	190	320	350	2550	2850
AltInnovation_VolumeAdjuster_Linn at Bank.xlsm	NBL	30	30	150	140	1070	1000	35	130	1250	60	70	150	160	1250	1300		60	70	150	160	1250	1300
AltInnovation_VolumeAdjuster_Linn at Bank.xlsm	NBT	320	370	260	210	4040	3900	90	225	2750	320	370	260	270	4040	4090		320	380	260	300	4100	4200
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	EBL	10	10	10	10	80	80	10	5	100	10	20	10	20	100	150		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	EBT	540	550	410	440	4780	5160	430	315	4550	540	550	410	440	4780	5160		520	530	360	380	4600	4850
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	EBR	180	200	220	210	2630	2620	135	135	2150	180	200	220	230	2630	2680		170	180	190	210	2500	2500
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	SBR	90	100	60	60	850	810	30	55	700	90	100	60	70	850	900		70	80	60	70	700	750
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	SBT	40	70	200	200	1770	2210	40	90	1250	90	100	200	210	1770	2210		90	100	190	200	1750	2150
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	SBL	10	10	10	10	110	120	5	5	100	10	20	10	20	110	160		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	WBR	10	10	10	10	150	150	5	10	150	10	20	10	20	150	200		10	20	10	20	150	200
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	WBT	70	100	390	420	2260	2700	140	410	4000	200	210	410	420	4000	4050		160	170	380	390	3150	3250
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	WBL	10	10	60	60	600	610	25	45	550	30	40	60	70	600	650		30	40	60	70	600	650
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	EBL	300	340	190	150	3110	2950	60	165	1800	300	340	190	200	3110	3160		200	230	180	190	2600	2450
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	EBT	20	20	60	60	640	660	30	60	1000	50	60	60	70	1000	1050		50	60	20	30	1000	1000
AltInnovation_VolumeAdjuster_Linn at Central.xlsm	EBR	40	50	90	90	910	920	15	45	550	50	60	90	100	910	960		50	60	90	100	900	950
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	EBL	10	10	10	10	50	50	10	10	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	EBT	10	10	10	10	50	50	5	5	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	EBR	10	10	10	10	50	50	5	5	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	SBR	10	10	10	10	60	60	5	5	50	10	20	10	20	60	110		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	SBT	220	190	620	540	5250	4930	145	350	3850	260	270	620	630	5250	5300		260	270	590	600	5150	5200
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	SBL	30	40	40	50	440	460	25	35	400	30	40	40	50	440	490		30	40	40	50	450	500
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	WBR	20	20	50	50	410	410	15	30	350	20	30	50	60	410	460		20	30	50	60	400	450
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	WBT	10	10	10	10	50	50	5	5	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	WBL	30	20	190	220	1190	1420	15	65	550	60	70	190	220	1190	1420		60	70	180	210	1150	1400
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	NBL	20	20	10	10	50	50	15	5	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	NBT	150	150	300	300	3410	3390	230	345	4500	230	240	345	353	4500	4550		240	260	340	370	4100	4350
AltInnovation_VolumeAdjuster_Linn at Court.xlsm	NBR	60	70	40	40	630	720	125	90	1100	130	140	55	65	1100	1150		130	150	60	70	1050	1100
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	EBL	20	20	20	20	270	290	30	25	400	30	40	25	35	400	450		30	40	20	30	300	350
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	EBT	310	320	110	110	1700	1750	310	120	2050	310	320	120	130	2050	2100		260	260	140	140	1550	1650
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	EBR	110	100	140	150	1220	1280	50	95	700	110	120	140	150	1220	1280		90	100	110	120	950	1000
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	SBR	20	30	50	50	440	500	25	50	550	30	40	50	60	550	600		30	40	50	60	600	650
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	SBT	340	300	640	580	4980	4680	225	405	3500	340	350	640	650	4980	5030		340	350	640	650	5000	5050
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	SBL	40	40	40	40	410	430	30	30	350	40	50	40	50	410	460		40	50	40	50	400	450
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	WBR	30	30	40	40	310	310	20	30	300	30	40	40	50	310	360		30	40	40	50	300	350
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	WBT	70	80	250	260	2500	2720	70	160	2000	130	140	250	260	2500	2720		140	160	250	260	2750	3050
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	WBL	20	30	90	60	740	690	30	40	550	40	50	90	100	740	790		40	50	90	100	750	800
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	NBL	60	60	120	130	1150	1220	45	80	950	60	70	120	130	1150	1220		70	80	120	130	1250	1350
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	NBT	190	190	280	270	1230	1210	250	320	3550	250	260	320	330	3550	3600		250	260	320	330	3550	3600
AltInnovation_VolumeAdjuster_Linn at Ezzard Charles.xlsm	NBR	80	80	40	40	620	640	60	40	650	80	90	40	50	650	700		80	90	40	50	650	700
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	SBR	290	180	690	720	4450	4260	155	525	3950	290	300	690	720	4450	4500		290	300	720	760	4500	4550
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	SBT	120	120	600	630	3100	3240	120	620	3500	180	190	620	630	3500	3550		150	160	540	570	3350	3400
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	WBR	680	790	690	660	6840	7140	530	360	5200	680	790	690	700	6840	7140		800	940	700	710	7650	7900
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	WBT	280	280	760	790	5060	5390	635	935	9450	280	290	760	790	5060	5390	5th Street access change	330	350	800	840	5350	5750
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	WBL	30	30	130	140	840	940	25	105	750	40	50	130	140	840	940		40	60	120	130	850	950
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	NBL	200	200	150	150	1790	1790	170	135	1800	200	210	150	160	1800	1850		220	230	160	170	1800	1850
AltInnovation_VolumeAdjuster_Main at 4th.xlsm	NBT	520	520	260	270	3280	3330	405	210	2900	520	530	260	270	3280	3330		550	580	260	290	3500	3550
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	EBL	140	130	70	60	1330	1330	100	55	1250	140	150	70	80	1330	1380		140	150	70	80	1350	1400
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	EBT	1020	1300	570	620	9240	10340	590	395	6000	1020	1300	570	620	9240	10340		920	1060	540	570	8850	9400
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	EBR	40	30	110	80	470	320	30	70	800	40	50	110	120	800	850		40	50	100	110	750	800
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	SBT	60	60	490	520	2020	2170	65	500	2100	110	120	378	391	2100	2170		80	100	400	430	2050	2150
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	SBL	80	80	240	250	1890	1970	80	225	2150	110	120	240	250	2150	2200		110	120	260	270	2150	2200
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	NBT	570	590	350	360	3740	3780	475	290	3450	570	590	350	360	3740	3790		630	660	350	380	3950	4000
AltInnovation_VolumeAdjuster_Main at 5th.xlsm	NBR	70	70	90	110	930	970	60	75	750	70	80	90	110	930	980		70	80	90	130	950	1000
AltInnovation_VolumeAdjuster_Mound at 9th.xlsm	SBR	10	10	10	10	30	30	0	0	0	10	20	5	15	30	80		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Mound at 9th.xlsm	WBR	20	20	20	20	300	300	15	15	300	20	30	20	30	300	350		50	60	110	130	950	1000
AltInnovation_VolumeAdjuster_Mound at 9th.xlsm	WBT	530	630	1330	1650	10600	13150	0	0	0	530	630	1330	1650	10600	13150		550	650	1400	1530	9700	11500
AltInnovation_VolumeAdjuster_Patterson at Harrison.xlsm	EBT	90	90	130	140	1620	1580	70	75	1250	90	100	130	140	1620	1670		110	140	160	200	1800	2000
AltInnovation_VolumeAdjuster_Patterson at Harrison.xlsm	EBR	10	10	20	20	160	190	5	10	100	10	20	20	30	180	210		10	30	20	40	200	250
AltInnovation_VolumeAdjuster_Patterson at Harrison.xlsm	WBT	20	20	80	80	920	900	30	70	1050	50	60	80	90	1050	1100		60	70	100	100	1100	1100
AltInnovation_VolumeAdjuster_Patterson at Harrison.xlsm	WBL	20	20	10	10	150	170	10	5	100	20	30	10	20	150	200		20	30	10	20	150	250
AltInnovation_VolumeAdjuster_Patterson at Harrison.xlsm	NBL	10	10	10	10	80	100	5	5	50	10	20	10	20	80	130		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Patterson at Harrison.xlsm	NBR	10	10	10	10	150	170	5	5	100	10	20	10	20	150	200		10	20	10	20	150	200
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	SBR	540	570	340	340	4220	4320	540	430	4450	540	570	430	440	4450	4500		580	630	430	440	5150	5200
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	SBT	70	70	50	40	650	580	70	75	1000	70	80	75	85	1000	1050		80	90	80	90	1100	1150
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	WBR	80	80	70	70	820	820	100	115	2250	110	120	115	125	2250	2300		100	110	110	120	1950	2000
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	WBT	590	580	1350	1380	6790	7200	795	1420	12000	580	600	1330	1380	6790	7200	Fewer vehicles using 4th Street ramp in favor of CWB	510	530	1300	1360	6650	7050
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	WBL	80	80	50	50	810	800	65	60	950	80	90	60	70	950	1000		70	80	60	70	900	950
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	NBL	310	320	430	420	3920	3920	185	135	1650	310	320	430	440	3920	3970		300	310	390	400	4200	4250
AltInnovation_VolumeAdjuster_Philadelphia at 4th.xlsm	NBT	120	70	120	110	2180	2000	115	95	2400	120	130	120	130	2400	2450		110	130	110	120	2200	2300
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	EBL	280	200	400	390	5420	5130	180	100	2700	280	290	400	410	5420	5470		280	290	360	370	4950	5000
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	EBT	1090	1420	590	620	9270	10450	610	405	6450	1090	1420	590	620	9270	10450		950	1090	520	540	8450	8950
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	EBR	60	60	60	90	930	1050	60	60	750	60	70	60	90	930	1050		60	70	50	80	800	900
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	SBT	60	60	50	50	670	650	35	45	550	60	70	50	60	670	720		60	70	50	60	600	650
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	SBL	100	100	50	50	790	730	100	90	1400	100	110	90	100	1400	1450		90	100	90	100	1400	1450
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	NBT	80	100	90	90	790	820	120	130	1350	120	130	130	140	1350	1400		130	150	140	150	1450	1550
AltInnovation_VolumeAdjuster_Philadelphia at 5th.xlsm	NBR	10	10	30	30	180	180	10	25	200	10	20	30	40	200	250		10	20	30	40	200	250
AltInnovation_VolumeAdjuster_Philadelphia at 9th.xlsm	EBT	80	90	110	110	1100	1170	25	35	350	80	90	110	120	1100	1170		60	90	100	110	1150	1200
AltInnovation_VolumeAdjuster_Philadelphia at 9th.xlsm	SBR	10	10	40	40	210	220	10	30	200	10	20	38	48	210	260		20	30	60	70	350	400
AltInnovation_VolumeAdjuster_Philadelphia at 9th.xlsm	SBL	30	30	50	50	420	420	30	45	400	30	40	50	60	420	470		30	40	50	60	400	450
AltInnovation_VolumeAdjuster_Philadelphia at 9th.xlsm	WBT	40	60	20	20	300	320	25	20	250	40	60	20	30	300	350		90	100	30	40	500	550
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	EBL	620	660	190	170	4600	4760	465	115	3450	620	660	230	240	4600	4760		730	800	300	310	4600	4750
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	EBT	650	650	280	290	4190	4290	630	295	4800	650	660	295	305	4800	4850		630	640	290	310	4650	4750
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	WBR	150	160	110	110	1110	1240	120	110	950	150	160	110	120	1110	1240		180	200	140	160	1150	1350
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	WBT	270	270	550	560	4610	4660	120	460	3500	270	280	550	580	4610	4660		260	270	540	550	4350	4450
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	WBL	80	40	150	150	1330	1220	105	145	1750	110	120	150	160	1750	1800		100	110	140	150	1600	1650
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	NBT	320	360	380	380	4070	4300	305	240	3150	320	360	380	390	4070	4300		350	410	480	500	4050	4300
AltInnovation_VolumeAdjuster_Pike at I-75 NB.xlsm	NBR	80	140	100	100	870	1010	150	110	1500	150	160	110	120	1500	1550		140	150	100	110	1450	1500
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	EBT	1170	1220	340	320	7360	7500	1015	275	7000	1170	1220	368	378	7360	7500		1250	1320	400	420	7750	7900
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	EBR	80	80	30	30	30	30	70	25	550	80	90	30	40	550	600		80	90	30	40	550	600
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	SBR	90	90	640	790	4080	4590	100	480	3900	200	210	640	790	4080	4590		230	240	250	850	4550	4900
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	SBT	370	350	590	580	5990	6360	215	220	3000	370	380	590	600	5990	6360		390	420	640	650	6900	7050
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	SBL	90	90	150	150	1300	1420	80	135	1250	90	100	150	160	1300	1420		110	120	190	200	1500	1600
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	WBT	210	170	490	500	3500	3470	160	370	3250	210	220	490	500	3500	3550		220	230	470	480	3500	3600
AltInnovation_VolumeAdjuster_Pike at I-75 SB.xlsm	WBL	140	140	210	210	2390	2360	65	235	2000	140	150	235	245	2390	2440		140	150	210	220	2450	2500

Appendix C-6 - Forecast Targets versus Balanced

		Adjuster Spreadsheet Target						Existing 2019 Volumes			Adjusted Forecast Targets							Balanced Forecasts					
Adjuster Spreadsheet	Turn	AM29	AM49	PM29	PM49	DY29	DY49	AM19	PM19	AADT19	AM29	AM49	PM29	PM49	DY29	DY49	Notes on target	AM29	AM49	PM29	PM49	DY29	DY49
AltInnovation_VolumeAdjuster_Pike at Main.xlsm	EBL	460	460	230	230	2740	2740	455	265	3600	460	470	265	275	3600	3650		450	460	250	260	3500	3550
AltInnovation_VolumeAdjuster_Pike at Main.xlsm	EBT	280	330	150	160	2230	2520	325	140	2700	330	340	150	160	2700	2750		320	330	140	160	2600	2700
AltInnovation_VolumeAdjuster_Pike at Main.xlsm	SBR	150	140	400	400	2880	2930	135	340	2800	150	160	400	410	2880	2930		150	170	410	420	2900	3000
AltInnovation_VolumeAdjuster_Pike at Main.xlsm	SBL	10	10	10	10	50	50	5	5	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Pike at Main.xlsm	WBR	20	20	20	20	280	270	20	20	300	20	30	20	30	300	350		20	30	20	30	300	350
AltInnovation_VolumeAdjuster_Pike at Main.xlsm	WBT	280	280	260	280	2580	2690	105	230	1650	280	290	260	280	2580	2690		290	300	270	290	2600	2800
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	EBL	20	10	10	10	80	70	15	10	250	20	30	13	23	250	300		20	30	10	20	200	250
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	EBT	40	40	100	90	1410	1310	20	40	750	70	80	100	110	1410	1460		80	90	110	120	1400	1450
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	EBR	20	20	20	20	440	430	25	15	350	30	40	22	32	440	490		30	40	30	40	450	500
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	SBR	20	20	20	20	370	340	15	15	300	20	30	20	30	370	420		20	30	20	30	350	400
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	SBT	430	420	490	500	4720	4820	385	450	4900	430	440	490	500	4900	4950		450	450	510	560	5250	5300
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	SBL	60	60	90	90	1190	1290	55	85	1100	60	70	90	100	1190	1290		70	80	100	110	1150	1250
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	WBR	90	100	210	220	2160	2190	90	200	2150	110	120	210	220	2160	2210		90	100	200	210	1850	1900
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	WBT	70	90	70	60	460	410	25	40	150	70	80	70	80	460	510		80	80	60	70	550	550
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	WBL	10	20	60	60	270	290	15	45	300	20	30	54	64	300	350		20	30	60	70	300	350
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	NBL	60	60	20	20	790	770	35	15	550	60	70	40	50	790	840		60	70	40	50	800	850
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	NBT	150	150	250	260	2590	2580	160	275	3100	160	170	275	285	3100	3150		140	150	250	260	2650	2700
AltInnovation_VolumeAdjuster_Spring Grove at Bank.xlsm	NBR	50	60	90	110	990	1170	40	70	1100	60	70	90	110	1100	1170		70	80	100	110	1050	1150
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	EBL	10	10	20	20	50	50	5	15	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	EBT	10	10	10	10	50	50	5	5	50	10	20	9	19	50	100		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	EBR	10	10	30	30	250	250	5	25	250	10	20	30	40	250	300		10	20	30	40	250	300
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	SBR	20	20	20	20	150	150	20	5	150	20	30	27	37	150	200		20	30	30	40	150	200
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	SBT	430	440	560	580	5480	5470	445	520	5900	450	460	560	580	5900	5950		450	460	560	570	5900	5950
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	SBL	100	100	30	30	1360	1280	60	60	850	100	110	68	78	1360	1410		80	90	70	80	1150	1200
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	WBR	30	30	150	140	1240	1250	20	85	900	60	70	150	160	1240	1290		100	110	200	200	1900	1950
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	WBT	40	90	20	20	210	210	35	15	200	40	50	20	30	210	260		60	80	60	60	450	450
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	WBL	50	30	20	20	290	310	5	5	150	50	60	20	30	290	340		80	80	40	90	600	700
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	NBL	20	20	10	10	190	190	15	10	200	20	30	10	20	200	250		20	30	20	30	250	300
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	NBT	180	180	390	400	3480	3530	245	465	5100	180	190	390	400	3480	3530	WHV changes	220	230	430	440	4250	4300
AltInnovation_VolumeAdjuster_Spring Grove at Harrison.xlsm	NBR	10	10	10	10	200	200	5	10	200	10	20	10	20	200	250		10	20	10	20	200	250
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	EBT	20	20	30	30	80	80	25	30	100	20	30	18	28	100	150		40	50	60	80	300	400
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	EBR	10	10	20	20	170	190	5	5	50	10	20	20	30	170	220		10	30	20	30	200	250
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	SBR	10	10	10	10	40	40	0	0	0	10	20	7	17	40	90		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	SBT	520	530	610	680	3090	3220	590	700	5200	520	530	610	680	3090	3220	Ramp changes	270	280	330	360	1600	1750
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	SBL	170	170	20	30	600	600	260	160	2500	170	180	20	30	600	650	Ramp changes	210	220	100	110	1900	1950
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	WBT	20	20	20	20	230	230	0	0	0	20	30	20	30	230	280		30	40	50	50	300	350
AltInnovation_VolumeAdjuster_Western at Ezzard Charles.xlsm	WBL	120	170	60	80	1260	1630	0	0	0	120	170	63	80	1260	1630		130	170	100	110	1350	1600
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	EBT	30	30	50	50	570	550	25	50	650	30	40	50	60	650	700		30	40	60	80	700	800
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	EBR	120	120	250	260	1690	1540	105	165	1450	120	130	250	260	1690	1740		100	120	240	250	1500	1600
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	SBR	130	130	200	200	1640	1700	150	180	1850	150	160	200	210	1850	1900		150	170	240	260	1800	1850
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	SBT	430	430	470	500	3490	3890	310	370	3000	430	440	470	500	3490	3890		440	440	410	450	3100	3350
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	SBL	100	90	180	170	1420	1260	140	250	2600	140	150	250	260	2600	2650		130	140	250	260	2400	2450
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	WBT	50	50	50	50	890	680	55	55	900	60	70	55	65	900	950		70	90	70	80	1050	1100
AltInnovation_VolumeAdjuster_Western at Findlay.xlsm	WBL	10	10	30	20	280	190	20	40	550	30	40	40	50	550	600		30	40	40	50	550	600
AltInnovation_VolumeAdjuster_Western at Gest.xlsm	EBT	130	150	270	310	2850	3210	125	200	2800	140	150	270	310	2850	3210		150	160	260	300	3050	3350
AltInnovation_VolumeAdjuster_Western at Gest.xlsm	SBR	10	10	290	300	30	30	180	210	1400	180	190	252	262	1400	1450		230	270	290	310	1750	2000
AltInnovation_VolumeAdjuster_Western at Gest.xlsm	SBL	150	150	110	100	980	920	125	95	950	150	160	110	120	980	1030		180	210	160	190	1400	1600
AltInnovation_VolumeAdjuster_Western at Gest.xlsm	WBT	80	90	40	50	790	970	230	55	1700	240	250	85	95	1700	1750		250	280	120	140	1800	2050
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	EBT	90	80	110	110	1470	1390	70	90	1300	90	100	110	120	1470	1520		100	110	110	120	1450	1500
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	EBR	40	40	30	40	470	550	55	85	850	60	70	85	95	850	900		60	70	30	40	500	600
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	SBR	10	10	20	20	150	150	10	15	150	10	20	20	30	150	200		10	20	20	30	150	200
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	SBT	270	280	450	460	1930	1580	245	365	2000	270	280	360	370	2000	2050		350	360	370	390	2050	2100
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	SBL	220	230	260	280	3000	3350	180	195	2850	220	230	260	280	3000	3350		210	220	300	330	2950	3250
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	WBT	190	210	130	130	2260	2480	90	115	1700	190	210	130	140	2260	2480		170	190	140	140	2200	2350
AltInnovation_VolumeAdjuster_Western at Liberty.xlsm	WBL	60	70	70	150	1030	1330	90	125	1550	90	100	125	150	1550	1600		80	90	60	80	1050	1100
AltInnovation_VolumeAdjuster_WHV at I-75 NB.xlsm	EBL	900	900	560	560	9290	9300				900	910	560	570	9230	9340	The target is a raw model assignment, lower priority during balancing	880	930	580	600	9600	9900
AltInnovation_VolumeAdjuster_WHV at I-75 NB.xlsm	EBT	10	10	10	10	30	30				10	20	5	15	30	80	The target is a raw model assignment, lower priority during balancing	80	90	60	80	900	950
AltInnovation_VolumeAdjuster_WHV at I-75 NB.xlsm	NBL	660	660	1030	1030	10060	10060				660	670	1030	1040	10060	10110	The target is a raw model assignment, lower priority during balancing	690	700	1260	1280	11700	11750
AltInnovation_VolumeAdjuster_WHV at I-75 NB.xlsm	NBT	320	320	370	370	5730	5730				320	330	370	380	5730	5780	The target is a raw model assignment, lower priority during balancing	300	330	400	430	5100	5250
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	EBL	180	180	210	220	1520	1570	70	65	1300	180	190	210	220	1520	1570		130	140	160	180	1900	2050
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	EBT	50	50	150	150	1650	1690	45	130	1650	80	90	150	160	1650	1700		90	110	150	160	1700	1800
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	WBR	260	300	280	250	2750	2660	150	160	2450	260	300	280	290	2750	2800		220	250	250	260	3350	3400
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	WBT	40	50	150	150	1230	1230	40	135	1200	60	70	150	160	1230	1280		70	90	150	160	1200	1250
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	NBL	90	90	100	110	1050	1050	90	150	1400	90	100	150	160	1400	1450		120	120	170	190	1500	1550
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	NBT	410	410	530	590	5100	5140	140	285	3600	410	420	530	590	5100	5150		320	330	430	490	4700	4900
AltInnovation_VolumeAdjuster_Winchell at Bank.xlsm	NBR	60	60	80	80	710	710	50	65	700	60	70	80	90	710	760		80	90	90	100	800	850
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	EBL	40	40	50	60	460	490	25	30	250	40	50	50	60	460	510		40	60	40	50	700	750
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	EBT	180	180	50	50	1390	1410	260	160	2350	260	270	160	170	2350	2400		210	220	120	130	1500	1600
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	WBR	130	150	430	460	3950	4310	115	260	2950	200	210	430	460	3950	4310		210	230	390	420	4050	4450
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	WBT	10	20	20	20	240	340	25	30	550	30	40	30	40	550	600		30	50	30	30	550	600
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	NBL	120	130	130	150	1110	1280	20	20	250	120	130	130	150	1110	1280		130	160	120	130	1150	1350
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	NBT	1220	1340	1380	1430	16330	17430	265	215	3350	1220	1340	1380	1430	16330	17430		1450	1580	1490	1590	18950	20350
AltInnovation_VolumeAdjuster_Winchell at Ezzard Charles.xlsm	NBR	130	160	70	70	790	920	130	80	800	130	160	80	90	800	920		170	190	150	150	1300	1400
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	EBL	40	30	90	70	410	360	50	110	600	50	60	108	118	600	650		40	50	100	110	550	600
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	EBT	80	70	130	110	1980	2190	115	190	2650	130	140	190	200	2650	2700		120	130	210	230	2550	2650
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	WBR	30	20	90	90	370	320	15	35	550	30	40	90	100	550	600		40	50	110	120	700	750
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	WBT	10	10	40	30	400	260	20	50	650	30	40	50	60	650	700		30	50	50	60	700	750
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	NBL	60	60	50	50	810	800	55	45	800	60	70	50	60	810	860		70	80	60	70	900	950
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	NBT	480	510	470	540	6030	6250	215	355	4550	480	510	470	540	6030	6250		440	440	480	550	5750	5950
AltInnovation_VolumeAdjuster_Winchell at Findlay.xlsm	NBR	10	10	10	10	70	60	5	5	50	10	10	20	70	120			10	30	10	20	150	150
AltInnovation_VolumeAdjuster_Winchell at Harrison.xlsm	EBT	110	110	120	120	1490	1430	70	75	1100	110	120	120	130	1490	1540		100	130	90	120	1450	1550
AltInnovation_VolumeAdjuster_Winchell at Harrison.xlsm	WBT	30	20	100	90	960	980	35	75	1100	60	70	100	110	1100	1150		150	180	170	200	2100	2150
AltInnovation_VolumeAdjuster_Winchell at Harrison.xlsm	NBL	10	10	100	90	1180	1180	25	30	150	60	70	100	110	1180	1230		90	90	130	150	850	950
AltInnovation_VolumeAdjuster_Winchell at Harrison.xlsm	NBR	10	10	50	50	450	540	5	10	250	20	30	50	60	450	540		20	40	90	120	550	700
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	EBL	20	20	40	40	250	250	15	30	250	20	30	40	50	250	300		20	30	40	50	250	300
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	EBT	290	290	330	380	4200	4450	235	255	3900	290	300	330	380	4200	4450		290	300	370	400	4150	4450
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	WBR	210	210	260	320	3010	3110	90	235	2750	210	220	260	320	3010	3110		220	240	250	310	3100	3250
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	WBT	120	120	180	230	2150	2450	125	210	2500	130	140	210	230	2500	2550		100	110	190	220	2000	2100
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	NBL	140	160	40	40	1250	1380	55	30	750	140	160	63	73	1250	1380		150	170	80	80	1250	1350
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	NBT	280	280	200	180	3380	3190	170	140	2400	280	290	200	210	3380	3430		280	280	260	280	3450	3500
AltInnovation_VolumeAdjuster_Winchell at Liberty.xlsm	NBR	420	500	240	230	3670	3860	70	90	1100	420	500	240	250	3670	3860		390	440	280	290	3400	3550
AltInnovation_VolumeAdjuster_Gest at 7th.xlsm	SBT	280	260	140	140	2320	2310	165	420	4450	280	290	420	430	4450	4500		260	270	220	240	2850	2950
AltInnovation_VolumeAdjuster_Gest at 7th.xlsm	NBT	80	90	100	120	1440	1610	225	275	3750	230	240	275	285	3750	3800		330	360	270	290	3400	3600
AltInnovation_VolumeAdjuster_Gest at 7th.xlsm	NBR	20	20	50	50	270	270				20	30	49	59	270	320	The target is a raw model assignment, lower priority during balancing	30	50	40	60	400	450
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	EBL	0	0	10	10	30	30				0	10	5	15	30	80	The target is a raw model assignment, lower priority during balancing	10	40	10	30	200	400
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	EBT	90	80	210	100	1660	1220				90	100	210	220	1660	1710	The target is a raw model assignment, lower priority during balancing	150	150	260	260	2400	2400
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	EBR	40	30	10	10	320	280				40	50	16	26	320	370	The target is a raw model assignment, lower priority during balancing	250	280	120	130	2200	2550
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	SBR	10	10	10	10	60	50				10	20	10	20	60	110	The target is a raw model assignment, lower priority during balancing	20	30	20	40	100	200
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	SBT	130	120	20	10	1740	1690				130	140	87	97	1740	1790	The target is a raw model assignment, lower priority during balancing	180	190	190	200	2050	2150
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	SBL	20	30	100	120	1530	1860				80	90	100	120	1530	1860	The target is a raw model assignment, lower priority during balancing	70	80	80	100	1250	1400
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	WBR	20	20	20	20	250	370				20	30	20	30	250	370	The target is a raw model assignment, lower priority during balancing	30	40	20	30	300	400
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	WBT	20	30	20	30	300	510				20	30	20	30	300	510	The target is a raw model assignment, lower priority during balancing	30	40	40	40	700	1000
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	WBL	10	10	10	10	140	200				10	20	10	20	140	200	The target is a raw model assignment, lower priority during balancing	10	20	20	30	200	250
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	NBL	70	70	40	40	460	460				70	80	40	50	460	510	The target is a raw model assignment, lower priority during balancing	70	80	90	100	1250	1300
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	NBT	340	350	300	310	640	750				120	135	115	135	640	750	The target is a raw model assignment, lower priority during balancing	230	230	150	150	1800	1850
AltInnovation_VolumeAdjuster_Gest at 8th.xlsm	NBR	50	50	40	60	330	400				50	60	40	60	330	400	The target is a raw model assignment, lower priority during balancing	30	50	30	40	350	450
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	SBR	20	20	10	10	100	100				20	30	10	20	100	150		20	30	10	20	100	150
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	SBT	10	10	20	20	30	30				10	20	5	15	30	80		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	WBR	160	30	150	170	1580	1370				160	170	150	170	1580	1630		160	170	150	170	1600	1650
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	WBT	690	690	1450	1480	7880	8300				690	700	1418	1480	7880	8300		640	660	1450	1510	9200	9600

Appendix C-6 - Forecast Targets versus Balanced

		Adjuster Spreadsheet Target						Existing 2019 Volumes			Adjusted Forecast Targets							Balanced Forecasts					
Adjuster Spreadsheet	Turn	AM29	AM49	PM29	PM49	DY29	DY49	AM19	PM19	AADT19	AM29	AM49	PM29	PM49	DY29	DY49	Notes on target	AM29	AM49	PM29	PM49	DY29	DY49
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	WBL	20	20	80	80	860	860				40	50	80	90	860	910		40	50	80	90	850	900
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	NBL	20	20	10	10	190	190				20	30	10	20	190	240		20	30	10	20	200	250
AltInnovation_VolumeAdjuster_Bakewell at 4th.xlsm	NBT	10	10	20	20	30	30				10	20	5	15	30	80		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Bakewell at 5th.xlsm	EBL	20	20	20	20	260	260				20	30	20	30	260	310		20	30	20	30	250	300
AltInnovation_VolumeAdjuster_Bakewell at 5th.xlsm	EBT	910	910	610	610	9930	9930				910	920	610	620	9930	9980		1030	1180	620	650	9800	10350
AltInnovation_VolumeAdjuster_Bakewell at 5th.xlsm	SBL	10	10	90	90	1100	1100				60	70	90	100	1100	1150		70	80	90	110	1150	1250
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	EBL	160	100	100	100	1430	1270	125	70	1350	160	170	100	110	1430	1480		160	170	100	110	1450	1500
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	EBT	0	0	0	0	0	0	0	0	0	0	10	0	10	0	50		200	250	150	200	2000	2200
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	EBR	80	80	60	60	700	680	70	50	700	80	90	60	70	700	750		120	130	100	110	900	950
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	SBR	50	40	150	170	840	870	50	180	1200	60	70	180	190	1200	1250		50	60	150	160	850	900
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	SBT	170	220	210	190	1800	1810	150	100	1100	170	220	210	220	1800	1850		170	220	210	220	1800	1850
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	SBL	0	0	0	0	0	0	0	0	0	0	10	0	10	0	50		30	40	30	40	300	400
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	WBR	0	0	0	0	0	0	0	0	0	0	10	0	10	0	50		50	60	50	60	500	600
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	WBT	0	0	0	0	0	0	0	0	0	0	10	0	10	0	50		100	110	120	130	1100	1200
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	WBL	0	0	0	0	0	0	0	0	0	0	10	0	10	0	50		100	110	120	130	1100	1200
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	NBL	40	50	110	110	1090	1030	40	100	1100	60	70	110	120	1100	1150		60	70	110	120	1100	1150
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	NBT	100	290	70	70	710	1190	120	55	800	120	214	70	80	800	1190		100	210	70	80	700	1200
AltInnovation_VolumeAdjuster_Johnson at 3rd.xlsm	NBR	0	0	0	0	0	0	0	0	0	0	10	0	10	0	50		30	40	30	40	300	400
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	SBR	170	210	210	180	1800	1800	140	90	1100	170	210	210	220	1800	1850		300	360	290	310	2350	2500
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	SBT	90	100	140	130	1450	1380	80	60	700	90	100	140	150	1450	1500		90	100	140	150	1450	1500
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	WBR	70	70	80	80	1140	1130	65	80	1030	70	80	80	90	1140	1190		70	80	80	90	1150	1200
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	WBT	830	910	1350	1400	10560	11400	870	1365	12540	870	910	1365	1400	12540	12590		840	950	1290	1320	11100	11650
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	WBL	10	10	40	40	330	320	10	40	340	20	30	40	50	340	390		20	30	40	50	350	400
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	NBL	30	30	40	30	420	410	25	30	360	30	40	40	50	420	470		30	40	40	50	400	450
AltInnovation_VolumeAdjuster_Johnson at 4th.xlsm	NBT	80	270	90	100	810	1250	95	75	870	100	225	90	100	870	1250		120	240	130	150	950	1550
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	EBL	90	290	90	100	930	1370	110	80	1010	110	247	90	100	1010	1370		140	260	140	160	1100	1700
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	EBT	1040	1090	730	820	10780	11510	730	695	10500	1040	1090	730	820	10780	11510		940	970	720	730	10500	10500
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	EBR	10	10	40	40	370	380	10	35	380	20	30	40	50	380	430		20	30	30	30	350	400
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	SBT	30	30	70	70	480	470	25	55	300	30	40	70	80	480	530		40	50	60	70	1150	1200
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	SBL	70	70	120	110	660	610	65	45	700	70	80	120	130	740	790		70	80	120	130	650	700
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	NBT	10	10	30	30	270	270	10	25	220	10	20	30	40	270	320		10	20	30	40	250	300
AltInnovation_VolumeAdjuster_Johnson at 5th.xlsm	NBR	10	10	20	20	240	240	10	5	100	10	20	20	30	240	290		10	20	20	30	250	300
AltInnovation_VolumeAdjuster_Crescent at 3rd.xlsm	SBT	320	300	180	200	2100	2200	340	215	2870	340	350	215	225	2870	2920		170	180	120	130	1500	1550
AltInnovation_VolumeAdjuster_Crescent at 3rd.xlsm	SBL	590	630	330	310	4760	4850	440	250	4000	590	630	330	340	4760	4850		930	1020	570	640	6850	7150
AltInnovation_VolumeAdjuster_Crescent at 3rd.xlsm	WBR	90	90	270	300	2330	2420	70	180	1975	120	130	270	300	2330	2420		200	220	340	370	3550	3750
AltInnovation_VolumeAdjuster_Crescent at 3rd.xlsm	WBL	30	30	60	50	500	490	30	30	500	30	40	60	70	500	550		30	40	60	70	500	550
AltInnovation_VolumeAdjuster_Crescent at 3rd.xlsm	NBT	150	140	360	360	4290	4310	140	340	3650	210	220	360	370	4290	4340		190	200	460	460	3700	3700
AltInnovation_VolumeAdjuster_Crescent at 3rd.xlsm	NBR	20	20	120	120	440	420	80	100	800	80	90	120	130	800	850		20	30	80	90	450	500
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	EBL	10	10	10	10	30	30	10	10	100	10	20	10	20	100	150		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	EBT	110	110	160	150	1190	1180	110	95	875	110	120	160	170	1190	1240		380	430	310	370	2550	2800
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	EBR	560	600	330	320	4630	4740	405	250	3875	560	600	330	340	4630	4740		560	600	330	340	4650	4750
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	SBR	10	10	10	10	70	60	5	5	75	10	20	10	20	75	125		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	SBT	20	30	10	10	60	50	30	5	75	10	23	10	20	75	125		10	20	10	20	100	100
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	SBL	10	20	20	20	230	200	5	5	75	10	20	20	30	230	280		10	20	20	30	250	300
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	WBR	10	10	10	10	80	70	5	5	100	10	20	10	20	100	150		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	WBT	20	20	160	170	730	750	15	125	700	40	50	131	141	730	780		110	120	200	220	1450	1600
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	WBL	70	50	100	120	1020	1090	70	150	1500	80	90	150	160	1500	1550		90	100	170	170	1500	1500
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	NBL	110	100	190	200	2120	2160	80	100	1700	110	120	190	200	2120	2170		110	120	190	200	2500	2600
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	NBT	30	20	10	10	80	70	5	5	70	10	20	10	20	80	130		10	20	10	20	100	150
AltInnovation_VolumeAdjuster_Philadelphia at 3rd.xlsm	NBR	80	30	20	20	990	880	80	20	1100	80	90	55	65	1100	1150		90	100	20	20	1550	1550
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from Buttermilk Pike	863	955	1105	1223	12763	14124	750	960	12200	860	955	1105	1223	12763	14124		840	940	1080	1200	12750	14100
Misc Ramps Alternative Innovation.xlsm	NB Exit to Buttermilk Pike	992	1091	868	955	12631	13894	885	775	12400	980	1091	868	955	12631	13894		970	1060	860	940	12600	13800
Misc Ramps Alternative Innovation.xlsm	NB I-75 Entrance from Buttermilk Pike	517	530	581	595	8725	8937	485	545	9000	520	530	581	595	9000	9050		660	680	670	700	9050	9150
Misc Ramps Alternative Innovation.xlsm	EB Buttermilk to NB I-75	99	101	148	149	4982	5063	95	140	5250	260	270	263	273	5250	5300		260	270	260	270	5200	5250
Misc Ramps Alternative Innovation.xlsm	WB Buttermilk to NB I-75	443	456	457	467	3846	3932	390	405	3750	640	450	457	467	3846	3932		400	410	410	430	3850	3900
Misc Ramps Alternative Innovation.xlsm	SB Exit to Buttermilk Pike	613	639	795	830	8947	9022	570	700	8850	610	639	795	830	8850	9022		630	660	720	810	8850	8950
Misc Ramps Alternative Innovation.xlsm	SB I-75 South of Buttermilk Pike	5417	6415	7584	8980	86629	102577	4525	6335	79600	5420	6415	7584	8980	86629	102577		5610	6640	7540	8890	86500	102200
Misc Ramps Alternative Innovation.xlsm	NB I-75 South of Buttermilk Pike	5551	6501	5827	6825	78375	91791	4620	4850	71750	5550	6501	5827	6825	78375	91791		5830	6860	5890	6950	78800	92450
Misc Ramps Alternative Innovation.xlsm	SB I-75 North of Buttermilk Pike	5497	6490	7340	8666	82455	97346	4345	6115	76250	5500	6490	7340	8666	82455	97346		5400	6360	7250	8500	82600	97050
Misc Ramps Alternative Innovation.xlsm	NB I-75 North of Buttermilk Pike	5510	6430	5591	6524	74518	86946	4320	4620	68350	5510	6430	5591	6524	74518	86946		5520	6480	5700	6710	75250	87800
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from Dixie Highway	347	375	576	630	4757	5201	295	490	4450	350	379	576	630	4757	5201		380	410	470	520	4750	5250
Misc Ramps Alternative Innovation.xlsm	NB Exit to Dixie Highway	331	400	553	671	3517	4251	325	545	3800	330	400	555	671	3800	4251		370	450	410	490	3750	4100
Misc Ramps Alternative Innovation.xlsm	NB I-75 Entrance from Dixie Highway	610	661	425	461	6335	6864	595	415	6800	610	661	425	461	6800	6864		650	750	480	520	6950	7150
Misc Ramps Alternative Innovation.xlsm	SB Exit to Dixie Highway	238	239	303	303	4703	4703	240	305	5200	260	270	305	315	5200	5250		260	270	450	480	5150	5200
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from Kyle's Lane	323	294	443	404	4246	3872	335	460	4850	340	350	460	470	4850	4900		330	370	420	440	4800	4900
Misc Ramps Alternative Innovation.xlsm	NB Exit to Kyle's Lane	262	219	482	403	4764	3979	250	460	5000	260	270	482	492	5000	5050		270	280	470	480	4900	4950
Misc Ramps Alternative Innovation.xlsm	NB I-75 Entrance from Kyle's Lane	966	1062	627	693	7213	7975	835	545	6900	960	1062	627	693	7213	7975		1060	1270	630	670	7350	8250
Misc Ramps Alternative Innovation.xlsm	SB Exit to Kyle's Lane	722	798	792	873	7677	8457	620	680	7250	720	796	792	873	7677	8457		680	700	880	1090	7700	8450
Misc Ramps Alternative Innovation.xlsm	SB I-75 North of Kyle's Lane	5373	6309	7593	8918	84770	99537	4260	6460	79400	5370	6309	7593	8916	84770	99537		5630	6550	7690	9020	85900	100500
Misc Ramps Alternative Innovation.xlsm	NB I-75 North of Kyle's Lane	6046	7081	5826	6823	79335	92910	5075	4890	73250	6050	7081	5826	6823	79335	92910		6590	7770	5930	6970	80900	94150
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from 12th Street	677	723	1177	1258	10971	11719	345	600	6150	680	723	1177	1258	10971	11719		630	680	1090	1200	11050	11650
Misc Ramps Alternative Innovation.xlsm	NB Exit to 12th Street	288	295	570	585	5913	6071	250	495	5650	300	310	570	585	5913	6071		310	350	570	600	5850	6050
Misc Ramps Alternative Innovation.xlsm	NB Exit to 5th Street	757	781	594	613	8095	8354	510	600	6000	760	781	594	613	8095	8354		810	910	630	680	8950	9350
Misc Ramps Alternative Innovation.xlsm	from 9th	64	66	50	51	680	701	0	0	504	60	70	50	80	680	730		90	130	70	100	950	1100
Misc Ramps Alternative Innovation.xlsm	from I-71	693	713	544	562	7413	7653	0	0	5496	690	713	544	562	7413	7653		720	780	560	580	8000	8250
Misc Ramps Alternative Innovation.xlsm	SB Exit to Bullock Street	334	353	647	685	6070	6419	330	640	6600	330	353	647	685	6600	6650		300	320	630	680	6100	6350
Misc Ramps Alternative Innovation.xlsm	WB Entrance from 4th to Bullock Street	211	238	714	806	4273	4822	285	965	6350	320	330	965	975	6350	6400		260	270	800	850	4900	5150
Misc Ramps Alternative Innovation.xlsm	EB Entrance from Crescent Ave to Bullock Street	157	158	162	163	1882	1902	155	160	2050	160	170	162	172	2050	2100		170	190	150	170	1950	2050
Misc Ramps Alternative Innovation.xlsm	NB I-75 Entrance from 4th Street	945	943	675	673	7477	7458	1155	825	10050	945	955	675	685	7477	7527	Some of this traffic uses CWB	910	960	740	760	6700	6900
Misc Ramps Alternative Innovation.xlsm	SB I-75 Exit to EB 5th St	409	419	227	233	4274	4375	135	75	1550	410	420	227	237	4274	4375		480	540	300	310	5250	5500
Misc Ramps Alternative Innovation.xlsm	NB Entrance from Pike to BSB Local	1472	1530	1052	1093	8748	9090	1155	825	7550	1470	1530	1052	1093	8748	9090		1230	1340	840	870	8850	9300
Misc Ramps Alternative Innovation.xlsm	WB from 6th Street to US-50	468	521	1455	1622	6852	7633	180	560	2900	470	521	1233	1375	6852	7637		540	590	1250	1380	7400	8450
Misc Ramps Alternative Innovation.xlsm	WB US-50 to Gest Street	232	241	98	103	1584	1647	525	225	3950	232	242	99	109	1584	1647	Access Change	310	330	140	160	2150	2200
Misc Ramps Alternative Innovation.xlsm	WB US-50 Exit to Linn Street	298	328	219	240	3072	3376	225	165	2550	300	328	219	240	3072	3376		310	360	220	240	3100	3400
Misc Ramps Alternative Innovation.xlsm	EB US-50 Entrance from Linn Street	133	163	414	509	3114	3827	130	405	3350	170	180	414	509	3350	3827		170	190	500	560	3800	4250
Misc Ramps Alternative Innovation.xlsm	EB 8th Street Entrance from Gest Street	28	29	19	20	254	268	75	50	750	28	38	19	29	254	304	Access Change	210	270	150	180	2000	2450
Misc Ramps Alternative Innovation.xlsm	US-50 to I-71	2048	2115	1529	1578	14528	15003	1775	1325	13850	2050	2115	1529	1578	14528	15003		2180	2250	1850	1930	15650	16250
Misc Ramps Alternative Innovation.xlsm	US 50 WB	1257	1324	3064	3228	21132	22253	995	2425	18400	1260	1324	3064	3228	21132	22253		1220	1250	2800	2960	19800	20900
Misc Ramps Alternative Innovation.xlsm	US 50 EB	3661	3824	2239	2338	23400	24439	3115	1905	21900	3660	3824	2239	2338	23400	24439		3360	3540	2230	2320	21900	22900
Misc Ramps Alternative Innovation.xlsm	US-50 to KY	553	571	644	665	5658	5839	640	745	7200	553	571	644	665	5658	5839	Access Change	530	580	510	530	5450	5700
Misc Ramps Alternative Innovation.xlsm	KY to US-50	499	507	612	622	5882	5983	640	785	8300	640	650	785	795	8300	8350		650	660	820	830	8750	8800
Misc Ramps Alternative Innovation.xlsm	EB US-50 Exit to 5th Street	1162	1341	333	385	5367	6194	610	175	3100	970	1115	333	385	5367	6194		820	900	370	420	4600	5200
Misc Ramps Alternative Innovation.xlsm	I-71 to US 50	639	658	1018	1048	8609	8860	925	1470	13700	639	658	1018	1046	8609	8860	Access Change	650	690	1090	1150	8900	9250
Misc Ramps Alternative Innovation.xlsm	WB US-50	2258	2418	2955	3164	29506	31592	1815	2375	27750	2260	2418	2955	3164	29506	31592		2330	2540	2930	3080	30800	32400
Misc Ramps Alternative Innovation.xlsm	SB I-71	2136	2425	3354	3819	32561	37081	1775	2795	31750	2130	2425	3354	3819	32561	37081		2250	2550	3340	3720	34000	38100
Misc Ramps Alternative Innovation.xlsm	WB I-71 to SB I-71/I-75	1805	2054	2985	3397	30964	35231	1430	2365	28700	1810	2054	2985	3397	30964	35231		1720	1990	2690	3060	30050	34450
Misc Ramps Alternative Innovation.xlsm	I-71 span	1565	1780	2587	2945	26840	30538	0	0	24877	1570	1780	2587	2945	26840	30538		1510	1730	2370	2690	26350	30200
Misc Ramps Alternative Innovation.xlsm	local span	240	274	398	452	4124	4693	0	0	3823	240	274	398	452	4124	4693		210	260	320	370	3700	4250
Misc Ramps Alternative Innovation.xlsm	3rd to I-71	759	880	2099	2433	17319	20079	235	650	5900	870	880	2099	2433	17319	20079		680	760	1370	1550	12850	14100
Misc Ramps Alternative Innovation.xlsm	I-71 span	2081	2329	1845	2067	25165	28178	0	0	25508	2080	2329	1845	2067	25508	28178		1990	2180	1880	2070	24600	26900
Misc Ramps Alternative Innovation.xlsm	local span	476	534	423	474	5753	6453	0	0	5842	480	534	423	474	5842	6453		450	510	440	490	5700	6300
Misc Ramps Alternative Innovation.xlsm	NB I-71	3024	3399	2379	2674	34199	38433	2415	1900	31950	3020	3399	2379	2674	34199	38433		3130	3450	2270	2540	34850	38550
Misc Ramps Alternative Innovation.xlsm	EB US-50	2310	2347	3312	3365	27121	27552	1995	2860	27400	2310	2347	3312	3365	27400	27552		2390	2400	3150	3210	27950	28000
Misc Ramps Alternative Innovation.xlsm	I-71 WB to I-75 NB	2635	2673	2848	2890	31180	31637	1235	1335	17100	2640	2673	2848	2890	31180	31637		2620	2850	3000	3180	30750	32300
Misc Ramps Alternative Innovation.xlsm	NB BSB (Local)	3337	3887	2168	2525	30785	35858	0	0	29856	3340	3887	2168	2525	30785	35858		3230	3760	2600	2890	32150	38000
Misc Ramps Alternative Innovation.xlsm	NB Companion Bridge (I-71/75)	4336	5050	4208	4901	51702	60224	0	0	50144	4340	5050	4208	4901	51702	60224		4470	5180	3780	4530	50400	58050
Misc Ramps Alternative Innovation.xlsm	SB BSB Local	1863	2175	2967	3463	30704	35833	0	0	28471	1860	2175	2967	3463	30704	35833		2150	2440	3540	4040	34150	39350
Misc Ramps Alternative Innovation.xlsm	SB Companion Bridge (I-71/75)	3922	4577	4603	5372	55569	64854	0	0	51529	3920	4577	4603	5372	55569	64854		3630	4230	3590	4770	52050	61350
Misc Ramps Alternative Innovation.xlsm	NB Exit to 2nd Street	185	231	389	486	4287	5358	145	305	3700	210	231	389	486	4287	5358		260	290	400	480	4450	5400
Misc Ramps Alternative Innovation.xlsm	3rd Entrance to I-75	339	389	1052	1207	6214	7132	290	900	5850	340	389	1052	1207	6214	7132		320	390	990	1130	5800	6800

Appendix C-6 - Forecast Targets versus Balanced

		Adjuster Spreadsheet Target						Existing 2019 Volumes			Adjusted Forecast Targets							Balanced Forecasts					
Adjuster Spreadsheet	Turn	AM29	AM49	PM29	PM49	DY29	DY49	AM19	PM19	AADT19	AM29	AM49	PM29	PM49	DY29	DY49	Notes on target	AM29	AM49	PM29	PM49	DY29	DY49
Misc Ramps Alternative Innovation.xlsm	NB Exit to 5th Street	663	850	304	390	5150	6600	480	220	4100	660	850	304	390	5150	6600		1290	1620	550	580	9000	10950
Misc Ramps Alternative Innovation.xlsm	SB I-75 to EB I-71	571	581	1188	1209	16413	16696	565	1175	17850	890	900	1188	1209	17850	17900		900	910	1250	1270	16850	17100
Misc Ramps Alternative Innovation.xlsm	SB Exit to 7th St	4929	5658	466	535	22202	25485	1110	109	5500	2664	3058	1110	1120	22202	25485	use .12 max	2570	2910	1170	1170	19300	21200
Misc Ramps Alternative Innovation.xlsm	NB Entrance from 7th to I-75	130	161	732	883	3239	3911	105	575	2800	160	170	583	704	3239	3911		170	190	580	680	3350	4200
Misc Ramps Alternative Innovation.xlsm	9th Street Exit to SB I-75	298	365	1157	1419	6872	8429	130	505	3300	340	365	1157	1419	6872	8429		320	360	820	980	5950	7550
Misc Ramps Alternative Innovation.xlsm	NB Entrance from 9th	295	321	859	934	5551	6035	220	640	4550	300	321	859	934	5551	6035		370	420	720	780	6250	7100
Misc Ramps Alternative Innovation.xlsm	SB Ramp from Ezzard to Gest Street	456	470	456	470	3196	3292	305	305	2350	460	470	456	470	3196	3292		410	480	450	500	3150	3600
Misc Ramps Alternative Innovation.xlsm	SB I-75 Exit to Freeman Avenue	476	509	294	315	5193	5558	550	340	6600	476	509	294	315	5193	5558	Access Change	680	720	410	470	6800	7350
Misc Ramps Alternative Innovation.xlsm	NB Exit to Ezzard Charles	791	847	581	623	7340	7860	245	180	2500	790	847	581	623	7340	7860		780	860	470	490	7350	7850
Misc Ramps Alternative Innovation.xlsm	NB I-75 North of Ezzard	6215	7200	7538	8734	78677	91156	5235	6350	72900	6220	7200	7538	8734	78677	91156		6270	7230	7690	8900	78200	90300
Misc Ramps Alternative Innovation.xlsm	SB I-75 North of Ezzard	7275	8312	4966	5673	76685	87612	6395	4365	74150	7280	8312	4966	5673	76685	87612		7370	8370	4950	5620	76900	87150
Misc Ramps Alternative Innovation.xlsm	NB I-75 Entrance from Ezzard Charles	959	1043	1007	1096	16992	18488	495	520	9650	960	1043	1007	1096	16992	18488		880	980	1300	1410	15600	17150
Misc Ramps Alternative Innovation.xlsm	NB ramp from Freeman to Ezzard Charles	534	559	526	551	6755	7068	665	655	9250	534	559	526	551	6755	7068	Access Change	600	650	570	600	7800	8150
Misc Ramps Alternative Innovation.xlsm	SB I-75 Exit to Western Avenue	550	576	734	768	6213	6502	600	800	7450	550	576	734	768	6213	6502	Access Change	720	750	900	970	7300	7650
Misc Ramps Alternative Innovation.xlsm	NB Entrance from Winchell/Bank	133	130	298	290	7635	7489	110	245	6950	380	390	382	392	7635	7685		560	590	620	660	8550	8700
Misc Ramps Alternative Innovation.xlsm	EB WHV to NB I-75	58	58	61	61	1138	1138	530	330	6750	530	540	338	348	6750	6800		880	930	580	600	9600	9900
Misc Ramps Alternative Innovation.xlsm	NB I-75 Entrance North of WHV	1013	1048	942	975	14673	15175	860	800	13700	1010	1048	942	975	14673	15175		1180	1260	980	1030	14700	15150
Misc Ramps Alternative Innovation.xlsm	SB I-75 Exit to WHV	318	314	858	847	7551	7454	230	620	6000	380	390	858	888	7551	7601		390	400	950	980	7500	7550
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from WHV	719	770	309	332	5898	6321	720	310	6500	720	770	325	335	6500	6550		700	750	330	340	6500	6600
Misc Ramps Alternative Innovation.xlsm	NB I-75 Exit to WHV	445	446	1123	1128	8720	8756	285	720	6150	450	460	1123	1133	8720	8770		430	440	1040	1050	8250	8300
Misc Ramps Alternative Innovation.xlsm	NB I-75 North of WHV	6950	8043	7692	8901	84417	97691	5810	6430	80450	6950	8043	7692	8901	84417	97691		7020	8090	7630	8880	84650	97150
Misc Ramps Alternative Innovation.xlsm	SB I-75 North of WHV	7794	8765	6560	7377	85237	95849	6505	5475	81100	7790	8765	6560	7377	85237	95849		7780	8770	6470	7240	85200	95750
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from Hopple Street	974	1109	371	422	6147	6994	735	280	5100	970	1109	371	422	6147	6994		970	1110	380	440	6100	7050
Misc Ramps Alternative Innovation.xlsm	SB I-75 Entrance from Martin Luther King Drive	359	391	275	300	4659	5073	235	180	3350	360	391	275	300	4659	5073		370	400	290	320	4750	5150
Misc Ramps Alternative Innovation.xlsm	SB I-75 Exit to Hopple Street	934	923	938	928	11383	11254	880	885	11800	930	940	939	949	11800	11850		930	940	940	950	11800	11850
Misc Ramps Alternative Innovation.xlsm	NB C-D South of Martin Luther King Drive	518	632	632	772	6471	7904	520	635	7150	520	632	635	772	7150	7904		540	660	660	800	7250	8100
Misc Ramps Alternative Innovation.xlsm	NB C-D North of Martin Luther King Drive	774	768	1034	1025	10347	10256	745	995	10950	770	780	1034	1044	10950	11000		780	830	1040	1110	11000	11300

Appendix C: Regulated Materials Coordination and Reporting

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT



Commercial Properties
220 Crescent Avenue
670 West 3rd Street
Covington, Kenton County, Kentucky

December 31, 2024

Prepared by:

Linebach ▪ Funkhouser, Inc.
ENVIRONMENTAL COMPLIANCE & CONSULTING

Linebach ▪ Funkhouser, Inc.
ENVIRONMENTAL COMPLIANCE & CONSULTING

December 31, 2024

Ms. Brittany Lowry
Kentucky Transportation Cabinet
Division of Environmental Analysis, 4th Floor
200 Mero Street
Frankfort, Kentucky 40622

Re: ***Phase I Environmental Site Assessment***
Commercial Properties
670 West 3rd Street & 220 Crescent Avenue
Covington, Kentucky
Linebach Funkhouser Project Number 288-24
KYTC Contract PON 2200004658

Dear Ms. Lowry:

Linebach Funkhouser, Inc. (LFI) has completed a *Phase I Environmental Site Assessment Report* for the above-referenced property. The assessment activities included a site reconnaissance, interviews with persons knowledgeable about the site, a review of available literature, maps, and historical information, and a review of the local, state and federal regulatory agency files regarding the subject property. The attached report documents the conditions encountered during the assessment and presents our summary and recommendations relative to the site.

We appreciate the opportunity to provide our services to you. Please contact us if you have any questions or comments regarding this submittal, or if we can be of additional service to you.

Sincerely,

Jason P. Boston
Project Scientist

Charles D. Linebach, CHMM
Principal

Enclosure

EXECUTIVE SUMMARY

Linebach Funkhouser, Inc. (LFI) has completed a Phase I Environmental Site Assessment (ESA) of the properties located at 670 West 3rd Street & 220 Crescent Avenue in Covington, Kenton County, Kentucky. This ESA was prepared in accordance with the scope and limitations of ASTM's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21). Results of the assessment, including a site reconnaissance, a review of historical information, a review of federal, state and local records, as well as interviews with persons knowledgeable about the site, are summarized as follows:

Report Section	Environmental Related Item	Description	REC
SITE/AREA DESCRIPTION			
2.6	Current Use of Property	Liquor and tobacco retail	NO
2.7	Current Use of Adjoining Properties	Earthen flood wall, substation, undeveloped, hotel, warehousing, commercial	NO
SITE HISTORY AND HISTORICAL RECORDS REVIEW			
3.1	Past Uses of Property	Retail Petroleum	REC/ HREC
3.2	Past Uses of Adjoining Properties	Residential, commercial, manufacturing	NO
ENVIRONMENTAL RECORDS REVIEW			
4.1	Subject Property	KY UST	NO
	Adjoining Properties	KY UST, SB193	NO
4.2	Listings within Established Search Radii	KY UST	NO
4.3	Vapor Encroachment Screen	A VEC exists	NO
SITE RECONNAISSANCE			
5.3	Haz. Substances/Waste and Petroleum Products	None identified	NO
5.4	Storage Tanks (UST/AST)	Presence of four (4) vent pipes and observations of former pump island / tank pit surface features located at the 220 Crescent Avenue property. Former regulated petroleum USTs removed in 2007. No current or former ASTs	REC
5.12	Waste Generation, Storage, and Disposal	None observed	NO
INTERVIEWS			
6.1	Property Owner Representative	Mr. Patel Milan – current owner Mr. Greg Dappenbrock – current owner	NO
6.2	Local Government Officials	KDEP-USTB, Kenton County PVA	NO
NON-SCOPE CONSIDERATIONS			

Report Section	Environmental Related Item	Description	REC
7.1	Asbestos Containing Materials (ACMs)	Likely exist based on construction of the site structures prior to 1978.	N/A
7.2	Lead Based Paint (LBP)		
7.3	Undefined Emerging Contaminants	No obvious indications of potential contaminants, not currently defined by CERCLA, such as PFAS or biologically derived byproducts were identified.	N/A
8.0	**USER PROVIDED INFORMATION**		NO
9.0	**DATA GAPS**		NO
10.0	**FINDINGS AND OPINIONS**		
Recognized Environmental Conditions (RECs)		Presence of four (4) vent pipes and observations of former pump island / tank pit surface features located at the 220 Crescent Avenue property.	
Historical Recognized Environmental Conditions (HRECs)		Former regulated petroleum UST systems removed in 2007	
Controlled Recognized Environmental Conditions (CRECs)		None Identified	
De Minimis Conditions		None Identified	

Conclusions and Recommendations

This assessment has revealed evidence of *recognized environmental conditions* in connection with the subject property, therefore, LFI recommends the following:

- Complete limited Phase II assessment of soil / groundwater in the area of the former tank pits in order to determine if any historical releases have occurred which may have impacted the site's subsurface.

This Executive Summary provides a summation of the results of the Phase I ESA and is not intended to be all-inclusive. The complete report lists the procedures used during our assessment and provides our conclusions and recommendations regarding the site.

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Purpose 1
1.2 Scope of Work 2
1.3 Terms and Conditions 3
1.4 Assumptions, Limitations and Exceptions 3
2.0 SITE DESCRIPTION 5
2.1 Location and Description 5
2.2 Structures/Improvements 5
2.3 Municipal Services and Utilities 5
2.4 Roads 5
2.5 Topography and Drainage 6
2.6 Current Use of Property 6
2.7 Current Use of Adjoining Properties 6
3.0 SITE HISTORY AND HISTORICAL RECORDS REVIEW 7
3.1 Past Uses of Property 7
3.2 Past Uses of Adjoining Properties 7
3.3 Topographic Maps 7
3.4 Aerial Photographs 8
3.5 Sanborn® Fire Insurance Maps 9
3.6 City Directories 9
4.0 ENVIRONMENTAL RECORDS REVIEW 10
4.1 Listings for Subject Site or Adjoining Properties 11
4.2 Listings within Established Search Radii 13
4.3 Vapor Encroachment Screen 14
5.0 Site Reconnaissance Methodologies 15
5.1 Site Reconnaissance Methodologies 15
5.2 Hazardous Substances/Waste and Petroleum Products 15
5.3 Storage Tanks 15
5.3.1 Underground Storage Tanks (USTs) 16
5.3.2 Aboveground Storage Tanks (ASTs) 16
5.4 Odors 16
5.5 Drums and Containers 16
5.6 Polychlorinated Biphenyls (PCBs) 16
5.7 Drains and Sumps 17
5.8 Pits, Ponds, and Lagoons 17
5.9 Stained Soil/Pavement 17
5.10 Stressed Vegetation 17
5.11 Waste Generation, Storage, and Disposal 17
5.12 Waste Water 17
5.13 Wells 17
5.14 Septic Systems 18
6.0 INTERVIEWS 18
6.1 Property Representative 18
6.2 Local Government Officials/Records 18
7.1 Asbestos Containing Materials (ACMs) 18
7.2 Lead-Based Paint (LBP) 19

7.3 Undefined Emerging Contaminants 19
8.0 USER PROVIDED INFORMATION 19
8.1 Environmental Liens or Activity and Use Limitations 20
8.2 Common/Specialized Knowledge or Experience 20
8.3 Reasons for Significantly Lower Purchase Price 20
9.0 DATA GAPS 20
10.0 FINDINGS 20
12.0 CERTIFICATION OF ENVIRONMENTAL PROFESSIONAL 21
13.0 REFERENCES 22

LIST OF FIGURES

Figure 1 – Site Location Map
Figure 2 – Aerial Photograph Showing Site and Vicinity

LIST OF APPENDICES

Appendix A – Site Photographs
Appendix B – Historical Research Documentation
Appendix C – Property Record
Appendix D – Regulatory Database Documentation
Appendix E – User Provided Information
Appendix F – KDEP Documentation

1.0 INTRODUCTION

Linebach Funkhouser, Inc. (LFI) was retained by Kentucky Transportation Cabinet to conduct a Phase I Environmental Site Assessment (ESA) of the properties located at 670 West 3rd Street & 220 Crescent Avenue in Covington, Kenton County, Kentucky (the "subject property"). This assessment was completed as part of due diligence activities in relation to a property transaction.

1.1 Purpose

The purpose of this ESA was to document current and historical information on the subject property and surrounding areas in order to identify *recognized environmental conditions* (RECs), defined in ASTM E1527-21 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at the property: (1) due to a release to the environment; (2) under conditions indicative of a likely release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

The term is not intended to include *de minimis* conditions, defined in ASTM E1527-21 as a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not *recognized environmental conditions* nor *controlled recognized environmental conditions*.

The term *historical recognized environmental condition* (HREC), is defined by ASTM E1527-21 as a past release of any hazardous substances or petroleum products that has occurred affecting the property and has been addressed to the satisfaction of the applicable regulatory authority (as evidenced by the issuance of a no further action letter or other equivalent closure documentation) and meeting the current unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restriction, activity and use limitations, institutional controls, or engineering controls).

The term *controlled recognized environmental condition* (CREC), is defined by ASTM E1527-21 as an REC resulting from a past release of hazardous substances or petroleum products affecting the property and has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based

criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls or other property use limitations).

1.2 Scope of Work

This ESA was conducted utilizing standard practices consistent with ASTM E1527-21. Any significant scope-of-work additions, deletions, or deviations to ASTM E1527-21 are noted below or in the corresponding sections of this report. The scope-of-work for this ESA included an evaluation of the following:

- General physical setting characteristics of the subject property and immediate vicinity through a review of one or more referenced sources, including topographic and geologic maps, soils and hydrologic reports.
- Historical usage of the subject property, adjoining properties, and surrounding area through a review of reasonably ascertainable sources such as land title records, fire insurance maps, city directories, aerial photographs, property tax files, prior environmental assessment reports, and interviews.
- Current land use and existing conditions of the subject property including observations and interviews regarding the use, treatment, storage, disposal or generation of hazardous substances, petroleum products and hazardous, regulated, or medical wastes; equipment that is known or likely to contain PCBs; storage tanks and drums; wells, drains and sumps; and pits, ponds or lagoons.
- Current land use of adjoining and surrounding area properties and the likelihood of known or suspected releases of hazardous substances or petroleum products to impact the subject property.
- Environmental regulatory database information and local environmental records within specified minimum search distances.

Unless otherwise identified in the report, the scope-of-work for this ESA did not include a consideration of the following potential environmental conditions that are outside the scope of ASTM Practice E1527-21 including but not limited to: asbestos-containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality (unrelated to releases of hazardous substances or petroleum products into the environment), industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, emerging contaminants, and wetlands.

1.3 Terms and Conditions

This Phase I ESA was performed on behalf of, and solely for the exclusive use of the Client. No other company, entity, or person shall have any rights with regard to LFI's contract with the Client including but not limited to indemnification by LFI, or any rights of reliance on the findings, conclusions, and recommendations of this or any subsequent reports regarding the subject property.

In accordance with ASTM E1527-21 provisions, this report is presumed to be valid for up to one year prior to the date of acquisition or transaction of the property. This presumption assumes that the report components, listed in the table below, are updated within 180 days prior to the intended date of purchase or prior to the dated of transaction of the property.

Critical Dates

Phase I ESA Components	Date Completed
Interviews	December 30, 2024
Environmental Lien Search	Not Provided
Radius Report	November 25, 2024
Visual Inspection property and surrounding properties	November 29, 2024
Declaration by Environmental Professional	December 30, 2024

1.4 Assumptions, Limitations and Exceptions

This ESA was prepared in accordance with the scope and limitations of ASTM's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21), recognized by the U.S. Environmental Protection Agency (USEPA) as compliant with *Standards and Practices for All Appropriate Inquiries* (AAI) promulgated at 40 CFR Part 312.

This Phase I Environmental Site Assessment has been prepared to assess the property with respect to hazardous substances defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601), and petroleum products. As such, this assessment is intended to permit the Client to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability: that is, the practices that constitute "all appropriate inquiry into the previous

ownership and uses of the subject property consistent with good commercial or customary practice" as defined in 42 USC §9601 (35)(B).

LFI conducted this ESA using reasonable efforts to identify recognized environmental conditions on the subject property. Findings within this report are based on the information obtained during the site reconnaissance, the electronic regulatory file review, a review of historical records, interviews, and from reasonably ascertainable and publicly available information obtained from public agencies and other referenced sources. The presence of recognized environmental conditions on a site may not always be apparent; consequently, the completion of a Phase I ESA cannot provide a guarantee that recognized environmental conditions do not exist in connection with a site.

This report is not definitive and should not be assumed to be a complete or specific determination of all conditions above or below grade. Current subsurface conditions may differ from the conditions indicated by surface observations or historical sources and can be most reliably evaluated through intrusive techniques that were beyond the scope of this ESA. Information in this report is not intended for use as a construction document and should not be used for demolition, renovation, or other construction purposes. LFI makes no representation or warranty that the past or current operations at the site are, or have been, in compliance with applicable federal, state and local laws, regulations and codes.

Environmental Data Resources, Inc. (EDR), an independent environmental data research company, provided the records from the government agency databases referenced in this report. Information regarding surrounding area properties was requested for the specified minimum search distances and was assumed to be correct and complete unless obviously contradicted by LFI's observations or other credible referenced sources reviewed during the ESA. LFI is not a professional title insurance or land surveying firm and makes no guarantee, explicit or implied, that any land title records acquired or reviewed, or any physical descriptions or depictions of the site in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

2.0 SITE DESCRIPTION

The location, description, and current uses of the subject property, as well as surrounding properties are presented in the following sections.

2.1 Location and Description

The subject property consists of two contiguous parcels located in downtown Covington, Kentucky. The Kenton County Property Valuation Administrator (PVA) identifies the property as follows:

Parcel ID	Current Owner	Acreage
040-34-02-002.00	Beverage Properties, Inc.	0.52
040-34-02-003.00	Milan Holding, LLC	0.34

A site location map is provided in **Figure 1**. An aerial photograph depicting the site and surrounding property use is provided in **Figure 2**. Site photographs are included in **Appendix A**.

2.2 Structures/Improvements

The 670 West 3rd Street property is developed with a 1-story 5,508 sq. ft. commercial structure. The 220 Crescent Avenue property is developed with a 1-story 2,739 sq. ft. commercial structure.

2.3 Municipal Services and Utilities

The subject property is serviced by the following municipal services and utilities:

Utility	Provider
Potable Water Supply	Northern Kentucky Water District
Sewage Disposal	Northern Kentucky Sanitation District
Natural Gas	Duke Energy
Electricity	

2.4 Roads

The subject property is bordered to the west by Crescent Avenue and to the south by West 3rd Street. No public roads or throughfares are located on the property.

2.5 Topography and Drainage

A review of the *Covington, KY* United States Geological Survey (USGS), 7.5-Minute Topographic Quadrangle (2022) indicates a surface elevation for the subject property of approximately 487 feet above the National Geodetic Vertical Datum (NGVD) of 1929 (approximately mean sea level). A copy of the topographic map is provided in **Figure 1** and **Appendix B**.

According to the United States Department of Agriculture (USDA) Soil Conservation Service (SCS), the dominant soil composition in the vicinity of the subject property is classified as Wheeling, a well-drained silt loam.

Major hydrogeologic features such as a river or lake generally influence regional groundwater flow direction. Surface and/or bedrock topography may also influence regional groundwater flow direction. The direction of surface and groundwater flow on the subject property is interpreted to be generally north with the topographic gradient towards the Ohio River, located approximately 0.1 mile to the north.

2.6 Current Use of Property

The subject property is currently utilized as liquor and tobacco retail businesses.

2.7 Current Use of Adjoining Properties

Nearby property usage could potentially impact the surface and subsurface conditions of a site. Developing a history of past to present uses or occupancies can provide an indication of the likelihood of environmental concern. An aerial photograph illustrating the surrounding property-use relative to the subject property is included as **Figure 2.** A general description of surrounding land use is as follows:

Current Use of Adjoining Properties

Direction	Description
North	City of Covington sanitation property, earthen flood wall
South	West 3rd Street, Cincinnati Closets, warehouse
East	Undeveloped, I-75
West	Crescent Avenue, undeveloped

3.0 SITE HISTORY AND HISTORICAL RECORDS REVIEW

Historical information about the subject property, based on an evaluation of available records reviewed during the Phase I, is included in the following sections.

3.1 Past Uses of Property

LFI attempted to determine the historical use of the subject property dating back to 1940 or its first developed use. The following table summarizes the historical use of the subject property:

Period	670 West 3rd Street	Source(s)
1886 – 1967	Undeveloped	Topographic Maps Aerial Photographs Sanborn Maps City Directories Regulatory Information
1968 - 1985	Fruit Market	
1986 - Present	Liquor & tobacco retail / Retail Petroleum (1986-2007)	

Period	220 Crescent Avenue	Source(s)
1886 – 1955	Undeveloped	Topographic Maps Aerial Photographs Sanborn Maps City Directories
1960 - 1980	Fruit Market / Retail Petroleum ('Filling Station')	
1980 - 1985	Vacant	
1986 - Present	Liquor & tobacco retail	

3.2 Past Uses of Adjoining Properties

The properties adjacent to the subject property have been developed prior to the 1880s with a mix of residential, commercial, manufacturing and warehouse properties.

3.3 Topographic Maps

Historical topographic maps provide information related to physical land configuration such as elevation, ground slope, surface water and other features. While most buildings in densely

developed urban centers are not depicted, topographic maps typically show structures equal to or larger than the size of a single-family residence in rural areas. Other notable features such as woods, pipelines, municipal boundaries, and areas of filled land are often marked on topographic maps. A search for topographic maps for the subject property and surrounding area was conducted by EDR and provided to LFI in an *EDR Historical Topo Map Report* dated November 25, 2024. Topographic maps were available for various years between 1898 and 2022 and are included in **Appendix B**. A summary of findings is presented in the following table:

Historical Topographic Maps

Year	Issues Noted	Observations
1898 - 1914	No	**Subject Property:** No structures are depicted.
		Surrounding Properties: The map is of a small scale; little detail. Adjoining streets are present. Surrounding properties are depicted as urban development.
1950 - 1970	No	**Subject Property:** The 670 West 3rd structure is depicted in the 1970 topographic map.
		Surrounding Properties: Depicted as urban development (shaded red) with no detail.
1979 - 1987	No	**Subject Property:** No structures are depicted.
		Surrounding Properties: Depicted as urban development; other than roadways, no detail.
2013(1) - 2022	No	**Subject Property:** No structures are depicted.
		Surrounding Properties: Topographic maps do not indicate structures.

(1) Beginning with the 2010 map updates, the USGS elected to omit building footprints, urban designations, and other points of interest from topographic map updates.

3.4 Aerial Photographs

Aerial photographs are generally of very small scale and only provide a general idea of activity in the area. Aerial photographs are instantaneous records and their usefulness is limited because they do not necessarily reflect the condition of a site before or after the photographs were taken. A search for aerial photographs was conducted by EDR and provided to LFI in *The EDR Aerial Photo Decade Package* dated November 26, 2024. Aerial photographs were available for various years from 1938 to 2020. The report is included in **Appendix B** and a summary is presented in the following table:

Aerial Photographs

Year	Issues Noted	Observations
1938 - 1955	No	**Subject Property:** Undeveloped
		Surrounding Properties: Land clearing activities are shown and the earthen flood wall appears constructed in the 1950 aerial. Commercial and residential structures are shown to the northwest, south and west. A junk yard exists immediately east.
1960 - 1993	No	**Subject Property:** Fruit market structure & greenhouses appear on the 1960 aerial. The site is developed with the current structures in the 1969 aerial. Pump island and tank pit surface features appear present on both properties.
		Surrounding Properties: Commercial and residential structures are shown to the west. A retail petroleum station exists just to the northwest. I-75 appears constructed in the 1969 aerial. Properties to south and east appear similar to present day configuration.
2000 - 2020	No	**Subject Property:** Appears developed similar to the present-day configuration.
		Surrounding Properties: Adjoining properties appear to be developed similar to their present day configuration.

3.5 Sanborn® Fire Insurance Maps

A search for Sanborn fire insurance maps for the subject property and surrounding area was provided to LFI in an EDR *Certified Sanborn® Map Report* dated November 25, 2024. Sanborn fire insurance maps were available for the site and vicinity for the years 1886 through 1980. A copy of the report is provided in **Appendix B** and a summary is presented in the following table:

Year	670 W. 3rd Street	220 Crescent Avenue
1886 - 1953	Undeveloped	
1963	Undeveloped	'Store' structure present
1980	Current structure	Current structure / 'Vacant Filling Station'

3.6 City Directories

A search of historical city directories for the subject property and surrounding properties was conducted by EDR and provided to LFI in *The EDR-City Directory Image Report* dated November 26, 2024. A copy of the report is included in **Appendix B**. City directories were reviewed for various years between 1939 and 2020. A summary of city directory listings is as follows:

Year	670 W. 3rd Street	220 Crescent Ave.
1939 - 1957	Not Listed	
1962	Not Listed	Ernst Fruit Market (216 Address)
1967	Ernst Fruit Market	Not Listed
1971		
1976		
1981		
1986	JD's Food Mkt. / Colonels Flask Riverfront	
1992	JD's Food Mart / Liquor Direct	Pony Keg Express
1995		
2000	Deli Direct / JD's Food Mart / Liquor Direct	
2005	Deli Direct / Save on Sigs	
2010	Liquor Direct / Save on Sigs	
2014	Save on Cigs	Liquor City Crescent
2017		
2020	DEPS Fine Wine & Spirits / Save on Cigs	Not Listed

EDR maintains several proprietary databases of "high risk historical records" to aid in identification of businesses (e.g. – auto stations, dry cleaners, etc.) commonly associated with potential environmental concerns. Sites in the vicinity of the subject property that were identified on ASTM/AAI required databases are discussed in the following sections.

4.0 ENVIRONMENTAL RECORDS REVIEW

An electronic database search of files maintained by the U. S. EPA and the Kentucky Department of Environmental Protection (KDEP) was conducted by EDR on November 25, 2024 to evaluate the regulatory history of the subject property and surrounding properties. The search of standard federal, state, and tribal regulatory agency databases was conducted to (1) identify listings for the subject property and adjoining properties and (2) evaluate sites within applicable ASTM E1527-21 and AAI defined search radii that could cause actual or potential environmental impacts to the subject property. A summary of the results of the regulatory agency database search is provided in the following table:

Regulatory Database Search Summary

Regulatory Database	Minimum Search Distance	Property Listed?	# Sites Listed
Federal National Priority List (NPL) site list	1 Mile	No	0
Federal De-Listed NPL site list	½ Mile	No	0
Federal CERCLIS list	½ Mile	No	1
Federal CERCLIS NFRAP site list	½ Mile	No	1
Federal RCRA CORRACTS facilities list	1 Mile	No	0
Federal RCRA non-CORRACTS TSD facilities list	½ Mile	No	0
Federal RCRA generators list	¼ Mile	No	0
Federal Institutional/Engineering Control Registries	½ Mile	No	0
Federal Emergency Response Notification System (ERNS)	¼ Mile	No	0
State/Tribal Haz. Waste equivalent NPL/CERCLIS	1 Mile	No	24
State/Tribal Landfill or Solid Waste Disposal Sites	½ Mile	No	0
State/Tribal Leaking Storage Tank lists	½ Mile	No	4
State/Tribal Registered Storage Tank Lists	¼ Mile	Yes	10
State/Tribal Institutional/Engineering Control Registry	½ Mile	No	1
State/Tribal Voluntary Cleanup Sites	½ Mile	No	1
Federal/State Brownfield Sites	½ Mile	No	4

The fact that sites do or do not appear on a list does not necessarily indicate that an environmental concern exists. In addition, sites may not be mapped in a list search due to inaccuracy of owner/operator records, government records, or errors occurring during conversion of the data by informational sources. A copy of the EDR report that includes a detailed description of each database and the results of the database inquiries is provided in **Appendix D**.

4.1 Listings for Subject Site or Adjoining Properties

The EDR environmental database search identified the subject property on ASTM / AAI required databases:

Johnson Oil Co., Inc. / Bil Corporation
Address: 670 W. 3rd Street
ASTM/AAI Database: KY UST (AI # 38733)
Non-ASTM/AAI Databases: FINDS, KY AIRS, EDR Hist Auto
Database Summary:

KY UST - Records provided by EDR and the KDEP – Underground Storage Tank Branch (USTB) indicates that the following UST systems were formerly located on the property:

Tank #	Status	Installation Date	Removed Date	Tank Contents	Capacity (gallons)	Tank Material	Spill/Leak Detection
1	TRM[1]	1986	2007	Gasoline	10,000	SWS[2]	N/A
2							
3					6,000		

1. Verified Removed
2. Single Wall Steel

According to documents provided by USTB, two 10,000 gallon and one 6,000-gallon USTs were verified removed on April 10 & 11, 2007. A NFA (No Further Action) letter dated November 30, 2007 was issued for the three tanks. Pertinent documentation is provided in **Appendix F**. Based on this information, these UST systems do not represent a REC.

The subject property was identified on a non-ASTM/AAI database:

Pennington Ira C.
Address: Third & Crescent
ASTM/AAI Database: None
Non-ASTM/AAI Databases: EDR Hist Auto
Database Summary:

EDR Hist Auto - Records provided by EDR indicates that the 220 Crescent Avenue property operated as a retail petroleum station from at least 1969 – 1971. Review of historical Sanborn maps and site reconnaissance observations confirm. The USTB reported that no records exist for this property based on a Freedom of Information Act (FOIA) request by LFI. This represents a REC.

Two adjoining properties were identified on the ASTM/AAI required databases as follows:

Rusk Heating & Air Co.
Address: 666 W. 3rd Street (adj. E)
Relative Elevation: Higher
ASTM/AAI Database: KY UST (AI #65732)
Non-ASTM/AAI Databases: None
Database Summary:

KY UST - Records provided by EDR and the KDEP –USTB indicates that the following UST systems were formerly located on the property:

Tank #	Status	Installation Date	Removed Date	Tank Contents	Capacity (gallons)	Tank Material	Spill/Leak Detection
1	TRM	1976	1990	Gasoline	6,000	SWS	N/A
2					500		

According to documents provided by USTB, one 6,000-gallon and one 500-gallon USTs were verified removed on January 3, 1990. A NFA letter dated January 27, 1994 was issued for the two tanks. Pertinent documentation is provided in **Appendix F**. Based on this information, these UST systems do not represent a REC.

Hardabeck Site (Raymond L. & Hilda E.) / Permakil, Inc. / Bob & Les Standard Oil
Address: 204 Crescent Ave. (0.005-mi. WNW)
Relative Elevation: Higher (down-gradient)
ASTM/AAI Database: KY UST (AI # 60303), KY SB193,
Non-ASTM/AAI Databases: RCRA NonGen/NLR, EDR Hist Auto
Database Summary:

KY UST - Records provided by EDR and the KDEP –USTB indicates that the following UST systems were formerly located on the property:

Tank #	Status	Installation Date	Removed Date	Tank Contents	Capacity (gallons)	Tank Material	Spill/Leak Detection
1	TRM	Unknown	1995	Gasoline	99	SWS	N/A
2							
3							

According to documents provided by USTB, three 99-gallon USTs were verified removed on October 31, 1995. Following subsequent groundwater monitoring, a NFA letter dated May 3, 2011 was issued for the three tanks. Pertinent documentation is provided in **Appendix F**. The site is considered down-gradient relative to the subject property based on groundwater flow direction to the north. Based on this information, these UST systems do not represent a REC.

SB193 – Inclusion in the SB193 database indicates that the site has known impacts to groundwater from leaking UST systems. The property is listed on the SB193 database for historic leaking underground storage tanks.

4.2 Listings within Established Search Radii

EDR's environmental records search mapped one (1) site on the ASTM/AAI required databases within applicable radii of the subject property, as defined by ASTM E1527-21 and AAI, with a potential for release and impact on the property. These sites are summarized as follows:

River City Collision / River Central Motors, Inc.
Address: 670 W. 4th Street (0.055-mi. SSE)
Relative Elevation: Higher
ASTM/AAI Databases: KY UST (AI # 49119)
Non-ASTM/AAI Databases: RCRA NonGen/NLR, FINDS, ECHO, KY AIRS
Database Summary:

KY UST - Records provided by EDR and the KDEP –USTB indicates that the following UST systems were formerly located on the property:

Tank #	Status	Installation Date	Removed Date	Tank Contents	Capacity (gallons)	Tank Material	Spill/Leak Detection
1	TRM	Unknown	1989	Oil	500	SWS	N/A
2				New oil	1,000		
3		1966		Gasoline	500		

According to documents provided by USTB, two 500-gallon and one 1,000-gallon USTs were verified removed on September 19, 1989. A NFA letter dated January 14, 1990 was issued for the three tanks. Pertinent documentation is provided in **Appendix F**. Based on this information, these UST systems do not represent a REC.

Thirty-nine (39) additional site listings were identified in the EDR report. However, the identified listings do not appear to present an obvious release or impact to the property, based on:

- information contained in the regulatory databases;
- information obtained during our site visit;
- status of the listed facilities, and;
- distance and/or relative elevation of the listed sites from the subject site (>0.1 mile).

The EDR environmental records search also provides a list of "orphan" sites, which are properties identified on ASTM/AAI required databases but that could not be mapped due to poor or inaccurate address information. EDR's records search listed 3 orphan sites (Cincinnati Gaslight & Coke Co., I-75 @ MM 91.2 and 725 Crescent). These listings are not in the vicinity of the subject property.

4.3 Vapor Encroachment Screen

LFI conducted a Vapor Encroachment Screen (VES) utilizing the Tier 1 methodology provided in ASTM's *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* (E2600-15). The Tier 1 methodology in E2600-15 was utilized in order to identify a *Vapor Encroachment Condition* (VEC), which is "the presence or likely presence of chemicals of concern (COC) (i.e. – petroleum hydrocarbons and/or chlorinated solvents) vapors in the vadose zone of the subject property caused by the release of vapors from contaminated soil and/or groundwater either on or near the subject property." Information provided by EDR was reviewed to identify facilities within the Area of Concern (AOC) to evaluate the potential for contamination from nearby properties to represent a vapor encroachment condition (VEC) to the Site. The AOC for chlorinated solvents is defined in ASTM E2600-15 as the area within 1/3 mile of the property

boundaries. For facilities at which the only COCs are petroleum hydrocarbons, the AOC includes the area within 0.1 mile of the property boundaries.

A review of historical use information and regulatory database documentation collected in the course of this Phase I ESA identified obvious evidence of COC that may migrate as vapors onto the subject property, based on four (4) likely present and the former USTs identified on the subject property. Therefore, our opinion based on the Tier 1 VES is that a VEC exists on the property.

5.0 Site Reconnaissance Methodologies

A site reconnaissance was conducted on November 29, 2024, by Mr. Andrew Bergman, P.G., Project Geologist with LFI. Mr. Bergman was unaccompanied during the site reconnaissance.

5.1 Site Reconnaissance Methodologies

The purpose of the reconnaissance was to gather information regarding the environmental conditions at the subject property and surrounding areas. The site reconnaissance consisted of visual observations of the subject property and any existing improvements, adjoining properties as viewed from the subject property, and observations of nearby properties made from public thoroughfares.

The interior of the liquor stores was not accessed during the site reconnaissance. At the time of the reconnaissance, weather conditions were cloudy and approximately 65° Fahrenheit. Photographs taken during the site reconnaissance, depicting site conditions at the time of the visit, are provided in **Appendix A**.

1.2 Hazardous Substances/Waste and Petroleum Products

No hazardous substances/wastes or petroleum products were observed or reported to be on the property during the site reconnaissance.

5.3 Storage Tanks

The site reconnaissance included a search for physical features such as fill ports, slumped pavement/ground surface, patched pavement, and evidence of underground piping or pump stations commonly associated with the current or historical presence of storage tanks. The absence

of common physical features cannot completely rule out the current or historical existence of storage tanks. Site characteristics such as overgrown vegetation may prevent the identification of storage tanks.

5.3.1 Underground Storage Tanks (USTs)

As previously discussed in Section 4.1, three (3) regulated petroleum USTs were removed from the 670 W. 3rd Street property in 2007 and subsequently received a NFA letter from the USTB.

Historical Sanborn maps identified the 220 Crescent Ave. property as a 'Filling Station'. Historical Aerial photos indicate the presence of former pump island and tank surface features. Site reconnaissance observations indicated four (4) vent pipes on the rear (east) side of the structure. This represents a REC.

5.3.2 Aboveground Storage Tanks (ASTs)

No current or former ASTs were observed during the site reconnaissance.

5.4 Odors

No strong, pungent or noxious odors were noticed during the site reconnaissance.

5.5 Drums and Containers

No evidence of drums or containers which might contain hazardous substances/waste or petroleum products in connection with unidentified uses was observed or reported.

5.6 Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) are organic compounds that have been used extensively in electrical capacitors and transformers, lighting ballasts, hydraulic fluids, heat exchange fluids, lubricants, inks, sealants, adhesives and surface coatings since development in 1929. PCB production was banned in the U.S. in 1979 due to health and environmental hazards. Under the Toxic Substances Control Act (TSCA), as outlined in Title 40 of the Code of Federal Regulations (CFR) Part C, 761, the owners of PCB containing equipment are responsible for environmental impairment and liabilities caused by leakage of PCBs to the environment.

No transformers or other electrical equipment with the potential to contain PCBs were observed on the subject property.

5.7 Drains and Sumps

No drains or sumps with the potential to contain hazardous substances or petroleum products were reported or observed on-site.

5.8 Pits, Ponds, and Lagoons

No obvious evidence of pits, ponds or lagoons used for waste treatment or disposal was observed during the site reconnaissance or reported during interviews.

5.9 Stained Soil/Pavement

No obvious stained areas of soil or pavement, indicating hazardous material or petroleum product releases, were observed during the site reconnaissance or reported during interviews.

5.10 Stressed Vegetation

No obvious areas of stressed vegetation were observed on the subject property.

5.11 Waste Generation, Storage, and Disposal

No obvious evidence of improper waste generation or storage was observed during the site reconnaissance.

5.12 Waste Water

No obvious evidence of waste water discharge into a drain, ditch, or stream was observed on the subject property.

5.13 Wells

No supply wells or groundwater monitoring wells were observed or reported on the subject property. EDR reported wells on the property to the north.

5.14 Septic Systems

No septic systems were observed or reported to be located on the property. Sewage generated on the property is reportedly discharged to the City of Covington municipal sewer system.

6.0 INTERVIEWS

The following interviews were conducted during the assessment in an effort to obtain information indicating potential RECs in connection with the subject property.

6.1 Property Representative

Interviews with Mr. Patel Milan and Mr. Greg Dappenbrock, current property owners, were conducted via phone by LFI. Mr. Milan and Mr. Dappenbrock stated that they are unaware of any environmental issues associated with the property.

6.2 Local Government Officials/Records

Kentucky Department for Environmental Protection (KDEP) records were reviewed as part of this environmental site assessment based on current and historical uses of nearby sites. Pertinent documentation is included in **Appendix F**.

7.0 NON-SCOPE CONSIDERATIONS

The following sections address environmental issues or conditions on the subject property that are outside the scope of ASTM E1527-21. Substances or materials may be present on the subject property that may lead to contamination of the subject property but are not defined by CERCLA as hazardous substances.

7.1 Asbestos Containing Materials (ACMs)

Asbestos is a general term for a group of fibrous minerals (primarily chrysotile, amosite and crocidolite) that have long been used as fireproof insulation and as a strengthener in pipe insulation, roofing tiles, floor tiles, wall coverings and other materials. Undisturbed asbestos-containing material (ACM) is not dangerous; however, when ACM is broken or torn, as during remodeling or demolition, the fibers can be spread into the air, especially if the material is friable. A friable

material, by definition, is one that can be crushed, crumbled, pulverized, or reduced by hand pressure when dry. Due to health hazards, ACM use has been phased out since approximately 1978. The U.S. EPA classifies ACM as any material which contains more than 1% asbestos by Polarized Light Microscopy (PLM) analysis.

An ACM survey was not included in the scope of work for this Phase I ESA. The site structures were constructed prior to 1978; therefore, the presence of ACM is considered likely to exist.

7.2 Lead-Based Paint (LBP)

Use of lead in household paint was banned by the U.S. EPA effective January 1, 1978. The U.S. EPA and the U.S. Department of Housing and Urban Development (HUD) define lead-based paint (LBP) as any paint that contains 1.0 mg/cm^2 or higher of lead by x-ray fluorescence (XRF) analysis or 0.5% (5,000 ppm) lead by weight.

An LBP survey was not included in the scope of work for this assessment. The site structures were constructed prior to 1978; therefore, the presence of LBP is considered likely to exist.

7.3 Undefined Emerging Contaminants

"Emerging contaminants" (ECs) are substances not currently defined as hazardous under CERCLA, that non-environmental professionals and others may assume to be "hazardous." ECs include biologically derived by-products such as methane and substances about which human understanding is evolving, such as per and polyfluoralkyl substances (PFAS).

No specific sources of biologically derived by-products or PFAS were identified from the site reconnaissance, a review of historical and radius data, or from an interview with the property representative.

8.0 USER PROVIDED INFORMATION

In accordance with the ASTM E1527-21 and AAI standards, the user of this ESA, Kentucky Transportation Cabinet (the client), may obtain information through other due diligence activities

associated with the pending property transaction that could help identify the possibility of potential environmental conditions in connection with the subject property.

8.1 Environmental Liens or Activity and Use Limitations

The Client reported no information regarding environmental liens or activity and use limitations relative to the property.

8.2 Common/Specialized Knowledge or Experience

The Client reported no information regarding common or specialized knowledge of the subject property.

8.3 Reasons for Significantly Lower Purchase Price

The Client reported no information regarding the fair market value of the property.

9.0 DATA GAPS

No data gaps, as defined by ASTM E1527-21, (i.e. considered to have significantly affected the ability to identify recognized environmental conditions in connection with the subject property) were identified during completion of this assessment.

10.0 FINDINGS

The following summarizes known or suspected RECs, HRECs, CRECs, *de minimis* conditions, and non-scope environmental conditions in connection with the subject property based on information collected during the assessment. For each condition, LFI provides an opinion of the impact on the site based on an evaluation of the results of record reviews, site reconnaissance work and interviews performed as part of this assessment. LFI also provides a rationale for concluding that an environmental condition is or is not a REC.

Recognized Environmental Conditions (REC)

This assessment has revealed evidence of RECs in connection with the subject property:

- Presence of four (4) vent pipes and observations of former pump island / tank pit surface features located at the 220 Crescent Avenue property.

Historical Recognized Environmental Conditions (HREC)

This assessment has revealed evidence of HRECs in connection with the subject property:

- Former regulated petroleum UST systems removed in 2007

Controlled Recognized Environmental Conditions (CREC)

This assessment has revealed no evidence of CRECs in connection with the subject property.

De Minimis Conditions

No *de minimis* conditions were identified in connection with the subject property.

Non-Scope Environmental Conditions

Non-scope environmental conditions were identified in connection with the subject property pertaining to ACM and LBP.

11.0 CONCLUSIONS AND RECOMMENDATIONS

LFI has completed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-21 of the properties located at 670 West 3rd Street & 220 Crescent Avenue in Covington, Kenton County, Kentucky (the subject property). Any exceptions to, or deletions from, this practice were described in this report. This assessment has revealed evidence of *recognized environmental conditions* in connection with the property; therefore, LFI recommends the following:

- Complete limited Phase II assessment of soil / groundwater in the area of the former tank pits in order to determine if any historical releases have occurred which may have impacted the site's subsurface.

12.0 CERTIFICATION OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of this part.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Environmental Professional

December 30, 2024
Date

13.0 REFERENCES

Environmental Data Resources, Inc. *Certified Sanborn® Map Report, Crescent Avenue & West 3rd Street, Covington, KY 41011. Inquiry Number: 7832146.3*. November 25, 2024.

Environmental Data Resources, Inc. *EDR Historical Topo Map Report, Crescent Avenue & West 3rd Street, Covington, KY 41011. Inquiry Number: 7832146.4*. November 25, 2024.

Environmental Data Resources, Inc. *The EDR Aerial Photo Decade Package, Crescent Avenue & West 3rd Street, Covington, KY 41011. Inquiry Number: 7832146.9*. November 26, 2024.

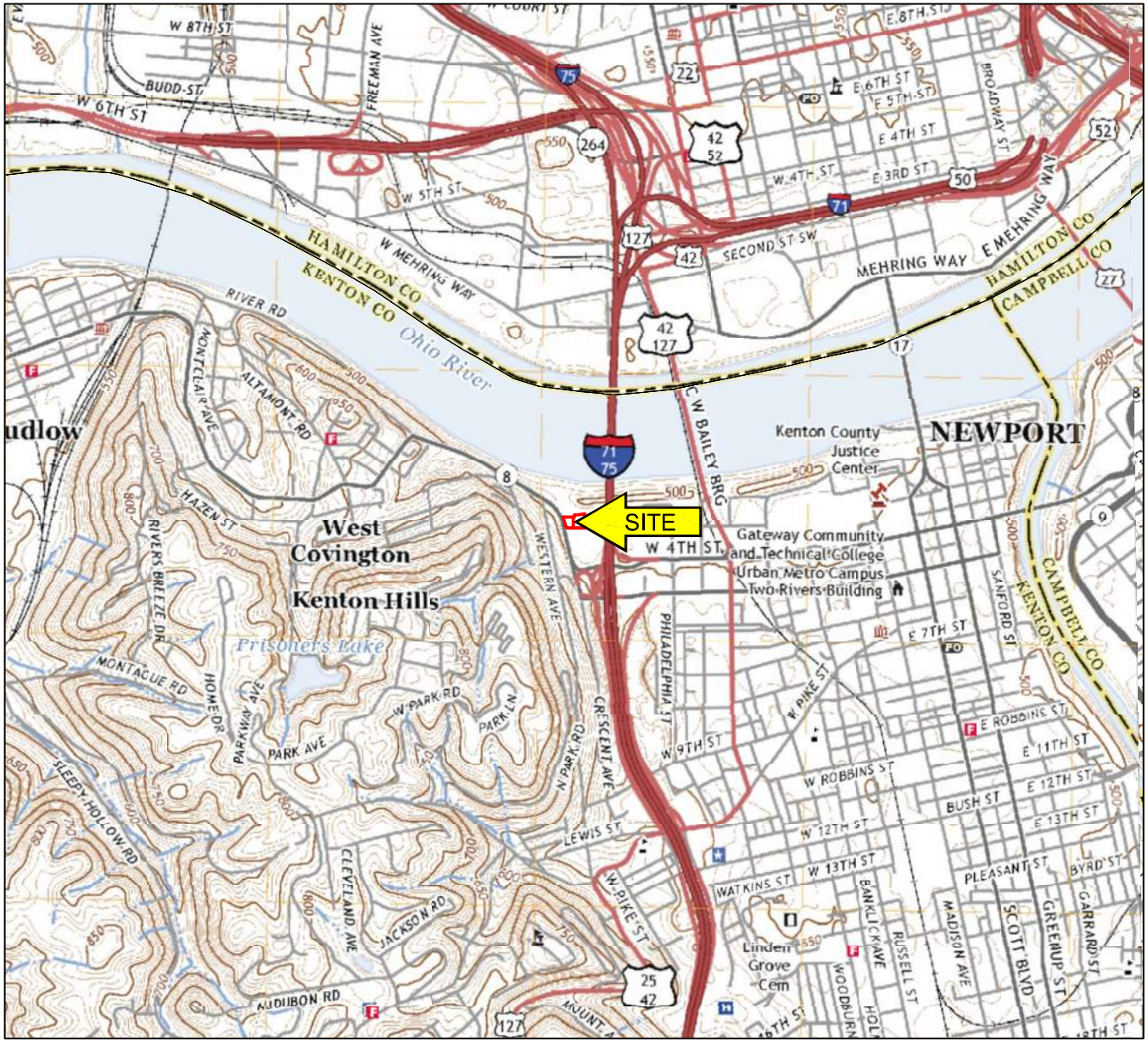
Environmental Data Resources, Inc. *The EDR-City Directory Image Report, Crescent Avenue & West 3rd Street, Covington, KY 41011. Inquiry Number: 7832146.5*. November 26, 2024.

Environmental Data Resources, Inc. *The EDR Radius Map™ Report with GeoCheck®, Crescent Avenue & West 3rd Street, Covington, KY 41011. Inquiry Number: 7832146.2s*. November 25, 2024.

Kenton County, Kentucky PVA Property Records

Kentucky Department of Environmental Protection

Figures



SCALE 1:24,000

MILE 0 1

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

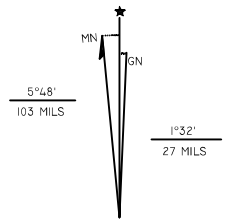
KILOMETER 0 .5

CONTOUR INTERVAL 10 FEET

SUPPLEMENTARY CONTOUR INTERVAL 5 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

LEGEND



UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

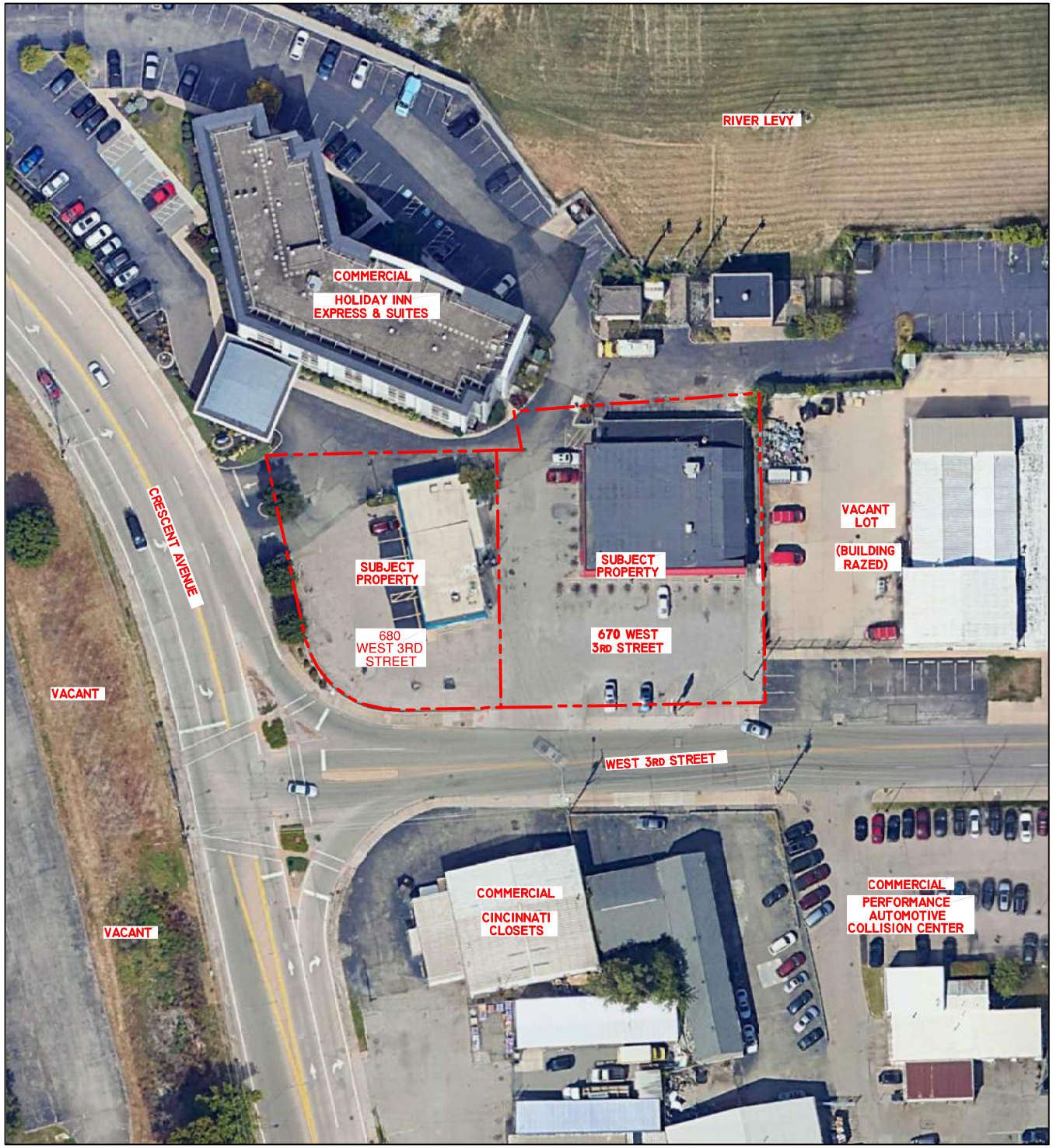
COVINGTON, KY., OH.
2022
7.5 MINUTE SERIES
(TOPOGRAPHIC)



QUADRANGLE LOCATION

SITE LOCATION MAP	SCALE: 1:24,000	FIGURE 1
KENTUCKY TRANSPORTATION CABINET BRENT SPENCE BRIDGE COVINGTON, KENTON COUNTY, KENTUCKY ITEM No. 6-17.04	DATE: 11/05/24	
	PROJ#: 288-24	
	DRAWN BY: MKA	
	CHECKED BY:	

Linebach • Funkhouser, Inc.
ENVIRONMENTAL COMPLIANCE & CONSULTING



LEGEND



PROPERTY BOUNDARY

0 40 80
SCALE (FT)

SOURCE: Google Earth, Imagery Date: September 10, 2023.

AERIAL PHOTOGRAPH SHOWING SITE AND VICINITY

KENTUCKY TRANSPORTATION CABINET
BRENT SPENCE BRIDGE

COVINGTON, KENTON COUNTY, KENTUCKY
ITEM No. 6-17.04

SCALE:	1"=80'
DATE:	11/05/24
PROJ#:	288-24
DRAWN BY:	MKA
CHECKED BY:	

FIGURE 2

Linebach • Funkhouser, Inc.
ENVIRONMENTAL COMPLIANCE & CONSULTING

Appendix A

Site Photographs

Linebach • Funkhouser, Inc.
environmental compliance & consulting

Photographic Record

Client: Kentucky Transportation Cabinet **Site Name:** Commercial Properties

Project Number: 288-24 **Site Location:** 670 W. 3rd St. & 220 Crescent Ave. Covington, KY

Photo Number: 1 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** North **Comments:** View of 670 W. 3rd Street.	
Photo Number: 2 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** South **Comments:** View of 220 Crescent Ave.	

Linebach • Funkhouser, Inc.
environmental compliance & consulting

Photographic Record

Client: Kentucky Transportation Cabinet **Site Name:** Commercial Properties

Project Number: 288-24 **Site Location:** 670 W. 3rd St. & 220 Crescent Ave. Covington, KY

Photo Number: 3 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** East **Comments:** View of razed adjoining property to the east.	
Photo Number: 4 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** South **Comments:** View across W. 3rd Street.	

Linebach • Funkhouser, Inc.
environmental compliance & consulting

Photographic Record

Client: Kentucky Transportation Cabinet **Site Name:** Commercial Properties

Project Number: 288-24 **Site Location:** 670 W. 3rd St. & 220 Crescent Ave. Covington, KY

Photo Number: 5 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** South **Comments:** View of former pump island surface feature.	
Photo Number: 6 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** West **Comments:** View of four vent pipe locations.	

Linebach • Funkhouser, Inc.
environmental compliance & consulting

Photographic Record

Client: Kentucky Transportation Cabinet **Site Name:** Commercial Properties

Project Number: 288-24 **Site Location:** 670 W. 3rd St. & 220 Crescent Ave. Covington, KY

Photo Number: 7 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** Northeast **Comments:** View of 220 Crescent Ave.	
Photo Number: 8 **Photographer:** Andrew Bergman **Date:** November 29, 2024 **Direction:** East **Comments:** View of northern property boundary.	

Appendix B

Historical Research Documentation

Commercial Properties

Crescent Avenue & W. 3rd Street

Covington, KY 41011

Inquiry Number: 7832146.4

November 25, 2024

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/25/24

Site Name:

Commercial Properties
Crescent Avenue & W. 3rd Stre
Covington, KY 41011
EDR Inquiry # 7832146.4

Client Name:

Linebach Funkhouser Inc.
114 Fairfax Ave
Louisville, KY 40207
Contact: Jason Boston

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Linebach Funkhouser Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: 288-24

Coordinates:

Latitude:	39.087888 39° 5' 16" North
Longitude:	-84.524133 -84° 31' 27" West
UTM Zone:	Zone 16 North
UTM X Meters:	714137.99
UTM Y Meters:	4329447.86
Elevation:	486.88' above sea level

Maps Provided:

2022	1961
2019	1955
2016	1950, 1952
2013	1914
1987	1898
1981, 1983	
1979	
1969, 1970	

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

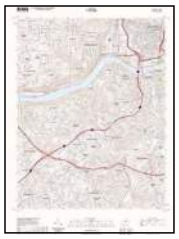
Copyright 2024 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

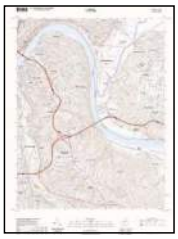
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2022 Source Sheets



Covington
2022
7.5-minute, 24000

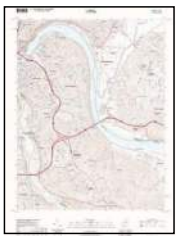


Newport
2022
7.5-minute, 24000

2019 Source Sheets



Covington
2019
7.5-minute, 24000



Newport
2019
7.5-minute, 24000

2016 Source Sheets



Covington
2016
7.5-minute, 24000

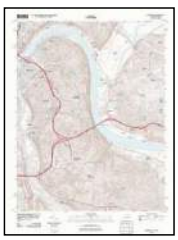


Newport
2016
7.5-minute, 24000

2013 Source Sheets



Covington
2013
7.5-minute, 24000



Newport
2013
7.5-minute, 24000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1987 Source Sheets



Newport
1987
7.5-minute, 24000
Aerial Photo Revised 1984



Covington
1987
7.5-minute, 24000
Aerial Photo Revised 1984

1981, 1983 Source Sheets

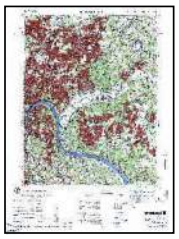


Covington
1981
7.5-minute, 24000
Aerial Photo Revised 1977

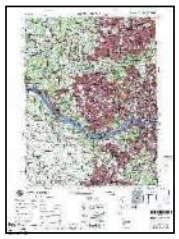


Newport
1983
7.5-minute, 24000
Aerial Photo Revised 1977

1979 Source Sheets



EAST CINCINNATI
1979
15-minute, 50000



WEST CINCINNATI
1979
15-minute, 50000

1969, 1970 Source Sheets



Covington
1969
7.5-minute, 24000
Aerial Photo Revised 1969



Newport
1970
7.5-minute, 24000
Aerial Photo Revised 1970

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1961 Source Sheets



Newport
1961
7.5-minute, 24000
Aerial Photo Revised 1949

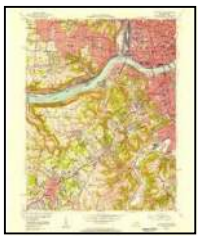


Covington
1961
7.5-minute, 24000
Aerial Photo Revised 1949

1955 Source Sheets

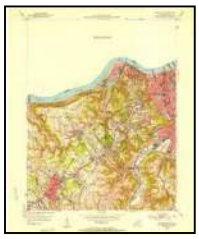


Newport
1955
7.5-minute, 24000
Aerial Photo Revised 1949



Covington
1955
7.5-minute, 24000
Aerial Photo Revised 1949

1950, 1952 Source Sheets



Covington
1950
7.5-minute, 24000
Aerial Photo Revised 1949



Newport
1952
7.5-minute, 24000
Aerial Photo Revised 1949

1914 Source Sheets



East Cincinnati
1914
15-minute, 62500

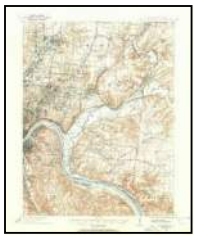


West Cincinnati
1914
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1898 Source Sheets



East Cincinnati
1898
15-minute, 62500



WEST CINCINNATI
1898
15-minute, 62500

Historical Topo Map

2022



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

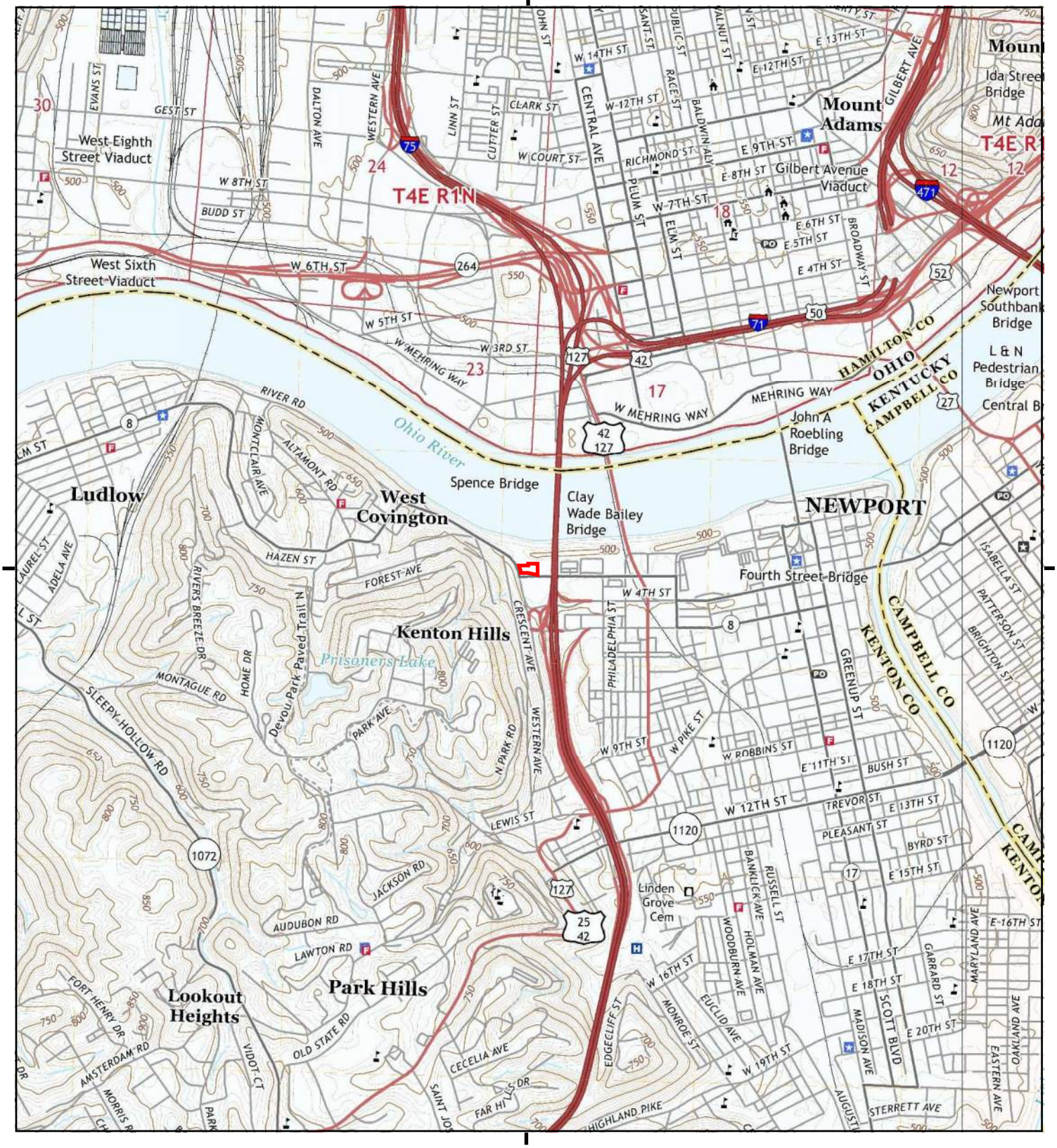
TP, Covington, 2022, 7.5-minute
E, Newport, 2022, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N

Historical Topo Map

2019



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

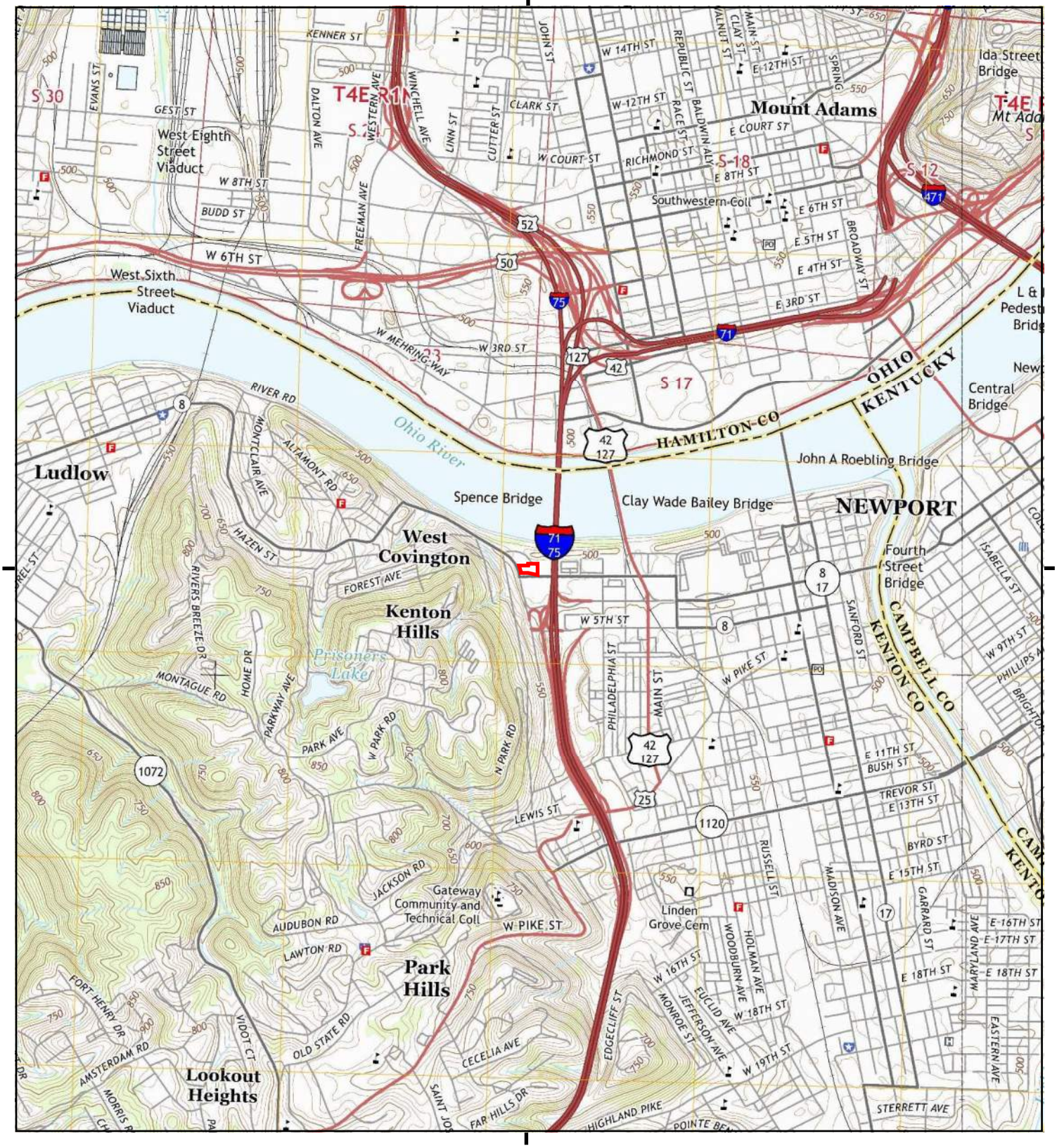
TP, Covington, 2019, 7.5-minute
E, Newport, 2019, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N

Historical Topo Map

2016



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

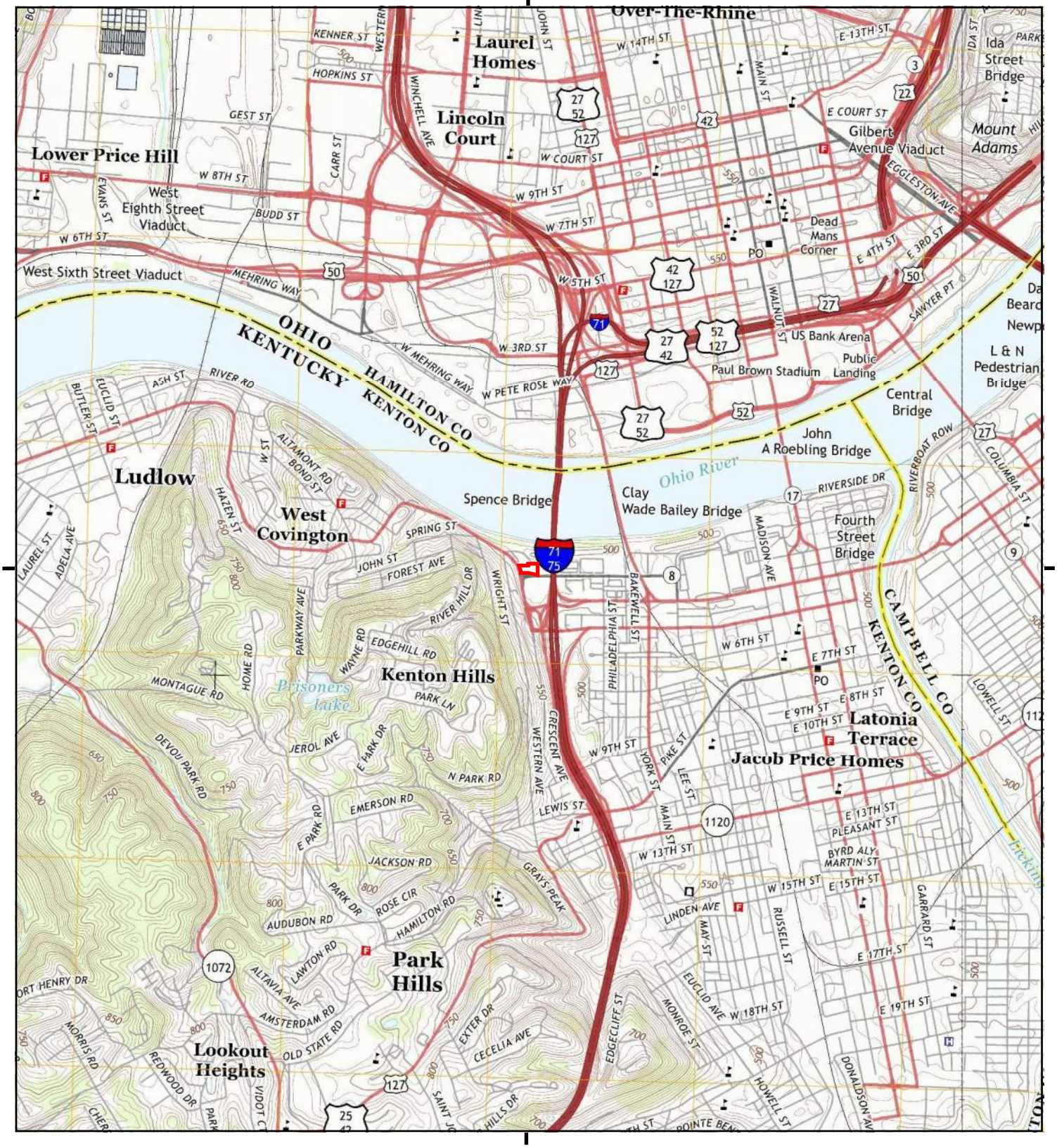
TP, Covington, 2016, 7.5-minute
E, Newport, 2016, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N

Historical Topo Map

2013



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

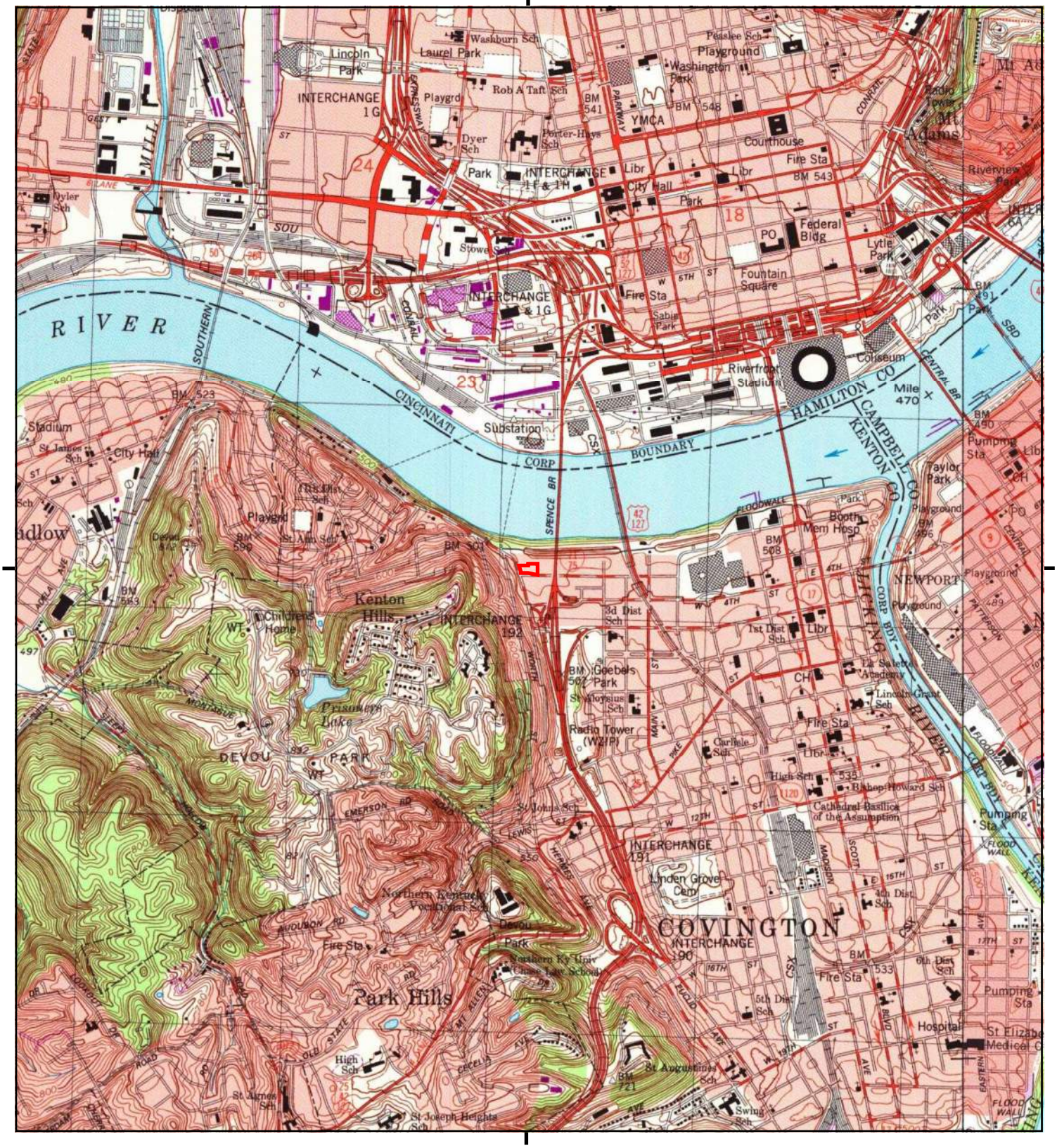
TP, Covington, 2013, 7.5-minute
E, Newport, 2013, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N

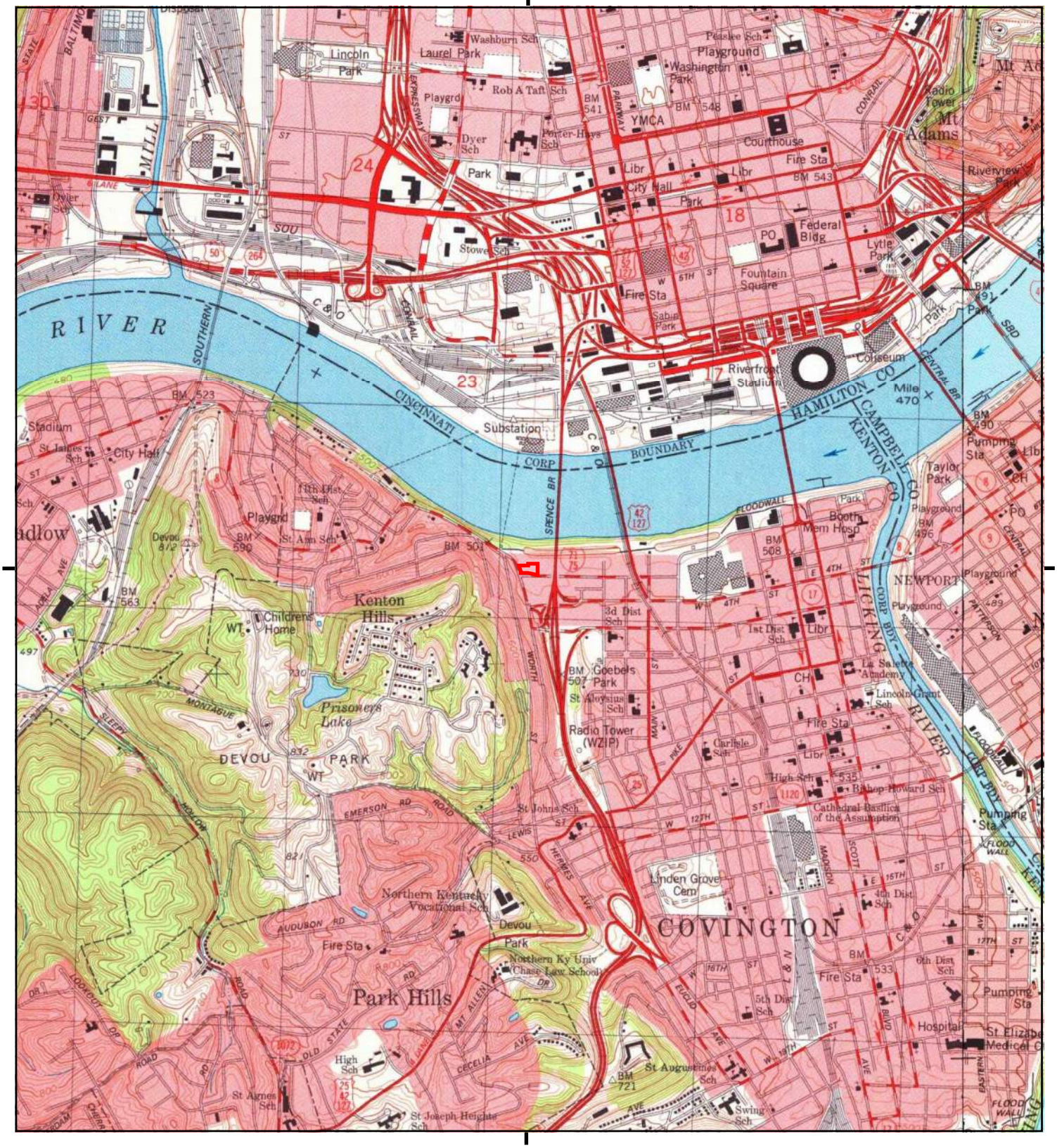
Historical Topo Map

1987

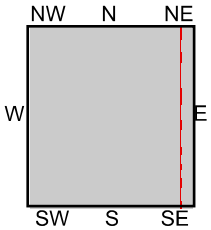

RIVER
SOUTHERN
CINCINNATI
CORP BOUNDARY
HAMILTON CO
CAMPBELL CO
KENTON CO
Lincoln Park
Laurel Park
Washburn Sch
Playgrd
Rob A Taft Sch
Dyer Sch
Porter-Hays Sch
Peaslee Sch
Playground
Washington Park
YMCA
Courthouse
Fire Sta
Libr
City Hall
Park
Federal Bldg
Fountain Square
Lytle Park
Riverfront Stadium
Coliseum
Substation
Sabin Park
Taylor Park
Booth Mem Hosp
Pumping Sta
Stadium
St James Sch
Kenton Hills
Children's Home
Prisoners' Lake
DEVOU PARK
Devou Park
Northern Kentucky Vocational Sch
Park Hills
High Sch
St James Sch
St Joseph Heights Sch
St Augustines Sch
Swing Sch
3d Dist Sch
1st Dist Sch
Goebels Park
St Aloysius Sch
Radio Tower (WZIP)
Carlisle Sch
Lincoln Grant Sch
Fire Sta
High Sch
Bishop Howard Sch
Cathedral Basilica of the Assumption
St Johns Sch
Linden Grove Cem
4th Dist Sch
5th Dist Sch
6th Dist Sch
COVINGTON
NEWPORT
Hospital
St Elizabeth Medical C
Pumping Sta
INTERCHANGE 1G
INTERCHANGE 1F & 1H
INTERCHANGE 1G
INTERCHANGE 192
INTERCHANGE 191
INTERCHANGE 190
BM 541
BM 548
BM 543
BM 523
BM 583
BM 590
BM 501
BM 507
BM 508
BM 533
BM 721
Mile 470
Mt Adams
Riverview Park
Taylor Park
Playground
Park
Playground
Playground
Playground

Historical Topo Map

1981, 1983



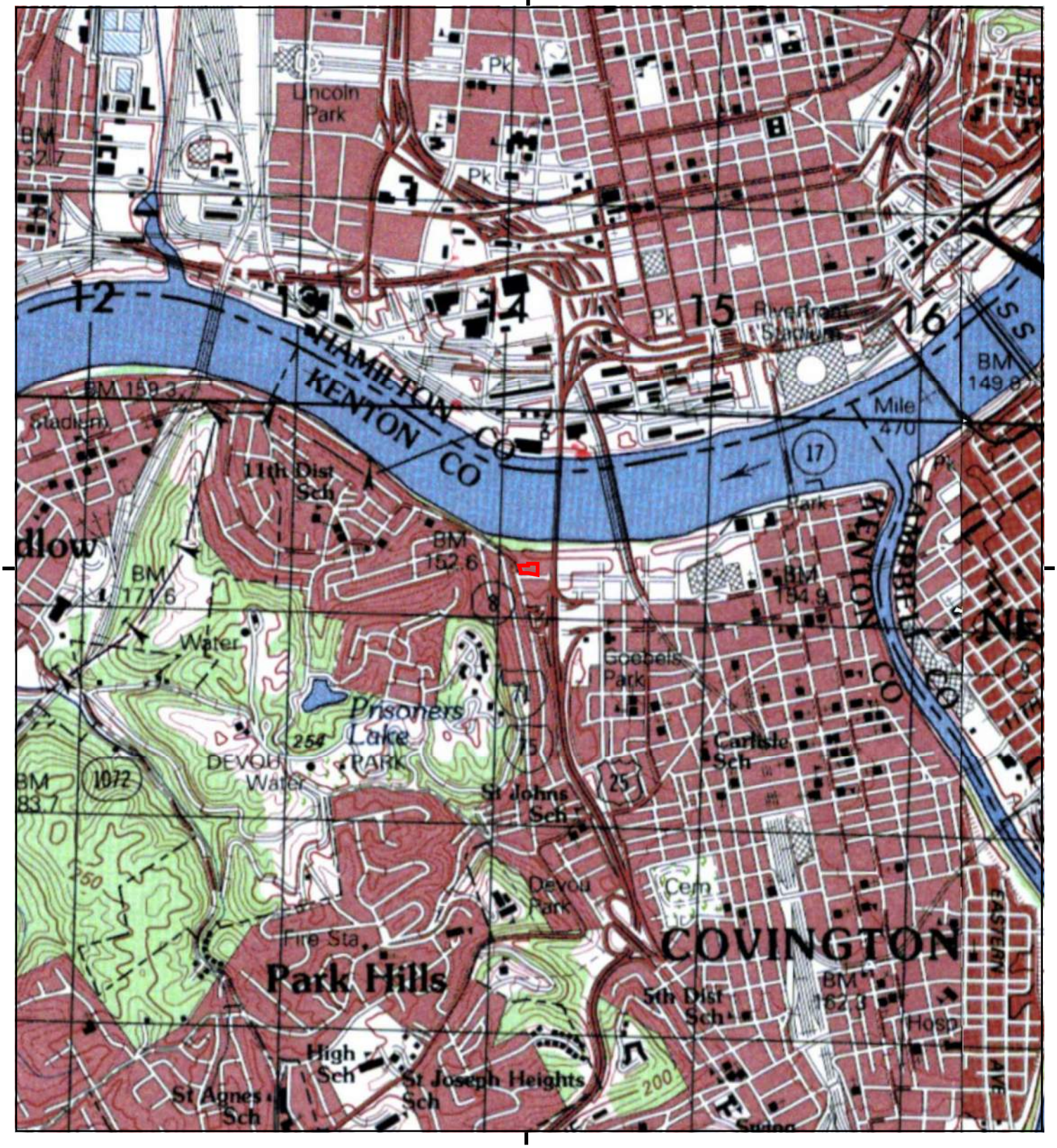
This report includes information from the following map sheet(s).



TP, Covington, 1981, 7.5-minute
E, Newport, 1983, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

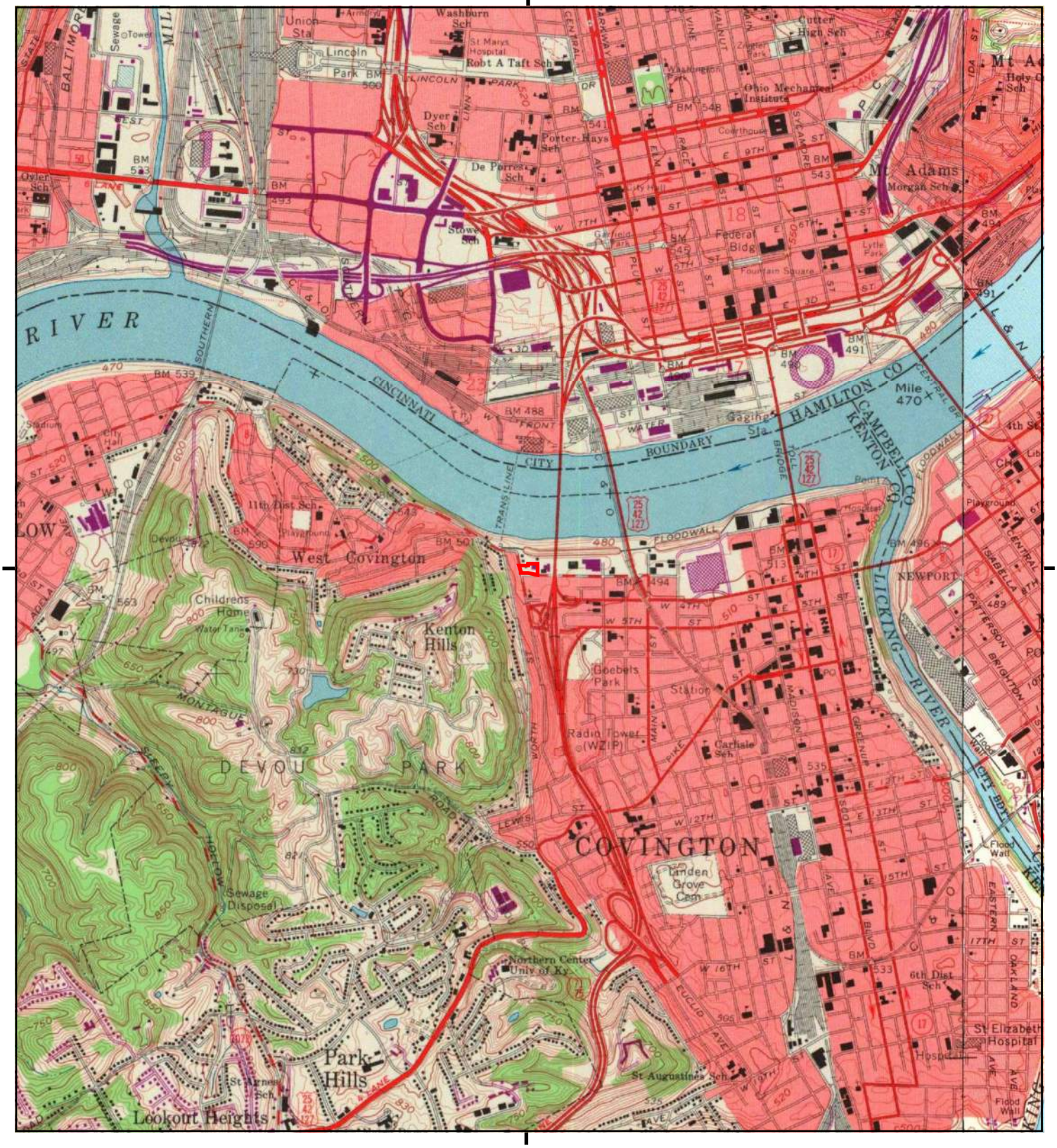
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, WEST CINCINNATI, 1979, 15-minute
E, EAST CINCINNATI, 1979, 15-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

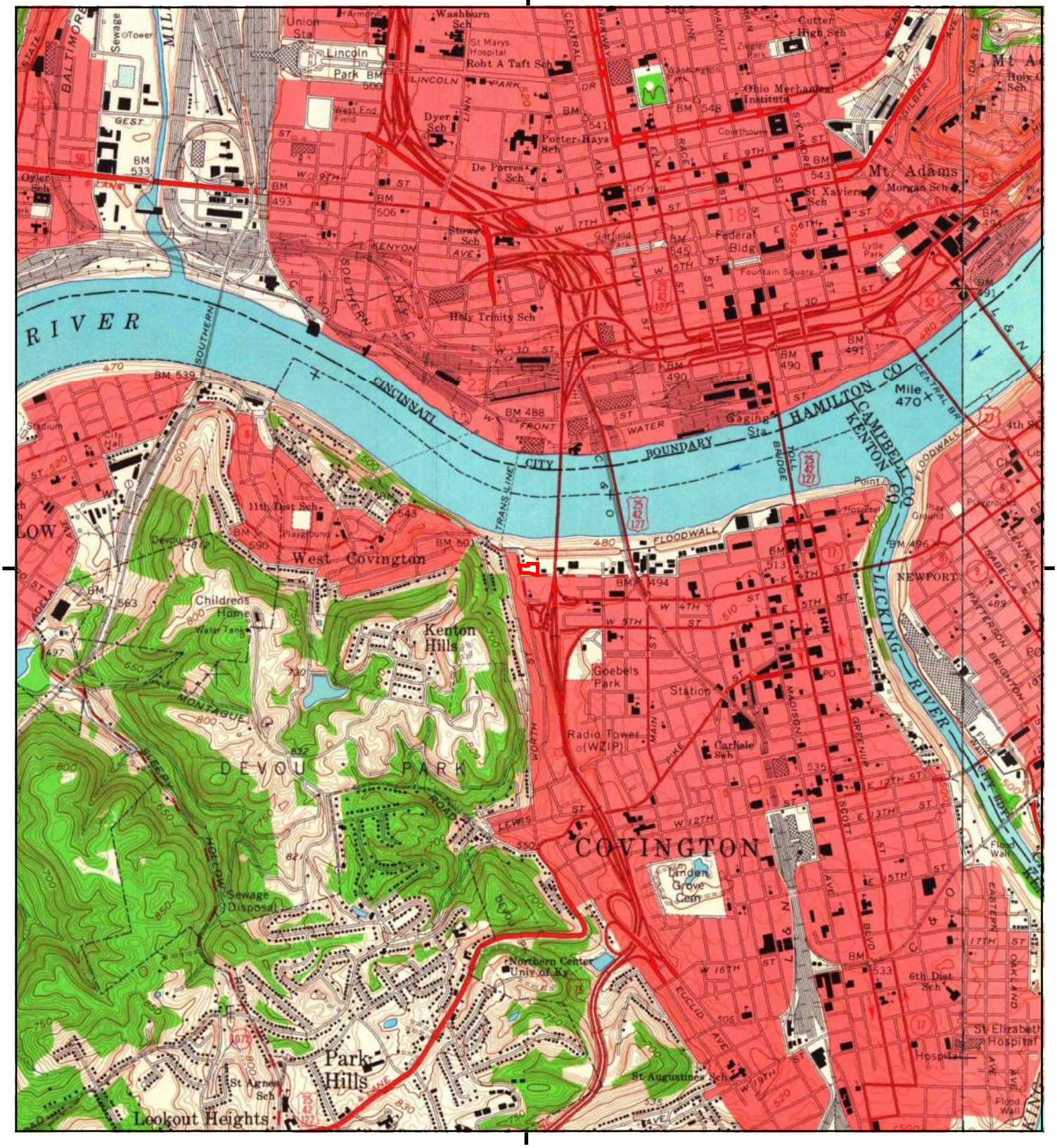
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Covington, 1969, 7.5-minute
E, Newport, 1970, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

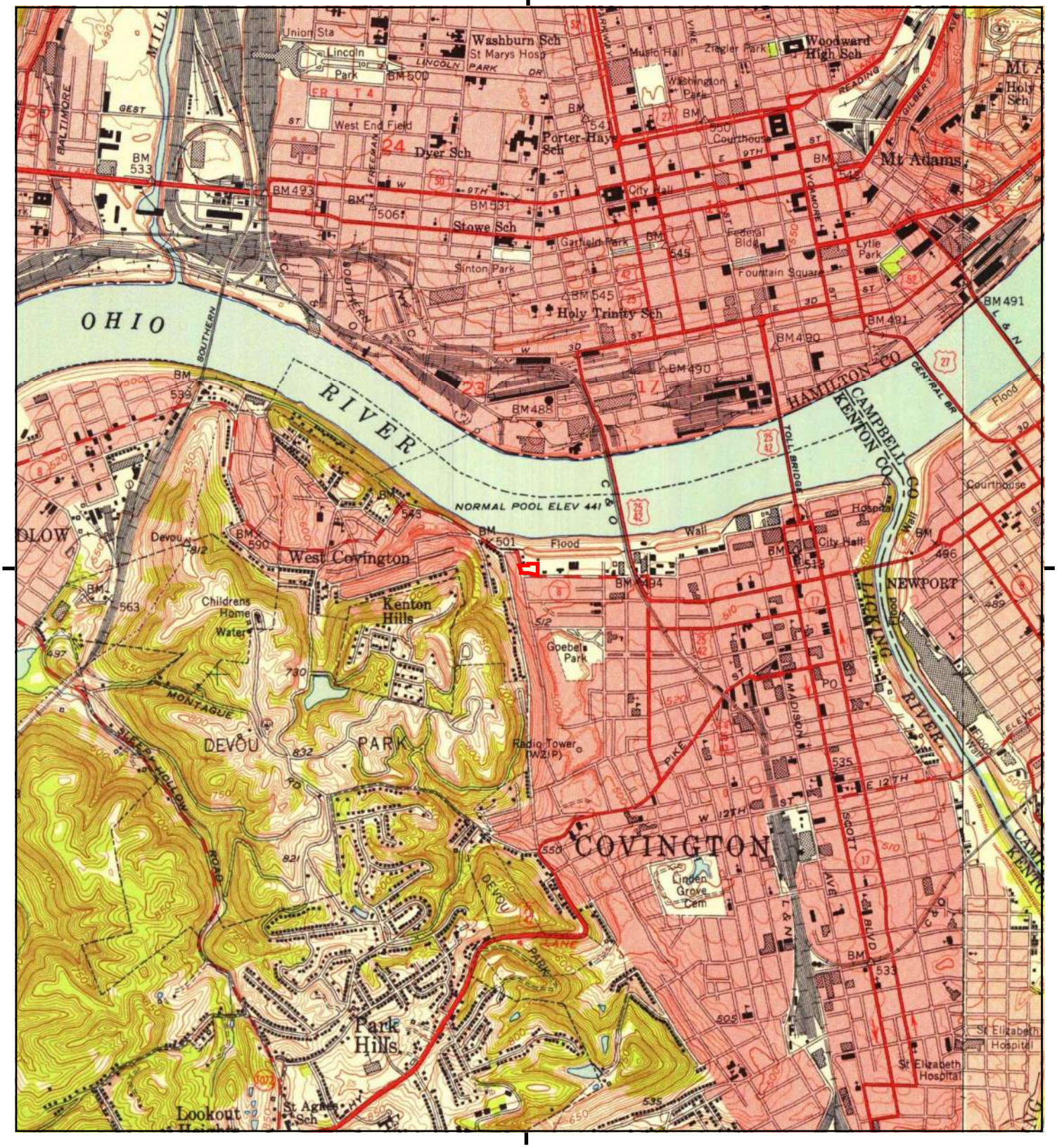
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Covington, 1961, 7.5-minute
E, Newport, 1961, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

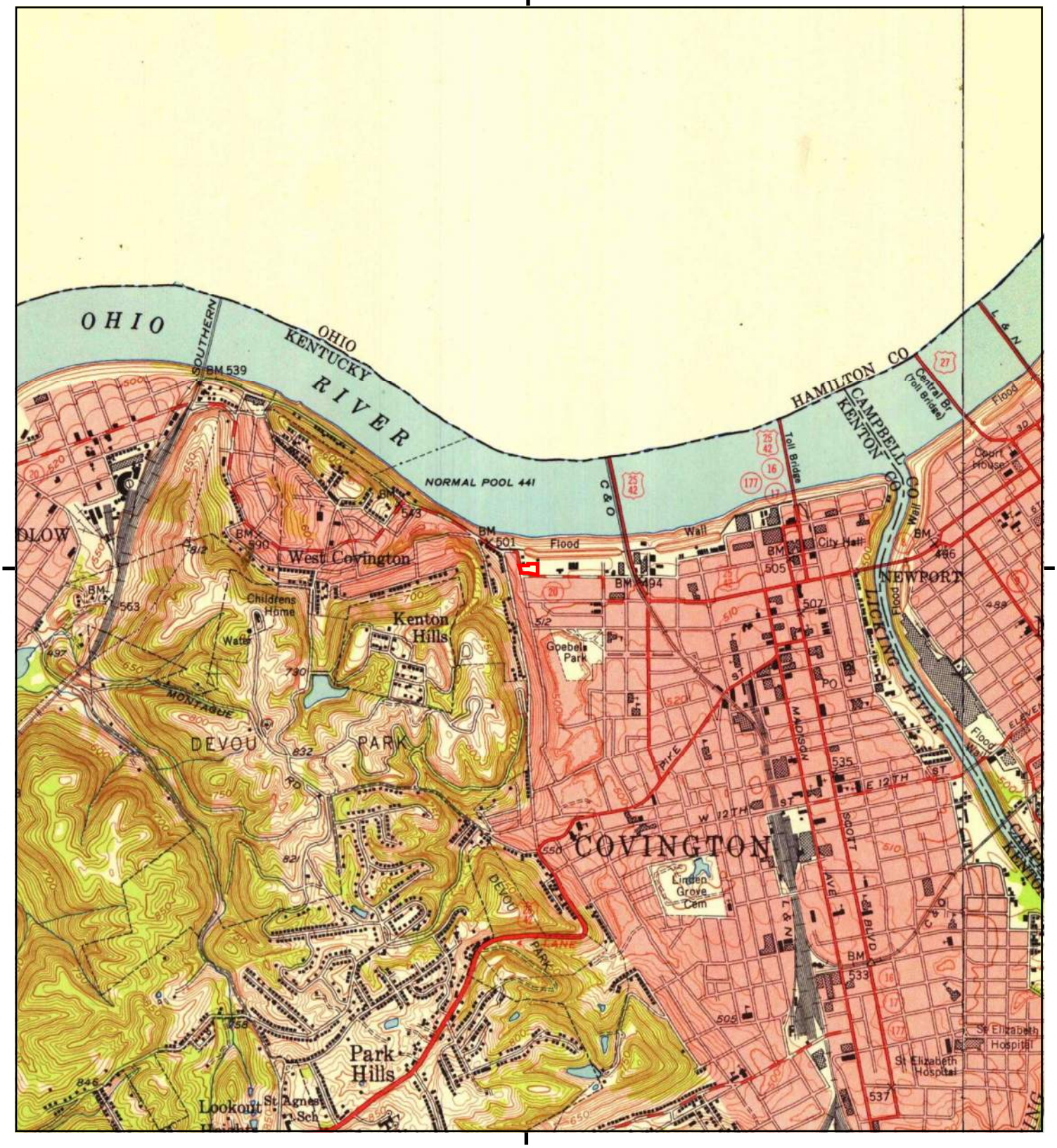
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Covington, 1955, 7.5-minute
E, Newport, 1955, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

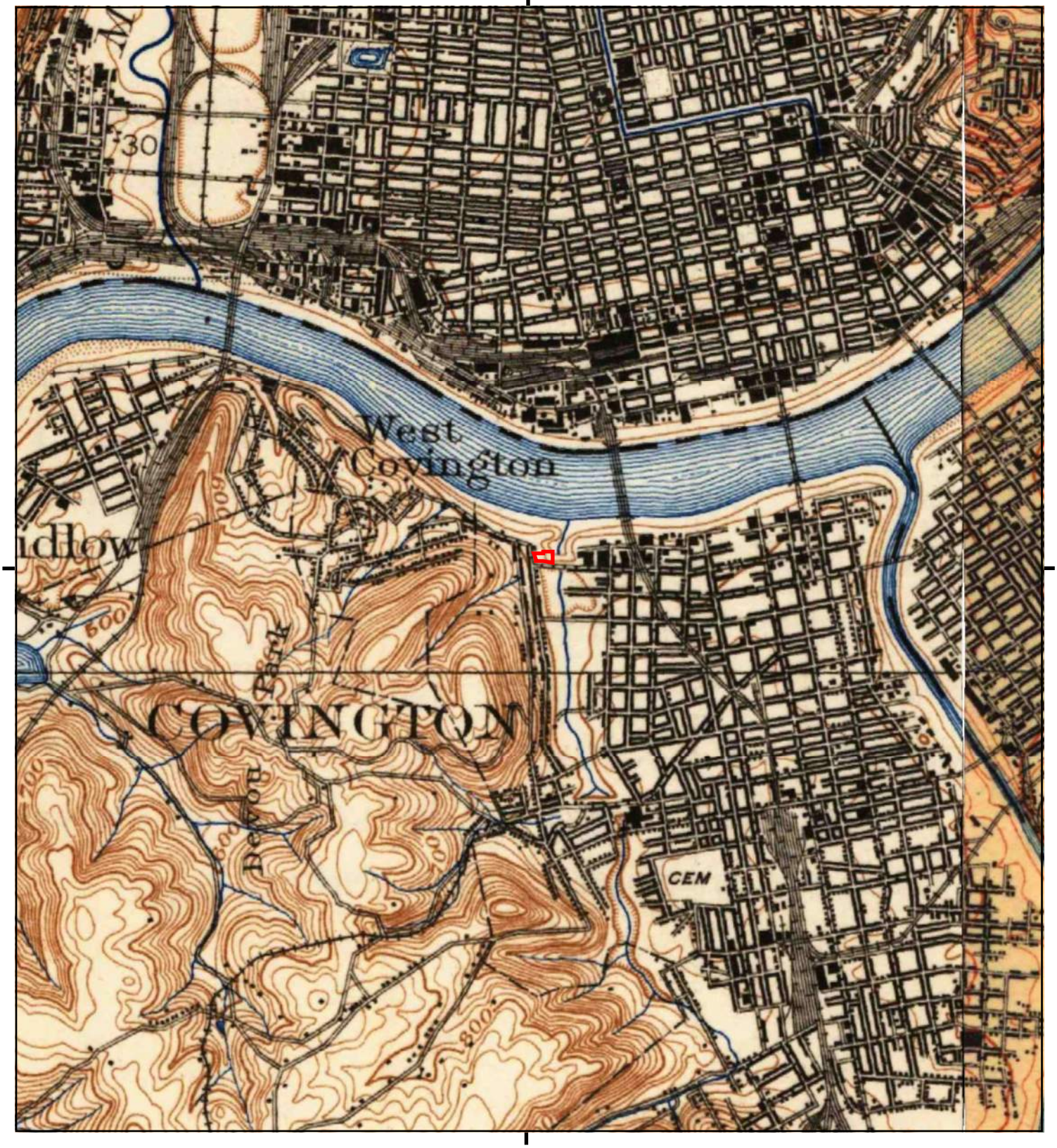
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Covington, 1950, 7.5-minute
E, Newport, 1952, 7.5-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

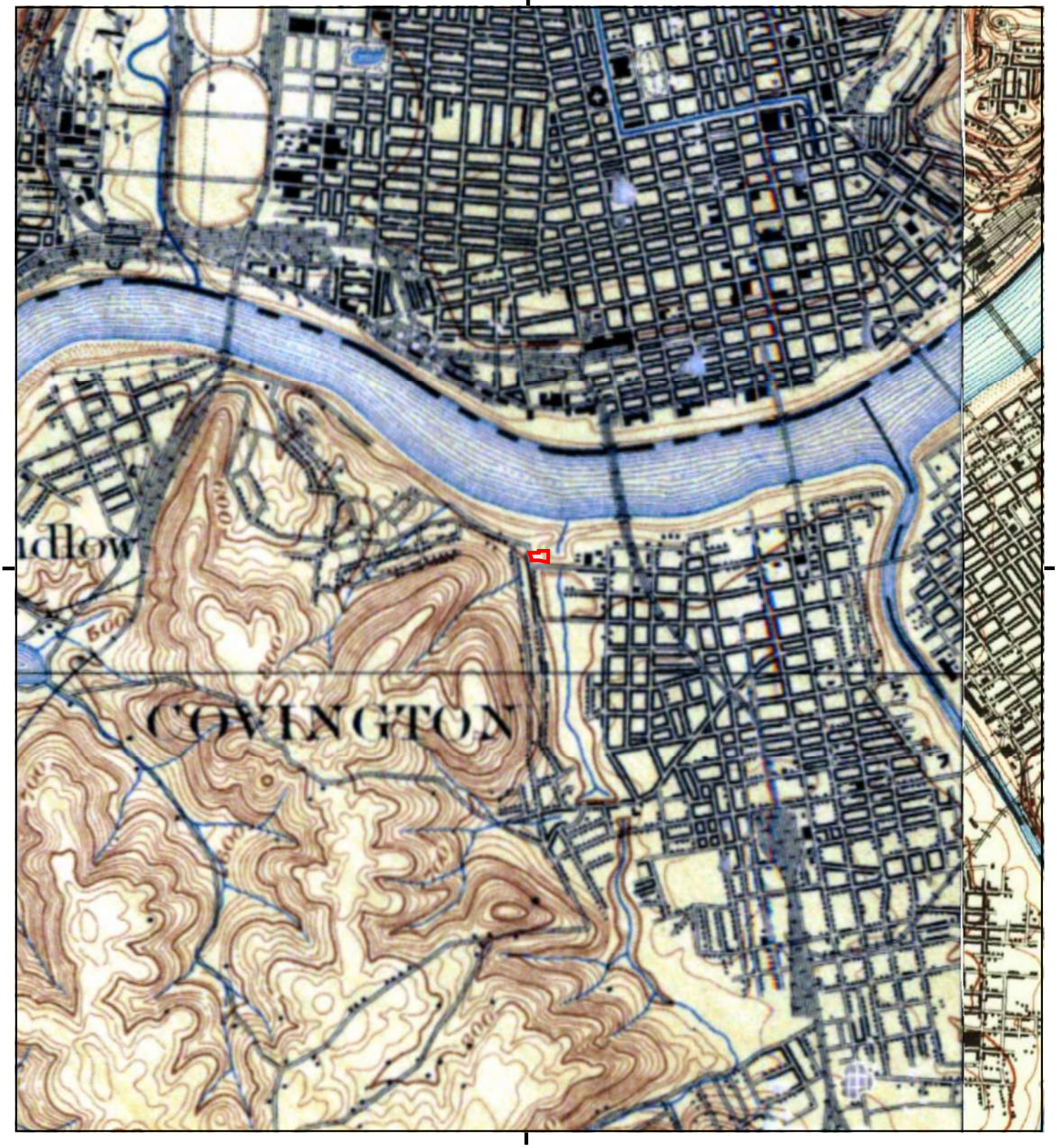
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, West Cincinnati, 1914, 15-minute
E, East Cincinnati, 1914, 15-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, WEST CINCINNATI, 1898, 15-minute
E, East Cincinnati, 1898, 15-minute

SITE NAME: Commercial Properties
ADDRESS: Crescent Avenue & W. 3rd Street
Covington, KY 41011
CLIENT: Linebach Funkhouser Inc.

N

Commercial Properties

Crescent Avenue & W. 3rd Street

Covington, KY 41011

Inquiry Number: 7832146.8

November 26, 2024

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/26/24

Site Name:

Commercial Properties
Crescent Avenue & W. 3rd Stre
Covington, KY 41011
EDR Inquiry # 7832146.8

Client Name:

Linebach Funkhouser Inc.
114 Fairfax Ave
Louisville, KY 40207
Contact: Jason Boston

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2020	1"=500'	Flight Year: 2020	USDA/NAIP
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2014	1"=500'	Flight Year: 2014	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2000	1"=500'	Acquisition Date: January 01, 2000	USGS/DOQQ
1993	1"=500'	Acquisition Date: April 10, 1993	USGS/DOQQ
1988	1"=500'	Flight Date: April 09, 1988	NAPP
1984	1"=500'	Flight Date: May 16, 1984	USDA
1975	1"=500'	Flight Date: November 05, 1975	USDA
1970	1"=500'	Flight Date: May 19, 1970	USGS
1969	1"=500'	Flight Date: July 02, 1969	USGS
1960	1"=500'	Flight Date: April 19, 1960	USGS
1955	1"=500'	Flight Date: January 01, 1955	USGS
1950	1"=500'	Flight Date: November 06, 1950	USDA
1949	1"=500'	Flight Date: May 03, 1949	USGS
1938	1"=500'	Flight Date: September 23, 1938	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2024 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

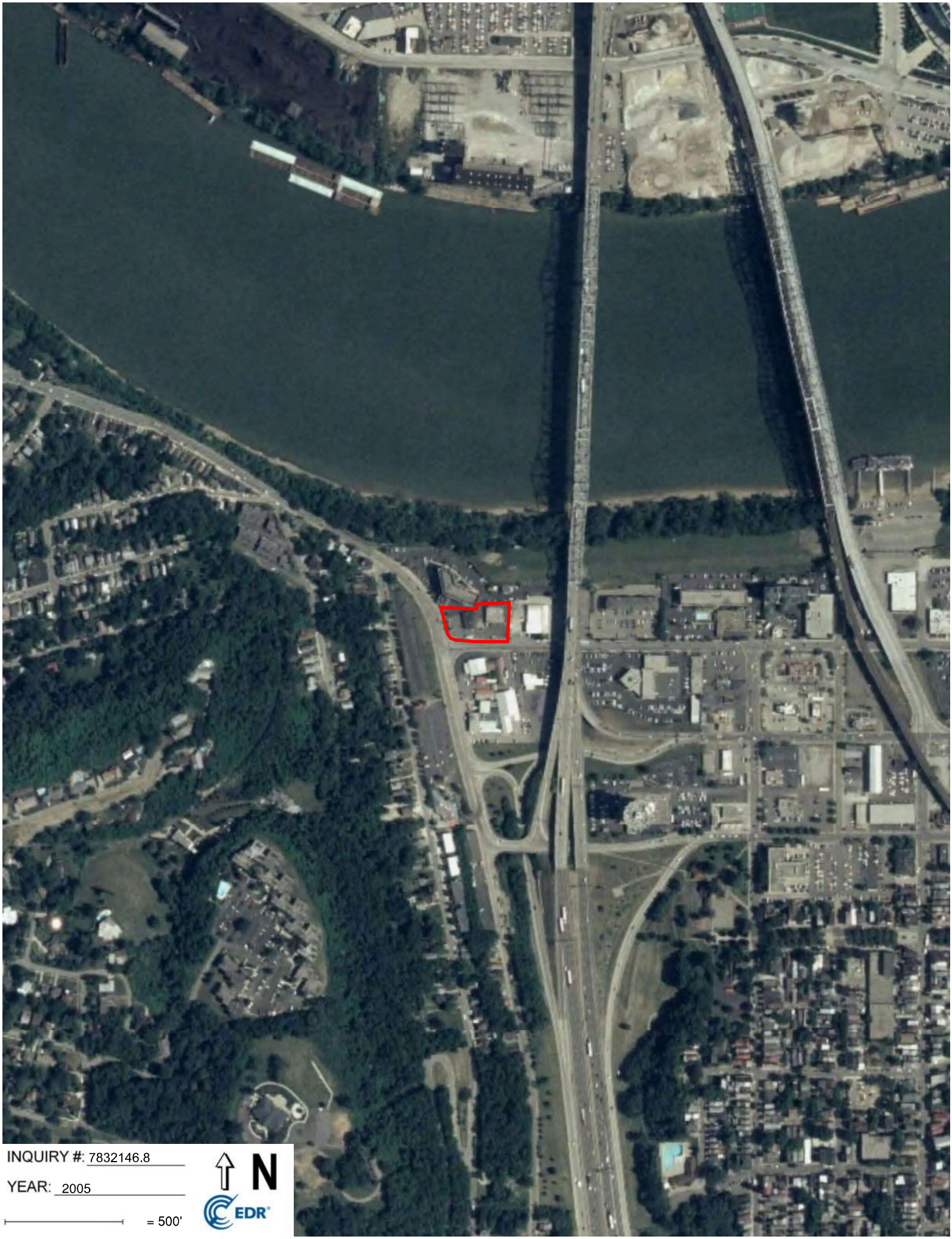

INQUIRY #: 7832146.8
YEAR: 2020
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 2017
= 500'
N
EDR

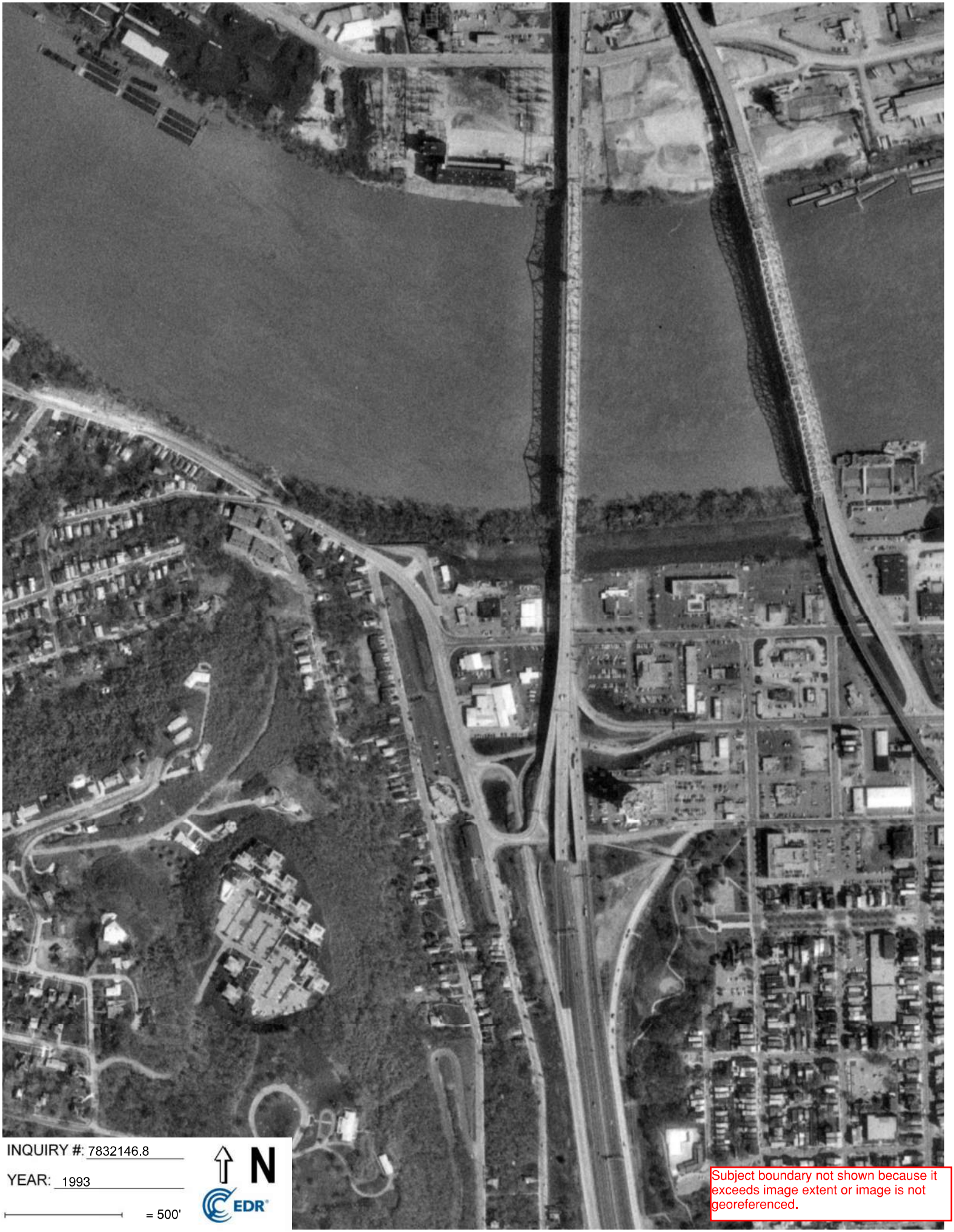

INQUIRY #: 7832146.8
YEAR: 2014
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 2011
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 2008
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 2000
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1993
= 500'
N
EDR
Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 7832146.8
YEAR: 1988
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1984
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1975
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1970
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1969
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1960
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1955
= 500'
N
EDR


INQUIRY #: 7832146.8
YEAR: 1950
= 500'
N
EDR

Commercial Properties

Crescent Avenue & W. 3rd Street

Covington, KY 41011

Inquiry Number: 7832146.3

November 25, 2024

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/25/24

Site Name:

Commercial Properties
Crescent Avenue & W. 3rd Stre
Covington, KY 41011
EDR Inquiry # 7832146.3

Client Name:

Linebach Funkhouser Inc.
114 Fairfax Ave
Louisville, KY 40207
Contact: Jason Boston

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Linebach Funkhouser Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # EE1D-4168-90BE

PO # NA

Project 288-24

Maps Provided:

1980
1963
1953
1949
1909
1894
1886

Sanborn® Library search results

Certification #: EE1D-4168-90BE

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Linebach Funkhouser Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2024 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1980 Source Sheets

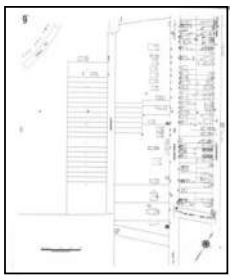


Volume 1, Sheet 2
1980

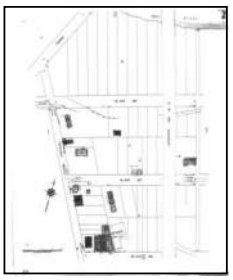


Volume 1, Sheet 9
1980

1963 Source Sheets



Volume 1, Sheet 9
1963



Volume 1, Sheet 2
1963



Volume 1, Sheet 1
1963

1953 Source Sheets



Volume 1, Sheet 1
1953



Volume 1, Sheet 2
1953

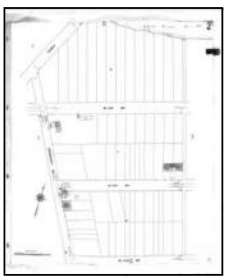


Volume 1, Sheet 9
1953

1949 Source Sheets



Volume 1, Sheet 1
1949



Volume 1, Sheet 2
1949



Volume 1, Sheet 9
1949

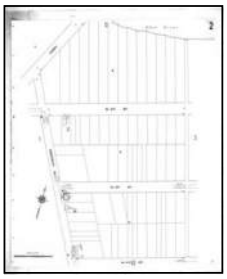
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

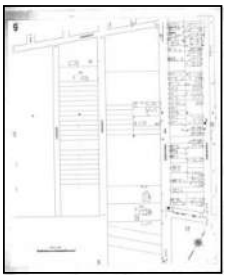
1909 Source Sheets



Volume 1, Sheet 1
1909



Volume 1, Sheet 2
1909



Volume 1, Sheet 9
1909

1894 Source Sheets



Volume 1, Sheet 27
1894

1886 Source Sheets



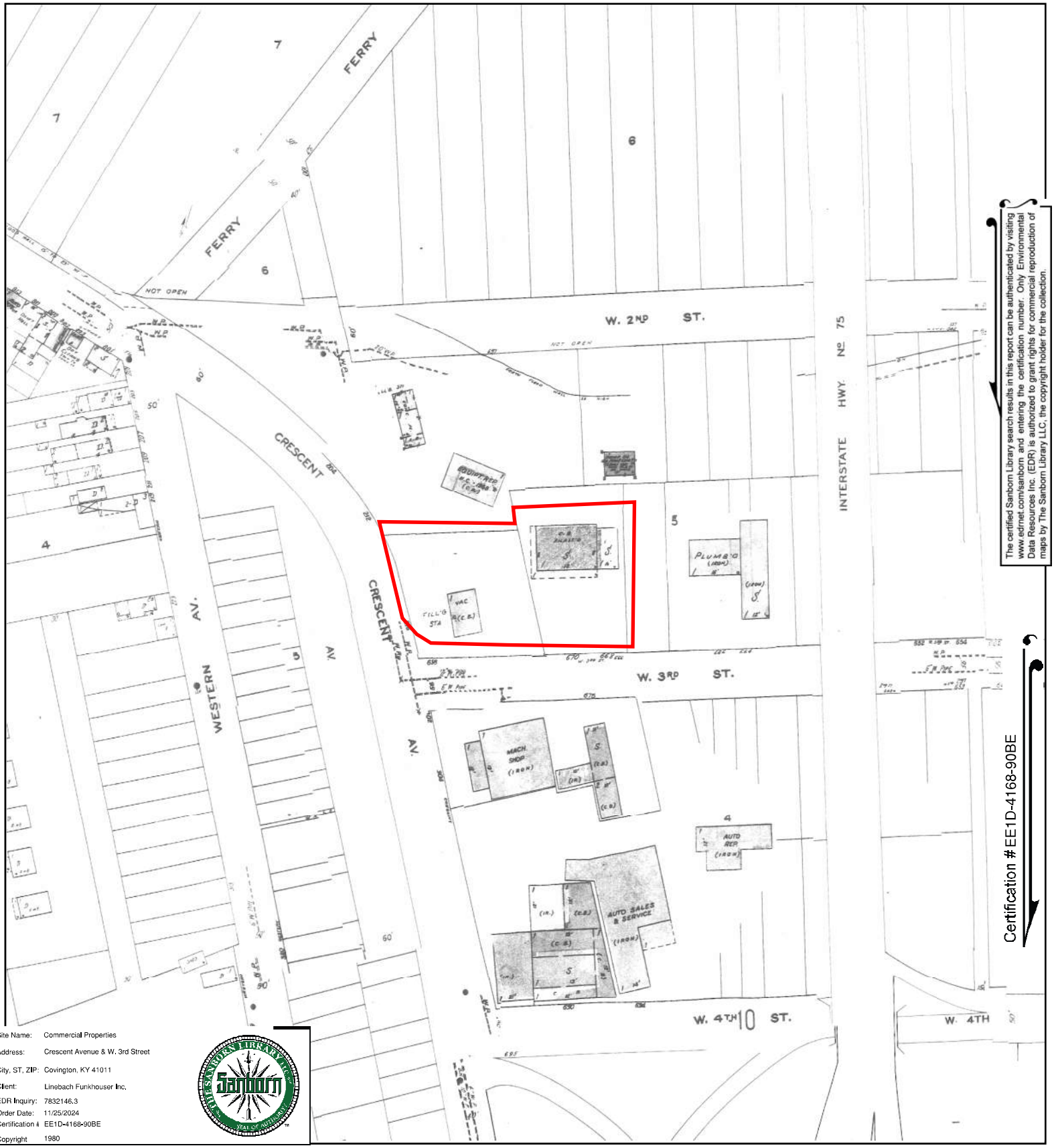
Volume 1, Sheet 7
1886



Volume 1, Sheet 6
1886

Certified Sanborn® Map

1980



The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

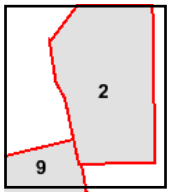
Certification #EE1D-4168-90BE

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1980

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

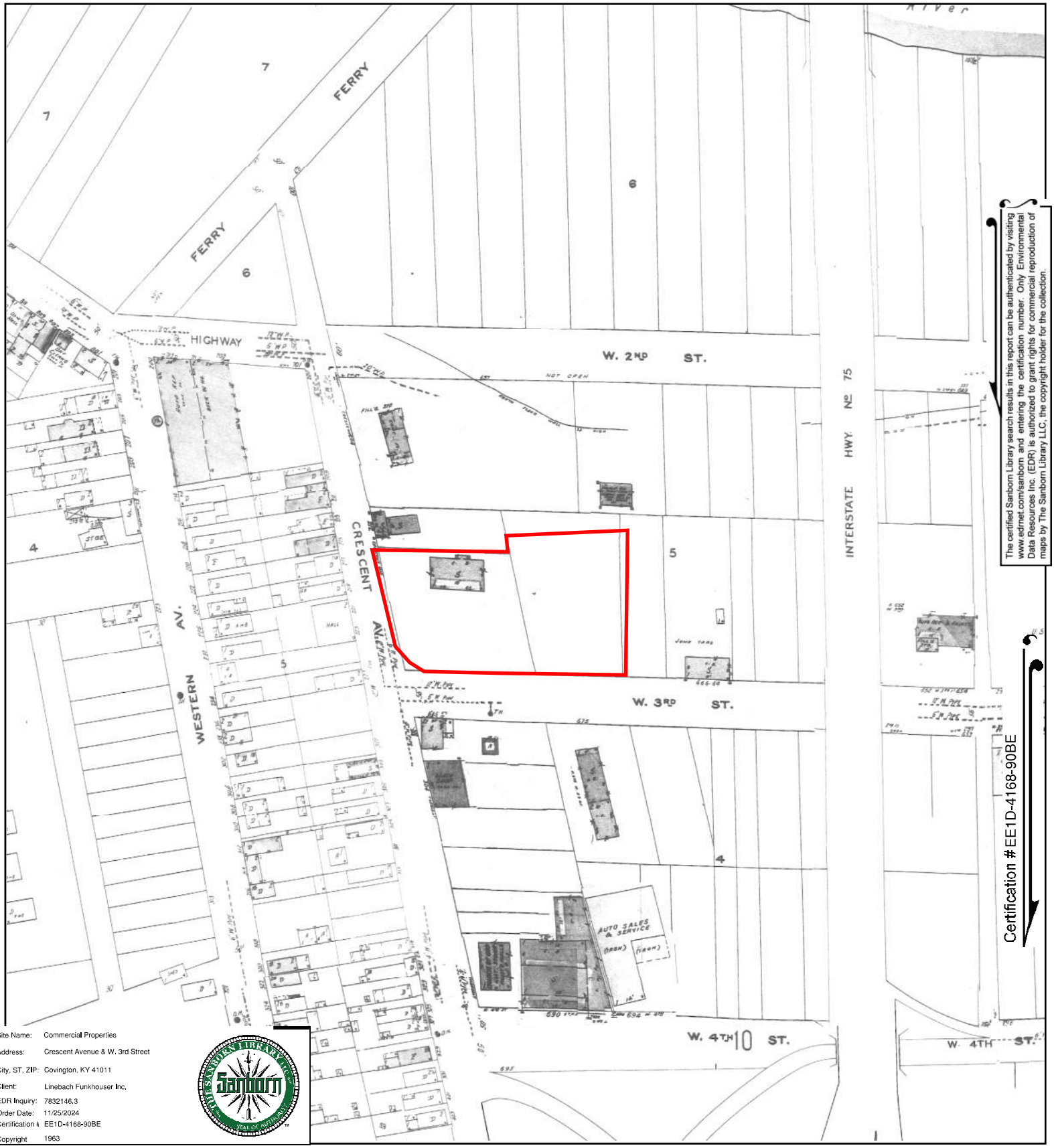
0 Feet 150 300 600





Volume 1, Sheet 9
Volume 1, Sheet 2

N

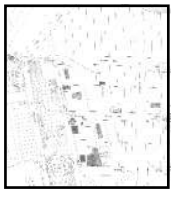


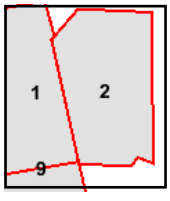
The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification #EE1D-4168-90BE

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1963

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

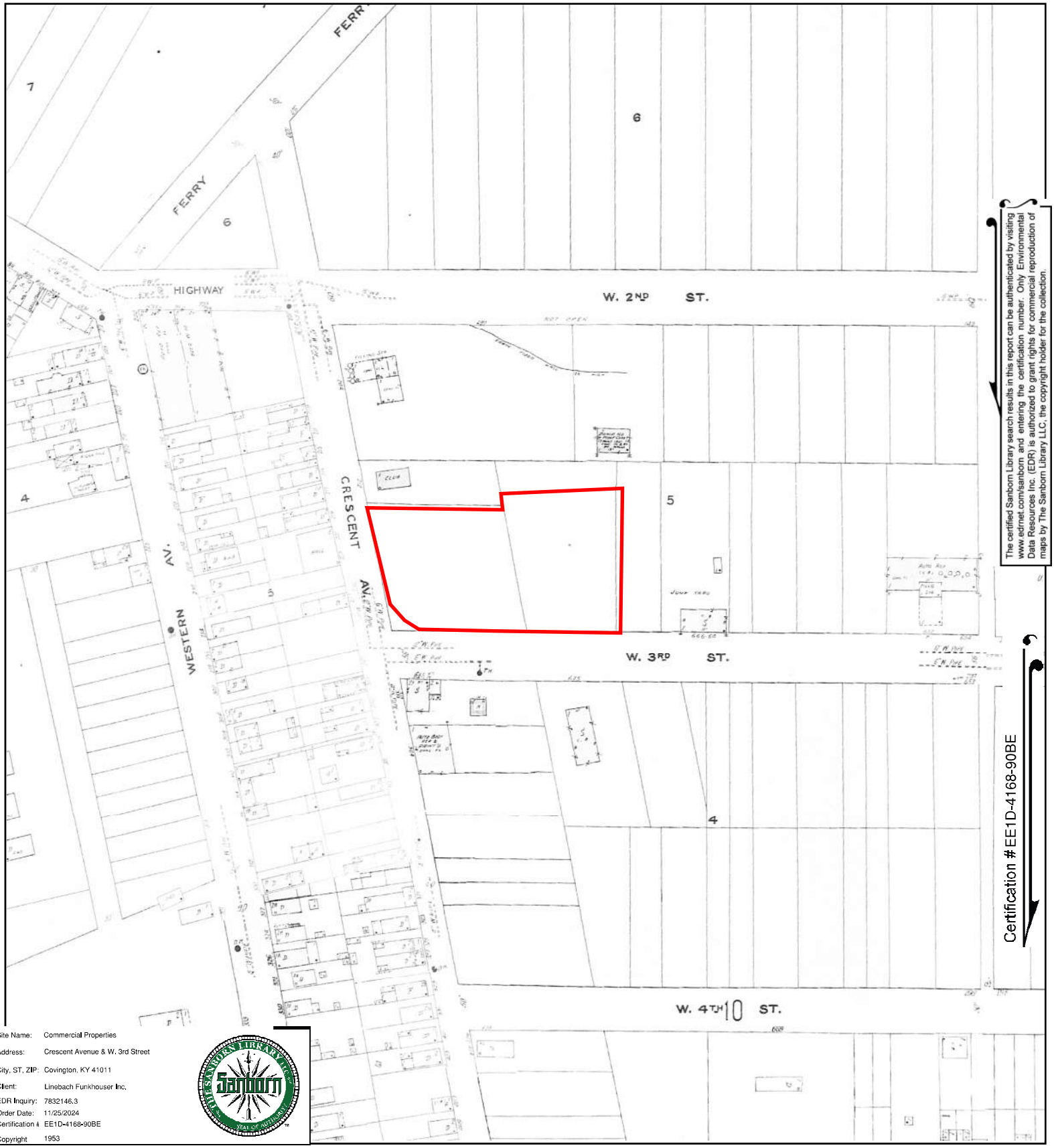




Volume 1, Sheet 1
Volume 1, Sheet 2
Volume 1, Sheet 9

0 Feet 150 300 600

N

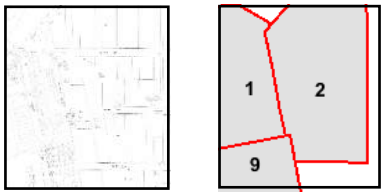


The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification #EE1D-4168-90BE

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1953

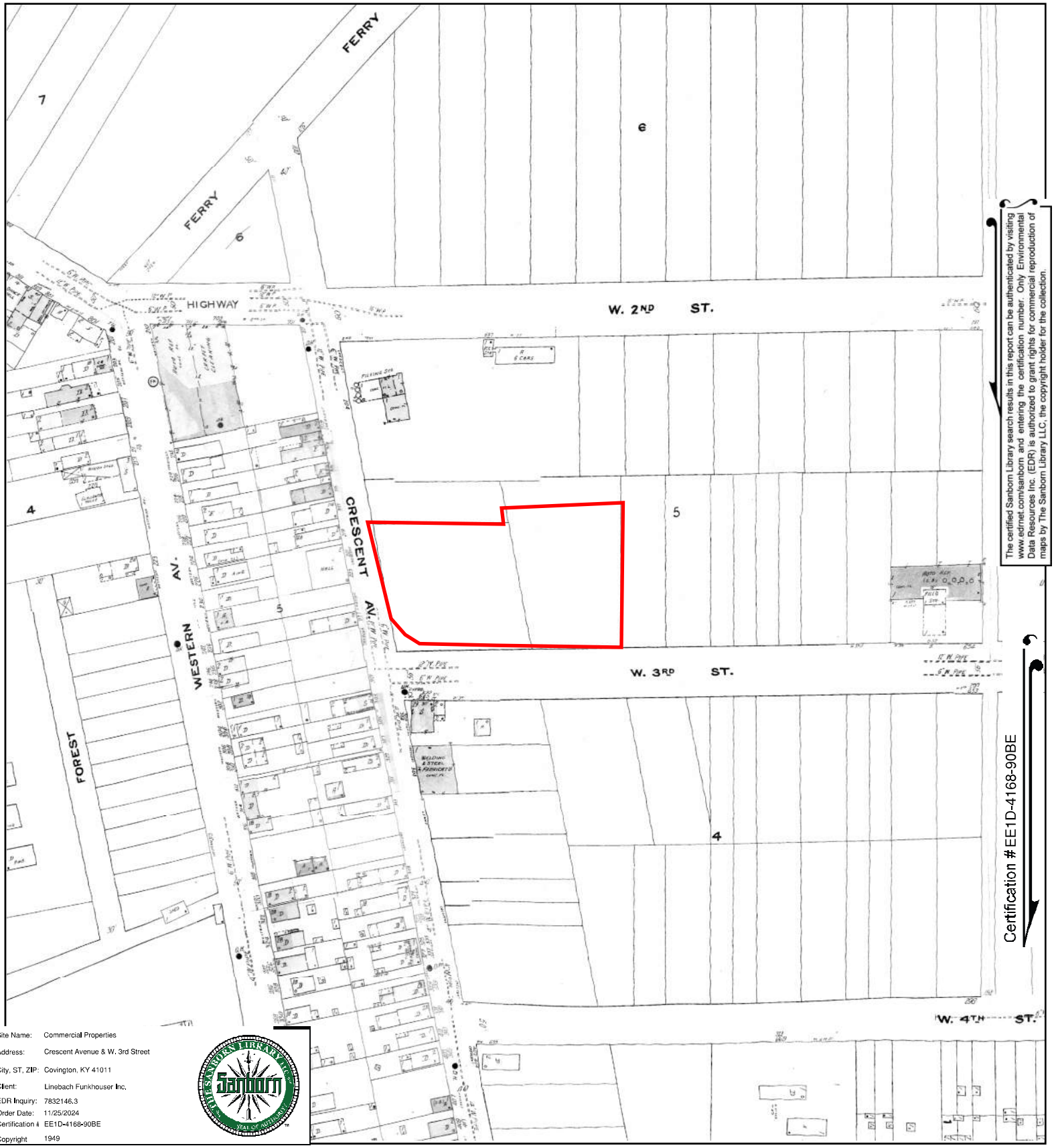
This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 9
Volume 1, Sheet 2
Volume 1, Sheet 1

0 Feet 150 300 600

N

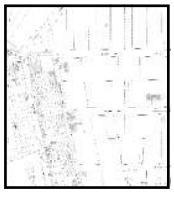


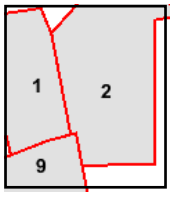
The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification #EE1D-4168-90BE

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1949

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





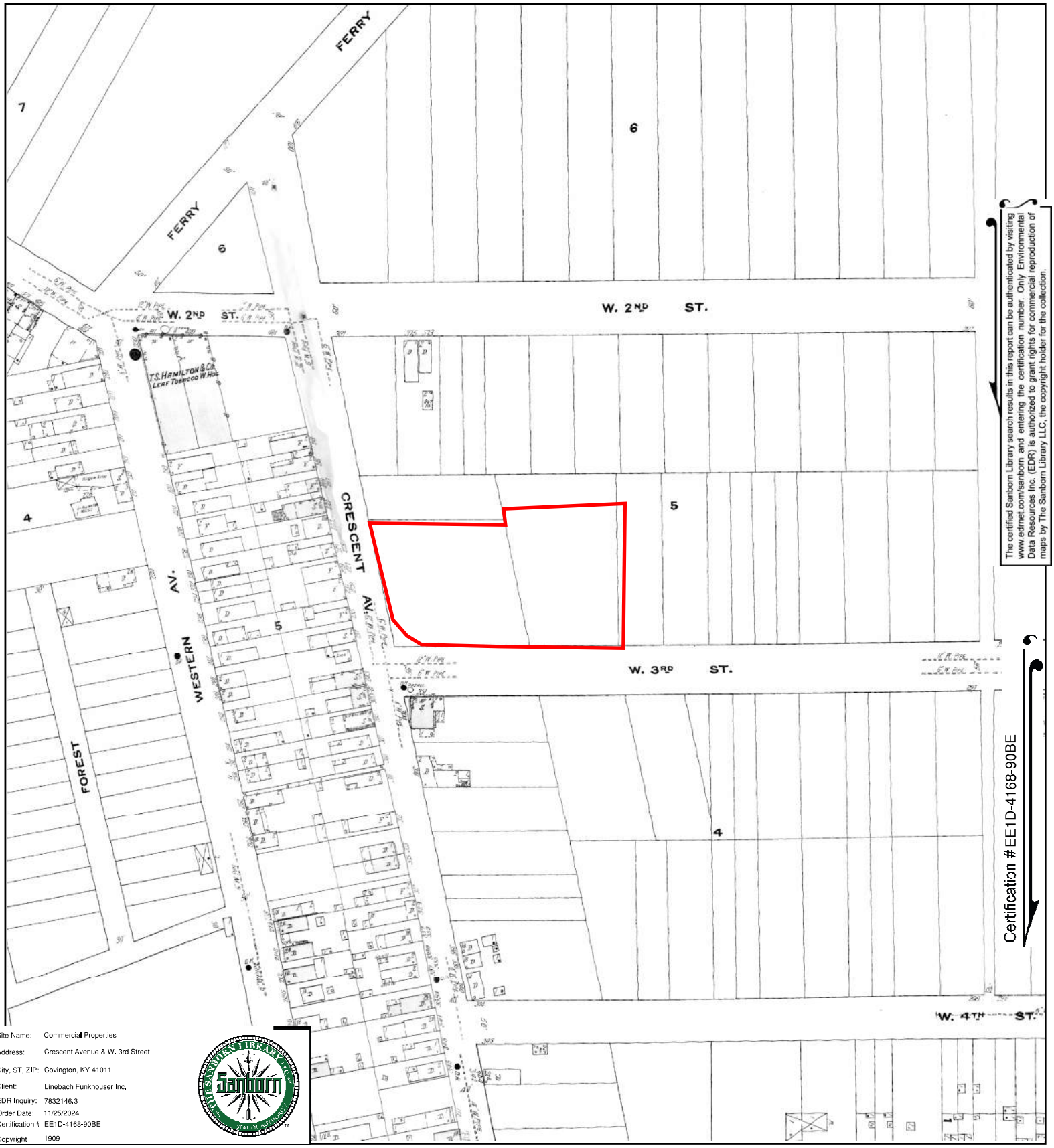
Volume 1, Sheet 9
Volume 1, Sheet 2
Volume 1, Sheet 1

0 Feet 150 300 600

N

Certified Sanborn® Map

1909

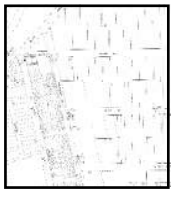


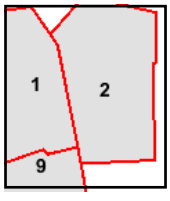
The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification #EE1D-4168-90BE

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1909

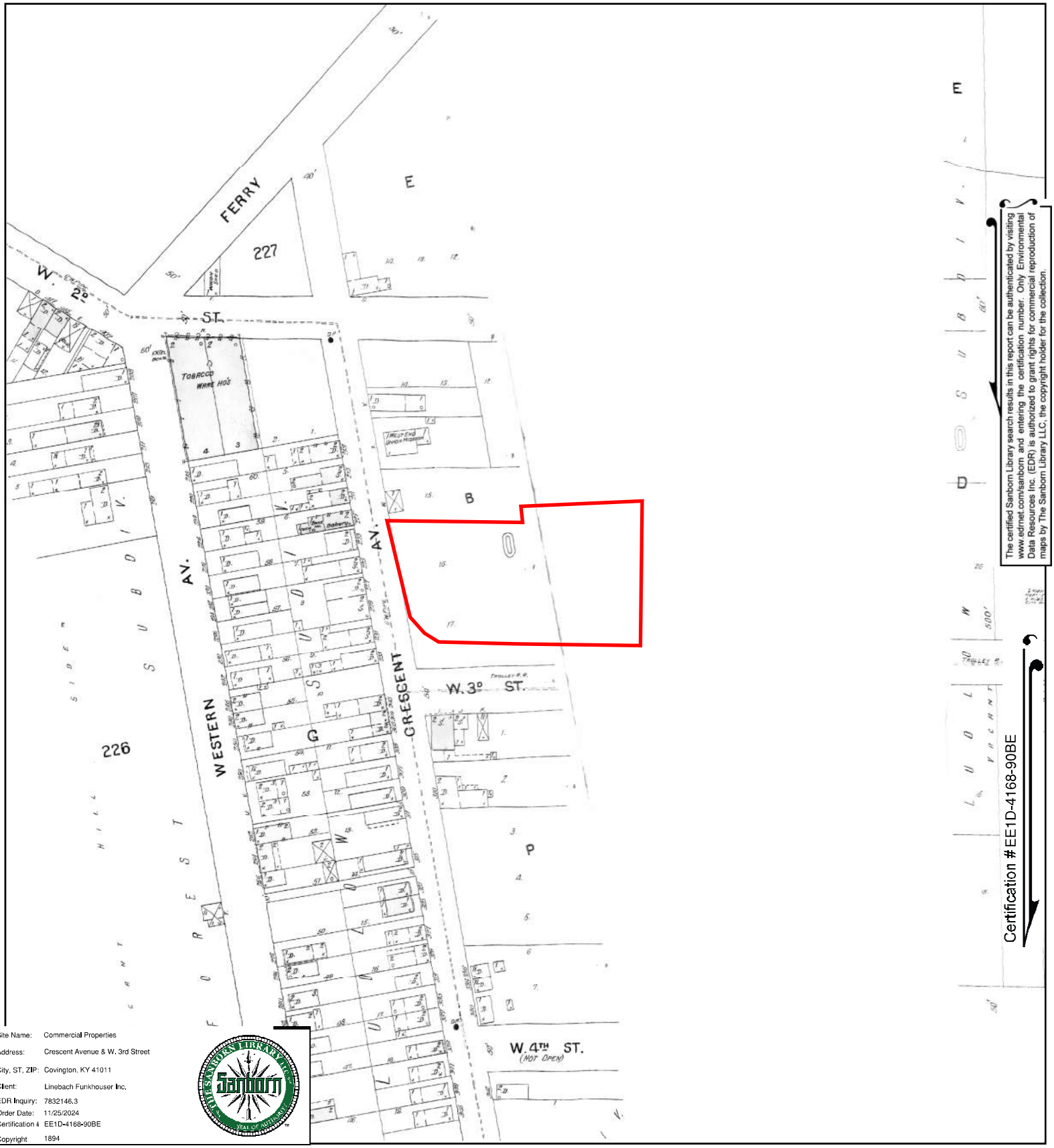
This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





Volume 1, Sheet 9
Volume 1, Sheet 2
Volume 1, Sheet 1

0 Feet 150 300 600



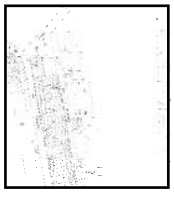
The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

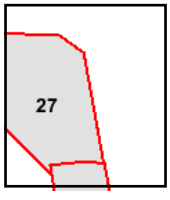
Certification #EE1D-4168-90BE

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1894

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

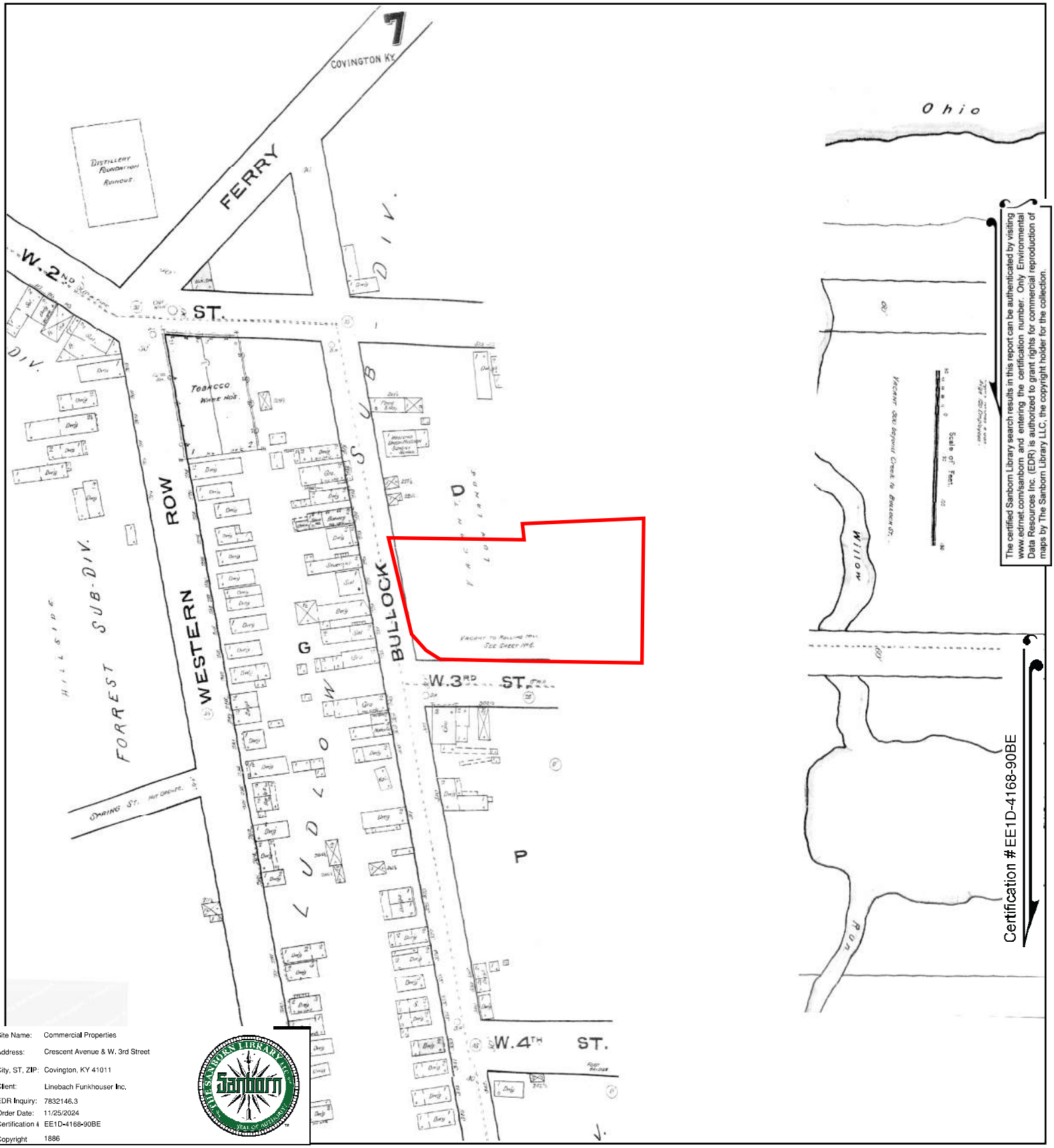
0 Feet 150 300 600





Volume 1, Sheet 27

N

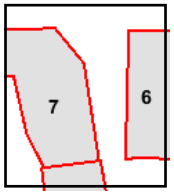


The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Site Name:	Commercial Properties
Address:	Crescent Avenue & W. 3rd Street
City, ST, ZIP:	Covington, KY 41011
Client:	Linebach Funkhouser Inc.
EDR Inquiry:	7832146.3
Order Date:	11/25/2024
Certification #	EE1D-4168-90BE
Copyright	1886

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





Volume 1, Sheet 6
Volume 1, Sheet 7

0 Feet 150 300 600

N

Commercial Properties
Crescent Avenue & W. 3rd Street
Covington, KY 41011

Inquiry Number: 7832146.5
November 26, 2024

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. **NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT.** Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2023 by Environmental Data Resources, LLC. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, LLC, or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2020	☑	☑	EDR Digital Archive
2017	☑	☑	Cole Information
2014	☑	☑	Cole Information
2010	☑	☑	Cole Information
2005	☑	☑	Cole Information
2000	☑	☑	Cole Information
1995	☑	☑	Cole Information
1992	☑	☑	Cole Information
1986	☑	☑	POLK DIRECTORY CO
1981	☑	☑	POLK DIRECTORY CO
1976	☑	☑	POLK DIRECTORY CO
1971	☑	☑	POLK DIRECTORY CO
1967	☑	☑	POLK DIRECTORY CO
1962	☑	☑	Williams' City Directory
1957	☑	☑	Williams' City Directory
1954	☑	☑	Williams' City Directory
1948	☑	☑	Williams' City Directory
1943	☑	☑	Williams' City Directory
1939	☑	☑	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Crescent Avenue & W. 3rd Street
Covington, KY 41011

Year	*CD Image*	*Source*
CRESCENT		
2020	pg A1	EDR Digital Archive
CRESCENT AVE		
2017	pg A3	Cole Information
2014	pg A5	Cole Information
2010	pg A7	Cole Information
2005	pg A9	Cole Information
2000	pg A11	Cole Information
1995	pg A13	Cole Information
1992	pg A15	Cole Information
1986	pg A17	POLK DIRECTORY CO
1981	pg A20	POLK DIRECTORY CO
1976	pg A22	POLK DIRECTORY CO
1971	pg A24	POLK DIRECTORY CO
1967	pg A26	POLK DIRECTORY CO
1962	pg A28	Williams' City Directory
1957	pg A30	Williams' City Directory
1954	pg A32	Williams' City Directory
1948	pg A34	Williams' City Directory
1943	pg A36	Williams' City Directory
1939	pg A38	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*
W 3RD ST		
2020	pg. A2	EDR Digital Archive
2017	pg. A4	Cole Information
2014	pg. A6	Cole Information
2010	pg. A8	Cole Information
2005	pg. A10	Cole Information
2000	pg. A12	Cole Information
1995	pg. A14	Cole Information
1992	pg. A16	Cole Information
1986	pg. A18	POLK DIRECTORY CO
1986	pg. A19	POLK DIRECTORY CO
1981	pg. A21	POLK DIRECTORY CO
1976	pg. A23	POLK DIRECTORY CO
1971	pg. A25	POLK DIRECTORY CO
1967	pg. A27	POLK DIRECTORY CO
1962	pg. A29	Williams' City Directory
1957	pg. A31	Williams' City Directory
1954	pg. A33	Williams' City Directory
1948	pg. A35	Williams' City Directory
1943	pg. A37	Williams' City Directory
1939	pg. A39	Haines Criss-Cross Directory

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

CRESCENT 2020

200	JACOB PAFF
501	BRIAN HUE

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W 3RD ST 2020

600	ATM
	HOLIDAY INN-CINCINNATI
617	ATM
	COVINGTON APPLIANCE REPAIR
	RIVERFRONT PIZZA & SPORTS BAR
	SKYLINE CHILI
	SMOKEY INC
	WAFFLE HOUSE
633	GREGORY MASSEY
	LEXUS RIVERCENTER
	MICHAEL DEVER
	PERFORMANCE AUTOMOTIVE NETWORK
650	ABHISHEK SAXENA
	CYNTHIA ZEIS
	DONNA PORTER
	EXTENDED STAY AMERICA
	TIFFANY HURKES
666	RUSK HEATING & COOLING
670	DEPS FINE WINE & SPIRITS
	SAVE ON CIGS
677	ADAPTIVE MEDICAL PRODUCTS
	CINCINNATI CLOSETS LLC
	IDSTECHNICAL
	PAUL EDGINGTON

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 2017

200	FOREIGN & DOMESTIC AUTO REPAIRS
	HAMPTON INN
220	LIQUOR CITY CRESCENT
601	HAGAN, BRITTANY

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 2017

600	AUTHORIZED APPLIANCE REPAIR CO
	HOLIDAY INN
	HOLIDAY INN CINCINNATIRIVERFRONT
617	RIVERFRONT PIZZA
633	LEXUS RIVERCENTER
650	APPLIANCE REFINISHING & REPAIR
	EXTENDED STAY AMERICA
	EXTENDED STAY AMERICA CINCINNATICOV
666	RUSK HEATING & COOLING
670	SAVE ON CIGS
677	CINTI CLOSETS LLC

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 2014

200	HAMPTON INN CINCINNATI RIVERFRONT
220	LIQOUR CITY CRESCENT
401	WILLIES SPORTS CAFE
501	CORK N BOTTLE
601	OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 2014

322	CORKEN STEEL PRODUCTS COMPANY
400	THEATRE HOUSE INCORPORATED
500	COURTYARD CINCINNATI COVINGTON
596	WHITE CASTLE
600	HOLIDAY INN
603	T KS SHOP
617	RIVERFRONT PIZZA
	RIVERSIDE PIZZA
633	LEXUS RIVERCENTER
650	EXTENDED STAY AMERICA CINCINNATICOV
	EXTENDED STAY HOTELS
670	SAVE ON CIGS
677	CINTI CLOSETS LLC

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 2010

200	HAMPTON INNRIVERFRONT
220	PONY KEG EXPRESS
401	WILLIES SPORTS CAFE
501	CORK N BOTTLE
	I75 PACKAGED LIQUORS
603	JULIAN, JOHN

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 2010

400	THEATRE HOUSE INC
500	COURTYARDCINCINNATI COVINGTON
	INNOVUS
596	WHITE CASTLE
600	HOLIDAY INNRIVERFRONT
617	RIVERFRONT PIZZA & SPORTS BAR
	SKYLINE CHILI
633	LEXUS RIVERCENTER
650	EXTENDED STAY AMERICA
666	RUSK HEATING & COOLING INC
670	LIQUOR DIRECT
	SAVE ON CIGS
677	ADAPTIVE MEDICAL PRODUCTS

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 2005

200	HAMPTON INN RIVERFRONT LLC
220	PONY KEG EXPRESS
401	WEST WILLIES INC
	WILLIES BAR & GRILL INC
579	BENJEY, ORVILLE J
605	ROBERTS, CONNIE

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 2005

400	THEATRE HOUSE INC
500	CINCINNATI DOVINGTON COURTYARD BY MA
600	HOLIDAY INN
617	MACS CONVENIENCE STORES
	RIVERFRONT MARKET
	SMOKEY INC
633	MARYSVILLE LAND DVLPMNT LLC
	RIVER CTR COLLISION
	RIVERCENTER COLLISION
	RIVERCENTER SELECT LLC
	THIRD STREET
669	RIVERCENTER SELECT
672	DELI DIRECT
	SAVE ON SIGS
677	DIVERSIFIED COMPONENT SALES INC
	EAGLE MACHINE & TOOL INC

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 2000

200	HAMPTON INN COVNGTN
	VONDENBENKEN, TED J
220	PONY KEG EXPRESS
401	ORR, BRADLEY D
	WILLIES SPORTS CAFE
501	CORKN BOTTLE
	I 75 PACKAGED LIQUORS
601	ASBURY, PAUL W

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 2000

322	CORKEN STEEL PRODUCTS COMPANY
400	THEATRE HOUSE INCORPORATED
404	FREIHOFER BAKERY
	JANSEN'S SWEET SINSATIONS
	SWEET SENSATIONS
596	WHITE CASTLE SYSTEM INCORPORATED
598	COURTYARD BY MARRIOTT
	PERKINS FAMILY RESTAURANTS
600	HOLIDAY INN
	NORTHERN KENTUCKY COVINGTON HOLIDAY INN
601	PROFESSIONAL MICROCARE
617	DAIRY MART
	RIVERFRONT PIZZA
	SKYLINE CHILI RESTAURANTS COVNGTN
633	RIDGEVIEW LINCOLN MERCURY INCORPORATED PARTS DEPARTMENT
	RIDGEVIEW LINCOLN MERCURY INCORPORATED SALES & SERVICE
640	CONSERVATORY RESTRNT & DANCE CLUB
650	EXTENDED STAYAMERICA
665	INTECH CONTRG INCORPORATED
666	DOC RUSK HEATING & AIR CONDITIONING COMPANY
669	GATEWAY AUTO CNTR
670	DELI DIRECT
	JDS FOOD MART
	LIQUOR DIRECT
677	DIVERSIFIED COMPONENT SALES
	DIVERSIFIED SALES ASSOCIATES
	EAGLE MACH & TOOL INCORPORATED
	L & H TOOL & DIE COMPANY

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 1995

204	PERMAKIL PEST CONTROL INC
212	CLEAN CAR
220	PONY KEG EXPRESS
401	WILLIES SPORTS CAFE
501	CORK N BOTTLE
571	WILSON, WILLIAM L
573	WILSON, V C
579	OCCUPANT UNKNOWNN
583	HELTON, E
585	BLUEFORD, RANDY
601	HUNT, VELMA

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 1995

322	CORKEN STEEL PRODUCTS CO
400	THEATRE HOUSE INC
404	FREIHOFER BAKERY
598	PERKINS FAMILY RESTAURANT
600	HOLIDAY INN
601	PROFESSIONAL MICROCARE
617	DAIRY MART
	RIVERFRONT PIZZA
	SKYLINE CHILI INC
633	RIDGEVIEW LINCOLN
	RIDGEVIEW LINCOLN MERC
640	CONSERVATORY RESTAURANT & CLUB
666	DOC RUSK HEATING & AIR COND CO
669	FINK, CALVIN
	GATEWAY AUTO CTR
670	J DS FOOD MART
	LIQUOR DIRECT
675	CARE MEDICAL
677	L & H TOOL & DIE CO

Target Street	Cross Street	Source
✔	-	Cole Information

CRESCENT AVE 1992

204	PERMAKIL PEST CNTRL
212	CLEAN CAR
220	PONY KEG EXPRESS
401	WILLIES SPORTS CAFE
501	CORK N BOTTLE
571	WILSON, WILLIAM L
573	WILSON, V C
583	HELTON, E
585	GROESCHEN, ANTHONY G
603	ASBURY, THOMAS

Target Street	Cross Street	Source
-	✓	Cole Information

W 3RD ST 1992

322	CORKEN STEEL PRD CO
400	THEATRE HOUSE INC
404	FREIHOFER BAKERY
598	PERKINS RESTAURANTS
600	FUNNY BONE CMDY CLB
	HOLIDAY INN
617	DAIRY MART
	RIVERFRONT PIZZA
	SKYLINE CHILI REST
633	RIDGEVIEW LINCOLN
640	CONSERVATORY REST
651	M&J PAINTING
666	RUSK DOC HEATG&AIR
669	RIVERFRONT AUTO CTR
670	J DS FOOD MART
	LIQUOR DIRECT
675	CARE MEDICAL
677	L&H TOOL DIE CO

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

CRESCENT AVE 1986

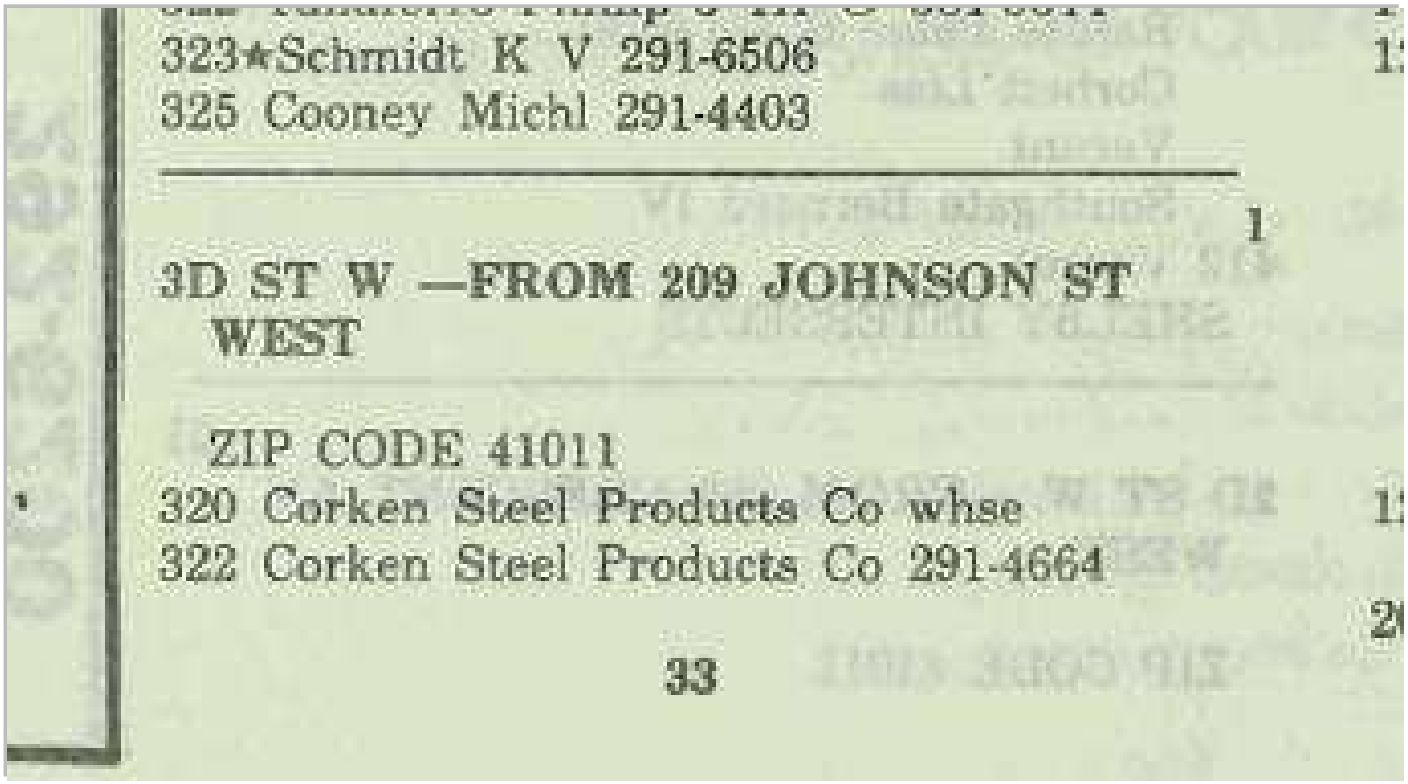
CRESCENT AV —FROM OHIO RIVER SOUTH

ZIP CODE 41011

401 Glass Menagere The restr 581-1500
W 3D ST ENDS
W 4TH ST ENDS
W 5TH ST ENDS
501 I-Seventy Five Package Liquor & Wine Inc 261-8333
W 6TH ST INTERSECTS
601 Hunt Velma Mrs 291-1156
603 Asbury Grace M Mrs ◎ 431-0136
605 Vacant
607 Vacant
609★Isles Mitchell
611 Vacant
617 Roberts Geneva Mrs ◎ 581-0815

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

W 3RD ST 1986



323★Schmidt K V 291-6506
325 Cooney Michl 291-4403

1

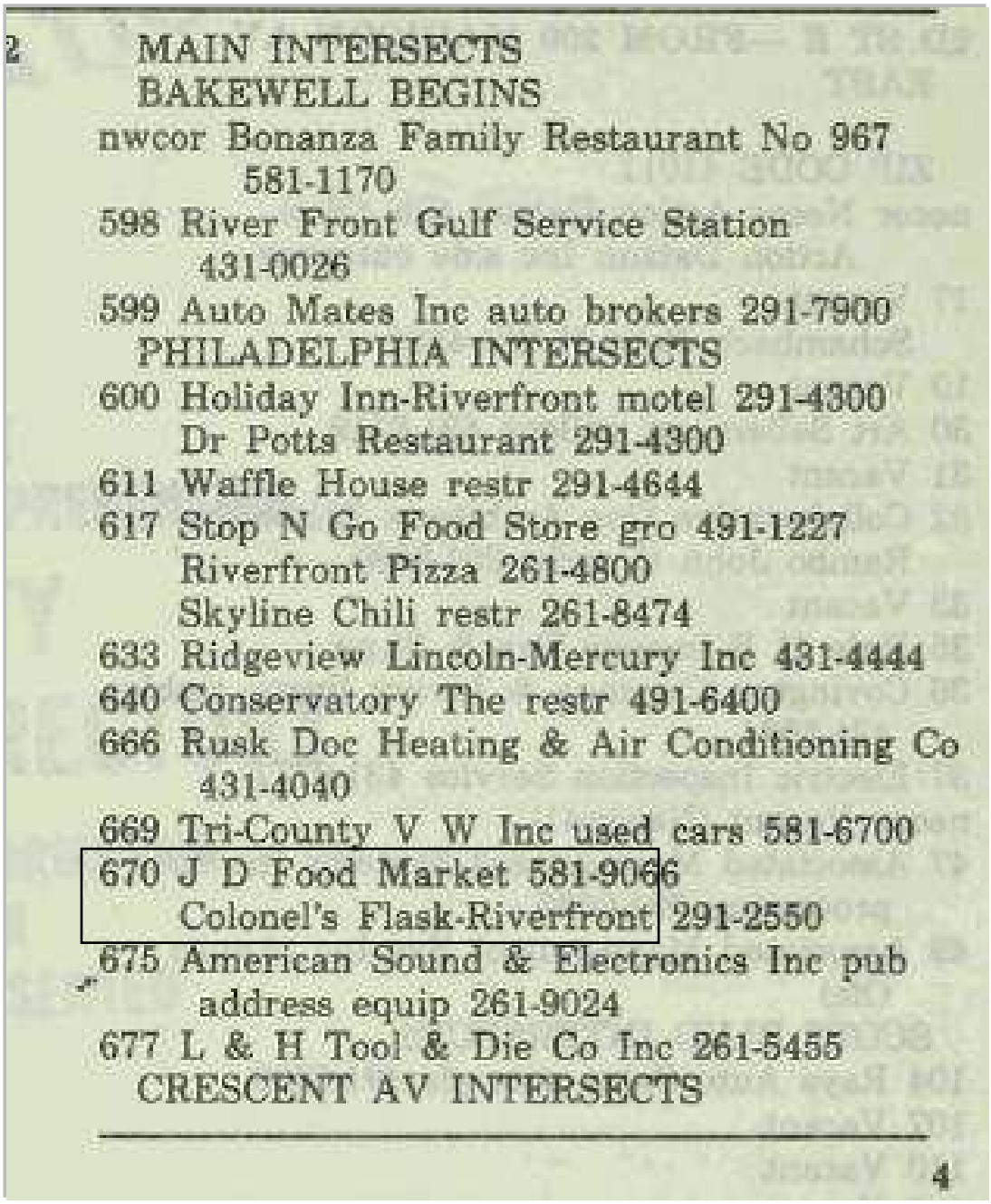
3D ST W —FROM 209 JOHNSON ST WEST

ZIP CODE 41011
320 Corken Steel Products Co whse
322 Corken Steel Products Co 291-4664

33

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

W 3RD ST 1986



2 MAIN INTERSECTS
BAKEWELL BEGINS
nwcor Bonanza Family Restaurant No 967 581-1170
598 River Front Gulf Service Station 431-0026
599 Auto Mates Inc auto brokers 291-7900
PHILADELPHIA INTERSECTS
600 Holiday Inn-Riverfront motel 291-4300
Dr Potts Restaurant 291-4300
611 Waffle House restr 291-4644
617 Stop N Go Food Store gro 491-1227
Riverfront Pizza 261-4800
Skyline Chili restr 261-8474
633 Ridgeview Lincoln-Mercury Inc 431-4444
640 Conservatory The restr 491-6400
666 Rusk Doc Heating & Air Conditioning Co 431-4040
669 Tri-County V W Inc used cars 581-6700
670 J D Food Market 581-9066
Colonel's Flask-Riverfront 291-2550
675 American Sound & Electronics Inc pub address equip 261-9024
677 L & H Tool & Die Co Inc 261-5455
CRESCENT AV INTERSECTS
4

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

CRESCENT AVE 1981

31

CRESCENT AV —FROM OHIO RIVER SOUTH

ZIP CODE 41011

necor Vacant

W 3D ST ENDS

W 4TH ST ENDS

W 5TH ST ENDS

501 I-Seventy Five Package Liquor & Wine Inc 261-8333

W 6TH ST INTERSECTS

601 Hunt Geo W 291-1156

603 Asbury Grace M Mrs ◎ 431-0136

605 Vickers Wm ◎ 261-2652

1

3D ST W —FROM 209 JOHNSON ST WEST

ZIP CODE 41011

320 Corken Steele Products Co (Whse)
322 Corken Steel Products Co 291-4664

33

MAIN INTERSECTS
BAKEWELL BEGINS
596 Gulf Service Station 491-9306
598 Bonanza Steak House restr 581-1170
PHILADELPHIA INTERSECTS
600 Holiday Inn-Riverfront motel 291-4300
617 King Kwik Minit Market gro 491-1227
Pasquale's Pizza Carry Out 581-6750
Skyline Chili restr 261-8474
633 Ridgeview Lincoln-Mercury Inc 431-4444
650 Conservatory The restr 491-6400
666 Rusk Heating & Air Conditioning Co 431-4040
669 Tri-County V W Inc used cars 581-7112
670 Ernst Fruit Market 291-2550
675 American Sound & Electronics Inc pub address equip 261-9024
677 L & H Tool & Die Co Inc 261-5455
CRESCENT AV INTERSECTS

4

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

CRESCENT AVE 1976

10 Vacant

31

CRESCENT AV —FROM OHIO RIVER SOUTH

ZIP CODE 41011

204 R & B Service Center gas sta 491-9824

205 Drew Henry Co Inc whol liquor 291-2297

necor Phil's Boron Service Station gas sta 431-9597

W 3D ST ENDS

W 4TH ST ENDS

W 5TH ST ENDS

501 I-Seventy Five Package Liquor & Wine Inc 261-8333

W 6TH ST INTERSECTS

601 Hunt Velma Mrs 291-1156

603 Asbury Thos © 431-0136

605 Vacant

607 Spanier Gloria 291-3576

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

W 3RD ST 1976

1

3D ST W —FROM 209 JOHNSON ST WEST

ZIP CODE 41011

320 Levco Automotive Products auto parts 261-7268

33

MAIN INTERSECTS

BAKEWELL BEGINS

598 Bonanza Steak House restr 581-1170

PHILADELPHIA INTERSECTS

600 Holiday Inn-Riverfront motel 291-4300

617 King Kwik Minit Market gro 431-9088

Pasquale's Pizza Carry Out 581-6750

Skyline Chili restr 261-8474

633 Ridgeview Lincoln Mercury Inc 431-4444

666 Rusk 'doc' Heating & Air Conditioning Co 431-4040

669 Tri-County V W Inc used cars 581-7002

670 Ernst Fruit Market 291-2550

Ernst Drive-In Depot beer

675 American Sound & Electronics Inc pub address equip 261-9024

677 L & H Tool & Die Co Inc 261-5455

CRESCENT AV INTERSECTS

4

4TH ST E —FROM 400 MADISON AV

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

CRESCENT AVE 1971

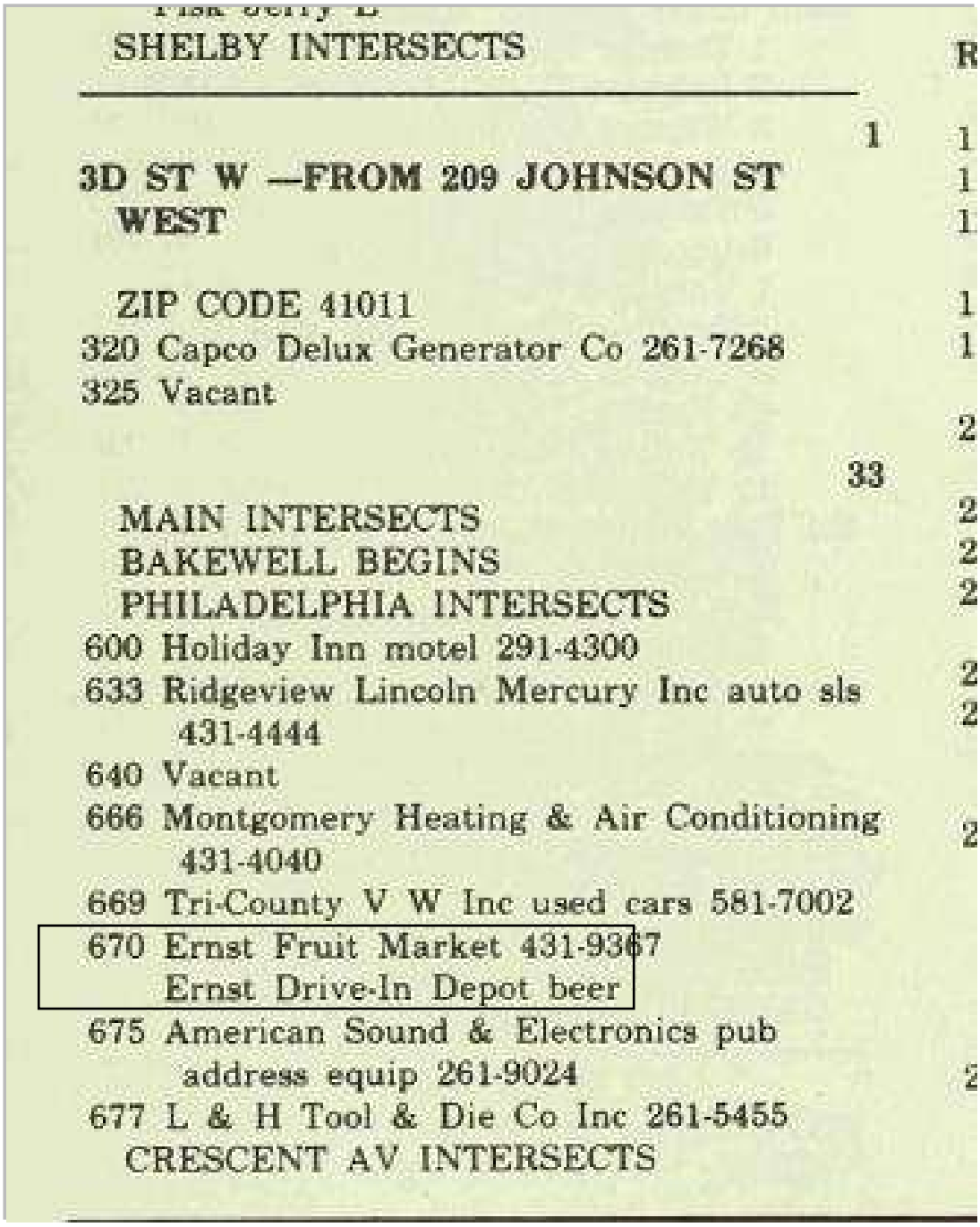
CRESCENT AV —FROM OHIO RIVER SOUTH

ZIP CODE 41011

204 Bob & Les's Standard 431-6078
205 Drew Henry Co Inc whol liquor 291-2297
necor Ira's Boron Service Station 431-5087
W 3D ST ENDS
W 4TH ST ENDS
W 5TH ST ENDS
501 I-Seventy Five Package Liquor & Wine Inc 261-8333
W 6TH ST INTERSECTS
601 Lehmann Velma Mrs 291-1156
603 Asbury Thos ◎ 431-0136
605 Wallace Ron P ◎ 431-6387
607 Baker Ben 261-5177
609 Sturdivant James E 291-5308
Mills Wm 581-7414

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

W 3RD ST 1971



SHELBY INTERSECTS

1

3D ST W —FROM 209 JOHNSON ST WEST

ZIP CODE 41011

320 Capco Delux Generator Co 261-7268

325 Vacant

33

MAIN INTERSECTS

BAKEWELL BEGINS

PHILADELPHIA INTERSECTS

600 Holiday Inn motel 291-4300

633 Ridgeview Lincoln Mercury Inc auto sls 431-4444

640 Vacant

666 Montgomery Heating & Air Conditioning 431-4040

669 Tri-County V W Inc used cars 581-7002

670 Ernst Fruit Market 431-9367
Ernst Drive-In Depot beer

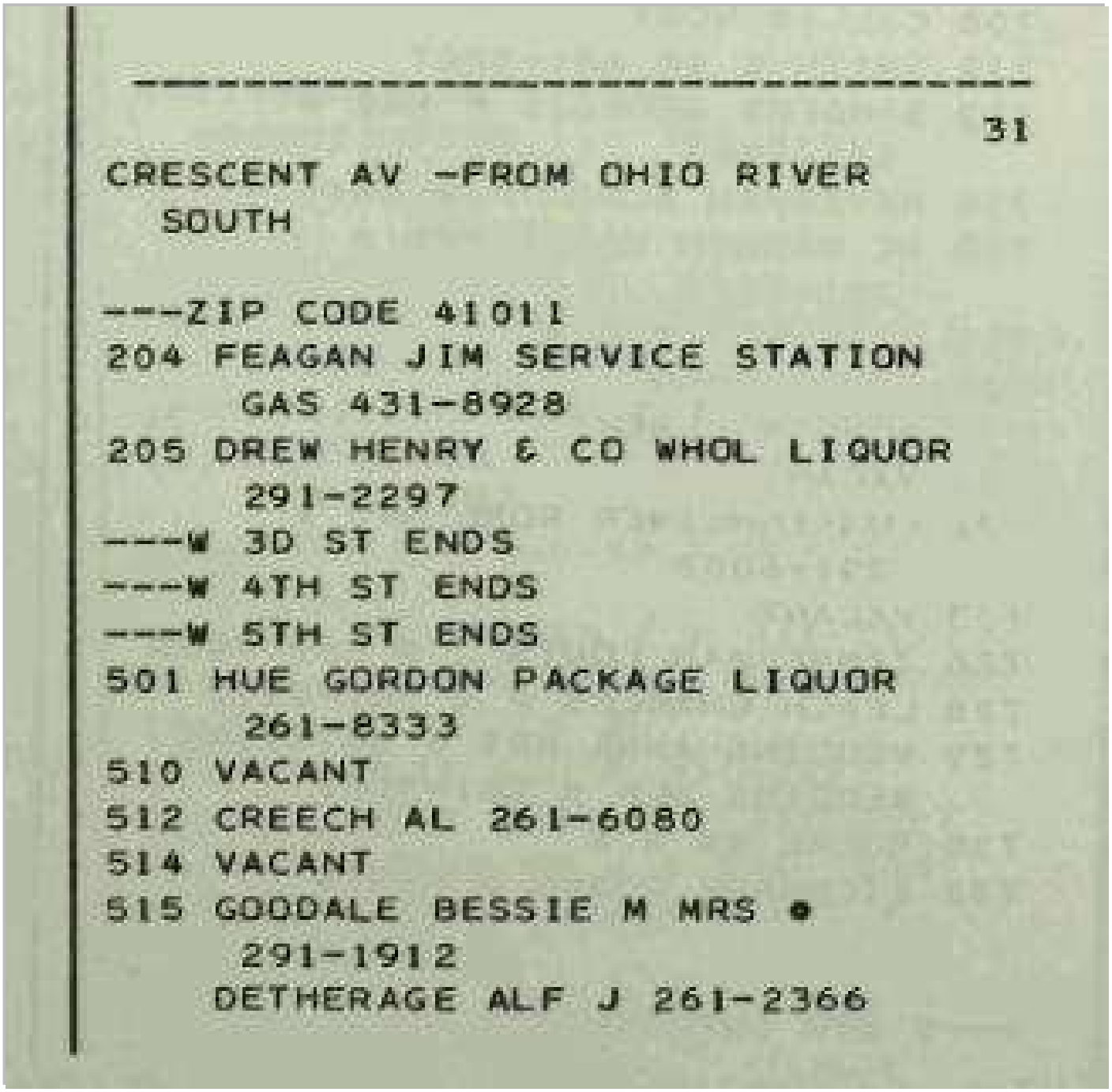
675 American Sound & Electronics pub address equip 261-9024

677 L & H Tool & Die Co Inc 261-5455

CRESCENT AV INTERSECTS

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

CRESCENT AVE 1967



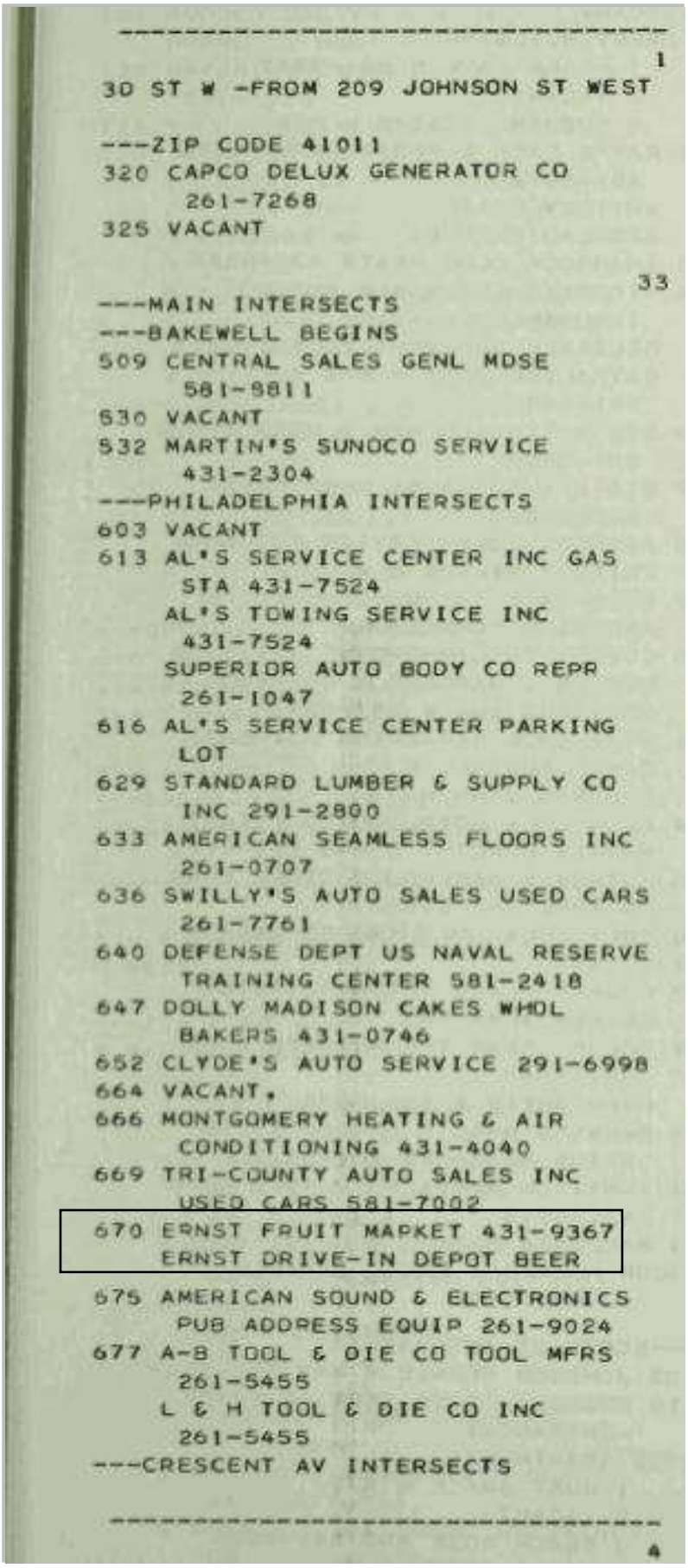
31

CRESCENT AV -FROM OHIO RIVER
SOUTH

---ZIP CODE 41011
204 FEAGAN JIM SERVICE STATION
GAS 431-8928
205 DREW HENRY & CO WHOL LIQUOR
291-2297
---W 3D ST ENDS
---W 4TH ST ENDS
---W 5TH ST ENDS
501 HUE GORDON PACKAGE LIQUOR
261-8333
510 VACANT
512 CREECH AL 261-6080
514 VACANT
515 GODDALE BESSIE M MRS ●
291-1912
DETHERAGE ALF J 261-2366

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

W 3RD ST 1967



1

30 ST W -FROM 209 JOHNSON ST WEST

---ZIP CODE 41011
320 CAPCO DELUX GENERATOR CO
261-7268
325 VACANT

33

---MAIN INTERSECTS
---BAKEWELL BEGINS
509 CENTRAL SALES GENL MDSE
581-9811
530 VACANT
532 MARTIN'S SUNOCO SERVICE
431-2304
---PHILADELPHIA INTERSECTS
603 VACANT
613 AL'S SERVICE CENTER INC GAS
STA 431-7524
AL'S TOWING SERVICE INC
431-7524
SUPERIOR AUTO BODY CO REPR
261-1047
616 AL'S SERVICE CENTER PARKING
LOT
629 STANDARD LUMBER & SUPPLY CO
INC 291-2800
633 AMERICAN SEAMLESS FLOORS INC
261-0707
636 SWILLY'S AUTO SALES USED CARS
261-7761
640 DEFENSE DEPT US NAVAL RESERVE
TRAINING CENTER 581-2418
647 DOLLY MADISON CAKES WHOL
BAKERS 431-0746
652 CLYDE'S AUTO SERVICE 291-6998
664 VACANT,
666 MONTGOMERY HEATING & AIR
CONDITIONING 431-4040
669 TRI-COUNTY AUTO SALES INC
USED CARS 581-7002
670 ERNST FRUIT MARKET 431-9367
ERNST DRIVE-IN DEPOT BEER
675 AMERICAN SOUND & ELECTRONICS
PUB ADDRESS EQUIP 261-9024
677 A-B TOOL & DIE CO TOOL MFRS
261-5455
L & H TOOL & DIE CO INC
261-5455
---CRESCENT AV INTERSECTS

4

Target Street	Cross Street	Source
✓	-	Williams' City Directory

CRESCENT AVE 1962

CRESCENT AVENUE-From Ohio River south

W 2d ends

204 Feagan Jim Service Station gas sta 431-8928
205 Drew Henry Co whol liquor 291-2297
209 Warner Martha A Mrs
Reynolds John C 581-4809
Turner Russell E 581-9494
211 Kells Emmet E
212-14 Wiggs Jug House & Delicatessen 431-9374
Wiggins Cleveland C ◎
213 O'Shaughnessy Chas J 581-5934
Robinson Robt R jr
215 Schweitzer Jos F ◎
216 Ernst Fruit Mkt 291-9797
217 Grady Wm
219 No Return
225 Apostolic Ch of Jesus Christ
227 Faulkner Pearl Mrs 291-0982
Dennis Ann M Mrs 581-0706

W 3d ends

303 Vacant Store
Duncan Claude 291-9120
305 Simpson Wm C ◎ 581-8099
307 Vacant
309 Nolan Albert R 261-3554
Krohman Jas L 291-5524
313 Finnigan Bernice Mrs ◎ 291-6207
315 Vacant
319 Gaunt Geo R
321 Vacant
323 Mills Jeff ◎ 261-4004
325 Brewer John B
327 Combs Robt 581-9787
Carr Chas T
329 No Return
Wallace Arth W 431-3309
331 Edmondson Shelby ◎ 431-8223

W 4th ends

401 Locke Norman E
403 Honeycutt John C 431-2345
407 Pee Wee Auto Repr

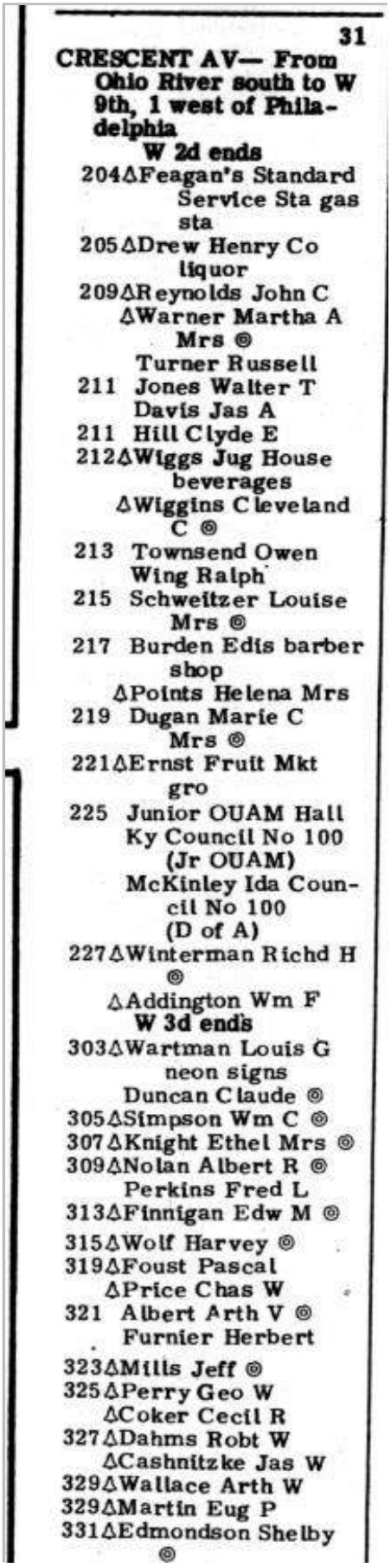
Target Street	Cross Street	Source
-	✓	Williams' City Directory

W 3RD ST 1962

Bakewell intersects
509-29 Central Sls genl mdse
581-8811
530 Martin Fdry Co (ptrn shop)
532 Bryant Sunoco Serv gas sta
431-2304
Philadelphia intersects
603 Witt Wm E 261-4091
Lee Una C 431-3529
609-15 Al's Service Center gas sta
431-7524
613 Superior Auto Body Co repr
261-1047
616 Al's Serv Center (parking lot)
617 Mae's Cafe restr 291-5170
Apartments:
2 Brock Ruth H Mrs
3 Vacant
4 Vacant
5 Smith Dorothy L Mrs 291-2934
6 Chappell Roy B 581-5492
7 Merritt Max Rev 261-0638
8 Vacant
619 Brown Luther
621 Henry Lillie
627 Ossage Anna M Mrs 261-4178
Boyer Leon
Meyer Rose Mrs 261-3077
629-39 Standard Lbr & Sup Co Inc
291-2800
636 Swillys Auto Sls used cars
261-7761
640 US Naval Reserve Training Center
581-2418
643 Smith Geo M
Austin Herman L
645 Buds Auto Sls used cars 581-2692
647 Dolly Madison Cakes whol bakers
431-0746
652 Mansfield Auto Serv auto repr
291-6998
664-66 Ace Auto Parts 261-7799
675 Am Sound Serv Inc pub address
equip 261-9024
677 L&H Tool & Die Co Inc tool mfrs
CO1-5455
A-B Tool & Die Co tool mfrs
261-5455
685 List Elmer H © restr 431-8943
Crescent av intersects

Target Street	Cross Street	Source
✓	-	Williams' City Directory

CRESCENT AVE 1957



31

CRESCENT AV— From Ohio River south to W 9th, 1 west of Philadelphia

W 2d ends

204 ΔFeagan's Standard Service Sta gas sta
205 ΔDrew Henry Co liquor
209 ΔReynolds John C
ΔWarner Martha A Mrs ◎
Turner Russell
211 Jones Walter T
Davis Jas A
211 Hill Clyde E
212 ΔWiggs Jug House beverages
ΔWiggins Cleveland C ◎
213 Townsend Owen
Wing Ralph
215 Schweitzer Louise Mrs ◎
217 Burden Edis barber shop
ΔPoints Helena Mrs
219 Dugan Marie C Mrs ◎
221 ΔErnst Fruit Mkt gro
225 Junior OUAM Hall
Ky Council No 100 (Jr OUAM)
McKinley Ida Council No 100 (D of A)
227 ΔWinterman Richd H ◎
ΔAddington Wm F

W 3d ends

303 ΔWartman Louis G neon signs
Duncan Claude ◎
305 ΔSimpson Wm C ◎
307 ΔKnight Ethel Mrs ◎
309 ΔNolan Albert R ◎
Perkins Fred L
313 ΔFinnigan Edw M ◎
315 ΔWolf Harvey ◎
319 ΔFoust Pascal
ΔPrice Chas W
321 Albert Arth V ◎
Furnier Herbert
323 ΔMills Jeff ◎
325 ΔPerry Geo W
ΔCoker Cecil R
327 ΔDahms Robt W
ΔCashnitzke Jas W
329 ΔWallace Arth W
329 ΔMartin Eug P
331 ΔEdmondson Shelby ◎

Target Street	Cross Street	Source
-	✓	Williams' City Directory

W 3RD ST 1957

sects

530 Martin Fndry Co (ptrn shop)

532△Bryant Sunoco Serv gas sta

Philadelphia intersects

603△Allen Donah Mrs ◎
△Witt W Elwood

609 Smith Carl

611 Vacant

617 **Apartments**

1 Young Robt

2 Connelly Chas D

3 Jones Jack A

4△Henry Elmer D

5△Baker Mary Mrs

6 Sears Thos

7△McGregor Richd

8△Henry Lillie M Mrs

619 Simmons Geo

621 Fife Paul
△Myers Rosa Mrs

627△Hensley Wm C
△Vessing Lawrence

629-39△Standard Lumber & Supply Co Inc

640△US Naval Reserve Training Center

641△Ailstock Molly Mrs

643△Miller Sylvia ◎
△Barrett Dorothy E Mrs

647△Dolly Madison Cake Co (br)

652△Mansfield Auto Serv auto repr

654△Walther Auto Body Serv body repr

664-66△Ace Auto Parts

675△Am Sound Serv Inc pub address equip

677△L&H Tool & Die Co Inc tool mfrs

677△A-B Tool & Die Co tool mfrs

685△List Elmer H ◎ restr

Crescent av intersects

4

4TH E— From 400 Madi-

Target Street	Cross Street	Source
✓	-	Williams' City Directory

CRESCENT AVE 1954

CRESCENT AV—From Ohio River south to W 9th, 1 west of Philadelphia

W 2d ends

205Δ Standard Oil Station gas sta
209Δ Reynolds John C
Δ Warner Martha
Turner Russell
211 Jones Walter T
Niman Earl D
212Δ Wiggs Jug House beverages
Wiggins Cleveland C ◎
213Δ Richie Edwin R
Bettler Wm
215 Schweitzer Louise Mrs ◎
217Δ Hollis Leland ◎
McClees Elvin
219 Dugan Marie Mrs
221Δ Ernst Food Mkt gro
225 Junior OUAM Hall
Ky Council No 33
McKinley Ida Council No 100
West Covington Sunday Sch
227Δ Winterman Richd H ◎
Wood Eva Mrs
302 List Elmer H ◎
303Δ Wartman Louis neon signs
Δ Flynn Chas C
305Δ Simpson Wm C ◎
307Δ Knight Frank ◎
309Δ Nolan Albert R ◎
Δ Lear Clarence
313 Finnigan Edw M ◎
315 Wolf Harvey ◎
319 Leach Chas P
Price Chas W
321 Furnier Herbert
Albert Arth
323 Mills Jeff ◎
325Δ VanLaningham Stanley
Baldridge Douglas
327Δ Chrisenover Jos
Δ Dahms Robt W
Δ Daugherty Clyde
329 Wallace Arth
Lovelace Willis
329 Flynn Gladys Mrs
331 Willowley Theo
Puckett Thos

W 4th ends

401 Boone Clay

Target Street	Cross Street	Source
-	✓	Williams' City Directory

W 3RD ST 1954

331Δ Page Elmer carp

33

Main intersects

408Δ Martin Foundry Co The

Bakewell intersects

530 Martin Fndry Co ptrn shop

532Δ Sonoco Serv Sta

Philadelphia intersects

603Δ Allen Dona Mrs ◎
Δ Witt W Elwood

609Δ Gransick Steve ◎
Mullins John W

615 No Return

617 **Apartments**

1 Rudd Wm E
2 Anderson Arlene Mrs
3 Vacant
4 Bishop W Paul
5 Mantz Arnold
6 Vacant
7 Vacant
8 Vacant

Street continued

619Δ Beach Jas
Sears Thos

621 Justice John L
Roberts Thos jr

627 Sharp Albert S

629-39Δ Standard Builders Supply Co

640Δ U S Naval Reserve Training Center

641Δ Ailstock Mollie Mrs

643Δ Miller Sylvan ◎
Δ Barrett Dorothy Mrs

647Δ Dolly Madison Cake Co (br)

652Δ Mansfield Auto Serv auto repr

654Δ Walther Auto Body Serv body repr

664-66Δ Ace Auto Parts

675Δ Am Sound Serv Inc pub address equip

677Δ L&H Tool & Die Co Inc

685Δ List Elmer H ◎ restr

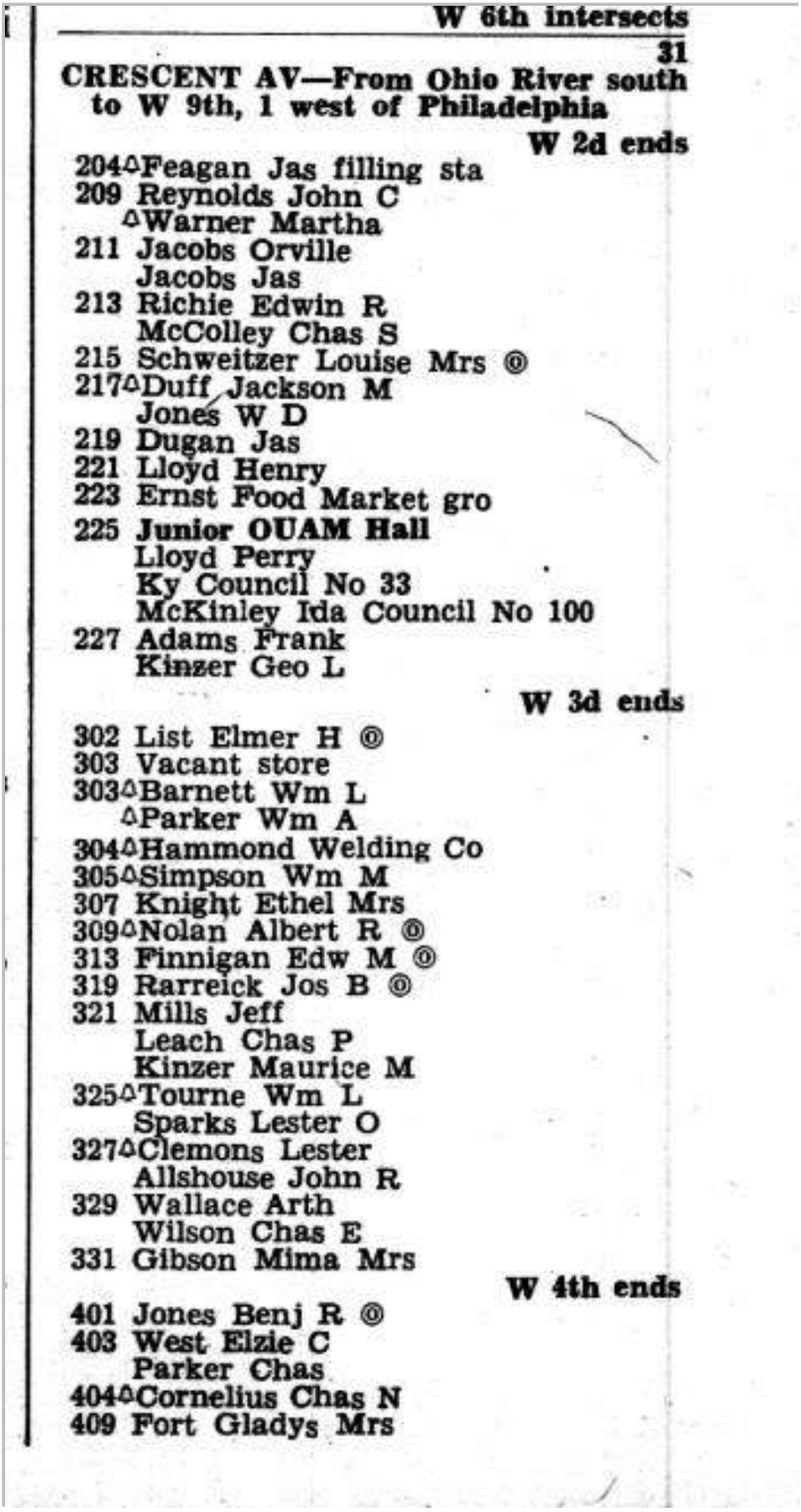
Crescent av intersects

4

4TH E—From 400 Madison

Target Street	Cross Street	Source
✓	-	Williams' City Directory

CRESCENT AVE 1948



W 6th intersects

31

CRESCENT AV—From Ohio River south to W 9th, 1 west of Philadelphia

W 2d ends

204 Feagan Jas filling sta
209 Reynolds John C
Warner Martha
211 Jacobs Orville
Jacobs Jas
213 Richie Edwin R
McColley Chas S
215 Schweitzer Louise Mrs ®
217 Duff Jackson M
Jones W D
219 Dugan Jas
221 Lloyd Henry
223 Ernst Food Market gro
225 **Junior OUAM Hall**
Lloyd Perry
Ky Council No 33
McKinley Ida Council No 100
227 Adams Frank
Kinzer Geo L

W 3d ends

302 List Elmer H ®
303 Vacant store
303 Barnett Wm L
Parker Wm A
304 Hammond Welding Co
305 Simpson Wm M
307 Knight Ethel Mrs
309 Nolan Albert R ®
313 Finnigan Edw M ®
319 Rarreick Jos B ®
321 Mills Jeff
Leach Chas P
Kinzer Maurice M
325 Tourne Wm L
Sparks Lester O
327 Clemons Lester
Allshouse John R
329 Wallace Arth
Wilson Chas E
331 Gibson Mima Mrs

W 4th ends

401 Jones Benj R ®
403 West Elzie C
Parker Chas
404 Cornelius Chas N
409 Fort Gladys Mrs

Target Street	Cross Street	Source
-	✓	Williams' City Directory

W 3RD ST 1948

THIRD W—Contd
311△Moran Susie Mrs ◎
312△Perkins Herbert A ◎
313 Nienaber Clifford B ◎
315△Glass Minnie
316△Plybon Garland C ◎
317△Hodgetts Izetta Mrs gro
Carroll Orene
318 Ducker Otis
319 Barrett John G ◎
Jones Geo B
320-28△Ace Auto Parts auto parts
321 Holt Jas ◎
323 Johson Saml ◎
325△Staley Arnold ◎
327 Livingston Jacob ◎
331 Page Elmer

33

Main intersects

408△Martin Foundry Co

Bakewell intersects

530 Martin Fndry Co ptrn shop
532 Bauereis Albert P fill sta
Warwood Richd J boiler repr

Philadelphia intersects

601 Eminhizer Esta Mrs gro
603 Powell Bernard
609 Marksberry Jas W
615 O'Donnell Matthew J
617 Vacant store
Carr Lester H
Kenneth Woodrow
619△Garnett Buford ◎
Frederick Orville
621△Penick Amer ◎
627 Dunaway Lucille Mrs
Price Sanford
629-39△Standard Salvage Co Inc lbr
△Standard Builders Supply Co Inc
640△U S Naval Reserve Training Center
641 Carlton Fred A
643 Powell Lula B Mrs
△Anderson Herman R
652△Mansfield Geo filling sta
653△Terry & Steadman Inc genl contr
685△List Elmer H ◎ restr

Crescent av intersects

10

Target Street	Cross Street	Source
✓	-	Williams' City Directory

CRESCENT AVE 1943

CRESCENT AV—From Ohio River south to W Ninth, 1 west of Philadelphia

W Second ends

204 Standard Oil Co filling sta
209 Reynolds John C
211 Harler Emmett E
Downey Wm
213 Cornelius Chas N
Upton Ida Mrs
215 Schweitzer Louise Mrs ®
217 Hofler Mayme M Mrs
219 Bell John R
Lloyd Alice M Mrs
221 Skirvin Wm C
223 West Side Gospel Mission
225 **Junior OUAM Hall**
227 Brown John G
Rarrieck Wm H

W Third ends

302 List Elmer H ®
303 Tucker David B
Barnett Wm L
304 Adams Clarence L ® mach shop
305 Vacant
307 Knight Frank ®
309 Nolan Albert R ®
313 Finnigan Edw M ®
319 Rarrieck Jos B ®
Sutton Vivian R Mrs
Morris Wm E
321 Donatavan Stanley L
323 Meyers Rose L Mrs
325 Ailstock Burley M
Soard John
327 Dishon Harvey M
Sparks Lester O
329 Rarreick Fred C
331 Mills Myrtle Mrs
Griffith Benj H

W Fourth ends

401 Jones Benj R ®
403 Roberts Thos
Clark Chas A
404 Rowland Robt R
409 Fort Vernon W
411 Butler A Paul
Northcut Margt E Mrs

Target Street	Cross Street	Source
-	✓	Williams' City Directory

W 3RD ST 1943

THIRD W—Contd

312 Vacant
313 Nienaber Clifford B ®
315△Owens Kath E Mrs ®
316 Plybon Garland C ® used cars
317 Murphy John
Gibbs Belve
318 Upton Wm T ®
Landrum Kenneth
319 Barrett John G ®
Jones Geo B
Lundrigan Robt J
Chandler Clyde
Naper Robt
320-28△Kentucky Scrap Iron Co
321 Pepper Cecil
323 Beagle Roy L
Bishop J Marion
325 Houser Earl J
327 Eisenman Bundy ®
331 Meyer John J
Wicker R Hansel
335 Vacant

Main intersects

408△Martin Foundry Co

Bakewell intersects

ne cor Bauereis Albert filling sta
Baker Wm E boiler repr

Philadelphia intersects

603 Taylor Lula B
Baker Elzie B
606 Vacant
609 Todd Ada Mrs
615 O'Donnell Mathew J ®
617 Sebree Ernest
Parks David C
619 Overstreet J Robt
621 Penick Amer
627 Renich Frank L
Lawrence Mayme Mrs
641 Kennett John L ®
643 Powell Lula B Mrs
652 Naber Jos B filling sta
685△Crescent Cafe liquors

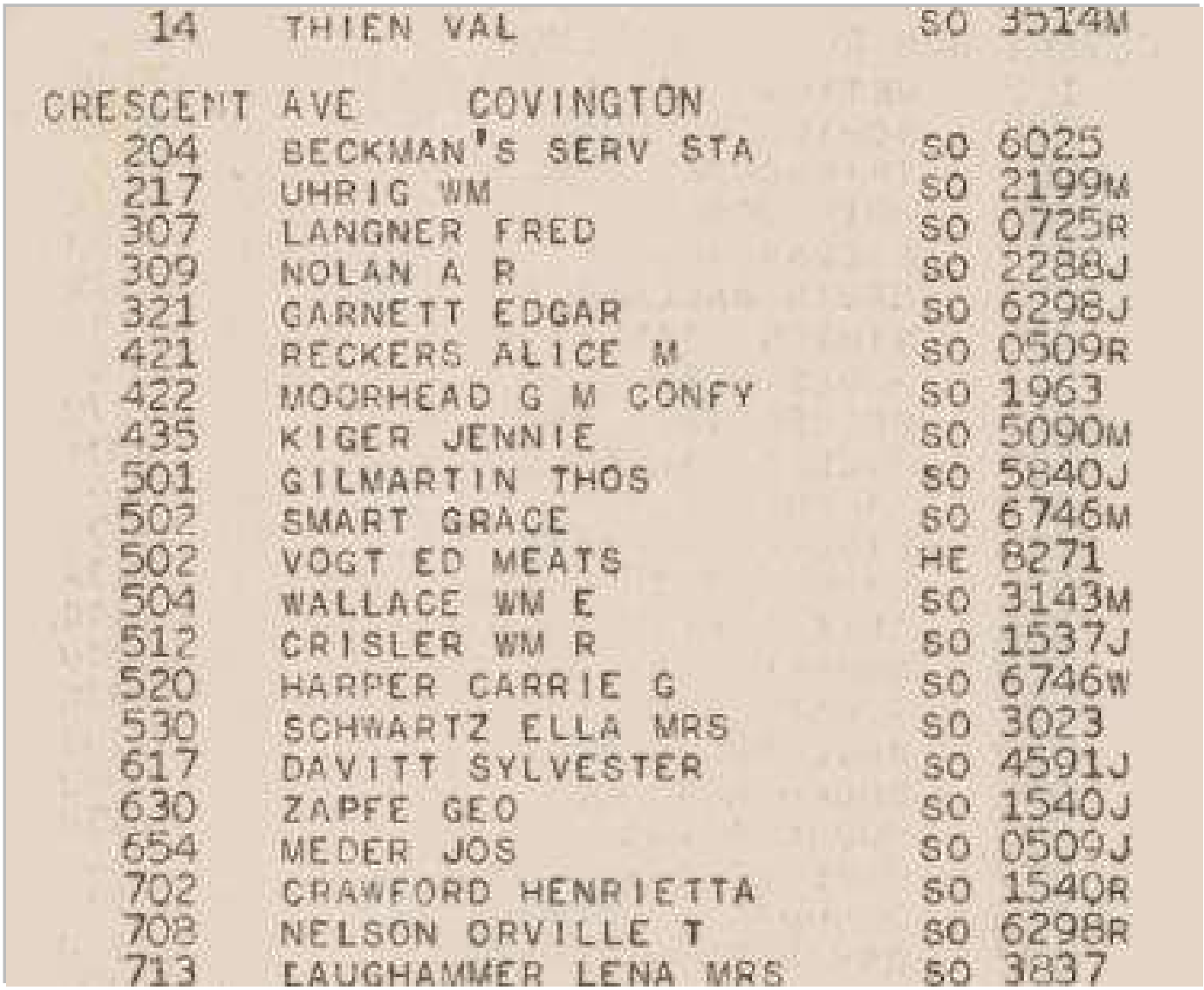
Crescent av intersects

THIRTEENTH E—From 1300 Madison av east to Licking River

9 Rust Elzy
10 Marlman Walter
11 Gill Jesse R

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

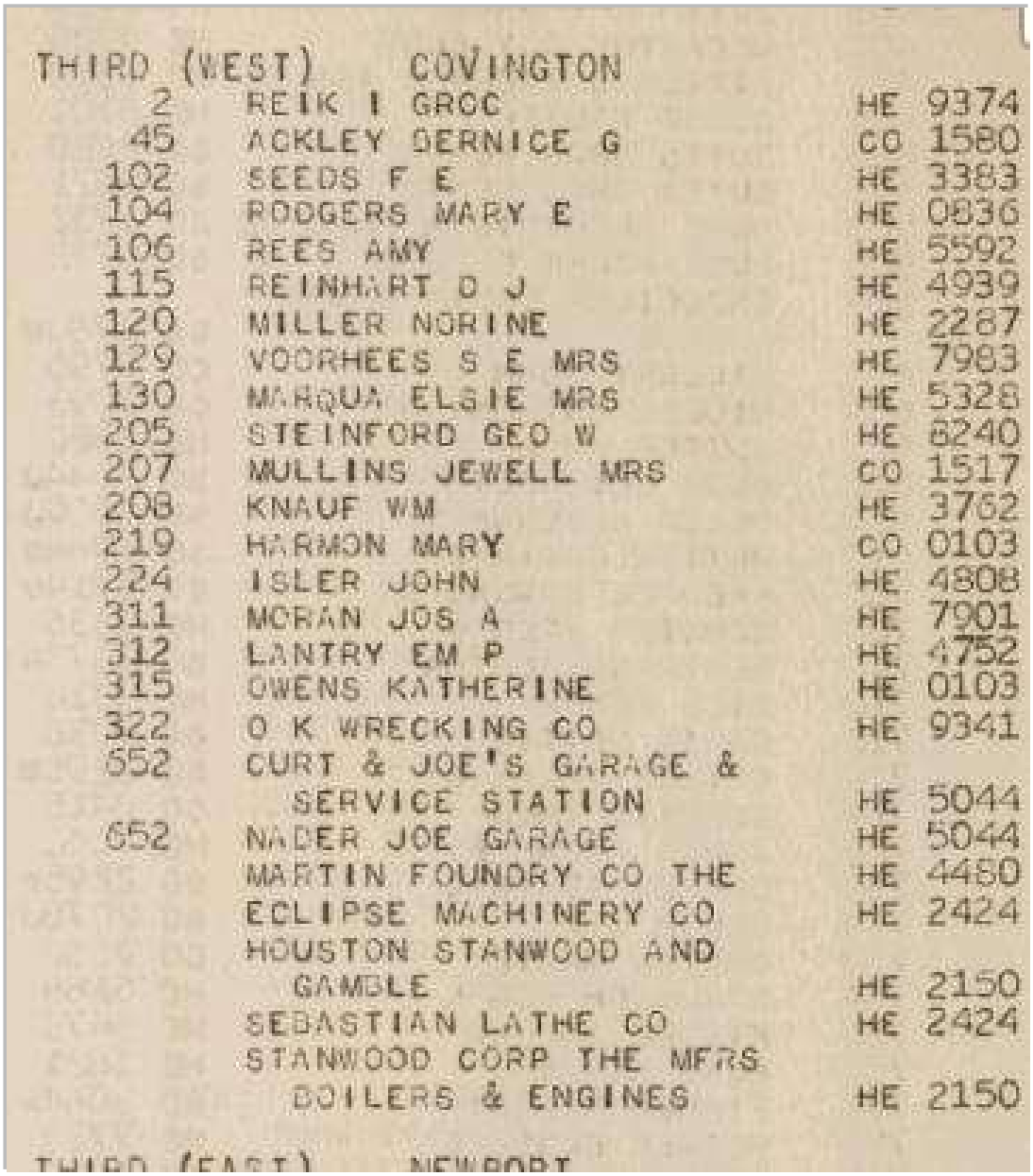
CRESCENT AVE 1939



14	THIEN VAL	SO	3514M
CRESCENT AVE	COVINGTON		
204	BECKMAN'S SERV STA	SO	6025
217	UHRIG WM	SO	2199M
307	LANGNER FRED	SO	0725R
309	NOLAN A R	SO	2288J
321	GARNETT EDGAR	SO	6298J
421	RECKERS ALICE M	SO	0509R
422	MOORHEAD G M CONFY	SO	1963
435	KIGER JENNIE	SO	5090M
501	GILMARTIN THOS	SO	5840J
502	SMART GRACE	SO	6746M
502	VOGT ED MEATS	HE	8271
504	WALLACE WM E	SO	3143M
512	CRISLER WM R	SO	1537J
520	HARPER CARRIE G	SO	6746W
530	SCHWARTZ ELLA MRS	SO	3023
617	DAVITT SYLVESTER	SO	4591J
630	ZAPFE GEO	SO	1540J
654	MEDER JOS	SO	0509J
702	CRAWFORD HENRIETTA	SO	1540R
708	NELSON ORVILLE T	SO	6298R
713	LAUGHAMMER LENA MRS	SO	3837

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

W 3RD ST 1939



THIRD (WEST) COVINGTON

2	REIK I GROC	HE	9374
45	ACKLEY BERNICE G	CO	1580
102	SEEDS F E	HE	3383
104	RODGERS MARY E	HE	0836
106	REES AMY	HE	5592
115	REINHART O J	HE	4939
120	MILLER NORINE	HE	2287
129	VOORHEES S E MRS	HE	7983
130	MARQUA ELSIE MRS	HE	5328
205	STEINFORD GEO W	HE	6240
207	MULLINS JEWELL MRS	CO	1517
208	KNAUF WM	HE	3762
219	HARMON MARY	CO	0103
224	ISLER JOHN	HE	4808
311	MORAN JOS A	HE	7901
312	LANTRY EM P	HE	4752
315	OWENS KATHERINE	HE	0103
322	O K WRECKING CO	HE	9341
552	CURT & JOE'S GARAGE & SERVICE STATION	HE	5044
552	NADER JOE GARAGE	HE	5044
	MARTIN FOUNDRY CO THE	HE	4480
	ECLIPSE MACHINERY CO	HE	2424
	HOUSTON STANWOOD AND GAMBLE	HE	2150
	SEBASTIAN LATHE CO	HE	2424
	STANWOOD CORP THE MFRS BOILERS & ENGINES	HE	2150

THIRD (EAST) NEWPORT

Appendix C

Property Record

.

KENTON COUNTY ONLINE RECORDS

(..\wpihome.htm)

(..\wpihome.htm)

PIDN: 040-34-02-003.00

School District: COVINGTON SCHOOL

City: COVINGTON

Fire District: -----

AVIS Code: 0001

ALL RECORDS ARE UNDER REVIEW PENDING FINALIZATION OF 2025 ASSESSMENTS. PLEASE CHECK BACK BY APRIL 22, 2025. WE APOLOGIZE FOR ANY INCONVENIENCE.

Tax Year: 2025

Land Value:

Improve Value:

Exemption:

Taxable Value:

Notice:

Last Bill Year: 0000

Deed book: KC 0265/0859

Recorded date: 01/17/2024

Split:

Information:

Class: COMMERCIAL

Use: CONVENIENCE STOR

Agr FCV:

600,000

00 GOOD SALE/ARMS LENGTH TRANSACTION (http://kcor.org/cgi-bin/SaleCode.pdf)

Split From:

Current owner record

Owner 1: MILAN HOLDING LLC

Owner 2:

Care Of:

Address:
855 MAN O WAR BLVD

UNION KY 41091-8068

Property Location:

680 3RD ST

Parcel Description:

LUDLOW I L FARM BLK D PT LOTS 15-16-17

140'X 137.91' IRREG

VIEW MAP View Photo

< Prev Owner Next Owner > < BACK

wpi66

.

KENTON COUNTY ONLINE RECORDS

(..\wpihome.htm)

(..\wpihome.htm)

PIDN: 040-34-02-002.00

School District: COVINGTON SCHOOL

City: COVINGTON

Fire District: -----

AVIS Code: 0001

Tax Year: 2024

Land Value: 395,000

Improve Value: 240,000

Exemption: 0

Taxable Value: 635,000

Notice: SENT 04/07/06

Last Bill Year: 0000

Deed book: C 1177/0088

Recorded date: 01/05/1996

Split:

Information:

Class: COMMERCIAL

Use: CONVENIENCE STOR

Agr FCV: 0

500,000

00 GOOD SALE/ARMS LENGTH TRANSACTION (http://kcor.org/cgi-bin/SaleCode.pdf)

Split From:

Current owner record

Owner 1: BEVERAGE PROPERTIES INC

Owner 2:

Care Of: D J K

Address: 406 PINNACLE WAY

LUDLOW KY 41016-1702

Property Location:

670 3RD ST

Parcel Description:

LUDLOW I L FARM BLK D PT LOTS 15 THRU 18

140.06'X 166' IRREG

VIEW MAP

View Photo

< Prev Owner Next Owner > < BACK

wpi66

Appendix D

Regulatory Database Documentation

Commercial Properties
Crescent Avenue & W. 3rd Street
Covington, KY 41011

Inquiry Number: 7832146.2s
November 25, 2024

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	207
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-11
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. **NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA) INFORMATION PROVIDED IN THIS REPORT.** Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2024 by Environmental Data Resources, LLC. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, LLC, or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

CRESCENT AVENUE & W. 3RD STREET
COVINGTON, KY 41011

COORDINATES

Latitude (North):	39.0878880 - 39° 5' 16.39"
Longitude (West):	84.5241330 - 84° 31' 26.87"
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	714143.5
UTM Y (Meters):	4329240.0
Elevation:	487 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	50024613 COVINGTON, KY
Version Date:	2022

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20200601
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
CRESCENT AVENUE & W. 3RD STREET
COVINGTON, KY 41011

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	JOHNSON OIL CO INC	670 W 3RD ST	KY UST, KY AIRS	Higher	1 ft.
A2	RUSK HEATING & AIR C	666 W 3RD ST	UST FINDER, UST FINDER RELEASE	Higher	1 ft.
A3	JOHNSON OIL CO INC	670 W 3RD ST	UST FINDER, UST FINDER RELEASE	Higher	1 ft.
A4	JOHNSON OIL COMPANY,	670 WEST THIRD ST.	FINDS	Higher	1 ft.
A5	RUSK HEATING & AIR C	666 W 3RD ST	KY UST	Higher	1 ft.
A6	BIL CORPORATION	670 W 3RD ST	EDR Hist Auto	Higher	1 ft.
A7	HARDABECK	204 CRESCENT	KY SB193	Higher	25, 0.005, WNW
A8	RAYMOND L & HILDA E	204 CRESCENT AVE	KY UST	Higher	25, 0.005, WNW
A9	PERMAKIL INC.	204 CRESCENT AVENUE	RCRA NonGen / NLR	Higher	25, 0.005, WNW
A10	BOB & LES STANDARD O	204 CRESCENT AVE	EDR Hist Auto	Higher	25, 0.005, WNW
A11	RAYMOND L & HILDA E	204 CRESCENT	UST FINDER, UST FINDER RELEASE	Higher	25, 0.005, WNW
A12	PENNINGTON IRA C	THIRD & CRESCENT	EDR Hist Auto	Higher	57, 0.011, SW
B13	RIVER CENTER COLLISI	670 W 4TH ST	UST FINDER, UST FINDER RELEASE	Higher	288, 0.055, SSE
B14	RIVER CENTRAL MOTORS	670 W FOURTH ST	KY UST, RCRA NonGen / NLR, FINDS, ECHO, KY AIRS	Higher	288, 0.055, SSE
C15	WEST RIVERFRONT	I-75 AT OHIO RIVER	KY SHWS	Higher	310, 0.059, East
16	PERFECT CLEANERS	801 HIGHWAY AVE	EDR Hist Cleaner	Higher	388, 0.073, WNW
C17	LEXUS RIVERCENTER	633 WEST 3RD ST.	KY SHWS	Higher	524, 0.099, East
C18	LEXUS RIVERCENTER	633 W 3RD ST	UST FINDER, UST FINDER RELEASE	Higher	524, 0.099, East
C19	RIDGEVIEW LINCOLN ME	633 W. THIRD STREET	KY UST, RCRA NonGen / NLR, FINDS, ECHO	Higher	524, 0.099, East
20	WILLIES BAR & GRILL	401 CRESCENT AVENUE	KY SHWS	Higher	537, 0.102, SSW
21	I-75 BRENT SPENCE BR	I-75/71	KY SHWS	Lower	876, 0.166, NNE
D22	FRISCH'S RESTAURANT,	668 W 5TH ST	KY AST	Higher	940, 0.178, SSE
D23	AGFA DIV BAYER CORP	666 FIFTH STREET	RCRA NonGen / NLR	Higher	942, 0.178, SSE
E24	610 WEST 4TH COVINGT	610 W 4TH ST	KY UST, KY AIRS	Higher	956, 0.181, ESE
E25	BP FACILITY #22277	610 WEST 4TH ST	RCRA NonGen / NLR	Higher	956, 0.181, ESE
E26	610 WEST 4TH COVINGT	610 W 4TH ST	UST FINDER	Higher	956, 0.181, ESE
E27	SPEEDWAY #9541	613 W 4TH ST	KY UST	Higher	979, 0.185, ESE
E28	SPEEDWAY #9541	613 W 4TH ST	UST FINDER, UST FINDER RELEASE	Higher	979, 0.185, ESE
E29	SUPERAMERICA #5541	613 W 4TH ST	RCRA NonGen / NLR	Higher	979, 0.185, ESE
E30	SPEEDWAY #9541	613 W 4TH ST	KY SB193, KY AIRS	Higher	979, 0.185, ESE
F31	BP OIL CO. GULF PROD	598 THIRD & PHILADEL	RCRA NonGen / NLR, FINDS, ECHO	Higher	1015, 0.192, East
F32	BP OIL 24334 BORON	598 W 3RD ST	KY SHWS	Higher	1029, 0.195, East
F33	BP OIL 24334 BORON	598 W 3RD ST	KY UST	Higher	1029, 0.195, East
F34	BP OIL 24334 BORON	598 W 3RD ST	UST FINDER, UST FINDER RELEASE	Higher	1029, 0.195, East
G35	SPEEDWAY #7406	610 W 5TH ST	KY UST	Higher	1200, 0.227, SE
G36	SPEEDWAY #7406	610 W 5TH ST	UST FINDER, UST FINDER RELEASE	Higher	1200, 0.227, SE
G37	SPEEDWAY 7406	610 W 5TH ST	RCRA NonGen / NLR	Higher	1200, 0.227, SE
38	501-09 BAKEWELL	501-09 BAKEWELL ST.	US BROWNFIELDS, FINDS	Higher	1672, 0.317, SE
H39	501 MAIN	501 MAIN ST.	US BROWNFIELDS, FINDS	Higher	1890, 0.358, ESE

MAPPED SITES SUMMARY

Target Property Address:
CRESCENT AVENUE & W. 3RD STREET
COVINGTON, KY 41011

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
H40	501 MAIN	501 MAIN ST.	KY BROWNFIELDS	Higher	1890, 0.358, ESE
I41	428-434 MAIN ST.	428-434 MAIN ST.	US BROWNFIELDS, FINDS	Higher	1890, 0.358, ESE
I42	DICKS STANDARD SERVI	434 MAIN ST	UST FINDER, UST FINDER RELEASE	Higher	1898, 0.359, ESE
J43	JOHNSON STREET DRUM	201 JOHNSON STREET	KY SHWS	Higher	2081, 0.394, East
44	THE CINCINNATI GASLI	MEHRING WAY	EDR MGP	Higher	2091, 0.396, North
K45	409-435 JOHNSON ST.	409-435 JOHNSON ST.	US BROWNFIELDS, FINDS	Higher	2177, 0.412, ESE
J46	INTERNAL REVENUE SER	201 W RIVER CENTER B	KY SHWS, KY AIRS	Higher	2210, 0.419, East
J47	INTERNAL REVENUE SER	201 W RIVER CENTER B	UST FINDER, UST FINDER RELEASE	Higher	2210, 0.419, East
48	OHIO RIVER CO	725 MEHRING WAY	UST FINDER RELEASE	Lower	2350, 0.445, NNW
K49	LIBERTY TOBACCO	235 W 5TH ST	KY SB193, KY AIRS	Higher	2409, 0.456, ESE
50	DUKE ENERGY OHIO WES	646 W MEHRING WAY	OH VCP	Higher	2459, 0.466, North
51	WARSAW CARWASH DBA C	235 W 5TH ST	UST FINDER, UST FINDER RELEASE	Higher	2481, 0.470, ESE
L52	CIRCLE K #3319	207 W 4TH ST	UST FINDER, UST FINDER RELEASE	Higher	2591, 0.491, ESE
L53	CIRCLE K #3319	207 W 4TH ST	KY SB193, KY AIRS	Higher	2591, 0.491, ESE
54	WECKMAN PROPERTY	715 WILLARD STREET	KY SHWS, KY CDL	Higher	2757, 0.522, SE
M55	WILLOW RUN DRIVE THR	9TH & WILLOW RUN	KY SHWS	Higher	3111, 0.589, SSE
M56	A & R INVESTMENTS	W 9TH STREET	KY SHWS	Higher	3115, 0.590, SSE
N57	MOTHER OF GOD CHURCH	119 WEST 6TH STREET	KY SHWS	Higher	3317, 0.628, ESE
58	WILLOW RUN DRIVE THR	928 WILLOW RUN	KY SHWS	Higher	3392, 0.642, SSE
N59	FIRESTONE STORE	6TH & WASHINGTON ST	KY SHWS, KY UST	Higher	3507, 0.664, ESE
60	PIKE STREET PROPERTY	114 W PIKE ST	KY SHWS	Higher	3552, 0.673, ESE
61	INCISA USA INC SPILL	I-75 RAMP AT INTERSE	KY SHWS	Higher	3884, 0.736, SSE
62	SCOTT STREET PROPERT	409-415 SCOTT BLLVD	KY SHWS	Higher	4022, 0.762, East
63	GLIERS GOETTA CO	533 GOETTA PLACE	KY SHWS	Higher	4107, 0.778, SSE
64	COVINGTON LANDFILL	638 MADISON AVE.	KY SHWS	Higher	4154, 0.787, ESE
65	BRIDGE FOREMAN OFFIC	JCT OF E 2ND ST & RO	KY SHWS	Higher	4233, 0.802, ENE
66	HARMON DRUMS	311 ALTAMONT RD	KY SHWS	Higher	4262, 0.807, WNW
67	BAVARIAN BREWERY	1115 MAIN ST	KY SHWS	Higher	4291, 0.813, SSE
68	EXQUISITE CLEANERS	400 GREENUP STREET	KY SHWS	Higher	4513, 0.855, East
69	WECCO INC	219 GARRARD STREET	KY SHWS	Higher	4734, 0.897, East
70	CBT COVINGTON GARAGE	1122 RUSSELL ST	KY SHWS, KY SB193	Higher	5033, 0.953, SE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS---------- Engineering Controls Sites List
US INST CONTROLS--------- Institutional Controls Sites List

Federal ERNS list

ERNS------------------------- Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

OH SHWS---------------------- This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

Lists of state and tribal landfills and solid waste disposal facilities

KY SWF/LF-------------------- Solid Waste Facilities List
OH SWF/LF-------------------- Licensed Solid Waste Facilities

Lists of state and tribal leaking storage tanks

KY PSTEAF-------------------- Facility Ranking List
INDIAN LUST------------------ Leaking Underground Storage Tanks on Indian Land

Lists of state and tribal registered storage tanks

FEMA UST--------------------- Underground Storage Tank Listing
OH UST----------------------- Underground Storage Tank File
OH AST----------------------- Above Ground Storage Tanks
INDIAN UST------------------- Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

KY ENG CONTROLS---------- Engineering Controls Site Listing
OH ENG CONTROLS--------- Sites with Engineering Controls
KY INST CONTROL---------- State Superfund Database
OH INST CONTROL---------- Sites with Institutional Engineering Controls

Lists of state and tribal voluntary cleanup sites

KY VCP----------------------- Voluntary Cleanup Program Sites
INDIAN VCP------------------- Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

OH BROWNFIELDS---------- Ohio Brownfield Inventory

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

KY SWRCY--------------------- Recycling Facilities
KY HIST LF------------------- Historical Landfills
OH HIST LF------------------- Old Solid Waste Landfill
OH SWRCY--------------------- Recycling Facility Listing
INDIAN ODI------------------- Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---- Open Dump Inventory
IHS OPEN DUMPS ---- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- Delisted National Clandestine Laboratory Register
OH CDL ---- Clandestine Drug Lab Locations
US CDL ---- National Clandestine Laboratory Register

Local Land Records

LIENS 2 ---- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
KY SPILLS ---- State spills
OH SPILLS ---- Emergency Response Database

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
MINES MRDS ---- Mineral Resources Data System

UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
PFAS NPL ---- Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES ---- Federal Sites PFAS Information
PFAS TRIS ---- List of PFAS Added to the TRI
PFAS TSCA ---- PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST ---- PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR ---- PFAS Contamination Site Location Listing
PFAS WQP ---- Ambient Environmental Sampling for PFAS
PFAS NPDES ---- Clean Water Act Discharge Monitoring Information
PFAS PROJECT ---- NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS ECHO ---- Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN ---- Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT ---- All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC ---- Aqueous Foam Related Incidents Listing
BIOSOLIDS ---- ICIS-NPDES Biosolids Facility Data
E MANIFEST ---- Hazardous Waste Electronic Manifest System
KY PFAS ---- PFAS Detections Site Listing
OH PFAS ---- PFOA & PFOS Site Listing
OH AIRS ---- Title V Permits Listing
KY ASBESTOS ---- Asbestos Notification Listing
OH ASBESTOS ---- Asbestos Notification Listing
KY COAL ASH ---- Coal Ash Disposal Sites
OH COAL ASH ---- Coal Ash Disposal Site Listing
KY DRYCLEANERS ---- Drycleaner Listing
OH DRYCLEANERS ---- Drycleaner Facility Listing
OH Financial Assurance ---- Financial Assurance Information Listing
KY Financial Assurance ---- Financial Assurance Information Listing
KY LEAD ---- Environmental Lead Program Report Tracking Database
OH LEAD ---- Lead Inspections Listing
KY NPDES ---- Permitted Facility Listing
OH NPDES ---- NPDES General Permit List
KY UIC ---- UIC Information
OH UIC ---- Underground Injection Wells Listing

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

KY RGA HWS ---- Recovered Government Archive State Hazardous Waste Facilities List
KY RGA LF ---- Recovered Government Archive Solid Waste Facilities List
OH RGA LF ---- Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal hazardous waste facilities

KY SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Protection's Uncontrolled Site Branch List.

A review of the KY SHWS list, as provided by EDR, and dated 09/09/2024 has revealed that there are 24 KY SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WEST RIVERFRONT Facility Id: 52419 Facility Status: Closed	I-75 AT OHIO RIVER	E 0 - 1/8 (0.059 mi.)	C15	38
LEXUS RIVERCENTER Facility Id: 48319 Facility Status: Closed	633 WEST 3RD ST.	E 0 - 1/8 (0.099 mi.)	C17	39
WILLIES BAR & GRILL Facility Id: 160113 Facility Status: Closed	401 CRESCENT AVENUE	SSW 0 - 1/8 (0.102 mi.)	20	48
BP OIL 24334 BORON Facility Id: 65461 Facility Status: Closed	598 W 3RD ST	E 1/8 - 1/4 (0.195 mi.)	F32	91
JOHNSON STREET DRUM Facility Id: 117473 Facility Status: Closed	201 JOHNSON STREET	E 1/4 - 1/2 (0.394 mi.)	J43	128
INTERNAL REVENUE SER Facility Id: 52905 Facility Status: Closed	***201 W RIVER CENTER B***	***E 1/4 - 1/2 (0.419 mi.)***	***J46***	***133***
WECKMAN PROPERTY Facility Id: 133418 Facility Status: Closed	***715 WILLARD STREET***	***SE 1/2 - 1 (0.522 mi.)***	***54***	***197***
WILLOW RUN DRIVE THR Facility Id: 53506 Facility Status: Closed	9TH & WILLOW RUN	SSE 1/2 - 1 (0.589 mi.)	M55	197
A & R INVESTMENTS Facility Id: 53284 Facility Status: Closed	W 9TH STREET	SSE 1/2 - 1 (0.590 mi.)	M56	198
MOTHER OF GOD CHURCH Facility Id: 53119 Facility Status: Closed	119 WEST 6TH STREET	ESE 1/2 - 1 (0.628 mi.)	N57	198
WILLOW RUN DRIVE THR Facility Id: 53506 Facility Status: Closed	928 WILLOW RUN	SSE 1/2 - 1 (0.642 mi.)	58	199
FIRESTONE STORE Facility Id: 52805	***6TH & WASHINGTON ST***	***ESE 1/2 - 1 (0.664 mi.)***	***N59***	***199***

Facility Status: Closed				
PIKE STREET PROPERTY Facility Id: 105295 Facility Status: Closed	114 W PIKE ST	ESE 1/2 - 1 (0.673 mi.)	60	201
INCISA USA INC SPILL Facility Id: 99420 Facility Status: Closed	I-75 RAMP AT INTERSE	SSE 1/2 - 1 (0.736 mi.)	61	201
SCOTT STREET PROPERT Facility Id: 105296 Facility Status: Active	409-415 SCOTT BLLVD	E 1/2 - 1 (0.762 mi.)	62	202
GLIERS GOETTA CO Facility Id: 64929 Facility Status: Active	533 GOETTA PLACE	SSE 1/2 - 1 (0.778 mi.)	63	202
COVINGTON LANDFILL Facility Id: 52228 Facility Status: Closed	638 MADISON AVE.	ESE 1/2 - 1 (0.787 mi.)	64	203
BRIDGE FOREMAN OFFIC Facility Id: 105130 Facility Status: Closed	JCT OF E 2ND ST & RO	ENE 1/2 - 1 (0.802 mi.)	65	203
HARMON DRUMS Facility Id: 53328 Facility Status: Closed	311 ALTAMONT RD	WNW 1/2 - 1 (0.807 mi.)	66	204
BAVARIAN BREWERY Facility Id: 52594 Facility Status: Closed	1115 MAIN ST	SSE 1/2 - 1 (0.813 mi.)	67	204
EXQUISITE CLEANERS Facility Id: 53425 Facility Status: Closed	400 GREENUP STREET	E 1/2 - 1 (0.855 mi.)	68	205
WECCO INC Facility Id: 52764 Facility Status: Closed	219 GARRARD STREET	E 1/2 - 1 (0.897 mi.)	69	205
CBT COVINGTON GARAGE Facility Id: 67588 Facility Status: Closed	***1122 RUSSELL ST***	***SE 1/2 - 1 (0.953 mi.)***	***70***	***206***

Lower Elevation	Address	Direction / Distance	Map ID	Page
I-75 BRENT SPENCE BR Facility Id: 48294 Facility Status: Closed	I-75/71	NNE 1/8 - 1/4 (0.166 mi.)	21	48

Lists of state and tribal leaking storage tanks

KY SB193: The inventory indicates facilities that have performed permanent closure activities at a regulated underground storage tank facility and have known soil and/or groundwater contamination.

A review of the KY SB193 list, as provided by EDR, and dated 09/05/2006 has revealed that there are 4

KY SB193 sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HARDABECK Facility Id: 1008059	204 CRESCENT	WNW 0 - 1/8 (0.005 mi.)	A7	24
SPEEDWAY #9541 Facility Id: 7160059	***613 W 4TH ST***	***ESE 1/8 - 1/4 (0.185 mi.)***	***E30***	***79***
LIBERTY TOBACCO Facility Id: 8623059	***235 W 5TH ST***	***ESE 1/4 - 1/2 (0.456 mi.)***	***K49***	***175***
CIRCLE K #3319 Facility Id: 6746059	***207 W 4TH ST***	***ESE 1/4 - 1/2 (0.491 mi.)***	***L53***	***188***

Lists of state and tribal registered storage tanks

KY UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Protection's Owner/Facility Report of All Tanks Regardless of Status list.

A review of the KY UST list, as provided by EDR, and dated 08/13/2024 has revealed that there are 9 KY UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JOHNSON OIL CO INC Tank Status: TRM Facility Id: 38733	***670 W 3RD ST***	***0 - 1/8 (0.000 mi.)***	***A1***	***8***
RUSK HEATING & AIR C Tank Status: TRM Facility Id: 65732	666 W 3RD ST	0 - 1/8 (0.000 mi.)	A5	22
RAYMOND L & HILDA E Tank Status: TRM Facility Id: 60303 Closed In Place Date: 06/15/1995	204 CRESCENT AVE	WNW 0 - 1/8 (0.005 mi.)	A8	25
RIVER CENTRAL MOTORS Tank Status: TRM Facility Id: 49119	***670 W FOURTH ST***	***SSE 0 - 1/8 (0.055 mi.)***	***B14***	***33***
RIDGEVIEW LINCOLN ME Tank Status: TRM Facility Id: 48319	***633 W. THIRD STREET***	***E 0 - 1/8 (0.099 mi.)***	***C19***	***41***
610 WEST 4TH COVINGT Tank Status: TAC Facility Id: 38706	***610 W 4TH ST***	***ESE 1/8 - 1/4 (0.181 mi.)***	***E24***	***51***
SPEEDWAY #9541 Tank Status: TR8 Tank Status: TAC Facility Id: 38766	613 W 4TH ST	ESE 1/8 - 1/4 (0.185 mi.)	E27	68
BP OIL 24334 BORON Tank Status: TR8 Tank Status: TRM	598 W 3RD ST	E 1/8 - 1/4 (0.195 mi.)	F33	92

Facility Id: 65461				
SPEEDWAY #7406 Tank Status: TAC Tank Status: TRM Facility Id: 38787	610 W 5TH ST	SE 1/8 - 1/4 (0.227 mi.)	G35	99

KY AST: A listing of aboveground storage tank site locations.

A review of the KY AST list, as provided by EDR, and dated 08/19/2024 has revealed that there is 1 KY AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FRISCH'S RESTAURANT,	668 W 5TH ST	SSE 1/8 - 1/4 (0.178 mi.)	D22	49

Lists of state and tribal voluntary cleanup sites

OH VCP: Ohio EPA, Voluntary Action Program Sites.

A review of the OH VCP list, as provided by EDR, and dated 06/21/2024 has revealed that there is 1 OH VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUKE ENERGY OHIO WES DERR ID: 531003574	646 W MEHRING WAY	N 1/4 - 1/2 (0.466 mi.)	50	184

Lists of state and tribal brownfield sites

KY BROWNFIELDS: The Kentucky Brownfield Program has created an inventory of brownfield sites in order to market the properties to those interested in brownfield redevelopment. The Kentucky Brownfield Program is working to promote the redevelopment of these sites by helping to remove barriers that prevent reuse, providing useful information to communities, developers and the public and encouraging a climate that fosters redevelopment of contaminated sites.

A review of the KY BROWNFIELDS list, as provided by EDR, and dated 07/31/2024 has revealed that there is 1 KY BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
501 MAIN BF #: 29	501 MAIN ST.	ESE 1/4 - 1/2 (0.358 mi.)	H40	121

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 06/10/2024 has revealed that there are 4 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
501-09 BAKEWELL	***501-09 BAKEWELL ST.***	***SE 1/4 - 1/2 (0.317 mi.)***	***38***	***109***
501 MAIN	***501 MAIN ST.***	***ESE 1/4 - 1/2 (0.358 mi.)***	***H39***	***114***
428-434 MAIN ST.	***428-434 MAIN ST.***	***ESE 1/4 - 1/2 (0.358 mi.)***	***I41***	***122***
409-435 JOHNSON ST.	***409-435 JOHNSON ST.***	***ESE 1/4 - 1/2 (0.412 mi.)***	***K45***	***128***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/03/2024 has revealed that there are 8 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PERMAKIL INC. EPA ID:: KYD985115971	204 CRESCENT AVENUE	WNW 0 - 1/8 (0.005 mi.)	A9	27
RIVER CENTRAL MOTORS EPA ID:: KYD981467319	***670 W FOURTH ST***	***SSE 0 - 1/8 (0.055 mi.)***	***B14***	***33***
RIDGEVIEW LINCOLN ME EPA ID:: KYD041060690	***633 W. THIRD STREET***	***E 0 - 1/8 (0.099 mi.)***	***C19***	***41***
AGFA DIV BAYER CORP EPA ID:: KYR000006411	666 FIFTH STREET	SSE 1/8 - 1/4 (0.178 mi.)	D23	49
BP FACILITY #22277 EPA ID:: KYR000043075	610 WEST 4TH ST	ESE 1/8 - 1/4 (0.181 mi.)	E25	63
SUPERAMERICA #5541 EPA ID:: KYR000000729	613 W 4TH ST	ESE 1/8 - 1/4 (0.185 mi.)	E29	76
BP OIL CO. GULF PROD EPA ID:: KYD981805518	***598 THIRD & PHILADEL***	***E 1/8 - 1/4 (0.192 mi.)***	***F31***	***89***
SPEEDWAY 7406 EPA ID:: KYR000007609	610 W 5TH ST	SE 1/8 - 1/4 (0.227 mi.)	G37	106

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 08/13/2024 has revealed that there is 1 FINDS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JOHNSON OIL COMPANY, Registry ID:: 110001243084	670 WEST THIRD ST.	0 - 1/8 (0.000 mi.)	A4	22

UST FINDER RELEASE: US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

A review of the UST FINDER RELEASE list, as provided by EDR, and dated 06/08/2023 has revealed that there are 13 UST FINDER RELEASE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RUSK HEATING & AIR C	***666 W 3RD ST***	***0 - 1/8 (0.000 mi.)***	***A2***	***18***
JOHNSON OIL CO INC	***670 W 3RD ST***	***0 - 1/8 (0.000 mi.)***	***A3***	***20***
RAYMOND L & HILDA E	***204 CRESCENT***	***WNW 0 - 1/8 (0.005 mi.)***	***A11***	***29***
RIVER CENTER COLLISI	***670 W 4TH ST***	***SSE 0 - 1/8 (0.055 mi.)***	***B13***	***31***
LEXUS RIVERCENTER	***633 W 3RD ST***	***E 0 - 1/8 (0.099 mi.)***	***C18***	***39***
SPEEDWAY #9541	***613 W 4TH ST***	***ESE 1/8 - 1/4 (0.185 mi.)***	***E28***	***74***
BP OIL 24334 BORON	***598 W 3RD ST***	***E 1/8 - 1/4 (0.195 mi.)***	***F34***	***97***
SPEEDWAY #7406	***610 W 5TH ST***	***SE 1/8 - 1/4 (0.227 mi.)***	***G36***	***103***
DICKS STANDARD SERVI	***434 MAIN ST***	***ESE 1/4 - 1/2 (0.359 mi.)***	***I42***	***125***
INTERNAL REVENUE SER	***201 W RIVER CENTER B***	***E 1/4 - 1/2 (0.419 mi.)***	***J47***	***173***
WARSAW CARWASH DBA C	***235 W 5TH ST***	***ESE 1/4 - 1/2 (0.470 mi.)***	***51***	***184***
CIRCLE K #3319	***207 W 4TH ST***	***ESE 1/4 - 1/2 (0.491 mi.)***	***L52***	***186***

Lower Elevation	Address	Direction / Distance	Map ID	Page
OHIO RIVER CO	725 MEHRING WAY	NNW 1/4 - 1/2 (0.445 mi.)	48	174

UST FINDER: EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

A review of the UST FINDER list, as provided by EDR, and dated 06/08/2023 has revealed that there are 9 UST FINDER sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RUSK HEATING & AIR C	***666 W 3RD ST***	***0 - 1/8 (0.000 mi.)***	***A2***	***18***
JOHNSON OIL CO INC	***670 W 3RD ST***	***0 - 1/8 (0.000 mi.)***	***A3***	***20***
RAYMOND L & HILDA E	***204 CRESCENT***	***WNW 0 - 1/8 (0.005 mi.)***	***A11***	***29***
RIVER CENTER COLLISI	***670 W 4TH ST***	***SSE 0 - 1/8 (0.055 mi.)***	***B13***	***31***
LEXUS RIVERCENTER	***633 W 3RD ST***	***E 0 - 1/8 (0.099 mi.)***	***C18***	***39***
610 WEST 4TH COVINGT	610 W 4TH ST	ESE 1/8 - 1/4 (0.181 mi.)	E26	67
SPEEDWAY #9541	***613 W 4TH ST***	***ESE 1/8 - 1/4 (0.185 mi.)***	***E28***	***74***
BP OIL 24334 BORON	***598 W 3RD ST***	***E 1/8 - 1/4 (0.195 mi.)***	***F34***	***97***
SPEEDWAY #7406	***610 W 5TH ST***	***SE 1/8 - 1/4 (0.227 mi.)***	***G36***	***103***

KY AIRS: A listing of permitted Airs facilities.

A review of the KY AIRS list, as provided by EDR, and dated 06/12/2024 has revealed that there is 1 KY AIRS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JOHNSON OIL CO INC Facility Id: 2111700685	***670 W 3RD ST***	***0 - 1/8 (0.000 mi.)***	***A1***	***8***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THE CINCINNATI GASLI	MEHRING WAY	N 1/4 - 1/2 (0.396 mi.)	44	128

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 3 EDR Hist Auto

sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BIL CORPORATION	670 W 3RD ST	0 - 1/8 (0.000 mi.)	A6	24
BOB & LES STANDARD O	204 CRESCENT AVE	WNW 0 - 1/8 (0.005 mi.)	A10	29
PENNINGTON IRA C	THIRD & CRESCENT	SW 0 - 1/8 (0.011 mi.)	A12	31

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

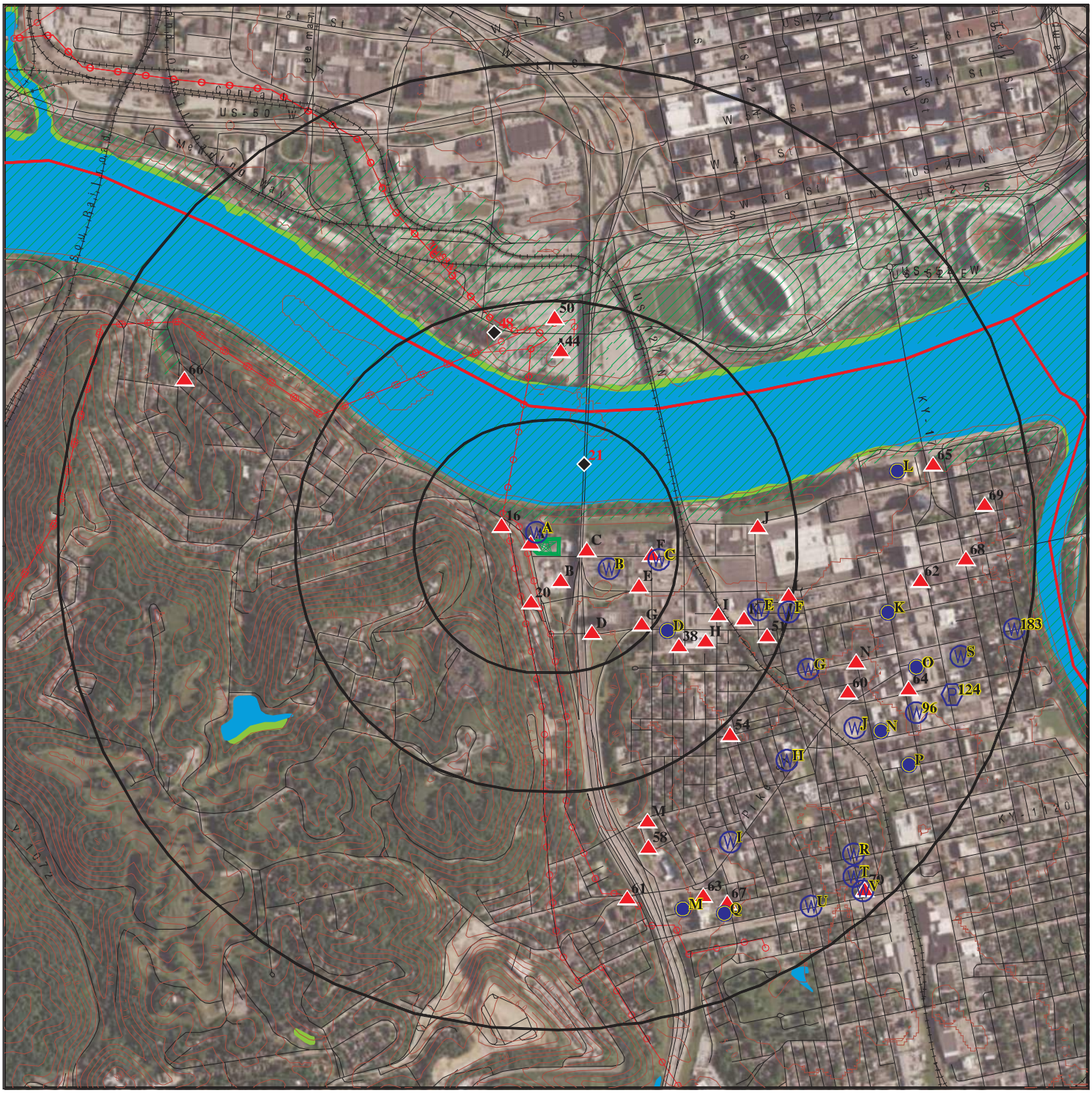
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PERFECT CLEANERS	801 HIGHWAY AVE	WNW 0 - 1/8 (0.073 mi.)	16	39

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
BRZYGOT PROPERTIES	KY ASBESTOS
I-75 BRENT SPENCE BRIDGE OIL SPILL	KY SHWS
THE CINCINNATI GASLIGHT AND COKE C	EDR MGP

OVERVIEW MAP - 7832146.2S

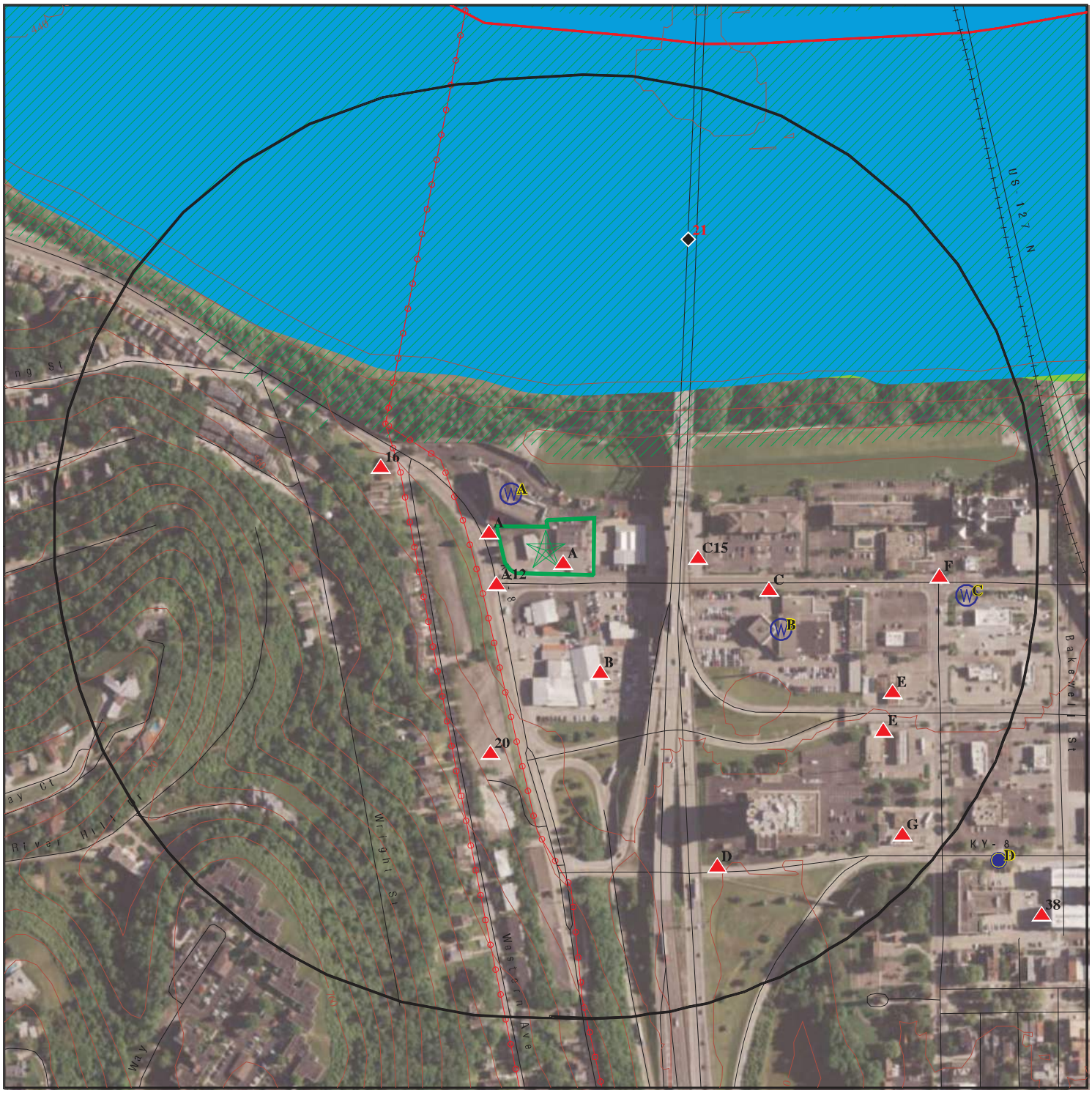


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Commercial Properties	CLIENT:	Linebach Funkhouser Inc.
ADDRESS:	Crescent Avenue & W. 3rd Street Covington KY 41011	CONTACT:	Jason Boston
		INQUIRY #:	7832146.2s
LAT/LONG:	39.087888 / 84.524133	DATE:	November 25, 2024 10:50 am

Copyright © 2024 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 7832146.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

County Boundary

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Commercial Properties	CLIENT:	Linebach Funkhouser Inc.
ADDRESS:	Crescent Avenue & W. 3rd Street Covington KY 41011	CONTACT:	Jason Boston
		INQUIRY #:	7832146.2s
LAT/LONG:	39.087888 / 84.524133	DATE:	November 25, 2024 10:54 am

Copyright © 2024 EDR, Inc. © 2015 TomTom Rel. 2015.

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
KY SHWS	1.000		3	2	2	17	NR	24
OH SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Lists of state and tribal landfills and solid waste disposal facilities								
KY SWF/LF	0.500		0	0	0	NR	NR	0
OH SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
KY PSTEAF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
KY SB193	0.500		1	1	2	NR	NR	4
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
KY UST	0.250		5	4	NR	NR	NR	9
OH UST	0.250		0	0	NR	NR	NR	0
KY AST	0.250		0	1	NR	NR	NR	1
OH AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
KY ENG CONTROLS	0.500		0	0	0	NR	NR	0
OH ENG CONTROLS	0.500		0	0	0	NR	NR	0
KY INST CONTROL	0.500		0	0	0	NR	NR	0
OH INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
KY VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
OH VCP	0.500		0	0	1	NR	NR	1
Lists of state and tribal brownfield sites								
OH BROWNFIELDS	0.500		0	0	0	NR	NR	0
KY BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	4	NR	NR	4
Local Lists of Landfill / Solid Waste Disposal Sites								
KY SWRCY	0.500		0	0	0	NR	NR	0
KY HIST LF	0.500		0	0	0	NR	NR	0
OH HIST LF	0.500		0	0	0	NR	NR	0
OH SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
KY CDL	0.001		0	NR	NR	NR	NR	0
OH CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
KY SPILLS	0.001		0	NR	NR	NR	NR	0
OH SPILLS	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		3	5	NR	NR	NR	8
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
FINDS	0.001		1	NR	NR	NR	NR	1
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	0.001		0	NR	NR	NR	NR	0
UST FINDER RELEASE	0.500		5	3	5	NR	NR	13
UST FINDER	0.250		5	4	NR	NR	NR	9
E MANIFEST	0.250		0	0	NR	NR	NR	0
KY PFAS	0.250		0	0	NR	NR	NR	0
OH PFAS	0.250		0	0	NR	NR	NR	0
KY AIRS	0.001		1	NR	NR	NR	NR	1
OH AIRS	0.001		0	NR	NR	NR	NR	0
KY ASBESTOS	0.001		0	NR	NR	NR	NR	0
OH ASBESTOS	0.001		0	NR	NR	NR	NR	0
KY COAL ASH	0.500		0	0	0	NR	NR	0
OH COAL ASH	0.500		0	0	0	NR	NR	0
KY DRYCLEANERS	0.250		0	0	NR	NR	NR	0
OH DRYCLEANERS	0.250		0	0	NR	NR	NR	0
OH Financial Assurance	0.001		0	NR	NR	NR	NR	0
KY Financial Assurance	0.001		0	NR	NR	NR	NR	0
KY LEAD	0.001		0	NR	NR	NR	NR	0
OH LEAD	0.001		0	NR	NR	NR	NR	0
KY NPDES	0.001		0	NR	NR	NR	NR	0
OH NPDES	0.001		0	NR	NR	NR	NR	0
KY UIC	0.001		0	NR	NR	NR	NR	0
OH UIC	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	1	0	NR	1
EDR Hist Auto	0.125		3	NR	NR	NR	NR	3
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
KY RGA HWS	0.001		0	NR	NR	NR	NR	0
KY RGA LF	0.001		0	NR	NR	NR	NR	0
OH RGA LF	0.001		0	NR	NR	NR	NR	0
- Totals --		0	28	20	16	17	0	81

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

A1 **JOHNSON OIL CO INC** **KY UST U000808039**
670 W 3RD ST **KY AIRS N/A**
< 1/8 **COVINGTON, KY 41011**
1 ft.

Site 1 of 12 in cluster A

Relative: Higher
Actual: 487 ft.

UST:

Name:	JOHNSON OIL CO INC
Address:	670 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	3759059
Facility ID:	38733
Owner Name:	Macs Convenience Stores LLC
Owner Address:	1100 Situs Ct Ste 100
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Raleigh, NC 27606
Internal Document ID:	0
Latitude:	-84.523878
Longitude:	39.087854
Inert Material:	Not reported
Removed Date:	04/10/2007
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	STI-P3
Tank EXT Corr Protect:	Dielectric Coated
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	11/21/2001
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Statistical Inventory Recon
Pipe Rel Detect Suc:	Statistical Inventory Recon
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Fiberglass Manufacturer Unknown
Last Pipe Test Date:	07/05/2001
Last CP Test Date:	06/05/2001
Added To Flex Date:	12/02/1998
Added To Piping Date:	12/02/1998
Tank Material:	Single Wall Steel
Tank Release Detect:	Statistical Inventory Recon
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	Gasoline
Subject Item ID:	2
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1984
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	04/10/2007
Change in Service Date:	Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Tank Pit Num:	Not reported
Tank Mfg:	STI-P3
Tank EXT Corr Protect:	Dielectric Coated
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	11/21/2001
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Statistical Inventory Recon
Pipe Rel Detect Suc:	Statistical Inventory Recon
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Fiberglass Manufacturer Unknown
Last Pipe Test Date:	07/05/2001
Last CP Test Date:	06/05/2001
Added To Flex Date:	12/02/1998
Added To Piping Date:	12/02/1998
Tank Material:	Single Wall Steel
Tank Release Detect:	Statistical Inventory Recon
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	Gasoline
Subject Item ID:	3
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1984
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	04/10/2007
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	STI-P3
Tank EXT Corr Protect:	Dielectric Coated
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	11/21/2001
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Statistical Inventory Recon
Pipe Rel Detect Suc:	Statistical Inventory Recon
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Fiberglass Manufacturer Unknown
Last Pipe Test Date:	07/05/2001
Last CP Test Date:	06/05/2001
Added To Flex Date:	12/02/1998
Added To Piping Date:	12/02/1998
Tank Material:	Single Wall Steel
Tank Release Detect:	Statistical Inventory Recon
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized

JOHNSON OIL CO INC (Continued) **U000808039**

Tank Substance: Gasoline
Subject Item ID: 4
Tank Status: Removed Tank Verified
Installation Date: 01/01/1984
Closed In Place Date: Not reported
Capacity in Gallons: 6000
Compartment Number: 1
Piping Installation Date: Not reported
Added To Tank Date: Not reported

AIRS:
Name: JOHNSON OIL CO INC
Address: 670 W 3RD ST
City,State,Zip: COVINGTON, KY 41011
Facility: 2111700685
Mailing Address 3: Not reported
Emps: 5
Plant Class Description: R; Registered Source
Acreage: Not reported
Alternate Facility Name: Johnson Oil Company, Inc
Alternate Facility End Date: Not reported
Principal Product: GASOLINE
State Plant Class Code: R000
DAQ AI Type: RETAIL- Retail Trade, Gasoline Stations (447)
DAQ Reg Comment: Not reported
Mailing Address Line 2: Not reported
Inspector Assigned AI: Maria Schmitt
Last Inspection Lead: Not reported
Last Inspection Date: Not reported
Air Programs: 0-SIP Source
Air Subparts: Not Applicable

Emission:
Year: 2022
County: Kenton
Facility ID: 2111700685
Facility Name: Johnson Oil Co Inc
AI ID: 38733
Pollutant: VOC (Volatile Organic Compounds)
Actual Emissions: 0.354281
Subject Item Designation: Not reported
ID Number: Not reported
Longitude: Not reported
Latitude: Not reported
Coordinate System: Not reported
Datum: Not reported
Estimated Emissions (ton/year): Not reported
PTE Emissions (tons/yr): Not reported
Stack Diameter(ft): Not reported
Stack Height (ft): Not reported
Stack Flow Rate (cubic ft/min): Not reported
Stack Velocity (ft/sec): Not reported
Temperature (F): Not reported
Plume Height (ft): Not reported
Construction DT: Not reported
Emissions Document: Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700685

JOHNSON OIL CO INC (Continued) **U000808039**

Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2011
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2016
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.354281
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	Gasoline
Actual Emissions:	0.350231
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.354281
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2013
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2015
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)

JOHNSON OIL CO INC (Continued) **U000808039**

Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2010
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2012
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported

JOHNSON OIL CO INC (Continued) **U000808039**

Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2014
County:	Kenton
Facility ID:	2111700685
Facility Name:	Johnson Oil Co Inc
AI ID:	38733
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.35428100000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

A2 **RUSK HEATING & AIR COND INC** **UST FINDER** **1028372371**
666 W 3RD ST **UST FINDER RELEASE** **N/A**
< 1/8 **COVINGTON, KY 41011**
1 ft.

Site 2 of 12 in cluster A

Relative: UST FINDER:
Higher

Object ID:	188140
Facility ID:	KY8362059
Name:	RUSK HEATING & AIR COND INC
Address:	666 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	2
TOS USTs:	0
Population 1500ft:	303
Private Wells 1500ft:	0
Within 100yr Floodplain:	Yes
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported

Actual:
487 ft.

RUSK HEATING & AIR COND INC (Continued) **1028372371**

SPA HUC12: Not reported
Within WHPA: No
WHPA PWS Facility ID: Not reported
WHPA Water Type: Not reported
WHPA Facility Type: Not reported
WHPA HUC12: Not reported
Facility Status: Closed UST(s)
Date of Last Inspection: Not reported
EPA Region: 4
Tribe: Not reported
Coordinate Source: State
X Coord: -84.523156
Y Coord: 39.0876060000001
Latitude: 39.087606
Longitude: -84.523156

UST FINDER:
Object ID: 606668
Facility ID: KY8362059
Tank ID: KY8362059_2_1
Tank Status: Closed
Installation Date: 1976/01/01 16:00:00+00
Removal Date: 1990/01/03 15:59:59+00
Tank Capacity: 500
Substances: Gasoline
Tank Wall Type: Single

Object ID: 606670
Facility ID: KY8362059
Tank ID: KY8362059_1_1
Tank Status: Closed
Installation Date: 1970/01/01 16:00:00+00
Removal Date: 1990/01/03 15:59:59+00
Tank Capacity: 6000
Substances: Gasoline
Tank Wall Type: Single

UST FINDER RELEASE:
Object ID: 177953
Facility ID: KY65732
Lust ID: KY8147
Name: RUSK HEATING & AIR COND INC
Address: 666 W 3RD ST
City,State,Zip: COVINGTON, KY 0
Address Match Type: Not reported
Reported Date: Not reported
Status: Unkown
Substance: Not reported
Population within 1500ft: 302
Domestic Wells within 1500ft: 0
Land Use: Developed, High Intensity
Within SPA: No
SPA PWS Facility ID: Not reported
SPA Water Type: Not reported
SPA Facility Type: Not reported
SPA HUC12: Not reported

RUSK HEATING & AIR COND INC (Continued) **1028372371**

Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	Yes
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.52316
Y Coord:	39.08761
Latitude:	39.0876099999999
Longitude:	-84.52316

A3 **JOHNSON OIL CO INC** **UST FINDER** **1028366853**
670 W 3RD ST **UST FINDER RELEASE** **N/A**
< 1/8 **COVINGTON, KY 0**
1 ft.

Site 3 of 12 in cluster A

Relative: **Higher**
Actual: **487 ft.**

UST FINDER:

Object ID:	188139
Facility ID:	KY3759059
Name:	JOHNSON OIL CO INC
Address:	670 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	3
TOS USTs:	0
Population 1500ft:	309
Private Wells 1500ft:	0
Within 100yr Floodplain:	Yes
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.5231889999999
Y Coord:	39.0875370000001
Latitude:	39.087537
Longitude:	-84.523189

JOHNSON OIL CO INC (Continued) **1028366853**

UST FINDER:

Object ID:	578187
Facility ID:	KY3759059
Tank ID:	KY3759059_2_1
Tank Status:	Closed
Installation Date:	1984/01/01 16:00:00+00
Removal Date:	2007/04/10 15:59:59+00
Tank Capacity:	10000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	578188
Facility ID:	KY3759059
Tank ID:	KY3759059_3_1
Tank Status:	Closed
Installation Date:	1984/01/01 16:00:00+00
Removal Date:	2007/04/10 15:59:59+00
Tank Capacity:	10000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	578189
Facility ID:	KY3759059
Tank ID:	KY3759059_4_1
Tank Status:	Closed
Installation Date:	1984/01/01 16:00:00+00
Removal Date:	2007/04/10 15:59:59+00
Tank Capacity:	6000
Substances:	Gasoline
Tank Wall Type:	Single

UST FINDER RELEASE:

Object ID:	177952
Facility ID:	KY38733
Lust ID:	KY8160
Name:	JOHNSON OIL CO INC
Address:	670 W 3RD ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	309
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported

JOHNSON OIL CO INC (Continued) **1028366853**

Within 100yr Floodplain:	Yes
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.5231899999999
Y Coord:	39.08754
Latitude:	39.0875399999999
Longitude:	-84.52319

A4 **JOHNSON OIL COMPANY, INC** **FINDS** **1016180469**
670 WEST THIRD ST. **N/A**
< 1/8 **COVINGTON, KY 41011**
1 ft.

Site 4 of 12 in cluster A

Relative: Higher
Actual: 487 ft.

FINDS:
Registry ID: 110001243084

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
THE EMISSION INVENTORY SYSTEM (EIS) MAINTAINS AN INVENTORY OF LARGE STATIONARY SOURCES AND VOLUNTARILY-REPORTED SMALLER SOURCES OF AIR POINT POLLUTANT EMITTERS. IT CONTAINS INFORMATION ABOUT FACILITY SITES AND THEIR PHYSICAL LOCATION, EMISSIONS UNITS, EMISSIONS PROCESSES, RELEASE POINTS, CONTROL APPROACHES, AND REGULATIONS. FACILITY INVENTORY DATA ARE KEPT SEPARATE FROM THE EMISSIONS DATA AND HAVE STABLE IDENTIFIERS TO IMPROVE CONTINUITY FROM YEAR TO YEAR AND TO HELP IDENTIFY DUPLICATE OR MISSING FACILITIES
The Air Facility System (AFS) contains compliance and permit data for stationary sources of air pollution regulated by the EPA, state, and local air pollution agencies.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A5 **RUSK HEATING & AIR COND INC** **KY UST** **U001185159**
666 W 3RD ST **N/A**
< 1/8 **COVINGTON, KY 41011**
1 ft.

Site 5 of 12 in cluster A

Relative: Higher
Actual: 487 ft.

UST:

Name:	RUSK HEATING & AIR COND INC
Address:	666 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	8362059
Facility ID:	65732
Owner Name:	Rusk Heating & Air Cond Inc
Owner Address:	666 W 3rd St
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Covington, KY 41011

RUSK HEATING & AIR COND INC (Continued) **U001185159**

Internal Document ID:	0
Latitude:	-84.523165
Longitude:	39.087729
Inert Material:	Not reported
Removed Date:	01/03/1990
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	1
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1970
Closed In Place Date:	Not reported
Capacity in Gallons:	6000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	01/03/1990
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported

RUSK HEATING & AIR COND INC (Continued) **U001185159**

Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	2
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1976
Closed In Place Date:	Not reported
Capacity in Gallons:	500
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

A6 **BIL CORPORATION** **EDR Hist Auto** **1021173891**
670 W 3RD ST **N/A**
< 1/8 **COVINGTON, KY 41011**
1 ft.

Site 6 of 12 in cluster A

Relative: EDR Hist Auto
Higher

Actual: **487 ft.**

Year:	Name:	Type:
1986	670 WEST 3RD STREET INC	Grocery Stores
1987	BIL CORP INC	Grocery Stores
1988	BIL CORP INC	Grocery Stores
1989	BIL CORP INC	Convenience Stores
1990	BIL CORP INC	Convenience Stores
1991	BIL CORPORATION	Convenience Stores
1992	BIL CORPORATION	Convenience Stores
1993	BIL CORPORATION	Convenience Stores
1994	BIL CORPORATION	Convenience Stores
1995	BIL CORPORATION	Convenience Stores
1996	BIL CORPORATION	Convenience Stores
1997	BIL CORPORATION	Convenience Stores

A7 **HARDABECK** **KY SB193** **S106059468**
WNW **204 CRESCENT** **N/A**
< 1/8 **COVINGTON, KY**
0.005 mi.
25 ft.

Site 7 of 12 in cluster A

Relative: KY SENATE BILL 193 INVENTORY:
Higher

Actual: **488 ft.**

KY SENATE BILL 193 INVENTORY:	CAW
Facility ID:	1008059
Soil / Groundwater:	Groundwater
Agency Interest Number:	60303

A8 **RAYMOND L & HILDA E HARDEBECK SITE** **KY UST** **U002177019**
WNW **204 CRESCENT AVE** **N/A**
< 1/8 **COVINGTON, KY 41011**
0.005 mi.
25 ft. **Site 8 of 12 in cluster A**

Relative: **Higher**
Actual: **488 ft.**

UST:

Name:	RAYMOND L & HILDA E HARDEBECK SITE
Address:	204 CRESCENT AVE
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	1008059
Facility ID:	60303
Owner Name:	Raymond Hardebeck
Owner Address:	1552 Madison Ave
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Covington, KY 410113316
Internal Document ID:	0
Latitude:	-84.52491939
Longitude:	39.08848946
Inert Material:	Not reported
Removed Date:	10/31/1995
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	1
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1901
Closed In Place Date:	06/15/1995
Capacity in Gallons:	99
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	10/31/1995
Change in Service Date:	Not reported

RAYMOND L & HILDA E HARDEBECK SITE (Continued) **U002177019**

Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	2
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1901
Closed In Place Date:	06/15/1995
Capacity in Gallons:	99
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	10/31/1995
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown

RAYMOND L & HILDA E HARDEBECK SITE (Continued) **U002177019**

Tank Substance:	Gasoline
Subject Item ID:	3
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1901
Closed In Place Date:	06/15/1995
Capacity in Gallons:	99
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

A9 **PERMAKIL INC.** **RCRA NonGen / NLR** **1000863991**
WNW **204 CRESCENT AVENUE** **KYD985115971**
< 1/8 **COVINGTON, KY 41011**
0.005 mi.
25 ft. **Site 9 of 12 in cluster A**

Relative: **Higher**
Actual: **488 ft.**

RCRA Listings:

Date Form Received by Agency:	19940215
Handler Name:	Permakil Inc.
Handler Address:	Crescent Avenue
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYD985115971
Contact Name:	RAY HARDBECK
Contact Address:	204 CRESCENT AVENUE
Contact City,State,Zip:	COVINGTON, KY 41011
Contact Telephone:	513-621-3028
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	CRESCENT AVENUE
Mailing City,State,Zip:	COVINGTON, KY 41011
Owner Name:	Permakil Inc.
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---

PERMAKIL INC. (Continued) **1000863991**

Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	NONE
Waste Description:	Not Defined

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	PERMAKIL INC.
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	204 CRESCENT AVE.
Owner/Operator City,State,Zip:	COVINGTON, KY 41011
Owner/Operator Telephone:	513-621-3028
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	19940215
Handler Name:	PERMAKIL INC.
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Ky
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

PERMAKIL INC. (Continued) **1000863991**

Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56171
NAICS Description: EXTERMINATING AND PEST CONTROL SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

A10 **BOB & LES STANDARD OIL** **EDR Hist Auto** **1021759313**
WNW **204 CRESCENT AVE** **N/A**
< 1/8 **COVINGTON, KY 41011**
0.005 mi.
25 ft. **Site 10 of 12 in cluster A**

Relative: EDR Hist Auto
Higher

Actual: **488 ft.**

Year:	Name:	Type:
1969	FEAGAN SERVICE STATION	Gasoline Service Stations
1970	FEAGAN SERVICE STATION	Gasoline Service Stations
1971	BOB & LES STANDARD OIL	Gasoline Service Stations
1972	BOB & LES STANDARD OIL	Gasoline Service Stations

A11 **RAYMOND L & HILDA E HARDEBECK SITE** **UST FINDER** **1028359613**
WNW **204 CRESCENT** **UST FINDER RELEASE** **N/A**
< 1/8 **COVINGTON, KY 41011**
0.005 mi.
25 ft. **Site 11 of 12 in cluster A**

Relative: UST FINDER:
Higher

Actual: **488 ft.**

Object ID:	188149
Facility ID:	KY1008059
Name:	RAYMOND L & HILDA E HARDEBECK SITE
Address:	204 CRESCENT
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	3
TOS USTs:	0
Population 1500ft:	373
Private Wells 1500ft:	0
Within 100yr Floodplain:	Yes
Land Use:	Developed, Medium Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported

RAYMOND L & HILDA E HARDEBECK SITE (Continued) **1028359613**

WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.524919
Y Coord:	39.088489
Latitude:	39.088489
Longitude:	-84.524919

UST FINDER:

Object ID:	595051
Facility ID:	KY1008059
Tank ID:	KY1008059_3_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	1995/10/31 15:59:59+00
Tank Capacity:	Not reported
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	595052
Facility ID:	KY1008059
Tank ID:	KY1008059_1_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	1995/10/31 15:59:59+00
Tank Capacity:	Not reported
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	595053
Facility ID:	KY1008059
Tank ID:	KY1008059_2_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	1995/10/31 15:59:59+00
Tank Capacity:	Not reported
Substances:	Gasoline
Tank Wall Type:	Single

UST FINDER RELEASE:

Object ID:	177936
Facility ID:	KY60303
Lust ID:	KY3189
Name:	RAYMOND L & HILDA E HARDEBECK SITE
Address:	204 CRESCENT
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	373

RAYMOND L & HILDA E HARDEBECK SITE (Continued) **1028359613**

Domestic Wells within 1500ft:	0
Land Use:	Developed, Medium Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	Yes
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.52492
Y Coord:	39.08849
Latitude:	39.08849
Longitude:	-84.5249199999999

A12 **PENNINGTON IRA C** **EDR Hist Auto** **1020354192**
SW **THIRD & CRESCENT** **N/A**
< 1/8 **COVINGTON, KY 41011**
0.011 mi.
57 ft. **Site 12 of 12 in cluster A**

Relative: EDR Hist Auto
Higher

Actual:
488 ft.

Year:	Name:	Type:
1969	PENNINGTON IRA C	Gasoline Service Stations
1970	PENNINGTON IRA C	Gasoline Service Stations
1971	PENNINGTON IRA C	Gasoline Service Stations

B13 **RIVER CENTER COLLISION** **UST FINDER** **1028370661**
SSE **670 W 4TH ST** **UST FINDER RELEASE** **N/A**
< 1/8 **COVINGTON, KY 41011**
0.055 mi.
288 ft. **Site 1 of 2 in cluster B**

Relative: UST FINDER:
Higher

Object ID:	188132
Facility ID:	KY6605059
Name:	RIVER CENTER COLLISION
Address:	670 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	3
TOS USTs:	0
Population 1500ft:	418

Actual:
490 ft.

RIVER CENTER COLLISION (Continued) **1028370661**

Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.520833
Y Coord:	39.086667
Latitude:	39.086667
Longitude:	-84.520833

UST FINDER:

Object ID:	607440
Facility ID:	KY6605059
Tank ID:	KY6605059_3_1
Tank Status:	Closed
Installation Date:	1966/01/01 16:00:01+00
Removal Date:	1989/09/19 15:59:59+00
Tank Capacity:	500
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	607441
Facility ID:	KY6605059
Tank ID:	KY6605059_1_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	1989/09/19 15:59:59+00
Tank Capacity:	500
Substances:	Oil
Tank Wall Type:	Single

Object ID:	607442
Facility ID:	KY6605059
Tank ID:	KY6605059_2_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	1989/09/19 15:59:59+00
Tank Capacity:	1000
Substances:	New Oil
Tank Wall Type:	Single

UST FINDER RELEASE:

Object ID:	177972

RIVER CENTER COLLISION (Continued) **1028370661**

Facility ID:	KY49119
Lust ID:	KY8161
Name:	RIVER CENTER COLLISION
Address:	670 W 4TH ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	415
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.52083
Y Coord:	39.08667
Latitude:	39.0866699999999
Longitude:	-84.52083

B14 **RIVER CENTRAL MOTORS, INC.** **KY UST** **1000210106**
SSE **670 W FOURTH ST** **RCRA NonGen / NLR** **KYD981467319**
< 1/8 **COVINGTON, KY 41011** **FINDS**
0.055 mi. **ECHO**
288 ft. **Site 2 of 2 in cluster B** **KY AIRS**

Relative: Higher
Actual: 490 ft.

UST:

Name:	RIVER CENTER COLLISION
Address:	670 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	6605059
Facility ID:	49119
Owner Name:	John Cronin
Owner Address:	2714 Main Chase Dr
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Crestview Hills, KY 41017
Internal Document ID:	0
Latitude:	-84.520833
Longitude:	39.086667
Inert Material:	Not reported

RIVER CENTRAL MOTORS, INC. (Continued) **1000210106**

Removed Date:	09/19/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Oil
Subject Item ID:	1
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	500
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	09/19/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel

RIVER CENTRAL MOTORS, INC. (Continued) **1000210106**

Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	New Oil
Subject Item ID:	2
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	1000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	09/19/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	3
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1966
Closed In Place Date:	Not reported
Capacity in Gallons:	500
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

RCRA Listings:

Date Form Received by Agency:	19901119
Handler Name:	River Central Motors, Inc.
Handler Address:	W Fourth St
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYD981467319
Contact Name:	LESTER KERN
Contact Address:	670 WEST FOURTH STREET
Contact City,State,Zip:	COVINGTON, KY 41015
Contact Telephone:	606-581-6700

RIVER CENTRAL MOTORS, INC. (Continued) **1000210106**

Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	WEST FOURTH STREET
Mailing City,State,Zip:	COVINGTON, KY 41015
Owner Name:	River Central Motors, Inc.
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

RIVER CENTRAL MOTORS, INC. (Continued) **1000210106**

Sub-Part P Indicator: No

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: RIVER CENTRAL MOTORS, INC.
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: UNKNOWN
Owner/Operator City,State,Zip: UNKNOWN, KY 99999
Owner/Operator Telephone: 606-581-6700
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 19901119
Handler Name: RIVER CENTRAL MOTORS, INC.
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110003228720

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

RIVER CENTRAL MOTORS, INC. (Continued) **1000210106**

ECHO:
Envid: 1000210106
Registry ID: 110003228720

DFR URL:
Name: RIVER CENTRAL MOTORS, INC.
Address: 670 W FOURTH ST
City,State,Zip: COVINGTON, KY 41011

AIRS:
Name: RIVER CENTER COLLISION
Address: 670 W 4TH ST
City,State,Zip: COVINGTON, KY 41011
Facility: 2111710011
Mailing Address 3: Not reported
Emps: 1
Plant Class Description: R; Registered Source
Acreage: 1.00
Alternate Facility Name: River Center Collision
Alternate Facility End Date: Not reported
Principal Product: auto repair
State Plant Class Code: R000
DAQ AI Type: SERV-Repair & Maintenance (811)
DAQ Reg Comment: 59:760
Mailing Address Line 2: Not reported
Inspector Assigned AI: Natalie Cox
Last Inspection Lead: Not reported
Last Inspection Date: Not reported
Air Programs: 0-SIP Source
Air Subparts: Not Applicable

C15 **WEST RIVERFRONT** **KY SHWS** **S106885764**
East **I-75 AT OHIO RIVER** **N/A**
< 1/8 **COVINGTON, KY 41011**
0.059 mi.
310 ft. **Site 1 of 4 in cluster C**

Relative:
Higher

Actual:
488 ft.

SHWS:
Name: WEST RIVERFRONT
Address: I-75 AT OHIO RIVER
City,State,Zip: COVINGTON, KY 41011
Facility Id: 52419
Status: **Closed**
Description: WEST RIVERFRONT
Closure Date: 01/09/2006
Longitude: -84.522540
Latitude: 39.087816
Subject Item County: Kenton
Sub Item Longitude: -84.522540
Sub Item Latitude: 39.087815
Subject Item Address: I-75 at Ohio River
Subject Item Address2: Not reported
Subject Item City,St,Zip: Covington, KY 41011
Regulatory Desc: Federal Superfund
Closure Option: Non-Incident
Side SG: 64656
Acreage: Not reported

16
WNW
< 1/8
0.073 mi.
388 ft.

PERFECT CLEANERS
801 HIGHWAY AVE
COVINGTON, KY 41011

EDR Hist Cleaner **1020061357**
N/A

Relative:
Higher

Actual:
504 ft.

EDR Hist Cleaner

Year:	Name:	Type:
1972	PERFECT CLEANERS	Drycleaning Plants, Except Rugs
1973	PERFECT CLEANERS	Drycleaning Plants, Except Rugs
1974	PERFECT CLEANERS	Drycleaning Plants, Except Rugs
1975	PERFECT CLEANERS	Drycleaning Plants, Except Rugs

C17
East
< 1/8
0.099 mi.
524 ft.

LEXUS RIVERCENTER
633 WEST 3RD ST.
COVINGTON, KY 41011

Site 2 of 4 in cluster C

KY SHWS **S127509280**
N/A

Relative:
Higher

Actual:
490 ft.

SHWS:

Name:	LEXUS RIVERCENTER
Address:	633 WEST 3RD ST.
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	48319
Status:	**Closed**
Description:	RIVERVIEW LINCOLN-MERCURY (Closed: No Action Necessary)
Closure Date:	09/26/1996
Longitude:	-84.521890
Latitude:	39.087225
Subject Item County:	Kenton
Sub Item Longitude:	-84.521546
Sub Item Latitude:	39.087414
Subject Item Address:	633 W 3rd St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option A No Action Necessary
Side SG:	36658
Acreage:	Not reported

C18
East
< 1/8
0.099 mi.
524 ft.

LEXUS RIVERCENTER
633 W 3RD ST
COVINGTON, KY 41011

Site 3 of 4 in cluster C

UST FINDER **1028366835**
UST FINDER RELEASE **N/A**

Relative:
Higher

Actual:
490 ft.

UST FINDER:

Object ID:	188107
Facility ID:	KY3749059
Name:	LEXUS RIVERCENTER
Address:	633 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	2
TOS USTs:	0
Population 1500ft:	2299

LEXUS RIVERCENTER (Continued) **1028366835**

Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, Medium Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.517083
Y Coord:	39.0837500000001
Latitude:	39.08375
Longitude:	-84.517083

UST FINDER:

Object ID:	605164
Facility ID:	KY3749059
Tank ID:	KY3749059_2_1
Tank Status:	Closed
Installation Date:	1968/01/01 16:00:01+00
Removal Date:	1990/08/24 15:59:59+00
Tank Capacity:	1000
Substances:	Oil
Tank Wall Type:	Single

Object ID:	605165
Facility ID:	KY3749059
Tank ID:	KY3749059_1_1
Tank Status:	Closed
Installation Date:	1968/01/01 16:00:01+00
Removal Date:	1990/08/24 15:59:59+00
Tank Capacity:	500
Substances:	Oil
Tank Wall Type:	Single

UST FINDER RELEASE:

Object ID:	178018
Facility ID:	KY48319
Lust ID:	KY7972
Name:	LEXUS RIVERCENTER
Address:	633 W 3RD ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	2296

LEXUS RIVERCENTER (Continued) **1028366835**

Domestic Wells within 1500ft:	0
Land Use:	Developed, Medium Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.51708
Y Coord:	39.0837500000001
Latitude:	39.08375
Longitude:	-84.51708

C19 **RIDGEVIEW LINCOLN MERCURY, INC.** **KY UST** **1004706058**
East **633 W. THIRD STREET** **RCRA NonGen / NLR** **KYD041060690**
< 1/8 **COVINGTON, KY 41011** **FINDS**
0.099 mi. **ECHO**
524 ft. **Site 4 of 4 in cluster C**

Relative: **Higher**

Actual: **490 ft.**

UST:

Name:	LEXUS RIVERCENTER
Address:	633 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	3749059
Facility ID:	48319
Owner Name:	Jack Feighery
Owner Address:	633 W 3rd St
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Covington, KY 41011
Internal Document ID:	0
Latitude:	-84.52189
Longitude:	39.087225
Inert Material:	Not reported
Removed Date:	08/24/1990
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Oil
Subject Item ID:	1
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1968
Closed In Place Date:	Not reported
Capacity in Gallons:	500
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	08/24/1990
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Oil
Subject Item ID:	2
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1968
Closed In Place Date:	Not reported
Capacity in Gallons:	1000
Compartment Number:	1
Piping Installation Date:	Not reported

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Added To Tank Date: Not reported

RCRA Listings:

Date Form Received by Agency:	20180611
Handler Name:	Ridgeview Lincoln Mercury, Inc.
Handler Address:	W. Third Street
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYD041060690
Contact Name:	PAT FEIGHERY
Contact Address:	633 W. THIRD STREET
Contact City,State,Zip:	COVINGTON, KY 41011
Contact Telephone:	606-431-4444
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	W. THIRD STREET
Mailing City,State,Zip:	COVINGTON, KY 41011
Owner Name:	John Feighery
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20180611
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	Ignitable Waste
Waste Code:	D006
Waste Description:	Cadmium
Waste Code:	D018
Waste Description:	Benzene
Waste Code:	F002
Waste Description:	The Following Spent Halogenated Solvents: Tetrachloroethylene, Methylene Chloride, Trichloroethylene, 1,1,1-Trichloroethane, Chlorobenzene, 1,1,2-Trichloro-1,2,2-Trifluoroethane, Ortho-Dichlorobenzene, Trichlorofluoromethane, And 1,1,2, Trichloroethane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F001, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.
Waste Code:	F003
Waste Description:	The Following Spent Nonhalogenated Solvents: Xylene, Acetone, Ethyl Acetate, Ethyl Benzene, Ethyl Ether, Methyl Isobutyl Ketone, N-Butyl Alcohol, Cyclohexanone, And Methanol; All Spent Solvent Mixtures/Blends Containing, Before Use, Only The Above Spent Nonhalogenated Solvents; And All Spent Solvent Mixtures/Blends Containing, Before Use, One Or More Of The Above Nonhalogenated Solvents, And A Total Of Ten Percent Or More (By Volume) Of One Or More Of Those Solvents Listed In F001, F002, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.
Waste Code:	F005
Waste Description:	The Following Spent Nonhalogenated Solvents: Toluene, Methyl Ethyl Ketone, Carbon Disulfide, Isobutanol, Pyridine, Benzene, 2-Ethoxyethanol, And 2-Nitropropane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Nonhalogenated Solvents Or Those Solvents Listed In F001, F002, Or F004; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name: JOHN FEIGHERY	
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	633 W. THIRD STREET
Owner/Operator City,State,Zip:	COVINGTON, KY 41011
Owner/Operator Telephone:	606-431-4444
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: JOHN FEIGHERY	
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	633 W. THIRD STREET
Owner/Operator City,State,Zip:	COVINGTON, KY 41011
Owner/Operator Telephone:	606-431-4444
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20180611
Handler Name: RIDGEVIEW LINCOLN MERCURY, INC.	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Ky
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	No
Electronic Manifest Broker:	No

Receive Date:	19910508
Handler Name: RIDGEVIEW LINCOLN MERCURY, INC.	
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	Ky
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Has the Facility Received Notices of Violations:

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 20190913
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier: SSE
Evaluation Responsible Sub-Organization: FL
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 20100920
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier: KYRPR
Evaluation Responsible Sub-Organization: FL
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

FINDS:
Registry ID: 110003223609

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the

RIDGEVIEW LINCOLN MERCURY, INC. (Continued) **1004706058**

Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1004706058
Registry ID:	110003223609

DFR URL:

Name:	RIDGEVIEW LINCOLN MERCURY, INC.
Address:	633 W. THIRD STREET
City,State,Zip:	COVINGTON, KY 41011

20
SSW
< 1/8
0.102 mi.
537 ft.

WILLIES BAR & GRILL **KY SHWS** **S123494115**
401 CRESCENT AVENUE **N/A**
COVINGTON, KY 41011

Relative:
Higher

Actual:
530 ft.

SHWS:

Name:	WILLIES BAR & GRILL
Address:	401 CRESCENT AVENUE
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	160113
Status:	**Closed**
Description:	Low level PAH impacts - groundwater.
Closure Date:	09/21/2021
Longitude:	-84.524511
Latitude:	39.085707
Subject Item County:	Kenton
Sub Item Longitude:	-84.525326
Sub Item Latitude:	39.088223
Subject Item Address:	401 Crescent Ave
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Non-Incident
Side SG:	Not reported
Acreage:	3.24

21
NNE
1/8-1/4
0.166 mi.
876 ft.

I-75 BRENT SPENCE BRIDGE - KENTON CO **KY SHWS** **S118672350**
I-75/71 **N/A**
COVINGTON, KY 41011

Relative:
Lower

Actual:
454 ft.

SHWS:

Name:	I-75 BRENT SPENCE BRIDGE - KENTON CO
Address:	I-75/71
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	48294
Status:	**Closed**
Description:	BRENT-SPENCE BRIDGE (Closed: Referred : Hazardous Waste Program)
Closure Date:	09/26/1996

I-75 BRENT SPENCE BRIDGE - KENTON CO (Continued) **S118672350**

Longitude:	-84.522643
Latitude:	39.090410
Subject Item County:	Kenton
Sub Item Longitude:	-84.522857
Sub Item Latitude:	39.086655
Subject Item Address:	I-75 over Ohio River
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41017
Regulatory Desc:	State Superfund
Closure Option:	Referred
Side SG:	38193
Acreage:	Not reported

D22 **FRISCH'S RESTAURANT, INC.** **KY AST** **A100447235**
SSE **668 W 5TH ST** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.178 mi.
940 ft. **Site 1 of 2 in cluster D**

Relative: **Higher**
Actual: **501 ft.**

AST:

Permit Number:	PAG0000434
Name:	FRISCH'S RESTAURANT, INC.
Address:	668 W 5TH ST
Telephone:	(513) 559-5143
City,State,Zip:	COVINGTON, KY 41011-1212
Permit Type:	Commercial
Category:	Other
Permit Status:	Completed
Issue Date:	07/21/1997
Last Inspection:	Not reported
Installer:	Peck Hannaford & Briggs
Submit Date:	07/21/1997
Expiration Date:	07/21/1998
Contact Name:	Peck Hannaford & Briggs
Contract Name:	Not reported
Insp Area:	KENTON (HAZMAT)

D23 **AGFA DIV BAYER CORP** **RCRA NonGen / NLR** **1001219425**
SSE **666 FIFTH STREET** **KYR000006411**
1/8-1/4 **COVINGTON, KY 41011**
0.178 mi.
942 ft. **Site 2 of 2 in cluster D**

Relative: **Higher**
Actual: **501 ft.**

RCRA Listings:

Date Form Received by Agency:	19980528
Handler Name:	Agfa Div Bayer Corp
Handler Address:	Fifth Street
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYR000006411
Contact Name:	DARIN PEPPLE
Contact Address:	100 CHALLENGER ROAD
Contact City,State,Zip:	RIDGEFIELD PARK, NJ 07660
Contact Telephone:	201-440-2500
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported

AGFA DIV BAYER CORP (Continued) **1001219425**

EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	CHALLENGER ROAD
Mailing City,State,Zip:	RIDGEFIELD PARK, NJ 07660
Owner Name:	Quality Hotel Riverview
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

AGFA DIV BAYER CORP (Continued) **1001219425**

Hazardous Waste Summary:
Waste Code: NONE
Waste Description: Not Defined

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: QUALITY HOTEL RIVERVIEW
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 666 FIFTH STREET
Owner/Operator City,State,Zip: COVINGTON, KY 41011
Owner/Operator Telephone: 201-440-2500
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 19980528
Handler Name: AGFA DIV BAYER CORP
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 81292
NAICS Description: PHOTOFINISHING

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

E24 **610 WEST 4TH COVINGTON LLC** **KY UST U003989703**
ESE **610 W 4TH ST** **KY AIRS N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.181 mi.
956 ft. **Site 1 of 7 in cluster E**

Relative: **Higher**
Actual: **498 ft.**

UST:
Name: 610 WEST 4TH COVINGTON LLC
Address: 610 W 4TH ST
City,State,Zip: COVINGTON, KY 41011
Sequence Id: 2572059
Facility ID: 38706
Owner Name: Lehigh Gas Wholesale Services Inc

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Owner Address:	645 Hamilton St Ste 400
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Allentown, PA 18101
Internal Document ID:	0
Latitude:	-84.520833
Longitude:	39.086667
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	06/19/2009
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Smith -- Fiberglass Systems
Last Pipe Test Date:	07/08/2020
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-UNL-Reg Unl Gas
Subject Item ID:	3
Tank Status:	Active
Installation Date:	06/06/1981
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	06/19/2009
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Pipe Mfg:	Smith -- Fiberglass Systems
Last Pipe Test Date:	07/08/2020
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-UNL-Reg Unl Gas
Subject Item ID:	4
Tank Status:	Active
Installation Date:	06/06/1981
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	06/19/2009
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Smith -- Fiberglass Systems
Last Pipe Test Date:	07/08/2020
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-PRM-Prem Unl Gas
Subject Item ID:	5
Tank Status:	Active
Installation Date:	06/06/1981
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Flow Restrictor
Last Tank Test Date:	06/19/2009
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Smith -- Fiberglass Systems
Last Pipe Test Date:	07/08/2020
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Fiberglass Reinforced Plastic
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	Diesel
Subject Item ID:	6
Tank Status:	Active
Installation Date:	06/06/1988
Closed In Place Date:	Not reported
Capacity in Gallons:	8000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

AIRS:

Name:	610 WEST 4TH COVINGTON LLC
Address:	610 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Facility:	2111700604
Mailing Address 3:	Not reported
Emps:	4
Plant Class Description:	R; Registered Source
Acreage:	Not reported
Alternate Facility Name:	610 West 4th Covington LLC
Alternate Facility End Date:	Not reported
Principal Product:	GAS STATN
State Plant Class Code:	R000
DAQ AI Type:	RETAIL- Retail Trade, Gasoline Stations (447)
DAQ Reg Comment:	Not reported
Mailing Address Line 2:	Not reported
Inspector Assigned AI:	Natalie Cox
Last Inspection Lead:	Not reported
Last Inspection Date:	Not reported
Air Programs:	0-SIP Source
Air Subparts:	Not Applicable

Emission:

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Year:	2022
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.792966
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700604

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.792966
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	Gasoline
Actual Emissions:	2.757206
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Actual Emissions:	2.792966
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2013
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2015
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2010
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2012
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

610 WEST 4TH COVINGTON LLC (Continued) **U003989703**

Year:	2014
County:	Kenton
Facility ID:	2111700604
Facility Name:	610 West 4th Covington LLC
AI ID:	38706
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.7929655000000002
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

E25 **BP FACILITY #22277** **RCRA NonGen / NLR** **1008373159**
ESE **610 WEST 4TH ST** **KYR000043075**
1/8-1/4 **COVINGTON, KY 41011**
0.181 mi.
956 ft. **Site 2 of 7 in cluster E**

Relative: **Higher**
Actual: **498 ft.**

RCRA Listings:

Date Form Received by Agency:	20100203
Handler Name:	Bp Facility #22277
Handler Address:	West 4th St
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYR000043075
Contact Name:	SAM PATTERSON
Contact Address:	P O BOX 6038
Contact City,State,Zip:	ARTESIA, CA 90702-6038
Contact Telephone:	412-680-0518
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	P O BOX 6038
Mailing City,State,Zip:	ARTESIA, CA 90702-6038
Owner Name:	Bp Products North America Inc
Owner Type:	Private
Operator Name:	Bp Facility #22277

BP FACILITY #22277 (Continued) **1008373159**

Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D018
Waste Description:	Benzene

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	BP PRODUCTS NORTH AMERICA INC
Legal Status:	Private
Date Became Current:	20050616
Date Ended Current:	Not reported
Owner/Operator Address:	P O BOX 6038
Owner/Operator City,State,Zip:	ARTESIA, CA 90702-3958
Owner/Operator Telephone:	714-670-3958

BP FACILITY #22277 (Continued) **1008373159**

Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BP PRODUCTS NORTH AMERICA INC
Legal Status: Private
Date Became Current: 20050616
Date Ended Current: Not reported
Owner/Operator Address: P O BOX 6038
Owner/Operator City,State,Zip: ARTESIA, CA 90702-3958
Owner/Operator Telephone: 714-670-3958
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BP FACILITY #22277
Legal Status: Private
Date Became Current: 20050616
Date Ended Current: Not reported
Owner/Operator Address: 610 WEST 4TH ST
Owner/Operator City,State,Zip: COVINGTON, KY 41011
Owner/Operator Telephone: 412-680-0518
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BP FACILITY #22277
Legal Status: Private
Date Became Current: 20050616
Date Ended Current: Not reported
Owner/Operator Address: 610 WEST 4TH ST
Owner/Operator City,State,Zip: COVINGTON, KY 41011
Owner/Operator Telephone: 412-680-0518
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20050616
Handler Name: BP FACILITY #22277
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20100203
Handler Name: BP FACILITY #22277
Federal Waste Generator Description: Not a generator, verified

BP FACILITY #22277 (Continued) **1008373159**

State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 44711
NAICS Description: GASOLINE STATIONS WITH CONVENIENCE STORES

Has the Facility Received Notices of Violations:
Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 20140108
Evaluation Responsible Agency: State

BP FACILITY #22277 (Continued) **1008373159**

Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	KYAFR
Evaluation Responsible Sub-Organization:	FL
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

E26 **610 WEST 4TH COVINGTON LLC** **UST FINDER** **1028364667**
ESE **610 W 4TH ST** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.181 mi.
956 ft. **Site 3 of 7 in cluster E**

Relative: **Higher**
Actual: **498 ft.**

UST FINDER:

Object ID:	188131
Facility ID:	KY2572059
Name:	610 WEST 4TH COVINGTON LLC
Address:	610 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	4
Closed USTs:	0
TOS USTs:	0
Population 1500ft:	418
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Open UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.520833
Y Coord:	39.086667
Latitude:	39.086667
Longitude:	-84.520833

UST FINDER:

Object ID:	620520
Facility ID:	KY2572059
Tank ID:	KY2572059_6_1
Tank Status:	Open
Installation Date:	1988/06/06 16:00:00+00

610 WEST 4TH COVINGTON LLC (Continued) **1028364667**

Removal Date:	Not reported
Tank Capacity:	8000
Substances:	Diesel
Tank Wall Type:	Not reported
Object ID:	622756
Facility ID:	KY2572059
Tank ID:	KY2572059_3_1
Tank Status:	Open
Installation Date:	1981/06/06 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	REG
Tank Wall Type:	Not reported
Object ID:	622757
Facility ID:	KY2572059
Tank ID:	KY2572059_4_1
Tank Status:	Open
Installation Date:	1981/06/06 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	PLS
Tank Wall Type:	Not reported
Object ID:	622758
Facility ID:	KY2572059
Tank ID:	KY2572059_5_1
Tank Status:	Open
Installation Date:	1981/06/06 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	PRM
Tank Wall Type:	Not reported

E27 **SPEEDWAY #9541** **KY UST** **U003991223**
ESE **613 W 4TH ST** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.185 mi.
979 ft. **Site 4 of 7 in cluster E**

Relative: UST:
Higher

Actual:
501 ft.

Name:	SPEEDWAY #9541
Address:	613 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	7160059
Facility ID:	38766
Owner Name:	Speedway LLC
Owner Address:	500 Speedway Dr
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Enon, OH 45323
Internal Document ID:	0
Latitude:	-84.520556
Longitude:	39.086389
Inert Material:	Not reported

SPEEDWAY #9541 (Continued) **U003991223**

Removed Date:	07/28/1986
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	3
Tank Status:	Removed Prior to 1988
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

Inert Material:	Not reported
Removed Date:	07/28/1986
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel

SPEEDWAY #9541 (Continued) **U003991223**

Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	4
Tank Status:	Removed Prior to 1988
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	8000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	07/28/1986
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	5
Tank Status:	Removed Prior to 1988
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	6000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	01/29/2007
Relined Date:	Not reported
Lining Insp Date:	Not reported

SPEEDWAY #9541 (Continued) **U003991223**

Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	PolyTech XP
Last Pipe Test Date:	01/29/2007
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-PRM-Prem Unl Gas
Subject Item ID:	6
Tank Status:	Active
Installation Date:	01/01/1986
Closed In Place Date:	Not reported
Capacity in Gallons:	8000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	06/28/2006
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	PolyTech XP
Last Pipe Test Date:	06/28/2006
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	Diesel
Subject Item ID:	7
Tank Status:	Active
Installation Date:	01/01/1986
Closed In Place Date:	Not reported
Capacity in Gallons:	6000
Compartment Number:	1

SPEEDWAY #9541 (Continued) **U003991223**

Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	05/01/2024
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	PolyTech XP
Last Pipe Test Date:	10/07/2009
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-UNL-Reg Unl Gas
Subject Item ID:	8
Tank Status:	Active
Installation Date:	01/01/1986
Closed In Place Date:	Not reported
Capacity in Gallons:	6000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	05/01/2024
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	None
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	PolyTech XP
Last Pipe Test Date:	07/27/2014
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported

SPEEDWAY #9541 (Continued) **U003991223**

Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Siphon
Tank Substance:	GAS-UNL-Reg Unl Gas
Subject Item ID:	9
Tank Status:	Active
Installation Date:	01/01/1986
Closed In Place Date:	Not reported
Capacity in Gallons:	12000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	05/01/2024
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	None
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	PolyTech XP
Last Pipe Test Date:	07/27/2014
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Siphon
Tank Substance:	GAS-UNL-Reg Unl Gas
Subject Item ID:	10
Tank Status:	Active
Installation Date:	01/01/1986
Closed In Place Date:	Not reported
Capacity in Gallons:	12000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

E28 **SPEEDWAY #9541** **UST FINDER** **1028371231**
ESE **613 W 4TH ST** **UST FINDER RELEASE** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.185 mi.
979 ft. **Site 5 of 7 in cluster E**

Relative:
Higher

Actual:
501 ft.

UST FINDER:

Object ID:	188129
Facility ID:	KY7160059
Name:	SPEEDWAY #9541
Address:	613 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	5
Closed USTs:	3
TOS USTs:	0
Population 1500ft:	510
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Open UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.5205559999999
Y Coord:	39.0863890000001
Latitude:	39.086389
Longitude:	-84.520556

UST FINDER:

Object ID:	621765
Facility ID:	KY7160059
Tank ID:	KY7160059_10_1
Tank Status:	Open
Installation Date:	1986/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	12000
Substances:	REG
Tank Wall Type:	Not reported

Object ID:	621766
Facility ID:	KY7160059
Tank ID:	KY7160059_9_1
Tank Status:	Open
Installation Date:	1986/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	12000
Substances:	REG
Tank Wall Type:	Not reported

SPEEDWAY #9541 (Continued) **1028371231**

Object ID: 621767
Facility ID: KY7160059
Tank ID: KY7160059_8_1
Tank Status: Open
Installation Date: 1986/01/01 16:00:00+00
Removal Date: Not reported
Tank Capacity: 6000
Substances: REG
Tank Wall Type: Not reported

Object ID: 621768
Facility ID: KY7160059
Tank ID: KY7160059_7_1
Tank Status: Open
Installation Date: 1986/01/01 16:00:00+00
Removal Date: Not reported
Tank Capacity: 6000
Substances: Diesel
Tank Wall Type: Not reported

Object ID: 621769
Facility ID: KY7160059
Tank ID: KY7160059_6_1
Tank Status: Open
Installation Date: 1986/01/01 16:00:00+00
Removal Date: Not reported
Tank Capacity: 8000
Substances: PRM
Tank Wall Type: Not reported

Object ID: 611726
Facility ID: KY7160059
Tank ID: KY7160059_3_1
Tank Status: Closed
Installation Date: Not reported
Removal Date: 1986/07/28 16:00:00+00
Tank Capacity: 10000
Substances: Gasoline
Tank Wall Type: Single

Object ID: 611727
Facility ID: KY7160059
Tank ID: KY7160059_5_1
Tank Status: Closed
Installation Date: Not reported
Removal Date: 1986/07/28 16:00:00+00
Tank Capacity: 6000
Substances: Gasoline
Tank Wall Type: Single

Object ID: 611728
Facility ID: KY7160059
Tank ID: KY7160059_4_1
Tank Status: Closed
Installation Date: Not reported
Removal Date: 1986/07/28 16:00:00+00
Tank Capacity: 8000

SPEEDWAY #9541 (Continued) **1028371231**

Substances: Gasoline
Tank Wall Type: Single

UST FINDER RELEASE:
Object ID: 177975
Facility ID: KY38766
Lust ID: KY7800
Name: SPEEDWAY #9541
Address: 613 W 4TH ST
City,State,Zip: COVINGTON, KY 0
Address Match Type: Not reported
Reported Date: Not reported
Status: Unkown
Substance: Not reported
Population within 1500ft: 507
Domestic Wells within 1500ft: 0
Land Use: Developed, High Intensity
Within SPA: No
SPA PWS Facility ID: Not reported
SPA Water Type: Not reported
SPA Facility Type: Not reported
SPA HUC12: Not reported
Within WHPA: No
WHPA PWS Facility ID: Not reported
WHPA Water Type: Not reported
WHPA Facility Type: Not reported
WHPA HUC12: Not reported
Within 100yr Floodplain: No
Tribe: Not reported
EPA Region: 4
NFA Letter 1: Not reported
NFA Letter 2: Not reported
NFA Letter 3: Not reported
NFA Letter 4: Not reported
Closed With Residual Contaminate: Not reported
Coordinate Source: State
X Coord: -84.52056
Y Coord: 39.0863900000001
Latitude: 39.08639
Longitude: -84.52056

E29
ESE
1/8-1/4
0.185 mi.
979 ft.

SUPERAMERICA #5541 **RCRA NonGen / NLR** **1001214038**
613 W 4TH ST **KYR000000729**
COVINGTON, KY 41011

Site 6 of 7 in cluster E

Relative:
Higher

Actual:
501 ft.

RCRA Listings:
Date Form Received by Agency: 19971121
Handler Name: Superamerica #5541
Handler Address: W 4th St
Handler City,State,Zip: COVINGTON, KY 41011
EPA ID: KYR000000729
Contact Name: RUSS BLANTON
Contact Address: 3499 DABNEY DRIVE
Contact City,State,Zip: LEXINGTON, KY 40509

SUPERAMERICA #5541 (Continued) **1001214038**

Contact Telephone:	606-357-2522
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	DABNEY DRIVE
Mailing City,State,Zip:	LEXINGTON, KY 40509
Owner Name:	Ashland Inc.
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No

SUPERAMERICA #5541 (Continued) **1001214038**

Manifest Broker: No
Sub-Part P Indicator: No

Hazardous Waste Summary:
Waste Code: NONE
Waste Description: Not Defined

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: ASHLAND INC.
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 3499 DABNEY DRIVE
Owner/Operator City,State,Zip: LEXINGTON, KY 40509
Owner/Operator Telephone: 606-357-2522
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 19971121
Handler Name: SUPERAMERICA #5541
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 4471
NAICS Description: GASOLINE STATIONS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

E30
ESE
1/8-1/4
0.185 mi.
979 ft.

SPEEDWAY #9541
613 W 4TH ST
COVINGTON, KY 41011

Site 7 of 7 in cluster E

KY SB193 **S108020271**
KY AIRS **N/A**

Relative:
Higher

Actual:
501 ft.

KY SENATE BILL 193 INVENTORY:

KY SENATE BILL 193 INVENTORY:	CLW
Facility ID:	7160059
Soil / Groundwater:	Soil
Agency Interest Number:	38766

AIRS:

Name:	SPEEDWAY #9541
Address:	613 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Facility:	2111700620
Mailing Address 3:	Not reported
Emps:	5
Plant Class Description:	R; Registered Source
Acreage:	1.00
Alternate Facility Name:	Speedway Superamerica Llc
Alternate Facility End Date:	Not reported
Principal Product:	GASSTATION
State Plant Class Code:	R000
DAQ AI Type:	RETAIL- Retail Trade, Gasoline Stations (447)
DAQ Reg Comment:	Not reported
Mailing Address Line 2:	Not reported
Inspector Assigned AI:	Maria Schmitt
Last Inspection Lead:	Not reported
Last Inspection Date:	Not reported
Air Programs:	0-SIP Source
Air Subparts:	Not Applicable

Emission:

Year:	2022
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.217461
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700620

SPEEDWAY #9541 (Continued) **S108020271**

Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)

SPEEDWAY #9541 (Continued) **S108020271**

Actual Emissions:	2.217461
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2013
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	Gasoline
Actual Emissions:	2.217461
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.217461
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2015
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Year:	2010
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway SuperAmerica LLC 9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2012
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2014
County:	Kenton
Facility ID:	2111700620
Facility Name:	Speedway #9541
AI ID:	38766
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2174610000000001
Subject Item Designation:	Not reported
ID Number:	Not reported

SPEEDWAY #9541 (Continued) **S108020271**

Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

F31 **BP OIL CO. GULF PRODUCTS** **RCRA NonGen / NLR** **1000140600**
East **598 THIRD & PHILADELPHIA** **FINDS** **KYD981805518**
1/8-1/4 **COVINGTON, KY 41011** **ECHO**
0.192 mi.
1015 ft. **Site 1 of 4 in cluster F**

Relative: **Higher**
Actual: **492 ft.**

RCRA Listings:

Date Form Received by Agency:	19901011
Handler Name:	Bp Oil Co. Gulf Products
Handler Address:	Third & Philadelphia
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYD981805518
Contact Name:	PAUL KOLP
Contact Address:	SOUTHWESTERN PKWY & GIBSON LN.
Contact City,State,Zip:	LOUISVILLE, KY 40211
Contact Telephone:	502-774-4431
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	08
Mailing Address:	SOUTHWESTERN PKWY & GIBSON LN.
Mailing City,State,Zip:	LOUISVILLE, KY 40211
Owner Name:	B.P. Oil Co.
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No

BP OIL CO. GULF PRODUCTS (Continued) **1000140600**

Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	NONE
Waste Description:	Not Defined

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	B.P. OIL CO.
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	SOUTHWESTERN PKWY. & GIBSON LN
Owner/Operator City,State,Zip:	LOUISVILLE, KY 40211
Owner/Operator Telephone:	502-774-4431
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	19901011
Handler Name:	BP OIL CO. GULF PRODUCTS
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Ky

BP OIL CO. GULF PRODUCTS (Continued) **1000140600**

Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110008362360

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000140600
Registry ID: 110008362360

DFR URL:
Name: BP OIL CO. GULF PRODUCTS
Address: 598 THIRD & PHILADELPHIA
City,State,Zip: COVINGTON, KY 41011

F32 **BP OIL 24334 BORON** **KY SHWS** **S117665920**
East **598 W 3RD ST** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.195 mi.
1029 ft. **Site 2 of 4 in cluster F**

Relative:
Higher

Actual:
492 ft.

SHWS:
Name: BP OIL 24334 BORON
Address: 598 W 3RD ST
City,State,Zip: COVINGTON, KY 41011
Facility Id: 65461
Status: **Closed**
Description: BP OIL #24334 (Closed: No Action Necessary)

BP OIL 24334 BORON (Continued) **S117665920**

Closure Date:	07/21/1999
Longitude:	-84.520010
Latitude:	39.087619
Subject Item County:	Kenton
Sub Item Longitude:	-84.520005
Sub Item Latitude:	39.087620
Subject Item Address:	598 W 3rd St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Option A No Action Necessary
Side SG:	20674
Acreage:	Not reported

F33 **BP OIL 24334 BORON** **KY UST** **U000811500**
East **598 W 3RD ST** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.195 mi.
1029 ft. **Site 3 of 4 in cluster F**

Relative: UST:
Higher

Name:	BP OIL 24334 BORON
Address:	598 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	9020059
Facility ID:	65461
Owner Name:	NONE
Owner Address:	Not reported
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	NONE, NONE NONE
Internal Document ID:	0
Latitude:	-84.52001
Longitude:	39.087619
Inert Material:	Not reported
Removed Date:	12/31/1899
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel

Actual:
492 ft.

BP OIL 24334 BORON (Continued) **U000811500**

Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Oil
Subject Item ID:	1
Tank Status:	Removed Prior to 1988
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	550
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	12/31/1899
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Unknown Substance
Subject Item ID:	2
Tank Status:	Removed Prior to 1988
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	550
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	12/31/1899
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported

BP OIL 24334 BORON (Continued) **U000811500**

Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Unknown Substance
Subject Item ID:	3
Tank Status:	Removed Prior to 1988
Installation Date:	01/01/1901
Closed In Place Date:	Not reported
Capacity in Gallons:	2000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	07/01/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Oil
Subject Item ID:	4
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1970
Closed In Place Date:	Not reported
Capacity in Gallons:	550
Compartment Number:	1

BP OIL 24334 BORON (Continued) **U000811500**

Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	07/01/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	5
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1970
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	07/01/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported

BP OIL 24334 BORON (Continued) **U000811500**

Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	6
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1970
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	07/01/1989
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Unknown
Pipe Rel Detect Suc:	Unknown
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	None
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Unknown
Tank Substance:	Gasoline
Subject Item ID:	7
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1970
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

F34 **BP OIL 24334 BORON** **UST FINDER** **1028373045**
East **598 W 3RD ST** **UST FINDER RELEASE** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.195 mi.
1029 ft. **Site 4 of 4 in cluster F**

Relative: **Higher**

Actual: **492 ft.**

UST FINDER:

Object ID:	188141
Facility ID:	KY9020059
Name:	BP OIL 24334 BORON
Address:	598 W 3RD ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	7
TOS USTs:	0
Population 1500ft:	226
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.52001
Y Coord:	39.0876190000001
Latitude:	39.087619
Longitude:	-84.52001

UST FINDER:

Object ID:	607589
Facility ID:	KY9020059
Tank ID:	KY9020059_7_1
Tank Status:	Closed
Installation Date:	1970/01/01 16:00:00+00
Removal Date:	1989/07/01 16:00:00+00
Tank Capacity:	10000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	607590
Facility ID:	KY9020059
Tank ID:	KY9020059_5_1
Tank Status:	Closed
Installation Date:	1970/01/01 16:00:00+00
Removal Date:	1989/07/01 16:00:00+00
Tank Capacity:	10000
Substances:	Gasoline
Tank Wall Type:	Single

BP OIL 24334 BORON (Continued) **1028373045**

Object ID:	607591
Facility ID:	KY9020059
Tank ID:	KY9020059_4_1
Tank Status:	Closed
Installation Date:	1970/01/01 16:00:00+00
Removal Date:	1989/07/01 16:00:00+00
Tank Capacity:	550
Substances:	Oil
Tank Wall Type:	Single

Object ID:	607592
Facility ID:	KY9020059
Tank ID:	KY9020059_6_1
Tank Status:	Closed
Installation Date:	1970/01/01 16:00:00+00
Removal Date:	1989/07/01 16:00:00+00
Tank Capacity:	10000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	625362
Facility ID:	KY9020059
Tank ID:	KY9020059_1_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	Not reported
Tank Capacity:	550
Substances:	Oil
Tank Wall Type:	Single

Object ID:	625363
Facility ID:	KY9020059
Tank ID:	KY9020059_2_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	Not reported
Tank Capacity:	550
Substances:	Unknown Substance
Tank Wall Type:	Single

Object ID:	625364
Facility ID:	KY9020059
Tank ID:	KY9020059_3_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	Not reported
Tank Capacity:	2000
Substances:	Unknown Substance
Tank Wall Type:	Single

UST FINDER RELEASE:

Object ID:	177979
Facility ID:	KY65461
Lust ID:	KY7570
Name:	BP OIL 24334 BORON
Address:	598 W 3RD ST

BP OIL 24334 BORON (Continued) **1028373045**

City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	224
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.52001
Y Coord:	39.0876200000001
Latitude:	39.08762
Longitude:	-84.5200099999999

G35 **SPEEDWAY #7406** **KY UST** **U003989557**
SE **610 W 5TH ST** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.227 mi.
1200 ft. **Site 1 of 3 in cluster G**

Relative:
Higher

Actual:
507 ft.

UST:

Name:	SPEEDWAY #7406
Address:	610 W 5TH ST
City,State,Zip:	COVINGTON, KY 41011
Sequence Id:	4740059
Facility ID:	38787
Owner Name:	Speedway LLC
Owner Address:	500 Speedway Dr
Owner Address2:	Not reported
Owner Address3:	Not reported
Owner City,St,Zip:	Enon, OH 45323
Internal Document ID:	0
Latitude:	-84.520366
Longitude:	39.085578
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown

SPEEDWAY #7406 (Continued) **U003989557**

Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	06/27/2012
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Environ - Geoflex D
Last Pipe Test Date:	06/27/2012
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-PRM-Prem Unl Gas
Subject Item ID:	3
Tank Status:	Active
Installation Date:	03/01/1997
Closed In Place Date:	Not reported
Capacity in Gallons:	15000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	10/02/1996
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	None
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	Daily Inventory Rec Tank Tightness
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Pressurized
Tank Substance:	Gasoline
Subject Item ID:	4

SPEEDWAY #7406 (Continued) **U003989557**

Tank Status:	Removed Tank Verified
Installation Date:	01/01/1981
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	10/02/1996
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	None
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	Daily Inventory Rec Tank Tightness
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Pressurized
Tank Substance:	Gasoline
Subject Item ID:	5
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1981
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	10/02/1996
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Not reported
Tank EXT Corr Protect:	Unknown
Tank Overfill Protection:	Unknown
Last Tank Test Date:	Not reported
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	None
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported

SPEEDWAY #7406 (Continued) **U003989557**

Pipe Mfg:	Not reported
Last Pipe Test Date:	Not reported
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Single Wall Steel
Tank Release Detect:	Daily Inventory Rec Tank Tightness
Tank Int Protect:	Unknown
Pipe Material:	Single Wall Steel
Pipe Ext Corr Protect:	Unknown
Pipe Type:	Pressurized
Tank Substance:	Gasoline
Subject Item ID:	6
Tank Status:	Removed Tank Verified
Installation Date:	01/01/1981
Closed In Place Date:	Not reported
Capacity in Gallons:	10000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported
Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	07/18/2016
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Environ - Geoflex D
Last Pipe Test Date:	09/02/2014
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	GAS-UNL-Reg Unl Gas
Subject Item ID:	7
Tank Status:	Active
Installation Date:	03/01/1997
Closed In Place Date:	Not reported
Capacity in Gallons:	15000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported
Inert Material:	Not reported

SPEEDWAY #7406 (Continued) **U003989557**

Removed Date:	Not reported
Change in Service Date:	Not reported
Tank Pit Num:	Not reported
Tank Mfg:	Fiberglass Manufacturer Unknown
Tank EXT Corr Protect:	Not Applicable
Tank Overfill Protection:	Automatic Shutoff Device
Last Tank Test Date:	06/27/2012
Relined Date:	Not reported
Lining Insp Date:	Not reported
Pipe Release Detection:	Electronic Leak Detection
Pipe Rel Detect Suc:	None
Pipe Leak Detect:	Not reported
Last Contained Date:	Not reported
Pipe Mfg:	Environ - Geoflex D
Last Pipe Test Date:	06/27/2012
Last CP Test Date:	Not reported
Added To Flex Date:	Not reported
Added To Piping Date:	Not reported
Tank Material:	Fiberglass Reinforced
Tank Release Detect:	Automatic Tank Gauging
Tank Int Protect:	Not Applicable
Pipe Material:	Double Wall Flexible
Pipe Ext Corr Protect:	Not Applicable
Pipe Type:	Pressurized
Tank Substance:	Diesel
Subject Item ID:	8
Tank Status:	Active
Installation Date:	03/01/1997
Closed In Place Date:	Not reported
Capacity in Gallons:	8000
Compartment Number:	1
Piping Installation Date:	Not reported
Added To Tank Date:	Not reported

G36 **SPEEDWAY #7406** **UST FINDER** **1028368193**
SE **610 W 5TH ST** **UST FINDER RELEASE** **N/A**
1/8-1/4 **COVINGTON, KY 41011**
0.227 mi.
1200 ft. **Site 2 of 3 in cluster G**

Relative: **Higher**

Actual: **507 ft.**

UST FINDER:

Object ID:	188122
Facility ID:	KY4740059
Name:	SPEEDWAY #7406
Address:	610 W 5TH ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	3
Closed USTs:	3
TOS USTs:	0
Population 1500ft:	768
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported

SPEEDWAY #7406 (Continued) **1028368193**

SPA HUC12: Not reported
Within WHPA: No
WHPA PWS Facility ID: Not reported
WHPA Water Type: Not reported
WHPA Facility Type: Not reported
WHPA HUC12: Not reported
Facility Status: Open UST(s)
Date of Last Inspection: Not reported
EPA Region: 4
Tribe: Not reported
Coordinate Source: State
X Coord: -84.52
Y Coord: 39.085833
Latitude: 39.085833
Longitude: -84.52

UST FINDER:
Object ID: 593144
Facility ID: KY4740059
Tank ID: KY4740059_4_1
Tank Status: Closed
Installation Date: 1981/01/01 16:00:00+00
Removal Date: 1996/10/02 15:59:59+00
Tank Capacity: 10000
Substances: Gasoline
Tank Wall Type: Single

Object ID: 593145
Facility ID: KY4740059
Tank ID: KY4740059_5_1
Tank Status: Closed
Installation Date: 1981/01/01 16:00:00+00
Removal Date: 1996/10/02 15:59:59+00
Tank Capacity: 10000
Substances: Gasoline
Tank Wall Type: Single

Object ID: 593146
Facility ID: KY4740059
Tank ID: KY4740059_6_1
Tank Status: Closed
Installation Date: 1981/01/01 16:00:00+00
Removal Date: 1996/10/02 15:59:59+00
Tank Capacity: 10000
Substances: Gasoline
Tank Wall Type: Single

Object ID: 617097
Facility ID: KY4740059
Tank ID: KY4740059_3_1
Tank Status: Open
Installation Date: 1997/03/01 15:59:59+00
Removal Date: Not reported
Tank Capacity: 15000
Substances: PRM
Tank Wall Type: Not reported

Object ID: 617098

SPEEDWAY #7406 (Continued) **1028368193**

Facility ID:	KY4740059
Tank ID:	KY4740059_7_1
Tank Status:	Open
Installation Date:	1997/03/01 15:59:59+00
Removal Date:	Not reported
Tank Capacity:	15000
Substances:	REG
Tank Wall Type:	Not reported
Object ID:	617099
Facility ID:	KY4740059
Tank ID:	KY4740059_8_1
Tank Status:	Open
Installation Date:	1997/03/01 15:59:59+00
Removal Date:	Not reported
Tank Capacity:	8000
Substances:	Diesel
Tank Wall Type:	Not reported

UST FINDER RELEASE:

Object ID:	177981
Facility ID:	KY38787
Lust ID:	KY7765
Name:	SPEEDWAY #7406
Address:	610 W 5TH ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	765
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.52
Y Coord:	39.08583
Latitude:	39.08583
Longitude:	-84.5199999999999

G37 **SPEEDWAY 7406** **RCRA NonGen / NLR** **1001117130**
SE **610 W 5TH ST** **KYR000007609**
1/8-1/4 **COVINGTON, KY 41011**
0.227 mi.
1200 ft. **Site 3 of 3 in cluster G**

Relative: **Higher**

Actual: **507 ft.**

RCRA Listings:

Date Form Received by Agency:	20200226
Handler Name:	Speedway 7406
Handler Address:	W 5th St
Handler City,State,Zip:	COVINGTON, KY 41011
EPA ID:	KYR000007609
Contact Name:	Not reported
Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Contact Telephone:	Not reported
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ky
State District:	0899
Mailing Address:	Not reported
Mailing City,State,Zip:	Not reported
Owner Name:	Not reported
Owner Type:	Not reported
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No

SPEEDWAY 7406 (Continued) **1001117130**

Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20200226
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	Ignitable Waste
Waste Code:	D018
Waste Description:	Benzene
Waste Code:	NONE
Waste Description:	Not Defined

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name: WACO OIL COMPANY	
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	219 GARRARD STREET
Owner/Operator City,State,Zip:	COVINGTON, KY 41011
Owner/Operator Telephone:	606-581-9226
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: SPEEDWAY LLC	
Legal Status:	Private
Date Became Current:	20120719
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 1500
Owner/Operator City,State,Zip:	SPRINGFIELD, OH 45501
Owner/Operator Telephone:	937-863-6272
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	CABESSE@SPEEDWAY.COM
Owner/Operator Indicator:	Owner
Owner/Operator Name: WACO OIL COMPANY	
Legal Status:	Private
Date Became Current:	Not reported

SPEEDWAY 7406 (Continued) **1001117130**

Date Ended Current: Not reported
Owner/Operator Address: 219 GARRARD STREET
Owner/Operator City,State,Zip: COVINGTON, KY 41011
Owner/Operator Telephone: 606-581-9226
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SPEEDWAY LLC
Legal Status: Private
Date Became Current: 20120719
Date Ended Current: Not reported
Owner/Operator Address: PO BOX 1500
Owner/Operator City,State,Zip: SPRINGFIELD, OH 45501
Owner/Operator Telephone: 937-863-6272
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: CABESSE@SPEEDWAY.COM

Historic Generators:
Receive Date: 20181130
Handler Name: SPEEDWAY 7406
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 20200226
Handler Name: SPEEDWAY 7406
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 19970725
Handler Name: FIFTH STREET SHELL
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ky
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No

SPEEDWAY 7406 (Continued) **1001117130**

Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20171030
Handler Name: SPEEDWAY 7406	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Ky
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	No
Electronic Manifest Broker:	No

List of NAICS Codes and Descriptions:

NAICS Code:	4471
NAICS Description:	GASOLINE STATIONS
NAICS Code:	44711
NAICS Description:	GASOLINE STATIONS WITH CONVENIENCE STORES

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

38
SE
1/4-1/2
0.317 mi.
1672 ft.

501-09 BAKEWELL **US BROWNFIELDS** **1016353688**
501-09 BAKEWELL ST. **FINDS** **N/A**
COVINGTON, KY 41011

Relative:
Higher

Actual:
510 ft.

US BROWNFIELDS:

Name:	501-09 BAKEWELL
Address:	501-09 BAKEWELL ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	102162
Property Alias:	Not reported
Recipient Name:	Covington, City of
Grant Type:	Hazardous
Property Number:	Not reported
Parcel Size:	1.66
Latitude:	39.0859448
Longitude:	-84.5187956
Census Tract:	21117060300
State or Tribal Voluntary Response Program:	Y
Program Name:	BF
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported

501-09 BAKEWELL (Continued) **1016353688**

Cleanup Funding Source:	Not reported
Activity Funded:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	95406108
Start Date:	Not reported
Ownership Entity:	Government
Additional Institutional Controls Information:	Not reported
Completion Date:	Not reported
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	U
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	N
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	N
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	N
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported

501-09 BAKEWELL (Continued) **1016353688**

Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Other Media
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	Not reported
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	768
Below Poverty Percent:	27.12
Meidan Income:	6411
Meidan Income Number:	1512
Meidan Income Percent:	53.39
Vacant Housing Number:	409
Vacant Housing Percent:	21.01
Unemployed Number:	96
Unemployed Percent:	3.39
Name:	501-09 BAKEWELL
Address:	501-09 BAKEWELL ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	102162
Property Alias:	Not reported
Recipient Name:	Covington, City of
Grant Type:	Hazardous
Property Number:	Not reported
Parcel Size:	1.66
Latitude:	39.0859448

501-09 BAKEWELL (Continued) **1016353688**

Longitude:	-84.5187956
Census Tract:	21117060300
State or Tribal Voluntary Response Program:	Y
Program Name:	BF
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Activity Funded:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	USEPA
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	95406108
Start Date:	2009-07-01 00:00:00
Ownership Entity:	Government
Additional Institutional Controls Information:	Not reported
Completion Date:	2009-09-04 00:00:00
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	U
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	N
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	N
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	N
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported

501-09 BAKEWELL (Continued) **1016353688**

Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported
Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Other Media
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	Not reported
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	768
Below Poverty Percent:	27.12
Meidan Income:	6411
Meidan Income Number:	1512
Meidan Income Percent:	53.39
Vacant Housing Number:	409
Vacant Housing Percent:	21.01
Unemployed Number:	96
Unemployed Percent:	3.39

501-09 BAKEWELL (Continued) **1016353688**

FINDS:
Registry ID: 110040477631

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding, as well as information on Targeted Brownfields Assessments (TBA) performed by EPA Regions.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

H39 **501 MAIN** **US BROWNFIELDS** **1016353687**
ESE **501 MAIN ST.** **FINDS** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.358 mi.
1890 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
508 ft.

US BROWNFIELDS:

Name:	501 MAIN
Address:	501 MAIN ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	102161
Property Alias:	Not reported
Recipient Name:	Covington, City of
Grant Type:	Hazardous
Property Number:	Not reported
Parcel Size:	0.7
Latitude:	39.0853268
Longitude:	-84.5175369
Census Tract:	21117060300
State or Tribal Voluntary Response Program:	Y
Program Name:	BF
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Activity Funded:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Asbestos Other Contaminants
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	USEPA
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	95406108
Start Date:	2009-07-01 00:00:00
Ownership Entity:	Not reported
Additional Institutional Controls Information:	Not reported

501 MAIN (Continued) **1016353687**

Completion Date:	2009-09-04 00:00:00
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	Y
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	N
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	U
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	N
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported
Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Unknown
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported

501 MAIN (Continued) **1016353687**

RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	0.2
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	906
Below Poverty Percent:	24.17
Meidan Income:	6672
Meidan Income Number:	1828
Meidan Income Percent:	48.77
Vacant Housing Number:	593
Vacant Housing Percent:	23.26
Unemployed Number:	123
Unemployed Percent:	3.28

Name:	501 MAIN
Address:	501 MAIN ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	102161
Property Alias:	Not reported
Recipient Name:	Covington, City of
Grant Type:	Hazardous
Property Number:	Not reported
Parcel Size:	0.7
Latitude:	39.0853268
Longitude:	-84.5175369
Census Tract:	21117060300
State or Tribal Voluntary Response Program:	Y
Program Name:	BF
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Activity Funded:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Asbestos Other Contaminants
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported

501 MAIN (Continued) **1016353687**

Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	95406108
Start Date:	Not reported
Ownership Entity:	Not reported
Additional Institutional Controls Information:	Not reported
Completion Date:	Not reported
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	Y
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	N
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	U
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	N
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported
Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Unknown
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported

501 MAIN (Continued) **1016353687**

RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	0.2
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	906
Below Poverty Percent:	24.17
Meidan Income:	6672
Meidan Income Number:	1828
Meidan Income Percent:	48.77
Vacant Housing Number:	593
Vacant Housing Percent:	23.26
Unemployed Number:	123
Unemployed Percent:	3.28

Name:	501 MAIN
Address:	501 MAIN ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	102161
Property Alias:	Not reported
Recipient Name:	Kentucky Environmental and Public Protection Cabinet
Grant Type:	Hazardous
Property Number:	Not reported
Parcel Size:	0.7
Latitude:	39.0853268
Longitude:	-84.5175369
Census Tract:	21117060300
State or Tribal Voluntary Response Program:	Y
Program Name:	RP
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported

501 MAIN (Continued) **1016353687**

Cleanup Funding Source:	Not reported
Activity Funded:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Asbestos Other Contaminants
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	EPA
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	97484403
Start Date:	2011-07-13 00:00:00
Ownership Entity:	Not reported
Additional Institutional Controls Information:	Not reported
Completion Date:	2011-10-13 00:00:00
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	Y
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	N
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	U
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	N
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported

501 MAIN (Continued) **1016353687**

Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Unknown
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	0.2
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	906
Below Poverty Percent:	24.17
Meidan Income:	6672
Meidan Income Number:	1828
Meidan Income Percent:	48.77
Vacant Housing Number:	593
Vacant Housing Percent:	23.26
Unemployed Number:	123
Unemployed Percent:	3.28

FINDS:
Registry ID: 110040477622

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding, as well as information on Targeted Brownfields Assessments (TBA)

501 MAIN (Continued) **1016353687**

performed by EPA Regions.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

H40 **501 MAIN** **KY BROWNFIELDS** **S109843209**
ESE **501 MAIN ST.** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.358 mi.
1890 ft. **Site 2 of 2 in cluster H**

Relative: **Higher**

Actual: **508 ft.**

BROWNFIELDS:

Name:	501 MAIN
Address:	501 MAIN ST.
City,State,Zip:	COVINGTON, KY 41011
Acreage:	0.7
Zoning:	Commercial/Industrial
BF #:	29
Latitude:	39.08503
Longitude:	-84.51830
Lat/Long Method:	MI
Current Use:	Vacant commercial
Past Use:	Bank, ploice substation, Insurance company
Market?:	N
Marketing Goal:	Not reported
Known Contaminant:	Not reported
Suspected Contaminate:	Potential for asbestos and lead-based paint. (Potential that hydraulic oil release from elevator may be discovered during demolition, but sampling did not reveal any PCBs in samples tested.)
Investig. Status:	Phase II Environmental Site Assessment completed.
Remed Status:	Remediation has not begun
Controls?:	Not reported
Controls Descr:	Not reported
Inv Comments:	Phase I was conducted under Brownfield Grant for the CIty of Covington. City has requested that the state conduct a Phase II under its Targeted Brownfield Assessment Program.
Remed Comments:	Not reported
Contact Relation:	Local official
Contact Company:	Not reported
Contact Name:	Not reported
Contact Addr 1:	501 Main St.
Contact City/State/Zip:	Covington, KY 41011
Contact Phone:	859-292-2166
Contact Email:	Not reported
Owner Company:	Not reported
Owner Name:	Not reported
Owner Addr 1:	501 Main St.
Owner City/State/Zip:	Covington, KY 41011
Owner Phone:	859-292-2133
Owner Email:	Not reported
Buildings?:	No
Water Available:	Unknown
Water Provider:	Not reported
Wastewater Available:	Not reported
Wastewater Provider:	Not reported
Gas Available:	Not reported
Gas Provider:	Not reported
Electricity Available:	Not reported
Electricity Provider:	Not reported

501 MAIN (Continued) **S109843209**

Broadband Available:	Not reported
Broadband Provider:	Not reported
Additional Util Comm.:	Not reported
Int. Airport:	Not reported
Distance Int. Airport:	Not reported
Parkway:	Not reported
Distance Parkway:	Not reported
Loc Airport:	Not reported
Distance Loc Airport:	Not reported
Railroad:	Not reported
Distance Railroad:	Not reported
Riverport:	Not reported
Distance Riverport:	Not reported
Transport Comment:	Not reported
Sale/Lease:	Not reported
Sale Price:	Not reported
Property Photographs:	N
Aerial Photographs:	N
Property Map:	N
Curr Rev Date:	10/14/2011
AI#:	112112
BF Status:	Property accepted for listing only - Verified
Potential Incentives:	Not reported
Incentives Used:	Not reported
Redevelopment Benefits:	Not reported
Agency Comment:	Not reported
Proposed Future Use:	Not reported

I41 **428-434 MAIN ST.** **US BROWNFIELDS** **1016360510**
ESE **428-434 MAIN ST.** **FINDS** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.358 mi.
1890 ft. **Site 1 of 2 in cluster I**

Relative: **Higher**
Actual: **510 ft.**

US BROWNFIELDS:

Name:	428-434 MAIN ST.
Address:	428-434 MAIN ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	134647
Property Alias:	Not reported
Recipient Name:	Covington, City of
Grant Type:	Hazardous
Property Number:	Not reported
Parcel Size:	0.35
Latitude:	39.0855729
Longitude:	-84.517253
Census Tract:	21117060300
State or Tribal Voluntary Response Program:	Not reported
Program Name:	BF
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Activity Funded:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported

428-434 MAIN ST. (Continued) **1016360510**

Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	EPA
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	95406108
Start Date:	2011-05-11 00:00:00
Ownership Entity:	Not reported
Additional Institutional Controls Information:	Not reported
Completion Date:	Not reported
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	U
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	N
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	N
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	N
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported
Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Unknown
RLF Loan - Program Income Used:	Not reported

428-434 MAIN ST. (Continued) **1016360510**

Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	Not reported
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	875
Below Poverty Percent:	24.19
Meidan Income:	6672
Meidan Income Number:	1760
Meidan Income Percent:	48.66
Vacant Housing Number:	559
Vacant Housing Percent:	22.8
Unemployed Number:	116
Unemployed Percent:	3.21

FINDS:
Registry ID: 110044763002

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding, as well as information on Targeted Brownfields Assessments (TBA) performed by EPA Regions.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

I42 **DICKS STANDARD SERVICE INC** **UST FINDER** **1028361554**
ESE **434 MAIN ST** **UST FINDER RELEASE** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.359 mi.
1898 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
510 ft.

UST FINDER:

Object ID:	188121
Facility ID:	KY1364059
Name:	DICKS STANDARD SERVICE INC
Address:	434 MAIN ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	10
TOS USTs:	0
Population 1500ft:	1216
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.5174959999999
Y Coord:	39.0857780000001
Latitude:	39.085778
Longitude:	-84.517496

UST FINDER:

Object ID:	624910
Facility ID:	KY1364059
Tank ID:	KY1364059_10_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	Not reported
Tank Capacity:	560
Substances:	Used Oil
Tank Wall Type:	Single

Object ID:	583379
Facility ID:	KY1364059
Tank ID:	KY1364059_7_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	1000
Substances:	Gasoline
Tank Wall Type:	Single

DICKS STANDARD SERVICE INC (Continued) **1028361554**

Object ID:	583380
Facility ID:	KY1364059
Tank ID:	KY1364059_9_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	2000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	583381
Facility ID:	KY1364059
Tank ID:	KY1364059_8_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	140
Substances:	Used Oil
Tank Wall Type:	Single

Object ID:	583382
Facility ID:	KY1364059
Tank ID:	KY1364059_6_1
Tank Status:	Closed
Installation Date:	Not reported
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	1000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	583383
Facility ID:	KY1364059
Tank ID:	KY1364059_3_1
Tank Status:	Closed
Installation Date:	1966/01/01 16:00:01+00
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	10000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	583384
Facility ID:	KY1364059
Tank ID:	KY1364059_2_1
Tank Status:	Closed
Installation Date:	1966/01/01 16:00:01+00
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	5000
Substances:	Gasoline
Tank Wall Type:	Single

Object ID:	583385
Facility ID:	KY1364059
Tank ID:	KY1364059_5_1
Tank Status:	Closed
Installation Date:	1966/01/01 16:00:01+00
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	500

DICKS STANDARD SERVICE INC (Continued) **1028361554**

Substances:	Oil
Tank Wall Type:	Single
Object ID:	583386
Facility ID:	KY1364059
Tank ID:	KY1364059_4_1
Tank Status:	Closed
Installation Date:	1966/01/01 16:00:01+00
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	10000
Substances:	Diesel
Tank Wall Type:	Single
Object ID:	583387
Facility ID:	KY1364059
Tank ID:	KY1364059_1_1
Tank Status:	Closed
Installation Date:	1982/01/01 16:00:00+00
Removal Date:	2000/03/01 15:59:59+00
Tank Capacity:	8000
Substances:	Gasoline
Tank Wall Type:	Not reported

UST FINDER RELEASE:

Object ID:	178012
Facility ID:	KY60330
Lust ID:	KY6241
Name:	DICKS STANDARD SERVICE INC
Address:	434 MAIN ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	1211
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State

DICKS STANDARD SERVICE INC (Continued) **1028361554**

X Coord:	-84.5175
Y Coord:	39.0857800000001
Latitude:	39.08578
Longitude:	-84.5174999999999

J43 **JOHNSON STREET DRUM** **KY SHWS** **S113401913**
East **201 JOHNSON STREET** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.394 mi.
2081 ft. **Site 1 of 3 in cluster J**

Relative: **Higher**
Actual: **489 ft.**

SHWS:

Name:	JOHNSON STREET DRUM
Address:	201 JOHNSON STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	117473
Status:	**Closed**
Description:	Johnson Street Drum (Closed: Restored 8/17/1992)
Closure Date:	08/17/1992
Longitude:	-84.516554
Latitude:	39.088524
Subject Item County:	Kenton
Sub Item Longitude:	-84.516553
Sub Item Latitude:	39.088524
Subject Item Address:	201 Johnson St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option C Restored
Side SG:	Abandoned Drums
Acreage:	Not reported

---

44 **THE CINCINNATI GASLIGHT AND COKE COMPANY** **EDR MGP** **1008407569**
North **MEHRING WAY** **N/A**
1/4-1/2 **CINCINNATI, OH 45203**
0.396 mi.
2091 ft.

Relative: **Higher**
Actual: **499 ft.**

EDR MGP:

No additional information available

K45 **409-435 JOHNSON ST.** **US BROWNFIELDS** **1023618810**
ESE **409-435 JOHNSON ST.** **FINDS** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.412 mi.
2177 ft. **Site 1 of 2 in cluster K**

Relative: **Higher**
Actual: **507 ft.**

US BROWNFIELDS:

Name:	409-435 JOHNSON ST.
Address:	409-435 JOHNSON ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	231682
Property Alias:	Not reported

409-435 JOHNSON ST. (Continued) **1023618810**

Recipient Name:	Northern Kentucky Area Development District
Grant Type:	Hazardous
Property Number:	054-21-01-012.00
Parcel Size:	1.19
Latitude:	39.0861608
Longitude:	-84.5161117
Census Tract:	21117067000
State or Tribal Voluntary Response Program:	Not reported
Program Name:	BF
AA Activity Funded:	Phase I
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Activity Funded:	Phase I
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	EPA
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	00D24914
Start Date:	2016-09-20 00:00:00
Ownership Entity:	Not reported
Additional Institutional Controls Information:	Not reported
Completion Date:	2016-10-05 00:00:00
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	U
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	U
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported
IC in place:	Not reported
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	Not reported
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported

409-435 JOHNSON ST. (Continued) **1023618810**

Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	Not reported
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported
Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Building Materials
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	0.36
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported
Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	879
Below Poverty Percent:	22.84
Meidan Income:	6093
Meidan Income Number:	1754
Meidan Income Percent:	45.58
Vacant Housing Number:	576

409-435 JOHNSON ST. (Continued) **1023618810**

Vacant Housing Percent:	21.94
Unemployed Number:	120
Unemployed Percent:	3.12
Name:	409-435 JOHNSON ST.
Address:	409-435 JOHNSON ST.
City,State,Zip:	COVINGTON, KY 41011
Property ID:	231682
Property Alias:	Not reported
Recipient Name:	Northern Kentucky Area Development District
Grant Type:	Hazardous
Property Number:	054-21-01-012.00
Parcel Size:	1.19
Latitude:	39.0861608
Longitude:	-84.5161117
Census Tract:	21117067000
State or Tribal Voluntary Response Program:	Not reported
Program Name:	BF
AA Activity Funded:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Activity Funded:	Phase I
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Contaminants REC:	Not reported
Contaminants Found at Actionable Level:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Contaminants Found Below Actionable Level:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Climate Adapt Mitig - Planning or Assessment:	Not reported
Cooperative Agreement Number:	00D24914
Start Date:	Not reported
Ownership Entity:	Not reported
Additional Institutional Controls Information:	Not reported
Completion Date:	Not reported
Address of Data Sources (URL if available) 1:	Not reported
Cleanup Required:	U
Indicates Cleanup/Treatment Tech Implemented:	Not reported
Institutional Controls Required:	U
IC Category Proprietary Controls:	Not reported
Excavation and Disposal of Soils:	Not reported
Extraction of contaminants:	Not reported
IC Cat. Info. Devices:	Not reported
Removal of materials (tanks and piping, etc.):	Not reported
IC Cat. Gov. Controls:	Not reported
Reduction of Contam Bioremediation/Phytoremediation:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
Cleanup of structures:	Not reported
IC in place date:	Not reported
Additional Cleanup/Treatment Tech Info:	Not reported

409-435 JOHNSON ST. (Continued) **1023618810**

IC in place:	Not reported
Address of Data Source (URL if available) 2:	Not reported
Indicate whether Engineering Controls are required:	Not reported
State/tribal program ID:	Not reported
Cover Technologies (e.g., Capping):	Not reported
Security (e.g., Guard, Fence):	Not reported
Immobilization Process:	Not reported
Engineering Barriers (e.g., Slurry Walls, Sheet):	Not reported
Other:	Not reported
Additional Engineering Controls Information:	Not reported
Address of Data Source (URL if available) 3:	Not reported
Indicate whether Engineering Controls are in place:	Not reported
Date Engineering Controls put into place:	Not reported
ACRES Cleaned Up:	Not reported
Section 128(a) State/Tribal:	Not reported
Multipurpose - Cost Share Amount:	Not reported
Cleanup - Cost Share Amount:	Not reported
RLF Loan - Total Loan Amount:	Not reported
RLF - Loan Signed Date:	Not reported
RLF Loan - Anticipated Repayment Start Date:	Not reported
RLF Loan - Anticipated Repayment End Date:	Not reported
RLF Loan - Interest Rate:	Not reported
RLF Loan - EPA Funds Used:	Not reported
Contaminant Cleanup:	Not reported
RLF Loan - Cost Share Used:	Not reported
Media Affected:	Building Materials
RLF Loan - Program Income Used:	Not reported
Media Cleanup:	Not reported
RLF Loan - Discounted:	Not reported
RLF Loan - Discount Percentage:	Not reported
RLF Subgrant - Total Subgrant Amount:	Not reported
RLF Subgrant - Signed Date:	Not reported
RLF Subgrant - EPA Funds Used:	Not reported
RLF Subgrant - Cost Share Used:	Not reported
RLF Subgrant - Program Income Used:	Not reported
RLF Direct Cleanup - Total Funding Amt:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
RLF Direct Cleanup - Source of Funding:	Not reported
RLF Leveraged - Funding Source Type:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
RLF Leveraged - Entity Providing Funding:	Not reported
RLF Leveraged - Funding Amount:	Not reported
Cleanup Completion Doc - NFA Letter Received:	N
Past use commercial acreage:	0.36
NFA Letter Date Received:	Not reported
Past use industrial acreage:	Not reported
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	Not reported
Letter/Signed Report Date Received:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Cleanup Completion Doc- Other forms of Doc:	Not reported
Future use industrial acreage:	Not reported
Climate Adapt and Mitiga - Demo or Cleanup:	Not reported
ReDev Activity Funded:	Not reported
Amount of Funding Expended on this Activity 2:	Not reported

409-435 JOHNSON ST. (Continued) **1023618810**

Number of Redevelopment Jobs Leveraged:	Not reported
Climate Adaptation and Mitigation Redevelopment:	Not reported
Radius:	0.5
Below Poverty Number:	879
Below Poverty Percent:	22.84
Meidan Income:	6093
Meidan Income Number:	1754
Meidan Income Percent:	45.58
Vacant Housing Number:	576
Vacant Housing Percent:	21.94
Unemployed Number:	120
Unemployed Percent:	3.12

FINDS:
Registry ID: 110070057717

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding, as well as information on Targeted Brownfields Assessments (TBA) performed by EPA Regions.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

J46 **INTERNAL REVENUE SERVICE** **KY SHWS S106885776**
East **201 W RIVER CENTER BLVD** **KY AIRS N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.419 mi.
2210 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
488 ft.

SHWS:

Name:	INTERNAL REVENUE SERVICE
Address:	201 W RIVER CENTER BLVD
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	52905
Status:	**Closed**
Description:	INTERNAL REVENUE (Closed: Non-Incident)
Closure Date:	04/03/1996
Longitude:	-84.515913
Latitude:	39.088169
Subject Item County:	Kenton
Sub Item Longitude:	-84.513712
Sub Item Latitude:	39.087831
Subject Item Address:	201 W River Center Blvd
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Non-Incident
Side SG:	39381
Acreage:	Not reported

AIRS:

Name:	INTERNAL REVENUE SERVICE
Address:	201 W RIVER CENTER BLVD

INTERNAL REVENUE SERVICE (Continued) **S106885776**

City,State,Zip:	COVINGTON, KY 41011
Facility:	2111700193
Mailing Address 3:	Not reported
Emps:	2000
Plant Class Description:	R; Registered Source
Acreage:	1.00
Alternate Facility Name:	Internal Revenue Service
Alternate Facility End Date:	Not reported
Principal Product:	taxes
State Plant Class Code:	R000
DAQ AI Type:	GOVT- Federal Agency/Organization (92)
DAQ Reg Comment:	Not reported
Mailing Address Line 2:	Not reported
Inspector Assigned AI:	Natalie Cox
Last Inspection Lead:	Not reported
Last Inspection Date:	Not reported
Air Programs:	0-SIP Source; 9-NSPS; G-Area Source MACT
Air Subparts:	Not Applicable; 9-IIII-Compression Igntion Int. Comb Eng; G-ZZZZ-Recipro. Int. Comb Engine (RICE)

Emission:

Year:	2022
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2022
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2022
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2022
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Emissions Document:	Not reported
Year:	2022
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2022
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2011
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2011
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011

INTERNAL REVENUE SERVICE (Continued) **S106885776**

County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2016
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2016
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service

INTERNAL REVENUE SERVICE (Continued) **S106885776**

AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2020
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2020
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2013
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2013
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2013
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2013
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2013
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2013
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021

INTERNAL REVENUE SERVICE (Continued) **S106885776**

County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM2.5 (Particulate Matter - 2.5 Microns Or Less)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Nitrous Oxide
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service

INTERNAL REVENUE SERVICE (Continued) **S106885776**

AI ID:	52905
Pollutant:	Methane
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Lead
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Formaldehyde
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Carbon Dioxide
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Xylenes (Total)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Toluene
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM2.5 (Particulate Matter - 2.5 Microns Or Less)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021

INTERNAL REVENUE SERVICE (Continued) **S106885776**

County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Carbon Dioxide
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Benzene
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Benzene
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Carbon Dioxide
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service

INTERNAL REVENUE SERVICE (Continued) **S106885776**

AI ID:	52905
Pollutant:	Formaldehyde
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Lead
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Methane
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Nitrous Oxide
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM2.5 (Particulate Matter - 2.5 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Toluene
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	Xylenes (Total)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2015

INTERNAL REVENUE SERVICE (Continued) **S106885776**

County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2015
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2015
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2015
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2015
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2015
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2010
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	9.5032599999999995E-3
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2010
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service

INTERNAL REVENUE SERVICE (Continued) **S106885776**

AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0.0337784
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2010
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	2.3958199999999999E-3
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2010
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	2.3958199999999999E-3
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2010
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	2.0063800000000003E-3
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2010
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0.00259399
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Emissions Document:	Not reported
Year:	2012
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2012
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2012
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2012
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2012
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2012
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2014
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	CO (Carbon Monoxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2014

INTERNAL REVENUE SERVICE (Continued) **S106885776**

County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	NO2 (Nitrogen Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2014
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PM10 (Particulate Matter - 10 Microns Or Less)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2014
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	PT (Particulate Matter)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2014
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	SO2 (Sulfur Dioxide)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2014
County:	Kenton
Facility ID:	2111700193
Facility Name:	Internal Revenue Service
AI ID:	52905
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	0
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported

INTERNAL REVENUE SERVICE (Continued) **S106885776**

Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

J47 **INTERNAL REVENUE SERVICE** **UST FINDER** **1028367763**
East **201 W RIVER CENTER BLVD** **UST FINDER RELEASE** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.419 mi.
2210 ft. **Site 3 of 3 in cluster J**

Relative:
Higher

Actual:
488 ft.

UST FINDER:

Object ID:	188145
Facility ID:	KY4287059
Name:	INTERNAL REVENUE SERVICE
Address:	201 W RIVER CENTER BLVD
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	1
TOS USTs:	0
Population 1500ft:	521
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.515913
Y Coord:	39.0881690000001
Latitude:	39.088169
Longitude:	-84.515913

UST FINDER:

Object ID:	595213
Facility ID:	KY4287059
Tank ID:	KY4287059_3_1
Tank Status:	Closed
Installation Date:	1966/01/01 16:00:01+00
Removal Date:	1995/10/01 15:59:59+00
Tank Capacity:	8000
Substances:	Diesel
Tank Wall Type:	Single

INTERNAL REVENUE SERVICE (Continued) **1028367763**

UST FINDER RELEASE:

Object ID:	178023
Facility ID:	KY52905
Lust ID:	KY3119
Name:	INTERNAL REVENUE SERVICE
Address:	201 W RIVER CENTER BLVD
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	519
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.51591
Y Coord:	39.08817
Latitude:	39.0881699999999
Longitude:	-84.51591

48
NNW
1/4-1/2
0.445 mi.
2350 ft.

OHIO RIVER CO **UST FINDER RELEASE** **1029082571**
725 MEHRING WAY **N/A**
CINCINNATI, OH 0

Relative:
Lower

Actual:
486 ft.

UST FINDER RELEASE:

Object ID:	294271
Facility ID:	OH31010079
Lust ID:	OH31010079-N00001
Name:	OHIO RIVER CO
Address:	725 MEHRING WAY
City,State,Zip:	CINCINNATI, OH 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	No Further Action
Substance:	Not reported
Population within 1500ft:	0
Domestic Wells within 1500ft:	0

OHIO RIVER CO (Continued) **1029082571**

Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	5
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.52541
Y Coord:	39.0942700000001
Latitude:	39.09427
Longitude:	-84.5254099999999

K49 **LIBERTY TOBACCO** **KY SB193** **S105701635**
ESE **235 W 5TH ST** **KY AIRS** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.456 mi.
2409 ft. **Site 2 of 2 in cluster K**

Relative:
Higher

Actual:
509 ft.

Client Plot

KY SENATE BILL 193 INVENTORY:

KY SENATE BILL 193 INVENTORY:	CLW
Facility ID:	8623059
Soil / Groundwater:	Soil
Agency Interest Number:	38729

AIRS:

Name:	LIBERTY TOBACCO
Address:	235 W 5TH ST
City,State,Zip:	COVINGTON, KY 41011
Facility:	2111700668
Mailing Address 3:	Not reported
Emps:	4
Plant Class Description:	R; Registered Source
Acreage:	Not reported
Alternate Facility Name:	Derricks BP
Alternate Facility End Date:	Not reported
Principal Product:	SERV STATN
State Plant Class Code:	R000
DAQ AI Type:	RETAIL- Retail Trade, Gasoline Stations (447)
DAQ Reg Comment:	Not reported
Mailing Address Line 2:	Not reported
Inspector Assigned AI:	Maria Schmitt
Last Inspection Lead:	Not reported
Last Inspection Date:	Not reported
Air Programs:	0-SIP Source

LIBERTY TOBACCO (Continued) **S105701635**

Air Subparts: Not Applicable

Emission:

Year:	2022
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.029851
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	Gasoline
Actual Emissions:	Not reported

LIBERTY TOBACCO (Continued) **S105701635**

Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported

LIBERTY TOBACCO (Continued) **S105701635**

Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021

LIBERTY TOBACCO (Continued) **S105701635**

County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2011
County:	Kenton
Facility ID:	2111700668
Facility Name:	Derricks BP
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported

LIBERTY TOBACCO (Continued) **S105701635**

Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700668
Facility Name:	Warsaw Carwash dba Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.029851
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported

LIBERTY TOBACCO (Continued) **S105701635**

Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700668
Facility Name:	Warsaw Carwash dba Liberty Tobacco
AI ID:	38729
Pollutant:	Gasoline
Actual Emissions:	2.025126
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700668
Facility Name:	Warsaw Carwash dba Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.029851
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2013
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco

LIBERTY TOBACCO (Continued) **S105701635**

AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2015
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2010
County:	Kenton
Facility ID:	2111700668
Facility Name:	Derricks BP
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported

LIBERTY TOBACCO (Continued) **S105701635**

Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2012
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2014
County:	Kenton
Facility ID:	2111700668
Facility Name:	Liberty Tobacco
AI ID:	38729
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.0298509999999998
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported

LIBERTY TOBACCO (Continued) **S105701635**

Emissions Document: Not reported

50
North
1/4-1/2
0.466 mi.
2459 ft.

DUKE ENERGY OHIO WEST END MFG GAS PLANT, FRMR, CIN **OH VCP** **S129092430**
646 W MEHRING WAY **N/A**
CINCINNATI, OH 45202

Relative:
Higher

Actual:
490 ft.

OH VCP:

Name:	DUKE ENERGY OHIO WEST END MFG GAS PLANT, FRMR, CINCINNATI
Address:	646 W MEHRING WAY
Address 2:	Not reported
City,State,Zip:	CINCINNATI, OH 45202-
OH EPA District:	SWDO
Alias Name:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Old Program Id:	Not reported
Project Type:	VAP Technical Assistance
DERR ID:	531003574

51
ESE
1/4-1/2
0.470 mi.
2481 ft.

WARSAW CARWASH DBA COVINGTON GULF **UST FINDER** **1028372637**
235 W 5TH ST **UST FINDER RELEASE** **N/A**
COVINGTON, KY 41011

Relative:
Higher

Actual:
511 ft.

UST FINDER:

Object ID:	188113
Facility ID:	KY8623059
Name:	WARSAW CARWASH DBA COVINGTON GULF
Address:	235 W 5TH ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	2
Closed USTs:	0
TOS USTs:	0
Population 1500ft:	1745
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, Medium Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Open UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported

WARSAW CARWASH DBA COVINGTON GULF (Continued) **1028372637**

Coordinate Source:	State
X Coord:	-84.515569
Y Coord:	39.085221
Latitude:	39.085221
Longitude:	-84.515569

UST FINDER:

Object ID:	623139
Facility ID:	KY8623059
Tank ID:	KY8623059_3_1
Tank Status:	Open
Installation Date:	1977/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	PRM
Tank Wall Type:	Not reported

Object ID:	623140
Facility ID:	KY8623059
Tank ID:	KY8623059_2_1
Tank Status:	Open
Installation Date:	1977/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	REG
Tank Wall Type:	Not reported

UST FINDER RELEASE:

Object ID:	178027
Facility ID:	KY38729
Lust ID:	KY3817
Name:	WARSAW CARWASH DBA COVINGTON GULF
Address:	235 W 5TH ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	1742
Domestic Wells within 1500ft:	0
Land Use:	Developed, Medium Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported

WARSAW CARWASH DBA COVINGTON GULF (Continued) **1028372637**

NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.51557
Y Coord:	39.08522
Latitude:	39.08522
Longitude:	-84.5155699999999

L52 **CIRCLE K #3319** **UST FINDER** **1028370813**
ESE **207 W 4TH ST** **UST FINDER RELEASE** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.491 mi.
2591 ft. **Site 1 of 2 in cluster L**

Relative:
Higher

Actual:
500 ft.

UST FINDER:

Object ID:	188130
Facility ID:	KY6746059
Name:	CIRCLE K #3319
Address:	207 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Address Match Type:	Not reported
Open USTs:	3
Closed USTs:	1
TOS USTs:	0
Population 1500ft:	954
Private Wells 1500ft:	0
Within 100yr Floodplain:	No
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Open UST(s)
Date of Last Inspection:	Not reported
EPA Region:	4
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-84.5147219999999
Y Coord:	39.086667
Latitude:	39.086667
Longitude:	-84.514722

UST FINDER:

Object ID:	611401
Facility ID:	KY6746059
Tank ID:	KY6746059_2_1
Tank Status:	Closed
Installation Date:	1968/01/01 16:00:01+00
Removal Date:	1987/01/01 16:00:00+00
Tank Capacity:	1000
Substances:	Oil

CIRCLE K #3319 (Continued) **1028370813**

Tank Wall Type:	Single
Object ID:	622141
Facility ID:	KY6746059
Tank ID:	KY6746059_4_1
Tank Status:	Open
Installation Date:	1984/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	REG
Tank Wall Type:	Not reported
Object ID:	622142
Facility ID:	KY6746059
Tank ID:	KY6746059_5_1
Tank Status:	Open
Installation Date:	1984/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	PRM
Tank Wall Type:	Not reported
Object ID:	622143
Facility ID:	KY6746059
Tank ID:	KY6746059_3_1
Tank Status:	Open
Installation Date:	1984/01/01 16:00:00+00
Removal Date:	Not reported
Tank Capacity:	10000
Substances:	REG
Tank Wall Type:	Not reported

UST FINDER RELEASE:

Object ID:	178031
Facility ID:	KY38722
Lust ID:	KY3265
Name:	CIRCLE K #3319
Address:	207 W 4TH ST
City,State,Zip:	COVINGTON, KY 0
Address Match Type:	Not reported
Reported Date:	Not reported
Status:	Unkown
Substance:	Not reported
Population within 1500ft:	949
Domestic Wells within 1500ft:	0
Land Use:	Developed, High Intensity
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported

CIRCLE K #3319 (Continued) **1028370813**

Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	4
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.51472
Y Coord:	39.08667
Latitude:	39.0866699999999
Longitude:	-84.5147199999999

L53 **CIRCLE K #3319** **KY SB193** **U001184241**
ESE **207 W 4TH ST** **KY AIRS** **N/A**
1/4-1/2 **COVINGTON, KY 41011**
0.491 mi.
2591 ft. **Site 2 of 2 in cluster L**

Relative: **Higher**

Actual: **500 ft.**

KY SENATE BILL 193 INVENTORY:

KY SENATE BILL 193 INVENTORY:	SIW
Facility ID:	6746059
Soil / Groundwater:	Groundwater
Agency Interest Number:	38722

AIRS:

Name:	CIRCLE K #3319
Address:	207 W 4TH ST
City,State,Zip:	COVINGTON, KY 41011
Facility:	2111700650
Mailing Address 3:	Not reported
Emps:	4
Plant Class Description:	R; Registered Source
Acreage:	0.50
Alternate Facility Name:	Equilon Enterprises Llc
Alternate Facility End Date:	Not reported
Principal Product:	SERV STATN
State Plant Class Code:	R000
DAQ AI Type:	RETAIL- Retail Trade, Gasoline Stations (447)
DAQ Reg Comment:	Not reported
Mailing Address Line 2:	Not reported
Inspector Assigned AI:	Maria Schmitt
Last Inspection Lead:	Not reported
Last Inspection Date:	Not reported
Air Programs:	0-SIP Source
Air Subparts:	Not Applicable

Emission:

Year:	2022
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.209939
Subject Item Designation:	Not reported
ID Number:	Not reported

CIRCLE K #3319 (Continued) **U001184241**

Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported

CIRCLE K #3319 (Continued) **U001184241**

Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700650

CIRCLE K #3319 (Continued) **U001184241**

Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported

CIRCLE K #3319 (Continued) **U001184241**

Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2021
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	Gasoline
Actual Emissions:	Not reported
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2011
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported

CIRCLE K #3319 (Continued) **U001184241**

Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2016
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2020
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.209939
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported
Year:	2017
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	Gasoline

CIRCLE K #3319 (Continued) **U001184241**

Actual Emissions:	2.182894
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2017
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.209939
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2013
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported

CIRCLE K #3319 (Continued) **U001184241**

Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2015
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2010
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

CIRCLE K #3319 (Continued) **U001184241**

Year:	2012
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

Year:	2014
County:	Kenton
Facility ID:	2111700650
Facility Name:	Circle K #3319
AI ID:	38722
Pollutant:	VOC (Volatile Organic Compounds)
Actual Emissions:	2.2099389999999999
Subject Item Designation:	Not reported
ID Number:	Not reported
Longitude:	Not reported
Latitude:	Not reported
Coordinate System:	Not reported
Datum:	Not reported
Estimated Emissions (ton/year):	Not reported
PTE Emissions (tons/yr):	Not reported
Stack Diameter(ft):	Not reported
Stack Height (ft):	Not reported
Stack Flow Rate (cubic ft/min):	Not reported
Stack Velocity (ft/sec):	Not reported
Temperature (F):	Not reported
Plume Height (ft):	Not reported
Construction DT:	Not reported
Emissions Document:	Not reported

54
SE
1/2-1
0.522 mi.
2757 ft.

WECKMAN PROPERTY
715 WILLARD STREET
COVINGTON, KY 41011

KY SHWS **S120760928**
KY CDL **N/A**

Relative:
Higher

Actual:
520 ft.

SHWS:

Name:	WECKMAN PROPERTY
Address:	715 WILLARD STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	133418
Status:	**Closed**
Description:	715 Willard Street Meth Lab (Closed 3/21/2017)
Closure Date:	03/21/2017
Longitude:	-84.516914
Latitude:	39.082206
Subject Item County:	Kenton
Sub Item Longitude:	-84.516914
Sub Item Latitude:	39.082205
Subject Item Address:	715 Willard St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option C Restored
Side SG:	Meth Lab
Acreage:	Not reported

CDL:

Name:	WECKMAN PROPERTY
Address:	715 WILLARD STREET
Address 2:	Not reported
City,State,Zip:	COVINGTON, KY 41011
Site Status:	Closed
Facility Group:	AAZZ0001
Agency Interest Id Number:	133418
Designation:	Meth Lab
Description:	715 Willard Street Meth Lab (Closed 3/21/2017)
Regulatory Description:	State Superfund
Closure Option:	Option C Restored
Closure Date:	03/21/2017
Latitude:	39.08221
Longitude:	-84.51691

M55
SSE
1/2-1
0.589 mi.
3111 ft.

WILLOW RUN DRIVE THRU ABANDONED DRUMS
9TH & WILLOW RUN
COVINGTON, KY 41011

KY SHWS **S127509287**
N/A

Site 1 of 2 in cluster M

Relative:
Higher

Actual:
507 ft.

SHWS:

Name:	WILLOW RUN DRIVE THRU ABANDONED DRUMS
Address:	9TH & WILLOW RUN
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	53506
Status:	**Closed**
Description:	9TH & 7TH WILLOW RUN (Closed: Restored)
Closure Date:	11/06/1996
Longitude:	-84.519894
Latitude:	39.078783

WILLOW RUN DRIVE THRU ABANDONED DRUMS (Continued) **S127509287**

Subject Item County:	Kenton
Sub Item Longitude:	-84.519904
Sub Item Latitude:	39.078946
Subject Item Address:	Jct of 9th St & WIllow Run St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41010
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Option C Restored
Side SG:	38731
Acreage:	Not reported

M56 **A & R INVESTMENTS** **KY SHWS** **S106885787**
SSE **W 9TH STREET** **N/A**
1/2-1 **COVINGTON, KY 41011**
0.590 mi.
3115 ft. **Site 2 of 2 in cluster M**

Relative: Higher
Actual: 511 ft.

SHWS:

Name:	A & R INVESTMENTS
Address:	W 9TH STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	53284
Status:	**Closed**
Description:	A & R INVESTMENTS, ROBERT KLENSCH (Closed: Restored)
Closure Date:	12/30/2000
Longitude:	-84.520165
Latitude:	39.079556
Subject Item County:	Kenton
Sub Item Longitude:	-84.520165
Sub Item Latitude:	39.079555
Subject Item Address:	W 9th St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option C Restored
Side SG:	38792
Acreage:	Not reported

N57 **MOTHER OF GOD CHURCH** **KY SHWS** **S106885783**
ESE **119 WEST 6TH STREET** **N/A**
1/2-1 **COVINGTON, KY 41011**
0.628 mi.
3317 ft. **Site 1 of 2 in cluster N**

Relative: Higher
Actual: 522 ft.

SHWS:

Name:	MOTHER OF GOD CHURCH
Address:	119 WEST 6TH STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	53119
Status:	**Closed**
Description:	MOTHER OF GOD CHURCH (Closed: Restored)
Closure Date:	07/11/1996
Longitude:	-84.512513
Latitude:	39.084023
Subject Item County:	Kenton
Sub Item Longitude:	-84.513019

MOTHER OF GOD CHURCH (Continued) **S106885783**

Sub Item Latitude:	39.084038
Subject Item Address:	119 W 6th St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Option C Restored
Side SG:	32062
Acreage:	Not reported

---

58 SSE 1/2-1 0.642 mi. 3392 ft. **WILLOW RUN DRIVE THRU ABANDONED DRUMS** **KY SHWS** **S106885798**
928 WILLOW RUN **N/A**
COVINGTON, KY 41011

Relative: Higher
Actual: 499 ft.

SHWS:

Name:	WILLOW RUN DRIVE THRU ABANDONED DRUMS
Address:	928 WILLOW RUN
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	53506
Status:	**Closed**
Description:	WILLOW RUN DRIVE THRU (Closed: Restored)
Closure Date:	07/05/1994
Longitude:	-84.519894
Latitude:	39.078783
Subject Item County:	Kenton
Sub Item Longitude:	-84.519766
Sub Item Latitude:	39.078885
Subject Item Address:	Jct of 9th St & WIllow Run St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41010
Regulatory Desc:	State Superfund
Closure Option:	Option C Restored
Side SG:	32336
Acreage:	Not reported

N59 ESE 1/2-1 0.664 mi. 3507 ft. **FIRESTONE STORE** **KY SHWS** **U003415677**
6TH & WASHINGTON ST **KY UST** **N/A**
COVINGTON, KY 41011

Site 2 of 2 in cluster N

Relative: Higher
Actual: 521 ft.

SHWS:

Name:	FIRESTONE STORE
Address:	6TH & WASHINGTON STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	52805
Status:	**Closed**
Description:	FIRESTONE STORE (Closed: No Action Necessary)
Closure Date:	01/04/1999
Longitude:	-84.511655
Latitude:	39.084244
Subject Item County:	Kenton
Sub Item Longitude:	-84.511653
Sub Item Latitude:	39.084257
Subject Item Address:	6th & Washington St

FIRESTONE STORE (Continued) **U003415677**

Subject Item Address2: Not reported
Subject Item City,St,Zip: Covington, KY 41011
Regulatory Desc: Petroleum Cleanup
Closure Option: Option A No Action Necessary
Side SG: 37332
Acreage: Not reported

UST:
Name: FIRESTONE STORE
Address: 6TH & WASHINGTON ST
City,State,Zip: COVINGTON, KY 41011
Sequence Id: 1827059
Facility ID: 52805
Owner Name: Bridgestone/Firestone Inc
Owner Address: 2550 W Golf Rd 3rd Fl
Owner Address2: Not reported
Owner Address3: Not reported
Owner City,St,Zip: Rolling Meadows, IL 60008
Internal Document ID: 0
Latitude: -84.511655
Longitude: 39.084244

Inert Material: Not reported
Removed Date: 10/19/1993
Change in Service Date: Not reported
Tank Pit Num: Not reported
Tank Mfg: Not reported
Tank EXT Corr Protect: Unknown
Tank Overfill Protection: Unknown
Last Tank Test Date: Not reported
Relined Date: Not reported
Lining Insp Date: Not reported
Pipe Release Detection: Unknown
Pipe Rel Detect Suc: Unknown
Pipe Leak Detect: Not reported
Last Contained Date: Not reported
Pipe Mfg: Not reported
Last Pipe Test Date: Not reported
Last CP Test Date: Not reported
Added To Flex Date: Not reported
Added To Piping Date: Not reported
Tank Material: Unknown
Tank Release Detect: None
Tank Int Protect: Unknown
Pipe Material: Unknown
Pipe Ext Corr Protect: Unknown
Pipe Type: Unknown
Tank Substance: Used Oil
Subject Item ID: 1
Tank Status: Exempt
Installation Date: 01/01/1901
Closed In Place Date: Not reported
Capacity in Gallons: 55
Compartment Number: 1
Piping Installation Date: Not reported
Added To Tank Date: Not reported

60
ESE
1/2-1
0.673 mi.
3552 ft.

PIKE STREET PROPERTY
114 W PIKE ST
COVINGTON, KY 41011

KY SHWS **S109943914**
N/A

Relative:
Higher

Actual:
524 ft.

SHWS:

Name:	PIKE STREET PROPERTY
Address:	114 W PIKE ST
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	105295
Status:	**Closed**
Description:	phase II under Federal Brownfields program
Closure Date:	02/11/2015
Longitude:	-84.512198
Latitude:	39.083254
Subject Item County:	Kenton
Sub Item Longitude:	-84.512197
Sub Item Latitude:	39.083253
Subject Item Address:	114 W Pike St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option A No Action Necessary
Side SG:	Not reported
Acreage:	Not reported

61
SSE
1/2-1
0.736 mi.
3884 ft.

INCISA USA INC SPILL
I-75 RAMP AT INTERSECTION WITH PIKE ST.
COVINGTON, KY 41011

KY SHWS **S109012564**
N/A

Relative:
Higher

Actual:
504 ft.

SHWS:

Name:	INCISA USA INC SPILL
Address:	I-75 RAMP AT INTERSECTION WITH PIKE ST.
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	99420
Status:	**Closed**
Description:	I-75 SEALER SPILL (Closed: Restored)
Closure Date:	07/28/1994
Longitude:	-84.520959
Latitude:	39.077211
Subject Item County:	Kenton
Sub Item Longitude:	-84.520959
Sub Item Latitude:	39.077210
Subject Item Address:	Jct of I-75 Ramp & Pike St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option C Restored
Side SG:	32934
Acreage:	Not reported

62
East
1/2-1
0.762 mi.
4022 ft.

SCOTT STREET PROPERTY
409-415 SCOTT BLLVD
COVINGTON, KY 41011

KY SHWS **S109943926**
N/A

Relative:
Higher

Actual:
510 ft.

SHWS:

Name:	SCOTT STREET PROPERTY
Address:	409-415 SCOTT BLLVD
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	105296
Status:	**Active**
Description:	part of 128a assessment grant for the city of Covington
Closure Date:	Not reported
Longitude:	-84.512378
Latitude:	39.083458
Subject Item County:	Kenton
Sub Item Longitude:	-84.509533
Sub Item Latitude:	39.086905
Subject Item Address:	409 Scott St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Not reported
Side SG:	Not reported
Acreage:	0.16

63
SSE
1/2-1
0.778 mi.
4107 ft.

GLIERS GOETTA CO
533 GOETTA PLACE
COVINGTON, KY 41011

KY SHWS **S123196994**
N/A

Relative:
Higher

Actual:
505 ft.

SHWS:

Name:	GLIERS GOETTA CO
Address:	533 GOETTA PLACE
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	64929
Status:	**Active**
Description:	Gliers Meats Inc.
Closure Date:	Not reported
Longitude:	-84.517730
Latitude:	39.077442
Subject Item County:	Kenton
Sub Item Longitude:	-84.518282
Sub Item Latitude:	39.077233
Subject Item Address:	533 Goetta Pl
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Not reported
Side SG:	Petroleum in water well
Acreage:	0.64

64
ESE
1/2-1
0.787 mi.
4154 ft.

COVINGTON LANDFILL
638 MADISON AVE.
COVINGTON, KY 41011

KY SHWS **S109615453**
N/A

Relative:
Higher

Actual:
515 ft.

SHWS:

Name:	COVINGTON LANDFILL
Address:	638 MADISON AVE.
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	52228
Status:	**Closed**
Description:	Closed: Referred to Solid Waste Branch 29 Aug 2008 - COVINGTON LANDFILL
Closure Date:	08/29/2008
Longitude:	-84.499417
Latitude:	39.038778
Subject Item County:	Kenton
Sub Item Longitude:	-84.499422
Sub Item Latitude:	39.038787
Subject Item Address:	Unnamed Rd 35
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Referred
Side SG:	17010
Acreage:	Not reported

65
ENE
1/2-1
0.802 mi.
4233 ft.

BRIDGE FOREMAN OFFICE
JCT OF E 2ND ST & ROEBLING
COVINGTON, KY 41094

KY SHWS **S109943870**
N/A

Relative:
Higher

Actual:
501 ft.

SHWS:

Name:	BRIDGE FOREMAN OFFICE
Address:	JCT OF E 2ND ST & ROEBLING
City,State,Zip:	COVINGTON, KY 41094
Facility Id:	105130
Status:	**Closed**
Description:	Closed Option A 1/5/10
Closure Date:	01/05/2010
Longitude:	-84.509005
Latitude:	39.090421
Subject Item County:	Kenton
Sub Item Longitude:	-84.509072
Sub Item Latitude:	39.090429
Subject Item Address:	Jct of E 2nd St & Roebling
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41094
Regulatory Desc:	State Superfund
Closure Option:	Option A No Action Necessary
Side SG:	92 MOA
Acreage:	Not reported

66
WNW
1/2-1
0.807 mi.
4262 ft.

HARMON DRUMS
311 ALTAMONT RD
COVINGTON, KY 41016

KY SHWS **S106885789**
N/A

Relative:
Higher

Actual:
502 ft.

SHWS:

Name:	HARMON DRUMS
Address:	311 ALTAMONT RD
City,State,Zip:	COVINGTON, KY 41016
Facility Id:	53328
Status:	**Closed**
Description:	HARMON DRUMS
Closure Date:	06/28/1998
Longitude:	-84.536590
Latitude:	39.091780
Subject Item County:	Kenton
Sub Item Longitude:	-84.536590
Sub Item Latitude:	39.09178
Subject Item Address:	311 Altamont Rd
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41016
Regulatory Desc:	State Superfund
Closure Option:	Non-Incident
Side SG:	47759
Acreage:	Not reported

67
SSE
1/2-1
0.813 mi.
4291 ft.

BAVARIAN BREWERY
1115 MAIN ST
COVINGTON, KY 41011

KY SHWS **S106885770**
N/A

Relative:
Higher

Actual:
516 ft.

SHWS:

Name:	BAVARIAN BREWERY
Address:	1115 MAIN ST
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	52594
Status:	**Closed**
Description:	BAVARIAN BREWERY (Closed: Restored)
Closure Date:	05/07/2001
Longitude:	-84.517925
Latitude:	39.076472
Subject Item County:	Kenton
Sub Item Longitude:	-84.516930
Sub Item Latitude:	39.077170
Subject Item Address:	1115 Main St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Option C Restored
Side SG:	41291
Acreage:	Not reported

68
East
1/2-1
0.855 mi.
4513 ft.

EXQUISITE CLEANERS
400 GREENUP STREET
COVINGTON, KY 41011

KY SHWS **S106885792**
N/A

Relative:
Higher

Actual:
518 ft.

SHWS:

Name:	EXQUISITE CLEANERS
Address:	400 GREENUP STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	53425
Status:	**Closed**
Description:	EXQUISITE CLEANERS (Closed: Restored)
Closure Date:	05/09/1995
Longitude:	-84.507555
Latitude:	39.087401
Subject Item County:	Kenton
Sub Item Longitude:	-84.507677
Sub Item Latitude:	39.087477
Subject Item Address:	400 Greenup St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	State Superfund
Closure Option:	Option C Restored
Side SG:	35114
Acreage:	Not reported

69
East
1/2-1
0.897 mi.
4734 ft.

WECCO INC
219 GARRARD STREET
COVINGTON, KY 41011

KY SHWS **S106885773**
N/A

Relative:
Higher

Actual:
516 ft.

SHWS:

Name:	WECCO INC
Address:	219 GARRARD STREET
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	52764
Status:	**Closed**
Description:	WECCO INC. (Closed: Non-Incident)
Closure Date:	04/04/1996
Longitude:	-84.507024
Latitude:	39.089867
Subject Item County:	Kenton
Sub Item Longitude:	-84.507024
Sub Item Latitude:	39.089866
Subject Item Address:	219 Garrard St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Non-Incident
Side SG:	34658
Acreage:	Not reported

70
SE
1/2-1
0.953 mi.
5033 ft.

CBT COVINGTON GARAGE
1122 RUSSELL ST
COVINGTON, KY 41011

KY SHWS **S106987666**
KY SB193 **N/A**

Relative:
Higher

Actual:
538 ft.

SHWS:

Name:	CBT COVINGTON GARAGE
Address:	1122 RUSSELL ST
City,State,Zip:	COVINGTON, KY 41011
Facility Id:	67588
Status:	**Closed**
Description:	Hydraulic lift
Closure Date:	11/16/2010
Longitude:	-84.512028
Latitude:	39.078141
Subject Item County:	Kenton
Sub Item Longitude:	-84.511539
Sub Item Latitude:	39.077367
Subject Item Address:	1122 Russell St
Subject Item Address2:	Not reported
Subject Item City,St,Zip:	Covington, KY 41011
Regulatory Desc:	Petroleum Cleanup
Closure Option:	Option C Restored
Side SG:	Closure
Acreage:	Not reported

KY SENATE BILL 193 INVENTORY:

KY SENATE BILL 193 INVENTORY:	CAW
Facility ID:	0108059
Soil / Groundwater:	Groundwater
Agency Interest Number:	67588

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CINCINNATI	1008407568	THE CINCINNATI GASLIGHT AND COKE C	W. PETE ROSE WAY/W 2ND	45203	EDR MGP
KENTON	S129174644	I-75 BRENT SPENCE BRIDGE OIL SPILL	I-75 SOUTH MM 91.2	41011	KY SHWS
KENTON COUNTY	S123234338	BRZYGOT PROPERTIES	728 WESTERN AVE. & 725 CRESCEN		KY ASBESTOS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/07/2024
Date Data Arrived at EDR: 06/25/2024
Date Made Active in Reports: 09/19/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 09/24/2024
Next Scheduled EDR Contact: 01/09/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

KY SHWS: State Leads List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 09/24/2024
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

OH SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Ohio EPA
Telephone: 614-644-2924
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

Lists of state and tribal landfills and solid waste disposal facilities

KY SWF/LF: Solid Waste Facilities List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/28/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/03/2024
Number of Days to Update: 79

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 10/22/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Semi-Annually

OH SWF/LF: Licensed Solid Waste Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/28/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 07/02/2024
Number of Days to Update: 4

Source: Ohio Environmental Protection Agency
Telephone: 614-644-2621
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

KY PSTEAF: Facility Ranking List

The Underground Storage Tank Branch (USTB) has ranked all PSTEAF reimbursable facilities requiring corrective action, in accordance with 401 KAR 42:290. Directive letters will be issued on the basis of facility ranking and available PSTEAF funding in sequential order as ranked. For example, Rank 2 facilities will be issued directives before Rank 3 facilities.

Date of Government Version: 06/01/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 07/01/2024
Number of Days to Update: 3

Source: Department of Environmental Protection
Telephone: 502-564-5981
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

KY SB193: SB193 Branch Site Inventory List
The inventory indicates facilities that have performed permanent closure activities at a regulated underground storage tank facility and have known soil and/or groundwater contamination.

Date of Government Version: 09/05/2006
Date Data Arrived at EDR: 09/13/2006
Date Made Active in Reports: 10/18/2006
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 502-564-5981
Last EDR Contact: 04/08/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 03/15/2024
Date Data Arrived at EDR: 03/19/2024
Date Made Active in Reports: 06/17/2024
Number of Days to Update: 90

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

KY UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/31/2024
Number of Days to Update: 73

Source: Department of Environmental Protection
Telephone: 502-564-5981
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

OH UST: Underground Storage Tank Tank File

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 10/18/2024
Number of Days to Update: 78

Source: Department of Commerce
Telephone: 614-752-8200
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Quarterly

KY AST: Above Ground Storage Tanks

A listing of aboveground storage tank site locations.

Date of Government Version: 08/19/2024
Date Data Arrived at EDR: 08/21/2024
Date Made Active in Reports: 10/31/2024
Number of Days to Update: 71

Source: Office of State Fire Marshal
Telephone: 502-564-4010
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

OH AST: Above Ground Storage Tanks

A listing of aboveground storage tank site locations in the state.

Date of Government Version: 10/17/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 27

Source: Department of Commerce
Telephone: 614-752-7037
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

KY ENG CONTROLS: Engineering Controls Site Listing

A listing of sites that use engineering controls.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/20/2024
Number of Days to Update: 70

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

OH ENG CONTROLS: Sites with Engineering Controls
A database that tracks properties with engineering controls.

Date of Government Version: 06/21/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/18/2024
Number of Days to Update: 80

Source: Ohio EPA
Telephone: 614-644-2306
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Semi-Annually

KY INST CONTROL: State Superfund Database
A list of closed sites in the State Superfund Database. Institutional controls would be in place at any site that uses Contained or Managed as a Closure Option.

Date of Government Version: 08/19/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/31/2024
Number of Days to Update: 73

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

OH INST CONTROL: Sites with Institutional Engineering Controls
A database that tracks properties with institutional controls.

Date of Government Version: 06/21/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/18/2024
Number of Days to Update: 80

Source: Ohio Environmental Protection Agency
Telephone: 614-644-2306
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal voluntary cleanup sites

KY VCP: Voluntary Cleanup Program Sites
Sites that have been accepted into the Voluntary Cleanup Program or have submitted an application.

Date of Government Version: 10/17/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 1

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

OH VCP: Voluntary Action Program Sites
Site involved in the Voluntary Action Program.

Date of Government Version: 06/21/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/18/2024
Number of Days to Update: 80

Source: Ohio EPA, Voluntary Action Program
Telephone: 614-728-1298
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal brownfield sites

OH BROWNFIELDS: Ohio Brownfield Inventory

A statewide brownfields inventory. A brownfield is an abandoned, idled or under-used industrial or commercial property where expansion or redevelopment is complicated by known or potential releases of hazardous substances and/or petroleum.

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/04/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 75

Source: Ohio EPA
Telephone: 614-644-3748
Last EDR Contact: 09/04/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Quarterly

KY BROWNFIELDS: Kentucky Brownfield Inventory

The Kentucky Brownfield Program has created an inventory of brownfield sites in order to market the properties to those interested in brownfield redevelopment. The Kentucky Brownfield Program is working to promote the redevelopment of these sites by helping to remove barriers that prevent reuse, providing useful information to communities, developers and the public and encouraging a climate that fosters redevelopment of contaminated sites.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/12/2024
Number of Days to Update: 12

Source: Division of Compliance Assistance
Telephone: 502-564-0323
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2024
Date Data Arrived at EDR: 06/11/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/11/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

KY SWRCY: Recycling Facilities

A listing of recycling facilities located in the state of Kentucky.

Date of Government Version: 04/09/2024
Date Data Arrived at EDR: 04/10/2024
Date Made Active in Reports: 07/09/2024
Number of Days to Update: 90

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 10/10/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

KY HIST LF: Historical Landfills

This solid waste facility listing contains detail information that is not included in the landfill listing. A listing with detail information is no longer available by the Department of Environmental Protection.

Date of Government Version: 05/01/2003
Date Data Arrived at EDR: 03/30/2006
Date Made Active in Reports: 05/01/2006
Number of Days to Update: 32

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

OH SWRCY: Recycling Facility Listing

A listing of recycling facility locations.

Date of Government Version: 06/28/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 09/18/2024
Number of Days to Update: 82

Source: Ohio EPA
Telephone: 614-728-5357
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

OH HIST LF: Old Solid Waste Landfill

A list of about 1200 old abandoned dumps or landfills. This database was developed from Ohio EPA staff notebooks and other information dating from the mid-1970s

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/04/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 75

Source: Ohio EPA
Telephone: 614-644-3749
Last EDR Contact: 09/04/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

KY CDL: Clandestine Drub Lab Location Listing
Clandestine drug lab site locations.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 09/25/2024
Number of Days to Update: 14

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

OH CDL: Clandestine Drug Lab Locations
A list of clandestine drug lab sites with environmental impact. This list is extracted from the SPILLS database based on the "product" type.

Date of Government Version: 07/29/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/18/2024
Number of Days to Update: 80

Source: Ohio EPA
Telephone: 614-644-2080
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Semi-Annually

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

KY SPILLS: State spills
A listing of spill and/or release related incidents.

Date of Government Version: 07/30/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/12/2024
Number of Days to Update: 12

Source: DEP, Emergency Response
Telephone: 502-564-2380
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

OH SPILLS: Emergency Response Database
Incidents reported to the Emergency Response Unit. The focus of the ER program is to minimize the impact on the environment from accidental releases, spills, and unauthorized discharges from any fixed or mobile sources. Incidents involving petroleum products, hazardous materials, hazardous waste, abandoned drums, or other materials which may pose as a pollution threat to the state?s water, land, or air should be reported immediately. Not all incidents included in the database are actual SPILLS, they can simply be reported incidents.

Date of Government Version: 07/29/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/18/2024
Number of Days to Update: 80

Source: Ohio EPA
Telephone: 614-644-2084
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Semi-Annually

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 08/12/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 58

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/12/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/10/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/10/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/11/2024
Date Data Arrived at EDR: 07/11/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 1

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 07/12/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 05/23/2024
Date Data Arrived at EDR: 07/02/2024
Date Made Active in Reports: 09/26/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33
Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/27/2023
Date Made Active in Reports: 02/22/2024
Number of Days to Update: 87
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2024
Date Data Arrived at EDR: 07/08/2024
Date Made Active in Reports: 09/26/2024
Number of Days to Update: 80

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/23/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/13/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 57

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/08/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 09/05/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data
The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

UST FINDER: UST Finder Database
EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database
US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

E MANIFEST: Hazardous Waste Electronic Manifest System
EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 07/24/2023
Date Data Arrived at EDR: 04/18/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 49

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

KY PFAS: PFAS Detections Site Listing
The presence of PFAS contamination at locations, including water treatment plants.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/04/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 38

Source: Department of Environmental Protection
Telephone: 502-564-3410
Last EDR Contact: 08/27/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Varies

OH PFAS: PFOA & PFOS Site Listing

PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 06/04/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 09/18/2024
Number of Days to Update: 84

Source: Ohio EPA
Telephone: 614-644-2752
Last EDR Contact: 09/06/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Varies

KY AIRS: Permitted Airs Facility Listing

A listing of permitted Airs facilities.

Date of Government Version: 06/12/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 09/16/2024
Number of Days to Update: 82

Source: Department of Environmental Protection
Telephone: 502-573-3382
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Semi-Annually

OH AIRS: Title V Permits Listing

A listing of Title V Permits issued by the Division of Air Pollution Control. It is a federal operating permit program adopted and implemented by the state. The basic program elements typically specify that major sources will submit an operating application to the specified state environmental regulatory agency according to a schedule.

Date of Government Version: 09/06/2024
Date Data Arrived at EDR: 09/06/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 73

Source: Ohio EPA
Telephone: 614-644-2270
Last EDR Contact: 09/06/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Quarterly

KY ASBESTOS: Asbestos Notification Listing

Asbestos sites

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/20/2024
Number of Days to Update: 70

Source: Department of Environmental Protection
Telephone: 502-782-6780
Last EDR Contact: 08/20/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Varies

OH ASBESTOS: Asbestos Notification Listing

A listing of notifications site locations with abatement and demolition dates.

Date of Government Version: 10/18/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 26

Source: Ohio EPA
Telephone: 614-466-3770
Last EDR Contact: 10/23/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

KY COAL ASH: Coal Ash Disposal Sites

A listing of coal ash pond site locations.

Date of Government Version: 06/28/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/03/2024
Number of Days to Update: 79

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 10/22/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: No Update Planned

OH COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash disposal site locations.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/16/2015
Date Made Active in Reports: 05/29/2015
Number of Days to Update: 43

Source: Ohio EPA
Telephone: 614-644-2134
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

KY DRYCLEANERS: Drycleaner Listing
A listing of drycleaner facility locations.

Date of Government Version: 06/12/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 09/16/2024
Number of Days to Update: 82

Source: Department of Environmental Protection
Telephone: 502-573-3382
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Semi-Annually

OH DRYCLEANERS: Drycleaner Facility Listing
A listing of drycleaner facility locations.

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 09/13/2024
Number of Days to Update: 2

Source: Ohio EPA
Telephone: 614-644-3469
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Semi-Annually

OH FIN ASSURANCE: Financial Assurance Information Listing
Financial assurance information.

Date of Government Version: 12/05/2017
Date Data Arrived at EDR: 12/08/2017
Date Made Active in Reports: 01/08/2018
Number of Days to Update: 31

Source: Ohio EPA
Telephone: 614-644-2955
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Semi-Annually

KY FIN ASSURANCE 1: Financial Assurance Information Listing
A listing of financial assurance information.

Date of Government Version: 08/14/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/21/2024
Number of Days to Update: 7

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

KY FIN ASSURANCE 2: Financial Assurance Information Listing
Financial Assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2014
Date Data Arrived at EDR: 06/06/2014
Date Made Active in Reports: 06/24/2014
Number of Days to Update: 18

Source: Department of Environmental Protection
Telephone: 502-564-5981
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

KY FIN ASSURANCE 3: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/14/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 10/31/2024
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 502-564-6716
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

OH FIN ASSURANCE 3: Financial Assurance3 Information Listing

Information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 07/14/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/08/2024
Number of Days to Update: 84

Source: Ohio EPA
Telephone: 614-644-2621
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

KY LEAD: Environmental Lead Program Report Tracking Database

Lead Report Tracking Database

Date of Government Version: 01/27/2017
Date Data Arrived at EDR: 02/02/2017
Date Made Active in Reports: 08/21/2017
Number of Days to Update: 200

Source: Department of Public Health
Telephone: 502-564-4537
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

OH LEAD: Lead Inspections Listing

Department of Health lead inspections included in the Environmental Licensing System.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/12/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 84

Source: Department of Health
Telephone: 614-466-3543
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Quarterly

KY NPDES: Permitted Facility Listing

A listing of permitted wastewater facilities.

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 09/12/2024
Number of Days to Update: 29

Source: Department of Environmental Protection
Telephone: 502-564-3410
Last EDR Contact: 10/28/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Semi-Annually

OH NPDES: NPDES General Permit List

General information regarding NPDES (National Pollutant Discharge Elimination System) permits.

Date of Government Version: 07/29/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/21/2024
Number of Days to Update: 83

Source: Ohio EPA
Telephone: 614-644-2031
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

KY UIC: UIC Information

A listing of wells identified as underground injection wells, in the Kentucky Oil & Gas Wells data base.

Date of Government Version: 05/01/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 10/01/2024
Number of Days to Update: 84

Source: Kentucky Geological Survey
Telephone: 859-323-0544
Last EDR Contact: 10/04/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

OH UIC: Underground Injection Wells Listing
A listing of underground injection well locations.

Date of Government Version: 07/25/2024
Date Data Arrived at EDR: 07/29/2024
Date Made Active in Reports: 08/06/2024
Number of Days to Update: 8

Source: Ohio EPA
Telephone: 614-644-2752
Last EDR Contact: 10/25/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

KY RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

KY RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/15/2014
Number of Days to Update: 198

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OH RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Ohio Environmental Procetion Agency in Ohio.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Ohio Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 08/28/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Certified Child Care Homes
Source: Cabinet for Families & Children
Telephone: 502-564-7130

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Environmental & Public Protection Cabinet
Telephone: 502-564-6736

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COMMERCIAL PROPERTIES
CRESCENT AVENUE & W. 3RD STREET
COVINGTON, KY 41011

TARGET PROPERTY COORDINATES

Latitude (North):	39.087888 - 39° 5' 16.40"
Longitude (West):	84.524133 - 84° 31' 26.88"
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	714143.5
UTM Y (Meters):	4329240.0
Elevation:	487 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	50024613 COVINGTON, KY
Version Date:	2022

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

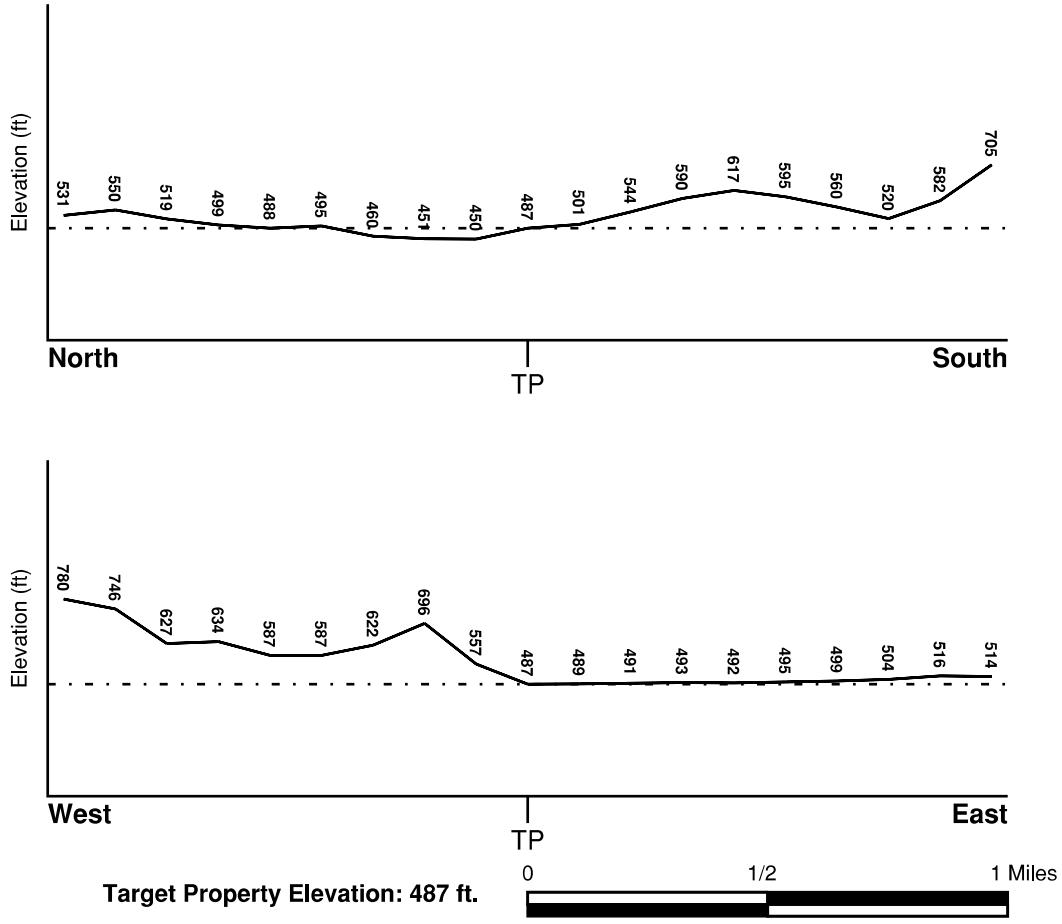
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
39061C0334F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
39061C0331F	FEMA FIRM Flood data
39061C0332F	FEMA FIRM Flood data
39061C0333F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
COVINGTON	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Ordovician
Series:	Middle Ordovician (Mohawkian)
Code:	O2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	WHEELING
Soil Surface Texture:	silt loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: LOW

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	14 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 6.00 Min: 0.60	Max: 6.50 Min: 5.10
2	14 inches	60 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 5.10
3	60 inches	72 inches	stratified	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 20.00 Min: 6.00	Max: 6.00 Min: 5.10

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silty clay loam
loamy fine sand
fine sandy loam

Surficial Soil Types: silty clay loam
loamy fine sand
fine sandy loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: silt loam
clay
sand
loam
fine sandy loam
silty clay

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D23	USGS40000387686	1/4 - 1/2 Mile SE
J49	USGS40000387681	1/2 - 1 Mile ESE
K61	USGS40000387687	1/2 - 1 Mile East
L71	USGS40000387698	1/2 - 1 Mile ENE
L77	USGS40000387693	1/2 - 1 Mile East
L78	USGS40000387699	1/2 - 1 Mile ENE
L82	USGS40000387695	1/2 - 1 Mile ENE
L83	USGS40000387696	1/2 - 1 Mile ENE
J84	USGS40000387679	1/2 - 1 Mile ESE
J85	USGS40000387678	1/2 - 1 Mile ESE
M86	USGS40000387673	1/2 - 1 Mile SSE
N88	USGS40000387677	1/2 - 1 Mile ESE
O90	USGS40000387685	1/2 - 1 Mile ESE
96	USGS40000387683	1/2 - 1 Mile ESE
P97	USGS40000387676	1/2 - 1 Mile ESE
Q99	USGS40000387671	1/2 - 1 Mile SSE
Q100	USGS40000387672	1/2 - 1 Mile SSE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
124	KY0593373	1/2 - 1 Mile ESE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	KY7000000073386	0 - 1/8 Mile North
A2	KY7000000072340	0 - 1/8 Mile NNW
A3	KY7000000073626	0 - 1/8 Mile NNW
A4	KY7000000072338	0 - 1/8 Mile NNW
A5	KY7000000072339	0 - 1/8 Mile NNW
A6	KY7000000073629	0 - 1/8 Mile NNW
A7	KY7000000073630	0 - 1/8 Mile NNW
A8	KY7000000073627	0 - 1/8 Mile NNW
A9	KY7000000073628	0 - 1/8 Mile NNW

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A10	KY7000000079760	0 - 1/8 Mile NW
A11	KY7000000079762	0 - 1/8 Mile NW
A12	KY7000000079761	0 - 1/8 Mile NW
B13	KY7000000076043	1/8 - 1/4 Mile ESE
B14	KY7000000076044	1/8 - 1/4 Mile ESE
B15	KY7000000076045	1/8 - 1/4 Mile ESE
C16	KY7000000066675	1/8 - 1/4 Mile East
C17	KY7000000066674	1/8 - 1/4 Mile East
C18	KY7000000066673	1/8 - 1/4 Mile East
C19	KY7000000066676	1/8 - 1/4 Mile East
C20	KY7000000066679	1/8 - 1/4 Mile East
C21	KY7000000066678	1/8 - 1/4 Mile East
C22	KY7000000066677	1/8 - 1/4 Mile East
D24	KY7000000050894	1/4 - 1/2 Mile SE
E25	KY7000000079751	1/4 - 1/2 Mile ESE
E26	KY7000000079750	1/4 - 1/2 Mile ESE
E27	KY7000000079753	1/4 - 1/2 Mile ESE
E28	KY7000000079752	1/4 - 1/2 Mile ESE
E29	KY7000000063808	1/4 - 1/2 Mile ESE
E30	KY7000000063807	1/4 - 1/2 Mile ESE
E31	KY7000000065268	1/4 - 1/2 Mile ESE
E32	KY7000000063809	1/4 - 1/2 Mile ESE
F33	KY7000000088326	1/2 - 1 Mile ESE
F34	KY7000000088325	1/2 - 1 Mile ESE
F35	KY7000000088324	1/2 - 1 Mile ESE
F36	KY7000000088329	1/2 - 1 Mile ESE
F37	KY7000000088328	1/2 - 1 Mile ESE
F38	KY7000000088327	1/2 - 1 Mile ESE
F39	KY7000000088330	1/2 - 1 Mile ESE
F40	KY7000000088331	1/2 - 1 Mile ESE
G41	KY7000000064269	1/2 - 1 Mile ESE
G42	KY7000000064270	1/2 - 1 Mile ESE
G43	KY7000000064271	1/2 - 1 Mile ESE
H44	KY7000000076764	1/2 - 1 Mile SE
H45	KY7000000076765	1/2 - 1 Mile SE
H46	KY7000000076766	1/2 - 1 Mile SE
I47	KY7000000067726	1/2 - 1 Mile SSE
I48	KY7000000066914	1/2 - 1 Mile SSE
I50	KY7000000070832	1/2 - 1 Mile SSE
I51	KY7000000070833	1/2 - 1 Mile SSE
I52	KY7000000070834	1/2 - 1 Mile SSE
I53	KY7000000070835	1/2 - 1 Mile SSE
I54	KY7000000070836	1/2 - 1 Mile SSE
I55	KY7000000070837	1/2 - 1 Mile SSE
I56	KY7000000067725	1/2 - 1 Mile SSE
I57	KY7000000070838	1/2 - 1 Mile SSE
I58	KY7000000070839	1/2 - 1 Mile SSE
I59	KY7000000070840	1/2 - 1 Mile SSE
I60	KY7000000066913	1/2 - 1 Mile SSE
K62	KY7000000050389	1/2 - 1 Mile East
I63	KY7000000070841	1/2 - 1 Mile SSE
I64	KY7000000070842	1/2 - 1 Mile SSE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

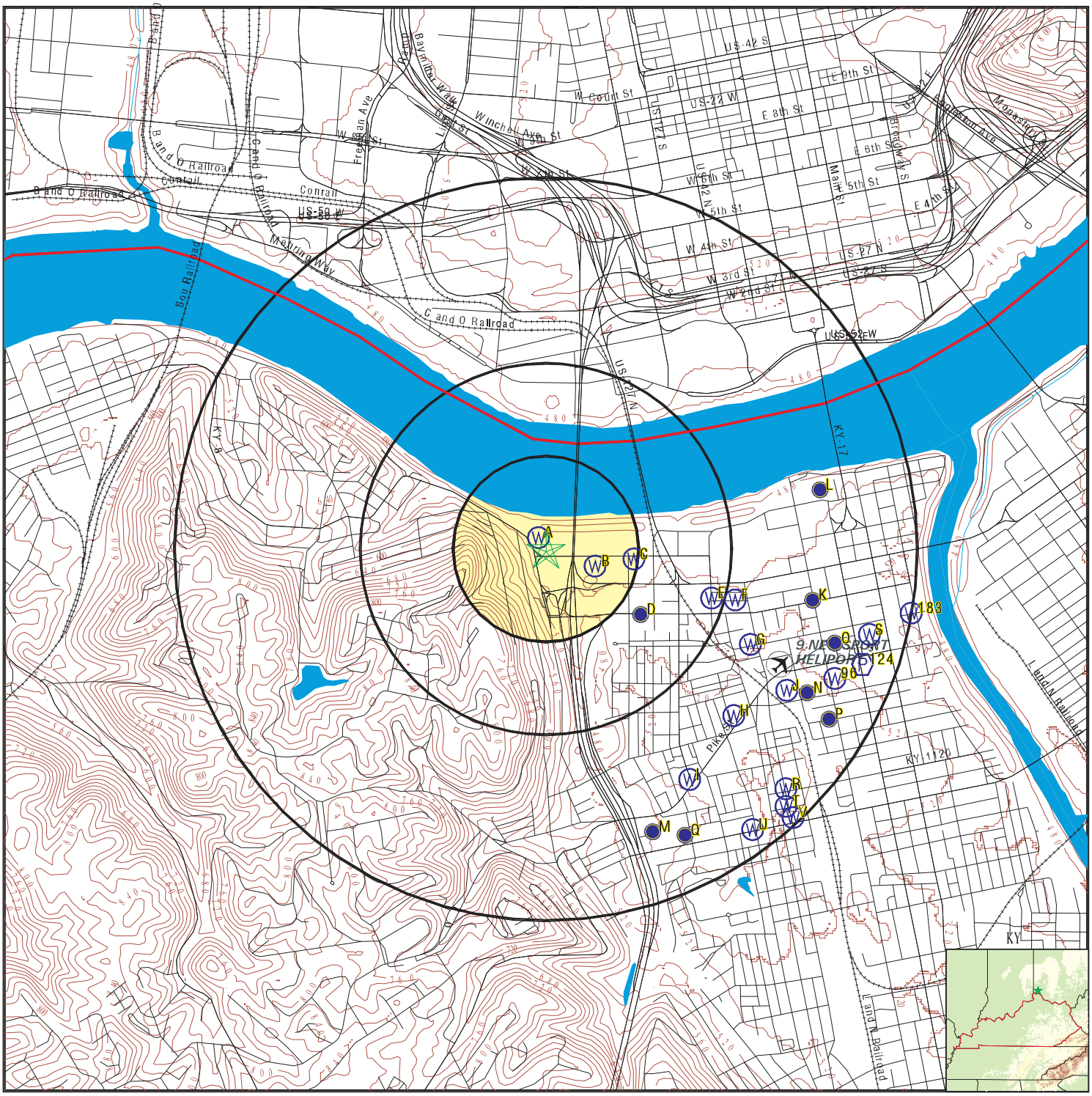
STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
I65	KY7000000070843	1/2 - 1 Mile SSE
I66	KY7000000072388	1/2 - 1 Mile SSE
I67	KY7000000065292	1/2 - 1 Mile SSE
I68	KY7000000070844	1/2 - 1 Mile SSE
I69	KY7000000070845	1/2 - 1 Mile SSE
I70	KY7000000070846	1/2 - 1 Mile SSE
I72	KY7000000067724	1/2 - 1 Mile SSE
I73	KY7000000093737	1/2 - 1 Mile SSE
I74	KY7000000093738	1/2 - 1 Mile SSE
I75	KY7000000093739	1/2 - 1 Mile SSE
I76	KY7000000067723	1/2 - 1 Mile SSE
L79	KY7000000050832	1/2 - 1 Mile ENE
I80	KY7000000072389	1/2 - 1 Mile SSE
I81	KY7000000072390	1/2 - 1 Mile SSE
M87	KY7000000016212	1/2 - 1 Mile SSE
N89	KY7000000052458	1/2 - 1 Mile ESE
O91	KY7000000051655	1/2 - 1 Mile ESE
M92	KY7000000074284	1/2 - 1 Mile SSE
M93	KY7000000074281	1/2 - 1 Mile SSE
M94	KY7000000074780	1/2 - 1 Mile SSE
M95	KY7000000074779	1/2 - 1 Mile SSE
P98	KY7000000051752	1/2 - 1 Mile ESE
Q101	KY7000000051892	1/2 - 1 Mile SSE
R102	KY7000000075226	1/2 - 1 Mile SE
S103	KY7000000071911	1/2 - 1 Mile ESE
P104	KY7000000076653	1/2 - 1 Mile ESE
P105	KY7000000076654	1/2 - 1 Mile ESE
S106	KY7000000071912	1/2 - 1 Mile ESE
T107	KY7000000082588	1/2 - 1 Mile SE
R108	KY7000000101687	1/2 - 1 Mile SE
S109	KY7000000071914	1/2 - 1 Mile ESE
R110	KY7000000101613	1/2 - 1 Mile SE
R111	KY7000000101686	1/2 - 1 Mile SE
R112	KY7000000101667	1/2 - 1 Mile SE
R113	KY7000000101671	1/2 - 1 Mile SE
R114	KY7000000101665	1/2 - 1 Mile SE
P115	KY7000000093157	1/2 - 1 Mile ESE
R116	KY7000000075224	1/2 - 1 Mile SE
P117	KY7000000066988	1/2 - 1 Mile ESE
P118	KY7000000066987	1/2 - 1 Mile ESE
P119	KY7000000081746	1/2 - 1 Mile ESE
P120	KY7000000066989	1/2 - 1 Mile ESE
R121	KY7000000084312	1/2 - 1 Mile SE
R122	KY7000000101672	1/2 - 1 Mile SE
R123	KY7000000101614	1/2 - 1 Mile SE
R125	KY7000000101645	1/2 - 1 Mile SE
R126	KY7000000101666	1/2 - 1 Mile SE
R127	KY7000000101673	1/2 - 1 Mile SE
R128	KY7000000101668	1/2 - 1 Mile SE
R129	KY7000000101674	1/2 - 1 Mile SE
R130	KY7000000075223	1/2 - 1 Mile SE
R131	KY7000000075220	1/2 - 1 Mile SE

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
R132	KY7000000075219	1/2 - 1 Mile SE
R133	KY7000000073720	1/2 - 1 Mile SE
R134	KY7000000101629	1/2 - 1 Mile SE
R135	KY7000000087002	1/2 - 1 Mile SE
R136	KY7000000101669	1/2 - 1 Mile SE
R137	KY7000000068083	1/2 - 1 Mile SE
R138	KY7000000068082	1/2 - 1 Mile SE
R139	KY7000000087003	1/2 - 1 Mile SE
R140	KY7000000101644	1/2 - 1 Mile SE
R141	KY7000000068081	1/2 - 1 Mile SE
R142	KY7000000084309	1/2 - 1 Mile SE
R143	KY7000000084310	1/2 - 1 Mile SE
R144	KY7000000082589	1/2 - 1 Mile SE
R145	KY7000000087001	1/2 - 1 Mile SE
R146	KY7000000077870	1/2 - 1 Mile SE
R147	KY7000000073721	1/2 - 1 Mile SE
R148	KY7000000073719	1/2 - 1 Mile SE
R149	KY7000000075222	1/2 - 1 Mile SE
R150	KY7000000075221	1/2 - 1 Mile SE
R151	KY7000000082590	1/2 - 1 Mile SE
R152	KY7000000087000	1/2 - 1 Mile SE
R153	KY7000000084313	1/2 - 1 Mile SE
R154	KY7000000075218	1/2 - 1 Mile SE
R155	KY7000000075217	1/2 - 1 Mile SE
R156	KY7000000068084	1/2 - 1 Mile SE
R157	KY7000000073718	1/2 - 1 Mile SE
R158	KY7000000101630	1/2 - 1 Mile SE
R159	KY7000000075225	1/2 - 1 Mile SE
R160	KY7000000101670	1/2 - 1 Mile SE
R161	KY7000000101631	1/2 - 1 Mile SE
S162	KY7000000071913	1/2 - 1 Mile ESE
U163	KY7000000062421	1/2 - 1 Mile SE
U164	KY7000000062420	1/2 - 1 Mile SE
U165	KY7000000062422	1/2 - 1 Mile SE
R166	KY7000000075227	1/2 - 1 Mile SE
U167	KY7000000063813	1/2 - 1 Mile SE
U168	KY7000000063812	1/2 - 1 Mile SE
T169	KY7000000063869	1/2 - 1 Mile SE
T170	KY7000000070517	1/2 - 1 Mile SE
T171	KY7000000063870	1/2 - 1 Mile SE
T172	KY7000000102424	1/2 - 1 Mile SE
T173	KY7000000057435	1/2 - 1 Mile SE
V174	KY7000000057437	1/2 - 1 Mile SE
V175	KY7000000102427	1/2 - 1 Mile SE
V176	KY7000000057434	1/2 - 1 Mile SE
V177	KY7000000102425	1/2 - 1 Mile SE
V178	KY7000000102426	1/2 - 1 Mile SE
V179	KY7000000057436	1/2 - 1 Mile SE
V180	KY7000000070519	1/2 - 1 Mile SE
V181	KY7000000057438	1/2 - 1 Mile SE
V182	KY7000000063871	1/2 - 1 Mile SE
183	KY7000000070314	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 7832146.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells

SITE NAME:	Commercial Properties	CLIENT:	Linebach Funkhouser Inc.
ADDRESS:	Crescent Avenue & W. 3rd Street Covington KY 41011	CONTACT:	Jason Boston
LAT/LONG:	39.087888 / 84.524133	INQUIRY #:	7832146.2s
		DATE:	November 25, 2024 10:56 am

Copyright © 2024 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
A1 **North** **0 - 1/8 Mile** **Higher**	**KY WELLS**	**KY7000000073386**

AKGWA ID:	80028253	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	Not Reported
PWS ID:	Not Reported	Well Name:	Hampton Inn
Surface Elevation:	488.5	Usage:	Remediation
Total Depth:	30	Depth to Bedrock:	0
End Date:	13-APR-96		

	Database	EDR ID Number
A2 **NNW** **0 - 1/8 Mile** **Higher**	**KY WELLS**	**KY7000000072340**

AKGWA ID:	80026023	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-108
PWS ID:	Not Reported	Well Name:	CPX Construction
Surface Elevation:	486.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	40	Depth to Bedrock:	0
End Date:	21-APR-95		

	Database	EDR ID Number
A3 **NNW** **0 - 1/8 Mile** **Higher**	**KY WELLS**	**KY7000000073626**

AKGWA ID:	80028591	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Permakil Pest Control
Surface Elevation:	485	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	40	Depth to Bedrock:	0
End Date:	26-OCT-95		

	Database	EDR ID Number
A4 **NNW** **0 - 1/8 Mile** **Higher**	**KY WELLS**	**KY7000000072338**

AKGWA ID:	80026021	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-103
PWS ID:	Not Reported	Well Name:	CPX Construction
Surface Elevation:	488.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	40	Depth to Bedrock:	0
End Date:	20-APR-95		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

A5
NNW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000072339**

AKGWA ID:	80026022	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-106
PWS ID:	Not Reported	Well Name:	CPX Construction
Surface Elevation:	489.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	40	Depth to Bedrock:	0
End Date:	26-APR-95		

A6
NNW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000073629**

AKGWA ID:	80028594	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	TW-1
PWS ID:	Not Reported	Well Name:	Permakil Pest Control
Surface Elevation:	485	Usage:	Remediation
Total Depth:	30	Depth to Bedrock:	0
End Date:	06-NOV-95		

A7
NNW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000073630**

AKGWA ID:	80028595	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	TW-2
PWS ID:	Not Reported	Well Name:	Permakil Pest Control
Surface Elevation:	485	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30	Depth to Bedrock:	0
End Date:	06-NOV-95		

A8
NNW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000073627**

AKGWA ID:	80028592	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	Permakil Pest Control
Surface Elevation:	485	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	45	Depth to Bedrock:	0
End Date:	26-OCT-95		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

A9
NNW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000073628**

AKGWA ID:	80028593	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	Permakil Pest Control
Surface Elevation:	485	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	35	Depth to Bedrock:	0
End Date:	27-OCT-95		

A10
NW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000079760**

AKGWA ID:	80036688	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	PW-04
PWS ID:	Not Reported	Well Name:	Raymond L & Hilda E Hardebeck Site
Surface Elevation:	0	Usage:	Remediation
Total Depth:	29.4	Depth to Bedrock:	0
End Date:	16-FEB-11		

A11
NW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000079762**

AKGWA ID:	80036690	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	PW-07
PWS ID:	Not Reported	Well Name:	Raymond L & Hilda E Hardebeck Site
Surface Elevation:	0	Usage:	Remediation
Total Depth:	29	Depth to Bedrock:	0
End Date:	16-FEB-11		

A12
NW
0 - 1/8 Mile
Higher

KY WELLS **KY7000000079761**

AKGWA ID:	80036689	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	PW-05
PWS ID:	Not Reported	Well Name:	Raymond L & Hilda E Hardebeck Site
Surface Elevation:	0	Usage:	Remediation
Total Depth:	29	Depth to Bedrock:	0
End Date:	16-FEB-11		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B13
ESE
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000076043**

AKGWA ID:	80031645	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	B-10
PWS ID:	Not Reported	Well Name:	Ridgeview Lincoln Mercury (Former)
Surface Elevation:	510	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	34	Depth to Bedrock:	0
End Date:	02-MAR-01		

B14
ESE
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000076044**

AKGWA ID:	80031646	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	B-12
PWS ID:	Not Reported	Well Name:	Ridgeview Lincoln Mercury (Former)
Surface Elevation:	510	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	26	Depth to Bedrock:	0
End Date:	02-MAR-01		

B15
ESE
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000076045**

AKGWA ID:	80031647	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	B-13
PWS ID:	Not Reported	Well Name:	Ridgeview Lincoln Mercury (Former)
Surface Elevation:	510	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31	Depth to Bedrock:	0
End Date:	05-MAR-01		

C16
East
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000066675**

AKGWA ID:	80015063	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	BP Facility 24344
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	47.599998	Depth to Bedrock:	0
End Date:	01-JAN-00		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C17
East
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000066674**

AKGWA ID:	80015062	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	BP Facility 24344
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	47.599998	Depth to Bedrock:	0
End Date:	01-JAN-00		

C18
East
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000066673**

AKGWA ID:	80015061	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	BP Facility 24334
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	47.599998	Depth to Bedrock:	0
End Date:	01-JAN-00		

C19
East
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000066676**

AKGWA ID:	80015064	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	BP Facility 24344
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	47.599998	Depth to Bedrock:	0
End Date:	01-JAN-00		

C20
East
1/8 - 1/4 Mile
Higher

KY WELLS **KY7000000066679**

AKGWA ID:	80015067	Well Type:	Monitoring Well
Well Status:	Lost / Destroyed	Alt ID:	MW-07
PWS ID:	Not Reported	Well Name:	BP Facility 24334
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30	Depth to Bedrock:	0
End Date:	02-OCT-90		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
C21 **East** **1/8 - 1/4 Mile** **Higher**	**KY WELLS**	**KY7000000066678**

AKGWA ID:	80015066	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	BP Facility 24344
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	47.599998	Depth to Bedrock:	0
End Date:	01-JAN-00		

	Database	EDR ID Number
C22 **East** **1/8 - 1/4 Mile** **Higher**	**KY WELLS**	**KY7000000066677**

AKGWA ID:	80015065	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	BP Facility 24344
Surface Elevation:	490	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	47.599998	Depth to Bedrock:	0
End Date:	01-JAN-00		

	Database	EDR ID Number
D23 **SE** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000387686**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0186	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	117	Well Depth Units:	ft
Well Hole Depth:	117	Well Hole Depth Units:	ft

	Database	EDR ID Number
D24 **SE** **1/4 - 1/2 Mile** **Higher**	**KY WELLS**	**KY7000000050894**

AKGWA ID:	40005388	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390507084311001
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	505	Usage:	UNKNOWN
Total Depth:	0	Depth to Bedrock:	0
End Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E25
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000079751**

AKGWA ID:	80036652	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	25	Depth to Bedrock:	0
End Date:	24-MAR-03		

E26
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000079750**

AKGWA ID:	80036651	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	28	Depth to Bedrock:	0
End Date:	24-MAR-03		

E27
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000079753**

AKGWA ID:	80036654	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	26.700001	Depth to Bedrock:	0
End Date:	24-MAR-03		

E28
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000079752**

AKGWA ID:	80036653	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	25	Depth to Bedrock:	0
End Date:	24-MAR-03		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E29
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000063808**

AKGWA ID:	80009877	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Bonded 1040
Surface Elevation:	508	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36	Depth to Bedrock:	0
End Date:	21-OCT-93		

E30
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000063807**

AKGWA ID:	80009876	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Bonded 1040
Surface Elevation:	508	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36	Depth to Bedrock:	0
End Date:	21-OCT-93		

E31
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000065268**

AKGWA ID:	80012533	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Bonded 1040
Surface Elevation:	508	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36	Depth to Bedrock:	0
End Date:	10-JAN-94		

E32
ESE
1/4 - 1/2 Mile
Higher

KY WELLS **KY7000000063809**

AKGWA ID:	80009878	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Bonded 1040
Surface Elevation:	508	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31	Depth to Bedrock:	0
End Date:	21-OCT-93		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F33
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088326**

AKGWA ID:	80047703	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-07
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30	Depth to Bedrock:	0
End Date:	12-NOV-03		

F34
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088325**

AKGWA ID:	80047702	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	28	Depth to Bedrock:	0
End Date:	11-NOV-03		

F35
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088324**

AKGWA ID:	80047701	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	38.5	Depth to Bedrock:	0
End Date:	11-NOV-03		

F36
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088329**

AKGWA ID:	80047706	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-10
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	32	Depth to Bedrock:	0
End Date:	12-NOV-03		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F37
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088328**

AKGWA ID:	80047705	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-08
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	27	Depth to Bedrock:	0
End Date:	13-NOV-03		

F38
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088327**

AKGWA ID:	80047704	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-09
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	27	Depth to Bedrock:	0
End Date:	12-NOV-03		

F39
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088330**

AKGWA ID:	80047707	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-21
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	28	Depth to Bedrock:	0
End Date:	01-MAR-05		

F40
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000088331**

AKGWA ID:	80047708	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-20
PWS ID:	Not Reported	Well Name:	Oldtowne Shell
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30	Depth to Bedrock:	0
End Date:	01-MAR-05		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G41
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000064269**

AKGWA ID:	80010602	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Mother of God Church
Surface Elevation:	519	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	19.5	Depth to Bedrock:	0
End Date:	18-NOV-93		

G42
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000064270**

AKGWA ID:	80010603	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Mother of God Church
Surface Elevation:	519	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	17	Depth to Bedrock:	0
End Date:	22-NOV-93		

G43
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000064271**

AKGWA ID:	80010604	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Mother of God Church
Surface Elevation:	519	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	22-NOV-93		

H44
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000076764**

AKGWA ID:	80032608	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Crane Distributing Co
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	17.5	Depth to Bedrock:	0
End Date:	16-JAN-98		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H45
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000076765**

AKGWA ID:	80032609	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Crane Distributing Co
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	17.5	Depth to Bedrock:	0
End Date:	16-JAN-98		

H46
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000076766**

AKGWA ID:	80032610	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Crane Distributing Co
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	17.5	Depth to Bedrock:	0
End Date:	16-JAN-98		

I47
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000067726**

AKGWA ID:	80017065	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	17.5	Depth to Bedrock:	0
End Date:	09-AUG-95		

I48
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000066914**

AKGWA ID:	80015290	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	580	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	06-OCT-94		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

J49
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387681**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0076	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1918
Well Depth:	112	Well Depth Units:	ft
Well Hole Depth:	112	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1947-10-03
Feet below surface:	64	Feet to sea level:	Not Reported
Note:	Not Reported		

I50
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070832**

AKGWA ID:	80020508	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW SVE-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	531.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	31-JAN-96		

I51
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070833**

AKGWA ID:	80020508	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW SVE-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	531.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	31-JAN-96		

I52
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070834**

AKGWA ID:	80020508	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW SVE-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	531.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	31-JAN-96		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I53
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070835**

AKGWA ID:	80020509	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.5	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I54
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070836**

AKGWA ID:	80020509	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.5	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I55
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070837**

AKGWA ID:	80020509	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.5	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I56
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000067725**

AKGWA ID:	80017064	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	09-AUG-95		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I57
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070838**

AKGWA ID:	80020510	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-02
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I58
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070839**

AKGWA ID:	80020510	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-02
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I59
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070840**

AKGWA ID:	80020510	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-02
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I60
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000066913**

AKGWA ID:	80015289	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	06-OCT-94		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

K61
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000387687**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0188	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Outwash
Aquifer Type:	Not Reported	Construction Date:	1947
Well Depth:	115	Well Depth Units:	ft
Well Hole Depth:	115	Well Hole Depth Units:	ft

K62
East
1/2 - 1 Mile
Higher

KY WELLS **KY7000000050389**

AKGWA ID:	40004653	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390509084303901
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	510	Usage:	Domestic - Single Household
Total Depth:	0	Depth to Bedrock:	0
End Date:	Not Reported		

I63
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070841**

AKGWA ID:	80020511	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-03
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I64
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070842**

AKGWA ID:	80020511	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-03
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I65
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070843**

AKGWA ID:	80020511	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-03
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I66
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000072388**

AKGWA ID:	80026074	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-08
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	470	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	15-SEP-95		

I67
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000065292**

AKGWA ID:	80012557	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	06-OCT-94		

I68
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070844**

AKGWA ID:	80020512	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-04
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I69
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070845**

AKGWA ID:	80020512	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-04
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

I70
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070846**

AKGWA ID:	80020512	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW IP-04
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10.5	Depth to Bedrock:	0
End Date:	24-MAY-17		

L71
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387698**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0170	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19180101
Well Depth:	86	Well Depth Units:	ft
Well Hole Depth:	86	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1955-04-06
Feet below surface:	37.51	Feet to sea level:	Not Reported
Note:	Not Reported		

I72
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000067724**

AKGWA ID:	80017063	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-07
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	09-AUG-95		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I73
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000093737**

AKGWA ID:	80055058	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-07B
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	16
End Date:	16-FEB-09		

I74
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000093738**

AKGWA ID:	80055058	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-07B
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	16
End Date:	16-FEB-09		

I75
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000093739**

AKGWA ID:	80055058	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-07B
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	16
End Date:	16-FEB-09		

I76
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000067723**

AKGWA ID:	80017062	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20.5	Depth to Bedrock:	0
End Date:	09-AUG-95		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

L77
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000387693**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0171	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1917
Well Depth:	88	Well Depth Units:	ft
Well Hole Depth:	88	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-18
Feet below surface:	49.46	Feet to sea level:	Not Reported
Note:	Not Reported		

L78
ENE
1/2 - 1 Mile
Lower

FED USGS **USGS40000387699**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0184	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Outwash
Aquifer Type:	Not Reported	Construction Date:	1940
Well Depth:	84	Well Depth Units:	ft
Well Hole Depth:	84	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-18
Feet below surface:	53.93	Feet to sea level:	Not Reported
Note:	Not Reported		

L79
ENE
1/2 - 1 Mile
Lower

KY WELLS **KY7000000050832**

AKGWA ID:	40005289	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390526084303801
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	490	Usage:	UNKNOWN
Total Depth:	0	Depth to Bedrock:	0
End Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I80
SSE
1/2 - 1 Mile
Higher | **KY WELLS** | **KY7000000072389**

AKGWA ID:	80026075	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-09
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	470	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20.5	Depth to Bedrock:	0
End Date:	16-SEP-95		

I81
SSE
1/2 - 1 Mile
Higher | **KY WELLS** | **KY7000000072390**

AKGWA ID:	80026076	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-10
PWS ID:	Not Reported	Well Name:	Waco Oil Shell Station
Surface Elevation:	470	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.5	Depth to Bedrock:	0
End Date:	16-SEP-95		

L82
ENE
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000387695**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0118	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1918
Well Depth:	80	Well Depth Units:	ft
Well Hole Depth:	80	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1954-08-18
Feet below surface:	52.83	Feet to sea level:	Not Reported
Note:	Not Reported		

L83
ENE
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000387696**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0127	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported

Aquifer Type:	Not Reported	Construction Date:	1950
Well Depth:	86	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-18
Feet below surface:	63.24	Feet to sea level:	Not Reported
Note:	Not Reported		

J84
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387679**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0080	Type:	Well
Description:	Not Reported	HUC:	05100101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1940
Well Depth:	153	Well Depth Units:	ft
Well Hole Depth:	153	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1940
Feet below surface:	70	Feet to sea level:	Not Reported
Note:	Not Reported		

J85
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387678**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0077	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19450319
Well Depth:	154	Well Depth Units:	ft
Well Hole Depth:	154	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1945-03-19
Feet below surface:	86	Feet to sea level:	Not Reported
Note:	Not Reported		

M86
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387673**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0075	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported

Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1947
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-23
Feet below surface:	53	Feet to sea level:	Not Reported
Note:	Not Reported		

M87
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000016212**

AKGWA ID:	00023193	Well Type:	Water Well
Well Status:	Active	Alt ID:	Not Reported
PWS ID:	Not Reported	Well Name:	Gliers Meat Property
Surface Elevation:	498	Usage:	Industrial - General
Total Depth:	91	Depth to Bedrock:	0
End Date:	01-JAN-47		

N88
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387677**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0192	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	135	Well Depth Units:	ft
Well Hole Depth:	135	Well Hole Depth Units:	ft

N89
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000052458**

AKGWA ID:	40007735	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390456084304001
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	520	Usage:	Domestic - Single Household
Total Depth:	0	Depth to Bedrock:	0
End Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O90
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387685**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0191	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Outwash
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	110	Well Depth Units:	ft
Well Hole Depth:	110	Well Hole Depth Units:	ft

O91
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000051655**

AKGWA ID:	40006553	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390503084303501
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	515	Usage:	UNKNOWN
Total Depth:	0	Depth to Bedrock:	0
End Date:	Not Reported		

M92
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000074284**

AKGWA ID:	80029438	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Bavarian Brewery
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	14	Depth to Bedrock:	0
End Date:	03-APR-96		

M93
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000074281**

AKGWA ID:	80029434	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Bavarian Brewery
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	14	Depth to Bedrock:	0
End Date:	03-APR-96		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

M94
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000074780**

AKGWA ID:	80030098	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Bavarian Brewery
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	14	Depth to Bedrock:	0
End Date:	03-APR-96		

M95
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000074779**

AKGWA ID:	80030097	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Bavarian Brewery
Surface Elevation:	500	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	14	Depth to Bedrock:	0
End Date:	03-APR-96		

96
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387683**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0122	Type:	Well
Description:	Not Reported	HUC:	05100101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	130	Well Depth Units:	ft
Well Hole Depth:	130	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-24
Feet below surface:	64.78	Feet to sea level:	Not Reported
Note:	Not Reported		

P97
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387676**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0187	Type:	Well
Description:	Not Reported	HUC:	05100101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Outwash

Aquifer Type:	Not Reported	Construction Date:	195102
Well Depth:	153	Well Depth Units:	ft
Well Hole Depth:	153	Well Hole Depth Units:	ft
Ground water levels,Number of Measurements:	1	Level reading date:	1951-06-12
Feet below surface:	70	Feet to sea level:	Not Reported
Note:	Not Reported		

P98
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000051752**

AKGWA ID:	40006697	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390452084303901
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	525	Usage:	Domestic - Single Household
Total Depth:	153	Depth to Bedrock:	0
End Date:	Not Reported		

Q99
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387671**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A210190	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Outwash
Aquifer Type:	Not Reported	Construction Date:	1951
Well Depth:	94.5	Well Depth Units:	ft
Well Hole Depth:	94.5	Well Hole Depth Units:	ft
Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-23
Feet below surface:	40.6	Feet to sea level:	Not Reported
Note:	Not Reported		

Q100
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000387672**

Organization ID:	USGS-KY	Organization Name:	USGS Kentucky Water Science Center
Monitor Location:	A21D0120	Type:	Well
Description:	Not Reported	HUC:	05090203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1951
Well Depth:	96.6	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels,Number of Measurements:	1	Level reading date:	1952-09-23

Feet below surface:	75.92	Feet to sea level:	Not Reported
Note:	Not Reported		

Q101
SSE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000051892**

AKGWA ID:	40006915	Well Type:	Water Well
Well Status:	Not Reported	Alt ID:	390436084310201
PWS ID:	Not Reported	Well Name:	Not Reported
Surface Elevation:	525	Usage:	UNKNOWN
Total Depth:	0	Depth to Bedrock:	0
End Date:	Not Reported		

R102
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075226**

AKGWA ID:	80030669	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-12
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	34.5	Depth to Bedrock:	0
End Date:	25-JUL-96		

S103
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000071911**

AKGWA ID:	80023949	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	B-6
PWS ID:	Not Reported		
Well Name:	Gateway Community and Technical College - Park Hills Center		
Surface Elevation:	502.100006	Usage:	Remediation
Total Depth:	40	Depth to Bedrock:	0
End Date:	15-APR-10		

P104
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000076653**

AKGWA ID:	80032391	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-01 (NEW)
PWS ID:	Not Reported	Well Name:	Stillwell Property
Surface Elevation:	533.799988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	0
End Date:	21-MAR-97		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

P105
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000076654**

AKGWA ID:	80032392	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-02 (NEW)
PWS ID:	Not Reported	Well Name:	Stillwell Property
Surface Elevation:	529.700012	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	0
End Date:	21-MAR-97		

S106
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000071912**

AKGWA ID:	80023950	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	B-1
PWS ID:	Not Reported		
Well Name:	Gateway Community and Technical College - Park Hills Center		
Surface Elevation:	507.600006	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	42	Depth to Bedrock:	0
End Date:	15-APR-10		

T107
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000082588**

AKGWA ID:	80040301	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-14
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	540	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	35.5	Depth to Bedrock:	0
End Date:	26-JUL-00		

R108
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101687**

AKGWA ID:	80067684	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-38
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	547.900024	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31.110001	Depth to Bedrock:	0
End Date:	19-DEC-17		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

S109
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000071914**

AKGWA ID:	80023952	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	B-2D
PWS ID:	Not Reported		
Well Name:	Gateway Community and Technical College - Park Hills Center		
Surface Elevation:	508.700012	Usage:	Remediation
Total Depth:	42	Depth to Bedrock:	0
End Date:	15-APR-10		

R110
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101613**

AKGWA ID:	80067610	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-35
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	546.599976	Usage:	Remediation
Total Depth:	31	Depth to Bedrock:	0
End Date:	02-OCT-17		

R111
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101686**

AKGWA ID:	80067683	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-37
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30.1	Depth to Bedrock:	0
End Date:	29-DEC-17		

R112
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101667**

AKGWA ID:	80067664	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-27
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	547.940002	Usage:	Remediation
Total Depth:	30.4	Depth to Bedrock:	0
End Date:	22-JUN-17		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R113
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101671**

AKGWA ID:	80067668	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-31
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	545.900024	Usage:	Remediation
Total Depth:	30.75	Depth to Bedrock:	0
End Date:	08-AUG-17		

R114
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101665**

AKGWA ID:	80067662	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	ME-25
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.700012	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30.5	Depth to Bedrock:	0
End Date:	25-MAY-17		

P115
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000093157**

AKGWA ID:	80054319	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-03R
PWS ID:	Not Reported	Well Name:	Wayne A Stillwell
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	18-FEB-07		

R116
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075224**

AKGWA ID:	80030667	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-11
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	34.5	Depth to Bedrock:	0
End Date:	25-JUL-96		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

P117
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000066988**

AKGWA ID:	80015429	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Stillwell Property
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	26.5	Depth to Bedrock:	0
End Date:	02-AUG-94		

P118
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000066987**

AKGWA ID:	80015428	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Stillwell Property
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20	Depth to Bedrock:	0
End Date:	02-AUG-94		

P119
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000081746**

AKGWA ID:	80039314	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Stillwell Property
Surface Elevation:	498.799988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	0
End Date:	22-JUN-01		

P120
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000066989**

AKGWA ID:	80015430	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Stillwell Property
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20	Depth to Bedrock:	0
End Date:	02-AUG-94		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
R121 **SE** **1/2 - 1 Mile** **Higher**	**KY WELLS**	**KY7000000084312**

AKGWA ID:	80042519	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-18
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Remediation
Total Depth:	30	Depth to Bedrock:	0
End Date:	17-JUL-01		

	Database	EDR ID Number
R122 **SE** **1/2 - 1 Mile** **Higher**	**KY WELLS**	**KY7000000101672**

AKGWA ID:	80067669	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-32
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	546.400024	Usage:	Remediation
Total Depth:	30.84	Depth to Bedrock:	0
End Date:	08-AUG-17		

	Database	EDR ID Number
R123 **SE** **1/2 - 1 Mile** **Higher**	**KY WELLS**	**KY7000000101614**

AKGWA ID:	80067611	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-36
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	547.900024	Usage:	Remediation
Total Depth:	30.6	Depth to Bedrock:	0
End Date:	02-OCT-17		

	Database	EDR ID Number
124 **ESE** **1/2 - 1 Mile** **Higher**	**FRDS PWS**	**KY0593373**

Epa region:	04	State:	KY
Pwsid:	KY0593373	Pwsname:	LALLY PIPE AND TUBE
Cityserved:	Not Reported	Stateserved:	KY
Zipserved:	Not Reported	Fipscounty:	21117
Status:	Closed	Retpopsrvd:	50
Pwssvcconn:	1	Psource longname:	Purch_surface_water
Pwstype:	TNCWS	Owner:	Private
Contact:	Not Reported	Contactorgname:	Not Reported
Contactphone:	606-431-8300	Contactaddress1:	TIMOTHY C LALLY
Contactaddress2:	PO BOX 15430	Contactcity:	COVINGTON
Contactstate:	KY	Contactzip:	410150000
Pwsactivitycode:	I		

PWS ID:	KY0593373	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	KY0593373
Activity status:	Active	Date system activated:	8910
Date system deactivated:	Not Reported	Retail population:	00000050
System name:	LALLY PIPE AND TUBE	System address:	TIMOTHY C LALLY
System address:	8577 LOCUST PIKE PO BOX 5430		
System city:	COVINGTON	System state:	KY
System zip:	410150000		
County FIPS:	059	City served:	COVINGTON
Population served:	Under 101 Persons	Treatment:	Treated
Latitude:	390500	Longitude:	0843030
Latitude:	385946	Longitude:	0842754

R125
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101645**

AKGWA ID:	80067642	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-24
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	549	Usage:	Remediation
Total Depth:	24.1	Depth to Bedrock:	0
End Date:	01-JUN-16		

R126
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101666**

AKGWA ID:	80067663	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-26
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.72998	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	30	Depth to Bedrock:	0
End Date:	25-MAY-17		

R127
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101673**

AKGWA ID:	80067670	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-33
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	546.200012	Usage:	Remediation
Total Depth:	30.969999	Depth to Bedrock:	0
End Date:	08-AUG-17		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R128
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101668**

AKGWA ID:	80067665	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-28
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.159973	Usage:	Remediation
Total Depth:	30.6	Depth to Bedrock:	0
End Date:	22-JUN-17		

R129
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101674**

AKGWA ID:	80067671	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-34
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	547.5	Usage:	Remediation
Total Depth:	30.799999	Depth to Bedrock:	0
End Date:	08-AUG-17		

R130
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075223**

AKGWA ID:	80030666	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-08
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	35.5	Depth to Bedrock:	0
End Date:	25-JUL-96		

R131
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075220**

AKGWA ID:	80030664	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-07
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	34.5	Depth to Bedrock:	0
End Date:	16-APR-18		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R132
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075219**

AKGWA ID:	80030664	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-07
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	34.5	Depth to Bedrock:	0
End Date:	25-JUL-96		

R133
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000073720**

AKGWA ID:	80028703	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	740	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31	Depth to Bedrock:	0
End Date:	29-NOV-95		

R134
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101629**

AKGWA ID:	80067626	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-20
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.400024	Usage:	Remediation
Total Depth:	23	Depth to Bedrock:	0
End Date:	14-OCT-15		

R135
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000087002**

AKGWA ID:	80045857	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	RW-03
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	0	Usage:	Remediation
Total Depth:	35.400002	Depth to Bedrock:	0
End Date:	30-SEP-03		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R136
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101669**

AKGWA ID:	80067666	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-29
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.840027	Usage:	Remediation
Total Depth:	30.6	Depth to Bedrock:	0
End Date:	22-JUN-17		

R137
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000068083**

AKGWA ID:	80017689	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-C
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	0	Depth to Bedrock:	0
End Date:	01-JAN-00		

R138
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000068082**

AKGWA ID:	80017688	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-B
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	0	Depth to Bedrock:	0
End Date:	01-JAN-00		

R139
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000087003**

AKGWA ID:	80045858	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	RW-04
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	0	Usage:	Remediation
Total Depth:	35.799999	Depth to Bedrock:	0
End Date:	30-SEP-03		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R140
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101644**

AKGWA ID:	80067641	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-23
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Remediation
Total Depth:	24.4	Depth to Bedrock:	0
End Date:	01-JUN-16		

R141
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000068081**

AKGWA ID:	80017687	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-A
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	0	Depth to Bedrock:	0
End Date:	01-JAN-00		

R142
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000084309**

AKGWA ID:	80042517	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-17
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Remediation
Total Depth:	30	Depth to Bedrock:	0
End Date:	16-JUL-01		

R143
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000084310**

AKGWA ID:	80042517	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-17
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Remediation
Total Depth:	30	Depth to Bedrock:	0
End Date:	02-OCT-18		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

R144
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000082589**

AKGWA ID:	80040302	Well Type:	Monitoring Well
Well Status:	Lost / Destroyed	Alt ID:	MW-15
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	540	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	35.5	Depth to Bedrock:	0
End Date:	26-JUL-00		

R145
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000087001**

AKGWA ID:	80045856	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	RW-02
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	0	Usage:	Remediation
Total Depth:	35	Depth to Bedrock:	0
End Date:	29-SEP-03		

R146
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000077870**

AKGWA ID:	80034176	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-13
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	540	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36	Depth to Bedrock:	0
End Date:	12-DEC-97		

R147
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000073721**

AKGWA ID:	80028704	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	740	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31	Depth to Bedrock:	0
End Date:	27-NOV-95		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R148
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000073719**

AKGWA ID:	80028702	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	740	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31	Depth to Bedrock:	0
End Date:	28-NOV-95		

R149
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075222**

AKGWA ID:	80030665	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36.5	Depth to Bedrock:	0
End Date:	24-JUL-96		

R150
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075221**

AKGWA ID:	80030665	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36.5	Depth to Bedrock:	0
End Date:	17-APR-18		

R151
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000082590**

AKGWA ID:	80040303	Well Type:	Monitoring Well
Well Status:	Lost / Destroyed	Alt ID:	MW-16
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	540	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	35.5	Depth to Bedrock:	0
End Date:	26-JUL-00		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

R152
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000087000**

AKGWA ID:	80045855	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	RW-01
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	0	Usage:	Remediation
Total Depth:	35.099998	Depth to Bedrock:	0
End Date:	29-SEP-03		

R153
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000084313**

AKGWA ID:	80042520	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-19
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Remediation
Total Depth:	30	Depth to Bedrock:	0
End Date:	17-JUL-01		

R154
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075218**

AKGWA ID:	80030663	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36.700001	Depth to Bedrock:	0
End Date:	12-APR-11		

R155
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075217**

AKGWA ID:	80030663	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36.5	Depth to Bedrock:	0
End Date:	24-JUL-96		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R156
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000068084**

AKGWA ID:	80017690	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-D
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	0	Depth to Bedrock:	0
End Date:	01-JAN-00		

R157
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000073718**

AKGWA ID:	80028701	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	740	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	31	Depth to Bedrock:	0
End Date:	28-NOV-95		

R158
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101630**

AKGWA ID:	80067627	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-21
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.599976	Usage:	Remediation
Total Depth:	24.200001	Depth to Bedrock:	0
End Date:	14-OCT-15		

R159
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075225**

AKGWA ID:	80030668	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-10
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	32.5	Depth to Bedrock:	0
End Date:	25-JUL-96		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

R160
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101670**

AKGWA ID:	80067667	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-30
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	548.710022	Usage:	Remediation
Total Depth:	30.6	Depth to Bedrock:	0
End Date:	23-JUN-17		

R161
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000101631**

AKGWA ID:	80067628	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-22
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	549.299988	Usage:	Remediation
Total Depth:	22.700001	Depth to Bedrock:	0
End Date:	14-OCT-15		

S162
ESE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000071913**

AKGWA ID:	80023951	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	B-2S
PWS ID:	Not Reported		
Well Name:	Gateway Community and Technical College - Park Hills Center		
Surface Elevation:	508.700012	Usage:	Remediation
Total Depth:	24	Depth to Bedrock:	0
End Date:	15-APR-10		

U163
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000062421**

AKGWA ID:	80008016	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	Bonded 1081
Surface Elevation:	535	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	12-FEB-93		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

U164
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000062420**

AKGWA ID:	80008015	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	Bonded 1081
Surface Elevation:	535	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	12-FEB-93		

U165
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000062422**

AKGWA ID:	80008017	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	Bonded 1081
Surface Elevation:	535	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20	Depth to Bedrock:	0
End Date:	12-FEB-93		

R166
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000075227**

AKGWA ID:	80030670	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	MW-09
PWS ID:	Not Reported	Well Name:	Norb Nie Service Station
Surface Elevation:	550	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	36.5	Depth to Bedrock:	0
End Date:	24-JUL-96		

U167
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000063813**

AKGWA ID:	80009885	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	Bonded 1081
Surface Elevation:	535	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20.5	Depth to Bedrock:	0
End Date:	11-AUG-93		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

U168
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000063812**

AKGWA ID:	80009884	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	Bonded 1081
Surface Elevation:	535	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20.5	Depth to Bedrock:	0
End Date:	11-AUG-93		

T169
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000063869**

AKGWA ID:	80009976	Well Type:	Monitoring Well
Well Status:	Lost / Destroyed	Alt ID:	MW-11
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	542.299988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10	Depth to Bedrock:	0
End Date:	10-JUN-93		

T170
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070517**

AKGWA ID:	80020215	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-06
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	542.200012	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.2	Depth to Bedrock:	0
End Date:	13-AUG-92		

T171
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000063870**

AKGWA ID:	80009977	Well Type:	Monitoring Well
Well Status:	Lost / Destroyed	Alt ID:	MW-12
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	540.700012	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	10	Depth to Bedrock:	0
End Date:	10-JUN-93		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T172
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000102424**

AKGWA ID:	80069237	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-17
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	540.599976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	0
End Date:	11-JUL-14		

T173
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000057435**

AKGWA ID:	80000078	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-02
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	542	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	13-MAY-92		

V174
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000057437**

AKGWA ID:	80000080	Well Type:	Monitoring Well
Well Status:	Lost / Destroyed	Alt ID:	MW-04
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	542	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	14-MAY-92		

V175
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000102427**

AKGWA ID:	80069240	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-15
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	539.099976	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.9	Depth to Bedrock:	0
End Date:	11-JUL-14		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

V176
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000057434**

AKGWA ID:	80000077	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-01
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	546	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	20	Depth to Bedrock:	0
End Date:	12-MAY-92		

V177
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000102425**

AKGWA ID:	80069238	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-18
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	537.799988	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15.8	Depth to Bedrock:	0
End Date:	11-JUL-14		

V178
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000102426**

AKGWA ID:	80069239	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-16
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	537	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	16	Depth to Bedrock:	0
End Date:	11-JUL-14		

V179
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000057436**

AKGWA ID:	80000079	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-03
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	543	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	13-MAY-92		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

V180
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070519**

AKGWA ID:	80020217	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-14
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	536.700012	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	12	Depth to Bedrock:	0
End Date:	26-NOV-12		

V181
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000057438**

AKGWA ID:	80000081	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-05
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	542	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	15	Depth to Bedrock:	0
End Date:	18-MAY-92		

V182
SE
1/2 - 1 Mile
Higher

KY WELLS **KY7000000063871**

AKGWA ID:	80009978	Well Type:	Monitoring Well
Well Status:	Plugged	Alt ID:	MW-13
PWS ID:	Not Reported	Well Name:	CBT Covington Garage
Surface Elevation:	530	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	14.5	Depth to Bedrock:	0
End Date:	10-JUN-93		

183
East
1/2 - 1 Mile
Higher

KY WELLS **KY7000000070314**

AKGWA ID:	80019976	Well Type:	Monitoring Well
Well Status:	Active	Alt ID:	COV-02
PWS ID:	Not Reported	Well Name:	Northern KY Sanitation District 1
Surface Elevation:	511	Usage:	Monitoring Well - Ambient Monitoring
Total Depth:	88	Depth to Bedrock:	0
End Date:	03-DEC-15		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: KY Radon

Radon Test Results

Zip	Test Date	Test Result
41011	6/23/2002	1.70
41011	8/25/2003	0.50
41011	10/14/2004	1.40
41011	3/23/2005	2.40

Federal EPA Radon Zone for KENTON County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 41011

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.500 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.300 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Environmental & Public Protection Cabinet
Telephone: 502-564-6736

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Kentucky Water Well Records Database
Source: Kentucky Geological Survey
Telephone: 859-257-5500
Water Wells in Kentucky. Data from the Kentucky Ground Water Data Repository.

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations
Source: Kentucky Geological Survey
Telephone: 859-257-5500
Oil and gas well locations in the state of Kentucky

RADON

State Database: KY Radon
Source: Department of Public Health
Telephone: 502-564-4856
Radon Test Results

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

Appendix E

User Provided Information

COUNTY: Kenton

PARCEL NO.: 403
PIDN: 040-34-02-003.00 Group: 1296

ROAD: Brent Spence Bridge

ITEM NO.: 06-17.00

STATE NO.:

FEDERAL NO.:

OWNER(S): Milan Holding LLC, a Kentucky limited liability company

This is to certify that the undersigned, employed by the Transportation Cabinet, has examined the records of the County Clerk, and has run the chain of title of the hereinabove designated parcel back for a period of not less than 35 years. The undersigned further certifies that no unreleased liens were found on any of the deeds in the chain of title, except as shown in Paragraph 4. The undersigned further certifies that all the mortgage records and other title records, including those specifically noted in the first portion of Paragraph 4, were examined and the undersigned was unable to find indexed of record or awaiting indexing of record any unreleased mortgages, liens, or other encumbrances against said property, except as specifically shown in Paragraph 4.

PARAGRAPH 1. The deed or deeds or other means by which title to said property was acquired by the current owner or owners is as follows, the source of title should relate back to one or more listed Deed(s) of Conveyance, add space for additional exhibits as required:

(Exhibit 1 attached.)

Grantor: James A. Gallenstein Family Limited Liability Company, LLC, a Kentucky limited liability company
Grantee: Milan Holding LLC, a Kentucky limited liability company
Date: January 16, 2024
Book & Page: KC 265, page 859

PARAGRAPH 2. All transfers affecting this property within the 35 years, next last past, or the next last transfer if it is prior to the 35 years, next last past, add space for additional exhibits as required:

(Exhibit _ attached.)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 3. The record description of the property which is the subject of this report is as set forth in the Deed(s) of Conveyance mentioned below if different from Paragraph 1, add space for additional exhibits as required:

(Exhibit _ attached [if different from Exhibit 1].)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 4. Liens, encumbrances, and objections which are to be removed or eliminated prior to, or at the time of closing, if any, are checked and described below and attached and labeled as individual exhibits, add space for additional exhibits as required for each type:

(a) ☒ Mortgages **(Exhibit 2 attached)**

Mortgagor: Milan Holding LLC, a Kentucky limited liability company
Mortgagee: James A. Gallenstein Family Limited Liability Company, LLC, a Kentucky limited liability company
Date: January 16, 2024
Book & Page: KCM 520, page 863

(b) ☐ Vendor liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(c) ☐ Mechanics liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(d) ☐ Lis Pendens notices **(Exhibit _ attached)**

(e) ☐ Recorded leases **(Exhibit _ attached)**

(f) ☒ Easements **(Exhibit 3 attached)**

*** Ingress, Egress, and Maintenance Agreement**
By and Between: James A. Gallenstein and Sandra S. Gallenstein, husband and wife; Mark H. Wendling and Janice Wendling, husband and wife; and Bobby L. Tate and Jean Tate, husband and wife; and The City of Covington, Kentucky; and Gateway Hotel, L.L.C., a Kentucky limited liability company
Date: November 17, 1995
Book & Page: Easement Book 18, page 341

*** Thereafter, see also that Non-Disturbance Agreement dated November 17, 1995, and of record in Easement Book 19, page 1.**

*** Thereafter, see also that Non-Disturbance Agreement dated November 17, 1995, and of record in Easement Book 19, page 15.**

(g) ☐ Outstanding mineral rights **(Exhibit _ attached)**

Grantor:
Grantee:
Date:
Book & Page:

(h) ☐ Tax liens, city, county, state or Federal **(Exhibit _ attached)**

Grantor:
Grantee:
Date:
Book & Page:

(i) ☐ Incompetents **(Exhibit _ attached)**

Name:
Disability:
Legal guardian:
Birth date if infant:

(j) ☐ Options of bond for deed **(Exhibit _ attached)**

Seller:
Buyer:
Date:
Book & Page:

(k) ☒ Taxes, current city, county and special assessments **(Exhibit _ attached)**

2023 County Property Taxes were paid on October 11, 2023, in the amount of $4590.77. Face amount $4674.16.

City of Covington Property Taxes are due and payable in the amount of $867.01, as of the date of title exam.

(l) ☐ Delinquent taxes **(Exhibit _ attached)**

(m) ☐ Rights of others in possession, if not owners of record

(n) ☐ Any zoning regulations affecting said property

(o) ☐ Other matters not listed **(Exhibit _ attached)**

EXAMINATION AND REPORT BY ROW AGENT:

_____

_____, ROW Agent

Dated this ___ day of _____, 20____.

ATTORNEY REVIEW OF ROW AGENT REPORT BY:

_____

_____, Attorney

Dated this ___ day of _____, 20____.

(*OR*) EXAMINATION AND REPORT BY ATTORNEY:

_____
Fox, Wood, Wood & Estill, Attorney

Dated this 13th day of September, 2024.

ATTORNEY UPDATE CERTIFICATE (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 have been removed or eliminated, except:

_____

_____

(2) That no other changes affecting title occurred during the interim other than the following:

_____

_____

(3) That the title has been continued down from date of foregoing report to end including ___ day of _____, 20____.

_____

_____, Attorney

ATTORNEY UPDATE CERTIFICATE (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 and above have been removed or eliminated, except:

_____

_____

(2) That no other changes affecting title occurred during the interim other than the following:

_____

_____

(3) That the title has been continued down from date of foregoing report to end including ___ day of _____, 20____.

_____

_____, Attorney

RIGHT OF WAY AGENT UPDATE ACKNOWLEDGMENT (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 and above have been removed or eliminated, except:

_____

_____

(2) That no other changes affecting title occurred during the interim other than the following:

_____

_____

(3) That the title has been continued down from date of foregoing report to end including ___ day of _____, 20____.

_____

_____, Right of Way Agent

FINAL RIGHT OF WAY AGENT UPDATE ACKNOWLEDGMENT (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 and above have been removed or eliminated.

(2) That no other changes affecting title occurred during the interim.

(3) That the title has been continued down from date of foregoing report to end including ___ day of_____, 20____.

_____

_____, Right of Way Agent

Exhibit 1

3 50 1000

KENTON COUNTY CLERK $650.00
01/17/2024 01:31:44 PM 185921
DEED
CHERYL RUST 24011705900196
KC 265 859-861 3

GENERAL WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS:

That Grantor: **James A. Gallenstein Family Limited Liability Company, LLC**, a Kentucky limited liability company, whose mailing address is 501 Crescent Avenue, 2nd Floor, Covington, Kentucky 41011.

For a valuable consideration, the receipt of which is acknowledged, does hereby bargain, sell and convey to:

Grantee: **Milan Holding LLC**, a Kentucky limited liability company, whose mailing address is 855 Man O War Blvd., Union, Kentucky 41091, in fee simple, with Covenant of General Warranty, its successors and assigns forever, the following described real estate in the County of Kenton and Commonwealth of Kentucky, to wit:

Property street address: 680 W. 3rd Street, Covington, Kentucky 41011

Group Number: 1296
PIDN: 040-34-02-003.00

Situated in the City of Covington, Kenton County, Kentucky, being part of Lots Fifteen (15), Sixteen (16) and Seventeen (17) of I. L. Ludlow's Subdivision, Block "D" as shown on Page 164 of the Copied and Restored records of Kenton County, Kentucky, described as follows:

Beginning in the north line of Third Street at an iron pipe which is a distance of 40.42 feet eastwardly from the southwest corner of said Lot Number Seventeen (17); thence S. 89° 56' 14" W., along the north line of Third Street a distance of 54.58 feet; thence on a curved line deflecting to the right with a radius of 50 feet a distance of 68.98 feet to the easterly line of Crescent Avenue as now located, (chord of said curve forms an interior angle of 140° 28' 45" with the north line of Third Street and bears N. 50° 32' 31" W., a distance of 63.34 feet); thence N. 11° 01' 16" W., along the said easterly line of Crescent Avenue, forming an interior angle with the above described chord of 140° 28' 30" a distance of 99.22 feet; thence N. 89° 56' 14" E., enclosing an angle of 79° 02' 30" a distance of 122.55 feet to an iron pipe; thence S. 0° 03' 46" E., enclosing an angle of 90° a distance of 137.91 feet to the place of beginning, forming an interior angle of 90°.

Together with an easement for driveway purposes over the following triangular parcel of ground:

Beginning at the southeast corner of the above described property; thence N. 89° 56' 14" E., along the north line of Third Street a distance of 35 feet; thence N. 30° 19' 16" W., a distance of 69.46 feet to the east line of the above described property; thence S. 0° 03' 46" E., along the east line of the above described property a distance of 60 feet to the place of beginning.

Subject to all other easements, conditions, restrictions and covenants of record.

Being the same property conveyed to James A. Gallenstein Family Limited Liability Company, LLC, a Kentucky limited liability company, from James A. Gallenstein, by and through his attorney-in-fact, Tracy Gallenstein and Sandra Gallenstein, his wife, by deed dated December 31, 2001, and recorded on January 2, 2002, in Deed Book C885, Page 140 of the Kenton County Clerk's records at Covington, Kentucky.

Together with all the Privileges and Appurtenances to the same belonging.

The Grantor(s) and the Grantee(s) herein, after being first duly cautioned and sworn certify: (1) they are eighteen years of age or older; (2) the monetary consideration being paid by Grantee(s) to Grantor(s) for the property is $600,000.00; and (3) that they understand that falsification of the stated consideration or sale price of the property is a Class D felony, subject to one (1) to five (5) years imprisonment and fines up to $10,000.00. The Grantee(s) enter herein for the sole purpose of certifying pursuant to KRS Chapter 382 that the consideration reflected in this deed is the full consideration paid for the property.

Grantor(s) further covenant lawful seizin of the estate hereby conveyed, with full power to convey the same, and that it is free of all encumbrances except restrictions and easements of record, and ad valorem taxes payable in 2024, which the Grantee(s) agree to pay.

The tax bill for 2024 shall be sent to Milan Holding LLC at 855 Man O War Blvd., Union, Kentucky 41091.

IN WITNESS WHEREOF, the said Grantor(s) and Grantee(s) have hereunto set their hands this 16 day of January 2024.

James A. Gallenstein Family Limited Liability Company, LLC

By: _____
Tracy Gallenstein, Member

Milan Holding LLC

By: _____
Milanben J. Patel, Manager

COMMONWEALTH OF KENTUCKY }
COUNTY OF BOONE }

The foregoing deed and consideration certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said County and State, by the said Grantor, **James A. Gallenstein Family Limited Liability Company, LLC**, a Kentucky limited liability company by and through its authorized representative, **Tracy Gallenstein, Member**, on this 16 day of January 2024.

Jeffrey Robert Aylor
Notary Public, ID KYNP68356
State at Large, Kentucky
My Commission Expires on April 8, 2027

_____
Notary Public
My Commission Expires: 4-8-2027

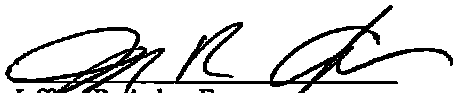
COMMONWEALTH OF KENTUCKY }
COUNTY OF BOONE }

The foregoing consideration certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said County and State, by the said Grantee, **Milan Holding LLC**, a Kentucky limited liability company by and through its authorized representative, **Milanben J. Patel, Manager**, on this 16 day of January 2024.

Jeffrey Robert Aylor
Notary Public, ID KYNP68356
State at Large, Kentucky
My Commission Expires on April 8, 2027

_____
Notary Public
My Commission Expires: 4-8-2027

THIS DEED PREPARED BY
AND THE RECORDED DEED
SHOULD BE RETURNED TO:



Jeffrey R. Aylor, Esq.
The Aylor Law Office, P.S.C.
6900 Houston Road
Bldg. 700, Ste. 35
Florence, Kentucky 41042
859-647-8400
859-647-8404 (Fax)

****No Title Examination Performed****

Exhibit 2

5
80

KENTON COUNTY CLERK $80.00
01/17/2024 01:32:05 PM 185921
MORTGAGE
CHERYL RUST 24011705900197
KCM 520 863-867 5

MORTGAGE

THIS MORTGAGE is made this 16 day of January 2024, between the Mortgagor, **Milan Holding LLC**, a Kentucky limited liability company (herein referred to as "Borrower"), and the Mortgagee, **James A. Gallenstein Family Limited Liability Company, LLC**, a Kentucky limited liability company, whose mailing address is 501 Crescent Avenue, 2nd Floor, Covington, Kentucky 41011, (herein referred to as "Lender").

WHEREAS, Borrower is indebted to Lender in the principal sum of **Five hundred thousand dollars ($500,000.00)**, which indebtedness is evidenced by Borrower's note dated January 16, 2024, and extensions and renewals thereof (herein "Note"), providing for monthly installments of principal and interest with the balance of indebtedness, if not sooner paid, due and payable by February 15, 2027;

TO SECURE to Lender the repayment of the indebtedness evidenced by the Note, with interest thereon; the payment of all other sums, with interest thereon, advanced in accordance herewith to protect the security of this Mortgage; and the performance of the covenants and agreements of Borrower herein contained, Borrower does hereby mortgage, grant and convey to Lender the following described property located in the County of Kenton in the Commonwealth of Kentucky.

Group Number: 1296
PIDN: 040-34-02-003.00

Situated in the City of Covington, Kenton County, Kentucky, being part of Lots Fifteen (15), Sixteen (16) and Seventeen (17) of I. L. Ludlow's Subdivision, Block "D" as shown on Page 164 of the Copied and Restored records of Kenton County, Kentucky, described as follows:

Beginning in the north line of Third Street at an iron pipe which is a distance of 40.42 feet eastwardly from the southwest corner of said Lot Number Seventeen (17); thence S. 89° 56' 14" W., along the north line of Third Street a distance of 54.58 feet; thence on a curved line deflecting to the right with a radius of 50 feet a distance of 68.98 feet to the easterly line of Crescent Avenue as now located, (chord of said curve forms an interior angle of 140° 28' 45" with the north line of Third Street and bears N. 50° 32' 31" W., a distance of 63.34 feet); thence N. 11° 01' 16" W., along the said easterly line of Crescent Avenue, forming an interior angle with the above described chord of 140° 28' 30" a distance of 99.22 feet; thence N. 89° 56' 14" E., enclosing an angle of 79° 02' 30" a distance of 122.55 feet to an iron pipe; thence S. 0° 03' 46" E., enclosing an angle of 90° a distance of 137.91 feet to the place of beginning, forming an interior angle of 90°.

Together with an easement for driveway purposes over the following triangular parcel of ground:

Beginning at the southeast corner of the above described property; thence N. 89° 56' 14" E., along the north line of Third Street a distance of 35 feet; thence N. 30° 19' 16" W., a distance of 69.46 feet to the east line of the above described property; thence S. 0° 03' 46" E., along the east line of the above described property a distance of 60 feet to the place of beginning. KC 205 pg 859

Subject to all other easements, conditions, restrictions and covenants of record.

Which has the address of 680 W. 3rd Street, Covington, Kentucky 41011.

TOGETHER with all the improvements now or hereafter erected on the property, and all easements, rights, appurtenances and rents all of which shall be deemed to be and remain a part of the property covered by this Mortgage; and all of the foregoing, together with said property and hereinafter referred to as the "Property."

Borrower covenants that Borrower is lawfully seized of the estate hereby conveyed and has the right to mortgage, grant and convey the Property, and that the Property is free from all encumbrances, easements, restrictions and stipulations of record. Borrower covenants that Borrower warrants and will defend generally the title to the Property against all claims and demands, subject to encumbrances of record.

UNIFORM COVENANTS. Borrower and Lender covenant and agree as follows:

1. **Payment of Principal and Interest.** Borrower shall promptly pay when due the principal and interest indebtedness evidenced by the Note. This Mortgage secures payment of said Note according to its terms, which are incorporated herein by reference.

2. **Prior Mortgage and Deeds of Trust; Charges; Liens.** Borrower shall perform all of Borrower's obligations, under any mortgage, deed of trust or other security agreement with a lien which has priority over this Mortgage, including Borrower's covenants to make payments when due. Borrower shall pay or cause to be paid all taxes, assessments and other charges, fines and impositions attributable to the Property which may attain a priority over this Mortgage, and leasehold payments or ground rents, if any.

3. **Hazard Insurance.** Borrower shall keep the improvements now existing or hereafter erected on the Property insured against loss by fire, hazards included within the term "extended coverage", and such other hazards as Lender may require and in such amounts and for such periods as Lender may require.

The insurance carrier providing the insurance shall be chosen by Borrower subject to approval by Lender, provided that such approval shall not be unreasonably withheld. All insurance policies and renewals thereof shall be in a form acceptable to Lender and shall include a standard mortgage clause in favor of and in a form acceptable to Lender. Lender shall have the right to hold the policies and renewals thereof, subject to the terms of any mortgage, deed of trust or other security agreement with a lien which has priority over this Mortgage.

In the event of loss Borrower shall give prompt notice to the insurance carrier and Lender. Lender may make proof of loss if not made promptly by Borrower.

If the Property is abandoned by Borrower, or if Borrower fails to respond to Lender within thirty (30) days from the date notice is mailed by Lender to Borrower that the insurance carrier offers to settle a claim for insurance benefits, Lender is authorized to collect and apply the insurance benefits, Lender is authorized to collect and apply the insurance proceeds at Lender's option either to restoration or repair of the Property or to the sums secured by this Mortgage.

4. **Preservation and Maintenance of Property.** Borrower shall keep the Property in good repair and shall not commit waste or permit impairment or deterioration of the Property.

5. **Protection of Lender's Security.** If Borrower fails to perform the covenants and agreements contained in this Mortgage, or if any action or proceeding is commenced which materially affects Lender's interest

in the Property, then Lender at Lender's option, may make such appearances, disburse such sums, including reasonable attorney's fees, and take such actions as is necessary to protect Lender's interest.

Any amounts disbursed by Lender pursuant to this paragraph 5, with interest thereon, at the Note rate shall become additional indebtedness of Borrower secured by this Mortgage. Unless Borrower and Lender agree to other terms of payment, such amounts shall be payable upon notice from Lender to Borrower requesting payment thereof. Nothing contained in this paragraph 5 shall require Lender to incur any expense or take any action hereunder.

6. **Inspection.** Lender may make or cause to be made reasonable entries upon and inspections of the Property, provided that Lender shall give Borrower notice prior to any such inspections specifying reasonable cause therefor related to Lender's interest in the Property.

7. **Condemnation.** The proceeds of any award or claim for damages, direct or consequential, in connection with any condemnation or other taking of the Property, or part thereof, or for conveyance in lieu of condemnation, are hereby assigned and shall be paid to Lenders subject to the terms of any mortgage, deed of trust or other security agreement with a lien which has priority over this Mortgage.

8. **Borrower not Released; Forbearance By Lender Not a Waiver.** The Borrower shall remain liable for full payment of the principal and interest on the Note (or any advancement or obligation) secured hereby, notwithstanding any of the following: (a) The sale of all or a part of the premises, (b) the assumption by another party of the Borrower's obligations hereunder, (c) the forbearance or extension of time for payment or performance of any obligation hereunder, whether granted to Borrower or a subsequent owner of the property, and (d) the release of all or any part of the premises securing said obligations the release of any party who assumes payment of the same. None of the foregoing shall in any way affect the full force and effect of the lien of this Mortgage or impair Lender's right to a deficiency judgement (in the event of foreclosure) against Borrower or any party assuming the obligations hereunder.

Any forbearance by Lender in exercising any right or remedy hereunder, or otherwise afforded by applicable law, shall not be a waiver of or preclude the exercise of any such right or remedy.

9. **Successors and Assigns Bound; Joint and Several Liability; Co-signers.** The covenants and agreements herein contained shall bind, and the rights hereunder shall inure to, the respective successors and assigns of the Lender and the Borrower, subject to the provisions of paragraph 13 hereof. All covenants and agreements of Borrower shall be joint and several.

10. **Notice.** Except for any notice required under applicable law to be given in another manner, (a) any notice to Borrower provided for in this Mortgage shall be given by delivering it or by mailing such notice by first class mail addressed to Borrower or the current owner at the property address or at such other address as Borrower may designate by notice to Lender as provided herein, and any notice to Lender shall be given by first class mail to Lender's address stated herein or to such other address as Lender may designate by notice to Borrower as provided herein. Any notice provided for in this Mortgage shall be deemed to have been given to Borrower or Lender when given in the manner designated herein.

11. **Governing Law; Severability.** The state and local laws applicable to this Mortgage shall be the laws of the jurisdiction in which the Property is located. The foregoing sentence shall not limit the applicability of Federal law to this Mortgage. In the event that any provision or clause of this Mortgage or the Note conflicts with applicable law, such conflicts shall not affect other provisions of this Mortgage or the Note which can be given effect without the conflicting provisions, and to this end the provisions of this Mortgage and the Note are declared to be severable. As used herein "costs", "expenses" and "attorneys' fees" include all sums to the extent not prohibited by applicable law or limited herein.

12. **Borrower's Copy.** Borrower shall be furnished a conformed copy of the Note and of this Mortgage at the time of execution or after recordation hereof.

13. **Transfer of the Property, Assumption.** If Borrower sells or transfers all or any part of the property or an interest therein without Lender's prior written consent, Lender may, at Lender's option, for any

reason, declare all the sums secured by this Mortgage to be immediately due and payable. However, this option shall not be exercised by Lender if exercise is prohibited by Federal law as of the date of this Mortgage.

This Mortgage may not be assumed by a purchaser without the Lender's consent. If an assumption is allowed, the Lender may charge an assumption fee and require that person(s) assuming the loan to pay additional charges as authorized by law.

NON-UNIFORM COVENANTS. Borrower and Lender further covenant and agree as follows:

14. **Acceleration: Remedies.** Upon Borrower's breach of any covenant or agreement of Borrower in this Mortgage, including the covenants to pay when due any sums under the Note secured by this Mortgage, Lender, at Lender's option, may declare all of the sums secured by this Mortgage to be immediately due and payable without demand or notice and may foreclose this Mortgage by judicial proceeding. Lender shall be entitled to collect in such proceeding all expenses of foreclosure, including, but not limited to reasonable attorney's fees and cost of documentary evidence, abstracts and title reports.

15. **Assignment of Rents; Appointment of Receiver.** As additional security hereunder, Borrower hereby assigns to Lender the rents of the Property, provided that Borrower shall, prior to acceleration under paragraph 14 hereof or abandonment of the Property, have the right to collect and retain such rents as they become due and payable.

Upon acceleration under paragraph 14 hereof or abandonment of the Property, Lender shall be entitled to have a receiver appointed by a court to enter upon, take possession of the manage the Property and to collect the rents of the Property including those past due. All rents collected by the receiver shall be applied first to payment of the costs of management of the Property and collection of rents, including, but not limited to receiver's fees, premiums on receiver's bonds and reasonable attorney's fees, and then to the sums secured by this Mortgage. The receiver shall be liable to account only for those rents actually received.

16. **Legislation.** If, after the date hereof, enactment or expiration of applicable laws have the effect either of rendering the provisions of the Note or the Mortgage, or of diminishing the value of Lender's security, then Lender at Lender's option, may declare all sums secured by the Mortgage to be immediately due and payable.

17. **Release.** Upon payment of all sums secured by this Mortgage, this Mortgage shall become null and void and Lender shall release this Mortgage without charge to Borrower. Borrower shall pay all costs of recordation, if any. Lender, at Lender's option, may allow a partial release of the Property on terms acceptable to Lender and Lender may charge a release fee.

REQUEST FOR NOTICE OF DEFAULT AND FORECLOSURE UNDER SUPERIOR MORTGAGES OR DEEDS OF TRUST

Borrower and Lender request the holder of any mortgage, deed of trust or other encumbrance with a lien which has priority over this Mortgage to give Notice to Lender at Lender's address set forth on page one of this Mortgage, of any default under the superior encumbrance and of any sale or other foreclosure action.

IN TESTIMONY WHEREOF, witness the signatures of the Mortgagor(s), the days and year first above written.

Milan Holding LLC

By: _____
Milanben J. Patel, Manager

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF BOONE)

I, a Notary Public in and for the State and County aforesaid do hereby certify that the foregoing instrument of writing was on this day produced to me in said State and County, and acknowledged and delivered by **Milan Holding LLC**, by and through its authorized representative, **Milanben J. Patel, Manager**.

WITNESS my hand on this 16 day of January, 2024.

My Commission Expires: 4-8-2027

Notary Public

Jeffrey Robert Aylor
Notary Public, ID KYNP68356
State at Large, Kentucky
My Commission Expires on April 8, 2027

This instrument prepared by:

Jeffrey R. Aylor
The Aylor Law Office, P.S.C.
6900 Houston Road
Building 700, Suite 35
Florence, KY 41042
859-647-8400
859-647-8404 (Fax)
jeff@aylor-law.com

Exhibit 3

1995112905900195 EASE 18/341

Gallenstein = 040-34-02-003.00
Wendling/Tate: 040-34-02-002.00
City = 040-34-02-008.00
040-34-02-009.00
040-34-02-010.00
040-34-02-011.00
040-34-02-012.00

Groups: 1295, 1296 & 1297

Rev. 4/11/95

BOOK 0018 PAGE 341

INGRESS, EGRESS AND MAINTENANCE AGREEMENT

This Agreement is made and entered into this 17th day of November, 1995 by and among James A. Gallenstein and Sandra S. Gallenstein, husband and wife, whose address is 433 Johnson Street, Covington, Kentucky, (hereinafter "Gallenstein"), Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife (hereinafter collectively the "J.D. Group") whose business address is 670 West Third Street, Covington, Kentucky, the City of Covington, Kentucky, a Kentucky municipal corporation, 638 Madison Avenue, Covington, Kentucky 41011 (hereinafter the "City") and Gateway Hotel, L.L.C., a Kentucky limited liability company, whose principal place of business is Suite 1200, 50 E. RiverCenter Blvd., Covington, Kentucky (hereinafter "Gateway").

WHEREAS, Gallenstein is the owner in fee of that property situated in the City of Covington, Kenton County, Kentucky located at the northeast corner of Third Street and Crescent Avenue known as 680 West Third Street described on Exhibit "A" attached hereto and made a part hereof (the "Gallenstein Property"), said Gallenstein Property being shown on the plat attached hereto marked as Exhibit "B";

WHEREAS, the City is the owner in fee of that property situated in the City of Covington, Kentucky located to the north and east of the Gateway Property, the Gallenstein Property, and the J.D. Group Property, (the "City Property"), a portion of the City Property being shown on Exhibit "B"; and

WHEREAS, the J.D. Group is the owner in fee of that property situated in the City of Covington, Kenton County, Kentucky located on Third Street adjoining the Gallenstein Property known as 670 West Third Street described on Exhibit "C" attached hereto and made a part hereof (the "J.D. Group Property"), said property being shown on Exhibit "B"; and

WHEREAS, Gateway is the owner in fee of that property situated in the City of Covington, Kenton County, Kentucky, located on Crescent Avenue known as 204 Crescent Avenue, described on Exhibit "D" attached hereto and made a part hereof (the "Gateway Property"), which Gateway Property adjoins the Gallenstein Property and the J.D. Group Property on their northern boundary lines, a portion of the Gateway Property being shown on Exhibit "B"; and

WHEREAS, the parties hereto desire to provide for the creation of certain easements for ingress and egress (the "Common Driveway Easement Areas") for the common benefit of all of the above described parcels of real estate and to set forth the terms and

99999.999.21071.1

Recorded BILL AYLOR
COVINGTON KENTON COUNTY CLERK
Doc type: EASEMENT
Book/page: 18/ 341 20 pg
Doc#: 95 11 29 059 00195
Dt/tm Recorded: 11/29/1995 02:08:21pm
Total fees: 50.00 Tax: 0.00
Clerk name: B J WOOD

DATE MAILED 12-15-95

TO

conditions for the maintenance of the Common Driveway Easement Area; and

WHEREAS, the parties hereto desire to provide for the creation of certain easements the construction and use of a Dumpster Easement Area and for access to and from said Dumpster Easement Area for the benefit of the Gallenstein Property and the J.D. Group Property.

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and in consideration of the mutual agreements set forth and contained herein, the parties hereto agree for themselves, and their respective heirs, successors, and assigns, as follows:

1. Ingress and Egress Easements. Gallenstein, the J.D. Group, the City, and Gateway hereby grant to each other and their respective heirs, successors, and assigns, for the use and benefit of their respective properties and their respective heirs, successors, assigns, tenants, and subtenants, and their respective licensees, business invitees, employees, visitors and all other persons properly using the same, a non-exclusive perpetual easement for purposes of providing ingress, egress, and regress for pedestrian and vehicular access purposes over, on and across those portions of the Gallenstein Property, the J.D. Group Property, the City Property, and the Gateway Property (hereinafter the "Easement Properties") described in Exhibit "E" attached hereto and incorporated by reference herein, said easement areas being delineated on Exhibit "B" attached hereto. The City acknowledges and agrees that the easement rights granted herein are granted to the City solely for the purpose of providing pedestrian and vehicular ingress and egress from Crescent Avenue to the City Property for purposes of maintenance, repair, reconstruction, and operation of the Floodwall Protection System located on the City Property, and the City agrees that said easement shall in no way be construed or interpreted to create or grant a public right of way across said Common Driveway Easement Area for the benefit of the general public.

2. Dumpster Easement. Gallenstein hereby grants to the J.D. Group, their heirs, successors and assigns, for the benefit of the J.D. Group Property, and its tenants, subtenants, licensees, invitees, and all other persons properly using the same, a perpetual easement for the purpose of placing and maintaining a dumpster and for pedestrian and vehicular ingress and egress thereto to and from the J.D. Group Dumpster and trash waste containment area within the area shown on Exhibit "B" and described in Exhibit "F" attached hereto (the "Dumpster Easement Area").

3. Dumpster Access Easement. The J.D. Group hereby grants to Gallenstein, his heirs, successors, assigns, tenants, subtenants, and business invitees for the use and benefit of the Gallenstein Property, a non-exclusive perpetual easement ten (10') foot in width along the western boundary line of the J.D. Group Property for the purpose of providing ingress, egress, and regress for pedestrian and vehicular access purposes to and from the Gallenstein dumpster and trash/waste containment area as shown on Exhibit "B", on and across that portion of the J.D. Group Property described in Exhibit "G" attached hereto and incorporated by reference herein, said easement area being delineated on Exhibit "B" (the "Dumpster Access Easement").

4. No Obstructions. Each of the parties hereto covenants and agrees that no party hereto shall be permitted to park vehicles in the Common Driveway Easement Area, the Dumpster Easement Area and the Dumpster Access Easement Area and that the Common Driveway Easement Area, the Dumpster Easement Area and the Dumpster Access Easement Area shall be kept open at all times for two-way traffic and that none of the parties hereto, nor their respective heirs, successors, and assigns shall permit any obstruction of any kind to exist on the Common Driveway Easement Area, Dumpster Easement Area, or Dumpster Access Easement Area which will in any way prevent or obstruct free use of the Common Driveway Easement Area, the Dumpster Easement Area, or the Dumpster Access Easement Area for their intended purposes, except for temporary obstructions which are reasonably necessary in connection with the maintenance, repair, construction and/or replacement of improvements in accordance with Section 5 of this Agreement.

5. Maintenance.

A) Gateway shall be responsible for the repair, maintenance, preservation and upkeep of the Common Driveway Easement Area including the reasonable cost(s) thereof, in a workmanlike, diligent and efficient manner, which repair and upkeep shall include the following (hereinafter called "Maintenance"): (i) maintenance of paved surfaces, curbs, and gutters, of the Common Driveway in a level and smooth condition, free of potholes and unsafe changes in elevation, with the type of material(s) originally used in the construction of said surfaces or a substitute of equal quality; (ii) striping of lanes and directional arrows as necessary, and restriping as required to keep same clearly visible; (iii) removal of all trash, litter, refuse, waste, and debris from the Common Driveway, and washing, vacuuming, or sweeping the same as may be reasonably required; (iv) removal to the extent reasonably possible of snow and ice from the paved surfaces of the Common Driveway within twelve (12) hours after the end of the snowfall; (v) maintenance of appropriate stop signs, exit and directional markers and other traffic control signs as is reasonably required and as are permitted by the governmental

authority(s) having jurisdiction; and (vi) maintenance of any storm water catch basins and lines providing service to the Common Driveway.

Gateway, and/or its successor(s) and assigns, shall have the right to select from time to time a person or persons or business entity to maintain the Common Driveway, provided that such selection will not diminish its obligations to maintain the Common Driveway.

The cost of maintenance of the Common Driveway shall include the total of all items of direct cost and expense necessarily expended for the supervision, maintenance and repair of the Common Driveway, determined in accordance with generally accepted accounting principles on the accrual method of accounting, but which costs will exclude any real property taxes or assessments. The cost includes maintenance, replacements, and reconstruction work as required to preserve the utility of the Common Driveway in the same condition and status as it was as of the time of the completion of the original construction and installation.

Notwithstanding the foregoing, any cost incurred for maintenance, repair, or replacement of the Common Driveway necessitated by the negligence or willful misconduct of any one of the other parties hereto, or their respective heirs, successors, assigns, licensees, business invitees, or employees shall be the sole responsibility of such party.

B) The J.D. Group shall be responsible for the maintenance and repair of the J.D. Group Dumpster Easement Area and Gallenstein shall be responsible for the maintenance and repair of its Dumpster Area.

C) Taxes and Assessments. Each party hereto shall be responsible for the payment of all real estate taxes and assessments charged against their respective parcels to which they hold fee title, and such taxes and assessments shall not be included as part of the Common Driveway Maintenance expenses.

5. No Parking Rights. Nothing contained herein shall in any way be interpreted or construed to grant or create parking rights or privileges on the property of each of the other parties hereto, it being the intent hereof that no cross easement parking rights or privileges have or are being granted or conveyed by the terms of this Agreement.

6. Indemnification. Each party shall hold harmless all other parties, and all tenants, lessees, and occupants of the properties of the other parties from all claims or judgments arising from the use of the Common Driveway and/or Dumpster Easement Area(s) located within their respective parcel or portion

thereof, unless the claim, demand, or judgment is caused by the negligence of the other party, tenant, lessee, or occupant.

7. Specific Performance. This Agreement may be enforced by specific performance and other injunctive relief.

8. Covenants Running with the Land; Successors and Assigns. All of the language, statements, words, paragraphs, sections and articles of this Agreement shall be deemed to constitute covenants, conditions, restrictions or easements; and all of said covenants, conditions, restrictions and easements shall run with the land and bind the land, and shall be binding upon and inure to the benefit of any part and all of said land, and all present and future parties having any right, title or interest in all or part of said land, and their respective successors and assigns forever. Notwithstanding anything to the contrary herein, liability for the obligations of each of the parties hereto, and their respective successors and assigns, shall be limited to the period of time during which each such person or entity owns an interest in any portion of their respective parcels of property, as applicable, and shall be limited from time to time to the obligations related to the portion of said property which each such person or entity then owns.

9. Severability. The invalidity of any covenant, restriction, condition, limitation, or any other provision of this Agreement, or any part thereof, shall not impair or affect in any manner the validity, enforceability or effect of the rest of this Agreement.

10. Notices; Consents. Any notice, request, demand, approval, or consent given or required to be given or required to be given under this Agreement shall, except as otherwise expressly provided, be in writing and shall be deemed to have been given when mailed by United States Registered or Certified Mail, postage prepaid, or sent by reputable overnight courier, receipt or proof of delivery required, to the other party at the address set forth in the preamble of this Agreement or at the last changed address given by the party by notice, and to any successors or assigns of any party at the address given by notice.

11. Amendments. Except as is otherwise specifically provided herein no agreement shall be effective to add to, change, modify, waive or discharge this Agreement in whole or in part unless that agreement is in writing and signed by the parties hereto (or their successors and assigns, as the case may be).

12. Commencement of Construction. If construction on the project envisioned by the parties hereto has not commenced on or before December 31, 1996, this Agreement, at the election of any party hereto, shall be rendered unenforceable as to said electing party.

BOOK 0018 PAGE 346

THE CITY OF COVINGTON, KENTUCKY,
a municipal corporation

By: _____
Denny Bowman
Its: Mayor

ATTEST: Carol Little
CITY CLERK

Approved as to form:

_____
Joseph P. Condit, Esq.
City Attorney
City of Covington, Kentucky

_____
James A. Gallenstein

_____
Sandra S. Gallenstein

_____
Mark H. Wendling

_____
Janice Wendling

_____
Bobby G. Tate

_____
Jean Tate

Gateway Hotel, L.L.C.,
a Kentucky limited liability company

By: COMMONWEALTH HOTELS, INC.,
a Kentucky corporation
Its: Manager

By: _____
Thomas E. Banta
Its: Vice President

BOOK 0018 PAGE 347

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 17th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Denny Bowman, Mayor and Greg Jarvis, City Manager of The City of Covington, Kentucky, a municipal corporation, who represented that they are duly authorized officers of the corporation, and who acknowledged that they did sign the foregoing instrument and that the same is their free and voluntary act and deed as such officers and is the free and voluntary act and deed of the corporation.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires: 12-21-95

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16 day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared James A. Gallenstein and Sandra S. Gallenstein, husband and wife, who acknowledged the signing of the foregoing instrument to be their free and voluntary act and deed, for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires: 3/20/99

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Mark H. Wendling and Janice Wendling, husband and wife, who acknowledged the signing of the foregoing instrument to be their free and voluntary act and deed, for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Bobby L. Tate and Jean Tate, husband and wife, who acknowledged the signing of the foregoing instrument to be their free and voluntary act and deed, for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Thomas Banta, Vie President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, the corporation whose name is subscribed to and which executed the

foregoing instrument, and for himself and as such officer, and for and on behalf of said corporation, acknowledged the signing and execution of said instrument; and acknowledged that the seal affixed to said instrument is the corporate seal of said corporation, and that the signing and execution of said instrument is the free and voluntary act and deed of said corporation, for the uses and purposes in said instrument mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1995

RETURN TO:

THIS DOCUMENT PREPARED BY:

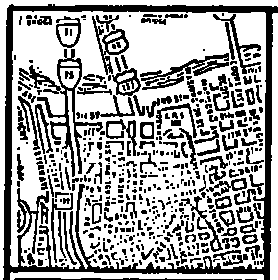
Martin C. Butler
Strauss & Troy, L.P.A.
50 E. RiverCenter Blvd.
Suite 1400
Covington, Kentucky 41011
(513) 621-8900

Exhibit "A"
to
Ingress, Egress and Maintenance
Agreement between Gallenstein,
J.D. Group, City of Covington,
and Gateway

Situated in the City of Covington, Kenton County, Kentucky, being part of Lots Fifteen (15), Sixteen (16) and Seventeen (17) of I. L. Ludlow's Subdivision, Block "D" as shown on Page 164 of the Copied and Restored records of Kenton County, Kentucky, described as follows:

Beginning in the north line of Third Street at an iron pipe which is a distance of 40.42 feet eastwardly from the southeast corner of said Lot Number Seventeen (17); thence S 89-56-14 W along the north line of Third Street a distance of 54.58 feet; thence on a curved line deflecting to the right with a radius of 50 feet a distance of 68.98 feet to the easterly line of Crescent Avenue as now located, (chord of said curve forms an interior angle of 140-28-45 with the north line of Third Street and bears N 50-32-31 W, a distance of 63.64 feet); thence N 11-01-16 W, along the said easterly line of Crescent Avenue, forming an interior angle with the above described chord of 140-28-30 a distance of 99.22 feet; thence N 89-56-14 E, enclosing an angle of 79-02-30 a distance of 122.55 feet to an iron pipe; thence S 00-03-46 E, enclosing an angle of 90 degrees a distance of 137.91 feet to the place of beginning, forming an interior angle of 90 degrees.

BOOK 0018 PAGE 351



VICINITY MAP

EASEMENT "A"

1	S 89-56-14 W	10.00'
2	N 00-03-46 W	122.88'
3	N 89-56-14 E	10.00'
4	S 00-03-46 E	122.88'

EASEMENT "B"

5	N 11-57-42 W	70.80'
6	N 78-02-18 E	14.94'
7	S 00-03-46 E	72.46'

EASEMENT "C"

8	N 10-48-27 W	51.42'
9	N 89-55-16 E	122.24'
10	S 00-03-46 E	7.68'
11	S 77-57-44 W	64.54'
12	S 50-19-15 W	40.28'
13	S 78-16-01 W	18.88'

EASEMENT "D"

14	S 11-01-16 E	18.21'
15	S 89-55-16 W	100.29'
16	N 80-17-47 E	45.28'
17	N 89-49-31 E	8.66'
18	N 82-37-13 E	27.87'
19	Δ = 25-22-55 R = 39.34' L = 17.43' CH = 17.29' B.L.C. N 66-54-03 E	

EASEMENT "E"

20	N 03-03-46 W	11.00'
21	N 89-55-16 E	13.70'
22	N 11-01-16 W	21.08'
23	N 86-41-13 E	130.58'
24	S 00-03-46 E	5.45'
25	S 86-41-13 W	69.66'
26	S 52-34-11 W	32.96'
27	S 77-35-13 W	45.37'

* LAND SURVEYOR CERTIFICATE *

I, DAVID E. ESTES, A REGISTERED LAND SURVEYOR IN THE STATE OF KENTUCKY, DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE BY ME AND THAT THIS PLAT ACCURATELY AND PROPERLY SHOWS SAID SURVEY.

SIGNATURE L.S. 2316

11.09.95
DATE

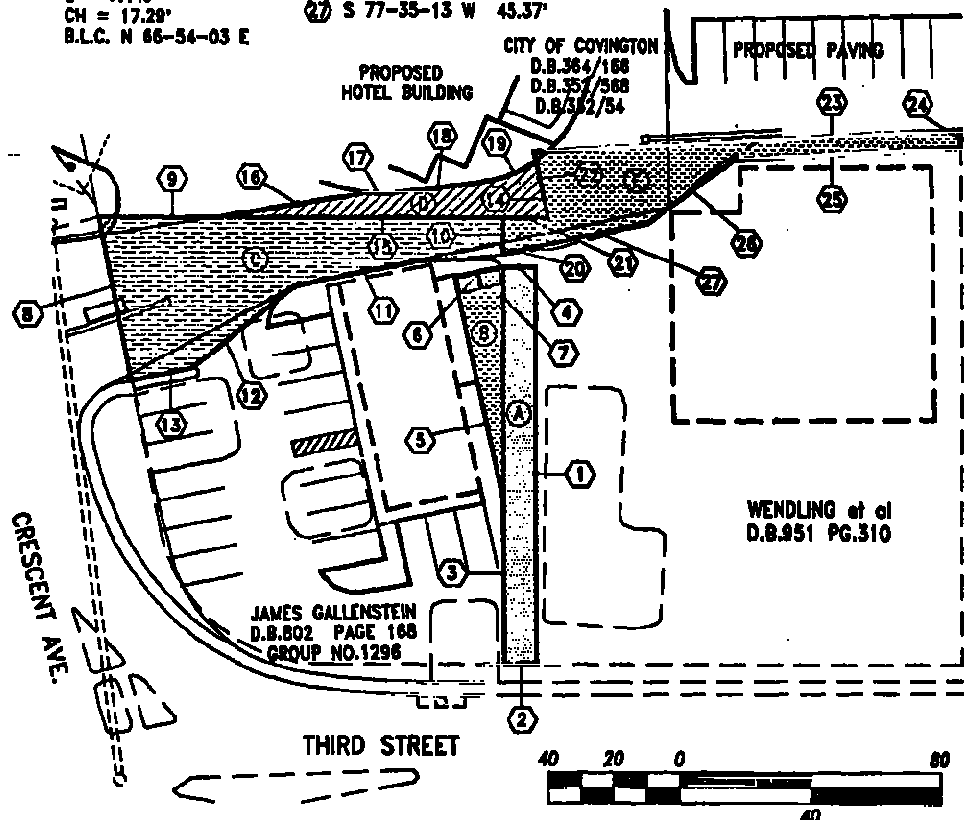


Exhibit "B" Page 1

GRAPHIC SCALE 1" = 40'

STATE OF KENTUCKY
DAVID E. ESTES
2,316
REGISTERED
LAND SURVEYOR

Drawn By:	NASSIM DAHER
Date:	11-03-1995
Scale:	1" = 40'
File No.	390-284

ACCESS EASEMENT PLAT SURVEY

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
7075 INDUSTRIAL ROAD, Fflorence, KENTUCKY 41042
TELEPHONE (606) 342-4100

\HAMPTON\3284V03.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION

BOOK 0018 PAGE 352

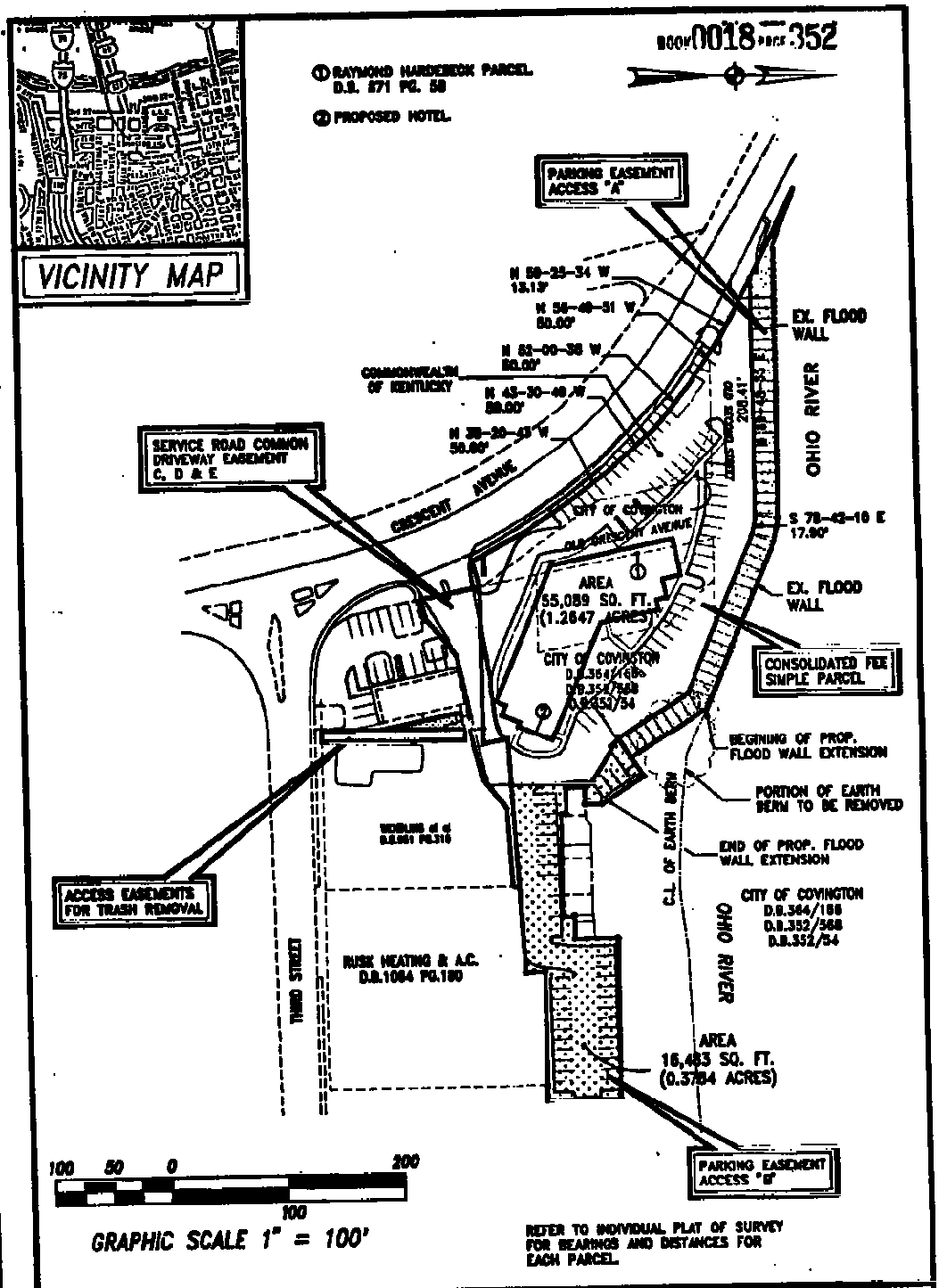


Exhibit "B" Page 2	Drawn By: NASSIM DAHER Date: 11-15-1995 Scale: 1" = 100' File No. 300-284	**PLAT OF SURVEY FOR GATEWAY HOTEL, L.C.C.**

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
7075 INDUSTRIAL ROAD, FLORENCE, KENTUCKY 41042
TELEPHONE (606) 342-6100

\HAMPTON\3284VTU.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION

Exhibit "C"
to
Ingress, Egress and Maintenance
Agreement between Gallenstein,
J.D. Group, City of Covington,
and Gateway

BOOK 0018 PAGE 353

Being part of Lots No. 15, 16, 17 and 18 of Block D., I.L. Ludlow Subdivision, Covington, Kentucky, and being more particularly described as follows: BEGINNING at a point in the North line of Third Street at the dividing line and the southeast corner of Lot # 18 THENCE S 89-56-14 W 140.06 feet along the north line of Third Street to a point; THENCE N 00-03-46 W 137.91 feet to a point THENCE N 89-56-14 E 13.70 feet to a point; THENCE N 11-01-16 W 21.08 feet to a point; THENCE N 86-41-14 E 130.58 feet to the East line of Lot #18; THENCE S 00-03-46 E 166.0 feet to the place of beginning.

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Consolidated Property of Gateway Hotel, L.L.C.
1.2647 AC. (55,089 S.F.)

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the point at the intersection of Old Crescent Avenue and the new Access Control line of the new Crescent Avenue; said point also being the Northwesterly property corner of Raymond Hardebeck (DB 871 Pg 56) ;

THENCE leaving said Right of Way and continuing with a new division line S 74-21-10 W for a distance of 22.61 feet to a set cross notch;

THENCE continuing with a New Division line N 29-01-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 34-08-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 38-20-43 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 43-30-49 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 52-00-38 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 56-49-51 W for a distance of 50.00 feet to a point;said point being on the Access Control line;

THENCE continuing with a New Division line N 59-25-34 W for a distance of 13.13 feet to a point;said point being on the Access Control line;

THENCE leaving said New Division Line and continuing with the Access Control Line N 63-30-12 W for a distance of 38.71 feet to a point; said point being 20 feet from the existing Portland Cement Concrete Flood Wall;

THENCE continuing with a line that is 20 feet off of the said Flood Wall and more or less parallel to said wall N 89-48-35 E for a distance of 208.41 feet to a point;

THENCE continuing with said parallel line S 78-42-10 E for a distance of 17.90 feet to a point;

THENCE continuing with said parallel line S 66-56-38 E for a distance of 147.56 feet to a point;

THENCE continuing with said parallel line S 32-32-02 E for a distance of 70.81 feet to a point;

THENCE continuing with said parallel line S 57-37-36 E for a distance of 47.16 feet to a point;

THENCE leaving said parallel line and continuing with a new division line S 00-03-46 E for a distance of 67.78 feet to a point; said point being on the Northerly property line of Wendling et al (DB 951 Pg 310);

THENCE leaving said new division line continuing with said property line S 86-41-12 W for a distance of 40.38 feet to a found iron spike;

THENCE continuing with said property line S 11-01-16 E for a distance of 21.08 feet to a Pk nail;

THENCE continuing with said property line S 89-55-16 W for a distance of 136.26 feet to the **Point of Beginning**;

The above described parcel of land contains 1.2647 Acres (55,089 square feet) and was field surveyed by David E. Estes Corporation in November 1995.

BOOK 0018 PAGE 356

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel **From: Gallenstein To: Gateway Hotel, et al...**
DB 802 Pg 168, Group No.1296
0.0712 AC. (3,100 S.F.)

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at a common point to the Southeast corner of said City Parcel and the intersection of the Easterly Right of Ways of "Old " Crescent Avenue and "New" Crescent Avenue and being the Northwesterly property corner of James Gallenstein (DB 802 Pg 168);

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 122.24' to a point; said point being in common with Mary Ann Muck 's (DB 1021 PG 342) property corner;

THENCE leaving said Northerly property corner and continuing with the common property line with Mary Ann Muck S 00-03-46 E for a distance of 7.66 feet to a point;

THENCE leaving said property line and continuing with a new easement line S 77-57-44 W for a distance of 64.54 feet to a point;

THENCE continuing with said line S 50-19-15 W for a distance of 40.26 feet to a point;

THENCE continuing with said line S 78-18-01 W for a distance of 18.88 feet to a point; said point being on the Easterly Right of Way of Crescent Avenue;

THENCE continuing with said line N 10-48-27 W for a distance of 51.42 feet to a point; said point being the **Point of Beginning;**

The above described parcel of land contains 0.0712Acres (3,100 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "E"
Parcel "C"

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel **From: Gateway Hotel** **To:** Gateway Hotel, L.L.C., and Mark Wendling, et al
DB ___ Pg___ , Group No.____
0.0171 AC. (743 S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Commencing at a common point to the Southeast corner of said City Parcel and the intersection of the Easterly Right of Ways of "Old " Crescent Avenue and "New" Crescent Avenue and being the Northwesterly property corner of James Gallenstein (DB 802 Pg 168);

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 35.96' to a point; said point being the **Real Point of Beginning;**

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 100.29' to a point; said point being on the common property line with Mary Ann Muck (DB 1021 Pg 342)

THENCE continuing with the common property line with Mary Ann Muck N 11-01-16 W for a distance of 18.21 feet to a found spike;

THENCE leaving said property line and continuing with a new easement line with an arc of a circular curve to the left; said curve having a central deflection angle of 25-22-55, a radius of 39.34 feet, an arc length of 17.43 feet, a chord length of 17.43 feet, and a chord bearing of S 66-54-03 W to a point;

THENCE continuing with said line S 82-37-13 W for a distance of 27.87 feet to a point;

THENCE continuing with said line S 89-49-31 W for a distance of 8.66 feet to a point;

THENCE continuing with said line N 80-17-47 W for a distance of 45.26 feet to a point; said point being the **Real Point of Beginning;**

The above described parcel of land contains 0.0171 Acres (743 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "B"
Parcel "D"

BOOK 0018 PAGE 358

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel **From:** [illegible] **To: Gateway Hotel** [illegible]
DB 1021 Pg 342 , Group No.1296
0.0401 AC. (1746 S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the Northwesterly property corner of Mary Ann Muck; said point being a found iron spike;

THENCE continuing with the said Northerly Property line N 88-41-13 E for a distance of 130.58 feet to a point; said point being in common with Rusk Heating and air Conditioning (DB 1064 Pg 180);

THENCE continuing with the said common Westerly Property line S 00-03-46 E for a distance of 5.45 feet to a point;

THENCE leaving said property line and continuing with the new easement line S 88-41-13 W for a distance of 69.66 feet to a point;

THENCE continuing with said line S 52-34-11 W for a distance of 32.96 feet to a point;

THENCE continuing with said line S 77-35-13 W for a distance of 45.37 feet to a point; said point being in common with the Easterly property line of James Gallenstein (DB 802 Pg 168);

THENCE continuing with said line N 00-03-46 W for a distance of 11.0 feet to a point;

THENCE leaving said common Gallenstein property line and continuing with a Northerly property line of Muck's N 89-55-16 E for a distance of 13.70 feet to a found PK nail;

THENCE continuing with said property linr N 11-01-16 W for a distance of 21.0 feet to a point; said point being the **Real Point of Beginning;**

The above described parcel of land contains 0.0401 Acres (1,746 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "E"
Parcel "E"

LEGAL DESCRIPTION BOOK 0018 PAGE 359

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel for Trash Removal Purposes
From: MARK WENDLAND ET AL To: Gallenstein
, Group No.1296
0.0282 AC. (1227S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the common property corner of Mary Ann Muck and James Gallenstein on the Northerly Right of Way of Third Street;

THENCE continuing with the said common property line N 00-03-46 W for a distance of 122.66 feet to a point;

THENCE leaving said common line and continuing with the new easement line N 89-56-14 E for a distance of 10.0 to a point;

THENCE continuing with said line S 00-03-46 E for a distance of 122.66 feet to a point; said point being on the Northerly Right of Way of Third Street;

THENCE leaving said new easement line and continuing with said Right of Way line S 89-56-14 W for a distance of 10.00 feet to a point; said point being the **Point of Beginning;**

The above described parcel of land contains 0.0282 Acres (1227 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "F"
Parcel "A"

LEGAL DESCRIPTION

BOOK 0018 PAGE 360

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel for Trash Removal Purposes
From: Gallenstein To: MARK WENDLING, et al
DB 802 Pg 168 , Group No.1296
0.0122 AC. (530 S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Commencing at the common property corner of Mary Ann Muck and James Gallenstein (DB 802 Pg 168) on the Northerly Right of Way of Third Street;

THENCE continuing with the said common property line N 00-03-46 W for a distance of 50.20 feet to a point; said point being the **Real Point of Beginning;**

THENCE continuing with said line N 00-03-46 W for a distance of 72.46 feet to a point;

THENCE leaving said common line and continuing with the new easement line S 78-02-18 W for a distance of 14.94 to a point;

THENCE continuing with said line S 11-57-42 E for a distance of 70.90 feet to a point; said point being on the **Real Point of Beginning;**

The above described parcel of land contains 0.0122 Acres (530 Square feet) and was surveyed by David E. Estes Corporation in November 1995.

Exhibit "G"
Parcel "B"

Groups: 1295, 1296 & 1297

PIDN: 040-34-02-003.00
040-34-02-002.00
040-34-02-008.00
040-34-02-009.00
040-34-02-010.00
040-34-02-011.00
040-34-02-012.00

CA 00 3300 10 00

DOC 0019 PAGE 001

NON-DISTURBANCE AGREEMENT

This Agreement, dated this 17th day of November, 1995, is made by and between Fifth Third Bank of Northern Kentucky, Inc., f.k.a. Fifth Third Bank of Boone county, Inc. (the "Mortgagee"), Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway"), Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife (Wendlings and Tates being hereinafter collectively referred to as the "J.D. Group"), James A. Gallenstein and Sandra Gallenstein, husband and wife (hereinafter "Gallensteins"), and The City of Covington, Kentucky, a municipal corporation of the second class (hereinafter the "City").

WHEREAS, Gateway, the J.D. Group, Gallensteins, and the City have entered into an Ingress, Egress and Maintenance Agreement providing for the creation of certain easements (a.) for vehicular and pedestrian ingress and egress over the property of the Gallensteins for the use and benefit of Gateway, the J.D. Group and the City over the area described in Exhibit "A" attached hereto (hereinafter the "Common Driveway Easement Parcel") and (b.) a Dumpster Easement on the Gallensteins' property for the benefit of the J.D. Group over the area described in Exhibit "B" attached hereto (hereinafter the "Dumpster Easement Parcel") (the Common Driveway Easement Parcel and the Dumpster Easement Parcel being hereinafter collectively referred to as the "Easements" and/or the "Easement Parcels"); and

WHEREAS, the Common Driveway Easement Parcel and the Dumpster Easement Parcel are set forth as Easement Parcels C and B, respectively, on the survey attached hereto marked as Exhibit "C"; and

WHEREAS, Gateway, the J.D. Group and the City are the owners of the real estate described in Exhibits "D", "E" and "F" (the "Dominant Parcels"), which Dominant Parcels are enhanced by the benefit and use of the Easements across the Easement Parcels; and

WHEREAS, the Mortgagee holds a Mortgage which encumbers the Easement Parcels which mortgage is dated November 20, 1987 and was recorded on November 24, 1987 in Mortgage Book 1288, Page 319 of the Kenton County Clerk's records at Covington, Kentucky (the "Mortgage").

NOW, THEREFORE, in consideration of One Dollar ($1.00), the mutual promises of the parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

(1) The rights of Gateway, the J.D. Group, and the City under the Easements shall not be affected or disturbed by the Mortgagee in the exercise of any of its rights under the Mortgage or the notes or other instruments which they secure. Further, Gateway,

DATE MAILED 12-15-95

TO

1995112905900198 EASE 19/ 1

the J.D. Group, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE FIFTH-THIRD BANK OF NORTHERN KENTUCKY, a Kentucky corporation

By: _____

Its: _____

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: _____
Thomas E. Banta

Its: Vice President

_____
Mark H. Wendling

_____
James A. Gallenstein

_____
Janice Wendling

_____
Sandra Gallenstein

the J.D. Group, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE FIFTH-THIRD BANK OF NORTHERN KENTUCKY, a Kentucky corporation

By: _____

Its: _____

Mark H. Wendling

Janice Wendling

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: Thomas E. Banta

Its: Vice President

James A. Gallenstein

Sandra Gallenstein

BOOK 0019 PAGE 004

Bobby L. Tate

Bobby L. Tate

Jean A. Tate

Jean Tate

THE CITY OF COVINGTON, KENTUCKY, a municipal corporation of the second class

By: Denny Bowman

Denny Bowman, Mayor

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MICHAEL M. SKETCH, a Notary Public in and for said county and state aforesaid, do hereby certify that JAMES R. WEBER, VICE-PRES. of Fifth Third Bank of Northern Kentucky, a Kentucky corporation, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such VICE-PRES., and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Michael M. Sketch

Notary Public State of Kentucky
My Commission Expires:

3/1/96

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Thomas E. Banta, Vice President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Vice President, and as the free and voluntary act of said corporation and company for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C. Butler

Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

99999.999.25444.1

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Mark H. Wendling and Janice Wendling, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C Butler
Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Bobby L. Tate and Jean Tate, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

Martin C Butler
Notary Public
My Commission Expires:

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, Pete A. Smith, a Notary Public in and for said county and state aforesaid, do hereby certify that James A. Gallenstein and Sandra Gallenstein, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and

delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Notary Public, STATE OF KENTUCKY
My Commission Expires: 3/20/99

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, Joseph T. Conort, a Notary Public in and for said county and state aforesaid, do hereby certify that Denny Bowman, Mayor of The City of Covington, Kentucky, a municipal corporation of the second class, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Mayor, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 17th day of November, 1995.

Notary Public
My Commission Expires:
12-21-95

RETURN TO:

The instrument prepared by:

MARTIN C. BUTLER
STRAUSS & TROY, L.P.A.
Suite 1400
50 E. RiverCenter Blvd.
Covington, Kentucky 41011
(513) 621-8900

H:\DOCS\MCB\MISC\25444.1

Recorded BILL AYLOR
COVINGTON KENTON COUNTY CLERK
Doc type: EASEMENT
Book/page: 19/ 1 14 pg
Doc#: 95 11 29 059 00198
Dt/tm Recorded: 11/29/1995 02:15:06pm
Total fees: 46.00 Tax: 0.00
Clerk name: D J WOOD

99999.999.25444.1

BOOK 0019 PAGE 007

Exhibit "A"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Motel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at a common point to the Southeast corner of said City Parcel and the intersection of the Easterly Right of Ways of "Old " Crescent Avenue and "New" Crescent Avenue and being the Northwesterly property corner of James Gallenstein (DB 802 Pg 168);

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 122.24' to a point; said point being in common with Mary Ann Muck 's (DB 1021 PG 342) property corner;

THENCE leaving said Northerly property corner and continuing with the common property line with Mary Ann Muck S 00-03-46 E for a distance of 7.68 feet to a point;

THENCE leaving said property line and continuing with a new easement line S 77-57-44 W for a distance of 64.54 feet to a point;

THENCE continuing with said line S 50-19-15 W for a distance of 40.28 feet to a point;

THENCE continuing with said line S 78-18-01 W for a distance of 18.68 feet to a point; said point being on the Easterly Right of Way of Crescent Avenue;

THENCE continuing with said line N 10-48-27 W for a distance of 51.42 feet to a point; said point being the **Point of Beginning;**

The above described parcel of land contains 0.0712Acres (3,100 Square feet) and was surveyed by David E. Estes in November 1996.

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Commencing at the common property corner of Mary Ann Muck and James Gallenstein (DB 802 Pg 168) on the Northerly Right of Way of Third Street;

THENCE continuing with the said common property line N 00-03-46 W for a distance of 50.20 feet to a point; said point being the **Real Point of Beginning;**

THENCE continuing with said line N 00-03-46 W for a distance of 72.46 feet to a point;

THENCE leaving said common line and continuing with the new easement line S 78-02-18 W for a distance of 14.94 to a point;

THENCE continuing with said line S 11-57-42 E for a distance of 70.90 feet to a point; said point being on the **Real Point of Beginning;**

The above described parcel of land contains 0.0122 Acres (530 Square feet) and was surveyed by David E. Estes Corporation in November 1995.



VICINITY MAP

EASEMENT "A"

1	S 89-56-14 W	10.00'
2	N 00-03-46 W	122.66'
3	N 89-56-14 E	10.00'
4	S 00-03-46 E	122.66'

EASEMENT "B"

5	N 11-57-42 W	70.90'
6	N 78-02-18 E	14.94'
7	S 00-03-46 E	72.46'

EASEMENT "C"

8	N 10-48-27 W	51.42'
9	N 89-55-16 E	122.24'
10	S 00-03-46 E	7.68'
11	S 77-57-44 W	64.54'
12	S 50-19-15 W	40.28'
13	S 78-18-01 W	18.88'

BOOK 0019 PAGE 009

• LAND SURVEYOR CERTIFICATE •

I, DAVID E. ESTES, A REGISTERED LAND SURVEYOR IN THE STATE OF KENTUCKY, DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE BY ME AND THAT THIS PLAT ACCURATELY AND PROPERLY SHOWS SAID SURVEY.

SIGNATURE L.S. 2316

11.09.95
DATE

EASEMENT "D"

14	S 11-01-16 E	18.21'
15	S 89-55-16 W	100.29'
16	N 80-17-47 E	45.26'
17	N 89-49-31 E	8.66'
18	N 82-37-13 E	27.87'
19	Δ = 25-22-55	
	R = 39.34'	
	L = 17.43'	
	CH = 17.29'	
	B.L.C. N 66-54-03 E	

EASEMENT "E"

20	N 03-03-46 W	11.00'
21	N 89-55-16 E	13.70'
22	N 11-01-16 W	21.08'
23	N 86-41-13 E	130.58'
24	S 00-03-46 E	5.45'
25	S 86-41-13 W	89.66'
26	S 52-34-11 W	32.96'
27	S 77-35-13 W	45.37'

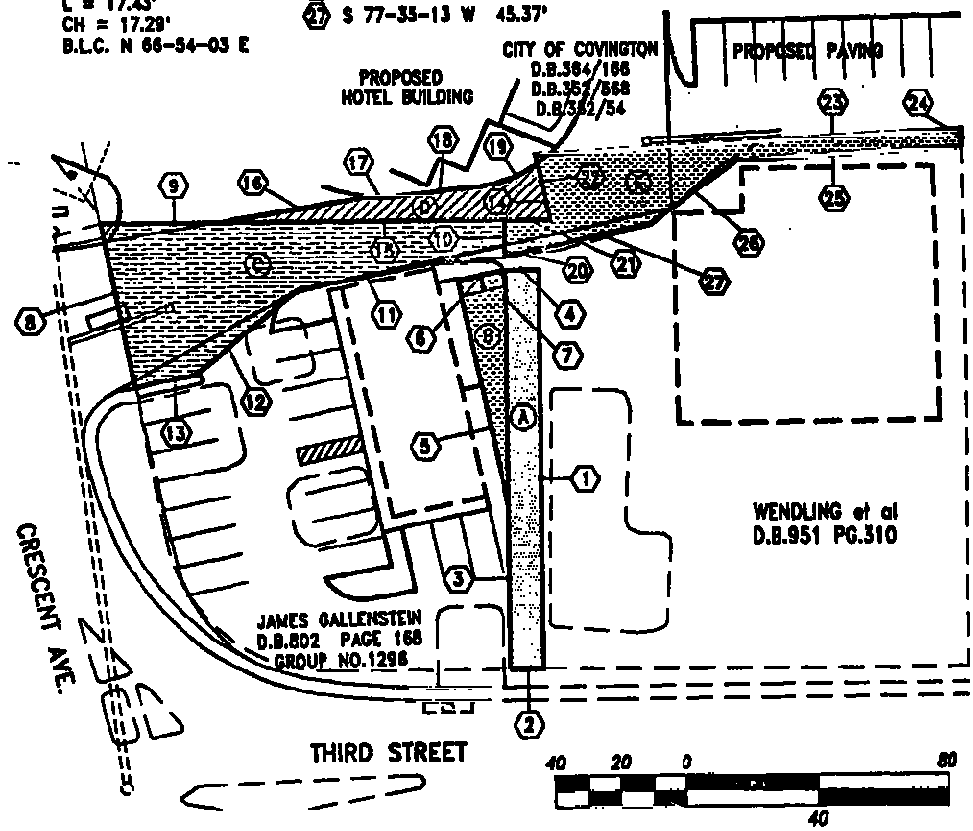


Exhibit "C"

GRAPHIC SCALE 1" = 40'

STATE OF KENTUCKY
DAVID E. ESTES
2,316
REGISTERED
LAND SURVEYOR

Drawn By:	NASSIN DAHER
Date:	11-03-1995
Scale:	1" = 40'
File No.	300-284

ACCESS EASEMENT PLAT SURVEY

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
7075 INDUSTRIAL ROAD, FLORENCE, KENTUCKY 41042
TELEPHONE (606) 341-8100

\HAMPTON\3284V03.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION

Exhibit "D"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Joan Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the point at the intersection of Old Crescent Avenue and the new Access Control line of the new Crescent Avenue; said point also being the Northwesterly property corner of Raymond Hardebeck (DB 871 Pg 56) ;

THENCE leaving said Right of Way and continuing with a new division line S 74-21-10 W for a distance of 22.61 feet to a set cross notch;

THENCE continuing with a New Division line N 29-01-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 34-08-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 38-20-43 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 43-30-49 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 52-00-36 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 56-49-51 W for a distance of 50.00 feet to a point;said point being on the Access Control line;

THENCE continuing with a New Division line N 59-25-34 W for a distance of 13.13 feet to a point;said point being on the Access Control line;

THENCE leaving said New Division Line and continuing with the Access Control Line N 63-30-12 W for a distance of 38.71 feet to a point; said point being 20 feet from the existing Portland Cement Concrete Flood Wall;

THENCE continuing with a line that is 20 feet off of the said Flood Wall and more or less parallel to said wall N 89-48-35 E for a distance of 208.41 feet to a point;

THENCE continuing with said parallel line S 78-42-10 E for a distance of 17.90 feet to a point;

THENCE continuing with said parallel line S 66-56-38 E for a distance of 147.56 feet to a point;

THENCE continuing with said parallel line S 32-32-02 E for a distance of 70.81 feet to a point;

THENCE continuing with said parallel line S 57-37-36 E for a distance of 47.16 feet to a point;

THENCE leaving said parallel line and continuing with a new division line S 00-03-46 E for a distance of 67.78 feet to a point; said point being on the Northerly property line of Wendling et al (DB 951 Pg 310);

THENCE leaving said new division line continuing with said property line S 86-41-12 W for a distance of 40.38 feet to a found iron spike;

THENCE continuing with said property line S 11-01-16 E for a distance of 21.08 feet to a Pk nail;

THENCE continuing with said property line S 89-55-16 W for a distance of 136.26 feet to the **Point of Beginning**;

The above described parcel of land contains 1.2647 Acres (55,089 square feet) and was field surveyed by David E. Estes Corporation in November 1995.

Exhibit "D" continued

Book 0019 Page 012

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

Being part of Lots No. 15, 16, 17 and 18 of Block D., I.L. Ludlow Subdivision, Covington, Kentucky, and being more particularly described as follows: BEGINNING at a point in the North line of Third Street at the dividing line and the southeast corner of Lot # 18 THENCE S 89-56-14 W 140.06 feet along the north line of Third Street to a point; THENCE N 00-03-46 W 137.91 feet to a point THENCE N 89-56-14 E 13.70 feet to a point; THENCE N 11-01-16 W 21.08 feet to a point; THENCE N 86-41-14 E 130.58 feet to the East line of Lot #18; THENCE S 00-03-46 E 166.0 feet to the place of beginning.

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at the Northeasterly property corner of Mary Ann Muck (DB 1021 Pg 342); said point also being the Northwesterly property corner of Rusk Heating and AC (DB 1064 Pg 180);

THENCE continuing with the Northerly property line of Muck S 88-41-15 W for a distance of 89.75 feet to a point;

THENCE leaving said Property line and continuing with a new division line N 00-03-46 W for a distance of 67.78 feet to a point;

THENCE continuing with said new division line N 57-37 36 W for a distance of 47.16 feet to a point;

THENCE continuing with said new division line N 57-27-58 E for a distance of 40.00 feet to a point;

THENCE continuing with a new division line S 32-32-02 E for a distance of 44.00 feet to a point; said point being on the rear of the Kenton County Water District's Pump Station;

THENCE continuing with the Water District 's Pump Station S 89-56-14 E for a distance of 14.56 feet to a point;

THENCE continuing with the Water District Pump Station S 00-03-46 E for a distance of 16.24 feet to a point;

THENCE continuing with the Water District Pump Station N 89-56-14 W for a distance of 23.20 feet to a point;

THENCE leaving said Pump Station and continuing with a new division line S 00-03-46 E for a distance of 4.00 feet to a point;

THENCE continuing with said new division line S 89-27-08 E for a distance of 89.67 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 10.00 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 20.50 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 37.23 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 141.24 feet to a point;

THENCE continuing with said new division line S 00-03-46 E for a distance of 63.00 feet to a point;

THENCE continuing with said new division line S 89-56-14 W for a distance of 12.92 feet to a found iron pin and cap; said point being the Northeasterly property corner of Rusk;

THENCE continuing with said property line S 89-56-14 W for a distance of 99.82 feet to a found iron pin and cap;

THENCE continuing with said property line S 03-13-02 E for a distance of 16.82 feet to a found iron pin and cap;

THENCE continuing with said property line S 36-46-58 W for a distance of 76.51 feet to point; said point being the Point of Beginning;

The above described parcel of land contains 0.3784 Acres (16,483 Square feet) and was surveyed by David E. Estes in November 1995 .

Groups: 1295, 1296 & 1297

PIDN: 040-34-02-002.00
040-34-02-003.00
040-34-02-008.00
040-34-02-009.00
040-34-02-010.00
040-34-02-011.00
040-34-02-012.00

BOOK 0019 PAGE 015

NON-DISTURBANCE AGREEMENT

This Agreement, dated this 17th day of November, 1995, is made by and between The Huntington National Bank, successor by merger to The Huntington Bank, Inc., formerly known as The Huntington Bank of Kenton County, Inc. (the "Mortgagee"), Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway"), Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife (Wendlings and Tates being hereinafter collectively referred to as the "J.D. Group"), James A. Gallenstein and Sandra Gallenstein, husband and wife (hereinafter "Gallensteins"), and The City of Covington, Kentucky, a municipal corporation of the second class (hereinafter the "City").

WHEREAS, Gateway, the J.D. Group, Gallensteins, and the City have entered into an Ingress, Egress and Maintenance Agreement providing for the creation of certain easements (a.) for vehicular and pedestrian ingress and egress over the property of the J. D. Group for the use and benefit of Gateway, Gallensteins and the City over the area described in Exhibit "A" attached hereto (hereinafter the "Common Driveway Easement Parcel") and (b.) a Dumpster Access Easement on the J. D. Group property for the benefit of Gallensteins over the area described in Exhibit "B" attached hereto (hereinafter the "Dumpster Access Easement Parcel") (the Common Driveway Easement Parcel and the Dumpster Access Easement Parcel being hereinafter collectively referred to as the "Easements" and/or the "Easement Parcels"); and

WHEREAS, the Common Driveway Easement Parcel and the Dumpster Access Easement Parcels are set forth as Easement Parcels E and A, respectively, on the survey attached hereto marked as Exhibit "C"; and

WHEREAS, Gateway, Gallensteins and the City are the owners of the real estate described in Exhibits "D", "E" and "F" (the "Dominant Parcels"), which Dominant Parcels are enhanced by the benefit and use of the Easements across the Easement Parcels; and

WHEREAS, the Mortgagee holds a Mortgage which encumbers the Easement Parcels which mortgage is dated July 16, 1987 and was recorded on July 21, 1987 in Mortgage Book 1265, Page 242 of the Kenton County Clerk's records at Covington, Kentucky (the "Mortgage").

NOW, THEREFORE, in consideration of One Dollar ($1.00), the mutual promises of the parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

(1) The rights of Gateway, Gallensteins, and the City under the Easements shall not be affected or disturbed by the Mortgagee in the exercise of any of its rights under the Mortgage or the notes or other instruments which they secure. Further, Gateway,

DATE MAILED 12-18-95

TO

Gallensteins, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE HUNTINGTON NATIONAL BANK

By: _____

Its: VICE PRESIDENT

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: _____
Thomas E. Banta

Its: Vice President

_____
Mark H. Wendling

_____
James A. Gallenstein

_____
Janice Wendling

_____
Sandra Gallenstein

Gallensteins, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE HUNTINGTON NATIONAL BANK

By:_____

Its:_____

Mark H. Wendling

Mark H. Wendling

Janice Wendling

Janice Wendling

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: Thomas E. Banta

Thomas E. Banta

Its: Vice President

James A. Gallenstein

James A. Gallenstein

Sandra Gallenstein

Sandra Gallenstein

BOOK 0019 PAGE 018

Bobby L. Tate

Joan Tate

THE CITY OF COVINGTON, KENTUCKY, a municipal corporation of the second class

By: Denny Bowman, Mayor

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, _____, a Notary Public in and for said county and state aforesaid, do hereby certify that _____, _____ of The Huntington National Bank, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such _____, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this ____ day of November, 1995.

Notary Public
My Commission Expires:

_____

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Thomas E. Banta, Vice President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Vice President, and as the free and voluntary act of said corporation and company for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C. Butler
Notary Public
My Commission Expires:

_____

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

BOOK 0079 PAGE 019

Bobby L. Tate

Jean Tate

THE CITY OF COVINGTON, KENTUCKY, a municipal corporation of the second class

By: _____
Denny Bowman, Mayor

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, PAULA GARMANY, a Notary Public in and for said county and state aforesaid, do hereby certify that JOHN MEYER, VICE PRESIDENT of The Huntington National Bank, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such VICE PRESIDENT, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 17th day of November, 1995.

Paula A. Garmany
Notary Public
My Commission Expires:
[illegible]

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, _____, a Notary Public in and for said county and state aforesaid, do hereby certify that Thomas E. Banta, Vice President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Vice President, and as the free and voluntary act of said corporation and company for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of November, 1995.

Notary Public
My Commission Expires:

BOOK 0019 PAGE 020

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Mark H. Wendling and Janice Wendling, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C Butler
Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Bobby L. Tate and Jean Tate, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C Butler
Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, P.A. Smith, a Notary Public in and for said county and state aforesaid, do hereby certify that James A. Gallenstein and Sandra Gallenstein, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and

delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Notary Public, KENTUCKY STATE AT LARGE
My Commission Expires: 3/20/99

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, Joseph T. Condit, a Notary Public in and for said county and state aforesaid, do hereby certify that Denny Bowman, Mayor of The City of Covington, Kentucky, a municipal corporation of the second class, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Mayor, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 17th day of November, 1995.

Notary Public, KENTUCKY STATE AT LARGE
My Commission Expires:
12-21-95

RETURN TO:

The instrument prepared by:

MARTIN C. BUTLER
STRAUSS & TROY, L.P.A.
Suite 1400
50 E. RiverCenter Blvd.
Covington, Kentucky 41011
(513) 621-8900

[illegible]

Recorded	BILL AYLOR
COVINGTON	KENTON COUNTY CLERK
Doc type:	EASEMENT
Book/page:	19/ 15 15 pg
Doc#:	95 11 29 059 00199
Dt/tm Recorded:	11/29/1995 02:17:45pm
Total fees:	48.00 Tax: 0.00
Clerk name:	D J WOOD

Exhibit "A"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the Northwesterly property corner of Mary Ann Muck; said point being a found iron spike;

THENCE continuing with the said Northerly Property line N 86-41-13 E for a distance of 130.58 feet to a point; said point being in common with Rusk Heating and air Conditioning (DB 1064 Pg 180);

THENCE continuing with the said common Westerly Property line S 00-03-46 E for a distance of 5.45 feet to a point;

THENCE leaving said property line and continuing with the new easement line S 86-41-13 W for a distance of 69.66 feet to a point;

THENCE continuing with said line S 52-34-11 W for a distance of 32.96 feet to a point;

THENCE continuing with said line S 77-35-13 W for a distance of 45.37 feet to a point; said point being in common with the Easterly property line of James Gallenstein (DB 802 Pg 168);

THENCE continuing with said line N 00-03-46 W for a distance of 11.0 feet to a point;

THENCE leaving said common Gallenstein property line and continuing with a Northerly property line of Muck's N 89-55-16 E for a distance of 13.70 feet to a found PK nail;

THENCE continuing with said property linr N 11-01-16 W for a distance of 21.0 feet to a point; said point being the Real Point of Beginning;

The above described parcel of land contains 0.0401 Acres (1,746 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the common property corner of Mary Ann Muck and James Gallenstein on the Northerly Right of Way of Third Street;

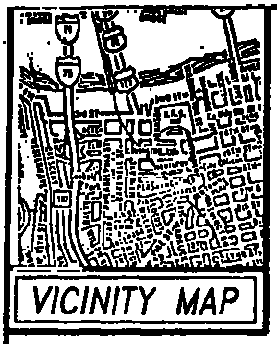
THENCE continuing with the said common property line N.00-03-46 W for a distance of 122.66 feet to a point;

THENCE leaving said common line and continuing with the new easement line N 89-56-14 E for a distance of 10.0 to a point;

THENCE continuing with said line S 00-03-46 E for a distance of 122.66 feet to a point; said point being on the Northerly Right of Way of Third Street;

THENCE leaving said new easement line and continuing with said Right of Way line S 89-56-14 W for a distance of 10.00 feet to a point; said point being the Point of Beginning;

The above described parcel of land contains 0.0282 Acres (1227 Square feet) and was surveyed by David E. Estes in November 1995.



VICINITY MAP

EASEMENT "A"

1	S 89-56-14 W	10.00'
2	N 00-03-46 W	122.66'
3	N 89-56-14 E	10.00'
4	S 00-03-46 E	122.66'

EASEMENT "B"

5	N 11-57-42 W	70.90'
6	N 78-02-18 E	14.94'
7	S 00-03-46 E	72.48'

EASEMENT "C"

8	N 10-48-27 W	51.42'
9	N 89-55-18 E	122.24'
10	S 00-03-46 E	7.68'
11	S 77-57-44 W	64.54'
12	S 50-19-15 W	40.28'
13	S 78-18-01 W	18.88'

BOOK 0019 PAGE 024

* LAND SURVEYOR CERTIFICATE *

I, DAVID E. ESTES, A REGISTERED LAND SURVEYOR IN THE STATE OF KENTUCKY, DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE BY ME AND THAT THIS PLAT ACCURATELY AND PROPERLY SHOWS SAID SURVEY.

SIGNATURE L.S. 2316

11-09-95
DATE

EASEMENT "D"

14	S 11-01-16 E	18.21'
15	S 89-55-16 W	100.29'
16	N 80-17-47 E	45.26'
17	N 89-49-31 E	8.66'
18	N 82-37-13 E	27.87'
19	Δ = 25-22-55	
	R = 39.34'	
	L = 17.43'	
	CH = 17.29'	
	B.L.C. N 66-54-03 E	

EASEMENT "E"

20	N 03-03-46 W	11.00'
21	N 89-55-16 E	13.70'
22	N 11-01-16 W	21.08'
23	N 86-41-13 E	130.58'
24	S 00-03-46 E	5.45'
25	S 86-41-13 W	89.66'
26	S 52-34-11 W	32.96'
27	S 77-35-13 W	45.37'

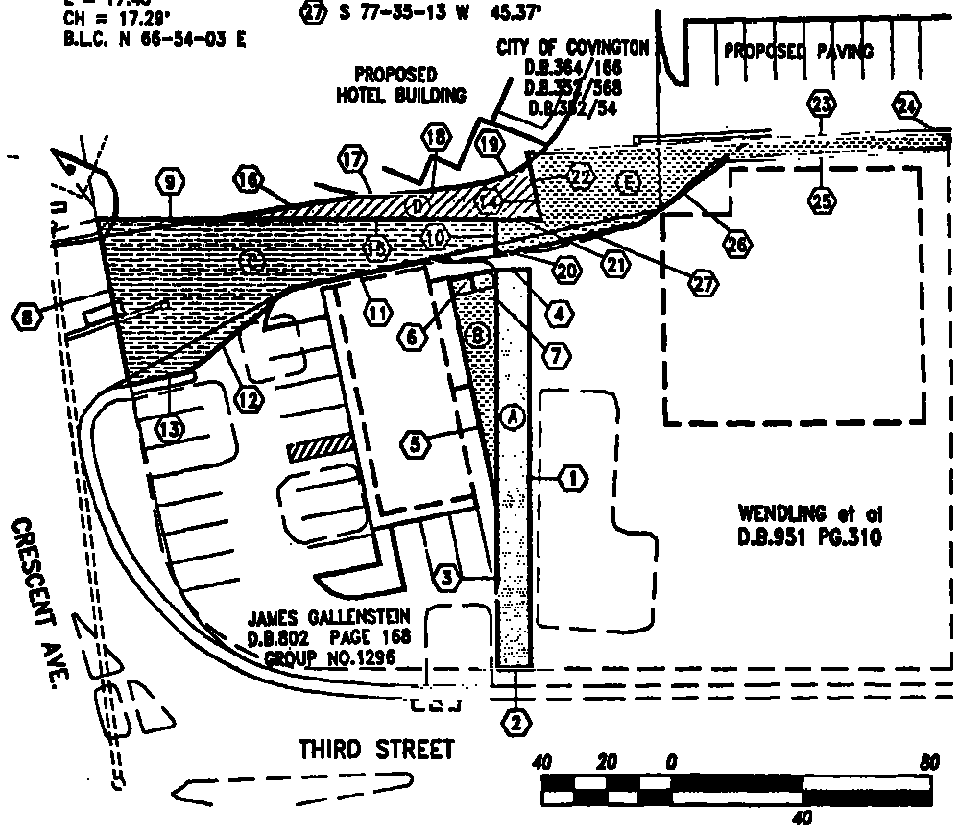


Exhibit "C"

GRAPHIC SCALE 1" = 40'

STATE OF KENTUCKY
DAVID E. ESTES
2,316
REGISTERED
LAND SURVEYOR

Drawn By:	NASSIM DAHER
Date:	11-03-1995
Scale:	1" = 40'
File No.	310-284

ACCESS EASEMENT PLAT SURVEY

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
2025 INDUSTRIAL ROAD, FLORENCE, KENTUCKY 41042
TELEPHONE (606) 342-6100

\HAMPTON\328-V03.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION Exhibit "C"

Exhibit "D"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the point at the intersection of Old Crescent Avenue and the new Access Control line of the new Crescent Avenue; said point also being the Northwesterly property corner of Raymond Hardebeck (DB 871 Pg 56) ;

THENCE leaving said Right of Way and continuing with a new division line S 74-21-10 W for a distance of 22.61 feet to a set cross notch;

THENCE continuing with a New Division line N 29-01-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 34-08-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 38-20-43 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 43-30-49 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 52-00-38 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 56-49-51 W for a distance of 50.00 feet to a point;said point being on the Access Control line;

THENCE continuing with a New Division line N 59-25-34 W for a distance of 13.13 feet to a point;said point being on the Access Control line;

THENCE leaving said New Division Line and continuing with the Access Control Line N 63-30-12 W for a distance of 38.71 feet to a point; said point being 20 feet from the existing Portland Cement Concrete Flood Wall;

THENCE continuing with a line that is 20 feet off of the said Flood Wall and more or less parallel to said wall N 89-48-35 E for a distance of 208.41 feet to a point;

THENCE continuing with said parallel line S 78-42-10 E for a distance of 17.90 feet to a point;

THENCE continuing with said parallel line S 66-56-38 E for a distance of 147.56 feet to a point;

THENCE continuing with said parallel line S 32-32-02 E for a distance of 70.81 feet to a point;

THENCE continuing with said parallel line S 57-37-36 E for a distance of 47.16 feet to a point;

THENCE leaving said parallel line and continuing with a new division line S 00-03-46 E for a distance of 67.78 feet to a point; said point being on the Northerly property line of Wendling et al (DB 951 Pg 310);

THENCE leaving said new division line continuing with said property line S 86-41-12 W for a distance of 40.38 feet to a found iron spike;

THENCE continuing with said property line S 11-01-16 E for a distance of 21.08 feet to a Pk nail;

THENCE continuing with said property line S 86-55-16 W for a distance of 136.26 feet to the **Point of Beginning**;

The above described parcel of land contains 1.2647 Acres (55,089 square feet) and was field surveyed by David E. Estes Corporation in November 1995.

"D"

Exhibit "E"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

Situated in the City of Covington, Kenton County, Kentucky, being part of Lots Fifteen (15), Sixteen (16) and Seventeen (17) of I. L. Ludlow's Subdivision, Block "D" as shown on Page 164 of the Copied and Restored records of Kenton County, Kentucky, described as follows:

Beginning in the north line of Third Street at an iron pipe which is a distance of 40.42 feet eastwardly from the southeast corner of said Lot Number Seventeen (17); thence S 89-56-14 W along the north line of Third Street a distance of 54.58 feet; thence on a curved line deflecting to the right with a radius of 50 feet a distance of 68.98 feet to the easterly line of Crescent Avenue as now located, (chord of said curve forms an interior angle of 140-28-45 with the north line of Third Street and bears N 50-32-31 W, a distance of 63.64 feet); thence N 11-01-16 W, along the said easterly line of Crescent Avenue, forming an interior angle with the above described chord of 140-28-30 a distance of 99.22 feet; thence N 89-56-14 E, enclosing an angle of 79-02-30 a distance of 122.55 feet to an iron pipe; thence S 00-03-46 E, enclosing an angle of 90 degrees a distance of 137.91 feet to the place of beginning, forming an interior angle of 90 degrees.

"E"

Exhibit
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Motel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at the Northeasterly property corner of Mary Ann Muck (DB 1021 Pg 342); said point also being the Northwesterly property corner of Rusk Heating and AC (DB 1064 Pg 180);

THENCE continuing with the Northerly property line of Muck S 88-41-15 W for a distance of 89.75 feet to a point;

THENCE leaving said Property line and continuing with a new division line N 00-03-46 W for a distance of 67.78 feet to a point;

THENCE continuing with said new division line N 57-37 36 W for a distance of 47.16 feet to a point;

THENCE continuing with said new division line N 57-27-58 E for a distance of 40.00 feet to a point;

THENCE continuing with a new division line S 32-32-02 E for a distance of 44.00 feet to a point; said point being on the rear of the Kenton County Water District's Pump Station;

THENCE continuing with the Water District 's Pump Station S 89-56-14 E for a distance of 14.56 feet to a point;

THENCE continuing with the Water District Pump Station S 00-03-46 E for a distance of 16.24 feet to a point;

THENCE continuing with the Water District Pump Station N 89-56-14 W for a distance of 23.20 feet to a point;

THENCE leaving said Pump Station and continuing with a new division line S 00-03-46 E for a distance of 4.00 feet to a point;

THENCE continuing with said new division line S 89-27-08 E for a distance of 89.67 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 10.00 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 20.50 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 37.23 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 141.24 feet to a point;

THENCE continuing with said new division line S 00-03-46 E for a distance of 63.00 feet to a point;

THENCE continuing with said new division line S 89-56-14 W for a distance of 12.92 feet to a found iron pin and cap; said point being the Northeasterly property corner of Rusk;

THENCE continuing with said property line S 89-56-14 W for a distance of 99.62 feet to a found iron pin and cap;

THENCE continuing with said property line S 03-13-02 E for a distance of 16.82 feet to a found iron pin and cap;

THENCE continuing with said property line S 86-46-58 W for a distance of 76.51 feet to point; said point being the Point of Beginning;

The above described parcel of land contains 0.3784 Acres (16,483 Square feet) and was surveyed by David E. Estes in November 1995 .

COUNTY: Kenton

PARCEL NO.: 404
PIDN: 040-34-02-002.00 Group: 1296

ROAD: Brent Spence Bridge

ITEM NO.: 06-17.00

STATE NO.:

FEDERAL NO.:

OWNER(S): Beverage Properties Inc., a Kentucky Corporation

This is to certify that the undersigned, employed by the Transportation Cabinet, has examined the records of the County Clerk, and has run the chain of title of the hereinabove designated parcel back for a period of not less than 35 years. The undersigned further certifies that no unreleased liens were found on any of the deeds in the chain of title, except as shown in Paragraph 4. The undersigned further certifies that all the mortgage records and other title records, including those specifically noted in the first portion of Paragraph 4, were examined and the undersigned was unable to find indexed of record or awaiting indexing of record any unreleased mortgages, liens, or other encumbrances against said property, except as specifically shown in Paragraph 4.

PARAGRAPH 1. The deed or deeds or other means by which title to said property was acquired by the current owner or owners is as follows, the source of title should relate back to one or more listed Deed(s) of Conveyance, add space for additional exhibits as required:

(Exhibit 1 attached.)

Grantor: Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife
Grantee: Beverage Properties Inc., a Kentucky Corporation
Date: January 3, 1996
Book & Page: Deed Book 1177, page 88

PARAGRAPH 2. All transfers affecting this property within the 35 years, next last past, or the next last transfer if it is prior to the 35 years, next last past, add space for additional exhibits as required:

(Exhibit _ attached.)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 3. The record description of the property which is the subject of this report is as set forth in the Deed(s) of Conveyance mentioned below if different from Paragraph 1, add space for additional exhibits as required:

(Exhibit _ attached [if different from Exhibit 1].)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 4. Liens, encumbrances, and objections which are to be removed or eliminated prior to, or at the time of closing, if any, are checked and described below and attached and labeled as individual exhibits, add space for additional exhibits as required for each type:

(a) ☐ Mortgages **(Exhibit _ attached)**

Mortgagor:
Mortgagee:
Date:
Book & Page:

(b) ☐ Vendor liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(c) ☐ Mechanics liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(d) ☐ Lis Pendens notices **(Exhibit _ attached)**

(e) ☐ Recorded leases **(Exhibit _ attached)**

(f) ☒ Easements **(Exhibit 2 attached)**

*** Ingress, Egress, and Maintenance Agreement**
By and Between: James A. Gallenstein and Sandra S. Gallenstein, husband and wife; Mark H. Wendling and Janice Wendling, husband and wife; and Bobby L. Tate and Jean Tate, husband and wife; and The City of Covington, Kentucky; and Gateway Hotel, L.L.C., a Kentucky limited liability company
Date: November 17, 1995
Book & Page: Easement Book 18, page 341

*** Thereafter, see also that Non-Disturbance Agreement dated November 17, 1995, and of record in Easement Book 19, page 1.**

*** Thereafter, see also that Non-Disturbance Agreement dated November 17, 1995, and of record in Easement Book 19, page 15.**

(g) ☐ Outstanding mineral rights **(Exhibit _ attached)**

Grantor:
Grantee:
Date:
Book & Page:

(h) ☐ Tax liens, city, county, state or Federal **(Exhibit _ attached)**

Grantor:
Grantee:
Date:
Book & Page:

(i) ☐ Incompetents **(Exhibit _ attached)**

Name:
Disability:
Legal guardian:
Birth date if infant:

(j) ☐ Options of bond for deed **(Exhibit _ attached)**

Seller:
Buyer:
Date:
Book & Page:

(k) ☒ Taxes, current city, county and special assessments **(Exhibit _ attached)**

2023 County Property Taxes were paid on October 17, 2023, in the amount of $8794.02. Face amount $8963.20.

City of Covington Property Taxes are due and payable in the amount of $1758.95, as of the date of title exam.

(l) ☐ Delinquent taxes **(Exhibit _ attached)**

(m) ☐ Rights of others in possession, if not owners of record

(n) ☐ Any zoning regulations affecting said property

(o) ☐ Other matters not listed **(Exhibit _ attached)**

EXAMINATION AND REPORT BY ROW AGENT:

_____

_____, ROW Agent

Dated this ___ day of _____, 20____.

ATTORNEY REVIEW OF ROW AGENT REPORT BY:

_____

_____, Attorney

Dated this ___ day of _____, 20____.

(*OR*) EXAMINATION AND REPORT BY ATTORNEY:

_____
Fox, Wood, Wood & Estill, Attorney

Dated this 13th day of September, 2024.

ATTORNEY UPDATE CERTIFICATE (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 have been removed or eliminated, except:

_____

_____

(2) That no other changes affecting title occurred during the interim other than the following:

_____

_____

(3) That the title has been continued down from date of foregoing report to end including ___ day of _____, 20____.

_____

_____, Attorney

ATTORNEY UPDATE CERTIFICATE (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 and above have been removed or eliminated, except:

_____

_____

(2) That no other changes affecting title occurred during the interim other than the following:

_____

_____

(3) That the title has been continued down from date of foregoing report to end including ___ day of _____, 20____.

_____

_____, Attorney

RIGHT OF WAY AGENT UPDATE ACKNOWLEDGMENT (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 and above have been removed or eliminated, except:

_____

_____

(2) That no other changes affecting title occurred during the interim other than the following:

_____

_____

(3) That the title has been continued down from date of foregoing report to end including ___ day of _____, 20____.

_____

_____, Right of Way Agent

FINAL RIGHT OF WAY AGENT UPDATE ACKNOWLEDGMENT (*IF REQUIRED*):

The undersigned hereby certifies as follows:

(1) That the liens, encumbrances and objections set out in Paragraph 4 and above have been removed or eliminated.

(2) That no other changes affecting title occurred during the interim.

(3) That the title has been continued down from date of foregoing report to end including ___ day of_____, 20____.

_____

_____, Right of Way Agent

Exhibit 1

19960105005900117 DEED 1177/ 88

VOL 1177 PAGE 088

DEED

KNOW ALL PERSONS BY THESE PRESENTS:

That MARK H. WENDLING, JANICE WENDLING, husband and wife, and BOBBY L. TATE, JEAN TATE, husband and wife, in consideration of the sum of ONE DOLLAR ($1.00) paid to them by BEVERAGE PROPERTIES INC., a Kentucky corporation, the receipt of which is hereby acknowledged, do bargain, sell and convey to BEVERAGE PROPERTIES INC., a Kentucky corporation, in fee simple its heirs and assigns forever, the following described real estate, located in the City of Covington, County of Kenton and Commonwealth of Kentucky, to wit:

P.I.D.N. 040-34-02-002.00 Group Number: 1296

Present Street Address: 670 West Third Street, Covington, Kentucky 41011

Mailing Address: 424 Russell Street, Covington, Kentucky 41011

Grantee Address: 424 Russell Street, Covington, Kentucky 41011

Grantors Address: Tate: 810 Ashfield Court, Edgewood, Kentucky 41017

Wendling: 3203 Royal Oak, Edgewood, Kentucky 41017

Being parts of Lots No. 15, 16, 17 and 18 of Block D, I.L. Ludlow Subdivision, Covington, Kentucky, and being more particularly described as follows: Beginning at a point in the North line of Third Street at the dividing line and the southeast corner of Lot #18 THENCE South 89 degrees 56' 14" West 140.06 feet along the north line of Third Street to a point THENCE North 0 degrees 3' 46" West 137.91 feet to a point THENCE North 89 degrees 56' 14" East 13.70 feet to a point THENCE North 11 degrees 01' 16" West 21.08 feet to a point THENCE North 86 degrees 41' 14" East 130.58 feet to the East line of Lot #18 THENCE South 0 degrees 03' 46" East 166.0 feet to the place of beginning

Being the same property conveyed to the parties herein and others by deed dated July 17, 1987, and recorded in deed book 951, page 310. Further being the same property whereby James R. Muck and Mary Ann Muck, his wife, conveyed their interests in the property to the Grantors by deed February 1, 1990, and recorded in deed book 1152, page 80. Further being the same property whereby Stephen J. Brewer and Nancy A.

Recorded COVINGTON
Doc type: DEED
Book/page: 1177/ 88 4 pm
Doc#: 96 01 05 005900117
Dt/tm Recorded: 01/05/1996 11:45:49am
Total fees: $14.00 Tax $300.00
Clerk name: D J HOOD

BILL AYLOR
KENTON COUNTY CLERK

Brewer, his wife, conveyed their interests in the property to the Grantors by deed February 1, 1990, and recorded in deed book 1152, page 83 in the Kenton County Clerk's office at Covington, Kentucky.

Together with all of the privileges and appurtenances to the same belonging.

TO HAVE AND TO HOLD the same to the said BEVERAGE PROPERTIES INC., its heirs and assigns forever. Grantors their heirs, executors and administrators, hereby covenanting with the Grantee, its heirs and assigns, that the title so conveyed is clear, free and unencumbered, and that they will warrant and defend the same against all legal claims whatsoever.

IN WITNESS WHEREOF, the Grantors, MARK H. WENDLING, JANICE WENDLING, husband and wife, and BOBBY L. TATE, JEAN TATE, husband and wife, have hereunto set their hands, this 31st day of January, 1996.

MARK H. WENDLING
GRANTOR

JANICE WENDLING
GRANTOR

BOBBY L. TATE
GRANTOR

JEAN TATE
GRANTOR

VOL 117 PAGE 090

STATE OF KENTUCKY

COUNTY OF ~~Kenton~~ Boone

The foregoing instrument was acknowledged and sworn to before me on this 3rd day of January, 1996, by the Grantors, Mark H. Wendling, Janice Wendling, Bobby L. Tate and Jean Tate.

NOTARY PUBLIC

My commission expires: 7/2/97

CERTIFICATE OF CONSIDERATION

FAIR MARKET VALUE of is 500,000.00 and Grantee joins in this deed for the sole purpose of making this certificate about the Fair Market Value.

Sworn to this 3rd day of January in the year 1996.

MARK H. WENDLING
GRANTOR

JANICE WENDLING
GRANTOR

BOBBY L. TATE
GRANTOR

JEAN TATE
GRANTOR

BEVERAGE PROPERTIES, INC.
GRANTEE
Title: President

FOR R...

SEE O.R. BOOK No

MOL 1177 PAGE 091

STATE OF KENTUCKY
COUNTY OF Boone

The foregoing certification was acknowledged before me this 3rd day of January, 1996, by Grantors, Mark H. Wendling, Janice Wendling, Bobby L. Tate and Jean Tate and the Grantee, Susan Depenbrock, President of Beverage Properties, Inc.

Lisa Odoen Bushelman
NOTARY PUBLIC

My commission expires: 7/2/97

RETURN TO:

This Instrument Prepared By:

Lisa O. Bushelman
LISA O. BUSHELMAN
OSBORNE & HILLMANN
998 Dudley Road
P.O. Box 17746
Ft. Mitchell, Kentucky 41017
(606) 331-3600

Exhibit 2

1995112905900195 EASE 18/341

Gallenstein = 040-34-02-003.00
Wendling/Tate: 040-34-02-002.00
City = 040-34-02-008.00
040-34-02-009.00
040-34-02-010.00
040-34-02-011.00
040-34-02-012.00

Groups: 1295, 1296 & 1297

Rev. 4/11/95

BOOK 0018 PAGE 341

INGRESS, EGRESS AND MAINTENANCE AGREEMENT

This Agreement is made and entered into this 17th day of November, 1995 by and among James A. Gallenstein and Sandra S. Gallenstein, husband and wife, whose address is 433 Johnson Street, Covington, Kentucky, (hereinafter "Gallenstein"), Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife (hereinafter collectively the "J.D. Group") whose business address is 670 West Third Street, Covington, Kentucky, the City of Covington, Kentucky, a Kentucky municipal corporation, 638 Madison Avenue, Covington, Kentucky 41011 (hereinafter the "City") and Gateway Hotel, L.L.C., a Kentucky limited liability company, whose principal place of business is Suite 1200, 50 E. RiverCenter Blvd., Covington, Kentucky (hereinafter "Gateway").

WHEREAS, Gallenstein is the owner in fee of that property situated in the City of Covington, Kenton County, Kentucky located at the northeast corner of Third Street and Crescent Avenue known as 680 West Third Street described on Exhibit "A" attached hereto and made a part hereof (the "Gallenstein Property"), said Gallenstein Property being shown on the plat attached hereto marked as Exhibit "B";

WHEREAS, the City is the owner in fee of that property situated in the City of Covington, Kentucky located to the north and east of the Gateway Property, the Gallenstein Property, and the J.D. Group Property, (the "City Property"), a portion of the City Property being shown on Exhibit "B"; and

WHEREAS, the J.D. Group is the owner in fee of that property situated in the City of Covington, Kenton County, Kentucky located on Third Street adjoining the Gallenstein Property known as 670 West Third Street described on Exhibit "C" attached hereto and made a part hereof (the "J.D. Group Property"), said property being shown on Exhibit "B"; and

WHEREAS, Gateway is the owner in fee of that property situated in the City of Covington, Kenton County, Kentucky, located on Crescent Avenue known as 204 Crescent Avenue, described on Exhibit "D" attached hereto and made a part hereof (the "Gateway Property"), which Gateway Property adjoins the Gallenstein Property and the J.D. Group Property on their northern boundary lines, a portion of the Gateway Property being shown on Exhibit "B"; and

WHEREAS, the parties hereto desire to provide for the creation of certain easements for ingress and egress (the "Common Driveway Easement Areas") for the common benefit of all of the above described parcels of real estate and to set forth the terms and

99999.999.21071.1

Recorded BILL AYLOR
COVINGTON KENTON COUNTY CLERK
Doc type: EASEMENT
Book/page: 18/ 341 20 pg
Doc#: 95 11 29 059 00195
Dt/tm Recorded: 11/29/1995 02:08:21pm
Total fees: 50.00 Tax: 0.00
Clerk name: B J WOOD

DATE MAILED 12-15-95

TO

conditions for the maintenance of the Common Driveway Easement Area; and

WHEREAS, the parties hereto desire to provide for the creation of certain easements the construction and use of a Dumpster Easement Area and for access to and from said Dumpster Easement Area for the benefit of the Gallenstein Property and the J.D. Group Property.

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and in consideration of the mutual agreements set forth and contained herein, the parties hereto agree for themselves, and their respective heirs, successors, and assigns, as follows:

1. Ingress and Egress Easements. Gallenstein, the J.D. Group, the City, and Gateway hereby grant to each other and their respective heirs, successors, and assigns, for the use and benefit of their respective properties and their respective heirs, successors, assigns, tenants, and subtenants, and their respective licensees, business invitees, employees, visitors and all other persons properly using the same, a non-exclusive perpetual easement for purposes of providing ingress, egress, and regress for pedestrian and vehicular access purposes over, on and across those portions of the Gallenstein Property, the J.D. Group Property, the City Property, and the Gateway Property (hereinafter the "Easement Properties") described in Exhibit "E" attached hereto and incorporated by reference herein, said easement areas being delineated on Exhibit "B" attached hereto. The City acknowledges and agrees that the easement rights granted herein are granted to the City solely for the purpose of providing pedestrian and vehicular ingress and egress from Crescent Avenue to the City Property for purposes of maintenance, repair, reconstruction, and operation of the Floodwall Protection System located on the City Property, and the City agrees that said easement shall in no way be construed or interpreted to create or grant a public right of way across said Common Driveway Easement Area for the benefit of the general public.

2. Dumpster Easement. Gallenstein hereby grants to the J.D. Group, their heirs, successors and assigns, for the benefit of the J.D. Group Property, and its tenants, subtenants, licensees, invitees, and all other persons properly using the same, a perpetual easement for the purpose of placing and maintaining a dumpster and for pedestrian and vehicular ingress and egress thereto to and from the J.D. Group Dumpster and trash waste containment area within the area shown on Exhibit "B" and described in Exhibit "F" attached hereto (the "Dumpster Easement Area").

3. Dumpster Access Easement. The J.D. Group hereby grants to Gallenstein, his heirs, successors, assigns, tenants, subtenants, and business invitees for the use and benefit of the Gallenstein Property, a non-exclusive perpetual easement ten (10') foot in width along the western boundary line of the J.D. Group Property for the purpose of providing ingress, egress, and regress for pedestrian and vehicular access purposes to and from the Gallenstein dumpster and trash/waste containment area as shown on Exhibit "B", on and across that portion of the J.D. Group Property described in Exhibit "G" attached hereto and incorporated by reference herein, said easement area being delineated on Exhibit "B" (the "Dumpster Access Easement").

4. No Obstructions. Each of the parties hereto covenants and agrees that no party hereto shall be permitted to park vehicles in the Common Driveway Easement Area, the Dumpster Easement Area and the Dumpster Access Easement Area and that the Common Driveway Easement Area, the Dumpster Easement Area and the Dumpster Access Easement Area shall be kept open at all times for two-way traffic and that none of the parties hereto, nor their respective heirs, successors, and assigns shall permit any obstruction of any kind to exist on the Common Driveway Easement Area, Dumpster Easement Area, or Dumpster Access Easement Area which will in any way prevent or obstruct free use of the Common Driveway Easement Area, the Dumpster Easement Area, or the Dumpster Access Easement Area for their intended purposes, except for temporary obstructions which are reasonably necessary in connection with the maintenance, repair, construction and/or replacement of improvements in accordance with Section 5 of this Agreement.

5. Maintenance.

A) Gateway shall be responsible for the repair, maintenance, preservation and upkeep of the Common Driveway Easement Area including the reasonable cost(s) thereof, in a workmanlike, diligent and efficient manner, which repair and upkeep shall include the following (hereinafter called "Maintenance"): (i) maintenance of paved surfaces, curbs, and gutters, of the Common Driveway in a level and smooth condition, free of potholes and unsafe changes in elevation, with the type of material(s) originally used in the construction of said surfaces or a substitute of equal quality; (ii) striping of lanes and directional arrows as necessary, and restriping as required to keep same clearly visible; (iii) removal of all trash, litter, refuse, waste, and debris from the Common Driveway, and washing, vacuuming, or sweeping the same as may be reasonably required; (iv) removal to the extent reasonably possible of snow and ice from the paved surfaces of the Common Driveway within twelve (12) hours after the end of the snowfall; (v) maintenance of appropriate stop signs, exit and directional markers and other traffic control signs as is reasonably required and as are permitted by the governmental

authority(s) having jurisdiction; and (vi) maintenance of any storm water catch basins and lines providing service to the Common Driveway.

Gateway, and/or its successor(s) and assigns, shall have the right to select from time to time a person or persons or business entity to maintain the Common Driveway, provided that such selection will not diminish its obligations to maintain the Common Driveway.

The cost of maintenance of the Common Driveway shall include the total of all items of direct cost and expense necessarily expended for the supervision, maintenance and repair of the Common Driveway, determined in accordance with generally accepted accounting principles on the accrual method of accounting, but which costs will exclude any real property taxes or assessments. The cost includes maintenance, replacements, and reconstruction work as required to preserve the utility of the Common Driveway in the same condition and status as it was as of the time of the completion of the original construction and installation.

Notwithstanding the foregoing, any cost incurred for maintenance, repair, or replacement of the Common Driveway necessitated by the negligence or willful misconduct of any one of the other parties hereto, or their respective heirs, successors, assigns, licensees, business invitees, or employees shall be the sole responsibility of such party.

B) The J.D. Group shall be responsible for the maintenance and repair of the J.D. Group Dumpster Easement Area and Gallenstein shall be responsible for the maintenance and repair of its Dumpster Area.

C) Taxes and Assessments. Each party hereto shall be responsible for the payment of all real estate taxes and assessments charged against their respective parcels to which they hold fee title, and such taxes and assessments shall not be included as part of the Common Driveway Maintenance expenses.

5. No Parking Rights. Nothing contained herein shall in any way be interpreted or construed to grant or create parking rights or privileges on the property of each of the other parties hereto, it being the intent hereof that no cross easement parking rights or privileges have or are being granted or conveyed by the terms of this Agreement.

6. Indemnification. Each party shall hold harmless all other parties, and all tenants, lessees, and occupants of the properties of the other parties from all claims or judgments arising from the use of the Common Driveway and/or Dumpster Easement Area(s) located within their respective parcel or portion

thereof, unless the claim, demand, or judgment is caused by the negligence of the other party, tenant, lessee, or occupant.

7. Specific Performance. This Agreement may be enforced by specific performance and other injunctive relief.

8. Covenants Running with the Land; Successors and Assigns. All of the language, statements, words, paragraphs, sections and articles of this Agreement shall be deemed to constitute covenants, conditions, restrictions or easements; and all of said covenants, conditions, restrictions and easements shall run with the land and bind the land, and shall be binding upon and inure to the benefit of any part and all of said land, and all present and future parties having any right, title or interest in all or part of said land, and their respective successors and assigns forever. Notwithstanding anything to the contrary herein, liability for the obligations of each of the parties hereto, and their respective successors and assigns, shall be limited to the period of time during which each such person or entity owns an interest in any portion of their respective parcels of property, as applicable, and shall be limited from time to time to the obligations related to the portion of said property which each such person or entity then owns.

9. Severability. The invalidity of any covenant, restriction, condition, limitation, or any other provision of this Agreement, or any part thereof, shall not impair or affect in any manner the validity, enforceability or effect of the rest of this Agreement.

10. Notices; Consents. Any notice, request, demand, approval, or consent given or required to be given or required to be given under this Agreement shall, except as otherwise expressly provided, be in writing and shall be deemed to have been given when mailed by United States Registered or Certified Mail, postage prepaid, or sent by reputable overnight courier, receipt or proof of delivery required, to the other party at the address set forth in the preamble of this Agreement or at the last changed address given by the party by notice, and to any successors or assigns of any party at the address given by notice.

11. Amendments. Except as is otherwise specifically provided herein no agreement shall be effective to add to, change, modify, waive or discharge this Agreement in whole or in part unless that agreement is in writing and signed by the parties hereto (or their successors and assigns, as the case may be).

12. Commencement of Construction. If construction on the project envisioned by the parties hereto has not commenced on or before December 31, 1996, this Agreement, at the election of any party hereto, shall be rendered unenforceable as to said electing party.

BOOK 0018 PAGE 346

THE CITY OF COVINGTON, KENTUCKY,
a municipal corporation

By: _____
Denny Bowman
Its: Mayor

ATTEST: Carol Little
CITY CLERK

Approved as to form:

_____
Joseph P. Condit, Esq.
City Attorney
City of Covington, Kentucky

_____
James A. Gallenstein

_____
Sandra S. Gallenstein

_____
Mark H. Wendling

_____
Janice Wendling

_____
Bobby G. Tate

_____
Jean Tate

Gateway Hotel, L.L.C.,
a Kentucky limited liability company

By: COMMONWEALTH HOTELS, INC.,
a Kentucky corporation
Its: Manager

By: _____
Thomas E. Banta
Its: Vice President

BOOK 0018 PAGE 347

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 17th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Denny Bowman, Mayor and Greg Jarvis, City Manager of The City of Covington, Kentucky, a municipal corporation, who represented that they are duly authorized officers of the corporation, and who acknowledged that they did sign the foregoing instrument and that the same is their free and voluntary act and deed as such officers and is the free and voluntary act and deed of the corporation.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires: 12-21-95

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16 day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared James A. Gallenstein and Sandra S. Gallenstein, husband and wife, who acknowledged the signing of the foregoing instrument to be their free and voluntary act and deed, for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires: 3/20/99

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Mark H. Wendling and Janice Wendling, husband and wife, who acknowledged the signing of the foregoing instrument to be their free and voluntary act and deed, for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Bobby L. Tate and Jean Tate, husband and wife, who acknowledged the signing of the foregoing instrument to be their free and voluntary act and deed, for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

Be it remembered that on this 16th day of November, 1995 before me, the subscriber, a Notary Public in and for said County and State, personally appeared Thomas Banta, Vie President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, the corporation whose name is subscribed to and which executed the

foregoing instrument, and for himself and as such officer, and for and on behalf of said corporation, acknowledged the signing and execution of said instrument; and acknowledged that the seal affixed to said instrument is the corporate seal of said corporation, and that the signing and execution of said instrument is the free and voluntary act and deed of said corporation, for the uses and purposes in said instrument mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my Notarial seal, on the day and year last aforesaid.

Notary Public
My commission expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1995

RETURN TO:

THIS DOCUMENT PREPARED BY:

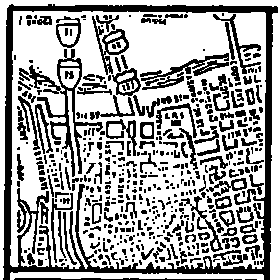
Martin C. Butler
Strauss & Troy, L.P.A.
50 E. RiverCenter Blvd.
Suite 1400
Covington, Kentucky 41011
(513) 621-8900

Exhibit "A"
to
Ingress, Egress and Maintenance
Agreement between Gallenstein,
J.D. Group, City of Covington,
and Gateway

Situated in the City of Covington, Kenton County, Kentucky, being part of Lots Fifteen (15), Sixteen (16) and Seventeen (17) of I. L. Ludlow's Subdivision, Block "D" as shown on Page 164 of the Copied and Restored records of Kenton County, Kentucky, described as follows:

Beginning in the north line of Third Street at an iron pipe which is a distance of 40.42 feet eastwardly from the southeast corner of said Lot Number Seventeen (17); thence S 89-56-14 W along the north line of Third Street a distance of 54.58 feet; thence on a curved line deflecting to the right with a radius of 50 feet a distance of 68.98 feet to the easterly line of Crescent Avenue as now located, (chord of said curve forms an interior angle of 140-28-45 with the north line of Third Street and bears N 50-32-31 W, a distance of 63.64 feet); thence N 11-01-16 W, along the said easterly line of Crescent Avenue, forming an interior angle with the above described chord of 140-28-30 a distance of 99.22 feet; thence N 89-56-14 E, enclosing an angle of 79-02-30 a distance of 122.55 feet to an iron pipe; thence S 00-03-46 E, enclosing an angle of 90 degrees a distance of 137.91 feet to the place of beginning, forming an interior angle of 90 degrees.

BOOK 0018 PAGE 351



VICINITY MAP

EASEMENT "A"

1	S 89-56-14 W	10.00'
2	N 00-03-46 W	122.88'
3	N 89-56-14 E	10.00'
4	S 00-03-46 E	122.88'

EASEMENT "B"

5	N 11-57-42 W	70.80'
6	N 78-02-18 E	14.94'
7	S 00-03-46 E	72.46'

EASEMENT "C"

8	N 10-48-27 W	51.42'
9	N 89-55-16 E	122.24'
10	S 00-03-46 E	7.68'
11	S 77-57-44 W	64.54'
12	S 50-19-15 W	40.28'
13	S 78-16-01 W	18.88'

EASEMENT "D"

14	S 11-01-16 E	18.21'
15	S 89-55-16 W	100.29'
16	N 80-17-47 E	45.28'
17	N 89-49-31 E	8.66'
18	N 82-37-13 E	27.87'
19	Δ = 25-22-55 R = 39.34' L = 17.43' CH = 17.29' B.L.C. N 66-54-03 E	

EASEMENT "E"

20	N 03-03-46 W	11.00'
21	N 89-55-16 E	13.70'
22	N 11-01-16 W	21.08'
23	N 86-41-13 E	130.58'
24	S 00-03-46 E	5.45'
25	S 86-41-13 W	69.66'
26	S 52-34-11 W	32.96'
27	S 77-35-13 W	45.37'

* LAND SURVEYOR CERTIFICATE *

I, DAVID E. ESTES, A REGISTERED LAND SURVEYOR IN THE STATE OF KENTUCKY, DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE BY ME AND THAT THIS PLAT ACCURATELY AND PROPERLY SHOWS SAID SURVEY.

SIGNATURE L.S. 2316

11.09.95
DATE

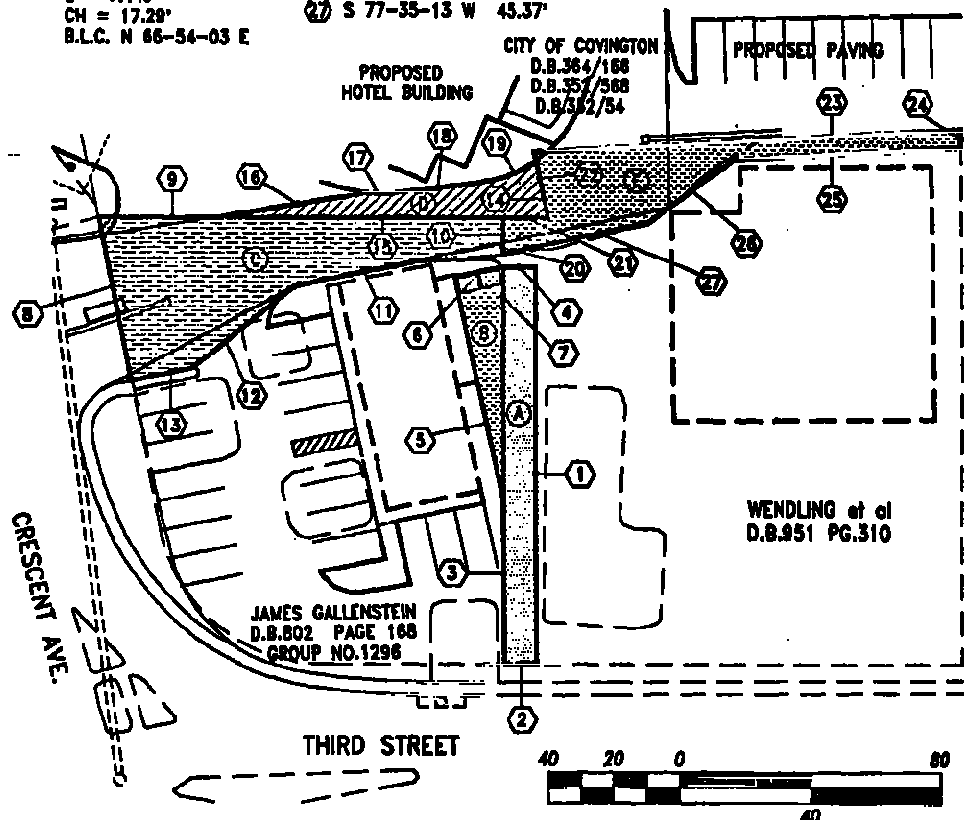


Exhibit "B" Page 1

GRAPHIC SCALE 1" = 40'

STATE OF KENTUCKY
DAVID E. ESTES
2,316
REGISTERED
LAND SURVEYOR

Drawn By:	NASSIM DAHER
Date:	11-03-1995
Scale:	1" = 40'
File No.	390-284

ACCESS EASEMENT PLAT SURVEY

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
7075 INDUSTRIAL ROAD, Fflorence, KENTUCKY 41042
TELEPHONE (606) 342-4100

\HAMPTON\3284V03.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION

BOOK 0018 PAGE 352

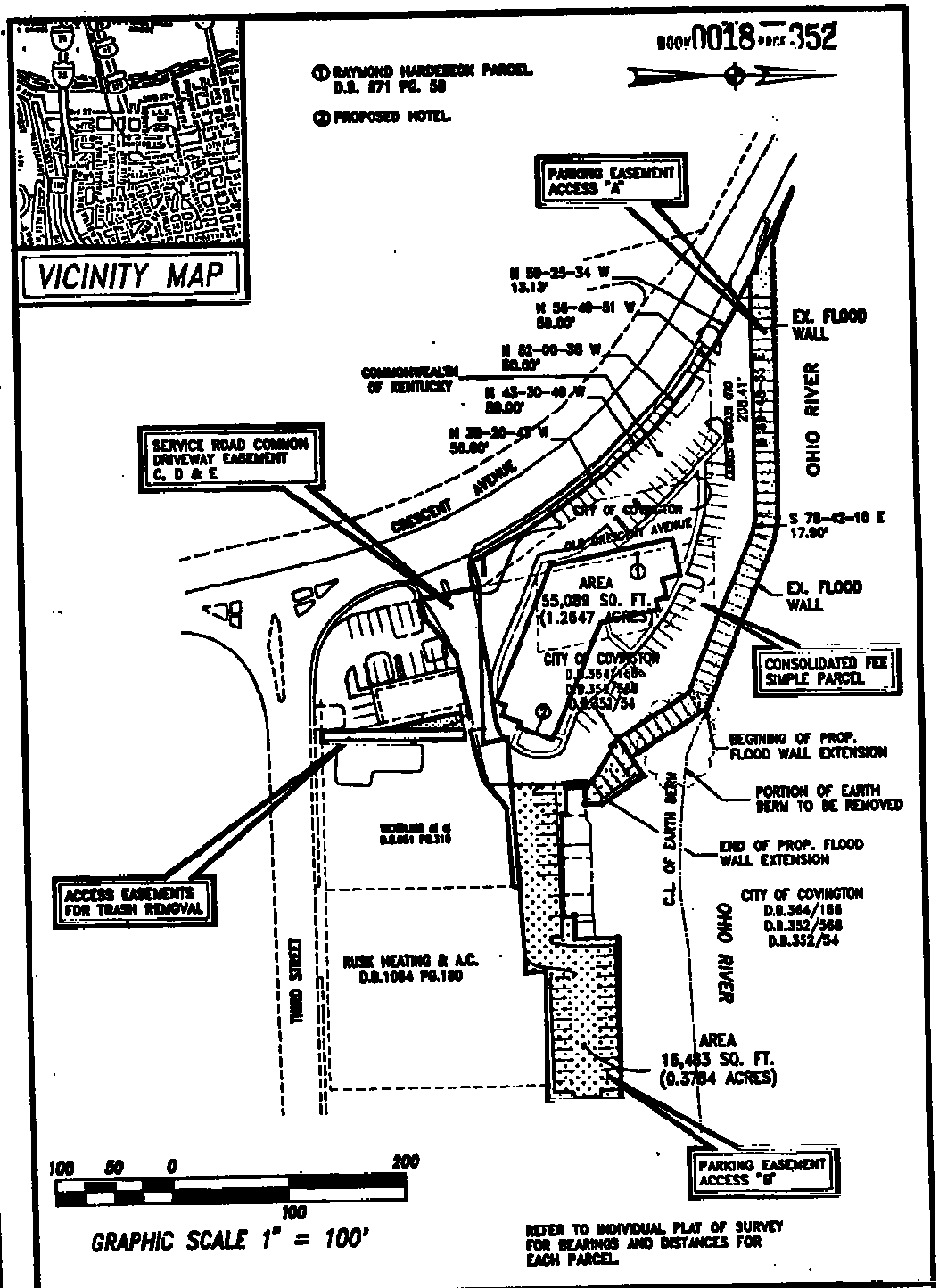


Exhibit "B" Page 2	Drawn By: NASSIM DAHER Date: 11-15-1995 Scale: 1" = 100' File No. 300-284	**PLAT OF SURVEY FOR GATEWAY HOTEL, L.C.C.**

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
7075 INDUSTRIAL ROAD, FLORENCE, KENTUCKY 41042
TELEPHONE (606) 342-6100

\HAMPTON\3284VTU.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION

Exhibit "C"
to
Ingress, Egress and Maintenance
Agreement between Gallenstein,
J.D. Group, City of Covington,
and Gateway

BOOK 0018 PAGE 353

Being part of Lots No. 15, 16, 17 and 18 of Block D., I.L. Ludlow Subdivision, Covington, Kentucky, and being more particularly described as follows: BEGINNING at a point in the North line of Third Street at the dividing line and the southeast corner of Lot # 18 THENCE S 89-56-14 W 140.06 feet along the north line of Third Street to a point; THENCE N 00-03-46 W 137.91 feet to a point THENCE N 89-56-14 E 13.70 feet to a point; THENCE N 11-01-16 W 21.08 feet to a point; THENCE N 86-41-14 E 130.58 feet to the East line of Lot #18; THENCE S 00-03-46 E 166.0 feet to the place of beginning.

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Consolidated Property of Gateway Hotel, L.L.C.
1.2647 AC. (55,089 S.F.)

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the point at the intersection of Old Crescent Avenue and the new Access Control line of the new Crescent Avenue; said point also being the Northwesterly property corner of Raymond Hardebeck (DB 871 Pg 56) ;

THENCE leaving said Right of Way and continuing with a new division line S 74-21-10 W for a distance of 22.61 feet to a set cross notch;

THENCE continuing with a New Division line N 29-01-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 34-08-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 38-20-43 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 43-30-49 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 52-00-38 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 56-49-51 W for a distance of 50.00 feet to a point;said point being on the Access Control line;

THENCE continuing with a New Division line N 59-25-34 W for a distance of 13.13 feet to a point;said point being on the Access Control line;

THENCE leaving said New Division Line and continuing with the Access Control Line N 63-30-12 W for a distance of 38.71 feet to a point; said point being 20 feet from the existing Portland Cement Concrete Flood Wall;

THENCE continuing with a line that is 20 feet off of the said Flood Wall and more or less parallel to said wall N 89-48-35 E for a distance of 208.41 feet to a point;

THENCE continuing with said parallel line S 78-42-10 E for a distance of 17.90 feet to a point;

THENCE continuing with said parallel line S 66-56-38 E for a distance of 147.56 feet to a point;

THENCE continuing with said parallel line S 32-32-02 E for a distance of 70.81 feet to a point;

THENCE continuing with said parallel line S 57-37-36 E for a distance of 47.16 feet to a point;

THENCE leaving said parallel line and continuing with a new division line S 00-03-46 E for a distance of 67.78 feet to a point; said point being on the Northerly property line of Wendling et al (DB 951 Pg 310);

THENCE leaving said new division line continuing with said property line S 86-41-12 W for a distance of 40.38 feet to a found iron spike;

THENCE continuing with said property line S 11-01-16 E for a distance of 21.08 feet to a Pk nail;

THENCE continuing with said property line S 89-55-16 W for a distance of 136.26 feet to the **Point of Beginning**;

The above described parcel of land contains 1.2647 Acres (55,089 square feet) and was field surveyed by David E. Estes Corporation in November 1995.

BOOK 0018 PAGE 356

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel **From: Gallenstein To: Gateway Hotel, et al...**
DB 802 Pg 168, Group No.1296
0.0712 AC. (3,100 S.F.)

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at a common point to the Southeast corner of said City Parcel and the intersection of the Easterly Right of Ways of "Old " Crescent Avenue and "New" Crescent Avenue and being the Northwesterly property corner of James Gallenstein (DB 802 Pg 168);

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 122.24' to a point; said point being in common with Mary Ann Muck 's (DB 1021 PG 342) property corner;

THENCE leaving said Northerly property corner and continuing with the common property line with Mary Ann Muck S 00-03-46 E for a distance of 7.66 feet to a point;

THENCE leaving said property line and continuing with a new easement line S 77-57-44 W for a distance of 64.54 feet to a point;

THENCE continuing with said line S 50-19-15 W for a distance of 40.26 feet to a point;

THENCE continuing with said line S 78-18-01 W for a distance of 18.88 feet to a point; said point being on the Easterly Right of Way of Crescent Avenue;

THENCE continuing with said line N 10-48-27 W for a distance of 51.42 feet to a point; said point being the **Point of Beginning;**

The above described parcel of land contains 0.0712Acres (3,100 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "E"
Parcel "C"

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel **From: Gateway Hotel** **To:** Gateway Hotel, L.L.C., and Mark Wendling, et al
DB ___ Pg___ , Group No.____
0.0171 AC. (743 S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky, and being more particularly described as follows:

Commencing at a common point to the Southeast corner of said City Parcel and the intersection of the Easterly Right of Ways of "Old" Crescent Avenue and "New" Crescent Avenue and being the Northwesterly property corner of James Gallenstein (DB 802 Pg 168);

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 35.96' to a point; said point being the **Real Point of Beginning;**

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 100.29' to a point; said point being on the common property line with Mary Ann Muck (DB 1021 Pg 342)

THENCE continuing with the common property line with Mary Ann Muck N 11-01-16 W for a distance of 18.21 feet to a found spike;

THENCE leaving said property line and continuing with a new easement line with an arc of a circular curve to the left; said curve having a central deflection angle of 25-22-55, a radius of 39.34 feet, an arc length of 17.43 feet, a chord length of 17.43 feet, and a chord bearing of S 66-54-03 W to a point;

THENCE continuing with said line S 82-37-13 W for a distance of 27.87 feet to a point;

THENCE continuing with said line S 89-49-31 W for a distance of 8.66 feet to a point;

THENCE continuing with said line N 80-17-47 W for a distance of 45.26 feet to a point; said point being the **Real Point of Beginning;**

The above described parcel of land contains 0.0171 Acres (743 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "B"
Parcel "D"

BOOK 0018 PAGE 358

LEGAL DESCRIPTION

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel **From:** [illegible] **To: Gateway Hotel** [illegible]
DB 1021 Pg 342 , Group No.1296
0.0401 AC. (1746 S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the Northwesterly property corner of Mary Ann Muck; said point being a found iron spike;

THENCE continuing with the said Northerly Property line N 88-41-13 E for a distance of 130.58 feet to a point; said point being in common with Rusk Heating and air Conditioning (DB 1064 Pg 180);

THENCE continuing with the said common Westerly Property line S 00-03-46 E for a distance of 5.45 feet to a point;

THENCE leaving said property line and continuing with the new easement line S 88-41-13 W for a distance of 69.66 feet to a point;

THENCE continuing with said line S 52-34-11 W for a distance of 32.96 feet to a point;

THENCE continuing with said line S 77-35-13 W for a distance of 45.37 feet to a point; said point being in common with the Easterly property line of James Gallenstein (DB 802 Pg 168);

THENCE continuing with said line N 00-03-46 W for a distance of 11.0 feet to a point;

THENCE leaving said common Gallenstein property line and continuing with a Northerly property line of Muck's N 89-55-16 E for a distance of 13.70 feet to a found PK nail;

THENCE continuing with said property linr N 11-01-16 W for a distance of 21.0 feet to a point; said point being the **Real Point of Beginning;**

The above described parcel of land contains 0.0401 Acres (1,746 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "E"
Parcel "E"

LEGAL DESCRIPTION BOOK 0018 PAGE 359

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel for Trash Removal Purposes
From: MARK WENDLAND ET AL To: Gallenstein
, Group No.1296
0.0282 AC. (1227S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the common property corner of Mary Ann Muck and James Gallenstein on the Northerly Right of Way of Third Street;

THENCE continuing with the said common property line N 00-03-46 W for a distance of 122.66 feet to a point;

THENCE leaving said common line and continuing with the new easement line N 89-56-14 E for a distance of 10.0 to a point;

THENCE continuing with said line S 00-03-46 E for a distance of 122.66 feet to a point; said point being on the Northerly Right of Way of Third Street;

THENCE leaving said new easement line and continuing with said Right of Way line S 89-56-14 W for a distance of 10.00 feet to a point; said point being the **Point of Beginning;**

The above described parcel of land contains 0.0282 Acres (1227 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "F"
Parcel "A"

LEGAL DESCRIPTION

BOOK 0018 PAGE 360

Hampton Inn
Covington, Kentucky
Ingress/Egress Parcel for Trash Removal Purposes
From: Gallenstein To: MARK WENDLING, et al
DB 802 Pg 168 , Group No.1296
0.0122 AC. (530 S.F.)

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Commencing at the common property corner of Mary Ann Muck and James Gallenstein (DB 802 Pg 168) on the Northerly Right of Way of Third Street;

THENCE continuing with the said common property line N 00-03-46 W for a distance of 50.20 feet to a point; said point being the **Real Point of Beginning;**

THENCE continuing with said line N 00-03-46 W for a distance of 72.46 feet to a point;

THENCE leaving said common line and continuing with the new easement line S 78-02-18 W for a distance of 14.94 to a point;

THENCE continuing with said line S 11-57-42 E for a distance of 70.90 feet to a point; said point being on the **Real Point of Beginning;**

The above described parcel of land contains 0.0122 Acres (530 Square feet) and was surveyed by David E. Estes Corporation in November 1995.

Exhibit "G"
Parcel "B"

Groups: 1295, 1296 & 1297

PIDN: 040-34-02-003.00
040-34-02-002.00
040-34-02-008.00
040-34-02-009.00
040-34-02-010.00
040-34-02-011.00
040-34-02-012.00

CA 00 3300 10 00

DOC 0019 PAGE 001

NON-DISTURBANCE AGREEMENT

This Agreement, dated this 17th day of November, 1995, is made by and between Fifth Third Bank of Northern Kentucky, Inc., f.k.a. Fifth Third Bank of Boone county, Inc. (the "Mortgagee"), Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway"), Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife (Wendlings and Tates being hereinafter collectively referred to as the "J.D. Group"), James A. Gallenstein and Sandra Gallenstein, husband and wife (hereinafter "Gallensteins"), and The City of Covington, Kentucky, a municipal corporation of the second class (hereinafter the "City").

WHEREAS, Gateway, the J.D. Group, Gallensteins, and the City have entered into an Ingress, Egress and Maintenance Agreement providing for the creation of certain easements (a.) for vehicular and pedestrian ingress and egress over the property of the Gallensteins for the use and benefit of Gateway, the J.D. Group and the City over the area described in Exhibit "A" attached hereto (hereinafter the "Common Driveway Easement Parcel") and (b.) a Dumpster Easement on the Gallensteins' property for the benefit of the J.D. Group over the area described in Exhibit "B" attached hereto (hereinafter the "Dumpster Easement Parcel") (the Common Driveway Easement Parcel and the Dumpster Easement Parcel being hereinafter collectively referred to as the "Easements" and/or the "Easement Parcels"); and

WHEREAS, the Common Driveway Easement Parcel and the Dumpster Easement Parcel are set forth as Easement Parcels C and B, respectively, on the survey attached hereto marked as Exhibit "C"; and

WHEREAS, Gateway, the J.D. Group and the City are the owners of the real estate described in Exhibits "D", "E" and "F" (the "Dominant Parcels"), which Dominant Parcels are enhanced by the benefit and use of the Easements across the Easement Parcels; and

WHEREAS, the Mortgagee holds a Mortgage which encumbers the Easement Parcels which mortgage is dated November 20, 1987 and was recorded on November 24, 1987 in Mortgage Book 1288, Page 319 of the Kenton County Clerk's records at Covington, Kentucky (the "Mortgage").

NOW, THEREFORE, in consideration of One Dollar ($1.00), the mutual promises of the parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

(1) The rights of Gateway, the J.D. Group, and the City under the Easements shall not be affected or disturbed by the Mortgagee in the exercise of any of its rights under the Mortgage or the notes or other instruments which they secure. Further, Gateway,

DATE MAILED 12-15-95

TO

1995112905900198 EASE 19/ 1

the J.D. Group, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE FIFTH-THIRD BANK OF NORTHERN KENTUCKY, a Kentucky corporation

By: _____

Its: _____

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: _____
Thomas E. Banta

Its: Vice President

_____
Mark H. Wendling

_____
James A. Gallenstein

_____
Janice Wendling

_____
Sandra Gallenstein

the J.D. Group, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE FIFTH-THIRD BANK OF NORTHERN KENTUCKY, a Kentucky corporation

By: _____

Its: _____

Mark H. Wendling

Janice Wendling

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: Thomas E. Banta

Its: Vice President

James A. Gallenstein

Sandra Gallenstein

BOOK 0019 PAGE 004

Bobby L. Tate

Bobby L. Tate

Jean A. Tate

Jean Tate

THE CITY OF COVINGTON, KENTUCKY, a municipal corporation of the second class

By: Denny Bowman

Denny Bowman, Mayor

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MICHAEL M. SKETCH, a Notary Public in and for said county and state aforesaid, do hereby certify that JAMES R. WEBER, VICE-PRES. of Fifth Third Bank of Northern Kentucky, a Kentucky corporation, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such VICE-PRES., and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Michael M. Sketch

Notary Public State of Kentucky
My Commission Expires:

3/1/96

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Thomas E. Banta, Vice President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Vice President, and as the free and voluntary act of said corporation and company for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C. Butler

Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

99999.999.25444.1

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Mark H. Wendling and Janice Wendling, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C Butler
Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Bobby L. Tate and Jean Tate, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

Martin C Butler
Notary Public
My Commission Expires:

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, Pete A. Smith, a Notary Public in and for said county and state aforesaid, do hereby certify that James A. Gallenstein and Sandra Gallenstein, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and

delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Notary Public, STATE OF KENTUCKY
My Commission Expires: 3/20/99

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, Joseph T. Conort, a Notary Public in and for said county and state aforesaid, do hereby certify that Denny Bowman, Mayor of The City of Covington, Kentucky, a municipal corporation of the second class, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Mayor, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 17th day of November, 1995.

Notary Public
My Commission Expires:
12-21-95

RETURN TO:

The instrument prepared by:

MARTIN C. BUTLER
STRAUSS & TROY, L.P.A.
Suite 1400
50 E. RiverCenter Blvd.
Covington, Kentucky 41011
(513) 621-8900

H:\DOCS\MCB\MISC\25444.1

Recorded BILL AYLOR
COVINGTON KENTON COUNTY CLERK
Doc type: EASEMENT
Book/page: 19/ 1 14 pg
Doc#: 95 11 29 059 00198
Dt/tm Recorded: 11/29/1995 02:15:06pm
Total fees: 46.00 Tax: 0.00
Clerk name: D J WOOD

99999.999.25444.1

BOOK 0019 PAGE 007

Exhibit "A"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Motel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at a common point to the Southeast corner of said City Parcel and the intersection of the Easterly Right of Ways of "Old " Crescent Avenue and "New" Crescent Avenue and being the Northwesterly property corner of James Gallenstein (DB 802 Pg 168);

THENCE continuing with the said Northerly Property line N 89-55-16 W for a distance of 122.24' to a point; said point being in common with Mary Ann Muck 's (DB 1021 PG 342) property corner;

THENCE leaving said Northerly property corner and continuing with the common property line with Mary Ann Muck S 00-03-46 E for a distance of 7.68 feet to a point;

THENCE leaving said property line and continuing with a new easement line S 77-57-44 W for a distance of 64.54 feet to a point;

THENCE continuing with said line S 50-19-15 W for a distance of 40.28 feet to a point;

THENCE continuing with said line S 78-18-01 W for a distance of 18.68 feet to a point; said point being on the Easterly Right of Way of Crescent Avenue;

THENCE continuing with said line N 10-48-27 W for a distance of 51.42 feet to a point; said point being the **Point of Beginning;**

The above described parcel of land contains 0.0712Acres (3,100 Square feet) and was surveyed by David E. Estes in November 1996.

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Commencing at the common property corner of Mary Ann Muck and James Gallenstein (DB 802 Pg 168) on the Northerly Right of Way of Third Street;

THENCE continuing with the said common property line N 00-03-46 W for a distance of 50.20 feet to a point; said point being the **Real Point of Beginning;**

THENCE continuing with said line N 00-03-46 W for a distance of 72.46 feet to a point;

THENCE leaving said common line and continuing with the new easement line S 78-02-18 W for a distance of 14.94 to a point;

THENCE continuing with said line S 11-57-42 E for a distance of 70.90 feet to a point; said point being on the **Real Point of Beginning;**

The above described parcel of land contains 0.0122 Acres (530 Square feet) and was surveyed by David E. Estes Corporation in November 1995.



VICINITY MAP

EASEMENT "A"

1	S 89-56-14 W	10.00'
2	N 00-03-46 W	122.66'
3	N 89-56-14 E	10.00'
4	S 00-03-46 E	122.66'

EASEMENT "B"

5	N 11-57-42 W	70.90'
6	N 78-02-18 E	14.94'
7	S 00-03-46 E	72.46'

EASEMENT "C"

8	N 10-48-27 W	51.42'
9	N 89-55-16 E	122.24'
10	S 00-03-46 E	7.68'
11	S 77-57-44 W	64.54'
12	S 50-19-15 W	40.28'
13	S 78-18-01 W	18.88'

BOOK 0019 PAGE 009

• LAND SURVEYOR CERTIFICATE •

I, DAVID E. ESTES, A REGISTERED LAND SURVEYOR IN THE STATE OF KENTUCKY, DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE BY ME AND THAT THIS PLAT ACCURATELY AND PROPERLY SHOWS SAID SURVEY.

SIGNATURE L.S. 2316

11.09.95
DATE

EASEMENT "D"

14	S 11-01-16 E	18.21'
15	S 89-55-16 W	100.29'
16	N 80-17-47 E	45.26'
17	N 89-49-31 E	8.66'
18	N 82-37-13 E	27.87'
19	Δ = 25-22-55	
	R = 39.34'	
	L = 17.43'	
	CH = 17.29'	
	B.L.C. N 66-54-03 E	

EASEMENT "E"

20	N 03-03-46 W	11.00'
21	N 89-55-16 E	13.70'
22	N 11-01-16 W	21.08'
23	N 86-41-13 E	130.58'
24	S 00-03-46 E	5.45'
25	S 86-41-13 W	89.66'
26	S 52-34-11 W	32.96'
27	S 77-35-13 W	45.37'

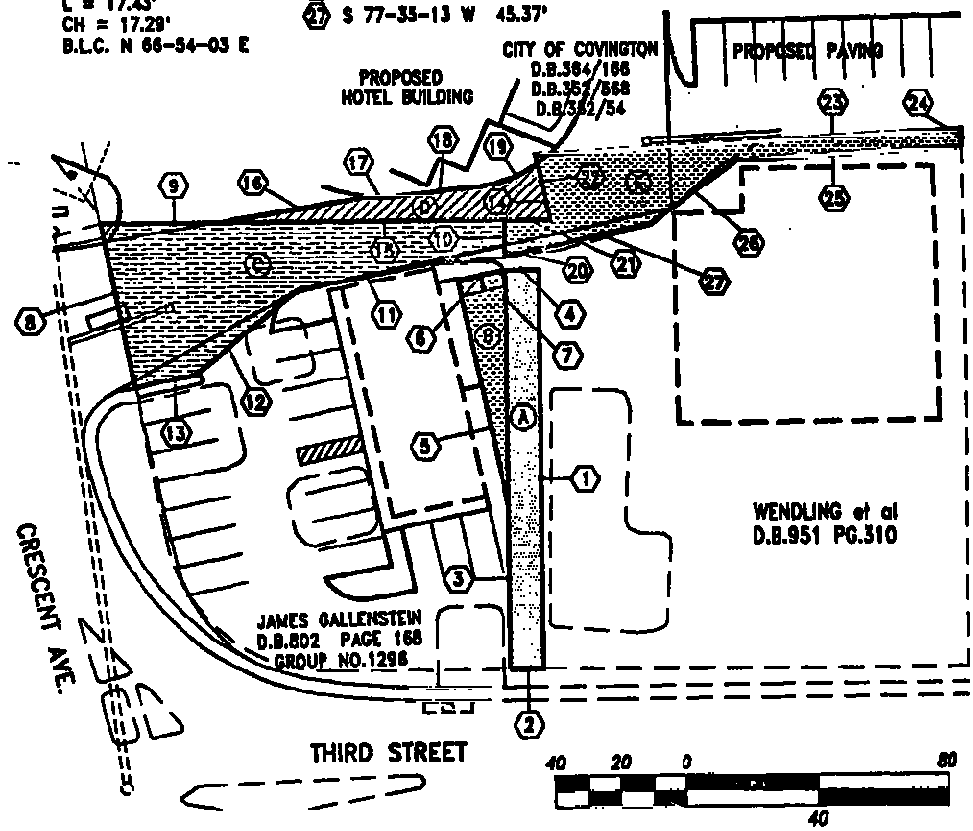


Exhibit "C"

GRAPHIC SCALE 1" = 40'

STATE OF KENTUCKY
DAVID E. ESTES
2,316
REGISTERED
LAND SURVEYOR

Drawn By:	NASSIN DAHER
Date:	11-03-1995
Scale:	1" = 40'
File No.	300-284

ACCESS EASEMENT PLAT SURVEY

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
7075 INDUSTRIAL ROAD, FLORENCE, KENTUCKY 41042
TELEPHONE (606) 341-8100

\HAMPTON\3284V03.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION

Exhibit "D"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Joan Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the point at the intersection of Old Crescent Avenue and the new Access Control line of the new Crescent Avenue; said point also being the Northwesterly property corner of Raymond Hardebeck (DB 871 Pg 56) ;

THENCE leaving said Right of Way and continuing with a new division line S 74-21-10 W for a distance of 22.61 feet to a set cross notch;

THENCE continuing with a New Division line N 29-01-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 34-08-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 38-20-43 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 43-30-49 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 52-00-36 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 56-49-51 W for a distance of 50.00 feet to a point;said point being on the Access Control line;

THENCE continuing with a New Division line N 59-25-34 W for a distance of 13.13 feet to a point;said point being on the Access Control line;

THENCE leaving said New Division Line and continuing with the Access Control Line N 63-30-12 W for a distance of 38.71 feet to a point; said point being 20 feet from the existing Portland Cement Concrete Flood Wall;

THENCE continuing with a line that is 20 feet off of the said Flood Wall and more or less parallel to said wall N 89-48-35 E for a distance of 208.41 feet to a point;

THENCE continuing with said parallel line S 78-42-10 E for a distance of 17.90 feet to a point;

THENCE continuing with said parallel line S 66-56-38 E for a distance of 147.56 feet to a point;

THENCE continuing with said parallel line S 32-32-02 E for a distance of 70.81 feet to a point;

THENCE continuing with said parallel line S 57-37-36 E for a distance of 47.16 feet to a point;

THENCE leaving said parallel line and continuing with a new division line S 00-03-46 E for a distance of 67.78 feet to a point; said point being on the Northerly property line of Wendling et al (DB 951 Pg 310);

THENCE leaving said new division line continuing with said property line S 86-41-12 W for a distance of 40.38 feet to a found iron spike;

THENCE continuing with said property line S 11-01-16 E for a distance of 21.08 feet to a Pk nail;

THENCE continuing with said property line S 89-55-16 W for a distance of 136.26 feet to the **Point of Beginning**;

The above described parcel of land contains 1.2647 Acres (55,089 square feet) and was field surveyed by David E. Estes Corporation in November 1995.

Exhibit "D" continued

Book 0019 Page 012

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

Being part of Lots No. 15, 16, 17 and 18 of Block D., I.L. Ludlow Subdivision, Covington, Kentucky, and being more particularly described as follows: BEGINNING at a point in the North line of Third Street at the dividing line and the southeast corner of Lot # 18 THENCE S 89-56-14 W 140.06 feet along the north line of Third Street to a point; THENCE N 00-03-46 W 137.91 feet to a point THENCE N 89-56-14 E 13.70 feet to a point; THENCE N 11-01-16 W 21.08 feet to a point; THENCE N 86-41-14 E 130.58 feet to the East line of Lot #18; THENCE S 00-03-46 E 166.0 feet to the place of beginning.

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at the Northeasterly property corner of Mary Ann Muck (DB 1021 Pg 342); said point also being the Northwesterly property corner of Rusk Heating and AC (DB 1064 Pg 180);

THENCE continuing with the Northerly property line of Muck S 88-41-15 W for a distance of 89.75 feet to a point;

THENCE leaving said Property line and continuing with a new division line N 00-03-46 W for a distance of 67.78 feet to a point;

THENCE continuing with said new division line N 57-37 36 W for a distance of 47.16 feet to a point;

THENCE continuing with said new division line N 57-27-58 E for a distance of 40.00 feet to a point;

THENCE continuing with a new division line S 32-32-02 E for a distance of 44.00 feet to a point; said point being on the rear of the Kenton County Water District's Pump Station;

THENCE continuing with the Water District 's Pump Station S 89-56-14 E for a distance of 14.56 feet to a point;

THENCE continuing with the Water District Pump Station S 00-03-46 E for a distance of 16.24 feet to a point;

THENCE continuing with the Water District Pump Station N 89-56-14 W for a distance of 23.20 feet to a point;

THENCE leaving said Pump Station and continuing with a new division line S 00-03-46 E for a distance of 4.00 feet to a point;

THENCE continuing with said new division line S 89-27-08 E for a distance of 89.67 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 10.00 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 20.50 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 37.23 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 141.24 feet to a point;

THENCE continuing with said new division line S 00-03-46 E for a distance of 63.00 feet to a point;

THENCE continuing with said new division line S 89-56-14 W for a distance of 12.92 feet to a found iron pin and cap; said point being the Northeasterly property corner of Rusk;

THENCE continuing with said property line S 89-56-14 W for a distance of 99.82 feet to a found iron pin and cap;

THENCE continuing with said property line S 03-13-02 E for a distance of 16.82 feet to a found iron pin and cap;

THENCE continuing with said property line S 36-46-58 W for a distance of 76.51 feet to point; said point being the Point of Beginning;

The above described parcel of land contains 0.3784 Acres (16,483 Square feet) and was surveyed by David E. Estes in November 1995 .

Groups: 1295, 1296 & 1297

PIDN: 040-34-02-002.00
040-34-02-003.00
040-34-02-008.00
040-34-02-009.00
040-34-02-010.00
040-34-02-011.00
040-34-02-012.00

BOOK 0019 PAGE 015

NON-DISTURBANCE AGREEMENT

This Agreement, dated this 17th day of November, 1995, is made by and between The Huntington National Bank, successor by merger to The Huntington Bank, Inc., formerly known as The Huntington Bank of Kenton County, Inc. (the "Mortgagee"), Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway"), Mark H. Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife (Wendlings and Tates being hereinafter collectively referred to as the "J.D. Group"), James A. Gallenstein and Sandra Gallenstein, husband and wife (hereinafter "Gallensteins"), and The City of Covington, Kentucky, a municipal corporation of the second class (hereinafter the "City").

WHEREAS, Gateway, the J.D. Group, Gallensteins, and the City have entered into an Ingress, Egress and Maintenance Agreement providing for the creation of certain easements (a.) for vehicular and pedestrian ingress and egress over the property of the J. D. Group for the use and benefit of Gateway, Gallensteins and the City over the area described in Exhibit "A" attached hereto (hereinafter the "Common Driveway Easement Parcel") and (b.) a Dumpster Access Easement on the J. D. Group property for the benefit of Gallensteins over the area described in Exhibit "B" attached hereto (hereinafter the "Dumpster Access Easement Parcel") (the Common Driveway Easement Parcel and the Dumpster Access Easement Parcel being hereinafter collectively referred to as the "Easements" and/or the "Easement Parcels"); and

WHEREAS, the Common Driveway Easement Parcel and the Dumpster Access Easement Parcels are set forth as Easement Parcels E and A, respectively, on the survey attached hereto marked as Exhibit "C"; and

WHEREAS, Gateway, Gallensteins and the City are the owners of the real estate described in Exhibits "D", "E" and "F" (the "Dominant Parcels"), which Dominant Parcels are enhanced by the benefit and use of the Easements across the Easement Parcels; and

WHEREAS, the Mortgagee holds a Mortgage which encumbers the Easement Parcels which mortgage is dated July 16, 1987 and was recorded on July 21, 1987 in Mortgage Book 1265, Page 242 of the Kenton County Clerk's records at Covington, Kentucky (the "Mortgage").

NOW, THEREFORE, in consideration of One Dollar ($1.00), the mutual promises of the parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

(1) The rights of Gateway, Gallensteins, and the City under the Easements shall not be affected or disturbed by the Mortgagee in the exercise of any of its rights under the Mortgage or the notes or other instruments which they secure. Further, Gateway,

DATE MAILED 12-18-95

TO

Gallensteins, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE HUNTINGTON NATIONAL BANK

By: _____

Its: VICE PRESIDENT

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: _____
Thomas E. Banta

Its: Vice President

_____
Mark H. Wendling

_____
James A. Gallenstein

_____
Janice Wendling

_____
Sandra Gallenstein

Gallensteins, and the City shall not be named as party defendants in any foreclosure of the lien of the Mortgage nor in any other way be deprived of their rights under the Easements.

(2) In the event the Mortgagee or any other person acquires title to the Easement Parcels pursuant to the exercise of any remedy provided for in the Mortgage or by conveyance in lieu of foreclosure, the Easements shall not be terminated or affected by the foreclosure, conveyance, or sale in any such proceeding. The Mortgagee also covenants that any sale by it of the Easement Parcels as a result of the exercise of any rights and remedies under the Mortgage, or otherwise, shall be made subject to the Easements and the rights of the Grantee under them.

(3) The above provisions shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

(4) This Agreement may not be modified other than by an agreement in writing signed by the parties or by their respective successors in interest.

(5) This Agreement shall run with the land and inure to the benefit of and be binding upon the parties and their respective successors, mortgagees, and assigns.

To indicate their agreement to the above, the parties or their duly authorized representatives or officers have signed this document as of the date and year first set forth herein.

MORTGAGEE:

THE HUNTINGTON NATIONAL BANK

By:_____

Its:_____

Mark H. Wendling

Mark H. Wendling

Janice Wendling

Janice Wendling

GATEWAY HOTEL, L.L.C., a Kentucky limited liability company

By: Commonwealth Hotels, Inc., a Kentucky corporation

By: Thomas E. Banta

Thomas E. Banta

Its: Vice President

James A. Gallenstein

James A. Gallenstein

Sandra Gallenstein

Sandra Gallenstein

BOOK 0019 PAGE 018

Bobby L. Tate

Joan Tate

THE CITY OF COVINGTON, KENTUCKY, a municipal corporation of the second class

By: Denny Bowman, Mayor

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, _____, a Notary Public in and for said county and state aforesaid, do hereby certify that _____, _____ of The Huntington National Bank, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such _____, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this ____ day of November, 1995.

Notary Public
My Commission Expires:

_____

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Thomas E. Banta, Vice President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Vice President, and as the free and voluntary act of said corporation and company for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C. Butler
Notary Public
My Commission Expires:

_____

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

BOOK 0079 PAGE 019

Bobby L. Tate

Jean Tate

THE CITY OF COVINGTON, KENTUCKY, a municipal corporation of the second class

By: _____
Denny Bowman, Mayor

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, PAULA GARMANY, a Notary Public in and for said county and state aforesaid, do hereby certify that JOHN MEYER, VICE PRESIDENT of The Huntington National Bank, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such VICE PRESIDENT, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 17th day of November, 1995.

Paula A. Garmany
Notary Public
My Commission Expires:
[illegible]

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, _____, a Notary Public in and for said county and state aforesaid, do hereby certify that Thomas E. Banta, Vice President of Commonwealth Hotels, Inc., a Kentucky corporation, Manager of Gateway Hotel, L.L.C., a Kentucky limited liability company, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Vice President, and as the free and voluntary act of said corporation and company for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of November, 1995.

Notary Public
My Commission Expires:

BOOK 0019 PAGE 020

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Mark H. Wendling and Janice Wendling, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C Butler
Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, MARTIN C. BUTLER, a Notary Public in and for said county and state aforesaid, do hereby certify that Bobby L. Tate and Jean Tate, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Martin C Butler
Notary Public
My Commission Expires:

MARTIN C. BUTLER
Notary Public, Kentucky State at Large
My Commission Expires May 21, 1996

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, P.A. Smith, a Notary Public in and for said county and state aforesaid, do hereby certify that James A. Gallenstein and Sandra Gallenstein, husband and wife, who are personally known to me to be the same persons whose names are subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and

delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 16th day of November, 1995.

Notary Public, KENTUCKY STATE AT LARGE
My Commission Expires: 3/20/99

STATE OF KENTUCKY)
) SS:
COUNTY OF KENTON)

I, Joseph T. Condit, a Notary Public in and for said county and state aforesaid, do hereby certify that Denny Bowman, Mayor of The City of Covington, Kentucky, a municipal corporation of the second class, who is personally known to me to be the same person whose name is subscribed to in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed, and delivered the said instrument as his free and voluntary act as such Mayor, and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal this 17th day of November, 1995.

Notary Public, KENTUCKY STATE AT LARGE
My Commission Expires:
12-21-95

RETURN TO:

The instrument prepared by:

MARTIN C. BUTLER
STRAUSS & TROY, L.P.A.
Suite 1400
50 E. RiverCenter Blvd.
Covington, Kentucky 41011
(513) 621-8900

[illegible]

Recorded	BILL AYLOR
COVINGTON	KENTON COUNTY CLERK
Doc type:	EASEMENT
Book/page:	19/ 15 15 pg
Doc#:	95 11 29 059 00199
Dt/tm Recorded:	11/29/1995 02:17:45pm
Total fees:	48.00 Tax: 0.00
Clerk name:	D J WOOD

Exhibit "A"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the Northwesterly property corner of Mary Ann Muck; said point being a found iron spike;

THENCE continuing with the said Northerly Property line N 86-41-13 E for a distance of 130.58 feet to a point; said point being in common with Rusk Heating and air Conditioning (DB 1064 Pg 180);

THENCE continuing with the said common Westerly Property line S 00-03-46 E for a distance of 5.45 feet to a point;

THENCE leaving said property line and continuing with the new easement line S 86-41-13 W for a distance of 69.66 feet to a point;

THENCE continuing with said line S 52-34-11 W for a distance of 32.96 feet to a point;

THENCE continuing with said line S 77-35-13 W for a distance of 45.37 feet to a point; said point being in common with the Easterly property line of James Gallenstein (DB 802 Pg 168);

THENCE continuing with said line N 00-03-46 W for a distance of 11.0 feet to a point;

THENCE leaving said common Gallenstein property line and continuing with a Northerly property line of Muck's N 89-55-16 E for a distance of 13.70 feet to a found PK nail;

THENCE continuing with said property linr N 11-01-16 W for a distance of 21.0 feet to a point; said point being the Real Point of Beginning;

The above described parcel of land contains 0.0401 Acres (1,746 Square feet) and was surveyed by David E. Estes in November 1995.

Exhibit "B"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the common property corner of Mary Ann Muck and James Gallenstein on the Northerly Right of Way of Third Street;

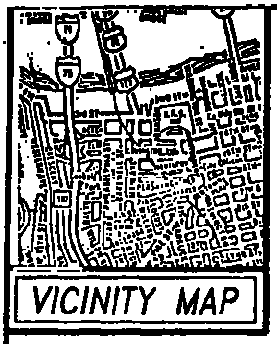
THENCE continuing with the said common property line N.00-03-46 W for a distance of 122.66 feet to a point;

THENCE leaving said common line and continuing with the new easement line N 89-56-14 E for a distance of 10.0 to a point;

THENCE continuing with said line S 00-03-46 E for a distance of 122.66 feet to a point; said point being on the Northerly Right of Way of Third Street;

THENCE leaving said new easement line and continuing with said Right of Way line S 89-56-14 W for a distance of 10.00 feet to a point; said point being the Point of Beginning;

The above described parcel of land contains 0.0282 Acres (1227 Square feet) and was surveyed by David E. Estes in November 1995.



VICINITY MAP

EASEMENT "A"

1	S 89-56-14 W	10.00'
2	N 00-03-46 W	122.66'
3	N 89-56-14 E	10.00'
4	S 00-03-46 E	122.66'

EASEMENT "B"

5	N 11-57-42 W	70.90'
6	N 78-02-18 E	14.94'
7	S 00-03-46 E	72.48'

EASEMENT "C"

8	N 10-48-27 W	51.42'
9	N 89-55-18 E	122.24'
10	S 00-03-46 E	7.68'
11	S 77-57-44 W	64.54'
12	S 50-19-15 W	40.28'
13	S 78-18-01 W	18.88'

BOOK 0019 PAGE 024

* LAND SURVEYOR CERTIFICATE *

I, DAVID E. ESTES, A REGISTERED LAND SURVEYOR IN THE STATE OF KENTUCKY, DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS MADE BY ME AND THAT THIS PLAT ACCURATELY AND PROPERLY SHOWS SAID SURVEY.

SIGNATURE L.S. 2316

11-09-95
DATE

EASEMENT "D"

14	S 11-01-16 E	18.21'
15	S 89-55-16 W	100.29'
16	N 80-17-47 E	45.26'
17	N 89-49-31 E	8.66'
18	N 82-37-13 E	27.87'
19	Δ = 25-22-55	
	R = 39.34'	
	L = 17.43'	
	CH = 17.29'	
	B.L.C. N 66-54-03 E	

EASEMENT "E"

20	N 03-03-46 W	11.00'
21	N 89-55-16 E	13.70'
22	N 11-01-16 W	21.08'
23	N 86-41-13 E	130.58'
24	S 00-03-46 E	5.45'
25	S 86-41-13 W	89.66'
26	S 52-34-11 W	32.96'
27	S 77-35-13 W	45.37'

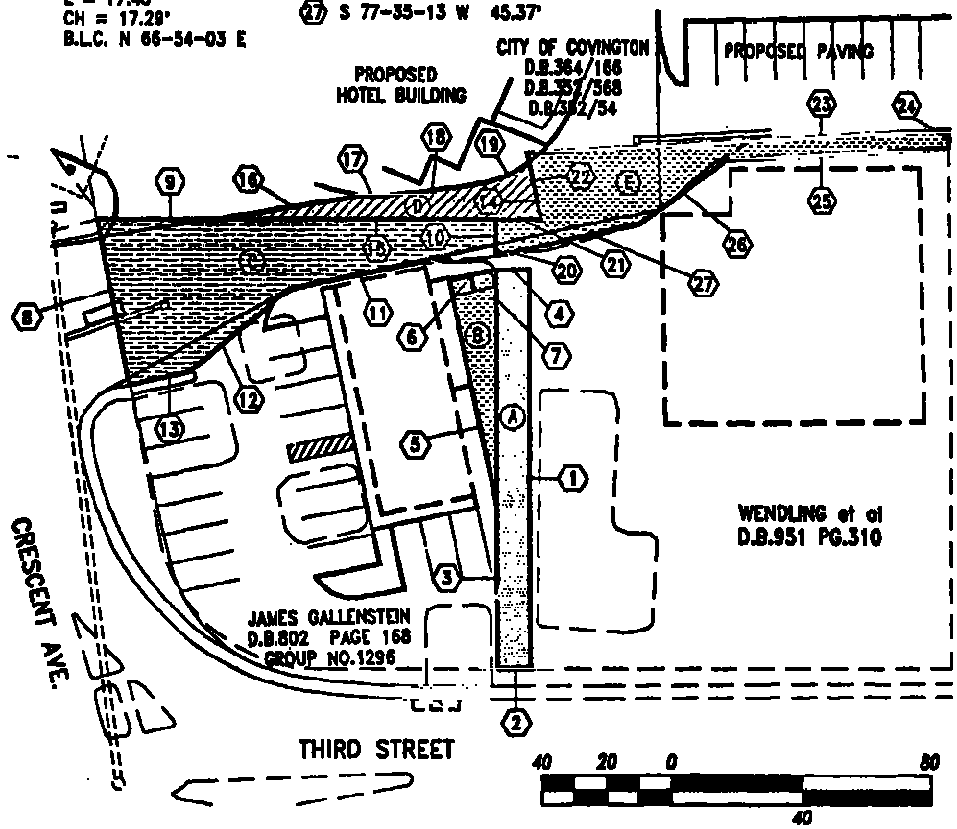


Exhibit "C"

GRAPHIC SCALE 1" = 40'

STATE OF KENTUCKY
DAVID E. ESTES
2,316
REGISTERED
LAND SURVEYOR

Drawn By:	NASSIM DAHER
Date:	11-03-1995
Scale:	1" = 40'
File No.	310-284

ACCESS EASEMENT PLAT SURVEY

David E. Estes Engineering, Inc.
CIVIL ENGINEERING AND LAND SURVEYING
2025 INDUSTRIAL ROAD, FLORENCE, KENTUCKY 41042
TELEPHONE (606) 342-6100

\HAMPTON\328-V03.DWG

COPYRIGHT © 1995 DAVID E. ESTES ENGINEERING CORPORATION Exhibit "C"

Exhibit "D"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

Beginning at the point at the intersection of Old Crescent Avenue and the new Access Control line of the new Crescent Avenue; said point also being the Northwesterly property corner of Raymond Hardebeck (DB 871 Pg 56) ;

THENCE leaving said Right of Way and continuing with a new division line S 74-21-10 W for a distance of 22.61 feet to a set cross notch;

THENCE continuing with a New Division line N 29-01-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 34-08-03 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 38-20-43 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 43-30-49 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 52-00-38 W for a distance of 50.00 feet to a point;

THENCE continuing with a New Division line N 56-49-51 W for a distance of 50.00 feet to a point;said point being on the Access Control line;

THENCE continuing with a New Division line N 59-25-34 W for a distance of 13.13 feet to a point;said point being on the Access Control line;

THENCE leaving said New Division Line and continuing with the Access Control Line N 63-30-12 W for a distance of 38.71 feet to a point; said point being 20 feet from the existing Portland Cement Concrete Flood Wall;

THENCE continuing with a line that is 20 feet off of the said Flood Wall and more or less parallel to said wall N 89-48-35 E for a distance of 208.41 feet to a point;

THENCE continuing with said parallel line S 78-42-10 E for a distance of 17.90 feet to a point;

THENCE continuing with said parallel line S 66-56-38 E for a distance of 147.56 feet to a point;

THENCE continuing with said parallel line S 32-32-02 E for a distance of 70.81 feet to a point;

THENCE continuing with said parallel line S 57-37-36 E for a distance of 47.16 feet to a point;

THENCE leaving said parallel line and continuing with a new division line S 00-03-46 E for a distance of 67.78 feet to a point; said point being on the Northerly property line of Wendling et al (DB 951 Pg 310);

THENCE leaving said new division line continuing with said property line S 86-41-12 W for a distance of 40.38 feet to a found iron spike;

THENCE continuing with said property line S 11-01-16 E for a distance of 21.08 feet to a Pk nail;

THENCE continuing with said property line S 86-55-16 W for a distance of 136.26 feet to the **Point of Beginning**;

The above described parcel of land contains 1.2647 Acres (55,089 square feet) and was field surveyed by David E. Estes Corporation in November 1995.

"D"

Exhibit "E"
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Hotel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

Situated in the City of Covington, Kenton County, Kentucky, being part of Lots Fifteen (15), Sixteen (16) and Seventeen (17) of I. L. Ludlow's Subdivision, Block "D" as shown on Page 164 of the Copied and Restored records of Kenton County, Kentucky, described as follows:

Beginning in the north line of Third Street at an iron pipe which is a distance of 40.42 feet eastwardly from the southeast corner of said Lot Number Seventeen (17); thence S 89-56-14 W along the north line of Third Street a distance of 54.58 feet; thence on a curved line deflecting to the right with a radius of 50 feet a distance of 68.98 feet to the easterly line of Crescent Avenue as now located, (chord of said curve forms an interior angle of 140-28-45 with the north line of Third Street and bears N 50-32-31 W, a distance of 63.64 feet); thence N 11-01-16 W, along the said easterly line of Crescent Avenue, forming an interior angle with the above described chord of 140-28-30 a distance of 99.22 feet; thence N 89-56-14 E, enclosing an angle of 79-02-30 a distance of 122.55 feet to an iron pipe; thence S 00-03-46 E, enclosing an angle of 90 degrees a distance of 137.91 feet to the place of beginning, forming an interior angle of 90 degrees.

"E"

Exhibit
to the Non-Disturbance Agreement
between
Fifth Third Bank of Northern Kentucky ("Mortgagee")
and
Gateway Motel, L.L.C., a Kentucky limited liability company ("Gateway")
and
Mark Wendling and Janice Wendling, husband and wife, and Bobby L. Tate and Jean Tate, husband and wife ("J.D. Group")
and
James A. Gallenstein and Sandra Gallenstein, husband and wife ("Gallensteins")
and
The City of Covington, Kentucky, a municipal corporation of the second class ("City")

A certain tract of land situated near the Northeasterly intersection of Crescent Avenue and Third Street, located within the City of Covington, County of Kenton, Commonwealth of Kentucky , and being more particularly described as follows:

BEGINNING at the Northeasterly property corner of Mary Ann Muck (DB 1021 Pg 342); said point also being the Northwesterly property corner of Rusk Heating and AC (DB 1064 Pg 180);

THENCE continuing with the Northerly property line of Muck S 88-41-15 W for a distance of 89.75 feet to a point;

THENCE leaving said Property line and continuing with a new division line N 00-03-46 W for a distance of 67.78 feet to a point;

THENCE continuing with said new division line N 57-37 36 W for a distance of 47.16 feet to a point;

THENCE continuing with said new division line N 57-27-58 E for a distance of 40.00 feet to a point;

THENCE continuing with a new division line S 32-32-02 E for a distance of 44.00 feet to a point; said point being on the rear of the Kenton County Water District's Pump Station;

THENCE continuing with the Water District 's Pump Station S 89-56-14 E for a distance of 14.56 feet to a point;

THENCE continuing with the Water District Pump Station S 00-03-46 E for a distance of 16.24 feet to a point;

THENCE continuing with the Water District Pump Station N 89-56-14 W for a distance of 23.20 feet to a point;

THENCE leaving said Pump Station and continuing with a new division line S 00-03-46 E for a distance of 4.00 feet to a point;

THENCE continuing with said new division line S 89-27-08 E for a distance of 89.67 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 10.00 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 20.50 feet to a point;

THENCE continuing with said new division line N 00-03-46 W for a distance of 37.23 feet to a point;

THENCE continuing with said new division line N 89-56-14 E for a distance of 141.24 feet to a point;

THENCE continuing with said new division line S 00-03-46 E for a distance of 63.00 feet to a point;

THENCE continuing with said new division line S 89-56-14 W for a distance of 12.92 feet to a found iron pin and cap; said point being the Northeasterly property corner of Rusk;

THENCE continuing with said property line S 89-56-14 W for a distance of 99.62 feet to a found iron pin and cap;

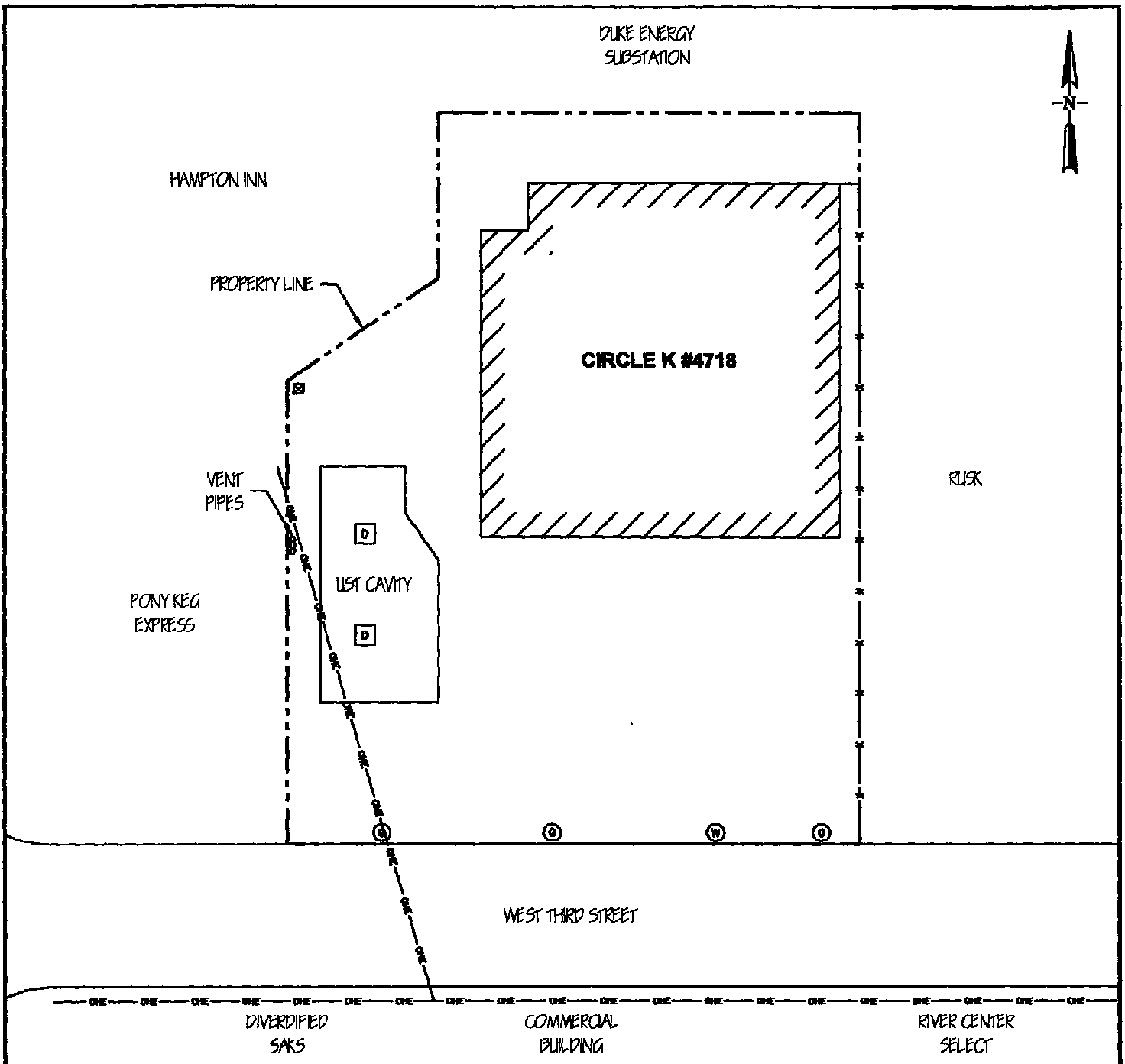
THENCE continuing with said property line S 03-13-02 E for a distance of 16.82 feet to a found iron pin and cap;

THENCE continuing with said property line S 86-46-58 W for a distance of 76.51 feet to point; said point being the Point of Beginning;

The above described parcel of land contains 0.3784 Acres (16,483 Square feet) and was surveyed by David E. Estes in November 1995 .

Appendix F

KDEP Documentation



LEGEND

—ONE—	OVERHEAD ELECTRIC	⊠	DUMPSTER
— x —	FENCE LINE	Ⓦ	WATER UTILITY MARKER
D	DISPENSER ISLAND	Ⓖ	NATURAL GAS UTILITY MARKER

30 0 30

SCALE IN FEET

Indianapolis, Indiana-Corporate Office (317) 871-4090
Louisville, Kentucky-Regional Office (502) 491-0144
Springfield, Illinois-Regional office (217) 585-9517
Fairfield, Ohio-Regional Office (217) 585-9517

UST CLOSURE ASSESSMENT
CIRCLE K #4718
670 W. THIRD STREET
COVINGTON, KENTUCKY

Project No.: 278718	SCALE: AS SHOWN
Drawing File: 278718-FIG2	FIGURE: 2
Date: 5/22/2001	

ERNIE FLETCHER
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
UNDERGROUND STORAGE TANK BRANCH
81 C. MICHAEL DAVENPORT BLVD
FRANKFORT, KENTUCKY 40601-1190
www.kentucky.gov

TERESA J. HILL
SECRETARY

November 30, 2007

MACS CONVENIENCE STORES LLC
315 COMMONS MALL
PO BOX 347
COLUMBUS, IN 47201

RE: AI #: 38733 UST #: 3759059
COVINGTON CO-OP #718 (DELI DIRECT)
670 W 3rd St
Covington, Kenton County
Applicable Regulation(s): 2006 Regulations
UST System(s): Removal Date: April 10 & 11, 2007
Incident #: N/A
Tank(s): Tank #1 – 10000 gallon gas; Tank #2 – 10000 gallon gas; Tank #3 – 6000 gallon gas

Dear Sir or Madame:

The Underground Storage Tank Branch (UST Branch) has reviewed the information received on November 26, 2007, and other relevant information received to date. From your analyses, the UST Branch agrees that this site has satisfied those requirements of Kentucky Revised Statutes Chapter 224, Subchapter 60 and 401 Kentucky Administrative Regulations Chapter 42 applicable to closure and/or corrective action. Therefore, no further action is required, at this time.

The UST Branch has based this determination on information submitted by American Environmental and reserves all rights to require additional monitoring, testing or other actions necessary to protect public health and the environment if the UST Branch determines there is need for further investigation.

All monitoring wells shall be properly decommissioned in accordance with 401 KAR 6:310 within thirty (30) days from the date of determination that the monitoring well(s) are unsuitable for use as monitoring wells or within thirty (30) days of receiving a no further action letter from the Cabinet. If you have monitoring wells that are required for another investigation that is ongoing, then you may contact the UST Branch to apply for a variance to this monitoring well decommissioning requirement.

This letter serves as authorization for eligible applicants to submit a cost estimate on the appropriate worksheet in order to acquire pre-approval of site restoration costs in accordance with 401 KAR 42:250.

The regulations pertaining to this letter may be accessed at the UST Branch web site http://www.waste.ky.gov/branches/ust. If you have any questions regarding the requested information, please contact the UST Branch at 502-564-5981 or 800-928-7782.

Sincerely,

Amy Siewert

Amy Siewert, AEI Section Supervisor
Underground Storage Tank Branch
Division of Waste Management

Cc: File

AMERICAN ENVIRONMENTAL CORP
4305 MUHLHAUSER ROAD SUITE 3
CINCINNATI, OH 45014

From:	Fisher, Tina (EEC)
To:	Jason Boston
Subject:	RE: 680 West 3rd Street - Covington
Sent:	12/26/2024 8:08:39 AM

Jason,
I checked the data base for the address listed below and I did not find any information for that address.
Thank You,
Tina

From: Fisher, Tina (EEC) <Tina.Fisher@ky.gov> **On Behalf Of** EEC KORA
Sent: Friday, December 20, 2024 1:35 PM
To: Fisher, Tina (EEC) <Tina.Fisher@ky.gov>
Subject: FW: 680 West 3rd Street - Covington

From: jboston@lfienv.com <jboston@lfienv.com>
Sent: Friday, December 20, 2024 11:06 AM
To: EEC KORA <EEC.KORA@ky.gov>
Subject: 680 West 3rd Street - Covington

Hello,

I am requesting any information pertaining to the above site.

Thank you all.

Jason P. Boston
Linebach Funkhouser, Inc.
114 Fairfax Avenue
Louisville, Kentucky 40207
(502) 895-5009 Office
(502) 721-5706 Direct
jboston@lfienv.com
www.linebachfunkhouser.com



PHILLIP J. SHEPHERD
SECRETARY

BRERETON C. JONES
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601

January 27, 1994

RUSK HEATING & AIR CONDITIONING
666 W THIRD STREET
COVINGTON KY 41011
ATTN MARK FIEGER

RE: Rusk Heating & Air Conditioning-UST Removal
666 W. Third Street
Covington-Kenton County
UST ID #8362-059
Tank(s): One (1) 6000 Gallon Gasoline
One (1) 500 Gallon Gasoline

Dear Mr. Fieger:

The Division of Waste Management personnel have reviewed the information contained in the Closure Assessment Report signed June 30, 1992 and subsequent data submitted on behalf of Rusk Heating & Air Conditioning. This data indicates that no concentrations of hydrocarbon constituents for which you analyzed remain within the tank pit area above acceptable method detection limit.

From your analyses, the Division agrees that this site has satisfied the requirements of Kentucky Revised Statute 224.60-105 and Kentucky Administrative Regulation 401 KAR 42:070. The Division has based this determination on information submitted by Rusk Heating & Air Conditioning and Kenneth P. Reed and Associates and reserves all rights to require additional monitoring or testing and to take whatever action is necessary to protect public health and the environment if the Division determines there is a need for further investigation.

Sincerely,

Doyle Mills, Manager
Underground Storage Tank Branch
Division of Waste Management

DM/LKM/jeb

c: Debby Lucas Angel, Florence Regional Office
Tracking
PSTEAFC
Linda Mitchell
File (2)

Printed on Recycled Paper
An Equal Opportunity Employer M/F/D

STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
UNDERGROUND STORAGE TANK BRANCH
200 FAIR OAKS LANE, 2ND FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

May 03, 2011

Raymond L/Linda E Hardebeck
1552 Madison Ave
Covington KY 41011-3316

RE: AI #: 60303 UST #: 1008059
RAYMOND L/HILDA E HARDEBECK SITE
204 Crescent
Covington, Kenton County
Applicable Regulation(s): 1996 Regulations
UST System(s): Removal Date: 10/31/1995
Tank(s): 3

Dear Mr and Mrs hardebeck:

The Underground Storage Tank Branch (UST Branch) has reviewed the site-specific information received to date for the referenced UST facility. The historical data and analyses reviewed by the UST Branch sufficiently demonstrates that the requirements of Kentucky Revised Statutes Chapter 224, Subchapter 60 and 401 Kentucky Administrative Regulations Chapter 42 applicable to corrective action have been satisfied. Therefore, no further action is required, at this time.

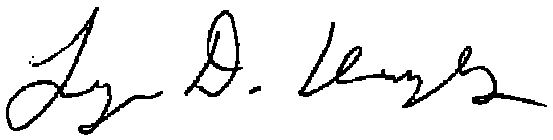
The UST Branch has based this determination on information submitted by Foppe Technical Group, Inc. and reserves all rights to require additional monitoring, testing or other actions necessary to protect public health and the environment if the UST Branch determines there is need for further investigation.

All monitoring wells shall be properly decommissioned in accordance with 401 KAR 6:310 within thirty (30) days from the date of determination that the monitoring well(s) are unsuitable for use as monitoring wells or within thirty (30) days of receiving a no further action letter from the Cabinet. If you have monitoring wells that are required for another investigation that is ongoing, then you may contact the UST Branch to apply for a variance to this monitoring well decommissioning requirement.

This letter serves as authorization for eligible applicants to submit a cost estimate on the appropriate worksheet in order to acquire pre-approval of site restoration and well decommissioning costs in accordance with Section 8 of 401 KAR 42:250. If seeking reimbursement, all claims shall be submitted within two (2) years after the date of this letter.

The regulations pertaining to this letter may be accessed at the UST Branch Web site http://waste.ky.gov/ust. If you have any questions regarding the requested information, please contact Christopher Luffy at 502-564-5981 extension 4785.

Sincerely,



Larry Hughes, P.G., CHMM
Corrective Action Section Supervisor
Underground Storage Tank Branch
Division of Waste Management

Cc:

Foppe Technical Group, Inc
2140 Waycross Road, Suite 100
Cincinnati Ohio 45240

INTER-OFFICE COMMUNICATION
Office of Environmental Services

TO: Tammy Campbell, P.E., District 8 Deputy Director Date: July 25, 2024
Attn: Kieth Smith, P.E., District Environmental Coordinator

FROM: Tim Hill, Administrator-Office of Environmental Services

SUBJECT: RMR/ESA

RE: HAM-Brent Spence Bridge, PID 89068

Based on recent detail design changes it will be necessary to acquire the eastern most portion of the property at 635 West 7th Street, Cincinnati, OH. The building situated on this location serves as the FOX News (WXIX) station, which was the former Harriet Beecher Stow Elementary School, an eligible historic building (HAM-1342-43). The Brent Spence Bridge construction will not impact the eligible building. Considering work will be performed on the property at this location, OES conducted an Ohio Regulatory Property Search (OPRS) on 7/25/24. The results of the search review did not identify any regulated material concerns. Thus, no further RMR/ESA studies are required for this property and no material management plan notes are necessary for construction.

If you have any further questions or should plans change, please contact Larry Hoffman at Larry.Hoffman@dot.ohio.gov

cc: EnviroNet Project File

Appendix D: Addenda to Stream and Wetland Summary

- 2025-03-25 - Addendum #3 to Stream and Wetland Summary (HMB, 2023)
- 2024-09-17 – Addendum #2 to Stream and Wetland Summary (HMB, 2023)

THIRD ROCK

TECHNICAL MEMORANDUM

Subject: Addendum #3 to Stream and Wetland Summary (HMB, 2023)

Project ID: Brent Spence Bridge Corridor Project
Kenton County, Kentucky
KYTC Item 6-17.00; ODOT PID 116649

Prepared for: AECOM Technical Services, Inc.

Prepared by: Rain Storm, Senior Ecologist

Prepared on: March 25, 2025

BACKGROUND

Third Rock Consultants, LLC (Third Rock) was retained by AECOM Technical Services, Inc. (AECOM) to provide environmental consulting services associated with the Brent Spence Bridge Corridor Project in Kenton County, Kentucky (**Exhibit 1**, **Appendix A**). Third Rock was tasked with the field documentation of features outside of the boundary represented in HMB Professional Engineer's May 4, 2023 Stream and Wetland Summary memorandum; Third Rock's February 23, 2024 Addendum to Stream and Wetland Summary; Third Rock's September 17, 2024 Addendum #2 to Stream and Wetland Summary; and US Army Corps of Engineer's (USACE) May 8, 2023 and January 31, 2024 Preliminary Jurisdictional Determinations (PJDs) (LRH-2006-02138-OHR). This Technical Memorandum (TM) documents the methodology and findings of that effort.

SITE DESCRIPTION

The site is within the Dry Creek-Ohio River (HUC12: 050902030202) watershed at center coordinates 39.060505°, -84.531029°. For purposes of this TM, "study area" is defined as one (1) area upstream of an existing stormwater basin and Wetland A, and within the proposed disturbance limits including the forested slope of I-71/I-75 (**Exhibits 2** and **3, Appendix B**). Land use within the study area is upland forest and riparian forest.

METHODOLOGY

Desktop analysis of the following publicly available resources was conducted to document the ecological condition of the study area and inform subsequent field reconnaissance on foot:

- Environmental Systems Research Institute (ESRI) Aerial Imagery
- Kentucky Division of Water (KDOW) Water Maps Portal 2.0
- US Geological Survey (USGS) Topographic and Geologic Quadrangles
- USGS National Hydrography Dataset (NHD)
- USGS StreamStats: Streamflow Statistics
- US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI)
- Natural Resources Conservation Service (NRCS) Soil Survey
- Federal Emergency Management Agency (FEMA) Flood Hazard Mapping

Third Rock ecologists Rain Storm and Alainey Robinson, and Kentucky Transportation Cabinet's Adam Michels, conducted field reconnaissance on February 26, 2025. Rainfall data reported from a weather station (Station ID: KOHCINCI470) approximately 2.9 miles north of the study area indicates 0" precipitation on February 24 and 0.02" precipitation on February 25, 2025.

Streams within the study area were delineated in accordance with USACE *Regulatory Guidance Letter 05-05*. Location coordinates, photo documentation, and an estimation of the width, depth, and length of each reach were recorded, and stream habitat was assessed using US Environmental Protection Agency (EPA) *Rapid Bioassessment Protocol* (RBP). RBP scores were evaluated in accordance with KDOW *Methods for Assessing Habitat in Wadable Waters Standard Operating Procedures for the Bluegrass Bioregion* (KDOW, February 2022). RBP field data sheets are included in **Appendix C**.

All water resources identified and delineated within the study area were located with an EOS Arrow 100+ GPS (**Exhibits 2** and **3**, **Appendix B**) and representative photo documentation was recorded at georeferenced photo stations (**Exhibit 4** and Photo Log, **Appendix D**).

FINDINGS

Streams

Three (3) stream reaches were identified and assessed during field reconnaissance and are referred to herein as Streams 1a, 7, and 8. Stream findings are summarized in **Table 1**.

Table 1. Stream Findings

Stream ID	Length (ft)[1]	Width (ft)[2]	Stream Type	Cowardin Class	Coordinates[3]		RBP Rating[4]	Receiving Water
					Lat	Long		
Stream 1a	1,040	5	Perennial	R3	39.06024	-84.53298	Poor	Stream 1
Stream 7	12	5	Intermittent	R4	39.06048	-84.53059	Poor	Stream 1a
Stream 8	22	3	Intermittent	R4	39.06022	-84.53303	Poor	Stream 1a

[1] Length of channel within study area calculated with ArcMap using GPS coordinates recorded during field reconnaissance
[2] Width of channel - a visual approximation recorded during field reconnaissance
[3] Furthest upstream point within study area as recorded with GPS during field reconnaissance
[4] WAH criteria (KDOW, 2022) for headwater (< 5.0 mi^2 drainage) streams of the Bluegrass Bioregion

REFERENCES

ESRI. World Imagery. ArcGIS Map Service layer. Environmental Systems Research Institute, Inc.

FEMA National Flood Hazard Layer. Federal Emergency Management Agency Map Service Center. ArcGIS Map Service layer. Environmental Systems Research Institute, Inc.

Skywatch EarthCache. https://skywatch.com/earthcache/

USGS National Hydrography Dataset Best Resolution (NHD). The National Map. U.S. Geological Survey. https://apps.nationalmap.gov/downloader/

USGS StreamStats. U.S. Geological Survey. https://streamstats.usgs.gov/ss/

USGS Topo (to 1:18,000). The National Map. ArcGIS Map Service layer. Environmental Systems Research Institute, Inc.

Water Maps Portal 2.0. Kentucky Division of Water. https://watermaps.ky.gov/

Water Maps Portal 2.0 Water Quality Certification Viewer. Kentucky Division of Water. https://watermaps.ky.gov/

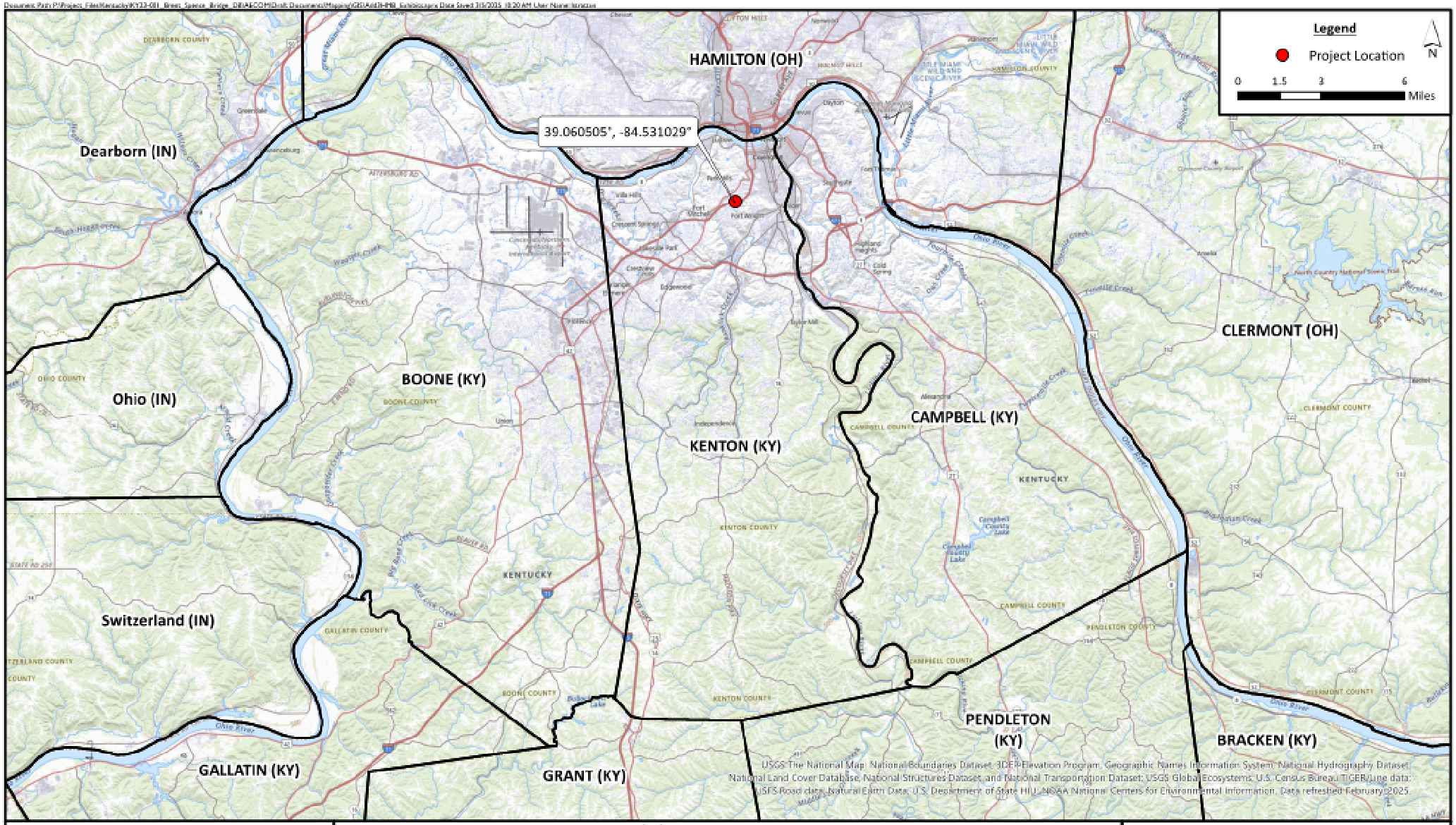
Water Well & Spring Records Database; Kentucky Geological Survey Groundwater Data Repository. https://kgs.uky.edu/kgsweb/DataSearching/Water/WaterWellSearch.asp

Weather Underground. https://www.wunderground.com/dashboard/pws/ KOHCINCI470

Web Soil Survey. Natural Resources Conservation Service. https://websoilsurvey.sc.egov.usda.gov/app/

Wetlands in Kentucky. U.S. Fish and Wildlife Service. http://www.fws.gov/wetlands/data/Data-Download.html

APPENDIX A
EXHIBIT I



THIRD ROCK CONSULTANTS

Exhibit 1 - Vicinity Map
Addendum #3 to Stream and Wetland Summary
Brent Spence Bridge Corridor Project
Kenton County, Kentucky

AECOM

APPENDIX B
EXHIBITS 2 AND 3

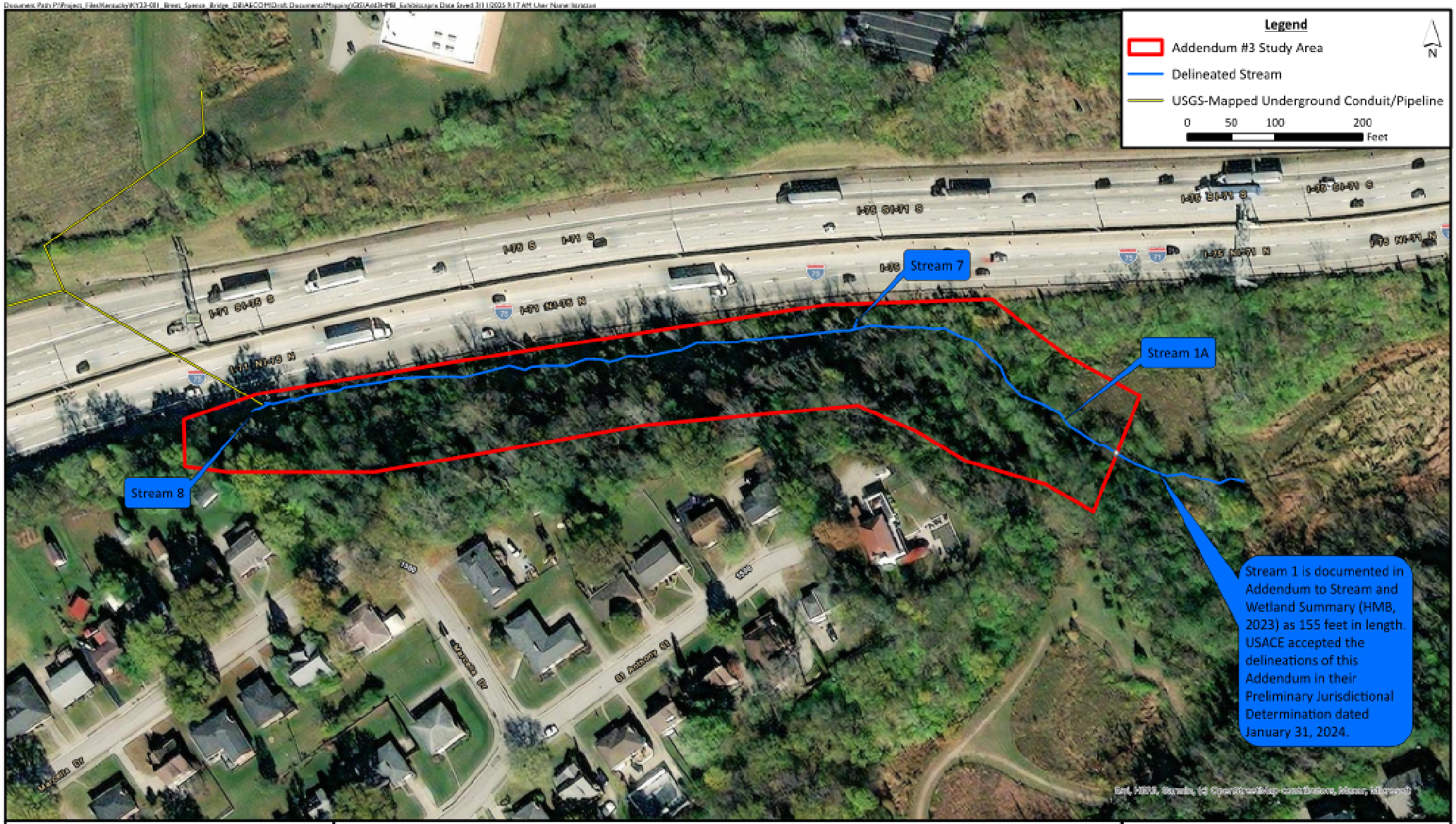
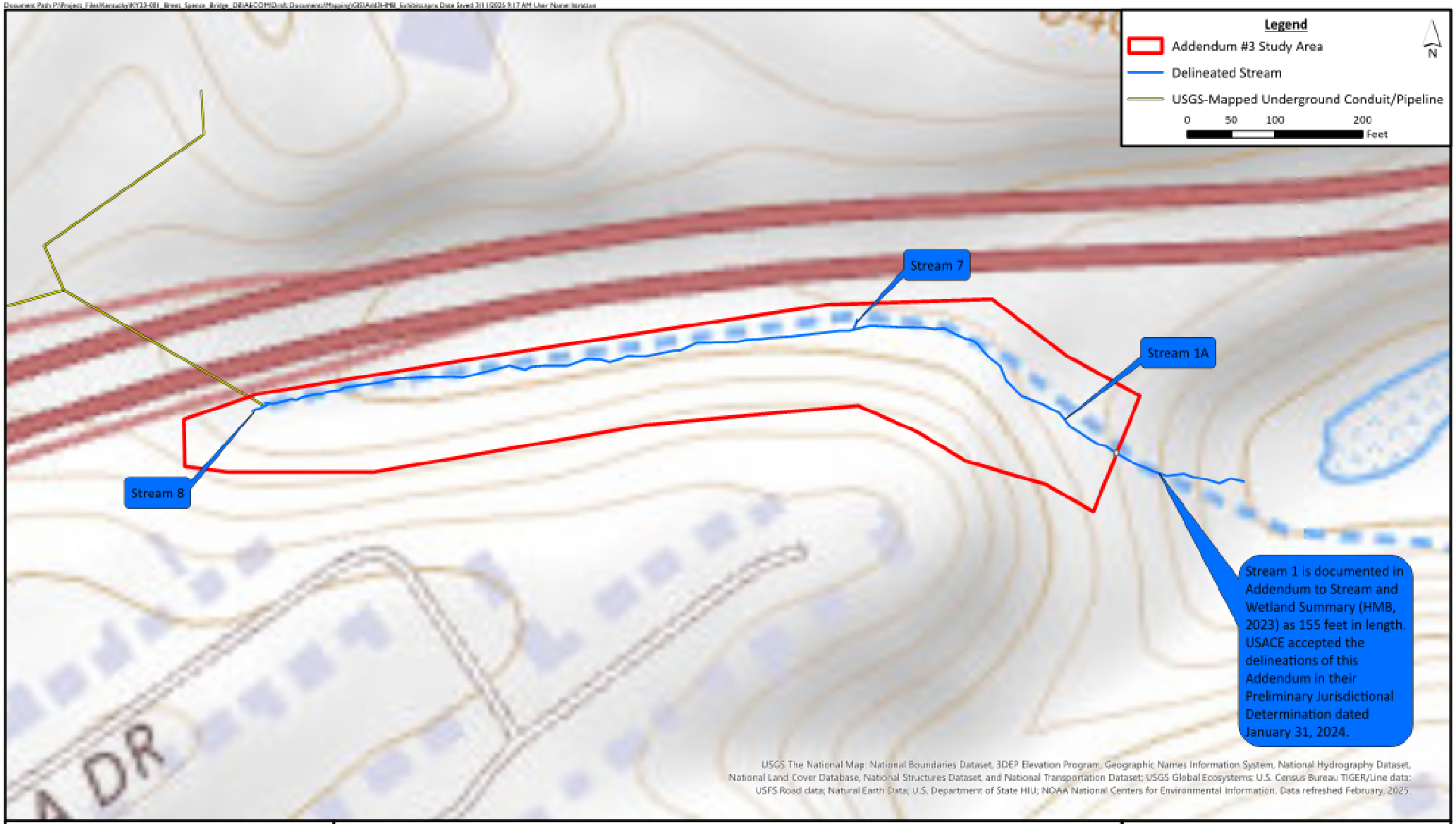


Exhibit 2 - Results
Addendum #3 to Stream and Wetland Summary
Brent Spence Bridge Corridor Project
Kenton County, Kentucky



THIRDROCK CONSULTANTS

Exhibit 3 - Results Topography
Addendum #3 to Stream and Wetland Summary
Brent Spence Bridge Corridor Project
Kenton County, Kentucky

AECOM

APPENDIX C
RBP DATA SHEETS

THIRD ROCK CONSULTANTS, LLC
STREAM HABITAT ASSESSMENT (HIGH GRADIENT)

REACH ID Stream 1a **PROJECT #** KY23-001 **NAME** Brent Spence Bridge

INVESTIGATOR R. Storm **DATE** 02/26/25 **STREAM TYPE** Perennial **COWARDIN CLASS** R3

COORDINATES Latitude: 39.060380 Longitude: -84.530157 **WATERSHED** Ohio River

REACH Width: 5 (ft) Depth: 1 (ft) Length: 300 m **IMAGE # / DESCRIPTION** *See Photo Log*

HABITAT PARAMETER	CONDITION CATEGORY			
	OPTIMAL	**SUBOPTIMAL**	**MARGINAL**	**POOR**
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
1. Epifaunal Substrate / Available Cover *Score* 12	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient.)	40-70% mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of new fall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
2. Embeddedness *Score* 11	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
3. Velocity / Depth Regime *Score* 9	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
4. Sediment Deposition *Score* 12	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
5. Channel Flow Status *Score* 13	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills > 75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
6. Channel Alteration *Score* 11	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
7. Frequency of Riffles (or Bends) *Score* 14	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream < 7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ration of > 25.

THIRD ROCK CONSULTANTS, LLC
STREAM HABITAT ASSESSMENT (HIGH GRADIENT)

REACH ID Stream 1a **PROJECT #** KY23-001 **NAME** Brent Spence Bridge

		OPTIMAL	SUBOPTIMAL	MARGINAL	POOR
		10 9	8 7 6	5 4 3	2 1 0
8. Bank Stability		Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. < 5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.
	LB Score	7			
	RB Score	7			
9. Vegetative Protection		More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or non-woody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
	LB Score	7			
	RB Score	7			
10. Riparian Vegetative Zone Width		Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.
	LB Score	2			
	RB Score	5			
	Total Score	117			

REMARKS / SEDIMENT NOTES:

THIRD ROCK CONSULTANTS, LLC
STREAM HABITAT ASSESSMENT (HIGH GRADIENT)

REACH ID Stream 7 **PROJECT #** KY23-001 **NAME** Brent Spence Bridge

INVESTIGATOR R. Storm **DATE** 02/26/25 **STREAM TYPE** Intermittent **COWARDIN CLASS** R4

COORDINATES Latitude: 39.060491 Longitude: -84.530593 **WATERSHED** Ohio River

REACH Width: 5 (ft) Depth: 1 (ft) Length: <100 m **IMAGE # / DESCRIPTION** *See Photo Log*

HABITAT PARAMETER	CONDITION CATEGORY			
	OPTIMAL	**SUBOPTIMAL**	**MARGINAL**	**POOR**
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
1. Epifaunal Substrate / Available Cover *Score* 6	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient.)	40-70% mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of new fall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
2. Embeddedness *Score* 5	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
3. Velocity / Depth Regime *Score* 5	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
4. Sediment Deposition *Score* 6	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
5. Channel Flow Status *Score* 16	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills > 75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
6. Channel Alteration *Score* 11	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
7. Frequency of Riffles (or Bends) *Score* 5	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream < 7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ration of > 25.

THIRD ROCK CONSULTANTS, LLC
STREAM HABITAT ASSESSMENT (HIGH GRADIENT)

REACH ID Stream 7 **PROJECT #** KY23-001 **NAME** Brent Spence Bridge

		OPTIMAL	SUBOPTIMAL	MARGINAL	POOR
		10 9	8 7 6	5 4 3	2 1 0
8. Bank Stability		Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. < 5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.
	LB Score	9			
	RB Score	9			
9. Vegetative Protection		More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or non-woody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
	LB Score	3			
	RB Score	3			
10. Riparian Vegetative Zone Width		Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.
	LB Score	8			
	RB Score	8			
	Total Score	94			

REMARKS / SEDIMENT NOTES:

THIRD ROCK CONSULTANTS, LLC
STREAM HABITAT ASSESSMENT (HIGH GRADIENT)

REACH ID Stream 8 **PROJECT #** KY23-001 **NAME** Brent Spence Bridge

INVESTIGATOR R. Storm **DATE** 02/26/25 **STREAM TYPE** Intermittent **COWARDIN CLASS** R4

COORDINATES Latitude: 39.060218 Longitude: -84.532998 **WATERSHED** Ohio River

REACH Width: 3 (ft) Depth: 0.5 (ft) Length: <100 m **IMAGE # / DESCRIPTION** *See Photo Log*

HABITAT PARAMETER	CONDITION CATEGORY			
	OPTIMAL	**SUBOPTIMAL**	**MARGINAL**	**POOR**
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
1. Epifaunal Substrate / Available Cover *Score* 7	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient.)	40-70% mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of new fall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
2. Embeddedness *Score* 12	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
3. Velocity / Depth Regime *Score* 5	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
4. Sediment Deposition *Score* 15	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
5. Channel Flow Status *Score* 14	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills > 75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
6. Channel Alteration *Score* 4	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
7. Frequency of Riffles (or Bends) *Score* 8	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream < 7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ration of > 25.

THIRD ROCK CONSULTANTS, LLC
STREAM HABITAT ASSESSMENT (HIGH GRADIENT)

REACH ID Stream 8 **PROJECT #** KY23-001 **NAME** Brent Spence Bridge

		OPTIMAL	SUBOPTIMAL	MARGINAL	POOR
		10 9	8 7 6	5 4 3	2 1 0
8. Bank Stability		Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. < 5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.
	LB Score	9			
	RB Score	9			
9. Vegetative Protection		More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or non-woody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
	LB Score	3			
	RB Score	3			
10. Riparian Vegetative Zone Width		Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.
	LB Score	2			
	RB Score	7			
	Total Score	98			

REMARKS / SEDIMENT NOTES:

APPENDIX D
EXHIBIT 4 AND PHOTO LOG

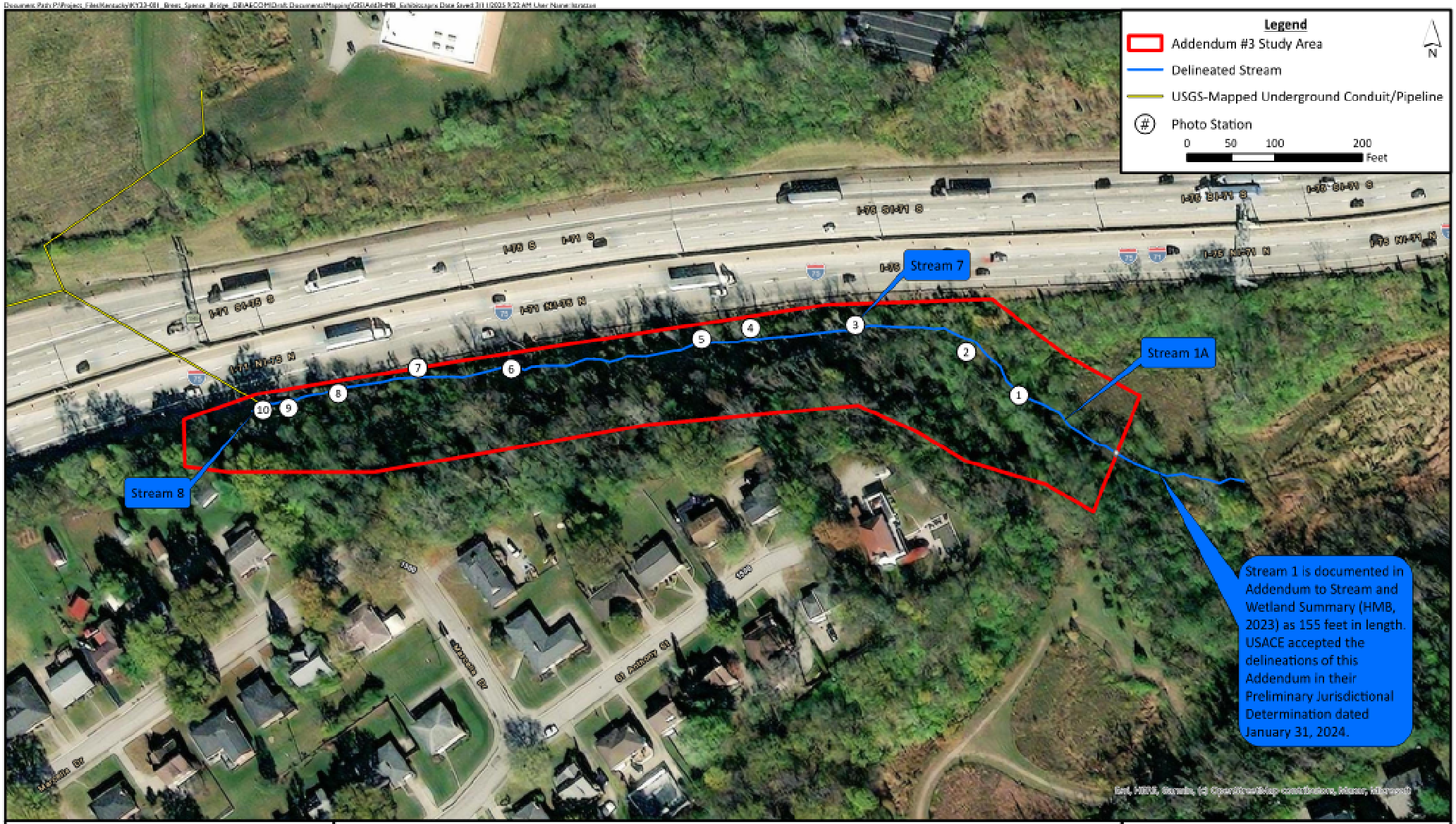


Exhibit 4 - Photo Stations
Addendum #3 to Stream and Wetland Summary
Brent Spence Bridge Corridor Project
Kenton County, Kentucky



Photo Station 01, Stream 1a, Upstream View 20250226_105630.jpg



Photo Station 02, Stream 1a, Upstream View 20250226_110145.jpg



Photo Station 03, Stream 7, North View 20250226_110501.jpg



Photo Station 04, Stream 1a, Upstream View 20250226_111011.jpg



Photo Station 05, Stream 1a, Upstream View 20250226_111117.jpg



Photo Station 06, Stream 1a, Upstream View 20250226_111933.jpg



Photo Station 07, Stream 1a, Upstream View 20250226_112154.jpg



Photo Station 08, Stream 1a, Upstream View 20250226_113406.jpg



Photo Station 09, Stream 1a, Upstream View 20250226_113610.jpg



Photo Station 10, Stream 1a, Downstream View 20250226_114142.jpg



Photo Station 10, Stream 1a, Upstream View 20250226_114018.jpg



Photo Station 10, Stream 8, Upstream View 20250226_113929.jpg

THIRD ROCK
TECHNICAL MEMORANDUM

Subject: Addendum #2 to Stream and Wetland Summary (HMB, 2023)

Project ID: Brent Spence Bridge Corridor Project
Kenton County, Kentucky
KYTC Item 6-17.00; ODOT PID 116649

Prepared for: AECOM Technical Services, Inc.

Prepared by: Rain Storm, Senior Ecologist

Prepared on: September 17, 2024

BACKGROUND

Third Rock Consultants, LLC (Third Rock) was retained by AECOM Technical Services, Inc. (AECOM) to provide environmental consulting services associated with the Brent Spence Bridge Corridor Project in Kenton County, Kentucky (**Exhibit 1**, **Appendix A**). Third Rock was tasked with the field documentation of features outside of the boundary represented in HMB Professional Engineer's May 4, 2023 Stream and Wetland Summary memorandum; Third Rock's February 23, 2024 Addendum to Stream and Wetland Summary; and US Army Corps of Engineer's (USACE) May 8, 2023 and January 31, 2024 Preliminary Jurisdictional Determinations (PJDs) (LRH-2006-02138-OHR). This Technical Memorandum (TM) documents the methodology and findings of that effort.

SITE DESCRIPTION

The site is within the Dry Creek-Ohio River (HUC12: 050902030202) watershed at center coordinates 39.082199°, -84.521767°. For purposes of this TM, "study area" is defined as three (3) areas outside the proposed disturbance limits, including the forested slope of I-71/I-75 near Highland Avenue, portions of Goebel Park, and the Kentucky bank of the Ohio River adjacent to the Riverfront Commons and the location of a proposed temporary bulkhead (**Exhibits 2** and **3, Appendix D**). Land use within the study area is upland forest, maintained parkland, and riparian forest.

METHODOLOGY

Desktop analysis of the following publicly available resources was conducted to document the ecological condition of the study area and inform subsequent field reconnaissance on foot:

- Environmental Systems Research Institute (ESRI) Aerial Imagery
- Kentucky Division of Water (KDOW) Water Maps Portal 2.0
- US Geological Survey (USGS) Topographic and Geologic Quadrangles
- USGS National Hydrography Dataset (NHD)
- USGS StreamStats: Streamflow Statistics
- US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI)
- Natural Resources Conservation Service (NRCS) Soil Survey

- Federal Emergency Management Agency (FEMA) Flood Hazard Mapping

Third Rock ecologists Rain Storm and Chelsey Olson conducted field reconnaissance on July 18 and 19, 2024. Rainfall data reported from a weather station (Station ID: KOHCINCI470) approximately one (1) mile north of the study area indicates 0" precipitation on July 16 and 0.10" precipitation on July 17, 2024. Field reconnaissance with USACE and Kentucky Division of Water (KDOW) staff was conducted on September 4, 2024.

Wetlands within the study area were delineated using the Routine Determination Method specified in the 1987 *Corps of Engineers Wetland Delineation Manual and the Eastern Mountains and Piedmont Region, Version 2.0 (April 2012) Supplement*. Location coordinates and the adjacent upland condition were recorded on USACE-approved USACE wetland determination forms (**Appendix B**).

Streams within the study area were delineated in accordance with USACE *Regulatory Guidance Letter 05-05*. Location coordinates, photo documentation, and an estimation of the width, depth, and length of each reach were recorded, and stream habitat was assessed using US Environmental Protection Agency (EPA) *Rapid Bioassessment Protocol* (RBP). RBP scores were evaluated in accordance with KDOW *Methods for Assessing Habitat in Wadable Waters Standard Operating Procedures for the Bluegrass Bioregion* (KDOW, February 2022). RBP field data sheets are included in **Appendix C**.

All water resources identified and delineated within the study area were located with a EOS Arrow 100+ GPS (**Exhibits 2** and **3**, **Appendix D**) and representative photo documentation was recorded at georeferenced photo stations (**Exhibit 4** and Photo Log, **Appendix E**).

FINDINGS

Wetlands

FEMA floodplains were identified adjacent to the Ohio River during desktop analysis. No NWI-mapped wetlands were identified during desktop analysis. Two (2) wetlands were identified and delineated during field reconnaissance and are referred to herein as Wetlands E and F. Wetland E is a forested wetland at the downstream end of an ephemeral stream and at the base of a hill slope, which drains to the sanitary sewer through a street side gutter. Wetland F is an emergent wetland in the park with mowed vegetation that is connected to an ephemeral stream, which drains to the sanitary sewer. Wetland findings are summarized in **Table 1** (Page 3).

One (1) additional area, referred to as Upland G, exhibited wetland characteristics but upon examination was determined to be upland. Upland G is within the forested riparian of the Ohio River and is dominated by large silver maple (*Acer saccharinum*) and cottonwood (*Populus deltiodes*) trees. Flooding from the Ohio River creates deep sediment deposits and surface soil cracks. A review of Ohio River gate data is presented in **Appendix F**. For the data plot at Upland G, the ten (10) years of gauge data indicates that the plot does not satisfy the technical standard for wetland hydrology which is 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (50% probability).

Table 1. Wetland Findings

Wetland ID	Area[1] (ac)	Wetland Type	Cowardin Class	Coordinates[2] Lat	Coordinates[2] Long	Receiving Water
Wetland E	0.002	Forested	PFO	39.0614917	-84.5229152	Sanitary Sewer
Wetland F	0.046	Emergent	PEM	39.0821614	-84.5218616	Stream 5/Sanitary Sewer

[1] Acreage within study area calculated with ArcMap using GPS coordinates recorded during field reconnaissance
[2] Coordinates collected at wetland sampling point

Streams

Five (5) stream reaches were identified and assessed during field reconnaissance and are referred to herein as Streams 2, 2a, 4, 5, and 6. All streams ultimately flow to the sanitary sewer. Stream findings are summarized in **Table 2**.

Table 2. Stream Findings

Stream ID	Length (ft)[1]	Width (ft)[2]	Stream Type	Cowardin Class	Coordinates[3] Lat	Coordinates[3] Long	RBP Rating[4]	Receiving Water
Stream 2	381	3	Intermittent	R4	39.061864	-84.524462	Poor	Stream 2a
Stream 2a	108	3	Ephemeral	R6	39.523307	-84.523307	Poor	Wetland E
Stream 4	92	2.5	Ephemeral	R6	39.080847	-84.521445	Poor	Sanitary Sewer
Stream 5	107	2.5	Ephemeral	R6	39.082123	-84.522067	Poor	Sanitary Sewer
Stream 6	85	2	Ephemeral	R6	39.082444	-84.522100	Poor	Stream 5

[1] Length of channel within study area calculated with ArcMap using GPS coordinates recorded during field reconnaissance
[2] Width of channel - a visual approximation recorded during field reconnaissance
[3] Furthest upstream point within study area as recorded with GPS during field reconnaissance
[4] WAH criteria (KDOW, 2022) for headwater (< 5.0 mi2 drainage) streams of the Bluegrass Bioregion

REFERENCES

ESRI. World Imagery. ArcGIS Map Service layer. Environmental Systems Research Institute, Inc.

FEMA National Flood Hazard Layer. Federal Emergency Management Agency Map Service Center. ArcGIS Map Service layer. Environmental Systems Research Institute, Inc.

Skywatch EarthCache. https://skywatch.com/earthcache/

USGS National Hydrography Dataset Best Resolution (NHD). The National Map. U.S. Geological Survey. https://apps.nationalmap.gov/downloader/

USGS StreamStats. U.S. Geological Survey. https://streamstats.usgs.gov/ss/

USGS Topo (to 1:18,000). The National Map. ArcGIS Map Service layer. Environmental Systems Research Institute, Inc.

Water Maps Portal 2.0. Kentucky Division of Water. https://watermaps.ky.gov/

Water Maps Portal 2.0 Water Quality Certification Viewer. Kentucky Division of Water. https://watermaps.ky.gov/

Water Well & Spring Records Database; Kentucky Geological Survey Groundwater Data Repository. https://kgs.uky.edu/kgsweb/DataSearching/Water/WaterWellSearch.asp

Weather Underground. https://www.wunderground.com/dashboard/pws/ KOHCINCI470

Web Soil Survey. Natural Resources Conservation Service. https://websoilsurvey.sc.egov.usda.gov/app/

Wetlands in Kentucky. U.S. Fish and Wildlife Service. http://www.fws.gov/wetlands/data/Data-Download.html

Appendix E: Section 7 Consultation

- 2025-06-13 – Addendum of the Biological Assessment for the Longsolid Mussel
- 2025-05-20 – Correspondence for the Addendum to the Biological Assessment for Additional Species
- 2025-05-07 – Addendum of the Biological Assessment to Include the Longsolid Mussel
- 2024-09-19 - USFWS Section 7 Concurrence
- 2024-08-19 - Addendum of the Biological Assessment for Added Impact Areas Outside of the Previously Coordinated Brent Spence Bridge Corridor

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

June 13, 2025

Pamela Baughman
Ohio Division Administrator
Federal Highway Administration
200 North Hight Street, Room 328
Columbus, Ohio 43215

Re: FWS 2022-0055658; Addendum of the Biological Assessment for the Brent Spence Bridge Corridor Project in Kenton County, Kentucky and Hamilton County, Ohio; KYTC Item Number 6-17 and ODOT PID Number 116649

Dear Pamela Baughman:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) and Ohio Field Office (OHFO) have reviewed the above-referenced project information and request for concurrence received on May 7, 2025. The KFO, as the lead Service office for this Endangered Species Act (ESA) consultation, offers the following comments in accordance with ESA of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.).

Project Description
An updated version of the species list obtained from the Service Information for Planning and Consultation (created May 2, 2025) has identified an additional listed species that may occur within the project action area. Therefore, the Federal Highway Administration (FHWA) is providing an addendum and species effects determination to the original biological assessment (BA) dated November 16, 2022. The original BA received concurrence from the Service on December 15th, 2022. Additional impact areas associated with the proposed action were identified in 2024 and were subsequently coordinated in an addendum submitted to the Service on August 19, 2024, which received concurrence on September 19, 2024.

Federally Listed Species
The FHWA has determined that the proposed action has the potential to affect the longsolid mussel (*Fusconaia subrotunda)*. Service comments regarding this species and potential adverse effects are provided below.

Longsolid Mussel
A Service approved mussel survey was conducted by Stantec as part of the original BA between July 16 – August 19, 2022, and encompassed an area of direct impact of approximately 17,500

and 9,800-square meters on the Ohio and Kentucky side of the Ohio River, respectively. The survey resulted in 20 species being identified, none of which were federally listed, which suggests probable absence of federally listed mussels from the project corridor.

On July 18 and 19, 2024 a field reconnaissance team conducted a habitat assessment in the additional impact areas. It was determined that the proposed bulkhead is in the same morphological location of the Kentucky side of the Ohio River as the 2022 survey. Based on the results of the 2022 mussel survey and the trend of relatively homogenous substrates from downstream to upstream and the river conditions, the mussel compositions at the location of the proposed temporary bulkhead are likely similar to those observed in the original survey. As a conservation measure, FHWA is committed to relocating all mussels within the impact areas prior to construction, regardless of listing status. For these reasons, the Service concurs with FHWA's determination that the proposed project "may affect but is not likely to adversely affect" the longsolid mussel.

Conclusion

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 229-8830 or Phil_DeGarmo@fws.gov.

Sincerely,

JOSHUA LILLPOP

Digitally signed by JOSHUA LILLPOP
Date: 2025.06.13 14:39:07 -04'00'

Joshua Lillpop
Acting Field Supervisor

cc: Andrew Logsdon, KYTC, Frankfort
Karen Hallberg, USFWS, Columbus

From: Baughman, Pamela (FHWA)
Sent: Tuesday, May 20, 2025 3:14 PM
To: Phil_DeGarmo@fws.gov <fws> <Phil_DeGarmo@fws.gov>; KentuckyES, FW4 <kentuckyes@fws.gov>
Cc: Hallberg, Karen I <karen_hallberg@fws.gov>; 'Matt.Raymond@dot.ohio.gov' <matt.raymond@dot.ohio.gov>; 'Adrienne.Earley@dot.ohio.gov' <adrienne.earley@dot.ohio.gov>; 'Michels, Adam C (KYTC)' <adam.michels@ky.gov>; 'Kathleen.Dunlap@dot.ohio.gov' <kathleen.dunlap@dot.ohio.gov>; 'Megan.Michael@dot.ohio.gov' <megan.michael@dot.ohio.gov>; 'makayla.chitwood@ky.gov' <makayla.chitwood@ky.gov>; 'Schurman, Scott R (KYTC)' <scott.schurman@ky.gov>; Toni, Melissa (FHWA) <melissa.toni@dot.gov>; Johnson, Adam (FHWA) <Adam.Johnson@dot.gov>; 'Stacee Hans' <Stacee.hans@ky.gov>; 'Logsdon, Andrew M (KYTC)' <andrew.logsdon@ky.gov>; Borres, Boday (FHWA) <Boday.Borres@dot.gov>; Lowry, Sara (FHWA) <Sara.Lowry@dot.gov>
Subject: RE: Addendum to the Biological Assessment for additional species - Brent Spence Bridge Corridor Project, KY/OH, KYTC Item #06-17.00

Hello Phil,

Following on the transmittal from May 7, email below, for your information, FHWA is providing the following statements of no jeopardy for two proposed species and will include these in the project record for the re-evaluation.

Eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*)
Regarding the proposed endangered eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), the FHWA determined that the project may affect but is not likely to jeopardize the continued existence of the species, nor would it result in the destruction or adverse modification of critical habitat proposed to be designated for the species.

Monarch butterfly (*Danaus plexippus*)
Regarding the proposed endangered monarch butterfly (*Danaus plexippus*), the FHWA determined that the project may affect but is not likely to jeopardize the continued existence of the species, nor would it result in the destruction or adverse modification of critical habitat proposed to be designated for the species.

We have also clarified through discussion with both regions that while the rayed bean was previously considered MANLAA in the 2024 SEA/FONSI documentation, the rayed bean is not considered to be present in the Ohio River reach in question for the BSBCP or in the expanded area of study examined for the re-evaluation. FHWA is including this note to the Service to document these discussions and will clarify in the re-evaluation that the finding for this species is “no effect” (and therefore no further consultation is needed); however, KYTC’s commitment to relocate all mussels remains for the project overall.

Please let us know if you have any questions regarding this additional information and when a response from the Service on the longsolid mussel is anticipated.

Thanks,

Pam

Pamela Baughman
U.S. DOT | FHWA Ohio Division
Environmental Program Manager
Office (614) 280-6835
Mobile (771) 241-3683
Pamela.Baughman@dot.gov

From: Baughman, Pamela (FHWA)
Sent: Wednesday, May 7, 2025 1:24 PM
To: KentuckyES, FW4 <kentuckyes@fws.gov>; phil_degarmo@fws.gov
Cc: Hallberg, Karen I <karen_hallberg@fws.gov>; Matt.Raymond@dot.ohio.gov; Adrienne.Earley@dot.ohio.gov; Michels, Adam C (KYTC) <adam.michels@ky.gov>; Kathleen.Dunlap@dot.ohio.gov; Megan.Michael@dot.ohio.gov; makayla.chitwood@ky.gov; Schurman, Scott R (KYTC) <scott.schurman@ky.gov>; Toni, Melissa (FHWA) <melissa.toni@dot.gov>; Johnson, Adam (FHWA) <Adam.Johnson@dot.gov>; Stacee Hans <Stacee.hans@ky.gov>; Logsdon, Andrew M (KYTC) <andrew.logsdon@ky.gov>; Borres, Boday (FHWA) <Boday.Borres@dot.gov>; Lowry, Sara (FHWA) <Sara.Lowry@dot.gov>
Subject: Addendum to the Biological Assessment for additional species - Brent Spence Bridge Corridor Project, KY/OH, KYTC Item #06-17.00

Josh Lillpop
U.S. Fish and Wildlife Service
J.C. Watts Federal Building
330 W. Broadway
Frankfort, KY 40601

Subject: Addendum of the Biological Assessment to include the longsolid mussel
Brent Spence Bridge I-71/75 Corridor Project
Kenton County, Kentucky
KYTC Item # 06-17.00

Attached you will find an addendum for the biological assessment (BA) for the subject project. The BA submitted to the United States Fish and Wildlife Service (USFWS) on November 16th, 2022, received concurrence on December 15th, 2022 (FWS 2022-0055658; Appendix A). Added impact areas were identified in 2024 and were subsequently coordinated in an addendum submitted to the USFWS on August 19th, 2024, which received concurrence on September 19th, 2024 (FWS 2022-0055658; Appendix C).

An updated version of the species list obtained from the USFWS Information for Planning and Consultation (IPaC; created May 2, 2025; Appendix D) now has the longsolid mussel (*Fusconaia subrotunda)* listed for the project area. This request is being made pursuant to Section 7 (c) concerning interagency consultation of the Endangered Species Act of 1973 as amended. Our intention is to be in full compliance of the Act. We respectfully request your review and concurrence with our findings for the longsolid mussel.

If you have any questions or concerns regarding this addendum, please contact me with the information provided below.

Thanks,

Pam

Pamela Baughman
U.S. DOT | FHWA Ohio Division
Environmental Program Manager
200 North High St, Room 328
Columbus, OH 43215
Office (614) 280-6835
Mobile (771) 241-3683
Pamela.Baughman@dot.gov
https://www.fhwa.dot.gov/ohdiv/

May 7, 2025

Josh Lillpop
U.S. Fish and Wildlife Service
J.C. Watts Federal Building
330 W. Broadway
Frankfort, KY 40601

Subject: Addendum of the Biological Assessment to include the longsolid mussel
Brent Spence Bridge I-71/75 Corridor Project
Kenton County, Kentucky
KYTC Item # 06-17.00

This is an addendum for the biological assessment (BA) for the subject project. The BA submitted to the United States Fish and Wildlife Service (USFWS) on November 16th, 2022 received concurrence on December 15th, 2022 (FWS 2022-0055658; Appendix A). The species that received a concurrence of "may affect, not likely to adversely affect" included: gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis*), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), northern riffleshell (*Epioblasma rangiana*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Theliderma cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Pleurobema plenum*), sheepnose mussel (*Plethobasus cyphyus*), snuffbox mussel (*Epioblasma triquetra*), and spectaclecase (*Cumberlandia monodonta*). Finally, the Indiana bat (*Myotis sodalis*) received a determination of "may affect, likely adversely affect," and the Kentucky Transportation Cabinet (KYTC) opted to mitigate for adverse impacts in Kentucky according to the process outlined in the 2020 Programmatic Biological Opinion, while the Ohio Department of Transportation (ODOT) committed to follow the avoidance and minimization measures in the Ohio Programmatic Biological Opinion. On September 20th, 2023, the Federal Highway Administration (FHWA) made a "no jeopardy" determination for the tricolored bat (*Perimyotis subflavus*) which was subsequently submitted to the USFWS. Based on this analysis, FHWA determined that the project may affect, but is not likely to jeopardize the continued existence of the tricolored bat (Appendix B).

Added impact areas were identified in 2024 and were subsequently coordinated in an addendum submitted to the USFWS on August 19th, 2024, which received concurrence on September 19th, 2024 (FWS 2022-0055658; Appendix C). The species that received concurrence of "may affect, not likely to adversely affect" included: gray bat, northern long-eared bat, clubshell, fanshell, northern riffleshell, pink mucket, sheepnose mussel, and snuffbox mussel. Species that

received a concurrence of "may affect, likely to adversely affect" included the Indiana bat. The KYTC opted to mitigate for adverse impacts according to the process previously discussed in this document. Additionally, the tricolored bat and salamander mussel were both identified on the species list as "proposed." FHWA previously determined that the project may affect, but is not likely to jeopardize the continued existence of the tricolored bat. This coordination was amended to include the added impact areas. Finally, due to the results of the mussel survey by Stantec Consulting in July 2022, the USFWS concurred with the FHWA's determination of may affect, but is not likely to jeopardize the continued existence of the salamander mussel.

An updated version of the species list obtained from the USFWS Information for Planning and Consultation (IPaC; created May 2, 2025; Appendix D) now has the longsolid mussel (*Fusconaia subrotunda)* listed for the project area. A USFWS-approved mussel survey was conducted by Stantec as part of the original BA between July 16 – August 19th, 2022 and encompassed an area of direct impact (ADI) of ~17,500 and ~9,800-square meters on the Ohio and Kentucky side of the Ohio River, respectively. Added buffers extended each ADI by 50-meters upstream, 150-meters downstream, and 10-meters into the channel. The survey resulted in 20 species being identified, none of which were federally-listed which suggests probable absence of federally-listed mussels from the project corridor.

While the substrate and flow regime of the Ohio River provides suitable habitat for the federally-listed mussel species, none were found during the mussel survey which suggests probable absence from the ADI and subsequent buffer areas. With the KYTC's commitment to relocate all mussels, regardless of listing status, and proper measures in place during construction, suitable habitat will likely continue to support mussel species in the future. Given this, a **"may affect, not likely to adversely affect"** determination was made for the longsolid mussel.

This request is being made pursuant to Section 7 (c) concerning interagency consultation of the Endangered Species Act of 1973 as amended. Our intention is to be in full compliance of the Act. We respectfully request your review and concurrence with our findings for the longsolid mussel.

APPENDICES

APPENDIX A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

December 15, 2022

Laura S. Leffler
Ohio Division Administrator
Federal Highway Administration
200 North Hight Street, Room 328
Columbus, Ohio 43215

Re: FWS 2022-0055658; Brent Spence Bridge Corridor Project in Kenton County, Kentucky and Hamilton County, Ohio; KYTC Item Number 6-17 and ODOT PID Number 116649

Dear Laura S. Leffler:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) and Ohio Field Office (OHFO) have reviewed the above-referenced project information and request for concurrence received on November 16, 2022. The KFO, as the lead Service office for this Endangered Species Act (ESA) consultation, offers the following comments in accordance with ESA of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.).

Project Description
According to the information provided, the proposed project involves the reconstruction of 7.8 miles of I-71/I-75 including the construction of a new companion bridge to the existing Brent Spence Bridge over the Ohio River in Kenton County, Kentucky and Hamilton County, Ohio. Specifically, the project would include construction of a new bridge, addition of one interstate lane in each direction, rehabilitation to the existing bridge, construction of overpass bridges and interchanges, and construction/improvements to drainage systems. Impacts to the landscape include typical road construction activities, tree removal for construction access, disturbance to the Ohio River, and grading to allow for proper drainage.

Federally Listed Species
The Federal Highway Administration (FHWA) has determined that the proposed action has the potential to affect the gray bat *(Myotis grisescens)*, Indiana bat *(Myotis sodalis)*, northern long-eared bat (NLEB), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Quadrula cylindrica cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Epioblasma obliquata*), spectaclecase (*Cumberlandia monodonta*), northern riffleshell *(Epioblasma torulosa rangiana*),

sheepnose (*Plethobasus cyphyus*), and snuffbox (*Epioblasma triquetra*). Service comments regarding these species and potential adverse effects are provided below.

Gray Bats

Ohio Comments

Gray bat was not identified as being within the area of influence of the Ohio portion of the proposed project; therefore, this species was not addressed in the BA specific to Ohio impacts. FHWA did not make an effects determination for gray bat within the Ohio portion.

Kentucky Comments

Field assessments within the Kentucky portion concluded that no caves or karst features suitable for summer or winter gray bat roosting would be affected by the proposed project. Therefore, the proposed project is not likely to impact gray bat hibernacula or roosting habitat.

The Kentucky Transportation Cabinet (KYTC) utilized the processes identified in the Federal Highway Administration Kentucky Division's 2020 Programmatic Consultation on the effects of transportation projects on the gray bat to evaluate potential adverse effects on foraging and commuting habitat for the gray bat. The KFO agrees with the results from the ESA compliance process, and we concur with the FHWA's determination that the proposed action may affect but is not likely to adversely affect the gray bat within the Kentucky portion of the proposed project.

Indiana Bats

Ohio Comments

Potential impacts to the Indiana bat and NLEB were assessed by the Ohio Department of Transportation (ODOT) in accordance with the *Framework Programmatic Biological Opinion* (OHPBO) issued to ODOT on February 29, 2016 and revised on December 12, 2017 (https://www.dot.state.oh.us/environmental-services/manuals_guidance1/Ecological/RelevantAgreements/Indiana%20Bat%20and%20Northern%20Long-Eared%20Bat%20Programmatic%20Agreement%20January%202018.pdf). We understand the project is expected to clear 15.80 acres of suitable wooded habitat for the Indiana bat in Ohio. However, all habitat to be impacted is located within 100 feet from the edge of existing pavement. These impacts, given ODOT's commitment to clear trees only during the bat's inactive season (i.e., October 1 through March 30), meet the criteria for Consultation Category 1 (CC1) in the OHPBO. ODOT determined that CC1 projects may affect but are not likely to adversely affect the Indiana bat and NLEB. The Service (OHFO) concurred with ODOT's determination within the OHPBO. Therefore, the OHFO concurs with FHWA's determination that the proposed project may affect but is not likely to adversely affect the Indiana bat within the Ohio portion of the proposed project.

Kentucky Comments

Based on the information provided in the BA, no impacts to suitable winter habitat for this species is likely to occur. However, the proposed project requires removal of approximately 74.2 acres of "potential" forested habitats for the Indiana bat. KYTC believes that this species is reasonably certain to utilize forested habitat within the project area, and has determined that the action "may affect, is likely to adversely affect" the Indiana bat. KYTC proposes to account for

potential adverse effects to the Indiana bat and its habitat through the processes identified in the FHWA Kentucky Division's 2020 Programmatic Consultation and accompanying biological opinion on the effects of Kentucky transportation projects on the Indiana bat. The Service concurs with the FHWA's effects determination that the proposed project may affect and is likely to adversely affect the Indiana bat within the Kentucky portion of the proposed project. The KFO agrees with the proposed ESA compliance process to address Indiana bats within the Kentucky portion of the project.

Northern Long-eared Bats

Ohio Comments

Potential impacts to the NLEB were assessed by ODOT in conjunction with the process and analysis discussed previously for Indiana bats (see Ohio Comments above). Therefore, the OHFO concurs with FHWA's determination that the portion of the proposed project within Ohio may affect but is not likely to adversely affect the NLEB.

Kentucky Comments

Within the Kentucky portion of the proposed project, this project may affect the NLEB, but with no effects beyond those previously evaluated in the Service's programmatic biological opinion for the NLEB final 4(d) rule dated January 5, 2016 (FWS Log# 03E00000-2016-F-0001). Any taking that may occur incidental to this project is not prohibited under the final 4(d) rule (50 CFR §17.40(o)). Therefore, the KYTC/FHWA may fulfill its responsibilities under ESA section 7(a)(2) relative to the NLEB for this project by requesting reliance on the Service's programmatic biological opinion for the 4(d) rule.

Federally Listed Mussels

Joint Office Comments (KFO and OHFO)

In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no federally listed species were found. Therefore, The Service concurs with FHWA's determination that the proposed project may affect but is not likely to adversely affect any of the aforementioned federally listed mussel species.

Conclusion

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 46110 or Phil_DeGarmo@fws.gov.

Sincerely,

Virgil Lee Andrews, Jr.
Field Supervisor

cc: Mour Diop, FHWA, Frankfort
Andrew Logsdon, KYTC, Frankfort
Timothy Long, FHWA, Columbus
Karen Hallberg, USFWS, Columbus

APPENDIX B

From:	Baughman, Pamela (FHWA)
To:	Phil_DeGarmo@fws.gov <fws>
Cc:	Toni, Melissa (FHWA); Long, Timothy (FHWA); Hallberg, Karen I; Ballantyne, John (FHWA); Diop, Mour (FHWA); Jeter, Todd (FHWA); Ross, Eric (FHWA); Hans, Stacee D (KYTC-D06); Hill, Timothy; Raymond, Matthew; Logsdon, Andrew M (KYTC)
Subject:	Proposed No Jeopardy Finding for TCB for the Brent Spence Bridge project -- HAM-71/75-0.00/0.22 PID 80968 (75119 Environet PID)
Date:	Wednesday, September 20, 2023 3:24:22 PM

Hello Phil,

Please find below electronic correspondence from FHWA regarding the proposed No Jeopardy Finding for TCB for the Brent Spence Bridge project -- HAM-71/75-0.00/0.22 PID 80968 (75119 Environet PID). Please let me know if you or your office have any questions regarding this documentation provided to follow on our previously discussed approach in the Agency Coordination meeting.

Thanks,
Pam

Pamela Baughman
U.S. DOT | FHWA Ohio Division
Environmental Program Manager
(614) 280-6835
Pamela.Baughman@dot.gov

-
-
-
-

Mr. Virgil Lee Andrews, Jr.
Field Supervisor
U.S. Fish and Wildlife Service
J.C. Watts Federal Building
330 West Broadway
Frankfort, KY 40601

Dear Mr. Andrews:

On September 14, 2022, the U.S. Fish and Wildlife Service (Service) published a proposal in the Federal Register (FWS-R5-ES-2021-0163) to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Section 7(a)(4) was added to the ESA (1979) to provide a mechanism for identifying and resolving potential conflicts between a proposed action and proposed species or proposed critical habitat at

an early planning stage. ESA section 7(a)(4) states:

> *Each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 4 or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.*

FHWA understands that while ***consultations*** are required when a proposed action may affect listed species (ESA section 7(a)(2)), a ***conference*** is required only when a proposed action is likely to jeopardize the continued existence of a proposed species or destroy or adversely modify proposed critical habitat. This letter serves to summarize the effects of the Brent Spence Bridge Project on the proposed endangered tricolored bat and the reasons a formal conference is not necessary for this species.

Similar to the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and gray bat (*Myotis grisescens*), the tricolored bat is a small insectivorous bat that typically overwinters in caves, abandoned mines and tunnels, and typically roosts in mature forested habitats during spring, summer, and fall. The USFWS has not proposed any areas of designated critical habitat for the tricolored bat. Project impacts to wooded habitat that may contain suitable roosting habitat for the tricolored bat include approximately 74.20 acres in Kentucky and 15.80 acres in Ohio, for a total of approximately 90 acres. No known or suspect hibernacula were identified within or near the project area, and bridge structures with potentially suitable roosting habitat for the tricolored bat were inspected and no evidence of bats was observed.

The effects analysis completed for the Indiana, northern long-eared, and gray bats presented in the Biological Assessment (BA) for the project, coordinated with the Service in November 16, 2022, would be similar for tricolored bat. Because of a lack of potential hibernacula and bridge structures used for roosting within the project area, impacts to the tricolored bat are primarily anticipated to result from the removal of the 90 acres of wooded habitat that may potentially serve as summer maternity, roosting, and foraging habitat. FHWA contends that the avoidance, minimization, and mitigation measures outlined in the BA will similarly reduce the likelihood of potential project impacts to the tricolored bat. In Kentucky tree removal will be restricted during the maternity season from June 1 to July 31, when non-volant pups are most likely to be present, and the *Programmatic Biological Opinion on the Effects of Transportation Projects in Kentucky on the Indiana Bat and Gray Bat* will be used to account for habitat loss and take. In Ohio no tree removal will occur during April 1 through September 30 to avoid impacts to bats during the entirety of the active roosting season, and the *Amendment to the Framework Programmatic Biological Opinion, as revised, for Ohio Department of Transportation's (ODOT) Federal Aid Highway Program That May Affect the Federally Endangered Indiana Bat and/or Federally Threatened Northern Long-Eared Bat* will be used to account for habitat loss and take. Following these measures and agreements for the federally listed species of bats in Kentucky and Ohio will also result in minimized impacts and take to the tricolored bat. Based on this analysis FHWA has determined that the project may affect but is not likely to jeopardize the continued existence of the tricolored bat, nor will it result in the destruction or adverse modification of critical habitat proposed to be designated for the species.

FHWA will reinitiate consultation with the USFWS for the project if:

- the amount or extent of incidental take of federal listed species be exceeded;

new information reveal the project may affect listed species or critical habitat in a manner or to an extent not previously considered;

- the Project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not previously considered; or
- a new species is listed (such as the tricolored bat) or critical habitat is designated that the project may affect.

The U.S. Fish and Wildlife Service's (USFWS) Kentucky Field Office agreed to serve as the lead Service Field Office for the project, however, a copy of this letter has also been submitted to Karen Hallberg, Wildlife Biologist/Transportation Liaison at the USFWS Ohio Field Office.

If you have any questions or concerns regarding this effects determination, please contact please contact Pamela Baughman, Environmental Program Manager, at (614) 280-6835, or Pamela.Baughman@dot.gov.

CAUTION: This is an external email and may not be safe. If the email looks suspicious, please do not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.

APPENDIX C

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

September 19, 2024

Pamela Baughman
Ohio Division Administrator
Federal Highway Administration
200 North Hight Street, Room 328
Columbus, Ohio 43215

Re: FWS 2022-0055658; Amendment for the Brent Spence Bridge Corridor Project in Kenton County, Kentucky and Hamilton County, Ohio; KYTC Item Number 6-17 and ODOT PID Number 116649

Dear Laura S. Leffler:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) and Ohio Field Office (OHFO) have reviewed the above-referenced project information and request for concurrence received on August 29, 2024. The KFO, as the lead Service office for this Endangered Species Act (ESA) consultation, offers the following comments in accordance with ESA of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.).

Project Description
The Federal Highway Administration (FHWA) is proposing to modify the subject project to include three additional areas outside of the previously proposed disturbance limits. Specifically, FHWA proposes a temporary bulkhead located immediately upstream of the Clay Wade Bailey Bridge at Ohio River Mile 471, less than 1,400 feet from the Brent Spence Bridge corridor. The bulkhead would include a three-sided, tied-back, sheet pile wall system filled with aggregate, and an accompanying aggregate ramp utilized for loading/unloading equipment and material to and from barges. The dimensions of the bulkhead will be 100-feet wide and extend into the Ohio River approximately 120-feet from the Ordinary High-Water Mark of the Kentucky bank. The working surface of the bulkhead will be 22.4-feet above the normal pool elevation. The two additional impact areas include the forested slope of I-71/I-75 near Highland Avenue and portions of Goebel Park. Impacts to these areas are restricted to tree removal only. There are no additional project impacts to habitat for federally listed species on the Ohio side of the river. FHWA's original coordination and biological assessment (BA) was submitted to the Service on November 16, 2022, and received Service concurrence on December 15, 2022. Comments regarding federally listed species are provided below.

Federally Listed Species

The Federal Highway Administration (FHWA) has determined that the proposed amended action has the potential to affect the gray bat *(Myotis grisescens)*, Indiana bat *(Myotis sodalis)*, northern long-eared bat (NLEB), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Quadrula cylindrica cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Epioblasma obliquata*), spectaclecase (*Cumberlandia monodonta*), northern riffleshell *(Epioblasma torulosa rangiana*), sheepnose (*Plethobasus cyphyus*), and snuffbox (*Epioblasma triquetra*). Service comments regarding these species and potential adverse effects are provided below.

Gray Bats

Field assessments concluded that no caves or karst features suitable for summer or winter gray bat roosting would be affected by the proposed project. Therefore, the proposed project amendment is not likely to impact gray bat hibernacula or roosting habitat.

The Kentucky Transportation Cabinet (KYTC) utilized the processes identified in the Federal Highway Administration Kentucky Division's 2020 Programmatic Consultation on the effects of transportation projects on the gray bat to evaluate potential adverse effects on foraging and commuting habitat for the gray bat. The Service agrees with the results from the ESA compliance process, and we concur with the FHWA's determination that the proposed project amendment may affect but is not likely to adversely affect the gray bat.

Indiana Bats

Based on the information provided in the BA, no impacts to suitable winter habitat for this species is likely to occur. However, the proposed project requires removal of suitable forested habitats for the Indiana bat. KYTC believes that this species is reasonably certain to utilize forested habitat within the project area, and has determined that the action "may affect, is likely to adversely affect" the Indiana bat. KYTC proposes to account for potential adverse effects to the Indiana bat and its habitat through the processes identified in the FHWA Kentucky Division's 2020 Programmatic Consultation and accompanying biological opinion on the effects of Kentucky transportation projects on the Indiana bat. The Service concurs with the FHWA's effects determination that the proposed project amendment may affect and is likely to adversely affect the Indiana bat within the Kentucky portion of the proposed project. The Service agrees with the proposed ESA compliance process to address Indiana bats.

Northern Long-eared Bats

The KYTC addressed potential effects to the NLEB by utilizing the Service's Information for Planning and Consultation (IPaC) Kentucky Endangered Species Determination Key on April 13, 2023. The determination key rendered an effects determination of "may affect, not likely to adversely affect" the NLEB. We have no additional comments or concerns regarding this species.

Federally Listed Mussels

In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed

the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no federally listed species were found.

On July 18 and 19, 2024 a field reconnaissance team conducted a habitat assessment in the additional impact areas. It was determined that the proposed bulkhead is in the same morphological location of the Kentucky side of the Ohio River as the 2022 survey. Based on the results of the 2022 mussel survey and the trend of relatively homogenous substrates from downstream to upstream and the river conditions, the mussel compositions at the location of the proposed temporary bulkhead are likely similar to those observed in the original survey. As a conservation measure, FHWA is committed to relocating all mussels within the impact areas prior to construction, regardless of listing status. For these reasons, the Service concurs with FHWA's determination that the proposed project "may affect but is not likely to adversely affect" any of the aforementioned federally listed mussel species.

Proposed Species
The FHWA has determined the proposed amended project has the potential to affect the proposed tricolored bat (*Perimyotis subflavus*) and the proposed salamander mussel (*Simpsonaias ambigua*).

Tricolored Bat
In an email dated September 20, 2023, FHWA determined that the original proposed project would not jeopardize the continued existence of the species. The FHWA has now determined that the proposed project amendment may affect the tricolor bat and has requested our response to their jeopardy determination for the amended portion. The Service proposed to list the species as endangered under the ESA, and the final rule on the species' listing status is anticipated later this year.

The FHWA has determined that the proposed project amendment would not jeopardize the continued existence of the species. Based on the information provided, no impacts to winter habitat for this species would occur in association with the proposed project amendment. However, the proposed project amendment requires removal of forested habitat that is suitable as summer roosting habitat by the tricolored bat. Based on our knowledge of the species, and the relatively small reduction in suitable habitat in comparison within the species range, we acknowledge your determination that the proposed project amendment is not likely to jeopardize the continued existence of the tricolored bat.

Salamander Mussel
In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no salamander mussels were found.

On July 18 and 19, 2024 a field reconnaissance team conducted a habitat assessment in the additional impact areas. It was determined that the proposed bulkhead is in the same morphological location of the Kentucky side of the Ohio River as the 2022 survey. Based on the results of the 2022 mussel survey and the trend of relatively homogenous substrates from downstream to upstream and the river conditions, the mussel compositions at the location of the proposed temporary bulkhead are likely similar to those observed in the original survey. As a conservation measure, FHWA is committed to relocating all mussels within the impact areas prior to construction, regardless of listing status. For these reasons, the Service concurs with FHWA's determination that the proposed project is "not likely to jeopardize the continued existence" of the salamander mussel.

Conclusion

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 46110 or Phil_DeGarmo@fws.gov.

Sincerely,

for, Virgil Lee Andrews, Jr.
Field Supervisor

cc: John Ballantine, FHWA, Frankfort
Andrew Logsdon, KYTC, Frankfort
Timothy Long, FHWA, Columbus
Karen Hallberg, USFWS, Columbus

APPENDIX D

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0467 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov
https://www.fws.gov/office/kentucky-ecological-services

In Reply Refer To: 05/01/2025 14:45:29 UTC
Project Code: 2022-0055658
Project Name: Brent Spence Bridge Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do..

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
(502) 695-0467

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

PROJECT SUMMARY

Project Code: 2022-0055658
Project Name: Brent Spence Bridge Replacement
Project Type: Bridge - New Construction
Project Description: The project is set to replace the Brent Spence Bridge over the Ohio River between Kentucky and Ohio
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.07033815,-84.52006508632928,14z



Counties: Kentucky and Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat *Myotis grisescens*	Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The project area includes potential gray bat habitat.

Species profile: https://ecos.fws.gov/ecp/species/6329
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/6422.pdf

Indiana Bat *Myotis sodalis*	Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/5949
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/6422.pdf

Tricolored Bat *Perimyotis subflavus*	Proposed Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10515

AMPHIBIANS

NAME	STATUS
Eastern Hellbender *Cryptobranchus alleganiensis alleganiensis*	Proposed Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9039

CLAMS

NAME	STATUS
Fanshell *Cyprogenia stegaria*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4822
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf

Longsolid *Fusconaia subrotunda*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/9880

Pink Mucket (pearlymussel) *Lampsilis abrupta*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7829
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf

NAME	STATUS
Rabbitsfoot *Quadrula cylindrica cylindrica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5165 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf	Threatened
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered
Sheepnose Mussel *Plethobasus cyphyus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6903 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf	Endangered
Snuffbox Mussel *Epioblasma triquetra* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4135	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

BALD & GOLDEN EAGLES INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

MIGRATORY BIRD INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R5UBFx
- R2UBH
- R5UBH
- R4SBC
- R2UBHx

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C
- PFO1A

FRESHWATER POND

- PUBHh

IPAC USER CONTACT INFORMATION

Agency: Third Rock Consultants
Name: Ryan McGregor
Address: 2526 Regency Road
Address Line 2: Suite 180
City: Lexington
State: KY
Zip: 40503
Email rmcgregor@thirdrockconsultants.com
Phone: 8599772000

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

September 19, 2024

Pamela Baughman
Ohio Division Administrator
Federal Highway Administration
200 North Hight Street, Room 328
Columbus, Ohio 43215

Re: FWS 2022-0055658; Amendment for the Brent Spence Bridge Corridor Project in Kenton County, Kentucky and Hamilton County, Ohio; KYTC Item Number 6-17 and ODOT PID Number 116649

Dear Laura S. Leffler:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) and Ohio Field Office (OHFO) have reviewed the above-referenced project information and request for concurrence received on August 29, 2024. The KFO, as the lead Service office for this Endangered Species Act (ESA) consultation, offers the following comments in accordance with ESA of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.).

Project Description
The Federal Highway Administration (FHWA) is proposing to modify the subject project to include three additional areas outside of the previously proposed disturbance limits. Specifically, FHWA proposes a temporary bulkhead located immediately upstream of the Clay Wade Bailey Bridge at Ohio River Mile 471, less than 1,400 feet from the Brent Spence Bridge corridor. The bulkhead would include a three-sided, tied-back, sheet pile wall system filled with aggregate, and an accompanying aggregate ramp utilized for loading/unloading equipment and material to and from barges. The dimensions of the bulkhead will be 100-feet wide and extend into the Ohio River approximately 120-feet from the Ordinary High-Water Mark of the Kentucky bank. The working surface of the bulkhead will be 22.4-feet above the normal pool elevation. The two additional impact areas include the forested slope of I-71/I-75 near Highland Avenue and portions of Goebel Park. Impacts to these areas are restricted to tree removal only. There are no additional project impacts to habitat for federally listed species on the Ohio side of the river. FHWA's original coordination and biological assessment (BA) was submitted to the Service on November 16, 2022, and received Service concurrence on December 15, 2022. Comments regarding federally listed species are provided below.

Federally Listed Species

The Federal Highway Administration (FHWA) has determined that the proposed amended action has the potential to affect the gray bat *(Myotis grisescens)*, Indiana bat *(Myotis sodalis)*, northern long-eared bat (NLEB), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Quadrula cylindrica cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Epioblasma obliquata*), spectaclecase (*Cumberlandia monodonta*), northern rifffleshell *(Epioblasma torulosa rangiana*), sheepnose (*Plethobasus cyphyus*), and snuffbox (*Epioblasma triquetra*). Service comments regarding these species and potential adverse effects are provided below.

Gray Bats

Field assessments concluded that no caves or karst features suitable for summer or winter gray bat roosting would be affected by the proposed project. Therefore, the proposed project amendment is not likely to impact gray bat hibernacula or roosting habitat.

The Kentucky Transportation Cabinet (KYTC) utilized the processes identified in the Federal Highway Administration Kentucky Division's 2020 Programmatic Consultation on the effects of transportation projects on the gray bat to evaluate potential adverse effects on foraging and commuting habitat for the gray bat. The Service agrees with the results from the ESA compliance process, and we concur with the FHWA's determination that the proposed project amendment may affect but is not likely to adversely affect the gray bat.

Indiana Bats

Based on the information provided in the BA, no impacts to suitable winter habitat for this species is likely to occur. However, the proposed project requires removal of suitable forested habitats for the Indiana bat. KYTC believes that this species is reasonably certain to utilize forested habitat within the project area, and has determined that the action "may affect, is likely to adversely affect" the Indiana bat. KYTC proposes to account for potential adverse effects to the Indiana bat and its habitat through the processes identified in the FHWA Kentucky Division's 2020 Programmatic Consultation and accompanying biological opinion on the effects of Kentucky transportation projects on the Indiana bat. The Service concurs with the FHWA's effects determination that the proposed project amendment may affect and is likely to adversely affect the Indiana bat within the Kentucky portion of the proposed project. The Service agrees with the proposed ESA compliance process to address Indiana bats.

Northern Long-eared Bats

The KYTC addressed potential effects to the NLEB by utilizing the Service's Information for Planning and Consultation (IPaC) Kentucky Endangered Species Determination Key on April 13, 2023. The determination key rendered an effects determination of "may affect, not likely to adversely affect" the NLEB. We have no additional comments or concerns regarding this species.

Federally Listed Mussels

In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed

the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no federally listed species were found.

On July 18 and 19, 2024 a field reconnaissance team conducted a habitat assessment in the additional impact areas. It was determined that the proposed bulkhead is in the same morphological location of the Kentucky side of the Ohio River as the 2022 survey. Based on the results of the 2022 mussel survey and the trend of relatively homogenous substrates from downstream to upstream and the river conditions, the mussel compositions at the location of the proposed temporary bulkhead are likely similar to those observed in the original survey. As a conservation measure, FHWA is committed to relocating all mussels within the impact areas prior to construction, regardless of listing status. For these reasons, the Service concurs with FHWA's determination that the proposed project "may affect but is not likely to adversely affect" any of the aforementioned federally listed mussel species.

Proposed Species
The FHWA has determined the proposed amended project has the potential to affect the proposed tricolored bat (*Perimyotis subflavus*) and the proposed salamander mussel (*Simpsonaias ambigua*).

Tricolored Bat
In an email dated September 20, 2023, FHWA determined that the original proposed project would not jeopardize the continued existence of the species. The FHWA has now determined that the proposed project amendment may affect the tricolor bat and has requested our response to their jeopardy determination for the amended portion. The Service proposed to list the species as endangered under the ESA, and the final rule on the species' listing status is anticipated later this year.

The FHWA has determined that the proposed project amendment would not jeopardize the continued existence of the species. Based on the information provided, no impacts to winter habitat for this species would occur in association with the proposed project amendment. However, the proposed project amendment requires removal of forested habitat that is suitable as summer roosting habitat by the tricolored bat. Based on our knowledge of the species, and the relatively small reduction in suitable habitat in comparison within the species range, we acknowledge your determination that the proposed project amendment is not likely to jeopardize the continued existence of the tricolored bat.

Salamander Mussel
In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no salamander mussels were found.

On July 18 and 19, 2024 a field reconnaissance team conducted a habitat assessment in the additional impact areas. It was determined that the proposed bulkhead is in the same morphological location of the Kentucky side of the Ohio River as the 2022 survey. Based on the results of the 2022 mussel survey and the trend of relatively homogenous substrates from downstream to upstream and the river conditions, the mussel compositions at the location of the proposed temporary bulkhead are likely similar to those observed in the original survey. As a conservation measure, FHWA is committed to relocating all mussels within the impact areas prior to construction, regardless of listing status. For these reasons, the Service concurs with FHWA's determination that the proposed project is "not likely to jeopardize the continued existence" of the salamander mussel.

Conclusion

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 46110 or Phil_DeGarmo@fws.gov.

Sincerely,

JOSHUA LILLPOP

Digitally signed by JOSHUA LILLPOP
Date: 2024.09.20 16:24:22 -04'00'

for, Virgil Lee Andrews, Jr.
Field Supervisor

cc: John Ballantine, FHWA, Frankfort
Andrew Logsdon, KYTC, Frankfort
Timothy Long, FHWA, Columbus
Karen Hallberg, USFWS, Columbus

August 19th, 2024

Mr. Virgil Lee Andrews, Jr.
Field Supervisor
U.S. Fish and Wildlife Service
J.C. Watts Federal Building
330 W. Broadway
Frankfort, KY 40601

Subject: Addendum of the Biological Assessment for added impact areas outside of the previously coordinated Brent Spence Bridge corridor
Brent Spence Bridge Corridor Project
Kenton County, Kentucky
KYTC Item # 06-17.00

This is an addendum for the biological assessment (BA) for the subject project. The BA submitted to the United States Fish and Wildlife Service (USFWS) on November 16th, 2022 received concurrence on December 15th, 2022 (FWS 2022-0055658; Appendix A). The species that received a concurrence of "may affect, not likely to adversely affect" in the BA included: gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis;* Appendix B), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), northern riffleshell (*Epioblasma rangiana*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Theliderma cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Pleurobema plenum*), sheepnose mussel (*Plethobasus cyphyus*), snuffbox mussel (*Epioblasma triquetra*), and spectaclecase (*Cumberlandia monodonta*). Finally, the Indiana bat (*Myotis sodalis*) received a determination of "may affect, likely adversely affect," and the Kentucky Transportation Cabinet (KYTC) opted to mitigate for adverse impacts in Kentucky according to the process outlined in the *2020 Programmatic Biological Opinion*, while the Ohio Department of Transportation (ODOT) committed to follow the avoidance and minimization measures in the Ohio *Programmatic Biological Opinion.* On September 20th, 2023, the Federal Highway Administration (FHWA) made a "no jeopardy" determination for the tricolored bat (*Perimyotis subflavus*) which was subsequently submitted the USFWS (Appendix C). Based on this analysis, FHWA determined that the project may affect, but is not likely to jeopardize the continued existence of the tricolored bat.

The actions proposed in this BA addendum include impacts to three additional areas outside of the previously proposed disturbance limits and were not previously coordinated (hereafter, simply impact area; Figure 1). One impact area includes a proposed temporary bulkhead located immediately upstream of the Clay Wade Bailey Bridge at Ohio River Mile 471, less than 1,400 feet from the Brent Spence Bridge corridor (Figure 2). The bulkhead will include a temporary three-sided, tied-back, sheet pile wall system filled with aggregate, and an accompanying aggregate ramp utilized for loading/unloading equipment and material to and from barges. The dimensions of the bulkhead will be 100-feet wide and extend into the Ohio River ~120-feet from the Ordinary High-Water Mark (OHWM; El. 467.7 ORD, 466.3'

NAVD88) of the Kentucky bank, the working surface of the bulkhead will be 22.4-feet above the normal pool elevation (El. 47704 ORD, 476.0' NAVD88). The two additional impact areas include the forested slope of I-71/I-75 near Highland Avenue and portions of Goebel Park (Figures 3 and 4, respectively). Impacts to these areas are restricted to tree removal only. There are no additional impacts to habitat for the federally-listed species are anticipated on the Ohio side of the river.

On July 26, 2024, Third Rock Consultants submitted the additional impact areas to the USFWS Information for Planning and Consultation (IPaC) in efforts to receive a species list to address the listed species found in these impact areas. IPaC returned a species list which included: gray bat, Indiana bat, northern long-eared bat, tricolored bat, clubshell, fanshell, northern rifffleshell, pink mucket, salamander mussel (*Simpsonaias ambigua*), sheepnose mussel, and snuffbox mussel (Appendix D). At the time of this addendum, the tricolored bat and the salamander mussel are currently listed as *proposed endangered,* and are not currently afforded the same protections as federally-listed species; impacts as a result of this BA addendum are not expected to jeopardize the continued existence of these species.

Analysis of publicly available resources was conducted to document ecological condition of the study area and maps of existing resources. On July 18-19th, 2024, Third Rock Consultants mobilized a field reconnaissance team of ecologists (USFWS Federal Recovery Permit #ES049738-12) to conduct a habitat assessment in the additional impact areas.

USFWS reported that the study area is located within 'potential' habitat for both Indiana and gray bats. Suitable foraging habitat for all federally-listed bat species was identified along forest edges throughout the study area along the Ohio River. A total of 8.7-acres of forested habitat suitable for summer roosting and maternity habitat is present in the additional impact areas. The bulkhead will include 4.0-acres, 0.9-acres for the forested slope I-71/I-75, and finally 3.8-acres of tree removal associated with Goebel Park (Figures 2-4, respectively). Tree removal will not take place during the non-volant season for pups (May 15th – July 31st), and will be restricted to outside of this time frame. No caves or cave-like features suitable for the listed bat species were identified in the impact areas or subsequent buffer. Two culverts, located under a paved walking path with outlets to a sanitary sewer, were inspected; no evidence of bat usage was observed in either culvert.

In 2022 for the original BA, a USFWS-approved mussel survey was conducted by Stantec between July 16 – August 19th, 2022 and encompassed an area of direct impact (ADI) of ~17,500 and ~9,800-square meters on the Ohio and Kentucky side of the Ohio River, respectively. Added buffers extended each ADI by 50-meters upstream, 150-meters downstream, and 10-meters into the channel. The survey resulted in 20 species being identified, none of which were federally-listed which suggest probable absence of federally-listed mussels from the project corridor coordinated in the original BA.

The upstream extent of the 2022 survey on the left descending bank was ~1,000-feet downstream of the proposed temporary bulkhead impact area. The proposed bulkhead is in the same general morphological location of the Kentucky side of the Ohio River as the 2022 survey in the original BA. Based on the results of the 2022 mussel survey and the trend of relatively

homogenous substrates (sand-cobble, and sand-boulder) from downstream to upstream, the river conditions and mussel compositions at the location of the proposed temporary bulkhead are likely similar to those observed downstream.

Based on the presence of riparian habitat in the additional impact areas and anticipated analysis of effects under the *2020 Programmatic Biological Opinion*, effects to the gray bat are considered insignificant. Therefore, an effects determination of **"may affect, not likely to adversely affect"** for the gray bat.

The proposed additional impact areas are anticipated to result in adverse effects to the Indiana bat from the loss of summer roosting, foraging, and commuting habitat. As a result, the formal effects determination for this species as a result of additional impact areas is **"may affect, likely to adversely affect"** the Indiana bat. The KYTC opts to account for adverse effects to the Indiana bat through the process identified in the *2020 Programmatic Opinion.*

The Northern Long-eared Bat Rangewide Determination Key located on IPaC website was used to evaluate effects to this species based on the additional impact areas. Based on the information submitted to IPaC and a standing analysis completed by the USFWS, a determination of **"may affect, not likely to adversely affect"** was reached for the northern long-eared bat.

On September 20th, 2023, FHWA made a **"no jeopardy"** determination for the tricolored bat which was subsequently submitted the USFWS. Based on this analysis, FHWA has determined that the project may affect, but is not likely to jeopardize the continued existence of the tricolored bat.

While the substrate and flow regime of the Ohio River provides suitable habitat for the federally-listed mussel species, none were found during the mussel survey which suggests probable absence from the ADI and subsequent buffer areas. With the KYTC's commitment to relocate all mussels, regardless of listing status, and proper measures in place during construction, suitable habitat will likely continue to support mussel species in the future. Given this, a **"may affect, not likely to adversely affect"** determination was made for all the listed mussel species.

This request is being made pursuant to Section 7 (c) concerning interagency consultation of the Endangered Species Act of 1973 as amended. Our intention is to be in full compliance of the Act. We respectfully request your review and concurrence with our findings for the additional impact areas.

FIGURES

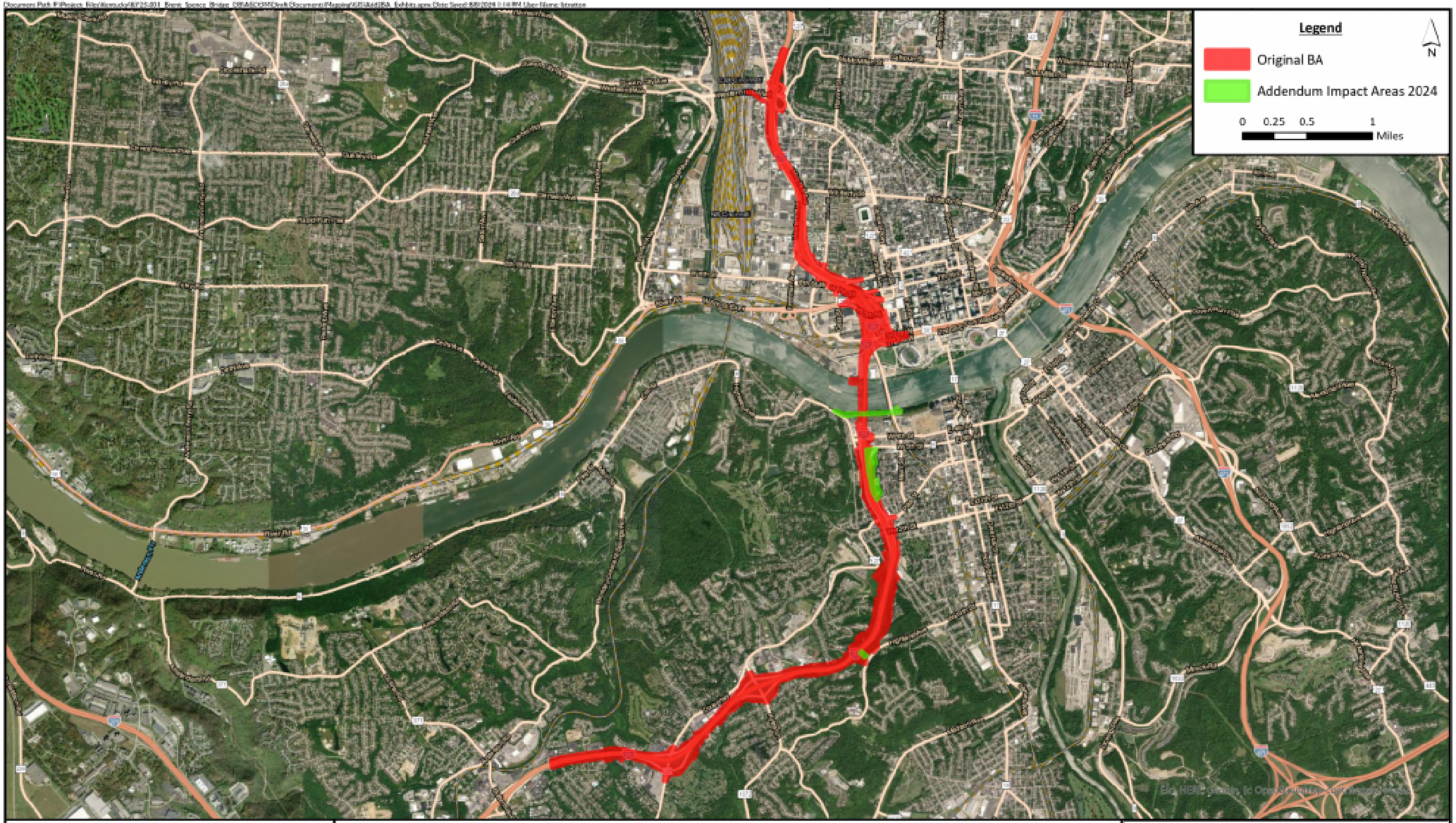


Figure 1 - Original Biological Assessment and Addendum Impact Areas
KYTC Item #06-17.00
Brent Spence Bridge Corridor Project
Kenton County, Kentucky

THIRD ROCK CONSULTANTS

AECOM

Document Path: P:\Project_Files\Kentucky\KY23-001_Brent_Spence_Bridge_DB\AECOM\Draft_Documents\Mapping\GIS\Add2BA_Exhibits.aprx Date Saved: 8/5/2024 2:57 PM User Name: lsratton

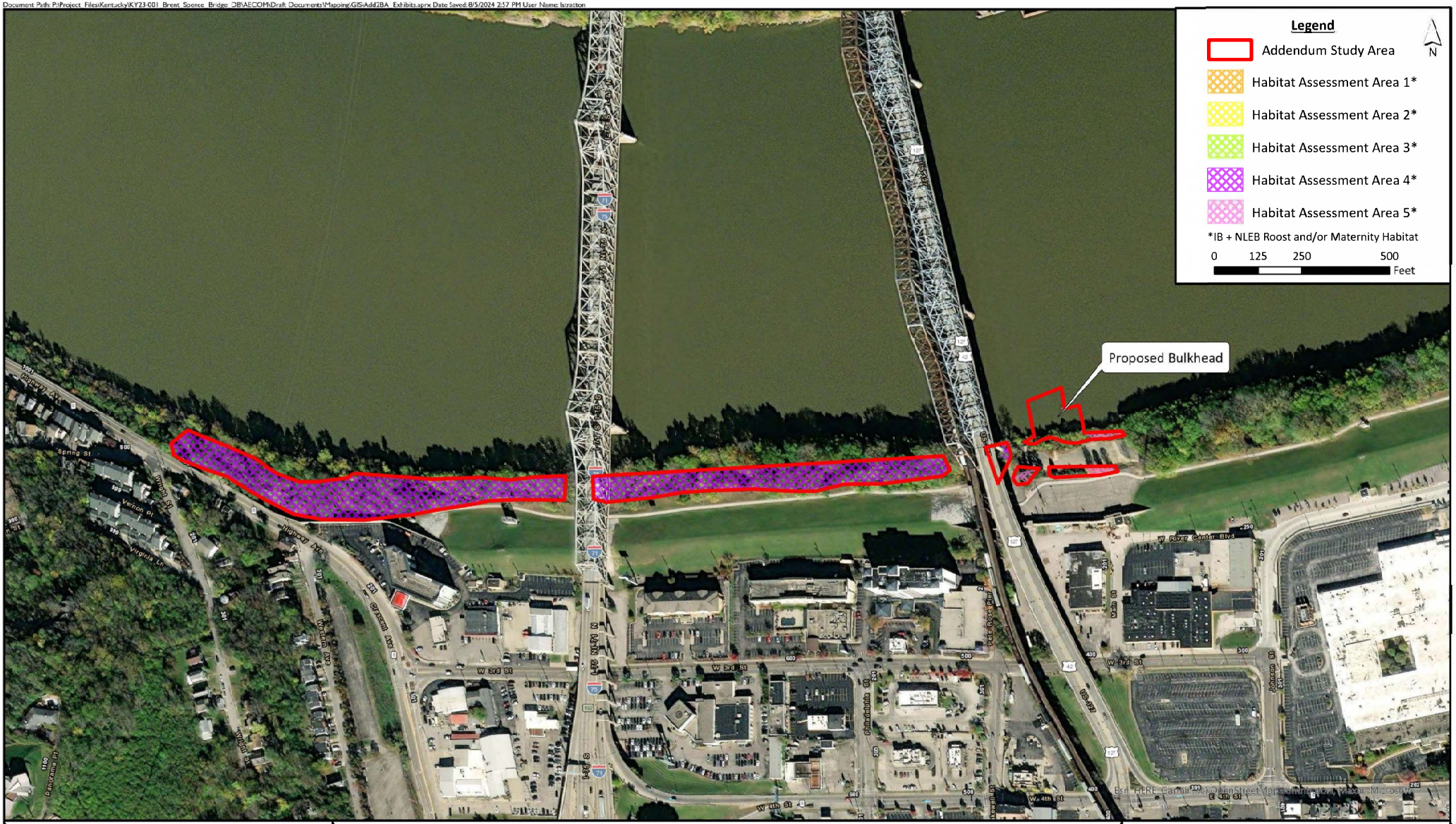


Figure 2 - Bulkhead Impact Area

Addendum to Biological Assessment
Brent Spence Bridge Corridor Project
Kenton County, Kentucky

THIRD ROCK CONSULTANTS

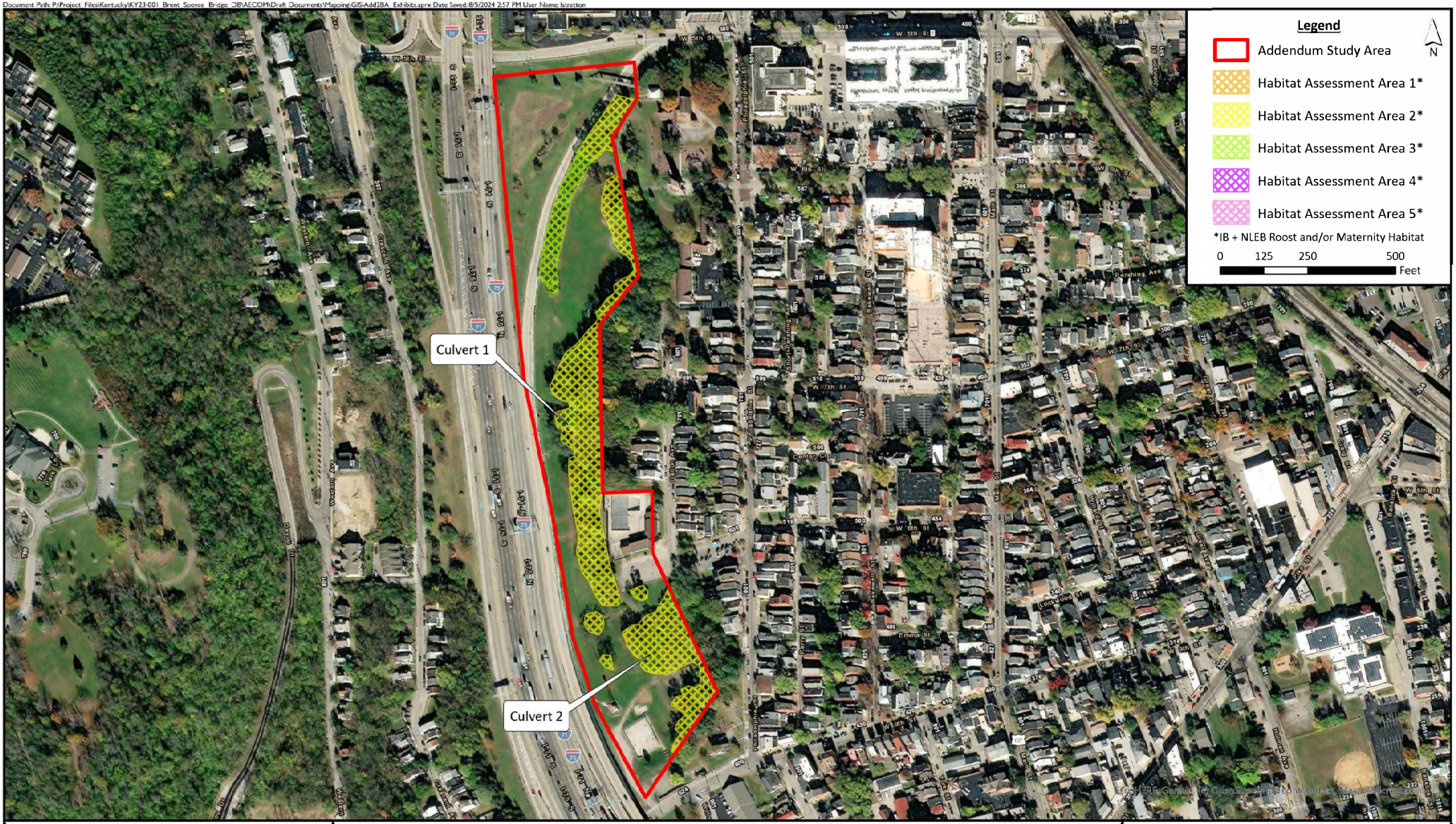
AECOM

Document Path: P:\Project Files\Kentucky\KY23-001 Brent Spence Bridge DB\AECOM\Draft Documents\Mapping\GIS\Add2BA_Exhibits.aprx Date Saved: 8/5/2024 2:57 PM User Name: lscratton



Figure 3 - I-71/I-75 Slope Impact Area
Addendum to Biological Assessment
Brent Spence Bridge Corridor Project
Kenton County, Kentucky

Document Path: P:\Project Files\Kentucky\KY23-001 Brent Spence Bridge DB\AECOM\Draft Documents\Mapping\GIS\Add2BA Exhibits.aprx Date Saved: 8/5/2024 2:57 PM User Name: lsratton



THIRD ROCK CONSULTANTS

Figure 4 - Goebel Park Impact Area
Addendum to Biological Assessment
Brent Spence Bridge Corridor Project
Kenton County, Kentucky

AECOM

APPENDICES

APPENDIX A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

December 15, 2022

Laura S. Leffler
Ohio Division Administrator
Federal Highway Administration
200 North Hight Street, Room 328
Columbus, Ohio 43215

Re: FWS 2022-0055658; Brent Spence Bridge Corridor Project in Kenton County, Kentucky and Hamilton County, Ohio; KYTC Item Number 6-17 and ODOT PID Number 116649

Dear Laura S. Leffler:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) and Ohio Field Office (OHFO) have reviewed the above-referenced project information and request for concurrence received on November 16, 2022. The KFO, as the lead Service office for this Endangered Species Act (ESA) consultation, offers the following comments in accordance with ESA of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.).

Project Description
According to the information provided, the proposed project involves the reconstruction of 7.8 miles of I-71/I-75 including the construction of a new companion bridge to the existing Brent Spence Bridge over the Ohio River in Kenton County, Kentucky and Hamilton County, Ohio. Specifically, the project would include construction of a new bridge, addition of one interstate lane in each direction, rehabilitation to the existing bridge, construction of overpass bridges and interchanges, and construction/improvements to drainage systems. Impacts to the landscape include typical road construction activities, tree removal for construction access, disturbance to the Ohio River, and grading to allow for proper drainage.

Federally Listed Species
The Federal Highway Administration (FHWA) has determined that the proposed action has the potential to affect the gray bat *(Myotis grisescens)*, Indiana bat *(Myotis sodalis)*, northern long-eared bat (NLEB), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Quadrula cylindrica cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Epioblasma obliquata*), spectaclecase (*Cumberlandia monodonta*), northern riffleshell *(Epioblasma torulosa rangiana*),

sheepnose (*Plethobasus cyphyus*), and snuffbox (*Epioblasma triquetra*). Service comments regarding these species and potential adverse effects are provided below.

Gray Bats

Ohio Comments

Gray bat was not identified as being within the area of influence of the Ohio portion of the proposed project; therefore, this species was not addressed in the BA specific to Ohio impacts. FHWA did not make an effects determination for gray bat within the Ohio portion.

Kentucky Comments

Field assessments within the Kentucky portion concluded that no caves or karst features suitable for summer or winter gray bat roosting would be affected by the proposed project. Therefore, the proposed project is not likely to impact gray bat hibernacula or roosting habitat.

The Kentucky Transportation Cabinet (KYTC) utilized the processes identified in the Federal Highway Administration Kentucky Division's 2020 Programmatic Consultation on the effects of transportation projects on the gray bat to evaluate potential adverse effects on foraging and commuting habitat for the gray bat. The KFO agrees with the results from the ESA compliance process, and we concur with the FHWA's determination that the proposed action may affect but is not likely to adversely affect the gray bat within the Kentucky portion of the proposed project.

Indiana Bats

Ohio Comments

Potential impacts to the Indiana bat and NLEB were assessed by the Ohio Department of Transportation (ODOT) in accordance with the *Framework Programmatic Biological Opinion* (OHPBO) issued to ODOT on February 29, 2016 and revised on December 12, 2017 (https://www.dot.state.oh.us/environmental-services/manuals_guidance1/Ecological/RelevantAgreements/Indiana%20Bat%20and%20Northern%20Long-Eared%20Bat%20Programmatic%20Agreement%20January%202018.pdf). We understand the project is expected to clear 15.80 acres of suitable wooded habitat for the Indiana bat in Ohio. However, all habitat to be impacted is located within 100 feet from the edge of existing pavement. These impacts, given ODOT's commitment to clear trees only during the bat's inactive season (i.e., October 1 through March 30), meet the criteria for Consultation Category 1 (CC1) in the OHPBO. ODOT determined that CC1 projects may affect but are not likely to adversely affect the Indiana bat and NLEB. The Service (OHFO) concurred with ODOT's determination within the OHPBO. Therefore, the OHFO concurs with FHWA's determination that the proposed project may affect but is not likely to adversely affect the Indiana bat within the Ohio portion of the proposed project.

Kentucky Comments

Based on the information provided in the BA, no impacts to suitable winter habitat for this species is likely to occur. However, the proposed project requires removal of approximately 74.2 acres of "potential" forested habitats for the Indiana bat. KYTC believes that this species is reasonably certain to utilize forested habitat within the project area, and has determined that the action "may affect, is likely to adversely affect" the Indiana bat. KYTC proposes to account for

potential adverse effects to the Indiana bat and its habitat through the processes identified in the FHWA Kentucky Division's 2020 Programmatic Consultation and accompanying biological opinion on the effects of Kentucky transportation projects on the Indiana bat. The Service concurs with the FHWA's effects determination that the proposed project may affect and is likely to adversely affect the Indiana bat within the Kentucky portion of the proposed project. The KFO agrees with the proposed ESA compliance process to address Indiana bats within the Kentucky portion of the project.

Northern Long-eared Bats

Ohio Comments

Potential impacts to the NLEB were assessed by ODOT in conjunction with the process and analysis discussed previously for Indiana bats (see Ohio Comments above). Therefore, the OHFO concurs with FHWA's determination that the portion of the proposed project within Ohio may affect but is not likely to adversely affect the NLEB.

Kentucky Comments

Within the Kentucky portion of the proposed project, this project may affect the NLEB, but with no effects beyond those previously evaluated in the Service's programmatic biological opinion for the NLEB final 4(d) rule dated January 5, 2016 (FWS Log# 03E00000-2016-F-0001). Any taking that may occur incidental to this project is not prohibited under the final 4(d) rule (50 CFR §17.40(o)). Therefore, the KYTC/FHWA may fulfill its responsibilities under ESA section 7(a)(2) relative to the NLEB for this project by requesting reliance on the Service's programmatic biological opinion for the 4(d) rule.

Federally Listed Mussels

Joint Office Comments (KFO and OHFO)

In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no federally listed species were found. Therefore, The Service concurs with FHWA's determination that the proposed project may affect but is not likely to adversely affect any of the aforementioned federally listed mussel species.

Conclusion

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 46110 or Phil_DeGarmo@fws.gov.

Sincerely,

Virgil Lee Andrews, Jr.
Field Supervisor

cc: Mour Diop, FHWA, Frankfort
Andrew Logsdon, KYTC, Frankfort
Timothy Long, FHWA, Columbus
Karen Hallberg, USFWS, Columbus

APPENDIX B

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Assistant Regional Director-Ecological Services
5600 American Blvd. West
Bloomington, MN 55437-1458
Phone: (612) 713-5350 Fax: (612) 713-5292

In Reply Refer To: April 13, 2023
Project code: 2022-0055658
Project Name: Brent Spence Bridge Replacement

Federal Nexus: yes
Federal Action Agency (if applicable): Department of Transportation

Subject: Technical assistance for 'Brent Spence Bridge Replacement'

Dear Todd McDaniel:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 13, 2023, for 'Brent Spence Bridge Replacement' (here forward, Project). This project has been assigned Project Code 2022-0055658 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Clubshell *Pleurobema clava* Endangered
- Fanshell *Cyprogenia stegaria* Endangered
- Gray Bat *Myotis grisescens* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Longsolid *Fusconaia subrotunda* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Riffleshell *Epioblasma rangiana* Endangered
- Orangefoot Pimpleback (pearlymussel) *Plethobasus cooperianus* Endangered
- Pink Mucket (pearlymussel) *Lampsilis abrupta* Endangered
- Rabbitsfoot *Quadrula cylindrica cylindrica* Threatened
- Ring Pink (mussel) *Obovaria retusa* Endangered
- Rough Pigtoe *Pleurobema plenum* Endangered
- Sheepnose Mussel *Plethobasus cyphyus* Endangered
- Snuffbox Mussel *Epioblasma triquetra* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

Next Step

Consultation with the Service is necessary. The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is incomplete and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **747-125026876**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)

2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
3. Click on Review/Finalize to convert the ‘not likely to adversely affect’ consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Assistant Regional Director-Ecological Services and reference Project Code 2022-0055658 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Brent Spence Bridge Replacement

2. Description

The following description was provided for the project 'Brent Spence Bridge Replacement':

> The project is set to replace the Brent Spence Bridge over the Ohio River between Kentucky and Ohio

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.076302,-84.5201627278336,14z



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect, but not likely to adversely affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   Yes

6. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat and northern long-eared bat.

   Does your proposed action fall within the scope of this programmatic consultation?

   Note:If you have **previously consulted** on your proposed action with the Service under the NLEB 4dRule, answer 'no' to this question and proceed with using this key. If you have **not yet consulted** with the Service on your proposed action and are unsure whether your proposed action falls within the scope of the FHWA, FRA, FTA range-wide programmatic consultation, please select "Yes" and use the FHWA, FRA, FTA Assisted Determination Key in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer ‘no’ to this question if it is not.

   No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   No

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer "No" below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project's action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a "no effect" determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer "No" and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

    Yes

11. Have you conducted, or will you conduct, a voluntary Phase 1 habitat assessment for potentially suitable hibernacula in accordance with the guidance in Appendix H of the USFWS' current Range-wide Indiana bat and Northern long-eared bat Survey Guidelines?

    Note: The survey guidelines can be found at: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

12. Did the USFWS Ecological Services Field Office (ESFO) agree with the conclusions of the habitat assessment?

    Note: If NO, please contact the ESFO before returning to complete this determination key.

    Yes

13. Were any potentially suitable northern long-eared bat hibernacula detected in the action area?

    No

14. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
(If unsure, answer "Yes.")

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

15. Will the action cause effects to a bridge?

    Yes

16. Has a site-specific bridge assessment following USFWS guidelines been completed?

    Note: For information on conducting a bridge/structure assessment, see Appendix D of the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat and the associated Bridge/Structure Bat Assessment Form. Additional resources can be found at: https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources and a training video is located at: https://www.youtube.com/watch?v=iuFwkT7q8Ws.

    Yes

17. Was evidence of bat use found during the bridge assessment?

    No

SUBMITTED DOCUMENTS

- *Bats on Bridges Datasheet - 059B00038L.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997545
- *Bats on Bridges Datasheet - 059B00038R.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997546
- *Bats on Bridges Datasheet - 059B00039N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997547
- *Bats on Bridges Datasheet - 059B00040N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997548
- *Bats on Bridges Datasheet - 059B00041N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997549
- *Bats on Bridges Datasheet - 059B00043L_059B00043R.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997550
- *Bats on Bridges Datasheet - 059B00044L.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997551
- *Bats on Bridges Datasheet - 059B00044L_059B00044R.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997552
- *Bats on Bridges Datasheet - 059B00044R.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997553
- *Bats on Bridges Datasheet - 059B00047N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997554
- *Bats on Bridges Datasheet - 059B00087N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997555
- *Bats on Bridges Datasheet - 059B00088N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997556

- *Bats on Bridges Datasheet - 059B00089N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997557
- *Bats on Bridges Datasheet - 059B00090N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997558
- *Bats on Bridges Datasheet - 059B00099N.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997559
- *Bats on Bridges Datasheet - 059B00100L_059B00100R.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124997560

18. Did you coordinate with your local Ecological Services Field Office (ESFO) and receive approval of the bridge assessment results? If NO, please contact the appropriate local ESFO before completing this determination key.

    Yes

19. Will the action result in effects to a culvert or tunnel?

    Yes

20. Do the interior dimensions of the culvert or tunnel equal or exceed 4.0 feet (1.3 meters) in height and 130 feet (40 meters) in length? Answer "No" if the affected culvert(s) or tunnel is smaller in either of these two dimensions.

    Yes

21. Has a site-specific bridge/structure (e.g., culvert) assessment following USFWS guidelines been completed?

    Note: For information on conducting a bridge/structure assessment see Appendix D of the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat and the associated Bridge/Structure Bat Assessment Form?

    Yes

    SUBMITTED DOCUMENTS

    - *Bats on Bridges Datasheet - Pleasant Run Creek Culvert.pdf* https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/projectDocuments/124998830

22. Was evidence of bat use found during the bridge/structure (e.g., culvert) assessment?

    No

23. Did you coordinate with your local Ecological Services Field Office (ESFO) and receive approval of bridge assessment results? If NO, please contact the appropriate local ESFO before completing this determination key.

    Yes

24. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

    Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

    No

25. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

26. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

27. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

    Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

28. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

29. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?

    No

30. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

31. Will the proposed action involve blasting?

    No

32. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

    No

33. Will the proposed action involve the use of herbicides or pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

    No

34. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

35. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

    Note: Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

36. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    Yes

37. Has a presence/probable absence summer bat survey targeting the northern long-eared bat following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area? If unsure, answer "No."

    No

38. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

    Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property and has a diameter breast height of six inches or greater.

    No

39. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

    Yes

40. [Semantic] Does your project intersect a known sensitive area for the northern long-eared bat?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state agency or USFWS field office

    Automatically answered
    No

41. Will all tree cutting/trimming or other knocking or bringing down of trees be restricted to the inactive season for the northern long-eared bat?

    Note: Inactive Season dates for summer habitat outside of staging and swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas.

    No

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

466.3

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

95.6

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

466.3

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: HMB Professional Engineers, Inc
Name: Todd McDaniel
Address: 3 HMB Circle
City: Frankfort
State: KY
Zip: 40601
Email mmcdaniel@hmbpe.com
Phone: 5026959800

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

APPENDIX C

From:	Baughman, Pamela (FHWA)
To:	Phil_DeGarmo@fws.gov <fws>
Cc:	Toni, Melissa (FHWA); Long, Timothy (FHWA); Hallberg, Karen I; Ballantyne, John (FHWA); Diop, Mour (FHWA); Jeter, Todd (FHWA); Ross, Eric (FHWA); Hans, Stacee D (KYTC-D06); Hill, Timothy; Raymond, Matthew; Logsdon, Andrew M (KYTC)
Subject:	Proposed No Jeopardy Finding for TCB for the Brent Spence Bridge project -- HAM-71/75-0.00/0.22 PID 80968 (75119 Environet PID)
Date:	Wednesday, September 20, 2023 3:24:22 PM

Hello Phil,

Please find below electronic correspondence from FHWA regarding the proposed No Jeopardy Finding for TCB for the Brent Spence Bridge project -- HAM-71/75-0.00/0.22 PID 80968 (75119 Environet PID). Please let me know if you or your office have any questions regarding this documentation provided to follow on our previously discussed approach in the Agency Coordination meeting.

Thanks,
Pam

Pamela Baughman
U.S. DOT | FHWA Ohio Division
Environmental Program Manager
(614) 280-6835
Pamela.Baughman@dot.gov

-
-
-
-

Mr. Virgil Lee Andrews, Jr.
Field Supervisor
U.S. Fish and Wildlife Service
J.C. Watts Federal Building
330 West Broadway
Frankfort, KY 40601

Dear Mr. Andrews:

On September 14, 2022, the U.S. Fish and Wildlife Service (Service) published a proposal in the Federal Register (FWS-R5-ES-2021-0163) to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Section 7(a)(4) was added to the ESA (1979) to provide a mechanism for identifying and resolving potential conflicts between a proposed action and proposed species or proposed critical habitat at

an early planning stage. ESA section 7(a)(4) states:

> *Each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 4 or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.*

FHWA understands that while ***consultations*** are required when a proposed action may affect listed species (ESA section 7(a)(2)), a ***conference*** is required only when a proposed action is likely to jeopardize the continued existence of a proposed species or destroy or adversely modify proposed critical habitat. This letter serves to summarize the effects of the Brent Spence Bridge Project on the proposed endangered tricolored bat and the reasons a formal conference is not necessary for this species.

Similar to the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and gray bat (*Myotis grisescens*), the tricolored bat is a small insectivorous bat that typically overwinters in caves, abandoned mines and tunnels, and typically roosts in mature forested habitats during spring, summer, and fall. The USFWS has not proposed any areas of designated critical habitat for the tricolored bat. Project impacts to wooded habitat that may contain suitable roosting habitat for the tricolored bat include approximately 74.20 acres in Kentucky and 15.80 acres in Ohio, for a total of approximately 90 acres. No known or suspect hibernacula were identified within or near the project area, and bridge structures with potentially suitable roosting habitat for the tricolored bat were inspected and no evidence of bats was observed.

The effects analysis completed for the Indiana, northern long-eared, and gray bats presented in the Biological Assessment (BA) for the project, coordinated with the Service in November 16, 2022, would be similar for tricolored bat. Because of a lack of potential hibernacula and bridge structures used for roosting within the project area, impacts to the tricolored bat are primarily anticipated to result from the removal of the 90 acres of wooded habitat that may potentially serve as summer maternity, roosting, and foraging habitat. FHWA contends that the avoidance, minimization, and mitigation measures outlined in the BA will similarly reduce the likelihood of potential project impacts to the tricolored bat. In Kentucky tree removal will be restricted during the maternity season from June 1 to July 31, when non-volant pups are most likely to be present, and the *Programmatic Biological Opinion on the Effects of Transportation Projects in Kentucky on the Indiana Bat and Gray Bat* will be used to account for habitat loss and take. In Ohio no tree removal will occur during April 1 through September 30 to avoid impacts to bats during the entirety of the active roosting season, and the *Amendment to the Framework Programmatic Biological Opinion, as revised, for Ohio Department of Transportation's (ODOT) Federal Aid Highway Program That May Affect the Federally Endangered Indiana Bat and/or Federally Threatened Northern Long-Eared Bat* will be used to account for habitat loss and take. Following these measures and agreements for the federally listed species of bats in Kentucky and Ohio will also result in minimized impacts and take to the tricolored bat. Based on this analysis FHWA has determined that the project may affect but is not likely to jeopardize the continued existence of the tricolored bat, nor will it result in the destruction or adverse modification of critical habitat proposed to be designated for the species.

FHWA will reinitiate consultation with the USFWS for the project if:

- the amount or extent of incidental take of federal listed species be exceeded;

new information reveal the project may affect listed species or critical habitat in a manner or to an extent not previously considered;

- the Project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not previously considered; or
- a new species is listed (such as the tricolored bat) or critical habitat is designated that the project may affect.

The U.S. Fish and Wildlife Service's (USFWS) Kentucky Field Office agreed to serve as the lead Service Field Office for the project, however, a copy of this letter has also been submitted to Karen Hallberg, Wildlife Biologist/Transportation Liaison at the USFWS Ohio Field Office.

If you have any questions or concerns regarding this effects determination, please contact please contact Pamela Baughman, Environmental Program Manager, at (614) 280-6835, or Pamela.Baughman@dot.gov.

CAUTION: This is an external email and may not be safe. If the email looks suspicious, please do not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.

APPENDIX D

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0467 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov

In Reply Refer To: 07/26/2024 15:02:22 UTC
Project Code: 2022-0055658
Project Name: Brent Spence Bridge Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do..

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
(502) 695-0467

PROJECT SUMMARY

Project Code: 2022-0055658
Project Name: Brent Spence Bridge Replacement
Project Type: Bridge - New Construction
Project Description: The project is set to replace the Brent Spence Bridge over the Ohio River between Kentucky and Ohio
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.089047750000006,-84.52112941237878,14z



Counties: Kenton County, Kentucky

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 3 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME STATUS

Gray Bat *Myotis grisescens* Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:
- The project area includes potential gray bat habitat.

Species profile: https://ecos.fws.gov/ecp/species/6329
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/6422.pdf

Indiana Bat *Myotis sodalis* Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
This species only needs to be considered under the following conditions:
- The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species.

Species profile: https://ecos.fws.gov/ecp/species/5949
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/6422.pdf

Northern Long-eared Bat *Myotis septentrionalis* Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:
- This species only needs to be considered if the project includes wind turbine operations.

Species profile: https://ecos.fws.gov/ecp/species/9045
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/6422.pdf

Tricolored Bat *Perimyotis subflavus* Proposed Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10515

CLAMS

NAME STATUS

Clubshell *Pleurobema clava* Endangered

Population: Wherever found; Except where listed as Experimental Populations
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/3789
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf

Fanshell *Cyprogenia stegaria* Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4822
General project design guidelines:

NAME	STATUS
https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf	
Northern Riffleshell *Epioblasma rangiana* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/527 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf	Endangered
Pink Mucket (pearlymussel) *Lampsilis abrupta* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7829 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf	Endangered
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered
Sheepnose Mussel *Plethobasus cyphyus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6903 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XFSBL5HRMFH7XJHK35CIAEXOXM/documents/generated/5639.pdf	Endangered
Snuffbox Mussel *Epioblasma triquetra* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4135	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Third Rock Consultants
Name: Ryan McGregor
Address: 2526 Regency Road
Address Line 2: Suite 180
City: Lexington
State: KY
Zip: 40503
Email rmcgregor@thirdrockconsultants.com
Phone: 8599772000

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

Appendix F: Hydrological and Hydraulic Analyses

- 2025-05-21 Brent Spence Bridge - No Rise in Floodplain/Floodway Memo
- Willow Run Flood Protection System Hydrological and Hydraulic Analysis for the Brent Bridge Corridor Project November 2024

AECOM

To:
Mr. Arik Quam
Design-Build Project Manager
Walsh-Kokosing Joint Venture

CC:
Dan Schweiger, Deputy Project Manager
Doug VanSlambrook, Design-Build Coordinator
Ken Butler, PE, Design Manager
Craig Klusman, PE, SE Deputy Design Manager

Project name:
Brent Spence Bridge Corridor

Project ref:
ODOT PID 116649
KYTC Project Item No. 6-17
ODOT Construction Project 23-3000
AECOM Project # 60713432

From:
Discipline or Segment Lead

Date:
May 21, 2025

Memo

Subject: Brent Spence Bridge - No Rise in Floodplain/Floodway

An engineering analysis was performed to demonstrate that the construction of the proposed Companion Bridge will not increase flood heights in the Ohio River floodplain or floodway. The analysis is based on the standard step-backwater 1D computer model provided by FEMA.

Since the 0.00' no-rise condition has been satisfied, there is no requirement for a Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR).

Supporting documentation will be provided with the Interim Submittal in August 2025.

Sara Lajoie

Sara B. Lajoie, P.E.

H&HA and Scour Team Lead

Willow Run Flood Protection System Hydrological and Hydraulic Analysis for the Brent Bridge Corridor Project

October 18, 2024 - Review

Gresham Smith
Gresham Smith Project: 46204.00
ODOT PID 116649 | KYTC Project Item No. 6-17

1. Introduction 1-1
1.1 Project Area 1-1
1.2 Willow Run Stormwater Storage Basins 1-3
1.3 Willow Run Flood Protection System 1-3
1.4 Proposed Roadway Improvements 1-5
2. Recommended Solution 2-1
2.1 Express Sewer/Siphon Overview 2-1
2.1.1 System Operation 2-1
2.1.2 Siphon Outlet Chamber 2-4
2.1.3 Junction Chamber 2-5
2.1.4 Detention Basin Optimization 2-6
2.1.5 Stormwater Storage for Euclid Avenue Flooding 2-7
3. Hydrologic Modeling 3-1
3.1 Flood Elevations 3-1
3.1.1 Ohio River Exterior Stage 3-1
3.1.2 Willow Run Interior Flood Elevation 3-2
3.2 Model Overview 3-3
3.2.1 Model Calibration 3-4
3.2.2 Pipe Network 3-4
3.2.3 Rainfall Distribution and Subcatchment Characteristics 3-4
3.3 Express Sewer/Siphon Hydraulic Evaluation 3-4
4. Coincident Frequency Analysis 4-1
4.1 Analysis 4-3
4.1.1 Goebel Park 4-3
4.1.2 KYTC 1 and St. Elizabeth Basins 4-5

4.1.3 Conclusion 4-6
5. Operations and Maintenance 5-1
5.1 Operational Modifications 5-1

Figures

Figure 1-1: Willow Run Watershed 1-2
Figure 1-2: Willow Run Stormwater Basins 1-3
Figure 1-3: Impacts to Goebel Park 1-5
Figure 2-1: Recommended Solution Drainage Areas 2-2
Figure 2-2: Express Sewer Overview 2-3
Figure 2-3: Proposed Siphon Chamber Outlet 2-4
Figure 2-4: Plan View of Proposed Junction Chamber 2-5
Figure 2-5: South View of Proposed Junction Chamber 2-6
Figure 2-6: North view of Proposed Junction Chamber 2-6
Figure 3-1: Interior Flood Elevation 3-3
Figure 4-1: Ohio River Elevation-Duration Curve 4-3
Figure 4-2: Existing Conditions Conditional Frequency Plot 4-4
Figure 4-3: Recommended Solution Conditional Frequency Plot 4-5

Tables

Table 1-1: Willow Run Pump Set Points 1-4
Table 2-1: Basin Volumes 2-7
Table 3-1: Ohio River Historic Crests at Cincinnati 3-1
Table 3-2: Recommend Solution Gravity Flow with Ohio River at 468 feet 3-6
Table 3-3: Recommend Solution Flood Pumping Operations 3-7

Table 4-1: Ohio River Stage Probability 4-2

Table 4-2: Vertical Elevation datum for KYTC 1 and St E..... 4-6

Table 4-3: Express Sewer/Siphon Flows During Flood Pumping..... 4-6

Appendices

Appendix A

Hydraulic Profiles

Appendix B

Interior Flood Evaluation

Appendix C

Model Calibration

Appendix D

Subcatchment Characteristics

Appendix E

Hydraulic Modeling Results

Appendix F

HEC-SSP Results

Acronyms/Abbreviations

ANSI	American National Standard Institute
BMP	Best Management Practice
BSB	Brent Spence Bridge
CAD	Computer Aided Design
CCTV	Closed Circuit Television
FEMA	Federal Emergency Management Agency
FSI	Formed Suction Intake
GIS	Geographic Information System
HI	Hydraulic Institute
HEC-SSP	Hydraulic Engineering Center – Statistical Software Package
HDPE	High-density Polyethylene
HGL	Hydraulic Grade Line
ICM	Integrated Catchment Modeling
KYTC	Kentucky Transportation Cabinet
LOS	Level of Service
MH	Manhole
MOT	Maintenance of Traffic
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
ODOT	Ohio Department of Transportation
RFP	Request for Proposals
RFQ	Request for Qualifications
SCADA	Supervisory Control and Data Acquisition
SD1	Sanitation District No 1
SWMM	Storm Water Management Model
TSS	Total Suspended Solids
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture

Definition of Units

ac	acre
cfs	cubic feet per second
ft	feet
gpm	gallons per minute
in	inches
HP	horsepower
mgd	million gallons per day
sf	square feet
yr	year
hr	hour

1. Introduction

The Brent Spence Bridge Corridor project will improve an eight-mile portion of the I-71/75 interstate corridor between Kentucky and Ohio, including the addition of a new companion bridge to the existing Brent Spence Bridge. The project will reduce congestion, improve traffic flow and safety, and maintain key regional and national transportation corridors. The project extends from Dixie Highway in Kentucky to the Western Hills Viaduct in Ohio. In Kentucky, the project includes widening and reconstructing approximately five miles of I-71/75 from the Dixie Highway interchange to the Ohio River. Additionally, the project includes separation of stormwater runoff from the interstate roadway within the Willow Run combined sanitary system to mitigate localized flooding and to reduce combined sewer overflow occurrences.

1.1 Project Area

The Willow Run Watershed southern extents span from the intersection of Kyles Lane and I71/75 and extend north to the Ohio River. Figure 1-1 depicts the Willow Run Watershed that consists of approximately 1,852 acres. The City of Covington currently manages the stormwater infrastructure within their city limits, and SD1 manages the combined and sanitary sewer system and the separate stormwater infrastructure outside of the Covington City limits. KYTC also manages several existing detention basins adjacent to the interstate. Although some areas are currently separated, the existing flow is ultimately conveyed through the combined sewer.

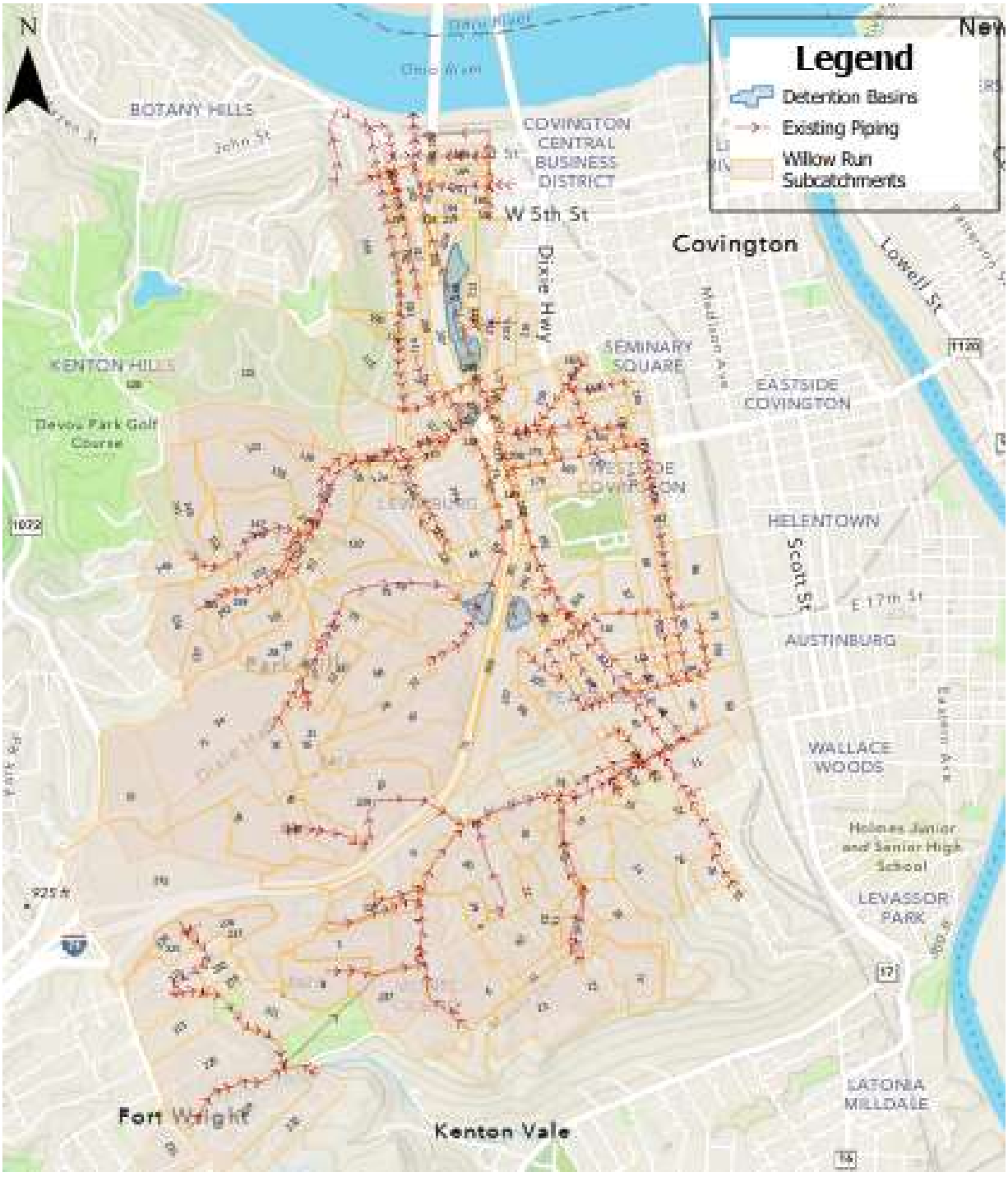


Figure 1-1: Willow Run Watershed

1.2 Willow Run Stormwater Storage Basins

The Willow Run Watershed has ten stormwater detention basins that store stormwater during wet weather events. Figure 1-2 provides the names and locations of each detention basin within the watershed.

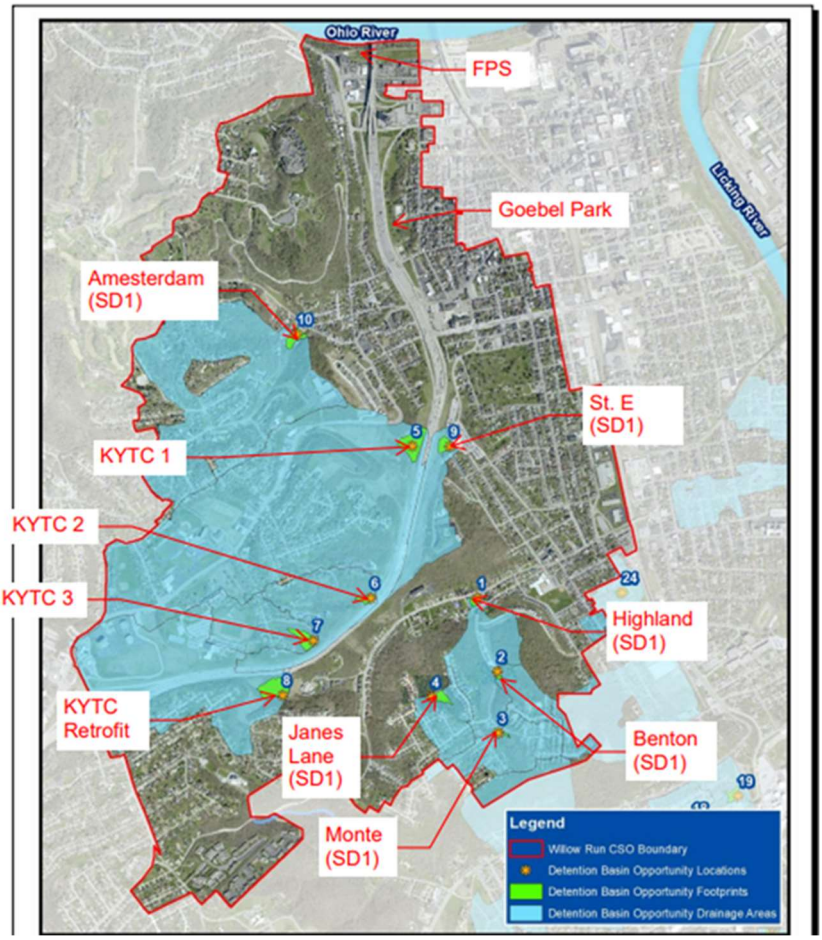


Figure 1-2: Willow Run Stormwater Basins

1.3 Willow Run Flood Protection System

The Willow Run Flood Protection System has been evaluated to address impacts of road widening and increased impervious area in the project corridor. The Willow Run Flood Protection System is comprised of the line-of-protection (floodwall and levee system), the 144-inch-diameter Willow Run Outfall Sewer, Isolation/Closure Gates, the Willow Run Flood Pump Station, and Goebel Park which is the ponding area that provides interior flood protection and acts as the wet well for the Willow Run Flood Pump Station.

The water stored in the Goebel Park ponding area flows in and out of the existing combined sewer based on the downstream hydraulic conditions that are controlled by the Ohio River water level or the pumping capacity of the Willow Run Flood Pump Station. The flood protection system goes into operational mode when the Ohio River reaches 47 feet at the Cincinnati Gage or 475.05 elevation feet (NAVD88).

The Willow Run Pump Station contains four 250 HP Storm Water Pump, with a total capacity of about 145,500 gpm (210 MGD) at minimum design head. The pump station has one 50 HP sewage pump of about 2,700 gpm that operates most of the time to convey flows over the levee. Discharge is by four 36-inch and one 14-inch pipes over the levee and into the Gatewell. The pump on and off set points are shown in Table 1-1.

Table 1-1: Willow Run Pump Set Points

Pumps	Pump On Elevation	Pump Off Elevation
Sanitary Pump (5)	471.5	467
Storm Pump 1	474.5	472
Storm Pump 2	475.5	472.5
Storm Pump 3	476.5	473.5
Storm Pump 4	477.5	474

1.4 Proposed Roadway Improvements

The proposed roadway improvements impact the storage volume in Goebel Park. The loss of storage volume is approximately 5 MG. Figure 1-3: Impacts to Goebel Park

shows the area of Goebel Park that is being impacted from the roadway expansion. Goebel Park is part of the Willow Run Flood Protection System. This document evaluates the existing level of service provided by the Willow Run Flood Protection System and the level of service of the solution that will be implemented to mitigate the impacts from the Brent Spence Bridge Corridor project.

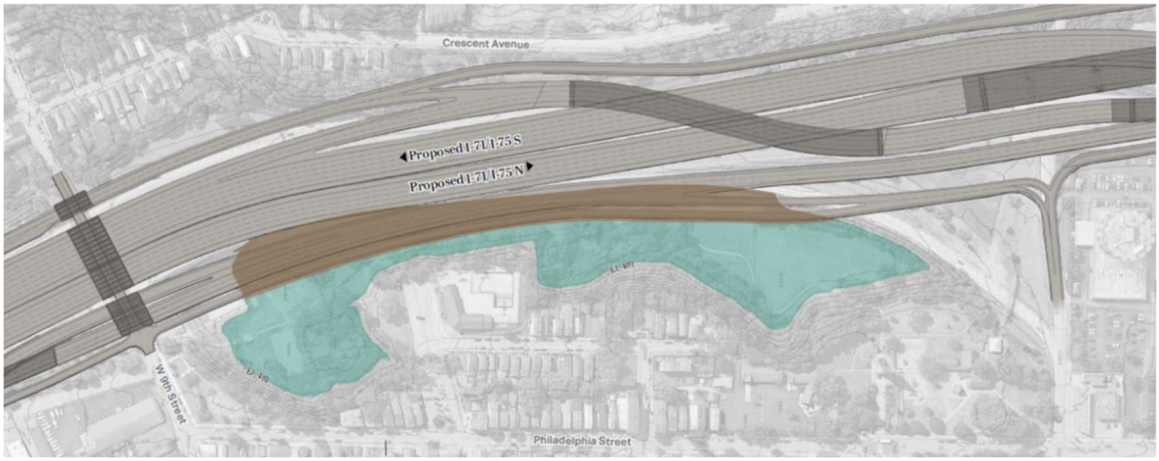


Figure 1-3: Impacts to Goebel Park

2. Recommended Solution

2.1 Express Sewer/Siphon Overview

To mitigate the loss of storage volume in Goebel Park, the concept of an Express Sewer was developed. The Express Sewer will utilize kinetic energy by capturing stormwater from areas above 518.00 feet to allow for flow to be conveyed over the levee during flood pumping operations. The levee provides a level of protection of 510 feet from exterior Ohio River flooding. This solution mitigates volume lost in the Goebel Park ponding area and eliminates the need for additional flood pumping capacity to meet the existing flood protection system LOS.

The recommended solution consists of the Express Sewer/Siphon, the North Stormwater Trunkline, the South Stormwater Trunkline, Junction Chamber, and Siphon Outlet Chamber. The Express Sewer captures the area labeled as “Drainage Area to Siphon” and includes the KYTC 1, 2 and 3 Basins, the St Elizabath Basin and the KYTC Retrofit Basin. The separated drainage areas and overview to the piping are shown in Figure 2-1. The South Stormwater Trunkline conveys separated stormwater from the area labeled as “Drainage Area to Siphon” to the Express Sewer. The Express Sewer conveys the stormwater to the Junction Chamber that will be located just north of W 3rd Street. During normal operations, the Express Sewer will convey all flow by gravity to the existing 144-inch-diameter Willow Run outfall sewer through the Junction Chamber. During flood pumping operations, a gate will close in the Junction Chamber to direct the flow from the Express Sewer to the Siphon that will convey the flow over the levee to relieve the Willow Run Flood Pump Station. An overview of the Express Sewer/Siphon is shown in Figure 2-2.

The North Stormwater Trunkline will convey separated stormwater from the area labeled as “Drainage Area to remain in Stormwater Trunkline” in Figure 2-1. This drainage area extends north from St. Elizabeth Hospital to the Ohio River. The drainage area collects all local roadway drainage including drainage areas to the east and west of MLK Jr. Blvd/W 12th Street that were previously separated. The North Stormwater Trunkline conveys all flow to the 144-inch-diameter Willow Run outfall via the Junction Chamber.

2.1.1 System Operation

The siphon will operate in conjunction with the Flood Pumping Station. Thus, the system is designed to convey a 10-year, 24-hour design storm through the Siphon during flood pumping operations to provide a similar level of service as the Flood Pumping Station. The system is designed to convey a 100-year storm to the Ohio River during normal operations. Hydraulic profiles of the solution are provided in Appendix A – Hydraulic Profiles. The modeling and results of the recommended solution are discussed in Section 3 – Hydrologic Modeling.

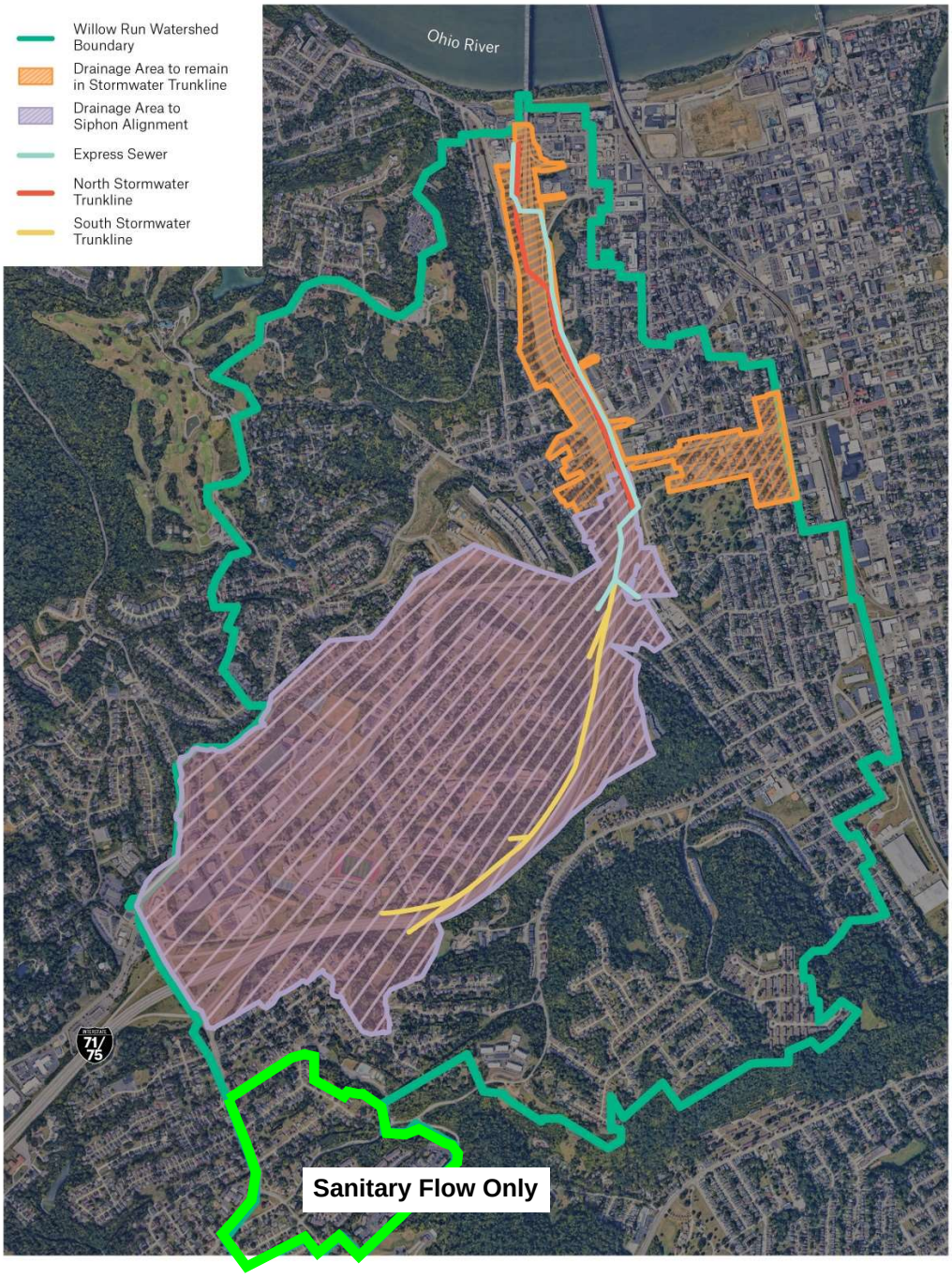


Figure 2-1: Recommended Solution Drainage Areas

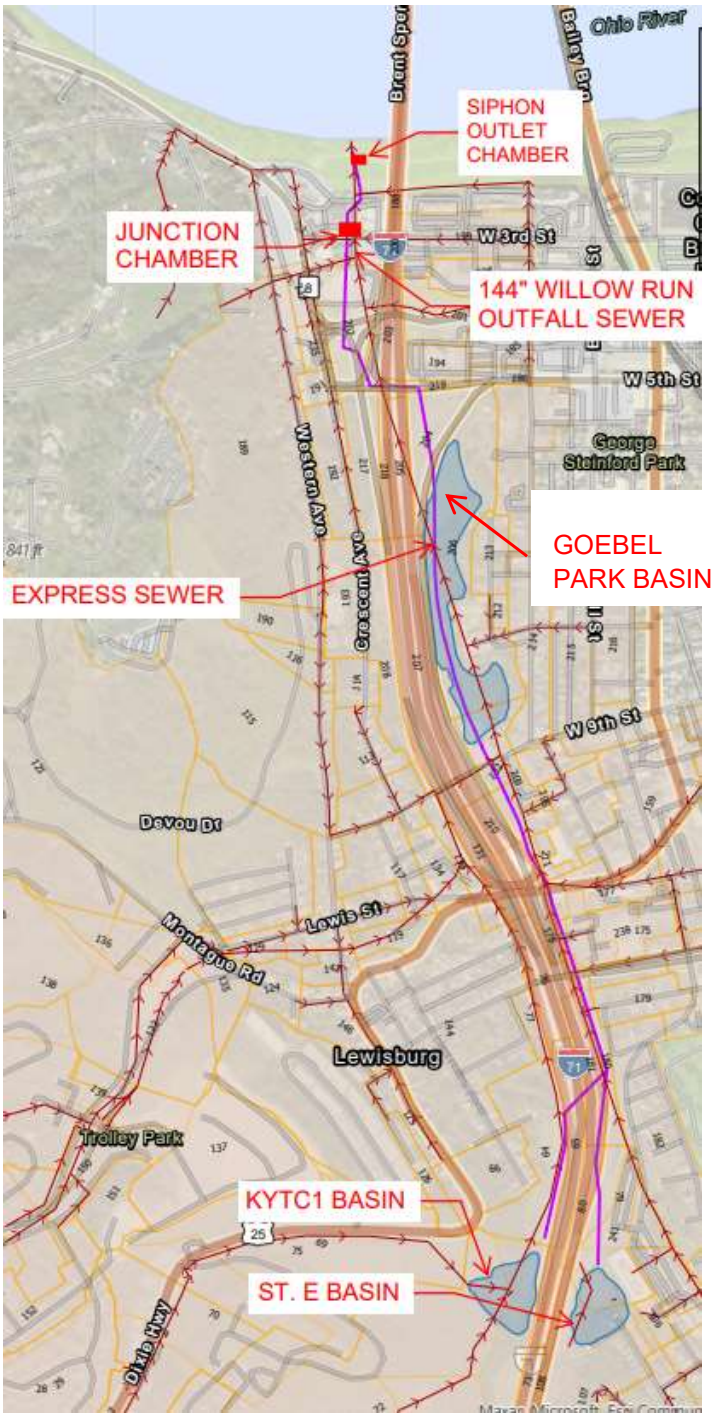


Figure 2-2: Express Sewer Overview

2.1.2 Siphon Outlet Chamber

When the Ohio River is at normal pool and the system is not operating in flood protection mode, stormwater will flow by gravity and be conveyed to the Ohio River through the 144-inch-diameter Willow Run outfall sewer. When the Ohio River exceeds normal pool and the system is operating in flood protection mode, the junction chamber gate will close and the Express Sewer will become pressurized as the hydraulic grade line increases to convey flow over the levee where it will discharge to the Ohio River through the Siphon Outlet Chamber. Details of the chamber are provided in Figure 2-3.

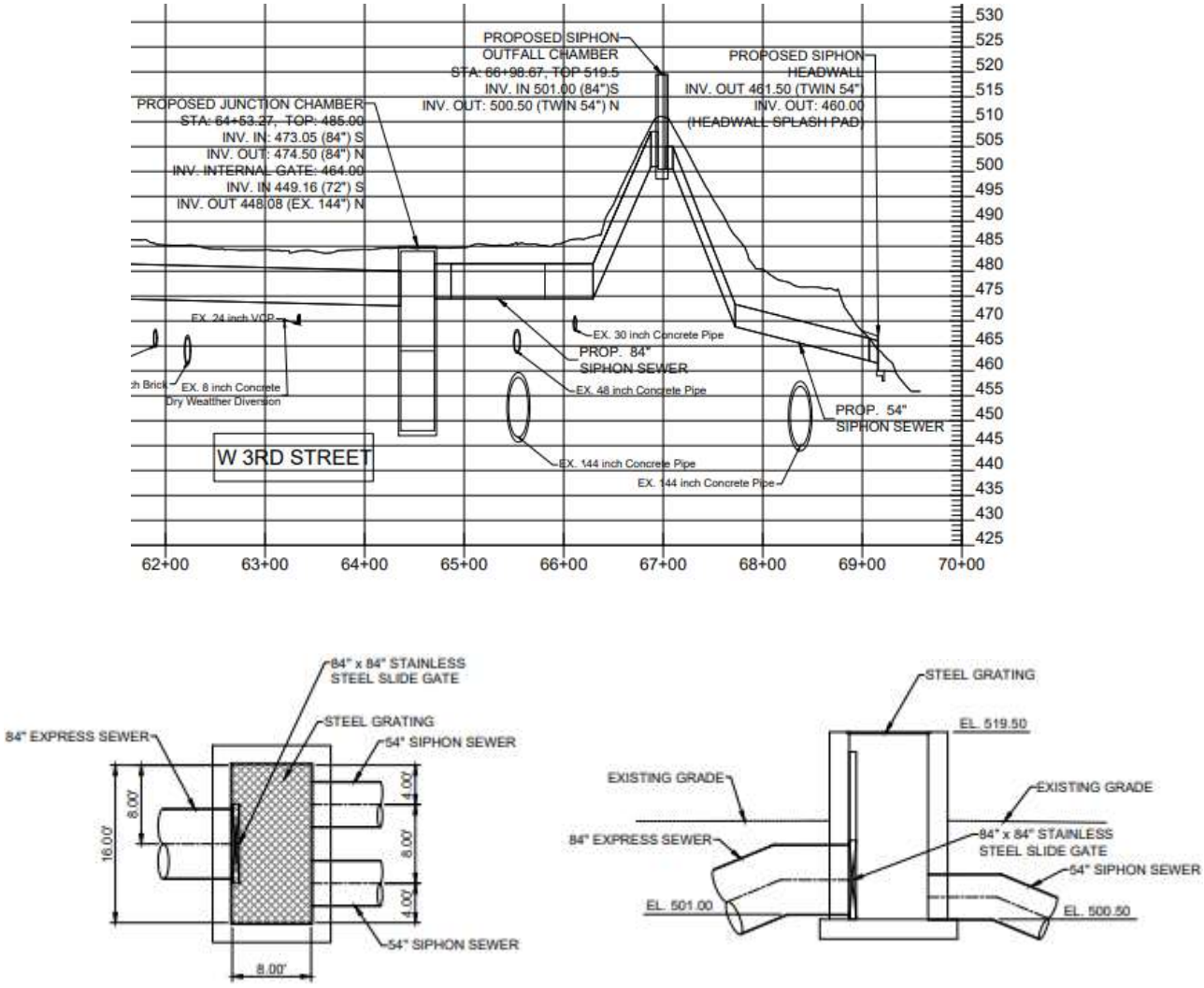


Figure 2-3: Proposed Siphon Chamber Outlet

2.1.3 Junction Chamber

Figure 2-4 depicts the plan view of the proposed junction chamber. The Express Sewer is proposed on the most western side of the chamber. Figure 2-5 and Figure 2-6show the section views of the proposed chamber. The Express Sewer enters the junction chamber at a higher elevation than the 78-inch-diameter North Stormwater Trunk Sewer and the 144-inch-diameter Willow Run Outfall combined sewer. When the gate closes, the stormwater from the Express Sewer will no longer flow to the existing 144-inch-diameter Willow Run outfall sewer and will be conveyed through the siphon sewer to the Ohio River.

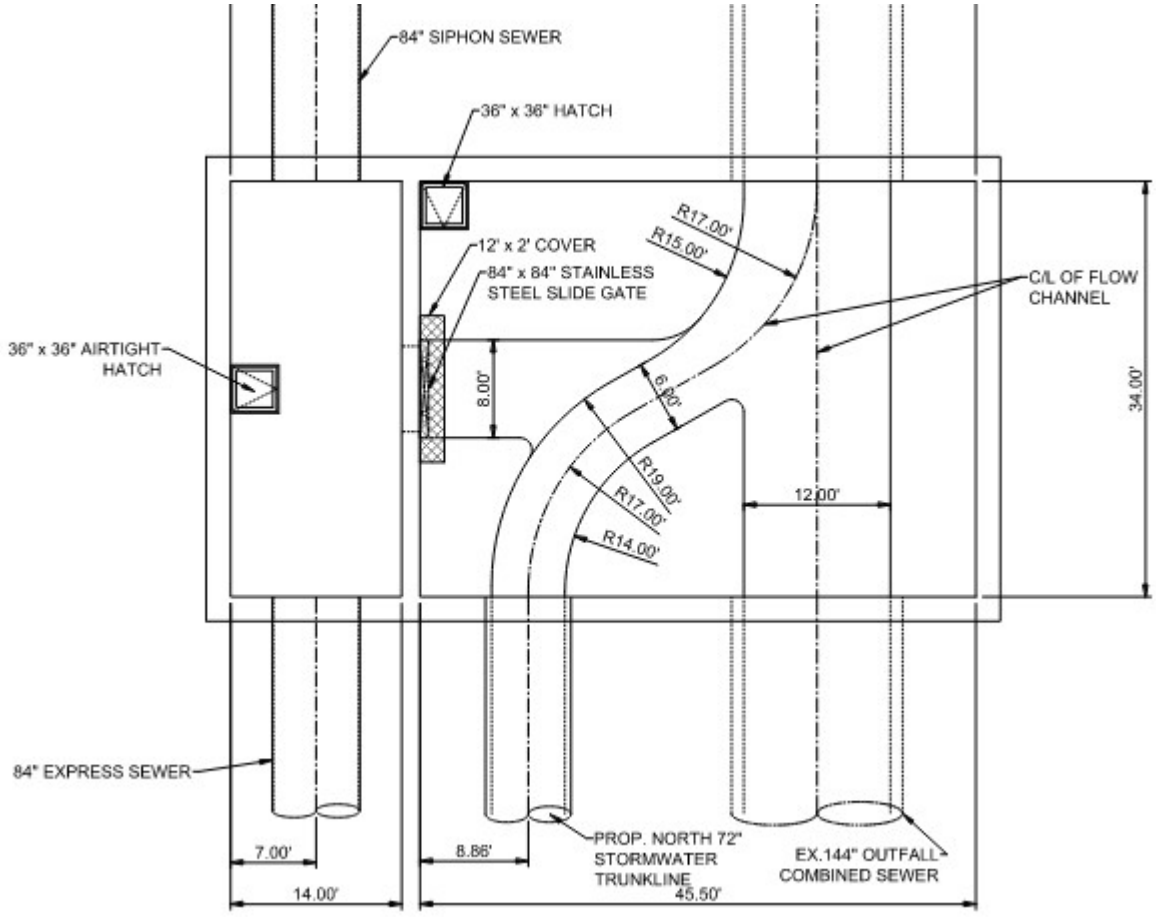


Figure 2-4: Plan View of Proposed Junction Chamber

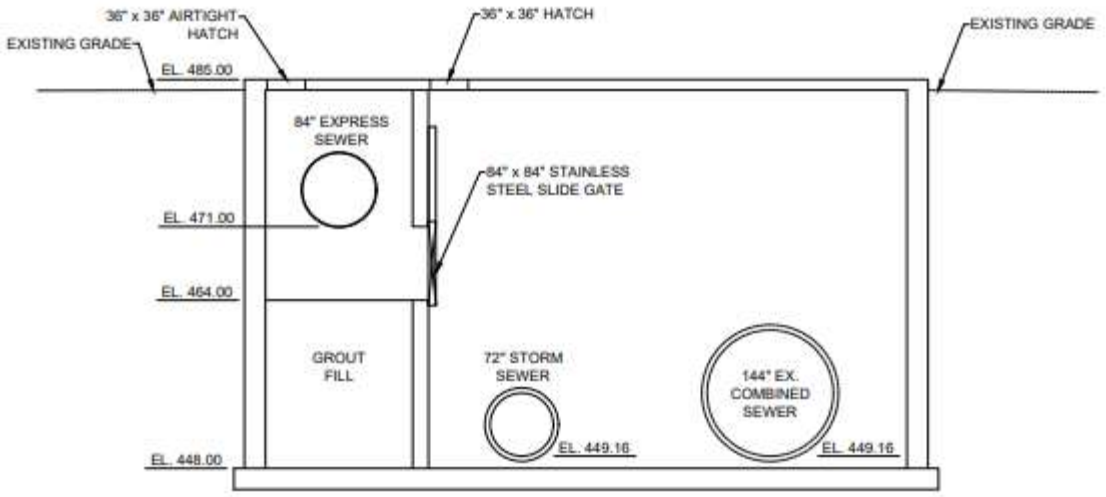


Figure 2-5: South View of Proposed Junction Chamber

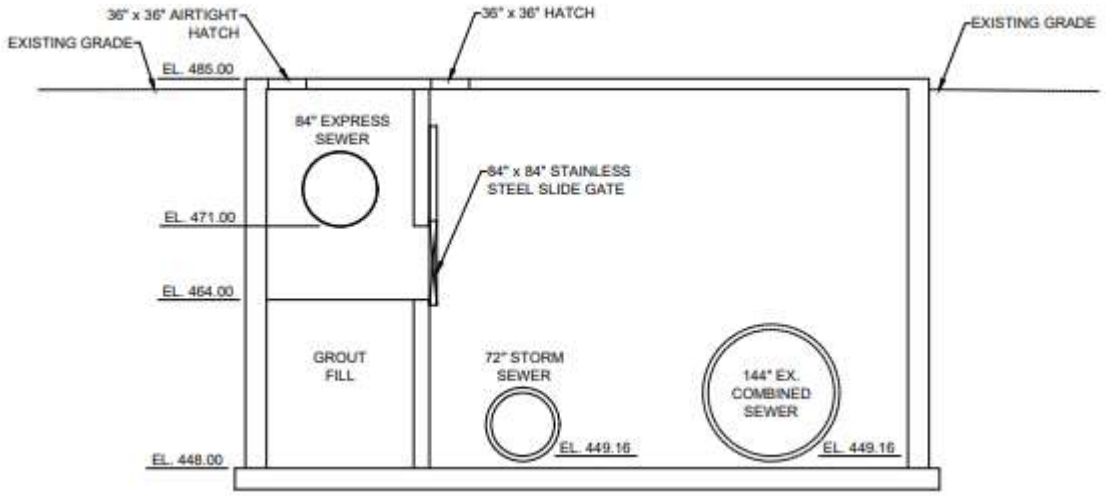


Figure 2-6: North view of Proposed Junction Chamber

2.1.4 Detention Basin Optimization

KYTC 1, KYTC 2 and KYTC 3 Basins are existing basins within the interstate right-of-way and are being modified to maximize storage volume as part of the corridor project. These basins will maintain their existing bottom elevations. As part of the modifications, the side slopes of each basin will be modified to have 3:1 slopes. The basins will receive new outlet structures that maximize storage and meet the required discharge flow rates.

Table 2-1 shows the existing storage volumes, proposed storage volume, and the potential volume gained from improvements that will be completed as part of the corridor project. These improvements in conjunction with the Express Sewer provide help reduce additional stormwater storage volume to reduce stormwater conveyance capacity.

For the H&H modeling completed as part of this document, only the existing basin volumes are used. Thus, the basin improvements are not realized as part of this document.

Table 2-1: Basin Volumes

Basin	Existing Volume (MG)	Proposed Volume (MG)	Volume Gained (MG)
KYTC 1 Basin	13.98	15.3	1.32
KYTC 2 Basin	0.77	1.3	0.53
KYTC 3 Basin	3.25	4.3	1.05
Total Volume Gained			2.9

2.1.5 Stormwater Storage for Euclid Avenue Flooding

This project was also tasked with developing a concept to mitigate flooding on Euclid Avenue for the City of Covington. Euclid Avenue is east of the project area and south of the St. Elizabeth Hospital and runs north to south. The proposed concept to mitigate flooding is to add a 1.5 MG stormwater detention basin just south of the Ivy Knoll Senior Living Facility along Highland Avenue and to separate stormwater upstream that would flow into this proposed basin. The basin is within the combined sewer system and will help reduce the water level in Goebel Park during large storm events as smart controls will be added, similar to how other detention basins in the watershed are managed. The smart controls will read the water level in the combined sewer downstream and when the water level exceeds the setpoint, the valve on the detention basin will close and hold the stormwater until the water level in the combined sewer lowers. This proposed project will be implemented by the City of Covington separate from the Brent Spence Bridge project but will ultimately reduce the water level in Goebel Park.

For the H&H modeling completed as part of this document, a 1.5 MG storage basin is included in the InfoWorks ICS modeling.

3. Hydrologic Modeling

This section analyzes the recommended solution for both stormwater conveyance and flood protection within the Willow Run Watershed to confirm that the solution meets the project goals for mitigation of the impacts related to the road widening in the BSB Corridor. The roadway improvements increase impervious area and impact the storage volume in the City's Flood Protection Ponding Area (Goebel Park).

3.1 Flood Elevations

3.1.1 Ohio River Exterior Stage

While the Willow Run watershed has seen significant changes in land use resulting from development, the Ohio River has not exceeded or been close to reaching the flood elevation level from the 1937 flood. The reduced flood water elevations are a result of the many USACE flood protection reservoirs constructed within the Ohio River tributaries upstream of Cincinnati.

Major Ohio River floods of this century occurred in 1937, 1945, 1964, and 1997. The 1937 flood is highest recorded flood, and it was used in setting heights of the Ohio River local protection projects in the area. The 1937 flood reached an elevation of 508.05 feet (NAVD88) at the USGS Ohio River Cincinnati gage (03255000) and has an expected frequency in excess of once in 500 years. Gage number 3255000 is referred to throughout the report as the Cincinnati Gage and is just upstream of the Willow Run Outfall. For the Cincinnati gage, zero gage feet is 428.05 ft (NAVD88). The tributary area for the Cincinnati gage is 76580 square miles. The Historic Crests of the Ohio River at the gage are shown in Table 3-1.

Table 3-1: Ohio River Historic Crests at Cincinnati

Date	Gage Height (ft)	River Level Elevation (NAVD88) (ft)
1/26/1937	80	508.05
3/7/1945	69.2	497.25
3/11/1964	66.2	494.25
3/5/1997	64.7	492.75
2/16/2018	60.53	488.58
3/4/2021	56.86	484.91
2/13/2019	55.46	483.51
2/21/2018	55.38	483.43

3.1.2 Willow Run Interior Flood Elevation

The elevations in the 1947 Design Memorandum (DM) are in Ohio River Datum (ORD), typical of the Ohio River projects built by USACE during this time period. The USACE Levee Safety has adopted a single conversion factor for each levee system to simplify engineering and reporting. The conversion is as follows for the Covington Levee System:

[Ft. NAVD88] = [Ft. ORD] + (-1.40)

The 1947 DM indicates that the flood damage as 483 Ft (ORD). Conversion of the elevation indicates that the property damage elevation would be 481.6 Ft (NAVD88). However, we have completed a desktop analysis of the Willow Run Watershed from Goebel Park to the Ohio River. The lowest elevation of the area is near W 3rd Street and Crescent Avenue. The lowest surface elevation is estimated at 482.66 feet (NAVD88). The lowest two properties are at 484.00 feet. Figure 3-1 Interior Flood Evaluation provides a view of the lowest lying area within the Willow Run Watershed and the adjacent low lying properties in the watershed. Additional information about the properties and basement elevations are provided in Appendix B – Interior Flood Evaluation.

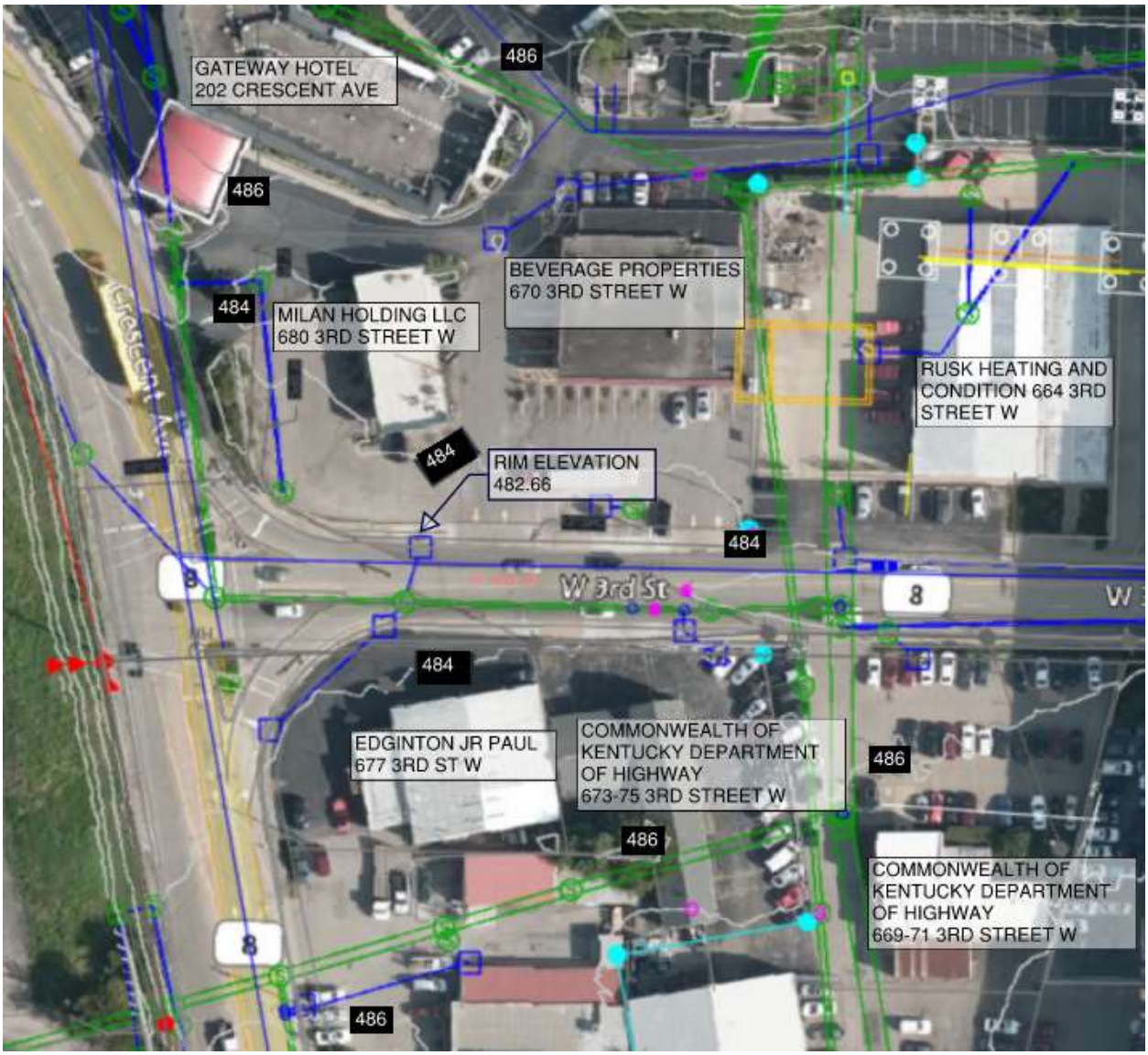


Figure 3-1: Interior Flood Elevation

3.2 Model Overview

To evaluate the hydrological and hydraulics for sewer conveyance and flood projection in the Willow Rund Watershed, hydrologic modeling was conducted using Innovyze InfoWorks Integrated Catchment Modeling Software (InfoWorks ICS). The model was obtained from Sanitation District No. 1 of Northern Kentucky (SD1) who uses the model for hydraulic and hydrologic (H&H) modeling of their combined sewer network for planning, optimizing, and sizing combined sewer system projects.

3.2.1 Model Calibration

As part of this project, the model was recalibrated to better match flow monitoring data received as part of the previous model calibration. Results of the updated calibration indicate that model results compare more favorably with observed data and are shown in Appendix C – Model Calibration.

For this project, the model has been utilized to evaluate pipe sizes and to simulate flooding from various storm events. The to evaluate the existing and proposed solutions for the sewer system and flood protection system. This model was used to identify interior flooding elevations within the City of Covington's Flood Protection ponding area (Goebel Park) for various Ohio River stage conditions.

3.2.2 Pipe Network

In a typical riverine system, open channel drainage ditches and streams convey floodwaters from upstream to downstream into receiving water bodies. However, in the case of the Willow Run Watershed Interior Drainage Area, this traditional riverine system has been disrupted by a combination of underground pipe networks, levee construction (which disconnects the interior drainage from the Ohio River floodplain), and a variety of other factors. Of particular interest to this study is the impact of the underground pipe network which serves to convey floodwaters from upstream consequence areas downstream to where the flow can cross through the levee and into the Ohio River. These underground drainage pipes are particularly important throughout the interior drainage area where many of the traditional open-channel streams have been replaced with sewers.

3.2.3 Rainfall Distribution and Subcatchment Characteristics

For the interior storm events, the rainfall distribution was generated using NOAA Atlas 14.

As part of this project, the drainage areas along the roadway corridor are being redirected to the express sewer as shown in Figure 2-1. Information about the existing subcatchment routing and proposed solution subcatchment routing are provided in Appendix D – Subcatchment Characteristics.

3.3 Express Sewer/Siphon Hydraulic Evaluation

The USACE (Unites States Army Corp of Engineers) provided guidance that the mitigation of impacts to the flood protection system due to the roadway improvement project should provide a similar level of service (LOS) as that provided by the existing Willow Run Flood Protection System.

In Section 4, as part of the coincident frequency analysis, it was determined that the critical elevation of the Ohio River that created the 1% Chance Ponding Elevation in Goebel Park was 468.00 feet. For evaluation of solutions, we compared the water level elevation in Goebel Park that was generated for each solution to the elevations generated from the model for the existing

conditions. For the recommended solution, Table 3-2 provides the model output that was generated for the various storm events.

To evaluate flood protection from the exterior flooding, the same process was followed of evaluating the water level elevation in Goebel Park for each solution to the existing conditions elevation. The existing LOS provided by the existing Willow Run Flood Pump Station and Goebel Park ponding area was determined to be equivalent to a 10-year, 24-hour design storm during flood pumping operations, which occurs when the Ohio River water level is at or above 475 feet. The likelihood of the 10-year storm occurring when the Ohio River is at elevation 475 feet is once every 404 years. The 25-year, 24-hour design storm was also reviewed during flood pumping operations and has a once every 1,010 years likelihood of occurrence.

The modeling results indicate that the Express Sewer/Siphon solution provides an equivalent level of service under gravity flow when the Ohio River is at 468 feet as shown in Table 3-2, with the maximum water level in Goebel Park remaining below 480 feet.

During Flood Pumping Operations, when the siphon is in operation, the elevation in Goebel Park for the 10-year 24-hour design storm reaches 483.24 feet versus the existing conditions elevation of 482.69 feet. As discussed in Section 3.1.2, surface flooding starts to occur at elevation 482.66 feet and flooding of properties will occur at elevation 484.0 feet. Thus, the solution still provides a 10-year, 24-hour level of service during flood pumping operations without causing any flood damage to structures.

The results of all of the hydraulic modeling for the existing conditions and proposed solution against various tailwater elevations are provided in Appendix E – Hydraulic Modeling Results.

Table 3-2: Recommend Solution Gravity Flow with Ohio River at 468 feet

Existing Conditions - 2024 Calibrated InfoWorks (FINAL CALIBRATION)														
			Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	4	277.31	429.00	27.64	N/A	N/A	N/A	471.13	0.00	507.32	1.82	515.61	0.98
2.97	2yr24hr	26	385.30	596.06	53.02	N/A	N/A	N/A	474.46	1.39	511.78	3.62	517.20	1.38
4.13	10yr24hr	130	427.98	662.09	78.81	N/A	N/A	N/A	476.60	4.56	517.08	6.03	517.31	1.41
4.81	25yr24hr	326	449.58	695.50	96.89	N/A	N/A	N/A	477.78	6.90	520.33	7.68	517.42	1.44
5.34	50yr24hr	651	646.47	1000.09	110.73	N/A	N/A	N/A	478.62	8.78	522.91	9.07	517.51	1.46
5.88	100yr24hr	1303	478.13	739.67	124.42	N/A	N/A	N/A	479.03	9.77	525.48	10.53	517.60	1.49
6.42	200yr24hr	2605	494.20	764.53	137.61	N/A	N/A	N/A	479.67	11.35	530.38	13.57	517.69	1.51
Option 6 - Scenario A -Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow Through Siphon														
			Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	4	266.99	419.17	27.39	2.53	3.91	0.50	470.45	0.00	512.87	4.09	512.06	0.28
2.97	2yr24hr	26	403.79	633.95	51.83	6.11	9.45	1.62	473.88	0.67	522.35	8.76	513.04	0.45
4.13	10yr24hr	130	473.52	743.43	76.45	33.44	51.73	3.17	476.08	2.67	529.84	13.22	514.03	0.64
4.81	25yr24hr	326	506.75	795.60	91.31	51.77	80.09	5.16	477.45	4.37	530.22	13.47	514.73	0.78
5.34	50yr24hr	651	533.05	836.88	102.39	61.37	94.94	7.65	478.45	5.76	530.27	13.50	515.29	0.90
5.88	100yr24hr	1303	560.24	879.58	113.29	69.46	107.45	9.60	479.35	7.15	530.31	13.53	515.89	1.04
6.42	200yr24hr	2605		0.00			0.00				530.36	13.56	516.49	1.19
Option 6 - Scenario A - Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow to Willow Run Outfall														
			Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	4	277.52	429.32	28.64	N/A	N/A	N/A	470.51	0.00	512.87	4.09	512.06	0.28
2.97	2yr24hr	26	418.48	647.39	54.14	N/A	N/A	N/A	473.95	0.72	522.35	8.76	513.04	0.45
4.13	10yr24hr	130	490.69	759.10	80.32	N/A	N/A	N/A	476.19	2.80	529.84	13.22	514.03	0.64
4.81	25yr24hr	326	525.40	812.79	97.05	N/A	N/A	N/A	477.62	4.60	530.22	13.47	514.73	0.78
5.34	50yr24hr	651	551.99	853.93	111.18	N/A	N/A	N/A	478.64	6.04	530.27	13.50	515.29	0.90
5.88	100yr24hr	1303	581.05	898.88	124.72	N/A	N/A	N/A	479.56	7.49	530.31	13.53	515.89	1.04
6.42	200yr24hr	2605		0.00		N/A	N/A	N/A			530.36	13.56	516.49	1.19

Table 3-3: Recommend Solution Flood Pumping Operations

Existing Conditions - 2024 Calibrated InfoWorks (FINAL CALIBRATION)														
			Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	13	99.01	153.17	25.84	N/A	N/A	N/A	477.02	5.34	507.32	1.82	515.61	0.98
2.97	2yr24hr	81	156.02	241.36	50.11	N/A	N/A	N/A	479.50	10.81	511.78	3.62	517.20	1.38
4.13	10yr24hr	404	204.72	316.70	74.36	N/A	N/A	N/A	**482.69**	19.31	517.08	6.03	517.31	1.41
4.81	25yr24hr	1010	209.87	324.67	91.22	N/A	N/A	N/A	484.69	25.09	520.33	7.68	517.42	1.44
5.34	50yr24hr	2020	214.695	332.13	101.37	N/A	N/A	N/A	485.77	28.27	522.91	9.07	517.51	1.46
5.88	100yr24hr													
6.42	200yr24hr													
Option 6 - Scenario A -Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow Through Siphon														
			Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	13	101.23	156.60	25.78	2.53	3.91	0.47	476.95	3.73	512.87	4.09	512.06	0.28
2.97	2yr24hr	81	201.09	311.09	47.96	6.098	9.43	1.58	479.56	7.49	522.35	8.76	513.04	0.45
4.13	10yr24hr	404	213.62	330.47	71.07	32.8	50.74	3.16	**483.24**	13.97	529.84	13.22	514.03	0.64
4.81	25yr24hr	1010	216.13	334.35	82.14	51.68	79.95	5.15	486.91	17.36	530.22	13.47	514.73	0.78
5.34	50yr24hr	2020	217.56	336.57	88.19	61.35	94.91	7.65	488.34	17.36	530.27	13.50	515.29	0.90
5.88	100yr24hr													
6.42	200yr24hr													
Option 6 - Scenario A - Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow to Willow Run Outfall														
			Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	13	101.46	156.96	26.63	N/A	N/A	N/A	477.12	3.94	512.87	4.09	512.06	0.28
2.97	2yr24hr	81	205.00	317.14	49.99	N/A	N/A	N/A	479.66	7.65	522.35	8.76	513.04	0.45
4.13	10yr24hr	404	210.30	325.33	74.15	N/A	N/A	N/A	483.83	15.09	529.84	13.22	514.03	0.64
4.81	25yr24hr													
5.34	50yr24hr													
5.88	100yr24hr													
6.42	200yr24hr													

4. Coincident Frequency Analysis

The strategy for assessing options was to compare each option to the combined probability coincident frequency water surface elevation curves computed for the Goebel Park ponding area. The coincident frequency curve describes the total probability of a variable (Variable C) given the probabilities of two other variables (Variables A and B). For this analysis, interior rainfall and exterior river stage were selected as variables A and B. Variable C was selected as the interior water surface elevation that occurs and could result in flooding, if the elevation of 481.6 feet is exceeded. The Willow Run Pump Station operates when interior rainfall events and high exterior river stages occur coincidentally.

For this analysis, rainfall and river stage (variables A and B) were determined to be statistically independent, meaning that the probability of one variable occurring does not influence the probability of the other variable occurring. This method was selected on the understanding that the Willow Run drainage area and that of the Ohio River are independent. Thus, a localized storm causing ponding in Goebel Park will not have a substantial influence on the river stage of the Ohio River. Similarly, a regional storm large enough to cause flooding on the Ohio River requires a fairly long duration of precipitation over a vast area. Some extreme regional rainfall events, such as northerly tracking hurricanes and tropical storms, may have the potential to influence both the Ohio River and much smaller drainages simultaneously. However, even under such circumstances where a storm may influence flooding on both watersheds, the vastly different hydrologic characteristics of the basins cause them to behave as independent systems.

The coincident frequency analysis requires three main parameters, the interior rainfall (Variable A), the exterior river stage duration curve (Variable B), and the response curve(s) (Variable C). The response curve is influenced by variables A and B. Rainfall that falls on the interior drainage area causes peak flows and ponding in the interior watershed. The 144-inch-diameter Willow Run Outfall Pipe and at times the Willow Run Pump Station receive these flows and convey the flows through the gravity outlet or pump the flows during a closed outlet condition.

The exterior stage condition affects how the pump station operates (i.e. how the pump station performs). The exterior stage elevation is the controlling factor that determines if the Willow Run Outfall Gate is open or closed. Pumping operation is controlled by the water level in the pump station. Thus, the ponding elevation/critical elevation is both influenced by the exterior stage and the interior rainfall.

The Willow Run Flood Pump Station conveys floodwaters up and over the levee as opposed to through it. However, the pumping system is designed to act as siphon and pumps against the exterior river stage. During pump start, the levee height is the static head that the pumps must overcome, but once air is evacuated the static head is the difference between the inlet head and the exterior river stage.

The coincident frequency analysis takes the set of probabilities of the given rainfall and the percent of time that the exterior stage equals or exceeds a given elevation and combines them

using the total probability theorem and creates a coincident frequency curve. The probabilities of the exterior stages are derived from the stage duration curve, the analysis chooses “index elevations” to calculate the relative frequency of the stage from the set of possible stages (from the stage duration curve). The probabilities of interior rainfall are derived from the intensity duration frequency relationships of the given area where the probability of rainfall depth of a particular duration is derived from its frequency.

Coincident frequency analysis was performed using HEC’s Statistical Software Package (SSP) to weight the probability of interior precipitation with the probability of an elevated exterior river stage necessitating closed-gate pumping conditions. The behavior of the exterior river was described by elevation-duration curves for Ohio River using the Cincinnati gage. Elevation-Duration Curves were computed for the Ohio River using data from 1988 to 2023 with the data being shown in Table 4-1. The elevation-duration duration curve is shown in Figure 4-1.

Table 4-1: Ohio River Stage Probability

No. of Days since 1987	Percent of Time Exceeded Since 1987 (%)	Days per Year	Annual Stage Elevation (ft)	Gage Height (ft)
13.14	0.1	0.365	484.95	56.9
65.7	0.5	1.825	474.2	46.15
131.4	1	3.65	479	50.95
262.8	2	7.3	476.31	48.26
657	5	18.25	471.28	43.23
1314	10	36.5	466.59	38.54
1971	15	54.75	463.56	35.51
3285	25	91.25	459.93	31.88
6570	50	182.5	455.97	27.92
10512	80	292	454.64	26.59
11826	90	328.5	454.44	26.39
12483	95	346.75	454.32	26.27
13008.6	99	361.35	454.09	26.04

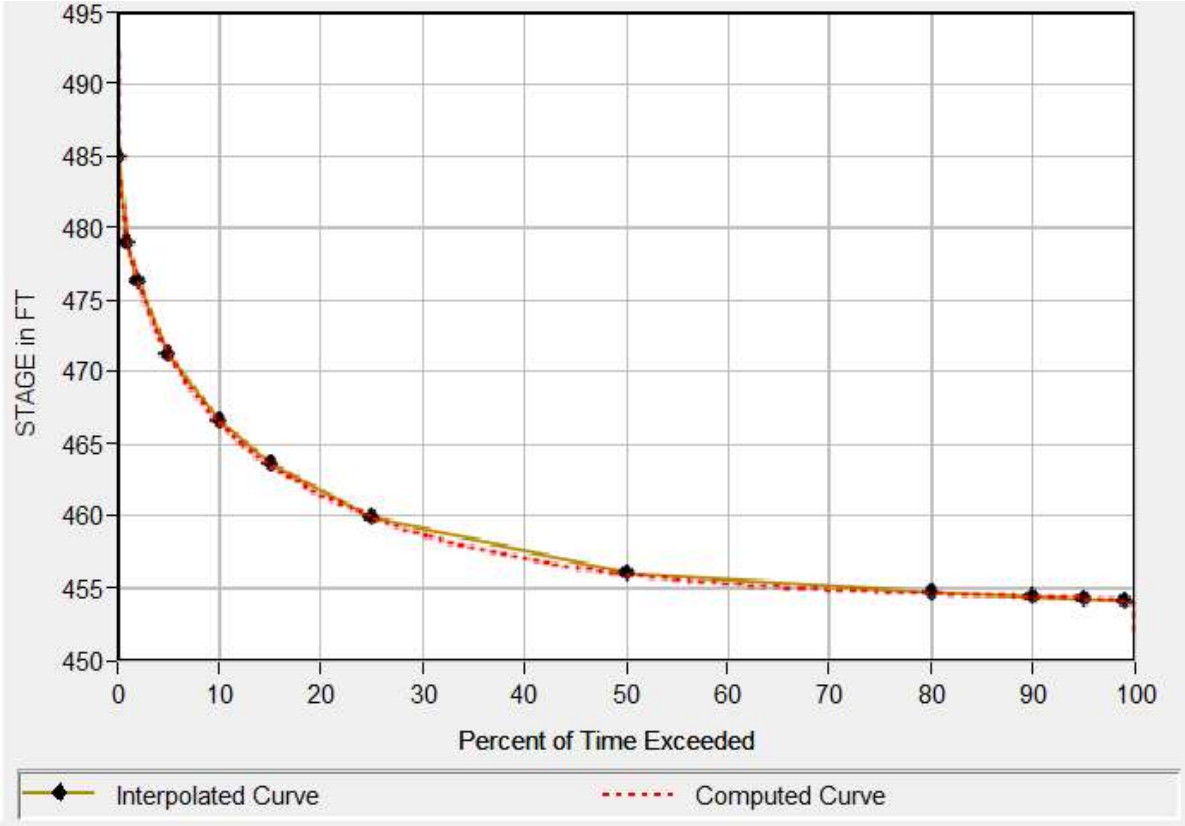


Figure 4-1: Ohio River Elevation-Duration Curve

4.1 Analysis

Interior flooding can occur when the exterior stage (Ohio River) is not at flood stage, due to inundation of large storm events within the Willow Run Watershed. The Total Chance ponding elevation curve (from which the 1% ponding elevation is determined) requires a joint-probability or coincident frequency Analysis per FEMA design criteria. The coincident frequency is used to determine the 1% chance interior ponding elevation.

4.1.1 Goebel Park

The coincident frequency analysis for existing conditions indicates that the exterior stage elevation of 468 feet is the critical tailwater elevation that creates the 1% total chance ponding elevation of approximately 480 feet in Goebel Park, which occurs when the river is not in flood stage as shown in Figure 4-2.

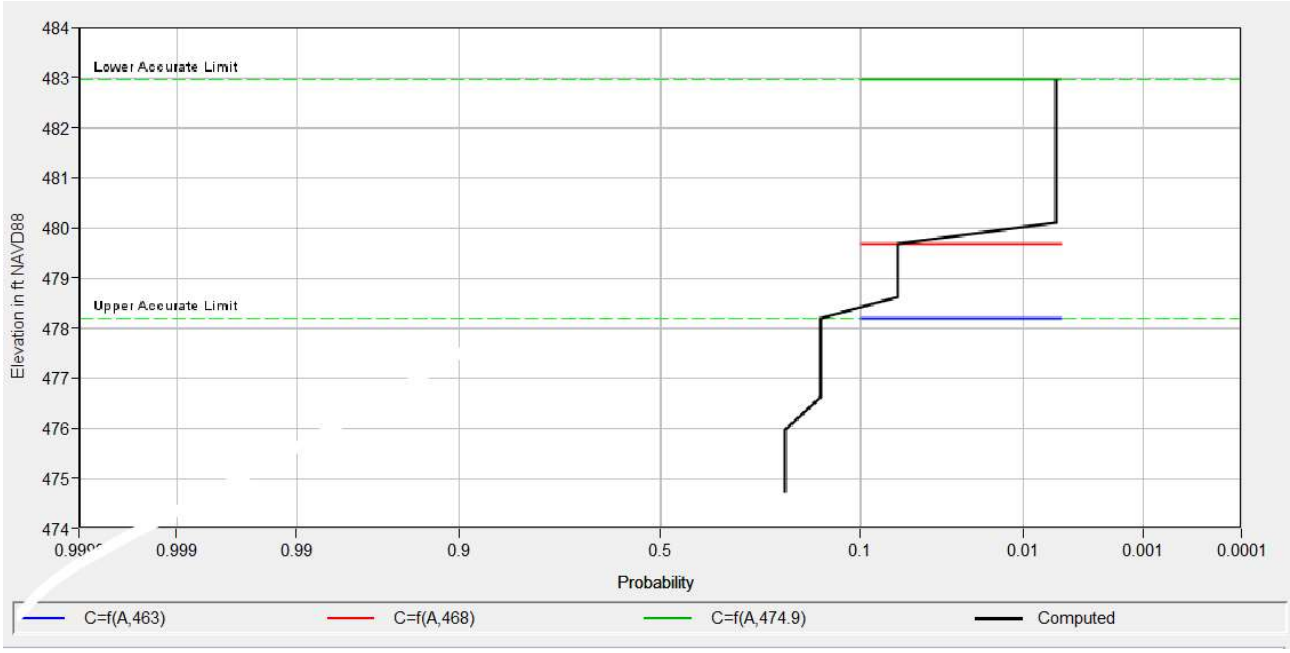


Figure 4-2: Existing Conditions Conditional Frequency Plot

The coincident frequency analysis for proposed conditions with all flow to the Willow Run Outfall indicate that the exterior stage elevation of 468 feet is the critical tailwater elevation that creates the 1% total chance ponding elevation of approximately 480.2 feet in Goebel Park, which occurs when flows from the interior to the exterior are in a gravity flow condition. The coincident frequency results for the recommended solution for Goebel Park are shown in Figure 4-3.

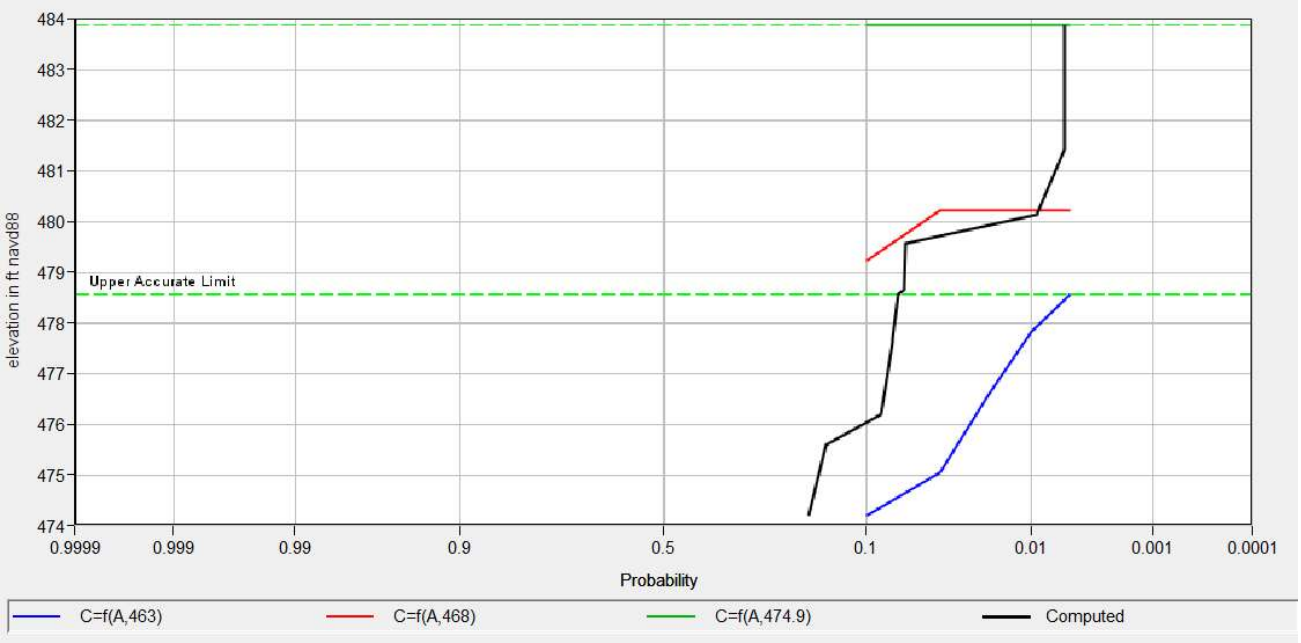


Figure 4-3: Recommended Solution Conditional Frequency Plot

4.1.2 KYTC 1 and St. Elizabeth Basins

For the Express Sewer/Siphon solution, the first upstream basins are the KYTC 1 Basin and the St. Elizabeth Basin. In normal operation, when the flows through the express sewer are conveyed to the 144-inch-diameter Willow Run Outfall Sewer, the system is interconnected with Goebel Park and thus the coincident frequency analysis for Goebel Park with the Ohio River at 468 feet is the controlling factor for the 1% Total Chance Evaluation. To evaluate the basins with the river at 468 feet, the 100-year, 24-hour design storm was modeled and neither of these basins overtop. The basin outlet control structures regulate the stored volume and the express sewer has adequate capacity to convey the 100-year event to the outfall. The modeling results with corresponding basin water levels are shown in Table 3-2 Recommended Solution Gravity Flow with Ohio River at 468 feet. The elevation information for the two KYTC 1 Basin and St. Elizabeth Basin are provided in Table 4-2.

Table 4-2: Vertical Elevation datum for KYTC 1 and St E

Basin	Basin Bottom	Top of Basin
	ft	ft
St. Elizabeth	510	522
KYTC 1	502	531

During Flood Pumping Operations, the Express Sewer conveys flow to the Siphon pipe and is not interconnected with Goebel Park. This system will operate in conjunction with Flood Pumping Operations. The siphon pipe was designed to convey the 10-year storm event to provide an equivalent LOS as the Flood Pumping Station but can convey larger storm events as shown in Table 4-3 and as shown in Appendix A – Hydraulic Profiles. When the Junction Chamber Gate is closed, the downstream control for the Express Sewer System is the Siphon Outlet Chamber that has an invert elevation of 502.0 feet and is located near the center of the levee. Given that the Ohio River has not exceeded 497.2 feet since 1937, a coincident frequency analysis is not necessary as the Ohio River will not impact flows through the siphon during flood pumping operations. Thus, the frequency of interior storm events will being the controlling factor when the siphon is in operation. The outlet control structures that are designed to store and discharge water from the basins are the controlling factor for water level in the basins.

Table 4-3: Express Sewer/Siphon Flows During Flood Pumping

Option 6 - Scenario A -Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow Through Siphon														
			Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	13	101.23	156.60	25.78	2.53	3.91	0.47	476.95	3.73	512.87	4.09	512.06	0.28
2.97	2yr24hr	81	201.09	311.09	47.96	6.098	9.43	1.58	479.56	7.49	522.35	8.76	513.04	0.45
4.13	10yr24hr	404	213.62	330.47	71.07	32.8	50.74	3.16	**483.24**	13.97	529.84	13.22	514.03	0.64
4.81	25yr24hr	1010	216.13	334.35	82.14	51.68	79.95	5.15	486.91	17.36	530.22	13.47	514.73	0.78
5.34	50yr24hr	2020	217.56	336.57	88.19	61.35	94.91	7.65	488.34	17.36	530.27	13.50	515.29	0.90
5.88	100yr24hr													
6.42	200yr24hr													

4.1.3 Conclusion

The Express Sewer/Siphon solution provides results that are nearly equivalent to the existing 1% Total Chance Elevation in Goebel Park, which occurs under gravity flow when the Ohio River is approximately 468 feet. The Express Sewer conveys flow from the KYTC 1 Basin and the St. Elizabeth basin as well as the upstream tributary area that are being separated as part of the

corridor project. When the Ohio River is at approximately 468 feet, the Express Sewer conveys flow downstream of Goebel Park to the 144-inch-diameter Willow Run Outfall. The additional piping increases conveyance capacity and allows for more flow to be conveyed from the interior to the exterior during gravity flow conditions, which helps minimize the reduction of storage volume in Goebel Park.

During existing conditions for flood pumping operations when the Ohio River has exceeded 475.00 feet, it was determined that the Willow Run Flood Pump Station in conjunction with Goebel Park provides a LOS equivalent to a 10-year 24-hour design storm, which has 1 out of 400 year chance of occurrence or 0.0025% chance. During the 10-year 24-hour event, the modeling results for existing conditions indicate that the water level in Goebel Park reaches 482.69 feet, which is below the 484.0 feet where property damage would occur in the area near W 3rd Street and Crescent Avenue.

During pumping operations, the recommended solution results in a Goebel Park water level of 483.24 feet during the 10-year 24-hour event that increases the water level in Goebel Park by 0.55 feet above existing conditions. However, this elevation is below the property damage elevation of 484.0 feet and deemed acceptable by the City of Covington.

5. Operations and Maintenance

The existing Willow Run Flood Pump Station is operated as it was designed by the USACE in 1947. The setpoints for operating the existing pump station will not be modified.

5.1 Operational Modifications

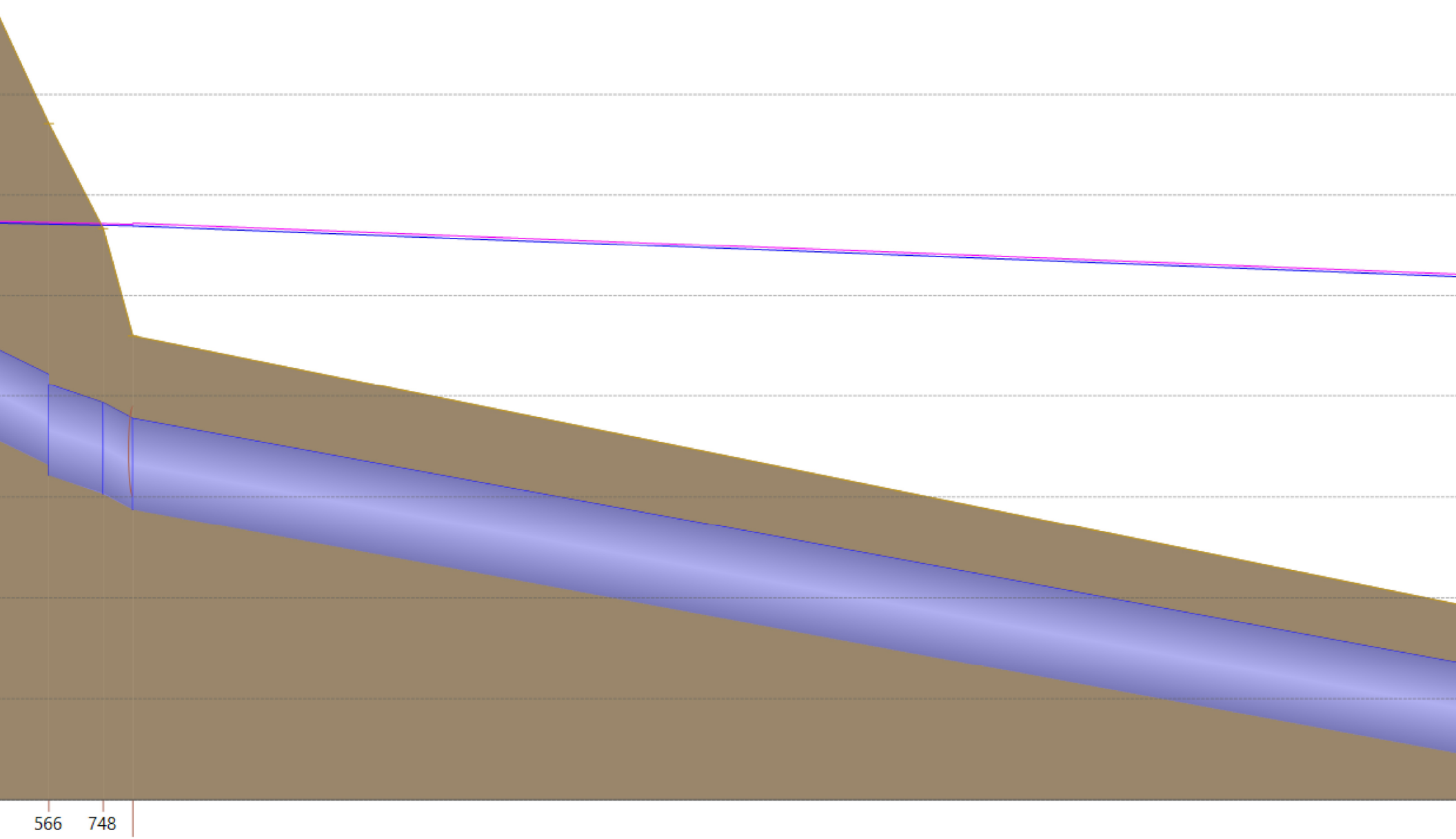
Working closely with the City of Covington and SD1, modifications to the O&M Manual will be required to add the proposed junction chamber, the siphon outfall chamber and associated components. Similar to the Willow Run Flood Pump Station, setpoints will be defined so when the Ohio River rises and a storm event occurs, the slide gate at the Junction Chamber will close to disconnect the stormwater conveyed in the express sewer from the Willow Run Flood Pump Station.

Additionally, the KYTC 1 Basin and St. Elizabeth Basin will become part of the flood protection system and therefore will need regular maintenance to ensure the required storage volume is maintained and the outlet control structure valves are regularly exercised and the flow meters in the sewer are regularly inspected.

Appendix A

Hydraulic Profiles

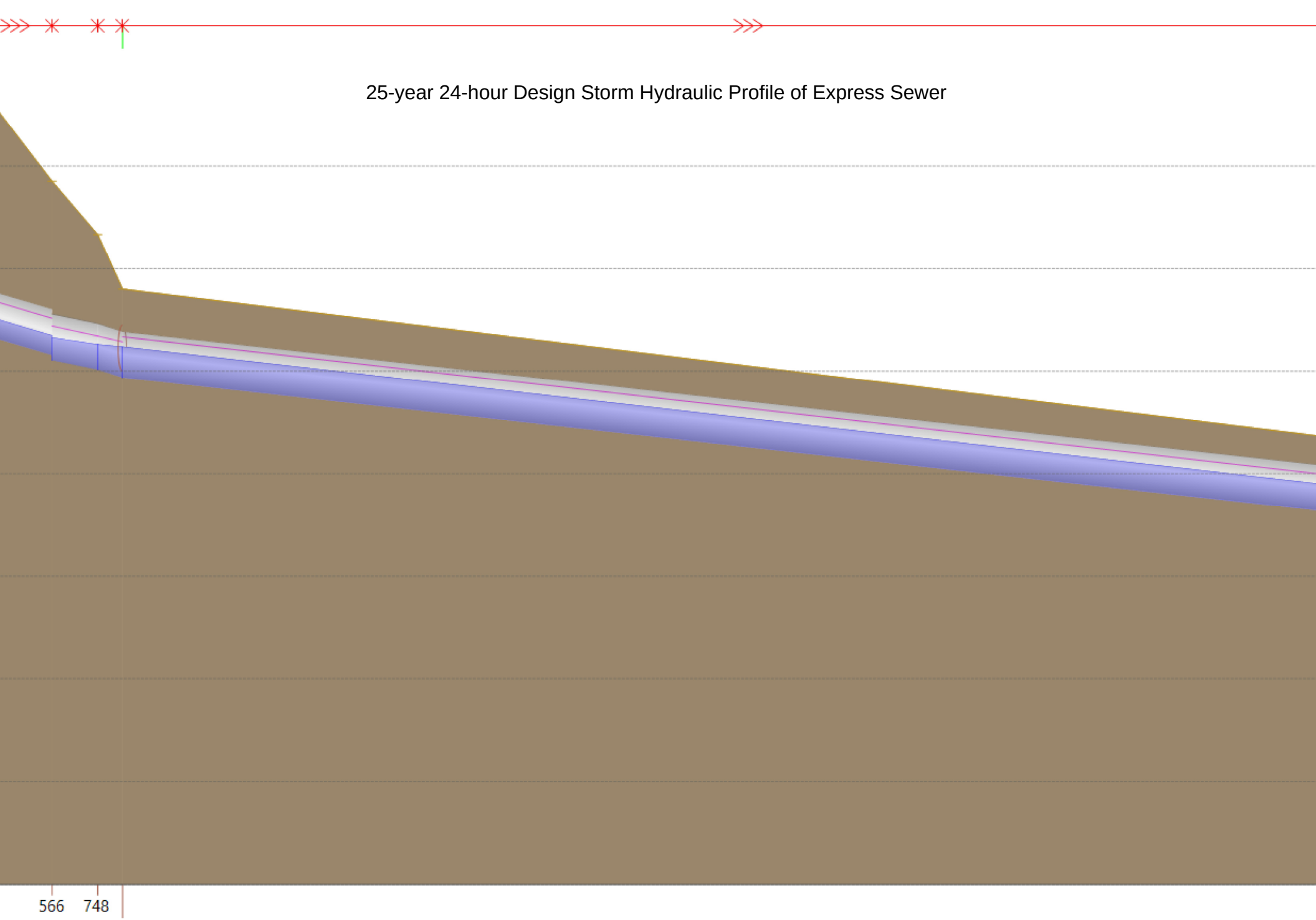
10-year 24-hour Design Storm Hydraulic Profile of Express Sewer



96.1	265.1	-	269.1

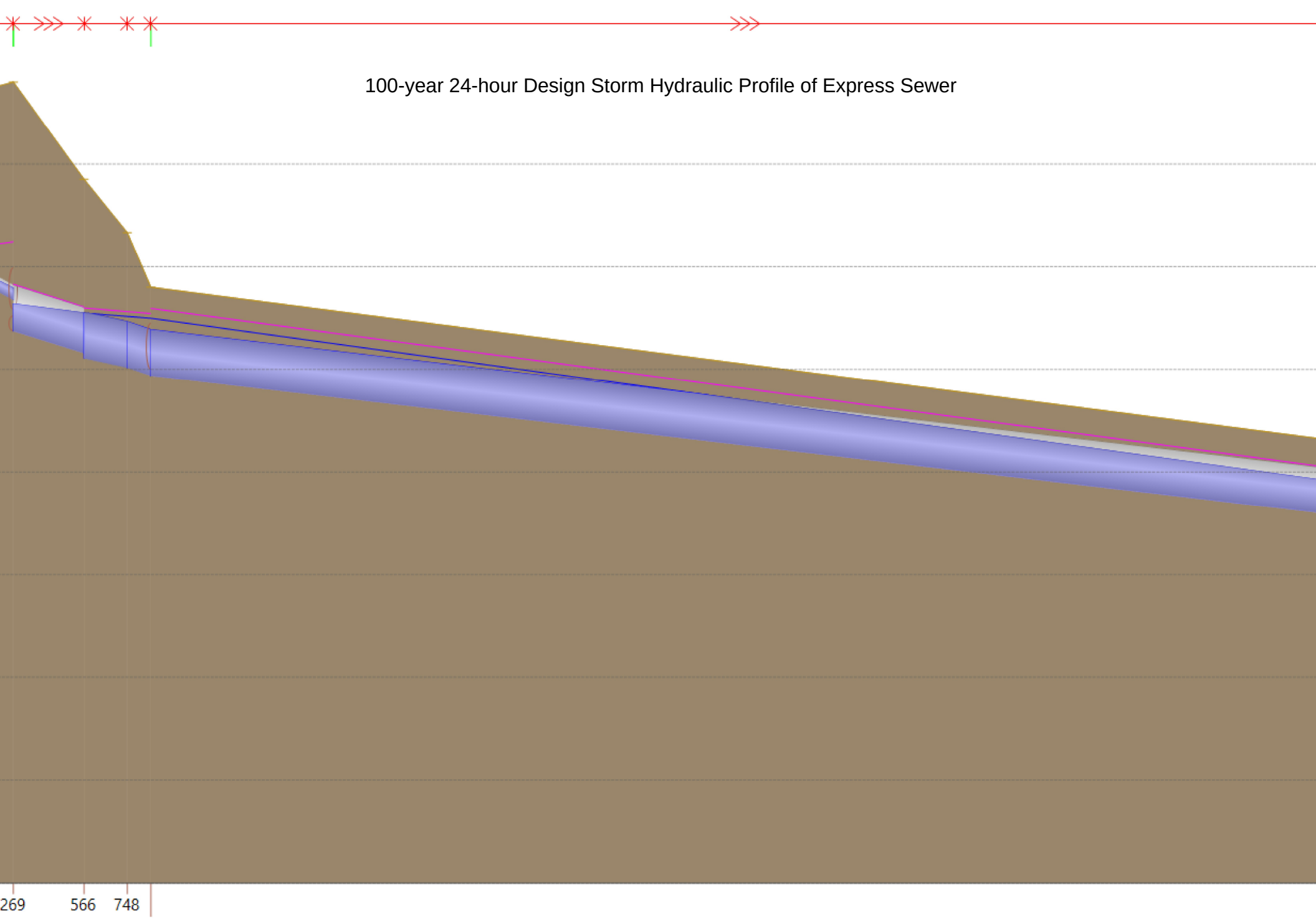
	265	268	269
	512.530	-	502.000
	507.563	-	507.473

25-year 24-hour Design Storm Hydraulic Profile of Express Sewer



306.1	265.1	-	269.1
	265	-	269
	-	-	502.000
	-	-	496.355

100-year 24-hour Design Storm Hydraulic Profile of Express Sewer

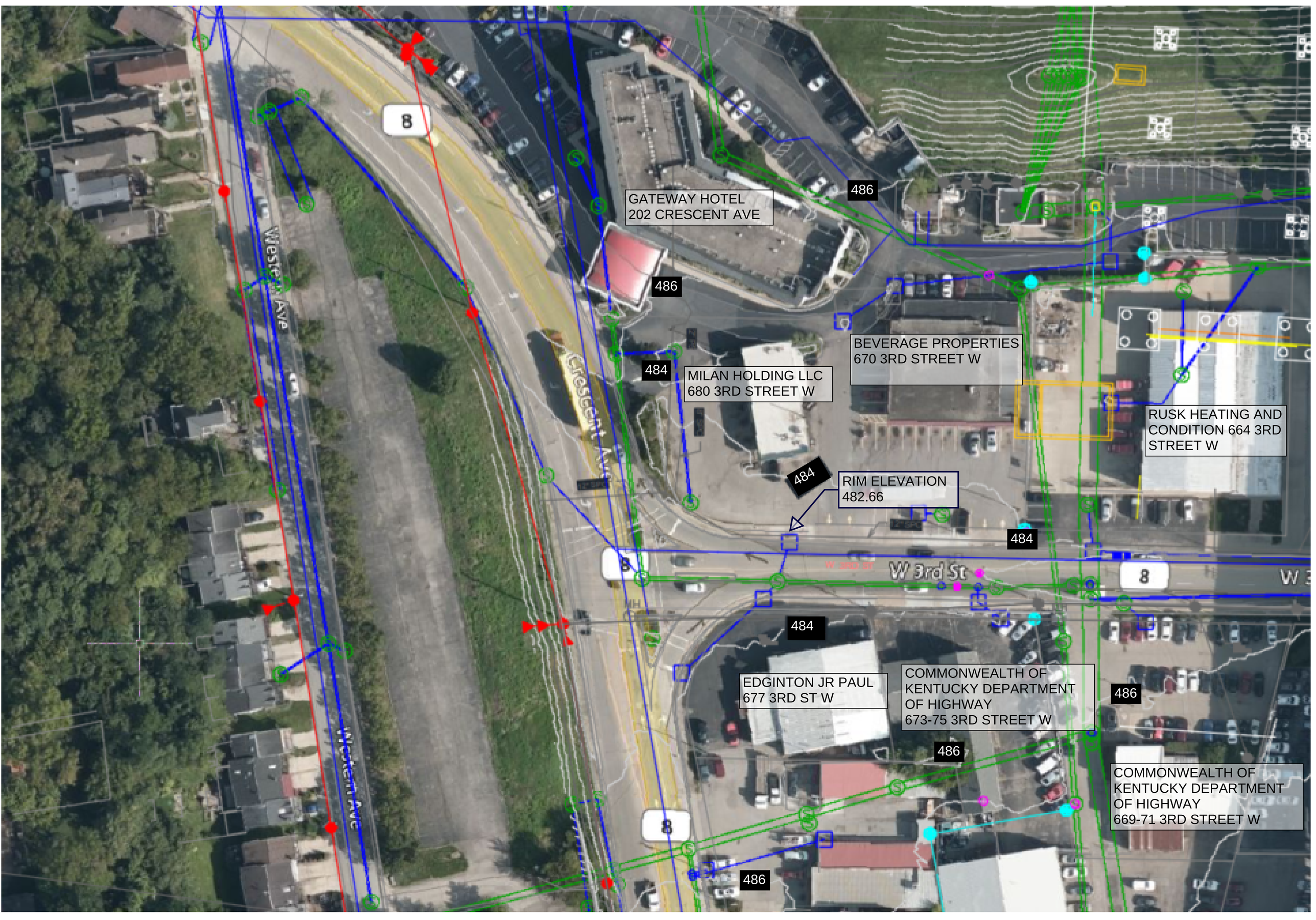


	306.1	265.1	-	269.1

306	265	-	269	Leve
22.000	-	-	502.000	487.
00.378	-	-	498.975	482.

Appendix B

Interior Flood Evaluation

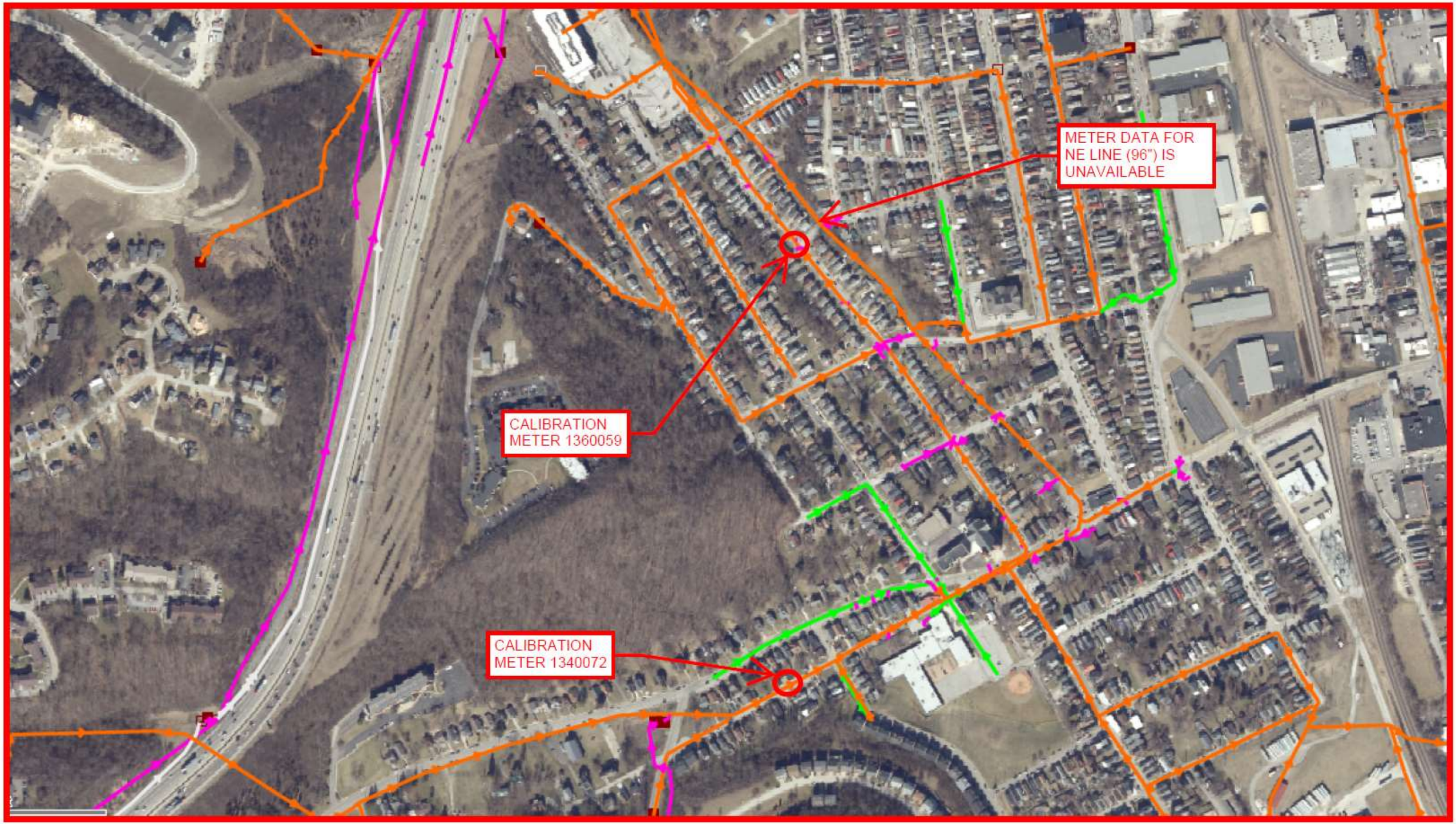

GATEWAY HOTEL
202 CRESCENT AVE
BEVERAGE PROPERTIES
670 3RD STREET W
MILAN HOLDING LLC
680 3RD STREET W
RUSK HEATING AND
CONDITION 664 3RD
STREET W
RIM ELEVATION
482.66
EDGINTON JR PAUL
677 3RD ST W
COMMONWEALTH OF
KENTUCKY DEPARTMENT
OF HIGHWAY
673-75 3RD STREET W
COMMONWEALTH OF
KENTUCKY DEPARTMENT
OF HIGHWAY
669-71 3RD STREET W
Western Ave
Crescent Ave
W 3rd St
W 3RD ST
8
486
484

SOURCE: https://kcky.maps.arcgis.com/apps/webappviewer/index.html?id=d0f76de39b3044e0801ba3e2ad236ecb

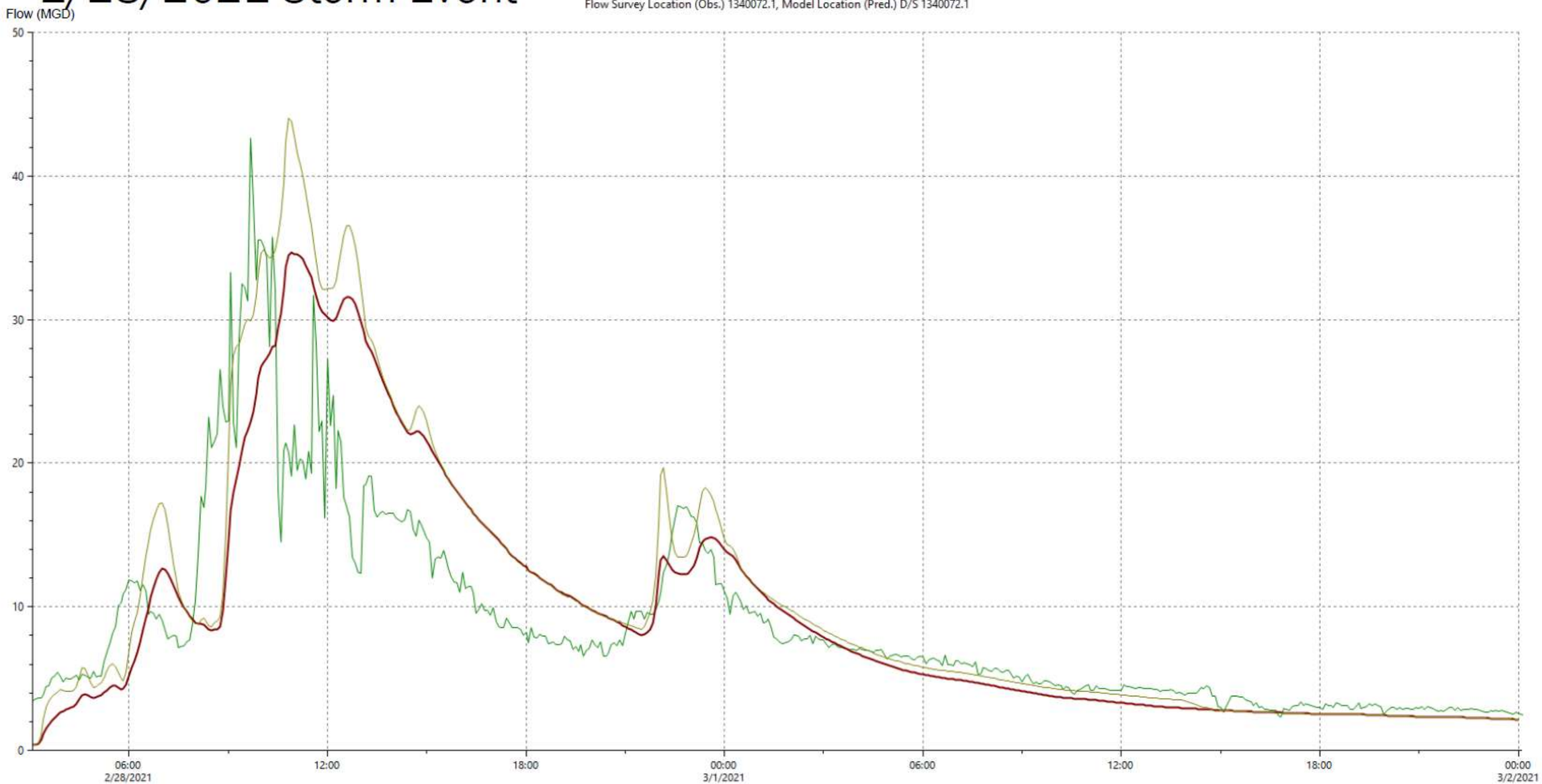
OWNERS NAME	FACILITY NAME	PARCEL ID	PARCEL ADDRESS	PARCEL CLASS	BUILDING VALUE ($)	GROUND SURFACE ELEVATION (ft)	BASEMENT	BASEMENT ELEVATION (ft)
GATEWAY HOTEL LLC	HOLIDAY INN	040-34-02-005.00	202 CRESCENT AVE	COMMERCIAL	3,740,000	486	NO INFO	
MILAN HOLDING LLC	LIQUOR CITY	040-34-02-003.00	680 3RD ST W	COMMERCIAL	311,000	484	NO INFO	
BEVERAGE PROPERTIES INC	SAVE ON CIG	040-34-02-002.00	670 3RD ST W	COMMERCIAL	240,000	484	NO INFO	
COVINGTON CITY OF	SAVE ON CIG	040-34-02-011.00	689 2ND ST W	COMMERCIAL	100,000	486	NO INFO	
BRE ESA PROPERTIES LLC EXTENDED STAY HOTELS	STAY AMERICA	040-34-04-006.00	640-50 3RD ST W	COMMERCIAL	2,175,000	490	NO INFO	
CINCINNATI RIVERFRONT HOTEL LLC	HOLIDAY INN	040-34-04-005.00	600 3RD ST W	COMMERCIAL	2,438,200	492	NO INFO	
WHITE CASTLE KY LLC	WHITE CASTLE	040-34-04-004.02	596 3RD ST W	COMMERCIAL	269,600	493	NO INFO	
OH-16 FO CINCINNATI COVINGTON PROPERTY LLC	COURTYARD BY MARRIOTT	040-34-04-004.01	502 3RD ST W	COMMERCIAL	15,170,400	493	NO INFO	
THIRD STREET LLC	LEXUS	040-34-05-001.00	621-53 3RD ST W	COMMERCIAL	2,500,000	493	NO INFO	
A C C D COMPANY	RADDISON	040-43-04-003.00	626-42 5TH ST W	COMMERCIAL	4,750,000	508	NO INFO	
EDGINGTON JR PAUL W		040-34-03-001.00	677 3RD ST W	COMMERCIAL	110,000	484	NO INFO	
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		040-34-03-002.00	673-75 3RD ST W	COMMERCIAL	50,000	484	NO INFO	
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		040-34-03-003.00	669-71 3RD ST W	COMMERCIAL	112,000	486	NO INFO	
CORKEN STEEL PRODUCTS		040-34-03-004.00	680 4TH ST W	INDUSTRIAL	180,000	489	NO INFO	
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		040-34-03-005.00	670 4TH ST W	COMMERCIAL	200,000	489	NO INFO	
HILLMANN JAMES WILLIAM & HILLMANN HOLLY ANN		040-43-05-025.00	727 DALTON ST	RESIDENTIAL	335,000	500	YES	492
ROBINSON MARGARET M & ROBINSON KENNETH D		040-43-06-017.00	608 8TH ST W	RESIDENTIAL	53,000	500	YES	492
JOHNNOLLLEGACY LLC		040-43-06-020.00	734 DALTON ST	RESIDENTIAL	62,000	504	YES	497
FARIS ENTERPRISES LLC		040-43-06-019.00	736 DALTON ST	RESIDENTIAL	53,000	500	YES	493
STOWERS AIMEE S		040-43-06-018.00	738 DALTON ST	RESIDENTIAL	132,900	499	YES	492

Appendix C

Model Calibration

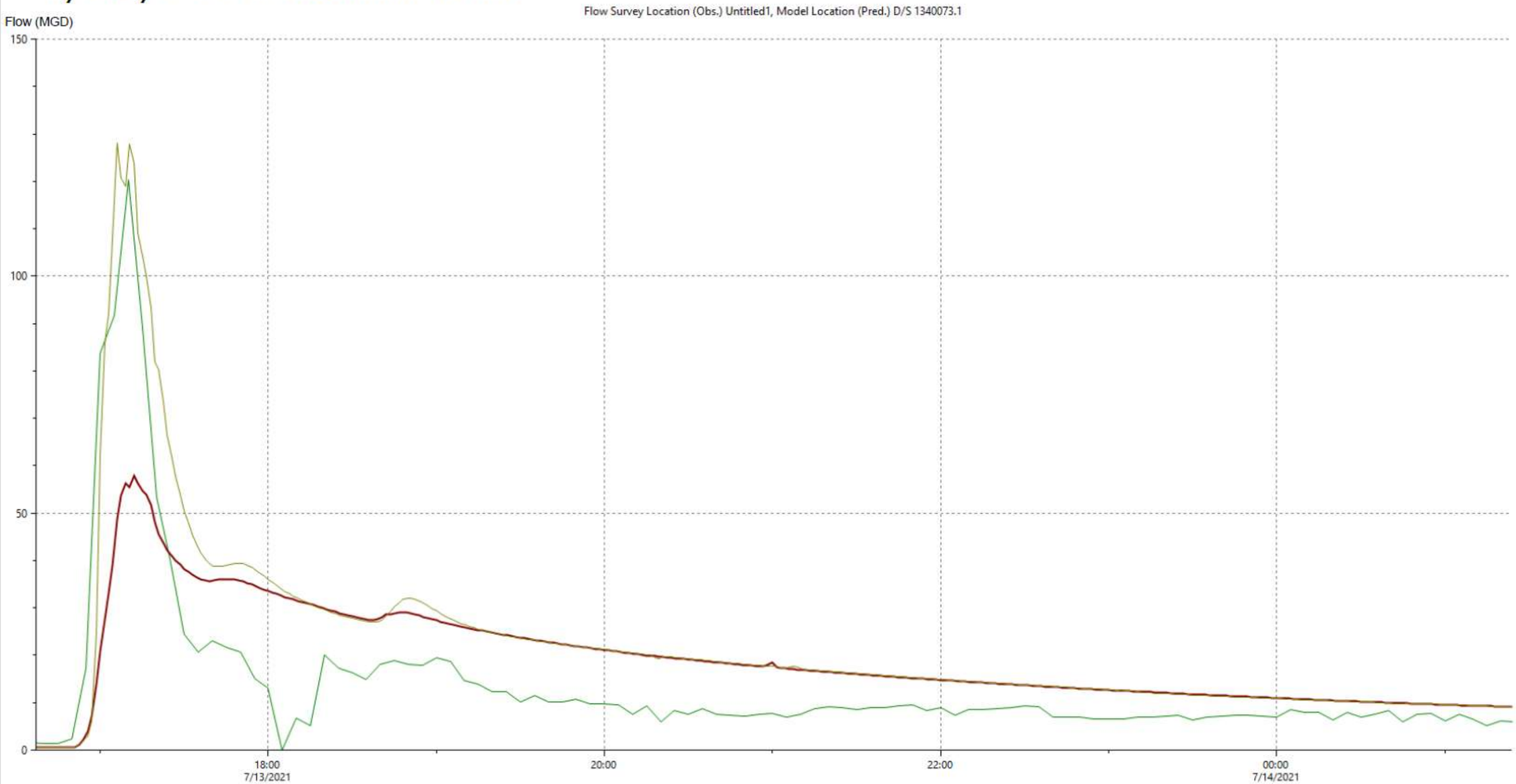

METER DATA FOR
NE LINE (96") IS
UNAVAILABLE
CALIBRATION
METER 1360059
CALIBRATION
METER 1340072

Upstream Meter: 1340072
2/28/2021 Storm Event



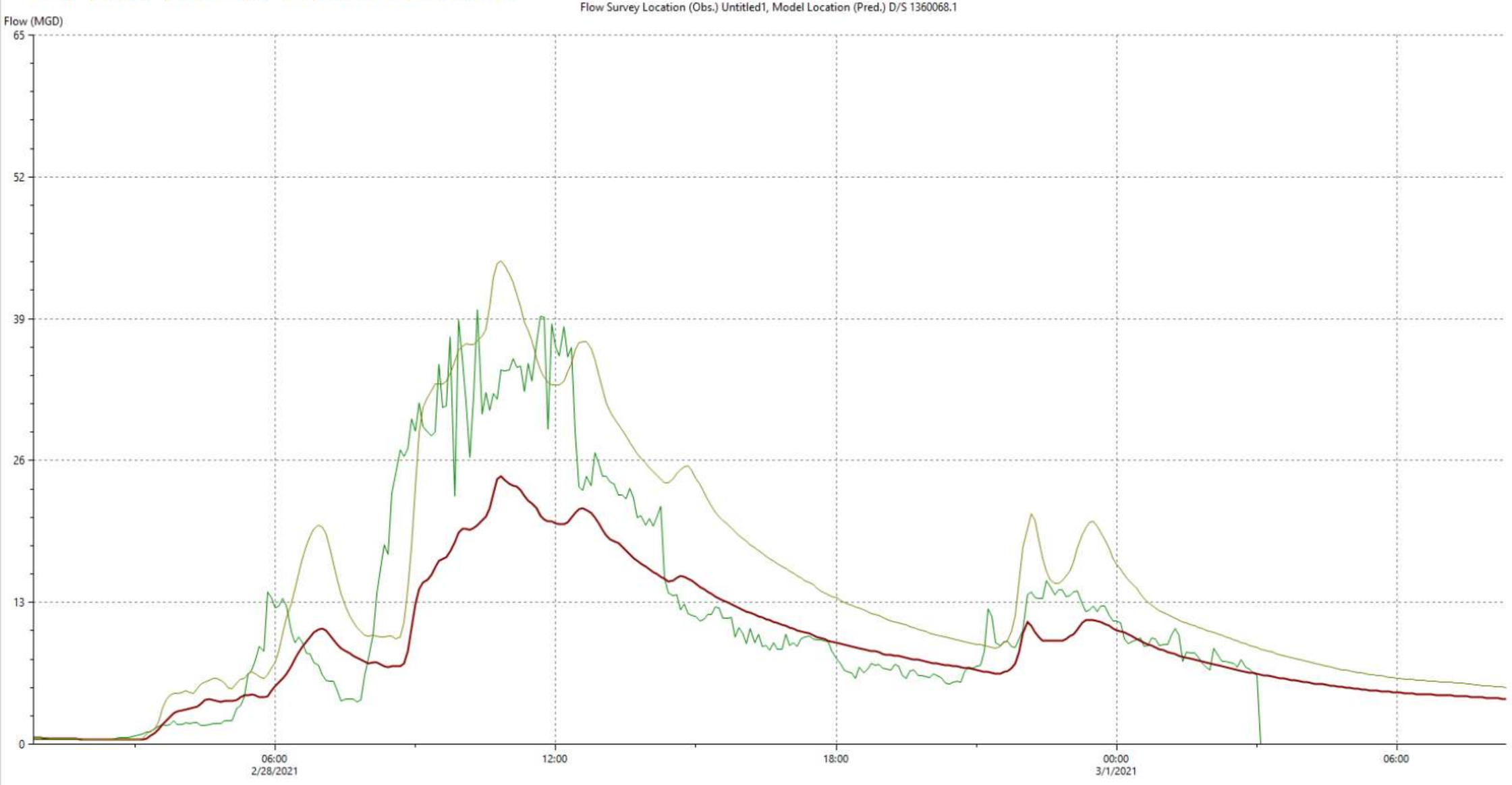
	Flow		
	Min (MGD)	Max (MGD)	Volume (US Mgal)
Observed	2.332	42.665	16.538
02/28/2021 Calibration!>Original Calibration	0.394	34.676	17.758
02/28/2021 Calibration!>Updated Calibration	0.396	44.057	19.713

Upstream Meter: 1340072
7/13/2021 Storm Event



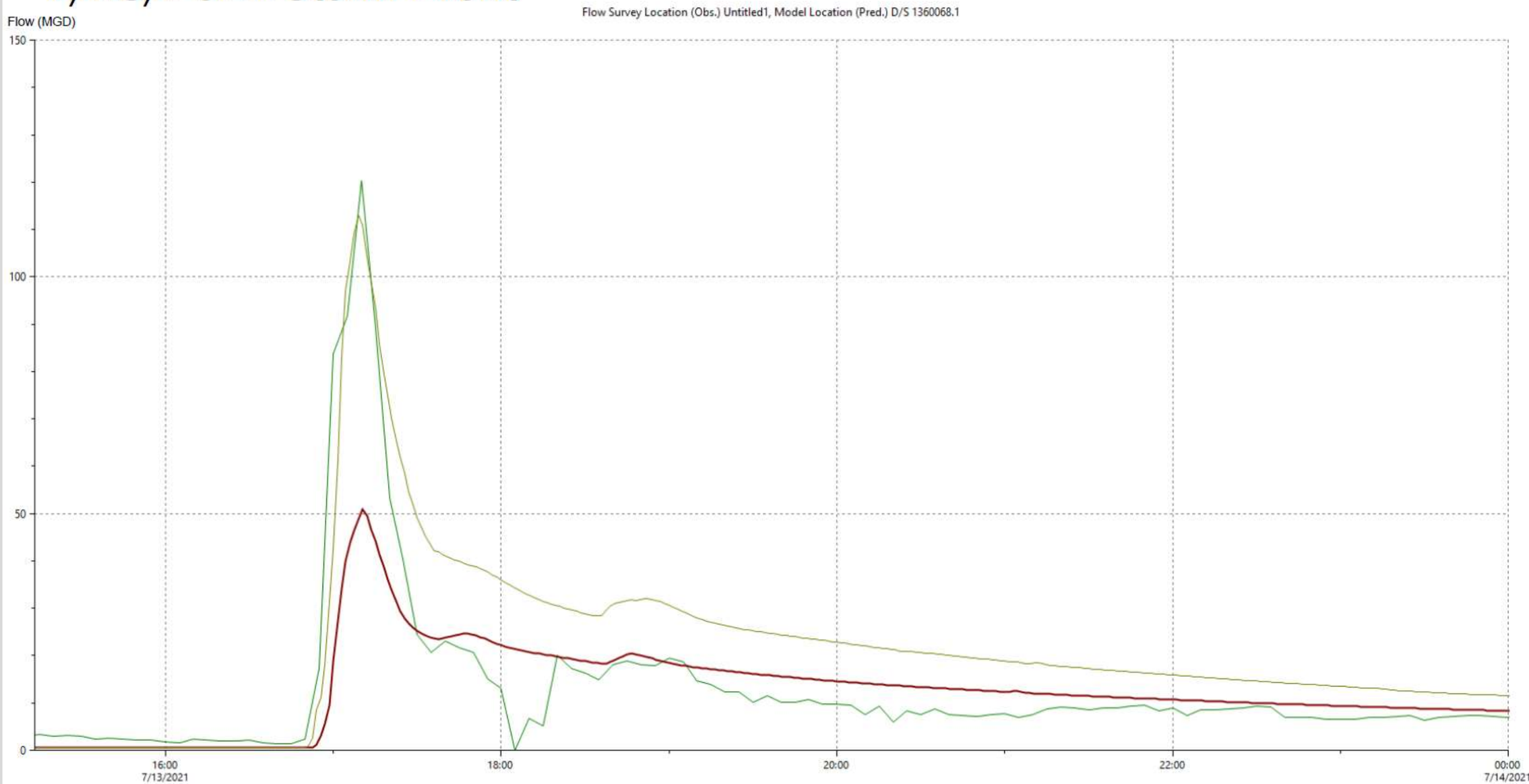
	Flow		
	Min (MGD)	Max (MGD)	Volume (US Mgal)
Observed	0.000	120.277	5.039
07/09/2021-07/18/2021 Calibration!>Original Calibration	0.597	57.975	7.087
07/09/2021-07/18/2021 Calibration!>Updated Calibration	0.597	128.146	8.223

Downstream Meter: 1360059
2/28/2021 Storm Event



	Flow		
	Min (MGD)	Max (MGD)	Volume (US Mgal)
Observed	0.000	39.825	13.553
02/28/2021 Calibration!>Original Calibration	0.410	24.591	11.977
02/28/2021 Calibration!>Updated Calibration	0.414	44.299	18.947

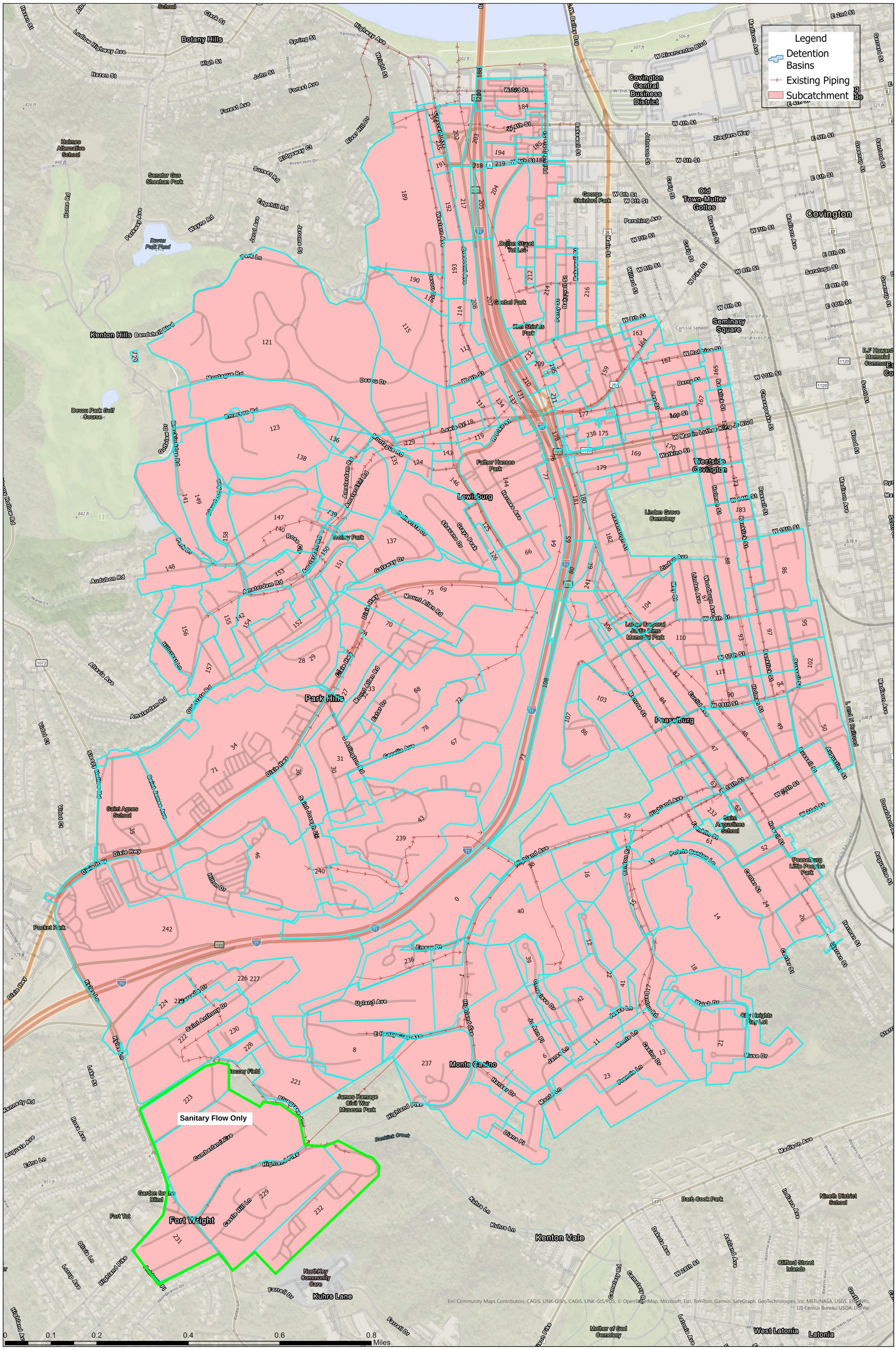
Downstream Meter: 1360059
7/13/2021 Storm Event



	Flow		
	Min (MGD)	Max (MGD)	Volume (US Mgal)
Observed	0.000	120.277	4.761
07/09/2021-07/18/2021 Calibration!>Original Calibration	0.640	50.868	4.678
07/09/2021-07/18/2021 Calibration!>Updated Calibration	0.649	112.916	7.764

Appendix D

Subcatchment Characteristics



Willow Run Basin - Existing Conditions


Legend
Detention Basins
Proposed Express Sewer
Existing Piping
Subcatchment
Sanitary Flow Only
Botany Hills
Kenton Hills
Park Hills
Lewisburg
Peaselburg
Seminary Square
Covington Central Business District
Westside Covington
Old Town-Mutter Gottes
Covington
Monte Casino
Fort Wright
Kenton Vale
Latonia
West Latonia
Senator Gus Sheehan Park
Holmes Alternative School
Devou Park Pond
Devou Park Golf Course
Ken Shields Park
Goebel Park
Father Hanses Park
Trolley Park
Linden Grove Cemetery
Lance Corporal Justin Sims Memorial Park
Peaselburg Little Peoples Park
City Heights Play Lot
Barb Cook Park
Saint Agnes School
Saint Augustines School
Nineth District School
James Ramage Civil War Museum Park
NorthKey Community Care
Mother of God Cemetery
Clifford Street Islands
Garden for the Blind
Pocket Park
Soccer Field
Dallon Street Tot Lot
Basil Lewis Park
Annie Hargraves Park
Carlisle School
Saint James Ave
Saint Joseph Hl
Dixie Hwy
Highland Ave
Highland Pike
Mount Allen Rd
Amsterdam Rd
Montague Rd
Devou Dr
Western Ave
Crescent Ave
Philadelphia St
Bakewell St
Main St
Madison Ave
Scott St
Russell St
Banklick St
Holman St
Benton Rd
Kyles Ln
Kuhrs Ln
Emery Dr
Upland Ave
Janes Ln
Monte Ln
Casino Dr
Muse Dr
Welsh Dr
Linden Ave
Pershing Ave
W 5th St
W 6th St
W 7th St
W 8th St
W 9th St
W 11th St
W 14th St
W 15th St
W 16th St
W 17th St
W 18th St
W 19th St
W 20th St
W 21st St
W 26th St
E 5th St
E 6th St
E 8th St
E 9th St
E 10th St
W Martin Luther King Jr Blvd
W Rivercenter Blvd
W Pike St
E Pike St
Zieglers Way
Saratoga St
Greenup St
Sanford St
Wood St
Scott St
Chesapeake St
Berry St
Lee St
Watkins St
Willard St
Greer Ave
Cand O Railroad
L and N Railroad
Augustine St
Donaldson Pike
Cemetery Rd
Alexandria Ave
Dakota Ave
Ashland Ave
Graff St
Rosina Ave
Beech Ave
Birch Ave
Rogers St
Robbins St
Lynn St
Wright St
Spring St
Clark St
Hazen St
Ludlow Highway Ave
High St
John St
Forest Ave
River Hill Dr
Ridgeway Ct
Sunset Rd
Edgehill Rd
Wayne Rd
Parkway Ave
Home Rd
Jarol Ave
Jacome St
Park Ln
Panorama Dr
Wintsch St
Cherry St
Lewis St
Montague Rd
Emerson Rd
Breckinridge Rd
Colfax Dr
Cleveland Ave
Park Dr
Audubon Rd
Waid Ct
Rose Cir
Gateway Dr
Bellavista Dr
Shavano Dr
Grays Peak
Hermes Ave
Hillcrest Ln
Altavia Ave
Old State Rd
Exter Dr
S Arlington Rd
Cecelia Ave
Hilton Dr
Pointe Benton Ln
Franklin St
Howell St
Center St
Warren St
Harman St
Genevieve Dr
Jo Ann Pl
Francis Ln
Diana Pl
Hanser Dr
Monroe St
Euclid Ave
Augustina St
Madison Ave
Vidot Ct
Sleepy Hollow Rd
Wildwood Dr
Ashwood Ct
Wrightsummit Pkwy
Lake St
Rosa Ave
Augusta Ave
Edna Ln
Olivia Ln
Lorup Ave
Ashley Pl
Monticello Dr
Kennedy Rd
Cumberland Ave
Castle Hill Ln
Bluegrass Ave
Farrell Dr
Banklick Creek
Marcella Dr
Saint Anthony Dr
E Henry Clay Ave
Linden Ave
May St
Woodburn Ave
Saint Clair St
Greer Ave
Erie Ave
Lynn St
Robbins St
Pike St
Mill St
Jefferson St
Scott St
Madison Ave
Garrard St
Greenup St
Sanford St
Wood St
Chesapeake St
Berry St
Lee St
Watkins St
Willard St

Appendix E

Hydraulic Modeling Results

Existing Conditions - 2024 Calibrated InfoWorks (FINAL CALIBRATION)

Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 454 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 463 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet					
			Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	.34 (4 months)	292.72	452.84	34.47	N/A	N/A	N/A	**469.15**	0.00	507.32	1.82	515.61	0.98	2.2	292.43	452.39	34.55	N/A	N/A	N/A	**469.15**	0.00	507.32	1.82	515.61	0.98	4	277.31	429.00	27.64	N/A	N/A	N/A	471.13	0.00	507.32	1.82	515.61	0.98
2.97	2yr24hr	2	513.66	794.63	64.78	N/A	N/A	N/A	471.65	0.02	511.78	3.62	517.20	1.38	13	484.18	749.03	64.93	N/A	N/A	N/A	472.23	0.09	511.78	3.62	517.20	1.38	26	385.30	596.06	53.02	N/A	N/A	N/A	474.46	1.39	511.78	3.62	517.20	1.38
4.13	10yr24hr	10	632.64	978.69	94.47	N/A	N/A	N/A	473.31	0.47	517.08	6.03	517.31	1.41	65	536.38	829.78	94.60	N/A	N/A	N/A	474.70	1.65	517.08	6.03	517.31	1.41	130	427.98	662.09	78.81	N/A	N/A	N/A	476.60	4.56	517.08	6.03	517.31	1.41
4.81	25yr24hr	25	677.69	1048.39	111.11	N/A	N/A	N/A	474.15	1.07	520.33	7.68	517.42	1.44	163	555.91	859.99	111.16	N/A	N/A	N/A	475.96	3.46	520.33	7.68	517.42	1.44	326	449.58	695.50	96.89	N/A	N/A	N/A	477.78	6.90	520.33	7.68	517.42	1.44
5.34	50yr24hr	50		0.00		N/A	N/A	N/A			522.91	9.07	517.51	1.46	326	566.85	876.92	124.22	N/A	N/A	N/A	476.80	4.93	522.91	9.07	517.51	1.46	651	646.47	1000.09	110.73	N/A	N/A	N/A	478.62	8.78	522.91	9.07	517.51	1.46
5.88	100yr24hr	100	733.57	1134.83	136.75	N/A	N/A	N/A	475.14	2.21	525.48	10.53	517.60	1.49	651	580.88	898.62	136.40	N/A	N/A	N/A	477.57	6.47	525.48	10.53	517.60	1.49	1303	478.13	739.67	124.42	N/A	N/A	N/A	479.03	9.77	525.48	10.53	517.60	1.49
6.42	200yr24hr	201	760.11	1175.89	148.50	N/A	N/A	N/A	475.51	2.74	530.38	13.57	517.69	1.51	1302	594.53	919.74	148.08	N/A	N/A	N/A	478.18	7.78	530.38	13.57	517.69	1.51	2605	494.20	764.53	137.61	N/A	N/A	N/A	479.67	11.35	530.38	13.57	517.69	1.51

Option 6 - Scenario A -Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow Through Siphon

Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 454 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 463 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet					
			Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	.34 (4 months)	274.47	430.92	27.27	2.53	3.97	0.50	468.59	0.00	512.87	4.09	512.06	0.28	2.2		0.00		2.5	3.93	0.50			512.87	4.09	512.06	0.28	4	266.99	419.17	27.39	2.53	3.91	0.50	470.45	0.00	512.87	4.09	512.06	0.28
2.97	2yr24hr	2	508.39	798.17	51.65	7.15	11.23	1.62	471.07	0.00	522.35	8.76	513.04	0.45	13	483.63	759.30	51.71	6.09	9.56	1.61	471.42	0.01	522.35	8.76	513.04	0.45	26	403.79	633.95	51.83	6.11	9.45	1.62	473.88	0.67	522.35	8.76	513.04	0.45
4.13	10yr24hr	10	654.37	1027.36	76.30	32.73	51.39	3.16	472.49	0.13	529.84	13.22	514.03	0.64	65	571.48	897.22	76.39	32.82	51.53	3.16	474.03	0.76	529.84	13.22	514.03	0.64	130	473.52	743.43	76.45	33.44	51.73	3.17	476.08	2.67	529.84	13.22	514.03	0.64
4.81	25yr24hr	25	714.39	1121.59	91.33	51.73	81.22	5.16	473.28	0.37	530.22	13.47	514.73	0.78	163	605.92	951.29	91.45	51.69	81.15	5.16	475.38	1.92	530.22	13.47	514.73	0.78	326	506.75	795.60	91.31	51.77	80.09	5.16	477.45	4.37	530.22	13.47	514.73	0.78
5.34	50yr24hr	50	761.19	1195.07	102.67	60.92	95.64	7.63	474.12	0.82	530.27	13.50	515.29	0.90	326	630.13	989.30	102.73	61.34	96.30	7.63	476.45	3.11	530.27	13.50	515.29	0.90	651	533.05	836.88	102.39	61.37	94.94	7.65	478.45	5.76	530.27	13.50	515.29	0.90
5.88	100yr24hr	100	801.61	1258.53	113.85	69.25	108.72	9.58	474.74	1.31	530.31	13.53	515.89	1.04	651	656.91	1031.35	113.72	69.28	108.77	9.59	477.39	4.30	530.31	13.53	515.89	1.04	1303	560.24	879.58	113.29	69.46	107.45	9.60	479.35	7.15	530.31	13.53	515.89	1.04
6.42	200yr24hr	201	838.86	1317.01	126.15	77.58	121.80	11.25	475.26	1.80	530.36	13.56	516.49	1.19	1302	680.62	1068.57	125.64	77.6	121.83	11.25	478.27	5.50	530.36	13.56	516.49	1.19	2605		0.00			0.00				530.36	13.56	516.49	1.19

Option 6 - Scenario A - Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow to Willow Run Outfall

Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 454 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 463 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet					
			Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	.34 (4 months)	286.50	449.81	28.53	N/A	N/A	N/A	468.59	0.00	512.87	4.09	512.06	0.28	2.2	285.83	448.75	28.56	N/A	N/A	N/A	**468.59**	0.00	512.87	4.09	512.06	0.28	4	277.52	429.32	28.64	N/A	N/A	N/A	470.51	0.00	512.87	4.09	512.06	0.28
2.97	2yr24hr	2	529.74	831.69	54.01	N/A	N/A	N/A	471.07	0.00	522.35	8.76	513.04	0.45	13	501.37	787.15	54.11	N/A	N/A	N/A	471.51	0.01	522.35	8.76	513.04	0.45	26	418.48	647.39	54.14	N/A	N/A	N/A	473.95	0.72	522.35	8.76	513.04	0.45
4.13	10yr24hr	10	683.46	1073.03	80.16	N/A	N/A	N/A	472.49	0.13	529.84	13.22	514.03	0.64	65	589.86	926.08	80.28	N/A	N/A	N/A	474.18	0.86	529.84	13.22	514.03	0.64	130	490.69	759.10	80.32	N/A	N/A	N/A	476.19	2.80	529.84	13.22	514.03	0.64
4.81	25yr24hr	25	745.37	1170.23	97.07	N/A	N/A	N/A	473.28	0.37	530.22	13.47	514.73	0.78	163	624.62	980.65	97.19	N/A	N/A	N/A	475.59	2.14	530.22	13.47	514.73	0.78	326	525.40	812.79	97.05	N/A	N/A	N/A	477.62	4.60	530.22	13.47	514.73	0.78
5.34	50yr24hr	50	794.55	1247.44	11.43	N/A	N/A	N/A	474.12	0.82	530.27	13.50	515.29	0.90	326	649.60	1019.87	111.46	N/A	N/A	N/A	476.69	3.40	530.27	13.50	515.29	0.90	651	551.99	853.93	111.18	N/A	N/A	N/A	478.64	6.04	530.27	13.50	515.29	0.90
5.88	100yr24hr	100	841.63	1321.36	125.30	N/A	N/A	N/A	474.81	1.37	530.31	13.53	515.89	1.04	651	675.85	1061.08	124.97	N/A	N/A	N/A	477.67	4.67	530.31	13.53	515.89	1.04	1303	581.05	898.88	124.72	N/A	N/A	N/A	479.56	7.49	530.31	13.53	515.89	1.04
6.42	200yr24hr	201		0.00		N/A	N/A	N/A			530.36	13.56	516.49	1.19	1302	705.77	1108.06	139.15	N/A	N/A	N/A	478.57	5.94	530.36	13.56	516.49	1.19	2605		0.00		N/A	N/A	N/A			530.36	13.56	516.49	1.19

Existing Conditions - 2024 Calibrated InfoWorks (FINAL CALIBRATION)

Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 474.9 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
			Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	4	277.31	429.00	27.64	N/A	N/A	N/A	471.13	0.00	507.32	1.82	515.61	0.98	13	176.46	272.98	20.07	N/A	N/A	N/A	476.37	4.16	507.32	1.82	515.61	0.98	13	99.01	153.17	25.84	N/A	N/A	N/A	477.02	5.34	507.32	1.82	515.61	0.98
2.97	2yr24hr	26	385.30	596.06	53.02	N/A	N/A	N/A	474.46	1.39	511.78	3.62	517.20	1.38	81	262.70	406.40	45.83	N/A	N/A	N/A	478.10	7.61	511.78	3.62	517.20	1.38	81	156.02	241.36	50.11	N/A	N/A	N/A	479.50	10.81	511.78	3.62	517.20	1.38
4.13	10yr24hr	130	427.98	662.09	78.81	N/A	N/A	N/A	476.60	4.56	517.08	6.03	517.31	1.41	404	329.42	509.61	71.25	N/A	N/A	N/A	480.09	12.41	517.08	6.03	517.31	1.41	404	204.72	316.70	74.36	N/A	N/A	N/A	**482.69**	19.31	517.08	6.03	517.31	1.41
4.81	25yr24hr	326	449.58	695.50	96.89	N/A	N/A	N/A	477.78	6.90	520.33	7.68	517.42	1.44	1010	360.86	558.25	89.12	N/A	N/A	N/A	481.20	15.29	520.33	7.68	517.42	1.44	1010	209.87	324.67	91.22	N/A	N/A	N/A	484.69	25.09	520.33	7.68	517.42	1.44
5.34	50yr24hr	651	646.47	1000.09	110.73	N/A	N/A	N/A	478.62	8.78	522.91	9.07	517.51	1.46	2020	383.39	593.10	102.80	N/A	N/A	N/A	482.04	17.52	522.91	9.07	517.51	1.46	2020	214.695	332.13	101.37	N/A	N/A	N/A	485.77	28.27	522.91	9.07	517.51	1.46
5.88	100yr24hr	1303	478.13	739.67	124.42	N/A	N/A	N/A	479.03	9.77	525.48	10.53	517.60	1.49	4039	403.20	623.75	116.14	N/A	N/A	N/A	482.77	19.53	525.48	10.53	517.60	1.49														
6.42	200yr24hr	2605	494.20	764.53	137.61	N/A	N/A	N/A	479.67	11.35	530.38	13.57	517.69	1.51	8079	419.34	648.72	128.91	N/A	N/A	N/A	482.97	20.11	530.38	13.57	517.69	1.51														

Option 6 - Scenario A -Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow Through Siphon

Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 474.9 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
			Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	4	266.99	419.17	27.39	2.53	3.91	0.50	470.45	0.00	512.87	4.09	512.06	0.28	13	184.67	285.68	19.39	2.53	3.97	0.47	476.25	2.87	512.87	4.09	512.06	0.28	13	101.23	156.60	25.78	2.53	3.91	0.47	476.95	3.73	512.87	4.09	512.06	0.28
2.97	2yr24hr	26	403.79	633.95	51.83	6.11	9.45	1.62	473.88	0.67	522.35	8.76	513.04	0.45	81	279.88	432.97	44.25	6.1	9.58	1.58	478.01	5.13	522.35	8.76	513.04	0.45	81	201.09	311.09	47.96	6.098	9.43	1.58	479.56	7.49	522.35	8.76	513.04	0.45
4.13	10yr24hr	130	473.52	743.43	76.45	33.44	51.73	3.17	476.08	2.67	529.84	13.22	514.03	0.64	404	352.45	545.24	68.61	32.75	51.42	3.16	480.03	8.27	529.84	13.22	514.03	0.64	404	213.62	330.47	71.07	32.8	50.74	3.16	**483.24**	13.97	529.84	13.22	514.03	0.64
4.81	25yr24hr	326	506.75	795.60	91.31	51.77	80.09	5.16	477.45	4.37	530.22	13.47	514.73	0.78	1010	392.75	607.58	83.27	51.76	81.26	5.15	481.27	10.39	530.22	13.47	514.73	0.78	1010	216.13	334.35	82.14	51.68	79.95	5.15	486.91	17.36	530.22	13.47	514.73	0.78
5.34	50yr24hr	651	533.05	836.88	102.39	61.37	94.94	7.65	478.45	5.76	530.27	13.50	515.29	0.90	2020	422.68	653.89	91.14	61.01	95.79	7.63	482.15	11.96	530.27	13.50	515.29	0.90	2020	217.56	336.57	88.19	61.35	94.91	7.65	488.34	17.36	530.27	13.50	515.29	0.90
5.88	100yr24hr	1303	560.24	879.58	113.29	69.46	107.45	9.60	479.35	7.15	530.31	13.53	515.89	1.04	4039	452.93	700.68	104.82	69.61	109.29	9.61	482.99	13.51	530.31	13.53	515.89	1.04														
6.42	200yr24hr	2605		0.00			0.00				530.36	13.56	516.49	1.19	8079	482.90	747.04	116.19	77.67	121.94	11.26	483.70	14.84	530.36	13.56	516.49	1.19														

Option 6 - Scenario A - Express Sewer/Siphon and Detention in Peaselburg - Base Separation (54") - Flow to Willow Run Outfall

Total Rainfall Depth (inches)	Storm	Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 468 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 474.9 feet						Likelihood of storm at River Stage Elevation (once every x number of years)	Willow Run Outfall			Siphon Outfall			River Elevation = 475 feet Flood Pumping Operation					
			Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)		Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Max Flow (MGD)	Max Flow (CFS)	Volume (MG)	Goebel Park Water Level (ft)	Goebel Park Stored Volume (MG)	KYTC 1 Water Level (ft)	KYTC 1 Stored Volume (MG)	St. E Water Level (ft)	St. E Stored Volume (MG)
1.79	4mt24hr	4	277.52	429.32	28.64	N/A	N/A	N/A	470.51	0.00	512.87	4.09	512.06	0.28	13	194.07	300.22	20.59	N/A	N/A	N/A	476.28	2.91	512.87	4.09	512.06	0.28	13	101.46	156.96	26.63	N/A	N/A	N/A	477.12	3.94	512.87	4.09	512.06	0.28
2.97	2yr24hr	26	418.48	647.39	54.14	N/A	N/A	N/A	473.95	0.72	522.35	8.76	513.04	0.45	81	292.53	452.54	46.52	N/A	N/A	N/A	478.06	5.20	522.35	8.76	513.04	0.45	81	205.00	317.14	49.99	N/A	N/A	N/A	479.66	7.65	522.35	8.76	513.04	0.45
4.13	10yr24hr	130	490.69	759.10	80.32	N/A	N/A	N/A	476.19	2.80	529.84	13.22	514.03	0.64	404	372.64	576.47	72.43	N/A	N/A	N/A	480.13	8.43	529.84	13.22	514.03	0.64	404	210.30	325.33	74.15	N/A	N/A	N/A	483.83	15.09	529.84	13.22	514.03	0.64
4.81	25yr24hr	326	525.40	812.79	97.05	N/A	N/A	N/A	477.62	4.60	530.22	13.47	514.73	0.78	1010	419.27	648.61	88.77	N/A	N/A	N/A	481.41	10.64	530.22	13.47	514.73	0.78														
5.34	50yr24hr	651	551.99	853.93	111.18	N/A	N/A	N/A	478.64	6.04	530.27	13.50	515.29	0.90	2020	448.59	693.97	102.74	N/A	N/A	N/A	482.30	12.23	530.27	13.50	515.29	0.90														
5.88	100yr24hr	1303	581.05	898.88	124.72	N/A	N/A	N/A	479.56	7.49	530.31	13.53	515.89	1.04	4039	480.63	743.53	115.95	N/A	N/A	N/A	483.16	13.83	530.31	13.53	515.89	1.04														
6.42	200yr24hr	2605		0.00		N/A	N/A	N/A			530.36	13.56	516.49	1.19	8079	514.41	795.79	129.42	N/A	N/A	N/A	483.88	15.19	530.36	13.56	516.49	1.19														

Appendix F

HEC-SSP Results

Coincident Frequency Analysis – Existing Conditions

17 Oct 2024 06:34 AM

--- Input Data ---

Analysis Name: Existing Conditions

Description: Willow Run

Project Path:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run

Report File Name:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run\CoincidentFreqResults\Existing_Conditions\Existing_Conditions.rpt

Result File Name:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run\CoincidentFreqResults\Existing_Conditions\Existing_Conditions.xml

Input DSS File Name:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run\Willow_Run.dss

Output DSS File Name:
//global.gsp/data/nf/na_nf08/4620400/01Work/03Tech/WE/01Modeling/05USACE/Willow_Run/CoincidentFreqResults/Existing_Conditions/Existing_Conditions.dss

Y-Axis Scale: Linear

Display ordinate values using 3 digits in fraction part of value

Marginal Frequency for Variable A

Exceedance Percent	Q CFS
0.5	1,175.890
1.0	1,134.800
2.0	1,076.870
5.0	1,048.390
10.0	978.690

Index-Value Table for Variable B

Occurrance Frequency Percent	Index Value	Exceedance Break Point Percent	Assigned Exceedance Percent
		100.0	
87.4752950913568	463.000		56.2623524543216
		12.524704908643198	
6.855209081225272	468.000		9.097100368030562
		5.669495827417926	
5.669495827417926	474.900		2.834747913708963
		0.0	

Response Curve for Variable B1 = 463

Variable A CFS	C = f(A,B1) ft NAVD88
919.74	478.180
898.62	477.570
876.92	476.800
859.99	475.960
829.78	474.700

Response Curve for Variable B2 = 468

Variable A (CFS)	C = f(A,B2) ft NAVD88
764.50	479.670
739.67	479.030
721.83	478.620
695.50	477.780
662.10	476.600

Response Curve for Variable B3 = 474.9

Variable A (CFS)	C = f(A,B3) ft NAVD88
648.72	482.970
623.75	482.770
593.10	482.040
558.25	481.200
509.61	480.090

--- End of Input Data ---

Intermediate Response Frequency P(C|B1)

Exceedance Percent	C = f(A,B1) ft NAVD88
10.000	474.700
10.000	475.960
10.000	476.600
10.000	476.800
10.000	477.570
10.000	477.780
10.000	478.180
0.000	478.620
0.000	479.030
0.000	479.670
0.000	480.090
0.000	481.200
0.000	482.040
0.000	482.770
0.000	482.970

Intermediate Response Frequency P(C|B2)

Exceedance Percent	C = f(A,B2) ft NAVD88
100.000	474.700
100.000	475.960
10.000	476.600
10.000	476.800
10.000	477.570
10.000	477.780
10.000	478.180
10.000	478.620
10.000	479.030
10.000	479.670
0.000	480.090
0.000	481.200
0.000	482.040
0.000	482.770
0.000	482.970

Intermediate Response Frequency P(C|B3)

Exceedance Percent	C = f(A,B3) ft NAVD88
100.000	474.700
100.000	475.960
100.000	476.600
100.000	476.800
100.000	477.570
100.000	477.780
100.000	478.180
100.000	478.620
100.000	479.030
100.000	479.670
10.000	480.090
10.000	481.200
10.000	482.040
10.000	482.770
10.000	482.970

Computed Coincident Frequency Curve

Exceedance Percent	Elevation ft NAVD88
21.272	474.700
21.272	475.960
15.103	476.600
15.103	476.800
15.103	477.570
15.103	477.780
15.103	478.180
6.355	478.620
6.355	479.030
6.355	479.670
0.567	480.090
0.567	481.200
0.567	482.040
0.567	482.770
0.567	482.970

Interpolated Coincident Frequency Curve

| Exceedance | Elevation |

| Percent | ft NAVD88 |

|---|---|

| 0.5 | 482.970 |

| 1.0 | 480.004 |

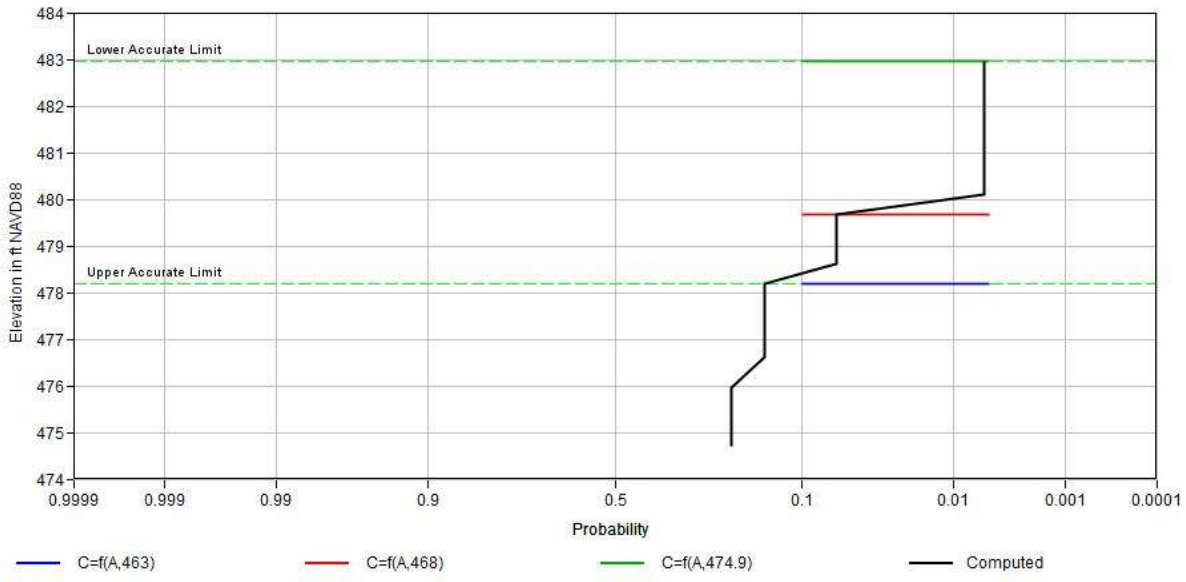
| 2.0 | 479.890 |

| 5.0 | 479.720 |

| 10.0 | 478.402 |

|---|---|

The computed frequency curve is accurate between Elevation values of 482.97 and 478.18 ft NAVD88



Coincident Frequency Analysis - Goebel Opt6A -Gate Open

17 Oct 2024 08:32 AM

--- Input Data ---

Analysis Name: Goebel Opt6A -Gate Open

Description: Copy of Goebel Opt6A - No Siphon

Project Path:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run

Report File Name:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run\CoincidentFreqResults\Goebel_Opt6A_-Gate_Open\Goebel_Opt6A_-Gate_Open.rpt

Result File Name:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run\CoincidentFreqResults\Goebel_Opt6A_-Gate_Open\Goebel_Opt6A_-Gate_Open.xml

Input DSS File Name:
\\global.gsp\data\nf\na_nf08\4620400\01Work\03Tech\WE\01Modeling\05USACE\Willow_Run\Willow_Run.dss

Output DSS File Name:
//global.gsp/data/nf/na_nf08/4620400/01Work/03Tech/WE/01Modeling/05USACE/Willow_Run/Willow_Run.dss

Y-Axis Scale: Linear

Display ordinate values using 3 digits in fraction part of value

Marginal Frequency for Variable A

Exceedance	Q
Percent	cfs
0.5	1,113.000
1.0	1,068.000
2.0	1,015.000
4.0	960.000
10.0	882.000

|---------------|---------------|

Index-Value Table for Variable B

Occurrance	Index	Exceedance	Assigned
Frequency	Value	Break Point	Exceedance
Percent		Percent	Percent
		100.0	
87.47530666286114	463.000		56.26234666856943
		12.524693337138856	
6.855194057209648	468.000		9.097096308534033
		5.669499279929209	
5.669499279929209	474.900		2.8347496399646044
		0.0	

Response Curve for Variable B1 = 463

Variable A	C = f(A,B1)
cfs	ft navd88
1,108.06	478.570
1,061.08	477.670
1,019.87	476.690
980.65	475.590
926.08	474.180

Response Curve for Variable B2 = 468

Variable A (cfs)	C = f(A,B2) ft navd88
948.60	480.200
898.80	479.560
853.93	478.640
812.79	477.620
759.10	476.190

Response Curve for Variable B3 = 474.9

Variable A (cfs)	C = f(A,B3) ft navd88
795.79	483.880
743.53	483.160
693.97	482.300
648.61	481.410
576.47	480.130

--- End of Input Data ---

Intermediate Response Frequency P(C|B1)

Exceedance Percent	C = f(A,B1) ft navd88
6.097	474.180
3.113	475.590
2.372	476.190
1.882	476.690
1.131	477.620
1.099	477.670
0.541	478.570
0.000	478.640
0.000	479.560
0.000	480.130
0.000	480.200
0.000	481.410
0.000	482.300
0.000	483.160
0.000	483.880

Intermediate Response Frequency P(C|B2)

Exceedance Percent	C = f(A,B2) ft navd88
100.000	474.180
100.000	475.590
10.000	476.190
10.000	476.690
10.000	477.620
10.000	477.670
10.000	478.570
10.000	478.640
8.339	479.560
4.954	480.130
4.627	480.200
0.000	481.410
0.000	482.300
0.000	483.160
0.000	483.880

Intermediate Response Frequency P(C|B3)

Exceedance Percent	C = f(A,B3) ft navd88
100.000	474.180
100.000	475.590
100.000	476.190
100.000	476.690
100.000	477.620
100.000	477.670
100.000	478.570
100.000	478.640
100.000	479.560
10.000	480.130
10.000	480.200
10.000	481.410
10.000	482.300
10.000	483.160
10.000	483.880

Computed Coincident Frequency Curve

Exceedance Percent	elevation ft navd88
17.858	474.180
15.248	475.590
8.430	476.190
8.001	476.690
7.344	477.620
7.316	477.670
6.828	478.570
6.355	478.640
6.241	479.560
0.907	480.130
0.884	480.200
0.567	481.410
0.567	482.300
0.567	483.160
0.567	483.880

Interpolated Coincident Frequency Curve

| Exceedance | elevation |

| Percent | ft navd88 |

|---|---|

| 0.5 | 483.880 |

| 1.0 | 480.105 |

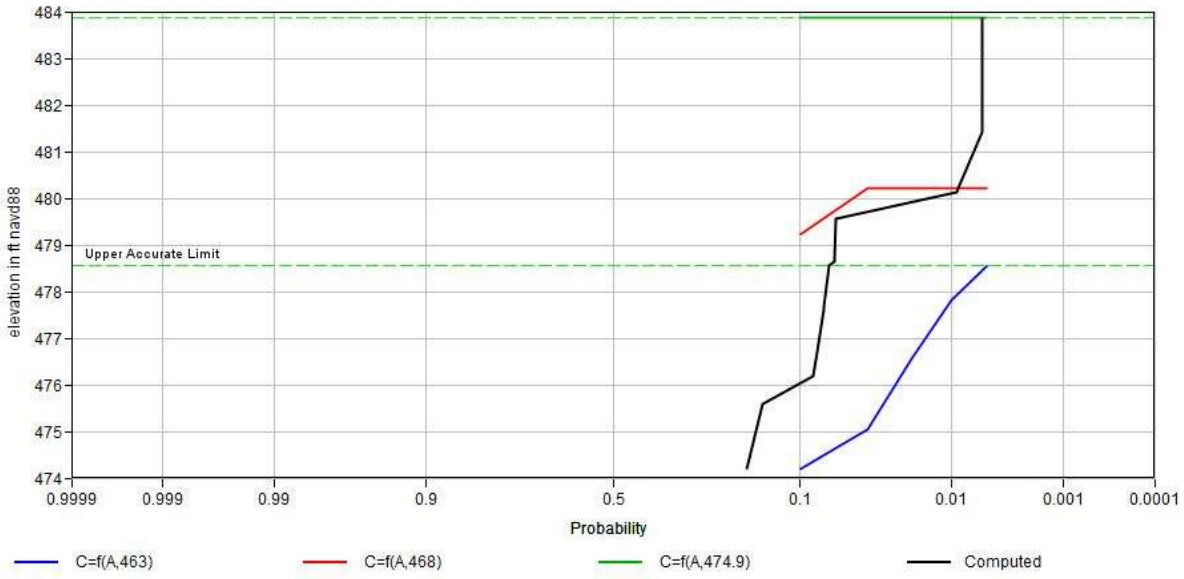
| 2.0 | 479.917 |

| 4.0 | 479.709 |

| 10.0 | 476.027 |

|---|---|

The computed frequency curve is accurate between elevation values of 483.88 and 478.57 ft navd88



Architecture

Program Management /
Construction Management /
EPCM / Alternative Project Delivery

Engineering

Environmental and
Sustainability Services

Experiential Design and
Wayfinding

Interior Design

Landscape Architecture

Planning

Site Development

GreshamSmith.com
859.469.5610

100 W Main Street
Suite 350
Lexington, KY 40507

Gresham Smith

Genuine Ingenuity

Appendix G: Section 106 Consultation

Ohio Coordination

- 2024-07-16 Harriet Beecher Stowe Elementary/Stowe Adult Education Center
- 2024-08-13 SHPO PID 89068 Harriet Beecher Stowe Center

Kentucky Coordination

- 2024-10-02 Expanded Area of Potential Effect SHPO Request Concurrence
- 2024-12-10 Second Expanded Area of Potential Effect SHPO Request Concurrence
- 2025-03-01 Cultural Historic Survey Report Addendum II
- 2025-03-26 Updated Historic Eligibility and Effects Report for Brent Spence Bridge Project
- 2025-04-04 Information on 13 Unsurveyed areas within the Proposed Brent Spence Bridge Project Kenton County, Kentucky
- 2025-04-10 Concurrence for the Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project in Covington, Kenton County, Kentucky - Division of Environmental Analysis
- 2025-04-10 Concurrence for the Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project in Covington, Kenton County, Kentucky - State Historic Preservation Office
- 2025-05-02 Two Areas of Deferred Archaeology Brent Spence Bridge Project, Kenton County, Kentucky - Division of Environmental Analysis
- 2025-05-06 Two Areas of Deferred Archaeology Brent Spence Bridge Project, Kenton County, Kentucky - State Historic Preservation Office

Department of Transportation
transportation.ohio.gov

Mike DeWine, *Governor*
Jon Husted, *Lt. Governor*
Jack Marchbanks, Ph.D., *Director*

July 16, 2024

Kristen Koehlinger, Department Head
Resource Protection and Review
Ohio's State Historic Preservation Office (SHPO)
Ohio History Connection
800 East 17th Street
Columbus, Ohio 43211
kkoelinger@ohiohistory.org

Attn: Miranda Fisher, Transportation Review Manager
Thomas Grooms, Transportation Review Manager

Subject: HAM-71/75 0.00/0.22 PID 89068
Harriet Beecher Stowe Elementary/Stowe Adult Education Center [HAM0134243]

Dear Ms. Koehlinger,

On August 30, 2022, the Ohio Department of Transportation Office of Environmental Services (ODOT-OES) submitted a re-evaluation of the HAM-71/75 0.00/0.22 PID 89068 project's effect on cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP). On January 25, 2023, the Ohio State Historic Preservation Office (SHPO) concurred a finding of "adverse effect" remains applicable to the project and no additional cultural resources eligible for or listed in the NRHP will be adversely affected with the exception of the B&O Terminal/Longworth Hall.[1] The project's Section 106 Programmatic Agreement [executed October 20, 2023] formalized the measures to mitigate the adverse effect.

ODOT-OES is notifying the SHPO of detailed design changes adjacent to the Harriet Beecher Stowe Elementary/Stowe Adult Education Center [HAM0134243]. As a result of previous consultation for the project, on February 2, 2009 SHPO concurred: "The Harriet Beecher Stowe Elementary School, 635 West 7th Street (HAM-1342-43), is eligible for the NRHP under Criterion B for its association with Dr. Jennie Porter. The historic boundaries for the historic property consist of the footprint of the building".[2]

[1] Welling, Diana. HAM-IR 71/75 0.00/0.22 PID 89068; ODOT-OES letter to SHPO. August 30, 2022.
[2] Epstein, Mark. HAM-IR 71/75 0.00/0.22 PID 75119; ODOT-OES letter to SHPO. January 21, 2009.

The resource is currently owned by and houses the WXIX radio station. Partially covered paved parking and sidewalks are located on the same parcel as the historic building. Subterranean easements are required to install anchors for a proposed retaining wall at the east end of the parcel. [See attachment for Parcel 33]. A system of anchors will be installed beneath a section of the paved parking lot which is partially covered by carports but not under the historic building itself. The contractor will be required to monitor the building during installation of the shoring, anchors, and drilled shaft permanent retaining wall. All work will be in the location of the parking area. There are no changes to the project within the historic boundary of the Harriet Beecher Stowe Elementary/Stowe Adult Education Center and no surface landform or contributing feature of the historic building will be affected.

In accordance with 36 CFR 800, ODOT-OES has determined the installation of subterranean easements adjacent to the Harriet Beecher Stowe Elementary School/Stowe Adult Education Center [HAM0134243], eligible for inclusion in the NHRP, will not alter the historic integrity of the resource. No contributing feature of the resource will be removed or altered by the project. No further investigations are warranted. Concurrence or comments are requested within 15 days of receipt. Questions may be addressed to Erica Schneider, ODOT-OES, at erica.schneider@dot.ohio.gov.

Respectfully,

Timothy M. Hill, Administrator
Office of Environmental Services

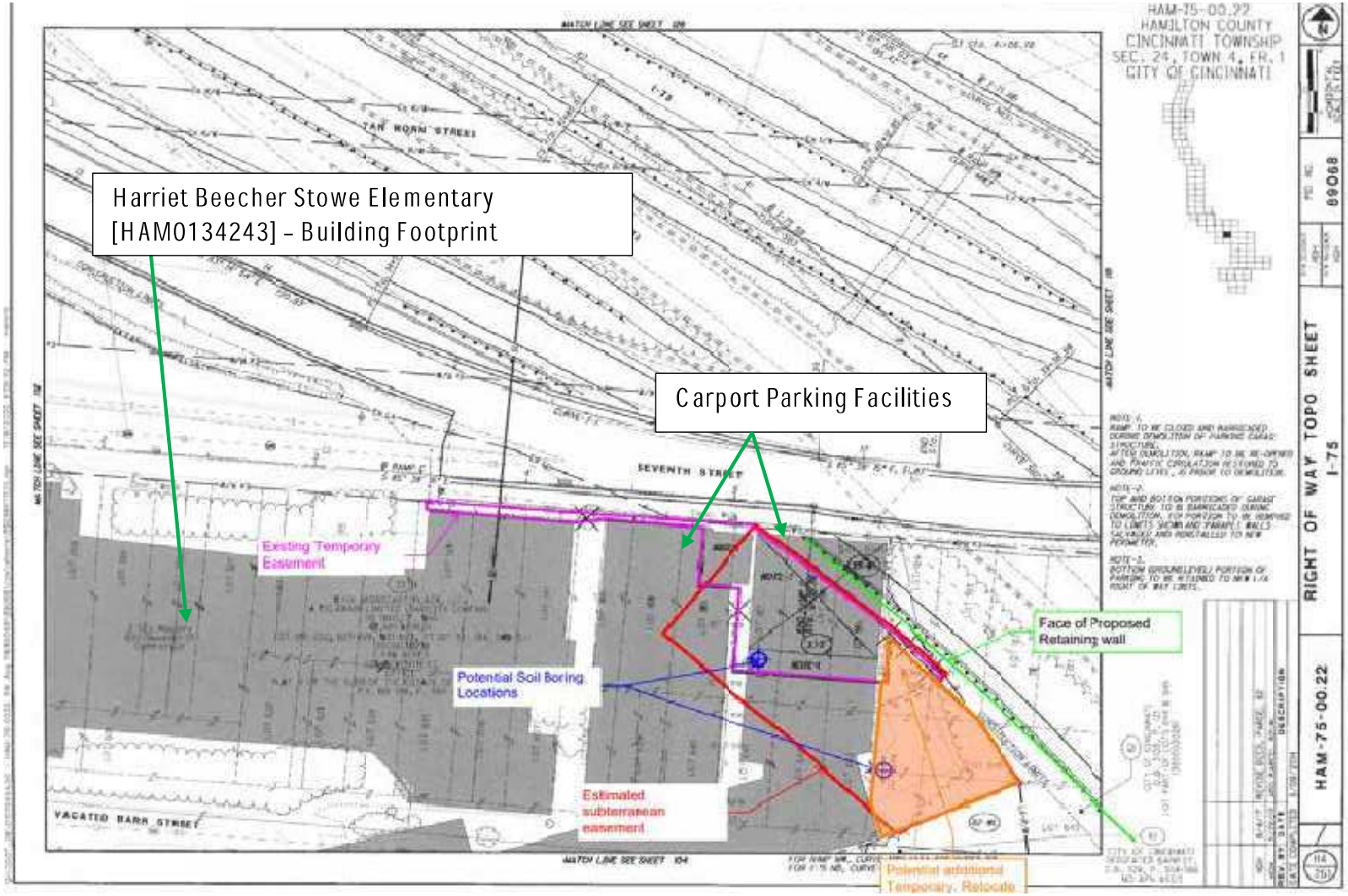
Ohio State Historic Preservation Office Concurrence:

_____
Date

Enclosure
TMH:sg

c: Project File

Exhibit - Plan Sheet 33



Becky Rude

From: Erica Johnson
Sent: Tuesday, August 13, 2024 12:33 PM
To: Becky Rude
Subject: FW: SHPO HAM-71/75 / PID 89068 Harriet Beecher Stowe Center

See SHPO response below on the wall construction technique.

Erica Johnson, VP, PE
Sr. Program Manager
Cell (317) 407-0272 **Email** erjohnson@hntb.com

Celebrating 110 Years of Excellence

From: Joe.Smithson@dot.ohio.gov <Joe.Smithson@dot.ohio.gov>
Sent: Tuesday, August 13, 2024 1:06 PM
To: Erica Johnson <erjohnson@hntb.com>; Arnold, E. <Tom.Arnold@dot.ohio.gov>; Hans, Stacee D (KYTC-D06) <stacee.hans@ky.gov>
Subject: FW: SHPO HAM-71/75 / PID 89068 Harriet Beecher Stowe Center

External Email: Use caution when clicking on links, replying, or opening attachments.

FYI - Good news with respect to the WXIX building and the tieback anchors to be installed for the retaining wall.

Thanks,
Joe

Joseph A. Smithson, P.E.
Brent Spence Design Lead
ODOT District 8
505 South SR 741, Lebanon, Ohio 45036
(p) 513.933.6707 (m) 513.623.7349
transportation.ohio.gov

From: Gasbarro, Susan <Susan.Gasbarro@dot.ohio.gov>
Sent: Tuesday, August 13, 2024 1:00 PM
To: Schneider, Erica <Erica.Schneider@dot.ohio.gov>
Cc: Hoffman, Larry <Larry.Hoffman@dot.ohio.gov>; Smithson, Joseph <Joe.Smithson@dot.ohio.gov>; Smith, Larry <Keith.Smith@dot.ohio.gov>
Subject: SHPO HAM-71/75 / PID 89068 Harriet Beecher Stowe Center

---

From: Miranda Fisher <mfisher@ohiohistory.org>
Sent: Tuesday, August 13, 2024 12:56 PM

To: Gasbarro, Susan <Susan.Gasbarro@dot.ohio.gov>
Subject: HAM-71/75 / PID 89068 Harriet Beecher Stowe Center

Hello Susan,

Thank you for the additional information.

In regard to the subject project, based on the provided information, it seems the drilled in technique will create some vibration, but over the minimum 40-foot set back, the vibration should dissipate enough to be minimally felt at the building. With that said, it is the opinion of the SHPO that there will be no adverse effect on historic properties as a result of this project.

We have no further questions. Please let us know if anything changes.

Kind regards,
Miranda

Miranda Fisher, LEED GA | State Historic Preservation Office
Architecture Transportation Reviews Manager
Ohio History Connection | 800 E. 17th Ave. Columbus, OH 43211-2474
p: 614.298.2047 | f: 614.298.2037 | mfisher@ohiohistory.org

CAUTION: This is an external email and may not be safe. If the email looks suspicious, please do not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.

Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

October 2, 2024

Mr. Craig Potts
Executive Director and
State Historic Preservation Officer
The Barstow House
410 High Street
Frankfort, KY 40601

SUBJECT: Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Potts:

As the design-build process for the Brent Spence Bridge in Covington, Kenton County, Kentucky has progressed, the design-build team realized the Brent Spence Bridge project would require additional areas located outside of the previously concurred upon Area of Potential Effects (APE) for project related activities. This new area will require additional survey and an addendum report for Section 106 aboveground clearance.

The new additional area would be for the following:

- An access point to deliver and stage materials and equipment from the Ohio River. To accommodate this need, the project team is proposing to build out a concrete bulkhead and loading ramp at the Waterfront Lot off of Pete Road Pier, north of the Covington Levee.
- Realignment of the intersection of West Fourth Street/KY-8 and Main Street/US-127/US-25/US-42 at the Clay Wade Bailey Bridge. The realignment will improve the safety of pedestrians and other users of the multi-use path being constructed by the City of Covington as a separate project.

To accommodate this additional project work area, KYTC is proposing expanding the APE out from the existing eastern boundary of the APE. The additional APE would extend to the north to the Kentucky-Ohio state boundary; south to the south right-of-way boundary on West Fourth Street; and east to the centerline of Johnson Street. This increase will accommodate both the bulkhead construction and work area as well as the intersection realignment.

A map of the expanded APE, as well as KMZs of the revised APE and the 2022 APE, are attached to this transmittal.

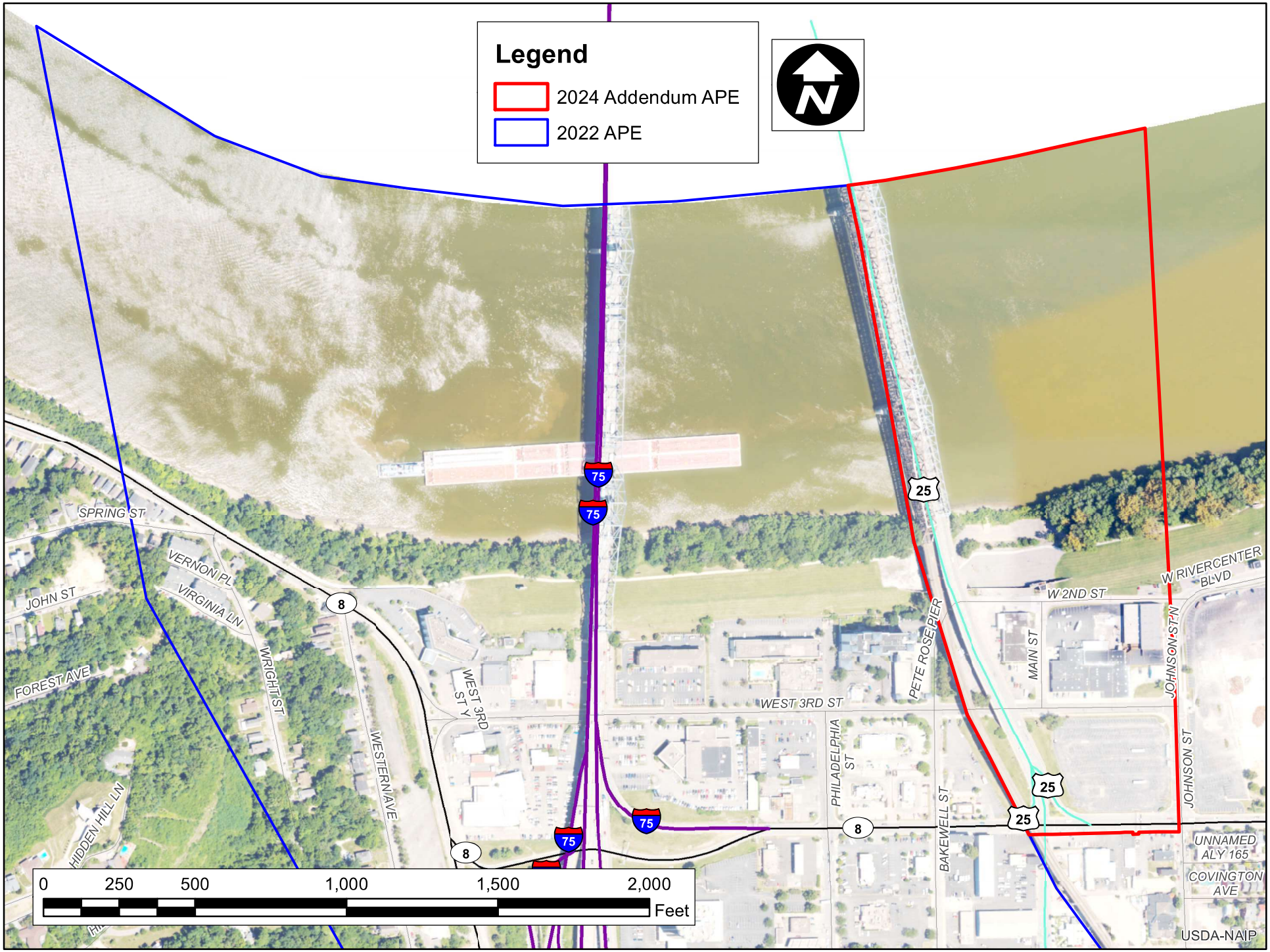
KYTC is requesting concurrence with this area of potential effects at your earliest convenience. If you have any questions, please contact Stephanie Lechert or me at 502-782-5038.

Sincerely,

Daniel Peake

Daniel R. Peake, Director
Division of Environmental Analysis

DRP/sel
cc: R. Jennings (KHC), S. Hans (D-6), S. Schurman (DEA), S. Lechert (DEA)



Disclaimer: KYTC provides this map as a reference only. Users are to validate information independently.
Copyright: 2024 Kentucky Transportation Cabinet. All rights reserved.

Date: 9/24/2024

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

October 3, 2024

Mr. Daniel R. Peake
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street Frankfort, KY 40622

Re: Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Peake,

Thank you for your digital submission of a letter, maps, and KMZ files for the above-listed project which is pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f) and implementing regulations at 36 C.F.R. Part 800.

The above proposed project involves extending the APE for the Brent Spence Bridge Project to encompass the following:

- An access point to deliver and stage materials and equipment from the Ohio River. Toaccommodate this need, the project team is proposing to build out a concrete bulkheadand loading ramp at the Waterfront Lot off of Pete Road Pier, north of the CovingtonLevee.

- Realignment of the intersection of West Fourth Street/KY-8 and Main Street/US-127/US-25/US-42 at the Clay Wade Bailey Bridge. The realignment will improve the safety ofpedestrians and other users of the multi-use path being constructed by the City ofCovington as a separate project.

The additional area of potential effects (APE) would extend to the north to the Kentucky-Ohio state boundary; south to the south right-of-way boundary on West Fourth Street; and east to the centerline of Johnson Street. This increase will accommodate both the bulkhead construction and work area as well as the intersection realignment.

Based on our review, we **Concur** with your recommendations for the expansion of the APE.

Should you have any questions, please feel free to contact RaShae Jennings of my staff at Rashae.jennings@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director
and State Historic Preservation Officer

CP: rj, KHC #242281
CC: Stephanie Lechert (KYTC-DEA)

Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

December 10, 2024

Mr. Craig Potts
Executive Director and
State Historic Preservation Officer
The Barstow House
410 High Street
Frankfort, KY 40601

SUBJECT: Second Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Potts:

As the design-build process for the Brent Spence Bridge in Covington, Kenton County, Kentucky has progressed, the design-build team realized the Brent Spence Bridge project will again require additional areas located outside of the previously concurred upon Area of Potential Effects (APE) for project related activities. These new areas, which will be for drainage work and soundwalls, will require additional survey and an addendum report for Section 106 aboveground clearance.

The first area of drainage work is located south of I-75 and west of Emery Drive in Covington, KY. This drainage work will consist of retrofitting an existing outlet structure and connecting it into a separate drainage system.

The second area of drainage work is located to the east of the I-75 corridor within the existing right-of-way (ROW), but west of Highland Avenue in Covington, KY. The proposed work will consist of the construction of a retention pond and connecting that pond to the existing drainage/sewer system trunk line under Highland Avenue. In addition, the work will result in the removal of a heavily wooded area adjacent to historic-age resources which were not part of the previous cultural historic reporting.

The proposed soundwall area is located east of I-75 near Edgecliff Road at the southern end, and continuing north along the existing ROW boundary and terminates just south of the intersection of James Simpson Jr. Way and West 14th Street in Covington, KY. This particular soundwall would be adjacent to historic-age resources which were not part of the previous cultural historic reporting .

The expanded APE is based on the following:

1. A 150 foot buffer around the proposed work footprint for the outlet structure retrofit location.
2. A 150 foot buffer on either side of the existing east ROW boundary near Highland Avenue to accommodate the proposed retention pond and the removal of the vegetation.
3. A 150 foot on either side of the proposed soundwall alignment.

These new areas will be added to the existing APE, last revised in October 2024. A map of the expanded APE, a map showing the proposed footprint of the retention pond, as well as KMZs of the newly revised APE and the October 2024 APE, are attached to this transmittal.

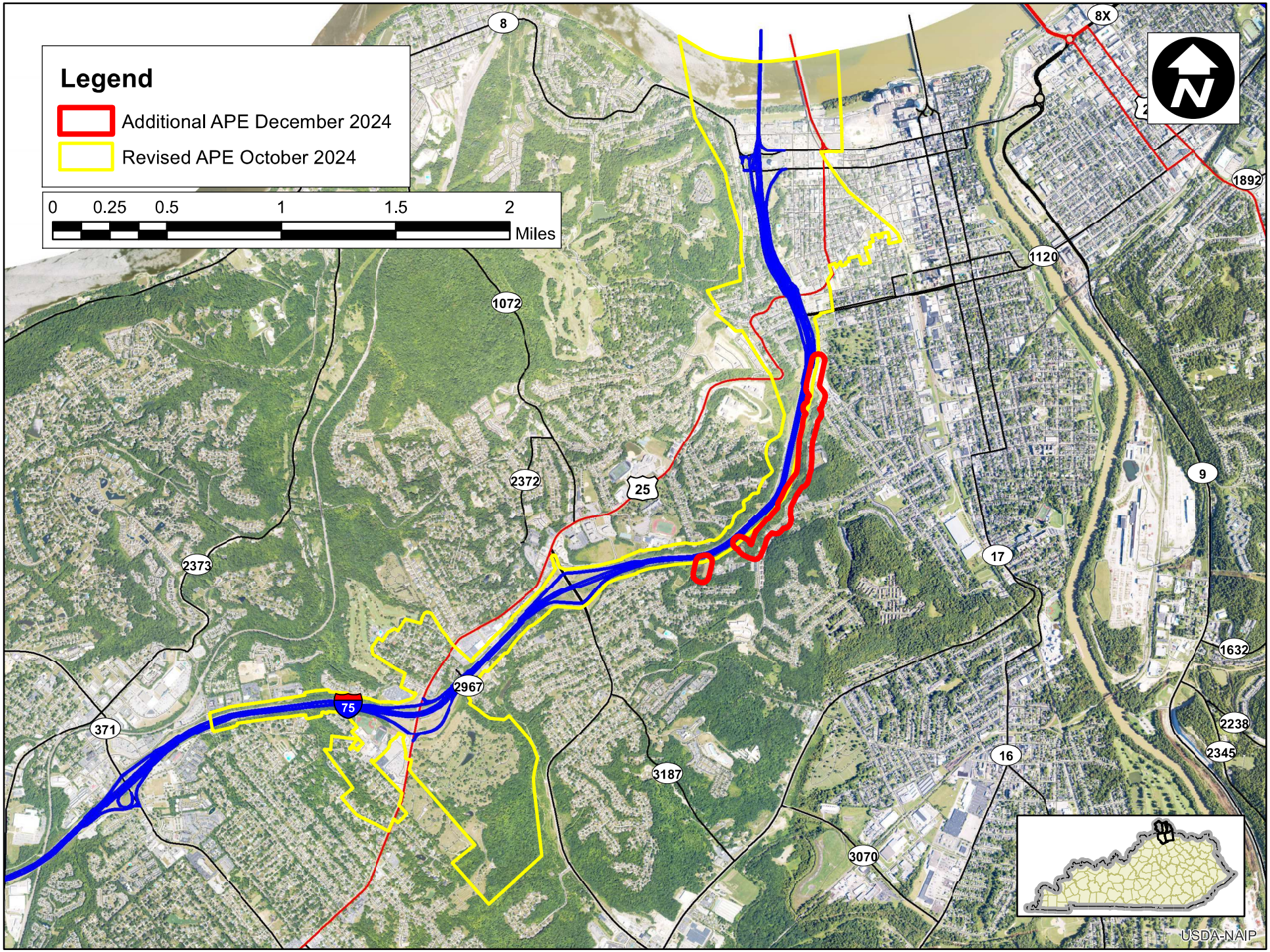
KYTC is requesting concurrence with this area of potential effects at your earliest convenience. If you have any questions, please contact Stephanie Lechert or me at 502-782-5038.

Sincerely,

Daniel R Peake

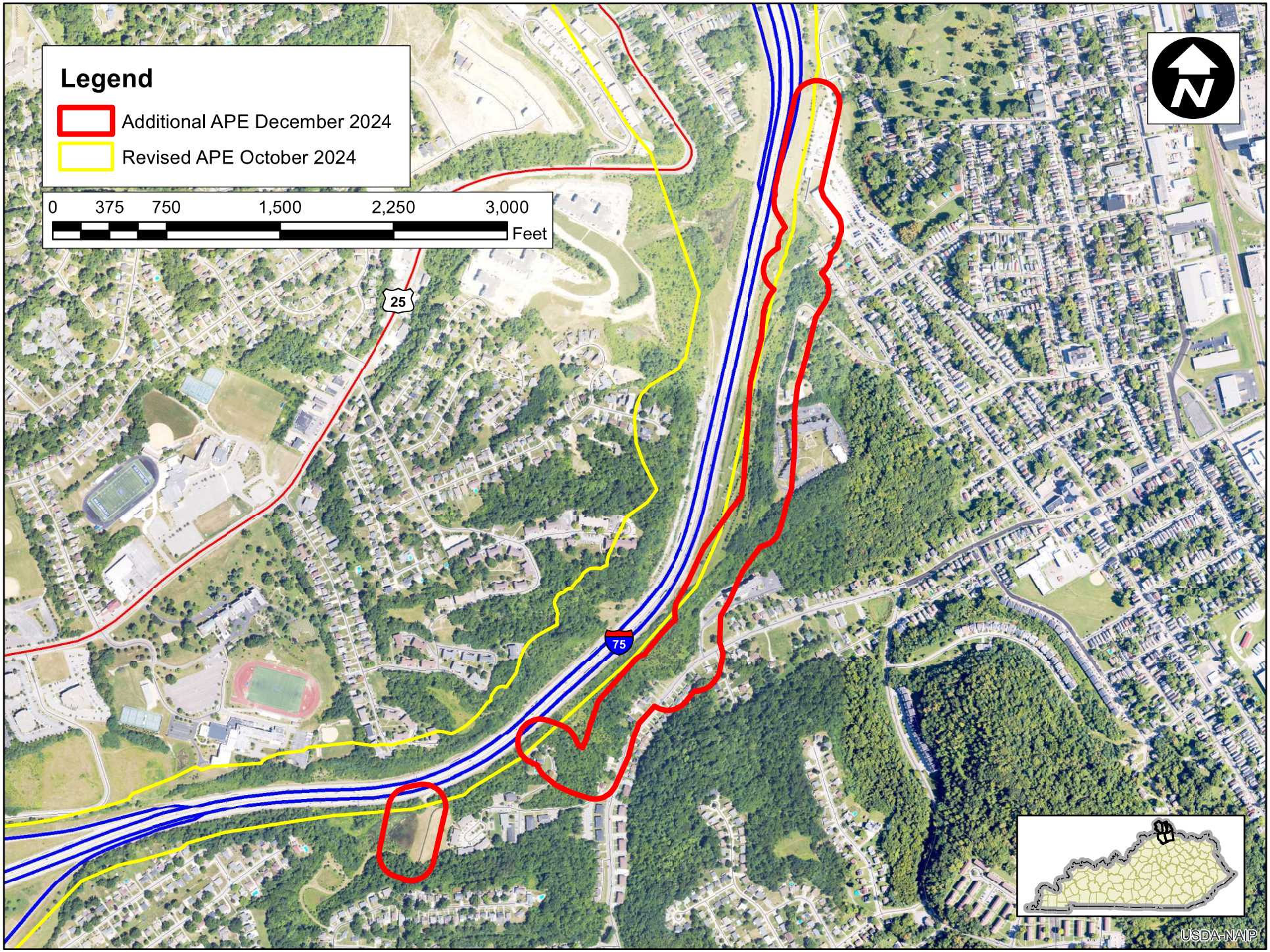
Daniel R. Peake, Director
Division of Environmental Analysis

DRP/sel
cc: R. Jennings (KHC), S. Hans (D-6), S. Schurman (DEA), S. Lechert (DEA)



Disclaimer: KYTC provides this map as a reference only. Users are to validate information independently.
Copyright: 2024 Kentucky Transportation Cabinet. All rights reserved.

Date: 12/10/2024



Disclaimer: KYTC provides this map as a reference only. Users are to validate information independently.
Copyright: 2024 Kentucky Transportation Cabinet. All rights reserved.

Date: 12/10/2024

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

December 10, 2024

Mr. Daniel R. Peake
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street Frankfort, KY 40622

Re: Second Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Peake,

Thank you for your digital submission of a letter, maps, and photographs for the above-listed project which is pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f) and implementing regulations at 36 C.F.R. Part 800.

The design-build team realized the Brent Spence Bridge project will again require additional areas located outside of the previously concurred upon Area of Potential Effects (APE) for project related activities. The above proposed project involves the first area of drainage work is located south of I-75 and west of Emery Drive in Covington, KY. This drainage work will consist of retrofitting an existing outlet structure and connecting it into a separate drainage system. The second area of drainage work is located to the east of the I-75 corridor within the existing right-of-way (ROW), but west of Highland Avenue in Covington, KY. The proposed work will consist of the construction of a retention pond and connecting that pond to the existing drainage/sewer system trunk line under Highland Avenue. In addition, the work will result in the removal of a heavily wooded area adjacent to historic-age resources which were not part of the previous cultural historic reporting. The proposed soundwall area is located east of I-75 near Edgecliff Road at the southern end, and continuing north along the existing ROW boundary and terminates just south of the intersection of James Simpson Jr. Way and West

14th Street in Covington, KY. This particular soundwall would be adjacent to historic-age resources which were not part of the previous cultural historic reporting .

Based on our review, we **Concur** with the area of potential effects (APE) for this project**.**

Should you have any questions, please feel free to contact RaShae Jennings of my staff at Rashae.jennings@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director
and State Historic Preservation Officer

CP: rj, KHC #242341
CC: Stephanie Lechert (KYTC-DEA)

Becky Rude

From: Schurman, Scott R (KYTC) <Scott.Schurman@ky.gov>
Sent: Wednesday, March 26, 2025 5:17 PM
To: Karl Lietzenmayer; Kaitlin BRYAN; rebecca@rebeccaweber.com; brandon.holmes@covingtonky.gov; ron.washington@covingtonky.gov
Cc: Hans, Stacee D (KYTC-D06); Peake, Danny R (KYTC); Lechert, Stephanie E (KYTC); Davis, Daniel B (KYTC); John.Ballantyne@dot.gov; Baughman, Pamela (FHWA); Valentine, Gary (KYTC); Becky Rude
Subject: Updated Historic Eligiblity and Effects Report for Brent Spence Bridge Project

Categories: Reference

External Email: Use caution when clicking on links, replying, or opening attachments.

Brent Spence Bridge Project Consulting Party Member,

Shortly following the approval of the Brent Spence Bridge Project Supplemental Environmental Assessment/Finding of No Significant Impact (SEA/FONSI), KYTC and ODOT began efforts to identify and evaluate measures to improve the design and constructability of the project while reducing overall costs and impacts. These efforts have resulted in modifications to the project's preferred selected Alternative I-W that was originally approved by the FHWA in the 2024 SEA/FONSI. The proposed project modifications include the following:

- The addition of an access point to deliver and stage materials and equipment from the Ohio River. To accommodate this need, a concrete bulkhead and loading ramp at the Waterfront Lot off Pete Rose Pier, north of the Covington Levee is being proposed to be built.

- The realignment of the intersection of West Fourth Street/KY-8 and Main Street/US-127/US-25/US-42 at the Clay Wade Bailey Bridge. The realignment will improve the safety of pedestrians and other users of the multi-use path being constructed by the City of Covington as a separate project.

- The addition of drainage work south of I-75 and west of Emery Drive in Covington, KY. This drainage work will consist of retrofitting an existing outlet structure and connecting it into a separate drainage system. The second area of drainage work is located to the east of the I-75 corridor within the existing right-of-way (ROW), but west of Highland Avenue in Covington, KY. The proposed work will consist of the construction of a retention pond and connecting that pond to the existing drainage/sewer system trunk line under Highland Avenue. In addition, the work will result in the removal of a wooded area adjacent to historic-age resources which were not part of the previous cultural historic reporting.

- The proposed construction of a noise wall area located east of I-75 near Edgecliff Road at the southern end, and continuing north along the existing ROW boundary and terminates just south of the intersection of James Simpson Jr. Way and West 14th Street in Covington, KY. This noise wall would be adjacent to historic-age resources which were not part of the previous cultural historic reporting.

Thus, these project modifications required the assessment of historic properties for these areas. This required the project's original area of potential effect (APE) to be updated and expanded. The updated APE was coordinated between KYTC and the Kentucky State Historic Preservation Office (KY-SHPO), and was ultimately approved by KY-SHPO. These project changes also required a historic addendum report be completed for the project. This

updated report assessed properties within the updated APE for potential historic eligibility and effects from these project modifications. The updated report is currently being coordinated for final eligibity and effect determinations with KY-SHPO. Attached below is a link to this report.

Brent Spence Bridge_Stantec reportrev_March252025.pdf

Since this is a discovery of new information regarding historic resources, we are affording you the opportunity to review and comment on the content of this report. We would ask for to review this report and send back any comments you have by Wednesday April 9, 2025. If you have any problems accessing the report, or if you have any questions, please feel free to contact me. Thank you for your consideration and time.

Scott

Scott R. Schurman
Environmental Scientist Consultant
Kentucky Transportation Cabinet
scott.schurman@ky.gov
Office: 502 782 -5031

Cultural Historic Survey Report Addendum II

Brent Spence Bridge Renewal Project
Covington, Kenton County, Kentucky
(KYTC Item No. 6-17)

Prepared for:
Kentucky Transportation Cabinet, Division of Environmental Analysis
200 Mero Street
Frankfort, Kentucky 40622

March 2025

Project/File:
193711014

Prepared by:
Rebecca Gatewood
Holly B. Higgins
Heather Doerge
Christopher Harris
Rachel M. Kennedy
Jennifer N. Ryall



Stantec Consulting Services Inc.

Document Information

Project Name	Cultural Historic Survey Report Addendum II, Brent Spence Bridge Renewal, Covington, Kenton County, Kentucky (KYTC Item No. 6-17)
Project Location	Covington, Kenton County, Kentucky
Lead Federal Agency	Federal Highway Administration
Project Number	193711014
Project Manager	Rachel M. Kennedy, Senior Associate
Date	March 2025

Prepared and Submitted by	Rebecca Gatewood, Holly B. Higgins, Heather Doerge, Jennifer N. Ryall, and Christopher Harris
Principal Investigators	Rachel M. Kennedy, MHP Jennifer N. Ryall, MHP



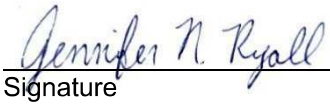
rachel.kennedy@stantec.com jennifer.ryall@stantec.com

Stantec

The conclusions in the Report titled Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from The Kentucky Transportation Cabinet (the "Client") and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided by the Client to applicable authorities having jurisdiction and to other third parties in connection with the project, Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any third party, and will not be liable to such third party for any damages or losses of any kind that may result.

Prepared by 

Signature

Jennifer N. Ryall

Printed Name

Reviewed by 

Signature

Holly B. Higgins

Printed Name

Approved by 

Signature

Rachel M Kennedy

Printed Name

Table of Contents

Abstract iv
1 Introduction 1
1.1 Project Description 1
1.2 Compliance Requirements 5
1.3 Area of Potential Effects 6

2 Methodology and Previous Investigations 9
2.1 Previous Investigations 9
2.2 Survey Methodology 11
2.3 Summary of Recommendations 12

3 Field Site Descriptions and Results 15
3.1 Field Survey Sites 18

4 Historic Properties Identified in the 2022 Brent Spence Bridge Report 130
5 Summary and Recommendations 179
6 Selected References 182

List of Tables

Table 2-. Additional Field Survey Sites 12
Table 5-1. Effects Assessments 179

List of Figures

Figure 1. Project Location 4
Figure 2. Area of Potential Effects (APE), Showing Additional Survey Areas 8
Figure 3. Previously Surveyed Properties within APE Additional Survey Areas 10
Figure 4. Field Survey Results Map 16
Figure 5. Field Survey Results Detail Map 17
Figure 6. Garden of Hope Brochure image, 1965. 54
Figure 7. Garden of Hope Brochure image, 1965. 55
Figure 8. Replica of Garden Tomb, line drawings of Chapel of Dreams and Carpenter Shop, 1957. 57
Figure 9. Postcard of Garden of Hope, showing Sermon on the Mount statue, undated. 60
Figure 10. The Garden of Hope, Proposed NRHP KE-1372, boundary with contributing resources 73
Figure 11. Effects Map, KE-1372. 74
Figure 12. Circa 1959 interstate construction, St. Joseph Lane (black arrow), cropped 132
Figure 13. Effects Map, KE-07-KE-08. 133
Figure 14. Effects map, KE-09. 135
Figure 15. February 2, 1982, Cut-in-the-Hill south of Covington, Lewisburg at far right. 137
Figure 16. Effects map, KE-010. 138
Figure 17. Effects map, KE-011. 140
Figure 18. Effects Map, KE-012. 142
Figure 19. Effects Map, KE-013. 144
Figure 20. Effects map, KE-952. 146
Figure 21. Effects Map, KEC-107. 148
Figure 22. Effects Map, KEC-456. 150
Figure 23. Effects Map, KEC-458. 152
Figure 24. Effects Map, KEC-460. 154

Figure 25. Effects Map, KEC-462. 156
Figure 26. Effects Map, KEC-820. 158
Figure 27. Effects Map, KEC-1011. 160
Figure 28. Effects Map, KEC-1038. 162
Figure 29. Effects Map, KEC-1048. 164
Figure 30. Effects Map, KEC-1064. 166
Figure 31. Effects Map, KEC-1068. 168
Figure 32. Effects Map, KEC-1075. 170
Figure 33. Effects Map, KECL-692. 172
Figure 34. Effects Map, KECL-815. 174
Figure 35. Effects Map, KECL-1018. 176
Figure 36. Effects Map, KEFM-150. 178

List of Plates

Plate 1. Existing Transparent Noise Wall Along Crescent Avenue..... 1
Plate 2. Existing Concrete Noise Wall Near I-71 Exit Ramp 178..... 2
Plate 3. KE-1355, Corken Steel Products, looking northeast. 18
Plate 4. KE-1355, Corken Steel Products, looking southeast..... 19
Plate 5. KE-1356, The D. C. Morrison Company, looking northwest..... 20
Plate 6. KE-1356, Garage workshop (A), looking northeast. 21
Plate 7. KE-1357, Ranch house, looking southeast. 22
Plate 8. KE-1357, Shed (A), looking northeast. 23
Plate 9. KE-1358, House, looking north. 24
Plate 10. KE-1358, Garage (A), looking northeast. 25
Plate 11. KE-1359, House, looking northwest. 26
Plate 12. KE-1359, House, looking northwest. 27
Plate 13. KE-1360, House, looking southwest..... 28
Plate 14. KE-1360, House and retaining wall with stone post (A), looking south. 29
Plate 15. KE-1361, House, looking southwest..... 30
Plate 16. KE-1361, House and stone wall (A), looking northwest. 31
Plate 17. KE-1362, House, looking southwest..... 32
Plate 18. KE-1362, House, looking west..... 33
Plate 19. KE-1363, House, looking southwest..... 34
Plate 20. KE-1363, House, looking northwest. 35
Plate 21. KE-1364, House, looking west..... 36
Plate 22. KE-1364, House, looking northwest. 37
Plate 23. KE-1365, House, looking west..... 38
Plate 24. KE-1365, House, looking northwest. 39
Plate 25. KE-1366, House, looking southwest..... 40
Plate 26. KE-1366, House, looking southwest..... 41
Plate 27. KE-1367, House, looking southwest..... 42
Plate 28. KE-1367, House, looking northwest. 43
Plate 29. KE-1368, House, looking southwest..... 44
Plate 30. KE-1368, House, looking south. 45
Plate 31. KE-1369, House, looking south. 46
Plate 32. KE-1370, House, looking southwest..... 48
Plate 33. KE-1370, Freestanding balcony (A), looking southeast. 49
Plate 34. KE-1371, House, looking southwest..... 50
Plate 35. KE-1371, House, looking southeast. 51
Plate 36. KE-1372, Garden of Hope, looking north. 52
Plate 37. KE-1372, Carpenter Shop (A), looking southeast. 62
Plate 38. KE-1372, Steps west of Carpenter Shop (A), looking southwest. 63
Plate 39. KE-1372, Chapel of Dreams (B), looking east..... 63
Plate 40. KE-1372, Chapel of Dreams (B), looking northeast. 64
Plate 41. KE-1372, Statue of Jesus delivering the Sermon on the Mount (C), looking south. 65
Plate 42. KE-1372, Birdbath (D), right, looking northwest. 66
Plate 43. KE-1372, Birdbath (E), looking northeast. 66
Plate 44. KE-1372, Wine press (F), looking southeast. 67
Plate 45. KE-1372, Stone from the Wailing Wall (G), looking west. 67
Plate 46. KE-1372, Stone from the Jordan River (H), looking northwest. 68
Plate 47. KE-1372, Stones from the Good Samaritan Inn in Jerusalem (I), looking northwest. 68
Plate 48. KE-1372, Replica of the Garden Tomb (J), looking southeast. 69
Plate 49. KE-1372, Replica of the Garden Tomb (J), looking southeast. 69
Plate 50. KE-1372, Replica of the Garden Tomb (J) and railing with cross, looking northwest. 70

Plate 51. KE-1373, Multi-family residence, looking northwest. 75
Plate 52. KE-1373, Multi-family residence, looking northeast. 76
Plate 53. KE-1374, Crown Pointe Apartments, looking southeast. 78
Plate 54. KE-1374, Crown Pointe Apartments and courtyard with pergola (B) and playground (C), looking northwest. 79
Plate 55. KE-1374, Shed (A), looking southwest. 80
Plate 56. KE-1375, Emery Drive Apartments, building 1010-1016, looking southwest. 81
Plate 57. KE-1375, Emery Drive Apartments, buildings 1020 (B) and 1030 (A), looking northwest. 82
Plate 58. KE-1375, Emery Drive Apartments, buildings 990 (D) and 980 (C), looking southeast. 83
Plate 59. KE-1375, Emery Drive Apartments, picnic shelter (E), looking northeast. 83
Plate 60. KE-1376, House, looking northwest. 85
Plate 61. KE-1376, House, looking west. 86
Plate 62. KE-1377, House, looking northwest. 87
Plate 63. KE-1377, House, looking northwest. 88
Plate 64. KE-1378, House, looking northwest. 89
Plate 65. KE-1378, House and shed (A), looking northwest. 90
Plate 66. KE-1379, House, looking northwest. 91
Plate 67. KE-1379, House, looking northeast. 92
Plate 68. KE-1379, House, looking northwest. 93
Plate 69. KE-1379, Workshop (A), looking northwest. 93
Plate 70. KE-1380, House, looking northwest. 96
Plate 71. KE-1380, House, garage (A), and carport (B), looking west. 97
Plate 72. KE-1381, House, looking south. 98
Plate 73. KE-1381, Shed (A), looking southwest. 99
Plate 74. KE-1382, House, looking southeast. 100
Plate 75. KE-1382, House, looking southwest. 101
Plate 76. KE-1383, House, looking southeast. 102
Plate 77. KE-1383, House, with shed (A) in the left side background, looking south. 103
Plate 78. KE-1384, House, looking southeast. 104
Plate 79. KE-1384, House, looking south. 105
Plate 80. KE-1385, House, looking southeast. 106
Plate 81. KE-1385, House, looking southeast. 107
Plate 82. KE-1386, House, looking southeast. 108
Plate 83. KE-1386, House, looking south. 109
Plate 84. KE-1387, House, looking southeast. 110
Plate 85. KE-1387, House, looking south. 111
Plate 86. KE-1388, House, looking southeast. 112
Plate 87. KE-1388, House, looking south. 113
Plate 88. KE-1389, House, looking southeast. 114
Plate 89. KE-1389, House, looking south. 115
Plate 90. KE-1390, House, looking southeast. 116
Plate 91. KE-1390, House, looking south. 117
Plate 92. KE-1391, House, looking southeast. 118
Plate 93. KE-1391, House, looking south. 119
Plate 94. KE-1392, House, looking southeast. 120
Plate 95. KE-1392, House, looking south. 121
Plate 96. KE-1393, House, looking southeast. 122
Plate 97. KE-1393, House, looking northeast. 123
Plate 98. KE-1394, House, looking southeast. 124
Plate 99. KE-1394, House, looking northeast. 125
Plate 100. KE-1395, House, looking southeast. 126
Plate 101. KE-1395, House, looking south. 127

Plate 102. KE-1396, House, looking east. 128
Plate 103. KE-1396, House, looking southeast. 129

List of Appendices

Appendix A 2024 Construction Plans

Abstract

Stantec Consulting Services, Inc. (Stantec) was contracted by the Kentucky Transportation Cabinet (KYTC) to complete additional cultural historic survey and updated effects assessments for the Brent Spence Bridge Project (the Project), due to proposed modifications to the Project and accompanying additional survey areas within the expanded Area of Potential Effects (APE). The results of the additional cultural historic survey and updated effects assessments are presented as the second addendum report to the original report, *Cultural Historic Survey Report, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky (KTYC Item No.6-17)*. The original report, completed in 2022, was approved by the Kentucky Heritage Council/State Historic Preservation Office (KHC/SHPO) by letter dated November 17, 2022 (KYTC Item No. 11-8864). Through the November 2022 consultation between KYTC Department of Environmental Analysis (DEA) and KHC/SHPO, the Project was previously determined to have an Adverse Effect resulting from negative impacts to the historic integrity of the Lewisburg Historic District. The first addendum report, titled *Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky (KTYC Item No.6-17)*, was completed in 2023 and approved by KHC/SHPO by letter dated June 7, 2023.

In January 2025, Stantec's architectural history team, supervised by Rachel M. Kennedy, MHP, surveyed 42 additional properties within the additional survey areas in an expanded APE for the Project. Stantec recommends that one of these additional properties, FS 252/KE-1372/The Garden of Hope, is eligible for listing in the National Register of Historic Places (NRHP). Stantec recommends that the remaining 41 additional properties are not eligible for listing in the NRHP. Stantec does not recommend any additional newly proposed NRHP historic districts in the expanded APE.

Stantec recommends that the 2024/2025 modifications to the Project within the expanded APE will create an Adverse Effect to FS 185/KE-07, KE-08/Elberta Apartments Historic District. As a result, Stantec recommends that the modified Project within the expanded APE will increase the scope of the Adverse Effect. The remaining effects from the new scopes of work for this project are recommended as No Adverse Effects. The following report details these findings.

1 Introduction

1.1 Project Description

The Project involves an eight-mile interstate widening project between Dixie Highway in Kentucky and Ezzard Charles Drive in Ohio, with approximately six miles of the Project in Kentucky. The widening will allow the interstate to be split into an express/through and local system, which will reduce congestion and improve safety by moving exiting and entering traffic to the local system. The Project includes the construction of a new companion bridge adjacent to the existing Brent Spence Bridge; reconstructed interchanges and overpasses; new frontage roads; upgraded drainage facilities; relocated utilities; expanded sidewalks and new multiuse facilities; retaining walls; and noise walls - all of which are typically associated with urban highway projects.

If proposed noise walls are built, they will be one of two types – either a transparent noise wall (**Plate 1**) or a concrete noise wall (**Plate 2**). Please see the images below for examples of similar existing noise walls.

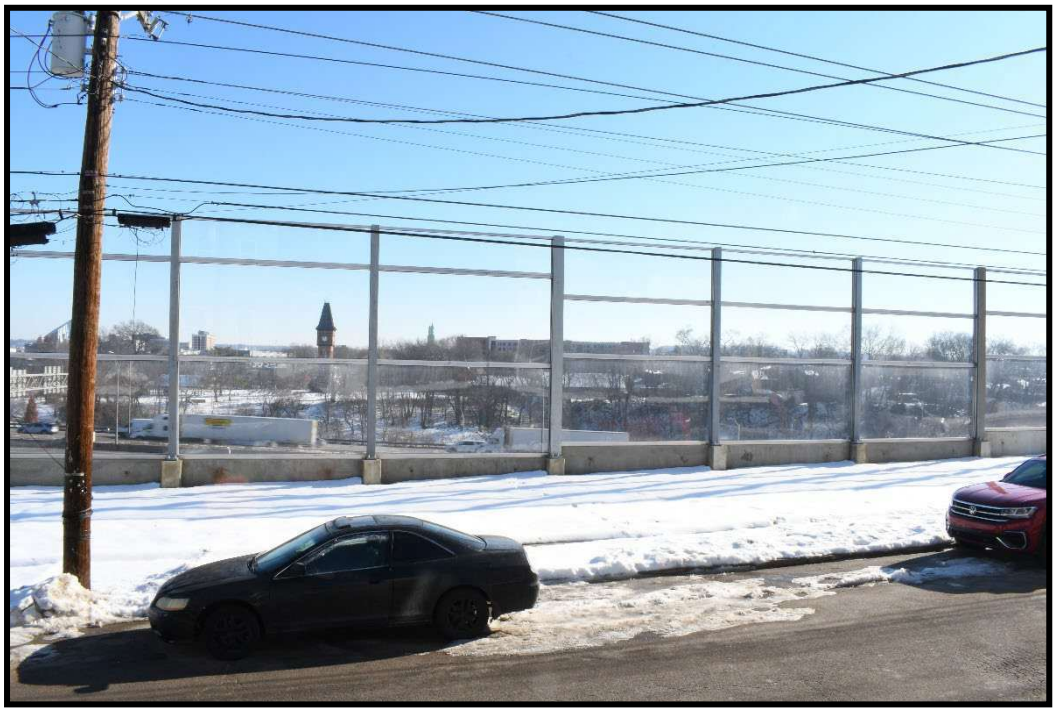


Plate 1. Existing Transparent Noise Wall Along Crescent Avenue

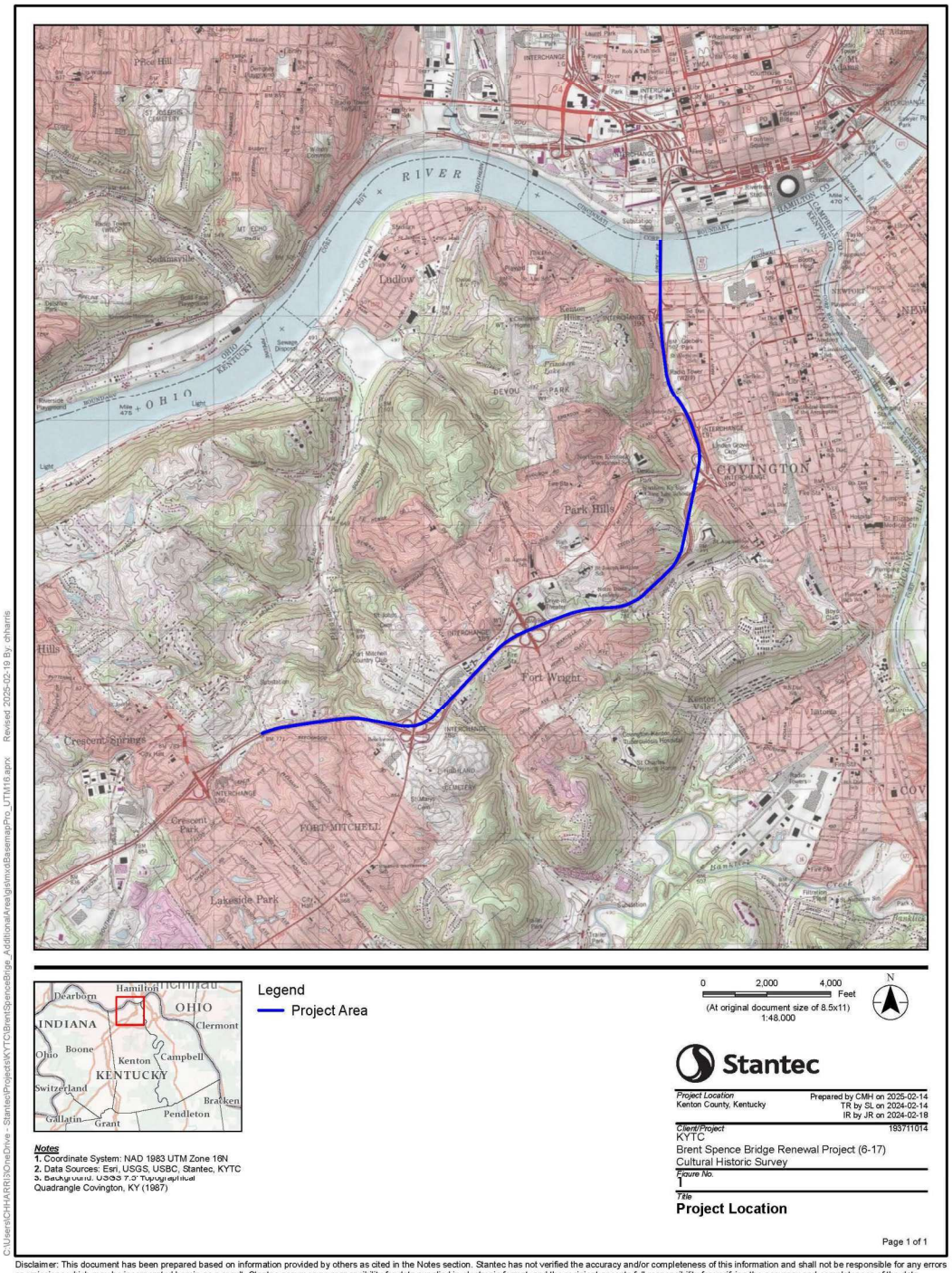


Plate 2. Existing Concrete Noise Wall Near I-71 Exit Ramp 178

The 2024 proposed modifications to the Project include the following activities as well as the proposed construction of additional noise walls throughout the expanded APE:

- An access point to deliver and stage materials and equipment from the Ohio River. To accommodate this need, the project team is proposing to build a concrete bulkhead and loading ramp at the Waterfront Lot off Pete Rose Pier, north of the Covington Levee.
- Realignment of the intersection of West Fourth Street/KY-8 and Main Street/US-127/US-25/US-42 at the Clay Wade Bailey Bridge. The realignment will improve the safety of pedestrians and other users of the multi-use path being constructed by the City of Covington as a separate project.
- Drainage work south of I-75 and west of Emery Drive in Covington, KY. This drainage work will consist of retrofitting an existing outlet structure and connecting it into a separate drainage system. The second area of drainage work is located to the east of the I-75 corridor within the existing right-of-way (ROW), but west of Highland Avenue in Covington, KY. The proposed work will consist of the construction of a retention pond and connecting that pond to the existing drainage/sewer system trunk line under Highland Avenue. In addition, the work will result in the removal of a heavily wooded area adjacent to historic-age resources which were not part of the previous cultural historic reporting.
- A proposed noise wall area located east of I-75 near Edgecliff Road at the southern end, and continuing north along the existing ROW boundary and terminates just south of the intersection of James Simpson Jr. Way and West 14th Street in Covington, KY. This

noise wall would be adjacent to historic-age resources which were not part of the previous cultural historic reporting. Thus, an APE expansion was necessitated in certain locations and additional cultural historic survey.



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 1. Project Location

1.2 Compliance Requirements

This project is a federal undertaking which will be supported by Federal Highway Administration (FHWA) funding, thus FHWA, represented by the Kentucky Transportation Cabinet (KYTC) is the lead federal agency. The cultural historic survey was requested to meet federal compliance requirements in accordance with Section 106 of the National Historic Preservation Act, as amended (54 USC § 306108) and its implementing regulations (36 CFR § 800). Section 106 requires that federal agencies identify cultural resources fifty (50) years of age or older within the APE of their federal undertakings. Additionally, Section 106 requires federal agencies to assess and resolve through consultation any direct and/or indirect adverse effects of their undertakings on historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) prior to the issuance of a federal permit or license or the expenditure of any federal funds for construction.

1.3 Area of Potential Effects

Per 36 CFR § 800.14, the original Area of Potential Effects (APE) for the Project was determined through consultation between KYTC DEA and KHC/SHPO in Summer 2022. KHC/SHPO provided concurrence with this APE in a letter dated June 1, 2022[1] Please refer to the 2022 report *Cultural Historic Survey Report for the Brent Spence Bridge Renewal Project (KYTC Item No. 6-17.00)* for a complete description and graphic representation of the original APE for the Project. Since an additional required strip taking in 2023 was within the original APE, it did not require expansion at the time of the previous 2023 addendum report *Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal, Covington, Kenton County, Kentucky (KTYC Item No. 6-17)*.

In Fall and Winter 2024; however, the Project Area was modified and, as a result, two expansions of the APE were officially coordinated between KYTC DEA and KHC/SHPO. The KHC/SHPO concurred with KYTC DEA that both expansions of the APE were appropriate.[2]

In October 2024, the APE was first officially expanded to the Kentucky-Ohio state boundary to the north; south to the south right-of-way boundary on West Fourth Street; and east to the centerline of Johnson Street. This increase accommodated both the bulkhead construction and work area as well as the intersection realignment.to include the following:

- An access point to deliver and stage materials and equipment from the Ohio River. To accommodate this need, the project team is proposing to build out a concrete bulkhead and loading ramp at the Waterfront Lot off Pete Rose Pier, north of the Covington Levee.
- Realignment of the intersection of West Fourth Street/KY-8 and Main Street/US-127/US-25/US-42 at the Clay Wade Bailey Bridge. The realignment will improve the safety of pedestrians and other users of the multi-use path being constructed by the City of Covington as a separate project. Thus, an APE expansion was necessitated in certain locations and additional cultural historic survey.

[1] Daniel R. Peake (KYTC) to Craig Potts (KY-SHPO), KYTC Section 106 Response Letter, "Subject: Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky, KYTC Item No. 6-17," (Frankfort: Commonwealth of Kentucky Transportation Cabinet), June 1, 2022.

[2] Craig Potts (KY-SHPO) to Daniel R. Peake (KYTC), Section 106 Response Letter, "Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky, KYTC Item No. 6-17," (Frankfort: Tourism, Arts and Heritage Cabinet), October 3, 2024; Craig Potts (KY-SHPO) to Daniel R. Peake (KYTC), Section 106 Response Letter, "Second Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky, KYTC Item No. 6-17," (Frankfort: Tourism, Arts and Heritage Cabinet), December 10, 2024.

In December 2024, the APE was again officially expanded to include the following:

- Drainage work south of I-75 and west of Emery Drive in Covington, KY. This drainage work will consist of retrofitting an existing outlet structure and connecting it into a separate drainage system. The second area of drainage work is located to the east of the I-75 corridor within the existing ROW, but west of Highland Avenue in Covington, KY. The proposed work will consist of the construction of a retention pond and connecting that pond to the existing drainage/sewer system trunk line under Highland Avenue. In addition, the work will result in the removal of a heavily wooded area adjacent to historic-age resources which were not part of the previous cultural historic reporting.
- A proposed noise wall area located east of I-75 near Edgecliff Road at the southern end, and continuing north along the existing ROW boundary and terminates just south of the intersection of James Simpson Jr. Way and West 14th Street in Covington, KY. This noise wall would be adjacent to historic-age resources which were not part of the previous cultural historic reporting. Thus, necessitating an APE expansion in certain locations and additional cultural historic survey.

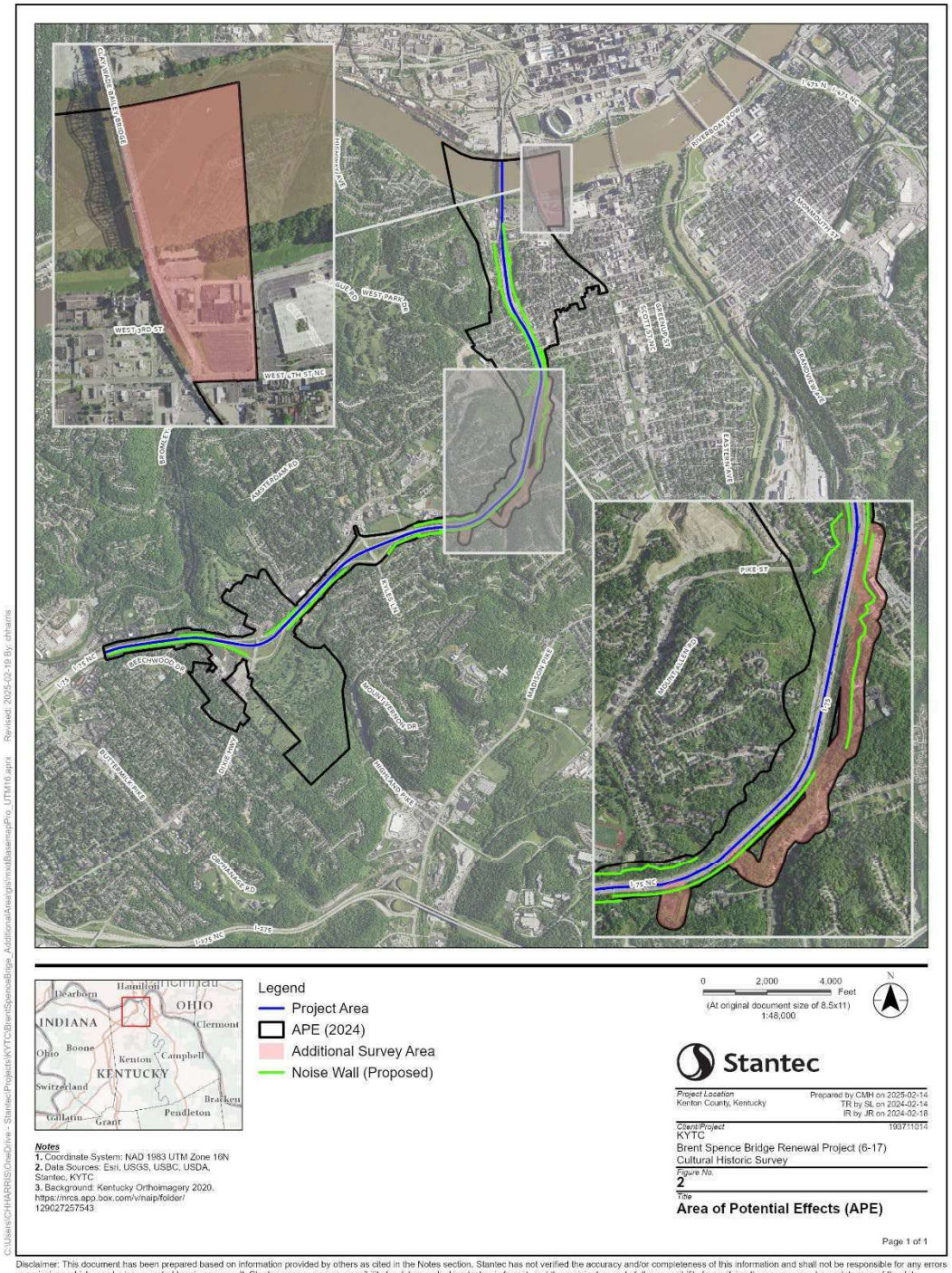


Figure 2. Area of Potential Effects (APE), Showing Additional Survey Areas

2 Methodology and Previous Investigations

The investigation was completed using guidelines set forth in the Secretary of the Interior Standards and the KHC/SHPO's *Guidelines for Archaeology and Historic Preservation and Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports.*[3] The Principal Investigators (PIs), Rachel M. Kennedy, MHP, and Jennifer N. Ryall, MHP, exceed the requirements for professional architectural historian as detailed in the Secretary of the Interior Standards. This investigation includes a records check, review of maps and literature, and field survey. The cultural historic survey methodology has remained consistent with the original methodology referenced in the 2022 *Cultural Historic Survey Report for the Brent Spence Bridge Renewal Project (KYTC Item No. 6-17.00).* Please refer to this report for a complete methodology description, including a complete description of the *Previous Investigations, Map and Literature Review, Survey Methodology,* and their graphic representations and table lists.

2.1 Previous Investigations

Stantec completed a KHC/SHPO records search of the additional survey areas in the expanded APE in January 2025 using the KHC/SHPO Site Check Web Service (v.1) to identify any additional previously recorded properties beyond those identified in 2022. Stantec identified no additional previously recorded properties, and no additional previously recorded historic districts within or intersected by the additional survey areas in the expanded APE. The previously recorded properties identified in 2022 that are within or intersected by the additional survey areas in the APE include FS 75/KEC-107/C&O Railroad Bridge; FS 189/KEC-1063/C&O Railroad Approach Bridge; and FS 174/KEC-456/100 Emery Drive, and are shown in **Figure 3**. Please refer to the 2022 report *Cultural Historic Survey Report for the Brent Spence Bridge Renewal Project (KYTC Item No. 6-17.00).* for a complete description of previously recorded properties within the original APE including a complete description of the *Previous Investigations, Map and Literature Review, Survey Methodology,* and their graphic representations and table lists.

[3] Thomas N. Sanders, Ed., Commonwealth of Kentucky, Kentucky Heritage Council, *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports*, March 1991 (revised 2001/2006/2017).

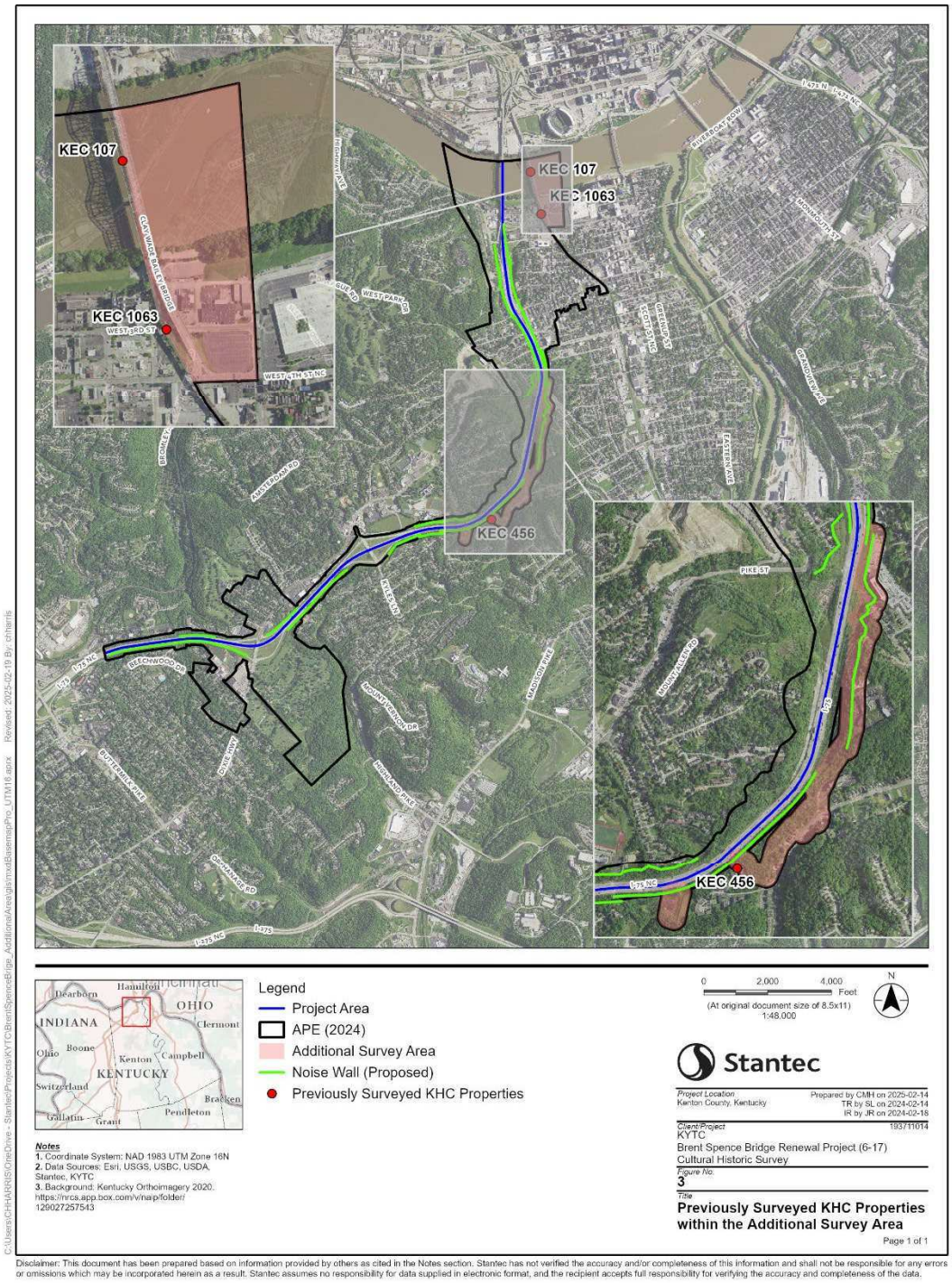


Figure 3. Previously Surveyed Properties within APE Additional Survey Areas

2.2 Survey Methodology

In January 2025, Stantec's architectural history team, supervised by SOI-qualified senior architectural historian Rachel Kennedy, MHP, and including Christopher Harris, MAPH, and Heather Doerge, MHP, surveyed the additional areas within the expanded APE for properties that met the 50-year age consideration for the NRHP with the addition of a five-year buffer to account for potential project delays (i.e., built before circa 1980). Each potential historic property was photographed and a preliminary assessment of historic integrity and NRHP eligibility was conducted.

Forty-two additional field sites were examined within the additional survey areas in the expanded APE, which included entire parcels. Most of the field survey was on the exterior of the properties from the public right-of-way. If a property had a high level of historic integrity and was likely to be recommended eligible for listing in the NRHP, an effort was made to gain access to the exterior of each building on the property. General landscape photographs were also taken. The additional survey areas in the expanded APE were also surveyed for potential historic districts. Stantec had few access limitations during the field survey. KHC inventory forms, photographs, and mapping, as well as site plans, as needed, were prepared using guidelines set forth by KHC/SHPO in *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports*, revised in 2001/2006/2017, and in the *Manual for Completing Survey Forms, Site Identification Section, Statewide Survey & Inventory Program (revised October 2023)*.[4]

Standing resources are considered eligible for the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet Criteria A, B, or C on the local, state, or national level.

> **Criterion A:** associated with events that have made a significant contribution to the broad patterns of our history.
>
> **Criterion B:** associated with the lives of persons significant in our past.
>
> **Criterion C:** embodies distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

[4] Thomas N. Sanders, Ed., Commonwealth of Kentucky, Kentucky Heritage Council, Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports, March 1991 (revised 2001/2006/2017); Commonwealth of Kentucky, Kentucky Heritage Council, Manual for Completing Survey Forms, Site Identification Section, Statewide Survey & Inventory Program, revised October 2023.

2.3 Summary of Recommendations

Stantec performed a field inventory of 42 additional field sites of sufficient age for NRHP consideration (**Table 2-3**). Full descriptions and images of these properties can be found in Section 3. Stantec recommends one property, FS 252/KE-1372/Garden of Hope, eligible for listing in the NRHP. Stantec recommends the remaining 41 properties are not eligible for listing in the NRHP. Stantec does not recommend any additional newly proposed NRHP historic districts.

Table 2-1. Additional Field Survey Sites

FS No.	KHC No.	Name	Address	NRHP Recommendation
FS 235	KE-1355	Corken Steel Products	320 W. 3rd St, Covington, KY 41011	Not Eligible
FS 236	KE-1356	The D. C. Morrison Company	201 and 209 Johnson St, Covington, KY 41011	Not Eligible
FS 237	KE-1357	House	1504 Monroe St, Covington, KY 41014	Not Eligible
FS 238	KE-1358	House	1502 Monroe St, Covington, KY 41014	Not Eligible
FS 239	KE-1359	House	700 Anns Ln, Covington, KY 41014	Not Eligible
FS 240	KE-1360	House	1501 Monroe St, Covington, KY 41014	Not Eligible
FS 241	KE-1361	House	1503 Monroe St, Covington, KY 41014	Not Eligible
FS 242	KE-1362	House	1505 Monroe St, Covington, KY 41014	Not Eligible
FS 243	KE-1363	House	1507 Monroe St, Covington, KY 41014	Not Eligible
FS 244	KE-1364	House	1509 Monroe St, Covington, KY 41014	Not Eligible
FS 245	KE-1365	House	1513 Monroe St, Covington, KY 41014	Not Eligible
FS 246	KE-1366	House	1515 Monroe St, Covington, KY 41014	Not Eligible
FS 247	KE-1367	House	1517 Monroe St, Covington, KY 41014	Not Eligible
FS 248	KE-1368	House	619 Edgecliff Rd, Covington, KY 41014	Not Eligible
FS 249	KE-1369	House	521 Edgecliff Rd, Covington, KY 41014	Not Eligible
FS 250	KE-1370	House	623 Edgecliff Rd, Covington, KY 41014	Not Eligible
FS 251	KE-1371	House	625 Edgecliff Rd, Covington, KY 41014	Not Eligible

FS No.	KHC No.	Name	Address	NRHP Recommendation
FS 252	KE-1372	Garden of Hope	699 Edgecliff Rd, Covington, KY 41014	Eligible
FS 253	KE-1373	House	701 Edgecliff Rd, Covington, KY 41014	Not Eligible
FS 254	KE-1374	Crown Pointe Apartments	725 Edgecliff Rd, Covington, KY 41014	Not Eligible
FS 255	KE-1375	Emery Drive Apartments	1000 Emery Drive, Covington, KY 41011	Not Eligible
FS 256	KE-1376	House	910-912 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 257	KE-1377	House	822 Highland Ave, Covington, KY 41011	Not Eligible
FS 258	KE-1378	House	818 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 259	KE-1379	House	816 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 260	KE-1380	House	812 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 261	KE-1381	House	793 Highland Ave, Covington, KY 41011	Not Eligible
FS 262	KE-1382	House	797 Highland Ave, Covington, KY 41011	Not Eligible
FS 263	KE-1383	House	801 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 264	KE-1384	House	805 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 265	KE-1385	House	807 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 266	KE-1386	House	809 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 267	KE-1387	House	811 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 268	KE-1388	House	813 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 269	KE-1389	House	815 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 270	KE-1390	House	817 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 271	KE-1391	House	819 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 272	KE-1392	House	821 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 273	KE-1393	House	823 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 274	KE-1394	House	825 Highland Ave, Fort Wright, KY 41011	Not Eligible
FS 275	KE-1395	House	901 Highland Ave, Fort Wright, KY 41011	Not Eligible

FS No.	KHC No.	Name	Address	NRHP Recommendation
FS 276	KE-1396	House	903 Highland Ave, Fort Wright, KY 41011	Not Eligible

3 Field Site Descriptions and Results

The additional field survey sites range in period of construction from the late nineteenth century through the mid-twentieth century, as far as can be determined from exterior survey (see **Figures 4-5)**. Forty-two field survey sites are described in this section of the report.

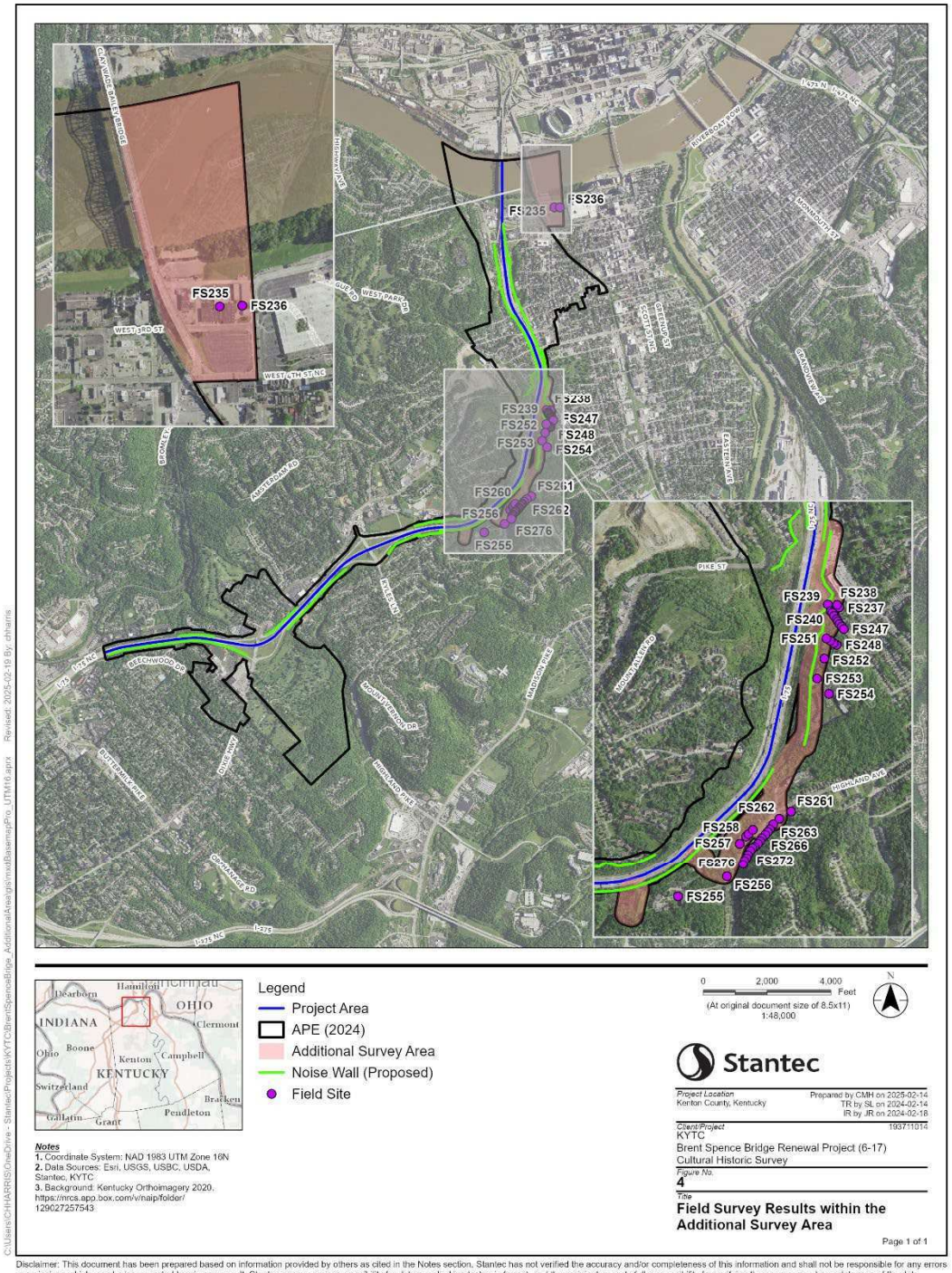


Figure 4. Field Survey Results Map

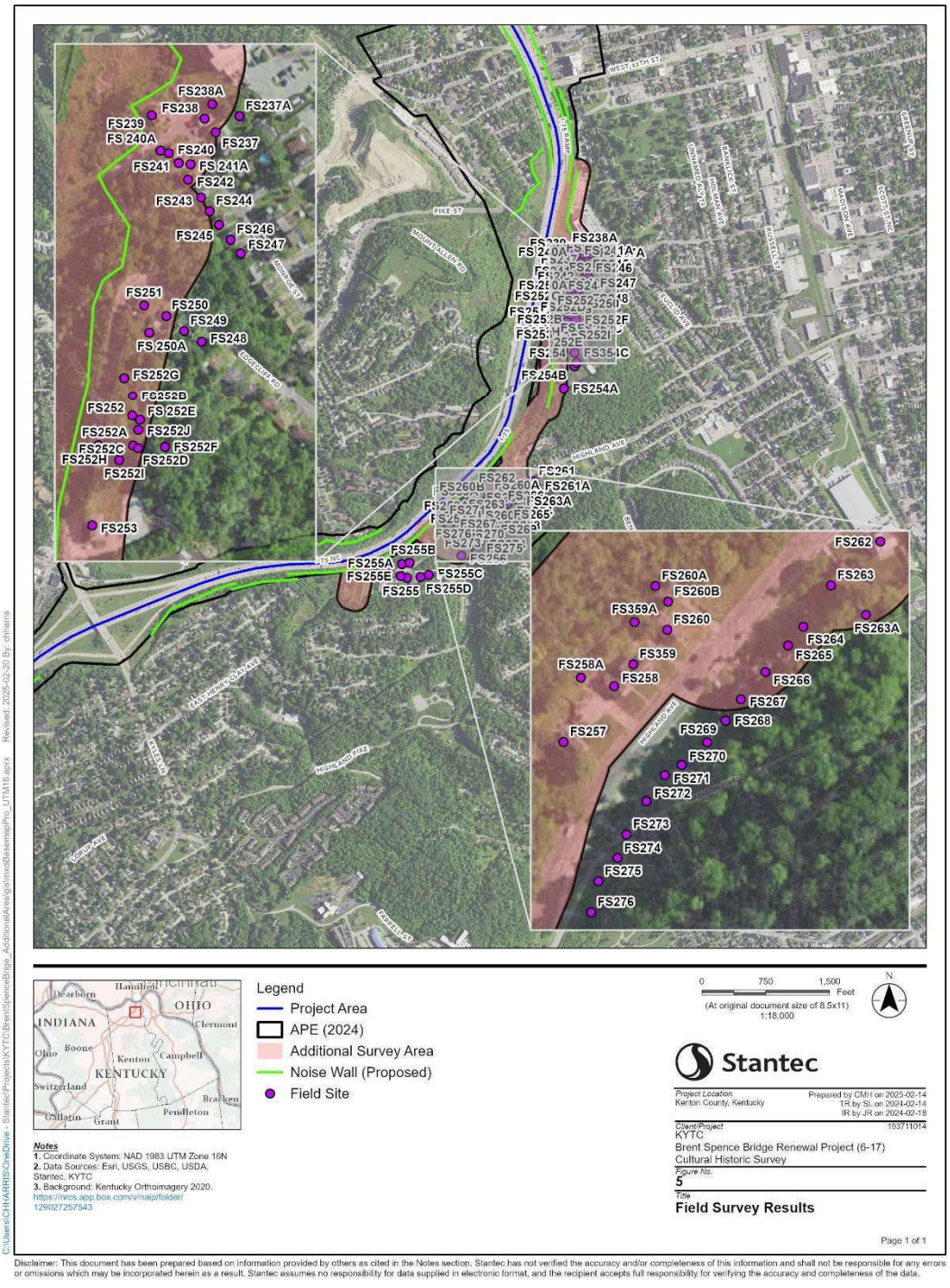


Figure 5. Field Survey Results Detail Map

3.1 Field Survey Sites

Field Site 235

Corken Steel Products
KE-1355
Circa 1930
320 W. 3rd Street
Covington, KY 41011
39.088077, -84.516929



Plate 3. KE-1355, Corken Steel Products, looking northeast.

Description:

This 1.77-acre parcel includes the Corken Steel Products building. The oldest section of the building was constructed circa 1930. The only visible part of the original building is a parapet wall that extends above the roof of the later additions. The parapet wall is constructed of rusticated block capped with coping and has taller piers at the corners with another pier in the center of the long wall. The older section of the building has been surrounded by additions constructed circa 1956, 1960, 1968, 1984, and 2000. The more modern additions appear to have a membrane roof. An interior brick chimney is located at the northeastern corner of the oldest section of the building. Portions of the later additions to the building are clad in brick

veneer and the rest is clad with vertical metal panels. Windows are glass block with concrete sills. There are steel doors at various entries around the building. A covered loading dock is on the eastern side of the building and several overhead garage doors are along the northern side of the building. The foundation of the building is not visible.



Plate 4. KE-1355, Corken Steel Products, looking southeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century commercial building in Covington or Kenton County. The building does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 236

The D. C. Morrison Company
KE-1356
Circa 1965
201 and 209 Johnson Street
Covington, KY 41011
39.088146, -84.516325



Plate 5. KE-1356, The D. C. Morrison Company, looking northwest.

Description:

These .61-acre and .30-acre parcels include The D. C. Morrison Company building and a garage. The D. C. Morrison Company building is north of the garage workshop (A). This building has a single story circa 1980 section on the western side and a two story circa 1990 section on the eastern side. The east side section has a single-story addition on its southern side. The building is constructed of concrete block clad with vertical metal panels; a band of tile siding travels between the metal and block. The tile extends down a column at the entry. Windows on the upper level are vertically oriented and include fixed panes in metal frames and one sliding window. Windows on the lower level include sliding sashes, a twelve-light metal frame window, and four-light metal awning windows. The entry is recessed with concrete steps leading to a porch with a glass and metal door. The foundation of the building is poured concrete.

The circa 1965 garage workshop (A) is the oldest building on these parcels. It has a front gable roof covered with metal panel roofing material and is constructed of concrete block. An overhead garage door and a steel, single leaf door are on the eastern side of the building. The western side of the building includes two nine-light metal frame windows and a steel, single leaf door. The foundation is not visible.



Plate 6. KE-1356, Garage workshop (A), looking northeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a twentieth century commercial building in Covington or Kenton County. The building does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 237

House
KE-1357
Circa 1955
1504 Monroe Street
Covington, KY 41014
39.070455, -84.517850



Plate 7. KE-1357, Ranch house, looking southeast.

Description:

This .13-acre parcel includes a residence and a shed. The circa 1955 Ranch house has a hip roof covered with asphalt shingles. The house is clad in brick veneer. The 1/1 vinyl sash windows have concrete sills. Two concrete steps lead to a six-panel front door. The foundation of the house is parged and raised above grade along the north and rear elevations.

Northeast of the residence is a shed (A). The shed has a side gable roof that is covered with metal panels. The shed is clad in vertical board. The foundation of the shed was not visible.

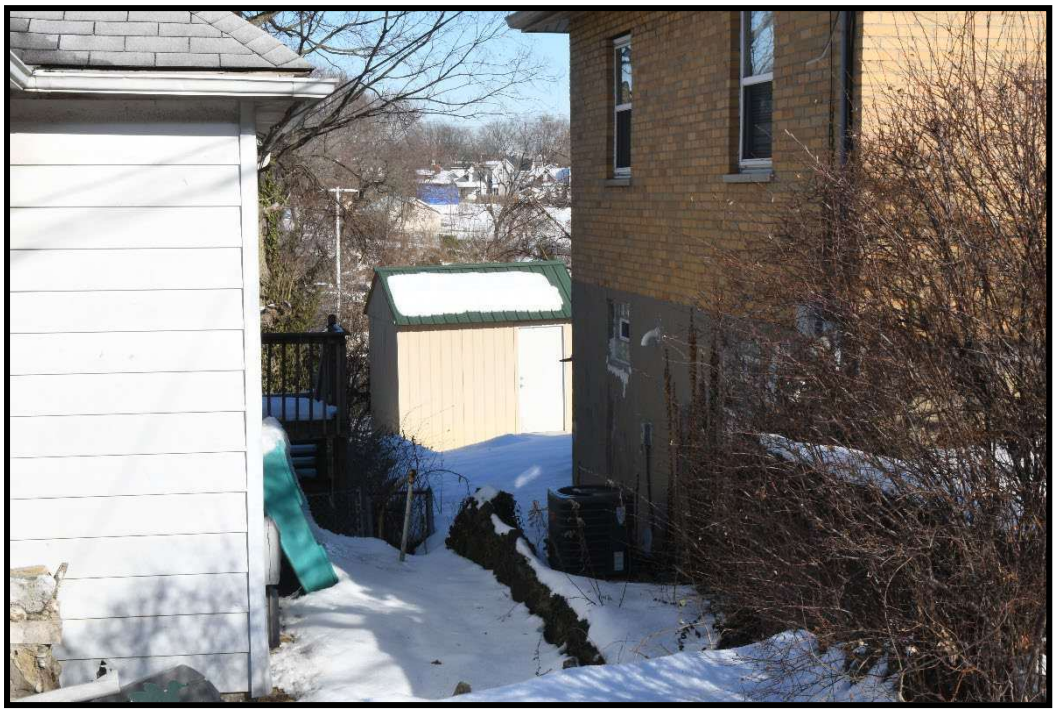


Plate 8. KE-1357, Shed (A), looking northeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Ranch house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 238

House
KE-1358
Circa 1920
1502 Monroe Street
Covington, KY 41014
39.0705422, -84.5179278



Plate 9. KE-1358, House, looking north.

Description:

This .12-acre parcel includes a residence and a garage. The circa 1920, one-and-one-half-story house has a hip roof covered with asphalt shingles and a central, interior brick chimney. The house is clad with vinyl siding and has 1/1 and 3/1 wood sash windows. A front gable porch roof is supported by wood posts. The gable of the porch is clad in aluminum siding. The foundation is parged.

Northeast of the residence is a front gable garage (A). The garage is clad with panels of an undetermined material and has a metal overhead garage door. The garage roof is covered with asphalt shingles.



Plate 10. KE-1358, Garage (A), looking northeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century residence in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 239

House
KE-1359
Circa 1930
700 Anns Lane
Covington, KY 41014
39.0705797, -84.5183744



Plate 11. KE-1359, House, looking northwest.

Description:

This .09-acre parcel includes a circa 1930, one-and-one-half-story Bungalow. The house has a side gable roof covered with asphalt shingles. A large, front gable dormer protrudes from the southeast roof slope, above the façade porch. An exterior brick chimney pierces the northeast gable end. The house is clad in textured brick veneer and the dormer is clad in vinyl siding. Windows are 1/1 wood sash on the upper levels and glass block at the basement level. The recessed façade porch features brick posts, piers, and an open brick railing capped with concrete. A rear, recessed porch also has brick posts and an open brick railing. The foundation of the house is parged.



Plate 12. KE-1359, House, looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century Bungalow in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor are they an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 240

House
KE-1360
Circa 1930
1501 Monroe Street
Covington, KY 41014
39.0703293, -84.5182443



Plate 13. KE-1360, House, looking southwest.

Description:

This .11-acre parcel includes a residence and a retaining wall. The circa 1930, one-and-one-half-story Bungalow has a side gable roof covered with asphalt shingles. A large front gable roof dormer protrudes from the northeast roof slope above the façade porch. An exterior brick chimney pierces the northwest gable end. The house is clad in textured brick veneer and the dormer is clad in wood shingles. Windows include 1/1 wood sash, a picture window flanked by casement windows, and sliding windows. The recessed façade porch features textured brick posts, piers, and a closed brick railing with decorative brickwork. The brick railing is capped with concrete. A rear, recessed porch also has brick posts and a closed brick railing. An integral, single car garage is located beneath the front porch. The foundation of the house is parged and raised above grade.

Behind the house, on the northwest side is a poured concrete retaining wall with a mortared stone post (A) at the corner.



Plate 14. KE-1360, House and retaining wall with stone post (A), looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century Bungalow in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 241

House
KE-1361
Circa 1930
1503 Monroe Street
Covington, KY 41014
39.0702647, -84.5181813



Plate 15. KE-1361, House, looking southwest.

Description:

This .13-acre parcel includes a residence and stone wall. The circa 1930, two story residence has a hip roof and two exterior brick chimneys. The house is clad in vinyl siding with 1/1 and 5/1 wood sash windows. A two-story porch is along the façade. The lower porch features textured brick posts and an open brick railing, while the upper porch has wood posts and a wood railing. An integral garage is beneath the porch. The foundation of the house is rusticated block that is raised above grade.

A mortared stone wall extends from the southeastern corner of the house (A).



Plate 16. KE-1361, House and stone wall (A), looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 242

House
KE-1362
Circa 1930
1505 Monroe Street
Covington, KY 41014
39.0701570, -84.5180934



Plate 17. KE-1362, House, looking southwest.

Description:

This .13-acre parcel includes a circa 1930 Bungalow. The one-and-one-half-story house has a side gable roof covered with asphalt shingles. A front gable dormer projects from the northeastern roof slope, above the façade porch. An exterior brick chimney pierces the northwest gable end. The house is clad in brick veneer; the dormer is clad in vinyl siding. The windows include 1/1 vinyl sash, a picture window flanked by metal sliding windows, and glass block windows. The recessed porch has brick posts and an open brick railing. A single car garage is located beneath the porch. The foundation of the house is parged and raised above grade along the façade.



Plate 18. KE-1362, House, looking west.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century Bungalow in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 243

House
KE-1363
Circa 1930
1507 Monroe Street
Covington, KY 41014
39.0700440, -84.5179848



Plate 19. KE-1363, House, looking southwest.

Description:

This .13-acre parcel includes a circa 1930 residence. The two-story house has a front gable roof covered with asphalt shingles. An interior brick chimney is located on the southeastern roof slope near the ridgeline. The house is clad in brick veneer and has 1/1 vinyl sash windows. A front gable porch roof is supported by brick posts and has an open brick railing. An integral single car garage is located beneath the porch. The foundation of the house is parged and raised above grade along the façade. Mortared stone retaining walls line both sides of the driveway.



Plate 20. KE-1363, House, looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 244

House
KE-1364
Circa 1930
1509 Monroe Street
Covington, KY 41014
39.0699643, -84.5179285



Plate 21. KE-1364, House, looking west.

Description:

This .13-acre parcel includes a circa 1930 residence. The two-story house has a front gable roof covered with asphalt shingles. An interior brick chimney is located on the southeastern roof slope near the ridgeline. The house is clad in brick veneer and has 1/1 vinyl sash windows. A shed porch roof is supported by wood posts with a wood and metal railing. An integral single car garage is located beneath the porch. The foundation of the house is parged and above grade along the façade. Concrete block retaining walls line both sides of the driveway.



Plate 22. KE-1364, House, looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 245

House
KE-1365
Circa 1930
1513 Monroe Street
Covington, KY 41014
39.0698618, -84.5178540



Plate 23. KE-1365, House, looking west.

Description:

This .13-acre parcel includes a circa 1930 Bungalow. The one-and-one-half-story house has a side gable roof covered with asphalt shingles. A front gable dormer projects from the northeast roof slope, above the façade porch. An exterior brick chimney pierces the southeast gable end. The house is clad in brick veneer with vinyl siding on the dormer and at the gables. The house has 3/1 and 4/1 wood sash windows. Mortared stone steps lead to the porch. The porch is supported by brick posts and has an open railing with a pier; the railing is capped with concrete. An integral garage is located beneath the porch and has its original carriage doors. The foundation is of the house is parged and above grade along the façade. A mortared stone wall runs the length of both sides of the driveway from the house to the sidewalk.



Plate 24. KE-1365, House, looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century Bungalow in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 246

House
KE-1366
Circa 1930
1515 Monroe Street
Covington, KY 41014
39.0697665, -84.5177568



Plate 25. KE-1366, House, looking southwest.

Description:

This .13-acre parcel includes a circa 1930 Bungalow. The one-and-one-half-story house has a side gable roof covered with asphalt shingles. A front gable dormer projects from the northeastern roof slope, above the façade porch. An exterior brick chimney pierces the southeast gable end. The house is clad in brick veneer with vinyl siding on the dormer and has 3/1 and 4/1 wood sash windows. The porch is supported by brick posts and has an open railing capped with concrete. An integral garage opens beneath the porch. The foundation is parged and above grade along the façade. Stone retaining walls line both sides of the driveway.



Plate 26. KE-1366, House, looking southwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century Bungalow in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 247

House
KE-1367
Circa 1940
1517 Monroe Street
Covington, KY 41014
39.0696723, -84.5176717



Plate 27. KE-1367, House, looking southwest.

Description:

This .21-acre parcel includes a circa 1940 residence. The two-story house has a side gable roof covered with asphalt shingles. The house has an exterior gable end chimney on the southeastern side. The house is clad with brick veneer and has 1/1 vinyl sash windows. The brick veneer entry vestibule has a front gable with vinyl siding within the gable. A metal awning shelters the door. There is a lower level, single car, integral garage. The foundation of the house is parged and above grade along the façade. Mortared stone retaining walls line both sides of the driveway.



Plate 28. KE-1367, House, looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early to mid-twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 248

House
KE-1368
Circa 1955
619 Edgecliff Road
Covington, KY 41014
39.0690935, -84.5180078



Plate 29. KE-1368, House, looking southwest.

Description:

This .20-acre parcel includes a circa 1955 Ranch residence. The house has a hip roof and is clad in brick veneer. Windows include 1/1 vinyl sash and a picture window flanked by sliding windows. The wood porch is covered by a shed roof, which is supported by wood posts. The porch has a wood railing. The raised basement is parged and has a single door beneath the porch.



Plate 30. KE-1368, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Ranch house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 249

House
KE-1369
Circa 1955
621 Edgecliff Road
Covington, KY 41014
39.0691762, -84.5181580

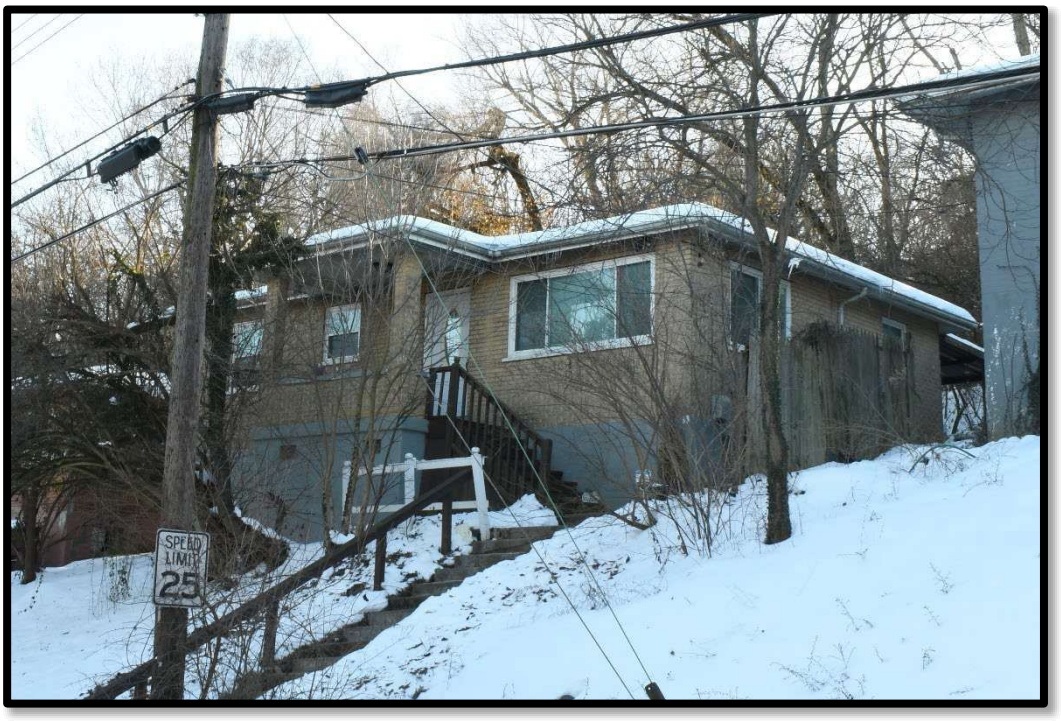


Plate 31. KE-1369, House, looking south.

Description:

This .20-acre parcel includes a circa 1955 Ranch residence. The house has a hip roof and is clad in brick veneer. The windows include 1/1 vinyl sash and a picture window flanked by sliding windows. A hip roof porch extends from the façade and is supported by brick posts. The porch has a closed brick railing. The foundation of the house is parged and above grade along the façade.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Ranch house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or

state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 250

House
KE-1370
Circa 1955
623 Edgecliff Road
Covington, KY 41014
39.0692856, -84.5183055



Plate 32. KE-1370, House, looking southwest.

Description:

This .20-acre parcel includes a circa 1955 Ranch residence. The house has a hip roof and is clad in brick veneer. The windows include 1/1 vinyl sash, a vinyl frame picture window flanked by vinyl sash 1/1 windows, and glass block windows. The front gable porch roof is supported by decorative metal scroll posts and has a metal railing. There is vinyl siding within the porch gable. The foundation of the house is parged and partially above grade.

Southwest of the house is a freestanding raised balcony (A) constructed of wood.

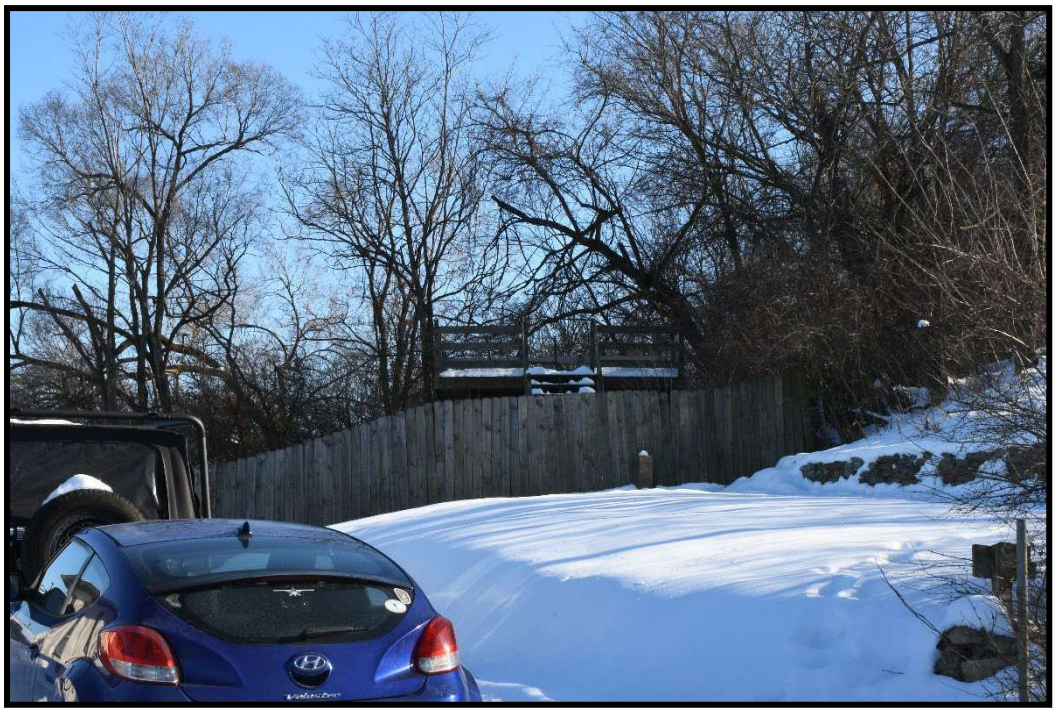


Plate 33. KE-1370, Freestanding balcony (A), looking southeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Ranch house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 251

House
KE-1371
Circa 1955
625 Edgecliff Road
Covington, KY 41014
39.0693574, -84.5184899



Plate 34. KE-1371, House, looking southwest.

Description:

This .20-acre parcel includes a circa 1955 Ranch residence. The house has a hip roof and is clad in brick veneer. The windows include 1/1 vinyl sash, a vinyl frame picture window flanked by vinyl sash slider windows, and metal frame windows. A shed roof porch extends from the façade and has been enclosed with wood casement windows. The foundation of the house is parged and partially above grade.



Plate 35. KE-1371, House, looking southeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Ranch house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 252

Garden of Hope
KE-1372
Circa 1958
699 Edgecliff Road
Covington, KY 41014
39.068550, -84.518560



Plate 36. KE-1372, Garden of Hope, looking north.

Description:

This one-acre parcel comprises the Garden of Hope, a religious-themed garden site intended for meditation and prayer, based on Christian themes.[5] Located atop a hillside, the parcel includes the Carpenter Shop; the Chapel of Dreams; a statue of Jesus delivering the Sermon on the Mount; two birdbaths; a wine press; a stone from the Wailing Wall; a stone from the Jordan River; stones from the Good Samaritan Inn in Jerusalem; and a replica of the Garden Tomb in Jerusalem. The garden was conceived by Reverend (Rev.) Morris Coers of Immanuel Baptist

[5] Cynthia Grisolia, "The Garden of Hope" in Kentucky Monthly, April 1, 2015, accessed online January 2025 at www.kentuckymonthly.com/explore/places/the-garden-of-hope/.

Church of Covington as early as 1938, on a trip to the Holy Land, as a way to introduce the Holy Land to people in the Greater Cincinnati area, who may never get the opportunity to travel abroad.[6] In 1956, Rev. Coers found a perfect location atop a hillside in Covington, overlooking Cincinnati, and adjacent to the I-75 highway corridor for ease of access. The narrative below is divided into a historic background section and a property description for ease in understanding the components on the property as well as its important history.

Historic Background

The Garden of Hope was first envisioned by Rev. Morris Coers (1908-1960). Rev. Coers was born in Shelbyville, Indiana. He studied at the Moody Bible Institute in Chicago, Illinois and was ordained at the young age of 17. Two years later, he became the pastor of a Baptist Church in Indianapolis. In 1945, Rev. Coers came to Covington, Kentucky, and became pastor of the Immanuel Baptist Church.[7]

Prior to his arrival at Immanual Baptist Church, Rev. Coers had already created a plan to create a replica of the Jerusalem Garden Tomb, which was inspired by a trip he and his wife Vernice took to the Holy Land in 1938.[8] Rev. Coers announced his plans to create a Holy Land replica overlooking Cincinnati in 1956, during an Easter Sunrise Service at Dixie Gardens Drive-In Theatre.[9] Later that year, work was underway atop a hill, tucked behind a recent residential development off current-day Edgecliff Road in Covington.

H.O. Armburster, in cooperation with Natorp Landscape Organization, was engaged to design the complex, of which the centerpiece was a replica of the tomb of Jesus.[10] According to a 1965 tour brochure, the garden "contains thousands of trees and plants, many with biblical reference…Look for the Thorn Tree, the Rose of Sharon, the Lily of the Valley, the Fig Tree, the Cedars of Lebanon" (**Figure 6** and **Figure 7)**.[11] In November 1956, *The Kentucky Post* featured a photograph of the "replica of Christ's tomb in Jerusalem under construction on a 2.5-acre wooded tract atop a knoll near Hatchet Lake, overlooking Covington, Newport and Cincinnati." The article explained that the exterior of the tomb, shown as a wall of poured concrete in the

---

[6] No author, "The Garden of Hope" 1965 brochure, accessed online in March 2025 at: gh_brochure_c.1965.pdf; Kenton County Library, "Community History – Covington – Garden of Hope," Accessed online in March 2025 at https://www.kentonlibrary.org/community-history-covington-garden-of-hope/

[7] "Former Legislator Rev. Coers is Dead," *The Indianapolis News*, February 25, 1960, accessed February 2025 online at: www.newspapers.com/image/311682522/; Kenton County Public Library, "Community History – Covington – Immanual Baptist Church (Third Baptist Church)," accessed February 2025 online at: www.kentonlibrary.org/genealogy/community-history/covington/immanuel-baptist-church/.

[8] Margaret Paschke, "Finds Hope in Garden," *The Kentucky Post*, October 3, 1970, 1, 9, accessed February 2025 online at: www.newspapers.com/image/1033277308/; Kenton County Public Library, "West End, Garden of Hope," accessed February 2025 online at: www.kentonlibrary.org/community-history-covington-garden-of-hope/.

[9] "Dixie Drive-In Scene of Event," *The Kentucky Post*, April 20, 1962, 5, accessed February 2025 online at: www.newspapers.com/image/1032163473/.

[10] Kenton County Library, "Community History – Covington – Garden of Hope," Accessed online in March 2025 at https://www.kentonlibrary.org/community-history-covington-garden-of-hope/

[11] No author, "The Garden of Hope" 1965 brochure, accessed online in March 2025 at: gh_brochure_c.1965.pdf

photo, would be “covered with wire mesh and sprayed with concrete to simulate natural rock found in Jerusalem. It will be treated with acid and tinted to give it an ageless appearance.” The article continued to explain that the site would eventually feature a “Garden of Hope,” and a “Chapel of Dreams.”[12]

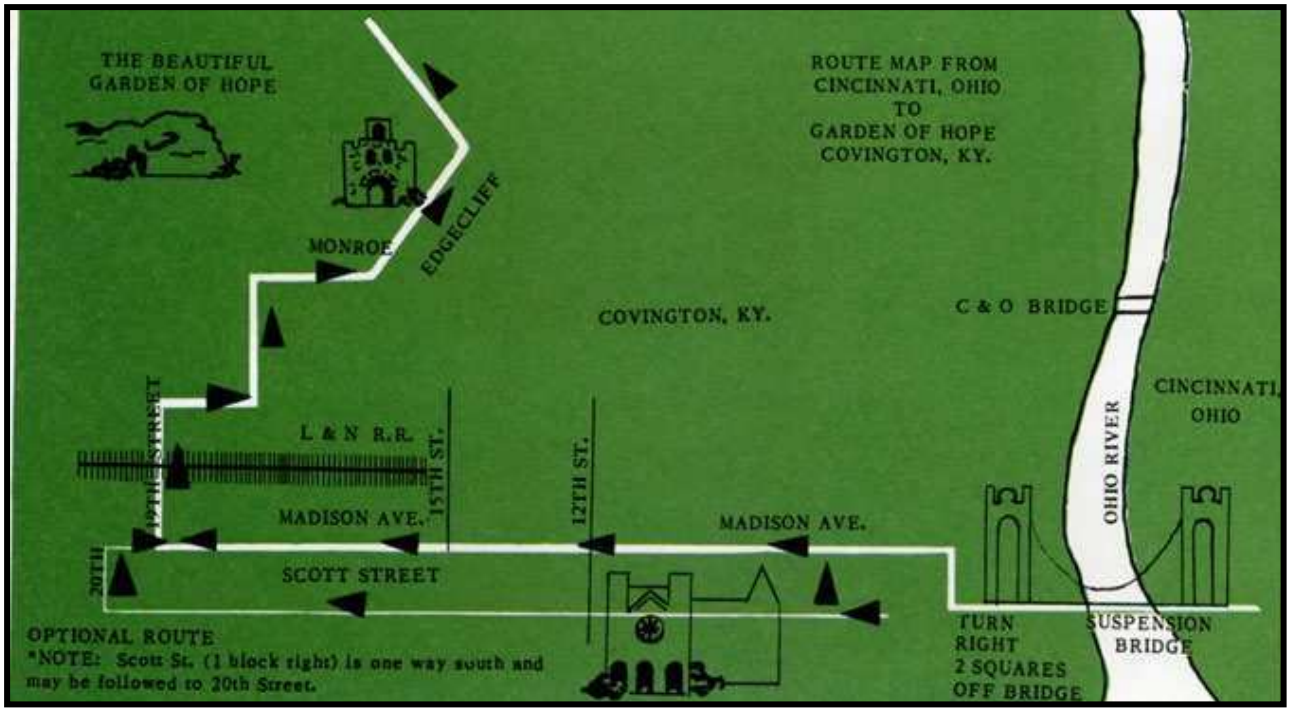


Figure 6. Garden of Hope Brochure image, 1965. [13]

[12] “A Replica of Christ’s Tomb,” *The Kentucky Post*, November 16, 1956, 1, accessed February 2025 online at: www.newspapers.com/image/761037686/.
[13] Materializing the Bible, Attraction Brochures, Garden of Hope Brochure, 1965, accessed online March 2025 at: www.materializingthebible.com/uploads/5/5/9/5/55958661/gh_brochure_1965.pdf.



Figure 7. Garden of Hope Brochure image, 1965. [14]

[14]Materializing the Bible, Attraction Brochures, Garden of Hope Brochure, 1965, accessed online March 2025 at: www.materializingthebible.com/uploads/5/5/9/5/55958661/gh_brochure_1965.pdf.

In July 1957, a photograph of the completed tomb and line drawings of the proposed Chapel of Dreams and Carpenter Shop were published in the newspaper (**Figure 8**). This article explained that the tomb was the largest of its kind in the world and that it contained more than one million pounds of stone and steel. The Chapel of Dreams was described as a replica of the Spanish Cathedral with an altar made from stone that was sent from the location of the Sermon on the Mount. The Carpenter Shop was planned to serve as a gift shop, where items from Jerusalem would be sold.

Rev. Coers was quoted in the 1957 article as saying, "this is a community project that will bring thousands to northern Kentucky and Greater Cincinnati. It will be a tourist and convention attraction." According to the article, Governor of Kentucky at the time, A.B. Chandler, had shown an interest in the project. Governor Chandler reportedly pledged his support as he was "enroute to Jerusalem to meet with the president of Israel."[15] Before Governor Chandler's departure from Israel, he vowed to announce plans of the site in Covington to the people of Israel in hopes of bringing assistance from the area.[16] Upon his return, Governor Chandler presented an ancient oil lamp from Israeli Prime Minister David Ben-Gurion to Rev. Coers for use at the Garden of Hope Chapel.[17] Gov. Chandler also brought back some "authentic tools for the garden" from the prime minister, who was the first Prime Minster and primary national founder of the state of Israel in 1948.[18] These tools were later displayed in the Carpenter Shop.[19]

---

[15] "New Buildings for Garden," *The Kentucky Post*, July 30, 1957, 1, accessed February 2025 online at: www.newspapers.com/image/761063345/.
[16] "Hope in the Garden of Hope," *The Kentucky Post*, July 31, 1957, 4, accessed February 2025 online at: www.newspapers.com/image/761063428/.
[17] "Rev. Coers to Light Lamp from Israel," *The Kentucky Post*, September 6, 1957, 1, accessed February 2025 online at: www.newspapers.com/image/761065144/.
[18] Kenton County Library, "Community History – Covington – Garden of Hope," Accessed online in March 2025 at https://www.kentonlibrary.org/community-history-covington-garden-of-hope; No author, "David Ben Guerian," Wikipedia Entry, accessed in March 2025 at https://en.wikipedia.org/wiki/David_Ben-Gurion
[19] "Garden of Hope X-Way Link Seen," *The Kentucky Post*, July 7, 1958, 1, accessed February 2025 online at: www.newspapers.com/image/761242433/.



Figure 8. Replica of Garden Tomb, line drawings of Chapel of Dreams and Carpenter Shop, 1957. [20]

The site garnered much attention during its early development, mostly due to the work of Rev. Coers. In July of 1958, Solomon J. Mattar, the warden for the Garden Tomb in Jerusalem, toured the Garden of Hope along with Rev. Coers and Governor Chandler. That evening, Mattar spoke at a $100 a plate dinner sponsored by the Garden of Hope and held at the Netherland Hilton in Cincinnati.[21] During his tour of the tomb, Mattar "was impressed with the authenticity of the project, including the duplication of the echo." Matter apparently located a few mistakes with the design and Rev. Coers agreed to correct them. An article on the front page of *The Kentucky Post* explained that Mattar's son, also named Solomon, was studying medicine at the University of Cincinnati and would become "keeper of the local tomb during his student days. He will make several additions such as a handmade wine press and other items of interest." During this same meeting, Governor Chandler promised Rev. Coers that "because of its potential tourist attraction," the Garden of Hope would be "given access to the new expressway."[22] The article quotes Rev. Coers, "Gov. Chandler…is very much interested in the tourist program in Kentucky, particularly in relation to the new superhighway program."[23]

A July 1958 article further supports the fact that the Garden of Hope was seen a potential tourist attraction, indicating that:

> Now the plan is to have this avenue of approach from the Expressway lined with 150 Japanese cherry trees, the thoroughfare probably to be named Cherry Blossom road…There is no doubt about the Garden of Hope being a mecca for

[20] "New Buildings for Garden," *The Kentucky Post*, July 30, 1957, 1, accessed February 2025 online at: www.newspapers.com/image/761063345/.
[21] "Custodian of Sacred Tomb Says Good Will Key to Peace," *The Kentucky Post*, July 2, 1958, 12, accessed February 2025 online at: www.newspapers.com/image/761241998/.
[22] "Garden of Hope X-Way Link Seen," *The Kentucky Post*, July 7, 1958, 1, accessed February 2025 online at: www.newspapers.com/image/761242433/.
[23] "Garden of Hope X-Way Link Seen," *The Kentucky Post*, July 7, 1958, 1, accessed February 2025 online at: www.newspapers.com/image/761242433/.

> tourists. It will be publicized far and wide and many persons will come to view the Tomb, never being able to go to the Holy Land and see the Jerusalem shrine. Certainly the development deserves to have easy access and the promise of the governor to have it linked with the Expressway, probably in the neighborhood of Twelfth street or just beyond is in line with the chief executive's great interest in bringing tourists to this state.[24]

By September 1958, the replica of the Garden Tomb was completed and landscaped. The Chapel of Dreams and the Carpenter Shop also were completed by this time. According to a September 1958 newspaper article, the chapel incorporated stained glass windows from the Protestant Christ Church of Cincinnati. The bells atop the chapel were reportedly from some of the last steam engines in Kentucky that traveled the Louisville & Nashville Railroad. The article continues to explain that on the interior of the chapel was a stone from the Horns of Hattin in Israel, where some believe Jesus delivered the Sermon on the Mount. The first wedding was held in the chapel in spring of 1958. By the following year, over 60 weddings had taken place at the chapel. The 1958 newspaper article also describes the Carpenter Shop as featuring solid cypress doors that weighed 200 pounds each. The Carpenter Shop had an apartment above, for the keeper of the grounds. The remainder of the building was planned to serve as a souvenir shop. A mural inside the Carpenter Shop was painted to depict a "biblical carpenter," completed by local painter Leroy Coates.[25]

Also placed on the grounds of the Garden of Hope by this time was a section of the Wailing Wall of Solomon's Temple, reportedly the "only stone removed from the original scene to another part of the world." The stone weighed 400 pounds and the altar it was placed at was sponsored by Col. Clay Masonic Lodge No. 159. According to Rev. Coers, "money for the project has come in from all over." Despite the site not being complete, it attracted as many as 2,000 visitors some Sundays.[26] Rev. Coers estimated that more than 100,000 visitors came to the Garden of Hope in 1958.[27] In February 1959, Rev. Coers announced that the Garden would be dedicated on March 29 and that the event would be nationally televised.[28] The official opening was later

---

[24] "Deserving of Easy Access," *The Kentucky Post*, July 8, 1958, 4, accessed February 2025 online at: www.newspapers.com/image/761242550/.
[25] Jack Wessling, "Garden Rises in Beauty, Covington Project Nearly Completed," *The Kentucky Post*, September 26, 1958, 1-2, accessed February 2025 online at: www.newspapers.com/image/761117811/; "60th Wedding," The Kentucky Post, November 19, 1959, 22, accessed February 2025 online at: www.newspapers.com/image/761063733/; "Here Today, Gone Tomorrow," *The Kentucky Post*, July 11, 1960, 1, accessed February 2025 online at: www.newspapers.com/image/1032205993/?match=1&terms="garden%20of%20hope"%20painter%20carpenter.
[26] Jack Wessling, "Garden Rises in Beauty, Covington Project Nearly Completed," The Kentucky Post, September 26, 1958, 1-2, accessed February 2025 online at: www.newspapers.com/image/761117811/; "News of the Churches," The Kentucky Post, October 3, 1958, 2, accessed February 2025 online at: www.newspapers.com/image/761118208/.
[27] "Realistic Setting in Garden of Hope," The Kentucky Post, March 27, 1959, 1, accessed February 2025 online at: www.newspapers.com/image/761256647/.
[28] No Title, *The Kentucky Post*, February 5, 1959, 1, accessed February 2025 online at: www.newspapers.com/image/761255569/.

moved to Easter of 1960.[29] Unfortunately, Rev. Coers, died of a heart attack on February 24, 1960, less than two months prior to the planned opening.[30]

The Garden was officially dedicated in April 1960, a week before Easter, with 5,000 people in attendance.[31] In Fall of the same year, the final piece of Rev. Coers' original plan was placed at Garden of Hope, a piece titled "Sermon on the Mount." The five-ft. Carrara marble statue was shipped from Italy and donated by a prior visitor of the Garden, who provided funds for the statue in her will. The six-ft. base for the statue was created by McNeel Marble Works of Marietta, Georgia (**Figure 9**).[32]

The body of Rev. Coers was held at the Highland Cemetery in Fort Mitchell (Kentucky) until April 14, 1960, when he was interred at the Garden of Hope. His private burial service was held just days after the official dedication of the Garden.[33] Following Rev. Coers death and the official dedication of the Garden, activity and maintenance waned. The property, along with its debt, was donated to the Immanuel Baptist Church. Offers from the state and city to take over the property all fell through. Vandals broke into the chapel, stealing items and breaking windows. Rev. Coers' wife, fearing additional vandalism, had her husband's body removed from the site and reinterred at Highland Cemetery. Solomon Mattar, the previous caretaker of the Garden of Hope, took over the property again for a short period of time beginning in 1970.[34] For the next approximately 40 years, the property changed hands multiple times until 2002, when Immanuel Baptist Church hired Ed Kirkwood as its new minster.[35] Rev. Kirkwood shared Coers' vision of the garden and appointed a local tour guide for the site. According to a 2019 account from Northwestern Anthropology Professor James S. Bielo, the garden hosted over 8,000 people from 2003-2019.[36]

---

[29] "Garden of Hope to Have Official Opening on Easter," *The Kentucky Post*, February 4, 1960, 1, accessed February 2025 online at: www.newspapers.com/image/1032231967/.
[30] "Former Legislator Rev. Coers is Dead," *The Indianapolis News*, February 25, 1960, 14, accessed February 2025 online at: www.newspapers.com/image/311682522/.
[31] "Garden of Hope Dedicated," *The Kentucky Post*, April 11, 1960, 4, accessed February 2025 online at: www.newspapers.com/image/1032175274.
[32] "Garden of Hope Addition," *The Kentucky Post*, November 19, 1960, 3, accessed February 2025 online at: www.newspapers.com/image/1032137356/.
[33] "Rev. Coers Buried in Garden of Hope," *The Kentucky Post*, April 15, 1960, 1, accessed February 2025 online at: www.newspapers.com/image/1032176701/.
[34] "Garden of Hope, Covington, Kentucky," undated, accessed February 2025 online at: www.materializingthebible.com/garden-of-hope.html; Cynthia Grisolia, "The Garden of Hope" in Kentucky Monthly, April 1, 2015, accessed online January 2025 at www.kentuckymonthly.com/explore/places/the-garden-of-hope/; "He dreams new dreams in 'The Garden of Hope'," The Kentucky Post, August 29, 1970, 5, accessed February 2025 online at: www.newspapers.com/image/1033691876/?match=1&terms=he%20dreams%20mattar.
[35] James S. Bielo, "Garden of Hope, Covington, Kentucky," Accessed online in March 2025 at: Garden of Hope - Materializing the Bible
[36] Ibid.

The garden is presently owned by Immanuel Baptist Church and is operated by a nonprofit made up of church volunteers and other citizens.[37] The site maintains tour hours and is open to the public. The Garden of Hope is also included in a Greater Cincinnati area website and brochure as a faith-friendly attraction, along with the Creation Museum, the Ark Encounter, and St. Mary's Cathedral Basilica of the Assumption.[38]



Figure 9. Postcard of Garden of Hope, showing Sermon on the Mount statue, undated. [39]

[37] Cynthia Grisolia, "The Garden of Hope" in *Kentucky Monthly*, April 1, 2015, accessed online January 2025 at www.kentuckymonthly.com/explore/places/the-garden-of-hope/.
[38] Visit Cincy, "Faith-Friendly Attractions," Accessed online in March 2025 at https://www.visitcincy.com/plan-your-visit/trip-ideas-culture-guides/faith-friendly-attractions/
[39] Card Cow Vintage Postcards & Collectibles, "Garden of Hope," undated, accessed online February 2025 online at: www.cardcow.com/916997/covington-kentucky-garden-hope.

Narrative Site Description

The Carpenter Shop (A) is located at the western side of the garden and down the slope along Edgecliff Road. It was constructed circa 1958 and designed by Architect Abner Foster.[40]The two-story building has a flat roof with a parapet wall on all four sides. The building is constructed of mortared stone and has 1/1 vinyl sash windows. The façade has four sets of paired vertical wood doors with arches above. The arches are constructed of stone and each arch rise is infilled with a wood lattice panel. A metal sign reading “Carpenter Shop” hangs between the center sets of doors with a light and “Garden of Hope” sign attached. The shop is surrounded by mortared stone retaining walls capped with concrete and featuring mortared stone entry piers. The entry area of the Carpenter Shop and an area at the back of the Shop are paved with mortared fieldstone. Fieldstone and concrete steps lead uphill along the west side of the shop to the tomb and chapel.

The Chapel of Dreams (B) is northeast of the Carpenter Shop and was constructed circa 1958 by Riley and Sons of Cincinnati.[41] The Chapel of Dreams was reportedly named after a local radio show, which was hosted by the creator of the Garden of Hope, Reverend Morris Coers.[42] The building is constructed of mortared stone as is a two-tiered bell tower on the façade. Three openings for bells, one on top and two beneath, are surrounded by mortared stone arches. The bells are operated by a chain that hangs down in front of the entry. The door is made of vertical wood with iron cross-bracing. The entry has a stone lintel above. A large picture window with stone lintel and sill is on the northern wall of the chapel, while two stained glass windows in wood frames are on the southern wall. Similar to the Carpenter Shop, the entry area of the chapel is paved with mortared fieldstone.

South of the chapel is a statue of Jesus (C). This Italian marble statue depicts Jesus delivering the Sermon on the Mount.[43] The statue sits atop a pedestal constructed of cut mortared stone with a plaque saying, “Gift of Katharine C. Smarr” and was installed in 1960.

Two circa 1960 bird baths (D and E) are located southeast and northeast of the statue. The pedestals of the bird baths are constructed of mortared stone. The basins are made of concrete covered tire rims.

East of the Sermon on the Mount statue is a circa 1960 wine press (F).[44] The press is a circular area below ground level with stone steps leading into it. The walls and floor are mortared stone.

---

[40] No author, “The Garden of Hope” 1965 brochure, accessed online in March 2025 at: gh_brochure_c.1965.pdf
[41] Ibid.
[42] “‘Goodwill Boat’ here Monday at Ferry Landing,” *The Journal-Press*, July 31, 1952, 1, accessed online February 2025 at: www.newspapers.com/image/929814989/?match=1&terms=coers%20"chapel%20of%20dream".
[43] Cynthia Grisolia, “The Garden of Hope” in Kentucky Monthly, April 1, 2015, accessed online January 2025 at www.kentuckymonthly.com/explore/places/the-garden-of-hope/.
[44] Reverend Ed Kirkwood in discussion with Christopher Harris, January 2025.

Northeast of the chapel is a stone from the Wailing Wall (G), installed in 1958. The stone sits in a decorative metal cage atop a mortared stone pier. The pier is capped with concrete.

A stone from the Jordan River (H) is southwest of the chapel, near the Carpenter Shop. Its installation date is unknown. The stone sits in a decorative metal cage atop a pedestal of decorative metal.

Southwest of the Jordan River stone are three stones from the Good Samaritan Inn (I) in Jerusalem. Their installation date is unknown. The stones are displayed in a decorative metal cage that has three levels. The largest stone is at the top and the smallest is at the bottom.

In the central part of the garden, below the statue, is a replica of the Garden Tomb in Jerusalem (J), constructed circa 1956 by H.W. Miller Construction Company for a cost of $400,000.[45] The tomb is accessed by mortared fieldstone walkways and steps. It is constructed of concrete, some of which has been covered with stucco and made to resemble stone. The door in the center has an iron gate that is kept locked. A small, arched opening is northwest of the door. The tomb interior has been covered with stucco. The area in front of the tomb is paved with mortared fieldstone surrounded by decorative metal railings, some of which feature crosses.



Plate 37. KE-1372, Carpenter Shop (A), looking southeast.

[45] No author, “The Garden of Hope” 1965 brochure, accessed online in March 2025 at: gh_brochure_c.1965.pdf



Plate 38. KE-1372, Steps west of Carpenter Shop (A), looking southwest.

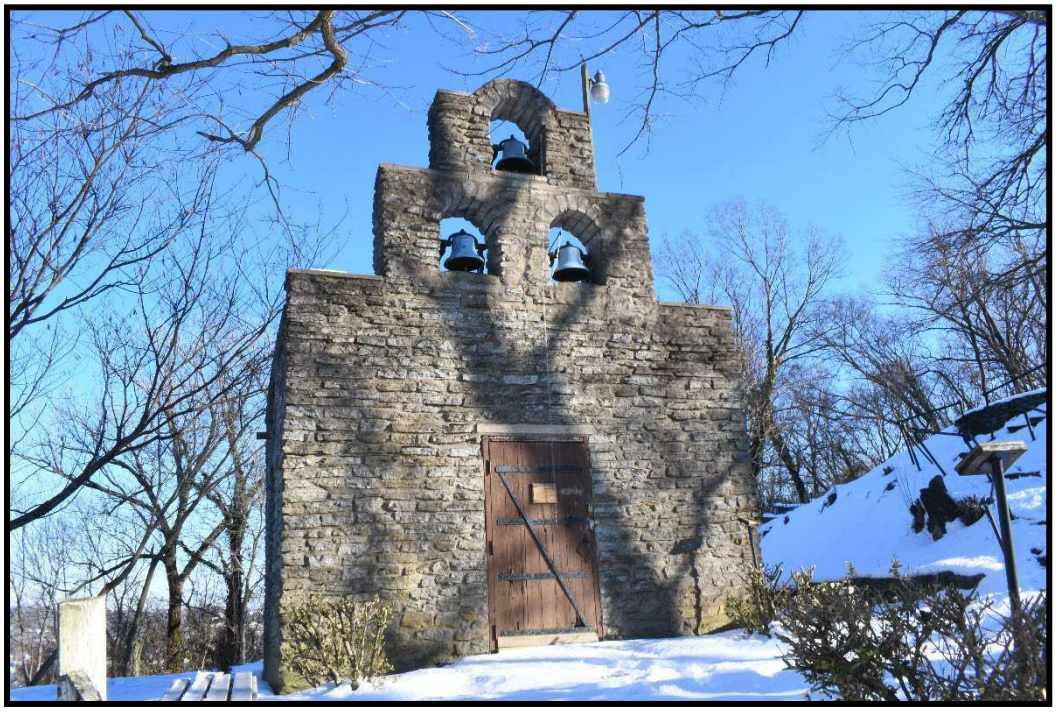


Plate 39. KE-1372, Chapel of Dreams (B), looking east.



Plate 40. KE-1372, Chapel of Dreams (B), looking northeast.



Plate 41. KE-1372, Statue of Jesus delivering the Sermon on the Mount (C), looking south.



Plate 42. KE-1372, Birdbath (D), right, looking northwest.



Plate 43. KE-1372, Birdbath (E), looking northeast.



Plate 44. KE-1372, Wine press (F), looking southeast.



Plate 45. KE-1372, Stone from the Wailing Wall (G), looking west.



Plate 46. KE-1372, Stone from the Jordan River (H), looking northwest.



Plate 47. KE-1372, Stones from the Good Samaritan Inn in Jerusalem (I), looking northwest.



Plate 48. KE-1372, Replica of the Garden Tomb (J), looking southeast.



Plate 49. KE-1372, Replica of the Garden Tomb (J), looking southeast.



Plate 50. KE-1372, Replica of the Garden Tomb (J) and railing with cross, looking northwest.

NRHP Eligibility: Eligible

Stantec recommends the Garden of Hope *Individually Eligible* for listing in the NRHP under Criterion Consideration A/Criterion A for its significant association with the theme of tourism/recreation in the automobile age. The site has experienced upheaval in its 69 year existence, but it remains an important religious tourist attraction among a large number of recreational areas related to faith-based recreation in the Greater Cincinnati region. The Garden of Hope derives its primary significance from Recreation/Tourism. As a result, the property meets the terms of Criterion Consideration A for religious properties.

The Garden of Hope is an important example of a memorial garden, dedicated to a relatively realistic depiction of the tomb of Jesus and other important early Christian sites in the Holy Land. The garden derives its significance as an important mid-twentieth century example of interstate highway-oriented tourism/recreational property in the Post World War II era. As described above, Rev. Coers intention was to bring the relics and overall contemplative flavor of the Holy Land to people across the Greater Cincinnati region, who could not afford or were not able to make a trip overseas. Coers' vision, which was shared by Governor Happy Chandler, was to make this easily accessible via direct access, presumably an exit ramp, as described above. While this ramp never materialized, likely due to the untimely death of Rev. Coers, the garden is perched atop a hill adjacent to the highway and is an approximately five minute drive to the interstate ramp at 12th Street (Exit 191).

As discussed above, the Garden of Hope has hosted thousands of religious (and other) tourists to this property for contemplation and/or the magnificent views of the area. Similar to the earlier era of automobile tourism, which focused on scenic federal and state designated byways, such as US 25, the Dixie Highway, modern conveniences, such as hotels, gas stations, and tourist attractions, were spread along scenic arterials adjacent to local attractions. By contrast, the limited access interstate highway of the mid-to-late twentieth century developed areas of modern conveniences in clusters situated near exit ramps; most of which featured maps and information about tourist attractions located a short drive away.

Although the Garden of Hope has undergone some modifications, including damage by vandals that included broken chapel windows, graffiti, theft of moveable items, and a period of abandonment, it retains sufficient integrity necessary to convey its significance. The main buildings remain intact with few alterations. The tomb, the chapel, and the carpenter shop, as well as other items such as the Sermon on the Mount statue (1960), Wailing Wall stone (1958), stones from the River Jordan (date unknown), and stones from the Good Samaritan Inn in Jerusalem (date unknown) contribute to the overall character of the property and are considered contributing elements. Additional contributing elements, such as the stone bird baths and the wine press, reportedly created by caretaker Solomon Mattar, are in keeping with the materials and overall design of the remainder of the property. Finally, the network of stone and concrete walkways, steps, and walls are considered contributing elements; they connect the focal pieces of the property while guiding visitors but are also lined with these smaller objects that are

reminiscent of pilgrimage icons. Together, these buildings, structures, and objects create a cohesive memorial garden.

Although Rev. Coers was an influential person in the Covington community, especially through his work on the Garden of Hope, he does not appear to be a person of transcendent significance; therefore, the property is not eligible for the NRHP under Criterion B. The landscape elements associated with this garden cannot be determined to be intact. Future studies may focus on an in-depth study of the landscape elements to determine if this property is eligible under Criterion C as an important example of a religious-themed memorial garden. The current study recommends this property not eligible for the NRHP under Criterion C.

The recommended NRHP boundary for the Garden of Hope is the one-acre parcel owned by Immanuel Baptist Church. This parcel encapsulates all the features of the Garden of Hope located during this survey (**Figure 8**).

Effects Assessment: No Adverse Effect

The Garden of Hope (KE-1372) is the sole additional property recommended eligible for listing in the NRHP within the 2024/2025 expanded APE. The present study is concerned with effects for the installation of proposed noise walls of either the transparent or solid type and as such, the Project as designed will have *No Adverse Effect* on the property. While the proposed noise walls will be approximately 42 feet from the nearest recommended NRHP boundary of the Garden of Hope and will be at least partially visible due to necessary tree removal, the noise walls will be installed within the interstate right-of-way on a downward grade sloping away and will therefore be less visible. Additionally, there is an existing chain link fence within the viewshed on the same side of Edgecliff Road as the proposed noise walls. Furthermore, the interstate corridor has existed within the viewshed since the highway was constructed during the mid-twentieth century, well before the Garden of Hope was recommended eligible for listing in the NRHP. Despite the partial visibility of the noise walls, the Project will not compromise the character-defining features of the property as a significant display garden. Therefore, the integrity and significance of Garden of Hope will remain intact. Additionally, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 9** below.

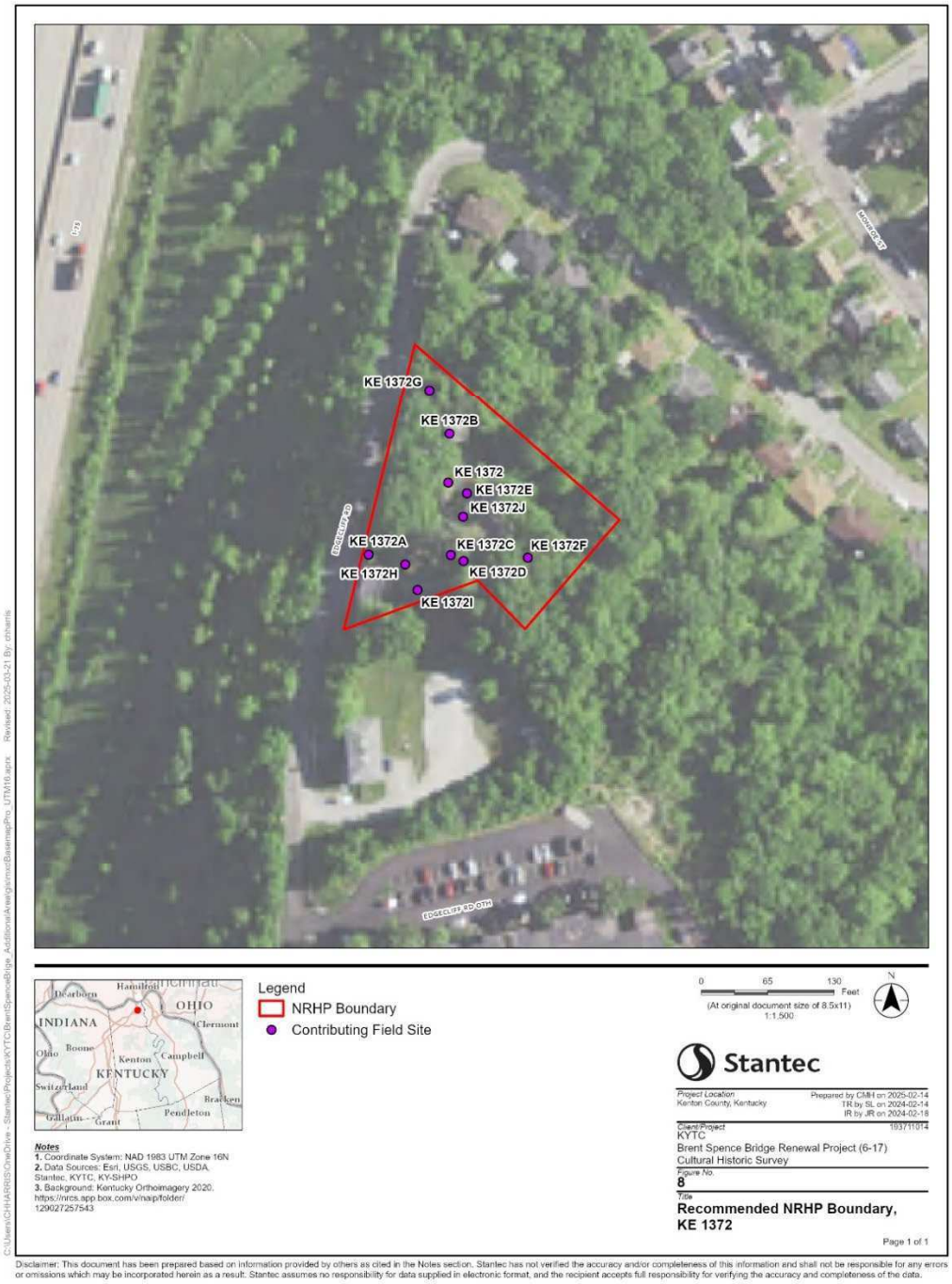


Figure 10. The Garden of Hope, Proposed NRHP KE-1372, boundary with contributing resources



Figure 11. Effects Map, KE-1372.

Field Site 253

House
KE-1373
Circa 1958
701 Edgecliff Road
Covington, KY 41014
39.067938, -84.518964



Plate 51. KE-1373, Multi-family residence, looking northwest.

Description:

This .12-acre parcel includes a circa 1958 multi-family residence. The circa 1958 two story house has a hipped roof covered with asphalt shingles. An exterior mortared stone chimney is located on the west elevation. The lower level of the building is constructed of mortared stone and the upper level is clad in vinyl siding. The windows include 1/1 vinyl sash and vinyl frame sliders, with non-operational shutters flanking some of the upper windows. A portion of the upper level overhangs the lower level creating a recessed patio. This over hanging portion of the building is supported by mortared stone columns. An integral single car garage is on the lower level of the western elevation. The foundation of the residence was not visible.

Although according to a 1959 newspaper article, Rev. Coers, founder of the Garden of Hope, was considering purchasing a building on an adjacent parcel to operate it as a restaurant, gift shop, and rest center for visitors, evidence was not located to suggest that he made this

purchase.[46] Although the building at FS 253/KE-1373 uses stone as a building material much like the Garden of Hope, archival research also did not indicate that is the adjacent parcel referred to in the newspaper article.



Plate 52. KE-1373, Multi-family residence, looking northeast.

[46] "Garden of Hope Expanded; New Restaurant is Added," The Kentucky Post, March 13, 1959, 1, Accessed online February 2025 at: www.newspapers.com/image/761256333/.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Further, the potential association with the Garden of Hope is tenuous at best. Even if it did have this association, that has been long lost, due to its conversion to multi-family housing. The property does not retain integrity of materials, design, association, or feeling to the period of significance for the Garden of Hope (circa 1958), even if it had that association originally.

Effects Assessment: Not Applicable

Field Site 254

Crown Pointe Apartments
KE-1374
Circa 1966
725 Edgecliff Road
Covington, KY 41014
39.067372, -84.518449



Plate 53. KE-1374, Crown Pointe Apartments, looking southeast.

Description:

This 8.86-acre parcel encompasses the Crown Pointe Apartment complex, a shed, a pergola, and a playground. The complex consists of three residential blocks with a total of 123 units built around a central courtyard. The buildings are clad in brick veneer with concrete block around some of the balconies and patios. There are also a few areas that are clad with vinyl siding. The entry to the leasing office and central corridor is recessed, with large, fixed pane windows, paired glass doors, and an awning extending out over the sidewalk. The windows in living units are slider windows, with a mix of metal and vinyl frames. Each unit has a sliding glass door at the patio or balcony. The balconies are lined with aluminum railings. Each residential block has an exterior brick chimney for furnace venting.

South of the southwestern residential block is a gambrel roof prefabricated shed (A). The roof is covered with asphalt shingles. The shed is clad in vertical board and has paired doors at the entry.

On the western side of the courtyard is a wood pergola (B) with a picnic table and grill.

In the center of the courtyard is a wood frame playground set (C). The set includes swings, ladders to a covered play area, and climbing nets.



Plate 54. KE-1374, Crown Pointe Apartments and courtyard with pergola (B) and playground (C), looking northwest.



Plate 55. KE-1374, Shed (A), looking southwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid to late twentieth century apartment complex in Covington or Kenton County. The apartment complex does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 255

Emery Drive Apartments
KE-1375
Circa 1955
1000 Emery Drive
Covington, KY 41011
39.060214, -84.525631



Plate 56. KE-1375, Emery Drive Apartments, building 1010-1016, looking southwest.

Description:

This 8.20-acre parcel includes the residential buildings for the Emery Drive Apartment complex and a picnic shelter. The oldest building in the complex (1010-1012) was constructed circa 1955. The three-story building has an offset gable roof covered with asphalt shingles. It is clad in textured brick veneer and stucco. The windows are vinyl sliders with aluminum storm windows and picture windows flanked by sliders. The building has two projecting entries with front gable roofs. There is a circa 1965 addition at the southeastern corner of this building (1014-1016). This part of the building is clad in brick veneer with some stucco. The windows are vinyl frame sliders, some flanking picture windows. This section of the building has balconies lined with wooden posts and railings. A covered stairwell leads to the balconies. There is a mortared stone retaining wall at the northern end of this building.

North of building 1010-1016 is building 1030 (A). This building was constructed circa 1975. The three-story building has a side gable roof covered with asphalt shingles. The building is clad in brick veneer and vertical composite board. The windows are metal frame sliders, and the door is glass in a metal frame with sidelights. The balconies are lined with wooden railings and concrete steps lead to the entry.

Building 1020 (B) is west of building 1030. It has a side gable roof covered with asphalt shingles and is clad in brick veneer with some vertical composite board. The windows are metal sliders. Concrete steps lead to the entry which is a glass door in a metal frame with sidelights. The balconies are lined with wood railings.

Southeast of building 1020 are building 990 (D) and building 980 (C). These buildings were constructed circa 1975. They each have a hip roof covered with asphalt shingles. They are clad in brick veneer with textured white brick at the entries. The windows are metal sliders, and the entries have metal framed glass doors. The foundations are concrete.

West of building 1014-1016 is a partially enclosed picnic shelter (E). The wood frame shelter has a front gable roof covered with asphalt shingles. Restrooms are located within the enclosed portion of the shelter. The foundation is concrete.



Plate 57. KE-1375, Emery Drive Apartments, buildings 1020 (B) and 1030 (A), looking northwest.



Plate 58. KE-1375, Emery Drive Apartments, buildings 990 (D) and 980 (C), looking southeast.



Plate 59. KE-1375, Emery Drive Apartments, picnic shelter (E), looking northeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid to late twentieth century apartment complex in Covington or Kenton County. The apartment complex does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 256

House
KE-1376
Circa 1940
910-912 Highland Avenue
Fort Wright, KY 41011
39.060886, -84.523357



Plate 60. KE-1376, House, looking northwest.

Description:

This .38-acre parcel includes a circa 1940 residence. The one-and-one-half-story Minimal Traditional house has a side gable roof covered with asphalt shingles. An exterior brick chimney is located on the façade. The house is clad in brick veneer and stone veneer with 1/1 vinyl sash windows and vinyl frame slider windows. Concrete steps with a metal railing lead to the stoop. An integral, basement-level garage on the southwestern elevation has been enclosed. The foundation is parged and partially above grade. A mortared stone retaining wall runs along the northwestern side of the driveway.



Plate 61. KE-1376, House, looking west.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early to mid-twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 257

House
KE-1377
Circa 1900
822 Highland Avenue
Covington, KY 41011
39.062100, -84.522723



Plate 62. KE-1377, House, looking northwest.

Description:

This .51-acre parcel includes a circa 1900 residence. The two-and-one-half-story house has a front gable roof covered with asphalt shingles. The exterior brick chimney has been parged. The house is clad with brick veneer and the windows include 1/1 vinyl sash, vinyl frame slider windows, a picture window with a leaded glass transom, and glass block. The window in the gable has a brick surround. The house retains the original door and sidelights. The façade hip porch roof is supported by brick posts with an open brick railing that has been capped with concrete. The foundation of the house is mortared stone.



Plate 63. KE-1377, House, looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 258

House
KE-1378
Circa 1965
818 Highland Avenue
Fort Wright, KY 41011
39.062344, -84.522423



Plate 64. KE-1378, House, looking northwest.

Description:

This .15-acre parcel includes a residence and a shed. The circa 1965 house has a front gable roof covered with asphalt shingles. A front gable dormer clad in vinyl siding is on the southwestern roof slope. The house is clad in brick veneer and has 1/1 vinyl sash windows flanked by non-operational shutters. Windows at the basement level are glass block. The raised foundation of the house is concrete block.

Northwest of the house is a circa 2018 shed (A). The front gable shed roof is covered with asphalt shingles and the shed is clad in vinyl siding. It has a 1/1 vinyl sash window on the southeastern elevation.



Plate 65. KE-1378, House and shed (A), looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid to late twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 259

House
KE-1379
Circa 1890
816 Highland Avenue
Fort Wright, KY 41011
39.062433, -84.522306



Plate 66. KE-1379, House, looking northwest.

Description:

This .27-acre parcel includes a residence and a workshop. The circa 1890, two story, brick Italianate residence has a side gable roof covered with asphalt shingles and an interior gable end chimney that has been parged. Brackets are placed along the cornice line on both sides of each window and there is vinyl siding on the cornice and soffits. The windows on the façade are fixed pane glass. The lower-level windows have carved stone lintels and stone sills with brackets. The upper-level windows have segmental brick arches and stone sills. A corbelled brick band extends between the upper-level windows directly below the spring line of the segmental arches. Windows on the southwestern elevation are 1/1 vinyl sash with stone sills and lintels. These windows are sheltered by metal awnings. Windows at the basement level are glass block. The entry retains its original door and leaded glass transom. A three-bay porch is

located on the façade and is supported by stone columns with closed stone railings. The railings have a diamond shaped stone pattern in the enclosure and are capped with stone. Additions are located at the rear of the house. The foundation of the house is rusticated concrete block.

North of the house is a concrete block workshop (A). The side gable roof has exposed rafter tails. The gables are clad in asphalt shingles. A wooden six-light window is located on the southeastern elevation just below the gable cladding. The foundation of the workshop appears to be parged.



Plate 67. KE-1379, House, looking northeast.



Plate 68. KE-1379, House, looking northwest.



Plate 69. KE-1379, Workshop (A), looking northwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a brick Italianate residence in Fort Wright, Kentucky; nor is it a notable example of an Italianate residence with Colonial Revival elements. Italianate residential and commercial architecture was common throughout the U.S. between 1840-1885. The defining features of this style, used on a residence, are a low-pitched roof, typically adorned with wide eaves supported by decorative brackets or corbels. The windows, commonly 1/1 or 2/2 light, are tall and narrow in size and usually fully or segmentally arched; additionally, the windows are commonly topped with a decorated hood or crown. The main entrance of an Italianate residence typically mirrors the window design and details.

This house retains some of its Italianate detailing, including segmental arches, carved stone lintels, stone sills with brackets, corbelled brick banding, and wide front eave with carved eave brackets. Modifications have been made to the house over time, including the addition of a Colonial Revival front porch. The addition of the porch alters the overall massing of the Italianate block, masks the original lintel of the façade entry, and masks portions of the carved stone lintels of the first level windows. In addition, it appears that when the porch was added, the rusticated concrete block was replicated as a veneer on the front of the basement level of the original Italianate mass. The side elevations of the primary mass feature a different style and pattern of rusticated concrete block on the basement level. Both types of rusticated concrete block date from the early twentieth century and are not from the original construction period for the house. Although these elements likely date to the early twentieth century, they do not together represent a notable example of Colonial Revival modifications.

Later twentieth century and early twenty-first century modifications include a two-story rear addition, window replacements, and vinyl clad cornice and soffits. An L-shaped two-story addition has been added to the rear of the house. It wraps from the rear of the house to the southwest gable. When the addition was constructed, the southwest gable was changed to an offset gable to accommodate the connection. The southwest gable would have originally mirrored the northeast gable. As a result of the addition, the original mass of the house no longer retains its side gable form. Windows on the southwest elevation likely were added at this time. The original southwest gable likely was a blind wall, similar to the northeast elevation. In addition to these modifications, the façade windows on the first and second levels have been replaced with single light sashes. The basement level windows have been replaced with glass block. In addition, the façade cornice and soffit have been clad in vinyl siding.

Although this house features some of its original Italianate elements, with a modified façade, altered side gable, overall massing change with rear addition, and replacement windows, it no longer retains the integrity necessary to convey significance as a notable example of Italianate architecture in Fort Wright, Kentucky. In addition, the Colonial Revival elements added to the house, though dating to the early twentieth century, do not appear to contribute to the original mass of the house in a way that conveys architectural significance. As a result, the house is not eligible for the NRHP under Criterion C.

This property does not have an association with a significant person; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 260

House
KE-1380
Circa 1930
812 Highland Avenue
Fort Wright, KY 41011
39.062585, -84.522103



Plate 70. KE-1380, House, looking northwest.

Description:

This .22-acre parcel includes a residence, carport, and garage. The one-and-one-half-story, circa 1930 Bungalow has a front gable roof covered with asphalt shingles. The soffits are clad in vinyl siding and the exterior brick chimney, on the northeastern elevation, has been parged above the roofline. The house is clad in brick veneer with wood shingles in the gable, and brackets at the gable returns. Windows are 1/1 vinyl sash. The porch retains its original bead board ceiling and brick posts with open brick railing. An open frame, shed roof porch was added to the rear of the house. The foundation of the house is rusticated concrete block.

Northeast of the house is a garage (A). The two-story garage has a front gable roof. It is parged on the lower level and has wooden siding on the upper level. The vehicle entrance to the garage

has been enclosed. Windows include vinyl frame casement windows and an eight-light wooden frame window.

North of the house is a wooden frame carport (B) with a front gable roof covered with asphalt shingles.



Plate 71. KE-1380, House, garage (A), and carport (B), looking west.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 261

House
KE-1381
Circa 1940
793 Highland Avenue
Covington, KY 41011
39.063204, -84.520325



Plate 72. KE-1381, House, looking south.

Description:

This .29-acre parcel includes a residence and a shed. The circa 1940 house has a cross-gable roof covered with asphalt shingles. There is an exterior brick chimney on the southwestern side of the house. The house is clad in brick veneer with vinyl siding at the gables. Windows include 1/1 vinyl sash, a picture window with a metal awning, and glass block windows. The front gable porch roof is supported by brick columns and has metal railings. An integral single car garage opens beneath the southwestern elevation of the porch. The foundation of the house is parged. A mortared stone retaining wall runs along the northeastern side of the driveway.

Southeast of the house is a shed (A). The shed has a front gable roof, is clad in vertical board siding, and has paired doors. The foundation of the shed was not visible.



Plate 73. KE-1381, Shed (A), looking southwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 262

House
KE-1382
Circa 1940
797 Highland Avenue
Covington, KY 41011
39.062956, -84.520871



Plate 74. KE-1382, House, looking southeast.

Description:

This .43-acre parcel includes a circa 1940 Tudor Revival residence. The one-and-one-half-story house has a cross-gable roof covered with asphalt shingles and has an exterior brick chimney on the façade. The house is clad in brick veneer with 1/1 vinyl sash windows. Concrete steps lead to the door. An arched brick entry to the side yard of the house is at the southwestern end of the façade. A lower level, integral garage has been enclosed on the northeastern end of the façade. The foundation of the house is parged and partially above grade. A mortared stone retaining wall lines the southwestern side of the driveway.



Plate 75. KE-1382, House, looking southwest.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early twentieth century Tudor Revival house in Covington or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Covington or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 263

House
KE-1383
Circa 1945
801 Highland Avenue
Fort Wright, KY 41011
39.062769, -84.521158



Plate 76. KE-1383, House, looking southeast.

Description:

This .27-acre parcel includes a circa 1945 residence and a shed. The single story Minimal Traditional house has a cross-gable roof covered with asphalt shingles. The house is clad in brick veneer with vinyl siding at the gable. An exterior brick chimney is located along the façade. Windows are 1/1 vinyl sash, and the façade entry is recessed. A side gable porch roof supported by wood posts shelters the façade entry. There is an integral single car garage on the lower level of the facade. The foundation of the house is parged and partially above grade.

Southeast of the house is a shed (A). The shed has a front gable roof covered with asphalt shingles and appears to be clad in wooden panel siding.



Plate 77. KE-1383, House, with shed (A) in the left side background, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of an early to mid-twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 264

House
KE-1384
Circa 1950
805 Highland Avenue
Fort Wright, KY 41011
39.062576, -84.521336



Plate 78. KE-1384, House, looking southeast.

Description:

This .18-acre parcel includes a circa 1950 residence. The one-and-one-half-story Cape Cod house has a side gable roof covered with asphalt shingles. There are two front gable vinyl clad dormers along the façade and an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer with vinyl siding in the gables. Windows include 1/1 vinyl sash and picture windows. The house has a side porch and integral lower level, single car garage on the facade. The foundation of the house is parged and partially above grade. Poured concrete retaining walls line both sides of the driveway.



Plate 79. KE-1384, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Cape Cod house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 265

House
KE-1385
Circa 1950
807 Highland Avenue
Fort Wright, KY 41011
39.062499, -84.521422



Plate 80. KE-1385, House, looking southeast.

Description:

This .18-acre parcel includes a circa 1950 residence. The one-and-one-half-story Minimal Traditional house has a cross gable roof covered with asphalt shingles. There is an exterior brick chimney on the northwestern elevation. The house is clad in brick veneer with stone accents around the door. Windows are 1/1 vinyl sash. The house has an integral lower level, single car garage on the facade. The foundation of the house is parged. Mortared stone retaining walls line both sides of the driveway.



Plate 81. KE-1385, House, looking southeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 266

House
KE-1386
Circa 1950
809 Highland Avenue
Fort Wright, KY 41011
39.062390, -84.521548



Plate 82. KE-1386, House, looking southeast.

Description:

This .18-acre parcel includes a circa 1950 residence. The one-and-one-half-story Minimal Traditional house has a cross gable roof covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer and the windows include 1/1 vinyl sash and picture windows. The house has an integral lower level, single car garage. The foundation is parged. Mortared stone retaining walls line both sides of the driveway.



Plate 83. KE-1386, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 267

House
KE-1387
Circa 1950
811 Highland Avenue
Fort Wright, KY 41011
39.062268, -84.521696



Plate 84. KE-1387, House, looking southeast.

Description:

This .17-acre parcel includes a circa 1950 residence. The one-and-one-half-story, Cape Cod house has a side gable roof covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation and two front gable dormers on the northwestern roof slope, above the façade. The house is clad in brick veneer and the dormers are clad in vinyl siding. Windows are 1/1 vinyl sash. The house has an integral lower level, single car garage and the foundation of the house is parged. Mortared stone retaining walls line both sides of the driveway.



Plate 85. KE-1387, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Cape Cod house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 268

House
KE-1388
Circa 1950
813 Highland Avenue
Fort Wright, KY 41011
39.062174, -84.521787



Plate 86. KE-1388, House, looking southeast.

Description:

This .17-acre parcel includes a circa 1950 residence. The one-and-one-half-story Minimal Traditional house has a cross gable roof covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer. Windows include 1/1 vinyl sash and one picture window flanked by casement windows. The porch roof is supported by wooden posts and has wooden railings. The house has an integral lower level, single car garage. The foundation of the house is parged. Mortared stone retaining walls line both sides of the driveway.



Plate 87. KE-1388, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 269

House
KE-1389
Circa 1950
815 Highland Avenue
Fort Wright, KY 41011
39.062077, -84.521897



Plate 88. KE-1389, House, looking southeast.

Description:

This .17-acre parcel includes a circa 1950 residence. The one-and-one-half-story Minimal Traditional house has a cross-gable roof covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer and the windows are 1/1 vinyl sash. The house has an integral lower level, single car garage on the facade. The foundation of the house is parged. Retaining walls, one mortared stone, one concrete block, line both sides of the driveway.



Plate 89. KE-1389, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 270

House
KE-1390
Circa 1950
817 Highland Avenue
Fort Wright, KY 41011
39.061981, -84.522046



Plate 90. KE-1390, House, looking southeast.

Description:

This .16-acre parcel includes a circa 1950 residence. The one-and-one-half-story house has a front gable roof covered with asphalt shingles. There are shed roof dormers on the northeastern and southwestern roof slopes. The house is clad in brick veneer with vinyl siding on the dormers. Windows are 1/1 vinyl sash. Concrete steps with metal railings lead to the front stoop. The façade entry has a metal awning above. There is an integral single car garage on the lower level of the façade. An addition is located on the rear of the house. The foundation of the house is parged. Mortared stone retaining walls line both sides of the driveway.



Plate 91. KE-1390, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 271

House
KE-1391
Circa 1950
819 Highland Avenue
Fort Wright, KY 41011
39.061939, -84.522145



Plate 92. KE-1391, House, looking southeast.

Description:

This .17-acre parcel includes a circa 1950 residence. The one-and-one-half-story house has a front gable roof with wall dormers on the northeastern and southwestern roof slopes. The roof of the house is covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer and the windows are 1/1 vinyl sash, with a vinyl picture window. Concrete steps with a metal railing lead to the stoop. There is an integral single car garage on the lower level of the facade. The foundation of the house is parged. Mortared stone retaining walls line both sides of the driveway.



Plate 93. KE-1391, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 272

House
KE-1392
Circa 1955
821 Highland Avenue
Fort Wright, KY 41011
39.061823, -84.522254



Plate 94. KE-1392, House, looking southeast.

Description:

This .17-acre parcel includes a circa 1955 residence. The one-and-one-half-story Minimal Traditional house has a cross-gable roof covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer. The windows include 1/1 vinyl sash and picture windows flanked by casement windows. Concrete steps with metal railings lead to the recessed entry. The façade entrance is recessed within a brick arch that is supported by a brick post. There is an integral single car garage on the lower level of the facade. The foundation of the house is parged. Poured concrete retaining walls line both sides of the driveway.



Plate 95. KE-1392, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 273

House
KE-1393
Circa 1955
823 Highland Avenue
Fort Wright, KY 41011
39.061677, -84.522373

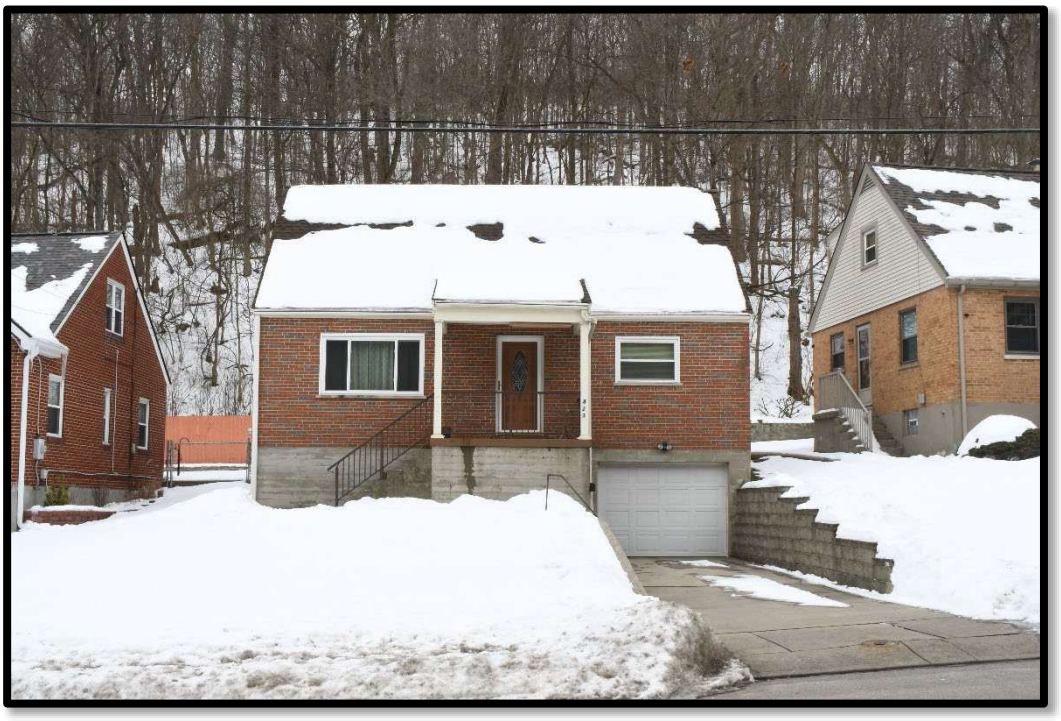


Plate 96. KE-1393, House, looking southeast.

Description:

This .15-acre parcel includes a circa 1955 residence. The one-aond-one-half-story house has a side gable roof covered with asphalt shingles. The house is clad in brick veneer and the windows include 1/1 vinyl sash and a picture window flanked by casement windows. Concrete steps with a metal railing lead to the porch. The shed porch roof is supported by vinyl wrapped posts and has vinyl siding at the sides. There is an integral single car garage on the lower level of the facade. The foundation is parged. Retaining walls, one stone and one parged, line both sides of the driveway toward the sidewalk.



Plate 97. KE-1393, House, looking northeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 274

House
KE-1394
Circa 1955
825 Highland Avenue
Fort Wright, KY 41011
39.061573, -84.522425



Plate 98. KE-1394, House, looking southeast.

Description:

This .15-acre parcel includes a circa 1955 residence. The one-and-one-half-story Minimal Traditional house has a side gable roof and projecting, two-bay front gable covered with asphalt shingles. The house is clad in brick veneer with vinyl siding beneath the gables and wood shingles beneath the gables along the façade. Windows are 1/1 vinyl sash. Concrete steps with a metal railing lead up to the porch. The front gable porch roof is supported by brick posts. There is an integral single car garage on the lower level of the facade. The foundation of the house is parged. Stone retaining walls line both sides of the driveway from the garage toward the sidewalk.



Plate 99. KE-1394, House, looking northeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 275

House
KE-1395
Circa 1955
901 Highland Avenue
Fort Wright, KY 41011
39.061462, -84.522545



Plate 100. KE-1395, House, looking southeast.

Description:

This .15-acre parcel includes a circa 1955 residence. The one-and-one-half-story Minimal Traditional house has a side gable roof clad in asphalt shingles. A single-bay front gable section projects from the façade and also has an asphalt shingle roof. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer with vinyl siding at the gables. Windows are 1/1 vinyl sash, two of which flank a picture window. Concrete steps with a railing lead to the porch. A shed roof porch is supported by a fiberglass post and shelters the façade entry. There is an integral single car garage on the lower level of the facade. The foundation of the house is parged. Mortared stone retaining walls line both sides of the driveway from the garage toward the sidewalk.



Plate 101. KE-1395, House, looking south.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

Field Site 276

House
KE-1396
Circa 1955
903 Highland Avenue
Fort Wright, KY 41011
39.061330, -84.522588



Plate 102. KE-1396, House, looking east.

Description:

This .18-acre parcel includes a circa 1955 residence. The one-and-one-half-story Minimal Traditional house has a side gable roof clad in asphalt shingles. Solar panels are attached to the roof, above the shingles. A projecting single-bay front gable section projects form the façade; the roof of this section also is covered with asphalt shingles. There is an exterior brick chimney on the northeastern elevation. The house is clad in brick veneer and the windows include 1/1 vinyl sash and a picture window flanked by vinyl frame casement windows. Concrete steps with a metal railing lead to the porch. A shed roof porch supported by a brick post shelters the façade entry. There is an integral single car garage on the lower level of the facade. Retaining walls, one mortared stone, one concrete, line both sides of the driveway from the garage toward the sidewalk. The foundation of the house is parged.



Plate 103. KE-1396, House, looking southeast.

NRHP Eligibility: Not Eligible

This property is recommended *Not Eligible* for the NRHP. It is not a notable example of a mid-twentieth century Minimal Traditional house in Fort Wright or Kenton County. The house does not display the distinctive characteristics of a type of building design that is rare or innovative in the region or state, nor is it an exemplary example of an important common type. Therefore, the property is not eligible for the NRHP under Criterion C. This property does not have an association with persons of significance; therefore, it is not eligible for the NRHP under Criterion B. Finally, the property does not have an association significant to the history of Fort Wright or Kenton County, and is therefore not eligible under Criterion A.

Effects Assessment: Not Applicable

4 Historic Properties Identified in the 2022 Brent Spence Bridge Report

The following 24 properties were surveyed and recommended eligible for or recommended to retain sufficient historic integrity to remain listed in the NRHP as part of the *Brent Spence Bridge Renewal Project Cultural-Historic Report in Covington, Kenton County, KY* (2022). KYTC submitted its official determination letter dated November 7, 2022, and KHC provided its official response letter dated November 17, 2022.

Detailed effects recommendations for each resource, as well as the location of each property in relation to the Project Area and expanded APE are located below. See Appendix A for the project plans. As it relates to the effects of the proposed drainage improvements, Stantec recommends that these improvements will be minimally visible and will not negatively impact the historic integrity of any properties within the viewshed.

KE-07 and KE-08

Elberta Apartments Historic District
Circa 1948-1972
1132-1142 Cedar Ridge Lane; 1200-1220 Elberta Circle; 1188-1212 Far Hills Drive; 502-517 St. Joseph Lane
Park Hills, Kentucky 41099
39.064147, -84.526113 (central point)

Effects Assessment: Adverse Effect

The proposed Elberta Apartments Historic District (KE-07, KE-08) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such, the Project, as designed, will have an *adverse effect* on the historic district. Based on a review of historic aerial maps and photographs, while only a few trees screening the future historic district were present at the southern end of St. Joseph Lane by 1959-1960, many of the denser existing trees had been planted by 1969 and had matured by 1993. Further trees appear to have been planted near the southern end of St. Joseph Lane circa 2000. Neither the historic nor the non-historic existing trees are contributing elements to the historic district. While this is the case, the existing trees that screen the historic district from the interstate were present in 2022, when the district was determined eligible for listing in the NRHP.

At its nearest points, the noise wall, if constructed, would be located within 10-to-50 ft of the apartment buildings at the southern end of St. Joseph Lane; some of the earliest contributing apartment buildings to the historic district. As a result, the noise wall would encroach on the proposed NRHP boundary for the historic district, likely requiring the future inclusion of the noise wall as a non-contributing element to the district. Since the I-75 corridor has changed little in this area from its initial construction through 2022, when the district was determined eligible, the proposed tree removals combined with the proximity of the noise wall to the contributing apartment buildings and the encroachment on the NRHP boundary for the proposed historic district would compromise the design, setting, and feeling of the Elberta Apartments Historic District. Although this is the case, if transparent noise wall is selected in this location, Stantec recommends that it would minimize the adverse effect of the Project. While the transparent noise wall would still encroach on the NRHP boundary of the proposed historic district and would still negatively impact its design, setting, and feeling, it would be less intrusive. However, should no noise walls be constructed at this location, the Project would continue to result in no adverse effect to the Elberta Apartments Historic District based on the proposed permanent easement acquisition, drainage pipe installation, and retaining wall as determined on November 17, 2022, through consultation between KYTC and KHC. See **Figure 12** and **Figure 13**.



Figure 12. Circa 1959 interstate construction, St. Joseph Lane (black arrow), cropped[47]

[47] Lawrence Brand Collection, Kenton County Public Library, Faces and Places, Image di128002, Aerial view of Ft Wright or Ft Mitchell, I-71/I-75 construction, Circa 1959, accessed online March 2025 at: https://facesandplaces.kentonlibrary.org/viewimage.php?i=di128002.

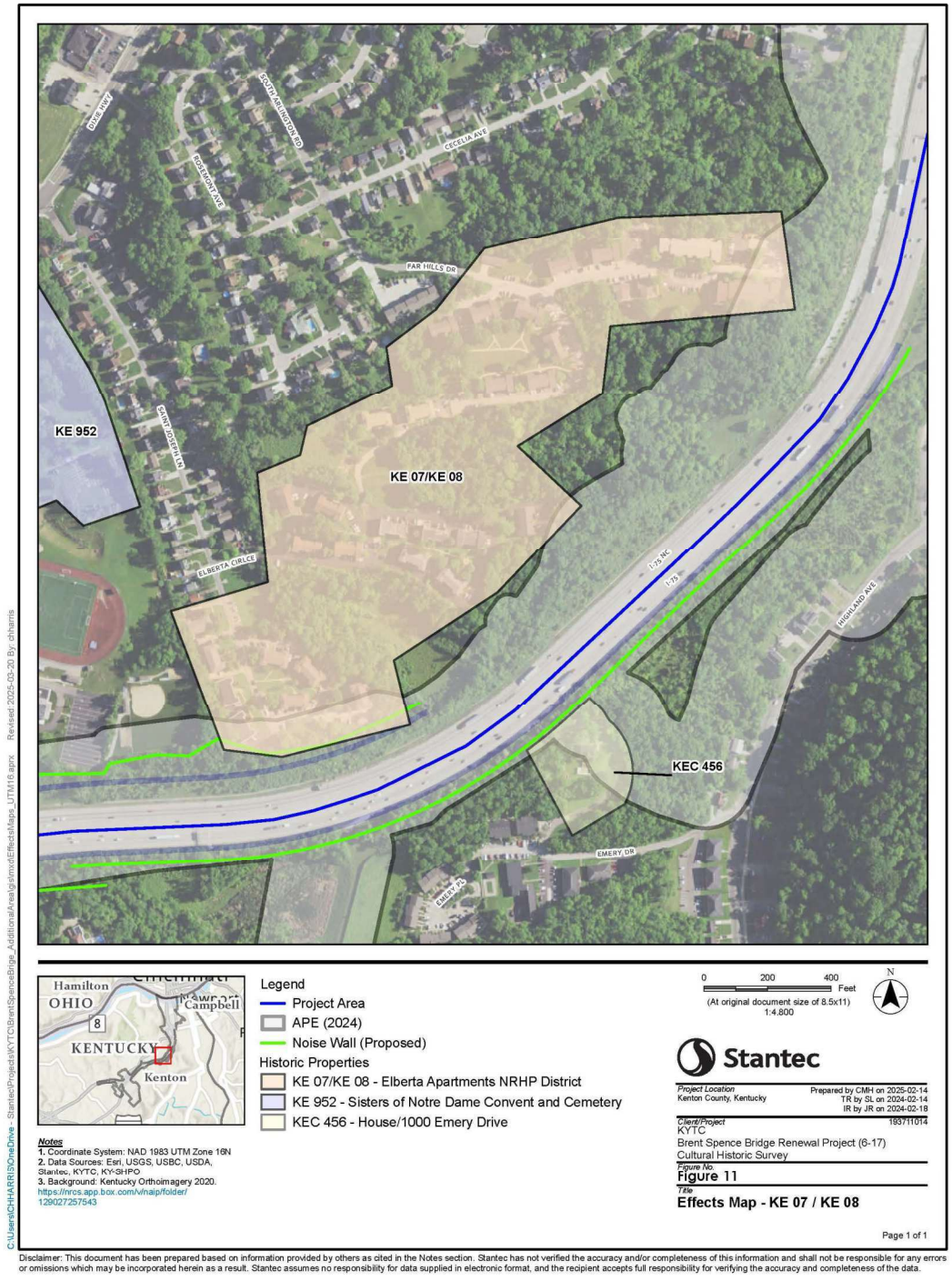


Figure 13. Effects Map, KE-07-KE-08.

KE-09

West Side/Main Strasse Historic District (Expansion)
circa 1840s-circa 1945
Covington, Kentucky
39.081931, -84.517424

Effects Assessment: No Adverse Effect

The West Side/Main Strasse Historic District was determined to retain its status as listed in the NRHP and the proposed West Side/Main Strasse Historic District (Expansion) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such the Project, as designed, will have *no adverse effect* on the historic district. The noise walls will be located approximately 137 ft from the district boundaries at its closest point and will have limited visibility due to intervening vegetation. While the entire district lies within the APE, the noise walls would only be visible from portions of Dalton and Philadelphia Streets, as these streets are nearest to the I-75 corridor. Therefore, the overall integrity and significance of both the West Side/Main Strasse Historic District and the expansion will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 14**.

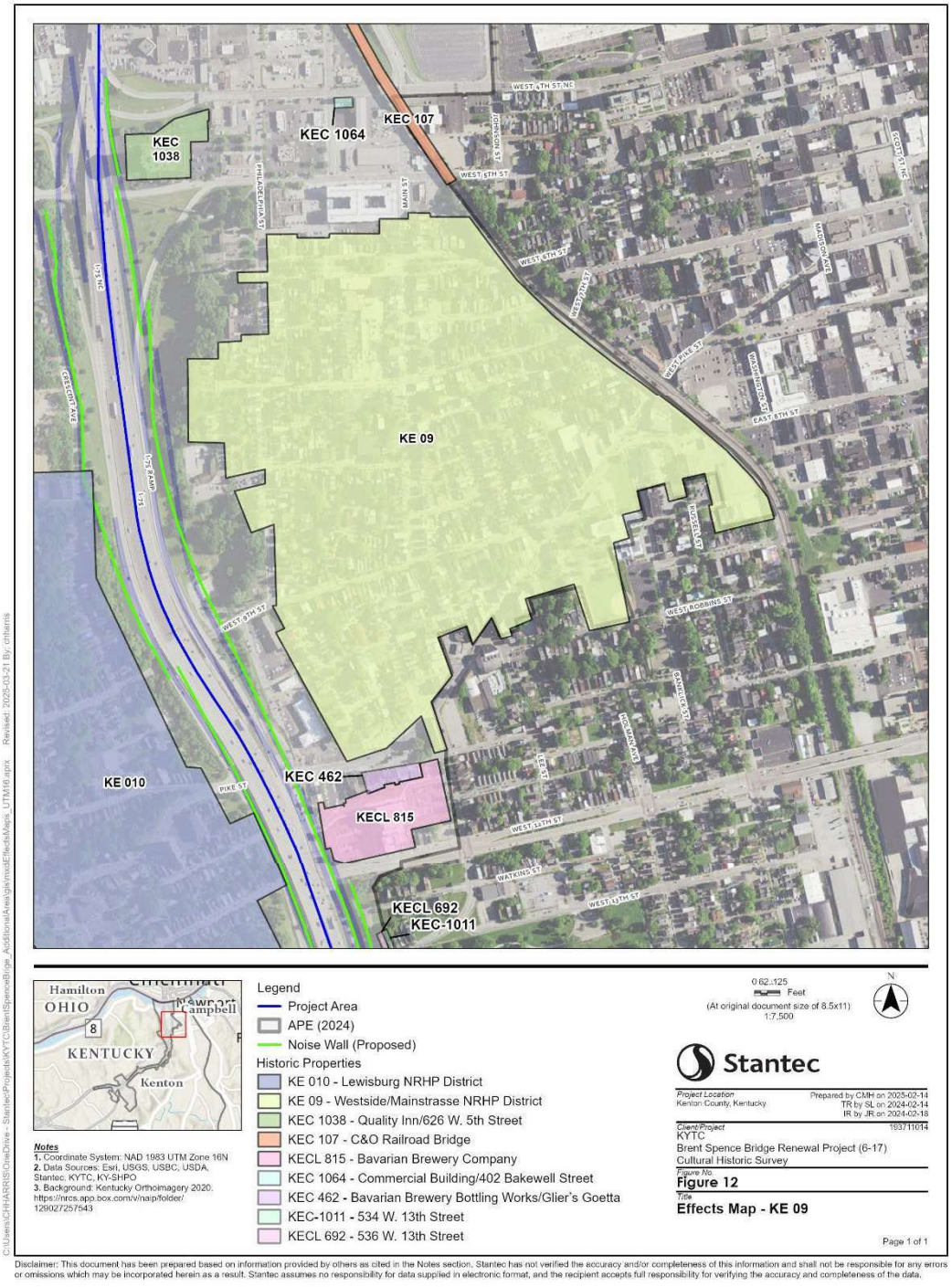


Figure 14. Effects map, KE-09.

KE-010

Lewisburg Historic District
1840-1947
Covington, Kentucky
39.07669, -84.522963

Effects Assessment: No Additional Adverse Effect

The Lewisburg Historic District (KE-010) was determined to retain its status as listed in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022. In the same letters, the Lewisburg Historic District was also determined to experience an Adverse Effect from the Project.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and, as such, the Project as designed will have *no additional adverse effect* on the Lewisburg Historic District. The Lewisburg Historic District was listed in the NRHP in 1993 after the construction of the I-75 corridor, which caused the accompanying demolition of a portion of Lewisburg for two former interstate exit ramps extending adjacent to the yards of properties along Hermes Avenue and Hinde Street. Based on a review of historic aerial maps, the former interstate exit ramps directly adjacent to Lewisburg were under construction in 1959, had been built by 1968, and were present through at least 1985. The ramps were in the process of removal in 1993. Based on historic maps and photographs, few trees screening the future historic district from the I-75 corridor were present through the mid-1990s. In 1994, a 50-million-dollar transportation project resulted in the reconstruction of this portion of I-71/I-75, locally known as the "Cut-in-the Hill," to increase its safety. The project involved straightening the S-curve, adding a fourth lane for southbound traffic, rebuilding the ramp to Kyle's Lane, and creating a new interchange at Pike and 12th Streets.[48] The exit and ramps in Lewisburg were also removed at this time, thus shifting the interstate away from Lewisburg. Although the denser existing screening trees would need to be removed for the construction of the proposed noise walls, these trees date to the mid-1990s and are not contributing elements of the historic district. The closest of the proposed noise walls in the Lewisburg Historic District would be within approximately 14-15 feet of the houses at the south end of Hermes Avenue. While the proposed noise walls would be adjacent to the parcel boundaries of the residences along Hermes Avenue, Hinde Street, and at the eastern end of West Watkins Street in the Lewisburg Historic District, the above-mentioned effects caused by the prior construction of the I-75 corridor existed at the time of its NRHP listing. As such, the addition of noise walls is unlikely to create any additional effects and will not compromise the significance and integrity of the historic

[48] Luke E. Saladin, "Is Cut-in-the-Hill Safe?" in *The Cincinnati Post (Cincinnati, Ohio)*, Saturday, January 6, 2007, p. 1, accessed online March 2025 via Newspapers.com at: https://www.newspapers.com/image/766083191/.

district. Furthermore, should no noise walls be constructed at this location, the Project would have no additional effect on the historic district as there would be no additional construction elements. See **Figure 15** and **Figure 16.**

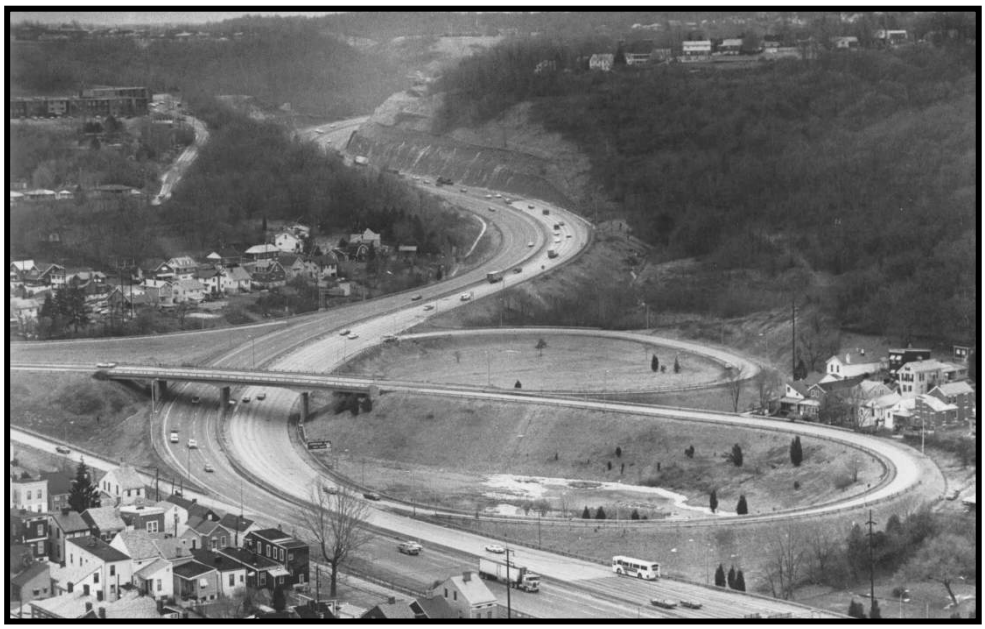


Figure 15. February 2, 1982, Cut-in-the-Hill south of Covington, Lewisburg at far right.[49]

[49] Jim Osborn, *The Kentucky Post*, Kenton County Public Library, Faces and Places, Image di15413, The "cut in the hill" south of Covington, February 2, 1982, accessed online March 2025 at: https://facesandplaces.kentonlibrary.org/viewimage.php?i=di15413.

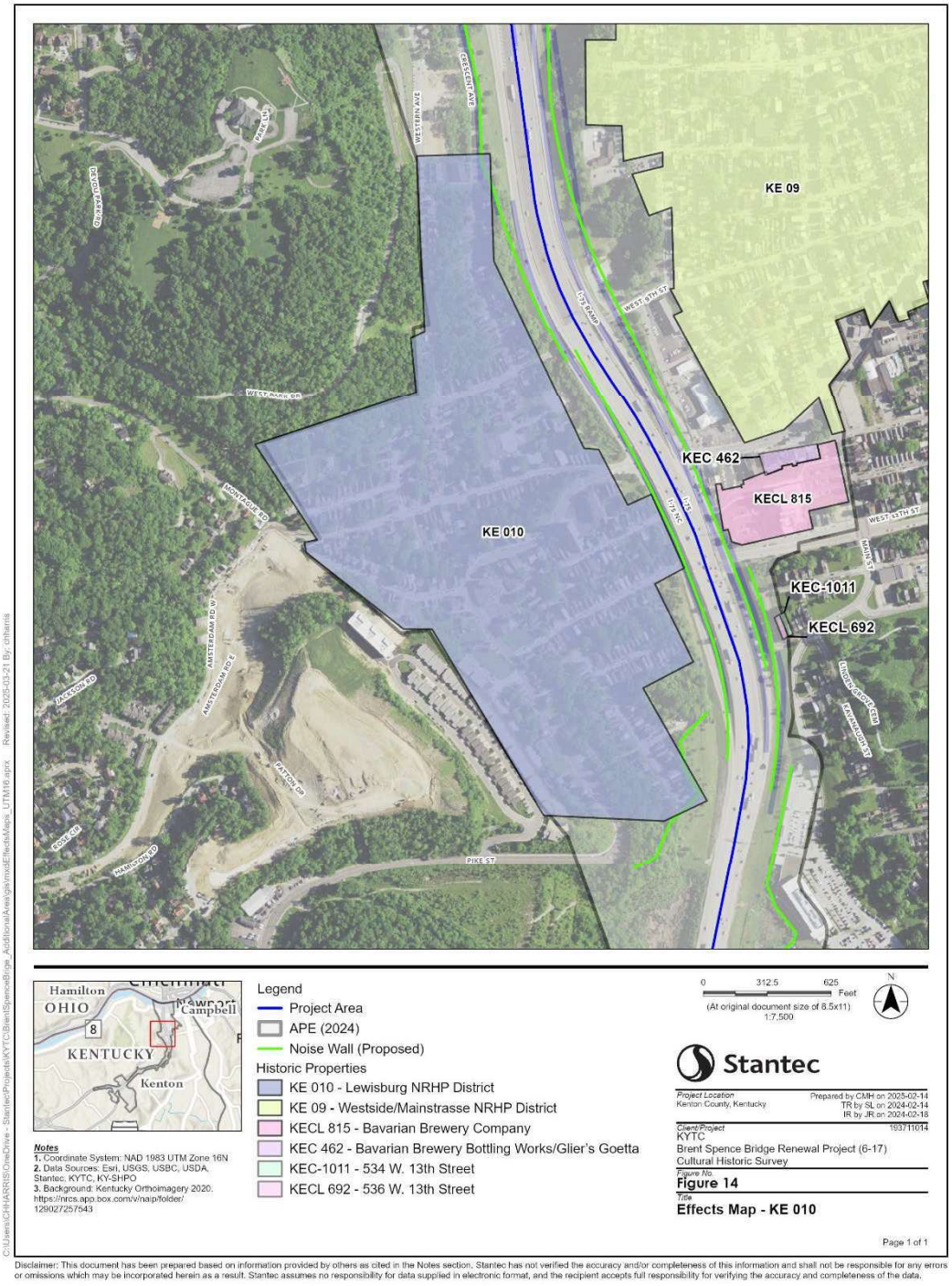


Figure 16. Effects map, KE-010.

KE-011

Old Ft. Mitchell Historic District
Circa 1906 - 1935
Ft. Mitchell, KY
39.058808, -84.544313

Effects Assessment: No Adverse Effect

The Old Ft. Mitchell Historic District (KE-011) was determined to retain sufficient historic integrity to retain its status as listed in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such, the Project, as designed, will have *no adverse effect* on the historic district. The noise walls will be located approximately 300 ft from the district boundaries at its closest point and will have limited visibility due to intervening vegetation and buildings. While the entire district lies within the APE, the noise walls would likely only be visible along portions of Dixie Highway and at the intersection of Dixie Highway and West Maple Avenue, as these streets are nearest to the I-75 corridor. Despite this limited visibility, the integrity and significance of the Old Ft. Mitchell Historic District will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 17**.

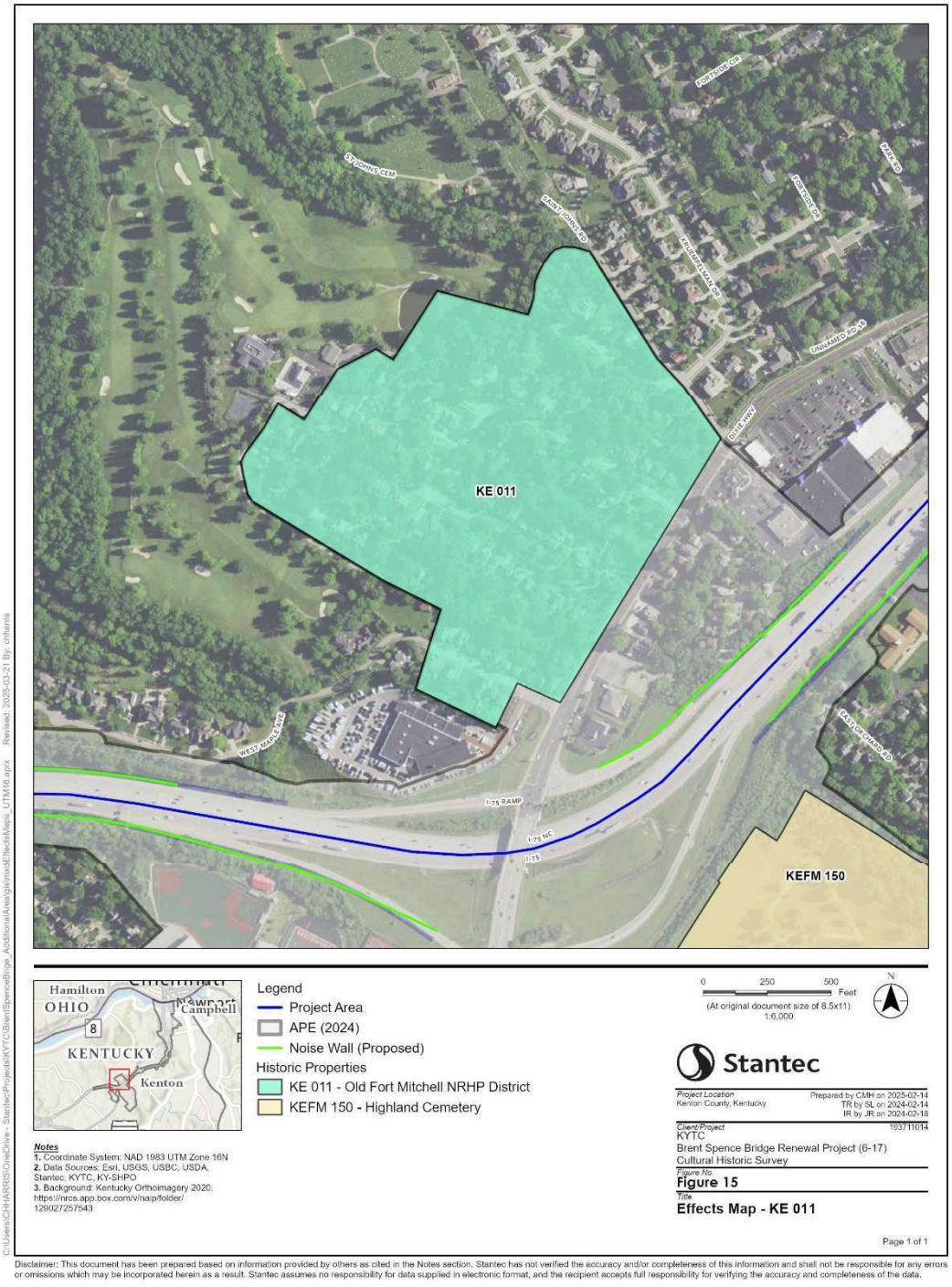


Figure 17. Effects map, KE-011.

KE-012

Beechwood Historic District
Circa 1890 – Circa 1935
Fort Mitchell, Kentucky
39.055272, -84.551003

Effects Assessment: No Adverse Effect

The Beechwood Historic District (KE-012) was determined to retain sufficient historic integrity to retain its status as listed in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such, the Project, as designed, will have *no adverse effect* on the historic district. The noise walls will be located approximately 728 ft from the district boundaries at its closest point and will be partially visible. However, due to distance and intervening buildings and sports fields, the construction of the noise walls will not compromise the integrity and significance of the Beechwood Historic District. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 18**.

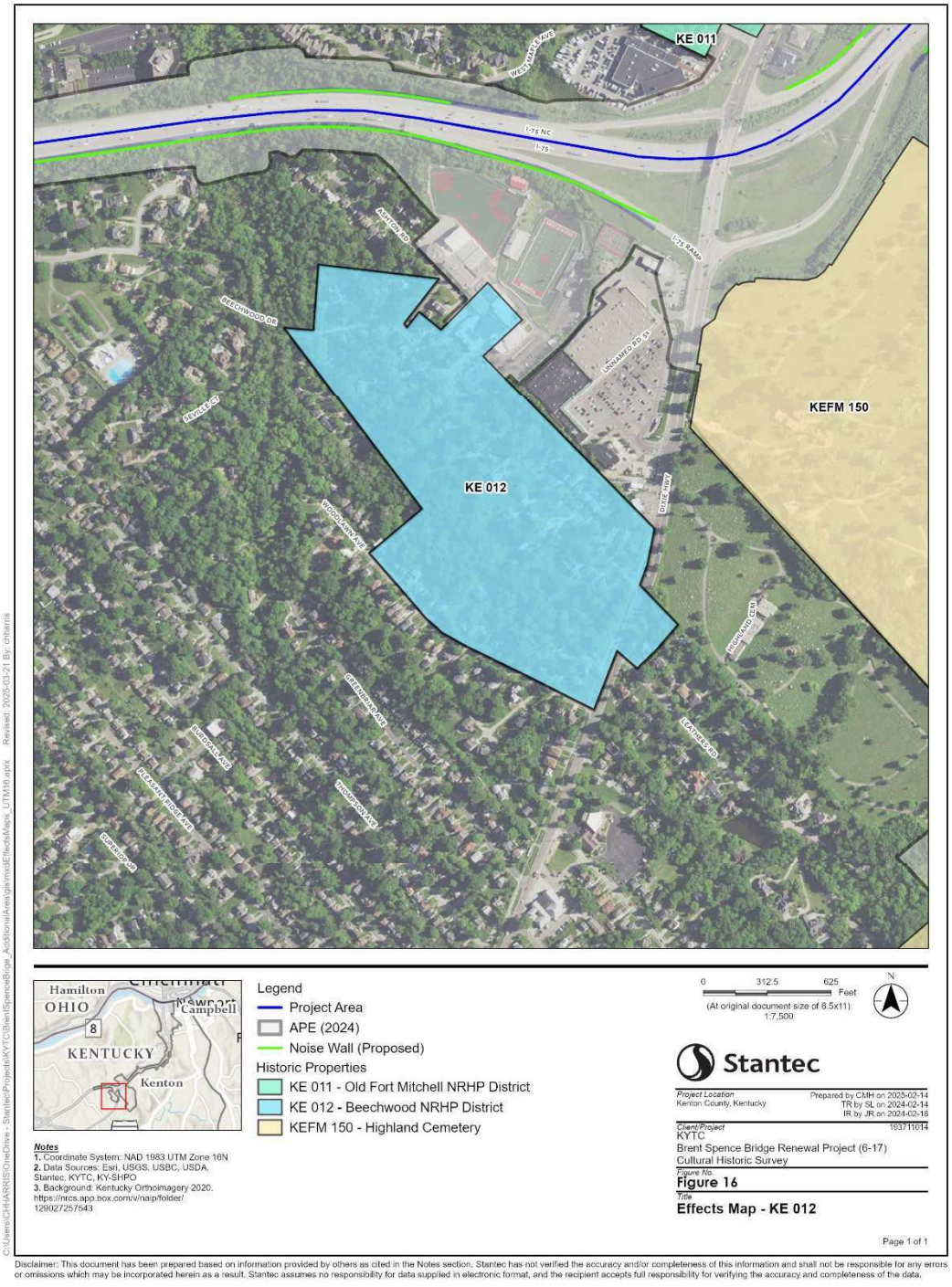


Figure 18. Effects Map, KE-012.

KE-013

Hillsdale Historic District
Circa 1850-1956
Rivard Drive and Kennedy Road
Covington, KY 41011

Effects Assessment: No Adverse Effect

The proposed Hillsdale Historic District was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The Project as designed will have *no adverse effect* on the historic district. The noise walls, either the transparent or solid type, will be installed approximately 35 ft from the nearest residence within the district at the closest point. However, they are being constructed as part of the I-75 corridor, which has existed since the highway was constructed during the 1960s,[50] well before the Hillsdale Historic District was determined eligible for listing in the NRHP. While the tree-clearing associated with the construction of either type of noise walls will cause them to be visible from portions of the historic district within the APE, the Project, as currently designed, will not compromise the overall character-defining features of the district as a good example of the suburban development process in Northern Kentucky. Therefore, the overall integrity and significance of the Hillsdale Historic District will remain intact. Furthermore, should no noise walls be constructed within the boundaries of the Hillsdale Historic District, the Project would have no effect on the district as there would be no construction elements. See **Figure 19.**

[50] Interstate 75, Cincinnati Transit. Accessed February 14, 2025, https://cincinnati-transit.net/75-60.html.

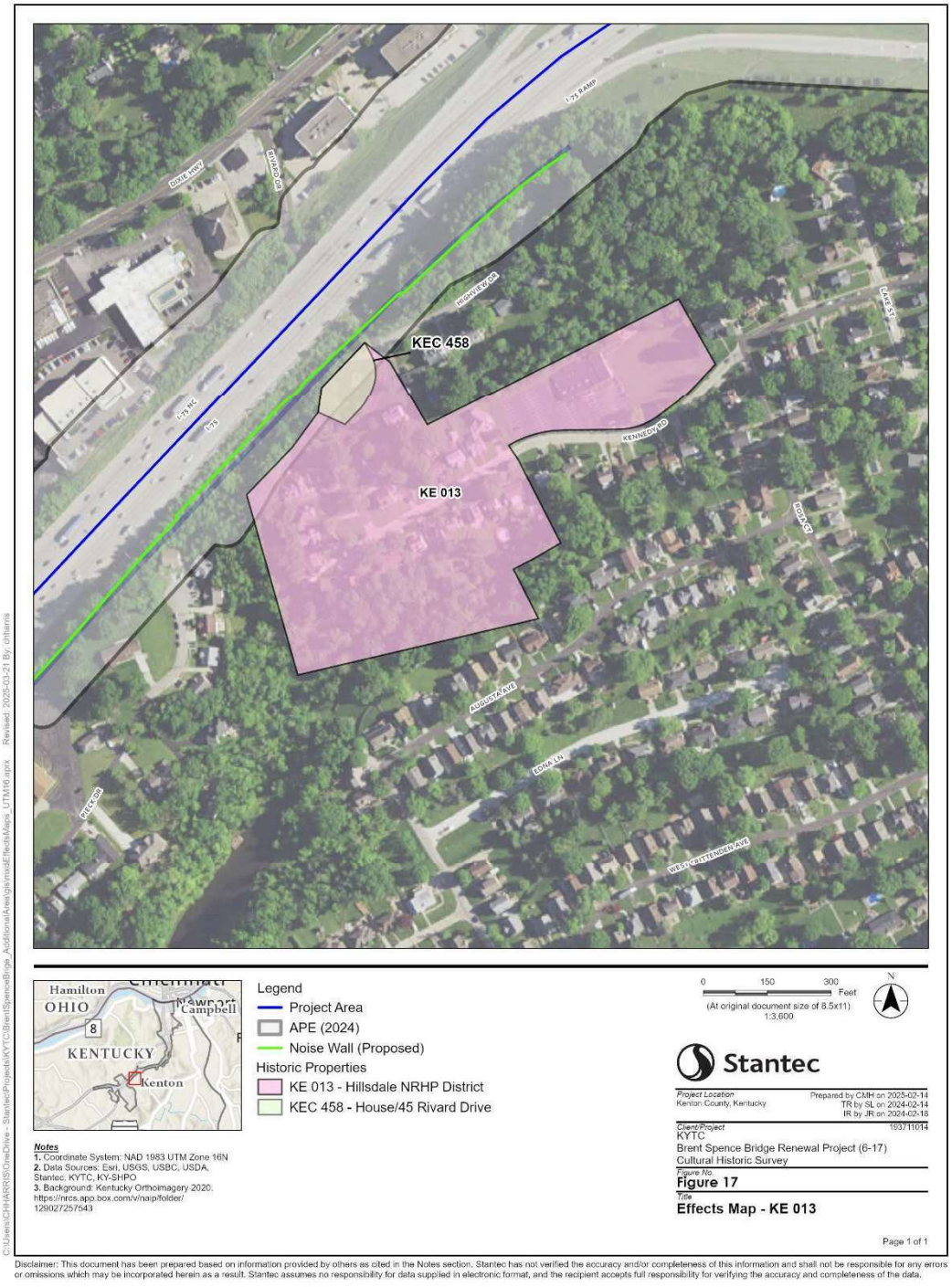


Figure 19. Effects Map, KE-013.

KE-952

Sisters of Notre Dame Convent and Cemetery
1927
1601 Dixie Highway
Park Hills, KY 41011
39.063918, -84.532346

Effects Assessment: No Adverse Effect

The Sisters of Notre Dame Convent and Cemetery (KE-952) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such, the Project, as designed, will have *no adverse effect* on the property. The noise walls will be located approximately 807 ft from the district boundaries at its closest point and will be partially visible. However, due to distance and intervening buildings and vegetation, the construction of the noise walls will not compromise the character-defining features of the Sisters of Notre Dame Convent and Cemetery, and its significance and integrity will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 20**.

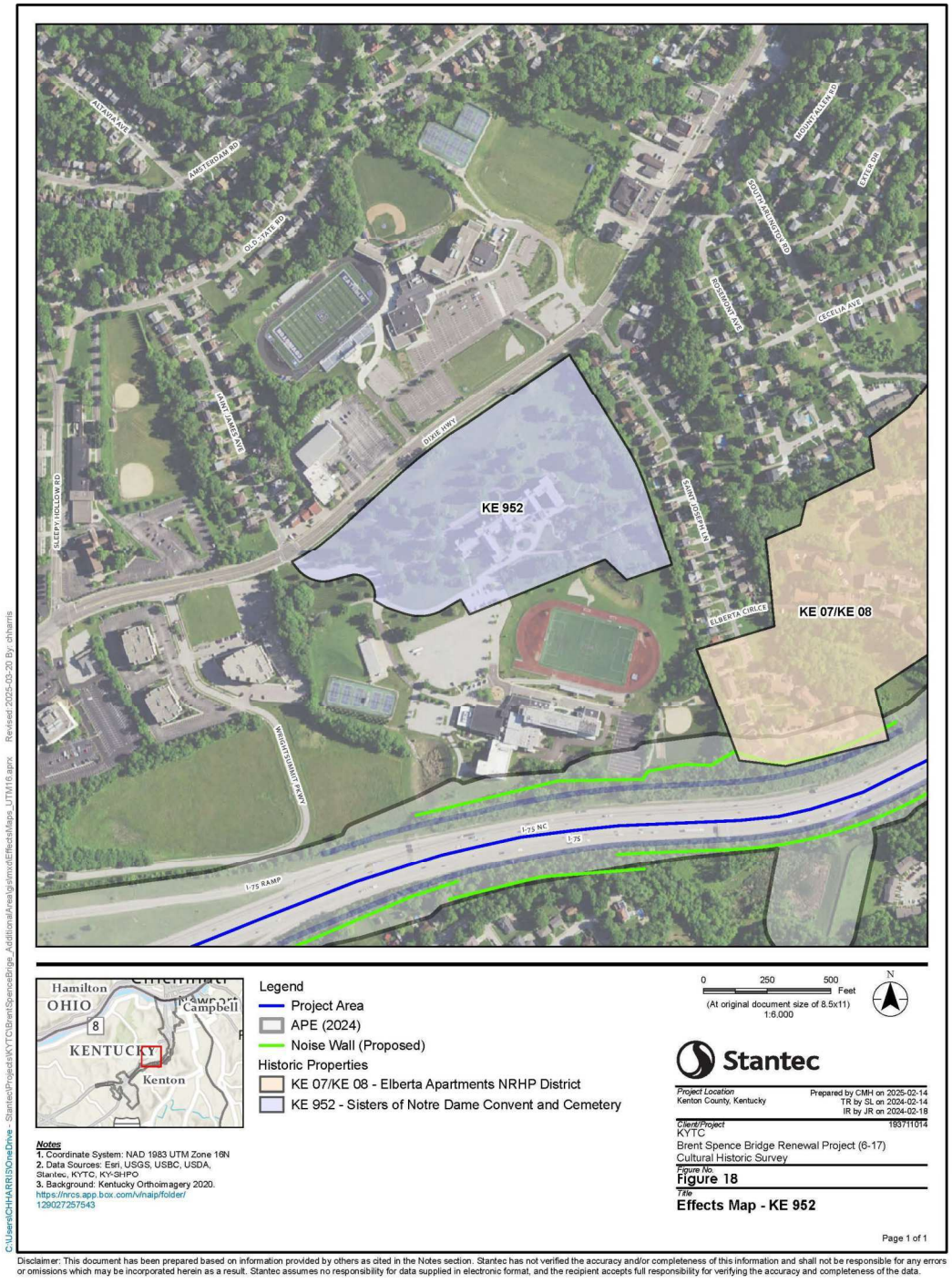


Figure 20. Effects map, KE-952.

KEC-107

C&O Railroad Bridge
1929
Covington, KY 41011
39.091335, -84.51939

Effects Assessment: No Adverse Effect

The C&O Railroad Bridge (KEC-107) was determined eligible for listing in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The Project as currently designed will have *no adverse effect* on the C&O Railroad Bridge. While there will be a contractor access road constructed beneath the bridge, this is a temporary construction element and will be removed after construction is complete. Construction of the contractor access road will not compromise the character-defining features that make the bridge eligible for listing in the NRHP. Therefore, the integrity and significance of the C&O Railroad Bridge will remain intact. See **Figure 21**.

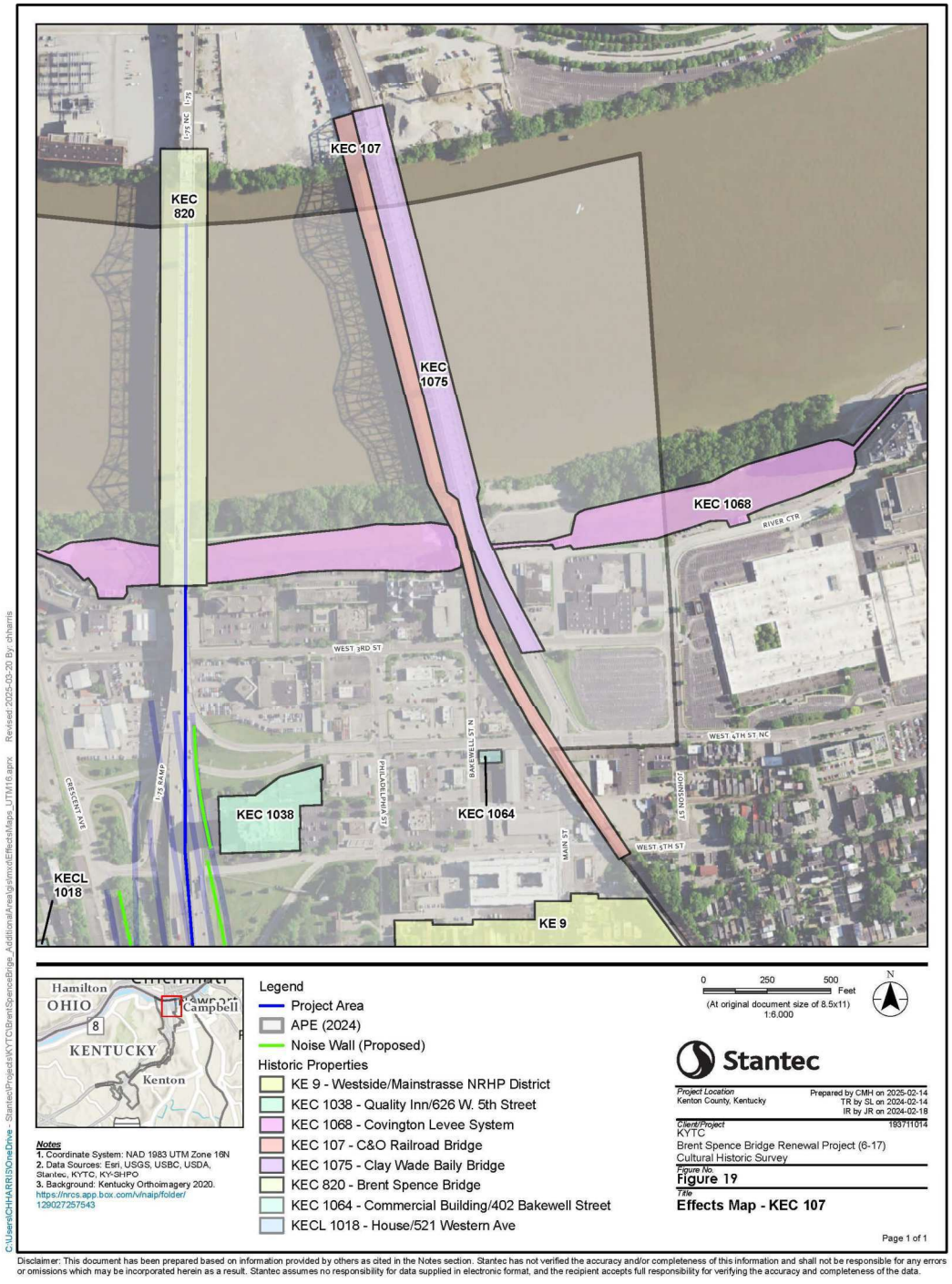


Figure 21. Effects Map, KEC-107.

KEC-456

House/1000 Emery Drive
Circa 1890
1000 Emery Drive
Covington, KY 41011
39.061329, -84.524824

Effects Assessment: No Adverse Effect

The House at 1000 Emery Drive (KEC-456) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such Project, as designed, will have *no adverse effect* on this property. The noise walls will be installed approximately 95 ft from the house and will be visible due to tree clearing prior to their installation. However, they are being constructed as part of the I-75 corridor, which has existed since the highway was constructed, well before the property was determined eligible for listing in the NRHP. Additionally, according to data from the Kenton County PVA, the noise walls will not be located at the parcel boundary, but toward the center of the I-75 ROW, and there is already a fence installed along the border of the ROW. The Project, as currently designed, will not compromise its character-defining features as an example of a 2.5 story, stuccoed front gable house. Therefore, the integrity and significance of the House at 1000 Emery Drive will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 22**.

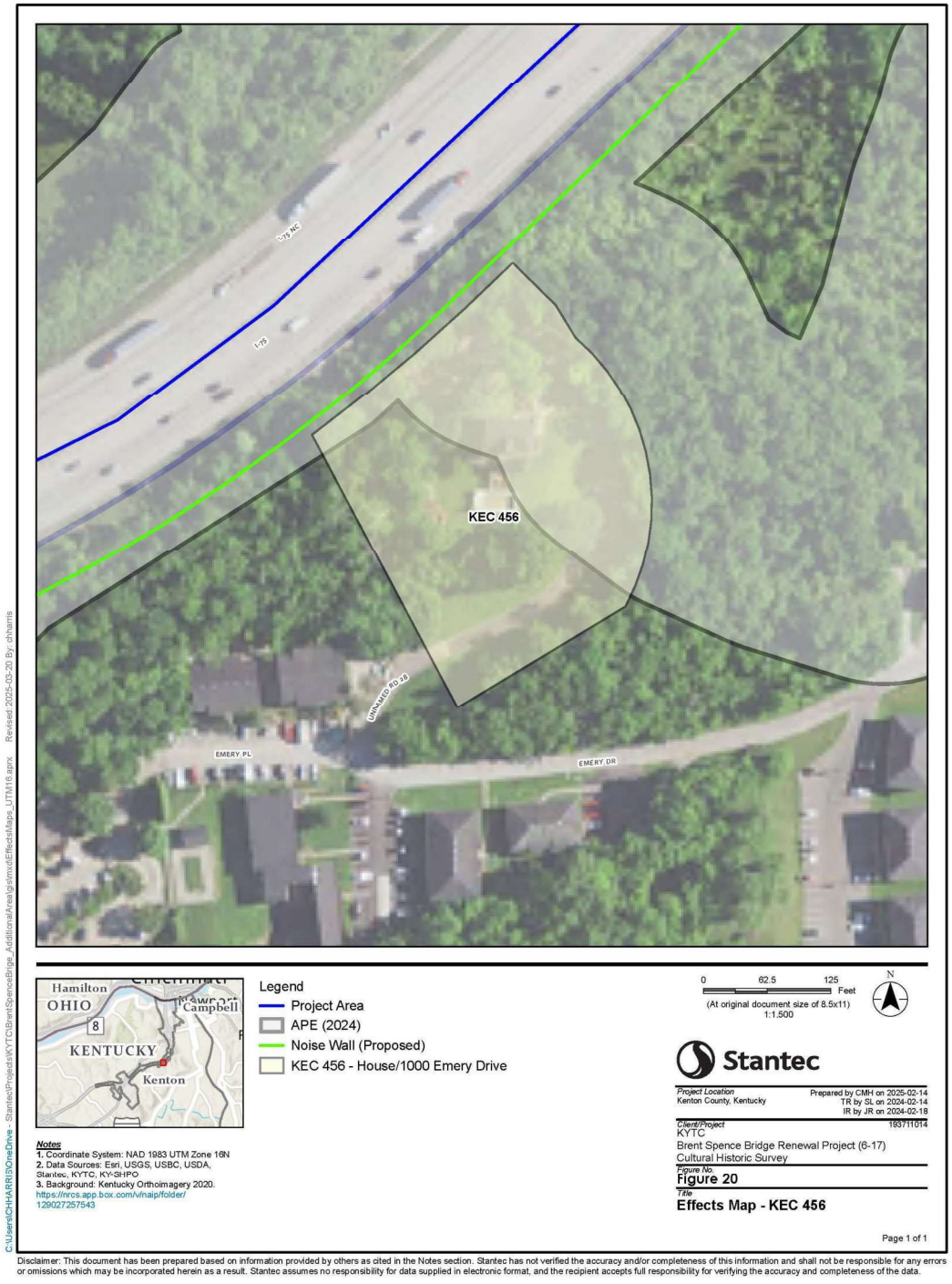


Figure 22. Effects Map, KEC-456.

KEC-458

House/45 Rivard Drive
Circa 1925
45 Rivard Drive
Covington, KY 41011
39.055938, -84.542759

Effects Assessment: No Adverse Effect

The House at 45 Rivard Drive (KEC-458) was determined individually eligible for listing in the NRHP and eligible as a contributing element to the Hilldale Historic District on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The Project as designed will have *no adverse effect* on this property. The noise walls, either the transparent or solid type, will be installed approximately 35 ft from the house and will be visible due to tree clearing prior to their installation. However, they are being constructed as part of the I-75 corridor, which has existed since the highway was constructed during the 1960s,[51] well before the House at 45 Rivard Drive was determined eligible for listing in the NRHP. Additionally, a chain link fence is already installed at the ROW boundary according to data from the Kenton County PVA, and the noise walls will not be located at the parcel boundary, but toward the center of the interstate ROW. The Project, as currently designed, will not compromise the character-defining features of the house at 45 Rivard Drive as a notable example of a Tudor Revival house. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 23**.

[51] Ibid.

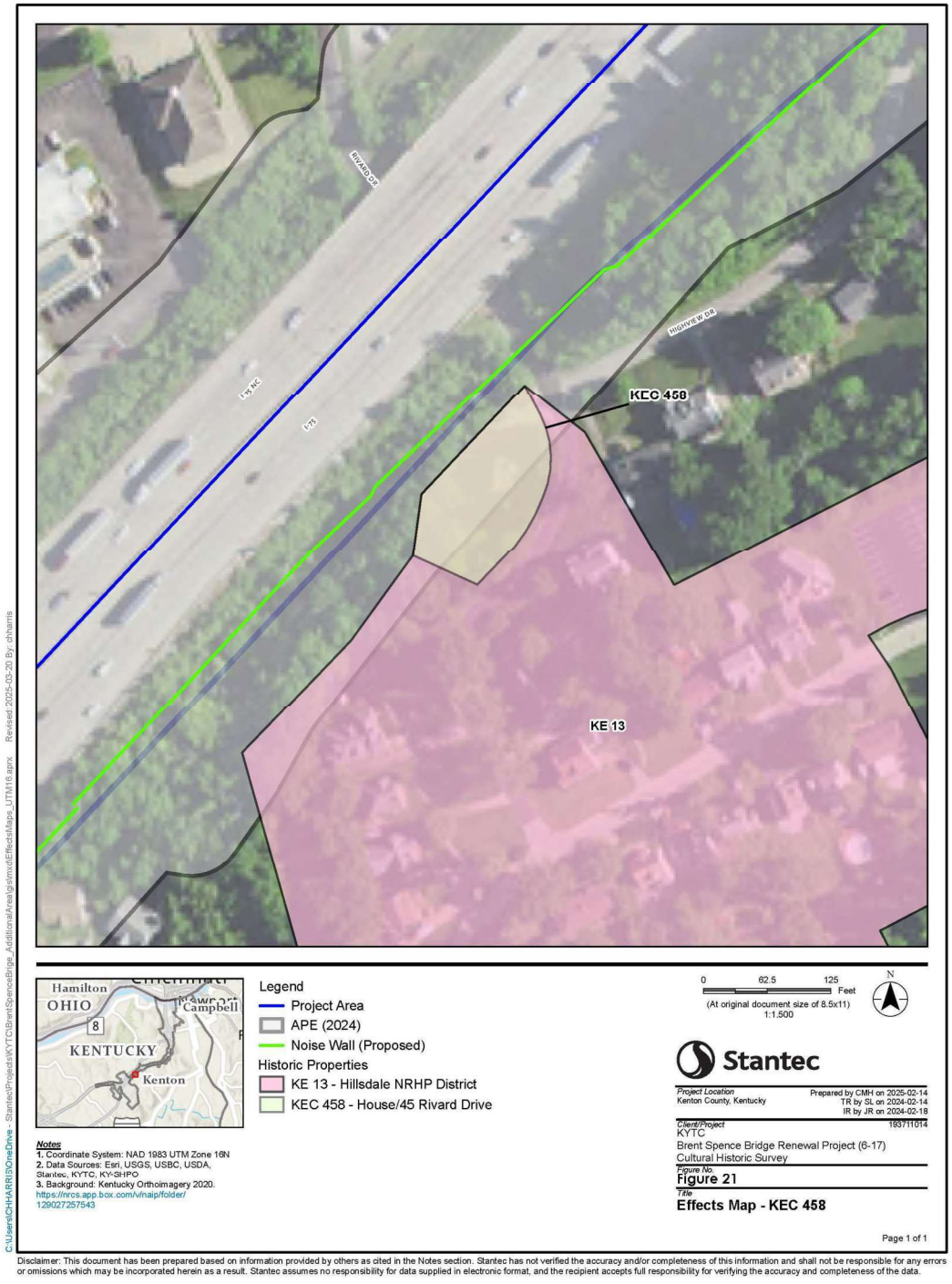


Figure 23. Effects Map, KEC-458.

KEC-460

House/829-831 Highway Avenue
Circa 1870
829-831 Highway Avenue
Covington, KY 41011
39.089024, -84.526867

Effects Assessment: No Adverse Effect

The House at 829-831 Highway Avenue (KEC-460) was determined eligible for listing in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The Project as currently designed will have *no adverse effect* on the House at 829-831 Highway Avenue. While the contractor access road will be constructed beginning at the levee access gate, across the street from the property, this will be a temporary measure that will be removed after the construction of the companion bridge. Additionally, the property is located at the edge of the APE and construction of the falsework and regrading of the levee will occur approximately 0.17 mi away and will be minimally visible from the house. Therefore, the integrity and significance of the House at 829-831 Highway Avenue will remain intact. See **Figure 24**.

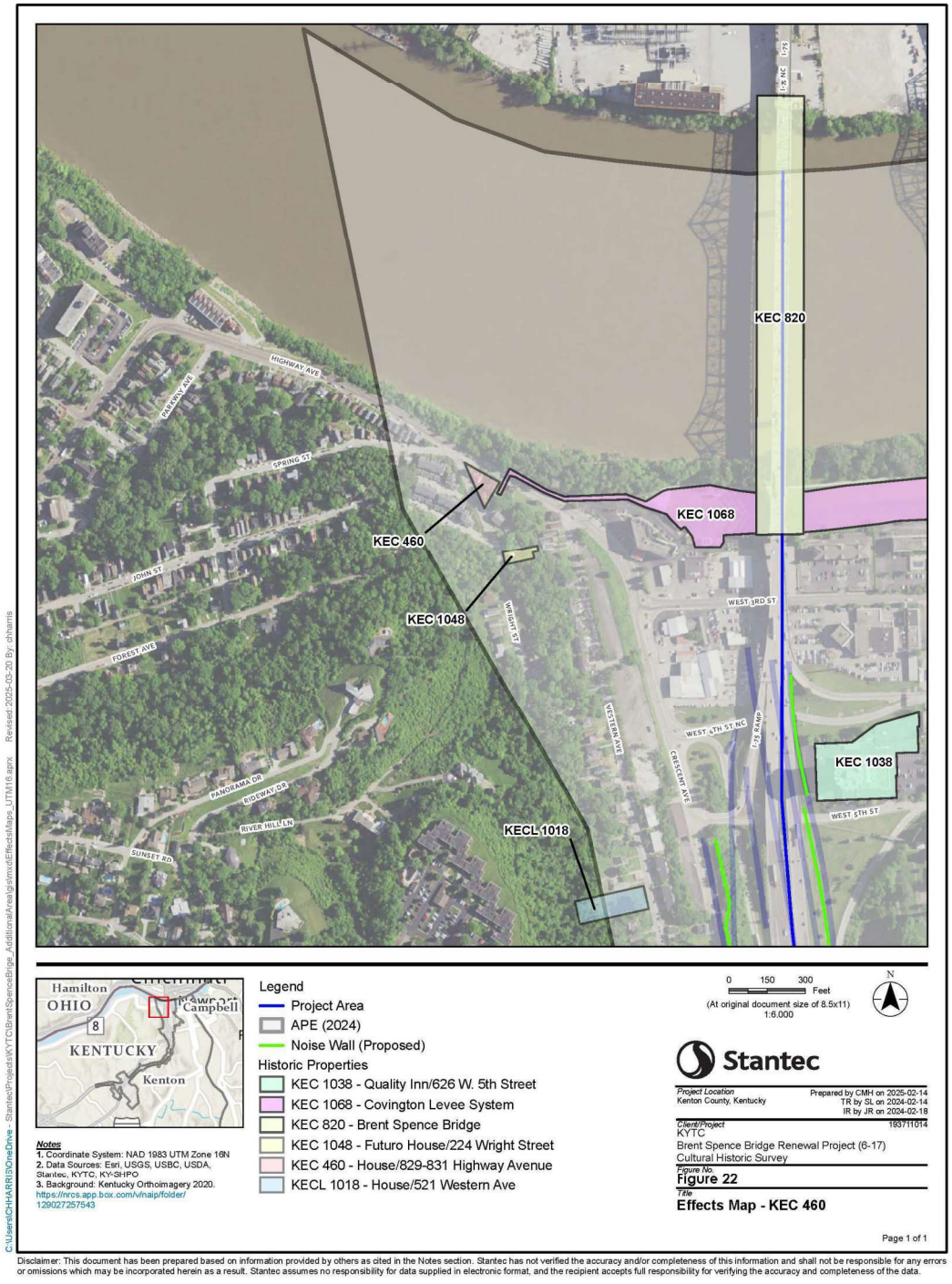


Figure 24. Effects Map, KEC-460.

KEC-462

Bavarian Brewery Bottling Works/Glier's Goetta
Circa 1903, Circa 1966
533 Goetta Place
Covington, KY 41011
39.07733, -84.518247

Effects Assessment: No Adverse Effect

The Bavarian Brewery Bottling Works/Glier's Goetta (KEC-462) was determined eligible for listing both individually and as a contributing element to both the West Side/Main Strasse Historic District and the expansion of the NRHP boundary for KECL-815/Bavarian Brewing Co./Kenton Government Center on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type, and as such, the Project as designed will have *no adverse effect* on the property. The noise walls will be installed approximately 350 ft from the property at its closest point and will be minimally visible due to intervening buildings. Furthermore, the building was determined eligible for listing in the NRHP, both individually and as an expansion of the NRHP boundary for KECL-815/Bavarian Brewing Co./Kenton Government Center well after the construction of the interstate. Therefore, the integrity and significance of the Bavarian Brewery Bottling Works/Glier's Goetta will remain intact. Additionally, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 25**.

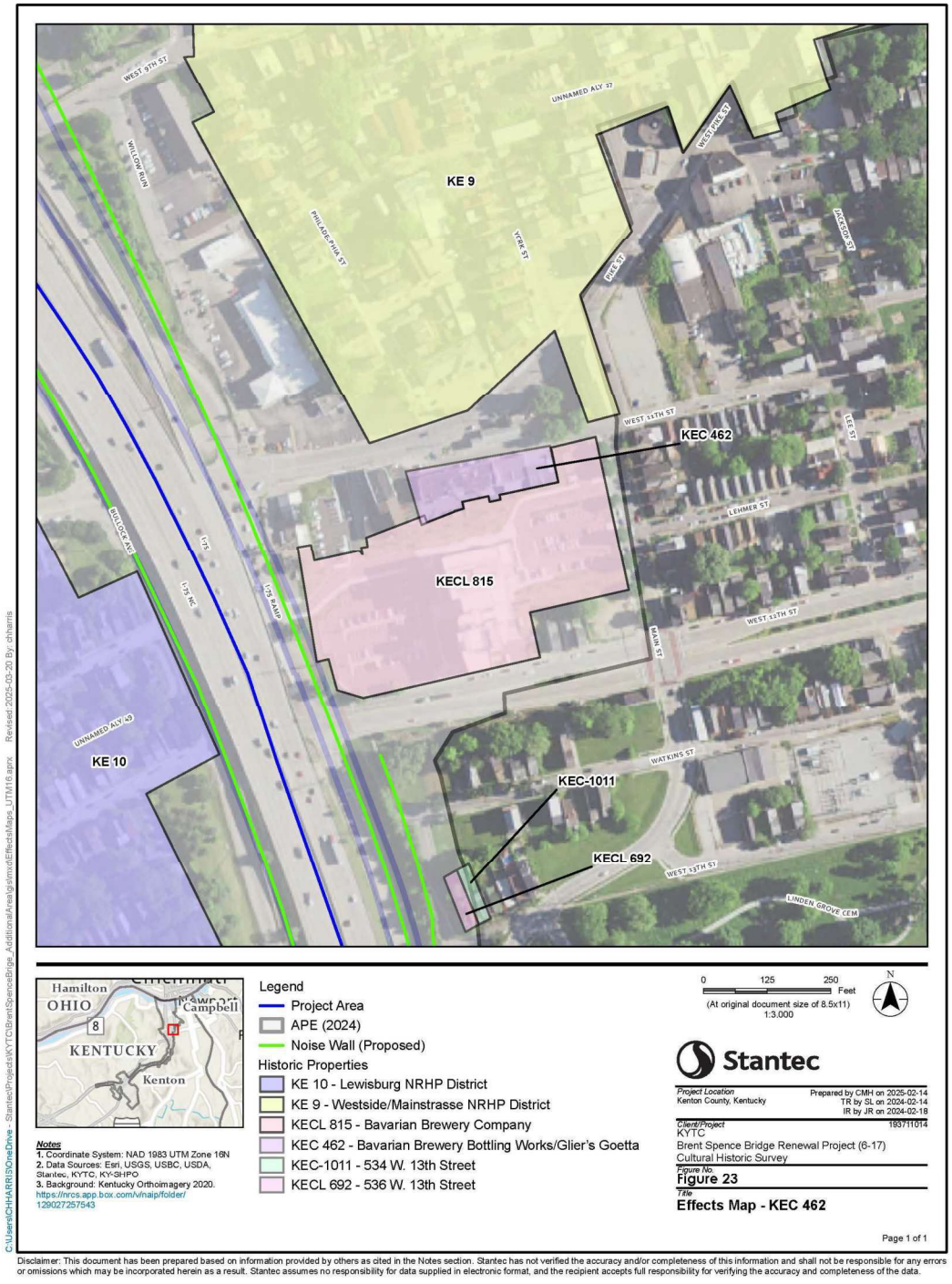


Figure 25. Effects Map, KEC-462.

KEC-820

Brent Spence Bridge
1963
Covington, KY 41011
39.090862, -84.522713

Effects Assessment: No Adverse Effect

The Brent Spence Bridge (KEC-820) was determined eligible for listing in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The Project as currently designed will have *no adverse effect* on the Brent Spence Bridge. While there will be a contractor access road constructed beneath the bridge, this is a temporary construction element that will be removed after construction of the Brent Spence Companion Bridge is complete. Additionally, while the construction of the falseworks, ramp, trestle, bulkhead sheets, and cofferdam that will be used for the construction of the companion bridge will be located adjacent to the Brent Spence Bridge, these activities will not have a direct impact on the existing bridge and will not alter its character-defining features. Therefore, the integrity and significance of the Brent Spence Bridge will remain intact. See **Figure 26.**

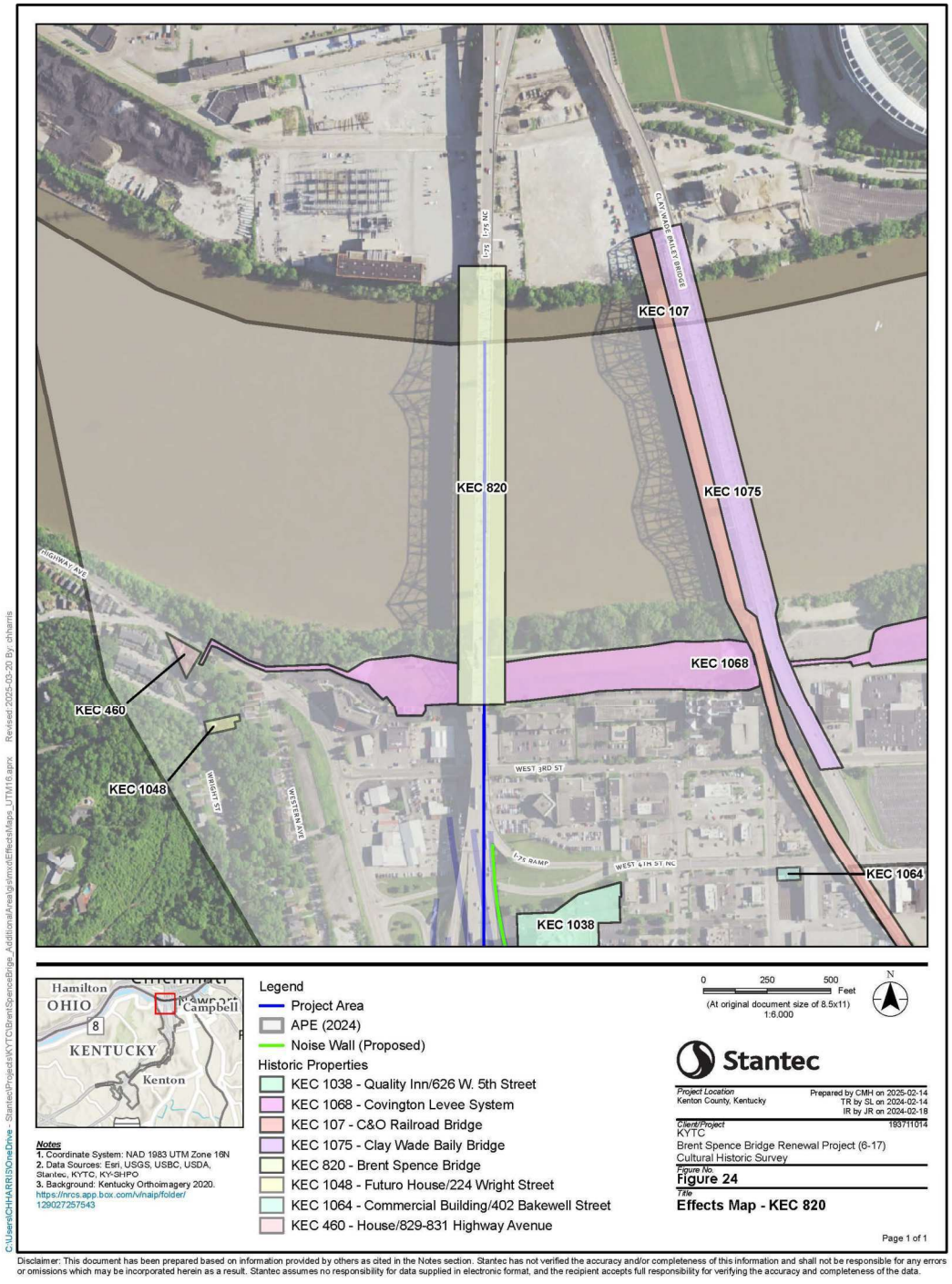


Figure 26. Effects Map, KEC-820.

KEC-1011

House/534 West 13th Street
Circa 1890
534 W. 13th St.
Covington, KY 41011
39.075022, -84.518112

Effects Assessment: No Adverse Effect

The House at 534 West 13th Street (KEC-1011) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such the Project, as designed, will have *no adverse effect* on this property. The noise walls will be installed approximately 103 ft from the house and will be visible. However, they are being constructed as part of the I-75 corridor, which has existed since the highway was constructed during the 1960s,[52] well before the property was determined eligible for listing in the NRHP. Additionally, there is chain link fencing already installed along the ROW boundary for the interstate. The Project will not compromise its character-defining features as a good example of an Italianate cottage. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 27**.

[52] Ibid.

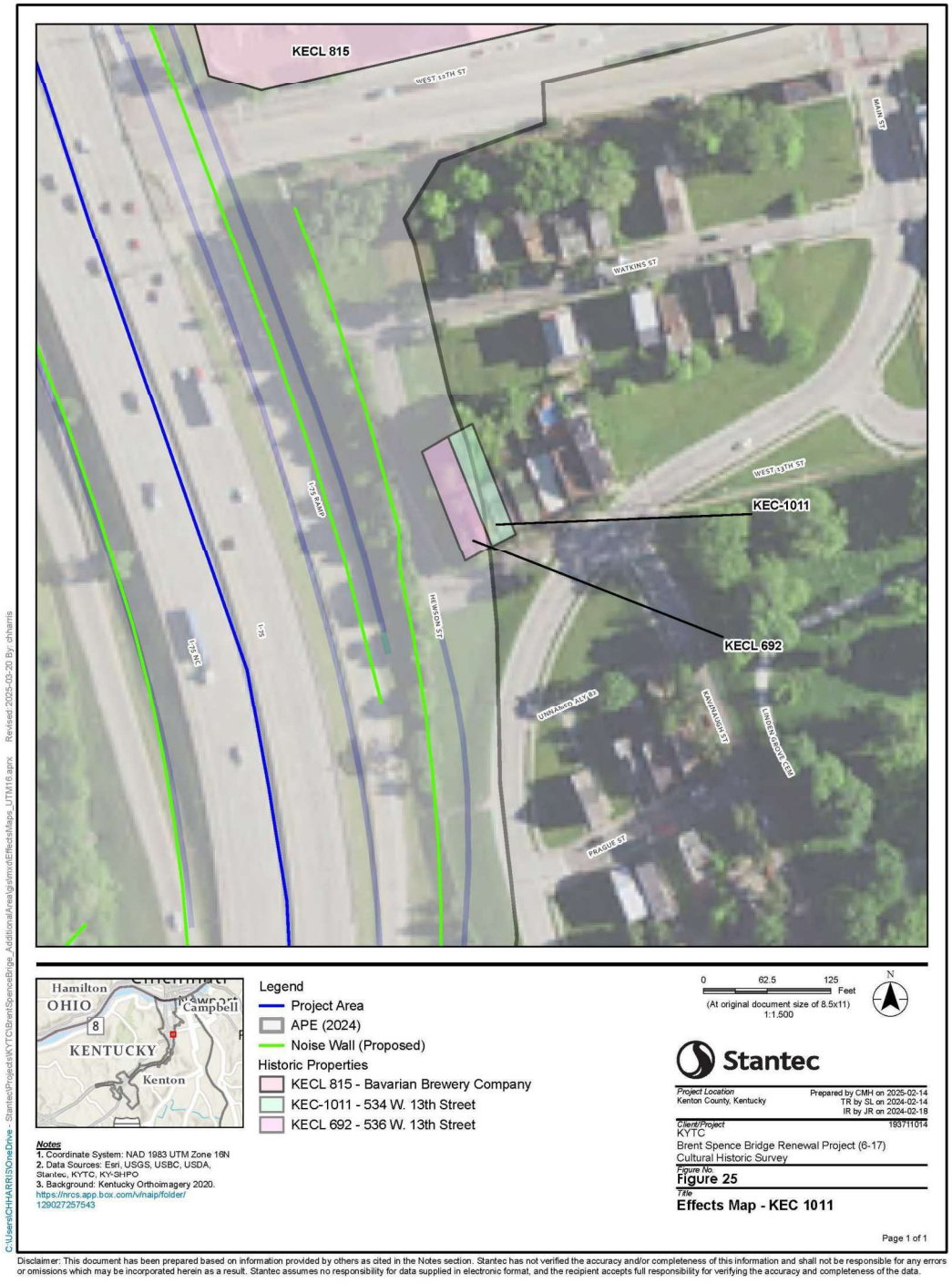


Figure 27. Effects Map, KEC-1011.

KEC-1038

Quality Inn/626 West 5th Street
Circa 1972
626 W. 5th Street
Covington, KY 41011
39.08577, -84.5219

Effects Assessment: No Adverse Effect

The Quality Inn at 626 West 5th Street (KEC-1038) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and the Project as designed will have *no adverse effect* on this property. While the noise walls, of either type, will be installed approximately 130 ft from the property and will be visible, the Quality Inn building was constructed after the construction of the I-75 corridor as a place for travelers to stay and eat adjacent to the interstate and has been associated with the I-75 corridor for its entire existence. The addition of noise walls will not compromise the building's character-defining features as a notable example of a freestanding late twentieth century cylindrical high-rise hotel tower or as a notable example of modern space-age style architecture that is rare and innovative in the region. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 28**.

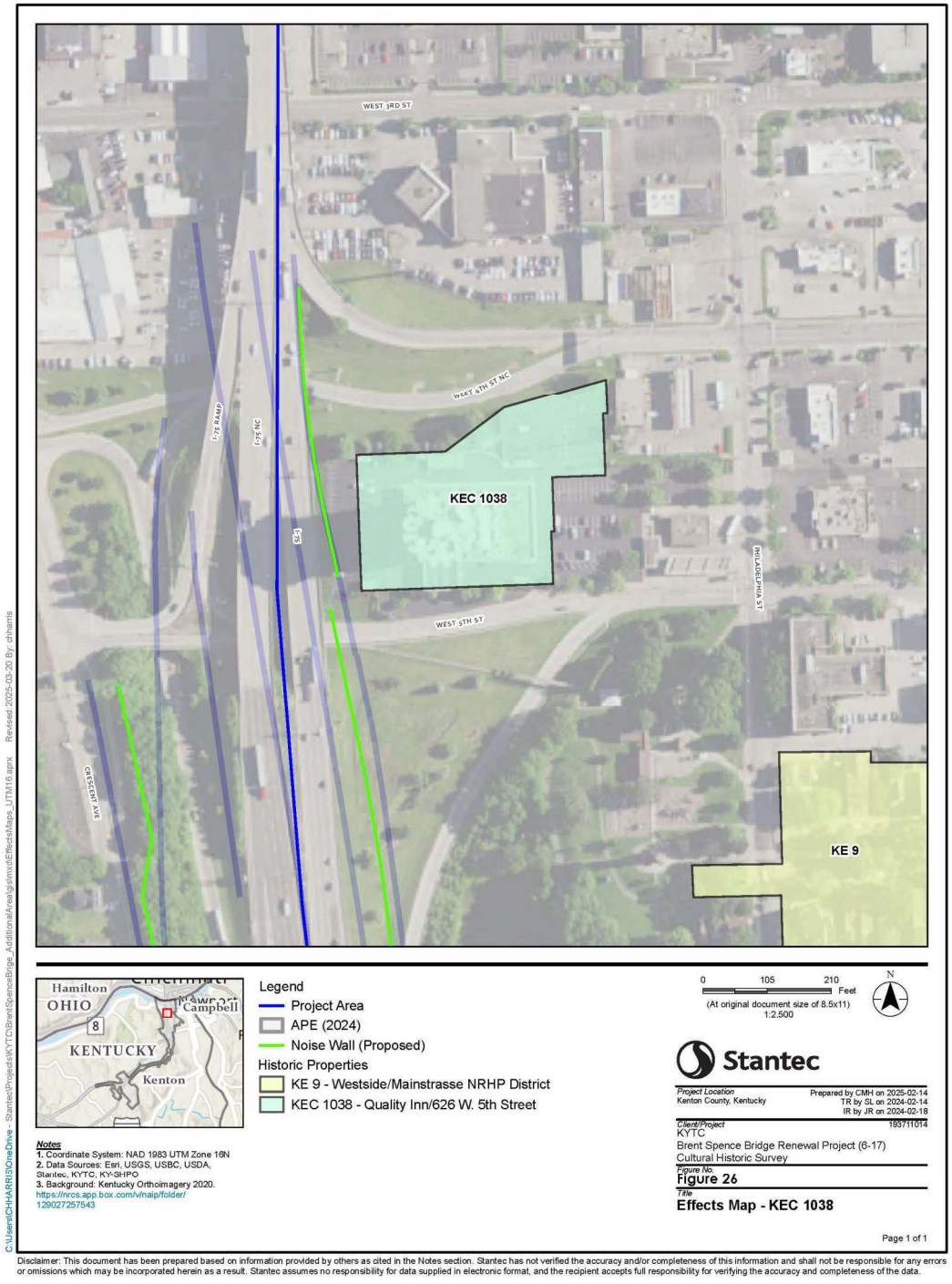


Figure 28. Effects Map, KEC-1038.

KEC-1048

Futuro House/224 Wright Street
Circa 1973, moved to current location in 1978
224 Wright Street
Covington, KY 41011
39.088159, -84.526449

Effects Assessment: No Adverse Effect

The Futuro House at 224 Wright Street (KEC-1048) was determined eligible for listing in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for alterations to the flood wall and levee and is minimally visible from the property. The Project as designed will have *no adverse effect* on this property. The Futuro House is surrounded by trees and located approximately 285 ft away. The character-defining features of the house will not be compromised due to distance and intervening vegetation. Therefore, the integrity and significance of the Futuro House at 224 Wright Street will remain intact. See **Figure 29**.

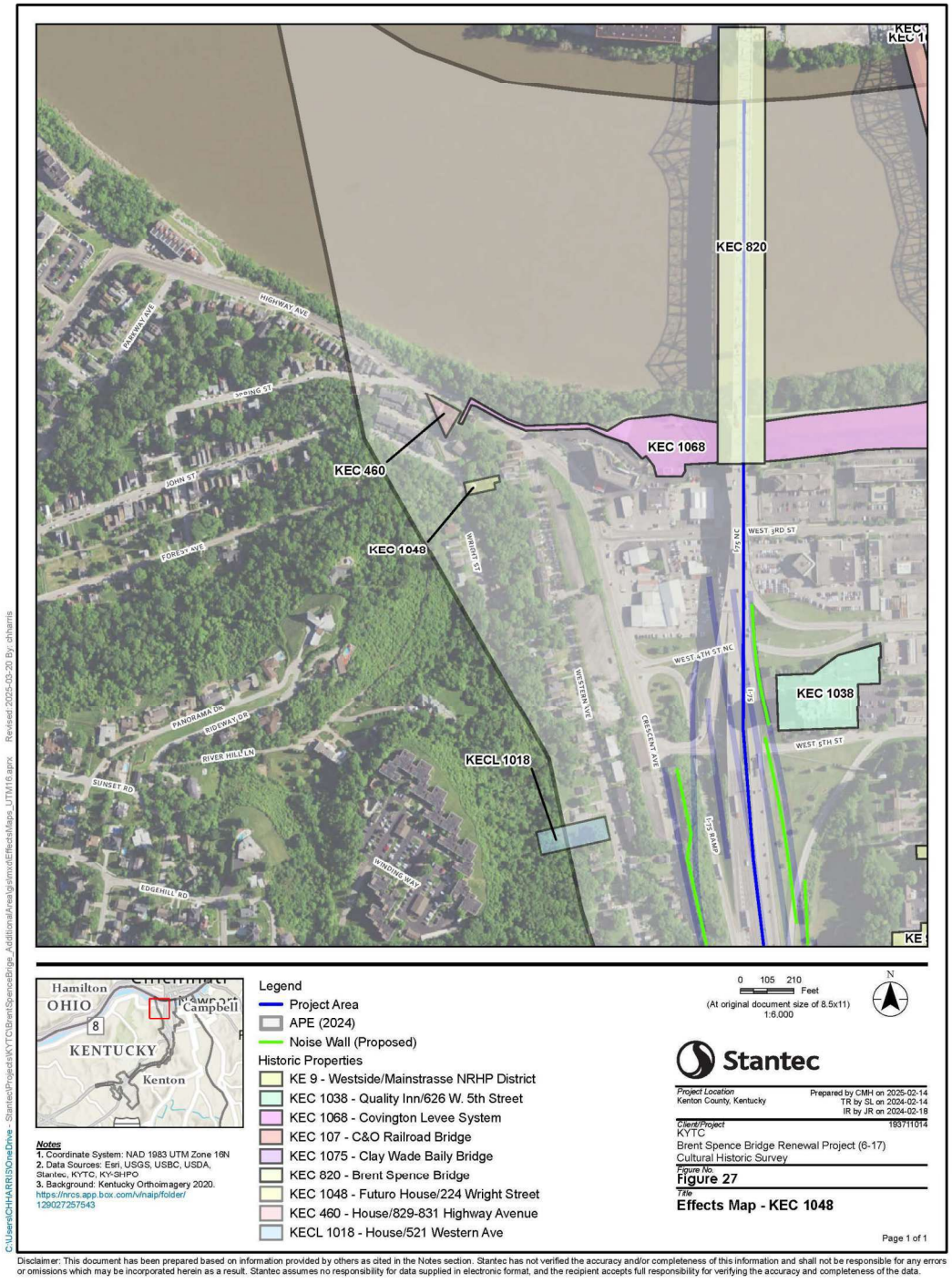


Figure 29. Effects Map, KEC-1048.

KEC-1064

Commercial Building/402 Bakewell Street
Circa 1900
402 Bakewell Street
Covington, KY 41011
39.086434, -84.51861

Effects Assessment: No Adverse Effect

The Commercial Building at 402 Bakewell Street (KEC-1064) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type. The Project as designed will have *no effect* on this property. The noise walls, of either type, will be installed approximately 0.21 mi from the property and has minimal visibility due to distance and intervening buildings. The Project will not compromise the character-defining features of the Commercial Building at 402 Bakewell Street as a good example of a Romanesque Revival commercial building. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would also have no effect on the property as there would be no construction elements. See **Figure 30**.

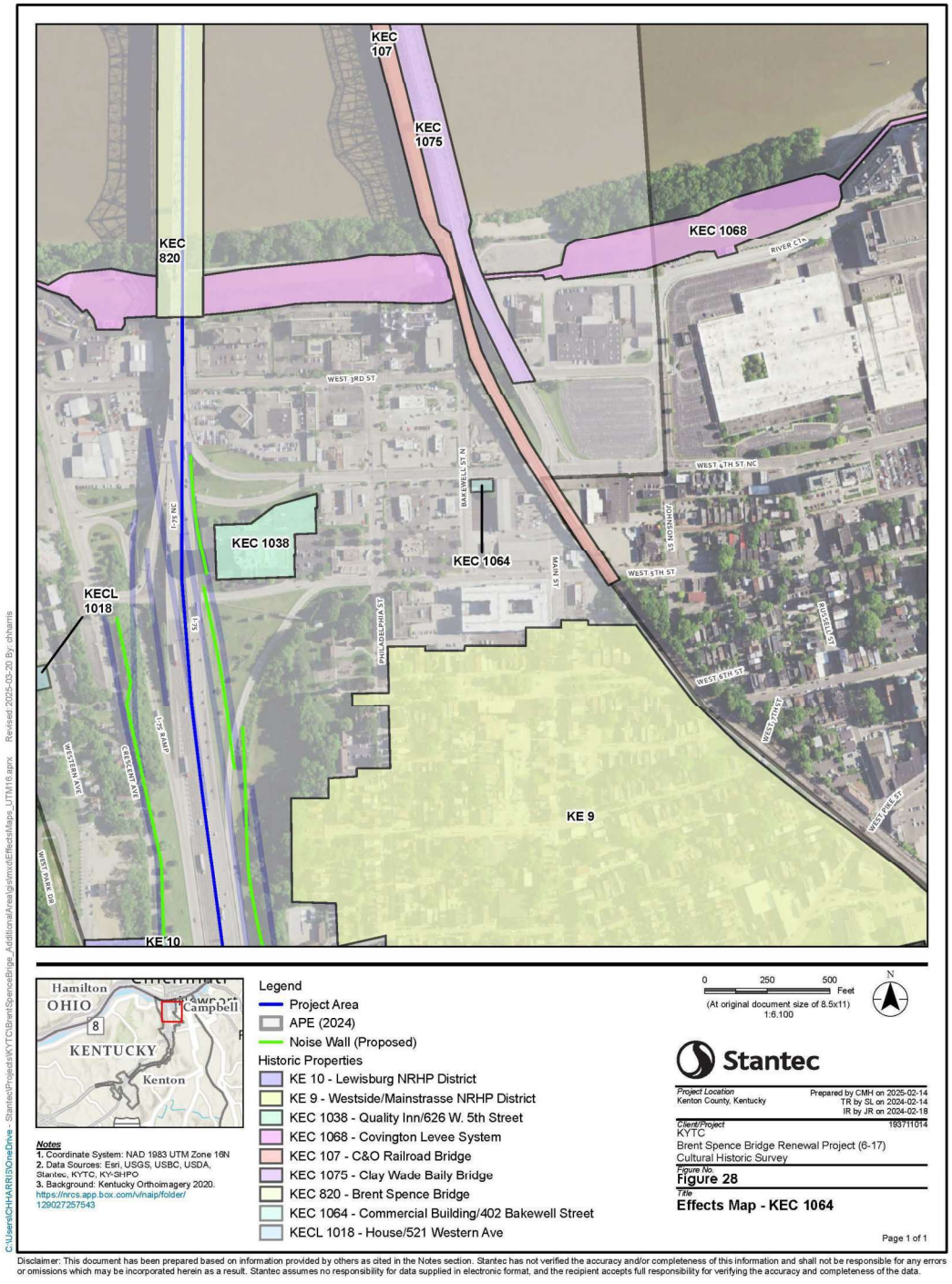


Figure 30. Effects Map, KEC-1064.

KEC-1068

Covington Levee System
Circa 1948
602 W. 2nd Street
Covington, KY 41011
39.08864, -84.52097

Effects Assessment: No *Adverse Effect*

The Covington Levee System (KEC-1068) was determined eligible for listing in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

As the present study is concerned with effects for alterations to the levee and flood wall itself along the Ohio River, the Project as designed will have *no adverse effect* on the Covington Levee System, particularly portions of segment 390460001, located within the Project Area.

The scope of work near and on the levee includes mostly temporary measures or measures that will be reversed after the construction of the Brent Spence companion bridge. The creation of the contractor access road along the waterside slope of the levee, over the Riverfront Commons Trail, and ramp along the crest are temporary measures. Other measures include the installation of a temporary metal cofferdam in the Ohio River; construction of falsework that includes driving support beams into the levee; and re-grading of the levee for contractor access and the addition of a ramp to accommodate construction of the three sets of falsework needed for the construction of the Brent Spence companion bridge. All this work is being monitored in partnership with the US Army Corps of Engineers (USACE) to meet their standards for flood control. As well, these temporary measures will be removed, and the levee will be restored to its pre-construction conditions. The only remaining elements will be portions of the support beams, which will be cut below the surface of the levee. As a result, these alterations will not compromise the character-defining features, which contribute to the significance and integrity of the Covington Levee System. See **Figure 31**.

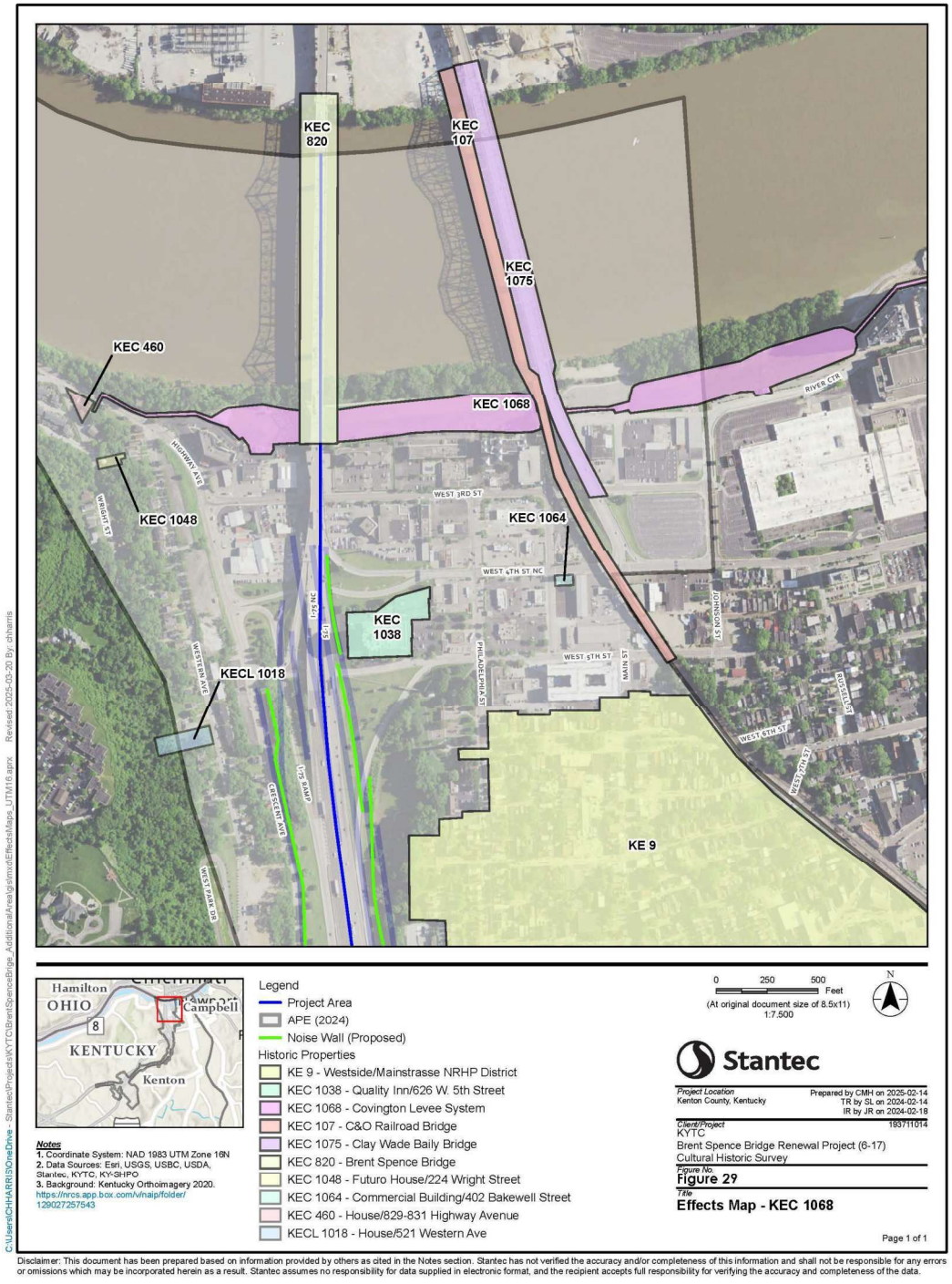


Figure 31. Effects Map, KEC-1068.

KEC-1075

Clay Wade Bailey Bridge
1972-1974
Covington, KY 41011
39.091335, -84.51939

Effects Assessment: No Adverse Effect

The Clay Wade Bailey Bridge (KEC-1075) was determined eligible for listing in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The Project as currently designed will have *no adverse effect* on the Clay Wade Bailey Bridge. While there will be a contractor access road constructed beneath and adjacent to the bridge, as well as the Pete Rose Bulkhead and aggregate loading ramp constructed adjacent to the east side of the bridge, along the Ohio River, the contractor's access road is a temporary construction element and will be removed after construction is complete. Additionally, there is already a concrete pier and loading ramp in this location. Neither the Pete Rose Bulkhead and aggregate loading ramp nor the contractor access road will compromise the bridge's character-defining features. Therefore, the integrity and significance of the Clay Wade Bailey Bridge will remain intact. See **Figure 32**.

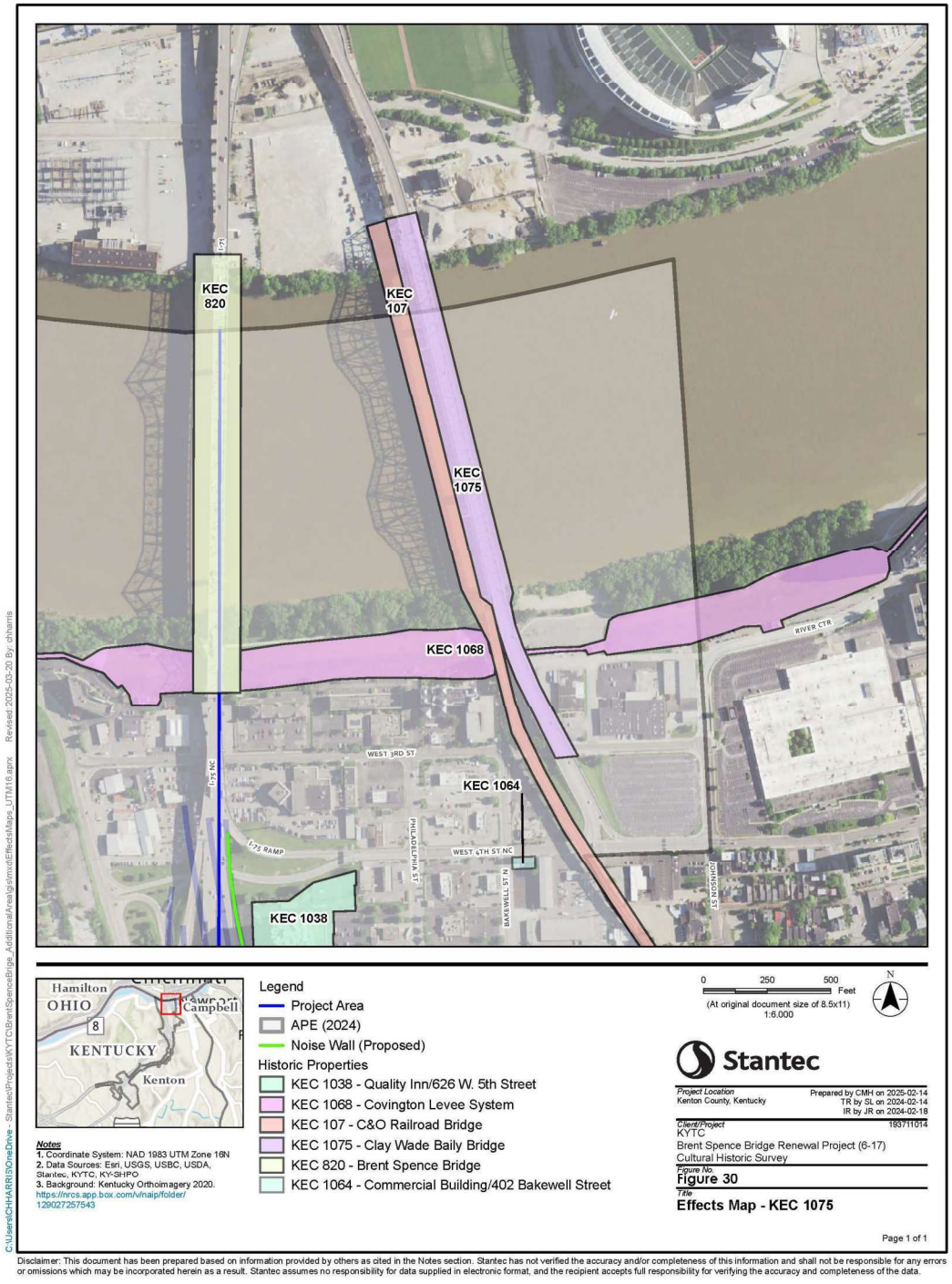


Figure 32. Effects Map, KEC-1075.

KECL-692

House/536 West 13th Street
Circa 1880
536 W. 13th Street
Covington, KY 41011
39.075007, -84.518233

Effects Assessment: No Adverse Effect

The House at 536 West 13th Street (KECL-692) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type and as such the Project, as designed, will have *no adverse effect* on this property. The noise walls will be installed approximately 80 ft from the house and will be visible. However, they are being constructed as part of the I-75 corridor, which has existed since the highway was constructed during the 1960s,[53] well before the property was determined eligible for listing in the NRHP. Additionally, there is chain link fencing already installed along the ROW boundary for the interstate. The Project will not compromise its character-defining features as a notable example of a two-story Italianate house. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 33**.

[53] Interstate 75, Cincinnati Transit. Accessed February 14, 2025, https://cincinnati-transit.net/75-60.html.

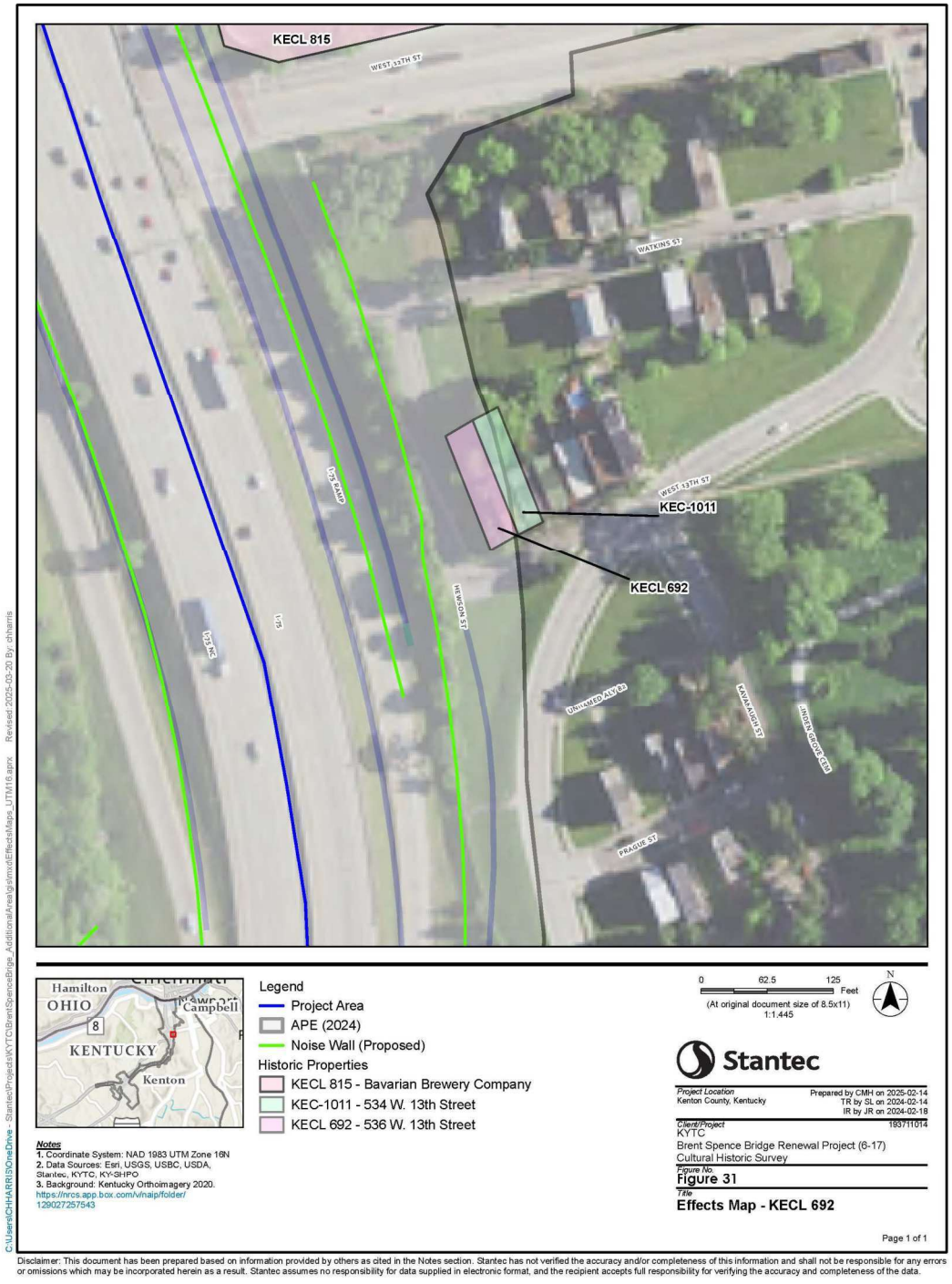


Figure 33. Effects Map, KECL-692.

KECL-815

Bavarian Brewing Co./Kenton Government Center
Circa 1865
1840 Simon Kenton Way
Covington, KY 41011
39.076652, -84.518181

Effects Assessment: No Adverse Effect

The Bavarian Brewing Co./Kenton Government Center (KECL-815) was determined to retain sufficient historic integrity to retain its status as listed in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022. The proposed expansion of its NRHP boundary to include KEC-462/Bavarian Brewery Bottling Works/Glier's Goetta was determined eligible for listing in the NRHP in the same letters.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type. As such, the Project as currently designed will have no adverse effect on the Bavarian Brewing Co./Kenton Government Center. While the noise walls will be visible from the building, the building was listed in the NRHP after the creation of the I-75 corridor and the addition of noise walls will not compromise the significance and integrity of the property. Furthermore, should no noise walls be constructed at this location, the Project would have no effect on the property as there would be no construction elements. See **Figure 34**.

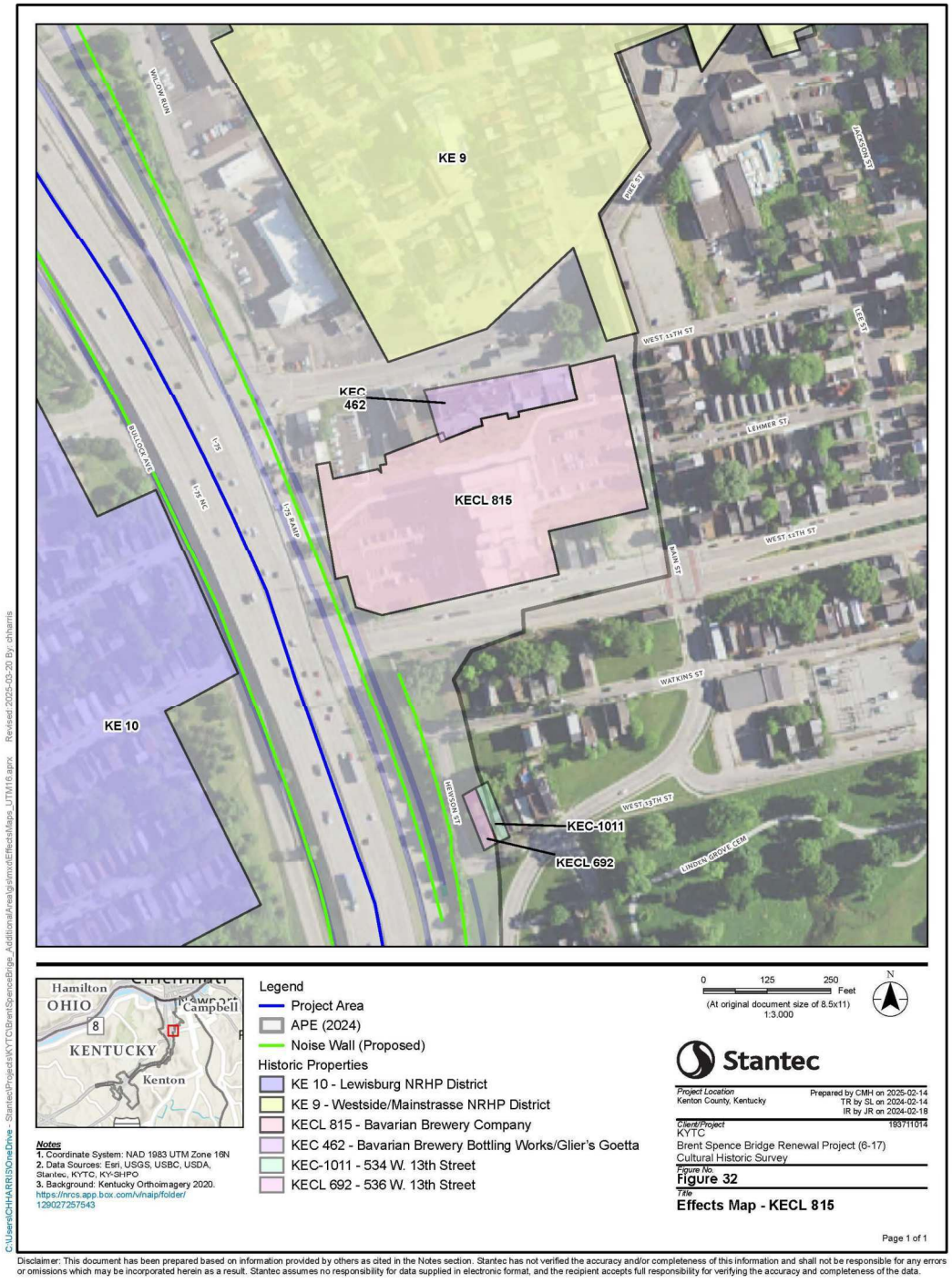


Figure 34. Effects Map, KECL-815.

KECL-1018

House/521 Western Avenue
Circa 1870
521 Western Avenue
Covington, KY 41011
39.084358, -84.524924

Effects Assessment: No Effect

The House at 521 Western Avenue (KECL-1018) was determined eligible for listing on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of noise walls of either the transparent or solid type. The Project as designed will have *no effect* on this property. The noise walls, of either type, will not be visible due to intervening buildings. The Project will not compromise the character-defining features of the house at 521 Western Avenue as a notable example of a unique Cross-Gable house. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would also have no effect on the property as there would be no construction elements. See **Figure 35**.

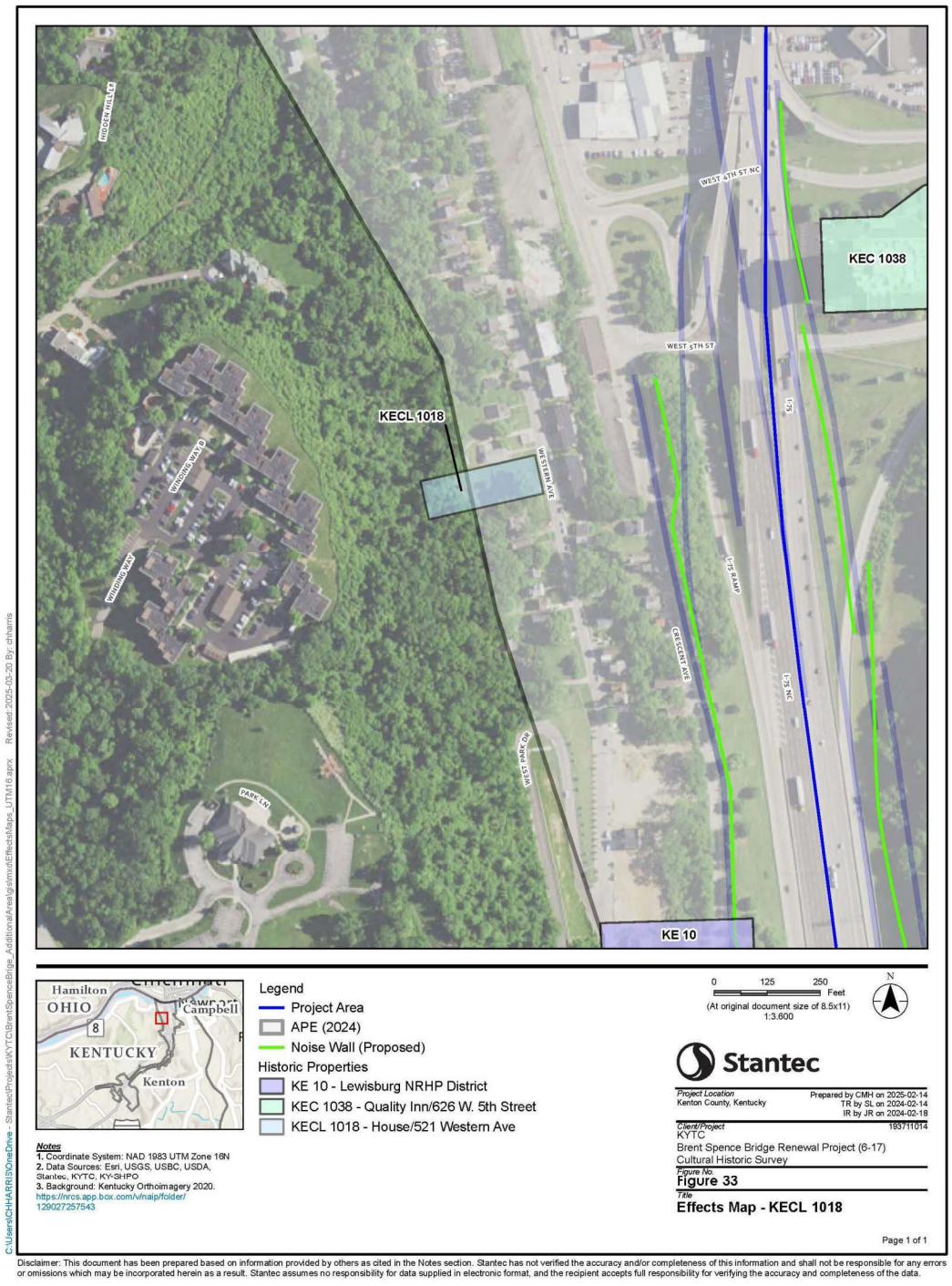


Figure 35. Effects Map, KECL-1018.

KEFM-150

Highland Cemetery Historic District
Effects Assessment: No Adverse Effect

The Highland Cemetery was determined to retain sufficient historic integrity to retain its status as listed in the NRHP on November 17, 2022, upon KHC's concurrence with KYTC's official determination letter dated November 7, 2022.

The present study is concerned with effects for the installation of proposed noise walls of either the transparent or solid type. The Project as designed will have *no adverse effect* on the Highland Cemetery Historic District. The noise walls, of either type, would be over 300 feet away from the nearest portion of the historic district; however, much of the cemetery is set back further. It is assumed that trees within the cemetery will remain and provide some screening of the proposed noise walls. Additionally, the interstate is already within the viewshed of the Highland Cemetery Historic District. Despite the Project having limited visibility from the Highland Cemetery Historic District, it will not compromise the character-defining features of the district. Therefore, the integrity and significance of the property will remain intact. Furthermore, should no noise walls be constructed at this location, the Project would also have no effect on the property as there would be no construction elements. See **Figure 36**.

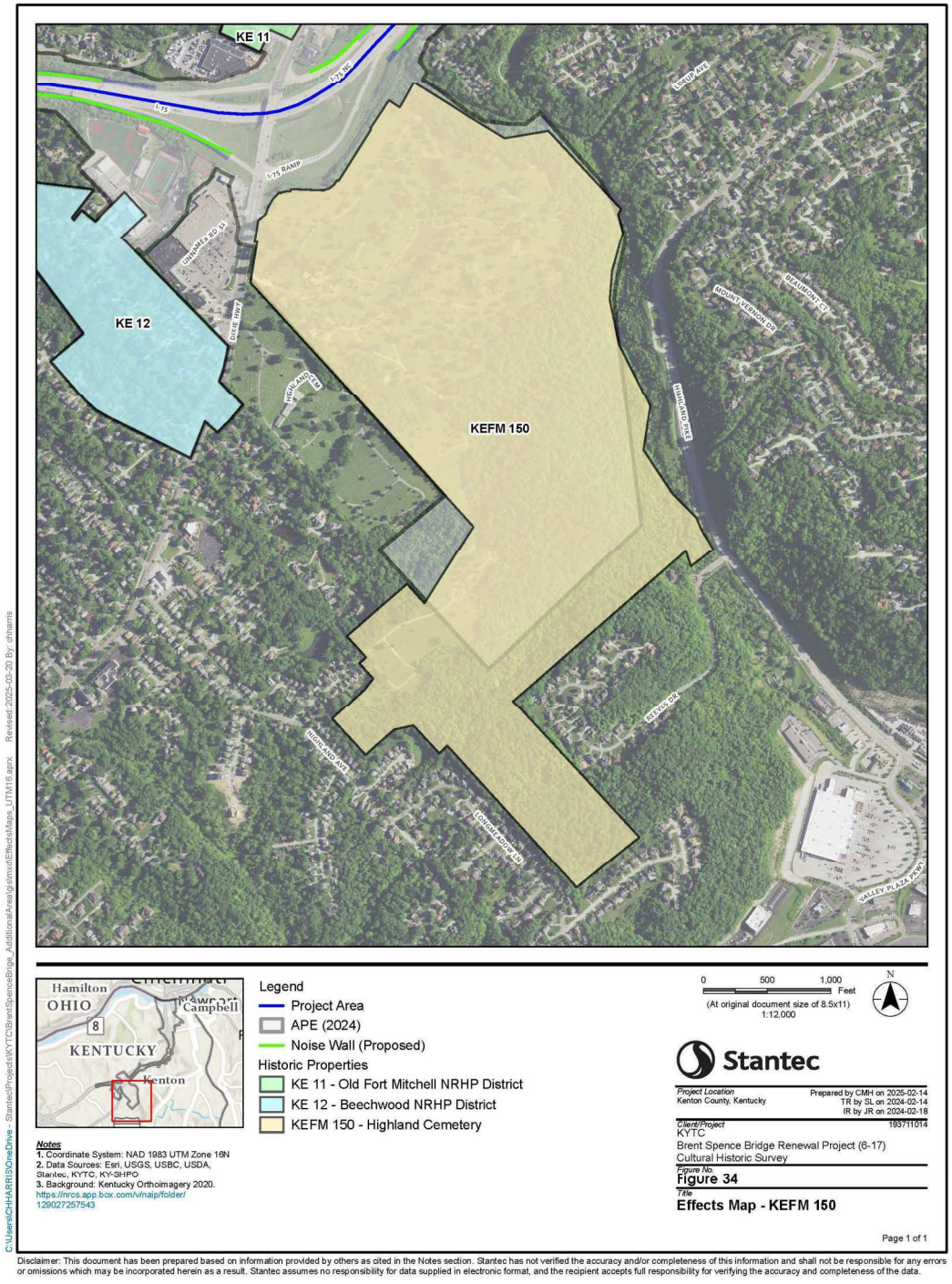


Figure 36. Effects Map, KEFM-150.

5 Summary and Recommendations

Based on modifications to the Project Area and the APE in 2024, Stantec conducted additional cultural historic survey in January 2025, prior to the proposed Project in Covington, Kenton County, Kentucky. Stantec recorded a total of 42 additional properties within the additional survey areas in the expanded APE, one of which, FS 252/KE-1372/Garden of Hope, is recommended eligible for listing in the NRHP. This property will experience *No Adverse Effects* from this Project, as described in Section 3 above. Stantec recommends that the remaining 41 additional properties are not eligible for listing in the NRHP. Stantec does not recommend any additional newly proposed NRHP districts.

Additionally, 24 historic properties were determined eligible for or determined to retain sufficient historic integrity to retain their status as listed in the NRHP as part of the *Brent Spence Bridge Renewal Project Cultural-Historic Report in Covington, Kenton County, KY* (2022); however, one of those properties was determined not eligible for listing in the NRHP in November 2022.

See Table 5-1 below for an overview of new and updated effects assessments. Through the November 2022 consultation between KYTC DEA and KHC/SHPO, the Project was previously determined to have an Adverse Effect resulting from negative impacts to the historic integrity of the Lewisburg Historic District. Stantec recommends that the 2024/2025 modifications to the Project within the expanded APE will create an *Adverse Effect* to FS 185/KE-07 through KE-08/Elberta Apartments Historic District. As a result, Stantec recommends that the modified Project within the expanded APE will increase the scope of the Adverse Effect. Detailed effects assessments and map figures are included in Section 4 for properties recorded in the 2022 report and in Section 3 for properties recorded as part of the 2024/2025 APE expansion.

Table 5-1. Effects Assessments

KHC No.	Site Name	NRHP Status	Effects
KE-07 and KE-08	Elberta Apartments Historic District	Eligible	Adverse Effect
KE-09	West Side/Main Strasse Historic District (Expansion)	Listed/Eligible	No Adverse Effect

KE-010	Lewisburg Historic District	Listed	No Additional Adverse Effect
KE-011	Old Ft. Mitchell Historic District	Listed	No Adverse Effect
KE-012	Beechwood Historic District	Listed	No Adverse Effect
KE-013	Hillsdale Historic District	Eligible	No Adverse Effect
KE-952	Sisters of Notre Dame Convent and Cemetery	Eligible	No Adverse Effect
KE-1372	Garden of Hope	Eligible	No Adverse Effect
KEC-107	C&O Railroad Bridge	Eligible	No Adverse Effect
KEC-456	House/1000 Emery Drive	Eligible	No Adverse Effect
KEC-458	House/45 Rivard Drive	Eligible	No Adverse Effect
KEC-460	House/829-831 Highway Avenue	Eligible	No Adverse Effect
KEC-462	Bavarian Brewery Bottling Works/Glier's Goetta	Eligible	No Adverse Effect
KEC-820	Brent Spence Bridge	Eligible	No Adverse Effect
KEC-1011	House/534 West 13th Street	Eligible	No Adverse Effect
KEC-1038	Quality Inn/626 W. 5th Street	Eligible	No Adverse Effect

KEC-1048	Futuro House/224 Wright Street	Eligible	No Adverse Effect
KEC-1064	Commercial Building/402 Bakewell Street	Eligible	No Adverse Effect
KEC-1068	Covington Levee	Eligible	No Adverse Effect
KEC-1075	Clay Wade Bailey Bridge	Eligible	No Adverse Effect
KECL-692	House/536 West 13th Street	Eligible	No Adverse Effect
KECL-815	Bavarian Brewing Co./Kenton Govt Center	Listed	No Adverse Effect
KECL-1018	House/521 Western Avenue	Eligible	No Effect
KEFM-150	Highland Cemetery	Listed	No Adverse Effect

6 Selected References

6.1.1.1 Primary and Secondary Sources

Ames, David and Linda Flint McClellelan. “Historic Residential Suburbs: Guidelines for the Evaluation and Documentation for the National Register of Historic Places.” National Register Bulletin, 2002.

Craig Potts (KY-SHPO) to Daniel R. Peake (KYTC). Section 106 Response Letter, “Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky, KYTC Item No. 6-17,” (Frankfort: Tourism, Arts and Heritage Cabinet), October 3, 2024.

_____. Section 106 Response Letter, “Second Expansion of the Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky, KYTC Item No. 6-17,” (Frankfort: Tourism, Arts and Heritage Cabinet), December 10, 2024.

Harris, Cyril M. *American Architecture: An Illustrated Encyclopedia*. New York and London: W.W. Norton & Company, 1998.

Kennedy, Rachel M., Jennifer Ryall, Sarah Garrett, Christopher Harris, Heather Doerge, Sonja Lengel, and Rachel M. Kennedy (PI), *Cultural Historic Survey Report, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky (KYTC Item No. 6-17)*, Cardno, Inc., August 15, 2022/revised October 2022.

Kleber, John E. *The Kentucky Encyclopedia*. Lexington: The University Press of Kentucky, 1992.

McAlester, Virginia Savage. *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America’s Domestic Architecture*. New York: Alfred A. Knopf, 2013.

National Park Service. *National Register Bulletin: How to Complete the National Register Registration Form.* Washington, D.C.: United States Department of the Interior, 1991.

_____. *National Register Bulletin: Defining Boundaries for National Register Properties*. Washington, D.C.: United States Department of the Interior, 1997.

_____. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*. Washington, D.C.: United States Department of the Interior, 1997.

Peake, Daniel R. (KYTC) to Craig Potts (KY-SHPO), KYTC Section 106 Response Letter, “Subject: Area of Potential Effects for the Brent Spence Bridge project in Covington, Kenton County, Kentucky, KYTC Item No. 6-17,” (Frankfort: Commonwealth of Kentucky Transportation Cabinet), June 1, 2022.

Sanders, Thomas N., Ed. Commonwealth of Kentucky, Kentucky Heritage Council. *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports*. March 1991 (revised 2001/2006/2017).



Tenkotte, Paul A. and Claypool, James C. *The Encyclopedia of Northern Kentucky*. Lexington: The University Press of Kentucky, 2009.

6.1.1.2 Online Resources

"A Replica of Christ's Tomb." *The Kentucky Post*, November 16, 1956, 1, accessed February 2025 online at: www.newspapers.com/image/761037686/.

Card Cow Vintage Postcards & Collectibles. "Garden of Hope," undated, accessed online February 2025 online at: www.cardcow.com/916997/covington-kentucky-garden-hope.

"Custodian of Sacred Tomb Says Good Will Key to Peace." *The Kentucky Post*, July 2, 1958, 12, accessed February 2025 online at: www.newspapers.com/image/761241998/.
"Former Legislator Rev. Coers is Dead." *The Indianapolis News*, February 25, 1960, accessed February 2025 online at: www.newspapers.com/image/311682522/.

"Deserving of Easy Access." *The Kentucky Post*, July 8, 1958, 4, accessed February 2025 online at: www.newspapers.com/image/761242550/.

"Dixie Drive-In Scene of Event," *The Kentucky Post*, April 20, 1962, 5, accessed February 2025 online at: www.newspapers.com/image/1032163473/.

"The Garden of Hope." in Kentucky Monthly, April 1, 2015, accessed online January 2025 at www.kentuckymonthly.com/explore/places/the-garden-of-hope/.

"Garden of Hope Addition." *The Kentucky Post*, November 19, 1960, 3, accessed February 2025 online at: www.newspapers.com/image/1032137356/.

"Garden of Hope, Covington, Kentucky." undated, accessed February 2025 online at: www.materializingthebible.com/garden-of-hope.html.

"Garden of Hope Dedicated." *The Kentucky Post*, April 11, 1960, 4, accessed February 2025 online at: www.newspapers.com/image/1032175274.

"Garden of Hope to Have Official Opening on Easter." *The Kentucky Post*, February 4, 1960, 1, accessed February 2025 online at: www.newspapers.com/image/1032231967/.

"Garden of Hope X-Way Link Seen." *The Kentucky Post*, July 7, 1958, 1, accessed February 2025 online at: www.newspapers.com/image/761242433/.

"'Goodwill Boat' here Monday at Ferry Landing." *The Journal-Press*, July 31, 1952, 1, accessed February 2025 online at: www.newspapers.com/image/929814989/?match=1&terms=coers%20"chapel%20of%20dream".

Grisolia, Cynthia. "The Garden of Hope." *Kentucky Monthly*, April 1, 2015. Accessed online January 2025 at www.kentuckymonthly.com/explore/places/the-garden-of-hope/.

"Here Today, Gone Tomorrow," *The Kentucky Post*, July 11, 1960, 1, accessed February 2025 online at: www.newspapers.com/image/1032205993/?match=1&terms="garden%20of%20hope"%20painter%20carpenter.

"Hope in the Garden of Hope." *The Kentucky Post*, July 31, 1957, 4, accessed February 2025 online at: www.newspapers.com/image/761063428/.

Interstate 75. Cincinnati Transit. Accessed February 14, 2025, https://cincinnati-transit.net/75-60.html.

Kenton County Public Library. "Community History – Covington – Immanual Baptist Church (Third Baptist Church)," accessed February 2025 online at: www.kentonlibrary.org/genealogy/community-history/covington/immanuel-baptist-church/.

_____. "West End, Garden of Hope," accessed February 2025 online at: www.kentonlibrary.org/community-history-covington-garden-of-hope/.

Lawrence Brand Collection. Kenton County Public Library, Faces and Places, Image di128002, Circa 1959, accessed online March 2025 at: https://facesandplaces.kentonlibrary.org/viewimage.php?i=di128002.

"Materializing the Bible, Attraction Brochures" accessed March 2025 online at: www.materializingthebible.com/brochures.html.

"New Buildings for Garden." *The Kentucky Post*, July 30, 1957, 1, accessed February 2025 online at: www.newspapers.com/image/761063345/.

"News of the Churches." The Kentucky Post, October 3, 1958, 2, accessed February 2025 online at: www.newspapers.com/image/761118208/.

No Title. *The Kentucky Post*, February 5, 1959, 1, accessed February 2025 online at: www.newspapers.com/image/761255569/.

Osborn, Jim. *The Kentucky Post*, Kenton County Public Library, Faces and Places, Image di15413, February 2, 1982, accessed online March 2025 at: https://facesandplaces.kentonlibrary.org/viewimage.php?i=di15413.

Paschke, Margaret. "Finds Hope in Garden." *The Kentucky Post*, October 3, 1970, 1, 9, accessed February 2025 online at: www.newspapers.com/image/1033277308/.

"Realistic Setting in Garden of Hope." The Kentucky Post, March 27, 1959, 1, accessed February 2025 online at: www.newspapers.com/image/761256647/.

"Rev. Coers Buried in Garden of Hope." *The Kentucky Post*, April 15, 1960, 1, accessed February 2025 online at: www.newspapers.com/image/1032176701/.

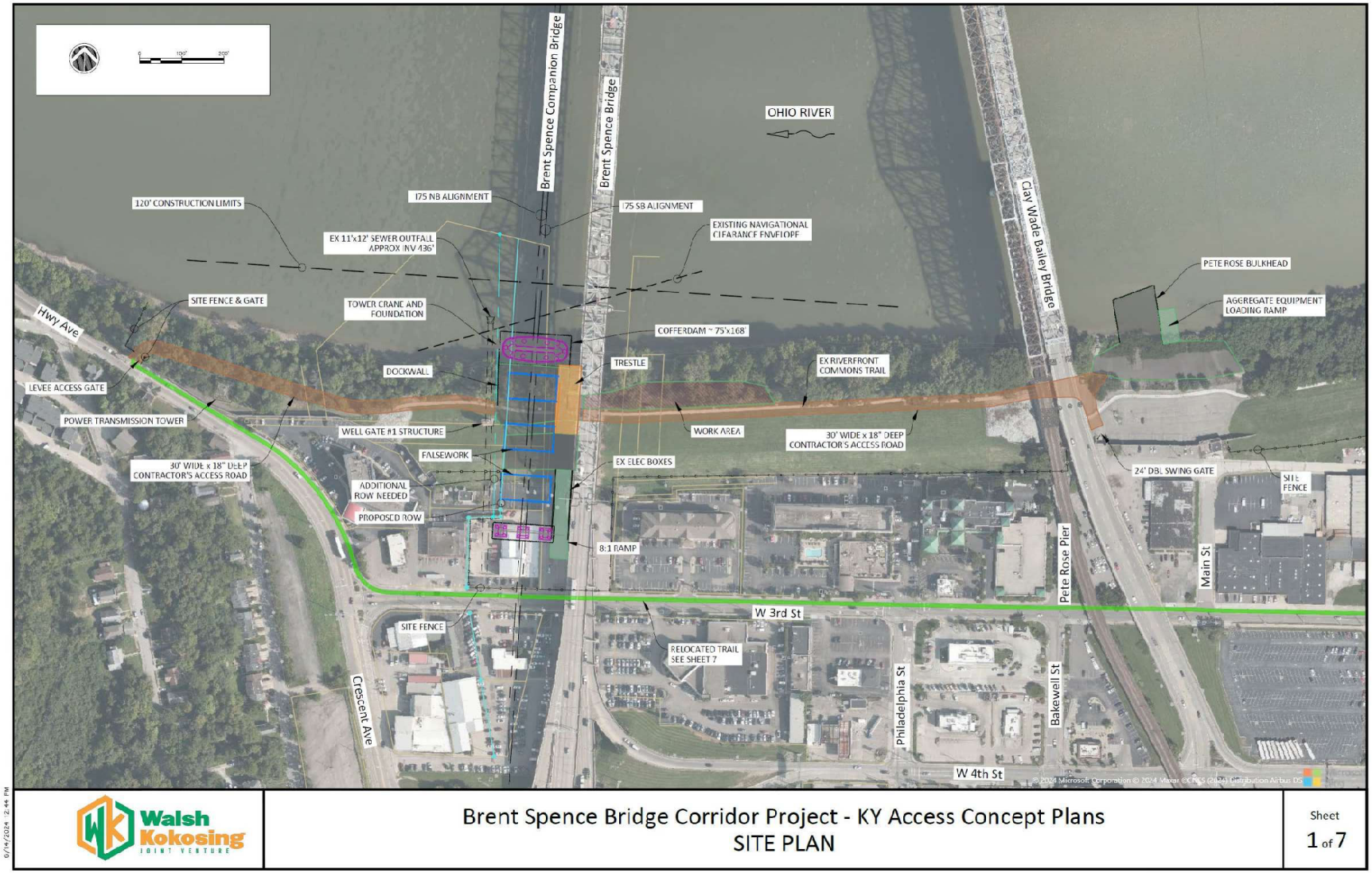
"Rev. Coers to Light Lamp from Israel." *The Kentucky Post*, September 6, 1957, 1, accessed February 2025 online at: www.newspapers.com/image/761065144/.

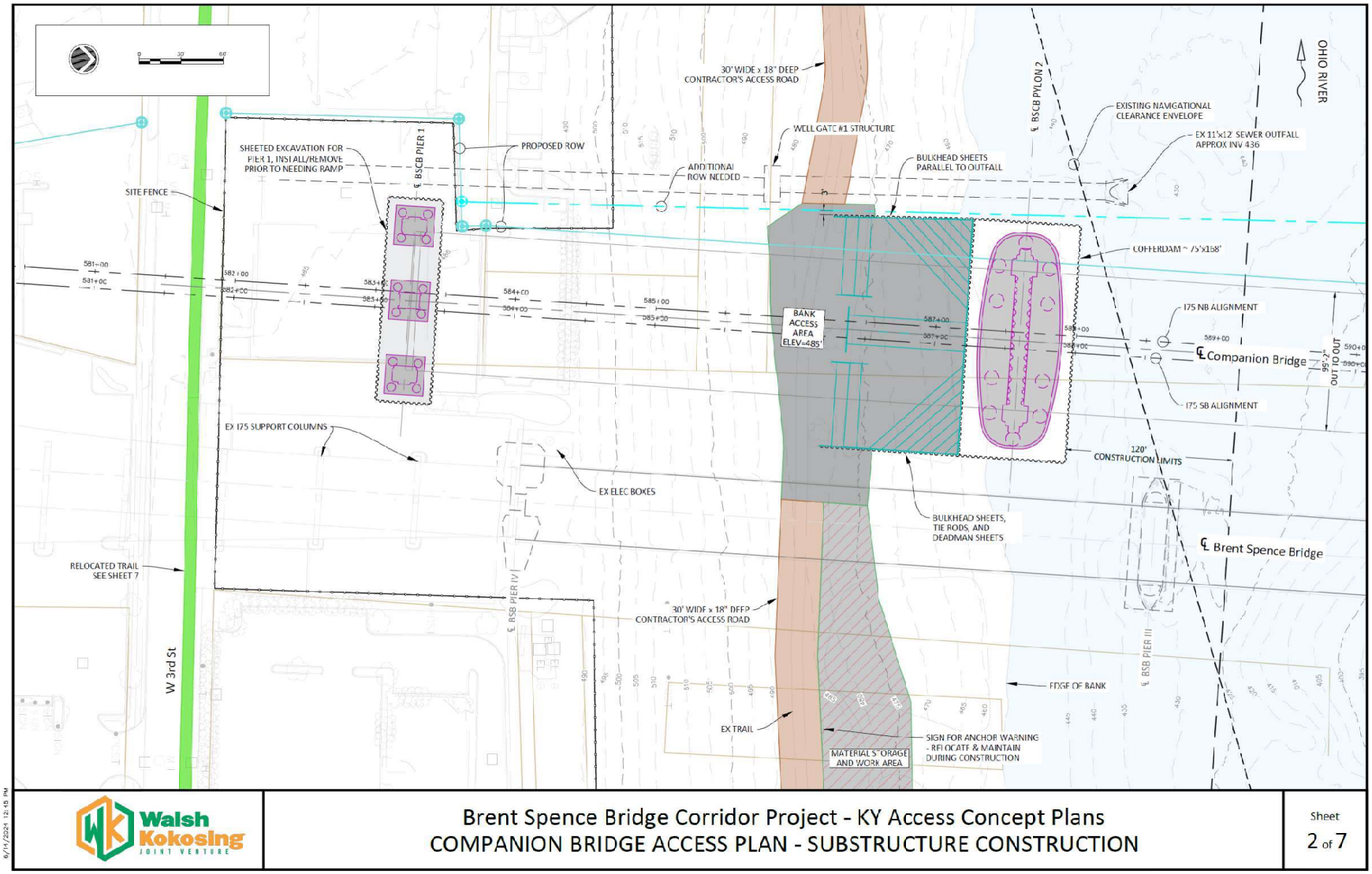
Saladin, Luke E. "Is Cut-in-the-Hill Safe?" in *The Cincinnati Post (Cincinnati, Ohio)*. Saturday, January 6, 2007, 1, accessed online March 2025 via Newspapers.com at: https://www.newspapers.com/image/766083191/.

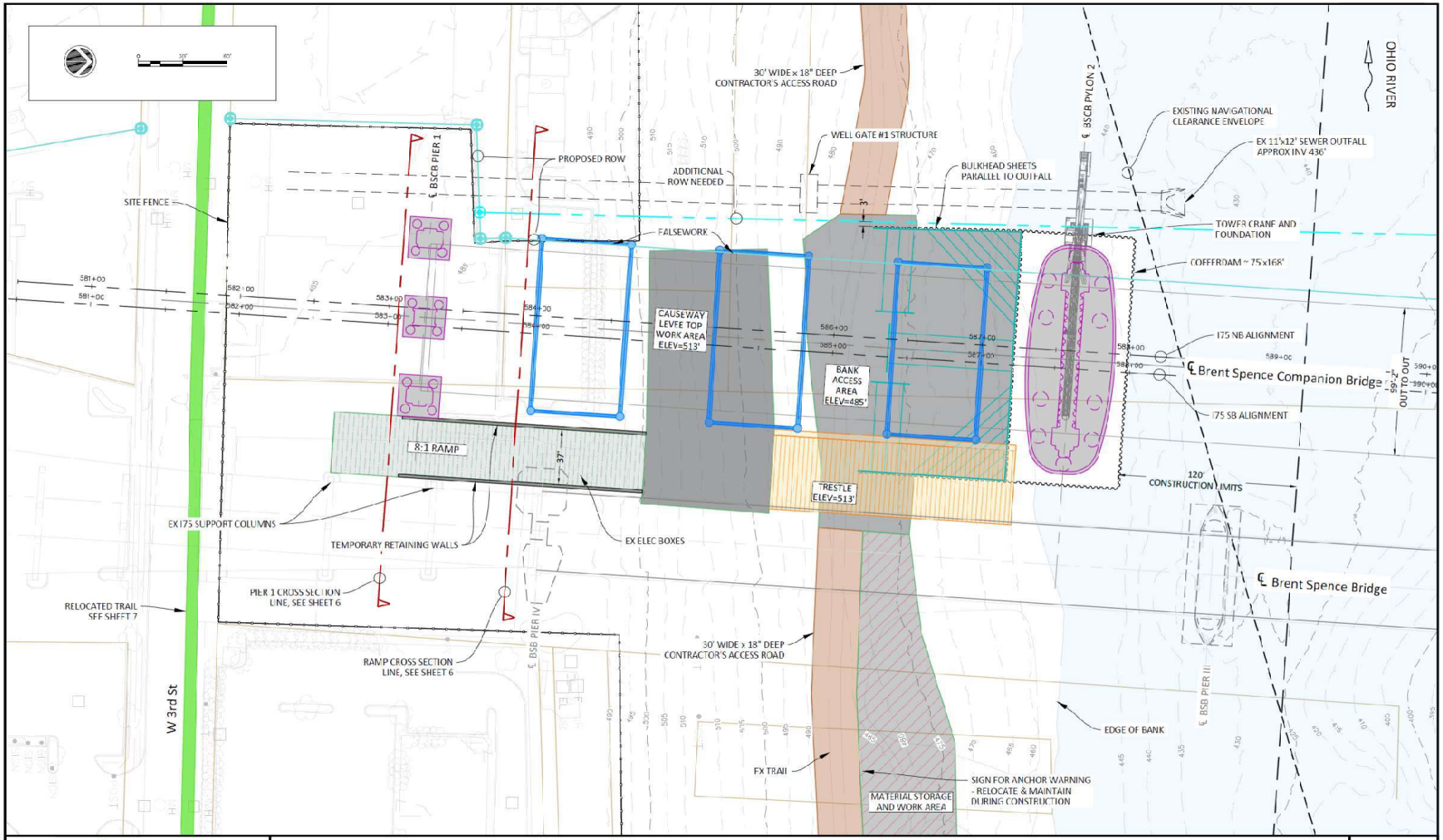
Washington State University Department of Horticulture. "Display Garden" on Department of Horticulture website, accessed online February 2025 at: https://horticulture.wsu.edu/display-garden/#:~:text=A%20display%20garden%20is%20permanent,proves%20that%20something%20is%20possible.

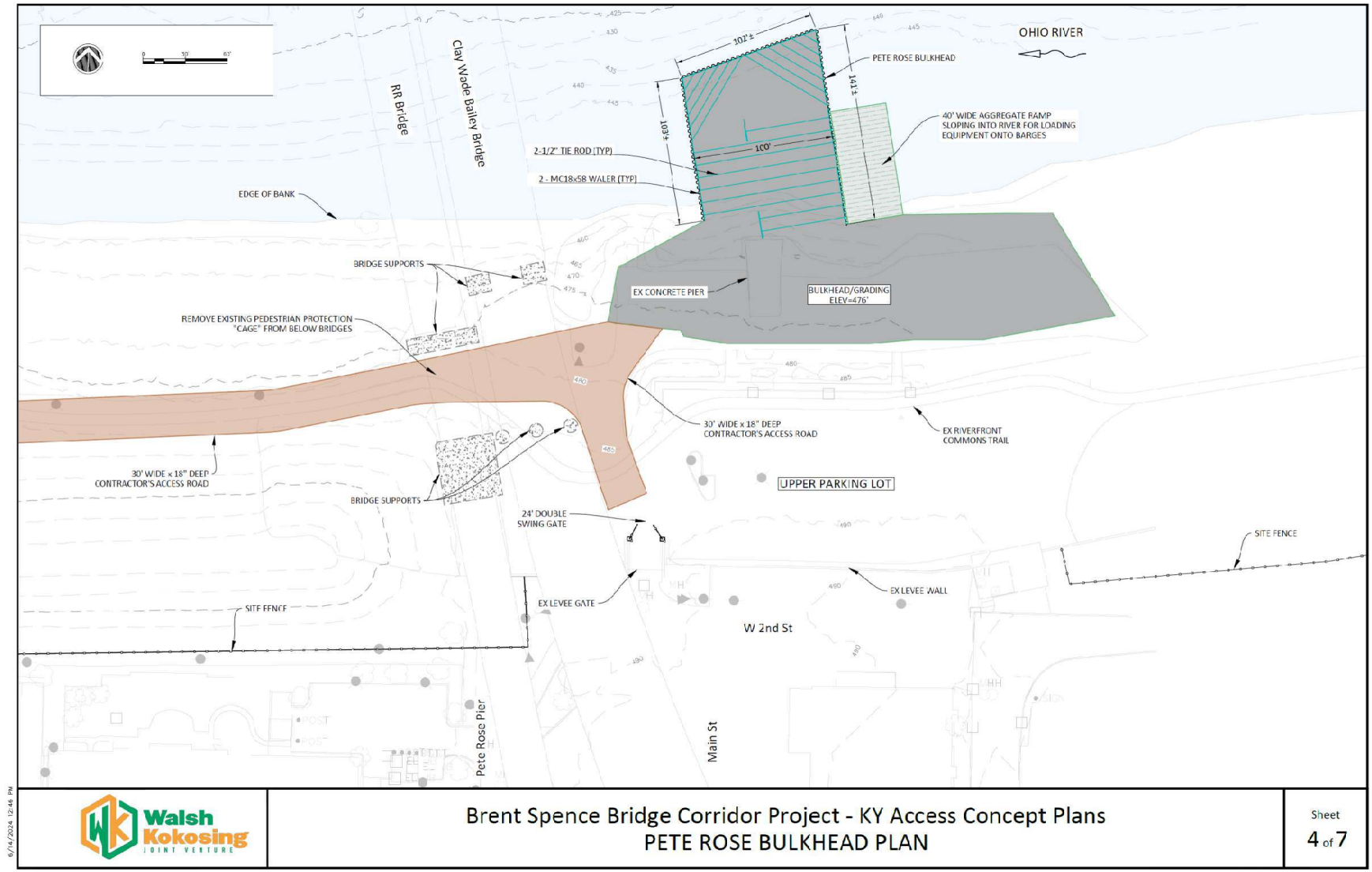
Wessling, Jack. “Garden Rises in Beauty, Covington Project Nearly Completed,” *The Kentucky Post*, September 26, 1958, 1-2, accessed February 2025 online at: www.newspapers.com/image/761117811/.

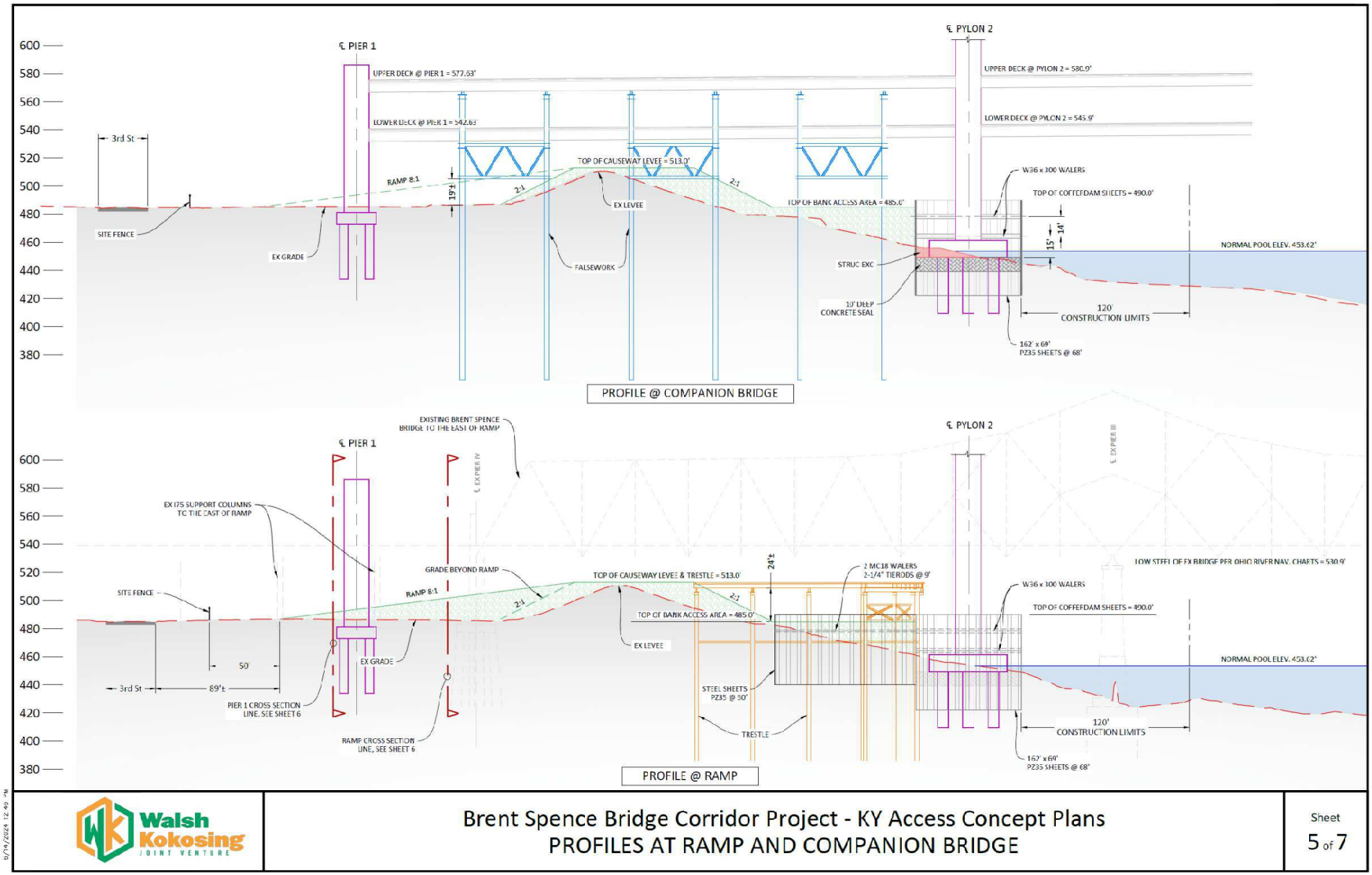
Appendix A Project Plans

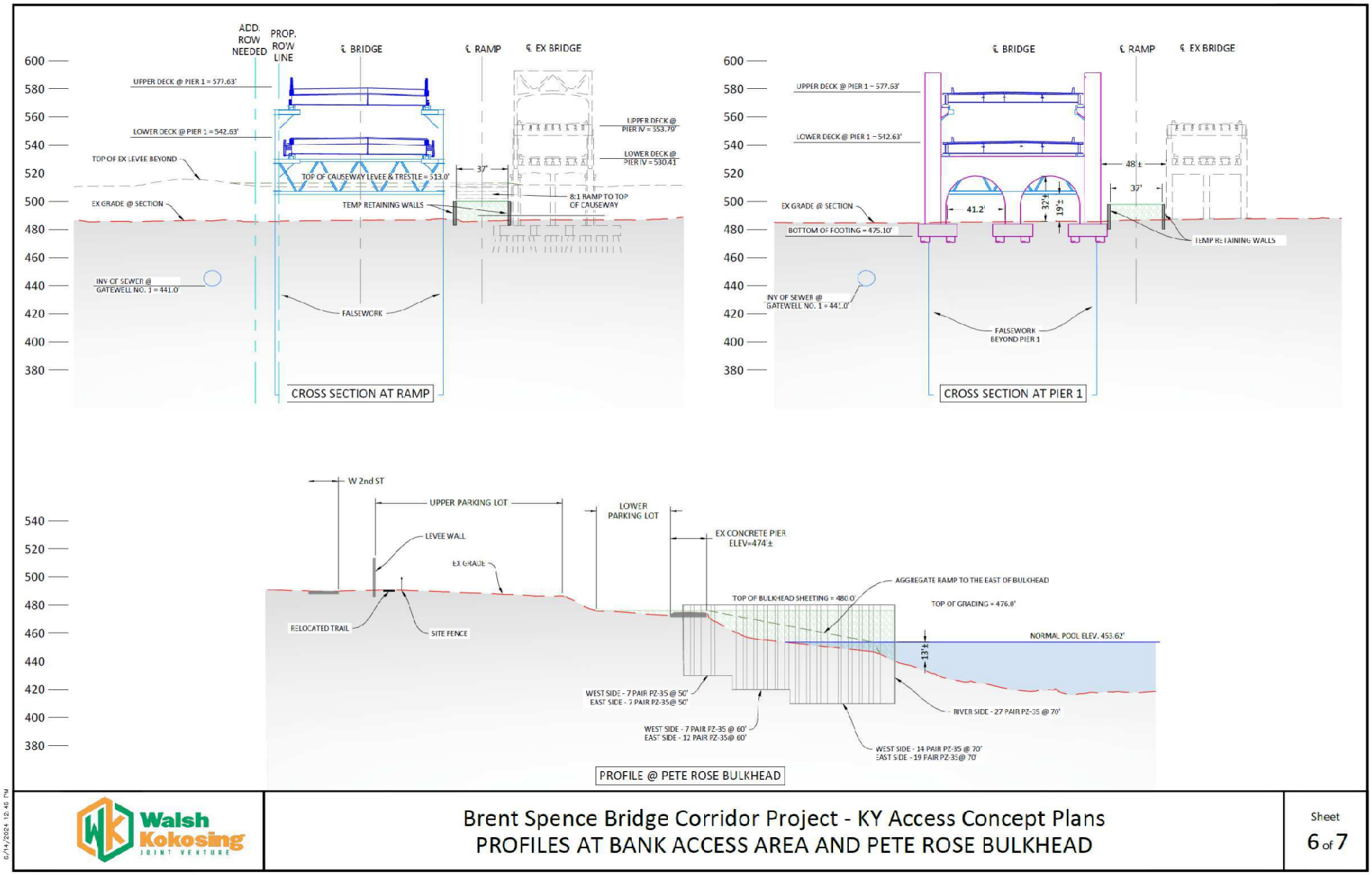

Brent Spence Companion Bridge
Brent Spence Bridge
OHIO RIVER
Clay Wade Bailey Bridge
120' CONSTRUCTION LIMITS
I75 NB ALIGNMENT
I75 SB ALIGNMENT
EXISTING NAVIGATIONAL CLEARANCE ENVELOPE
EX 11'x12' SEWER OUTFALL APPROX INV 436'
PETE ROSE BULKHEAD
AGGREGATE EQUIPMENT LOADING RAMP
SITE FENCE & GATE
TOWER CRANE AND FOUNDATION
HWY Ave
COFFERDAM ~ 75'x168'
DOCKWALL
TRESTLE
EX RIVERFRONT COMMONS TRAIL
LEVEE ACCESS GATE
POWER TRANSMISSION TOWER
WELL GATE #1 STRUCTURE
WORK AREA
30' WIDE x 18" DEEP CONTRACTOR'S ACCESS ROAD
FALSEWORK
EX ELEC BOXES
24' DBL SWING GATE
SITE FENCE
30' WIDE x 18" DEEP CONTRACTOR'S ACCESS ROAD
ADDITIONAL ROW NEEDED
PROPOSED ROW
8:1 RAMP
Pete Rose Pier
Main St
W 3rd St
SITE FENCE
RELOCATED TRAIL SEE SHEET 7
Crescent Ave
Philadelphia St
Bakewell St
W 4th St
Walsh Kokosing JOINT VENTURE
Brent Spence Bridge Corridor Project - KY Access Concept Plans
SITE PLAN
Sheet 1 of 7


30' WIDE x 18' DEEP CONTRACTOR'S ACCESS ROAD
WELL GATE #1 STRUCTURE
BULKHEAD SHEETS PARALLEL TO OUTFALL
EXISTING NAVIGATIONAL CLEARANCE ENVELOPE
EX 11'x12' SEWER OUTFALL APPROX INV 436
OHIO RIVER
℄ BSCB PYLON 2
SHEETED EXCAVATION FOR PIER 1, INSTALL/REMOVE PRIOR TO NEEDING RAMP
℄ BSCB PIER 1
PROPOSED ROW
ADDITIONAL ROW NEEDED
SITE FENCE
COFFERDAM ~ 75'x168'
BANK ACCESS AREA ELEV=485'
I75 NB ALIGNMENT
℄ Companion Bridge
I75 SB ALIGNMENT
EX I75 SUPPORT COLUMNS
EX ELEC BOXES
120' CONSTRUCTION LIMITS
BULKHEAD SHEETS, TIE RODS, AND DEADMAN SHEETS
℄ Brent Spence Bridge
RELOCATED TRAIL SEE SHEET 7
W 3rd St
℄ BSB PIER IV
30' WIDE x 18' DEEP CONTRACTOR'S ACCESS ROAD
℄ BSB PIER III
EDGE OF BANK
EX TRAIL
SIGN FOR ANCHOR WARNING - RELOCATE & MAINTAIN DURING CONSTRUCTION
MATERIALS STORAGE AND WORK AREA
Walsh Kokosing JOINT VENTURE
Brent Spence Bridge Corridor Project - KY Access Concept Plans
COMPANION BRIDGE ACCESS PLAN - SUBSTRUCTURE CONSTRUCTION
Sheet 2 of 7
6/14/2024 12:45 PM


30' WIDE x 18" DEEP CONTRACTOR'S ACCESS ROAD
WELL GATE #1 STRUCTURE
BULKHEAD SHEETS PARALLEL TO OUTFALL
EXISTING NAVIGATIONAL CLEARANCE ENVELOPE
EX 11'x12' SEWER OUTFALL APPROX INV 436'
OHIO RIVER
BSCR PYLON 2
PROPOSED ROW
ADDITIONAL ROW NEEDED
BSCR PIER 1
SITE FENCE
FALSEWORK
TOWER CRANE AND FOUNDATION
COFFERDAM ~ 75x168'
CAUSEWAY LEVEE TOP WORK AREA ELEV=513'
BANK ACCESS AREA ELEV=485'
I75 NB ALIGNMENT
Brent Spence Companion Bridge
I75 SB ALIGNMENT
OUT TO OUT
8:1 RAMP
TRESTLE ELEV=513'
120' CONSTRUCTION LIMITS
EX I75 SUPPORT COLUMNS
TEMPORARY RETAINING WALLS
EX ELEC BOXES
Brent Spence Bridge
PIER 1 CROSS SECTION LINE, SEE SHEET 6
RELOCATED TRAIL SEE SHEET 7
RAMP CROSS SECTION LINE, SEE SHEET 6
BSB PIER IV
30' WIDE x 18" DEEP CONTRACTOR'S ACCESS ROAD
BSB PIER III
W 3rd St
EDGE OF BANK
EX TRAIL
SIGN FOR ANCHOR WARNING - RELOCATE & MAINTAIN DURING CONSTRUCTION
MATERIAL STORAGE AND WORK AREA
Walsh Kokosing JOINT VENTURE
Brent Spence Bridge Corridor Project - KY Access Concept Plans
COMPANION BRIDGE ACCESS PLAN - BACK SPAN ACCESS
Sheet 3 of 7
6/14/2024 12:45 PM


OHIO RIVER
PETE ROSE BULKHEAD
107'±
141'±
105'±
100'
40' WIDE AGGREGATE RAMP SLOPING INTO RIVER FOR LOADING EQUIPMENT ONTO BARGES
2-1/2" TIE ROD (TYP)
2 - MC18x58 WALER (TYP)
RR Bridge
Clay Wade Bailey Bridge
EDGE OF BANK
BRIDGE SUPPORTS
EX CONCRETE PIER
BULKHEAD/GRADING ELEV=476'
REMOVE EXISTING PEDESTRIAN PROTECTION "CAGE" FROM BELOW BRIDGES
30' WIDE x 18" DEEP CONTRACTOR'S ACCESS ROAD
EX RIVERFRONT COMMONS TRAIL
UPPER PARKING LOT
BRIDGE SUPPORTS
24' DOUBLE SWING GATE
SITE FENCE
EX LEVEE GATE
EX LEVEE WALL
W 2nd St
SITE FENCE
Pete Rose Pier
Main St
Walsh Kokosing JOINT VENTURE
Brent Spence Bridge Corridor Project - KY Access Concept Plans
PETE ROSE BULKHEAD PLAN
Sheet 4 of 7
6/14/2024 12:46 PM


℄ PIER 1
℄ PYLON 2
UPPER DECK @ PIER 1 = 577.63'
LOWER DECK @ PIER 1 = 542.63'
UPPER DECK @ PYLON 2 = 580.0'
LOWER DECK @ PYLON 2 = 545.9'
3rd St
RAMP 8:1
19'±
2:1
TOP OF CAUSEWAY LEVEE = 513.0'
EX LEVEE
FALSEWORK
TOP OF BANK ACCESS AREA = 485.0'
W36 x 300 WALERS
TOP OF COFFERDAM SHEETS = 490.0'
15'
14'
NORMAL POOL ELEV. 453.62'
SITE FENCE
EX GRADE
STRUC EXC
10' DEEP CONCRETE SEAL
120' CONSTRUCTION LIMITS
162' x 69' PZ35 SHEETS @ 68'
PROFILE @ COMPANION BRIDGE
EXISTING BRENT SPENCE BRIDGE TO THE EAST OF RAMP
℄ EXPIER IV
℄ EXPIER III
EX I75 SUPPORT COLUMNS TO THE EAST OF RAMP
GRADE BEYOND RAMP
TOP OF CAUSEWAY LEVEE & TRESTLE = 513.0'
24'±
2 MC18 WALERS 2-1/4" TIERODS @ 9'
LOW STEEL OF EX BRIDGE PER OHIO RIVER NAV. CHARTS = 530.9'
50'
89'±
PIER 1 CROSS SECTION LINE, SEE SHEET 6
RAMP CROSS SECTION LINE, SEE SHEET 6
STEEL SHEETS PZ35 @ 50'
TRESTLE
PROFILE @ RAMP
Walsh Kokosing JOINT VENTURE
Brent Spence Bridge Corridor Project - KY Access Concept Plans
PROFILES AT RAMP AND COMPANION BRIDGE
Sheet 5 of 7


ADD. ROW NEEDED
PROP. ROW LINE
℄ BRIDGE
℄ RAMP
℄ EX BRIDGE
UPPER DECK @ PIER 1 = 577.63'
LOWER DECK @ PIER 1 = 542.63'
TOP OF EX LEVEE BEYOND
EX GRADE @ SECTION
INV OF SEWER @ GATEWELL NO. 1 = 441.0'
TOP OF CAUSEWAY LEVEE & TRESTLE = 513.0'
TEMP RETAINING WALLS
FALSEWORK
UPPER DECK @ PIER IV = 553.79'
LOWER DECK @ PIER IV = 530.41'
37'
8:1 RAMP TO TOP OF CAUSEWAY
CROSS SECTION AT RAMP
BOTTOM OF FOOTING = 475.10'
41.2'
32'±
19'±
48'±
FALSEWORK BEYOND PIER 1
CROSS SECTION AT PIER 1
W 2nd ST
UPPER PARKING LOT
LOWER PARKING LOT
LEVEE WALL
EX GRADE
EX CONCRETE PIER ELEV=474±
RELOCATED TRAIL
SITE FENCE
TOP OF BULKHEAD SHEETING = 480.0'
AGGREGATE RAMP TO THE EAST OF BULKHEAD
TOP OF GRADING = 476.0'
NORMAL POOL ELEV. 453.62'
13'±
WEST SIDE - 7 PAIR PZ-35 @ 50'
EAST SIDE - 7 PAIR PZ-35 @ 50'
WEST SIDE - 7 PAIR PZ-35 @ 60'
EAST SIDE - 12 PAIR PZ-35 @ 60'
RIVER SIDE - 27 PAIR PZ-35 @ 70'
WEST SIDE - 14 PAIR PZ-35 @ 70'
EAST SIDE - 19 PAIR PZ-35 @ 70'
PROFILE @ PETE ROSE BULKHEAD
Walsh Kokosing JOINT VENTURE
Brent Spence Bridge Corridor Project - KY Access Concept Plans
PROFILES AT BANK ACCESS AREA AND PETE ROSE BULKHEAD
Sheet 6 of 7
6/14/2024 12:46 PM

Stantec

Stantec is a global leader in sustainable architecture, engineering, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

April 4, 2025

Mr. Craig Potts Executive
Director and
State Historic Preservation Officer 410
High Street
Frankfort, KY 40601

SUBJECT: Information on 13 Unsurveyed areas within the Proposed Brent Spence Bridge Project
Kenton County, Kentucky
KYTC Item Number 6-17.00

Dear Mr. Potts,

The Kentucky Transportation Cabinet, on behalf of the Federal Highway Administration is submitting for your staff's review and concurrence information on unsurveyed areas withing the Brent Spence Bridge project. Recent design modifications resulted in 13 locations that fall outside previously examined areas.

Based on mapping, aerials, current development and utilities, an examination of historic mapping and recent archaeological documentation for this project, archaeologists within this Division have compiled information to show these areas do not retain integrity and would not warrant a Phase I archaeological survey. This information is included in the attached document that provides mapping, location information and acreage, and the nature of disturbance or the absence of archaeological deposits. This information would typically be provided within a PA2 form, but this project is not considered a small-scale project under the Section 106 Programmatic Agreement.

We ask for your concurrence that these areas do not retain archaeological integrity and that an archaeological survey would not be warranted. Should you have any questions, please contact Carl Shields of my staff at Carl.Shields@ky.gov.

Sincerely,

Daniel R Peake

Daniel R. Peake, Director
Division of Environmental Analysis

DRP/crs
Enclosure
cc: Stacee Hans, Scott Schurman, John Ballantyne

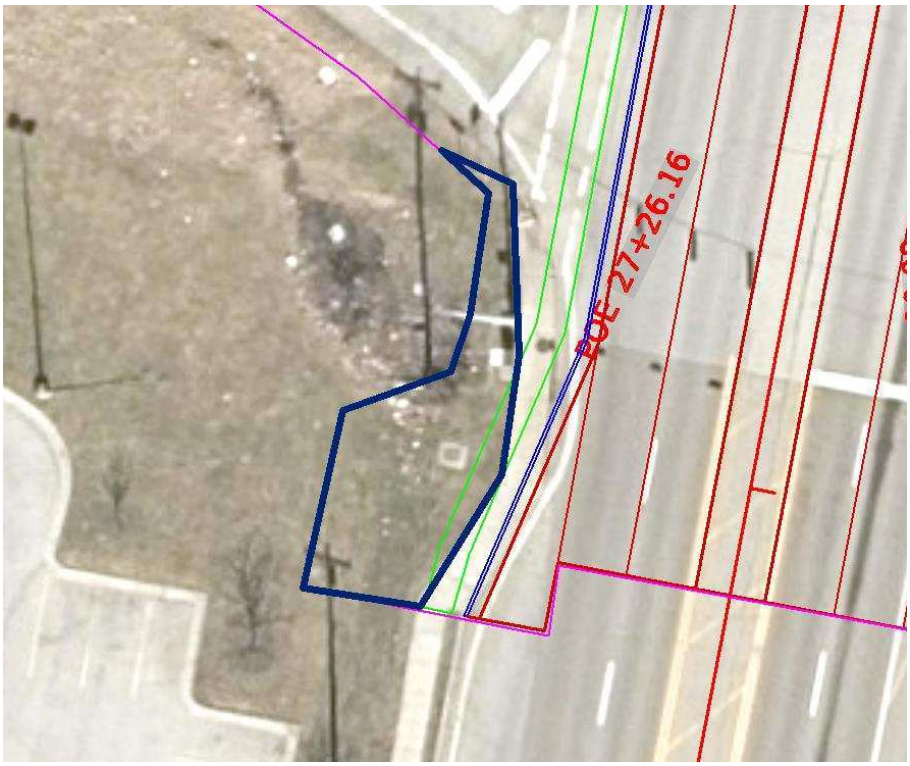
Following recent design modifications, there are thirteen (13) locations that fall outside what has been previously surveyed archaeologically. These locations are spread across the project footprint but are shown in the associated mapping. Most of these new areas involve drainage control or slope and erosion improvements, though a couple are associated with either sidewalks or intersection improvements. Some of these locations fall within the existing ROW for I-75, while others would include new ROW, such as Location 13. The total area under consideration amounts to 2.377 acres.

Mapping for the individual locations is provided below, along with the specific location information, acreage, and a description of the setting that indicates why it would not retain archaeological integrity.

Historic aerials and mapping, Sanborn maps, archived highway plans, and previous archaeological reports for this project were reviewed when considering archaeological potential. None of these locations have previously recorded sites within or immediately adjacent to the footprint.


Location 13
Location 12
Location 11
Locations 9 and 10
Locations 7 and 8
Locations 5 and 6
Locations 3 and 4
Location 2
Location 1

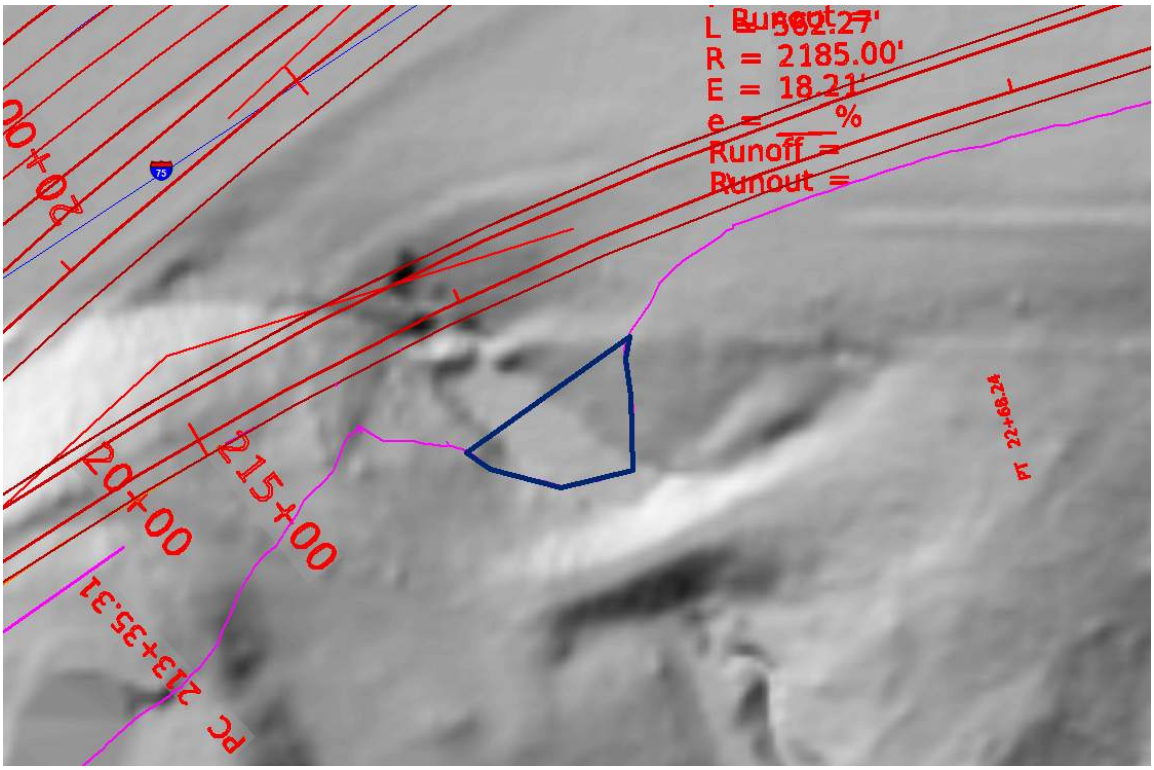
Location 1 -84.551674 39.049611 Decimal Degrees; 0.028 acres



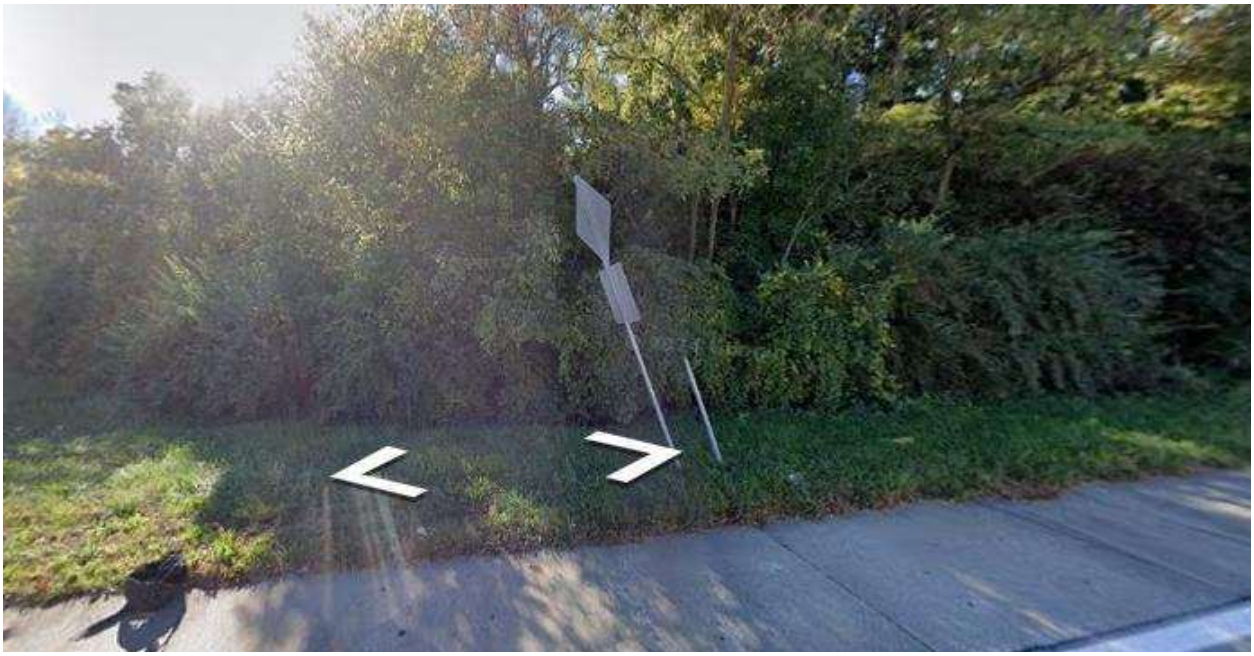
This area is new ROW adjacent to the intersection between the I-75 offramp and US 25. It has been previously disturbed by commercial development and utilities.



Location 2 -84.540447 39.057451 Decimal Degrees; 0.035 acres



This area is new ROW within a drainage pond adjacent to northbound I-75. It has been previously disturbed by drainage and retention pond construction. Though currently wooded the drainage pond can clearly be seen in LiDAR.



Location 3 (left) -84.535382 39.059442 Decimal Degrees; 0.008 acres

Location 4 (right) -84.534403 39.059749 Decimal Degrees; 0.118 acres

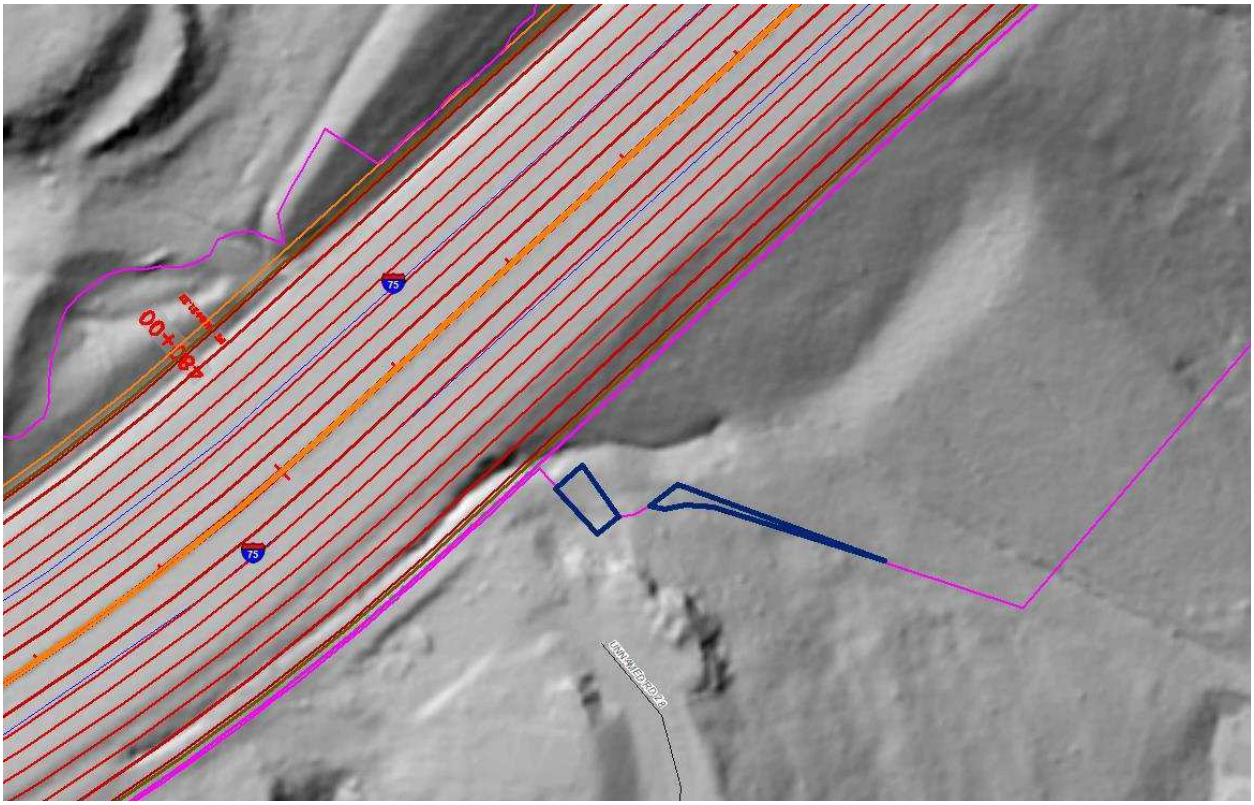


These areas are along road cuts adjacent to northbound I-75. These wooded areas are steep slopes caused by road cuts during the construction of the interstate.



Location 5 (left) -84.524651 39.061776 Decimal Degrees; 0.019 acres

Location 6 (right) -84.524426 39.061779 Decimal Degrees; 0.016 acres

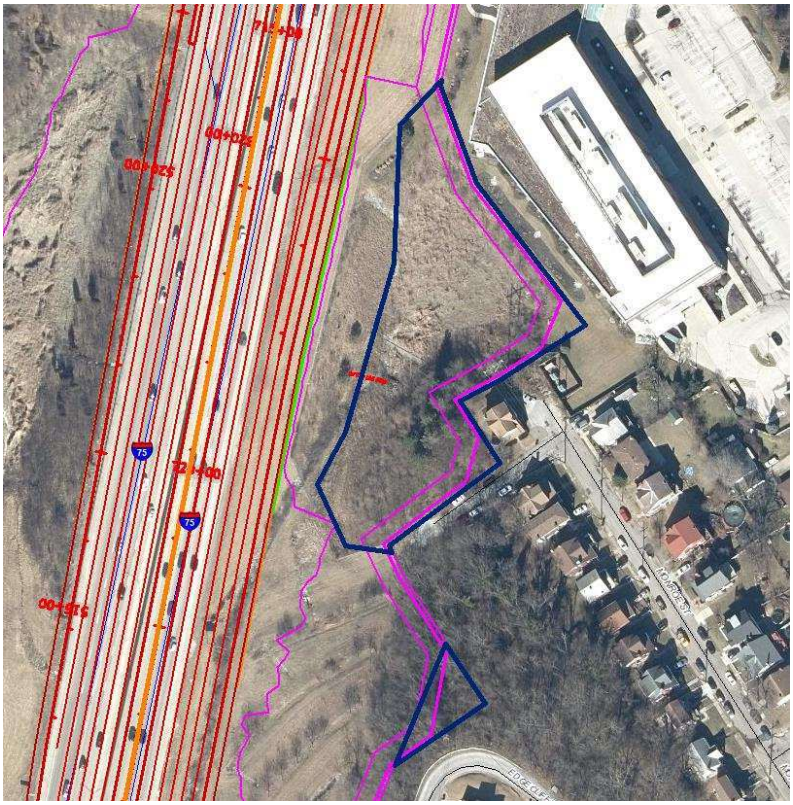


These two locations are on the south side of northbound I-75. These have been previously disturbed by construction of I-75. Disturbance can be seen in LiDAR.



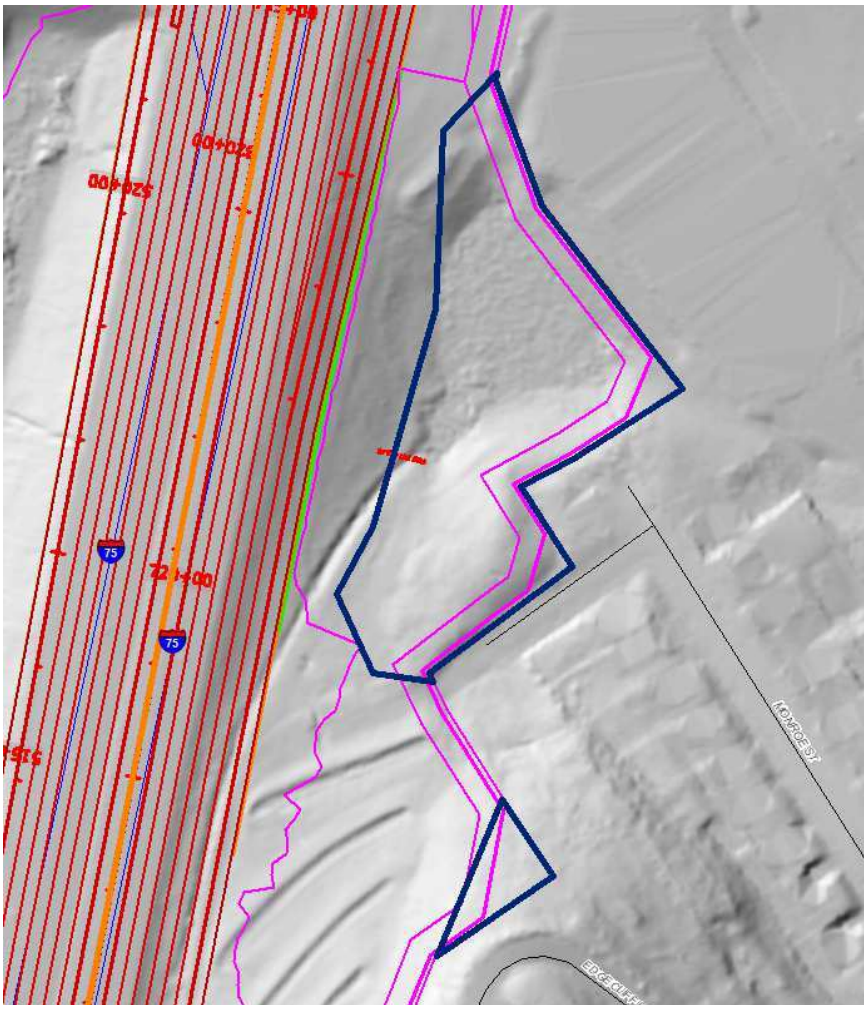
Location 7(south) -84.518597 39.069730 Decimal Degrees; 0.111 acres

Location 8 (north) -84.518620 39.070853 Decimal Degrees; 1.58 acres



Location 7 located on the east side of northbound I-75. It is now in a wooded area on steep slopes that has been previously disturbed by road construction, erosion control and landslide prevention measures.

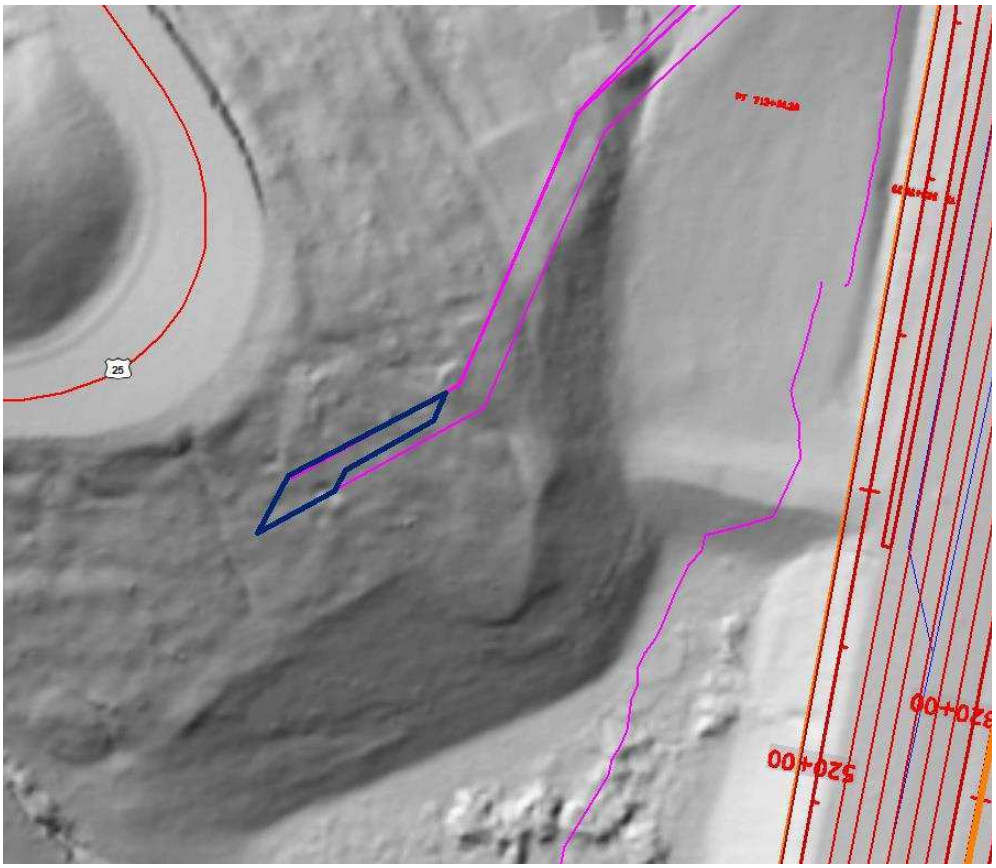




Location 8 is located on the east side of northbound I-75 just to the north of Location 7. This area is disturbed by the construction of a water runoff retention basin and associated berms.



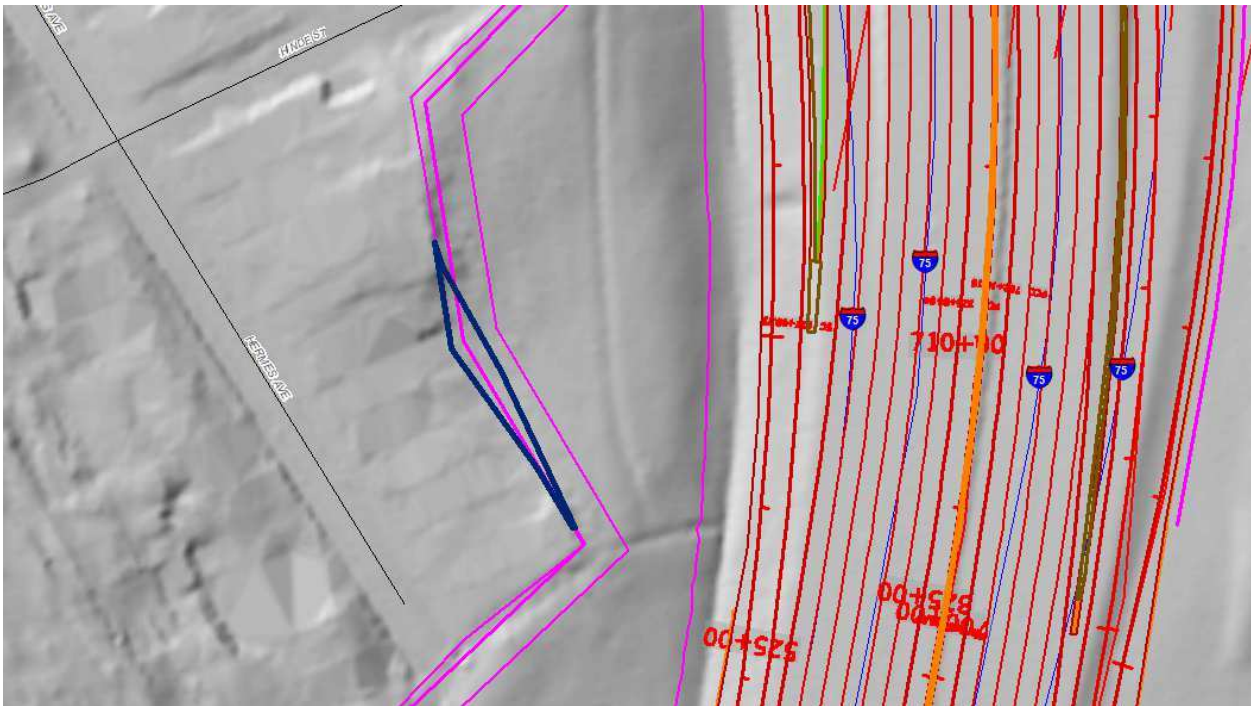
Location 9 -84.520783 39.071899 Decimal Degrees; 0.046 acres



This location is on the west side of southbound I-75. It is located on steep slopes that have been previously modified for erosion control. This is shown best in LiDAR.



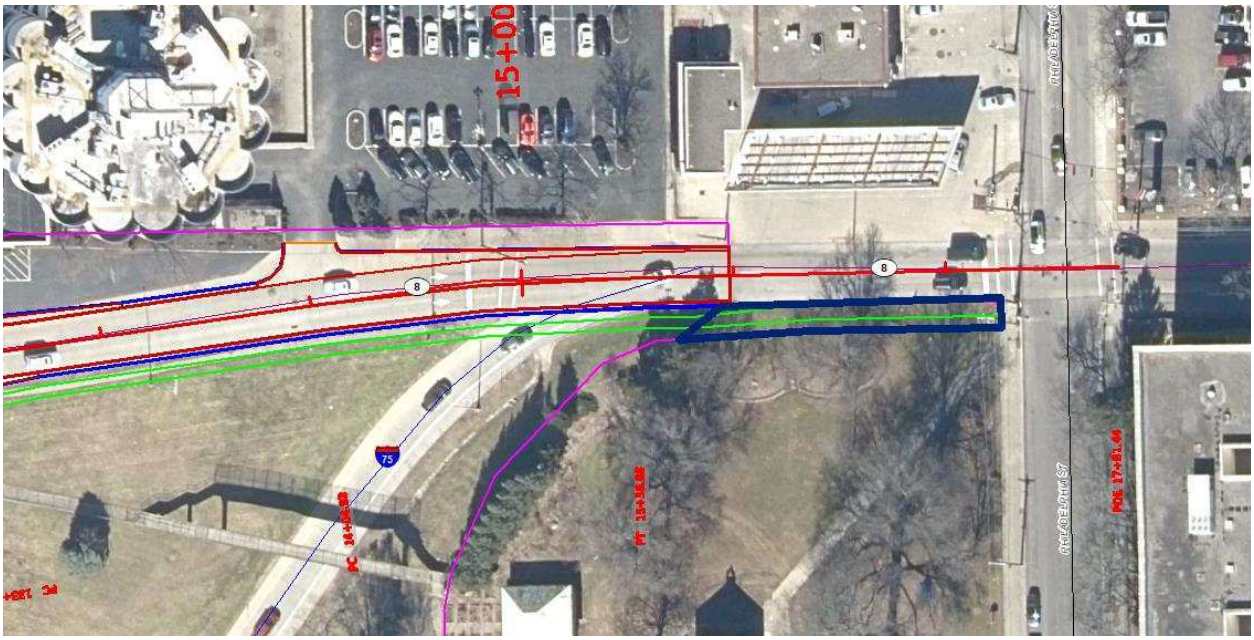
Location 10 -84.519930 39.073182 Decimal Degrees; 0.038 acres



This location is on the west side of southbound I-75. It is located on wooded steep and modified slopes adjacent to a residential area. The slopes and modification are best shown in LiDAR.



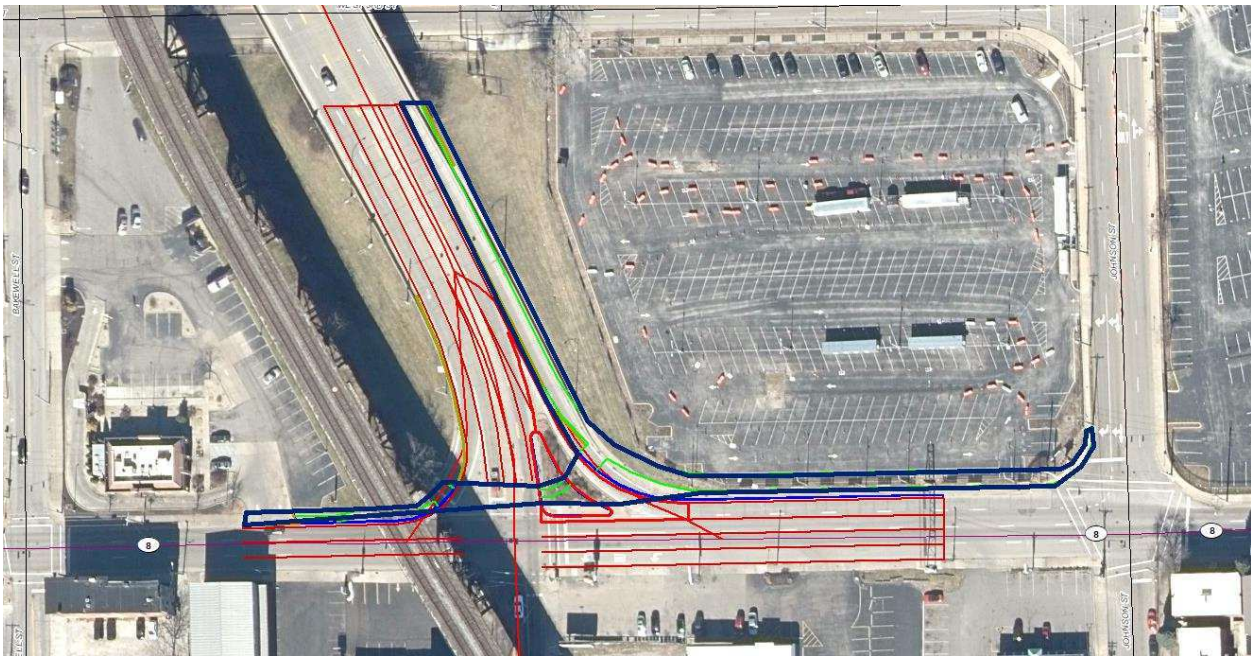
Location 11 -84.520367 39.085313 Decimal Degrees; 0.043 acres



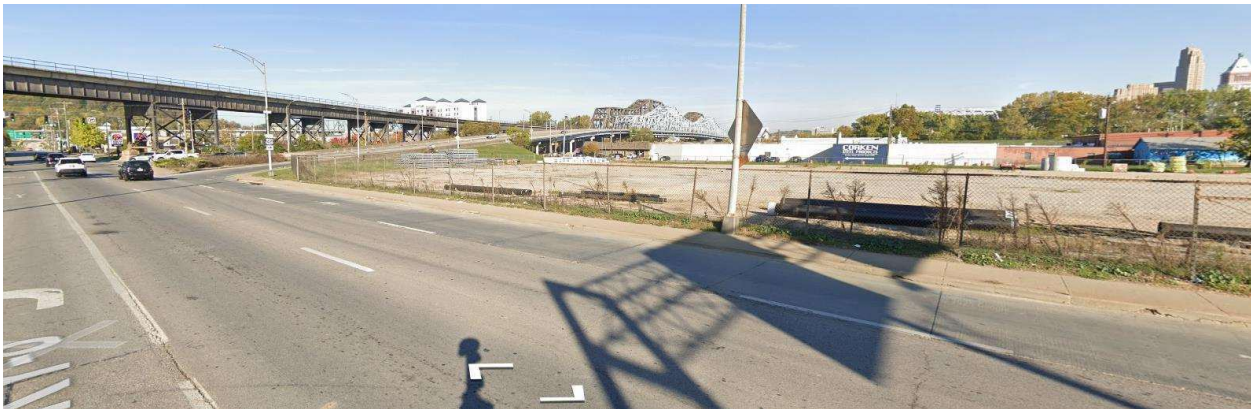
This location is on a narrow strip adjacent to West 5tgh street adjacent to Goebel Park. The proposed work is for the construction of a sidewalk. This area has been disturbed by the construction and reconstruction of 5th street, urban development, and utilities.



Location 12 -84.517263 39.086678 Decimal Degrees; .335 acres



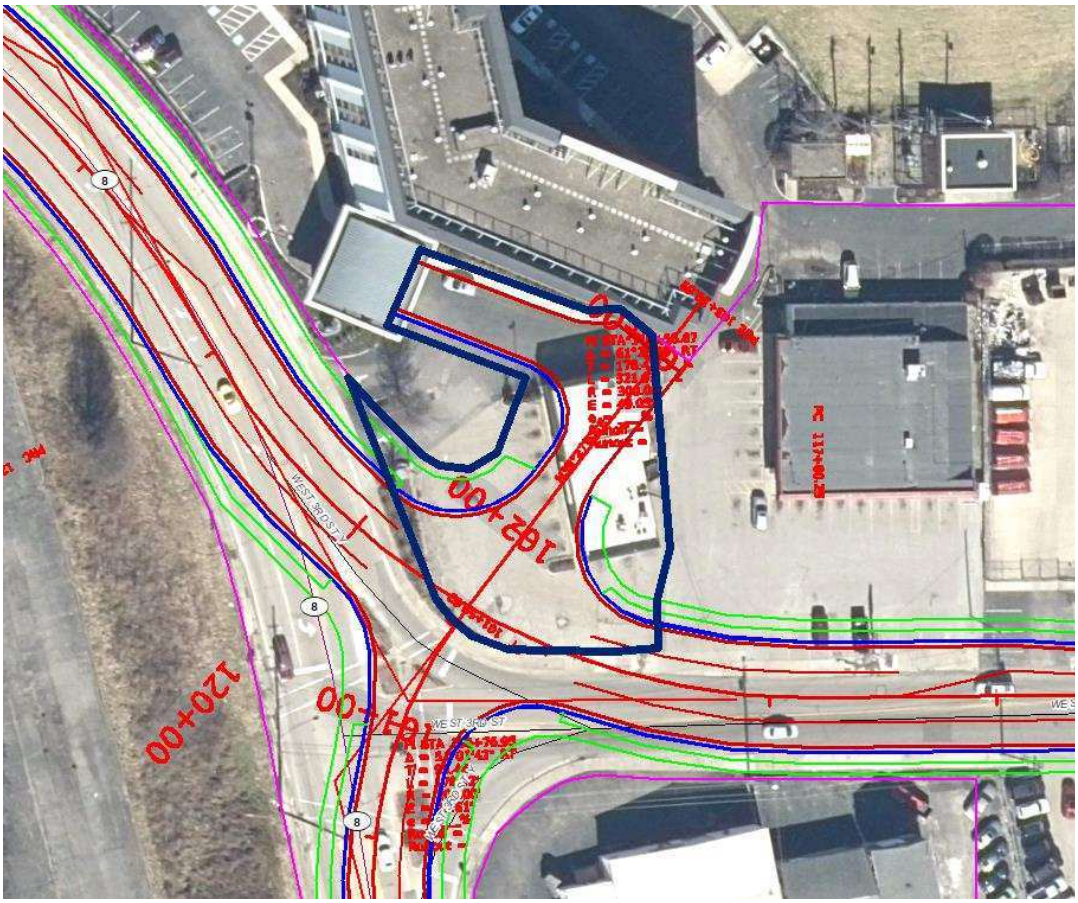
This location is along the north side pf 4th street and on the east side of the US 25 northbound bridge ramp. This area involves the reconstruction of sidewalks. The footprint consists of existing sidewalks, the landscaped edge of a parking lot, and a bridge ramp. These areas have been previously disturbed.





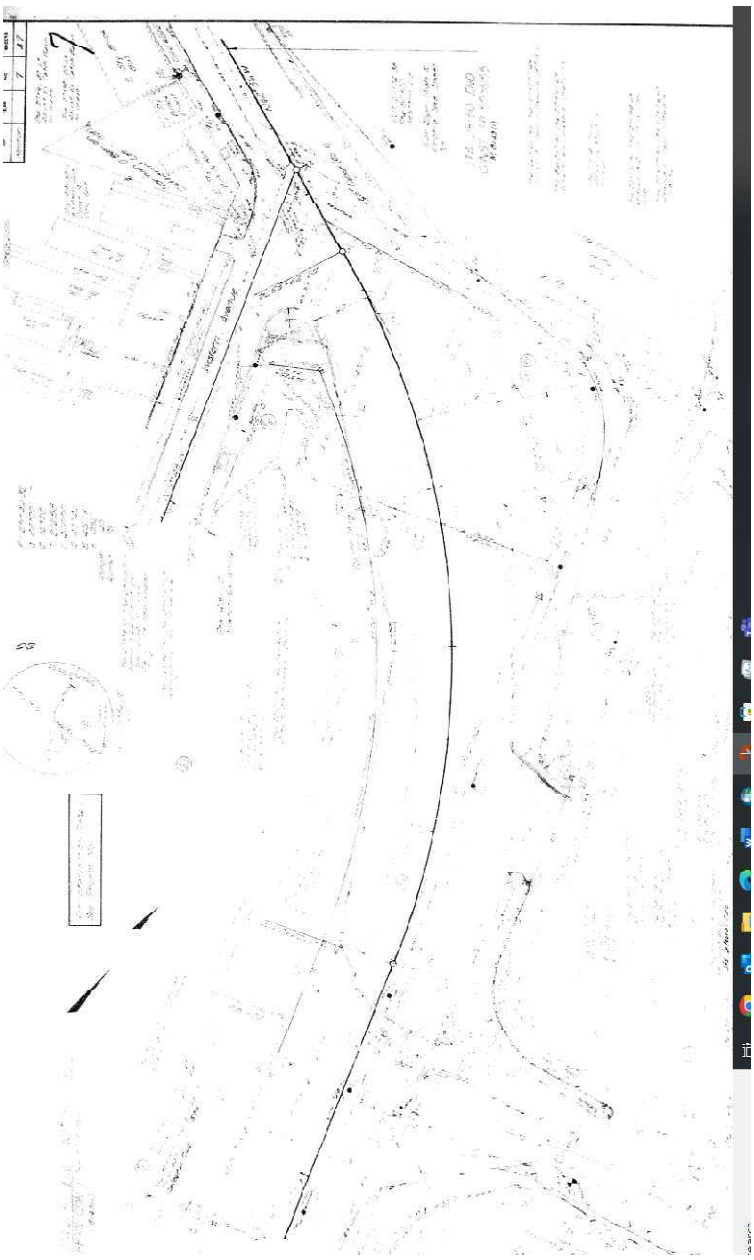

KY 9

Location 13 -84.524366 39.087867 Decimal Degrees; 0.352 acres



This location is north and east of the intersection of West 3rd Street and Crescent Ave. Proposed work involves the reconstruction of this intersection. It will impact a commercial area and parking lot. This area has been previously disturbed by utilities and commercial development. Prior to this, an earlier alignment of Crescent Avenue ran through this location. Prior to that, the area was infilled swamp used for industrial purposes.





Poor quality plans from 1960 show the original and proposed (existing) alignment of Crescent Avenue and the intersection with West 3rd Street.

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

April 10, 2025

Daniel R. Peake, Director
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40622

RE: Information on 13 Unsurveyed areas within the Proposed Brent Spence Bridge Project, Kenton County, Kentucky
KYTC Item #: 6-17

Dear Mr. Peake,

Thank you for your recent digital submission of an documentation concerning the above-referenced project. We understand that the Federal Highway Administration is the lead federal agency. Recent design changes have added 13 unsurveyed locations in Covington, Kenton Co., KY to the project area of potential effects (APE), totatling 2.377 acres.

Based on the provided documentation, the added locations have previously been disturbed by road and commercial construction, landscaping, utility installation, and water and erosion control measures. An arcaheological survey is **Not Warranted**. In the unlikely event that human remains are encountered during construction, all work should cease immeadietely, and the Kentucky Heritage Council and county coroner should be contacted. Should you have any questions or concerns, or should plans for this undertaking change, please feel free to contact Ellis Codd of my staff at ellis.codd@ky.gov.

Sincerely,

Craig Potts
Executive Director and
State Historic Preservation Officer

KHC#: 250612
CP: ec
e-cc: Carl Shields (KYTC)

TEAM KENTUCKY TOURISM, ARTS AND HERITAGE CABINET | New Kentucky Home

An Equal Opportunity Employer M/F/D

Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

April 10, 2025

Mr. Craig Potts
Executive Director and
State Historic Preservation Officer
The Barstow House
410 High Street
Frankfort, KY 40601

SUBJECT: Concurrence for the Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Potts:

Please find the revised cultural historic report and survey forms submitted with this transmittal for the above project. After a concurrent review discussion with your office, KYTC is now requesting concurrence for eligibilities and effects.

In all, Stantec newly recorded 42 resources (KE-1355–KE-1396) for the second addendum report. See Table 1 below for the complete list of Stantec's National Register of Historic Places (NRHP) eligibility recommendations for these newly documented resources.

Table 1. Consultant Eligibility Recommendations for Newly Documents Sites

Eligible (Criterion Consideration A/ Criterion A)	KE-1372	–	–	–	–
Not Eligible	KE-1355	KE-1364	KE-1373	KE-1381	KE-1389
	KE-1356	KE-1365	KE-1374	KE-1382	KE-1390
	KE-1357	KE-1366	KE-1375	KE-1383	KE-1391
	KE-1358	KE-1367	KE-1376	KE-1384	KE-1392
	KE-1359	KE-1368	KE-1377	KE-1385	KE-1393
	KE-1360	KE-1369	KE-1378	KE-1386	KE-1394
	KE-1361	KE-1370	KE-1379	KE-1387	KE-1395
	KE-1362	KE-1371	KE-1380	KE-1388	KE-1396
	KE-1363	–	–	–	–

In addition, Stantec recommended an effect finding of No Adverse Effect to KE-1372, Garden of Hope.

Table 2. Consultant Effects Recommendations for Previously Documented NRHP-Listed and Determined NRHP-Eligible Sites and Historic Districts

KHC Survey Number	Resource Name	Solid Noise Wall Option*	Transparent Noise Wall Option*	No Build Noise Wall Option*	Temporary Access Road	Bridge Construction Activities	Bulkhead Construction
KE-07 and KE-08	Elberta Apartments Historic District	Adverse Effect	Adverse Effect	No Effect	N/A*	N/A	N/A
KE-09	West Side/Main Strasse Historic District (Expansion)	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-10	Lewisburg Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-11	Old Ft. Mitchell Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-12	Beechwood Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-13	Hillsdale Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-952	Sisters of Notre Dame Convent and Cemetery	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0107	C&O Railroad Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0456	1000 Emery Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0458	45 Rivard Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0460	829-831 Highway Avenue	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0462	Bavarian Brewery Bottling Works/Glier's Goetta	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0820	Brent Spence Bridge	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1011	534 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1038	626 West 5th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1048	Futuro House/224 Wright Street	N/A	N/A	N/A	N/A	No Adverse Effect	N/A
KEC-1064	402 Bakewell Street	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEC-1068	Covington Levee System	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1075	Clay Wade Bailey Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	No Adverse Effect
KECL-0692	536 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-0815	Bavarian Brewing Co./Kenton Government Center	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-1018	521 Western Avenue	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEFM-150	Highland Cemetery Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A

Notes: *Not all sites in this table have noise wall options proposed near them;
N/A = not applicable. Any column with N/A indicates this particular activity will not take place at or near this specific site.

Stantec also evaluated 18 previously documented resources and six historic districts, which are NRHP-Listed and previously determined NRHP-Eligible, for additional effects related to the additional proposed work activities and proposed noise wall options (solid, translucent, and no build) as applicable. Not all proposed additional activities or noise wall considerations apply to all resources. For the previous eligibility and effects evaluations for these resources, please see the *Cultural Historic Survey Report, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Kennedy et al. 2022) and *Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Harris and Ryall 2023). Table 2 presents the Stantec effects recommendations for these resources.

Stantec recommended an Adverse Effect for both the solid and transparent noise wall options for the Elberta Apartments Historic District (KE-07 and KE-08). Stantec recommended an overall additional Adverse Effect finding for the project.

KYTC, determines on behalf of FHWA, KE-1372 is individually eligible for listing on the NRHP under Criterion Consideration A and Criterion A for its association with the theme of tourism and recreation in the automobile age. In addition, KYTC concurs with the recommended NRHP boundary. KYTC determines sites KE-1355–KE-1371 and KE-1373–KE-1396 are all not eligible for the NRHP under any criteria.

For the proposed noise wall options, KYTC concurs with the recommended effects for sites KE-09; KE-10; KE-11; KE-12; KE-13; KE-952; KEC-0456; KEC-0458; KEC-0462; KEC-1011; KEC-1038; KECL-0692; and KECL-0815 and determines the solid noise wall and the transparent noise wall options will have *No Adverse Effect* and the no build option will have *No Effect* for these sites. KYTC concurs with the recommended effects for sites KEC-1064 and KECL-1018 and determines the solid noise wall; the transparent noise wall; and the no build options will all have *No Effect* on these two sites.

KYTC disagrees with the recommended effects for the proposed solid and transparent noise wall options for the Elberta Apartments Historic District (sites KE-07 and KE-08). The St. Joseph Lane portion of the Elberta Apartments Historic District was built prior to the construction of Interstate 75. The adjacent section of the interstate was completed in 1962 and has been within the viewshed of the apartments ever since. The trees that currently provide some screening of the interstate are deciduous and lose their leaves in the fall and winter, during which the apartments are clearly visible from the interstate and the apartments can clearly view the interstate. Stantec claims some of the trees were planted by 1969 and had matured by 1993. It is unclear who Stantec claims planted the existing trees and vegetation along the existing right-of-way (ROW) fence; nor did they provide information beyond the historical aerial maps and photographs if they had additional information about the confirmed the age of the existing trees. Based on an examination of archived KYTC plans for Interstate 75, there were no vegetation plantings as part of the original interstate construction, nor for the later projects along this area. Any tree or bush that has grown up within the existing ROW is a volunteer plant, not an intentional planting.

Stantec clearly states the existing trees are not contributing elements of the Elberta Apartments Historic District. Removal of the existing trees on either side of the ROW fence to install any type of noise wall will not result in an impact to the historic district. In addition, the installation of either a solid or transparent noise wall will not impact the aspects of design, setting, or feeling; will not result in the removal or alteration of any of the contributing elements of the Elberta Apartments Historic District; and will not alter the area of significance of community planning and development under which the Elberta Apartments Historic District was determined eligible under Criterion A. Therefore, KYTC determines the proposed solid noise wall and the translucent noise wall options will have *No Adverse Effect* and the no build wall option will have *No Effect* on the Elberta Apartments Historic District (KE-07 and KE-08).

KYTC disagrees with the recommended effects for the proposed solid and transparent noise wall options for KEFM-150 (Highland Cemetery Historic District). The proposed noise wall locations are significantly outside of the district boundary and are completely within the existing ROW. The northbound entrance ramp for Interstate 75/71 was also moved away from the Highland Cemetery Historic District between 1998 and 2001 during a widening, rehabilitation, and relocation project for the interstate. Between the construction of the interstate in the late 1950s through the realignment of the northbound entrance ramp in the late 1990s, historic aerial imagery indicates there were not trees providing screening for the Highland Cemetery Historic District during that period. The tree cover in the space between the cemetery boundary and the interstate grew up after the 1998-2001 project was completed. Since its completion in the 1960s, the interstate has been within the viewshed of the Highland Cemetery Historic District. In addition, the proposed noise wall location off of the northbound exit ramp across would be visually blocked by the Kroger expansion and fuel station and the Beechwood High School tennis courts, both of which were constructed between 2010 and 2012. Therefore, KYTC determines the proposed solid noise wall option; the translucent noise wall option; and the no build wall option will all have *No Effect* on KEFM-150.

For the proposed temporary access road to be built from the proposed bulkhead at Pete Road Pier to the western Covington Levee gate on Highway Avenue/KY-8, KYTC concurs with the recommended effects and determines the temporary access road will have *No Adverse Effect* for sites KEC-107; KEC-460; KEC-820; KEC-1068; and KEC-1075.

For the proposed bulkhead construction activities at Pete Road Pier, KYTC concurs with the recommended effect and determines the bulkhead construction activities will have *No Adverse Effect* for site KEC-1075.

For the proposed Brent Spence Companion Bridge construction activities, which include the construction of temporary falsework, ramps, and additional grading of the existing levee, KYTC concurs with the recommended effects for sites KEC-820 and KEC-1068 and determines the bridge construction activities will have *No Adverse Effect* for sites KEC-820 and KEC-1068.

KYTC disagrees with the recommended No Adverse Effect recommendation for KEC-1048 (the Futuro House at 224 Wright Street) as the bridge construction activities are significantly outside of the boundaries of this site and will not impact the aspects of integrity which make it eligible under Criterion C. KYTC determines the proposed Brent Spence Companion Bridge construction activities will have *No Effect* on KEC-1048.

Please note that the final decisions regarding noise wall options have not been made at this time. The Brent Spence Bridge Corridor Project team is currently seeking feedback from the residents at the proposed noise wall locations regarding the residents' noise wall option preferences.

KYTC determines a finding of *No Adverse Effect* for the additional work and potential noise walls evaluated in this report. Overall, the project remains an *Adverse Effect* for the original impacts to the Lewisburg Historic District, as originally determined in 2022.

KYTC requests concurrence with the above eligibility and effects determinations at your earliest convenience. If you have any questions, please contact Stephanie Lechert or me at 502-782-5038.

Sincerely,

Daniel R Peake

Danny R. Peake, Director
Division of Environmental Analysis

DRP/sel
Enclosure
cc: R. Jennings (KHC), S. Schurman (DEA), S. Hans (D-6), S. Lechert (DEA), B. Rude (HNTB)

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

April 10, 2025

Daniel R. Peake
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, KY 40622

RE: Concurrence for the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*
Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Peake,

Thank you for your digital submission of a letter, *Second Addendum Cultural Historic Survey*, survey forms, and photographs for the above-listed project which is pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f) and implementing regulations at 36 C.F.R. Part 800.

The Second Addendum Cultural Historic Survey report discusses the identification of 42 cultural historic sites within the area of potential effects. Sites KE-1355-KE-1371 and KE-1373-KE1396 were recommended as *not eligible* for the National Register of Historic Places (NRHP). KE 1372 was recommended eligible under Consideration A/Criterion A for its association with the theme of tourism and recreation in the automobile age. In addition, KYTC concurred with the recommended NRHP boundary. KYTC determined a finding of No Adverse Effect to KE-1372, Garden of Hope.

Stantec evaluated 18 previously NRHP-Listed resources and six historic districts, which are NRHP-Listed and previously determined NRHP-Eligible, for additional effects related to the additional proposed work activities and proposed noise wall options. Table 2 from the KYTC transmittal letter presents the Stantec effects recommendations for these resources.

Table 2. Consultant Effects Recommendations for Previously Documented NRHP-Listed and Determined NRHP-Eligible Sites and Historic Districts

KHC Survey Number	Resource Name	Solid Noise Wall Option*	Transparent Noise Wall Option*	No Build Noise Wall Option*	Temporary Access Road	Bridge Construction Activities	Bulkhead Construction
KE-07 and KE-08	Elberta Apartments Historic District	Adverse Effect	Adverse Effect	No Effect	N/A*	N/A	N/A
KE-09	West Side/Main Strasse Historic District (Expansion)	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-10	Lewisburg Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-11	Old Ft. Mitchel Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-12	Beechwood Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-13	Hillsdale Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-852	Sisters of Notre Dame Convent and Cemetery	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0107	C&O Railroad Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0456	1000 Emery Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0458	45 Rivard Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0460	829-831 Highway Avenue	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0462	Bavarian Brewery Bottling Works/Glier's Goetta	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0820	Brent Spence Bridge	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1011	534 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1038	626 West 5th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1048	Future House/224 Wright Street	N/A	N/A	N/A	N/A	No Adverse Effect	N/A
KEC-1064	402 Bakewell Street	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEC-1068	Covington Levee System	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1075	Clay Wade Bailey Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	No Adverse Effect
KECL-0692	536 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-0815	Bavarian Brewing Co./Kenton Government Center	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-1018	521 Western Avenue	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEFM-150	Highland Cemetery Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A

Notes: *Not all sites in this table have noise wall options proposed near them;
N/A = not applicable. Any column with N/A indicates this particular activity will not take place at or near this specific site.

RE: Concurrence for the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*
Covington, Kenton County, Kentucky
KYTC Item No. 6-17

The previous eligibility and effects evaluations for these resources, are given in the *Cultural Historic Survey Report, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Kennedy et al. 2022) and *Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Harris and Ryall 2023).

Stantec recommended an Adverse Effect for both the solid and transparent noise wall options for the Elberta Apartments Historic District (KE-07 and KE-08). Stantec recommended an overall additional Adverse Effect finding for the project.

For the proposed noise wall options, KYTC concurred with the recommended effects for sites KE-09; KE-10; KE-11; KE-12; KE-13; KE-952; KEC-0456; KEC-0458; KEC-0462; KEC-1011; KEC-1038; KECL-0692; and KECL-0815 and determined the solid noise wall and the transparent noise wall options will have *No Adverse Effect* and the no build option will have *No Effect* for these sites. KYTC concurred with the recommended effects for sites KEC-1064 and KECL-1018 and determined the solid noise wall; the transparent noise wall; and the no build options will all have *No Effect* on these two sites.

KYTC disagreed with the recommended effects for the proposed solid and transparent noise wall options for the Elberta Apartments Historic District (sites KE-07 and KE-08). The St. Joseph Lane portion of the Elberta Apartments Historic District was built prior to the construction of Interstate 75. The adjacent section of the interstate was completed in 1962 and has been within the viewshed of the apartments since that time.

Stantec stated that the existing trees are not contributing elements of the Elberta Apartments Historic District. KYTC stated that the removal of the existing trees on either side of the ROW fence to install any type of noise wall will not result in an impact to the historic district. In addition, the installation of either a solid or transparent noise wall will not impact the aspects of design, setting, or feeling; will not result in the removal or alteration of any of the contributing elements of the Elberta Apartments Historic District; and will not alter the area of significance of community planning and development under which the Elberta Apartments Historic District was determined eligible under Criterion A. Therefore, KYTC determined the proposed solid noise wall and the translucent noise wall options will have *No Adverse Effect* and the no build wall option will have *No Effect* on the Elberta Apartments Historic District (KE-07 and KE-08).

KYTC disagreed with the recommended effects for the proposed solid and transparent noise wall options for KEFM-150 (Highland Cemetery Historic District). The proposed noise wall

locations are significantly outside of the district boundary and are completely within the existing ROW. The tree cover in the space between the cemetery boundary and the interstate grew up after the period from 1998-2001. In addition, the proposed noise wall location off of the northbound exit ramp across would be visually blocked by the Kroger expansion and fuel station and the Beechwood High School tennis courts, both of which were constructed between 2010 and 2012. Therefore, KYTC determined the proposed solid noise wall option; the translucent noise wall option; and the no build wall option will all have *No Effect* on KEFM-150.

For the proposed temporary access road to be built from the proposed bulkhead at Pete Road Pier to the western Covington Levee gate on Highway Avenue/KY-8, KYTC concurred with the recommended effects and determines the temporary access road will have *No Adverse Effect* for sites KEC-107; KEC-460; KEC-820; KEC-1068; and KEC-1075.

For the proposed bulkhead construction activities at Pete Road Pier, KYTC concurs with the recommended effect and determines the bulkhead construction activities will have *No Adverse Effect* for site KEC-1075.

For the proposed Brent Spence Companion Bridge construction activities, which include the construction of temporary falsework, ramps, and additional grading of the existing levee, KYTC concurs with the recommended effects for sites KEC-820 and KEC-1068 and determines the bridge construction activities will have *No Adverse Effect* for sites KEC-820 and KEC-1068.

KYTC disagrees with the recommended No Adverse Effect recommendation for KEC-1048 (the Futuro House at 224 Wright Street) as the bridge construction activities are significantly outside of the boundaries of this site and will not impact the aspects of integrity which make it eligible under Criterion C. KYTC determines the proposed Brent Spence Companion Bridge construction activities will have *No Effect* on KEC-1048.

It was noted by KYTC that the final decisions regarding noise wall options have not been made at this time.

KYTC determined a finding of ***No Adverse Effect*** for the additional work and potential noise walls evaluated in the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*. Overall, the project remains an ***Adverse Effect*** for the original impacts to the Lewisburg Historic District, as originally determined in 2022.

RE: Concurrence for the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*
Covington, Kenton County, Kentucky
KYTC Item No. 6-17

We **Concur** with KYTC's eligibility recommendations and with their determination of ***No Adverse Effect*** for the additional work and potential noise walls proposed in *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*. Overall, the project remains an ***Adverse Effect*** for the original impacts to the Lewisburg Historic District.

Should you have any questions, please feel free to contact RaShae Jennings of my staff at rashae.jennings@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director
and State Historic Preservation Officer

KHC #250404
CP:rj
e.cc: Stephanie Lechert (KYTC-DEA)

Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

May 2, 2025

Mr. Craig Potts
Executive Director and
State Historic Preservation Officer
410 High Street
Frankfort, KY 40601

SUBJECT: Two areas of Deferred Archaeology
Brent Spence Bridge Project
Kenton County, Kentucky
KYTC Item Number 6-17.00

Dear Mr. Potts,

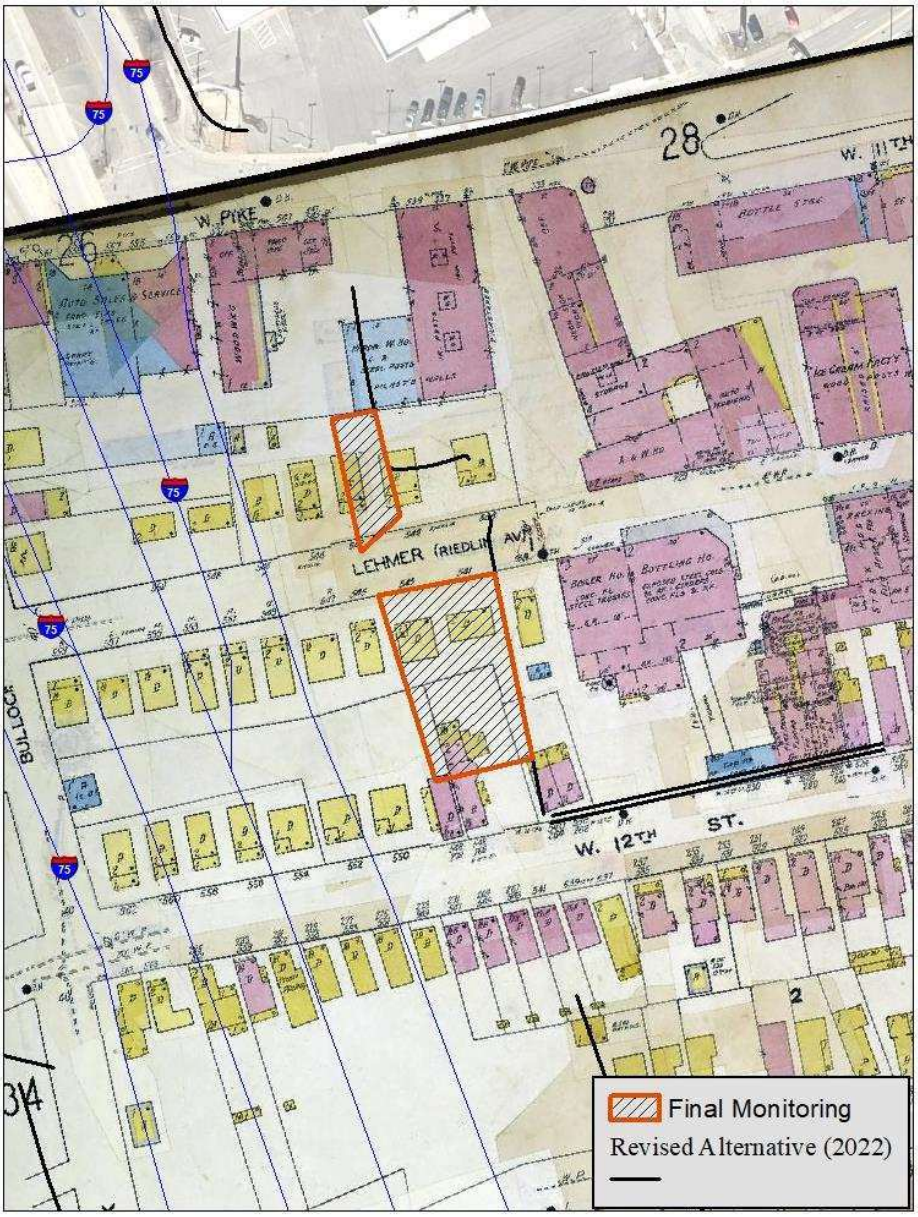
The Kentucky Transportation Cabinet, on behalf of the Federal Highway Administration is submitting for your staff's review and concurrence information on two areas of deferred archaeology within the Brent Spence Bridge project.

Following the approval of the initial Phase I archaeological survey of the project on July 11, 2011, archaeological monitoring was recommended for 19 parcels that were inaccessible due to coverage from parking lots or other impediments. In 2022, refinements to the Preferred Alternative resulted in the general reduction of the project's footprint. Following a review of properties with SHPO staff, two possibly undisturbed areas that may have archaeological potential were identified. These areas had structures shown in the 1949 Sanborn maps in a neighborhood near the Bavarian Brewery, and it was possible these locations could contain archaeological remnants. These areas are both currently located within the parking lot of the Kenton County Government Offices. It was recommended these two areas be monitored by archaeologists during construction, or if to these areas was obtained prior to construction, then archaeological investigations should occur at that time. Your office concurred with this recommendation on April 24, 2023, and this was added as an archaeological stipulation III. B. 2.a. (page 16) of the project Programmatic Agreement, executed on October 20, 2023 (attached).

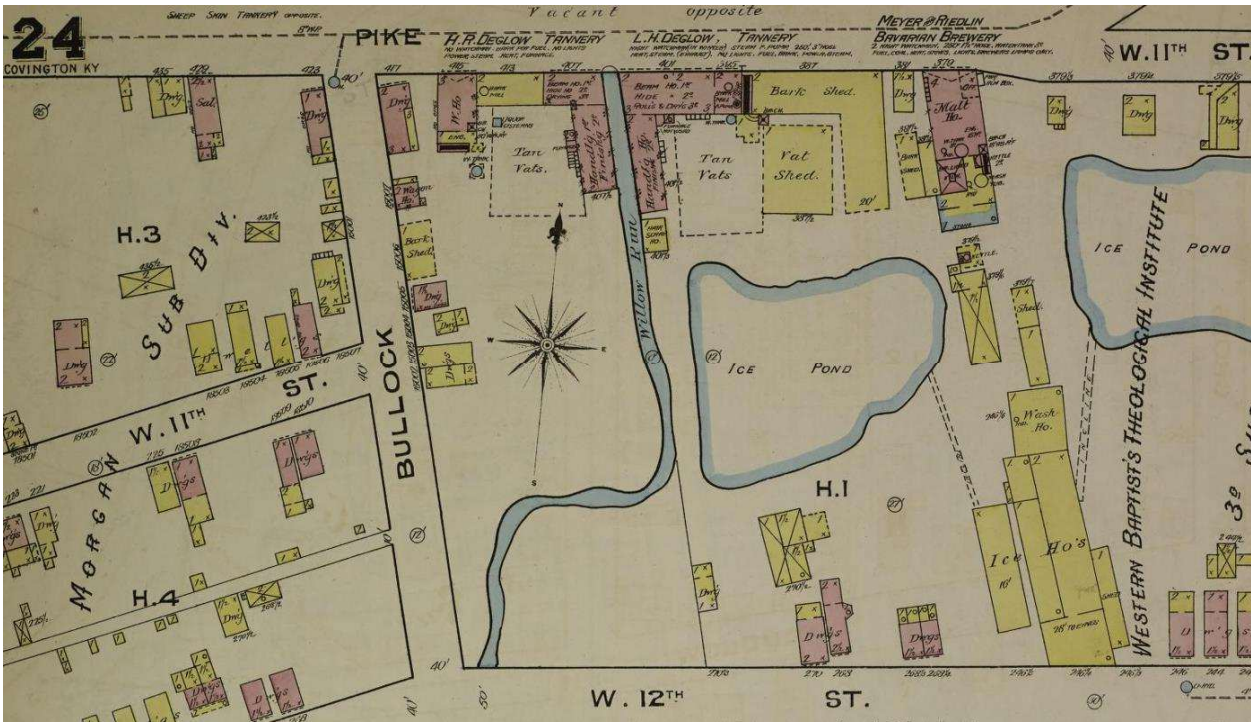
New information has been compiled that indicates these locations do not retain archaeological integrity. The two areas under consideration contain residences that were built post-1914, based on information from topographic mapping and Sanborn Insurance maps. The larger neighborhood where these homes were constructed was built by the early 1920's, based on historic aerial photos and historical records. Prior to the development of the neighborhood, the general location was a

low area adjacent stream and pond utilized by the Bavarian Brewery, an icehouse, and a tannery. The location was likely drained and filled in advance of home construction.

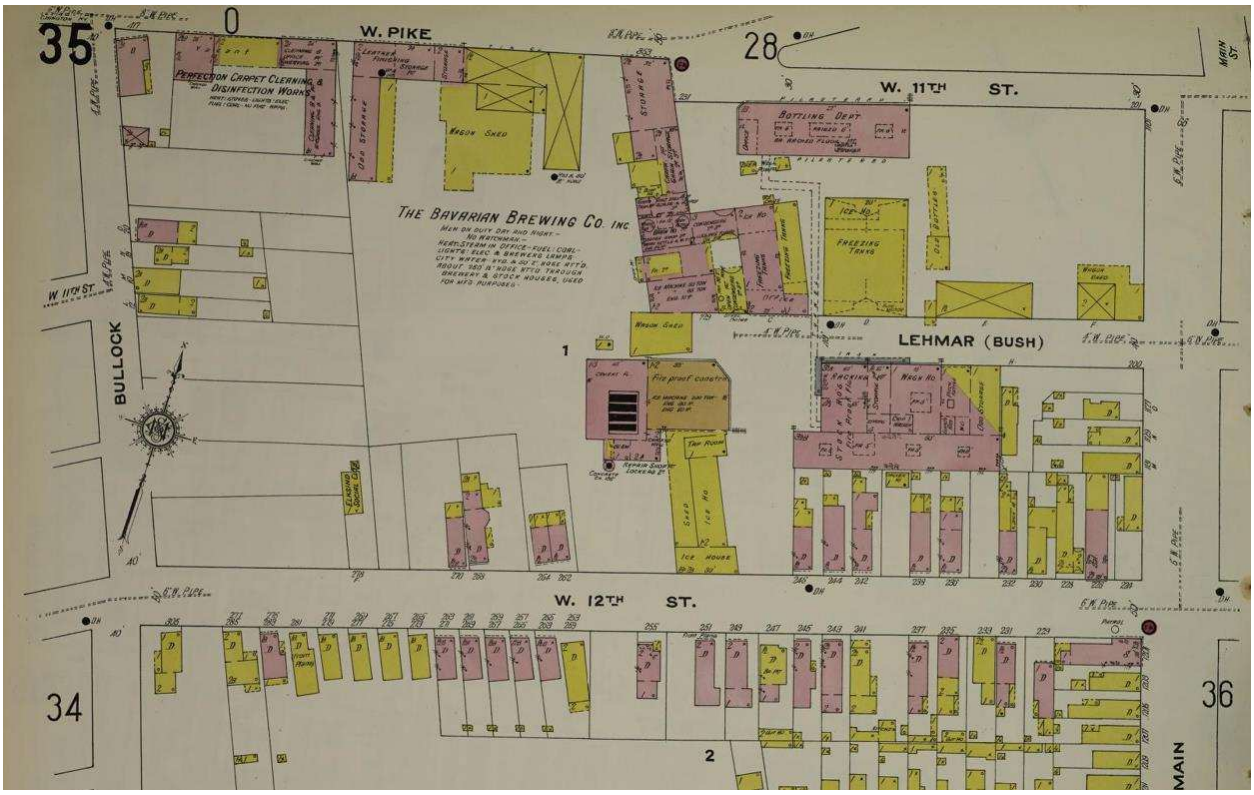
These two locations are described as the North Area and South Area, as they are on the north and south sides of what was Lehmer Ave.



Map showing monitoring areas on a 1949 Sanborn Insurance map. Areas of deferred archaeology areas outlined in orange. Map coordinated with SHPO in 2023.



1886 Sanborn Insurance Map



1909 Sanborn Insurance Map

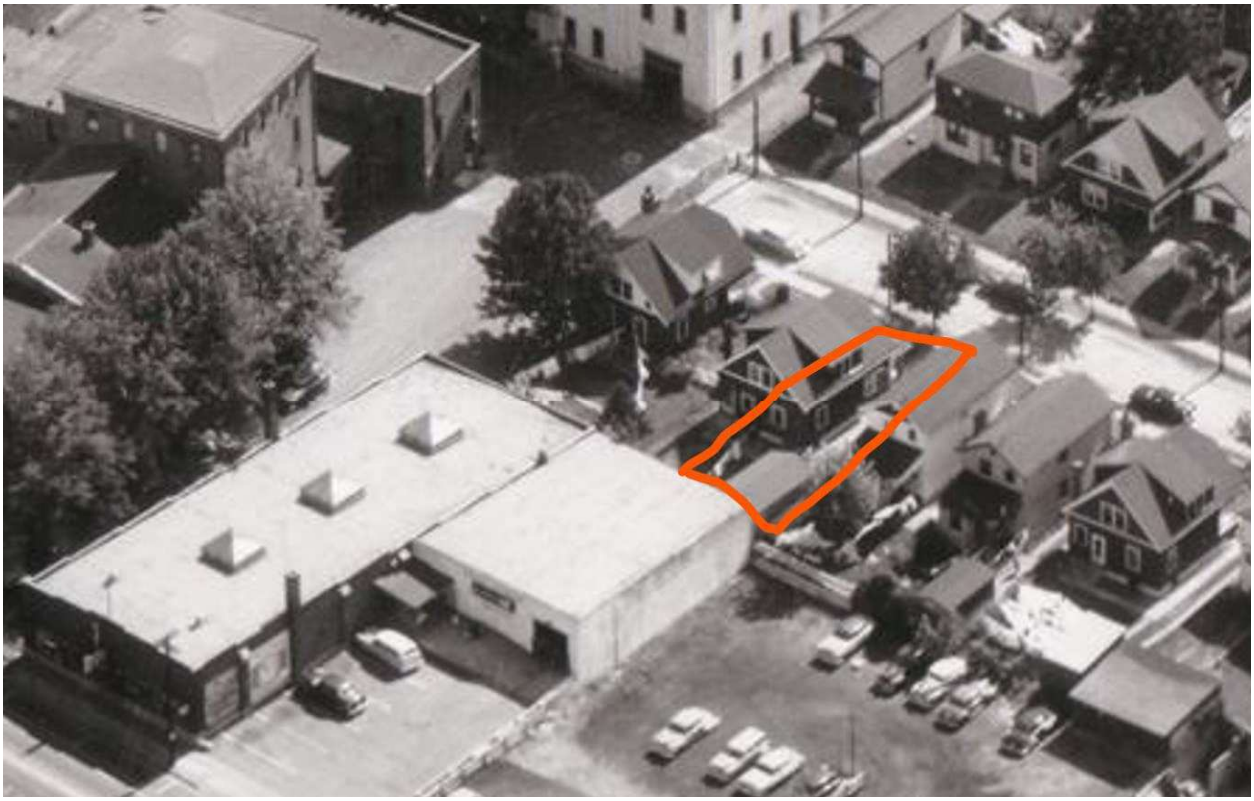
An undated oblique aerial photograph, likely from the late 1950's to the 1960s, shows details of this neighborhood. This aerial includes views of both the North and South Areas under consideration. Additional images included below show the neighborhood at later dates. Mapping and images were obtained through USGS, Library of Congress, Google, Bing, and the Faces and Places webpage of the Kenton County Public Library.

https://facesandplaces.kentonlibrary.org/index.php



North Area

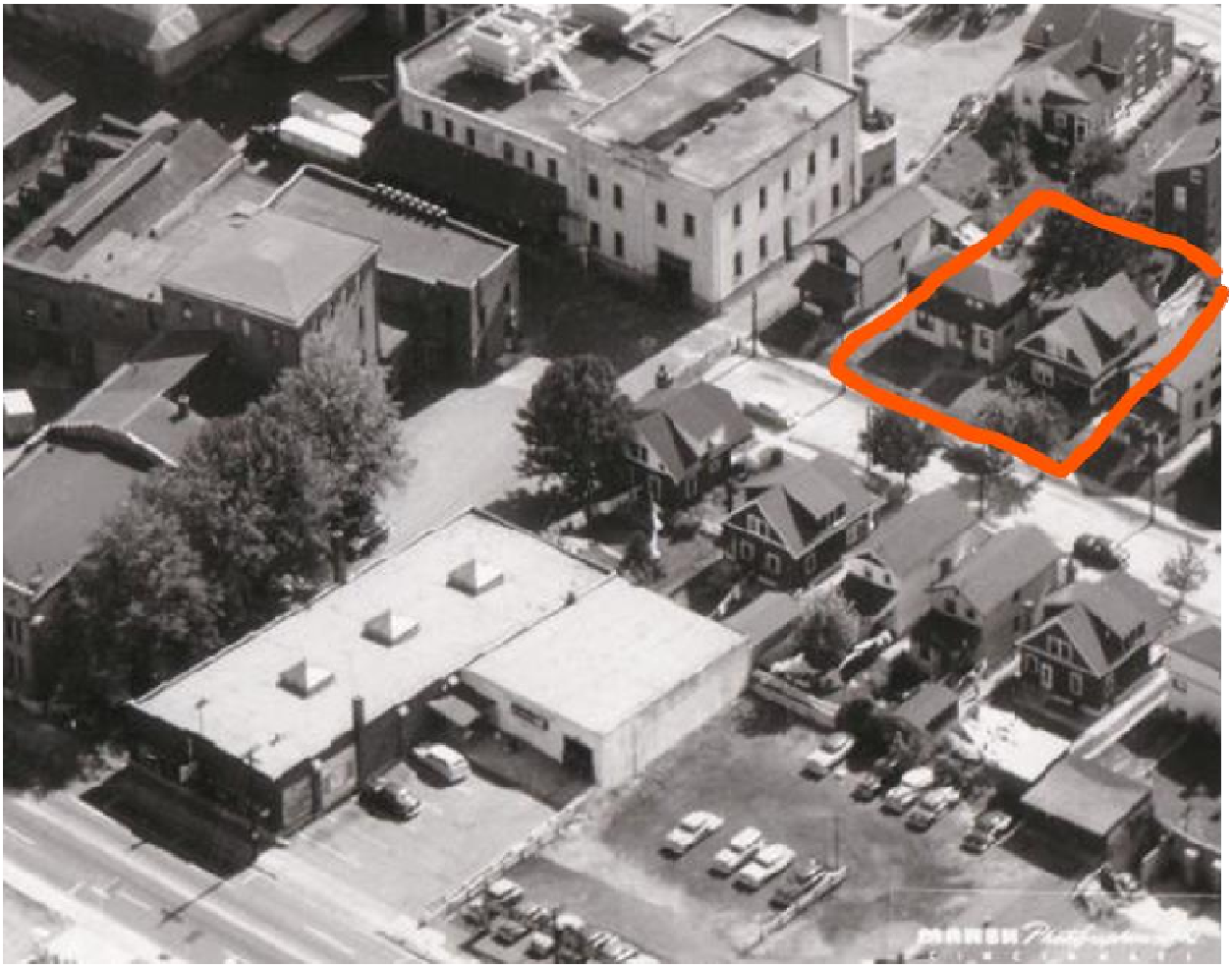
This area straddles the space between two residential structures and portions of the back yards. This is outlined in orange in an undated oblique aerial photograph from the late 1950's to the 1960s. The area between these two houses is a paved driveway with a carport. Portions of the backyards show indications of landscaping or trees. The city had regulated trash pickup and disposal at this time. These maintained areas are unlikely to have had trash and soil deposition that would lead to the development of intact archaeological deposits.



Historic oblique aerial, with North Area outlined in orange. Top is to the southeast.

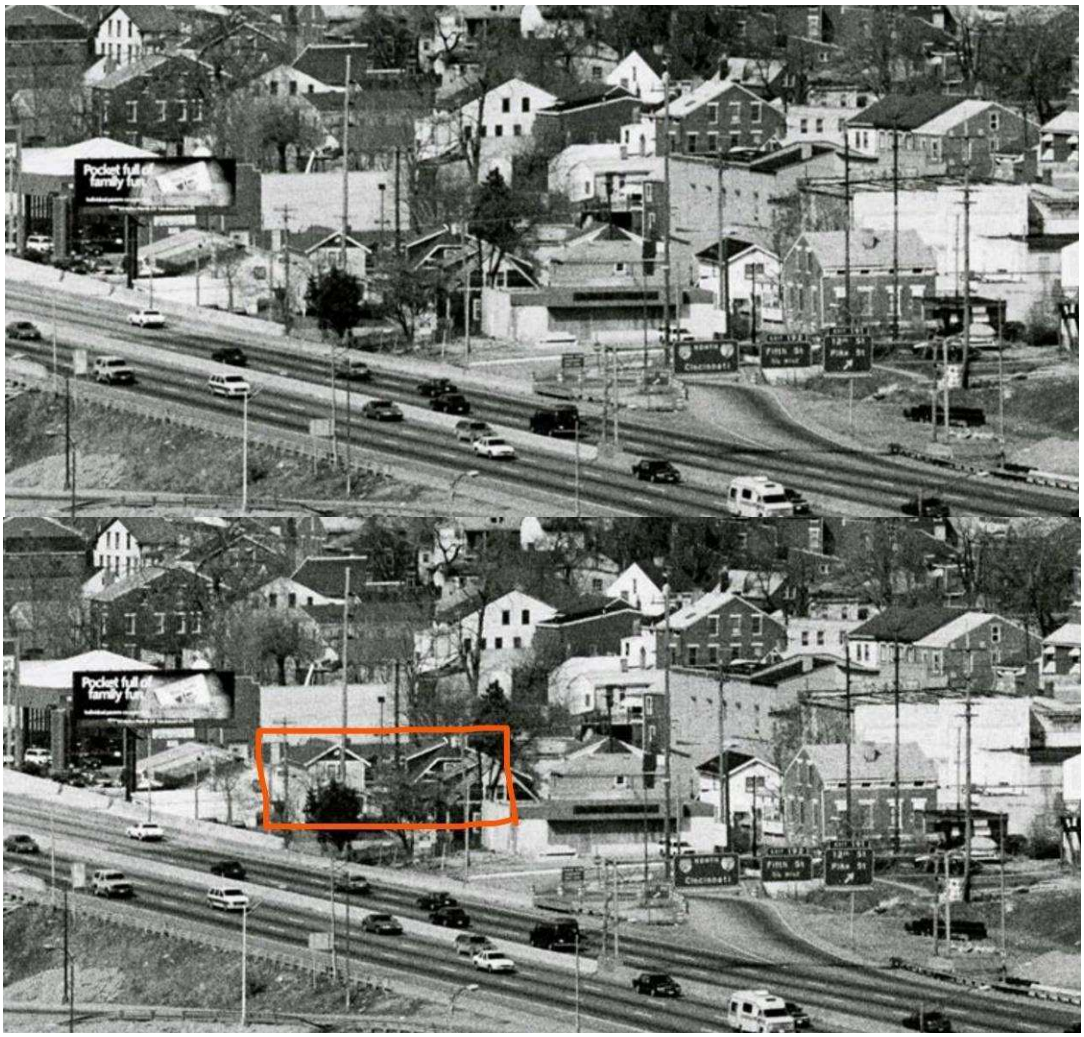
South Area

The area under consideration includes two residential properties and the backyard of an adjacent structure. This is outlined in orange in an undated oblique aerial photograph from the late 1950's to the 1960s. The topography of the residential properties is built up and is higher than the adjacent road. Portions of the backyards show indications of landscaping or trees. The city had regulated trash pickup and disposal at this time. These maintained areas are unlikely to have had trash and soil deposition that would lead to the development of intact archaeological deposits.

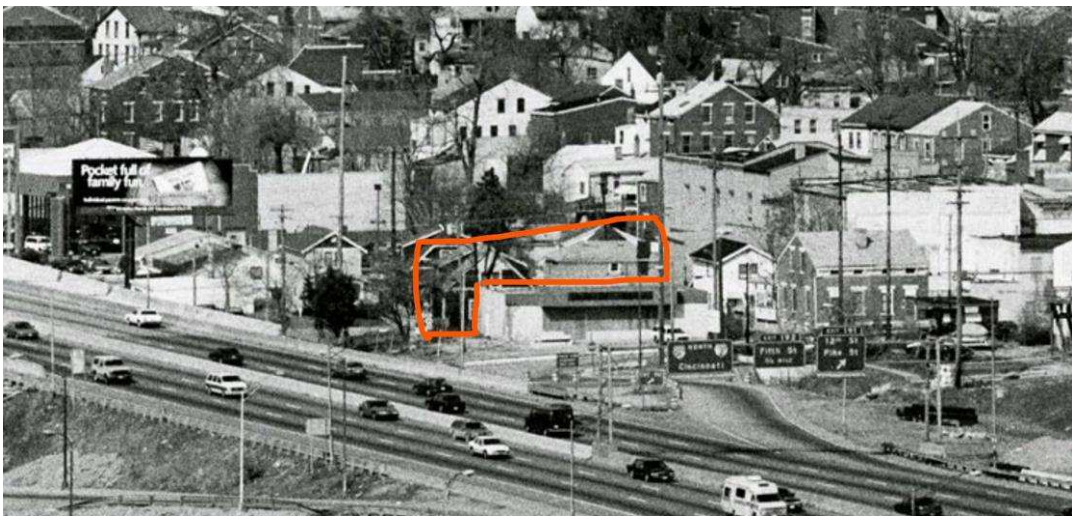


Historic oblique aerial, with South Area outlined in orange. Top is to the southeast.

A panoramic view of the neighborhood was taken in the 1970s or 1980s. Portions of the residential structures from both areas are visible.



North Area



South Area

A review of historic aerials shows these structures are present in 1997, but by 2000 these structures are removed, the area leveled, and a parking lot constructed.





There are few details regarding the demolition of these structures and the construction of the parking lot. The area was leveled and cleared down to the street level of Lehmer Ave. and most of the demolition debris and soil moved elsewhere.

In 2019 there were additional improvements and landscaping of the parking lot. This work included additional earth moving and improvements to buried utilities.

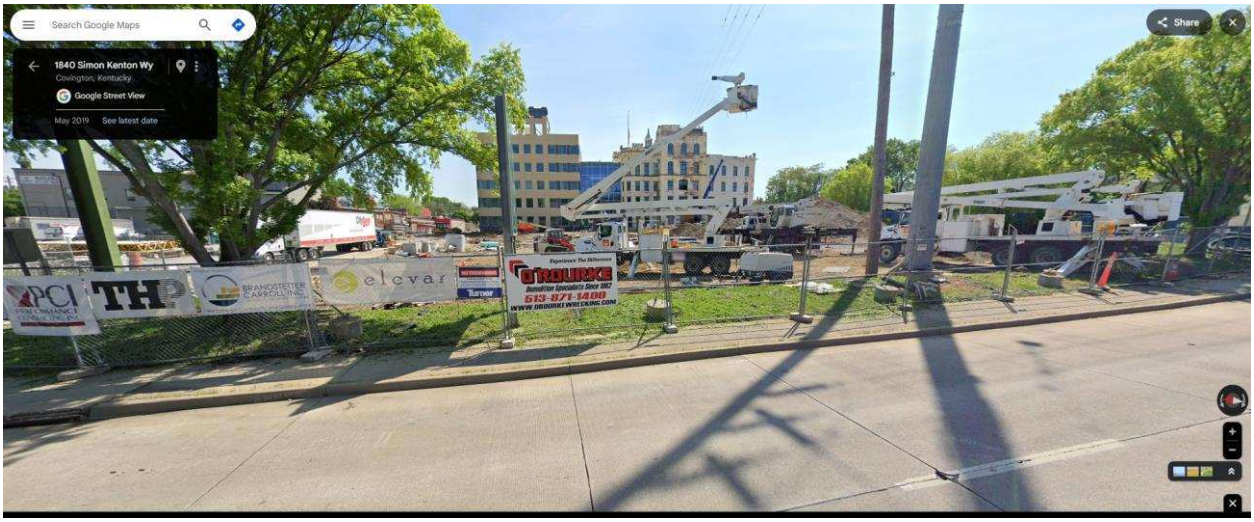


2019 Bing Aerial


2019 Google Earth



2019 Google Streetview of North Area showing parking lot reconstruction, equipment staging, and utility work.



2019 Google Streetview of South Area showing parking lot reconstruction and utility work.

The areas under consideration have been landscaped and include updated utilities (lighting and storm sewers) and greenspaces.



2022 Google Streetview of landscaped North Area.



2022 Google Streetview of landscaped and paved South Area.

Additionally, recent testing of the soils within the current parking lot have indicated the presence hazardous materials in the soil. These materials include Arsenic, Lead, Mercury, Benzene, and Benso(a)pyrene. These are toxic chemicals associated with industrial and commercial activities in this area prior to and during the residential occupation of the neighborhood.

These could be dangerous to unprotected individuals not wearing personal protective equipment, or PPE. Contact and inhalation of associated soils and debris should be avoided. Archaeological activities that create dust, such as earth moving and screening, presents an inhalation risk. Contact with soils and artifacts may also pose risks. Tools and other equipment impacted by affected soils would need to be decontaminated. A copy of the Bavarian Brewery Property Hazardous Materials management plan is available for your review if needed.

Based on mapping, aerials, current development and utilities, an examination of historic mapping and recent archaeological documentation for this project, archaeologists within this Division have compiled information to show these two locations show little potential for accumulation of archaeological deposits. Demolition and leveling likely removed any intact soils associated with these residential areas. Subsequent rounds of parking lot construction and utilities improvements have compounded the issue further. These areas are unlikely to retain integrity and would not warrant a Phase I archaeological survey. Additionally, the identification of hazardous materials still present in the soils presents additional risks to archaeologists

We ask for your concurrence these areas do not retain archaeological integrity, that there are potential risks to archaeologists conducting fieldwork, and that an archaeological survey would not be warranted. SHPO concurrence would close the archaeological stipulation for deferred archaeology in the Programmatic Agreement. Should you have any questions, please contact Carl Shields of my staff at Carl.Shields@ky.gov.

Sincerely,

Daniel R Peake

Daniel R, Peake, Director
Division of Environmental Analysis

DRP/crs
Attachments
Cc: Stacee Hans, Scott Schurman, John Ballantyne

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

May 6, 2025

Daniel R. Peake, Director
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40622

RE: Two Areas of Deferred Archaeology, Brent Spence Bridge Project
Kenton County, Kentucky
KYTC Item #: 6-17

Dear Mr. Peake,

Thank you for your recent digital submission of documentation concerning the above-referenced bridge project. We understand that the Federal Highway Administration is the lead federal agency. Survey of two parcels in Covington, KY, were previously deferred until they could be acquired. Both parcels are located beneath the Kenton County Government Office's parking lot.

Based on the new documentation provided, the two deferred parcels have been previously disturbed by multiple rounds of construction, landscaping, utilities, and demolition, and are unlikely to have intact cultural deposits. An archaeological survey of these deferred parcels is **not warranted**. In the unlikely event that human remains are discovered during construction, work should cease, and the Kentucky Heritage Council and the county coroner should be contacted.

We understand that the provided documentation fulfills the archaeology stipulation III.B.2.a. of the Brent Spence Bridge Corridor Project Programmatic Agreement executed on Oct. 20, 2023. We look forward to continued consultation on this project.

TEAM KENTUCKY TOURISM, ARTS AND HERITAGE CABINET | New Kentucky Home

An Equal Opportunity Employer M/F/D

RE: Two Areas of Deferred Archaeology
Brent Spence Bridge Project
Kenton County, Kentucky
KYTC Item #: 6-17

Should you have any questions or concerns, or should plans for this undertaking change, please feel free to contact Ellis Codd of my staff at ellis.codd@ky.gov.

Sincerely,

Craig Potts
Executive Director and
State Historic Preservation Officer

KHC#: 250839
CP: ec
e-cc: Carl Shields (KYTC)

Appendix H: Air Quality Technical Memorandum: Mobile Source Air Toxics (December 2024)

Air Quality Technical Memorandum: Mobile Source Air Toxics

TO: Bi-State Management Team

FROM: HNTB Corporation

DATE: December 20, 2024

RE: Brent Spence Bridge Corridor Project | ODOT PID 89068 | KYTC Project Item No. 6-17

Introduction and Background

This technical memorandum has been prepared to support the re-evaluation of the *Finding of No Significant Impact* and *Revised Supplemental Environmental Assessment*[1] (FONSI/SEA) for the Brent Spence Bridge (BSB) Corridor Project. As part of the current re-evaluation process, the Kentucky Transportation Cabinet (KYTC) and Ohio Department of Transportation (ODOT) are assessing potential resource-specific changes based on design progression since issuance of the FONSI in May 2024. This memorandum is a component of those efforts.

In 2023, an *Air Quality Technical Report: Quantitative MSAT Analysis Report*[2] was prepared to support the preparation of the BSB Project SEA. To determine the adequate level of analysis for the Mobile Source Air Toxics (MSAT) analysis for current project design, KYTC and ODOT compared the traffic volumes in the 2023 MSAT report to year 2050 certified traffic projections for the Phase III Build Innovations, which are the design innovations developed by the BSB Corridor Phase III Design-Build Team (DBT) described further below. The projected traffic and vehicle miles traveled for the DBT Build

[1] *Finding of No Significant Impact* and *Revised Supplemental Environmental Assessment*. FHWA, KYTC, and ODOT. May 2024.

[2] *Brent Spence Bridge Corridor Project Quantitative MSAT Analysis*. KYTC and ODOT. October 2023.

Innovations were found to be consistent with the selected preferred alternative in the 2024 FONSI. Therefore, it was determined that a new quantitative MSAT emissions analysis was not warranted because the project changes would not have a meaningful change on estimated MSAT emissions. This memorandum documents this comparison and provides a qualitative assessment of potential changes to MSAT pollutant impacts from the project since the 2024 FONSI/SEA.

Project Changes

This section describes the changes for Phase III of the BSB Corridor Project, which is the portion from Dixie Highway (Kentucky) to Linn Street (Ohio). Since issuance of the 2024 FONSI/SEA, the BSB Corridor DBT identified and explored a total of 117 potential innovations for Phase III. As a result, 26 innovations were recommended to be incorporated into the project and can be grouped into three major innovations in Kentucky and four major innovations in Ohio.

The Kentucky innovations include:

1. Optimizing the vertical profile to reduce visual impacts, which results in the closure of 5th Street under I-71/I-75.
2. Optimizing access at Pike Street, which eliminates direct interstate access at 9th Street and maintains the existing access at Pike Street.
3. Adjusting the I-71/I-75 mainline horizontal alignment to avoid a substantial hillside cut in the Lewisburg Neighborhood.

The Ohio innovations include:

1. Reconfiguring southbound I-71/I-75 to remove the Western Avenue ramp to southbound I-75, move southbound I-71/I-75 to the outside of the highway configuration and the southbound Collector-Distributor (CD) to the inside.
2. Combining 2nd and 3rd Street connections, which routes traffic through upgraded at-grade 2nd and 3rd Street intersections.
3. Consolidating the US-50 roadway to follow a single alignment, which removes the ramp from the westbound US-50 to Gest Street and reroutes traffic to the existing Linn Street exit.
4. Realizing the street grid concept to improve local connections in Downtown Cincinnati for all modes of travel by adding new intersections along 5th, 6th, 7th, and 9th streets.

Traffic Information

Based on the Build Innovations, updated traffic forecasting was conducted using the approved procedures outlined in the May 2023 certified traffic report[3]. The following discussion summarizes the results of the updated certified traffic and how the Build Innovations affect traffic forecasts and patterns. For detailed methodology and analysis, please refer to the *Certified Traffic Report*[4]. Note that 2049 traffic forecasts are derived from the OKI 2050 travel demand model.

Interchange Modification Study Forecast Comparison

A traffic forecast comparison was conducted for the No-Build, Refined Alternative I (Concept I-W), and Build Innovations. Overall, the 2049 Refined Alternative I (Concept I-W) forecasts are similar to the Build Innovations forecasts, except at locations impacted by Build Innovations' access modifications. A list of the innovations and the impacts on the traffic forecasts are discussed below.

Kentucky Innovations

Innovation 1: Vertical profile optimization

This innovation closes 5th Street between Crescent Avenue and Philadelphia Street. The closure reroutes traffic to 3rd Street and Crescent Avenue.

Innovation 2: Pike Street Access Optimization

This innovation removes I-71/I-75 southbound (SB) access to 9th Street at the Bullock Street intersection. The northbound (NB) frontage road to NB CD road access has also been moved south from 9th Street to Pike Street. These changes result in local traffic shifts caused by access modifications.

[3] *Brent Spence Bridge Corridor Project Certified Traffic Report.* HNTB. May 2023.
[4] *Brent Spence Bridge Corridor Project Certified Traffic Report.* HNTB. September 2024.

Innovation 3: Hillside Cut Alignment Shift

This innovation has no impact on traffic forecasts.

Ohio Innovations

Innovation 1: Southbound Roadway Reconfiguration

I-71 SB is reconfigured, and the Western Avenue ramp has been removed to SB I-75. Alternative routes to this ramp include the new proposed 9th Street entrance ramp and the existing Freeman Avenue Interchange. This is a low-volume movement, resulting in minor traffic redistribution.

Innovation 2: Combination of 2nd and 3rd Street Connections

The SB I-75 2nd Street ramp is removed, and traffic is rerouted through upgraded at-grade 2nd and 3rd Street intersections. The additional delay at these intersections is anticipated to reroute some traffic to the upstream exit ramp at 7th Street.

Innovation 3: US-50 Roadway Consolidation

The ramp from westbound US-50 to Gest Street has been removed; the primary traffic reroute is through the existing Linn Street exit ramp.

Innovation 4: Realization of Street Grid Concept

This innovation includes new intersections along Gest Street and a new northbound road between 5th Street and 9th Street. The new connections result in several local routing changes that impact traffic demand on roads between 5th and 9th Street.

Table 1, Table 2, and **Table 3** show the screenline comparison of Brent Spence and Clay Wade Bailey bridges, as well as the difference in traffic volumes comparing the Build Innovations to the Refined Alternative I (Concept I-W). One notable difference between the No-Build and Build scenarios is the Clay Wade Bailey Bridge, which has a higher traffic demand in the No-Build due to the absence of the 4th Street entrance ramp. Traffic traveling between Covington and Cincinnati prefers the Clay Wade Bailey over using the turnaround at Pike Street.

Table 1. 2049 Average Annual Daily Traffic (AADT) Forecast Comparison (All Vehicles) – Ohio River Screenline

Route	Bridge	Direction	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
I-71/I-75	Brent Spence	NB I-71	86,900	57,550	58,050	500
		NB I-75				
		NB I-71/75 CD		38,750	38,000	50
		SB I-71	96,050	60,250	61,350	1,100
		SB I-75				
		SB I-71/75 CD		40,500	39,350	-1,150
US-25/US-42/US-127	Clay Wade Bailey	NB	17,900	10,700	11,450	750
		SB	8,650	7,600	7,950	350
Screenline	–	*NB*	*104,800*	*108,400*	*107,500*	*-900*
		SB	*104,700*	*108,150*	*108,650*	*500*
TOTAL	–	–	**209,500**	**215,350**	**216,150**	**800**

Table 2. 2049 AM Peak Hour (Design Hourly Volume) Traffic Forecast Comparison (All Vehicles) – Ohio Screenline

Route	Bridge	Direction	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
I-71/I-75	Brent Spence	NB I-71	8,000	5,120	5,180	60
		NB I-75				
		NB I-71/75 CD		3,840	3,760	-80
		SB I-71	6,460	4,230	4,290	60
		SB I-75				
		SB I-71/75 CD		2,530	2,440	-90
US-25/US-42/US-127	Clay Wade Bailey	NB	2,320	1,300	1,520	220
		SB	410	350	460	110
Screenline	–	*NB*	*10,320*	*10,260*	*10,460*	*200*
		SB	*6,870*	*7,110*	*7,190*	*80*
TOTAL	–	–	**17,190**	**17,370**	**17,650**	**280**

Table 3. 2049 PM Peak Hour (Design Hourly Volume) Traffic Forecast Comparison (All Vehicles) – Ohio Screenline

Route	Bridge	Direction	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
I-71/I-75	Brent Spence	NB I-71	6,630	4,530	4,530	0
		NB I-75				
		NB I-71/75 CD		2,910	2,890	-20
		SB I-71	8,450	4,710	4,770	60
		SB I-75				
		SB I-71/75 CD		4,130	4,040	-90
US-25/US-42/US-127	Clay Wade Bailey	NB	1,320	910	1,000	90
		SB	1,350	1,080	1,330	250
Screenline	–	*NB*	*7,950*	*8,350*	*8,420*	*70*
		SB	*9,800*	*9,920*	*10,140*	*220*
TOTAL	–	–	**17,750**	**18,270**	**18,560**	**290**

Daily volume comparisons for the mainline and ramp locations are in **Table 4** (SB I-71/75) and **Table 5** (NB I-71/75). The main traffic forecast differences between Refined Alternative I (Concept I-W) and the Build Innovations are bolded in the tables and summarized below. Changes directly attributable to the Build Innovations are noted where applicable.

- The following are the results of Ohio Innovation 2 (Combining 2nd and 3rd Street Connections)
  - SB Exit to 2nd Street: daily traffic decreases with the removal of the direct ramp access to 2nd Street.
  - SB Exit to 7th Street (Ohio): traffic increases with the removal of direct ramp access to 2nd Street.
  - SB Exit to 3rd Street/Clay Wade Bailey Bridge (Ohio): traffic increases with the removal of direct ramp access to 2nd Street.
- The following are the results of Ohio Innovation 4 (Realization of the Street Grid)
  - SB Entrance from 9th Street: traffic increases due to additional ramp access from west of the I-75.
  - NB Exit to 5th Street/Central: traffic increases for this movement due to the additional access points the ramp serves.

  - NB Exit at Winchell/Ezzard Charles: traffic increases due to access modification along 5th and 9th Street that enhances roadway connectivity to the exit ramp.
- The following is the result of Kentucky Innovation 1 (Vertical Profile Optimization)
  - SB Exit to 5th Street (Kentucky): traffic decreases due to removal of direct access to Crescent Avenue.
- NB Exit ramp at Western Hills: the Build Innovations OKI model was updated to restrict traffic from using this exit ramp and then turning right at the Western Hills Viaduct loop ramp to Harrison Street.

Table 4. 2049 AADT Forecast Comparison (All Vehicles) – SB I-71/I-75 Mainline and Ramps

Facility	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
SB North of Western Hills Viaduct	97,050	96,500	95,750	-750
SB Exit Ramp at Western Hills Viaduct	7,850	14,250	15,200	950
SB Entrance Ramp at Western Hills Viaduct	6,650	7,200	6,600	-600
SB Mainline between Western Hills and Gest	95,850	89,450	87,150	-2,300
SB Diverge to Gest	6,750	6,850	7,350	500
SB Entrance Ramp from Western Avenue	2,900	2,350	–	-2,350
SB Exit to 7th Street	**9,100**	**15,450**	**21,200**	**5,750**
SB Exit to 5th Street/Central Avenue	4,150	–	–	0
SB Exit to 2nd Street	**7,450**	**11,400**	–	**-11,400**
SB Exit to 3rd Street/Clay Wade Bailey Bridge	**--**	**1,700**	**6,850**	**5,150**
SB Entrance from 9th Street	**6,700**	**6,400**	**11,800**	**5,400**

Facility	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
SB Entrance from 6th Street	7,850	–	–	0
SB Entrance from 3rd Street	8,550	11,550	14,100	2,550
SB Exit to 5th St	8,800	7,850	5,500	-2,350
SB Exit to Frontage	--	6,400	6,350	-50
SB Mainline after Merge of BSB	96,050	86,500	88,850	2,350
SB Entrance from 12th St	8,100	12,250	11,650	-600
SB Mainline north of Kyle	96,300	98,750	100,500	1,750
SB Exit to Kyle Ln	7,900	8,550	8,400	-150
SB Entrance from Kyle Ln	5,500	5,150	4,900	-250
SB Exit to Dixie Hwy	6,400	5,450	5,200	-250
SB Entrance from Dixie Hwy	4,700	5,000	5,250	250
SB I-75 south of Dixie Hwy	92,200	94,900	97,050	2,150

Table 5. 2049 AADT Forecast Comparison (All Vehicles) – NB I-71/I-75 Mainline and Ramps

Facility	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
NB North of Western Hills Viaduct	99,500	98,850	97,150	-1,700
NB Entrance Ramp at Western Hills	17,650	16,600	15,150	-1,450
NB Exit ramp at Western Hills	8,750	11,050	8,300	-2,750
NB Mainline between Ezzard Charles and Western Hills Viaduct	90,600	93,300	90,300	-3,000
NB Entrance from Gest	7,750	16,250	17,150	900
NB Exit at Winchell/Ezzard Charles	**2,050**	**3,500**	**7,850**	**4,350**
The ramp from 3rd St/Bailey Bridge to I-75 NB	–	3,050	5,500	2,450
NB Entrance from 4th St 9 (3rd St Build Alts)	13,150	6,300	6,800	500
NB Exit to 6th Street	8,650	8,550	8,800	250
NB Exit to 5th St/Central	**4,000**	**5,650**	**10,950**	**5,300**
NB Exit to 2nd Street	5,400	5,600	5,400	-200
NB Entrance from 4th St (Kentucky)	–	6,600	6,900	300
NB Entrance from Pike St/9th St to I-75/71	12,350	10,750	9,300	-1,450
NB Exit to 12th St	6,900	7,050	6,050	-1,000
NB I-75 North of Kyle Ln	88,300	92,100	94,150	2,050
NB Entrance from Kyle	7,650	8,300	8,250	-50

Facility	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
NB Exit to Kyle	7,400	5,100	4,950	-150
NB Entrance from Dixie Hwy	8,700	7,800	7,150	-650
NB Exit to Dixie Hwy	5,650	4,500	4,100	-400
NB I-75 south of Dixie Hwy	85,050	85,600	87,800	2,200

A comparison of forecasts along screenline locations of I-71 and I-75 are summarized in **Table 6.** This table compares the volumes on the freeway mainline, CD, and frontage roads. The No-Build does not have CD roads in Kentucky, but it does have ramps running parallel to the freeway mainline in locations where CD roads are located in the build alternatives. Therefore, as noted in the table below, a few ramps are included as CD volumes for comparison.

Table 6. 2049 AADT Forecast I-71/I-75 Screenline Comparison (All Vehicles)

I-71/I-75 Screenlines	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
I-71/I-75 Between Dixie Hwy and Kyles Lane (Kentucky)	182,000	184,250	187,850	3,600
NB CD Road	–	12,450	11,650	-800
NB Mainline	88,100	76,450	79,200	2,750
SB Mainline	93,900	85,050	87,200	2,150
SB CD Road	–	10,300	9,800	-500
I-71/I-75 at 9th Street (Kentucky)	192,450	198,300	200,900	2,600
Simon Kenton Way (NB Frontage)	–	12,400	1,100	-11,300
NB CD Road	19,200[1]	27,500	39,350	11,850

I-71/I-75 Screenlines	No-Build	Refined Alternative I (Concept I-W)	Build Innovations	Build Innovations Difference
NB Mainline	74,550	57,550	58,050	500
SB Mainline	80,750	60,250	61,350	1,100
SB CD Road	7,450[2]	26,250	27,500	1,250
Bullock Street (SB Frontage)	10,500	14,350	13,550	-800
I-71 east of Elm Street (Ohio)	169,400	181,200	175,300	-5,900
3rd Street	18,100	22,650	25,200	2,550
SB Mainline	67,500	71,650	70,500	-1,150
NB Mainline	62,950	68,200	66,550	-1,650
2nd Street	20,850	18,700	13,050	-5,650
I-75 north of 9th Street (Ohio)	154,150	165,500	162,800	-2,700
NB CD Road	38,200[3]	44,300	49,850	5,550
NB Mainline	37,850	36,250	31,150	-5,100
SB Mainline	40,250	47,900	31,150	-16,750
SB CD Road	37,850[4]	37,050	48,650	11,600

[1] Includes braided ramps in place of CD Road
[2] Includes entrance ramp in place of CD Road
[3] Includes Exit Ramp to Winchell Avenue
[4] Includes 7th Street Exit Ramp

Sensitive Land Areas

The study area used for this analysis is consistent with the Environmental Justice Study Area shown on **Figure 1** and **Figure 2** in the ***Mobile Source Air Toxics*** section below. Environmental justice populations are located throughout the project study area. The majority of these neighborhoods are also classified as disadvantaged communities. For more information on identification and composition of environmental justice populations and disadvantaged communities, including maps depicting these neighborhoods and communities, refer to the *Environmental Justice Analysis Report*[5] and *Socioeconomic Technical Report*[6].

Most of the transportation network changes that could affect MSAT emission impacts occur within industrial or commercial areas. However, sensitive land areas within the study area that could be affected due to their proximity to traffic pattern and volume changes include:

- West End Neighborhood: residences, Laurel Playground, Laurel Recreation Area, Queensgate Playfield, Cincinnati College Preparatory Academy, Head Start Cincinnati, Willard Stargel Stadium, Hays-Porter School, and Lincoln Recreation Center
- Over-the-Rhine Neighborhood: residences and Washington Park

[5] *Brent Spence Bridge Corridor Project Environmental Justice Analysis.* KYTC and ODOT. January 2024.

[6] *Brent Spence Bridge Corridor Project Socioeconomic Technical Report.* KYTC and ODOT. January 2024.

Mobile Source Air Toxics

To assess potential changes in MSAT impacts, re-identification of the affected transportation network was required to capture the anticipated changes in MSAT emissions that could result from the project. The methodology for identifying the affected transportation network was conducted using the same method performed in the 2023 quantitative analysis.

FHWA recommends analyzing all segments associated with the project, plus those segments expecting meaningful changes in emissions due to the project (e.g., ± 10 percent or more). The affected network for this analysis includes all the links associated with the project. Segment links from the travel demand model that meet one or more of the following metrics were also considered:

- ± 5 percent or more change in annual average daily traffic (AADT) on congested highway links of level of service (LOS) D or worse;
- ± 10 percent or more change in AADT on uncongested highway links of LOS C or better; and/or
- ± 10 percent or more change in travel time.

Additional project-specific considerations included retaining only those segments with an AADT of at least 200 vehicles and excluding segments far removed from the project. For the latter, an influence area for the 2023 quantitative MSAT analysis considered the following:

- The project construction limits;
- The traffic operational study area for the Interchange Modification Study;
- The study area utilized for the project's environmental justice and socioeconomic analyses; and
- Corridors with logical connection to the project and contiguousness of the network.

FHWA's guidance also includes consideration of ±10 percent or more in intersection delay. Intersection delay is not readily extractable from the travel demand model that was used to identify the affected network. Therefore, the segment-based metrics from FHWA's illustrative criteria were used.

Based on the design changes in the Build Innovations, the prior affected network did not capture all the traffic associated with the Build Innovations. For this reason, an updated affected network was developed using the most current travel demand model that reflects the Build Innovations. **Figure 1** depicts the affected network analyzed for Refined Alternative I (Concept I-W) in the SEA, while **Figure 2** depicts the affected network for the Build Innovations. The links with decreased volumes and increased volumes reflect changes in the build scenarios as compared to the no-build scenario. Minor variations were identified in the affected network due to changes in the base links previously discussed, which shifts traffic to nearby roads because of changes in access. These are most visible where the street grid is re-established in Cincinnati, which shows increases in traffic volumes on local streets as a result of new connectivity and access.

Figure 1. Affected Network: Refined Alternative I (Concept I-W)

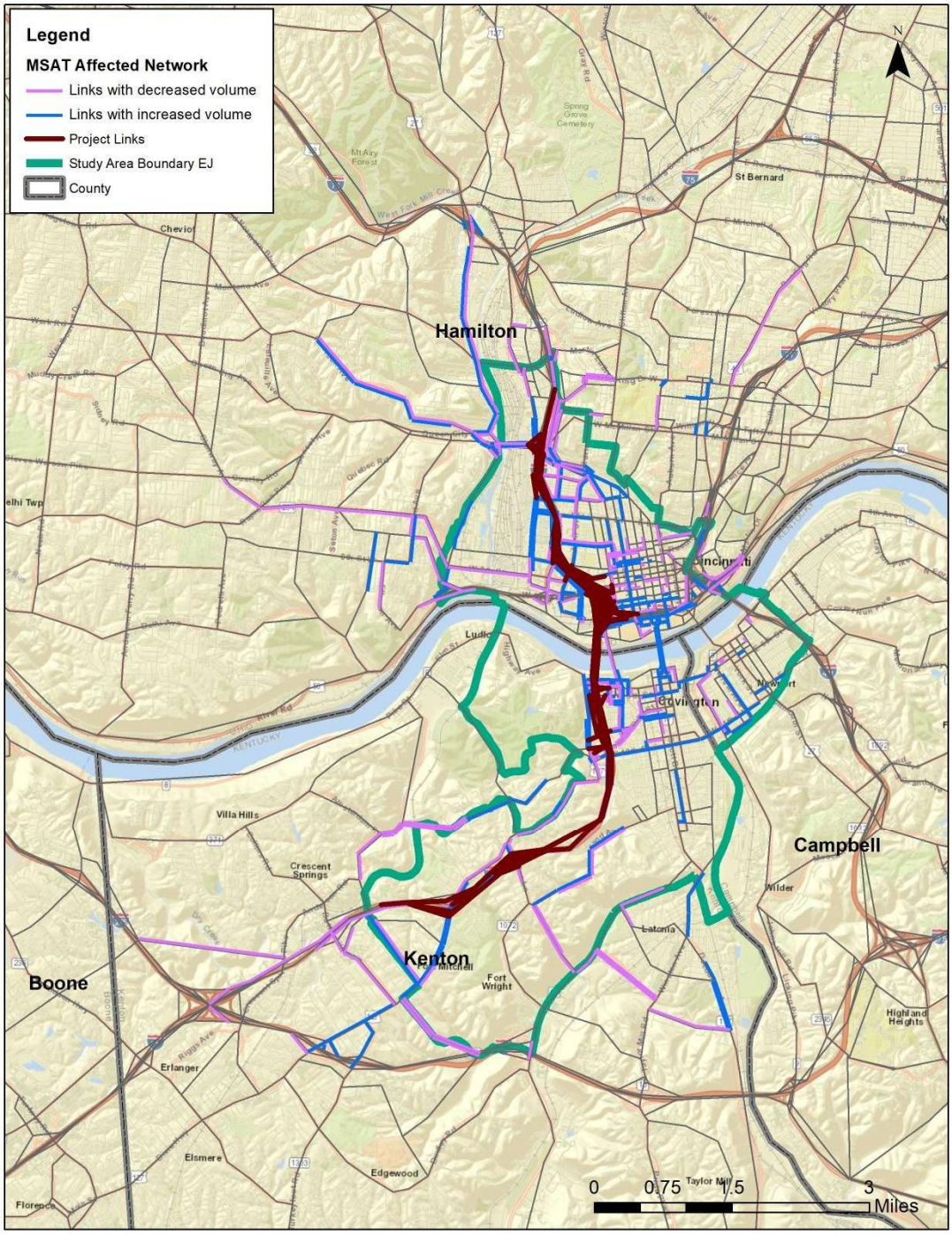
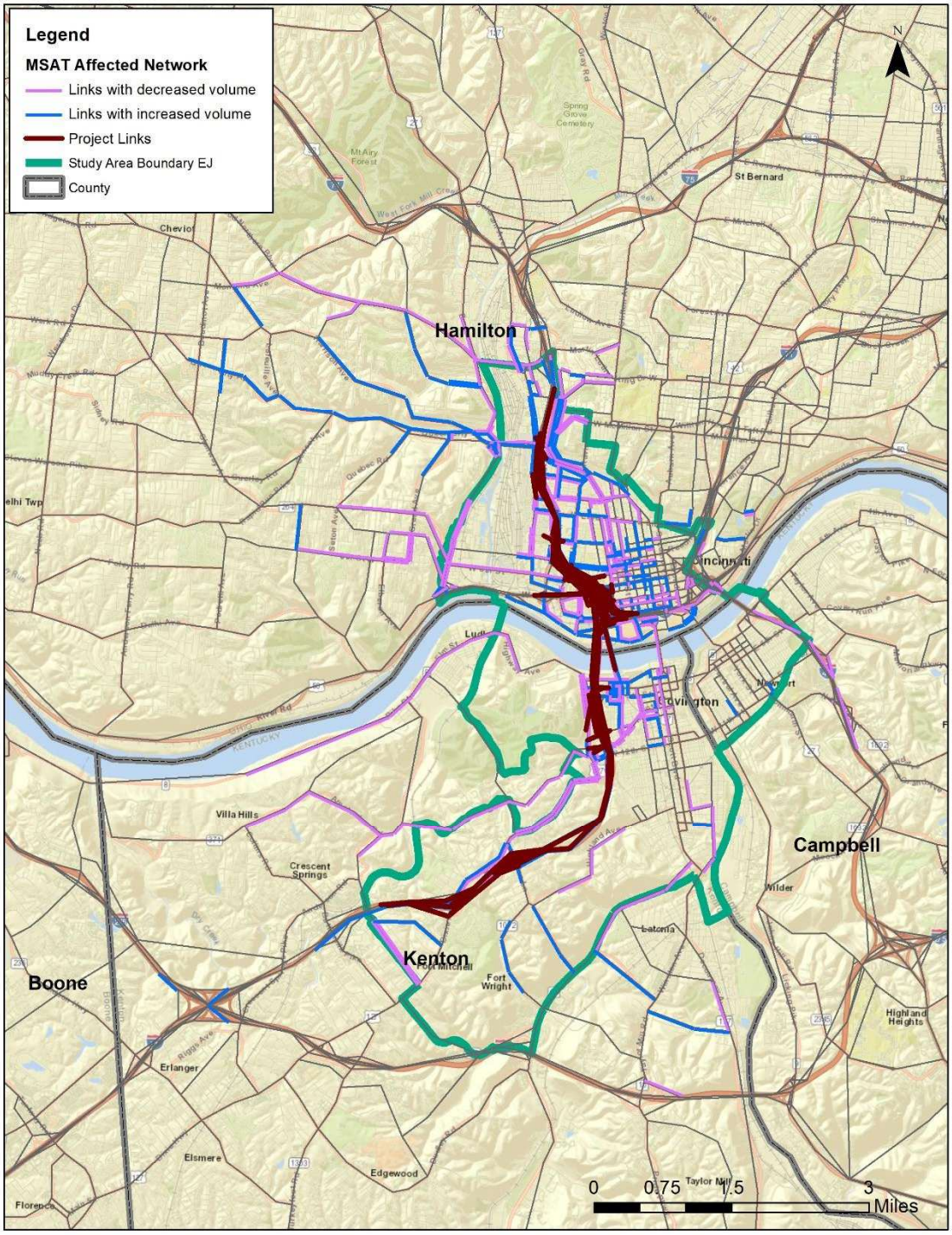


Figure 2. Affected Network: Build Innovations



MSAT Discussion

The total vehicle miles traveled (VMT) in an affected network is the primary driver of the analysis in the U.S. Environmental Protection Agency's (USEPA) MOtor Vehicle Emission Simulator (MOVES) model, which was used to quantify estimated MSAT emissions in the 2023 report. For this reason, a comparison of the total VMT for Refined Alternative I (Concept I-W) to the VMT for the Build Innovations was used as an indicator of potential changes to MSAT emission impacts since the 2024 FONSI/SEA. **Table 7** reflects the VMT for the 2050 No-Build Scenario and the Refined Alternative I (Concept I-W) scenario. As concluded in the SEA, the project would increase VMT over the No-Build scenario by 1.7%. As shown in **Table 8**, the Build Innovations also result in a 1.7% increase in VMT over the No-Build scenario. The comparison does reflect minor differences in VMT between the No-Build scenario in the original FONSI/SEA analysis and the current evaluation. However, these differences are attributed to the change in affected network and refinements in the travel demand model. This includes accounting for independent projects in the No-Build network, such as the closure of Elm Street. These differences are within an acceptable range of deviation.

Table 7. Refined Alternative I (Concept I-W) Affected Network[7]

Vehicle Miles of Travel (VMT)	2050 No-Build Scenario	2050 Build Scenario	Difference
Daily (million miles)	2.16	2.20	1.7%
Annual (million miles)	723.12	735.41	1.7%

[7] VMT values are based on 2049 traffic projections derived from OKI's 2050 travel demand model.

Table 8. Build Innovations Updated Affected Network[8]

Vehicle Miles of Travel (VMT)	2050 No-Build Scenario	2050 Build Scenario	Difference
Daily (million miles)	2.14	2.17	1.7%
Annual (million miles)	713.50	725.66	1.7%

Because the VMT increases from the No-Build scenario to the Build scenario are consistent between the Refined Alternative I (Concept I-W) and the Build Innovations, it is reasonable to conclude that the MSAT conclusions disclosed in the FONSI/SEA remain valid. Therefore, a new quantitative analysis is not warranted.

While the findings and conclusions of the 2023 MSAT analysis remain valid, the changes in access that modify traffic patterns and volume distribution previously described in the ***Traffic Information*** section may change how communities are affected by these emissions as compared to the original evaluation. The changes in traffic patterns and volumes are most apparent in Cincinnati where the Build Innovations, particularly Innovation 2 and Innovation 4, modify connections and result in redistribution of traffic. **Figure 3** depicts the configuration of the interstate, CD, and local streets between W 2nd and W 9th streets as analyzed in the quantitative 2023 MSAT analysis report. **Figure 4** shows the Ohio Build Innovations and reflects how local street connectivity is enhanced. The resulting traffic pattern and volume changes occur primarily within the Central Business District-Riverfront and Queensgate neighborhoods in areas with no sensitive land areas, and the West End and Over-the-Rhine neighborhoods, which have residences, parks, and other sensitive land uses. It is reasonable to conclude that these changes may alter exposure to MSAT emissions in sensitive land areas—both resulting in localized increases and localized decreases.

[8] VMT values are based on 2049 traffic projections derived from OKI's 2050 travel demand model.

Figure 3. Refined Alternative I (Concept I-W) Configuration

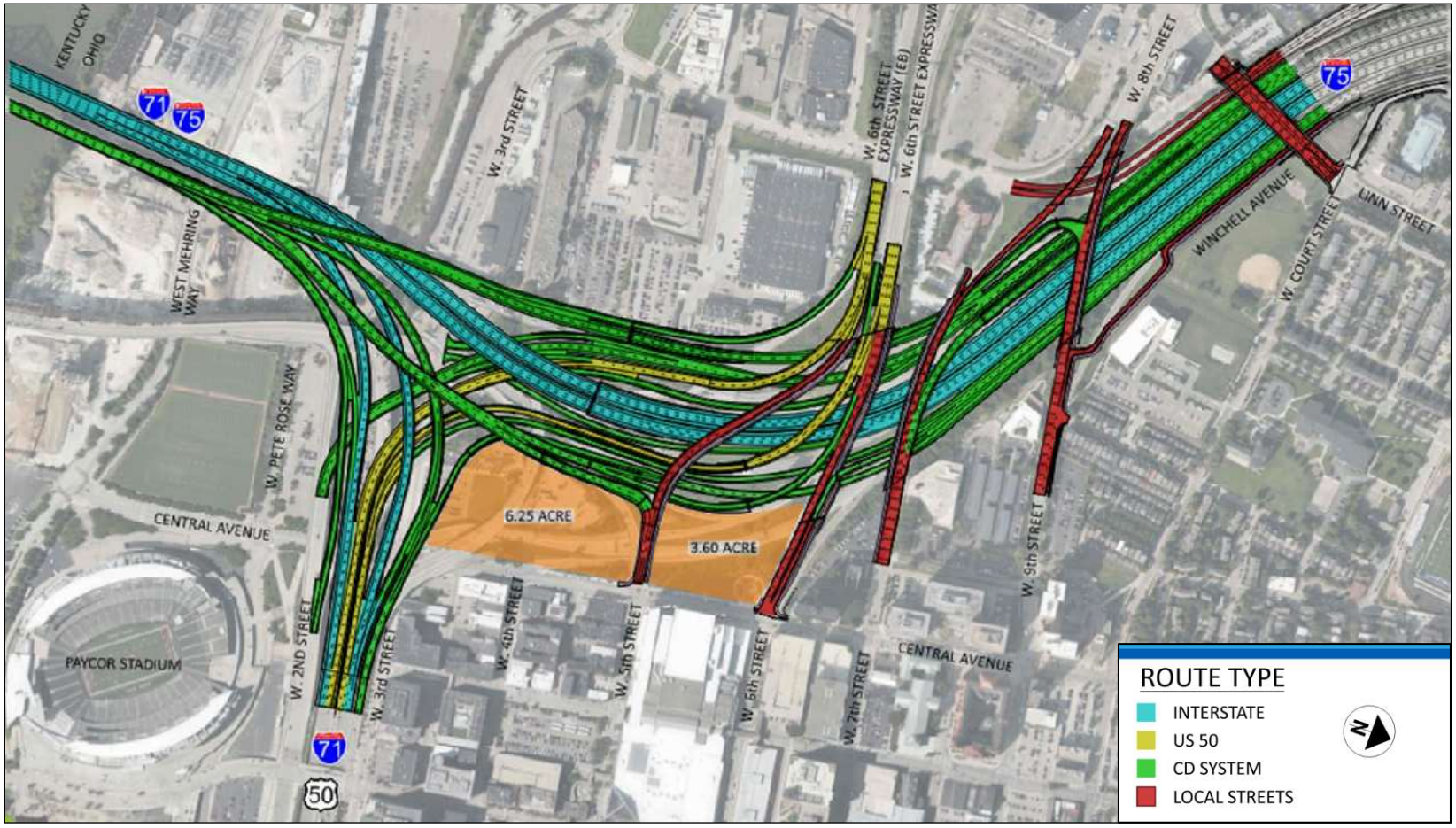
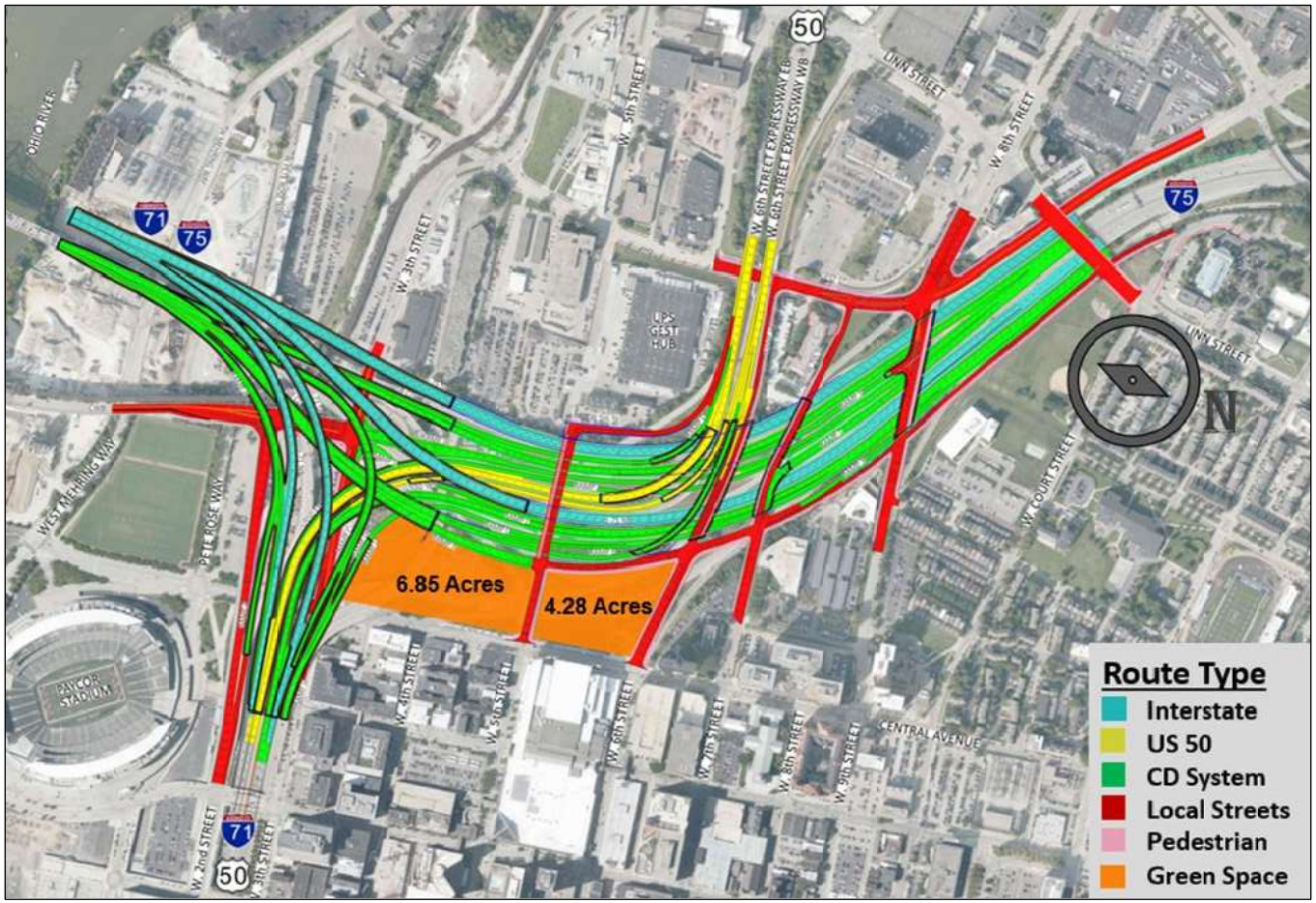


Figure 4. Build Innovations (Ohio)



Conclusion

Based on the assessment of the VMT change between Refined Alternative I (Concept I-W) and the Build Innovations, the assessment of MSAT pollutant impacts remains consistent with the findings of the 2023 quantitative assessment which concluded that the project is not anticipated to have an appreciable impact on MSAT emissions.

The 2023 report concluded that emissions of all MSAT pollutants are projected to be substantially lower for the design year No-Build and Build scenarios. When compared to the design year No-Build scenario, emissions of all MSAT pollutants were projected to decrease across the affected network for the 2050 Build scenario except for polycyclic organic matter (POM). POM showed a significant reduction of over 80 percent when compared to the 2020 existing scenario and is only anticipated to increase by 0.5 percent when the 2050 Build scenario is compared to the 2050 No-Build scenario. Therefore, the minimal increase in POM for the 2050 Build scenario is not considered to be significant. USEPA's vehicle and fuel regulations are expected to result in substantially lower MSAT levels in the future than exist currently due to cleaner engine standards coupled with fleet turnover. The magnitude of the USEPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the BSB Corridor Project area will be substantially lower in the future than they are today. The decrease in emissions in the 2050 Build scenario from the 2050 No-Build scenario can be a result from the improved traffic flow and higher average speeds with the project in Build scenario.

Similar to Refined Alternative I (Concept I-W), while traffic patterns may change in response to the Build Innovations, the innovations will generally improve traffic flow and reduce traffic congestion and vehicle idling in the area transportation network, which is expected to reduce vehicle emissions and improve local air quality for EJ and disadvantaged communities. Consistent with previous conclusions for Refined Alternative I (Concept I-W), while the Build Innovations may result in slightly greater levels of PM2.5 in Kenton County due to an increase in VMT compared to the no-build scenario, this would not be predominately borne by EJ populations, nor would it be appreciably more severe or greater in magnitude than the level of PM 2.5 emissions for the non-EJ population. Therefore, the Build Innovations are not anticipated to result in an adverse effect on air quality in EJ communities. The Build Innovations are also not anticipated to further degrade, and may improve, overall air quality for disadvantaged communities.

As noted in the 2023 *Quantitative MSAT Analysis Report*, this analysis represents the expected MSAT emissions for the entire corridor and does not represent emissions for any one point along the corridor. While MSAT emissions for the 2050 Build scenario are expected to decrease when compared to the 2020 Existing and 2050 No-Build scenarios, it is possible that some localized areas may experience an increase in emissions and ambient levels of these pollutants due to locally increased traffic levels associated with the project. In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed highway project. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action. .

USEPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. USEPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects."[9] Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). A number of HEI studies are summarized in Appendix D of FHWA's Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are: cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI Special Report 16) or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

[9] USEPA, https://www.epa.gov/iris

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (Special Report 16). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The USEPA states that with respect to diesel engine exhaust, "[t]he absence of adequate data to develop a sufficiently confident dose-response relationship from the epidemiologic studies has prevented the estimation of inhalation carcinogenic risk."[10]).

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by USEPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires USEPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld USEPA's approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable

[10] USEPA IRS database, Diesel Engine Exhaust, Section II.C. https://iris.epa/gov/static/pdfs/0642_summary.pdf

to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable[11]).

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

[11] USEPA, https://www.epa.gov/iris

Appendix I: Traffic Noise Impact Analysis – Kentucky Northern Section



Re-evaluation of Traffic Noise Impacts

Brent Spence Bridge Corridor Project

Kentucky – Northern Section

KYTC Item No. 6-17.00; ODOT PID 116649

June 4, 2025

TEAM KENTUCKY
TRANSPORTATION CABINET

BRENT SPENCE BRIDGE CORRIDOR

odot

Executive Summary

This report has been prepared to support the re-evaluation of the 2024 Supplemental Environmental Assessment and Finding of No Significant Impact (2024 SEA/FONSI) for the Brent Spence Bridge (BSB) Corridor Project (KYTC Item No. 6-17.00 and ODOT PID 116649). Highway traffic noise and construction noise were evaluated in 2023 for the 2024 SEA/FONSI in accordance with the requirements of 23 CFR 772 and the Kentucky Transportation Cabinet's *Noise Analysis and Abatement Policy, July 2022* (KYTC Noise Policy). The work conducted at the time included field measurements, model validation, land use and activity category identification, impact analysis and preliminary abatement determinations. As part of the current re-evaluation process, the Kentucky Transportation Cabinet (KYTC) and Ohio Department of Transportation (ODOT) are updating supporting studies to consider changes that have evolved since issuance of the 2024 SEA/FONSI in May 2024.

This report builds on previous noise analyses conducted for the project including *Traffic Noise Assessment Brent Spence Bridge Corridor Project Kentucky Northern Section, July 2023* (2023 Noise Study) in support of the 2024 SEA/FONSI for the Northern Section of the project in Kentucky between mile point (MP) 189.5 to the Ohio/Kentucky Border.

Since the issuance of the 2024 SEA/FONSI, Certified Traffic was updated for the project in 2024 and has been used in this re-analysis. In addition, the BSB Corridor Project Design-Build Team (DBT) has identified and explored various innovations, some of which alter the horizontal and vertical alignments within the limits this report covers. The modified alternative is identified as Re-eval 1 Design. The innovations recommended for Kentucky, can be grouped into a total of three innovations. Two of which affect the Kentucky Northern Section and are described below. Refer to the re-evaluation document for further details and visuals of all innovations and design developments.

Innovation 1: Vertical Profile Optimization

Kentucky Innovation 1 optimizes the vertical profile of I-71/I-75. First, the southbound collector-distributor road is reconfigured to move the chicane further south and braid the collector-distributor road over the mainline lanes. The innovation also adjusts West 5th Street to better integrate traffic into Covington by closing West 5th Street between Crescent Avenue and Simon Kenton Way and redistributing traffic to West 3rd Street. The Crescent/West 3rd Street will be reconfigured into a gateway intersection. These refinements allow the mainline profile to be lowered by up to 20 feet and shift the horizontal alignment by up to 36 feet as compared to Refined Alternative I (Concept I-W).

Innovation 2: Pike Street Access Optimization

Kentucky Innovation 2 maintains the frontage road concept between MLK Jr. Boulevard and West 4th and West 5th Streets. In doing so, it eliminates direct interstate access from I-71/I-75 southbound to West 9th Street. The northbound frontage road to the northbound collector-distributor road access has also been moved south from West 9th Street to Pike Street.

The proposed modified geometry for Innovation 1 and Innovation 2 has been incorporated into the updated analysis presented in this report.

The Re-evaluation of Traffic Noise Impacts for the Kentucky Northern Section utilizes Noise Sensitive Areas (NSA A through NSA F) to disseminate noise analysis values and noise barrier effects throughout the Kentucky Northern Section study area. The Re-evaluation of Traffic Noise Impacts for the Kentucky Southern Section utilizes the same methodology as the Kentucky Northern section study. However, the terminology used for the areas of study in the southern section are described based on analyzed barrier locations. This results in different terminology for the two reports, however as noted, the study methods are the same.

The AECOM Acoustics and Noise Control Practice (AECOM) was engaged by the KYTC to reevaluate specific noise abatement options for the Brent Spence Bridge Corridor Project – Northern Section. The project team requested specific modifications for four identified Noise Sensitive Areas, NSA B, NSA C (C1 andC2), NSA E and NSA F in an effort to consider more efficient noise abatement designs. This Re-evaluation of Traffic Noise Impacts reports those findings.

Within the limits of study (from south of MLK Boulevard, north to the Ohio River) the Re-eval 1 Design alternative modifies Alternative I-W that was evaluated for the 2024 SEA/FONSI by reconfiguring the horizontal layout of mainline and ramps, revising the access points serving the freeway, and adjusting the vertical grade of the freeway system by lowering the profiles by approximately 20 feet in height between 9th Street to 4th Street. The revisions impact the noise barrier analysis and results from the 2023 noise study. As such NSA A through F have been reevaluated to consider whether changes in location or geometry of the barriers are appropriate as a result of the modified alignment. NSA D is discussed in the *Re-evaluation of Traffic Noise Impacts, Southern Section* report. Because of the innovations and Re-evaluation process, the resultant noise impacts and recommendations for noise walls NSA B and NSA C have been revised. Table ES-1 presents a summary of the barriers that remain under consideration for the Kentucky Northern Section of the project and provides updated data.

Table ES-1. Summary of Noise Abatement Findings

Barrier #	Location	Percentage of Front Row Benefited Receptors which Receive 7 dB(A) or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5 dB(A) or Greater Noise Reduction (%)	Barrier Description					Number of Benefited Properties	Estimated Cost Per Benefiting Receptor (CBR) ($)	Noise Barrier Effectiveness			KYTC Noise Abatement Criteria Satisfied (Yes/No)
				Length (feet)	Beginning Point and Highway Direction	Ending Point and Highway Direction	Noise Barrier Height (ft)	Estimated Cost ($)			Design Goal Achieved	Acoustic Feasibility Achieved (Yes/No)	Cost Effective Achieved (Yes/No)	
Barriers Changed by Innovation #1 & #2 Traffic Updates or other Design Revisions (May 2025)														
NSA A	East Side of I-71/75 5th Street to the Ohio River	0	24	3258	5th Street	Ohio River	12-15	$1,550,464	80	$19,381	No	Yes	Yes	No
NSA B	East Side of I-71/75 MLK to 5th Street Buttermilk Pike	64	69	5201	SB Exit to MLK	5th Street	15	$2,495,744	108	$23, 109	Yes	Yes	Yes	Yes
NSA C1	East Side of I-71/75 Linden Ave to MLK	10	26	2734	Linden Ave	13th Street	19	$1,536,512	10	$74,803	No	Yes	No	No
NSA C2	East Side of I-71/75 Edgecliff Road to Linden Ave	0	5	1531	Edgecliff Rd	Linden Ave	24	$1,175,808	4	$293,952	No	Yes	No	No
NSA B + C1	East Side of I-71/75 Hospital to 5th Street	56	60	7935	Hospital	5th Street	16	$4,032,256	118	$34,172	Yes	Yes	Yes	Yes
NSA E	SB on West Side of I71/75 from Ohio River to MP 190.95	0	0	1,400	MP 190.95	5th Street	13	$596,496	0	NA	No	No	No	No
NSA F	SB on West Side of I71/75 from Dixie Hwy to MP 190.95	50	26	4559	Dixie Hwy	MP 190.95	16	$2,326,016	73	$31,863	Yes	Yes	Yes	Yes
Barriers Recommended 2024 SEA/FONSI														
NSA A	East Side of I-71/75 5th Street to the Ohio River	0	0	6,402	5th Street	Ohio River	15	2,904,401	0	NA – No Benefitted Receptors	No	No	No	No
NSA B	East Side of I-71/75 MLK to 5th Street Buttermilk Pike	0	56	12,750	SB Exit to MLK	5th Street	19	$7,459,536	170	$43,880	No	Yes	No	No
NSA C1	East Side of I-71/75 Linden Ave to MLK	100	50	2,486	NB I-75 off ramp	C/D Road	20	$1,433,760	24	$59,740	Yes	Yes	No	No

NSA C2	East Side of I-71/75 Edgecliff Road to Linden Ave	51	40	2,622	Edgecliff	Linden Ave	24	1,957,811	61	$32,095	Yes	Yes	Yes	Yes
NSA C1 + C2	East Side of I-71/75 Hospital to 5th Street	53	97	4,794	Edgecliff	C/D Road	20	$3,178,403	87	$36,533	Yes	Yes	Yes	Yes
NSA E	SB on West Side of I71/75 from Ohio River to MP 190.95	0	5	8,042	MP 190.95	5th Street	15	$3,648,587	5	$729,771	No	Yes	No	No
NSA F	SB on West Side of I71/75 from Dixie Hwy to MP 190.95	70	138	10,326	Dixie Hwy	MP 190.95	18	$5,547,707	196	$28,304	Yes	Yes	Yes	Yes
		Total Cost and Number of Benefited Properties for Recommended Noise Barriers =						$13,892,125* ($26,130,205)	393 (453)					

* Comparable results from Alternative I-W analyzed in the 2024 SEA/FONSI presented in parentheses where different from the Re-eval 1 Design

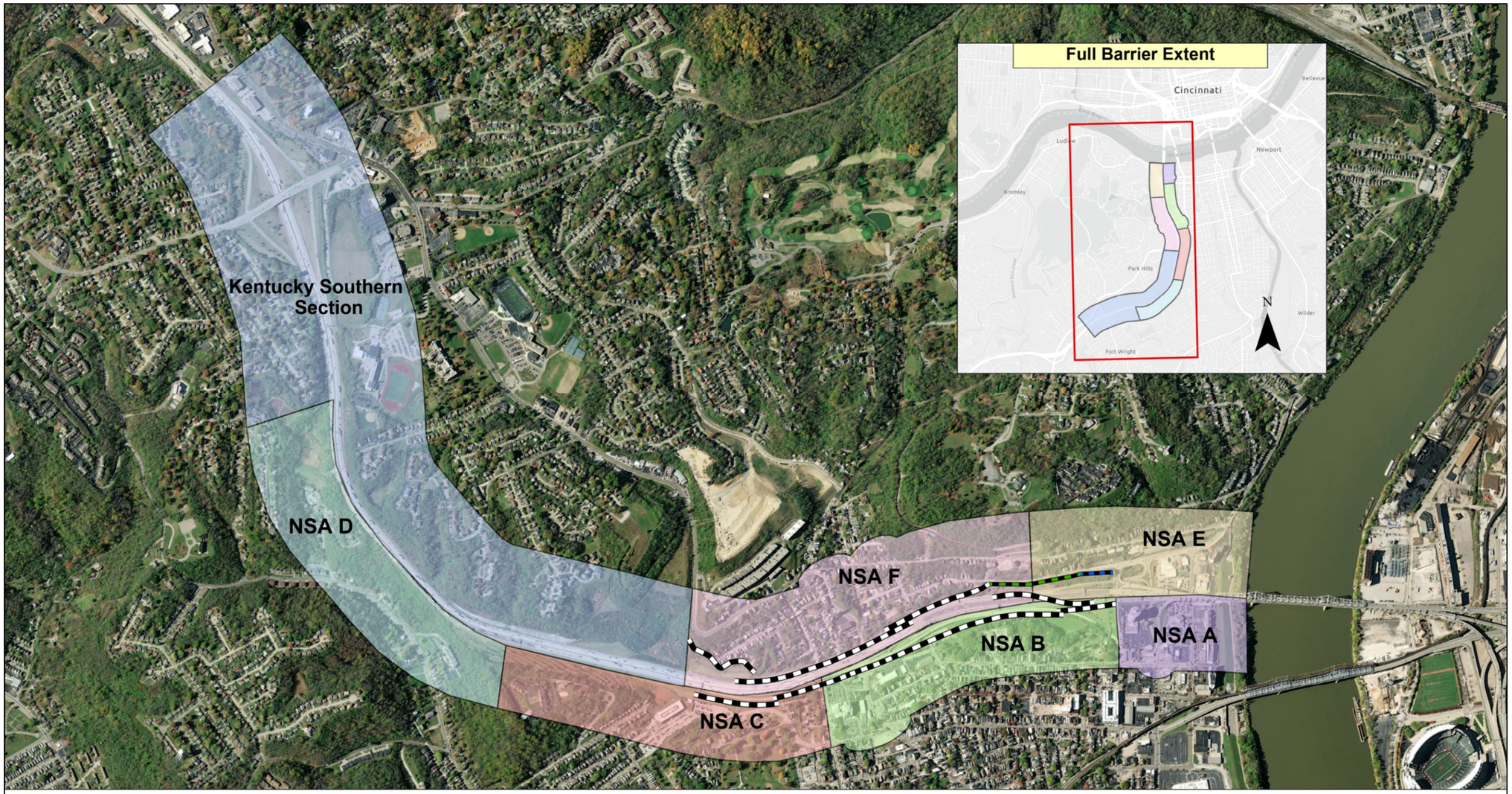


Figure 2.1 NSA Overview

Table ES-2 presents predicted design year sound levels for areas along I-75 for both the SEA/FONSI and the Re-eval 1, where vacant and possibly developable lands exist. Noise predictions were made at distances from 50 feet to 800 feet from the proposed edge of pavement for the 2049 Build condition using 2024 Certified Traffic. As indicated, sound levels of I-75 are predicted to exceed the NAC of 67 dB(A) for land use Categories B and C within 500 feet of edge of pavement (EOP). Sound levels are predicted to exceed the NAC of 72 dB(A) for land use Category E up to 200 feet from EOP. As noted in the table, and likely due to design Innovations, the predicted noise levels for Re-eval 1 are generally lower than what was documented in the SEA/FONSI.

Table ES-2: Design Year 2049 Sound Level for Undeveloped Lands

Distance from I-75 (1)	2023 Alternative I-W dB(A) Leq (2)	2025 Innovations dB (A) Leq (2)	Comparison Difference in dB(A)
50 Feet	77.6	73.3	-4.3
100 Feet	75.9	72.0	-3.9
200 Feet	73.4	71.5	-1.9
300 Feet	71.4	69.6	-1.8
400 Feet	69.7	68.7	-1.0
500 Feet	68.3	68.2	-0.1
600 Feet	67.0	65.9	-1.1
700 Feet	65.8	64.7	-1.1
800 Feet	64.7	64.3	-0.4

The report also documents the results of outreach conducted with benefited receptors in April-May 2025, in conformance with the KYTC Noise Policy, to determine whether those who would benefit from proposed noise barriers throughout the Kentucky Northern Section are in favor of their construction.

Since completion of the 2023 Noise Study, in accordance with the KYTC Noise Policy, 348 letters were sent to all owners and residents of properties that are considered benefited (>5 dB reduction) by the currently proposed noise barriers in the Kentucky Northern Section of the project. The letter explained that their opinions were being sought regarding whether they were in favor of the barriers being constructed and, if constructed, their preference for aesthetic finish (smooth or ashlar cut stone [or Transparent Barrier within the adjacent historic district]) of the finished product. An on-line meeting was held with interested owners and residents on April 24, 2025, and an in-person Open House was held on April 29, 2025, at the KYTC District 6 Office in Covington.

Voting was conducted for a period of 30 days resulting in 12 votes being cast. The public response is shown in the table below. Documentation of the meetings conducted and voting results are provided in Appendix A.

Table ES -3 Summary of Noise Ballot Results

Group	Ballots Received	Wall Preference Weighted Result (# votes)		Finish Preference		
		Yes	No	Smooth	Stone	Transparent
Group NSA B	5	18 (5)	-	-	2	3
Group NSA C	-	-	-	-	-	-
Group NSA E	1	2 (1)	-	-	-	1
Group NSA F	6	19 (6)	-	1	1	4

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 STUDY CORRIDOR 1
3.0 NEED FOR RE-EVALUATION 2
3.1 Design Innovations 2
3.2 Certified Traffic 3
3.3 Outreach 3
4.0 NOISE ANALYSIS OVERVIEW 3
4.1 Noise Reanalysis Process 4
4.2 Requirements for Noise Abatement Approval 5
4.3 Noise Abatement Re-evaluation 5
4.4 Cost Averaging Between Adjacent NSAs 16
5.0 CONCLUSIONS AND RECOMMENDATIONS 19
6.0 NOISE INFORMATION MEETINGS 19
7.0 CONSTRUCTION NOISE 20
8.0 SUMMARY OF PROPOSED NOISE ABATEMENT MEASURES FOR KENTUCKY NORTHERN SECTION 20

TABLES

Table ES-1. Summary of Noise Abatement Findings iii
Table ES-2: Design Year 2049 Sound Level for Undeveloped Lands vi
Table ES -3 Summary of Noise Ballot Results vi
Table NSA.A.1 Noise Abatement Description 6
Table NSA.A.2 Noise Abatement Re-evaluation Summary 6
Table NSA B.1 Noise Abatement Description 8
Table NSA B.2 Noise Abatement Re-evaluation Summary 8
Table NSA C1.1 Noise Abatement Description 10
Table NSA C1.2 Noise Abatement Re-evaluation Summary 10
Table NSA C2.1 Noise Abatement Description 11
Table NSA C2.2 Noise Abatement Re-evaluation Summary 11
Table NSA E.1 Noise Abatement Description 13
Table NSA E.2 Noise Abatement Re-evaluation Summary 13
Table NSA F.1 Noise Abatement Description 15

Table NSA F.2 Noise Abatement Re-evaluation Summary 15
Table NSA B+C1+C2 Combined Noise Abatement Description 16
Table NSA B+C1+C2 Noise Abatement Cost Averaging Summary 17
Table 3.2.1-A. NSA B+C1 Combined Noise Abatement Description 17
Table 3.2.1-B. NSA B+C1 Noise Abatement Cost Averaging Summary 17
Table 3.2.2-A. NSA E+F Combined Noise Abatement Description 18
Table 3.2.2-B. NSA E+F Barrier Cost Averaging Summary 18
Table 4 - Noise Abatement Recommendation Summary (NSAs or NSA combinations) 19
Summary of Noise Ballot Results 19

FIGURES

Figure 2.1 NSA Overview 4
Figure 2.2 NSA A 7
Figure 2.3 NSA B 9
Figure 2.4 NSA C 12
Figure 2.5 NSA E 14
Figure 2.6 NSA F 16

APPENDICES

APPENDIX A Noise Informational Meeting and Outreach Summary
APPENDIX B TNM Sound Level Results
APPENDIX C TNM Files

1.0 INTRODUCTION

The analysis of the highway-generated noise impact in the Kentucky Northern Section (MP 189.5 and 191.5) of the Brent Spence Bridge Corridor Project (KYTC Item No. 6-17.00 and ODOT PID 116649) has been prepared in accordance with FHWA's 23 Code of Federal Regulations (CFR) Part 772 Procedures for Abatement of Traffic Noise and Construction Noise, and the Kentucky Transportation Cabinet's *Noise Analysis and Abatement Policy*, July 1, 2022 (KYTC Noise Policy). Highway traffic noise and construction noise were evaluated in 2023 (*Traffic Noise Assessment Brent Spence Bridge Corridor Project, Kentucky Northern Section, August 2023*) (2023 Noise Analysis), for consideration when developing the 2024 Finding of No Significant Impact and Supplemental Environmental Assessment (2024 SEA/FONSI). The work conducted at the time included field measurements, model validation, land use and activity category identification, impact analysis and preliminary abatement determinations. KYTC also provided information to local officials regarding noise levels on undeveloped lands. As part of the current re-evaluation process, the KYTC and ODOT are updating supporting studies to consider changes that have evolved since issuance of the 2024 SEA/FONSI in May 2024. The current study builds on the 2023 Noise Analysis developed for the Northern Section of the project in Kentucky in support of the 2024 SEA/FONSI.

In addition to addressing design changes, and in accordance with the KYTC Noise Policy, owners and residents of properties that would benefit from the construction of noise barriers have been contacted to determine whether they are in favor of the construction of the proposed barriers and any preference regarding the aesthetic finish. Outreach was conducted in April-May 2025 to solicit public input, which included establishing a Noise Informational Meeting web page, a mailing, and an on-line meeting and in-person meeting with interested parties. Voting was conducted and tabulated for each barrier. A detailed account of the public involvement is provided in Section 6.0 and Appendix A.

2.0 STUDY CORRIDOR

The overall project corridor is located along a 7.8-mile segment of I-71/I-75 within the Commonwealth of Kentucky (state line mile 186.7) and the State of Ohio (state line mile 2.7). The southern limit of the project is 5,000 feet south of the midpoint of the Dixie Highway Interchange on I-71/I-75 in Fort Wright, south of Covington, Kentucky. The northern limit of the project is 1,500 feet north of the midpoint of the Western Hills Viaduct Interchange on I-75 in Cincinnati, Ohio. The eastern and western limits of the study area generally follow the existing alignment of I-75.

The BSB opened in 1963 and was originally designed to carry 80,000 vehicles per day (VPD). Current traffic volumes on the BSB are 160,000 VPD. The BSB project will improve the operational characteristics within the BSB corridor for both local and through traffic by improving traffic flow and level of service, improving safety, correcting geometric deficiencies, and maintaining connections to key regional and national transportation corridors.

The KYTC and the ODOT developed a range of alternatives for improving the I-71/I-75 corridor in Kentucky and Ohio through a series of preliminary engineering and planning studies coupled with extensive public and stakeholder involvement. These activities were documented in the project's Environmental Assessment (March 2012). On August 9, 2012, the Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI) identifying Alternative I as the preferred alternative for the BSB project.

Following approval of the FONSI, KYTC and ODOT completed additional studies to update the preferred alternative to reflect current design standards, traffic counts, and traffic operations. These efforts resulted in refinements to Preferred Alternative I, which have been designated as Concept I-W, a value engineering refinement to Alternative I. Noise impacts associated with this alternative in the Kentucky Northern Section were documented in the 2023 Noise Study and considered in issuance of the 2024 SEA/FONSI.

Since the issuance of the 2024 SEA/FONSI, the BSB Corridor Design-Build Team (DBT) has identified and explored additional potential innovations for the project that include modifications to horizontal and vertical alignments among other changes. These are encompassed within the Re-eval 1 Design, which is the subject of the on-going Re-evaluation of the project.

For the purpose of analyzing noise impacts, the Kentucky portion of the project was split into two sections, North and South. To avoid overlap in the analyses, the southern section only includes assessment of areas west of the corridor between Kyle's Lane and 12th Street near MP 189.2 while the Northern Section includes analysis of the areas east of the corridor. This is consistent with the area of analysis used for the 2023 Noise Report. A depiction of the project study area is provided in Exhibit 1. The results of the updated analysis of traffic noise and abatement measures in the Northern Section are presented in this report.

3.0 NEED FOR RE-EVALUATION

This section describes the changes that are proposed in the Kentucky Northern Section of the project that are being considered in the Re-evaluation of the project.

3.1 Design Innovations

Since the issuance of the 2024 SEA/FONSI, the BSB Corridor Design-Build Team (DBT) identified and incorporated design innovations into the project which affects the noise analysis for the Kentucky Northern Section. Within the Northern Section the horizontal and vertical alignments of the I-71/75 have been revised.

Kentucky Innovation 1 optimizes the vertical profile of I-71/I-75. First, the southbound collector-distributor road is reconfigured to move the chicane further south and braid the collector-distributor road over the mainline lanes. The innovation also adjusts West 5th Street to better integrate traffic into Covington by closing West 5th Street between Crescent Avenue and Simon Kenton Way and redistributing traffic to West 3rd Street. The Crescent/West 3rd Street will be reconfigured into a gateway intersection. These refinements allow the mainline profile to be lowered by up to 20 feet and shift the horizontal alignment by up to 36 feet as compared to Refined Alternative I (Concept I-W). The Brent Spence companion bridge generally maintains the same proposed alignment; however, the access needed for construction of the companion bridge has changed since completion of the 2024 SEA/FONSI, and this design development has been evaluated for effects to the noise analysis.

Kentucky Innovation 2 maintains the frontage road concept between MLK Jr. Boulevard and West 4th and West 5th Streets. In doing so, it eliminates direct interstate access from I-71/I-75 southbound to West 9th Street. The northbound frontage road to the northbound collector-distributor road access has also been moved south from West 9th Street to Pike Street.

The proposed modified geometry for Innovation 1 and Innovation 2 has been incorporated into the updated analysis presented in this report.

The Re-evaluation of Traffic Noise Impacts for the Kentucky Northern Section utilizes Noise Sensitive Areas (NSA A through NSA F) to disseminate noise analysis values and noise barrier effects throughout the Kentucky Northern Section study area.

3.2 Certified Traffic

Certified traffic for the project was updated September 19, 2024 after the issuance of the 2024 SEA/FONSI. The 2024 Certified Traffic Report predicts an increase in traffic for the 2049 design year ranging from a 2% - 3% along the Northern Section corridor. Traffic in NSA A, NSA B, NSA E, and NSA F is predicted to increase by 2%, whereas the predicted traffic increase for NSA C is 3%.

3.3 Outreach

In accordance with the KYTC Noise Policy, letters were sent to all owners and residents of properties that are considered benefited (>5 dB reduction) by the currently proposed noise barriers in the Kentucky Northern Section based on the Re-eval 1 Design and reanalysis with updated noise modeling. The letter explained that their opinions were being sought regarding whether they were in favor of the barriers being constructed and, if constructed, their preference for aesthetic finish (smooth or ashlar cut stone) of the finished product. In the historic district between MLK Blvd and 5th Street a transparent option was also offered. An on-line meeting was held with interested owners and residents on April 24, 2025, and an in-person Open House was held on April 29, 2025, at the KYTC District 6 Office in Covington.

4.0 NOISE ANALYSIS OVERVIEW

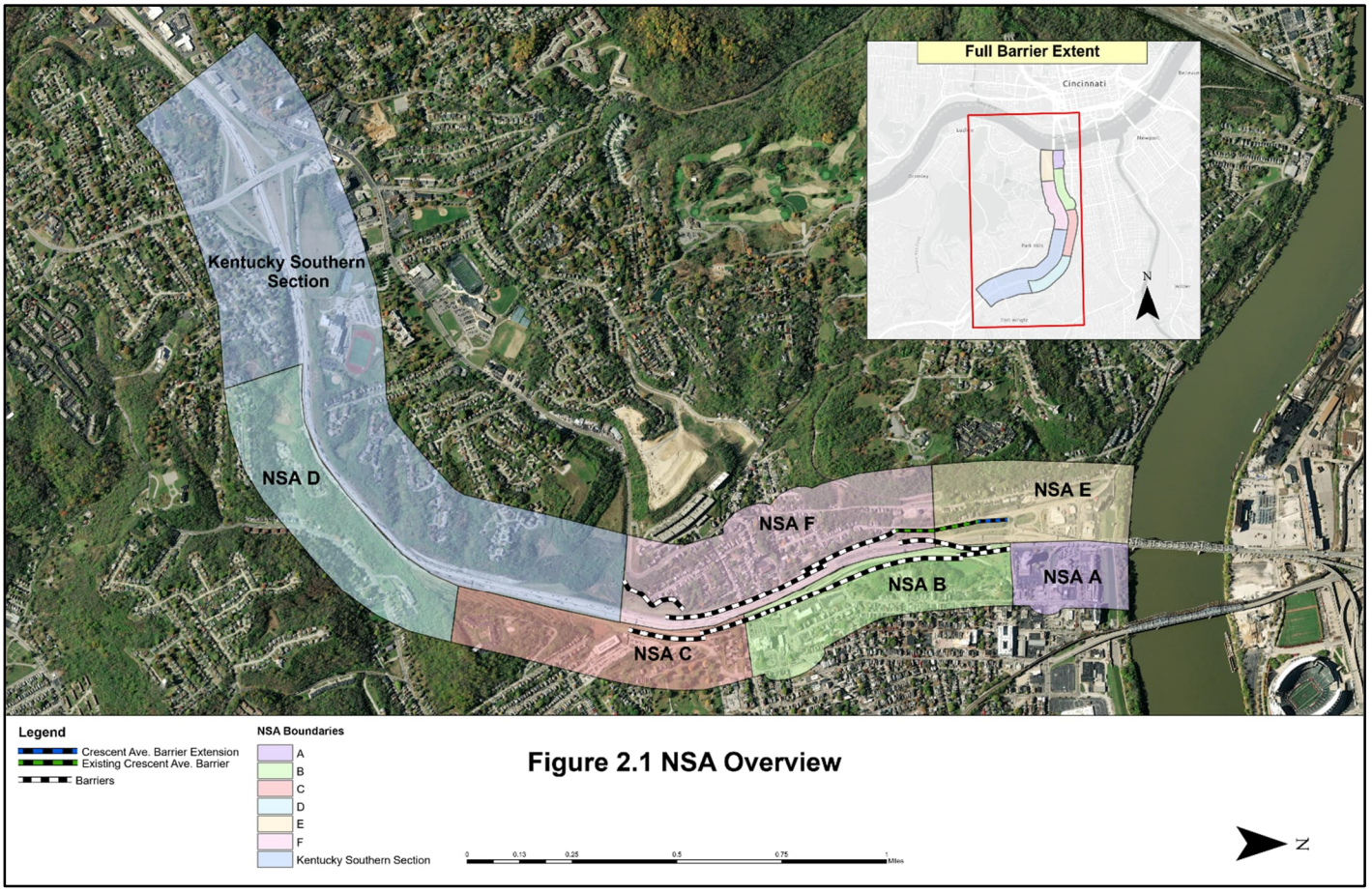
AECOM was engaged by the KYTC to reevaluate specific noise abatement options for the Brent Spence Bridge Corridor Project – Northern Section in four identified NSAs: B, C (including subsection C1 and C2), E and F in an effort to consider more efficient noise abatement designs. AECOM was provided copies of the Re-Eval 1 Design Traffic Noise Model (TNM) files to use as a basis for this Re-evaluation. No changes were made regarding future project roadways or project traffic outside of the innovations mentioned above.

Refinements to the model included adding shielding objects such as pre-existing building rows and fixed height barriers to account for a notable increase in acoustical shielding between the modeled sound source and the model receivers. In general, acoustical shielding lowers the impact to receivers at a greater distance from the source. In addition, topographical lines, or terrain zones were lacking in the provided model, a situation which may have contributed to an over prediction of noise impacts in previous analyses.

The result of the updated analysis also included requested modifications to proposed barrier locations. Analyzed results for recommended noise abatement found to be reasonable and feasible are presented for each of the four identified NSAs affected (B, C1, C2, E and F) as well as cost-averaged results for adjacent NSAs (B+C1, B+C1+C2, and E+F).

See Figure 2.1 for an overview of the NSA locations. This report also includes analysis of NSA A prepared by HMB consultants. NSA D is addressed in the *Re-evaluation of Traffic Noise Impacts, Southern Section* report.

Figure 2.1 NSA Overview



4.1 Noise Reanalysis Process

The reanalysis effort included a three-step process:

- Review and modify provided TNM modeling for each NSA to include 2024 Certified Traffic, appropriate and adequate shielding and topographical elements, as required, and rerun the updated models to determine updated noise impacts.
- Modify TNM files with revised noise abatement elements, due to Innovative changes. These modifications included changes in noise barrier lengths, endpoints, height, alignments, and elimination of some redundant parallel barriers. Rerun the models to determine noise barrier performance.
- Analyze and report noise barrier performance in terms of feasibility, cost effectiveness, and noise barrier design goals. These were analyzed and reported for each NSA individually and for groups of adjacent NSAs.

TNM run files for NSAs B, C, E, and F were reviewed and some key modeling elements were added, such as adequate building rows, existing fixed height barriers to represent large buildings, topographic lines, and terrain types (where applicable). Once these elements were added, the result was generally a reduction in some predicted noise levels, and a general reduction in identified noise impacts. This reduction resulted in a more realistic assessment of noise impacts that were most notable for NSAs B and F, which had greater housing density.

4.2 Requirements for Noise Abatement Approval

Please refer to the previous August 2023 noise analysis report for a complete accounting of KYTC policy requirements for noise impact assessment and noise abatement performance requirements but see below for a brief summary.

Noise Impact Assessment:

Noise impacts are assessed when future project noise levels approach or exceed the noise abatement criteria by land use category or if future build project noise levels exceed existing noise level by 10 dB(A) or greater. For Land Use Categories B and C (which include all residential land use, and most exterior public use areas such as parks, trails and cemeteries), the noise impact level for exterior use areas would be 66 dB(A) or greater for worst-hour conditions.

Noise Abatement Measures:

In accordance with the KYTC Noise and Abatement Policy, for noise abatement measures to be determined feasible and reasonable the following conditions must be met:

- Feasibility: Noise abatement must provide a noise reduction benefit of at least 5 dB(A) for at least three impacted receptors.
- Cost effectiveness: Proposed noise abatement cost must be less than $40,000 per benefited receiver, assuming a $32/square foot cost basis.
- Noise Barrier Design Goal: Any noise barrier must provide a noise reduction of 7 dB(A) or greater for at least 50% of benefitted first row receivers.
- Public Viewpoints: If requirements for Feasibility, Cost Effectiveness and Design Goals are all met, the viewpoints of the benefited receptor owners and/or tenants will be assessed to determine if they are collectively in favor of a noise barrier being installed.

4.3 Noise Abatement Re-evaluation

4.3.1 NSA A - Noise Abatement Re-evaluation

Analysis Area

NSA A covers the area east of the I-71/I-75 corridor from West 5th Street to the Kentucky/Ohio state line. This is a highly developed area with several hotels, fast food restaurants, and other commercial properties. The only modeled receptors were a hotel with room balconies and a hotel with a pool.

Potential locations for structural noise barriers in NSA A are primarily on the outside of the I-71/I-75 roadway and alongside portions of the ramp. Modeled barriers begin approximately 700 south of 5th Street and end at the Ohio River. Where the proposed interstate roadway is bridged over the local roads, proposed structural noise barriers are limited to 12-foot height barriers mounted on the structure's barrier wall (for total height of approximately 15 feet above the roadway). Modeled receivers, the modeled structural noise barrier location, and the receiver's attenuation level thresholds are presented in Figure 2.2. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

Innovations and Re-evaluation Modifications

In the original design, the I-71/I-75 roadway was entirely on structure through NSA A and well into NSA B. Through the innovation process the mainline profile is lowered by as much as 20 feet, which results in the northbound (NB) I-71/I-75 corridor being on grade at the southern end of NSA A.

Five barrier segments, totaling 3,258 feet in length and an average height of 14.87 feet, were predicted to benefit 80 receptors. These 80 receptors were located on floors 2-6 of the hotel. Floors 7 through 16, however, were not benefited. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors, meeting KYTC's feasibility criteria. The cost of the modeled barrier was $1,550,464, for a cost–

effectiveness ratio of $19,381 per benefited receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barrier does meet KYTC's reasonableness threshold. The barrier did not provide 7 dB(A) of attenuation for any of the first-row benefited receptors (0.0 percent). This is below the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers do not meet this reasonableness criterion. See Table NSA.A.1 and Table NSA.A.2 for a summary of the barrier wall evaluation.

Re-evaluation of Noise Abatement Results

Table NSA.A.1 Noise Abatement Description 4

Barrier Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
On the east side of the proposed I-71/I-75 5th Street to Ohio River	244 / 244	3,258	15.0	48,452	$1,550,464

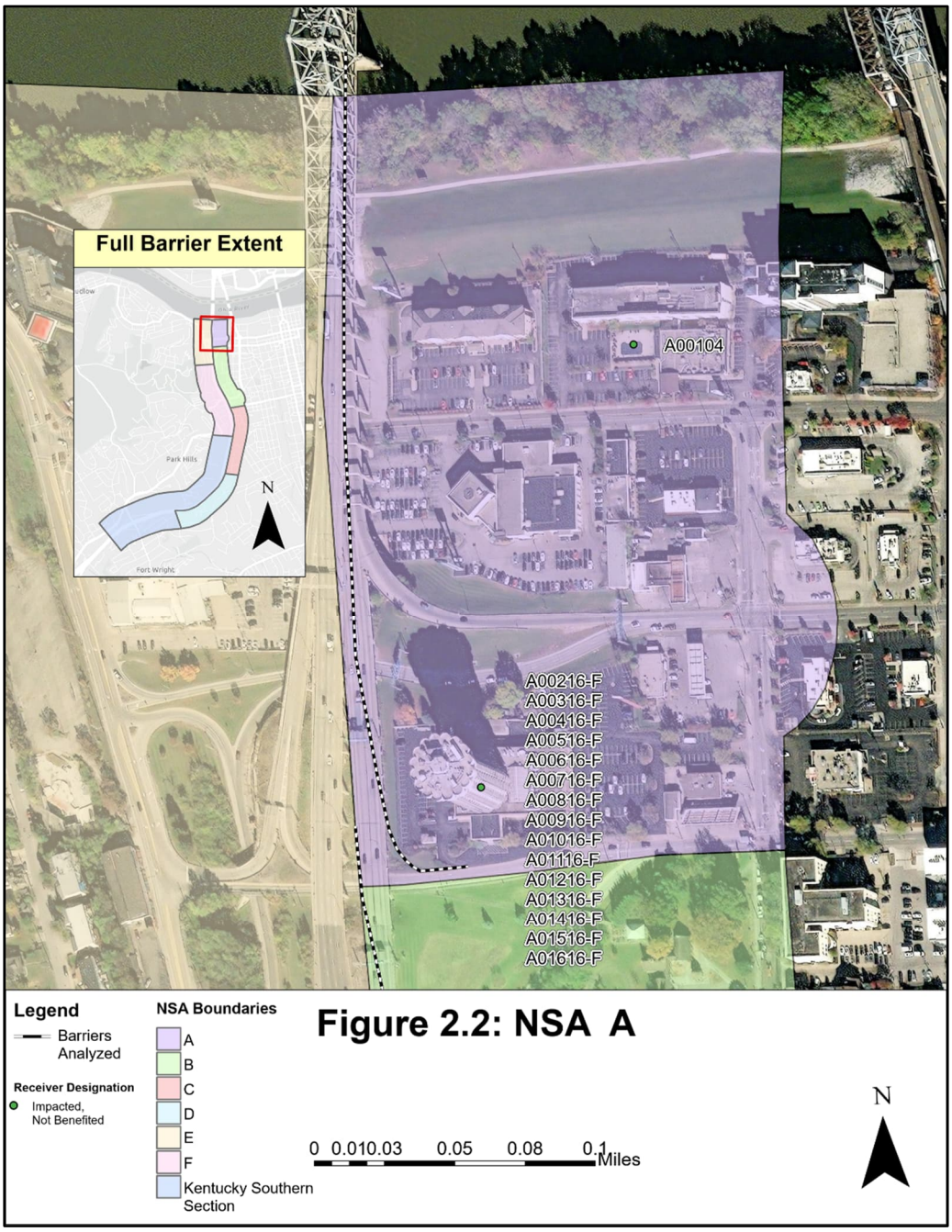
Table NSA.A.2 Noise Abatement Re-evaluation Summary

Is Barrier Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	80 / $19,381	Yes	0 / 80 (0%)	No

Conclusion

Based on the current project design and traffic projections, a structural noise barrier is feasible but is not reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

Figure 2.2 NSA A



4.3.2 NSA B Noise Abatement Re-evaluation

Analysis Area

NSA B includes the area east of I-71/I-75, from West 5th Street to the north to Martin Luther King (MLK) Jr. Boulevard to the south. Noise-sensitive land uses in the area include the Goebel Park Complex, which includes Goebel Park, SFC Jason Bishop Memorial Dog Park, and Kenney Shields Park. A public walking path in the park complex provides connectivity between these three park areas. Additionally, a residential community comprised of mostly single-

family homes is located east of the park complex. Noise-sensitive land uses in the area are generally below the elevation of I-71/I-75. See Figure 2.3 for the NSA B analysis area.

Innovations and Re-evaluation Modifications

Modifications to the analysis for NSA B included establishing the noise barriers along the outer edge of the NB C-D road and along the SB C-D bridge over mainline I-71/75. Because of the vertical reconfiguration of the roadway profiles as part of Kentucky Innovation 1, the previous layered system of walls associated with Concept I-W is no longer necessary to meet the noise abatement project goals. The remaining proposed noise barriers will be structure mounted and are limited to a maximum of 15' above the roadway surface including the 3-foot structural barrier, wherever possible based on the analysis results.

Additionally, the existing condition noise model was refined to include noise attenuation due to intervening structures that were not included in the original modeling. New building row objects were added to the modeling to approximate the noise reduction at sensitive receptor locations due to intervening structures, lowering the total number of impacts in this area from 247 to 157.

Additional receptor locations were added to the modeling to represent the walking trail between Goebel and Kenney Shields parks. Receptor locations for the walking trail are considered to be first-row receptors for the purposes of the analysis, therefore a selection of receptor locations directly east of the walking trail are no longer considered first-row receptors. Receptor B04225-F was moved eastwards from the location of a basketball court that is scheduled for removal and placed at the location of the recently built dog park. Receptor B04225-F was also adjusted to represent 4 dwelling units, instead of 25 (considering the dog park to be approximately 4 times the size of nearby residential properties), to be representative of the anticipated daily use of the dog park.

Re-evaluation of Noise Abatement Results

Table NSA B.1 Noise Abatement Description

Barrier Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
3 Barrier segments located along I-71/I-75	157 / 468	5,201	15.0	77,992	$2,495,744

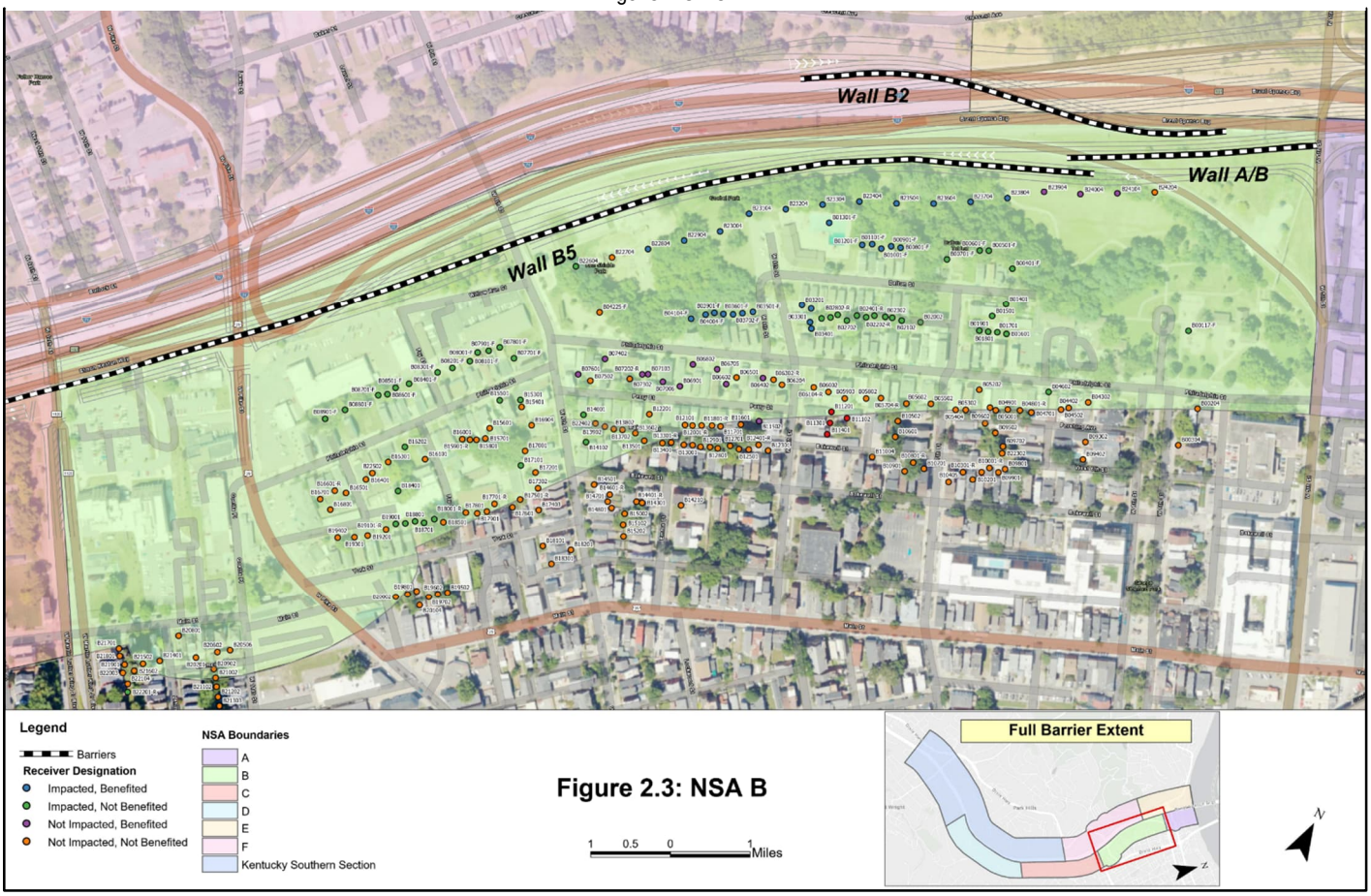
Table NSA B.2 Noise Abatement Re-evaluation Summary

Is Barrier Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	108 / $23,109	Yes	36 / 56 (64%)	Yes

Conclusion

Of the 468 total receptors modeled within NSA B, 157 were identified to be impacted. The updated barrier array resulted in at least 5 dB(A) of noise reduction for 108 receptors, indicating that the barrier is feasible. The barriers in this area achieve a Cost Per Benefitted Receptor value of $23,109, well within the KYTC allowance of $40,000 per benefitted receptor and achieve 7 dB(A) of reduction at 64% of benefited first-row receptors. As the barriers analyzed for NSA B meet KYTC criteria for reasonableness and feasibility, these barriers were recommended to proceed to public involvement and were included in the Public Involvement Meeting.

Figure 2.3 NSA B



4.3.3 NSA C1 Noise Abatement Re-evaluation

Analysis Area

The boundaries for NSA C1 (Linden Grove) are the project roadway (I-71/I-75) on the west, West MLK Blvd on the north, a screening distance of approximately 500 feet to the east, and Linden Street on the south. The elevation in this area generally increases moving east from the highway. Noise-sensitive land uses in the area are limited to single family and multi-family homes (Category B). See Figure 2.4 for the NSA C1 analysis area.

Innovations and Re-evaluation Modifications

Modifications for NSA C1 included the incorporation of design improvements and Innovation 2. The alignment of the barrier referred to as C1-NB 12th Exit was revised per design team request to relocate the barrier outside of the clear zone and to allow adequate space for exit signage. The barrier location was adjusted accordingly in the model.

The model was updated for the Innovation 2 which maintains the frontage road concept between MLK Jr. Boulevard and West 4th and West 5th Streets. This change had a negligible effect on NSA C1 since the roadway changes are primarily north of NSA C1. The revised model was also updated to include the modified barrier geometry and topography.

The updated barrier configuration consisted of two segments along the I-71/I-75 North off-ramp and the proposed right-of-way, with a total length of 2,734 feet and an average height of 19 feet. The modeled barrier area was

approximately 48,016 square feet, resulting in a total estimated construction cost of $1,536,512, based on a unit cost of $32 per square foot.

Re-evaluation of Noise Abatement.

Table NSA C1.1 Noise Abatement Description

Noise Abatement Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
Two barrier segments; Located along the I-71/I-75 off ramp, and proposed ROW.	38/60	2734 (1760+974)	19	48,016	$1,536,512

Table NSA C1.2 Noise Abatement Re-evaluation Summary

Is Barrier Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	10 Benefited; $74,803/Benefited	No	1/10 (10%)	No

Conclusion

Of the 60 receptors modeled within NSA C1, 38 were identified as impacted. The updated barrier resulted in at least 5 dB(A) of noise reduction for 10 receptors, indicating that the barrier is feasible. However, the cost per benefitted receptor was approximately $74,803, and only one of the ten first-row receptors received 7 dB(A) or greater attenuation. As such, the barrier is not cost-effective and does not meet the KYTC criteria for reasonableness and feasibility.

4.3.4 NSA C2 Noise Abatement Re-evaluation

Analysis Area

The boundaries for NSA C2 (Edgecliff) are the project roadway (I-71/I-75) on the west, Monroe Street to the east, a screening distance of approximately 500 feet to the east, and Linden Street on the north. The elevation in this area generally increases moving east from the highway. Noise-sensitive land uses in the area are limited to single family and multi-family homes (Category B). See Figure 3.2 for the NSA C2 analysis area.

Innovations and Re-evaluation Modifications

For NSA C2, the barrier referred to as C2-Edgecliff was reduced in length due to lack of impacted receptors on the southern end of the NSA. The barrier recommended for NSA C2 in the 2024 SEA/FONSI was 2,622' in length with the majority being 24' in height, for an estimated cost of $1,957,811. The TNM was rebuilt for the Re-Eval 1 noise analysis and subsequent barrier analysis throughout the entire Kentucky Northern Section. The final modeled barrier consists of one 1,531-foot segment located along the proposed right-of-way, with a height of 24 feet and a total surface area of 36,744 square feet. The estimated construction cost is $1,175,808 based on the $32 per square foot unit cost. The model was updated for the Innovation 2 which maintains the frontage road concept between MLK Jr. Boulevard and West 4th and West 5th Streets. This change had a negligible effect on NSA C2 since the roadway changes are primarily north of NSA C1 and C2.

Constructability and site conditions reduce the feasibility and reasonableness of this section of noise wall. In this section of the project, although the existing right-of-way is set back at a significant distance from the edge of the pavement, there is a steep upward gradient towards the right-of-way line, which makes construction activities challenging. Edgecliff Road was evaluated as a potential construction access point; however, it was deemed not feasible due to the small turning radii that could not be accessed by the heavy equipment needed for the wall construction. The contractor would have to construct temporary access roads and benching to access the site.

The construction of this wall would also result in major impacts to water quality and landscaping resources in this area. Any proposed access road through the slope area would impact existing water quality treatment facilities, as well as existing trees and landscaping along the steep slopes. Removal of these features could result in potential erosion issues. This existing slope is otherwise not disturbed in a no-build scenario. The site condition and access challenges, combined with additional construction costs, substantial tree and water quality treatment facility removal, potential erosion, and other associated impacts reduce the feasibility and reasonableness of this section of noise wall.

Based on this re-evaluation, a noise barrier is not reasonable for NSA C2.

As documented below in Table NSA C2, since NSA C2 was not considered reasonable as a stand-alone barrier, it was evaluated in conjunction with barriers NSA B and NSA C1 using the cost averaging method. As noted in Table NSA B+C1+C2 Noise Abatement Cost Averaging Summary, the NSA C2 barrier remains unreasonable. Additional refinements to the TNM model included the addition of two new receivers to represent outdoor seating areas at the St. Elizabeth Covington Hospital, as well as the incorporation of building rows and topographic terrain lines as required to improve modeling accuracy.

Results of Re-evaluation of Noise Abatement.

Table NSA C2.1 Noise Abatement Description

Barrier Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
One barrier segment; Located along the proposed ROW	85/166	1531	24	36,744	$1,175,808

Table NSA C2.2 Noise Abatement Re-evaluation Summary

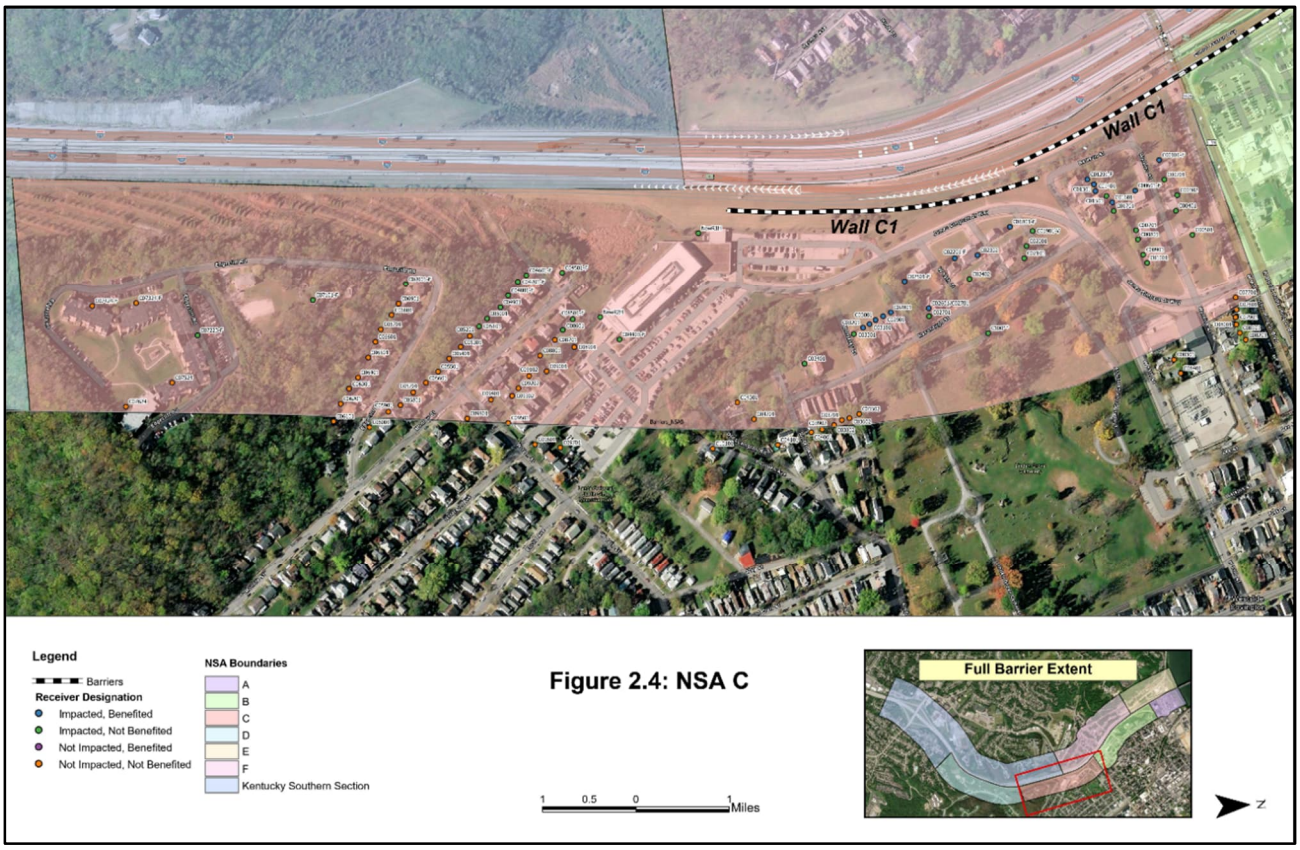
Is Barrier Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	4 Benefited; $293,952 /Benefited	No	0/10 (0%)	No

Conclusion

Within NSA C2, 85 out of 166 receptors were determined to be impacted. The barrier provided at least 5 dB(A) of noise reduction to 4 receptors, meeting the feasibility criterion. The resulting cost per benefitted receptor was $293,952, and therefore the barrier is not considered cost-effective. In addition, none of the first-row receptors

received 7 dB(A) or greater attenuation, meaning the barrier does not meet the KYTC criteria for feasibility and reasonableness.

Figure 2.4 NSA C



4.3.5 NSA E Noise Abatement Re-evaluation

Analysis Area

NSA E includes the area west of I-71/I-75, from Brent Spence Bridge to the north to I-71/I-75 MP 190.95 to the south. Noise-sensitive land uses in the area include a single hotel and a residential community comprised of mostly single-family homes and duplexes. Noise-sensitive land uses in the area are generally at or above the elevation of I-71/I-75. See Figure 2.5 for the NSA E analysis area. A portion of a previously constructed noise/visual screening wall is located adjacent to Crescent Avenue. This existing barrier, termed the Crescent Avenue Wall, is a transparent noise/visual screening wall and was constructed as an independent state-funded pilot project to determine the benefits or disadvantages of a transparent barrier as compared to a standard concrete barrier. The pilot project location corresponds to a portion of Barrier System E/F identified in the 2024 SEA/FONSI.

Innovations and Re-evaluation Modifications

Modifications (Kentucky Innovation #1) to the analysis are a result of the Innovation process. The reconfiguration of the interstate resulted in significant revisions to the profiles lowering the mainline traffic elevations by up to 20 feet. These changes resulted in different noise impact findings than Alternative I-W. The reanalysis evaluated the efficacy of extending the existing Crescent Avenue Wall by approximately 400 feet to the north to mitigate project impacts.

Results of Re-evaluation of Noise Abatement

Table NSA E.1 Noise Abatement Description

Barrier Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
2 Barrier segments along I-71/I-75 and Crescent Avenue	49 / 78	1,400	13.1	18,641	$596,496

Table NSA E.2 Noise Abatement Re-evaluation Summary

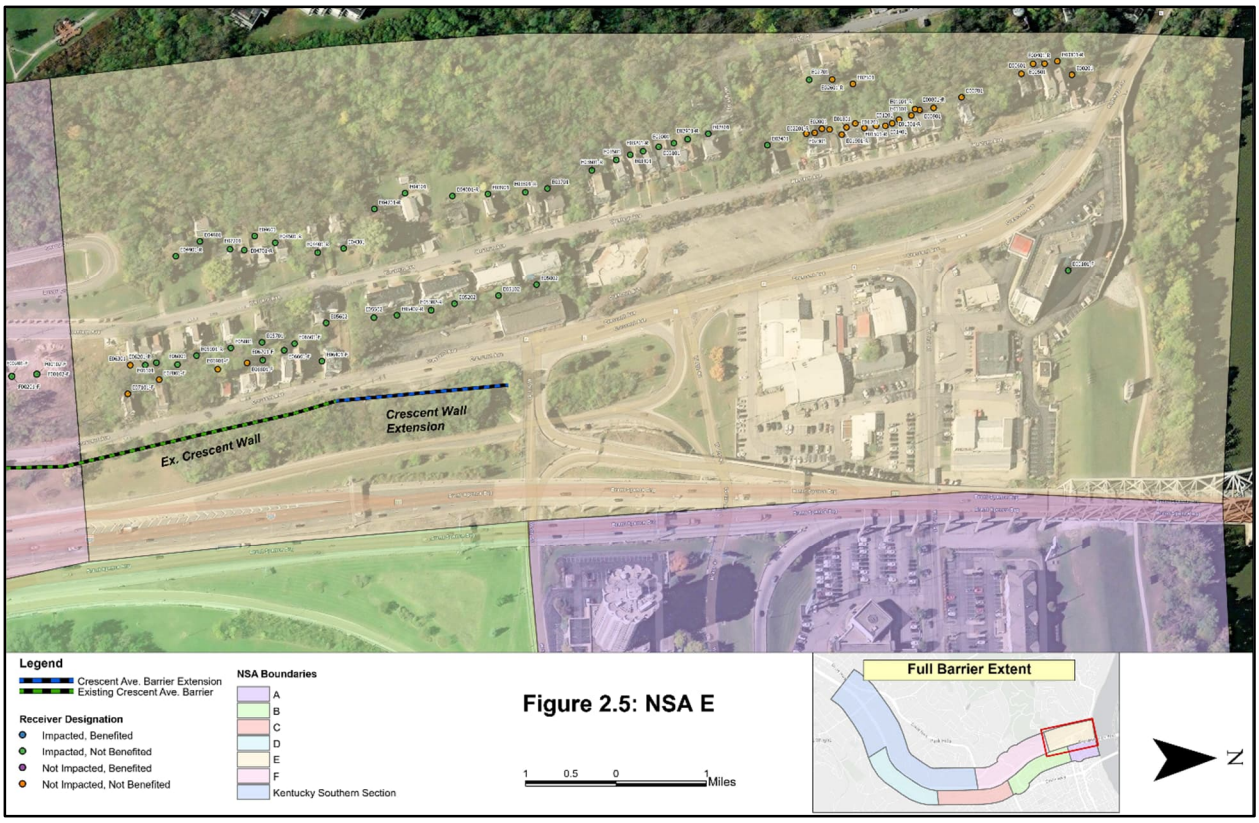
Is Barrier Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
No	0 / NA	No	0 / 0 (0%)	No

Conclusion

The barriers included in this reanalysis were not found to benefit any receptors due to the elevation difference between I-71/I-75 and the receptors west of Crescent Avenue, and the distance from the proposed Crescent Avenue Wall extension. Therefore, no new barriers are recommended for this NSA based on the re-evaluation analysis.

KYTC remains committed to extending the existing Crescent Avenue Wall as a noise/visual screening wall based on prior SEA/FONSI Commitment 23 and the desires of the community. KYTC will take into consideration practical engineering and utility conflicts. Construction of the 400-foot-long barrier extension was included in the public involvement process.

Figure 2.5 NSA E



4.3.6 NSA F Noise Abatement Re-evaluation

Analysis Area

NSA F includes the area west of I-71/I-75, from I-71/I-75 MP 190.95 to the north to US-25 to the south. Noise-sensitive land uses in the area include a church, school, small park, and a residential community comprised of mostly single-family homes. Noise-sensitive land uses in the area range in elevation in relation to I-71/I-75, with some receptors located above roadway grade and some receptors below roadway grade. See Figure 2.6 for the NSA F analysis area. The Crescent Avenue Wall extends into the northern portion of NSA F.

Innovations and Re-evaluation Modifications

The remodeling for NSA F takes into consideration refinements of the profile along the subject area as related to Kentucky Innovation 2 documented previously. The height is limited to a maximum of 15 feet above the roadway where barriers are structure mounted, however reanalysis of NSA F suggested two proposed barriers will require heights of up to 18 feet above the roadway to achieve KYTC criteria for reasonableness and feasibility.

New building row objects were added to the modeling to approximate the noise reduction at sensitive receptor locations due to intervening structures, lowering the total number of impacts in this area from 319 to 280.

Results of Re-evaluation of Noise Abatement.

Table NSA F.1 Noise Abatement Description

Barrier Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
4 Barrier segments along I-71/I-75	280 / 439	4,559	15.9	72,688	$2,326,016

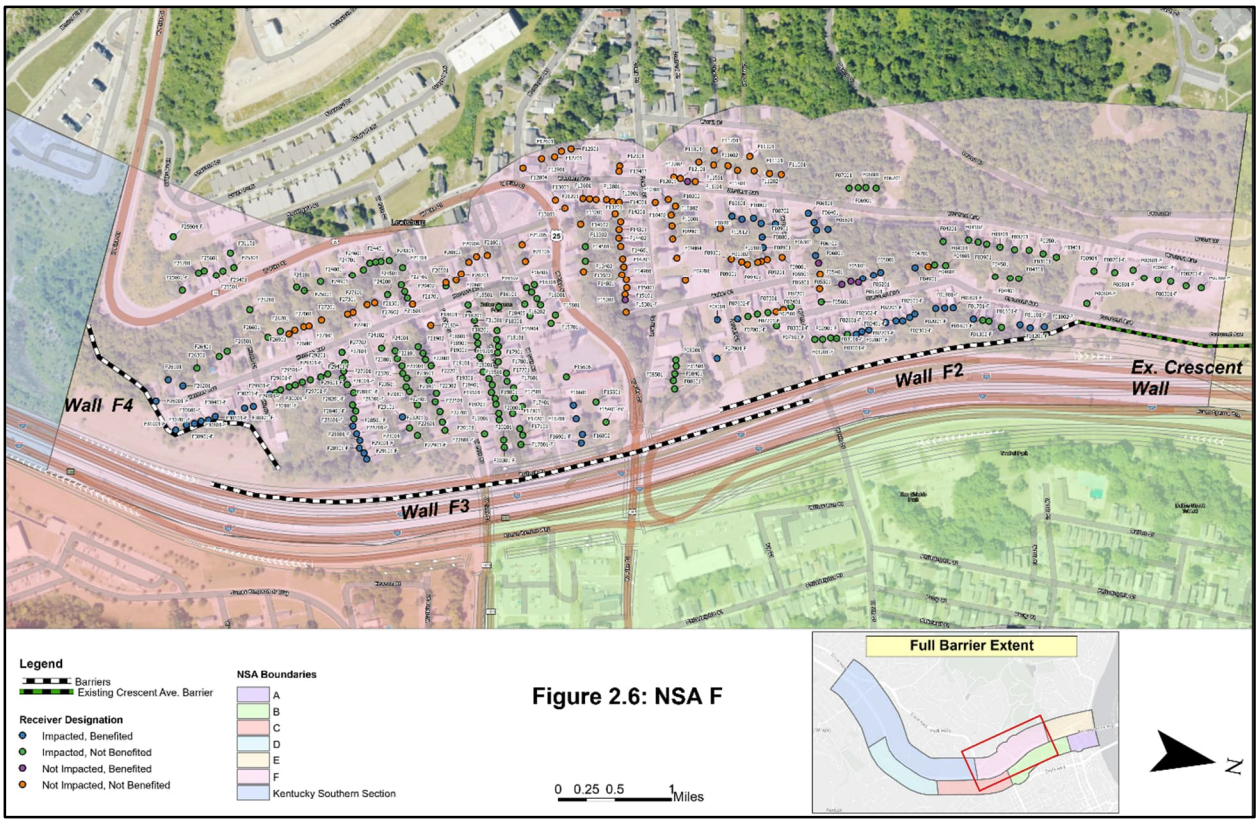
Table NSA F.2 Noise Abatement Re-evaluation Summary15

Is Barrier Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	73 / $31,863	Yes	20 / 40 (50%)	Yes

Conclusion

Of the 439 total receptors modeled within NSA F, 280 were identified to be impacted. The updated barrier resulted in at least 5 dB(A) of noise reduction for 73 receptors, indicating that the barrier is feasible. The barriers in this area achieve a Cost Per Benefitted Receptor value of $31,863, well within the KYTC allowance of $40,000 per benefitted receptor and achieve 7 dB(A) of reduction at 50% of benefited first-row receptors. As the barriers analyzed for NSA F meet KYTC criteria for reasonableness and feasibility, these barriers were recommended to proceed to public involvement.

Figure 2.6 NSA F



4.4 Cost Averaging Between Adjacent NSAs

4.4.1 NSA B+C

NSAs B and C (including C1 and C2) were considered appropriate candidates for cost averaging due to being adjacent to one another, and in the same geographic area of the Project, with no major differences in noise producing sources. The results from NSAs B and C were combined to determine if analysis of these two areas together would enable previously dismissed barriers in NSA C to be considered reasonable and feasible. Despite these barriers not being recommended on their own, barriers in NSA C meet KYTC feasibility requirements and provide benefit to a number of impacted receptors. However, cost-averaging of the barriers in NSA B and NSA C still results in exceedances of reasonableness criteria and do not meet the KYTC design goal, therefore the barriers in NSA C remain not recommended.

Table NSA B+C1+C2 Combined Noise Abatement Description

Barrier Description	Number of Impacted Receptors / Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
8 barrier segments located along I-71/I-75 and the proposed ROW	280 / 694	9,466	17.2	162,752	$5,208,064

Table NSA B+C1+C2 Noise Abatement Cost Averaging Summary

Is Barrier Combination Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	122 / $42,689	No	37 / 76 (48%)	No

The cost-averaging analysis for NSAs B and C determined that the combined results for these 2 NSAs would not meet KYTC criteria for feasibility and reasonableness, however the combined results were close enough to merit further analysis. A further cost-averaging scenario was considered for NSAs B and the northern part of NSA C (C1,) with the southern portion of NSA C (C2) omitted. This is consistent with the methodology for the analysis of NSA C and is appropriate for cost averaging due to NSAs B and C1 being adjacent.

Table 3.2.1-A. NSA B+C1 Combined Noise Abatement Description

Barrier Description	Number of Impacted Receptors / Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
6 barrier segments located along I-71/I-75 and the proposed ROW	195 / 528	7,935	15.9	126,008	$4,032,256

Table 3.2.1-B. NSA B+C1 Noise Abatement Cost Averaging Summary

Is Barrier Combination Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	118 / $34,172	Yes	37 / 66 (56%)	Yes

With the southern portion of NSA C omitted, the cost-averaging procedure determines that NSA C1 is able to meet KYTC reasonableness and feasibility criteria when considered with NSA B mitigation. Therefore, noise barriers for NSA B+C1 were recommended to proceed to the public involvement phase.

4.4.2 NSA E+F

NSAs E and F were considered appropriate candidates for cost averaging due to being adjacent to one another, and in the same geographic area of the Project, with no major differences in noise producing sources. The results from NSAs E and F were combined to determine if analysis of these two areas together would enable previously dismissed barriers in NSA E to be considered reasonable and feasible. Barriers for NSA E are not recommended on its own, and fail to benefit a minimum of three receptors; therefore, it is unlikely they would be considered feasible even if the cost-averaging procedure determines they are reasonable in conjunction with NSA F. However, cost-averaging of the NSA E+F barriers combined still results in exceedances of reasonableness criteria; therefore, the barriers in NSA E remain not recommended.

Table 3.2.2-A. NSA E+F Combined Noise Abatement Description

Barrier Description	Number of Impacted Receptors/ Total Receptors	Barrier Length (ft)	Barrier Average Height (ft)	Barrier Area (sq. ft.)	Barrier Cost @$32/Sq. Ft
6 Barrier segments along I-71/I-75 and Crescent Avenue	329 / 517	5,959	15.1	91,329	$2,922,528

Table 3.2.2-B. NSA E+F Barrier Cost Averaging Summary

Is Barrier Combination Feasible?	Number of Benefited Receptors, Cost/Benefited Receptor	Is Barrier Cost Effective?	Number of First Row Benefited Receptors with 7 dB(A) Noise Reduction/Percent Benefited	Does Barrier Meet Design Goal?
Yes	73 / $42,484	No	20 / 40 (50%)	Yes

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following Table provides a summary of the updated noise abatement Re-evaluation. As shown, only NSAs B and F would be recommended on their own, while NSAs C1, C2, and E, would not. However, using cost averaging between a combination of NSAs B+C1 would also be recommended.

Table 4 - Noise Abatement Recommendation Summary (NSAs or NSA combinations)

NSA	Is Abatement Feasible	Is Abatement Cost Effective	Does Abatement Achieve Design Goal	Is Abatement Recommended
NSA A	Yes	Yes	No	No
NSA B	Yes	Yes	Yes	Yes
NSA C1	Yes	No	No	No
NSA C2	Yes	No	No	No
NSA E	No	No	No	No
NSA F	Yes	Yes	Yes	Yes
NSAs B+C1+C2	Yes	No	No	No
NSAs B+C1	Yes	Yes	Yes	Yes
NSAs E+F	Yes	No	Yes	No

6.0 NOISE INFORMATION MEETINGS

Since completion of 2025 Re-evaluation of Traffic Noise Impacts, Kentucky Northern Section, in accordance with the KYTC Noise Policy, 348 letters were sent to all owners and residents of properties that are considered benefited (>5 dB(A) reduction) by the currently proposed noise barriers in the Kentucky Northern Section of the project. Proposed barrier locations included in the public outreach information were determined using TNM modeling based on the current Innovations. Public Outreach letters were predominantly sent to owner/residents of benefitted receptors. However, in cases where a barrier is planned due to previous environmental commitments, residents receiving a reduction were sent meeting and balloting information. The letter explained that their opinions were being sought regarding whether they were in favor of the barriers being constructed and, if constructed, their preference for aesthetic finish (smooth or ashlar cut stone [or Transparent Barrier within the adjacent historic district]) of the finished product. An on-line meeting was held with interested owners and residents on April 24, 2025 and an in-person Open House was held on April 29, 2025 at the KYTC District 6 Office in Covington.

Voting was conducted for a period of 30 days resulting in 12 votes being cast. The public response is shown in the table below. Documentation of the meetings conducted and voting results is provided in Appendix A.

Summary of Noise Ballot Results

Group	Ballots Received	Wall Preference Weighted Result (# votes)		Finish Preference		
		Yes	No	Smooth	Stone	Transparent
Group NSA B	5	18 (5)	-	-	2	3
Group NSA C	-	-	-	-	-	-
Group NSA E	1	2 (1)	-	-	-	1
Group NSA F	6	19(6)	-	1	1	4

7.0 CONSTRUCTION NOISE

Noise associated with construction activities of the Re-eval 1 Design is not expected to be substantially different than the impacts described in the 2024 SEA/FONSI for the Concept I-W Base Design. Construction activities will remain consistent with those outlined in the 2024 SEA/FONSI. However, modifications in construction staging and access, driven by detailed design progression, would alter the location of temporary construction noise and the exposure of nearby noise sensitive receptors. As detailed in the 2025 Re-Evaluation, these changes would primarily affect areas along the riverfront in Covington, Kentucky, in connection with the construction of the new companion bridge and rehabilitation of the existing BSB. No residences are located in this area and the Riverfront Commons Trail would be detoured during construction of the new companion bridge, which would limit noise exposure to Trail users. Therefore, changes in construction noise impacts are expected to be minimal.

The construction noise commitment[1] detailed in the 2024 SEA/FONSI remains unchanged. In the Kentucky Northern Section, modifications in construction staging and access, driven by detailed design progression, would alter the location of temporary construction noise and the exposure of nearby noise sensitive receptors.

8.0 SUMMARY OF PROPOSED NOISE ABATEMENT MEASURES FOR KENTUCKY NORTHERN SECTION

As discussed in Section 4, Barriers modeled for NSA B, NSA C, NSA E, and NSA F have changed in design to incorporate Innovation 1 and Innovation 2 into the project as reflected in the Re-eval 1 Design alternative. This section summarizes the status for all barriers in the Kentucky Northern Section of the project.

NSA A – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible but is not reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

NSA B – Statement of Likelihood

Of the 468 total receptors modeled within NSA B, 157 were identified to be impacted. The updated barrier array consists of three barriers and resulted in at least 5 dB(A) of noise reduction for 108 receptors, indicating that the barrier array is feasible. The barriers in this area achieve a Cost Per Benefitted Receptor value of $23,109, well within the KYTC allowance of $40,000 per benefitted receptor and achieve 7 dB(A) of reduction at 64% of benefited first-row receptors. As the barriers analyzed for NSA B meet KYTC criteria for reasonableness and feasibility, these barriers were recommended to proceed to public involvement and were included in the Public Involvement Meeting.

Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for a transparent barrier. Inclusion of Barriers Wall A/B, Wall B2 and Wall B5 into the project is considered likely for this location.

[1] 2024 SEA/FONSI Commitment 32.

NSA C1 – Statement of Likelihood

Of the 60 receptors modeled within NSA C1, 38 were identified as impacted. The cost per benefitted receptor was approximately $74,803, and only one of the ten first-row receptors received 7 dB(A) or greater attenuation. As such, the barrier is not cost-effective and does not meet the KYTC criteria for reasonableness and feasibility.

NSA C2 – Statement of Likelihood

Within NSA C2, 85 out of 166 receptors were determined to be impacted. The barrier provided at least 5 dB(A) of noise reduction to 4 receptors, meeting the feasibility criterion. The resulting cost per benefitted receptor was $293,952, and therefore the barrier is not considered cost-effective. In addition, none of the first-row receptors received 7 dB(A) or greater attenuation, meaning the barrier does not meet the KYTC criteria for reasonableness and feasibility.

NSA C + NSA B

The cost-averaging analysis for NSAs B and C determined that the combined results for these 2 NSAs would not meet KYTC criteria for feasibility and reasonableness, however the combined results were close enough to merit further analysis. A further cost-averaging scenario was considered for NSAs B and the northern part of NSA C (C1,) with the southern portion of NSA C (C2) omitted. This is consistent with the methodology for the analysis of NSA C and is appropriate for cost averaging due to NSAs B and C1 being adjacent.

NSA C1 + NSA B – Statement of Likelihood

With the southern portion of NSA C (NSA C2) omitted, the cost-averaging procedure determines that NSA C1 is able to meet KYTC reasonableness and feasibility criteria when considered with NSA B mitigation. Therefore, noise barriers for NSA B and C1 were included in the public involvement phase.

Public response gathered during outreach efforts in April-May 2025 were inconclusive, as no responses were received from any owners/residents in NSA C1.

NSA E – Statement of Likelihood

The barriers included in this reanalysis were not found to benefit any receptors due to the elevation difference between I-71/I-75 and the receptors west of Crescent Avenue, and the distance from the proposed Crescent Avenue Wall extension. Therefore, no barriers are recommended for this NSA based on the re-evaluation analysis.

However, KYTC remains committed to the noise/visual screening barrier in NSA E in accordance with 2024 SEA/FONSI Commitment 23. As such, the existing Crescent Avenue Wall would be extended by approximately 400-ft as part of this project. This extension was not built with the existing Crescent Avenue Wall, due to terrain and utility issues that required additional time and design work.

The extension trends north from the existing barrier towards Fifth Street and will be designed considering practical engineering and utility conflict consideration. Construction of an additional barrier was determined through the public involvement process.

Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for a transparent barrier. As such, inclusion of the Crescent Avenue Wall Extension within NSA E into the project is considered likely for this location.

NSA F – Statement of Likelihood

Of the 439 total receptors modeled within NSA F, 280 were identified to be impacted. The updated barrier array resulted in at least 5 dB(A) of noise reduction for 73 receptors, indicating that the barrier is feasible. The barriers in this area achieve a Cost Per Benefitted Receptor value of $31,863, well within the KYTC allowance of $40,000 per benefitted receptor and achieve 7 dB(A) of reduction at 50% of benefited first-row receptors. A total of three barriers are recommended for advancement within NSA F. The barrier designated Wall F2 will adjoin with the previously constructed Crescent Avenue Wall. As the barriers analyzed for NSA F meet KYTC criteria for reasonableness and feasibility, these barriers were recommended to proceed to public involvement.

Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for a transparent barrier. Inclusion of Barriers Wall F2, F3, and F4 into the project is considered likely for this location.

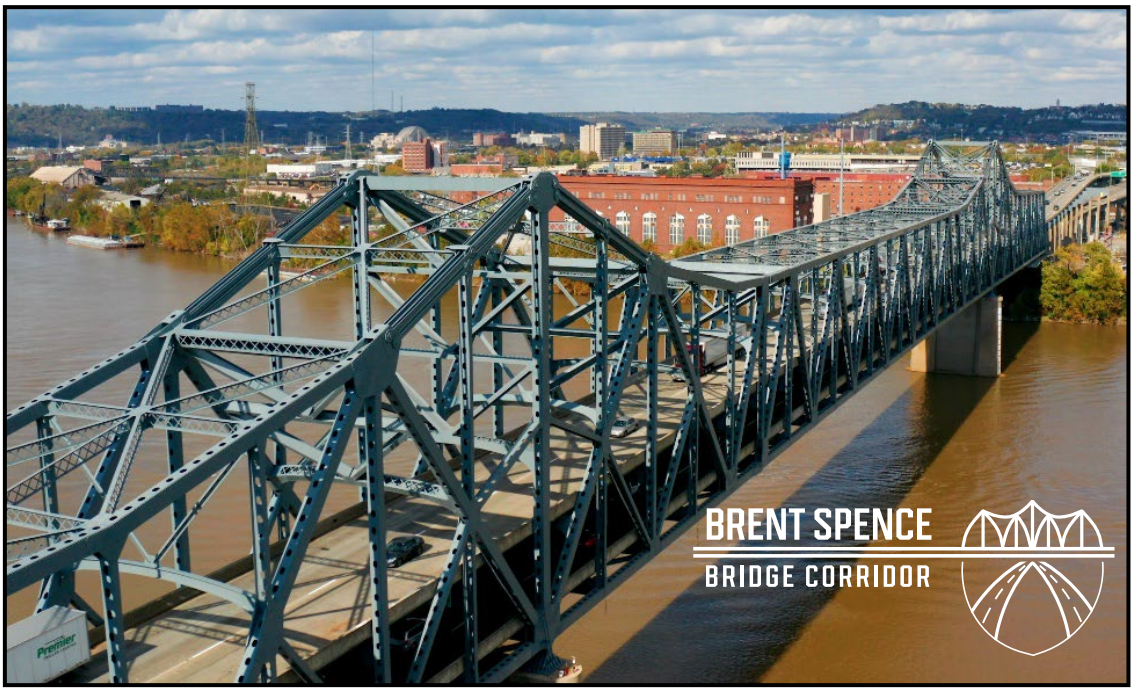
APPENDICES

APPENDIX A

Noise Informational Meeting and Outreach Summary

Noise Barrier Information Meetings and Results
Kentucky Northern Section

Brent Spence Bridge Corridor Project
Item No. 6-17.00
Kenton County, Kentucky



Prepared for:

TEAM KENTUCKY®
TRANSPORTATION CABINET

Prepared by:

Palmer ENGINEERING

May 2025

Table of Contents

1.0 Introduction 1

2.0 Kentucky Northern Section 1

2.1 Outreach 2

2.2 Ballots 3

2.3 Meeting 3

3.0 Continued Outreach 6

4.0 Results 6

5.0 Conclusions 7

List of Tables

Table 1: Summary of Ballot Results 6

List of Figures

Figure 1: Barrier NSA B 4

Figure 2: Barrier NSA C 4

Figure 3: Barrier NSA E 5

Figure 4: Barrier NSA F 5

Appendices

Appendix A: Mailing

A.1: Kentucky Northern Section Benefited Receptors

A.2: Example Copies of Letters

A.2: Returned Letters

Appendix B: Noise Barrier Informational Meeting Webpage

Appendix C: April 24, 2025 On-Line Meeting

C.1: April 24, 2025 Kentucky Northern Section Noise Barrier Information Meeting Presentation

C.2.: Attendee List

Appendix D: KYTC Open House Meeting April 29, 2025

D.1: Attendee List

D.2: Handout

D.3: Exhibits

Appendix E: Results Detail

1.0 INTRODUCTION

Noise impacts for the Kentucky Section of the Brent Spence Bridge Corridor Project were analyzed in 2023 in support of a Supplemental Environmental Assessment/Finding of No Significant Impact (2024 SEA/FONSI) for the project. The project was divided into two sections referenced as Kentucky Northern Section and Kentucky Southern Section. Since issuance of the 2024 SEA/FONSI, the design has been further refined to include Innovations identified by the Design-Build Contractor. The modifications resulted in a modified alternative referenced as Re-eval 1 Design. Noise analyses were updated in December 2024 to reflect changes associated with the modified alternative.

In accordance with the Kentucky Transportation Cabinet (KYTC) Traffic Noise Analysis and Abatement Policy (2022) (KYTC Noise Policy), outreach was conducted in April and May 2025 to seek the opinions of affected property owners and residents who would benefit from construction of noise abatement barriers. On-line meetings were held on April 14, 2025 and April 24, 2025 for the Southern and Northern Sections, respectively. In addition, an Open House Meeting was also held on April 29, 2025 at the KYTC District 6 Office in Covington. Through an on-line survey, benefited owners and residents were afforded the opportunity to express whether they were in favor of barriers being constructed in the vicinity of their properties of interest and, if constructed, their preference for the aesthetic finish (smooth or ashlar cut stone) to be applied to the end product.

This report has been prepared to document the outreach conducted to engage owners and residents of the Kentucky Northern Section and the results of the survey of their preferences.

2.0 KENTUCKY NORTHERN SECTION

The Kentucky northern section (mile point 189.5 to the Kentucky-Ohio border) Traffic Noise Impact Analysis Update, completed in January 2025, evaluated six noise barriers for feasibility and reasonableness at six locations. A Noise Abatement reevaluation was completed in April, 2025, in an effort to consider more efficient noise abatement designs. The abatement analysis concluded that three of the six noise barriers considered satisfied KYTC feasibility and reasonableness requirements for the build alternative. Not all barriers were determined to meet the KYTC Noise Policy Criteria, but they remain under consideration for potential visual barriers. In this section, barriers are to be considered for:

- 108 benefited receptors in Group NSA B located on the northbound side of I-71/75 between W 5th St and MLK Jr Blvd, including Philadelphia St, Perry St, W 8th St, Daulton St, Kenny Shields Park and Goebel Park. The proposed wall height in this area is 15 ft (see Figure 1).
- 10 benefited receptors in Group NSA C located on the northbound side of I-71/75 from Martin Luther King Jr Blvd to the Saint Elizabeth Medical Building, including Watkins St, Kavanaugh St, James Simpson Jr Way, Prague St, W 14th St, Monterey St,

Edgecliff Rd, and Monroe St. The proposed wall heights in this area range from 12 to 24 ft (see Figure 2).

- 0 additional benefited receptors in Group NSA E located along Crescent Ave as a proposed 700' extension of the existing Crescent Ave Noise Barrier to 5th St. All but this section of the wall was previously constructed in 2023 as a pilot project to demonstrate use of transparent barrier wall material. The height of the proposed additional barrier would range from 12 to 15 ft. This barrier is under consideration as a potential noise/visual screening barrier in accordance with the environmental commitments made in the Supplemental Environmental Assessment and Finding of No Significant Impact approved on May 8, 2024 (see Figure 3).
- 73 benefited receptors located on the southbound side of I-71/75 extending from the existing Crescent Ave Barrier southward beyond the historic Lewisburg neighborhood, including Crescent Ave, W 9th St, Western Ave, Laurel St, Lewis St, Baker St, W 11th St, Watkins St, Hermes Ave, and Hind St. Most of the area is within the Lewisburg Historic District (see Figure 4).

In accordance with the KYTC Traffic Noise Analysis and Abatement Policy (2020) (KYTC Noise Policy), a meeting was conducted with benefited receptors on April 24, 2025 to determine their preferences for construction of noise barriers and barrier finish. The meeting was conducted using an on-line Zoom platform.

2.1 Outreach

Property Valuation Administration (PVA) data was gathered from the Kenton County Government for each of the properties identified as benefited receptors in the *Re-evaluation of Traffic Noise Impacts, Brent Spence Bridge Corridor Project, Kentucky – Northern Section, May 2025*. (Noise Study). Data included both the physical address of each property as well as the property owner's name and address. Separate letters were developed for mailing to the owner and resident of each property, if different. For multi-residential properties, letters were sent both to the owner and to each residence. The letters provided a brief description of the project, the findings of the noise assessment, figures showing the location of the proposed barriers, the purpose, date, and time for the Noise Barrier Information Meeting, and explained the process for registering to attend the meeting and casting a vote. Six property owners (The City of Covington, TC Capital Group LLC, Michael Kraus, Zand Properties LLC, Joseph Cotton, and Clifford Review Properties LLC) were identified as the owners of numerous rental properties in the area. A unique letter was developed for these property owners to reduce paperwork for all involved parties. A copy of the mailing list and sample of the letters sent to residents and property owners can be found in Appendix A. Copies of returned envelopes for 30 letters that were "Undeliverable" or "Refused" are also provided in the Appendix. Additional efforts were made by phone to contact residents of addresses with letters returned as "undeliverable".

The letter directed the recipient to a web page (brentspencebridge.com/north) where they could register for the meeting, review barrier maps, and submit their ballot. Email communication was established with registrants to remind them of the upcoming meeting. On the day following the meeting, a recording of the meeting was posted to the Meeting Registration web page. A copy of the Registration web page and web page for submitting a ballot is provided in Appendix B. A copy of the figures that were made available on the web page are provided as Figures 1–4.

2.2 Ballots

The letters sent to the owner and resident of each property provided instructions for the on-line meeting and voter registration, and a uniquely numbered PIN required for voting identification purposes. The online survey requested input regarding the desire to construct the proposed barriers and, if constructed, the preferred finish (smooth, cut stone, or transparent). Space was also provided for additional comments. Parties were afforded 30 days from the date of the letter to submit their ballots for consideration. Survey results were checked against the mailing list to identify any voting inconsistencies; none were detected. Preferences for whether to construct the proposed barriers and wall finish were logged.

2.3 Meeting

A Noise Barrier Information Meeting was conducted on April 24, 2025 at 7:00 p.m. using an on-line Zoom platform. The meeting was attended by seven property owners/residents from the area. A list of attendees and project team participants can be found in Appendix C. The project team members were introduced and a brief tutorial on how to submit questions or comments in Zoom during the meeting was provided.

A presentation was made that explained the purpose of the meeting, some basics of noise analysis, results of the Noise Study conducted for the project, options for barrier finish, and the balloting process being used to solicit their opinions. A copy of the presentation used during the meeting is provided in Appendix C.

Attendees were invited to a KYTC "Open House" format meeting held on April 29, 2025, from 2 p.m. to 6 p.m., held by the project team at the District 6 Office. The meeting provided an additional opportunity for benefited receptors to pose additional questions or voice concerns to KYTC Staff and the Brent Spence Bridge Corridor Project Team. Refer to Section 3.0 Continued Outreach and Appendix D for additional information.

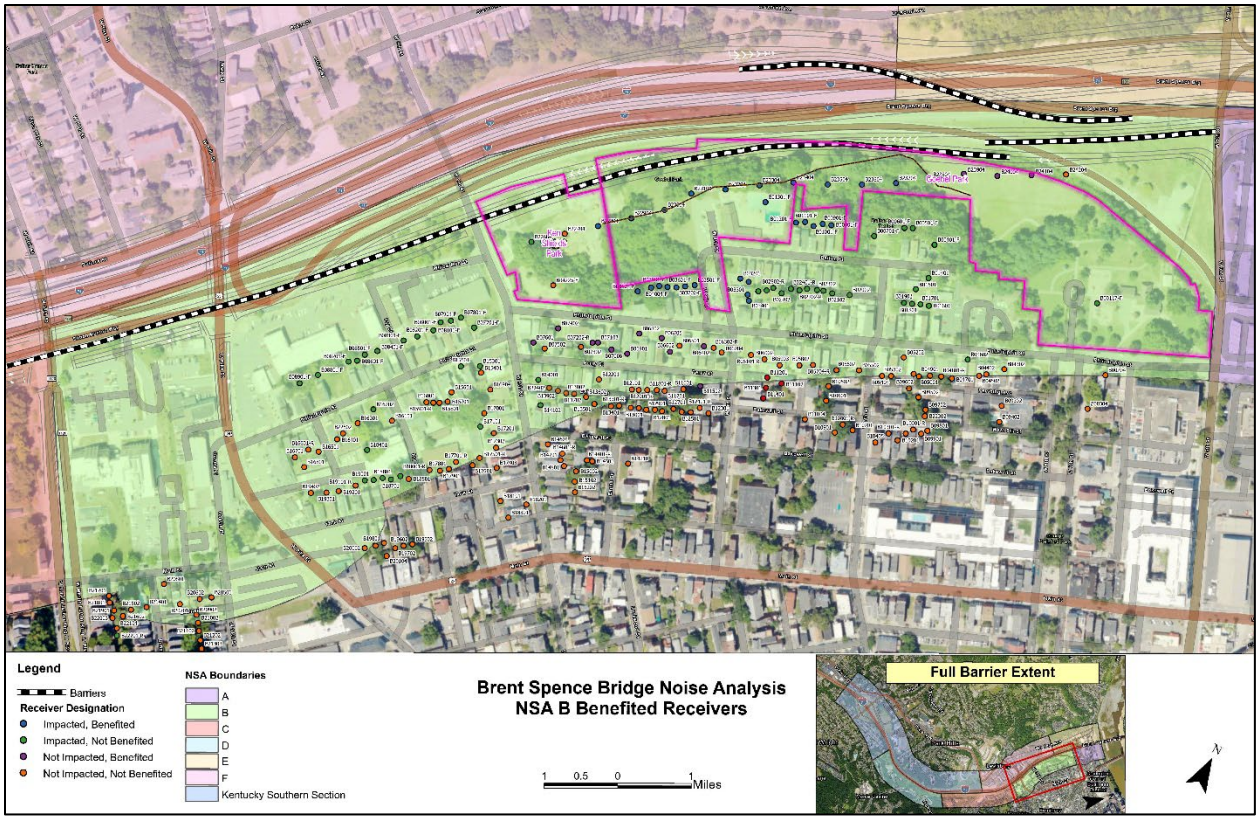


Figure 1: Barrier NSA B

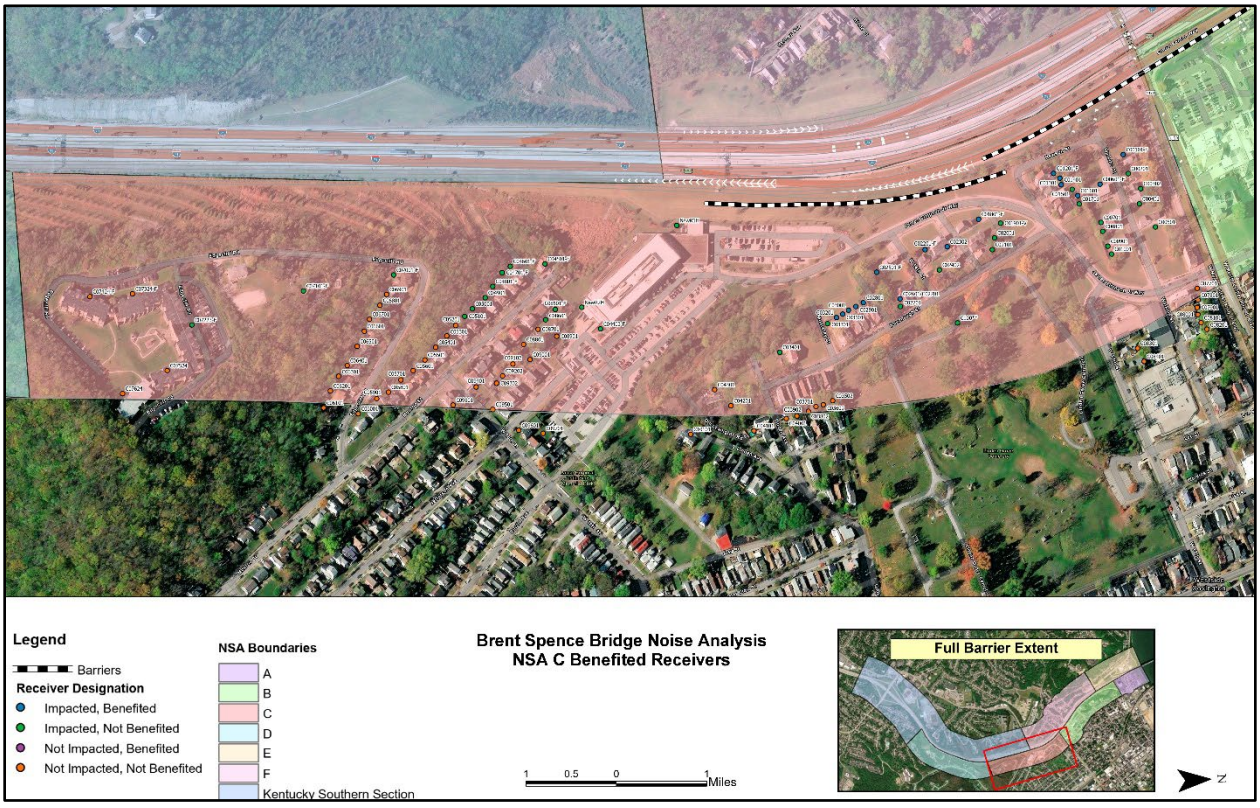


Figure 2: Barrier NSA C



Figure 3: Barrier NSA E

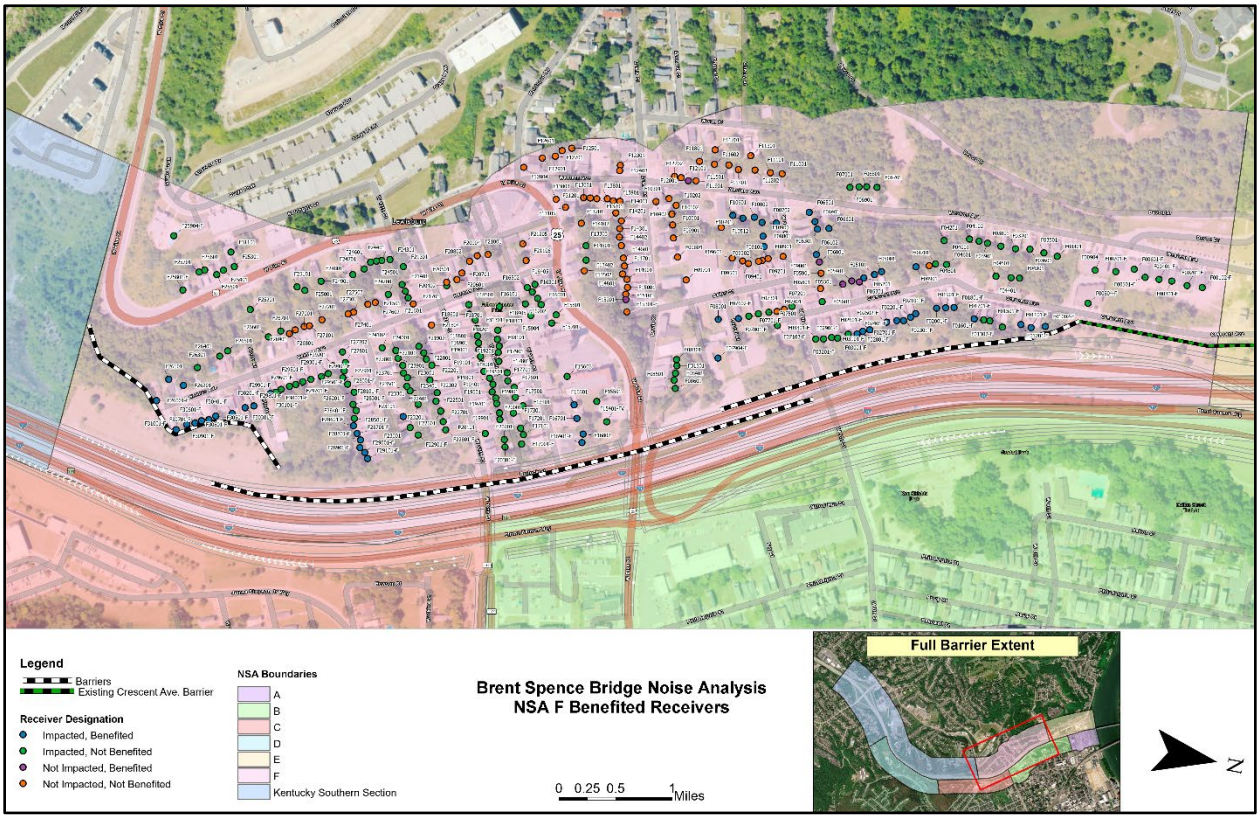


Figure 4: Barrier NSA F

3.0 CONTINUED OUTREACH



On April 29, 2025, the Kentucky Transportation Cabinet (KYTC) hosted an in-person "Open House" format meeting at the KYTC District 6 Office in Fort Mitchell, KY, to supplement the previously held virtual meetings for the north and south sections. The purpose of the Open House was to provide an opportunity for residents affected by noise and included in the polling process to speak directly with KYTC staff and members of the Brent Spence Bridge Corridor Project team. Project exhibits were on display, and team members were available to answer questions and address concerns related to noise impacts. Informational brochures were also provided to attendees upon entry. A total of 11 benefited owners/residents and 10 project team members attended the meeting. A copy of the sign in sheet and brochure can be found in Appendix D. See Appendix E for a detailed analysis of results.

4.0 RESULTS

During the comment period, 12 ballots were received from benefited property owners and residents. In accordance with KYTC Noise Policy, Front-Row Owner preferences for wall construction (Yes/No) were weighted more heavily than other owner's and resident's ballots by a factor of three. Preferences on finish were equally weighted among all parties. A Summary of Ballot Results is provided in Table 1.

All of the returned ballots were in favor of construction of the barriers. There was a strong preference for a transparent barrier finish (8 for transparent, 3 for cut-stone and 1 for smooth finish).

Table 1: Summary of Ballot Results

Group	Ballots Received	Wall Preference Weighted Result (# votes)		Finish Preference		
		Yes	No	Smooth	Stone	Transparent
Group NSA B	5	18 (5)	-	-	2	3
Group NSA C	-	-	-	-	-	-
Group NSA E	1	2 (1)	-	-	-	1
Group NSA F	6	19 (6)	-	1	1	4

5.0 CONCLUSIONS

Recent design innovations, developed since completion of the 2023 Noise Study and 2024 SEA/FONSI, resulted in a modified alternative identified as Re-eval 1 Design. In light of alignment revisions, the Noise Study for the Northern Kentucky Section was updated to document reevaluation of the barriers. Noise and noise/visual barriers were reassessed to modify and optimize design, as appropriate, in consideration of the updated design. Noise barriers were determined to satisfy KYTC Noise Policy criteria in three of the six locations. Barrier NSA A did not meet KYTC Noise Criteria, and Barrier NSA D/B20 was ultimately determined to lie predominantly in the Kentucky Southern Section. Barriers at the sixth location (NSA E) remain under consideration for inclusion in the project as noise/visual barriers.

Consistent with the KYTC Noise Policy, outreach was conducted with 348 Property Owners and Residents (benefited receptors) who would benefit from the noise barriers (>5dB reduction). Benefited receptors were identified and contacted to seek their opinions regarding barrier construction (Yes/No) and aesthetic finish (Smooth, Ashlar Cut Stone, or Transparent). Responses were weighted in accordance with the KYTC Noise Policy. The proposed barriers were presented to benefited owners and operators in an on-line meeting April 24, 2025 that provided information about the project, the KYTC Noise Policy, the proposed barriers, and explained the process being used to gather the opinions of the benefited owners and residents. Voting was conducted on-line. An in-person Open House Meeting was held on April 29, 2025 to afford benefited owners and residents an additional opportunity to gather information and ask questions of KYTC staff regarding the proposal.

The opportunity to vote was open for 30 days from the date of the notification letter sent to residents and closed on May 9, 2025. All ballots received were in favor of barrier construction. In general, the preference for a transparent finish was expressed in 66% of the ballots cast.

Appendix A: Mailing

APPENDIX A.1

Kentucky Northern Section

Benefited Receptors

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
Group NSA B				
B5001	SCHEELS JR JOHN EDWARD & AMY	721 DALTON ST	COVINGTON, KY 41011-1248	721 DALTON ST
B5002	HILLMANN JAMES WILLIAM & HILLMANN HOLLY ANN	727 DALTON ST	COVINGTON, KY 41011-1248	727 DALTON ST
B5003	CACCAMO JAMES	809 PHILADELPHIA ST	COVINGTON, KY 41011-1254	809 PHILADELPHIA ST
B5004	JORDAN JEFFREY NICHOLAS & JORDAN LYDIA MARIE	813 PHILADELPHIA ST APT 1	COVINGTON, KY 41011-1254	813 PHILADELPHIA ST APT 1
B5005	JORDAN JEFFREY NICHOLAS & JORDAN LYDIA MARIE	813 PHILADELPHIA ST APT 2	COVINGTON, KY 41011-1254	813 PHILADELPHIA ST APT 2
B5006	KEYSWAG LLC	817 PHILADELPHIA ST	COVINGTON, KY 41011-1254	817 PHILADELPHIA ST
B5007	WITHAM EMMETT & DARLENE	819 PERRY ST	COVINGTON, KY 41011-1280	819 PERRY ST
B5008	LEWIS CODY & ENGLAND KATHRYN E	821 PERRY ST	COVINGTON, KY 41011-1250	821 PERRY ST
B5009	REITER ERIC	824 PHILADELPHIA ST	COVINGTON, KY 41011-1255	824 PHILADELPHIA ST
B5010	CASBON AMY M & HAYLEY BRADEN	832 PHILADELPHIA ST	COVINGTON, KY 41011-1255	832 PHILADELPHIA ST
B5011	TARRANT COLLEEN	837 PERRY ST	COVINGTON , KY 41011-1272	837 PERRY ST
B5012	PAYTON SHARON A & DONALD J	513 8TH ST W	COVINGTON, KY 41011-1217	513 8TH ST W
B6001	HENSLEY PAULA J TRUSTEE	575 ROUND BOTTOM RD	MILFORD , OH 45150-9508	719 DALTON ST
B6002	PAYTES GAYLE & BARBARA L	854 WOODLYN DR SOUTH	CINCINNATI , OH 45230-4433	723 DALTON ST
B6003	AKIRE REALTY LLC	12 W PIKE ST UNIT B	COVINGTON , KY 41011-2406	725 DALTON ST
B6005	FARIS ENTERPRISES LLC	PO BOX 633	HEBRON , KY 41048-0633	736 DALTON ST
B6006	CLOVERLEAF HOMES LLC	150 RANSOM TRCE	GEORGETOWN , KY 40324-2093	738 DALTON ST
B6007	ROBINSON MARGARET M & ROBINSON KENNETH D	974 RIVERWATCH DR	VILLA HILLS , KY 41017-4441	608 8TH ST W
B6008	KASSON CONSTRUCTION LLC	152 174TH TERRACE DR E APT A	REDINGTON SHORES , FL 33708-1331	731 PHILADELPHIA ST
B6130	KASSON CONSTRUCTION LLC	152 174TH TERRACE DR E APT A	REDINGTON SHORES , FL 33708-1331	731 PHILADELPHIA ST, APT #1
B6131	KASSON CONSTRUCTION LLC	152 174TH TERRACE DR E APT A	REDINGTON SHORES , FL 33708-1331	731 PHILADELPHIA ST, APT #2
B6132	KASSON CONSTRUCTION LLC	152 174TH TERRACE DR E APT A	REDINGTON SHORES , FL 33708-1331	731 PHILADELPHIA ST, APT #3
B6133	KASSON CONSTRUCTION LLC	152 174TH TERRACE DR E APT A	REDINGTON SHORES , FL 33708-1331	731 PHILADELPHIA ST, APT #4
B6009	MCKINNEY JAMES & LOIS	102 RENSHAW RD	HIGHLAND HEIGHTS, KY 41076-1045	807 PHILADELPHIA ST
B6010	ALTEVERS DONALD A & VIRGINIA G	13 SUNNYMEDE DR	FT MITCHELL, KY 41017-2816	811 PHILADELPHIA ST APT A
B6011	ALTEVERS DONALD A & VIRGINIA G	13 SUNNYMEDE DR	FT MITCHELL, KY 41017-2816	811 PHILADELPHIA ST APT B
GB6012X	KRAUS MICHAEL	1602 HOLMAN ST	COVINGTON , KY 41011-2940	819 PHILADELPHIA ST APT A
GB6012X	KRAUS MICHAEL	1602 HOLMAN ST	COVINGTON , KY 41011-2940	819 PHILADELPHIA ST APT B
GB6012X	KRAUS MICHAEL	1602 HOLMAN ST	COVINGTON , KY 41011-2940	821 PHILADELPHIA ST APT A
GB6012X	KRAUS MICHAEL	1602 HOLMAN ST	COVINGTON , KY 41011-2940	821 PHILADELPHIA ST APT B
B6016	DUBOIS MICHAEL	215 RUGBY AVE	TERRACE PARK , OH 45174-1154	805 PERRY ST, APT A
B6017	DUBOIS MICHAEL	215 RUGBY AVE	TERRACE PARK , OH 45174-1154	805 PERRY ST, APT B
B6018	KASSON MICHELLE A & JAMES P	152 174TH TERRACE DR E APT A	REDINGTON SHORES, FL 33708-1331	814 PHILADELPHIA ST APT A
B6019	KASSON MICHELLE A & JAMES P	152 174TH TERRACE DR E APT A	REDINGTON SHORES, FL 33708-1331	814 PHILADELPHIA ST APT B
B6020	SPAULDING GROUP LLC	115 KRUEMPELMAN DR	FT MITCHELL , KY 41011-2680	815 PERRY ST APT A
B6021	SPAULDING GROUP LLC	115 KRUEMPELMAN DR	FT MITCHELL , KY 41011-2680	815 PERRY ST APT B
B6022	NIERGARTH DONALD B & NIERGARTH KIMBERLY A	112 E 9TH ST	NEWPORT, KY 41071-2104	817 PERRY ST APT A
B6023	NIERGARTH DONALD B & NIERGARTH KIMBERLY A	112 E 9TH ST	NEWPORT, KY 41071-2104	817 PERRY ST APT B
GB6024X	ZAND PROPERTIES LLC	PO BOX 176474	FT MITCHELL , KY 41017-6474	826 PHILADELPHIA ST APT A
GB6024X	ZAND PROPERTIES LLC	PO BOX 176474	FT MITCHELL , KY 41017-6474	826 PHILADELPHIA ST APT B
GB6024X	ZAND PROPERTIES LLC	PO BOX 176474	FT MITCHELL , KY 41017-6474	828 PHILADELPHIA ST APT A
GB6024X	ZAND PROPERTIES LLC	PO BOX 176474	FT MITCHELL , KY 41017-6474	828 PHILADELPHIA ST APT B
GB6024X	ZAND PROPERTIES LLC	PO BOX 176474	FT MITCHELL , KY 41017-6474	839 PERRY ST
GB6024X	ZAND PROPERTIES LLC	PO BOX 176474	FT MITCHELL , KY 41017-6474	839 PERRY ST
B6030	AG RE INVESTMENTS OHIO LLC	3953 ROBINHILL DR	CINCINNATI , OH 45211-1844	829 PERRY ST APT A
B6031	AG RE INVESTMENTS OHIO LLC	3953 ROBINHILL DR	CINCINNATI , OH 45211-1844	829 PERRY ST APT B
B6032	AG RE INVESTMENTS OHIO LLC	3953 ROBINHILL DR	CINCINNATI , OH 45211-1844	829 PERRY ST APT C
B6033	CIARAMITARO JOSEPH A	945 PALOMINO DR	VILLA HILLS , KY 41017-3765	846 PHILADELPHIA ST
GB6004X	COVINGTON CITY OF	20 W PIKE ST STE 1	COVINGTON , KY 41011-2298	741 DALTON ST
F6104O	COVINGTON CITY OF	20 W PIKE ST STE 1	COVINGTON , KY 41011-2298	730 9TH ST W
B6034O	COVINGTON CITY OF	20 W PIKE ST STE 1	COVINGTON , KY 41011-2298	847 PHILADELPHIA ST
B6035O	COVINGTON CITY OF	20 W PIKE ST STE 1	COVINGTON , KY 41011-2298	501 PHILADELPHIA ST
Group NSA C				
C02801	LITTON JUSTIN W & HAMILTON JENNIFER L	1413 KAVANAUGH ST	COVINGTON , KY 41011-2903	1413 KAVANAUGH ST
C03001	RECKERS RONALD R	1417 KAVANAUGH ST	COVINGTON , KY 41011-2903	1417 KAVANAUGH ST
C03101	RECKERS RONALD R	1419 KAVANAUGH ST	COVINGTON , KY 41011-2903	1419 KAVANAUGH ST
C07001-F	RODRIGUEZ JAMES A	625 EDGECLIFF RD	COVINGTON, KY 41011-1015	625 EDGECLIFF RD
C07101	IMMANUEL BAPTIST CHURCH	699 EDGECLIFF RD	COVINGTON, KY 41011-1015	699 EDGECLIFF RD
C16036	WILSON DONALD W & MARIE A	1263 LINNEMAN RD	CINCINNATI , OH 45238-4217	507 PRAGUE ST
C16037	KASIROSAFAR ABBAS & DIANA C	4638 BENTWOOD HILLS DR	WILDER, KY 41071-8858	511 14TH ST W APT 1
C16038	KASIROSAFAR ABBAS & DIANA C	4638 BENTWOOD HILLS DR	WILDER, KY 41071-8858	511 14TH ST W APT 2
C16039	KASIROSAFAR ABBAS & DIANA C	4638 BENTWOOD HILLS DR	WILDER, KY 41071-8858	511 14TH ST W APT 3
C16040	PERRY JOHN	PO BOX 307	ALEXANDRIA , KY 41001-0307	503 14TH ST W
C16041	PERRY JOHN	PO BOX 307	ALEXANDRIA , KY 41001-0307	503 14TH ST W

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
C16042	HOMETOWN MANAGEMENT LLC	8459 US 42 STE F #299	FLORENCE, KY 41042-8351	1415 KAVANAUGH ST
C26043	MONROE TERESA ANN	PO BOX 108 KINGS	MILLS, OH 45034-0108	1503 MONROE ST
C26044	WIECHMAN JOSHUA G	1505 MONROE ST	COVINGTON, KY 41014-1037	1505 MONROE ST
Group NSA E				
E00201	SHAH RATI	203 WESTERN AVE	COVINGTON, KY 41011-1038	203 WESTERN AVE
E00701	CLARK JULIO E	223 WESTERN AVE	COVINGTON, KY 41011-1038	223 WESTERN AVE
E00901	JOHNSON MOLLY C	229 WESTERN AVE	COVINGTON , KY 41011-1039	229 WESTERN AVE
E01001	DERFUS MARILYN J	231 WESTERN AVE	COVINGTON , KY 41011-1040	231 WESTERN AVE
E01101	ROBBINS BRENDA E	233 WESTERN AVE	COVINGTON, KY 41011-1038	233 WESTERN AVE
E01201	HARKER KEITH RICHARD	235 WESTERN AVE	COVINGTON, KY 41011-1038	235 WESTERN AVE
E01301	DURBIN JANUARY	237 WESTERN AVE	COVINGTON, KY 41011-1038	237 WESTERN AVE
E01501	SPANG DIANNA L	241 WESTERN AVE	COVINGTON, KY 41011-1038	241 WESTERN AVE
E01601	CARLO EMILY KAY	305 WESTERN AVE	COVINGTON, KY 41011-1039	305 WESTERN AVE
E01701	BAETEN JACOB EARL	307 Western Ave	COVINGTON, KY 41011-1039	307 Western Ave
E01801	GRIFFITH MARK C	309 WESTERN AVE	COVINGTON, KY 41011-1039	309 WESTERN AVE
E01901	CARPINELLO ANTHONY D	311 WESTERN AVE	COVINGTON, KY 41011-1039	311 WESTERN AVE
E02001	WELGE HEATHER E	313 WESTERN AVE	COVINGTON, KY 41011-1040	313 WESTERN AVE
E02101	RANDOLPH ARIELLE VIVIAN	315 WESTERN AVE	COVINGTON, KY 41011-1041	315 WESTERN AVE
E02501	MEADOWS DEL	308 WRIGHT ST	COVINGTON, KY 41011-1050	308 WRIGHT ST
E02601	SEFAKIS GEORGE E & JANET S	310 WRIGHT ST	COVINGTON, KY 41011-1050	310 WRIGHT ST
E02801	PERHOLTZ JEFF	333 WESTERN AVE	COVINGTON, KY 41011-1039	333 WESTERN AVE
E02901	JORDAN PATRICE	401 WESTERN AVE	COVINGTON, KY 41011-1040	401 WESTERN AVE
E03001	GYFTAKIS ATHANASIOS P & GYFTAKIS CHRISTINE	405 WESTERN AVE	COVINGTON, KY 41011-1040	405 WESTERN AVE
E03201	SLADE STACEY L & GRABOW JASON M	409 WESTERN AVE	COVINGTON, KY 41011-1040	409 WESTERN AVE
E03401	ABDALLA JASON	411 WESTERN AVE	COVINGTON, KY 41011-1040	411 WESTERN AVE
E03501	MIKES HOOD LLC	413 WESTERN AVE	COVINGTON, KY 41011-1040	413 WESTERN AVE
E03701	ALTENAU JEFFERY L	429 WESTERN AVE	COVINGTON, KY 41011-1040	429 WESTERN AVE
E03801	SCHMIDT KRISTIN M	431 WESTERN AVE	COVINGTON, KY 41011-1040	431 WESTERN AVE
E03901	WADE JUSTIN	507 WESTERN AVE	COVINGTON, KY 41011-1041	507 WESTERN AVE
E04001	STADTLANDER REBECCA & TALBERT WILLIAM	511 WESTERN AVE	COVINGTON, KY 41011-1041	511 WESTERN AVE
E04201	STADTLANDER JOEL	521 WESTERN AVE	COVINGTON, KY 41011-1041	521 WESTERN AVE
E04701	HAMBRICK LAWRENCE & SCHULTZ JENNIFER	613 WESTERN AVE	COVINGTON, KY 41011-1074	613 WESTERN AVE
E05002	GRAUSE LAWRENCE W	504 WESTERN AVE	COVINGTON, KY 41011-1000	504 WESTERN AVE
E05002	HERNDON BEN D	506 WESTERN AVE	COVINGTON, KY 41011-1000	506 WESTERN AVE
E05102	POHLKAMP MARK & PIES KELLY LYNN	508 WESTERN AVE	COVINGTON, KY 41011-1000	508 WESTERN AVE
E05102	MULREADY PAUL A	510 WESTERN AVE	COVINGTON, KY 41011-1000	510 WESTERN AVE
E05202	MORRIS AARON S & GIBBONS ANA CRISTINA HERRER	512 WESTERN AVE	COVINGTON, KY 41011-1000	512 WESTERN AVE
E05202	DEARFIELD AMY	514 WESTERN AVE	COVINGTON, KY 41011-1000	514 WESTERN AVE
E05302	HUNTER JESSE R & JENNIFER N	516 WESTERN AVE	COVINGTON , KY 41011-1000	516 WESTERN AVE
E05402	STEINKAMP CHRISTOPHER STEVEN	520 WESTERN AVE	COVINGTON, KY 41011-1000	520 WESTERN AVE
E05402	KESSLER RICHARD & HANRAHAN KIMBERLY J	522 WESTERN AVE	COVINGTON, KY 41011-1000	522 WESTERN AVE
E05502	CLARK JULIO E	524 WESTERN AVE	COVINGTON , KY 41011-1000	524 WESTERN AVE
E05701	MURRAY COLIN	616 WESTERN AVE	COVINGTON, KY 41011-1042	616 WESTERN AVE
E05801	MCMURRAY THOS P	622 WESTERN AVE	COVINGTON, KY 41011-1042	622 WESTERN AVE
E05901	ROTH JOSHUA DAVID	630 WESTERN AVE	COVINGTON, KY 41011-1042	630 WESTERN AVE
E06301	COLETTA SAMUEL J & DIANE M	640 WESTERN AVE	COVINGTON, KY 41011-1042	640 WESTERN AVE
E06701-F	NAPIER PARKER T	615 CRESCENT AVE	COVINGTON, KY 41011-1015	615 CRESCENT AVE
E07001-F	LITTLE MIKE	635 CRESCENT AVE	COVINGTON, KY 41011-1015	635 CRESCENT AVE
E6045	GATEWAY HOTEL LLC	100 E RIVERCENTER BLVD STE 1100	COVINGTON, KY 41011-1577	200 CRESCENT AVE
GE6046X	TC CAPITAL GROUP LLC	6594 ROSEWOOD LN	GOSHEN, OH 45122-8471	205 WESTERN AVE
GE6046X	TC CAPITAL GROUP LLC	6594 ROSEWOOD LN	GOSHEN, OH 45122-8471	207 WESTERN AVE
GE6046X	TC CAPITAL GROUP LLC	6594 ROSEWOOD LN	GOSHEN, OH 45122-8471	209 WESTERN AVE
GE6046X	TC CAPITAL GROUP LLC	6594 ROSEWOOD LN	GOSHEN , OH 45122-8471	211 WESTERN AVE
E6050	COV HGTS HOMEOWNERS ASSN INC	1332 HOLTON RD	GROVE CITY, OH 43123-8989	WESTERN AVE
E6051	HUANG YONG	5640 GLEN OAK	MASON, OH 45040-7701	239 WESTERN AVE
E6052	MANDYLAND INVESTMENTS LLC	668 WESTERN AVE	COVINGTON, KY 41011-1042	317 WESTERN AVE
E6053	MANDYLAND INVESTMENTS LLC	315 WESTERN AVE	COVINGTON, KY 41011-1039	319 WESTERN AVE
E6054	COOVERT MYRNA	6 VALLEY DR	FLORENCE, KY 41042-2418	321 WESTERN AVE
E6055	SCHULTE JOSEPH M	127 E 3RD ST	COVINGTON, KY 41011-1743	312 WRIGHT ST
E6056	CB PROPERTY HOLDINGS LLC	2335 BUTTERMILK CROSSING SUITE	CRESCENT SPRINGS , KY 41017-1622	407 WESTERN AVE
E6057	HAMMERLE JR GEORGE B & ARNSPERGER-HAMMERL	417 WESTERN AVE	COVINGTON , KY 41011-1040	419 WESTERN AVE
E6058	VOJAS MICHAEL	517 WESTERN AVE	COVINGTON , KY 41011-1041	515 WESTERN AVE
E6059	VOJAS MICHAEL	517 WESTERN AVE	COVINGTON , KY 41011-1041	517 WESTERN AVE
E6060	COTTON JOSEPH W TRUSTEE & COTTON NORMA TRU	527 WESTERN AVE	COVINGTON, KY 41011-1057	525 WESTERN AVE
E6061	COTTON JOSEPH W TRUSTEE & COTTON NORMA TRU	527 WESTERN AVE	COVINGTON, KY 41011-1057	527 WESTERN AVE

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
E6062	COTTON JOSEPH W TRUSTEE & COTTON NORMA TRU	527 WESTERN AVE	COVINGTON, KY 41011-1057	529 WESTERN AVE
E6063	COTTON JOSEPH W TRUSTEE & COTTON NORMA TRU	527 WESTERN AVE	COVINGTON, KY 41011-1057	531 WESTERN AVE
E6064	CLIFFORD RIVERVIEW PROPERTIES LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	601 WESTERN AVE
E6065	CLIFFORD RIVERVIEW PROPERTIES LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	605 WESTERN AVE
E6066	CLIFFORD RIVERVIEW PROPERTIES LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	607 WESTERN AVE
E6067	CLIFFORD RIVERVIEW PROPERTIES LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	611 WESTERN AVE
E6068	BEDD SCENIC VIEW LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	633 WESTERN AVE
E6069	BEDD SCENIC VIEW LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	635 WESTERN AVE
E6070	JACOB ALEXANDER B	PO BOX 159	LOVELAND, OH 45140-0159	518 WESTERN AVE
E6071	HUBBARD JAMES F & HUBBARD JAMES R	5404 LAKESIDE DR	FAIRFIELD , OH 45014-9102	526 WESTERN AVE
E6072	ACQUIRED ASSETS GROUP LLC	PO BOX 46	SOLVANG, CA 93464-0046	601 CRESCENT AVE
E6073	ACQUIRED ASSETS GROUP LLC	PO BOX 46	SOLVANG, CA 93464-0046	603 CRESCENT AVE
E6074	MCQUEARY MICHAEL L & DEBORAH	632 WESTERN AVE	COVINGTON, KY 41011-1042	632 WESTERN AVE
E6075	MCQUEARY MICHAEL L & DEBORAH	632 WESTERN AVE	COVINGTON, KY 41011-1042	634 WESTERN AVE
E6076	THORNTON PETER & TRULA	111 BRENT SPENCE SQ APT 901	COVINGTON, KY 41011-1475	636 WESTERN AVE
E6077	COTTON JOSEPH W & NORMA	527 WESTERN AVE	COVINGTON, KY 41011-1057	638 WESTERN AVE
E6078	OTHMAN OMAR	2306 KENYON CT	HEBRON, KY 41048-8608	605 CRESCENT AVE
E6079	BROCOL PROPERTIES LLC	56 ORPHANAGE RD	FT MITCHELL, KY 41017-3128	609 CRESCENT AVE
E6080	ROWE THOMAS MATTHEW & ROWE BEVERLY JEAN	745 WALTON NICHOLSON PK	WALTON, KY 41094-8790	611 CRESCENT AVE
E6081	ROWE THOMAS MATTHEW & ROWE BEVERLY JEAN	745 WALTON NICHOLSON PK	WALTON, KY 41094-8790	613 CRESCENT AVE
E6082	ASH JOEL P & ANGELA R	529 W MAIN ST	MASON , OH 45040-4671	621 CRESCENT AVE
E6083	TMASC INC	716 WESTERN AVE	COVINGTON, KY 41011-1044	625 CRESCENT AVE
E6084	KENNYS CROSSING LLC	301 VIEW PL	COVINGTON , KY 41011-1037	641 CRESCENT AVE
E6085	BEDD SCENIC VIEW LLC	3091 LITTLE DRY RUN RD	CINCINNATI , OH 45244-2503	619 WESTERN AVE
Group NSA F				
F01002-F	BECKER PATRICIA M	806 CRESCENT AVE	COVINGTON, KY 41011-1019	806 CRESCENT AVE
F01201-F	ZIMMER STEFANIE	812 CRESCENT AVE	COVINGTON, KY 41011-1020	812 CRESCENT AVE
F01701-F	CRUSHAM MICHAEL	824 CRESCENT AVE	COVINGTON, KY 41011-1020	824 CRESCENT AVE
F02101-F	POORE KELVIN R	844 CRESCENT AVE	COVINGTON, KY 41011-1020	844 CRESCENT AVE
F02401-F	RAMIREZ ARMONDO PEREZ & RAMIREZ ADELSO EPIF	850 CRESCENT AVE	COVINGTON, KY 41011-1020	850 CRESCENT AVE
F02701-F	FINDLEY ANN	858 CRESCENT AVE	COVINGTON, KY 41011-1020	858 CRESCENT AVE
F05401	WORKMAN NICHOLAS	857 CRESCENT AVE	COVINGTON, KY 41011-2028	857 CRESCENT AVE
F05501	WELCH MICHAEL W	859 CRESCENT AVE	COVINGTON, KY 41011-2028	859 CRESCENT AVE
F06001	ROWEKAMP LISA & GRUBER LARRY LEE	714 9TH ST W	COVINGTON, KY 41011-2028	714 9TH ST W
F06301	GAMBILL JOHN GRAHAM	724 9TH ST W	COVINGTON, KY 41011-2028	724 9TH ST W
F06601	BEHM CORY	868 WESTERN AVE	COVINGTON, KY 41011-1062	868 WESTERN AVE
F08801	ROY MARK W	721 9TH ST W	COVINGTON, KY 41011-1020	721 9TH ST W
F10701	MARCUS ROBBIE DAWN & STADELMAN RAYMOND J	914 WESTERN AVE	COVINGTON, KY 41011-2030	914 WESTERN AVE
F10802	SWEENEY MATTHEW SEAN	908 WESTERN AVE	COVINGTON, KY 41011-2030	908 WESTERN AVE
F16601	LANGE MICHAEL J & LISA M	618 11TH ST W	COVINGTON, KY 41011-2102	618 11TH ST W
F23101	ABBOTT ANNA MARIE V	618 WATKINS ST	COVINGTON, KY 41011-2139	618 WATKINS ST
F26001-F	DAY KATHLEEN	1325 HERMES AVE	COVINGTON, KY 41011-2100	1325 HERMES AVE
F28701-F	LOWE AUSTIN C	615 WATKINS ST	COVINGTON, KY 41011-2138	615 WATKINS ST
F28801-F	CAUDILL ELIZABETH B & DEAL JACKSON D	613 WATKINS ST	COVINGTON, KY 41011-2138	613 WATKINS ST
F28901-F	PETERS EMILY	611 WATKINS ST	COVINGTON, KY 41011-2138	611 WATKINS ST
F29001-F	DEFILIPPI LOURDES	609 WATKINS ST	COVINGTON, KY 41011-2138	609 WATKINS ST
F29101-F	SHEPHERD BROOK & COLE	607 WATKINS ST	COVINGTON, KY 41011-2138	607 WATKINS ST
F30501-F	RODRIGUEZ ANNIE P & BOWLING ANDREW	1312 HERMES AVE	COVINGTON, KY 41011-2117	1312 HERMES AVE
F30601-F	LORTON ROB	1314 HERMES AVE	COVINGTON, KY 41011-2117	1314 HERMES AVE
F30801-F	HACKMAN CLAIRE RICH & STEGEMILLER TYLER MARK	1318 HERMES AVE	COVINGTON, KY 41011-2117	1318 HERMES AVE
F31001-F	ERDMAN MEGAN KELSEY	1324 HERMES AVE	COVINGTON, KY 41011-2117	1324 HERMES AVE
F6086	DRIOUACHE KHALID TRUSTEE	909 MAIN ST UNIT 2	COVINGTON, KY 41011-2122	804 CRESCENT AVE
F6087	ESTES SCOTT ALLEN TRUSTEE	PO BOX 15314	COVINGTON , KY 41015-0314	808 CRESCENT AVE
F6088	THS HOLDINGS LLC	3150 SW 20 CT	FT LAUDERDALE, FL 33312-3732	832 CRESCENT AVE
F6089	BREARTON TIMOTHY	10100 BRANDSTEADE CT	UNION, KY 41091-8667	834 CRESCENT AVE
F6090	ANCHOR GROUP LLC	7145 RUSTIC TRL	BOULDER , CO 80301-3936	836 CRESCENT AVE
F6091	OLT PROPERTIES II LLC	2534 WOODCLIFF CT	VILLA HILLS , KY 41017-1139	846 CRESCENT AVE
F6092	JACKSON DEVELOPMENT LLC	713 SCOTT ST	COVINGTON, KY 41011-2417	848 CRESCENT AVE
F6093	BUMJOEJA LLC	12 W PIKE ST UNIT B	COVINGTON, KY 41011-2406	854 CRESCENT AVE
F6094	JRDL LLC	1459 SHIREPEAK WAY	INDEPENDENCE , KY 41051-7426	856 CRESCENT AVE
F6095	MI REAL ESTATE LLC	2101 DIAMOND BAR DR	LAS VEGAS, NV 89117-1953	860 CRESCENT AVE
F6096	ESTES SCOTT ALLEN TRUSTEE	PO BOX 15314	COVINGTON , KY 41015-0314	837 CRESCENT AVE
F6097	CABALLERO JORGE CORTEZ	6008 TAYLOR MILL RD	COVINGTON, KY 41015-2379	849 CRESCENT AVE
F6098	MOELLERING GREGORY R TRUSTEE	PO BOX 176054	FT MITCHELL, KY 41017-6054	851 CRESCENT AVE
F6099	TABACCHI ESTRELLA	1876 OLDE TREE DR	FLORENCE, KY 41042-4219	853 CRESCENT AVE

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
F6100	VOSS SEXTON LLC	1050 SCOTT ST	COVINGTON, KY 41011-3159	855 CRESCENT AVE
F6101	DUDLEY PROPERTIES II LLC	PO BOX 175828	COVINGTON, KY 41017-5828	716 9TH ST W
F6102	JAPIC LLC	715 BAKEWELL ST	COVINGTON , KY 41011-1227	720 9TH ST W
F6103	ELSBERND ALVIN & RENEE	10350 LIMERICK CIR	COVINGTON , KY 41015-2451	728 9TH ST W
F6105	FARIS ENTERPRISES LLC	PO BOX 633	HEBRON, KY 41048-0633	916 BAKER ST
F6106	STANDARD CLUB OF COVINGTON	643 LAUREL ST	COVINGTON, KY 41011-2013	643 LAUREL ST
F6107	ACQUIRED ASSETS GROUP LLC	PO BOX 46	SOLVANG, CA 93464-0046	920 BAKER ST
F6108	TOLLIVER JR CEDRIC D & LEWIS DEJOHNA	1024 YORK ST UNIT 2	NEWPORT , KY 41071-2886	902 WESTERN AVE APT 1
F6109	TOLLIVER JR CEDRIC D & LEWIS DEJOHNA	1024 YORK ST UNIT 2	NEWPORT , KY 41071-2886	902 WESTERN AVE APT 2
F6110	FOSTER CAPITAL INVESTMENTS LLC	730 WASHINGTON ST APT 236	COVINGTON , KY 41011-3042	719 9TH ST W
F6111	WALTER AARON & ASHLEY	1691 BRIERWOOD CT	FLORENCE , KY 41042-7006	916 WESTERN AVE
F6112	PERRY JOHN	PO BOX 307	ALEXANDRIA, KY 41001-0307	904 WESTERN AVE
F6113	RUDOLPH NICHOLAS A	10820 ALONDRA BLVD STE 1036	CERRITOS , CA 90703-1502	925 WESTERN AVE
F6114	HAYDON ZECHARIAH	106 VERNON DR	CRESTVIEW HILLS , KY 41017-2244	703 LEWIS ST
F6115	BA COUGHLIN LLC	10207 WATERSIDE CT	UNION, KY 41091-9490	614 11TH ST W
F6116	ROHRAFF ADAM	610 W 11TH ST	COVINGTON, KY 41011-2102	610 11TH ST W
F6117	ROHRAFF ADAM	610 W 11TH ST	COVINGTON, KY 41011-2102	612 11TH ST W
F6118	IDEAL PROPERTY SOLUTIONS LLC	3057 UHL RD	MELBOURNE, KY 41059-8285	608 11TH ST W
F6119	JUDE JOE & PATRICIA	464 PRISCILLA AVE	DELTONA , FL 32725-8276	1321 HERMES AVE
F6120	INTERNATIONAL PRODUCT PARTNERS LLC	6318 KING OAK DR	CINCINNATI , OH 45248-3953	1319 HERMES AVE
F6121	SW PROPERTY PARTNERS LLC	1965 W MAIN ST UNIT 49	NEWARK , OH 43055-1371	617 WATKINS ST
F6122	CEO ASSOCIATES INC	2122 DONALDSON AVE	COVINGTON , KY 41014-1227	1252 HERMES AVE
F6123	C E O ASSOCIATES INC	2122 DONALDSON AVE	COVINGTON, KY 41014-1227	1302 HERMES AVE
F6124	TURTLEBACK INVESTMENTS LLC	6591 MIAMI TRAILS DR	LOVELAND, OH 45140-8043	1304 HERMES AVE
F6125	NEW RIVER PROPERTIES LLC	1458 TWELVE MILE RD	NEW RICHMOND, OH 45157-9576	1308 HERMES AVE
F6126	DUNAWAY DWIGHT & SHERRY	10975 HUEY PL	WALTON , KY 41094-9665	1316 HERMES AVE
F6127	DAMERON EVERETT	100 RIVERSIDE PLZ UNIT 404	COVINGTON, KY 41011-5713	1320 HERMES AVE
F6128	FARIS RENTALS LLC	PO BOX 633	HEBRON, KY 41048-0633	626 LEWIS ST
NSA A				
A6129	A C C D COMPANY	668 W 5TH ST	COVINGTON, KY 41011-1212	626-42 5TH ST W

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
Group NSA B	
B6001R	719 DALTON ST
B6002R	723 DALTON ST
B6003R	725 DALTON ST
B6005R	736 DALTON ST
B6006R	738 DALTON ST
B6007R	608 8TH ST W
B6008R	731 PHILADELPHIA ST
B6130R	731 PHILADELPHIA ST, APT #1
B6131R	731 PHILADELPHIA ST, APT #2
B6132R	731 PHILADELPHIA ST, APT #3
B6133R	731 PHILADELPHIA ST, APT #4
B6009R	807 PHILADELPHIA ST
B6010R	811 PHILADELPHIA ST APT A
B6011R	811 PHILADELPHIA ST APT B
B6012R	819 PHILADELPHIA ST APT A
B6013R	819 PHILADELPHIA ST APT B
B6014R	821 PHILADELPHIA ST APT A
B6015R	821 PHILADELPHIA ST APT B
B6016R	805 PERRY ST, APT A
B6017R	805 PERRY ST, APT B
B6018R	814 PHILADELPHIA ST APT A
B6019R	814 PHILADELPHIA ST APT B
B6020R	815 PERRY ST APT A
B6021R	815 PERRY ST APT B
B6022R	817 PERRY ST APT A
B6023R	817 PERRY ST APT B
B6024R	826 PHILADELPHIA ST APT A
B6025R	826 PHILADELPHIA ST APT B
B6026R	828 PHILADELPHIA ST APT A
B6027R	828 PHILADELPHIA ST APT B
B6028R	839 PERRY ST
B6029R	839 PERRY ST
B6030R	829 PERRY ST APT A
B6031R	829 PERRY ST APT B
B6032R	829 PERRY ST APT C
B6033R	846 PHILADELPHIA ST
Group NSA C	
C16036R	507 PRAGUE ST
C16037R	511 14TH ST W APT 1
C16038R	511 14TH ST W APT 2
C16039R	511 14TH ST W APT 3

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
C16040R	503 14TH ST W
C16041R	503 14TH ST W
C16042R	1415 KAVANAUGH ST
C26043R	1503 MONROE ST
C26044R	1505 MONROE ST
Group NSA E	
E6045R	200 CRESCENT AVE
E6046R	205 WESTERN AVE
E6047R	207 WESTERN AVE
E6048R	209 WESTERN AVE
E6049R	211 WESTERN AVE
E6050R	WESTERN AVE
E6051R	239 WESTERN AVE
E6052R	317 WESTERN AVE
E6053R	319 WESTERN AVE
E6054R	321 WESTERN AVE
E6055R	312 WRIGHT ST
E6056R	407 WESTERN AVE
E6057R	419 WESTERN AVE
E6058R	515 WESTERN AVE
E6059R	517 WESTERN AVE
E6060R	525 WESTERN AVE
E6061R	527 WESTERN AVE
E6062R	529 WESTERN AVE
E6063R	531 WESTERN AVE
E6064R	601 WESTERN AVE
E6065R	605 WESTERN AVE
E6066R	607 WESTERN AVE
E6067R	611 WESTERN AVE
E6068R	633 WESTERN AVE
E6069R	635 WESTERN AVE
E6070R	518 WESTERN AVE
E6071R	526 WESTERN AVE
E6072R	601 CRESCENT AVE
E6073R	603 CRESCENT AVE
E6074R	632 WESTERN AVE
E6075R	634 WESTERN AVE
E6076R	636 WESTERN AVE
E6077R	638 WESTERN AVE
E6078R	605 CRESCENT AVE
E6079R	609 CRESCENT AVE
E6080R	611 CRESCENT AVE

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
E6081R	613 CRESCENT AVE
E6082R	621 CRESCENT AVE
E6083R	625 CRESCENT AVE
E6084R	641 CRESCENT AVE
E6085R	619 WESTERN AVE
Group NSA F	
F6086R	804 CRESCENT AVE
F6087R	808 CRESCENT AVE
F6088R	832 CRESCENT AVE
F6089R	834 CRESCENT AVE
F6090R	836 CRESCENT AVE
F6091R	846 CRESCENT AVE
F6092R	848 CRESCENT AVE
F6093R	854 CRESCENT AVE
F6094R	856 CRESCENT AVE
F6095R	860 CRESCENT AVE
F6096R	837 CRESCENT AVE
F6097R	849 CRESCENT AVE
F6098R	851 CRESCENT AVE
F6099R	853 CRESCENT AVE
F6100R	855 CRESCENT AVE
F6101R	716 9TH ST W
F6102R	720 9TH ST W
F6103R	728 9TH ST W
F6105R	916 BAKER ST
F6106R	643 LAUREL ST
F6107R	920 BAKER ST
F6108R	902 WESTERN AVE APT 1
F6109R	902 WESTERN AVE APT 2
F6110R	719 9TH ST W
F6111R	916 WESTERN AVE
F6112R	904 WESTERN AVE
F6113R	925 WESTERN AVE
F6114R	703 LEWIS ST
F6115R	614 11TH ST W
F6116R	610 11TH ST W
F6117R	612 11TH ST W
F6118R	608 11TH ST W
F6119R	1321 HERMES AVE
F6120R	1319 HERMES AVE
F6121R	617 WATKINS ST
F6122R	1252 HERMES AVE

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
F6123R	1302 HERMES AVE
F6124R	1304 HERMES AVE
F6125R	1308 HERMES AVE
F6126R	1316 HERMES AVE
F6127R	1320 HERMES AVE
F6128R	626 LEWIS ST
A6129R	626-42 5TH ST W

APPENDIX A.2

Example Copies of Letters

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

April 9, 2025

PIN #:

CURRENT RESIDENT
1946 WICKLAND DR
LEXINGTON, KY 40505

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Northern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/north. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 24, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/north to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the

on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are both the owner and resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/north). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 9, 2025**. If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com; (859)744-1218) by no later than April 28th and a paper ballot can be provided. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

TRANSPORTATION CABINET

Andy Beshear
GOVERNOR

200 Mero Street
Frankfort, Kentucky 406 01

Jim Gray
SECRETARY

April 9, 2025

PIN:

{Owner Name}
1946 WICKLAND DR
LEXINGTON, KY 40505

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Northern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/north. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 24, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/north to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are **not** both the owner **and** resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/north). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 9, 2025**. If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com; (859)744-1218) by no later than April 28nd and a paper ballot can be provided. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

April 9, 2025

PIN #:

Owner name
Address 1
CSZ

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Northern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/north. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 24, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/north to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the

on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are both the owner and resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/north). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 9, 2025**. If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com; (859)744-1218) by no later than April 28th and a paper ballot can be provided. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

April 9, 2025

PIN: GB6024O

Zand Properties, LLC
PO BOX 176474
Fort Mitchell, KY 41017-6474

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Northern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/north. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 24, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/north to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting

will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are both the owner and resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/north). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 9, 2025**. Since your organization holds several properties in the area, rather than having you submit multiple surveys, a table has been provided that lists each property for which you are identified as the owner. It will be assumed that your survey responses apply to all of the listed properties. If that is not the case, please contact David Waldner with Palmer Engineering at (859)744-1218 or If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com, (859)744-1218) by no later than April 28th and a paper ballot can be provided. In accordance with the *KYTC Noise Assessment and Abatement Policy*, as the owner, one vote will be counted for each of the individual properties listed in the attached table. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

BRENT SPENCE BRIDGE CORRIDOR	**Zand Properties, LLC** **Multiple Property Noise Barrier Opinion Ballot**	TEAM KENTUCKY TRANSPORTATION CABINET
826 PHILADELPHIA ST APT A		
826 PHILADELPHIA ST APT B		
828 PHILADELPHIA ST APT A		
828 PHILADELPHIA ST APT B		
839 PERRY ST		

APPENDIX A.3

Returned Letters

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

VACANT

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
826 PHILADELPHIA ST APT B
COVINGTON, KY 41011-1255

NIXIE 430 DE 1 0004/21/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *2870-05077-12-24

41011$1255 C016
VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
613 CRESCENT AVE
COVINGTON, KY 41011-1015

NSN

NIXIE 430 DE 1 0004/21/25
RETURN TO SENDER
NO SUCH NUMBER
UNABLE TO FORWARD
BC: 40392074747 *0570-04319-14-41

41011$1015 C0
NSN
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
607 WESTERN AVE
COVINGTON, KY 41011-1074

NIXIE 430 DE 1 0004/21/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-03194-11-40

41011-1074467
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

VACANT

CURRENT RESIDENT
738 DALTON ST
COVINGTON, KY 41011-1249

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-02474-11-40

41011-124938
VAL
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

VACANT 7LM

CURRENT RESIDENT
807 PHILADELPHIA ST
COVINGTON, KY 41011-1254

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392070474/ *10/0-01697-11-40

41011-12540 VAL
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

VACANT

KEYSWAG LLC
817 PHILADELPHIA ST
COVINGTON, KY 41011-1254

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392070474/ *10/0-0307/9-11-40

41011-12540 VAL
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 3 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

VACANT

CURRENT RESIDENT
815 PERRY ST APT A
COVINGTON, KY 41011-1265

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392070474/ *0846-03334-18-39

41011-12540 VAL
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 4 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

VACANT

CURRENT RESIDENT
815 PERRY ST APT B
COVINGTON, KY 41011-1265

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392070474/ *1770-0007/3-11-47

41011-12540 VAL
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

Vacant

CURRENT RESIDENT
805 PERRY ST APT B
COVINGTON, KY 41011-1250

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1770-00292-11-45

41011-125005 VAL
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
612 W 11TH ST
COVINGTON, KY 41011-2102

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-01866-11-40

41011-210UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
634 WESTERN AVE
COVINGTON, KY 41011-1042

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1170-02329-11-42

UTF
41011-10429
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
419 WESTERN AVE
COVINGTON, KY 41011

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-02435-11-40

41011-104UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
529 WESTERN AVE
COVINGTON, KY 41011-1057

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-01969-11-40

41011-104TF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
605 WESTERN AVE
COVINGTON, KY 41011-1074

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-01529-11-40

41011-107TF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 4 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
1503 MONROE ST
COVINGTON, KY 41014-1037

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1770-03140-11-42

41014-109TF VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 4 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
503 W 14TH ST
COVINGTON, KY 41011-2901

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1770-03538-11-42

41011-290TF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
608 W 11TH ST
COVINGTON, KY 41011-2102

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-01860-11-40

41011-210208 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
617 WATKINS ST
COVINGTON, KY 41011-2138

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-03856-11-40

41011-213817 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
1308 HERMES AVE
COVINGTON, KY 41011-2117

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-02356-11-40

41011-211768 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

CURRENT RESIDENT
1321 HERMES AVE
COVINGTON, KY 41011-2100

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-02437-11-40

41011-210021 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 1 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.690
APR 09 2025

CURRENT RESIDENT
904 WESTERN AVE
COVINGTON, KY 41011-2030

VAC

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1170-05328-11-43

41011-20900
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.690
APR 09 2025

CURRENT RESIDENT
720 W 9TH ST
COVINGTON, KY 41011-2028

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD

41011-20220 VAC
40392>0747

BC: 40392074747 *1070-03971-11-40

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 3 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.690
APR 09 2025

CURRENT RESIDENT
832 CRESCENT AVE
COVINGTON, KY 41011-1020

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD

41011-10200 VAC
40392>0747

BC: 40392074747 *1670-04332-11-42

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 3 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.690
APR 09 2025

CURRENT RESIDENT
515 WESTERN AVE
COVINGTON, KY 41011-1041

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD

41011-10400 VAC
40392>0747

BC: 40392074747 *1670-04179-11-42

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
605 CRESCENT AVE
COVINGTON, KY 41011-1015

VAC

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-02480-11-40

41011-101 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
611 CRESCENT AVE
COVINGTON, KY 41011-1015

VAC

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-01572-11-40

41011-101 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 3 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰
APR 09 2025

CURRENT RESIDENT
312 WRIGHT ST
COVINGTON, KY 41011-1050

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1670-04502-11-42

41011-105 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 4 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

COMMONWEALTH OF KY
17 LESLIE AVE
FT MITCHELL, KY 41011-2630

NIXIE 430 FE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1170-05385-05-43

41011-26301 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 4 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

FOSTER CAPITAL INVESTMENTS LLC
730 WASHINGTON ST APT 236
COVINGTON, KY 41011-3042

NIXIE 430 FE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1770-03723-11-42

41011-30425
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 09 2025

PETER & TRULA THORNTON
111 BRENT SPENCE SQ APT 901
COVINGTON, KY 41011-1475

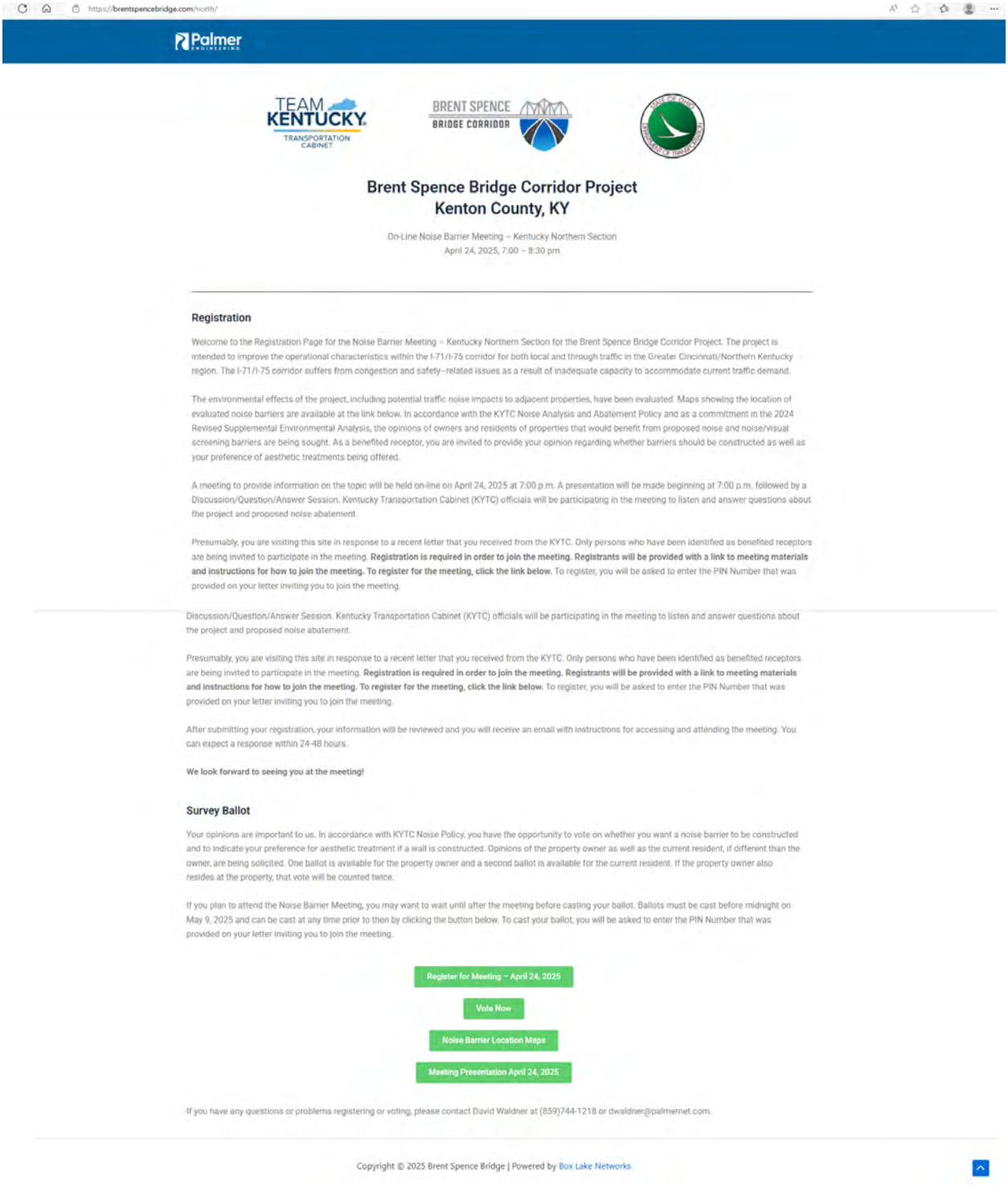
NIXIE 450 FE 1 0004/21/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *2870-01396-12-22

41011#1475 C006
UTF
40392>0747

Appendix B:

Noise Barrier Informational Meeting Webpage

Brent Spence Bridge Corridor Project
Kentucky Northern Section
Voting Website



https://brentspencebridge.com/north/

Palmer

Brent Spence Bridge Corridor Project
Kenton County, KY

On-Line Noise Barrier Meeting – Kentucky Northern Section
April 24, 2025, 7:00 – 8:30 pm

Registration

Welcome to the Registration Page for the Noise Barrier Meeting – Kentucky Northern Section for the Brent Spence Bridge Corridor Project. The project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety-related issues as a result of inadequate capacity to accommodate current traffic demand.

The environmental effects of the project, including potential traffic noise impacts to adjacent properties, have been evaluated. Maps showing the location of evaluated noise barriers are available at the link below. In accordance with the KYTC Noise Analysis and Abatement Policy and as a commitment in the 2024 Revised Supplemental Environmental Analysis, the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers are being sought. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A meeting to provide information on the topic will be held on-line on April 24, 2025 at 7:00 p.m. A presentation will be made beginning at 7:00 p.m. followed by a Discussion/Question/Answer Session. Kentucky Transportation Cabinet (KYTC) officials will be participating in the meeting to listen and answer questions about the project and proposed noise abatement.

Presumably, you are visiting this site in response to a recent letter that you received from the KYTC. Only persons who have been identified as benefited receptors are being invited to participate in the meeting. **Registration is required in order to join the meeting. Registrants will be provided with a link to meeting materials and instructions for how to join the meeting. To register for the meeting, click the link below.** To register, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

Discussion/Question/Answer Session. Kentucky Transportation Cabinet (KYTC) officials will be participating in the meeting to listen and answer questions about the project and proposed noise abatement.

Presumably, you are visiting this site in response to a recent letter that you received from the KYTC. Only persons who have been identified as benefited receptors are being invited to participate in the meeting. **Registration is required in order to join the meeting. Registrants will be provided with a link to meeting materials and instructions for how to join the meeting. To register for the meeting, click the link below.** To register, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

After submitting your registration, your information will be reviewed and you will receive an email with instructions for accessing and attending the meeting. You can expect a response within 24-48 hours.

We look forward to seeing you at the meeting!

Survey Ballot

Your opinions are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One ballot is available for the property owner and a second ballot is available for the current resident. If the property owner also resides at the property, that vote will be counted twice.

If you plan to attend the Noise Barrier Meeting, you may want to wait until after the meeting before casting your ballot. Ballots must be cast before midnight on May 9, 2025 and can be cast at any time prior to then by clicking the button below. To cast your ballot, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

Register for Meeting – April 24, 2025

Vote Now

Noise Barrier Location Maps

Meeting Presentation April 24, 2025

If you have any questions or problems registering or voting, please contact David Waldner at (859)744-1218 or dwaldner@palmernet.com.

Copyright © 2025 Brent Spence Bridge | Powered by Box Lake Networks

Appendix C:

April 24, 2025 On-Line Meeting

APPENDIX C.1

Attendee List

Brent Spence Bridge Corridor Project
On-Line Noise Informational Meeting
April 24, 2025
7:00 pm

Meeting Participants

Name
Michael Lange
Michael Kraus
Stephanie Zimmer
Paul Paul
Colleen Tarrant
Tyler Stegemiller
Jeff Perholtz

Project Representatives

Sara Doyle, Palmer Engineering
Hunter Pace, Palmer Engineering
Scott Schurman, KYTC
Stacee Hans, KYTC
Dave Waldner, Palmer Engineering
Gary Valentine, KYTC
Craig Craig, KYTC
Jeff Noble, AECOM

Names are as were provided during meeting registration

APPENDIX C.2

April 24, 2025 Kentucky Northern Section Noise Barrier Information Meeting Presentation



BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project: Kentucky Northern Section

Noise Barrier Informational Meeting

April 24, 2025

TEAM KENTUCKY TRANSPORTATION CABINET

odot

Introductions

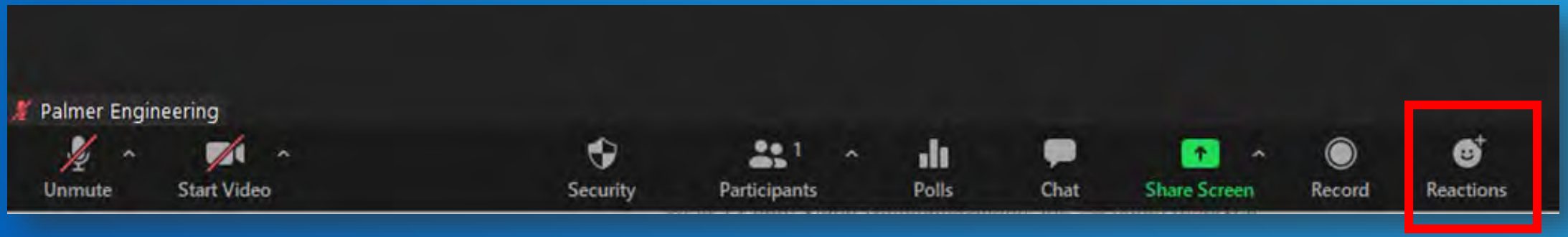
- Stacee Hans, KYTC Project Manager
- Gary Valentine, KYTC Project Advisor
- Scott Schurman, KYTC Environmental Project Manager
- Craig Craig, KYTC Noise Specialist
- Jeff Noble, AECOM, Kentucky Design Lead
- David Waldner, Palmer Engineering

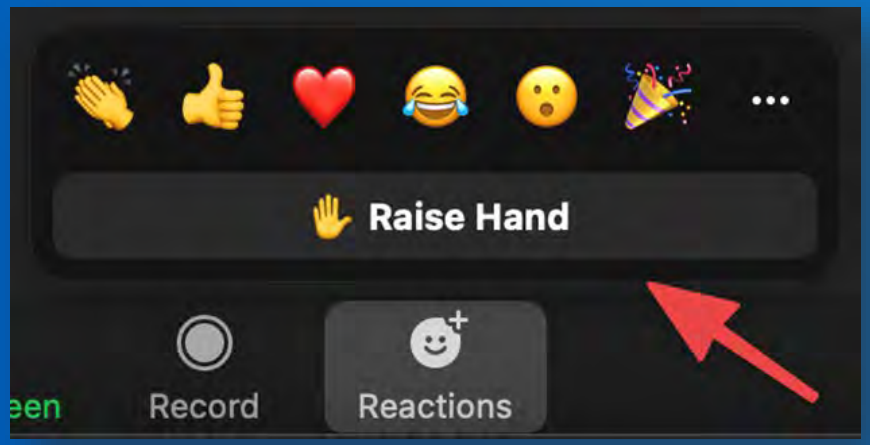
BRENT SPENCE
BRIDGE CORRIDOR

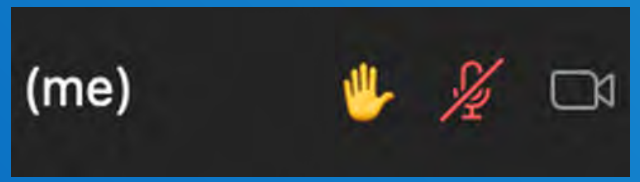
How to Participate in the Meeting

BRENT SPENCE BRIDGE CORRIDOR

Raise your hand if you want to speak or ask questions on the video.







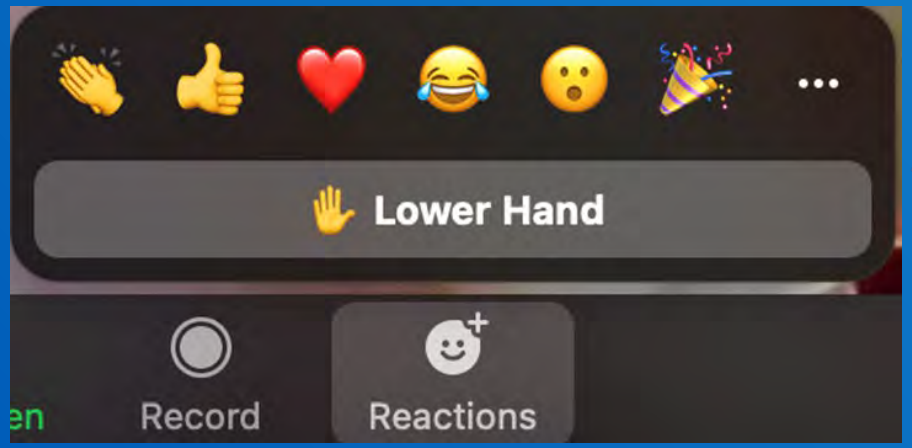
You'll know your hand is raised as a participant when you see an emoji hand on the screen next to your name.

If You Are on a Mobile Device:

BRENT SPENCE BRIDGE CORRIDOR



Raise hand can be found under ‘more’



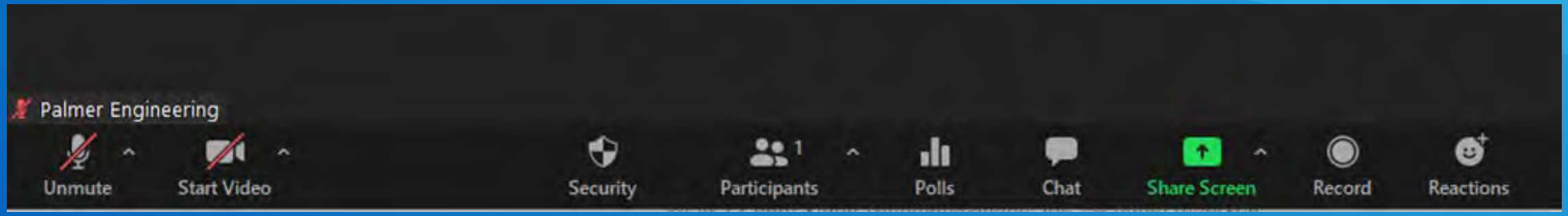
Lower your hand by clicking the same “Raise Hand” button on the screen as before, which now says “Lower Hand.”

How to Raise Hand in Zoom Dial-In Calls:

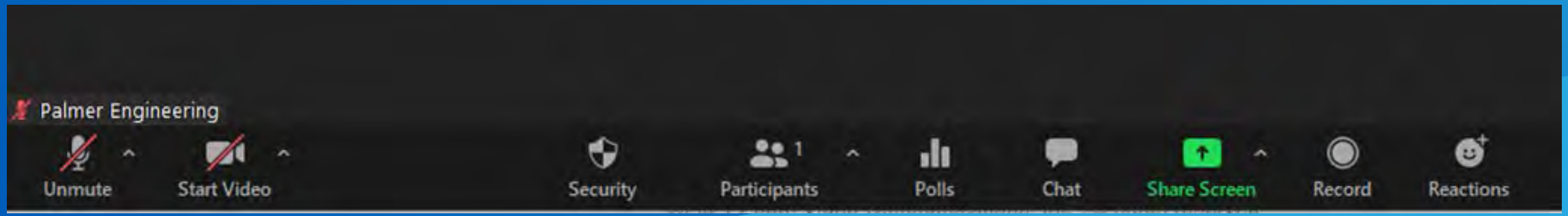
Once you join the meeting, dial *9 on your phone’s dial pad to raise your hand, and do the same to lower your hand.

Using the chat function during the meeting:

BRENT SPENCE BRIDGE CORRIDOR



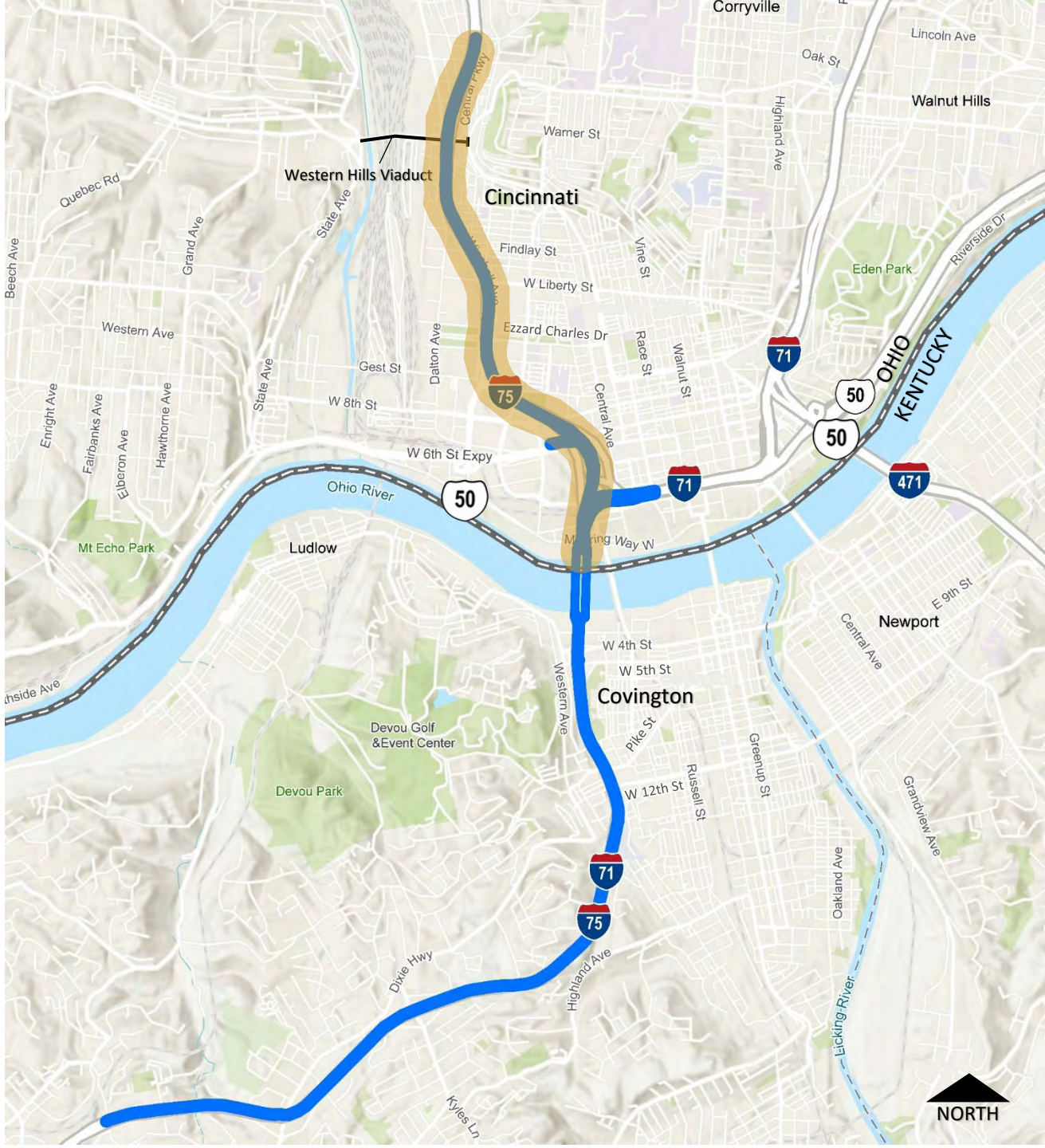
Submit your questions and comments using the chat feature. Click the chat button in your toolbar and type your question or comment in the provided box.



Use the microphone and camera buttons to control your video and audio sharing preferences.

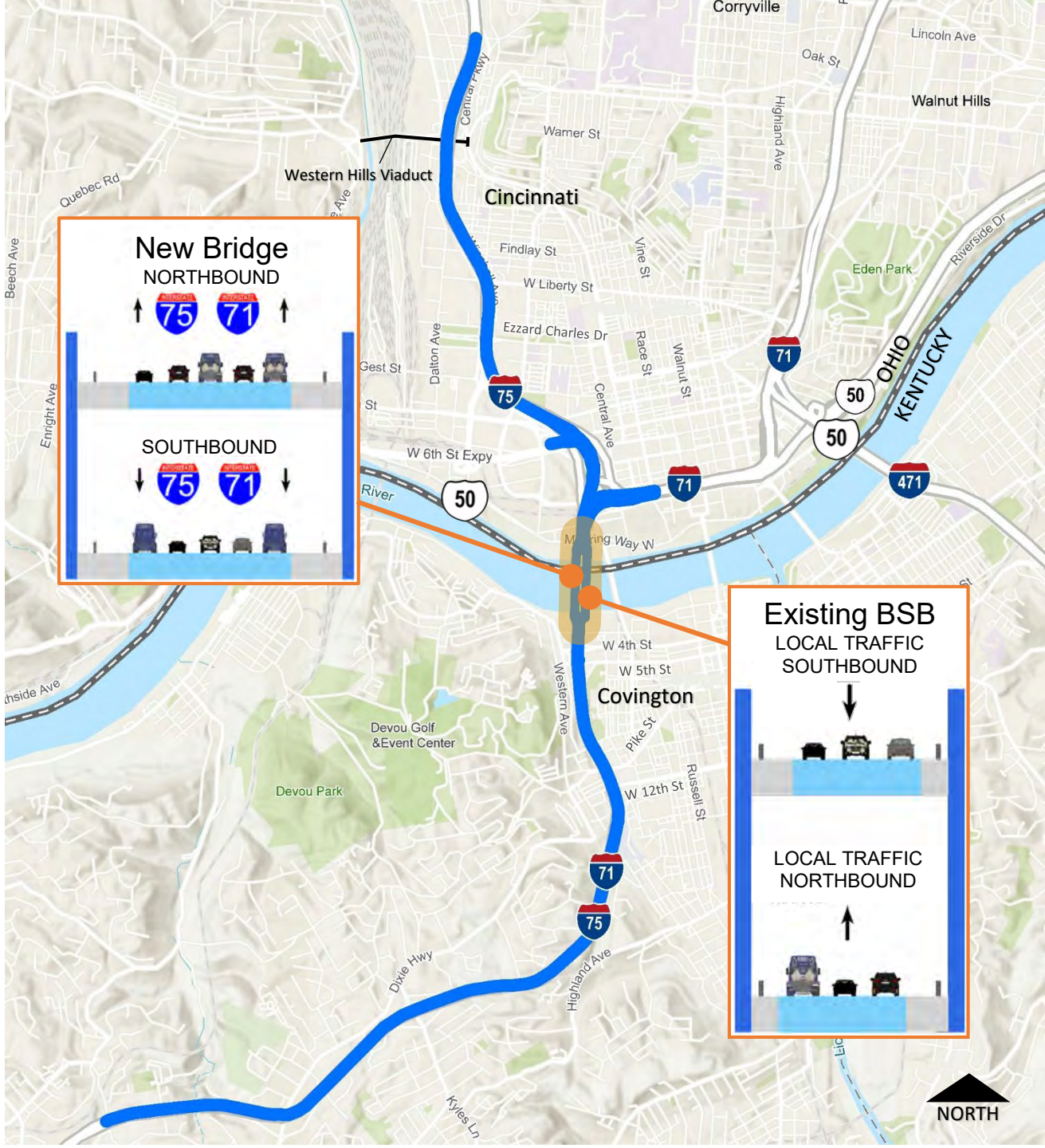
Project Description – Ohio

- Widen I-75
- Rebuild all overpass bridges and interchanges
- Build a collector-distributor system
- Tie into Mill Creek Expressway-Hopple Street Interchange project
- Tie into the Western Hills Viaduct project
- Add a northbound exit to Ezzard Charles Drive
- Connect to I-71 and US-50E



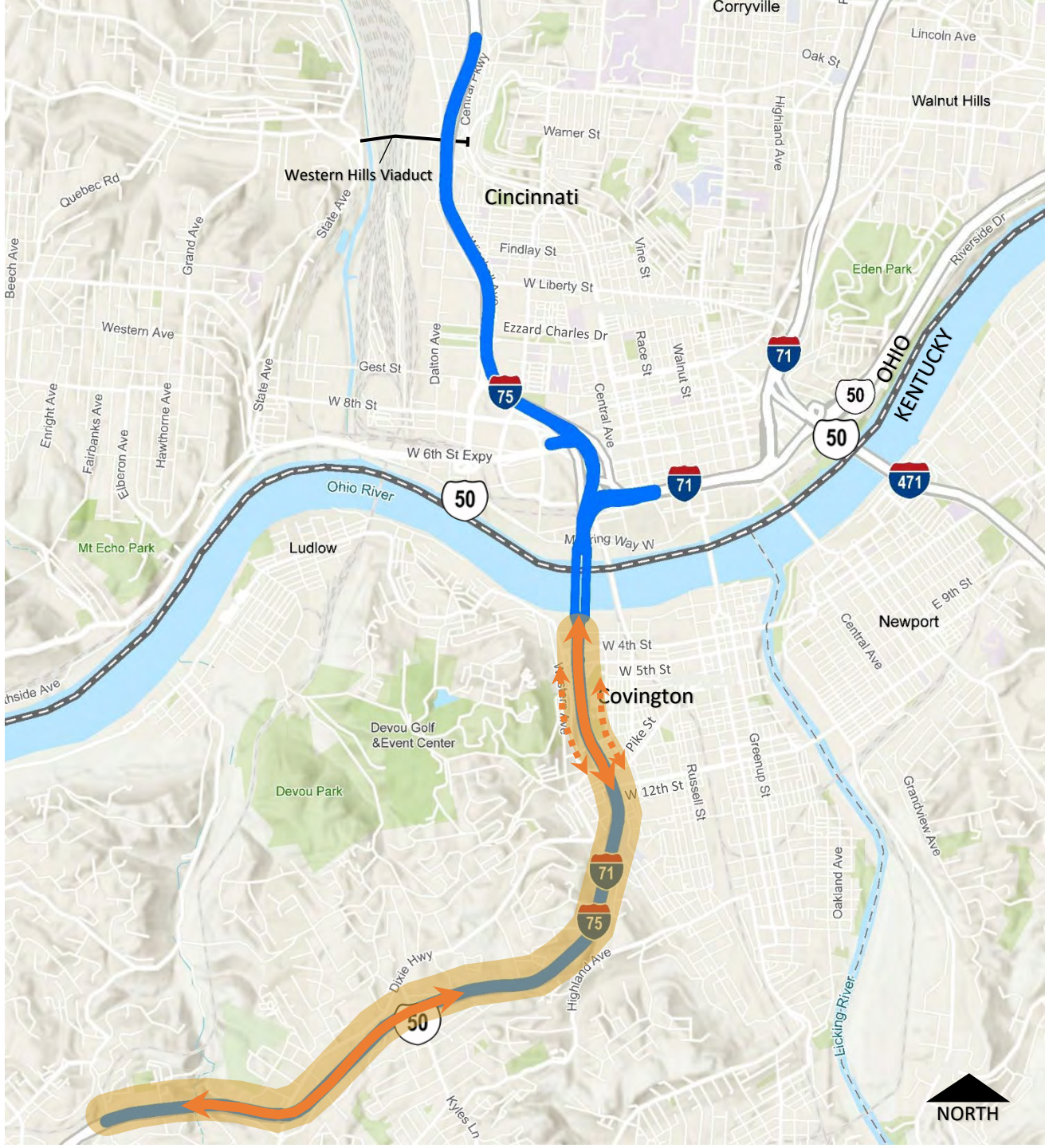
Project Description – Brent Spence Bridge

- New double-decker companion bridge
  - 5 lanes each deck
  - Carry through (interstate) traffic
- Rehabilitate and reconfigure existing bridge
  - Three lanes each deck
  - Increased inside/outside shoulders
  - Carry local traffic



Project Description – Kentucky

- Reconstruct and widen I-71/I-75
- Rebuild all overpass bridges and interchanges
- Extend frontage roads in Covington
- Construct a collector-distributor system from 12th Street north
- Construct collector-distributor systems between Dixie Highway and Kyles Lane



Why Are We Here?



Why Are We Here?



Why Are We Here?



BRENT SPENCE BRIDGE CORRIDOR

Presentation Overview

- Basics of Noise Analysis
- KYTC Noise Policy
- Results of Project Specific Noise Analysis
- Photos of Barrier Options
- Survey
- Questions and Answers



Poll #1

This meeting is for owners and residents of properties adjacent to I-71/I-75 that may benefit from construction of noise barriers when the road is widened. Which of the following describes your circumstances:

1. **I both own property and live in the area**
2. **I own property but do not live in the area**
3. **I am a renter of property in the area**

BRENT SPENCE BRIDGE CORRIDOR

What Is Noise?

- **Unwanted Sound**
- **Tires**
- **Engines**
- **Exhaust**



BRENT SPENCE BRIDGE CORRIDOR

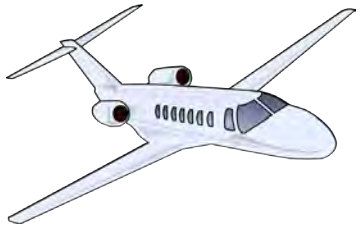
Noise Definitions

- **Decibels (dB) – unit of noise measurement**
- **Sensitive Receptor – ex. Homes, churches, etc.**
- **Benefited Receptor – receives 5 db noise reduction**
- **TNM® – Traffic Noise Model**

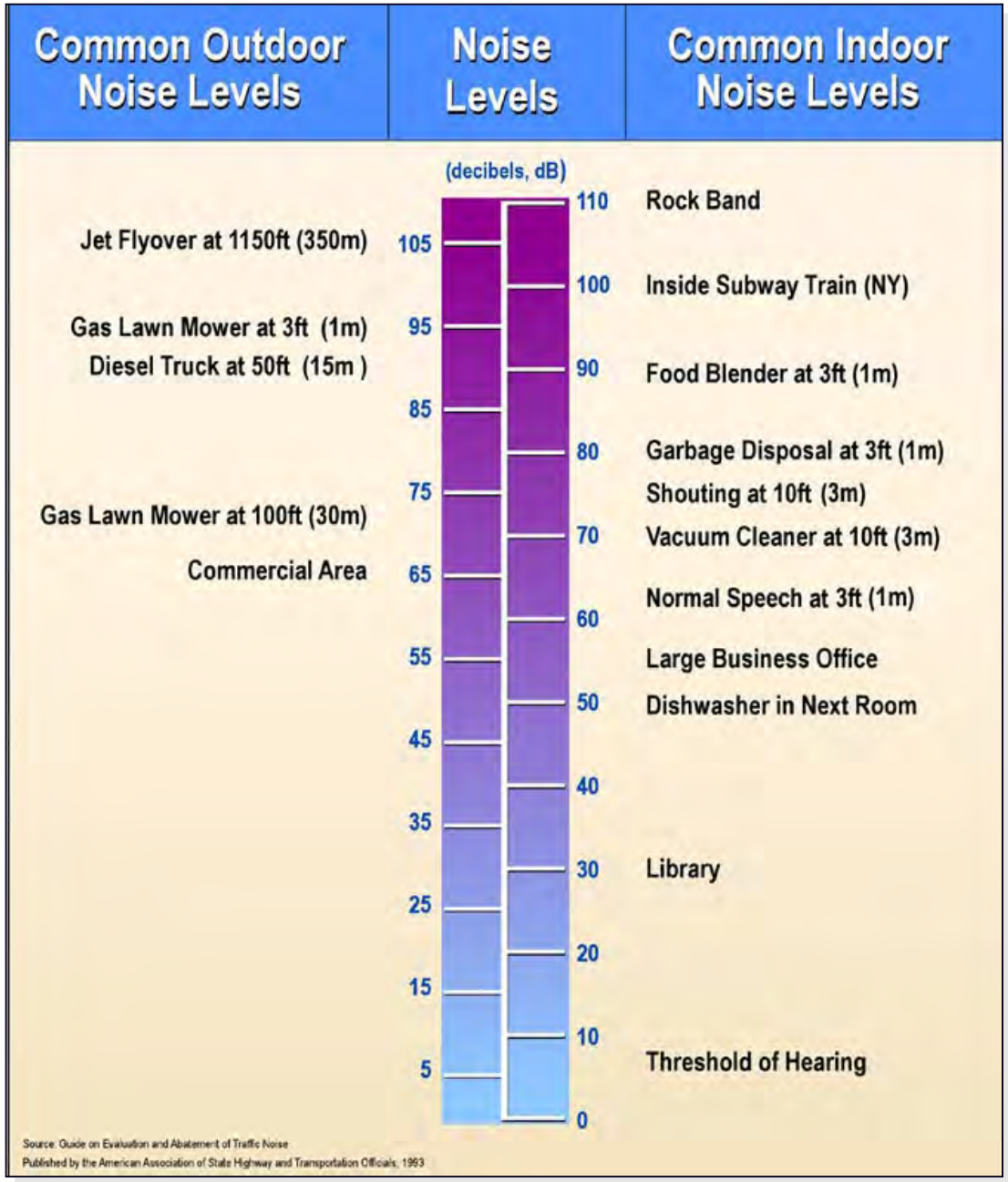


BRENT SPENCE BRIDGE CORRIDOR

Common Noise Levels







Sound Perception

Change In Sound Level	Perception
3 dB	Barely Perceptible
5 dB	Clearly Perceptible
10 dB	Twice as Loud

BRENT SPENCE BRIDGE CORRIDOR

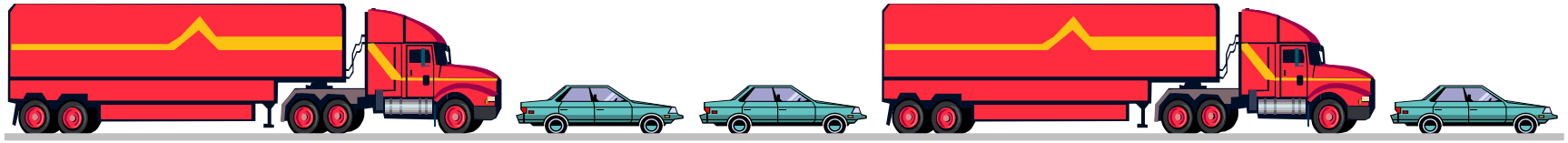
Level of Highway Noise Depends on Three Things:

- **Volume of Traffic**
- **Speed of Traffic**
- **Number of Trucks**



BRENT SPENCE
BRIDGE CORRIDOR

How Traffic Volume Affects Noise



2000 vehicles per hour sound twice as loud (+10 dB) as



200 vehicles per hour

BRENT SPENCE BRIDGE CORRIDOR

How Speed Affects Traffic Noise



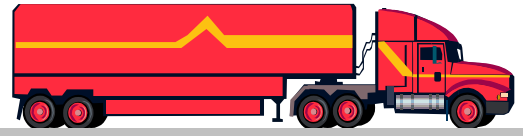
Cars at 70 miles per hour sounds twice as loud (+10 dB) as



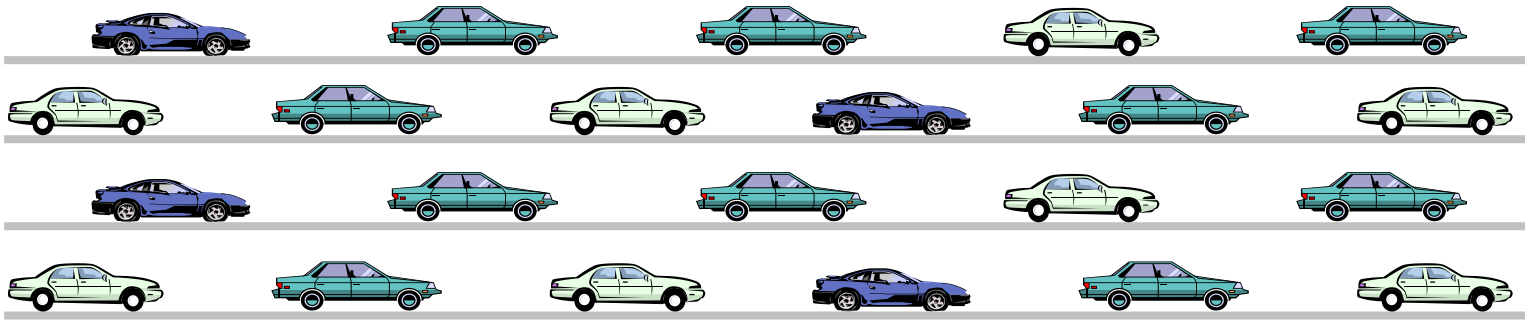
Cars at 35 miles per hour

BRENT SPENCE BRIDGE CORRIDOR

How Trucks Affect Traffic Noise



One truck at 55 miles per hour sounds as loud as



about 20 cars at 55 miles per hour

BRENT SPENCE BRIDGE CORRIDOR

Poll #2

Which best describes the Interstate traffic noise outside your residence or building?

1. **Not bad**
2. **Somewhat disruptive**
3. **Very disruptive**

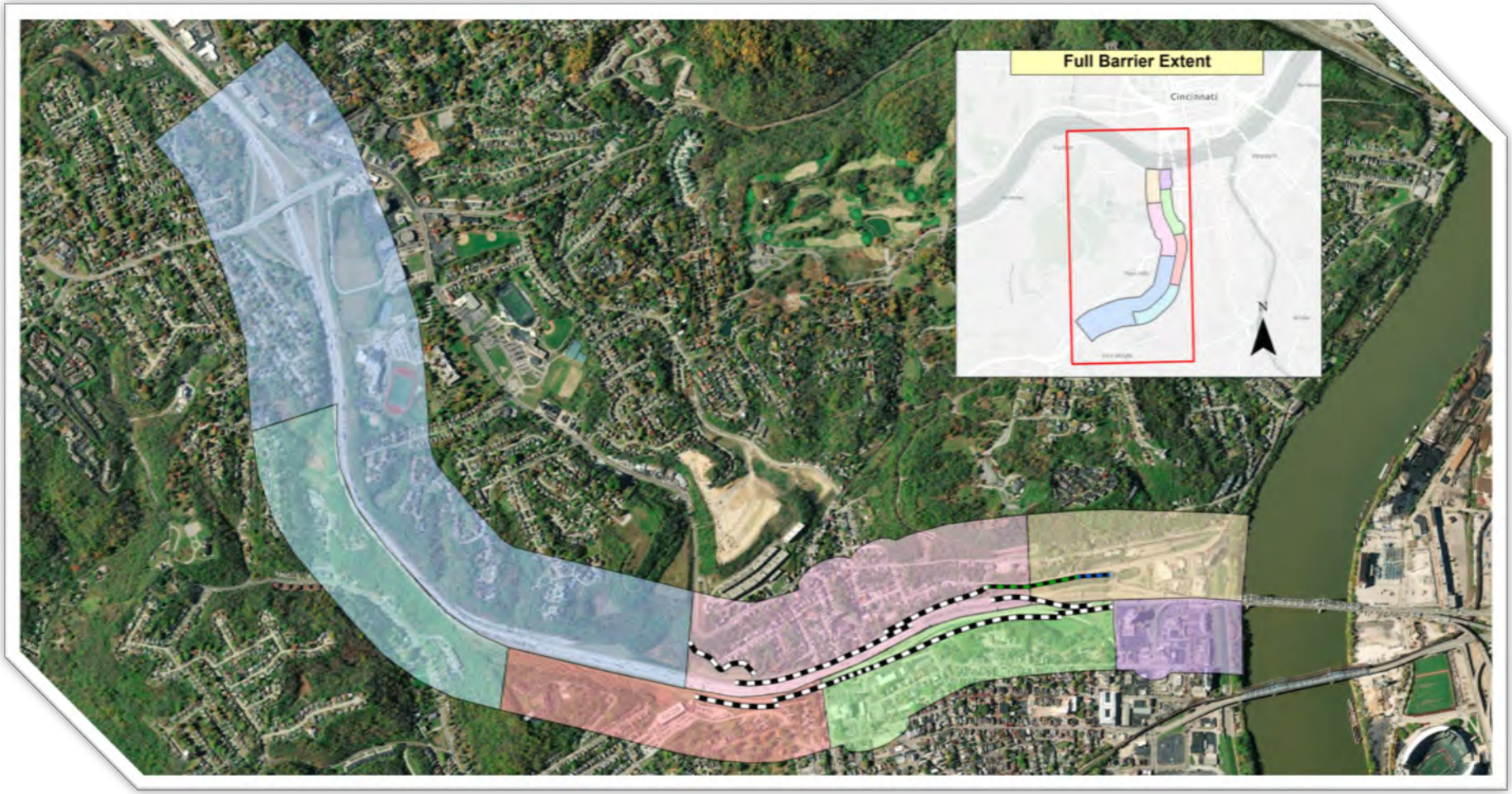
BRENT SPENCE BRIDGE CORRIDOR

BRENT SPENCE
BRIDGE CORRIDOR

Questions?

Noise Impact Identification

- **FHWA Traffic Noise Model**
- **Evaluate No Build and Build**



BRENT SPENCE
BRIDGE CORRIDOR

What Is a Noise Impact?

Land Use	Noise Level
Residential	67 dBA
Schools, Parks, Institutions	67 dBA
Restaurants & Offices	72 dBA

Source: Federal Highway Administration

Increase dBA	Description
10+	Substantial Increase

BRENT SPENCE BRIDGE CORRIDOR

KYTC Noise Policy

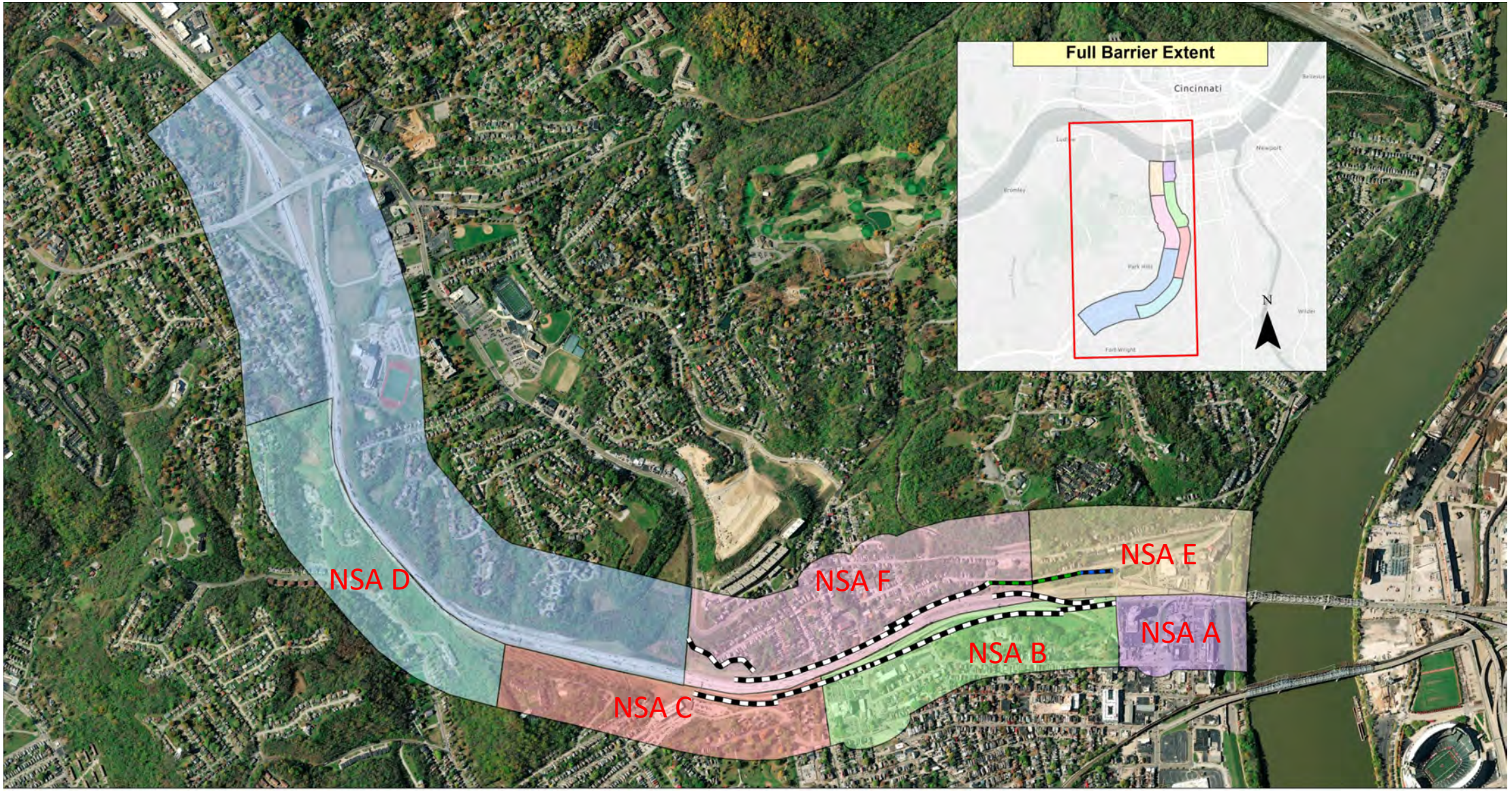
- If Impacts Are Predicted, Then
  - Avoid - Change Line or Grade
  - Minimize - Restrict Trucks or Lower Speed
  - Abate - Earth Berms or Noise Walls

- Evaluate Feasibility and Reasonableness
  - Sight Distance; Entrances
  - Cost per Benefited Receptor
  - Desires of Benefited Receptors

BRENT SPENCE BRIDGE CORRIDOR

BRENT SPENCE
BRIDGE CORRIDOR

Noise Analysis Results



Legend

- Crescent Ave. Barrier Extension
- Existing Crescent Ave. Barrier
- Barriers

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

0 0.13 0.25 0.5 0.75 1 Miles

Brent Spence Bridge Noise Analysis
NSA Overview

N



Legend

Barriers

Receiver Designation

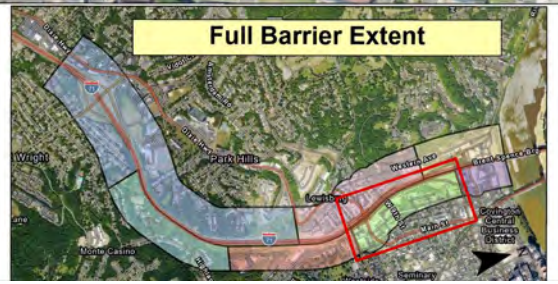
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

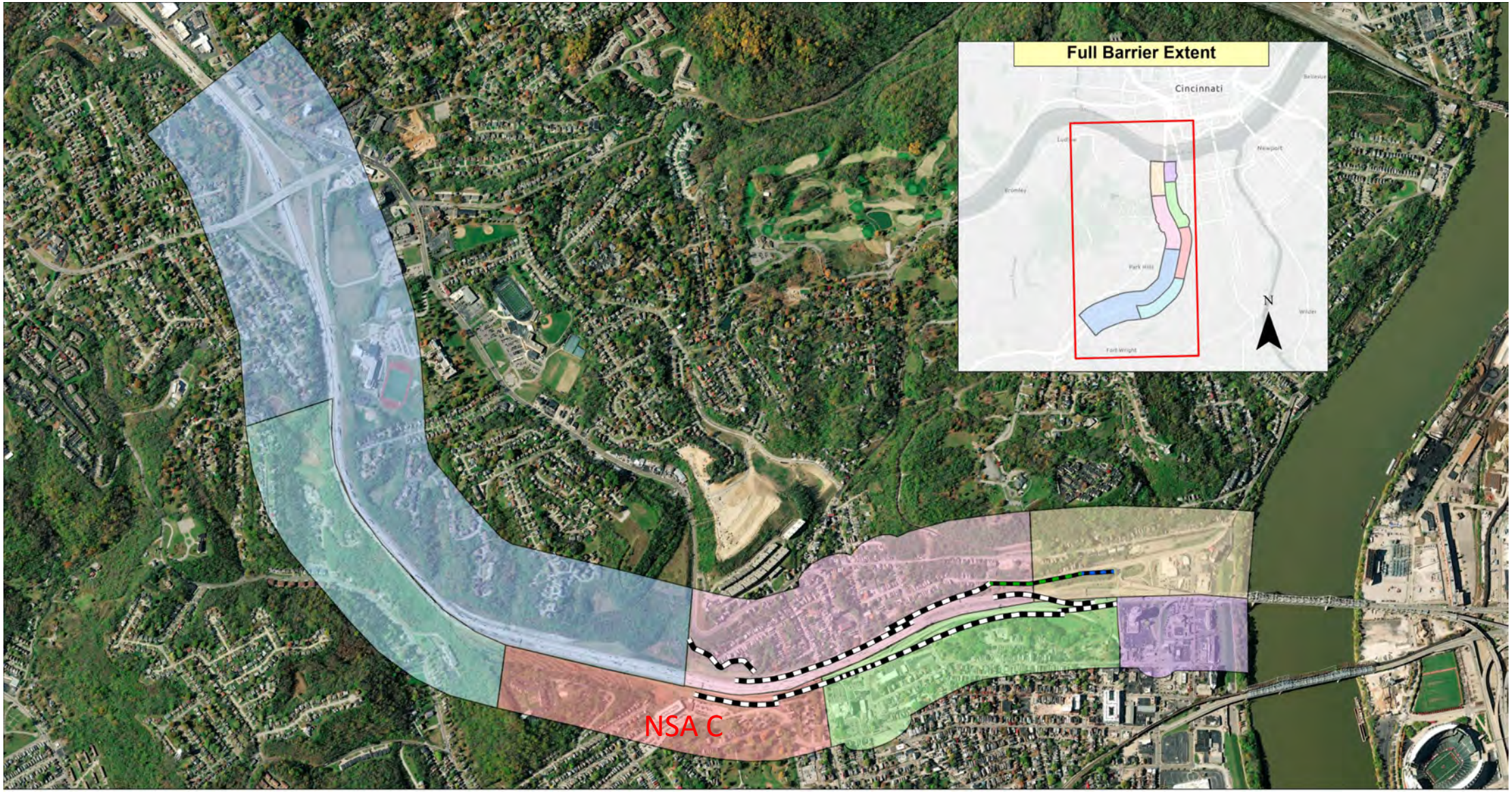
- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

Brent Spence Bridge Noise Analysis
NSA B Benefited Receivers

1 0.5 0 1 Miles



N



Legend

- Crescent Ave. Barrier Extension
- Existing Crescent Ave. Barrier
- Barriers

NSA Boundaries

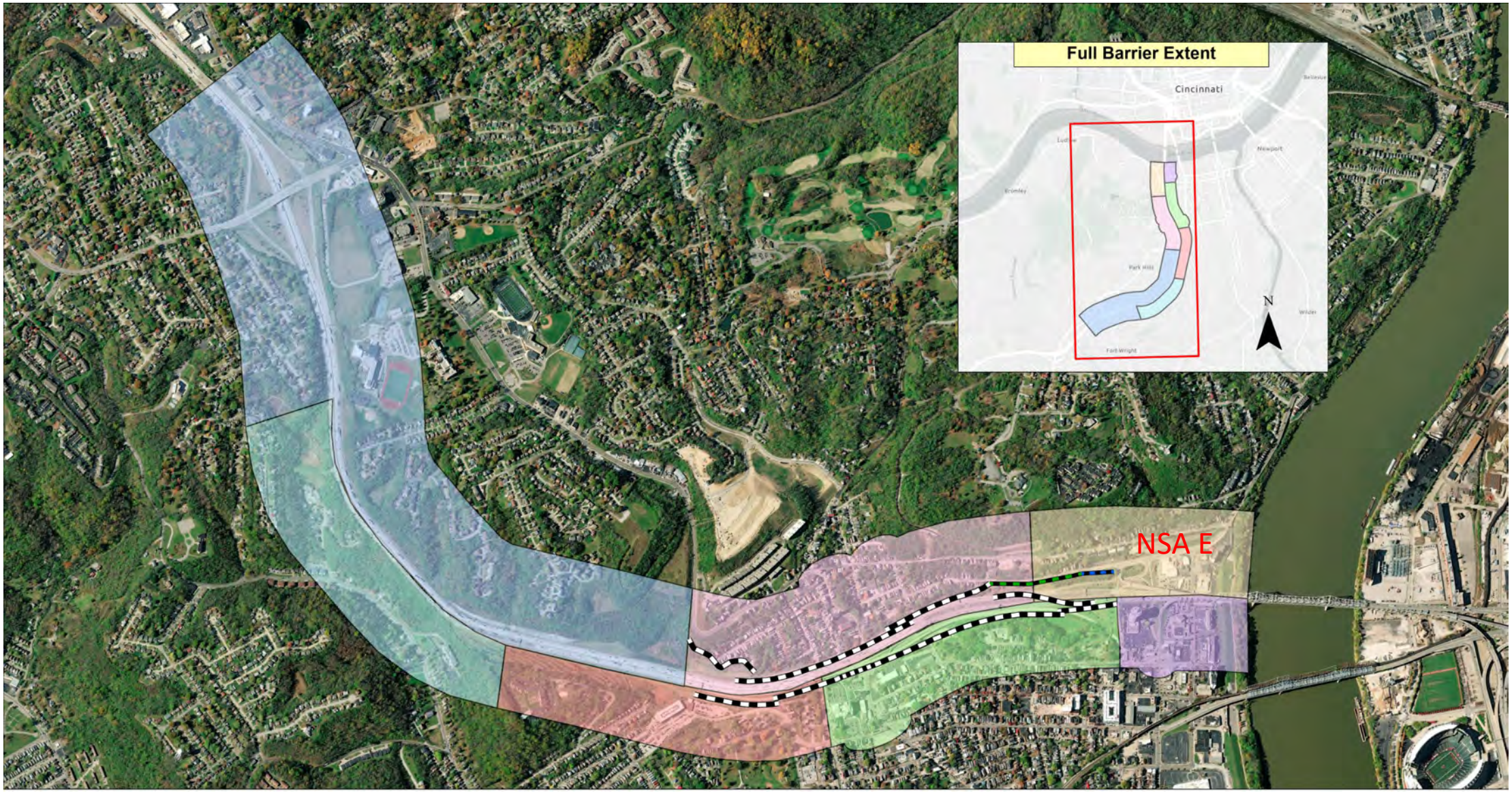
- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

0 0.13 0.25 0.5 0.75 1 Miles

Brent Spence Bridge Noise Analysis
NSA Overview

N


Legend
Barriers
Receiver Designation
Impacted, Benefited
Impacted, Not Benefited
Not Impacted, Benefited
Not Impacted, Not Benefited
NSA Boundaries
A
B
C
D
E
F
Kentucky Southern Section
Brent Spence Bridge Noise Analysis
NSA C Benefited Receivers
1 0.5 0 1 Miles
Full Barrier Extent
N
31



Legend

- Crescent Ave. Barrier Extension
- Existing Crescent Ave. Barrier
- Barriers

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

0 0.13 0.25 0.5 0.75 1 Miles

Brent Spence Bridge Noise Analysis
NSA Overview

N



Legend

Crescent Ave. Barrier Extension
Existing Crescent Ave. Barrier

Receiver Designation

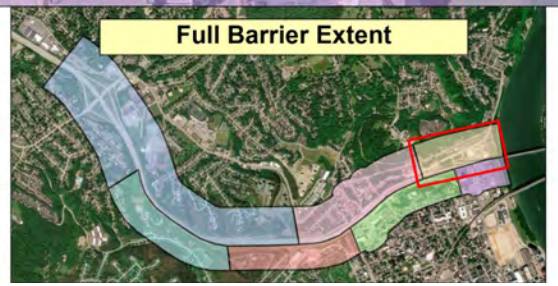
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

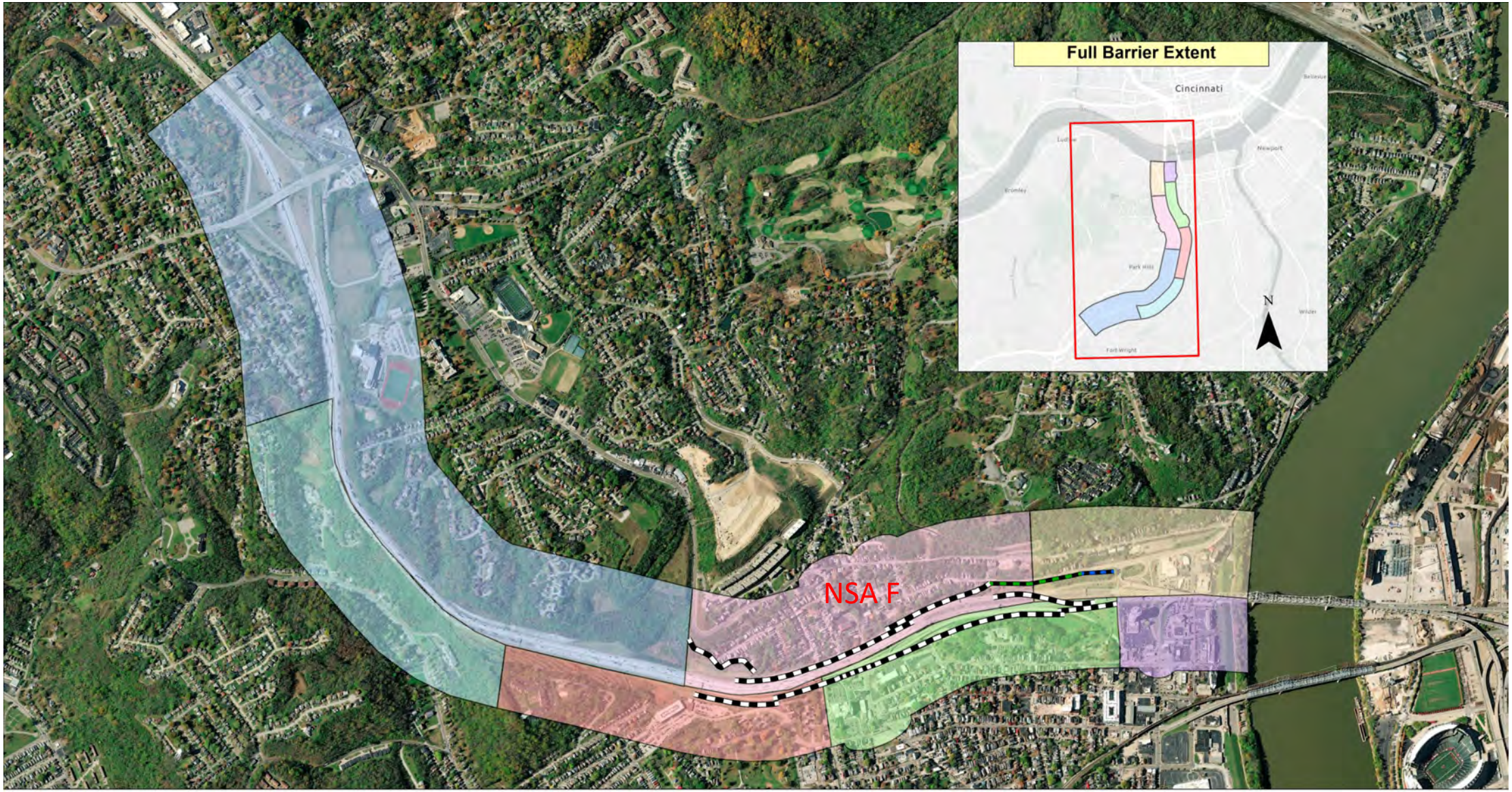
- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

Brent Spence Bridge Noise Analysis
NSA E Benefited Receivers

1 0.5 0 1 Miles



N



Legend

- Crescent Ave. Barrier Extension
- Existing Crescent Ave. Barrier
- Barriers

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

0 0.13 0.25 0.5 0.75 1 Miles

Brent Spence Bridge Noise Analysis
NSA Overview

N



Legend

Barriers
Existing Crescent Ave. Barrier

Receiver Designation

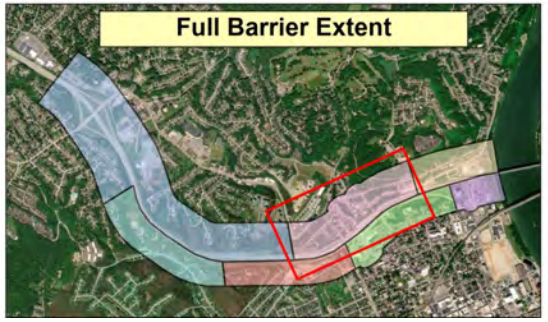
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

Brent Spence Bridge Noise Analysis
NSA F Benefited Receivers

0 0.25 0.5 1 Miles



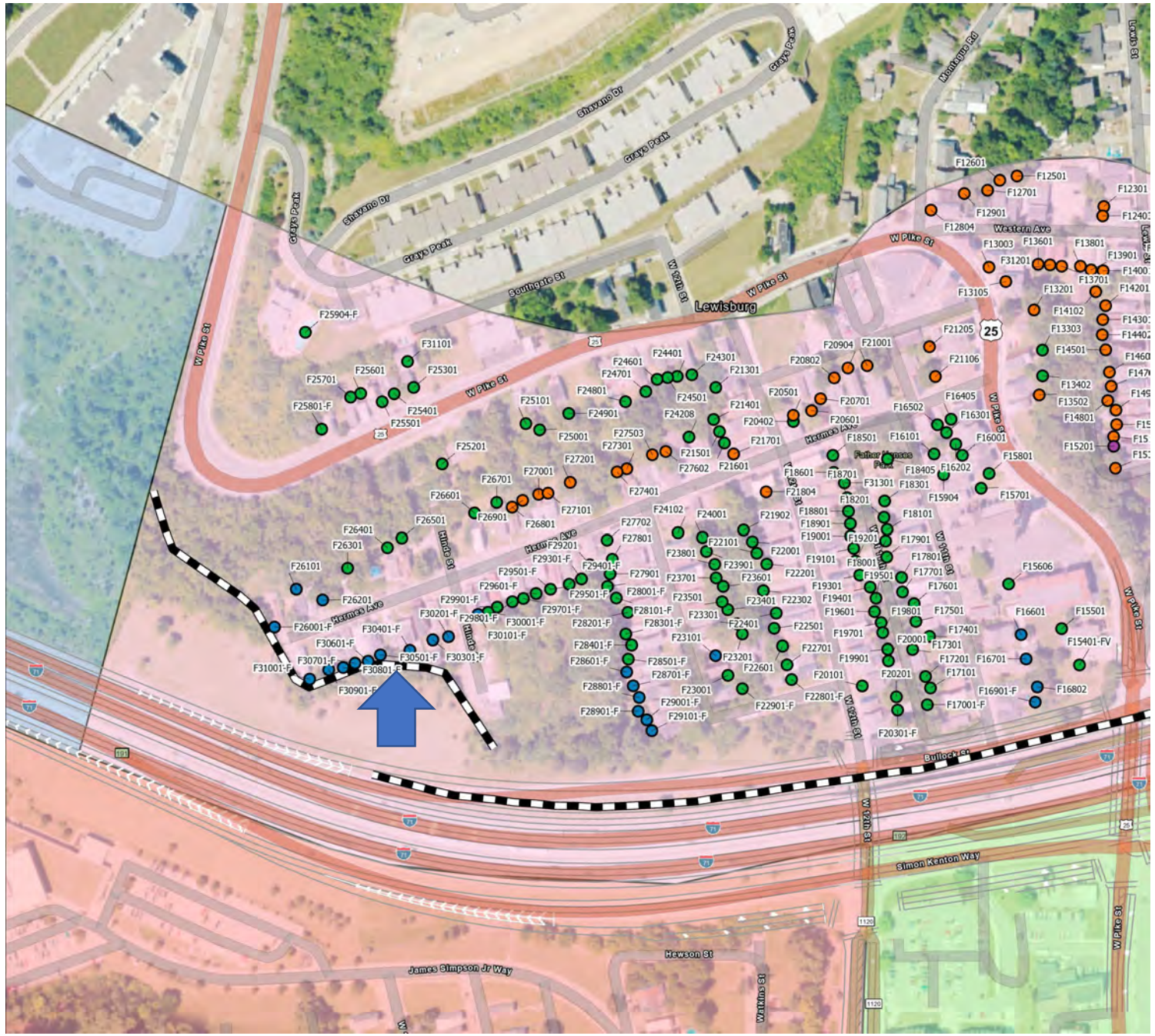
N

Legend

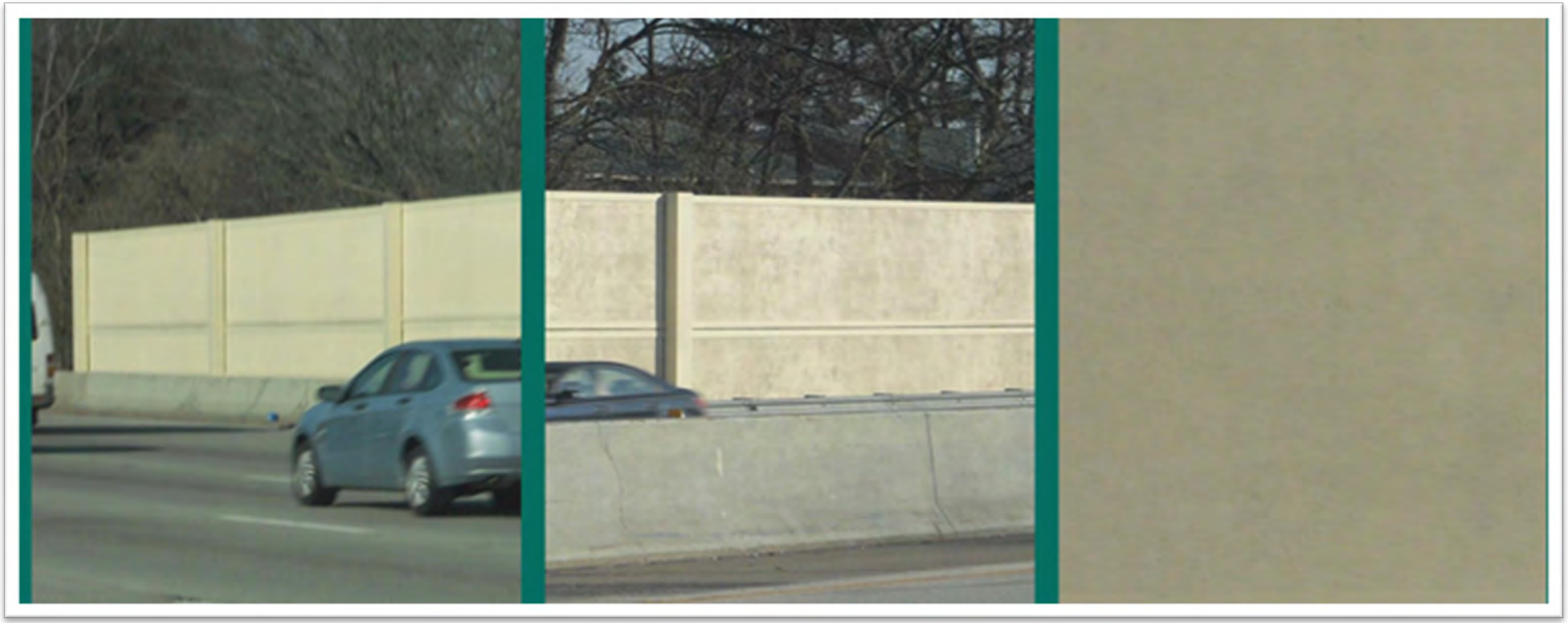
Barriers

Receiver Designation

- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited



Noise Wall Finish: Smooth Finish



BRENT SPENCE BRIDGE CORRIDOR

Noise Wall Finish: Cut Stone Finish



BRENT SPENCE BRIDGE CORRIDOR

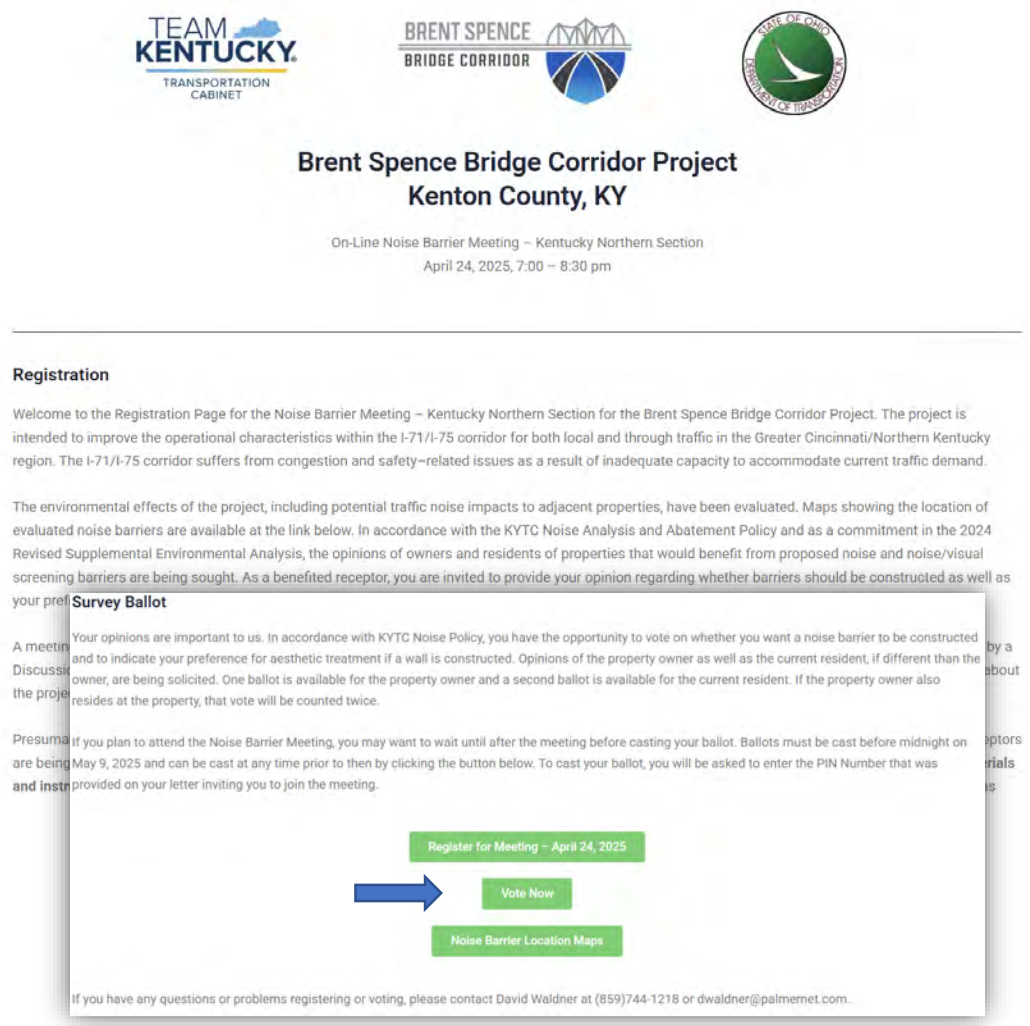
Noise Wall Finish: Transparent



BRENT SPENCE BRIDGE CORRIDOR

Voting Process

- Survey instructions mailed to Owners and Residents
- Survey accessible at registration page (brentspencebridge.com/north)
- Owner and Resident may each cast a vote
- Survey questions:
  - Construct barriers (Y/N)
  - Finish and texture (Smooth, Cut Stone, or Transparent)
- Survey results must be submitted by May 9, 2025



Brent Spence Bridge Corridor Project
Kenton County, KY

On-Line Noise Barrier Meeting – Kentucky Northern Section
April 24, 2025, 7:00 – 8:30 pm

Registration

Welcome to the Registration Page for the Noise Barrier Meeting – Kentucky Northern Section for the Brent Spence Bridge Corridor Project. The project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety-related issues as a result of inadequate capacity to accommodate current traffic demand.

The environmental effects of the project, including potential traffic noise impacts to adjacent properties, have been evaluated. Maps showing the location of evaluated noise barriers are available at the link below. In accordance with the KYTC Noise Analysis and Abatement Policy and as a commitment in the 2024 Revised Supplemental Environmental Analysis, the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers are being sought. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your pref

Survey Ballot

Your opinions are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One ballot is available for the property owner and a second ballot is available for the current resident. If the property owner also resides at the property, that vote will be counted twice.

If you plan to attend the Noise Barrier Meeting, you may want to wait until after the meeting before casting your ballot. Ballots must be cast before midnight on May 9, 2025 and can be cast at any time prior to then by clicking the button below. To cast your ballot, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

Register for Meeting – April 24, 2025

Vote Now

Noise Barrier Location Maps

If you have any questions or problems registering or voting, please contact David Waldner at (859)744-1218 or dwaldner@palmernet.com.

KYTC In-Person Open House Meeting

For residents affected by noise and included in the polling process

Tuesday, April 29th, 2025, from 2 p.m. to 6 p.m.

421 Buttermilk Pike,
Fort Mitchell, KY



BRENT SPENCE BRIDGE CORRIDOR

Project Contact

- **If you need assistance with your ballot or its submittal, you may contact:**

  David Waldner, Palmer Engineering
  dwaldner@palmernet.com
  (859) 744-1218

- **Registration Page: brentspencebridge.com/north**

BRENT SPENCE BRIDGE CORRIDOR

Questions?



Appendix D:

KYTC Open House Meeting April 29, 2025

APPENDIX D.1

Attendee List

BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project
Kentucky Noise Information Open House
Tuesday April 29, 2025
2:00 pm - 6:00 pm

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

AECOM

Sign-in Sheet

Name	Affiliation/Address	Telephone	Email
KAREN STEENKEN	13 LESLIE AVE	859-653-3343	karensteenken@gmail
MICHAEL KRAUS	821 PHILADELPHIA	426-7736	MIKEKRAUS1@YAHOO.COM
Katherine Tennant	137 W. Maple Ave	513-368-8399	katherinetennant@gmail.com
BILL OSTERHAGE	45 RIVARD DR	8598029577	BILL.OSTERHAGE@GMAIL.COM
SUE OSTERHAGE	" " "	8596530057	
MATT SCHAMER	250 BEECHWOOD Rd.	859-393-7816	MATTS@SELOELECTRIC.NET
Maggie Hessling	807 Highland Ave.	859-803-9370	mghessling@yahoo.com

BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project
Kentucky Noise Information Open House
Tuesday April 29, 2025
2:00 pm - 6:00 pm

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

AECOM

Sign-in Sheet

Name	Affiliation/Address	Telephone	Email
David Rodgers	Central Church of the Nazarene	859-743-4150	pastor.rodgers@yahoo.com
Mary Jo DiSalvo	135 W. Maple Ave	859-801-9954	Maryjoroth3@gmail.com
Michael Lande	618 Ln. 11th St	8592795469	Mike.Lande@fuse.net
Cindy Spadaro	11 Leslie Ave	6596635760	Cynthiaspadaro0792@gmail.com

Project Personnel/

BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project
Kentucky Noise Information Open House
Tuesday April 29, 2025
2:00 pm - 6:00 pm

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

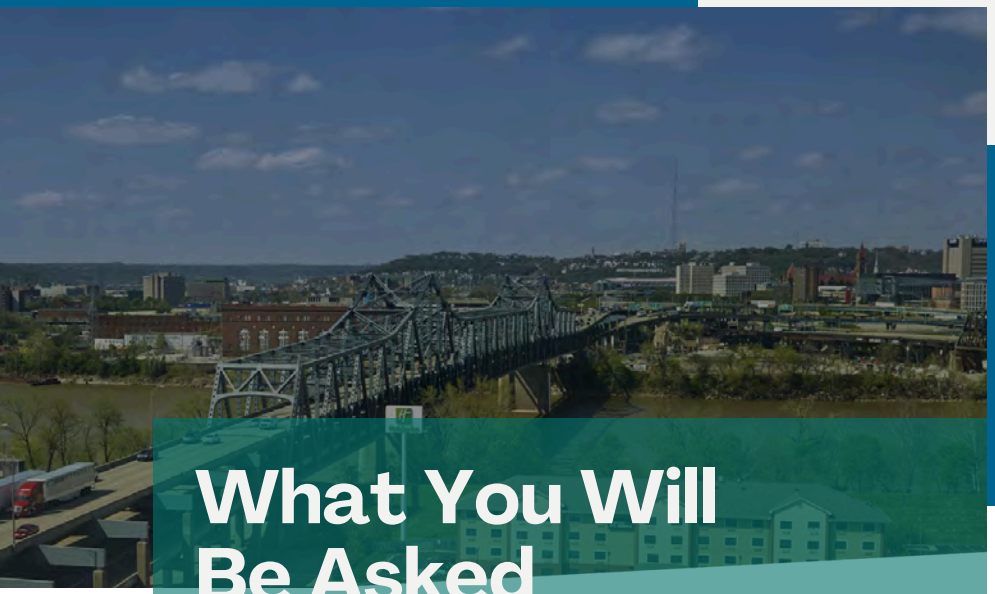
AECOM

Sign-in Sheet

Name	Affiliation/Address	Telephone	Email
David Waldner	Palmer Eng.	859 744 1218	dwaldner@palmernet.com
Hunter Pace	Palmer Eng	859-338-3606	hpace@palmernet.com
Nathan Pera	AECOM	816-392-7472	nathan.pera@aecom.com
Brett Rize	AECOM	859.684.0454	brett.rize@aecom.com
JAKE RYLE	KYTC D6	859-308-0924	jake.ryle@ky.gov
CRAIG J CRAIG	KYTC CO	502-396-7581	craig.craig@ky.gov
Bob Yeager	KYTC D-6	859-391-9718	robert.yeager@ky.gov
Stacee Hans	KYTC D-6	859-341-2700	stacee.hans@ky.gov
NIKKI BODEN	KYTC D-6	859-341-2700	NIKKI.BODEN@ky.gov
SCOTT SCHURMAN	KYTC CO	502-531-5031	SCOTT.SCHURMAN@Ky.GOV

APPENDIX D.2

Handout



What You Will Be Asked

- Do you support the construction of a noise barrier?
- If a barrier is constructed, what finish do you prefer?
- You may provide additional comments about the barrier or project.

Important Deadlines

Submit by:

- **May 5, 2025** – South Section
- **May 9, 2025** – North Section



KYTC Brent Spence Bridge Noise Barrier Open House

District 6 Office
421 Buttermill Pike
Fort Mitchell, KY

TEAM KENTUCKY
TRANSPORTATION CABINET

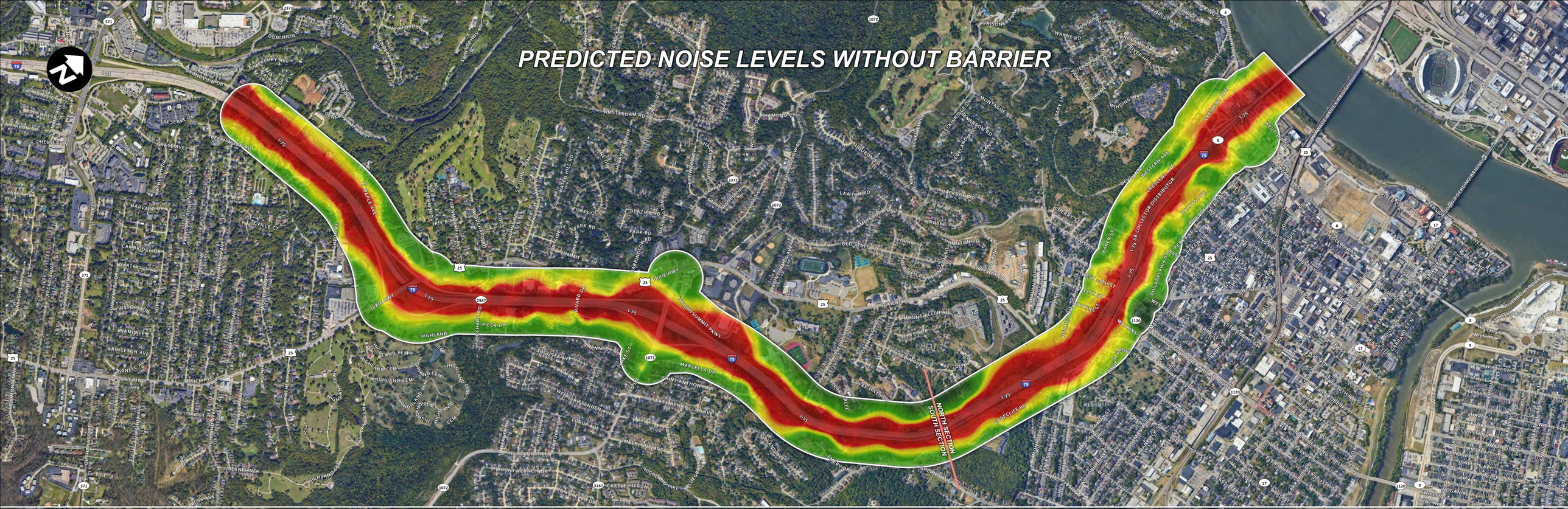
April 29, 2025

2:00 p.m. through 6:00 p.m.

APPENDIX D.3

Exhibits

PREDICTED NOISE LEVELS WITHOUT BARRIER



PREDICTED NOISE LEVELS WITH BARRIER



Legend

- Study Area
- All Evaluated Barriers

Predicted Noise Levels (dB[A])

- >75.0
- 72.1 - 75.0
- 69.1 - 72.0
- 66.1 - 69.0
- 62.1 - 66.0
- ≤62.0





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B16B (12-22 ft)
Exhibit 4

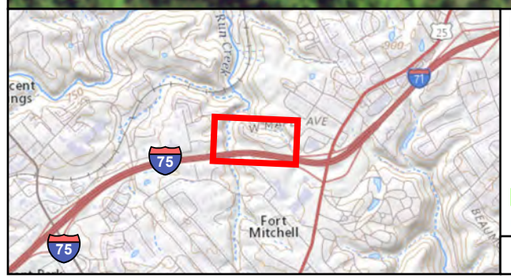
TEAM KENTUCKY
TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B17A (18-24 ft)
Exhibit 5

TEAM KENTUCKY
TRANSPORTATION CABINET

N
0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

GRANDVIEW DR

16 ft

18 ft

ROYAL DR

R757
66.6
(9.4)

R748
70.5
(8.9)

R749
66.5
(12.1)

R769
65.7
(7.6)

R783
66.2
(6.8)

R788
66.6
(5.6)

R771
63.0
(7.1)

R777
62.5
(9.0)

R778
62.3
(10.1)

R797
63.0
(7.3)

R787
62.8
(7.5)

R820
64.0
(5.4)

R813
61.8
(6.9)

R814
61.4
(6.5)

ANA JO LN

R825
58.6
(7.5)

R826
64.6
(4.4)

R823
65.3
(3.3)

R828
65.3
(3.5)

R840
55.4
(6.1)

PRATHER CT

R852
54.0
(5.4)

R821
63.9
(1.8)

R841
60.8
(4.3)

R850
61.1
(4.8)

BEECHWOOD RD

THOMPSON AVE

PLEASANT RIDGE AVE

ALLENTOWN DR



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7A

TEAM KENTUCKY
TRANSPORTATION CABINET

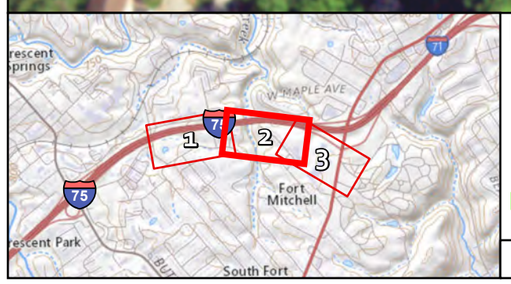
N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7B

TEAM KENTUCKY TRANSPORTATION CABINET

N

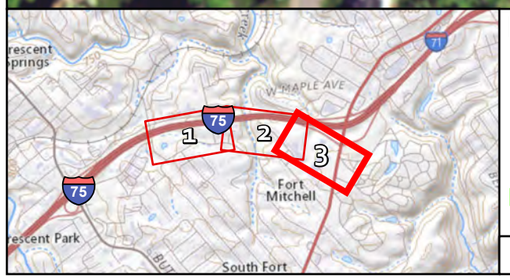
0 125 250

Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

20 ft
22 ft
75
25
R878
71.7
(5.0)
M-47
58.2
(5.1)
R672
63.3
(7.2)
R890
62.9
(9.2)
R894
62.3
(9.3)
R897
61.8
(9.3)
BEECHWOOD
TIGERS
HIGHLAND CEM
ASHTON RD
PAGE RD
UNNAMED RD 51



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7C

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B19 (20 ft)
Exhibit 8A

0 125 250
Feet

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

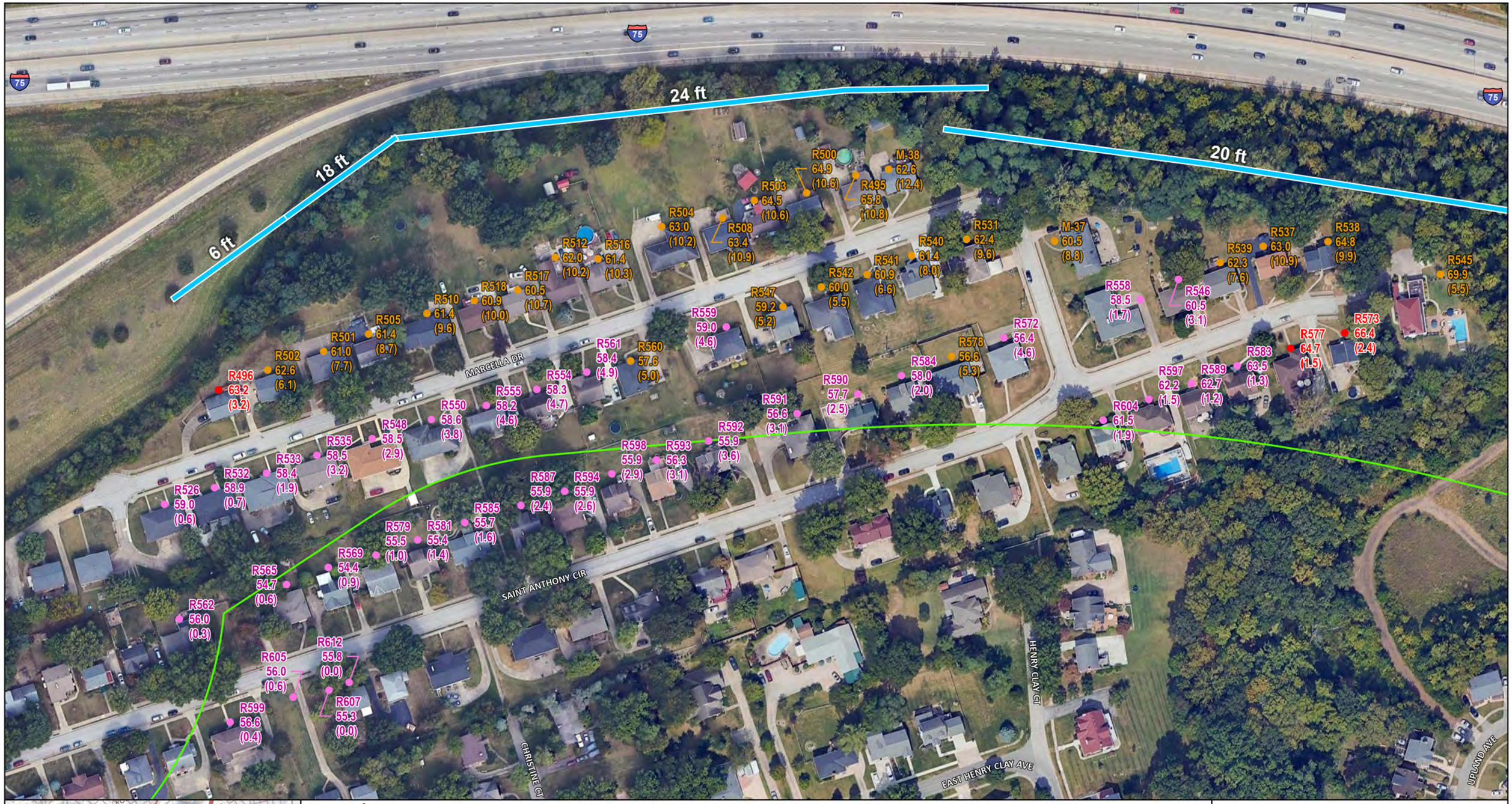
Concept I-W Barrier B19 (20 ft)
Exhibit 8B

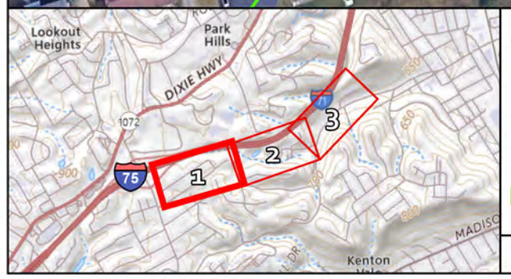
TEAM KENTUCKY
TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

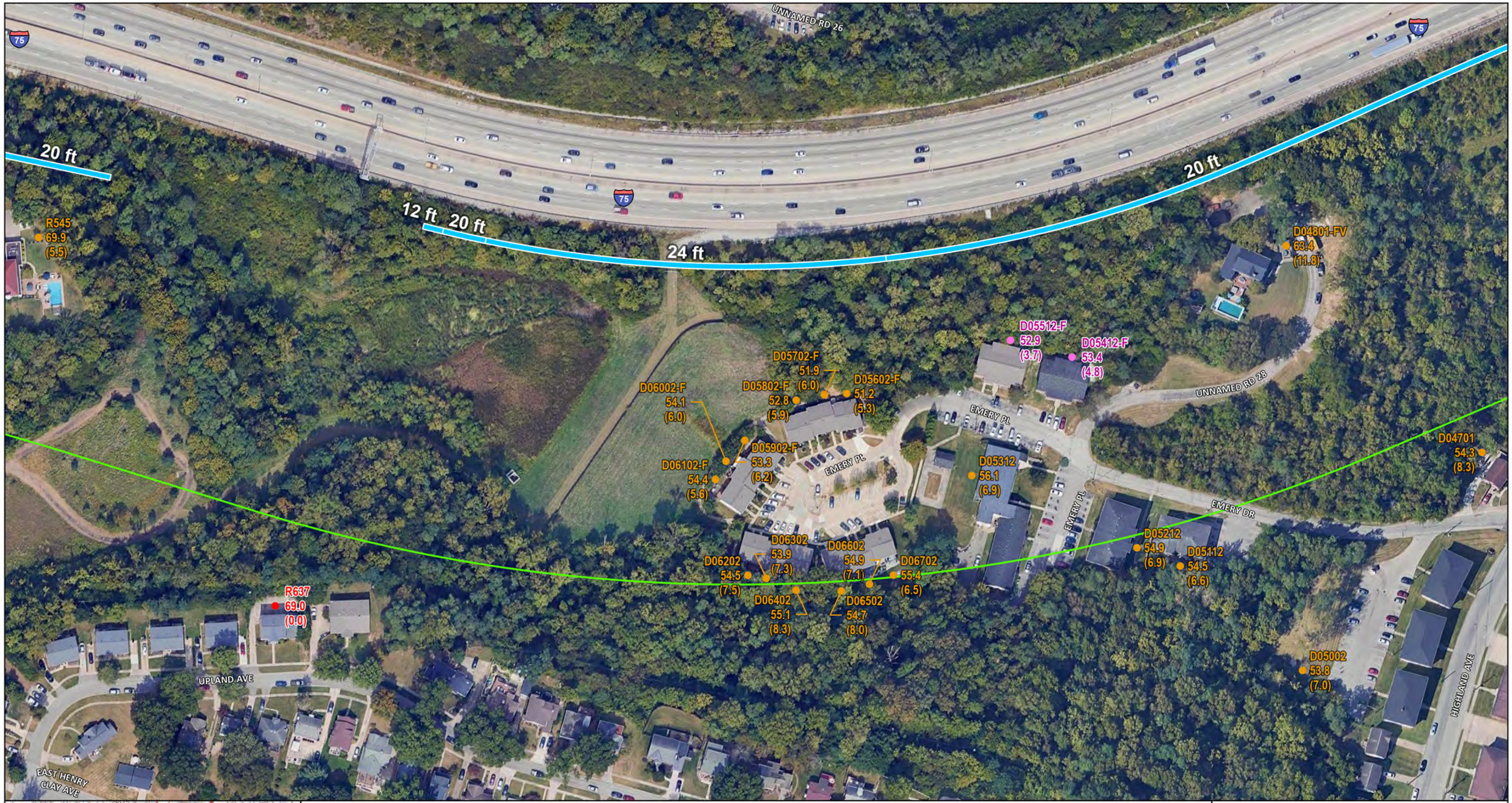
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9A

N

0 125 250
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9B

TEAM KENTUCKY TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

20 ft
24 ft
20 ft
16 ft
D04801-FV
63.4
(11.8)
UNNAMED RD 28
D04301-F
55.9
(7.6)
D04402-F
55.7
(7.6)
D04201-F
55.8
(7.7)
D04101-F
55.7
(7.5)
D01110-F
56.3
(5.1)
UNNAMED RD 24
D01001
54.7
(5.7)
D00901
54.5
(5.5)
D04501-F
54.2
(8.8)
HIGHLAND AVE
D03501
52.7
(9.5)
D03301
53.2
(10.0)
D02601
53.8
(9.5)
D00801
53.9
(5.3)
D00601
53.3
(5.1)
D04701
54.3
(8.3)
D04601
53.9
(8.6)
D03001
53.8
(9.6)
D02901
53.6
(9.8)
D02701
53.8
(9.5)
D02401
54.6
(8.3)
D00501
52.9
(5.0)
D00401
52.8
(5.0)
D00201
52.5
(5.1)
D06801
52.3
(9.1)
D02501
53.8
(9.5)
D01901
54.4
(7.8)
EMERY DR
D03701
52.5
(9.0)
D03401
53.2
(9.7)
D03101
53.8
(9.6)
D02801
53.9
(9.4)
D02001
54.2
(8.9)
D01501
54.0
(7.7)
D01401
53.8
(7.4)
D00701
53.5
(5.3)
D00301
52.5
(4.9)
D03601
52.8
(8.9)
D03801
53.2
(9.3)
D03912
52.9
(9.1)
D03201
53.5
(9.8)
D02101
54.1
(9.0)
RAYS LN
D01601
53.8
(8.1)
D01301
53.7
(7.3)
D00101
50.9
(5.0)
D04012
53.1
(8.0)
D02201
54.0
(9.7)
D02301
54.3
(9.8)
D01701
53.9
(8.3)
D01801
53.7
(8.8)
D01201
53.1
(7.6)



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

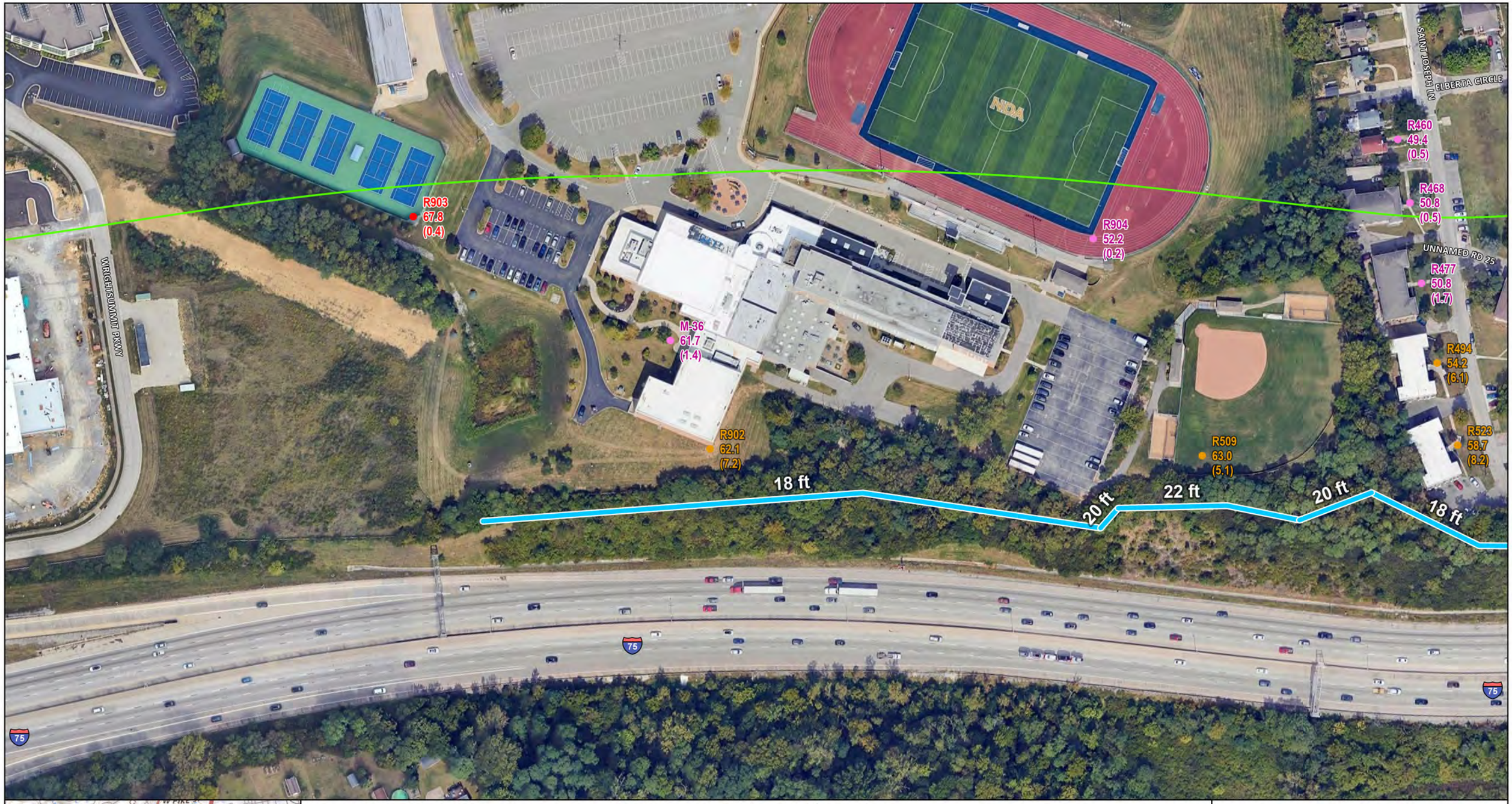
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

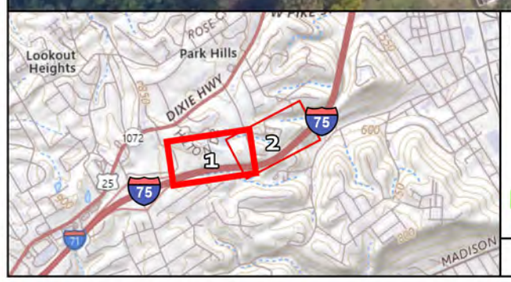
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9C

0 125 250
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

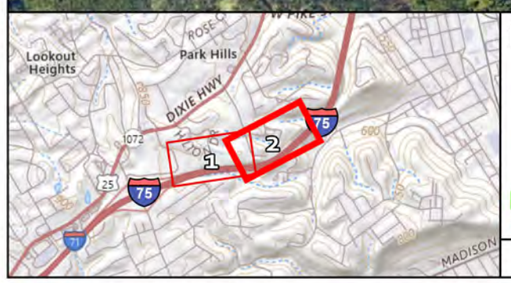
Concept I-W Barrier B23 (18-22 ft)
Exhibit 10A

N

0 125 250
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B23 (18-22 ft)
Exhibit 10B

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Brent Spence Bridge Noise Analysis
NSA B Benefited Receivers

Legend

Barriers

Receiver Designation

- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

1 0.5 0 1 Miles

Full Barrier Extent

N

Brent Spence Bridge Noise Analysis
NSA C Benefited Receivers

Legend

Barriers

Receiver Designation

- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

1 0.5 0 1 Miles



N

Brent Spence Bridge Noise Analysis
NSA E Benefited Receivers

Legend

Crescent Ave. Barrier Extension
Existing Crescent Ave. Barrier

Receiver Designation

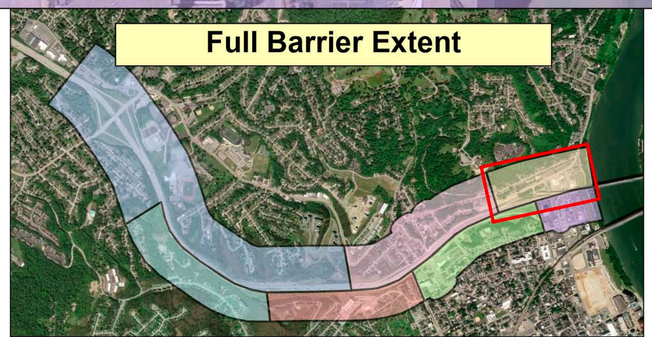
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

1 0.5 0 1 Miles

Full Barrier Extent



N

Legend

Barriers

Existing Crescent Ave. Barrier

Receiver Designation

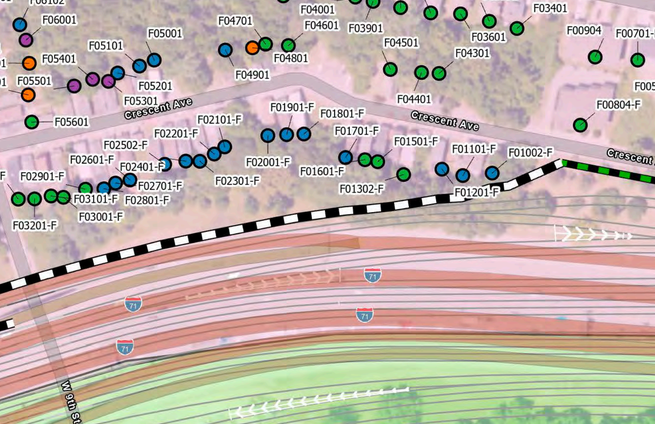
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

Brent Spence Bridge Noise Analysis
NSA F Benefited Receivers

0 0.25 0.5 1 Miles



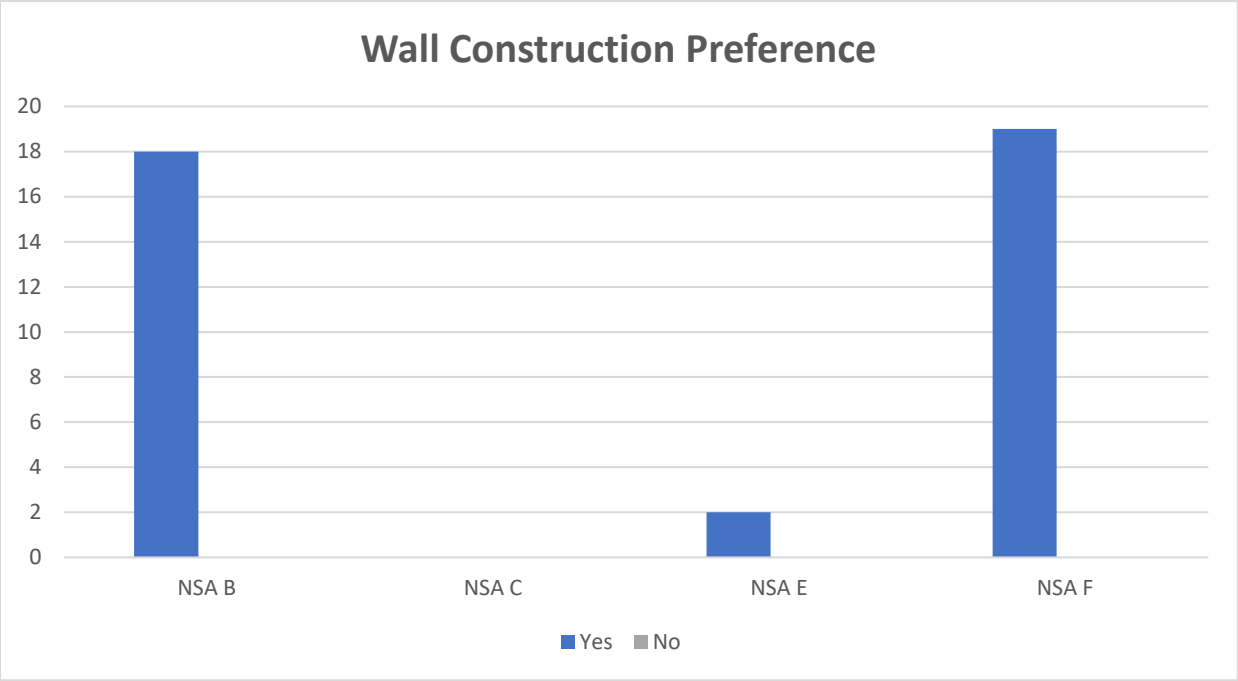
N

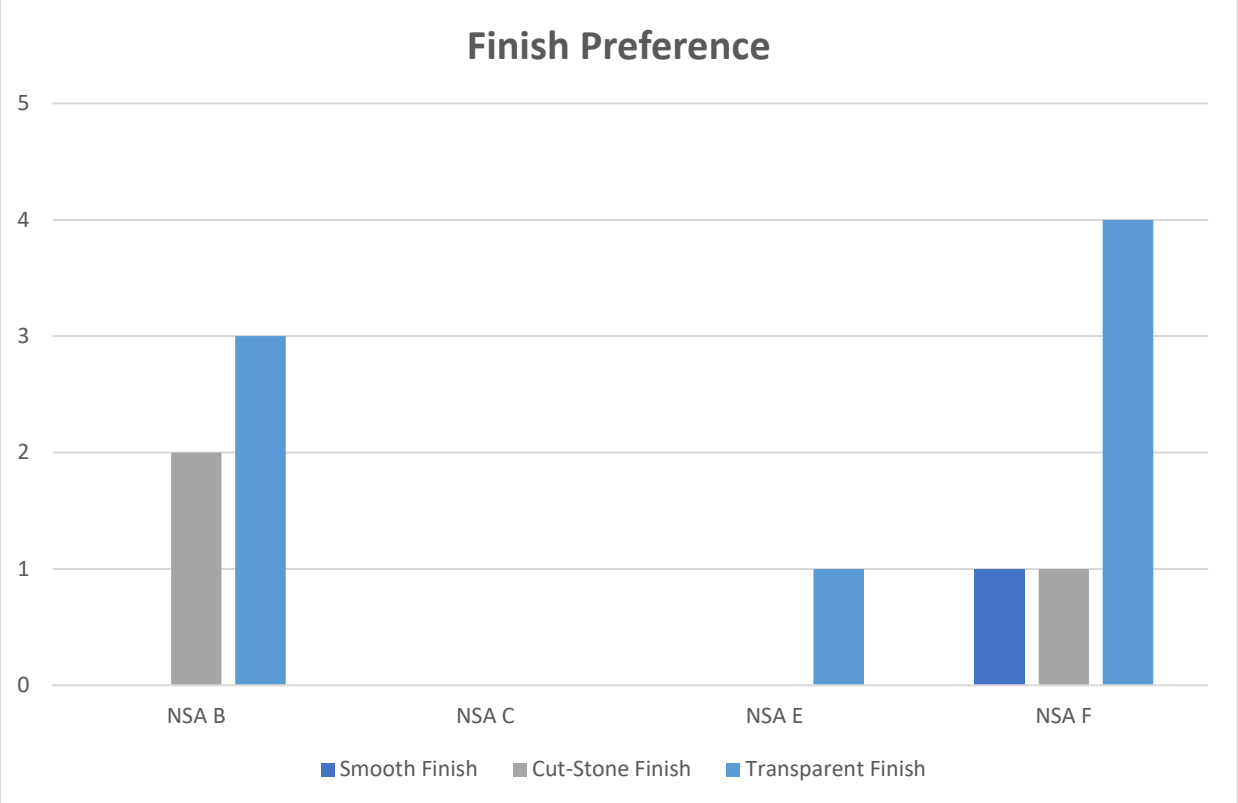
Appendix E:

Results Detail

Brent Spence Bridge Corridor Project
Kentucky Northern Section

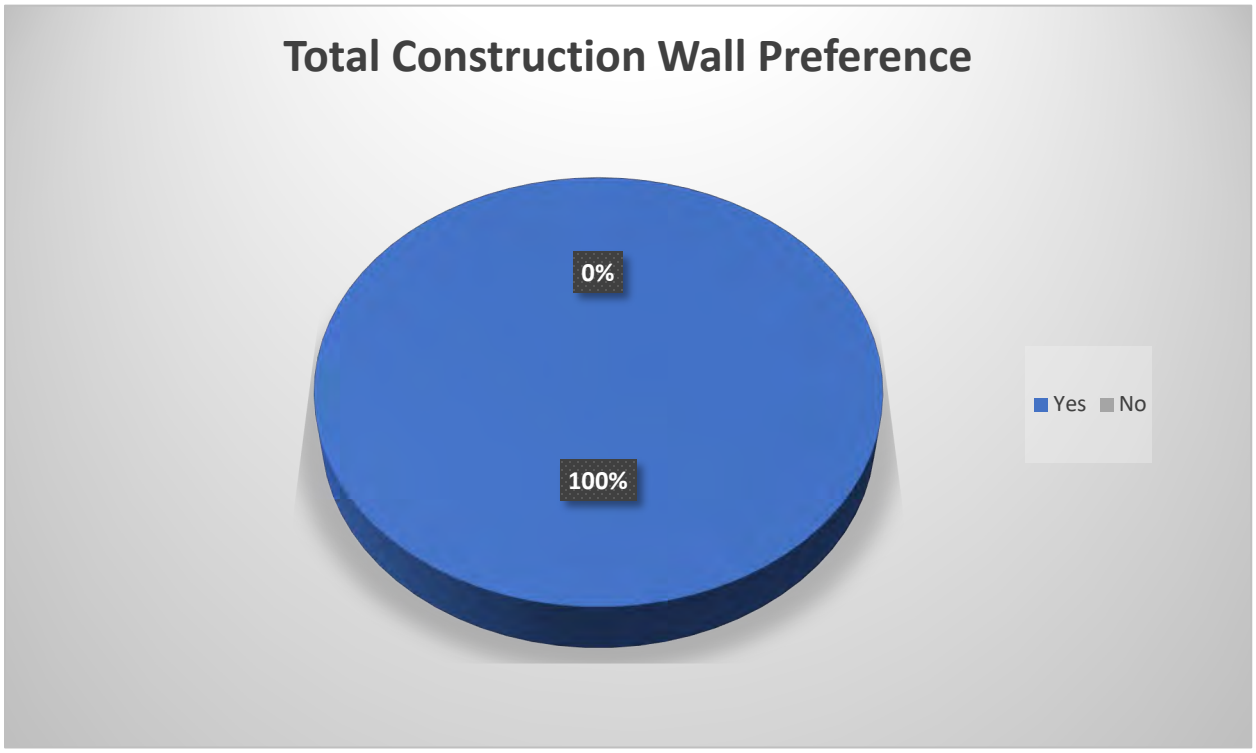
Voting Results

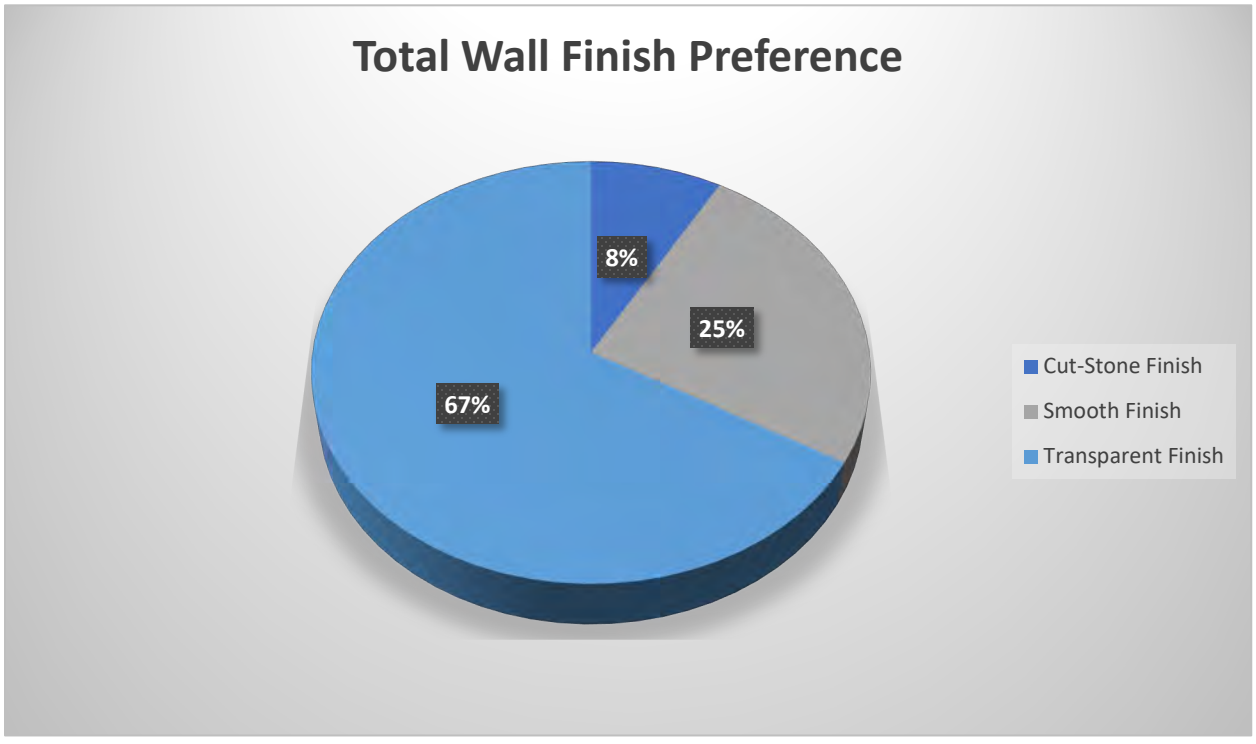




Brent Spence Bridge Corridor Project
Kentucky Northern Section

Voting Results





BSBC Noise Re-evaluation KY North - Appendix B
TNM Sound Level Results

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
NSA A												
A00104	E	No	4	Holiday Inn			66.2	63.8	2.4	No	No	Not Impacted, Not Benefited
A00216-F	E	Yes	16	Radisson			69.7	63	6.7	No	Yes	Not Impacted, Benefited
A00316-F	E	Yes	16	Radisson			69.7	63	6.7	No	Yes	Not Impacted, Benefited
A00416-F	E	Yes	16	Radisson			71.3	64.7	6.6	Yes	Yes	Impacted, Benefited
A00516-F	E	Yes	16	Radisson			72.5	66.3	6.2	Yes	Yes	Impacted, Benefited
A00616-F	E	Yes	16	Radisson			73	67.6	5.4	Yes	Yes	Impacted, Benefited
A00716-F	E	Yes	16	Radisson			73.1	68.5	4.6	Yes	No	Impacted, Not Benefited
A00816-F	E	Yes	16	Radisson			73.1	69.4	3.7	Yes	No	Impacted, Not Benefited
A00916-F	E	Yes	16	Radisson			73.2	70.3	2.9	Yes	No	Impacted, Not Benefited
A01016-F	E	Yes	16	Radisson			73.3	70.5	2.8	Yes	No	Impacted, Not Benefited
A01116-F	E	Yes	16	Radisson			73.4	71.1	2.3	Yes	No	Impacted, Not Benefited
A01216-F	E	Yes	16	Radisson			73.3	71.2	2.1	Yes	No	Impacted, Not Benefited
A01316-F	E	Yes	16	Radisson			73.5	72	1.5	Yes	No	Impacted, Not Benefited
A01416-F	E	Yes	16	Radisson			73.4	72.2	1.2	Yes	No	Impacted, Not Benefited
A01516-F	E	Yes	16	Radisson			73.5	72.5	1	Yes	No	Impacted, Not Benefited
A01616-F	E	Yes	16	Radisson			73.5	72.7	0.8	Yes	No	Impacted, Not Benefited
NSA B												
B00117-F	C	Yes	17	5270280.0	4284911.0	514.8	67.3	65.3	2.0	Yes	No	Impacted, Not Benefited
B00204	B	No	4	5270486.5	4284956.0	514.0	63.5	61.8	1.7	No	No	Not Impacted, Not Benefited
B00304	B	No	5	5270589.5	4284914.0	514.8	63.9	61.6	2.3	No	No	Not Impacted, Not Benefited
B00401-F	B	No	1	5270157.5	4284421.5	518.3	70.9	68.3	2.6	Yes	No	Impacted, Not Benefited
B00501-F	B	No	1	5270115.5	4284353.5	521.9	72.1	70.2	1.9	Yes	No	Impacted, Not Benefited
B00601-F	B	No	1	5270117.5	4284329.0	522.6	72.2	70.4	1.8	Yes	No	Impacted, Not Benefited
B00701-F	B	No	1	5270150.0	4284243.5	522.1	72.1	70.0	2.1	Yes	No	Impacted, Not Benefited
B00801-F	B	No	1	5270131.0	4284116.0	502.2	72.8	66.4	6.4	Yes	Yes	Impacted, Benefited
B00901-F	B	No	1	5270129.5	4284090.5	499.0	73.0	65.4	7.6	Yes	Yes	Impacted, Benefited
B01001-F	B	No	1	5270138.5	4284064.5	497.2	72.8	65.2	7.6	Yes	Yes	Impacted, Benefited
B01101-F	B	No	1	5270129.0	4284039.0	494.6	73.1	64.7	8.4	Yes	Yes	Impacted, Benefited
B01201-F	B	No	1	5270133.5	4284012.5	494.2	73.1	64.7	8.4	Yes	Yes	Impacted, Benefited
B01301-F	C	No	1	5270083.0	4283918.0	490.0	74.2	64.2	10.0	Yes	Yes	Impacted, Benefited
B01401	B	No	1	5270256.0	4284414.0	521.8	68.6	66.6	2.0	Yes	No	Impacted, Not Benefited
B01501	B	No	1	5270292.0	4284380.0	522.5	68.8	66.6	2.2	Yes	No	Impacted, Not Benefited
B01601	B	No	1	5270336.5	4284423.0	520.0	68.1	65.9	2.2	Yes	No	Impacted, Not Benefited
B01701	B	No	1	5270334.5	4284398.0	520.2	68.3	66.0	2.3	Yes	No	Impacted, Not Benefited
B01801	B	No	1	5270335.5	4284373.5	521.2	68.5	66.2	2.3	Yes	No	Impacted, Not Benefited
B01901	B	No	1	5270335.0	4284349.5	521.0	68.7	66.3	2.4	Yes	No	Impacted, Not Benefited
B02002	B	No	1	5270328.0	4284189.5	517.0	69.1	66.3	2.8	Yes	No	Impacted, Not Benefited
B02102	B	No	2	5270328.5	4284138.5	515.8	67.4	65.1	2.3	Yes	No	Impacted, Not Benefited
B02202-R	B	No	2	5270323.5	4284112.5	514.9	66.6	64.3	2.3	Yes	No	Impacted, Not Benefited
B02302	B	No	2	5270323.0	4284093.5	514.2	66.7	64.4	2.3	Yes	No	Impacted, Not Benefited
B02401-R	B	No	1	5270322.5	4284064.0	513.1	66.9	64.4	2.5	Yes	No	Impacted, Not Benefited
B02502	B	No	2	5270329.0	4284042.5	511.9	67.2	64.4	2.8	Yes	No	Impacted, Not Benefited
B02602-R	B	No	2	5270327.0	4284017.0	509.3	66.7	63.7	3.0	Yes	No	Impacted, Not Benefited
B02702	B	No	2	5270343.0	4283991.5	509.2	67.8	64.5	3.3	Yes	No	Impacted, Not Benefited
B02802-R	B	No	2	5270330.0	4283965.5	506.4	66.9	63.3	3.6	Yes	No	Impacted, Not Benefited
B02902	B	No	2	5270339.0	4283947.0	506.5	67.7	63.9	3.8	Yes	No	Impacted, Not Benefited
B03002-R	B	No	2	5270344.0	4283923.0	505.0	67.8	63.2	4.6	Yes	No	Impacted, Not Benefited
B03101	B	No	1	5270319.5	4283892.5	500.1	66.6	61.6	5.0	Yes	Yes	Impacted, Benefited
B03201	B	No	1	5270312.5	4283867.0	499.0	68.3	62.5	5.8	Yes	Yes	Impacted, Benefited
B03301	B	No	1	5270357.0	4283893.0	502.9	67.9	62.8	5.1	Yes	Yes	Impacted, Benefited
B03401	B	No	1	5270374.0	4283898.5	504.8	68.4	63.3	5.1	Yes	Yes	Impacted, Benefited
B03501-F	B	No	1	5270344.5	4283736.5	495.5	69.8	63.6	6.2	Yes	Yes	Impacted, Benefited
B03601-F	B	No	1	5270351.0	4283709.0	494.9	69.7	63.6	6.1	Yes	Yes	Impacted, Benefited
B03702-F	B	No	2	5270356.5	4283684.0	497.3	69.7	64.0	5.7	Yes	Yes	Impacted, Benefited
B03801-F	B	No	2	5270358.0	4283658.0	495.9	69.5	63.8	5.7	Yes	Yes	Impacted, Benefited
B03901-F	B	No	2	5270357.5	4283633.5	492.1	69.2	63.3	5.9	Yes	Yes	Impacted, Benefited
B04004-F	B	No	4	5270364.5	4283610.5	491.1	68.9	63.2	5.7	Yes	Yes	Impacted, Benefited
B04104-F	B	No	4	5270379.5	4283572.5	491.4	68.7	63.3	5.4	Yes	Yes	Impacted, Benefited
B04225-F	C	No	4	5270386.5	4283325.5	476.0	66.0	62.7	3.3	No	No	Not Impacted, Not Benefited
B04302	B	No	2	5270498.5	4284660.5	518.3	65.9	63.7	2.2	No	No	Not Impacted, Not Benefited
B04402	B	No	2	5270518.5	4284609.5	518.6	60.0	57.9	2.1	No	No	Not Impacted, Not Benefited
B04502	B	No	2	5270525.0	4284589.5	518.5	60.0	58.0	2.0	No	No	Not Impacted, Not Benefited
B04602	B	No	2	5270481.0	4284551.5	518.4	66.1	63.8	2.3	Yes	No	Impacted, Not Benefited
B04701	B	No	1	5270540.5	4284510.5	519.7	59.5	57.4	2.1	No	No	Not Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
B04801-R	B	No	1	5270538.0	4284479.5	519.6	59.3	57.2	2.1	No	No	Not Impacted, Not Benefited
B04901	B	No	1	5270539.0	4284446.5	520.2	59.5	57.1	2.4	No	No	Not Impacted, Not Benefited
B05001	B	No	1	5270544.0	4284414.5	521.3	60.1	57.2	2.9	No	No	Not Impacted, Not Benefited
B05102	B	No	2	5270538.5	4284398.5	521.5	60.2	57.1	3.1	No	No	Not Impacted, Not Benefited
B05202	B	No	2	5270493.5	4284365.0	522.8	65.4	62.1	3.3	No	No	Not Impacted, Not Benefited
B05302	B	No	2	5270551.0	4284334.0	523.4	62.1	58.6	3.5	No	No	Not Impacted, Not Benefited
B05404	B	No	4	5270553.5	4284307.0	522.0	62.8	58.6	4.2	No	No	Not Impacted, Not Benefited
B05502	B	No	2	5270544.0	4284239.0	522.0	63.0	60.3	2.7	No	No	Not Impacted, Not Benefited
B05602	B	No	2	5270550.0	4284173.0	521.6	62.3	58.6	3.7	No	No	Not Impacted, Not Benefited
B05704-R	B	No	4	5270542.0	4284103.5	518.5	61.7	58.1	3.6	No	No	Not Impacted, Not Benefited
B05802	B	No	2	5270547.0	4284064.0	516.2	61.6	57.7	3.9	No	No	Not Impacted, Not Benefited
B05903	B	No	3	5270552.5	4284006.5	513.4	61.4	57.2	4.2	No	No	Not Impacted, Not Benefited
B06002	B	No	2	5270539.5	4283961.0	512.2	61.4	56.9	4.5	No	No	Not Impacted, Not Benefited
B06104-R	B	No	4	5270531.0	4283920.5	509.6	62.1	57.2	4.9	No	No	Not Impacted, Not Benefited
B06204	B	No	4	5270532.5	4283834.5	508.4	62.2	58.1	4.1	No	No	Not Impacted, Not Benefited
B06302-R	B	No	2	5270521.0	4283810.0	508.0	61.6	56.7	4.9	No	No	Not Impacted, Not Benefited
B06402	B	No	2	5270519.5	4283781.0	508.4	61.8	56.8	5.0	No	Yes	Not Impacted, Benefited
B06501	B	No	1	5270525.0	4283710.0	509.1	61.9	57.1	4.8	No	No	Not Impacted, Not Benefited
B06602	B	No	2	5270545.5	4283684.0	510.2	62.4	57.4	5.0	No	Yes	Not Impacted, Benefited
B06705	B	No	5	5270508.0	4283656.0	508.8	68.0	61.6	6.4	No	Yes	Not Impacted, Benefited
B06802	B	No	2	5270501.5	4283589.5	509.7	68.3	62.0	6.3	No	Yes	Not Impacted, Benefited
B06901	B	No	1	5270563.5	4283560.5	513.4	64.2	59.2	5.0	No	Yes	Not Impacted, Benefited
B07006	B	No	4	5270556.0	4283513.5	513.3	64.2	59.2	5.0	No	Yes	Not Impacted, Benefited
B07103	B	No	3	5270539.5	4283472.0	511.7	63.5	58.5	5.0	No	Yes	Not Impacted, Benefited
B07202-R	B	No	2	5270541.5	4283456.5	511.3	63.5	58.5	5.0	No	Yes	Not Impacted, Benefited
B07302	B	No	2	5270557.0	4283424.0	512.7	64.3	59.4	4.9	No	No	Not Impacted, Not Benefited
B07402	B	No	2	5270510.0	4283352.5	512.0	68.8	62.5	6.3	No	Yes	Not Impacted, Benefited
B07502	B	No	2	5270572.5	4283319.0	516.4	66.2	61.3	4.9	No	No	Not Impacted, Not Benefited
B07601	B	No	1	5270558.5	4283284.5	515.7	66.1	60.7	5.4	No	Yes	Not Impacted, Benefited
B07701-F	B	Yes	1	5270532.5	4283108.0	517.8	69.9	67.0	2.9	Yes	No	Impacted, Not Benefited
B07801-F	B	Yes	1	5270507.0	4283067.0	511.0	69.6	66.5	3.1	Yes	No	Impacted, Not Benefited
B07901-F	B	Yes	1	5270519.0	4283038.5	510.1	69.5	66.4	3.1	Yes	No	Impacted, Not Benefited
B08001-F	B	Yes	1	5270526.5	4283009.0	508.5	68.9	66.3	2.6	Yes	No	Impacted, Not Benefited
B08101-F	B	Yes	1	5270552.0	4282990.5	501.7	67.6	65.4	2.2	Yes	No	Impacted, Not Benefited
B08201-F	B	Yes	1	5270574.5	4282945.5	500.9	67.6	65.5	2.1	Yes	No	Impacted, Not Benefited
B08301-F	B	Yes	1	5270590.5	4282907.0	499.6	67.6	65.7	1.9	Yes	No	Impacted, Not Benefited
B08401-F	B	Yes	1	5270628.5	4282833.5	499.9	67.8	66.1	1.7	Yes	No	Impacted, Not Benefited
B08501-F	B	Yes	1	5270643.0	4282798.5	501.0	68.0	66.5	1.5	Yes	No	Impacted, Not Benefited
B08601-F	B	Yes	1	5270662.5	4282777.5	507.9	68.7	67.3	1.4	Yes	No	Impacted, Not Benefited
B08701-F	B	Yes	1	5270667.5	4282753.0	509.6	69.0	67.6	1.4	Yes	No	Impacted, Not Benefited
B08801-F	B	Yes	1	5270715.5	4282668.0	511.7	69.2	67.8	1.4	Yes	No	Impacted, Not Benefited
B08901-F	B	Yes	1	5270745.0	4282617.0	510.0	69.1	67.6	1.5	Yes	No	Impacted, Not Benefited
B09302	B	No	2	5270605.5	4284663.5	521.7	63.1	61.0	2.1	No	No	Not Impacted, Not Benefited
B09402	B	No	2	5270653.0	4284661.5	520.6	62.4	60.4	2.0	No	No	Not Impacted, Not Benefited
B09502	B	No	2	5270605.0	4284419.5	522.4	62.4	59.7	2.7	No	No	Not Impacted, Not Benefited
B09602	B	No	2	5270582.0	4284389.5	521.7	61.8	58.9	2.9	No	No	Not Impacted, Not Benefited
B09702	B	No	2	5270639.5	4284443.5	522.0	62.3	59.7	2.6	No	No	Not Impacted, Not Benefited
B09801	B	No	1	5270699.5	4284455.0	521.2	61.9	59.4	2.5	No	No	Not Impacted, Not Benefited
B09901	B	No	1	5270710.0	4284438.0	522.1	62.2	59.5	2.7	No	No	Not Impacted, Not Benefited
B10001-R	B	No	1	5270700.5	4284413.0	522.0	62.2	59.3	2.9	No	No	Not Impacted, Not Benefited
B10101	B	No	1	5270714.0	4284393.0	522.2	62.1	59.2	2.9	No	No	Not Impacted, Not Benefited
B10201	B	No	1	5270736.0	4284371.0	522.4	62.0	59.1	2.9	No	No	Not Impacted, Not Benefited
B10301-R	B	No	1	5270719.0	4284343.0	523.2	62.6	59.4	3.2	No	No	Not Impacted, Not Benefited
B10405	B	No	5	5270749.0	4284307.0	523.3	62.7	59.7	3.0	No	No	Not Impacted, Not Benefited
B10502	B	No	2	5270599.0	4284155.0	527.0	65.2	61.8	3.4	No	No	Not Impacted, Not Benefited
B10601	B	No	1	5270642.0	4284152.0	526.4	64.8	61.4	3.4	No	No	Not Impacted, Not Benefited
B10701	B	No	1	5270720.0	4284237.5	523.8	63.2	59.9	3.3	No	No	Not Impacted, Not Benefited
B10801-R	B	No	1	5270706.5	4284207.0	524.0	63.6	60.1	3.5	No	No	Not Impacted, Not Benefited
B10901	B	No	1	5270732.0	4284186.5	523.5	63.4	59.7	3.7	No	No	Not Impacted, Not Benefited
B11004	B	No	1	5270702.0	4284095.5	522.7	64.0	60.4	3.6	No	No	Not Impacted, Not Benefited
B11102	B	No	2	5270604.8	4284017.6	522.9	67.2	63.0	4.2	No	No	Not Impacted, Not Benefited
B11201	B	No	1	5270591.9	4283974.2	522.6	67.2	63.0	4.2	No	No	Not Impacted, Not Benefited
B11301	B	No	1	5270622.1	4283973.3	523.5	67.2	63.0	4.2	No	No	Not Impacted, Not Benefited
B11401	B	No	1	5270653.3	4283968.8	523.8	67.2	63.0	4.2	No	No	Not Impacted, Not Benefited
B11502	B	No	2	5270636.0	4283782.0	513.3	65.4	59.3	6.1	No	Yes	Not Impacted, Benefited
B11601	B	No	1	5270650.0	4283734.0	513.4	59.3	54.6	4.7	No	No	Not Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
B11701	B	No	1	5270660.5	4283680.0	514.3	59.5	54.8	4.7	No	No	Not Impacted, Not Benefited
B11801-R	B	No	1	5270660.5	4283657.0	515.0	59.7	55.1	4.6	No	No	Not Impacted, Not Benefited
B11901	B	No	1	5270663.0	4283629.0	516.8	60.2	57.5	2.7	No	No	Not Impacted, Not Benefited
B12001-R	B	No	1	5270665.5	4283604.5	516.6	60.2	57.6	2.6	No	No	Not Impacted, Not Benefited
B12101	B	No	1	5270666.0	4283584.5	517.5	60.5	57.9	2.6	No	No	Not Impacted, Not Benefited
B12201	B	No	1	5270646.5	4283486.0	517.3	60.7	57.9	2.8	No	No	Not Impacted, Not Benefited
B12301	B	No	1	5270712.5	4283814.0	519.1	63.0	60.3	2.7	No	No	Not Impacted, Not Benefited
B12401-R	B	No	1	5270700.0	4283787.0	518.6	62.1	59.5	2.6	No	No	Not Impacted, Not Benefited
B12501	B	No	1	5270715.0	4283762.0	519.1	62.7	59.9	2.8	No	No	Not Impacted, Not Benefited
B12601	B	No	1	5270716.5	4283735.5	517.6	61.7	59.0	2.7	No	No	Not Impacted, Not Benefited
B12701	B	No	1	5270710.0	4283711.0	516.8	61.1	58.3	2.8	No	No	Not Impacted, Not Benefited
B12801	B	No	1	5270720.0	4283678.5	518.0	61.9	59.2	2.7	No	No	Not Impacted, Not Benefited
B12901	B	No	1	5270718.5	4283657.5	518.3	62.0	59.3	2.7	No	No	Not Impacted, Not Benefited
B13001	B	No	1	5270720.5	4283632.0	519.1	62.5	59.8	2.7	No	No	Not Impacted, Not Benefited
B13101-R	B	No	1	5270718.0	4283610.0	519.8	62.9	60.2	2.7	No	No	Not Impacted, Not Benefited
B13201	B	No	1	5270719.5	4283586.5	521.1	63.9	61.1	2.8	No	No	Not Impacted, Not Benefited
B13301-R	B	No	1	5270716.5	4283552.0	524.6	65.4	62.3	3.1	No	No	Not Impacted, Not Benefited
B13401	B	No	1	5270720.5	4283528.5	525.0	65.6	62.4	3.2	No	No	Not Impacted, Not Benefited
B13501	B	No	1	5270719.0	4283479.5	523.1	65.2	61.9	3.3	No	No	Not Impacted, Not Benefited
B13602	B	No	4	5270701.0	4283453.5	522.5	64.4	61.6	2.8	No	No	Not Impacted, Not Benefited
B13702	B	No	2	5270695.5	4283418.0	523.0	64.7	61.9	2.8	No	No	Not Impacted, Not Benefited
B13802	B	No	2	5270696.0	4283394.5	523.6	65.3	62.2	3.1	No	No	Not Impacted, Not Benefited
B13902	B	Yes	2	5270691.5	4283370.0	520.2	64.1	61.2	2.9	No	No	Not Impacted, Not Benefited
B14001	B	Yes	1	5270665.5	4283309.5	519.2	66.9	63.4	3.5	Yes	No	Impacted, Not Benefited
B14102	B	Yes	2	5270738.0	4283323.5	523.6	66.1	62.7	3.4	Yes	No	Impacted, Not Benefited
B14210	B	Yes	10	5270882.5	4283595.0	527.3	62.6	59.4	3.2	No	No	Not Impacted, Not Benefited
B14301	B	No	1	5270886.0	4283490.0	527.3	62.6	59.4	3.2	No	No	Not Impacted, Not Benefited
B14401-R	B	No	1	5270884.5	4283474.5	527.2	62.5	59.4	3.1	No	No	Not Impacted, Not Benefited
B14501	B	No	1	5270850.0	4283356.5	527.1	63.8	60.7	3.1	No	No	Not Impacted, Not Benefited
B14601-R	B	Yes	1	5270872.5	4283401.0	527.8	61.9	58.8	3.1	No	No	Not Impacted, Not Benefited
B14701	B	Yes	1	5270892.0	4283397.5	528.2	61.1	58.2	2.9	No	No	Not Impacted, Not Benefited
B14801	B	Yes	1	5270908.0	4283409.5	528.8	61.3	58.5	2.8	No	No	Not Impacted, Not Benefited
B15002	B	Yes	2	5270920.0	4283446.0	529.6	62.1	59.0	3.1	No	No	Not Impacted, Not Benefited
B15102	B	No	2	5270950.0	4283445.0	530.7	61.7	58.9	2.8	No	No	Not Impacted, Not Benefited
B15202	B	No	2	5270981.0	4283449.0	531.2	61.5	58.7	2.8	No	No	Not Impacted, Not Benefited
B15301	B	No	1	5270642.5	4283136.5	514.5	67.4	64.4	3.0	Yes	No	Impacted, Not Benefited
B15401	B	No	1	5270661.0	4283141.5	516.3	62.7	60.3	2.4	No	No	Not Impacted, Not Benefited
B15501	B	Yes	1	5270649.0	4283081.0	511.9	66.9	64.1	2.8	Yes	No	Impacted, Not Benefited
B15601	B	Yes	1	5270726.5	4283061.5	511.0	61.5	59.3	2.2	No	No	Not Impacted, Not Benefited
B15701	B	Yes	1	5270755.0	4283052.5	510.3	61.4	59.4	2.0	No	No	Not Impacted, Not Benefited
B15801	B	Yes	1	5270761.0	4283029.0	509.8	61.3	59.3	2.0	No	No	Not Impacted, Not Benefited
B15901-R	B	No	1	5270762.5	4283011.5	510.4	61.6	59.5	2.1	No	No	Not Impacted, Not Benefited
B16001	B	Yes	1	5270763.0	4282991.0	509.7	61.3	59.2	2.1	No	No	Not Impacted, Not Benefited
B16101	B	No	1	5270826.5	4282896.5	510.3	66.0	63.8	2.2	No	No	Not Impacted, Not Benefited
B16202	B	No	2	5270799.0	4282839.0	509.4	66.8	64.8	2.0	Yes	No	Impacted, Not Benefited
B16301	B	No	1	5270844.0	4282797.5	510.2	62.6	60.4	2.2	No	No	Not Impacted, Not Benefited
B16401	B	No	1	5270896.5	4282742.5	513.2	64.6	62.3	2.3	No	No	Not Impacted, Not Benefited
B16501	B	No	1	5270938.0	4282692.5	513.7	64.8	63.1	1.7	No	No	Not Impacted, Not Benefited
B16601-R	B	No	1	5270935.0	4282662.0	512.1	62.9	60.7	2.2	No	No	Not Impacted, Not Benefited
B16701	B	No	1	5270961.5	4282625.0	512.2	62.9	60.8	2.1	No	No	Not Impacted, Not Benefited
B16801	B	No	1	5270987.0	4282655.0	516.1	66.0	63.8	2.2	No	No	Not Impacted, Not Benefited
B16904	B	No	4	5270707.5	4283173.0	519.6	65.8	62.9	2.9	No	No	Not Impacted, Not Benefited
B17001	B	No	1	5270778.0	4283162.5	521.9	65.9	63.3	2.6	No	No	Not Impacted, Not Benefited
B17101	B	No	1	5270818.0	4283155.0	523.6	66.1	63.4	2.7	Yes	No	Impacted, Not Benefited
B17201	B	No	1	5270833.0	4283196.0	525.1	65.9	62.9	3.0	No	No	Not Impacted, Not Benefited
B17302	B	No	2	5270874.5	4283207.0	525.2	65.3	62.5	2.8	No	No	Not Impacted, Not Benefited
B17403	B	No	3	5270933.0	4283214.5	525.4	64.9	62.1	2.8	No	No	Not Impacted, Not Benefited
B17501-R	B	No	1	5270909.5	4283162.0	523.1	65.0	62.5	2.5	No	No	Not Impacted, Not Benefited
B17601	B	No	1	5270932.5	4283143.5	521.1	64.3	62.2	2.1	No	No	Not Impacted, Not Benefited
B17701-R	B	No	1	5270928.0	4283094.5	517.5	64.1	61.9	2.2	No	No	Not Impacted, Not Benefited
B17801	B	No	1	5270950.5	4283076.0	516.2	63.9	61.8	2.1	No	No	Not Impacted, Not Benefited
B17901	B	No	1	5270958.0	4283050.5	515.1	63.9	61.7	2.2	No	No	Not Impacted, Not Benefited
B18001-R	B	No	1	5270959.0	4283020.0	516.6	64.5	62.3	2.2	No	No	Not Impacted, Not Benefited
B18101	B	No	1	5271028.0	4283235.0	527.9	63.4	60.6	2.8	No	No	Not Impacted, Not Benefited
B18201	B	No	1	5271031.0	4283311.5	530.7	64.2	61.2	3.0	No	No	Not Impacted, Not Benefited
B18301	B	No	1	5271074.0	4283263.0	529.0	63.5	60.6	2.9	No	No	Not Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
B18401	B	No	2	5270919.0	4282832.5	516.5	66.2	64.0	2.2	Yes	No	Impacted, Not Benefited
B18501	B	No	1	5270991.0	4282962.0	523.9	65.9	63.6	2.3	No	No	Not Impacted, Not Benefited
B18601-R	B	No	1	5270985.0	4282937.0	525.1	66.6	63.9	2.7	Yes	No	Impacted, Not Benefited
B18701	B	No	1	5270997.5	4282910.5	524.2	66.2	63.9	2.3	Yes	No	Impacted, Not Benefited
B18801	B	No	1	5270996.0	4282886.0	524.2	66.3	64.0	2.3	Yes	No	Impacted, Not Benefited
B18901-R	B	No	1	5271004.0	4282860.5	523.5	66.2	64.0	2.2	Yes	No	Impacted, Not Benefited
B19001	B	No	1	5271008.0	4282835.0	523.0	66.2	64.1	2.1	Yes	No	Impacted, Not Benefited
B19101-R	B	No	1	5271025.5	4282809.5	521.4	65.9	63.9	2.0	No	No	Not Impacted, Not Benefited
B19201	B	No	1	5271046.5	4282762.0	520.5	65.8	63.8	2.0	No	No	Not Impacted, Not Benefited
B19301	B	No	1	5271054.5	4282727.0	520.5	65.8	63.8	2.0	No	No	Not Impacted, Not Benefited
B19402	B	No	2	5271060.0	4282682.0	519.6	65.7	63.6	2.1	No	No	Not Impacted, Not Benefited
B19502	B	No	2	5271179.5	4282992.0	530.2	64.4	61.6	2.8	No	No	Not Impacted, Not Benefited
B19602	B	No	2	5271186.5	4282966.5	529.0	64.2	61.5	2.7	No	No	Not Impacted, Not Benefited
B19702	B	No	2	5271196.0	4282943.0	529.8	64.3	61.7	2.6	No	No	Not Impacted, Not Benefited
B19801	B	No	1	5271184.0	4282909.0	526.9	63.8	61.3	2.5	No	No	Not Impacted, Not Benefited
B19901	B	No	1	5271194.5	4282885.5	526.9	63.8	61.3	2.5	No	No	Not Impacted, Not Benefited
B20002	B	No	2	5271204.5	4282854.5	526.4	63.8	61.3	2.5	No	No	Not Impacted, Not Benefited
B20104	B	No	4	5271221.0	4282920.5	532.3	64.5	61.9	2.6	No	No	Not Impacted, Not Benefited
B20201	B	No	1	5271581.5	4282651.7	526.3	61.3	57.8	3.5	No	No	Not Impacted, Not Benefited
B20301	B	No	1	5271592.3	4282620.9	524.4	61.3	57.8	3.5	No	No	Not Impacted, Not Benefited
B20401	B	No	1	5271600.3	4282598.6	525.3	61.3	57.8	3.5	No	No	Not Impacted, Not Benefited
B20506	B	No	6	5271392.4	4282423.4	511.1	63.0	59.9	3.1	No	No	Not Impacted, Not Benefited
B20602	B	No	2	5271400.6	4282390.0	513.3	62.9	60.0	2.9	No	No	Not Impacted, Not Benefited
B20701	B	No	1	5271421.1	4282333.9	517.6	63.0	60.1	2.9	No	No	Not Impacted, Not Benefited
B20801	B	No	1	5271367.6	4282281.8	517.1	63.8	61.1	2.7	No	No	Not Impacted, Not Benefited
B20902	B	No	2	5271447.0	4282384.9	513.3	62.8	59.8	3.0	No	No	Not Impacted, Not Benefited
B21002	B	No	2	5271470.0	4282392.1	514.2	62.4	59.5	2.9	No	No	Not Impacted, Not Benefited
B21102	B	No	2	5271493.4	4282396.7	515.6	62.3	59.4	2.9	No	No	Not Impacted, Not Benefited
B21202	B	No	2	5271520.3	4282403.6	516.3	62.0	59.0	3.0	No	No	Not Impacted, Not Benefited
B21303	B	No	3	5271544.1	4282409.7	517.3	61.8	58.7	3.1	No	No	Not Impacted, Not Benefited
B21401	B	No	1	5271439.6	4282237.6	519.1	63.3	60.8	2.5	No	No	Not Impacted, Not Benefited
B21502	B	No	2	5271451.6	4282193.6	519.3	63.2	60.8	2.4	No	No	Not Impacted, Not Benefited
B21602	B	No	2	5271472.7	4282171.8	522.1	62.9	60.4	2.5	No	No	Not Impacted, Not Benefited
B21701	B	No	1	5271417.8	4282125.3	524.0	63.9	61.6	2.3	No	No	Not Impacted, Not Benefited
B21801	B	No	1	5271437.1	4282129.3	522.2	64.0	61.6	2.4	No	No	Not Impacted, Not Benefited
B21901	B	No	1	5271458.9	4282144.6	522.8	63.8	61.2	2.6	No	No	Not Impacted, Not Benefited
B22003	B	No	3	5271481.4	4282142.0	525.7	63.5	60.9	2.6	No	No	Not Impacted, Not Benefited
B22104	B	No	4	5271509.4	4282158.0	525.7	63.2	60.4	2.8	No	No	Not Impacted, Not Benefited
B22201-R	B	No	1	5271531.2	4282159.8	511.7	62.3	60.2	2.1	Yes	No	Impacted, Not Benefited
B22302	B	No	2	5270658.0	4284443.0	522.5	62.4	59.8	2.6	No	No	Not Impacted, Not Benefited
B22402	B	No	2	5270685.5	4283344.0	519.6	64.9	61.9	3.0	No	No	Not Impacted, Not Benefited
B22502	B	No	2	5270878.0	4282758.0	513.1	63.1	61.3	1.8	No	No	Not Impacted, Not Benefited
B22604	C	Yes	4	5270267.0	4283249.5	490.0	67.4	64.7	2.7	Yes	No	Impacted, Not Benefited
B22704	C	Yes	4	5270233.5	4283344.0	481.0	65.9	62.1	3.8	No	No	Not Impacted, Not Benefited
B22804	C	Yes	4	5270201.5	4283438.5	481.0	66.9	62.0	4.9	Yes	Yes	Impacted, Benefited
B22904	C	Yes	4	5270169.0	4283533.0	486.0	68.9	62.6	6.3	Yes	Yes	Impacted, Benefited
B23004	C	Yes	4	5270135.0	4283627.0	486.0	70.3	62.8	7.5	Yes	Yes	Impacted, Benefited
B23104	C	Yes	4	5270080.0	4283700.0	496.0	74.3	64.8	9.5	Yes	Yes	Impacted, Benefited
B23204	C	Yes	4	5270058.0	4283798.0	495.0	75.1	65.2	9.9	Yes	Yes	Impacted, Benefited
B23304	C	Yes	4	5270036.0	4283895.5	492.0	75.5	64.8	10.7	Yes	Yes	Impacted, Benefited
B23404	C	Yes	4	5270018.0	4283993.5	488.0	75.0	64.2	10.8	Yes	Yes	Impacted, Benefited
B23504	C	Yes	4	5270013.5	4284093.5	484.0	73.6	63.4	10.2	Yes	Yes	Impacted, Benefited
B23604	C	Yes	4	5270004.0	4284193.0	480.0	72.3	62.2	10.1	Yes	Yes	Impacted, Benefited
B23704	C	Yes	4	5269989.5	4284291.5	476.0	69.9	60.9	9.0	Yes	Yes	Impacted, Benefited
B23804	C	Yes	4	5269969.5	4284389.5	473.0	67.7	59.9	7.8	Yes	Yes	Impacted, Benefited
B23904	C	Yes	4	5269943.0	4284486.0	473.0	64.6	58.5	6.1	No	Yes	Not Impacted, Benefited
B24004	C	Yes	4	5269939.5	4284584.0	475.0	63.1	57.3	5.8	No	Yes	Not Impacted, Benefited
B24104	C	Yes	4	5269927.5	4284683.0	480.0	61.6	56.5	5.1	No	Yes	Not Impacted, Benefited
B24204	C	Yes	4	5269915.0	4284783.0	480.0	59.5	54.8	4.7	No	No	Not Impacted, Not Benefited
							NSA_C1					
C00101-F	B	Yes	1	5270981.0	4281773.5	518.9	71.1	66.4	4.7	Yes	Yes	Impacted, Benefited
C00201	B	No	1	5271043.5	4281778.0	521.5	69.8	65.7	4.1	Yes	No	Impacted, Not Benefited
C00302	B	No	2	5271098.0	4281808.0	526.6	68.9	65.2	3.7	Yes	No	Impacted, Not Benefited
C00401	B	No	1	5271145.0	4281795.0	525.9	67.7	63.3	4.4	Yes	No	Impacted, Not Benefited
C00501	B	No	1	5271227.0	4281831.5	528.7	67.1	64.3	2.8	Yes	No	Impacted, Not Benefited
C00601-F	B	Yes	1	5271060.0	4281683.0	522.9	70.1	65.4	4.7	Yes	Yes	Impacted, Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
C00701	B	No	1	5271180.5	4281663.0	530.1	67.5	64.7	2.8	Yes	No	Impacted, Not Benefited
C00801	B	No	1	5271209.5	4281663.5	531.4	67.2	64.5	2.7	Yes	No	Impacted, Not Benefited
C00901	B	No	1	5271259.0	4281670.5	532.8	66.5	63.9	2.6	Yes	No	Impacted, Not Benefited
C01001	B	No	1	5271286.0	4281678.0	533.7	66.1	63.6	2.5	Yes	No	Impacted, Not Benefited
C01201-F	B	Yes	1	5270998.5	4281543.5	527.6	73.0	67.4	5.6	Yes	Yes	Impacted, Benefited
C01301	B	No	1	5271017.0	4281560.5	529.8	72.4	67.3	5.1	Yes	Yes	Impacted, Benefited
C01401	B	No	1	5271038.5	4281561.0	532.1	72.0	67.3	4.7	Yes	Yes	Impacted, Benefited
C01501	B	No	1	5271059.5	4281592.5	533.7	71.4	67.1	4.3	Yes	No	Impacted, Not Benefited
C01601	B	No	1	5271082.5	4281606.5	533.1	69.4	64.9	4.5	Yes	Yes	Impacted, Benefited
C01701	B	No	1	5271109.5	4281606.0	535.5	69.4	65.6	3.8	Yes	No	Impacted, Not Benefited
C01801-F	B	Yes	1	5271097.5	4281281.0	525.5	71.5	66.2	5.3	Yes	Yes	Impacted, Benefited
C01901-V	B	No	1	5271123.0	4281347.5	527.5	70.8	67.3	3.5	Yes	No	Impacted, Not Benefited
C02001	B	No	1	5271165.5	4281320.0	533.1	69.9	66.5	3.4	Yes	No	Impacted, Not Benefited
C02101	B	No	1	5271201.0	4281306.0	538.6	69.4	66.2	3.2	Yes	No	Impacted, Not Benefited
C02201-F	B	Yes	1	5271161.0	4281095.0	531.5	70.8	64.4	6.4	Yes	Yes	Impacted, Benefited
C02302	B	No	2	5271165.0	4281166.0	534.0	70.1	64.8	5.3	Yes	Yes	Impacted, Benefited
C02402	B	No	2	5271233.0	4281128.0	540.9	67.6	63.2	4.4	Yes	No	Impacted, Not Benefited
C02501-F	B	Yes	1	5271203.0	4280929.5	526.3	69.4	62.6	6.8	Yes	Yes	Impacted, Benefited
C02601/C	B	No	2	5271300.0	4280987.0	539.7	68.4	63.8	4.6	Yes	Yes	Impacted, Benefited
C02801	B	No	1	5271290.5	4280869.5	535.4	68.3	63.1	5.2	Yes	Yes	Impacted, Benefited
C02901	B	No	1	5271298.0	4280844.0	536.0	68.2	63.2	5.0	Yes	Yes	Impacted, Benefited
C03001	B	No	1	5271305.0	4280818.5	537.2	68.2	63.2	5.0	Yes	Yes	Impacted, Benefited
C03101	B	No	1	5271314.0	4280798.0	537.3	68.0	63.3	4.7	Yes	Yes	Impacted, Benefited
C03201	B	No	1	5271321.0	4280776.5	537.0	67.9	63.3	4.6	Yes	Yes	Impacted, Benefited
C03301	B	No	1	5271335.0	4280744.5	535.3	67.5	63.3	4.2	Yes	No	Impacted, Not Benefited
C03401	B	No	1	5271396.0	4280578.0	533.8	66.3	63.8	2.5	Yes	No	Impacted, Not Benefited
C03502	B	No	2	5271579.5	4280715.0	538.4	62.0	60.5	1.5	No	No	Not Impacted, Not Benefited
C03602	B	No	2	5271586.5	4280683.0	537.6	61.8	60.7	1.1	No	No	Not Impacted, Not Benefited
C03701	B	No	1	5271588.0	4280659.0	536.5	61.8	60.8	1.0	No	No	Not Impacted, Not Benefited
C03802	B	No	2	5271598.5	4280632.5	537.6	62.5	61.3	1.2	No	No	Not Impacted, Not Benefited
C03902	B	No	2	5271605.0	4280593.5	534.4	62.4	61.0	1.4	No	No	Not Impacted, Not Benefited
C04001	B	No	1	5271607.0	4280559.0	533.0	62.5	61.0	1.5	No	No	Not Impacted, Not Benefited
C04101	B	No	1	5271626.0	4280450.0	521.5	61.3	60.3	1.0	No	No	Not Impacted, Not Benefited
C04201	B	No	1	5271534.5	4280392.5	509.7	62.0	61.0	1.0	No	No	Not Impacted, Not Benefited
C04301	B	No	1	5271474.5	4280351.0	505.7	62.1	60.8	1.3	No	No	Not Impacted, Not Benefited
C07701	B	No	1	5271444.5	4281926.0	526.3	64.0	61.8	2.2	No	No	Not Impacted, Not Benefited
C07801	B	No	1	5271482.0	4281922.0	531.8	63.9	61.6	2.3	No	No	Not Impacted, Not Benefited
C07901	B	No	1	5271504.5	4281914.5	532.4	63.5	61.1	2.4	No	No	Not Impacted, Not Benefited
C08001	B	No	1	5271527.0	4281912.5	533.5	63.2	60.9	2.3	No	No	Not Impacted, Not Benefited
C08101	B	No	1	5271554.5	4281918.0	535.6	63.0	60.8	2.2	No	No	Not Impacted, Not Benefited
C08201	B	No	1	5271578.5	4281932.5	535.9	62.7	60.5	2.2	No	No	Not Impacted, Not Benefited
C08301	B	No	1	5271597.0	4281703.0	539.7	62.5	60.0	2.5	No	No	Not Impacted, Not Benefited
C08401	B	No	1	5271642.0	4281716.0	538.9	62.1	59.7	2.4	No	No	Not Impacted, Not Benefited
C100**	B	No	1	5271410.0	4281153.0	548.2	66.5	64.1	2.4	Yes	No	Impacted, Not Benefited
C10101	B	No	1	5271599.5	4280249.5	524.9	62.2	61.4	0.8	No	No	Not Impacted, Not Benefited
C02701	B	No	1	5271324.5	4280983.5	543.8	68.2	63.9	4.3	Yes	No	Impacted, Not Benefited
NSA_C2 (no barrier recommended)												
C04403-F	C	Yes	1	5271216.0	4280029.0	521.9	66.3	66.3	0	Yes	No	Impacted, Not Benefited
C04501-F	B	Yes	1	5270979.0	4279893.5	540.6	71.0	71.0	0	Yes	No	Impacted, Not Benefited
C04601-F	B	Yes	1	5270966.0	4279783.0	545.5	70.9	70.9	0	Yes	No	Impacted, Not Benefited
C04701-F	B	Yes	1	5270981.0	4279753.5	549.8	71.1	71.1	0	Yes	No	Impacted, Not Benefited
C04801-F	B	Yes	1	5271018.5	4279716.0	554.6	70.0	70.0	0	Yes	No	Impacted, Not Benefited
C04901	B	No	1	5271049.5	4279685.5	557.9	68.8	68.8	0	Yes	No	Impacted, Not Benefited
C05001	B	No	1	5271076.5	4279638.5	562.7	67.6	67.6	0	Yes	No	Impacted, Not Benefited
C05101	B	No	1	5271095.5	4279610.0	562.8	66.6	66.6	0	Yes	No	Impacted, Not Benefited
C05201	B	No	1	5271119.0	4279576.0	564.6	65.8	65.8	0	No	No	Not Impacted, Not Benefited
C05301	B	No	1	5271146.5	4279542.0	564.7	64.9	64.9	0	No	No	Not Impacted, Not Benefited
C05401	B	No	1	5271175.5	4279500.5	565.2	64.0	64.0	0	No	No	Not Impacted, Not Benefited
C05501	B	No	1	5271208.5	4279459.0	566.4	63.2	63.2	0	No	No	Not Impacted, Not Benefited
C05601	B	No	1	5271235.0	4279416.0	570.6	62.8	62.8	0	No	No	Not Impacted, Not Benefited
C05701	B	No	1	5271257.0	4279372.0	575.9	62.3	62.3	0	No	No	Not Impacted, Not Benefited
C05801	B	No	1	5271288.0	4279325.5	580.1	61.9	61.9	0	No	No	Not Impacted, Not Benefited
C05901	B	No	1	5271301.0	4279285.0	585.2	61.6	61.6	0	No	No	Not Impacted, Not Benefited
C06001	B	No	1	5271337.0	4279218.0	588.4	60.9	60.9	0	No	No	Not Impacted, Not Benefited
C06101	B	No	1	5271298.5	4279112.5	604.7	59.5	59.5	0	No	No	Not Impacted, Not Benefited
C06201	B	No	1	5271249.5	4279144.0	608.5	59.9	59.9	0	No	No	Not Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
C06301	B	No	1	5271208.5	4279178.5	610.7	60.4	60.4	0	No	No	Not Impacted, Not Benefited
C06401	B	No	1	5271180.0	4279212.0	611.5	60.6	60.6	0	No	No	Not Impacted, Not Benefited
C06501	B	No	1	5271125.5	4279254.5	613.0	59.7	59.7	0	No	No	Not Impacted, Not Benefited
C06601	B	No	1	5271082.5	4279286.0	623.1	61.4	61.4	0	No	No	Not Impacted, Not Benefited
C06701	B	No	1	5271048.0	4279309.5	627.8	61.9	61.9	0	No	No	Not Impacted, Not Benefited
C06801	B	No	1	5271010.5	4279350.5	631.0	62.2	62.2	0	No	No	Not Impacted, Not Benefited
C06901	B	No	1	5270980.5	4279378.0	633.1	64.4	64.4	0	No	No	Not Impacted, Not Benefited
C07001-F	B	Yes	1	5270923.5	4279411.5	635.1	69.8	69.8	0	Yes	No	Impacted, Not Benefited
C07101-F	C	Yes	1	5270920.0	4279119.0	696.3	72.0	72.0	0	Yes	No	Impacted, Not Benefited
C07223-F	B	Yes	23	5270960.0	4278748.5	708.8	67.7	67.7	0	Yes	No	Impacted, Not Benefited
C07324-F	B	Yes	24	5270827.0	4278580.5	708.4	71.7	71.7	0	No	No	Not Impacted, Not Benefited
C07424-F	B	Yes	24	5270810.5	4278445.5	717.2	71.6	71.6	0	Yes	No	Impacted, Not Benefited
C07524	B	No	24	5271088.5	4278644.0	712.9	55.7	55.7	0	No	No	Not Impacted, Not Benefited
C07624	B	No	24	5271134.0	4278490.0	723.9	60.2	60.2	0	No	No	Not Impacted, Not Benefited
C08501-F	B	Yes	1	5271128.0	4279898.5	525.0	66.4	66.4	0	Yes	No	Impacted, Not Benefited
C08601	B	No	1	5271154.5	4279862.0	531.9	66.4	66.4	0	Yes	No	Impacted, Not Benefited
C08701	B	No	1	5271180.0	4279832.5	530.7	65.1	65.1	0	No	No	Not Impacted, Not Benefited
C08801	B	No	1	5271219.0	4279778.0	534.7	64.3	64.3	0	No	No	Not Impacted, Not Benefited
C08901	B	No	1	5271213.0	4279887.0	521.9	64.7	64.7	0	No	No	Not Impacted, Not Benefited
C09001	B	No	1	5271270.0	4279789.5	525.2	62.3	62.3	0	No	No	Not Impacted, Not Benefited
C09102	B	No	2	5271274.0	4279733.0	534.2	63.0	63.0	0	No	No	Not Impacted, Not Benefited
C09202	B	No	2	5271305.0	4279693.5	536.3	62.6	62.6	0	No	No	Not Impacted, Not Benefited
C09302	B	No	2	5271324.5	4279670.0	536.3	62.0	62.0	0	No	No	Not Impacted, Not Benefited
C09401	B	No	1	5271324.0	4279604.0	545.0	62.2	62.2	0	No	No	Not Impacted, Not Benefited
C09501	B	No	1	5271404.0	4279643.0	534.1	60.7	60.7	0	No	No	Not Impacted, Not Benefited
C09601	B	No	1	5271484.5	4279712.0	524.2	59.4	59.4	0	No	No	Not Impacted, Not Benefited
C09701	B	No	1	5271508.5	4279787.0	518.3	59.6	59.6	0	No	No	Not Impacted, Not Benefited
C09801	B	No	1	5271367.0	4279521.0	551.4	61.5	61.5	0	No	No	Not Impacted, Not Benefited
NewR1H	C	Yes	1	5270937.0	4280330.0	520.0	72.1	72.1	0	Yes	No	Impacted, Not Benefited
NewR2H	C	No	1	5271137.0	4279983.0	520.0	66.6	66.6	0	Yes	No	Impacted, Not Benefited
NSA E (no barrier recommended)												
E00101-F	B	Yes	1	5269151.0	4286368.0	488.1	67.4	67.4	0.0	Yes	No	Impacted, Not Benefited
E00201	B	No	1	5268733.0	4286381.5	507.4	61.8	61.7	0.1	No	No	Not Impacted, Not Benefited
E00301-R	B	No	1	5268703.5	4286350.5	517.7	63.9	63.8	0.1	No	No	Not Impacted, Not Benefited
E00401-R	B	No	1	5268708.5	4286323.0	522.5	64.2	64.0	0.2	No	No	Not Impacted, Not Benefited
E00501	B	No	1	5268708.5	4286298.5	524.2	64.2	64.1	0.1	No	No	Not Impacted, Not Benefited
E00601	B	No	1	5268729.5	4286273.0	523.9	64.4	64.2	0.2	No	No	Not Impacted, Not Benefited
E00701	B	No	1	5268778.0	4286144.5	531.8	64.9	64.7	0.2	No	No	Not Impacted, Not Benefited
E00801-R	B	No	1	5268800.0	4286084.5	528.0	64.6	64.3	0.3	No	No	Not Impacted, Not Benefited
E00901	B	No	1	5268804.0	4286054.5	526.7	63.2	63.0	0.2	No	No	Not Impacted, Not Benefited
E01001-R	B	No	1	5268802.0	4286044.5	528.9	64.5	64.2	0.3	No	No	Not Impacted, Not Benefited
E01101	B	No	1	5268815.5	4286036.5	525.1	61.3	61.1	0.2	No	No	Not Impacted, Not Benefited
E01201	B	No	1	5268824.0	4286010.0	526.9	61.3	61.1	0.2	No	No	Not Impacted, Not Benefited
E01301-R	B	No	1	5268832.0	4285995.5	527.7	60.6	60.3	0.3	No	No	Not Impacted, Not Benefited
E01401	B	No	1	5268837.0	4285981.0	528.9	60.5	60.2	0.3	No	No	Not Impacted, Not Benefited
E01501-R	B	No	1	5268837.0	4285961.0	529.3	60.8	60.5	0.3	No	No	Not Impacted, Not Benefited
E01601-R	B	No	1	5268841.0	4285936.0	531.5	61.6	61.3	0.3	No	No	Not Impacted, Not Benefited
E01701	B	No	1	5268831.0	4285916.5	536.3	65.3	65.0	0.3	No	No	Not Impacted, Not Benefited
E01801	B	No	1	5268839.0	4285897.5	534.4	63.8	63.5	0.3	No	No	Not Impacted, Not Benefited
E01901-R	B	No	1	5268854.5	4285887.5	532.3	60.7	60.4	0.3	No	No	Not Impacted, Not Benefited
E02001	B	No	1	5268843.0	4285861.5	534.9	64.2	63.8	0.4	No	No	Not Impacted, Not Benefited
E02101	B	No	1	5268841.5	4285845.0	536.2	65.1	64.8	0.3	No	No	Not Impacted, Not Benefited
E02201-R	B	No	1	5268850.0	4285829.5	534.5	64.7	64.3	0.4	No	No	Not Impacted, Not Benefited
E02301	B	No	1	5268851.5	4285811.5	534.4	65.1	64.8	0.3	No	No	Not Impacted, Not Benefited
E02401	B	No	1	5268875.0	4285728.0	534.3	66.1	65.8	0.3	Yes	No	Impacted, Not Benefited
E02501	B	No	1	5268746.5	4285912.5	561.3	65.6	65.3	0.3	No	No	Not Impacted, Not Benefited
E02601-R	B	No	1	5268736.5	4285868.5	568.1	65.9	65.6	0.3	No	No	Not Impacted, Not Benefited
E02701	B	No	1	5268736.5	4285819.0	576.1	66.7	66.4	0.3	Yes	No	Impacted, Not Benefited
E02801	B	No	1	5268849.0	4285601.5	563.3	67.2	66.9	0.3	Yes	No	Impacted, Not Benefited
E02901-R	B	No	1	5268860.0	4285557.0	567.4	67.6	67.3	0.3	Yes	No	Impacted, Not Benefited
E03001	B	No	1	5268868.0	4285527.5	569.1	67.9	67.6	0.3	Yes	No	Impacted, Not Benefited
E03101	B	No	1	5268875.5	4285495.0	570.6	68.2	67.8	0.4	Yes	No	Impacted, Not Benefited
E03201-R	B	No	1	5268884.5	4285461.5	573.2	68.4	68.1	0.3	Yes	No	Impacted, Not Benefited
E03401	B	No	1	5268892.0	4285434.0	573.3	68.5	68.2	0.3	Yes	No	Impacted, Not Benefited
E03501	B	No	1	5268902.5	4285404.0	573.1	68.6	68.3	0.3	Yes	No	Impacted, Not Benefited
E03601-R	B	No	1	5268924.0	4285351.5	569.7	68.6	68.3	0.3	Yes	No	Impacted, Not Benefited

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
E03701	B	No	1	5268961.5	4285256.0	581.9	69.2	68.8	0.4	Yes	No	Impacted, Not Benefited
E03801-R	B	No	1	5268969.0	4285208.5	583.1	69.0	68.6	0.4	Yes	No	Impacted, Not Benefited
E03901	B	No	1	5268971.5	4285128.5	596.4	69.2	68.6	0.6	Yes	No	Impacted, Not Benefited
E04001-R	B	No	1	5268975.0	4285052.5	598.3	68.7	68.1	0.6	Yes	No	Impacted, Not Benefited
E04101	B	No	1	5268967.5	4284951.5	603.0	67.9	67.3	0.6	Yes	No	Impacted, Not Benefited
E04201-R	B	No	1	5269000.5	4284885.5	609.7	68.3	67.5	0.8	Yes	No	Impacted, Not Benefited
E04301	B	No	1	5269084.0	4284818.0	600.2	68.9	68.0	0.9	Yes	No	Impacted, Not Benefited
E04401-R	B	No	1	5269092.0	4284762.5	599.5	68.5	67.5	1.0	Yes	No	Impacted, Not Benefited
E04501-R	B	No	1	5269070.0	4284672.0	602.3	67.3	66.3	1.0	Yes	No	Impacted, Not Benefited
E04601	B	No	1	5269055.0	4284628.0	607.5	67.0	66.0	1.0	Yes	No	Impacted, Not Benefited
E04701-R	B	No	1	5269085.0	4284605.5	600.6	66.8	65.7	1.1	Yes	No	Impacted, Not Benefited
E04801	B	No	1	5269065.0	4284511.0	613.2	66.5	65.5	1.0	Yes	No	Impacted, Not Benefited
E04901-R	B	No	1	5269096.0	4284459.0	612.7	66.4	65.4	1.0	Yes	No	Impacted, Not Benefited
E05002	B	No	2	5269168.5	4285230.0	537.1	71.5	70.7	0.8	Yes	No	Impacted, Not Benefited
E05102	B	No	2	5269191.0	4285148.5	546.3	72.3	71.4	0.9	Yes	No	Impacted, Not Benefited
E05202	B	No	2	5269207.0	4285054.0	551.7	72.3	71.3	1.0	Yes	No	Impacted, Not Benefited
E05302-R	B	No	2	5269220.5	4285004.0	553.3	72.4	71.2	1.2	Yes	No	Impacted, Not Benefited
E05402-R	B	No	2	5269230.0	4284930.5	562.4	72.2	71.1	1.1	Yes	No	Impacted, Not Benefited
E05502	B	No	2	5269234.5	4284881.5	563.9	71.8	70.5	1.3	Yes	No	Impacted, Not Benefited
E05602	B	No	2	5269244.5	4284778.5	562.6	70.1	68.7	1.4	Yes	No	Impacted, Not Benefited
E05701	B	No	1	5269284.0	4284641.0	570.0	68.7	67.1	1.6	Yes	No	Impacted, Not Benefited
E05801	B	No	1	5269295.0	4284574.0	574.6	68.2	66.7	1.5	Yes	No	Impacted, Not Benefited
E05901-R	B	No	1	5269310.5	4284500.5	576.5	67.6	66.2	1.4	Yes	No	Impacted, Not Benefited
E06001	B	No	1	5269329.0	4284459.5	572.1	66.7	65.3	1.4	Yes	No	Impacted, Not Benefited
E06101	B	No	1	5269324.5	4284414.5	576.0	66.5	65.2	1.3	Yes	No	Impacted, Not Benefited
E06201-R	B	No	1	5269329.0	4284390.5	574.9	66.1	64.8	1.3	Yes	No	Impacted, Not Benefited
E06301	B	No	1	5269329.0	4284358.5	575.5	65.7	64.5	1.2	No	No	Not Impacted, Not Benefited
E06401-F	B	Yes	1	5269325.5	4284768.5	547.9	68.2	66.1	2.1	Yes	No	Impacted, Not Benefited
E06501-F	B	Yes	1	5269287.5	4284710.5	558.4	68.4	67.2	1.2	Yes	No	Impacted, Not Benefited
E06601-F	B	Yes	1	5269301.5	4284688.0	557.0	67.5	66.6	0.9	Yes	No	Impacted, Not Benefited
E06701-F	B	Yes	1	5269322.0	4284642.0	556.0	66.1	65.2	0.9	Yes	No	Impacted, Not Benefited
E06801-F	B	Yes	1	5269327.5	4284608.5	559.2	65.9	65.1	0.8	No	No	Not Impacted, Not Benefited
E06901-F	B	Yes	1	5269340.0	4284545.5	559.9	64.9	64.1	0.8	No	No	Not Impacted, Not Benefited
E07001-F	B	Yes	1	5269360.5	4284420.0	562.8	63.8	63.0	0.8	No	No	Not Impacted, Not Benefited
E07101-F	B	Yes	1	5269390.0	4284352.5	558.1	60.9	60.5	0.4	No	No	Not Impacted, Not Benefited
E07201	B	No	1	5269082.5	4284575.0	604.1	66.8	65.7	1.1	Yes	No	Impacted, Not Benefited
NSA F												
F00102-F	B	Yes	2	5269345.5	4284158.5	588.2	66.2	66.2	0.0	Yes	No	Impacted, Not Benefited
F00201-F	B	Yes	1	5269349.5	4284105.0	586.8	66.2	66.1	0.1	Yes	No	Impacted, Not Benefited
F00301-F	B	Yes	1	5269345.0	4284049.0	593.5	66.9	66.7	0.2	Yes	No	Impacted, Not Benefited
F00401-F	B	Yes	1	5269348.0	4284004.0	590.8	67.0	66.6	0.4	Yes	No	Impacted, Not Benefited
F00501-F	B	Yes	1	5269351.0	4283955.0	592.4	67.5	67.0	0.5	Yes	No	Impacted, Not Benefited
F00601-F	B	Yes	1	5269330.5	4283911.5	590.2	67.5	67.0	0.5	Yes	No	Impacted, Not Benefited
F00701-F	B	Yes	1	5269352.0	4283850.0	592.0	68.7	67.6	1.1	Yes	No	Impacted, Not Benefited
F00804-F	B	Yes	4	5269480.0	4283776.5	559.3	71.6	67.4	4.2	Yes	No	Impacted, Not Benefited
F00904	B	No	4	5269361.5	4283778.0	586.2	69.4	67.8	1.6	Yes	No	Impacted, Not Benefited
F01002-F	B	Yes	2	5269616.0	4283647.0	536.0	77.5	65.6	11.9	Yes	Yes	Impacted, Benefited
F01101-F	B	Yes	1	5269604.0	4283598.0	537.4	76.4	70.3	6.1	Yes	Yes	Impacted, Benefited
F01201-F	B	Yes	1	5269600.5	4283561.0	536.7	75.7	70.4	5.3	Yes	Yes	Impacted, Benefited
F01302-F	B	Yes	2	5269622.5	4283499.0	535.9	76.1	72.3	3.8	Yes	No	Impacted, Not Benefited
F01501-F	B	Yes	1	5269610.0	4283451.5	536.7	75.0	71.3	3.7	Yes	No	Impacted, Not Benefited
F01601-F	B	Yes	1	5269611.0	4283429.5	536.2	74.7	70.7	4.0	Yes	No	Impacted, Not Benefited
F01701-F	B	Yes	1	5269614.0	4283396.5	534.6	74.4	69.1	5.3	Yes	Yes	Impacted, Benefited
F01801-F	B	Yes	1	5269589.0	4283319.0	528.8	71.5	64.2	7.3	Yes	Yes	Impacted, Benefited
F01901-F	B	Yes	1	5269596.0	4283290.5	528.7	71.4	64.2	7.2	Yes	Yes	Impacted, Benefited
F02001-F	B	Yes	1	5269604.0	4283259.5	524.4	70.5	63.3	7.2	Yes	Yes	Impacted, Benefited
F02101-F	B	Yes	1	5269637.5	4283191.5	513.5	68.1	61.7	6.4	Yes	Yes	Impacted, Benefited
F02201-F	B	Yes	1	5269653.0	4283176.5	512.9	68.2	62.6	5.6	Yes	Yes	Impacted, Benefited
F02301-F	B	Yes	1	5269670.0	4283155.0	514.6	69.1	62.3	6.8	Yes	Yes	Impacted, Benefited
F02401-F	B	Yes	1	5269674.5	4283131.5	515.0	69.4	62.2	7.2	Yes	Yes	Impacted, Benefited
F02502-F	B	Yes	2	5269687.0	4283097.5	516.3	70.0	62.5	7.5	Yes	Yes	Impacted, Benefited
F02601-F	B	Yes	1	5269725.0	4283045.0	510.5	68.4	62.5	5.9	Yes	Yes	Impacted, Benefited
F02701-F	B	Yes	1	5269735.0	4283022.0	508.1	67.8	62.2	5.6	Yes	Yes	Impacted, Benefited
F02801-F	B	Yes	1	5269748.5	4283004.5	505.2	67.0	61.3	5.7	Yes	Yes	Impacted, Benefited
F02901-F	B	Yes	1	5269755.5	4282974.0	502.6	66.7	62.0	4.7	Yes	No	Impacted, Not Benefited
F03001-F	B	Yes	1	5269776.5	4282940.0	498.8	66.7	63.3	3.4	Yes	No	Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
F03101-F	B	Yes	1	5269778.5	4282919.0	493.2	66.3	63.8	2.5	Yes	No	Impacted, Not Benefited
F03201-F	B	Yes	1	5269789.0	4282892.5	491.5	66.9	65.2	1.7	Yes	No	Impacted, Not Benefited
F03301-F	B	Yes	1	5269795.0	4282865.5	491.7	67.8	66.0	1.8	Yes	No	Impacted, Not Benefited
F03401	B	No	1	5269340.5	4283638.0	596.2	70.3	68.9	1.4	Yes	No	Impacted, Not Benefited
F03501	B	No	1	5269338.0	4283589.5	597.6	70.3	69.3	1.0	Yes	No	Impacted, Not Benefited
F03601	B	No	1	5269335.5	4283539.0	596.1	70.1	68.8	1.3	Yes	No	Impacted, Not Benefited
F03701	B	No	1	5269344.0	4283489.0	590.4	69.8	68.8	1.0	Yes	No	Impacted, Not Benefited
F03801	B	No	1	5269345.5	4283437.0	585.4	69.4	68.2	1.2	Yes	No	Impacted, Not Benefited
F03901	B	No	1	5269344.5	4283389.0	583.7	69.4	68.5	0.9	Yes	No	Impacted, Not Benefited
F04001	B	No	1	5269343.5	4283358.0	583.1	69.4	68.5	0.9	Yes	No	Impacted, Not Benefited
F04102	B	No	2	5269343.0	4283324.0	580.3	69.3	67.6	1.7	Yes	No	Impacted, Not Benefited
F04201	B	No	1	5269366.0	4283237.5	568.4	68.9	67.2	1.7	Yes	No	Impacted, Not Benefited
F04301	B	No	1	5269442.0	4283523.5	567.3	69.3	67.0	2.3	Yes	No	Impacted, Not Benefited
F04401	B	No	1	5269446.5	4283494.0	561.4	66.7	65.2	1.5	Yes	No	Impacted, Not Benefited
F04501	B	No	1	5269452.0	4283441.0	559.6	69.3	67.8	1.5	Yes	No	Impacted, Not Benefited
F04601	B	No	1	5269447.0	4283263.0	555.3	66.5	64.3	2.2	Yes	No	Impacted, Not Benefited
F04701	B	No	1	5269452.5	4283224.5	548.1	66.5	63.6	2.9	Yes	No	Impacted, Not Benefited
F04801	B	No	1	5269463.0	4283204.0	544.7	65.9	62.8	3.1	No	No	Not Impacted, Not Benefited
F04901	B	No	1	5269476.0	4283159.5	540.0	67.6	61.8	5.8	Yes	Yes	Impacted, Benefited
F05001	B	No	1	5269517.0	4283044.5	524.9	67.3	61.2	6.1	Yes	Yes	Impacted, Benefited
F05101	B	No	1	5269532.0	4283022.0	523.0	67.1	61.0	6.1	Yes	Yes	Impacted, Benefited
F05201	B	No	1	5269551.0	4282988.0	520.5	67.5	60.9	6.6	Yes	Yes	Impacted, Benefited
F05301	B	No	1	5269568.0	4282975.5	512.1	63.7	58.7	5.0	No	Yes	Not Impacted, Benefited
F05401	B	No	1	5269570.0	4282948.5	509.3	64.0	58.8	5.2	No	Yes	Not Impacted, Benefited
F05501	B	No	1	5269587.5	4282920.0	507.2	64.1	58.7	5.4	No	Yes	Not Impacted, Benefited
F05601	B	No	1	5269662.0	4282861.5	498.5	66.0	61.9	4.1	Yes	No	Impacted, Not Benefited
F05801	B	No	1	5269618.0	4282846.5	498.8	64.7	60.3	4.4	No	No	Not Impacted, Not Benefited
F05901	B	No	1	5269565.0	4282837.5	501.6	64.6	59.7	4.9	No	No	Not Impacted, Not Benefited
F06001	B	No	1	5269527.5	4282824.0	507.9	65.3	60.1	5.2	No	Yes	Not Impacted, Benefited
F06102	B	No	2	5269504.0	4282808.5	516.9	66.7	61.4	5.3	Yes	Yes	Impacted, Benefited
F06301	B	No	1	5269416.0	4282794.0	535.8	67.5	61.8	5.7	Yes	Yes	Impacted, Benefited
F06401	B	No	1	5269392.0	4282780.5	539.5	67.2	61.9	5.3	Yes	Yes	Impacted, Benefited
F06501	B	No	1	5269364.0	4282754.0	541.3	66.5	61.2	5.3	Yes	Yes	Impacted, Benefited
F06601	B	No	1	5269405.5	4282833.0	540.7	67.6	62.3	5.3	Yes	Yes	Impacted, Benefited
F06701	B	No	1	5269230.5	4282969.5	584.8	67.3	64.5	2.8	Yes	No	Impacted, Not Benefited
F06801	B	No	1	5269235.5	4282933.5	585.6	67.3	65.1	2.2	Yes	No	Impacted, Not Benefited
F06901	B	No	1	5269241.5	4282907.5	582.5	67.2	64.3	2.9	Yes	No	Impacted, Not Benefited
F07001	B	No	1	5269249.5	4282876.5	577.5	67.1	63.7	3.4	Yes	No	Impacted, Not Benefited
F07103-F	B	Yes	3	5269775.5	4282724.5	494.4	66.9	62.8	4.1	Yes	No	Impacted, Not Benefited
F07201	B	No	1	5269699.5	4282761.0	495.5	66.1	62.3	3.8	Yes	No	Impacted, Not Benefited
F07301	B	No	1	5269715.5	4282736.5	490.7	65.7	62.1	3.6	No	No	Not Impacted, Not Benefited
F07401	B	No	1	5269727.5	4282713.0	489.5	65.7	61.8	3.9	No	No	Not Impacted, Not Benefited
F07501	B	No	1	5269736.0	4282685.5	489.9	66.0	61.7	4.3	Yes	No	Impacted, Not Benefited
F07602-F	B	Yes	2	5269748.5	4282650.5	493.0	66.5	61.8	4.7	Yes	No	Impacted, Not Benefited
F07701-F	B	Yes	1	5269763.5	4282619.5	492.7	66.6	61.7	4.9	Yes	No	Impacted, Not Benefited
F07801-F	B	Yes	1	5269779.0	4282585.5	493.0	66.7	61.6	5.1	Yes	Yes	Impacted, Benefited
F07904-F	B	Yes	4	5269929.0	4282543.0	483.1	67.0	61.5	5.5	Yes	Yes	Impacted, Benefited
F08001	B	No	1	5269796.0	4282516.5	486.9	66.1	61.1	5.0	Yes	Yes	Impacted, Benefited
F08301	B	No	1	5269963.5	4282401.5	492.7	68.1	63.2	4.9	Yes	No	Impacted, Not Benefited
F08401	B	No	1	5270011.5	4282407.5	492.9	68.9	64.2	4.7	Yes	No	Impacted, Not Benefited
F08501	B	No	1	5270036.0	4282407.5	492.4	69.3	64.7	4.6	Yes	No	Impacted, Not Benefited
F08601	B	No	1	5270063.5	4282417.5	492.3	69.6	65.3	4.3	Yes	No	Impacted, Not Benefited
F08702	B	No	2	5269424.0	4282648.5	531.9	66.9	61.1	5.8	Yes	Yes	Impacted, Benefited
F08801	B	No	1	5269478.5	4282612.0	520.5	66.8	61.1	5.7	Yes	Yes	Impacted, Benefited
F08901	B	No	1	5269513.5	4282623.0	513.3	66.1	60.8	5.3	Yes	Yes	Impacted, Benefited
F09001	B	No	1	5269534.0	4282695.0	508.6	64.6	60.1	4.5	No	No	Not Impacted, Not Benefited
F09101	B	No	1	5269552.0	4282645.5	505.6	62.8	58.5	4.3	No	No	Not Impacted, Not Benefited
F09201	B	No	1	5269562.5	4282626.5	502.8	61.2	57.1	4.1	No	No	Not Impacted, Not Benefited
F09302	B	No	2	5269568.0	4282614.5	502.7	61.3	57.1	4.2	No	No	Not Impacted, Not Benefited
F09401	B	No	1	5269583.0	4282581.0	500.6	61.0	56.9	4.1	No	No	Not Impacted, Not Benefited
F09501	B	No	1	5269578.0	4282559.0	500.6	62.5	58.4	4.1	No	No	Not Impacted, Not Benefited
F09601	B	No	1	5269575.5	4282521.5	500.7	64.0	59.2	4.8	No	No	Not Impacted, Not Benefited
F09701	B	No	1	5269683.0	4282378.5	495.6	64.7	60.1	4.6	No	No	Not Impacted, Not Benefited
F09804	B	No	4	5269610.5	4282333.0	499.6	63.8	59.4	4.4	No	No	Not Impacted, Not Benefited
F09901	B	No	1	5269548.0	4282305.0	502.4	63.0	58.6	4.4	No	No	Not Impacted, Not Benefited
F10001	B	No	1	5269503.5	4282293.5	506.4	63.1	58.5	4.6	No	No	Not Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
F10102	B	No	2	5269467.0	4282283.0	512.3	63.6	58.9	4.7	No	No	Not Impacted, Not Benefited
F10202	B	No	2	5269433.5	4282291.5	515.3	63.7	59.1	4.6	No	No	Not Impacted, Not Benefited
F10301	B	No	1	5269415.5	4282262.0	515.3	63.2	58.5	4.7	No	No	Not Impacted, Not Benefited
F10402	B	No	2	5269435.0	4282219.5	512.1	61.8	57.0	4.8	No	No	Not Impacted, Not Benefited
F10512	B	No	12	5269478.0	4282462.0	513.5	65.0	60.2	4.8	No	No	Not Impacted, Not Benefited
F10601	B	No	1	5269428.0	4282493.5	524.3	66.0	60.6	5.4	Yes	Yes	Impacted, Benefited
F10701	B	No	1	5269431.0	4282530.0	524.5	66.2	60.6	5.6	Yes	Yes	Impacted, Benefited
F10802	B	No	2	5269419.5	4282569.0	528.4	66.4	60.9	5.5	Yes	Yes	Impacted, Benefited
F10901	B	No	1	5269432.0	4282599.0	528.9	66.8	61.1	5.7	Yes	Yes	Impacted, Benefited
F11001	B	No	1	5269250.5	4282634.0	562.4	65.2	61.2	4.0	No	No	Not Impacted, Not Benefited
F11101	B	No	1	5269255.5	4282592.5	564.5	65.9	61.7	4.2	No	No	Not Impacted, Not Benefited
F11202	B	No	2	5269257.0	4282538.0	556.9	64.9	60.8	4.1	No	No	Not Impacted, Not Benefited
F11301	B	No	1	5269210.5	4282513.0	570.7	65.5	61.8	3.7	No	No	Not Impacted, Not Benefited
F11401	B	No	1	5269267.0	4282480.5	552.7	64.7	60.5	4.2	No	No	Not Impacted, Not Benefited
F11501	B	No	1	5269258.0	4282444.5	546.6	62.7	59.0	3.7	No	No	Not Impacted, Not Benefited
F11602	B	No	2	5269265.5	4282394.5	544.6	63.7	59.4	4.3	No	No	Not Impacted, Not Benefited
F11701	B	No	1	5269215.5	4282386.5	554.9	64.4	60.6	3.8	No	No	Not Impacted, Not Benefited
F11801	B	No	1	5269266.0	4282341.0	539.5	63.3	58.6	4.7	No	No	Not Impacted, Not Benefited
F11901	B	No	1	5269335.5	4282342.5	527.0	64.0	59.4	4.6	No	No	Not Impacted, Not Benefited
F12001	B	No	1	5269340.5	4282315.5	525.1	64.0	59.1	4.9	No	Yes	Not Impacted, Benefited
F12101	B	No	1	5269335.0	4282289.0	523.5	63.7	59.0	4.7	No	No	Not Impacted, Not Benefited
F12202	B	No	2	5269335.5	4282265.5	521.4	63.4	58.8	4.6	No	No	Not Impacted, Not Benefited
F12301	B	No	1	5269335.5	4282071.5	518.9	61.4	56.6	4.8	No	No	Not Impacted, Not Benefited
F12403	B	No	3	5269354.0	4282073.0	518.8	60.3	55.7	4.6	No	No	Not Impacted, Not Benefited
F12501	B	No	1	5269311.0	4281892.5	528.8	62.4	58.1	4.3	No	No	Not Impacted, Not Benefited
F12601	B	No	1	5269326.0	4281861.0	532.9	62.7	58.7	4.0	No	No	Not Impacted, Not Benefited
F12701	B	No	1	5269350.0	4281841.5	534.9	63.1	59.2	3.9	No	No	Not Impacted, Not Benefited
F12804	B	No	4	5269410.5	4281740.5	544.6	63.8	60.4	3.4	No	No	Not Impacted, Not Benefited
F12901	B	No	1	5269365.5	4281798.0	539.2	63.4	59.7	3.7	No	No	Not Impacted, Not Benefited
F13003	B	No	3	5269497.5	4281874.5	540.2	65.1	61.3	3.8	No	No	Not Impacted, Not Benefited
F13105	B	No	5	5269518.5	4281912.5	534.1	65.1	61.0	4.1	No	No	Not Impacted, Not Benefited
F13201	B	No	1	5269562.0	4281978.0	525.4	64.9	60.2	4.7	No	No	Not Impacted, Not Benefited
F13303	B	No	3	5269636.0	4282010.0	526.2	66.0	61.6	4.4	Yes	No	Impacted, Not Benefited
F13402	B	No	2	5269685.5	4282020.5	522.4	66.2	61.9	4.3	Yes	No	Impacted, Not Benefited
F13502	B	No	2	5269723.5	4282021.5	518.6	65.7	61.9	3.8	No	No	Not Impacted, Not Benefited
F13601	B	No	1	5269472.5	4281968.0	512.6	61.6	57.4	4.2	No	No	Not Impacted, Not Benefited
F13701	B	No	1	5269467.0	4282014.0	511.5	61.6	57.2	4.4	No	No	Not Impacted, Not Benefited
F13801	B	No	1	5269459.5	4282050.0	510.0	61.5	57.1	4.4	No	No	Not Impacted, Not Benefited
F13901	B	No	1	5269462.5	4282072.0	509.6	61.5	57.1	4.4	No	No	Not Impacted, Not Benefited
F14001	B	No	1	5269459.5	4282095.5	509.1	61.6	57.2	4.4	No	No	Not Impacted, Not Benefited
F14102	B	No	2	5269502.5	4282089.5	507.5	61.7	57.2	4.5	No	No	Not Impacted, Not Benefited
F14201	B	No	1	5269525.5	4282114.0	504.5	61.4	57.0	4.4	No	No	Not Impacted, Not Benefited
F14301	B	No	1	5269553.5	4282114.0	503.5	61.7	57.3	4.4	No	No	Not Impacted, Not Benefited
F14402	B	No	2	5269583.0	4282119.0	502.5	62.1	57.7	4.4	No	No	Not Impacted, Not Benefited
F14501	B	No	1	5269610.5	4282131.5	501.7	62.4	58.0	4.4	No	No	Not Impacted, Not Benefited
F14601	B	No	1	5269652.0	4282147.5	498.9	62.4	58.1	4.3	No	No	Not Impacted, Not Benefited
F14701	B	No	1	5269678.5	4282156.5	497.7	62.5	58.2	4.3	No	No	Not Impacted, Not Benefited
F14801	B	No	1	5269707.5	4282155.5	496.4	62.8	58.2	4.6	No	No	Not Impacted, Not Benefited
F14901	B	No	1	5269722.5	4282175.0	496.4	62.9	58.6	4.3	No	No	Not Impacted, Not Benefited
F15001	B	No	1	5269750.0	4282182.0	495.7	63.3	58.9	4.4	No	No	Not Impacted, Not Benefited
F15101	B	No	1	5269774.5	4282181.0	495.5	63.7	58.9	4.8	No	No	Not Impacted, Not Benefited
F15201	B	No	1	5269793.0	4282185.0	495.0	64.0	59.1	4.9	No	Yes	Not Impacted, Benefited
F15301-F	B	Yes	1	5269834.5	4282197.0	494.4	64.6	60.0	4.6	No	No	Not Impacted, Not Benefited
F15401-FV	B	Yes	1	5270225.5	4282205.0	510.3	74.5	71.9	2.6	Yes	No	Impacted, Not Benefited
F15501	B	No	1	5270163.5	4282156.5	517.3	74.2	69.9	4.3	Yes	No	Impacted, Not Benefited
F15606	C	No	6	5270098.5	4282037.0	520.0	72.2	67.5	4.7	Yes	No	Impacted, Not Benefited
F15701	B	No	1	5269926.0	4281946.5	526.5	69.6	65.8	3.8	Yes	No	Impacted, Not Benefited
F15801	B	No	1	5269894.5	4281956.0	527.0	69.9	66.9	3.0	Yes	No	Impacted, Not Benefited
F15904	B	No	4	5269914.5	4281869.0	520.2	67.0	63.2	3.8	Yes	No	Impacted, Not Benefited
F16001	B	No	1	5269870.0	4281897.5	527.0	68.2	64.1	4.1	Yes	No	Impacted, Not Benefited
F16101	B	No	1	5269878.5	4281842.5	521.7	67.4	63.2	4.2	Yes	No	Impacted, Not Benefited
F16202	B	No	2	5269851.0	4281880.5	526.9	67.7	64.0	3.7	Yes	No	Impacted, Not Benefited
F16301	B	No	1	5269832.5	4281858.0	525.1	67.2	63.5	3.7	Yes	No	Impacted, Not Benefited
F16405	B	No	5	5269805.0	4281861.5	525.2	66.3	63.1	3.2	Yes	No	Impacted, Not Benefited
F16502	B	No	2	5269821.0	4281837.5	524.2	66.8	63.2	3.6	Yes	No	Impacted, Not Benefited
F16601	B	No	1	5270191.0	4282081.0	520.7	74.5	69.6	4.9	Yes	Yes	Impacted, Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
F16701	B	No	1	5270235.0	4282100.0	518.1	75.6	70.4	5.2	Yes	Yes	Impacted, Benefited
F16802	B	No	2	5270284.5	4282132.5	510.1	74.6	69.5	5.1	Yes	Yes	Impacted, Benefited
F16901-F	B	Yes	1	5270314.5	4282134.5	503.3	73.2	68.0	5.2	Yes	Yes	Impacted, Benefited
F17001-F	B	Yes	1	5270362.0	4281928.0	499.4	73.4	69.7	3.7	Yes	No	Impacted, Not Benefited
F17101	B	No	1	5270328.5	4281927.5	502.0	73.2	69.6	3.6	Yes	No	Impacted, Not Benefited
F17201	B	No	1	5270308.5	4281913.5	503.8	73.0	69.9	3.1	Yes	No	Impacted, Not Benefited
F17301	B	No	1	5270261.5	4281878.0	506.6	72.8	69.2	3.6	Yes	No	Impacted, Not Benefited
F17401	B	No	1	5270230.5	4281905.5	512.6	73.5	69.4	4.1	Yes	No	Impacted, Not Benefited
F17501	B	No	1	5270207.0	4281873.5	513.0	72.7	68.7	4.0	Yes	No	Impacted, Not Benefited
F17601	B	No	1	5270173.5	4281863.0	512.7	71.4	67.1	4.3	Yes	No	Impacted, Not Benefited
F17701	B	No	1	5270155.5	4281836.0	511.1	70.7	66.5	4.2	Yes	No	Impacted, Not Benefited
F17801	B	No	1	5270128.0	4281828.5	512.9	70.0	66.0	4.0	Yes	No	Impacted, Not Benefited
F17901	B	No	1	5270094.5	4281792.0	511.1	69.1	65.1	4.0	Yes	No	Impacted, Not Benefited
F18001	B	No	1	5270064.5	4281783.5	509.8	68.3	64.4	3.9	Yes	No	Impacted, Not Benefited
F18101	B	No	1	5270042.0	4281782.0	513.4	68.2	64.2	4.0	Yes	No	Impacted, Not Benefited
F18201	B	No	1	5270020.0	4281771.0	513.7	67.8	63.8	4.0	Yes	No	Impacted, Not Benefited
F18301	B	No	1	5269988.5	4281766.0	514.6	67.2	63.3	3.9	Yes	No	Impacted, Not Benefited
F18405	B	No	5	5269906.5	4281755.0	517.3	66.7	63.1	3.6	Yes	No	Impacted, Not Benefited
F18501	B	No	1	5269921.0	4281648.5	518.2	66.0	62.4	3.6	Yes	No	Impacted, Not Benefited
F18601	B	No	1	5269953.5	4281657.0	516.6	66.2	62.6	3.6	Yes	No	Impacted, Not Benefited
F18701	B	No	1	5269997.0	4281692.5	514.1	66.9	63.2	3.7	Yes	No	Impacted, Not Benefited
F18801	B	No	1	5270022.5	4281700.5	513.2	67.2	63.6	3.6	Yes	No	Impacted, Not Benefited
F18901	B	No	1	5270045.5	4281709.0	512.1	67.5	64.0	3.5	Yes	No	Impacted, Not Benefited
F19001	B	No	1	5270069.0	4281714.5	510.9	67.7	64.2	3.5	Yes	No	Impacted, Not Benefited
F19101	B	No	1	5270091.0	4281725.0	509.4	67.9	64.5	3.4	Yes	No	Impacted, Not Benefited
F19201	B	No	1	5270114.5	4281733.5	508.0	68.2	64.6	3.6	Yes	No	Impacted, Not Benefited
F19301	B	No	1	5270140.0	4281747.0	506.7	68.6	65.0	3.6	Yes	No	Impacted, Not Benefited
F19401	B	No	1	5270159.0	4281772.0	505.8	69.3	65.8	3.5	Yes	No	Impacted, Not Benefited
F19501	B	No	1	5270178.0	4281787.5	505.0	69.8	66.4	3.4	Yes	No	Impacted, Not Benefited
F19601	B	No	1	5270204.5	4281790.0	503.4	69.8	66.5	3.3	Yes	No	Impacted, Not Benefited
F19701	B	No	1	5270223.0	4281807.0	502.1	70.0	66.9	3.1	Yes	No	Impacted, Not Benefited
F19801	B	No	1	5270241.5	4281814.0	501.6	70.3	67.4	2.9	Yes	No	Impacted, Not Benefited
F19901	B	No	1	5270271.0	4281830.0	501.4	71.0	68.1	2.9	Yes	No	Impacted, Not Benefited
F20001	B	No	1	5270293.0	4281836.0	499.8	71.0	68.4	2.6	Yes	No	Impacted, Not Benefited
F20101	B	No	1	5270351.5	4281795.5	495.2	71.3	69.9	1.4	Yes	No	Impacted, Not Benefited
F20201	B	No	1	5270359.0	4281865.5	494.9	71.7	68.9	2.8	Yes	No	Impacted, Not Benefited
F20301-F	B	Yes	1	5270384.0	4281873.0	494.4	72.2	69.7	2.5	Yes	No	Impacted, Not Benefited
F20402	B	No	2	5269871.5	4281559.0	522.8	66.0	62.6	3.4	Yes	No	Impacted, Not Benefited
F20501	B	No	1	5269859.5	4281556.5	523.3	65.9	62.5	3.4	No	No	Not Impacted, Not Benefited
F20601	B	No	1	5269843.5	4281590.0	522.3	65.6	61.9	3.7	No	No	Not Impacted, Not Benefited
F20701	B	No	1	5269817.0	4281602.5	524.3	65.7	62.1	3.6	No	No	Not Impacted, Not Benefited
F20802	B	No	2	5269771.5	4281620.5	524.7	65.4	61.8	3.6	No	No	Not Impacted, Not Benefited
F20904	B	No	4	5269747.0	4281643.0	523.1	65.0	61.4	3.6	No	No	Not Impacted, Not Benefited
F21001	B	No	1	5269735.0	4281679.0	526.1	65.5	61.9	3.6	No	No	Not Impacted, Not Benefited
F21106	B	No	6	5269729.0	4281814.5	526.5	65.6	62.4	3.2	No	No	Not Impacted, Not Benefited
F21205	B	No	5	5269674.0	4281791.5	531.0	65.9	62.4	3.5	No	No	Not Impacted, Not Benefited
F21301	B	No	1	5269836.5	4281396.5	544.4	66.3	63.3	3.0	Yes	No	Impacted, Not Benefited
F21401	B	No	1	5269899.0	4281405.0	533.9	66.3	63.2	3.1	Yes	No	Impacted, Not Benefited
F21501	B	No	1	5269920.0	4281421.0	529.4	66.2	62.9	3.3	Yes	No	Impacted, Not Benefited
F21601	B	No	1	5269940.0	4281435.0	525.4	66.1	62.7	3.4	Yes	No	Impacted, Not Benefited
F21701	B	No	1	5269957.5	4281457.0	522.7	65.9	62.5	3.4	No	No	Not Impacted, Not Benefited
F21804	B	No	4	5270017.5	4281534.5	517.8	65.1	62.0	3.1	No	No	Not Impacted, Not Benefited
F21902	B	No	2	5270099.5	4281506.0	515.2	67.4	63.8	3.6	Yes	No	Impacted, Not Benefited
F22001	B	No	1	5270118.5	4281527.5	513.3	67.5	64.1	3.4	Yes	No	Impacted, Not Benefited
F22101	B	No	1	5270138.5	4281540.5	511.7	67.7	64.4	3.3	Yes	No	Impacted, Not Benefited
F22201	B	No	1	5270155.5	4281564.0	509.9	67.7	64.6	3.1	Yes	No	Impacted, Not Benefited
F22302	B	No	2	5270208.0	4281568.0	507.0	68.6	65.4	3.2	Yes	No	Impacted, Not Benefited
F22401	B	No	1	5270246.0	4281601.5	506.8	69.7	66.5	3.2	Yes	No	Impacted, Not Benefited
F22501	B	No	1	5270276.0	4281603.5	507.0	70.8	67.4	3.4	Yes	No	Impacted, Not Benefited
F22601	B	No	1	5270306.5	4281626.5	507.3	72.0	68.7	3.3	Yes	No	Impacted, Not Benefited
F22701	B	No	1	5270340.5	4281642.5	504.3	72.4	69.2	3.2	Yes	No	Impacted, Not Benefited
F22801-F	B	Yes	1	5270367.0	4281657.0	503.0	73.1	70.2	2.9	Yes	No	Impacted, Not Benefited
F22901-F	B	Yes	1	5270404.0	4281566.0	507.6	74.2	70.2	4.0	Yes	No	Impacted, Not Benefited
F23001	B	No	1	5270384.0	4281533.0	510.2	71.9	68.8	3.1	Yes	No	Impacted, Not Benefited
F23101	B	No	1	5270351.0	4281501.5	513.7	71.3	65.1	6.2	Yes	Yes	Impacted, Benefited
F23201	B	No	1	5270299.5	4281544.5	515.3	71.7	67.9	3.8	Yes	No	Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
F23301	B	No	1	5270282.0	4281530.5	516.0	71.1	67.4	3.7	Yes	No	Impacted, Not Benefited
F23401	B	No	1	5270258.5	4281507.0	518.1	70.5	66.8	3.7	Yes	No	Impacted, Not Benefited
F23501	B	No	1	5270245.5	4281493.0	519.3	70.2	66.6	3.6	Yes	No	Impacted, Not Benefited
F23601	B	No	1	5270215.5	4281489.0	519.4	69.7	66.1	3.6	Yes	No	Impacted, Not Benefited
F23701	B	No	1	5270202.0	4281472.0	521.3	69.5	65.9	3.6	Yes	No	Impacted, Not Benefited
F23801	B	No	1	5270176.5	4281464.0	523.7	69.4	65.9	3.5	Yes	No	Impacted, Not Benefited
F23901	B	No	1	5270155.0	4281443.0	525.3	68.9	65.5	3.4	Yes	No	Impacted, Not Benefited
F24001	B	No	1	5270130.0	4281430.0	524.8	68.2	64.8	3.4	Yes	No	Impacted, Not Benefited
F24102	B	No	2	5270130.5	4281381.0	525.5	67.2	62.8	4.4	Yes	No	Impacted, Not Benefited
F24208	B	No	8	5269942.5	4281364.5	535.9	66.7	63.6	3.1	Yes	No	Impacted, Not Benefited
F24301	B	No	1	5269821.5	4281345.5	550.7	66.1	63.3	2.8	Yes	No	Impacted, Not Benefited
F24401	B	No	1	5269830.5	4281318.0	551.6	66.1	63.4	2.7	Yes	No	Impacted, Not Benefited
F24501	B	No	1	5269836.5	4281300.0	553.4	66.2	63.5	2.7	Yes	No	Impacted, Not Benefited
F24601	B	No	1	5269844.0	4281280.5	556.7	66.3	63.7	2.6	Yes	No	Impacted, Not Benefited
F24701	B	No	1	5269872.0	4281263.5	558.1	66.7	64.0	2.7	Yes	No	Impacted, Not Benefited
F24801	B	No	1	5269899.5	4281228.5	558.4	66.8	64.2	2.6	Yes	No	Impacted, Not Benefited
F24901	B	No	1	5269944.5	4281124.0	564.5	67.0	64.7	2.3	Yes	No	Impacted, Not Benefited
F25001	B	No	1	5269987.5	4281074.5	564.5	67.3	65.0	2.3	Yes	No	Impacted, Not Benefited
F25101	B	No	1	5269981.0	4281045.5	565.6	67.2	64.9	2.3	Yes	No	Impacted, Not Benefited
F25201	B	No	1	5270091.5	4280900.5	575.4	68.4	66.8	1.6	Yes	No	Impacted, Not Benefited
F25301	B	No	1	5269955.5	4280815.5	600.2	67.0	65.7	1.3	Yes	No	Impacted, Not Benefited
F25401	B	No	1	5269975.5	4280780.5	603.7	67.2	65.9	1.3	Yes	No	Impacted, Not Benefited
F25501	B	No	1	5269995.5	4280760.5	599.9	67.2	66.0	1.2	Yes	No	Impacted, Not Benefited
F25601	B	No	1	5269988.0	4280716.0	608.6	67.2	66.0	1.2	Yes	No	Impacted, Not Benefited
F25701	B	No	1	5269999.0	4280698.0	610.3	67.4	66.2	1.2	Yes	No	Impacted, Not Benefited
F25801-F	B	Yes	1	5270072.0	4280655.0	602.9	68.0	66.7	1.3	Yes	No	Impacted, Not Benefited
F25904-F	B	Yes	4	5269892.0	4280585.5	664.6	67.0	66.3	0.7	Yes	No	Impacted, Not Benefited
F26001-F	B	Yes	1	5270470.5	4280642.0	532.5	73.3	62.5	10.8	Yes	Yes	Impacted, Benefited
F26101	B	No	1	5270389.0	4280669.0	542.9	71.9	66.7	5.2	Yes	Yes	Impacted, Benefited
F26201	B	No	1	5270399.5	4280724.0	535.8	71.0	64.7	6.3	Yes	Yes	Impacted, Benefited
F26301	B	No	1	5270328.5	4280759.5	547.6	71.0	67.6	3.4	Yes	No	Impacted, Not Benefited
F26401	B	No	1	5270273.5	4280828.0	545.6	69.8	66.1	3.7	Yes	No	Impacted, Not Benefited
F26501	B	No	1	5270249.5	4280852.0	547.3	69.5	66.2	3.3	Yes	No	Impacted, Not Benefited
F26601	B	No	1	5270173.0	4280982.0	548.0	67.3	63.8	3.5	Yes	No	Impacted, Not Benefited
F26701	B	No	1	5270144.0	4281020.5	547.0	66.0	62.9	3.1	Yes	No	Impacted, Not Benefited
F26801	B	No	1	5270147.0	4281052.0	541.0	62.9	59.6	3.3	No	No	Not Impacted, Not Benefited
F26901	B	No	1	5270130.0	4281069.5	538.8	62.1	58.9	3.2	No	No	Not Impacted, Not Benefited
F27001	B	No	1	5270112.0	4281098.0	540.4	62.6	59.6	3.0	No	No	Not Impacted, Not Benefited
F27101	B	No	1	5270106.0	4281115.5	539.5	62.2	59.2	3.0	No	No	Not Impacted, Not Benefited
F27201	B	No	1	5270076.5	4281154.0	540.0	63.0	60.0	3.0	No	No	Not Impacted, Not Benefited
F27301	B	No	1	5270028.0	4281257.5	539.1	63.7	60.5	3.2	No	No	Not Impacted, Not Benefited
F27401	B	No	1	5270038.0	4281240.0	541.0	64.8	61.6	3.2	No	No	Not Impacted, Not Benefited
F27503	B	No	3	5269991.0	4281301.0	534.6	62.5	59.8	2.7	No	No	Not Impacted, Not Benefited
F27602	B	No	2	5269979.5	4281325.5	535.5	63.9	60.9	3.0	No	No	Not Impacted, Not Benefited
F27702	B	No	2	5270172.5	4281247.5	527.3	68.2	64.5	3.7	Yes	No	Impacted, Not Benefited
F27801	B	No	1	5270207.0	4281265.0	528.6	69.3	65.5	3.8	Yes	No	Impacted, Not Benefited
F27901	B	No	1	5270236.0	4281266.5	528.5	69.8	66.0	3.8	Yes	No	Impacted, Not Benefited
F28001-F	B	Yes	1	5270261.0	4281266.5	528.4	70.3	66.4	3.9	Yes	No	Impacted, Not Benefited
F28101-F	B	Yes	1	5270280.0	4281288.0	527.9	70.7	66.8	3.9	Yes	No	Impacted, Not Benefited
F28201-F	B	Yes	1	5270303.0	4281316.0	525.8	71.1	67.0	4.1	Yes	No	Impacted, Not Benefited
F28301-F	B	Yes	1	5270345.5	4281320.5	522.5	71.8	67.4	4.4	Yes	No	Impacted, Not Benefited
F28401-F	B	Yes	1	5270364.0	4281336.0	521.6	72.2	67.7	4.5	Yes	No	Impacted, Not Benefited
F28501-F	B	Yes	1	5270392.0	4281335.0	519.3	72.7	67.9	4.8	Yes	No	Impacted, Not Benefited
F28601-F	B	Yes	1	5270417.5	4281337.0	517.3	73.2	68.0	5.2	Yes	Yes	Impacted, Benefited
F28701-F	B	Yes	1	5270441.5	4281355.0	513.2	73.7	67.9	5.8	Yes	Yes	Impacted, Benefited
F28801-F	B	Yes	1	5270461.5	4281371.0	510.7	74.0	67.1	6.9	Yes	Yes	Impacted, Benefited
F28901-F	B	Yes	1	5270488.5	4281374.5	507.7	74.7	67.0	7.7	Yes	Yes	Impacted, Benefited
F29001-F	B	Yes	1	5270501.5	4281394.5	506.4	75.2	67.5	7.7	Yes	Yes	Impacted, Benefited
F29101-F	B	Yes	1	5270520.5	4281408.5	505.4	75.9	68.7	7.2	Yes	Yes	Impacted, Benefited
F29201	B	No	1	5270226.5	4281224.0	528.0	69.5	65.5	4.0	Yes	No	Impacted, Not Benefited
F29301-F	B	Yes	1	5270257.0	4281213.5	525.3	69.8	65.6	4.2	Yes	No	Impacted, Not Benefited
F29401-F	B	Yes	1	5270272.0	4281192.0	523.8	69.8	65.5	4.3	Yes	No	Impacted, Not Benefited
F29501-F	B	Yes	1	5270289.0	4281158.0	522.7	69.9	65.5	4.4	Yes	No	Impacted, Not Benefited
F29501-F	B	Yes	1	5270289.0	4281158.0	522.7	69.9	65.5	4.4	Yes	No	Impacted, Not Benefited
F29601-F	B	Yes	1	5270303.0	4281132.0	520.8	69.8	65.2	4.6	Yes	No	Impacted, Not Benefited
F29701-F	B	Yes	1	5270317.5	4281109.5	518.1	69.5	64.9	4.6	Yes	No	Impacted, Not Benefited

BSB Noise Reevaluation KY North - Appendix B

Receiver Name	Land Use Category	Front Row?	Dwelling Units	X	Y	Z	Leq w/o barrier	Leq with barrier	Noise Reduction	Impacted?	Benefited?	Designation
F29801-F	B	Yes	1	5270328.0	4281089.5	518.4	69.6	65.0	4.6	Yes	No	Impacted, Not Benefited
F29901-F	B	Yes	1	5270344.5	4281062.5	520.6	69.9	65.2	4.7	Yes	No	Impacted, Not Benefited
F30001-F	B	Yes	1	5270358.0	4281047.0	526.7	70.8	65.9	4.9	Yes	No	Impacted, Not Benefited
F30101-F	B	Yes	1	5270366.0	4281028.5	527.1	71.1	66.0	5.1	Yes	Yes	Impacted, Benefited
F30201-F	B	Yes	1	5270420.5	4280980.5	527.7	72.2	66.1	6.1	Yes	Yes	Impacted, Benefited
F30301-F	B	Yes	1	5270432.5	4280951.5	528.8	72.4	66.1	6.3	Yes	Yes	Impacted, Benefited
F30401-F	B	Yes	1	5270461.0	4280911.5	530.8	73.1	64.9	8.2	Yes	Yes	Impacted, Benefited
F30501-F	B	Yes	1	5270481.5	4280856.5	526.7	73.4	62.7	10.7	Yes	Yes	Impacted, Benefited
F30601-F	B	Yes	1	5270498.5	4280835.5	522.4	73.6	60.1	13.5	Yes	Yes	Impacted, Benefited
F30701-F	B	Yes	1	5270507.5	4280811.0	522.5	73.9	60.2	13.7	Yes	Yes	Impacted, Benefited
F30801-F	B	Yes	1	5270520.5	4280790.0	522.4	74.3	60.2	14.1	Yes	Yes	Impacted, Benefited
F30901-F	B	Yes	1	5270530.5	4280763.0	524.1	74.6	61.4	13.2	Yes	Yes	Impacted, Benefited
F31001-F	B	Yes	1	5270556.0	4280730.0	526.3	75.6	61.2	14.4	Yes	Yes	Impacted, Benefited
F31101	B	No	1	5269908.0	4280793.5	613.3	66.7	65.5	1.2	Yes	No	Impacted, Not Benefited
F31201	B	No	1	5269469.0	4281991.0	512.1	61.6	57.4	4.2	No	No	Not Impacted, Not Benefited
F31301	B	No	1	5269969.5	4281681.5	515.4	66.6	62.9	3.7	Yes	No	Impacted, Not Benefited
F31501	B	No	1	5269984.5	4282407.0	492.8	68.5	63.7	4.8	Yes	No	Impacted, Not Benefited

BSB Noise Re-evaluation KY North - Appendix C

TNM Files

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	92	17	0.0	67.3	66	67.3	10	Snd Lvl	65.3	2.0	8	-6.0
B00204	93	4	0.0	63.5	66	63.5	10	----	61.8	1.7	8	-6.3
B00304	94	4	0.0	63.9	66	63.9	10	----	61.6	2.3	8	-5.7
B00401-F	95	1	0.0	70.9	66	70.9	10	Snd Lvl	68.3	2.6	8	-5.4
B00501-F	96	1	0.0	72.1	66	72.1	10	Snd Lvl	70.2	1.9	8	-6.1
B00601-F	97	1	0.0	72.2	66	72.2	10	Snd Lvl	70.4	1.8	8	-6.2
B00701-F	98	1	0.0	72.1	66	72.1	10	Snd Lvl	70.0	2.1	8	-5.9
B00801-F	99	1	0.0	72.8	66	72.8	10	Snd Lvl	66.4	6.4	8	-1.6
B00901-F	100	1	0.0	73.0	66	73.0	10	Snd Lvl	65.4	7.6	8	-0.4
B01001-F	101	1	0.0	72.8	66	72.8	10	Snd Lvl	65.2	7.6	8	-0.4
B01101-F	102	1	0.0	73.1	66	73.1	10	Snd Lvl	64.7	8.4	8	0.4
B01201-F	103	1	0.0	73.1	66	73.1	10	Snd Lvl	64.7	8.4	8	0.4
B01301-F	104	1	0.0	74.2	66	74.2	10	Snd Lvl	64.2	10.0	8	2.0
B01401	105	1	0.0	68.6	66	68.6	10	Snd Lvl	66.6	2.0	8	-6.0
B01501	106	1	0.0	68.8	66	68.8	10	Snd Lvl	66.6	2.2	8	-5.8
B01601	107	1	0.0	68.1	66	68.1	10	Snd Lvl	65.9	2.2	8	-5.8
B01701	108	1	0.0	68.3	66	68.3	10	Snd Lvl	66.0	2.3	8	-5.7
B01801	109	1	0.0	68.5	66	68.5	10	Snd Lvl	66.2	2.3	8	-5.7
B01901	110	1	0.0	68.7	66	68.7	10	Snd Lvl	66.3	2.4	8	-5.6
B02002	111	2	0.0	69.1	66	69.1	10	Snd Lvl	66.3	2.8	8	-5.2
B02102	112	2	0.0	67.4	66	67.4	10	Snd Lvl	65.1	2.3	8	-5.7
B02202-R	113	4	0.0	66.6	66	66.6	10	Snd Lvl	64.3	2.3	8	-5.7
B02302	114	2	0.0	66.7	66	66.7	10	Snd Lvl	64.4	2.3	8	-5.7
B02401-R	115	3	0.0	66.9	66	66.9	10	Snd Lvl	64.4	2.5	8	-5.5

B02502	116	2	0.0	67.2	66	67.2	10	Snd Lvl	64.4	2.8	8	-5.2
B02602-R	117	4	0.0	66.7	66	66.7	10	Snd Lvl	63.7	3.0	8	-5.0
B02702	118	2	0.0	67.8	66	67.8	10	Snd Lvl	64.5	3.3	8	-4.7
B02802-R	119	4	0.0	66.9	66	66.9	10	Snd Lvl	63.3	3.6	8	-4.4
B02902	120	2	0.0	67.7	66	67.7	10	Snd Lvl	63.9	3.8	8	-4.2
B03002-R	121	4	0.0	67.8	66	67.8	10	Snd Lvl	63.2	4.6	8	-3.4
B03101	122	1	0.0	66.6	66	66.6	10	Snd Lvl	61.6	5.0	8	-3.0
B03201	123	1	0.0	68.3	66	68.3	10	Snd Lvl	62.5	5.8	8	-2.2
B03301	124	1	0.0	67.9	66	67.9	10	Snd Lvl	62.8	5.1	8	-2.9
B03401	125	1	0.0	68.4	66	68.4	10	Snd Lvl	63.3	5.1	8	-2.9
B03501-F	126	1	0.0	69.8	66	69.8	10	Snd Lvl	63.6	6.2	8	-1.8
B03601-F	127	1	0.0	69.7	66	69.7	10	Snd Lvl	63.6	6.1	8	-1.9
B03702-F	128	2	0.0	69.7	66	69.7	10	Snd Lvl	64.0	5.7	8	-2.3
B03801-F	129	1	0.0	69.5	66	69.5	10	Snd Lvl	63.8	5.7	8	-2.3
B03901-F	130	1	0.0	69.2	66	69.2	10	Snd Lvl	63.3	5.9	8	-2.1
B04004-F	131	4	0.0	68.9	66	68.9	10	Snd Lvl	63.2	5.7	8	-2.3
B04104-F	132	4	0.0	68.7	66	68.7	10	Snd Lvl	63.3	5.4	8	-2.6
B04225-F	133	3	0.0	66.0	66	66.0	10	Snd Lvl	62.7	3.3	8	-4.7
B04302	134	2	0.0	65.9	66	65.9	10	----	63.7	2.2	8	-5.8
B04402	135	2	0.0	60.0	66	60.0	10	----	57.9	2.1	8	-5.9
B04502	136	2	0.0	60.0	66	60.0	10	----	58.0	2.0	8	-6.0
B04602	137	2	0.0	66.1	66	66.1	10	Snd Lvl	63.8	2.3	8	-5.7
B04701	138	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04801-R	140	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04901	141	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05001	142	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05102	143	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05202	144	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05302	145	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05404	146	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05502	147	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05602	148	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05704-R	149	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05802	150	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05903	151	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06002	152	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06104-R	153	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06204	154	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06302-R	155	6	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06402	156	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06501	157	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B06602	158	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06705	159	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06802	160	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06901	161	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07006	162	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07103	163	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07202-R	164	5	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07302	165	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07402	166	8	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07502	167	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07601	168	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09302	169	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09402	170	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09502	171	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09602	172	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09702	173	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09801	174	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22302	175	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09901	176	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10001-R	177	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10101	178	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10201	179	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10301-R	180	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10405	181	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10502	182	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10601	183	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10701	184	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10801-R	185	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10901	186	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11004	187	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11502	189	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11601	190	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11701	191	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11801-R	192	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11901	193	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12001-R	194	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12101	195	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12201	196	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12301	197	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12401-R	198	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12501	199	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B12601	200	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12701	201	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12801	202	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12901	203	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13001	204	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13101-R	205	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13201	206	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13301-R	207	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13401	208	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13501	209	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13602	210	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13702	211	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13802	212	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13902	213	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14001	214	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22402	215	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14102	216	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14210	217	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14301	218	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14401-R	219	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14501	220	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14601-R	221	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14701	222	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14801	223	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15002	224	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15102	225	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15202	226	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22605	239	5	64.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
B07701-F	240	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07801-F	241	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07901-F	242	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08001-F	243	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08101-F	244	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08201-F	245	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08301-F	246	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08401-F	247	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08501-F	248	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08601-F	249	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08701-F	250	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08801-F	251	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08901-F	252	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B15301	253	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15401	254	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15501	255	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15601	256	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15701	257	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15801	258	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15901-R	259	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16001	260	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16101	261	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16202	262	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16301	263	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16401	264	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22502	265	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16501	266	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16601-R	267	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16701	268	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22201-R	269	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16801	270	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16904	271	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17001	272	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17101	273	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17201	274	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17302	275	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17403	276	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17501-R	277	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17601	278	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17701-R	279	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17801	280	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17901	281	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18001-R	282	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18101	283	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18201	284	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18301	285	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18401	287	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18501	288	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18601-R	289	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18701	290	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18801	291	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18901-R	292	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19001	293	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19101-R	294	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B19201	295	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19301	296	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19402	297	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19502	298	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19602	299	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19702	300	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19801	301	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19901	302	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20002	303	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20104	304	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	348	0.0	0.9	10.0
All Impacted	87	1.8	4.2	10.0
All that meet NR Goal	3	8.4	8.9	10.0

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	92	17	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00204	93	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00304	94	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00401-F	95	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00501-F	96	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00601-F	97	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00701-F	98	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00801-F	99	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00901-F	100	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01001-F	101	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01101-F	102	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01201-F	103	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01301-F	104	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01401	105	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01501	106	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01601	107	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01701	108	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01801	109	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01901	110	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02002	111	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02102	112	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02202-R	113	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02302	114	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02401-R	115	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B02502	116	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02602-R	117	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02702	118	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02802-R	119	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02902	120	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03002-R	121	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03101	122	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03201	123	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03301	124	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03401	125	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03501-F	126	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03601-F	127	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03702-F	128	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03801-F	129	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03901-F	130	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04004-F	131	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04104-F	132	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04225-F	133	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04302	134	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04402	135	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04502	136	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04602	137	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04701	138	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04801-R	140	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04901	141	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05001	142	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05102	143	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05202	144	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05302	145	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05404	146	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05502	147	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05602	148	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05704-R	149	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05802	150	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05903	151	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06002	152	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06104-R	153	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06204	154	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06302-R	155	6	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06402	156	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06501	157	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B06602	158	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06705	159	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06802	160	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06901	161	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07006	162	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07103	163	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07202-R	164	5	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07302	165	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07402	166	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07502	167	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07601	168	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09302	169	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09402	170	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09502	171	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09602	172	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09702	173	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09801	174	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22302	175	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09901	176	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10001-R	177	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10101	178	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10201	179	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10301-R	180	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10405	181	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10502	182	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10601	183	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10701	184	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10801-R	185	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10901	186	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11004	187	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11502	189	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11601	190	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11701	191	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11801-R	192	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11901	193	1	0.0	60.2	66	60.2	10	----	57.5	2.7	8	-5.3
B12001-R	194	2	0.0	60.2	66	60.2	10	----	57.6	2.6	8	-5.4
B12101	195	1	0.0	60.5	66	60.5	10	----	57.9	2.6	8	-5.4
B12201	196	1	0.0	60.7	66	60.7	10	----	57.9	2.8	8	-5.2
B12301	197	1	0.0	63.0	66	63.0	10	----	60.3	2.7	8	-5.3
B12401-R	198	3	0.0	62.1	66	62.1	10	----	59.5	2.6	8	-5.4
B12501	199	1	0.0	62.7	66	62.7	10	----	59.9	2.8	8	-5.2

B12601	200	1	0.0	61.7	66	61.7	10	----	59.0	2.7	8	-5.3
B12701	201	1	0.0	61.1	66	61.1	10	----	58.3	2.8	8	-5.2
B12801	202	1	0.0	61.9	66	61.9	10	----	59.2	2.7	8	-5.3
B12901	203	1	0.0	62.0	66	62.0	10	----	59.3	2.7	8	-5.3
B13001	204	1	0.0	62.5	66	62.5	10	----	59.8	2.7	8	-5.3
B13101-R	205	3	0.0	62.9	66	62.9	10	----	60.2	2.7	8	-5.3
B13201	206	1	0.0	63.9	66	63.9	10	----	61.1	2.8	8	-5.2
B13301-R	207	2	0.0	65.4	66	65.4	10	----	62.3	3.1	8	-4.9
B13401	208	1	0.0	65.6	66	65.6	10	----	62.4	3.2	8	-4.8
B13501	209	1	0.0	65.2	66	65.2	10	----	61.9	3.3	8	-4.7
B13602	210	2	0.0	64.4	66	64.4	10	----	61.6	2.8	8	-5.2
B13702	211	2	0.0	64.7	66	64.7	10	----	61.9	2.8	8	-5.2
B13802	212	2	0.0	65.3	66	65.3	10	----	62.2	3.1	8	-4.9
B13902	213	2	0.0	64.1	66	64.1	10	----	61.2	2.9	8	-5.1
B14001	214	1	0.0	66.9	66	66.9	10	Snd Lvl	63.4	3.5	8	-4.5
B22402	215	2	0.0	64.9	66	64.9	10	----	61.9	3.0	8	-5.0
B14102	216	2	0.0	66.1	66	66.1	10	Snd Lvl	62.7	3.4	8	-4.6
B14210	217	1	0.0	62.6	66	62.6	10	----	59.4	3.2	8	-4.8
B14301	218	1	0.0	62.6	66	62.6	10	----	59.4	3.2	8	-4.8
B14401-R	219	2	0.0	62.5	66	62.5	10	----	59.4	3.1	8	-4.9
B14501	220	1	0.0	63.8	66	63.8	10	----	60.7	3.1	8	-4.9
B14601-R	221	2	0.0	61.9	66	61.9	10	----	58.8	3.1	8	-4.9
B14701	222	1	0.0	61.1	66	61.1	10	----	58.2	2.9	8	-5.1
B14801	223	1	0.0	61.3	66	61.3	10	----	58.5	2.8	8	-5.2
B15002	224	2	0.0	62.1	66	62.1	10	----	59.0	3.1	8	-4.9
B15102	225	2	0.0	61.7	66	61.7	10	----	58.9	2.8	8	-5.2
B15202	226	2	0.0	61.5	66	61.5	10	----	58.7	2.8	8	-5.2
B22605	239	5	64.9	66.1	66	1.2	10	Snd Lvl	63.3	2.8	7	-4.2
B07701-F	240	1	0.0	69.9	66	69.9	10	Snd Lvl	67.0	2.9	8	-5.1
B07801-F	241	1	0.0	69.6	66	69.6	10	Snd Lvl	66.5	3.1	8	-4.9
B07901-F	242	1	0.0	69.5	66	69.5	10	Snd Lvl	66.4	3.1	8	-4.9
B08001-F	243	1	0.0	68.9	66	68.9	10	Snd Lvl	66.3	2.6	8	-5.4
B08101-F	244	1	0.0	67.6	66	67.6	10	Snd Lvl	65.4	2.2	8	-5.8
B08201-F	245	1	0.0	67.6	66	67.6	10	Snd Lvl	65.5	2.1	8	-5.9
B08301-F	246	1	0.0	67.6	66	67.6	10	Snd Lvl	65.7	1.9	8	-6.1
B08401-F	247	1	0.0	67.8	66	67.8	10	Snd Lvl	66.1	1.7	8	-6.3
B08501-F	248	1	0.0	68.0	66	68.0	10	Snd Lvl	66.5	1.5	8	-6.5
B08601-F	249	1	0.0	68.7	66	68.7	10	Snd Lvl	67.3	1.4	8	-6.6
B08701-F	250	1	0.0	69.0	66	69.0	10	Snd Lvl	67.6	1.4	8	-6.6
B08801-F	251	1	0.0	69.2	66	69.2	10	Snd Lvl	67.8	1.4	8	-6.6
B08901-F	252	1	0.0	69.1	66	69.1	10	Snd Lvl	67.6	1.5	8	-6.5

B15301	253	1	0.0	67.4	66	67.4	10	Snd Lvl	64.4	3.0	8	-5.0
B15401	254	1	0.0	62.7	66	62.7	10	----	60.3	2.4	8	-5.6
B15501	255	1	0.0	66.9	66	66.9	10	Snd Lvl	64.1	2.8	8	-5.2
B15601	256	1	0.0	61.5	66	61.5	10	----	59.3	2.2	8	-5.8
B15701	257	1	0.0	61.4	66	61.4	10	----	59.4	2.0	8	-6.0
B15801	258	1	0.0	61.3	66	61.3	10	----	59.3	2.0	8	-6.0
B15901-R	259	3	0.0	61.6	66	61.6	10	----	59.5	2.1	8	-5.9
B16001	260	1	0.0	61.3	66	61.3	10	----	59.2	2.1	8	-5.9
B16101	261	1	0.0	66.0	66	66.0	10	Snd Lvl	63.8	2.2	8	-5.8
B16202	262	2	0.0	66.8	66	66.8	10	Snd Lvl	64.8	2.0	8	-6.0
B16301	263	1	0.0	62.6	66	62.6	10	----	60.4	2.2	8	-5.8
B16401	264	1	0.0	64.6	66	64.6	10	----	62.3	2.3	8	-5.7
B22502	265	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16501	266	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16601-R	267	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16701	268	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22201-R	269	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16801	270	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16904	271	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17001	272	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17101	273	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17201	274	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17302	275	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17403	276	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17501-R	277	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17601	278	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17701-R	279	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17801	280	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17901	281	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18001-R	282	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18101	283	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18201	284	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18301	285	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18401	287	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18501	288	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18601-R	289	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18701	290	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18801	291	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18901-R	292	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19001	293	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19101-R	294	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B19201	295	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19301	296	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19402	297	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19502	298	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19602	299	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19702	300	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19801	301	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19901	302	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20002	303	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20104	304	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		348	0.0	0.8	3.5
All Impacted		26	1.4	2.3	3.5
All that meet NR Goal		0	0.0	0.0	0.0

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	92	17	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00204	93	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00304	94	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00401-F	95	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00501-F	96	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00601-F	97	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00701-F	98	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00801-F	99	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00901-F	100	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01001-F	101	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01101-F	102	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01201-F	103	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01301-F	104	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01401	105	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01501	106	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01601	107	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01701	108	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01801	109	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01901	110	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02002	111	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02102	112	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02202-R	113	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02302	114	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02401-R	115	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B02502	116	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02602-R	117	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02702	118	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02802-R	119	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02902	120	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03002-R	121	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03101	122	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03201	123	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03301	124	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03401	125	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03501-F	126	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03601-F	127	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03702-F	128	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03801-F	129	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03901-F	130	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04004-F	131	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04104-F	132	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04225-F	133	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04302	134	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04402	135	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04502	136	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04602	137	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04701	138	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04801-R	140	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04901	141	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05001	142	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05102	143	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05202	144	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05302	145	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05404	146	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05502	147	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05602	148	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05704-R	149	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05802	150	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05903	151	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06002	152	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06104-R	153	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06204	154	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06302-R	155	6	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06402	156	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06501	157	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B06602	158	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06705	159	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06802	160	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06901	161	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07006	162	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07103	163	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07202-R	164	5	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07302	165	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07402	166	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07502	167	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07601	168	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09302	169	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09402	170	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09502	171	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09602	172	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09702	173	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09801	174	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22302	175	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09901	176	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10001-R	177	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10101	178	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10201	179	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10301-R	180	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10405	181	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10502	182	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10601	183	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10701	184	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10801-R	185	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10901	186	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11004	187	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11502	189	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11601	190	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11701	191	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11801-R	192	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11901	193	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12001-R	194	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12101	195	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12201	196	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12301	197	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12401-R	198	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12501	199	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B12601	200	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12701	201	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12801	202	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12901	203	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13001	204	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13101-R	205	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13201	206	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13301-R	207	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13401	208	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13501	209	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13602	210	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13702	211	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13802	212	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13902	213	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14001	214	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22402	215	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14102	216	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14210	217	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14301	218	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14401-R	219	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14501	220	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14601-R	221	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14701	222	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14801	223	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15002	224	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15102	225	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15202	226	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22605	239	5	64.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
B07701-F	240	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07801-F	241	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07901-F	242	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08001-F	243	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08101-F	244	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08201-F	245	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08301-F	246	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08401-F	247	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08501-F	248	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08601-F	249	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08701-F	250	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08801-F	251	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08901-F	252	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B15301	253	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15401	254	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15501	255	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15601	256	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15701	257	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15801	258	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15901-R	259	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16001	260	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16101	261	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16202	262	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16301	263	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16401	264	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22502	265	2	0.0	63.1	66	63.1	10	----	61.3	1.8	8	-6.2
B16501	266	2	0.0	64.8	66	64.8	10	----	63.1	1.7	8	-6.3
B16601-R	267	1	0.0	62.9	66	62.9	10	----	60.7	2.2	8	-5.8
B16701	268	1	0.0	62.9	66	62.9	10	----	60.8	2.1	8	-5.9
B22201-R	269	2	0.0	62.3	66	62.3	10	----	60.2	2.1	8	-5.9
B16801	270	1	0.0	66.0	66	66.0	10	Snd Lvl	63.8	2.2	8	-5.8
B16904	271	4	0.0	65.8	66	65.8	10	----	62.9	2.9	8	-5.1
B17001	272	1	0.0	65.9	66	65.9	10	----	63.3	2.6	8	-5.4
B17101	273	1	0.0	66.1	66	66.1	10	Snd Lvl	63.4	2.7	8	-5.3
B17201	274	1	0.0	65.9	66	65.9	10	----	62.9	3.0	8	-5.0
B17302	275	2	0.0	65.3	66	65.3	10	----	62.5	2.8	8	-5.2
B17403	276	3	0.0	64.9	66	64.9	10	----	62.1	2.8	8	-5.2
B17501-R	277	2	0.0	65.0	66	65.0	10	----	62.5	2.5	8	-5.5
B17601	278	1	0.0	64.3	66	64.3	10	----	62.2	2.1	8	-5.9
B17701-R	279	2	0.0	64.1	66	64.1	10	----	61.9	2.2	8	-5.8
B17801	280	1	0.0	63.9	66	63.9	10	----	61.8	2.1	8	-5.9
B17901	281	1	0.0	63.9	66	63.9	10	----	61.7	2.2	8	-5.8
B18001-R	282	2	0.0	64.5	66	64.5	10	----	62.3	2.2	8	-5.8
B18101	283	1	0.0	63.4	66	63.4	10	----	60.6	2.8	8	-5.2
B18201	284	1	0.0	64.2	66	64.2	10	----	61.2	3.0	8	-5.0
B18301	285	1	0.0	63.5	66	63.5	10	----	60.6	2.9	8	-5.1
B18401	287	1	0.0	66.2	66	66.2	10	Snd Lvl	64.0	2.2	8	-5.8
B18501	288	1	0.0	65.9	66	65.9	10	----	63.6	2.3	8	-5.7
B18601-R	289	3	0.0	66.6	66	66.6	10	Snd Lvl	63.9	2.7	8	-5.3
B18701	290	1	0.0	66.2	66	66.2	10	Snd Lvl	63.9	2.3	8	-5.7
B18801	291	1	0.0	66.3	66	66.3	10	Snd Lvl	64.0	2.3	8	-5.7
B18901-R	292	2	0.0	66.2	66	66.2	10	Snd Lvl	64.0	2.2	8	-5.8
B19001	293	1	0.0	66.2	66	66.2	10	Snd Lvl	64.1	2.1	8	-5.9
B19101-R	294	2	0.0	65.9	66	65.9	10	----	63.9	2.0	8	-6.0

B19201	295	1	0.0	65.8	66	65.8	10	----	63.8	2.0	8	-6.0
B19301	296	1	0.0	65.8	66	65.8	10	----	63.8	2.0	8	-6.0
B19402	297	2	0.0	65.7	66	65.7	10	----	63.6	2.1	8	-5.9
B19502	298	2	0.0	64.4	66	64.4	10	----	61.6	2.8	8	-5.2
B19602	299	2	0.0	64.2	66	64.2	10	----	61.5	2.7	8	-5.3
B19702	300	2	0.0	64.3	66	64.3	10	----	61.7	2.6	8	-5.4
B19801	301	1	0.0	63.8	66	63.8	10	----	61.3	2.5	8	-5.5
B19901	302	1	0.0	63.8	66	63.8	10	----	61.3	2.5	8	-5.5
B20002	303	2	0.0	63.8	66	63.8	10	----	61.3	2.5	8	-5.5
B20104	304	4	0.0	64.5	66	64.5	10	----	61.9	2.6	8	-5.4

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	348	0.0	0.5	3.0
All Impacted	11	2.1	2.3	2.7
All that meet NR Goal	0	0.0	0.0	0.0

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	92	17	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00204	93	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00304	94	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00401-F	95	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00501-F	96	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00601-F	97	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00701-F	98	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00801-F	99	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00901-F	100	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01001-F	101	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01101-F	102	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01201-F	103	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01301-F	104	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01401	105	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01501	106	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01601	107	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01701	108	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01801	109	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01901	110	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02002	111	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02102	112	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02202-R	113	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02302	114	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02401-R	115	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B02502	116	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02602-R	117	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02702	118	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02802-R	119	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02902	120	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03002-R	121	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03101	122	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03201	123	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03301	124	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03401	125	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03501-F	126	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03601-F	127	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03702-F	128	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03801-F	129	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03901-F	130	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04004-F	131	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04104-F	132	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04225-F	133	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04302	134	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04402	135	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04502	136	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04602	137	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04701	138	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04801-R	140	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04901	141	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05001	142	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05102	143	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05202	144	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05302	145	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05404	146	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05502	147	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05602	148	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05704-R	149	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05802	150	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05903	151	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06002	152	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06104-R	153	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06204	154	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06302-R	155	6	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06402	156	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06501	157	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B06602	158	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06705	159	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06802	160	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06901	161	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07006	162	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07103	163	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07202-R	164	5	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07302	165	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07402	166	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07502	167	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07601	168	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09302	169	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09402	170	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09502	171	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09602	172	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09702	173	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09801	174	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22302	175	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09901	176	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10001-R	177	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10101	178	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10201	179	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10301-R	180	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10405	181	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10502	182	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10601	183	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10701	184	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10801-R	185	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10901	186	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11004	187	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11502	189	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11601	190	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11701	191	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11801-R	192	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11901	193	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12001-R	194	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12101	195	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12201	196	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12301	197	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12401-R	198	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12501	199	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B12601	200	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12701	201	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12801	202	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12901	203	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13001	204	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13101-R	205	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13201	206	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13301-R	207	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13401	208	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13501	209	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13602	210	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13702	211	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13802	212	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13902	213	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14001	214	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22402	215	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14102	216	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14210	217	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14301	218	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14401-R	219	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14501	220	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14601-R	221	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14701	222	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14801	223	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15002	224	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15102	225	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15202	226	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22605	239	5	64.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
B07701-F	240	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07801-F	241	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07901-F	242	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08001-F	243	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08101-F	244	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08201-F	245	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08301-F	246	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08401-F	247	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08501-F	248	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08601-F	249	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08701-F	250	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08801-F	251	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08901-F	252	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B15301	253	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15401	254	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15501	255	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15601	256	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15701	257	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15801	258	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15901-R	259	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16001	260	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16101	261	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16202	262	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16301	263	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16401	264	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22502	265	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16501	266	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16601-R	267	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16701	268	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22201-R	269	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16801	270	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16904	271	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17001	272	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17101	273	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17201	274	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17302	275	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17403	276	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17501-R	277	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17601	278	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17701-R	279	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17801	280	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17901	281	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18001-R	282	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18101	283	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18201	284	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18301	285	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18401	287	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18501	288	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18601-R	289	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18701	290	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18801	291	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18901-R	292	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19001	293	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19101-R	294	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B19201	295	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19301	296	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19402	297	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19502	298	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19602	299	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19702	300	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19801	301	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19901	302	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20002	303	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20104	304	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22604	646	4	0.0	67.4	66	67.4	10	Snd Lvl	64.7	2.7	8	-5.3
B22704	647	4	0.0	65.9	66	65.9	10	----	62.1	3.8	8	-4.2
B22804	648	4	0.0	66.9	66	66.9	10	Snd Lvl	62.0	4.9	8	-3.1
B22904	304	4	0.0	68.9	66	68.9	10	Snd Lvl	62.6	6.3	8	-1.7
B23004	649	4	0.0	70.3	66	70.3	10	Snd Lvl	62.8	7.5	8	-0.5
B23104	650	4	0.0	74.3	66	74.3	10	Snd Lvl	64.8	9.5	8	1.5
B23204	651	4	0.0	75.1	66	75.1	10	Snd Lvl	65.2	9.9	8	1.9
B23304	652	4	0.0	75.5	66	75.5	10	Snd Lvl	64.8	10.7	8	2.7
B23404	653	4	0.0	75.0	66	75.0	10	Snd Lvl	64.2	10.8	8	2.8
B23504	654	4	0.0	73.6	66	73.6	10	Snd Lvl	63.4	10.2	8	2.2
B23604	655	4	0.0	72.3	66	72.3	10	Snd Lvl	62.2	10.1	8	2.1
B23704	656	4	0.0	69.9	66	69.9	10	Snd Lvl	60.9	9.0	8	1.0
B23804	657	4	0.0	67.7	66	67.7	10	Snd Lvl	59.9	7.8	8	-0.2
B23904	658	4	0.0	64.6	66	64.6	10	----	58.5	6.1	8	-1.9
B24004	659	4	0.0	63.1	66	63.1	10	----	57.3	5.8	8	-2.2
B24104	660	4	0.0	61.6	66	61.6	10	----	56.5	5.1	8	-2.9
B24204	662	4	0.0	59.5	66	59.5	10	----	54.8	4.7	8	-3.3

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	416	0.0	0.6	10.8
All Impacted	48	2.7	8.3	10.8
All that meet NR Goal	28	9.0	10.0	10.8

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	92	17	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00204	93	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00304	94	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00401-F	95	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00501-F	96	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00601-F	97	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00701-F	98	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00801-F	99	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B00901-F	100	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01001-F	101	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01101-F	102	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01201-F	103	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01301-F	104	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01401	105	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01501	106	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01601	107	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01701	108	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01801	109	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B01901	110	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02002	111	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02102	112	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02202-R	113	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02302	114	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02401-R	115	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B02502	116	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02602-R	117	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02702	118	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02802-R	119	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B02902	120	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03002-R	121	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03101	122	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03201	123	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03301	124	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03401	125	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03501-F	126	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03601-F	127	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03702-F	128	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03801-F	129	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B03901-F	130	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04004-F	131	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04104-F	132	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04225-F	133	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04302	134	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04402	135	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04502	136	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04602	137	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04701	138	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04801-R	140	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B04901	141	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05001	142	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05102	143	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05202	144	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05302	145	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05404	146	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05502	147	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05602	148	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05704-R	149	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05802	150	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B05903	151	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06002	152	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06104-R	153	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06204	154	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06302-R	155	6	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06402	156	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06501	157	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B06602	158	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06705	159	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06802	160	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B06901	161	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07006	162	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07103	163	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07202-R	164	5	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07302	165	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07402	166	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07502	167	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07601	168	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09302	169	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09402	170	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09502	171	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09602	172	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09702	173	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09801	174	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22302	175	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B09901	176	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10001-R	177	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10101	178	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10201	179	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10301-R	180	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10405	181	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10502	182	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10601	183	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10701	184	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10801-R	185	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B10901	186	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11004	187	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11502	189	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11601	190	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11701	191	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11801-R	192	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B11901	193	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12001-R	194	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12101	195	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12201	196	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12301	197	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12401-R	198	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12501	199	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B12601	200	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12701	201	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12801	202	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B12901	203	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13001	204	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13101-R	205	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13201	206	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13301-R	207	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13401	208	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13501	209	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13602	210	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13702	211	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13802	212	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B13902	213	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14001	214	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22402	215	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14102	216	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14210	217	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14301	218	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14401-R	219	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14501	220	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14601-R	221	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14701	222	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B14801	223	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15002	224	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15102	225	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15202	226	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22605	239	5	64.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
B07701-F	240	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07801-F	241	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B07901-F	242	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08001-F	243	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08101-F	244	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08201-F	245	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08301-F	246	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08401-F	247	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08501-F	248	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08601-F	249	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08701-F	250	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08801-F	251	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B08901-F	252	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B15301	253	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15401	254	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15501	255	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15601	256	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15701	257	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15801	258	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B15901-R	259	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16001	260	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16101	261	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16202	262	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16301	263	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16401	264	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22502	265	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16501	266	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16601-R	267	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16701	268	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22201-R	269	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16801	270	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B16904	271	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17001	272	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17101	273	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17201	274	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17302	275	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17403	276	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17501-R	277	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17601	278	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17701-R	279	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17801	280	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B17901	281	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18001-R	282	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18101	283	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18201	284	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18301	285	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18401	287	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18501	288	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18601-R	289	3	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18701	290	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18801	291	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B18901-R	292	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19001	293	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19101-R	294	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

B19201	295	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19301	296	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19402	297	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19502	298	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19602	299	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19702	300	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19801	301	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B19901	302	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20002	303	2	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B20104	304	4	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
B22604	646	4	0.0	67.4	66	67.4	10	Snd Lvl	64.7	2.7	8	-5.3
B22704	647	4	0.0	65.9	66	65.9	10	----	62.1	3.8	8	-4.2
B22804	648	4	0.0	66.9	66	66.9	10	Snd Lvl	62.0	4.9	8	-3.1
B22904	304	4	0.0	68.9	66	68.9	10	Snd Lvl	62.6	6.3	8	-1.7
B23004	649	4	0.0	70.3	66	70.3	10	Snd Lvl	62.8	7.5	8	-0.5
B23104	650	4	0.0	74.3	66	74.3	10	Snd Lvl	64.8	9.5	8	1.5
B23204	651	4	0.0	75.1	66	75.1	10	Snd Lvl	65.2	9.9	8	1.9
B23304	652	4	0.0	75.5	66	75.5	10	Snd Lvl	64.8	10.7	8	2.7
B23404	653	4	0.0	75.0	66	75.0	10	Snd Lvl	64.2	10.8	8	2.8
B23504	654	4	0.0	73.6	66	73.6	10	Snd Lvl	63.4	10.2	8	2.2
B23604	655	4	0.0	72.3	66	72.3	10	Snd Lvl	62.2	10.1	8	2.1
B23704	656	4	0.0	69.9	66	69.9	10	Snd Lvl	60.9	9.0	8	1.0
B23804	657	4	0.0	67.7	66	67.7	10	Snd Lvl	59.9	7.8	8	-0.2
B23904	658	4	0.0	64.6	66	64.6	10	----	58.5	6.1	8	-1.9
B24004	659	4	0.0	63.1	66	63.1	10	----	57.3	5.8	8	-2.2
B24104	660	4	0.0	61.6	66	61.6	10	----	56.5	5.1	8	-2.9
B24204	662	4	0.0	59.5	66	59.5	10	----	54.8	4.7	8	-3.3

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	416	0.0	0.6	10.8
All Impacted	48	2.7	8.3	10.8
All that meet NR Goal	28	9.0	10.0	10.8

<Organization?> 16 May 2025
<Analysis By?> TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
NSA A	W	15.00	15.00	15.00	657	9848				0
NSA A/B	W	15.00	15.00	15.00	319	4784				0
NSA B Bar 2	W	15.00	15.00	15.00	1170	17547				0
NSA A/B Bar 3	W	15.00	15.00	15.00	356	5335				0
NSA B 5	W	15.00	15.00	15.00	2699	40478				0
									Total Cost:	0

<Organization?> 16 May 2025
<Analysis By?> TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	$
NSA A	W	point89	89	15.00	15.00	15.00	40	605				0
		point91	91	15.00	15.00	15.00	40	594				0
		point92	92	15.00	15.00	15.00	45	677				0
		point93	93	15.00	15.00	15.00	36	545				0
		point94	94	15.00	15.00	15.00	42	624				0
		point95	95	15.00	15.00	15.00	41	615				0
		point96	96	15.00	15.00	15.00	40	597				0
		point97	97	15.00	15.00	15.00	40	594				0
		point98	98	15.00	15.00	15.00	40	600				0
		point99	99	15.00	15.00	15.00	37	562				0
		point100	100	15.00	15.00	15.00	43	641				0
		point101	101	15.00	15.00	15.00	40	602	Y			0
		point102	102	15.00	15.00	15.00	40	602	Y			0
		point103	103	15.00	15.00	15.00	40	601				0
		point104	104	15.00	15.00	15.00	40	593				0
		point105	105	15.00	15.00	15.00	41	608				0
		point106	106	15.00	15.00	15.00	13	188				0
NSA A/B	W	point107	107	15.00	15.00	15.00	40	600				0
		point108	108	15.00	15.00	15.00	40	600				0
		point109	109	15.00	15.00	15.00	40	602				0
		point110	110	15.00	15.00	15.00	40	596				0
		point111	111	15.00	15.00	15.00	40	603				0
		point112	112	15.00	15.00	15.00	40	597				0
		point113	113	15.00	15.00	15.00	40	603				0
		point114	114	15.00	15.00	15.00	39	582				0

NSA B Bar 2	W	point116	116	15.00	15.00	15.00	43	650				0
		point118	118	15.00	15.00	15.00	37	562				0
		point119	119	15.00	15.00	15.00	39	586				0
		point120	120	15.00	15.00	15.00	39	591				0
		point121	121	15.00	15.00	15.00	43	639				0
		point122	122	15.00	15.00	15.00	45	669				0
		point123	123	15.00	15.00	15.00	35	525				0
		point124	124	15.00	15.00	15.00	40	600				0
		point125	125	15.00	15.00	15.00	40	593	Y			0
		point126	126	15.00	15.00	15.00	41	617	Y			0
		point127	127	15.00	15.00	15.00	40	597	Y			0
		point128	128	15.00	15.00	15.00	40	602	Y			0
		point129	129	15.00	15.00	15.00	40	605	Y			0
		point130	130	15.00	15.00	15.00	40	597	Y			0
		point131	131	15.00	15.00	15.00	40	605	Y			0
		point132	132	15.00	15.00	15.00	40	600	Y			0
		point133	133	15.00	15.00	15.00	40	597	Y			0
		point134	134	15.00	15.00	15.00	39	590	Y			0
		point135	135	15.00	15.00	15.00	40	599	Y			0
		point136	136	15.00	15.00	15.00	40	603	Y			0
		point137	137	15.00	15.00	15.00	40	597	Y			0
		point138	138	15.00	15.00	15.00	40	603				0
		point139	139	15.00	15.00	15.00	41	609				0
		point140	140	15.00	15.00	15.00	40	593				0
		point141	141	15.00	15.00	15.00	41	608				0
		point142	142	15.00	15.00	15.00	40	594				0
		point143	143	15.00	15.00	15.00	41	610				0
		point144	144	15.00	15.00	15.00	39	587				0
		point145	145	15.00	15.00	15.00	38	575				0
		point146	146	15.00	15.00	15.00	10	143				0
NSA A/B Bar 3	W	point314	314	15.00	15.00	15.00	40	604				0
		point316	316	15.00	15.00	15.00	40	596				0
		point317	317	15.00	15.00	15.00	40	604				0
		point318	318	15.00	15.00	15.00	40	597				0
		point319	319	15.00	15.00	15.00	40	605				0
		point320	320	15.00	15.00	15.00	40	597				0
		point321	321	15.00	15.00	15.00	40	597				0

		point322	322	15.00	15.00	15.00	40	606				0
		point323	323	15.00	15.00	15.00	35	529				0
NSA B 5	W	point598	598	15.00	15.00	15.00	66	995				0
		point599	599	15.00	15.00	15.00	102	1531				0
		point600	600	15.00	15.00	15.00	99	1479				0
		point601	601	15.00	15.00	15.00	100	1500	Y			0
		point602	602	15.00	15.00	15.00	100	1496				0
		point603	603	15.00	15.00	15.00	100	1507	Y			0
		point604	604	15.00	15.00	15.00	201	3009	Y			0
		point605	605	15.00	15.00	15.00	99	1488				0
		point606	606	15.00	15.00	15.00	199	2986				0
		point607	607	15.00	15.00	15.00	76	1145	Y			0
		point618	618	15.00	15.00	15.00	79	1188	Y			0
		point608	608	15.00	15.00	15.00	200	2997				0
		point609	609	15.00	15.00	15.00	114	1712				0
		point610	610	15.00	15.00	15.00	100	1504				0
		point611	611	15.00	15.00	15.00	66	989				0
		point612	612	15.00	15.00	15.00	146	2187				0
		point613	613	15.00	15.00	15.00	52	780				0
		point614	614	15.00	15.00	15.00	145	2174				0
		point615	615	15.00	15.00	15.00	54	814				0
		point616	616	15.00	15.00	15.00	100	1496				0
		point617	617	15.00	15.00	15.00	100	1501				0
		point619	619	15.00	15.00	15.00	100	1500				0
		point620	620	15.00	15.00	15.00	100	1500				0
		point621	621	15.00	15.00	15.00	100	1500				0
		point622	622	15.00	15.00	15.00	100	1501				0

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
B00117-F	92	inactive	inactive	8	inactive					
B00204	93	inactive	inactive	8	inactive					
B00304	94	inactive	inactive	8	inactive					
B00401-F	95	inactive	inactive	8	inactive					
B00501-F	96	inactive	inactive	8	inactive					
B00601-F	97	inactive	inactive	8	inactive					
B00701-F	98	inactive	inactive	8	inactive					
B00801-F	99	inactive	inactive	8	inactive					
B00901-F	100	inactive	inactive	8	inactive					
B01001-F	101	inactive	inactive	8	inactive					
B01101-F	102	inactive	inactive	8	inactive					
B01201-F	103	inactive	inactive	8	inactive					
B01301-F	104	inactive	inactive	8	inactive					
B01401	105	inactive	inactive	8	inactive					
B01501	106	inactive	inactive	8	inactive					
B01601	107	inactive	inactive	8	inactive					
B01701	108	inactive	inactive	8	inactive					
B01801	109	inactive	inactive	8	inactive					
B01901	110	inactive	inactive	8	inactive					
B02002	111	inactive	inactive	8	inactive					
B02102	112	inactive	inactive	8	inactive					

B02202-R	113	inactive	inactive	8	inactive					
B02302	114	inactive	inactive	8	inactive					
B02401-R	115	inactive	inactive	8	inactive					
B02502	116	inactive	inactive	8	inactive					
B02602-R	117	inactive	inactive	8	inactive					
B02702	118	inactive	inactive	8	inactive					
B02802-R	119	inactive	inactive	8	inactive					
B02902	120	inactive	inactive	8	inactive					
B03002-R	121	inactive	inactive	8	inactive					
B03101	122	inactive	inactive	8	inactive					
B03201	123	inactive	inactive	8	inactive					
B03301	124	inactive	inactive	8	inactive					
B03401	125	inactive	inactive	8	inactive					
B03501-F	126	inactive	inactive	8	inactive					
B03601-F	127	inactive	inactive	8	inactive					
B03702-F	128	inactive	inactive	8	inactive					
B03801-F	129	inactive	inactive	8	inactive					
B03901-F	130	inactive	inactive	8	inactive					
B04004-F	131	inactive	inactive	8	inactive					
B04104-F	132	inactive	inactive	8	inactive					
B04225-F	133	inactive	inactive	8	inactive					
B04302	134	inactive	inactive	8	inactive					
B04402	135	inactive	inactive	8	inactive					
B04502	136	inactive	inactive	8	inactive					
B04602	137	inactive	inactive	8	inactive					
B04701	138	inactive	inactive	8	inactive					
B04801-R	140	inactive	inactive	8	inactive					
B04901	141	inactive	inactive	8	inactive					
B05001	142	inactive	inactive	8	inactive					
B05102	143	inactive	inactive	8	inactive					
B05202	144	inactive	inactive	8	inactive					
B05302	145	inactive	inactive	8	inactive					
B05404	146	inactive	inactive	8	inactive					
B05502	147	inactive	inactive	8	inactive					
B05602	148	inactive	inactive	8	inactive					
B05704-R	149	inactive	inactive	8	inactive					

B05802	150	inactive	inactive	8	inactive					
B05903	151	inactive	inactive	8	inactive					
B06002	152	inactive	inactive	8	inactive					
B06104-R	153	inactive	inactive	8	inactive					
B06204	154	inactive	inactive	8	inactive					
B06302-R	155	inactive	inactive	8	inactive					
B06402	156	inactive	inactive	8	inactive					
B06501	157	inactive	inactive	8	inactive					
B06602	158	inactive	inactive	8	inactive					
B06705	159	inactive	inactive	8	inactive					
B06802	160	inactive	inactive	8	inactive					
B06901	161	inactive	inactive	8	inactive					
B07006	162	inactive	inactive	8	inactive					
B07103	163	inactive	inactive	8	inactive					
B07202-R	164	inactive	inactive	8	inactive					
B07302	165	inactive	inactive	8	inactive					
B07402	166	inactive	inactive	8	inactive					
B07502	167	inactive	inactive	8	inactive					
B07601	168	inactive	inactive	8	inactive					
B09302	169	inactive	inactive	8	inactive					
B09402	170	inactive	inactive	8	inactive					
B09502	171	inactive	inactive	8	inactive					
B09602	172	inactive	inactive	8	inactive					
B09702	173	inactive	inactive	8	inactive					
B09801	174	inactive	inactive	8	inactive					
B22302	175	inactive	inactive	8	inactive					
B09901	176	inactive	inactive	8	inactive					
B10001-R	177	inactive	inactive	8	inactive					
B10101	178	inactive	inactive	8	inactive					
B10201	179	inactive	inactive	8	inactive					
B10301-R	180	inactive	inactive	8	inactive					
B10405	181	inactive	inactive	8	inactive					
B10502	182	inactive	inactive	8	inactive					
B10601	183	inactive	inactive	8	inactive					
B10701	184	inactive	inactive	8	inactive					
B10801-R	185	inactive	inactive	8	inactive					

B10901	186	inactive	inactive	8	inactive					
B11004	187	inactive	inactive	8	inactive					
B11502	189	inactive	inactive	8	inactive					
B11601	190	inactive	inactive	8	inactive					
B11701	191	inactive	inactive	8	inactive					
B11801-R	192	inactive	inactive	8	inactive					
B11901	193	inactive	inactive	8	inactive					
B12001-R	194	inactive	inactive	8	inactive					
B12101	195	inactive	inactive	8	inactive					
B12201	196	inactive	inactive	8	inactive					
B12301	197	inactive	inactive	8	inactive					
B12401-R	198	inactive	inactive	8	inactive					
B12501	199	inactive	inactive	8	inactive					
B12601	200	inactive	inactive	8	inactive					
B12701	201	inactive	inactive	8	inactive					
B12801	202	inactive	inactive	8	inactive					
B12901	203	inactive	inactive	8	inactive					
B13001	204	inactive	inactive	8	inactive					
B13101-R	205	inactive	inactive	8	inactive					
B13201	206	inactive	inactive	8	inactive					
B13301-R	207	inactive	inactive	8	inactive					
B13401	208	inactive	inactive	8	inactive					
B13501	209	inactive	inactive	8	inactive					
B13602	210	inactive	inactive	8	inactive					
B13702	211	inactive	inactive	8	inactive					
B13802	212	inactive	inactive	8	inactive					
B13902	213	inactive	inactive	8	inactive					
B14001	214	inactive	inactive	8	inactive					
B22402	215	inactive	inactive	8	inactive					
B14102	216	inactive	inactive	8	inactive					
B14210	217	inactive	inactive	8	inactive					
B14301	218	inactive	inactive	8	inactive					
B14401-R	219	inactive	inactive	8	inactive					
B14501	220	inactive	inactive	8	inactive					
B14601-R	221	inactive	inactive	8	inactive					
B14701	222	inactive	inactive	8	inactive					

B14801	223	inactive	inactive	8	inactive					
B15002	224	inactive	inactive	8	inactive					
B15102	225	inactive	inactive	8	inactive					
B15202	226	inactive	inactive	8	inactive					
B22605	239	inactive	inactive	7	inactive					
B07701-F	240	inactive	inactive	8	inactive					
B07801-F	241	inactive	inactive	8	inactive					
B07901-F	242	inactive	inactive	8	inactive					
B08001-F	243	inactive	inactive	8	inactive					
B08101-F	244	inactive	inactive	8	inactive					
B08201-F	245	inactive	inactive	8	inactive					
B08301-F	246	inactive	inactive	8	inactive					
B08401-F	247	inactive	inactive	8	inactive					
B08501-F	248	inactive	inactive	8	inactive					
B08601-F	249	inactive	inactive	8	inactive					
B08701-F	250	inactive	inactive	8	inactive					
B08801-F	251	inactive	inactive	8	inactive					
B08901-F	252	inactive	inactive	8	inactive					
B15301	253	inactive	inactive	8	inactive					
B15401	254	inactive	inactive	8	inactive					
B15501	255	inactive	inactive	8	inactive					
B15601	256	inactive	inactive	8	inactive					
B15701	257	inactive	inactive	8	inactive					
B15801	258	inactive	inactive	8	inactive					
B15901-R	259	inactive	inactive	8	inactive					
B16001	260	inactive	inactive	8	inactive					
B16101	261	inactive	inactive	8	inactive					
B16202	262	inactive	inactive	8	inactive					
B16301	263	inactive	inactive	8	inactive					
B16401	264	inactive	inactive	8	inactive					
B22502	265	inactive	inactive	8	inactive					
B16501	266	inactive	inactive	8	inactive					
B16601-R	267	inactive	inactive	8	inactive					
B16701	268	inactive	inactive	8	inactive					
B22201-R	269	inactive	inactive	8	inactive					
B16801	270	inactive	inactive	8	inactive					

B16904	271	inactive	inactive	8	inactive					
B17001	272	inactive	inactive	8	inactive					
B17101	273	inactive	inactive	8	inactive					
B17201	274	inactive	inactive	8	inactive					
B17302	275	inactive	inactive	8	inactive					
B17403	276	inactive	inactive	8	inactive					
B17501-R	277	inactive	inactive	8	inactive					
B17601	278	inactive	inactive	8	inactive					
B17701-R	279	inactive	inactive	8	inactive					
B17801	280	inactive	inactive	8	inactive					
B17901	281	inactive	inactive	8	inactive					
B18001-R	282	inactive	inactive	8	inactive					
B18101	283	inactive	inactive	8	inactive					
B18201	284	inactive	inactive	8	inactive					
B18301	285	inactive	inactive	8	inactive					
B18401	287	inactive	inactive	8	inactive					
B18501	288	inactive	inactive	8	inactive					
B18601-R	289	inactive	inactive	8	inactive					
B18701	290	inactive	inactive	8	inactive					
B18801	291	inactive	inactive	8	inactive					
B18901-R	292	inactive	inactive	8	inactive					
B19001	293	inactive	inactive	8	inactive					
B19101-R	294	inactive	inactive	8	inactive					
B19201	295	inactive	inactive	8	inactive					
B19301	296	inactive	inactive	8	inactive					
B19402	297	inactive	inactive	8	inactive					
B19502	298	inactive	inactive	8	inactive					
B19602	299	inactive	inactive	8	inactive					
B19702	300	inactive	inactive	8	inactive					
B19801	301	inactive	inactive	8	inactive					
B19901	302	inactive	inactive	8	inactive					
B20002	303	inactive	inactive	8	inactive					
B20104	304	inactive	inactive	8	inactive					
B22604	646	64.7	2.7	8	-5.3	NSA B 5	point608	608	15.0	54.7
						NSA B 5	point617	617	15.0	50.7
						NSA B 5	point606	606	15.0	49.5

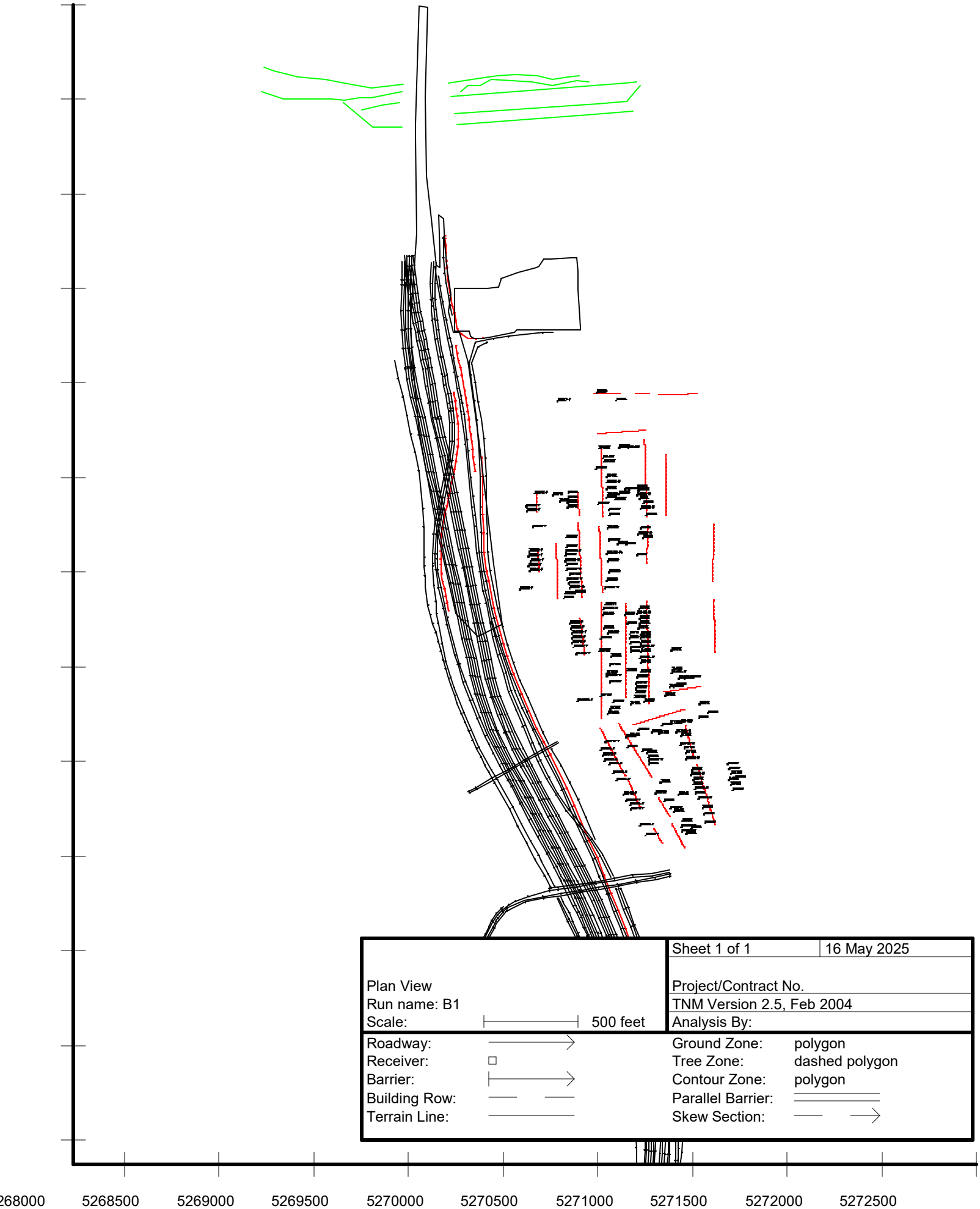
						NSA B 5	point616	616	15.0	49.4
						NSA B 5	point614	614	15.0	49.0
						NSA B 5	point609	609	15.0	48.7
						NSA B 5	point612	612	15.0	47.1
						NSA B 5	point619	619	15.0	46.5
						NSA B 5	point610	610	15.0	46.4
						NSA B 5	point615	615	15.0	45.6
B22704	647	62.1	3.8	8	-4.2	NSA B 5	point608	608	15.0	54.5
						NSA B 5	point609	609	15.0	50.3
						NSA B 5	point617	617	15.0	49.6
						NSA B 5	point614	614	15.0	49.0
						NSA B 5	point616	616	15.0	48.7
						NSA B 5	point610	610	15.0	48.0
						NSA B 5	point612	612	15.0	47.1
						NSA B 5	point606	606	15.0	47.0
						NSA B 5	point619	619	15.0	46.9
						NSA B 5	point615	615	15.0	45.6
B22804	648	62.0	4.9	8	-3.1	NSA B 5	point608	608	15.0	53.2
						NSA B 5	point609	609	15.0	52.7
						NSA B 5	point610	610	15.0	50.6
						NSA B 5	point614	614	15.0	50.1
						NSA B 5	point617	617	15.0	49.6
						NSA B 5	point616	616	15.0	49.2
						NSA B 5	point612	612	15.0	48.9
						NSA B 5	point619	619	15.0	47.7
						NSA B 5	point611	611	15.0	47.4
						NSA B 5	point615	615	15.0	46.5
B22904	304	62.6	6.3	8	-1.7	NSA B 5	point610	610	15.0	53.4
						NSA B 5	point609	609	15.0	53.3
						NSA B 5	point612	612	15.0	51.9
						NSA B 5	point614	614	15.0	51.6
						NSA B 5	point608	608	15.0	51.6
						NSA B 5	point617	617	15.0	51.2
						NSA B 5	point611	611	15.0	51.1
						NSA B 5	point616	616	15.0	50.2
						NSA B 5	point619	619	15.0	49.0

						NSA B 5	point615	615	15.0	47.5
B23004	649	62.8	7.5	8	-0.5	NSA B 5	point612	612	15.0	54.8
						NSA B 5	point610	610	15.0	53.4
						NSA B 5	point611	611	15.0	52.8
						NSA B 5	point614	614	15.0	52.7
						NSA B 5	point617	617	15.0	51.5
						NSA B 5	point609	609	15.0	51.0
						NSA B 5	point616	616	15.0	51.0
						NSA B 5	point608	608	15.0	49.9
						NSA B 5	point619	619	15.0	49.8
						NSA B 5	point615	615	15.0	47.8
B23104	650	64.8	9.5	8	1.5	NSA B 5	point612	612	15.0	59.5
						NSA B 5	point614	614	15.0	55.7
						NSA B 5	point611	611	15.0	54.6
						NSA B 5	point617	617	15.0	54.4
						NSA B 5	point610	610	15.0	53.5
						NSA B 5	point616	616	15.0	53.1
						NSA B 5	point613	613	15.0	52.2
						NSA B 5	point615	615	15.0	50.2
						NSA B 5	point609	609	15.0	49.8
						NSA B 5	point608	608	15.0	49.7
B23204	651	65.2	9.9	8	1.9	NSA B 5	point612	612	15.0	59.0
						NSA B 5	point614	614	15.0	58.0
						NSA B 5	point613	613	15.0	56.0
						NSA B 5	point617	617	15.0	54.6
						NSA B 5	point616	616	15.0	53.7
						NSA B 5	point615	615	15.0	52.4
						NSA B 5	point611	611	15.0	51.8
						NSA B 5	point619	619	15.0	51.2
						NSA B 5	point610	610	15.0	50.6
						NSA B 5	point608	608	15.0	48.7
B23304	652	64.8	10.7	8	2.7	NSA B 5	point614	614	15.0	59.5
						NSA B 5	point612	612	15.0	55.8
						NSA B 5	point616	616	15.0	55.3
						NSA B 5	point613	613	15.0	54.9
						NSA B 5	point617	617	15.0	54.5

						NSA B 5	point615	615	15.0	53.8
						NSA B 5	point619	619	15.0	51.8
						NSA B 5	point611	611	15.0	48.7
						NSA B 5	point610	610	15.0	48.1
						NSA B 5	point608	608	15.0	47.4
B23404	653	64.2	10.8	8	2.8	NSA B 5	point614	614	15.0	58.1
						NSA B 5	point616	616	15.0	55.9
						NSA B 5	point617	617	15.0	55.2
						NSA B 5	point615	615	15.0	54.4
						NSA B 5	point619	619	15.0	53.9
						NSA B 5	point612	612	15.0	52.8
						NSA B 5	point613	613	15.0	51.2
						NSA B 5	point608	608	15.0	46.1
						NSA B 5	point611	611	15.0	46.1
						NSA B 5	point610	610	15.0	45.8
B23504	654	63.4	10.2	8	2.2	NSA B 5	point616	616	15.0	55.6
						NSA B 5	point617	617	15.0	55.4
						NSA B 5	point614	614	15.0	55.1
						NSA B 5	point619	619	15.0	54.5
						NSA B 5	point615	615	15.0	52.3
						NSA B 5	point620	620	15.0	51.1
						NSA B 5	point612	612	15.0	50.8
						NSA B 5	point613	613	15.0	48.6
						NSA B 5	point608	608	15.0	45.1
						NSA B 5	point610	610	15.0	44.4
B23604	655	62.2	10.1	8	2.1	NSA B 5	point619	619	15.0	54.7
						NSA B 5	point617	617	15.0	54.6
						NSA B 5	point616	616	15.0	53.2
						NSA B 5	point620	620	15.0	52.8
						NSA B 5	point614	614	15.0	52.6
						NSA B 5	point615	615	15.0	49.6
						NSA B 5	point612	612	15.0	49.2
						NSA B 5	point613	613	15.0	46.9
						NSA B 5	point608	608	15.0	44.0
						NSA B 5	point610	610	15.0	43.0
B23704	656	60.9	9.0	8	1.0	NSA B 5	point619	619	15.0	54.2

						NSA B 5	point620	620	15.0	53.2
						NSA B 5	point617	617	15.0	51.8
						NSA B 5	point614	614	15.0	50.9
						NSA B 5	point616	616	15.0	50.5
						NSA B 5	point612	612	15.0	47.7
						NSA B 5	point615	615	15.0	47.5
						NSA B 5	point621	621	15.0	47.4
						NSA B 5	point613	613	15.0	45.3
						NSA B 5	point608	608	15.0	42.9
B23804	657	59.9	7.8	8	-0.2	NSA B 5	point620	620	15.0	53.6
						NSA B 5	point621	621	15.0	51.3
						NSA B 5	point619	619	15.0	50.3
						NSA B 5	point614	614	15.0	49.4
						NSA B 5	point617	617	15.0	48.6
						NSA B 5	point616	616	15.0	48.6
						NSA B 5	point612	612	15.0	46.5
						NSA B 5	point615	615	15.0	45.9
						NSA B 5	point613	613	15.0	43.9
						NSA B 5	point608	608	15.0	42.1
B23904	658	58.5	6.1	8	-1.9	NSA B 5	point621	621	15.0	53.2
						NSA B 5	point620	620	15.0	49.2
						NSA B 5	point614	614	15.0	48.0
						NSA B 5	point616	616	15.0	47.1
						NSA B 5	point619	619	15.0	46.5
						NSA B 5	point617	617	15.0	46.3
						NSA B 5	point612	612	15.0	45.6
						NSA B 5	point615	615	15.0	44.6
						NSA B 5	point613	613	15.0	42.6
						NSA B 5	point622	622	15.0	41.6
B24004	659	57.3	5.8	8	-2.2	NSA B 5	point622	622	15.0	49.2
						NSA B 5	point621	621	15.0	47.9
						NSA B 5	point614	614	15.0	47.6
						NSA B 5	point620	620	15.0	47.2
						NSA B 5	point616	616	15.0	46.2
						NSA B 5	point612	612	15.0	45.4
						NSA B 5	point619	619	15.0	44.4

						NSA B 5	point615	615	15.0	44.1
						NSA B 5	point617	617	15.0	43.3
						NSA B 5	point613	613	15.0	42.2
B24104	660	56.5	5.1	8	-2.9	NSA B 5	point614	614	15.0	47.3
						NSA B 5	point622	622	15.0	46.9
						NSA B 5	point620	620	15.0	45.6
						NSA B 5	point612	612	15.0	45.5
						NSA B 5	point616	616	15.0	44.5
						NSA B 5	point621	621	15.0	43.9
						NSA B 5	point615	615	15.0	43.5
						NSA B 5	point619	619	15.0	42.3
						NSA B 5	point613	613	15.0	42.2
						NSA A/B Bar 3	point317	317	15.0	41.5
B24204	662	54.8	4.7	8	-3.3	NSA B 5	point614	614	15.0	46.5
						NSA B 5	point612	612	15.0	44.9
						NSA B 5	point615	615	15.0	42.5
						NSA B 5	point616	616	15.0	42.4
						NSA B 5	point613	613	15.0	41.6
						NSA B 5	point608	608	15.0	40.3
						NSA A/B	point107	107	15.0	39.8
						NSA B 5	point621	621	15.0	39.2
						NSA B 5	point622	622	15.0	38.5
						NSA B 5	point617	617	15.0	38.5
Total Cost, All Barriers (including additional cost(s))					$0					


Plan View
Run name: B1
Scale:
500 feet
Sheet 1 of 1
16 May 2025
Project/Contract No.
TNM Version 2.5, Feb 2004
Analysis By:
Roadway:
Receiver:
Barrier:
Building Row:
Terrain Line:
Ground Zone: polygon
Tree Zone: dashed polygon
Contour Zone: polygon
Parallel Barrier:
Skew Section:
268000
5268500
5269000
5269500
5270000
5270500
5271000
5271500
5272000
5272500

HMB Professional Engineers
Harrison Bruce

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: NSA C1
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C00101-F	1	1	72.2	71.1	66	-1.1	10	Snd Lvl	67.0	4.1	7	-2.9
C00201	2	1	69.9	69.8	66	-0.1	10	Snd Lvl	66.0	3.8	7	-3.2
C00302	3	2	69.4	68.9	66	-0.5	10	Snd Lvl	65.5	3.4	7	-3.6
C00401	4	1	67.4	67.7	66	0.3	10	Snd Lvl	63.8	3.9	7	-3.1
C00501	5	1	67.2	67.1	66	-0.1	10	Snd Lvl	64.4	2.7	7	-4.3
C00601-F	6	1	70.7	70.1	66	-0.6	10	Snd Lvl	65.3	4.8	7	-2.2
C00701	7	1	67.6	67.5	66	-0.1	10	Snd Lvl	63.9	3.6	7	-3.4
C00801	8	1	67.4	67.2	66	-0.2	10	Snd Lvl	63.8	3.4	7	-3.6
C00901	9	1	66.2	66.5	66	0.3	10	Snd Lvl	63.4	3.1	7	-3.9
C01001	10	1	65.5	66.1	66	0.6	10	Snd Lvl	63.1	3.0	7	-4.0
C01201-F	11	1	73.7	73.0	66	-0.7	10	Snd Lvl	68.0	5.0	7	-2.0
C01301	12	1	73.1	72.4	66	-0.7	10	Snd Lvl	67.7	4.7	7	-2.3
C01401	13	1	72.2	72.0	66	-0.2	10	Snd Lvl	67.7	4.3	7	-2.7
C01501	14	1	71.9	71.4	66	-0.5	10	Snd Lvl	67.5	3.9	7	-3.1
C01601	15	1	71.0	69.4	66	-1.6	10	Snd Lvl	65.3	4.1	7	-2.9
C01701	16	1	70.3	69.4	66	-0.9	10	Snd Lvl	66.0	3.4	7	-3.6
C01801-F	17	1	71.4	71.5	66	0.1	10	Snd Lvl	65.4	6.1	7	-0.9
C01901-V	18	1	70.7	70.8	66	0.1	10	Snd Lvl	65.4	5.4	7	-1.6
C02001	19	1	70.2	69.9	66	-0.3	10	Snd Lvl	65.3	4.6	7	-2.4
C02101	20	1	69.7	69.4	66	-0.3	10	Snd Lvl	65.9	3.5	7	-3.5
C02201-F	21	1	70.7	70.8	66	0.1	10	Snd Lvl	66.5	4.3	7	-2.7
C02302	22	2	70.1	70.1	66	0.0	10	Snd Lvl	66.1	4.0	7	-3.0
C02402	23	2	68.5	67.6	66	-0.9	10	Snd Lvl	65.1	2.5	7	-4.5
C02501-F	24	1	69.1	69.4	66	0.3	10	Snd Lvl	63.9	5.5	7	-1.5

C02601/C02701	25	2	68.4	68.4	66	0.0	10	Snd Lvl	65.4	3.0	7	-4.0
C02801	27	1	68.7	68.3	66	-0.4	10	Snd Lvl	64.8	3.5	7	-3.5
C02901	28	1	68.7	68.2	66	-0.5	10	Snd Lvl	64.9	3.3	7	-3.7
C03001	29	1	68.7	68.2	66	-0.5	10	Snd Lvl	65.0	3.2	7	-3.8
C03101	30	1	68.6	68.0	66	-0.6	10	Snd Lvl	64.9	3.1	7	-3.9
C03201	31	1	68.4	67.9	66	-0.5	10	Snd Lvl	64.8	3.1	7	-3.9
C03301	32	1	68.0	67.5	66	-0.5	10	Snd Lvl	64.3	3.2	7	-3.8
C03401	33	1	66.8	66.3	66	-0.5	10	Snd Lvl	63.8	2.5	7	-4.5
C03502	34	2	61.0	62.0	66	1.0	10	----	60.5	1.5	7	-5.5
C03602	35	2	60.8	61.8	66	1.0	10	----	60.7	1.1	7	-5.9
C03701	36	1	60.6	61.8	66	1.2	10	----	60.8	1.0	7	-6.0
C03802	37	2	61.7	62.5	66	0.8	10	----	61.3	1.2	7	-5.8
C03902	38	2	60.9	62.4	66	1.5	10	----	61.0	1.4	7	-5.6
C04001	39	1	62.2	62.5	66	0.3	10	----	61.0	1.5	7	-5.5
C04101	40	1	62.4	61.3	66	-1.1	10	----	60.3	1.0	7	-6.0
C04201	41	1	62.1	62.0	66	-0.1	10	----	61.0	1.0	7	-6.0
C04301	42	1	62.1	62.1	66	0.0	10	----	60.8	1.3	7	-5.7
C07701	76	1	63.6	64.0	66	0.4	10	----	61.8	2.2	7	-4.8
C07801	77	1	63.5	63.9	66	0.4	10	----	61.6	2.3	7	-4.7
C07901	78	1	63.0	63.5	66	0.5	10	----	61.1	2.4	7	-4.6
C08001	79	1	62.7	63.2	66	0.5	10	----	60.9	2.3	7	-4.7
C08101	80	1	62.6	63.0	66	0.4	10	----	60.8	2.2	7	-4.8
C08201	81	1	62.3	62.7	66	0.4	10	----	60.5	2.2	7	-4.8
C08301	82	1	61.6	62.5	66	0.9	10	----	60.0	2.5	7	-4.5
C08401	83	1	61.0	62.1	66	1.1	10	----	59.7	2.4	7	-4.6
C100**	99	1	65.9	66.5	66	0.6	10	Snd Lvl	64.5	2.0	7	-5.0
C10101	100	1	63.4	62.2	66	-1.2	10	----	61.4	0.8	7	-6.2
C02701	102	1	0.0	68.2	66	68.2	10	Snd Lvl	65.8	2.4	8	-5.6

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	60	0.8	3.0	6.1
All Impacted	38	2.0	3.7	6.1
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Harrison Bruce

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: NSA C1
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C04403-F	76	1	65.7	66.3	66	0.6	10	Snd Lvl	66.2	0.1	7	-6.9
C04501-F	77	1	71.1	71.0	66	-0.1	10	Snd Lvl	70.5	0.5	7	-6.5
C04601-F	78	1	70.0	70.9	66	0.9	10	Snd Lvl	69.9	1.0	7	-6.0
C04701-F	79	1	69.7	71.1	66	1.4	10	Snd Lvl	69.6	1.5	7	-5.5
C04801-F	80	1	68.6	70.0	66	1.4	10	Snd Lvl	68.9	1.1	7	-5.9
C04901	81	1	67.7	68.8	66	1.1	10	Snd Lvl	68.3	0.5	7	-6.5
C05001	82	1	67.0	67.6	66	0.6	10	Snd Lvl	67.4	0.2	7	-6.8
C05101	83	1	66.0	66.6	66	0.6	10	Snd Lvl	66.6	0.0	7	-7.0
C05201	99	1	65.2	65.8	66	0.6	10	----	65.8	0.0	7	-7.0
C05301	100	1	64.0	64.9	66	0.9	10	----	64.8	0.1	7	-6.9
C05401	102	1	62.6	64.0	66	1.4	10	----	64.0	0.0	7	-7.0
C05501	104	1	61.5	63.2	66	1.7	10	----	63.2	0.0	7	-7.0
C05601	105	1	61.5	62.8	66	1.3	10	----	62.8	0.0	7	-7.0
C05701	106	1	61.5	62.3	66	0.8	10	----	62.3	0.0	7	-7.0
C05801	107	1	60.9	61.9	66	1.0	10	----	61.9	0.0	7	-7.0
C05901	108	1	60.6	61.6	66	1.0	10	----	61.6	0.0	7	-7.0
C06001	109	1	59.8	60.9	66	1.1	10	----	61.0	-0.1	7	-7.1
C06101	110	1	54.2	59.5	66	5.3	10	----	59.5	0.0	7	-7.0
C06201	111	1	54.5	59.9	66	5.4	10	----	60.0	-0.1	7	-7.1
C06301	112	1	54.3	60.4	66	6.1	10	----	60.4	0.0	7	-7.0
C06401	113	1	54.0	60.6	66	6.6	10	----	60.7	-0.1	7	-7.1
C06501	114	1	51.5	59.7	66	8.2	10	----	59.7	0.0	7	-7.0
C06601	115	1	56.5	61.4	66	4.9	10	----	61.4	0.0	7	-7.0
C06701	116	1	57.2	61.9	66	4.7	10	----	61.9	0.0	7	-7.0

C06801	118	1	57.9	62.2	66	4.3	10	----	62.2	0.0	7	-7.0
C06901	119	1	59.3	64.4	66	5.1	10	----	64.1	0.3	7	-6.7
C07001-F	120	1	68.8	69.8	66	1.0	10	Snd Lvl	67.4	2.4	7	-4.6
C07101-F	121	1	71.2	72.0	66	0.8	10	Snd Lvl	69.6	2.4	7	-4.6
C07223-F	122	23	59.0	67.7	66	8.7	10	Snd Lvl	67.6	0.1	7	-6.9
C07324-F	123	24	60.1	71.7	66	11.6	10	Both	71.7	0.0	7	-7.0
C07424-F	124	24	62.4	71.6	66	9.2	10	Snd Lvl	71.6	0.0	7	-7.0
C07524	125	24	54.5	55.7	66	1.2	10	----	55.9	-0.2	7	-7.2
C07624	126	24	53.6	60.2	66	6.6	10	----	60.2	0.0	7	-7.0
C08501-F	135	1	66.4	66.4	66	0.0	10	Snd Lvl	66.3	0.1	7	-6.9
C08601	137	1	64.2	66.4	66	2.2	10	Snd Lvl	66.3	0.1	7	-6.9
C08701	138	1	62.9	65.1	66	2.2	10	----	65.1	0.0	7	-7.0
C08801	139	1	62.2	64.3	66	2.1	10	----	64.3	0.0	7	-7.0
C08901	140	1	63.5	64.7	66	1.2	10	----	64.6	0.1	7	-6.9
C09001	141	1	61.1	62.3	66	1.2	10	----	62.3	0.0	7	-7.0
C09102	142	2	61.0	63.0	66	2.0	10	----	63.0	0.0	7	-7.0
C09202	143	2	60.5	62.6	66	2.1	10	----	62.5	0.1	7	-6.9
C09302	144	2	60.0	62.0	66	2.0	10	----	61.9	0.1	7	-6.9
C09401	145	1	59.4	62.2	66	2.8	10	----	61.9	0.3	7	-6.7
C09501	146	1	59.8	60.7	66	0.9	10	----	60.6	0.1	7	-6.9
C09601	147	1	60.3	59.4	66	-0.9	10	----	59.4	0.0	7	-7.0
C09701	148	1	61.4	59.6	66	-1.8	10	----	59.6	0.0	7	-7.0
C09801	149	1	59.4	61.5	66	2.1	10	----	61.3	0.2	7	-6.8
NewR1H	156	1	0.0	72.1	66	72.1	10	Snd Lvl	72.0	0.1	8	-7.9
NewR2H	157	1	0.0	66.6	66	66.6	10	Snd Lvl	66.3	0.3	8	-7.7

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	166	-0.2	0.2	2.4
All Impacted	85	0.0	0.6	2.4
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers **16 May 2025**
Harrison Bruce **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: NSA C1
BARRIER DESIGN: INPUT HEIGHTS

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
MedBar-2	W	5.00	5.00	5.00	1632	8158				0
NB 12th Exit	W	16.00	16.00	16.00	974	15582				498630
Wall 4	W	16.00	16.00	16.00	1760	28161				901158
MedBar-1-2	W	5.00	5.00	5.00	3700	18502				0
									Total Cost:	1399788

HMB Professional Engineers 16 May 2025
Harrison Bruce TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: NSA C1
BARRIER DESIGN: INPUT HEIGHTS

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	$
MedBar-2	W	BAR-2-1	124	5.00	5.00	5.00	50	250				0
		BAR-2-2	125	5.00	5.00	5.00	50	252				0
		BAR-2-3	126	5.00	5.00	5.00	50	249				0
		BAR-2-4	127	5.00	5.00	5.00	50	251				0
		BAR-2-5	128	5.00	5.00	5.00	50	250				0
		BAR-2-6	129	5.00	5.00	5.00	50	250				0
		BAR-2-7	130	5.00	5.00	5.00	50	250				0
		BAR-2-8	131	5.00	5.00	5.00	50	250				0
		BAR-2-9	132	5.00	5.00	5.00	50	250				0
		BAR-2-10	133	5.00	5.00	5.00	50	249				0
		BAR-2-11	134	5.00	5.00	5.00	50	249				0
		BAR-2-12	135	5.00	5.00	5.00	50	250				0
		BAR-2-13	136	5.00	5.00	5.00	50	252				0
		BAR-2-14	137	5.00	5.00	5.00	50	248				0
		BAR-2-15	138	5.00	5.00	5.00	50	252				0
		BAR-2-16	139	5.00	5.00	5.00	50	249				0
		BAR-2-17	140	5.00	5.00	5.00	50	251				0
		BAR-2-18	141	5.00	5.00	5.00	50	250				0
		BAR-2-19	142	5.00	5.00	5.00	50	251				0
		BAR-2-20	143	5.00	5.00	5.00	50	249				0
		BAR-2-21	144	5.00	5.00	5.00	50	250				0
		BAR-2-22	145	5.00	5.00	5.00	50	250				0
		BAR-2-23	146	5.00	5.00	5.00	50	251				0
		BAR-2-24	147	5.00	5.00	5.00	50	250	Y			0
		BAR-2-25	148	5.00	5.00	5.00	50	251	Y			0
		BAR-2-26	149	5.00	5.00	5.00	50	250	Y			0

		BAR-2-27	150	5.00	5.00	5.00	50	251	Y			0
		BAR-2-28	151	5.00	5.00	5.00	50	248				0
		BAR-2-29	152	5.00	5.00	5.00	50	252				0
		BAR-2-30	153	5.00	5.00	5.00	50	250				0
		BAR-2-31	154	5.00	5.00	5.00	50	248				0
		BAR-2-32	155	5.00	5.00	5.00	50	252				0
		BAR-2-33	156	5.00	5.00	5.00	31	155				0
NB 12th Exit	W	WALL-3a-1	573	16.00	16.00	16.00	20	320				10246
		WALL-3a-2	581	16.00	16.00	16.00	20	320				10246
		WALL-3a-3	580	16.00	16.00	16.00	20	320				10246
		WALL-3a-4	579	16.00	16.00	16.00	20	320				10246
		WALL-3a-5	578	16.00	16.00	16.00	20	320				10246
		WALL-3a-6	577	16.00	16.00	16.00	20	320				10246
		WALL-3a-7	576	16.00	16.00	16.00	20	320				10246
		WALL-3a-8	575	16.00	16.00	16.00	20	318				10192
		WALL-3a-9	574	16.00	16.00	16.00	20	318				10192
		WALL-3a-10	589	16.00	16.00	16.00	20	317				10144
		WALL-3a-11	588	16.00	16.00	16.00	20	325				10396
		WALL-3a-12	587	16.00	16.00	16.00	20	317				10144
		WALL-3a-13	586	16.00	16.00	16.00	20	325				10396
		WALL-3a-14	585	16.00	16.00	16.00	20	316				10101
		WALL-3a-15	584	16.00	16.00	16.00	20	324				10355
		WALL-3a-16	583	16.00	16.00	16.00	14	217				6955
		WALL-3a-17	582	16.00	16.00	16.00	20	318				10192
		WALL-3-2	356	16.00	16.00	16.00	20	318				10192
		WALL-3-3	357	16.00	16.00	16.00	20	325				10396
		WALL-3-4	358	16.00	16.00	16.00	20	317				10144
		WALL-3-5	359	16.00	16.00	16.00	20	317				10144
		WALL-3-6	360	16.00	16.00	16.00	20	324				10355
		WALL-3-7	361	16.00	16.00	16.00	20	324				10355
		WALL-3-8	362	16.00	16.00	16.00	20	315				10066
		WALL-3-9	363	16.00	16.00	16.00	20	322				10320
		WALL-3-10	364	16.00	16.00	16.00	20	322				10320
		WALL-3-11	365	16.00	16.00	16.00	20	314				10036
		WALL-3-12	366	16.00	16.00	16.00	20	321				10269
		WALL-3-13	367	16.00	16.00	16.00	20	322				10291
		WALL-3-14	368	16.00	16.00	16.00	20	320				10253
		WALL-3-15	369	16.00	16.00	16.00	20	320				10253

		WALL-3-16	370	16.00	16.00	16.00	20	320				10253
		WALL-3-17	371	16.00	16.00	16.00	20	320				10243
		WALL-3-18	372	16.00	16.00	16.00	20	320				10243
		WALL-3-19	373	16.00	16.00	16.00	20	320				10243
		WALL-3-20	374	16.00	16.00	16.00	20	320				10243
		WALL-3-21	375	16.00	16.00	16.00	20	320				10240
		WALL-3-22	376	16.00	16.00	16.00	20	320				10243
		WALL-3-23	377	16.00	16.00	16.00	20	320				10253
		WALL-3-24	378	16.00	16.00	16.00	20	320				10253
		WALL-3-25	379	16.00	16.00	16.00	20	320				10253
		WALL-3-26	380	16.00	16.00	16.00	20	321				10269
		WALL-3-27	381	16.00	16.00	16.00	20	322				10291
		WALL-3-28	382	16.00	16.00	16.00	20	314				10036
		WALL-3-29	383	16.00	16.00	16.00	20	322				10291
		WALL-3-30	384	16.00	16.00	16.00	20	322				10320
		WALL-3-31	385	16.00	16.00	16.00	20	322				10320
		WALL-3-32	386	16.00	16.00	16.00	20	316				10101
		WALL-3-33	387	16.00	16.00	16.00	20	324				10355
Wall 4	W	WALL-4-1	411	16.00	16.00	16.00	20	320				10246
		WALL-4-2	412	16.00	16.00	16.00	20	320				10246
		WALL-4-3	413	16.00	16.00	16.00	20	312				9997
		WALL-4-4	414	16.00	16.00	16.00	20	324				10374
		WALL-4-5	415	16.00	16.00	16.00	20	320				10246
		WALL-4-6	416	16.00	16.00	16.00	20	322				10307
		WALL-4-7	417	16.00	16.00	16.00	20	322				10307
		WALL-4-8	418	16.00	16.00	16.00	20	314				10059
		WALL-4-9	419	16.00	16.00	16.00	20	324				10374
		WALL-4-10	420	16.00	16.00	16.00	20	319				10202
		WALL-4-11	421	16.00	16.00	16.00	20	316				10127
		WALL-4-12	422	16.00	16.00	16.00	20	326				10446
		WALL-4-13	423	16.00	16.00	16.00	20	319				10202
		WALL-4-14	424	16.00	16.00	16.00	20	319				10202
		WALL-4-15	425	16.00	16.00	16.00	20	319				10202
		WALL-4-16	426	16.00	16.00	16.00	20	321				10282
		WALL-4-17	427	16.00	16.00	16.00	20	321				10282
		WALL-4-18	428	16.00	16.00	16.00	20	321				10282
		WALL-4-19	429	16.00	16.00	16.00	20	314				10040
		WALL-4-20	430	16.00	16.00	16.00	20	321				10282

		WALL-4-21	431	16.00	16.00	16.00	20	324				10367
		WALL-4-22	432	16.00	16.00	16.00	20	316				10127
		WALL-4-23	433	16.00	16.00	16.00	20	324				10367
		WALL-4-24	434	16.00	16.00	16.00	20	316				10127
		WALL-4-25	435	16.00	16.00	16.00	20	316				10127
		WALL-4-26	436	16.00	16.00	16.00	20	324				10367
		WALL-4-27	437	16.00	16.00	16.00	20	324	Y			10367
		WALL-4-28	438	16.00	16.00	16.00	20	316	Y			10127
		WALL-4-29	439	16.00	16.00	16.00	20	321	Y			10282
		WALL-4-30	440	16.00	16.00	16.00	20	316	Y			10127
		WALL-4-31	441	16.00	16.00	16.00	20	324	Y			10367
		WALL-4-32	442	16.00	16.00	16.00	20	316	Y			10127
		WALL-4-33	443	16.00	16.00	16.00	20	324	Y			10367
		WALL-4-34	444	16.00	16.00	16.00	20	314	Y			10040
		WALL-4-35	445	16.00	16.00	16.00	20	324	Y			10367
		WALL-4-36	446	16.00	16.00	16.00	20	316				10127
		WALL-4-37	447	16.00	16.00	16.00	20	324				10367
		WALL-4-38	448	16.00	16.00	16.00	20	316				10127
		WALL-4-39	449	16.00	16.00	16.00	20	324				10367
		WALL-4-40	450	16.00	16.00	16.00	20	316				10127
		WALL-4-41	451	16.00	16.00	16.00	20	327				10458
		WALL-4-42	452	16.00	16.00	16.00	20	316				10127
		WALL-4-43	453	16.00	16.00	16.00	20	316				10127
		WALL-4-44	454	16.00	16.00	16.00	20	327				10458
		WALL-4-45	455	16.00	16.00	16.00	20	316				10127
		WALL-4-46	456	16.00	16.00	16.00	20	319				10221
		WALL-4-47	457	16.00	16.00	16.00	20	316				10127
		WALL-4-48	458	16.00	16.00	16.00	20	327				10458
		WALL-4-49	459	16.00	16.00	16.00	20	319				10221
		WALL-4-50	460	16.00	16.00	16.00	20	316				10127
		WALL-4-51	461	16.00	16.00	16.00	20	319				10221
		WALL-4-52	462	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-53	463	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-54	464	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-55	465	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-56	466	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-57	467	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-58	468	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-59	469	16.00	16.00	16.00	20	322	Y			10320

		WALL-4-60	470	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-61	471	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-62	472	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-63	473	16.00	16.00	16.00	20	319	Y			10221
		WALL-4-64	474	16.00	16.00	16.00	20	315	Y			10085
		WALL-4-65	475	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-66	476	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-67	477	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-68	478	16.00	16.00	16.00	20	315	Y			10085
		WALL-4-69	479	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-70	480	16.00	16.00	16.00	20	315	Y			10085
		WALL-4-71	481	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-72	482	16.00	16.00	16.00	20	318	Y			10192
		WALL-4-73	483	16.00	16.00	16.00	20	322	Y			10320
		WALL-4-74	484	16.00	16.00	16.00	20	315	Y			10085
		WALL-4-75	485	16.00	16.00	16.00	20	326	Y			10424
		WALL-4-76	486	16.00	16.00	16.00	20	315	Y			10085
		WALL-4-77	487	16.00	16.00	16.00	20	326	Y			10424
		WALL-4-78	488	16.00	16.00	16.00	20	318	Y			10192
		WALL-4-79	489	16.00	16.00	16.00	20	315	Y			10085
		WALL-4-80	490	16.00	16.00	16.00	20	326	Y			10424
		WALL-4-81	491	16.00	16.00	16.00	20	318	Y			10192
		WALL-4-82	492	16.00	16.00	16.00	20	318	Y			10192
		WALL-4-83	493	16.00	16.00	16.00	20	318	Y			10192
		WALL-4-84	494	16.00	16.00	16.00	20	326	Y			10424
		WALL-4-85	495	16.00	16.00	16.00	20	318	Y			10192
		WALL-4-86	496	16.00	16.00	16.00	20	322				10304
		WALL-4-87	497	16.00	16.00	16.00	20	318				10192
		WALL-4-88	498	16.00	16.00	16.00	20	318				10192
MedBar-1-2	W	point532	532	5.00	5.00	5.00	50	250				0
		BAR-1-44	44	5.00	5.00	5.00	50	250				0
		BAR-1-45	45	5.00	5.00	5.00	50	250				0
		BAR-1-46	46	5.00	5.00	5.00	50	250				0
		BAR-1-47	47	5.00	5.00	5.00	50	252				0
		BAR-1-48	48	5.00	5.00	5.00	50	250				0
		BAR-1-49	49	5.00	5.00	5.00	50	250				0
		BAR-1-50	50	5.00	5.00	5.00	50	250				0
		BAR-1-51	51	5.00	5.00	5.00	50	250				0

		BAR-1-52	52	5.00	5.00	5.00	50	250				0
		BAR-1-53	53	5.00	5.00	5.00	50	250				0
		BAR-1-54	54	5.00	5.00	5.00	50	252				0
		BAR-1-55	55	5.00	5.00	5.00	50	250				0
		BAR-1-56	56	5.00	5.00	5.00	50	250				0
		BAR-1-57	57	5.00	5.00	5.00	50	250				0
		BAR-1-58	58	5.00	5.00	5.00	50	250				0
		BAR-1-59	59	5.00	5.00	5.00	50	250				0
		BAR-1-60	60	5.00	5.00	5.00	50	252				0
		BAR-1-61	61	5.00	5.00	5.00	50	250				0
		BAR-1-62	62	5.00	5.00	5.00	50	250				0
		BAR-1-63	63	5.00	5.00	5.00	50	250				0
		BAR-1-64	64	5.00	5.00	5.00	50	250				0
		BAR-1-65	65	5.00	5.00	5.00	50	250				0
		BAR-1-66	66	5.00	5.00	5.00	50	250				0
		BAR-1-67	67	5.00	5.00	5.00	50	252				0
		BAR-1-68	68	5.00	5.00	5.00	50	249				0
		BAR-1-69	69	5.00	5.00	5.00	50	251				0
		BAR-1-70	70	5.00	5.00	5.00	50	250				0
		BAR-1-71	71	5.00	5.00	5.00	50	249				0
		BAR-1-72	72	5.00	5.00	5.00	50	249				0
		BAR-1-73	73	5.00	5.00	5.00	50	251				0
		BAR-1-74	74	5.00	5.00	5.00	50	250				0
		BAR-1-75	75	5.00	5.00	5.00	50	250				0
		BAR-1-76	76	5.00	5.00	5.00	50	250				0
		BAR-1-77	77	5.00	5.00	5.00	50	250				0
		BAR-1-78	78	5.00	5.00	5.00	50	251				0
		BAR-1-79	79	5.00	5.00	5.00	50	249				0
		BAR-1-80	80	5.00	5.00	5.00	50	250				0
		BAR-1-81	81	5.00	5.00	5.00	50	251				0
		BAR-1-82	82	5.00	5.00	5.00	50	250				0
		BAR-1-83	83	5.00	5.00	5.00	50	249				0
		BAR-1-84	84	5.00	5.00	5.00	50	250				0
		BAR-1-85	85	5.00	5.00	5.00	50	250				0
		BAR-1-86	86	5.00	5.00	5.00	50	251				0
		BAR-1-87	87	5.00	5.00	5.00	50	251				0
		BAR-1-88	88	5.00	5.00	5.00	50	249				0
		BAR-1-89	89	5.00	5.00	5.00	50	250				0
		BAR-1-90	90	5.00	5.00	5.00	50	250				0

		BAR-1-91	91	5.00	5.00	5.00	50	251				0
		BAR-1-92	92	5.00	5.00	5.00	50	250	Y			0
		BAR-1-93	93	5.00	5.00	5.00	50	251	Y			0
		BAR-1-94	94	5.00	5.00	5.00	50	248	Y			0
		BAR-1-95	95	5.00	5.00	5.00	50	250	Y			0
		BAR-1-96	96	5.00	5.00	5.00	50	251	Y			0
		BAR-1-97	97	5.00	5.00	5.00	50	249				0
		BAR-1-98	98	5.00	5.00	5.00	50	251				0
		BAR-1-99	99	5.00	5.00	5.00	50	249				0
		BAR-1-100	100	5.00	5.00	5.00	50	251				0
		BAR-1-101	101	5.00	5.00	5.00	50	250				0
		BAR-1-102	102	5.00	5.00	5.00	50	251	Y			0
		BAR-1-103	103	5.00	5.00	5.00	50	249	Y			0
		BAR-1-104	104	5.00	5.00	5.00	50	252	Y			0
		BAR-1-105	105	5.00	5.00	5.00	50	249	Y			0
		BAR-1-106	106	5.00	5.00	5.00	50	249				0
		BAR-1-107	107	5.00	5.00	5.00	50	252				0
		BAR-1-108	108	5.00	5.00	5.00	50	249				0
		BAR-1-109	109	5.00	5.00	5.00	50	249				0
		BAR-1-110	110	5.00	5.00	5.00	50	249				0
		BAR-1-111	111	5.00	5.00	5.00	50	252				0
		BAR-1-112	112	5.00	5.00	5.00	50	249				0
		BAR-1-113	113	5.00	5.00	5.00	50	249				0
		BAR-1-114	114	5.00	5.00	5.00	50	249				0
		BAR-1-115	115	5.00	5.00	5.00	50	252				0
		BAR-1-116	116	5.00	5.00	5.00	50	249				0

HMB Professional Engineers
Harrison Bruce

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: NSA C1
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
C00101-F	1	67.0	4.1	7	-2.9	Wall 4	WALL-4-3	413	16.0	51.0
						Wall 4	WALL-4-4	414	16.0	50.7
						Wall 4	WALL-4-21	431	16.0	48.8
						Wall 4	WALL-4-23	433	16.0	48.8
						Wall 4	WALL-4-22	432	16.0	48.4
						Wall 4	WALL-4-1	411	16.0	47.9
						Wall 4	WALL-4-2	412	16.0	47.5
						Wall 4	WALL-4-24	434	16.0	47.5
						Wall 4	WALL-4-5	415	16.0	47.1
						Wall 4	WALL-4-20	430	16.0	46.8
C00201	2	66.0	3.8	7	-3.2	NB 12th Exit	WALL-3-33	387	16.0	48.6
						Wall 4	WALL-4-21	431	16.0	47.9
						Wall 4	WALL-4-23	433	16.0	47.6
						Wall 4	WALL-4-22	432	16.0	47.4
						NB 12th Exit	WALL-3-32	386	16.0	47.0
						Wall 4	WALL-4-24	434	16.0	46.1
						Wall 4	WALL-4-20	430	16.0	45.6
						Wall 4	WALL-4-17	427	16.0	45.5
						Wall 4	WALL-4-1	411	16.0	45.4
						Wall 4	WALL-4-16	426	16.0	45.3
C00302	3	65.5	3.4	7	-3.6	NB 12th Exit	WALL-3-32	386	16.0	48.2

						Wall 4	WALL-4-21	431	16.0	48.1
						NB 12th Exit	WALL-3-31	385	16.0	48.0
						NB 12th Exit	WALL-3-33	387	16.0	47.4
						Wall 4	WALL-4-23	433	16.0	46.9
						Wall 4	WALL-4-22	432	16.0	46.8
						NB 12th Exit	WALL-3-30	384	16.0	46.4
						Wall 4	WALL-4-24	434	16.0	45.6
						NB 12th Exit	WALL-3-28	382	16.0	45.2
						NB 12th Exit	WALL-3-29	383	16.0	44.7
C00401	4	63.8	3.9	7	-3.1	Wall 4	WALL-4-21	431	16.0	47.7
						Wall 4	WALL-4-22	432	16.0	45.5
						Wall 4	WALL-4-17	427	16.0	43.9
						Wall 4	WALL-4-16	426	16.0	43.8
						Wall 4	WALL-4-20	430	16.0	43.7
						NB 12th Exit	WALL-3-29	383	16.0	43.7
						NB 12th Exit	WALL-3-27	381	16.0	43.5
						NB 12th Exit	WALL-3-26	380	16.0	43.5
						Wall 4	WALL-4-10	420	16.0	43.4
						Wall 4	WALL-4-9	419	16.0	43.4
C00501	5	64.4	2.7	7	-4.3	NB 12th Exit	WALL-3-22	376	16.0	46.7
						NB 12th Exit	WALL-3-23	377	16.0	46.5
						Wall 4	WALL-4-21	431	16.0	46.2
						NB 12th Exit	WALL-3-20	374	16.0	46.1
						NB 12th Exit	WALL-3-21	375	16.0	46.0
						Wall 4	WALL-4-23	433	16.0	45.4
						Wall 4	WALL-4-22	432	16.0	45.3
						NB 12th Exit	WALL-3-24	378	16.0	45.2
						NB 12th Exit	WALL-3-17	371	16.0	45.1
						NB 12th Exit	WALL-3-19	373	16.0	44.9
C00601-F	6	65.3	4.8	7	-2.2	NB 12th Exit	WALL-3-31	385	16.0	50.1
						NB 12th Exit	WALL-3-32	386	16.0	49.9
						NB 12th Exit	WALL-3-33	387	16.0	48.5
						Wall 4	WALL-4-21	431	16.0	48.2
						NB 12th Exit	WALL-3-29	383	16.0	48.1
						NB 12th Exit	WALL-3-30	384	16.0	47.6
						NB 12th Exit	WALL-3-28	382	16.0	47.5

						Wall 4	WALL-4-22	432	16.0	47.2
						Wall 4	WALL-4-23	433	16.0	47.2
						Wall 4	WALL-4-16	426	16.0	46.6
C00701	7	63.9	3.6	7	-3.4	NB 12th Exit	WALL-3-20	374	16.0	49.3
						NB 12th Exit	WALL-3-21	375	16.0	49.1
						NB 12th Exit	WALL-3-22	376	16.0	48.9
						NB 12th Exit	WALL-3-19	373	16.0	48.3
						NB 12th Exit	WALL-3-23	377	16.0	48.3
						Wall 4	WALL-4-21	431	16.0	48.1
						NB 12th Exit	WALL-3-18	372	16.0	47.7
						NB 12th Exit	WALL-3-17	371	16.0	47.7
						Wall 4	WALL-4-22	432	16.0	47.6
						Wall 4	WALL-4-23	433	16.0	47.4
C00801	8	63.8	3.4	7	-3.6	NB 12th Exit	WALL-3-19	373	16.0	48.4
						NB 12th Exit	WALL-3-20	374	16.0	48.3
						Wall 4	WALL-4-21	431	16.0	48.1
						NB 12th Exit	WALL-3-17	371	16.0	48.1
						NB 12th Exit	WALL-3-18	372	16.0	48.1
						Wall 4	WALL-4-22	432	16.0	47.7
						NB 12th Exit	WALL-3-21	375	16.0	47.6
						Wall 4	WALL-4-23	433	16.0	47.5
						NB 12th Exit	WALL-3-16	370	16.0	47.2
						NB 12th Exit	WALL-3-15	369	16.0	47.1
C00901	9	63.4	3.1	7	-3.9	Wall 4	WALL-4-21	431	16.0	47.6
						NB 12th Exit	WALL-3-16	370	16.0	47.3
						NB 12th Exit	WALL-3-17	371	16.0	47.2
						NB 12th Exit	WALL-3-14	368	16.0	47.0
						Wall 4	WALL-4-23	433	16.0	46.9
						Wall 4	WALL-4-22	432	16.0	46.9
						NB 12th Exit	WALL-3-15	369	16.0	46.9
						NB 12th Exit	WALL-3-18	372	16.0	46.6
						NB 12th Exit	WALL-3-12	366	16.0	46.2
						NB 12th Exit	WALL-3-13	367	16.0	46.2
C01001	10	63.1	3.0	7	-4.0	Wall 4	WALL-4-21	431	16.0	46.8
						NB 12th Exit	WALL-3-14	368	16.0	46.7
						NB 12th Exit	WALL-3-15	369	16.0	46.7

						Wall 4	WALL-4-23	433	16.0	46.7
						Wall 4	WALL-4-22	432	16.0	46.6
						NB 12th Exit	WALL-3-16	370	16.0	46.4
						NB 12th Exit	WALL-3-12	366	16.0	46.1
						NB 12th Exit	WALL-3-17	371	16.0	45.9
						NB 12th Exit	WALL-3-13	367	16.0	45.8
						NB 12th Exit	WALL-3-11	365	16.0	45.3
C01201-F	11	68.0	5.0	7	-2.0	NB 12th Exit	WALL-3-33	387	16.0	54.7
						Wall 4	WALL-4-21	431	16.0	52.0
						Wall 4	WALL-4-23	433	16.0	51.5
						Wall 4	WALL-4-22	432	16.0	51.5
						Wall 4	WALL-4-12	422	16.0	51.3
						Wall 4	WALL-4-11	421	16.0	51.1
						Wall 4	WALL-4-10	420	16.0	51.0
						Wall 4	WALL-4-9	419	16.0	50.7
						Wall 4	WALL-4-13	423	16.0	50.3
						Wall 4	WALL-4-8	418	16.0	50.1
C01301	12	67.7	4.7	7	-2.3	NB 12th Exit	WALL-3-33	387	16.0	57.4
						NB 12th Exit	WALL-3-31	385	16.0	54.7
						NB 12th Exit	WALL-3-32	386	16.0	54.7
						Wall 4	WALL-4-21	431	16.0	52.2
						Wall 4	WALL-4-22	432	16.0	51.5
						Wall 4	WALL-4-23	433	16.0	51.2
						Wall 4	WALL-4-12	422	16.0	51.1
						Wall 4	WALL-4-11	421	16.0	50.6
						Wall 4	WALL-4-13	423	16.0	50.3
						Wall 4	WALL-4-10	420	16.0	50.2
C01401	13	67.7	4.3	7	-2.7	NB 12th Exit	WALL-3-31	385	16.0	56.4
						NB 12th Exit	WALL-3-32	386	16.0	55.4
						NB 12th Exit	WALL-3-30	384	16.0	55.2
						NB 12th Exit	WALL-3-33	387	16.0	53.9
						NB 12th Exit	WALL-3-29	383	16.0	53.1
						NB 12th Exit	WALL-3-28	382	16.0	53.0
						Wall 4	WALL-4-21	431	16.0	52.1
						Wall 4	WALL-4-22	432	16.0	51.4
						Wall 4	WALL-4-17	427	16.0	51.3

						Wall 4	WALL-4-16	426	16.0	51.3
C01501	14	67.5	3.9	7	-3.1	NB 12th Exit	WALL-3-30	384	16.0	55.5
						NB 12th Exit	WALL-3-31	385	16.0	54.6
						NB 12th Exit	WALL-3-29	383	16.0	54.6
						NB 12th Exit	WALL-3-32	386	16.0	53.0
						NB 12th Exit	WALL-3-28	382	16.0	52.7
						NB 12th Exit	WALL-3-33	387	16.0	52.6
						NB 12th Exit	WALL-3-27	381	16.0	52.3
						Wall 4	WALL-4-21	431	16.0	51.9
						Wall 4	WALL-4-22	432	16.0	51.3
						Wall 4	WALL-4-16	426	16.0	51.2
C01601	15	65.3	4.1	7	-2.9	NB 12th Exit	WALL-3-28	382	16.0	51.6
						NB 12th Exit	WALL-3-29	383	16.0	51.4
						NB 12th Exit	WALL-3-27	381	16.0	51.1
						Wall 4	WALL-4-21	431	16.0	50.3
						NB 12th Exit	WALL-3-30	384	16.0	50.3
						Wall 4	WALL-4-22	432	16.0	50.0
						NB 12th Exit	WALL-3-26	380	16.0	49.9
						Wall 4	WALL-4-23	433	16.0	49.8
						NB 12th Exit	WALL-3-25	379	16.0	48.8
						NB 12th Exit	WALL-3-31	385	16.0	48.6
C01701	16	66.0	3.4	7	-3.6	NB 12th Exit	WALL-3-26	380	16.0	53.3
						NB 12th Exit	WALL-3-25	379	16.0	52.9
						NB 12th Exit	WALL-3-24	378	16.0	52.3
						NB 12th Exit	WALL-3-23	377	16.0	51.7
						NB 12th Exit	WALL-3-27	381	16.0	50.8
						NB 12th Exit	WALL-3-22	376	16.0	50.6
						Wall 4	WALL-4-21	431	16.0	50.1
						NB 12th Exit	WALL-3-28	382	16.0	49.8
						Wall 4	WALL-4-22	432	16.0	49.8
						Wall 4	WALL-4-23	433	16.0	49.7
C01801-F	17	65.4	6.1	7	-0.9	NB 12th Exit	WALL-3-14	368	16.0	51.8
						NB 12th Exit	WALL-3-15	369	16.0	51.4
						NB 12th Exit	WALL-3-12	366	16.0	51.1
						NB 12th Exit	WALL-3-13	367	16.0	51.0
						NB 12th Exit	WALL-3-16	370	16.0	50.6

						NB 12th Exit	WALL-3-28	382	16.0	50.3
						NB 12th Exit	WALL-3-27	381	16.0	50.3
						NB 12th Exit	WALL-3-26	380	16.0	50.1
						NB 12th Exit	WALL-3-29	383	16.0	50.0
						NB 12th Exit	WALL-3-17	371	16.0	50.0
C01901-V	18	65.4	5.4	7	-1.6	NB 12th Exit	WALL-3-14	368	16.0	51.5
						NB 12th Exit	WALL-3-15	369	16.0	51.5
						NB 12th Exit	WALL-3-16	370	16.0	51.0
						NB 12th Exit	WALL-3-17	371	16.0	50.4
						NB 12th Exit	WALL-3-12	366	16.0	50.3
						NB 12th Exit	WALL-3-13	367	16.0	50.0
						NB 12th Exit	WALL-3-18	372	16.0	49.7
						NB 12th Exit	WALL-3-30	384	16.0	49.5
						NB 12th Exit	WALL-3-11	365	16.0	49.3
						NB 12th Exit	WALL-3-19	373	16.0	49.1
C02001	19	65.3	4.6	7	-2.4	NB 12th Exit	WALL-3-29	383	16.0	49.3
						NB 12th Exit	WALL-3-28	382	16.0	48.9
						NB 12th Exit	WALL-3-12	366	16.0	48.9
						NB 12th Exit	WALL-3-30	384	16.0	48.8
						NB 12th Exit	WALL-3-20	374	16.0	48.8
						NB 12th Exit	WALL-3-27	381	16.0	48.7
						NB 12th Exit	WALL-3-19	373	16.0	48.7
						NB 12th Exit	WALL-3-26	380	16.0	48.6
						Wall 4	WALL-4-16	426	16.0	48.6
						Wall 4	WALL-4-17	427	16.0	48.5
C02101	20	65.9	3.5	7	-3.5	NB 12th Exit	WALL-3-29	383	16.0	49.6
						NB 12th Exit	WALL-3-14	368	16.0	49.5
						NB 12th Exit	WALL-3-28	382	16.0	49.2
						NB 12th Exit	WALL-3-15	369	16.0	49.2
						NB 12th Exit	WALL-3-27	381	16.0	49.1
						NB 12th Exit	WALL-3-16	370	16.0	49.0
						NB 12th Exit	WALL-3-13	367	16.0	49.0
						NB 12th Exit	WALL-3-30	384	16.0	49.0
						NB 12th Exit	WALL-3-17	371	16.0	48.9
						NB 12th Exit	WALL-3-12	366	16.0	48.8
C02201-F	21	66.5	4.3	7	-2.7	NB 12th Exit	WALL-3-4	358	16.0	50.8

						NB 12th Exit	WALL-3-3	357	16.0	50.6
						NB 12th Exit	WALL-3-6	360	16.0	50.5
						NB 12th Exit	WALL-3-5	359	16.0	50.5
						NB 12th Exit	WALL-3-7	361	16.0	50.3
						NB 12th Exit	WALL-3a-17	582	16.0	50.0
						NB 12th Exit	WALL-3-14	368	16.0	49.9
						NB 12th Exit	WALL-3-8	362	16.0	49.8
						NB 12th Exit	WALL-3-15	369	16.0	49.8
						NB 12th Exit	WALL-3-12	366	16.0	49.8
C02302	22	66.1	4.0	7	-3.0	NB 12th Exit	WALL-3-7	361	16.0	50.6
						NB 12th Exit	WALL-3-6	360	16.0	50.6
						NB 12th Exit	WALL-3-12	366	16.0	50.5
						NB 12th Exit	WALL-3-13	367	16.0	50.4
						NB 12th Exit	WALL-3-8	362	16.0	50.4
						NB 12th Exit	WALL-3-9	363	16.0	50.1
						NB 12th Exit	WALL-3-11	365	16.0	50.0
						NB 12th Exit	WALL-3-10	364	16.0	49.9
						NB 12th Exit	WALL-3-3	357	16.0	49.3
						NB 12th Exit	WALL-3-5	359	16.0	49.1
C02402	23	65.1	2.5	7	-4.5	NB 12th Exit	WALL-3-12	366	16.0	49.4
						NB 12th Exit	WALL-3-26	380	16.0	49.3
						NB 12th Exit	WALL-3-13	367	16.0	49.1
						NB 12th Exit	WALL-3-11	365	16.0	49.0
						NB 12th Exit	WALL-3-27	381	16.0	49.0
						NB 12th Exit	WALL-3-14	368	16.0	48.9
						NB 12th Exit	WALL-3-10	364	16.0	48.8
						NB 12th Exit	WALL-3-15	369	16.0	48.7
						NB 12th Exit	WALL-3-9	363	16.0	48.4
						NB 12th Exit	WALL-3-16	370	16.0	48.3
C02501-F	24	63.9	5.5	7	-1.5	NB 12th Exit	WALL-3a-10	589	16.0	47.5
						NB 12th Exit	WALL-3a-9	574	16.0	47.5
						NB 12th Exit	WALL-3a-11	588	16.0	47.2
						NB 12th Exit	WALL-3-9	363	16.0	47.2
						NB 12th Exit	WALL-3-6	360	16.0	47.1
						NB 12th Exit	WALL-3a-8	575	16.0	47.1
						NB 12th Exit	WALL-3-7	361	16.0	47.1

						NB 12th Exit	WALL-3-10	364	16.0	47.0
						NB 12th Exit	WALL-3a-14	585	16.0	47.0
						NB 12th Exit	WALL-3-8	362	16.0	46.9
C02601/C02701	25	65.4	3.0	7	-4.0	NB 12th Exit	WALL-3a-15	584	16.0	49.0
						NB 12th Exit	WALL-3-2	356	16.0	48.9
						NB 12th Exit	WALL-3-3	357	16.0	48.9
						NB 12th Exit	WALL-3-4	358	16.0	48.9
						NB 12th Exit	WALL-3a-17	582	16.0	48.8
						NB 12th Exit	WALL-3-5	359	16.0	48.8
						NB 12th Exit	WALL-3a-13	586	16.0	48.7
						NB 12th Exit	WALL-3a-14	585	16.0	48.6
						NB 12th Exit	WALL-3a-12	587	16.0	48.2
						NB 12th Exit	WALL-3a-11	588	16.0	48.1
C02801	27	64.8	3.5	7	-3.5	NB 12th Exit	WALL-3a-11	588	16.0	48.6
						NB 12th Exit	WALL-3a-10	589	16.0	48.2
						NB 12th Exit	WALL-3a-12	587	16.0	48.2
						NB 12th Exit	WALL-3a-13	586	16.0	48.0
						NB 12th Exit	WALL-3a-9	574	16.0	47.9
						NB 12th Exit	WALL-3a-8	575	16.0	47.8
						NB 12th Exit	WALL-3a-6	577	16.0	47.4
						NB 12th Exit	WALL-3a-14	585	16.0	47.4
						NB 12th Exit	WALL-3a-7	576	16.0	47.2
						NB 12th Exit	WALL-3a-5	578	16.0	47.2
C02901	28	64.9	3.3	7	-3.7	NB 12th Exit	WALL-3a-10	589	16.0	48.4
						NB 12th Exit	WALL-3a-11	588	16.0	48.3
						NB 12th Exit	WALL-3a-9	574	16.0	48.0
						NB 12th Exit	WALL-3a-12	587	16.0	47.9
						NB 12th Exit	WALL-3a-8	575	16.0	47.8
						NB 12th Exit	WALL-3a-13	586	16.0	47.6
						NB 12th Exit	WALL-3a-7	576	16.0	47.6
						NB 12th Exit	WALL-3a-6	577	16.0	47.5
						NB 12th Exit	WALL-3a-5	578	16.0	47.4
						NB 12th Exit	WALL-3-32	386	16.0	47.1
C03001	29	65.0	3.2	7	-3.8	NB 12th Exit	WALL-3a-10	589	16.0	48.6
						NB 12th Exit	WALL-3a-11	588	16.0	48.4
						NB 12th Exit	WALL-3a-9	574	16.0	48.3

						NB 12th Exit	WALL-3a-8	575	16.0	48.0
						NB 12th Exit	WALL-3a-12	587	16.0	47.9
						NB 12th Exit	WALL-3a-7	576	16.0	47.7
						NB 12th Exit	WALL-3a-6	577	16.0	47.7
						NB 12th Exit	WALL-3a-5	578	16.0	47.5
						NB 12th Exit	WALL-3a-13	586	16.0	47.5
						NB 12th Exit	WALL-3-31	385	16.0	47.4
C03101	30	64.9	3.1	7	-3.9	NB 12th Exit	WALL-3a-9	574	16.0	48.3
						NB 12th Exit	WALL-3a-10	589	16.0	48.0
						NB 12th Exit	WALL-3a-8	575	16.0	48.0
						NB 12th Exit	WALL-3a-11	588	16.0	47.8
						NB 12th Exit	WALL-3a-7	576	16.0	47.7
						NB 12th Exit	WALL-3a-6	577	16.0	47.5
						NB 12th Exit	WALL-3a-5	578	16.0	47.5
						NB 12th Exit	WALL-3-31	385	16.0	47.4
						NB 12th Exit	WALL-3a-4	579	16.0	47.4
						NB 12th Exit	WALL-3a-12	587	16.0	47.0
C03201	31	64.8	3.1	7	-3.9	NB 12th Exit	WALL-3a-8	575	16.0	47.7
						NB 12th Exit	WALL-3a-9	574	16.0	47.6
						NB 12th Exit	WALL-3a-7	576	16.0	47.5
						NB 12th Exit	WALL-3a-6	577	16.0	47.5
						NB 12th Exit	WALL-3a-5	578	16.0	47.3
						NB 12th Exit	WALL-3a-10	589	16.0	47.2
						NB 12th Exit	WALL-3a-4	579	16.0	47.2
						NB 12th Exit	WALL-3-31	385	16.0	47.2
						NB 12th Exit	WALL-3a-3	580	16.0	47.1
						NB 12th Exit	WALL-3a-1	573	16.0	46.8
C03301	32	64.3	3.2	7	-3.8	NB 12th Exit	WALL-3a-3	580	16.0	46.8
						NB 12th Exit	WALL-3a-4	579	16.0	46.7
						NB 12th Exit	WALL-3a-1	573	16.0	46.6
						NB 12th Exit	WALL-3a-2	581	16.0	46.5
						NB 12th Exit	WALL-3a-5	578	16.0	46.3
						NB 12th Exit	WALL-3a-6	577	16.0	46.2
						NB 12th Exit	WALL-3a-7	576	16.0	45.8
						NB 12th Exit	WALL-3a-8	575	16.0	45.3
						NB 12th Exit	WALL-3a-11	588	16.0	45.3

						NB 12th Exit	WALL-3-30	384	16.0	45.3
C03401	33	63.8	2.5	7	-4.5	NB 12th Exit	WALL-3a-1	573	16.0	44.2
						NB 12th Exit	WALL-3-28	382	16.0	43.5
						NB 12th Exit	WALL-3-27	381	16.0	43.5
						NB 12th Exit	WALL-3a-6	577	16.0	43.1
						NB 12th Exit	WALL-3a-7	576	16.0	43.0
						NB 12th Exit	WALL-3a-8	575	16.0	42.9
						NB 12th Exit	WALL-3a-2	581	16.0	42.9
						NB 12th Exit	WALL-3a-9	574	16.0	42.9
						NB 12th Exit	WALL-3a-4	579	16.0	42.9
						NB 12th Exit	WALL-3a-5	578	16.0	42.8
C03502	34	60.5	1.5	7	-5.5	NB 12th Exit	WALL-3a-1	573	16.0	40.8
						NB 12th Exit	WALL-3a-2	581	16.0	40.4
						NB 12th Exit	WALL-3a-14	585	16.0	40.1
						NB 12th Exit	WALL-3a-3	580	16.0	40.1
						NB 12th Exit	WALL-3a-13	586	16.0	40.0
						NB 12th Exit	WALL-3a-7	576	16.0	40.0
						NB 12th Exit	WALL-3a-4	579	16.0	39.9
						NB 12th Exit	WALL-3a-15	584	16.0	39.9
						NB 12th Exit	WALL-3a-6	577	16.0	39.9
						NB 12th Exit	WALL-3a-8	575	16.0	39.8
C03602	35	60.7	1.1	7	-5.9	NB 12th Exit	WALL-3a-1	573	16.0	42.5
						NB 12th Exit	WALL-3a-2	581	16.0	40.4
						Wall 4	WALL-4-11	421	16.0	40.2
						NB 12th Exit	WALL-3a-7	576	16.0	39.7
						NB 12th Exit	WALL-3a-6	577	16.0	39.7
						NB 12th Exit	WALL-3a-8	575	16.0	39.6
						NB 12th Exit	WALL-3a-5	578	16.0	39.6
						NB 12th Exit	WALL-3a-4	579	16.0	39.6
						NB 12th Exit	WALL-3a-9	574	16.0	39.5
						NB 12th Exit	WALL-3a-10	589	16.0	39.4
C03701	36	60.8	1.0	7	-6.0	NB 12th Exit	WALL-3a-1	573	16.0	42.3
						Wall 4	WALL-4-12	422	16.0	41.9
						NB 12th Exit	WALL-3a-2	581	16.0	41.0
						NB 12th Exit	WALL-3a-3	580	16.0	40.8
						Wall 4	WALL-4-13	423	16.0	40.5

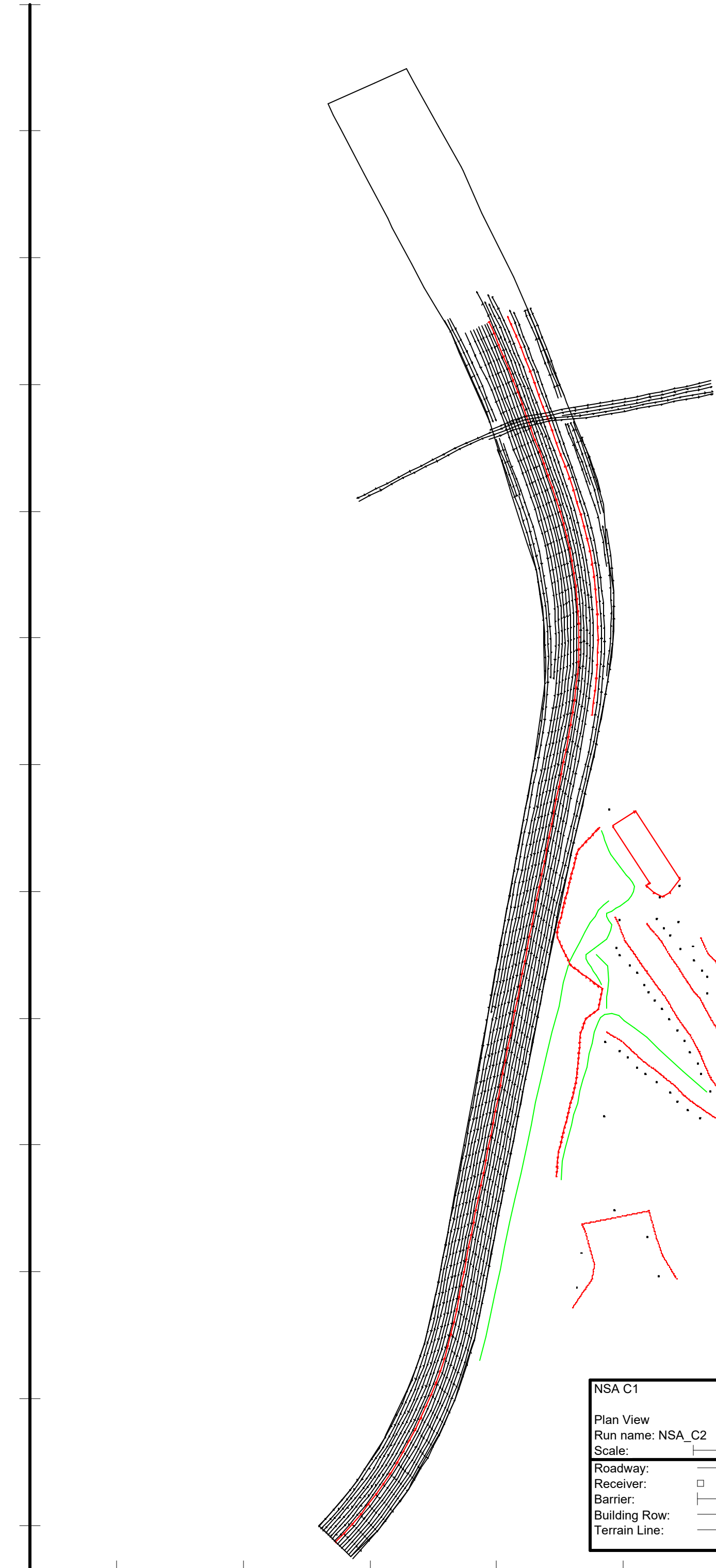
						NB 12th Exit	WALL-3a-4	579	16.0	40.1
						Wall 4	WALL-4-11	421	16.0	39.8
						NB 12th Exit	WALL-3a-5	578	16.0	39.6
						NB 12th Exit	WALL-3a-8	575	16.0	39.5
						NB 12th Exit	WALL-3a-6	577	16.0	39.5
C03802	37	61.3	1.2	7	-5.8	NB 12th Exit	WALL-3a-1	573	16.0	41.5
						Wall 4	WALL-4-12	422	16.0	41.3
						Wall 4	WALL-4-13	423	16.0	41.0
						Wall 4	WALL-4-11	421	16.0	40.4
						Wall 4	WALL-4-14	424	16.0	39.9
						NB 12th Exit	WALL-3a-9	574	16.0	39.2
						NB 12th Exit	WALL-3a-8	575	16.0	39.1
						NB 12th Exit	WALL-3a-10	589	16.0	39.1
						NB 12th Exit	WALL-3a-11	588	16.0	39.1
						NB 12th Exit	WALL-3a-6	577	16.0	39.0
C03902	38	61.0	1.4	7	-5.6	Wall 4	WALL-4-17	427	16.0	41.3
						Wall 4	WALL-4-18	428	16.0	40.9
						Wall 4	WALL-4-13	423	16.0	40.0
						Wall 4	WALL-4-12	422	16.0	39.9
						NB 12th Exit	WALL-3a-1	573	16.0	39.7
						NB 12th Exit	WALL-3a-10	589	16.0	39.7
						NB 12th Exit	WALL-3a-11	588	16.0	39.3
						Wall 4	WALL-4-14	424	16.0	38.7
						NB 12th Exit	WALL-3a-12	587	16.0	38.5
						NB 12th Exit	WALL-3a-6	577	16.0	38.4
C04001	39	61.0	1.5	7	-5.5	Wall 4	WALL-4-21	431	16.0	41.6
						Wall 4	WALL-4-20	430	16.0	40.6
						Wall 4	WALL-4-22	432	16.0	40.4
						Wall 4	WALL-4-17	427	16.0	39.8
						NB 12th Exit	WALL-3a-14	585	16.0	39.5
						Wall 4	WALL-4-18	428	16.0	39.3
						NB 12th Exit	WALL-3a-1	573	16.0	38.9
						NB 12th Exit	WALL-3a-15	584	16.0	38.4
						NB 12th Exit	WALL-3a-5	578	16.0	38.2
						NB 12th Exit	WALL-3a-2	581	16.0	38.2
C04101	40	60.3	1.0	7	-6.0	NB 12th Exit	WALL-3a-1	573	16.0	38.1

						NB 12th Exit	WALL-3a-5	578	16.0	37.8
						NB 12th Exit	WALL-3a-4	579	16.0	37.7
						NB 12th Exit	WALL-3a-6	577	16.0	37.7
						NB 12th Exit	WALL-3a-3	580	16.0	37.7
						NB 12th Exit	WALL-3a-2	581	16.0	37.7
						NB 12th Exit	WALL-3a-7	576	16.0	37.6
						NB 12th Exit	WALL-3a-8	575	16.0	37.6
						NB 12th Exit	WALL-3a-9	574	16.0	37.5
						NB 12th Exit	WALL-3a-11	588	16.0	37.4
C04201	41	61.0	1.0	7	-6.0	NB 12th Exit	WALL-3a-1	573	16.0	38.2
						NB 12th Exit	WALL-3a-4	579	16.0	38.1
						NB 12th Exit	WALL-3a-3	580	16.0	38.0
						NB 12th Exit	WALL-3a-6	577	16.0	38.0
						NB 12th Exit	WALL-3a-5	578	16.0	37.9
						NB 12th Exit	WALL-3a-2	581	16.0	37.9
						NB 12th Exit	WALL-3a-7	576	16.0	37.8
						NB 12th Exit	WALL-3a-8	575	16.0	37.7
						NB 12th Exit	WALL-3a-9	574	16.0	37.6
						NB 12th Exit	WALL-3a-11	588	16.0	37.5
C04301	42	60.8	1.3	7	-5.7	NB 12th Exit	WALL-3a-1	573	16.0	38.6
						NB 12th Exit	WALL-3a-3	580	16.0	38.4
						NB 12th Exit	WALL-3a-4	579	16.0	38.4
						NB 12th Exit	WALL-3a-2	581	16.0	38.3
						NB 12th Exit	WALL-3a-5	578	16.0	38.3
						NB 12th Exit	WALL-3a-6	577	16.0	38.1
						NB 12th Exit	WALL-3a-8	575	16.0	37.9
						NB 12th Exit	WALL-3a-9	574	16.0	37.8
						NB 12th Exit	WALL-3a-11	588	16.0	37.7
						NB 12th Exit	WALL-3a-10	589	16.0	37.7
C07701	76	61.8	2.2	7	-4.8	NB 12th Exit	WALL-3-12	366	16.0	41.3
						Wall 4	WALL-4-23	433	16.0	41.3
						Wall 4	WALL-4-26	436	16.0	40.6
						NB 12th Exit	WALL-3-13	367	16.0	40.5
						Wall 4	WALL-4-21	431	16.0	40.5
						Wall 4	WALL-4-22	432	16.0	40.4
						NB 12th Exit	WALL-3-14	368	16.0	40.4

						NB 12th Exit	WALL-3-11	365	16.0	40.2
						Wall 4	WALL-4-24	434	16.0	40.0
						NB 12th Exit	WALL-3-9	363	16.0	40.0
C07801	77	61.6	2.3	7	-4.7	Wall 4	WALL-4-23	433	16.0	42.2
						Wall 4	WALL-4-21	431	16.0	41.5
						Wall 4	WALL-4-22	432	16.0	41.2
						Wall 4	WALL-4-26	436	16.0	40.7
						Wall 4	WALL-4-24	434	16.0	40.3
						Wall 4	WALL-4-25	435	16.0	39.8
						NB 12th Exit	WALL-3-11	365	16.0	39.8
						NB 12th Exit	WALL-3-14	368	16.0	39.7
						NB 12th Exit	WALL-3-12	366	16.0	39.6
						NB 12th Exit	WALL-3-15	369	16.0	39.5
C07901	78	61.1	2.4	7	-4.6	Wall 4	WALL-4-23	433	16.0	42.0
						Wall 4	WALL-4-21	431	16.0	41.2
						Wall 4	WALL-4-22	432	16.0	40.8
						Wall 4	WALL-4-26	436	16.0	40.6
						Wall 4	WALL-4-24	434	16.0	40.0
						Wall 4	WALL-4-25	435	16.0	39.7
						Wall 4	WALL-4-36	446	16.0	38.3
						Wall 4	WALL-4-37	447	16.0	38.0
						NB 12th Exit	WALL-3-16	370	16.0	37.9
						Wall 4	WALL-4-17	427	16.0	37.7
C08001	79	60.9	2.3	7	-4.7	Wall 4	WALL-4-23	433	16.0	41.9
						Wall 4	WALL-4-21	431	16.0	40.8
						Wall 4	WALL-4-22	432	16.0	40.5
						Wall 4	WALL-4-26	436	16.0	40.5
						Wall 4	WALL-4-24	434	16.0	39.8
						Wall 4	WALL-4-25	435	16.0	39.6
						Wall 4	WALL-4-36	446	16.0	38.2
						Wall 4	WALL-4-37	447	16.0	38.0
						Wall 4	WALL-4-17	427	16.0	37.6
						NB 12th Exit	WALL-3-17	371	16.0	37.5
C08101	80	60.8	2.2	7	-4.8	Wall 4	WALL-4-23	433	16.0	41.8
						NB 12th Exit	WALL-3-17	371	16.0	40.6
						Wall 4	WALL-4-22	432	16.0	40.5

						Wall 4	WALL-4-21	431	16.0	40.5
						Wall 4	WALL-4-26	436	16.0	40.4
						NB 12th Exit	WALL-3-18	372	16.0	39.9
						Wall 4	WALL-4-24	434	16.0	39.8
						NB 12th Exit	WALL-3-19	373	16.0	39.4
						Wall 4	WALL-4-25	435	16.0	39.4
						NB 12th Exit	WALL-3-23	377	16.0	39.1
C08201	81	60.5	2.2	7	-4.8	Wall 4	WALL-4-23	433	16.0	41.4
						Wall 4	WALL-4-22	432	16.0	40.2
						Wall 4	WALL-4-26	436	16.0	40.1
						Wall 4	WALL-4-21	431	16.0	40.1
						Wall 4	WALL-4-24	434	16.0	39.5
						Wall 4	WALL-4-25	435	16.0	39.2
						NB 12th Exit	WALL-3-18	372	16.0	38.3
						NB 12th Exit	WALL-3-17	371	16.0	38.3
						Wall 4	WALL-4-36	446	16.0	37.9
						NB 12th Exit	WALL-3-19	373	16.0	37.5
C08301	82	60.0	2.5	7	-4.5	Wall 4	WALL-4-21	431	16.0	40.7
						Wall 4	WALL-4-23	433	16.0	40.3
						Wall 4	WALL-4-22	432	16.0	40.2
						Wall 4	WALL-4-24	434	16.0	39.4
						NB 12th Exit	WALL-3a-2	581	16.0	38.1
						NB 12th Exit	WALL-3a-1	573	16.0	38.0
						NB 12th Exit	WALL-3a-3	580	16.0	37.8
						Wall 4	WALL-4-7	417	16.0	37.2
						Wall 4	WALL-4-6	416	16.0	37.1
						Wall 4	WALL-4-37	447	16.0	36.9
C08401	83	59.7	2.4	7	-4.6	Wall 4	WALL-4-23	433	16.0	41.3
						Wall 4	WALL-4-21	431	16.0	39.0
						Wall 4	WALL-4-22	432	16.0	38.8
						Wall 4	WALL-4-24	434	16.0	38.6
						NB 12th Exit	WALL-3a-1	573	16.0	37.9
						NB 12th Exit	WALL-3a-7	576	16.0	37.4
						NB 12th Exit	WALL-3a-4	579	16.0	37.2
						NB 12th Exit	WALL-3a-5	578	16.0	37.2
						NB 12th Exit	WALL-3a-6	577	16.0	37.1

						NB 12th Exit	WALL-3a-2	581	16.0	37.1
C100**	99	64.5	2.0	7	-5.0	NB 12th Exit	WALL-3-6	360	16.0	47.4
						NB 12th Exit	WALL-3-7	361	16.0	47.3
						NB 12th Exit	WALL-3-4	358	16.0	47.2
						NB 12th Exit	WALL-3a-14	585	16.0	47.0
						NB 12th Exit	WALL-3-5	359	16.0	47.0
						NB 12th Exit	WALL-3-3	357	16.0	47.0
						NB 12th Exit	WALL-3-8	362	16.0	46.9
						NB 12th Exit	WALL-3-12	366	16.0	46.9
						NB 12th Exit	WALL-3a-15	584	16.0	46.8
						NB 12th Exit	WALL-3-9	363	16.0	46.7
C10101	100	61.4	0.8	7	-6.2	NB 12th Exit	WALL-3a-1	573	16.0	37.8
						NB 12th Exit	WALL-3a-3	580	16.0	37.5
						NB 12th Exit	WALL-3a-2	581	16.0	37.4
						NB 12th Exit	WALL-3a-4	579	16.0	37.3
						NB 12th Exit	WALL-3a-5	578	16.0	37.2
						NB 12th Exit	WALL-3a-6	577	16.0	37.2
						NB 12th Exit	WALL-3a-7	576	16.0	37.0
						NB 12th Exit	WALL-3a-8	575	16.0	36.9
						NB 12th Exit	WALL-3a-9	574	16.0	36.8
						NB 12th Exit	WALL-3a-10	589	16.0	36.6
C02701	102	65.8	2.4	8	-5.6	NB 12th Exit	WALL-3-3	357	16.0	49.3
						NB 12th Exit	WALL-3-6	360	16.0	49.3
						NB 12th Exit	WALL-3-4	358	16.0	49.3
						NB 12th Exit	WALL-3-5	359	16.0	49.2
						NB 12th Exit	WALL-3-7	361	16.0	49.1
						NB 12th Exit	WALL-3-2	356	16.0	49.0
						NB 12th Exit	WALL-3a-15	584	16.0	48.8
						NB 12th Exit	WALL-3a-17	582	16.0	48.8
						NB 12th Exit	WALL-3a-13	586	16.0	48.7
						NB 12th Exit	WALL-3a-14	585	16.0	48.6
Total Cost, All Barriers (including additional cost(s))					$1399788					


NSA C1
Plan View
Run name: NSA_C2
Scale: 500
Sheet 1 of 1
16 May 2025
HMB Professional Engineers
Project/Contract No. Brent Spence Bridge 6-17.00
TNM Version 2.5, Feb 2004
Analysis By: Harrison Bruce
Roadway:
Receiver:
Barrier:
Building Row:
Terrain Line:
Ground Zone: polygon
Tree Zone: dashed polygon
Contour Zone: polygon
Parallel Barrier:
Skew Section:
5269000
5269500
5270000
5270500
5271000
5271500
5272000
5272500

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E00101-F	19	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00201	20	1	59.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00301-R	21	2	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00401-R	22	3	62.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00501	23	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00601	24	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00701	25	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00801-R	26	2	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E00901	27	1	59.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01001-R	28	3	62.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01101	30	1	57.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01201	31	1	57.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01301-R	32	2	57.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01401	33	1	57.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01501-R	34	2	57.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01601-R	35	2	58.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01701	36	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01801	37	1	60.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E01901-R	38	3	57.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02001	39	1	60.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02101	40	1	62.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02201-R	41	2	61.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02301	42	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02401	43	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

E02501	44	1	63.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02601-R	45	3	63.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02701	46	1	64.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02801	47	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E02901-R	48	3	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03001	49	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03101	50	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03201-R	51	3	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03401	52	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03501	53	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03601-R	54	2	66.0	68.6	66	2.6	10	Snd Lvl	68.3	0.3	7	-6.7
E03701	55	1	66.8	69.2	66	2.4	10	Snd Lvl	68.8	0.4	7	-6.6
E03801-R	56	2	66.8	69.0	66	2.2	10	Snd Lvl	68.6	0.4	7	-6.6
E03901	57	1	67.0	69.2	66	2.2	10	Snd Lvl	68.6	0.6	7	-6.4
E04001-R	58	2	66.9	68.7	66	1.8	10	Snd Lvl	68.1	0.6	7	-6.4
E04101	59	1	66.7	67.9	66	1.2	10	Snd Lvl	67.3	0.6	7	-6.4
E04201-R	60	2	67.1	68.3	66	1.2	10	Snd Lvl	67.5	0.8	7	-6.2
E04301	61	1	67.7	68.9	66	1.2	10	Snd Lvl	68.0	0.9	7	-6.1
E04401-R	62	2	67.7	68.5	66	0.8	10	Snd Lvl	67.5	1.0	7	-6.0
E04501-R	63	2	66.8	67.3	66	0.5	10	Snd Lvl	66.3	1.0	7	-6.0
E04601	16	1	66.5	67.0	66	0.5	10	Snd Lvl	66.0	1.0	7	-6.0
E04701-R	64	3	66.1	66.8	66	0.7	10	Snd Lvl	65.7	1.1	7	-5.9
E07201	65	1	65.9	66.8	66	0.9	10	Snd Lvl	65.7	1.1	7	-5.9
E04801	66	1	65.7	66.5	66	0.8	10	Snd Lvl	65.5	1.0	7	-6.0
E04901-R	67	2	66.0	66.4	66	0.4	10	Snd Lvl	65.4	1.0	7	-6.0
E05002	68	2	69.2	71.5	66	2.3	10	Snd Lvl	70.7	0.8	7	-6.2
E05102	69	2	69.2	72.3	66	3.1	10	Snd Lvl	71.4	0.9	7	-6.1
E05202	70	2	68.6	72.3	66	3.7	10	Snd Lvl	71.3	1.0	7	-6.0
E05302-R	71	4	68.3	72.4	66	4.1	10	Snd Lvl	71.2	1.2	7	-5.8
E05402-R	72	4	68.7	72.2	66	3.5	10	Snd Lvl	71.1	1.1	7	-5.9
E05502	73	2	68.6	71.8	66	3.2	10	Snd Lvl	70.5	1.3	7	-5.7
E05602	74	2	67.7	70.1	66	2.4	10	Snd Lvl	68.7	1.4	7	-5.6
E05701	75	1	69.1	68.7	66	-0.4	10	Snd Lvl	67.1	1.6	7	-5.4
E05801	76	1	69.9	68.2	66	-1.7	10	Snd Lvl	66.7	1.5	7	-5.5
E05901-R	77	2	70.6	67.6	66	-3.0	10	Snd Lvl	66.2	1.4	7	-5.6
E06001	78	1	70.5	66.7	66	-3.8	10	Snd Lvl	65.3	1.4	7	-5.6
E06101	79	1	70.6	66.5	66	-4.1	10	Snd Lvl	65.2	1.3	7	-5.7
E06201-R	80	3	70.5	66.1	66	-4.4	10	Snd Lvl	64.8	1.3	7	-5.7
E06301	81	1	70.5	65.7	66	-4.8	10	----	64.5	1.2	7	-5.8
E06401-F	82	1	65.4	68.2	66	2.8	10	Snd Lvl	66.1	2.1	7	-4.9
E06501-F	83	1	66.7	68.4	66	1.7	10	Snd Lvl	67.2	1.2	7	-5.8

E06601-F	84	1	66.4	67.5	66	1.1	10	Snd Lvl	66.6	0.9	7	-6.1
E06701-F	85	1	66.5	66.1	66	-0.4	10	Snd Lvl	65.2	0.9	7	-6.1
E06801-F	86	1	67.7	65.9	66	-1.8	10	----	65.1	0.8	7	-6.2
E06901-F	87	1	69.0	64.9	66	-4.1	10	----	64.1	0.8	7	-6.2
E07001-F	88	1	69.8	63.8	66	-6.0	10	----	63.0	0.8	7	-6.2
E07101-F	90	1	69.5	60.9	66	-8.6	10	----	60.5	0.4	7	-6.6

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		112	0.0	0.5	2.1
All Impacted		55	0.3	1.0	2.1
All that meet NR Goal		0	0.0	0.0	0.0

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E00101-F	19	1	67.7	67.4	66	-0.3	10	Snd Lvl	67.4	0.0	7	-7.0
E00201	20	1	59.4	61.8	66	2.4	10	----	61.7	0.1	7	-6.9
E00301-R	21	2	61.8	63.9	66	2.1	10	----	63.8	0.1	7	-6.9
E00401-R	22	3	62.1	64.2	66	2.1	10	----	64.0	0.2	7	-6.8
E00501	23	1	62.0	64.2	66	2.2	10	----	64.1	0.1	7	-6.9
E00601	24	1	62.0	64.4	66	2.4	10	----	64.2	0.2	7	-6.8
E00701	25	1	62.8	64.9	66	2.1	10	----	64.7	0.2	7	-6.8
E00801-R	26	2	61.9	64.6	66	2.7	10	----	64.3	0.3	7	-6.7
E00901	27	1	59.1	63.2	66	4.1	10	----	63.0	0.2	7	-6.8
E01001-R	28	3	62.2	64.5	66	2.3	10	----	64.2	0.3	7	-6.7
E01101	30	1	57.9	61.3	66	3.4	10	----	61.1	0.2	7	-6.8
E01201	31	1	57.9	61.3	66	3.4	10	----	61.1	0.2	7	-6.8
E01301-R	32	2	57.6	60.6	66	3.0	10	----	60.3	0.3	7	-6.7
E01401	33	1	57.8	60.5	66	2.7	10	----	60.2	0.3	7	-6.7
E01501-R	34	2	57.8	60.8	66	3.0	10	----	60.5	0.3	7	-6.7
E01601-R	35	2	58.4	61.6	66	3.2	10	----	61.3	0.3	7	-6.7
E01701	36	1	63.0	65.3	66	2.3	10	----	65.0	0.3	7	-6.7
E01801	37	1	60.2	63.8	66	3.6	10	----	63.5	0.3	7	-6.7
E01901-R	38	3	57.9	60.7	66	2.8	10	----	60.4	0.3	7	-6.7
E02001	39	1	60.7	64.2	66	3.5	10	----	63.8	0.4	7	-6.6
E02101	40	1	62.7	65.1	66	2.4	10	----	64.8	0.3	7	-6.7
E02201-R	41	2	61.2	64.7	66	3.5	10	----	64.3	0.4	7	-6.6
E02301	42	1	62.5	65.1	66	2.6	10	----	64.8	0.3	7	-6.7
E02401	43	1	64.3	66.1	66	1.8	10	Snd Lvl	65.8	0.3	7	-6.7

E02501	44	1	63.4	65.6	66	2.2	10	----	65.3	0.3	7	-6.7
E02601-R	45	3	63.6	65.9	66	2.3	10	----	65.6	0.3	7	-6.7
E02701	46	1	64.0	66.7	66	2.7	10	Snd Lvl	66.4	0.3	7	-6.7
E02801	47	1	65.1	67.2	66	2.1	10	Snd Lvl	66.9	0.3	7	-6.7
E02901-R	48	3	65.4	67.6	66	2.2	10	Snd Lvl	67.3	0.3	7	-6.7
E03001	49	1	65.5	67.9	66	2.4	10	Snd Lvl	67.6	0.3	7	-6.7
E03101	50	1	65.6	68.2	66	2.6	10	Snd Lvl	67.8	0.4	7	-6.6
E03201-R	51	3	65.8	68.4	66	2.6	10	Snd Lvl	68.1	0.3	7	-6.7
E03401	52	1	65.9	68.5	66	2.6	10	Snd Lvl	68.2	0.3	7	-6.7
E03501	53	1	66.0	68.6	66	2.6	10	Snd Lvl	68.3	0.3	7	-6.7
E03601-R	54	2	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03701	55	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03801-R	56	2	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E03901	57	1	67.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04001-R	58	2	66.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04101	59	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04201-R	60	2	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04301	61	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04401-R	62	2	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04501-R	63	2	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04601	16	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04701-R	64	3	66.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E07201	65	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04801	66	1	65.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E04901-R	67	2	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05002	68	2	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05102	69	2	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05202	70	2	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05302-R	71	4	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05402-R	72	4	68.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05502	73	2	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05602	74	2	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05701	75	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05801	76	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E05901-R	77	2	70.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06001	78	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06101	79	1	70.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06201-R	80	3	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06301	81	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06401-F	82	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06501-F	83	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

E06601-F	84	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06701-F	85	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06801-F	86	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E06901-F	87	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E07001-F	88	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
E07101-F	90	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		112	0.0	0.1	0.4
All Impacted		14	0.0	0.3	0.4
All that meet NR Goal		0	0.0	0.0	0.0

<Organization?> 16 May 2025
<Analysis By?> TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Crescent Ave Barrier - Constructed	W	17.50	20.27	22.50	1000	20275				0
NSA A/E Bar 1	W	12.00	12.00	12.00	1141	13692				0
NewBar	W	15.00	15.00	15.00	702	10537				0
									Total Cost:	0

<Organization?> 16 May 2025
<Analysis By?> TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

Barriers		Segments		Heights			Length	If Wall			If Berm	Cost
Name	Type	Name	No.	First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Crescent Ave Barrier - Constructed	W	100+.0	1	20.50	20.50	20.50	20	410				0
		100+.20	3	20.50	20.50	20.50	20	410				0
		100+.40	4	20.50	20.50	20.50	20	410				0
		100+.60	5	20.50	20.50	20.50	20	410				0
		100+.80	6	20.50	21.00	21.50	20	420				0
		101+.0	7	21.50	21.50	21.50	20	430				0
		101+.20	8	21.50	21.50	21.50	20	430				0
		101+.40	9	21.50	21.50	21.50	20	430				0
		101+.60	10	21.50	22.00	22.50	20	440				0
		101+.80	11	22.50	22.50	22.50	20	450				0
		102+.0	12	22.50	22.00	21.50	20	440				0
		102+.20	13	21.50	21.50	21.50	20	430				0
		102+.40	14	21.50	21.50	21.50	20	430				0
		102+.60	15	21.50	21.50	21.50	20	430				0
		102+.80	16	21.50	21.00	20.50	20	420				0
		103+.0	17	20.50	21.00	21.50	20	420				0
		103+.20	18	21.50	21.50	21.50	20	430				0
		103+.40	19	21.50	21.50	21.50	20	430				0
		103+.60	20	21.50	21.50	21.50	20	428				0
		103+.80	21	21.50	21.50	21.50	20	430				0
		104+.0	22	21.50	21.50	21.50	20	439				0
		104+.20	23	21.50	21.00	20.50	20	418				0
		104+.40	24	20.50	20.50	20.50	20	408				0
		104+.60	25	20.50	20.50	20.50	20	408				0
		104+.80	26	20.50	20.00	19.50	20	398				0
		105+.0	47	19.50	20.00	20.50	20	398				0

		105+.20	48	20.50	20.50	20.50	20	418				0
		105+.40	49	20.50	20.50	20.50	20	408				0
		105+.60	50	20.50	20.00	19.50	20	398				0
		105+.80	27	19.50	19.50	19.50	20	388				0
		106+.0	28	19.50	19.50	19.50	20	388				0
		106+.20	29	19.50	19.50	19.50	20	388				0
		106+.40	30	19.50	19.50	19.50	20	398				0
		106+.60	31	19.50	19.50	19.50	20	388				0
		106+.80	32	19.50	19.50	19.50	20	388				0
		107+.0	33	19.50	19.50	19.50	20	388				0
		107+.20	34	19.50	19.50	19.50	20	388				0
		107+.40	35	19.50	19.00	18.50	20	388				0
		107+.60	51	18.50	18.50	18.50	20	370				0
		107+.80	36	18.50	18.00	17.50	20	358				0
		108+.0	37	17.50	17.50	17.50	20	348				0
		108+.20	38	17.50	18.00	18.50	20	358				0
		108+.40	39	18.50	18.50	18.50	20	368				0
		108+.60	40	18.50	19.00	19.50	20	388				0
		108+.80	41	19.50	19.50	19.50	20	388				0
		109+.0	42	19.50	19.50	19.50	20	388				0
		109+.20	43	19.50	20.00	20.50	20	398				0
		109+.40	44	20.50	20.00	19.50	20	398				0
		109+.60	45	19.50	19.50	19.50	20	398				0
		109+.80	46	19.50	19.50	19.50	20	388				0
NSA A/E Bar 1	W	point174	174	12.00	12.00	12.00	40	481				0
		point176	176	12.00	12.00	12.00	40	477				0
		point177	177	12.00	12.00	12.00	40	485	Y			0
		point178	178	12.00	12.00	12.00	40	479	Y			0
		point179	179	12.00	12.00	12.00	40	479	Y			0
		point180	180	12.00	12.00	12.00	40	484	Y			0
		point181	181	12.00	12.00	12.00	40	479	Y			0
		point182	182	12.00	12.00	12.00	40	478	Y			0
		point183	183	12.00	12.00	12.00	40	482	Y			0
		point184	184	12.00	12.00	12.00	40	485	Y			0
		point185	185	12.00	12.00	12.00	40	476	Y			0
		point186	186	12.00	12.00	12.00	40	481	Y			0
		point187	187	12.00	12.00	12.00	40	474				0
		point188	188	12.00	12.00	12.00	41	486				0

		point189	189	12.00	12.00	12.00	40	482				0
		point190	190	12.00	12.00	12.00	39	465				0
		point191	191	12.00	12.00	12.00	42	500				0
		point192	192	12.00	12.00	12.00	40	481				0
		point193	193	12.00	12.00	12.00	40	478				0
		point194	194	12.00	12.00	12.00	39	471				0
		point195	195	12.00	12.00	12.00	43	511				0
		point196	196	12.00	12.00	12.00	41	490				0
		point197	197	12.00	12.00	12.00	35	415				0
		point198	198	12.00	12.00	12.00	40	484				0
		point199	199	12.00	12.00	12.00	41	492				0
		point200	200	12.00	12.00	12.00	41	495				0
		point201	201	12.00	12.00	12.00	40	477				0
		point202	202	12.00	12.00	12.00	40	483				0
		point203	203	12.00	12.00	12.00	20	242				0
NewBar	W	point559	559	15.00	15.00	15.00	102	1538				0
		point560	560	15.00	15.00	15.00	100	1502				0
		point561	561	15.00	15.00	15.00	100	1500				0
		point562	562	15.00	15.00	15.00	100	1494				0
		point563	563	15.00	15.00	15.00	100	1500				0
		point564	564	15.00	15.00	15.00	100	1500				0
		point565	565	15.00	15.00	15.00	100	1502				0

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
E00101-F	19	67.4	0.0	7	-7.0	NSA A/E Bar 1	point187	187	12.0	29.5
						NSA A/E Bar 1	point176	176	12.0	28.7
						NSA A/E Bar 1	point199	199	12.0	27.8
						NSA A/E Bar 1	point181	181	12.0	27.6
						NSA A/E Bar 1	point183	183	12.0	26.9
						NSA A/E Bar 1	point188	188	12.0	26.7
						NSA A/E Bar 1	point195	195	12.0	26.5
						NSA A/E Bar 1	point189	189	12.0	26.4
						NSA A/E Bar 1	point186	186	12.0	26.1
						NSA A/E Bar 1	point198	198	12.0	25.9
E00201	20	61.7	0.1	7	-6.9	NewBar	point565	565	15.0	37.9
						NewBar	point564	564	15.0	35.3
						NewBar	point562	562	15.0	34.6
						NewBar	point561	561	15.0	33.5
						NewBar	point560	560	15.0	32.2
						NewBar	point563	563	15.0	32.1
						NewBar	point559	559	15.0	30.6
						NSA A/E Bar 1	point174	174	12.0	26.8
						NSA A/E Bar 1	point190	190	12.0	25.6
						NSA A/E Bar 1	point201	201	12.0	24.6
E00301-R	21	63.8	0.1	7	-6.9	NewBar	point565	565	15.0	45.0

						NewBar	point564	564	15.0	42.9
						NewBar	point563	563	15.0	40.4
						NewBar	point562	562	15.0	36.4
						NewBar	point561	561	15.0	32.2
						NSA A/E Bar 1	point190	190	12.0	29.6
						NewBar	point560	560	15.0	28.4
						NSA A/E Bar 1	point191	191	12.0	28.1
						NSA A/E Bar 1	point200	200	12.0	28.1
						NSA A/E Bar 1	point201	201	12.0	28.1
E00401-R	22	64.0	0.2	7	-6.8	NewBar	point565	565	15.0	45.6
						NewBar	point564	564	15.0	43.8
						NewBar	point563	563	15.0	41.3
						NewBar	point562	562	15.0	38.2
						NewBar	point561	561	15.0	35.3
						NewBar	point560	560	15.0	32.6
						NewBar	point559	559	15.0	30.2
						NSA A/E Bar 1	point190	190	12.0	29.9
						NSA A/E Bar 1	point201	201	12.0	28.5
						NSA A/E Bar 1	point191	191	12.0	28.3
E00501	23	64.1	0.1	7	-6.9	NewBar	point565	565	15.0	46.0
						NewBar	point564	564	15.0	43.8
						NewBar	point563	563	15.0	41.6
						NewBar	point562	562	15.0	36.9
						NewBar	point561	561	15.0	32.4
						NewBar	point560	560	15.0	30.3
						NSA A/E Bar 1	point190	190	12.0	30.2
						NSA A/E Bar 1	point201	201	12.0	28.6
						NSA A/E Bar 1	point200	200	12.0	28.6
						NSA A/E Bar 1	point191	191	12.0	28.3
E00601	24	64.2	0.2	7	-6.8	NewBar	point565	565	15.0	46.3
						NewBar	point564	564	15.0	44.3
						NewBar	point563	563	15.0	42.0
						NewBar	point562	562	15.0	38.1
						NewBar	point561	561	15.0	35.8
						NewBar	point560	560	15.0	32.9
						NewBar	point559	559	15.0	30.3

						NSA A/E Bar 1	point190	190	12.0	30.3
						NSA A/E Bar 1	point201	201	12.0	28.8
						NSA A/E Bar 1	point200	200	12.0	28.8
E00701	25	64.7	0.2	7	-6.8	NewBar	point565	565	15.0	48.3
						NewBar	point564	564	15.0	46.4
						NewBar	point563	563	15.0	44.9
						NewBar	point562	562	15.0	40.4
						NewBar	point561	561	15.0	38.2
						NewBar	point560	560	15.0	36.0
						NewBar	point559	559	15.0	32.3
						NSA A/E Bar 1	point190	190	12.0	31.2
						NSA A/E Bar 1	point191	191	12.0	29.1
						NSA A/E Bar 1	point201	201	12.0	28.7
E00801-R	26	64.3	0.3	7	-6.7	NewBar	point565	565	15.0	49.1
						NewBar	point564	564	15.0	47.1
						NewBar	point563	563	15.0	45.2
						NewBar	point562	562	15.0	41.2
						NewBar	point561	561	15.0	38.4
						NewBar	point560	560	15.0	36.0
						NewBar	point559	559	15.0	33.0
						NSA A/E Bar 1	point190	190	12.0	31.0
						NSA A/E Bar 1	point201	201	12.0	28.9
						NSA A/E Bar 1	point200	200	12.0	28.8
E00901	27	63.0	0.2	7	-6.8	NewBar	point565	565	15.0	46.9
						NewBar	point564	564	15.0	45.3
						NewBar	point563	563	15.0	43.3
						NewBar	point562	562	15.0	40.0
						NewBar	point561	561	15.0	37.4
						NewBar	point560	560	15.0	35.4
						NewBar	point559	559	15.0	33.1
						NSA A/E Bar 1	point190	190	12.0	31.3
						NSA A/E Bar 1	point191	191	12.0	29.1
						NSA A/E Bar 1	point200	200	12.0	28.6
E01001-R	28	64.2	0.3	7	-6.7	NewBar	point565	565	15.0	48.9
						NewBar	point564	564	15.0	46.3
						NewBar	point563	563	15.0	44.7

						NewBar	point562	562	15.0	41.6
						NewBar	point561	561	15.0	38.5
						NewBar	point560	560	15.0	36.6
						NewBar	point559	559	15.0	33.3
						NSA A/E Bar 1	point190	190	12.0	31.4
						NSA A/E Bar 1	point191	191	12.0	29.0
						NSA A/E Bar 1	point201	201	12.0	28.9
E01101	30	61.1	0.2	7	-6.8	NewBar	point565	565	15.0	46.3
						NewBar	point564	564	15.0	44.7
						NewBar	point563	563	15.0	42.7
						NewBar	point562	562	15.0	39.6
						NewBar	point561	561	15.0	37.2
						NewBar	point560	560	15.0	35.1
						NewBar	point559	559	15.0	32.3
						NSA A/E Bar 1	point190	190	12.0	28.9
						NSA A/E Bar 1	point200	200	12.0	26.7
						NSA A/E Bar 1	point201	201	12.0	26.7
E01201	31	61.1	0.2	7	-6.8	NewBar	point565	565	15.0	46.3
						NewBar	point564	564	15.0	45.0
						NewBar	point563	563	15.0	43.1
						NewBar	point562	562	15.0	40.2
						NewBar	point561	561	15.0	37.5
						NewBar	point560	560	15.0	35.5
						NewBar	point559	559	15.0	32.7
						NSA A/E Bar 1	point190	190	12.0	29.3
						NSA A/E Bar 1	point191	191	12.0	27.2
						NSA A/E Bar 1	point201	201	12.0	26.6
E01301-R	32	60.3	0.3	7	-6.7	NewBar	point565	565	15.0	46.1
						NewBar	point564	564	15.0	44.7
						NewBar	point563	563	15.0	43.2
						NewBar	point562	562	15.0	40.4
						NewBar	point561	561	15.0	37.7
						NewBar	point560	560	15.0	35.6
						NewBar	point559	559	15.0	32.8
						NSA A/E Bar 1	point190	190	12.0	28.9
						NSA A/E Bar 1	point191	191	12.0	26.8

						NSA A/E Bar 1	point200	200	12.0	26.5
E01401	33	60.2	0.3	7	-6.7	NewBar	point565	565	15.0	46.2
						NewBar	point564	564	15.0	45.1
						NewBar	point563	563	15.0	43.5
						NewBar	point562	562	15.0	40.8
						NewBar	point561	561	15.0	38.1
						NewBar	point560	560	15.0	35.9
						NewBar	point559	559	15.0	33.1
						NSA A/E Bar 1	point190	190	12.0	29.0
						NSA A/E Bar 1	point191	191	12.0	26.9
						NSA A/E Bar 1	point201	201	12.0	26.2
E01501-R	34	60.5	0.3	7	-6.7	NewBar	point565	565	15.0	46.8
						NewBar	point564	564	15.0	45.4
						NewBar	point563	563	15.0	43.9
						NewBar	point562	562	15.0	41.3
						NewBar	point561	561	15.0	38.2
						NewBar	point560	560	15.0	36.1
						NewBar	point559	559	15.0	33.4
						NSA A/E Bar 1	point190	190	12.0	29.6
						NSA A/E Bar 1	point191	191	12.0	27.7
						NSA A/E Bar 1	point200	200	12.0	27.1
E01601-R	35	61.3	0.3	7	-6.7	NewBar	point565	565	15.0	47.6
						NewBar	point564	564	15.0	46.2
						NewBar	point563	563	15.0	44.8
						NewBar	point562	562	15.0	42.1
						NewBar	point561	561	15.0	38.6
						NewBar	point560	560	15.0	36.7
						NewBar	point559	559	15.0	34.0
						NSA A/E Bar 1	point190	190	12.0	30.0
						NSA A/E Bar 1	point200	200	12.0	27.8
						NSA A/E Bar 1	point201	201	12.0	27.8
E01701	36	65.0	0.3	7	-6.7	NewBar	point565	565	15.0	51.0
						NewBar	point564	564	15.0	49.4
						NewBar	point563	563	15.0	47.6
						NewBar	point562	562	15.0	45.1
						NewBar	point561	561	15.0	40.5

						NewBar	point560	560	15.0	38.9
						NewBar	point559	559	15.0	36.0
						NSA A/E Bar 1	point190	190	12.0	32.8
						NSA A/E Bar 1	point200	200	12.0	30.4
						NSA A/E Bar 1	point191	191	12.0	30.4
E01801	37	63.5	0.3	7	-6.7	NewBar	point565	565	15.0	49.1
						NewBar	point564	564	15.0	48.5
						NewBar	point563	563	15.0	47.4
						NewBar	point562	562	15.0	45.3
						NewBar	point561	561	15.0	40.8
						NewBar	point560	560	15.0	38.7
						NewBar	point559	559	15.0	35.8
						NSA A/E Bar 1	point190	190	12.0	32.6
						NSA A/E Bar 1	point191	191	12.0	31.0
						NSA A/E Bar 1	point200	200	12.0	29.0
E01901-R	38	60.4	0.3	7	-6.7	NewBar	point565	565	15.0	47.1
						NewBar	point564	564	15.0	46.1
						NewBar	point563	563	15.0	44.8
						NewBar	point562	562	15.0	42.8
						NewBar	point561	561	15.0	39.2
						NewBar	point560	560	15.0	37.1
						NewBar	point559	559	15.0	34.2
						NSA A/E Bar 1	point190	190	12.0	29.8
						NSA A/E Bar 1	point191	191	12.0	28.1
						NSA A/E Bar 1	point200	200	12.0	26.9
E02001	39	63.8	0.4	7	-6.6	NewBar	point565	565	15.0	51.7
						NewBar	point564	564	15.0	50.7
						NewBar	point563	563	15.0	48.3
						NewBar	point562	562	15.0	45.5
						NewBar	point561	561	15.0	41.8
						NewBar	point560	560	15.0	39.2
						NewBar	point559	559	15.0	36.2
						NSA A/E Bar 1	point190	190	12.0	33.6
						NSA A/E Bar 1	point191	191	12.0	31.2
						NSA A/E Bar 1	point200	200	12.0	30.8
E02101	40	64.8	0.3	7	-6.7	NewBar	point565	565	15.0	52.3

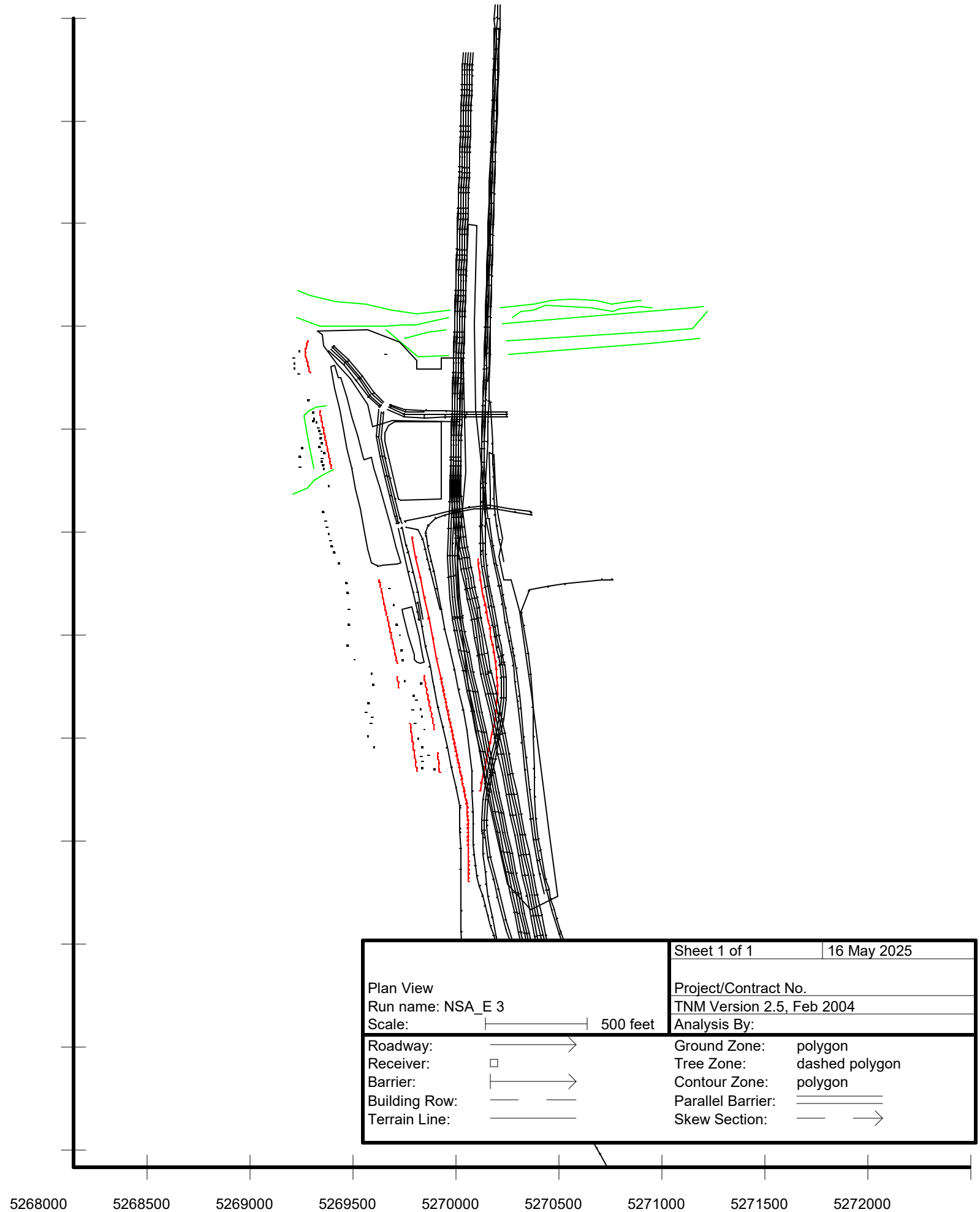
						NewBar	point564	564	15.0	51.2
						NewBar	point563	563	15.0	48.5
						NewBar	point562	562	15.0	46.0
						NewBar	point561	561	15.0	42.2
						NewBar	point560	560	15.0	39.5
						NewBar	point559	559	15.0	36.9
						NSA A/E Bar 1	point190	190	12.0	33.7
						NSA A/E Bar 1	point200	200	12.0	32.3
						NSA A/E Bar 1	point201	201	12.0	32.0
E02201-R	41	64.3	0.4	7	-6.6	NewBar	point565	565	15.0	52.5
						NewBar	point564	564	15.0	51.5
						NewBar	point563	563	15.0	48.6
						NewBar	point562	562	15.0	45.6
						NewBar	point561	561	15.0	42.3
						NewBar	point560	560	15.0	39.6
						NewBar	point559	559	15.0	36.6
						NSA A/E Bar 1	point190	190	12.0	33.3
						NSA A/E Bar 1	point200	200	12.0	32.2
						NSA A/E Bar 1	point201	201	12.0	32.0
E02301	42	64.8	0.3	7	-6.7	NewBar	point565	565	15.0	52.8
						NewBar	point564	564	15.0	51.7
						NewBar	point563	563	15.0	48.8
						NewBar	point562	562	15.0	46.1
						NewBar	point561	561	15.0	42.7
						NewBar	point560	560	15.0	39.8
						NewBar	point559	559	15.0	37.1
						NSA A/E Bar 1	point190	190	12.0	33.8
						NSA A/E Bar 1	point201	201	12.0	32.2
						NSA A/E Bar 1	point200	200	12.0	32.2
E02401	43	65.8	0.3	7	-6.7	NewBar	point565	565	15.0	54.4
						NewBar	point564	564	15.0	53.2
						NewBar	point563	563	15.0	49.8
						NewBar	point562	562	15.0	46.3
						NewBar	point561	561	15.0	43.4
						NewBar	point560	560	15.0	40.1
						NewBar	point559	559	15.0	38.0

						NSA A/E Bar 1	point190	190	12.0	34.6
						NSA A/E Bar 1	point200	200	12.0	32.9
						NSA A/E Bar 1	point201	201	12.0	32.5
E02501	44	65.3	0.3	7	-6.7	NewBar	point565	565	15.0	52.1
						NewBar	point564	564	15.0	51.4
						NewBar	point563	563	15.0	50.0
						NewBar	point562	562	15.0	47.7
						NewBar	point561	561	15.0	44.9
						NewBar	point560	560	15.0	40.8
						NewBar	point559	559	15.0	40.2
						NSA A/E Bar 1	point190	190	12.0	33.6
						NSA A/E Bar 1	point193	193	12.0	33.2
						NSA A/E Bar 1	point189	189	12.0	32.6
E02601-R	45	65.6	0.3	7	-6.7	NewBar	point565	565	15.0	53.3
						NewBar	point564	564	15.0	52.6
						NewBar	point563	563	15.0	50.7
						NewBar	point562	562	15.0	48.7
						NewBar	point561	561	15.0	46.3
						NewBar	point560	560	15.0	41.9
						NewBar	point559	559	15.0	40.2
						NSA A/E Bar 1	point193	193	12.0	34.6
						NSA A/E Bar 1	point190	190	12.0	34.1
						NSA A/E Bar 1	point194	194	12.0	33.3
E02701	46	66.4	0.3	7	-6.7	NewBar	point565	565	15.0	54.8
						NewBar	point564	564	15.0	53.6
						NewBar	point563	563	15.0	51.9
						NewBar	point562	562	15.0	49.7
						NewBar	point561	561	15.0	47.9
						NewBar	point560	560	15.0	43.5
						NewBar	point559	559	15.0	40.6
						NSA A/E Bar 1	point193	193	12.0	35.6
						NSA A/E Bar 1	point194	194	12.0	34.6
						NSA A/E Bar 1	point190	190	12.0	34.1
E02801	47	66.9	0.3	7	-6.7	NewBar	point565	565	15.0	58.0
						NewBar	point564	564	15.0	56.9
						NewBar	point563	563	15.0	54.9

						NewBar	point562	562	15.0	52.1
						NewBar	point561	561	15.0	49.8
						NewBar	point560	560	15.0	45.1
						NewBar	point559	559	15.0	41.2
						NSA A/E Bar 1	point193	193	12.0	36.5
						NSA A/E Bar 1	point190	190	12.0	35.7
						NSA A/E Bar 1	point189	189	12.0	35.5
E02901-R	48	67.3	0.3	7	-6.7	NewBar	point565	565	15.0	58.6
						NewBar	point564	564	15.0	57.8
						NewBar	point563	563	15.0	55.7
						NewBar	point562	562	15.0	53.1
						NewBar	point561	561	15.0	51.1
						NewBar	point560	560	15.0	45.9
						NewBar	point559	559	15.0	41.6
						NSA A/E Bar 1	point193	193	12.0	37.4
						NSA A/E Bar 1	point190	190	12.0	36.2
						NSA A/E Bar 1	point187	187	12.0	36.2
E03001	49	67.6	0.3	7	-6.7	NewBar	point565	565	15.0	59.2
						NewBar	point564	564	15.0	58.2
						NewBar	point563	563	15.0	56.3
						NewBar	point562	562	15.0	53.8
						NewBar	point561	561	15.0	51.5
						NewBar	point560	560	15.0	46.6
						NewBar	point559	559	15.0	41.9
						NSA A/E Bar 1	point193	193	12.0	37.9
						NSA A/E Bar 1	point190	190	12.0	36.9
						NSA A/E Bar 1	point187	187	12.0	36.4
E03101	50	67.8	0.4	7	-6.6	NewBar	point565	565	15.0	59.5
						NewBar	point564	564	15.0	58.6
						NewBar	point563	563	15.0	56.9
						NewBar	point562	562	15.0	54.6
						NewBar	point561	561	15.0	51.9
						NewBar	point560	560	15.0	47.3
						NewBar	point559	559	15.0	42.4
						NSA A/E Bar 1	point193	193	12.0	38.0
						NSA A/E Bar 1	point190	190	12.0	37.3

						NSA A/E Bar 1	point189	189	12.0	37.2
E03201-R	51	68.1	0.3	7	-6.7	NewBar	point565	565	15.0	60.1
						NewBar	point564	564	15.0	59.1
						NewBar	point563	563	15.0	57.6
						NewBar	point562	562	15.0	55.4
						NewBar	point561	561	15.0	52.4
						NewBar	point560	560	15.0	48.4
						NewBar	point559	559	15.0	43.1
						NSA A/E Bar 1	point193	193	12.0	38.7
						NSA A/E Bar 1	point190	190	12.0	37.5
						NSA A/E Bar 1	point189	189	12.0	37.3
E03401	52	68.2	0.3	7	-6.7	NewBar	point565	565	15.0	60.4
						NewBar	point564	564	15.0	59.3
						NewBar	point563	563	15.0	57.9
						NewBar	point562	562	15.0	55.8
						NewBar	point561	561	15.0	52.7
						NewBar	point560	560	15.0	49.0
						NewBar	point559	559	15.0	43.5
						NSA A/E Bar 1	point193	193	12.0	38.9
						NSA A/E Bar 1	point194	194	12.0	37.6
						NSA A/E Bar 1	point190	190	12.0	37.5
E03501	53	68.3	0.3	7	-6.7	NewBar	point565	565	15.0	60.6
						NewBar	point564	564	15.0	59.6
						NewBar	point563	563	15.0	58.7
						NewBar	point562	562	15.0	56.1
						NewBar	point561	561	15.0	53.2
						NewBar	point560	560	15.0	49.3
						NewBar	point559	559	15.0	43.4
						NSA A/E Bar 1	point193	193	12.0	39.3
						NSA A/E Bar 1	point192	192	12.0	37.9
						NSA A/E Bar 1	point194	194	12.0	37.7
E03601-R	54	inactive	inactive	7	inactive					
E03701	55	inactive	inactive	7	inactive					
E03801-R	56	inactive	inactive	7	inactive					
E03901	57	inactive	inactive	7	inactive					
E04001-R	58	inactive	inactive	7	inactive					

E04101	59	inactive	inactive	7	inactive					
E04201-R	60	inactive	inactive	7	inactive					
E04301	61	inactive	inactive	7	inactive					
E04401-R	62	inactive	inactive	7	inactive					
E04501-R	63	inactive	inactive	7	inactive					
E04601	16	inactive	inactive	7	inactive					
E04701-R	64	inactive	inactive	7	inactive					
E07201	65	inactive	inactive	7	inactive					
E04801	66	inactive	inactive	7	inactive					
E04901-R	67	inactive	inactive	7	inactive					
E05002	68	inactive	inactive	7	inactive					
E05102	69	inactive	inactive	7	inactive					
E05202	70	inactive	inactive	7	inactive					
E05302-R	71	inactive	inactive	7	inactive					
E05402-R	72	inactive	inactive	7	inactive					
E05502	73	inactive	inactive	7	inactive					
E05602	74	inactive	inactive	7	inactive					
E05701	75	inactive	inactive	7	inactive					
E05801	76	inactive	inactive	7	inactive					
E05901-R	77	inactive	inactive	7	inactive					
E06001	78	inactive	inactive	7	inactive					
E06101	79	inactive	inactive	7	inactive					
E06201-R	80	inactive	inactive	7	inactive					
E06301	81	inactive	inactive	7	inactive					
E06401-F	82	inactive	inactive	7	inactive					
E06501-F	83	inactive	inactive	7	inactive					
E06601-F	84	inactive	inactive	7	inactive					
E06701-F	85	inactive	inactive	7	inactive					
E06801-F	86	inactive	inactive	7	inactive					
E06901-F	87	inactive	inactive	7	inactive					
E07001-F	88	inactive	inactive	7	inactive					
E07101-F	90	inactive	inactive	7	inactive					
Total Cost, All Barriers (including additional cost(s))					$0					



Plan View
Run name: NSA_E 3
Scale: 500 feet

Sheet 1 of 1 | 16 May 2025

Project/Contract No.
TNM Version 2.5, Feb 2004
Analysis By:

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15+18ft
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	325	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00201-F	326	1	71.5	66.2	66	-5.3	10	Snd Lvl	66.1	0.1	7	-6.9
F00301-F	327	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00401-F	328	1	71.5	67.0	66	-4.5	10	Snd Lvl	66.6	0.4	7	-6.6
F00501-F	329	1	71.6	67.5	66	-4.1	10	Snd Lvl	67.0	0.5	7	-6.5
F00601-F	330	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00701-F	331	1	71.1	68.7	66	-2.4	10	Snd Lvl	67.6	1.1	7	-5.9
F00804-F	332	4	72.8	71.6	66	-1.2	10	Snd Lvl	67.4	4.2	7	-2.8
F00904	333	4	70.2	69.4	66	-0.8	10	Snd Lvl	67.8	1.6	7	-5.4
F01002-F	334	1	75.6	77.5	66	1.9	10	Snd Lvl	65.6	11.9	7	4.9
F01101-F	335	1	74.7	76.4	66	1.7	10	Snd Lvl	70.3	6.1	7	-0.9
F01201-F	336	1	74.7	75.7	66	1.0	10	Snd Lvl	70.4	5.3	7	-1.7
F01302-F	337	2	74.4	76.1	66	1.7	10	Snd Lvl	72.3	3.8	7	-3.2
F01501-F	338	1	73.6	75.0	66	1.4	10	Snd Lvl	71.3	3.7	7	-3.3
F01601-F	339	1	73.4	74.7	66	1.3	10	Snd Lvl	70.7	4.0	7	-3.0
F01701-F	340	1	73.1	74.4	66	1.3	10	Snd Lvl	69.1	5.3	7	-1.7
F01801-F	341	1	70.7	71.5	66	0.8	10	Snd Lvl	64.2	7.3	7	0.3
F01901-F	342	1	70.8	71.4	66	0.6	10	Snd Lvl	64.2	7.2	7	0.2
F02001-F	343	1	70.7	70.5	66	-0.2	10	Snd Lvl	63.3	7.2	7	0.2
F02101-F	344	1	68.6	68.1	66	-0.5	10	Snd Lvl	61.7	6.4	7	-0.6
F02201-F	345	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02301-F	346	1	69.6	69.1	66	-0.5	10	Snd Lvl	62.3	6.8	7	-0.2
F02401-F	347	1	69.8	69.4	66	-0.4	10	Snd Lvl	62.2	7.2	7	0.2
F02502-F	348	2	70.4	70.0	66	-0.4	10	Snd Lvl	62.5	7.5	7	0.5

F02601-F	349	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02701-F	350	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02801-F	351	1	68.6	67.0	66	-1.6	10	Snd Lvl	61.3	5.7	7	-1.3
F02901-F	352	1	68.8	66.7	66	-2.1	10	Snd Lvl	62.0	4.7	7	-2.3
F03001-F	353	1	68.8	66.7	66	-2.1	10	Snd Lvl	63.3	3.4	7	-3.6
F03101-F	354	1	67.9	66.3	66	-1.6	10	Snd Lvl	63.8	2.5	7	-4.5
F03201-F	355	1	68.6	66.9	66	-1.7	10	Snd Lvl	65.2	1.7	7	-5.3
F03301-F	356	1	69.6	67.8	66	-1.8	10	Snd Lvl	66.0	1.8	7	-5.2
F03401	357	1	70.4	70.3	66	-0.1	10	Snd Lvl	68.9	1.4	7	-5.6
F03501	358	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03601	359	1	69.9	70.1	66	0.2	10	Snd Lvl	68.8	1.3	7	-5.7
F03701	360	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03801	361	1	68.5	69.4	66	0.9	10	Snd Lvl	68.2	1.2	7	-5.8
F03901	362	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04001	363	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04102	364	2	67.8	69.3	66	1.5	10	Snd Lvl	67.6	1.7	7	-5.3
F04201	365	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04301	366	1	68.0	69.3	66	1.3	10	Snd Lvl	67.0	2.3	7	-4.7
F04401	367	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04501	368	1	67.5	69.3	66	1.8	10	Snd Lvl	67.8	1.5	7	-5.5
F04601	369	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04701	370	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04801	371	1	65.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04901	372	1	66.7	67.6	66	0.9	10	Snd Lvl	61.8	5.8	7	-1.2
F05001	373	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05101	374	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05201	375	1	66.4	67.5	66	1.1	10	Snd Lvl	60.9	6.6	7	-0.4
F05301	376	1	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05401	377	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05501	378	1	64.6	64.1	66	-0.5	10	----	58.7	5.4	7	-1.6
F05601	379	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05801	380	1	66.4	64.7	66	-1.7	10	----	60.3	4.4	7	-2.6
F05901	381	1	65.9	64.6	66	-1.3	10	----	59.7	4.9	7	-2.1
F06001	382	1	66.4	65.3	66	-1.1	10	----	60.1	5.2	7	-1.8
F06102	383	1	66.9	66.7	66	-0.2	10	Snd Lvl	61.4	5.3	7	-1.7
F06201	384	1	66.8	67.6	66	0.8	10	Snd Lvl	61.8	5.8	7	-1.2
F06301	385	1	66.6	67.5	66	0.9	10	Snd Lvl	61.8	5.7	7	-1.3
F06401	386	1	66.4	67.2	66	0.8	10	Snd Lvl	61.9	5.3	7	-1.7
F06501	387	1	65.8	66.5	66	0.7	10	Snd Lvl	61.2	5.3	7	-1.7
F06601	388	1	66.8	67.6	66	0.8	10	Snd Lvl	62.3	5.3	7	-1.7
F06701	389	1	66.2	67.3	66	1.1	10	Snd Lvl	64.5	2.8	7	-4.2

F06801	390	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06901	391	1	66.3	67.2	66	0.9	10	Snd Lvl	64.3	2.9	7	-4.1
F07001	392	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07103-F	393	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07201	394	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07301	395	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07401	396	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07501	397	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07602-F	398	2	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07701-F	399	1	68.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07801-F	400	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07904-F	401	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08001	402	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08101	403	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08201	404	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08301	405	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08401	406	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31501	407	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08501	408	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08601	409	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08702	410	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08801	411	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08901	412	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09001	413	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09102	414	2	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09201	415	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09301	416	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09401	417	1	62.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09501	418	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09601	419	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09701	420	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09804	421	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09901	422	1	64.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10001	424	2	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10101	425	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10202	426	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10301	427	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10402	428	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10512	429	12	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10601	430	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10701	431	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F10801	432	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10901	433	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11001	434	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11101	435	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11202	436	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11301	437	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11401	438	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11501	439	1	60.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11602	440	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11701	441	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11801	442	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11901	443	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12001	444	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12101	445	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12202	446	2	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12301	447	1	62.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12403	448	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12501	449	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12601	450	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12701	451	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12804	452	1	63.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12901	453	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13003	454	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13105	455	5	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13201	456	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13303	457	3	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13402	458	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13502	459	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13601	460	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13701	461	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31201	462	1	61.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13801	463	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13901	464	1	62.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14001	465	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14102	466	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14201	467	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14301	468	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14402	469	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14501	470	2	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14601	471	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14701	472	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F14801	473	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14901	474	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15001	475	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15101	476	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15201	477	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15301-F	478	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15401-FV	480	1	76.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15501	481	1	74.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15606	482	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15701	483	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15801	484	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15904	485	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16001	486	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16101	487	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16202	488	1	67.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16301	489	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16405	490	5	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16502	491	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16601	492	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16701	493	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16802	494	1	77.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16901-F	495	1	76.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17001-F	496	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17101	497	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17201	498	1	74.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17301	499	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17401	500	1	73.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17501	501	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17601	502	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17701	503	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17801	504	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17901	505	1	69.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18001	506	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18101	507	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18201	508	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18301	509	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18405	510	1	67.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18501	511	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18601	512	1	67.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18701	513	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31301	514	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F18801	515	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18901	516	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19001	517	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19101	518	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19201	519	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19301	520	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19401	521	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19501	522	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19601	523	1	71.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19701	524	1	71.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19801	525	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19901	526	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20001	527	1	73.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20101	528	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20201	529	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20301-F	530	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20402	531	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20501	532	2	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20601	533	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20701	534	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20802	535	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20904	536	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21001	537	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21106	538	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21205	539	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21301	540	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21401	541	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21501	542	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21601	543	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21701	544	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21804	545	4	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21902	547	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22001	548	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22101	549	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22201	550	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22302	551	2	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22408	552	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22501	553	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22601	554	1	71.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22701	555	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22801-F	556	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F22901-F	557	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23001	558	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23101	559	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23201	560	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23301	561	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23401	562	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23501	563	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23601	564	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23701	565	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23801	566	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23901	567	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24001	568	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24102	569	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24204	570	4	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24301	571	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24401	572	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24501	573	1	66.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24601	574	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24701	575	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24801	576	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24901	577	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25001	578	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25101	579	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25201	580	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25301	581	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25401	582	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25501	583	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25601	584	1	61.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25701	585	1	60.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25801-F	586	1	62.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25904-F	587	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26001-F	588	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26101	589	1	68.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26201	590	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26301	591	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26401	593	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26501	594	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26601	595	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26701	596	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26801	597	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26901	598	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F27001	599	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27101	600	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27201	601	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	602	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	603	1	63.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27401	604	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27503	605	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27602	606	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27702	607	2	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27801	608	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27901	609	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28001-F	610	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28101-F	611	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28201-F	612	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28301-F	613	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28401-F	614	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28501-F	615	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28601-F	616	1	72.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28701-F	617	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28801-F	618	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28901-F	619	1	73.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29001-F	620	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29101-F	621	1	75.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29201	622	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29301-F	623	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29401-F	624	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	626	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	627	1	69.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29601-F	628	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29701-F	629	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29801-F	630	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29901-F	631	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30001-F	632	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30101-F	633	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30201-F	634	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30301-F	635	1	72.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30401-F	636	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30501-F	637	1	73.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30601-F	638	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30701-F	639	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30801-F	640	1	73.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F30901-F	641	1	74.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31001-F	642	1	74.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31101	643	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		359	0.0	0.6	11.9
All Impacted		51	0.1	4.2	11.9
All that meet NR Goal		7	7.2	8.1	11.9

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15_18 ft
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	325	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00201-F	326	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00301-F	327	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00401-F	328	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00501-F	329	1	71.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00601-F	330	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00701-F	331	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00804-F	332	4	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00904	333	4	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01002-F	334	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01101-F	335	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01201-F	336	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01302-F	337	2	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01501-F	338	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01601-F	339	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01701-F	340	1	73.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01801-F	341	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01901-F	342	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02001-F	343	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02101-F	344	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02201-F	345	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02301-F	346	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02401-F	347	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02502-F	348	2	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F02601-F	349	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02701-F	350	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02801-F	351	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02901-F	352	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03001-F	353	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03101-F	354	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03201-F	355	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03301-F	356	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03401	357	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03501	358	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03601	359	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03701	360	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03801	361	1	68.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03901	362	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04001	363	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04102	364	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04201	365	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04301	366	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04401	367	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04501	368	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04601	369	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04701	370	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04801	371	1	65.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04901	372	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05001	373	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05101	374	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05201	375	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05301	376	1	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05401	377	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05501	378	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05601	379	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05801	380	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05901	381	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06001	382	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06102	383	1	66.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06201	384	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06301	385	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06401	386	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06501	387	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06601	388	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06701	389	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F06801	390	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06901	391	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07001	392	1	66.2	67.1	66	0.9	10	Snd Lvl	63.7	3.4	7	-3.6
F07103-F	393	1	69.5	66.9	66	-2.6	10	Snd Lvl	62.8	4.1	7	-2.9
F07201	394	1	69.0	66.1	66	-2.9	10	Snd Lvl	62.3	3.8	7	-3.2
F07301	395	1	68.2	65.7	66	-2.5	10	----	62.1	3.6	7	-3.4
F07401	396	1	68.1	65.7	66	-2.4	10	----	61.8	3.9	7	-3.1
F07501	397	1	68.1	66.0	66	-2.1	10	Snd Lvl	61.7	4.3	7	-2.7
F07602-F	398	2	68.8	66.5	66	-2.3	10	Snd Lvl	61.8	4.7	7	-2.3
F07701-F	399	1	68.7	66.6	66	-2.1	10	Snd Lvl	61.7	4.9	7	-2.1
F07801-F	400	1	68.8	66.7	66	-2.1	10	Snd Lvl	61.6	5.1	7	-1.9
F07904-F	401	1	68.3	67.0	66	-1.3	10	Snd Lvl	61.5	5.5	7	-1.5
F08001	402	1	67.5	66.1	66	-1.4	10	Snd Lvl	61.1	5.0	7	-2.0
F08101	403	1	67.5	66.3	66	-1.2	10	Snd Lvl	61.3	5.0	7	-2.0
F08201	404	1	67.8	67.1	66	-0.7	10	Snd Lvl	62.2	4.9	7	-2.1
F08301	405	1	68.8	68.1	66	-0.7	10	Snd Lvl	63.2	4.9	7	-2.1
F08401	406	1	69.5	68.9	66	-0.6	10	Snd Lvl	64.2	4.7	7	-2.3
F31501	407	1	69.1	68.5	66	-0.6	10	Snd Lvl	63.7	4.8	7	-2.2
F08501	408	1	69.8	69.3	66	-0.5	10	Snd Lvl	64.7	4.6	7	-2.4
F08601	409	1	70.2	69.6	66	-0.6	10	Snd Lvl	65.3	4.3	7	-2.7
F08702	410	1	66.0	66.9	66	0.9	10	Snd Lvl	61.1	5.8	7	-1.2
F08801	411	1	66.4	66.8	66	0.4	10	Snd Lvl	61.1	5.7	7	-1.3
F08901	412	1	66.6	66.1	66	-0.5	10	Snd Lvl	60.8	5.3	7	-1.7
F09001	413	1	66.4	64.6	66	-1.8	10	----	60.1	4.5	7	-2.5
F09102	414	2	64.3	62.8	66	-1.5	10	----	58.5	4.3	7	-2.7
F09201	415	1	63.0	61.2	66	-1.8	10	----	57.1	4.1	7	-2.9
F09301	416	1	63.2	61.3	66	-1.9	10	----	57.1	4.2	7	-2.8
F09401	417	1	62.6	61.0	66	-1.6	10	----	56.9	4.1	7	-2.9
F09501	418	1	64.5	62.5	66	-2.0	10	----	58.4	4.1	7	-2.9
F09601	419	1	65.5	64.0	66	-1.5	10	----	59.2	4.8	7	-2.2
F09701	420	1	66.5	64.7	66	-1.8	10	----	60.1	4.6	7	-2.4
F09804	421	1	65.6	63.8	66	-1.8	10	----	59.4	4.4	7	-2.6
F09901	422	1	64.8	63.0	66	-1.8	10	----	58.6	4.4	7	-2.6
F10001	424	2	64.5	63.1	66	-1.4	10	----	58.5	4.6	7	-2.4
F10101	425	1	64.7	63.6	66	-1.1	10	----	58.9	4.7	7	-2.3
F10202	426	1	64.6	63.7	66	-0.9	10	----	59.1	4.6	7	-2.4
F10301	427	1	64.3	63.2	66	-1.1	10	----	58.5	4.7	7	-2.3
F10402	428	1	62.4	61.8	66	-0.6	10	----	57.0	4.8	7	-2.2
F10512	429	12	65.8	65.0	66	-0.8	10	----	60.2	4.8	7	-2.2
F10601	430	1	65.8	66.0	66	0.2	10	Snd Lvl	60.6	5.4	7	-1.6
F10701	431	1	65.9	66.2	66	0.3	10	Snd Lvl	60.6	5.6	7	-1.4

F10801	432	1	65.9	66.4	66	0.5	10	Snd Lvl	60.9	5.5	7	-1.5
F10901	433	1	66.0	66.8	66	0.8	10	Snd Lvl	61.1	5.7	7	-1.3
F11001	434	1	63.2	65.2	66	2.0	10	----	61.2	4.0	7	-3.0
F11101	435	1	64.4	65.9	66	1.5	10	----	61.7	4.2	7	-2.8
F11202	436	1	63.2	64.9	66	1.7	10	----	60.8	4.1	7	-2.9
F11301	437	1	65.1	65.5	66	0.4	10	----	61.8	3.7	7	-3.3
F11401	438	1	64.1	64.7	66	0.6	10	----	60.5	4.2	7	-2.8
F11501	439	1	60.6	62.7	66	2.1	10	----	59.0	3.7	7	-3.3
F11602	440	1	62.5	63.7	66	1.2	10	----	59.4	4.3	7	-2.7
F11701	441	1	64.1	64.4	66	0.3	10	----	60.6	3.8	7	-3.2
F11801	442	1	63.1	63.3	66	0.2	10	----	58.6	4.7	7	-2.3
F11901	443	1	64.6	64.0	66	-0.6	10	----	59.4	4.6	7	-2.4
F12001	444	1	64.5	64.0	66	-0.5	10	----	59.1	4.9	7	-2.1
F12101	445	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12202	446	2	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12301	447	1	62.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12403	448	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12501	449	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12601	450	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12701	451	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12804	452	1	63.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12901	453	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13003	454	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13105	455	5	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13201	456	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13303	457	3	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13402	458	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13502	459	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13601	460	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13701	461	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31201	462	1	61.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13801	463	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13901	464	1	62.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14001	465	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14102	466	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14201	467	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14301	468	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14402	469	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14501	470	2	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14601	471	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14701	472	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F14801	473	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14901	474	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15001	475	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15101	476	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15201	477	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15301-F	478	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15401-FV	480	1	76.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15501	481	1	74.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15606	482	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15701	483	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15801	484	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15904	485	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16001	486	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16101	487	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16202	488	1	67.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16301	489	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16405	490	5	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16502	491	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16601	492	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16701	493	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16802	494	1	77.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16901-F	495	1	76.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17001-F	496	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17101	497	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17201	498	1	74.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17301	499	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17401	500	1	73.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17501	501	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17601	502	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17701	503	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17801	504	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17901	505	1	69.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18001	506	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18101	507	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18201	508	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18301	509	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18405	510	1	67.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18501	511	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18601	512	1	67.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18701	513	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31301	514	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F18801	515	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18901	516	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19001	517	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19101	518	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19201	519	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19301	520	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19401	521	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19501	522	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19601	523	1	71.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19701	524	1	71.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19801	525	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19901	526	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20001	527	1	73.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20101	528	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20201	529	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20301-F	530	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20402	531	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20501	532	2	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20601	533	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20701	534	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20802	535	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20904	536	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21001	537	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21106	538	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21205	539	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21301	540	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21401	541	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21501	542	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21601	543	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21701	544	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21804	545	4	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21902	547	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22001	548	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22101	549	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22201	550	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22302	551	2	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22408	552	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22501	553	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22601	554	1	71.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22701	555	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22801-F	556	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F22901-F	557	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23001	558	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23101	559	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23201	560	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23301	561	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23401	562	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23501	563	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23601	564	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23701	565	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23801	566	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23901	567	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24001	568	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24102	569	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24204	570	4	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24301	571	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24401	572	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24501	573	1	66.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24601	574	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24701	575	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24801	576	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24901	577	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25001	578	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25101	579	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25201	580	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25301	581	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25401	582	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25501	583	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25601	584	1	61.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25701	585	1	60.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25801-F	586	1	62.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25904-F	587	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26001-F	588	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26101	589	1	68.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26201	590	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26301	591	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26401	593	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26501	594	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26601	595	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26701	596	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26801	597	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26901	598	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F27001	599	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27101	600	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27201	601	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	602	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	603	1	63.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27401	604	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27503	605	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27602	606	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27702	607	2	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27801	608	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27901	609	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28001-F	610	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28101-F	611	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28201-F	612	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28301-F	613	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28401-F	614	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28501-F	615	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28601-F	616	1	72.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28701-F	617	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28801-F	618	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28901-F	619	1	73.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29001-F	620	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29101-F	621	1	75.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29201	622	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29301-F	623	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29401-F	624	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	626	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	627	1	69.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29601-F	628	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29701-F	629	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29801-F	630	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29901-F	631	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30001-F	632	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30101-F	633	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30201-F	634	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30301-F	635	1	72.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30401-F	636	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30501-F	637	1	73.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30601-F	638	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30701-F	639	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30801-F	640	1	73.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F30901-F	641	1	74.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31001-F	642	1	74.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31101	643	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		359	0.0	0.8	5.8
All Impacted		24	3.4	4.9	5.8
All that meet NR Goal		0	0.0	0.0	0.0

<Organization?>
<Analysis By?>
16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	325	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00201-F	326	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00301-F	327	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00401-F	328	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00501-F	329	1	71.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00601-F	330	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00701-F	331	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00804-F	332	4	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00904	333	4	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01002-F	334	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01101-F	335	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01201-F	336	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01302-F	337	2	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01501-F	338	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01601-F	339	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01701-F	340	1	73.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01801-F	341	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01901-F	342	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02001-F	343	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02101-F	344	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02201-F	345	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02301-F	346	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02401-F	347	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02502-F	348	2	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F02601-F	349	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02701-F	350	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02801-F	351	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02901-F	352	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03001-F	353	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03101-F	354	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03201-F	355	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03301-F	356	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03401	357	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03501	358	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03601	359	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03701	360	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03801	361	1	68.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03901	362	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04001	363	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04102	364	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04201	365	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04301	366	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04401	367	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04501	368	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04601	369	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04701	370	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04801	371	1	65.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04901	372	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05001	373	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05101	374	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05201	375	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05301	376	1	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05401	377	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05501	378	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05601	379	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05801	380	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05901	381	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06001	382	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06102	383	1	66.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06201	384	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06301	385	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06401	386	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06501	387	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06601	388	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06701	389	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F06801	390	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06901	391	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07001	392	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07103-F	393	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07201	394	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07301	395	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07401	396	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07501	397	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07602-F	398	2	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07701-F	399	1	68.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07801-F	400	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07904-F	401	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08001	402	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08101	403	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08201	404	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08301	405	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08401	406	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31501	407	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08501	408	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08601	409	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08702	410	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08801	411	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08901	412	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09001	413	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09102	414	2	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09201	415	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09301	416	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09401	417	1	62.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09501	418	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09601	419	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09701	420	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09804	421	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09901	422	1	64.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10001	424	2	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10101	425	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10202	426	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10301	427	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10402	428	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10512	429	12	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10601	430	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10701	431	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F10801	432	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10901	433	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11001	434	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11101	435	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11202	436	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11301	437	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11401	438	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11501	439	1	60.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11602	440	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11701	441	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11801	442	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11901	443	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12001	444	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12101	445	1	64.3	63.7	66	-0.6	10	----	59.0	4.7	7	-2.3
F12202	446	2	63.9	63.4	66	-0.5	10	----	58.8	4.6	7	-2.4
F12301	447	1	62.3	61.4	66	-0.9	10	----	56.6	4.8	7	-2.2
F12403	448	1	62.5	60.3	66	-2.2	10	----	55.7	4.6	7	-2.4
F12501	449	1	61.8	62.4	66	0.6	10	----	58.1	4.3	7	-2.7
F12601	450	1	62.5	62.7	66	0.2	10	----	58.7	4.0	7	-3.0
F12701	451	1	62.8	63.1	66	0.3	10	----	59.2	3.9	7	-3.1
F12804	452	1	63.6	63.8	66	0.2	10	----	60.4	3.4	7	-3.6
F12901	453	1	62.9	63.4	66	0.5	10	----	59.7	3.7	7	-3.3
F13003	454	1	64.3	65.1	66	0.8	10	----	61.3	3.8	7	-3.2
F13105	455	5	62.9	65.1	66	2.2	10	----	61.0	4.1	7	-2.9
F13201	456	1	64.7	64.9	66	0.2	10	----	60.2	4.7	7	-2.3
F13303	457	3	66.2	66.0	66	-0.2	10	Snd Lvl	61.6	4.4	7	-2.6
F13402	458	1	66.7	66.2	66	-0.5	10	Snd Lvl	61.9	4.3	7	-2.7
F13502	459	1	66.4	65.7	66	-0.7	10	----	61.9	3.8	7	-3.2
F13601	460	1	61.5	61.6	66	0.1	10	----	57.4	4.2	7	-2.8
F13701	461	1	61.8	61.6	66	-0.2	10	----	57.2	4.4	7	-2.6
F31201	462	1	61.7	61.6	66	-0.1	10	----	57.4	4.2	7	-2.8
F13801	463	1	61.9	61.5	66	-0.4	10	----	57.1	4.4	7	-2.6
F13901	464	1	62.2	61.5	66	-0.7	10	----	57.1	4.4	7	-2.6
F14001	465	1	62.5	61.6	66	-0.9	10	----	57.2	4.4	7	-2.6
F14102	466	1	62.5	61.7	66	-0.8	10	----	57.2	4.5	7	-2.5
F14201	467	1	61.6	61.4	66	-0.2	10	----	57.0	4.4	7	-2.6
F14301	468	1	62.0	61.7	66	-0.3	10	----	57.3	4.4	7	-2.6
F14402	469	1	62.4	62.1	66	-0.3	10	----	57.7	4.4	7	-2.6
F14501	470	2	62.8	62.4	66	-0.4	10	----	58.0	4.4	7	-2.6
F14601	471	1	62.9	62.4	66	-0.5	10	----	58.1	4.3	7	-2.7
F14701	472	1	63.1	62.5	66	-0.6	10	----	58.2	4.3	7	-2.7

F14801	473	1	63.2	62.8	66	-0.4	10	----	58.2	4.6	7	-2.4
F14901	474	1	63.3	62.9	66	-0.4	10	----	58.6	4.3	7	-2.7
F15001	475	1	63.7	63.3	66	-0.4	10	----	58.9	4.4	7	-2.6
F15101	476	1	64.3	63.7	66	-0.6	10	----	58.9	4.8	7	-2.2
F15201	477	1	64.4	64.0	66	-0.4	10	----	59.1	4.9	7	-2.1
F15301-F	478	1	65.5	64.6	66	-0.9	10	----	60.0	4.6	7	-2.4
F15401-FV	480	1	76.3	74.5	66	-1.8	10	Snd Lvl	71.9	2.6	7	-4.4
F15501	481	1	74.2	74.2	66	0.0	10	Snd Lvl	69.9	4.3	7	-2.7
F15606	482	1	72.0	72.2	66	0.2	10	Snd Lvl	67.5	4.7	7	-2.3
F15701	483	1	70.5	69.6	66	-0.9	10	Snd Lvl	65.8	3.8	7	-3.2
F15801	484	1	71.1	69.9	66	-1.2	10	Snd Lvl	66.9	3.0	7	-4.0
F15904	485	1	66.8	67.0	66	0.2	10	Snd Lvl	63.2	3.8	7	-3.2
F16001	486	1	67.9	68.2	66	0.3	10	Snd Lvl	64.1	4.1	7	-2.9
F16101	487	1	66.7	67.4	66	0.7	10	Snd Lvl	63.2	4.2	7	-2.8
F16202	488	1	67.2	67.7	66	0.5	10	Snd Lvl	64.0	3.7	7	-3.3
F16301	489	1	66.2	67.2	66	1.0	10	Snd Lvl	63.5	3.7	7	-3.3
F16405	490	5	65.8	66.3	66	0.5	10	Snd Lvl	63.1	3.2	7	-3.8
F16502	491	1	65.5	66.8	66	1.3	10	Snd Lvl	63.2	3.6	7	-3.4
F16601	492	1	74.4	74.5	66	0.1	10	Snd Lvl	69.6	4.9	7	-2.1
F16701	493	1	75.6	75.6	66	0.0	10	Snd Lvl	70.4	5.2	7	-1.8
F16802	494	1	77.0	74.6	66	-2.4	10	Snd Lvl	69.5	5.1	7	-1.9
F16901-F	495	1	76.5	73.2	66	-3.3	10	Snd Lvl	68.0	5.2	7	-1.8
F17001-F	496	1	75.3	73.4	66	-1.9	10	Snd Lvl	69.7	3.7	7	-3.3
F17101	497	1	75.3	73.2	66	-2.1	10	Snd Lvl	69.6	3.6	7	-3.4
F17201	498	1	74.6	73.0	66	-1.6	10	Snd Lvl	69.9	3.1	7	-3.9
F17301	499	1	73.6	72.8	66	-0.8	10	Snd Lvl	69.2	3.6	7	-3.4
F17401	500	1	73.5	73.5	66	0.0	10	Snd Lvl	69.4	4.1	7	-2.9
F17501	501	1	72.8	72.7	66	-0.1	10	Snd Lvl	68.7	4.0	7	-3.0
F17601	502	1	71.5	71.4	66	-0.1	10	Snd Lvl	67.1	4.3	7	-2.7
F17701	503	1	70.9	70.7	66	-0.2	10	Snd Lvl	66.5	4.2	7	-2.8
F17801	504	1	70.2	70.0	66	-0.2	10	Snd Lvl	66.0	4.0	7	-3.0
F17901	505	1	69.3	69.1	66	-0.2	10	Snd Lvl	65.1	4.0	7	-3.0
F18001	506	1	68.3	68.3	66	0.0	10	Snd Lvl	64.4	3.9	7	-3.1
F18101	507	1	68.3	68.2	66	-0.1	10	Snd Lvl	64.2	4.0	7	-3.0
F18201	508	1	67.9	67.8	66	-0.1	10	Snd Lvl	63.8	4.0	7	-3.0
F18301	509	1	67.4	67.2	66	-0.2	10	Snd Lvl	63.3	3.9	7	-3.1
F18405	510	1	67.3	66.7	66	-0.6	10	Snd Lvl	63.1	3.6	7	-3.4
F18501	511	1	66.7	66.0	66	-0.7	10	Snd Lvl	62.4	3.6	7	-3.4
F18601	512	1	67.0	66.2	66	-0.8	10	Snd Lvl	62.6	3.6	7	-3.4
F18701	513	1	67.4	66.9	66	-0.5	10	Snd Lvl	63.2	3.7	7	-3.3
F31301	514	1	67.1	66.6	66	-0.5	10	Snd Lvl	62.9	3.7	7	-3.3

F18801	515	1	67.8	67.2	66	-0.6	10	Snd Lvl	63.6	3.6	7	-3.4
F18901	516	1	68.1	67.5	66	-0.6	10	Snd Lvl	64.0	3.5	7	-3.5
F19001	517	1	68.3	67.7	66	-0.6	10	Snd Lvl	64.2	3.5	7	-3.5
F19101	518	1	68.6	67.9	66	-0.7	10	Snd Lvl	64.5	3.4	7	-3.6
F19201	519	1	69.0	68.2	66	-0.8	10	Snd Lvl	64.6	3.6	7	-3.4
F19301	520	1	69.6	68.6	66	-1.0	10	Snd Lvl	65.0	3.6	7	-3.4
F19401	521	1	70.4	69.3	66	-1.1	10	Snd Lvl	65.8	3.5	7	-3.5
F19501	522	1	71.0	69.8	66	-1.2	10	Snd Lvl	66.4	3.4	7	-3.6
F19601	523	1	71.3	69.8	66	-1.5	10	Snd Lvl	66.5	3.3	7	-3.7
F19701	524	1	71.8	70.0	66	-1.8	10	Snd Lvl	66.9	3.1	7	-3.9
F19801	525	1	72.1	70.3	66	-1.8	10	Snd Lvl	67.4	2.9	7	-4.1
F19901	526	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20001	527	1	73.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20101	528	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20201	529	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20301-F	530	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20402	531	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20501	532	2	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20601	533	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20701	534	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20802	535	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20904	536	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21001	537	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21106	538	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21205	539	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21301	540	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21401	541	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21501	542	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21601	543	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21701	544	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21804	545	4	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21902	547	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22001	548	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22101	549	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22201	550	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22302	551	2	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22408	552	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22501	553	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22601	554	1	71.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22701	555	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22801-F	556	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F22901-F	557	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23001	558	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23101	559	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23201	560	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23301	561	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23401	562	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23501	563	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23601	564	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23701	565	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23801	566	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23901	567	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24001	568	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24102	569	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24204	570	4	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24301	571	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24401	572	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24501	573	1	66.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24601	574	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24701	575	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24801	576	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24901	577	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25001	578	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25101	579	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25201	580	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25301	581	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25401	582	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25501	583	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25601	584	1	61.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25701	585	1	60.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25801-F	586	1	62.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25904-F	587	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26001-F	588	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26101	589	1	68.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26201	590	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26301	591	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26401	593	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26501	594	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26601	595	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26701	596	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26801	597	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26901	598	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F27001	599	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27101	600	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27201	601	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	602	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	603	1	63.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27401	604	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27503	605	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27602	606	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27702	607	2	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27801	608	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27901	609	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28001-F	610	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28101-F	611	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28201-F	612	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28301-F	613	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28401-F	614	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28501-F	615	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28601-F	616	1	72.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28701-F	617	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28801-F	618	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28901-F	619	1	73.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29001-F	620	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29101-F	621	1	75.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29201	622	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29301-F	623	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29401-F	624	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	626	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	627	1	69.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29601-F	628	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29701-F	629	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29801-F	630	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29901-F	631	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30001-F	632	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30101-F	633	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30201-F	634	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30301-F	635	1	72.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30401-F	636	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30501-F	637	1	73.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30601-F	638	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30701-F	639	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30801-F	640	1	73.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F30901-F	641	1	74.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31001-F	642	1	74.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31101	643	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		359	0.0	1.0	5.2
All Impacted		54	2.6	3.8	5.2
All that meet NR Goal		0	0.0	0.0	0.0

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15 ft
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	325	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00201-F	326	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00301-F	327	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00401-F	328	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00501-F	329	1	71.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00601-F	330	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00701-F	331	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00804-F	332	4	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00904	333	4	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01002-F	334	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01101-F	335	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01201-F	336	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01302-F	337	2	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01501-F	338	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01601-F	339	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01701-F	340	1	73.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01801-F	341	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01901-F	342	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02001-F	343	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02101-F	344	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02201-F	345	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02301-F	346	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02401-F	347	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02502-F	348	2	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F02601-F	349	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02701-F	350	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02801-F	351	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02901-F	352	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03001-F	353	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03101-F	354	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03201-F	355	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03301-F	356	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03401	357	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03501	358	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03601	359	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03701	360	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03801	361	1	68.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03901	362	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04001	363	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04102	364	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04201	365	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04301	366	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04401	367	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04501	368	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04601	369	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04701	370	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04801	371	1	65.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04901	372	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05001	373	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05101	374	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05201	375	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05301	376	1	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05401	377	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05501	378	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05601	379	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05801	380	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05901	381	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06001	382	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06102	383	1	66.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06201	384	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06301	385	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06401	386	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06501	387	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06601	388	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06701	389	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F06801	390	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06901	391	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07001	392	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07103-F	393	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07201	394	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07301	395	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07401	396	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07501	397	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07602-F	398	2	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07701-F	399	1	68.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07801-F	400	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07904-F	401	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08001	402	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08101	403	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08201	404	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08301	405	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08401	406	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31501	407	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08501	408	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08601	409	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08702	410	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08801	411	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08901	412	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09001	413	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09102	414	2	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09201	415	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09301	416	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09401	417	1	62.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09501	418	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09601	419	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09701	420	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09804	421	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09901	422	1	64.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10001	424	2	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10101	425	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10202	426	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10301	427	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10402	428	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10512	429	12	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10601	430	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10701	431	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F10801	432	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10901	433	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11001	434	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11101	435	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11202	436	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11301	437	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11401	438	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11501	439	1	60.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11602	440	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11701	441	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11801	442	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11901	443	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12001	444	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12101	445	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12202	446	2	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12301	447	1	62.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12403	448	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12501	449	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12601	450	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12701	451	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12804	452	1	63.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12901	453	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13003	454	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13105	455	5	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13201	456	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13303	457	3	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13402	458	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13502	459	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13601	460	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13701	461	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31201	462	1	61.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13801	463	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13901	464	1	62.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14001	465	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14102	466	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14201	467	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14301	468	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14402	469	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14501	470	2	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14601	471	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14701	472	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F14801	473	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14901	474	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15001	475	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15101	476	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15201	477	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15301-F	478	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15401-FV	480	1	76.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15501	481	1	74.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15606	482	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15701	483	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15801	484	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15904	485	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16001	486	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16101	487	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16202	488	1	67.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16301	489	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16405	490	5	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16502	491	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16601	492	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16701	493	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16802	494	1	77.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16901-F	495	1	76.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17001-F	496	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17101	497	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17201	498	1	74.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17301	499	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17401	500	1	73.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17501	501	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17601	502	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17701	503	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17801	504	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17901	505	1	69.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18001	506	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18101	507	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18201	508	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18301	509	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18405	510	1	67.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18501	511	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18601	512	1	67.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18701	513	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31301	514	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F18801	515	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18901	516	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19001	517	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19101	518	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19201	519	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19301	520	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19401	521	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19501	522	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19601	523	1	71.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19701	524	1	71.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19801	525	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19901	526	1	72.9	71.0	66	-1.9	10	Snd Lvl	68.1	2.9	7	-4.1
F20001	527	1	73.3	71.0	66	-2.3	10	Snd Lvl	68.4	2.6	7	-4.4
F20101	528	1	73.8	71.3	66	-2.5	10	Snd Lvl	69.9	1.4	7	-5.6
F20201	529	1	72.9	71.7	66	-1.2	10	Snd Lvl	68.9	2.8	7	-4.2
F20301-F	530	1	73.6	72.2	66	-1.4	10	Snd Lvl	69.7	2.5	7	-4.5
F20402	531	1	62.5	66.0	66	3.5	10	Snd Lvl	62.6	3.4	7	-3.6
F20501	532	2	62.4	65.9	66	3.5	10	----	62.5	3.4	7	-3.6
F20601	533	1	62.0	65.6	66	3.6	10	----	61.9	3.7	7	-3.3
F20701	534	1	62.0	65.7	66	3.7	10	----	62.1	3.6	7	-3.4
F20802	535	1	62.5	65.4	66	2.9	10	----	61.8	3.6	7	-3.4
F20904	536	1	61.8	65.0	66	3.2	10	----	61.4	3.6	7	-3.4
F21001	537	1	63.7	65.5	66	1.8	10	----	61.9	3.6	7	-3.4
F21106	538	1	65.8	65.6	66	-0.2	10	----	62.4	3.2	7	-3.8
F21205	539	1	65.5	65.9	66	0.4	10	----	62.4	3.5	7	-3.5
F21301	540	1	65.9	66.3	66	0.4	10	Snd Lvl	63.3	3.0	7	-4.0
F21401	541	1	65.8	66.3	66	0.5	10	Snd Lvl	63.2	3.1	7	-3.9
F21501	542	1	65.4	66.2	66	0.8	10	Snd Lvl	62.9	3.3	7	-3.7
F21601	543	1	65.1	66.1	66	1.0	10	Snd Lvl	62.7	3.4	7	-3.6
F21701	544	1	63.3	65.9	66	2.6	10	----	62.5	3.4	7	-3.6
F21804	545	4	69.8	65.1	66	-4.7	10	----	62.0	3.1	7	-3.9
F21902	547	1	67.7	67.4	66	-0.3	10	Snd Lvl	63.8	3.6	7	-3.4
F22001	548	1	67.9	67.5	66	-0.4	10	Snd Lvl	64.1	3.4	7	-3.6
F22101	549	1	68.2	67.7	66	-0.5	10	Snd Lvl	64.4	3.3	7	-3.7
F22201	550	1	68.3	67.7	66	-0.6	10	Snd Lvl	64.6	3.1	7	-3.9
F22302	551	2	69.1	68.6	66	-0.5	10	Snd Lvl	65.4	3.2	7	-3.8
F22408	552	1	69.9	69.7	66	-0.2	10	Snd Lvl	66.5	3.2	7	-3.8
F22501	553	1	70.9	70.8	66	-0.1	10	Snd Lvl	67.4	3.4	7	-3.6
F22601	554	1	71.9	72.0	66	0.1	10	Snd Lvl	68.7	3.3	7	-3.7
F22701	555	1	72.8	72.4	66	-0.4	10	Snd Lvl	69.2	3.2	7	-3.8
F22801-F	556	1	73.8	73.1	66	-0.7	10	Snd Lvl	70.2	2.9	7	-4.1

F22901-F	557	1	73.6	74.2	66	0.6	10	Snd Lvl	70.2	4.0	7	-3.0
F23001	558	1	72.1	71.9	66	-0.2	10	Snd Lvl	68.8	3.1	7	-3.9
F23101	559	1	70.8	71.3	66	0.5	10	Snd Lvl	65.1	6.2	7	-0.8
F23201	560	1	71.4	71.7	66	0.3	10	Snd Lvl	67.9	3.8	7	-3.2
F23301	561	1	70.9	71.1	66	0.2	10	Snd Lvl	67.4	3.7	7	-3.3
F23401	562	1	70.3	70.5	66	0.2	10	Snd Lvl	66.8	3.7	7	-3.3
F23501	563	1	70.0	70.2	66	0.2	10	Snd Lvl	66.6	3.6	7	-3.4
F23601	564	1	69.5	69.7	66	0.2	10	Snd Lvl	66.1	3.6	7	-3.4
F23701	565	1	69.2	69.5	66	0.3	10	Snd Lvl	65.9	3.6	7	-3.4
F23801	566	1	69.1	69.4	66	0.3	10	Snd Lvl	65.9	3.5	7	-3.5
F23901	567	1	68.6	68.9	66	0.3	10	Snd Lvl	65.5	3.4	7	-3.6
F24001	568	1	68.0	68.2	66	0.2	10	Snd Lvl	64.8	3.4	7	-3.6
F24102	569	2	67.8	67.2	66	-0.6	10	Snd Lvl	62.8	4.4	7	-2.6
F24204	570	4	66.5	66.7	66	0.2	10	Snd Lvl	63.6	3.1	7	-3.9
F24301	571	1	66.0	66.1	66	0.1	10	Snd Lvl	63.3	2.8	7	-4.2
F24401	572	1	66.0	66.1	66	0.1	10	Snd Lvl	63.4	2.7	7	-4.3
F24501	573	1	66.1	66.2	66	0.1	10	Snd Lvl	63.5	2.7	7	-4.3
F24601	574	1	66.3	66.3	66	0.0	10	Snd Lvl	63.7	2.6	7	-4.4
F24701	575	1	66.6	66.7	66	0.1	10	Snd Lvl	64.0	2.7	7	-4.3
F24801	576	1	66.6	66.8	66	0.2	10	Snd Lvl	64.2	2.6	7	-4.4
F24901	577	1	66.8	67.0	66	0.2	10	Snd Lvl	64.7	2.3	7	-4.7
F25001	578	1	67.1	67.3	66	0.2	10	Snd Lvl	65.0	2.3	7	-4.7
F25101	579	1	66.6	67.2	66	0.6	10	Snd Lvl	64.9	2.3	7	-4.7
F25201	580	1	67.1	68.4	66	1.3	10	Snd Lvl	66.8	1.6	7	-5.4
F25301	581	1	63.2	67.0	66	3.8	10	Snd Lvl	65.7	1.3	7	-5.7
F25401	582	1	62.8	67.2	66	4.4	10	Snd Lvl	65.9	1.3	7	-5.7
F25501	583	1	63.0	67.2	66	4.2	10	Snd Lvl	66.0	1.2	7	-5.8
F25601	584	1	61.4	67.2	66	5.8	10	Snd Lvl	66.0	1.2	7	-5.8
F25701	585	1	60.9	67.4	66	6.5	10	Snd Lvl	66.2	1.2	7	-5.8
F25801-F	586	1	62.1	68.0	66	5.9	10	Snd Lvl	66.7	1.3	7	-5.7
F25904-F	587	1	65.5	67.0	66	1.5	10	Snd Lvl	66.3	0.7	7	-6.3
F26001-F	588	1	72.8	73.3	66	0.5	10	Snd Lvl	62.5	10.8	7	3.8
F26101	589	1	68.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26201	590	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26301	591	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26401	593	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26501	594	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26601	595	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26701	596	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26801	597	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26901	598	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F27001	599	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27101	600	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27201	601	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	602	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	603	1	63.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27401	604	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27503	605	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27602	606	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27702	607	2	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27801	608	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27901	609	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28001-F	610	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28101-F	611	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28201-F	612	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28301-F	613	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28401-F	614	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28501-F	615	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28601-F	616	1	72.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28701-F	617	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28801-F	618	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28901-F	619	1	73.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29001-F	620	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29101-F	621	1	75.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29201	622	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29301-F	623	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29401-F	624	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	626	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	627	1	69.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29601-F	628	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29701-F	629	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29801-F	630	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29901-F	631	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30001-F	632	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30101-F	633	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30201-F	634	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30301-F	635	1	72.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30401-F	636	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30501-F	637	1	73.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30601-F	638	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30701-F	639	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30801-F	640	1	73.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F30901-F	641	1	74.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31001-F	642	1	74.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31101	643	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		359	0.0	0.6	10.8
All Impacted		57	0.7	3.0	10.8
All that meet NR Goal		1	10.8	10.8	10.8

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15 ft
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	325	1	71.7	66.2	66	-5.5	10	Snd Lvl	66.2	0.0	7	-7.0
F00201-F	326	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00301-F	327	1	71.7	66.9	66	-4.8	10	Snd Lvl	66.7	0.2	7	-6.8
F00401-F	328	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00501-F	329	1	71.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00601-F	330	1	71.1	67.5	66	-3.6	10	Snd Lvl	67.0	0.5	7	-6.5
F00701-F	331	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00804-F	332	4	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00904	333	4	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01002-F	334	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01101-F	335	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01201-F	336	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01302-F	337	2	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01501-F	338	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01601-F	339	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01701-F	340	1	73.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01801-F	341	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01901-F	342	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02001-F	343	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02101-F	344	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02201-F	345	1	68.6	68.2	66	-0.4	10	Snd Lvl	62.6	5.6	7	-1.4
F02301-F	346	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02401-F	347	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02502-F	348	2	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F02601-F	349	1	69.4	68.4	66	-1.0	10	Snd Lvl	62.5	5.9	7	-1.1
F02701-F	350	1	68.9	67.8	66	-1.1	10	Snd Lvl	62.2	5.6	7	-1.4
F02801-F	351	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02901-F	352	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03001-F	353	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03101-F	354	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03201-F	355	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03301-F	356	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03401	357	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03501	358	1	70.3	70.3	66	0.0	10	Snd Lvl	69.3	1.0	7	-6.0
F03601	359	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03701	360	1	69.2	69.8	66	0.6	10	Snd Lvl	68.8	1.0	7	-6.0
F03801	361	1	68.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03901	362	1	68.3	69.4	66	1.1	10	Snd Lvl	68.5	0.9	7	-6.1
F04001	363	1	68.2	69.4	66	1.2	10	Snd Lvl	68.5	0.9	7	-6.1
F04102	364	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04201	365	1	67.4	68.9	66	1.5	10	Snd Lvl	67.2	1.7	7	-5.3
F04301	366	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04401	367	1	65.1	66.7	66	1.6	10	Snd Lvl	65.2	1.5	7	-5.5
F04501	368	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04601	369	1	65.4	66.5	66	1.1	10	Snd Lvl	64.3	2.2	7	-4.8
F04701	370	1	65.4	66.5	66	1.1	10	Snd Lvl	63.6	2.9	7	-4.1
F04801	371	1	65.0	65.9	66	0.9	10	----	62.8	3.1	7	-3.9
F04901	372	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05001	373	1	65.8	67.3	66	1.5	10	Snd Lvl	61.2	6.1	7	-0.9
F05101	374	1	65.6	67.1	66	1.5	10	Snd Lvl	61.0	6.1	7	-0.9
F05201	375	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05301	376	1	63.9	63.7	66	-0.2	10	----	58.7	5.0	7	-2.0
F05401	377	1	64.2	64.0	66	-0.2	10	----	58.8	5.2	7	-1.8
F05501	378	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05601	379	1	67.5	66.0	66	-1.5	10	Snd Lvl	61.9	4.1	7	-2.9
F05801	380	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05901	381	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06001	382	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06102	383	1	66.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06201	384	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06301	385	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06401	386	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06501	387	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06601	388	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06701	389	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F06801	390	1	66.3	67.3	66	1.0	10	Snd Lvl	65.1	2.2	7	-4.8
F06901	391	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07001	392	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07103-F	393	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07201	394	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07301	395	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07401	396	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07501	397	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07602-F	398	2	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07701-F	399	1	68.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07801-F	400	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07904-F	401	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08001	402	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08101	403	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08201	404	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08301	405	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08401	406	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31501	407	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08501	408	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08601	409	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08702	410	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08801	411	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08901	412	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09001	413	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09102	414	2	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09201	415	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09301	416	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09401	417	1	62.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09501	418	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09601	419	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09701	420	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09804	421	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09901	422	1	64.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10001	424	2	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10101	425	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10202	426	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10301	427	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10402	428	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10512	429	12	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10601	430	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10701	431	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F10801	432	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10901	433	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11001	434	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11101	435	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11202	436	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11301	437	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11401	438	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11501	439	1	60.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11602	440	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11701	441	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11801	442	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11901	443	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12001	444	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12101	445	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12202	446	2	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12301	447	1	62.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12403	448	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12501	449	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12601	450	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12701	451	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12804	452	1	63.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12901	453	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13003	454	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13105	455	5	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13201	456	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13303	457	3	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13402	458	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13502	459	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13601	460	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13701	461	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31201	462	1	61.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13801	463	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13901	464	1	62.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14001	465	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14102	466	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14201	467	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14301	468	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14402	469	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14501	470	2	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14601	471	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14701	472	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F14801	473	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14901	474	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15001	475	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15101	476	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15201	477	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15301-F	478	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15401-FV	480	1	76.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15501	481	1	74.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15606	482	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15701	483	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15801	484	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15904	485	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16001	486	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16101	487	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16202	488	1	67.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16301	489	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16405	490	5	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16502	491	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16601	492	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16701	493	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16802	494	1	77.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16901-F	495	1	76.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17001-F	496	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17101	497	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17201	498	1	74.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17301	499	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17401	500	1	73.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17501	501	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17601	502	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17701	503	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17801	504	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17901	505	1	69.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18001	506	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18101	507	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18201	508	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18301	509	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18405	510	1	67.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18501	511	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18601	512	1	67.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18701	513	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31301	514	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F18801	515	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18901	516	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19001	517	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19101	518	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19201	519	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19301	520	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19401	521	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19501	522	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19601	523	1	71.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19701	524	1	71.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19801	525	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19901	526	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20001	527	1	73.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20101	528	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20201	529	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20301-F	530	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20402	531	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20501	532	2	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20601	533	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20701	534	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20802	535	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20904	536	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21001	537	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21106	538	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21205	539	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21301	540	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21401	541	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21501	542	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21601	543	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21701	544	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21804	545	4	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21902	547	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22001	548	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22101	549	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22201	550	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22302	551	2	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22408	552	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22501	553	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22601	554	1	71.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22701	555	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22801-F	556	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F22901-F	557	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23001	558	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23101	559	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23201	560	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23301	561	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23401	562	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23501	563	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23601	564	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23701	565	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23801	566	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23901	567	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24001	568	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24102	569	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24204	570	4	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24301	571	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24401	572	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24501	573	1	66.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24601	574	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24701	575	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24801	576	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24901	577	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25001	578	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25101	579	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25201	580	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25301	581	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25401	582	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25501	583	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25601	584	1	61.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25701	585	1	60.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25801-F	586	1	62.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25904-F	587	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26001-F	588	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26101	589	1	68.4	71.9	66	3.5	10	Snd Lvl	66.7	5.2	7	-1.8
F26201	590	1	70.7	71.0	66	0.3	10	Snd Lvl	64.7	6.3	7	-0.7
F26301	591	1	68.0	71.0	66	3.0	10	Snd Lvl	67.6	3.4	7	-3.6
F26401	593	1	66.8	69.8	66	3.0	10	Snd Lvl	66.1	3.7	7	-3.3
F26501	594	1	67.8	69.5	66	1.7	10	Snd Lvl	66.2	3.3	7	-3.7
F26601	595	1	66.5	67.3	66	0.8	10	Snd Lvl	63.8	3.5	7	-3.5
F26701	596	1	65.1	66.0	66	0.9	10	Snd Lvl	62.9	3.1	7	-3.9
F26801	597	1	62.4	62.9	66	0.5	10	----	59.6	3.3	7	-3.7
F26901	598	1	61.6	62.1	66	0.5	10	----	58.9	3.2	7	-3.8

F27001	599	1	61.9	62.6	66	0.7	10	----	59.6	3.0	7	-4.0
F27101	600	1	61.5	62.2	66	0.7	10	----	59.2	3.0	7	-4.0
F27201	601	1	61.9	63.0	66	1.1	10	----	60.0	3.0	7	-4.0
F27301	602	1	62.5	63.7	66	1.2	10	----	60.5	3.2	7	-3.8
F27301	603	1	63.8	66.3	66	2.5	10	Snd Lvl	63.3	3.0	7	-4.0
F27401	604	1	63.1	64.8	66	1.7	10	----	61.6	3.2	7	-3.8
F27503	605	1	64.2	62.5	66	-1.7	10	----	59.8	2.7	7	-4.3
F27602	606	1	66.0	63.9	66	-2.1	10	----	60.9	3.0	7	-4.0
F27702	607	2	66.2	68.2	66	2.0	10	Snd Lvl	64.5	3.7	7	-3.3
F27801	608	1	68.3	69.3	66	1.0	10	Snd Lvl	65.5	3.8	7	-3.2
F27901	609	1	69.0	69.8	66	0.8	10	Snd Lvl	66.0	3.8	7	-3.2
F28001-F	610	1	69.8	70.3	66	0.5	10	Snd Lvl	66.4	3.9	7	-3.1
F28101-F	611	1	70.1	70.7	66	0.6	10	Snd Lvl	66.8	3.9	7	-3.1
F28201-F	612	1	70.2	71.1	66	0.9	10	Snd Lvl	67.0	4.1	7	-2.9
F28301-F	613	1	71.1	71.8	66	0.7	10	Snd Lvl	67.4	4.4	7	-2.6
F28401-F	614	1	71.4	72.2	66	0.8	10	Snd Lvl	67.7	4.5	7	-2.5
F28501-F	615	1	72.1	72.7	66	0.6	10	Snd Lvl	67.9	4.8	7	-2.2
F28601-F	616	1	72.7	73.2	66	0.5	10	Snd Lvl	68.0	5.2	7	-1.8
F28701-F	617	1	72.9	73.7	66	0.8	10	Snd Lvl	67.9	5.8	7	-1.2
F28801-F	618	1	73.2	74.0	66	0.8	10	Snd Lvl	67.2	6.8	7	-0.2
F28901-F	619	1	73.9	74.7	66	0.8	10	Snd Lvl	67.0	7.7	7	0.7
F29001-F	620	1	74.4	75.2	66	0.8	10	Snd Lvl	67.5	7.7	7	0.7
F29101-F	621	1	75.2	75.9	66	0.7	10	Snd Lvl	68.7	7.2	7	0.2
F29201	622	1	68.9	69.5	66	0.6	10	Snd Lvl	65.5	4.0	7	-3.0
F29301-F	623	1	69.4	69.8	66	0.4	10	Snd Lvl	65.6	4.2	7	-2.8
F29401-F	624	1	69.6	69.8	66	0.2	10	Snd Lvl	65.5	4.3	7	-2.7
F29501-F	626	1	69.9	69.9	66	0.0	10	Snd Lvl	65.5	4.4	7	-2.6
F29501-F	627	1	69.7	69.8	66	0.1	10	Snd Lvl	65.4	4.4	7	-2.6
F29601-F	628	1	70.0	69.8	66	-0.2	10	Snd Lvl	65.2	4.6	7	-2.4
F29701-F	629	1	70.1	69.5	66	-0.6	10	Snd Lvl	64.9	4.6	7	-2.4
F29801-F	630	1	70.3	69.6	66	-0.7	10	Snd Lvl	65.0	4.6	7	-2.4
F29901-F	631	1	70.5	69.9	66	-0.6	10	Snd Lvl	65.2	4.7	7	-2.3
F30001-F	632	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30101-F	633	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30201-F	634	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30301-F	635	1	72.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30401-F	636	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30501-F	637	1	73.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30601-F	638	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30701-F	639	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30801-F	640	1	73.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F30901-F	641	1	74.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31001-F	642	1	74.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31101	643	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		359	0.0	0.8	7.7
All Impacted		51	0.0	3.9	7.7
All that meet NR Goal		3	7.2	7.5	7.7

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15 ft
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	325	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00201-F	326	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00301-F	327	1	71.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00401-F	328	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00501-F	329	1	71.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00601-F	330	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00701-F	331	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00804-F	332	4	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F00904	333	4	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01002-F	334	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01101-F	335	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01201-F	336	1	74.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01302-F	337	2	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01501-F	338	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01601-F	339	1	73.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01701-F	340	1	73.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01801-F	341	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F01901-F	342	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02001-F	343	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02101-F	344	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02201-F	345	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02301-F	346	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02401-F	347	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02502-F	348	2	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F02601-F	349	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02701-F	350	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02801-F	351	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F02901-F	352	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03001-F	353	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03101-F	354	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03201-F	355	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03301-F	356	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03401	357	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03501	358	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03601	359	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03701	360	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03801	361	1	68.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F03901	362	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04001	363	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04102	364	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04201	365	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04301	366	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04401	367	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04501	368	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04601	369	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04701	370	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04801	371	1	65.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F04901	372	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05001	373	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05101	374	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05201	375	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05301	376	1	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05401	377	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05501	378	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05601	379	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05801	380	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F05901	381	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06001	382	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06102	383	1	66.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06201	384	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06301	385	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06401	386	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06501	387	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06601	388	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06701	389	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F06801	390	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F06901	391	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07001	392	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07103-F	393	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07201	394	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07301	395	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07401	396	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07501	397	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07602-F	398	2	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07701-F	399	1	68.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07801-F	400	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F07904-F	401	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08001	402	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08101	403	1	67.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08201	404	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08301	405	1	68.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08401	406	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31501	407	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08501	408	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08601	409	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08702	410	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08801	411	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F08901	412	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09001	413	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09102	414	2	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09201	415	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09301	416	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09401	417	1	62.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09501	418	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09601	419	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09701	420	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09804	421	1	65.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F09901	422	1	64.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10001	424	2	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10101	425	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10202	426	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10301	427	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10402	428	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10512	429	12	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10601	430	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10701	431	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F10801	432	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F10901	433	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11001	434	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11101	435	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11202	436	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11301	437	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11401	438	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11501	439	1	60.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11602	440	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11701	441	1	64.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11801	442	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F11901	443	1	64.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12001	444	1	64.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12101	445	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12202	446	2	63.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12301	447	1	62.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12403	448	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12501	449	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12601	450	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12701	451	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12804	452	1	63.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F12901	453	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13003	454	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13105	455	5	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13201	456	1	64.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13303	457	3	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13402	458	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13502	459	1	66.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13601	460	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13701	461	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31201	462	1	61.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13801	463	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F13901	464	1	62.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14001	465	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14102	466	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14201	467	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14301	468	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14402	469	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14501	470	2	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14601	471	1	62.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14701	472	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F14801	473	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F14901	474	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15001	475	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15101	476	1	64.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15201	477	1	64.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15301-F	478	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15401-FV	480	1	76.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15501	481	1	74.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15606	482	1	72.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15701	483	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15801	484	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F15904	485	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16001	486	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16101	487	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16202	488	1	67.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16301	489	1	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16405	490	5	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16502	491	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16601	492	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16701	493	1	75.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16802	494	1	77.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F16901-F	495	1	76.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17001-F	496	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17101	497	1	75.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17201	498	1	74.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17301	499	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17401	500	1	73.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17501	501	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17601	502	1	71.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17701	503	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17801	504	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F17901	505	1	69.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18001	506	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18101	507	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18201	508	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18301	509	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18405	510	1	67.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18501	511	1	66.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18601	512	1	67.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18701	513	1	67.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F31301	514	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F18801	515	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F18901	516	1	68.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19001	517	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19101	518	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19201	519	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19301	520	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19401	521	1	70.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19501	522	1	71.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19601	523	1	71.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19701	524	1	71.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19801	525	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F19901	526	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20001	527	1	73.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20101	528	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20201	529	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20301-F	530	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20402	531	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20501	532	2	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20601	533	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20701	534	1	62.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20802	535	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F20904	536	1	61.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21001	537	1	63.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21106	538	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21205	539	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21301	540	1	65.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21401	541	1	65.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21501	542	1	65.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21601	543	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21701	544	1	63.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21804	545	4	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F21902	547	1	67.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22001	548	1	67.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22101	549	1	68.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22201	550	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22302	551	2	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22408	552	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22501	553	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22601	554	1	71.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22701	555	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F22801-F	556	1	73.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F22901-F	557	1	73.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23001	558	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23101	559	1	70.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23201	560	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23301	561	1	70.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23401	562	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23501	563	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23601	564	1	69.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23701	565	1	69.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23801	566	1	69.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F23901	567	1	68.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24001	568	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24102	569	2	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24204	570	4	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24301	571	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24401	572	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24501	573	1	66.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24601	574	1	66.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24701	575	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24801	576	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F24901	577	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25001	578	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25101	579	1	66.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25201	580	1	67.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25301	581	1	63.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25401	582	1	62.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25501	583	1	63.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25601	584	1	61.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25701	585	1	60.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25801-F	586	1	62.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F25904-F	587	1	65.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26001-F	588	1	72.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26101	589	1	68.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26201	590	1	70.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26301	591	1	68.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26401	593	1	66.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26501	594	1	67.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26601	595	1	66.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26701	596	1	65.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26801	597	1	62.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F26901	598	1	61.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0

F27001	599	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27101	600	1	61.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27201	601	1	61.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	602	1	62.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27301	603	1	63.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27401	604	1	63.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27503	605	1	64.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27602	606	1	66.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27702	607	2	66.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27801	608	1	68.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F27901	609	1	69.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28001-F	610	1	69.8	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28101-F	611	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28201-F	612	1	70.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28301-F	613	1	71.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28401-F	614	1	71.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28501-F	615	1	72.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28601-F	616	1	72.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28701-F	617	1	72.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28801-F	618	1	73.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F28901-F	619	1	73.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29001-F	620	1	74.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29101-F	621	1	75.2	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29201	622	1	68.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29301-F	623	1	69.4	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29401-F	624	1	69.6	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	626	1	69.9	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29501-F	627	1	69.7	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29601-F	628	1	70.0	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29701-F	629	1	70.1	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29801-F	630	1	70.3	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F29901-F	631	1	70.5	0.0	66	0.0	10	inactive	0.0	0.0	7	0.0
F30001-F	632	1	70.9	70.8	66	-0.1	10	Snd Lvl	65.9	4.9	7	-2.1
F30101-F	633	1	71.0	71.1	66	0.1	10	Snd Lvl	66.0	5.1	7	-1.9
F30201-F	634	1	72.0	72.2	66	0.2	10	Snd Lvl	66.1	6.1	7	-0.9
F30301-F	635	1	72.2	72.4	66	0.2	10	Snd Lvl	66.1	6.3	7	-0.7
F30401-F	636	1	72.8	73.1	66	0.3	10	Snd Lvl	64.9	8.2	7	1.2
F30501-F	637	1	73.0	73.4	66	0.4	10	Snd Lvl	62.7	10.7	7	3.7
F30601-F	638	1	73.2	73.6	66	0.4	10	Snd Lvl	60.1	13.5	7	6.5
F30701-F	639	1	73.4	73.9	66	0.5	10	Snd Lvl	60.2	13.7	7	6.7
F30801-F	640	1	73.7	74.3	66	0.6	10	Snd Lvl	60.2	14.1	7	7.1

F30901-F	641	1	74.1	74.6	66	0.5	10	Snd Lvl	61.4	13.2	7	6.2
F31001-F	642	1	74.9	75.6	66	0.7	10	Snd Lvl	61.2	14.4	7	7.4
F31101	643	1	62.0	66.7	66	4.7	10	Snd Lvl	65.5	1.2	7	-5.8

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	359	0.0	0.4	14.4
All Impacted	12	1.2	9.3	14.4
All that meet NR Goal	7	8.2	12.5	14.4

<Organization?> 16 May 2025
<Analysis By?> TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15+18ft

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
NSA F Bar 4	W	15.00	15.00	15.00	962	14429				0
NSA F Bar 3	W	15.00	15.00	15.00	2164	32458				0
NSA F Bar 2	W	18.00	18.00	18.00	400	7207				0
NSA F Bar 1	W	18.00	18.00	18.00	1033	18594				0
Crescent Ave Barrier - Constructed	W	17.50	20.27	22.50	1000	20275				0
									Total Cost:	0

<Organization?> 16 May 2025
<Analysis By?> TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: 15+18ft

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	$
NSA F Bar 4	W	point430	430	15.00	15.00	15.00	40	604				0
		point432	432	15.00	15.00	15.00	40	601				0
		point433	433	15.00	15.00	15.00	39	580				0
		point434	434	15.00	15.00	15.00	40	605				0
		point435	435	15.00	15.00	15.00	40	595				0
		point436	436	15.00	15.00	15.00	40	605				0
		point437	437	15.00	15.00	15.00	40	595				0
		point438	438	15.00	15.00	15.00	39	591				0
		point439	439	15.00	15.00	15.00	40	600				0
		point440	440	15.00	15.00	15.00	40	600				0
		point441	441	15.00	15.00	15.00	40	600				0
		point442	442	15.00	15.00	15.00	40	600				0
		point443	443	15.00	15.00	15.00	31	458				0
		point444	444	15.00	15.00	15.00	40	597				0
		point445	445	15.00	15.00	15.00	40	601				0
		point446	446	15.00	15.00	15.00	40	601				0
		point447	447	15.00	15.00	15.00	39	584				0
		point448	448	15.00	15.00	15.00	40	605				0
		point449	449	15.00	15.00	15.00	40	597				0
		point450	450	15.00	15.00	15.00	37	557				0
		point451	451	15.00	15.00	15.00	40	599				0
		point452	452	15.00	15.00	15.00	40	599				0
		point453	453	15.00	15.00	15.00	40	599				0
		point454	454	15.00	15.00	15.00	40	599				0
		point455	455	15.00	15.00	15.00	17	255				0

NSA F Bar 3	W	point345	345	15.00	15.00	15.00	38	563				0
		point347	347	15.00	15.00	15.00	40	604				0
		point348	348	15.00	15.00	15.00	40	594				0
		point349	349	15.00	15.00	15.00	40	604				0
		point350	350	15.00	15.00	15.00	40	604				0
		point351	351	15.00	15.00	15.00	40	597				0
		point352	352	15.00	15.00	15.00	40	600				0
		point353	353	15.00	15.00	15.00	40	597				0
		point354	354	15.00	15.00	15.00	40	604				0
		point355	355	15.00	15.00	15.00	40	597				0
		point356	356	15.00	15.00	15.00	40	600				0
		point357	357	15.00	15.00	15.00	40	597				0
		point358	358	15.00	15.00	15.00	40	604				0
		point359	359	15.00	15.00	15.00	40	597				0
		point360	360	15.00	15.00	15.00	38	577				0
		point361	361	15.00	15.00	15.00	43	641	Y			0
		point362	362	15.00	15.00	15.00	39	590	Y			0
		point363	363	15.00	15.00	15.00	39	591	Y			0
		point364	364	15.00	15.00	15.00	40	607				0
		point365	365	15.00	15.00	15.00	40	594				0
		point366	366	15.00	15.00	15.00	39	587				0
		point367	367	15.00	15.00	15.00	42	634				0
		point368	368	15.00	15.00	15.00	37	560				0
		point369	369	15.00	15.00	15.00	42	631				0
		point370	370	15.00	15.00	15.00	40	594				0
		point371	371	15.00	15.00	15.00	40	607				0
		point372	372	15.00	15.00	15.00	41	611				0
		point373	373	15.00	15.00	15.00	40	605	Y			0
		point374	374	15.00	15.00	15.00	39	591	Y			0
		point375	375	15.00	15.00	15.00	40	593	Y			0
		point376	376	15.00	15.00	15.00	40	598	Y			0
		point377	377	15.00	15.00	15.00	34	517	Y			0
		point378	378	15.00	15.00	15.00	38	572	Y			0
		point379	379	15.00	15.00	15.00	47	712	Y			0
		point380	380	15.00	15.00	15.00	34	508				0
		point381	381	15.00	15.00	15.00	43	643				0
		point382	382	15.00	15.00	15.00	40	593				0
		point383	383	15.00	15.00	15.00	46	691				0
		point384	384	15.00	15.00	15.00	39	584				0

		point385	385	15.00	15.00	15.00	35	522				0
		point386	386	15.00	15.00	15.00	41	613				0
		point387	387	15.00	15.00	15.00	42	635				0
		point388	388	15.00	15.00	15.00	41	618				0
		point389	389	15.00	15.00	15.00	40	606				0
		point390	390	15.00	15.00	15.00	40	596				0
		point391	391	15.00	15.00	15.00	40	603				0
		point392	392	15.00	15.00	15.00	39	591				0
		point393	393	15.00	15.00	15.00	41	609				0
		point394	394	15.00	15.00	15.00	40	596				0
		point395	395	15.00	15.00	15.00	40	603				0
		point396	396	15.00	15.00	15.00	40	600				0
		point397	397	15.00	15.00	15.00	40	601				0
		point398	398	15.00	15.00	15.00	40	601				0
		point399	399	15.00	15.00	15.00	40	594				0
		point400	400	15.00	15.00	15.00	5	75				0
NSA F Bar 2	W	point297	297	18.00	18.00	18.00	41	729	Y			0
		point299	299	18.00	18.00	18.00	42	761	Y			0
		point300	300	18.00	18.00	18.00	37	665				0
		point301	301	18.00	18.00	18.00	40	729				0
		point302	302	18.00	18.00	18.00	40	721				0
		point303	303	18.00	18.00	18.00	40	721				0
		point304	304	18.00	18.00	18.00	40	726				0
		point305	305	18.00	18.00	18.00	40	717				0
		point306	306	18.00	18.00	18.00	40	717				0
		point307	307	18.00	18.00	18.00	40	721				0
NSA F Bar 1	W	point147	147	18.00	18.00	18.00	39	708				0
		point149	149	18.00	18.00	18.00	41	737				0
		point150	150	18.00	18.00	18.00	40	721				0
		point151	151	18.00	18.00	18.00	40	717				0
		point152	152	18.00	18.00	18.00	40	721				0
		point153	153	18.00	18.00	18.00	40	726				0
		point154	154	18.00	18.00	18.00	40	714				0
		point155	155	18.00	18.00	18.00	40	722				0
		point156	156	18.00	18.00	18.00	40	722				0
		point157	157	18.00	18.00	18.00	40	714				0
		point158	158	18.00	18.00	18.00	40	719				0

		point159	159	18.00	18.00	18.00	40	726				0
		point160	160	18.00	18.00	18.00	40	717				0
		point161	161	18.00	18.00	18.00	36	647				0
		point162	162	18.00	18.00	18.00	41	746				0
		point163	163	18.00	18.00	18.00	43	777				0
		point164	164	18.00	18.00	18.00	39	704				0
		point165	165	18.00	18.00	18.00	40	727				0
		point166	166	18.00	18.00	18.00	42	753				0
		point167	167	18.00	18.00	18.00	38	681				0
		point168	168	18.00	18.00	18.00	40	718				0
		point169	169	18.00	18.00	18.00	39	710				0
		point170	170	18.00	18.00	18.00	41	736				0
		point171	171	18.00	18.00	18.00	39	701				0
		point172	172	18.00	18.00	18.00	41	738				0
		point173	173	18.00	18.00	18.00	33	595				0
Crescent Ave Barrier - Constructed	W	100+.0	1	20.50	20.50	20.50	20	410				0
		100+.20	3	20.50	20.50	20.50	20	410				0
		100+.40	4	20.50	20.50	20.50	20	410				0
		100+.60	5	20.50	20.50	20.50	20	410				0
		100+.80	6	20.50	21.00	21.50	20	420				0
		101+.0	7	21.50	21.50	21.50	20	430				0
		101+.20	8	21.50	21.50	21.50	20	430				0
		101+.40	9	21.50	21.50	21.50	20	430				0
		101+.60	10	21.50	22.00	22.50	20	440				0
		101+.80	11	22.50	22.50	22.50	20	450				0
		102+.0	12	22.50	22.00	21.50	20	440				0
		102+.20	13	21.50	21.50	21.50	20	430				0
		102+.40	14	21.50	21.50	21.50	20	430				0
		102+.60	15	21.50	21.50	21.50	20	430				0
		102+.80	16	21.50	21.00	20.50	20	420				0
		103+.0	17	20.50	21.00	21.50	20	420				0
		103+.20	18	21.50	21.50	21.50	20	430				0
		103+.40	19	21.50	21.50	21.50	20	430				0
		103+.60	20	21.50	21.50	21.50	20	428				0
		103+.80	21	21.50	21.50	21.50	20	430				0
		104+.0	22	21.50	21.50	21.50	20	439				0
		104+.20	23	21.50	21.00	20.50	20	418				0
		104+.40	24	20.50	20.50	20.50	20	408				0

		104+.60	25	20.50	20.50	20.50	20	408				0
		104+.80	26	20.50	20.00	19.50	20	398				0
		105+.0	47	19.50	20.00	20.50	20	398				0
		105+.20	48	20.50	20.50	20.50	20	418				0
		105+.40	49	20.50	20.50	20.50	20	408				0
		105+.60	50	20.50	20.00	19.50	20	398				0
		105+.80	27	19.50	19.50	19.50	20	388				0
		106+.0	28	19.50	19.50	19.50	20	388				0
		106+.20	29	19.50	19.50	19.50	20	388				0
		106+.40	30	19.50	19.50	19.50	20	398				0
		106+.60	31	19.50	19.50	19.50	20	388				0
		106+.80	32	19.50	19.50	19.50	20	388				0
		107+.0	33	19.50	19.50	19.50	20	388				0
		107+.20	34	19.50	19.50	19.50	20	388				0
		107+.40	35	19.50	19.00	18.50	20	388				0
		107+.60	51	18.50	18.50	18.50	20	370				0
		107+.80	36	18.50	18.00	17.50	20	358				0
		108+.0	37	17.50	17.50	17.50	20	348				0
		108+.20	38	17.50	18.00	18.50	20	358				0
		108+.40	39	18.50	18.50	18.50	20	368				0
		108+.60	40	18.50	19.00	19.50	20	388				0
		108+.80	41	19.50	19.50	19.50	20	388				0
		109+.0	42	19.50	19.50	19.50	20	388				0
		109+.20	43	19.50	20.00	20.50	20	398				0
		109+.40	44	20.50	20.00	19.50	20	398				0
		109+.60	45	19.50	19.50	19.50	20	398				0
		109+.80	46	19.50	19.50	19.50	20	388				0

<Organization?>
<Analysis By?>

16 May 2025
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: <Project Name?>
RUN: <Run Title?>
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
F00102-F	325	inactive	inactive	7	inactive					
F00201-F	326	66.0	0.2	7	-6.8	NSA F Bar 1	point166	166	18.0	54.9
						NSA F Bar 1	point168	168	18.0	54.6
						NSA F Bar 1	point167	167	18.0	54.4
						NSA F Bar 1	point165	165	18.0	53.3
						NSA F Bar 1	point169	169	18.0	52.5
						NSA F Bar 1	point170	170	18.0	48.4
						NSA F Bar 1	point164	164	18.0	48.3
						NSA F Bar 1	point171	171	18.0	47.5
						NSA F Bar 1	point172	172	18.0	45.6
						NSA F Bar 1	point163	163	18.0	45.4
F00301-F	327	inactive	inactive	7	inactive					
F00401-F	328	66.6	0.4	7	-6.6	NSA F Bar 1	point166	166	18.0	55.6
						NSA F Bar 1	point165	165	18.0	55.3
						NSA F Bar 1	point167	167	18.0	54.9
						NSA F Bar 1	point168	168	18.0	54.7
						NSA F Bar 1	point169	169	18.0	53.6
						NSA F Bar 1	point163	163	18.0	53.2
						NSA F Bar 1	point164	164	18.0	53.1
						NSA F Bar 1	point162	162	18.0	53.0
						NSA F Bar 1	point161	161	18.0	51.5

						NSA F Bar 1	point170	170	18.0	49.5
F00501-F	329	67.0	0.5	7	-6.5	NSA F Bar 1	point166	166	18.0	56.0
						NSA F Bar 1	point167	167	18.0	55.3
						NSA F Bar 1	point165	165	18.0	55.3
						NSA F Bar 1	point168	168	18.0	54.6
						NSA F Bar 1	point169	169	18.0	54.0
						NSA F Bar 1	point163	163	18.0	54.0
						NSA F Bar 1	point162	162	18.0	53.9
						NSA F Bar 1	point164	164	18.0	53.7
						NSA F Bar 1	point161	161	18.0	53.0
						NSA F Bar 1	point170	170	18.0	52.9
F00601-F	330	inactive	inactive	7	inactive					
F00701-F	331	67.6	1.1	7	-5.9	NSA F Bar 1	point166	166	18.0	55.9
						NSA F Bar 1	point170	170	18.0	55.7
						NSA F Bar 1	point165	165	18.0	55.5
						NSA F Bar 1	point167	167	18.0	55.2
						NSA F Bar 1	point162	162	18.0	55.2
						NSA F Bar 1	point163	163	18.0	54.9
						NSA F Bar 1	point169	169	18.0	54.9
						NSA F Bar 1	point168	168	18.0	54.8
						NSA F Bar 1	point161	161	18.0	54.7
						NSA F Bar 1	point164	164	18.0	54.4
F00804-F	332	67.3	4.3	7	-2.7	NSA F Bar 1	point166	166	18.0	59.1
						NSA F Bar 1	point165	165	18.0	58.9
						NSA F Bar 1	point163	163	18.0	57.3
						NSA F Bar 1	point164	164	18.0	57.2
						NSA F Bar 1	point162	162	18.0	56.8
						NSA F Bar 1	point167	167	18.0	56.4
						NSA F Bar 1	point161	161	18.0	55.2
						NSA F Bar 1	point168	168	18.0	53.8
						NSA F Bar 1	point170	170	18.0	53.0
						NSA F Bar 1	point169	169	18.0	52.9
F00904	333	67.8	1.6	7	-5.4	NSA F Bar 1	point166	166	18.0	56.7
						NSA F Bar 1	point165	165	18.0	56.5
						NSA F Bar 1	point163	163	18.0	55.9
						NSA F Bar 1	point162	162	18.0	55.7

						NSA F Bar 1	point164	164	18.0	55.5
						NSA F Bar 1	point167	167	18.0	55.5
						NSA F Bar 1	point161	161	18.0	55.0
						NSA F Bar 1	point160	160	18.0	54.8
						NSA F Bar 1	point168	168	18.0	54.6
						NSA F Bar 1	point159	159	18.0	54.3
F01002-F	334	65.6	11.9	7	4.9	NSA F Bar 1	point166	166	18.0	62.5
						NSA F Bar 1	point167	167	18.0	60.0
						NSA F Bar 1	point165	165	18.0	57.2
						NSA F Bar 1	point168	168	18.0	53.1
						NSA F Bar 1	point163	163	18.0	44.0
						NSA F Bar 1	point164	164	18.0	42.4
						NSA F Bar 1	point169	169	18.0	39.7
						NSA F Bar 4	point454	454	18.0	37.1
						NSA F Bar 4	point440	440	18.0	35.9
						NSA F Bar 4	point441	441	18.0	35.5
F01101-F	335	70.3	6.1	7	-0.9	NSA F Bar 1	point164	164	18.0	64.0
						NSA F Bar 1	point165	165	18.0	63.8
						NSA F Bar 1	point163	163	18.0	63.4
						NSA F Bar 1	point162	162	18.0	61.5
						NSA F Bar 1	point166	166	18.0	60.8
						NSA F Bar 1	point161	161	18.0	54.3
						NSA F Bar 1	point167	167	18.0	54.1
						NSA F Bar 1	point168	168	18.0	52.0
						NSA F Bar 1	point160	160	18.0	50.6
						NSA F Bar 1	point169	169	18.0	48.1
F01201-F	336	70.3	5.4	7	-1.6	NSA F Bar 1	point163	163	18.0	63.4
						NSA F Bar 1	point162	162	18.0	63.3
						NSA F Bar 1	point164	164	18.0	62.3
						NSA F Bar 1	point161	161	18.0	61.9
						NSA F Bar 1	point165	165	18.0	61.2
						NSA F Bar 1	point160	160	18.0	58.9
						NSA F Bar 1	point166	166	18.0	56.3
						NSA F Bar 1	point159	159	18.0	53.4
						NSA F Bar 1	point167	167	18.0	51.3
						NSA F Bar 1	point168	168	18.0	50.5

F01302-F	337	72.3	3.8	7	-3.2	NSA F Bar 1	point163	163	18.0	66.2
						NSA F Bar 1	point162	162	18.0	66.2
						NSA F Bar 1	point161	161	18.0	64.3
						NSA F Bar 1	point160	160	18.0	62.8
						NSA F Bar 1	point164	164	18.0	61.5
						NSA F Bar 1	point159	159	18.0	60.3
						NSA F Bar 1	point165	165	18.0	56.4
						NSA F Bar 1	point158	158	18.0	55.7
						NSA F Bar 1	point166	166	18.0	53.5
						NSA F Bar 1	point167	167	18.0	51.0
F01501-F	338	71.3	3.7	7	-3.3	NSA F Bar 1	point162	162	18.0	64.2
						NSA F Bar 1	point161	161	18.0	63.8
						NSA F Bar 1	point160	160	18.0	62.9
						NSA F Bar 1	point163	163	18.0	61.6
						NSA F Bar 1	point159	159	18.0	61.2
						NSA F Bar 1	point158	158	18.0	59.6
						NSA F Bar 1	point157	157	18.0	58.2
						NSA F Bar 1	point156	156	18.0	56.9
						NSA F Bar 1	point164	164	18.0	56.6
						NSA F Bar 1	point155	155	18.0	53.9
F01601-F	339	70.7	4.0	7	-3.0	NSA F Bar 1	point161	161	18.0	63.0
						NSA F Bar 1	point160	160	18.0	62.8
						NSA F Bar 1	point162	162	18.0	62.6
						NSA F Bar 1	point159	159	18.0	61.8
						NSA F Bar 1	point158	158	18.0	59.8
						NSA F Bar 1	point163	163	18.0	59.3
						NSA F Bar 1	point157	157	18.0	58.3
						NSA F Bar 1	point156	156	18.0	57.2
						NSA F Bar 1	point155	155	18.0	55.8
						NSA F Bar 1	point164	164	18.0	54.9
F01701-F	340	69.1	5.3	7	-1.7	NSA F Bar 1	point160	160	18.0	61.0
						NSA F Bar 1	point159	159	18.0	60.3
						NSA F Bar 1	point161	161	18.0	60.2
						NSA F Bar 1	point158	158	18.0	59.3
						NSA F Bar 1	point162	162	18.0	58.9
						NSA F Bar 1	point157	157	18.0	58.1

						NSA F Bar 1	point156	156	18.0	56.9
						NSA F Bar 1	point163	163	18.0	56.0
						NSA F Bar 1	point155	155	18.0	55.6
						NSA F Bar 1	point154	154	18.0	54.0
F01801-F	341	64.1	7.4	7	0.4	NSA F Bar 1	point159	159	18.0	53.8
						NSA F Bar 1	point158	158	18.0	53.6
						NSA F Bar 1	point160	160	18.0	53.3
						NSA F Bar 1	point157	157	18.0	52.9
						NSA F Bar 1	point156	156	18.0	52.4
						NSA F Bar 1	point161	161	18.0	52.3
						NSA F Bar 1	point162	162	18.0	51.8
						NSA F Bar 1	point155	155	18.0	51.7
						NSA F Bar 1	point154	154	18.0	51.0
						NSA F Bar 1	point163	163	18.0	50.1
F01901-F	342	64.1	7.3	7	0.3	NSA F Bar 1	point158	158	18.0	53.6
						NSA F Bar 1	point159	159	18.0	53.3
						NSA F Bar 1	point157	157	18.0	53.1
						NSA F Bar 1	point160	160	18.0	52.8
						NSA F Bar 1	point156	156	18.0	52.6
						NSA F Bar 1	point155	155	18.0	52.0
						NSA F Bar 1	point161	161	18.0	51.5
						NSA F Bar 1	point154	154	18.0	51.3
						NSA F Bar 1	point162	162	18.0	50.9
						NSA F Bar 1	point153	153	18.0	50.5
F02001-F	343	63.2	7.3	7	0.3	NSA F Bar 1	point157	157	18.0	52.3
						NSA F Bar 1	point158	158	18.0	52.2
						NSA F Bar 1	point156	156	18.0	51.9
						NSA F Bar 1	point159	159	18.0	51.7
						NSA F Bar 1	point155	155	18.0	51.4
						NSA F Bar 1	point160	160	18.0	51.2
						NSA F Bar 1	point154	154	18.0	50.6
						NSA F Bar 1	point153	153	18.0	50.0
						NSA F Bar 1	point161	161	18.0	49.7
						NSA F Bar 1	point162	162	18.0	49.1
F02101-F	344	61.6	6.5	7	-0.5	NSA F Bar 1	point156	156	18.0	50.7
						NSA F Bar 1	point155	155	18.0	50.5

						NSA F Bar 1	point157	157	18.0	50.2
						NSA F Bar 1	point154	154	18.0	50.1
						NSA F Bar 1	point158	158	18.0	49.5
						NSA F Bar 1	point153	153	18.0	49.3
						NSA F Bar 1	point159	159	18.0	48.8
						NSA F Bar 1	point152	152	18.0	48.3
						NSA F Bar 1	point160	160	18.0	47.9
						NSA F Bar 1	point151	151	18.0	47.1
F02201-F	345	inactive	inactive	7	inactive					
F02301-F	346	62.2	6.9	7	-0.1	NSA F Bar 1	point155	155	18.0	51.4
						NSA F Bar 1	point154	154	18.0	51.3
						NSA F Bar 1	point156	156	18.0	50.9
						NSA F Bar 1	point153	153	18.0	50.8
						NSA F Bar 1	point152	152	18.0	49.6
						NSA F Bar 1	point158	158	18.0	49.3
						NSA F Bar 1	point157	157	18.0	48.6
						NSA F Bar 1	point151	151	18.0	48.5
						NSA F Bar 1	point159	159	18.0	48.1
						NSA F Bar 1	point150	150	18.0	47.7
F02401-F	347	62.1	7.3	7	0.3	NSA F Bar 1	point154	154	18.0	51.2
						NSA F Bar 1	point155	155	18.0	51.1
						NSA F Bar 1	point153	153	18.0	51.1
						NSA F Bar 1	point156	156	18.0	50.3
						NSA F Bar 1	point152	152	18.0	50.0
						NSA F Bar 1	point157	157	18.0	49.5
						NSA F Bar 1	point151	151	18.0	49.1
						NSA F Bar 1	point158	158	18.0	48.7
						NSA F Bar 1	point150	150	18.0	47.9
						NSA F Bar 1	point159	159	18.0	47.5
F02502-F	348	62.4	7.6	7	0.6	NSA F Bar 1	point153	153	18.0	51.4
						NSA F Bar 1	point154	154	18.0	51.2
						NSA F Bar 1	point152	152	18.0	50.9
						NSA F Bar 1	point155	155	18.0	50.6
						NSA F Bar 1	point151	151	18.0	50.0
						NSA F Bar 1	point156	156	18.0	49.6
						NSA F Bar 1	point157	157	18.0	48.9

						NSA F Bar 1	point150	150	18.0	48.8
						NSA F Bar 1	point158	158	18.0	48.1
						NSA F Bar 1	point149	149	18.0	48.1
F02601-F	349	inactive	inactive	7	inactive					
F02701-F	350	inactive	inactive	7	inactive					
F02801-F	351	61.2	5.8	7	-1.2	NSA F Bar 1	point151	151	18.0	50.2
						NSA F Bar 1	point150	150	18.0	50.0
						NSA F Bar 1	point152	152	18.0	49.8
						NSA F Bar 1	point153	153	18.0	48.8
						NSA F Bar 1	point149	149	18.0	48.7
						NSA F Bar 1	point154	154	18.0	47.8
						NSA F Bar 1	point147	147	18.0	47.2
						NSA F Bar 1	point155	155	18.0	47.0
						NSA F Bar 1	point156	156	18.0	46.1
						NSA F Bar 1	point158	158	18.0	45.7
F02901-F	352	61.9	4.8	7	-2.2	NSA F Bar 1	point150	150	18.0	49.6
						NSA F Bar 1	point151	151	18.0	49.3
						NSA F Bar 1	point149	149	18.0	48.9
						NSA F Bar 1	point152	152	18.0	48.7
						NSA F Bar 1	point153	153	18.0	47.7
						NSA F Bar 1	point147	147	18.0	47.1
						NSA F Bar 1	point154	154	18.0	46.7
						NSA F Bar 1	point155	155	18.0	46.1
						NSA F Bar 3	point345	345	18.0	45.6
						NSA F Bar 3	point347	347	18.0	45.0
F03001-F	353	63.3	3.4	7	-3.6	NSA F Bar 1	point149	149	18.0	49.1
						NSA F Bar 1	point150	150	18.0	49.0
						NSA F Bar 1	point151	151	18.0	48.2
						NSA F Bar 1	point147	147	18.0	47.4
						NSA F Bar 1	point152	152	18.0	47.4
						NSA F Bar 1	point153	153	18.0	46.4
						NSA F Bar 3	point345	345	18.0	45.8
						NSA F Bar 1	point154	154	18.0	45.6
						NSA F Bar 3	point347	347	18.0	45.3
						NSA F Bar 1	point155	155	18.0	44.6
F03101-F	354	63.7	2.6	7	-4.4	NSA F Bar 1	point149	149	18.0	48.2

						NSA F Bar 1	point150	150	18.0	47.8
						NSA F Bar 1	point151	151	18.0	47.1
						NSA F Bar 1	point147	147	18.0	46.9
						NSA F Bar 1	point152	152	18.0	46.3
						NSA F Bar 3	point345	345	18.0	45.5
						NSA F Bar 1	point153	153	18.0	45.4
						NSA F Bar 1	point154	154	18.0	44.6
						NSA F Bar 3	point347	347	18.0	44.0
						NSA F Bar 1	point156	156	18.0	43.8
F03201-F	355	65.1	1.8	7	-5.2	NSA F Bar 3	point345	345	18.0	50.6
						NSA F Bar 1	point149	149	18.0	47.7
						NSA F Bar 1	point147	147	18.0	47.2
						NSA F Bar 1	point150	150	18.0	47.1
						NSA F Bar 1	point151	151	18.0	46.2
						NSA F Bar 1	point152	152	18.0	45.6
						NSA F Bar 1	point153	153	18.0	44.8
						NSA F Bar 1	point154	154	18.0	43.9
						NSA F Bar 1	point156	156	18.0	43.4
						NSA F Bar 1	point155	155	18.0	43.3
F03301-F	356	66.0	1.8	7	-5.2	NSA F Bar 1	point149	149	18.0	47.1
						NSA F Bar 1	point147	147	18.0	47.1
						NSA F Bar 1	point150	150	18.0	46.5
						NSA F Bar 1	point151	151	18.0	45.6
						NSA F Bar 3	point345	345	18.0	45.1
						NSA F Bar 1	point152	152	18.0	45.1
						NSA F Bar 1	point153	153	18.0	44.4
						NSA F Bar 1	point154	154	18.0	43.4
						NSA F Bar 1	point155	155	18.0	43.2
						NSA F Bar 1	point156	156	18.0	42.9
F03401	357	68.9	1.4	7	-5.6	NSA F Bar 1	point166	166	18.0	57.9
						NSA F Bar 1	point165	165	18.0	57.6
						NSA F Bar 1	point163	163	18.0	56.9
						NSA F Bar 1	point162	162	18.0	56.8
						NSA F Bar 1	point164	164	18.0	56.7
						NSA F Bar 1	point167	167	18.0	56.5
						NSA F Bar 1	point160	160	18.0	55.8

						NSA F Bar 1	point161	161	18.0	55.8
						NSA F Bar 1	point159	159	18.0	55.5
						NSA F Bar 1	point158	158	18.0	54.8
F03501	358	inactive	inactive	7	inactive					
F03601	359	68.8	1.3	7	-5.7	NSA F Bar 1	point165	165	18.0	57.6
						NSA F Bar 1	point166	166	18.0	57.1
						NSA F Bar 1	point164	164	18.0	56.9
						NSA F Bar 1	point163	163	18.0	56.4
						NSA F Bar 1	point162	162	18.0	56.2
						NSA F Bar 1	point161	161	18.0	55.9
						NSA F Bar 1	point160	160	18.0	55.9
						NSA F Bar 1	point159	159	18.0	55.8
						NSA F Bar 1	point158	158	18.0	55.3
						NSA F Bar 1	point157	157	18.0	54.9
F03701	360	inactive	inactive	7	inactive					
F03801	361	68.1	1.3	7	-5.7	NSA F Bar 1	point160	160	18.0	56.5
						NSA F Bar 1	point159	159	18.0	56.4
						NSA F Bar 1	point161	161	18.0	56.0
						NSA F Bar 1	point158	158	18.0	55.7
						NSA F Bar 1	point162	162	18.0	55.4
						NSA F Bar 1	point157	157	18.0	55.3
						NSA F Bar 1	point163	163	18.0	55.3
						NSA F Bar 1	point156	156	18.0	55.1
						NSA F Bar 1	point164	164	18.0	54.9
						NSA F Bar 1	point155	155	18.0	54.6
F03901	362	inactive	inactive	7	inactive					
F04001	363	inactive	inactive	7	inactive					
F04102	364	67.4	1.9	7	-5.1	NSA F Bar 1	point159	159	18.0	55.4
						NSA F Bar 1	point158	158	18.0	55.1
						NSA F Bar 1	point160	160	18.0	55.0
						NSA F Bar 1	point163	163	18.0	54.9
						NSA F Bar 1	point157	157	18.0	54.8
						NSA F Bar 1	point156	156	18.0	54.6
						NSA F Bar 1	point162	162	18.0	54.6
						NSA F Bar 1	point155	155	18.0	54.4
						NSA F Bar 1	point154	154	18.0	54.0

						NSA F Bar 1	point161	161	18.0	53.9
F04201	365	inactive	inactive	7	inactive					
F04301	366	66.9	2.4	7	-4.6	NSA F Bar 1	point165	165	18.0	58.3
						NSA F Bar 1	point166	166	18.0	56.1
						NSA F Bar 1	point162	162	18.0	54.3
						NSA F Bar 1	point163	163	18.0	54.1
						NSA F Bar 1	point164	164	18.0	53.9
						NSA F Bar 1	point161	161	18.0	53.5
						NSA F Bar 1	point159	159	18.0	53.4
						NSA F Bar 1	point160	160	18.0	53.2
						NSA F Bar 1	point153	153	18.0	53.1
						NSA F Bar 1	point155	155	18.0	53.0
F04401	367	inactive	inactive	7	inactive					
F04501	368	67.7	1.6	7	-5.4	NSA F Bar 1	point160	160	18.0	57.6
						NSA F Bar 1	point159	159	18.0	57.2
						NSA F Bar 1	point161	161	18.0	57.1
						NSA F Bar 1	point158	158	18.0	57.0
						NSA F Bar 1	point157	157	18.0	56.4
						NSA F Bar 1	point156	156	18.0	55.6
						NSA F Bar 1	point162	162	18.0	55.4
						NSA F Bar 1	point155	155	18.0	55.2
						NSA F Bar 1	point154	154	18.0	54.5
						NSA F Bar 1	point153	153	18.0	53.8
F04601	369	inactive	inactive	7	inactive					
F04701	370	inactive	inactive	7	inactive					
F04801	371	inactive	inactive	7	inactive					
F04901	372	61.3	6.3	7	-0.7	NSA F Bar 1	point153	153	18.0	49.2
						NSA F Bar 1	point152	152	18.0	49.1
						NSA F Bar 1	point151	151	18.0	48.9
						NSA F Bar 1	point150	150	18.0	48.6
						NSA F Bar 1	point149	149	18.0	48.1
						NSA F Bar 1	point147	147	18.0	46.2
						NSA F Bar 1	point157	157	18.0	45.6
						NSA F Bar 1	point156	156	18.0	45.5
						NSA F Bar 1	point158	158	18.0	45.4
						NSA F Bar 1	point154	154	18.0	44.8

F05001	373	inactive	inactive	7	inactive					
F05101	374	inactive	inactive	7	inactive					
F05201	375	60.7	6.8	7	-0.2	NSA F Bar 1	point150	150	18.0	44.8
						NSA F Bar 1	point151	151	18.0	44.8
						NSA F Bar 1	point149	149	18.0	44.4
						NSA F Bar 1	point152	152	18.0	43.5
						NSA F Bar 1	point147	147	18.0	43.3
						NSA F Bar 1	point153	153	18.0	42.6
						NSA F Bar 2	point301	301	18.0	42.4
						NSA F Bar 1	point154	154	18.0	42.2
						NSA F Bar 2	point300	300	18.0	42.1
						NSA F Bar 3	point345	345	18.0	42.0
F05301	376	inactive	inactive	7	inactive					
F05401	377	inactive	inactive	7	inactive					
F05501	378	58.5	5.6	7	-1.4	NSA F Bar 2	point304	304	18.0	43.3
						NSA F Bar 2	point302	302	18.0	42.7
						NSA F Bar 2	point303	303	18.0	42.3
						NSA F Bar 2	point305	305	18.0	42.2
						NSA F Bar 1	point149	149	18.0	42.1
						NSA F Bar 3	point350	350	18.0	41.9
						NSA F Bar 3	point351	351	18.0	41.8
						NSA F Bar 3	point352	352	18.0	41.7
						NSA F Bar 2	point306	306	18.0	41.7
						NSA F Bar 3	point353	353	18.0	41.5
F05601	379	inactive	inactive	7	inactive					
F05801	380	60.3	4.4	7	-2.6	NSA F Bar 1	point149	149	18.0	43.8
						NSA F Bar 1	point147	147	18.0	43.4
						NSA F Bar 1	point150	150	18.0	43.4
						NSA F Bar 1	point151	151	18.0	43.2
						NSA F Bar 1	point152	152	18.0	43.0
						NSA F Bar 1	point153	153	18.0	42.7
						NSA F Bar 3	point345	345	18.0	42.2
						NSA F Bar 1	point154	154	18.0	42.1
						NSA F Bar 1	point155	155	18.0	41.5
						NSA F Bar 2	point304	304	18.0	40.9
F05901	381	59.6	5.0	7	-2.0	NSA F Bar 1	point150	150	18.0	43.7

						NSA F Bar 1	point149	149	18.0	43.6
						NSA F Bar 1	point151	151	18.0	43.2
						NSA F Bar 1	point147	147	18.0	42.7
						NSA F Bar 1	point152	152	18.0	42.0
						NSA F Bar 3	point345	345	18.0	41.4
						NSA F Bar 2	point302	302	18.0	41.1
						NSA F Bar 2	point304	304	18.0	41.1
						NSA F Bar 2	point305	305	18.0	40.9
						NSA F Bar 2	point303	303	18.0	40.7
F06001	382	60.0	5.3	7	-1.7	NSA F Bar 1	point150	150	18.0	43.6
						NSA F Bar 1	point149	149	18.0	43.5
						NSA F Bar 1	point151	151	18.0	43.2
						NSA F Bar 2	point301	301	18.0	42.7
						NSA F Bar 1	point147	147	18.0	42.6
						NSA F Bar 3	point348	348	18.0	41.9
						NSA F Bar 2	point302	302	18.0	41.6
						NSA F Bar 1	point152	152	18.0	41.6
						NSA F Bar 3	point347	347	18.0	41.4
						NSA F Bar 2	point304	304	18.0	41.3
F06102	383	61.2	5.5	7	-1.5	NSA F Bar 1	point149	149	18.0	43.8
						NSA F Bar 1	point150	150	18.0	43.8
						NSA F Bar 1	point151	151	18.0	43.6
						NSA F Bar 2	point301	301	18.0	43.1
						NSA F Bar 1	point147	147	18.0	43.1
						NSA F Bar 1	point152	152	18.0	43.1
						NSA F Bar 2	point302	302	18.0	42.9
						NSA F Bar 1	point153	153	18.0	42.8
						NSA F Bar 2	point305	305	18.0	42.7
						NSA F Bar 2	point300	300	18.0	42.5
F06201	384	61.4	6.2	7	-0.8	NSA F Bar 1	point149	149	18.0	44.3
						NSA F Bar 1	point150	150	18.0	44.1
						NSA F Bar 1	point151	151	18.0	43.7
						NSA F Bar 1	point152	152	18.0	43.5
						NSA F Bar 1	point147	147	18.0	43.5
						NSA F Bar 1	point153	153	18.0	43.3
						NSA F Bar 2	point301	301	18.0	43.2

						NSA F Bar 2	point302	302	18.0	43.0
						NSA F Bar 1	point154	154	18.0	42.9
						NSA F Bar 2	point305	305	18.0	42.8
F06301	385	61.4	6.1	7	-0.9	NSA F Bar 1	point149	149	18.0	44.3
						NSA F Bar 1	point150	150	18.0	44.1
						NSA F Bar 1	point151	151	18.0	43.7
						NSA F Bar 1	point147	147	18.0	43.6
						NSA F Bar 1	point152	152	18.0	43.6
						NSA F Bar 2	point301	301	18.0	43.3
						NSA F Bar 2	point302	302	18.0	43.3
						NSA F Bar 1	point153	153	18.0	43.3
						NSA F Bar 2	point305	305	18.0	43.2
						NSA F Bar 1	point154	154	18.0	42.9
F06401	386	61.4	5.8	7	-1.2	NSA F Bar 1	point149	149	18.0	44.2
						NSA F Bar 1	point150	150	18.0	44.0
						NSA F Bar 1	point151	151	18.0	43.6
						NSA F Bar 2	point301	301	18.0	43.6
						NSA F Bar 2	point302	302	18.0	43.5
						NSA F Bar 1	point147	147	18.0	43.4
						NSA F Bar 1	point152	152	18.0	43.4
						NSA F Bar 2	point305	305	18.0	43.2
						NSA F Bar 1	point153	153	18.0	43.1
						NSA F Bar 3	point349	349	18.0	43.0
F06501	387	60.7	5.8	7	-1.2	NSA F Bar 1	point149	149	18.0	43.7
						NSA F Bar 1	point150	150	18.0	43.6
						NSA F Bar 2	point302	302	18.0	43.4
						NSA F Bar 2	point301	301	18.0	43.3
						NSA F Bar 1	point147	147	18.0	43.1
						NSA F Bar 1	point151	151	18.0	42.9
						NSA F Bar 3	point349	349	18.0	42.9
						NSA F Bar 1	point152	152	18.0	42.9
						NSA F Bar 3	point348	348	18.0	42.8
						NSA F Bar 1	point153	153	18.0	42.6
F06601	388	61.7	5.9	7	-1.1	NSA F Bar 1	point149	149	18.0	45.0
						NSA F Bar 1	point150	150	18.0	44.7
						NSA F Bar 1	point151	151	18.0	44.5

						NSA F Bar 1	point152	152	18.0	44.4
						NSA F Bar 1	point147	147	18.0	44.2
						NSA F Bar 1	point153	153	18.0	44.1
						NSA F Bar 2	point301	301	18.0	43.9
						NSA F Bar 2	point302	302	18.0	43.8
						NSA F Bar 1	point154	154	18.0	43.8
						NSA F Bar 1	point155	155	18.0	43.5
F06701	389	64.1	3.2	7	-3.8	NSA F Bar 1	point150	150	18.0	50.1
						NSA F Bar 1	point149	149	18.0	50.0
						NSA F Bar 1	point151	151	18.0	49.8
						NSA F Bar 1	point153	153	18.0	49.7
						NSA F Bar 1	point154	154	18.0	49.7
						NSA F Bar 1	point155	155	18.0	49.6
						NSA F Bar 1	point156	156	18.0	49.6
						NSA F Bar 1	point152	152	18.0	49.5
						NSA F Bar 1	point157	157	18.0	49.4
						NSA F Bar 1	point147	147	18.0	49.3
F06801	390	inactive	inactive	7	inactive					
F06901	391	63.8	3.4	7	-3.6	NSA F Bar 1	point150	150	18.0	49.8
						NSA F Bar 1	point149	149	18.0	49.7
						NSA F Bar 1	point153	153	18.0	49.3
						NSA F Bar 1	point151	151	18.0	49.3
						NSA F Bar 1	point152	152	18.0	49.2
						NSA F Bar 1	point155	155	18.0	49.1
						NSA F Bar 1	point147	147	18.0	49.0
						NSA F Bar 1	point154	154	18.0	49.0
						NSA F Bar 1	point156	156	18.0	48.8
						NSA F Bar 1	point159	159	18.0	48.4
F07001	392	inactive	inactive	7	inactive					
F07103-F	393	inactive	inactive	7	inactive					
F07201	394	inactive	inactive	7	inactive					
F07301	395	inactive	inactive	7	inactive					
F07401	396	inactive	inactive	7	inactive					
F07501	397	inactive	inactive	7	inactive					
F07602-F	398	inactive	inactive	7	inactive					
F07701-F	399	inactive	inactive	7	inactive					

F07801-F	400	inactive	inactive	7	inactive					
F07904-F	401	inactive	inactive	7	inactive					
F08001	402	inactive	inactive	7	inactive					
F08101	403	inactive	inactive	7	inactive					
F08201	404	inactive	inactive	7	inactive					
F08301	405	inactive	inactive	7	inactive					
F08401	406	inactive	inactive	7	inactive					
F31501	407	inactive	inactive	7	inactive					
F08501	408	inactive	inactive	7	inactive					
F08601	409	inactive	inactive	7	inactive					
F08702	410	inactive	inactive	7	inactive					
F08801	411	inactive	inactive	7	inactive					
F08901	412	inactive	inactive	7	inactive					
F09001	413	inactive	inactive	7	inactive					
F09102	414	inactive	inactive	7	inactive					
F09201	415	inactive	inactive	7	inactive					
F09301	416	inactive	inactive	7	inactive					
F09401	417	inactive	inactive	7	inactive					
F09501	418	inactive	inactive	7	inactive					
F09601	419	inactive	inactive	7	inactive					
F09701	420	inactive	inactive	7	inactive					
F09804	421	inactive	inactive	7	inactive					
F09901	422	inactive	inactive	7	inactive					
F10001	424	inactive	inactive	7	inactive					
F10101	425	inactive	inactive	7	inactive					
F10202	426	inactive	inactive	7	inactive					
F10301	427	inactive	inactive	7	inactive					
F10402	428	inactive	inactive	7	inactive					
F10512	429	inactive	inactive	7	inactive					
F10601	430	inactive	inactive	7	inactive					
F10701	431	inactive	inactive	7	inactive					
F10801	432	inactive	inactive	7	inactive					
F10901	433	inactive	inactive	7	inactive					
F11001	434	inactive	inactive	7	inactive					
F11101	435	inactive	inactive	7	inactive					
F11202	436	inactive	inactive	7	inactive					

F11301	437	inactive	inactive	7	inactive					
F11401	438	inactive	inactive	7	inactive					
F11501	439	inactive	inactive	7	inactive					
F11602	440	inactive	inactive	7	inactive					
F11701	441	inactive	inactive	7	inactive					
F11801	442	inactive	inactive	7	inactive					
F11901	443	inactive	inactive	7	inactive					
F12001	444	inactive	inactive	7	inactive					
F12101	445	inactive	inactive	7	inactive					
F12202	446	inactive	inactive	7	inactive					
F12301	447	inactive	inactive	7	inactive					
F12403	448	inactive	inactive	7	inactive					
F12501	449	inactive	inactive	7	inactive					
F12601	450	inactive	inactive	7	inactive					
F12701	451	inactive	inactive	7	inactive					
F12804	452	inactive	inactive	7	inactive					
F12901	453	inactive	inactive	7	inactive					
F13003	454	inactive	inactive	7	inactive					
F13105	455	inactive	inactive	7	inactive					
F13201	456	inactive	inactive	7	inactive					
F13303	457	inactive	inactive	7	inactive					
F13402	458	inactive	inactive	7	inactive					
F13502	459	inactive	inactive	7	inactive					
F13601	460	inactive	inactive	7	inactive					
F13701	461	inactive	inactive	7	inactive					
F31201	462	inactive	inactive	7	inactive					
F13801	463	inactive	inactive	7	inactive					
F13901	464	inactive	inactive	7	inactive					
F14001	465	inactive	inactive	7	inactive					
F14102	466	inactive	inactive	7	inactive					
F14201	467	inactive	inactive	7	inactive					
F14301	468	inactive	inactive	7	inactive					
F14402	469	inactive	inactive	7	inactive					
F14501	470	inactive	inactive	7	inactive					
F14601	471	inactive	inactive	7	inactive					
F14701	472	inactive	inactive	7	inactive					

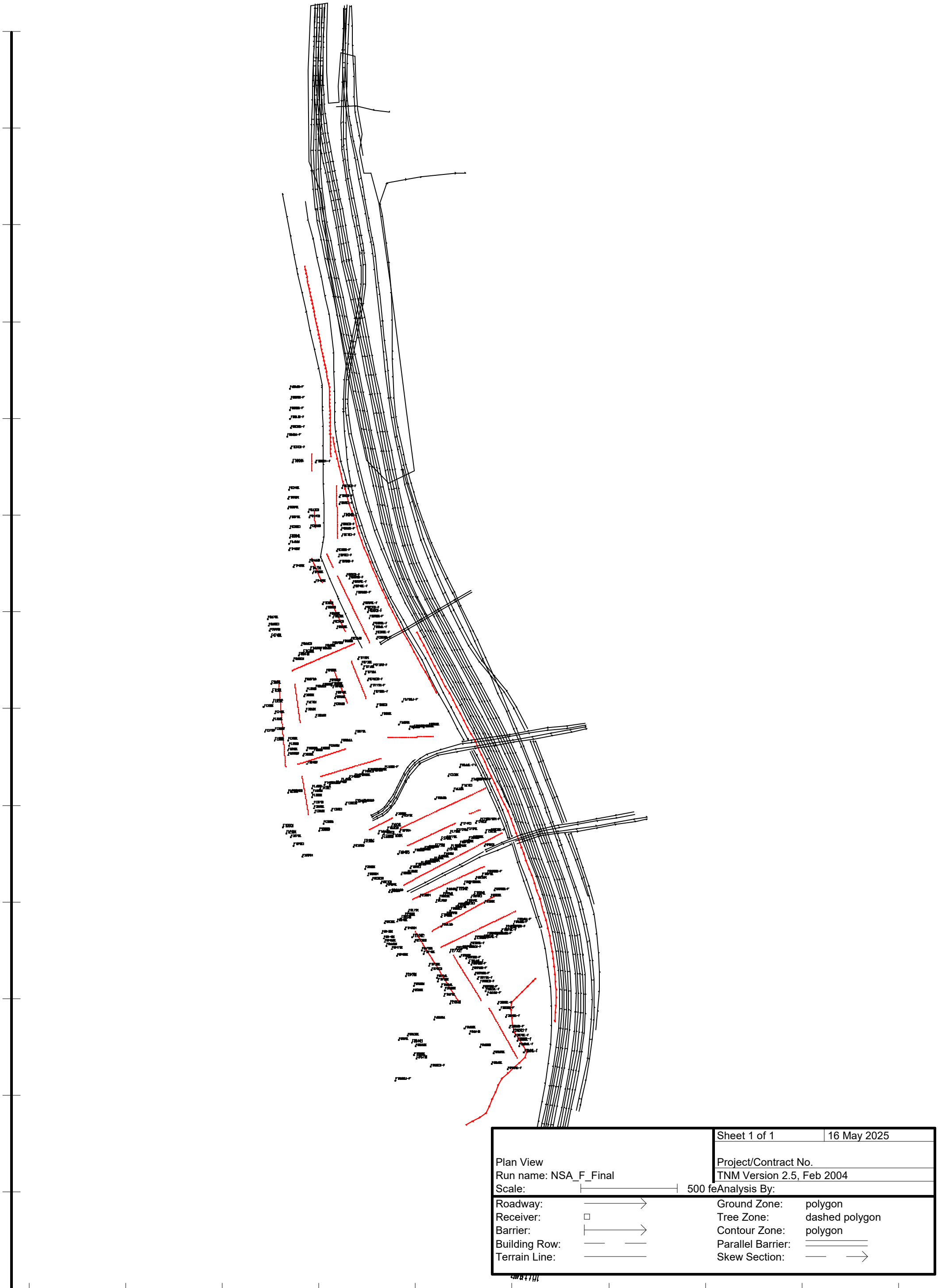
F14801	473	inactive	inactive	7	inactive					
F14901	474	inactive	inactive	7	inactive					
F15001	475	inactive	inactive	7	inactive					
F15101	476	inactive	inactive	7	inactive					
F15201	477	inactive	inactive	7	inactive					
F15301-F	478	inactive	inactive	7	inactive					
F15401-FV	480	inactive	inactive	7	inactive					
F15501	481	inactive	inactive	7	inactive					
F15606	482	inactive	inactive	7	inactive					
F15701	483	inactive	inactive	7	inactive					
F15801	484	inactive	inactive	7	inactive					
F15904	485	inactive	inactive	7	inactive					
F16001	486	inactive	inactive	7	inactive					
F16101	487	inactive	inactive	7	inactive					
F16202	488	inactive	inactive	7	inactive					
F16301	489	inactive	inactive	7	inactive					
F16405	490	inactive	inactive	7	inactive					
F16502	491	inactive	inactive	7	inactive					
F16601	492	inactive	inactive	7	inactive					
F16701	493	inactive	inactive	7	inactive					
F16802	494	inactive	inactive	7	inactive					
F16901-F	495	inactive	inactive	7	inactive					
F17001-F	496	inactive	inactive	7	inactive					
F17101	497	inactive	inactive	7	inactive					
F17201	498	inactive	inactive	7	inactive					
F17301	499	inactive	inactive	7	inactive					
F17401	500	inactive	inactive	7	inactive					
F17501	501	inactive	inactive	7	inactive					
F17601	502	inactive	inactive	7	inactive					
F17701	503	inactive	inactive	7	inactive					
F17801	504	inactive	inactive	7	inactive					
F17901	505	inactive	inactive	7	inactive					
F18001	506	inactive	inactive	7	inactive					
F18101	507	inactive	inactive	7	inactive					
F18201	508	inactive	inactive	7	inactive					
F18301	509	inactive	inactive	7	inactive					

F18405	510	inactive	inactive	7	inactive					
F18501	511	inactive	inactive	7	inactive					
F18601	512	inactive	inactive	7	inactive					
F18701	513	inactive	inactive	7	inactive					
F31301	514	inactive	inactive	7	inactive					
F18801	515	inactive	inactive	7	inactive					
F18901	516	inactive	inactive	7	inactive					
F19001	517	inactive	inactive	7	inactive					
F19101	518	inactive	inactive	7	inactive					
F19201	519	inactive	inactive	7	inactive					
F19301	520	inactive	inactive	7	inactive					
F19401	521	inactive	inactive	7	inactive					
F19501	522	inactive	inactive	7	inactive					
F19601	523	inactive	inactive	7	inactive					
F19701	524	inactive	inactive	7	inactive					
F19801	525	inactive	inactive	7	inactive					
F19901	526	inactive	inactive	7	inactive					
F20001	527	inactive	inactive	7	inactive					
F20101	528	inactive	inactive	7	inactive					
F20201	529	inactive	inactive	7	inactive					
F20301-F	530	inactive	inactive	7	inactive					
F20402	531	inactive	inactive	7	inactive					
F20501	532	inactive	inactive	7	inactive					
F20601	533	inactive	inactive	7	inactive					
F20701	534	inactive	inactive	7	inactive					
F20802	535	inactive	inactive	7	inactive					
F20904	536	inactive	inactive	7	inactive					
F21001	537	inactive	inactive	7	inactive					
F21106	538	inactive	inactive	7	inactive					
F21205	539	inactive	inactive	7	inactive					
F21301	540	inactive	inactive	7	inactive					
F21401	541	inactive	inactive	7	inactive					
F21501	542	inactive	inactive	7	inactive					
F21601	543	inactive	inactive	7	inactive					
F21701	544	inactive	inactive	7	inactive					
F21804	545	inactive	inactive	7	inactive					

F21902	547	inactive	inactive	7	inactive					
F22001	548	inactive	inactive	7	inactive					
F22101	549	inactive	inactive	7	inactive					
F22201	550	inactive	inactive	7	inactive					
F22302	551	inactive	inactive	7	inactive					
F22408	552	inactive	inactive	7	inactive					
F22501	553	inactive	inactive	7	inactive					
F22601	554	inactive	inactive	7	inactive					
F22701	555	inactive	inactive	7	inactive					
F22801-F	556	inactive	inactive	7	inactive					
F22901-F	557	inactive	inactive	7	inactive					
F23001	558	inactive	inactive	7	inactive					
F23101	559	inactive	inactive	7	inactive					
F23201	560	inactive	inactive	7	inactive					
F23301	561	inactive	inactive	7	inactive					
F23401	562	inactive	inactive	7	inactive					
F23501	563	inactive	inactive	7	inactive					
F23601	564	inactive	inactive	7	inactive					
F23701	565	inactive	inactive	7	inactive					
F23801	566	inactive	inactive	7	inactive					
F23901	567	inactive	inactive	7	inactive					
F24001	568	inactive	inactive	7	inactive					
F24102	569	inactive	inactive	7	inactive					
F24204	570	inactive	inactive	7	inactive					
F24301	571	inactive	inactive	7	inactive					
F24401	572	inactive	inactive	7	inactive					
F24501	573	inactive	inactive	7	inactive					
F24601	574	inactive	inactive	7	inactive					
F24701	575	inactive	inactive	7	inactive					
F24801	576	inactive	inactive	7	inactive					
F24901	577	inactive	inactive	7	inactive					
F25001	578	inactive	inactive	7	inactive					
F25101	579	inactive	inactive	7	inactive					
F25201	580	inactive	inactive	7	inactive					
F25301	581	inactive	inactive	7	inactive					
F25401	582	inactive	inactive	7	inactive					

F25501	583	inactive	inactive	7	inactive					
F25601	584	inactive	inactive	7	inactive					
F25701	585	inactive	inactive	7	inactive					
F25801-F	586	inactive	inactive	7	inactive					
F25904-F	587	inactive	inactive	7	inactive					
F26001-F	588	inactive	inactive	7	inactive					
F26101	589	inactive	inactive	7	inactive					
F26201	590	inactive	inactive	7	inactive					
F26301	591	inactive	inactive	7	inactive					
F26401	593	inactive	inactive	7	inactive					
F26501	594	inactive	inactive	7	inactive					
F26601	595	inactive	inactive	7	inactive					
F26701	596	inactive	inactive	7	inactive					
F26801	597	inactive	inactive	7	inactive					
F26901	598	inactive	inactive	7	inactive					
F27001	599	inactive	inactive	7	inactive					
F27101	600	inactive	inactive	7	inactive					
F27201	601	inactive	inactive	7	inactive					
F27301	602	inactive	inactive	7	inactive					
F27301	603	inactive	inactive	7	inactive					
F27401	604	inactive	inactive	7	inactive					
F27503	605	inactive	inactive	7	inactive					
F27602	606	inactive	inactive	7	inactive					
F27702	607	inactive	inactive	7	inactive					
F27801	608	inactive	inactive	7	inactive					
F27901	609	inactive	inactive	7	inactive					
F28001-F	610	inactive	inactive	7	inactive					
F28101-F	611	inactive	inactive	7	inactive					
F28201-F	612	inactive	inactive	7	inactive					
F28301-F	613	inactive	inactive	7	inactive					
F28401-F	614	inactive	inactive	7	inactive					
F28501-F	615	inactive	inactive	7	inactive					
F28601-F	616	inactive	inactive	7	inactive					
F28701-F	617	inactive	inactive	7	inactive					
F28801-F	618	inactive	inactive	7	inactive					
F28901-F	619	inactive	inactive	7	inactive					

F29001-F	620	inactive	inactive	7	inactive					
F29101-F	621	inactive	inactive	7	inactive					
F29201	622	inactive	inactive	7	inactive					
F29301-F	623	inactive	inactive	7	inactive					
F29401-F	624	inactive	inactive	7	inactive					
F29501-F	626	inactive	inactive	7	inactive					
F29501-F	627	inactive	inactive	7	inactive					
F29601-F	628	inactive	inactive	7	inactive					
F29701-F	629	inactive	inactive	7	inactive					
F29801-F	630	inactive	inactive	7	inactive					
F29901-F	631	inactive	inactive	7	inactive					
F30001-F	632	inactive	inactive	7	inactive					
F30101-F	633	inactive	inactive	7	inactive					
F30201-F	634	inactive	inactive	7	inactive					
F30301-F	635	inactive	inactive	7	inactive					
F30401-F	636	inactive	inactive	7	inactive					
F30501-F	637	inactive	inactive	7	inactive					
F30601-F	638	inactive	inactive	7	inactive					
F30701-F	639	inactive	inactive	7	inactive					
F30801-F	640	inactive	inactive	7	inactive					
F30901-F	641	inactive	inactive	7	inactive					
F31001-F	642	inactive	inactive	7	inactive					
F31101	643	inactive	inactive	7	inactive					
Total Cost, All Barriers (including additional cost(s))					$0					


Sheet 1 of 1
16 May 2025
Plan View
Project/Contract No.
Run name: NSA_F_Final
TNM Version 2.5, Feb 2004
Scale:
500 feAnalysis By:
Roadway:
Receiver:
Barrier:
Building Row:
Terrain Line:
Ground Zone: polygon
Tree Zone: dashed polygon
Contour Zone: polygon
Parallel Barrier:
Skew Section:
000
5268500
5269000
5269500
5270000
5270500
5271000
5271500
5272000
5272500

Appendix J: Traffic Noise Impact Analysis – Kentucky Southern Section

Reevaluation of Traffic Noise Impacts

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Kenton County
KYTC Item No. 6-17.00
May 2025

BRENT SPENCE BRIDGE CORRIDOR

TEAM KENTUCKY TRANSPORTATION CABINET

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA





Palmer ENGINEERING

EXECUTIVE SUMMARY

This report has been prepared to support the re-evaluation of the 2024 Supplemental Environmental Assessment and Finding of No Significant Impact (2024 SEA/FONSI) for the Brent Spence Bridge (BSB) Corridor Project (KYTC Item No. 6-17.00 and ODOT PID 116649). Highway traffic noise and construction noise were evaluated in 2023 for the 2024 SEA/FONSI in accordance with the requirements of 23 CFR 772 and the Kentucky Transportation Cabinet's *Noise Analysis and Abatement Policy*, *July 2022* (KYTC Noise Policy). The work conducted at the time included field measurements, model validation, land use and activity category identification, impact analysis and preliminary abatement determinations. The Kentucky Transportation Cabinet (KYTC) also provided information to local officials regarding noise levels on undeveloped lands. As part of the current re-evaluation process, the KYTC and Ohio Department of Transportation (ODOT) are updating supporting studies to consider changes that have evolved since issuance of the 2024 SEA/FONSI in May 2024.

This report builds on previous noise analyses conducted for the project including *Traffic Noise Assessment Brent Spence Bridge Corridor Project Kentucky Southern Section, August 2023* (2023 Noise Study) in support of the 2024 SEA/FONSI for the southern section of the project in Kentucky between MP 186.7 and MP 189.5. Since the issuance of the 2024 SEA/FONSI, Certified Traffic was updated for the project in September 2024 and has been used in this re-analysis. In addition, the BSB Corridor Project Design-Build Team (DBT) has identified and explored innovations for the project, some of which would alter the horizontal and vertical alignments within parts of the Kentucky Southern Section of the project. The modified alternative is identified as Re-eval 1 Design. The proposed modified geometry has been incorporated into the updated analysis presented in this report. The report also documents the results of outreach conducted with benefited receptors in April-May 2025, in conformance with the KYTC Noise Policy, to determine whether those who would benefit from proposed noise barriers throughout the Kentucky Southern Section are in favor of their construction.

Kentucky Innovation 3 would modify Alternative I-W that was evaluated for the 2024 SEA/FONSI by adjusting the vertical grade and shifting the horizontal alignment as many as 36 feet to the south between the Kyles Lane interchange and MLK Jr. Boulevard. The shift reduces a major roadside cut and avoids the need for constructing tiered retaining walls. For a more detailed description of Kentucky Innovation 3, see the project's 2025 Re-evaluation. Barriers that were previously proposed in this area of the project (B20/NSA D and B23) have been reevaluated to consider whether changes in location or geometry of the barriers are appropriate as a result of the modified alignment. As for the other areas of the project in the Kentucky Southern Section, no other adjustment in barrier location, length or height are recommended as a result of the current assessment. Table ES-1 presents a summary of the barriers that remain under consideration for the Kentucky Southern Section of the project and provides updated data for Barriers B20/NSA D and B23 as a result of the re-assessment documented in this report.

Table ES-2 presents updated design year sound levels for areas along I-75 where vacant and possibly developable lands exist. Noise predictions were made at intervals of 25 feet extending to 575 feet from the proposed edge of pavement for the 2049 Build condition using 2024 Certified Traffic. As indicated, sound levels of I-75 would exceed the NAC of 67 dB(A) for land use Categories B and C within 475 feet of edge of pavement (EOP). Sound levels exceed the NAC of 72 dB(A) for land use Category E up to 200 feet from EOP. Since the updated predicted noise levels are only marginally changed from those that were previously coordinated with City officials, additional coordination is considered unnecessary.

The Re-evaluation of Traffic Noise Impacts for the Kentucky Northern Section utilizes the same methodology as the Kentucky Southern section study. However, the terminology used for the areas of study in the northern section are described based on various noise environment areas rather than by barrier analyzed. Though this results in different terminology for the two reports, the study methods used are the same.

Table ES-1. Summary of Noise Abatement Findings

Barrier #	Location	Percentage of Front Row Benefited Receptors which Receive 7 dB(A) or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5 dB(A) or Greater Noise Reduction (%)	Barrier Description					Number of Benefited Properties	Estimated Cost Per Benefiting Receptor (CBR) ($)	Noise Barrier Effectiveness			KYTC Noise Abatement Criteria Satisfied (Yes/No)
				Length (feet)	Beginning Point and Highway Direction	Ending Point and Highway Direction	Noise Barrier Height (ft)	Estimated Cost ($)			Design Goal Achieved	Acoustic Feasibility Achieved (Yes/No)	Cost Effective Achieved (Yes/No)	
Barriers Unchanged by Innovation #3, Traffic Updates or other Design Revisions														
B16B	SB between Kyle's Lane and Dixie Highway	88	82	1,308	SB 412+25	SB 398+95	12-22	**$723,746**	**19**	$38,091	Yes	Yes	Yes	**Yes**
B17A	SB between Dixie Highway and Buttermilk Pike	58	46	1,153	SB 381+55	SB 370+60	18-24	**$759,435**	**16**	$47,465	Yes	Yes	No	No
B17B		32	25	1,153	SB 381+55	SB 370+60	16-20	**$647,286**	**13**	$49,791	No	Yes	No	No
B18	NB between Buttermilk Pike and Dixie Highway	94	95	4,487	NB 347+62	NB 391+74	16-24	**$2,791,144**	**213**	$13,104	Yes	Yes	Yes	**Yes**
B19	NB between Dixie Highway and Kyle's Lane	84	92	2,617	NB 405+57	NB 431+88	20	**$1,670,599**	**59**	$28,315	Yes	Yes	Yes	**Yes**
Barriers Modified to Address Innovation #3, Traffic Updates or other Design Revisions*														
B20/ NSA D	NB between Kyle's Lane and 12th St	63 (59)	76 (55)	4,712 (5,255)	NB 446+15	NB 496+00	6-24 (12-24)	**$3,179,296 ($3,149,580)**	**168 (132)**	$18,924 ($23,860)	Yes	Yes	Yes	**Yes**
B23	SB between 12th St and Kyle's Lane	99 (84)	86 (96)	1,972 (2,350)	SB 477+00	SB 457+20 (SB 453+50)	18-22	**$1,176,822 ($1,464,284)**	**83 (81)**	$14,178 ($18,078)	Yes	Yes	Yes	**Yes**
		Total Cost and Number of Benefited Properties for Recommended Noise Barriers =						**$10,948,328** ** **($11,206,074)**	**571 (533)**					

* Comparable results from Alternative I-W analyzed in the 2024 SEA/FONSI presented in parentheses where different from the Re-eval 1 Design

** Total cost includes both Barriers 17A and 17B, of which only one will be selected for implementation. With Barrier 17A, $10,076,744 (555 benefited); With Barrier 17B, $10,188,893 (558 benefited)

Table ES-2: Design Year 2049 Sound Level for Undeveloped Lands

Distance from I-75 *	2023 Alternative I-W dB(A) Leq [(2)]	2024 Re-eval 1 Design Alternative dB(A) Leq [(2)]	Difference Re-eval 1 Design – Alt I-W
100 Feet	77.5	77.8	0.3
125 Feet	76.5	76.8	0.3
150 Feet	74.8	75.1	0.3
175 Feet	73.2	73.4	0.2
200 Feet	72.4	72.6	0.2
225 Feet	71.5	71.7	0.2
250 Feet	70.8	71.0	0.2
275 Feet	70.3	70.5	0.2
300 Feet	69.8	70.0	0.2
325 Feet	69.4	69.6	0.2
350 Feet	69.0	69.2	0.2
375 Feet	68.6	68.8	0.2
400 Feet	68.2	68.4	0.2
425 Feet	67.8	68.0	0.2
450 Feet	67.4	67.6	0.2
475 Feet	67.1	67.4	0.3
500 Feet	66.7	66.9	0.2
525 Feet	66.4	66.7	0.3
550 Feet	66.1	66.3	0.2
575 Feet	65.8	66.0	0.2

* Distance is measured perpendicular to edge of pavement of I-75 near Sta. 467+00 RT

Since completion of the 2023 Noise Study, in accordance with the KYTC Noise Policy, 440 letters were sent to all owners and residents of properties that are considered benefited (>5 dB reduction) by the currently proposed noise barriers in the Kentucky Southern Section of the project. The letter explained that their opinions were being sought regarding whether they were in favor of the barriers being constructed and, if constructed, their preference for aesthetic finish (smooth or ashlar cut stone) of the finished product. An on-line meeting was held with interested owners and residents on April 14, 2025 and an in-person Open House was held on April 29, 2025 at the KYTC District 6 Office in Covington.

Voting was conducted for a period of 30 days resulting in 60 votes being cast. The public response was overwhelmingly in favor of construction of all of the proposed barriers in the Kentucky Southern Section. The public was also highly in favor of using an ashlar cut stone finish for the barriers. Documentation of the meetings conducted and voting results is provided in Appendix A.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1
1.0 INTRODUCTION 1
2.0 STUDY CORRIDOR 1
3.0 NEED FOR RE-EVALUATION 2
3.1 Design Innovations 2
3.2 Certified Traffic 2
3.3 Outreach 2
4.0 NOISE ANALYSIS 4
4.1 FHWA Noise Impact and Abatement Criteria 4
4.2 Establishing Exterior Areas of Frequent Human Use and Determination of Equivalent Receptors 4
4.3 Traffic Data 4
4.4 Existing Noise Levels 5
4.5 Anticipated Noise Levels for the Design Year (2049) 5
5.0 NOISE ABATEMENT 18
5.1 KYTC NOISE BARRIER FEASIBILITY AND REASONABLENESS FACTORS 18
5.2 NOISE BARRIER ANALYSIS FINDINGS 19
5.3 PARALLEL BARRIER CONSIDERATION 28
6.0 COORDINATION WITH LOCAL OFFICIALS 28
7.0 NOISE INFORMATION MEETINGS 29
8.0 CONSTRUCTION NOISE 31
9.0 SUMMARY OF PROPOSED NOISE ABATEMENT MEASURES FOR KENTUCKY SOUTHERN SECTION 31
Barrier B16B - Statement of Likelihood 31
Barriers B17A & B17B - Statement of Likelihood 31
Barrier B18 - Statement of Likelihood 31
Barrier B19 - Statement of Likelihood 32
Barrier B20/NSA D - Statement of Likelihood 32
Barrier B23 – Statement of Likelihood 32

TABLES

Table ES-1. Summary of Noise Abatement Findings ES-2
Table ES-2: Design Year 2049 Sound Level for Undeveloped Lands ES-3
Table 1. Receptors Where Noise Levels Would Potentially be Changed by Re-eval 1 Design Alternative 11
Table 2: Summary of Impacts by FHWA Activity Category 17
Table 3: Summary of Noise Abatement Findings Changed by Re-Eval 1 Design* 27
Table 4: Design Year 2049 Sound Levels for Undeveloped Lands 29
Table 5. Summary of Voting Results by Barrier 30
Table 6. Summary of Noise Abatement Findings 33

EXHIBITS

EXHIBIT 1: LOCATION MAP 3
EXHIBIT 2A-2E: NOISE MEASUREMENT AND PREDICTION SITES 6
EXHIBIT 3A-3C: BARRIER B20 21
EXHIBIT 4A-4B: BARRIER B23 25
EXHIBT 5A-5J: BARRIERS REMAINING UNDER CONSIDERATION 34

APPENDICES

APPENDIX A Noise Informational Meeting and Outreach Summary
APPENDIX B FHWA TNM® Runs BUILD (2049)
APPENDIX C TNM Runs (Barrier Analysis)

1.0 INTRODUCTION

The analysis of the highway-generated noise impact in the Kentucky Southern Section (MP 186.7 and 189.5) of the Brent Spence Bridge Corridor Project (KYTC Item No. 6-17.00 and ODOT PID 116649) has been prepared in accordance with FHWA's 23 Code of Federal Regulations (CFR) Part 772 Procedures for Abatement of Traffic Noise and Construction Noise, and the Kentucky Transportation Cabinet's *Noise Analysis and Abatement Policy*, July 1, 2022 (KYTC Noise Policy). Highway traffic noise and construction noise were evaluated in 2023 (*Traffic Noise Assessment Brent Spence Bridge Corridor Project, Kentucky Southern Section, August 2023*) (2023 Noise Analysis), for consideration when developing the 2024 Supplemental Environmental Assessment and Finding of No Significant Impact (2024 SEA/FONSI). The work conducted at the time included field measurements, model validation, land use and activity category identification, impact analysis and preliminary abatement determinations. KYTC also provided information to local officials regarding noise levels on undeveloped lands. As part of the current re-evaluation process, the Kentucky Transportation Cabinet (KYTC) and Ohio Department of Transportation (ODOT) are updating supporting studies to consider changes that have evolved since issuance of the 2024 SEA/FONSI in May 2024. The current study builds on the 2023 Noise Analysis developed for the southern section of the project in Kentucky in support of the 2024 SEA/FONSI.

In addition to addressing design changes, and in accordance with the KYTC Noise Policy, owners and residents of properties that would benefit from the construction of noise barriers have been contacted to determine whether they are in favor of the construction of the proposed barriers and any preference regarding the aesthetic finish. Outreach was conducted in April-May 2025 to solicit public input, which included establishing a Noise Informational Meeting web page, a mailing, an on-line meeting, and in-person meeting with interested parties. Voting was conducted and tabulated for each barrier. A detailed account of the public involvement is provided in Section 9.0 and Appendix A.

2.0 STUDY CORRIDOR

The overall project corridor is located along a 7.8-mile segment of I-71/I-75 within the Commonwealth of Kentucky (state line mile 186.7) and the State of Ohio (state line mile 2.7) (see Exhibit 1). The southern limit of the project is 5,000 feet south of the midpoint of the Dixie Highway Interchange on I-71/I-75 in Fort Wright, south of Covington, Kentucky. The northern limit of the project is 1,500 feet north of the midpoint of the Western Hills Viaduct Interchange on I-75 in Cincinnati, Ohio. The eastern and western limits of the study area generally follow the existing alignment of I-75.

The BSB opened in 1963 and was originally designed to carry 80,000 vehicles per day (VPD). Current traffic volumes on the BSB are 160,000 VPD. The BSB project will improve the operational characteristics within the BSB corridor for both local and through traffic by improving traffic flow and level of service, improving safety, correcting geometric deficiencies, and maintaining connections to key regional and national transportation corridors.

The KYTC and the ODOT developed a range of alternatives for improving the I-71/I-75 corridor in Kentucky and Ohio through a series of preliminary engineering and planning studies coupled with extensive public and stakeholder involvement. These activities were documented in the project's Environmental Assessment (March 2012). On August 9, 2012, the Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI) identifying Alternative I as the preferred alternative for the BSB project.

Following approval of the FONSI, KYTC and ODOT completed additional studies to update the preferred alternative to reflect current design standards, traffic counts, and traffic operations. These efforts resulted in refinements to Preferred Alternative I, which have been designated as Concept I-W, a value engineering refinement to Alternative

I. Noise impacts associated with this alternative in the Kentucky Southern Section were documented in the 2023 Noise Study and considered in issuance of the 2024 SEA/FONSI.

Since the issuance of the 2024 SEA/FONSI, the BSB Corridor Design-Build Team (DBT) has identified and explored additional potential innovations for the project that include modifications to horizontal and vertical alignments among other changes. These are encompassed within the Re-eval 1 Design, which is the subject of the on-going re-evaluation of the project.

For the purpose of analyzing noise impacts, the Kentucky portion of the project was split into two sections, North and South. To avoid overlap in the analyses, the southern section only includes assessment of areas west of the corridor between Kyle's Lane and 12th Street near MP 189.2 while the northern section includes analysis of the areas east of the corridor. This is consistent with the area of analysis used for the 2023 Noise Report. A depiction of the project study area is provided in Exhibit 1. The results of the updated analysis of traffic noise and abatement measures in the southern section are presented in this report.

3.0 NEED FOR RE-EVALUATION

This section describes the changes that are proposed in the Kentucky Southern Section that are being considered in the re-evaluation of the project.

3.1 Design Innovations

Since the issuance of the 2024 SEA/FONSI, the BSB Corridor Design-Build Team (DBT) identified and explored 117 innovations for Phase III of the project and recommended incorporation of 26 of these concepts. Innovation 3: Hillside Cut Alignment Shift would shift the horizontal alignment of I-71/I-75 between Kyles Lane and the MLK Jr. Boulevard exit to the east by up to 36 feet. It would eliminate approximately 96,000 cubic yards of rock cut and approximately 62,000 square feet of up to 35-foot-tall tie-back wall required under Concept I-W Base Design. Additional detail related to Innovation 3 can be found in the project's 2025 Re-evaluation. No other design innovations or other changes being proposed by the Design Team would impact previously completed or updated noise analyses.

3.2 Certified Traffic

Certified traffic for the project was updated and accepted September 19, 2024 (*Brent Spence Bridge Corridor Project Certified Traffic Report ODOT PID 89068 | KYTC Project Item No. 6-17*) after the issuance of the 2024 SEA/FONSI. The report updates the previous Certified Traffic Report issued May 10, 2023 and used in the 2023 Noise Study, and evaluates the impact to traffic of incorporating innovations proposed by the DBT and changes in the proposed collector-distributor network in the Kentucky Northern Section of the project. Updated traffic volumes represent a 3% increase throughout the Kentucky Southern Section Study Area over that which was projected by the previous Certified Traffic Report developed in 2023. Traffic in both directions on the southern collector-distributor network between Dixie Highway and Kyles Lane decreased in the updated traffic forecast. Due to the minimal change in projected traffic volumes, KYTC determined that a comprehensive reanalysis of the previous noise study was not warranted on the basis of the updated traffic forecast. However, where changes in design have required additional noise analysis, the updated traffic has been used for the assessment documented in this report.

3.3 Outreach

In accordance with the KYTC Noise Policy, letters were sent to all owners and residents of properties that are considered benefited (>5 dB reduction) by the currently proposed noise barriers in the Kentucky Southern Section



Exhibit 1. Location Map

of the project. The letter explained that their opinions were being sought regarding whether they were in favor of the barriers being constructed and, if constructed, their preference for aesthetic finish (smooth or ashlar cut stone)

of the final product. An on-line meeting was held with interested owners and residents on April 14, 2025 and an in-person Open House was held on April 29, 2025 at the KYTC District 6 Office in Covington. Section 9.0 documents the outreach conducted and data gathered from benefited receptors as a result of the public involvement.

4.0 NOISE ANALYSIS

The Re-eval 1 Design alternative, which Incorporates Innovation 3 (Hillside Cut Alignment Shift), would shift the horizontal alignment of I-71/I-75 between Kyles Lane and the MLK Jr. Boulevard exit to the east by up to 36 feet. This avoids a significant rock cut and tiered retaining wall construction. These changes in horizontal and vertical alignment would alter the noise environment analyzed in the 2023 Noise Study adjacent to these alignment shifts. Areas adjacent to these areas were reassessed to consider the extent to which these changes would alter previous findings and determinations related to noise impacts, including evaluation of proposed noise barriers analyzed in the 2023 Noise Study.

4.1 FHWA Noise Impact and Abatement Criteria

For FHWA Type I improvements, such as the BSB Corridor Project, substantial proposed changes to either the vertical or horizontal alignment require an analysis of traffic noise impacts and consideration of noise abatement, where appropriate and in consideration of approved state DOT policies. The KYTC has developed procedures for assessing traffic noise impact and abatement feasibility and reasonableness that comply with the FHWA requirements. These procedures are described in detail in the KYTC Noise Policy. Properties are categorized based on land use. For undeveloped lands with a permit, areas are analyzed for traffic noise impacts using the activity category that best describes the future intended land use. In cases where the land is not permitted prior to the date of public knowledge, noise abatement is not required nor is abatement eligible for federal aid at a future date. The date of public knowledge is the date the NEPA document is approved.

4.2 Establishing Exterior Areas of Frequent Human Use and Determination of Equivalent Receptors

A noise receiver location is an area where noise is measured and/or determined. The receiver locations are normally restricted to “exterior areas of frequent human use.” Receptors along the corridor were identified during previous analyses conducted and reported in the 2023 Noise Study. Areas and land uses surrounding the project corridor were almost unilaterally found to be consistent with what was assessed in the 2023 Noise Study; therefore, additional field assessment of exterior areas of frequent use were determined to be unnecessary for the current re-analysis of the project.

Similarly, properties where uses other than for single-family residences had been previously identified, were evaluated to determine whether equivalent receptor calculations should be reassessed. It was determined that uses at these properties remained unchanged since the 2023 Noise Study. Equivalent receptors, calculated in conformance with the KYTC Noise Policy in the 2023 Noise Study, were used when analyzing the noise impacts of the Re-eval 1 Design alternative.

4.3 Traffic Data

According to the KYTC Noise Policy, analysis of Level of Service C (LOS C) conditions are required because increased congestion results in lower speeds, and lower speeds result in a quieter condition. Therefore, LOS C conditions represent the highest amount and loudest traffic that is closest to free-flow speeds. In the 2023 Noise Study, the

afternoon forecast for the northbound lane in the 2:30 PM to 3:30 PM hour was identified as the noisiest hour for the combination of northbound and southbound traffic.

An updated traffic forecast for the project was provided by KYTC in September 2024. Changes in 2049 traffic were identified by comparing with the forecast used for the 2023 Noise Study. The 2024 Certified Traffic indicates that "overall, the 2049 Refined Alternative I (Concept I-W) forecasts are similar to the Build Innovation forecasts, except at locations impacted by Build Innovation's access modifications…" and that Innovation 3 (Hillside Cut Alignment Shift) "has no impact on traffic forecasts." Level of Service is unaffected by the updated project configuration.

Updated traffic volumes represent a 3% increase throughout the Kentucky Southern Section Study Area. Given the minimal impacts that such small changes in traffic would have on results documented in the 2023 Noise Study, KYTC determined that it was unnecessary to update the noise analysis of the entire southern section. Updated traffic forecasts have been used when assessing changes that would result from implementing Innovation 3 that would adjust the vertical and horizontal alignment of the Re-eval 1 Design.

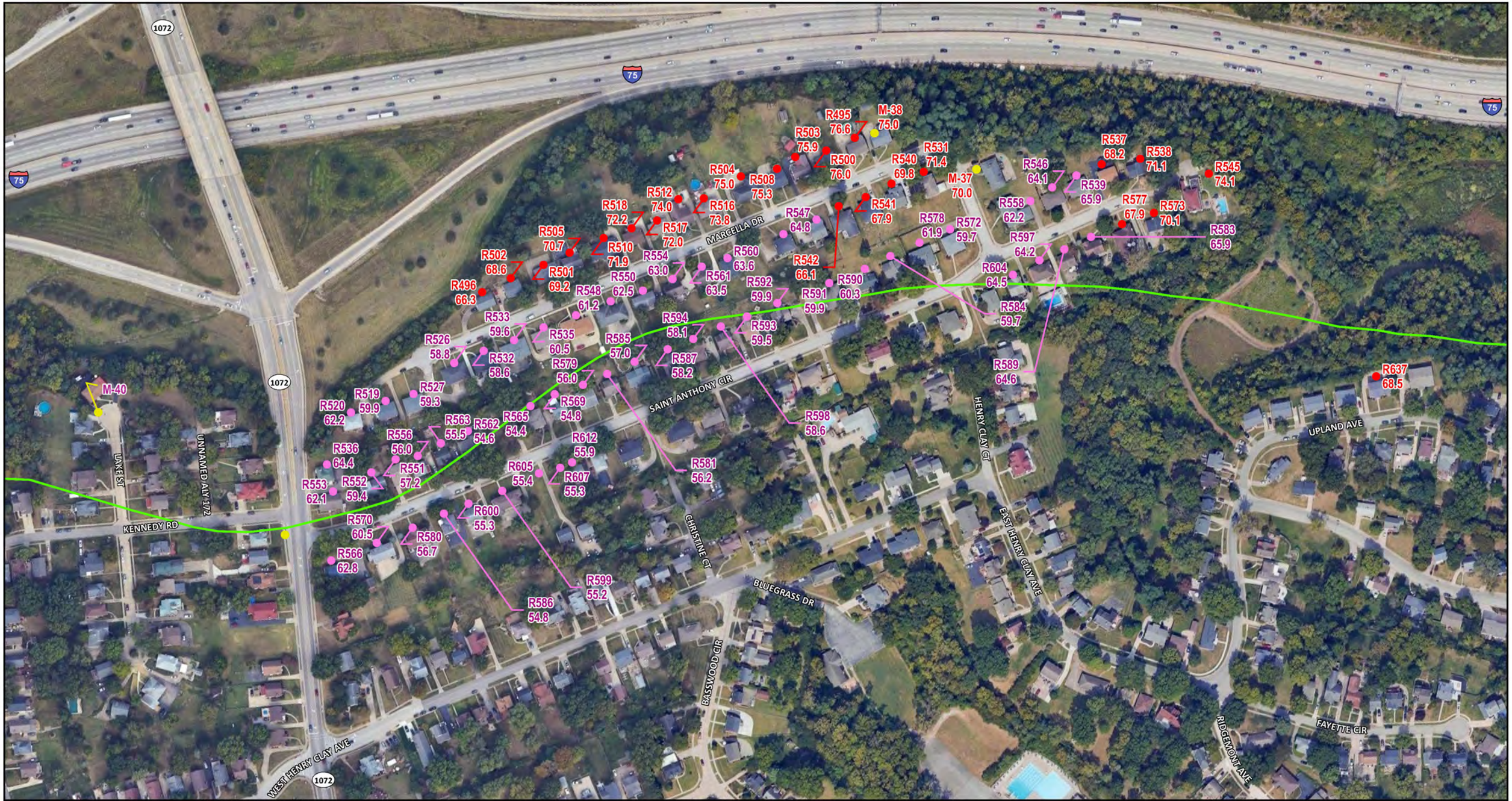
4.4 Existing Noise Levels

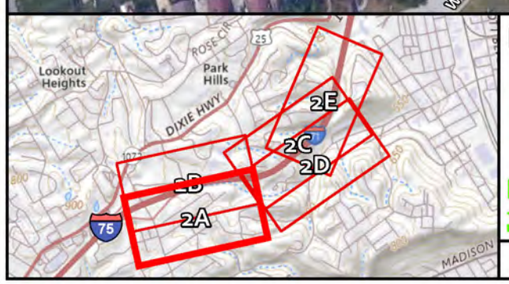
Existing noise levels were established for the 2023 Noise Study by collecting noise readings at receptors along the corridor. These readings were used to calibrate the Traffic Noise Model. Since changes identified as part of the project re-evaluation would not affect the noise model, further noise readings along the corridor were not required for updating the assessment of the project to consider design innovations or changes in the traffic forecast.

4.5 Anticipated Noise Levels for the Design Year (2049)

The 2023 Noise Study evaluated noise levels for 343 receptors lying within the Study Area for the Kentucky Southern Section. Innovation 3: Hillside Cut Alignment Shift would shift the horizontal alignment of I-71/I-75 between Kyles Lane and the MLK Jr. Boulevard exit to the east by up to 36 feet. Since the adjustment in horizontal and vertical alignment were limited within the Kentucky Southern Section, only those areas that would be affected by the alignment shift were reanalyzed. Noise levels were reassessed at 113 locations (Exhibits 2A through 2E). Table 1 presents the predicted noise levels for each receiver for the Re-eval 1 Design alternative. The 2049 predicted noise level reported in the 2023 Noise Study is also provided. Table 2 presents a summary of the impacts by activity category for the Kentucky Southern Section, including changes resulting from consideration of the Re-eval 1 Design alternative. The TNM2.5® files for these analyses are provided in Appendix B.

Under the Re-eval 1 Design alternative when compared with Alternative I-W analyzed in the 2023 Noise Study, there are two additional impacted receptors (R496 and R542) in the 2049 PM peak hour, both of which are single family residences. Considering these in conjunction with the overall Kentucky Southern Section, an increase of approximately 24 percent (141 versus 113 impacts) would be recognized when compared to the existing noise levels. When considering equivalent residential unit impacts and the two additional single-family residences, there is a 12 percent increase (387 versus 345) compared to the existing conditions for the project as a whole. The largest number of impacts by activity category is for Activity Category C/D (schools, parks, etc.), where four receivers representing 154 equivalent residential units exceed impact thresholds during the PM peak period. In the Activity Category B (residential), 131 receivers representing 147 equivalent residential units, exceed impact thresholds during the PM peak period. The 147 equivalent receptor impacts represent a 39 percent increase over comparable existing conditions (106 equivalent residences).





Legend

-Receptor #
-2049 Build

- Not Impacted
- Impacted
- Noise Measurement Site
- 500' Noise Buffer (Southern Study Area)
- 500' Noise Buffer (Northern Study Area)

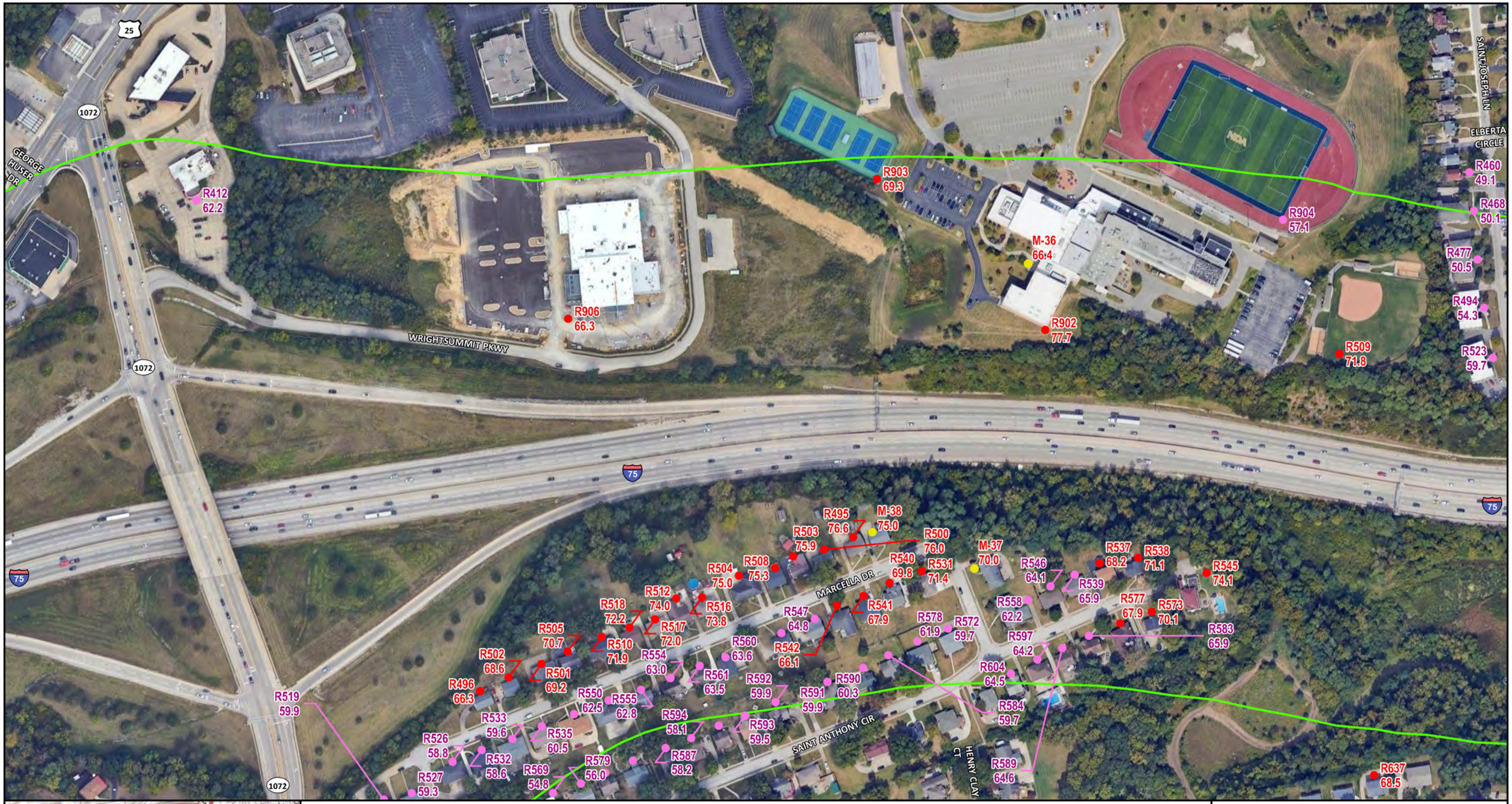
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

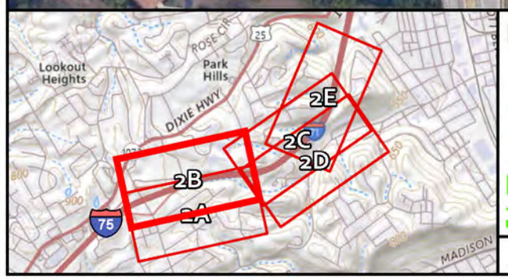
Noise Measurement and Prediction Sites
2049 Build Noise Levels (dBA)
Exhibit 2A

N

0 200 400
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

- -Receptor #
- -2049 Build
- Not Impacted
- Impacted
- Noise Measurement Site
- 500' Noise Buffer (Southern Study Area)
- 500' Noise Buffer (Northern Study Area)

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Noise Measurement and Prediction Sites
2049 Build Noise Levels (dBA)
Exhibit 2B

TEAM KENTUCKY TRANSPORTATION CABINET

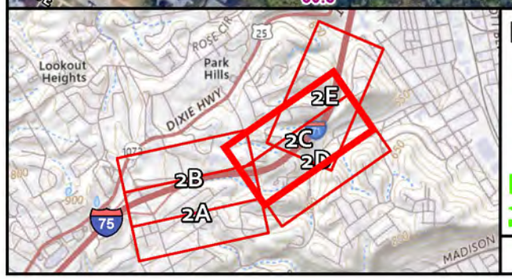
N

0 200 400
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

- -Receptor #
- -2049 Build
- Not Impacted
- Impacted
- Noise Measurement Site
- 500' Noise Buffer (Southern Study Area)
- 500' Noise Buffer (Northern Study Area)

Brent Spence Bridge Corridor Project

Noise Study: Kentucky - Southern Section

KYTC Item No. 6-17

Noise Measurement and Prediction Sites

2049 Build Noise Levels (dBA)

Exhibit 2C

TRANSPORTATION CABINET

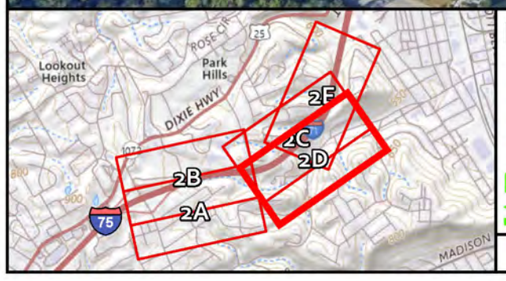
0 200 400

Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

R515 64.8
R507 62.7
R525 70.8
M-35 71.3
SAINT JOSEPH LN
ELBERTA CIRCLE
75
D06002-F 55.6
D05702-F 53.2
D05602-F 51.7
D05802-F 52.5
D05512-F 53.5
D05412-F 56.2
D05312 59.6
D04701 60.4
EMERY PL
D05212 59.0
D06102-F 55.7
D06202 58.6
D06302 58.5
D06602 59.2
D06402 60.8
D06502 60.2
D05112 58.3
D05002 58.4
EMERY DR
UNNAMED RD 28
D04402-F 61.4
D04501-F 60.8
D04601 60.2
D04301-F 61.7
D04201-F 61.8
D04101-F 61.5
D04012 59.1
HIGHLAND AVE
D03401 61.2
D06702 59.6
D03501 60.5
D03101 61.7
D02901 61.7
D02501 61.6
D02401 61.3
D02601 61.6
D02701 61.7
D02801 61.7
D03701 59.7
D03601 59.9
D04801-F,V 72.1
D03912 60.2
D03801 60.4
D02301 62.1
D02201 61.8
D02001 61.3
D02101 61.3
D01901 60.5
D01501 59.7
D01601 60.0
D01801 60.5
D01701 60.2
D01401 59.1
D01301 59.1
D01201 59.0
RAYS LN
D00701 57.5
D01110-F 59.4
UNNAMED RD 24
D00901 58.4
D01001 58.6
D00801 57.8
D00501 56.6
D00401 56.5
D00201 56.2
D00101 54.7
D00301 56.1
WEST 19TH ST
POINTE BENTON RD
BENTON RD
UPLAND AVE
UNNAMED RD 241
EAST HENRY CLAY AVE
GENEVIEVE LN
WIDEVIEW DR



Legend

-Receptor #
-2049 Build

- Not Impacted
- Impacted
- Noise Measurement Site
- 500' Noise Buffer (Southern Study Area)
- 500' Noise Buffer (Northern Study Area)

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Noise Measurement and Prediction Sites
2049 Build Noise Levels (dBA)
Exhibit 2D

0 200 400
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

R465 42.3
R476 50.6
R473 47.8
R487 52.6
R481 55.1
ELBERTA CIRCLE
FAR HILLS DR
UNNAMED RD 23
CEDAR RIDGE LN
CECELIA AVE
SCENIC DR
R469 58.6
R474 60.0
R483 50.7
R491 37.4
R492 46.8
R490 47.4
R499 46.8
R514 48.8
M-30 69.7
R530 54.7
R484 43.8
R486 49.2
CEDAR RIDGE LN
M-31 70.6
75
D06702 59.6
D04301-F 61.7
D04201-F 61.8
D04101-F 61.5
D04012 59.1
D03501 60.5
D03301 61.4
D03401 61.2
HIGHLAND AVE
D02901 61.7
D02601 61.6
D02401 61.3
D02801 61.7
D02501 61.6
D03201 61.5
D02101 61.3
D02001 61.3
D01901 60.5
D01501 59.7
D02301 62.1
D02201 61.8
D01401 59.1
RAYS LN
D01001 58.6
D00901 58.4
D01110-F 59.4
D00801 57.8
D00601 57.1
UNNAMED RD 24
EDGECLIFF RD
EDGECLIFF RD SPUR
WEST 16TH ST
MONROE ST
Lookout Heights
Park Hills
DIXIE HWY
ROSE CIR
2A
2B
2C
2D
2E
MADISON

Legend

-Receptor #
-2049 Build

- Not Impacted
- Impacted
- Noise Measurement Site
- 500' Noise Buffer (Southern Study Area)
- 500' Noise Buffer (Northern Study Area)

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Noise Measurement and Prediction Sites
2049 Build Noise Levels (dBA)
Exhibit 2E

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

TEAM KENTUCKY TRANSPORTATION CABINET

N

0 200 400
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Table 1. Receptors Where Noise Levels Would Potentially be Changed by Re-eval 1 Design Alternative

Receptor Number	Land Use	PM Peak Hour					2024 Approach/ Exceed NAC (Yes/No)	2049 Approach/ Exceed NAC (Yes/No)	Activity Category
		2024 Existing Leq (1-Hr) dB(A)	2049 Build (Alt I-W) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Minus 2049 Build (Alt I-W) dB(A)	Build (Re-eval 1 Design Alt.) Minus Existing (dB(A))			
M-30	Single-Family	67.5	68.4	69.7	2.1	2.2	Yes	Yes	B
M-31	Multi-Family	70.5	69.7	70.6	1.9	0.1	Yes	Yes	B
M-35	Multi-Family	71.7	70.9	71.3	0.7	-0.4	Yes	Yes	B
M-36	School	64.6	74.9	66.4	-8.3	1.8	Yes	Yes	D
M-37	Single-Family	69.0	69.6	70.0	0.9	1.0	Yes	Yes	B
M-38	Single-Family	74.4	74.6	75.0	1.0	0.6	Yes	Yes	B
R412	Restaurant/Bar	62.7	61.9	62.2	0.8	-0.5	No	No	E
R460	Single-Family	48.2	48.7	49.1	0.7	0.9	No	No	B
R465	Multi-Family	41.9	41.9	42.3	0.6	0.4	No	No	B
R468	Multi-Family	50.0	49.7	50.1	0.5	0.1	No	No	B
R469	Vacant	56.3	58.4	58.6	0.4	2.3	No	No	B
R473	Multi-Family	49.7	47.3	47.8	0.6	-1.9	No	No	B
R474	Vacant	57.6	59.7	60.0	0.5	2.4	No	No	B
R476	Multi-Family	49.7	50.1	50.6	0.7	0.9	No	No	B
R477	Multi-Family	50.0	50.1	50.5	0.7	0.5	No	No	B
R481	Multi-Family	55.4	54.5	55.1	0.8	-0.3	No	No	B
R483	Single-Family	48.3	50.6	50.7	0.1	2.4	No	No	B
R484	Office	44.0	43.3	43.8	0.7	-0.2	No	No	C
R486	Multi-Family	48.6	48.6	49.2	0.9	0.6	No	No	B
R487	Multi-Family	55.3	51.8	52.6	0.5	-2.7	No	No	B
R490	Single-Family	46.6	47.1	47.4	0.6	0.8	No	No	B

Receptor Number	Land Use	PM Peak Hour					2024 Approach/ Exceed NAC (Yes/No)	2049 Approach/ Exceed NAC (Yes/No)	Activity Category
		2024 Existing Leq (1-Hr) dB(A)	2049 Build (Alt I-W) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Minus 2049 Build (Alt I-W) dB(A)	Build (Re-eval 1 Design Alt.) Minus Existing (dB(A))			
R491	Single-Family	34.7	37.2	37.4	0.2	2.7	No	No	B
R492	Single-Family	46.2	46.3	46.8	0.8	0.6	No	No	B
R493	Multi-Family	54.2	53.3	53.9	1.0	-0.3	No	No	B
R494	Multi-Family	54.5	53.8	54.3	0.8	-0.2	No	No	B
R495	Single-Family	75.6	76.1	76.6	1.0	1.0	Yes	Yes	B
R496	Single-Family	65.1	65.8	66.3	0.9	1.2	No	No	B
R499	Single-Family	45.7	46.1	46.8	1.1	1.1	No	No	B
R500	Single-Family	74.8	75.6	76.0	0.9	1.2	Yes	Yes	B
R501	Single-Family	67.5	68.8	69.2	0.8	1.7	Yes	Yes	B
R502	Single-Family	66.8	68.2	68.6	0.7	1.8	Yes	Yes	B
R503	Single-Family	74.6	75.5	75.9	0.9	1.3	Yes	Yes	B
R504	Single-Family	73.8	74.6	75.0	0.9	1.2	Yes	Yes	B
R505	Single-Family	68.9	70.3	70.7	0.7	1.8	Yes	Yes	B
R507	Multi-Family	63.9	62.2	62.7	1.0	-1.2	No	No	B
R508	Single-Family	74.0	74.9	75.3	0.9	1.3	Yes	Yes	B
R509	School	70.4	71.1	71.8	1.4	1.4	Yes	Yes	C
R510	Multi-Family	70.0	71.5	71.9	0.8	1.9	Yes	Yes	B
R512	Single-Family	72.3	73.6	74.0	0.8	1.7	Yes	Yes	B
R514	Single-Family	48.3	48.3	48.8	0.8	0.5	No	No	B
R515	Multi-Family	65.9	64.3	64.8	1.0	-1.1	No	No	B
R516	Single-Family	72.3	73.4	73.8	0.8	1.5	Yes	Yes	B
R517	Single-Family	70.2	71.6	72.0	0.8	1.8	Yes	Yes	B

Receptor Number	Land Use	PM Peak Hour					2024 Approach/ Exceed NAC (Yes/No)	2049 Approach/ Exceed NAC (Yes/No)	Activity Category
		2024 Existing Leq (1-Hr) dB(A)	2049 Build (Alt I-W) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Minus 2049 Build (Alt I-W) dB(A)	Build (Re-eval 1 Design Alt.) Minus Existing (dB(A))			
R518	Single-Family	70.3	71.7	72.2	0.8	1.9	Yes	Yes	B
R519	Multi-Family	60.2	59.5	59.9	1.1	-0.3	No	No	B
R520	Multi-Family	62.7	61.8	62.2	1.3	-0.5	No	No	B
R523	Multi-Family	60.6	59.1	59.7	0.9	-0.9	No	No	B
R525	Multi-Family	71.1	70.2	70.8	1.2	-0.3	Yes	Yes	B
R526	Multi-Family	58.8	58.4	58.8	0.9	0.0	No	No	B
R527	Multi-Family	59.3	58.9	59.3	1.0	0.0	No	No	B
R530	Single-Family	53.8	54.1	54.7	1.0	0.9	No	No	B
R531	Single-Family	70.2	71	71.4	0.9	1.2	Yes	Yes	B
R532	Multi-Family	58.5	58.2	58.6	0.9	0.1	No	No	B
R533	Multi-Family	59.4	59.2	59.6	0.8	0.2	No	No	B
R535	Multi-Family	59.2	60	60.5	0.8	1.3	No	No	B
R536	Multi-Family	64.3	64	64.4	1.5	0.1	No	No	B
R537	Single-Family	67.5	67.8	68.2	0.6	0.7	Yes	Yes	B
R538	Single-Family	70.4	70.6	71.1	0.9	0.7	Yes	Yes	B
R539	Single-Family	65.1	65.4	65.9	0.7	0.8	No	No	B
R540	Single-Family	68.6	69.4	69.8	0.8	1.2	Yes	Yes	B
R541	Single-Family	66.6	67.5	67.9	0.7	1.3	Yes	Yes	B
R542	Single-Family	64.7	65.7	66.1	0.8	1.4	No	No	B
R545	Single-Family	73.1	73.6	74.1	1.0	1.0	Yes	Yes	B
R546	Single-Family	62.5	63.7	64.1	0.6	1.6	No	No	B
R547	Single-Family	63.4	64.4	64.8	0.7	1.4	No	No	B

Receptor Number	Land Use	PM Peak Hour					2024 Approach/ Exceed NAC (Yes/No)	2049 Approach/ Exceed NAC (Yes/No)	Activity Category
		2024 Existing Leq (1-Hr) dB(A)	2049 Build (Alt I-W) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Minus 2049 Build (Alt I-W) dB(A)	Build (Re-eval 1 Design Alt.) Minus Existing (dB(A))			
R548	Multi-Family	59.9	60.8	61.2	0.7	1.3	No	No	B
R550	Multi-Family	61.2	62.1	62.5	0.7	1.3	No	No	B
R551	Single-Family	57.5	56.8	57.2	1.2	-0.3	No	No	B
R552	Single-Family	59.4	58.9	59.4	1.3	0.0	No	No	B
R553	Single Family	61.8	61.7	62.1	1.5	0.3	No	No	B
R554	Single-Family	61.8	62.6	63.0	0.7	1.2	No	No	B
R555	Single Family	61.6	62.3	62.8	0.8	1.2	No	No	B
R556	Single-Family	55.6	55.6	56.0	1.1	0.4	No	No	B
R558	Single-Family	59.9	61.6	62.2	0.6	2.3	No	No	B
R559	Single-Family	62.4	63.2	63.9	0.7	1.5	No	No	B
R560	Single-Family	61.9	62.8	63.6	0.8	1.7	No	No	B
R561	Single-Family	62.2	62.8	63.5	0.7	1.3	No	No	B
R562	Single-Family	54.6	53.7	54.6	0.9	0.0	No	No	B
R563	Single-Family	55.0	54.6	55.5	0.9	0.5	No	No	B
R565	Single-Family	54.7	53.5	54.4	0.9	-0.3	No	No	B
R569	Single-Family	55.0	53.9	54.8	0.9	-0.2	No	No	B
R570	Multi-Family	61.9	59.3	60.5	1.2	-1.4	No	No	B
R572	Single-Family	58.0	58.9	59.7	0.8	1.7	No	No	B
R573	Single-Family	69.0	69.2	70.1	0.9	1.1	Yes	Yes	B
R577	Single-Family	66.5	67	67.9	0.9	1.4	Yes	Yes	B
R578	Single-Family	61.0	61.1	61.9	0.8	0.9	No	No	B
R579	Single-Family	55.7	55.1	56.0	0.9	0.3	No	No	B

Receptor Number	Land Use	PM Peak Hour					2024 Approach/ Exceed NAC (Yes/No)	2049 Approach/ Exceed NAC (Yes/No)	Activity Category
		2024 Existing Leq (1-Hr) dB(A)	2049 Build (Alt I-W) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Minus 2049 Build (Alt I-W) dB(A)	Build (Re-eval 1 Design Alt.) Minus Existing (dB(A))			
R580	Multi-Family	57.0	55.6	56.7	1.1	-0.3	No	No	B
R581	Single-Family	55.6	55.4	56.2	0.8	0.6	No	No	B
R583	Single-Family	64.3	65	65.9	0.9	1.6	No	No	B
R584	Single-Family	59.1	58.9	59.7	0.8	0.6	No	No	B
R585	Single-Family	56.2	56.2	57.0	0.8	0.8	No	No	B
R586	Multi-Family	55.0	53.8	54.8	1.0	-0.2	No	No	B
R587	Single-Family	56.9	57.4	58.2	0.8	1.3	No	No	B
R589	Single-Family	62.9	63.6	64.6	1.0	1.7	No	No	B
R590	Single-Family	59.1	59.5	60.3	0.8	1.2	No	No	B
R591	Single-Family	58.7	59.2	59.9	0.7	1.2	No	No	B
R592	Single-Family	58.9	59.2	59.9	0.7	1.0	No	No	B
R593	Single-Family	58.2	58.8	59.5	0.7	1.3	No	No	B
R594	Single-Family	56.9	57.4	58.1	0.7	1.2	No	No	B
R597	Single-Family	62.7	63.3	64.2	0.9	1.5	No	No	B
R598	Single-Family	57.1	57.8	58.6	0.8	1.5	No	No	B
R599	Multi-Family	55.3	54.4	55.2	0.8	-0.1	No	No	B
R600	Multi-Family	55.3	54.4	55.3	0.9	0.0	No	No	B
R604	Single-Family	63.3	63.6	64.5	0.9	1.2	No	No	B
R605	Multi-Family	55.5	54.5	55.4	0.9	-0.1	No	No	B
R607	Multi-Family	55.6	54.4	55.3	0.9	-0.3	No	No	B
R612	Single-Family	56.2	55	55.9	0.9	-0.3	No	No	B
R637	Single-Family	67.8	67.6	68.5	0.9	0.7	Yes	Yes	B

Receptor Number	Land Use	PM Peak Hour					2024 Approach/ Exceed NAC (Yes/No)	2049 Approach/ Exceed NAC (Yes/No)	Activity Category
		2024 Existing Leq (1-Hr) dB(A)	2049 Build (Alt I-W) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Leq (1-Hr) dB(A)	2049 Build (Re-eval 1 Design Alt.) Minus 2049 Build (Alt I-W) dB(A)	Build (Re-eval 1 Design Alt.) Minus Existing (dB(A))			
R672	School	68.9	70.5	70.6	0.1	1.7	Yes	Yes	C
R902	School Auditorium	75.8	77.1	77.7	0.6	1.9	Yes	Yes	D
R903	Tennis Courts	66.9	69.1	69.3	0.2	2.4	Yes	Yes	C
R904	Track/Soccer Field	55.4	56.4	57.1	0.7	1.7	No	No	C

Table 2: Summary of Impacts by FHWA Activity Category

Alternative	NAC A	NAC B	NAC C	NAC D	NAC E	NAC G	Totals
2022 Existing	0	98 (114)	3 (153)	3 (81)	9 (9)	0	113 (355)
2049 Re-eval 1 Design Build	0	125 (149)	3 (153)	3 (81)	10 (10)	0	141 (391)

Numbers not in parentheses represent the total number of receivers with impacts for each FHWA Activity Category evaluated for each scenario.

Numbers shown in parentheses represent the total impacted number of equivalent receptors for each FHWA Activity Category for each scenario evaluated. The last column on the extreme right provides a summary of the total corridor-wide impacts.

5.0 NOISE ABATEMENT

The KYTC requires that noise abatement measures be considered where traffic related noise impacts are predicted. Federal funds may be used for noise abatement measures when:

- traffic noise impacts have been identified, and
- abatement measures have been determined to be feasible and reasonable pursuant to Section 772.13(d) and KYTC policy.

In conformance with these requirements, abatement measures were evaluated in terms of their effectiveness to substantially reduce predicted design year noise levels at locations where impacts occur.

5.1 KYTC NOISE BARRIER FEASIBILITY AND REASONABLENESS FACTORS

Noise barriers reduce noise by blocking the path of sound between the source of the noise and the receiver. When determining the acoustic feasibility of a proposed abatement measure, the KYTC Noise Policy requires that abatement measures provide a minimum 5 dB(A) reduction for three or more impacted receptors.

Engineering or constructability issues may render an abatement measure infeasible. In determining if site characteristics are suitable for noise barrier construction, KYTC considers numerous factors including safety, maintenance, drainage, and access.

The determination of reasonableness of a proposed abatement measure is based upon three primary factors: cost effectiveness, the noise reduction design goal, and the desires of the benefited receptors. The noise barrier determination of reasonableness is defined as follows:

To be cost effective, the KYTC Noise Policy has established $40,000 as a reasonable maximum threshold for the Cost per Benefited Receptor (CBR). The CBR is defined as follows:

CBR = (Cost of Noise Barrier ($)/Number of Benefited Receptors)

Where:

1. Cost of noise barrier is the total anticipated cost of the noise barrier including design, ROW, utilities, and construction. For this analysis, an average cost of $32 per square foot of barrier wall is assumed.
2. The number of benefited receptors is the total number of receptors receiving a noise reduction of at least 5 dB(A).

The proposed abatement must achieve the noise reduction design goal of 7 dB(A) for a minimum of 50 percent of front row benefited receptors.

Once a proposed noise barrier has been determined to satisfy the feasibility and reasonableness requirements described above, the solicitation of views of the affected property owners and residents (benefited receptors) is the final step in determining if a proposed noise barrier will be constructed. When the majority of benefited receptors and property owners are opposed to construction of a noise barrier, KYTC will give great deference to these opinions in making a final determination regarding the reasonableness of the measure. Similarly, where the majority of the benefited receptors and property owners are in support of noise barrier construction, and the proposal satisfies all other criteria for consideration outlined in the KYTC Noise Policy, KYTC will incorporate the abatement measures into the project.

5.2 NOISE BARRIER ANALYSIS FINDINGS

This report builds on 2023 Noise Study developed in support of the 2024 SEA/FONSI for the southern section of the project in Kentucky. Since the issuance of the 2024 SEA/FONSI, Certified Traffic was updated for the project in September 2024 and has been used in this re-analysis. In addition, the BSB Corridor Project DBT has identified and explored innovations, some of which would alter the horizontal and vertical alignments within parts of the southern section of the project, specifically in the areas near proposed noise barriers B20/NSA D and B23. The modified alternative is identified as Re-eval 1 Design. The proposed modified geometry has been incorporated into the updated analysis.

The 2023 Noise Study for the southern section of the project evaluated eight potential noise barriers to reduce noise impacts along the corridor. Of those eight, five were determined to satisfy the KYTC Noise Policy. It was determined that Barrier 16A did not meet the cost effectiveness criteria established by the KYTC Noise Policy and was removed from further consideration. It was further determined that Barriers 17A and 17B do not meet all of the criteria established in the KYTC Noise Policy, including cost effectiveness; however, these barriers remain under consideration as a potential noise/visual screening barriers in accordance with the environmental commitments made in the 2024 SEA/FONSI.

The Re-eval 1 Design alternative modifies Alternative I-W between the Kyles Lane interchange and MLK Jr. Boulevard. Barriers that were previously proposed in this area of the project (B20/NSA D and B23) have been reevaluated to consider whether changes in location or geometry of the barriers are appropriate as a result of the modified alignment. As for the other areas of the project in the Kentucky Southern Section, no other adjustment in barrier location, length or height are recommended as a result of the current assessment.

For barriers B20/NSA D and B23, a noise barrier analysis was completed utilizing the TNM2.5® for adjacent residential communities and other noise sensitive areas where noise impacts are predicted for the Re-eval 1 Design alternative. Updated Certified Traffic was used to assess 2024 Existing conditions and 2049 Build conditions. Copies of the TNM output is provided in Appendix C.

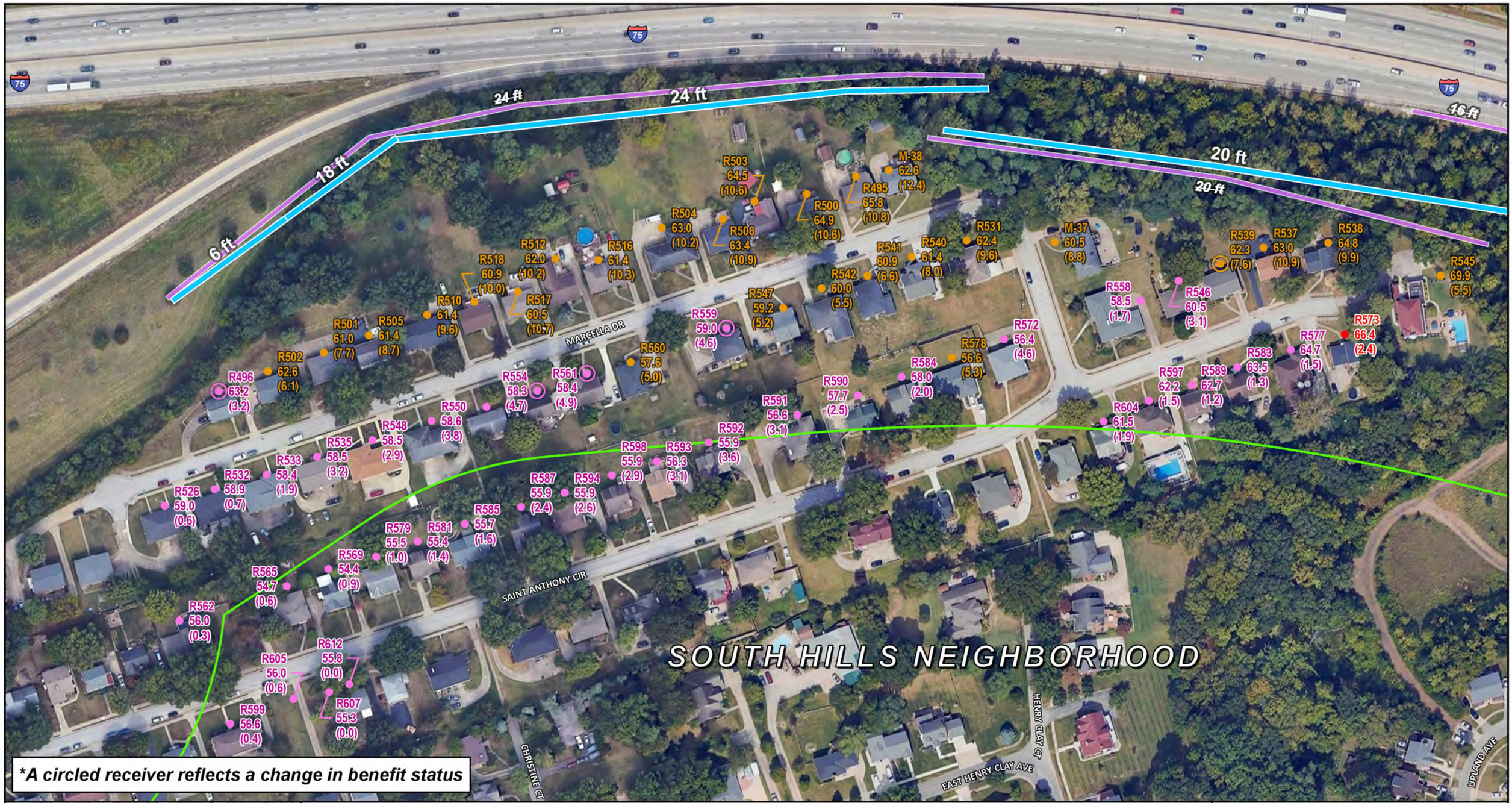
Barrier B20/NSA D

At its western end, adjacent to the South Hills Neighborhood, barrier locations have only been modestly modified but barrier heights were adjusted to heights ranging from 6’ - 20’ to take advantage of grading and terrain (see Exhibit 3A). Further to the east, the shift of the alignment necessitated the relocation of the proposed barrier slightly to the south of its previously proposed location. The change resulted in four properties, benefited by the previous design, no longer being considered as benefited; one property that was not previously benefited would be benefited by the modified design. Moving further eastward beyond the South Hills Neighborhood, the length of the next barrier wall section was shortened, leaving a break of approximately 435’ (see Exhibit 3B) where the nearest receptor is approximately 607’ feet to the south. The barrier then begins again, ranging from 20-24’ through most of the remainder of its length except for short 12’ and 16’ sections near each end. It benefits 30 additional receptors along Emery Place and Emery Drive representing 10 properties; two receptors in the area previously identified as benefited are no longer benefited by the modified design. The height is raised on the east end compared with earlier designs, resulting in an additional 19 benefited receptors north of Highland Avenue near the Ivy Knoll Senior Living Community representing ten properties (see Exhibit 3C).

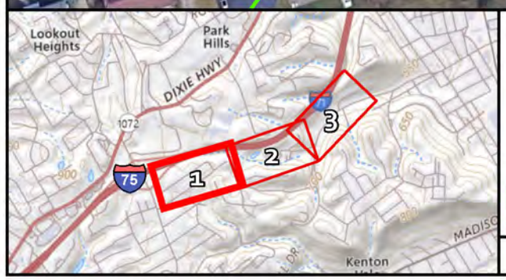
The combined barrier system, totaling 4,712 feet in length and ranging in height from 6-24 feet, is predicted to benefit 168 receptors and achieve a 5 dB(A) reduction for at least 50% of those properties, meeting KYTC’s feasibility criteria. The cost of the barrier system is estimated to be $3,179,296 resulting in a CBR of $18,924 per benefited

receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers – combined in a barrier system - meet KYTC's reasonableness threshold. The barriers would provide 7 dB(A) of attenuation for 63 percent of front-row receptors. This is greater than the 50 percent design goal established in the KYTC Noise Policy; therefore, the barriers would meet this reasonableness criterion.

The barrier achieves a 5 dB(A) or greater noise reduction for at least 50 percent of the impacted receptors and satisfies the 7 dB(A) minimum noise reduction goal for 50 percent or more of the front row benefited receptors. The modified barrier meets all feasibility and reasonableness criteria established by the KYTC Noise Policy for inclusion in the project.



*A circled receiver reflects a change in benefit status



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted*
- Impacted, Not Benefitted*
- Benefitted*
- 500' Noise Buffer (Southern Study Area)
- Proposed Noise Barrier
- 2024 FONSI / SEA Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design Barrier B20 / NSA D (6 to 24 ft)
Exhibit 3A

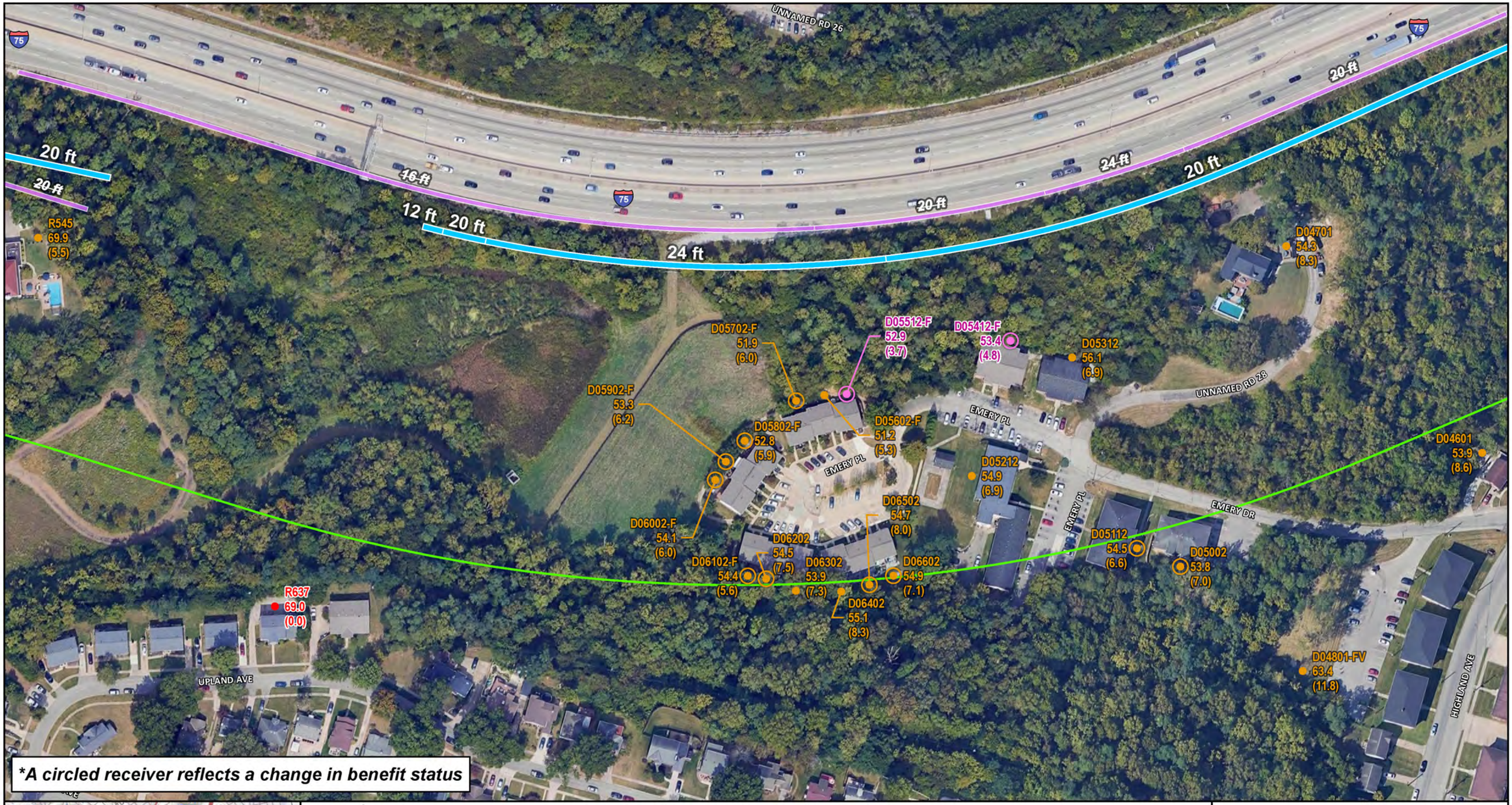
TEAM KENTUCKY TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



*A circled receiver reflects a change in benefit status



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted*
- Impacted, Not Benefitted*
- Benefitted*
- 500' Noise Buffer (Southern Study Area)
- Proposed Noise Barrier
- 2024 FONSI / SEA Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design Barrier B20 / NSA D (6 to 24 ft)
Exhibit 3B

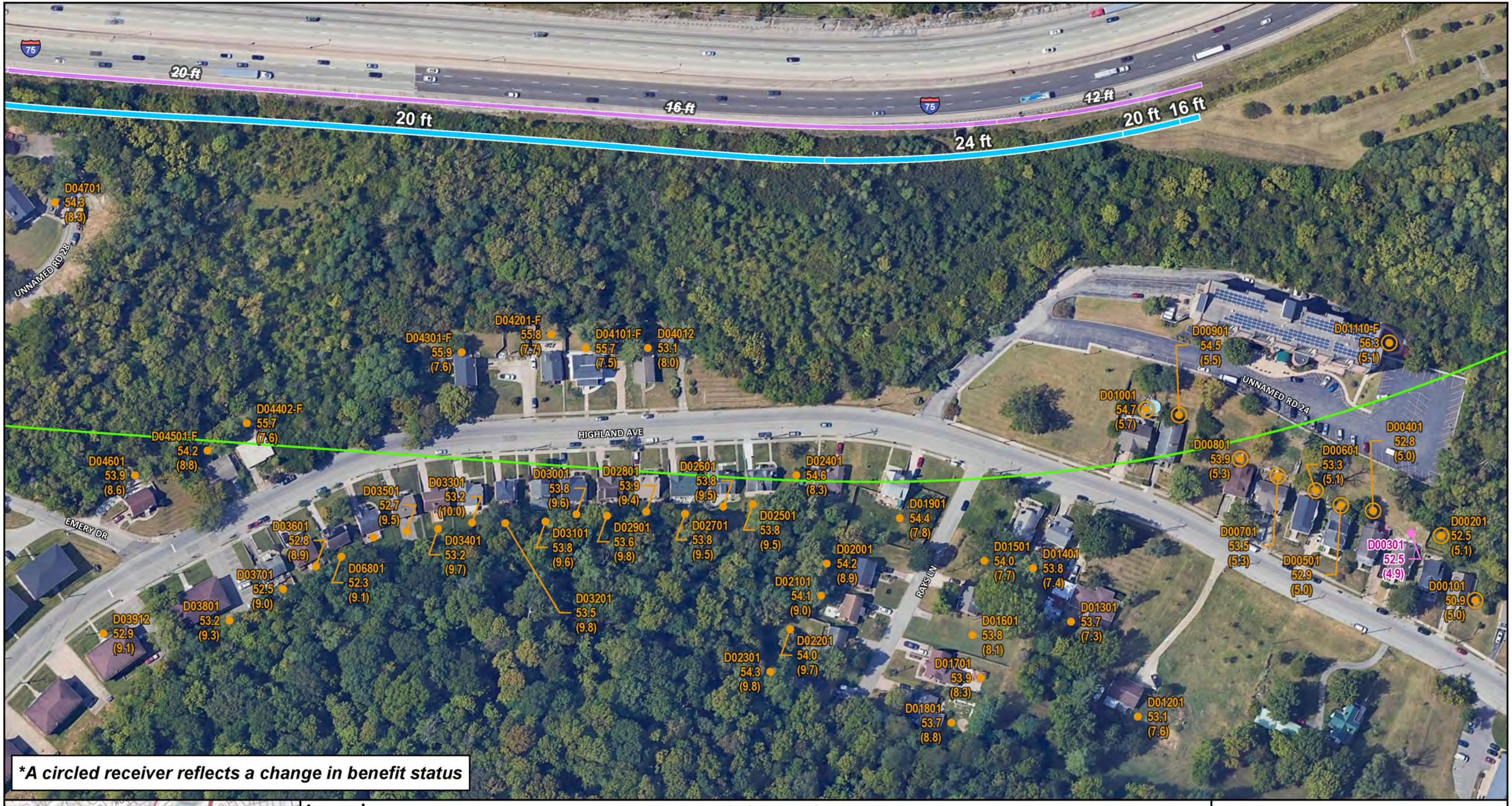
TEAM KENTUCKY TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



*A circled receiver reflects a change in benefit status



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted*
- Impacted, Not Benefitted*
- Benefitted*
- 500' Noise Buffer (Southern Study Area)
- Proposed Noise Barrier
- 2024 FONSI / SEA Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design Barrier B20 / NSA D (6 to 24 ft)
Exhibit 3C

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

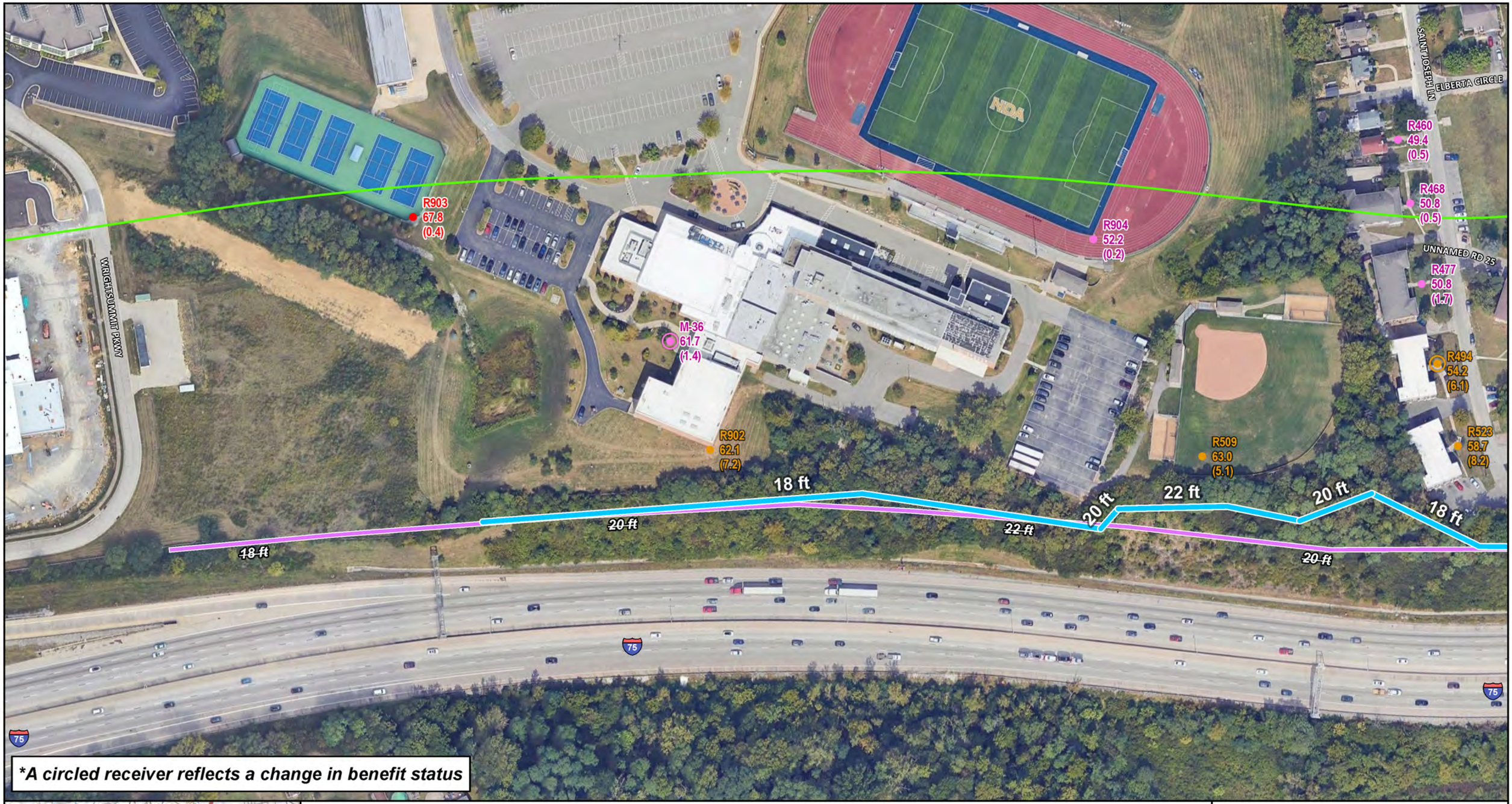
Barrier B23

This design was originally developed in the 2023 Noise Study to address the noise levels at the Notre Dame Academy, both for interior levels in its auditorium and classrooms as well as exterior levels at its sports complexes. There are also five full-time residents on-site. Since the 2023 noise assessment, a car dealership has been constructed just south of Notre Dame Academy. Originally, B23 extended south to terminate in front of what is now the car dealership. The dealership informed KYTC they did not want a barrier in front of their facility, as they desired visibility from the interstate. As a result, B23 has been shortened by approximately 430 feet to terminate near the property line (see Exhibit 4A). The area of the school property adjacent to this section is primarily open land. The nearest amenity is tennis courts that are impacted but were not benefited by the previous design. Barrier heights of 18'-22' for the modified barrier are consistent with the previous design.

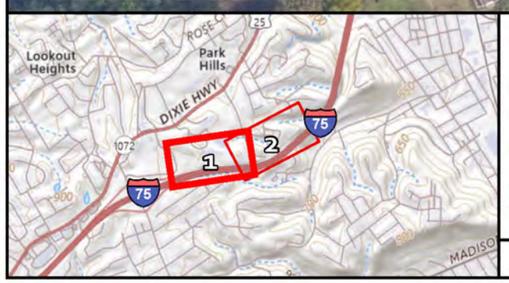
With the shift of the alignment to the south, away from the Academy, the barrier location has been adjusted to more closely follow the edge of right of way to take advantage of topography and avoid interference with retaining walls in the area. There are two retaining walls north of the corridor in this area. The barrier analyzed in the 2023 Noise Study was to be located just on the backside (north) of these retaining walls. This barrier has been moved to avoid these retaining walls and improve constructability.

An 18' section of barrier at its eastern extent provides relief for the apartments located at the end of Saint Joseph Lane (see Exhibit 4B), including two additional apartment buildings (R493 and R494) that would be benefited by the revised design. The apartment units do not have patios or balconies. Each building has been considered to have some minimal exterior use and has been addressed in the analysis as a single additional benefited receptor per building.

The barrier achieves a 5 dB(A) or greater noise reduction for at least 50 percent of the impacted receptors and satisfies the 7 dB(A) minimum noise reduction goal for 50 percent or more of the front row benefited receptors. The modified barrier meets all feasibility and reasonableness criteria established by the KYTC Noise Policy for inclusion in the project.



*A circled receiver reflects a change in benefit status



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted*
- Impacted, Not Benefitted*
- Benefitted*
- 500' Noise Buffer (Southern Study Area)
- Proposed Noise Barrier
- 2024 FONSI / SEA Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design Barrier B23 (18-22 ft)
Exhibit 4A

TEAM KENTUCKY
TRANSPORTATION CABINET

N
0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

SAINT JOSEPH LN
FAR HILLS DR
FAR HILLS DR
UNNAMED RD 25
ELBERTA CIRCLE
UNNAMED RD 26
UNNAMED RD 27

R460 49.4 (0.5)
R468 50.8 (0.5)
R477 50.8 (1.7)
R465 41.1 (1.2)
R476 50.2 (1.1)
R473 47.4 (1.7)
R481 55.1 (0.1)
R487 52.6 (0.0)
R509 63.0 (5.1)
R494 54.2 (6.1)
R493 52.7 (5.7)
R523 58.7 (8.2)
R515 61.4 (10.5)
R507 60.5 (9.0)
R525 64.2 (12.6)
M-35 69.2 (6.2)

22 ft
20 ft
20 ft
18 ft
18 ft

75

*A circled receiver reflects a change in benefit status



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted*
- Impacted, Not Benefitted*
- Benefitted*
- 500' Noise Buffer (Southern Study Area)
- Proposed Noise Barrier
- 2024 FONSI / SEA Barrier

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design Barrier B23 (18-22 ft)
Exhibit 4B

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

TEAM KENTUCKY TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Table 3: Summary of Noise Abatement Findings Changed by Re-Eval 1 Design*

Barrier #	Location	Percentage of Front Row Benefited Receptors which Receive 7 dB(A) or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5 dB(A) or Greater Noise Reduction (%)	Barrier Description					Number of Benefited Properties	Estimated Cost Per Benefiting Receptor (CBR) ($)	Noise Barrier Effectiveness			KYTC Noise Abatement Criteria Satisfied (Yes/No)
				Length (feet)	Beginning Point and Highway Direction	Ending Point and Highway Direction	Noise Barrier Height (ft)	Estimated Cost ($)			Design Goal Achieved	Acoustic Feasibility Achieved (Yes/No)	Cost Effective Achieved (Yes/No)	
B20/ NSA D	NB between Kyle's Lane and 12th St	63 (59)	76 (55)	4,712 (5,255)	NB 446+15	NB 496+00	6-24 (12-24)	**$3,179,296 ($3,149,580)**	**168 (132)**	$18,924 ($23,860)	Yes	Yes	Yes	**Yes**
B23	SB between 12th St and Kyle's Lane	99 (84)	86 (96)	1,972 (2,350)	SB 477+00	SB 457+20 (SB 453+50)	18-22	**$1,176,822 ($1,464,284)**	**83 (81)**	$14,178 ($18,078)	Yes	Yes	Yes	**Yes**

* Comparable results from Alternative I-W analyzed in the 2024 SEA/FONSI presented in parentheses where different from Re-eval 1 Design

5.3 PARALLEL BARRIER CONSIDERATION

Within the study area there are no parallel barrier configurations with width-to-height ratios of less than 10:1 which would warrant further TNM2.5® modeling to quantify sound barrier performance degradation and require adjustments to the recommended sound barrier configurations outlined in this report.

6.0 COORDINATION WITH LOCAL OFFICIALS

Coordination with and providing information to local officials is critical to developing a comprehensive approach to creating livable communities adjacent to highways. Impacts of highway traffic noise can be reduced through a program of shared responsibility. Requests to approve land use changes adjacent to highways should consider the current and predicted traffic noise.

Table 4 presents design year sound levels for areas along I-75 where vacant and possibly developable lands exist and compares those values with similar results that were developed in the 2023 Noise Study for Alternative I-W. Noise predictions were made for distances ranging from 100 feet to 575 feet from the edge of pavement (EOP) of Re-eval 1 Design for the Build condition in 2049. As indicated, sound levels exceed the NAC of 67 dB(A) for land use Categories B and C to a distance of 475 feet from EOP. Sound levels exceed the NAC of 72 dB(A) for land use Category E up to 200 feet from EOP.

The values in Table 4, while calculated at a particular location, do not represent predicted levels at a particular location along the roadway. Sound levels will vary with changes in terrain and will be affected by the shielding of objects such as buildings. The results calculated in the 2023 Noise Study were coordinated with local officials for their consideration when conducting planning for the environment adjacent to the corridor so that future development will be compatible with these levels. Due the minimal increase (0.2 – 0.3 dB(A)) in predicted noise levels associated with the Re-eval 1 Design alternative, further coordination with local officials is not considered necessary.

Table 4: Design Year 2049 Sound Levels for Undeveloped Lands

Distance from I-75 (1)	2023 Alternative I-W dB(A) Leq (2)	2024 Re-eval 1 Design Alternative dB(A) Leq (2)	Difference Re-eval 1 Design – Alt I-W
100 Feet	77.5	77.8	0.3
125 Feet	76.5	76.8	0.3
150 Feet	74.8	75.1	0.3
175 Feet	73.2	73.4	0.2
200 Feet	72.4	72.6	0.2
225 Feet	71.5	71.7	0.2
250 Feet	70.8	71.0	0.2
275 Feet	70.3	70.5	0.2
300 Feet	69.8	70.0	0.2
325 Feet	69.4	69.6	0.2
350 Feet	69.0	69.2	0.2
375 Feet	68.6	68.8	0.2
400 Feet	68.2	68.4	0.2
425 Feet	67.8	68.0	0.2
450 Feet	67.4	67.6	0.2
475 Feet	67.1	67.4	0.3
500 Feet	66.7	66.9	0.2
525 Feet	66.4	66.7	0.3
550 Feet	66.1	66.3	0.2
575 Feet	65.8	66.0	0.2

(1) Distance is measured perpendicular to edge of pavement of I-75 near Sta. 467+00 RT

(2) Modeled at elevation of outside lane

7.0 NOISE INFORMATION MEETINGS

Since completion of the 2023 Noise Study, in accordance with the KYTC Noise Policy, 440 letters were sent to all owners and residents of properties that are considered benefited (>5 dB reduction) by the currently proposed noise barriers in the Kentucky Southern Section of the project. The letter explained that their opinions were being sought regarding whether they were in favor of the barriers being constructed and, if constructed, their preference for aesthetic finish (smooth or ashlar cut stone) of the finished product. An on-line meeting was held with 38 interested owners and residents on April 14, 2025. A presentation was made that summarized the project, outlined the on-going coordination with benefited receptors, provided details of the noise evaluations conducted for the project, and provided opportunity for participants to ask questions of project officials. In addition, an in-person Open House was held on April 29, 2025 from 2:00 pm to 6:00 pm at the KYTC District 6 Office in Covington with 11 persons in attendance. The meeting was informal and provided additional opportunity for owners and residents to ask questions and voice opinions or concerns to KYTC officials.

Voting was conducted for a period of 30 days resulting in 60 votes being cast. Votes cast were weighted in accordance with KYTC Noise Policy, with greater weight being given to front-row receptors. The public response was overwhelmingly in favor (93%) of construction of all of the proposed barriers in the Kentucky Southern Section. There were four ballots received that voted against any of the proposed barriers. Considering weighted results, 86% of respondents were in favor of barrier construction. The public was highly in favor (95%) of using an ashlar cut stone

finish for the barriers. A summary of the voting results broken down by barrier is provided in Table 5. More detailed documentation of the meetings conducted and voting results is provided in Appendix A.

The Church of the Nazarene, located adjacent to proposed Barrier B19, was responsible for the 23 "No" votes for that barrier. The 2023 Noise Study assessed interior and exterior uses at the property and an equivalent number of receptors were determined in accordance with the KYTC Noise Policy. The assessment resulted in the assignment of 22 equivalent receptors to the church property. The church also owns an adjacent single-family residence and cast an additional vote for that property against barrier construction.

Table 5. Summary of Voting Results by Barrier

Barrier	Votes Cast to Construct		Weighted Votes to Construct		Finish Preference	
	Yes	No	Yes	No	Smooth	Stone
B16B	3	1	8	0	0	4
B17A and B17B*	11	0	38	0	2	9
B18	12	0	36	0	0	12
B19	16	2	40	23	1	17
B20/NSA D	14	1	48	4	0	15
B23	0	0	0	0	0	0

* Barriers B17A and B17B do not satisfy all KYTC Noise Abatement criteria but remain under consideration as visual/noise barriers, consistent with commitments made in the 2024 SEA/FONSI.

8.0 CONSTRUCTION NOISE

Noise associated with construction activities of the Re-eval 1 Design is not expected to be substantially different than the impacts described in the 2024 SEA/FONSI for the Concept I-W Base Design. Within the Kentucky Southern Section, construction activities will remain consistent with those outlined in the 2024 SEA/FONSI. The construction noise commitment detailed in the 2024 SEA/FONSI (Commitment 32) remains unchanged.

9.0 SUMMARY OF PROPOSED NOISE ABATEMENT MEASURES FOR KENTUCKY SOUTHERN SECTION

As discussed in Section 7.2, Barriers B20/NSA D and B23 have been modified to address changes in design to incorporate Innovation 3 into the project as reflected in the Re-eval 1 Design alternative. These barriers have been determined to satisfy all criteria in the KYTC Noise Policy for inclusion into the project. This section summarizes the status for all barriers in the Kentucky Southern Section of the project.

Barrier B16B - Statement of Likelihood

Barrier 16B is configured similarly to the existing barrier in this section, with the exception of the south end being extended 400’ to provide mitigation for the Youthland Academy as well as greater mitigation for other receptors near the southern end. This wall extends 1,308 feet, with heights varying from 12‘-22’ and produces a CBR of $38,091.

Based on the current project design and traffic projections, Barrier B16B is feasible and reasonable in accordance with KYTC’s Noise Policy. Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for an ashlar cut stone finish. Inclusion of Barrier B16B into the project is considered likely for this location.

Barriers B17A & B17B - Statement of Likelihood

This wall was broken down into two design analyses. Both have the same general footprint but were optimized with different wall heights to provide benefit for the greatest number of receptors at the lowest possible CBR. Barriers B17A and B17B benefit 16 and 13 receptors with a CBR of $47,465 and $49,791, respectively. Neither barrier is recommended solely on the basis of noise abatement; however, the barriers remain under consideration as a potential noise/visual screening barrier in accordance with the environmental commitments made in the 2024 SEA/FONSI.

Based on the current project design and traffic projections, a structural noise barrier is feasible, but not reasonable in accordance with KYTC’s Noise Policy. Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for an ashlar cut stone finish. Inclusion of Barrier B17A or B17B into the project is considered likely for this location. KYTC continues to evaluate the proposed barriers to inform its decision on which of the two barriers to implement.

Barrier B18 - Statement of Likelihood

This design has a height varying from 16 to 24 feet spanning 4,487’. Though it is the longest proposed wall and the costliest at nearly $2.8 million, it has the lowest CBR among those considered ($13,104) due to the high number of benefited receptors.

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC’s noise policy. Public response gathered during outreach efforts in April-May 2025 were

favorable to the construction and expressed a preference for an ashlar cut stone finish. Inclusion of Barrier B18 into the project is considered likely for this location.

Barrier B19 - Statement of Likelihood

This design has a constant height of 20 feet spanning 2,617'. The estimated cost for this wall is $1.67 million, but due to the relatively large number of benefitted receptors (59), it has an acceptable CBR of $28,315.

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy. Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for an ashlar cut stone finish. Inclusion of Barrier B19 into the project is considered likely for this location.

Barrier B20/NSA D - Statement of Likelihood

Since the 2023 Noise Analysis was concluded, the proposed alignment of I-75 has been shifted in the Re-eval 1 Design. The model was reconfigured and the barrier in this area was redesigned. With this redesign, the barrier system was enhanced to benefit 36 more receptors, at a reduced overall length & CBR.

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy. Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for an ashlar cut stone finish. Inclusion of Barrier B20/NSA D into the project is considered likely for this location.

Barrier B23 – Statement of Likelihood

Since the 2023 Noise Analysis was concluded, the proposed alignment of I-75 has been shifted in the Re-eval 1 Design. The model was reconfigured and the barrier in this area was redesigned. With this redesign, the barrier system was enhanced to benefit an additional two receptors, at a reduced overall length & CBR.

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy. Public response gathered during outreach efforts in April-May 2025 were favorable to the construction and expressed a preference for an ashlar cut stone finish. Inclusion of Barrier B23 into the project is considered likely for this location.

Total construction cost of all recommended noise and noise/visual barriers for Revised Concept I-W incorporating Re-eval 1 Design in the project southern section, including Barrier B20/NSA D extending into the northern analysis section, is estimated to be $10,948,328, providing noise abatement to 571 equivalent benefiting receptors. These totals include both Barrier 17A and Barrier 17B, of which only one will be selected for implementation. Depending on the selection of Barrier 17A or Barrier 17B the total cost would be $10,076,744 or $10,188,893 and would benefit 555 to 558 receptors, respectively.

Table 6. Summary of Noise Abatement Findings

Barrier #	Location	Percentage of Front Row Benefited Receptors which Receive 7 dB(A) or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5 dB(A) or Greater Noise Reduction (%)	Barrier Description					Number of Benefited Properties	Estimated Cost Per Benefiting Receptor (CBR) ($)	Noise Barrier Effectiveness			KYTC Noise Abatement Criteria Satisfied (Yes/No)
				Length (feet)	Beginning Point and Highway Direction	Ending Point and Highway Direction	Noise Barrier Height (ft)	Estimated Cost ($)			Design Goal Achieved	Acoustic Feasibility Achieved (Yes/No)	Cost Effective Achieved (Yes/No)	
Barriers Unchanged by Innovation #3, Traffic Updates or other Design Revisions														
B16B	SB between Kyle's Lane and Dixie Highway	88	82	1,308	SB 412+25	SB 398+95	12-22	**$723,746**	**19**	$38,091	Yes	Yes	Yes	**Yes**
B17A	SB between Dixie Highway and Buttermilk Pike	58	46	1,153	SB 381+55	SB 370+60	18-24	**$759,435**	**16**	$47,465	Yes	Yes	No	No
B17B		32	25	1,153	SB 381+55	SB 370+60	16-20	**$647,286**	**13**	$49,791	No	Yes	No	No
B18	NB between Buttermilk Pike and Dixie Highway	94	95	4,487	NB 347+62	NB 391+74	16-24	**$2,791,144**	**213**	$13,104	Yes	Yes	Yes	**Yes**
B19	NB between Dixie Highway and Kyle's Lane	84	92	2,617	NB 405+57	NB 431+88	20	**$1,670,599**	**59**	$28,315	Yes	Yes	Yes	**Yes**
Barriers Modified to Address Innovation #3, Traffic Updates or other Design Revisions*														
B20/ NSA D	NB between Kyle's Lane and 12th St	63 (59)	76 (55)	4,712 (5,255)	NB 446+15	NB 496+00	6-24 (12-24)	**$3,179,296 ($3,149,580)**	**168 (132)**	$18,924 ($23,860)	Yes	Yes	Yes	**Yes**
B23	SB between 12th St and Kyle's Lane	99 (84)	86 (96)	1,972 (2,350)	SB 477+00	SB 457+20 (SB 453+50)	18-22	**$1,176,822 ($1,464,284)**	**83 (81)**	$14,178 ($18,078)	Yes	Yes	Yes	**Yes**
		Total Cost and Number of Benefited Properties for Recommended Noise Barriers =						**$10,948,328** ** **($11,206,074)**	**571 (533)**					

* Comparable results from Alternative I-W analyzed in the 2024 SEA/FONSI presented in parentheses where different from the Re-eval 1 Design

** Total cost includes both Barriers 17A and 17B, of which only one will be selected for implementation. With Barrier 17A, $10,076,744 (555 benefited); With Barrier 17B, $10,188,893 (558 benefited)





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B16B (12-22 t)
Exhibit 5A

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

R709
64.5
(1.9)

R710
61.3
(3.3)

R711
62.8
(4.0)

R715
61.4
(8.0)

R726
62.3
(9.1)

R714
67.7
(5.2)

R744
65.4
(8.0)

R755
65.3
(7.6)

R779
64.9
(7.5)

R734
67.1
(8.3)

R801
65.0
(5.0)

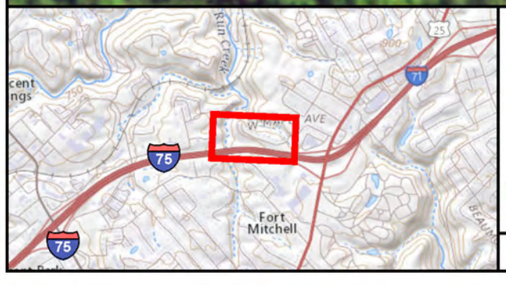
R822
66.3
(1.6)

M-48
61.3
(1.9)

WEST MAPLE AVE

18 ft | 22 ft | 24 ft | 22 ft | 20 ft | 18 ft

ASHTON RD



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project Noise Study: Kentucky - Southern Section KYTC Item No. 6-17

Re-eval 1 Design: Barrier B17A (18-24 ft)
Exhibit 5B

TEAM KENTUCKY
TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

R710
62.2
(2.4)

R709
64.3
(2.1)

R711
64.1
(2.7)

R715
64.4
(5.0)

R726
64.8
(6.6)

R744
67.8
(5.6)

R755
68.2
(4.7)

R779
67.7
(4.7)

R801
66.6
(3.4)

R822
66.9
(1.0)

M-48
62.1
(1.1)

R714
67.9
(5.0)

R734
67.7
(7.7)

20 ft

18 ft

16 ft



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B17B (16-20 ft)
Exhibit 5C

TEAM KENTUCKY
TRANSPORTATION CABINET

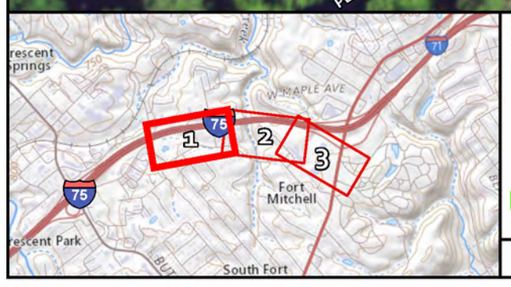
N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

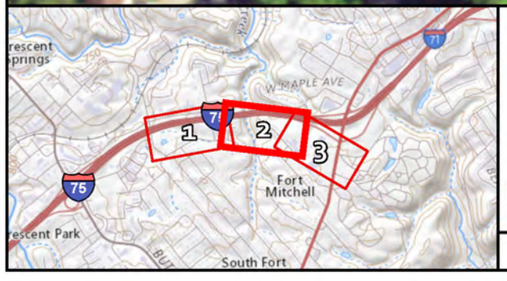
Re-eval 1 Design: Barrier B18 (16-24 ft)
Exhibit 5D

N

0 125 250
Feet

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

- -Receptor #
- -Predicted Abated Noise Level
- -(Noise Reduction [dBA])
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B18 (16-24 t)
Exhibit 5E

TEAM KENTUCKY TRANSPORTATION CABINET

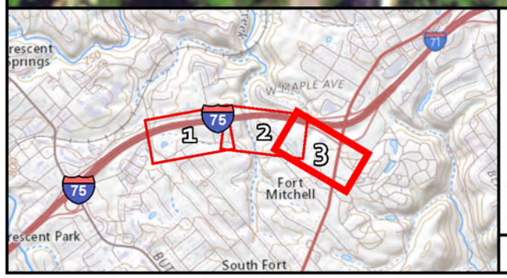
N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

- -Receptor #
- -Predicted Abated Noise Level
- -(Noise Reduction [dBA])
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B18 (16-24 ft)
Exhibit 5F

TEAM KENTUCKY
TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B19 (20 ft)
Exhibit 5G

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

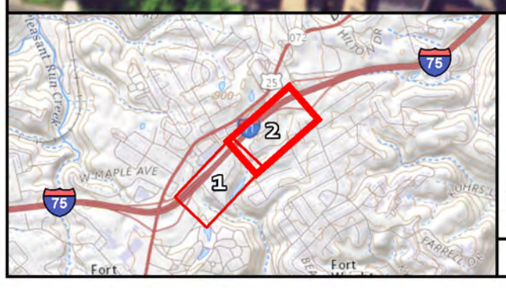
Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

20 ft

R774 61.5 (6.0)
R780 62.4 (10.7)
R799 60.3 (9.9)
R791 61.5 (9.6)
R790 62.6 (11.3)
M-42 55.7 (13.2)
R796 62.9 (11.8)
R805 62.9 (11.0)
R807 63.6 (9.7)
R802 66.0 (7.1)
R794 65.2 (5.7)
M-41 75.3 (0.5)
R834 58.9 (9.6)
R817 60.3 (9.8)
R812 57.8 (7.9)
R816 57.2 (6.2)
R833 56.9 (5.8)
R832 56.4 (5.3)
R842 56.5 (2.8)
R843 57.2 (8.0)
R847 56.4 (8.1)
R846 55.6 (7.2)
R849 55.1 (6.2)
R855 55.1 (5.4)
R856 55.0 (6.0)
R861 54.4 (3.8)
R859 54.9 (3.7)
R858 55.4 (3.8)

RIVARD DR
HIGHVIEW DR
KENNEDY RD
ROSA CT
LAKE ST
UNNAMED ALY 172
75
1072



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B19 (20 ft)
Exhibit 5H

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

0 125 250
Feet

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

R903
67.8
(0.4)

R904
52.2
(0.2)

R460
49.4
(0.5)

R468
50.8
(0.5)

R477
50.8
(1.7)

M-36
61.7
(1.4)

R494
54.2
(6.1)

R902
62.1
(7.2)

R509
63.0
(5.1)

R523
58.7
(8.2)

18 ft

20 ft

22 ft

20 ft

18 ft

WRIGHTSUMMIT PKWY

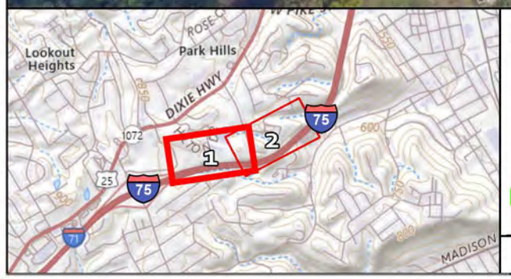
SAINT JOSEPH LN

ELBERTA CIRCLE

UNNAMED RD 25

NDA

75



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eva1 1 Design: Barrier B23 (18-22 ft)
Exhibit 5I

TEAM KENTUCKY
TRANSPORTATION CABINET

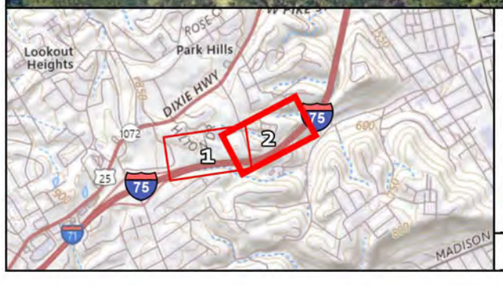
N

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eva1 1 Design: Barrier B23 (18-22 ft)
Exhibit 5J

TEAM KENTUCKY
TRANSPORTATION CABINET

N
0 125 250
Feet

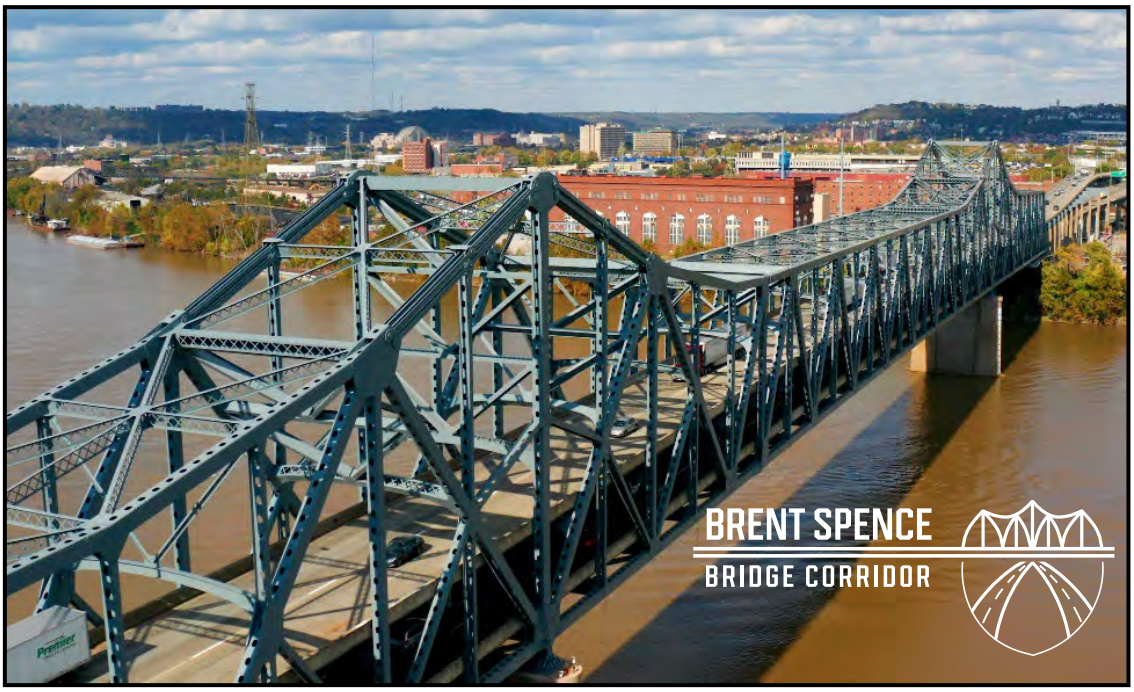
Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Appendix A: Noise Informational Meeting and Outreach Summary

Noise Barrier Information Meetings and Results
Kentucky Southern Section

Brent Spence Bridge Corridor Project
Item No. 6-17.00
Kenton County, Kentucky



Prepared for:

TEAM KENTUCKY®
TRANSPORTATION CABINET

Prepared by:

Palmer ENGINEERING

May 2025

Table of Contents

1.0 Introduction 1

2.0 Kentucky Southern Section 1

2.1 Outreach 2

2.2 Ballots 3

2.3 Meeting 3

3.0 Continued Outreach 10

4.0 Results 11

5.0 Conclusions 11

List of Tables

Table 1: Summary of Ballot Results 11

List of Figures

Figure 1. Barrier 16B 4

Figure 2. Barrier 17A 4

Figure 3. Barrier 17B 5

Figure 4. Barrier B18 – 1 5

Figure 5. Barrier B18 – 2 6

Figure 6. Barrier B18 – 3 6

Figure 7. Barrier B19 - 1 7

Figure 8. Barrier B19 - 2 7

Figure 9. Barrier B20 – 1 8

Figure 10. Barrier B20 - 2 8

Figure 11. Barrier B20 – 3 9

Figure 12. Barrier B23 - 1 9

Figure 13. Barrier B23 -2 10

Appendices

Appendix A: Mailing

A.1: Kentucky Southern Section Benefited Receptors

A.2: Example Copies of Letters

A.3: Returned Letters

Appendix B: Noise Barrier Informational Meeting Webpage

Appendix C: April 14, 2025 On-Line Meeting

C.1: April 14, 2025 Kentucky Southern Section Noise Barrier Information Meeting Presentation

C.2.: Attendee List

Appendix D: KYTC Open House Meeting April 29, 2025

D.1: Attendee List

D.2: Handout

D.3: Exhibits

Appendix E: Results Detail

1.0 INTRODUCTION

Noise impacts for the Kentucky Section of the Brent Spence Bridge Corridor Project were analyzed in 2023 in support of a Supplemental Environmental Assessment/Finding of No Significant Impact (2024 SEA/FONSI) for the project. The project was divided into two sections referenced as Kentucky Northern Section and Kentucky Southern Section (see Figure 1). Since issuance of the 2024 SEA/FONSI, the design has been further refined to include Innovations identified by the Design-Build Contractor. The modifications resulted in a modified alternative referenced as Re-eval 1 Design. Noise analyses were updated in December 2024 to reflect changes associated with the modified alternative.

In accordance with the Kentucky Transportation Cabinet (KYTC) Traffic Noise Analysis and Abatement Policy (2022) (KYTC Noise Policy), outreach was conducted in April and May 2025 to seek the opinions of affected property owners and residents who would benefit from construction of noise abatement barriers. On-line meetings were held on April 14, 2025 and April 24, 2025 for the Southern and Northern Sections, respectively. In addition, an Open House Meeting was also held on April 29, 2025 at the KYTC District 6 Office in Covington. Through an on-line survey, benefited owners and residents were afforded the opportunity to express whether they were in favor of barriers being constructed in the vicinity of their properties of interest and, if constructed, their preference for the aesthetic finish (smooth or ashlar cut stone) to be applied to the end product.

This report has been prepared to document the outreach conducted to engage owners and residents of the Kentucky Southern Section and the results of the survey of their preferences.

2.0 KENTUCKY SOUTHERN SECTION

The Kentucky southern section extends from the Ohio River (MP 189.5) to south of the Dixie Highway (US25/US 42) interchange terminating at mile point 186.7 (see Figure 2). The Traffic Noise Impact Assessment Brent Spence Corridor Project Kentucky Southern Section (August 2023) prepared in support of the 2024 SEA/FONSI, evaluated eight noise barriers for feasibility and reasonableness at six locations. The abatement analysis concluded that five of the six noise barriers considered satisfied KYTC feasibility and reasonableness requirements for the build alternative. Though some barriers were determined to not meet the KYTC Noise Policy Criteria, some remain under consideration as potential noise/visual barriers. In this Kentucky Southern Section, barriers are to be considered for:

- 19 benefited receptors in Group B16B located on the southbound side of I-71/75 between Kyle's Ln and Dixie Hwy Interchanges, including Dixie Hwy, E Orchard Rd, and Leslie Ave. The proposed wall heights in this area range from 12-22 ft (see Figure 1).
- 16 benefited receptors in Group B17 located on the southbound side of I-71/75 between Dixie Highway and Buttermilk Pike, including West Maple Ave. The proposed wall heights in this area range from 18 to 24 ft (see Figure 2).

- 213 benefited receptors in Group B18 located on the northbound side of I-71/75 between Buttermilk Pike and Dixie Highway, including Beechwood Rd, Anna Jo Ln, Prather Ct, Ashton Rd and the Beechwood High School Campus. The proposed wall heights in this area range from 16 to 24 ft (see Figure 3-5).
- 59 benefited receptors in Group B19 located on the northbound side of I-71/75 between Dixie Hwy and Kyle's Ln interchanges, including Orchard Rd, Pieck Dr, Rivard Dr, Kennedy Rd, and Highview Dr. The proposed wall heights in this area are 20 ft (see Figure 6-7).
- 168 benefited receptors in Group B20 located on the northbound side of I-71/75 between Kyle's lane and 12th St interchanges, including Marcella Dr, Saint Anthony Cir, Emery Dr, Unnamed Rd 28, and Highland Ave. The proposed wall heights in this area range from 6 to 24 ft (see Figure 8-10).
- 81 benefited receptors in Group B23 located on the southbound side of I-71/75 between 12th St and Kyle's Ln, including St. Joseph Ln and Hilton Dr. The proposed wall heights in this area range from 18 to 22 ft (see figure 11-12).

2.1 Outreach

Property Valuation Administration (PVA) data was gathered from the Kenton County Government for each of the properties identified as benefited receptors in the *Reevaluation of Traffic Noise Impacts, Brent Spence Bridge Corridor Project Kentucky Southern Section, May 2025* (Noise Study). Data included both the physical address of each property as well as the property owner's name and address. Separate letters were developed for mailing to the owner and resident of each property, if different. For multi-residential properties, letters were sent both to the owner and to each residence. The letters provided a brief description of the project, the findings of the noise assessment, figures showing the location of the proposed barriers, the purpose, date, and time for the Noise Barrier Information Meeting, and explained the process for registering to attend the meeting and casting a vote. Six property owners (Emery Drive LLC, Highland Manor Apartments LLC, CJ Realties LLC, Highland LLC, HDH Elberta LLC, and Anduril Strategy LLC) were identified as the owners of numerous rental properties in the area. A unique letter was developed for these property owners to reduce paperwork for all involved parties. A copy of the mailing list and sample of the letters sent to residents and property owners can be found in Appendix A. Copies of returned envelopes for 35 letters that were "Undeliverable" or "Refused" are also provided in the Appendix. Additional efforts were made by phone to contact residents of addresses with letters returned as "undeliverable".

The letter directed the recipient to a web page (brentspencebridge.com/south) where they could register for the meeting, review barrier maps, and submit their ballot. Email communication was established with registrants to remind them of the upcoming meeting. On the day following the meeting, a recording of the meeting was posted to the Meeting Registration web page. A copy of the Registration web page and web page for submitting a

ballot is provided in Appendix B. A copy of the figures that were made available on the web page are provided as Figures 2 – 13.

2.2 Ballots

The letters sent to the owner and resident of each property provided instructions for the on-line meeting and voter registration, and a uniquely numbered PIN required for voting identification purposes. The online survey requested input regarding the desire to construct the proposed barriers and, if constructed, the preferred finish (smooth or cut stone). Space was also provided for additional comments. Parties were afforded 30 days from the date of the letter to submit their ballots for consideration. Survey results were checked against the mailing list to identify any voting inconsistencies; none were detected. Preferences for whether to construct the proposed barriers and wall finish were logged.

2.3 Meeting

A Noise Barrier Information Meeting was conducted on April 14, 2025 at 7:00 p.m. using an on-line Zoom platform. The meeting was attended by 31 property owners/residents from the area. A list of attendees and project team participants can be found in Appendix C. The project team members were introduced and a brief tutorial on how to submit questions or comments in Zoom during the meeting was provided.

A presentation was made that explained the purpose of the meeting, some basics of noise analysis, results of the Noise Study conducted for the project, options for barrier finish, and the balloting process being used to solicit their opinions. A copy of the presentation used during the meeting is provided in Appendix C.

Attendees were invited to a KYTC "Open House" format meeting held on April 29, 2025, from 2 p.m. to 6 p.m., held by the project team at the District 6 Office. The meeting provided an additional opportunity for benefited receptors to pose additional questions or voice concerns to KYTC Staff and the Brent Spence Bridge Corridor Project Team. Refer to Section 3.0 Continued Outreach and Appendix D for additional information.



Figure 1. Barrier 16B



Figure 2. Barrier 17A



Figure 3. Barrier B17B



Figure 4. Barrier B18 – 1



Figure 5. Barrier B18 – 2



Figure 6. Barrier B18 – 3



Figure 7. Barrier B19 - 1



Figure 8. Barrier B19 - 2



Figure 9. Barrier B20 – 1



Figure 10. Barrier B20 - 2



Figure 11. Barrier B20 – 3



Figure 12. Barrier B23 - 1



Figure 13. Barrier B23 -2

3.0 CONTINUED OUTREACH



On April 29, 2025, the Kentucky Transportation Cabinet (KYTC) hosted an in-person "Open House" format meeting at the KYTC District 6 Office in Fort Mitchell, KY, to supplement the previously held virtual meetings for the north and south sections. The purpose of the Open House was to provide an opportunity for residents affected by noise and included in the polling process to speak directly with KYTC staff and members of the Brent Spence Bridge Corridor Project team. Project exhibits were on display, and team members were available to answer questions and address concerns related to noise impacts. Informational brochures were also provided to attendees upon entry. A total of 11 benefited owners/residents and 10 project team members attended the meeting. A copy of the sign in sheet and brochure can be found in Appendix D. See Appendix E for a detailed analysis of results.

4.0 RESULTS

During the comment period, 60 ballots were received from benefited property owners and residents. In accordance with KYTC Noise Policy, Front-Row Owner preferences for wall construction (Yes/No) were weighted more heavily than other owner's and resident's ballots by a factor of three. Preferences on finish were equally weighted among all parties. A Summary of Ballot Results is provided in Table 1.

The public response was overwhelmingly in favor (93%) of construction of all of the proposed barriers in the Kentucky Southern Section. Considering weighted results, 86% of respondents were in favor of barrier construction. The public was highly in favor (95%) of using an ashlar cut stone finish for the barriers. All but four of the returned ballots were in favor of construction of the barriers. The Church of the Nazarene, located adjacent to proposed Barrier B19, was responsible for the 23 "No" votes. The 2023 Noise Study assessed interior and exterior uses at the property and an equivalent number of receptors were determined in accordance with the KYTC Noise Policy. The assessment resulted in the assignment of 22 equivalent receptors to the church property. The church also owns an adjacent single-family residence and cast an additional vote for that property against barrier construction.

Table 1: Summary of Ballot Results

Group	Ballots Received	Wall Preference Weighted Result (# votes)		Finish Preference	
		Yes	No	Smooth	Stone
Group B16B	4	8 (3)	1 (1)	-	4
Group B17	11	38 (11)	-	2	9
Group B18	12	36 (12)	-	-	12
Group B19	18	41 (16)	23.2 (2)	1	17
Group B20/NSA D	15	48 (14)	4 (1)	-	15
Group B23	0	-	-	-	-

5.0 CONCLUSIONS

Recent design innovations, developed since completion of the 2023 Noise Study and 2024 SEA/FONSI, resulted in a modified alternative identified as Re-eval 1 Design. In light of alignment revisions, the Noise Study for the Southern Kentucky Section was updated to document reevaluation of the barriers. Noise and noise/visual barriers were reassessed to modify and optimize design, as appropriate, in consideration of the updated design. Noise barriers were determined to satisfy KYTC Noise Policy criteria in five of the six locations. Barriers at the sixth location (B17A and B17B) remain in consideration for inclusion in the project as noise/visual barriers.

Consistent with the KYTC Noise Policy, outreach was conducted with 441 Property Owners and Residents (benefited receptors) who would benefit from the noise barriers (>5dB

reduction). Benefited receptors were identified and contacted to seek their opinions regarding barrier construction (Yes/No) and aesthetic finish (Smooth or Ashlar Cut Stone). Responses were weighted in accordance with the KYTC Noise Policy. The proposed barriers were presented to benefited owners and operators in an on-line meeting April 14, 2025 that provided information about the project, the KYTC Noise Policy, the proposed barriers, and explained the process being used to gather the opinions of the benefitted owners and residents. Voting was conducted on-line. An in-person Open House Meeting was held on April 29, 2025 to afford benefited owners and residents an additional opportunity to gather information and ask questions of KYTC staff regarding the proposal.

The opportunity to vote was open for 30 days from the date of the notification letter sent to residents and closed on May 5, 2025. In general, voting was overwhelmingly in favor of barrier construction with a strong preference for a cut stone finish.

Appendix A: Mailing

APPENDIX A.1

Kentucky Southern Section

Benefited Receptors

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
Group B16B				
B16B1052	EAST MAPLE LLC	2075 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2075 DIXIE HWY
B16B1053	EAST MAPLE LLC	2073 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2073 DIXIE HWY
B16B1054	ME BLEH LLC	2053 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2053 DIXIE HWY
B16B1055	WEST JAMES & KELI	2045 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2045 DIXIE HWY
B16B1056	PS & S REALTY LLC	2039 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2039 DIXIE HWY
B16B1057	2045 DIXIE HOLDINGS LLC	2045 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2045 DIXIE HWY
B16B1058	GERELASE LETEHANES H & ARAYA WELDAT	2037 DIXIE HWY	Ft Mitchell, Ky 41011-2609	2037 DIXIE HWY
B16B1059	GIBBONS KATHRYN H	3 E ORCHARD RD	Ft Mitchell, Ky 41011-2631	3 E ORCHARD RD
B16B1060	BEAM JAMES KYLE & KAYLAN MARIE	5 E ORCHARD RD	Ft Mitchell, Ky 41011-2631	5 E ORCHARD RD
B16B1061	TODD JAMES E & MARY F TTEES	7 LESLIE AVE	Ft Mitchell, Ky 41011-2630	7 LESLIE AVE
B16B1062	HIGGINS MARK L & AMY L	4 LESLIE AVE	Ft Mitchell, Ky 41011-2630	4 LESLIE AVE
B16B1063	MCNICHOL DAVIS	9 LESLIE AVE	Ft Mitchell, Ky 41011-2630	9 LESLIE AVE
B16B1064	SPADARO PHILIP J & MIDDENDORF CYNTHI	11 LESLIE AVE	Ft Mitchell, Ky 41011-2630	11 LESLIE AVE
B16B1065	STEENKEN MATTHEW W & KAREN L	13 LESLIE AVE	Ft Mitchell, Ky 41011-2630	13 LESLIE AVE
B16B1066	SHARP CAROL S	15 LESLIE AVE	Ft Mitchell, Ky 41011-2630	15 LESLIE AVE
B16B1067	COMMONWEALTH OF KY	17 LESLIE AVE	Ft Mitchell, Ky 41011-2630	17 LESLIE AVE
B16B1068	STEPHENSON WILLIAM & ELYSE	10 E ORCHARD RD	Ft Mitchell, Ky 41011-2632	10 E ORCHARD RD
B16B1069	RICHARDS JEREMY ALAN	8 E ORCHARD RD	Ft Mitchell, Ky 41011-2632	8 E ORCHARD RD
B16B2001O	PERRY JOHN	PO BOX 307	Alexandria, KY 41001-0307	2 ORCHARD RD E
B16B2004O	EAST MAPLE LLC	1088 WALBURG AVE #301	Villa Hills , KY 41017-4428	2075 DIXIE HWY
B16B2005O	EAST MAPLE LLC	1088 WALBURG AVE #301	Villa Hills , KY 41017-4428	2073 DIXIE HWY
B16B2006O	ME BLEH LLC	260 TIMBER LAKE CIR #202	Naples, FL 34104-0854	2053 DIXIE HWY
B16B2007O	WEST JAMES & KELI	2045 DIXIE HWY	Ft Mitchell, KY 41011-2609	2049 DIXIE HWY
Group B17				
B17A1198	HALPIN IV MAURICE J & DENISE A	110 W MAPLE AVE	Ft Mitchell, Ky 41011-2649	110 W MAPLE AVE
B17A1199	MIRACLE JOHN & GERALDINE	118 W MAPLE AVE	Ft Mitchell, Ky 41011-2649	118 W MAPLE AVE
B17A2190O	MATTHEWS TIMOTHY B & THERESE	930 OSPREY POINT LN	Knoxville, TN 37922-6586	114 MAPLE AVE W 1
B17AB1200	KUNKLER KEVIN & SCHULTE SARAH	122 W MAPLE AVE	Ft Mitchell, Ky 41011-2649	122 W MAPLE AVE
B17AB1201	BERGER JAMES ALEXANDER & BERGER LAU	126 W MAPLE AVE	Ft Mitchell, Ky 41011-2649	126 W MAPLE AVE
B17AB1202	HALPIN MICHAEL C & ANNE	130 W MAPLE AVE	Ft Mitchell, Ky 41011-2617	130 W MAPLE AVE
B17AB1203	ROBERTS PATRICIA H TRUSTEE	141 W MAPLE AVE	Ft Mitchell, Ky 41011-2671	141 W MAPLE AVE
B17AB1204	BERGER BRENDA S	139 W MAPLE AVE	Ft Mitchell, Ky 41011-2616	139 W MAPLE AVE
B17AB1205	1TERWORT KATHERINE WARE	137 W MAPLE AVE	Ft Mitchell, Ky 41011-2671	137 W MAPLE AVE
B17AB1206	1ROTH MARY JO & DISALVO RAYMOND	135 W MAPLE AVE	Ft Mitchell, Ky 41011-2671	135 W MAPLE AVE
B17AB1207	1JOHNSON SUSAN M	131 W MAPLE AVE	Ft Mitchell, Ky 41011-2616	131 W MAPLE AVE
B17AB1208	PARRY LAUREN K TRUSTEE	129 W MAPLE AVE	Ft Mitchell, Ky 41011-2616	129 W MAPLE AVE
B17AB1209	STANLEY HOLLY	127 W MAPLE AVE	Ft Mitchell, Ky 41011-2671	127 W MAPLE AVE
B17AB1210	1LUSBY MELISSA A	125 W MAPLE AVE	Ft Mitchell, Ky 41011-2616	125 W MAPLE AVE
B17AB1211	JACKSON CATHY M TRUSTEE	123 W MAPLE AVE	Ft Mitchell, Ky 41011-2616	123 W MAPLE AVE
B17AB1212	1TIERNEY SANDRA K & MICHAEL J	121 W MAPLE AVE	Ft Mitchell, Ky 41011-2671	121 W MAPLE AVE
Group B18				
B181001	HAZZARD AMY E & MATTHEW H	280 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	280 BEECHWOOD RD
B181002	HUFF TIM & LESLIE	282 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	282 BEECHWOOD RD
B181003	ERDMAN ERBEY & ANGELA	284 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	284 BEECHWOOD RD
B181004	BACOMO VANIZA	278 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	278 BEECHWOOD RD
B181005	KAYIATOS JOHN A	276 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	276 BEECHWOOD RD

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
B181006	BRADY IV JOSEPH M & TARA E	272 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	272 BEECHWOOD RD
B181007	POPOVA IRINA & LAZAR	268 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	268 BEECHWOOD RD
B181008	WAINSCOTT JAMES DANIEL & WAINSCOTT	260 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	260 BEECHWOOD RD
B181009	SCHAMER MATTHEW J & KIMBERLY A	250 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	250 BEECHWOOD RD
B181010	MASON JAMES N & LESLIE A	244 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	244 BEECHWOOD RD
B181011	SCHULER KAYLA B & COREY R	242 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	242 BEECHWOOD RD
B181012	PROCTOR KYLE J & ALISHA	240 BEECHWOOD RD	Ft Mitchell, Ky 41017-2719	240 BEECHWOOD RD
B181013	HOLZDERBER DAVID J & BARBARA L	219 ANA JO LN	Ft Mitchell, Ky 41017-2713	219 ANA JO LN
B181014	WOODS KEVIN L	215 ANA JO LN	Ft Mitchell, Ky 41017-2713	215 ANA JO LN
B181015	SCHMERGE FRANK B & DARLENE	216 ANA JO LN	Ft Mitchell, Ky 41017-2713	216 ANA JO LN
B181016	KEAM PAUL W & SUSAN J	236 BEECHWOOD RD	Ft Mitchell, Ky 41017-2738	236 BEECHWOOD RD
B181017	SPRINGELMEYER ROBERT & MARY	212 ANA JO LN	Ft Mitchell, Ky 41017-2713	212 ANA JO LN
B181018	FELTHAUS LAURA M & TYLER A	201 PRATHER CT	Ft Mitchell, Ky 41017-5639	201 PRATHER CT
B181019	DANNEMAN JAMES J & HOLLY M	205 PRATHER CT	Ft Mitchell, Ky 41017-5639	205 PRATHER CT
B181020	CARLISLE EDWIN & MELISSA	213 PRATHER CT	Ft Mitchell, Ky 41017-5639	213 PRATHER CT
B181021	WAY BARRY B & DEBRA L	208 PRATHER CT	Ft Mitchell, Ky 41017-5638	208 PRATHER CT
B181022	BLAIR DAVID M & DEBORAH A E	202 PRATHER CT	Ft Mitchell, Ky 41017-5638	202 PRATHER CT
B181023	PAUL JR ROBERT J & PAUL MARGARET HEL	217 PRATHER CT	Ft Mitchell, Ky 41017-5639	217 PRATHER CT
B181024	FLAHERTY SCOTT C & NICHOLE R	221 PRATHER CT	Ft Mitchell, Ky 41017-5639	221 PRATHER CT
B181025	CRIMMINS JASON T & NANCY A	212 PRATHER CT	Ft Mitchell, Ky 41017-5638	212 PRATHER CT
B181026	HAMILTON NEIL & KRISTA	230 BEECHWOOD RD	Ft Mitchell, Ky 41017-5638	230 BEECHWOOD RD
B181027	QUINN ROGER E & WANDA	18 ASHTON RD	Ft Mitchell, Ky 41017-2714	18 ASHTON RD
B181028	STAGER THOMAS J & TANYA M	20 ASHTON RD	Ft Mitchell, Ky 41017-2714	20 ASHTON RD
B181029	SWIFT JAMES J & LYNN D	22 ASHTON RD	Ft Mitchell, Ky 41017-2714	22 ASHTON RD
B181030	SIZEMORE CHARLES E	24 ASHTON RD	Ft Mitchell, Ky 41017-2714	24 ASHTON RD
B181031	DREIBELBIS HELENE L	26 ASHTON RD	Ft Mitchell, Ky 41017-2714	26 ASHTON RD
B181032	KORNEEVA ANNA	28 ASHTON RD	Ft Mitchell, Ky 41017-2714	28 ASHTON RD
B181033	ROBERTS CHARLES & NAGAI KAORI	30 ASHTON RD	Ft Mitchell, Ky 41017-2714	30 ASHTON RD
B181034	MORETON III DAVID & ALISON	32 ASHTON RD	Ft Mitchell, Ky 41017-2714	32 ASHTON RD
B181035	ESTEP DEREK	34 ASHTON RD	Ft Mitchell, Ky 41017-2714	34 ASHTON RD
B181036	JORDAN SYLVIA J	36 ASHTON RD	Ft Mitchell, Ky 41017-2714	36 ASHTON RD
B181037	KACEM CHRISTINA & ADEL	40 ASHTON RD	Ft Mitchell, Ky 41017-2714	40 ASHTON RD
B181038	MCMATH ROBERT ARCHER & MCMATH JAY	43 ASHTON RD	Ft Mitchell, Ky 41017-2714	43 ASHTON RD
B181039	PICKENS KENDAL	41 ASHTON RD	Ft Mitchell, Ky 41017-2714	41 ASHTON RD
B181040	PARROTT JAMES & JANICE	39 ASHTON RD	Ft Mitchell, Ky 41017-2714	39 ASHTON RD
B181041	VICE CHRISTINA ORZALI & VICE JONATHON	37 1/2 ASHTON RD	Ft Mitchell, Ky 41017-2714	37 1/2 ASHTON RD
B181042	MEINERDING OLIVER & CASSANDRA	37 ASHTON RD	Ft Mitchell, Ky 41017-2714	37 ASHTON RD
B181043	MARTIN DAVID H & KAREN S	35 ASHTON RD	Ft Mitchell, Ky 41017-2714	35 ASHTON RD
B181044	BULLOCK DAVID A & LISA	33 ASHTON RD	Ft Mitchell, Ky 41017-2714	33 ASHTON RD
B181045	MCINTYRE CHRISTOPHER & SONYA	31 ASHTON RD	Ft Mitchell, Ky 41017-2714	31 ASHTON RD
B181046	TOLLISON CASSANDRA L & MICHAEL	29 ASHTON RD	Ft Mitchell, Ky 41017-2714	29 ASHTON RD
B181047	NOTTINGHAM SCOTT L & ANNA M	27 ASHTON RD	Ft Mitchell, Ky 41017-2714	27 ASHTON RD
B181048	COZATCHY KYLE S & ERIN N	25 ASHTON RD	Ft Mitchell, Ky 41017-2714	25 ASHTON RD
B181049	MARSHALL BILLY J & TERESA A	23 ASHTON RD	Ft Mitchell, Ky 41017-2714	23 ASHTON RD
B181050	RICHMOND DAVID B & MIRA M	21 ASHTON RD	Ft Mitchell, Ky 41017-2714	21 ASHTON RD
B181051	BEECHWOOD INDEPENDENT SCHOOL DIST	50 BEECHWOOD RD	Ft Mitchell, Ky 41017-2716	50 BEECHWOOD RD
B182002O	LENNEY ETTA S	PO BOX 582	Addyston, OH 45001-0582	222 BEECHWOOD RD

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
B182003O	BEECHWOOD INDEPENDENT SCHOOL DIST	50 BEECHWOOD RD	Ft Mitchell, KY 41017-2716	16 ASHTON RD
Group B19				
B191070	CENTRAL CHURCH OF NAZARENE TRUSTEE	2006 PIECK LN	Ft Wright, Ky 41011-2667	2006 PIECK LN
B191071	PHAM PHUC TRONG	2000 PIECK LN	Ft Wright, Ky 41011-2667	2000 PIECK LN
B191072	KNUCKLES JACQUELINE & FRANKLIN	34 E ORCHARD RD	Ft Mitchell, Ky 41011-2632	34 E ORCHARD RD
B191073	GRIFFIN DANIELLE C & MICHAEL J	32 E ORCHARD RD	Ft Mitchell, Ky 41011-2632	32 E ORCHARD RD
B191074	ADELMAN JENNIFER L	30 E ORCHARD RD	Ft Mitchell, Ky 41011-2632	30 E ORCHARD RD
B191075	SPILLERS STEPHANIE	28 E ORCHARD RD	Ft Mitchell, Ky 41011-2632	28 E ORCHARD RD
B191076	MERCER MATTHEW J & JENNIFER R	2009 PIECK LN	Ft Wright, Ky 41011-2667	2009 PIECK LN
B191077	RUMP DARRIN T	2007 PIECK LN	Ft Wright, Ky 41011-2667	2007 PIECK LN
B191078	OWENS DENNY	2005 PIECK LN	Ft Wright, Ky 41011-2667	2005 PIECK LN
B191079	MOEVES TOBY & KATE	2003 PIECK LN	Ft Wright, Ky 41011-2667	2003 PIECK LN
B191080	CLARK BRANDON SCOTT	2001 PIECK DR	Ft Wright, Ky 41011-2667	2001 PIECK DR
B191081	REED JR JAMES D & KATHRYN M	29 E ORCHARD RD	Ft Mitchell, Ky 41011-2657	29 E ORCHARD RD
B191082	HAMMOND HOLLY L	35 E ORCHARD RD	Ft Mitchell, Ky 41011-2657	35 E ORCHARD RD
B191083	JOHANNEMANN MICHAEL A & JOHANNEM	2011 PIECK LN	Ft Mitchell, Ky 41011-2676	2011 PIECK LN
B191084	DICKE KEVIN J	38 E ORCHARD RD	Ft Mitchell, Ky 41011-2658	38 E ORCHARD RD
B191085	MCDONOGH JOHN E	1991 PIECK LN APT A	Ft Wright, Ky 41011-2639	1991 PIECK LN APT A
B191087	GENAL FRANCIS	1983 PIECK LN APT A	Ft Wright, Ky 41011-2639	1983 PIECK LN APT A
B191089	HERNANDEZ ADRIANA	1971 PIECK LN	Ft Wright, Ky 41011-2639	1971 PIECK LN
B191090	BRAMLAGE JOSEPH	1 HIGHVIEW DR	Ft Wright, Ky 41011-3645	1 HIGHVIEW DR
B191091	STRATMAN JOSEPH P & NANCY A	3 HIGHVIEW DR	Ft Wright, Ky 41011-3645	3 HIGHVIEW DR
B191092	SCHEPER MICHAEL & ANNA K	5 HIGHVIEW DR	Ft Wright, Ky 41011-3645	5 HIGHVIEW DR
B191093	NENADIC ANDREW D	7 HIGHVIEW DR	Ft Wright, Ky 41011-3645	7 HIGHVIEW DR
B191094	LONGSHORE RYAN T & JENNA	127 KENNEDY RD	Ft Wright, Ky 41011-3691	127 KENNEDY RD
B191095	WILSON STEVEN E	128 KENNEDY RD	Ft Wright, Ky 41011-3647	128 KENNEDY RD
B191096	SARI KEVIN M & SARI MELANIE S	130 KENNEDY RD	Ft Wright, Ky 41011-3647	130 KENNEDY RD
B191097	BROWN BARBARA E	132 KENNEDY RD	Ft Wright, Ky 41011-3647	132 KENNEDY RD
B191098	DAVIS JOEL L & WILLA	61 RIVARD DR	Ft Wright, Ky 41011-3648	61 RIVARD DR
B191099	BRYAN LINDSAY M & BRYAN JONATHON E	59 RIVARD DR	Ft Wright, Ky 41011-3648	59 RIVARD DR
B191100	HERALD MISTY D & CHARLES L	57 RIVARD DR	Ft Wright, Ky 41011-3648	57 RIVARD DR
B191101	JAHNKE MARK A & SHERRY L	51 RIVARD DR	Ft Wright, Ky 41011-3648	51 RIVARD DR
B191102	OSTERHAGE SUSAN K TRUSTEE & OSTERHA	45 RIVARD DR	Covington, Ky 41011-3648	45 RIVARD DR
B191103	PHILLIPS JOHN DALE	52 RIVARD DR	Ft Wright, Ky 41011-3683	52 RIVARD DR
B191104	SHOEMAKER BRIAN C	53 RIVARD DR	Ft Wright, Ky 41011-3648	53 RIVARD DR
B191105	WEAVER JEFFREY B & ABOUZEIDE FRANK F	55 RIVARD DR	Ft Wright, Ky 41011-3648	55 RIVARD DR
B191106	RUTER ZACHARY & KAELIN KIANA	56 RIVARD DR	Ft Wright, Ky 41011-3683	56 RIVARD DR
B191107	WESDORP ROSS G & ALLISON R	1995 PIECK LN	Ft Wright, Ky 41011-2639	1995 PIECK LN
B191108	HAMPEL THOMAS & NANCY	1997 PIECK DR	Ft Wright, Ky 41011-2639	1997 PIECK DR
B191109	GIER THOMAS C & DANINE B	1999 PIECK LN	Ft Wright, Ky 41011-2639	1999 PIECK LN
B192008O	CENTRAL CHURCH OF NAZARENE	2006 PIECK LN FT	Ft Wright, KY 41011-2667	1953 PIECK LN
B192009O	SEITER THOMAS A & DIANE D	120 ST JOHNS RD	Ft Mitchell, KY 41011-2601	31 ORCHARD RD E
B192010O	DECKER KEITH ALAN & YORK-DECKER SUSA	9128 SUSIE DR	Florence, KY 41042-8791	33 ORCHARD RD E
B192011O	PASELSKY JOHN & MARY J	1808 SHERBORG CT	Hebron, KY 41048-8779	1987 PIECK LN APT A
B192012O	PASELSKY JOHN & MARY J	1808 SHERBORG CT	Hebron, KY 41048-8779	1987 PIECK LN APT B
B192013O	UPOLE MICHAEL J & BROOKE	1303 LAFESGROVE LN	Independence, KY 41051-7865	1979 PIECK LN APT A
B192014O	UPOLE MICHAEL J & BROOKE	1303 LAFESGROVE LN	Independence, KY 41051-7865	1979 PIECK LN APT B

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
B192015O	KITO PROPERTIES I LLC	408 LARKSPUR CT	Edgewood, KY 41017-3362	1975 PIECK LN APT A
B192016O	KITO PROPERTIES I LLC	408 LARKSPUR CT	Edgewood, KY 41017-3362	1975 PIECK LN APT B
B192017O	HIGHVIEW MANAGEMENT LLC	141 PARKWAY DR	Crestview Hills, KY 41017-2211	9 HIGHVIEW DR
B192018O	HIGHVIEW MANAGEMENT LLC	141 PARKWAY DR	Crestview Hills, KY 1017-2211	11 HIGHVIEW DR
B192019O	DETZEL MICHAEL L & WENDY	141 SEVILLE CT	Ft Mitchell, KY 41017-2763	126 KENNEDY RD
B192020O	131 KENNEDY LLC	3462 REEVES DR	Covington, KY 41017-9436	131 KENNEDY RD
B192021O	SCHWEIZER CHRISTIAN & SCHWEIZER MAR	624 DUDLEY RD	Edgewood, KY 41017-8154	50 RIVARD DR
Group B20/NSA D				
B201086	MCDONOGH JOHN E	1991 PIECK LN APT B	Ft Wright, Ky 41011-2639	1991 PIECK LN APT B
B201088	GENAL FRANCIS	1983 PIECK LN APT B	Ft Wright, Ky 41011-2639	1983 PIECK LN APT B
B201110	MILLS RONALD J & DANA	1614 MARCELLA DR	Ft Wright, Ky 41011-3750	1614 MARCELLA DR
B201111	CAMPBELL STEPHEN F	1610 MARCELLA DR	Covington, Ky 41011-3750	1610 MARCELLA DR
B201112	OPIELA LANCE F & JESSICA L	1565 ST ANTHONY CIR	Ft Wright, Ky 41011-3752	1565 ST ANTHONY CIR
B201113	HAMMONDS JACOB & BROOKE	1570 ST ANTHONY CIR	Ft Wright, Ky 41011-3753	1570 ST ANTHONY CIR
B201114	WARTMAN LOUIS G	1572 ST ANTHONY CIR	Ft Wright, Ky 41011-3753	1572 ST ANTHONY CIR
B201115	BROOKS DEBORAH S	1574 ST ANTHONY CIR	Ft Wright, Ky 41011-3753	1574 ST ANTHONY CIR
B201116	HINES RODNEY & PRICE GINA	1582 ST ANTHONY CIR	Ft Wright, Ky 41011-3757	1582 ST ANTHONY CIR
B201117	WARTMAN TINA & ANDREW	1582 MARCELLA DR	Ft Wright, Ky 41011-3748	1582 MARCELLA DR
B201118	BRUNGS RICHARD J & KIMBERLY A	1585 MARCELLA DR	Ft Wright, Ky 41011-3747	1585 MARCELLA DR
B201119	RALEIGH JOHNNY & BELLE R	1586 MARCELLA DR	Covington, Ky 41011-3748	1586 MARCELLA DR
B201120	SNOW DARRIN	1587 MARCELLA DR	Ft Wright, Ky 41011-3747	1587 MARCELLA DR
B201121	RAUH TYLER JAMES	1588 MARCELLA DR	Ft Wright, Ky 41011-3748	1588 MARCELLA DR
B201122	DARDEN JAMES D	1589 MARCELLA DR	Ft Wright, Ky 41011-3747	1589 MARCELLA DR
B201123	NUTTER WILLIAM P	1590 MARCELLA DR	Ft Wright, Ky 41011-3748	1590 MARCELLA DR
B201124	SIEGRIST DANIELLE E	1591 MARCELLA DR	Ft Wright, Ky 41011-3747	1591 MARCELLA DR
B201125	BROSSART LINDSAY & FEINAUER NOAH	1592 MARCELLA DR	Ft Wright, Ky 41011-3748	1592 MARCELLA DR
B201126	KRAMER THOMAS M	1593 MARCELLA DR	Ft Wright, Ky 41011-3747	1593 MARCELLA DR
B201127	NULL JACOB & WILSHIRE ELLEN	1594 MARCELLA DR	Ft Wright, Ky 41011-3748	1594 MARCELLA DR
B201128	HOFFMAN JEROME C & NANCY L	1596 MARCELLA DR	Ft Wright, Ky 41011-3748	1596 MARCELLA DR
B201129	WALLACE JAMES E	1598 MARCELLA DR	Ft Wright, Ky 41011-3748	1598 MARCELLA DR
B201130	MALOTT ANDREW J & CODI R	1600 MARCELLA DR	Ft Wright, Ky 41011-3750	1600 MARCELLA DR
B201131	GREFER JEFFREY	1602 MARCELLA DR	Ft Wright, Ky 41011-3750	1602 MARCELLA DR
B201132	TRIVETT KENNETH PATRICK & TRIVETT TRIS	908 HIGHLAND AVE	Ft Wright, Ky 41011-4014	908 HIGHLAND AVE
B201133	HOLLOWAY ANDREW MICHAEL	906 HIGHLAND AVE	Ft Wright, Ky 41011-4014	906 HIGHLAND AVE
B201134	HAMILTON JOHN & JESSICA & BAMBERGER	1000 EMERY DR	Covington, Ky 41011-4044	1000 EMERY DR
B201135	BALLARD SYDNEY ANN & HALEY R	1032 EMERY DR	Ft Wright, Ky 41011-4046	1032 EMERY DR
B201136	LEONARD DWAN N	1034 EMERY DR	Ft Wright, Ky 41011-4046	1034 EMERY DR
B201137	ENGEL CARL C	1036 EMERY DR	Ft Wright, Ky 41011-4046	1036 EMERY DR
B201138	SPICER THOMAS	1038 EMERY DR	Ft Wright, Ky 41011-4046	1038 EMERY DR
B201139	ELDRIDGE MATTHEW TRUSTEE	1040 EMERY DR	Ft Wright, Ky 41011-4046	1040 EMERY DR
B201140	TOMLIN DAVID E & DONNA	1042 EMERY DR	Ft Wright, Ky 41011-4046	1042 EMERY DR
B201141	GIVENS JR CARL	1044 EMERY DR	Ft Wright, Ky 41011-4046	1044 EMERY DR
B201142	HALE NOAH	1046 EMERY DR	Ft Wright, Ky 41011-4046	1046 EMERY DR
B201144	SHERRARD THERESA L & MARK A	1050 EMERY DR	Ft Wright, Ky 41011-4046	1050 EMERY DR
B201145	ROHRER LYNNAN KAY	1052 EMERY DR	Ft Wright, Ky 41011-4046	1052 EMERY DR
B201147	CHISM RILEY	1056 EMERY DR	Ft Wright, Ky 41011-4006	1056 EMERY DR
B201148	DIOP ASSANE	1058 EMERY DR	Ft Wright, Ky 41011-4006	1058 EMERY DR

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
B201149	FAIGLE KAREN A	1060 EMERY DR	Ft Wright, Ky 41011-4006	1060 EMERY DR
B201150	DAVIS CYNTHIA	1062 EMERY DR	Ft Wright, Ky 41011-4006	1062 EMERY DR
B201151	BAILEY JOHN T	1064 EMERY DR	Ft Wright, Ky 41011-4006	1064 EMERY DR
B201152	SOPAPONG PAKAKUL	1066 EMERY DR	Ft Wright, Ky 41011-4006	1066 EMERY DR
B201153	METZ EUGENE D & KIMBERLY A	1068 EMERY DR	Ft Wright, Ky 41011-4006	1068 EMERY DR
B201154	NAGLE DANNY & JOSEPH ROBERT	1070 EMERY DR	Ft Wright, Ky 41011-4006	1070 EMERY DR
B201155	BAKER JOSEPH B	1072 EMERY DR	Ft Wright, Ky 41011-4006	1072 EMERY DR
B201156	GILL DANIELLE L	1074 EMERY DR	Ft Wright, Ky 41011-4006	1074 EMERY DR
B201157	MURPHY SHELLIE ANNE	1076 EMERY DR	Ft Wright, Ky 41011-4061	1076 EMERY DR
B201158	VALLANDINGHAM CHARLES E & VALLANDI	1078 EMERY DR	Ft Wright, Ky 41011-4006	1078 EMERY DR
B201159	AUBIN JASON & MEGAN	816 HIGHLAND AVE	Covington, Ky 41011-4012	816 HIGHLAND AVE
B201160	SIMAK II ANDREW JESUS	818 HIGHLAND AVE	Ft Wright, Ky 41011-4012	818 HIGHLAND AVE
B201161	FRANKLIN BRANDON M & GROSSER ALISHA	822 HIGHLAND AVE	Ft Wright, Ky 41011-4012	822 HIGHLAND AVE
B201162	DAVIS SHIRLEY	823 HIGHLAND AVE	Covington, Ky 41011-4011	823 HIGHLAND AVE
B201163	LAMBERT JACK	825 HIGHLAND AVE	Covington, Ky 41011-4011	825 HIGHLAND AVE
B201164	GOETZ ROBERT D & DIANA J	901 HIGHLAND AVE	Covington, Ky 41011-4013	901 HIGHLAND AVE
B201165	SPENCER JAMES N & JESSICA M	903 HIGHLAND AVE	Covington, Ky 41011-4013	903 HIGHLAND AVE
B201166	SIEMER JACOB R	905 HIGHLAND AVE	Covington, Ky 41011-4013	905 HIGHLAND AVE
B201167	ZEIS KELLY & GOLDSBY JADRIEN	907 HIGHLAND AVE	Ft Wright, Ky 41011-4013	907 HIGHLAND AVE
B201168	NORBER KAYLA M	812 HIGHLAND AVE	Ft Wright, Ky 41011-4012	812 HIGHLAND AVE
B201169	BOEHMER ERIC ALLEN	1880 RAYS LN	Covington, Ky 41011-4021	1880 RAYS LN
B201170	BERLING GIRLS SIX LLC	1881 RAYS LN	Covington, Ky 41011-4020	1881 RAYS LN
B201171	BAKER MATTHEW GILBERT & BAKER COLIN	1883 RAYS LN	Covington, Ky 41011-4020	1883 RAYS LN
B201172	GLAD MATTHEW & DUDLEY KORBIN	1884 RAYS LN	Covington, Ky 41011-4021	1884 RAYS LN
B201173	MOBLEY ELLA	1885 RAYS LN	Covington, Ky 41011-4020	1885 RAYS LN
B201174	GOODPASTER STEVEN	1886 RAYS LN	Covington, Ky 41011-4021	1886 RAYS LN
B201175	GRAY LINWARD J & SHEILA K	1887 RAYS LN	Covington, Ky 41011-4020	1887 RAYS LN
B201176	WUESTEFELD JOSEPH T & WUESTEFELD SA	736 HIGHLAND AVE	Ft Wright, Ky 41011-4065	736 HIGHLAND AVE
B201177	STARNES CHAD	738 HIGHLAND AVE	Ft Wright, Ky 41011-4065	738 HIGHLAND AVE
B201178	TELLEZ ANTIONETTE J	760 HIGHLAND AVE	Ft Wright, Ky 41011-4065	760 HIGHLAND AVE
B201179	TELLEZ ANTIONETTE J	762 HIGHLAND AVE	Ft Wright, Ky 41011-4065	762 HIGHLAND AVE
B201180	GABEHART BETH A	772 HIGHLAND AVE	Covington, Ky 41011-4065	772 HIGHLAND AVE
B201181	ADAMS KYLE & MARTIN KARI ANNE	748 HIGHLAND AVE	Covington, Ky 41011-4065	748 HIGHLAND AVE
B201182	ADAMS DANIEL	752 HIGHLAND AVE	Covington, Ky 41011-4065	752 HIGHLAND AVE
B201183	GONZALEZ JOSE	756 HIGHLAND AVE	Covington, Ky 41011-4065	756 HIGHLAND AVE
B201184	HIRALDO RACHEL & CALDERON JUAN HIRA	777 HIGHLAND AVE	Covington, Ky 41011-4064	777 HIGHLAND AVE
B201185	CORDOVA JR GILBERT & TRACY L	781 HIGHLAND AVE	Covington, Ky 41011-4064	781 HIGHLAND AVE
B201186	ROMANO MARC V & DANIELLE R	785 HIGHLAND AVE	Covington, Ky 41011-4064	785 HIGHLAND AVE
B201187	HAM SUSAN D	793 HIGHLAND AVE	Covington, Ky 41011-4064	793 HIGHLAND AVE
B201188	FLESCH SHEREE A	801 HIGHLAND AVE	Covington, Ky 41011-4011	801 HIGHLAND AVE
B201189	LENTZ KIMBERLY A & KISER JR CHARLES G	805 HIGHLAND AVE	Covington, Ky 41011-4011	805 HIGHLAND AVE
B201190	HESSLING MARGARET G	807 HIGHLAND AVE	Covington, Ky 41011-4011	807 HIGHLAND AVE
B201191	BISHOP GARY & JULAINA	809 HIGHLAND AVE	Covington, Ky 41011-4011	809 HIGHLAND AVE
B201192	MESSER KEVIN J & MESSER ALANA M	811 HIGHLAND AVE	Covington, Ky 41011-4011	811 HIGHLAND AVE
B201193	DANNEMILLER FRANCIA & JENKS FREDERIC	813 HIGHLAND AVE	Covington, Ky 41011-4011	813 HIGHLAND AVE
B201194	ANDREWS NATALIE	815 HIGHLAND AVE	Covington, Ky 41011-4011	815 HIGHLAND AVE
B201195	GILBERT MARCIA T	817 HIGHLAND AVE	Covington, Ky 41011-4011	817 HIGHLAND AVE

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
B201196	PASCARELLA JODY G	819 HIGHLAND AVE	Covington, Ky 41011-4011	819 HIGHLAND AVE
B201197	HINES GENEVA C	821 HIGHLAND AVE	Ft Wright, Ky 41011-4011	821 HIGHLAND AVE
B202022O	FULLER BRIAN TRUSTEE	81 OTTER CT	Covington, KY 41017-9393	1612 MARCELLA DR
B202023O	ERPENBECK MICHAEL J & ERPENBECK JENN	36841 N OLD WOODS TRL	Gurnee, IL 60031-1688	1606 MARCELLA DR
B202024O	ERPENBECK MICHAEL J & ERPENBECK JENN	36842 N OLD WOODS TRL	Gurnee, IL 60031-1688	1608 MARCELLA DR
B202025O	SCHNEIDER EMMA MARIE	1132 CECELIA AVE	Park Hills, KY 41011-2814	1597 MARCELLA DR
B202026O	GLIGOREVIC DANILJAN & STAKA	2917 CAMPUS DR	Crestview Hills, KY 41017-250	1604 MARCELLA DR
B202027O	MCGOWAN THELMA J & JENNINGS JOHN C	912 HIGHLAND AVE	Ft Wright, KY 41011-4014	910 HIGHLAND AVE
B202028O	MCGOWAN THELMA J & JENNINGS JOHN C	912 HIGHLAND AVE	Ft Wright, KY 41011-4014	912 HIGHLAND AVE
B202077O	FANGMAN DONALD ROBERT	28 HIGHLAND MEADOWS CIR UNIT 5	Highland Heights, KY 41076-17	1048 EMERY DR
B202078O	WITKOWICZ CYNTHIA L	240 PELLETIER LN	Tiverton, RI 02878-3000	1054 EMERY DR
B202123O	PLP PROPERTIES LLC	PO BOX 307	Alexandria, KY 41001-0307	740 HIGHLAND AVE
B202124O	BAHR T CURT & NANCY A	5293 FOWLER CREEK RD	Independence, KY 41051-8401	744 HIGHLAND AVE
B202125O	PHAM PHUC	2000 PIECK DR	Covington, KY 41011-2667	768 HIGHLAND AVE
B202126O	S & R CAPITAL LLC	1135 CECELIA AVE	Park Hills, KY 41011-2813	797 HIGHLAND AVE
B202127O	NORTHERN KENTUCKY ASSISTED LIVING LL	10988 DEERFIELD RD	Cincinnati, OH 45242-4110	800 HIGHLAND AVE
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 12
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 13
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 14
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 15
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 16
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 17
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 18
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 19
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 20
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 21
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	980 EMERY DR APT 22
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 1
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 2
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 3
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 4
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 5
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 6
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 7
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 8
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 9
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 10
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	990 EMERY DR APT 11
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1010 EMERY DR APT 1
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1010 EMERY DR APT 2
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1010 EMERY DR APT 3
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1010 EMERY DR APT 4
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 5
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 6
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 7
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 8
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 9

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 10
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 11
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1012 EMERY DR APT 12
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 1
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 2
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 3
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 4
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 5
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 6
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 7
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 8
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 9
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 10
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 11
GB203029	EMERY DRIVE LLC	1016 EMERY DR APT 2	Covington, KY 41011-4032	1020 EMERY DR APT 12
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 1
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 2
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 3
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 4
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 5
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 6
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 7
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 8
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 9
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 10
GB203079	HIGHLAND MANOR APARTMENTS LLC	818 LAUREN DR	Villa Hills , KY 41017-5391	911 HIGHLAND AVE APT 11
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 1
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 2
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 3
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 4
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 5
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 6
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 7
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 8
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 9
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 10
GB203090	CJ REALTIES LLC	2335 BUTTERMILK XING STE 334	Crescent Springs, KY 41017-16	917 HIGHLAND AVE APT 11
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 1
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 2
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 3
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 4
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 5
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 6
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 7
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 8
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 9
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 10

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	918 HIGHLAND AVE APT 11
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 12
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 13
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 14
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 15
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 16
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 17
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 18
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 19
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 20
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 21
GB203101	918 HIGHLAND LLC	PO BOX 8783	Cincinnati, OH 45208-0781	920 HIGHLAND AVE APT 22
Group B23				
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 30
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 31
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 32
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 33
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 34
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 35
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 36
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 37
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 38
GB233128	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	512 ST JOSEPH LN APT 39
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 40
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 41
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 42
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 43
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 44
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 45
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 46
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 47
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 48
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	508 ST JOSEPH LN APT 49
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 60
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 61
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 62
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 63
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 64
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 65
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 66
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 67
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 68
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	502 ST JOSEPH LN APT 69
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 70
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 71
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 72
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 73

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor List

Ballot PIN #	Owner of Benefited Property Name	Owner of Benefited Property Address		Benefited Property Address
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 74
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 75
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 76
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 77
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 78
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	505 ST JOSEPH LN APT 79
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 80
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 81
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 82
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 83
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 84
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 85
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 86
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 87
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 88
GB233138	ANDURIL STRATEGY LLC	2641 CRESCENT SPRINGS PK STE C	Crescent Springs, KY 41017-15	509 ST JOSEPH LN APT 89
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 50
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 51
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 52
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 53
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 54
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 55
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 56
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 57
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 58
GB233148	HDH ELBERTA LLC	11622 SE 47TH ST	Bellevue, WA 98006-2706	504 ST JOSEPH LN APT 59
B232189O	NOTRE DAME ACADEMY INC	1699 HILTON DR	Covington, KY 41011-2705	1699 HILTON DR 1

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
Group B16B	
B16B2001R	2 ORCHARD RD E
B16B2004R	2075 DIXIE HWY
B16B2005R	2073 DIXIE HWY
B16B2006R	2053 DIXIE HWY
B16B2007R	2049 DIXIE HWY
Group B17	
B17A2190R	114 MAPLE AVE W 1
Group B18	
B182002R	222 BEECHWOOD RD
B182003R	16 ASHTON RD
Group B19	
B192008R	1953 PIECK LN
B192009R	31 ORCHARD RD E
B192010R	33 ORCHARD RD E
B192011R	1987 PIECK LN APT A
B192012R	1987 PIECK LN APT B
B192013R	1979 PIECK LN APT A
B192014R	1979 PIECK LN APT B
B192015R	1975 PIECK LN APT A
B192016R	1975 PIECK LN APT B
B192017R	9 HIGHVIEW DR
B192018R	11 HIGHVIEW DR
B192019R	126 KENNEDY RD
B192020R	131 KENNEDY RD
B192021R	50 RIVARD DR
Group B20/NSA D	
B202022R	1612 MARCELLA DR
B202023R	1606 MARCELLA DR
B202024R	1608 MARCELLA DR
B202025R	1597 MARCELLA DR
B202026R	1604 MARCELLA DR
B202027R	910 HIGHLAND AVE
B202028R	912 HIGHLAND AVE
B202029R	980 EMERY DR APT 12
B202030R	980 EMERY DR APT 13
B202031R	980 EMERY DR APT 14
B202032R	980 EMERY DR APT 15
B202033R	980 EMERY DR APT 16
B202034R	980 EMERY DR APT 17
B202035R	980 EMERY DR APT 18

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
B202036R	980 EMERY DR APT 19
B202037R	980 EMERY DR APT 20
B202038R	980 EMERY DR APT 21
B202039R	980 EMERY DR APT 22
B202040R	990 EMERY DR APT 1
B202041R	990 EMERY DR APT 2
B202042R	990 EMERY DR APT 3
B202043R	990 EMERY DR APT 4
B202044R	990 EMERY DR APT 5
B202045R	990 EMERY DR APT 6
B202046R	990 EMERY DR APT 7
B202047R	990 EMERY DR APT 8
B202048R	990 EMERY DR APT 9
B202049R	990 EMERY DR APT 10
B202050R	990 EMERY DR APT 11
B202051R	1010 EMERY DR APT 1
B202052R	1010 EMERY DR APT 2
B202053R	1010 EMERY DR APT 3
B202054R	1010 EMERY DR APT 4
B202055R	1012 EMERY DR APT 5
B202056R	1012 EMERY DR APT 6
B202057R	1012 EMERY DR APT 7
B202058R	1012 EMERY DR APT 8
B202059R	1012 EMERY DR APT 9
B202060R	1012 EMERY DR APT 10
B202061R	1012 EMERY DR APT 11
B202062R	1012 EMERY DR APT 12
B202063R	1020 EMERY DR APT 1
B202064R	1020 EMERY DR APT 2
B202065R	1020 EMERY DR APT 3
B202066R	1020 EMERY DR APT 4
B202067R	1020 EMERY DR APT 5
B202068R	1020 EMERY DR APT 6
B202069R	1020 EMERY DR APT 7
B202070R	1020 EMERY DR APT 8
B202071R	1020 EMERY DR APT 9
B202072R	1020 EMERY DR APT 10
B202073R	1020 EMERY DR APT 11
B202074R	1020 EMERY DR APT 12
B202077R	1048 EMERY DR
B202078R	1054 EMERY DR

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
B202079R	911 HIGHLAND AVE APT 1
B202080R	911 HIGHLAND AVE APT 2
B202081R	911 HIGHLAND AVE APT 3
B202082R	911 HIGHLAND AVE APT 4
B202083R	911 HIGHLAND AVE APT 5
B202084R	911 HIGHLAND AVE APT 6
B202085R	911 HIGHLAND AVE APT 7
B202086R	911 HIGHLAND AVE APT 8
B202087R	911 HIGHLAND AVE APT 9
B202088R	911 HIGHLAND AVE APT 10
B202089R	911 HIGHLAND AVE APT 11
B202090R	917 HIGHLAND AVE APT 1
B202091R	917 HIGHLAND AVE APT 2
B202092R	917 HIGHLAND AVE APT 3
B202093R	917 HIGHLAND AVE APT 4
B202094R	917 HIGHLAND AVE APT 5
B202095R	917 HIGHLAND AVE APT 6
B202096R	917 HIGHLAND AVE APT 7
B202097R	917 HIGHLAND AVE APT 8
B202098R	917 HIGHLAND AVE APT 9
B202099R	917 HIGHLAND AVE APT 10
B202100R	917 HIGHLAND AVE APT 11
B202101R	918 HIGHLAND AVE APT 1
B202102R	918 HIGHLAND AVE APT 2
B202103R	918 HIGHLAND AVE APT 3
B202104R	918 HIGHLAND AVE APT 4
B202105R	918 HIGHLAND AVE APT 5
B202106R	918 HIGHLAND AVE APT 6
B202107R	918 HIGHLAND AVE APT 7
B202108R	918 HIGHLAND AVE APT 8
B202109R	918 HIGHLAND AVE APT 9
B202110R	918 HIGHLAND AVE APT 10
B202111R	918 HIGHLAND AVE APT 11
B202112R	920 HIGHLAND AVE APT 12
B202113R	920 HIGHLAND AVE APT 13
B202114R	920 HIGHLAND AVE APT 14
B202115R	920 HIGHLAND AVE APT 15
B202116R	920 HIGHLAND AVE APT 16
B202117R	920 HIGHLAND AVE APT 17
B202118R	920 HIGHLAND AVE APT 18
B202119R	920 HIGHLAND AVE APT 19

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
B202120R	920 HIGHLAND AVE APT 20
B202121R	920 HIGHLAND AVE APT 21
B202122R	920 HIGHLAND AVE APT 22
B202123R	740 HIGHLAND AVE
B202124R	744 HIGHLAND AVE
B202125R	768 HIGHLAND AVE
B202126R	797 HIGHLAND AVE
B202127R	800 HIGHLAND AVE
Group B23	
B232128R	512 ST JOSEPH LN APT 30
B232129R	512 ST JOSEPH LN APT 31
B232130R	512 ST JOSEPH LN APT 32
B232131R	512 ST JOSEPH LN APT 33
B232132R	512 ST JOSEPH LN APT 34
B232133R	512 ST JOSEPH LN APT 35
B232134R	512 ST JOSEPH LN APT 36
B232135R	512 ST JOSEPH LN APT 37
B232136R	512 ST JOSEPH LN APT 38
B232137R	512 ST JOSEPH LN APT 39
B232138R	508 ST JOSEPH LN APT 40
B232139R	508 ST JOSEPH LN APT 41
B232140R	508 ST JOSEPH LN APT 42
B232141R	508 ST JOSEPH LN APT 43
B232142R	508 ST JOSEPH LN APT 44
B232143R	508 ST JOSEPH LN APT 45
B232144R	508 ST JOSEPH LN APT 46
B232145R	508 ST JOSEPH LN APT 47
B232146R	508 ST JOSEPH LN APT 48
B232147R	508 ST JOSEPH LN APT 49
B232148R	504 ST JOSEPH LN APT 50
B232149R	504 ST JOSEPH LN APT 51
B232150R	504 ST JOSEPH LN APT 52
B232151R	504 ST JOSEPH LN APT 53
B232152R	504 ST JOSEPH LN APT 54
B232153R	504 ST JOSEPH LN APT 55
B232154R	504 ST JOSEPH LN APT 56
B232155R	504 ST JOSEPH LN APT 57
B232156R	504 ST JOSEPH LN APT 58
B232157R	504 ST JOSEPH LN APT 59
B232158R	502 ST JOSEPH LN APT 60
B232159R	502 ST JOSEPH LN APT 61

Brent Spence Bridge Corridor Project
Kentucky Southern Section
Benefited Receptor Current Resident List

Ballot PIN #	Address
B232160R	502 ST JOSEPH LN APT 62
B232161R	502 ST JOSEPH LN APT 63
B232162R	502 ST JOSEPH LN APT 64
B232163R	502 ST JOSEPH LN APT 65
B232164R	502 ST JOSEPH LN APT 66
B232165R	502 ST JOSEPH LN APT 67
B232166R	502 ST JOSEPH LN APT 68
B232167R	502 ST JOSEPH LN APT 69
B232169R	505 ST JOSEPH LN APT 70
B232170R	505 ST JOSEPH LN APT 71
B232171R	505 ST JOSEPH LN APT 72
B232172R	505 ST JOSEPH LN APT 73
B232173R	505 ST JOSEPH LN APT 74
B232174R	505 ST JOSEPH LN APT 75
B232175R	505 ST JOSEPH LN APT 76
B232176R	505 ST JOSEPH LN APT 77
B232177R	505 ST JOSEPH LN APT 78
B232178R	505 ST JOSEPH LN APT 79
B232179R	509 ST JOSEPH LN APT 80
B232180R	509 ST JOSEPH LN APT 81
B232181R	509 ST JOSEPH LN APT 82
B232182R	509 ST JOSEPH LN APT 83
B232183R	509 ST JOSEPH LN APT 84
B232184R	509 ST JOSEPH LN APT 85
B232185R	509 ST JOSEPH LN APT 86
B232186R	509 ST JOSEPH LN APT 87
B232187R	509 ST JOSEPH LN APT 88
B232188R	509 ST JOSEPH LN APT 89
B232189R	1699 HILTON DR 1

APPENDIX A.2

Example Copies of Letters

Sample Current Resident Letter;
Owner does not Live at Property

TRANSPORTATION CABINET

Andy Beshear
GOVERNOR

200 Mero Street
Frankfort, Kentucky 406 01

Jim Gray
SECRETARY

April 4, 2025

PIN:

CURRENT RESIDENT
1946 WICKLAND DR
LEXINGTON, KY 40505

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Southern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/south. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 14, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/south to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are both the owner and resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/south). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 5, 2025**. If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com; (859)744-1218) by no later than April 22nd and a paper ballot can be provided. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

Sample Letter to Owner Living at Benefited Property

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

April 4, 2025

PIN #:

Owner name
Address 1
CSZ

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Southern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/south. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 14, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/south to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the

on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are both the owner and resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/south). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 5, 2025**. If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com; (859)744-1218) by no later than April 22nd and a paper ballot can be provided. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

Letter to Owner of Multiple Properties

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

April 4, 2025

PIN: GB203101

918 Highland, LLC
PO Box 8783
Cincinnati, OH 45208-0781

RE: Noise Barrier Information On-line Meeting Invitation
Brent Spence Bridge Corridor Project, Kentucky Southern Section
Kenton County, KYTC Item # 6-17.00

The Brent Spence Bridge Corridor Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. Information about this major transportation investment can be found at brentspencebridgecorridor.com.

The environmental effects of the project, including potential traffic noise impacts on adjacent properties, have been evaluated in accordance with the *KYTC Noise Analysis and Abatement Policy*. KYTC has determined that the most effective and appropriate mitigation for traffic noise would be the construction of noise barriers along portions of the reconstructed corridor. If constructed, these noise walls would provide noise reduction for adjacent property owners. Maps showing the location and heights of the barriers considered can be found at brentspencebridge.com/south. Not all barriers analyzed met the criteria of the KYTC policy; however, these abatement measures remain under consideration for inclusion in the project for the marginal noise benefits and visual screening that they provide.

In keeping with its commitment in the 2024 Revised Supplemental Environmental Analysis, KYTC is seeking the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A Noise Barrier Information Meeting will be held on April 14, from 7:00 to 8:30 PM. **Registration to attend the meeting is REQUIRED**. The purpose of the meeting is to provide information regarding the on-going consideration of proposed noise abatement measures, to answer any questions that area residents may have, and to encourage voting by benefited receptors on the construction and aesthetics of the proposed noise barriers. A presentation will be made beginning at 7:00 p.m. followed by a Question/Answer Session.

To participate in the meeting, please visit brentspencebridge.com/south to register. You will be required to enter the PIN shown at the top of the form in order to complete registration. Upon completion of registration, a link will be provided via email that you can use to join the meeting. If you are unable to participate in the on-line meeting due to limitations with computer or internet access, a phone number to call into the meeting

will also be provided with registration. If there are other technical obstacles that will prevent you from joining the online meeting, or if you are both the owner and resident of the address shown above, please contact David Waldner, Palmer Engineering at (859)744-1218 or dwaldner@palmernet.com.

The opinions of both property owners and property residents/renters who would benefit from construction of barrier walls are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One vote is available for the property owner and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice. Voting is being conducted using an on-line survey accessible on the registration page (brentspencebridge.com/south). To vote, you will be required to enter the PIN shown at the top of this letter. **Votes must be cast by midnight May 5, 2025**. Since your organization holds several properties in the area, rather than having you submit multiple surveys, a table has been provided that lists each property for which you are identified as the owner. It will be assumed that your survey responses apply to all of the listed properties. If that is not the case, please contact David Waldner with Palmer Engineering at (859)744-1218 or If you would like to vote but are unable to cast your ballot using the online survey, please contact David Waldner (dwaldner@palmernet.com, (859)744-1218) by no later than April 22nd and a paper ballot can be provided. In accordance with the *KYTC Noise Assessment and Abatement Policy*, as the owner, one vote will be counted for each of the individual properties listed in the attached table. Attending the Informational Meeting is not required in order to cast a ballot.

In addition to the virtual meeting outlined above, KYTC will be hosting a meeting in an "Open House" format that residents effected by noise and included in the polling process are welcome to attend. The purpose of the Open House is for residents to pose any additional questions or concerns with KYTC staff. The Open House will be held at the Kentucky Transportation Cabinets District 6 Office (421 Buttermilk Pike, Fort Mitchell, KY) on April 29 2025 from 2:00 through 6:00. Please feel free to stop by and discuss any noise related questions you may have with Brent Spence Bridge Corridor Project team members.

The KYTC looks forward to presenting information and answering any questions that you may have at the Noise Barrier Information Meeting. Thank you for your interest in this critical regional transportation project.

Sincerely,



Stacee Hans
KYTC Project Manager
Stacee.hans@ky.gov
Office: 502-564-2593

If you have limited English proficiency (LEP) and require assistance with materials to be presented at the Noise Barrier Information Meeting or participating in the on-line survey seeking your preferences regarding possible construction of noise walls between your property/residence and the project, please contact us at dwaldner@palmernet.com*.*

Si tiene un dominio limitado del inglés (LEP) y necesita ayuda con los materiales que se presentarán en la Reunión de Información sobre Barreras Acústicas o si participa en la encuesta en línea para conocer sus preferencias con respecto a la posible construcción de muros de ruido entre su propiedad/residencia y el proyecto, comuníquese con nosotros al dwaldner@palmernet.com.

BRENT SPENCE BRIDGE CORRIDOR	918 Highland, LLC Multiple Property Noise Barrier Opinion Ballot	TEAM KENTUCKY TRANSPORTATION CABINET
918 HIGHLAND AVE APT 1		
918 HIGHLAND AVE APT 2		
918 HIGHLAND AVE APT 3		
918 HIGHLAND AVE APT 4		
918 HIGHLAND AVE APT 5		
918 HIGHLAND AVE APT 6		
918 HIGHLAND AVE APT 7		
918 HIGHLAND AVE APT 8		
918 HIGHLAND AVE APT 9		
918 HIGHLAND AVE APT 10		
918 HIGHLAND AVE APT 11		
920 HIGHLAND AVE APT 12		
920 HIGHLAND AVE APT 13		
920 HIGHLAND AVE APT 14		
920 HIGHLAND AVE APT 15		
920 HIGHLAND AVE APT 16		
920 HIGHLAND AVE APT 17		
920 HIGHLAND AVE APT 18		
920 HIGHLAND AVE APT 19		
920 HIGHLAND AVE APT 20		
920 HIGHLAND AVE APT 21		
920 HIGHLAND AVE APT 22		

APPENDIX A.3

Returned Letters

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 04 2025

DANIELLE L GILL
1074 EMERY DR
FT WRIGHT, KY 41011-4006

NIXIE 430 FE 1 0004/09/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-04952-05-41

41011-4006 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 04 2025

JAMES J & LYNN D SWIFT
22 ASHTON RD
FT MITCHELL, KY 41017-2714

NIXIE 430 DE 1 0004/10/25
RETURN TO SENDER
NO MAIL RECEPTACLE
UNABLE TO FORWARD
BC: 40392074747 *1070-04982-05-41

41017-2714 FWR
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 04 2025

DANNY NAGLE & ROBERT JOSEPH
1070 EMERY DR
FT WRIGHT, KY 41011-4006

NIXIE 430 FE 1 0004/09/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-04937-05-41

41011-4006 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
11 APR 2025 PM 3 L
FIRST-CLASS
US POSTAGE IMI PITNEY BOWES
ZIP 40391
02 7H
0001283474
$ 000.69⁰
APR 09 2025

859
431 7607
1107 Brent Spence Sq Apt
Cov. 41011 #822

PATRICIA M BECKER
806 CRESCENT AVE
COVINGTON, KY 41011-1019

NIXIE 430 FE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1670-04379-11-42

41011-1806 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

NSW

CURRENT RESIDENT
910 HIGHLAND AVE
FT WRIGHT, KY 41011

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

NIXIE 450 DE 1 0004/21/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *0770-01262-06-23

41011840147
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

Vacant

CURRENT RESIDENT
917 HIGHLAND AVE APT 4
FT WRIGHT, KY 41011-4029

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-06451-05-41

CRI: 9527452082719105

41011-402904
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

Vacant

CURRENT RESIDENT
920 HIGHLAND AVE APT 13
FT WRIGHT, KY 41011-4049

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *0770-01264-06-23

41011840495
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

Vacant

CURRENT RESIDENT
911 HIGHLAND AVE APT 4
FT WRIGHT, KY 41011-4066

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

NIXIE 430 DE 1 0004/18/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *0770-01240-06-16

CRI: 9527452082719105

41011840665
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
800 HIGHLAND AVE
FT WRIGHT, KY 41011-4001

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-06015-05-41

..9327020513000136 FWD
41011-40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
768 HIGHLAND AVE
FT WRIGHT, KY 41011-4065

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-06587-05-41

..9400920746100230 FWD
41011-40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
797 HIGHLAND AVE
FT WRIGHT, KY 41011-4063

NIXIE 430 DE 1 0004/16/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-06788-05-41

..9400920746100230 FWD
41011-40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

Ja Carf

CURRENT RESIDENT
917 HIGHLAND AVE APT 8
FT WRIGHT, KY 41011-4029

NIXIE 430 DE 1 0004/14/25
RETURN TO SENDER
ATTEMPTED - NOT KNOWN
UNABLE TO FORWARD
BC: 40392074747 *1070-06581-05-41

41011-40392>0747 ANK

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰

APR 04 2025

NSN

CURRENT RESIDENT
222 BEECHWOOD RD
COVINGTON, KY 41017

NIXIE 430 DE 1 0004/11/25
RETURN TO SENDER
NO SUCH NUMBER
UNABLE TO FORWARD
BC: 40392074747 *0770-04660-06-22

41017-55471 NSN
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69⁰

APR 04 2025

NSN

CURRENT RESIDENT
16 ASHTON RD
COVINGTON, KY 41017

NIXIE 430 DE 1 0004/11/25
RETURN TO SENDER
NO SUCH NUMBER
UNABLE TO FORWARD
BC: 40392074747 *1070-06476-05-41

41017-27141 NSN
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69

APR 04 202

CURRENT RESIDENT
11 HIGHVIEW DR
COVINGTON, KY 41011

NIXIE 430 SE 1 2204/09/25
RETURN TO SENDER
ATTEMPTED - NOT KNOWN
UNABLE TO FORWARD
BC: 40392074747 *1070-05892-05-41

41C
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 40391
02 7H
0001283474

$ 000.69

APR 04 2025

CURRENT RESIDENT
990 EMERY DR APT 8
COVINGTON, KY 41011-4070

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-06356-05-41

41011-40970 8
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
980 EMERY DR APT 18
COVINGTON, KY 41011-4038

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-05761-05-41

41011-403918 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
980 EMERY DR APT 12
COVINGTON, KY 41011-4038

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-06208-05-41

41011-403891 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
1012 EMERY DR APT 9
COVINGTON, KY 41011-4034

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 40392074747 *1070-05840-05-41

41011-403409 UTF
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
114 W MAPLE AVE
FT MITCHELL, KY 41011-2649

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-06239-05-41

41011-264914 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

Vacant

LOUISVILLE KY 400
5 APR 2025 PM 1

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
920 HIGHLAND AVE APT 12
FT WRIGHT, KY 41011-4049

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1170-05559-05-43

41011-404912 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
512 ST JOSEPH LN APT 31
PARK HILLS, KY 41011-3860

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
ATTEMPTED - NOT KNOWN
UNABLE TO FORWARD
BC: 40392074747 *1070-06047-05-41

41011-386[illegible] ANK
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
504 ST JOSEPH LN APT 59
PARK HILLS, KY 41011-3857

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
ATTEMPTED - NOT KNOWN
UNABLE TO FORWARD
BC: 40392074747 *1070-06212-05-41

41011-3857[illegible] ANK
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
509 ST JOSEPH LN APT 85
PARK HILLS, KY 41011-3855

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
ATTEMPTED - NOT KNOWN
UNABLE TO FORWARD
BC: 40392074747 *1070-06011-05-41

41011-3855[illegible] ANK
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2-1

Vacant

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
917 HIGHLAND AVE APT 3
FT WRIGHT, KY 41011-4029

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1170-05560-05-43

41011-4029C VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2-1

Vacant

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
917 HIGHLAND AVE APT 2
FT WRIGHT, KY 41011-4029

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-06253-05-41

41011-4029C VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2-1

Vacant

FIRST-CLASS

US POSTAGE IMI PITNEY B
ZIP 40391 $ 000.69
02 7H
0001283474 APR 04 202

CURRENT RESIDENT
917 HIGHLAND AVE APT 1
FT WRIGHT, KY 41011-4029

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-06331-05-41

41011-4029C VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2-1

Vacant

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
918 HIGHLAND AVE APT 5
FT WRIGHT, KY 41011-4047

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-05677-05-41

41011-4046C VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
918 HIGHLAND AVE APT 7
FT WRIGHT, KY 41011-4048

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-05969-05-41

41011-4048867 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
920 HIGHLAND AVE APT 21
FT WRIGHT, KY 41011-4050

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-05960-05-41

41011-4059021 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
920 HIGHLAND AVE APT 16
FT WRIGHT, KY 41011-4049

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-06006-05-41

41011-4049121 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

LOUISVILLE KY 400
5 APR 2025 PM 2 L

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
920 HIGHLAND AVE APT 14
FT WRIGHT, KY 41011-4049

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-00199-05-31

41011-4049514 VAC
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

Vacant

LOUISVILLE KY 400
5 APR 2025 PM 4L

FIRST-CLASS

US POSTAGE PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
918 HIGHLAND AVE APT 8
FT WRIGHT, KY 41011-4048

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1770-05703-05-40

41011-404[illegible]
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

Vacant

LOUISVILLE KY 400
5 APR 2025 PM 2L

FIRST-CLASS

US POSTAGE PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
920 HIGHLAND AVE APT 15
FT WRIGHT, KY 41011-4049

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-05768-05-41

41011-40[illegible]
40392>0747

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392-0747

Vacant

LOUISVILLE KY 400
5 APR 2025 PM 2L

FIRST-CLASS

US POSTAGE PITNEY BOWES
ZIP 40391 $ 000.69⁰
02 7H
0001283474 APR 04 2025

CURRENT RESIDENT
918 HIGHLAND AVE APT 1
FT WRIGHT, KY 41011-4047

NIXIE 430 DE 1 0004/09/25
RETURN TO SENDER
VACANT
UNABLE TO FORWARD
BC: 40392074747 *1070-06042-05-41

41011-40[illegible]
40392>0747

Appendix B:

Noise Barrier Informational Meeting Webpage

Brent Spence Bridge Corridor Project
Kenton County, KY

On-Line Noise Barrier Meeting – Kentucky Southern Section
April 14, 2025, 7:00 – 8:30 pm

Registration

Welcome to the Registration Page for the Noise Barrier Meeting – Southern Section for the Brent Spence Bridge Corridor Project. The project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand.

The environmental effects of the project, including potential traffic noise impacts to adjacent properties, have been evaluated. Maps showing the location and heights of proposed evaluated noise barriers are available at the link below. In accordance with the KYTC Noise Analysis and Abatement Policy and as a commitment in the 2024 Revised Supplemental Environmental Analysis, the opinions of owners and residents of properties that would benefit from proposed noise and noise/visual screening barriers are being sought. As a benefited receptor, you are invited to provide your opinion regarding whether barriers should be constructed as well as your preference of aesthetic treatments being offered.

A meeting to provide information on the topic will be held on-line on April 14, 2025 at 7:00 p.m. A presentation will be made beginning at 7:00 p.m. followed by a Discussion/Question/Answer Session. Kentucky Transportation Cabinet (KYTC) officials will be participating in the meeting to listen and answer questions about the project and proposed noise abatement.

Presumably, you are visiting this site in response to a recent letter that you received from the KYTC. Only persons who have been identified as benefited receptors are being invited to participate in the meeting. **Registration is required in order to join the meeting. Registrants will be provided with a link to meeting materials and instructions for how to join the meeting. To register for the meeting, click the link below.** To register, you will be asked to enter the PIN Number that was

Presumably, you are visiting this site in response to a recent letter that you received from the KYTC. Only persons who have been identified as benefited receptors are being invited to participate in the meeting. **Registration is required in order to join the meeting. Registrants will be provided with a link to meeting materials and instructions for how to join the meeting. To register for the meeting, click the link below.** To register, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

After submitting your registration, your information will be reviewed and you will receive an email with instructions for accessing and attending the meeting. You can expect a response within 24-48 hours.

We look forward to seeing you at the meeting!

Survey Ballot

Your opinions are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One ballot is available for the property owner and a second ballot is available for the current resident. If the property owner also resides at the property, that vote will be counted twice.

If you plan to attend the Noise Barrier Meeting, you may want to wait until after the meeting before casting your ballot. Ballots must be cast before midnight on May 5, 2025 and can be cast at any time prior to then by clicking the button below. To cast your ballot, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

Register for Meeting – April 14, 2025

Vote Now

Noise Barrier Location Maps

Meeting Presentation April 14, 2025

If you have any questions or problems registering or voting, please contact David Waldner at (859)744-1218 or dwaldner@palmernet.com.

Copyright © 2025 Brent Spence Bridge | Powered by Box Lake Networks

Appendix C:

April 14, 2025 On-Line Meeting

APPENDIX C.1

Attendee List

Brent Spence Bridge Corridor Project
On-Line Noise Informational Meeting
April 14, 2025
7:00 pm

Meeting Participants

Name	Name
Louis Wartman	Tyler Rauh
Mary Jo DiSalvo	Ryan Longshore
Barbara Holzderber	Karen Steenken
Bill Nutter	Thomas Kramer
Susan Ham Barnett	Katherine Terwort
Cindy Spadaro	Johnny Raleigh
Tom Longshore	Timothy B & Therese Matthews
Jeff Weaver	Steven Gillespie
Nikki Flaherty	TR (Tyler Rauh)
Mark Hausfeld	Kathryn Reed
Stephanie Spillers	Google Pixel 7
Darlene Schmerge	Thomas K (Google Pixel 7)
Rachel Hiraldo	18594661386
Leslie Huff	Andrew Malott
Jessica Spencer	Nancy Hoffman
David Blair	Joseph P and Nancy Stratman
Melissa Lusby	Christina Vice
Jane Kleier	Kim Schamer
Lauren Parry	Jon Vice

Project Representatives

Sara Doyle, Palmer Engineering
Hunter Pace, Palmer Engineering
Scott Schurman, KYTC
Stacee Hans, KYTC
Dave Waldner, Palmer Engineering
Nikki Boden, KYTC
Gary Valentine, KYTC
Jeff Noble, AECOM
Craig Craig, KYTC

Names are as were provided during meeting registration

APPENDIX C.2

April 14, 2025 Kentucky Southern Section Noise Barrier Information Meeting Presentation



BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project: Kentucky Southern Section

Noise Barrier Informational Meeting

April 14, 2025

TEAM KENTUCKY TRANSPORTATION CABINET

odot

Introductions

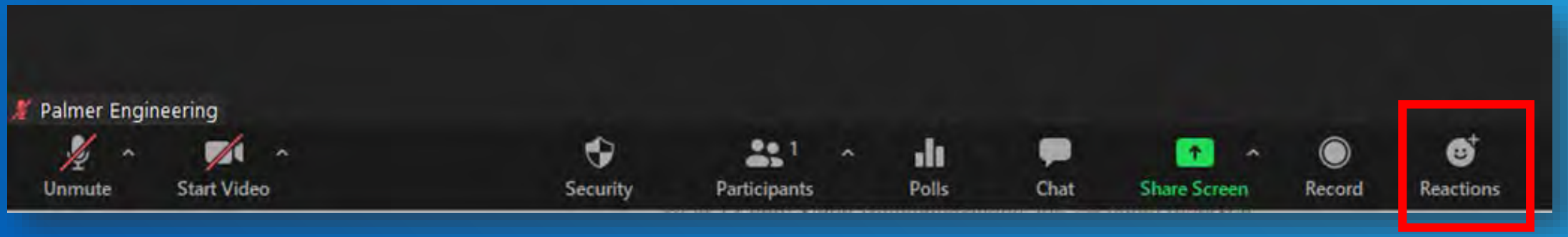
- Stacee Hans, KYTC Project Manager
- Gary Valentine, KYTC Project Advisor
- Scott Schurman, KYTC Environmental Project Manager
- Craig Craig, KYTC Noise Specialist
- Jeff Noble, AECOM, Kentucky Design Lead
- David Waldner, Palmer Engineering

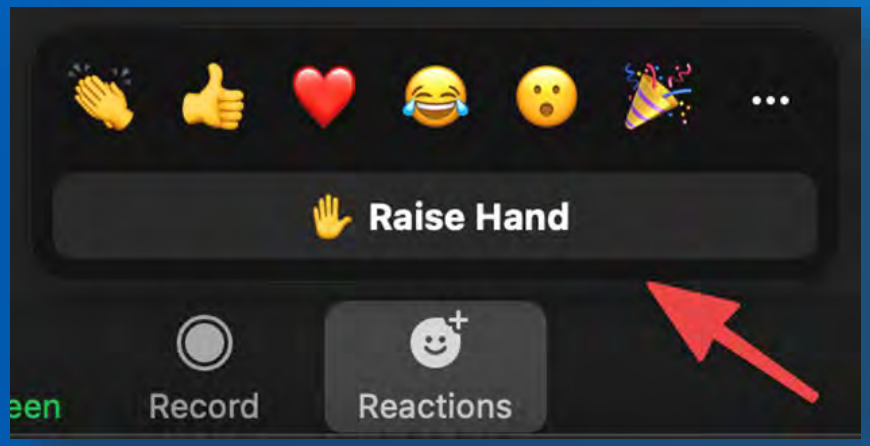
BRENT SPENCE
BRIDGE CORRIDOR

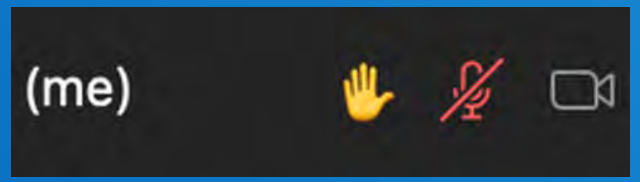
How to Participate in the Meeting

BRENT SPENCE BRIDGE CORRIDOR

Raise your hand if you want to speak or ask questions on the video.







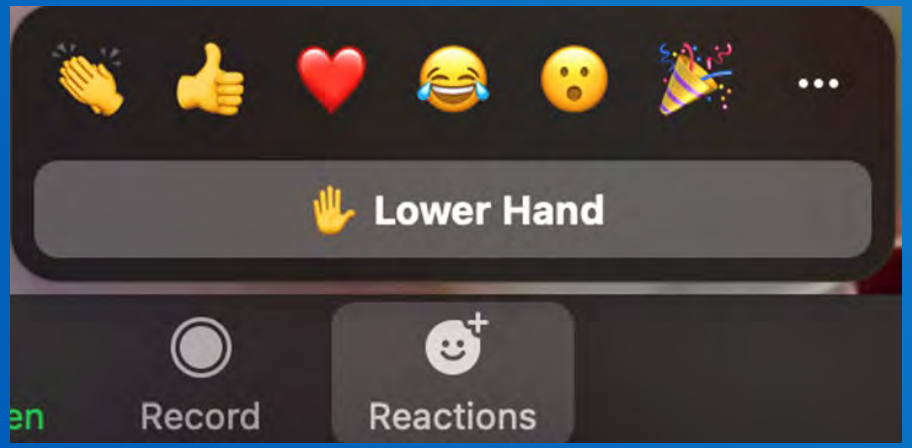
You'll know your hand is raised as a participant when you see an emoji hand on the screen next to your name.

If You Are on a Mobile Device:

BRENT SPENCE BRIDGE CORRIDOR



Raise hand can be found under ‘more’



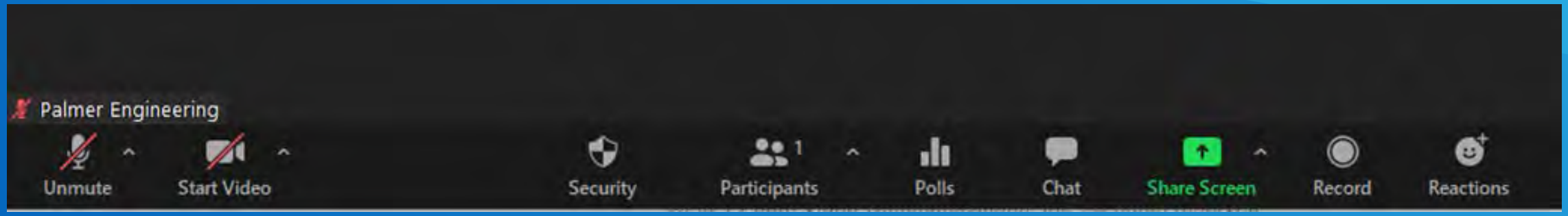
Lower your hand by clicking the same “Raise Hand” button on the screen as before, which now says “Lower Hand.”

How to Raise Hand in Zoom Dial-In Calls:

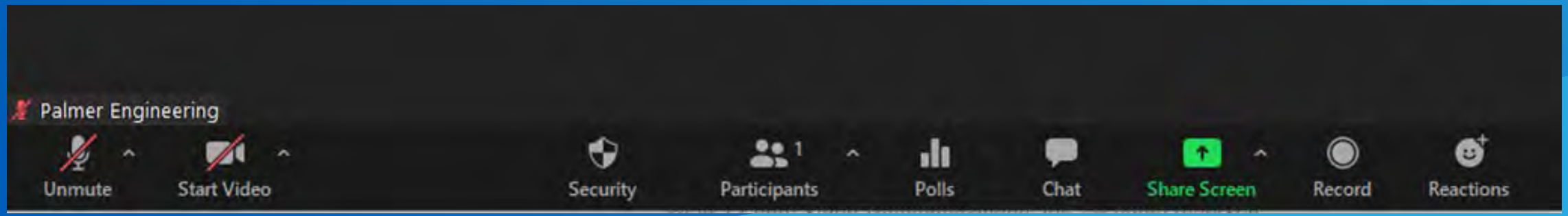
Once you join the meeting, dial *9 on your phone’s dial pad to raise your hand, and do the same to lower your hand.

Using the chat function during the meeting:

BRENT SPENCE BRIDGE CORRIDOR



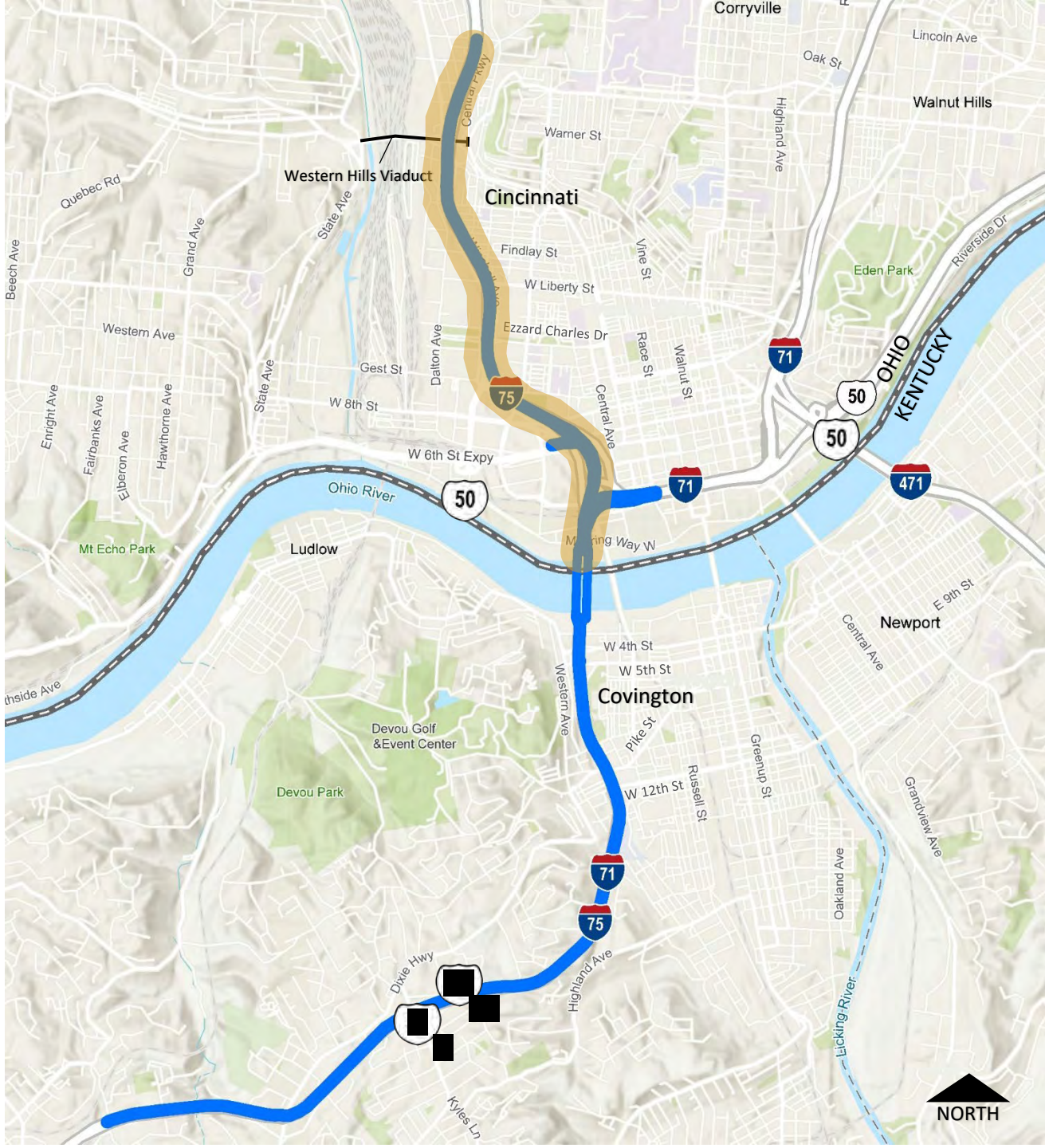
Submit your questions and comments using the chat feature. Click the chat button in your toolbar and type your question or comment in the provided box.



Use the microphone and camera buttons to control your video and audio sharing preferences.

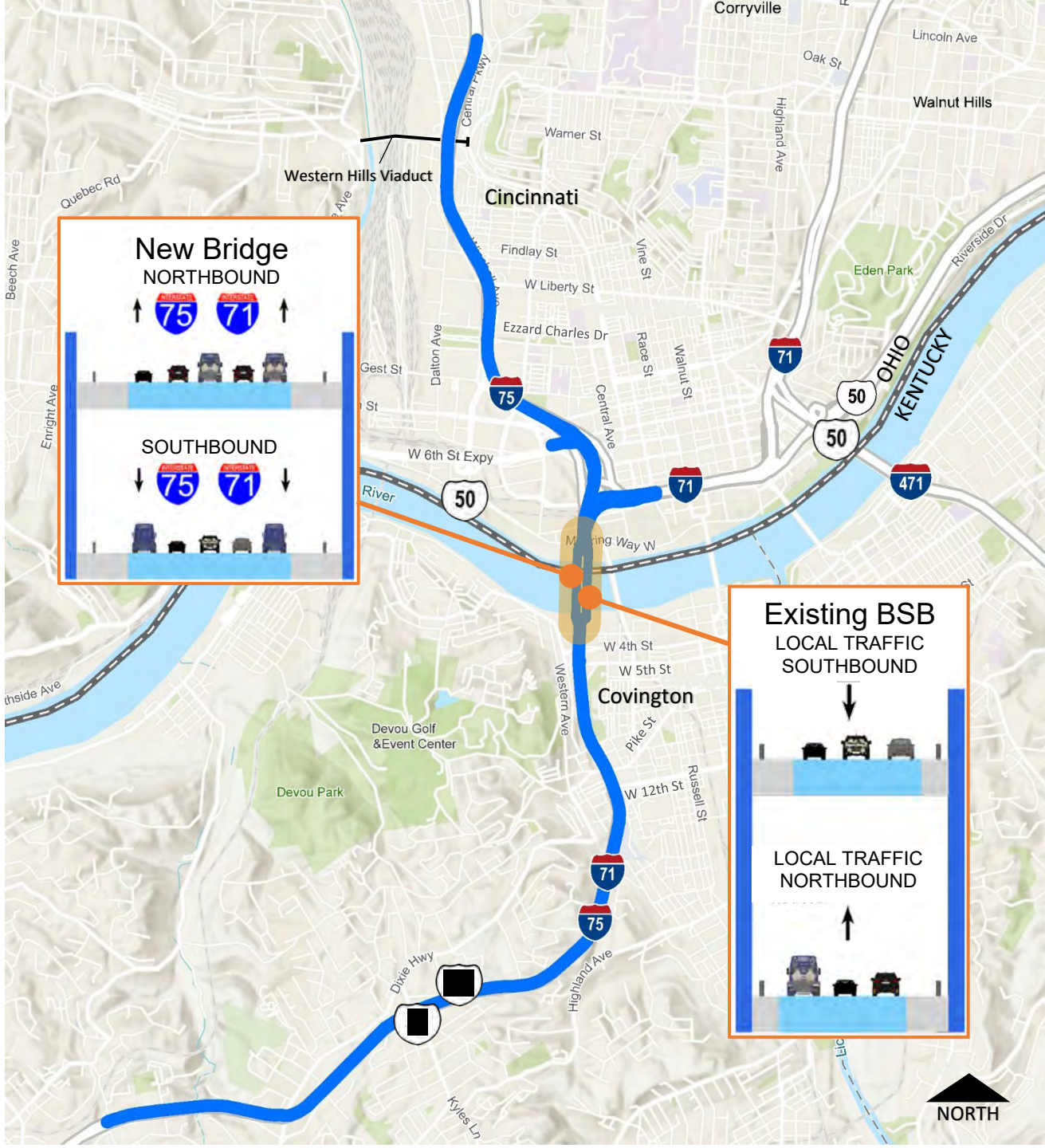
Project Description – Ohio

- Widen I-75
- Rebuild all overpass bridges and interchanges
- Build a collector-distributor system
- Tie into Mill Creek Expressway-Hopple Street Interchange project
- Tie into the Western Hills Viaduct project
- Add a northbound exit to Ezzard Charles Drive
- Connect to I-71 and US-50E



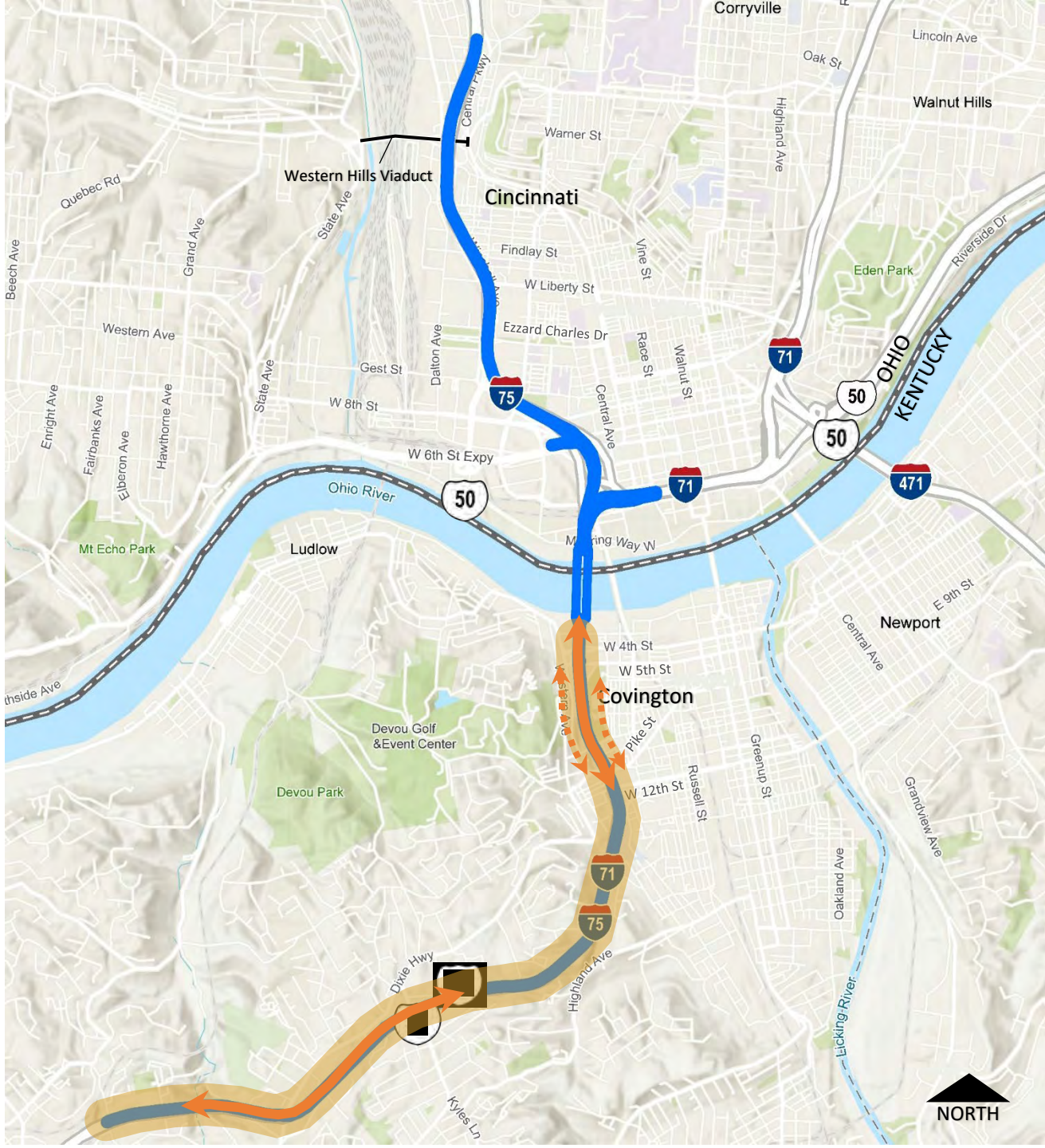
Project Description – Brent Spence Bridge

- New double-decker companion bridge
  - 5 lanes each deck
  - Carry through (interstate) traffic
- Rehabilitate and reconfigure existing bridge
  - Three lanes each deck
  - Increased inside/outside shoulders
  - Carry local traffic

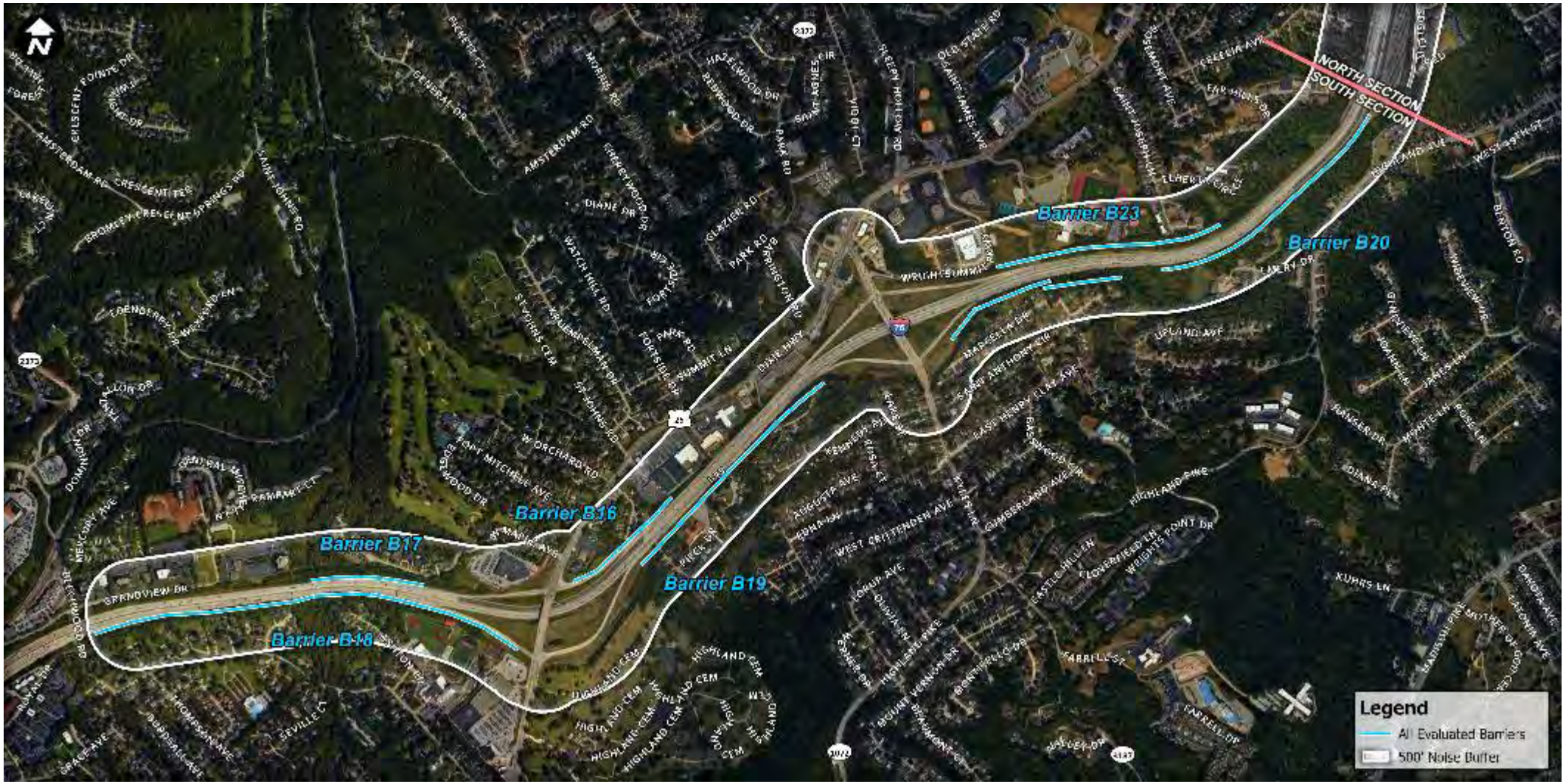


Project Description – Kentucky

- Reconstruct and widen I-71/I-75
- Rebuild all overpass bridges and interchanges
- Extend frontage roads in Covington
- Construct a collector-distributor system from 12th Street north
- Construct collector-distributor systems between Dixie Highway and Kyles Lane



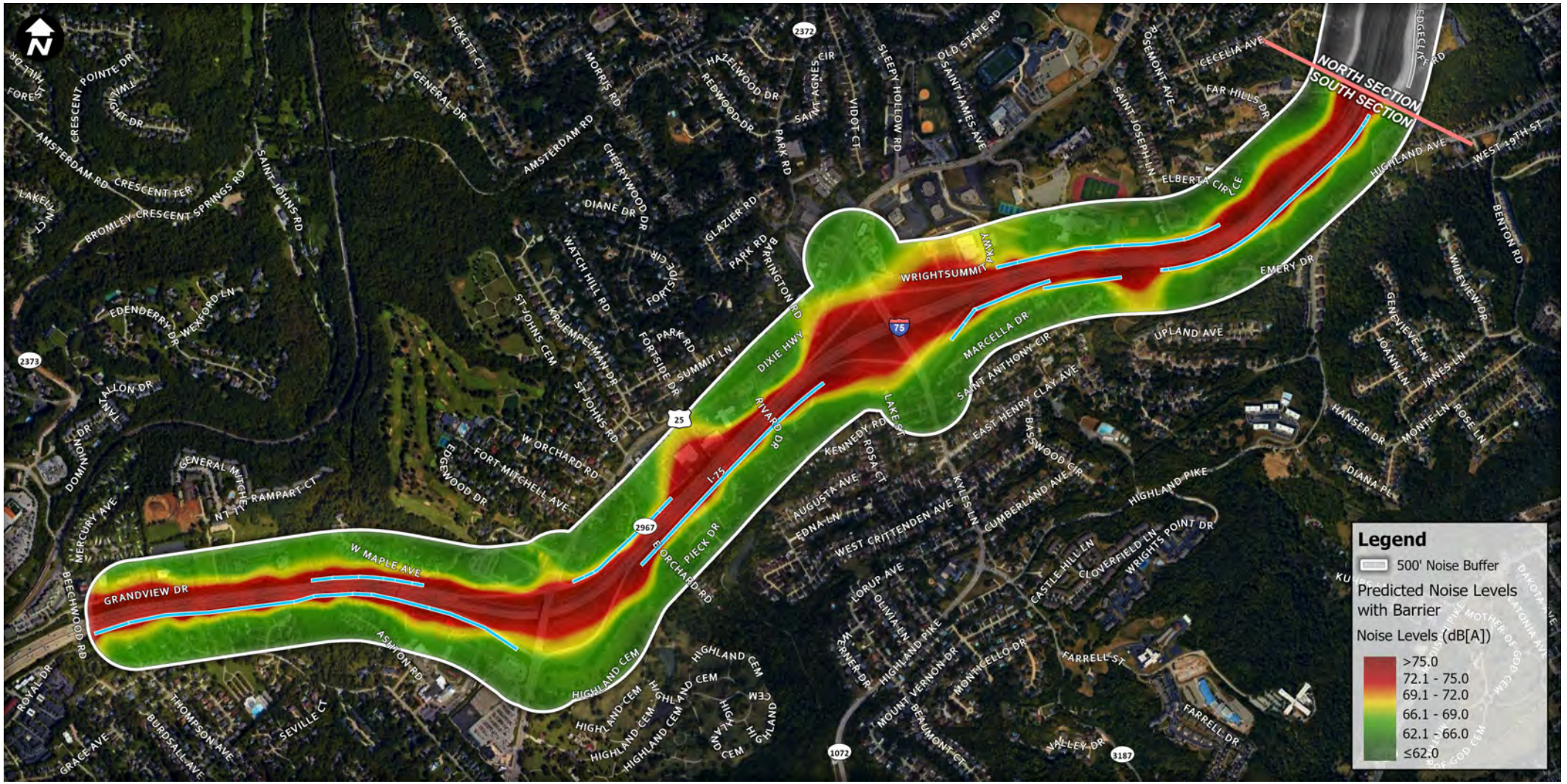
Why Are We Here?



Why Are We Here?



Why Are We Here?



BRENT SPENCE BRIDGE CORRIDOR

Presentation Overview

- Basics of Noise Analysis
- KYTC Noise Policy
- Results of Project Specific Noise Analysis
- Photos of Barrier Options
- Survey
- Questions and Answers



Poll #1

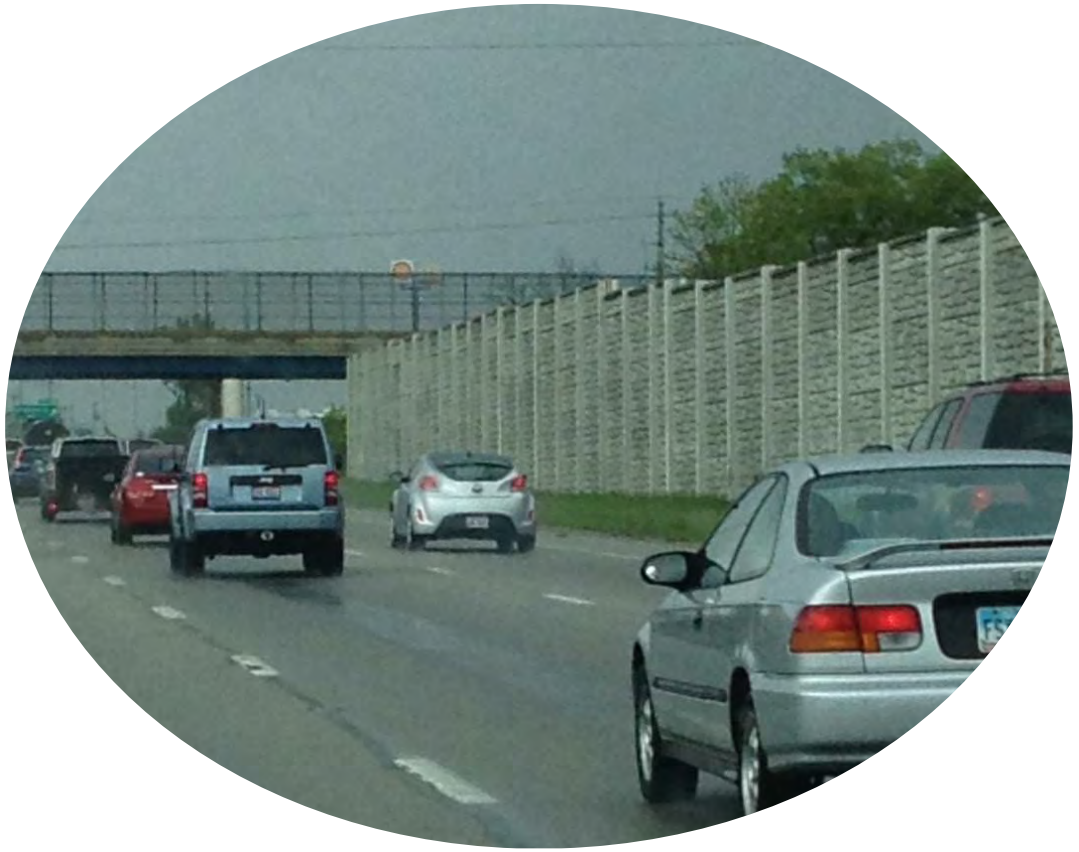
This meeting is for owners and residents of properties adjacent to I-71/I-75 who may benefit from construction of noise barriers when the road is widened. Which of the following describes your circumstances:

1. **I both own property and live in the area**
2. **I own property but do not live in the area**
3. **I live in a rental property in the area**

BRENT SPENCE BRIDGE CORRIDOR

What Is Noise?

- **Unwanted Sound**
- **Tires**
- **Engines**
- **Exhaust**



BRENT SPENCE BRIDGE CORRIDOR

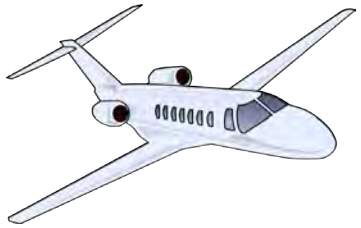
Noise Definitions

- **Decibels (dB) – unit of noise measurement**
- **Sensitive Receptor – ex. Homes, churches, etc.**
- **Benefited Receptor – receives 5 db noise reduction**
- **TNM® – Traffic Noise Model**

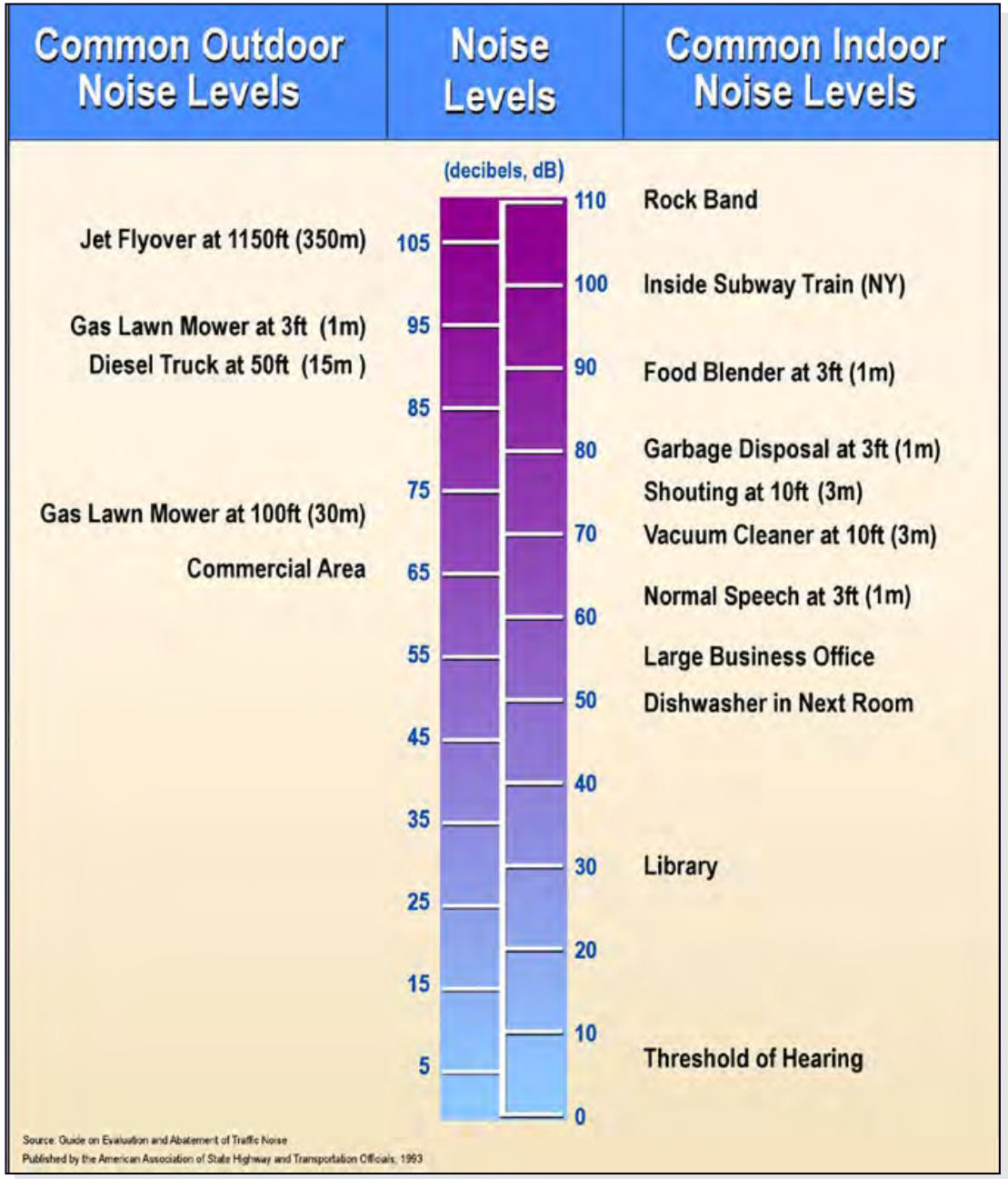


BRENT SPENCE BRIDGE CORRIDOR

Common Noise Levels







Sound Perception

Change In Sound Level	Perception
3 dB	Barely Perceptible
5 dB	Clearly Perceptible
10 dB	Twice as Loud

BRENT SPENCE BRIDGE CORRIDOR

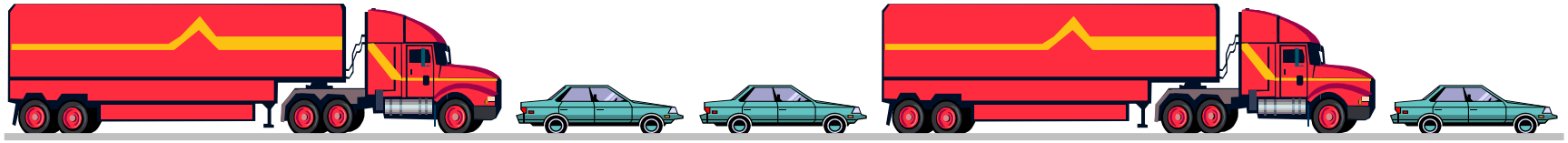
Level of Highway Noise Depends on Three Things:

- **Volume of Traffic**
- **Speed of Traffic**
- **Number of Trucks**



BRENT SPENCE
BRIDGE CORRIDOR

How Traffic Volume Affects Noise



2000 vehicles per hour sound twice as loud (+10 dB) as



200 vehicles per hour

BRENT SPENCE BRIDGE CORRIDOR

How Speed Affects Traffic Noise



Cars at 70 miles per hour sounds twice as loud (+10 dB) as



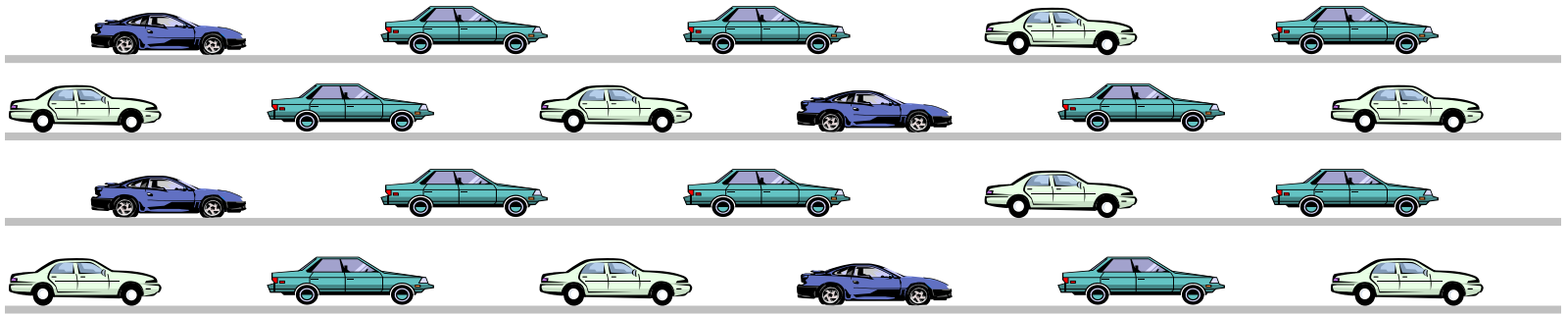
Cars at 35 miles per hour

BRENT SPENCE BRIDGE CORRIDOR

How Trucks Affect Traffic Noise



One truck at 55 miles per hour sounds as loud as



about 20 cars at 55 miles per hour

BRENT SPENCE BRIDGE CORRIDOR

Poll #2

Which best describes the Interstate traffic noise outside your residence or building?

1. **Not bad**
2. **Somewhat disruptive**
3. **Very disruptive**

BRENT SPENCE BRIDGE CORRIDOR

BRENT SPENCE
BRIDGE CORRIDOR

Questions?

Noise Impact Identification

- **FHWA Traffic Noise Model**
- **Evaluate No Build and Build**



BRENT SPENCE BRIDGE CORRIDOR

What Is a Noise Impact?

Land Use	Noise Level
Residential	67 dBA
Schools, Parks, Institutions	67 dBA
Restaurants & Offices	72 dBA

Source: Federal Highway Administration

Increase dBA	Description
10+	Substantial Increase

BRENT SPENCE BRIDGE CORRIDOR

KYTC Noise Policy

- If Impacts Are Predicted, Then
  - Avoid - Change Line or Grade
  - Minimize - Restrict Trucks or Lower Speed
  - Abate - Earth Berms or Noise Walls

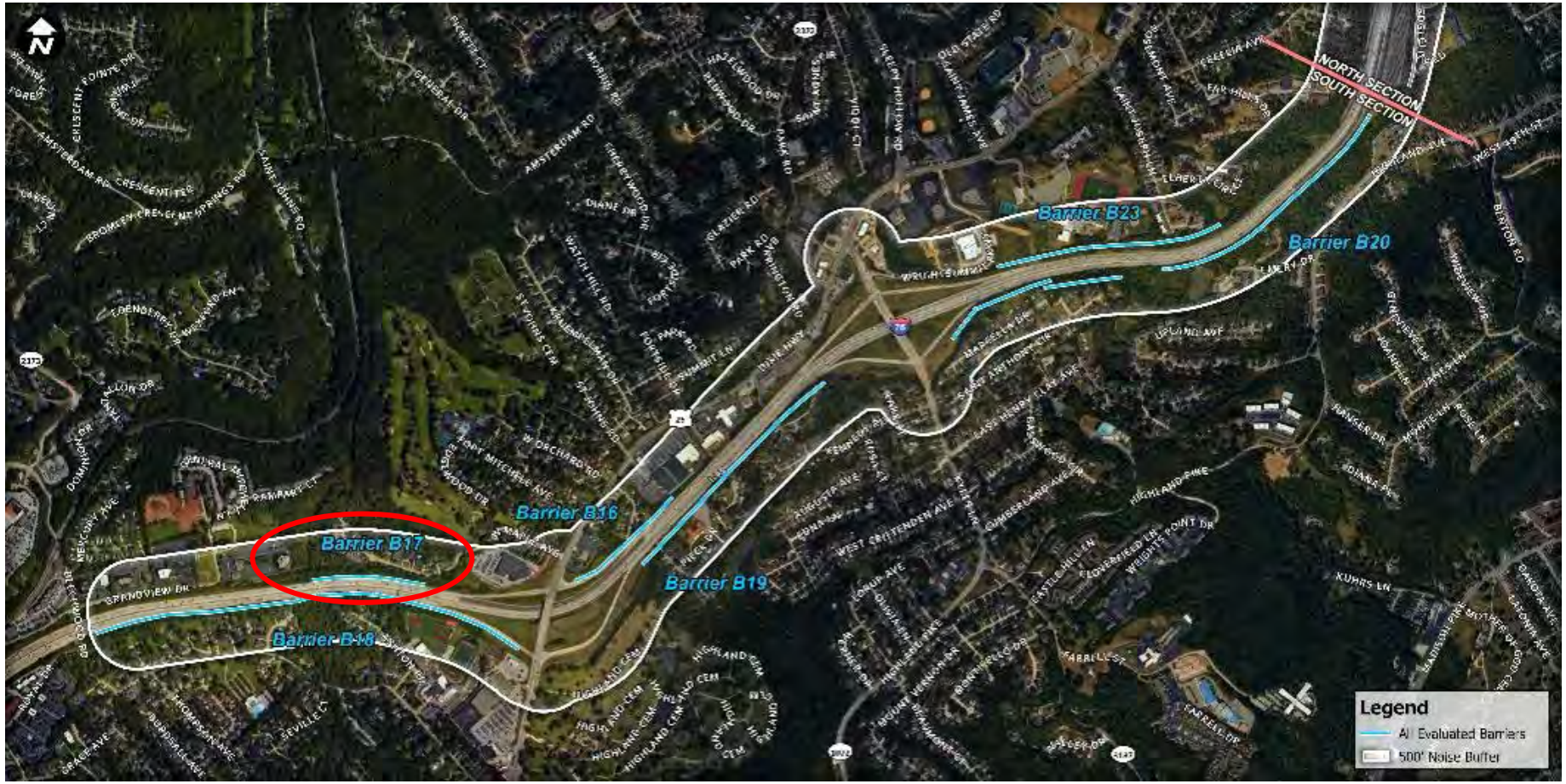
- Evaluate Feasibility and Reasonableness
  - Sight Distance; Entrances
  - Cost per Benefited Receptor
  - Desires of Benefited Receptors

BRENT SPENCE BRIDGE CORRIDOR

BRENT SPENCE
BRIDGE CORRIDOR

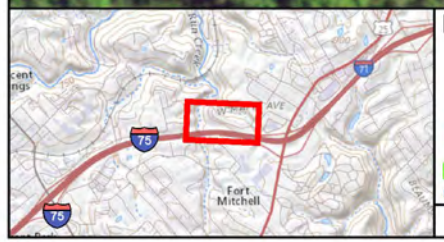
Noise Analysis Results

Barrier B17



BRENT SPENCE BRIDGE CORRIDOR





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B17A (18-24 ft)
Exhibit 5

TEAM KENTUCKY TRANSPORTATION CABINET

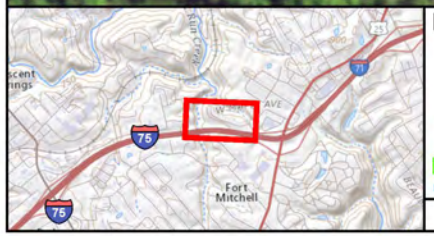
N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B17B (16-20 ft)
Exhibit 5C

TEAM KENTUCKY TRANSPORTATION CABINET

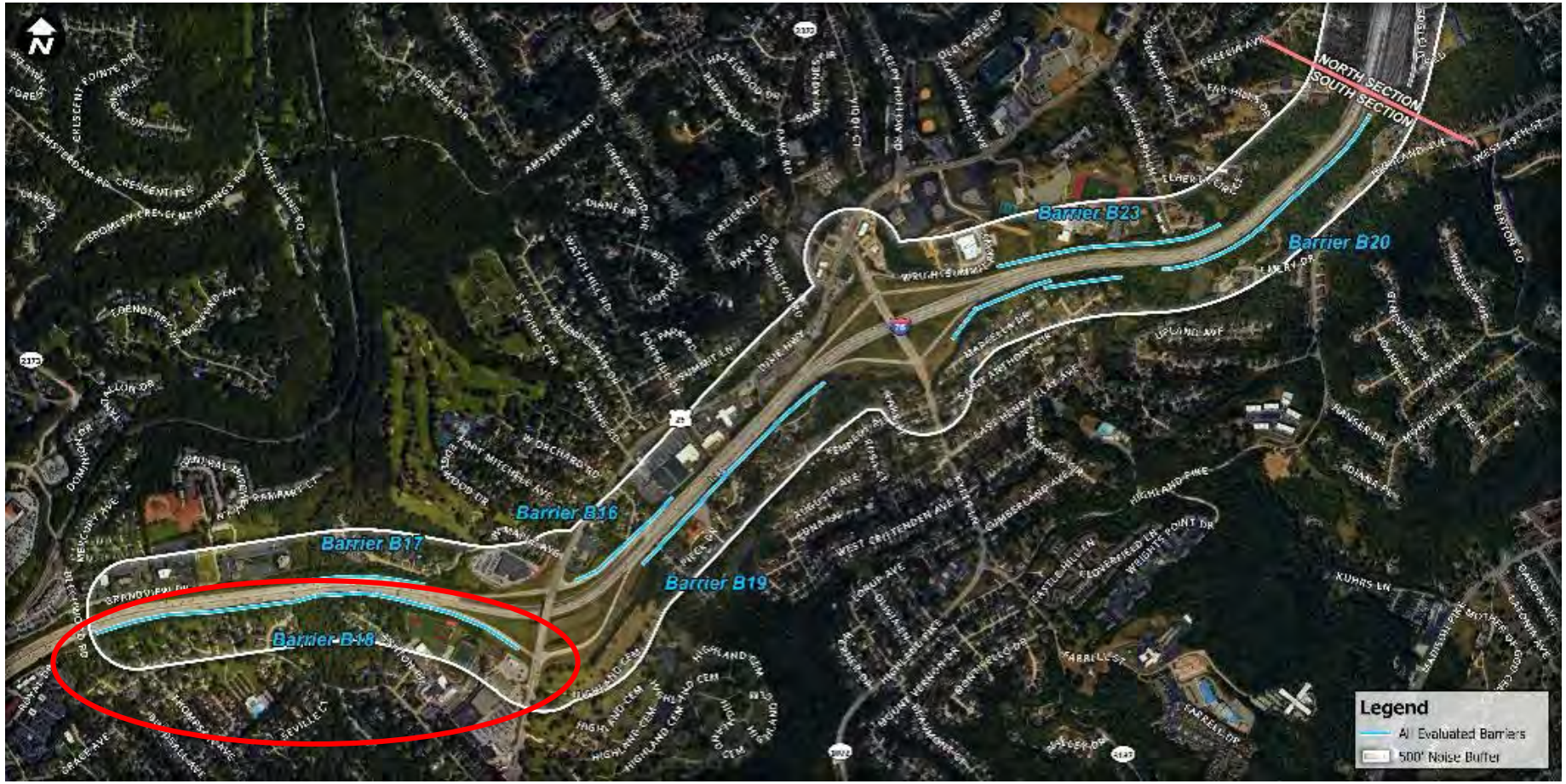
N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Barrier B18



BRENT SPENCE BRIDGE CORRIDOR


GRANDVIEW DR
ROYAL DR
16 ft
18 ft
R748 70.5 (8.9)
R749 66.5 (12.1)
R757 66.6 (9.4)
R769 65.7 (7.6)
R771 63.0 (7.1)
R783 66.2 (6.8)
R788 66.6 (5.6)
R797 63.0 (7.3)
R787 62.8 (7.5)
R777 62.5 (9.0)
R778 62.3 (10.1)
ANA JO LN
R820 64.0 (5.4)
R813 61.8 (6.9)
R814 61.4 (6.5)
R825 58.6 (7.5)
R826 64.6 (4.4)
R823 65.3 (3.3)
R828 65.3 (3.5)
R821 63.9 (1.8)
R850 61.1 (4.8)
R841 60.8 (4.3)
R840 55.4 (6.1)
R852 54.0 (5.4)
FEATHER CT
BEECHWOOD RD
THOMPSON AVE
PLEASANT RIDGE AVE
ALLENTOWN DR
Legend
-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])
Not Impacted, Not Benefitted
Impacted, Not Benefitted
Benefitted
500' Noise Buffer (Southern Study Area)
Analyzed Noise Barrier
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Concept I-W Barrier B18 (16-24 ft)
Exhibit 7A
TEAM KENTUCKY
TRANSPORTATION CABINET
N
0
125
250
Feet
Palmer ENGINEERING
Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



Legend

- -Receptor #
- -Predicted Abated Noise Level
- -(Noise Reduction [dBA])
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7B

TEAM KENTUCKY TRANSPORTATION CABINET

N

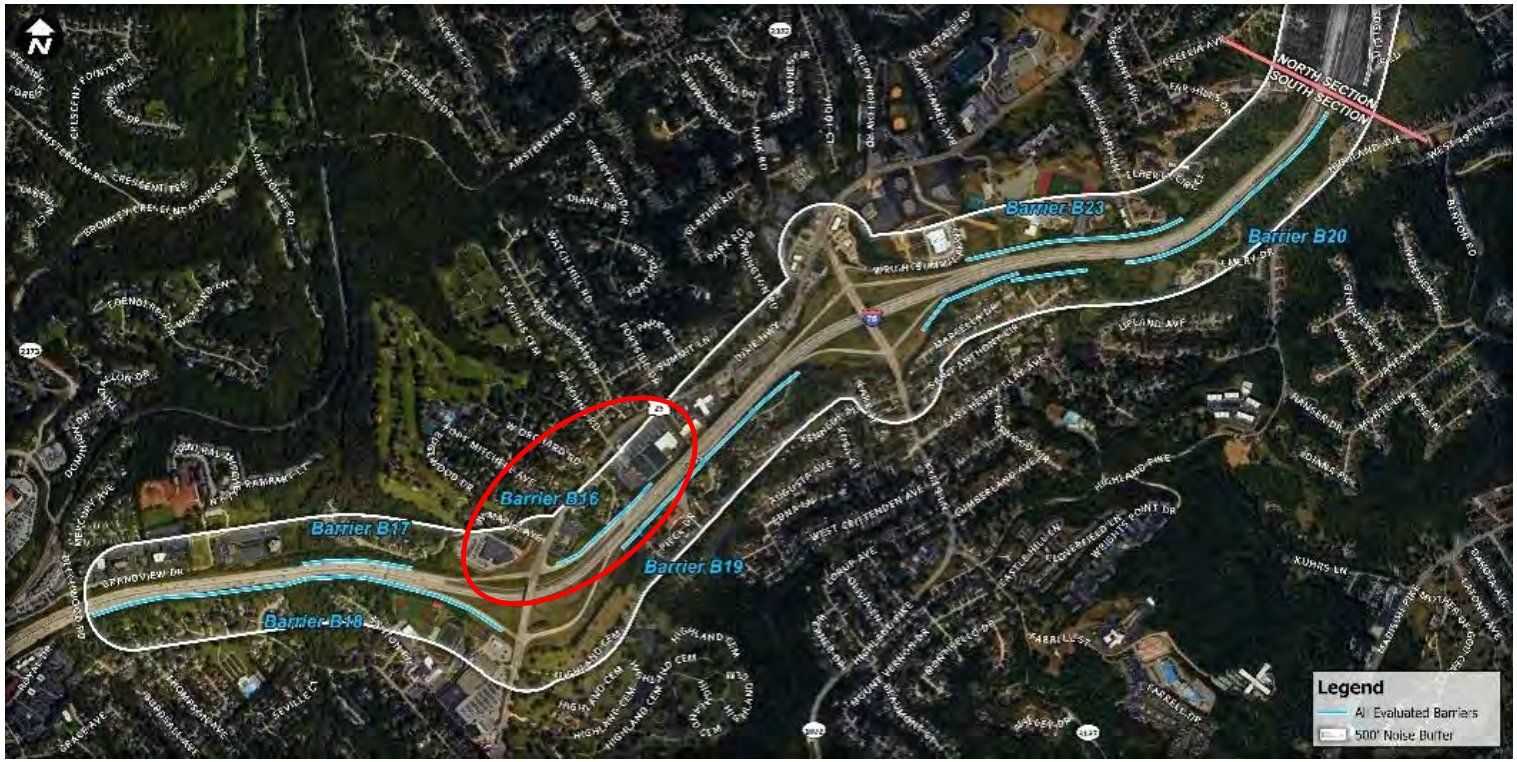
0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet


20 ft
22 ft
R878
71.7
(5.0)
M-47
58.2
(5.1)
R672
63.3
(7.2)
R890
62.9
(9.2)
R894
62.3
(9.3)
R897
61.8
(9.1)
BEECHWOOD
TIGERS
HIGHLAND CEM
ASHTON RD
RAGE RD
UNNAMED RD 51
Legend
-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])
Not Impacted, Not Benefitted
Impacted, Not Benefitted
Benefitted
500' Noise Buffer (Southern Study Area)
Analyzed Noise Barrier
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Concept I-W Barrier B18 (16-24 ft)
Exhibit 7C
TEAM KENTUCKY
TRANSPORTATION CABINET
0
125
250
Feet
Palmer ENGINEERING
Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Barrier B16



BRENT SPENCE BRIDGE CORRIDOR



Legend

- -Receptor #
- -Predicted Abated Noise Level
- -(Noise Reduction [dBA])
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B16B (12-22 ft)
Exhibit 4

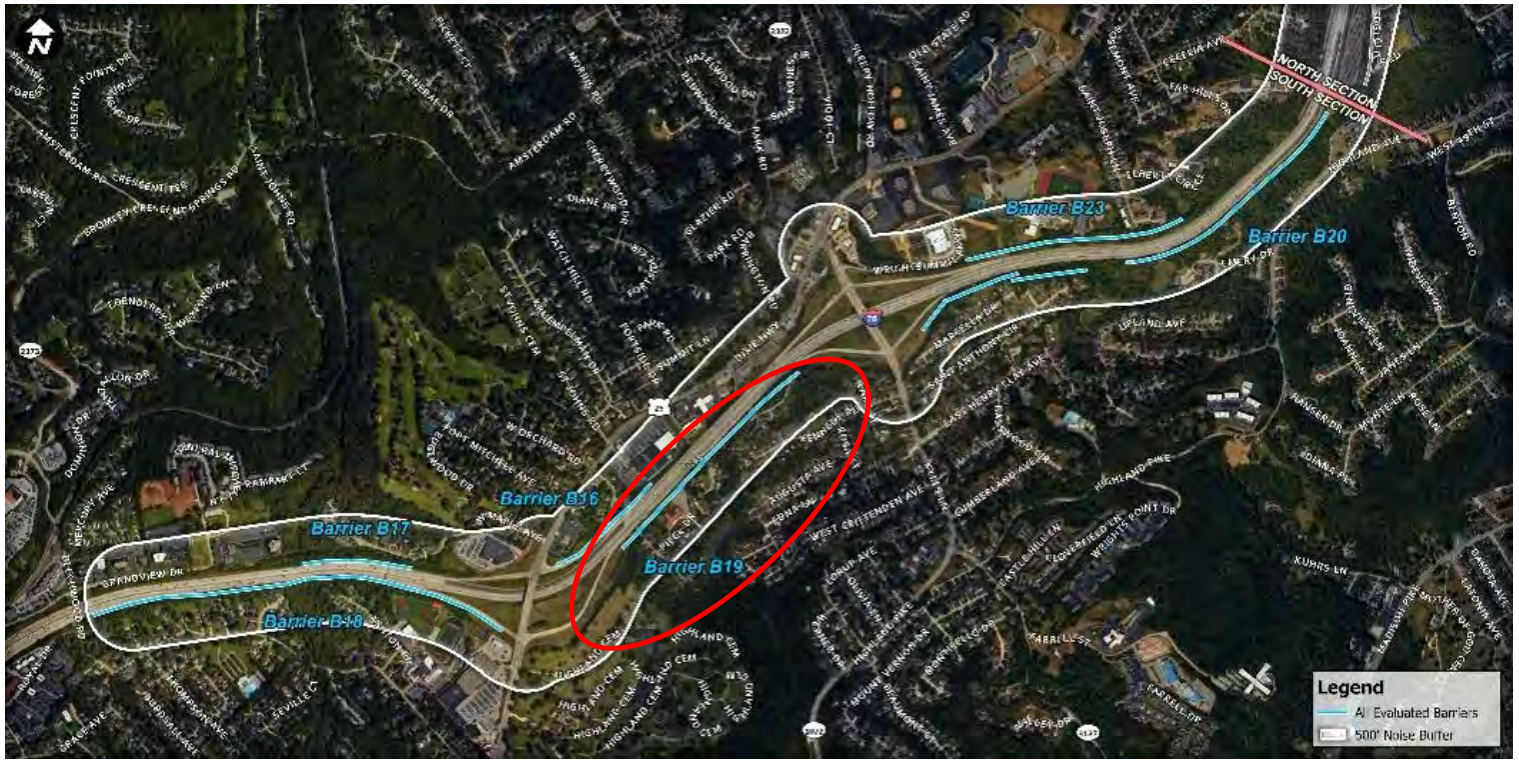
TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Barrier B19



BRENT SPENCE BRIDGE CORRIDOR



Legend

- -Receptor #
- -Predicted Abated Noise Level
- -(Noise Reduction [dBA])
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B19 (20 ft)
Exhibit 8A

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

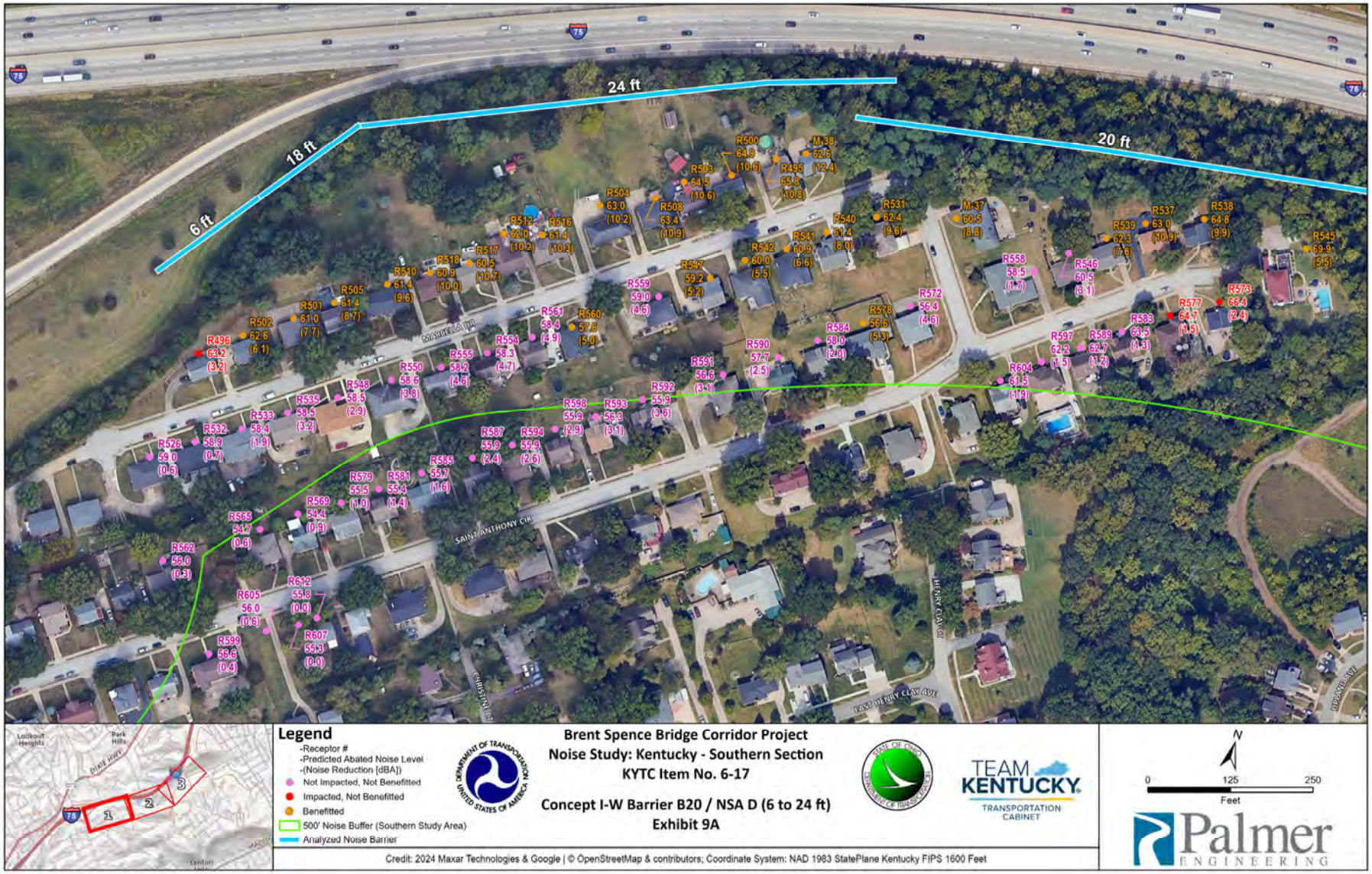
Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

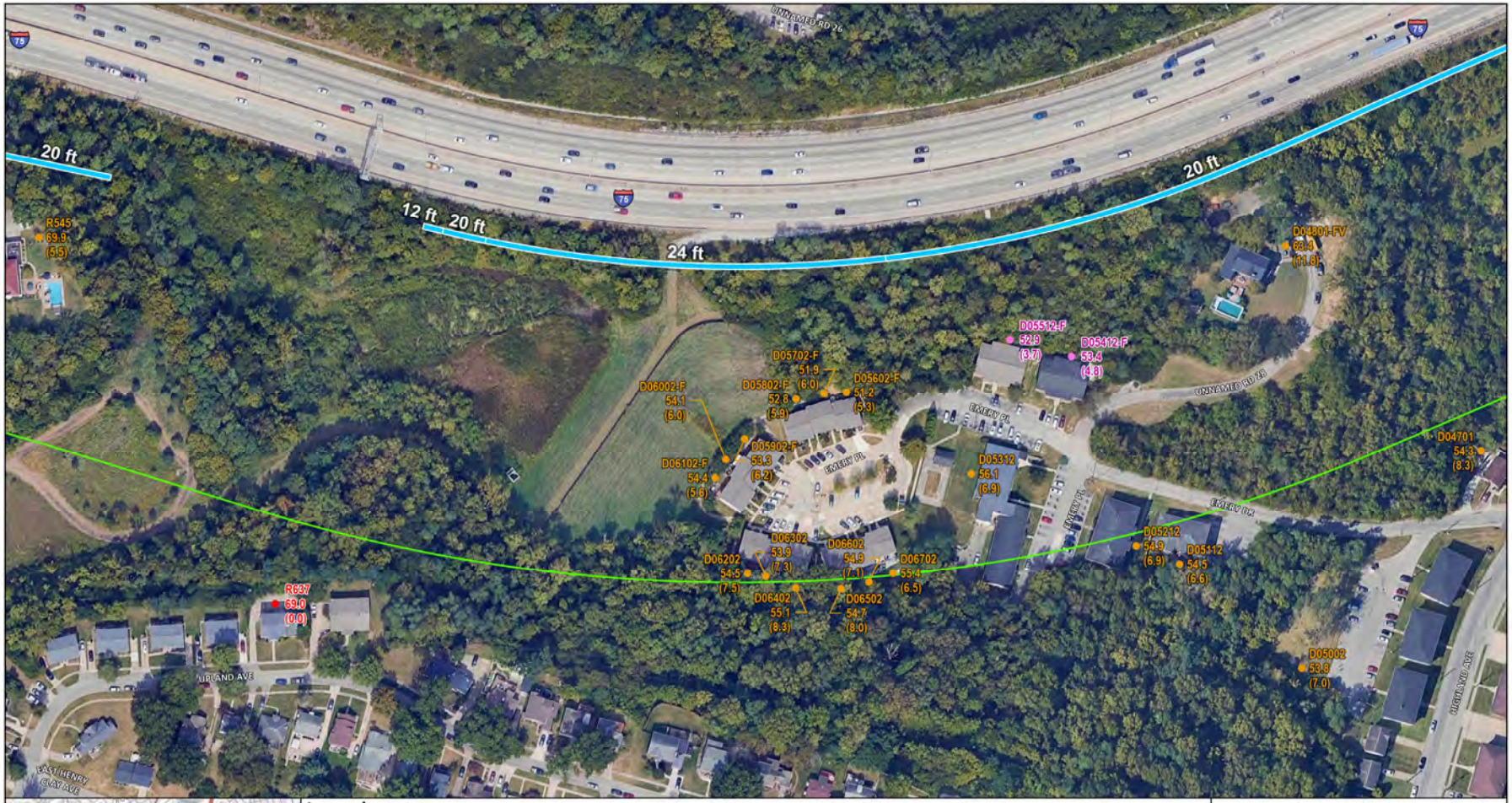

20 ft
R774 61.5 (6.0)
R780 62.4 (10.7)
R799 60.3 (9.9)
R834 58.9 (9.6)
R817 60.3 (9.8)
R843 57.2 (8.0)
R847 56.4 (8.1)
R846 55.6 (7.2)
R791 61.5 (9.6)
R790 62.6 (11.3)
M-42 55.7 (13.2)
R796 62.9 (11.8)
R805 62.9 (11.0)
R807 63.6 (9.7)
R802 66.0 (7.1)
R794 65.2 (5.7)
M-41 75.3 (0.5)
R812 57.8 (7.9)
R816 57.2 (6.2)
R833 56.9 (5.8)
R832 56.4 (5.3)
R842 56.5 (2.8)
R849 55.1 (6.2)
R855 55.1 (5.4)
R856 55.0 (6.0)
R861 54.4 (3.8)
R859 54.9 (3.7)
R858 55.4 (3.8)
RIVARD DR
HIGHVIEW DR
KENNEDY RD
ROSA CT
LAKE ST
UNNAMED ALY 172
75
1072
Legend
-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])
Not Impacted, Not Benefitted
Impacted, Not Benefitted
Benefitted
500' Noise Buffer (Southern Study Area)
Analyzed Noise Barrier
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Concept I-W Barrier B19 (20 ft)
Exhibit 8B
TEAM KENTUCKY
TRANSPORTATION CABINET
0 125 250
Feet
Palmer ENGINEERING
Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Barrier B20/NSA D



BRENT SPENCE BRIDGE CORRIDOR


24 ft
18 ft
20 ft
6 ft
MARCELLA DR
SAINT ANTHONY CIR
CHRISTINE CT
EAST HENRY CLAY AVE
HENRY CLAY CT
STANTON AVE
Legend
-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])
Not Impacted, Not Benefitted
Impacted, Not Benefitted
Benefitted
500' Noise Buffer (Southern Study Area)
Analyzed Noise Barrier
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9A
TEAM KENTUCKY
TRANSPORTATION CABINET
N
0
125
250
Feet
Palmer ENGINEERING
Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

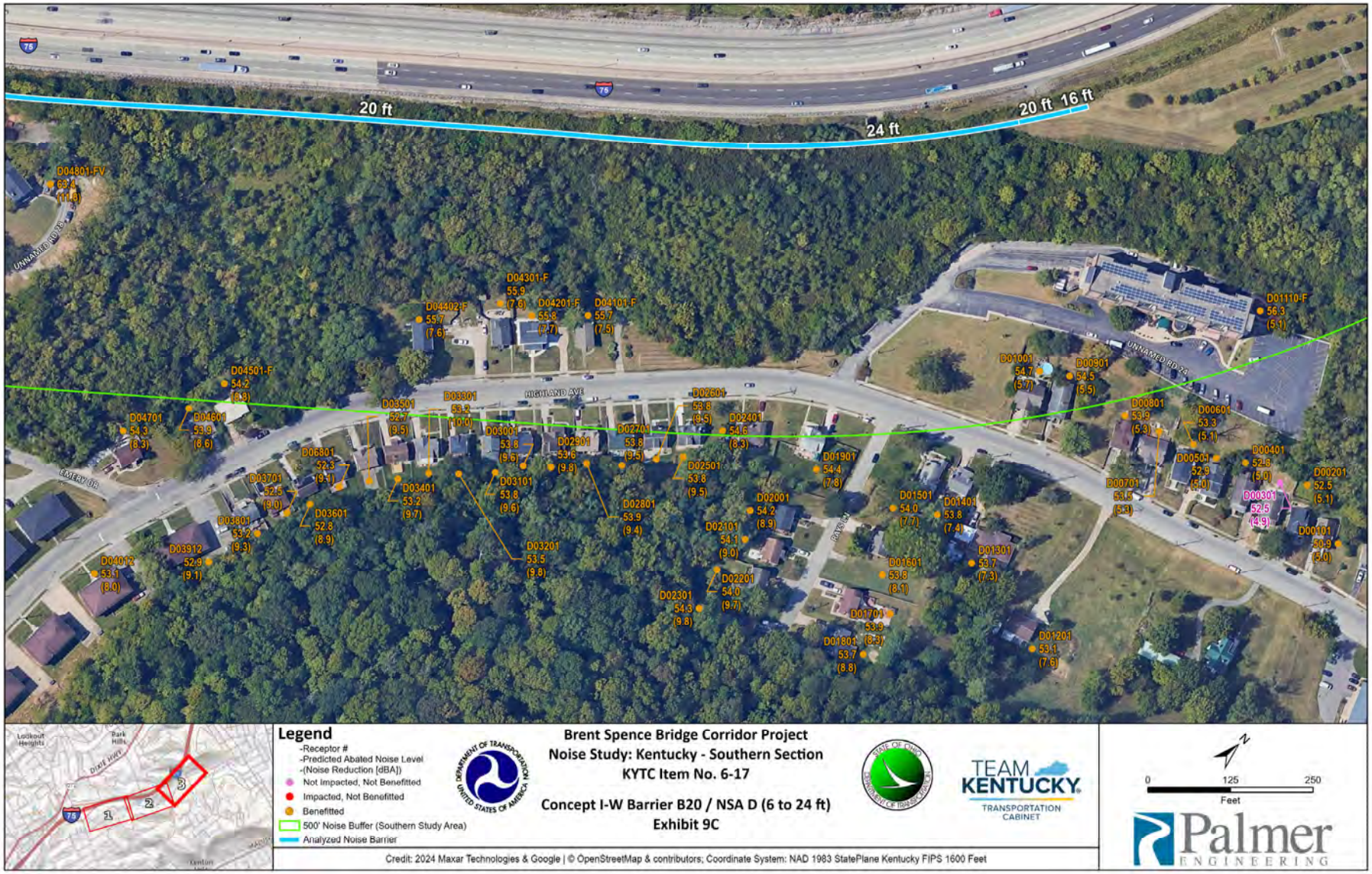
Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9B

TEAM KENTUCKY TRANSPORTATION CABINET

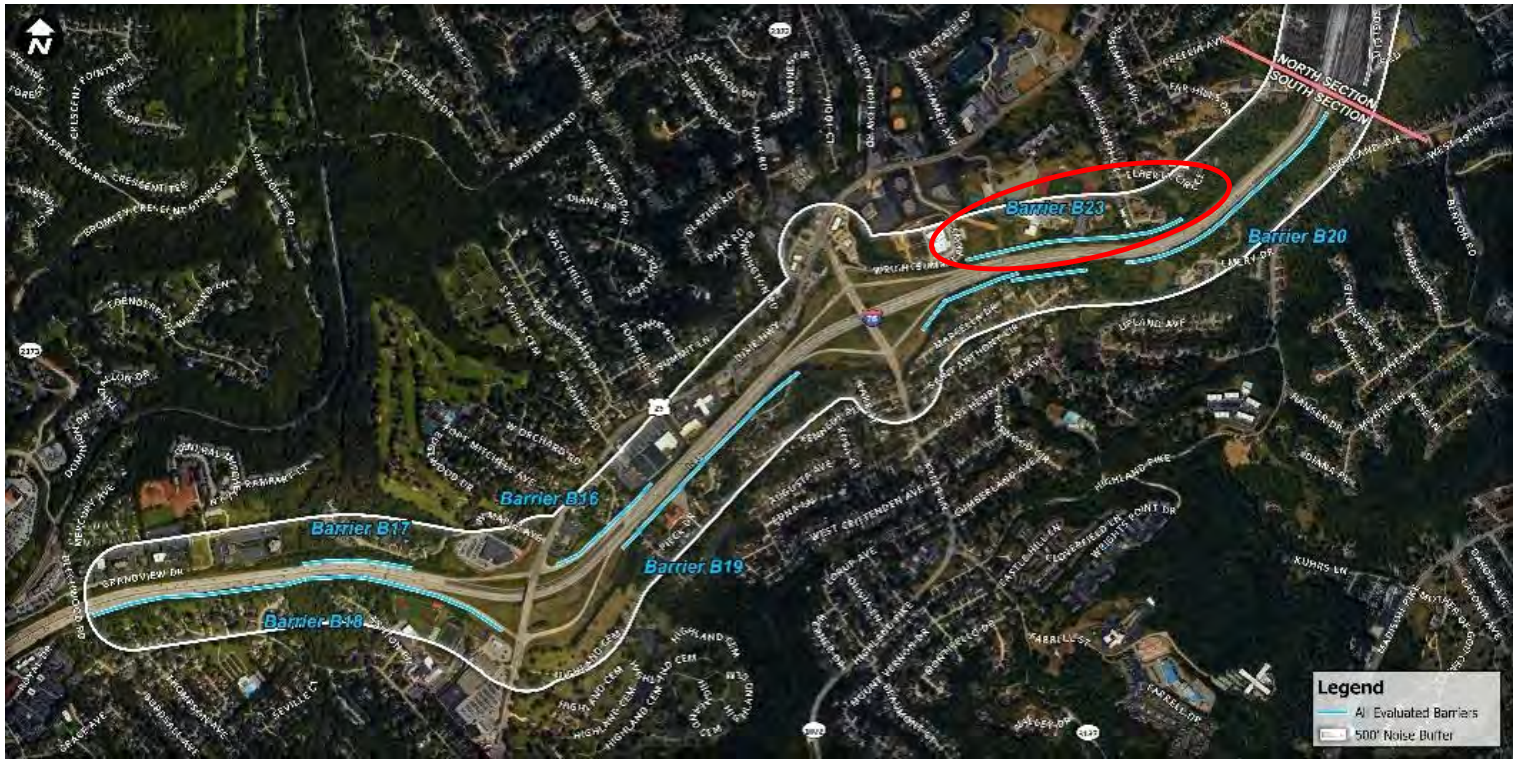
0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet


20 ft
24 ft
20 ft
16 ft
HIGHLAND AVE
UNNAMED RD 24
EMERY DR
D04801-FV
D04301-F
D04402-F
D04201-F
D04101-F
D04501-F
D04701
D04601
D03501
D03301
D03001
D02901
D02701
D02601
D02401
D02501
D01901
D01001
D00901
D01110-F
D00801
D00601
D00501
D00401
D00201
D00301
D00701
D00101
D06801
D03701
D03401
D03101
D03601
D03801
D03912
D04012
D03201
D02801
D02001
D02101
D02201
D02301
D01501
D01401
D01601
D01301
D01701
D01801
D01201
Legend
-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])
Not Impacted, Not Benefitted
Impacted, Not Benefitted
Benefitted
500' Noise Buffer (Southern Study Area)
Analyzed Noise Barrier
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9C
TEAM KENTUCKY
TRANSPORTATION CABINET
0
125
250
Feet
Palmer
ENGINEERING
Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Barrier B23



BRENT SPENCE BRIDGE CORRIDOR


R903
67.8
(0.4)
R904
52.2
(0.2)
M-36
61.7
(1.4)
R902
62.1
(7.2)
R509
63.0
(5.1)
R460
49.4
(0.5)
R468
50.8
(0.5)
R477
50.8
(1.7)
R494
54.2
(6.1)
R523
58.7
(8.2)
18 ft
20 ft
22 ft
20 ft
18 ft
75
Legend
-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])
Not Impacted, Not Benefitted
Impacted, Not Benefitted
Benefitted
500' Noise Buffer (Southern Study Area)
Analyzed Noise Barrier
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17
Concept I-W Barrier B23 (18-22 ft)
Exhibit 10A
TEAM KENTUCKY
TRANSPORTATION CABINET
N
0
125
250
Feet
Palmer
ENGINEERING
Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B23 (18-22 ft)
Exhibit 10B

TEAM KENTUCKY
TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

BRENT SPENCE
BRIDGE CORRIDOR

Questions?

Noise Wall Finish: Smooth Finish



BRENT SPENCE BRIDGE CORRIDOR

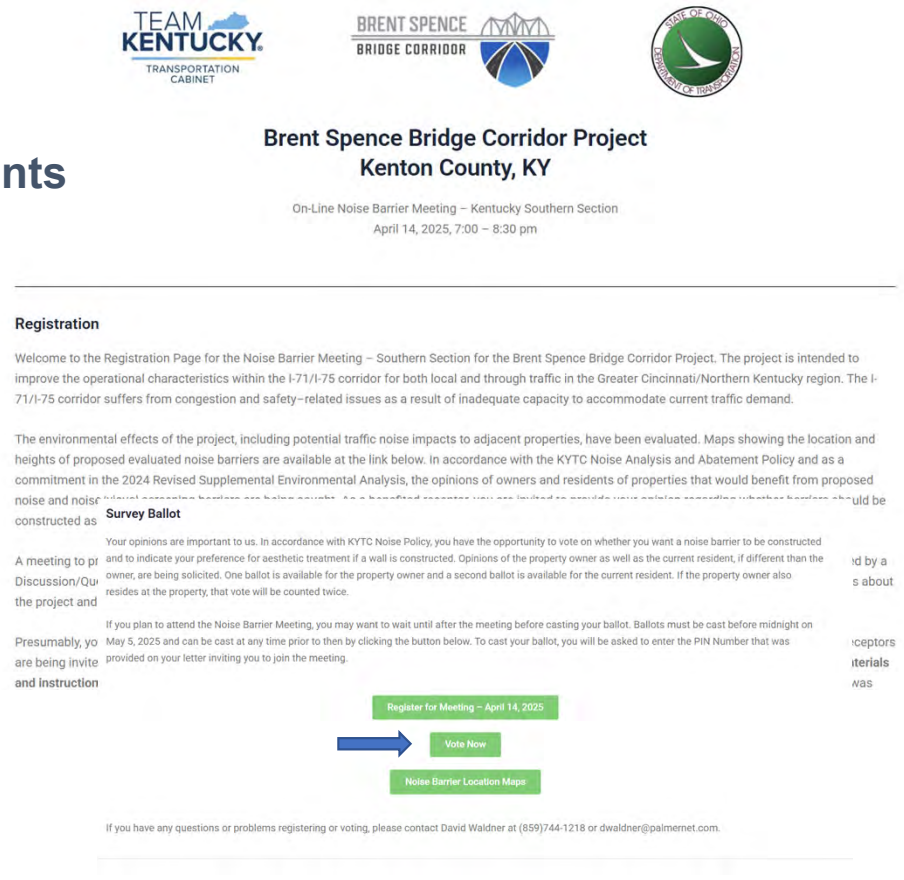
Noise Wall Finish: Cut Stone Finish



BRENT SPENCE BRIDGE CORRIDOR

Voting Process

- **Survey instructions mailed to Owners and Residents**
- **Survey accessible at registration page (brentspencebridge.com/south)**
- **Owner and Resident may each cast a vote**
- **Survey questions:**
  - **Construct barriers (Y/N)**
  - **Finish and texture (Smooth or Cut Stone)**
- **Survey results must be submitted by May 5, 2025**



Brent Spence Bridge Corridor Project
Kenton County, KY

On-Line Noise Barrier Meeting – Kentucky Southern Section
April 14, 2025, 7:00 – 8:30 pm

Registration

Welcome to the Registration Page for the Noise Barrier Meeting – Southern Section for the Brent Spence Bridge Corridor Project. The project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic in the Greater Cincinnati/Northern Kentucky region. The I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand.

The environmental effects of the project, including potential traffic noise impacts to adjacent properties, have been evaluated. Maps showing the location and heights of proposed evaluated noise barriers are available at the link below. In accordance with the KYTC Noise Analysis and Abatement Policy and as a commitment in the 2024 Revised Supplemental Environmental Analysis, the opinions of owners and residents of properties that would benefit from proposed noise and noise

constructed as

A meeting to pr
Discussion/Qu
the project and

Presumably, yo
are being invite
and instruction

Survey Ballot

Your opinions are important to us. In accordance with KYTC Noise Policy, you have the opportunity to vote on whether you want a noise barrier to be constructed and to indicate your preference for aesthetic treatment if a wall is constructed. Opinions of the property owner as well as the current resident, if different than the owner, are being solicited. One ballot is available for the property owner and a second ballot is available for the current resident. If the property owner also resides at the property, that vote will be counted twice.

If you plan to attend the Noise Barrier Meeting, you may want to wait until after the meeting before casting your ballot. Ballots must be cast before midnight on May 5, 2025 and can be cast at any time prior to then by clicking the button below. To cast your ballot, you will be asked to enter the PIN Number that was provided on your letter inviting you to join the meeting.

Register for Meeting – April 14, 2025

Vote Now

Noise Barrier Location Maps

If you have any questions or problems registering or voting, please contact David Waldner at (859)744-1218 or dwaldner@palmernet.com.

Project Contact

- **If you need assistance with your ballot or its submittal, you may contact:**

David Waldner, Palmer Engineering
dwaldner@palmernet.com
(859) 744-1218

BRENT SPENCE BRIDGE CORRIDOR

Questions?



Appendix D:

KYTC Open House Meeting April 29, 2025

APPENDIX D.1

Attendee List

BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project
Kentucky Noise Information Open House
Tuesday April 29, 2025
2:00 pm - 6:00 pm

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

AECOM

Sign-in Sheet

Name	Affiliation/Address	Telephone	Email
KAREN STEENKEN	13 LESLIE AVE	859-653-3343	karensteenken@gmail
MICHAEL KRAUS	821 PHILADELPHIA	426-7736	MIKEKRAUS1@YAHOO.COM
Katherine Tennant	137 W. Maple Ave	513-368-8399	katherinetennant@gmail.com
BILL OSTERHAGE	45 RIVARD DR	8598029577	BILL.OSTERHAGE@GMAIL.COM
SUE OSTERHAGE	" " "	8596530057	
MATT SCHAMER	250 BEECHWOOD Rd.	859-393-7816	MATTS@SELOELECTRIC.NET
Maggie Hessling	807 Highland Ave.	859-803-9370	mghessling@yahoo.com

BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project
Kentucky Noise Information Open House
Tuesday April 29, 2025
2:00 pm - 6:00 pm

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

AECOM

Sign-in Sheet

Name	Affiliation/Address	Telephone	Email
David Rodgers	Central Church of the Nazarene	859-743-4150	pastor.rodgers@yahoo.com
Mary Jo DiSalvo	135 W. Maple Ave	859-801-9954	Maryjoroth3@gmail.com
Michael Lande	618 Ln. 11th St	8592795469	Mike.Lande@fuse.net
Cindy Spadaro	11 Leslie Ave	6596635760	Cynthiaspadaro0792@gmail.com

Project Personnel/

BRENT SPENCE BRIDGE CORRIDOR

Brent Spence Bridge Corridor Project
Kentucky Noise Information Open House
Tuesday April 29, 2025
2:00 pm - 6:00 pm

TEAM KENTUCKY TRANSPORTATION CABINET

Palmer ENGINEERING

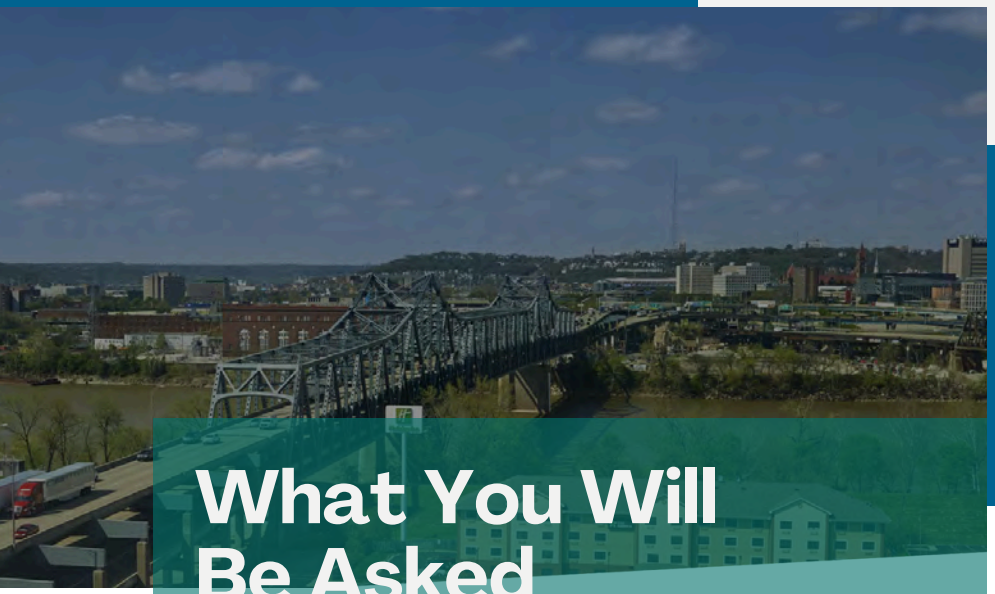
AECOM

Sign-in Sheet

Name	Affiliation/Address	Telephone	Email
David Waldner	Palmer Eng.	859 744 1218	dwaldner@palmernet.com
Hunter Pace	Palmer Eng	859-338-3606	hpace@palmernet.com
Nathan Pera	AECOM	816-392-7472	nathan.pera@aecom.com
Brett Rize	AECOM	859.684.0454	brett.rize@aecom.com
JAKE RYLE	KYTC D6	859-308-0924	jake.ryle@ky.gov
CRAIG J CRAIG	KYTC CO	502-396-7581	craig.craig@ky.gov
Bob Yeager	KYTC D-6	859-391-9718	robert.yeager@ky.gov
Stacee Hans	KYTC D-6	859-341-2700	stacee.hans@ky.gov
NIKKI BODEN	KYTC D-6	859-341-2700	NIKKI.BODEN@ky.gov
SCOTT SCHURMAN	KYTC CO	502-531-5031	SCOTT.SCHURMAN@Ky.GOV

APPENDIX D.2

Handout



What You Will Be Asked

- Do you support the construction of a noise barrier?
- If a barrier is constructed, what finish do you prefer?
- You may provide additional comments about the barrier or project.

Important Deadlines

Submit by:

- **May 5, 2025** – South Section
- **May 9, 2025** – North Section



KYTC Brent Spence Bridge Noise Barrier Open House

District 6 Office
421 Buttermill Pike
Fort Mitchell, KY

TEAM KENTUCKY
TRANSPORTATION CABINET

April 29, 2025

2:00 p.m. through 6:00 p.m.

About the Project

The BSB corridor consists of 7.8 total miles of I-71 and I-75 from south of Dixie Highway (US-25) in Kentucky to north of the Western Hills Viaduct in Ohio. The purpose of the project is to:

- Improve traffic flow and level of service;
- Improve safety;
- Correct geometric deficiencies; and
- Maintain connections to key regional and national transportation corridors.

Today's Meeting

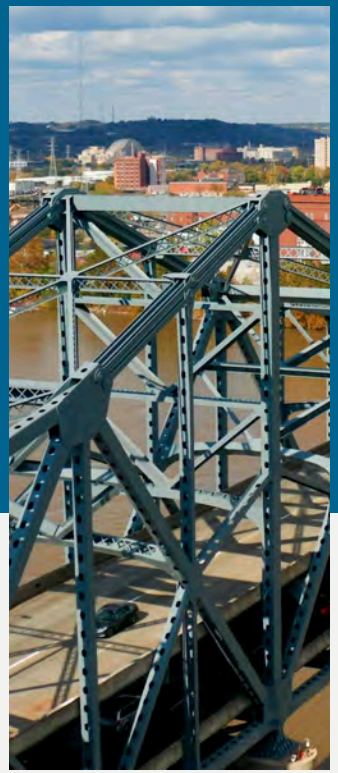
KYTC previously held Online Noise Barrier Informational Meetings for the North and South sections of the Kentucky segment of the Brent Spence Bridge Corridor Project. Today's Open House Meeting is to provide an opportunity for residents who would benefit from the proposed barriers, and are part of the on-going polling process, to gather information and ask any additional questions of KYTC staff regarding the proposed noise mitigation.

When are barriers recommended?

A noise barrier must be:

- Feasible – Continuous and without gaps for entrances and benefit at least three properties
- Safe – No sight-distance or safety hazards
- Cost-Effective – Benefits enough nearby properties for a reasonable cost

If all criteria are met, the opinions of the affected property owners are considered before moving forward. We are currently at this milestone of the analysis.



Your Voice Matters

KYTC's Noise Policy requires outreach to those who would benefit from the barriers. If the majority of benefited residents do not support a noise barrier, it will not be built.

Who Can Vote

One vote is available for the property owner, and one vote is available for the current resident. If the property owner also resides at the property, that vote will be counted twice.

How to Vote

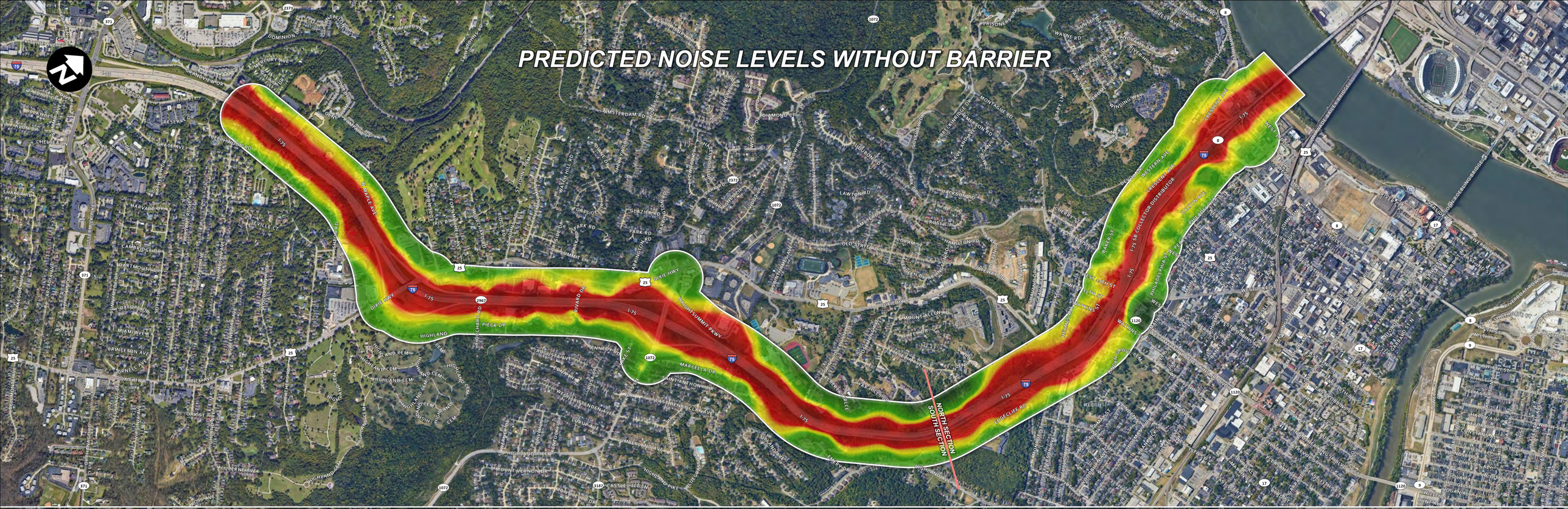
Voting is online from the registration pages identified below and requires the PIN found at the top of the letter you received in the mail.

brentspencebridge.com/north brentspencebridge.com/south

APPENDIX D.3

Exhibits

PREDICTED NOISE LEVELS WITHOUT BARRIER



PREDICTED NOISE LEVELS WITH BARRIER



Legend

- Study Area
- All Evaluated Barriers

Predicted Noise Levels (dB[A])

- >75.0
- 72.1 - 75.0
- 69.1 - 72.0
- 66.1 - 69.0
- 62.1 - 66.0
- ≤62.0





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B16B (12-22 ft)
Exhibit 4

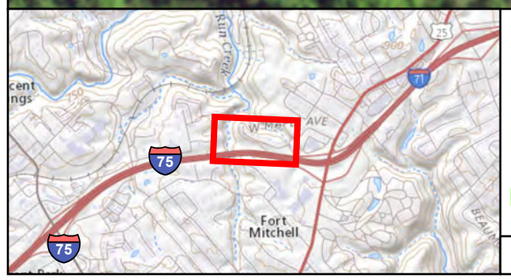
TEAM KENTUCKY
TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B17A (18-24 ft)
Exhibit 5

TEAM KENTUCKY
TRANSPORTATION CABINET

N
0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

R709
64.3
(2.1)

R710
62.2
(2.4)

R711
64.1
(2.7)

R715
64.4
(5.0)

R726
64.8
(6.6)

R744
67.8
(5.6)

R755
68.2
(4.7)

R779
67.7
(4.7)

R801
66.6
(3.4)

R822
66.9
(1.0)

M-48
62.1
(1.1)

R714
67.9
(5.0)

R734
67.7
(7.7)

20 ft

18 ft

16 ft



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Re-eval 1 Design: Barrier B17B (16-20 ft)
Exhibit 5C

TEAM KENTUCKY
TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

GRANDVIEW DR

16 ft

18 ft

ROYAL DR

R757
66.6
(9.4)

R748
70.5
(8.9)

R749
66.5
(12.1)

R769
65.7
(7.6)

R783
66.2
(6.8)

R788
66.6
(5.6)

R771
63.0
(7.1)

R777
62.5
(9.0)

R778
62.3
(10.1)

R797
63.0
(7.3)

R787
62.8
(7.5)

R820
64.0
(5.4)

R813
61.8
(6.9)

R814
61.4
(6.5)

ANA JO LN

R825
58.6
(7.5)

R826
64.6
(4.4)

R823
65.3
(3.3)

R828
65.3
(3.5)

R840
55.4
(6.1)

PRATHER CT

R852
54.0
(5.4)

R821
63.9
(1.8)

R841
60.8
(4.3)

R850
61.1
(4.8)

BEECHWOOD RD

THOMPSON AVE

PLEASANT RIDGE AVE

ALLENTOWN DR



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7A

TEAM KENTUCKY
TRANSPORTATION CABINET

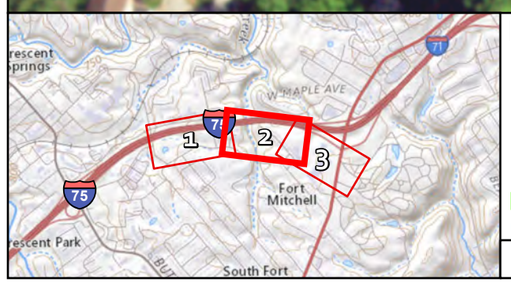
N

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7B

TEAM KENTUCKY TRANSPORTATION CABINET

N

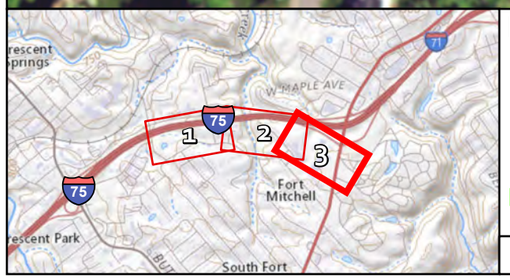
0 125 250

Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

20 ft
22 ft
75
25
R878
71.7
(5.0)
M-47
58.2
(5.1)
R672
63.3
(7.2)
R890
62.9
(9.2)
R894
62.3
(9.3)
R897
61.8
(9.3)
BEECHWOOD
TIGERS
HIGHLAND CEM
ASHTON RD
PAGE RD
UNNAMED RD 51



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B18 (16-24 ft)
Exhibit 7C

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B19 (20 ft)
Exhibit 8A

0 125 250
Feet

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

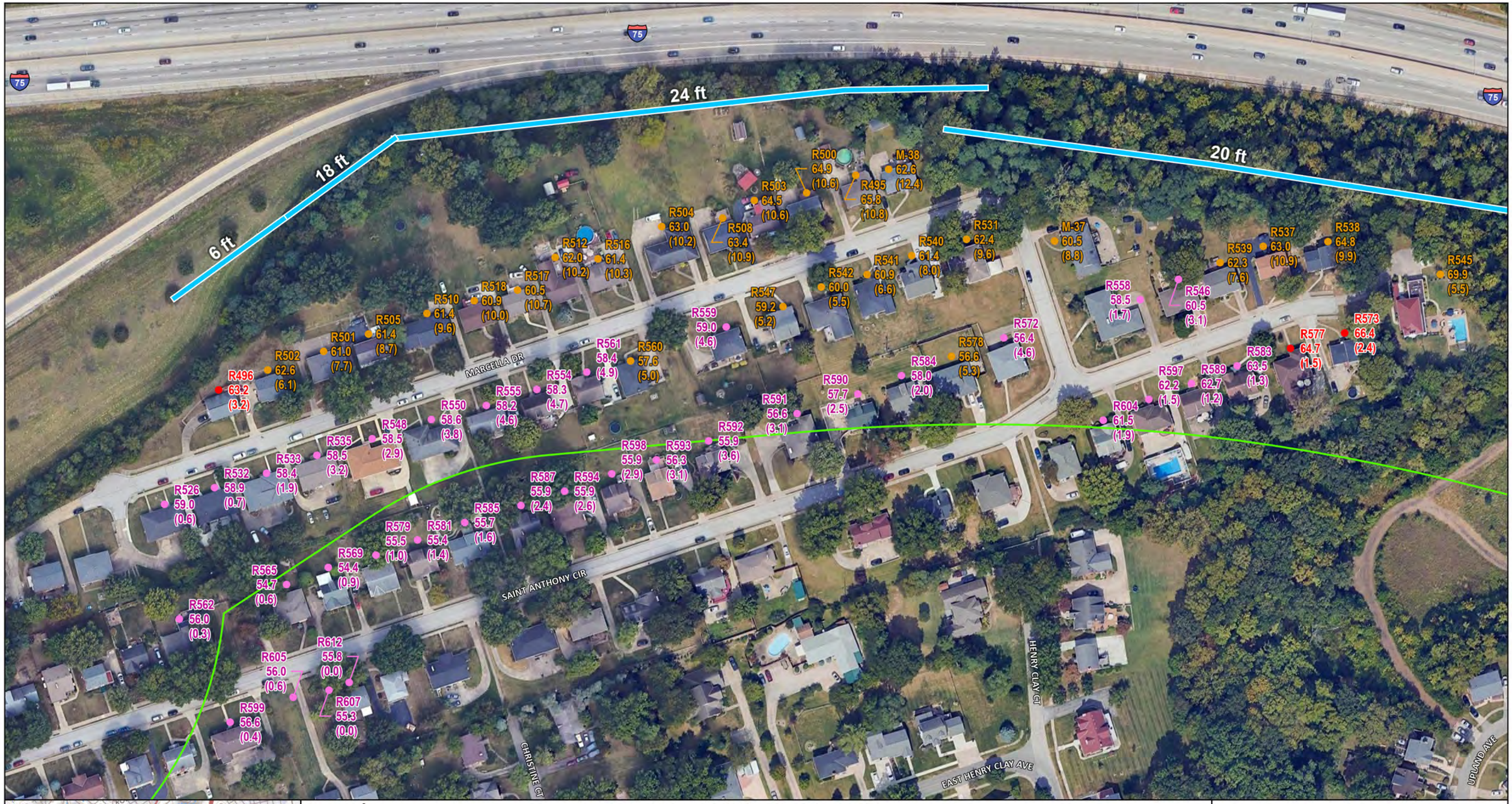
Concept I-W Barrier B19 (20 ft)
Exhibit 8B

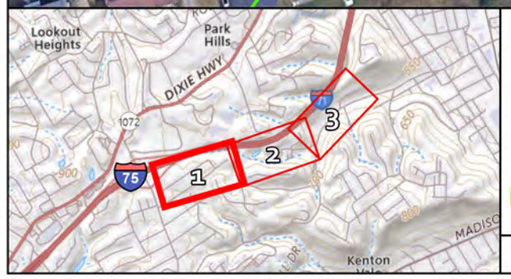
TEAM KENTUCKY
TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: KYFromAbove Partners; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

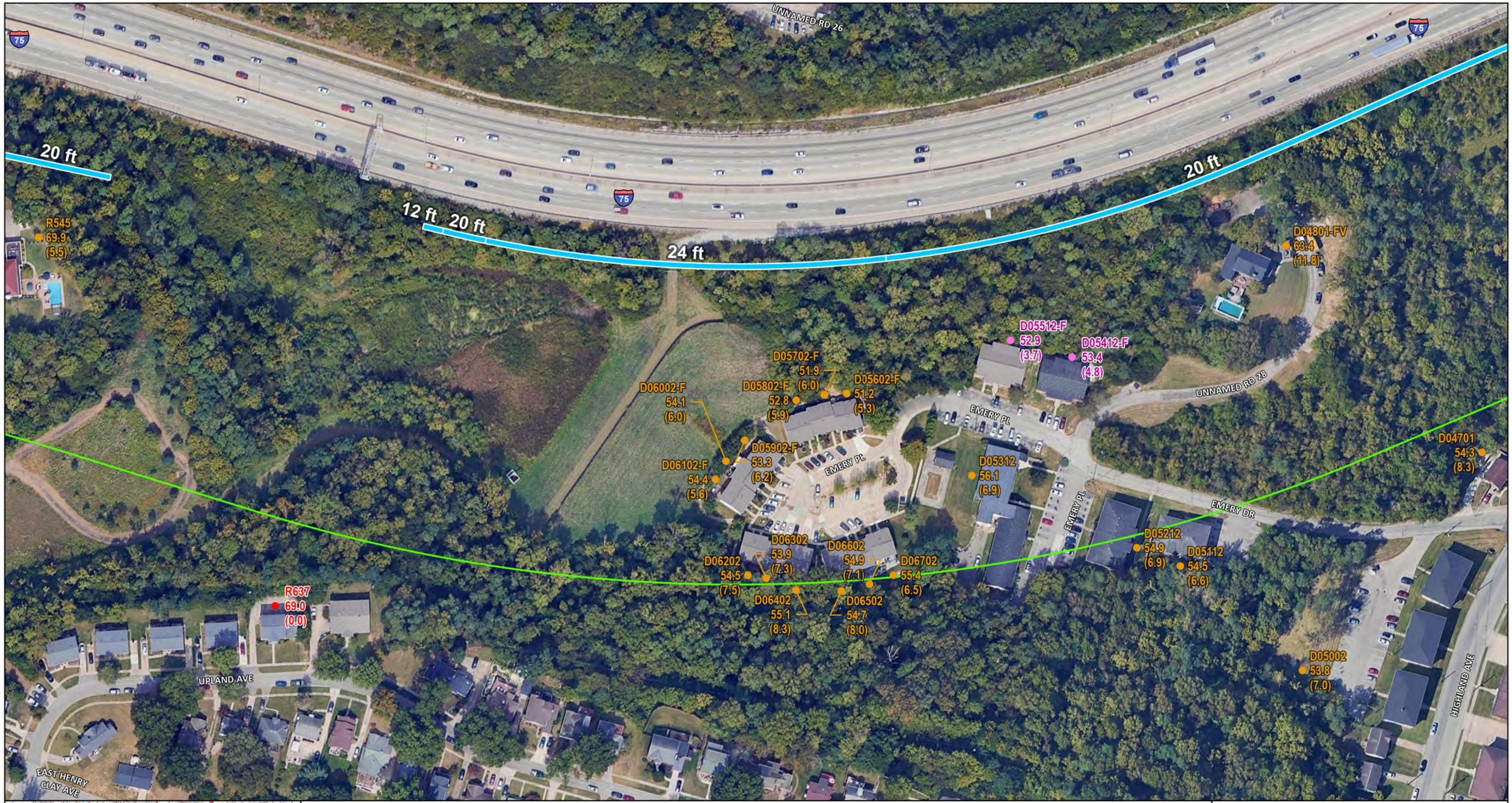
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9A

N

0 125 250
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9B

TEAM KENTUCKY TRANSPORTATION CABINET

N

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

20 ft
24 ft
20 ft
16 ft
D04801-FV
63.4
(11.8)
UNNAMED RD 28
D04301-F
55.9
(7.6)
D04402-F
55.7
(7.6)
D04201-F
55.8
(7.7)
D04101-F
55.7
(7.5)
D01110-F
56.3
(5.1)
UNNAMED RD 24
D01001
54.7
(5.7)
D00901
54.5
(5.5)
D04501-F
54.2
(8.8)
HIGHLAND AVE
D03501
52.7
(9.5)
D03301
53.2
(10.0)
D02601
53.8
(9.5)
D00801
53.9
(5.3)
D00601
53.3
(5.1)
D04701
54.3
(8.3)
D04601
53.9
(8.6)
D03001
53.8
(9.6)
D02901
53.6
(9.8)
D02701
53.8
(9.5)
D02401
54.6
(8.3)
D00501
52.9
(5.0)
D00401
52.8
(5.0)
D00201
52.5
(5.1)
D06801
52.3
(9.1)
D02501
53.8
(9.5)
D01901
54.4
(7.8)
EMERY DR
D03701
52.5
(9.0)
D03401
53.2
(9.7)
D03101
53.8
(9.6)
D02801
53.9
(9.4)
D02001
54.2
(8.9)
D01501
54.0
(7.7)
D01401
53.8
(7.4)
D00701
53.5
(5.3)
D00301
52.5
(4.9)
D03601
52.8
(8.9)
D03801
53.2
(9.3)
D03912
52.9
(9.1)
D03201
53.5
(9.8)
D02101
54.1
(9.0)
RAYS LN
D01601
53.8
(8.1)
D01301
53.7
(7.3)
D00101
50.9
(5.0)
D04012
53.1
(8.0)
D02201
54.0
(9.7)
D02301
54.3
(9.8)
D01701
53.9
(8.3)
D01801
53.7
(8.8)
D01201
53.1
(7.6)



Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

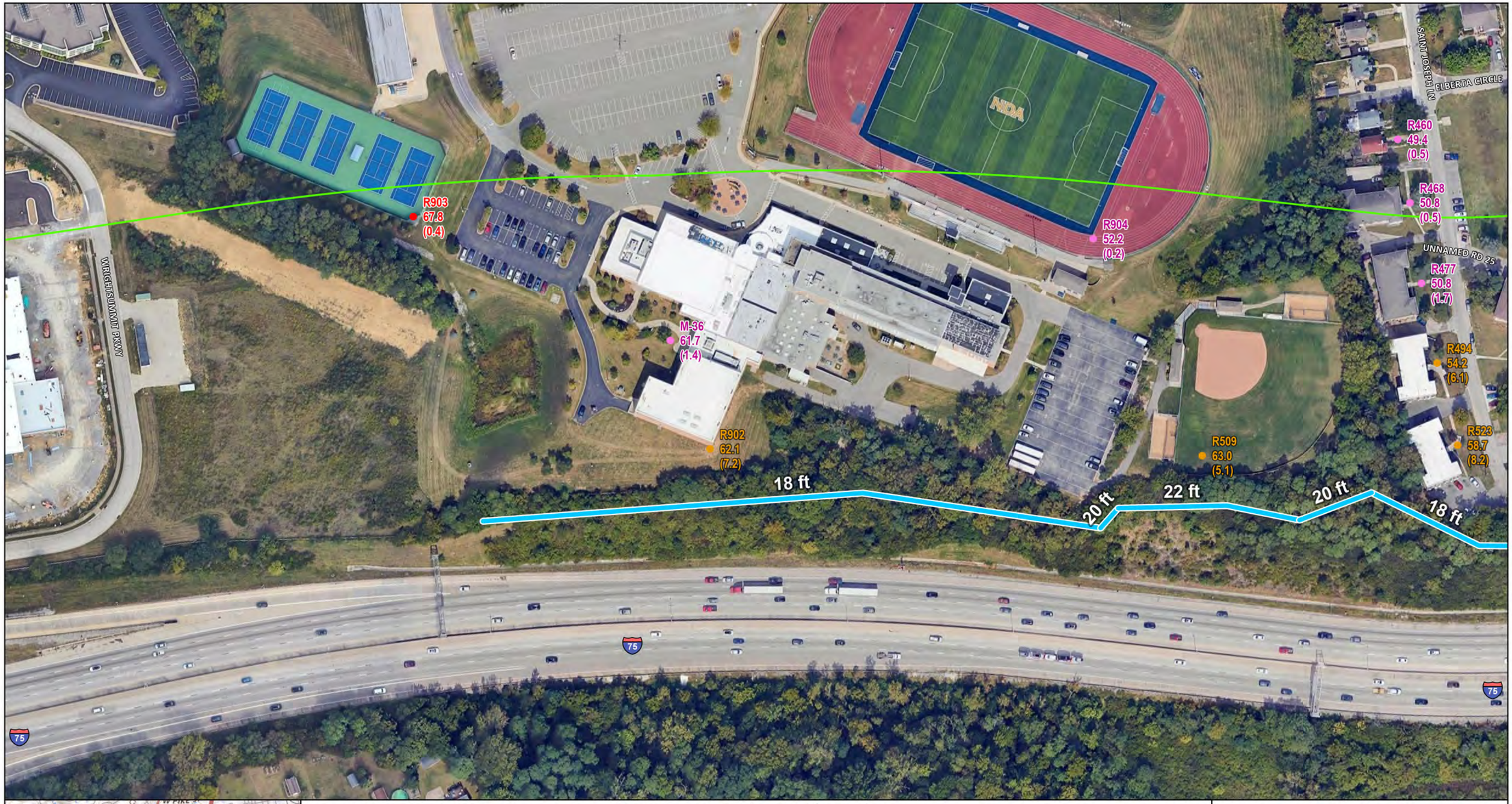
- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

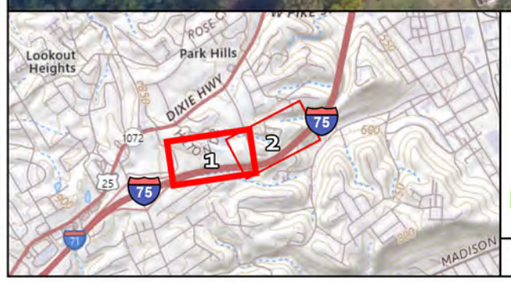
Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B20 / NSA D (6 to 24 ft)
Exhibit 9C

0 125 250
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

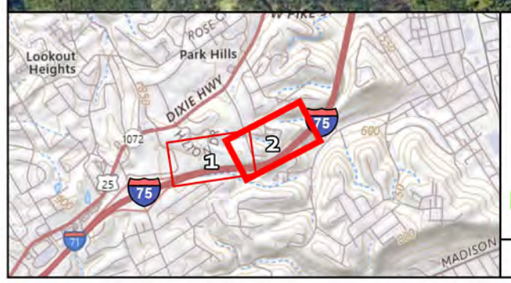
Concept I-W Barrier B23 (18-22 ft)
Exhibit 10A

N

0 125 250
Feet

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet





Legend

-Receptor #
-Predicted Abated Noise Level
-(Noise Reduction [dBA])

- Not Impacted, Not Benefitted
- Impacted, Not Benefitted
- Benefitted
- 500' Noise Buffer (Southern Study Area)
- Analyzed Noise Barrier

Brent Spence Bridge Corridor Project
Noise Study: Kentucky - Southern Section
KYTC Item No. 6-17

Concept I-W Barrier B23 (18-22 ft)
Exhibit 10B

TEAM KENTUCKY TRANSPORTATION CABINET

0 125 250
Feet

Palmer ENGINEERING

Credit: 2024 Maxar Technologies & Google | © OpenStreetMap & contributors; Coordinate System: NAD 1983 StatePlane Kentucky FIPS 1600 Feet

Brent Spence Bridge Noise Analysis
NSA B Benefited Receivers

Legend

Barriers

Receiver Designation

- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

1 0.5 0 1 Miles

Full Barrier Extent

N

Brent Spence Bridge Noise Analysis
NSA C Benefited Receivers

Legend

Barriers

Receiver Designation

- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

1 0.5 0 1 Miles



N

Brent Spence Bridge Noise Analysis
NSA E Benefited Receivers

Legend

Crescent Ave. Barrier Extension
Existing Crescent Ave. Barrier

Receiver Designation

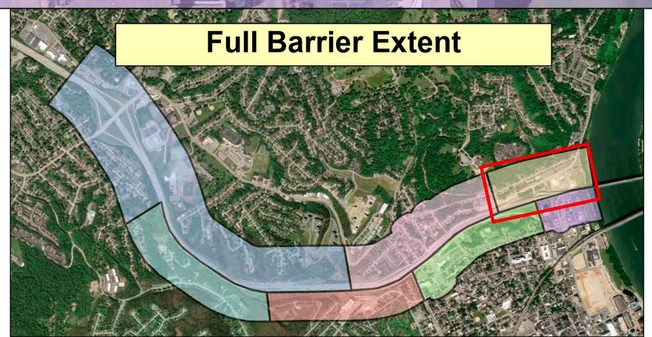
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

1 0.5 0 1 Miles

Full Barrier Extent



N

Legend

Barriers

Existing Crescent Ave. Barrier

Receiver Designation

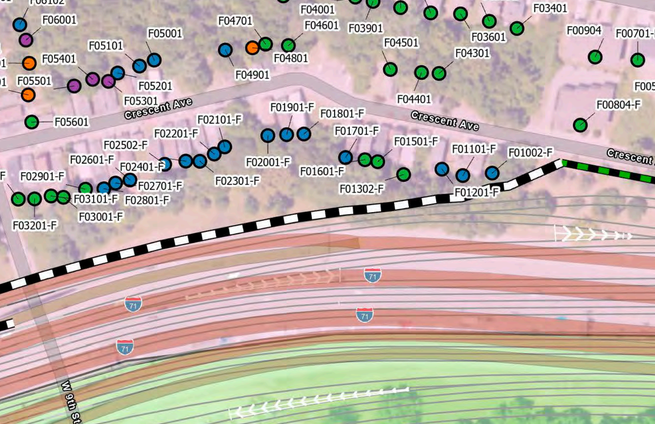
- Impacted, Benefited
- Impacted, Not Benefited
- Not Impacted, Benefited
- Not Impacted, Not Benefited

NSA Boundaries

- A
- B
- C
- D
- E
- F
- Kentucky Southern Section

Brent Spence Bridge Noise Analysis
NSA F Benefited Receivers

0 0.25 0.5 1 Miles

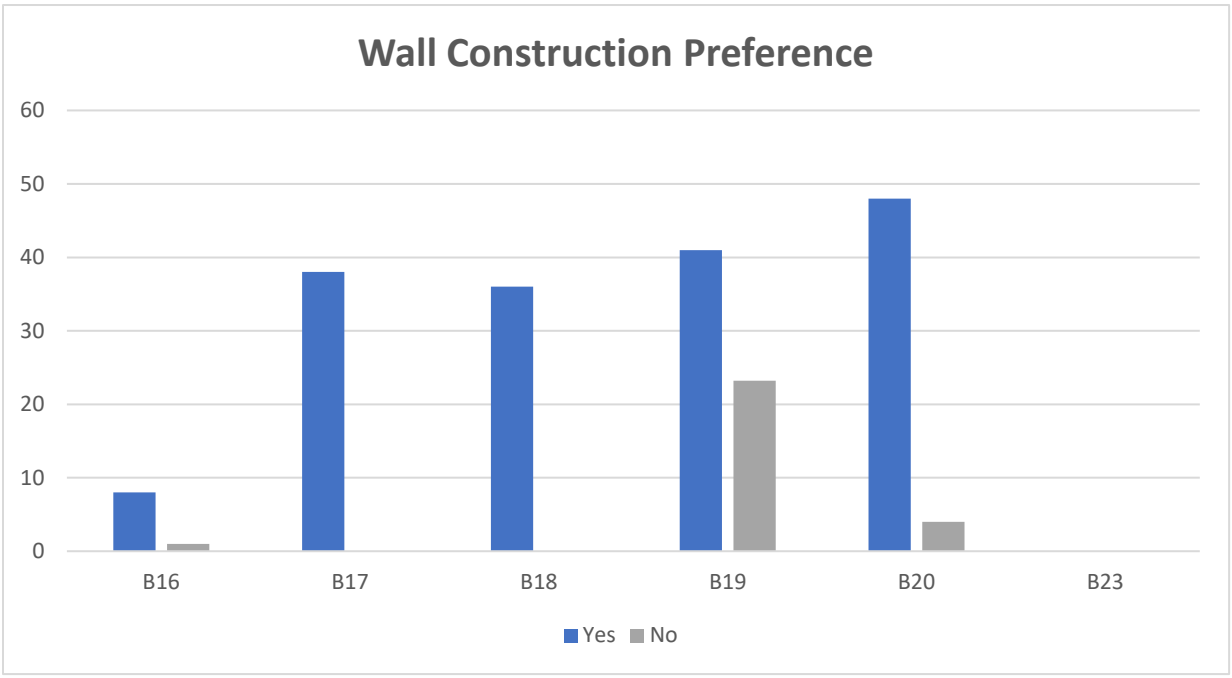


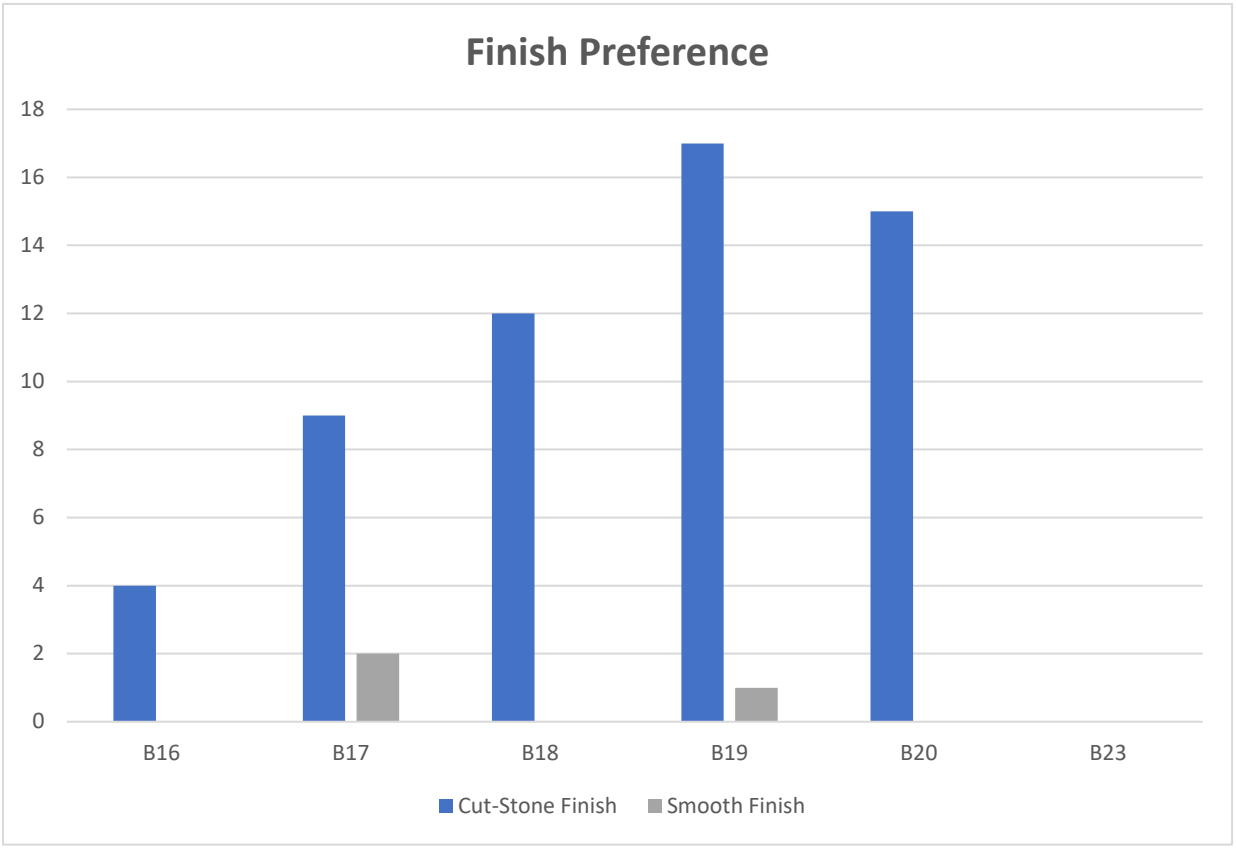
N

Appendix E: Results Detail

Brent Spence Bridge Corridor Project
Kentucky Southern Section

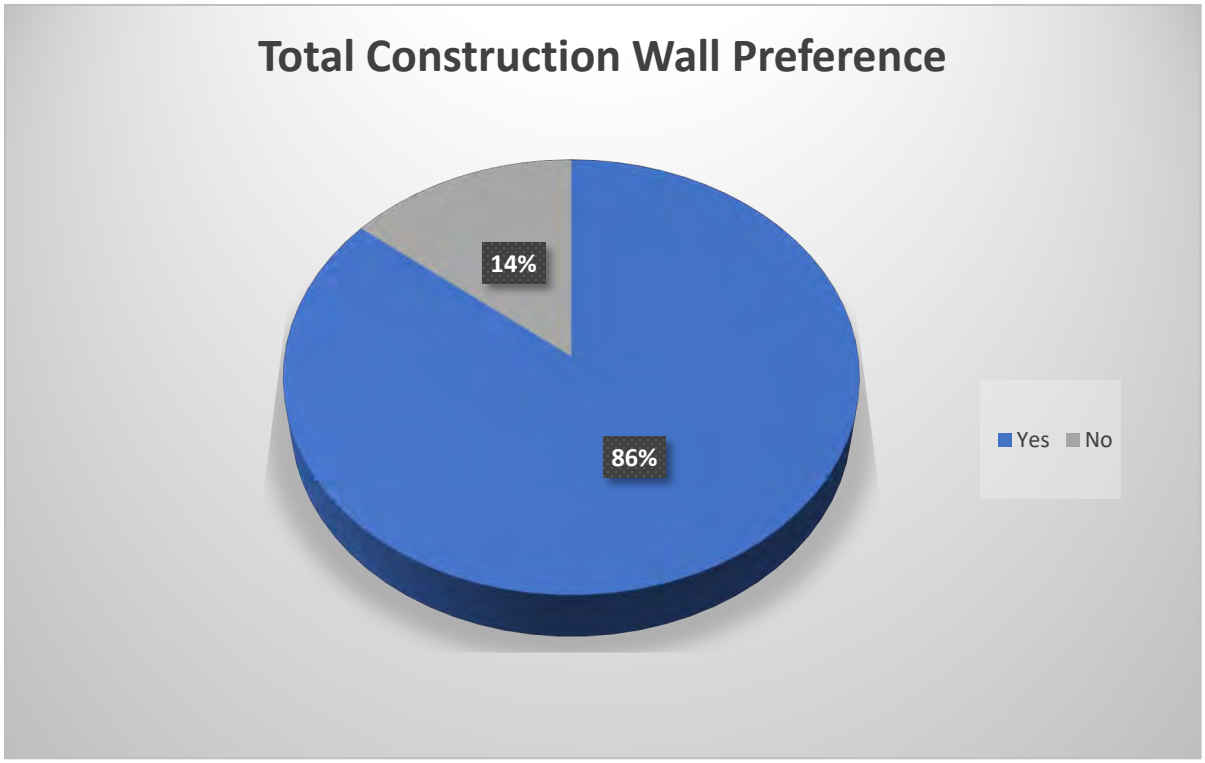
Voting Results

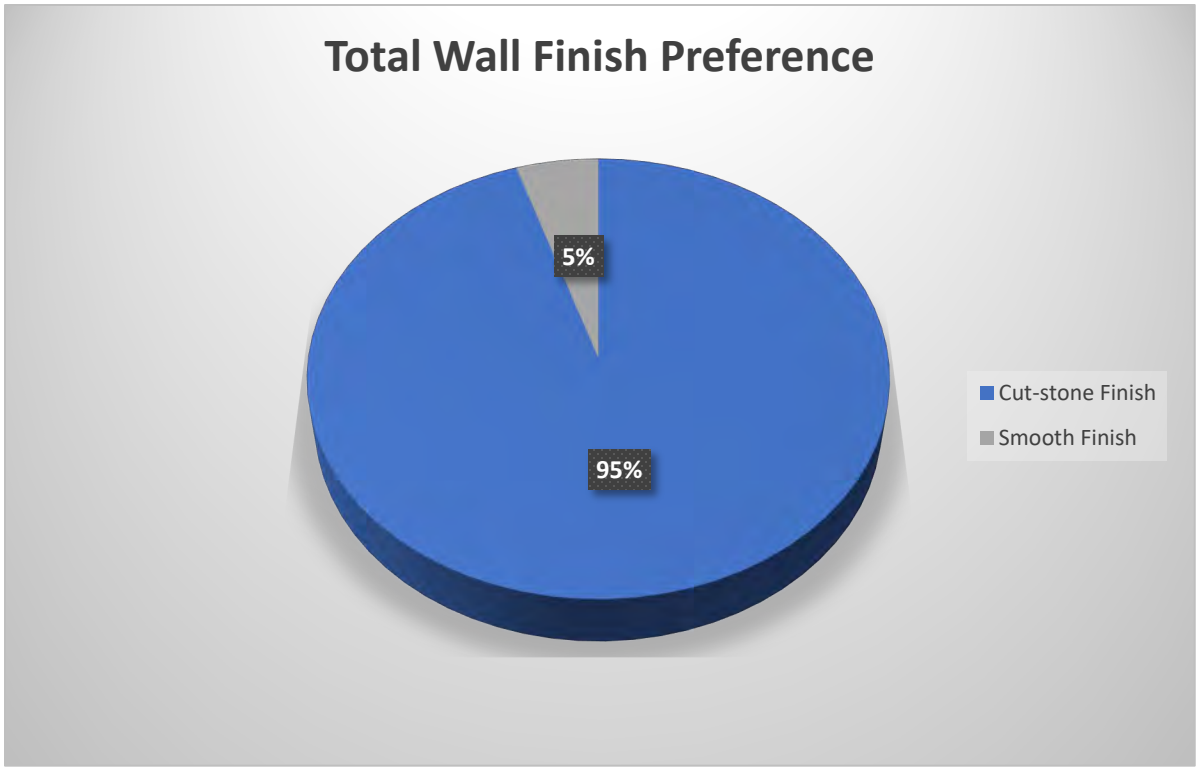




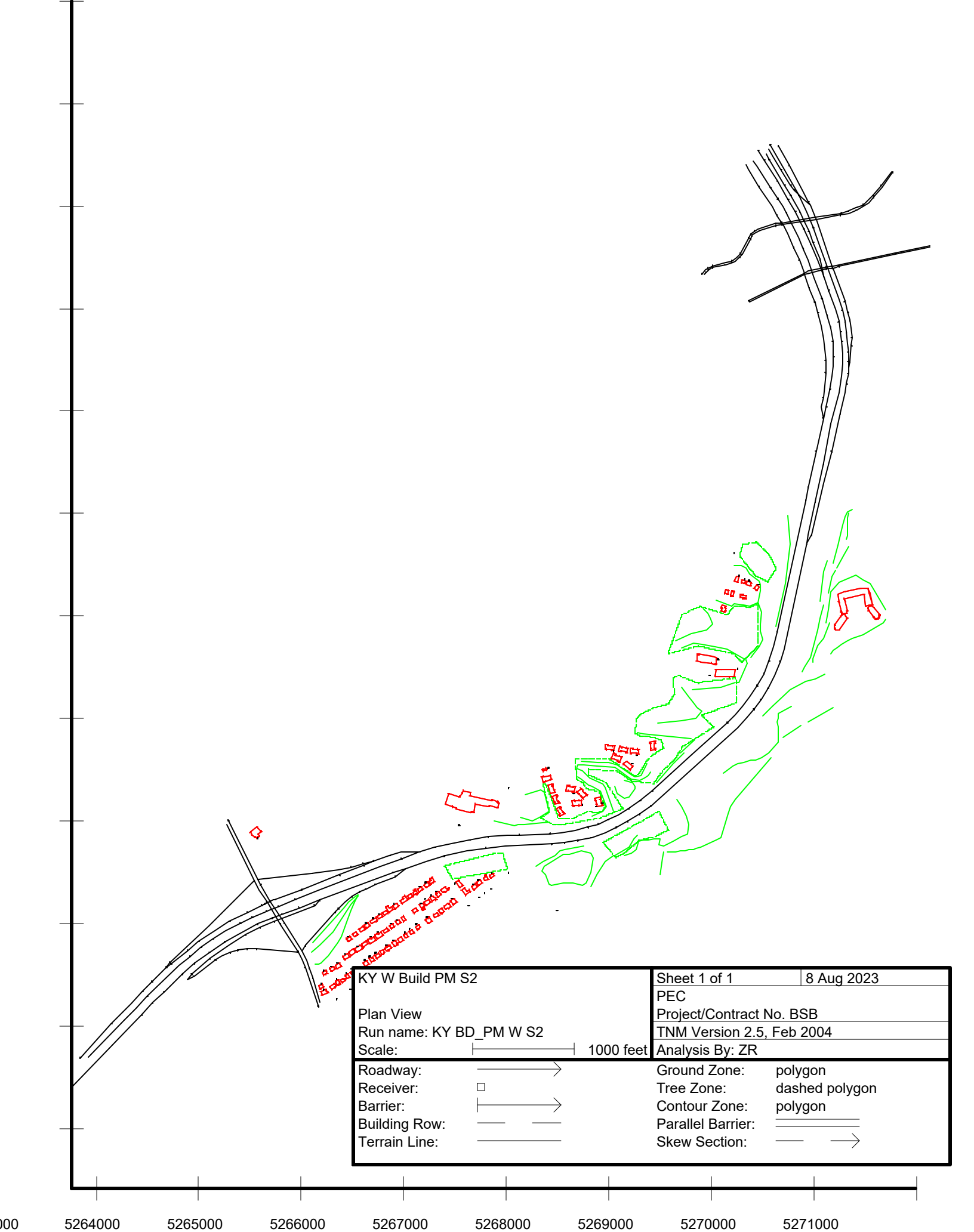
Brent Spence Bridge Corridor Project
Kentucky Southern Section

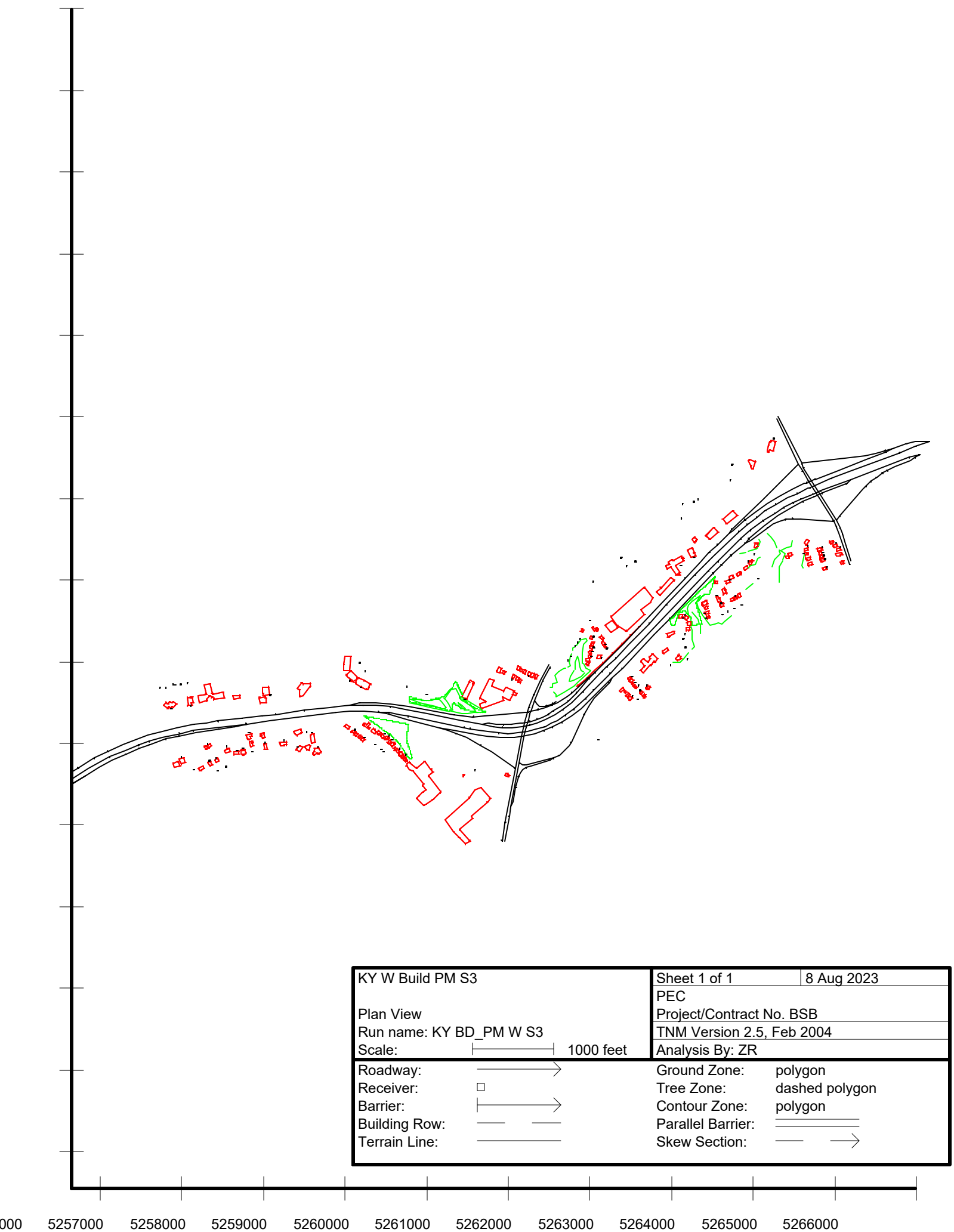
Voting Results





Appendix B:
FHWA TNM Runs
BUILD 2049


KY W Build PM S2
Plan View
Run name: KY BD_PM W S2
Scale: 1000 feet
Sheet 1 of 1
8 Aug 2023
PEC
Project/Contract No. BSB
TNM Version 2.5, Feb 2004
Analysis By: ZR
Roadway:
Receiver:
Barrier:
Building Row:
Terrain Line:
Ground Zone: polygon
Tree Zone: dashed polygon
Contour Zone: polygon
Parallel Barrier:
Skew Section:
000
5264000
5265000
5266000
5267000
5268000
5269000
5270000
5271000



KY W Build PM S3	Sheet 1 of 1 | 8 Aug 2023
	PEC
Plan View	Project/Contract No. BSB
Run name: KY BD_PM W S3	TNM Version 2.5, Feb 2004
Scale: 1000 feet	Analysis By: ZR

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

PEC 8 August 2023
ZR TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S2

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
R412(K1272)	350	1	5,264,573.5	4,275,839.5	891.44	4.92	60.90	66	10.0	7.0	Y
R460(K1532)	398	1	5,267,403.0	4,276,526.0	800.59	4.92	47.00	66	10.0	7.0	Y
R465(K1502)	403	1	5,268,035.0	4,276,689.0	798.39	4.92	40.50	66	10.0	7.0	Y
R468(K1545)	406	1	5,267,432.5	4,276,442.5	816.28	4.92	49.10	66	10.0	7.0	Y
R469(KV91)	407	1	5,269,132.0	4,278,554.5	788.95	4.92	56.00	66	10.0	7.0	Y
R473(K1506)	411	1	5,268,164.5	4,276,664.0	796.23	4.92	48.70	66	10.0	7.0	Y
R474(KV91)	412	1	5,269,211.5	4,278,619.0	773.23	4.92	57.20	66	10.0	7.0	Y
M-36(K1573)	414	1	5,266,445.0	4,276,041.0	827.00	4.92	70.80	66	10.0	7.0	Y
R476(K1520)	415	1	5,268,120.0	4,276,635.5	796.46	4.92	48.70	66	10.0	7.0	Y
R477(K1560)	416	1	5,267,464.5	4,276,335.5	823.23	4.92	49.10	66	10.0	7.0	Y
R479(K1307 R-62)	419	1	5,263,747.5	4,274,755.0	852.33	4.92	67.70	66	10.0	7.0	Y
R481(K1509)	421	1	5,268,264.0	4,276,651.0	790.55	4.92	54.40	66	10.0	7.0	Y
R483(K1179)	423	1	5,269,163.5	4,278,281.0	797.05	4.92	48.10	66	10.0	7.0	Y
R484(K1981)	424	1	5,268,973.5	4,277,425.5	781.14	4.92	42.60	66	10.0	7.0	Y
R486(K1191)	426	1	5,269,056.5	4,277,585.0	782.15	4.92	47.70	66	10.0	7.0	Y
R487(K1533)	427	1	5,268,219.0	4,276,565.5	792.88	4.92	54.40	66	10.0	7.0	Y
R490(K1171)	430	1	5,269,256.5	4,278,401.5	790.03	4.92	45.10	66	10.0	7.0	Y
R491(K1187)	431	1	5,269,152.5	4,278,064.5	763.75	4.92	34.10	66	10.0	7.0	Y
R492(K1180)	432	1	5,269,215.5	4,278,265.0	795.67	4.92	45.10	66	10.0	7.0	Y
R493(K1559)	433	1	5,267,649.0	4,276,276.0	813.65	4.92	53.20	66	10.0	7.0	Y
R494(K1568)	434	1	5,267,502.0	4,276,230.5	827.00	4.92	53.50	66	10.0	7.0	Y
R495(K1615)	435	1	5,266,205.0	4,275,409.5	838.06	4.92	73.30	66	10.0	7.0	Y

R496(K2006)	436	1	5,265,448.0	4,274,882.5	859.94	4.92	62.40	66	10.0	7.0	Y
M-38(K1609)	437	1	5,266,246.0	4,275,430.0	838.00	4.92	71.90	66	10.0	7.0	Y
R499(K1172)	440	1	5,269,316.5	4,278,364.5	788.32	4.92	44.80	66	10.0	7.0	Y
R500(K1620)	441	1	5,266,147.0	4,275,367.5	839.24	4.92	72.40	66	10.0	7.0	Y
R501(K2004)	442	1	5,265,571.5	4,274,973.5	853.28	4.92	64.70	66	10.0	7.0	Y
R502(K2005)	443	1	5,265,505.0	4,274,927.5	859.94	4.92	64.00	66	10.0	7.0	Y
R503(K1622)	444	1	5,266,081.0	4,275,337.5	839.14	4.92	72.10	66	10.0	7.0	Y
R504(K1630)	445	1	5,265,969.0	4,275,267.5	837.60	4.92	71.20	66	10.0	7.0	Y
R505(K1674)	446	1	5,265,624.0	4,275,013.5	852.20	4.92	66.10	66	10.0	7.0	Y
M-31(K1979)	447	1	5,269,245.5	4,277,491.0	779.60	4.92	70.00	66	10.0	7.0	Y
R507(K1564)	449	1	5,267,761.0	4,276,228.0	809.91	4.92	63.00	66	10.0	7.0	Y
R508(K1627)	450	1	5,266,046.0	4,275,302.0	838.45	4.92	71.50	66	10.0	7.0	Y
R509(K1573)	451	1	5,267,202.0	4,276,057.0	845.31	4.92	69.40	66	10.0	7.0	Y
R510(K1670 R-61)	452	1	5,265,693.0	4,275,063.0	849.12	4.92	67.20	66	10.0	7.0	Y
R512(K1642)	454	1	5,265,840.5	4,275,186.0	840.42	4.92	69.70	66	10.0	7.0	Y
R514(K1174)	456	1	5,269,360.0	4,278,352.0	778.74	4.92	47.40	66	10.0	7.0	Y
R515(K1569)	457	1	5,267,733.5	4,276,164.5	810.93	4.92	65.10	66	10.0	7.0	Y
R516(K1638)	458	1	5,265,897.5	4,275,200.5	838.88	4.92	69.70	66	10.0	7.0	Y
R517(K1652)	459	1	5,265,803.5	4,275,128.5	844.36	4.92	67.50	66	10.0	7.0	Y
R518(K1665)	460	1	5,265,750.5	4,275,098.0	845.67	4.92	67.60	66	10.0	7.0	Y
R519(K2012)	461	1	5,265,286.0	4,274,592.5	861.35	4.92	58.90	66	10.0	7.0	Y
R520(K2014)	462	1	5,265,214.0	4,274,549.5	868.08	4.92	61.90	66	10.0	7.0	Y
M-35(K1503)	464	1	5,267,929.0	4,276,185.0	797.87	4.92	70.80	66	10.0	7.0	Y
R523(K1578)	466	1	5,267,546.5	4,276,123.0	824.64	4.92	59.70	66	10.0	7.0	Y
R525(K1570)	468	1	5,267,868.5	4,276,148.5	799.35	4.92	70.30	66	10.0	7.0	Y
R526(K2009)	469	1	5,265,420.5	4,274,711.0	856.20	4.92	56.70	66	10.0	7.0	Y
R527(K2011)	470	1	5,265,345.0	4,274,621.5	858.01	4.92	57.50	66	10.0	7.0	Y
M-30(K1176)	471	1	5,269,449.5	4,278,314.5	770.00	4.92	66.90	66	10.0	7.0	Y
R530(K1181)	474	1	5,269,373.5	4,278,150.5	775.56	4.92	52.90	66	10.0	7.0	Y
R531(K1621)	475	1	5,266,375.5	4,275,367.5	843.90	4.92	67.60	66	10.0	7.0	Y
R532(K2008)	476	1	5,265,480.0	4,274,752.0	856.93	4.92	56.20	66	10.0	7.0	Y
M-37(K1616)	477	1	5,266,492.0	4,275,399.0	842.00	4.92	66.40	66	10.0	7.0	Y
R533(K2007)	478	1	5,265,543.0	4,274,791.0	857.45	4.92	56.80	66	10.0	7.0	Y
R535(K1705)	480	1	5,265,602.5	4,274,834.0	856.53	4.92	56.50	66	10.0	7.0	Y
R536(K2024)	481	1	5,265,186.0	4,274,422.0	866.34	4.92	64.10	66	10.0	7.0	Y
R537(K85)	482	1	5,266,769.0	4,275,472.0	839.08	4.92	66.30	66	10.0	7.0	Y

R538(K1602)	483	1	5,266,852.5	4,275,503.0	840.95	4.92	69.40	66	10.0	7.0	Y
R539(K1611)	484	1	5,266,718.5	4,275,434.0	841.51	4.92	63.80	66	10.0	7.0	Y
R540(K1624)	485	1	5,266,309.5	4,275,325.0	844.43	4.92	66.20	66	10.0	7.0	Y
R541(K1629)	487	1	5,266,258.0	4,275,283.0	845.47	4.92	64.20	66	10.0	7.0	Y
R542(K1632)	488	1	5,266,202.5	4,275,249.0	843.90	4.92	62.10	66	10.0	7.0	Y
R545(K1608)	491	1	5,267,013.0	4,275,503.0	846.07	4.92	72.10	66	10.0	7.0	Y
R546(K1613)	492	1	5,266,670.0	4,275,396.0	843.24	4.92	61.10	66	10.0	7.0	Y
R547(K1637)	493	1	5,266,159.5	4,275,208.5	843.18	4.92	60.70	66	10.0	7.0	Y
R548(K1699)	494	1	5,265,669.0	4,274,877.0	856.20	4.92	57.10	66	10.0	7.0	Y
R550(K1695)	496	1	5,265,739.5	4,274,925.0	854.33	4.92	58.40	66	10.0	7.0	Y
R551(K2019)	497	1	5,265,336.5	4,274,467.0	859.32	4.92	56.00	66	10.0	7.0	Y
R552(K2023)	498	1	5,265,288.5	4,274,426.0	862.31	4.92	58.40	66	10.0	7.0	Y
R553(K2031)	499	1	5,265,212.5	4,274,364.5	864.37	4.92	61.20	66	10.0	7.0	Y
R554(K1677)	500	1	5,265,867.0	4,275,005.0	849.51	4.92	59.00	66	10.0	7.0	Y
R555(K1687)	501	1	5,265,806.5	4,274,964.5	852.07	4.92	58.80	66	10.0	7.0	Y
R556(K2018)	502	1	5,265,384.5	4,274,485.5	856.01	4.92	54.30	66	10.0	7.0	Y
R557(K2037)	503	1	5,265,126.5	4,274,244.0	863.91	4.92	69.40	66	10.0	7.0	Y
R558(K1626)	504	1	5,266,627.5	4,275,354.5	844.26	4.92	58.50	66	10.0	7.0	Y
R559(K1648)	505	1	5,266,092.5	4,275,160.0	842.65	4.92	59.60	66	10.0	7.0	Y
R560(K1668)	506	1	5,265,979.5	4,275,078.5	842.88	4.92	59.20	66	10.0	7.0	Y
R561(K1672)	507	1	5,265,926.0	4,275,047.0	846.92	4.92	59.40	66	10.0	7.0	Y
R562(K2013)	508	1	5,265,484.0	4,274,565.5	848.49	4.92	52.20	66	10.0	7.0	Y
R563(K2015)	509	1	5,265,430.0	4,274,525.5	852.86	4.92	53.00	66	10.0	7.0	Y
R565(K1713)	511	1	5,265,612.0	4,274,652.0	848.39	4.92	52.40	66	10.0	7.0	Y
R566(K2038)	512	1	5,265,242.5	4,274,209.5	860.96	4.92	64.70	66	10.0	7.0	Y
R569(K1712)	515	1	5,265,660.5	4,274,690.5	848.72	4.92	52.70	66	10.0	7.0	Y
R570(K2036)	516	1	5,265,335.5	4,274,271.0	859.25	4.92	60.00	66	10.0	7.0	Y
R572(K1635)	518	1	5,266,462.5	4,275,252.0	845.64	4.92	55.50	66	10.0	7.0	Y
R573(K1617)	519	1	5,266,909.5	4,275,389.0	843.34	4.92	68.00	66	10.0	7.0	Y
R577(K1623)	523	1	5,266,844.0	4,275,348.0	841.08	4.92	65.50	66	10.0	7.0	Y
R578(K1634)	524	1	5,266,400.5	4,275,207.5	848.26	4.92	58.40	66	10.0	7.0	Y
R579(K1710)	525	1	5,265,718.5	4,274,725.0	851.02	4.92	53.30	66	10.0	7.0	Y
R580(K2034)	526	1	5,265,408.0	4,274,322.5	856.20	4.92	55.10	66	10.0	7.0	Y
R581(K1708)	528	1	5,265,767.5	4,274,761.0	851.51	4.92	53.10	66	10.0	7.0	Y
R583(K1628)	531	1	5,266,780.5	4,275,304.5	841.34	4.92	63.30	66	10.0	7.0	Y
R584(K1641)	532	1	5,266,342.0	4,275,163.0	846.98	4.92	56.40	66	10.0	7.0	Y

INPUT: RECEIVERS **BSB**

R585(K1706)	533	1	5,265,823.0	4,274,802.0	851.54	4.92	53.60	66	10.0	7.0	Y
R586(K2030)	534	1	5,265,471.0	4,274,369.5	851.87	4.92	53.10	66	10.0	7.0	Y
R587(K1704)	535	1	5,265,890.5	4,274,846.0	850.20	4.92	54.20	66	10.0	7.0	Y
R589(K1631)	537	1	5,266,727.0	4,275,263.5	842.39	4.92	61.90	66	10.0	7.0	Y
R590(K1651)	538	1	5,266,291.5	4,275,122.0	845.67	4.92	56.30	66	10.0	7.0	Y
R591(K1666)	539	1	5,266,219.0	4,275,073.0	843.24	4.92	55.90	66	10.0	7.0	Y
R592(K1682)	540	1	5,266,113.0	4,275,003.0	844.49	4.92	56.10	66	10.0	7.0	Y
R593(K1691)	541	1	5,266,051.5	4,274,958.0	847.15	4.92	55.40	66	10.0	7.0	Y
R594(K1698)	542	1	5,265,942.5	4,274,881.5	848.89	4.92	54.20	66	10.0	7.0	Y
R597(K1636)	545	1	5,266,677.0	4,275,226.5	845.44	4.92	61.40	66	10.0	7.0	Y
R598(K1694)	546	1	5,265,998.0	4,274,922.5	847.80	4.92	54.40	66	10.0	7.0	Y
R599(K2021)	547	1	5,265,590.5	4,274,449.0	845.41	4.92	53.30	66	10.0	7.0	Y
R600(K2027)	548	1	5,265,521.0	4,274,403.5	849.31	4.92	53.30	66	10.0	7.0	Y
R604(K1643)	552	1	5,266,625.0	4,275,181.5	846.43	4.92	61.60	66	10.0	7.0	Y
R605(K1718)	553	1	5,265,664.0	4,274,506.0	842.06	4.92	53.50	66	10.0	7.0	Y
R607(K1717)	555	1	5,265,708.5	4,274,529.0	843.18	4.92	53.50	66	10.0	7.0	Y
R612(K1716)	560	1	5,265,732.0	4,274,547.0	845.47	4.92	54.10	66	10.0	7.0	Y
R637(K1617 R-60)	585	1	5,267,486.0	4,275,133.0	831.00	4.92	67.00	66	10.0	7.0	Y
R902	655	1	5,266,533.0	4,275,966.5	821.00	4.92	74.50	66	10.0	7.0	Y
R903	656	1	5,266,083.5	4,276,221.5	864.00	4.92	65.10	66	10.0	7.0	Y
R904	657	1	5,267,010.5	4,276,329.5	806.00	4.92	54.40	66	10.0	7.0	Y

PEC 8 August 2023
ZR TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S3

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
R702(K47)	210	1	5,256,878.5	4,272,731.0	794.33	4.92	62.00	66	10.0	7.0	Y
R703(K1251)	211	1	5,257,058.5	4,272,747.5	805.09	4.92	61.40	66	10.0	7.0	Y
R704(K46)	212	1	5,256,848.5	4,272,708.5	792.62	4.92	62.30	66	10.0	7.0	Y
R705(K48)	213	1	5,256,903.5	4,272,722.5	795.84	4.92	62.20	66	10.0	7.0	Y
R706(K1254)	214	1	5,256,974.0	4,272,731.5	799.54	4.92	61.80	66	10.0	7.0	Y
R707(K44)	215	1	5,256,714.0	4,272,689.0	789.93	4.92	62.70	66	10.0	7.0	Y
R708(K43)	216	1	5,256,787.0	4,272,688.0	790.46	4.92	62.60	66	10.0	7.0	Y
R709(K1471)	217	1	5,258,958.0	4,272,945.5	796.85	4.92	63.50	66	10.0	7.0	Y
R710(K64)	218	1	5,259,164.0	4,272,994.5	807.35	4.92	61.70	66	10.0	7.0	Y
R711(K1474)	219	1	5,259,230.0	4,272,892.5	806.27	4.92	63.90	66	10.0	7.0	Y
R712(K1304)	220	1	5,263,102.5	4,274,761.5	904.01	4.92	65.70	66	10.0	7.0	Y
R713(K1267)	221	1	5,256,859.5	4,272,436.0	790.95	4.92	71.80	66	10.0	7.0	Y
R714(K1493)	222	1	5,259,036.5	4,272,777.0	796.16	4.92	68.90	66	10.0	7.0	Y
R715(K1481)	223	1	5,259,335.0	4,272,828.0	805.42	4.92	65.80	66	10.0	7.0	Y
R716(K1302)	224	1	5,263,203.5	4,274,831.5	901.32	4.92	65.60	66	10.0	7.0	Y
R717(K1266)	225	1	5,257,098.5	4,272,468.5	803.15	4.92	72.90	66	10.0	7.0	Y
R718(K1295)	226	1	5,263,307.5	4,274,994.5	901.28	4.92	64.10	66	10.0	7.0	Y
R719(K1291)	227	1	5,263,412.0	4,275,256.0	897.12	4.92	60.90	66	10.0	7.0	Y
R720(K1262)	228	1	5,257,434.0	4,272,544.5	818.24	4.92	72.20	66	10.0	7.0	Y
R721(K1381)	229	1	5,262,186.5	4,273,703.0	837.08	4.92	58.60	66	10.0	7.0	Y
R722(K1404)	230	1	5,261,982.5	4,273,509.0	830.78	4.92	58.30	66	10.0	7.0	Y
R723(K1405)	231	1	5,261,949.0	4,273,458.0	828.25	4.92	58.40	66	10.0	7.0	Y

R724(K1415)	232	1	5,261,903.0	4,273,412.5	826.41	4.92	53.90	66	10.0	7.0	Y
R725(K1264)	233	1	5,257,665.0	4,272,546.5	834.62	4.92	73.60	66	10.0	7.0	Y
R726(K1487)	234	1	5,259,449.0	4,272,793.0	805.94	4.92	67.60	66	10.0	7.0	Y
R727(K2068)	235	1	5,258,071.0	4,272,601.5	812.21	4.92	71.90	66	10.0	7.0	Y
R728(K1419)	236	1	5,261,900.0	4,273,329.0	817.98	4.92	58.20	66	10.0	7.0	Y
R729(K1422)	237	1	5,261,862.5	4,273,288.0	816.67	4.92	58.10	66	10.0	7.0	Y
R730(K1311)	238	1	5,263,522.5	4,274,554.0	844.43	4.92	69.80	66	10.0	7.0	Y
R731(K1429)	239	1	5,261,833.0	4,273,244.0	811.39	4.92	58.20	66	10.0	7.0	Y
R732(K65)	240	1	5,261,799.5	4,273,200.5	813.55	4.92	58.90	66	10.0	7.0	Y
R733(K1332)	241	1	5,263,096.0	4,274,188.5	853.00	4.92	71.10	66	10.0	7.0	Y
R734(K1201)	242	1	5,259,180.0	4,272,695.0	795.05	4.92	72.00	66	10.0	7.0	Y
R735(K1339)	243	1	5,262,983.5	4,274,101.5	852.27	4.92	65.90	66	10.0	7.0	Y
R736(K2067)	244	1	5,258,488.5	4,272,583.0	787.67	4.92	75.20	66	10.0	7.0	Y
M-43(K1349)	245	1	5,262,957.5	4,273,917.5	850.17	4.92	75.70	66	10.0	7.0	Y
R737(K1323)	246	1	5,263,256.0	4,274,289.5	854.43	4.92	73.50	66	10.0	7.0	Y
R738(K1412)	247	1	5,262,061.0	4,273,369.0	831.40	4.92	60.60	66	10.0	7.0	Y
R739(K1424)	248	1	5,262,026.5	4,273,317.5	827.59	4.92	58.70	66	10.0	7.0	Y
R740(K1454)	249	1	5,261,750.5	4,273,078.0	812.11	4.92	60.60	66	10.0	7.0	Y
R741(K1307)	250	1	5,263,747.5	4,274,755.0	852.33	4.92	67.80	66	10.0	7.0	Y
R742(K1450)	251	1	5,261,803.0	4,273,108.0	808.53	4.92	58.70	66	10.0	7.0	Y
R743(K1479)	252	1	5,260,856.0	4,272,872.5	825.79	4.92	55.90	66	10.0	7.0	Y
R744(K1497)	253	1	5,259,524.5	4,272,744.0	809.02	4.92	70.00	66	10.0	7.0	Y
R745(K1476)	254	1	5,261,096.0	4,272,902.5	824.28	4.92	55.20	66	10.0	7.0	Y
R746(K1458)	255	1	5,261,714.0	4,273,023.0	817.06	4.92	63.10	66	10.0	7.0	Y
R747(K1482)	256	1	5,260,914.5	4,272,854.5	825.30	4.92	53.90	66	10.0	7.0	Y
R748(K2091)	257	1	5,257,809.0	4,272,136.0	836.98	4.92	78.00	66	10.0	7.0	Y
R749(K1767)	258	1	5,257,971.0	4,272,142.0	829.76	4.92	77.40	66	10.0	7.0	Y
R750(K1435)	259	1	5,262,035.0	4,273,221.0	826.35	4.92	60.00	66	10.0	7.0	Y
R751(K1427)	260	1	5,262,149.5	4,273,281.0	824.05	4.92	61.40	66	10.0	7.0	Y
R752(K1438)	261	1	5,262,029.0	4,273,184.5	825.99	4.92	60.60	66	10.0	7.0	Y
R753(K1472)	262	1	5,261,713.0	4,272,930.0	811.58	4.92	62.70	66	10.0	7.0	Y
R754(K1478)	263	1	5,261,125.0	4,272,886.0	823.79	4.92	56.20	66	10.0	7.0	Y
R755(K1488)	264	1	5,259,628.0	4,272,737.5	813.45	4.92	69.60	66	10.0	7.0	Y
R756(K2109B)	265	1	5,258,400.0	4,272,184.0	826.35	4.92	77.10	66	10.0	7.0	Y
R757(K2105)	266	1	5,257,298.0	4,272,001.0	797.84	4.92	74.70	66	10.0	7.0	Y
R758(K1448)	267	1	5,262,015.5	4,273,130.5	826.12	4.92	61.70	66	10.0	7.0	Y

R759(K1283)	268	1	5,264,232.0	4,275,739.0	897.71	4.92	63.10	66	10.0	7.0	Y
R760(K1433)	269	1	5,262,173.5	4,273,225.5	820.31	4.92	61.70	66	10.0	7.0	Y
R761(K1483)	270	6	5,261,173.0	4,272,858.5	823.07	4.92	57.30	66	10.0	7.0	Y
R762(K1455)	271	1	5,261,999.5	4,273,077.5	826.18	4.92	63.20	66	10.0	7.0	Y
R763(K1485)	272	1	5,261,227.5	4,272,833.5	822.02	4.92	58.60	66	10.0	7.0	Y
R764(KV2092)	273	1	5,258,514.0	4,272,147.5	816.73	4.92	74.50	66	10.0	7.0	Y
R765(K1459)	274	1	5,261,987.0	4,273,030.5	825.63	4.92	63.20	66	10.0	7.0	Y
R766(K2085)	275	1	5,259,031.0	4,272,238.0	807.29	4.92	75.20	66	10.0	7.0	Y
R767(K1491)	276	1	5,261,033.0	4,272,789.5	823.20	4.92	54.60	66	10.0	7.0	Y
R768(K1437)	277	1	5,262,190.0	4,273,172.0	812.70	4.92	61.50	66	10.0	7.0	Y
R769(K2119)	278	1	5,257,537.5	4,271,972.0	813.98	4.92	72.80	66	10.0	7.0	Y
R770(K1489)	279	1	5,261,264.0	4,272,817.5	820.57	4.92	59.90	66	10.0	7.0	Y
R771(K2101)	280	1	5,257,812.5	4,272,007.5	828.94	4.92	69.60	66	10.0	7.0	Y
R772(K2109E)	281	1	5,258,581.0	4,272,137.5	808.96	4.92	73.50	66	10.0	7.0	Y
R773(KV1469)	282	1	5,261,964.0	4,272,929.0	816.73	4.92	62.70	66	10.0	7.0	Y
R774(K1346)	283	1	5,263,525.5	4,274,013.5	829.27	4.92	70.70	66	10.0	7.0	Y
R775(K1496)	284	1	5,261,082.0	4,272,771.5	825.33	4.92	55.70	66	10.0	7.0	Y
R776(K2087)	285	1	5,259,106.0	4,272,178.5	815.46	4.92	72.00	66	10.0	7.0	Y
R777(K2106)	286	1	5,258,008.5	4,272,017.0	839.41	4.92	71.00	66	10.0	7.0	Y
M-41(K1318)	287	1	5,263,990.0	4,274,394.5	885.83	4.92	69.90	66	10.0	7.0	Y
R778(K2104)	288	1	5,258,235.5	4,272,045.0	836.39	4.92	71.90	66	10.0	7.0	Y
R779(K1195)	289	1	5,259,745.5	4,272,702.0	815.42	4.92	69.20	66	10.0	7.0	Y
R780(K1383)	290	1	5,263,352.0	4,273,742.0	831.83	4.92	71.10	66	10.0	7.0	Y
R781(K1456)	291	1	5,262,123.5	4,273,055.5	817.06	4.92	62.50	66	10.0	7.0	Y
R782(K1495)	292	1	5,261,307.0	4,272,793.0	819.92	4.92	62.60	66	10.0	7.0	Y
R783(K1722C)	293	1	5,256,980.0	4,271,841.0	786.12	4.92	70.80	66	10.0	7.0	Y
R784(K1769)	294	1	5,259,139.0	4,272,143.0	816.18	4.92	69.10	66	10.0	7.0	Y
R785(K2083)	295	1	5,259,293.5	4,272,268.5	811.52	4.92	76.40	66	10.0	7.0	Y
M-44(K75)	296	1	5,263,123.5	4,273,545.5	833.00	4.92	70.70	66	10.0	7.0	Y
M-46(K1469)	297	1	5,262,005.5	4,272,911.5	825.00	4.92	65.00	66	10.0	7.0	Y
R786(K1194)	298	1	5,261,118.5	4,272,744.5	823.49	4.92	59.00	66	10.0	7.0	Y
R787(K2122)	299	1	5,257,736.0	4,271,947.0	824.38	4.92	69.70	66	10.0	7.0	Y
R788(K1722B)	300	1	5,256,912.0	4,271,794.0	784.52	4.92	70.00	66	10.0	7.0	Y
M-40(K1315)	301	1	5,264,650.0	4,274,426.0	860.01	4.92	61.90	66	10.0	7.0	Y
M-42(K1348)	302	1	5,263,693.5	4,274,013.5	848.99	4.92	63.90	66	10.0	7.0	Y
R789(K1319)	303	1	5,264,595.0	4,274,378.5	858.01	4.92	63.70	66	10.0	7.0	Y

R790(K1360)	304	1	5,263,614.0	4,273,919.5	846.56	4.92	70.60	66	10.0	7.0	Y
R791(K1365)	305	1	5,263,533.5	4,273,819.0	833.76	4.92	69.10	66	10.0	7.0	Y
R792(K1421)	306	1	5,262,965.0	4,273,380.5	840.98	4.92	73.90	66	10.0	7.0	Y
R793(KV2025)	307	1	5,264,756.5	4,274,433.0	869.26	4.92	62.40	66	10.0	7.0	Y
R794(KV1318)	308	1	5,263,987.5	4,274,326.0	870.87	4.92	65.90	66	10.0	7.0	Y
R795(K74)	309	1	5,263,148.5	4,273,579.5	821.00	4.92	69.00	66	10.0	7.0	Y
R796(K1341)	310	1	5,263,716.0	4,274,068.0	851.41	4.92	70.60	66	10.0	7.0	Y
R797(K2124)	311	1	5,257,662.5	4,271,925.5	818.51	4.92	69.80	66	10.0	7.0	Y
R798(K1326)	312	1	5,264,399.0	4,274,330.5	836.42	4.92	61.90	66	10.0	7.0	Y
R799(K1391)	313	1	5,263,379.5	4,273,663.5	827.99	4.92	67.50	66	10.0	7.0	Y
R800(K2086)	314	1	5,259,376.0	4,272,200.0	810.44	4.92	72.50	66	10.0	7.0	Y
R801(K1205)	315	1	5,259,864.5	4,272,649.5	817.26	4.92	67.10	66	10.0	7.0	Y
R802(K1331)	316	1	5,263,924.5	4,274,236.5	871.30	4.92	68.20	66	10.0	7.0	Y
R803(K2017)	317	1	5,264,923.5	4,274,496.5	884.65	4.92	65.70	66	10.0	7.0	Y
R804(K2025)	318	1	5,264,824.0	4,274,410.5	881.07	4.92	63.50	66	10.0	7.0	Y
R805(K78)	319	1	5,263,806.0	4,274,114.0	856.89	4.92	69.50	66	10.0	7.0	Y
R806(K1322)	320	1	5,264,599.5	4,274,329.5	859.58	4.92	63.60	66	10.0	7.0	Y
R807(K1336)	321	1	5,263,888.0	4,274,184.5	862.96	4.92	68.40	66	10.0	7.0	Y
R808(K2109)	322	1	5,258,556.5	4,272,010.5	816.24	4.92	65.40	66	10.0	7.0	Y
R809(K71)	323	1	5,263,146.5	4,273,412.5	810.14	4.92	65.90	66	10.0	7.0	Y
R810(K2020)	324	1	5,264,992.0	4,274,464.5	880.19	4.92	67.10	66	10.0	7.0	Y
R811(K2095)	325	1	5,259,182.5	4,272,114.5	816.67	4.92	67.40	66	10.0	7.0	Y
R812(K1386)	326	1	5,263,590.0	4,273,726.0	827.66	4.92	63.10	66	10.0	7.0	Y
R813(K2114)	327	1	5,257,407.0	4,271,826.0	804.37	4.92	67.30	66	10.0	7.0	Y
R814(K2125)	328	1	5,257,850.0	4,271,909.5	829.23	4.92	67.30	66	10.0	7.0	Y
M-48(K37)	329	1	5,260,119.0	4,272,635.0	822.00	4.92	60.90	66	10.0	7.0	Y
R815(K73)	330	1	5,263,157.0	4,273,471.5	801.74	4.92	64.10	66	10.0	7.0	Y
R816(K1372)	331	1	5,263,714.0	4,273,793.5	832.15	4.92	61.00	66	10.0	7.0	Y
R817(K1395)	332	1	5,263,386.0	4,273,604.5	826.05	4.92	67.30	66	10.0	7.0	Y
R818(K2029)	333	1	5,264,832.5	4,274,351.0	873.62	4.92	55.40	66	10.0	7.0	Y
R819(K2088)	334	1	5,259,424.0	4,272,167.5	815.65	4.92	72.50	66	10.0	7.0	Y
R820(K2138)	335	1	5,257,325.5	4,271,798.0	810.34	4.92	67.50	66	10.0	7.0	Y
R821(K1722A)	336	1	5,256,965.0	4,271,611.5	796.20	4.92	63.90	66	10.0	7.0	Y
R822(K1204)	337	1	5,259,985.0	4,272,612.5	820.08	4.92	65.40	66	10.0	7.0	Y
R823(K1722)	338	1	5,257,079.0	4,271,684.5	810.21	4.92	66.20	66	10.0	7.0	Y
R824(K2099)	339	1	5,259,223.0	4,272,080.5	815.26	4.92	65.10	66	10.0	7.0	Y

R825(K2127)	340	1	5,258,076.0	4,271,933.0	834.06	4.92	66.90	66	10.0	7.0	Y
R826(K2144)	341	1	5,257,216.0	4,271,729.5	810.44	4.92	66.80	66	10.0	7.0	Y
R827(K2109C)	342	1	5,258,405.5	4,271,969.0	819.20	4.92	66.60	66	10.0	7.0	Y
R828(K1720)	343	1	5,257,135.0	4,271,692.5	812.40	4.92	66.40	66	10.0	7.0	Y
R829(K2026)	344	1	5,265,041.0	4,274,412.0	873.72	4.92	68.30	66	10.0	7.0	Y
R830(K68)	345	1	5,263,147.5	4,273,346.0	813.55	4.92	65.70	66	10.0	7.0	Y
R831(K1328)	346	1	5,264,615.5	4,274,259.0	862.90	4.92	63.20	66	10.0	7.0	Y
M-45(K1484)	347	1	5,262,676.5	4,273,061.0	829.37	4.92	72.30	66	10.0	7.0	Y
R832(K1362)	348	1	5,263,801.5	4,273,844.5	830.15	4.92	59.20	66	10.0	7.0	Y
R833(K1370)	349	1	5,263,757.5	4,273,815.0	831.89	4.92	60.40	66	10.0	7.0	Y
R834(K1402)	350	1	5,263,402.0	4,273,548.0	822.38	4.92	65.90	66	10.0	7.0	Y
R835(K1446)	351	1	5,262,892.0	4,273,167.0	822.38	4.92	68.10	66	10.0	7.0	Y
R836(K67)	352	1	5,263,124.0	4,273,287.5	814.77	4.92	65.30	66	10.0	7.0	Y
R837(K2033)	353	1	5,264,845.0	4,274,311.5	871.30	4.92	55.40	66	10.0	7.0	Y
R838(K2109F)	354	1	5,258,654.0	4,271,969.0	801.28	4.92	65.20	66	10.0	7.0	Y
R839(K1334)	355	1	5,264,638.5	4,274,200.5	863.13	4.92	61.90	66	10.0	7.0	Y
R840(K2109A)	356	1	5,258,226.0	4,271,892.0	820.44	4.92	62.20	66	10.0	7.0	Y
R841(K30)	357	1	5,257,528.5	4,271,722.5	817.23	4.92	63.90	66	10.0	7.0	Y
R842(K1353)	358	1	5,264,042.0	4,274,026.0	822.21	4.92	57.30	66	10.0	7.0	Y
R843(K1406)	359	1	5,263,511.0	4,273,531.5	822.57	4.92	62.80	66	10.0	7.0	Y
R844(K2032)	360	1	5,265,071.5	4,274,333.0	870.41	4.92	68.20	66	10.0	7.0	Y
R845(K2103)	361	1	5,259,286.5	4,272,029.0	820.28	4.92	63.70	66	10.0	7.0	Y
R846(K1396)	362	1	5,263,668.0	4,273,623.0	821.56	4.92	60.10	66	10.0	7.0	Y
R847(K1403)	363	1	5,263,605.0	4,273,584.5	823.07	4.92	61.70	66	10.0	7.0	Y
R848(K2035)	364	1	5,264,861.0	4,274,266.0	864.21	4.92	54.80	66	10.0	7.0	Y
R849(K1397)	365	1	5,263,714.0	4,273,643.5	817.72	4.92	58.60	66	10.0	7.0	Y
R850(K1721)	366	1	5,257,425.5	4,271,673.0	820.02	4.92	64.80	66	10.0	7.0	Y
R851(K2094)	367	1	5,259,472.0	4,272,129.0	820.28	4.92	72.00	66	10.0	7.0	Y
R852(K2109D)	368	1	5,258,381.0	4,271,876.0	817.62	4.92	61.70	66	10.0	7.0	Y
R853(K1217)	369	1	5,260,452.0	4,272,547.0	825.53	4.92	60.50	66	10.0	7.0	Y
R854(K1460)	370	1	5,263,061.5	4,273,109.0	816.57	4.92	62.70	66	10.0	7.0	Y
R855(K1392)	371	1	5,263,800.5	4,273,685.0	816.83	4.92	57.70	66	10.0	7.0	Y
R856(K1394)	372	1	5,263,751.0	4,273,660.0	817.55	4.92	58.20	66	10.0	7.0	Y
R857(K1193)	373	1	5,262,496.0	4,272,829.5	815.82	4.92	69.60	66	10.0	7.0	Y
R858(K1379)	374	1	5,263,965.5	4,273,766.0	816.83	4.92	56.90	66	10.0	7.0	Y
R859(K1385)	375	1	5,263,892.5	4,273,735.0	815.95	4.92	56.10	66	10.0	7.0	Y

R860(K2097)	376	1	5,259,523.5	4,272,104.0	819.95	4.92	71.60	66	10.0	7.0	Y
R861(K1390)	377	1	5,263,840.0	4,273,701.0	815.32	4.92	55.40	66	10.0	7.0	Y
R862(K1449)	378	1	5,263,152.0	4,273,183.0	813.45	4.92	63.80	66	10.0	7.0	Y
M-39(K2037)	379	1	5,265,126.5	4,274,244.0	863.91	4.92	71.20	66	10.0	7.0	Y
R863(K2043)	380	1	5,264,887.0	4,274,164.0	861.58	4.92	54.20	66	10.0	7.0	Y
R864(K2117)	381	1	5,259,354.5	4,271,999.0	820.93	4.92	62.40	66	10.0	7.0	Y
R865(K1212)	382	1	5,261,512.0	4,272,608.0	820.00	4.92	68.80	66	10.0	7.0	Y
R866(K2066)	383	1	5,260,953.5	4,272,530.0	830.09	4.92	64.30	66	10.0	7.0	Y
R867(K1196)	384	1	5,262,517.0	4,272,799.0	816.90	4.92	67.00	66	10.0	7.0	Y
R868(KV1492)	385	1	5,262,966.5	4,272,964.0	814.50	4.92	63.10	66	10.0	7.0	Y
R869(K1492)	386	1	5,262,895.0	4,272,913.0	828.15	4.92	61.80	66	10.0	7.0	Y
R870(K2102)	387	1	5,259,561.0	4,272,052.0	821.20	4.92	70.60	66	10.0	7.0	Y
R871(K2120)	388	1	5,259,396.0	4,271,969.5	819.00	4.92	61.40	66	10.0	7.0	Y
R872(KV2147)	389	1	5,258,732.5	4,271,819.0	795.61	4.92	61.80	66	10.0	7.0	Y
R873(K2107)	390	1	5,259,585.5	4,272,028.0	822.02	4.92	70.30	66	10.0	7.0	Y
R874(K1473)	391	1	5,263,173.0	4,273,040.5	790.52	4.92	51.70	66	10.0	7.0	Y
R875(K1203)	392	1	5,262,538.5	4,272,753.5	819.00	4.92	64.90	66	10.0	7.0	Y
R876(K2128)	393	1	5,259,428.5	4,271,940.0	819.69	4.92	61.00	66	10.0	7.0	Y
R877(K40)	394	1	5,262,837.5	4,272,826.5	829.23	4.92	61.50	66	10.0	7.0	Y
R878(K2141)	395	1	5,260,006.5	4,272,078.0	836.22	4.92	73.90	66	10.0	7.0	Y
R879(K2121)	396	1	5,259,628.0	4,271,979.0	829.23	4.92	69.90	66	10.0	7.0	Y
R880(K1202)	397	1	5,262,794.0	4,272,779.5	826.35	4.92	61.30	66	10.0	7.0	Y
R881(K2130)	398	1	5,259,457.0	4,271,908.0	819.49	4.92	60.80	66	10.0	7.0	Y
R882(K1211)	399	1	5,262,403.0	4,272,692.5	815.72	4.92	69.20	66	10.0	7.0	Y
R883(K1209)	400	1	5,262,573.5	4,272,719.0	818.87	4.92	63.00	66	10.0	7.0	Y
R884(K1213)	401	1	5,262,430.0	4,272,651.5	819.69	4.92	65.60	66	10.0	7.0	Y
R885(K2126)	402	1	5,259,653.0	4,271,943.5	834.02	4.92	69.80	66	10.0	7.0	Y
R886(K1206)	403	1	5,262,751.0	4,272,736.0	822.64	4.92	61.60	66	10.0	7.0	Y
R887(K2113)	404	1	5,259,490.0	4,271,862.5	822.48	4.92	60.40	66	10.0	7.0	Y
R888(K1218)	405	1	5,262,473.5	4,272,625.5	819.79	4.92	63.90	66	10.0	7.0	Y
R889(K36)	406	1	5,262,680.0	4,272,718.0	819.00	4.92	61.90	66	10.0	7.0	Y
R890(K2131)	407	1	5,259,695.5	4,271,906.0	835.99	4.92	69.20	66	10.0	7.0	Y
R891(K2140)	408	1	5,259,528.0	4,271,830.5	823.13	4.92	59.90	66	10.0	7.0	Y
R892(K1216)	409	1	5,262,597.0	4,272,657.5	818.38	4.92	62.10	66	10.0	7.0	Y
R893(K1220)	410	1	5,262,502.5	4,272,587.0	818.41	4.92	62.10	66	10.0	7.0	Y
R894(K2111)	411	1	5,259,723.0	4,271,871.5	837.63	4.92	68.70	66	10.0	7.0	Y

R895(K1219)	412	1	5,262,633.5	4,272,617.5	810.37	4.92	55.80	66	10.0	7.0	Y
R896(K2142)	413	1	5,259,564.0	4,271,785.0	825.07	4.92	59.60	66	10.0	7.0	Y
R897(K2139)	414	1	5,259,745.0	4,271,832.0	839.77	4.92	68.20	66	10.0	7.0	Y
R898(K1224)	415	1	5,262,535.5	4,272,552.5	816.05	4.92	61.20	66	10.0	7.0	Y
R899(K1223)	416	1	5,262,567.5	4,272,551.5	814.83	4.92	61.20	66	10.0	7.0	Y
R900(K1222)	417	1	5,262,677.0	4,272,569.5	804.04	4.92	56.90	66	10.0	7.0	Y
R901(K1753)	418	1	5,262,085.5	4,272,056.0	804.37	4.92	60.80	66	10.0	7.0	Y
M-47(K2141)	670	1	5,260,572.5	4,271,681.0	829.00	4.92	60.00	66	10.0	7.0	Y
M-44a(K75)	671	1	5,263,099.5	4,273,604.5	827.00	4.92	72.50	66	10.0	7.0	Y
R905	672	1	5,261,611.0	4,272,712.0	820.00	4.92	69.70	66	10.0	7.0	Y
R1000	673	1	5,262,018.5	4,273,989.5	859.50	4.92	60.00	66	10.0	7.0	Y
R1001	674	1	5,262,106.0	4,273,976.0	859.50	4.92	61.10	66	10.0	7.0	Y
R1002	675	1	5,262,284.0	4,274,096.0	859.50	4.92	61.00	66	10.0	7.0	Y
R1003	676	1	5,262,317.5	4,274,171.5	861.50	4.92	60.50	66	10.0	7.0	Y
R1004	677	1	5,262,432.5	4,274,179.0	861.50	4.92	61.30	66	10.0	7.0	Y
R1005	678	1	5,262,539.5	4,274,236.0	861.50	4.92	60.90	66	10.0	7.0	Y
R1006	679	1	5,262,365.0	4,274,282.0	861.50	4.92	59.40	66	10.0	7.0	Y
R1007	680	1	5,262,454.0	4,274,327.0	861.50	4.92	59.20	66	10.0	7.0	Y
R1008	681	1	5,262,590.5	4,274,445.5	867.50	4.92	59.60	66	10.0	7.0	Y
R1009	682	1	5,262,710.5	4,274,519.0	876.50	4.92	61.00	66	10.0	7.0	Y
R1010	683	1	5,262,825.5	4,274,604.0	886.50	4.92	63.00	66	10.0	7.0	Y
R1011	684	1	5,262,944.5	4,274,671.0	889.50	4.92	63.80	66	10.0	7.0	Y
R1012	685	1	5,263,704.0	4,275,230.0	901.50	4.92	64.60	66	10.0	7.0	Y
R1013	686	1	5,263,113.0	4,274,709.0	901.50	4.92	66.50	66	10.0	7.0	Y
R1014	687	1	5,263,253.0	4,274,967.0	904.50	4.92	64.20	66	10.0	7.0	Y
R1015	688	1	5,263,121.0	4,274,938.0	905.50	4.92	63.30	66	10.0	7.0	Y
R1016	689	1	5,263,382.0	4,275,239.0	910.00	4.92	62.30	66	10.0	7.0	Y
R1017	690	1	5,263,723.0	4,275,420.5	920.00	4.92	63.50	66	10.0	7.0	Y

PEC 8 August 2023
ZR TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S2

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points		Coordinates (pavement)			Flow Control			Segment	
Name	Width	Name	No.	X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Rd13 ; NB 1072 to NB 75 On1	24.0	point1	1	5,265,174.5	4,274,245.0	864.00				Average	
		point2	2	5,265,101.5	4,274,480.0	875.00				Average	
		point3	3	5,265,072.0	4,274,577.0	881.00				Average	
		point4	4	5,265,044.0	4,274,649.0	885.50				Average	
		point5	5	5,264,999.0	4,274,745.0	891.00					
Rd14 ; NB 1072 Over 751	24.0	point6	6	5,264,999.0	4,274,745.0	891.00				Average	
		point7	7	5,264,827.0	4,275,016.0	897.00				Average	Y
		point8	8	5,264,692.0	4,275,228.0	900.00				Average	Y
		point9	9	5,264,597.0	4,275,390.0	900.00				Average	Y
		point10	10	5,264,576.0	4,275,439.0	899.50					
Rd15 ; NB 1072 Fr SB 75 Off1	36.0	point11	11	5,264,576.0	4,275,439.0	899.50				Average	
		point12	12	5,264,282.5	4,276,017.0	899.00					
Rd16 ; SB 1072 to On to SB 751	24.0	point13	13	5,264,266.0	4,275,976.0	898.00				Average	
		point14	14	5,264,538.0	4,275,422.0	900.00					
Rd17 ; SB 1072 Over 751	24.0	point15	15	5,264,538.0	4,275,422.0	900.00				Average	
		point16	16	5,264,587.0	4,275,332.0	900.00				Average	Y
		point17	17	5,264,659.0	4,275,215.0	900.00				Average	Y
		point18	18	5,264,793.0	4,275,002.0	897.00				Average	Y
		point19	19	5,264,964.5	4,274,733.0	889.50					
Rd18 ; SB 1072 Fr On fr NB 751	24.0	point20	20	5,264,964.5	4,274,733.0	889.50				Average	
		point21	21	5,265,000.0	4,274,659.0	885.00				Average	
		point22	22	5,265,034.0	4,274,578.0	880.00				Average	
		point23	23	5,265,160.0	4,274,199.0	863.00					
Rd19 ; EB Pike to SB Svc Rd(1)1	12.0	point24	24	5,269,622.5	4,281,812.0	505.00				Average	
		point25	25	5,269,687.0	4,281,822.0	502.00					

Rd20 ; EB Pike Under 75(1)1	12.0	point26	26	5,269,687.0	4,281,822.0	502.00				Average	
		point27	27	5,270,012.0	4,281,875.0	496.00					
Rd21 ; WB Pike Under 75(2)1	24.0	point28	28	5,270,003.5	4,281,896.5	496.00				Average	
		point29	29	5,269,676.0	4,281,843.0	502.00					
Rd22 ; WB Pike Fr SB SB Svc(2)1	24.0	point30	30	5,269,676.0	4,281,843.0	502.00				Average	
		point31	31	5,269,618.0	4,281,834.0	505.00					
Rd39 ; EB 11th St(1)1	12.0	point32	32	5,270,012.0	4,281,875.0	496.00				Average	
		point33	33	5,270,253.0	4,281,915.0	502.00				Average	
		point34	34	5,270,334.0	4,281,936.0	505.50				Average	
		point35	35	5,270,411.0	4,281,967.0	509.00				Average	
		point36	36	5,270,475.0	4,282,001.0	512.00				Average	
		point37	37	5,270,531.0	4,282,042.0	515.00				Average	
		point38	38	5,270,580.5	4,282,090.5	518.00				Average	
		point39	39	5,270,659.0	4,282,190.0	523.00				Average	
		point40	40	5,270,763.0	4,282,336.0	529.00					
Rd40 ; wb 11th St (2)1	24.0	point41	41	5,270,746.0	4,282,345.0	529.00				Average	
		point42	42	5,270,642.0	4,282,201.0	523.00				Average	
		point43	43	5,270,566.0	4,282,105.0	518.00				Average	
		point44	44	5,270,516.5	4,282,056.0	515.00				Average	
		point45	45	5,270,466.5	4,282,019.0	512.00				Average	
		point46	46	5,270,402.5	4,281,985.0	509.00				Average	
		point47	47	5,270,322.0	4,281,957.0	505.50				Average	
		point48	48	5,270,252.0	4,281,937.5	502.00				Average	
		point49	49	5,270,003.5	4,281,896.5	496.00					
Rd41 ; EB Pike (1)1	12.0	point50	50	5,268,917.0	4,281,333.0	541.00				Average	
		point51	51	5,268,942.5	4,281,365.0	539.00				Average	
		point52	52	5,268,965.5	4,281,384.0	538.00				Average	
		point53	53	5,269,009.0	4,281,403.0	536.00				Average	
		point54	54	5,269,127.5	4,281,430.0	531.00				Average	
		point55	55	5,269,198.0	4,281,456.0	529.00				Average	
		point56	56	5,269,225.5	4,281,469.0	528.00				Average	
		point57	57	5,269,271.0	4,281,510.0	526.00				Average	
		point58	58	5,269,291.5	4,281,538.5	525.00				Average	
		point59	59	5,269,371.0	4,281,686.0	518.00				Average	
		point60	60	5,269,393.0	4,281,718.0	516.00				Average	
		point61	61	5,269,427.0	4,281,749.0	514.00				Average	
		point62	62	5,269,468.0	4,281,769.0	512.00				Average	
		point63	63	5,269,622.5	4,281,812.0	505.00					
Rd42 ; WB Pike(2)1	24.0	point64	64	5,269,618.0	4,281,834.0	505.00				Average	

		point65	65	5,269,446.0	4,281,781.0	512.50				Average	
		point66	66	5,269,412.0	4,281,761.0	514.00				Average	
		point67	67	5,269,378.0	4,281,732.0	516.00				Average	
		point68	68	5,269,350.0	4,281,692.0	518.00				Average	
		point69	69	5,269,273.0	4,281,542.0	525.00				Average	
		point70	70	5,269,232.5	4,281,500.0	527.00				Average	
		point71	71	5,269,186.0	4,281,471.0	529.00				Average	
		point72	72	5,269,134.0	4,281,455.0	531.00				Average	
		point73	73	5,269,004.0	4,281,423.0	536.00				Average	
		point74	74	5,268,956.0	4,281,400.0	538.00				Average	
		point75	75	5,268,932.0	4,281,384.0	539.00				Average	
		point76	76	5,268,899.0	4,281,342.0	541.00					
Rd59 ; NB CD 1072 Off-75 On(1)1	12.0	point77	77	5,263,885.5	4,274,467.0	859.00				Average	
		point78	78	5,263,929.0	4,274,517.5	861.00				Average	
		point79	79	5,264,109.0	4,274,670.0	871.00				Average	
		point80	80	5,264,291.0	4,274,800.0	875.50				Average	
		point81	81	5,264,459.0	4,274,898.5	877.30				Average	
		point82	82	5,264,597.0	4,274,970.0	877.80				Average	
		point83	83	5,264,734.0	4,275,030.0	877.00				Average	Y
		point84	84	5,264,831.0	4,275,069.5	873.00				Average	Y
		point85	85	5,265,126.0	4,275,189.0	865.40				Average	
		point86	86	5,265,181.0	4,275,236.0	860.00					
Rd60 ; NB On fr 1072(1)1	12.0	point87	87	5,264,999.0	4,274,745.0	891.00				Average	
		point88	88	5,265,042.0	4,274,795.0	891.00				Average	
		point89	89	5,265,328.0	4,275,123.0	861.00				Average	
		point90	90	5,265,361.0	4,275,158.0	860.00				Average	
		point91	91	5,265,425.0	4,275,218.0	854.00				Average	
		point92	92	5,265,494.0	4,275,272.0	848.00				Average	
		point93	93	5,265,567.0	4,275,319.0	842.00				Average	
		point94	94	5,265,625.0	4,275,351.0	838.00				Average	
		point95	95	5,265,719.5	4,275,395.0	832.00				Average	
		point96	96	5,265,910.0	4,275,468.0	823.00				Average	
		point97	97	5,265,967.0	4,275,511.0	815.00					
Rd 61 ; NB On Fr Svc + 1072(2)1	24.0	point98	98	5,265,967.0	4,275,511.0	815.00				Average	
		point99	99	5,266,018.0	4,275,548.5	814.00					
Rd62 ; NB Off to 1072(1)1	12.0	point100	100	5,263,885.5	4,274,467.0	859.00				Average	
		point101	101	5,263,951.0	4,274,498.0	861.00				Average	
		point102	102	5,264,161.5	4,274,654.5	868.00				Average	
		point103	76	5,264,225.0	4,274,694.0	870.60				Average	

		point104	104	5,264,305.0	4,274,727.5	873.20				Average	
		point105	105	5,264,380.5	4,274,748.0	875.40				Average	
		point106	106	5,264,469.5	4,274,761.5	877.00				Average	
		point107	107	5,264,560.0	4,274,759.0	879.00				Average	
		point108	108	5,264,964.5	4,274,733.0	889.50					
Rd64 ; NB 75 4Lane-5Lane(4)1	48.0	point109	109	5,262,486.0	4,273,136.0	826.00				Average	
		point110	110	5,263,442.0	4,274,122.0	848.50				Average	Y
		point111	111	5,263,552.5	4,274,237.0	852.00				Average	Y
		point112	112	5,263,660.0	4,274,346.0	855.50				Average	
		point113	113	5,263,835.0	4,274,515.0	861.00				Average	
		point114	114	5,263,955.0	4,274,619.0	865.00				Average	
		point115	115	5,264,104.5	4,274,734.0	870.00				Average	
		point116	116	5,264,252.0	4,274,832.0	874.00				Average	
		point117	117	5,264,364.5	4,274,898.0	876.00				Average	
		point118	118	5,264,471.0	4,274,954.0	877.00				Average	
		point119	119	5,264,572.0	4,275,003.0	877.00				Average	
		point120	120	5,264,717.0	4,275,065.0	875.00				Average	Y
		point121	121	5,264,811.0	4,275,101.5	873.00				Average	Y
		point122	122	5,264,976.0	4,275,165.0	869.00				Average	
		point123	123	5,265,181.0	4,275,236.0	860.00					
Rd65 ; NB 75 Svc Rd On-1072 On(5)1	60.0	point124	124	5,265,181.0	4,275,236.0	860.00				Average	
		point125	125	5,265,893.0	4,275,509.0	822.00				Average	
		point126	126	5,266,018.0	4,275,548.5	814.00					
Rd66 ; NB 75 1072 On-2_4Split(6)1	72.0	point127	127	5,266,018.0	4,275,548.5	814.00				Average	
		point128	128	5,266,211.0	4,275,617.0	807.00				Average	
		point129	129	5,266,394.0	4,275,669.0	796.00				Average	
		point130	130	5,266,611.0	4,275,717.0	793.00				Average	
		point131	131	5,266,798.0	4,275,746.0	792.00				Average	
		point132	132	5,266,981.0	4,275,765.0	790.40				Average	
		point133	133	5,267,439.0	4,275,783.5	783.10				Average	
		point134	134	5,267,562.0	4,275,795.0	780.40				Average	
		point135	135	5,267,695.0	4,275,817.5	776.50				Average	
		point136	136	5,267,823.0	4,275,849.5	772.00				Average	
		point137	137	5,267,958.0	4,275,897.0	767.00				Average	
		point138	138	5,268,068.0	4,275,945.0	762.00				Average	
		point139	139	5,268,182.0	4,276,004.0	747.50				Average	
		point140	140	5,268,299.0	4,276,077.0	741.00				Average	
		point141	141	5,268,406.0	4,276,157.0	682.50				Average	
		point142	142	5,269,250.5	4,276,921.0	677.50				Average	

		point143	143	5,269,344.0	4,277,022.0	670.40				Average	
		point144	144	5,269,409.0	4,277,101.0	665.40				Average	
		point145	145	5,269,479.0	4,277,199.0	660.40				Average	
		point146	146	5,269,545.0	4,277,308.0	655.40				Average	
		point147	147	5,269,608.0	4,277,432.0	647.40				Average	
		point148	148	5,269,663.0	4,277,568.0	641.40				Average	
		point149	149	5,269,702.0	4,277,689.0	635.40				Average	
		point150	150	5,269,927.0	4,278,714.5	587.90					
Rd68 ; NB 75 Off to 12 to Off to 1	48.0	point151	151	5,269,927.0	4,278,714.5	587.90				Average	
		point152	152	5,269,935.0	4,278,805.0	579.80				Average	
		point153	153	5,270,003.5	4,279,124.0	567.90				Average	
		point154	154	5,270,085.5	4,279,495.0	549.00				Average	
		point155	155	5,270,157.0	4,279,880.0	530.00				Average	
		point156	156	5,270,236.0	4,280,190.0	518.00				Average	
		point157	157	5,270,262.0	4,280,352.0	513.70				Average	
		point158	158	5,270,272.0	4,280,467.0	511.90				Average	
		point159	159	5,270,272.5	4,280,576.0	510.60				Average	
		point160	160	5,270,265.5	4,280,686.0	510.00				Average	
		point161	161	5,270,253.0	4,280,783.0	509.90				Average	
		point162	162	5,270,233.0	4,280,883.0	510.40				Average	
		point163	163	5,270,199.5	4,281,002.0	511.50				Average	
		point164	164	5,270,137.0	4,281,186.0	513.40				Average	
		point165	165	5,270,087.0	4,281,322.0	514.80					
Rd69 ; NB 75 Off to-New Bridge(3)1	36.0	point166	166	5,270,087.0	4,281,322.0	514.80				Average	Y
		point167	167	5,270,024.0	4,281,478.0	516.50				Average	Y
		point168	168	5,269,960.0	4,281,640.0	518.10				Average	Y
		point169	169	5,269,893.0	4,281,789.0	519.50				Average	Y
		point170	170	5,269,809.0	4,281,957.0	520.60				Average	Y
		point171	171	5,269,742.0	4,282,073.0	521.00				Average	Y
		point172	172	5,269,633.0	4,282,255.0	520.60				Average	Y
		point173	173	5,269,506.0	4,282,456.0	518.60				Average	Y
		point174	174	5,269,451.5	4,282,552.0	517.50					
Rd71; NB CD Rd (2)1	24.0	point175	175	5,269,927.0	4,278,714.5	587.90				Average	
		point176	176	5,269,969.0	4,278,797.0	579.80				Average	
		point177	177	5,270,090.0	4,279,307.5	550.00				Average	
		point178	178	5,270,162.0	4,279,615.0	535.00				Average	
		point179	179	5,270,250.0	4,279,986.0	522.00				Average	
		point180	180	5,270,297.0	4,280,191.0	517.80				Average	
		point181	181	5,270,313.0	4,280,275.0	516.00				Average	

		point182	182	5,270,325.0	4,280,373.0	514.90				Average	
		point183	183	5,270,329.5	4,280,432.0	514.60					
Rd72 ; NB CD fr off to 12th(1)1	12.0	point184	184	5,270,329.5	4,280,432.0	514.60				Average	Y
		point185	185	5,270,326.0	4,280,491.0	514.70				Average	Y
		point186	186	5,270,326.0	4,280,585.0	515.00				Average	Y
		point187	187	5,270,322.0	4,280,669.0	515.90				Average	Y
		point188	188	5,270,310.0	4,280,778.0	516.90				Average	Y
		point189	189	5,270,293.0	4,280,881.0	517.90				Average	Y
		point190	190	5,270,267.0	4,280,990.0	519.00				Average	Y
		point191	191	5,270,233.0	4,281,099.0	520.00				Average	Y
		point192	192	5,270,142.5	4,281,354.0	522.50				Average	Y
		point193	193	5,270,053.0	4,281,611.5	525.10				Average	Y
		point194	194	5,269,986.0	4,281,798.5	527.00				Average	Y
		point195	195	5,269,925.0	4,281,944.0	528.30				Average	Y
		point196	196	5,269,841.0	4,282,115.0	529.20				Average	Y
		point197	197	5,269,701.0	4,282,366.0	526.50				Average	Y
		point198	198	5,269,567.5	4,282,605.0	523.40					
Rd74 ; NB On Ramp Fr Pike(1)1	12.0	point199	199	5,269,953.0	4,282,015.0	494.80				Average	
		point200	200	5,269,859.5	4,282,099.5	495.60				Average	
		point201	201	5,269,800.5	4,282,162.0	498.00				Average	Y
		point202	202	5,269,764.0	4,282,212.0	500.70				Average	
		point203	203	5,269,669.0	4,282,362.0	510.00				Average	Y
		point204	204	5,269,594.0	4,282,484.0	516.00				Average	Y
		point205	205	5,269,549.0	4,282,562.0	517.60					
Rd77 ; NB 75 to Old Br(2)1	24.0	point206	206	5,270,087.0	4,281,322.0	514.80				Average	Y
		point207	207	5,270,051.0	4,281,487.0	516.50				Average	Y
		point208	208	5,269,987.0	4,281,652.5	518.10				Average	Y
		point209	209	5,269,941.0	4,281,762.0	519.30				Average	Y
		point210	210	5,269,893.0	4,281,869.0	520.00				Average	Y
		point211	211	5,269,852.0	4,281,953.0	520.60				Average	Y
		point212	212	5,269,766.0	4,282,114.0	521.00				Average	Y
		point213	213	5,269,706.0	4,282,216.0	520.70				Average	Y
		point214	214	5,269,556.0	4,282,462.0	518.90				Average	Y
		point215	215	5,269,524.0	4,282,517.0	518.50					
Rd82 ; EB Pike fr new local Rd(2)1	24.0	point216	216	5,270,183.0	4,281,399.0	500.70				Average	
		point217	217	5,270,236.0	4,281,417.0	504.50				Average	
		point218	218	5,270,790.0	4,281,535.0	522.00				Average	
		point219	219	5,271,123.0	4,281,604.5	526.00					
Rd83 ; EB 12th to SB new local Rd(1)1	12.0	point220	220	5,269,370.0	4,281,073.0	518.00				Average	

		point221	221	5,269,898.5	4,281,339.0	490.00					
Rd84 ; EB 12th Under 75(2)1	24.0	point222	222	5,269,898.5	4,281,339.0	490.00				Average	
		point223	223	5,269,941.0	4,281,351.0	490.20				Average	
		point224	224	5,270,116.0	4,281,391.0	497.50				Average	
		point225	225	5,270,179.0	4,281,395.0	500.70					
Rd85 ; WB 12th to NB New Loclal Rd(2)1	24.0	point226	226	5,271,119.0	4,281,618.0	526.00				Average	
		point227	227	5,270,790.0	4,281,549.0	522.00				Average	
		point228	228	5,270,233.0	4,281,432.0	504.50				Average	
		point229	229	5,270,174.0	4,281,422.0	500.70					
Rd86 ; WB 12th Under 75(2)1	24.0	point230	230	5,270,171.0	4,281,417.5	500.70				Average	
		point231	231	5,270,107.0	4,281,413.0	497.00				Average	
		point232	232	5,269,932.5	4,281,372.0	490.20				Average	
		point233	233	5,269,896.0	4,281,348.0	490.00					
Rd87 ; WB 12th fr SB Svc Rd(1)1	12.0	point234	234	5,269,896.0	4,281,348.0	490.00				Average	
		point235	235	5,269,357.0	4,281,077.0	515.00					
Rd94 ; NB Off to New local@12th(1)1	12.0	point236	236	5,270,329.5	4,280,432.0	514.60				Average	
		point237	237	5,270,342.0	4,280,488.0	514.70				Average	
		point238	238	5,270,358.0	4,280,650.0	517.70				Average	
		point239	239	5,270,361.0	4,280,723.0	517.90				Average	
		point240	240	5,270,357.0	4,280,814.0	517.00				Average	
		point241	241	5,270,344.0	4,280,893.0	515.00				Average	
		point242	242	5,270,323.0	4,280,973.0	512.00					
Rd95 ; NB New local to Pike(3)1	36.0	point243	243	5,270,323.0	4,280,973.0	512.00				Average	
		point244	244	5,270,290.0	4,281,079.0	505.70				Average	
		point245	245	5,270,179.0	4,281,395.0	500.70					
Rd96 ; NB new local @ Pike(3)1	36.0	point246	246	5,270,179.0	4,281,395.0	500.70				Average	
		point247	247	5,270,171.0	4,281,417.5	500.70					
Rd97 ; NB new local Pike-11th(3)1	36.0	point248	248	5,270,171.0	4,281,417.5	500.70				Average	
		point249	249	5,270,133.0	4,281,528.0	498.00				Average	
		point250	250	5,270,048.0	4,281,772.0	494.30				Average	
		point251	251	5,270,012.0	4,281,875.0	496.00					
Rd98 ; NB new local @ 11th(3)1	36.0	point252	252	5,270,012.0	4,281,875.0	496.00				Average	
		point253	253	5,270,003.5	4,281,896.5	496.00					
Rd99 ; NB new local 11th-On to nb 75(3)1	36.0	point254	254	5,270,003.5	4,281,896.5	496.00				Average	
		point255	255	5,269,953.0	4,282,015.0	494.80					
Rd00 ; NB new local On to 75-11th(3)1	36.0	point256	256	5,269,953.0	4,282,015.0	494.80				Average	
		point257	257	5,269,937.0	4,282,050.0	494.90				Average	
		point258	258	5,269,885.0	4,282,147.0	496.60				Average	
		point259	259	5,269,743.0	4,282,405.0	497.00				Average	

		point260	260	5,269,638.5	4,282,594.0	498.40					
Rd116 ; SB 75 Cd On-6l ane(7)1	84.0	point261	261	5,269,405.0	4,282,448.5	518.20				Average	Y
		point262	262	5,269,437.5	4,282,395.0	519.00				Average	Y
		point263	263	5,269,572.0	4,282,182.0	520.80				Average	Y
		point264	264	5,269,638.5	4,282,074.0	521.00				Average	Y
		point265	265	5,269,690.0	4,281,997.0	520.90					
Rd117 ; SB 75 CD On-Ramp On(6)1	72.0	point266	266	5,269,690.0	4,281,997.0	520.90				Average	Y
		point267	267	5,269,725.0	4,281,934.0	520.70				Average	Y
		point268	268	5,269,786.0	4,281,816.0	520.10				Average	Y
		point269	269	5,269,841.0	4,281,699.0	519.00				Average	Y
		point270	270	5,269,889.0	4,281,586.0	517.90				Average	Y
		point271	271	5,269,934.0	4,281,474.5	516.80				Average	Y
		point272	272	5,269,996.5	4,281,303.0	515.00				Average	Y
		point273	273	5,270,072.0	4,281,099.0	512.80				Average	Y
		point274	274	5,270,125.0	4,280,935.0	511.20				Average	Y
		point275	275	5,270,154.0	4,280,820.0	510.30				Average	Y
		point276	276	5,270,174.0	4,280,687.0	510.00				Average	Y
		point277	277	5,270,180.0	4,280,623.0	510.20				Average	Y
		point278	278	5,270,183.0	4,280,532.5	510.90				Average	Y
		point279	279	5,270,179.0	4,280,443.0	511.90				Average	Y
		point280	280	5,270,170.0	4,280,347.0	513.70				Average	Y
		point281	281	5,270,148.0	4,280,215.0	517.00				Average	Y
		point282	282	5,270,113.0	4,280,044.0	523.00				Average	Y
		point283	283	5,270,083.0	4,279,935.0	528.00					
Rd118 ; SB 75 On Ramp-6 lane(7)1	84.0	point284	284	5,270,083.0	4,279,935.0	528.00				Average	
		point285	285	5,270,011.0	4,279,611.0	544.40				Average	
		point286	286	5,269,935.0	4,279,257.0	561.40				Average	
		point287	287	5,269,913.0	4,279,131.0	568.40					
Rd119 ; SB 75 7 lane-Off to 1072(6)1	72.0	point288	288	5,269,913.0	4,279,131.0	568.40				Average	
		point289	289	5,269,772.0	4,278,485.0	598.00				Average	
		point290	290	5,269,633.0	4,277,851.0	637.40				Average	
		point291	291	5,269,599.0	4,277,707.0	645.40				Average	
		point292	292	5,269,553.0	4,277,567.0	650.40				Average	
		point293	293	5,269,500.0	4,277,442.0	655.40				Average	
		point294	294	5,269,435.5	4,277,325.0	660.40				Average	
		point295	295	5,269,364.5	4,277,213.5	665.40				Average	
		point296	296	5,269,295.0	4,277,124.0	670.40				Average	
		point297	297	5,269,223.0	4,277,042.0	677.50				Average	
		point298	298	5,269,146.0	4,276,965.0	685.40				Average	

		point299	299	5,268,806.0	4,276,657.0	710.40				Average	
		point300	300	5,268,412.0	4,276,298.0	737.40				Average	
		point301	301	5,268,299.0	4,276,204.0	747.50				Average	
		point302	302	5,268,182.0	4,276,124.0	755.00				Average	
		point303	303	5,268,080.0	4,276,066.0	760.40				Average	
		point304	304	5,267,981.0	4,276,017.0	765.20				Average	
		point305	305	5,267,886.0	4,275,979.5	769.50				Average	
		point306	306	5,267,785.0	4,275,945.5	773.50				Average	
		point307	307	5,267,664.0	4,275,917.0	780.30				Average	
		point308	308	5,267,526.0	4,275,894.0	783.00				Average	
		point309	309	5,267,412.0	4,275,886.0	786.00				Average	
		point310	310	5,267,118.0	4,275,875.0	788.00				Average	
		point311	311	5,266,997.0	4,275,869.0	790.40				Average	
		point312	312	5,266,816.0	4,275,852.0	792.40				Average	
		point313	313	5,266,634.0	4,275,824.5	793.20				Average	
		point314	314	5,266,453.0	4,275,789.0	799.00				Average	
		point315	315	5,266,297.0	4,275,749.0	803.00				Average	
		point316	316	5,266,143.0	4,275,703.0	806.00					
Rd121 ; SB 75 1072 Off-5 lane(6)1	72.0	point317	317	5,266,143.0	4,275,703.0	806.00				Average	
		point318	318	5,265,968.0	4,275,641.0	814.00				Average	
		point319	319	5,265,765.0	4,275,563.0	827.00				Average	
		point320	320	5,265,163.0	4,275,334.0	861.00				Average	
		point321	321	5,264,934.0	4,275,247.0	874.50				Average	
		point322	322	5,264,764.0	4,275,176.0	877.00				Average	Y
		point323	323	5,264,670.5	4,275,138.0	877.00				Average	Y
		point324	324	5,264,647.0	4,275,128.0	877.00					
Rd122 ; SB 75 5lane-4lane (5)1	60.0	point325	325	5,264,647.0	4,275,128.0	877.00				Average	
		point326	326	5,264,515.0	4,275,069.0	877.30				Average	
		point327	327	5,264,399.0	4,275,012.5	877.00				Average	
		point328	328	5,264,257.5	4,274,934.0	875.50				Average	
		point329	329	5,264,131.0	4,274,854.0	869.00				Average	
		point330	330	5,264,018.0	4,274,774.0	866.30				Average	
		point331	331	5,263,907.0	4,274,688.5	866.00				Average	
		point332	332	5,263,800.0	4,274,598.0	862.00				Average	
		point333	333	5,263,492.0	4,274,295.0	852.00				Average	Y
		point334	334	5,263,381.0	4,274,181.0	847.30				Average	Y
		point335	335	5,263,266.0	4,274,063.0	845.00				Average	
		point336	336	5,262,917.0	4,273,704.0	837.50					
Rd135 ; SB new local 9th-Pike(3)1	36.0	point337	337	5,269,327.0	4,282,414.0	496.00				Average	

		point338	338	5,269,355.5	4,282,362.0	494.40				Average	
		point339	339	5,269,463.0	4,282,190.0	497.90				Average	
		point340	340	5,269,586.0	4,281,997.0	503.40				Average	
		point341	341	5,269,637.0	4,281,912.0	502.70				Average	
		point342	342	5,269,676.0	4,281,843.0	502.00					
Rd136 ; SB New local @ Pike(3)1	36.0	point343	343	5,269,676.0	4,281,843.0	502.00				Average	
		point344	344	5,269,687.0	4,281,822.0	502.00					
Rd137 ; SB new local Pike-12th(3)1	36.0	point345	345	5,269,687.0	4,281,822.0	502.00				Average	
		point346	346	5,269,736.0	4,281,730.0	500.50				Average	
		point347	347	5,269,797.0	4,281,599.0	498.70				Average	
		point348	348	5,269,849.0	4,281,474.5	495.00				Average	
		point349	349	5,269,896.0	4,281,348.0	490.00					
Rd138 ; SB new local @ 12th(3)1	36.0	point350	350	5,269,896.0	4,281,348.0	490.00				Average	
		point351	351	5,269,898.5	4,281,339.0	490.00					
Rd139 ; SB new local 12th-75(2)1	24.0	point352	352	5,269,898.5	4,281,339.0	490.00				Average	
		point353	353	5,269,950.0	4,281,202.0	489.00				Average	
		point354	354	5,270,001.0	4,281,063.0	491.70				Average	
		point355	355	5,270,033.0	4,280,963.0	495.60				Average	Y
		point356	356	5,270,066.0	4,280,836.0	501.00				Average	Y
		point357	357	5,270,088.0	4,280,710.5	505.00				Average	Y
		point358	358	5,270,100.0	4,280,603.0	506.80				Average	Y
		point359	359	5,270,106.0	4,280,498.0	508.20				Average	Y
		point360	360	5,270,106.0	4,280,376.0	510.40				Average	Y
		point361	361	5,270,097.0	4,280,256.0	514.00				Average	Y
		point362	362	5,270,082.0	4,280,137.0	519.50				Average	Y
		point363	363	5,270,064.0	4,280,047.0	523.00				Average	Y
		point364	364	5,270,083.0	4,279,935.0	528.00					
Rd140 ; SB Off to CD @ 1072(1)1	12.0	point365	365	5,266,143.0	4,275,703.0	806.00				Average	
		point366	366	5,265,963.5	4,275,706.0	814.00				Average	
		point367	367	5,265,853.0	4,275,673.0	821.00				Average	
		point368	368	5,265,693.0	4,275,618.0	831.70					
Rd141 ; SB CD 1072 off-on(1)1	12.0	point369	369	5,265,693.0	4,275,618.0	831.70				Average	
		point370	370	5,265,602.0	4,275,573.0	836.30				Average	
		point371	371	5,265,363.0	4,275,480.0	854.00				Average	
		point372	372	5,264,993.0	4,275,338.5	869.10				Average	
		point373	373	5,264,738.0	4,275,243.0	874.30				Average	
		point374	374	5,264,725.0	4,275,237.0	874.40				Average	Y
		point375	375	5,264,633.0	4,275,198.0	877.00				Average	Y
		point376	376	5,264,608.0	4,275,187.0	877.30				Average	

		point377	377	5,264,460.5	4,275,117.5	877.20				Average	
		point378	378	5,264,293.0	4,275,028.0	875.50				Average	
		point379	379	5,264,149.0	4,274,939.0	871.00				Average	
		point380	380	5,263,990.5	4,274,830.0	868.50				Average	
		point381	381	5,263,879.0	4,274,744.0	866.20				Average	
		point382	382	5,263,726.0	4,274,611.0	864.50				Average	
		point383	383	5,263,680.0	4,274,581.0	861.80					
Rd142 ; SB CD 1072 on-1 lane(2)1	24.0	point384	384	5,263,680.0	4,274,581.0	861.80				Average	
		point385	385	5,263,538.0	4,274,440.0	856.00				Average	
		point386	386	5,263,444.0	4,274,341.0	850.50				Average	Y
		point387	387	5,263,333.5	4,274,227.0	846.00				Average	Y
		point388	388	5,263,143.0	4,274,028.0	842.00					
Rd143 ; SB CD 2 lane-Dixie Off(1)1	12.0	point389	389	5,263,143.0	4,274,028.0	842.00				Average	
		point390	390	5,262,832.0	4,273,698.5	837.00					
Rd150 ; SB Off to 1072(1)1	12.0	point391	391	5,265,693.0	4,275,618.0	831.70				Average	
		point392	392	5,265,591.0	4,275,593.0	836.30				Average	
		point393	393	5,265,477.0	4,275,560.0	851.00				Average	
		point394	394	5,265,348.0	4,275,531.0	860.00				Average	
		point395	395	5,265,098.0	4,275,497.0	879.50					
Rd151 ; SB Off to 1072(2)1	24.0	point396	396	5,265,098.0	4,275,497.0	879.50				Average	
		point397	397	5,264,576.0	4,275,439.0	899.50					
Rd152 ; SB On fr Dixie(1)1	12.0	point398	398	5,264,538.0	4,275,422.0	900.00				Average	
		point399	399	5,264,091.0	4,274,984.0	883.50				Average	
		point400	400	5,263,711.0	4,274,626.0	864.50				Average	
		point401	401	5,263,680.0	4,274,581.0	861.80					

PEC 8 August 2023
ZR TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S3

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points		Coordinates (pavement)			Flow Control			Segment	
Name	Width	Name	No.	X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Rd 1 ; NB On Fr WB Dixie1	12.0	point1	1	5,261,116.0	4,271,770.0	849.50				Average	
		point2	2	5,261,162.0	4,271,747.0	848.00				Average	
		point3	3	5,261,182.5	4,271,741.5	847.00				Average	
		point4	4	5,261,210.0	4,271,745.0	846.50				Average	
		point5	5	5,261,542.0	4,271,829.0	834.50					
Rd2 ; NB On Fr WB Dixie1	12.0	point6	6	5,261,014.0	4,271,229.0	860.50				Average	
		point7	7	5,261,043.5	4,271,297.0	859.00				Average	
		point8	8	5,261,078.0	4,271,472.0	855.00				Average	
		point9	9	5,261,098.5	4,271,576.0	852.50				Average	
		point10	10	5,261,109.0	4,271,610.0	851.50				Average	
		point11	11	5,261,129.0	4,271,643.5	850.50				Average	
		point12	12	5,261,166.0	4,271,686.0	848.50				Average	
		point13	13	5,261,202.0	4,271,711.0	847.00				Average	
		point14	14	5,261,260.0	4,271,737.0	845.00				Average	
		point15	15	5,261,490.5	4,271,805.0	836.50				Average	
		point16	16	5,261,542.0	4,271,829.0	834.50					
Rd3 ; SB on Fr Dixie1	12.0	point17	17	5,261,221.0	4,272,395.0	836.50				Average	
		point18	18	5,261,186.0	4,272,391.5	837.00				Average	
		point19	19	5,260,867.0	4,272,357.5	827.50				Average	
		point20	20	5,260,692.5	4,272,340.0	819.50				Average	
		point21	21	5,260,553.0	4,272,337.0	815.00				Average	
		point22	22	5,260,427.5	4,272,341.5	813.00				Average	
		point23	23	5,260,316.0	4,272,357.0	812.00				Average	
		point24	24	5,259,759.5	4,272,458.0	802.00				Average	
		point25	25	5,259,533.5	4,272,494.0	798.00					

Rd3 ; SB on Fr Dixie2	12.0	point26	26	5,259,533.5	4,272,494.0	798.00				Average	
		point27	27	5,259,361.0	4,272,509.0	793.00				Average	
		point28	28	5,259,164.0	4,272,505.5	789.00				Average	
		point29	29	5,259,035.0	4,272,477.0	786.00					
Rd4 ; NB Dixie H'way to Off to 751	24.0	point30	30	5,260,940.0	4,270,810.0	860.00				Average	
		point31	31	5,260,993.5	4,271,125.5	861.50				Average	
		point32	32	5,261,014.0	4,271,229.0	860.50					
Rd5 ; NB Dixie Off - Off1	24.0	point33	33	5,261,014.0	4,271,229.0	860.50				Average	
		point34	34	5,261,116.0	4,271,770.0	849.50					
Rd6 ; NB Dixie Over 711	24.0	point35	35	5,261,116.0	4,271,770.0	849.50				Average	
		point36	36	5,261,179.0	4,272,097.5	844.50				Average	Y
		point37	37	5,261,205.0	4,272,211.0	841.70				Average	Y
		point38	38	5,261,228.5	4,272,296.0	839.00				Average	Y
		point39	39	5,261,249.0	4,272,370.0	836.50				Average	
		point40	40	5,261,262.0	4,272,406.0	835.00					
Rd7 ; SB 71 Off to NB Dixie1	12.0	point41	41	5,261,568.0	4,272,518.0	824.50				Average	
		point42	42	5,261,526.0	4,272,498.0	826.00				Average	
		point43	43	5,261,442.5	4,272,467.0	828.50				Average	
		point44	44	5,261,396.0	4,272,457.0	830.00				Average	
		point45	45	5,261,362.0	4,272,464.0	830.50				Average	
		point46	46	5,261,335.5	4,272,494.0	830.50				Average	
		point47	47	5,261,308.0	4,272,539.0	830.50					
Rd8 ; NB Dixie Off SB - Off NB1	24.0	point48	48	5,261,262.0	4,272,406.0	835.00				Average	Y
		point49	49	5,261,308.0	4,272,539.0	830.50					
Rd9 ; NB Dixie Fr 71 Off1	24.0	point50	50	5,261,308.0	4,272,539.0	830.50				Average	
		point51	51	5,261,414.0	4,272,779.0	822.00				Average	
		point52	52	5,261,496.0	4,272,938.0	820.00					
Rd10 ; SB Dixie to On to SB 711	24.0	point53	53	5,261,485.0	4,272,968.0	820.50				Average	
		point54	54	5,261,378.0	4,272,778.0	823.00				Average	
		point55	55	5,261,294.5	4,272,600.0	829.00				Average	
		point56	56	5,261,237.0	4,272,448.0	834.50				Average	Y
		point57	57	5,261,221.0	4,272,395.0	836.50					
Rd11 ; SB Dixie Over 711	24.0	point58	58	5,261,221.0	4,272,395.0	836.50				Average	Y
		point59	59	5,261,189.5	4,272,288.0	840.00				Average	Y
		point60	60	5,261,139.5	4,272,090.5	845.50				Average	Y
		point61	61	5,261,066.5	4,271,699.0	850.50					
Rd12 ; SB Dixie Fr NB On1	24.0	point62	62	5,261,066.5	4,271,699.0	850.50				Average	
		point63	63	5,260,945.5	4,271,036.5	862.00				Average	
		point64	64	5,260,904.5	4,270,815.0	859.70					

Rd13 ; NB 1072 to NB 75 On1	24.0	point65	65	5,265,174.5	4,274,245.0	864.00				Average	
		point66	66	5,265,101.5	4,274,480.0	875.00				Average	
		point67	67	5,265,072.0	4,274,577.0	881.00				Average	
		point68	68	5,265,044.0	4,274,649.0	885.50				Average	
		point69	69	5,264,999.0	4,274,745.0	891.00					
Rd14 ; NB 1072 Over 751	24.0	point70	70	5,264,999.0	4,274,745.0	891.00				Average	
		point71	71	5,264,827.0	4,275,016.0	897.00				Average	Y
		point72	72	5,264,692.0	4,275,228.0	900.00				Average	Y
		point73	73	5,264,597.0	4,275,390.0	900.00				Average	Y
		point74	74	5,264,576.0	4,275,439.0	899.50					
Rd16 ; SB 1072 to On to SB 751	24.0	point77	77	5,264,266.0	4,275,976.0	898.00				Average	
		point78	78	5,264,538.0	4,275,422.0	900.00					
Rd17 ; SB 1072 Over 751	24.0	point79	79	5,264,538.0	4,275,422.0	900.00				Average	
		point80	80	5,264,587.0	4,275,332.0	900.00				Average	Y
		point81	81	5,264,659.0	4,275,215.0	900.00				Average	Y
		point82	82	5,264,793.0	4,275,002.0	897.00				Average	Y
		point83	83	5,264,964.5	4,274,733.0	889.50					
Rd18 ; SB 1072 Fr On fr NB 751	24.0	point84	84	5,264,964.5	4,274,733.0	889.50				Average	
		point85	85	5,265,000.0	4,274,659.0	885.00				Average	
		point86	86	5,265,034.0	4,274,578.0	880.00				Average	
		point87	87	5,265,160.0	4,274,199.0	863.00					
Rd53 ; NB Off to CD Rd @ Dixie(1)1	12.0	point88	88	5,259,403.0	4,272,396.0	790.50				Average	
		point89	89	5,259,499.0	4,272,369.0	793.00				Average	
		point90	90	5,259,748.0	4,272,302.0	801.00					
Rd53 ; NB Off to CD Rd @ Dixie(1)2	12.0	point91	91	5,259,748.0	4,272,302.0	801.00				Average	
		point92	92	5,260,144.0	4,272,195.5	811.00					
Rd54 ; NB Off to Dixie(1)1	12.0	point93	93	5,260,144.0	4,272,195.5	811.00				Average	
		point94	94	5,260,242.0	4,272,168.0	814.50				Average	
		point95	95	5,260,352.0	4,272,129.0	819.50				Average	
		point96	96	5,260,472.0	4,272,078.0	825.50				Average	
		point97	97	5,260,650.0	4,271,985.5	835.00				Average	
		point98	98	5,260,783.5	4,271,902.0	841.50				Average	
		point99	99	5,261,066.5	4,271,699.0	850.50					
Rd55 ; NB CD Rd Dixie Off-On1	12.0	point100	100	5,260,144.0	4,272,195.5	811.00				Average	
		point101	101	5,260,316.0	4,272,168.0	814.00				Average	
		point102	102	5,260,625.0	4,272,108.0	815.20				Average	
		point103	103	5,260,723.0	4,272,095.0	815.10				Average	
		point104	104	5,260,886.0	4,272,081.5	813.80				Average	
		point105	105	5,261,050.5	4,272,085.0	813.60				Average	Y

		point106	106	5,261,163.0	4,272,097.5	814.50				Average	Y
		point107	107	5,261,230.0	4,272,109.0	814.90				Average	Y
		point108	108	5,261,312.0	4,272,129.0	815.00				Average	
		point109	109	5,261,424.5	4,272,166.0	816.30				Average	
		point110	110	5,261,528.0	4,272,208.0	817.50				Average	
		point111	111	5,261,643.0	4,272,267.0	818.20				Average	
		point112	112	5,261,760.0	4,272,343.0	819.00				Average	
		point113	113	5,261,875.0	4,272,436.0	820.10				Average	
		point114	114	5,262,209.0	4,272,772.0	822.30				Average	
		point115	115	5,262,259.5	4,272,811.0	824.00					
Rd56 ; NB ON fr Dixie to CD Rd(1)1	12.0	point116	116	5,261,542.0	4,271,829.0	834.50				Average	
		point117	117	5,261,609.0	4,271,867.0	832.50				Average	
		point118	118	5,261,673.0	4,271,919.0	830.00				Average	
		point119	119	5,261,728.0	4,271,985.0	827.50				Average	
		point120	120	5,261,753.0	4,272,026.0	825.50				Average	
		point121	121	5,261,915.0	4,272,369.0	818.90				Average	
		point122	122	5,261,976.5	4,272,480.0	819.10				Average	
		point123	123	5,262,040.0	4,272,564.0	819.80				Average	
		point124	124	5,262,223.0	4,272,758.0	821.50				Average	
		point125	125	5,262,259.5	4,272,811.0	824.00					
Rd57 ; NB CD Rd Dixie On-1lane(2)1	24.0	point126	126	5,262,259.5	4,272,811.0	824.00				Average	Y
		point127	127	5,262,380.0	4,272,936.0	826.00				Average	Y
		point128	128	5,262,770.5	4,273,343.0	828.00					
Rd58 ; NB CD 2lane-Off to 1072(1)1	12.0	point129	129	5,262,770.5	4,273,343.0	828.00				Average	
		point130	130	5,262,963.0	4,273,550.0	834.00				Average	
		point131	131	5,263,491.0	4,274,094.0	849.30				Average	Y
		point132	132	5,263,593.5	4,274,196.0	855.00				Average	Y
		point133	133	5,263,711.0	4,274,311.0	857.80				Average	
		point134	134	5,263,885.5	4,274,467.0	859.00					
Rd59 ; NB CD 1072 Off-75 On(1)1	12.0	point135	135	5,263,885.5	4,274,467.0	859.00				Average	
		point136	136	5,263,929.0	4,274,517.5	861.00				Average	
		point137	137	5,264,109.0	4,274,670.0	871.00				Average	
		point138	138	5,264,291.0	4,274,800.0	875.50				Average	
		point139	139	5,264,459.0	4,274,898.5	877.30				Average	
		point140	140	5,264,597.0	4,274,970.0	877.80				Average	
		point141	141	5,264,734.0	4,275,030.0	877.00				Average	Y
		point142	142	5,264,831.0	4,275,069.5	873.00				Average	Y
		point143	143	5,265,126.0	4,275,189.0	865.40				Average	
		point144	144	5,265,181.0	4,275,236.0	860.00					

Rd60 ; NB On fr 1072(1)1	12.0	point145	145	5,264,999.0	4,274,745.0	891.00				Average	
		point146	146	5,265,042.0	4,274,795.0	891.00				Average	
		point147	147	5,265,328.0	4,275,123.0	861.00				Average	
		point148	148	5,265,361.0	4,275,158.0	860.00				Average	
		point149	149	5,265,425.0	4,275,218.0	854.00				Average	
		point150	150	5,265,494.0	4,275,272.0	848.00				Average	
		point151	151	5,265,567.0	4,275,319.0	842.00				Average	
		point152	152	5,265,625.0	4,275,351.0	838.00				Average	
		point153	153	5,265,719.5	4,275,395.0	832.00				Average	
		point154	154	5,265,910.0	4,275,468.0	823.00				Average	
		point155	155	5,265,967.0	4,275,511.0	815.00					
Rd 61 ; NB On Fr Svc + 1072(2)1	24.0	point156	156	5,265,967.0	4,275,511.0	815.00				Average	
		point157	157	5,266,018.0	4,275,548.5	814.00					
Rd62 ; NB Off to 1072(1)1	12.0	point158	158	5,263,885.5	4,274,467.0	859.00				Average	
		point159	159	5,263,951.0	4,274,498.0	861.00				Average	
		point160	160	5,264,161.5	4,274,654.5	868.00				Average	
		point161	161	5,264,225.0	4,274,694.0	870.60				Average	
		point162	162	5,264,305.0	4,274,727.5	873.20				Average	
		point163	163	5,264,380.5	4,274,748.0	875.40				Average	
		point164	164	5,264,469.5	4,274,761.5	877.00				Average	
		point165	165	5,264,560.0	4,274,759.0	879.00				Average	
		point166	166	5,264,964.5	4,274,733.0	889.50					
Rd63 ; NB 75 3 lane-4lane(3)1	36.0	point167	167	5,259,403.0	4,272,396.0	790.50				Average	
		point168	168	5,259,523.0	4,272,382.0	795.00				Average	
		point169	169	5,259,658.0	4,272,361.0	799.00				Average	
		point170	170	5,259,755.0	4,272,339.0	802.00					
Rd63 ; NB 75 3 lane-4lane(3)2	36.0	point171	171	5,259,755.0	4,272,339.0	802.00				Average	
		point172	172	5,260,446.0	4,272,204.0	814.50				Average	
		point173	173	5,260,523.5	4,272,190.0	815.00				Average	
		point174	174	5,260,737.0	4,272,150.0	815.50				Average	
		point175	175	5,260,871.0	4,272,134.0	815.00				Average	
		point176	176	5,260,977.5	4,272,129.0	815.00				Average	
		point177	177	5,261,098.0	4,272,136.0	815.00				Average	Y
		point178	178	5,261,220.0	4,272,156.0	816.00				Average	Y
		point179	179	5,261,324.0	4,272,183.0	816.50				Average	
		point180	180	5,261,431.0	4,272,219.0	817.50				Average	
		point181	181	5,261,515.5	4,272,256.0	817.50				Average	
		point182	182	5,261,590.0	4,272,293.0	818.50				Average	
		point183	183	5,261,690.0	4,272,354.0	819.00				Average	

		point184	184	5,261,791.0	4,272,428.0	820.00				Average	
		point185	185	5,261,932.0	4,272,560.5	821.00				Average	
		point186	186	5,262,030.0	4,272,665.0	822.00					
Rd64 ; NB 75 4Lane-5Lane(4)1	48.0	point187	187	5,262,030.0	4,272,665.0	822.00				Average	
		point188	188	5,262,233.0	4,272,875.0	823.50				Average	Y
		point189	189	5,262,340.0	4,272,986.0	825.00				Average	Y
		point190	190	5,262,486.0	4,273,136.0	826.00				Average	
		point191	191	5,263,442.0	4,274,122.0	848.50				Average	Y
		point192	192	5,263,552.5	4,274,237.0	852.00				Average	Y
		point193	193	5,263,660.0	4,274,346.0	855.50				Average	
		point194	194	5,263,835.0	4,274,515.0	861.00				Average	
		point195	195	5,263,955.0	4,274,619.0	865.00				Average	
		point196	196	5,264,104.5	4,274,734.0	870.00				Average	
		point197	197	5,264,252.0	4,274,832.0	874.00				Average	
		point198	198	5,264,364.5	4,274,898.0	876.00				Average	
		point199	199	5,264,471.0	4,274,954.0	877.00				Average	
		point200	200	5,264,572.0	4,275,003.0	877.00				Average	
		point201	201	5,264,717.0	4,275,065.0	875.00				Average	Y
		point202	202	5,264,811.0	4,275,101.5	873.00				Average	Y
		point203	203	5,264,976.0	4,275,165.0	869.00				Average	
		point204	204	5,265,181.0	4,275,236.0	860.00					
Rd65 ; NB 75 Svc Rd On-1072 On(5)1	60.0	point205	205	5,265,181.0	4,275,236.0	860.00				Average	
		point206	206	5,265,893.0	4,275,509.0	822.00				Average	
		point207	207	5,266,018.0	4,275,548.5	814.00					
Rd121 ; SB 75 1072 Off-5 lane(6)1	72.0	point208	208	5,266,143.0	4,275,703.0	806.00				Average	
		point209	209	5,265,968.0	4,275,641.0	814.00				Average	
		point210	210	5,265,765.0	4,275,563.0	827.00				Average	
		point211	211	5,265,163.0	4,275,334.0	861.00				Average	
		point212	212	5,264,934.0	4,275,247.0	874.50				Average	
		point213	213	5,264,764.0	4,275,176.0	877.00				Average	Y
		point214	214	5,264,670.5	4,275,138.0	877.00				Average	Y
		point215	215	5,264,647.0	4,275,128.0	877.00					
Rd122 ; SB 75 5lane-4lane (5)1	60.0	point216	216	5,264,647.0	4,275,128.0	877.00				Average	
		point217	217	5,264,515.0	4,275,069.0	877.30				Average	
		point218	218	5,264,399.0	4,275,012.5	877.00				Average	
		point219	219	5,264,257.5	4,274,934.0	875.50				Average	
		point220	220	5,264,131.0	4,274,854.0	869.00				Average	
		point221	221	5,264,018.0	4,274,774.0	866.30				Average	
		point222	222	5,263,907.0	4,274,688.5	866.00				Average	

		point223	223	5,263,800.0	4,274,598.0	862.00				Average	
		point224	224	5,263,492.0	4,274,295.0	852.00				Average	Y
		point225	225	5,263,381.0	4,274,181.0	847.30				Average	Y
		point226	226	5,263,266.0	4,274,063.0	845.00				Average	
		point227	227	5,262,917.0	4,273,704.0	837.50				Average	
		point228	228	5,262,704.0	4,273,473.0	832.00					
Rd140 ; SB Off to CD @ 1072(1)1	12.0	point229	229	5,266,143.0	4,275,703.0	806.00				Average	
		point230	230	5,265,963.5	4,275,706.0	814.00				Average	
		point231	231	5,265,853.0	4,275,673.0	821.00				Average	
		point232	232	5,265,693.0	4,275,618.0	831.70					
Rd141 ; SB CD 1072 off-on(1)1	12.0	point233	233	5,265,693.0	4,275,618.0	831.70				Average	
		point234	234	5,265,602.0	4,275,573.0	836.30				Average	
		point235	235	5,265,363.0	4,275,480.0	854.00				Average	
		point236	236	5,264,993.0	4,275,338.5	869.10				Average	
		point237	237	5,264,738.0	4,275,243.0	874.30				Average	
		point238	238	5,264,725.0	4,275,237.0	874.40				Average	Y
		point239	239	5,264,633.0	4,275,198.0	877.00				Average	Y
		point240	240	5,264,608.0	4,275,187.0	877.30				Average	
		point241	241	5,264,460.5	4,275,117.5	877.20				Average	
		point242	242	5,264,293.0	4,275,028.0	875.50				Average	
		point243	243	5,264,149.0	4,274,939.0	871.00				Average	
		point244	244	5,263,990.5	4,274,830.0	868.50				Average	
		point245	245	5,263,879.0	4,274,744.0	866.20				Average	
		point246	246	5,263,726.0	4,274,611.0	864.50				Average	
		point247	247	5,263,680.0	4,274,581.0	861.80					
Rd142 ; SB CD 1072 on-1 lane(2)1	24.0	point248	248	5,263,680.0	4,274,581.0	861.80				Average	
		point249	249	5,263,538.0	4,274,440.0	856.00				Average	
		point250	250	5,263,444.0	4,274,341.0	850.50				Average	Y
		point251	251	5,263,333.5	4,274,227.0	846.00				Average	Y
		point252	252	5,263,143.0	4,274,028.0	842.00					
Rd143 ; SB CD 2 lane-Dixie Off(1)1	12.0	point253	253	5,263,143.0	4,274,028.0	842.00				Average	
		point254	254	5,262,832.0	4,273,698.5	837.00				Average	
		point255	255	5,262,598.0	4,273,450.0	830.00				Average	
		point256	256	5,262,400.0	4,273,238.0	826.80				Average	
		point257	257	5,262,263.0	4,273,101.0	826.00				Average	Y
		point258	258	5,262,153.0	4,272,990.0	823.60				Average	Y
		point259	259	5,262,038.0	4,272,876.0	822.30					
Rd144 ; SB 75 - CD on @ Dixie(4)1	48.0	point260	260	5,262,704.0	4,273,473.0	832.00				Average	
		point261	261	5,262,453.0	4,273,215.0	824.00				Average	

		point262	262	5,262,295.0	4,273,052.0	821.00				Average	Y
		point263	263	5,262,188.0	4,272,941.0	820.10				Average	Y
		point264	264	5,262,129.5	4,272,882.0	819.30				Average	
		point265	265	5,261,894.0	4,272,638.0	818.60				Average	
		point266	266	5,261,753.0	4,272,501.0	817.80				Average	
		point267	267	5,261,645.0	4,272,416.0	817.00				Average	
		point268	268	5,261,547.0	4,272,354.0	816.50				Average	
		point269	269	5,261,438.0	4,272,300.0	815.90				Average	
		point270	270	5,261,330.0	4,272,259.0	815.20				Average	
		point271	271	5,261,239.0	4,272,235.0	814.70				Average	Y
		point272	272	5,261,145.0	4,272,216.0	813.90				Average	Y
		point273	273	5,261,023.0	4,272,202.0	813.70				Average	
		point274	274	5,260,904.5	4,272,204.0	814.30				Average	
		point275	275	5,260,797.0	4,272,213.5	815.10				Average	
		point276	276	5,260,665.0	4,272,243.0	815.30					
Rd145 ; SB 75 fr CD on @ Dixie(5)1	60.0	point277	277	5,260,665.0	4,272,243.0	815.30				Average	
		point278	278	5,260,418.5	4,272,291.0	810.50				Average	
		point279	279	5,259,987.0	4,272,375.0	805.30				Average	
		point280	280	5,259,756.0	4,272,420.0	802.00				Average	
		point281	281	5,259,539.0	4,272,457.0	796.00					
Rd145 ; SB 75 fr CD on @ Dixie(5)2	60.0	point282	282	5,259,539.0	4,272,457.0	796.00				Average	
		point283	283	5,259,362.5	4,272,476.0	791.00				Average	
		point284	284	5,259,207.5	4,272,480.5	788.00				Average	
		point285	285	5,259,035.0	4,272,477.0	786.00					
Rd146 ; SB CD Dixie Off-75(1)1	12.0	point286	286	5,262,038.0	4,272,876.0	822.30				Average	
		point287	287	5,261,966.0	4,272,791.0	820.10				Average	
		point288	288	5,261,810.0	4,272,626.0	818.50				Average	
		point289	289	5,261,707.0	4,272,526.0	817.90				Average	
		point290	290	5,261,625.0	4,272,458.0	817.40				Average	
		point291	291	5,261,531.0	4,272,398.5	816.80				Average	
		point292	292	5,261,472.5	4,272,366.5	816.40				Average	
		point293	293	5,261,401.5	4,272,332.0	815.90				Average	
		point294	294	5,261,334.0	4,272,305.0	814.90				Average	
		point295	295	5,261,249.0	4,272,279.0	814.70				Average	Y
		point296	296	5,261,155.0	4,272,258.0	814.20				Average	Y
		point297	297	5,261,127.0	4,272,252.0	814.10				Average	
		point298	298	5,261,018.5	4,272,240.0	813.60				Average	
		point299	299	5,260,926.0	4,272,238.0	813.80				Average	
		point300	300	5,260,833.0	4,272,243.0	814.40				Average	

		point301	301	5,260,740.0	4,272,256.0	815.10				Average	
		point302	302	5,260,665.0	4,272,243.0	815.30					
Rd147 ; SB off to Dixie(1)1	12.0	point303	303	5,262,038.0	4,272,876.0	822.30				Average	
		point304	304	5,261,946.0	4,272,803.0	821.50				Average	
		point305	305	5,261,756.0	4,272,626.0	819.80				Average	
		point306	306	5,261,693.0	4,272,576.0	821.60				Average	
		point307	307	5,261,582.0	4,272,507.0	824.50					
Rd148 ; SB Off to SB dixie(2)1	24.0	point308	308	5,261,582.0	4,272,505.5	824.50				Average	
		point309	309	5,261,513.0	4,272,475.0	825.00				Average	
		point310	310	5,261,436.0	4,272,446.0	828.00				Average	
		point311	311	5,261,339.0	4,272,422.0	830.50				Average	
		point312	312	5,261,262.0	4,272,406.0	835.00					
Rd149 ; SB Off @ Dixie (2)1	24.0	point313	313	5,261,262.0	4,272,406.0	835.00				Average	
		point314	314	5,261,221.0	4,272,395.0	836.50					
Rd150 ; SB Off to 1072(1)1	12.0	point315	315	5,265,693.0	4,275,618.0	831.70				Average	
		point316	316	5,265,591.0	4,275,593.0	836.30				Average	
		point317	317	5,265,477.0	4,275,560.0	851.00				Average	
		point318	318	5,265,348.0	4,275,531.0	860.00				Average	
		point319	319	5,265,098.0	4,275,497.0	879.50					
Rd151 ; SB Off to 1072(2)1	24.0	point320	320	5,265,098.0	4,275,497.0	879.50				Average	
		point321	321	5,264,576.0	4,275,439.0	899.50					
Rd152 ; SB On fr Dixie(1)1	12.0	point322	322	5,264,538.0	4,275,422.0	900.00				Average	
		point323	323	5,264,091.0	4,274,984.0	883.50				Average	
		point324	324	5,263,711.0	4,274,626.0	864.50				Average	
		point325	325	5,263,680.0	4,274,581.0	861.80					
Rd254; NB 75 to On Fr Butter (3)1	36.0	point326	326	5,255,351.0	4,271,358.0	788.00				Average	
		point327	327	5,255,509.0	4,271,481.5	782.00				Average	
		point328	328	5,255,681.0	4,271,601.0	776.00				Average	
		point329	329	5,255,849.0	4,271,705.0	771.00				Average	
		point330	330	5,256,105.0	4,271,842.0	768.00				Average	
		point331	331	5,256,294.0	4,271,924.0	769.00				Average	
		point332	332	5,256,463.5	4,271,990.0	773.00				Average	
		point333	333	5,256,586.0	4,272,033.0	776.50				Average	
		point334	334	5,256,750.5	4,272,083.0	782.00				Average	
		point335	335	5,256,964.0	4,272,133.0	790.50				Average	
		point336	336	5,257,129.0	4,272,165.0	796.00				Average	
		point337	337	5,257,778.0	4,272,249.0	806.30					
Rd255; NB 75 Butte On-Dixie Off (31	36.0	point338	338	5,257,778.0	4,272,249.0	806.30				Average	
		point339	339	5,258,067.0	4,272,286.0	804.00				Average	

		point340	340	5,258,874.5	4,272,387.0	785.00				Average	
		point341	341	5,259,041.0	4,272,401.0	785.00				Average	
		point342	342	5,259,216.0	4,272,406.0	786.50				Average	
		point343	343	5,259,403.0	4,272,396.0	790.50					
Rd256; NB On Fr EB Butter (1)1	12.0	point344	344	5,255,375.0	4,271,318.0	786.00				Average	
		point345	345	5,255,498.0	4,271,415.5	781.50				Average	
		point346	346	5,255,635.0	4,271,515.0	776.50				Average	
		point347	347	5,255,812.0	4,271,618.0	770.50					
Rd257; NB On Fr WB Butter (1)1	12.0	point348	348	5,255,386.0	4,271,303.0	785.50				Average	
		point349	349	5,255,520.0	4,271,410.0	780.50				Average	
		point350	350	5,255,630.5	4,271,492.0	776.50				Average	
		point351	351	5,255,812.0	4,271,618.0	770.50					
Rd258; NB On Fr Butter (1)1	12.0	point352	352	5,255,812.0	4,271,618.0	770.50				Average	
		point353	353	5,255,974.0	4,271,718.5	767.50				Average	
		point354	354	5,256,141.0	4,271,811.0	766.00				Average	
		point355	355	5,256,303.0	4,271,883.0	768.00				Average	
		point356	356	5,256,467.0	4,271,951.0	771.00				Average	
		point357	357	5,256,597.0	4,272,000.0	775.00				Average	
		point358	358	5,256,798.5	4,272,062.0	782.50				Average	
		point359	359	5,256,953.5	4,272,104.0	789.00				Average	
		point360	360	5,257,158.0	4,272,143.0	796.00				Average	
		point361	361	5,257,444.0	4,272,182.0	803.50				Average	
		point362	362	5,257,632.0	4,272,213.0	805.50				Average	
		point363	363	5,257,778.0	4,272,249.0	806.30					
Rd259; SB 75 to End (5)1	60.0	point364	364	5,259,035.0	4,272,477.0	786.00				Average	
		point365	365	5,258,911.0	4,272,464.0	786.30				Average	
		point366	366	5,258,789.0	4,272,450.0	786.30				Average	
		point367	367	5,258,488.0	4,272,412.0	793.20				Average	
		point368	368	5,258,128.5	4,272,366.5	802.60				Average	
		point369	369	5,257,966.5	4,272,349.0	805.00				Average	
		point370	370	5,257,719.0	4,272,318.0	806.70				Average	
		point371	371	5,257,425.0	4,272,280.0	804.60				Average	
		point372	372	5,257,288.0	4,272,261.5	801.90				Average	
		point373	373	5,257,133.0	4,272,241.0	798.20				Average	
		point374	374	5,256,917.5	4,272,200.0	791.50				Average	
		point375	375	5,256,744.0	4,272,158.0	784.10				Average	
		point376	376	5,256,574.0	4,272,106.5	776.90				Average	
		point377	377	5,256,449.5	4,272,065.5	774.00				Average	
		point378	378	5,256,260.5	4,271,992.0	770.20				Average	

		point379	379	5,256,080.0	4,271,910.5	768.90				Average	
		point380	380	5,255,913.5	4,271,827.0	770.00				Average	
		point381	381	5,255,715.0	4,271,709.5	773.70				Average	
		point382	382	5,255,562.0	4,271,610.0	779.30				Average	
		point383	383	5,255,393.5	4,271,487.0	785.10				Average	
		point384	384	5,255,299.0	4,271,410.0	788.70					
Rd15 NB 1072 Fr SB 75 Off	36.0	point385	385	5,264,577.5	4,275,443.5	899.50				Average	
		point386	386	5,264,282.5	4,276,017.0	899.00					

PEC 8 August 2023
ZR TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S2
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R412(K1272)	350	1	60.9	61.9	66	1.0	10	----	61.9	0.0	7	-7.0
R460(K1532)	398	1	47.0	48.7	66	1.7	10	----	48.7	0.0	7	-7.0
R465(K1502)	403	1	40.5	41.9	66	1.4	10	----	41.9	0.0	7	-7.0
R468(K1545)	406	1	49.1	49.7	66	0.6	10	----	49.7	0.0	7	-7.0
R469(KV91)	407	1	56.0	58.4	66	2.4	10	----	58.4	0.0	7	-7.0
R473(K1506)	411	1	48.7	47.3	66	-1.4	10	----	47.3	0.0	7	-7.0
R474(KV91)	412	1	57.2	59.7	66	2.5	10	----	59.7	0.0	7	-7.0
M-36(K1573)	414	1	70.8	74.9	66	4.1	10	Snd Lvl	74.9	0.0	7	-7.0
R476(K1520)	415	1	48.7	50.1	66	1.4	10	----	50.1	0.0	7	-7.0
R477(K1560)	416	1	49.1	50.1	66	1.0	10	----	50.1	0.0	7	-7.0
R479(K1307 R-62)	419	1	67.7	65.9	66	-1.8	10	----	65.9	0.0	7	-7.0
R481(K1509)	421	1	54.4	54.5	66	0.1	10	----	54.5	0.0	7	-7.0
R483(K1179)	423	1	48.1	50.6	66	2.5	10	----	50.6	0.0	7	-7.0
R484(K1981)	424	1	42.6	43.3	66	0.7	10	----	43.3	0.0	7	-7.0
R486(K1191)	426	1	47.7	48.6	66	0.9	10	----	48.6	0.0	7	-7.0
R487(K1533)	427	1	54.4	51.8	66	-2.6	10	----	51.8	0.0	7	-7.0
R490(K1171)	430	1	45.1	47.1	66	2.0	10	----	47.1	0.0	7	-7.0
R491(K1187)	431	1	34.1	37.2	66	3.1	10	----	37.2	0.0	7	-7.0
R492(K1180)	432	1	45.1	46.3	66	1.2	10	----	46.3	0.0	7	-7.0
R493(K1559)	433	1	53.2	53.3	66	0.1	10	----	53.3	0.0	7	-7.0
R494(K1568)	434	1	53.5	53.8	66	0.3	10	----	53.8	0.0	7	-7.0
R495(K1615)	435	1	73.3	76.1	66	2.8	10	Snd Lvl	76.1	0.0	7	-7.0
R496(K2006)	436	1	62.4	65.8	66	3.4	10	----	65.8	0.0	7	-7.0
M-38(K1609)	437	1	71.9	74.6	66	2.7	10	Snd Lvl	74.6	0.0	7	-7.0

R499(K1172)	440	1	44.8	46.1	66	1.3	10	----	46.1	0.0	7	-7.0
R500(K1620)	441	1	72.4	75.6	66	3.2	10	Snd Lvl	75.6	0.0	7	-7.0
R501(K2004)	442	1	64.7	68.8	66	4.1	10	Snd Lvl	68.8	0.0	7	-7.0
R502(K2005)	443	1	64.0	68.2	66	4.2	10	Snd Lvl	68.2	0.0	7	-7.0
R503(K1622)	444	1	72.1	75.5	66	3.4	10	Snd Lvl	75.5	0.0	7	-7.0
R504(K1630)	445	1	71.2	74.6	66	3.4	10	Snd Lvl	74.6	0.0	7	-7.0
R505(K1674)	446	1	66.1	70.3	66	4.2	10	Snd Lvl	70.3	0.0	7	-7.0
M-31(K1979)	447	1	70.0	69.7	66	-0.3	10	Snd Lvl	69.7	0.0	7	-7.0
R507(K1564)	449	1	63.0	62.2	66	-0.8	10	----	62.2	0.0	7	-7.0
R508(K1627)	450	1	71.5	74.9	66	3.4	10	Snd Lvl	74.9	0.0	7	-7.0
R509(K1573)	451	1	69.4	71.1	66	1.7	10	Snd Lvl	71.1	0.0	7	-7.0
R510(K1670 R-61)	452	1	67.2	71.5	66	4.3	10	Snd Lvl	71.5	0.0	7	-7.0
R512(K1642)	454	1	69.7	73.6	66	3.9	10	Snd Lvl	73.6	0.0	7	-7.0
R514(K1174)	456	1	47.4	48.3	66	0.9	10	----	48.3	0.0	7	-7.0
R515(K1569)	457	1	65.1	64.3	66	-0.8	10	----	64.3	0.0	7	-7.0
R516(K1638)	458	1	69.7	73.4	66	3.7	10	Snd Lvl	73.4	0.0	7	-7.0
R517(K1652)	459	1	67.5	71.6	66	4.1	10	Snd Lvl	71.6	0.0	7	-7.0
R518(K1665)	460	1	67.6	71.7	66	4.1	10	Snd Lvl	71.7	0.0	7	-7.0
R519(K2012)	461	1	58.9	59.5	66	0.6	10	----	59.5	0.0	7	-7.0
R520(K2014)	462	1	61.9	61.8	66	-0.1	10	----	61.8	0.0	7	-7.0
M-35(K1503)	464	1	70.8	70.9	66	0.1	10	Snd Lvl	70.9	0.0	7	-7.0
R523(K1578)	466	1	59.7	59.1	66	-0.6	10	----	59.1	0.0	7	-7.0
R525(K1570)	468	1	70.3	70.2	66	-0.1	10	Snd Lvl	70.2	0.0	7	-7.0
R526(K2009)	469	1	56.7	58.4	66	1.7	10	----	58.4	0.0	7	-7.0
R527(K2011)	470	1	57.5	58.9	66	1.4	10	----	58.9	0.0	7	-7.0
M-30(K1176)	471	1	66.9	68.4	66	1.5	10	Snd Lvl	68.4	0.0	7	-7.0
R530(K1181)	474	1	52.9	54.1	66	1.2	10	----	54.1	0.0	7	-7.0
R531(K1621)	475	1	67.6	71.0	66	3.4	10	Snd Lvl	71.0	0.0	7	-7.0
R532(K2008)	476	1	56.2	58.2	66	2.0	10	----	58.2	0.0	7	-7.0
M-37(K1616)	477	1	66.4	69.6	66	3.2	10	Snd Lvl	69.6	0.0	7	-7.0
R533(K2007)	478	1	56.8	59.2	66	2.4	10	----	59.2	0.0	7	-7.0
R535(K1705)	480	1	56.5	60.0	66	3.5	10	----	60.0	0.0	7	-7.0
R536(K2024)	481	1	64.1	64.0	66	-0.1	10	----	64.0	0.0	7	-7.0
R537(K85)	482	1	66.3	67.8	66	1.5	10	Snd Lvl	67.8	0.0	7	-7.0
R538(K1602)	483	1	69.4	70.6	66	1.2	10	Snd Lvl	70.6	0.0	7	-7.0
R539(K1611)	484	1	63.8	65.4	66	1.6	10	----	65.4	0.0	7	-7.0
R540(K1624)	485	1	66.2	69.4	66	3.2	10	Snd Lvl	69.4	0.0	7	-7.0
R541(K1629)	487	1	64.2	67.5	66	3.3	10	Snd Lvl	67.5	0.0	7	-7.0
R542(K1632)	488	1	62.1	65.7	66	3.6	10	----	65.7	0.0	7	-7.0
R545(K1608)	491	1	72.1	73.6	66	1.5	10	Snd Lvl	73.6	0.0	7	-7.0
R546(K1613)	492	1	61.1	63.7	66	2.6	10	----	63.7	0.0	7	-7.0

R547(K1637)	493	1	60.7	64.4	66	3.7	10	----	64.4	0.0	7	-7.0
R548(K1699)	494	1	57.1	60.8	66	3.7	10	----	60.8	0.0	7	-7.0
R550(K1695)	496	1	58.4	62.1	66	3.7	10	----	62.1	0.0	7	-7.0
R551(K2019)	497	1	56.0	56.8	66	0.8	10	----	56.8	0.0	7	-7.0
R552(K2023)	498	1	58.4	58.9	66	0.5	10	----	58.9	0.0	7	-7.0
R553(K2031)	499	1	61.2	61.7	66	0.5	10	----	61.7	0.0	7	-7.0
R554(K1677)	500	1	59.0	62.6	66	3.6	10	----	62.6	0.0	7	-7.0
R555(K1687)	501	1	58.8	62.3	66	3.5	10	----	62.3	0.0	7	-7.0
R556(K2018)	502	1	54.3	55.6	66	1.3	10	----	55.6	0.0	7	-7.0
R557(K2037)	503	1	69.4	70.3	66	0.9	10	Snd Lvl	70.3	0.0	7	-7.0
R558(K1626)	504	1	58.5	61.7	66	3.2	10	----	61.7	0.0	7	-7.0
R559(K1648)	505	1	59.6	63.5	66	3.9	10	----	63.5	0.0	7	-7.0
R560(K1668)	506	1	59.2	63.1	66	3.9	10	----	63.1	0.0	7	-7.0
R561(K1672)	507	1	59.4	63.1	66	3.7	10	----	63.1	0.0	7	-7.0
R562(K2013)	508	1	52.2	54.2	66	2.0	10	----	54.2	0.0	7	-7.0
R563(K2015)	509	1	53.0	55.1	66	2.1	10	----	55.1	0.0	7	-7.0
R565(K1713)	511	1	52.4	54.0	66	1.6	10	----	54.0	0.0	7	-7.0
R566(K2038)	512	1	64.7	62.2	66	-2.5	10	----	62.2	0.0	7	-7.0
R569(K1712)	515	1	52.7	54.3	66	1.6	10	----	54.3	0.0	7	-7.0
R570(K2036)	516	1	60.0	60.1	66	0.1	10	----	60.1	0.0	7	-7.0
R572(K1635)	518	1	55.5	59.3	66	3.8	10	----	59.3	0.0	7	-7.0
R573(K1617)	519	1	68.0	69.6	66	1.6	10	Snd Lvl	69.6	0.0	7	-7.0
R577(K1623)	523	1	65.5	67.4	66	1.9	10	Snd Lvl	67.4	0.0	7	-7.0
R578(K1634)	524	1	58.4	61.5	66	3.1	10	----	61.5	0.0	7	-7.0
R579(K1710)	525	1	53.3	55.5	66	2.2	10	----	55.5	0.0	7	-7.0
R580(K2034)	526	1	55.1	56.3	66	1.2	10	----	56.3	0.0	7	-7.0
R581(K1708)	528	1	53.1	55.8	66	2.7	10	----	55.8	0.0	7	-7.0
R583(K1628)	531	1	63.3	65.4	66	2.1	10	----	65.4	0.0	7	-7.0
R584(K1641)	532	1	56.4	59.3	66	2.9	10	----	59.3	0.0	7	-7.0
R585(K1706)	533	1	53.6	56.6	66	3.0	10	----	56.6	0.0	7	-7.0
R586(K2030)	534	1	53.1	54.3	66	1.2	10	----	54.3	0.0	7	-7.0
R587(K1704)	535	1	54.2	57.8	66	3.6	10	----	57.8	0.0	7	-7.0
R589(K1631)	537	1	61.9	64.0	66	2.1	10	----	64.0	0.0	7	-7.0
R590(K1651)	538	1	56.3	59.9	66	3.6	10	----	59.9	0.0	7	-7.0
R591(K1666)	539	1	55.9	59.5	66	3.6	10	----	59.5	0.0	7	-7.0
R592(K1682)	540	1	56.1	59.5	66	3.4	10	----	59.5	0.0	7	-7.0
R593(K1691)	541	1	55.4	59.0	66	3.6	10	----	59.0	0.0	7	-7.0
R594(K1698)	542	1	54.2	57.7	66	3.5	10	----	57.7	0.0	7	-7.0
R597(K1636)	545	1	61.4	63.7	66	2.3	10	----	63.7	0.0	7	-7.0
R598(K1694)	546	1	54.4	58.1	66	3.7	10	----	58.1	0.0	7	-7.0
R599(K2021)	547	1	53.3	54.8	66	1.5	10	----	54.8	0.0	7	-7.0

R600(K2027)	548	1	53.3	54.8	66	1.5	10	----	54.8	0.0	7	-7.0
R604(K1643)	552	1	61.6	64.0	66	2.4	10	----	64.0	0.0	7	-7.0
R605(K1718)	553	1	53.5	54.9	66	1.4	10	----	54.9	0.0	7	-7.0
R607(K1717)	555	1	53.5	54.9	66	1.4	10	----	54.9	0.0	7	-7.0
R612(K1716)	560	1	54.1	55.5	66	1.4	10	----	55.5	0.0	7	-7.0
R637(K1617 R-60)	585	1	67.0	68.0	66	1.0	10	Snd Lvl	68.0	0.0	7	-7.0
R902	655	1	74.5	77.2	66	2.7	10	Snd Lvl	77.2	0.0	7	-7.0
R903	656	1	65.1	69.5	66	4.4	10	Snd Lvl	69.5	0.0	7	-7.0
R904	657	1	54.4	56.7	66	2.3	10	----	56.7	0.0	7	-7.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	115	0.0	0.0	0.0
All Impacted	33	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

PEC 8 August 2023
ZR TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S3
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R702(K47)	210	1	62.0	63.9	66	1.9	10	----	63.9	0.0	7	-7.0
R703(K1251)	211	1	61.4	63.4	66	2.0	10	----	63.4	0.0	7	-7.0
R704(K46)	212	1	62.3	64.1	66	1.8	10	----	64.1	0.0	7	-7.0
R705(K48)	213	1	62.2	64.0	66	1.8	10	----	64.0	0.0	7	-7.0
R706(K1254)	214	1	61.8	63.7	66	1.9	10	----	63.7	0.0	7	-7.0
R707(K44)	215	1	62.7	64.9	66	2.2	10	----	64.9	0.0	7	-7.0
R708(K43)	216	1	62.6	64.4	66	1.8	10	----	64.4	0.0	7	-7.0
R709(K1471)	217	1	63.5	65.5	66	2.0	10	----	65.5	0.0	7	-7.0
R710(K64)	218	1	61.7	64.2	66	2.5	10	----	64.2	0.0	7	-7.0
R711(K1474)	219	1	63.9	66.5	66	2.6	10	Snd Lvl	66.5	0.0	7	-7.0
R712(K1304)	220	1	65.7	68.7	66	3.0	10	Snd Lvl	68.7	0.0	7	-7.0
R713(K1267)	221	1	71.8	74.0	66	2.2	10	Snd Lvl	74.0	0.0	7	-7.0
R714(K1493)	222	1	68.9	71.7	66	2.8	10	Snd Lvl	71.7	0.0	7	-7.0
R715(K1481)	223	1	65.8	69.0	66	3.2	10	Snd Lvl	69.0	0.0	7	-7.0
R716(K1302)	224	1	65.6	68.7	66	3.1	10	Snd Lvl	68.7	0.0	7	-7.0
R717(K1266)	225	1	72.9	74.9	66	2.0	10	Snd Lvl	74.9	0.0	7	-7.0
R718(K1295)	226	1	64.1	66.9	66	2.8	10	Snd Lvl	66.9	0.0	7	-7.0
R719(K1291)	227	1	60.9	63.0	66	2.1	10	----	63.0	0.0	7	-7.0
R720(K1262)	228	1	72.2	74.1	66	1.9	10	Snd Lvl	74.1	0.0	7	-7.0
R721(K1381)	229	1	58.6	62.1	66	3.5	10	----	62.1	0.0	7	-7.0
R722(K1404)	230	1	58.3	61.1	66	2.8	10	----	61.1	0.0	7	-7.0
R723(K1405)	231	1	58.4	61.1	66	2.7	10	----	61.1	0.0	7	-7.0
R724(K1415)	232	1	53.9	56.4	66	2.5	10	----	56.4	0.0	7	-7.0
R725(K1264)	233	1	73.6	75.4	66	1.8	10	Snd Lvl	75.4	0.0	7	-7.0

R726(K1487)	234	1	67.6	70.7	66	3.1	10	Snd Lvl	70.7	0.0	7	-7.0
R727(K2068)	235	1	71.9	73.8	66	1.9	10	Snd Lvl	73.8	0.0	7	-7.0
R728(K1419)	236	1	58.2	60.6	66	2.4	10	----	60.6	0.0	7	-7.0
R729(K1422)	237	1	58.1	60.8	66	2.7	10	----	60.8	0.0	7	-7.0
R730(K1311)	238	1	69.8	70.6	66	0.8	10	Snd Lvl	70.6	0.0	7	-7.0
R731(K1429)	239	1	58.2	61.1	66	2.9	10	----	61.1	0.0	7	-7.0
R732(K65)	240	1	58.9	61.5	66	2.6	10	----	61.5	0.0	7	-7.0
R733(K1332)	241	1	71.1	75.2	66	4.1	10	Snd Lvl	75.2	0.0	7	-7.0
R734(K1201)	242	1	72.0	74.8	66	2.8	10	Snd Lvl	74.8	0.0	7	-7.0
R735(K1339)	243	1	65.9	70.4	66	4.5	10	Snd Lvl	70.4	0.0	7	-7.0
R736(K2067)	244	1	75.2	75.8	66	0.6	10	Snd Lvl	75.8	0.0	7	-7.0
M-43(K1349)	245	1	75.7	78.7	66	3.0	10	Snd Lvl	78.7	0.0	7	-7.0
R737(K1323)	246	1	73.5	77.2	66	3.7	10	Snd Lvl	77.2	0.0	7	-7.0
R738(K1412)	247	1	60.6	63.3	66	2.7	10	----	63.3	0.0	7	-7.0
R739(K1424)	248	1	58.7	61.1	66	2.4	10	----	61.1	0.0	7	-7.0
R740(K1454)	249	1	60.6	63.0	66	2.4	10	----	63.0	0.0	7	-7.0
R741(K1307)	250	1	67.8	66.3	66	-1.5	10	Snd Lvl	66.3	0.0	7	-7.0
R742(K1450)	251	1	58.7	61.3	66	2.6	10	----	61.3	0.0	7	-7.0
R743(K1479)	252	1	55.9	58.3	66	2.4	10	----	58.3	0.0	7	-7.0
R744(K1497)	253	1	70.0	72.9	66	2.9	10	Snd Lvl	72.9	0.0	7	-7.0
R745(K1476)	254	1	55.2	58.5	66	3.3	10	----	58.5	0.0	7	-7.0
R746(K1458)	255	1	63.1	65.3	66	2.2	10	----	65.3	0.0	7	-7.0
R747(K1482)	256	1	53.9	57.2	66	3.3	10	----	57.2	0.0	7	-7.0
R748(K2091)	257	1	78.0	79.2	66	1.2	10	Snd Lvl	79.2	0.0	7	-7.0
R749(K1767)	258	1	77.4	78.7	66	1.3	10	Snd Lvl	78.7	0.0	7	-7.0
R750(K1435)	259	1	60.0	62.2	66	2.2	10	----	62.2	0.0	7	-7.0
R751(K1427)	260	1	61.4	63.5	66	2.1	10	----	63.5	0.0	7	-7.0
R752(K1438)	261	1	60.6	62.4	66	1.8	10	----	62.4	0.0	7	-7.0
R753(K1472)	262	1	62.7	65.1	66	2.4	10	----	65.1	0.0	7	-7.0
R754(K1478)	263	1	56.2	59.4	66	3.2	10	----	59.4	0.0	7	-7.0
R755(K1488)	264	1	69.6	72.6	66	3.0	10	Snd Lvl	72.6	0.0	7	-7.0
R756(K2109B)	265	1	77.1	78.3	66	1.2	10	Snd Lvl	78.3	0.0	7	-7.0
R757(K2105)	266	1	74.7	76.2	66	1.5	10	Snd Lvl	76.2	0.0	7	-7.0
R758(K1448)	267	1	61.7	64.9	66	3.2	10	----	64.9	0.0	7	-7.0
R759(K1283)	268	1	63.1	63.6	66	0.5	10	----	63.6	0.0	7	-7.0
R760(K1433)	269	1	61.7	63.3	66	1.6	10	----	63.3	0.0	7	-7.0
R761(K1483)	270	1	57.3	60.3	66	3.0	10	----	60.3	0.0	7	-7.0
R762(K1455)	271	1	63.2	64.4	66	1.2	10	----	64.4	0.0	7	-7.0
R763(K1485)	272	1	58.6	61.6	66	3.0	10	----	61.6	0.0	7	-7.0
R764(KV2092)	273	1	74.5	75.6	66	1.1	10	Snd Lvl	75.6	0.0	7	-7.0
R765(K1459)	274	1	63.2	65.0	66	1.8	10	----	65.0	0.0	7	-7.0

R766(K2085)	275	1	75.2	77.0	66	1.8	10	Snd Lvl	77.0	0.0	7	-7.0
R767(K1491)	276	1	54.6	58.4	66	3.8	10	----	58.4	0.0	7	-7.0
R768(K1437)	277	1	61.5	63.4	66	1.9	10	----	63.4	0.0	7	-7.0
R769(K2119)	278	1	72.8	74.4	66	1.6	10	Snd Lvl	74.4	0.0	7	-7.0
R770(K1489)	279	1	59.9	62.4	66	2.5	10	----	62.4	0.0	7	-7.0
R771(K2101)	280	1	69.6	71.0	66	1.4	10	Snd Lvl	71.0	0.0	7	-7.0
R772(K2109E)	281	1	73.5	75.1	66	1.6	10	Snd Lvl	75.1	0.0	7	-7.0
R773(KV1469)	282	1	62.7	65.0	66	2.3	10	----	65.0	0.0	7	-7.0
R774(K1346)	283	1	70.7	72.8	66	2.1	10	Snd Lvl	72.8	0.0	7	-7.0
R775(K1496)	284	1	55.7	59.6	66	3.9	10	----	59.6	0.0	7	-7.0
R776(K2087)	285	1	72.0	74.1	66	2.1	10	Snd Lvl	74.1	0.0	7	-7.0
R777(K2106)	286	1	71.0	72.5	66	1.5	10	Snd Lvl	72.5	0.0	7	-7.0
M-41(K1318)	287	1	69.9	75.7	66	5.8	10	Snd Lvl	75.7	0.0	7	-7.0
R778(K2104)	288	1	71.9	73.3	66	1.4	10	Snd Lvl	73.3	0.0	7	-7.0
R779(K1195)	289	1	69.2	72.2	66	3.0	10	Snd Lvl	72.2	0.0	7	-7.0
R780(K1383)	290	1	71.1	73.0	66	1.9	10	Snd Lvl	73.0	0.0	7	-7.0
R781(K1456)	291	1	62.5	64.3	66	1.8	10	----	64.3	0.0	7	-7.0
R782(K1495)	292	1	62.6	65.1	66	2.5	10	----	65.1	0.0	7	-7.0
R783(K1722C)	293	1	70.8	73.0	66	2.2	10	Snd Lvl	73.0	0.0	7	-7.0
R784(K1769)	294	1	69.1	71.8	66	2.7	10	Snd Lvl	71.8	0.0	7	-7.0
R785(K2083)	295	1	76.4	78.6	66	2.2	10	Snd Lvl	78.6	0.0	7	-7.0
M-44(K75)	296	1	70.7	73.6	66	2.9	10	Snd Lvl	73.6	0.0	7	-7.0
M-46(K1469)	297	1	65.0	67.2	66	2.2	10	Snd Lvl	67.2	0.0	7	-7.0
R786(K1194)	298	1	59.0	62.0	66	3.0	10	----	62.0	0.0	7	-7.0
R787(K2122)	299	1	69.7	71.6	66	1.9	10	Snd Lvl	71.6	0.0	7	-7.0
R788(K1722B)	300	1	70.0	72.2	66	2.2	10	Snd Lvl	72.2	0.0	7	-7.0
M-40(K1315)	301	1	61.9	63.2	66	1.3	10	----	63.2	0.0	7	-7.0
M-42(K1348)	302	1	63.9	69.5	66	5.6	10	Snd Lvl	69.5	0.0	7	-7.0
R789(K1319)	303	1	63.7	64.7	66	1.0	10	----	64.7	0.0	7	-7.0
R790(K1360)	304	1	70.6	74.2	66	3.6	10	Snd Lvl	74.2	0.0	7	-7.0
R791(K1365)	305	1	69.1	71.6	66	2.5	10	Snd Lvl	71.6	0.0	7	-7.0
R792(K1421)	306	1	73.9	77.3	66	3.4	10	Snd Lvl	77.3	0.0	7	-7.0
R793(KV2025)	307	1	62.4	64.3	66	1.9	10	----	64.3	0.0	7	-7.0
R794(KV1318)	308	1	65.9	71.2	66	5.3	10	Snd Lvl	71.2	0.0	7	-7.0
R795(K74)	309	1	69.0	70.5	66	1.5	10	Snd Lvl	70.5	0.0	7	-7.0
R796(K1341)	310	1	70.6	74.9	66	4.3	10	Snd Lvl	74.9	0.0	7	-7.0
R797(K2124)	311	1	69.8	71.7	66	1.9	10	Snd Lvl	71.7	0.0	7	-7.0
R798(K1326)	312	1	61.9	63.8	66	1.9	10	----	63.8	0.0	7	-7.0
R799(K1391)	313	1	67.5	70.2	66	2.7	10	Snd Lvl	70.2	0.0	7	-7.0
R800(K2086)	314	1	72.5	75.4	66	2.9	10	Snd Lvl	75.4	0.0	7	-7.0
R801(K1205)	315	1	67.1	69.9	66	2.8	10	Snd Lvl	69.9	0.0	7	-7.0

R802(K1331)	316	1	68.2	73.1	66	4.9	10	Snd Lvl	73.1	0.0	7	-7.0
R803(K2017)	317	1	65.7	66.7	66	1.0	10	Snd Lvl	66.7	0.0	7	-7.0
R804(K2025)	318	1	63.5	65.2	66	1.7	10	----	65.2	0.0	7	-7.0
R805(K78)	319	1	69.5	73.8	66	4.3	10	Snd Lvl	73.8	0.0	7	-7.0
R806(K1322)	320	1	63.6	64.4	66	0.8	10	----	64.4	0.0	7	-7.0
R807(K1336)	321	1	68.4	73.1	66	4.7	10	Snd Lvl	73.1	0.0	7	-7.0
R808(K2109)	322	1	65.4	67.2	66	1.8	10	Snd Lvl	67.2	0.0	7	-7.0
R809(K71)	323	1	65.9	68.1	66	2.2	10	Snd Lvl	68.1	0.0	7	-7.0
R810(K2020)	324	1	67.1	66.7	66	-0.4	10	Snd Lvl	66.7	0.0	7	-7.0
R811(K2095)	325	1	67.4	70.3	66	2.9	10	Snd Lvl	70.3	0.0	7	-7.0
R812(K1386)	326	1	63.1	66.4	66	3.3	10	Snd Lvl	66.4	0.0	7	-7.0
R813(K2114)	327	1	67.3	69.0	66	1.7	10	Snd Lvl	69.0	0.0	7	-7.0
R814(K2125)	328	1	67.3	69.3	66	2.0	10	Snd Lvl	69.3	0.0	7	-7.0
M-48(K37)	329	1	60.9	63.2	66	2.3	10	----	63.2	0.0	7	-7.0
R815(K73)	330	1	64.1	66.4	66	2.3	10	Snd Lvl	66.4	0.0	7	-7.0
R816(K1372)	331	1	61.0	64.9	66	3.9	10	----	64.9	0.0	7	-7.0
R817(K1395)	332	1	67.3	70.1	66	2.8	10	Snd Lvl	70.1	0.0	7	-7.0
R818(K2029)	333	1	55.4	55.5	66	0.1	10	----	55.5	0.0	7	-7.0
R819(K2088)	334	1	72.5	75.2	66	2.7	10	Snd Lvl	75.2	0.0	7	-7.0
R820(K2138)	335	1	67.5	69.4	66	1.9	10	Snd Lvl	69.4	0.0	7	-7.0
R821(K1722A)	336	1	63.9	65.7	66	1.8	10	----	65.7	0.0	7	-7.0
R822(K1204)	337	1	65.4	67.9	66	2.5	10	Snd Lvl	67.9	0.0	7	-7.0
R823(K1722)	338	1	66.2	68.3	66	2.1	10	Snd Lvl	68.3	0.0	7	-7.0
R824(K2099)	339	1	65.1	68.1	66	3.0	10	Snd Lvl	68.1	0.0	7	-7.0
R825(K2127)	340	1	66.9	68.6	66	1.7	10	Snd Lvl	68.6	0.0	7	-7.0
R826(K2144)	341	1	66.8	68.8	66	2.0	10	Snd Lvl	68.8	0.0	7	-7.0
R827(K2109C)	342	1	66.6	68.3	66	1.7	10	Snd Lvl	68.3	0.0	7	-7.0
R828(K1720)	343	1	66.4	68.5	66	2.1	10	Snd Lvl	68.5	0.0	7	-7.0
R829(K2026)	344	1	68.3	67.5	66	-0.8	10	Snd Lvl	67.5	0.0	7	-7.0
R830(K68)	345	1	65.7	68.3	66	2.6	10	Snd Lvl	68.3	0.0	7	-7.0
R831(K1328)	346	1	63.2	64.4	66	1.2	10	----	64.4	0.0	7	-7.0
M-45(K1484)	347	1	72.3	76.0	66	3.7	10	Snd Lvl	76.0	0.0	7	-7.0
R832(K1362)	348	1	59.2	62.1	66	2.9	10	----	62.1	0.0	7	-7.0
R833(K1370)	349	1	60.4	63.8	66	3.4	10	----	63.8	0.0	7	-7.0
R834(K1402)	350	1	65.9	68.5	66	2.6	10	Snd Lvl	68.5	0.0	7	-7.0
R835(K1446)	351	1	68.1	71.6	66	3.5	10	Snd Lvl	71.6	0.0	7	-7.0
R836(K67)	352	1	65.3	68.0	66	2.7	10	Snd Lvl	68.0	0.0	7	-7.0
R837(K2033)	353	1	55.4	55.6	66	0.2	10	----	55.6	0.0	7	-7.0
R838(K2109F)	354	1	65.2	66.8	66	1.6	10	Snd Lvl	66.8	0.0	7	-7.0
R839(K1334)	355	1	61.9	63.6	66	1.7	10	----	63.6	0.0	7	-7.0
R840(K2109A)	356	1	62.2	63.8	66	1.6	10	----	63.8	0.0	7	-7.0

R841(K30)	357	1	63.9	65.4	66	1.5	10	----	65.4	0.0	7	-7.0
R842(K1353)	358	1	57.3	61.5	66	4.2	10	----	61.5	0.0	7	-7.0
R843(K1406)	359	1	62.8	65.3	66	2.5	10	----	65.3	0.0	7	-7.0
R844(K2032)	360	1	68.2	67.3	66	-0.9	10	Snd Lvl	67.3	0.0	7	-7.0
R845(K2103)	361	1	63.7	66.6	66	2.9	10	Snd Lvl	66.6	0.0	7	-7.0
R846(K1396)	362	1	60.1	63.3	66	3.2	10	----	63.3	0.0	7	-7.0
R847(K1403)	363	1	61.7	64.5	66	2.8	10	----	64.5	0.0	7	-7.0
R848(K2035)	364	1	54.8	54.4	66	-0.4	10	----	54.4	0.0	7	-7.0
R849(K1397)	365	1	58.6	62.0	66	3.4	10	----	62.0	0.0	7	-7.0
R850(K1721)	366	1	64.8	66.0	66	1.2	10	Snd Lvl	66.0	0.0	7	-7.0
R851(K2094)	367	1	72.0	74.8	66	2.8	10	Snd Lvl	74.8	0.0	7	-7.0
R852(K2109D)	368	1	61.7	62.9	66	1.2	10	----	62.9	0.0	7	-7.0
R853(K1217)	369	1	60.5	63.4	66	2.9	10	----	63.4	0.0	7	-7.0
R854(K1460)	370	1	62.7	65.3	66	2.6	10	----	65.3	0.0	7	-7.0
R855(K1392)	371	1	57.7	61.7	66	4.0	10	----	61.7	0.0	7	-7.0
R856(K1394)	372	1	58.2	61.2	66	3.0	10	----	61.2	0.0	7	-7.0
R857(K1193)	373	1	69.6	72.8	66	3.2	10	Snd Lvl	72.8	0.0	7	-7.0
R858(K1379)	374	1	56.9	60.5	66	3.6	10	----	60.5	0.0	7	-7.0
R859(K1385)	375	1	56.1	59.9	66	3.8	10	----	59.9	0.0	7	-7.0
R860(K2097)	376	1	71.6	74.4	66	2.8	10	Snd Lvl	74.4	0.0	7	-7.0
R861(K1390)	377	1	55.4	58.7	66	3.3	10	----	58.7	0.0	7	-7.0
R862(K1449)	378	1	63.8	66.0	66	2.2	10	Snd Lvl	66.0	0.0	7	-7.0
M-39(K2037)	379	1	71.2	70.2	66	-1.0	10	Snd Lvl	70.2	0.0	7	-7.0
R863(K2043)	380	1	54.2	53.9	66	-0.3	10	----	53.9	0.0	7	-7.0
R864(K2117)	381	1	62.4	65.2	66	2.8	10	----	65.2	0.0	7	-7.0
R865(K1212)	382	1	68.8	71.5	66	2.7	10	Snd Lvl	71.5	0.0	7	-7.0
R866(K2066)	383	1	64.3	68.1	66	3.8	10	Snd Lvl	68.1	0.0	7	-7.0
R867(K1196)	384	1	67.0	70.6	66	3.6	10	Snd Lvl	70.6	0.0	7	-7.0
R868(KV1492)	385	1	63.1	63.7	66	0.6	10	----	63.7	0.0	7	-7.0
R869(K1492)	386	1	61.8	65.2	66	3.4	10	----	65.2	0.0	7	-7.0
R870(K2102)	387	1	70.6	73.4	66	2.8	10	Snd Lvl	73.4	0.0	7	-7.0
R871(K2120)	388	1	61.4	64.1	66	2.7	10	----	64.1	0.0	7	-7.0
R872(KV2147)	389	1	61.8	63.9	66	2.1	10	----	63.9	0.0	7	-7.0
R873(K2107)	390	1	70.3	73.1	66	2.8	10	Snd Lvl	73.1	0.0	7	-7.0
R874(K1473)	391	1	51.7	54.9	66	3.2	10	----	54.9	0.0	7	-7.0
R875(K1203)	392	1	64.9	69.0	66	4.1	10	Snd Lvl	69.0	0.0	7	-7.0
R876(K2128)	393	1	61.0	63.5	66	2.5	10	----	63.5	0.0	7	-7.0
R877(K40)	394	1	61.5	64.9	66	3.4	10	----	64.9	0.0	7	-7.0
R878(K2141)	395	1	73.9	76.6	66	2.7	10	Snd Lvl	76.6	0.0	7	-7.0
R879(K2121)	396	1	69.9	72.8	66	2.9	10	Snd Lvl	72.8	0.0	7	-7.0
R880(K1202)	397	1	61.3	65.3	66	4.0	10	----	65.3	0.0	7	-7.0

R881(K2130)	398	1	60.8	63.0	66	2.2	10	----	63.0	0.0	7	-7.0
R882(K1211)	399	1	69.2	71.9	66	2.7	10	Snd Lvl	71.9	0.0	7	-7.0
R883(K1209)	400	1	63.0	67.5	66	4.5	10	Snd Lvl	67.5	0.0	7	-7.0
R884(K1213)	401	1	65.6	69.9	66	4.3	10	Snd Lvl	69.9	0.0	7	-7.0
R885(K2126)	402	1	69.8	72.5	66	2.7	10	Snd Lvl	72.5	0.0	7	-7.0
R886(K1206)	403	1	61.6	65.4	66	3.8	10	----	65.4	0.0	7	-7.0
R887(K2113)	404	1	60.4	62.7	66	2.3	10	----	62.7	0.0	7	-7.0
R888(K1218)	405	1	63.9	68.2	66	4.3	10	Snd Lvl	68.2	0.0	7	-7.0
R889(K36)	406	1	61.9	66.3	66	4.4	10	Snd Lvl	66.3	0.0	7	-7.0
R890(K2131)	407	1	69.2	72.1	66	2.9	10	Snd Lvl	72.1	0.0	7	-7.0
R891(K2140)	408	1	59.9	62.1	66	2.2	10	----	62.1	0.0	7	-7.0
R892(K1216)	409	1	62.1	65.7	66	3.6	10	----	65.7	0.0	7	-7.0
R893(K1220)	410	1	62.1	66.2	66	4.1	10	Snd Lvl	66.2	0.0	7	-7.0
R894(K2111)	411	1	68.7	71.6	66	2.9	10	Snd Lvl	71.6	0.0	7	-7.0
R895(K1219)	412	1	55.8	59.8	66	4.0	10	----	59.8	0.0	7	-7.0
R896(K2142)	413	1	59.6	61.7	66	2.1	10	----	61.7	0.0	7	-7.0
R897(K2139)	414	1	68.2	71.1	66	2.9	10	Snd Lvl	71.1	0.0	7	-7.0
R898(K1224)	415	1	61.2	65.4	66	4.2	10	----	65.4	0.0	7	-7.0
R899(K1223)	416	1	61.2	65.2	66	4.0	10	----	65.2	0.0	7	-7.0
R900(K1222)	417	1	56.9	60.7	66	3.8	10	----	60.7	0.0	7	-7.0
R901(K1753)	418	1	60.8	64.4	66	3.6	10	----	64.4	0.0	7	-7.0
M-47(K2141)	670	1	60.0	63.0	66	3.0	10	----	63.0	0.0	7	-7.0
M-44a(K75)	671	1	72.5	74.3	66	1.8	10	Snd Lvl	74.3	0.0	7	-7.0
R905	672	1	69.7	72.5	66	2.8	10	Snd Lvl	72.5	0.0	7	-7.0
R1000	673	1	60.0	62.8	66	2.8	10	----	62.8	0.0	7	-7.0
R1001	674	1	61.1	64.0	66	2.9	10	----	64.0	0.0	7	-7.0
R1002	675	1	61.0	64.1	66	3.1	10	----	64.1	0.0	7	-7.0
R1003	676	1	60.5	63.4	66	2.9	10	----	63.4	0.0	7	-7.0
R1004	677	1	61.3	64.3	66	3.0	10	----	64.3	0.0	7	-7.0
R1005	678	1	60.9	64.0	66	3.1	10	----	64.0	0.0	7	-7.0
R1006	679	1	59.4	62.2	66	2.8	10	----	62.2	0.0	7	-7.0
R1007	680	1	59.2	62.2	66	3.0	10	----	62.2	0.0	7	-7.0
R1008	681	1	59.6	62.5	66	2.9	10	----	62.5	0.0	7	-7.0
R1009	682	1	61.0	63.8	66	2.8	10	----	63.8	0.0	7	-7.0
R1010	683	1	63.0	65.8	66	2.8	10	----	65.8	0.0	7	-7.0
R1011	684	1	63.8	66.9	66	3.1	10	Snd Lvl	66.9	0.0	7	-7.0
R1012	685	1	64.6	66.5	66	1.9	10	Snd Lvl	66.5	0.0	7	-7.0
R1013	686	1	66.5	69.4	66	2.9	10	Snd Lvl	69.4	0.0	7	-7.0
R1014	687	1	64.2	67.2	66	3.0	10	Snd Lvl	67.2	0.0	7	-7.0
R1015	688	1	63.3	66.2	66	2.9	10	Snd Lvl	66.2	0.0	7	-7.0
R1016	689	1	62.3	64.3	66	2.0	10	----	64.3	0.0	7	-7.0

R1017	690	1	63.5	65.8	66	2.3	10	----	65.8	0.0	7	-7.0

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		230	0.0	0.0	0.0
All Impacted		118	0.0	0.0	0.0
All that meet NR Goal		0	0.0	0.0	0.0

PEC			**8 August 2023**	
ZR			**TNM 2.5**	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	**BSB**			
RUN:	**KY W Build PM S2**			
Terrain Line	**Points**			
Name	**No.**	**Coordinates (ground)**		
		X	**Y**	**Z**
		ft	ft	ft
Terrain Line1	1	5,267,437.5	4,275,377.5	748.70
	2	5,267,551.5	4,275,403.5	746.00
	3	5,267,640.0	4,275,408.0	744.70
	4	5,267,732.5	4,275,381.5	748.40
	5	5,267,765.5	4,275,399.5	749.20
	6	5,267,816.0	4,275,505.0	749.70
	7	5,267,843.5	4,275,653.5	750.90
	8	5,267,815.0	4,275,693.5	754.60
	9	5,267,721.0	4,275,716.0	752.90
	10	5,267,601.5	4,275,687.5	750.80
	11	5,267,550.0	4,275,682.0	750.50
	12	5,267,460.0	4,275,622.5	748.70
	13	5,267,366.5	4,275,566.5	750.00
	14	5,267,337.0	4,275,518.5	748.40
	15	5,267,373.5	4,275,489.0	745.60
	16	5,267,405.0	4,275,395.0	747.00
	17	5,267,437.5	4,275,377.5	748.70
Terrain Line2	18	5,267,276.0	4,275,567.0	773.20
	19	5,267,349.0	4,275,618.5	774.60
	20	5,267,464.0	4,275,677.0	772.60
	21	5,267,511.5	4,275,713.5	774.00
	22	5,267,558.0	4,275,729.0	775.80
	23	5,267,751.5	4,275,767.5	774.00
Terrain Line3	24	5,267,820.5	4,275,367.0	745.00

	25	5,267,873.0	4,275,482.5	742.10
	26	5,267,955.0	4,275,616.0	742.20
	27	5,268,033.5	4,275,667.0	743.70
Terrain Line4	28	5,268,521.5	4,275,706.0	694.90
	29	5,268,511.0	4,275,646.5	691.60
	30	5,268,489.5	4,275,484.0	683.40
Terrain Line5	31	5,270,151.5	4,277,639.5	730.20
	32	5,270,177.0	4,277,673.5	733.40
	33	5,270,216.5	4,277,692.5	739.60
	34	5,270,260.0	4,277,731.5	743.60
	35	5,270,318.0	4,277,771.5	745.90
	36	5,270,369.5	4,277,785.5	754.10
	37	5,270,465.5	4,277,827.0	758.40
	38	5,270,671.5	4,277,939.0	754.50
	39	5,270,695.5	4,277,972.5	743.40
Terrain Line6	40	5,269,876.5	4,277,461.5	679.10
	41	5,269,902.0	4,277,508.0	680.70
	42	5,269,954.0	4,277,600.0	688.60
	43	5,270,026.0	4,277,867.5	681.20
Terrain Line7	44	5,269,931.5	4,276,976.5	584.90
	45	5,270,174.5	4,277,109.5	584.60
Terrain Line8	46	5,269,694.5	4,276,828.0	583.20
	47	5,269,863.5	4,276,944.5	586.70
Terrain Line9	48	5,269,109.5	4,276,478.5	639.50
	49	5,269,159.5	4,276,510.0	635.30
	50	5,269,196.0	4,276,544.5	631.70
	51	5,269,247.5	4,276,569.5	622.60
	52	5,269,310.0	4,276,584.0	611.10
	53	5,269,378.5	4,276,601.5	604.10
	54	5,269,428.5	4,276,603.5	595.30
	55	5,269,477.5	4,276,620.0	589.70
	56	5,269,547.0	4,276,667.0	584.90
	57	5,269,640.5	4,276,776.0	581.20
	58	5,269,642.5	4,276,882.5	593.80
	59	5,269,640.0	4,276,928.5	600.50
	60	5,269,636.0	4,276,978.5	611.10

	61	5,269,638.5	4,277,009.5	616.70
	62	5,269,646.0	4,277,058.5	626.80
	63	5,269,767.5	4,277,130.5	627.30
Terrain Line10	64	5,270,109.0	4,277,945.0	705.50
	65	5,270,126.5	4,278,070.5	703.10
	66	5,270,158.5	4,278,248.5	699.00
	67	5,270,232.5	4,278,335.5	700.10
	68	5,270,394.5	4,278,402.0	701.60
	69	5,270,468.0	4,278,364.0	706.10
	70	5,270,537.0	4,278,329.0	701.60
	71	5,270,658.0	4,278,125.5	717.20
	72	5,270,694.5	4,278,064.5	720.50
Terrain Line11	73	5,270,310.5	4,278,760.5	670.70
	74	5,270,313.5	4,278,792.0	664.20
	75	5,270,320.5	4,278,824.0	659.10
	76	5,270,318.0	4,278,863.0	651.90
	77	5,270,319.0	4,278,921.0	636.00
	78	5,270,320.5	4,278,965.0	628.40
	79	5,270,326.0	4,279,015.5	622.50
Terrain Line12	80	5,270,214.0	4,278,478.5	693.00
	81	5,270,280.5	4,278,600.0	691.50
	82	5,270,331.5	4,278,684.0	683.50
Terrain Line13	83	5,270,131.0	4,278,233.5	694.00
	84	5,270,164.0	4,278,396.0	690.00
	85	5,270,206.0	4,278,451.0	689.50
Terrain Line14	86	5,270,045.5	4,278,155.0	653.50
	87	5,270,091.0	4,278,437.0	657.40
	88	5,270,120.5	4,278,547.5	654.50
Terrain Line15	89	5,270,177.5	4,278,520.0	679.50
	90	5,270,224.5	4,278,697.5	659.10
	91	5,270,274.0	4,278,889.0	638.80
	92	5,270,292.5	4,278,977.5	628.40
	93	5,270,324.0	4,279,018.0	622.70
	94	5,270,368.5	4,279,047.0	617.90
Terrain Line16	95	5,270,081.0	4,278,116.5	678.20
	96	5,270,052.0	4,277,988.5	672.30

	97	5,270,030.5	4,277,873.0	681.20
Terrain Line17	98	5,268,146.0	4,275,668.5	712.30
	99	5,268,213.0	4,275,696.0	714.70
	100	5,268,263.0	4,275,735.0	713.60
	101	5,268,283.0	4,275,808.5	719.30
	102	5,268,333.0	4,275,823.0	720.70
	103	5,268,370.0	4,275,824.5	716.10
	104	5,268,438.5	4,275,833.0	722.80
	105	5,268,491.0	4,275,836.0	713.40
	106	5,268,475.0	4,275,774.5	709.70
	107	5,268,531.0	4,275,764.0	710.40
	108	5,268,619.5	4,275,814.5	714.80
	109	5,268,705.5	4,275,854.0	715.20
	110	5,268,759.5	4,275,881.0	707.50
	111	5,268,771.0	4,275,974.5	705.80
	112	5,268,744.0	4,276,061.0	707.50
	113	5,268,703.0	4,276,148.5	707.10
	114	5,268,657.5	4,276,217.5	708.60
Terrain Line18	115	5,269,490.0	4,277,028.5	660.90
	116	5,269,585.0	4,277,126.5	658.50
	117	5,269,764.0	4,277,292.0	664.50
	118	5,269,912.0	4,277,371.0	666.30
	119	5,270,005.0	4,277,391.5	666.50
	120	5,270,100.0	4,277,445.0	666.10
Terrain Line19	121	5,268,558.0	4,275,706.0	691.80
	122	5,268,600.0	4,275,705.5	686.00
	123	5,268,643.0	4,275,710.5	681.90
	124	5,268,690.5	4,275,715.0	676.60
	125	5,268,733.0	4,275,719.0	671.90
	126	5,268,772.5	4,275,725.0	666.60
	127	5,268,813.5	4,275,733.0	658.70
	128	5,268,844.5	4,275,735.5	655.30
	129	5,268,892.5	4,275,750.0	649.00
	130	5,269,043.0	4,275,819.0	628.10
	131	5,269,080.5	4,275,848.0	623.60
	132	5,269,150.5	4,276,074.0	608.80

	133	5,269,175.5	4,276,144.0	603.80
	134	5,269,220.0	4,276,221.5	598.80
	142	5,269,571.0	4,276,631.0	578.50
Terrain Line20	136	5,267,125.0	4,276,049.5	844.40
	137	5,267,243.5	4,276,013.0	843.70
	138	5,267,315.0	4,276,039.0	847.00
	139	5,267,404.0	4,276,103.5	842.50
	140	5,267,382.0	4,276,195.0	846.00
	141	5,267,365.0	4,276,293.5	844.00
	142	5,267,333.5	4,276,315.0	842.50
	143	5,267,179.5	4,276,262.5	843.70
Terrain Line21	144	5,267,825.0	4,276,058.5	790.20
	145	5,267,932.0	4,276,104.5	792.20
	146	5,267,972.5	4,276,145.0	784.20
	147	5,267,910.5	4,276,300.5	788.40
	148	5,267,831.5	4,276,344.0	793.50
	149	5,267,797.5	4,276,360.0	791.70
	150	5,267,727.0	4,276,421.5	785.90
	151	5,267,687.0	4,276,440.0	789.00
Terrain Line23	154	5,267,720.0	4,276,594.5	792.10
	155	5,267,888.0	4,276,581.5	793.20
	156	5,267,995.0	4,276,582.0	792.30
	157	5,268,068.5	4,276,556.0	792.70
	158	5,268,222.0	4,276,446.5	790.70
	159	5,268,251.5	4,276,436.0	788.20
	160	5,268,302.5	4,276,452.5	783.50
	161	5,268,358.0	4,276,565.0	786.40
Terrain Line24	162	5,268,138.5	4,276,401.0	753.70
	163	5,268,218.5	4,276,379.5	755.30
	164	5,268,249.5	4,276,350.5	756.60
	165	5,268,245.5	4,276,319.5	755.20
	166	5,268,185.0	4,276,236.5	753.40
	167	5,268,146.0	4,276,226.0	753.00
	168	5,268,076.0	4,276,281.0	752.30
	169	5,268,047.5	4,276,351.0	752.50
Terrain Line25	170	5,268,458.5	4,276,380.5	741.70

	171	5,268,623.5	4,276,562.0	740.80
	172	5,268,721.0	4,276,671.0	741.00
Terrain Line26	173	5,268,688.5	4,276,671.0	753.60
	174	5,268,826.5	4,276,797.0	743.70
Terrain Line30	197	5,269,620.0	4,277,906.0	628.60
	198	5,269,710.5	4,278,323.0	607.20
	199	5,269,763.5	4,278,708.5	585.80
	200	5,269,739.0	4,278,991.5	566.80
Terrain Line31	201	5,268,646.0	4,277,770.5	737.90
	202	5,268,794.5	4,277,838.5	732.80
	203	5,268,949.5	4,277,875.0	716.30
	204	5,269,004.5	4,277,924.5	717.00
	205	5,268,983.0	4,277,988.5	728.30
	206	5,268,952.0	4,278,037.0	738.40
	207	5,268,910.0	4,278,082.0	751.70
Terrain Line32	208	5,269,449.0	4,278,136.5	763.50
	209	5,269,478.0	4,278,043.0	740.70
	210	5,269,466.5	4,277,923.0	724.10
	211	5,269,474.0	4,277,855.5	704.60
	212	5,269,490.0	4,277,782.5	686.60
	213	5,269,453.5	4,277,710.0	705.90
	214	5,269,416.5	4,277,654.0	724.60
	215	5,269,378.0	4,277,607.5	743.30
Terrain Line33	216	5,268,705.5	4,277,306.5	755.00
	217	5,268,769.0	4,277,219.0	736.10
	218	5,268,818.0	4,277,155.5	716.50
	219	5,268,854.0	4,277,114.0	698.40
	220	5,268,897.0	4,277,073.5	678.90
	221	5,268,839.0	4,277,012.0	680.40
	222	5,268,701.0	4,276,985.0	704.60
	223	5,268,463.0	4,276,967.5	721.80
Terrain Line34	224	5,268,040.5	4,276,100.5	768.50
	225	5,267,961.0	4,276,334.5	766.00
	226	5,267,934.0	4,276,373.5	765.30
	227	5,267,801.0	4,276,424.5	769.00
	228	5,267,733.5	4,276,499.0	765.00

	229	5,267,680.0	4,276,520.0	765.70
	230	5,267,689.5	4,276,553.5	769.70
	231	5,267,747.5	4,276,558.5	774.20
	232	5,267,878.5	4,276,543.0	772.10
	233	5,268,044.0	4,276,529.5	774.00
	234	5,268,088.0	4,276,508.0	776.30
	235	5,268,180.0	4,276,435.5	774.60
	236	5,268,217.5	4,276,417.0	776.90
	237	5,268,299.5	4,276,403.0	765.30
	238	5,268,339.5	4,276,424.0	766.90
	239	5,268,376.5	4,276,449.5	762.30
	240	5,268,396.0	4,276,490.0	759.90
Terrain Line35	241	5,268,798.0	4,276,806.0	754.70
	242	5,268,681.5	4,276,824.5	756.40
	243	5,268,333.0	4,276,863.5	763.20
	244	5,268,268.5	4,276,870.5	755.20
Terrain Line36	245	5,268,805.5	4,277,289.0	767.80
	246	5,269,081.0	4,277,317.5	766.90
Terrain Line37	247	5,269,344.0	4,277,549.0	758.20
	248	5,269,329.0	4,277,580.5	763.80
Terrain Line38	249	5,269,310.0	4,277,592.5	762.30
	250	5,269,143.5	4,277,689.5	757.40
	251	5,269,031.0	4,277,710.5	758.60
	252	5,268,901.5	4,277,732.5	770.10
	253	5,268,815.0	4,277,737.5	762.50
	254	5,268,698.5	4,277,692.0	766.40
Terrain Line39	255	5,269,187.0	4,278,106.5	771.40
	256	5,269,042.0	4,278,160.0	772.40
Terrain Line40	257	5,269,213.0	4,278,504.5	767.80
	258	5,269,278.0	4,278,502.5	764.40
	259	5,269,326.0	4,278,472.0	763.50
	260	5,269,368.0	4,278,422.5	766.20
	261	5,269,456.0	4,278,346.0	763.10
	262	5,269,472.0	4,278,308.0	764.70
	263	5,269,471.0	4,278,289.5	765.40
	264	5,269,467.5	4,278,253.0	765.90

	265	5,269,446.5	4,278,138.5	765.00
	266	5,269,362.5	4,278,104.0	771.60
	267	5,269,308.5	4,278,114.5	772.30
	268	5,269,218.5	4,278,121.0	774.40
	269	5,269,187.0	4,278,106.5	771.40
Terrain Line41	270	5,269,984.0	4,277,560.5	715.80
	271	5,269,981.5	4,277,589.0	713.90
	272	5,270,026.0	4,277,715.5	715.30
	273	5,270,080.0	4,277,793.0	715.60
	274	5,270,141.0	4,277,936.5	714.90
Terrain Line42	275	5,268,048.5	4,275,674.0	742.50
	276	5,268,188.5	4,275,754.0	737.90
	277	5,268,237.5	4,275,833.5	742.90
	278	5,268,267.0	4,275,865.0	742.80
Terrain Line43	279	5,269,081.0	4,277,317.5	766.90
	280	5,269,222.5	4,277,353.0	767.50
Terrain Line44	281	5,269,236.5	4,277,358.0	767.10
	282	5,269,259.0	4,277,362.0	760.00
	283	5,269,344.0	4,277,549.0	758.20
Terrain Line45	284	5,267,395.0	4,275,996.5	830.80
	285	5,267,160.0	4,275,974.5	830.70
	286	5,267,111.0	4,275,970.5	830.50
	287	5,267,074.5	4,275,957.0	828.90
	288	5,266,869.5	4,276,008.0	829.70
Terrain Line46	289	5,265,094.0	4,274,724.0	886.50
	290	5,265,179.0	4,274,794.0	888.00
	291	5,265,305.0	4,274,923.0	883.00
	309	5,265,477.0	4,275,199.0	852.00
	310	5,265,544.0	4,275,280.0	841.00
Terrain Line47	292	5,265,109.0	4,274,824.0	885.00
	293	5,265,405.0	4,275,165.0	854.00
	294	5,265,456.0	4,275,215.0	849.00
	295	5,265,527.0	4,275,275.0	841.50
	296	5,265,544.0	4,275,287.0	840.00
Terrain Line48	297	5,265,133.0	4,274,609.0	879.00
	298	5,265,167.0	4,274,618.0	876.00

	299	5,265,183.0	4,274,624.0	875.00
	300	5,265,198.0	4,274,637.0	874.00
	301	5,265,219.0	4,274,659.0	872.00
	302	5,265,253.0	4,274,697.0	869.00
	303	5,265,347.0	4,274,817.0	862.00
	304	5,265,389.0	4,274,882.0	860.50
	305	5,265,446.0	4,275,040.0	853.00
	306	5,265,481.0	4,275,135.0	849.00
	307	5,265,517.0	4,275,218.0	844.00
	308	5,265,553.0	4,275,284.0	840.00

PEC			**8 August 2023**	
ZR			**TNM 2.5**	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	**BSB**			
RUN:	**KY W Build PM S3**			
Terrain Line	**Points**			
Name	**No.**	**Coordinates (ground)**		
		X	**Y**	**Z**
		ft	ft	ft
Terrain Line1	1	5,259,779.5	4,272,555.0	820.20
	2	5,259,862.0	4,272,552.5	816.30
	3	5,259,956.5	4,272,530.0	817.70
	4	5,260,000.5	4,272,530.5	818.20
	5	5,260,044.5	4,272,541.5	817.80
	6	5,260,080.0	4,272,549.0	816.70
	7	5,260,132.0	4,272,551.0	815.10
	8	5,260,169.5	4,272,526.0	811.30
	9	5,260,212.0	4,272,468.5	808.60
	10	5,260,229.0	4,272,444.0	808.30
	11	5,260,202.0	4,272,432.5	815.50
	12	5,260,165.5	4,272,439.5	820.80
	13	5,260,090.0	4,272,457.5	821.70
	14	5,259,907.5	4,272,499.5	821.00
	15	5,259,783.5	4,272,552.5	820.60
Terrain Line2	16	5,260,240.5	4,272,400.5	808.50
	17	5,260,040.0	4,272,445.0	810.80
	18	5,259,839.0	4,272,491.0	811.60
	19	5,259,768.5	4,272,512.5	813.70
Terrain Line3	20	5,260,374.5	4,272,507.0	786.60
	21	5,260,424.0	4,272,436.5	780.40
	22	5,260,459.5	4,272,435.0	785.60
	23	5,260,411.5	4,272,479.5	787.80
	24	5,260,374.5	4,272,507.0	786.60

Terrain Line4	25	5,261,910.0	4,272,879.5	802.20
	26	5,261,878.5	4,272,897.0	802.50
	27	5,261,859.5	4,272,938.5	803.00
	28	5,261,846.5	4,273,027.0	801.40
Terrain Line5	29	5,261,746.0	4,272,765.0	798.60
	30	5,261,783.5	4,272,777.0	798.40
	31	5,261,845.5	4,272,805.5	799.40
	32	5,261,879.5	4,272,827.0	801.00
	33	5,261,914.0	4,272,876.5	802.20
Terrain Line6	34	5,261,895.5	4,272,988.0	817.70
	35	5,261,885.0	4,273,123.0	820.40
	36	5,261,901.0	4,273,220.5	814.70
	37	5,261,946.5	4,273,263.0	818.80
	38	5,261,926.5	4,273,290.5	814.70
	39	5,261,895.5	4,273,282.5	814.50
Terrain Line7	40	5,261,801.0	4,273,197.5	812.60
	41	5,261,779.5	4,273,171.0	813.40
	42	5,261,773.5	4,273,155.0	813.10
Terrain Line8	43	5,261,755.0	4,273,110.0	812.70
	44	5,261,744.0	4,273,078.0	812.40
	45	5,261,727.5	4,273,002.0	810.80
	46	5,261,737.0	4,272,961.0	809.50
	47	5,261,721.0	4,272,943.5	812.10
Terrain Line9	48	5,261,681.0	4,272,927.0	814.50
	49	5,261,668.5	4,272,922.5	814.30
	50	5,261,638.5	4,272,914.0	814.00
	51	5,261,602.5	4,272,886.5	813.70
Terrain Line10	52	5,261,807.5	4,273,007.0	797.60
	53	5,261,835.0	4,273,078.0	800.50
	54	5,261,844.0	4,273,032.5	800.70
Terrain Line11	55	5,260,207.5	4,272,569.0	800.20
	56	5,260,286.0	4,272,665.0	799.80
	57	5,260,334.0	4,272,686.0	816.00
Terrain Line12	58	5,261,602.5	4,272,886.5	813.70
	59	5,261,556.5	4,272,836.5	813.60
	60	5,261,577.5	4,272,757.5	813.60

	61	5,261,527.0	4,272,744.0	817.80
	62	5,261,520.5	4,272,701.0	819.70
	63	5,261,499.0	4,272,694.5	819.40
Terrain Line13	64	5,261,537.0	4,272,630.5	819.10
	65	5,261,561.5	4,272,610.0	817.10
	66	5,261,570.5	4,272,581.0	814.60
Terrain Line14	67	5,261,570.5	4,272,581.0	814.60
	68	5,261,671.0	4,272,639.5	813.50
	69	5,261,793.5	4,272,713.5	814.10
	70	5,261,848.5	4,272,763.0	814.20
	71	5,261,989.0	4,272,897.0	817.10
Terrain Line15	72	5,260,593.0	4,272,395.5	808.00
	73	5,260,576.0	4,272,425.0	813.60
	74	5,260,529.5	4,272,468.5	816.80
	75	5,260,446.0	4,272,516.0	814.50
	76	5,260,412.5	4,272,537.0	812.00
	77	5,260,384.5	4,272,564.0	812.80
	78	5,260,385.5	4,272,594.5	822.00
	79	5,260,352.5	4,272,650.5	819.30
	80	5,260,336.5	4,272,683.5	816.80
Terrain Line16	81	5,260,361.5	4,272,719.5	825.50
	82	5,260,398.0	4,272,635.5	825.20
	83	5,260,416.0	4,272,606.0	825.40
Terrain Line17	84	5,260,408.5	4,272,574.0	824.60
	85	5,260,442.5	4,272,546.0	825.30
	86	5,260,502.5	4,272,517.0	825.70
	87	5,260,573.5	4,272,476.0	825.60
	88	5,260,648.0	4,272,439.0	825.80
Terrain Line18	89	5,260,281.0	4,272,432.5	799.30
	90	5,260,258.0	4,272,484.5	798.00
	91	5,260,228.0	4,272,532.0	798.80
	92	5,260,201.0	4,272,562.0	801.00
Terrain Line19	93	5,263,296.5	4,273,732.5	812.10
	94	5,263,306.5	4,273,670.5	812.70
	95	5,263,368.0	4,273,568.5	812.60
	96	5,263,451.0	4,273,454.5	811.60

	97	5,263,505.0	4,273,468.0	812.20
	98	5,263,559.0	4,273,481.0	813.30
	99	5,263,599.5	4,273,472.0	809.90
	100	5,263,632.5	4,273,492.5	808.10
	101	5,263,709.5	4,273,568.5	810.50
Terrain Line20	102	5,263,298.0	4,273,751.0	812.50
	103	5,263,333.0	4,273,826.5	812.00
	104	5,263,236.5	4,273,749.5	809.00
	105	5,263,191.0	4,273,707.0	807.60
	106	5,263,176.5	4,273,659.5	806.10
	107	5,263,190.0	4,273,586.0	803.60
Terrain Line21	108	5,263,220.5	4,273,445.5	805.10
	109	5,263,231.0	4,273,395.0	804.20
	110	5,263,239.5	4,273,360.5	803.90
	111	5,263,233.0	4,273,283.0	805.40
	112	5,263,263.0	4,273,187.5	805.80
	113	5,263,231.0	4,273,165.0	810.10
Terrain Line22	114	5,263,185.5	4,273,121.0	806.70
	115	5,263,126.0	4,273,043.0	808.30
	116	5,263,082.0	4,273,009.0	810.00
	117	5,262,998.5	4,273,007.5	810.10
Terrain Line23	118	5,263,322.5	4,273,469.5	786.30
	119	5,263,300.5	4,273,526.5	790.30
	120	5,263,240.0	4,273,621.0	793.00
Terrain Line24	121	5,264,343.5	4,274,244.0	826.80
	122	5,264,302.0	4,274,170.0	826.90
	123	5,264,292.5	4,273,986.0	826.60
Terrain Line25	124	5,264,271.0	4,274,405.0	831.50
	125	5,264,242.5	4,274,475.0	836.50
	126	5,264,192.5	4,274,535.0	839.90
	127	5,264,153.5	4,274,572.5	841.80
Terrain Line26	128	5,264,326.0	4,274,373.0	826.00
	129	5,264,380.5	4,274,410.5	828.10
	130	5,264,439.0	4,274,414.0	834.30
	131	5,264,457.5	4,274,499.0	832.60
Terrain Line28	139	5,264,606.5	4,274,313.0	860.70

	140	5,264,573.5	4,274,186.0	860.80
	141	5,264,587.0	4,274,152.5	859.90
Terrain Line29	142	5,264,302.5	4,274,366.5	824.80
	143	5,264,307.5	4,274,334.0	824.50
	144	5,264,246.0	4,274,263.5	824.50
	145	5,264,206.5	4,274,169.5	822.70
Terrain Line30	146	5,263,983.0	4,273,959.5	826.20
	147	5,263,894.0	4,273,889.5	824.40
Terrain Line33	157	5,264,034.0	4,274,410.0	879.20
	158	5,264,025.0	4,274,387.5	879.30
	159	5,263,915.5	4,274,355.0	879.10
Terrain Line34	160	5,260,283.0	4,272,397.5	804.20
	161	5,260,415.5	4,272,373.5	803.00
	162	5,260,491.5	4,272,373.5	804.00
	163	5,260,554.0	4,272,382.5	804.40
	164	5,260,580.0	4,272,389.5	805.00
Terrain Line35	165	5,261,805.5	4,273,000.5	797.80
	166	5,261,798.5	4,272,915.5	796.90
Terrain Line36	167	5,261,794.0	4,272,903.5	798.50
	168	5,261,746.0	4,272,821.5	798.10
	169	5,261,725.5	4,272,763.0	798.70
Terrain Line37	170	5,261,986.5	4,272,898.0	816.80
	171	5,261,926.5	4,272,934.0	814.90
	172	5,261,899.0	4,272,981.5	818.40
Terrain Line38	173	5,261,880.5	4,273,280.5	813.80
	174	5,261,813.0	4,273,212.0	812.60
Terrain Line39	175	5,263,335.5	4,273,357.5	777.50
	176	5,263,329.0	4,273,451.5	785.80
Terrain Line40	177	5,264,301.0	4,274,371.0	825.70
	178	5,264,321.5	4,274,368.0	825.90
	179	5,264,366.0	4,274,327.5	828.90
	180	5,264,349.5	4,274,257.5	826.90
Terrain Line41	181	5,264,047.5	4,274,506.0	878.20
	182	5,264,061.0	4,274,472.0	875.80
	183	5,264,046.5	4,274,439.0	879.20
Terrain Line42	184	5,264,065.5	4,274,294.0	859.50

	185	5,264,038.5	4,274,276.0	859.30
	186	5,264,000.0	4,274,199.5	857.50
	187	5,263,950.5	4,274,178.5	861.30
	188	5,263,916.5	4,274,163.0	860.70
Terrain Line43	189	5,263,893.5	4,274,347.5	879.20
	190	5,263,823.0	4,274,327.0	877.20

PEC 8 August 2023
ZR TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S2

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Rd13 ; NB 1072 to NB 75 On1	point1	1	1179	25	0	0	64	25	0	0	0	0
	point2	2	1179	25	0	0	64	25	0	0	0	0
	point3	3	1179	25	0	0	64	25	0	0	0	0
	point4	4	1179	25	0	0	64	25	0	0	0	0
	point5	5										
Rd14 ; NB 1072 Over 751	point6	6	953	25	0	0	46	25	0	0	0	0
	point7	7	953	25	0	0	46	25	0	0	0	0
	point8	8	953	25	0	0	46	25	0	0	0	0
	point9	9	953	25	0	0	46	25	0	0	0	0
	point10	10										
Rd15 ; NB 1072 Fr SB 75 Off1	point11	11	694	25	0	0	34	25	0	0	0	0
	point12	12										
Rd16 ; SB 1072 to On to SB 751	point13	13	694	25	0	0	34	25	0	0	0	0
	point14	14										
Rd17 ; SB 1072 Over 751	point15	15	953	25	0	0	46	25	0	0	0	0
	point16	16	953	25	0	0	46	25	0	0	0	0
	point17	17	953	25	0	0	46	25	0	0	0	0
	point18	18	953	25	0	0	46	25	0	0	0	0
	point19	19										
Rd18 ; SB 1072 Fr On fr NB 751	point20	20	1179	25	0	0	64	25	0	0	0	0
	point21	21	1179	25	0	0	64	25	0	0	0	0
	point22	22	1179	25	0	0	64	25	0	0	0	0
	point23	23										

Rd19 ; EB Pike to SB Svc Rd(1)1	point24	24	257	25	1	25	2	25	0	0	0	0
	point25	25										
Rd20 ; EB Pike Under 75(1)1	point26	26	257	25	1	25	2	25	0	0	0	0
	point27	27										
Rd21 ; WB Pike Under 75(2)1	point28	28	1158	25	5	25	7	25	0	0	0	0
	point29	29										
Rd22 ; WB Pike Fr SB SB Svc(2)1	point30	30	1158	25	5	25	7	25	0	0	0	0
	point31	31										
Rd39 ; EB 11th St(1)1	point32	32	1366	25	6	25	8	25	0	0	0	0
	point33	33	1366	25	6	25	8	25	0	0	0	0
	point34	34	1366	25	6	25	8	25	0	0	0	0
	point35	35	1366	25	6	25	8	25	0	0	0	0
	point36	36	1366	25	6	25	8	25	0	0	0	0
	point37	37	1366	25	6	25	8	25	0	0	0	0
	point38	38	1366	25	6	25	8	25	0	0	0	0
	point39	39	1366	25	6	25	8	25	0	0	0	0
	point40	40										
Rd40 ; wb 11th St (2)1	point41	41	1079	25	4	25	7	25	0	0	0	0
	point42	42	1079	25	4	25	7	25	0	0	0	0
	point43	43	1079	25	4	25	7	25	0	0	0	0
	point44	44	1079	25	4	25	7	25	0	0	0	0
	point45	45	1079	25	4	25	7	25	0	0	0	0
	point46	46	1079	25	4	25	7	25	0	0	0	0
	point47	47	1079	25	4	25	7	25	0	0	0	0
	point48	48	1079	25	4	25	7	25	0	0	0	0
	point49	49										
Rd41 ; EB Pike (1)1	point50	50	257	25	1	25	2	25	0	0	0	0
	point51	51	257	25	1	25	2	25	0	0	0	0
	point52	52	257	25	1	25	2	25	0	0	0	0
	point53	53	257	25	1	25	2	25	0	0	0	0
	point54	54	257	25	1	25	2	25	0	0	0	0
	point55	55	257	25	1	25	2	25	0	0	0	0
	point56	56	257	25	1	25	2	25	0	0	0	0
	point57	57	257	25	1	25	2	25	0	0	0	0
	point58	58	257	25	1	25	2	25	0	0	0	0
	point59	59	257	25	1	25	2	25	0	0	0	0

	point60	60	257	25	1	25	2	25	0	0	0	0
	point61	61	257	25	1	25	2	25	0	0	0	0
	point62	62	257	25	1	25	2	25	0	0	0	0
	point63	63										
Rd42 ; WB Pike(2)1	point64	64	1158	25	5	25	7	25	0	0	0	0
	point65	65	1158	25	5	25	7	25	0	0	0	0
	point66	66	1158	25	5	25	7	25	0	0	0	0
	point67	67	1158	25	5	25	7	25	0	0	0	0
	point68	68	1158	25	5	25	7	25	0	0	0	0
	point69	69	1158	25	5	25	7	25	0	0	0	0
	point70	70	1158	25	5	25	7	25	0	0	0	0
	point71	71	1158	25	5	25	7	25	0	0	0	0
	point72	72	1158	25	5	25	7	25	0	0	0	0
	point73	73	1158	25	5	25	7	25	0	0	0	0
	point74	74	1158	25	5	25	7	25	0	0	0	0
	point75	75	1158	25	5	25	7	25	0	0	0	0
	point76	76										
Rd59 ; NB CD 1072 Off-75 On(1)1	point77	77	424	35	0	0	27	35	0	0	0	0
	point78	78	424	35	0	0	27	35	0	0	0	0
	point79	79	424	35	0	0	27	35	0	0	0	0
	point80	80	424	35	0	0	27	35	0	0	0	0
	point81	81	424	35	0	0	27	35	0	0	0	0
	point82	82	424	35	0	0	27	35	0	0	0	0
	point83	83	424	35	0	0	27	35	0	0	0	0
	point84	84	424	35	0	0	27	35	0	0	0	0
	point85	85	424	35	0	0	27	35	0	0	0	0
	point86	86										
Rd60 ; NB On fr 1072(1)1	point87	87	541	35	0	0	44	35	0	0	0	0
	point88	88	541	35	0	0	44	35	0	0	0	0
	point89	89	541	35	0	0	44	35	0	0	0	0
	point90	90	541	35	0	0	44	35	0	0	0	0
	point91	91	541	35	0	0	44	35	0	0	0	0
	point92	92	541	35	0	0	44	35	0	0	0	0
	point93	93	541	35	0	0	44	35	0	0	0	0
	point94	94	541	35	0	0	44	35	0	0	0	0
	point95	95	541	35	0	0	44	35	0	0	0	0

	point96	96	541	35	0	0	44	35	0	0	0	0
	point97	97										
Rd 61 ; NB On Fr Svc + 1072(2)1	point98	98	689	35	9	35	13	35	0	0	0	0
	point99	99										
Rd62 ; NB Off to 1072(1)1	point100	100	371	35	0	0	17	35	0	0	0	0
	point101	101	371	35	0	0	17	35	0	0	0	0
	point102	102	371	35	0	0	17	35	0	0	0	0
	point103	103	371	35	0	0	17	35	0	0	0	0
	point104	104	371	35	0	0	17	35	0	0	0	0
	point105	105	371	35	0	0	17	35	0	0	0	0
	point106	106	371	35	0	0	17	35	0	0	0	0
	point107	107	371	35	0	0	17	35	0	0	0	0
	point108	108										
Rd64 ; NB 75 4Lane-5Lane(4)1	point109	109	4015	55	0	0	1240	55	0	0	0	0
	point110	110	4015	55	0	0	1240	55	0	0	0	0
	point111	111	4015	55	0	0	1240	55	0	0	0	0
	point112	112	4015	55	0	0	1240	55	0	0	0	0
	point113	113	4015	55	0	0	1240	55	0	0	0	0
	point114	114	4015	55	0	0	1240	55	0	0	0	0
	point115	115	4015	55	0	0	1240	55	0	0	0	0
	point116	116	4015	55	0	0	1240	55	0	0	0	0
	point117	117	4015	55	0	0	1240	55	0	0	0	0
	point118	118	4015	55	0	0	1240	55	0	0	0	0
	point119	119	4015	55	0	0	1240	55	0	0	0	0
	point120	120	4015	55	0	0	1240	55	0	0	0	0
	point121	121	4015	55	0	0	1240	55	0	0	0	0
	point122	122	4015	55	0	0	1240	55	0	0	0	0
	point123	123										
Rd65 ; NB 75 Svc Rd On-1072 On(5)1	point124	124	4406	55	0	0	1272	55	0	0	0	0
	point125	125	4406	55	0	0	1272	55	0	0	0	0
	point126	126										
Rd66 ; NB 75 1072 On-2_4Split(6)1	point127	127	4942	55	0	0	1322	55	0	0	0	0
	point128	128	4942	55	0	0	1322	55	0	0	0	0
	point129	129	4942	55	0	0	1322	55	0	0	0	0
	point130	130	4942	55	0	0	1322	55	0	0	0	0
	point131	131	4942	55	0	0	1322	55	0	0	0	0

	point132	132	4942	55	0	0	1322	55	0	0	0	0
	point133	133	4942	55	0	0	1322	55	0	0	0	0
	point134	134	4942	55	0	0	1322	55	0	0	0	0
	point135	135	4942	55	0	0	1322	55	0	0	0	0
	point136	136	4942	55	0	0	1322	55	0	0	0	0
	point137	137	4942	55	0	0	1322	55	0	0	0	0
	point138	138	4942	55	0	0	1322	55	0	0	0	0
	point139	139	4942	55	0	0	1322	55	0	0	0	0
	point140	140	4942	55	0	0	1322	55	0	0	0	0
	point141	141	4942	55	0	0	1322	55	0	0	0	0
	point142	142	4942	55	0	0	1322	55	0	0	0	0
	point143	143	4942	55	0	0	1322	55	0	0	0	0
	point144	144	4942	55	0	0	1322	55	0	0	0	0
	point145	145	4942	55	0	0	1322	55	0	0	0	0
	point146	146	4942	55	0	0	1322	55	0	0	0	0
	point147	147	4942	55	0	0	1322	55	0	0	0	0
	point148	148	4942	55	0	0	1322	55	0	0	0	0
	point149	149	4942	55	0	0	1322	55	0	0	0	0
	point150	150										
Rd68 ; NB 75 Off to 12 to Off to 1	point151	151	2990	55	0	0	1216	55	0	0	0	0
	point152	152	2990	55	0	0	1216	55	0	0	0	0
	point153	153	2990	55	0	0	1216	55	0	0	0	0
	point154	154	2990	55	0	0	1216	55	0	0	0	0
	point155	155	2990	55	0	0	1216	55	0	0	0	0
	point156	156	2990	55	0	0	1216	55	0	0	0	0
	point157	157	2990	55	0	0	1216	55	0	0	0	0
	point158	158	2990	55	0	0	1216	55	0	0	0	0
	point159	159	2990	55	0	0	1216	55	0	0	0	0
	point160	160	2990	55	0	0	1216	55	0	0	0	0
	point161	161	2990	55	0	0	1216	55	0	0	0	0
	point162	162	2990	55	0	0	1216	55	0	0	0	0
	point163	163	2990	55	0	0	1216	55	0	0	0	0
	point164	164	2990	55	0	0	1216	55	0	0	0	0
	point165	165										
Rd69 ; NB 75 Off to-New Bridge(3)1	point166	166	3360	55	64	55	512	55	64	55	0	0
	point167	167	3360	55	64	55	512	55	64	55	0	0

	point168	168	3360	55	64	55	512	55	64	55	0	0
	point169	169	3360	55	64	55	512	55	64	55	0	0
	point170	170	3360	55	64	55	512	55	64	55	0	0
	point171	171	3360	55	64	55	512	55	64	55	0	0
	point172	172	3360	55	64	55	512	55	64	55	0	0
	point173	173	3360	55	64	55	512	55	64	55	0	0
	point174	174										
Rd71; NB CD Rd (2)1	point175	175	1897	35	0	0	143	35	0	0	0	0
	point176	176	1897	35	0	0	143	35	0	0	0	0
	point177	177	1897	35	0	0	143	35	0	0	0	0
	point178	178	1897	35	0	0	143	35	0	0	0	0
	point179	179	1897	35	0	0	143	35	0	0	0	0
	point180	180	1897	35	0	0	143	35	0	0	0	0
	point181	181	1897	35	0	0	143	35	0	0	0	0
	point182	182	1897	35	0	0	143	35	0	0	0	0
	point183	183										
Rd72 ; NB CD fr off to 12th(1)1	point184	184	805	25	10	25	15	25	0	0	0	0
	point185	185	805	25	10	25	15	25	0	0	0	0
	point186	186	805	25	10	25	15	25	0	0	0	0
	point187	187	805	25	10	25	15	25	0	0	0	0
	point188	188	805	25	10	25	15	25	0	0	0	0
	point189	189	805	25	10	25	15	25	0	0	0	0
	point190	190	805	25	10	25	15	25	0	0	0	0
	point191	191	805	25	10	25	15	25	0	0	0	0
	point192	192	805	25	10	25	15	25	0	0	0	0
	point193	193	805	25	10	25	15	25	0	0	0	0
	point194	194	805	25	10	25	15	25	0	0	0	0
	point195	195	805	25	10	25	15	25	0	0	0	0
	point196	196	805	25	10	25	15	25	0	0	0	0
	point197	197	805	25	10	25	15	25	0	0	0	0
	point198	198										
Rd74 ; NB On Ramp Fr Pike(1)1	point199	199	534	35	7	35	10	35	0	0	0	0
	point200	200	534	35	7	35	10	35	0	0	0	0
	point201	201	534	35	7	35	10	35	0	0	0	0
	point202	202	534	35	7	35	10	35	0	0	0	0
	point203	203	534	35	7	35	10	35	0	0	0	0

	point204	204	534	35	7	35	10	35	0	0	0	0
	point205	205										
Rd77 ; NB 75 to Old Br(2)1	point206	206	1971	55	40	55	188	55	40	55	0	0
	point207	207	1971	55	40	55	188	55	40	55	0	0
	point208	208	1971	55	40	55	188	55	40	55	0	0
	point209	209	1971	55	40	55	188	55	40	55	0	0
	point210	210	1971	55	40	55	188	55	40	55	0	0
	point211	211	1971	55	40	55	188	55	40	55	0	0
	point212	212	1971	55	40	55	188	55	40	55	0	0
	point213	213	1971	55	40	55	188	55	40	55	0	0
	point214	214	1971	55	40	55	188	55	40	55	0	0
	point215	215										
Rd82 ; EB Pike fr new local Rd(2)1	point216	216	653	25	3	25	4	25	0	0	0	0
	point217	217	653	25	3	25	4	25	0	0	0	0
	point218	218	653	25	3	25	4	25	0	0	0	0
	point219	219										
Rd83 ; EB 12th to SB new local Rd(1)1	point220	220	119	25	0	0	1	25	0	0	0	0
	point221	221										
Rd84 ; EB 12th Under 75(2)1	point222	222	257	25	1	25	2	25	0	0	0	0
	point223	223	257	25	1	25	2	25	0	0	0	0
	point224	224	257	25	1	25	2	25	0	0	0	0
	point225	225										
Rd85 ; WB 12th to NB New Loclal Rd(2)1	point226	226	653	25	3	25	4	25	0	0	0	0
	point227	227	653	25	3	25	4	25	0	0	0	0
	point228	228	653	25	3	25	4	25	0	0	0	0
	point229	229										
Rd86 ; WB 12th Under 75(2)1	point230	230	455	25	2	25	3	25	0	0	0	0
	point231	231	455	25	2	25	3	25	0	0	0	0
	point232	232	455	25	2	25	3	25	0	0	0	0
	point233	233										
Rd87 ; WB 12th fr SB Svc Rd(1)1	point234	234	129	25	1	25	1	25	0	0	0	0
	point235	235										
Rd94 ; NB Off to New local@12th(1)1	point236	236	1152	25	19	25	29	25	0	0	0	0
	point237	237	1152	25	19	25	29	25	0	0	0	0
	point238	238	1152	25	19	25	29	25	0	0	0	0
	point239	239	1152	25	19	25	29	25	0	0	0	0

	point240	240	1152	25	19	25	29	25	0	0	0	0
	point241	241	1152	25	19	25	29	25	0	0	0	0
	point242	242										
Rd95 ; NB New local to Pike(3)1	point243	243	1152	25	19	25	29	25	0	0	0	0
	point244	244	1152	25	19	25	29	25	0	0	0	0
	point245	245										
Rd96 ; NB new local @ Pike(3)1	point246	246	1152	25	19	25	29	25	0	0	0	0
	point247	247										
Rd97 ; NB new local Pike-11th(3)1	point248	248	970	25	12	25	18	25	0	0	0	0
	point249	249	970	25	12	25	18	25	0	0	0	0
	point250	250	970	25	12	25	18	25	0	0	0	0
	point251	251										
Rd98 ; NB new local @ 11th(3)1	point252	252	970	25	12	25	18	25	0	0	0	0
	point253	253										
Rd99 ; NB new local 11th-On to nb 75(3)1	point254	254	970	25	12	25	18	25	0	0	0	0
	point255	255										
Rd00 ; NB new local On to 75-11th(3)1	point256	256	295	25	6	25	9	25	0	0	0	0
	point257	257	295	25	6	25	9	25	0	0	0	0
	point258	258	295	25	6	25	9	25	0	0	0	0
	point259	259	295	25	6	25	9	25	0	0	0	0
	point260	260										
Rd116 ; SB 75 Cd On-6l ane(7)1	point261	261	7501	55	143	55	1143	55	143	55	0	0
	point262	262	7501	55	143	55	1143	55	143	55	0	0
	point263	263	7501	55	143	55	1143	55	143	55	0	0
	point264	264	7501	55	143	55	1143	55	143	55	0	0
	point265	265										
Rd117 ; SB 75 CD On-Ramp On(6)1	point266	266	5731	55	0	0	941	55	0	0	0	0
	point267	267	5731	55	0	0	941	55	0	0	0	0
	point268	268	5731	55	0	0	941	55	0	0	0	0
	point269	269	5731	55	0	0	941	55	0	0	0	0
	point270	270	5731	55	0	0	941	55	0	0	0	0
	point271	271	5731	55	0	0	941	55	0	0	0	0
	point272	272	5731	55	0	0	941	55	0	0	0	0
	point273	273	5731	55	0	0	941	55	0	0	0	0
	point274	274	5731	55	0	0	941	55	0	0	0	0
	point275	275	5731	55	0	0	941	55	0	0	0	0

	point276	276	5731	55	0	0	941	55	0	0	0	0
	point277	277	5731	55	0	0	941	55	0	0	0	0
	point278	278	5731	55	0	0	941	55	0	0	0	0
	point279	279	5731	55	0	0	941	55	0	0	0	0
	point280	280	5731	55	0	0	941	55	0	0	0	0
	point281	281	5731	55	0	0	941	55	0	0	0	0
	point282	282	5731	55	0	0	941	55	0	0	0	0
	point283	283										
Rd118 ; SB 75 On Ramp-6 lane(7)1	point284	284	6718	55	0	0	986	55	0	0	0	0
	point285	285	6718	55	0	0	986	55	0	0	0	0
	point286	286	6718	55	0	0	986	55	0	0	0	0
	point287	287										
Rd119 ; SB 75 7 lane-Off to 1072(6)1	point288	288	6718	55	0	0	986	55	0	0	0	0
	point289	289	6718	55	0	0	986	55	0	0	0	0
	point290	290	6718	55	0	0	986	55	0	0	0	0
	point291	291	6718	55	0	0	986	55	0	0	0	0
	point292	292	6718	55	0	0	986	55	0	0	0	0
	point293	293	6718	55	0	0	986	55	0	0	0	0
	point294	294	6718	55	0	0	986	55	0	0	0	0
	point295	295	6718	55	0	0	986	55	0	0	0	0
	point296	296	6718	55	0	0	986	55	0	0	0	0
	point297	297	6718	55	0	0	986	55	0	0	0	0
	point298	298	6718	55	0	0	986	55	0	0	0	0
	point299	299	6718	55	0	0	986	55	0	0	0	0
	point300	300	6718	55	0	0	986	55	0	0	0	0
	point301	301	6718	55	0	0	986	55	0	0	0	0
	point302	302	6718	55	0	0	986	55	0	0	0	0
	point303	303	6718	55	0	0	986	55	0	0	0	0
	point304	304	6718	55	0	0	986	55	0	0	0	0
	point305	305	6718	55	0	0	986	55	0	0	0	0
	point306	306	6718	55	0	0	986	55	0	0	0	0
	point307	307	6718	55	0	0	986	55	0	0	0	0
	point308	308	6718	55	0	0	986	55	0	0	0	0
	point309	309	6718	55	0	0	986	55	0	0	0	0
	point310	310	6718	55	0	0	986	55	0	0	0	0
	point311	311	6718	55	0	0	986	55	0	0	0	0

	point312	312	6718	55	0	0	986	55	0	0	0	0
	point313	313	6718	55	0	0	986	55	0	0	0	0
	point314	314	6718	55	0	0	986	55	0	0	0	0
	point315	315	6718	55	0	0	986	55	0	0	0	0
	point316	316										
Rd121 ; SB 75 1072 Off-5 lane(6)1	point317	317	5513	55	0	0	920	55	0	0	0	0
	point318	318	5513	55	0	0	920	55	0	0	0	0
	point319	319	5513	55	0	0	920	55	0	0	0	0
	point320	320	5513	55	0	0	920	55	0	0	0	0
	point321	321	5513	55	0	0	920	55	0	0	0	0
	point322	322	5513	55	0	0	920	55	0	0	0	0
	point323	323	5513	55	0	0	920	55	0	0	0	0
	point324	324										
Rd122 ; SB 75 5lane-4lane (5)1	point325	325	5513	55	0	0	920	55	0	0	0	0
	point326	326	5513	55	0	0	920	55	0	0	0	0
	point327	327	5513	55	0	0	920	55	0	0	0	0
	point328	328	5513	55	0	0	920	55	0	0	0	0
	point329	329	5513	55	0	0	920	55	0	0	0	0
	point330	330	5513	55	0	0	920	55	0	0	0	0
	point331	331	5513	55	0	0	920	55	0	0	0	0
	point332	332	5513	55	0	0	920	55	0	0	0	0
	point333	333	5513	55	0	0	920	55	0	0	0	0
	point334	334	5513	55	0	0	920	55	0	0	0	0
	point335	335	5513	55	0	0	920	55	0	0	0	0
	point336	336										
Rd135 ; SB new local 9th-Pike(3)1	point337	337	1515	25	6	25	9	25	0	0	0	0
	point338	338	1515	25	6	25	9	25	0	0	0	0
	point339	339	1515	25	6	25	9	25	0	0	0	0
	point340	340	1515	25	6	25	9	25	0	0	0	0
	point341	341	1515	25	6	25	9	25	0	0	0	0
	point342	342										
Rd136 ; SB New local @ Pike(3)1	point343	343	1515	25	6	25	9	25	0	0	0	0
	point344	344										
Rd137 ; SB new local Pike-12th(3)1	point345	345	1257	25	5	25	8	25	0	0	0	0
	point346	346	1257	25	5	25	8	25	0	0	0	0
	point347	347	1257	25	5	25	8	25	0	0	0	0

	point348	348	1257	25	5	25	8	25	0	0	0	0
	point349	349										
Rd138 ; SB new local @ 12th(3)1	point350	350	1257	25	5	25	8	25	0	0	0	0
	point351	351										
Rd139 ; SB new local 12th-75(2)1	point352	352	970	35	0	0	36	35	0	0	0	0
	point353	353	970	35	0	0	36	35	0	0	0	0
	point354	354	970	35	0	0	36	35	0	0	0	0
	point355	355	970	35	0	0	36	35	0	0	0	0
	point356	356	970	35	0	0	36	35	0	0	0	0
	point357	357	970	35	0	0	36	35	0	0	0	0
	point358	358	970	35	0	0	36	35	0	0	0	0
	point359	359	970	35	0	0	36	35	0	0	0	0
	point360	360	970	35	0	0	36	35	0	0	0	0
	point361	361	970	35	0	0	36	35	0	0	0	0
	point362	362	970	35	0	0	36	35	0	0	0	0
	point363	363	970	35	0	0	36	35	0	0	0	0
	point364	364										
Rd140 ; SB Off to CD @ 1072(1)1	point365	365	1212	35	0	0	49	35	0	0	0	0
	point366	366	1212	35	0	0	49	35	0	0	0	0
	point367	367	1212	35	0	0	49	35	0	0	0	0
	point368	368										
Rd141 ; SB CD 1072 off-on(1)1	point369	369	403	25	0	0	15	25	0	0	0	0
	point370	370	403	25	0	0	15	25	0	0	0	0
	point371	371	403	25	0	0	15	25	0	0	0	0
	point372	372	403	25	0	0	15	25	0	0	0	0
	point373	373	403	25	0	0	15	25	0	0	0	0
	point374	374	403	25	0	0	15	25	0	0	0	0
	point375	375	403	25	0	0	15	25	0	0	0	0
	point376	376	403	25	0	0	15	25	0	0	0	0
	point377	377	403	25	0	0	15	25	0	0	0	0
	point378	378	403	25	0	0	15	25	0	0	0	0
	point379	379	403	25	0	0	15	25	0	0	0	0
	point380	380	403	25	0	0	15	25	0	0	0	0
	point381	381	403	25	0	0	15	25	0	0	0	0
	point382	382	403	25	0	0	15	25	0	0	0	0
	point383	383										

Rd142 ; SB CD 1072 on-1 lane(2)1	point384	384	810	25	0	0	33	25	0	0	0	0
	point385	385	810	25	0	0	33	25	0	0	0	0
	point386	386	810	25	0	0	33	25	0	0	0	0
	point387	387	810	25	0	0	33	25	0	0	0	0
	point388	388										
Rd143 ; SB CD 2 lane-Dixie Off(1)1	point389	389	1215	25	10	25	15	25	0	0	0	0
	point390	390										
Rd150 ; SB Off to 1072(1)1	point391	391	807	35	0	0	34	35	0	0	0	0
	point392	392	807	35	0	0	34	35	0	0	0	0
	point393	393	807	35	0	0	34	35	0	0	0	0
	point394	394	807	35	0	0	34	35	0	0	0	0
	point395	395										
Rd151 ; SB Off to 1072(2)1	point396	396	807	35	0	0	34	35	0	0	0	0
	point397	397										
Rd152 ; SB On fr Dixie(1)1	point398	398	406	35	0	0	18	35	0	0	0	0
	point399	399	406	35	0	0	18	35	0	0	0	0
	point400	400	406	35	0	0	18	35	0	0	0	0
	point401	401										

PEC 8 August 2023
ZR TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: BSB
RUN: KY W Build PM S3

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Rd 1 ; NB On Fr WB Dixie1	point1	1	220	35	0	0	14	35	0	0	0	0
	point2	2	220	35	0	0	14	35	0	0	0	0
	point3	3	220	35	0	0	14	35	0	0	0	0
	point4	4	220	35	0	0	14	35	0	0	0	0
	point5	5										
Rd2 ; NB On Fr WB Dixie1	point6	6	220	35	0	0	14	35	0	0	0	0
	point7	7	220	35	0	0	14	35	0	0	0	0
	point8	8	220	35	0	0	14	35	0	0	0	0
	point9	9	220	35	0	0	14	35	0	0	0	0
	point10	10	220	35	0	0	14	35	0	0	0	0
	point11	11	220	35	0	0	14	35	0	0	0	0
	point12	12	220	35	0	0	14	35	0	0	0	0
	point13	13	220	35	0	0	14	35	0	0	0	0
	point14	14	220	35	0	0	14	35	0	0	0	0
	point15	15	220	35	0	0	14	35	0	0	0	0
	point16	16										
Rd3 ; SB on Fr Dixie1	point17	17	443	35	0	0	24	35	0	0	0	0
	point18	18	443	35	0	0	24	35	0	0	0	0
	point19	19	443	35	0	0	24	35	0	0	0	0
	point20	20	443	35	0	0	24	35	0	0	0	0
	point21	21	443	35	0	0	24	35	0	0	0	0
	point22	22	443	35	0	0	24	35	0	0	0	0
	point23	23	443	35	0	0	24	35	0	0	0	0

	point24	24	443	35	0	0	24	35	0	0	0	0
	point25	25										
Rd3 ; SB on Fr Dixie2	point26	26	443	35	0	0	24	35	0	0	0	0
	point27	27	443	35	0	0	24	35	0	0	0	0
	point28	28	443	35	0	0	24	35	0	0	0	0
	point29	29										
Rd4 ; NB Dixie H'way to Off to 751	point30	30	1218	25	0	0	54	25	0	0	0	0
	point31	31	1218	25	0	0	54	25	0	0	0	0
	point32	32										
Rd5 ; NB Dixie Off - Off1	point33	33	513	25	0	0	25	25	0	0	0	0
	point34	34										
Rd6 ; NB Dixie Over 711	point35	35	988	25	0	0	42	25	0	0	0	0
	point36	36	988	25	0	0	42	25	0	0	0	0
	point37	37	988	25	0	0	42	25	0	0	0	0
	point38	38	988	25	0	0	42	25	0	0	0	0
	point39	39	988	25	0	0	42	25	0	0	0	0
	point40	40										
Rd7 ; SB 71 Off to NB Dixie1	point41	41	440	35	0	0	16	35	0	0	0	0
	point42	42	440	35	0	0	16	35	0	0	0	0
	point43	43	440	35	0	0	16	35	0	0	0	0
	point44	44	440	35	0	0	16	35	0	0	0	0
	point45	45	440	35	0	0	16	35	0	0	0	0
	point46	46	440	35	0	0	16	35	0	0	0	0
	point47	47										
Rd8 ; NB Dixie Off SB - Off NB1	point48	48	753	25	0	0	32	25	0	0	0	0
	point49	49										
Rd9 ; NB Dixie Fr 71 Off1	point50	50	889	25	0	0	42	25	0	0	0	0
	point51	51	889	25	0	0	42	25	0	0	0	0
	point52	52										
Rd10 ; SB Dixie to On to SB 711	point53	53	889	25	0	0	42	25	0	0	0	0
	point54	54	889	25	0	0	42	25	0	0	0	0
	point55	55	889	25	0	0	42	25	0	0	0	0
	point56	56	889	25	0	0	42	25	0	0	0	0
	point57	57										
Rd11 ; SB Dixie Over 711	point58	58	988	25	0	0	42	25	0	0	0	0
	point59	59	988	25	0	0	42	25	0	0	0	0

	point60	60	988	25	0	0	42	25	0	0	0	0
	point61	61										
Rd12 ; SB Dixie Fr NB On1	point62	62	1218	25	0	0	54	25	0	0	0	0
	point63	63	1218	25	0	0	54	25	0	0	0	0
	point64	64										
Rd13 ; NB 1072 to NB 75 On1	point65	65	1179	25	0	0	64	25	0	0	0	0
	point66	66	1179	25	0	0	64	25	0	0	0	0
	point67	67	1179	25	0	0	64	25	0	0	0	0
	point68	68	1179	25	0	0	64	25	0	0	0	0
	point69	69										
Rd14 ; NB 1072 Over 751	point70	70	954	25	0	0	46	25	0	0	0	0
	point71	71	954	25	0	0	46	25	0	0	0	0
	point72	72	954	25	0	0	46	25	0	0	0	0
	point73	73	954	25	0	0	46	25	0	0	0	0
	point74	74										
Rd16 ; SB 1072 to On to SB 751	point77	77	695	25	0	0	34	25	0	0	0	0
	point78	78										
Rd17 ; SB 1072 Over 751	point79	79	954	25	0	0	46	25	0	0	0	0
	point80	80	954	25	0	0	46	25	0	0	0	0
	point81	81	954	25	0	0	46	25	0	0	0	0
	point82	82	954	25	0	0	46	25	0	0	0	0
	point83	83										
Rd18 ; SB 1072 Fr On fr NB 751	point84	84	1179	25	0	0	64	25	0	0	0	0
	point85	85	1179	25	0	0	64	25	0	0	0	0
	point86	86	1179	25	0	0	64	25	0	0	0	0
	point87	87										
Rd53 ; NB Off to CD Rd @ Dixie(1)1	point88	88	751	35	0	0	33	35	0	0	0	0
	point89	89	751	35	0	0	33	35	0	0	0	0
	point90	90										
Rd53 ; NB Off to CD Rd @ Dixie(1)2	point91	91	751	35	0	0	33	35	0	0	0	0
	point92	92										
Rd54 ; NB Off to Dixie(1)1	point93	93	406	35	0	0	16	35	0	0	0	0
	point94	94	406	35	0	0	16	35	0	0	0	0
	point95	95	406	35	0	0	16	35	0	0	0	0
	point96	96	406	35	0	0	16	35	0	0	0	0
	point97	97	406	35	0	0	16	35	0	0	0	0

	point98	98	406	35	0	0	16	35	0	0	0	0
	point99	99										
Rd55 ; NB CD Rd Dixie Off-On1	point100	100	347	35	0	0	16	35	0	0	0	0
	point101	101	347	35	0	0	16	35	0	0	0	0
	point102	102	347	35	0	0	16	35	0	0	0	0
	point103	103	347	35	0	0	16	35	0	0	0	0
	point104	104	347	35	0	0	16	35	0	0	0	0
	point105	105	347	35	0	0	16	35	0	0	0	0
	point106	106	347	35	0	0	16	35	0	0	0	0
	point107	107	347	35	0	0	16	35	0	0	0	0
	point108	108	347	35	0	0	16	35	0	0	0	0
	point109	109	347	35	0	0	16	35	0	0	0	0
	point110	110	347	35	0	0	16	35	0	0	0	0
	point111	111	347	35	0	0	16	35	0	0	0	0
	point112	112	347	35	0	0	16	35	0	0	0	0
	point113	113	347	35	0	0	16	35	0	0	0	0
	point114	114	347	35	0	0	16	35	0	0	0	0
	point115	115										
Rd56 ; NB ON fr Dixie to CD Rd(1)1	point116	116	441	35	0	0	28	35	0	0	0	0
	point117	117	441	35	0	0	28	35	0	0	0	0
	point118	118	441	35	0	0	28	35	0	0	0	0
	point119	119	441	35	0	0	28	35	0	0	0	0
	point120	120	441	35	0	0	28	35	0	0	0	0
	point121	121	441	35	0	0	28	35	0	0	0	0
	point122	122	441	35	0	0	28	35	0	0	0	0
	point123	123	441	35	0	0	28	35	0	0	0	0
	point124	124	441	35	0	0	28	35	0	0	0	0
	point125	125										
Rd57 ; NB CD Rd Dixie On-1lane(2)1	point126	126	789	35	0	0	42	35	0	0	0	0
	point127	127	789	35	0	0	42	35	0	0	0	0
	point128	128										
Rd58 ; NB CD 2lane-Off to 1072(1)1	point129	129	789	25	0	0	42	25	0	0	0	0
	point130	130	789	25	0	0	42	25	0	0	0	0
	point131	131	789	25	0	0	42	25	0	0	0	0
	point132	132	789	25	0	0	42	25	0	0	0	0
	point133	133	789	25	0	0	42	25	0	0	0	0

	point134	134										
Rd59 ; NB CD 1072 Off-75 On(1)1	point135	135	424	35	0	0	27	35	0	0	0	0
	point136	136	424	35	0	0	27	35	0	0	0	0
	point137	137	424	35	0	0	27	35	0	0	0	0
	point138	138	424	35	0	0	27	35	0	0	0	0
	point139	139	424	35	0	0	27	35	0	0	0	0
	point140	140	424	35	0	0	27	35	0	0	0	0
	point141	141	424	35	0	0	27	35	0	0	0	0
	point142	142	424	35	0	0	27	35	0	0	0	0
	point143	143	424	35	0	0	27	35	0	0	0	0
	point144	144										
Rd60 ; NB On fr 1072(1)1	point145	145	541	35	0	0	44	35	0	0	0	0
	point146	146	541	35	0	0	44	35	0	0	0	0
	point147	147	541	35	0	0	44	35	0	0	0	0
	point148	148	541	35	0	0	44	35	0	0	0	0
	point149	149	541	35	0	0	44	35	0	0	0	0
	point150	150	541	35	0	0	44	35	0	0	0	0
	point151	151	541	35	0	0	44	35	0	0	0	0
	point152	152	541	35	0	0	44	35	0	0	0	0
	point153	153	541	35	0	0	44	35	0	0	0	0
	point154	154	541	35	0	0	44	35	0	0	0	0
	point155	155										
Rd 61 ; NB On Fr Svc + 1072(2)1	point156	156	689	35	9	35	13	35	0	0	0	0
	point157	157										
Rd62 ; NB Off to 1072(1)1	point158	158	371	35	0	0	17	35	0	0	0	0
	point159	159	371	35	0	0	17	35	0	0	0	0
	point160	160	371	35	0	0	17	35	0	0	0	0
	point161	161	371	35	0	0	17	35	0	0	0	0
	point162	162	371	35	0	0	17	35	0	0	0	0
	point163	163	371	35	0	0	17	35	0	0	0	0
	point164	164	371	35	0	0	17	35	0	0	0	0
	point165	165	371	35	0	0	17	35	0	0	0	0
	point166	166										
Rd63 ; NB 75 3 lane-4lane(3)1	point167	167	4015	55	0	0	1240	55	0	0	0	0
	point168	168	4015	55	0	0	1240	55	0	0	0	0
	point169	169	4015	55	0	0	1240	55	0	0	0	0

	point170	170										
Rd63 ; NB 75 3 lane-4lane(3)2	point171	171	4015	55	0	0	1240	55	0	0	0	0
	point172	172	4015	55	0	0	1240	55	0	0	0	0
	point173	173	4015	55	0	0	1240	55	0	0	0	0
	point174	174	4015	55	0	0	1240	55	0	0	0	0
	point175	175	4015	55	0	0	1240	55	0	0	0	0
	point176	176	4015	55	0	0	1240	55	0	0	0	0
	point177	177	4015	55	0	0	1240	55	0	0	0	0
	point178	178	4015	55	0	0	1240	55	0	0	0	0
	point179	179	4015	55	0	0	1240	55	0	0	0	0
	point180	180	4015	55	0	0	1240	55	0	0	0	0
	point181	181	4015	55	0	0	1240	55	0	0	0	0
	point182	182	4015	55	0	0	1240	55	0	0	0	0
	point183	183	4015	55	0	0	1240	55	0	0	0	0
	point184	184	4015	55	0	0	1240	55	0	0	0	0
	point185	185	4015	55	0	0	1240	55	0	0	0	0
	point186	186										
Rd64 ; NB 75 4Lane-5Lane(4)1	point187	187	4015	55	0	0	1240	55	0	0	0	0
	point188	188	4015	55	0	0	1240	55	0	0	0	0
	point189	189	4015	55	0	0	1240	55	0	0	0	0
	point190	190	4015	55	0	0	1240	55	0	0	0	0
	point191	191	4015	55	0	0	1240	55	0	0	0	0
	point192	192	4015	55	0	0	1240	55	0	0	0	0
	point193	193	4015	55	0	0	1240	55	0	0	0	0
	point194	194	4015	55	0	0	1240	55	0	0	0	0
	point195	195	4015	55	0	0	1240	55	0	0	0	0
	point196	196	4015	55	0	0	1240	55	0	0	0	0
	point197	197	4015	55	0	0	1240	55	0	0	0	0
	point198	198	4015	55	0	0	1240	55	0	0	0	0
	point199	199	4015	55	0	0	1240	55	0	0	0	0
	point200	200	4015	55	0	0	1240	55	0	0	0	0
	point201	201	4015	55	0	0	1240	55	0	0	0	0
	point202	202	4015	55	0	0	1240	55	0	0	0	0
	point203	203	4015	55	0	0	1240	55	0	0	0	0
	point204	204										
Rd65 ; NB 75 Svc Rd On-1072 On(5)1	point205	205	4406	55	0	0	1272	55	0	0	0	0

	point206	206	4406	55	0	0	1272	55	0	0	0	0
	point207	207										
Rd121 ; SB 75 1072 Off-5 lane(6)1	point208	208	5513	55	0	0	920	55	0	0	0	0
	point209	209	5513	55	0	0	920	55	0	0	0	0
	point210	210	5513	55	0	0	920	55	0	0	0	0
	point211	211	5513	55	0	0	920	55	0	0	0	0
	point212	212	5513	55	0	0	920	55	0	0	0	0
	point213	213	5513	55	0	0	920	55	0	0	0	0
	point214	214	5513	55	0	0	920	55	0	0	0	0
	point215	215										
Rd122 ; SB 75 5lane-4lane (5)1	point216	216	5513	55	0	0	920	55	0	0	0	0
	point217	217	5513	55	0	0	920	55	0	0	0	0
	point218	218	5513	55	0	0	920	55	0	0	0	0
	point219	219	5513	55	0	0	920	55	0	0	0	0
	point220	220	5513	55	0	0	920	55	0	0	0	0
	point221	221	5513	55	0	0	920	55	0	0	0	0
	point222	222	5513	55	0	0	920	55	0	0	0	0
	point223	223	5513	55	0	0	920	55	0	0	0	0
	point224	224	5513	55	0	0	920	55	0	0	0	0
	point225	225	5513	55	0	0	920	55	0	0	0	0
	point226	226	5513	55	0	0	920	55	0	0	0	0
	point227	227	5513	55	0	0	920	55	0	0	0	0
	point228	228										
Rd140 ; SB Off to CD @ 1072(1)1	point229	229	1212	35	0	0	49	35	0	0	0	0
	point230	230	1212	35	0	0	49	35	0	0	0	0
	point231	231	1212	35	0	0	49	35	0	0	0	0
	point232	232										
Rd141 ; SB CD 1072 off-on(1)1	point233	233	403	35	0	0	15	35	0	0	0	0
	point234	234	403	35	0	0	15	35	0	0	0	0
	point235	235	403	35	0	0	15	35	0	0	0	0
	point236	236	403	35	0	0	15	35	0	0	0	0
	point237	237	403	35	0	0	15	35	0	0	0	0
	point238	238	403	35	0	0	15	35	0	0	0	0
	point239	239	403	35	0	0	15	35	0	0	0	0
	point240	240	403	35	0	0	15	35	0	0	0	0
	point241	241	403	35	0	0	15	35	0	0	0	0

	point242	242	403	35	0	0	15	35	0	0	0	0
	point243	243	403	35	0	0	15	35	0	0	0	0
	point244	244	403	35	0	0	15	35	0	0	0	0
	point245	245	403	35	0	0	15	35	0	0	0	0
	point246	246	403	35	0	0	15	35	0	0	0	0
	point247	247										
Rd142 ; SB CD 1072 on-1 lane(2)1	point248	248	810	35	0	0	33	35	0	0	0	0
	point249	249	810	35	0	0	33	35	0	0	0	0
	point250	250	810	35	0	0	33	35	0	0	0	0
	point251	251	810	35	0	0	33	35	0	0	0	0
	point252	252										
Rd143 ; SB CD 2 lane-Dixie Off(1)1	point253	253	810	35	0	0	33	35	0	0	0	0
	point254	254	810	35	0	0	33	35	0	0	0	0
	point255	255	810	35	0	0	33	35	0	0	0	0
	point256	256	810	35	0	0	33	35	0	0	0	0
	point257	257	810	35	0	0	33	35	0	0	0	0
	point258	258	810	35	0	0	33	35	0	0	0	0
	point259	259										
Rd144 ; SB 75 - CD on @ Dixie(4)1	point260	260	5513	55	0	0	920	55	0	0	0	0
	point261	261	5513	55	0	0	920	55	0	0	0	0
	point262	262	5513	55	0	0	920	55	0	0	0	0
	point263	263	5513	55	0	0	920	55	0	0	0	0
	point264	264	5513	55	0	0	920	55	0	0	0	0
	point265	265	5513	55	0	0	920	55	0	0	0	0
	point266	266	5513	55	0	0	920	55	0	0	0	0
	point267	267	5513	55	0	0	920	55	0	0	0	0
	point268	268	5513	55	0	0	920	55	0	0	0	0
	point269	269	5513	55	0	0	920	55	0	0	0	0
	point270	270	5513	55	0	0	920	55	0	0	0	0
	point271	271	5513	55	0	0	920	55	0	0	0	0
	point272	272	5513	55	0	0	920	55	0	0	0	0
	point273	273	5513	55	0	0	920	55	0	0	0	0
	point274	274	5513	55	0	0	920	55	0	0	0	0
	point275	275	5513	55	0	0	920	55	0	0	0	0
	point276	276										
Rd145 ; SB 75 fr CD on @ Dixie(5)1	point277	277	5870	55	0	0	948	55	0	0	0	0

	point278	278	5870	55	0	0	948	55	0	0	0	0
	point279	279	5870	55	0	0	948	55	0	0	0	0
	point280	280	5870	55	0	0	948	55	0	0	0	0
	point281	281										
Rd145 ; SB 75 fr CD on @ Dixie(5)2	point282	282	5870	55	0	0	948	55	0	0	0	0
	point283	283	5870	55	0	0	948	55	0	0	0	0
	point284	284	5870	55	0	0	948	55	0	0	0	0
	point285	285										
Rd146 ; SB CD Dixie Off-75(1)1	point286	286	375	35	0	0	17	35	0	0	0	0
	point287	287	375	35	0	0	17	35	0	0	0	0
	point288	288	375	35	0	0	17	35	0	0	0	0
	point289	289	375	35	0	0	17	35	0	0	0	0
	point290	290	375	35	0	0	17	35	0	0	0	0
	point291	291	375	35	0	0	17	35	0	0	0	0
	point292	292	375	35	0	0	17	35	0	0	0	0
	point293	293	375	35	0	0	17	35	0	0	0	0
	point294	294	375	35	0	0	17	35	0	0	0	0
	point295	295	375	35	0	0	17	35	0	0	0	0
	point296	296	375	35	0	0	17	35	0	0	0	0
	point297	297	375	35	0	0	17	35	0	0	0	0
	point298	298	375	35	0	0	17	35	0	0	0	0
	point299	299	375	35	0	0	17	35	0	0	0	0
	point300	300	375	35	0	0	17	35	0	0	0	0
	point301	301	375	35	0	0	17	35	0	0	0	0
	point302	302										
Rd147 ; SB off to Dixie(1)1	point303	303	422	35	0	0	16	35	0	0	0	0
	point304	304	422	35	0	0	16	35	0	0	0	0
	point305	305	422	35	0	0	16	35	0	0	0	0
	point306	306	422	35	0	0	16	35	0	0	0	0
	point307	307										
Rd148 ; SB Off to SB dixie(2)1	point308	308	422	35	0	0	16	35	0	0	0	0
	point309	309	422	35	0	0	16	35	0	0	0	0
	point310	310	422	35	0	0	16	35	0	0	0	0
	point311	311	422	35	0	0	16	35	0	0	0	0
	point312	312										
Rd149 ; SB Off @ Dixie (2)1	point313	313	586	35	18	35	26	35	0	0	0	0

	point314	314										
Rd150 ; SB Off to 1072(1)1	point315	315	1083	35	23	35	34	35	0	0	0	0
	point316	316	1083	35	23	35	34	35	0	0	0	0
	point317	317	1083	35	23	35	34	35	0	0	0	0
	point318	318	1083	35	23	35	34	35	0	0	0	0
	point319	319										
Rd151 ; SB Off to 1072(2)1	point320	320	807	35	0	0	34	35	0	0	0	0
	point321	321										
Rd152 ; SB On fr Dixie(1)1	point322	322	440	35	0	0	16	35	0	0	0	0
	point323	323	440	35	0	0	16	35	0	0	0	0
	point324	324	440	35	0	0	16	35	0	0	0	0
	point325	325										
Rd254; NB 75 to On Fr Butter (3)1	point326	326	4772	55	0	0	1269	55	0	0	0	0
	point327	327	4772	55	0	0	1269	55	0	0	0	0
	point328	328	4772	55	0	0	1269	55	0	0	0	0
	point329	329	4772	55	0	0	1269	55	0	0	0	0
	point330	330	4772	55	0	0	1269	55	0	0	0	0
	point331	331	4772	55	0	0	1269	55	0	0	0	0
	point332	332	4772	55	0	0	1269	55	0	0	0	0
	point333	333	4772	55	0	0	1269	55	0	0	0	0
	point334	334	4772	55	0	0	1269	55	0	0	0	0
	point335	335	4772	55	0	0	1269	55	0	0	0	0
	point336	336	4772	55	0	0	1269	55	0	0	0	0
	point337	337										
Rd255; NB 75 Butte On-Dixie Off (31	point338	338	4772	55	0	0	1269	55	0	0	0	0
	point339	339	4772	55	0	0	1269	55	0	0	0	0
	point340	340	4772	55	0	0	1269	55	0	0	0	0
	point341	341	4772	55	0	0	1269	55	0	0	0	0
	point342	342	4772	55	0	0	1269	55	0	0	0	0
	point343	343										
Rd256; NB On Fr EB Butter (1)1	point344	344	343	35	19	35	28	35	0	0	0	0
	point345	345	343	35	19	35	28	35	0	0	0	0
	point346	346	343	35	19	35	28	35	0	0	0	0
	point347	347										
Rd257; NB On Fr WB Butter (1)1	point348	348	343	35	19	35	28	35	0	0	0	0
	point349	349	343	35	19	35	28	35	0	0	0	0

	point350	350	343	35	19	35	28	35	0	0	0	0
	point351	351										
Rd258; NB On Fr Butter (1)1	point352	352	686	35	37	35	56	35	0	0	0	0
	point353	353	686	35	37	35	56	35	0	0	0	0
	point354	354	686	35	37	35	56	35	0	0	0	0
	point355	355	686	35	37	35	56	35	0	0	0	0
	point356	356	686	35	37	35	56	35	0	0	0	0
	point357	357	686	35	37	35	56	35	0	0	0	0
	point358	358	686	35	37	35	56	35	0	0	0	0
	point359	359	686	35	37	35	56	35	0	0	0	0
	point360	360	686	35	37	35	56	35	0	0	0	0
	point361	361	686	35	37	35	56	35	0	0	0	0
	point362	362	686	35	37	35	56	35	0	0	0	0
	point363	363										
Rd259; SB 75 to End (5)1	point364	364	6284	55	0	0	981	55	0	0	0	0
	point365	365	6284	55	0	0	981	55	0	0	0	0
	point366	366	6284	55	0	0	981	55	0	0	0	0
	point367	367	6284	55	0	0	981	55	0	0	0	0
	point368	368	6284	55	0	0	981	55	0	0	0	0
	point369	369	6284	55	0	0	981	55	0	0	0	0
	point370	370	6284	55	0	0	981	55	0	0	0	0
	point371	371	6284	55	0	0	981	55	0	0	0	0
	point372	372	6284	55	0	0	981	55	0	0	0	0
	point373	373	6284	55	0	0	981	55	0	0	0	0
	point374	374	6284	55	0	0	981	55	0	0	0	0
	point375	375	6284	55	0	0	981	55	0	0	0	0
	point376	376	6284	55	0	0	981	55	0	0	0	0
	point377	377	6284	55	0	0	981	55	0	0	0	0
	point378	378	6284	55	0	0	981	55	0	0	0	0
	point379	379	6284	55	0	0	981	55	0	0	0	0
	point380	380	6284	55	0	0	981	55	0	0	0	0
	point381	381	6284	55	0	0	981	55	0	0	0	0
	point382	382	6284	55	0	0	981	55	0	0	0	0
	point383	383	6284	55	0	0	981	55	0	0	0	0
	point384	384										
Rd15 NB 1072 Fr SB 75 Off	point385	385	695	25	0	0	34	25	0	0	0	0

	point386	386										

PEC				**8 August 2023**	
ZR				**TNM 2.5**	
INPUT: TREE ZONES					
PROJECT/CONTRACT:	**BSB**				
RUN:	**KY W Build PM S2**				
Tree Zone		**Points**			
Name	**Average Height**	**No.**	**Coordinates (ground) X**	**Y**	**Z**
	ft		ft	ft	ft
Tree Zone 8	32.81	88	5,267,936.0	4,275,798.0	814.50
		89	5,268,060.0	4,275,652.5	830.40
		90	5,268,154.5	4,275,704.5	827.00
		91	5,268,286.0	4,275,818.5	804.80
		92	5,268,442.5	4,275,857.5	789.50
		93	5,268,570.5	4,275,918.0	764.30
		94	5,268,479.0	4,276,101.5	746.50
Tree Zone 9	32.81	95	5,269,229.0	4,277,402.5	780.40
		96	5,268,895.5	4,277,363.5	797.10
		97	5,268,864.0	4,277,350.5	797.20
		98	5,268,719.0	4,277,409.0	798.50
		99	5,268,675.0	4,277,427.5	792.50
		100	5,268,619.0	4,277,407.5	798.60
		101	5,268,630.0	4,277,243.0	799.90
		102	5,268,572.0	4,277,150.0	790.40
		103	5,268,426.5	4,277,111.0	794.50
		104	5,268,305.5	4,277,053.5	806.20
		105	5,268,261.5	4,277,002.5	810.60
		106	5,268,247.0	4,276,864.5	815.20
		107	5,268,301.5	4,276,835.0	809.30
		108	5,268,413.5	4,276,828.0	803.40
		109	5,268,500.0	4,276,796.5	792.80
		110	5,268,512.5	4,276,767.5	787.40
		111	5,268,522.5	4,276,719.5	787.70

		112	5,268,429.5	4,276,658.5	800.40
		113	5,268,367.5	4,276,604.0	804.00
		114	5,268,278.0	4,276,458.5	782.70
		115	5,268,235.5	4,276,453.0	786.90
		116	5,267,998.5	4,276,613.0	829.80
		117	5,267,902.5	4,276,616.0	843.60
		118	5,267,662.5	4,276,612.5	840.60
		119	5,267,679.0	4,276,415.0	802.60
		120	5,267,742.5	4,276,378.0	794.10
		121	5,267,771.0	4,276,321.5	786.60
		122	5,267,896.5	4,276,297.0	783.70
		123	5,267,958.5	4,276,146.0	779.10
		124	5,267,940.0	4,276,121.0	781.10
		125	5,267,891.0	4,276,091.0	787.40
		126	5,267,784.0	4,276,100.0	796.20
		127	5,267,648.5	4,276,034.5	815.40
		128	5,267,501.0	4,276,033.5	824.50
		129	5,267,464.5	4,276,139.0	809.20
		130	5,267,375.5	4,276,371.5	790.40
		131	5,267,352.5	4,276,363.0	790.60
		132	5,267,414.5	4,276,093.5	816.90
		133	5,267,323.0	4,276,039.0	820.90
		134	5,267,442.5	4,275,978.0	829.10
		135	5,267,567.0	4,275,979.0	826.90
		136	5,267,906.0	4,276,036.5	788.80
		137	5,268,128.5	4,276,128.0	767.20
		138	5,267,964.0	4,276,385.5	793.60
		139	5,267,797.5	4,276,456.5	815.40
		140	5,267,793.0	4,276,515.5	831.00
		141	5,268,079.5	4,276,491.5	807.60
		142	5,268,222.0	4,276,395.0	778.00
		143	5,268,429.5	4,276,375.0	766.10
		144	5,268,523.0	4,276,508.5	772.10
		145	5,268,635.0	4,276,606.0	764.40
		146	5,268,706.5	4,276,730.0	773.40
		147	5,269,015.5	4,276,925.5	748.30

		148	5,268,896.5	4,277,041.0	777.50
		149	5,269,241.5	4,277,163.5	754.60
Tree Zone 10	32.81	150	5,268,567.5	4,277,639.0	800.80
		151	5,268,863.0	4,277,713.5	792.80
		152	5,269,200.5	4,277,641.5	768.50
		153	5,269,286.5	4,277,557.5	764.20
		154	5,269,440.0	4,277,711.0	742.90
		155	5,269,446.0	4,278,126.0	795.30
		156	5,269,369.5	4,278,094.0	794.10
		157	5,269,220.0	4,278,106.5	813.00
		158	5,269,204.5	4,278,088.5	812.70
		159	5,269,188.5	4,278,076.5	801.40
		160	5,269,146.5	4,278,020.0	801.70
		161	5,268,881.0	4,278,101.0	816.10
		162	5,268,705.5	4,278,021.0	822.00
Tree Zone 12	32.81	163	5,269,297.0	4,278,704.5	802.40
		164	5,269,266.0	4,278,593.5	801.20
		165	5,269,424.0	4,278,397.5	798.30
		166	5,269,539.5	4,278,340.0	792.80
		167	5,269,624.5	4,278,470.5	772.40
		168	5,269,552.5	4,278,606.0	778.90
		169	5,269,435.0	4,278,727.5	796.50
Tree Zone7	30.00	170	5,266,391.0	4,275,570.5	850.00
		171	5,266,469.5	4,275,442.5	850.00
		172	5,267,004.0	4,275,539.5	804.00
		173	5,266,957.5	4,275,694.0	804.00
		174	5,266,868.5	4,275,691.0	804.00

PEC				**8 August 2023**	
ZR				**TNM 2.5**	
INPUT: TREE ZONES					
PROJECT/CONTRACT:	**BSB**				
RUN:	**KY W Build PM S3**				
Tree Zone		**Points**			
Name	**Average Height**	**No.**	**Coordinates (ground) X**	**Y**	**Z**
	ft		ft	ft	ft
Tree Zone2	20.00	43	5,259,769.5	4,272,521.5	813.60
		44	5,259,916.5	4,272,482.0	819.30
		45	5,260,033.0	4,272,468.0	823.20
		46	5,260,204.0	4,272,429.5	829.60
		47	5,260,259.0	4,272,404.5	832.20
		48	5,260,302.0	4,272,427.0	832.90
		49	5,260,297.0	4,272,490.5	831.70
		50	5,260,320.5	4,272,505.5	831.50
		51	5,260,409.5	4,272,434.0	833.10
		52	5,260,600.0	4,272,389.5	831.10
		53	5,260,710.0	4,272,382.5	827.40
		54	5,260,710.5	4,272,396.0	827.40
		55	5,260,577.5	4,272,439.0	831.80
		56	5,260,402.0	4,272,565.0	829.60
		57	5,260,422.0	4,272,613.0	828.10
		58	5,260,340.0	4,272,772.0	819.40
		59	5,260,284.0	4,272,674.0	829.90
		60	5,260,196.0	4,272,580.0	831.40
		61	5,260,011.5	4,272,536.5	822.50
		62	5,259,946.0	4,272,535.5	820.30
		63	5,259,775.5	4,272,580.5	814.30
Tree Zone4	0.00	64	5,263,503.5	4,274,035.5	833.70
		65	5,263,257.0	4,273,809.5	825.10
		66	5,262,957.5	4,273,515.0	815.20

		67	5,262,991.5	4,273,449.5	816.10
		68	5,263,020.5	4,273,461.5	817.80
		69	5,263,075.5	4,273,615.5	820.70
		70	5,263,146.5	4,273,628.0	823.40
		71	5,263,219.5	4,273,548.0	828.30
		72	5,263,238.0	4,273,456.0	829.00
		73	5,263,356.5	4,273,469.5	826.30
		74	5,263,281.0	4,273,725.0	825.90
		75	5,263,386.0	4,273,832.5	830.70
		76	5,263,440.0	4,273,828.0	832.20
		77	5,263,517.5	4,274,048.5	834.20
Tree Zone1	0.00	78	5,259,757.0	4,272,245.0	805.20
		79	5,259,223.0	4,272,343.5	801.80
		80	5,259,536.0	4,272,115.5	792.60
		81	5,259,647.5	4,272,012.0	801.00
		82	5,259,775.5	4,271,814.0	800.00
		83	5,259,807.0	4,271,831.5	800.00
		84	5,259,741.0	4,272,035.5	800.00

Appendix C: TNM Runs (Barrier Analyses)

RESULTS: SOUND LEVELS **BSB**

PEC	**8 August 2023**
ZR	**TNM 2.5**
	Calculated with TNM 2.5
RESULTS: SOUND LEVELS	
PROJECT/CONTRACT:	**BSB**
RUN:	**KY Barrier B16B 12-22'**
BARRIER DESIGN:	**12-20**
ATMOSPHERICS:	**68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R721(K1381)	229	1	58.6	63.8	66	5.2	10	----	63.4	0.4	7	-6.6
R722(K1404)	230	1	58.3	63.1	66	4.8	10	----	60.0	3.1	7	-3.9
R723(K1405)	231	1	58.4	62.8	66	4.4	10	----	59.0	3.8	7	-3.2
R724(K1415)	232	1	53.9	59.3	66	5.4	10	----	56.7	2.6	7	-4.4
R728(K1419)	236	1	58.2	61.5	66	3.3	10	----	57.9	3.6	7	-3.4
R729(K1422)	237	1	58.1	62.0	66	3.9	10	----	58.0	4.0	7	-3.0
R731(K1429)	239	1	58.2	61.8	66	3.6	10	----	58.8	3.0	7	-4.0
R732(K65)	240	1	58.9	63.5	66	4.6	10	----	57.9	5.6	7	-1.4
R738(K1412)	247	1	60.6	67.9	66	7.3	10	Snd Lvl	62.8	5.1	7	-1.9
R739(K1424)	248	1	58.7	67.0	66	8.3	10	Snd Lvl	60.8	6.2	7	-0.8
R740(K1454)	249	1	60.6	66.4	66	5.8	10	Snd Lvl	59.3	7.1	7	0.1
R742(K1450)	251	1	58.7	64.5	66	5.8	10	----	57.9	6.6	7	-0.4
R746(K1458)	255	1	63.1	69.1	66	6.0	10	Snd Lvl	60.6	8.5	7	1.5
R750(K1435)	259	1	60.0	70.4	66	10.4	10	Both	61.9	8.5	7	1.5
R751(K1427)	260	1	61.4	71.1	66	9.7	10	Snd Lvl	64.4	6.7	7	-0.3
R752(K1438)	261	1	60.6	71.4	66	10.8	10	Both	61.9	9.5	7	2.5
R753(K1472)	262	1	62.7	68.7	66	6.0	10	Snd Lvl	60.8	7.9	7	0.9
R758(K1448)	267	1	61.7	72.6	66	10.9	10	Both	63.3	9.3	7	2.3
R760(K1433)	269	1	61.7	70.9	66	9.2	10	Snd Lvl	63.7	7.2	7	0.2
R762(K1455)	271	1	63.2	74.3	66	11.1	10	Both	63.9	10.4	7	3.4
R765(K1459)	274	1	63.2	75.4	66	12.2	10	Both	64.4	11.0	7	4.0
R768(K1437)	277	1	61.5	71.0	66	9.5	10	Snd Lvl	63.0	8.0	7	1.0
R773(KV1469)	282	1	62.7	74.9	66	12.2	10	Both	63.5	11.4	7	4.4
R781(K1456)	291	1	62.5	75.8	66	13.3	10	Both	63.2	12.6	7	5.6

RESULTS: SOUND LEVELS **BSB**

M-46(K1469)	297	1	65.0	79.0	66	14.0	10	Both	64.6	14.4	7	7.4
R905	672	1	69.7	73.0	66	3.3	10	Snd Lvl	64.1	8.9	7	1.9
R865	673	1	68.8	71.4	66	2.6	10	Snd Lvl	64.6	6.8	7	-0.2
R1000	676	1	60.0	64.1	66	4.1	10	----	63.4	0.7	7	-6.3
R1001	677	1	61.1	65.3	66	4.2	10	----	64.7	0.6	7	-6.4
R1002	678	1	61.1	65.7	66	4.6	10	----	65.4	0.3	7	-6.7
R1003	679	1	60.5	65.3	66	4.8	10	----	65.1	0.2	7	-6.8
R1004	680	1	61.3	66.4	66	5.1	10	Snd Lvl	66.2	0.2	7	-6.8
R1005	681	1	60.9	66.8	66	5.9	10	Snd Lvl	66.6	0.2	7	-6.8
R1006	682	1	59.4	64.6	66	5.2	10	----	64.4	0.2	7	-6.8
R1007	683	1	59.2	64.9	66	5.7	10	----	64.8	0.1	7	-6.9
R1008	684	1	59.6	65.3	66	5.7	10	----	65.2	0.1	7	-6.9
R1009	685	1	61.0	66.0	66	5.0	10	Snd Lvl	65.9	0.1	7	-6.9
R1010	686	1	63.0	66.6	66	3.6	10	Snd Lvl	66.4	0.2	7	-6.8
R1011	687	1	63.8	67.0	66	3.2	10	Snd Lvl	66.9	0.1	7	-6.9
R1012	688	1	64.6	66.5	66	1.9	10	Snd Lvl	66.5	0.0	7	-7.0
R1013	689	1	66.5	68.7	66	2.2	10	Snd Lvl	68.7	0.0	7	-7.0
R1014	690	1	64.2	66.7	66	2.5	10	Snd Lvl	66.6	0.1	7	-6.9
R1015	691	1	63.3	65.9	66	2.6	10	----	65.8	0.1	7	-6.9
R1016	692	1	62.3	64.2	66	1.9	10	----	64.1	0.1	7	-6.9

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	44	0.0	4.4	14.4
All Impacted	26	0.0	6.2	14.4
All that meet NR Goal	14	7.1	9.6	14.4

PEC	8 August 2023
ZR	TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT:	BSB
RUN:	KY Barrier B16B 12-22'
BARRIER DESIGN:	12-20

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Barrier142; Prop Noise wall B5	W	12.00	17.29	22.00	1308	22617				723746
1469	W	20.00	20.00	20.00	125	2496				0
1459	W	10.00	10.00	10.00	151	1507				0
1456	W	10.00	10.00	10.00	160	1599				0
1455	W	20.00	20.00	20.00	129	2579				0
1448	W	20.00	20.00	20.00	147	2932				0
1438	W	20.00	20.00	20.00	138	2750				0
1437	W	20.00	20.00	20.00	111	2226				0
1435	W	20.00	20.00	20.00	135	2693				0
1433	W	20.00	20.00	20.00	143	2859				0
1427	W	10.00	10.00	10.00	149	1492				0
1424	W	20.00	20.00	20.00	133	2669				0
1417	W	10.00	10.00	10.00	428	4284				0
1415	W	20.00	20.00	20.00	104	2076				0
1413	W	10.00	10.00	10.00	1566	15662				0
1412	W	20.00	20.00	20.00	238	4760				0
									Total Cost:	723746

RESULTS: BARRIER DESIGN **BSB**

PEC	**8 August 2023**
ZR	**TNM 2.5**
	Calculated with TNM 2.5

RESULTS: BARRIER DESIGN	
PROJECT/CONTRACT:	**BSB**
RUN:	**KY Barrier B16B 12-22'**
BARRIER DESIGN:	**12-20**
ATMOSPHERICS:	**68 deg F, 50% RH**

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R721(K1381)	229	63.4	0.4	7	-6.6	arrier142; Prop Noise wall B5	point1055	1055	0.0	51.4
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	47.6
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.6
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	46.0
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.7
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	43.8
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	39.6
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	35.4
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	35.3
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	35.2
R722(K1404)	230	60.0	3.1	7	-3.9	arrier142; Prop Noise wall B5	point1056	1056	22.0	50.1
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	49.5
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	48.6
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	46.9
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	45.4
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.7
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	43.6
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	43.6
						Barrier142; Prop Noise wall B5	point1057	1057	22.0	42.1
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	41.7
R723(K1405)	231	59.0	3.8	7	-3.2	arrier142; Prop Noise wall B5	point1062	1062	16.0	49.2

						Barrier142; Prop Noise wall B5	point1059	1059	18.0	48.4
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	46.3
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	45.8
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	44.7
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	44.5
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.4
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	43.3
						Barrier142; Prop Noise wall B5	point1073	1073	16.0	41.9
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	41.5
R724(K1415)	232	56.7	2.6	7	-4.4	arrier142; Prop Noise wall B5	point1056	1056	22.0	49.7
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	46.8
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	46.4
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	41.6
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	41.4
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	40.5
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	39.2
						Barrier142; Prop Noise wall B5	point1057	1057	22.0	37.1
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	31.5
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	30.4
R728(K1419)	236	57.9	3.6	7	-3.4	arrier142; Prop Noise wall B5	point1055	1055	0.0	52.9
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	49.3
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	46.2
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	45.7
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	44.3
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	43.7
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	43.2
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	42.8
						Barrier142; Prop Noise wall B5	point1073	1073	16.0	42.3
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	41.5
R729(K1422)	237	58.0	4.0	7	-3.0	arrier142; Prop Noise wall B5	point1059	1059	18.0	50.1
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	49.8
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	47.7
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.8
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	46.7
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	44.8
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	44.5

					Barrier142; Prop Noise wall B5	point1073	1073	16.0	42.9
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	42.4
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	40.9
R731(K1429)	239	58.8	3.0	7	-4.0 arrier142; Prop Noise wall B5	point1059	1059	18.0	52.8
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	49.5
					Barrier142; Prop Noise wall B5	point1055	1055	0.0	48.3
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	47.8
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	46.9
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.5
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	45.6
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	44.1
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	43.9
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	43.1
R732(K65)	240	57.9	5.6	7	-1.4 arrier142; Prop Noise wall B5	point1062	1062	16.0	50.4
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	49.9
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	47.7
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	45.4
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	45.3
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.9
					Barrier142; Prop Noise wall B5	point1055	1055	0.0	44.5
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	43.6
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.1
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	42.3
R738(K1412)	247	62.8	5.1	7	-1.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	55.8
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	55.3
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	55.2
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	52.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	51.4
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	50.7
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	46.5
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	44.2
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	43.6
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	41.0
R739(K1424)	248	60.8	6.2	7	-0.8 arrier142; Prop Noise wall B5	point1055	1055	0.0	54.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	53.3
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	52.1

					Barrier142; Prop Noise wall B5	point1058	1058	20.0	50.9
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	49.2
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	45.4
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	42.8
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	42.0
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	40.3
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	39.7
R740(K1454)	249	59.3	7.1	7	0.1 arrier142; Prop Noise wall B5	point1061	1061	18.0	52.1
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	52.0
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	49.3
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	47.2
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	46.4
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	46.0
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	45.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.1
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	43.6
					Barrier142; Prop Noise wall B5	point1063	1063	16.0	42.9
R742(K1450)	251	57.9	6.6	7	-0.4 arrier142; Prop Noise wall B5	point1061	1061	18.0	51.4
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	51.1
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	48.2
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	45.8
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	45.4
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	44.2
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	44.0
					Barrier142; Prop Noise wall B5	point1063	1063	16.0	41.8
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	41.6
					Barrier142; Prop Noise wall B5	point1064	1064	16.0	40.8
R746(K1458)	255	60.6	8.5	7	1.5 arrier142; Prop Noise wall B5	point1062	1062	16.0	53.5
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	52.9
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	50.9
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	48.5
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	48.1
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	48.1
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	46.6
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	45.7
					Barrier142; Prop Noise wall B5	point1063	1063	16.0	44.4

					Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.1
R750(K1435)	259	61.9	8.5	7	1.5	arrier142; Prop Noise wall B5	point1059	1059	18.0	55.2
					Barrier142; Prop Noise wall B5	point1055	1055	0.0	54.9
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	54.5
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	53.0
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	51.6
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	48.1
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	42.9
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	40.9
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	36.9
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	35.6
R751(K1427)	260	64.4	6.7	7	-0.3	arrier142; Prop Noise wall B5	point1055	1055	0.0	61.5
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	56.8
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	56.3
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	49.5
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	47.9
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	40.5
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	38.2
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	36.4
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	36.0
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	35.3
R752(K1438)	261	61.9	9.5	7	2.5	arrier142; Prop Noise wall B5	point1059	1059	18.0	55.7
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	55.4
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	53.7
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	52.8
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	50.4
					Barrier142; Prop Noise wall B5	point1055	1055	0.0	48.8
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	44.8
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	39.4
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	37.3
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	36.2
R753(K1472)	262	60.8	7.9	7	0.9	arrier142; Prop Noise wall B5	point1062	1062	16.0	54.0
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	52.7
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	51.9
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	49.4
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	48.7

					Barrier142; Prop Noise wall B5	point1071	1071	12.0	48.6
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	47.6
					Barrier142; Prop Noise wall B5	point1063	1063	16.0	45.3
					Barrier142; Prop Noise wall B5	point1064	1064	16.0	44.5
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	42.4
R758(K1448)	267	63.3	9.3	7	2.3 arrier142; Prop Noise wall B5	point1060	1060	18.0	56.8
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	56.4
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	55.7
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	55.0
					Barrier142; Prop Noise wall B5	point1055	1055	0.0	52.9
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	47.6
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	46.9
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	40.3
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	37.5
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	36.4
R760(K1433)	269	63.7	7.2	7	0.2 arrier142; Prop Noise wall B5	point1055	1055	0.0	59.4
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	57.7
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	55.8
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	50.7
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	48.0
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	41.7
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	39.9
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	39.2
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	35.9
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	34.2
R762(K1455)	271	63.9	10.4	7	3.4 arrier142; Prop Noise wall B5	point1060	1060	18.0	58.1
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	56.6
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	56.5
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	55.3
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	53.1
					Barrier142; Prop Noise wall B5	point1055	1055	0.0	50.4
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	48.0
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	45.5
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	41.0
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	39.9
R765(K1459)	274	64.4	11.0	7	4.0 arrier142; Prop Noise wall B5	point1060	1060	18.0	58.9

						Barrier142; Prop Noise wall B5	point1061	1061	18.0	57.9
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	56.2
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	54.4
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	52.8
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	52.6
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	50.6
						Barrier142; Prop Noise wall B5	point1057	1057	22.0	45.0
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	38.0
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	37.3
R768(K1437)	277	63.0	8.0	7	1.0	Barrier142; Prop Noise wall B5	point1058	1058	20.0	57.5
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	56.5
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	55.1
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	53.5
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	51.5
						Barrier142; Prop Noise wall B5	point1057	1057	22.0	46.3
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	42.9
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	37.0
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	36.6
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	33.4
R773(KV1469)	282	63.5	11.4	7	4.4	Barrier142; Prop Noise wall B5	point1061	1061	18.0	60.1
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	56.1
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	53.1
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	52.4
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	50.2
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	47.1
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	46.0
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	45.8
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	45.6
						Barrier142; Prop Noise wall B5	point1073	1073	16.0	42.9
R781(K1456)	291	63.2	12.6	7	5.6	Barrier142; Prop Noise wall B5	point1059	1059	18.0	59.7
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	57.1
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	53.7
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	50.3
						Barrier142; Prop Noise wall B5	point1055	1055	0.0	49.7
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	48.1
						Barrier142; Prop Noise wall B5	point1057	1057	22.0	43.7

					Barrier142; Prop Noise wall B5	point1062	1062	16.0	42.7
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	41.7
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	38.3
M-46(K1469)	297	64.6	14.4	7	7.4 arrier142; Prop Noise wall B5	point1061	1061	18.0	62.2
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	59.0
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	51.0
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	48.9
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	48.1
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	45.1
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	44.1
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	41.3
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	39.7
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	38.9
R905	672	64.1	8.9	7	1.9 arrier142; Prop Noise wall B5	point1072	1072	14.0	56.2
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	56.1
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	54.9
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	53.9
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	53.9
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	50.6
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	48.9
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	48.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	47.8
					Barrier142; Prop Noise wall B5	point1063	1063	16.0	46.7
R865	673	64.6	6.8	7	-0.2 arrier142; Prop Noise wall B5	point1071	1071	12.0	59.4
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	55.9
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	53.0
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	50.9
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	50.8
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	48.7
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	47.5
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	47.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	46.7
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.4
R1000	676	63.4	0.7	7	-6.3 arrier142; Prop Noise wall B5	point1055	1055	0.0	53.0
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	50.1
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	48.4

					Barrier142; Prop Noise wall B5	point1062	1062	16.0	47.8
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	47.5
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	45.1
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.1
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.0
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	42.8
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	40.8
R1001	677	64.7	0.6	7	-6.4 arrier142; Prop Noise wall B5	point1055	1055	0.0	54.2
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	51.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	49.1
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	49.0
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	47.0
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	45.0
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	45.0
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	43.1
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	42.5
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	42.1
R1002	678	65.4	0.3	7	-6.7 arrier142; Prop Noise wall B5	point1055	1055	0.0	53.7
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	49.6
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	47.7
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	47.7
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	47.2
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	44.5
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	40.7
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	39.9
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	39.4
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	38.6
R1003	679	65.1	0.2	7	-6.8 arrier142; Prop Noise wall B5	point1055	1055	0.0	52.8
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	48.4
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	47.2
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	46.6
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	46.4
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.8
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	40.1
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	39.4
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	39.2

					Barrier142; Prop Noise wall B5	point1057	1057	22.0	37.6
R1004	680	66.2	0.2	7	-6.8 arrier142; Prop Noise wall B5	point1055	1055	0.0	52.9
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	48.8
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	47.5
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	47.2
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	46.8
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	45.0
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	41.1
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	38.4
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	37.8
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	36.2
R1005	681	66.6	0.2	7	-6.8 arrier142; Prop Noise wall B5	point1055	1055	0.0	52.0
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	48.1
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	46.6
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	46.3
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	45.7
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	44.6
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	42.3
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	37.8
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	36.9
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	35.1
R1006	682	64.4	0.2	7	-6.8 arrier142; Prop Noise wall B5	point1055	1055	0.0	50.9
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.3
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	45.3
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	44.9
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	44.7
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	42.6
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	38.9
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	38.3
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	37.8
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	35.5
R1007	683	64.8	0.1	7	-6.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	50.3
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	45.9
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	44.6
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.3
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	43.8

					Barrier142; Prop Noise wall B5	point1061	1061	18.0	42.7
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	38.2
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	37.4
					Barrier142; Prop Noise wall B5	point1057	1057	22.0	35.0
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	34.8
R1008	684	65.2	0.1	7	-6.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	49.0
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	45.3
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.1
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	44.0
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.8
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	42.8
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	39.9
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	35.5
					Barrier142; Prop Noise wall B5	point1073	1073	16.0	34.6
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	34.2
R1009	685	65.9	0.1	7	-6.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	49.4
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.0
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	45.3
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.5
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.9
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.6
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	41.4
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	39.2
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	38.8
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	37.5
R1010	686	66.4	0.2	7	-6.8 arrier142; Prop Noise wall B5	point1055	1055	0.0	50.2
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.8
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	46.2
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	45.0
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	44.0
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.8
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	41.7
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	39.5
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	39.2
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	38.6
R1011	687	66.9	0.1	7	-6.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	49.2

						Barrier142; Prop Noise wall B5	point1056	1056	22.0	46.3
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	45.6
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	44.6
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.8
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.0
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	40.8
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	38.6
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	38.6
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	38.5
R1012	688	66.5	0.0	7	-7.0	arrier142; Prop Noise wall B5	point1055	1055	0.0	41.4
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	40.8
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	39.4
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	37.7
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	34.2
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	34.0
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	33.8
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	33.4
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	32.3
						Barrier142; Prop Noise wall B5	point1070	1070	16.0	31.2
R1013	689	68.7	0.0	7	-7.0	arrier142; Prop Noise wall B5	point1055	1055	0.0	49.1
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	47.4
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	46.5
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	46.2
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	43.8
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	43.0
						Barrier142; Prop Noise wall B5	point1072	1072	14.0	39.6
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	38.6
						Barrier142; Prop Noise wall B5	point1057	1057	22.0	35.6
						Barrier142; Prop Noise wall B5	point1071	1071	12.0	35.3
R1014	690	66.6	0.1	7	-6.9	arrier142; Prop Noise wall B5	point1055	1055	0.0	46.0
						Barrier142; Prop Noise wall B5	point1056	1056	22.0	44.7
						Barrier142; Prop Noise wall B5	point1058	1058	20.0	43.8
						Barrier142; Prop Noise wall B5	point1059	1059	18.0	43.3
						Barrier142; Prop Noise wall B5	point1060	1060	18.0	41.3
						Barrier142; Prop Noise wall B5	point1061	1061	18.0	40.8
						Barrier142; Prop Noise wall B5	point1062	1062	16.0	38.4

RESULTS: BARRIER DESIGN **BSB**

					Barrier142; Prop Noise wall B5	point1071	1071	12.0	37.8
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	37.4
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	36.4
R1015	691	65.8	0.1	7	-6.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	46.7
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	45.1
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	44.5
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	43.5
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	42.4
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	41.8
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	39.6
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	38.2
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	37.6
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	37.5
R1016	692	64.1	0.1	7	-6.9 arrier142; Prop Noise wall B5	point1055	1055	0.0	43.5
					Barrier142; Prop Noise wall B5	point1058	1058	20.0	41.3
					Barrier142; Prop Noise wall B5	point1056	1056	22.0	40.9
					Barrier142; Prop Noise wall B5	point1059	1059	18.0	40.3
					Barrier142; Prop Noise wall B5	point1060	1060	18.0	38.9
					Barrier142; Prop Noise wall B5	point1061	1061	18.0	38.5
					Barrier142; Prop Noise wall B5	point1062	1062	16.0	36.4
					Barrier142; Prop Noise wall B5	point1071	1071	12.0	35.6
					Barrier142; Prop Noise wall B5	point1072	1072	14.0	35.3
					Barrier142; Prop Noise wall B5	point1070	1070	16.0	34.7

RESULTS: BARRIER DESIGN **BSB**

Total Cost, All Barriers (including additional cost(s))					$723746					

PEC 8 August 2023
ZR TNM 2.5

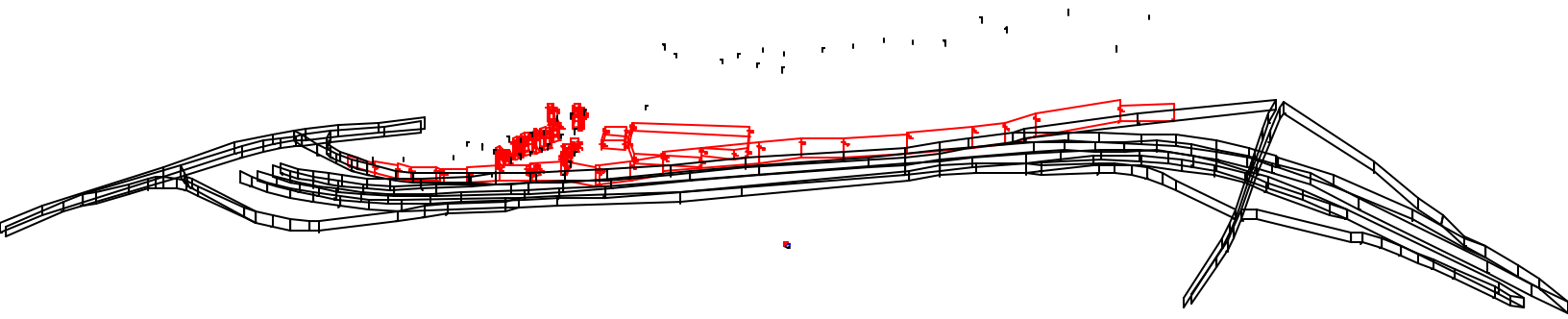
RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY Barrier B16B 12-22'
BARRIER DESIGN: 12-20

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Barrier142; Prop Noise wall B5	W	point1055	1055	0.00	0.00	0.00	0	0				0
		point1056	1056	22.00	22.00	22.00	144	3159				101085
		point1057	1057	22.00	22.00	22.00	14	313				10006
		point1058	1058	20.00	20.00	20.00	145	2899				92774
		point1059	1059	18.00	18.00	18.00	157	2827				90452
		point1060	1060	18.00	18.00	18.00	144	2598				83124
		point1061	1061	18.00	18.00	18.00	144	2585				82730
		point1062	1062	16.00	16.00	16.00	112	1788				57220
		point1063	1063	16.00	16.00	16.00	16	260				8335
		point1064	1064	16.00	16.00	16.00	16	249				7965
		point1070	1070	16.00	16.00	16.00	118	1889				60462
		point1073	1073	16.00	16.00	16.00	61	982				31437
		point1072	1072	14.00	14.00	14.00	108	1515				48486
		point1071	1071	12.00	12.00	12.00	129	1552				49673
1469	W	point521	521	20.00	20.00	20.00	29	589				0
		point522	522	20.00	20.00	20.00	25	497				0
		point523	523	20.00	20.00	20.00	17	342				0
		point524	524	20.00	20.00	20.00	8	165				0
		point525	525	20.00	20.00	20.00	12	238				0
		point526	526	20.00	20.00	20.00	33	665				0
1459	W	point503	503	10.00	10.00	10.00	5	49				0
		point504	504	10.00	10.00	10.00	12	118				0
		point505	505	10.00	10.00	10.00	27	267				0
		point506	506	10.00	10.00	10.00	46	457				0

		point507	507	10.00	10.00	10.00	32	318				0
		point508	508	10.00	10.00	10.00	30	298				0
1456	W	point498	498	10.00	10.00	10.00	31	311				0
		point499	499	10.00	10.00	10.00	46	465				0
		point500	500	10.00	10.00	10.00	36	362				0
		point501	501	10.00	10.00	10.00	46	461				0
1455	W	point491	491	20.00	20.00	20.00	13	255				0
		point492	492	20.00	20.00	20.00	10	204				0
		point493	493	20.00	20.00	20.00	15	306				0
		point494	494	20.00	20.00	20.00	26	514				0
		point495	495	20.00	20.00	20.00	27	548				0
		point496	496	20.00	20.00	20.00	38	752				0
1448	W	point484	484	20.00	20.00	20.00	31	618				0
		point485	485	20.00	20.00	20.00	16	316				0
		point486	486	20.00	20.00	20.00	8	161				0
		point487	487	20.00	20.00	20.00	19	371				0
		point488	488	20.00	20.00	20.00	39	779				0
		point489	489	20.00	20.00	20.00	34	687				0
1438	W	point471	471	20.00	20.00	20.00	42	845				0
		point472	472	20.00	20.00	20.00	9	184				0
		point473	473	20.00	20.00	20.00	9	184				0
		point474	474	20.00	20.00	20.00	17	344				0
		point475	475	20.00	20.00	20.00	33	653				0
		point476	476	20.00	20.00	20.00	27	539				0
1437	W	point466	466	20.00	20.00	20.00	29	587				0
		point467	467	20.00	20.00	20.00	28	556				0
		point468	468	20.00	20.00	20.00	27	538				0
		point469	469	20.00	20.00	20.00	27	545				0
1435	W	point459	459	20.00	20.00	20.00	17	340				0
		point460	460	20.00	20.00	20.00	16	320				0
		point461	461	20.00	20.00	20.00	9	187				0
		point462	462	20.00	20.00	20.00	25	502				0
		point463	463	20.00	20.00	20.00	27	534				0

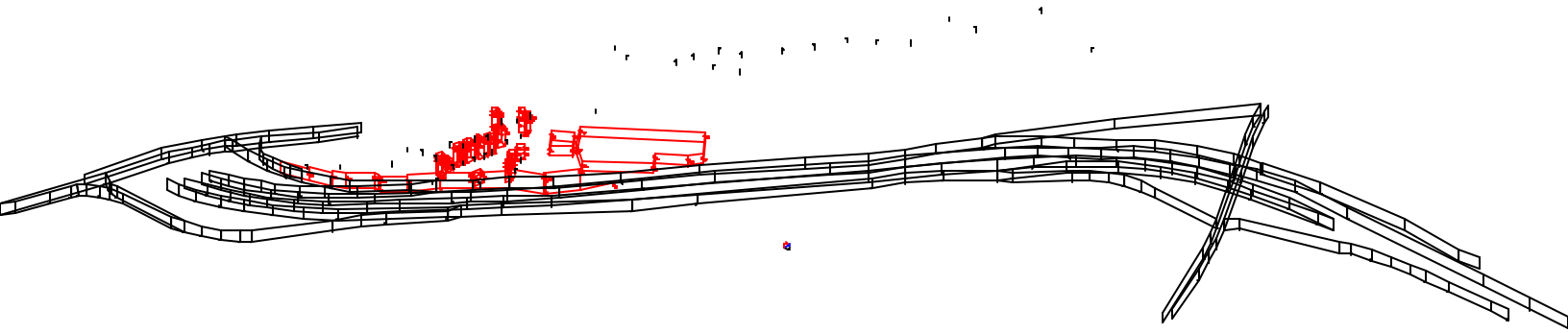
		point464	464	20.00	20.00	20.00	41	810				0
1433	W	point452	452	20.00	20.00	20.00	41	821				0
		point453	453	20.00	20.00	20.00	30	608				0
		point454	454	20.00	20.00	20.00	34	673				0
		point455	455	20.00	20.00	20.00	10	191				0
		point456	456	20.00	20.00	20.00	7	135				0
		point457	457	20.00	20.00	20.00	22	432				0
1427	W	point447	447	10.00	10.00	10.00	43	428				0
		point448	448	10.00	10.00	10.00	32	318				0
		point449	449	10.00	10.00	10.00	42	424				0
		point450	450	10.00	10.00	10.00	32	322				0
1424	W	point442	442	20.00	20.00	20.00	33	659				0
		point443	443	20.00	20.00	20.00	33	663				0
		point444	444	20.00	20.00	20.00	34	682				0
		point445	445	20.00	20.00	20.00	33	665				0
1417	W	point430	430	10.00	10.00	10.00	110	1101				0
		point431	431	10.00	10.00	10.00	104	1041				0
		point432	432	10.00	10.00	10.00	110	1104				0
		point433	433	10.00	10.00	10.00	104	1037				0
1415	W	point425	425	20.00	20.00	20.00	25	491				0
		point426	426	20.00	20.00	20.00	27	544				0
		point427	427	20.00	20.00	20.00	25	508				0
		point428	428	20.00	20.00	20.00	27	533				0
1413	W	point416	416	10.00	10.00	10.00	63	631				0
		point417	417	10.00	10.00	10.00	165	1648				0
		point418	418	10.00	10.00	10.00	541	5409				0
		point419	419	10.00	10.00	10.00	133	1334				0
		point420	420	10.00	10.00	10.00	128	1276				0
		point421	421	10.00	10.00	10.00	305	3048				0
		point422	422	10.00	10.00	10.00	81	812				0
		point423	423	10.00	10.00	10.00	151	1505				0
1412	W	point405	405	20.00	20.00	20.00	25	496				0

		point406	406	20.00	20.00	20.00	53	1069				0
		point407	407	20.00	20.00	20.00	22	439				0
		point408	408	20.00	20.00	20.00	19	375				0
		point409	409	20.00	20.00	20.00	14	283				0
		point410	410	20.00	20.00	20.00	18	369				0
		point411	411	20.00	20.00	20.00	10	205				0
		point412	412	20.00	20.00	20.00	20	397				0
		point413	413	20.00	20.00	20.00	23	453				0
		point414	414	20.00	20.00	20.00	34	673				0



KY Barrier B16A 12-24'	Sheet 1 of 1	8 Aug 2023
	PEC	
Barrier View-summit	Project/Contract No. BSB	
Run name: Summir	TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>	Analysis By: ZR	

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	



KY Barrier B16B 12-22'	Sheet 1 of 1	8 Aug 2023
	PEC	
Barrier View-12-20	Project/Contract No. BSB	
Run name: KY W Barrier 16 24'	TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>	Analysis By: ZR	

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

Palmer Engineering
ZR
8 August 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B17A 16-20'
BARRIER DESIGN: 16'-20'
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R709(K1471)	217	1	63.5	66.4	66	2.9	10	Snd Lvl	64.5	1.9	7	-5.1
R710(K64)	218	1	61.7	64.6	66	2.9	10	----	61.3	3.3	7	-3.7
R711(K1474)	219	1	63.9	66.8	66	2.9	10	Snd Lvl	62.8	4.0	7	-3.0
R714(K1493)	222	1	68.9	72.9	66	4.0	10	Snd Lvl	67.7	5.2	7	-1.8
R715(K1481)	223	1	65.8	69.4	66	3.6	10	Snd Lvl	61.4	8.0	7	1.0
R726(K1487)	234	1	67.6	71.4	66	3.8	10	Snd Lvl	62.3	9.1	7	2.1
R734(K1201)	242	1	72.0	75.4	66	3.4	10	Snd Lvl	67.1	8.3	7	1.3
R744(K1497)	253	1	70.0	73.4	66	3.4	10	Snd Lvl	65.4	8.0	7	1.0
R755(K1488)	264	1	69.6	72.9	66	3.3	10	Snd Lvl	65.3	7.6	7	0.6
R779(K1195)	289	1	69.2	72.4	66	3.2	10	Snd Lvl	64.9	7.5	7	0.5
R801(K1205)	315	1	67.1	70.0	66	2.9	10	Snd Lvl	65.0	5.0	7	-2.0
M-48(K37)	329	1	60.9	63.2	66	2.3	10	----	61.3	1.9	7	-5.1
R822(K1204)	337	1	65.4	67.9	66	2.5	10	Snd Lvl	66.3	1.6	7	-5.4

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	13	1.6	5.5	9.1
All Impacted	11	1.6	6.0	9.1
All that meet NR Goal	6	7.5	8.1	9.1

Palmer Engineering
ZR
8 August 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B17B 16-20'
BARRIER DESIGN: 16'-20' Optimized
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R709(K1471)	217	1	63.5	66.4	66	2.9	10	Snd Lvl	64.3	2.1	7	-4.9
R710(K64)	218	1	61.7	64.6	66	2.9	10	----	62.2	2.4	7	-4.6
R711(K1474)	219	1	63.9	66.8	66	2.9	10	Snd Lvl	64.1	2.7	7	-4.3
R714(K1493)	222	1	68.9	72.9	66	4.0	10	Snd Lvl	67.9	5.0	7	-2.0
R715(K1481)	223	1	65.8	69.4	66	3.6	10	Snd Lvl	64.4	5.0	7	-2.0
R726(K1487)	234	1	67.6	71.4	66	3.8	10	Snd Lvl	64.8	6.6	7	-0.4
R734(K1201)	242	1	72.0	75.4	66	3.4	10	Snd Lvl	67.7	7.7	7	0.7
R744(K1497)	253	1	70.0	73.4	66	3.4	10	Snd Lvl	67.8	5.6	7	-1.4
R755(K1488)	264	1	69.6	72.9	66	3.3	10	Snd Lvl	68.2	4.7	7	-2.3
R779(K1195)	289	1	69.2	72.4	66	3.2	10	Snd Lvl	67.7	4.7	7	-2.3
R801(K1205)	315	1	67.1	70.0	66	2.9	10	Snd Lvl	66.6	3.4	7	-3.6
M-48(K37)	329	1	60.9	63.2	66	2.3	10	----	62.1	1.1	7	-5.9
R822(K1204)	337	1	65.4	67.9	66	2.5	10	Snd Lvl	66.9	1.0	7	-6.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	13	1.0	4.0	7.7
All Impacted	11	1.0	4.4	7.7
All that meet NR Goal	1	7.7	7.7	7.7

Palmer Engineering **8 August 2023**
ZR **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **BSB**
RUN: **KY W Barrier B17A 16-20'**
BARRIER DESIGN: **16'-20'**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Barrier142; Prop Barrier B6	W	18.00	21.07	24.00	1127	23732				759435
1493	W	10.00	10.00	10.00	413	4129				0
1471	W	10.00	10.00	10.00	487	4873				0
1201	W	10.00	10.00	10.00	496	4957				0
									Total Cost:	759435

Palmer Engineering **8 August 2023**
ZR **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **BSB**
RUN: **KY W Barrier B17B 16-20'**
BARRIER DESIGN: **16'-20' Optimized**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Barrier142; Prop Barrier B6	W	16.00	17.95	20.00	1127	20228				647286
1493	W	10.00	10.00	10.00	413	4129				0
1471	W	10.00	10.00	10.00	487	4873				0
1201	W	10.00	10.00	10.00	496	4957				0
									Total Cost:	647286

Palmer Engineering
ZR

8 August 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: BSB
RUN: KY W Barrier B17A 16-20'
BARRIER DESIGN: 16'-20'

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R709(K1471)	217	64.5	1.9	7	-5.1	Barrier142; Prop Barrier B6	point1070	1070	0.0	62.0
						Barrier142; Prop Barrier B6	PT11	1066	18.0	55.7
						Barrier142; Prop Barrier B6	PT10	1065	22.0	49.0
						Barrier142; Prop Barrier B6	PT9	1064	24.0	39.6
						Barrier142; Prop Barrier B6	PT7	1062	22.0	38.5
						Barrier142; Prop Barrier B6	PT8	1063	24.0	38.4
						Barrier142; Prop Barrier B6	PT6	1061	20.0	37.6
						Barrier142; Prop Barrier B6	PT4	1059	18.0	35.5
						Barrier142; Prop Barrier B6	PT3	1058	0.0	33.8
						Barrier142; Prop Barrier B6	PT5	1060	20.0	33.5
R710(K64)	218	61.3	3.3	7	-3.7	Barrier142; Prop Barrier B6	point1070	1070	0.0	57.7
						Barrier142; Prop Barrier B6	PT11	1066	18.0	52.0
						Barrier142; Prop Barrier B6	PT8	1063	24.0	47.4
						Barrier142; Prop Barrier B6	PT6	1061	20.0	47.3
						Barrier142; Prop Barrier B6	PT7	1062	22.0	47.1
						Barrier142; Prop Barrier B6	PT10	1065	22.0	47.0
						Barrier142; Prop Barrier B6	PT9	1064	24.0	47.0
						Barrier142; Prop Barrier B6	PT5	1060	20.0	43.0
						Barrier142; Prop Barrier B6	PT4	1059	18.0	42.9
						Barrier142; Prop Barrier B6	point1067	1055	0.0	41.5
R711(K1474)	219	62.8	4.0	7	-3.0	Barrier142; Prop Barrier B6	point1070	1070	0.0	57.6

						Barrier142; Prop Barrier B6	PT11	1066	18.0	52.8
						Barrier142; Prop Barrier B6	PT8	1063	24.0	49.6
						Barrier142; Prop Barrier B6	PT7	1062	22.0	49.2
						Barrier142; Prop Barrier B6	PT6	1061	20.0	49.0
						Barrier142; Prop Barrier B6	PT9	1064	24.0	49.0
						Barrier142; Prop Barrier B6	PT10	1065	22.0	48.9
						Barrier142; Prop Barrier B6	PT4	1059	18.0	44.5
						Barrier142; Prop Barrier B6	PT5	1060	20.0	44.5
						Barrier142; Prop Barrier B6	PT3	1058	0.0	42.5
R714(K1493)	222	67.7	5.2	7	-1.8	Barrier142; Prop Barrier B6	point1070	1070	0.0	65.2
						Barrier142; Prop Barrier B6	PT11	1066	18.0	59.9
						Barrier142; Prop Barrier B6	PT10	1065	22.0	57.9
						Barrier142; Prop Barrier B6	PT9	1064	24.0	51.8
						Barrier142; Prop Barrier B6	PT8	1063	24.0	50.6
						Barrier142; Prop Barrier B6	PT7	1062	22.0	46.1
						Barrier142; Prop Barrier B6	PT6	1061	20.0	41.8
						Barrier142; Prop Barrier B6	PT4	1059	18.0	37.5
						Barrier142; Prop Barrier B6	PT5	1060	20.0	36.0
						Barrier142; Prop Barrier B6	PT3	1058	0.0	32.9
R715(K1481)	223	61.4	8.0	7	1.0	Barrier142; Prop Barrier B6	PT9	1064	24.0	53.6
						Barrier142; Prop Barrier B6	PT10	1065	22.0	52.8
						Barrier142; Prop Barrier B6	point1070	1070	0.0	51.6
						Barrier142; Prop Barrier B6	PT8	1063	24.0	51.4
						Barrier142; Prop Barrier B6	PT7	1062	22.0	50.9
						Barrier142; Prop Barrier B6	PT6	1061	20.0	50.8
						Barrier142; Prop Barrier B6	PT11	1066	18.0	49.2
						Barrier142; Prop Barrier B6	PT5	1060	20.0	46.2
						Barrier142; Prop Barrier B6	PT4	1059	18.0	46.0
						Barrier142; Prop Barrier B6	PT3	1058	0.0	44.7
R726(K1487)	234	62.3	9.1	7	2.1	Barrier142; Prop Barrier B6	PT10	1065	22.0	55.4
						Barrier142; Prop Barrier B6	PT9	1064	24.0	53.8
						Barrier142; Prop Barrier B6	PT8	1063	24.0	52.5
						Barrier142; Prop Barrier B6	PT6	1061	20.0	52.5
						Barrier142; Prop Barrier B6	point1070	1070	0.0	52.3
						Barrier142; Prop Barrier B6	PT7	1062	22.0	51.8
						Barrier142; Prop Barrier B6	PT11	1066	18.0	48.8

						Barrier142; Prop Barrier B6	PT5	1060	20.0	47.9
						Barrier142; Prop Barrier B6	PT4	1059	18.0	47.2
						Barrier142; Prop Barrier B6	PT3	1058	0.0	45.5
R734(K1201)	242	67.1	8.3	7	1.3	Barrier142; Prop Barrier B6	point1070	1070	0.0	62.6
						Barrier142; Prop Barrier B6	PT10	1065	22.0	60.3
						Barrier142; Prop Barrier B6	PT11	1066	18.0	60.3
						Barrier142; Prop Barrier B6	PT9	1064	24.0	55.1
						Barrier142; Prop Barrier B6	PT8	1063	24.0	52.9
						Barrier142; Prop Barrier B6	PT7	1062	22.0	50.6
						Barrier142; Prop Barrier B6	PT6	1061	20.0	48.4
						Barrier142; Prop Barrier B6	PT5	1060	20.0	43.3
						Barrier142; Prop Barrier B6	PT4	1059	18.0	39.0
						Barrier142; Prop Barrier B6	PT3	1058	0.0	38.2
R744(K1497)	253	65.4	8.0	7	1.0	Barrier142; Prop Barrier B6	point1070	1070	0.0	58.2
						Barrier142; Prop Barrier B6	PT11	1066	18.0	57.6
						Barrier142; Prop Barrier B6	PT10	1065	22.0	57.4
						Barrier142; Prop Barrier B6	PT6	1061	20.0	54.5
						Barrier142; Prop Barrier B6	PT9	1064	24.0	54.3
						Barrier142; Prop Barrier B6	PT8	1063	24.0	54.1
						Barrier142; Prop Barrier B6	PT7	1062	22.0	53.7
						Barrier142; Prop Barrier B6	PT5	1060	20.0	49.8
						Barrier142; Prop Barrier B6	PT4	1059	18.0	49.2
						Barrier142; Prop Barrier B6	PT3	1058	0.0	47.3
R755(K1488)	264	65.3	7.6	7	0.6	Barrier142; Prop Barrier B6	PT10	1065	22.0	58.2
						Barrier142; Prop Barrier B6	PT11	1066	18.0	57.2
						Barrier142; Prop Barrier B6	point1070	1070	0.0	56.7
						Barrier142; Prop Barrier B6	PT6	1061	20.0	55.6
						Barrier142; Prop Barrier B6	PT7	1062	22.0	54.0
						Barrier142; Prop Barrier B6	PT8	1063	24.0	53.7
						Barrier142; Prop Barrier B6	PT9	1064	24.0	53.2
						Barrier142; Prop Barrier B6	PT5	1060	20.0	51.3
						Barrier142; Prop Barrier B6	PT4	1059	18.0	49.9
						Barrier142; Prop Barrier B6	PT3	1058	0.0	48.4
R779(K1195)	289	64.9	7.5	7	0.5	Barrier142; Prop Barrier B6	PT10	1065	22.0	58.8
						Barrier142; Prop Barrier B6	PT6	1061	20.0	56.2
						Barrier142; Prop Barrier B6	PT11	1066	18.0	55.8

						Barrier142; Prop Barrier B6	PT7	1062	22.0	53.7
						Barrier142; Prop Barrier B6	point1070	1070	0.0	53.1
						Barrier142; Prop Barrier B6	PT9	1064	24.0	53.0
						Barrier142; Prop Barrier B6	PT8	1063	24.0	52.9
						Barrier142; Prop Barrier B6	PT5	1060	20.0	52.4
						Barrier142; Prop Barrier B6	PT3	1058	0.0	51.2
						Barrier142; Prop Barrier B6	PT4	1059	18.0	50.4
R801(K1205)	315	65.0	5.0	7	-2.0	Barrier142; Prop Barrier B6	PT10	1065	22.0	58.7
						Barrier142; Prop Barrier B6	PT9	1064	24.0	56.8
						Barrier142; Prop Barrier B6	PT3	1058	0.0	56.1
						Barrier142; Prop Barrier B6	PT4	1059	18.0	53.9
						Barrier142; Prop Barrier B6	PT6	1061	20.0	53.5
						Barrier142; Prop Barrier B6	PT7	1062	22.0	53.3
						Barrier142; Prop Barrier B6	PT8	1063	24.0	52.7
						Barrier142; Prop Barrier B6	PT2	1057	0.0	52.6
						Barrier142; Prop Barrier B6	point1067	1055	0.0	52.0
						Barrier142; Prop Barrier B6	PT5	1060	20.0	51.2
M-48(K37)	329	61.3	1.9	7	-5.1	Barrier142; Prop Barrier B6	PT8	1063	24.0	55.7
						Barrier142; Prop Barrier B6	PT9	1064	24.0	55.5
						Barrier142; Prop Barrier B6	PT3	1058	0.0	51.7
						Barrier142; Prop Barrier B6	PT4	1059	18.0	49.2
						Barrier142; Prop Barrier B6	PT7	1062	22.0	49.1
						Barrier142; Prop Barrier B6	PT6	1061	20.0	48.7
						Barrier142; Prop Barrier B6	point1067	1055	0.0	46.6
						Barrier142; Prop Barrier B6	PT5	1060	20.0	46.1
						Barrier142; Prop Barrier B6	PT2	1057	0.0	45.7
						Barrier142; Prop Barrier B6	PT1	1056	0.0	44.3
R822(K1204)	337	66.3	1.6	7	-5.4	Barrier142; Prop Barrier B6	PT3	1058	0.0	60.5
						Barrier142; Prop Barrier B6	PT2	1057	0.0	57.8
						Barrier142; Prop Barrier B6	PT9	1064	24.0	57.1
						Barrier142; Prop Barrier B6	PT8	1063	24.0	56.8
						Barrier142; Prop Barrier B6	point1067	1055	0.0	55.4
						Barrier142; Prop Barrier B6	PT4	1059	18.0	55.4
						Barrier142; Prop Barrier B6	PT1	1056	0.0	54.0
						Barrier142; Prop Barrier B6	PT6	1061	20.0	51.8
						Barrier142; Prop Barrier B6	PT7	1062	22.0	51.1

						Barrier142; Prop Barrier B6	PT5	1060	20.0	50.4
Total Cost, All Barriers (including additional cost(s))					$759435					

Palmer Engineering
ZR

8 August 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: BSB
RUN: KY W Barrier B17B 16-20'
BARRIER DESIGN: 16'-20' Optimized

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R709(K1471)	217	64.3	2.1	7	-4.9	Barrier142; Prop Barrier B6	point1070	1070	0.0	62.0
						Barrier142; Prop Barrier B6	PT11	1066	20.0	53.5
						Barrier142; Prop Barrier B6	PT10	1065	20.0	49.8
						Barrier142; Prop Barrier B6	PT9	1064	18.0	41.1
						Barrier142; Prop Barrier B6	PT7	1062	16.0	40.2
						Barrier142; Prop Barrier B6	PT8	1063	16.0	40.0
						Barrier142; Prop Barrier B6	PT6	1061	16.0	38.9
						Barrier142; Prop Barrier B6	PT4	1059	16.0	35.8
						Barrier142; Prop Barrier B6	PT5	1060	16.0	34.6
						Barrier142; Prop Barrier B6	PT3	1058	0.0	33.8
R710(K64)	218	62.2	2.4	7	-4.6	Barrier142; Prop Barrier B6	point1070	1070	0.0	57.7
						Barrier142; Prop Barrier B6	PT8	1063	16.0	53.0
						Barrier142; Prop Barrier B6	PT7	1062	16.0	51.1
						Barrier142; Prop Barrier B6	PT6	1061	16.0	50.4
						Barrier142; Prop Barrier B6	PT10	1065	20.0	49.9
						Barrier142; Prop Barrier B6	PT11	1066	20.0	49.3
						Barrier142; Prop Barrier B6	PT9	1064	18.0	49.1
						Barrier142; Prop Barrier B6	PT5	1060	16.0	46.0
						Barrier142; Prop Barrier B6	PT4	1059	16.0	44.5
						Barrier142; Prop Barrier B6	point1067	1055	0.0	41.5
R711(K1474)	219	64.1	2.7	7	-4.3	Barrier142; Prop Barrier B6	point1070	1070	0.0	57.6

						Barrier142; Prop Barrier B6	PT8	1063	16.0	55.7
						Barrier142; Prop Barrier B6	PT7	1062	16.0	53.4
						Barrier142; Prop Barrier B6	PT10	1065	20.0	52.5
						Barrier142; Prop Barrier B6	PT9	1064	18.0	52.3
						Barrier142; Prop Barrier B6	PT6	1061	16.0	52.2
						Barrier142; Prop Barrier B6	PT11	1066	20.0	51.3
						Barrier142; Prop Barrier B6	PT5	1060	16.0	47.3
						Barrier142; Prop Barrier B6	PT4	1059	16.0	46.1
						Barrier142; Prop Barrier B6	PT3	1058	0.0	42.5
R714(K1493)	222	67.9	5.0	7	-2.0	Barrier142; Prop Barrier B6	point1070	1070	0.0	65.2
						Barrier142; Prop Barrier B6	PT10	1065	20.0	59.0
						Barrier142; Prop Barrier B6	PT11	1066	20.0	57.5
						Barrier142; Prop Barrier B6	PT9	1064	18.0	56.4
						Barrier142; Prop Barrier B6	PT8	1063	16.0	55.3
						Barrier142; Prop Barrier B6	PT7	1062	16.0	48.7
						Barrier142; Prop Barrier B6	PT6	1061	16.0	43.1
						Barrier142; Prop Barrier B6	PT4	1059	16.0	36.7
						Barrier142; Prop Barrier B6	PT5	1060	16.0	35.1
						Barrier142; Prop Barrier B6	PT3	1058	0.0	32.9
R715(K1481)	223	64.4	5.0	7	-2.0	Barrier142; Prop Barrier B6	PT8	1063	16.0	58.5
						Barrier142; Prop Barrier B6	PT9	1064	18.0	58.4
						Barrier142; Prop Barrier B6	PT7	1062	16.0	54.1
						Barrier142; Prop Barrier B6	PT10	1065	20.0	53.9
						Barrier142; Prop Barrier B6	PT6	1061	16.0	53.5
						Barrier142; Prop Barrier B6	point1070	1070	0.0	51.6
						Barrier142; Prop Barrier B6	PT11	1066	20.0	49.0
						Barrier142; Prop Barrier B6	PT5	1060	16.0	48.7
						Barrier142; Prop Barrier B6	PT4	1059	16.0	46.7
						Barrier142; Prop Barrier B6	PT3	1058	0.0	44.7
R726(K1487)	234	64.8	6.6	7	-0.4	Barrier142; Prop Barrier B6	PT9	1064	18.0	58.1
						Barrier142; Prop Barrier B6	PT8	1063	16.0	57.7
						Barrier142; Prop Barrier B6	PT10	1065	20.0	56.7
						Barrier142; Prop Barrier B6	PT7	1062	16.0	55.3
						Barrier142; Prop Barrier B6	PT6	1061	16.0	54.9
						Barrier142; Prop Barrier B6	point1070	1070	0.0	52.3
						Barrier142; Prop Barrier B6	PT5	1060	16.0	50.7

						Barrier142; Prop Barrier B6	PT11	1066	20.0	48.7
						Barrier142; Prop Barrier B6	PT4	1059	16.0	48.0
						Barrier142; Prop Barrier B6	PT3	1058	0.0	45.5
R734(K1201)	242	67.7	7.7	7	0.7	Barrier142; Prop Barrier B6	point1070	1070	0.0	62.6
						Barrier142; Prop Barrier B6	PT10	1065	20.0	61.6
						Barrier142; Prop Barrier B6	PT9	1064	18.0	58.7
						Barrier142; Prop Barrier B6	PT11	1066	20.0	58.3
						Barrier142; Prop Barrier B6	PT8	1063	16.0	56.7
						Barrier142; Prop Barrier B6	PT7	1062	16.0	52.8
						Barrier142; Prop Barrier B6	PT6	1061	16.0	49.5
						Barrier142; Prop Barrier B6	PT5	1060	16.0	44.2
						Barrier142; Prop Barrier B6	PT4	1059	16.0	39.7
						Barrier142; Prop Barrier B6	PT3	1058	0.0	38.2
R744(K1497)	253	67.8	5.6	7	-1.4	Barrier142; Prop Barrier B6	PT8	1063	16.0	60.3
						Barrier142; Prop Barrier B6	PT9	1064	18.0	59.4
						Barrier142; Prop Barrier B6	PT10	1065	20.0	59.2
						Barrier142; Prop Barrier B6	PT6	1061	16.0	58.4
						Barrier142; Prop Barrier B6	point1070	1070	0.0	58.2
						Barrier142; Prop Barrier B6	PT7	1062	16.0	57.5
						Barrier142; Prop Barrier B6	PT11	1066	20.0	57.4
						Barrier142; Prop Barrier B6	PT5	1060	16.0	52.9
						Barrier142; Prop Barrier B6	PT4	1059	16.0	50.2
						Barrier142; Prop Barrier B6	PT3	1058	0.0	47.3
R755(K1488)	264	68.2	4.7	7	-2.3	Barrier142; Prop Barrier B6	PT6	1061	16.0	60.6
						Barrier142; Prop Barrier B6	PT8	1063	16.0	60.5
						Barrier142; Prop Barrier B6	PT10	1065	20.0	59.5
						Barrier142; Prop Barrier B6	PT7	1062	16.0	58.7
						Barrier142; Prop Barrier B6	PT9	1064	18.0	58.6
						Barrier142; Prop Barrier B6	point1070	1070	0.0	56.7
						Barrier142; Prop Barrier B6	PT11	1066	20.0	56.2
						Barrier142; Prop Barrier B6	PT5	1060	16.0	56.2
						Barrier142; Prop Barrier B6	PT4	1059	16.0	53.2
						Barrier142; Prop Barrier B6	PT3	1058	0.0	48.4
R779(K1195)	289	67.7	4.7	7	-2.3	Barrier142; Prop Barrier B6	PT6	1061	16.0	61.2
						Barrier142; Prop Barrier B6	PT10	1065	20.0	59.8
						Barrier142; Prop Barrier B6	PT8	1063	16.0	58.7

						Barrier142; Prop Barrier B6	PT9	1064	18.0	57.6
						Barrier142; Prop Barrier B6	PT5	1060	16.0	57.4
						Barrier142; Prop Barrier B6	PT7	1062	16.0	57.4
						Barrier142; Prop Barrier B6	PT11	1066	20.0	55.8
						Barrier142; Prop Barrier B6	point1070	1070	0.0	53.1
						Barrier142; Prop Barrier B6	PT4	1059	16.0	52.8
						Barrier142; Prop Barrier B6	PT3	1058	0.0	51.2
R801(K1205)	315	66.6	3.4	7	-3.6	Barrier142; Prop Barrier B6	PT10	1065	20.0	58.8
						Barrier142; Prop Barrier B6	PT9	1064	18.0	58.3
						Barrier142; Prop Barrier B6	PT8	1063	16.0	57.7
						Barrier142; Prop Barrier B6	PT6	1061	16.0	56.9
						Barrier142; Prop Barrier B6	PT7	1062	16.0	56.4
						Barrier142; Prop Barrier B6	PT3	1058	0.0	56.1
						Barrier142; Prop Barrier B6	PT4	1059	16.0	56.0
						Barrier142; Prop Barrier B6	PT5	1060	16.0	53.1
						Barrier142; Prop Barrier B6	PT2	1057	0.0	52.6
						Barrier142; Prop Barrier B6	point1067	1055	0.0	52.0
M-48(K37)	329	62.1	1.1	7	-5.9	Barrier142; Prop Barrier B6	PT8	1063	16.0	56.8
						Barrier142; Prop Barrier B6	PT9	1064	18.0	56.6
						Barrier142; Prop Barrier B6	PT3	1058	0.0	51.7
						Barrier142; Prop Barrier B6	PT7	1062	16.0	51.4
						Barrier142; Prop Barrier B6	PT4	1059	16.0	49.8
						Barrier142; Prop Barrier B6	PT6	1061	16.0	48.9
						Barrier142; Prop Barrier B6	point1067	1055	0.0	46.6
						Barrier142; Prop Barrier B6	PT5	1060	16.0	46.6
						Barrier142; Prop Barrier B6	PT2	1057	0.0	45.7
						Barrier142; Prop Barrier B6	PT1	1056	0.0	44.3
R822(K1204)	337	66.9	1.0	7	-6.0	Barrier142; Prop Barrier B6	PT3	1058	0.0	60.5
						Barrier142; Prop Barrier B6	PT8	1063	16.0	58.5
						Barrier142; Prop Barrier B6	PT9	1064	18.0	57.8
						Barrier142; Prop Barrier B6	PT2	1057	0.0	57.8
						Barrier142; Prop Barrier B6	PT4	1059	16.0	56.7
						Barrier142; Prop Barrier B6	point1067	1055	0.0	55.4
						Barrier142; Prop Barrier B6	PT7	1062	16.0	54.1
						Barrier142; Prop Barrier B6	PT1	1056	0.0	54.0
						Barrier142; Prop Barrier B6	PT6	1061	16.0	52.2

						Barrier142; Prop Barrier B6	PT5	1060	16.0	51.0
Total Cost, All Barriers (including additional cost(s))					$647286					

Palmer Engineering 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B17A 16-20'
BARRIER DESIGN: 16'-20'

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Barrier142; Prop Barrier B6	W	point1067	1055	0.00	0.00	0.00	0	0				0
		PT1	1056	0.00	0.00	0.00	0	0				0
		PT2	1057	0.00	0.00	0.00	0	0				0
		PT3	1058	0.00	0.00	0.00	0	0				0
		PT4	1059	18.00	18.00	18.00	87	1571				50284
		PT5	1060	20.00	20.00	20.00	56	1118				35777
		PT6	1061	20.00	20.00	20.00	120	2397				76707
		PT7	1062	22.00	22.00	22.00	120	2645				84627
		PT8	1063	24.00	24.00	24.00	129	3088				98810
		PT9	1064	24.00	24.00	24.00	128	3075				98412
		PT10	1065	22.00	22.00	22.00	270	5944				190210
		PT11	1066	18.00	18.00	18.00	216	3894				124609
		point1070	1070	0.00	0.00	0.00	0	0				0
1493	W	point593	593	10.00	10.00	10.00	75	750				0
		point594	594	10.00	10.00	10.00	45	447				0
		point595	595	10.00	10.00	10.00	43	430				0
		point596	596	10.00	10.00	10.00	13	127				0
		point597	597	10.00	10.00	10.00	14	138				0
		point598	598	10.00	10.00	10.00	13	127				0
		point599	599	10.00	10.00	10.00	17	170				0
		point600	600	10.00	10.00	10.00	36	359				0
		point601	601	10.00	10.00	10.00	5	54				0
		point602	602	10.00	10.00	10.00	39	385				0
		point603	603	10.00	10.00	10.00	114	1142				0

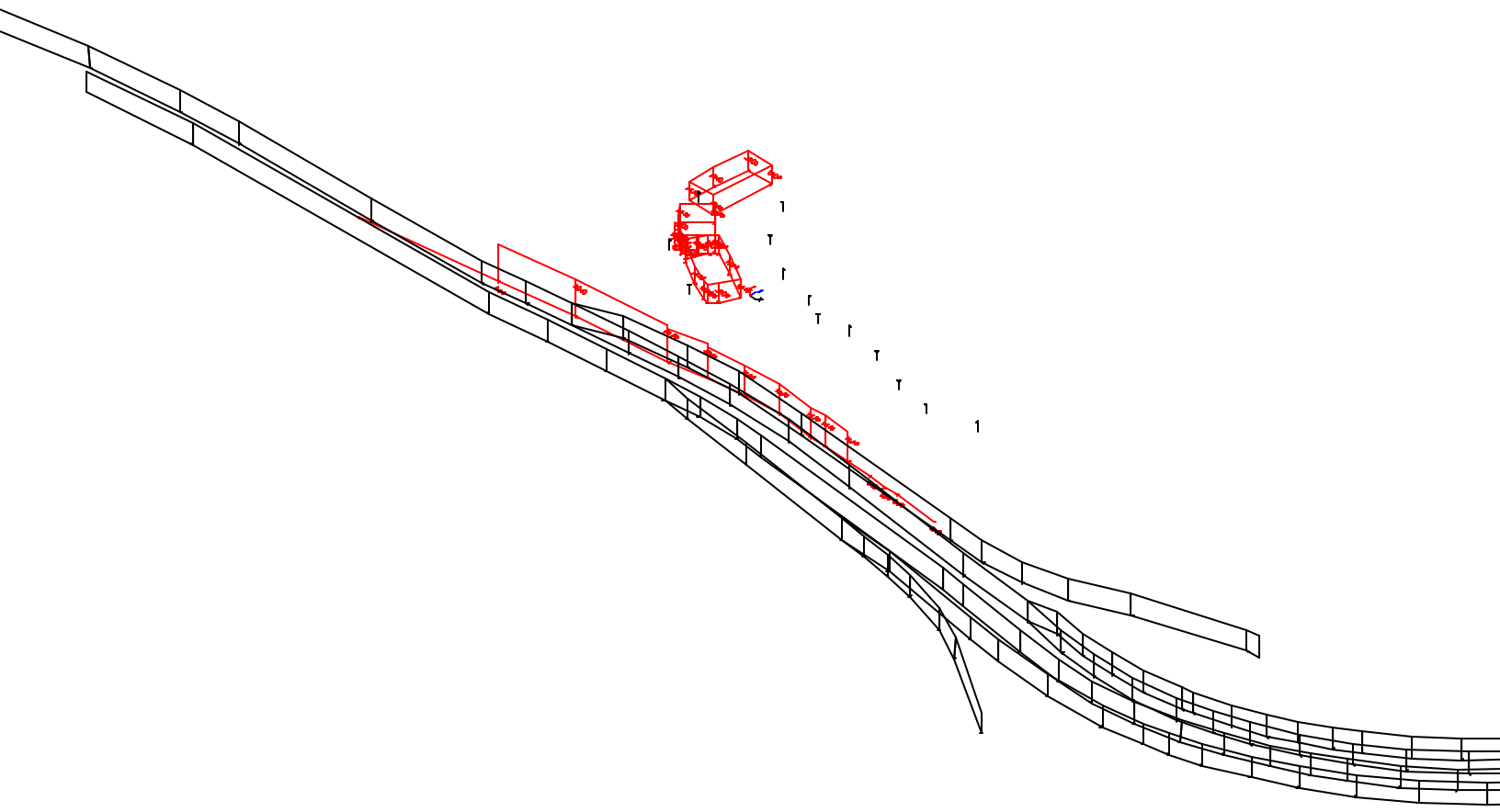
1471	W	point528	528	10.00	10.00	10.00	73	731				0
		point529	529	10.00	10.00	10.00	98	985				0
		point530	530	10.00	10.00	10.00	73	730				0
		point531	531	10.00	10.00	10.00	74	740				0
		point532	532	10.00	10.00	10.00	169	1687				0
1201	W	point64	64	10.00	10.00	10.00	79	794				0
		point65	65	10.00	10.00	10.00	21	206				0
		point66	66	10.00	10.00	10.00	53	526				0
		point67	67	10.00	10.00	10.00	18	177				0
		point68	68	10.00	10.00	10.00	84	837				0
		point69	69	10.00	10.00	10.00	58	584				0
		point70	70	10.00	10.00	10.00	17	168				0
		point71	71	10.00	10.00	10.00	26	257				0
		point72	72	10.00	10.00	10.00	49	490				0
		point73	73	10.00	10.00	10.00	92	918				0

Palmer Engineering 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B17B 16-20'
BARRIER DESIGN: 16'-20' Optimized

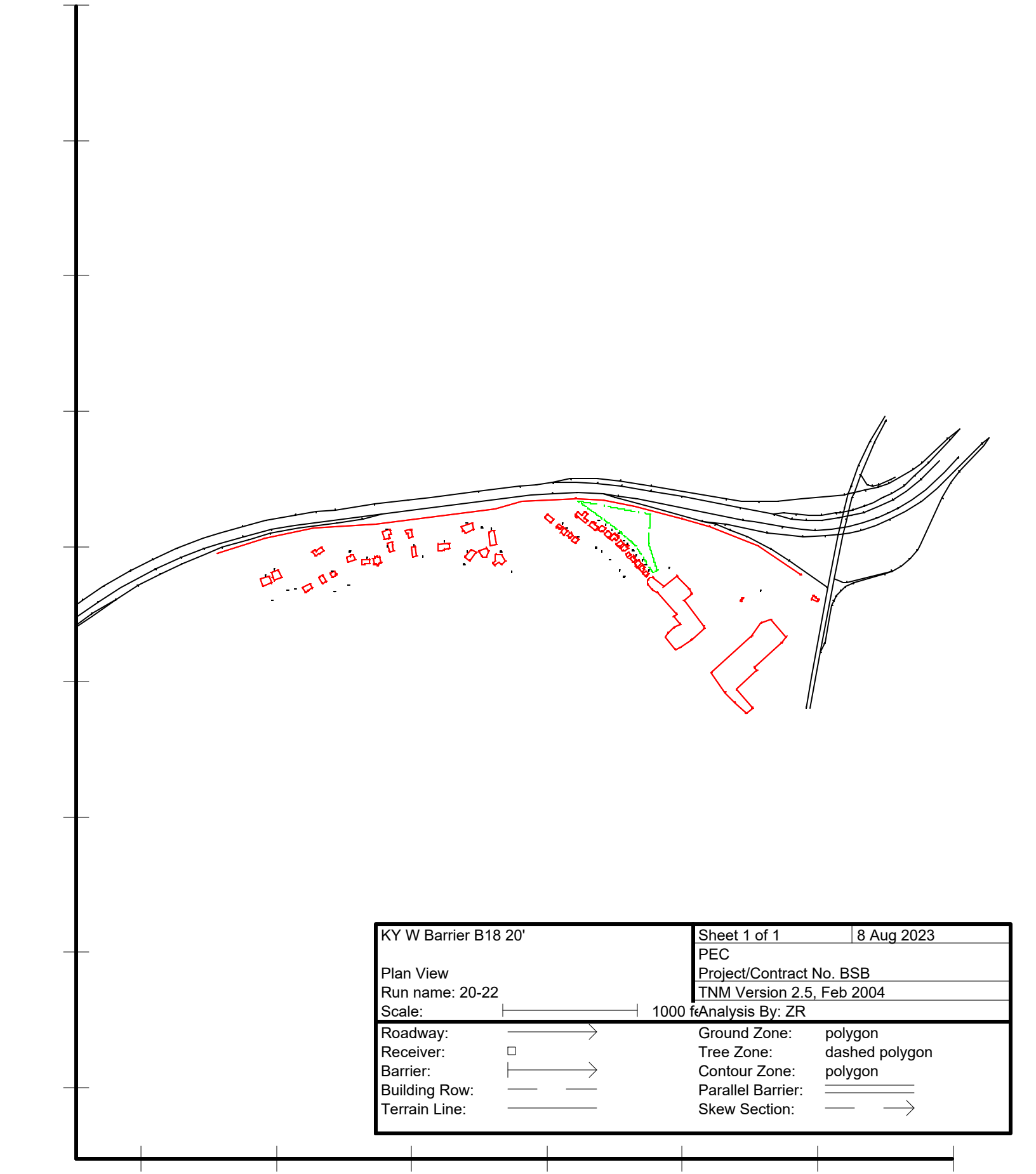
Barriers		Segments		Heights			Length	If Wall			If Berm	Cost
Name	Type	Name	No.	First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Barrier142; Prop Barrier B6	W	point1067	1055	0.00	0.00	0.00	0	0				0
		PT1	1056	0.00	0.00	0.00	0	0				0
		PT2	1057	0.00	0.00	0.00	0	0				0
		PT3	1058	0.00	0.00	0.00	0	0				0
		PT4	1059	16.00	16.00	16.00	87	1397				44697
		PT5	1060	16.00	16.00	16.00	56	894				28622
		PT6	1061	16.00	16.00	16.00	120	1918				61365
		PT7	1062	16.00	16.00	16.00	120	1923				61547
		PT8	1063	16.00	16.00	16.00	129	2059				65873
		PT9	1064	18.00	18.00	18.00	128	2307				73809
		PT10	1065	20.00	20.00	20.00	270	5404				172918
		PT11	1066	20.00	20.00	20.00	216	4327				138455
		point1070	1070	0.00	0.00	0.00	0	0				0
1493	W	point593	593	10.00	10.00	10.00	75	750				0
		point594	594	10.00	10.00	10.00	45	447				0
		point595	595	10.00	10.00	10.00	43	430				0
		point596	596	10.00	10.00	10.00	13	127				0
		point597	597	10.00	10.00	10.00	14	138				0
		point598	598	10.00	10.00	10.00	13	127				0
		point599	599	10.00	10.00	10.00	17	170				0
		point600	600	10.00	10.00	10.00	36	359				0
		point601	601	10.00	10.00	10.00	5	54				0
		point602	602	10.00	10.00	10.00	39	385				0
		point603	603	10.00	10.00	10.00	114	1142				0

1471	W	point528	528	10.00	10.00	10.00	73	731				0
		point529	529	10.00	10.00	10.00	98	985				0
		point530	530	10.00	10.00	10.00	73	730				0
		point531	531	10.00	10.00	10.00	74	740				0
		point532	532	10.00	10.00	10.00	169	1687				0
1201	W	point64	64	10.00	10.00	10.00	79	794				0
		point65	65	10.00	10.00	10.00	21	206				0
		point66	66	10.00	10.00	10.00	53	526				0
		point67	67	10.00	10.00	10.00	18	177				0
		point68	68	10.00	10.00	10.00	84	837				0
		point69	69	10.00	10.00	10.00	58	584				0
		point70	70	10.00	10.00	10.00	17	168				0
		point71	71	10.00	10.00	10.00	26	257				0
		point72	72	10.00	10.00	10.00	49	490				0
		point73	73	10.00	10.00	10.00	92	918				0



KY W Barrier B17B 16-20'	Sheet 1 of 1	8 Aug 2023
	Palmer Engineering	
Barrier View-16'-20' Optimized	Project/Contract No. BSB	
Run name: KY W Barrier 17	TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>	Analysis By: ZR	

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	



KY W Barrier B18 20'		Sheet 1 of 1	8 Aug 2023
		PEC	
Plan View		Project/Contract No. BSB	
Run name: 20-22		TNM Version 2.5, Feb 2004	
Scale:	1000 fe	Analysis By: ZR	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

PEC 8 August 2023
ZR TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B18 20'
BARRIER DESIGN: 18-24'
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R748(K2091)	257	1	78.0	79.4	66	1.4	10	Snd Lvl	70.5	8.9	7	1.9
R749(K1767)	258	1	77.4	78.6	66	1.2	10	Snd Lvl	66.5	12.1	7	5.1
R756(K2109B)	265	1	77.1	78.1	66	1.0	10	Snd Lvl	66.5	11.6	7	4.6
R757(K2105)	266	1	74.7	76.0	66	1.3	10	Snd Lvl	66.6	9.4	7	2.4
R764(KV2092)	273	1	74.5	71.9	66	-2.6	10	Snd Lvl	63.1	8.8	7	1.8
R766(K2085)	275	1	75.2	77.4	66	2.2	10	Snd Lvl	66.3	11.1	7	4.1
R769(K2119)	278	1	72.8	73.3	66	0.5	10	Snd Lvl	65.7	7.6	7	0.6
R771(K2101)	280	1	69.6	70.1	66	0.5	10	Snd Lvl	63.0	7.1	7	0.1
R772(K2109E)	281	1	73.5	70.2	66	-3.3	10	Snd Lvl	61.6	8.6	7	1.6
R776(K2087)	285	1	72.0	74.4	66	2.4	10	Snd Lvl	65.2	9.2	7	2.2
R777(K2106)	286	1	71.0	71.5	66	0.5	10	Snd Lvl	62.6	8.9	7	1.9
R778(K2104)	288	1	71.9	72.4	66	0.5	10	Snd Lvl	62.4	10.0	7	3.0
R783(K1722C)	293	1	70.8	73.0	66	2.2	10	Snd Lvl	66.2	6.8	7	-0.2
R784(K1769)	294	1	69.1	72.1	66	3.0	10	Snd Lvl	62.7	9.4	7	2.4
R785(K2083)	295	1	76.4	78.8	66	2.4	10	Snd Lvl	68.4	10.4	7	3.4
R787(K2122)	299	1	69.7	70.3	66	0.6	10	Snd Lvl	62.8	7.5	7	0.5
R788(K1722B)	300	1	70.0	72.2	66	2.2	10	Snd Lvl	66.6	5.6	7	-1.4
R797(K2124)	311	1	69.8	70.3	66	0.5	10	Snd Lvl	63.0	7.3	7	0.3
R800(K2086)	314	1	72.5	75.4	66	2.9	10	Snd Lvl	65.5	9.9	7	2.9
R808(K2109)	322	1	65.4	61.4	66	-4.0	10	----	55.9	5.5	7	-1.5
R811(K2095)	325	1	67.4	70.6	66	3.2	10	Snd Lvl	61.6	9.0	7	2.0
R813(K2114)	327	1	67.3	68.7	66	1.4	10	Snd Lvl	61.8	6.9	7	-0.1
R814(K2125)	328	1	67.3	67.9	66	0.6	10	Snd Lvl	61.4	6.5	7	-0.5
R819(K2088)	334	1	72.5	75.3	66	2.8	10	Snd Lvl	66.8	8.5	7	1.5

R820(K2138)	335	1	67.5	69.4	66	1.9	10	Snd Lvl	64.0	5.4	7	-1.6
R821(K1722A)	336	1	63.9	65.7	66	1.8	10	----	63.9	1.8	7	-5.2
R823(K1722)	338	1	66.2	68.6	66	2.4	10	Snd Lvl	65.3	3.3	7	-3.7
R824(K2099)	339	1	65.1	68.7	66	3.6	10	Snd Lvl	59.2	9.5	7	2.5
R825(K2127)	340	1	66.9	66.1	66	-0.8	10	Snd Lvl	58.8	7.3	7	0.3
R826(K2144)	341	1	66.8	69.0	66	2.2	10	Snd Lvl	64.6	4.4	7	-2.6
R827(K2109C)	342	1	66.6	64.4	66	-2.2	10	----	57.0	7.4	7	0.4
R828(K1720)	343	1	66.4	68.8	66	2.4	10	Snd Lvl	65.3	3.5	7	-3.5
R838(K2109F)	354	1	65.2	64.8	66	-0.4	10	----	56.5	8.3	7	1.3
R840(K2109A)	356	1	62.2	61.5	66	-0.7	10	----	55.4	6.1	7	-0.9
R841(K30)	357	1	63.9	65.1	66	1.2	10	----	60.8	4.3	7	-2.7
R845(K2103)	361	1	63.7	67.0	66	3.3	10	Snd Lvl	59.9	7.1	7	0.1
R850(K1721)	366	1	64.8	65.9	66	1.1	10	----	61.2	4.7	7	-2.3
R851(K2094)	367	1	72.0	74.9	66	2.9	10	Snd Lvl	67.6	7.3	7	0.3
R852(K2109D)	368	1	61.7	59.4	66	-2.3	10	----	54.1	5.3	7	-1.7
R860(K2097)	376	1	71.6	74.5	66	2.9	10	Snd Lvl	67.3	7.2	7	0.2
R864(K2117)	381	1	62.4	65.4	66	3.0	10	----	59.3	6.1	7	-0.9
R870(K2102)	387	1	70.6	73.5	66	2.9	10	Snd Lvl	66.4	7.1	7	0.1
R871(K2120)	388	1	61.4	64.3	66	2.9	10	----	58.8	5.5	7	-1.5
R872(KV2147)	389	1	61.8	62.2	66	0.4	10	----	54.1	8.1	7	1.1
R873(K2107)	390	1	70.3	73.2	66	2.9	10	Snd Lvl	66.3	6.9	7	-0.1
R876(K2128)	393	1	61.0	63.6	66	2.6	10	----	58.1	5.5	7	-1.5
R878(K2141)	395	1	73.9	76.8	66	2.9	10	Snd Lvl	74.3	2.5	7	-4.5
R879(K2121)	396	1	69.9	72.8	66	2.9	10	Snd Lvl	66.7	6.1	7	-0.9
R881(K2130)	398	1	60.8	62.8	66	2.0	10	----	58.2	4.6	7	-2.4
R885(K2126)	402	1	69.8	72.5	66	2.7	10	Snd Lvl	66.5	6.0	7	-1.0
R887(K2113)	404	1	60.4	62.5	66	2.1	10	----	58.0	4.5	7	-2.5
R890(K2131)	407	1	69.2	72.1	66	2.9	10	Snd Lvl	66.0	6.1	7	-0.9
R891(K2140)	408	1	59.9	61.8	66	1.9	10	----	56.8	5.0	7	-2.0
R894(K2111)	411	1	68.7	71.6	66	2.9	10	Snd Lvl	65.6	6.0	7	-1.0
R896(K2142)	413	1	59.6	61.1	66	1.5	10	----	56.3	4.8	7	-2.2
R897(K2139)	414	1	68.2	71.1	66	2.9	10	Snd Lvl	65.1	6.0	7	-1.0
M-47(K2141)	670	1	60.0	63.4	66	3.4	10	----	58.9	4.5	7	-2.5
Receiver672	672	1	68.9	70.6	66	1.7	10	Snd Lvl	66.5	4.1	7	-2.9

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	58	1.8	6.9	12.1
All Impacted	41	2.5	7.5	12.1
All that meet NR Goal	28	7.1	8.7	12.1

PEC 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B18 20'
BARRIER DESIGN: 18-24'

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Barrier143	W	16.00	19.53	24.00	4466	87223				2791144
1722C	W	20.00	20.00	20.00	231	4627				0
1722C	W	20.00	20.00	20.00	5	105				0
1722B	W	20.00	20.00	20.00	237	4744				0
2109F	W	20.00	20.00	20.00	307	6148				0
2109E	W	20.00	20.00	20.00	295	5891				0
2109B	W	20.00	20.00	20.00	256	5114				0
2109C	W	20.00	20.00	20.00	237	4736				0
2144	W	10.00	10.00	10.00	202	2022				0
2141	W	20.00	20.00	20.00	1773	35456				0
2139	W	20.00	20.00	20.00	130	2600				0
2138	W	20.00	20.00	20.00	164	3280				0
2131	W	20.00	20.00	20.00	161	3220				0
2126	W	10.00	10.00	10.00	150	1502				0
2124	W	10.00	10.00	10.00	197	1966				0
2122	W	10.00	10.00	10.00	235	2350				0
2121	W	10.00	10.00	10.00	119	1193				0
2119	W	20.00	20.00	20.00	192	3842				0
2114	W	10.00	10.00	10.00	148	1477				0
2111	W	10.00	10.00	10.00	147	1470				0
2109	W	10.00	10.00	10.00	216	2164				0
2108	W	10.00	10.00	10.00	157	1575				0
2107	W	10.00	10.00	10.00	55	547				0

2106	W	10.00	10.00	10.00	199	1989				0
2105	W	20.00	20.00	20.00	250	4998				0
2104	W	20.00	20.00	20.00	261	5224				0
2102	W	10.00	10.00	10.00	162	1617				0
2101	W	10.00	10.00	10.00	199	1991				0
2099	W	10.00	10.00	10.00	138	1382				0
2097	W	10.00	10.00	10.00	200	2002				0
2095	W	10.00	10.00	10.00	129	1288				0
2094	W	10.00	10.00	10.00	148	1479				0
2091	W	10.00	10.00	10.00	241	2409				0
2088	W	10.00	10.00	10.00	157	1567				0
2087	W	10.00	10.00	10.00	138	1378				0
2086	W	10.00	10.00	10.00	204	2042				0
2085	W	10.00	10.00	10.00	183	1833				0
2083	W	10.00	10.00	10.00	334	3337				0
1769	W	10.00	10.00	10.00	148	1478				0
1767	W	10.00	10.00	10.00	194	1941				0
1754	W	10.00	10.00	10.00	1974	19741				0
1745	W	10.00	10.00	10.00	149	1491				0
1743	W	10.00	10.00	10.00	66	661				0
									Total Cost:	2791144

PEC	8 August 2023
ZR	TNM 2.5
	Calculated with TNM 2.5
RESULTS: BARRIER DESIGN	
PROJECT/CONTRACT:	BSB
RUN:	KY W Barrier B18 20'
BARRIER DESIGN:	18-24'
ATMOSPHERICS:	68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R748(K2091)	257	70.5	8.9	7	1.9	Barrier143	point1080	1080	24.0	68.9
						Barrier143	point1079	1079	18.0	63.9
						Barrier143	point1078	1078	18.0	56.5
						Barrier143	point1077	1077	16.0	51.0
						Barrier143	point1082	1082	24.0	48.9
						Barrier143	point1084	1084	22.0	45.4
						Barrier143	point1081	1081	24.0	45.0
						Barrier143	point1085	1085	22.0	44.6
						Barrier143	point1083	1083	24.0	42.2
						Barrier143	point1086	1086	20.0	39.3
R749(K1767)	258	66.5	12.1	7	5.1	Barrier143	point1080	1080	24.0	65.8
						Barrier143	point1079	1079	18.0	54.4
						Barrier143	point1078	1078	18.0	51.4
						Barrier143	point1082	1082	24.0	50.8
						Barrier143	point1084	1084	22.0	45.3
						Barrier143	point1083	1083	24.0	43.2
						Barrier143	point1085	1085	22.0	43.2
						Barrier143	point1077	1077	16.0	42.2
						Barrier143	point1081	1081	24.0	39.7
						Barrier143	point1086	1086	20.0	38.9
R756(K2109B)	265	66.5	11.6	7	4.6	Barrier143	point1080	1080	18.0	64.9

						Barrier143	point1082	1082	22.0	58.6
						Barrier143	point1081	1081	20.0	54.3
						Barrier143	point1085	1085	22.0	50.9
						Barrier143	point1084	1084	22.0	49.3
						Barrier143	point1083	1083	24.0	48.4
						Barrier143	point1086	1086	20.0	47.9
						Barrier143	point1078	1078	18.0	43.9
						Barrier143	point1079	1079	18.0	41.6
						Barrier143	point1087	1087	20.0	40.7
R757(K2105)	266	66.6	9.4	7	2.4	Barrier143	point1078	1078	18.0	63.1
						Barrier143	point1079	1079	18.0	62.0
						Barrier143	point1077	1077	16.0	54.5
						Barrier143	point1080	1080	24.0	47.6
						Barrier143	point1085	1085	22.0	35.5
						Barrier143	point1086	1086	20.0	34.7
						Barrier143	point1082	1082	24.0	32.0
						Barrier143	point1084	1084	22.0	31.7
						Barrier143	point1083	1083	24.0	30.3
						Barrier143	point1087	1087	20.0	29.7
R764(KV2092)	273	63.1	8.8	7	1.8	Barrier143	point1080	1080	18.0	59.1
						Barrier143	point1082	1082	22.0	58.0
						Barrier143	point1081	1081	20.0	55.9
						Barrier143	point1083	1083	24.0	48.2
						Barrier143	point1084	1084	22.0	47.9
						Barrier143	point1086	1086	20.0	44.9
						Barrier143	point1085	1085	22.0	44.7
						Barrier143	point1087	1087	20.0	40.8
						Barrier143	point1078	1078	18.0	35.4
						Barrier143	point1079	1079	18.0	35.3
R766(K2085)	275	66.3	11.1	7	4.1	Barrier143	point1082	1082	22.0	64.8
						Barrier143	point1081	1081	20.0	57.9
						Barrier143	point1083	1083	24.0	54.7
						Barrier143	point1084	1084	22.0	53.2
						Barrier143	point1080	1080	18.0	46.8
						Barrier143	point1085	1085	22.0	46.7
						Barrier143	point1086	1086	20.0	42.8

						Barrier143	point1078	1078	18.0	36.8
						Barrier143	point1077	1077	16.0	33.8
						Barrier143	point1079	1079	18.0	26.8
R769(K2119)	278	65.7	7.6	7	0.6	Barrier143	point1079	1079	18.0	62.9
						Barrier143	point1078	1078	18.0	61.4
						Barrier143	point1080	1080	18.0	51.1
						Barrier143	point1077	1077	16.0	49.0
						Barrier143	point1085	1085	22.0	36.5
						Barrier143	point1082	1082	22.0	36.1
						Barrier143	point1084	1084	22.0	34.0
						Barrier143	point1087	1087	20.0	33.0
						Barrier143	point1086	1086	20.0	33.0
						Barrier143	point1083	1083	24.0	32.4
R771(K2101)	280	63.0	7.1	7	0.1	Barrier143	point1079	1079	18.0	60.5
						Barrier143	point1078	1078	18.0	56.2
						Barrier143	point1080	1080	18.0	51.0
						Barrier143	point1077	1077	16.0	49.4
						Barrier143	point1087	1087	20.0	43.0
						Barrier143	point1086	1086	20.0	40.0
						Barrier143	point1085	1085	22.0	37.5
						Barrier143	point1082	1082	22.0	35.8
						Barrier143	point1084	1084	22.0	32.4
						Barrier143	point1083	1083	24.0	31.0
R772(K2109E)	281	61.6	8.6	7	1.6	Barrier143	point1080	1080	18.0	57.3
						Barrier143	point1082	1082	22.0	56.1
						Barrier143	point1081	1081	20.0	55.7
						Barrier143	point1083	1083	24.0	46.9
						Barrier143	point1085	1085	22.0	43.3
						Barrier143	point1084	1084	22.0	42.8
						Barrier143	point1086	1086	20.0	40.9
						Barrier143	point1087	1087	20.0	37.7
						Barrier143	point1079	1079	18.0	35.1
						Barrier143	point1078	1078	18.0	34.7
R776(K2087)	285	65.2	9.2	7	2.2	Barrier143	point1082	1082	22.0	63.3
						Barrier143	point1081	1081	20.0	56.5
						Barrier143	point1083	1083	24.0	55.3

						Barrier143	point1080	1080	18.0	52.2
						Barrier143	point1085	1085	22.0	48.6
						Barrier143	point1086	1086	20.0	47.3
						Barrier143	point1084	1084	22.0	47.2
						Barrier143	point1087	1087	20.0	40.3
						Barrier143	point1078	1078	18.0	34.1
						Barrier143	point1077	1077	16.0	32.7
R777(K2106)	286	62.6	8.9	7	1.9	Barrier143	point1080	1080	18.0	60.5
						Barrier143	point1079	1079	18.0	51.6
						Barrier143	point1078	1078	18.0	51.6
						Barrier143	point1085	1085	22.0	49.5
						Barrier143	point1086	1086	20.0	47.6
						Barrier143	point1082	1082	22.0	46.9
						Barrier143	point1081	1081	20.0	46.5
						Barrier143	point1077	1077	16.0	45.7
						Barrier143	point1084	1084	22.0	44.7
						Barrier143	point1087	1087	20.0	42.3
R778(K2104)	288	62.4	10.0	7	3.0	Barrier143	point1080	1080	18.0	61.0
						Barrier143	point1085	1085	22.0	50.9
						Barrier143	point1082	1082	22.0	49.2
						Barrier143	point1086	1086	20.0	49.0
						Barrier143	point1084	1084	22.0	47.4
						Barrier143	point1083	1083	24.0	45.8
						Barrier143	point1087	1087	20.0	44.0
						Barrier143	point1079	1079	18.0	43.8
						Barrier143	point1077	1077	16.0	42.7
						Barrier143	point1078	1078	18.0	42.4
R783(K1722C)	293	66.2	6.8	7	-0.2	Barrier143	point1078	1078	18.0	59.8
						Barrier143	point1077	1077	16.0	59.3
						Barrier143	point1079	1079	18.0	54.4
						Barrier143	point1080	1080	24.0	38.7
						Barrier143	point1087	1087	20.0	33.8
						Barrier143	point1085	1085	22.0	31.7
						Barrier143	point1082	1082	24.0	31.5
						Barrier143	point1084	1084	22.0	30.5
						Barrier143	point1086	1086	20.0	29.9

						Barrier143	point1083	1083	24.0	29.2
R784(K1769)	294	62.7	9.4	7	2.4	Barrier143	point1082	1082	22.0	60.9
						Barrier143	point1083	1083	24.0	52.7
						Barrier143	point1085	1085	22.0	51.7
						Barrier143	point1081	1081	20.0	50.5
						Barrier143	point1080	1080	18.0	47.9
						Barrier143	point1084	1084	22.0	46.9
						Barrier143	point1086	1086	20.0	46.5
						Barrier143	point1087	1087	20.0	41.8
						Barrier143	point1077	1077	16.0	34.2
						Barrier143	point1078	1078	18.0	33.7
R785(K2083)	295	68.4	10.4	7	3.4	Barrier143	point1082	1082	22.0	63.1
						Barrier143	point1084	1084	22.0	61.9
						Barrier143	point1083	1083	24.0	61.5
						Barrier143	point1085	1085	22.0	60.5
						Barrier143	point1081	1081	20.0	57.6
						Barrier143	point1080	1080	24.0	48.1
						Barrier143	point1086	1086	20.0	46.7
						Barrier143	point1078	1078	24.0	37.8
						Barrier143	point1077	1077	16.0	34.9
						Barrier143	point1079	1079	24.0	9.1
R787(K2122)	299	62.8	7.5	7	0.5	Barrier143	point1079	1079	18.0	60.2
						Barrier143	point1078	1078	18.0	57.4
						Barrier143	point1080	1080	18.0	52.3
						Barrier143	point1077	1077	16.0	48.3
						Barrier143	point1084	1084	22.0	38.8
						Barrier143	point1082	1082	22.0	37.9
						Barrier143	point1087	1087	20.0	35.8
						Barrier143	point1085	1085	22.0	34.5
						Barrier143	point1083	1083	24.0	34.2
						Barrier143	point1081	1081	20.0	31.8
R788(K1722B)	300	66.6	5.6	7	-1.4	Barrier143	point1077	1077	16.0	59.7
						Barrier143	point1078	1078	18.0	58.5
						Barrier143	point1079	1079	18.0	53.2
						Barrier143	point1080	1080	18.0	36.6
						Barrier143	point1087	1087	20.0	29.8

						Barrier143	point1085	1085	22.0	28.9
						Barrier143	point1084	1084	22.0	27.4
						Barrier143	point1086	1086	20.0	27.2
						Barrier143	point1082	1082	22.0	27.1
						Barrier143	point1083	1083	24.0	25.7
R797(K2124)	311	63.0	7.3	7	0.3	Barrier143	point1079	1079	18.0	60.4
						Barrier143	point1078	1078	18.0	58.3
						Barrier143	point1080	1080	18.0	51.6
						Barrier143	point1077	1077	16.0	43.7
						Barrier143	point1087	1087	20.0	37.1
						Barrier143	point1082	1082	22.0	36.9
						Barrier143	point1084	1084	22.0	36.9
						Barrier143	point1083	1083	24.0	33.5
						Barrier143	point1085	1085	22.0	31.7
						Barrier143	point1086	1086	20.0	31.0
R800(K2086)	314	65.5	9.9	7	2.9	Barrier143	point1085	1085	22.0	62.3
						Barrier143	point1084	1084	22.0	60.0
						Barrier143	point1083	1083	24.0	55.3
						Barrier143	point1086	1086	20.0	53.7
						Barrier143	point1082	1082	22.0	53.7
						Barrier143	point1080	1080	18.0	44.8
						Barrier143	point1081	1081	20.0	44.6
						Barrier143	point1078	1078	18.0	33.2
						Barrier143	point1077	1077	16.0	32.0
						Barrier143	point1079	1079	18.0	30.6
R808(K2109)	322	55.9	5.5	7	-1.5	Barrier143	point1080	1080	18.0	54.6
						Barrier143	point1085	1085	22.0	42.9
						Barrier143	point1081	1081	20.0	41.6
						Barrier143	point1082	1082	22.0	41.5
						Barrier143	point1086	1086	20.0	41.0
						Barrier143	point1087	1087	20.0	40.7
						Barrier143	point1079	1079	18.0	37.9
						Barrier143	point1078	1078	18.0	37.0
						Barrier143	point1084	1084	22.0	36.5
						Barrier143	point1083	1083	24.0	35.9
R811(K2095)	325	61.6	9.0	7	2.0	Barrier143	point1082	1082	22.0	59.4

						Barrier143	point1084	1084	22.0	52.9
						Barrier143	point1085	1085	22.0	49.9
						Barrier143	point1081	1081	20.0	48.5
						Barrier143	point1083	1083	24.0	48.0
						Barrier143	point1080	1080	18.0	47.9
						Barrier143	point1086	1086	20.0	46.9
						Barrier143	point1087	1087	20.0	42.4
						Barrier143	point1077	1077	16.0	35.0
						Barrier143	point1078	1078	18.0	33.5
R813(K2114)	327	61.8	6.9	7	-0.1	Barrier143	point1079	1079	18.0	58.4
						Barrier143	point1078	1078	18.0	54.1
						Barrier143	point1077	1077	16.0	52.9
						Barrier143	point1080	1080	18.0	44.6
						Barrier143	point1087	1087	20.0	36.7
						Barrier143	point1085	1085	22.0	35.1
						Barrier143	point1086	1086	20.0	34.1
						Barrier143	point1082	1082	22.0	33.0
						Barrier143	point1083	1083	24.0	30.8
						Barrier143	point1084	1084	22.0	29.3
R814(K2125)	328	61.4	6.5	7	-0.5	Barrier143	point1079	1079	18.0	58.1
						Barrier143	point1078	1078	18.0	55.1
						Barrier143	point1080	1080	18.0	53.4
						Barrier143	point1077	1077	16.0	46.3
						Barrier143	point1087	1087	20.0	40.8
						Barrier143	point1086	1086	20.0	40.2
						Barrier143	point1085	1085	22.0	39.9
						Barrier143	point1082	1082	22.0	37.0
						Barrier143	point1084	1084	22.0	31.9
						Barrier143	point1081	1081	20.0	31.8
R819(K2088)	334	66.8	8.5	7	1.5	Barrier143	point1085	1085	22.0	63.6
						Barrier143	point1084	1084	22.0	61.8
						Barrier143	point1086	1086	20.0	55.6
						Barrier143	point1083	1083	24.0	53.7
						Barrier143	point1082	1082	22.0	52.8
						Barrier143	point1080	1080	18.0	46.5
						Barrier143	point1081	1081	20.0	45.4

						Barrier143	point1087	1087	20.0	45.0
						Barrier143	point1077	1077	16.0	32.7
						Barrier143	point1078	1078	18.0	32.7
R820(K2138)	335	64.0	5.4	7	-1.6	Barrier143	point1078	1078	18.0	60.6
						Barrier143	point1079	1079	18.0	56.3
						Barrier143	point1077	1077	16.0	55.3
						Barrier143	point1080	1080	18.0	46.1
						Barrier143	point1087	1087	20.0	37.8
						Barrier143	point1085	1085	22.0	36.1
						Barrier143	point1086	1086	20.0	34.7
						Barrier143	point1082	1082	22.0	32.8
						Barrier143	point1083	1083	24.0	30.7
						Barrier143	point1084	1084	22.0	30.4
R821(K1722A)	336	63.9	1.8	7	-5.2	Barrier143	point1077	1077	16.0	55.5
						Barrier143	point1078	1078	18.0	54.0
						Barrier143	point1079	1079	18.0	52.0
						Barrier143	point1080	1080	18.0	41.9
						Barrier143	point1087	1087	20.0	35.5
						Barrier143	point1085	1085	22.0	34.0
						Barrier143	point1086	1086	20.0	33.5
						Barrier143	point1084	1084	22.0	31.5
						Barrier143	point1082	1082	22.0	31.0
						Barrier143	point1083	1083	24.0	28.7
R823(K1722)	338	65.3	3.3	7	-3.7	Barrier143	point1078	1078	18.0	61.8
						Barrier143	point1079	1079	18.0	56.2
						Barrier143	point1077	1077	16.0	56.1
						Barrier143	point1080	1080	18.0	43.4
						Barrier143	point1087	1087	20.0	37.2
						Barrier143	point1085	1085	22.0	36.4
						Barrier143	point1086	1086	20.0	34.3
						Barrier143	point1084	1084	22.0	33.1
						Barrier143	point1082	1082	22.0	31.9
						Barrier143	point1083	1083	24.0	28.6
R824(K2099)	339	59.2	9.5	7	2.5	Barrier143	point1082	1082	22.0	57.0
						Barrier143	point1084	1084	22.0	48.8
						Barrier143	point1085	1085	22.0	48.6

						Barrier143	point1081	1081	20.0	46.6
						Barrier143	point1080	1080	18.0	46.4
						Barrier143	point1086	1086	20.0	45.2
						Barrier143	point1083	1083	24.0	44.7
						Barrier143	point1087	1087	20.0	43.4
						Barrier143	point1077	1077	16.0	34.6
						Barrier143	point1079	1079	18.0	33.6
R825(K2127)	340	58.8	7.3	7	0.3	Barrier143	point1080	1080	18.0	56.7
						Barrier143	point1085	1085	22.0	47.6
						Barrier143	point1079	1079	18.0	45.6
						Barrier143	point1087	1087	20.0	44.7
						Barrier143	point1086	1086	20.0	44.0
						Barrier143	point1078	1078	18.0	43.0
						Barrier143	point1084	1084	22.0	42.8
						Barrier143	point1077	1077	16.0	40.7
						Barrier143	point1082	1082	22.0	39.1
						Barrier143	point1083	1083	24.0	35.2
R826(K2144)	341	64.6	4.4	7	-2.6	Barrier143	point1078	1078	18.0	62.2
						Barrier143	point1077	1077	16.0	55.9
						Barrier143	point1079	1079	18.0	54.9
						Barrier143	point1080	1080	18.0	45.0
						Barrier143	point1087	1087	20.0	35.5
						Barrier143	point1085	1085	22.0	34.6
						Barrier143	point1086	1086	20.0	33.3
						Barrier143	point1082	1082	22.0	32.4
						Barrier143	point1084	1084	22.0	31.2
						Barrier143	point1083	1083	24.0	30.1
R827(K2109C)	342	57.0	7.4	7	0.4	Barrier143	point1080	1080	18.0	55.3
						Barrier143	point1081	1081	20.0	50.0
						Barrier143	point1082	1082	22.0	45.0
						Barrier143	point1079	1079	18.0	38.2
						Barrier143	point1078	1078	18.0	36.7
						Barrier143	point1077	1077	16.0	36.1
						Barrier143	point1084	1084	22.0	33.2
						Barrier143	point1083	1083	24.0	33.0
						Barrier143	point1085	1085	22.0	31.7

						Barrier143	point1087	1087	20.0	30.9
R828(K1720)	343	65.3	3.5	7	-3.5	Barrier143	point1078	1078	18.0	62.0
						Barrier143	point1077	1077	16.0	56.6
						Barrier143	point1079	1079	18.0	56.2
						Barrier143	point1080	1080	18.0	43.9
						Barrier143	point1087	1087	20.0	36.9
						Barrier143	point1085	1085	22.0	34.7
						Barrier143	point1086	1086	20.0	34.5
						Barrier143	point1082	1082	22.0	31.9
						Barrier143	point1084	1084	22.0	30.9
						Barrier143	point1083	1083	24.0	28.5
R838(K2109F)	354	56.5	8.3	7	1.3	Barrier143	point1082	1082	22.0	52.2
						Barrier143	point1081	1081	20.0	51.0
						Barrier143	point1080	1080	18.0	49.7
						Barrier143	point1083	1083	24.0	40.8
						Barrier143	point1085	1085	22.0	40.6
						Barrier143	point1087	1087	20.0	40.1
						Barrier143	point1086	1086	20.0	39.3
						Barrier143	point1084	1084	22.0	38.6
						Barrier143	point1079	1079	18.0	38.4
						Barrier143	point1078	1078	18.0	34.6
R840(K2109A)	356	55.4	6.1	7	-0.9	Barrier143	point1080	1080	18.0	51.5
						Barrier143	point1081	1081	20.0	46.8
						Barrier143	point1082	1082	22.0	46.3
						Barrier143	point1078	1078	18.0	43.0
						Barrier143	point1079	1079	18.0	42.9
						Barrier143	point1077	1077	16.0	41.6
						Barrier143	point1087	1087	20.0	40.6
						Barrier143	point1085	1085	22.0	40.3
						Barrier143	point1086	1086	20.0	39.3
						Barrier143	point1084	1084	22.0	38.3
R841(K30)	357	60.8	4.3	7	-2.7	Barrier143	point1079	1079	18.0	57.5
						Barrier143	point1078	1078	18.0	56.4
						Barrier143	point1077	1077	16.0	49.5
						Barrier143	point1080	1080	18.0	46.7
						Barrier143	point1087	1087	20.0	41.5

						Barrier143	point1085	1085	22.0	39.3
						Barrier143	point1086	1086	20.0	36.9
						Barrier143	point1084	1084	22.0	35.5
						Barrier143	point1082	1082	22.0	32.5
						Barrier143	point1083	1083	24.0	31.3
R845(K2103)	361	59.9	7.1	7	0.1	Barrier143	point1082	1082	22.0	54.9
						Barrier143	point1085	1085	22.0	53.9
						Barrier143	point1084	1084	22.0	51.1
						Barrier143	point1080	1080	18.0	49.3
						Barrier143	point1081	1081	20.0	47.4
						Barrier143	point1087	1087	20.0	46.7
						Barrier143	point1086	1086	20.0	46.4
						Barrier143	point1083	1083	24.0	46.3
						Barrier143	point1079	1079	18.0	35.1
						Barrier143	point1078	1078	18.0	33.7
R850(K1721)	366	61.2	4.7	7	-2.3	Barrier143	point1079	1079	18.0	57.2
						Barrier143	point1078	1078	18.0	56.1
						Barrier143	point1077	1077	16.0	52.7
						Barrier143	point1080	1080	18.0	46.1
						Barrier143	point1087	1087	20.0	41.1
						Barrier143	point1086	1086	20.0	37.2
						Barrier143	point1085	1085	22.0	36.2
						Barrier143	point1084	1084	22.0	34.0
						Barrier143	point1082	1082	22.0	32.4
						Barrier143	point1083	1083	24.0	31.2
R851(K2094)	367	67.6	7.3	7	0.3	Barrier143	point1085	1085	22.0	64.7
						Barrier143	point1084	1084	22.0	62.8
						Barrier143	point1086	1086	20.0	56.9
						Barrier143	point1082	1082	22.0	51.7
						Barrier143	point1083	1083	24.0	51.7
						Barrier143	point1087	1087	20.0	47.7
						Barrier143	point1080	1080	18.0	46.0
						Barrier143	point1081	1081	20.0	45.7
						Barrier143	point1077	1077	16.0	33.7
						Barrier143	point1078	1078	18.0	32.3
R852(K2109D)	368	54.1	5.3	7	-1.7	Barrier143	point1080	1080	18.0	51.0

						Barrier143	point1087	1087	20.0	43.1
						Barrier143	point1085	1085	22.0	41.6
						Barrier143	point1082	1082	22.0	41.2
						Barrier143	point1079	1079	18.0	40.7
						Barrier143	point1086	1086	20.0	40.7
						Barrier143	point1078	1078	18.0	40.0
						Barrier143	point1083	1083	24.0	39.9
						Barrier143	point1077	1077	16.0	38.9
						Barrier143	point1084	1084	22.0	38.0
R860(K2097)	376	67.3	7.2	7	0.2	Barrier143	point1085	1085	22.0	65.4
						Barrier143	point1084	1084	22.0	60.5
						Barrier143	point1086	1086	20.0	56.4
						Barrier143	point1082	1082	22.0	50.4
						Barrier143	point1087	1087	20.0	49.8
						Barrier143	point1083	1083	24.0	49.5
						Barrier143	point1081	1081	20.0	44.6
						Barrier143	point1080	1080	18.0	44.3
						Barrier143	point1077	1077	16.0	33.5
						Barrier143	point1078	1078	18.0	32.2
R864(K2117)	381	59.3	6.1	7	-0.9	Barrier143	point1085	1085	22.0	54.2
						Barrier143	point1082	1082	22.0	53.1
						Barrier143	point1086	1086	20.0	50.2
						Barrier143	point1084	1084	22.0	49.6
						Barrier143	point1080	1080	18.0	47.8
						Barrier143	point1087	1087	20.0	47.1
						Barrier143	point1081	1081	20.0	46.1
						Barrier143	point1083	1083	24.0	43.8
						Barrier143	point1079	1079	18.0	36.0
						Barrier143	point1078	1078	18.0	34.3
R870(K2102)	387	66.4	7.1	7	0.1	Barrier143	point1085	1085	22.0	64.9
						Barrier143	point1084	1084	22.0	57.2
						Barrier143	point1086	1086	20.0	56.5
						Barrier143	point1087	1087	20.0	51.7
						Barrier143	point1083	1083	24.0	47.1
						Barrier143	point1082	1082	22.0	45.3
						Barrier143	point1080	1080	18.0	43.0

						Barrier143	point1081	1081	20.0	42.9
						Barrier143	point1077	1077	16.0	32.9
						Barrier143	point1079	1079	18.0	32.6
R871(K2120)	388	58.8	5.5	7	-1.5	Barrier143	point1085	1085	22.0	55.3
						Barrier143	point1082	1082	22.0	51.6
						Barrier143	point1084	1084	22.0	49.4
						Barrier143	point1080	1080	18.0	46.9
						Barrier143	point1087	1087	20.0	46.8
						Barrier143	point1086	1086	20.0	46.4
						Barrier143	point1081	1081	20.0	44.0
						Barrier143	point1083	1083	24.0	41.6
						Barrier143	point1079	1079	18.0	35.0
						Barrier143	point1078	1078	18.0	33.7
R872(KV2147)	389	54.1	8.1	7	1.1	Barrier143	point1082	1082	22.0	49.3
						Barrier143	point1081	1081	20.0	47.7
						Barrier143	point1080	1080	18.0	44.9
						Barrier143	point1087	1087	20.0	41.7
						Barrier143	point1083	1083	24.0	40.2
						Barrier143	point1085	1085	22.0	39.6
						Barrier143	point1086	1086	20.0	38.9
						Barrier143	point1078	1078	18.0	37.2
						Barrier143	point1077	1077	16.0	36.8
						Barrier143	point1084	1084	22.0	36.5
R873(K2107)	390	66.3	6.9	7	-0.1	Barrier143	point1085	1085	22.0	64.9
						Barrier143	point1086	1086	20.0	56.5
						Barrier143	point1084	1084	22.0	56.5
						Barrier143	point1087	1087	20.0	52.2
						Barrier143	point1082	1082	22.0	46.2
						Barrier143	point1083	1083	24.0	45.9
						Barrier143	point1080	1080	18.0	44.0
						Barrier143	point1081	1081	20.0	43.6
						Barrier143	point1079	1079	18.0	32.7
						Barrier143	point1077	1077	16.0	32.4
R876(K2128)	393	58.1	5.5	7	-1.5	Barrier143	point1085	1085	22.0	54.8
						Barrier143	point1082	1082	22.0	50.6
						Barrier143	point1087	1087	20.0	49.4

						Barrier143	point1080	1080	18.0	46.4
						Barrier143	point1086	1086	20.0	44.6
						Barrier143	point1084	1084	22.0	44.5
						Barrier143	point1081	1081	20.0	43.7
						Barrier143	point1083	1083	24.0	40.3
						Barrier143	point1079	1079	18.0	34.2
						Barrier143	point1078	1078	18.0	32.9
R878(K2141)	395	74.3	2.5	7	-4.5	Barrier143	point1086	1086	20.0	71.5
						Barrier143	point1085	1085	22.0	70.3
						Barrier143	point1087	1087	20.0	61.1
						Barrier143	point1084	1084	22.0	53.4
						Barrier143	point1082	1082	22.0	51.0
						Barrier143	point1080	1080	18.0	46.7
						Barrier143	point1081	1081	20.0	46.5
						Barrier143	point1083	1083	24.0	43.1
						Barrier143	point1079	1079	18.0	27.7
						Barrier143	point1078	1078	18.0	27.2
R879(K2121)	396	66.7	6.1	7	-0.9	Barrier143	point1085	1085	22.0	65.0
						Barrier143	point1086	1086	20.0	57.8
						Barrier143	point1084	1084	22.0	56.8
						Barrier143	point1087	1087	20.0	53.4
						Barrier143	point1080	1080	18.0	46.9
						Barrier143	point1082	1082	22.0	46.2
						Barrier143	point1081	1081	20.0	45.7
						Barrier143	point1083	1083	24.0	43.1
						Barrier143	point1079	1079	18.0	35.1
						Barrier143	point1078	1078	18.0	33.4
R881(K2130)	398	58.2	4.6	7	-2.4	Barrier143	point1085	1085	22.0	53.7
						Barrier143	point1086	1086	20.0	52.7
						Barrier143	point1082	1082	22.0	49.6
						Barrier143	point1087	1087	20.0	46.4
						Barrier143	point1080	1080	18.0	46.2
						Barrier143	point1084	1084	22.0	43.9
						Barrier143	point1081	1081	20.0	43.0
						Barrier143	point1083	1083	24.0	39.1
						Barrier143	point1079	1079	18.0	33.6

						Barrier143	point1077	1077	16.0	32.3
R885(K2126)	402	66.5	6.0	7	-1.0	Barrier143	point1085	1085	22.0	64.8
						Barrier143	point1086	1086	20.0	57.6
						Barrier143	point1084	1084	22.0	56.2
						Barrier143	point1087	1087	20.0	54.1
						Barrier143	point1082	1082	22.0	50.8
						Barrier143	point1081	1081	20.0	48.0
						Barrier143	point1080	1080	18.0	47.0
						Barrier143	point1083	1083	24.0	42.6
						Barrier143	point1079	1079	18.0	34.5
						Barrier143	point1078	1078	18.0	32.7
R887(K2113)	404	58.0	4.5	7	-2.5	Barrier143	point1085	1085	22.0	55.2
						Barrier143	point1086	1086	20.0	49.4
						Barrier143	point1082	1082	22.0	48.8
						Barrier143	point1080	1080	18.0	45.9
						Barrier143	point1087	1087	20.0	45.0
						Barrier143	point1081	1081	20.0	43.6
						Barrier143	point1084	1084	22.0	43.3
						Barrier143	point1083	1083	24.0	38.6
						Barrier143	point1079	1079	18.0	33.5
						Barrier143	point1077	1077	16.0	32.5
R890(K2131)	407	66.0	6.1	7	-0.9	Barrier143	point1085	1085	22.0	64.3
						Barrier143	point1086	1086	20.0	57.8
						Barrier143	point1084	1084	22.0	54.5
						Barrier143	point1087	1087	20.0	54.3
						Barrier143	point1082	1082	22.0	47.5
						Barrier143	point1080	1080	18.0	44.7
						Barrier143	point1081	1081	20.0	44.2
						Barrier143	point1083	1083	24.0	41.2
						Barrier143	point1079	1079	18.0	33.5
						Barrier143	point1078	1078	18.0	32.5
R891(K2140)	408	56.8	5.0	7	-2.0	Barrier143	point1085	1085	22.0	54.1
						Barrier143	point1082	1082	22.0	48.0
						Barrier143	point1086	1086	20.0	46.5
						Barrier143	point1080	1080	18.0	45.5
						Barrier143	point1087	1087	20.0	43.4

						Barrier143	point1081	1081	20.0	43.4
						Barrier143	point1084	1084	22.0	42.5
						Barrier143	point1083	1083	24.0	37.7
						Barrier143	point1077	1077	16.0	33.0
						Barrier143	point1079	1079	18.0	32.8
R894(K2111)	411	65.6	6.0	7	-1.0	Barrier143	point1085	1085	22.0	63.8
						Barrier143	point1086	1086	20.0	57.7
						Barrier143	point1084	1084	22.0	55.4
						Barrier143	point1087	1087	20.0	54.4
						Barrier143	point1082	1082	22.0	43.0
						Barrier143	point1083	1083	24.0	39.8
						Barrier143	point1080	1080	18.0	39.1
						Barrier143	point1081	1081	20.0	37.2
						Barrier143	point1088	1088	20.0	33.4
						Barrier143	point1079	1079	18.0	31.9
R896(K2142)	413	56.3	4.8	7	-2.2	Barrier143	point1085	1085	22.0	53.2
						Barrier143	point1082	1082	22.0	46.9
						Barrier143	point1087	1087	20.0	46.0
						Barrier143	point1080	1080	18.0	45.1
						Barrier143	point1086	1086	20.0	45.1
						Barrier143	point1081	1081	20.0	43.7
						Barrier143	point1084	1084	22.0	41.9
						Barrier143	point1083	1083	24.0	36.9
						Barrier143	point1088	1088	20.0	33.3
						Barrier143	point1077	1077	16.0	32.8
R897(K2139)	414	65.1	6.0	7	-1.0	Barrier143	point1085	1085	22.0	63.1
						Barrier143	point1086	1086	20.0	57.4
						Barrier143	point1084	1084	22.0	54.4
						Barrier143	point1087	1087	20.0	54.3
						Barrier143	point1088	1088	20.0	42.4
						Barrier143	point1080	1080	18.0	42.3
						Barrier143	point1082	1082	22.0	41.2
						Barrier143	point1081	1081	20.0	39.4
						Barrier143	point1083	1083	24.0	38.5
						Barrier143	point1079	1079	18.0	34.7
M-47(K2141)	670	58.9	4.5	7	-2.5	Barrier143	point1088	1088	20.0	54.3

						Barrier143	point1087	1087	20.0	52.2
						Barrier143	point1086	1086	20.0	51.1
						Barrier143	point1085	1085	22.0	50.0
						Barrier143	point1084	1084	22.0	38.9
						Barrier143	point1080	1080	18.0	38.3
						Barrier143	point1082	1082	22.0	37.1
						Barrier143	point1081	1081	20.0	35.7
						Barrier143	point1077	1077	16.0	30.3
						Barrier143	point1079	1079	18.0	29.8
Receiver672	672	66.5	4.1	7	-2.9	Barrier143	point1085	1085	22.0	64.0
						Barrier143	point1086	1086	20.0	60.7
						Barrier143	point1087	1087	20.0	55.9
						Barrier143	point1084	1084	22.0	53.1
						Barrier143	point1082	1082	22.0	47.4
						Barrier143	point1081	1081	20.0	46.6
						Barrier143	point1088	1088	20.0	45.5
						Barrier143	point1080	1080	18.0	44.4
						Barrier143	point1083	1083	24.0	37.5
						Barrier143	point1077	1077	16.0	31.6

Total Cost, All Barriers (including additional cost(s))					$2791144					

PEC 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B18 20'
BARRIER DESIGN: 18-24'

Barriers		Segments										
Name	Type	Name	No.	Heights First Point	Average	Second Point	Length	If Wall Area	On Struc?	Important Reflections?	If Berm Volume	Cost
				ft	ft	ft	ft	sq ft			cu yd	$
Barrier143	W	point1077	1077	16.00	16.00	16.00	368	5885				188318
		point1078	1078	18.00	18.00	18.00	368	6615				211695
		point1079	1079	18.00	18.00	18.00	456	8214				262863
		point1080	1080	18.00	18.00	18.00	887	15958				510647
		point1081	1081	20.00	20.00	20.00	212	4234				135475
		point1082	1082	22.00	22.00	22.00	400	8791				281323
		point1083	1083	24.00	24.00	24.00	195	4686				149938
		point1084	1084	22.00	22.00	22.00	238	5244				167821
		point1085	1085	22.00	22.00	22.00	370	8130				260145
		point1086	1086	20.00	20.00	20.00	209	4182				133820
		point1087	1087	20.00	20.00	20.00	382	7643				244587
		point1088	1088	20.00	20.00	20.00	382	7641				244512
1722C	W	point1038	1038	20.00	20.00	20.00	55	1099				0
		point1039	1039	20.00	20.00	20.00	62	1231				0
		point1040	1040	20.00	20.00	20.00	52	1038				0
		point1041	1041	20.00	20.00	20.00	37	747				0
		point1042	1042	20.00	20.00	20.00	26	511				0
1722C	W	point1034	1034	20.00	20.00	20.00	2	41				0
		point1035	1035	20.00	20.00	20.00	2	50				0
		point1036	1036	20.00	20.00	20.00	1	14				0
1722B	W	point1029	1029	20.00	20.00	20.00	55	1101				0
		point1030	1030	20.00	20.00	20.00	62	1249				0
		point1031	1031	20.00	20.00	20.00	52	1037				0

		point1032	1032	20.00	20.00	20.00	68	1357				0
2109F	W	point1020	1020	20.00	20.00	20.00	58	1168				0
		point1021	1021	20.00	20.00	20.00	45	891				0
		point1022	1022	20.00	20.00	20.00	48	950				0
		point1023	1023	20.00	20.00	20.00	27	539				0
		point1024	1024	20.00	20.00	20.00	24	474				0
		point1025	1025	20.00	20.00	20.00	42	835				0
		point1026	1026	20.00	20.00	20.00	24	488				0
		point1027	1027	20.00	20.00	20.00	40	803				0
2109E	W	point1014	1014	20.00	20.00	20.00	104	2075				0
		point1015	1015	20.00	20.00	20.00	23	451				0
		point1016	1016	20.00	20.00	20.00	27	533				0
		point1017	1017	20.00	20.00	20.00	92	1841				0
		point1018	1018	20.00	20.00	20.00	50	991				0
2109B	W	point1008	1008	20.00	20.00	20.00	46	924				0
		point1009	1009	20.00	20.00	20.00	84	1670				0
		point1010	1010	20.00	20.00	20.00	36	726				0
		point1011	1011	20.00	20.00	20.00	27	541				0
		point1012	1012	20.00	20.00	20.00	63	1252				0
2109C	W	point1003	1003	20.00	20.00	20.00	46	926				0
		point1004	1004	20.00	20.00	20.00	69	1387				0
		point1005	1005	20.00	20.00	20.00	43	868				0
		point1006	1006	20.00	20.00	20.00	78	1554				0
2144	W	point997	997	10.00	10.00	10.00	39	388				0
		point998	998	10.00	10.00	10.00	39	388				0
		point999	999	10.00	10.00	10.00	63	626				0
		point1000	1000	10.00	10.00	10.00	38	381				0
		point1001	1001	10.00	10.00	10.00	24	240				0
2141	W	point974	974	20.00	20.00	20.00	130	2608				0
		point975	975	20.00	20.00	20.00	105	2108				0
		point976	976	20.00	20.00	20.00	23	461				0
		point977	977	20.00	20.00	20.00	25	495				0
		point978	978	20.00	20.00	20.00	32	631				0

		point979	979	20.00	20.00	20.00	51	1021				0
		point980	980	20.00	20.00	20.00	44	872				0
		point981	981	20.00	20.00	20.00	213	4257				0
		point982	982	20.00	20.00	20.00	30	603				0
		point983	983	20.00	20.00	20.00	77	1535				0
		point984	984	20.00	20.00	20.00	53	1058				0
		point985	985	20.00	20.00	20.00	65	1306				0
		point986	986	20.00	20.00	20.00	38	752				0
		point987	987	20.00	20.00	20.00	120	2408				0
		point988	988	20.00	20.00	20.00	37	734				0
		point989	989	20.00	20.00	20.00	103	2060				0
		point990	990	20.00	20.00	20.00	126	2517				0
		point991	991	20.00	20.00	20.00	19	381				0
		point992	992	20.00	20.00	20.00	237	4731				0
		point993	993	20.00	20.00	20.00	77	1550				0
		point994	994	20.00	20.00	20.00	39	784				0
		point995	995	20.00	20.00	20.00	129	2585				0
2139	W	point967	967	20.00	20.00	20.00	34	682				0
		point968	968	20.00	20.00	20.00	33	651				0
		point969	969	20.00	20.00	20.00	16	322				0
		point970	970	20.00	20.00	20.00	6	128				0
		point971	971	20.00	20.00	20.00	14	284				0
		point972	972	20.00	20.00	20.00	27	533				0
2138	W	point962	962	20.00	20.00	20.00	51	1022				0
		point963	963	20.00	20.00	20.00	30	604				0
		point964	964	20.00	20.00	20.00	52	1039				0
		point965	965	20.00	20.00	20.00	31	614				0
2131	W	point955	955	20.00	20.00	20.00	32	631				0
		point956	956	20.00	20.00	20.00	41	817				0
		point957	957	20.00	20.00	20.00	17	341				0
		point958	958	20.00	20.00	20.00	8	156				0
		point959	959	20.00	20.00	20.00	15	305				0
		point960	960	20.00	20.00	20.00	49	971				0
2126	W	point948	948	10.00	10.00	10.00	15	152				0
		point949	949	10.00	10.00	10.00	39	394				0

		point950	950	10.00	10.00	10.00	36	361				0
		point951	951	10.00	10.00	10.00	28	284				0
		point952	952	10.00	10.00	10.00	21	205				0
		point953	953	10.00	10.00	10.00	11	106				0
2124	W	point941	941	10.00	10.00	10.00	7	70				0
		point942	942	10.00	10.00	10.00	37	365				0
		point943	943	10.00	10.00	10.00	33	330				0
		point944	944	10.00	10.00	10.00	60	595				0
		point945	945	10.00	10.00	10.00	39	390				0
		point946	946	10.00	10.00	10.00	22	215				0
2122	W	point928	928	10.00	10.00	10.00	21	211				0
		point929	929	10.00	10.00	10.00	13	130				0
		point930	930	10.00	10.00	10.00	16	157				0
		point931	931	10.00	10.00	10.00	42	425				0
		point932	932	10.00	10.00	10.00	14	144				0
		point933	933	10.00	10.00	10.00	12	120				0
		point934	934	10.00	10.00	10.00	12	124				0
		point935	935	10.00	10.00	10.00	11	111				0
		point936	936	10.00	10.00	10.00	19	186				0
		point937	937	10.00	10.00	10.00	48	477				0
		point938	938	10.00	10.00	10.00	18	176				0
		point939	939	10.00	10.00	10.00	9	90				0
2121	W	point923	923	10.00	10.00	10.00	31	308				0
		point924	924	10.00	10.00	10.00	25	255				0
		point925	925	10.00	10.00	10.00	31	311				0
		point926	926	10.00	10.00	10.00	32	319				0
2119	W	point916	916	20.00	20.00	20.00	40	808				0
		point917	917	20.00	20.00	20.00	20	408				0
		point918	918	20.00	20.00	20.00	8	155				0
		point919	919	20.00	20.00	20.00	34	671				0
		point920	920	20.00	20.00	20.00	34	680				0
		point921	921	20.00	20.00	20.00	56	1120				0
2114	W	point909	909	10.00	10.00	10.00	6	63				0
		point910	910	10.00	10.00	10.00	8	83				0

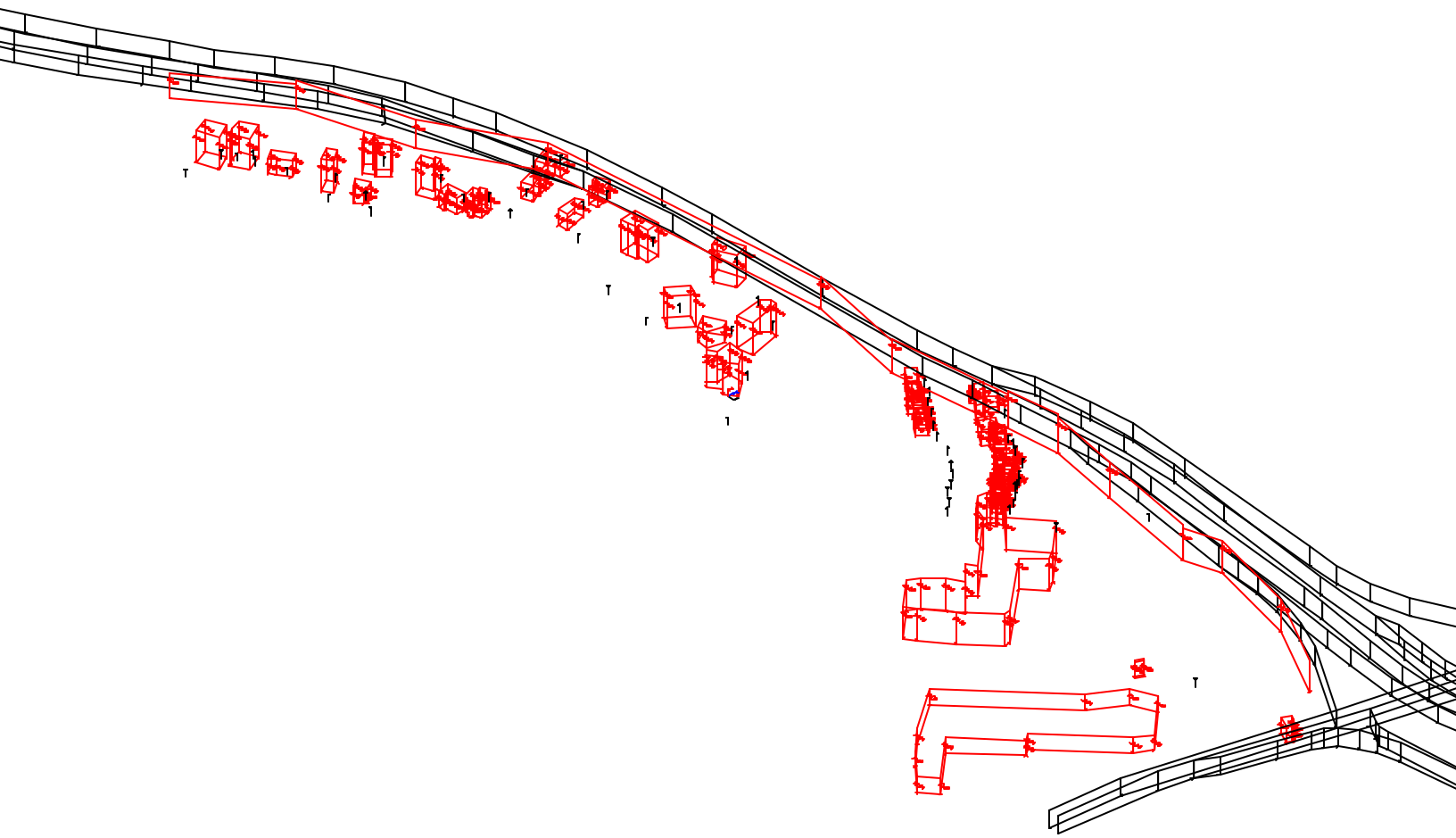
		point911	911	10.00	10.00	10.00	28	283				0
		point912	912	10.00	10.00	10.00	39	392				0
		point913	913	10.00	10.00	10.00	36	358				0
		point914	914	10.00	10.00	10.00	30	298				0
2111	W	point900	900	10.00	10.00	10.00	13	132				0
		point901	901	10.00	10.00	10.00	13	131				0
		point902	902	10.00	10.00	10.00	21	213				0
		point903	903	10.00	10.00	10.00	38	376				0
		point904	904	10.00	10.00	10.00	12	124				0
		point905	905	10.00	10.00	10.00	4	39				0
		point906	906	10.00	10.00	10.00	22	224				0
		point907	907	10.00	10.00	10.00	23	230				0
2109	W	point894	894	10.00	10.00	10.00	61	615				0
		point895	895	10.00	10.00	10.00	45	452				0
		point896	896	10.00	10.00	10.00	33	326				0
		point897	897	10.00	10.00	10.00	52	520				0
		point898	898	10.00	10.00	10.00	25	251				0
2108	W	point886	886	10.00	10.00	10.00	13	131				0
		point887	887	10.00	10.00	10.00	43	432				0
		point888	888	10.00	10.00	10.00	27	270				0
		point889	889	10.00	10.00	10.00	10	96				0
		point890	890	10.00	10.00	10.00	8	81				0
		point891	891	10.00	10.00	10.00	34	340				0
		point892	892	10.00	10.00	10.00	22	224				0
2107	W	point881	881	10.00	10.00	10.00	14	142				0
		point882	882	10.00	10.00	10.00	13	128				0
		point883	883	10.00	10.00	10.00	15	149				0
		point884	884	10.00	10.00	10.00	13	127				0
2106	W	point876	876	10.00	10.00	10.00	70	697				0
		point877	877	10.00	10.00	10.00	28	277				0
		point878	878	10.00	10.00	10.00	69	690				0
		point879	879	10.00	10.00	10.00	33	326				0
2105	W	point867	867	20.00	20.00	20.00	30	600				0

		point868	868	20.00	20.00	20.00	50	990				0
		point869	869	20.00	20.00	20.00	17	334				0
		point870	870	20.00	20.00	20.00	27	536				0
		point871	871	20.00	20.00	20.00	43	867				0
		point872	872	20.00	20.00	20.00	36	715				0
		point873	873	20.00	20.00	20.00	8	153				0
		point874	874	20.00	20.00	20.00	40	803				0
2104	W	point859	859	20.00	20.00	20.00	27	547				0
		point860	860	20.00	20.00	20.00	7	140				0
		point861	861	20.00	20.00	20.00	32	641				0
		point862	862	20.00	20.00	20.00	40	792				0
		point863	863	20.00	20.00	20.00	82	1642				0
		point864	864	20.00	20.00	20.00	50	1002				0
		point865	865	20.00	20.00	20.00	23	460				0
2102	W	point852	852	10.00	10.00	10.00	34	344				0
		point853	853	10.00	10.00	10.00	46	460				0
		point854	854	10.00	10.00	10.00	21	206				0
		point855	855	10.00	10.00	10.00	8	78				0
		point856	856	10.00	10.00	10.00	14	135				0
		point857	857	10.00	10.00	10.00	39	394				0
2101	W	point845	845	10.00	10.00	10.00	4	38				0
		point846	846	10.00	10.00	10.00	20	205				0
		point847	847	10.00	10.00	10.00	36	355				0
		point848	848	10.00	10.00	10.00	62	620				0
		point849	849	10.00	10.00	10.00	36	360				0
		point850	850	10.00	10.00	10.00	41	413				0
2099	W	point838	838	10.00	10.00	10.00	32	324				0
		point839	839	10.00	10.00	10.00	34	342				0
		point840	840	10.00	10.00	10.00	33	331				0
		point841	841	10.00	10.00	10.00	21	206				0
		point842	842	10.00	10.00	10.00	4	39				0
		point843	843	10.00	10.00	10.00	14	140				0
2097	W	point827	827	10.00	10.00	10.00	50	502				0
		point828	828	10.00	10.00	10.00	23	233				0

		point829	829	10.00	10.00	10.00	23	226				0
		point830	830	10.00	10.00	10.00	18	180				0
		point831	831	10.00	10.00	10.00	29	290				0
		point832	832	10.00	10.00	10.00	13	131				0
		point833	833	10.00	10.00	10.00	7	67				0
		point834	834	10.00	10.00	10.00	16	156				0
		point835	835	10.00	10.00	10.00	7	71				0
		point836	836	10.00	10.00	10.00	15	145				0
2095	W	point819	819	10.00	10.00	10.00	6	64				0
		point820	820	10.00	10.00	10.00	32	316				0
		point821	821	10.00	10.00	10.00	22	222				0
		point822	822	10.00	10.00	10.00	6	64				0
		point823	823	10.00	10.00	10.00	9	86				0
		point824	824	10.00	10.00	10.00	30	295				0
		point825	825	10.00	10.00	10.00	24	241				0
2094	W	point814	814	10.00	10.00	10.00	39	393				0
		point815	815	10.00	10.00	10.00	34	343				0
		point816	816	10.00	10.00	10.00	41	407				0
		point817	817	10.00	10.00	10.00	34	336				0
2091	W	point807	807	10.00	10.00	10.00	37	373				0
		point808	808	10.00	10.00	10.00	33	327				0
		point809	809	10.00	10.00	10.00	20	204				0
		point810	810	10.00	10.00	10.00	31	307				0
		point811	811	10.00	10.00	10.00	63	629				0
		point812	812	10.00	10.00	10.00	57	569				0
2088	W	point800	800	10.00	10.00	10.00	38	378				0
		point801	801	10.00	10.00	10.00	41	406				0
		point802	802	10.00	10.00	10.00	25	252				0
		point803	803	10.00	10.00	10.00	9	89				0
		point804	804	10.00	10.00	10.00	12	118				0
		point805	805	10.00	10.00	10.00	32	323				0
2087	W	point792	792	10.00	10.00	10.00	12	117				0
		point793	793	10.00	10.00	10.00	24	241				0
		point794	794	10.00	10.00	10.00	37	366				0

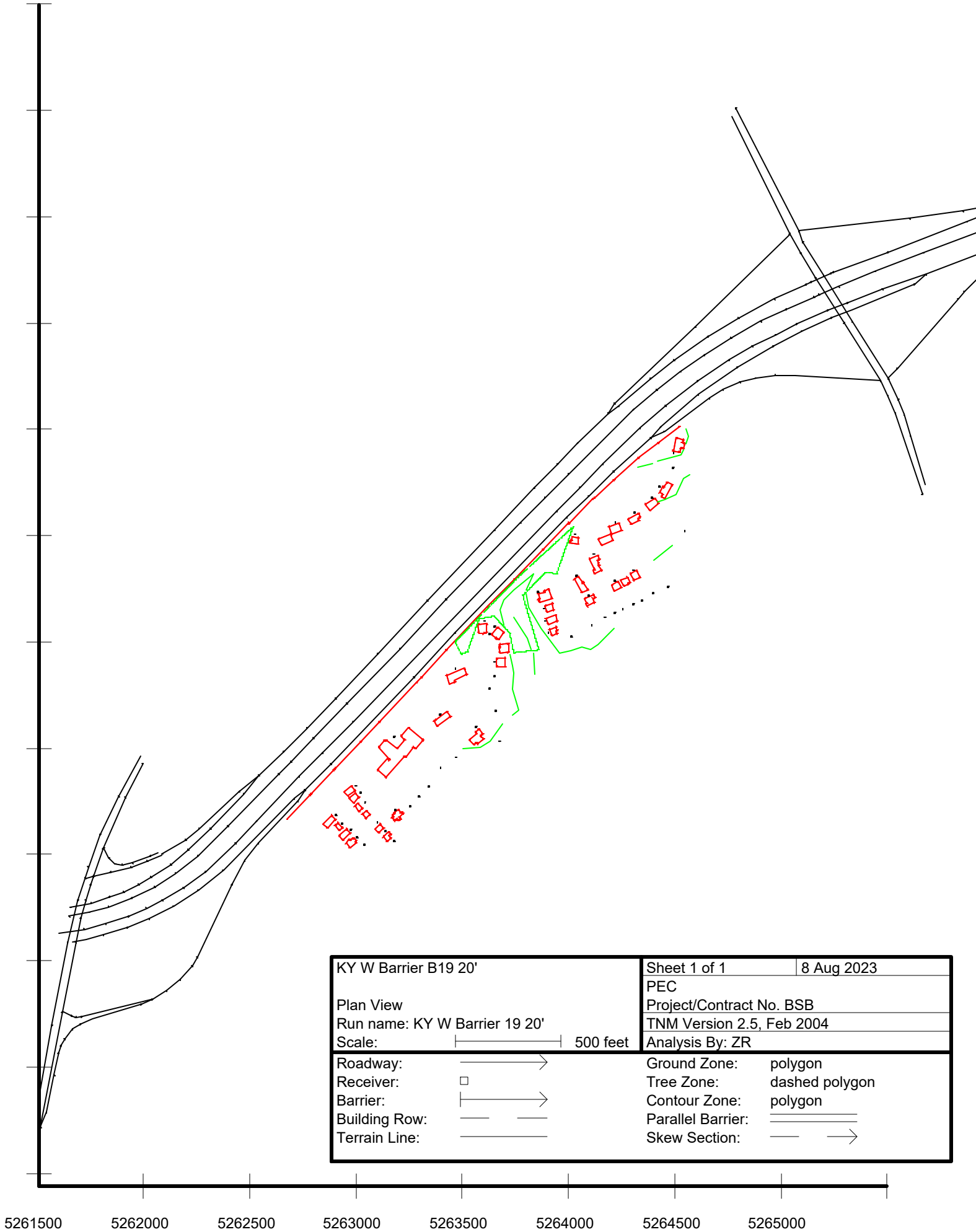
		point795	795	10.00	10.00	10.00	33	331				0
		point796	796	10.00	10.00	10.00	6	64				0
		point797	797	10.00	10.00	10.00	9	85				0
		point798	798	10.00	10.00	10.00	17	174				0
2086	W	point783	783	10.00	10.00	10.00	11	106				0
		point784	784	10.00	10.00	10.00	7	74				0
		point785	785	10.00	10.00	10.00	35	349				0
		point786	786	10.00	10.00	10.00	58	584				0
		point787	787	10.00	10.00	10.00	31	311				0
		point788	788	10.00	10.00	10.00	28	281				0
		point789	789	10.00	10.00	10.00	12	121				0
		point790	790	10.00	10.00	10.00	22	215				0
2085	W	point778	778	10.00	10.00	10.00	59	593				0
		point779	779	10.00	10.00	10.00	33	327				0
		point780	780	10.00	10.00	10.00	59	590				0
		point781	781	10.00	10.00	10.00	32	323				0
2083	W	point765	765	10.00	10.00	10.00	34	337				0
		point766	766	10.00	10.00	10.00	39	392				0
		point767	767	10.00	10.00	10.00	25	249				0
		point768	768	10.00	10.00	10.00	6	60				0
		point769	769	10.00	10.00	10.00	11	107				0
		point770	770	10.00	10.00	10.00	12	125				0
		point771	771	10.00	10.00	10.00	12	117				0
		point772	772	10.00	10.00	10.00	77	768				0
		point773	773	10.00	10.00	10.00	24	236				0
		point774	774	10.00	10.00	10.00	31	314				0
		point775	775	10.00	10.00	10.00	40	403				0
		point776	776	10.00	10.00	10.00	23	228				0
1769	W	point652	652	10.00	10.00	10.00	32	316				0
		point653	653	10.00	10.00	10.00	42	419				0
		point654	654	10.00	10.00	10.00	32	316				0
		point655	655	10.00	10.00	10.00	43	426				0
1767	W	point644	644	10.00	10.00	10.00	5	52				0
		point645	645	10.00	10.00	10.00	39	393				0

		point646	646	10.00	10.00	10.00	22	218				0
		point647	647	10.00	10.00	10.00	15	150				0
		point648	648	10.00	10.00	10.00	36	359				0
		point649	649	10.00	10.00	10.00	26	256				0
		point650	650	10.00	10.00	10.00	51	512				0
1754	W	point630	630	10.00	10.00	10.00	78	780				0
		point631	631	10.00	10.00	10.00	119	1187				0
		point632	632	10.00	10.00	10.00	401	4012				0
		point633	633	10.00	10.00	10.00	180	1801				0
		point634	634	10.00	10.00	10.00	102	1019				0
		point635	635	10.00	10.00	10.00	114	1139				0
		point636	636	10.00	10.00	10.00	62	620				0
		point637	637	10.00	10.00	10.00	181	1810				0
		point638	638	10.00	10.00	10.00	209	2092				0
		point639	639	10.00	10.00	10.00	30	305				0
		point640	640	10.00	10.00	10.00	272	2720				0
		point641	641	10.00	10.00	10.00	55	545				0
		point642	642	10.00	10.00	10.00	171	1710				0
1745	W	point622	622	10.00	10.00	10.00	6	60				0
		point623	623	10.00	10.00	10.00	24	242				0
		point624	624	10.00	10.00	10.00	6	65				0
		point625	625	10.00	10.00	10.00	20	204				0
		point626	626	10.00	10.00	10.00	30	300				0
		point627	627	10.00	10.00	10.00	45	445				0
		point628	628	10.00	10.00	10.00	17	175				0
1743	W	point617	617	10.00	10.00	10.00	8	83				0
		point618	618	10.00	10.00	10.00	24	240				0
		point619	619	10.00	10.00	10.00	9	92				0
		point620	620	10.00	10.00	10.00	25	246				0



KY W Barrier B18 20'	Sheet 1 of 1	8 Aug 2023
	PEC	
Barrier View-18-24'	Project/Contract No. BSB	
Run name: 20-22	TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>	Analysis By: ZR	

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	



KY W Barrier B19 20'	Sheet 1 of 1 | 8 Aug 2023
	PEC
Plan View	Project/Contract No. BSB
Run name: KY W Barrier 19 20'	TNM Version 2.5, Feb 2004
Scale: 500 feet	Analysis By: ZR

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

RESULTS: SOUND LEVELS **BSB**

PEC 8 August 2023
ZR TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B19 20'
BARRIER DESIGN: 20'
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R774(K1346)	283	1	0.0	67.5	66	67.5	10	Snd Lvl	61.5	6.0	8	-2.0
M-41(K1318)	287	1	0.0	75.8	66	75.8	10	Snd Lvl	75.3	0.5	8	-7.5
R780(K1383)	290	1	0.0	73.1	66	73.1	10	Snd Lvl	62.4	10.7	8	2.7
M-44(K75)	296	1	0.0	73.5	66	73.5	10	Snd Lvl	63.5	10.0	8	2.0
M-42(K1348)	302	1	0.0	68.9	66	68.9	10	Snd Lvl	55.7	13.2	8	5.2
R790(K1360)	304	1	0.0	73.9	66	73.9	10	Snd Lvl	62.6	11.3	8	3.3
R791(K1365)	305	1	0.0	71.1	66	71.1	10	Snd Lvl	61.5	9.6	8	1.6
R792(K1421)	306	1	0.0	77.3	66	77.3	10	Snd Lvl	69.1	8.2	8	0.2
R794(KV1318)	308	1	0.0	70.9	66	70.9	10	Snd Lvl	65.2	5.7	8	-2.3
R795(K74)	309	1	0.0	70.4	66	70.4	10	Snd Lvl	61.2	9.2	8	1.2
R796(K1341)	310	1	0.0	74.7	66	74.7	10	Snd Lvl	62.9	11.8	8	3.8
R799(K1391)	313	1	0.0	70.2	66	70.2	10	Snd Lvl	60.3	9.9	8	1.9
R802(K1331)	316	1	0.0	73.1	66	73.1	10	Snd Lvl	66.0	7.1	8	-0.9
R805(K78)	319	1	0.0	73.9	66	73.9	10	Snd Lvl	62.9	11.0	8	3.0
R807(K1336)	321	1	0.0	73.3	66	73.3	10	Snd Lvl	63.6	9.7	8	1.7
R809(K71)	323	1	0.0	67.7	66	67.7	10	Snd Lvl	59.9	7.8	8	-0.2
R812(K1386)	326	1	0.0	65.7	66	65.7	10	----	57.8	7.9	8	-0.1
R815(K73)	330	1	0.0	65.9	66	65.9	10	----	57.8	8.1	8	0.1
R816(K1372)	331	1	0.0	63.4	66	63.4	10	----	57.2	6.2	8	-1.8
R817(K1395)	332	1	0.0	70.1	66	70.1	10	Snd Lvl	60.3	9.8	8	1.8
R830(K68)	345	1	0.0	67.5	66	67.5	10	Snd Lvl	59.5	8.0	8	0.0
M-45(K1484)	347	1	0.0	76.5	66	76.5	10	Snd Lvl	66.2	10.3	8	2.3
R832(K1362)	348	1	0.0	61.7	66	61.7	10	----	56.4	5.3	8	-2.7
R833(K1370)	349	1	0.0	62.7	66	62.7	10	----	56.9	5.8	8	-2.2

R834(K1402)	350	1	0.0	68.5	66	68.5	10	Snd Lvl	58.9	9.6	8	1.6
R835(K1446)	351	1	0.0	71.7	66	71.7	10	Snd Lvl	62.7	9.0	8	1.0
R836(K67)	352	1	0.0	67.2	66	67.2	10	Snd Lvl	59.9	7.3	8	-0.7
R842(K1353)	358	1	0.0	59.3	66	59.3	10	----	56.5	2.8	8	-5.2
R843(K1406)	359	1	0.0	65.2	66	65.2	10	----	57.2	8.0	8	0.0
R846(K1396)	362	1	0.0	62.8	66	62.8	10	----	55.6	7.2	8	-0.8
R847(K1403)	363	1	0.0	64.5	66	64.5	10	----	56.4	8.1	8	0.1
R849(K1397)	365	1	0.0	61.3	66	61.3	10	----	55.1	6.2	8	-1.8
R854(K1460)	370	1	0.0	65.3	66	65.3	10	----	58.8	6.5	8	-1.5
R855(K1392)	371	1	0.0	60.5	66	60.5	10	----	55.1	5.4	8	-2.6
R856(K1394)	372	1	0.0	61.0	66	61.0	10	----	55.0	6.0	8	-2.0
R857(K1193)	373	1	0.0	71.3	66	71.3	10	Snd Lvl	61.2	10.1	8	2.1
R858(K1379)	374	1	0.0	59.2	66	59.2	10	----	55.4	3.8	8	-4.2
R859(K1385)	375	1	0.0	58.6	66	58.6	10	----	54.9	3.7	8	-4.3
R861(K1390)	377	1	0.0	58.2	66	58.2	10	----	54.4	3.8	8	-4.2
R862(K1449)	378	1	0.0	65.7	66	65.7	10	----	58.8	6.9	8	-1.1
R867(K1196)	384	1	0.0	69.4	66	69.4	10	Snd Lvl	60.1	9.3	8	1.3
R868(KV1492)	385	1	0.0	63.2	66	63.2	10	----	57.7	5.5	8	-2.5
R869(K1492)	386	1	0.0	65.6	66	65.6	10	----	60.7	4.9	8	-3.1
R874(K1473)	391	1	0.0	54.8	66	54.8	10	----	50.6	4.2	8	-3.8
R875(K1203)	392	1	0.0	68.6	66	68.6	10	Snd Lvl	59.7	8.9	8	0.9
R877(K40)	394	1	0.0	64.8	66	64.8	10	----	60.0	4.8	8	-3.2
R880(K1202)	397	1	0.0	64.5	66	64.5	10	----	59.0	5.5	8	-2.5
R882(K1211)	399	1	0.0	70.7	66	70.7	10	Snd Lvl	60.5	10.2	8	2.2
R883(K1209)	400	1	0.0	67.2	66	67.2	10	Snd Lvl	58.9	8.3	8	0.3
R884(K1213)	401	1	0.0	69.1	66	69.1	10	Snd Lvl	58.0	11.1	8	3.1
R886(K1206)	403	1	0.0	64.6	66	64.6	10	----	58.5	6.1	8	-1.9
R888(K1218)	405	1	0.0	67.2	66	67.2	10	Snd Lvl	57.2	10.0	8	2.0
R889(K36)	406	1	0.0	65.5	66	65.5	10	----	58.9	6.6	8	-1.4
R892(K1216)	409	1	0.0	65.5	66	65.5	10	----	58.7	6.8	8	-1.2
R893(K1220)	410	1	0.0	64.8	66	64.8	10	----	56.4	8.4	8	0.4
R895(K1219)	412	1	0.0	58.6	66	58.6	10	----	54.0	4.6	8	-3.4
R898(K1224)	415	1	0.0	63.8	66	63.8	10	----	59.3	4.5	8	-3.5
R899(K1223)	416	1	0.0	63.6	66	63.6	10	----	59.6	4.0	8	-4.0
R900(K1222)	417	1	0.0	59.4	66	59.4	10	----	56.2	3.2	8	-4.8
M-44b(K75)	671	1	0.0	75.3	66	75.3	10	Snd Lvl	62.3	13.0	8	5.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	60	0.5	7.5	13.2
All Impacted	30	0.5	9.2	13.2

RESULTS: SOUND LEVELS **BSB**

All that meet NR Goal		27	8.0	9.9	13.2							

PEC 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B19 20'
BARRIER DESIGN: 20'

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Barrier142; Prop Barrier B8	W	16.00	19.95	24.00	2617	52206				1670599
1484	W	10.00	10.00	10.00	816	8160				0
1460	W	10.00	10.00	10.00	229	2292				0
1446	W	10.00	10.00	10.00	212	2124				0
1421	W	10.00	10.00	10.00	266	2658				0
1402	W	20.00	20.00	20.00	133	2667				0
1395	W	20.00	20.00	20.00	154	3071				0
1391	W	20.00	20.00	20.00	137	2736				0
1386	W	20.00	20.00	20.00	182	3637				0
1383	W	10.00	10.00	10.00	209	2094				0
1372	W	20.00	20.00	20.00	129	2577				0
1370	W	20.00	20.00	20.00	131	2625				0
1365	W	10.00	10.00	10.00	208	2082				0
1362	W	20.00	20.00	20.00	138	2760				0
1360	W	20.00	20.00	20.00	248	4966				0
1348	W	20.00	20.00	20.00	184	3673				0
1346	W	20.00	20.00	20.00	135	2702				0
1341	W	20.00	20.00	20.00	174	3473				0
1336	W	10.00	10.00	10.00	169	1692				0
1331	W	10.00	10.00	10.00	220	2200				0
1318	W	10.00	10.00	10.00	216	2158				0
1220	W	20.00	20.00	20.00	151	3012				0
1219	W	20.00	20.00	20.00	131	2620				0

RESULTS: BARRIER DESCRIPTIONS **BSB**

1218	W	20.00	20.00	20.00	150	2999				0
1216	W	20.00	20.00	20.00	114	2278				0
1213	W	20.00	20.00	20.00	100	1994				0
1211	W	20.00	20.00	20.00	166	3311				0
1209	W	20.00	20.00	20.00	103	2057				0
1203	W	20.00	20.00	20.00	108	2153				0
1196	W	20.00	20.00	20.00	132	2633				0
1193	W	20.00	20.00	20.00	143	2853				0
78	W	10.00	10.00	10.00	167	1666				0
75	W	20.00	20.00	20.00	166	3320				0
74	W	10.00	10.00	10.00	164	1640				0
73	W	10.00	10.00	10.00	169	1686				0
71	W	10.00	10.00	10.00	162	1616				0
36	W	10.00	10.00	10.00	187	1868				0
									Total Cost:	1670599

PEC 8 August 2023
ZR TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B19 20'
BARRIER DESIGN: 20'

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R774(K1346)	283	61.5	6.0	8	-2.0	Barrier142; Prop Barrier B8	PT13	1067	20.0	57.8
						Barrier142; Prop Barrier B8	PT15	1069	20.0	55.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	52.2
						Barrier142; Prop Barrier B8	PT17	1071	20.0	49.5
						Barrier142; Prop Barrier B8	PT11	1065	20.0	48.2
						Barrier142; Prop Barrier B8	PT18	1072	20.0	46.3
						Barrier142; Prop Barrier B8	PT14	1068	20.0	44.2
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.8
						Barrier142; Prop Barrier B8	PT19	1073	20.0	43.6
						Barrier142; Prop Barrier B8	PT20	1074	20.0	40.9
M-41(K1318)	287	75.3	0.5	8	-7.5	Barrier142; Prop Barrier B8	PT20	1074	20.0	71.7
						Barrier142; Prop Barrier B8	PT19	1073	20.0	70.9
						Barrier142; Prop Barrier B8	PT18	1072	20.0	64.8
						Barrier142; Prop Barrier B8	PT17	1071	20.0	57.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	55.1
						Barrier142; Prop Barrier B8	PT13	1067	20.0	54.7
						Barrier142; Prop Barrier B8	PT12	1066	20.0	53.9
						Barrier142; Prop Barrier B8	PT10	1064	20.0	52.2
						Barrier142; Prop Barrier B8	PT11	1065	20.0	52.1
						Barrier142; Prop Barrier B8	PT9	1063	20.0	49.1
R780(K1383)	290	62.4	10.7	8	2.7	Barrier142; Prop Barrier B8	PT12	1066	20.0	57.4

RESULTS: BARRIER DESIGN **BSB**

						Barrier142; Prop Barrier B8	PT11	1065	20.0	57.0
						Barrier142; Prop Barrier B8	PT10	1064	20.0	53.3
						Barrier142; Prop Barrier B8	PT13	1067	20.0	52.5
						Barrier142; Prop Barrier B8	PT15	1069	20.0	49.0
						Barrier142; Prop Barrier B8	PT17	1071	20.0	46.7
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.3
						Barrier142; Prop Barrier B8	PT7	1061	20.0	44.0
						Barrier142; Prop Barrier B8	PT18	1072	20.0	42.9
						Barrier142; Prop Barrier B8	PT9	1063	20.0	42.8
M-44(K75)	296	63.5	10.0	8	2.0	Barrier142; Prop Barrier B8	PT10	1064	20.0	59.1
						Barrier142; Prop Barrier B8	PT11	1065	20.0	57.4
						Barrier142; Prop Barrier B8	PT9	1063	20.0	55.3
						Barrier142; Prop Barrier B8	PT7	1061	20.0	52.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	51.6
						Barrier142; Prop Barrier B8	PT13	1067	20.0	47.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	46.2
						Barrier142; Prop Barrier B8	PT8	1062	20.0	44.2
						Barrier142; Prop Barrier B8	PT15	1069	20.0	44.1
						Barrier142; Prop Barrier B8	PT17	1071	20.0	42.6
M-42(K1348)	302	55.7	13.2	8	5.2	Barrier142; Prop Barrier B8	PT15	1069	20.0	52.7
						Barrier142; Prop Barrier B8	PT17	1071	20.0	49.4
						Barrier142; Prop Barrier B8	PT16	1070	20.0	42.0
						Barrier142; Prop Barrier B8	PT10	1064	20.0	41.5
						Barrier142; Prop Barrier B8	PT13	1067	20.0	40.7
						Barrier142; Prop Barrier B8	PT11	1065	20.0	40.6
						Barrier142; Prop Barrier B8	PT12	1066	20.0	39.8
						Barrier142; Prop Barrier B8	PT18	1072	20.0	39.0
						Barrier142; Prop Barrier B8	PT9	1063	20.0	37.5
						Barrier142; Prop Barrier B8	PT7	1061	20.0	34.7
R790(K1360)	304	62.6	11.3	8	3.3	Barrier142; Prop Barrier B8	PT13	1067	20.0	56.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	55.1
						Barrier142; Prop Barrier B8	PT15	1069	20.0	54.7
						Barrier142; Prop Barrier B8	PT17	1071	20.0	52.7
						Barrier142; Prop Barrier B8	PT11	1065	20.0	52.4
						Barrier142; Prop Barrier B8	PT10	1064	20.0	51.7
						Barrier142; Prop Barrier B8	PT7	1061	20.0	48.3

						Barrier142; Prop Barrier B8	PT18	1072	20.0	46.8
						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.5
						Barrier142; Prop Barrier B8	PT5	1059	20.0	43.3
R791(K1365)	305	61.5	9.6	8	1.6	Barrier142; Prop Barrier B8	PT12	1066	20.0	55.4
						Barrier142; Prop Barrier B8	PT13	1067	20.0	54.4
						Barrier142; Prop Barrier B8	PT11	1065	20.0	52.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	51.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	50.9
						Barrier142; Prop Barrier B8	PT17	1071	20.0	49.4
						Barrier142; Prop Barrier B8	PT7	1061	20.0	48.6
						Barrier142; Prop Barrier B8	PT18	1072	20.0	48.2
						Barrier142; Prop Barrier B8	PT9	1063	20.0	44.5
						Barrier142; Prop Barrier B8	PT19	1073	20.0	43.4
R792(K1421)	306	69.1	8.2	8	0.2	Barrier142; Prop Barrier B8	PT9	1063	20.0	66.0
						Barrier142; Prop Barrier B8	PT10	1064	20.0	63.9
						Barrier142; Prop Barrier B8	PT7	1061	20.0	59.5
						Barrier142; Prop Barrier B8	PT8	1062	20.0	54.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	53.8
						Barrier142; Prop Barrier B8	PT12	1066	20.0	49.6
						Barrier142; Prop Barrier B8	PT6	1060	20.0	48.9
						Barrier142; Prop Barrier B8	PT13	1067	20.0	45.7
						Barrier142; Prop Barrier B8	PT15	1069	20.0	42.7
						Barrier142; Prop Barrier B8	PT17	1071	20.0	42.1
R794(KV1318)	308	65.2	5.7	8	-2.3	Barrier142; Prop Barrier B8	PT19	1073	20.0	56.7
						Barrier142; Prop Barrier B8	PT18	1072	20.0	56.5
						Barrier142; Prop Barrier B8	PT20	1074	20.0	55.0
						Barrier142; Prop Barrier B8	PT17	1071	20.0	52.7
						Barrier142; Prop Barrier B8	PT15	1069	20.0	51.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	51.2
						Barrier142; Prop Barrier B8	PT13	1067	20.0	50.4
						Barrier142; Prop Barrier B8	PT12	1066	20.0	50.1
						Barrier142; Prop Barrier B8	PT9	1063	20.0	49.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	48.5
R795(K74)	309	61.2	9.2	8	1.2	Barrier142; Prop Barrier B8	PT10	1064	20.0	57.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	56.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	50.6

						Barrier142; Prop Barrier B8	PT13	1067	20.0	46.2
						Barrier142; Prop Barrier B8	PT15	1069	20.0	43.4
						Barrier142; Prop Barrier B8	PT6	1060	20.0	42.8
						Barrier142; Prop Barrier B8	PT7	1061	20.0	42.7
						Barrier142; Prop Barrier B8	PT17	1071	20.0	42.0
						Barrier142; Prop Barrier B8	PT18	1072	20.0	41.4
						Barrier142; Prop Barrier B8	PT9	1063	20.0	40.6
R796(K1341)	310	62.9	11.8	8	3.8	Barrier142; Prop Barrier B8	PT17	1071	20.0	56.2
						Barrier142; Prop Barrier B8	PT15	1069	20.0	56.0
						Barrier142; Prop Barrier B8	PT18	1072	20.0	55.2
						Barrier142; Prop Barrier B8	PT13	1067	20.0	54.6
						Barrier142; Prop Barrier B8	PT12	1066	20.0	52.5
						Barrier142; Prop Barrier B8	PT11	1065	20.0	49.5
						Barrier142; Prop Barrier B8	PT19	1073	20.0	48.5
						Barrier142; Prop Barrier B8	PT20	1074	20.0	46.4
						Barrier142; Prop Barrier B8	PT16	1070	20.0	43.1
						Barrier142; Prop Barrier B8	PT14	1068	20.0	41.0
R799(K1391)	313	60.3	9.9	8	1.9	Barrier142; Prop Barrier B8	PT11	1065	20.0	56.1
						Barrier142; Prop Barrier B8	PT10	1064	20.0	53.4
						Barrier142; Prop Barrier B8	PT12	1066	20.0	52.3
						Barrier142; Prop Barrier B8	PT9	1063	20.0	50.2
						Barrier142; Prop Barrier B8	PT7	1061	20.0	48.6
						Barrier142; Prop Barrier B8	PT13	1067	20.0	46.8
						Barrier142; Prop Barrier B8	PT15	1069	20.0	41.9
						Barrier142; Prop Barrier B8	PT8	1062	20.0	41.5
						Barrier142; Prop Barrier B8	PT6	1060	20.0	37.8
						Barrier142; Prop Barrier B8	PT5	1059	20.0	35.3
R802(K1331)	316	66.0	7.1	8	-0.9	Barrier142; Prop Barrier B8	PT18	1072	20.0	59.6
						Barrier142; Prop Barrier B8	PT19	1073	20.0	58.5
						Barrier142; Prop Barrier B8	PT17	1071	20.0	55.5
						Barrier142; Prop Barrier B8	PT20	1074	20.0	53.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	53.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	52.5
						Barrier142; Prop Barrier B8	PT13	1067	20.0	52.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	51.6
						Barrier142; Prop Barrier B8	PT9	1063	20.0	51.5

						Barrier142; Prop Barrier B8	PT11	1065	20.0	51.3
R805(K78)	319	62.9	11.0	8	3.0	Barrier142; Prop Barrier B8	PT18	1072	20.0	57.2
						Barrier142; Prop Barrier B8	PT17	1071	20.0	55.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	54.4
						Barrier142; Prop Barrier B8	PT13	1067	20.0	53.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	51.4
						Barrier142; Prop Barrier B8	PT20	1074	20.0	50.2
						Barrier142; Prop Barrier B8	PT19	1073	20.0	48.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	43.3
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.0
						Barrier142; Prop Barrier B8	PT16	1070	20.0	41.2
R807(K1336)	321	63.6	9.7	8	1.7	Barrier142; Prop Barrier B8	PT18	1072	20.0	58.1
						Barrier142; Prop Barrier B8	PT17	1071	20.0	55.0
						Barrier142; Prop Barrier B8	PT19	1073	20.0	53.5
						Barrier142; Prop Barrier B8	PT15	1069	20.0	53.2
						Barrier142; Prop Barrier B8	PT13	1067	20.0	52.2
						Barrier142; Prop Barrier B8	PT20	1074	20.0	51.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	50.9
						Barrier142; Prop Barrier B8	PT11	1065	20.0	49.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	45.1
						Barrier142; Prop Barrier B8	PT9	1063	20.0	41.6
R809(K71)	323	59.9	7.8	8	-0.2	Barrier142; Prop Barrier B8	PT10	1064	20.0	55.8
						Barrier142; Prop Barrier B8	PT9	1063	20.0	53.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	52.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	46.8
						Barrier142; Prop Barrier B8	PT5	1059	20.0	45.7
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.2
						Barrier142; Prop Barrier B8	PT7	1061	20.0	42.2
						Barrier142; Prop Barrier B8	PT13	1067	20.0	41.2
						Barrier142; Prop Barrier B8	PT3	1057	20.0	40.7
						Barrier142; Prop Barrier B8	PT8	1062	20.0	40.5
R812(K1386)	326	57.8	7.9	8	-0.1	Barrier142; Prop Barrier B8	PT11	1065	20.0	52.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	49.9
						Barrier142; Prop Barrier B8	PT10	1064	20.0	49.0
						Barrier142; Prop Barrier B8	PT15	1069	20.0	47.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	47.5

					Barrier142; Prop Barrier B8	PT7	1061	20.0	44.5
					Barrier142; Prop Barrier B8	PT13	1067	20.0	44.4
					Barrier142; Prop Barrier B8	PT8	1062	20.0	40.0
					Barrier142; Prop Barrier B8	PT18	1072	20.0	38.5
					Barrier142; Prop Barrier B8	PT17	1071	20.0	37.8
R815(K73)	330	57.8	8.1	8	0.1	Barrier142; Prop Barrier B8	PT10	1064	20.0	54.9
					Barrier142; Prop Barrier B8	PT9	1063	20.0	52.3
					Barrier142; Prop Barrier B8	PT7	1061	20.0	46.9
					Barrier142; Prop Barrier B8	PT11	1065	20.0	43.0
					Barrier142; Prop Barrier B8	PT8	1062	20.0	42.9
					Barrier142; Prop Barrier B8	PT12	1066	20.0	41.3
					Barrier142; Prop Barrier B8	PT15	1069	20.0	36.2
					Barrier142; Prop Barrier B8	PT5	1059	20.0	35.6
					Barrier142; Prop Barrier B8	PT6	1060	20.0	35.6
					Barrier142; Prop Barrier B8	PT13	1067	20.0	34.9
R816(K1372)	331	57.2	6.2	8	-1.8	Barrier142; Prop Barrier B8	PT12	1066	20.0	51.2
					Barrier142; Prop Barrier B8	PT11	1065	20.0	48.4
					Barrier142; Prop Barrier B8	PT15	1069	20.0	47.4
					Barrier142; Prop Barrier B8	PT10	1064	20.0	46.3
					Barrier142; Prop Barrier B8	PT18	1072	20.0	44.9
					Barrier142; Prop Barrier B8	PT9	1063	20.0	43.9
					Barrier142; Prop Barrier B8	PT7	1061	20.0	43.9
					Barrier142; Prop Barrier B8	PT19	1073	20.0	41.3
					Barrier142; Prop Barrier B8	PT20	1074	20.0	40.2
					Barrier142; Prop Barrier B8	PT17	1071	20.0	40.1
R817(K1395)	332	60.3	9.8	8	1.8	Barrier142; Prop Barrier B8	PT11	1065	20.0	55.1
					Barrier142; Prop Barrier B8	PT12	1066	20.0	54.0
					Barrier142; Prop Barrier B8	PT10	1064	20.0	54.0
					Barrier142; Prop Barrier B8	PT9	1063	20.0	50.6
					Barrier142; Prop Barrier B8	PT7	1061	20.0	47.1
					Barrier142; Prop Barrier B8	PT3	1057	20.0	42.6
					Barrier142; Prop Barrier B8	PT8	1062	20.0	42.0
					Barrier142; Prop Barrier B8	PT13	1067	20.0	42.0
					Barrier142; Prop Barrier B8	PT5	1059	20.0	41.7
					Barrier142; Prop Barrier B8	PT2	1056	20.0	37.4
R830(K68)	345	59.5	8.0	8	-0.0	Barrier142; Prop Barrier B8	PT10	1064	20.0	55.4

RESULTS: BARRIER DESIGN **BSB**

						Barrier142; Prop Barrier B8	PT9	1063	20.0	51.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	50.9
						Barrier142; Prop Barrier B8	PT7	1061	20.0	50.5
						Barrier142; Prop Barrier B8	PT5	1059	20.0	45.1
						Barrier142; Prop Barrier B8	PT12	1066	20.0	45.1
						Barrier142; Prop Barrier B8	PT6	1060	20.0	45.0
						Barrier142; Prop Barrier B8	PT13	1067	20.0	41.4
						Barrier142; Prop Barrier B8	PT15	1069	20.0	40.3
						Barrier142; Prop Barrier B8	PT17	1071	20.0	39.1
M-45(K1484)	347	66.2	10.3	8	2.3	Barrier142; Prop Barrier B8	PT7	1061	20.0	63.0
						Barrier142; Prop Barrier B8	PT6	1060	20.0	60.5
						Barrier142; Prop Barrier B8	PT5	1059	20.0	54.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	54.0
						Barrier142; Prop Barrier B8	PT10	1064	20.0	52.6
						Barrier142; Prop Barrier B8	PT8	1062	20.0	49.7
						Barrier142; Prop Barrier B8	PT11	1065	20.0	46.5
						Barrier142; Prop Barrier B8	PT3	1057	20.0	45.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	44.2
						Barrier142; Prop Barrier B8	PT1	1055	20.0	40.9
R832(K1362)	348	56.4	5.3	8	-2.7	Barrier142; Prop Barrier B8	PT13	1067	20.0	47.9
						Barrier142; Prop Barrier B8	PT11	1065	20.0	47.6
						Barrier142; Prop Barrier B8	PT18	1072	20.0	46.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	44.8
						Barrier142; Prop Barrier B8	PT17	1071	20.0	44.5
						Barrier142; Prop Barrier B8	PT7	1061	20.0	43.4
						Barrier142; Prop Barrier B8	PT15	1069	20.0	42.6
						Barrier142; Prop Barrier B8	PT19	1073	20.0	40.9
						Barrier142; Prop Barrier B8	PT9	1063	20.0	40.8
						Barrier142; Prop Barrier B8	PT12	1066	20.0	40.2
R833(K1370)	349	56.9	5.8	8	-2.2	Barrier142; Prop Barrier B8	PT11	1065	20.0	48.7
						Barrier142; Prop Barrier B8	PT12	1066	20.0	47.5
						Barrier142; Prop Barrier B8	PT18	1072	20.0	47.1
						Barrier142; Prop Barrier B8	PT15	1069	20.0	46.1
						Barrier142; Prop Barrier B8	PT10	1064	20.0	45.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	44.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.4

						Barrier142; Prop Barrier B8	PT7	1061	20.0	43.3
						Barrier142; Prop Barrier B8	PT20	1074	20.0	42.1
						Barrier142; Prop Barrier B8	PT19	1073	20.0	40.5
R834(K1402)	350	58.9	9.6	8	1.6	Barrier142; Prop Barrier B8	PT11	1065	20.0	53.7
						Barrier142; Prop Barrier B8	PT10	1064	20.0	53.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	51.4
						Barrier142; Prop Barrier B8	PT9	1063	20.0	49.1
						Barrier142; Prop Barrier B8	PT7	1061	20.0	43.4
						Barrier142; Prop Barrier B8	PT5	1059	20.0	42.8
						Barrier142; Prop Barrier B8	PT6	1060	20.0	41.3
						Barrier142; Prop Barrier B8	PT13	1067	20.0	39.9
						Barrier142; Prop Barrier B8	PT8	1062	20.0	39.4
						Barrier142; Prop Barrier B8	PT3	1057	20.0	39.1
R835(K1446)	351	62.7	9.0	8	1.0	Barrier142; Prop Barrier B8	PT7	1061	20.0	59.0
						Barrier142; Prop Barrier B8	PT9	1063	20.0	56.9
						Barrier142; Prop Barrier B8	PT8	1062	20.0	51.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	51.3
						Barrier142; Prop Barrier B8	PT10	1064	20.0	50.9
						Barrier142; Prop Barrier B8	PT5	1059	20.0	47.5
						Barrier142; Prop Barrier B8	PT3	1057	20.0	42.7
						Barrier142; Prop Barrier B8	PT11	1065	20.0	42.7
						Barrier142; Prop Barrier B8	PT15	1069	20.0	41.9
						Barrier142; Prop Barrier B8	PT17	1071	20.0	41.1
R836(K67)	352	59.9	7.3	8	-0.7	Barrier142; Prop Barrier B8	PT10	1064	20.0	55.1
						Barrier142; Prop Barrier B8	PT7	1061	20.0	53.2
						Barrier142; Prop Barrier B8	PT11	1065	20.0	51.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	48.6
						Barrier142; Prop Barrier B8	PT9	1063	20.0	48.0
						Barrier142; Prop Barrier B8	PT6	1060	20.0	45.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	45.5
						Barrier142; Prop Barrier B8	PT5	1059	20.0	44.2
						Barrier142; Prop Barrier B8	PT15	1069	20.0	43.9
						Barrier142; Prop Barrier B8	PT8	1062	20.0	42.7
R842(K1353)	358	56.5	2.8	8	-5.2	Barrier142; Prop Barrier B8	PT17	1071	20.0	45.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	45.0
						Barrier142; Prop Barrier B8	PT5	1059	20.0	39.9

						Barrier142; Prop Barrier B8	PT10	1064	20.0	38.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	38.8
						Barrier142; Prop Barrier B8	PT20	1074	20.0	38.5
						Barrier142; Prop Barrier B8	PT18	1072	20.0	38.5
						Barrier142; Prop Barrier B8	PT19	1073	20.0	37.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	37.4
						Barrier142; Prop Barrier B8	PT11	1065	20.0	37.0
R843(K1406)	359	57.2	8.0	8	-0.0	Barrier142; Prop Barrier B8	PT10	1064	20.0	49.6
						Barrier142; Prop Barrier B8	PT13	1067	20.0	49.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	48.5
						Barrier142; Prop Barrier B8	PT9	1063	20.0	47.1
						Barrier142; Prop Barrier B8	PT15	1069	20.0	46.8
						Barrier142; Prop Barrier B8	PT7	1061	20.0	44.8
						Barrier142; Prop Barrier B8	PT5	1059	20.0	44.0
						Barrier142; Prop Barrier B8	PT11	1065	20.0	44.0
						Barrier142; Prop Barrier B8	PT6	1060	20.0	43.5
						Barrier142; Prop Barrier B8	PT17	1071	20.0	40.9
R846(K1396)	362	55.6	7.2	8	-0.8	Barrier142; Prop Barrier B8	PT10	1064	20.0	48.1
						Barrier142; Prop Barrier B8	PT11	1065	20.0	47.4
						Barrier142; Prop Barrier B8	PT12	1066	20.0	46.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	44.5
						Barrier142; Prop Barrier B8	PT15	1069	20.0	43.2
						Barrier142; Prop Barrier B8	PT5	1059	20.0	43.0
						Barrier142; Prop Barrier B8	PT7	1061	20.0	42.9
						Barrier142; Prop Barrier B8	PT6	1060	20.0	41.6
						Barrier142; Prop Barrier B8	PT9	1063	20.0	41.0
						Barrier142; Prop Barrier B8	PT18	1072	20.0	39.0
R847(K1403)	363	56.4	8.1	8	0.1	Barrier142; Prop Barrier B8	PT12	1066	20.0	51.1
						Barrier142; Prop Barrier B8	PT13	1067	20.0	48.1
						Barrier142; Prop Barrier B8	PT10	1064	20.0	46.1
						Barrier142; Prop Barrier B8	PT11	1065	20.0	45.3
						Barrier142; Prop Barrier B8	PT5	1059	20.0	43.4
						Barrier142; Prop Barrier B8	PT6	1060	20.0	42.8
						Barrier142; Prop Barrier B8	PT9	1063	20.0	42.2
						Barrier142; Prop Barrier B8	PT7	1061	20.0	41.6
						Barrier142; Prop Barrier B8	PT15	1069	20.0	39.2

						Barrier142; Prop Barrier B8	PT19	1073	20.0	38.2
R849(K1397)	365	55.1	6.2	8	-1.8	Barrier142; Prop Barrier B8	PT13	1067	20.0	48.2
						Barrier142; Prop Barrier B8	PT10	1064	20.0	47.3
						Barrier142; Prop Barrier B8	PT11	1065	20.0	44.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	42.5
						Barrier142; Prop Barrier B8	PT5	1059	20.0	42.4
						Barrier142; Prop Barrier B8	PT15	1069	20.0	41.4
						Barrier142; Prop Barrier B8	PT7	1061	20.0	41.3
						Barrier142; Prop Barrier B8	PT12	1066	20.0	41.2
						Barrier142; Prop Barrier B8	PT6	1060	20.0	40.5
						Barrier142; Prop Barrier B8	PT18	1072	20.0	38.7
R854(K1460)	370	58.8	6.5	8	-1.5	Barrier142; Prop Barrier B8	PT9	1063	20.0	51.8
						Barrier142; Prop Barrier B8	PT10	1064	20.0	51.5
						Barrier142; Prop Barrier B8	PT7	1061	20.0	51.2
						Barrier142; Prop Barrier B8	PT11	1065	20.0	48.9
						Barrier142; Prop Barrier B8	PT12	1066	20.0	47.3
						Barrier142; Prop Barrier B8	PT8	1062	20.0	46.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	44.5
						Barrier142; Prop Barrier B8	PT15	1069	20.0	43.1
						Barrier142; Prop Barrier B8	PT6	1060	20.0	42.3
						Barrier142; Prop Barrier B8	PT17	1071	20.0	42.2
R855(K1392)	371	55.1	5.4	8	-2.6	Barrier142; Prop Barrier B8	PT12	1066	20.0	46.0
						Barrier142; Prop Barrier B8	PT10	1064	20.0	45.1
						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.9
						Barrier142; Prop Barrier B8	PT13	1067	20.0	42.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	42.6
						Barrier142; Prop Barrier B8	PT18	1072	20.0	42.3
						Barrier142; Prop Barrier B8	PT5	1059	20.0	41.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	40.7
						Barrier142; Prop Barrier B8	PT6	1060	20.0	39.8
						Barrier142; Prop Barrier B8	PT7	1061	20.0	39.6
R856(K1394)	372	55.0	6.0	8	-2.0	Barrier142; Prop Barrier B8	PT13	1067	20.0	47.3
						Barrier142; Prop Barrier B8	PT10	1064	20.0	46.6
						Barrier142; Prop Barrier B8	PT12	1066	20.0	43.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.4
						Barrier142; Prop Barrier B8	PT5	1059	20.0	42.1

					Barrier142; Prop Barrier B8	PT11	1065	20.0	40.9
					Barrier142; Prop Barrier B8	PT7	1061	20.0	40.5
					Barrier142; Prop Barrier B8	PT6	1060	20.0	40.5
					Barrier142; Prop Barrier B8	PT18	1072	20.0	38.7
					Barrier142; Prop Barrier B8	PT17	1071	20.0	37.6
R857(K1193)	373	61.2	10.1	8	2.1	Barrier142; Prop Barrier B8	PT5	1059	20.0	57.1
					Barrier142; Prop Barrier B8	PT6	1060	20.0	54.1
					Barrier142; Prop Barrier B8	PT7	1061	20.0	53.7
					Barrier142; Prop Barrier B8	PT3	1057	20.0	52.9
					Barrier142; Prop Barrier B8	PT9	1063	20.0	43.6
					Barrier142; Prop Barrier B8	PT10	1064	20.0	43.3
					Barrier142; Prop Barrier B8	PT4	1058	20.0	43.3
					Barrier142; Prop Barrier B8	PT8	1062	20.0	40.9
					Barrier142; Prop Barrier B8	PT1	1055	20.0	39.3
					Barrier142; Prop Barrier B8	PT11	1065	20.0	37.5
R858(K1379)	374	55.4	3.8	8	-4.2	Barrier142; Prop Barrier B8	PT18	1072	20.0	44.2
					Barrier142; Prop Barrier B8	PT17	1071	20.0	43.3
					Barrier142; Prop Barrier B8	PT13	1067	20.0	42.3
					Barrier142; Prop Barrier B8	PT9	1063	20.0	41.8
					Barrier142; Prop Barrier B8	PT11	1065	20.0	41.6
					Barrier142; Prop Barrier B8	PT10	1064	20.0	41.1
					Barrier142; Prop Barrier B8	PT5	1059	20.0	40.6
					Barrier142; Prop Barrier B8	PT12	1066	20.0	38.8
					Barrier142; Prop Barrier B8	PT6	1060	20.0	38.4
					Barrier142; Prop Barrier B8	PT7	1061	20.0	38.3
R859(K1385)	375	54.9	3.7	8	-4.3	Barrier142; Prop Barrier B8	PT17	1071	20.0	43.8
					Barrier142; Prop Barrier B8	PT9	1063	20.0	42.8
					Barrier142; Prop Barrier B8	PT18	1072	20.0	42.6
					Barrier142; Prop Barrier B8	PT11	1065	20.0	42.6
					Barrier142; Prop Barrier B8	PT10	1064	20.0	41.6
					Barrier142; Prop Barrier B8	PT5	1059	20.0	41.1
					Barrier142; Prop Barrier B8	PT12	1066	20.0	39.6
					Barrier142; Prop Barrier B8	PT7	1061	20.0	38.7
					Barrier142; Prop Barrier B8	PT13	1067	20.0	38.4
					Barrier142; Prop Barrier B8	PT15	1069	20.0	38.4
R861(K1390)	377	54.4	3.8	8	-4.2	Barrier142; Prop Barrier B8	PT10	1064	20.0	43.8

						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.6
						Barrier142; Prop Barrier B8	PT12	1066	20.0	42.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	41.5
						Barrier142; Prop Barrier B8	PT5	1059	20.0	41.4
						Barrier142; Prop Barrier B8	PT6	1060	20.0	39.6
						Barrier142; Prop Barrier B8	PT7	1061	20.0	39.1
						Barrier142; Prop Barrier B8	PT18	1072	20.0	38.8
						Barrier142; Prop Barrier B8	PT19	1073	20.0	38.5
						Barrier142; Prop Barrier B8	PT17	1071	20.0	38.3
R862(K1449)	378	58.8	6.9	8	-1.1	Barrier142; Prop Barrier B8	PT10	1064	20.0	53.2
						Barrier142; Prop Barrier B8	PT7	1061	20.0	52.4
						Barrier142; Prop Barrier B8	PT11	1065	20.0	49.8
						Barrier142; Prop Barrier B8	PT9	1063	20.0	48.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	47.7
						Barrier142; Prop Barrier B8	PT8	1062	20.0	45.7
						Barrier142; Prop Barrier B8	PT13	1067	20.0	45.0
						Barrier142; Prop Barrier B8	PT15	1069	20.0	42.7
						Barrier142; Prop Barrier B8	PT6	1060	20.0	39.2
						Barrier142; Prop Barrier B8	PT1	1055	20.0	38.0
R867(K1196)	384	60.1	9.3	8	1.3	Barrier142; Prop Barrier B8	PT5	1059	20.0	56.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	54.0
						Barrier142; Prop Barrier B8	PT7	1061	20.0	52.7
						Barrier142; Prop Barrier B8	PT3	1057	20.0	46.2
						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.8
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.6
						Barrier142; Prop Barrier B8	PT4	1058	20.0	42.1
						Barrier142; Prop Barrier B8	PT1	1055	20.0	39.9
						Barrier142; Prop Barrier B8	PT8	1062	20.0	39.1
						Barrier142; Prop Barrier B8	PT11	1065	20.0	38.9
R868(KV1492)	385	57.7	5.5	8	-2.5	Barrier142; Prop Barrier B8	PT7	1061	20.0	53.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	46.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	46.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	46.3
						Barrier142; Prop Barrier B8	PT12	1066	20.0	46.0
						Barrier142; Prop Barrier B8	PT13	1067	20.0	43.5
						Barrier142; Prop Barrier B8	PT15	1069	20.0	42.1

						Barrier142; Prop Barrier B8	PT6	1060	20.0	42.0
						Barrier142; Prop Barrier B8	PT17	1071	20.0	41.3
						Barrier142; Prop Barrier B8	PT5	1059	20.0	40.3
R869(K1492)	386	60.7	4.9	8	-3.1	Barrier142; Prop Barrier B8	PT7	1061	20.0	54.7
						Barrier142; Prop Barrier B8	PT9	1063	20.0	53.5
						Barrier142; Prop Barrier B8	PT10	1064	20.0	47.9
						Barrier142; Prop Barrier B8	PT1	1055	20.0	47.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	47.6
						Barrier142; Prop Barrier B8	PT8	1062	20.0	47.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	46.6
						Barrier142; Prop Barrier B8	PT6	1060	20.0	46.3
						Barrier142; Prop Barrier B8	PT5	1059	20.0	44.4
						Barrier142; Prop Barrier B8	PT3	1057	20.0	44.0
R874(K1473)	391	50.6	4.2	8	-3.8	Barrier142; Prop Barrier B8	PT10	1064	20.0	41.5
						Barrier142; Prop Barrier B8	PT9	1063	20.0	39.6
						Barrier142; Prop Barrier B8	PT7	1061	20.0	39.5
						Barrier142; Prop Barrier B8	PT12	1066	20.0	39.1
						Barrier142; Prop Barrier B8	PT11	1065	20.0	38.6
						Barrier142; Prop Barrier B8	PT13	1067	20.0	38.5
						Barrier142; Prop Barrier B8	PT18	1072	20.0	35.1
						Barrier142; Prop Barrier B8	PT17	1071	20.0	34.6
						Barrier142; Prop Barrier B8	PT6	1060	20.0	33.8
						Barrier142; Prop Barrier B8	PT15	1069	20.0	33.7
R875(K1203)	392	59.7	8.9	8	0.9	Barrier142; Prop Barrier B8	PT5	1059	20.0	55.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	53.6
						Barrier142; Prop Barrier B8	PT7	1061	20.0	51.1
						Barrier142; Prop Barrier B8	PT1	1055	20.0	49.3
						Barrier142; Prop Barrier B8	PT9	1063	20.0	44.4
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.8
						Barrier142; Prop Barrier B8	PT3	1057	20.0	42.9
						Barrier142; Prop Barrier B8	PT8	1062	20.0	39.0
						Barrier142; Prop Barrier B8	PT11	1065	20.0	38.9
						Barrier142; Prop Barrier B8	PT12	1066	20.0	36.9
R877(K40)	394	60.0	4.8	8	-3.2	Barrier142; Prop Barrier B8	PT9	1063	20.0	52.3
						Barrier142; Prop Barrier B8	PT7	1061	20.0	51.2
						Barrier142; Prop Barrier B8	PT3	1057	20.0	49.1

						Barrier142; Prop Barrier B8	PT10	1064	20.0	48.3
						Barrier142; Prop Barrier B8	PT1	1055	20.0	46.8
						Barrier142; Prop Barrier B8	PT6	1060	20.0	46.8
						Barrier142; Prop Barrier B8	PT8	1062	20.0	46.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	46.3
						Barrier142; Prop Barrier B8	PT12	1066	20.0	46.2
						Barrier142; Prop Barrier B8	PT5	1059	20.0	46.0
R880(K1202)	397	59.0	5.5	8	-2.5	Barrier142; Prop Barrier B8	PT9	1063	20.0	50.2
						Barrier142; Prop Barrier B8	PT5	1059	20.0	50.0
						Barrier142; Prop Barrier B8	PT7	1061	20.0	49.7
						Barrier142; Prop Barrier B8	PT3	1057	20.0	49.4
						Barrier142; Prop Barrier B8	PT10	1064	20.0	47.9
						Barrier142; Prop Barrier B8	PT6	1060	20.0	46.1
						Barrier142; Prop Barrier B8	PT12	1066	20.0	45.6
						Barrier142; Prop Barrier B8	PT1	1055	20.0	44.8
						Barrier142; Prop Barrier B8	PT11	1065	20.0	44.7
						Barrier142; Prop Barrier B8	PT13	1067	20.0	43.0
R882(K1211)	399	60.5	10.2	8	2.2	Barrier142; Prop Barrier B8	PT1	1055	20.0	55.9
						Barrier142; Prop Barrier B8	PT5	1059	20.0	54.2
						Barrier142; Prop Barrier B8	PT3	1057	20.0	54.2
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.8
						Barrier142; Prop Barrier B8	PT7	1061	20.0	44.8
						Barrier142; Prop Barrier B8	PT2	1056	20.0	44.6
						Barrier142; Prop Barrier B8	PT10	1064	20.0	42.1
						Barrier142; Prop Barrier B8	PT4	1058	20.0	40.5
						Barrier142; Prop Barrier B8	PT9	1063	20.0	39.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	36.7
R883(K1209)	400	58.9	8.3	8	0.3	Barrier142; Prop Barrier B8	PT5	1059	20.0	54.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	53.0
						Barrier142; Prop Barrier B8	PT7	1061	20.0	49.4
						Barrier142; Prop Barrier B8	PT9	1063	20.0	44.6
						Barrier142; Prop Barrier B8	PT10	1064	20.0	44.2
						Barrier142; Prop Barrier B8	PT1	1055	20.0	42.8
						Barrier142; Prop Barrier B8	PT3	1057	20.0	42.7
						Barrier142; Prop Barrier B8	PT8	1062	20.0	39.1
						Barrier142; Prop Barrier B8	PT11	1065	20.0	38.7

						Barrier142; Prop Barrier B8	PT18	1072	20.0	38.7
R884(K1213)	401	58.0	11.1	8	3.1	Barrier142; Prop Barrier B8	PT3	1057	20.0	53.4
						Barrier142; Prop Barrier B8	PT5	1059	20.0	51.7
						Barrier142; Prop Barrier B8	PT1	1055	20.0	47.8
						Barrier142; Prop Barrier B8	PT7	1061	20.0	46.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.4
						Barrier142; Prop Barrier B8	PT2	1056	20.0	43.9
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.6
						Barrier142; Prop Barrier B8	PT9	1063	20.0	41.7
						Barrier142; Prop Barrier B8	PT4	1058	20.0	40.2
						Barrier142; Prop Barrier B8	PT11	1065	20.0	39.5
R886(K1206)	403	58.5	6.1	8	-1.9	Barrier142; Prop Barrier B8	PT5	1059	20.0	51.7
						Barrier142; Prop Barrier B8	PT7	1061	20.0	48.4
						Barrier142; Prop Barrier B8	PT3	1057	20.0	48.2
						Barrier142; Prop Barrier B8	PT10	1064	20.0	47.2
						Barrier142; Prop Barrier B8	PT9	1063	20.0	46.9
						Barrier142; Prop Barrier B8	PT6	1060	20.0	45.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	44.9
						Barrier142; Prop Barrier B8	PT1	1055	20.0	43.4
						Barrier142; Prop Barrier B8	PT11	1065	20.0	42.7
						Barrier142; Prop Barrier B8	PT13	1067	20.0	42.5
R888(K1218)	405	57.2	10.0	8	2.0	Barrier142; Prop Barrier B8	PT3	1057	20.0	52.3
						Barrier142; Prop Barrier B8	PT5	1059	20.0	48.6
						Barrier142; Prop Barrier B8	PT1	1055	20.0	48.6
						Barrier142; Prop Barrier B8	PT7	1061	20.0	47.0
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.9
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.4
						Barrier142; Prop Barrier B8	PT2	1056	20.0	42.5
						Barrier142; Prop Barrier B8	PT9	1063	20.0	42.2
						Barrier142; Prop Barrier B8	PT4	1058	20.0	39.6
						Barrier142; Prop Barrier B8	PT11	1065	20.0	38.2
R889(K36)	406	58.9	6.6	8	-1.4	Barrier142; Prop Barrier B8	PT5	1059	20.0	52.9
						Barrier142; Prop Barrier B8	PT1	1055	20.0	48.3
						Barrier142; Prop Barrier B8	PT7	1061	20.0	47.7
						Barrier142; Prop Barrier B8	PT3	1057	20.0	47.5
						Barrier142; Prop Barrier B8	PT6	1060	20.0	47.2

						Barrier142; Prop Barrier B8	PT10	1064	20.0	44.2
						Barrier142; Prop Barrier B8	PT9	1063	20.0	44.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	41.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	41.3
						Barrier142; Prop Barrier B8	PT15	1069	20.0	40.6
R892(K1216)	409	58.7	6.8	8	-1.2	Barrier142; Prop Barrier B8	PT5	1059	20.0	52.6
						Barrier142; Prop Barrier B8	PT6	1060	20.0	51.6
						Barrier142; Prop Barrier B8	PT1	1055	20.0	50.1
						Barrier142; Prop Barrier B8	PT7	1061	20.0	48.2
						Barrier142; Prop Barrier B8	PT9	1063	20.0	44.6
						Barrier142; Prop Barrier B8	PT10	1064	20.0	43.3
						Barrier142; Prop Barrier B8	PT13	1067	20.0	40.6
						Barrier142; Prop Barrier B8	PT3	1057	20.0	40.3
						Barrier142; Prop Barrier B8	PT15	1069	20.0	39.5
						Barrier142; Prop Barrier B8	PT8	1062	20.0	39.3
R893(K1220)	410	56.4	8.4	8	0.4	Barrier142; Prop Barrier B8	PT3	1057	20.0	51.1
						Barrier142; Prop Barrier B8	PT7	1061	20.0	47.6
						Barrier142; Prop Barrier B8	PT5	1059	20.0	46.2
						Barrier142; Prop Barrier B8	PT1	1055	20.0	44.8
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.0
						Barrier142; Prop Barrier B8	PT10	1064	20.0	41.9
						Barrier142; Prop Barrier B8	PT9	1063	20.0	41.5
						Barrier142; Prop Barrier B8	PT2	1056	20.0	41.2
						Barrier142; Prop Barrier B8	PT15	1069	20.0	39.0
						Barrier142; Prop Barrier B8	PT4	1058	20.0	38.5
R895(K1219)	412	54.0	4.6	8	-3.4	Barrier142; Prop Barrier B8	PT6	1060	20.0	48.7
						Barrier142; Prop Barrier B8	PT7	1061	20.0	45.9
						Barrier142; Prop Barrier B8	PT5	1059	20.0	45.1
						Barrier142; Prop Barrier B8	PT9	1063	20.0	42.3
						Barrier142; Prop Barrier B8	PT10	1064	20.0	42.2
						Barrier142; Prop Barrier B8	PT8	1062	20.0	38.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	37.4
						Barrier142; Prop Barrier B8	PT11	1065	20.0	37.4
						Barrier142; Prop Barrier B8	PT1	1055	20.0	36.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	35.1
R898(K1224)	415	59.3	4.5	8	-3.5	Barrier142; Prop Barrier B8	PT3	1057	20.0	49.8

						Barrier142; Prop Barrier B8	PT7	1061	20.0	47.4
						Barrier142; Prop Barrier B8	PT5	1059	20.0	43.3
						Barrier142; Prop Barrier B8	PT9	1063	20.0	43.2
						Barrier142; Prop Barrier B8	PT1	1055	20.0	42.9
						Barrier142; Prop Barrier B8	PT6	1060	20.0	42.4
						Barrier142; Prop Barrier B8	PT10	1064	20.0	42.2
						Barrier142; Prop Barrier B8	PT2	1056	20.0	39.8
						Barrier142; Prop Barrier B8	PT13	1067	20.0	39.5
						Barrier142; Prop Barrier B8	PT15	1069	20.0	38.6
R899(K1223)	416	59.6	4.0	8	-4.0	Barrier142; Prop Barrier B8	PT3	1057	20.0	49.3
						Barrier142; Prop Barrier B8	PT6	1060	20.0	48.1
						Barrier142; Prop Barrier B8	PT7	1061	20.0	47.1
						Barrier142; Prop Barrier B8	PT1	1055	20.0	45.0
						Barrier142; Prop Barrier B8	PT5	1059	20.0	43.1
						Barrier142; Prop Barrier B8	PT10	1064	20.0	40.8
						Barrier142; Prop Barrier B8	PT9	1063	20.0	39.7
						Barrier142; Prop Barrier B8	PT2	1056	20.0	39.2
						Barrier142; Prop Barrier B8	PT11	1065	20.0	37.0
						Barrier142; Prop Barrier B8	PT4	1058	20.0	36.8
R900(K1222)	417	56.2	3.2	8	-4.8	Barrier142; Prop Barrier B8	PT5	1059	20.0	45.2
						Barrier142; Prop Barrier B8	PT6	1060	20.0	44.7
						Barrier142; Prop Barrier B8	PT7	1061	20.0	43.2
						Barrier142; Prop Barrier B8	PT12	1066	20.0	42.2
						Barrier142; Prop Barrier B8	PT10	1064	20.0	41.9
						Barrier142; Prop Barrier B8	PT13	1067	20.0	40.0
						Barrier142; Prop Barrier B8	PT9	1063	20.0	39.8
						Barrier142; Prop Barrier B8	PT15	1069	20.0	39.6
						Barrier142; Prop Barrier B8	PT17	1071	20.0	38.7
						Barrier142; Prop Barrier B8	PT11	1065	20.0	38.6
M-44b(K75)	671	62.3	13.0	8	5.0	Barrier142; Prop Barrier B8	PT10	1064	20.0	61.0
						Barrier142; Prop Barrier B8	PT11	1065	20.0	55.0
						Barrier142; Prop Barrier B8	PT12	1066	20.0	47.3
						Barrier142; Prop Barrier B8	PT13	1067	20.0	41.9
						Barrier142; Prop Barrier B8	PT15	1069	20.0	39.5
						Barrier142; Prop Barrier B8	PT17	1071	20.0	39.4
						Barrier142; Prop Barrier B8	PT18	1072	20.0	39.3

RESULTS: BARRIER DESIGN

RESULTS: BARRIER DESIGN **BSB**

Total Cost, All Barriers (including additional cost(s))					$1670599					

PEC 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B19 20'
BARRIER DESIGN: 20'

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Barrier142; Prop Barrier B8	W	PT1	1055	20.00	20.00	20.00	160	3197				102312
		PT2	1056	20.00	18.00	16.00	9	166				5310
		PT3	1057	20.00	20.00	20.00	155	3098				99134
		PT4	1058	20.00	22.00	24.00	9	203				6491
		PT5	1059	20.00	20.00	20.00	172	3437				109993
		PT6	1060	20.00	20.00	20.00	128	2561				81942
		PT7	1061	20.00	20.00	20.00	256	5121				163885
		PT8	1062	20.00	20.00	20.00	33	665				21275
		PT9	1063	20.00	20.00	20.00	174	3485				111507
		PT10	1064	20.00	20.00	20.00	281	5629				180135
		PT11	1065	20.00	20.00	20.00	182	3649				116772
		PT12	1066	20.00	20.00	20.00	192	3833				122661
		PT13	1067	20.00	20.00	20.00	168	3366				107722
		PT14	1068	20.00	20.00	20.00	6	113				3620
		PT15	1069	20.00	20.00	20.00	159	3182				101824
		PT16	1070	20.00	20.00	20.00	6	128				4098
		PT17	1071	20.00	20.00	20.00	129	2578				82488
		PT18	1072	20.00	20.00	20.00	155	3103				99283
		PT19	1073	20.00	20.00	20.00	116	2321				74265
		PT20	1074	20.00	19.00	18.00	125	2371				75883
1484	W	point559	559	10.00	10.00	10.00	88	879				0
		point560	560	10.00	10.00	10.00	55	549				0
		point561	561	10.00	10.00	10.00	26	258				0
		point562	562	10.00	10.00	10.00	52	524				0
		point563	563	10.00	10.00	10.00	67	673				0

		point564	564	10.00	10.00	10.00	7	68				0
		point565	565	10.00	10.00	10.00	4	35				0
		point566	566	10.00	10.00	10.00	43	430				0
		point567	567	10.00	10.00	10.00	76	761				0
		point568	568	10.00	10.00	10.00	6	57				0
		point569	569	10.00	10.00	10.00	7	67				0
		point570	570	10.00	10.00	10.00	71	708				0
		point571	571	10.00	10.00	10.00	52	517				0
		point572	572	10.00	10.00	10.00	134	1339				0
		point573	573	10.00	10.00	10.00	5	53				0
		point574	574	10.00	10.00	10.00	59	593				0
		point575	575	10.00	10.00	10.00	11	107				0
		point576	576	10.00	10.00	10.00	54	542				0
1460	W	point510	510	10.00	10.00	10.00	30	297				0
		point511	511	10.00	10.00	10.00	21	213				0
		point512	512	10.00	10.00	10.00	7	71				0
		point513	513	10.00	10.00	10.00	46	456				0
		point514	514	10.00	10.00	10.00	29	286				0
		point515	515	10.00	10.00	10.00	15	152				0
		point516	516	10.00	10.00	10.00	12	120				0
		point517	517	10.00	10.00	10.00	35	354				0
		point518	518	10.00	10.00	10.00	19	191				0
		point519	519	10.00	10.00	10.00	15	152				0
1446	W	point478	478	10.00	10.00	10.00	7	68				0
		point479	479	10.00	10.00	10.00	29	287				0
		point480	480	10.00	10.00	10.00	77	773				0
		point481	481	10.00	10.00	10.00	30	297				0
		point482	482	10.00	10.00	10.00	70	699				0
1421	W	point435	435	10.00	10.00	10.00	7	74				0
		point436	436	10.00	10.00	10.00	66	655				0
		point437	437	10.00	10.00	10.00	30	299				0
		point438	438	10.00	10.00	10.00	92	924				0
		point439	439	10.00	10.00	10.00	44	440				0
		point440	440	10.00	10.00	10.00	27	266				0
1402	W	point398	398	20.00	20.00	20.00	13	266				0

		point399	399	20.00	20.00	20.00	7	139				0
		point400	400	20.00	20.00	20.00	17	345				0
		point401	401	20.00	20.00	20.00	37	732				0
		point402	402	20.00	20.00	20.00	30	605				0
		point403	403	20.00	20.00	20.00	29	579				0
1395	W	point393	393	20.00	20.00	20.00	31	611				0
		point394	394	20.00	20.00	20.00	50	990				0
		point395	395	20.00	20.00	20.00	28	552				0
		point396	396	20.00	20.00	20.00	46	918				0
1391	W	point388	388	20.00	20.00	20.00	32	640				0
		point389	389	20.00	20.00	20.00	38	760				0
		point390	390	20.00	20.00	20.00	32	631				0
		point391	391	20.00	20.00	20.00	35	706				0
1386	W	point379	379	20.00	20.00	20.00	46	921				0
		point380	380	20.00	20.00	20.00	25	492				0
		point381	381	20.00	20.00	20.00	7	148				0
		point382	382	20.00	20.00	20.00	14	282				0
		point383	383	20.00	20.00	20.00	40	796				0
		point384	384	20.00	20.00	20.00	23	452				0
		point385	385	20.00	20.00	20.00	13	255				0
		point386	386	20.00	20.00	20.00	15	291				0
1383	W	point369	369	10.00	10.00	10.00	6	59				0
		point370	370	10.00	10.00	10.00	60	604				0
		point371	371	10.00	10.00	10.00	45	447				0
		point372	372	10.00	10.00	10.00	22	217				0
		point373	373	10.00	10.00	10.00	7	68				0
		point374	374	10.00	10.00	10.00	33	330				0
		point375	375	10.00	10.00	10.00	24	236				0
		point376	376	10.00	10.00	10.00	5	54				0
		point377	377	10.00	10.00	10.00	8	79				0
1372	W	point364	364	20.00	20.00	20.00	29	577				0
		point365	365	20.00	20.00	20.00	36	711				0
		point366	366	20.00	20.00	20.00	29	577				0
		point367	367	20.00	20.00	20.00	36	711				0

RESULTS: BARRIER-SEGMENT DESCRIPTIONS **BSB**

1370	W	point357	357	20.00	20.00	20.00	6	121				0
		point358	358	20.00	20.00	20.00	10	192				0
		point359	359	20.00	20.00	20.00	28	555				0
		point360	360	20.00	20.00	20.00	33	666				0
		point361	361	20.00	20.00	20.00	30	604				0
		point362	362	20.00	20.00	20.00	24	487				0
1365	W	point349	349	10.00	10.00	10.00	28	280				0
		point350	350	10.00	10.00	10.00	25	249				0
		point351	351	10.00	10.00	10.00	73	729				0
		point352	352	10.00	10.00	10.00	30	298				0
		point353	353	10.00	10.00	10.00	39	385				0
		point354	354	10.00	10.00	10.00	6	60				0
		point355	355	10.00	10.00	10.00	8	81				0
1362	W	point344	344	20.00	20.00	20.00	36	716				0
		point345	345	20.00	20.00	20.00	34	671				0
		point346	346	20.00	20.00	20.00	35	707				0
		point347	347	20.00	20.00	20.00	33	666				0
1360	W	point332	332	20.00	20.00	20.00	11	210				0
		point333	333	20.00	20.00	20.00	11	215				0
		point334	334	20.00	20.00	20.00	22	439				0
		point335	335	20.00	20.00	20.00	43	863				0
		point336	336	20.00	20.00	20.00	54	1078				0
		point337	337	20.00	20.00	20.00	8	166				0
		point338	338	20.00	20.00	20.00	17	340				0
		point339	339	20.00	20.00	20.00	37	743				0
		point340	340	20.00	20.00	20.00	26	514				0
		point341	341	20.00	20.00	20.00	6	121				0
		point342	342	20.00	20.00	20.00	14	277				0
1348	W	point321	321	20.00	20.00	20.00	32	649				0
		point322	322	20.00	20.00	20.00	60	1190				0
		point323	323	20.00	20.00	20.00	33	653				0
		point324	324	20.00	20.00	20.00	59	1181				0
1346	W	point314	314	20.00	20.00	20.00	37	747				0

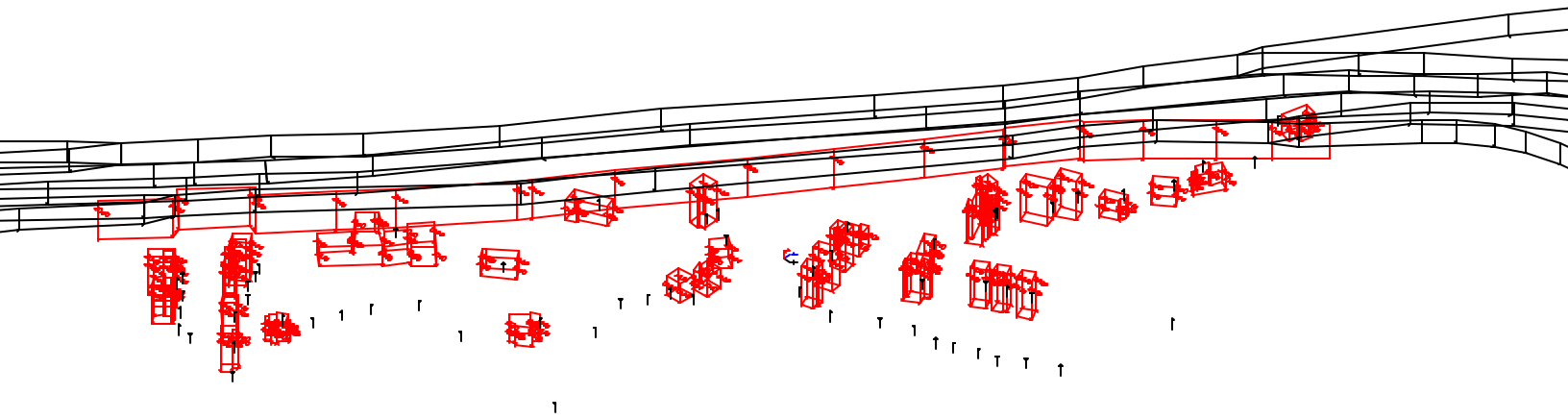
		point315	315	20.00	20.00	20.00	32	645				0
		point316	316	20.00	20.00	20.00	31	617				0
		point317	317	20.00	20.00	20.00	19	385				0
		point318	318	20.00	20.00	20.00	5	92				0
		point319	319	20.00	20.00	20.00	11	216				0
1341	W	point309	309	20.00	20.00	20.00	50	1002				0
		point310	310	20.00	20.00	20.00	39	779				0
		point311	311	20.00	20.00	20.00	50	1007				0
		point312	312	20.00	20.00	20.00	34	684				0
1336	W	point283	283	10.00	10.00	10.00	53	534				0
		point284	284	10.00	10.00	10.00	33	331				0
		point285	285	10.00	10.00	10.00	53	526				0
		point286	286	10.00	10.00	10.00	30	300				0
1331	W	point269	269	10.00	10.00	10.00	30	300				0
		point270	270	10.00	10.00	10.00	28	280				0
		point271	271	10.00	10.00	10.00	8	76				0
		point272	272	10.00	10.00	10.00	31	311				0
		point273	273	10.00	10.00	10.00	18	184				0
		point274	274	10.00	10.00	10.00	13	130				0
		point275	275	10.00	10.00	10.00	18	184				0
		point276	276	10.00	10.00	10.00	74	736				0
1318	W	point222	222	10.00	10.00	10.00	13	127				0
		point223	223	10.00	10.00	10.00	15	150				0
		point224	224	10.00	10.00	10.00	32	325				0
		point225	225	10.00	10.00	10.00	62	623				0
		point226	226	10.00	10.00	10.00	31	309				0
		point227	227	10.00	10.00	10.00	23	232				0
		point228	228	10.00	10.00	10.00	14	144				0
		point229	229	10.00	10.00	10.00	25	246				0
1220	W	point121	121	20.00	20.00	20.00	17	334				0
		point122	122	20.00	20.00	20.00	5	94				0
		point123	123	20.00	20.00	20.00	24	476				0
		point124	124	20.00	20.00	20.00	27	547				0
		point125	125	20.00	20.00	20.00	40	795				0

		point126	126	20.00	20.00	20.00	5	92				0
		point127	127	20.00	20.00	20.00	6	120				0
		point128	128	20.00	20.00	20.00	16	311				0
		point129	129	20.00	20.00	20.00	5	106				0
		point130	130	20.00	20.00	20.00	7	135				0
1219	W	point114	114	20.00	20.00	20.00	13	269				0
		point115	115	20.00	20.00	20.00	13	262				0
		point116	116	20.00	20.00	20.00	15	297				0
		point117	117	20.00	20.00	20.00	36	729				0
		point118	118	20.00	20.00	20.00	28	567				0
		point119	119	20.00	20.00	20.00	25	496				0
1218	W	point109	109	20.00	20.00	20.00	27	538				0
		point110	110	20.00	20.00	20.00	48	962				0
		point111	111	20.00	20.00	20.00	27	538				0
		point112	112	20.00	20.00	20.00	48	962				0
1216	W	point95	95	20.00	20.00	20.00	25	509				0
		point96	96	20.00	20.00	20.00	31	629				0
		point97	97	20.00	20.00	20.00	25	496				0
		point98	98	20.00	20.00	20.00	32	644				0
1213	W	point90	90	20.00	20.00	20.00	31	615				0
		point91	91	20.00	20.00	20.00	19	382				0
		point92	92	20.00	20.00	20.00	31	615				0
		point93	93	20.00	20.00	20.00	19	382				0
1211	W	point85	85	20.00	20.00	20.00	27	538				0
		point86	86	20.00	20.00	20.00	55	1103				0
		point87	87	20.00	20.00	20.00	27	546				0
		point88	88	20.00	20.00	20.00	56	1125				0
1209	W	point80	80	20.00	20.00	20.00	24	489				0
		point81	81	20.00	20.00	20.00	27	539				0
		point82	82	20.00	20.00	20.00	24	489				0
		point83	83	20.00	20.00	20.00	27	539				0
1203	W	point75	75	20.00	20.00	20.00	32	644				0

		point76	76	20.00	20.00	20.00	21	425				0
		point77	77	20.00	20.00	20.00	33	652				0
		point78	78	20.00	20.00	20.00	22	432				0
1196	W	point59	59	20.00	20.00	20.00	29	580				0
		point60	60	20.00	20.00	20.00	36	715				0
		point61	61	20.00	20.00	20.00	30	602				0
		point62	62	20.00	20.00	20.00	37	736				0
1193	W	point49	49	20.00	20.00	20.00	29	583				0
		point50	50	20.00	20.00	20.00	42	844				0
		point51	51	20.00	20.00	20.00	29	583				0
		point52	52	20.00	20.00	20.00	42	844				0
78	W	point42	42	10.00	10.00	10.00	11	105				0
		point43	43	10.00	10.00	10.00	10	96				0
		point44	44	10.00	10.00	10.00	19	190				0
		point45	45	10.00	10.00	10.00	53	534				0
		point46	46	10.00	10.00	10.00	30	300				0
		point47	47	10.00	10.00	10.00	44	441				0
75	W	point35	35	20.00	20.00	20.00	14	271				0
		point36	36	20.00	20.00	20.00	41	812				0
		point37	37	20.00	20.00	20.00	40	802				0
		point38	38	20.00	20.00	20.00	41	823				0
		point39	39	20.00	20.00	20.00	26	522				0
		point40	40	20.00	20.00	20.00	5	91				0
74	W	point28	28	10.00	10.00	10.00	39	386				0
		point29	29	10.00	10.00	10.00	41	410				0
		point30	30	10.00	10.00	10.00	28	283				0
		point31	31	10.00	10.00	10.00	5	47				0
		point32	32	10.00	10.00	10.00	11	111				0
		point33	33	10.00	10.00	10.00	40	403				0
73	W	point21	21	10.00	10.00	10.00	41	410				0
		point22	22	10.00	10.00	10.00	15	145				0
		point23	23	10.00	10.00	10.00	4	40				0
		point24	24	10.00	10.00	10.00	26	265				0

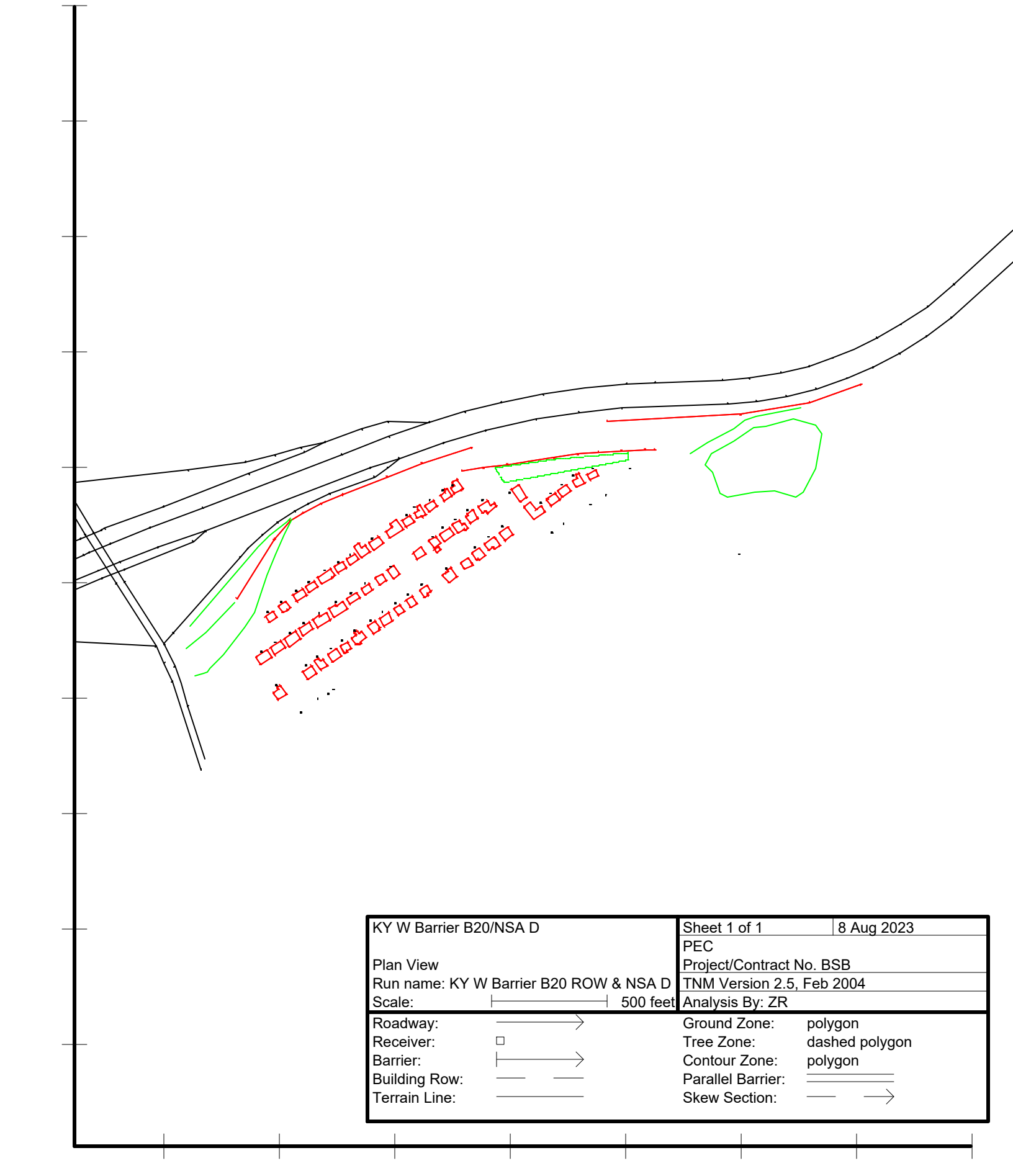
RESULTS: BARRIER-SEGMENT DESCRIPTIONS **BSB**

		point25	25	10.00	10.00	10.00	42	415				0
		point26	26	10.00	10.00	10.00	41	410				0
71	W	point16	16	10.00	10.00	10.00	41	405				0
		point17	17	10.00	10.00	10.00	40	395				0
		point18	18	10.00	10.00	10.00	41	410				0
		point19	19	10.00	10.00	10.00	41	405				0
36	W	point1	1	10.00	10.00	10.00	25	245				0
		point2	2	10.00	10.00	10.00	5	53				0
		point3	3	10.00	10.00	10.00	15	152				0
		point4	4	10.00	10.00	10.00	7	67				0
		point5	5	10.00	10.00	10.00	7	68				0
		point6	6	10.00	10.00	10.00	20	202				0
		point7	7	10.00	10.00	10.00	13	135				0
		point8	8	10.00	10.00	10.00	11	110				0
		point9	9	10.00	10.00	10.00	12	120				0
		point10	10	10.00	10.00	10.00	10	96				0
		point11	11	10.00	10.00	10.00	26	262				0
		point12	12	10.00	10.00	10.00	12	120				0
		point13	13	10.00	10.00	10.00	6	64				0
		point14	14	10.00	10.00	10.00	17	174				0

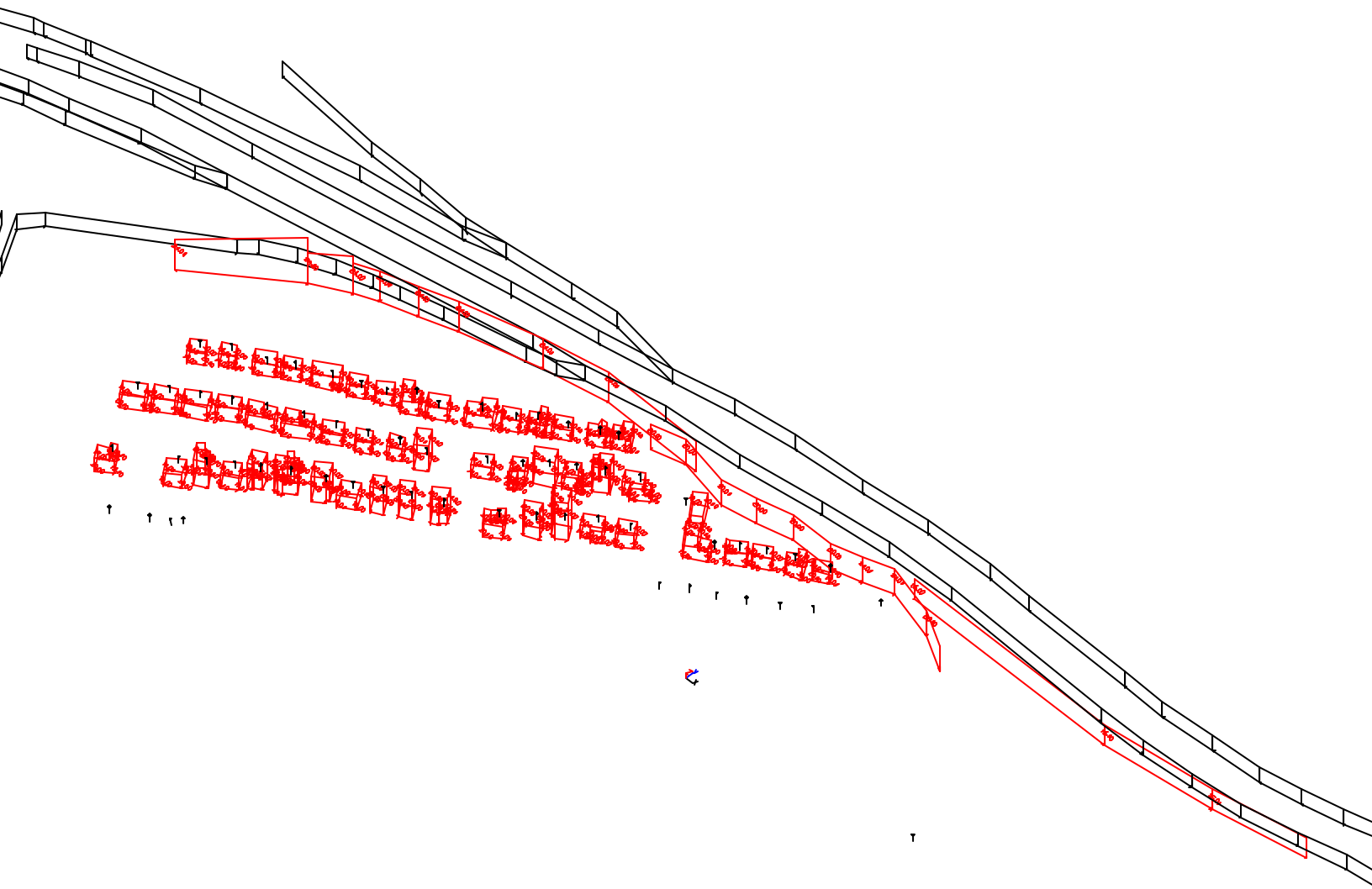


KY W Barrier B19 20'	Sheet 1 of 1	8 Aug 2023
	PEC	
Barrier View-20'	Project/Contract No. BSB	
Run name: KY W Barrier 19 20'	TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>	Analysis By: ZR	

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

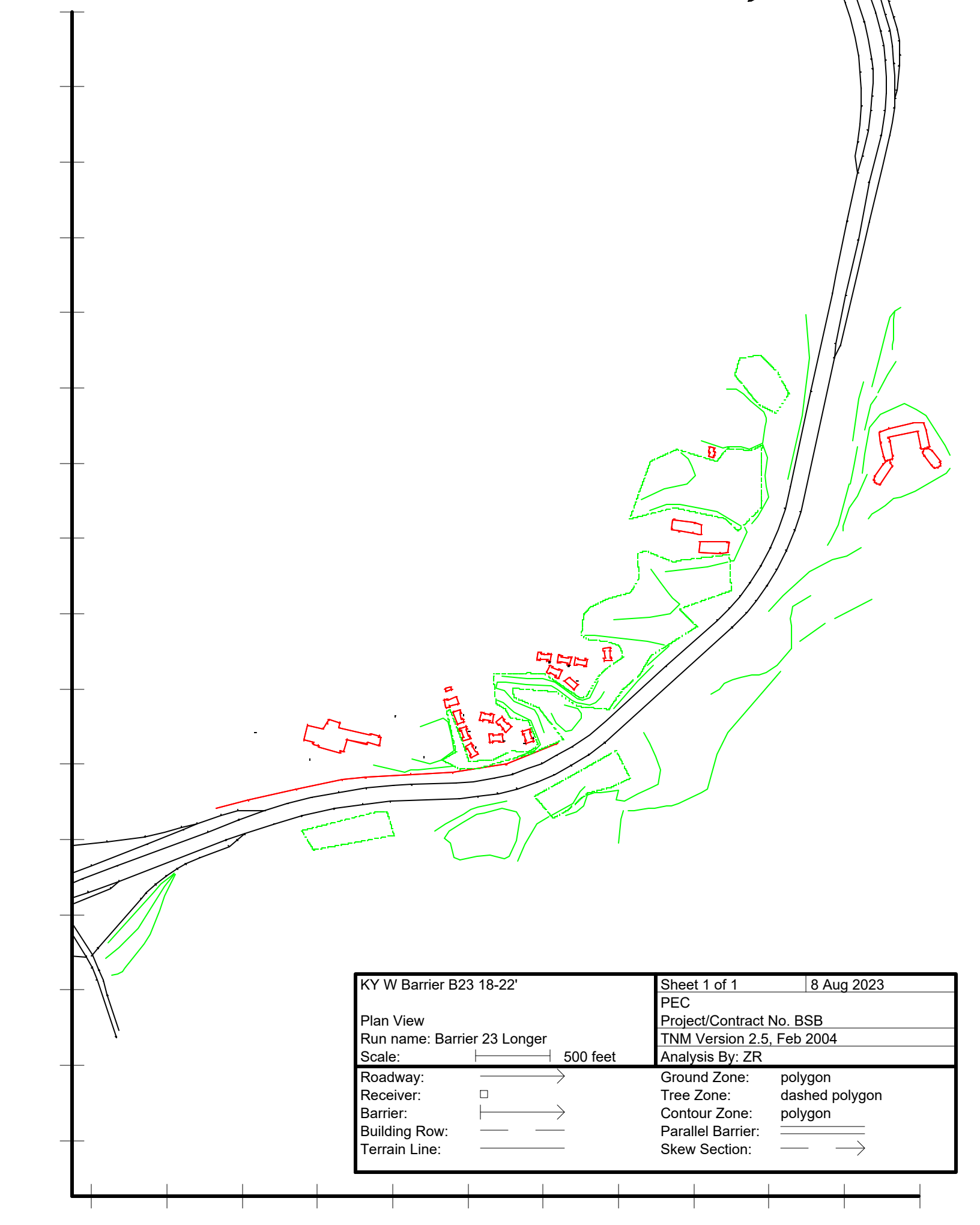


KY W Barrier B20/NSA D		Sheet 1 of 1	8 Aug 2023
		PEC	
Plan View		Project/Contract No. BSB	
Run name: KY W Barrier B20 ROW & NSA D		TNM Version 2.5, Feb 2004	
Scale:	500 feet	Analysis By: ZR	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	



KY W Barrier B20/NSA D	Sheet 1 of 1	8 Aug 2023
	PEC	
Barrier View-unsaved	Project/Contract No. BSB	
Run name: KY W Barrier B20 ROW & NSA D	TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>	Analysis By: ZR	

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	


KY W Barrier B23 18-22'
Plan View
Run name: Barrier 23 Longer
Scale: 500 feet
Sheet 1 of 1
8 Aug 2023
PEC
Project/Contract No. BSB
TNM Version 2.5, Feb 2004
Analysis By: ZR
Roadway:
Receiver:
Barrier:
Building Row:
Terrain Line:
Ground Zone: polygon
Tree Zone: dashed polygon
Contour Zone: polygon
Parallel Barrier:
Skew Section:
00
5265500
5266000
5266500
5267000
5267500
5268000
5268500
5269000
5269500
5270000
5270500

RESULTS: SOUND LEVELS **BSB**

PEC	**8 August 2023**
ZR	**TNM 2.5**
	Calculated with TNM 2.5
RESULTS: SOUND LEVELS	
PROJECT/CONTRACT:	**BSB**
RUN:	**KY W Barrier B23 18-22'**
BARRIER DESIGN:	**18' Longer**
ATMOSPHERICS:	**68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**				**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**
							Sub'l Inc					**minus**
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R460(K1532)	398	1	0.0	49.2	66	49.2	10	----	48.2	1.0	8	-7.0
R465(K1502)	403	1	0.0	42.2	66	42.2	10	----	41.6	0.6	8	-7.4
R468(K1545)	406	1	0.0	49.9	66	49.9	10	----	48.8	1.1	8	-6.9
R473(K1506)	411	1	0.0	47.9	66	47.9	10	----	46.8	1.1	8	-6.9
M-36(K1573)	414	1	0.0	68.9	66	68.9	10	Snd Lvl	60.8	8.1	8	0.1
R476(K1520)	415	1	0.0	50.7	66	50.7	10	----	49.7	1.0	8	-7.0
R477(K1560)	416	1	0.0	51.1	66	51.1	10	----	48.5	2.6	8	-5.4
R481(K1509)	421	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0
R487(K1533)	427	1	0.0	51.9	66	51.9	10	----	51.8	0.1	8	-7.9
R493(K1559)	433	1	0.0	54.8	66	54.8	10	----	50.8	4.0	8	-4.0
R494(K1568)	434	1	0.0	54.7	66	54.7	10	----	51.1	3.6	8	-4.4
R507(K1564)	449	1	0.0	63.5	66	63.5	10	----	58.0	5.5	8	-2.5
R509(K1573)	451	1	0.0	69.2	66	69.2	10	Snd Lvl	63.7	5.5	8	-2.5
R515(K1569)	457	1	0.0	66.3	66	66.3	10	Snd Lvl	58.3	8.0	8	0.0
M-35(K1503)	464	1	0.0	73.2	66	73.2	10	Snd Lvl	66.2	7.0	8	-1.0
R523(K1578)	466	1	0.0	60.7	66	60.7	10	----	55.5	5.2	8	-2.8
R525(K1570)	468	1	0.0	73.3	66	73.3	10	Snd Lvl	61.8	11.5	8	3.5
R902	655	1	0.0	72.8	66	72.8	10	Snd Lvl	62.0	10.8	8	2.8
R903	656	1	0.0	67.5	66	67.5	10	Snd Lvl	63.7	3.8	8	-4.2
R904	657	1	0.0	52.0	66	52.0	10	----	49.8	2.2	8	-5.8

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB

RESULTS: SOUND LEVELS **BSB**

All Selected		20	0.0	4.1	11.5							
All Impacted		7	3.8	7.8	11.5							
All that meet NR Goal		4	8.0	9.6	11.5							

PEC	8 August 2023
ZR	TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT:	BSB
RUN:	KY W Barrier B23 18-22'
BARRIER DESIGN:	18' Longer

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Barrier261	W	18.00	19.75	22.00	2316	45759				1464284
1533	W	30.00	30.00	30.00	254	7609				0
1578	W	30.00	30.00	30.00	300	8990				0
1573	W	30.00	30.00	30.00	1372	41167				0
1570	W	30.00	30.00	30.00	316	9486				0
1569	W	30.00	30.00	30.00	320	9605				0
1568	W	30.00	30.00	30.00	300	8996				0
1564	W	30.00	30.00	30.00	317	9508				0
1560	W	30.00	30.00	30.00	289	8681				0
1559	W	30.00	30.00	30.00	316	9465				0
1545	W	30.00	30.00	30.00	285	8544				0
1532	W	10.00	10.00	10.00	122	1221				0
1520	W	30.00	30.00	30.00	317	9499				0
1509	W	30.00	30.00	30.00	292	8761				0
1506	W	30.00	30.00	30.00	304	9115				0
1503	W	30.00	30.00	30.00	299	8960				0
1502	W	30.00	30.00	30.00	302	9072				0
									Total Cost:	1464284

PEC 8 August 2023
ZR TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B23 18-22'
BARRIER DESIGN: 18' Longer

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R460(K1532)	398	48.2	1.0	8	-7.0	Barrier261	point1743	1743	20.0	40.0
						Barrier261	point1738	1738	20.0	38.1
						Barrier261	point1739	1739	20.0	37.8
						Barrier261	point1737	1737	18.0	36.4
						Barrier261	point1740	1740	20.0	35.9
						Barrier261	point1744	1744	18.0	35.2
						Barrier261	point1741	1741	22.0	33.0
						Barrier261	point1742	1742	20.0	26.6
R465(K1502)	403	41.6	0.6	8	-7.4	Barrier261	point1744	1744	18.0	33.3
						Barrier261	point1738	1738	20.0	31.4
						Barrier261	point1739	1739	20.0	31.3
						Barrier261	point1743	1743	20.0	27.9
						Barrier261	point1740	1740	20.0	25.9
						Barrier261	point1741	1741	22.0	25.2
						Barrier261	point1742	1742	20.0	22.6
						Barrier261	point1737	1737	18.0	8.8
R468(K1545)	406	48.8	1.1	8	-6.9	Barrier261	point1743	1743	20.0	42.2
						Barrier261	point1744	1744	18.0	36.9
						Barrier261	point1739	1739	20.0	30.7
						Barrier261	point1738	1738	20.0	29.8
						Barrier261	point1740	1740	20.0	27.3

						Barrier261	point1741	1741	22.0	26.1
						Barrier261	point1742	1742	20.0	24.8
						Barrier261	point1737	1737	18.0	22.8
R473(K1506)	411	46.8	1.1	8	-6.9	Barrier261	point1744	1744	18.0	39.6
						Barrier261	point1743	1743	20.0	33.6
						Barrier261	point1739	1739	20.0	32.5
						Barrier261	point1741	1741	22.0	29.4
						Barrier261	point1740	1740	20.0	29.1
						Barrier261	point1738	1738	20.0	27.6
						Barrier261	point1742	1742	20.0	26.1
						Barrier261	point1737	1737	18.0	12.8
M-36(K1573)	414	60.8	8.1	8	0.1	Barrier261	point1739	1739	20.0	55.9
						Barrier261	point1738	1738	20.0	54.9
						Barrier261	point1737	1737	18.0	53.9
						Barrier261	point1740	1740	20.0	51.6
						Barrier261	point1741	1741	22.0	48.6
						Barrier261	point1742	1742	20.0	38.7
						Barrier261	point1743	1743	20.0	36.1
						Barrier261	point1744	1744	18.0	26.7
R476(K1520)	415	49.7	1.0	8	-7.0	Barrier261	point1739	1739	20.0	42.4
						Barrier261	point1744	1744	18.0	39.8
						Barrier261	point1740	1740	20.0	38.4
						Barrier261	point1738	1738	20.0	33.3
						Barrier261	point1741	1741	22.0	28.5
						Barrier261	point1743	1743	20.0	24.5
						Barrier261	point1737	1737	18.0	22.0
						Barrier261	point1742	1742	20.0	20.4
R477(K1560)	416	48.5	2.6	8	-5.4	Barrier261	point1743	1743	20.0	44.8
						Barrier261	point1744	1744	18.0	42.3
						Barrier261	point1739	1739	20.0	34.1
						Barrier261	point1740	1740	20.0	30.0
						Barrier261	point1738	1738	20.0	28.9
						Barrier261	point1741	1741	22.0	27.8
						Barrier261	point1742	1742	20.0	27.1
						Barrier261	point1737	1737	18.0	10.9
R481(K1509)	421	54.8	0.0	8	-8.0	Barrier261	point1744	1744	18.0	37.1

						Barrier261	point1739	1739	20.0	35.9
						Barrier261	point1740	1740	20.0	35.5
						Barrier261	point1741	1741	22.0	31.9
						Barrier261	point1743	1743	20.0	31.0
						Barrier261	point1742	1742	20.0	27.0
						Barrier261	point1738	1738	20.0	25.7
						Barrier261	point1737	1737	18.0	9.2
R487(K1533)	427	51.8	0.1	8	-7.9	Barrier261	point1744	1744	18.0	33.3
						Barrier261	point1743	1743	20.0	24.9
						Barrier261	point1740	1740	20.0	24.6
						Barrier261	point1741	1741	22.0	24.3
						Barrier261	point1739	1739	20.0	23.8
						Barrier261	point1742	1742	20.0	20.7
						Barrier261	point1738	1738	20.0	10.3
						Barrier261	point1737	1737	18.0	-1.9
R493(K1559)	433	50.8	4.0	8	-4.0	Barrier261	point1744	1744	18.0	48.1
						Barrier261	point1743	1743	20.0	44.3
						Barrier261	point1742	1742	20.0	40.5
						Barrier261	point1740	1740	20.0	39.6
						Barrier261	point1741	1741	22.0	37.2
						Barrier261	point1739	1739	20.0	22.0
						Barrier261	point1738	1738	20.0	19.2
						Barrier261	point1737	1737	18.0	13.6
R494(K1568)	434	51.1	3.6	8	-4.4	Barrier261	point1743	1743	20.0	48.0
						Barrier261	point1744	1744	18.0	46.1
						Barrier261	point1740	1740	20.0	35.6
						Barrier261	point1741	1741	22.0	31.7
						Barrier261	point1742	1742	20.0	28.5
						Barrier261	point1739	1739	20.0	15.6
						Barrier261	point1738	1738	20.0	11.9
						Barrier261	point1737	1737	18.0	6.2
R507(K1564)	449	58.0	5.5	8	-2.5	Barrier261	point1744	1744	18.0	54.9
						Barrier261	point1743	1743	20.0	47.7
						Barrier261	point1741	1741	22.0	36.3
						Barrier261	point1742	1742	20.0	29.0
						Barrier261	point1740	1740	20.0	20.4

						Barrier261	point1739	1739	20.0	15.4
						Barrier261	point1738	1738	20.0	10.6
						Barrier261	point1737	1737	18.0	6.2
R509(K1573)	451	63.7	5.5	8	-2.5	Barrier261	point1741	1741	22.0	60.7
						Barrier261	point1740	1740	20.0	58.2
						Barrier261	point1742	1742	20.0	56.1
						Barrier261	point1743	1743	20.0	48.5
						Barrier261	point1744	1744	18.0	37.6
						Barrier261	point1739	1739	20.0	29.0
						Barrier261	point1738	1738	30.0	21.8
						Barrier261	point1737	1737	30.0	4.5
R515(K1569)	457	58.3	8.0	8	0.0	Barrier261	point1744	1744	18.0	56.9
						Barrier261	point1743	1743	20.0	52.1
						Barrier261	point1742	1742	20.0	29.9
						Barrier261	point1741	1741	22.0	28.2
						Barrier261	point1740	1740	20.0	8.8
						Barrier261	point1739	1739	30.0	1.2
						Barrier261	point1737	1737	30.0	-5.6
						Barrier261	point1738	1738	30.0	-11.2
M-35(K1503)	464	66.2	7.0	8	-1.0	Barrier261	point1744	1744	18.0	61.1
						Barrier261	point1743	1743	20.0	29.8
						Barrier261	point1742	1742	20.0	28.6
						Barrier261	point1741	1741	22.0	23.2
R523(K1578)	466	55.5	5.2	8	-2.8	Barrier261	point1744	1744	18.0	52.2
						Barrier261	point1743	1743	20.0	51.9
						Barrier261	point1741	1741	22.0	35.5
						Barrier261	point1742	1742	20.0	31.3
						Barrier261	point1740	1740	20.0	16.0
						Barrier261	point1739	1739	30.0	6.1
						Barrier261	point1737	1737	30.0	-1.2
						Barrier261	point1738	1738	30.0	-4.5
R525(K1570)	468	61.8	11.5	8	3.5	Barrier261	point1744	1744	18.0	61.4
						Barrier261	point1743	1743	20.0	49.4
						Barrier261	point1742	1742	20.0	44.5
						Barrier261	point1741	1741	22.0	33.1
						Barrier261	point1740	1740	30.0	5.3

						Barrier261	point1738	1738	30.0	0.3
						Barrier261	point1737	1737	30.0	-0.5
						Barrier261	point1739	1739	30.0	-4.2
R902	655	62.0	10.8	8	2.8	Barrier261	point1739	1739	20.0	59.9
						Barrier261	point1740	1740	20.0	54.4
						Barrier261	point1738	1738	20.0	53.9
						Barrier261	point1741	1741	22.0	49.2
						Barrier261	point1742	1742	20.0	36.1
						Barrier261	point1743	1743	20.0	34.2
						Barrier261	point1737	1737	18.0	33.8
						Barrier261	point1744	1744	18.0	26.5
R903	656	63.7	3.8	8	-4.2	Barrier261	point1737	1737	18.0	56.5
						Barrier261	point1738	1738	20.0	51.0
						Barrier261	point1739	1739	20.0	49.3
						Barrier261	point1740	1740	20.0	46.0
						Barrier261	point1741	1741	22.0	44.3
						Barrier261	point1742	1742	20.0	36.7
						Barrier261	point1743	1743	20.0	30.7
						Barrier261	point1744	1744	18.0	29.0
R904	657	49.8	2.2	8	-5.8	Barrier261	point1741	1741	22.0	45.3
						Barrier261	point1740	1740	20.0	40.6
						Barrier261	point1742	1742	20.0	39.5
						Barrier261	point1737	1737	18.0	39.3
						Barrier261	point1738	1738	20.0	38.6
						Barrier261	point1739	1739	20.0	34.8
						Barrier261	point1743	1743	20.0	31.9
						Barrier261	point1744	1744	18.0	30.3

RESULTS: BARRIER DESIGN **BSB**

Total Cost, All Barriers (including additional cost(s))					$1464284					

PEC 8 August 2023
ZR TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: BSB
RUN: KY W Barrier B23 18-22'
BARRIER DESIGN: 18' Longer

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Barrier261	W	point1737	1737	18.00	18.00	18.00	223	4012				128386
		point1738	1738	20.00	20.00	20.00	327	6535				209126
		point1739	1739	20.00	20.00	20.00	311	6219				199007
		point1740	1740	20.00	20.00	20.00	155	3103				99285
		point1741	1741	22.00	22.00	22.00	299	6586				210740
		point1742	1742	20.00	20.00	20.00	279	5574				178355
		point1743	1743	20.00	20.00	20.00	362	7234				231492
		point1744	1744	18.00	18.00	18.00	361	6497				207892
1533	W	point1717	1717	30.00	30.00	30.00	44	1324				0
		point1718	1718	30.00	30.00	30.00	88	2637				0
		point1719	1719	30.00	30.00	30.00	45	1338				0
		point1720	1720	30.00	30.00	30.00	77	2310				0
1578	W	point1250	1250	30.00	30.00	30.00	8	235				0
		point1251	1251	30.00	30.00	30.00	17	525				0
		point1252	1252	30.00	30.00	30.00	51	1523				0
		point1253	1253	30.00	30.00	30.00	16	491				0
		point1254	1254	30.00	30.00	30.00	8	250				0
		point1255	1255	30.00	30.00	30.00	48	1441				0
		point1256	1256	30.00	30.00	30.00	8	255				0
		point1257	1257	30.00	30.00	30.00	18	553				0
		point1258	1258	30.00	30.00	30.00	51	1515				0
		point1259	1259	30.00	30.00	30.00	16	491				0
		point1260	1260	30.00	30.00	30.00	8	229				0
		point1261	1261	30.00	30.00	30.00	49	1482				0

RESULTS: BARRIER-SEGMENT DESCRIPTIONS **BSB**

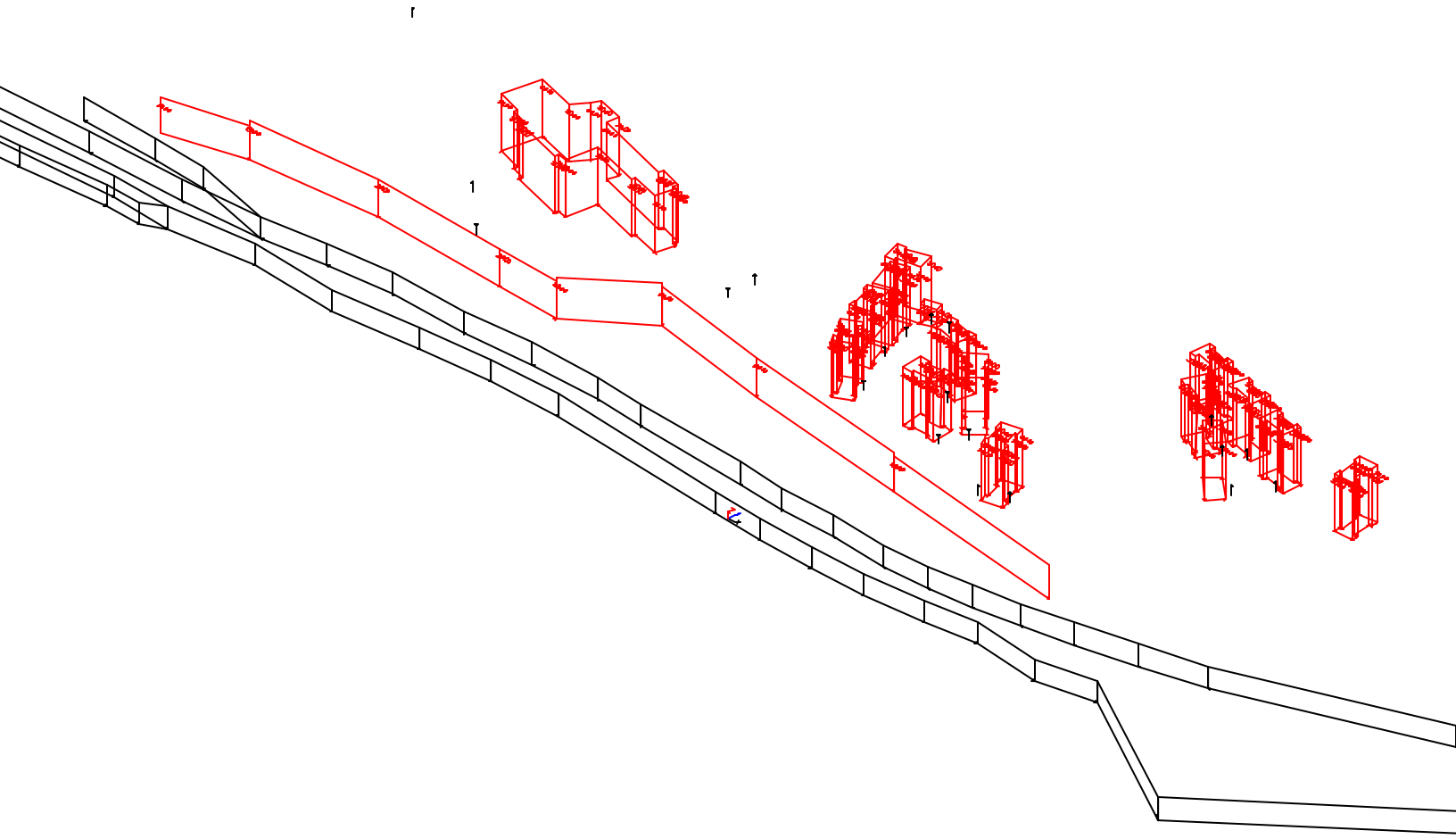
1573	W	point1226	1226	30.00	30.00	30.00	83	2478				0
		point1227	1227	30.00	30.00	30.00	135	4039				0
		point1228	1228	30.00	30.00	30.00	11	328				0
		point1229	1229	30.00	30.00	30.00	81	2441				0
		point1230	1230	30.00	30.00	30.00	52	1546				0
		point1231	1231	30.00	30.00	30.00	13	400				0
		point1232	1232	30.00	30.00	30.00	12	357				0
		point1233	1233	30.00	30.00	30.00	59	1757				0
		point1234	1234	30.00	30.00	30.00	10	295				0
		point1235	1235	30.00	30.00	30.00	216	6480				0
		point1236	1236	30.00	30.00	30.00	33	983				0
		point1237	1237	30.00	30.00	30.00	75	2256				0
		point1238	1238	30.00	30.00	30.00	26	766				0
		point1239	1239	30.00	30.00	30.00	46	1375				0
		point1240	1240	30.00	30.00	30.00	107	3201				0
		point1241	1241	30.00	30.00	30.00	106	3165				0
		point1242	1242	30.00	30.00	30.00	67	2008				0
		point1243	1243	30.00	30.00	30.00	10	309				0
		point1244	1244	30.00	30.00	30.00	39	1175				0
		point1245	1245	30.00	30.00	30.00	10	295				0
		point1246	1246	30.00	30.00	30.00	149	4482				0
		point1247	1247	30.00	30.00	30.00	10	306				0
		point1248	1248	30.00	30.00	30.00	24	726				0
1570	W	point1213	1213	30.00	30.00	30.00	7	204				0
		point1214	1214	30.00	30.00	30.00	22	662				0
		point1215	1215	30.00	30.00	30.00	56	1677				0
		point1216	1216	30.00	30.00	30.00	24	707				0
		point1217	1217	30.00	30.00	30.00	7	204				0
		point1218	1218	30.00	30.00	30.00	44	1306				0
		point1219	1219	30.00	30.00	30.00	7	212				0
		point1220	1220	30.00	30.00	30.00	22	659				0
		point1221	1221	30.00	30.00	30.00	55	1648				0
		point1222	1222	30.00	30.00	30.00	22	651				0
		point1223	1223	30.00	30.00	30.00	8	247				0
		point1224	1224	30.00	30.00	30.00	44	1306				0
1569	W	point1200	1200	30.00	30.00	30.00	23	675				0

		point1201	1201	30.00	30.00	30.00	8	240				0
		point1202	1202	30.00	30.00	30.00	43	1276				0
		point1203	1203	30.00	30.00	30.00	8	255				0
		point1204	1204	30.00	30.00	30.00	23	691				0
		point1205	1205	30.00	30.00	30.00	56	1666				0
		point1206	1206	30.00	30.00	30.00	23	675				0
		point1207	1207	30.00	30.00	30.00	9	257				0
		point1208	1208	30.00	30.00	30.00	44	1305				0
		point1209	1209	30.00	30.00	30.00	8	240				0
		point1210	1210	30.00	30.00	30.00	22	660				0
		point1211	1211	30.00	30.00	30.00	56	1665				0
1568	W	point1187	1187	30.00	30.00	30.00	9	266				0
		point1188	1188	30.00	30.00	30.00	17	499				0
		point1189	1189	30.00	30.00	30.00	51	1528				0
		point1190	1190	30.00	30.00	30.00	16	479				0
		point1191	1191	30.00	30.00	30.00	7	218				0
		point1192	1192	30.00	30.00	30.00	47	1423				0
		point1193	1193	30.00	30.00	30.00	8	233				0
		point1194	1194	30.00	30.00	30.00	18	546				0
		point1195	1195	30.00	30.00	30.00	52	1561				0
		point1196	1196	30.00	30.00	30.00	16	489				0
		point1197	1197	30.00	30.00	30.00	8	251				0
		point1198	1198	30.00	30.00	30.00	50	1504				0
1564	W	point1174	1174	30.00	30.00	30.00	8	233				0
		point1175	1175	30.00	30.00	30.00	26	785				0
		point1176	1176	30.00	30.00	30.00	56	1666				0
		point1177	1177	30.00	30.00	30.00	24	721				0
		point1178	1178	30.00	30.00	30.00	7	212				0
		point1179	1179	30.00	30.00	30.00	42	1253				0
		point1180	1180	30.00	30.00	30.00	7	202				0
		point1181	1181	30.00	30.00	30.00	23	690				0
		point1182	1182	30.00	30.00	30.00	55	1645				0
		point1183	1183	30.00	30.00	30.00	26	775				0
		point1184	1184	30.00	30.00	30.00	7	202				0
		point1185	1185	30.00	30.00	30.00	37	1124				0
1560	W	point1160	1160	30.00	30.00	30.00	7	223				0

		point1161	1161	30.00	30.00	30.00	22	650				0
		point1162	1162	30.00	30.00	30.00	48	1442				0
		point1163	1163	30.00	30.00	30.00	88	2647				0
		point1164	1164	30.00	30.00	30.00	49	1461				0
		point1165	1165	30.00	30.00	30.00	23	693				0
		point1166	1166	30.00	30.00	30.00	9	270				0
		point1167	1167	30.00	30.00	30.00	43	1295				0
1559	W	point1147	1147	30.00	30.00	30.00	7	212				0
		point1148	1148	30.00	30.00	30.00	23	698				0
		point1149	1149	30.00	30.00	30.00	55	1657				0
		point1150	1150	30.00	30.00	30.00	22	671				0
		point1151	1151	30.00	30.00	30.00	8	229				0
		point1152	1152	30.00	30.00	30.00	43	1292				0
		point1153	1153	30.00	30.00	30.00	7	215				0
		point1154	1154	30.00	30.00	30.00	22	671				0
		point1155	1155	30.00	30.00	30.00	55	1657				0
		point1156	1156	30.00	30.00	30.00	23	686				0
		point1157	1157	30.00	30.00	30.00	8	227				0
		point1158	1158	30.00	30.00	30.00	42	1250				0
1545	W	point1118	1118	30.00	30.00	30.00	61	1817				0
		point1119	1119	30.00	30.00	30.00	7	218				0
		point1120	1120	30.00	30.00	30.00	23	703				0
		point1121	1121	30.00	30.00	30.00	55	1652				0
		point1122	1122	30.00	30.00	30.00	23	703				0
		point1123	1123	30.00	30.00	30.00	7	218				0
		point1124	1124	30.00	30.00	30.00	61	1827				0
		point1125	1125	30.00	30.00	30.00	47	1405				0
1532	W	point1106	1106	10.00	10.00	10.00	21	207				0
		point1107	1107	10.00	10.00	10.00	40	402				0
		point1108	1108	10.00	10.00	10.00	21	206				0
		point1109	1109	10.00	10.00	10.00	41	406				0
1520	W	point1093	1093	30.00	30.00	30.00	8	248				0
		point1094	1094	30.00	30.00	30.00	21	638				0
		point1095	1095	30.00	30.00	30.00	55	1659				0
		point1096	1096	30.00	30.00	30.00	22	658				0

		point1097	1097	30.00	30.00	30.00	6	195				0
		point1098	1098	30.00	30.00	30.00	44	1332				0
		point1099	1099	30.00	30.00	30.00	9	262				0
		point1100	1100	30.00	30.00	30.00	21	632				0
		point1101	1101	30.00	30.00	30.00	55	1665				0
		point1102	1102	30.00	30.00	30.00	22	672				0
		point1103	1103	30.00	30.00	30.00	7	215				0
		point1104	1104	30.00	30.00	30.00	44	1324				0
1509	W	point1080	1080	30.00	30.00	30.00	8	226				0
		point1081	1081	30.00	30.00	30.00	17	514				0
		point1082	1082	30.00	30.00	30.00	50	1513				0
		point1083	1083	30.00	30.00	30.00	17	497				0
		point1084	1084	30.00	30.00	30.00	8	227				0
		point1085	1085	30.00	30.00	30.00	49	1468				0
		point1086	1086	30.00	30.00	30.00	8	229				0
		point1087	1087	30.00	30.00	30.00	16	481				0
		point1088	1088	30.00	30.00	30.00	48	1428				0
		point1089	1089	30.00	30.00	30.00	17	501				0
		point1090	1090	30.00	30.00	30.00	8	242				0
		point1091	1091	30.00	30.00	30.00	48	1436				0
1506	W	point1067	1067	30.00	30.00	30.00	8	229				0
		point1068	1068	30.00	30.00	30.00	17	521				0
		point1069	1069	30.00	30.00	30.00	52	1551				0
		point1070	1070	30.00	30.00	30.00	18	539				0
		point1071	1071	30.00	30.00	30.00	10	291				0
		point1072	1072	30.00	30.00	30.00	47	1424				0
		point1073	1073	30.00	30.00	30.00	9	259				0
		point1074	1074	30.00	30.00	30.00	18	533				0
		point1075	1075	30.00	30.00	30.00	51	1533				0
		point1076	1076	30.00	30.00	30.00	19	568				0
		point1077	1077	30.00	30.00	30.00	9	259				0
		point1078	1078	30.00	30.00	30.00	47	1409				0
1503	W	point1054	1054	30.00	30.00	30.00	7	211				0
		point1055	1055	30.00	30.00	30.00	18	525				0
		point1056	1056	30.00	30.00	30.00	51	1521				0
		point1057	1057	30.00	30.00	30.00	17	510				0

		point1058	1058	30.00	30.00	30.00	9	272				0
		point1059	1059	30.00	30.00	30.00	49	1476				0
		point1060	1060	30.00	30.00	30.00	9	255				0
		point1061	1061	30.00	30.00	30.00	17	497				0
		point1062	1062	30.00	30.00	30.00	51	1521				0
		point1063	1063	30.00	30.00	30.00	16	484				0
		point1064	1064	30.00	30.00	30.00	7	212				0
		point1065	1065	30.00	30.00	30.00	49	1476				0
1502	W	point1040	1040	30.00	30.00	30.00	25	745				0
		point1041	1041	30.00	30.00	30.00	8	242				0
		point1042	1042	30.00	30.00	30.00	18	533				0
		point1043	1043	30.00	30.00	30.00	52	1549				0
		point1044	1044	30.00	30.00	30.00	18	530				0
		point1045	1045	30.00	30.00	30.00	9	259				0
		point1046	1046	30.00	30.00	30.00	49	1457				0
		point1047	1047	30.00	30.00	30.00	8	244				0
		point1048	1048	30.00	30.00	30.00	18	545				0
		point1049	1049	30.00	30.00	30.00	50	1515				0
		point1050	1050	30.00	30.00	30.00	18	530				0
		point1051	1051	30.00	30.00	30.00	8	227				0
		point1052	1052	30.00	30.00	30.00	23	696				0



KY W Barrier B23 18-22'		Sheet 1 of 1	8 Aug 2023
		PEC	
Barrier View-18' Longer		Project/Contract No. BSB	
Run name: Barrier 23 Longer		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: ZR	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

Appendix K: ODOT Noise Outreach Summary

SUPPLEMENTAL NOISE OUTREACH SUMMARY

November 15, 2024

Supplemental Noise Outreach Summary

In March 2024, ODOT commenced public engagement efforts regarding the noise barriers recommended for the Brent Spence Bridge Corridor project in Ohio. Engagement efforts were completed following the issuance of the Finding of No Significant Impact in May 2024.

ODOT mailed letters to affected property owners and occupants (benefited receptors) and stakeholders on March 11, 2024, with a response deadline of April 10, 2024. The letter included background on the overall project; information on noise abatement processes and proposals; aerial images of the affected areas with the proposed barriers; and encouragement to respond. See Appendix A.

The response rate for the three noise barriers proposed in the northern area of the project corridor, between Ezzard Charles and Bank Street, was notably low (Figure 1).

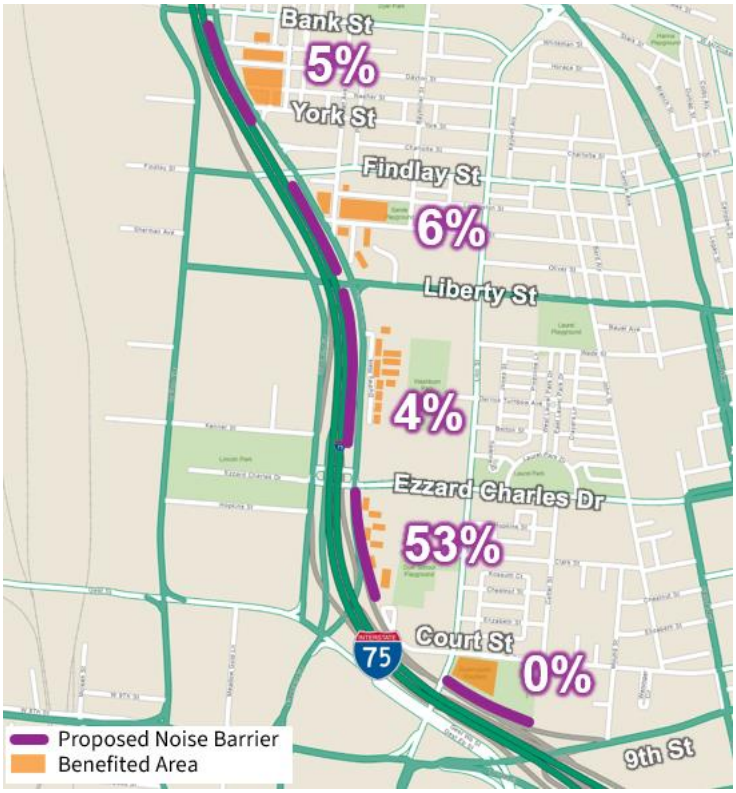


Figure 1: Initial Noise Public Engagement Response Rates

Despite this low response rate, the City of Cincinnati and West End Community Council expressed their support for the noise barriers. In addition, ODOT's Noise Manual (updated October 2023) amended its noise barrier guidelines to permit the installation of barriers in certain circumstances, even when response rates are low.

In June 2024, ODOT provided a project update to the West End Community Council. During this presentation, the ODOT Project Manager proposed hosting "office hours" at the Lincoln Recreation Center to give benefited receptors another chance to participate in the survey. The council agreed and offered to spread the word once the event details were finalized. See Appendix B for a copy of the presentation given at the council meeting.

In October 2024, the project team shared information about the outreach on social media and via email to the West End Community Council. See Appendix C.

October 23, 2024: Lincoln Recreation Center

On Wednesday, October 23, the ODOT Project Manager hosted outreach at the Lincoln Recreation Center from 3:00 to 6:00 PM (Figure 2).

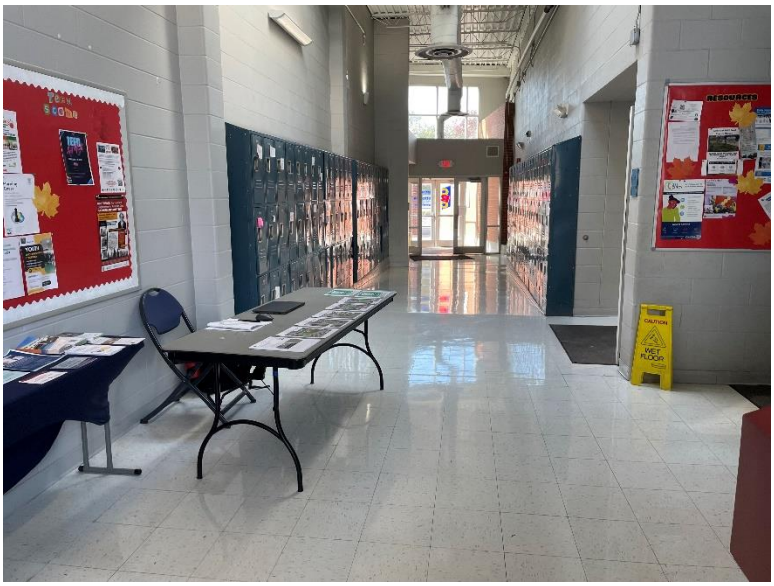


Figure 2: Public meeting setup at the Lincoln Recreation Center

Attendance and Interactions:

- **Community Participation:** No benefited receptors attended the event
- **Media Presence:** A local TV camera crew stopped by but decided not to proceed with an interview after learning more about the outreach
- **City Representative:** A staff member from the City of Cincinnati Department of Transportation and Engineering attended and assisted with answering questions throughout much of the event
- **Engagement Highlights:**
    - Many students were present at the recreation center and stopped by to ask questions
    - Several adults also stopped by the table to ask questions. None were opposed to the installation of the noise barriers. One person asked if the walls would be clear like the walls that were recently installed in northern Kentucky. The ODOT Project Manager explained that the walls would feature a stone pattern finish and shared a photo for reference. This individual expressed satisfaction with the response but noted a preference for the appearance of clear walls.

October 24, 2024: Longworth Hall

On Thursday, October 24, the ODOT Project Manager held another outreach session at Longworth Hall from 12:00 to 3:00 PM (Figure 3).

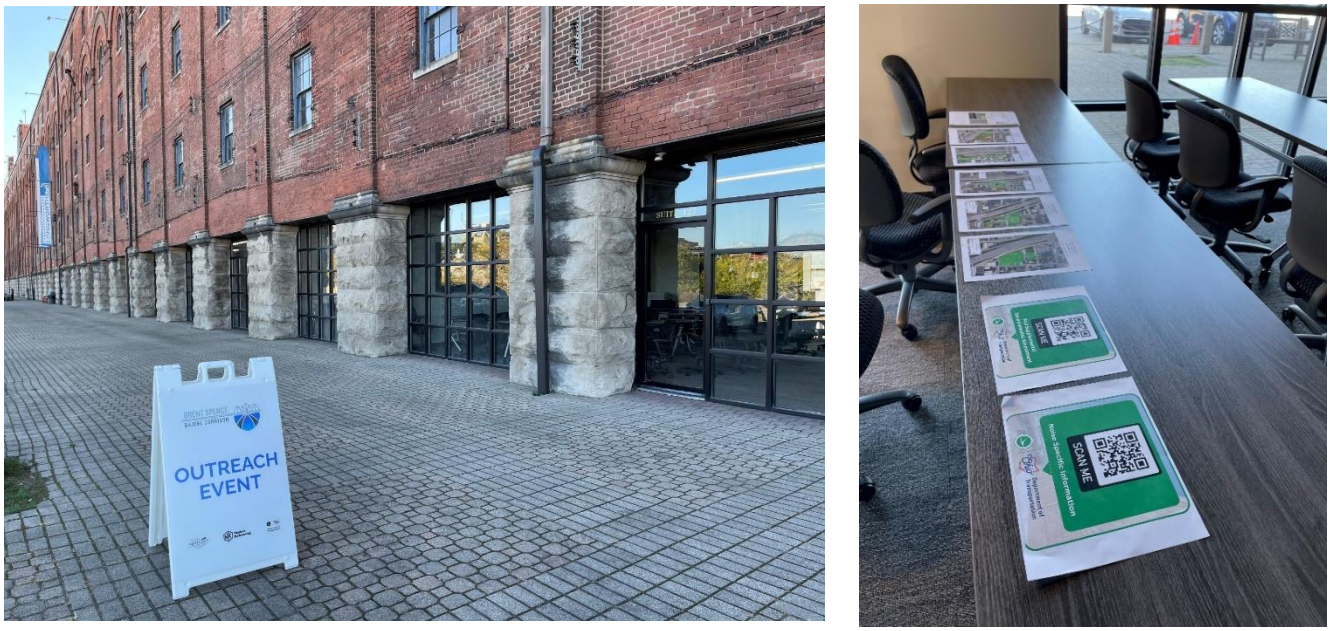


Figure 3: Public meeting setup at Longworth Hall

Attendance and Interactions:

- **Community Participation:** No benefited receptors attended the event

Post-Outreach Engagement and Conclusions

After the outreach concluded, a member of the West End Community Council contacted the project team to ask about the interactions from the "office hours" events. They were not surprised by the lack of engagement, noting a general community consensus in favor of installing the noise barriers and no known opposition.

This council member asked why there are gaps between the noise barriers. The ODOT Project Manager explained that the noise analysis starts by obtaining readings in the field. The noise readings are then used to forecast future noise levels based on the project design and the projected traffic. This analysis identifies benefited receptors and evaluates potential noise mitigation. In general, the goal is to provide noise mitigation when it is reasonable and feasible. Gaps appear in areas between the benefited receptors where a wall would not provide a reasonable and feasible benefit.

Based on feedback from benefited receptors during outreach efforts described herein, no changes were made to the barriers proposed in the 2024 SEA/FONSI. All barriers will be constructed as originally proposed.

Appendix A:
Stakeholder Letter, Packet, and List
March 2024

OHIO DEPARTMENT OF TRANSPORTATION
Mike DeWine, *Governor*
Jack Marchbanks, Ph.D., *Director*

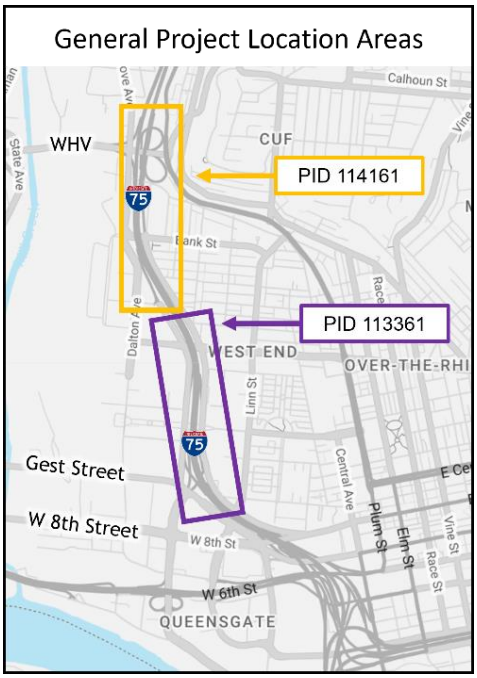
District 8
505 S. State Route 741, Lebanon, OH 45036
513-933-6568
transportation.ohio.gov

March 11, 2024

HAM-75-1.05/1.95, PID 89068/113361/114161
Brent Spence Bridge (BSB) Project

Dear Resident/Property Owner,

The Ohio Department of Transportation will be undertaking the reconstruction of I-75 from just south of Marshall Avenue to just north of the Linn Street overpass. The improvements will be constructed under two different projects:



- HAM-75-1.95 (Project ID 114161) - Reconstruct I-75 from just south of Marshall Avenue to Findlay Street, part of the Brent Spence Bridge Corridor Project. Construct a new I-75 interchange connecting to the Western Hills Viaduct (WHV).

- HAM-75-1.05 (Project ID 113361) - Reconstruct and widen I-75 from the Findlay Street bridge's northern limits to just north of Linn Street. Replace the Linn Street overpass on I-75 and reconstruct Gest Street from Freeman Avenue to US 50. Replace pedestrian access from Gest to Linn Street, Ezzard Charles Drive overpass over I-75, and parts of Western Avenue. Cul-de-sac West Court Street and build new I-75 ramps to/from Freeman Avenue, Western Avenue, and Ninth Street.

For comprehensive information on the Brent Spence Bridge project, including OH Noise Reports and additional documents, please refer to the dedicated project website: https://brentspencebridgecorridor.com/

As part of the environmental process, a traffic noise analysis was completed for the project that determined noise abatement, in the form of noise barriers, are warranted for the projects. Your property was identified as one that would benefit from substantially reduced noise levels. If constructed, the proposed noise walls will be situated on the east side of I-75 adjacent to the roadway shoulder. Additional information, approximate location of the noise barrier, and the locations of properties benefitted by the noise barrier wall are shown on the enclosed map. The purpose of a noise barrier is to substantially reduce the level of traffic noise near your property; it will not eliminate all traffic noise. Construction of the noise barrier will result in no cost to property owners.

Property owners and occupants benefiting from the proposed noise barrier are being surveyed on whether or not they desire to have the recommended noise barrier constructed as part of the roadway project. The decision to construct a noise barrier will depend on responses to the enclosed noise barrier survey.

If the majority of respondents (≥51%) do not want the noise barrier, or if there is a lack of interest or lack of response to the survey, then ODOT will not construct the noise barrier. Likewise, if the majority of benefitted property owners/occupants are in favor of a noise barrier, then ODOT will include the construction of the noise barrier in the project. Each proposed noise barrier will be voted on separately and independent of one another.

Please take a few minutes to complete the enclosed survey by **April 10, 2024**. A low response rate from your neighborhood will be considered a lack of interest and may result in the noise barrier not being constructed. Note that responses received will not be shared with any neighbors. ODOT will inform the neighborhood of the results of the noise survey. If you have any questions, please feel free to contact me at (513)-933-6590 or Keith.Smith@dot.ohio.gov.

Sincerely,

Keith Smith
Environmental Project Manager

Attachments:

- Noise Barrier Survey
- Noise Barrier Location Map for Noise Sensitive Area

NOISE BARRIER LOCATION MAP

HAM-75-1.95 (PID: 114161)

Noise Sensitive Area (NSA) 2

Noise Barrier Details: 1,115’ long, 10’ tall



NOISE BARRIER LOCATION MAP

HAM-75-1.05 (PID: 113361)

Noise Sensitive Area (NSA) 3

Noise Barrier Details: 767’ long, 10’ tall



NOISE BARRIER LOCATION MAP

HAM-75-1.05 (PID: 113361)

Noise Sensitive Area (NSA) 4

Noise Barrier Details: 1,230’ long, 10’ tall



NOISE BARRIER LOCATION MAP

HAM-75-1.05 (PID: 113361)

Noise Sensitive Area (NSA) 5

Noise Barrier Details: 724’ long, 10’ tall



NOISE BARRIER LOCATION MAP

HAM-75-1.05 (PID: 113361)

Noise Sensitive Area (NSA) 6

Noise Barrier Details: 640’ long, 10’ tall



NOISE BARRIER SURVEY

Survey Number
_____

Thank you for completing this survey! The survey may be submitted by any of the following ways:

- **Internet:** Go to: publicinput.com/113361noisewallsurvey or scan the QR code with your smartphone camera
- **Phone:** Call Abigail Sarac at 614-481-8600 ext. 175
- **Email:** Send response to asarac@lawhon-assoc.com
- **Mail:** Use the enclosed postage-provided envelope.

SCAN ME

Surveys are requested by **April 10, 2024.**

1) Should a noise barrier be built?

Please check one of the boxes below**:**

	A noise barrier SHOULD be built
	A noise barrier SHOULD NOT be built
	No opinion on whether a noise barrier should be built

If a noise barrier is constructed, it will have the same appearance in color and texture as the images below on both the highway and non-highway side.





Additional Comments?

Noise PI Survey Response Tracking

From Guidance: Owner will have the same number of votes as there are number of dwelling units and each rental unit will have one vote per unit

Property Information						Survey									
Rec #	Card Code	Name	Site Address	City, State, Zip	Relationship	Resident Ballot Returned?	Owner Ballot Returned?	# of possible renter votes	# of possible owner votes	Resident Yes	Owner Yes	Resident No	Owner No	No Opinion	Notes
Noise Barrier NSA 2															
NSA2-2	2-2	Yossef Haver & Babiacki Lital	2712 Erie Avenue	Cincinnati, OH 45208	Owner				1						
NSA2-4	2-4	Clarence Harris & Joseph Tipton Tr.	1112 Garden Street	Cincinnati, OH 45214	Owner and				1						
NSA2-5	2-5	Lashonda Knighten	2143 Freeman Ave	Cincinnati, OH 45214	Owner				2						Owns two properties. See row 10.
NSA2-6	2-6-1	Resident	1128 Dayton Street	Cincinnati, OH 45214	Occupant			1							
	2-5	Lashonda Knighten	2143 Freeman Ave	Cincinnati, OH 45214	Owner				0						Votes captured in row 8.
NSA2-6	2-6-2	Current Resident	1126 Dayton Street	Cincinnati, OH 45214	Occupant			1							
	2-6-3	Rosemary Byes	1308 Ryland Ave	Cincinnati, OH 45237	Owner				1						Returned. Forwarded address: 1126 Dayton Street.
NSA2-7	2-7-1	Perline Haywood	1124 Dayton Street	Cincinnati, OH 45214	Owner and		1		1		1				
	2-7-2	Current Resident	1122 Dayton Street	Cincinnati, OH 45214	Occupant	1		1		1					"I live on Dayton St.very close to the highway. A noise barrier would be beneficial"
	2-7-3	Angalet Fallen	727 Ezzard Charles Drive	Cincinnati, OH 45203	Owner				1						Returned.
NSA2-8	2-8-1	Jonathan Killings	1120 Dayton Street	Cincinnati, OH 45214	Owner and				1						
	2-8-2	Thelma Lee Thomas Tr.	1118 Dayton Street	Cincinnati, OH 45214	Owner and				1						
	2-8-3	Current Resident	1116 Dayton Street	Cincinnati, OH 45214	Occupant			1							
	2-8-4	David Daniels	2366 Vera Avenue	Cincinnati, OH 45237	Owner				1						
	2-8-5	Rose Harris	1114 Dayton Street	Cincinnati, OH 45214	Owner and				1						
NSA2-9	2-8-6	Current Resident	1112 Dayton Street	Cincinnati, OH 45214	Occupant			1							Returned
	2-8-7	Johnson Lemuel and Monique Burnett	921 Findlay Street	Cincinnati, OH 45214	Owner				1						
NSA2-11	2-11	Terry & Mark Allen	1114 Sunnyslope	Cincinnati, OH 45229	Owner				1						Returned. Attempted - not known.
NSA2-12	2-12-1	Kyairah Jones	1123 Dayton Street	Cincinnati, OH 45214	Owner and				1						Returned. Insufficient address.
	2-12-2	1121 Dayton Street LLC	3040 Westbourne Dr	Cincinnati, OH 45248	Owner				1						
	2-12-3	Property Values Solutions LLC	7416 Montgomery Road	Cincinnati OH 45236	Owner				1						
NSA2-13	2-13-1	Joseph Harris	POB 6727	Cincinnati, OH 45206	Owner				1						Returned. Undeliverable as addressed.
	2-13-2	Current Resident	1115 Dayton Street	Cincinnati, OH 45214	Occupant			1							
	2-13-3	Corelogic	3001 Hackberry Road	Irving, TX 75063	Owner				1						
	2-13-4	Rose Harris	1113 Dayton Street	Cincinnati, OH 45214	Owner and				1						
NSA2-14	2-14-1	Current Resident	1111 Dayton Street	Cincinnati, OH 45214	Occupant			1							
	2-14-2	1111 Dayton Street LLC	1623 Dalton Street, Ste. 14147	Cincinnati, OH 45250	Owner				1						
	2-14-3	Current Resident	1109 Dayton Street	Cincinnati, OH 45214	Owner and Occupant				1						
	2-14-4	Willie Dotson	469 W. McMicken Ave	Cincinnati, OH 45214	Owner				1						
NSA2-15	2-15-1	Current Resident	1110 York Street, Apt 1	Cincinnati, OH 45214	Occupant			1							
	2-15-2	Current Resident	1110 York Street, Apt 2	Cincinnati, OH 45214	Occupant			1							
	2-15-3	Current Resident	1110 York Street, Apt 3	Cincinnati, OH 45214	Occupant			1							
	2-15-4	York Street Property Group LLC	6067 Hedge Ave	Cincinnati, OH 45213	Owner				3						
NSA2-16	2-16	Martin Media	1260 Edison Drive	Cincinnati, OH 45216	Owner				1						
NSA2-17	2-17-1	Current Resident	1114 York Street, Apt 1	Cincinnati, OH 45214	Occupant	1		1		1					
	2-17-2	Current Resident	1114 York Street, Apt 2	Cincinnati, OH 45214	Occupant			1							
	2-17-3	Michael McCall	9890 Zig Zag Road	Cincinnati, OH 45242	Owner				2						
NSA2-22	2-22-1	Current Resident	1105 Dayton Street, Apt 1	Cincinnati, OH 45214	Occupant			1							
	2-22-2	Current Resident	1105 Dayton Street, Apt 2	Cincinnati, OH 45214	Occupant			1							
	2-22-3	Current Resident	1105 Dayton Street, Apt 3	Cincinnati, OH 45214	Occupant			1							
	2-22-4	Current Resident	1105 Dayton Street, Apt 4	Cincinnati, OH 45214	Occupant			1							
	2-22-5	Current Resident	1105 Dayton Street, Apt 5	Cincinnati, OH 45214	Occupant			1							
	2-22-6	Current Resident	1105 Dayton Street, Apt 6	Cincinnati, OH 45214	Occupant			1							
	2-22-7	Current Resident	1105 Dayton Street, Apt 7	Cincinnati, OH 45214	Occupant			1							
	2-22-8	Current Resident	1105 Dayton Street, Apt 8	Cincinnati, OH 45214	Occupant			1							Returned. Undeliverable as addressed.
	2-22-9	Cincy Plus Inc.	1352 Burdett Avenue	Cincinnati, OH 45206	Owner				8						
NSA2-23	2-23-1	Kathy R Jones	1907 Colerain Ave	Cincinnati OH 45214	Owner and				1						
	2-23-2	Current Resident	1905 Colerain Ave	Cincinnati OH 45214	Occupant			1							
	2-23-3	Dara Development LLC	1835 Baymiller St.	Cincinnati, OH 45214	Owner				1						
	2-23-4	Current Resident	1903 Colerain Ave	Cincinnati OH 45214	Occupant			1							
	2-23-6	Mary Harrington	1911 Colerain Ave	Cincinnati, OH 45214	Owner and Occupant				1						

NSA2-24	2-24-1	Current Resident	1108 York Street, Apt 1	Cincinnati, OH 45214	Occupant			1							
	2-24-2	Current Resident	1108 York Street, Apt 2	Cincinnati, OH 45214	Occupant			1							
	2-24-3	Current Resident	1108 York Street, Apt 3	Cincinnati, OH 45214	Occupant			1							
	2-24-4	Ronnie Black	5002 Laconia	Cincinnati, OH 45237	Owner				3						
NSA2-25	2-25-1	Current Resident	1901 Colerain Ave, Unit 1	Cincinnati OH 45214	Occupant			1							
	2-25-2	Abigail Apartments Limited Partnership	21 West 13th St	Cincinnati OH 45202	Owner				1						
						2	1	20	36	2	1	0	0	0	

Noise PI Survey Response Tracking

From Guidance: Owner will have the same number of votes as there are number of dwelling units and each rental unit will have one vote per unit.

Property Information						Survey									
Rec #	Card Code	Name	Site Address	City, State, Zip	Relationship	Resident Ballot Returned?	Owner Ballot Returned?	# of possible renter votes	# of possible owner votes	Resident Yes	Owner Yes	Resident No	Owner No	No Opinion	Notes
Noise Barrier NSA 3															
NSA3-2	3-2-1	Richard & Carolyn Folden	1709 Freeman Ave	Cincinnati, OH 41214	Owner and Occupant	1			1	1					"I have lived in the area for 39 years and it would be a excellent change to have some quite nights."
	3-2-2	Godfrey S Mukasa	1711 Freeman Ave	Cincinnati, OH 41214	Owner and Occupant				1						
NSA3-3	3-3-1	Madeline Winters	1703 Freeman Ave	Cincinnati, OH 41214	Owner and Occupant				1						
	3-3-2	Abdelhadi Benghanem	9105 Wisteria Ct.	Florence, KY 41042	Occupant	1		1		1					Called on phone. Was very much in favor of the noise wall. Spoke to several of his neighbors and they also were very much in favor. Was concerned that the lack of responses would lead to no noise wall and was encouraging all to participate in survey. Also submitted survey via public input.
NSA3-4	3-4-1	Current Resident	932 W Liberty St.	Cincinnati, OH 41214	Owner				1						
	3-4-2	Current Resident	934 W Liberty St.	Cincinnati, OH 41214	Occupant			1							
	3-4-3	Current Resident	936 W Liberty St.	Cincinnati, OH 41214	Occupant			1							
	3-4-4	Current Resident	938 W Liberty St.	Cincinnati, OH 41214	Occupant			1							
	3-4-5	Current Resident	940 W Liberty St.	Cincinnati, OH 41214	Occupant			1							
	3-4-6	Current Resident	942 W Liberty St.	Cincinnati, OH 41214	Occupant			1							
	3-4-7	Cincinnati Metropolitan Housing Authority	897 Poplar Street	Cincinnati, OH 41214	Occupant			1							
NSA3-5	3-5	Civic Garden Center of Greater Cincinnati	2715 Reading Road	Cincinnati, OH 45206	Owner				12						Owns 2 properties with 6 units in each
NSA3-6	3-6-1	Emma Sue Long	1720 Freeman Ave	Cincinnati, OH 41214	Owner				3						Voter # pulled from Noise Analysis
	3-6-2	Richard & Katherine Cole	1718 Freeman Ave	Cincinnati, OH 41214	Owner and Occupant		1		1		1				"We would appreciate the reduction of noise from the I 75 extension"
NSA3-8	3-8-1	Current Resident	1645 Lockhurst Ln.	Cincinnati, OH 41214	Owner and Occupant				1						
	3-8-2	Current Resident	1647 Lockhurst Ln.	Cincinnati, OH 41214	Occupant			1							
	3-8-3	Current Resident	1649 Lockhurst Ln.	Cincinnati, OH 41214	Occupant			1							
	3-8-4	Current Resident	1651 Lockhurst Ln.	Cincinnati, OH 41214	Occupant			1							
	3-8-5	Current Resident	1653 Lockhurst Ln.	Cincinnati, OH 41214	Occupant			1							
	3-8-6	Current Resident	1655 Lockhurst Ln.	Cincinnati, OH 41214	Occupant			1							
	3-4-7	Cincinnati Metropolitan Housing Authority	897 Poplar Street	Cincinnati, OH 41214	Occupant				0						Votes captured in R3-4-7
	3-10-3	Current Resident	940 Poplar Street, Unit 101	Cincinnati, OH 45214	Occupant			1							
	3-10-4	Current Resident	940 Poplar Street, Unit 102	Cincinnati, OH 45214	Occupant			1							
	3-10-5	Current Resident	940 Poplar Street, Unit 103	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24, Returned
	3-10-6	Current Resident	940 Poplar Street, Unit 104	Cincinnati, OH 45214	Occupant	1		1		1					Sent 3.21.24
	3-10-7	Current Resident	940 Poplar Street, Unit 105	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-8	Current Resident	940 Poplar Street, Unit 106	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-9	Current Resident	940 Poplar Street, Unit 107	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-10	Current Resident	940 Poplar Street, Unit 108	Cincinnati, OH 45214	Occupant	1		1		1					Sent 3.21.24
	3-10-11	Current Resident	940 Poplar Street, Unit 109	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-12	Current Resident	940 Poplar Street, Unit 110	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-13	Current Resident	940 Poplar Street, Unit 111	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-14	Current Resident	940 Poplar Street, Unit 112	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-15	Current Resident	940 Poplar Street, Unit 113	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-16	Current Resident	940 Poplar Street, Unit 115	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-17	Current Resident	940 Poplar Street, Unit 116	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-18	Current Resident	940 Poplar Street, Unit 201	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-19	Current Resident	940 Poplar Street, Unit 202	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-20	Current Resident	940 Poplar Street, Unit 203	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-21	Current Resident	940 Poplar Street, Unit 204	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-22	Current Resident	940 Poplar Street, Unit 205	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-23	Current Resident	940 Poplar Street, Unit 206	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-24	Current Resident	940 Poplar Street, Unit 207	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-25	Current Resident	940 Poplar Street, Unit 208	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-26	Current Resident	940 Poplar Street, Unit 209	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
	3-10-27	Current Resident	940 Poplar Street, Unit 210	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24

NSA3-10

3-10-28	Current Resident	940 Poplar Street, Unit 211	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-29	Current Resident	940 Poplar Street, Unit 212	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-30	Current Resident	940 Poplar Street, Unit 213	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-31	Current Resident	940 Poplar Street, Unit 214	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-32	Current Resident	940 Poplar Street, Unit 301	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-33	Current Resident	940 Poplar Street, Unit 302	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-34	Current Resident	940 Poplar Street, Unit 303	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-35	Current Resident	940 Poplar Street, Unit 304	Cincinnati, OH 45214	Occupant	1		1		1					Sent 3.21.24
3-10-36	Current Resident	940 Poplar Street, Unit 305	Cincinnati, OH 45214	Occupant	1		1		1					Sent 3.21.24, "Lighting protection."
3-10-37	Current Resident	940 Poplar Street, Unit 306	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-38	Current Resident	940 Poplar Street, Unit 308	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-39	Current Resident	940 Poplar Street, Unit 309	Cincinnati, OH 45214	Occupant	1		1		1					Sent 3.21.24
3-10-40	Current Resident	940 Poplar Street, Unit 310	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24, returned. Vacant.
3-10-41	Current Resident	940 Poplar Street, Unit 311	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-42	Current Resident	940 Poplar Street, Unit 312	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-43	Current Resident	940 Poplar Street, Unit 313	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-44	Current Resident	940 Poplar Street, Unit 314	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-45	Current Resident	940 Poplar Street, Unit 315	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-46	Current Resident	940 Poplar Street, Unit 317	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-47	Current Resident	940 Poplar Street, Unit 318	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-48	Current Resident	940 Poplar Street, Unit 401	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-49	Current Resident	940 Poplar Street, Unit 402	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-50	Current Resident	940 Poplar Street, Unit 403	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-51	Current Resident	940 Poplar Street, Unit 404	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-52	Current Resident	940 Poplar Street, Unit 405	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-53	Current Resident	940 Poplar Street, Unit 406	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-54	Current Resident	940 Poplar Street, Unit 407	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-55	Current Resident	940 Poplar Street, Unit 408	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-56	Current Resident	940 Poplar Street, Unit 409	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-57	Current Resident	940 Poplar Street, Unit 410	Cincinnati, OH 45214	Occupant	1		1		1					Sent 3.21.24, "Absolutely needed!"
3-10-58	Current Resident	940 Poplar Street, Unit 411	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-59	Current Resident	940 Poplar Street, Unit 412	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-60	Current Resident	940 Poplar Street, Unit 413	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-61	Current Resident	940 Poplar Street, Unit 414	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-62	Current Resident	940 Poplar Street, Unit 415	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-63	Current Resident	940 Poplar Street, Unit 416	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-64	Current Resident	940 Poplar Street, Unit 417	Cincinnati, OH 45214	Occupant			1							Sent 3.21.24
3-10-2	Sands Senior Apartments LP	333 North Pennsylvania St	Indianapolis, IN 46204	Owner				62						
					8	1	74	83	8	1	0	0	0	

Noise PI Survey Response Tracking

From Guidance: Owner will have the same number of votes as there are number of dwelling units and each rental unit will have one vote per unit.

Property Information						Survey									
Rec #	Card Code	Name	Site Address	City, State, Zip	Relationship	Resident Ballot Returned?	Owner Ballot Returned?	# of possible renter votes	# of possible owner votes	Resident Yes	Owner Yes	Resident No	Owner No	No Opinion	Notes
Noise Barrier NSA 4															
NSA4-4	4-4-1	Current Resident	(Building) 1540 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-4-2	Current Resident	(Building) 1540 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant			1							
	4-4-3	Current Resident	(Building) 1540 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant			1							Returned. Refused mail.
	4-4-4	Current Resident	(Building) 1540 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-4-5	Current Resident	(Building) 1540 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							Returned. Vacant.
	4-4-6	Current Resident	(Building) 1540 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-4-7	Current Resident	(Building) 1540 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-4-8	Current Resident	(Building) 1540 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant			1							
NSA4-5	4-5-1	Current Resident	(Building) 1520 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-5-2	Current Resident	(Building) 1520 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant			1							
	4-5-3	Current Resident	(Building) 1520 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant	1		1		1					"I have been living at this location for many years. And have long wished there was something to freak the noise/traffic from the interstate. This would be a welcoming project. Thank you."
	4-5-4	Current Resident	(Building) 1520 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-5-5	Current Resident	(Building) 1520 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							
	4-5-6	Current Resident	(Building) 1520 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-5-7	Current Resident	(Building) 1520 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-5-8	Current Resident	(Building) 1520 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant			1							Returned. Undeliverable as addressed.
NSA4-6	4-6-1	Current Resident	(Building) 1508 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-6-2	Current Resident	(Building) 1508 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant			1							
	4-6-3	Current Resident	(Building) 1508 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant			1							
	4-6-4	Current Resident	(Building) 1508 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-6-5	Current Resident	(Building) 1508 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							
	4-6-6	Current Resident	(Building) 1508 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-6-7	Current Resident	(Building) 1508 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-6-8	Current Resident	(Building) 1508 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant	1		1		1					Noted that address should be 1508 Dudley Walk #H
NSA4-7	4-7-1	Current Resident	(Building) 1502 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-7-2	Current Resident	(Building) 1502 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant			1							
	4-7-3	Current Resident	(Building) 1502 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant			1							
	4-7-4	Current Resident	(Building) 1502 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-7-5	Current Resident	(Building) 1502 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							
	4-7-6	Current Resident	(Building) 1502 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-7-7	Current Resident	(Building) 1502 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-7-8	Current Resident	(Building) 1502 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant			1							
NSA4-8	4-8-1	Current Resident	(Building) 1490 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-8-2	Current Resident	(Building) 1490 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant			1							
	4-8-3	Current Resident	(Building) 1490 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant	1		1		1					
	4-8-4	Current Resident	(Building) 1490 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-8-5	Current Resident	(Building) 1490 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							
	4-8-6	Current Resident	(Building) 1490 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-8-7	Current Resident	(Building) 1490 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-8-8	Current Resident	(Building) 1490 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant			1							

NSA4-9	4-9-1	Current Resident	(Building)1482 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-9-2	Current Resident	(Building)1482 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant	1		1		1					
	4-9-3	Current Resident	(Building)1482 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant			1							
	4-9-4	Current Resident	(Building)1482 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-9-5	Current Resident	(Building)1482 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							
	4-9-6	Current Resident	(Building)1482 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-9-7	Current Resident	(Building)1482 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-9-8	Current Resident	(Building)1482 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant			1							
NSA4-12	4-12-1	Current Resident	(Building) 880 Wade Walk, Unit A	Cincinnati, OH 45214	Occupant			1							
	4-12-2	Current Resident	(Building) 880 Wade Walk, Unit B	Cincinnati, OH 45214	Occupant			1							
	4-12-3	Current Resident	(Building) 880 Wade Walk, Unit C	Cincinnati, OH 45214	Occupant			1							
	4-12-4	Current Resident	(Building) 880 Wade Walk, Unit D	Cincinnati, OH 45214	Occupant			1							
	4-12-5	Current Resident	(Building) 880 Wade Walk, Unit E	Cincinnati, OH 45214	Occupant			1							
	4-12-6	Current Resident	(Building) 880 Wade Walk, Unit F	Cincinnati, OH 45214	Occupant			1							
	4-12-7	Current Resident	(Building) 880 Wade Walk, Unit G	Cincinnati, OH 45214	Occupant			1							
	4-12-8	Current Resident	(Building) 880 Wade Walk, Unit H	Cincinnati, OH 45214	Occupant			1							
NSA4-15	4-15-1	Current Resident	(Building) 1528 Wade Walk, Unit A	Cincinnati, OH 45219	Occupant			1							
	4-15-2	Current Resident	(Building) 1528 Wade Walk, Unit B	Cincinnati, OH 45219	Occupant			1							
	4-15-3	Current Resident	(Building) 1528 Wade Walk, Unit C	Cincinnati, OH 45219	Occupant			1							
	4-15-4	Current Resident	(Building) 1528 Wade Walk, Unit D	Cincinnati, OH 45219	Occupant			1							
	4-15-5	Current Resident	(Building) 1528 Wade Walk, Unit E	Cincinnati, OH 45219	Occupant			1							
	4-15-6	Current Resident	(Building) 1528 Wade Walk, Unit F	Cincinnati, OH 45219	Occupant	1		1		1					
NSA4-16	4-16-1	Current Resident	(Building) 1516 Wade Walk, Unit A	Cincinnati, OH 45220	Occupant			1							
	4-16-2	Current Resident	(Building) 1516 Wade Walk, Unit B	Cincinnati, OH 45220	Occupant			1							
	4-16-3	Current Resident	(Building) 1516 Wade Walk, Unit C	Cincinnati, OH 45220	Occupant			1							
	4-16-4	Current Resident	(Building) 1516 Wade Walk, Unit D	Cincinnati, OH 45220	Occupant			1							
	4-16-5	Current Resident	(Building) 1516 Wade Walk, Unit E	Cincinnati, OH 45220	Occupant			1							
	4-16-6	Current Resident	(Building) 1516 Wade Walk, Unit F	Cincinnati, OH 45220	Occupant			1							
NSA4-17	4-17-1	Current Resident	(Building) 1512 Dudley Walk, Unit A	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 3.20.24
	4-17-2	Current Resident	(Building) 1512 Dudley Walk, Unit B	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 4.1.24
	4-17-3	Current Resident	(Building) 1512 Dudley Walk, Unit C	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 3.20.24
	4-17-4	Current Resident	(Building) 1512 Dudley Walk, Unit D	Cincinnati, OH 45214	Occupant	1		1		1					Resent to correct address on 3.20.24, "How long will the barrier take to be constructed?".
	4-17-5	Current Resident	(Building) 1512 Dudley Walk, Unit E	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 3.20.24
	4-17-6	Current Resident	(Building) 1512 Dudley Walk, Unit F	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 3.20.24
	4-17-7	Current Resident	(Building) 1512 Dudley Walk, Unit G	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 3.20.24
	4-17-8	Current Resident	(Building) 1512 Dudley Walk, Unit H	Cincinnati, OH 45214	Occupant			1							Resent to correct address on 3.20.24
NSA4-22	4-22-1	Current Resident	(Building) 1532 Wade Walk, Unit A	Cincinnati, OH 45222	Occupant			1							
	4-22-2	Current Resident	(Building) 1532 Wade Walk, Unit B	Cincinnati, OH 45222	Occupant			1							
	4-22-3	Current Resident	(Building) 1532 Wade Walk, Unit C	Cincinnati, OH 45222	Occupant			1							
	4-22-4	Current Resident	(Building) 1532 Wade Walk, Unit D	Cincinnati, OH 45222	Occupant			1							
	4-22-5	Current Resident	(Building) 1532 Wade Walk, Unit E	Cincinnati, OH 45222	Occupant			1							
	4-22-6	Current Resident	(Building) 1532 Wade Walk, Unit F	Cincinnati, OH 45222	Occupant			1							
NSA 4	4-1	Park Town Co-op Homes	858 Wade Walk	Cincinnati, OH 45223	Owner				82						
					Total	6	0	82	82	6	0	0	0	0	

Noise PI Survey Response Tracking

From Guidance: Owner will have the same number of votes as there are number of dwelling units and each rental unit will have one vote per unit.

Property Information						Survey									
Rec #	Card Code	Name	Site Address	City, State, Zip	Relationship	Resident Ballot Returned?	Owner Ballot Returned?	# of possible renter votes	# of possible owner votes	Resident Yes	Owner Yes	Resident No	Owner No	No Opinion	Notes
Noise Barrier NSA 5															
NSA5-1	5-1-1	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-2	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-3	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-4	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-5	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-6	Current Resident	(Building) 885 Ezzard Charles Dr, Unit F	Cincinnati, OH 45203	Occupant	**1**		1		**1**					"Yhe expressway is already nosiy enough. Yes we need a noise barrier. One that id actually effective to us not being disturbed even more. Especially the 3rd shifters. "
	5-1-7	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-8	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-9	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-10	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-11	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-1-12	Current Resident	(Building) 885 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
NSA5-2	5-2-1	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-2	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-3	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-4	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-5	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-6	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-7	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-8	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-9	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-10	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-11	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-2-12	Current Resident	(Building) 877 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
NSA5-3	5-3-1	Current Resident	(Building) 862 Clark St, Unit A	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-2	Current Resident	(Building) 862 Clark St, Unit B	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-3	Current Resident	(Building) 862 Clark St, Unit C	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24, returned. Not deliverable as addressed.
	5-3-4	Current Resident	(Building) 862 Clark St, Unit D	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-5	Current Resident	(Building) 862 Clark St, Unit E	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24, returned. Undeliverable as addressed.
	5-3-6	Current Resident	(Building) 862 Clark St, Unit F	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-7	Current Resident	(Building) 862 Clark St, Unit G	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-8	Current Resident	(Building) 862 Clark St, Unit H	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-9	Current Resident	(Building) 862 Clark St, Unit J	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-10	Current Resident	(Building) 862 Clark St, Unit K	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-11	Current Resident	(Building) 862 Clark St, Unit L	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-3-12	Current Resident	(Building) 862 Clark St, Unit M	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-1	Current Resident	(Building) 870 Clark St, Unit A	Cincinnati, OH 45203	Occupant	**1**		1		**1**					Resent to correct address on 3.20.24. "Yes. I live in the apartments by the highway on Winchell Ave. and the highway is super loud and noisy."

NSA5-4	5-4-2	Current Resident	(Building) 870 Clark St, Unit B	Cincinnati, OH 45203	Occupant	**1**		1		**1**					Resent to correct address on 3.20.24. "We already hear a lot of noise from I-75 if they do construction it would be really unbearable because my apartment is right by the expressway thank you for considering this"
	5-4-3	Current Resident	(Building) 870 Clark St, Unit C	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-4	Current Resident	(Building) 870 Clark St, Unit D	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-5	Current Resident	(Building) 870 Clark St, Unit E	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-6	Current Resident	(Building) 870 Clark St, Unit F	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-7	Current Resident	(Building) 870 Clark St, Unit G	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-8	Current Resident	(Building) 870 Clark St, Unit H	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24, returned. Undeliverable as addressed.
	5-4-9	Current Resident	(Building) 870 Clark St, Unit J	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-10	Current Resident	(Building) 870 Clark St, Unit K	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-11	Current Resident	(Building) 870 Clark St, Unit L	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-4-12	Current Resident	(Building) 870 Clark St, Unit M	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
NSA5-5	5-5-1	Current Resident	(Building) 864 Clark St, Unit A	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-2	Current Resident	(Building) 864 Clark St, Unit B	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-3	Current Resident	(Building) 864 Clark St, Unit C	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-4	Current Resident	(Building) 864 Clark St, Unit D	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-5	Current Resident	(Building) 864 Clark St, Unit E	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-6	Current Resident	(Building) 864 Clark St, Unit F	Cincinnati, OH 45203	Occupant	**1**		1		**1**					Resent to correct address on 3.20.24
	5-5-7	Current Resident	(Building) 864 Clark St, Unit G	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24, returned. Undeliverable as addressed.
	5-5-8	Current Resident	(Building) 864 Clark St, Unit H	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-9	Current Resident	(Building) 864 Clark St, Unit J	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-10	Current Resident	(Building) 864 Clark St, Unit K	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-11	Current Resident	(Building) 864 Clark St, Unit L	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-5-12	Current Resident	(Building) 864 Clark St, Unit M	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
NSA5-6	5-6-1	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant	**1**		1		**1**					
	5-6-2	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-3	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant	**1**		1		**1**					"Please do"
	5-6-4	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-5	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-6	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-7	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-8	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-9	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-10	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-11	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
	5-6-12	Current Resident	(Building) 865 Ezzard Charles Dr,	Cincinnati, OH 45203	Occupant			1							
NSA 5	5-1	BH New Arts LP	8902 North Meridan	Indianapolis, IN 46260	Owner		1		72		**72**				
	5-18-1	Current Resident	898 W. Court St., Unit 101	Cincinnati, OH 45203	Occupant			1							
	5-18-2	Current Resident	898 W. Court St., Unit 102	Cincinnati, OH 45203	Occupant			1							
	5-18-3	Current Resident	898 W. Court St., Unit 103	Cincinnati, OH 45203	Occupant			1							
	5-18-4	Current Resident	898 W. Court St., Unit 104	Cincinnati, OH 45203	Occupant			1							
	5-18-5	Current Resident	899 W. Court St., Unit 105	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-18-6	Current Resident	899 W. Court St., Unit 106	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-18-7	Current Resident	899 W. Court St., Unit 107	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-18-8	Current Resident	899 W. Court St., Unit 108	Cincinnati, OH 45203	Occupant			1							Resent to correct address on 3.20.24
	5-18-9	Current Resident	898 W. Court St., Unit 116	Cincinnati, OH 45203	Occupant			1							
	5-18-10	Current Resident	898 W. Court St., Unit 117	Cincinnati, OH 45203	Occupant			1							
	5-18-11	Current Resident	898 W. Court St., Unit 118	Cincinnati, OH 45203	Occupant			1							
	5-18-12	Current Resident	898 W. Court St., Unit 119	Cincinnati, OH 45203	Occupant			1							

	5-18-13	Current Resident	899 W. Court St., Unit 120	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-14	Current Resident	899 W. Court St., Unit 121	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-15	Current Resident	899 W. Court St., Unit 122	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-16	Current Resident	899 W. Court St., Unit 123	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-17	Current Resident	898 W. Court St., Unit 201	Cincinnati, OH 45203	Occupant			1								
	5-18-18	Current Resident	898 W. Court St., Unit 202	Cincinnati, OH 45203	Occupant			1								
	5-18-19	Current Resident	898 W. Court St., Unit 203	Cincinnati, OH 45203	Occupant			1								
	5-18-20	Current Resident	898 W. Court St., Unit 204	Cincinnati, OH 45203	Occupant	**1**		1		**1**						
	5-18-21	Current Resident	899 W. Court St., Unit 205	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-22	Current Resident	899 W. Court St., Unit 206	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-23	Current Resident	899 W. Court St., Unit 207	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-24	Current Resident	899 W. Court St., Unit 208	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-25	Current Resident	899 W. Court St., Unit 209	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-26	Current Resident	899 W. Court St., Unit 210	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-27	Current Resident	899 W. Court St., Unit 211	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-28	Current Resident	899 W. Court St., Unit 212	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-29	Current Resident	899 W. Court St., Unit 213	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-30	Current Resident	899 W. Court St., Unit 214	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
NSA5-18/19	5-18-31	Current Resident	899 W. Court St., Unit 215	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-32	Current Resident	898 W. Court St., Unit 216	Cincinnati, OH 45203	Occupant			1								
	5-18-33	Current Resident	898 W. Court St., Unit 217	Cincinnati, OH 45203	Occupant			1								
	5-18-34	Current Resident	898 W. Court St., Unit 218	Cincinnati, OH 45203	Occupant			1								
	5-18-35	Current Resident	898 W. Court St., Unit 219	Cincinnati, OH 45203	Occupant			1								
	5-18-36	Current Resident	899 W. Court St., Unit 220	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-37	Current Resident	899 W. Court St., Unit 221	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-38	Current Resident	899 W. Court St., Unit 222	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-39	Current Resident	899 W. Court St., Unit 223	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-40	Current Resident	898 W. Court St., Unit 301	Cincinnati, OH 45203	Occupant	**1**		1				**1**				"That's what gives this street flava the expressway noise "
	5-18-41	Current Resident	898 W. Court St., Unit 302	Cincinnati, OH 45203	Occupant	**1**		1		**1**						
	5-18-42	Current Resident	898 W. Court St., Unit 303	Cincinnati, OH 45203	Occupant			1								
	5-18-43	Current Resident	898 W. Court St., Unit 304	Cincinnati, OH 45203	Occupant			1								
	5-18-44	Current Resident	899 W. Court St., Unit 305	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-45	Current Resident	899 W. Court St., Unit 306	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-46	Current Resident	899 W. Court St., Unit 307	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-47	Current Resident	899 W. Court St., Unit 308	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-48	Current Resident	899 W. Court St., Unit 309	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-49	Current Resident	899 W. Court St., Unit 310	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-50	Current Resident	899 W. Court St., Unit 311	Cincinnati, OH 45203	Occupant	**1**		1							**1**	Resent to correct address on 3.20.24, "Like, zero clue…"
	5-18-51	Current Resident	899 W. Court St., Unit 312	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-52	Current Resident	899 W. Court St., Unit 313	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-53	Current Resident	899 W. Court St., Unit 314	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-54	Current Resident	899 W. Court St., Unit 315	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-55	Current Resident	898 W. Court St., Unit 316	Cincinnati, OH 45203	Occupant			1								
	5-18-56	Current Resident	898 W. Court St., Unit 317	Cincinnati, OH 45203	Occupant			1								
	5-18-57	Current Resident	898 W. Court St., Unit 318	Cincinnati, OH 45203	Occupant			1								
	5-18-58	Current Resident	898 W. Court St., Unit 319	Cincinnati, OH 45203	Occupant			1								
	5-18-59	Current Resident	899 W. Court St., Unit 320	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-60	Current Resident	899 W. Court St., Unit 321	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-61	Current Resident	899 W. Court St., Unit 322	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-62	Current Resident	899 W. Court St., Unit 323	Cincinnati, OH 45203	Occupant			1								Resent to correct address on 3.20.24
	5-18-63	Tender Mercies	27 West 12th Street	Cincinnati, Ohio 45202	Owner		**1**		62		62					

Total	10	2	134	134	8	134	1	0	1

Noise PI Survey Response Tracking

From Guidance: Owner will have the same number of votes as there are number of dwelling units and each rental unit will have one vote per unit.

Property Information						Survey									
Rec #	Card Code	Name	Site Address	City, State, Zip	Relationship	Resident Ballot Returned?	Owner Ballot Returned?	# of possible renter votes	# of possible owner votes	Resident Yes	Owner Yes	Resident No	Owner No	No Opinion	Notes
Noise Barrier NSA 6															
NSA6-	6-1	City of Cincinnati	801 Plum Street, Room 122	Cincinnati, OH	Owner				6						Park
					Total	0	0	0	6	0	0	0	0	0	

Appendix B:
West End Community Council Update Meeting Presentation
June 2024



BRENT SPENCE
BRIDGE CORRIDOR

West End Community Council Meeting

June 18, 2024

Department of Transportation

INVESTING IN LOCAL COMMUNITIES. GROWING AMERICA'S ECONOMY.

brentspencebridgecorridor.com

TEAM KENTUCKY
TRANSPORTATION CABINET

Agenda

- Project overview
- Environmental decision update
- Contract objectives
- Recommended innovations
- Environmental commitments
- Next steps





Project Overview

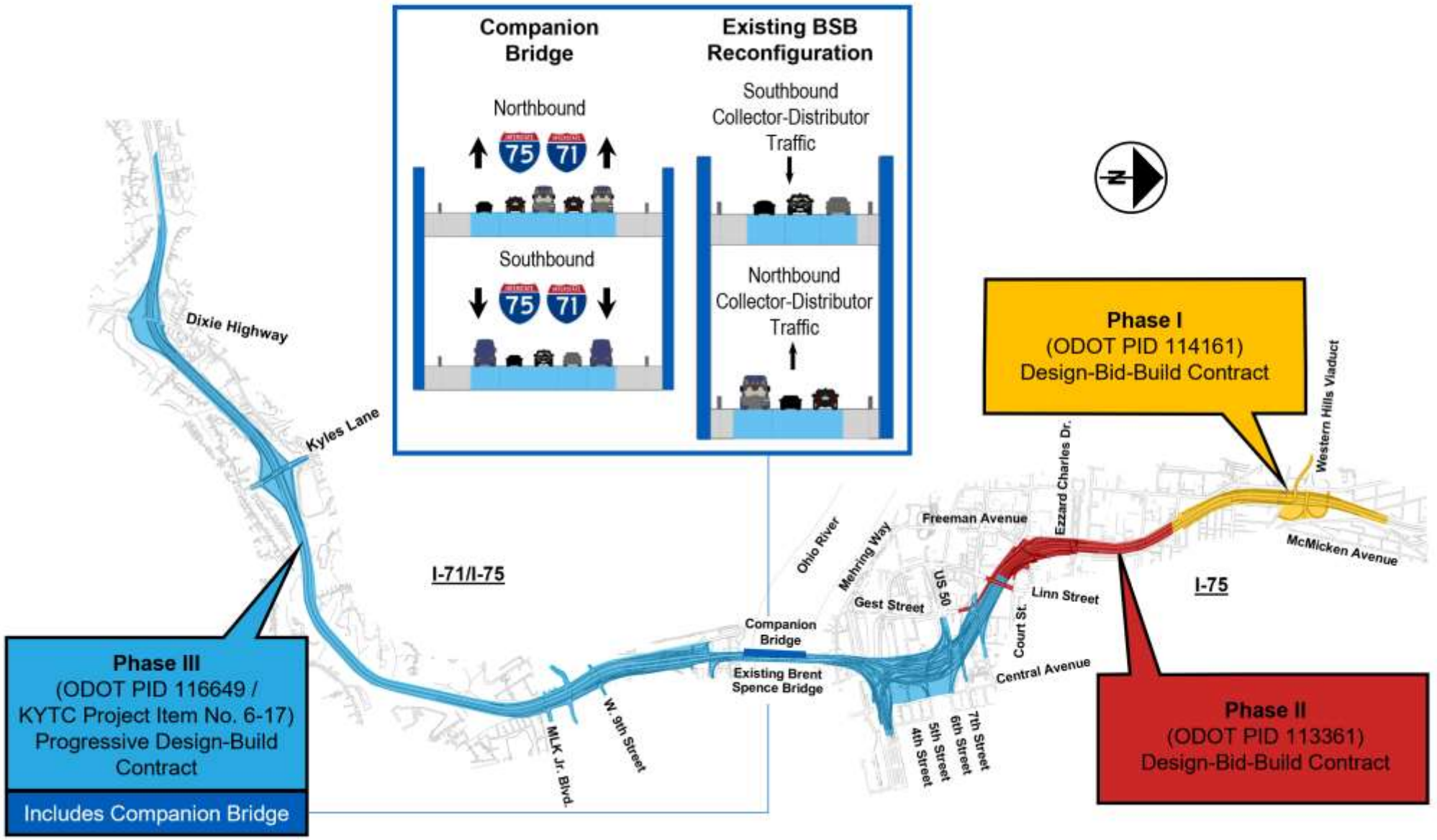
Project Overview

Purpose and Need

- Improve traffic flow and level of service
- Improve safety
- Correct geometric deficiencies
- Maintain connections to key regional and national transportation corridors



Project Overview

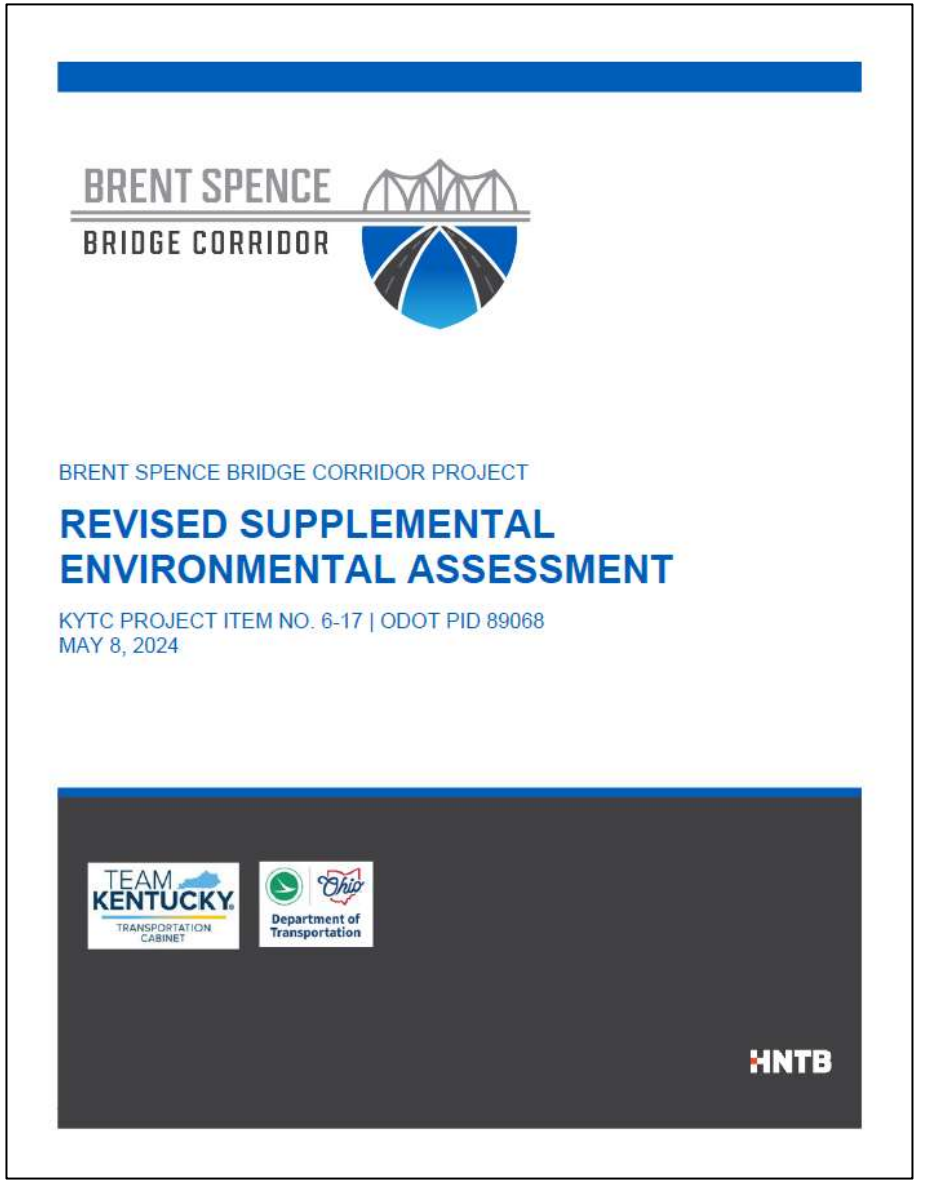




Environmental Decision Update

Environmental Decision Update

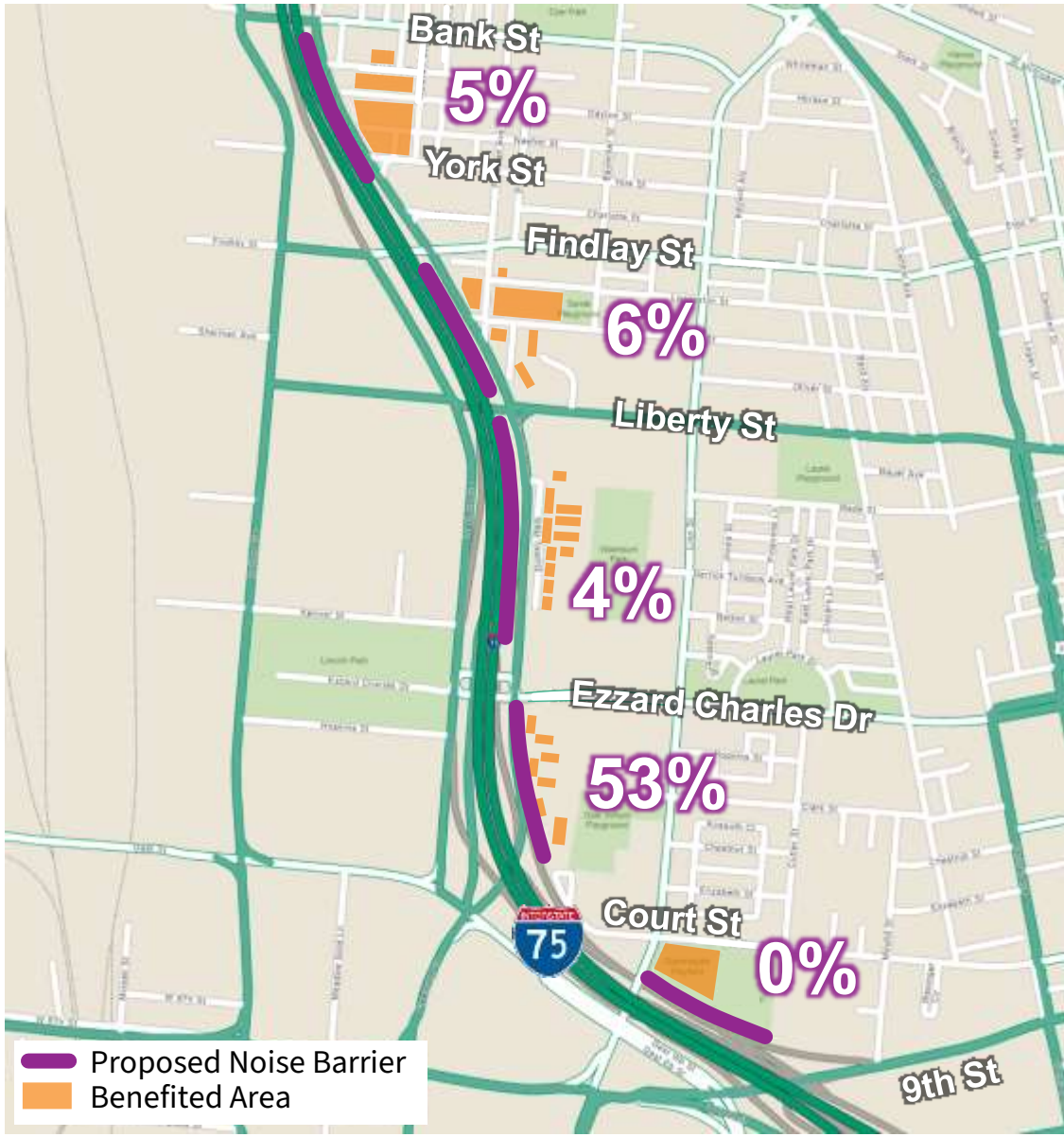
- 5 public hearings held in February 2024
  - 209 public comments (165 commenters)
  - 6 federal, state and local agency comments
- Responses prepared for all comments
- Minor updates to the Supplemental Environmental Assessment
- FHWA issued a Finding of No Significant Impact (FONSI) on May 8, 2024
- All documents on project website (www.brentspencebridgecorridor.com/documents)



Environmental Decision Update

Proposed Noise Barriers

- 5 proposed noise barriers in West End
- ODOT considers viewpoints of property owners and tenants who will benefit from the proposed noise barriers
- Surveys mailed March 2024
- Target response rate is > 50%
- Actual response rate 0-6%
- ODOT recommends moving forward with building noise barriers, despite low response rate



Environmental Decision Update

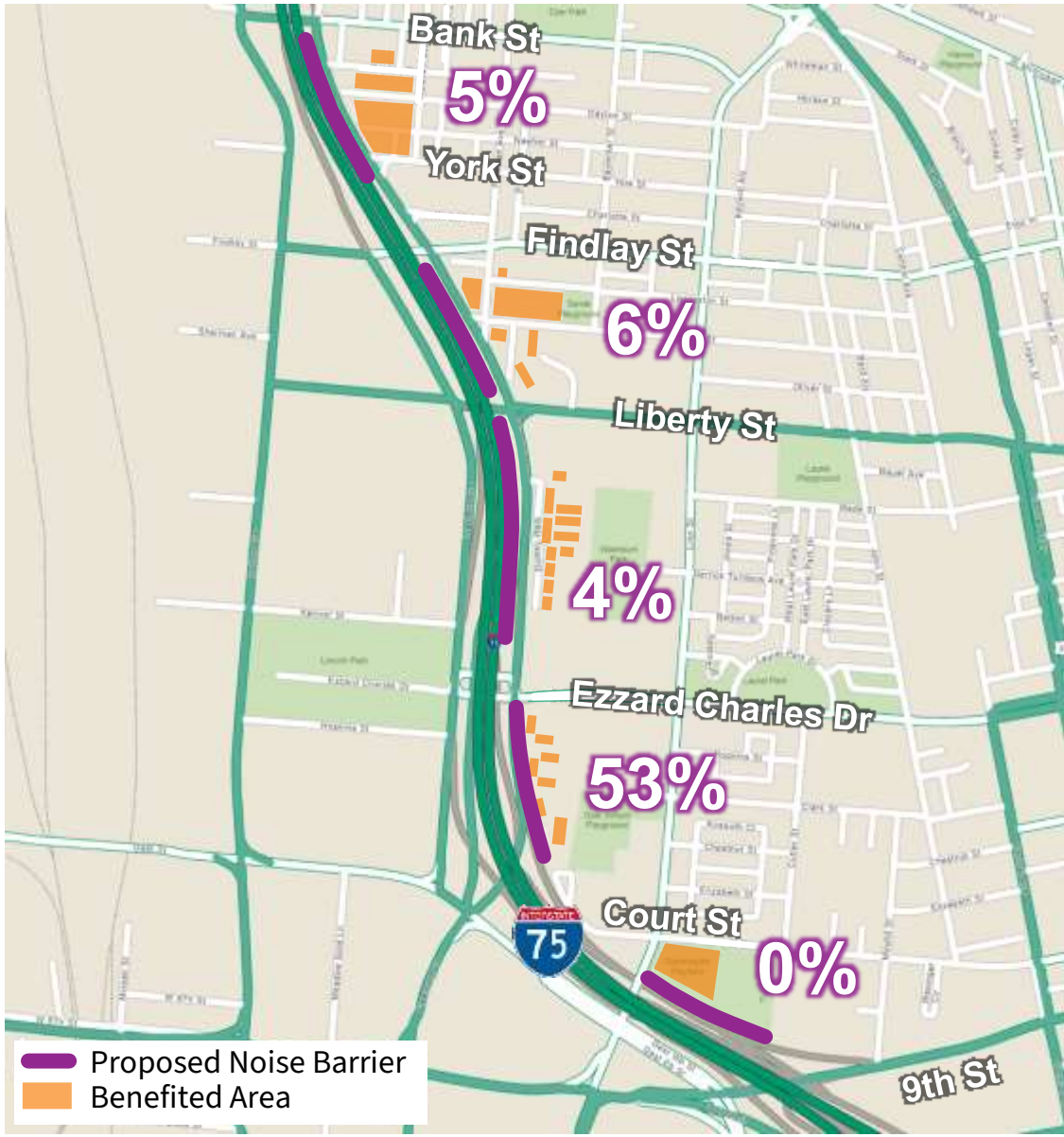
Proposed Noise Barriers

- Feedback from benefitted areas encouraged
- Any suggestions from West End Community Council?
- If there are questions, please contact:

Keith Smith, ODOT District 8

Keith.Smith@dot.ohio.gov

1-800-831-2142





Contract Objectives

Contract Objectives

- Maximize the project scope within the programmed funding amounts through innovation, design optimization and effective risk mitigation
- Achieve effective project delivery
- Open the new companion bridge to traffic in 2029
- Minimize traffic disruption during construction, with minimal detours or diversion of traffic to local streets
- Minimize physical intrusion and impact
- Maximize public investment by minimizing the footprint
- Minimize the footprint to maximize potential developable space
- Improve neighborhood connectivity across the interstate
- Build the project with a context sensitive design that fits within the community
- Provide strong aesthetic value
- Improve the local road aesthetics when crossing the interstate
- Provide opportunities for workforce development and DBE utilization
- Create best environmental outcomes
- Design for sustained quality of life





Landmark Opportunity for Diversity and Inclusion

- Historic federal investment in our region with guidelines and requirements for:
  - Disadvantaged Business Enterprise (DBE) participation
    - Phase 1: 9% goal
    - Phase 2: 7% target
  - Workforce development
    - On the job training: 15% target



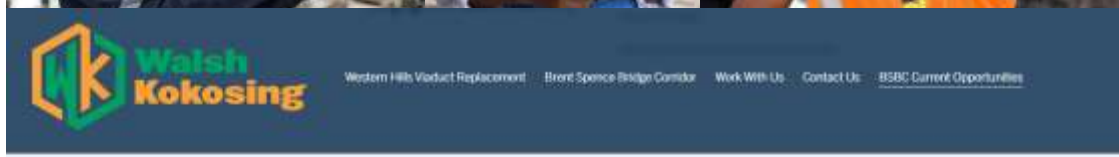


Snapshot of Opportunities

- ODOT has partnered with community action agencies and truck driving schools to offer CDL program to students; KYTC has a similar opportunity
- ODOT is partnering with the Urban League on the Building Futures program
- WKJV posts opportunities on their website; updated weekly!
- And more!







BSBC Current Bidding Opportunities

Scope Number	Scope Description	Price Range	Scope Status	Release for Bid	Quotes Due
15	Utility Design	$100,000 to $500,000	Not Released	TBD	TBD
16	Landscape/Aesthetic design	$100,000 to $500,000	Not Released	TBD	TBD
17	Electrical Design	$100,000 to $500,000	Not Released	TBD	TBD
20	Design Verification Review - Independent Design Quality Firm (IDQF) - Phase 1B	$1,000,000 to $5,000,000	Not Released	TBD	TBD
24	Office Cleaning	$0-$100,000	Invitation to Bid	5/29/2024	6/7/2024
25	Office Supplies	$0-$100,000	Invitation to Bid	1/1/2024	Ongoing
26	Catering/Event Planning	$0-$100,000	Invitation to Bid	1/11/2024	Ongoing
27	Project DBE/EEO Compliance Consultant	$100,000 to $500,000	Invitation to Bid	1/11/2024	Ongoing
28	Printing/Plan production	$0-$100,000	Invitation to Bid	1/11/2024	Ongoing
29	Project Website/Social Media/Graphic Design	$0-$100,000	Not Released	Q2 2024	TBD
30	Public Information/Outreach/marketing	$0-$100,000	Not Released	Q2 2024	TBD



Recommended Innovations

Recommended Innovations

Kentucky

1. Vertical profile optimization
2. Pike Street access optimization
3. Hillside cut alignment shift

Ohio

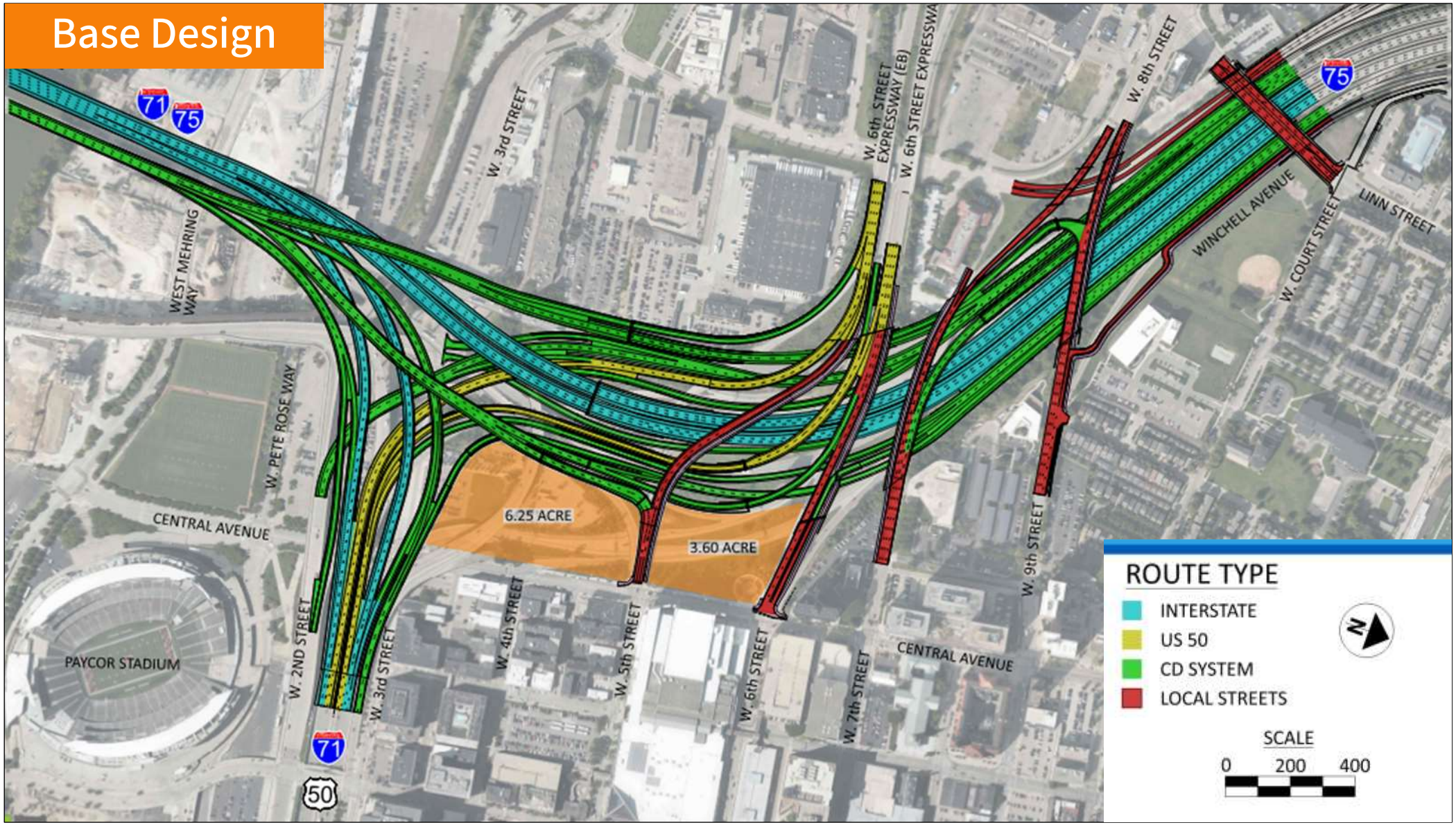
1. Southbound roadway reconfiguration
2. Combination of 2nd and 3rd Street connections
3. US-50 roadway consolidation
4. Realization of street grid concept



Ohio Recommended Innovations



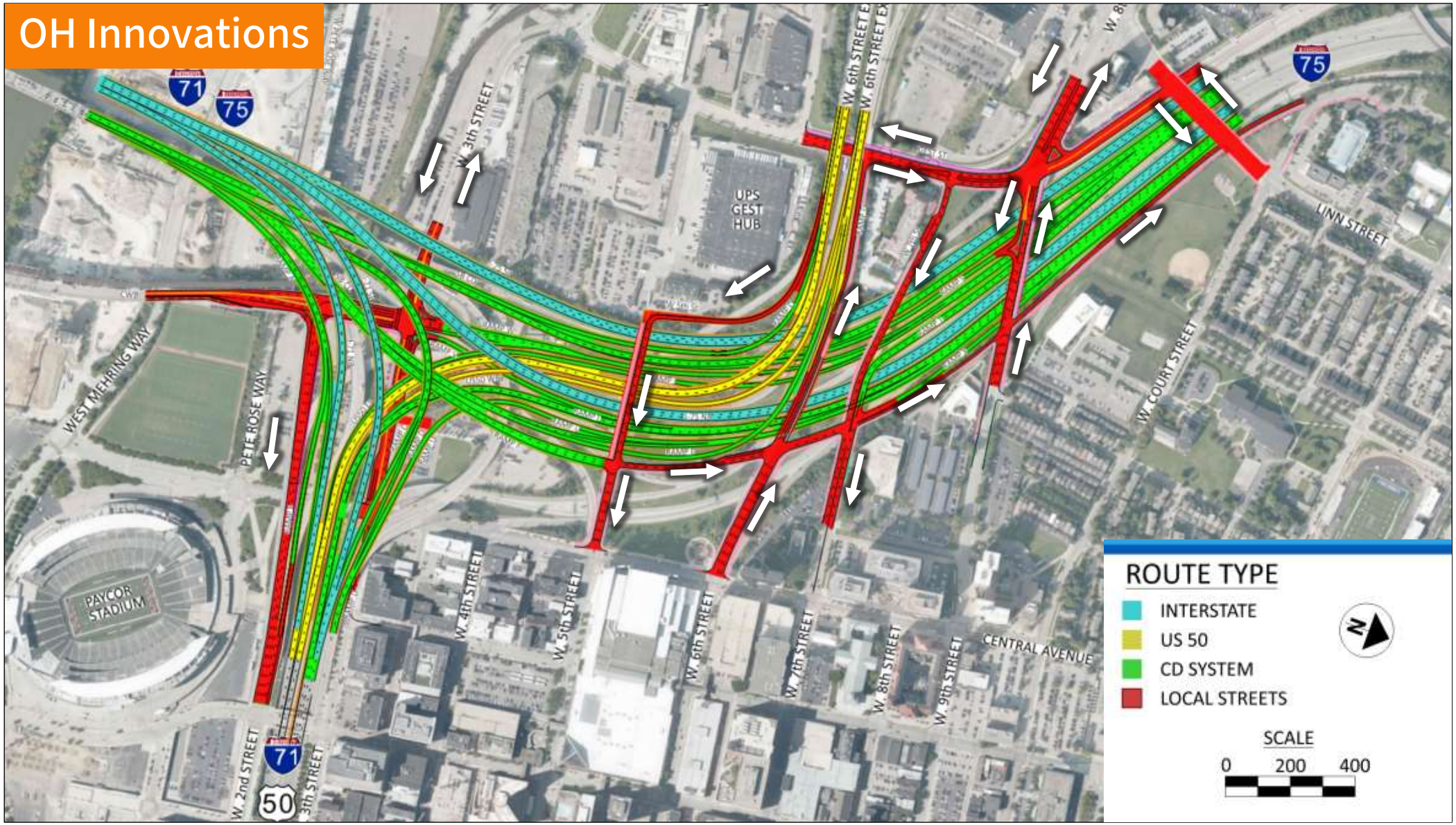
Base Design



Ohio Recommended Innovations



OH Innovations



Ohio Recommended Innovations



1 | Southbound Roadway Reconfiguration

- Southbound I-71/I-75 moved to outside
- Southbound collector-distributor roadway moved to inside
- Southbound I-75 constructed offline
- Simplified constructability
- Reduces cost
- Improves safety



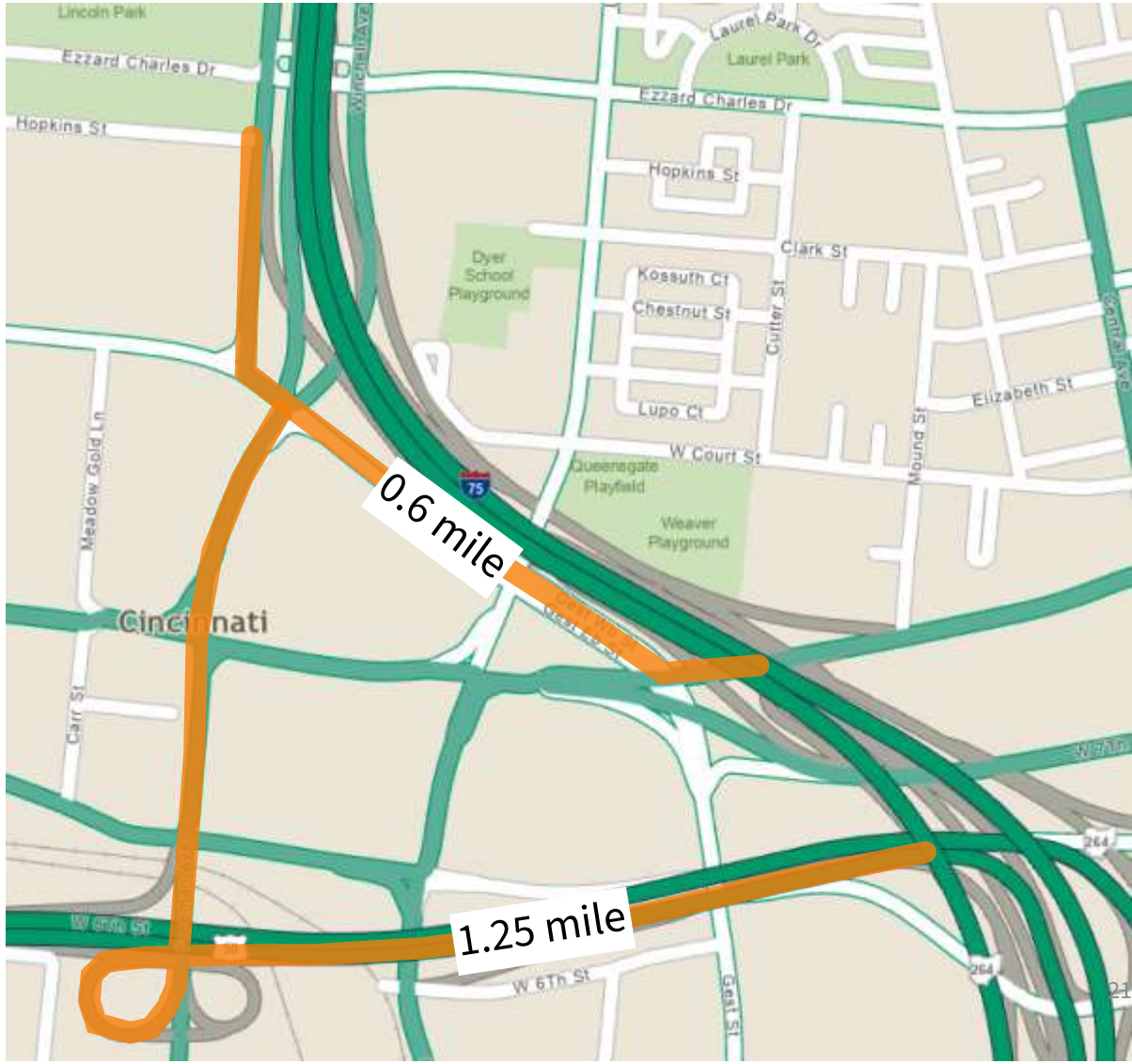




Ohio Recommended Innovations

1 | Southbound Roadway Reconfiguration

- Western Avenue ramp to southbound I-75 removed
- Alternate routes
  - Proposed 9th Street entrance (+0.6 mile)
  - Existing Freeman Avenue interchange (+1.25 mile)
- Low volumes
  - 300 vehicles in PM peak hour





Ohio Recommended Innovations

2 | Combination of 2nd and 3rd Street Connections

- Traffic rerouted through upgraded at-grade 2nd and 3rd Street intersections



3 | US-50 Roadway Consolidation

- Reconfigure US-50 eastbound and westbound to follow a single alignment
- Reduces footprint

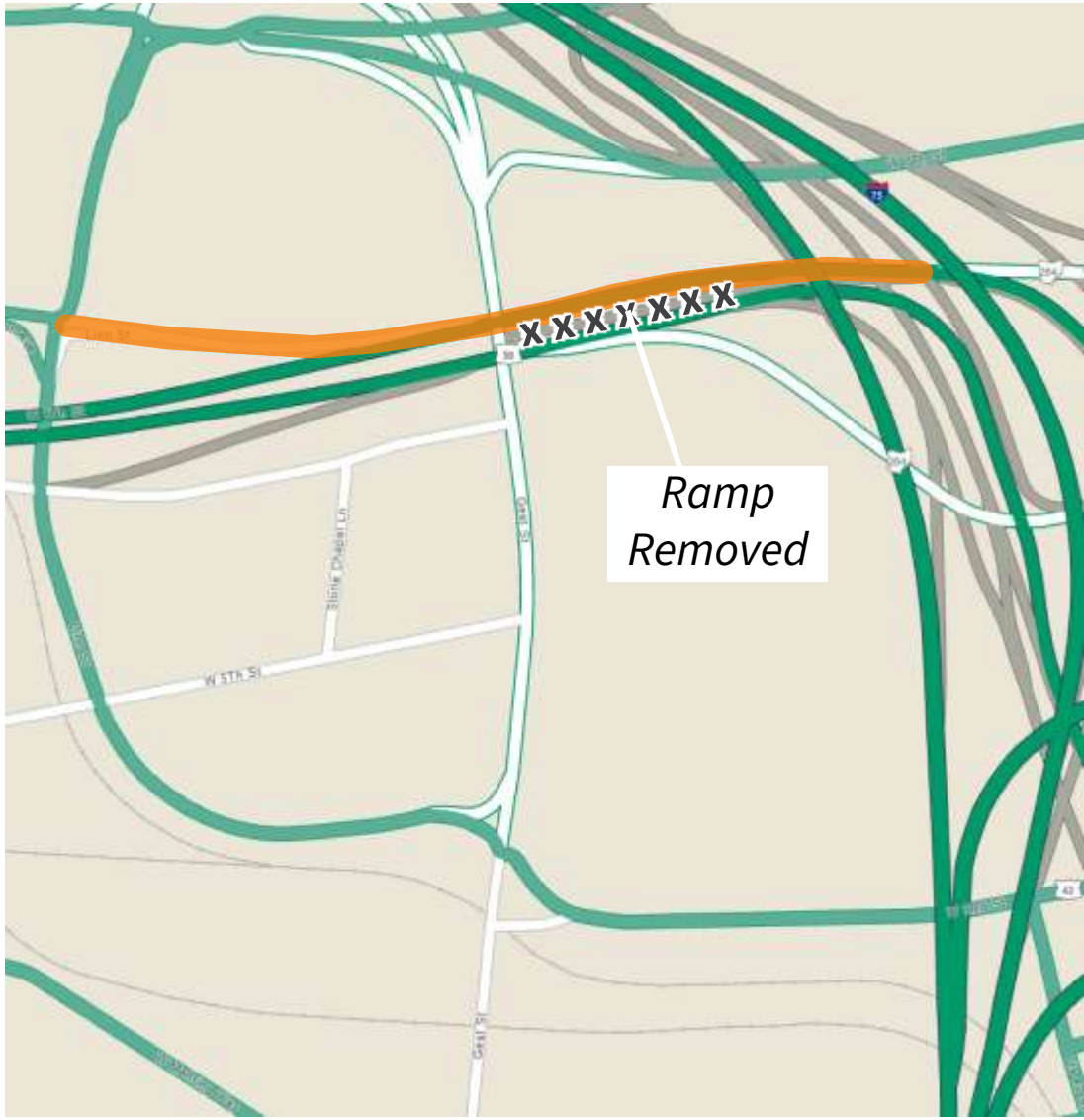


Ohio Recommended Innovations



3 | US-50 Roadway Consolidation

- Ramp from westbound US-50 to Gest Street removed
- Traffic rerouted to existing Linn Street exit
- Relatively low volumes
  - 580 vehicles in the AM peak hour

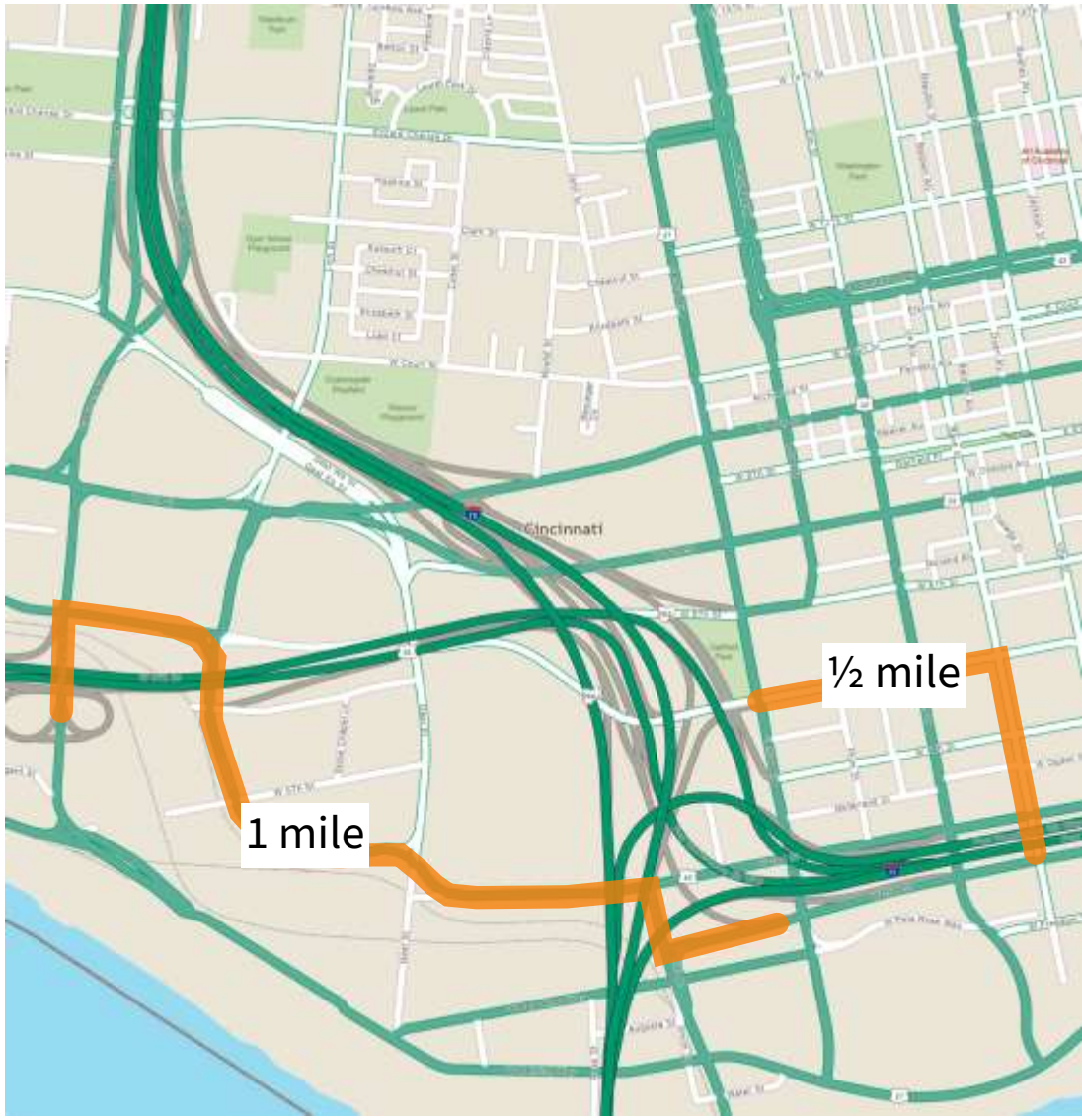


Ohio Recommended Innovations



3 | US-50 Roadway Consolidation

- Ramp from eastbound US-50 to 2nd Street removed
- Alternate routes
  - Existing Freeman Avenue exit (+1 mile)
  - 5th Street exit (+1/2 mile)
- Low volumes
  - 220 vehicles in AM peak hour
  - 90 vehicles in PM peak hour



Ohio Recommended Innovations



4 | Realization of Street Grid Concept

- Improves connections to Queensgate for all modes of travel
- Shortens pedestrian crossing from downtown to Queensgate
- Condenses interchange footprint
- May open up additional developable land







Ohio Recommended Innovations

4 | Realization of Street Grid Concept

Base Design



OH Innovation 4



Ohio Recommended Innovations



4 | Realization of Street Grid Concept





Environmental Commitments

Environmental Commitments

- Commitments to be carried out by KYTC and ODOT as the project progresses through detailed design and construction
- 62 total environmental commitments
  - Commitment 1: Innovation process
  - Commitment 31: Display in West End
  - Commitment 51: Specific design refinements to be evaluated

Environmental Commitment 31

In recognition of the history of city-sponsored urban renewal and the original Mill Creek Expressway (I-75) construction and as an enhancement in the West End neighborhood, ODOT will work with the City of Cincinnati, which includes the West End Community Council, to develop content for an interpretive display describing the West End community in relation to historic city urban renewal and the Millcreek Expressway construction and to identify a location in proximity to the I-75 corridor to install the display.

Environmental Commitments

- Commitments to be carried out by KYTC and ODOT as the project progresses through detailed design and construction
- 62 total environmental commitments
  - Commitment 1: Innovation process
  - Commitment 31: Display in West End
  - Commitment 51: Specific design refinements to be evaluated

Environmental Commitment 51

The following refinements suggested during public involvement activities will be further evaluated during the innovation process for the Phase III progressive design-build contract:

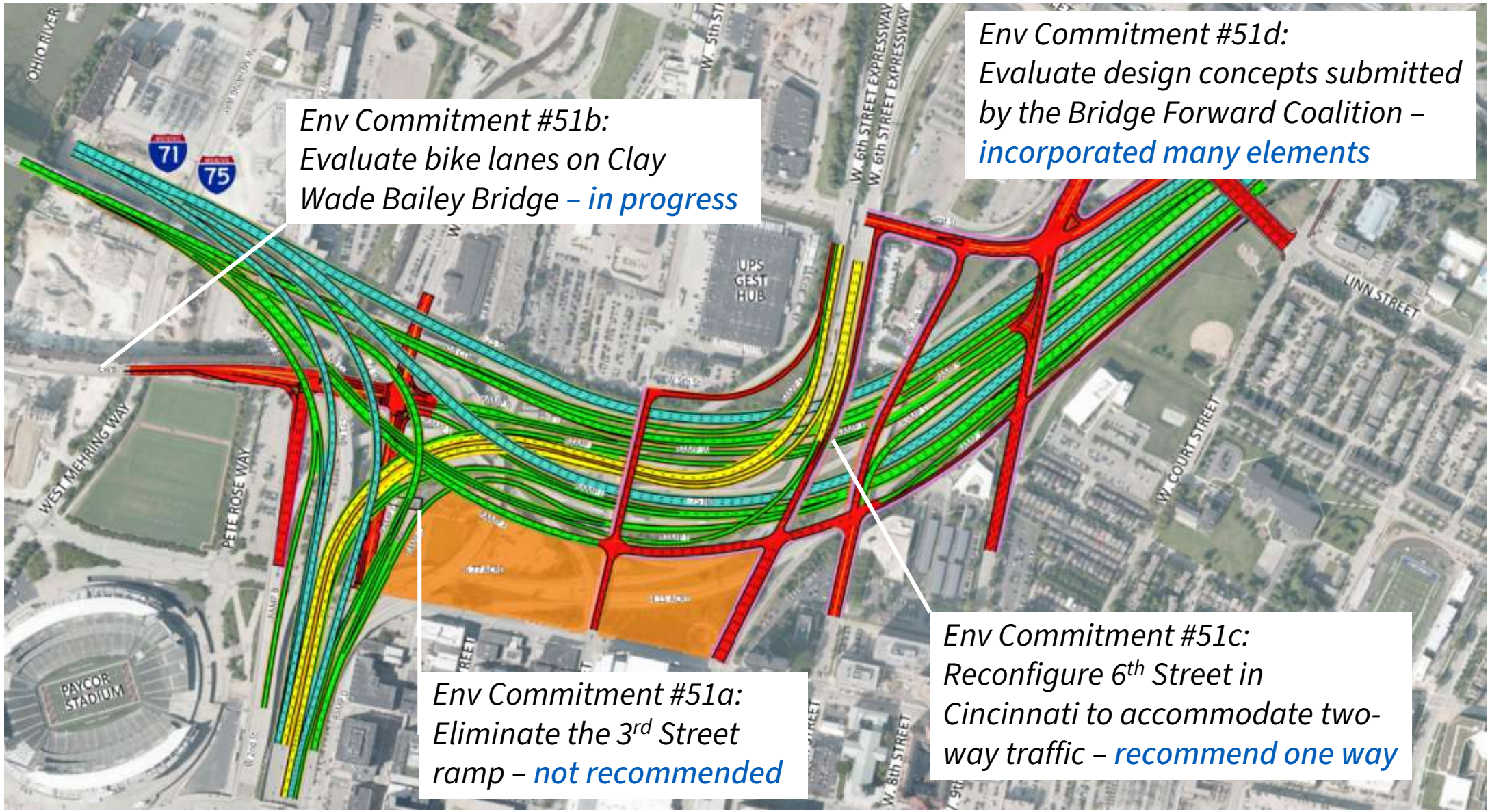
a. Eliminate the 3rd Street ramp to the northbound collector-distributor system in Cincinnati and redirect traffic to the proposed connection at the end of the Clay Wade Bailey Bridge;

b. Reconfigure the lanes on the Clay Wade Bailey Bridge to add bicycle lanes;

c. Reconfigure 6th Street in Cincinnati to accommodate two-way traffic; and

d. Design concepts submitted by the Bridge Forward Coalition.

Environmental Commitments



Env Commitment #51b:
Evaluate bike lanes on Clay Wade Bailey Bridge – in progress

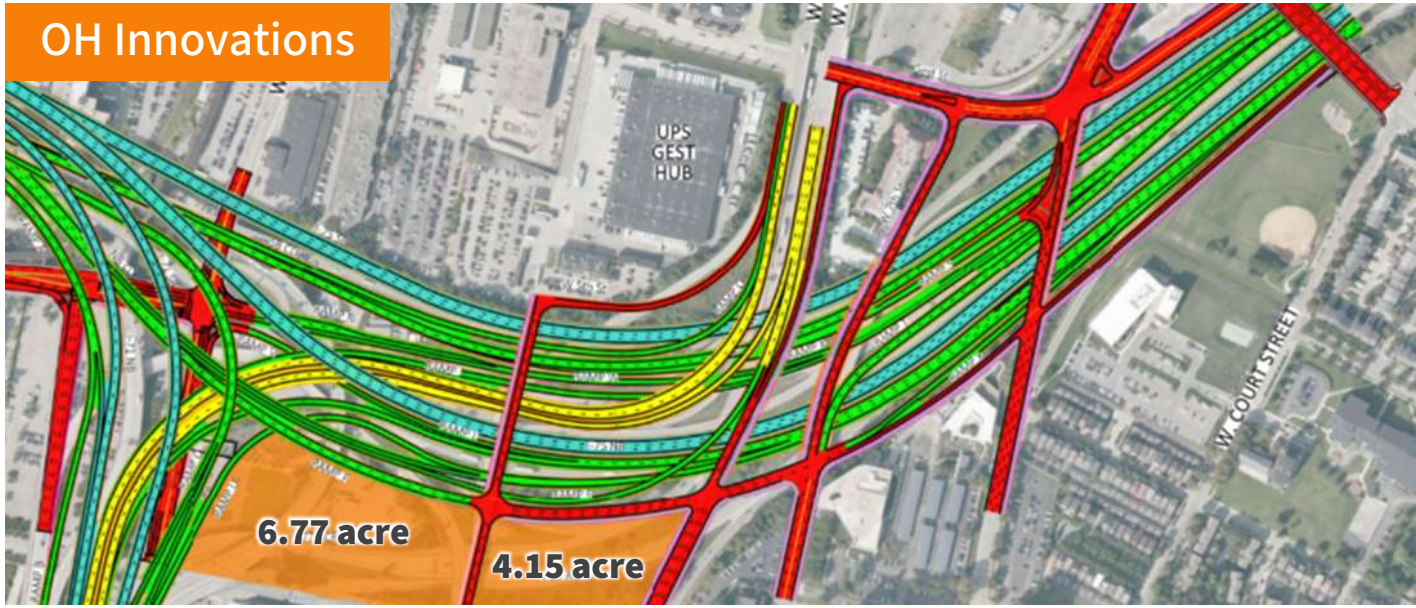
Env Commitment #51d:
Evaluate design concepts submitted by the Bridge Forward Coalition – incorporated many elements

Env Commitment #51a:
Eliminate the 3rd Street ramp – not recommended

Env Commitment #51c:
Reconfigure 6th Street in Cincinnati to accommodate two-way traffic – recommend one way

Environmental Commitments

- Recommended Ohio innovations and Bridge Forward design accomplish many of the same goals





Environmental Commitments

	Operation	Reconnecting Communities	Pedestrian Access	Developable Land	Constructability	Safety	Cost	Schedule
MEETS OR EXCEEDS OBJECTIVES	IN Similar to base design.	IN BF Queensgate connections via 6th, 7th, and 9th. Allows for future extension of 5th.	IN BF CBD to Queensgate connection approximately **575ft**/**460ft** along 5th.	IN BF **11 acres**/ **14 acres**	IN Larger work area. Less temporary pavement. Reduced traffic impacts during construction.	IN Less overhead work. Improved safety for motoring public. Contractor preferred for worker safety.	IN 1% decrease	IN Comparable to base design.
DOES NOT MEET OBJECTIVES	Cannot function as submitted. Operations fail even with significant design changes. BF				Constrained work area. Trench work area. Multi-level construction. BF	Increased worker and motoring public exposure to high-risk traffic conditions. BF	25-30% increase BF	Additional 1-2 years. BF

Recommended Ohio Innovations IN

Bridge Forward Concept BF



Next Steps

Next Steps

- Conduct outreach to community councils, neighborhood groups, and other stakeholders
- Update and confirm traffic and environmental studies for the recommended innovations
- Proceed to detailed design (Phase III)
  - 30% plans by August 2024
  - Contractual estimate update
  - Identify early work packages
- City of Cincinnati is updating the 2011 planning study, often referred to as “Revive 75”



BRENT SPENCE
BRIDGE CORRIDOR

THANK YOU!

www.brentspencebridgecorridor.com

Ohio Department of Transportation

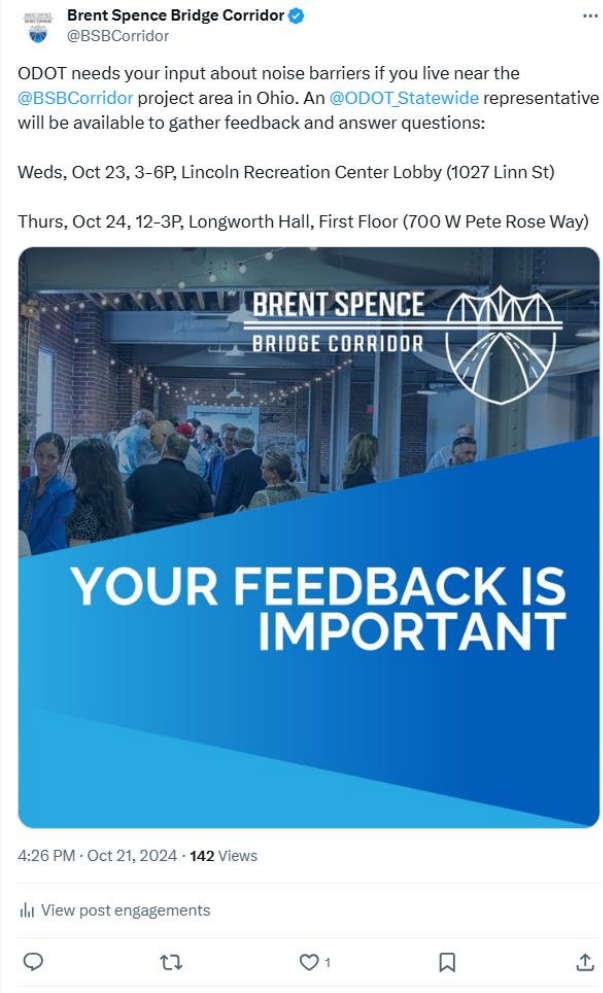
TEAM KENTUCKY
TRANSPORTATION CABINET

Appendix C:
Social Media and Email Communication
October 2024

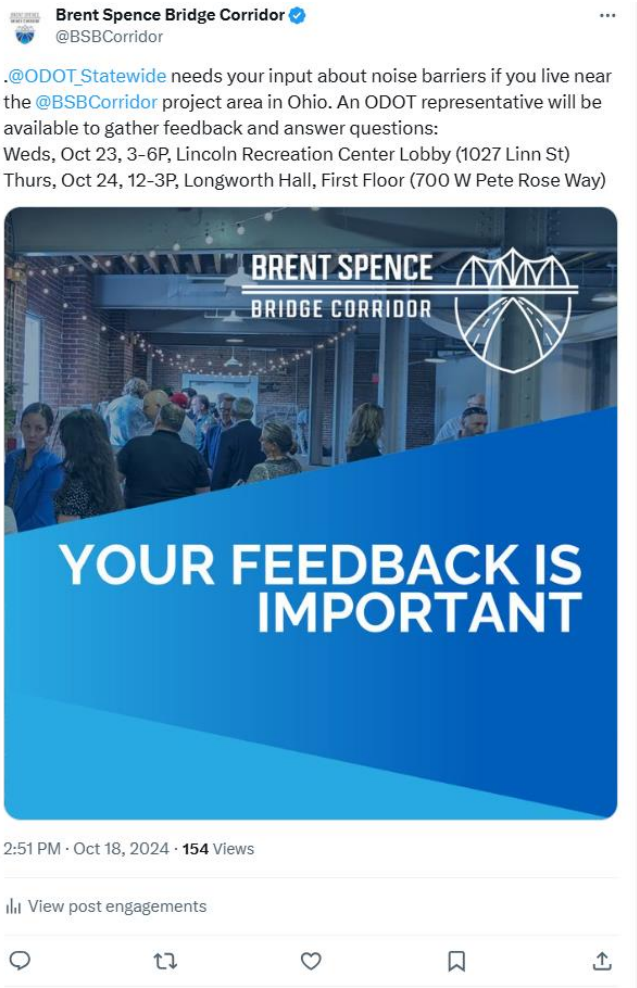
WEST END NOISE OUTREACH

SOCIAL MEDIA ANALYTICS OVERVIEW
October 30, 2024

Post #1 on X (Oct. 21, 2024)
One “like”
Impressions: 142
Engagements: 8 (Total number of times a user has interacted with a post. This includes all clicks anywhere on the post (including hashtags, links, avatar, username, and post expansion), reposts, replies, follows, and likes.



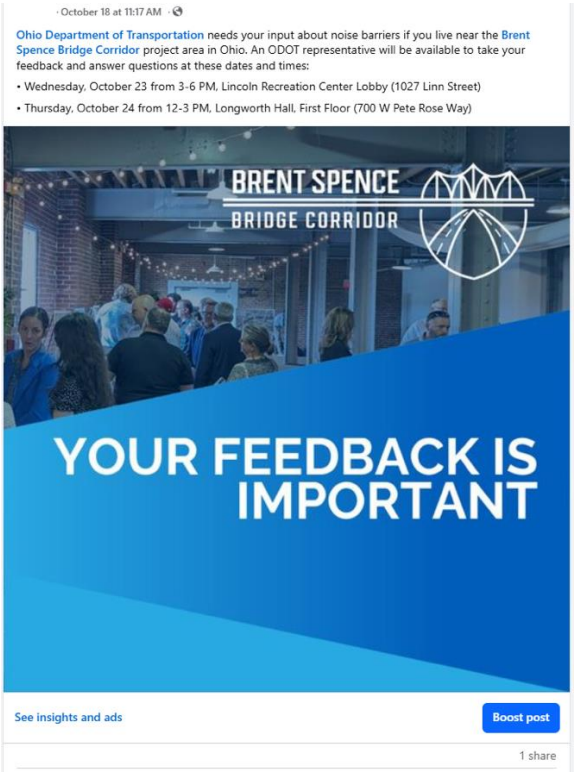
Post #2 on X (Oct. 18, 2024)
Impressions: 154
Engagements: 3

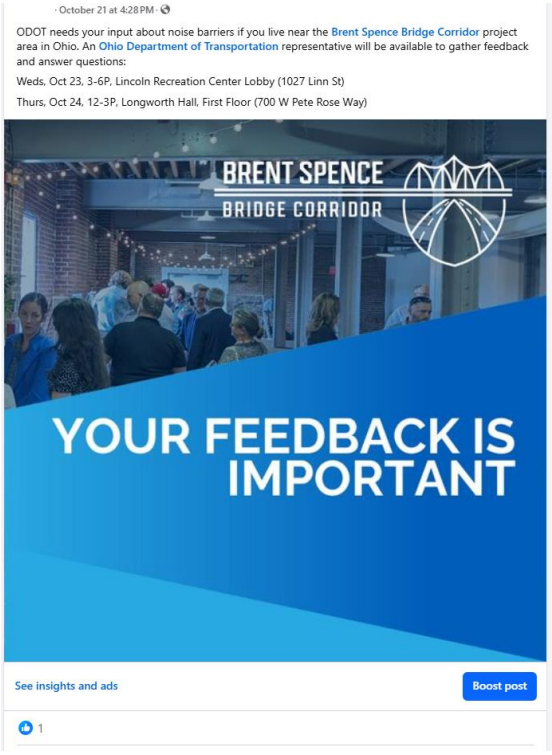


Posts on Facebook (Oct. 18 and Oct. 21, 2024)
One share (by ODOT Facebook account)

Oct. 18
Post Impressions: 305 (The number of times post was on screen)
Post Reach: 296 (The number of people who saw any of your posts at least once)
Engagement: 22 (The number of times people engaged through reactions, comments, shares and clicks)
One share by Cincinnati Museum Center, which has 117K followers; it received six likes

Oct. 21
Post Impressions: 37
Post Reach: 35
Engagement: 2







Post on Instagram (Oct. 18, 2024)
Likes: 2



Arnold, E.

From: Arnold, E.
Sent: Monday, October 7, 2024 11:48 AM
To: cgriffin.nati@yahoo.com; Nickj2dub@yahoo.com
Cc: corr-secretary_wecc@hotmail.com; Bryan Williams
Subject: ODOT Brent Spence Bridge Outreach re West End Noise Barriers

Importance: High

Good Morning Chris and Nick:
My name is Tommy Arnold, and I am the Ohio Department of Transportation (ODOT) Project Manager for the Brent Spence Bridge Corridor Project. I provided a Brent Spence update over the summer at the West End Community Council meeting, and one of the things I noted is that we didn't get as much of a response to our public outreach as we were hoping to get regarding the proposed noise walls. We are still planning to construct the noise walls, but we are hoping to get more feedback from folks that live in the areas that will be benefited.

Here is our plan to obtain additional feedback, and I would like to request your input to make this effort a success:

- First, I'd like to come to the Lincoln Recreation Center from 3-6pm on 10/21, 10/22, or 10/23. Do you have a contact with the Community Center that can assist with this request?
    - My thought is that I would set up in the lobby at a table or in a room near the lobby.
- Second, we will set up office hours at Longworth Hall the following day during the day from 10am-4pm. Does that sound like a good timeframe? We have a first floor office, and folks can drop in any time during that window.
- Finally, we would like to request your assistance in spreading the word once the dates and times are set. We are going to post on social media to help advertise this availability, and we'd like your request in sharing that post once it is up.

Thank you for your assistance with this important outreach. If you have any questions or wish to discuss, please do not hesitate to call or text my ODOT mobile phone at 513-498-0508.
Respectfully,
Tommy Arnold

E. Thomas Arnold, Jr., P.E.
Brent Spence Bridge Corridor Project Manager
ODOT District 8
505 South State Route 741
Lebanon, Ohio 45036
D: 513.933.6588 C: 513.498.0508
Tom.Arnold@dot.ohio.gov



Arnold, E.

From: Arnold, E.
Sent: Friday, October 18, 2024 12:37 PM
To: cgriffin.nati@yahoo.com; Nickj2dub@yahoo.com
Cc: corr-secretary_wecc@hotmail.com; Bryan Williams; Fitzpatrick, Collin
Subject: Brent Spence Bridge Noise Outreach - 10/23 at the Lincoln Rec Center and 10/24 at Longworth Hall

Good Afternoon Chris and Nick:
Following up on our email exchange, we have finalized the details and posted the subject outreach opportunity to social media. Can you assist with spreading the word through your social media and other channels?

Facebook

https://www.facebook.com/share/p/52Pt8AZu9tL5yR5g/

X

https://x.com/BSBCorridor/status/1847295391940636897

Thank you, and if you have any questions or wish to discuss, please let me know.

Respectfully,
Tommy Arnold

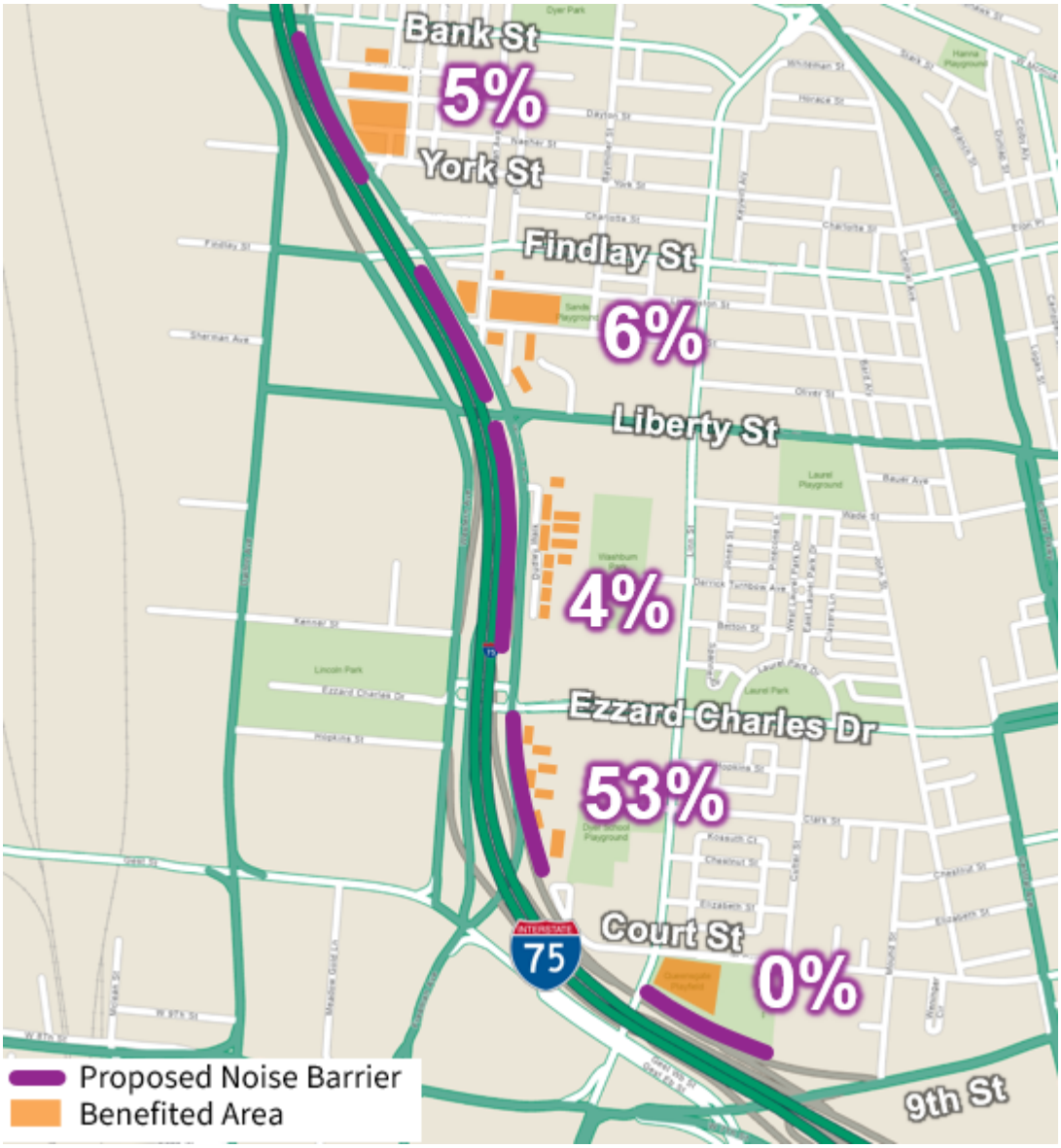
E. Thomas Arnold, Jr., P.E.
Brent Spence Bridge Corridor Project Manager
ODOT District 8
505 South State Route 741
Lebanon, Ohio 45036
D: 513.933.6588 C: 513.498.0508
Tom.Arnold@dot.ohio.gov



Arnold, E.

From: Arnold, E.
Sent: Friday, October 11, 2024 2:34 PM
To: Richard Osgood; Chris Griffin; Bryan.Williams@cincinnati-oh.go
Subject: RE: Fw: ODOT Brent Spence Bridge Outreach re West End Noise Barriers

Good Afternoon Richard:
Yes, please see this image below:



We are especially focused on the orange structures between Ezzard Charles and Bank Street.
Respectfully,
Tommy Arnold

E. Thomas Arnold, Jr., P.E.
Brent Spence Bridge Corridor Project Manager

ODOT District 8
505 South State Route 741
Lebanon, Ohio 45036
D: 513.933.6588 C: 513.498.0508
Tom.Arnold@dot.ohio.gov

From: Richard Osgood <rosgood7657@gmail.com>
Sent: Tuesday, October 8, 2024 8:45 AM
To: Arnold, E. <Tom.Arnold@dot.ohio.gov>; Chris Griffin <cgriffin.nati@yahoo.com>; Bryan.Williams@cincinnati-oh.go
Subject: Fwd: Fw: ODOT Brent Spence Bridge Outreach re West End Noise Barriers

Good morning,

Apologies if this was distributed earlier, but do you have a map that shows the benefit area?

Thx.,
R. Osgood
433 Elizabeth

---------- Forwarded message ---------
From: **Corr-Secretary Wecc** <corr-secretary_wecc@hotmail.com>
Date: Mon, Oct 7, 2024 at 12:05 PM
Subject: Fw: ODOT Brent Spence Bridge Outreach re West End Noise Barriers
To:

From: Tom.Arnold@dot.ohio.gov <Tom.Arnold@dot.ohio.gov>
Sent: Monday, October 7, 2024 11:47 AM
To: cgriffin.nati@yahoo.com <cgriffin.nati@yahoo.com>; Nickj2dub@yahoo.com <Nickj2dub@yahoo.com>
Cc: corr-secretary_wecc@hotmail.com <corr-secretary_wecc@hotmail.com>; Bryan Williams <Bryan.Williams@cincinnati-oh.gov>
Subject: ODOT Brent Spence Bridge Outreach re West End Noise Barriers

Good Morning Chris and Nick:
My name is Tommy Arnold, and I am the Ohio Department of Transportation (ODOT) Project Manager for the Brent Spence Bridge Corridor Project. I provided a Brent Spence update over the summer at the West End Community Council meeting, and one of the things I noted is that we didn't get as much of a response to our public outreach as we were hoping to get regarding the proposed noise walls. We are still planning to construct the noise walls, but we are hoping to get more feedback from folks that live in the areas that will be benefited.

Here is our plan to obtain additional feedback, and I would like to request your input to make this effort a success:

- First, I'd like to come to the Lincoln Recreation Center from 3-6pm on 10/21, 10/22, or 10/23. Do you have a contact with the Community Center that can assist with this request?
    - My thought is that I would set up in the lobby at a table or in a room near the lobby.
- Second, we will set up office hours at Longworth Hall the following day during the day from 10am-4pm. Does that sound like a good timeframe? We have a first floor office, and folks can drop in any time during that window.
- Finally, we would like to request your assistance in spreading the word once the dates and times are set. We are going to post on social media to help advertise this availability, and we'd like your request in sharing that post once it is up.

Thank you for your assistance with this important outreach. If you have any questions or wish to discuss, please do not hesitate to call or text my ODOT mobile phone at 513-498-0508.

Respectfully,

Tommy Arnold

E. Thomas Arnold, Jr., P.E.

Brent Spence Bridge Corridor Project Manager

ODOT District 8

505 South State Route 741

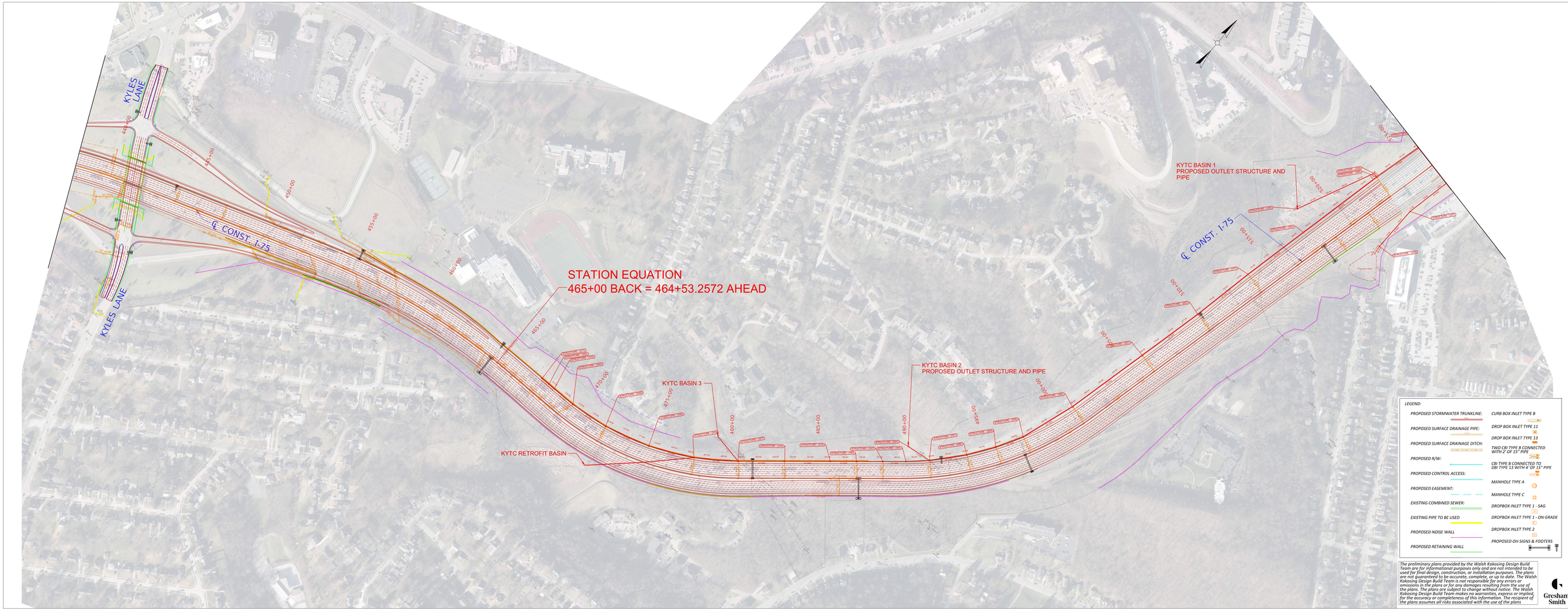
Lebanon, Ohio 45036

D: 513.933.6588 C: 513.498.0508

Tom.Arnold@dot.ohio.gov

Ohio Department of Transportation

Appendix L: Express Sewer Preliminary Plans



LEGEND:

- PROPOSED STORMWATER TRUNKLINE:
- PROPOSED SURFACE DRAINAGE PIPE:
- PROPOSED SURFACE DRAINAGE DITCH:
- PROPOSED R/W:
- PROPOSED CONTROL ACCESS:
- PROPOSED EASEMENT:
- EXISTING COMBINED SEWER:
- EXISTING PIPE TO BE USED
- PROPOSED NOISE WALL
- PROPOSED RETAINING WALL
- CURB BOX INLET TYPE B
- DROP BOX INLET TYPE 11
- DROP BOX INLET TYPE 13
- TWO CBI TYPE B CONNECTED WITH 2' OF 15" PIPE
- CBI TYPE B CONNECTED TO DBI TYPE 13 WITH 4' OF 15" PIPE
- MANHOLE TYPE A
- MANHOLE TYPE C
- DROPBOX INLET TYPE 1 - SAG
- DROPBOX INLET TYPE 1 - ON GRADE
- DROPBOX INLET TYPE 2
- PROPOSED OH SIGNS & FOOTERS

The preliminary plans provided by the Walsh Kokosing Design Build Team are for informational purposes only and are not intended to be used for final design, construction, or installation purposes. The plans are not guaranteed to be accurate, complete, or up to date. The Walsh Kokosing Design Build Team is not responsible for any errors or omissions in the plans. The plans are subject to change without notice. The Walsh Kokosing Design Build Team makes no warranties, express or implied for the accuracy or completeness of this information. The recipient of the plans assumes all risks associated with the use of the plans

Gresham Smith

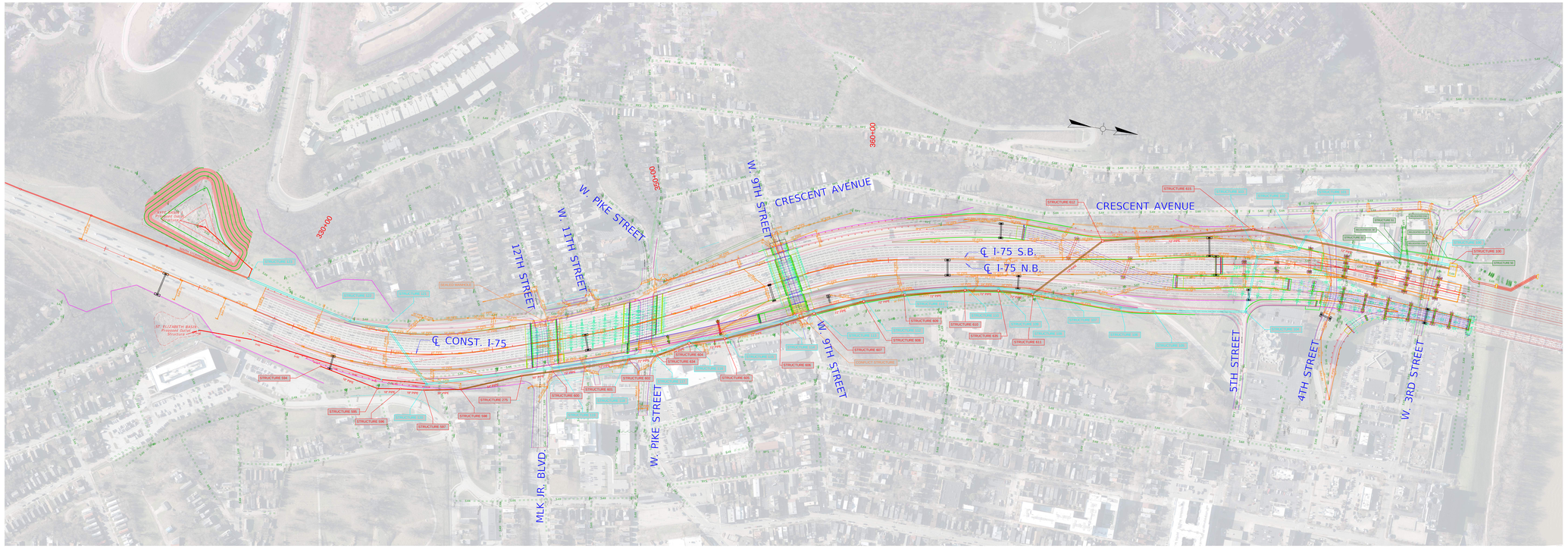
BRENT SPENCE BRIDGE CORRIDOR
ROLL PLOT - ROADWAY
STA. 438+00 TO STA. 526+00

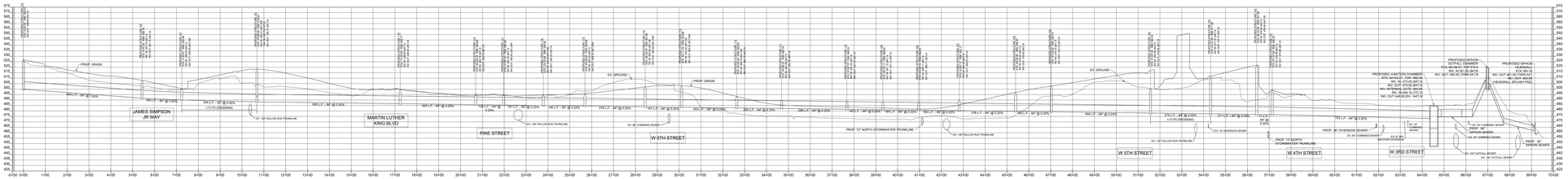
KYTC ITEM NO. 6-17

BRENT SPENCE BRIDGE CORRIDOR

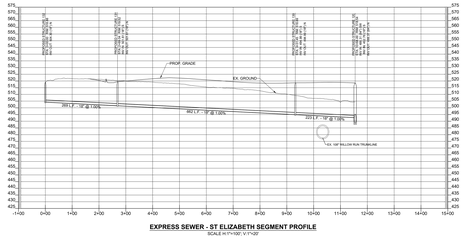
Walsh Kokosing DESIGN BUILD

AECOM


330+00
350+00
360+00
℄ CONST. I-75
℄ I-75 S.B.
℄ I-75 N.B.
12TH STREET
W. 11TH STREET
W. PIKE STREET
W. 9TH STREET
CRESCENT AVENUE
CRESCENT AVENUE
W. 9TH STREET
W. PIKE STREET
MLK JR. BLVD.
5TH STREET
4TH STREET
W. 3RD STREET
ST. ELIZABETH BASIN
Proposed Detention Basin
Structure 01
STRUCTURE 504
STRUCTURE 505
STRUCTURE 506
STRUCTURE 507
STRUCTURE 508
STRUCTURE 509
STRUCTURE 510
STRUCTURE 511
STRUCTURE 512
STRUCTURE 513
STRUCTURE 514
STRUCTURE 515
STRUCTURE 516
STRUCTURE 517
STRUCTURE 518
STRUCTURE 519
STRUCTURE 520
STRUCTURE 521
STRUCTURE 522
STRUCTURE 523
STRUCTURE



EXPRESS SEWER PROFILE
SCALE IN 1"=100', V:1"=20'



EXPRESS SEWER - ST ELIZABETH SEGMENT PROFILE
SCALE IN 1"=100', V:1"=20'

BRENT SPENCE BRIDGE CORRIDOR
ROLL PLOT - ROADWAY
EXPRESS STORM SEWER OPTION

KYTC ITEM NO. 6-17

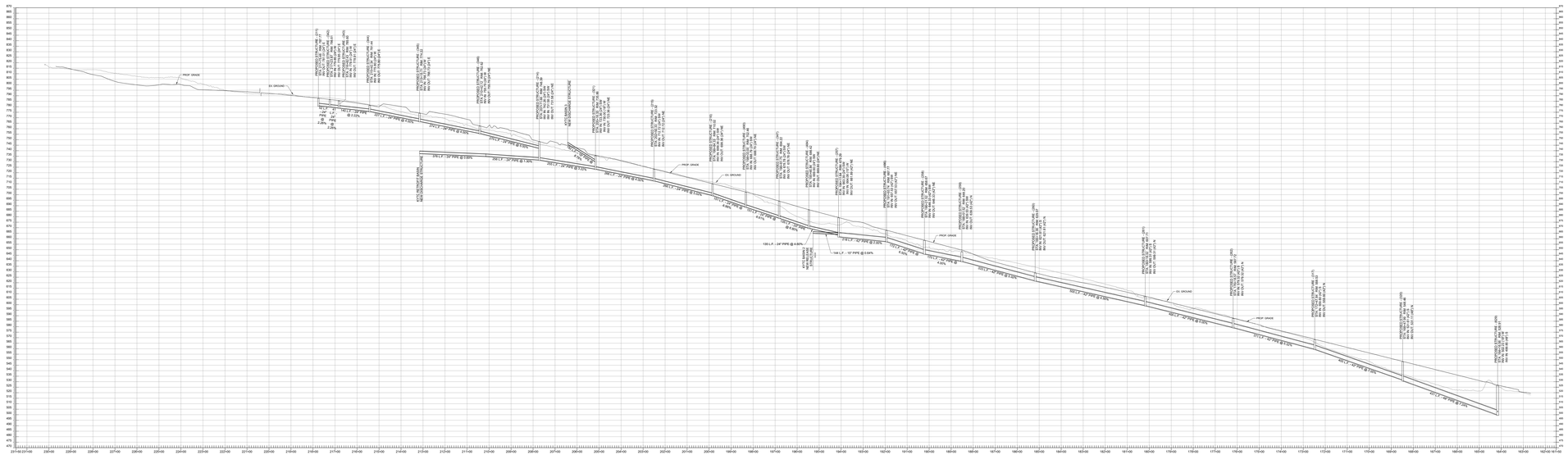
BRENT SPENCE BRIDGE CORRIDOR

Walsh Kokosing

Gresham Smith

AECOM

The preliminary plans provided by the Walsh Kokosing Design Build Team are for informational purposes only and are not intended to be used for final design, construction, or installation purposes. The plans are not guaranteed to be accurate, complete, or up to date. The Walsh Kokosing Design Build Team is not responsible for any errors or omissions in the plans or for any damages resulting from the use of the plans. The plans are subject to change without notice. The Walsh Kokosing Design Build Team makes no warranties, express or implied, for the accuracy or completeness of this information. The recipient of the plans assumes all risks associated with the use of the plans



BRENT SPENCE BRIDGE CORRIDOR
ROLL PLOT - ROADWAY
EXPRESS STORM SEWER OPTION

KYTC ITEM NO. 6-17

BRENT SPENCE BRIDGE CORRIDOR

Gresham Smith

The preliminary plans provided by the Walsh Kokosing Design Build Team are for informational purposes only and are not intended to be used for final design, construction, or installation purposes. The plans are not guaranteed to be accurate, complete, or up to date. The Walsh Kokosing Design Build Team is not responsible for any errors or omissions in the plans or for any damages resulting from the use of the plans. The plans are subject to change without notice. The Walsh Kokosing Design Build Team makes no warranties, express or implied, for the accuracy or completeness of this information. The recipient of the plans assumes all risks associated with the use of the plans

AECOM

KYTC 1 Basin

Due to the roadway improvements, this basin will be regraded and a new outlet control structure will be constructed to route the stormwater to the Express Sewer.

Proposed invert = 502.00
Proposed outlet overflow grate = 531

Existing storage volume = 43.89 Acre-Feet
Proposed storage volume = 47.23 Acre-Feet

KYTC BASIN 1
Proposed Outlet
Structure

St. Elizabeth Basin

A new outlet control structure will be constructed to route the stormwater to the Express Sewer.

Proposed invert = 506.00
Proposed outlet overflow grate = 522

Existing storage volume = 43.89 Acre-Feet

ST. ELIZABETH BASIN
Proposed Outlet
Structure

SOUTH STORMWATER TRUNK

18" PIPE
15" PIPE
30" PIPE
36" PIPE
24" PIPE

0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00

SAN
MH
HW
EX ROW
PR NOISE WALL
PR EASEMENT

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

TEAM KENTUCKY
TRANSPORTATION CABINET

DRAWING TITLE: KYTC 1 & ST. ELIZABETH BASINS DETAIL

HORIZONTAL SCALE
SCALE: 1"=50'

0' 50' 100' 200'

ITEM NO. 06-00017
COUNTY OF KENTON

SHEET NO. KYTC 1 & ST. ELIZABETH BASINS DETAIL

Appendix M: Updated Section 4(f) Evaluation

BRENT SPENCE BRIDGE CORRIDOR PROJECT

UPDATED SECTION 4(F) EVALUATION

KYTC PROJECT ITEM NO. 6-17 | ODOT PID 89068
AUGUST 13, 2025

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

HNTB

TABLE OF CONTENTS

1. INTRODUCTION 1
1.1 Project Background 2

2. PROJECT DESCRIPTION AND DESIGN MODIFICATIONS 2

3. DESCRIPTION OF SECTION 4(F) PROPERTIES 3
3.1 Goebel Park Complex 4
3.2 Riverfront Commons Trail 5
3.3 Covington Levee System 5

4. DESCRIPTION OF USE AND IMPACTS TO SECTION 4(F) PROPERTIES 6
4.1 Goebel Park Complex 8
4.2 Riverfront Commons Trail 9
4.3 Covington Levee System 11
4.4 Other Historic Properties 12

5. AVOIDANCE ALTERNATIVES AND LEAST OVERALL HARM ANALYSIS 14

6. AVOIDANCE, MINIMIZATION, AND MITIGATION OF HARM 14
6.1 Goebel Park Complex 15
6.2 Riverfront Commons Trail 16
6.3 Covington Levee System 18
6.4 Hillsdale Subdivision, Elberta Apartments, and Lewisburg Historic Districts 18
6.5 Queensgate Playground and Ball Field and Ezzard Charles Park 19

7. COORDINATION 19
7.1 Goebel Park Complex 19
7.2 Riverfront Commons Trail 20
7.3 Covington Levee System 20
7.4 Consulting Parties (Kentucky) 20
7.5 Department of the Interior 21

8. CONCLUSION 21

LIST OF TABLES

Table 1: Section 4(f) Properties 3

Table 2: Section 4(f) Property Impacts 7

Table 3: Section 4(f) Summary of Historic Properties with No Adverse Effect and No Section 4(f) Use 12

APPENDICES

Appendix A: Exhibits

Appendix B: Riverfront Commons Trail Coordination

Appendix C: Section 106 Consultation

1. INTRODUCTION

Section 4(f) of the U.S. Department of Transportation Act of 1966 [Section 4(f)] requires the consideration of publicly owned parks, recreation areas, and wildlife and waterfowl refuges during transportation project development. Section 4(f) also considers publicly or privately owned historic sites that are on or eligible for the National Register of Historic Places (NRHP), the United States' official list of historic properties worthy of preservation. Section 4(f) is implemented by the Federal Highway Administration (FHWA) through 23 Code of Federal Regulations (CFR) part 774.

A use of a Section 4(f) property occurs under the following conditions:

- Permanent incorporation – A transportation project acquires new right-of-way or a permanent easement from a Section 4(f) property;
- Temporary occupancy – A transportation project results in a temporary use of property that is adverse in terms of the preservationist purpose of Section 4(f); or
- Constructive use – The proximity impacts of a transportation project on a Section 4(f) property, even without acquisition of the property, are so great that the activities, features, and attributes of the property are substantially impaired.[1]

Exceptions to the requirement for Section 4(f) approval are listed under 23 CFR § 774.13. The following exceptions apply to this project:

- Temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f);
- Maintenance, preservation, rehabilitation, operation, modernization, reconstruction, or replacement of historic transportation facilities if such work will not adversely affect the historic qualities of the facility that caused it to be on or eligible for the NRHP; and
- National Historic Trails and the Continental Divide National Scenic Trail designated under the National Trails System Act, 16 USC §§ 1241-1251, with the exception of those trail segments that are historic sites as defined in 23 CFR § 774.17.

Once a use has been determined, the intensity or magnitude of impact to the Section 4(f) property can be described either as "*de minimis*" or not "*de minimis.*" A *de minimis* impact involves the use of Section 4(f) property that is generally minor in nature and is one that, after taking into account avoidance, minimization, mitigation, and enhancement measures, results in no adverse effect to the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

For historic properties, a *de minimis* impact is one that results in a determination of "no adverse effect" or "no historic properties affected" in accordance with Section 106 of the National Historic Preservation Act of 1966, which is often referred to as Section 106 and implemented through 36 CFR part 800, as described above. A *de minimis* impact determination requires agency coordination with the official having jurisdiction over the Section 4(f) property and opportunities for public involvement.

[1] FHWA. "Section 4(f) Tutorial." Environmental Review Toolkit. Accessed March 3, 2025.

Unless the use of a Section 4(f) property is determined to have a *de minimis* impact or is excepted from required approval, proposed transportation uses must avoid Section 4(f) properties, if avoidance is feasible and prudent, before any U.S. Department of Transportation (USDOT) funding or approvals can be granted. Additionally, a full evaluation of measures to minimize harm to Section 4(f) properties must be made and documented. For *de minimis* impacts, mitigation measures are taken into account when making this determination.

1.1 Project Background

A *Final Individual Section 4(f) Evaluation (April 2024)* for the Brent Spence Bridge (BSB) Corridor Project was prepared during the development of the *2024 Revised Supplemental Environmental Assessment* (SEA). On May 8, 2024, and in accordance with 23 CFR § 774.17, FHWA approved the use of the Section 4(f) properties associated with the BSB Corridor Project. All required environmental commitments pertaining to Section 4(f) were included in the *Finding of No Significant Impact* (FONSI) issued on May 8, 2024.

The Kentucky Transportation Cabinet (KYTC) and Ohio Department of Transportation (ODOT) have since identified and evaluated additional measures to further improve the design and constructability of the project while reducing the costs and environmental impacts where practicable. These efforts resulted in refinements to the project's design. In accordance with 23 CFR § 771.129, a National Environmental Policy Act (NEPA) re-evaluation has been prepared to disclose and assess these design refinements and modifications since issuance of the 2024 SEA/FONSI and to confirm the validity of the 2024 NEPA decision or whether a supplemental NEPA document or additional analysis is warranted. The re-evaluation assesses updated regulatory requirements, changed site conditions, design refinements and modifications, and impact changes since the 2024 SEA/FONSI.

Consistent with Re-evaluation 1 (hereinafter referred to as NEPA re-evaluation), this *Updated Section 4(f) Evaluation* addresses the impacts of the design refinements and modifications on Section 4(f) properties and addresses the changes that have occurred since the *Final Individual Section 4(f) Evaluation (April 2024)* and 2024 SEA/FONSI.

2. PROJECT DESCRIPTION AND DESIGN MODIFICATIONS

The primary project elements, overarching phasing, purpose and need, and logical termini and independent utility remain unchanged since the 2024 SEA/FONSI. For additional detail on the overall project description and project purpose and need, please refer to Section 2 and Section 3 of the NEPA re-evaluation.

Following the 2024 SEA/FONSI, which identified Refined Alternative I (Concept I-W; hereinafter referred to as Concept I-W Base Design) as the selected alternative, the project team has worked collaboratively to evaluate additional opportunities to optimize Concept I-W Base Design, including concepts that improve geometrics, enhance project quality, reduce costs, shorten schedule, support the project goals, and encourage local support for project refinements. Many of the project changes are driven by the innovations process undertaken through the Phase III progressive design-build (PDB) contract, while others are driven by standard detailed design progression including implementation of commitments from the 2024 SEA/FONSI. These two primary drivers—Build Innovations and advancement of detailed design—and the changes that may warrant re-

evaluation under NEPA and that resulted from these efforts are described in detail in Section 4 of the NEPA re-evaluation, are analyzed within this *Updated Section 4(f) Evaluation*, and are outlined in **Appendix A: Exhibit 1**.

3. DESCRIPTION OF SECTION 4(F) PROPERTIES

A review of the project area confirmed that the Section 4(f) resources documented in the 2024 SEA/FONSI are still present. The re-evaluation of the area of potential effects (APE) in Kentucky also revealed one additional history/architecture resource (Garden of Hope) that qualifies for protection under Section 4(f). Other historic properties in the project's APE are listed in **Table 3**. For additional details about the recent review of historic and archaeological resources and Section 106 consultation efforts, see Section 5.4 of the NEPA re-evaluation.

The Section 4(f) properties that may be subject to a use by the project are summarized in **Table 1** and shown in **Appendix A: Exhibit 2**. The following sections provide detailed information about the previously identified properties that may be subject to a new Section 4(f) use or changes in use. For the remainder of the properties, please refer to Section 3 of the *Final Individual Section 4(f) Evaluation (April 2024)* for further detail.

Table 1: Section 4(f) Properties

Name[1]	Property Type	Ownership	Primary Function
Hillsdale Subdivision Historic District (Approximately 10.4 acres, including 20 buildings)	Residential Subdivision Historic District	Private	Single-family residential, civic organization, and childcare
Elberta Apartments Historic District (Approximately 30.6 acres, including 33 buildings)	Residential Historic District	Private	Residential apartments
Goebel Park Complex, including Goebel Park, Kenney Shields Park, and SFC Jason Bishop Memorial Dog Park (14.67 acres)	Public Park	City of Covington	Recreation – greenspace, walking trail, picnic areas, playground, public art, water park/pool, basketball courts, and dog park
Lewisburg Historic District (Approximately 700 acres, including about 430 buildings)	Mixed-Use Urban Historic District	Private	Single- and multi-family residential, commercial, non-profit, church, and school properties
Longworth Hall (1,160 feet in length, five stories tall)	Commercial Historic Structure	ODOT	Mixed office, design center, and event center
Firefighters Memorial (Approximately 0.9 acre)	Public Park	City of Cincinnati	Memorial, plaza, and open space
Queensgate Playground and Ball Field (Approximately 5.3 acres)	Public Park	City of Cincinnati	Playground and ball field
Ezzard Charles Park (formerly Laurel Park) (Approximately 6.5 acres)	Public Park	City of Cincinnati	Open space, bronze statue, accessible plaza, benches, tree grove, and paved walkways
Lewis and Clark National Historic Trail	Ohio River	Administered by the National Park Service	Recreation

Name[1]	Property Type	Ownership	Primary Function
Riverfront Commons Trail (Approximately 1.25 miles)	Shared-Use Path	City of Covington	Transportation and recreation
Covington Levee System	Historic	U.S. Army Corps of Engineers	Flood protection

[1] Other historic properties in the project's APE are listed in Table 3.

3.1 Goebel Park Complex

The Goebel Park Complex is owned and managed by the City of Covington and includes three interconnected public parks: Goebel Park, Kenney Shields Park, and the newly constructed Sergeant First Class (SFC) Jason Bishop Memorial Dog Park. The original Goebel Park was situated in the southwest quadrant of the West 5th Street intersection with Philadelphia Street. Eleven parcels of land (including the areas now occupied by Kenney Shields Park and the SFC Jason Bishop Memorial Dog Park), a swimming pool, and a bath house were added to the park using Land and Water Conservation Funds (LWCF) from the National Park Service (NPS) between 1978 and 1980. There have been no substantial changes to the boundaries of the Goebel Park Complex since the early 1980s. The Goebel Park Complex is not eligible for the NRHP, and the resources located in the park, including a Carroll Chimes Clock Tower, are not yet of sufficient age to be considered eligible for the NRHP.

The complex currently occupies 14.67 acres and is located east of I-71/I-75 between West 5th Street and West 9th Street. Goebel Park is the largest component of the Complex at 12.03 acres and offers a public pool, picnic shelters, a gazebo, a playground, and a grill. A walking trail connects Goebel Park to Kenney Shields Park. Goebel Park also hosts the SFC Jason Bishop Memorial and a German-style Carroll Chimes Clock Tower. Kenney Shields Park is 2.26 acres and offers basketball courts and a walking trail that connects to the Goebel Park pool and the Clock Tower. The portions of Goebel Park and Kenney Shields Park that are located closest to I-71/I-75 are low-lying and are prone to flooding when elevated water levels cause the Ohio River to backflow into the combined sewer system. The SFC Jason Bishop Memorial Dog Park is 0.38 acres and offers a fenced area that provides a dedicated space for members of the public to exercise their pets and is connected to Kenney Shields Park. Mapping showing the Goebel Park Complex is included in **Appendix A: Exhibit 3.**

The Goebel Park Complex is accessible to pedestrians and bicycles via sidewalks and walking paths connecting to surrounding neighborhoods. Vehicular access is also provided, and parking is available on adjacent streets and in small parking lots. Goebel Park and Kenney Shields Park are open to the public free of charge seven days a week from dawn until dusk. Picnic pavilions can also be reserved for planned use. The Goebel Park pool is free to residents of the City of Covington and is open for a short season between early June and early August. The SFC Jason Bishop Memorial Dog Park is open to the public Monday through Saturday from 7:00 am to 6:00 pm and Sunday from 7:00 am to 5:00 pm. Children under six are not permitted in the fenced-in area due to health and safety concerns, and dog handlers must be 16 years of age or older. Two large-scale events occur in the Goebel Park Complex each season: the Covington Oktoberfest in September and the Northern Kentucky Pride Festival.

George Steinford Park, which is a wide promenade down the center of West 6th Street in Covington, terminates just east of the Goebel Park Complex. The entrance to Devou Park, which is a large park and golf course west of I-71/I-75, is about one-half mile from Kenney Shields Park. Changes in the use of the Goebel Park Complex would not affect these resources.

3.2 Riverfront Commons Trail

The Riverfront Commons Trail[1] (Trail) is a planned 20-mile continuous shared-use path along the south bank of the Ohio River linking the urban core of Northern Kentucky together through the river cities of Bromley, Ludlow, Covington, Newport, Bellevue, Dayton, Fort Thomas, and Silver Grove. The 20-mile trail system is in various stages of development, with some sections already constructed and open, some sections currently under design, and other sections that are planned. In Covington, about 1.25 miles of the Riverfront Commons Trail have been built and are open along Highway Avenue and the Ohio River levee from the end of the Ohio River floodwall near Swain Court to just east of the Roebling Bridge at Riverside Place.

The Riverfront Commons Trail is shown on mapping provided in **Appendix A: Exhibit 1** and **Exhibit 2**. In the project area, the Riverfront Commons Trail is located along the base of the north side of the Ohio River floodwall and earthen levee and passes under the existing BSB. The Trail provides pedestrian and bicycle access to Covington neighborhoods as well as local hotels, retail sites, and dining and entertainment establishments. There are no Trail access points within the immediate project area. The closest Trail access points are approximately 800 feet west of the project area near the Highway Avenue/Western Avenue intersection and approximately 1,200 feet east of the project area at the Clay Wade Bailey Bridge.

The Riverfront Commons Trail is being developed by Southbank Partners, a non-profit regional economic development organization. The sections of the Trail within the City of Covington are being built, constructed, and maintained by the City of Covington. The section of the Trail in the project area is located on land owned by the City of Covington, and the completed Trail is maintained by the City. The City of Covington is the official with jurisdiction over the Riverfront Commons Trail within the project limits. The Riverfront Commons Trail is free and open to the public. It serves both transportation and recreational purposes.

The Riverfront Commons Trail connects to Covington Plaza, a public outdoor amphitheater used for festivals and theater productions, about 3,000 feet east of the project area. Additionally, the Riverfront Commons Trail intersects the ABM Parking Waterfront Lot and travels through its upper parking area; however, the parking lot is not part of the Trail.

3.3 Covington Levee System

The following summarizes the evaluation and recommendations for the Covington Levee System originally documented in the *Cultural Historic Survey Report Brent Spence Bridge Renewal Project (2022)*.

The Covington Levee System (USACE 3904060001) was constructed between 1948 to 1955 at the confluence of the Ohio and Licking rivers in Kenton County. It consists of 2.84 miles of earthen levee and concrete wall

[1] Riverfront Commons. Southbank Partners. Accessed March 3, 2025.

and includes 10 pumping stations and eight traffic openings. Within the project area, the levee system is characterized by a wide-based earthen berm structure and a tall concrete flood wall built to withstand 83 feet of flood waters. After a catastrophic flood in 1937, which left 50,000 northern Kentucky residents homeless and caused approximately $1 million in property damage, construction of flood control measures became a top priority for Ohio River communities. The City of Covington raised a $600,000 bond in 1945 to cover its share of the flood control costs. By 1950, the construction of the levee system was underway and was led by the U.S. Army Corps of Engineers (USACE).

The Covington Levee was recommended eligible for listing in the NRHP under Criterion A in the area of significance of the development and evolution of the Federal Flood Control Act and the associated authorization and construction of USACE flood control measures along the Ohio River in the early- to mid-20th century. Although the system is near the Austinburg and Licking River/Ohio Riverside NRHP-listed historic districts, the Covington Levee System is not a contributing element to any NRHP-listed historic district and is not within the boundary of a proposed historic district.

4. DESCRIPTION OF USE AND IMPACTS TO SECTION 4(F) PROPERTIES

The following sections assess changes to the use and impacts to Section 4(f) properties since the 2024 SEA/FONSI and *Final Individual Section 4(f) Evaluation (April 2024)*. For purposes of this document, the following terms and methods are used to analyze and disclose changes since the 2024 SEA/FONSI and *Final Individual Section 4(f) Evaluation (April 2024)*:

- The Concept I-W design analyzed in the 2024 SEA/FONSI is referred to as “Concept I-W Base Design” as it serves as the baseline for comparison since the 2024 NEPA decision.
- The term “Re-eval 1 Design” is used to encompass the collective changes resulting from the Phase III PDB Build Innovations and advancement of detailed design that are analyzed in the re-evaluation and this *Updated Section 4(f) Evaluation*. However, the Build Innovation number is noted where changes or impacts are directly attributed to a Build Innovation. For additional detail regarding Build Innovations, refer to Section 4.1 of the NEPA re-evaluation. If a change or impact is attributed to standard design progression, it is noted as driven by detailed design progression. Otherwise, impacts are generally discussed as Re-eval 1 Design.

Table 2 summarizes the changes in Section 4(f) property impacts and Section 4(f) use between the Concept I-W Base Design and Re-eval 1 Design. This section describes the changes in impacts to each property resulting from the Re-eval 1 Design, and includes a detailed discussion of the Goebel Park Complex and the properties with a change in Section 4(f) use, including the Riverfront Commons Trail and Covington Levee System.

As noted in the 2024 SEA/FONSI and *Final Individual Section 4(f) Evaluation (April 2024)*, KYTC evaluated noise abatement measures and proposed noise barriers in the vicinity of the Hillsdale Subdivision, Elberta Apartments, and Lewisburg historic districts. Detailed design progression optimized the noise barriers in proximity to all three districts, including minor encroachment on the southern corner of the Elberta Apartments

Historic District and the southeast and northeast corners of the Lewisburg Historic District (**Appendix A: Exhibit 1**). These noise barriers do not impact contributing elements to the districts and the determinations of effect under Section 106 of the NHPA remain unchanged for all three districts. Therefore, the Section 4(f) use is unchanged and these districts are not discussed further in this section. See **Appendix C** for State Historic Preservation Office (SHPO) concurrence and Section 5.6.1 of the NEPA re-evaluation for further details. For additional details on avoidance, minimization, and mitigation related to these and other properties, see **Section 6** of this document and the *Final Individual Section 4(f) Evaluation (April 2024)*.

Table 2: Section 4(f) Property Impacts

Property	Concept I-W Base Design Impacts	Re-eval 1 Design Impacts
Hillsdale Subdivision Historic District (Approximately 10.4 acres, including 20 buildings)	*De minimis* impact – 0.06-acre permanent right-of-way affecting 1 contributing element.	No change in Section 4(f) use
Elberta Apartments Historic District (Approximately 30.6 acres, including 33 buildings)	*De minimis* impact – 0.39-acre permanent easement affecting 3 contributing elements and 0.03-acre permanent right-of-way affecting 1 contributing element.	No change in Section 4(f) use
Goebel Park Complex, including Goebel Park, Kenney Shields Park, and SFC Jason Bishop Memorial Dog Park (14.67 acres)	*De minimis* impact – 2.84 acres permanent right-of-way, 0.07-acre temporary easement, loss of 360 feet of walking trail, 2 basketball courts and associated resources, and proximity impacts to outdoor pool.	*De minimis* impact – reduced to 2.18 acres permanent right-of-way, 0.04-acre temporary easement, loss of 360 feet of walking trail, 2 basketball courts and associated resources, and proximity impacts to outdoor pool.
Lewisburg Historic District (Approximately 700 acres, including about 430 buildings)	Individual Section 4(f) – 0.23-acre permanent right-of-way requiring removal of 2 contributing elements and 0.06-acre temporary easement affecting 3 contributing elements; 0.48-acre right-of-way from 8 parcels that are partially located in the NRHP boundary.	No change in Section 4(f) use
Longworth Hall (1,160 feet in length, five stories tall)	Individual Section 4(f) – Removal of 204 feet of the eastern section of the building.	No change in the Section 4(f) use
Firefighters Memorial (Approximately 0.9 acre and located within the existing right-of-way)	Temporary Occupancy – Reconstruction of curb and sidewalk in existing right-of-way adjacent to site; no change in ownership of the land; temporary closures of sidewalk and memorial plaza areas; no permanent adverse physical impacts; access to and operation of memorial maintained.	No change in the Section 4(f) use

Property	Concept I-W Base Design Impacts	Re-eval 1 Design Impacts
Queensgate Playground and Ball Field (Approximately 5.3 acres)	*De minimis* impact – 0.40-acre permanent right-of-way, 0.32-acre permanent easement, tree removal, and loss of outfield area of existing Ball Field.	No change in the Section 4(f) use
Ezzard Charles Park (formerly Laurel Park) (Approximately 6.5 acres and located within the existing right-of-way in the project area)	Temporary Occupancy – Reconstruction/relocation of existing sidewalk and reconstruction of median in existing right-of-way or easement; no change in ownership of the land; temporary sidewalk closures; no permanent adverse physical impacts; no tree removal; access to and operation of park maintained.	No change in the Section 4(f) use
Riverfront Commons Trail (Approximately 1.25 miles)	No use	*De minimis* impact – Temporary closure of approximately 0.8-mile of Trail and 1.1-mile temporary Trail detour to facilitate safe bridge construction and rehabilitation.
Covington Levee System	No use	*De minimis* impact – Temporary physical impacts to facilitate safe bridge construction and rehabilitation.

4.1 Goebel Park Complex

The Goebel Park Complex includes Goebel Park, Kenney Shields Park, and the newly constructed SFC Jason Bishop Memorial Dog Park. The BSB Corridor Project will acquire approximately 2.18 acres of permanent right-of-way and 0.04 acre of temporary easement from the Goebel Park Complex, a total decrease of 0.66 acres and 0.03 acre, respectively, since the *Final Individual Section 4(f) Evaluation (April 2024)*. Specifically, Kentucky Innovation 1 (KY 1) optimizes the vertical profile of the interstate adjacent to the property, reducing visual impacts and allowing for further reconfiguration of the interstate adjacent to the complex. From there, Kentucky Innovation 2 (KY 2) reduces encroachment onto the Goebel Park Complex by doing the following:

- Eliminating the braided ramp configuration for traffic entering the freeway from Covington and northbound (NB) traffic on the collector-distributor (C-D) system heading to 5th Street, which required a tall wall with a wide footprint that introduced impacts to the Goebel Park Complex
- Reconfiguring the NB frontage road adjacent to the property, moving it between 9th Street and Pike Street

Appendix A: Exhibit 3 depicts the Goebel Park Complex impacts with the Build Innovations (KY 1 and KY 2) as compared to the Concept I-W Base Design. The land to be acquired includes 0.50 acre in Kenney Shields Park and is an increase of 0.10 acre compared to the Concept I-W Base Design. This area is currently utilized

for two basketball courts and associated resources such as parking and sidewalks providing access to the courts. The land acquisition also includes 1.58 acres in Goebel Park, which is a decrease of 0.76 acres compared to the Concept I-W Base Design. This land is low-lying, prone to flooding, and contains a mixture of mown grassy areas and groups of mature trees. The recreational use of the land to be acquired in the Goebel Park portion of the complex consists of a 360-foot section of walking trail that stretches through the complex. Interstate widening will also place the highway lanes closer to the park, which will result in proximity impacts to an outdoor pool. During construction, temporary dust, air quality, and construction noise impacts are anticipated due to construction activities in the vicinity of the Goebel Park Complex.

As documented in the *Final Individual Section 4(f) Evaluation (April 2024),* KYTC proposed noise/visual screening barriers to provide enhanced noise reduction along I-71/I-75 for the entire length of the Goebel Park Complex, and the Re-eval 1 Design remains consistent with that proposal. However, based on modifications to project design (KY 1 and KY 2) and optimization of the barriers, these barriers (referred to as NSA B in the NEPA re-evaluation) now meet feasibility and reasonableness criteria and are recommended for noise abatement. For further details see Section 5.6.1 and Appendix I of the NEPA re-evaluation. The noise barriers will reduce noise levels in all areas of the Goebel Park Complex. The average height of the proposed noise barriers is 15 feet, as required to achieve noise reduction goals at different locations along the length of the barriers and will improve the viewshed due to the incorporation of aesthetic treatments on the barriers. KYTC is also evaluating the use of transparent noise barriers in some locations to preserve views of Goebel Park from the highway, particularly the Clock Tower, and will continue to coordinate the composition of the barriers with the City of Covington during detailed design in accordance with previous commitments. Based on noise-related public outreach conducted in April and May 2025, benefited receptors in this area are in favor of constructing the barriers and for the barriers to be transparent.

Based on this, in accordance with 23 CFR § 774.17, the FHWA determined that the previous *de minimis* Section 4(f) use determination of the Goebel Park Complex remains valid. Measures to minimize and mitigate impacts to the Goebel Park Complex, as well as plans for replacement acreage for Goebel Park are discussed in **Section 6.1**. Additional information about the *de minimis* determination is provided in **Section 7.1**.

4.2 Riverfront Commons Trail

The 2024 SEA/FONSI identified that the new companion bridge would be constructed over the Riverfront Commons Trail; however, it was concluded that the Concept I-W Base Design would not result in the use of the Trail. The land use impacts described in Section 4.1.1 of the 2024 SEA included the acquisition of approximately 1.3 acres of permanent right-of-way from the City of Covington to construct the new companion bridge. Since the issuance of the 2024 SEA/FONSI, detailed design progression has resulted in an increase of 0.3 acres, totaling 1.6 acres of permanent right-of-way acquisition. Consistent with the 2024 SEA/FONSI and the *Final Individual Section 4(f) Evaluation (April 2024)*, KYTC will grant a permanent easement to the City of Covington for continued Trail operation and maintenance.

Additional detailed design progression after the 2024 SEA/FONSI and *Final Individual Section 4(f) Evaluation (April 2024)* demonstrated that construction of temporary works detailed in Section 4.2.2 of the NEPA re-evaluation are prudent to safely construct the new double-decker companion bridge and rehabilitate the existing BSB. KYTC assessed the modifications to construction access and bridge construction and rehabilitation methodology and determined that these changes result in the potential for a Section 4(f) use of the Riverfront Commons Trail. In accordance with 2024 SEA/FONSI Commitment 57, KYTC initiated coordination with the City of Covington once it determined that temporary closures, occupancy, or detours of the Riverfront Commons Trail may be required. Refer to Section 7.2 of this document for further details.

Appendix A: Exhibit 4 includes detailed site plans of the temporary works that impact the Riverfront Commons Trail. The temporary work bridge will be built adjacent to and over the top of the Riverfront Commons Trail. In addition, temporary falsework that will support the new bridge structure during construction, and temporary vehicular access to haul, store, and move construction materials will also encroach on the Trail during construction of the project. To construct a temporary access road, approximately 0.4 miles of the Riverfront Commons Trail between the Ohio River levee gate and the Clay Wade Bailey Bridge will be temporarily covered with 5 feet to 12 feet of aggregate fill. This is required to provide a 30-foot-wide surface that is adequate for equipment movement and to prevent the access road from periodic flooding from the Ohio River. To construct the temporary access road, all Trail lighting and signage will be removed along the 0.4-mile access road.

Based on these construction activities, which present overhead hazards and an area of active large equipment movement, it was determined that temporary closure of a portion of the Trail will best promote worker and public safety. The Trail will be closed beginning at the Ohio River levee gate, located approximately 800 feet northwest of the Highway/Crescent Avenue and West 3rd Street intersection, and end approximately 150 feet west of the Covington Plaza at Madison Avenue. The ABM Parking Waterfront Lot, located directly east of the Clay Wade Bailey Bridge, will be closed during the same closure periods as the Trail. As previously noted, the ABM Parking Waterfront Lot is not part of the Riverfront Commons Trail; however, the Trail intersects with the lot and travels through its upper parking area. Based on safety concerns from the City of Covington, the temporary Trail closure includes closing access to the area east of the Clay Wade Bailey Bridge, starting east of the ABM Parking Waterfront Lot until approximately 150 feet west of the Covington Plaza. To facilitate this work, a temporary easement will be obtained along the riverfront on property owned by the City of Covington, which encompasses approximately 0.8 acres[1] of the Riverfront Commons Trail.

The 0.8-mile[2] section of the Riverfront Commons Trail will be closed for approximately 60 months beginning in the summer of 2025. Continuity for Trail users will be maintained during this time. An approximately 1.1-mile-long detour will be provided primarily along Rivercenter Boulevard, West 3rd Street, and Highway/Crescent Avenue to maintain continuity. After 60 months, when the companion bridge is substantially complete, the

[1] This total does not include areas beneath the Clay Wade Bailey Bridge or in the ABM Parking Waterfront Lot where the Trail is within either a transportation right-of-way or existing transportation use as it travels through the upper parking area. The ABM Parking Waterfront Lot is not part of the Riverfront Commons Trail, and the use of the lot and an adjacent pier is subject to a separate mutual agreement between KYTC and City of Covington.

[2] This includes where the Trail intersects the ABM Parking Waterfront Lot and is located within an existing transportation use.

Riverfront Commons Trail will be restored in its current alignment and re-opened to the public. However, intermittent Trail closures within the same 0.8-mile section will be required until the project is complete. These closures will vary between one day to three weeks. Shorter durations will be required for access underneath the BSB, while longer closures will be required for overhead activities, such as deck placement, where Trail user and worker safety are a concern.

Measures to minimize harm to the Riverfront Commons Trail are described in **Section 6.2**. Coordination with the City of Covington, which is the official with jurisdiction over the Riverfront Commons Trail, is discussed in Section 7.2.

4.3 Covington Levee System

The Concept I-W Base Design avoided physical impacts to the Covington Levee System, proposing barges to construct the new companion bridge. Further evaluation during detailed design identified that it is impractical to construct the companion bridge solely using barges because of the vertical clearance restrictions for the Ohio River and the volatility of the river elevations. As such, the project will use temporary works that will temporarily impact the Covington Levee System.

Falsework to temporarily support the companion bridge structure is required on the Ohio and Kentucky sides of the river. The falsework will consist of 12 60-inch diameter steel pipe columns supported by 15-foot by 15-foot concrete foundations on four 70-foot 36-inch diameter driven steel pipe columns. These concrete foundations and steel piling will be driven through the levee or within 50 feet of the toe of the levee. Eight of the 12 foundations will require excavation into the levee, which will be approximately 15 feet by 15 feet and range in depth from 2 feet to 5 feet. Additionally, to provide access over the levee during construction, a temporary trestle will be constructed on top of the temporary falsework. The trestle will be located between the companion bridge and the existing BSB. The trestle will be built on 30 steel pipe piles. Eighteen piles will be driven into the levee, six will be driven within 50 feet of the levee toe, and the remaining six will be beyond 50 feet of the levee toe. Three of the pipe piles will have a beam connecting them that will intersect the top of the levee, which will require lowering the levee to accommodate them. In addition, fill material will be placed over the Riverfront Commons Trail to temporary use it as an access road as described in **Section 4.2**; however, the fill material will be located at the toe of the levee.

The falsework, bulkhead, trestle, ramp, and construction access will temporarily impact the levee. However, consistent with Concept I-W Base Design, the Re-eval 1 Design will not permanently impact the levee operations. As described in **Section 6.3**, all of the temporary works will be removed and the levee will be restored to pre-construction conditions. The only remaining elements will be portions of the support beams, which will be cut below the surface of the levee. As a result, these alterations will not compromise the character-defining features that contribute to the significance and integrity of the Covington Levee System.

The Kentucky SHPO determined that the project will have no adverse effect on the Covington Levee System in accordance with 36 CFR part 800, and FHWA determined it will result in a *de minimis* Section 4(f) use in

accordance with 23 CFR §§ 774.3 and 774.17. Additional information about the *de minimis* determination is provided in Section 7.3.

4.4 Other Historic Properties

In accordance with 36 CFR part 800 and Section 106 of the National Historic Preservation Act, the Kentucky SHPO and the Ohio SHPO previously determined that the Concept I-W Base Design results in an adverse effect on the Lewisburg Historic District and Longworth Hall, no adverse effect on 13 NRHP properties (including the Hillsdale Subdivision Historic District and the Elberta Apartments Historic District), and no effect on the remaining historic properties in the project's APE (see Appendices D, F, and G of the *Final Individual Section 4(f) Evaluation (April 2024)*). These Section 106 determinations do not represent uses of Section 4(f) property and remain largely unchanged. However, the previous Section 106 no effect determinations for the Old Fort Mitchell Historic District (KE-011) and a residence at 829–831 Highway Avenue (KEC-460) were modified to no adverse effect based on proximity of noise barriers to the historic district and construction access near the residence on Highway Avenue. Both changes were identified as part of detailed design progression (see **Appendix C**). For purposes of Section 4(f) compliance, these changes in the effect determination do not result in a use of sites KE-011 and KEC-460. Permanent or temporary incorporation of land will not occur on the historic properties with a determination of no effect; therefore, for purposes of Section 4(f) compliance, there will be no use of these properties. The Re-eval 1 Design will not require permanent or temporary incorporation of land from 15 of the sites with a finding of no adverse effect, and minor visual effects that will occur due to highway construction do not constitute a constructive use (**Table 3**); therefore, for purposes of Section 4(f) compliance, there will be no use of these properties. The rehabilitation of the existing BSB meets the exception from the requirement for Section 4(f) approval in accordance with 23 CFR § 774.13(a)(3)(i)-(ii). The Lewis and Clark National Historic Trail also continues to meet the Section 4(f) exception criteria set forth in 23 CFR 774.13, as previously documented in the *Final Individual Section 4(f) Evaluation (April 2024).*

Historic properties bolded in **Table 3** have been newly identified as a result of the re-evaluation of the APE since the *Final Individual Section 4(f) Evaluation (April 2024).*

Table 3: Section 4(f) Summary of Historic Properties with No Adverse Effect and No Section 4(f) Use

Site No.[1]	Site Name[1] Address	NRHP Status	Concept I-W Base Design	Re-eval 1 Design	Concept I-W Base Design	Re-eval 1 Design
			Effects		Section 4(f) Determination	
KECL-107	C&O Railroad Bridge Ohio River East of BSB	Eligible	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change

Site No.[1]	Site Name[1] Address	NRHP Status	Concept I-W Base Design	Re-eval 1 Design	Concept I-W Base Design	Re-eval 1 Design
			Effects		Section 4(f) Determination	
KE-09	West Side/Main Strasse Historic District	Listed	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change
KECL-815	Bavarian Brewing Company/Kenton Co Government Center 1840 Simon Kenton Way	Listed	No Adverse Effect	No change	Proposed new right-of-way outside of NRHP boundary and minor visual effects[2] – Section 4(f) does not apply	No change
KE-011	Old Fort Mitchell Historic District	List	No Effect	No Adverse Effect	Not applicable	Minor visual effects only[2] – Section 4(f) does not apply
KEC-462	Bavarian Brewery Bottling Works/Glier's Goetta 533 Goetta Place	Eligible	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change
KEC-460	Residence 829-831 Highway Avenue	Eligible	No Effect	No Adverse Effect	Not applicable	Minor visual effects only[2] – Section 4(f) does not apply
KEC-458	Residence 45 Rivard Drive	Eligible	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change
KEC-1038	Quality Inn/Radisson Hotel 626 West 5th Street	Eligible	No Adverse Effect	No change	Portion of existing parking lot within existing right-of-way (outside of NRHP boundary) and minor visual effects[2] – Section 4(f) does not apply	No change
KEC-820	Brent Spence Bridge	Eligible	No Adverse Effect	No change	Rehabilitation and minor visual effects – Meets the exception for Section 4(f) approval	No change

Site No.[1]	Site Name[1] Address	NRHP Status	Concept I-W Base Design	Re-eval 1 Design	Concept I-W Base Design	Re-eval 1 Design
			Effects		Section 4(f) Determination	
					in accordance with 23 CFR § 774.13(a)(3)(i)-(ii)	
KECL-692	House 536 West 13th Street	Eligible	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change
KEC-1011	House 534 West 13th Street	Eligible	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change
KEC-1075	Clay Wade Bailey Bridge	Eligible	No Adverse Effect	No change	Minor visual effects only[2] – Section 4(f) does not apply	No change
KE-1372	**Garden of Hope 699 Edgecliff Rd**	**Eligible[3]**	**Not applicable; outside of previous APE**	**No Adverse Effect[3]**	**Not applicable**	**Minor visual effects only[2] – Section 4(f) does not apply**

[1] Site numbers and names reflect the most current information according to the 2022 Cultural Historic Survey Report and 2025 Cultural Historic Report Addendum II (March 2025) (Appendix G of the NEPA re-evaluation).

[2] The permanent or temporary incorporation of land from within the property's NRHP boundary is not required. Minor visual effects noted for the site do not constitute a constructive use.

[3] See Appendix C for Kentucky SHPO concurrence with eligibility determination and no adverse effect finding.

5. AVOIDANCE ALTERNATIVES AND LEAST OVERALL HARM ANALYSIS

Because this *Updated Section 4(f) Evaluation* does not modify the approval to use Section 4(f) properties documented in the *Final Individual Section 4(f) Evaluation (April 2024)*, and only addresses no adverse effect determinations and *de minimis* impact findings, no new analysis of avoidance alternatives or least overall harm is necessary. The avoidance alternative and least overall harm analysis remain unchanged since the *Final Individual Section 4(f) Evaluation (April 2024)* and 2024 SEA/FONSI.

6. AVOIDANCE, MINIMIZATION, AND MITIGATION OF HARM

The following sections discuss avoidance, minimization, and mitigation of harm for Section 4(f) properties where the Re-eval 1 Design results in a change in impacts as compared to the Concept I-W Base Design.

6.1 Goebel Park Complex

The following 2024 SEA/FONSI commitments[1] remain unchanged from the *Final Individual Section 4(f) Evaluation (April 2024)*:

- Development of a new Goebel Park Complex Master Plan. Approximately $100,000 of project funds will be utilized for the development of a new Goebel Park Complex Master Plan. The City of Covington will engage community members and key stakeholders in the new master planning process, which will assess existing conditions and community priorities for the Goebel Park Complex, establish a broad vision for how the complex can meet identified goals and needs, develop a list of recommended actions, and outline an implementation plan for a minimum 10-year planning period. The final Master Plan will document the future plans, uses, and locations of facilities in the Goebel Park Complex. The new Goebel Park Complex Master Plan process will begin within six months after NEPA approval and will be complete within one year of initiation of the planning process.
- The taking of approximately 360 feet of walking trail will be mitigated by reconstructing the walking trail within the complex at a location to be determined in coordination with the City of Covington during the project's final design phase.
- The taking of the basketball courts and associated resources (in Kenney Shields Park) will be mitigated by allocating approximately $94,500 of project funds for the replacement and enhancement of the basketball courts or for other outdoor recreation facilities within the park to be established during the new master planning process facilitated by the City of Covington.
- Building of a new outdoor pool and associated facilities within the Goebel Park Complex. Proximity impacts to the existing outdoor pool will be mitigated by funding approximately $1,337,400 of project funds for the construction of a new outdoor pool and associated facilities or other comparable aquatic facility serving the same recreational purpose within the Goebel Park Complex, as established during the new master planning process facilitated by the City of Covington.
- In the event that project phasing requires the basketball courts to be impacted prior to replacement facilities being constructed, up to $75,000 of additional project funds will be allocated to construction of a temporary facility within a portion of the Goebel Park Complex not impacted by the project.

The mitigation measures listed above have been coordinated with the City of Covington, which is the official with jurisdiction over the Goebel Park Complex, and that coordination is discussed in **Section 7.1**. All other measures to minimize harm described in the *Final Individual Section 4(f) Evaluation (April 2024)* remain unchanged.

In addition to the previously mentioned measures, the following mitigation measure for the Section 4(f) use of the Goebel Park Complex has been updated to reflect Re-eval 1 Design impacts. Changes since the *Final*

[1] 2024 SEA/FONSI Commitment 36.a and 36.c–f. Revisions to the 2024 SEA/FONSI Commitment 36.e were made to clarify the purpose of the commitment, but do not alter the substance of the commitment. See Section 7 of the NEPA re-evaluation for further information.

Individual Section 4(f) Evaluation (April 2024) are reflected as ~~strikethrough~~ for removed text and underline for added text:

- The use of an estimated ~~2.84~~ 2.18 acres of flood-prone park property from the southwest corner of the Goebel Park Complex (~~2.34~~ 1.58 acres in Goebel Park and ~~0.50~~ 0.6 acre in Kenney Shields Park) will be mitigated and replaced with an estimated ~~2.23~~ 2.11 acres of currently state-owned property that is at a higher elevation, not prone to flooding, and adjacent to the northwest corner of the Goebel Park Complex.

The replacement land included in the mitigation measures for the Goebel Park Complex is currently occupied by the existing West 5th Street ramp, and the transfer to the City of Covington will be finalized after construction on that portion of the project is complete. KYTC will transfer the ownership of the replacement land to the City of Covington after construction of the West 5th Street ramp is complete. Once the land transfer is complete, the City of Covington will continue all future maintenance responsibilities for the Goebel Park Complex, including the replacement land. FHWA and KYTC will ensure that the land transfer is completed within two years after KYTC acceptance of the completed work in the vicinity of the Goebel Park Complex.

KYTC evaluated the feasibility of adding other contiguous parcels to the replacement land for the Goebel Park Complex, and none were identified. Under Re-eval 1 Design, 2.11 acres of currently state-owned property will be used as replacement land, 0.12 acres less than the 2.23 acres proposed under Concept I-W Base Design. When the land transfer is complete, the total land area for the Goebel Park Complex will be reduced from 14.67 acres to approximately 14.6 acres, which represents a 0.5 percent reduction in the total acreage of the Goebel Park Complex versus the 4.2 percent lost under Concept I-W Base Design. The final boundary for the Goebel Park Complex is shown in **Appendix A: Exhibit 3.**

Consistent with the *Final Individual Section 4(f) Evaluation (April 2024)*, the proposed mitigation measures for the Goebel Park Complex are compensatory to the impact to the Section 4(f) property. The replacement property will be compatible with and will not diminish the outdoor recreation areas in the complex. The replacement property is higher in elevation than the portions of the complex that will be acquired by the project and not prone to flooding. In addition, the replacement land is flatter and closer to other prominent park features. Based on these characteristics, the replacement land has greater potential for future enhancements to outdoor recreational activities and amenities within the Goebel Park Complex, which will be established in the new Master Plan that will be funded by the proposed mitigation measures for the complex. The operation of the basketball courts will be maintained throughout construction, outdoor recreation will remain the primary function of the site, and it will remain free and open to the public. The project will not necessitate the closure of the pool, although decisions about pool operations are made by the City of Covington.

Other mitigation measures, which may benefit the Goebel Park Complex but are not mitigation for the Section 4(f) use, are described in the NEPA re-evaluation in Section 5.12.

6.2 Riverfront Commons Trail

KYTC consulted with the City of Covington, as owner and operator of the Riverfront Commons Trail, regarding project impacts to ensure the project will not adversely affect the recreational activities, features or attributes

that qualify the Trail for protection. KYTC has committed to implementing the following measures to minimize harm to the Trail as part of the project:

- A temporary Trail detour will be provided during periods of full Trail closure, anticipated to last approximately 60 months, to ensure continuity of the Trail. The majority of the detour will be along Rivercenter Boulevard, West 3rd Street, and Highway/Crescent Avenue **(Appendix A: Exhibit 5)**.
- The Trail detour will accommodate both pedestrians and bicyclists. The detour will widen the sidewalk to accommodate an 8-foot-wide shared-use path or utilize the existing 4-foot-wide sidewalk and restripe the roadway to accommodate a 10-foot-wide two-way bicycle lane.
- Between Highway/Crescent Avenue and the existing BSB, the Trail detour will be completed in two phases. Phase 1 will restripe existing parking lots between West 3rd Street and the Holiday Inn to provide an 8-foot-wide shared-use path. Following completion of West 3rd Street reconstruction, the detour will be shifted back to West 3rd Street (Phase 2) **(Appendix A: Exhibit 5)**.
- The temporary trail detour will meet design standards, including for safety and operations, outlined in *KYTC's Complete Streets, Roads, and Highway Manual* (2022). Where warranted per design standards, a 2-foot-wide striped buffer will be incorporated to separate bicycles from traffic. The use of flexible bollards for visible delineation will also be evaluated for use. In other locations, a physical buffer will be incorporated using fencing, concrete barriers, water wall barriers or other methods as appropriate and mutually agreed upon by KYTC and the City of Covington **(Appendix A: Exhibit 5)**.
- During construction, the appropriate method of traffic control device will be used in select locations of mixed traffic to manage ingress and egress access for construction vehicles and detoured Trail users to ensure safety for pedestrians, bicyclists, and motorists. These traffic control devices will be located at the Ohio River levee gate, located at the western terminus of the Trail detour, and at Highway/Crescent Avenue at the entrance to the Phase 1 detour.
- The Riverfront Commons Trail will be fully restored to a condition that is at least equivalent to existing conditions. This includes removing all temporary aggregate fill, repaving the Trail, reinstalling Trail lighting, and replanting disturbed areas with species approved by the City of Covington. The contractor will remove all existing Trail signage, benches, and trash receptacles within the temporary closure limits, store them during the temporary closure, and will reinstall these amenities as part of the Trail restoration.
- The Trail will be improved where appropriate and mutually agreed upon by KYTC and the City of Covington to ensure facilities comply with standards of safety and accessibility, including proper lighting conditions and updates to protection from overhead railroad bridge hazards. Certain areas of the Trail will be widened and strengthened to sufficiently accommodate maintenance vehicles that periodically need to use the paved Trail to access utility facilities and the underside of bridges.
- A landscaping plan, mutually agreed upon by KYTC and the City of Covington, will be implemented as part of the Trail restoration.

- The City of Covington, as owner with jurisdiction, and Southbank Partners, as developer of the Trail, will be notified at least 60 days prior to the initial closure of the Trail.
- The temporary Trail detour will be adequately marked and signed. KYTC will coordinate with the City of Covington and Southbank Partners to incorporate appropriate wayfinding signage along the temporary Trail detour that is consistent with the Riverfront Commons Trail branding.
- The public will be notified at least 30 days prior to full Trail closure and 30 days prior to re-opening of the Trail in its current alignment. Notices will be placed on the project website (www.brentspencebridgecorridor.com), the project's social media platforms, the City of Covington's website, and through the project e-mail list. The public can sign up for the project e-mail list through the project website.
- During intermittent Trail closures required for rehabilitation of the existing BSB, the public will be notified at least 48 hours prior to closure.
- Throughout the project, KYTC will update the City of Covington and Southbank Partners on the projected timeline for project-related impacts to the Trail, including projected periods of intermittent closures.

6.3 Covington Levee System

KYTC has committed to the following measure to minimize harm to the Covington Levee System as part of the project:

- Once the companion bridge is constructed, the temporary works structures (falsework towers, temporary trestle, and bulkhead with work surface) will be demolished to 3 feet below the pre-existing levee grade and the levee will be restored. This involves the cutting off of steel piling to the appropriate elevation below grade, filling holes with flowable fill, and replacing topsoil to the original grades of the levee as determined by preconstruction as-built elevations taken prior to start of construction. All aggregate fill temporary works will be removed, and the area appropriately restored. Any restored areas that previously had vegetation will be reseeded with a mix meeting the requirements of KYTC Standard Specification Section 827.

6.4 Hillsdale Subdivision, Elberta Apartments, and Lewisburg Historic Districts

Noise-related public outreach conducted in April and May 2025 identified that benefited receptors are in favor of constructing the noise barriers proposed in proximity to or within the Hillsdale Subdivision, Elberta Apartments, and Lewisburg historic districts. Additionally, for the noise barriers in proximity to and within the Lewisburg Historic District, benefited receptors are in favor of applying a transparent aesthetic treatment, which will further reduce impacts to the district. Per KYTC's *Noise Analysis and Abatement Policy (August 2022)*, the results of the noise-related public outreach will be used to inform the construction of the proposed barriers.

6.5 Queensgate Playground and Ball Field and Ezzard Charles Park

Noise-related public outreach was conducted in March, April, and October 2024. While response rates were low, the noise barriers proposed adjacent to the Queensgate Playground and Ball Field and Ezzard Charles Park remain unchanged from the *Final Individual Section 4(f) Evaluation (April 2024)* and will be constructed as proposed. In accordance with 2024 SEA/FONSI Commitment 38.c, a noise barrier will be constructed along the Queensgate Playground and Ball Field and the highway boundary, which negates the need for a limited-access right-of-way fence.

7. COORDINATION

Coordination with officials with jurisdiction, Section 106 consulting parties, FHWA, and the Department of the Interior (DOI) conducted since the *Final Individual Section 4(f) Evaluation (April 2024)* and 2024 SEA/FONSI is discussed in the following sections for newly identified Section 4(f) properties or properties with a change in Section 4(f) use.

7.1 Goebel Park Complex

KYTC coordinated with the City of Covington regarding updated measures to address impacts to the Goebel Park Complex resulting from Re-eval 1 Design. The City of Covington was actively engaged in assessing the updated Re-eval 1 Design impacts, the updated replacement land total acreage, and updated appraisals. The City of Covington was also previously engaged in developing, and agreed to, the minimization and mitigation measures detailed in the *Final Individual Section 4(f) Evaluation (April 2024)*.

The public was previously provided with the opportunity to comment on impacts to the Goebel Park Complex during the comment period for the 2024 SEA/FONSI. Because the Re-eval 1 Design decreases impacts to the complex and provides replacement land that reduces the total loss of park land as compared to the Concept I-W Base Design, no further public notification was warranted. For more details on the public comments received, refer to the *Final Individual Section 4(f) Evaluation (April 2024)*.

With the overall reduction in impacts to the Goebel Park Complex and continued close coordination with the City of Covington on project design, it was determined that the *de minimis* impact on the Goebel Park Complex, as defined by 23 CFR § 774.17, remained valid and the concurrence from KYTC and the City of Covington in 2024 was adequate for this undertaking. Refer to the *Final Individual Section 4(f) Evaluation (April 2024)* for further details and documentation of the previous coordination.

A copy of the updated appraisals and replacement land was accepted by the City of Covington and completed in accordance with Section 6(f) requirements. This process included updating coordination with the NPS through the Kentucky Division of Local Government. For details on coordination, see Appendix N of the NEPA re-evaluation.

7.2 Riverfront Commons Trail

In accordance with 2024 SEA/FONSI Commitment 57, KYTC initiated coordination with the City of Covington once it determined that temporary closures, occupancy, or detours of the Riverfront Commons Trail may be required.

The public was also provided the opportunity to comment on the impacts to the Riverfront Commons Trail. A public notice was issued to the public of FHWA's intent to make a determination of *de minimis* impacts for the proposed temporary use of a section of the Riverfront Commons Trail. The notice was issued on January 24, 2025, and the 30-day public comment period closed on February 23, 2025. During that time, 77 individuals or groups provided comments related to the Riverfront Commons Trail or project impacts in general. Trail-related comments expressed concerns about the safety of the temporary Trail detour, as well as the duration of the temporary closure and detour; made specific requests for temporary wayfinding signage, for advanced notice of closures, for permanent or improved shared-use path amenities, and for commitments to restoring the existing Trail or requests to enhance the existing Trail; and provided additional access considerations. **Appendix B** provides a summary and full list of the public comments and responses.

After the conclusion of the public comment period, KYTC forwarded the public comments related to the Riverfront Commons Trail to the City of Covington for their consideration. In a letter dated April 15, 2025, FHWA stated its intent to determine that the BSB Corridor Project, including KYTC committed mitigations, will have a *de minimis* impact on the Riverfront Commons Trail, as defined by 23 CFR § 774.17. FHWA requested a written concurrence that the project will not adversely affect the activities, features, or attributes that make the Riverfront Commons Trail eligible for Section 4(f) protection. KYTC concurred with these findings on April 15, 2025, and the City of Covington concurred on May 12, 2025. Copies of the coordination documents for the Riverfront Commons Trail are provided in **Appendix B**.

7.3 Covington Levee System

KYTC coordinated the *Cultural Historic Report Addendum II (March 2025)*[1] with the Kentucky SHPO on April 11, 2025. The Kentucky SHPO concurred with the finding of no adverse effect for the Covington Levee System on April 11, 2025 (see **Appendix C**). Based on the no adverse effect determination and the Kentucky SHPO's concurrence, FHWA determined that the BSB Corridor Project will result in a *de minimis* use of the Covington Levee System.

7.4 Consulting Parties (Kentucky)

On March 26, 2025, KYTC forwarded the *Cultural Historic Report Addendum II (March 2025)* to Section 106 consulting parties in Kentucky. As part of this transmittal, KYTC notified consulting parties of the changes to the project and afforded them the opportunity to review and comment on the report (see **Appendix C**). The review period closed on April 9, 2025, and no comments were received.

[1] See Appendix G of the NEPA re-evaluation for the addendum report.

7.5 Department of the Interior

Because this *Updated Section 4(f) Evaluation* does not modify the *Final Individual Section 4(f) Evaluation (April 2024)* or its findings, review from the Department of Interior is not required. However, review for the conversion of a Section 6(f) use (Goebel Park Complex) is required and documented in Section 5.12 of the NEPA re-evaluation.

8. CONCLUSION

The changes described in this *Updated Section 4(f) Evaluation* are not significant changes.

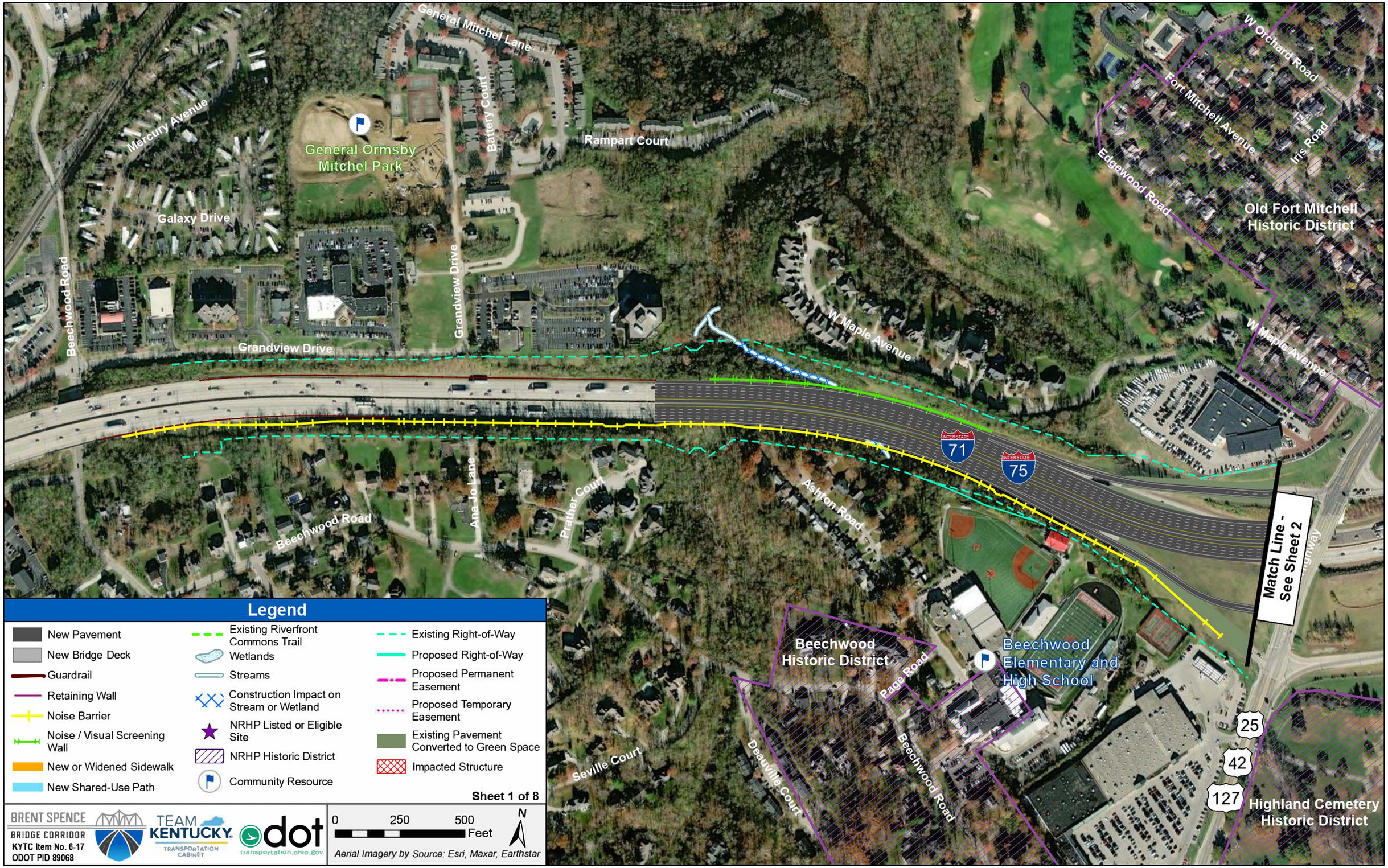
FHWA previously determined that the BSB Corridor Project will result in a *de minimis* impact to the Goebel Park Complex. Based on the changes in impacts to the Goebel Park Complex, including a reduction in impacts by 0.66 acres and a reduction in total park land area lost by 0.5 percent (compared to 4.2 percent with Concept I-W Base Design), FHWA determined that the *de minimis* use determination remains valid.

FHWA determined that the BSB Corridor Project will result in a *de minimis* impact to the Riverfront Commons Trail and the Covington Levee System, and that there is no Section 4(f) use of the newly identified Garden of Hope.

All other conclusions documented in the *Final Individual Section 4(f) Evaluation (April 2024)* remain unchanged and valid.

Appendix A: Exhibits

Exhibit 1: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 1 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

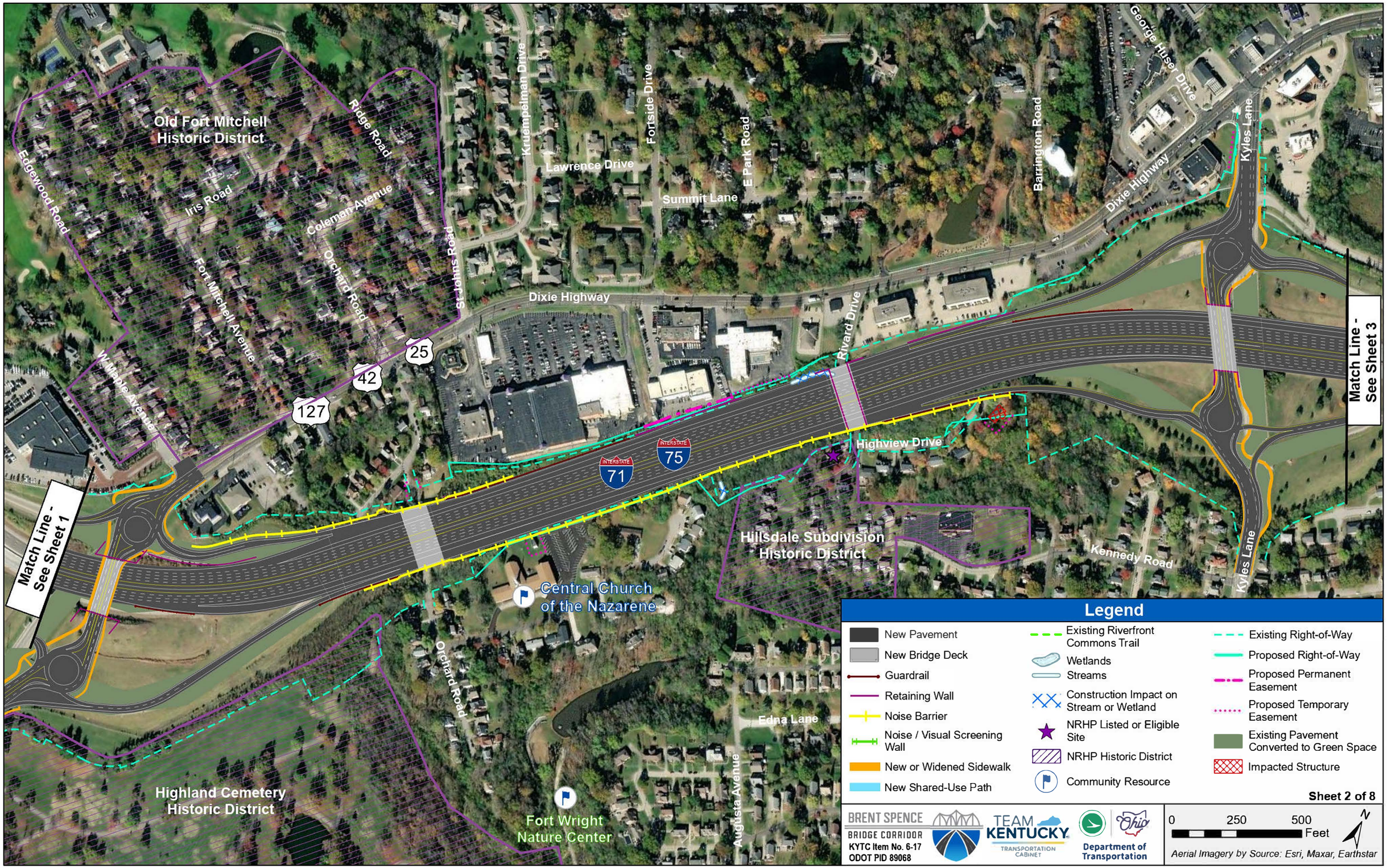
odot transportation.ohio.gov

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 1: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 2 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

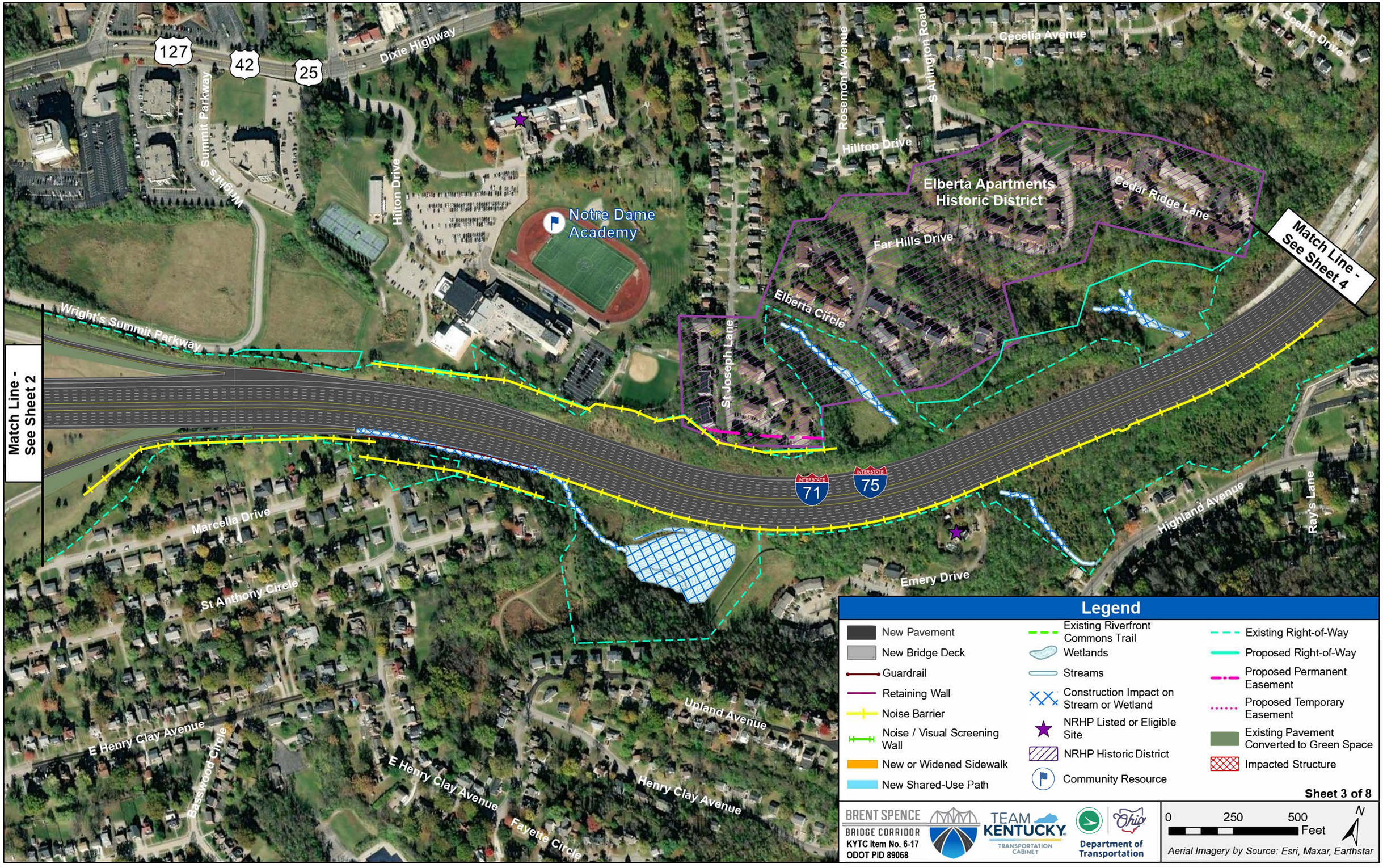
Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 1: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 1: Re-evaluation 1 Design

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 4 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet

Aerial Imagery by Source: Esri, Maxar, Earthstar

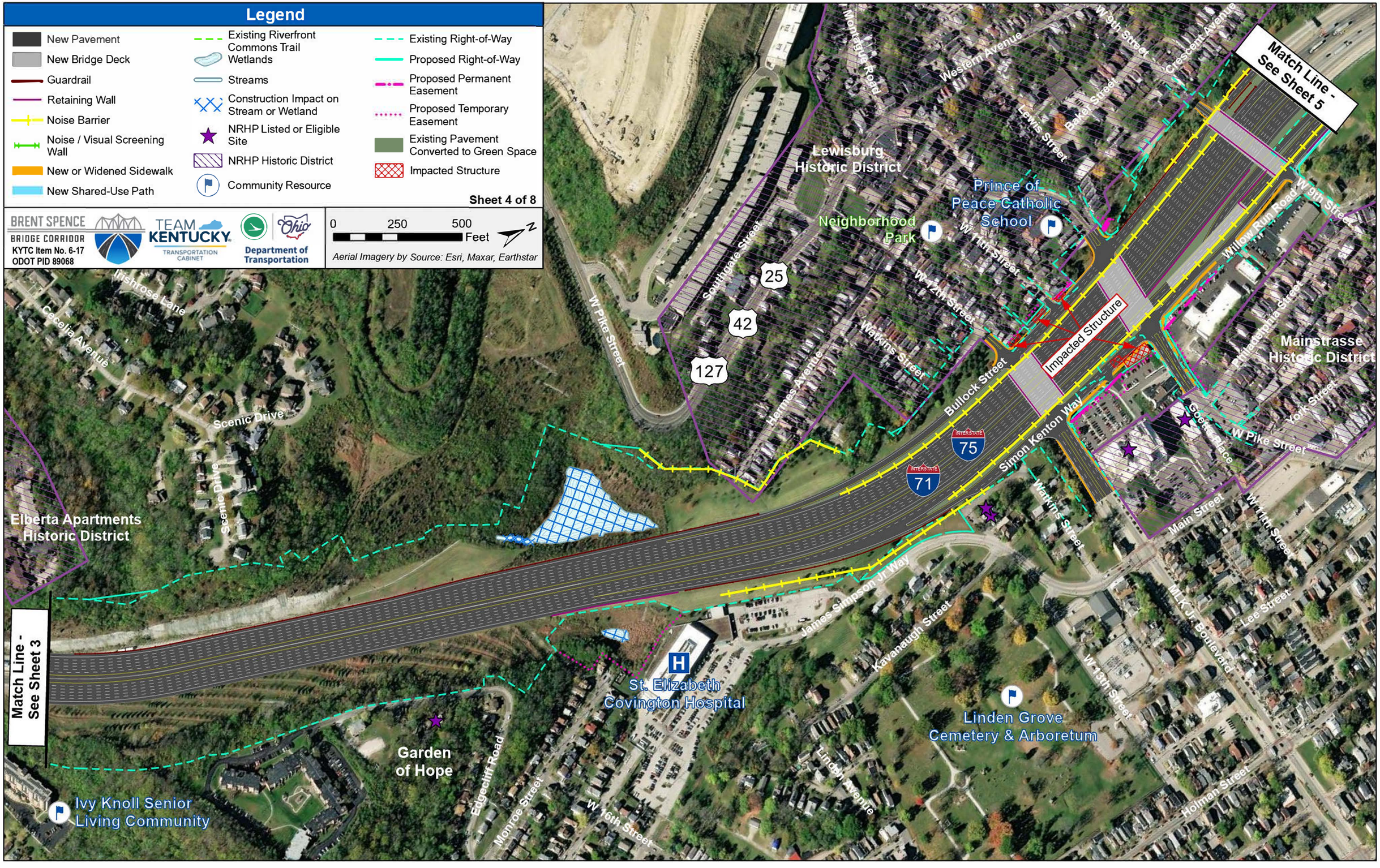
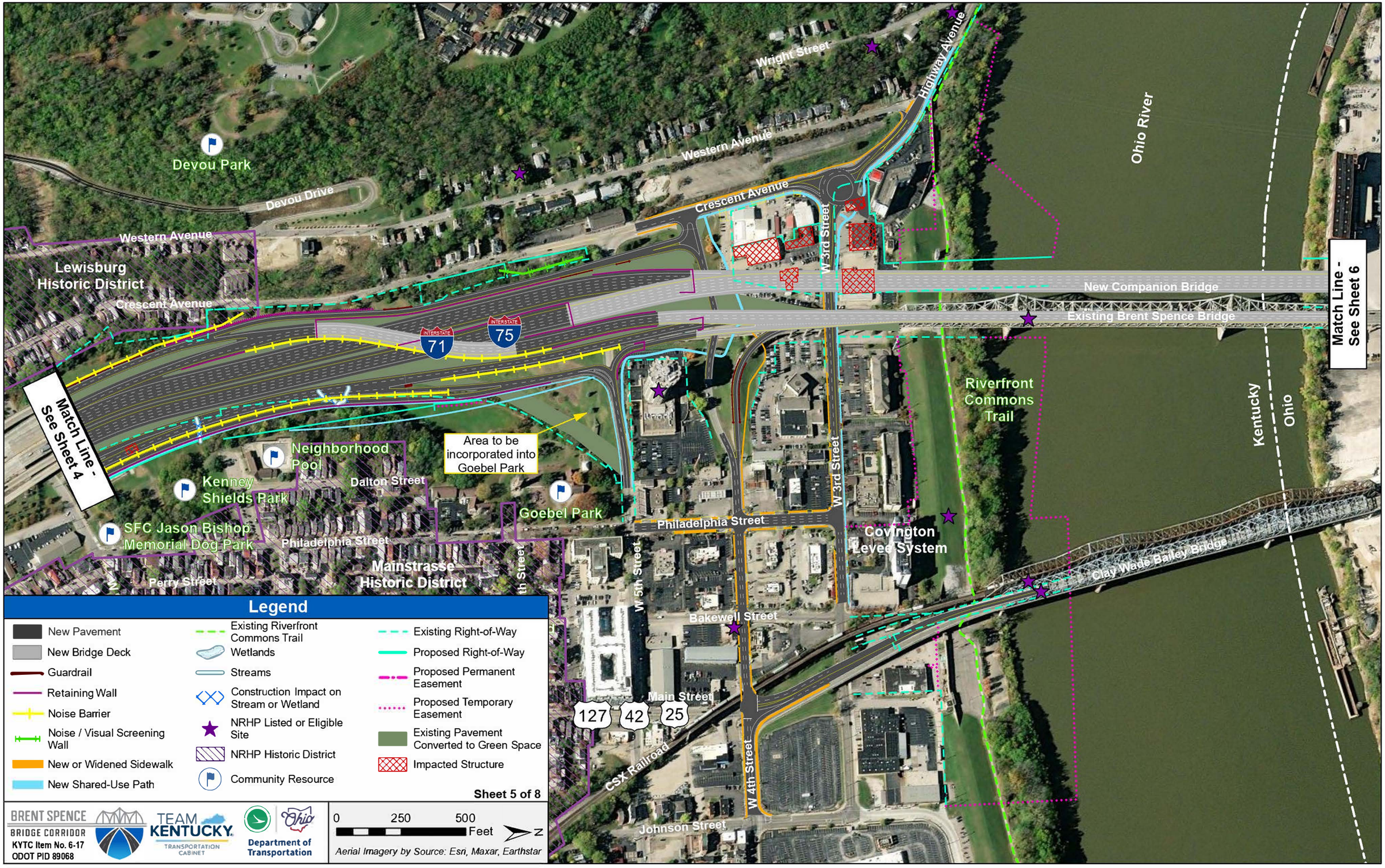


Exhibit 1: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 5 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

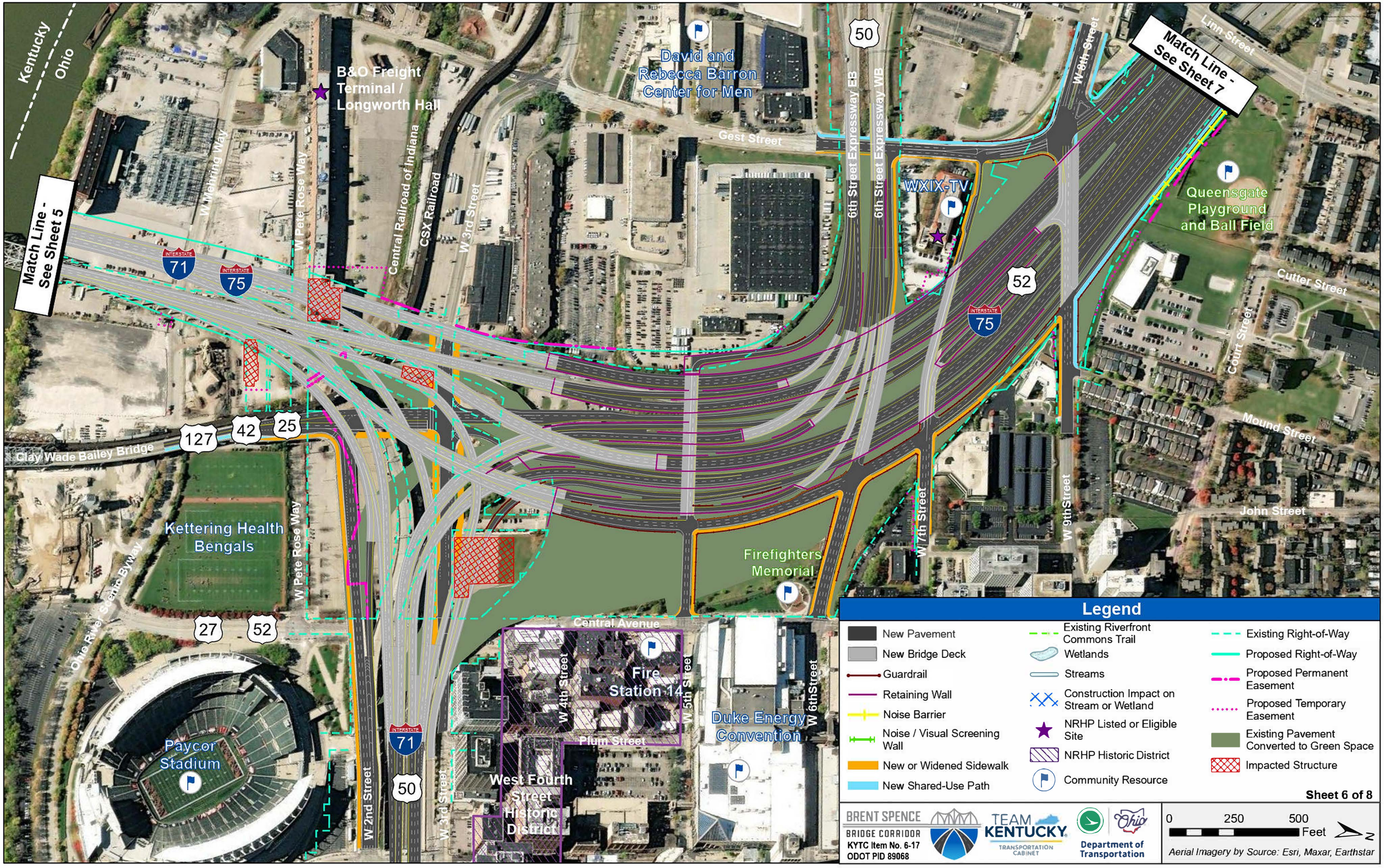
Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 1: Re-evaluation 1 Design



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 6 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Exhibit 1: Re-evaluation 1 Design



Exhibit 1: Re-evaluation 1 Design

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Wall
- New or Widened Sidewalk
- New Shared-Use Path
- Existing Riverfront Commons Trail
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 8 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet N

Aerial Imagery by Source: Esri, Maxar, Earthstar

Connection to City of Cincinnati Western Hills Viaduct project.

Western Hills Viaduct

Spring Grove Avenue

Dalton Avenue

Winchell Avenue

Match Line - See Sheet 7

Bank Street

Harrison Avenue

Patterson Street

Dayton Street Historic District

Colerain Avenue

Dyer Park

Central Avenue

Central Parkway

W McMicken Avenue

Kloter Avenue

Conroy Street

Central Parkway

W McMillan Street

West McMicken Avenue Historic District

Western Hills Viaduct Subway Tunnel Portals

Halstead Street

W McMicken Avenue

W McMillan Street

Fairview Park Road

Straight Street

Draper Street

Alfred Street

Cook Street

Straight Street

Coleraine Avenue

52

75

127

27

Exhibit 2: Section 4(f) Properties Overview Map

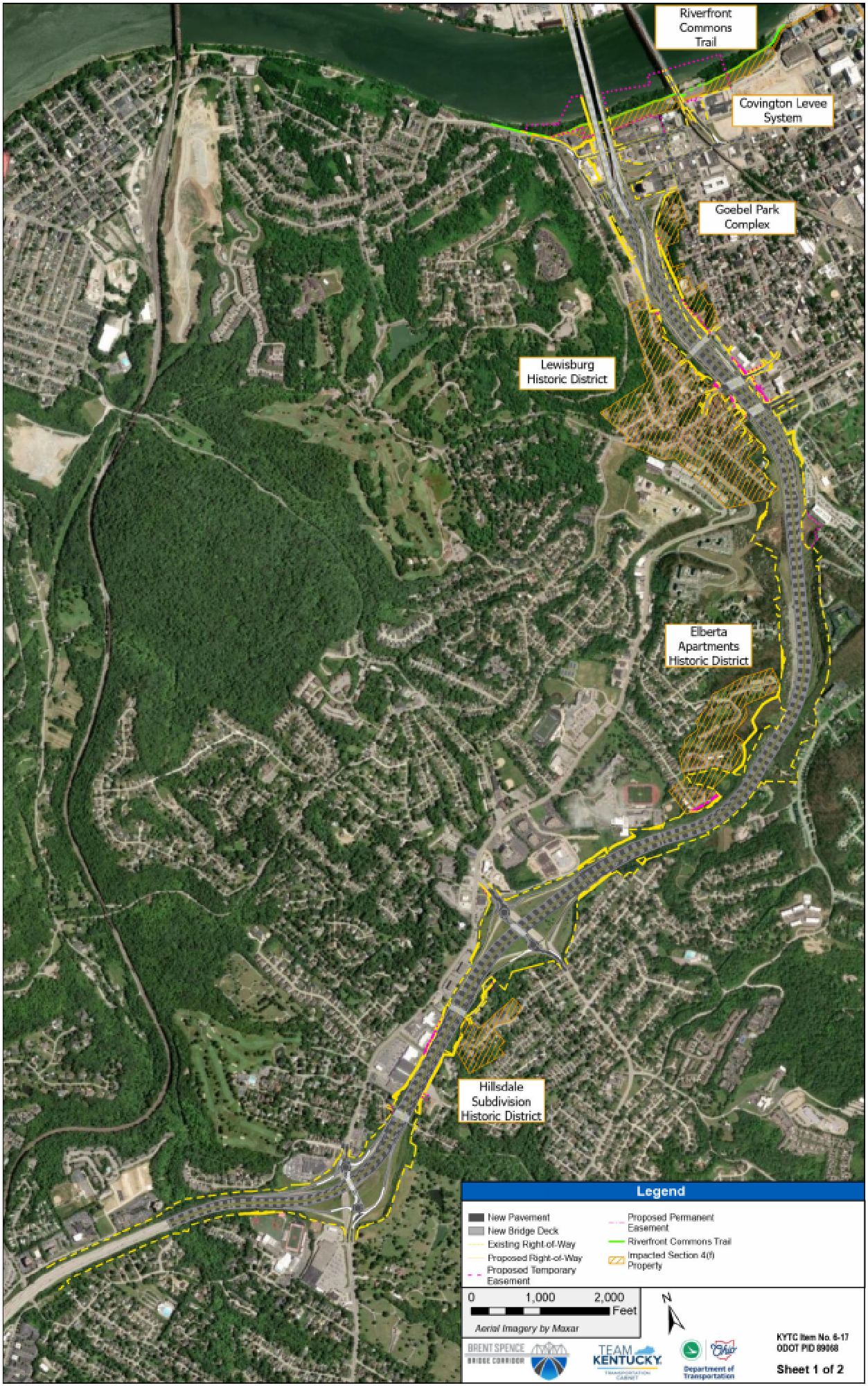
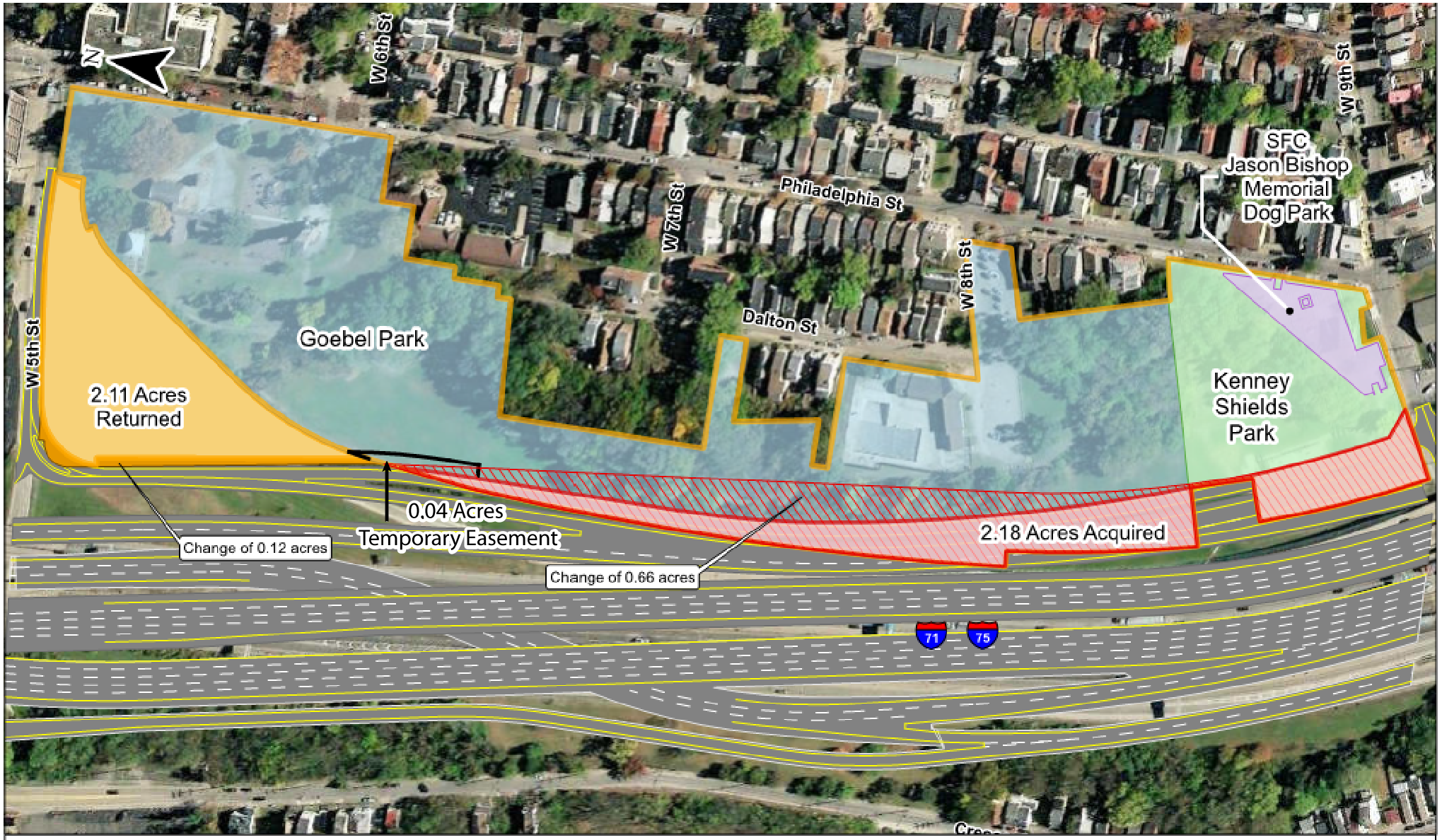


Exhibit 2: Section 4(f) Properties Overview Map



Exhibit 3: Goebel Park Complex Impacts and Mitigation



Changes to Project Land Replacement

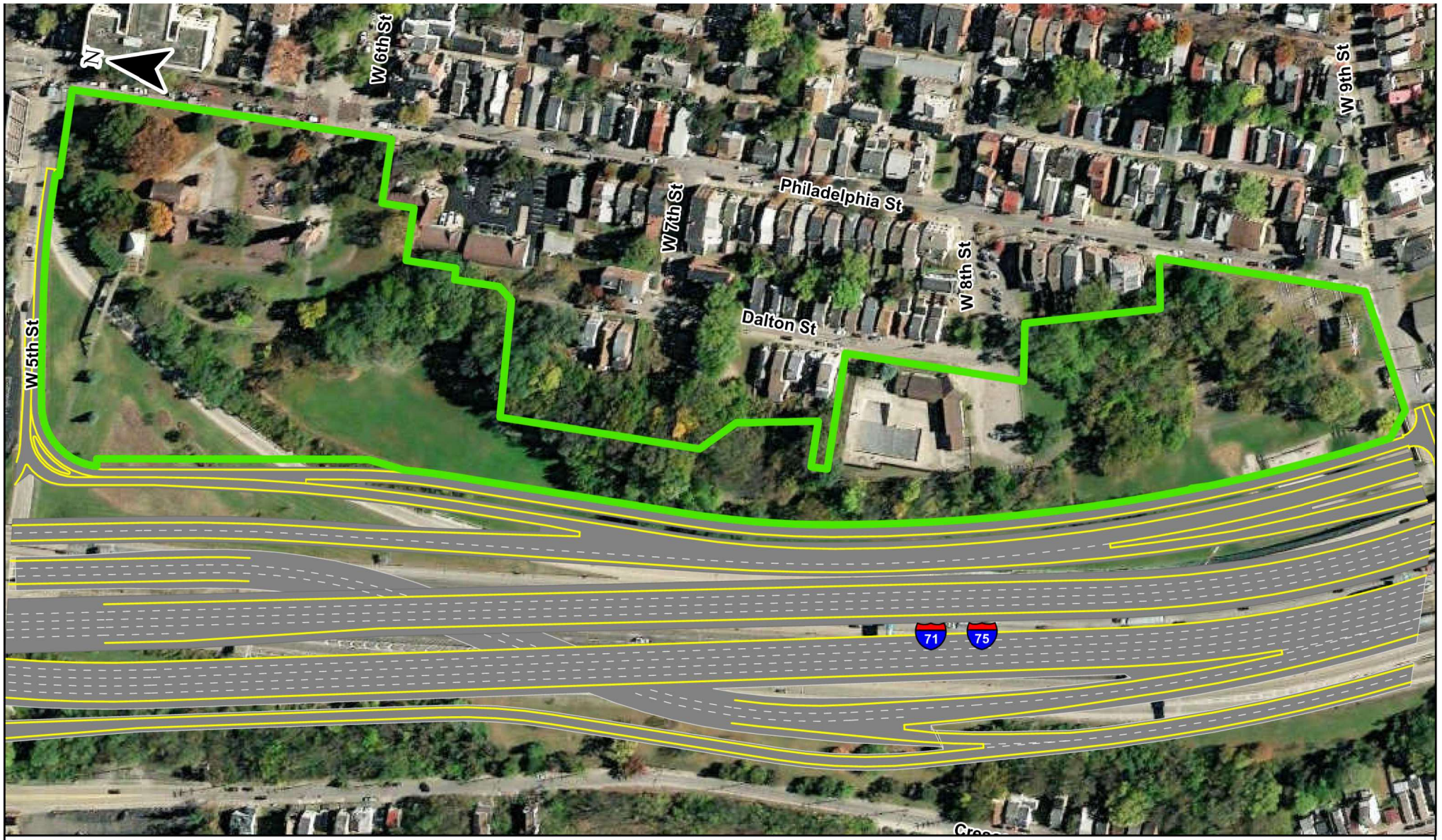
Proposed Roadway
Current Acquired Park Land
Previous Acquired Park Land Area
Current Proposed Land Returned
Previous Proposed Land Returned
Proposed Temporary Easement

Brent Spence Bridge Corridor
KYTC Item No: 6-17.00
ODOT PID: 116649
Updated 4/1/2025

0 250 500 Feet



Exhibit 3: Future Goebel Park Complex Boundary



Future Goebel Park Complex Boundary

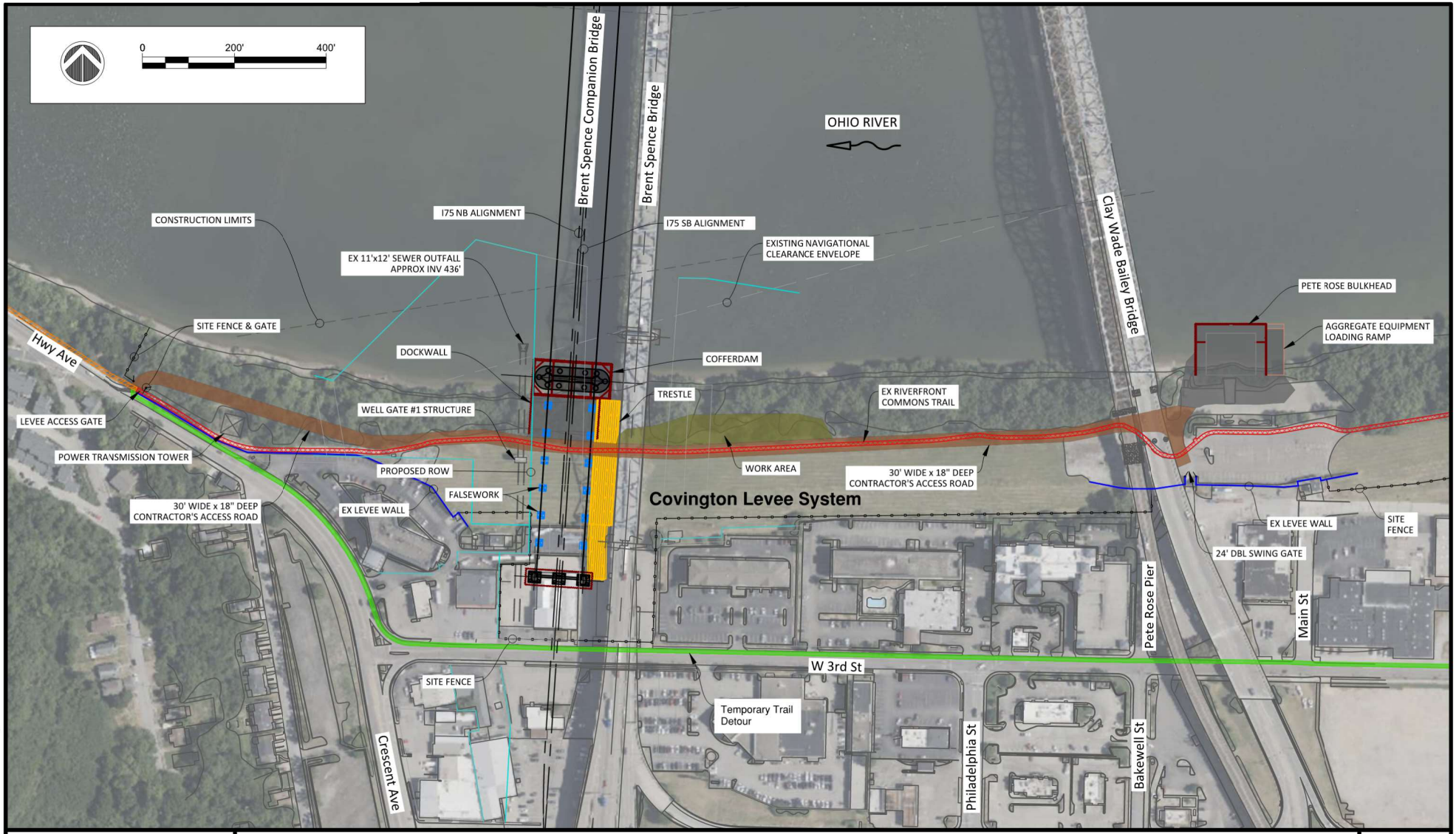
Brent Spence Bridge Corridor
KYTC Item No: 6-17.00
ODOT PID: 116649
Updated 4/14/2025

Proposed Roadway
Proposed Goebel Park Complex

0 250 500 Feet



Exhibit 4: Temporary Works



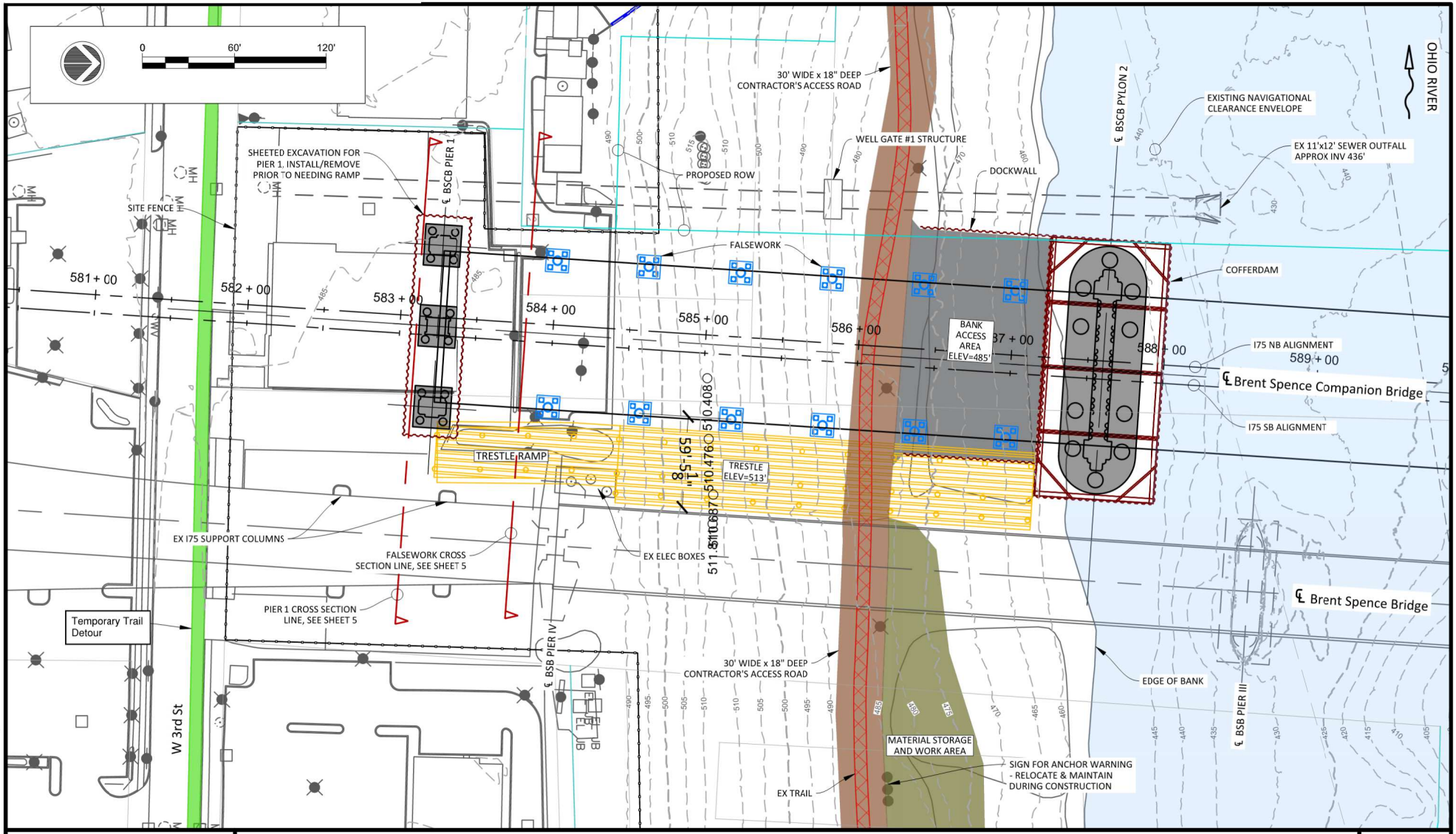
Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

SITE PLAN

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:14 PM Plot Scale: 1:200

Exhibit 4: Temporary Works



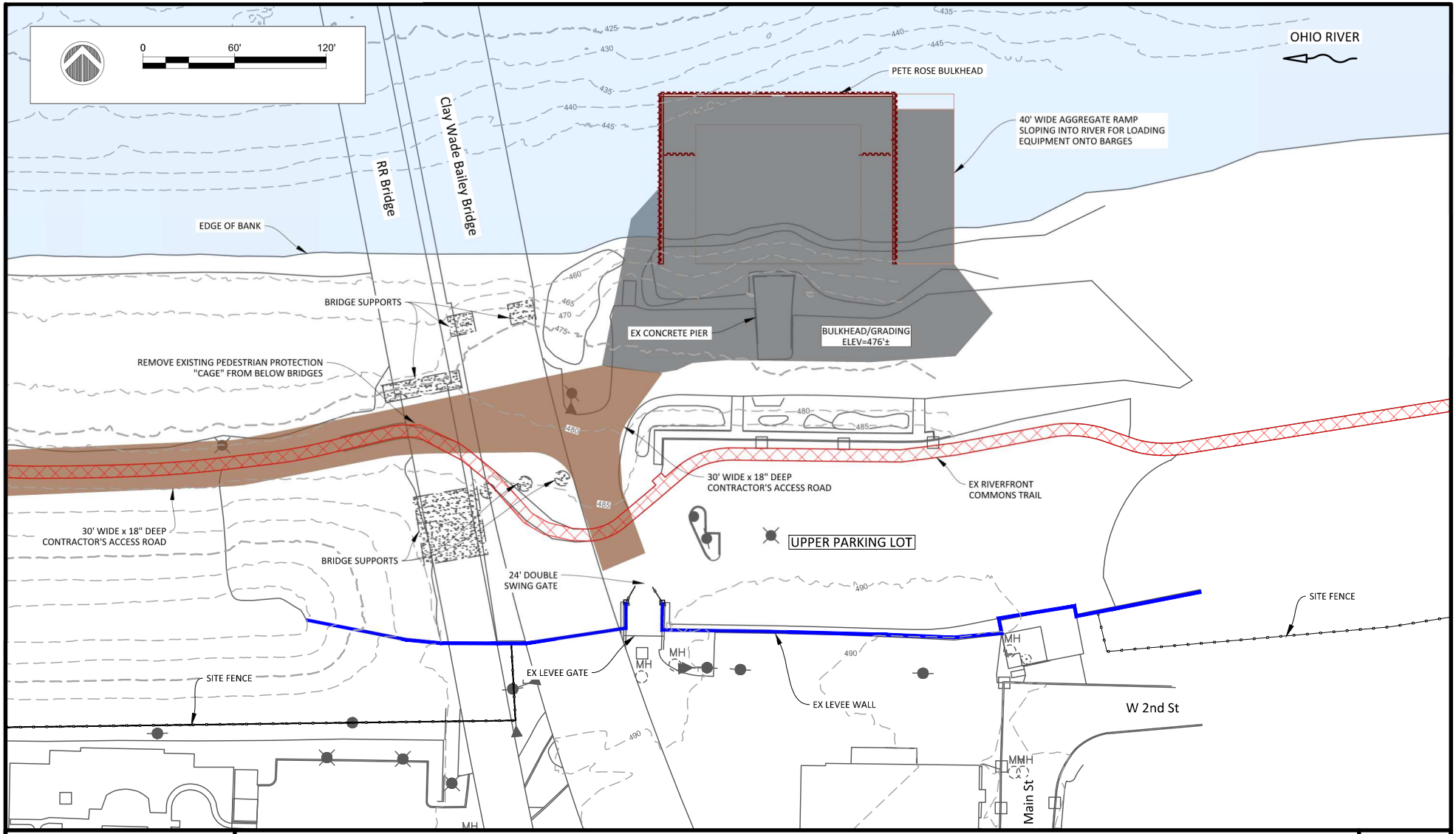
Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

COMPANION BRIDGE ACCESS PLAN

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:15 PM Plot Scale: 1" = 60'

Exhibit 4: Temporary Works

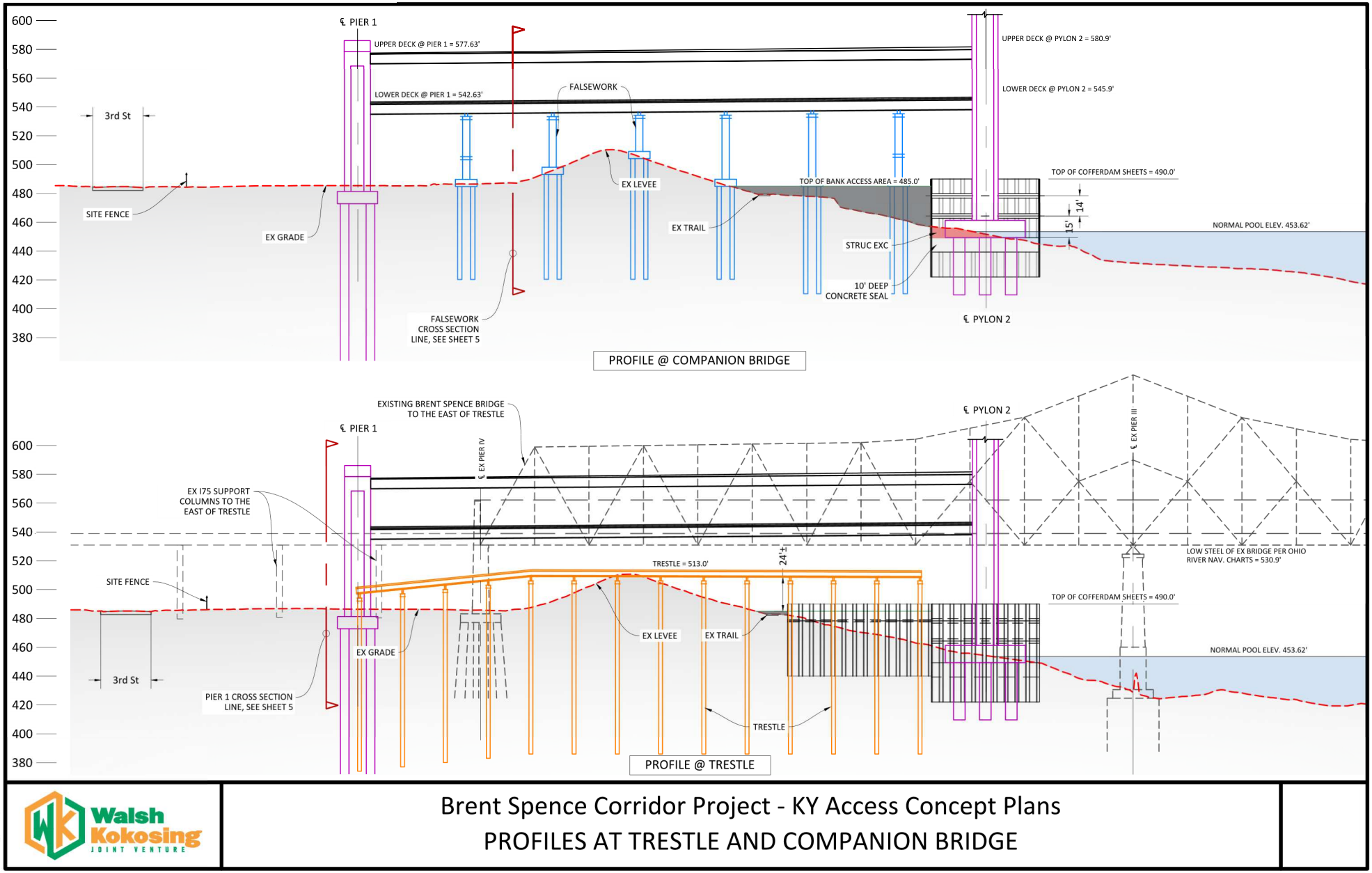


Brent Spence Corridor Project - KY Access Concept Plans

PETE ROSE BULKHEAD PLAN

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:15 PM Plot Scale: 1" = 60'

Exhibit 4: Temporary Works



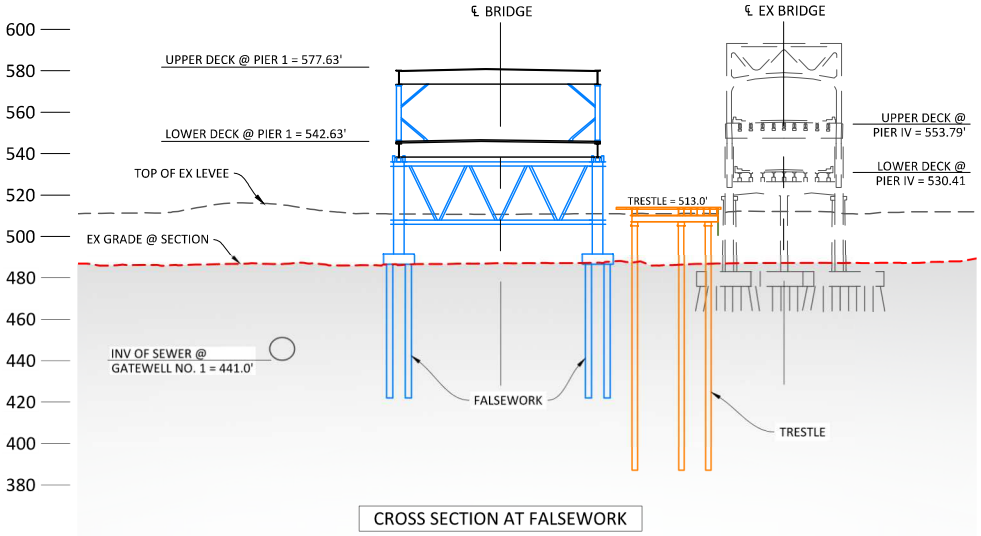
Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

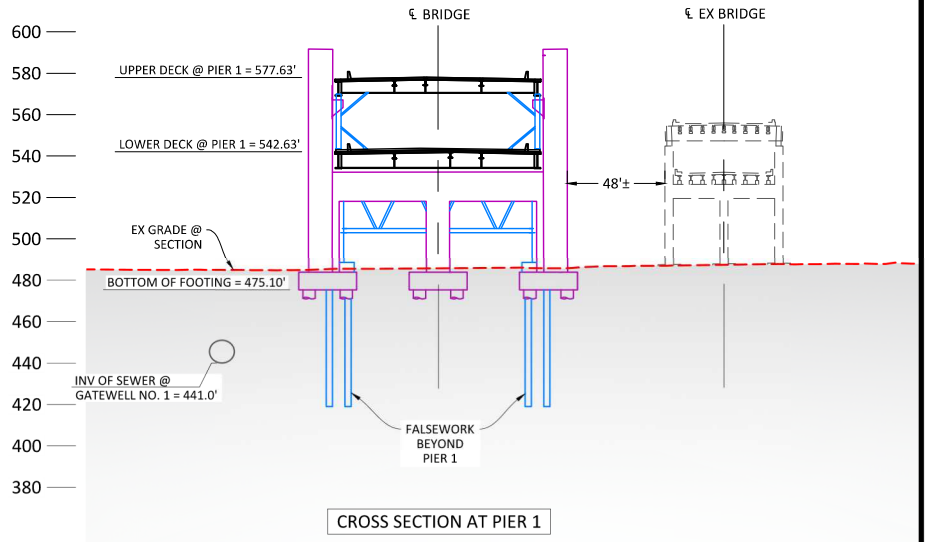
PROFILES AT TRESTLE AND COMPANION BRIDGE

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:16 PM Plot Scale: 1" = 60'

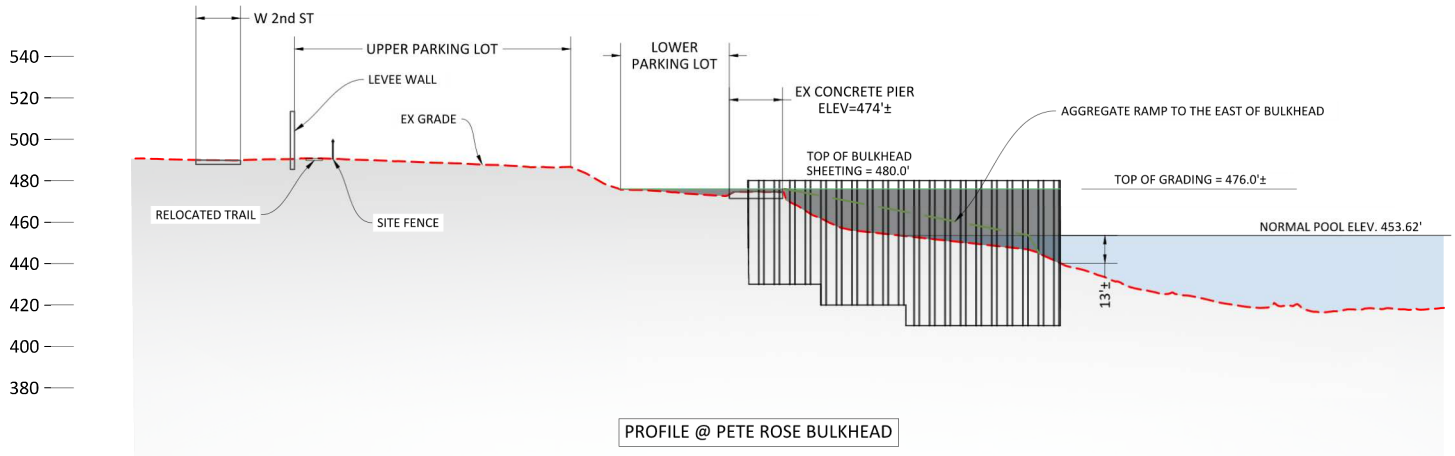
Exhibit 4: Temporary Works



CROSS SECTION AT FALSEWORK



CROSS SECTION AT PIER 1



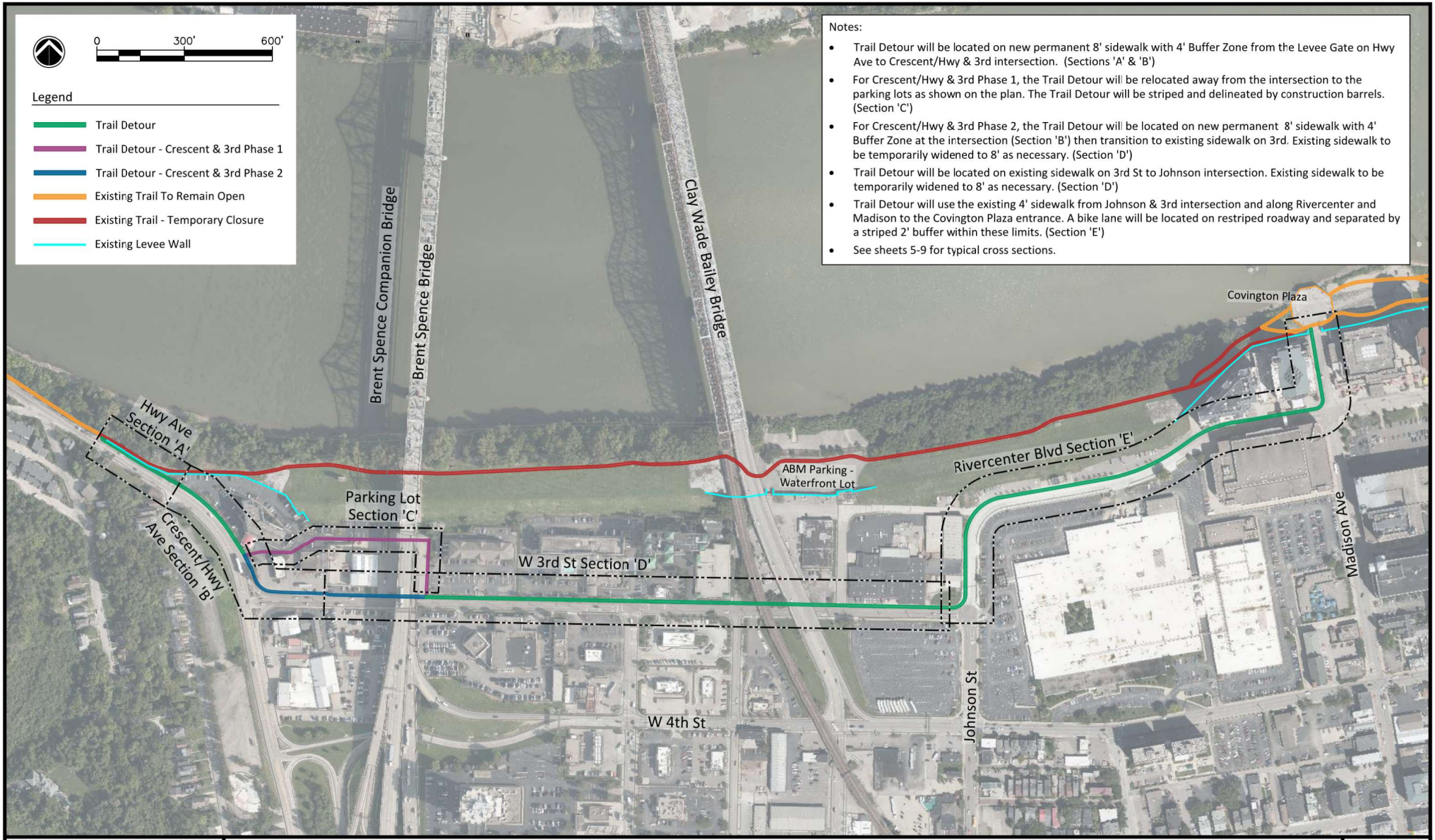
PROFILE @ PETE ROSE BULKHEAD

Walsh Kokosing JOINT VENTURE

Brent Spence Corridor Project - KY Access Concept Plans

CROSS SECTIONS AND PROFILE AT PETE ROSE BULKHEAD

Walsh_BSB_KY Access-Exhibit Plans.dwg Plot Date: 3/3/2025 2:16 PM Plot Scale: 1" = 60'



BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: Plan Overview

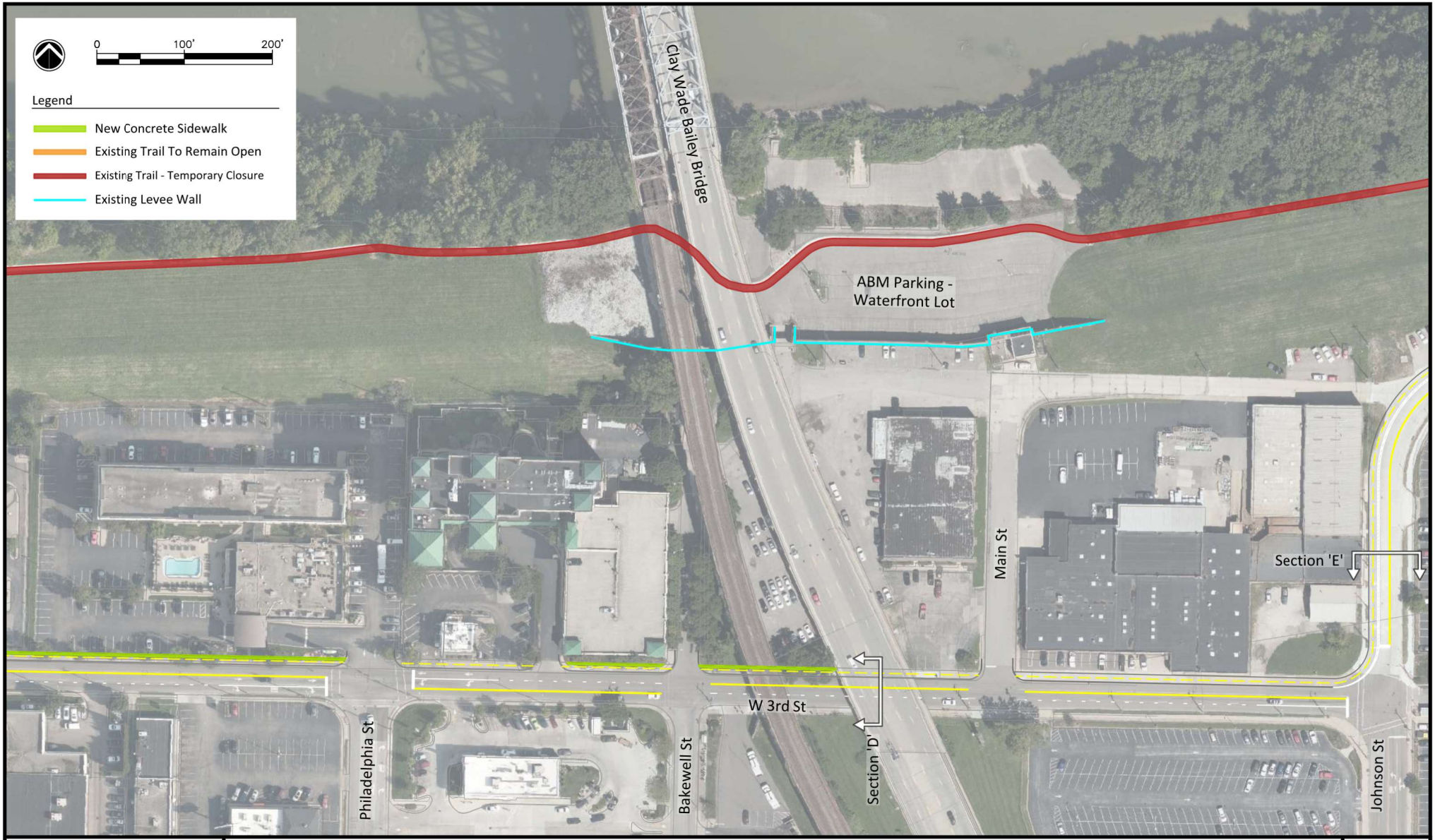


BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: Highway/Crescent Ave to W 3rd St

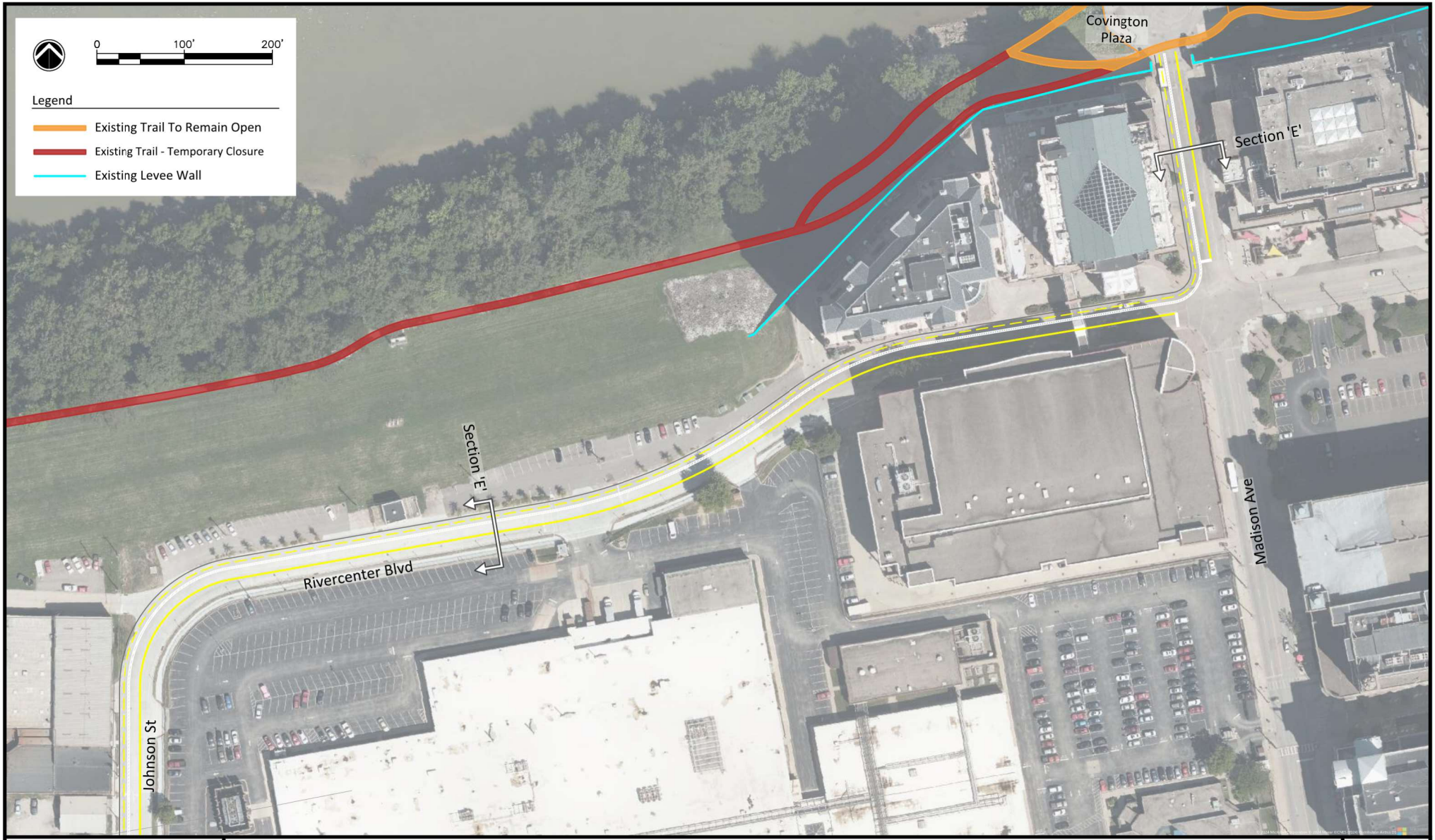


BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: W 3rd St to Rivercenter Blvd



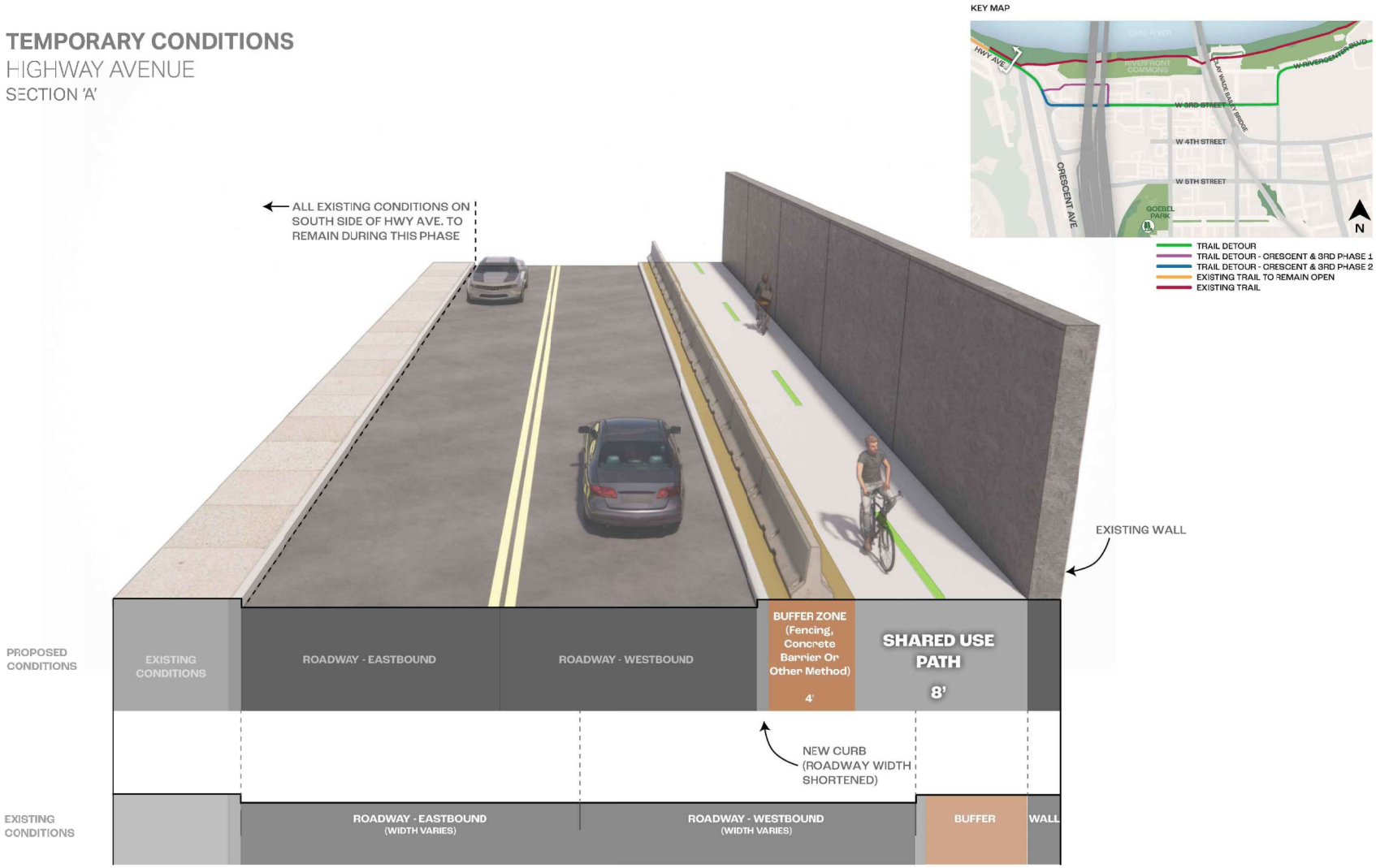
BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: Rivercenter Blvd to Madison Ave

TEMPORARY CONDITIONS
HIGHWAY AVENUE
SECTION 'A'



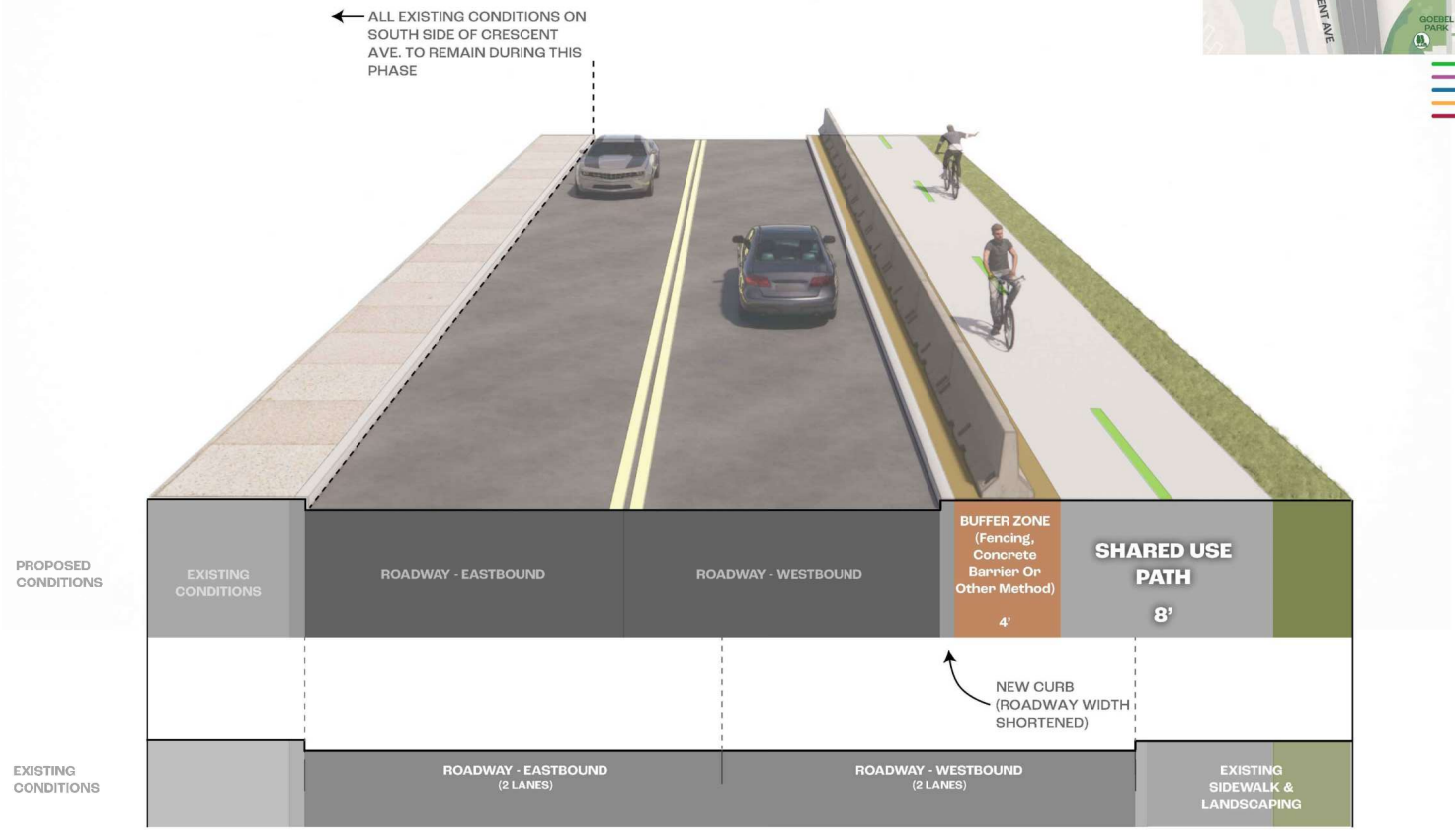
TEMPORARY CONDITIONS

CRESCENT / HIGHWAY AVENUE

SECTION 'B'

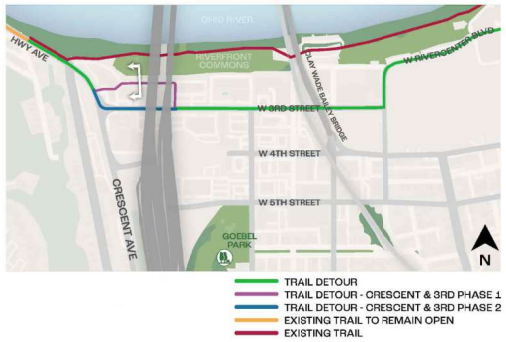
KEY MAP

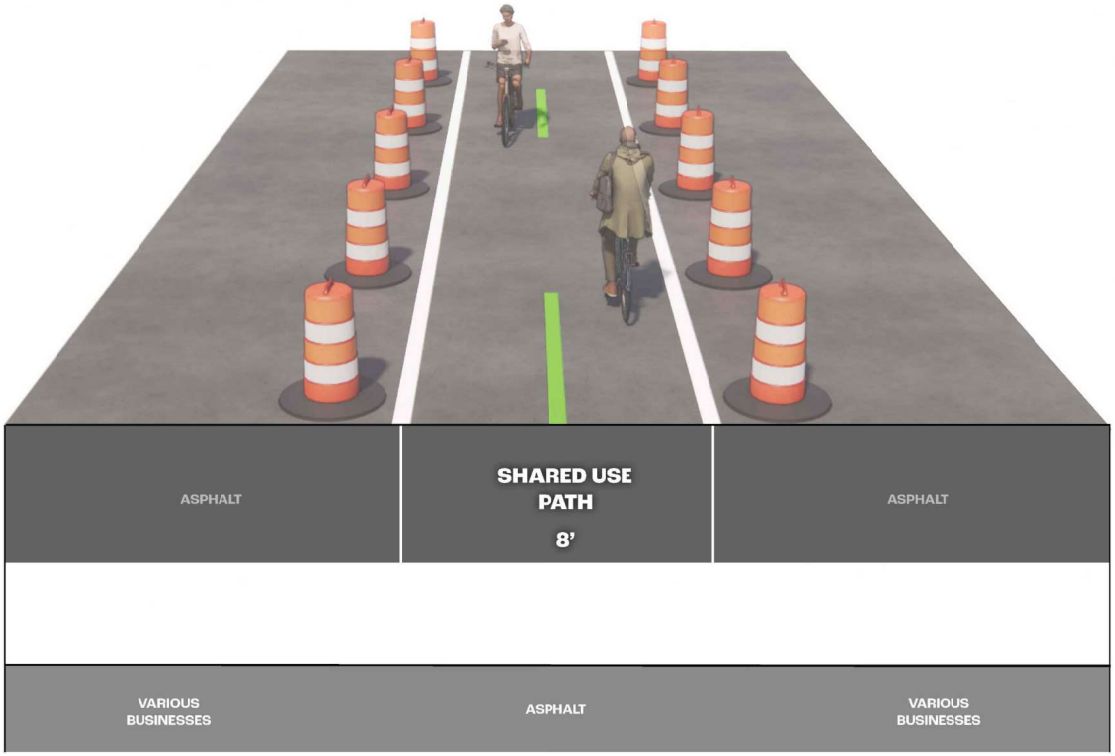




TEMPORARY CONDITIONS
PARKING LOT
SECTION 'C'

KEY MAP





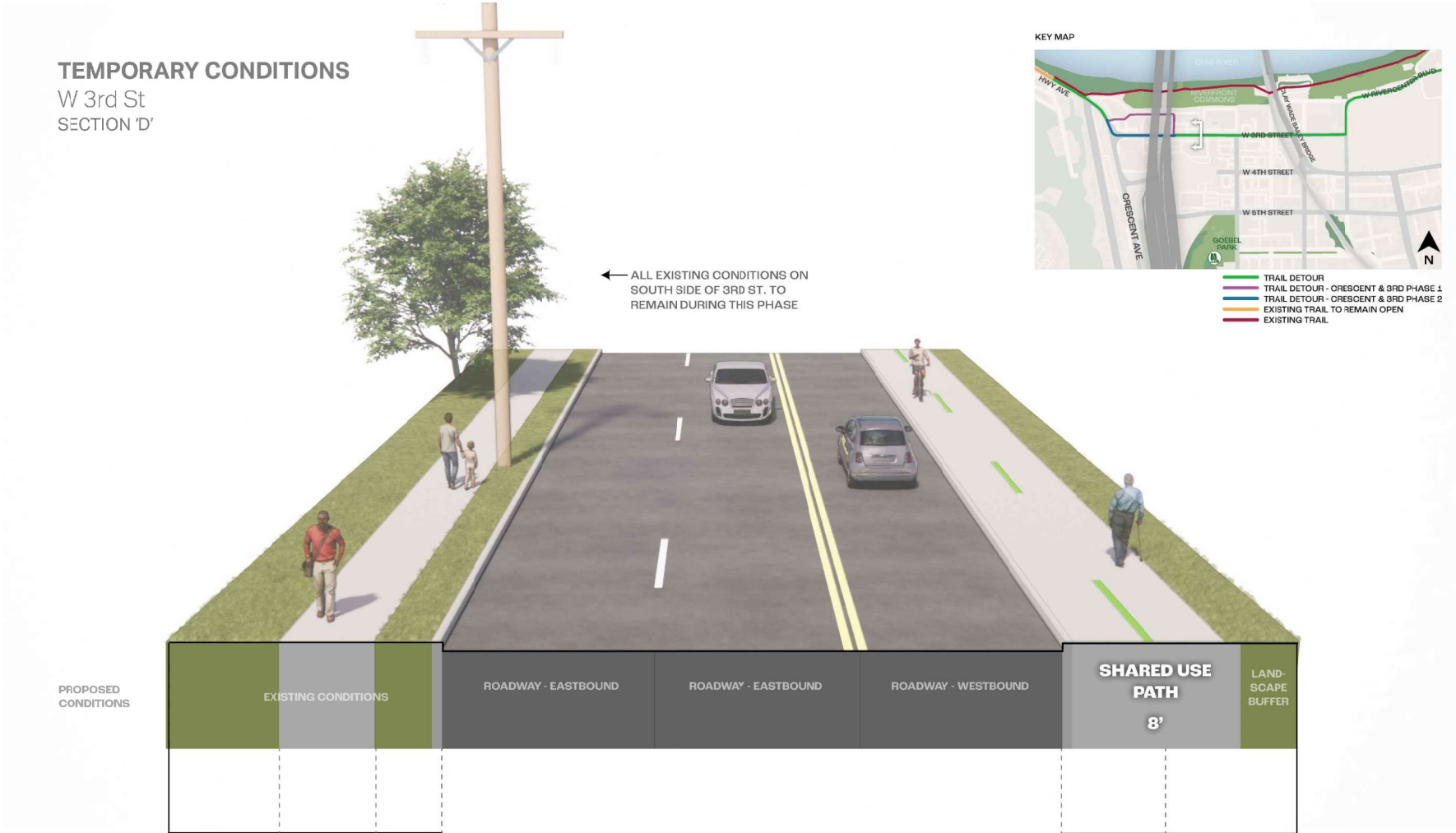
BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: Parking Lot Section 'C'

TEMPORARY CONDITIONS
W 3rd St
SECTION 'D'



Walsh Kokosing JOINT VENTURE

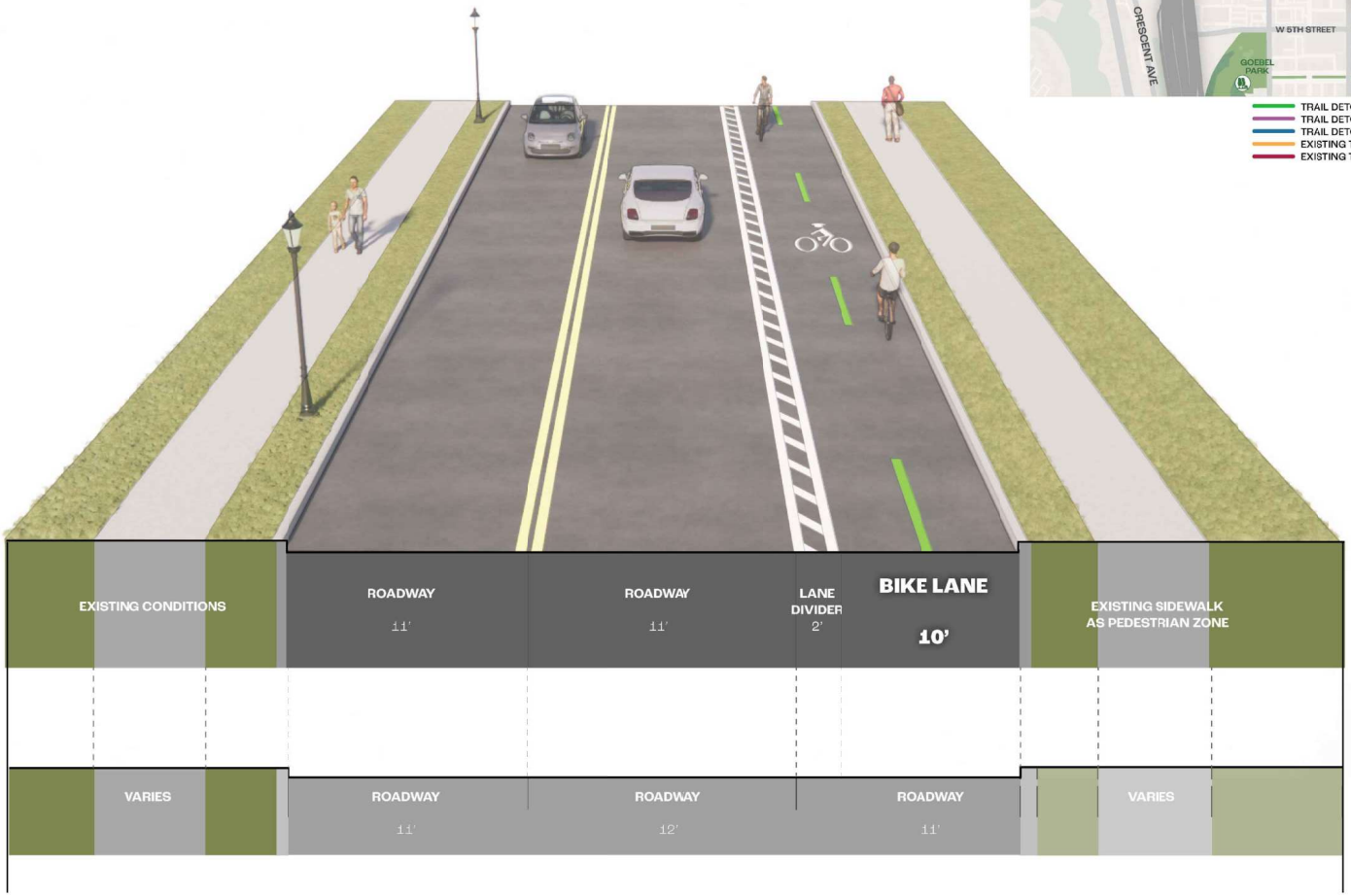
BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: W 3rd St Section 'D'

TEMPORARY CONDITIONS
RIVERCENTER BLVD
SECTION 'E'

KEY MAP





BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Exhibit 5: Rivercenter Blvd Section 'E'

Appendix B: Riverfront Commons Trail Coordination

CITY OF COVINGTON

CONTRACT SIGNING COVER SHEET

Date: 4/30/2025

COMMISSION CONTRACT (COMMISSION APPROVAL REQUIRED)

Order # (Commission Contracts): 087-2025

NOTE: SEE INSTRUCTIONS ON PAGE 2 BEFORE COMPLETING THIS FORM

Division/Department	**Funding Source** (list full fund names & numbers)
Administration - Office of the City Manager	N/A
Responsible Staff Person	**Value/Cost**
Elizabeth Wetzel	N/A

Start Date	4/22/2025	**End Date**	N/A	**Payment Terms**
Contract Term / Renewals	N/A	**Auto Renew** (yes/no)	N/A	N/A

Staff Email Notification Prior to End Date (list emails, check preferred # of days notice)

elizabeth.wetzel@covingtonky.gov

30 Days	☐	60 Days	☐
90 Days	☑	120 Days	☐

Company/Entity (if multiple, list all)	**Procurement Method** (Competitive bidding, RFP, QPEF, etc.)
Kentucky Transportation Cabinet Federal Highway Administration	QPEF - Intergovernmental Agreement: Memorandum of Understanding

Description

A memorandum of understanding between the City of Covington and Kentucky Transportation Cabinet regarding the terms of a 4f De Minimis determination for mitigation of

Notes (Ex: milestone dates, notice period to terminate, etc.)

The MOU addresses the terms by which a de minimis determination is agreed upon between the owner of Riverfront Commons (City of Covington) and the

Electronic Signatures - Use: ◉ **Decline:** ○
(list full name and email of all required signatories or decline e-signature)

Grant Funds Used - Yes: ○ **No:** ◉
(list all grant fund types and the associated grant #, or check no)

SIGNING ORDER

1. DEPARTMENT HEAD — DATE

Frank Schultz
A470B66DEF64B566987A26EE9A4111C4 contractworks

04/30/2025

2. LEGAL DEPARTMENT REPRESENTATIVE — DATE

3. FINANCE DEPARTMENT REPRESENTATIVE — DATE

Ken Smith
8910DA31EF927ED1B1EFF08AB58173C1 contractworks

05/01/2025

4. CITY MANAGER — DATE

Ronald L. Washington
0B25D03BAE7D24077BCC797F6FABACD6 contractworks

05/12/2025

5. MAYOR — DATE

COMMISSIONERS' ORDER NO. ORD-087-2025

AN ORDER AUTHORIZING THE MAYOR TO SIGN A MEMORANDUM OF UNDERSTANDING WITH THE KENTUCKY TRANSPORTATION CABINET REGARDING A 4F DE MINIMIS DETERMINATION OF IMPACT TO RIVERFRONT COMMONS TRAIL ADJACENT TO BRENT SPENCE BRIDGE CORRIDOR CONSTRUCTION.

* * * *

WHEREAS, pursuant to federal law, the Kentucky Transportation Cabinet (KYTC) has been required to make a De Minimis Determination to minimize hardship caused to Riverfront Commons Trail as a result of the Brent Spence Bridge Corridor Construction project; and

NOW THEREFORE,
BE IT ORDERED BY THE BOARD OF COMMISSIONERS OF THE CITY OF COVINGTON, KENTON COUNTY, KENTUCKY:

Section 1

The Board of Commissioners hereby authorizes the Mayor to sign a Memorandum of Understanding with the Kentucky Transportation Cabinet regarding a 4F De Minimis Determination of Impact to Riverfront Commons Trail adjacent to Brent Spence Bridge Corridor Construction.

Section 2

This order shall take effect and be in full force when passed and recorded according to law.

MAYOR

ATTEST:

CITY CLERK

Passed: April 22, 2025

Qualified Purchasing Exception Form

Name: Elizabeth Wetzel **Title:** Director of Special Projects & Intergovernmental Affairs

Department: Administration - Office of the City Manager **Date:** 4/30/2025

Description of Procurement:

Intergovernmental Agreement: Memorandum of Understanding regarding 4f de minimis determination for impacts to Riverfront Commons Trail during construction of the Brent Spence Bridge corridor.

It has been determined by qualified consideration of the procuring department and the above representative that the procurement detailed above qualifies for a purchasing exception, as defined by the *Covington Code of Ordinances § 35.60 through 35.80*; that competition is not feasible and one or more of the following conditions is present: *(check box that applies)*

- ☐ An emergency exists which will cause public harm as a result of the delay in competitive procedures;
- ☑ This is a sole source procurement based on one of the following considerations: (i) purchase is made from the sole provider within a reasonable geographical area; (ii) purchase is made from the original manufacturer or provider and cannot be substituted; (iii) purchase is required from this manufacturer/ provider as parts/ equipment are not interchangeable with similar part of another manufacturer and require standardization; (iv) this is the only known item that will meet the specialized needs of this department or perform the intended functions. (Use of sole source exception shall require additional explanation below).
- ☐ The contract is for the services of a licensed professional, such as attorney, physician, psychiatrist, psychologist, certified public accountant, registered nurse, or educational specialist; a technician such as a plumber, electrician, carpenter, or mechanic; or an artist such as a sculptor, aesthetic painter, or musician, provided, however, that this provision shall not apply to architects or engineers providing construction management services rather than professional architect or engineer services;
- ☐ The contract is for replacement parts where the need cannot be reasonably anticipated and stockpiling is not feasible;
- ☐ The contract is for proprietary items for resale;
- ☐ The contract or purchase is for expenditures made on authorized trips outside of the boundaries of the local public agency;
- ☐ The contract is for the purchase of supplies which are sold at public auction or by receiving sealed bids;
- ☐ The contract is for group life insurance, group health and accident insurance, group professional liability insurance, workers' compensation insurance, and unemployment insurance;
- ☐ The contract is for a sale of supplies at reduced prices that will afford a purchase at savings to the local public agency; or

☐ The contract is with a private real estate developer and contains a requirement: (a) That the developer increase the size or otherwise improve the collection capacity of the sanitary sewer or storm water pipe serving the affected private real estate development; and (b) That the City pay only the proportional cost of increasing the size, or otherwise improving the collection capacity, of the sanitary sewer or storm water pipe over the original collection capacity.

☐ The contract is made through a cooperative purchasing method as defined by *Covington Code of Ordinances § 35.72*, including a contract for the purchase of goods or services from an authorized state or federal contract.

When an exception is present, a procuring department shall be exempted from standard purchasing procedures, this includes the requirement to obtain multiple quotes or issue a formal solicitation. For purchases over $30,000 a coordinating contract and/ or Order/ Resolution must be attached. A 'qualified purchase exception form' must accompany any purchase order utilizing a purchasing exception. The City Manager, or their designee, shall review the completed form and either confirm the request and approve the purchase or deny the request and collaborate with the procuring department as to another solution.

Ken Smith
8910DA31EF927ED1B1EFF08AB58173C1 contractworks

Department Head Signature

4/30/2025

Date

Order/ Resolution Number for associated contract: *(if applicable)* ORD-087-2025

Additional Explanation:

~~Intergovernmental Agreement between City of Covington, KYTC and FHWA~~

U.S. Department of Transportation
Federal Highway Administration

Kentucky Division

330 West Broadway
Frankfort, KY 40601
PH (502) 223-6720
FAX (502) 223-6735
http://www.fhwa.dot.gov/kydiv

April 15, 2025

In Reply Refer To:
HDA-KY

Mr. Ron Washington
Mayor, City of Covington
20 West Pike Street
Covington, Kentucky 41011

Dear Mayor Washington:

This letter addresses proposed construction impacts to the Riverfront Commons Trail and our intent to make a *de minimis* impact finding, defined by 23 CFR 774.17, for the Brent Spence Bridge (BSB) Project in Kenton County, Kentucky (KYTC Item Number: 6-17). To facilitate safe construction of a new companion bridge and the rehabilitation of the existing BSB, approximately 0.8 miles of the Riverfront Commons Trail will be temporarily closed or detoured during periods of highway and bridge construction. Based on safety concerns shared by the City of Covington, this also includes closure of access to the area east of the Clay Wade Bailey Bridge, starting near the intersection of West 2nd Street and Main Street, to approximately 150 feet west of the Covington Plaza. Please see the enclosed Map Book.

The Riverfront Commons Trail is a planned 20-mile continuous multi-modal corridor (multi-use path) along the south bank of the Ohio River linking the urban core of Northern Kentucky together through the river cities of Bromley, Ludlow, Covington, Newport, Bellevue, Dayton, Fort Thomas, and Silver Grove. The 20-mile trail system is in various stages of development with some sections already constructed and open, some sections currently under design, and other sections that are planned. In Covington, about 1.25 miles of the Riverfront Commons Trail have been built and are open along Highway Avenue and the Ohio River levee from the end of the Ohio River floodwall near Swain Court to just east of the Roebling Bridge at Riverside Place.

The City of Covington owns and manages the section of the Riverfront Commons Trail within the BSB project limits. The Riverfront Commons Trail is a recognized, publicly owned, recreational property and is provided protection under Section 4(f) of the U.S. Department of Transportation Act of 1966 (Pub. L. 89-670, 80 Stat. 931, codified in 23 U.S.C. 138, and implemented by 23 CFR Part 774).

Engineering design and construction planning by the Kentucky Transportation Cabinet (KYTC) developed after the Final Individual Section 4(f) Evaluation for the BSB Corridor Project (April 19, 2024) demonstrates that construction of a temporary work bridge is required to safely construct the new double-decker companion bridge and rehabilitate the existing BSB. A temporary work bridge will be built adjacent to and over top of the Riverfront Commons Trail. Temporary falsework will support the new bridge structure during construction, provide temporary vehicular access to haul, store, and move construction materials, and will encroach on the Trail during project construction. Approximately 0.4 miles of the Riverfront Commons Trail between the Ohio River levee gate and the Clay Wade Bailey Bridge will be temporarily covered with 5 feet to 12 feet of aggregate fill to construct a temporary access road. This is required to provide a 30-foot-wide surface that is

adequate for equipment movement and to prevent the access road from regular periodic flooding from the Ohio River. All Trail lighting and signage will be temporarily removed along the 0.4-mile temporary access road.

These construction activities present overhead hazards and an area of active large equipment movement. Temporary closure of a portion of the Trail will best promote worker and public safety. The Trail will be closed beginning at the Ohio River levee gate, located approximately 800 feet northwest of the Highway/Crescent Avenue and West 3rd Street intersection, and end approximately 150 feet west of the Covington Plaza at Madison Avenue. See the enclosed Plan Overview. The ABM Parking Waterfront Lot, located directly east of the Clay Wade Bailey Bridge, will be closed during the same closure periods as the Trail.

The ABM Parking Waterfront Lot is not part of the Riverfront Commons Trail and is subject to a separate Memorandum of Understanding (MOU) between KYTC and City of Covington, to be executed prior to use of the lot and an adjacent pier. To facilitate these construction activities, a temporary easement will be obtained along the riverfront on property owned by the City of Covington, which encompasses approximately 0.8 acres[1] of the Riverfront Commons Trail.

The 0.8-mile[2] section of the Riverfront Commons Trail will be closed for approximately 60 months beginning in the summer of 2025. Continuity for Trail users will be maintained during this time. An approximately 1-mile-long Trail detour will be provided primarily along Rivercenter Boulevard, West 3rd Street, and Highway/Crescent Avenue. When the companion bridge is substantially complete, the Riverfront Commons Trail will be restored in its current alignment and re-opened to the public. However, intermittent Trail closures within the same 0.8-mile section will be required until rehabilitation of the existing BSB is complete. These closures will vary between one day to three weeks. Shorter durations will be required for access underneath the BSB, while longer closures will be required for overhead activities, such as deck placement, when and where Trail user and worker safety is a concern.

In accordance with 23 CFR 774.5(b)(2)(i), the public was provided an opportunity to review and comment on the effects of the BSB Corridor Project on the Riverfront Commons Trail ("Trail"). A public notice was issued on January 24, 2025, with comment period closing on February 23, 2025. The notice was made available through multiple channels: the Project website, social media posts, and the January 2025newsletter. Additionally, physical signage was installed at various locations along the Trail during the comment period, with weekly inspections to ensure they remained in place.

During the 30-day public comment period, KYTC received comments from a total of 77 commenters (74 individuals and three organizations). The commenters were from 14 different cities, predominantly in Covington, Kentucky (38 commenters) and Cincinnati, Ohio (23 commenters). Of the comments received, seven categories of comments were identified that were specific to the proposal of a *de minimis* impact determination. These comments are summarized here.

- A total of 17 commenters expressed concern over the duration and phasing of the temporary Trail closure.
- Eighteen commenters expressed concerns over the safety of the temporary Trail detour, particularly proximity of Trail users to traffic. These concerns included requests for

[1] This total does not include areas beneath the Clay Wade Bailey Bridge or in the ABM Parking Waterfront Lot where the Trail is within either a transportation ROW or existing transportation use.
[2] This includes where the Trail intersects the ABM Parking Waterfront Lot and is located within an existing transportation use.

widening the temporary detour path from 8 feet to 10–12 feet, additional or more robust barriers between the path and vehicle traffic/construction activities, and concealing or providing barriers that reduce perception of a construction work zone.

- Three commenters expressed a desire for clear wayfinding signage along the temporary detour.
- Southbank Partners requested that appropriate parties receive advanced notice of closures prior to the initial temporary closure in addition to any additional ongoing intermittent closures. Tri-State Trails supported this comment.
- Five commenters expressed support for using Project-related construction to further improve shared-use path amenities within the project area, such as making portions of the temporary Trail detour permanent features.
- One commenter requested access at Wright Street and access to the Trail east of the Clay Wade Bailey Bridge be maintained during construction. A second commenter also requested access east of the Clay Wade Bailey Bridge be maintained. A third commenter, Southbank Partners, requested as needed access to the Riverfront Commons Trail to continue design and construction of portions of the riverwalk and Tri-State Trails supported this comment.
- Three commenters emphasized the importance of restoring the Trail to its original state or stated their concern that it may not be fully restored and re-opened. This included one commenter that also requested further enhancements to the existing Trail.

Four additional categories of comments emerged that were either beyond the scope of the de minimis impact (Items 1 and 2 below) or were general statements of opposition to the temporary Trail closure or statements of support for, or use of, the Trail (Items 3 and 4 below):

- General Opposition to Brent Spence Bridge Corridor Project: 43 commenters expressed general opposition to the project, citing concerns such as air quality, noise pollution, sustainability, quality of life, and increased traffic.
- Promotion of Alternative Travel Modes: 14 commenters advocated for investment in transit or bicycle infrastructure over the BSB Corridor Project
- Opposition to Riverfront Commons Trail Temporary Closure: 39 commenters stated general
  opposition to the temporary Trail closure.
- Support for or Description of Trail Use: 36 commenters emphasized the importance of the Trail in their lives and/or noted use of the Trail for activities such as recreation and commuting.

The public comments are summarized, and responses are provided in the enclosed report "Brent Spence Bridge Corridor Project River front Commons Trail Section 4(f) De Minimis Impact Public Comment and Response Summary - March 2025".

Thank you for your coordination with KYTC to minimize the project's impacts to the Riverfront Commons Trail. Based on public comment and your input to date, the following measures to minimize harm will be incorporated into the project:

- A temporary Trail detour will be provided during periods of full Trail closure, anticipated to last approximately 60 months, to ensure continuity of the Trail. The majority of the detour will be along Rivercenter Boulevard, West 3rd Street, and

Highway/Crescent Avenue. See the enclosed Riverfront Commons Trail Temporary Closure and Detour maps (Sheets 1–4) for further details on location of closure and detour.

- The Trail detour will accommodate both pedestrians and bicyclists. The detour will widen the sidewalk to accommodate an 8-foot-wide shared-use path or utilize the existing 4-foot-wide sidewalk and restripe the roadway to accommodate a 10-foot-wide two-way bicycle lane. See the enclosed Typical Sections in, Sheets 5–9, for further details.
- Between Highway/Crescent Avenue and the existing BSB, the Trail detour will be completed in two phases. Phase 1 will restripe existing parking lots between West 3rd Street and the Holiday Inn to provide an 8-foot-wide shared-use path. Following completion of West 3rd Street reconstruction, the detour will be shifted back to West 3rd Street (Phase 2). See the enclosed, Sheets 2 and 6, for further details.
- The temporary Trail detour will meet design standards, including for safety and operations, outlined in KYTC's *Complete Streets, Roads, and Highway Manual* (2022). Where warranted per design standards, a 2-foot-wide striped buffer will be incorporated to separate bicycles from traffic. The use of flexible bollards for visible delineation will also be evaluated for use. In other locations, shown on enclosed Sheets 5–7, a physical buffer will be incorporated using fencing, concrete barriers, water wall barriers or other methods as appropriate and mutually agreed upon by the KYTC and the City of Covington.
- During construction, the appropriate methods and traffic control devices will be used in select locations of mixed traffic to manage ingress and egress access for construction vehicles and detoured Trail users to ensure safety for pedestrians, bicyclists, and motorists. These traffic control devices will be located at the Ohio River levee gate, located at the western terminus of the Trail detour, and at Highway/Crescent Avenue at the entrance to the Phase 1 detour (see enclosed Sheet 2).
- The Riverfront Commons Trail will be fully restored to a condition that is at least equivalent to existing conditions. This includes removing all temporary aggregate fill, repaving the Trail, reinstalling Trail lighting, and replanting disturbed areas with species approved by the City of Covington. The contractor will remove all existing Trail signage, benches, and trash receptacles within the temporary closure limits, store them during the temporary closure, and will reinstall these amenities as part of the Trail restoration.
- The Trail will be improved where appropriate and mutually agreed upon by the KYTC and the City of Covington to ensure facilities comply with standards of safety and accessibility, including proper lighting conditions and updates to protection from overhead railroad bridge hazards. Certain areas of the Trail will be widened and strengthened to sufficiently accommodate maintenance vehicles that periodically need to use the paved Trail to access utility facilities and the underside of bridges.
- A landscaping plan, mutually agreed upon by the KYTC and the City of Covington, will be implemented as part of the Trail restoration.
- The City of Covington, as owner with jurisdiction, and Southbank Partners, as developer of the Trail, will be notified at least 60 days prior to the initial closure of the Trail.
- The temporary Trail detour will be adequately marked and signed. KYTC will coordinate with the City of Covington and Southbank Partners to incorporate appropriate wayfinding signage along the temporary Trail detour that is consistent with the Riverfront Commons Trail branding.

- The public will be notified at least 30 days prior to full Trail closure and 30 days prior to re-opening of the Trail in its current alignment. Notices will be placed on the project website (www.brentspencebridgecorridor.com), the project's social media platforms, the City of Covington's website, and through the project email list. The public can sign up for the project email list through the project website.
- During intermittent Trail closures required for rehabilitation of the existing BSB, the public will be notified at least 48 hours prior to closure.
- Throughout the project, KYTC will update the City of Covington and Southbank Partners on the projected timeline for project-related impacts to the Trail, including projected periods of intermittent closures.

The enclosed map book depicts the extent of the proposed Trail closure and the location of the proposed detour route. This action includes all possible planning to minimize harm to the properties. The resulting impacts, with the incorporation of the measures to minimize harm detailed above, will not adversely affect the activities, features, and attributes that qualify the Riverfront Commons Trail for protection under Section 4(f).

The Federal Highway Administration intends to determine that the Brent Spence Bridge Replacement/Rehabilitation Project, including the KYTC committed mitigations, will have a *de minimis* 4(f) impact (defined by 23 CFR 774.17) on the Riverfront Commons Trail. We request your written concurrence, below, that the project will not adversely affect the activities, features, or attributes that make the Riverfront Commons Trail eligible for Section 4(f) protection.

Please contact me at Shundreka.Givan@dot.gov or (502) 223-6720 if you have any questions.

Sincerely,

SHUNDREKA R GIVAN

Digitally signed by SHUNDREKA R GIVAN
Date: 2025.04.15 09:52:44 -04'00'

Shundreka R. Givan, AICP
Division Administrator

Enclosures: Map Book: Plan Overview and Temporary Closure and Detour Maps

Public Comment and Response Summary - March 2025

Concurrence by:

4-15-25

Daniel R. Peake Date

Director, Division of Environmental Analysis
Kentucky Transportation Cabinet

Concurrence by:

Ronald L. Washington

0B25D03BAE7D24077BCC797F6FABACD6 contractworks. 05/12/2025

Ron Washington Date

Mayor
City of Covington, Kentucky

Brent Spence Bridge Corridor Project
Riverfront Commons Trail
Section 4(f) *De Minimis* Impact
Public Comment and Response Summary
May 2025

Introduction

After the Final Individual Section 4(f) Evaluation for the Brent Spence Bridge (BSB) Corridor Project (April 19, 2024), additional engineering design and construction planning by the Kentucky Transportation Cabinet (KYTC) demonstrated that construction of a temporary work bridge is required to safely construct the new double-decker companion bridge and rehabilitate the existing BSB. The temporary work bridge and associated temporary facilities will impact the Riverfront Commons Trail. The Riverfront Commons Trail is a recognized, publicly-owned, recreational property and is provided protection under Section 4(f) of the U.S. Department of Transportation Act of 1966 (Pub. L. 89-670, 80 Stat. 931; codified at 23 U.S.C. 138; implemented by 23 CFR Part 774). A *de minimis* impact determination is proposed to fulfill those requirements.

In accordance with 23 CFR 774.5(b)(2)(i), the public was provided an opportunity to review and comment on the effects of the BSB Corridor Project on the Riverfront Commons Trail ("Trail"). A public notice was issued on January 24, 2025, with comment period closing on February 23, 2025. The notice was made available through multiple channels: the Project website, social media posts, and the January 2025 newsletter. Additionally, physical signage was installed at various locations along the Trail during the comment period, with weekly inspections to ensure they remained in place. Attachment 1 includes documentation of the public notice.

The following summarizes the results of the public's review and provides responses to comments within the scope of the Federal Highway Administration's (FHWA) notice of intent to make a *de minimis* impact determination.

Comment Summary

During the 30-day public comment period, KYTC received comments from a total of 77 commenters (74 individuals and three organizations) (Attachment 2). The commenters were from 14 different cities, predominantly in Covington, Kentucky (38 commenters) and Cincinnati, Ohio (23 commenters). Of the comments received, seven categories of comments were identified that were specific to the proposal of a *de minimis* impact determination. These comments are summarized, and responses provided, in the following section.

Five additional categories of comments emerged that were either beyond the scope of the *de minimis* impact (Items 1 and 2 below); were general statements of opposition to the temporary Trail closure or statements of support for, or use of, the Trail (Items 3 and 4 below); or addressed a resource not subject to Section 4(f) (Item 5 below):

1. **General Opposition to Brent Spence Bridge Corridor Project:** 43 commenters expressed general opposition to the project, citing concerns such as air quality, noise pollution, sustainability, quality of life, and increased traffic.
2. **Promotion of Alternative Travel Modes:** 14 commenters advocated for investment in transit or bicycle infrastructure over the BSB Corridor Project
3. **Opposition to Riverfront Commons Trail Temporary Closure:** 39 commenters stated general opposition to the temporary Trail closure.
4. **Support for or Description of Trail Use:** 36 commenters emphasized the importance of the Trail in their lives and/or noted use of the Trail for activities such as recreation and commuting.
5. **Scribble Park:** Three commenters raised concerns about access to Scribble Park. Based on coordination with the City of Covington, Scribble Park is not a designated public park and there are no plans to designate it as such. It is also not part of the Riverfront Commons Trail. Therefore, Scribble Park is not subject to Section 4(f).

KYTC appreciates the public's comments regarding the Trail closure and its usage. These comments will be carefully considered in FHWA's determination of the *de minimis* impact. While responses to these specific comments are not included below, please know that your input is valued and contributes to the decision-making process.

Comment Responses

The following summarizes and provides responses to the seven comment categories within the scope of the *de minimis* impact determination. Suggestions from commenters have been incorporated into the project where practicable and are noted in the responses where applicable.

Duration of Trail Closure and Temporary Detour

A total of 17 commenters expressed concern over the duration and phasing of the temporary Trail closure.

As demonstrated by public comments, the Riverfront Commons Trail is a valuable resource for many residents of Covington and the surrounding area. KYTC understands the importance of the Trail and commenters' concerns regarding the duration of the temporary Trail closure. The public's safety is of the utmost importance to KYTC. KYTC, along with the Design-Build Team, evaluated means and methods to maintain safe public passage on the existing Trail alignment during construction. However, based on the additional engineering and construction planning, a temporary detour was deemed necessary based on safety concerns. Due to the active construction zone that will encompass portions of the trail, particularly the overhead hazards associated with the companion bridge construction, safe passage for the public is best accomplished by a temporary detour.

To minimize disruption to Trail users, KYTC is committed to closing the Trail only during the period of construction when public hazards are the greatest, which is during construction of the companion bridge. After that time, the Trail will be re-opened and fully restored in its existing alignment with intermittent closures only when necessary to maintain public safety during rehabilitation of the existing BSB. KYTC will work diligently to ensure that the duration of the temporary Trail closure is kept to a minimum and that the project progresses as swiftly as possible. This is crucial to not only minimize disruptions to the traveling public, including users of the Trail, but also for managing project costs.

In addition, KYTC is evaluating and working with the Design-Build Team to identify and advance early construction packages along the BSB Corridor, including improvements along Highway Avenue, Crescent/Highway Avenue, and West 3rd Street. As part of this effort, KYTC's goal is to eliminate the need for Phase 1 of the temporary detour, as described in the public notice, to provide Trail users a consistent detour path throughout construction, if feasible. KYTC will also continue to coordinate with the City of Covington to ensure the BSB Corridor Project construction and the Covington Central Riverfront Development near the temporary detour are coordinated and the detour adjusted as needed in this area to avoid conflicts and further minimize impacts to Trail users.

KYTC appreciates the public's patience and understanding as we strive to complete the project efficiently and safely with as minimal inconvenience to the public as feasible.

Temporary Trail Detour Safety

Eighteen commenters expressed concerns over the safety of the temporary Trail detour, particularly proximity of Trail users to traffic. These concerns included requests for widening the temporary detour path from 8 feet to 10–12 feet, additional or more robust barriers between the path and vehicle traffic/construction activities, and concealing or providing barriers that reduce perception of a construction work zone.

KYTC evaluated widening the temporary Trail detour beyond the proposed 8-foot width. However, due to the constrained right-of-way along the temporary detour limits, widening cannot be accomplished without further right-of-way acquisition and impacts to adjacent properties. For this reason, an 8-foot-wide shared-use path remains the proposed width, which is also consistent with the paved width of the existing Riverfront Commons Trail.

Safety of the detour is critical. The temporary Trail detour will be designed to meet the standards outlined in KYTC's *Complete Streets, Roads, and Highway Manual* (2022), which includes requirements for safety and operations. Buffers, such as striping, and barriers, such as flexible bollards, water wall barriers, and other methods suggested by commenters, will be evaluated for use along the temporary detour. The temporary bi-directional bicycle lanes along Rivercenter Boulevard (Section E in the public notice) will be clearly marked and striped in accordance with the *Complete Streets, Roads, and Highway Manual* (2022). Opportunities to further conceal or provide more aesthetically pleasing temporary barriers will also be evaluated to minimize impacts to Trail users.

Temporary Wayfinding Signage

Three commenters expressed a desire for clear wayfinding signage along the temporary detour.

KYTC is committed to adequately marking and signing the temporary detour in accordance with current design standards. As suggested by commenters, KYTC will coordinate with the City of Covington and Southbank Partners to incorporate appropriate wayfinding signage along the temporary Trail detour that is consistent with the Riverfront Commons Trail branding. Implementation of consistent wayfinding signage will promote a seamless visual transition between the existing Trail and the temporary detour.

Advanced Notice of Closures

Southbank Partners requested that appropriate parties receive advanced notice of closures prior to the initial temporary closure in addition to any additional ongoing intermittent closures. Tri-State Trails supported this comment.

As stated in the public notice, KYTC has committed to the following:

- The temporary detour will be adequately marked and signed, and the public will be notified at least 30 days prior to the full Trail closure and 30 days prior to re-opening of the Trail in its current

alignment. Notices will be placed on the project website (www.brentspencebridgecorridor.com), the project's social media platforms, the City of Covington's website, and through the project email list.

- During intermittent Trail closures required for the rehabilitation of the existing BSB, the public will be notified at least 48 hours prior to closure.

Based on comments received and further coordination with the City of Covington, the City of Covington, as the owner with jurisdiction, and Southbank Partners, as the developer of the Trail, will also receive a minimum 60-day notice prior to the initial closure of the Trail. Throughout the project, KYTC will update the City of Covington and Southbank partners on the projected timeline for project-related impacts to the Trail, including projected periods of intermittent closures.

Request for Permanent or Improved Shared-Use Path Amenities

Five commenters expressed support for using Project-related construction to further improve shared-use path amenities within the project area, such as making portions of the temporary Trail detour permanent features. These requests included:

- *Close the slip lanes at West 3rd Street and Crescent Avenue*
- *Convert West 3rd Street turn lane to a two-way bicycle lane*
- *Convert westbound West 3rd Street to a two-way bicycle lane between Philadelphia and Crescent Avenue*
- *Convert eastbound West 3rd Street to a one-way between Philadelphia and Crescent Avenue*
- *Add a new entrance to the Trail at Highway Avenue*
- *Install wayfinding signage*
- *Upgrade or add crosswalks, sidewalks, and positive barriers or other buffers*
- *Support adjacent businesses to enhance landscaping*

As previously mentioned, KYTC is evaluating and working with the Design-Build Team to identify and advance early construction packages along the BSB Corridor, including improvements along Highway Avenue, Crescent/Highway Avenue, and West 3rd Street. Based on this effort, the portion of the temporary detour between the Ohio River levee gate and the intersection of West 3rd Street and Crescent Avenue will be permanent shared-use path facilities by the time the temporary detour is in place. These facilities will remain in place even after the Riverfront Commons Trail is restored in its current alignment.

As part of the permanent improvements at the Crescent/Highway Avenue and West 3rd Street intersection, an improved gateway entrance to the riverfront area will also be constructed using a roundabout. The construction of the roundabout will eliminate the existing slip lanes at the West 3rd Street and Crescent/Highway Avenue intersection. It will also:

- Reduce conflict points between pedestrians/bicyclists and vehicles and shorten the crossing distance for pedestrians/bicyclists.
- Provide clear and improved crosswalks.
- Provide opportunities for additional landscaped features.

Numerous suggestions for permanent shared-use path amenities were reviewed and determined to be either beyond the scope of the project or would result in additional right-of-way impacts. This includes converting portions of West 3rd Street into bicycle lanes and restricting a portion of it to a one-way for vehicles; adding a new Trail entrance along Highway Avenue; improving landscaping within adjacent commercial properties; and widening the shared-use path to 10 feet. The suggestion from some commenters to maintain temporary physical barriers, such as landscape medians, as permanent fixtures was evaluated further. However, while temporary barriers were determined feasible within the existing right-of-way, the design criteria for physical barriers are more stringent. As such, the narrow right-of-way along Highway/Crescent Avenue and West 3rd Street is a substantial constraint and design requirements for a permanent positive barrier could not be achieved within the existing right-of-way. While these suggestions for permanent shared-use path amenities could not be accomplished with the BSB Corridor Project, all public comments have been provided to the City of Covington for their consideration in their ongoing planning efforts and continued coordination with the community and neighborhood associations.

As part of the BSB Corridor Project, KYTC will continue to coordinate with the City of Covington and the Aesthetics Design Committee to evaluate opportunities for improvements throughout the project corridor and to ensure the final conditions within the project limits are consistent with the *Covington + Newport Bicycle Transportation Plan (2024)*. This includes considerations of wayfinding signage, crosswalks, sidewalks, and permanent physical or visual barriers such as flexible bollards where feasible. All improvements will be completed in accordance with KYTC's *Complete Streets, Roads, and Highway Manual (2022)*.

Additional Project Access Considerations

One commenter requested access at Wright Street and access to the Trail east of the Clay Wade Bailey Bridge be maintained during construction. A second commenter also requested access east of the Clay Wade Bailey Bridge be maintained. A third commenter, Southbank Partners, requested as needed access to the Riverfront Commons Trail to continue design and construction of portions of the riverwalk and Tri-State Trails supported this comment.

The Wright Street and Highway Avenue intersection are beyond the limits of the project and there are no plans to close access at that intersection. Therefore, access to the Trail detour from that intersection will be similar to existing Trail access at the levee gate. However, based on safety concerns from the City of Covington, access east of the Clay Wade Bailey Bridge (until approximately 150 feet west of the Covington Plaza) will be temporarily closed to the public. KYTC will coordinate with the City of Covington and Southbank Partners for as needed access to the project work zone between the Clay Wade Bailey Bridge and the Covington Plaza to ensure continued progress on design and construction of the riverwalk.

Existing Trail Restoration or Enhancements

Three commenters emphasized the importance of restoring the Trail to its original state or stated their concern that it may not be fully restored and re-opened. This included one commenter that also requested further enhancements to the existing Trail.

The measures to minimize impacts to the Trail, including the commitment to fully restore the Trail to a condition that is at least equivalent to pre-construction conditions, will be a legally binding commitment that will be monitored as part of the project construction contract. As identified in the public notice, all temporary aggregate fill will be removed, the Trail will be repaved, the lighting reinstalled, and disturbed areas replanted with species approved by the City of Covington. In addition, the contractor will remove all existing Trail signage, benches, and trash receptacles within the temporary closure limits and will reinstall these amenities as part of the Trail restoration. Furthermore, the following mitigation measures have been incorporated in response to comments and further coordination with the City of Covington:

- The Trail will be improved where appropriate and mutually agreed upon by the KYTC and the City of Covington to ensure facilities comply with standards of safety and accessibility, including proper lighting conditions and updates to protection from overhead railroad bridge hazards. Certain areas of the Trail will be widened and strengthened to sufficiently accommodate maintenance vehicles that periodically need to use the paved Trail to access utility facilities and the underside of bridges.
- A landscaping plan, mutually agreed upon by KYTC and the City of Covington, will be implemented as part of the Trail restoration.

KYTC will also coordinate with Southbank Partners, the City of Covington, the U.S. Army Corps of Engineers (USACE), the CSX railroad, and any other appropriate regulatory agencies on potential permanent enhancements to the Trail within the project limits. Any permanent or temporary changes to the existing conditions within the Covington Levee System are contingent upon USACE review and approval. Note that the Pete Rose bulkhead has been designed for temporary use during construction and will be permitted through the USACE as a temporary facility; therefore, its capacity to be used as a permanent facility is undetermined. Activities within CSX railroad right-of-way, such as modifications to the chain-link fence, must be coordinated and approved by CSX railroad.

Attachment 1: Public Notice Documentation

Public Notice and Opportunity for Comment on the Effects of the Proposed Temporary Use of a Portion of the Riverfront Commons Trail

Brent Spence Bridge Corridor Project

*Please provide comments by **February 23, 2025***

The Kentucky Transportation Cabinet (KYTC), in cooperation with the Federal Highway Administration (FHWA) and the Ohio Department of Transportation (ODOT), propose improvements to approximately 7.8 miles of I-71 and I-75 from south of Dixie Highway (US-25) in Kentucky to north of the Western Hills Viaduct in Ohio. As part of this project the existing Brent Spence Bridge (BSB) will be rehabilitated and reconfigured to carry three lanes of local traffic on each deck as part of the new collector-distributor roadway system and a new double-decker companion bridge will be constructed west of the existing BSB to carry five lanes through (interstate) traffic on each deck.

The Riverfront Commons Trail is a planned 20-mile continuous multi-modal corridor (multi-use path) along the south bank of the Ohio River linking the urban core of Northern Kentucky together through the river cities of Bromley, Ludlow, Covington, Newport, Bellevue, Dayton, Fort Thomas, and Silver Grove. The 20-mile trail system is in various stages of development, with some sections already constructed and open, some sections currently under design, and other sections that are planned. In Covington, about 1.25 miles of the Riverfront Commons Trail have been built and are open along Highway Avenue and the Ohio River levee from the end of the Ohio River floodwall near Swain Court to just east of the Roebling Bridge at Riverside Place.

The Riverfront Commons Trail is being developed by Southbank Partners, a non-profit regional economic development organization. The sections of the Trail within the City of Covington are being built, constructed, and maintained by the City of Covington. The section of the Trail in the project limits is located on land owned by the City of Covington, and the completed Trail is maintained by the City. The Plan Overview map, located at the end of this Notice, depicts the Riverfront Commons Trail within the project limits. The City of Covington is the official with jurisdiction over the Riverfront Commons Trail within the project limits. The Riverfront Commons Trail is free and open to the public. It serves both transportation and recreational purposes.

The Riverfront Commons Trail connects to Covington Plaza, a public outdoor amphitheater used for festivals and theater productions, about 300 feet north of the intersection of Madison Avenue and Rivercenter Boulevard. In the project limits, the Trail is located along the base of the north side of the Ohio River floodwall and earthen levee and passes under the existing BSB. The Trail provides pedestrian and bicycle access to Covington neighborhoods as well as local hotels, retail sites, and dining and entertainment establishments. In August 2024, a Trail user survey was conducted to gather information on Trail use behaviors and user types. These survey results were used to inform the subsequent impact analysis and proposed measures to minimize impacts on pedestrian and bicycle access provided by the Trail. Within the project limits, there are two Trail access points. The first is at the Ohio River levee gate,

located near the intersection of Highway Avenue and Western Avenue, and the second is east of the Clay Wade Bailey Bridge, located near the intersection of W 2nd Street and Main Street.

To facilitate construction of the new companion bridge and rehabilitation of the existing BSB, approximately 0.8 miles of the Riverfront Commons Trail will be temporarily closed during periods of construction. Based on safety concerns from the City of Covington, this includes closure of access to the area east of the Clay Wade Bailey Bridge, starting near the intersection of W 2nd Street and Main Street, until approximately 150 feet west of the Covington Plaza. The Riverfront Commons Trail is a recognized, publicly-owned, recreational property and is provided protection under Section 4(f) of the U.S. Department of Transportation Act of 1966 (Pub. L. 89-670, 80 Stat. 931; codified at 23 U.S.C. 138; implemented by 23 CFR Part 774). A *de minimis* impact determination is proposed to fulfill those requirements.

Additional engineering design and construction planning by KYTC after the Final Individual Section 4(f) Evaluation for the BSB Corridor Project (April 19, 2024) has demonstrated that construction of a temporary work bridge is required to safely construct the new double-decker companion bridge and rehabilitate the existing BSB. The temporary work bridge will be built adjacent to and over the top of the Riverfront Commons Trail. In addition, temporary falsework that will support the new bridge structure during construction, and temporary vehicular access to haul, store, and move construction materials will also encroach on the Trail during construction of the project. To construct a temporary access road, a portion of the Riverfront Commons Trail will be temporarily covered with aggregate fill to provide an adequate width for equipment movement and prevent the access road from periodic flooding from the Ohio River. Based on these activities, which present overhead hazards and an area of active large equipment movement, it was determined that temporary closure of a portion of the Trail will best promote worker and public safety. The Trail will be closed beginning at the Ohio River levee gate, located approximately 800 feet northwest of the Highway/Crescent Avenue and W 3rd Street intersection, and end approximately 150 feet west of the Covington Plaza at Madison Avenue.

The 0.8-mile section of the Riverfront Commons Trail will be closed for approximately 60 months beginning in the summer of 2025. Continuity for Trail users will be maintained during this time. An approximately 1-mile-long Trail detour will be provided primarily along Rivercenter Boulevard, W 3rd Street, and Highway/Crescent Avenue to maintain continuity. After 60 months, when the companion bridge is substantially complete, the Riverfront Commons Trail will be restored in its current alignment and re-opened to the public. However, intermittent Trail closures within the same 0.8-mile section will be required until the project is complete. These closures will vary between one day to three weeks. Shorter durations will be required for access underneath the BSB, while longer closures will be required for overhead activities, such as deck placement, where Trail user and worker safety is a concern. The ABM Parking Waterfront Lot, located directly east of the Clay Wade Bailey Bridge, will be closed throughout construction. The ABM Parking Waterfront Lot is not part of the Riverfront Commons Trail.

KYTC consulted with the City of Covington, as owner and operator of the Trail, regarding project impacts to ensure the project will not adversely affect the recreational activities, features or attributes that qualify

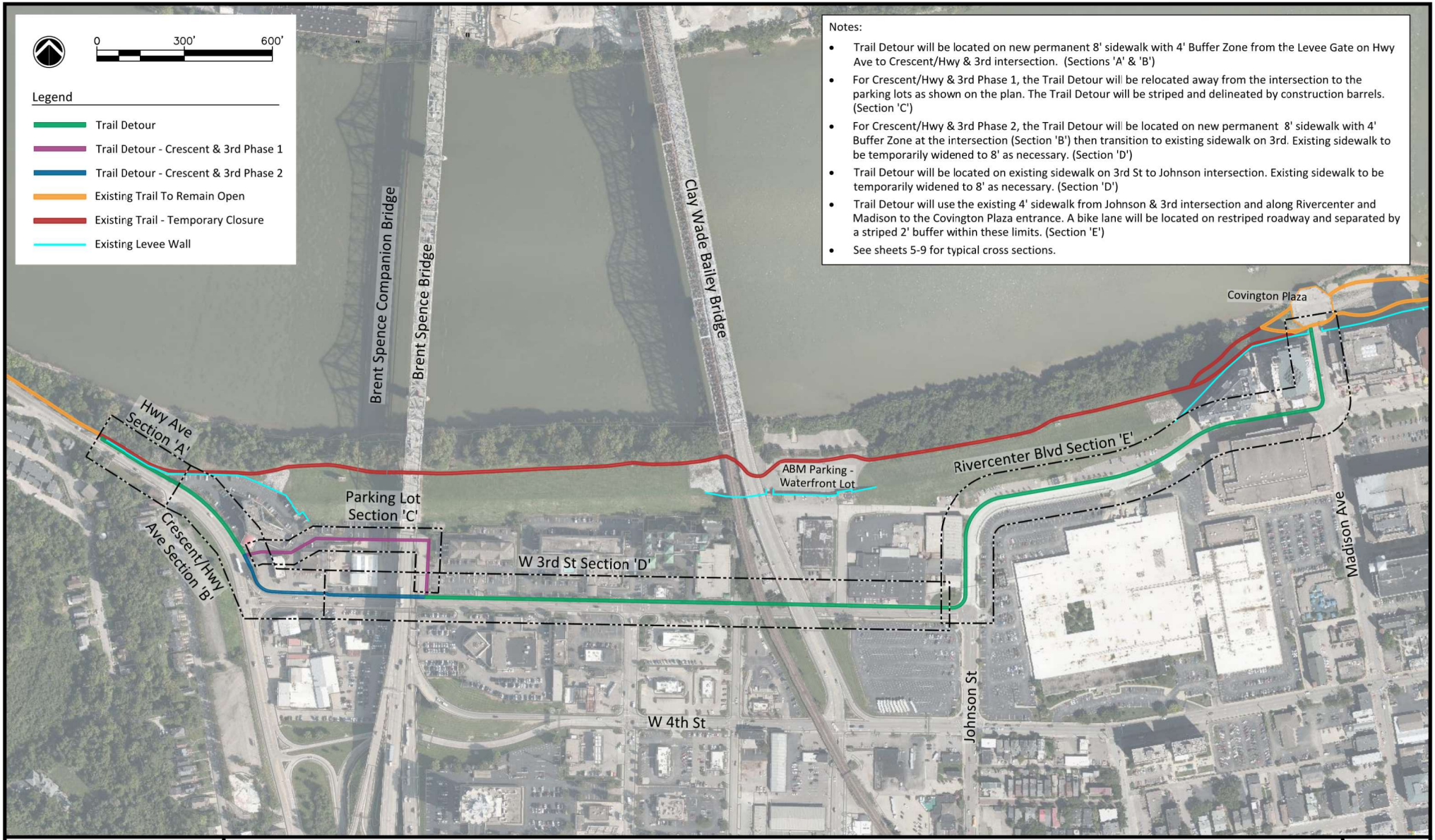
the Trail for protection. KYTC has committed to implementing the following measures to minimize harm to the Trail as part of the project:

- A temporary Trail detour will be provided during periods of full Trail closure, anticipated to last approximately 60 months, to ensure continuity of the Trail. The majority of the detour will be along Rivercenter Boulevard, W 3rd Street, and Highway/Crescent Avenue. See the Riverfront Commons Trail Temporary Closure and Detour maps (Sheets 1-4) at the end of this Notice for further details on location of closure and detour.
- The Trail detour will accommodate both pedestrians and bicyclists. The detour will widen the sidewalk to accommodate an 8-foot-wide shared-use path or utilize the existing 4-foot-wide sidewalk and restripe the roadway to accommodate a 10-foot-wide two-way bicycle lane. See the typical sections on Sheets 5–9 at the end of this Notice for further details.
- Between Highway/Crescent Avenue and the existing BSB, the Trail detour will be completed in two phases. Phase 1 will restripe existing parking lots between W 3rd Street and the Holiday Inn to provide an 8-foot-wide shared-use path. Following completion of W 3rd Street reconstruction, the detour will be shifted back to W 3rd Street (Phase 2). See Sheets 2 and 6 at the end of this Notice for further details.
- The temporary Trail detour will meet design standards, including for safety and operations, outlined in KYTC's *Complete Streets, Roads, and Highway Manual* (2022). Where warranted per design standards, a 2-foot-wide striped buffer will be incorporated to separate bicycles from traffic. In other locations, displayed on Sheets 5–7 at the end of this Notice, a physical buffer will be incorporated using fencing, concrete barriers, or other methods as appropriate.
- During construction, the appropriate method of traffic control device will be used in select locations of mixed traffic to manage ingress and egress access for construction vehicles and detoured Trail users to ensure safety for pedestrians, bicyclists, and motorists. These traffic control devices will be located at the Ohio River levee gate, located at the western terminus of the Trail detour, and at Highway/Crescent Avenue at the entrance to the Phase 1 detour (see Sheet 2 at the end of this Notice).
- The Riverfront Commons Trail will be fully restored to a condition that is at least equivalent to existing conditions. This includes removing all temporary aggregate fill, repaving the Trail, reinstalling Trail lighting, and replanting disturbed areas with species approved by the City of Covington.
- The temporary detour will be adequately marked and signed, and the public will be notified at least 30 days prior to full Trail closure and 30 days prior to re-opening of the Trail in its current alignment. Notices will be placed on the project website (www.brentspencebridgecorridor.com), the project's social media platforms, the City of Covington's website, and through the project email list. The public can sign up for the project email list through the project website.
- During intermittent Trail closures required for rehabilitation of the existing BSB, the public will be notified at least 48 hours prior to closure.

Based on the assessment of use, FHWA anticipates making a determination of *de minimis* impacts for the proposed temporary use of a section of the Riverfront Commons Trail as described in this Notice. *De*

minimis impacts are generally minor in nature and—after taking into account avoidance, minimization, mitigation, and enhancement measures—will not result in an adverse effect to the Trail. FHWA will make the final *de minimis* impact determination based on the outcome of the public comment process and written concurrence from the City of Covington. Comments regarding the impacts to the Trail, and the proposed *de minimis* impact finding must be submitted to KYTC by **February 23, 2025**. Comments may be submitted to:

Stacee Hans
KYTC Project Manager
Brent Spence Bridge Corridor Project
District 6
Stacee.Hans@ky.gov



BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Plan Overview

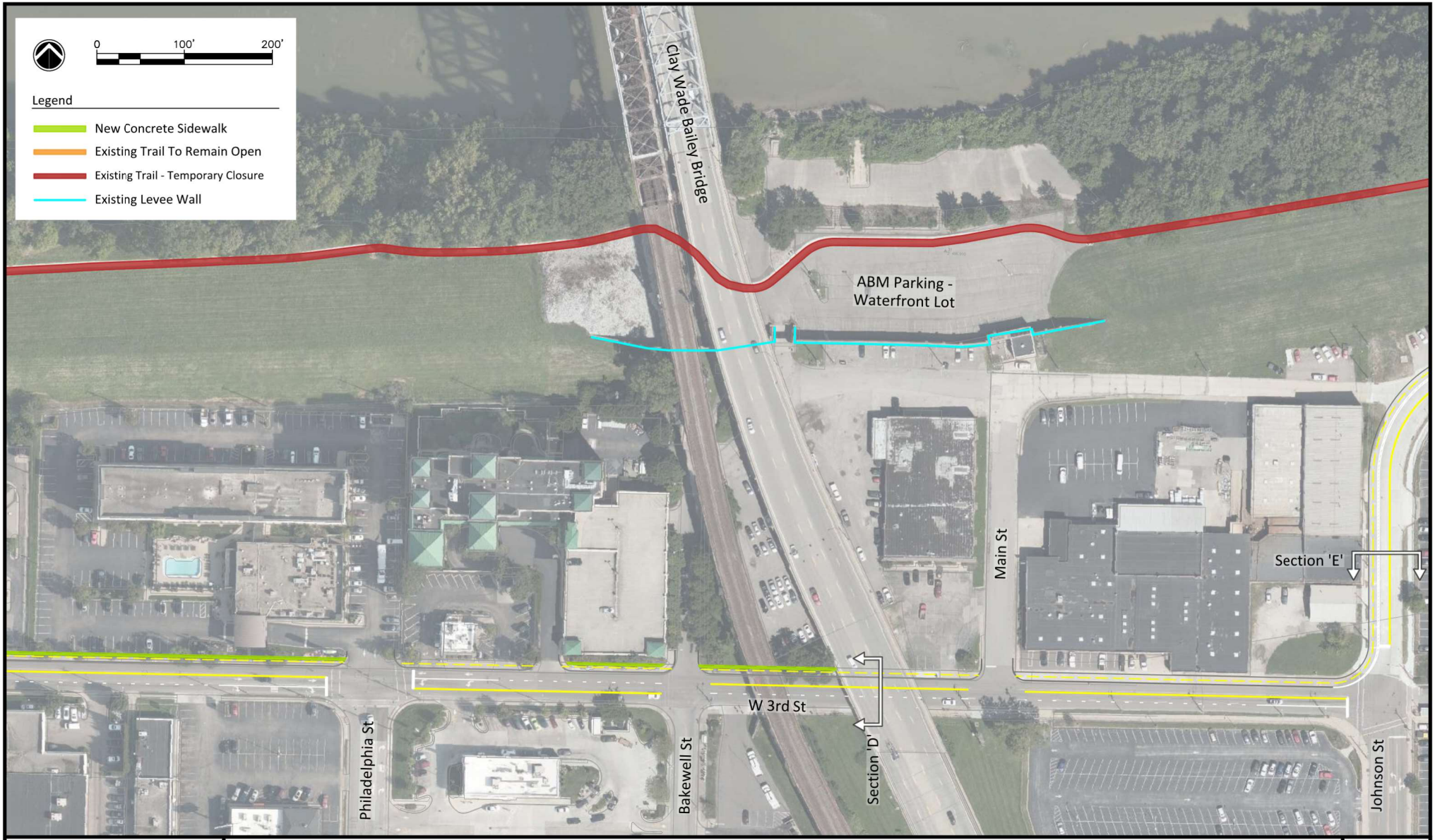


BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Highway/Crescent Ave to W 3rd St

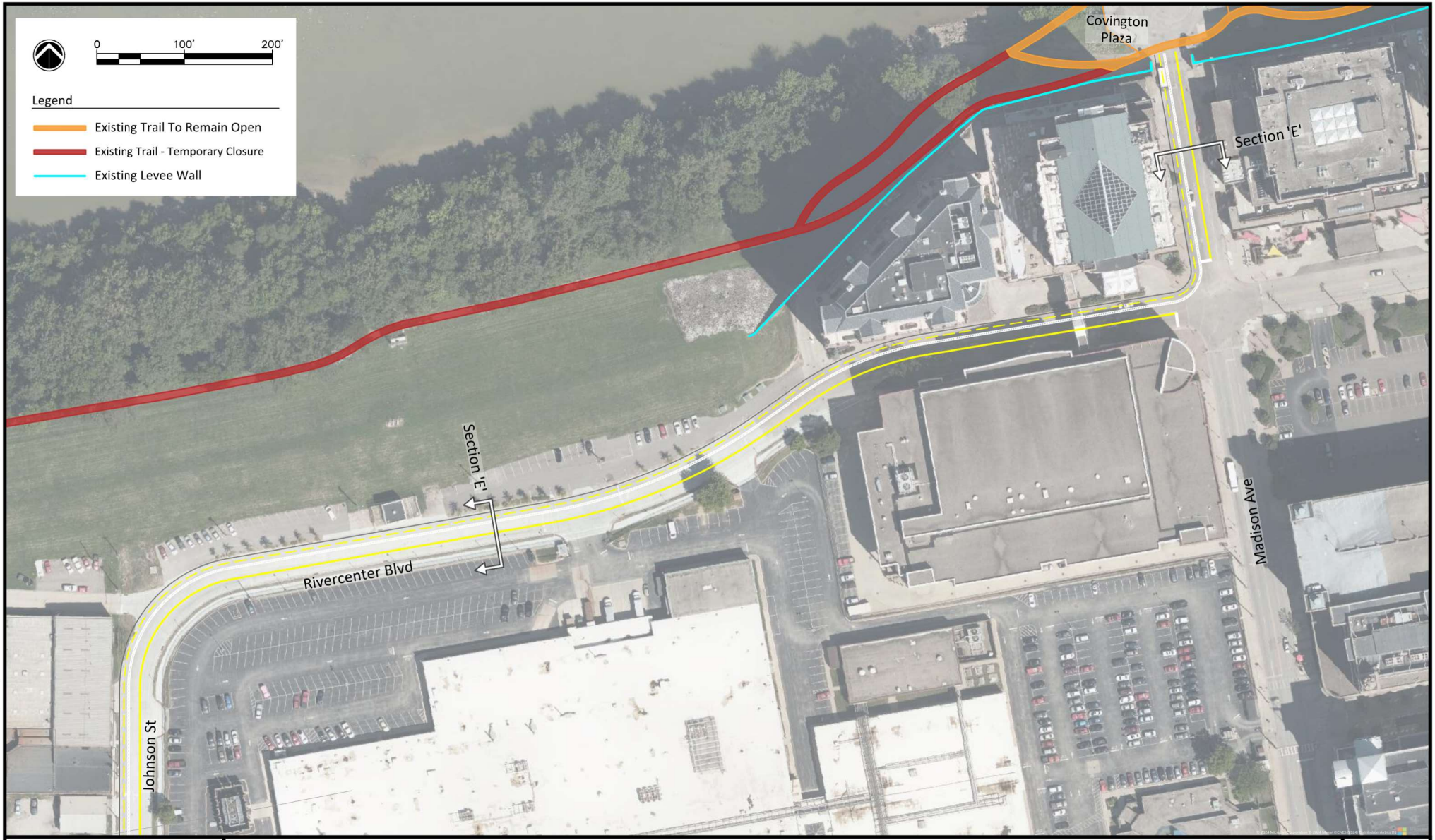


BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

W 3rd St to Rivercenter Blvd



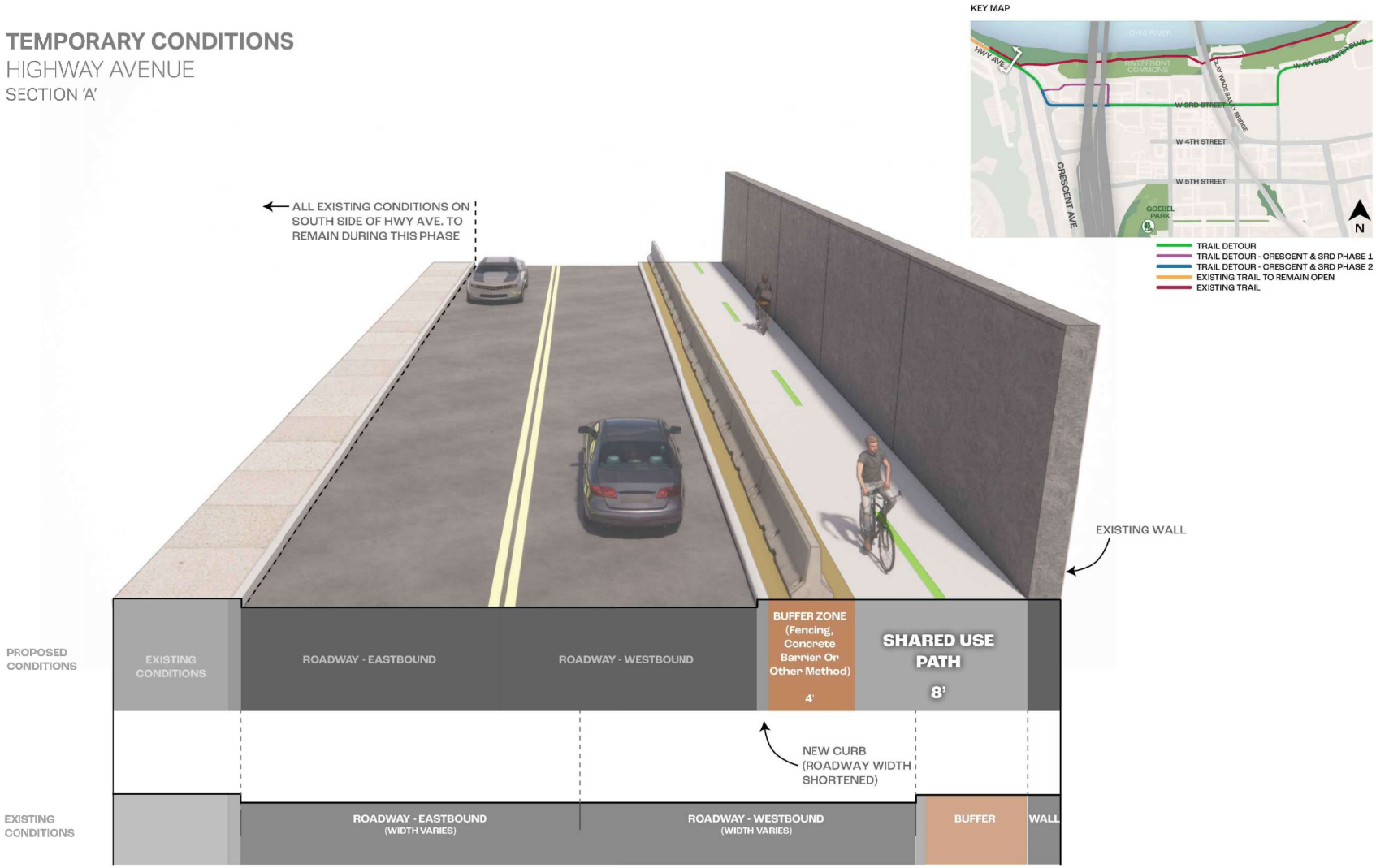
BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Rivercenter Blvd to Madison Ave

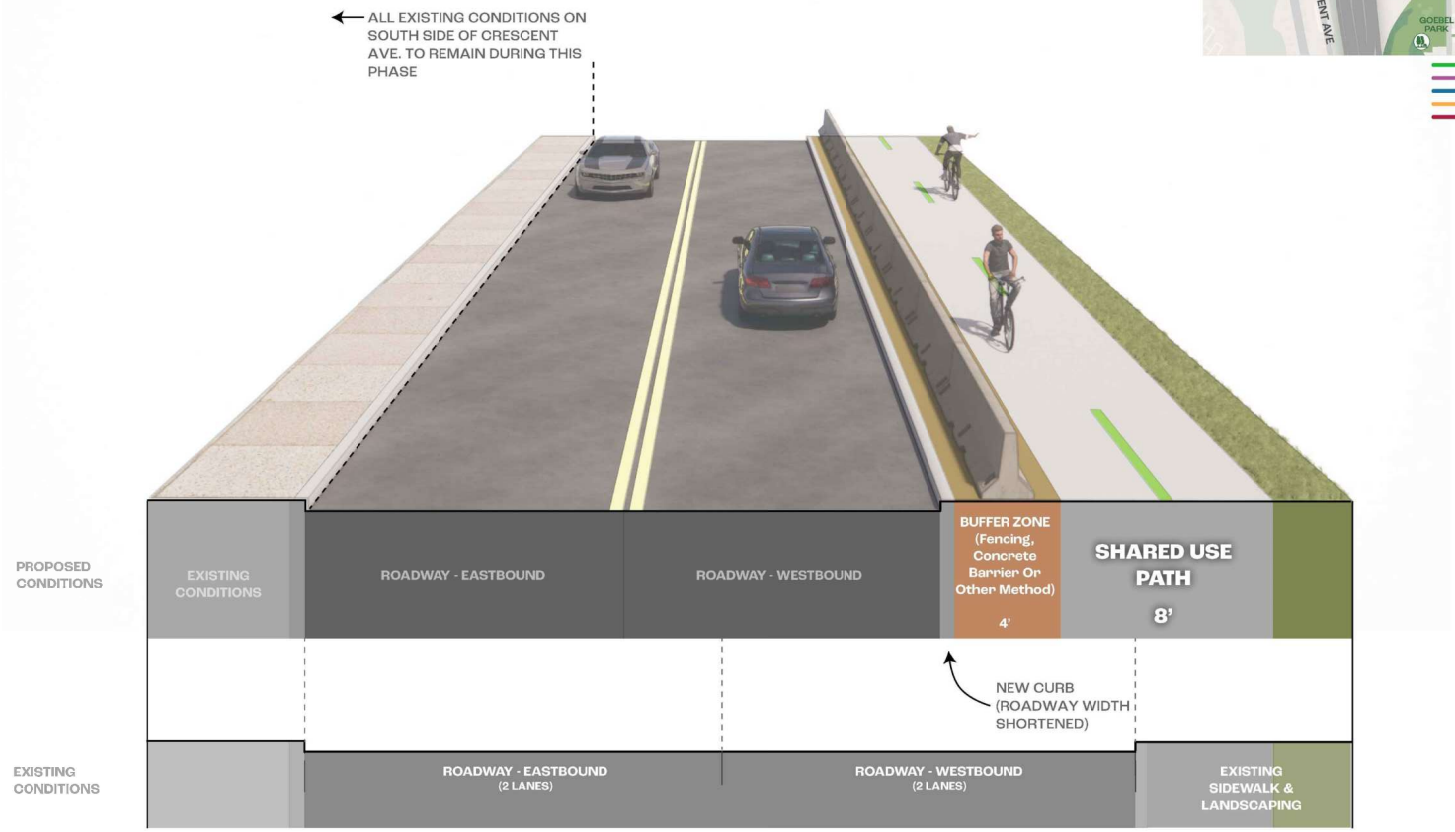
TEMPORARY CONDITIONS
HIGHWAY AVENUE
SECTION 'A'



TEMPORARY CONDITIONS
CRESCENT / HIGHWAY AVENUE
SECTION 'B'

KEY MAP

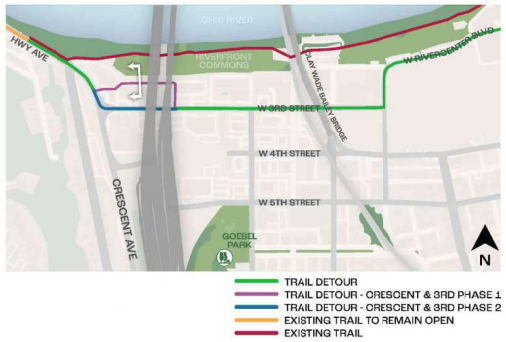


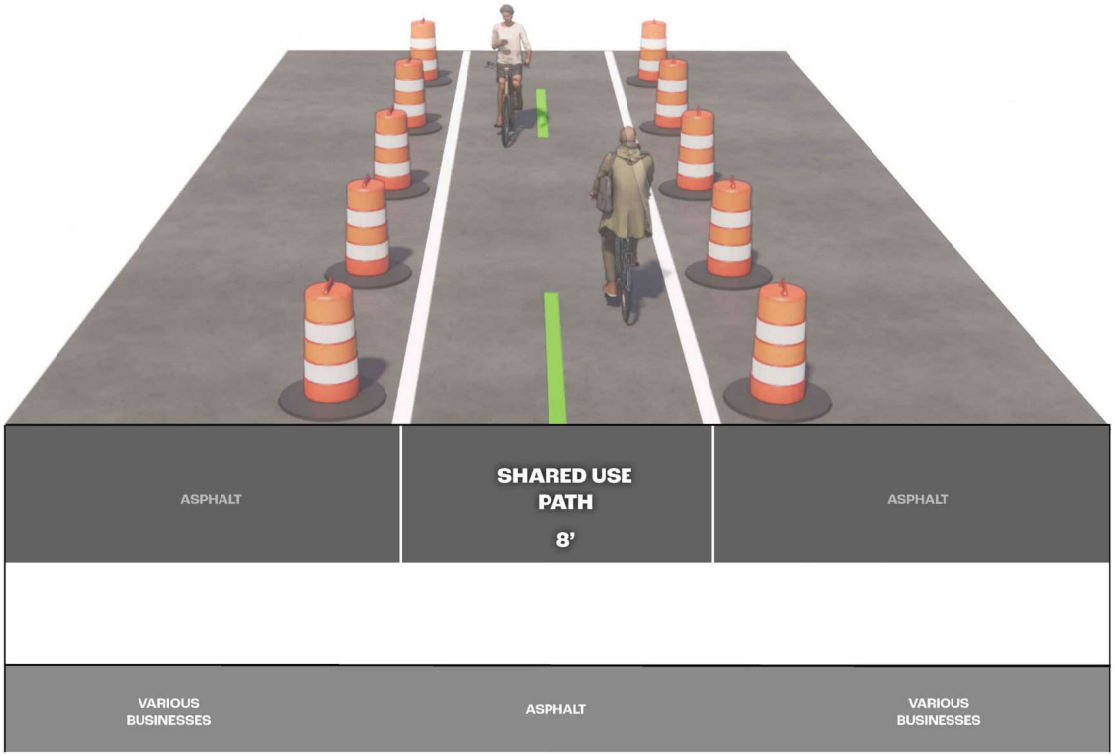


BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

TEMPORARY CONDITIONS
PARKING LOT
SECTION 'C'

KEY MAP





BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

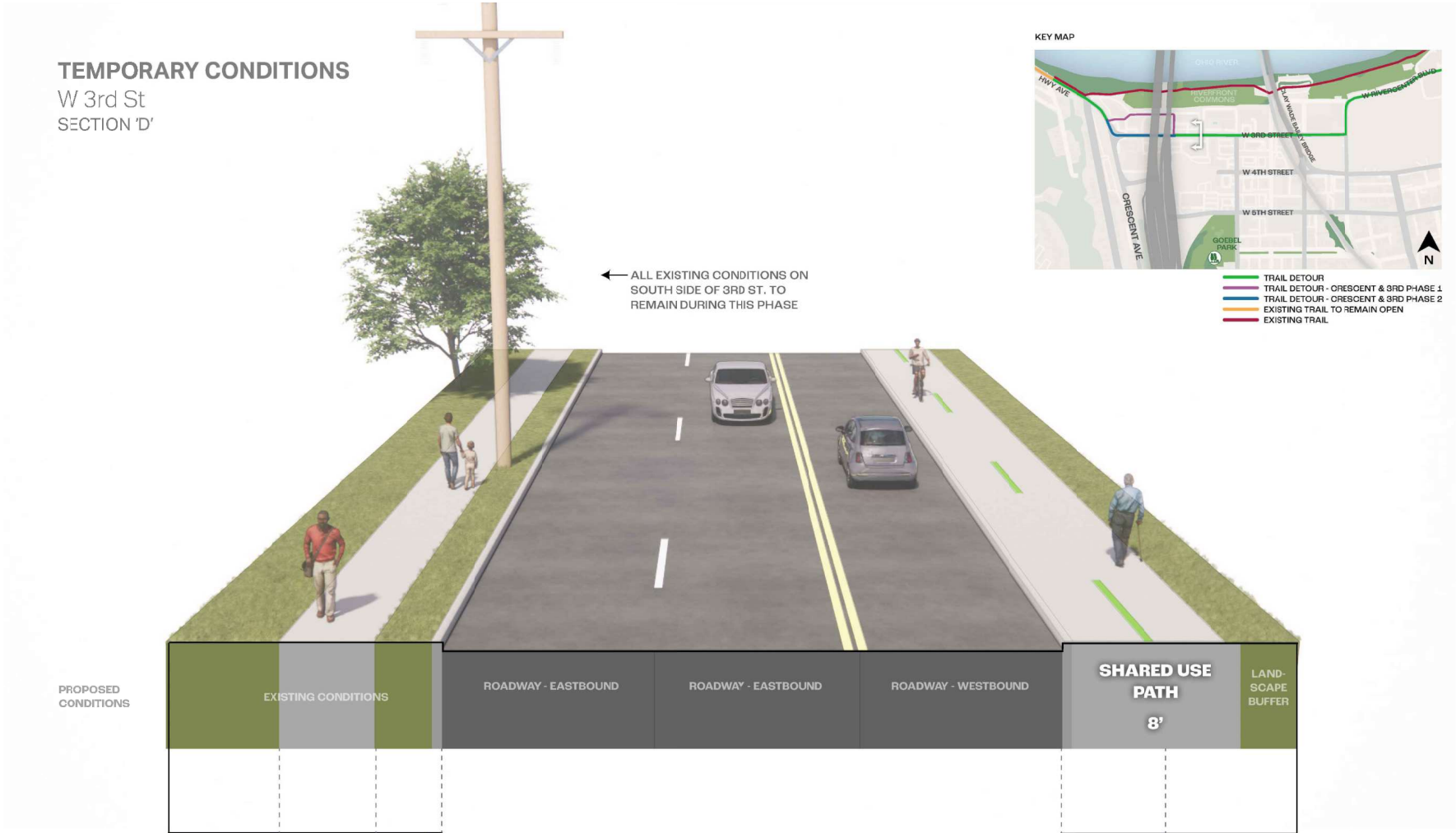
BSBC - Riverfront Commons Trail Temporary Closure & Detour

Parking Lot Section 'C'

TEMPORARY CONDITIONS

W 3rd St

SECTION 'D'



BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

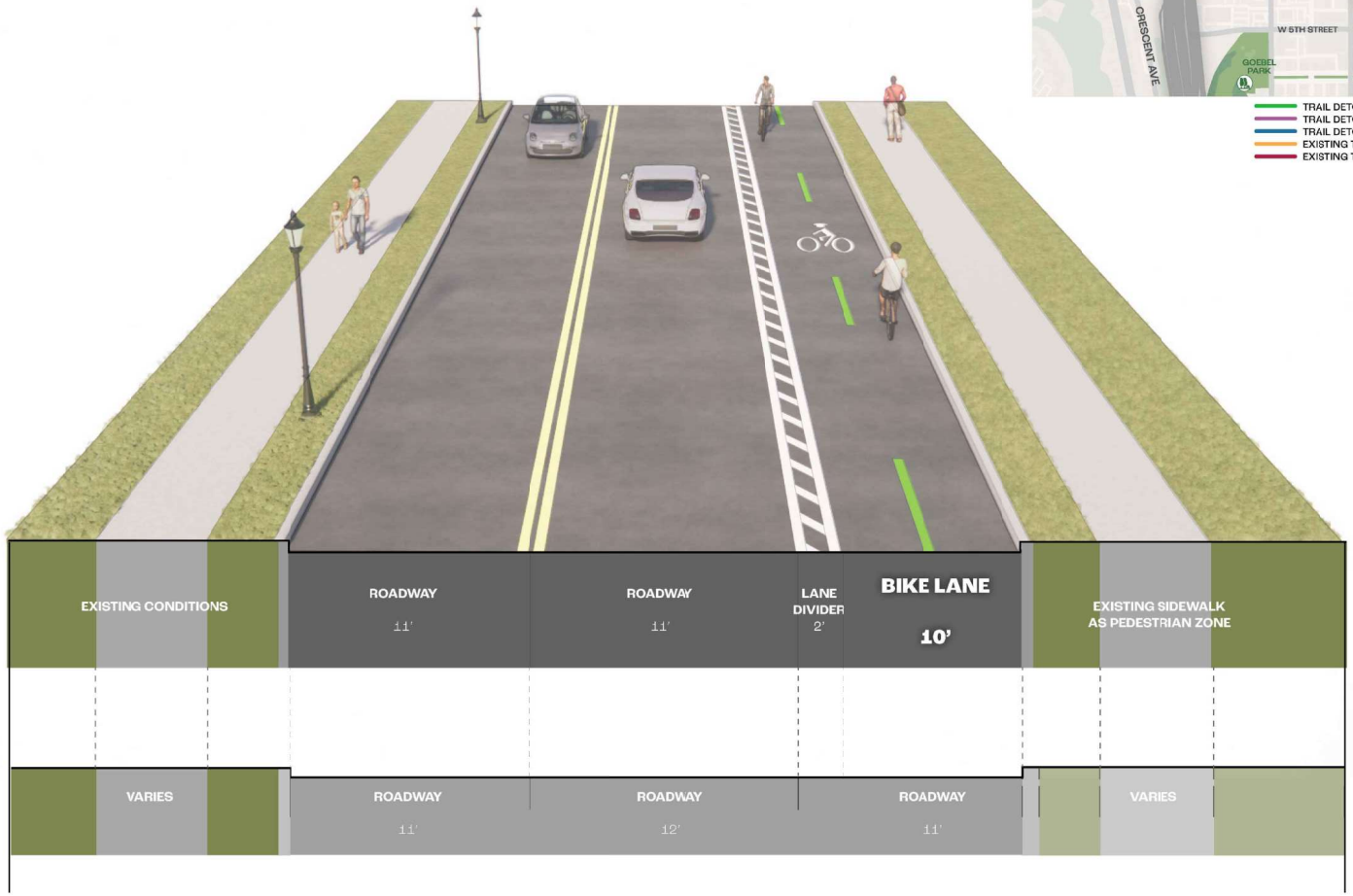
W 3rd St Section 'D'

TEMPORARY CONDITIONS
RIVERCENTER BLVD
SECTION 'E'

KEY MAP



TRAIL DETOUR
TRAIL DETOUR - CRESCENT & 3RD PHASE 1
TRAIL DETOUR - CRESCENT & 3RD PHASE 2
EXISTING TRAIL TO REMAIN OPEN
EXISTING TRAIL



BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Rivercenter Blvd Section 'E'

SHARE:

Join Our Email List

Brent Spence Bridge Corridor January 31, 2025 eNewsletter

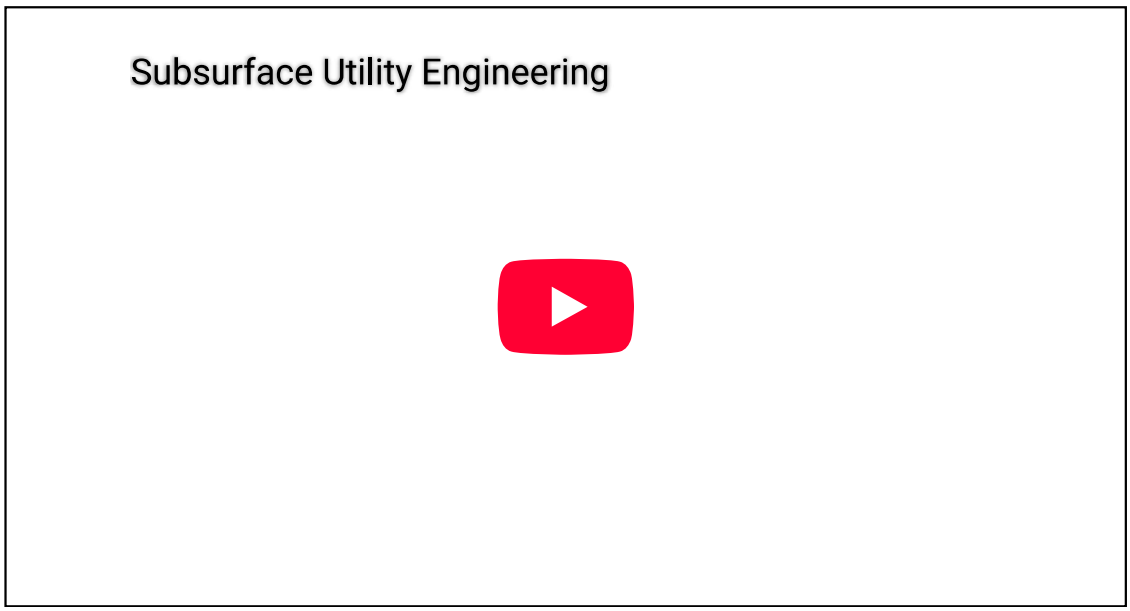


EXCAVATING HISTORY

Conducting an excavation in a city more than 200 years old can be a little like leafing through a scrapbook or sifting through a box of memories. You never know what you're going to find.

That's why technicians for the Brent Spence Bridge Corridor Project began investigating subsurface conditions several months ago to ensure they don't encounter any surprises when construction gets under way.

"Cincinnati is known for a lot of historical projects that were unfinished," said David Vied of Walsh Kokosing, prime contractor for the project. "You had, for example, the Cincinnati subway and other projects. Unfortunately, many were not recorded on maps."



Utilities, such as sewers and water lines, are among the most common features located underground. As a result, technicians are conducting small scale or limited excavations in the project pathway to confirm the location of existing utilities and any that are no longer in service, not documented in historical records or both. “It’s imperative to know what we’re contending with underground. A lot of utilities will need to be relocated or moved underground to be out of the project right of way.”

In addition, Vied said crews are conducting subsurface soil borings to collect information about soil composition, which will inform the project’s design.

“This helps us to understand the rock formation and how we’re going to build a structure on top of it. At the end of the day, we want to avoid any potential conflicts or disruptions that could affect the schedule or the means and methods for building this project.”

Learn more about this process in this video.

A THROWBACK TO STEEL, SKILL, AND PROGRESS

This aerial photograph captures a pivotal moment in regional infrastructure history. Shot by Keller Studio on January 9, 1963, the image shows the steel erection progress of what at the time was known as the Cincinnati-Covington Bridge, with a northern view of construction from the south span between Piers No. 3 and 4, and also at Pier No. 2.



The scene reveals more than construction—it documents how ironworkers precisely positioned massive steel beams, building what would become a vital transportation link for both the region and nation. Their dedicated work laid the foundation for today's Brent Spence Bridge, now poised for its next chapter with the addition of a companion bridge.

A CHANCE TO BE PART OF SOMETHING BIG

Iron worker Rob Barker says the Brent Spence Bridge Corridor Project could be a “once-in-a-lifetime” career opportunity. He should know. The apprenticeship and training director for Local 44 has been an iron worker for 24 years.

“Having a project that is well known throughout the country right here in Cincinnati is great,” Barker said. “You never know. You might be able to say, ‘I worked on that.’”

To learn more about a career as an iron worker, visit the ironworkers website. To hear Barker talk about his career, watch this video.



PUBLIC COMMENT OPPORTUNITY: TEMPORARY RIVERFRONT COMMONS TRAIL DETOUR

To ensure public safety during Brent Spence Bridge Corridor (BSBC) Project construction, the project team requires a 60-month closure of approximately 0.8 miles of the Riverfront Commons Trail beginning in the summer of 2025. During this time, continuity for trail users will be maintained with a detour route (.2 miles longer than the original trail). When the companion bridge is substantially complete, the original trail route will be restored and re-opened. Intermittent closures within the same 0.8-mile trail section will be required until the project is complete to ensure public safety.

Comments on the proposed detour path and construction may be provided to Kentucky Transportation Cabinet Project Manager Stacee Hans at stacee.hans@ky.gov from now until February 23, 2025. See proposed maps and more detailed information here.

ABOUT THE PROJECT

Stretching from the Western Hills Viaduct in Ohio to Dixie Highway in Kentucky, the estimated $3.6 billion project will be built without tolls and transform an eight-mile portion of the I-71/75 interstate corridor, including a companion bridge immediately to the west of the existing bridge. More information about the project is available at BrentSpenceBridgeCorridor.com.

STAY CONNECTED

There are several ways to stay connected with the Brent Spence Bridge Corridor Project.

Visit our website Sign up for updates Submit a comment

© 2022 Brent Spence Bridge Corridor. All Rights Reserved.

Brent Spence Bridge Corridor | 505 South State Route 741 | Lebanon, OH 45036 US

Unsubscribe | Update Profile | Constant Contact Data Notice

PUBLIC NOTICE AND OPPORTUNITY FOR COMMENT ON THE EFFECTS OF THE PROPOS TEMPORARY USE OF A PORTION OF THE RIVERFRONT COMMONS TRAIL

FRIDAY JANUARY 24, 2025

To facilitate construction of the new companion bridge and rehabilitation of the existing Brent Spence Bridge, approximately 0.8 miles of the Riverfront Commons Trail will be temporarily closed during periods of construction. Based on safety concerns from the City of Covington, this includes closure of access to the area east of the Clay Wade Bailey Bridge, starting near the intersection of W 2nd Street and Main Street, until approximately 150 feet west of the Covington Plaza. The Riverfront Commons Trail is a recognized, publicly-owned, recreational property and is provided protection under Section 4(f) of the U.S. Department of Transportation Act of 1966 (Pub. L. 89-670, 80 Stat. 931; codified at 23 U.S.C. 138; implemented by 23 CFR Part 774). A *de minimis* impact determination is proposed to fulfill those requirements.

The 0.8-mile section of the Riverfront Commons Trail will be closed for approximately 60 months beginning in the summer of 2025. Continuity for Trail users will be maintained

MEDIA CONTACTS

KYTC: Allen Blair – 606-748-371

ODOT: Matt Bruning – (614) 46

RECENT NEWS REI

- Public Notice and Opportu Comment on the Effects of Proposed Temporary Use o of the Riverfront Commons
- TRAFFIC ADVISORY: Overni Impacts for Survey Work or Spence Bridge

during this time. An approximately 1-mile-long Trail detour will be provided primarily along Rivercenter Boulevard, W 3rd Street, and Highway/Crescent Avenue to maintain continuity. After 60 months, when the companion bridge is substantially complete, the Riverfront Commons Trail will be restored in its current alignment and re-opened to the public. However, intermittent Trail closures within the same 0.8-mile section will be required until the project is complete. These closures will vary between one day to three weeks. Shorter durations will be required for access underneath the BSB, while longer closures will be required for overhead activities, such as deck placement, where Trail user and worker safety is a concern. The ABM Parking Waterfront Lot, located directly east of the Clay Wade Bailey Bridge, will be closed throughout construction. The ABM Parking Waterfront Lot is not part of the Riverfront Commons Trail.

Based on the assessment of use, FHWA anticipates making a determination of *de minimis* impacts for the proposed temporary use of a section of the Riverfront Commons Trail as described in this Notice. *De minimis* impacts are generally minor in nature and—after taking into account avoidance, minimization, mitigation, and enhancement measures—will not result in an adverse effect to the Trail. FHWA will make the final *de minimis* impact determination based on the outcome of the public comment process and written concurrence from the City of Covington. Comments regarding the impacts to the Trail, and the proposed *de minimis* impact finding must be submitted to KYTC by **February 23, 2025**.

More details and maps related to the temporary closure can be found in the Document Center.

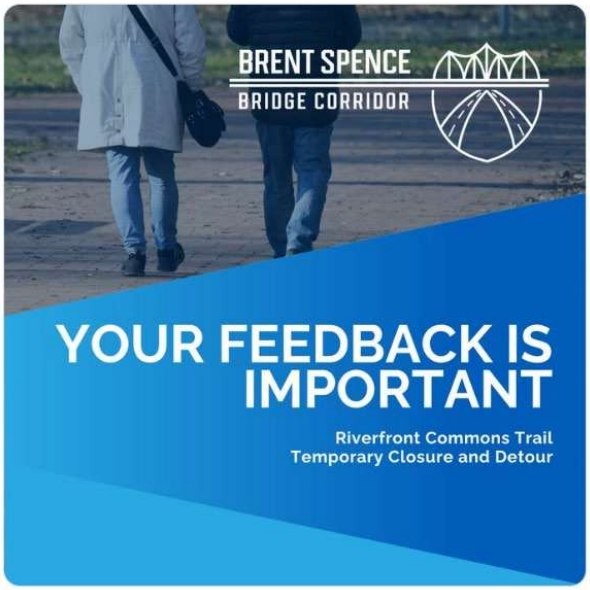
Comments may be submitted to:

Stacee Hans
KYTC Project Manager
Brent Spence Bridge Corridor Project
District 6
Stacee.Hans@ky.gov

- Overnight Traffic Impacts fc Work on Brent Spence Brid
- BSBC Project Team Recom Innovations to Reconnect Communities and Improve
- Ohio, Kentucky Receive Fec Environmental Approval fo Project, Clearing Path Forw
- Walsh Kokosing Design-Bui Celebrates Women in Cons Week
- Apprenticeship Readiness I Expand Career Pathways in Trades
- Prime Contractor Named fc Longworth Hall Buildout
- 'It's our bridge': Local work BSB corridor project brings lifetime opportunity
- More Than 550 Attend Publ

Brent Spence Bridge Corridor
@BSBCorridor

As part of the @BSBCorridor Project, a portion of the Riverfront Commons Trail in Covington will be temporarily closed during periods of construction. For more information on the 1-mile-long Trail detour (0.2 miles longer than the original trail), and to provide feedback on the temporary closure, please visit: brentspencebridgecorridor.com/public-notice-...

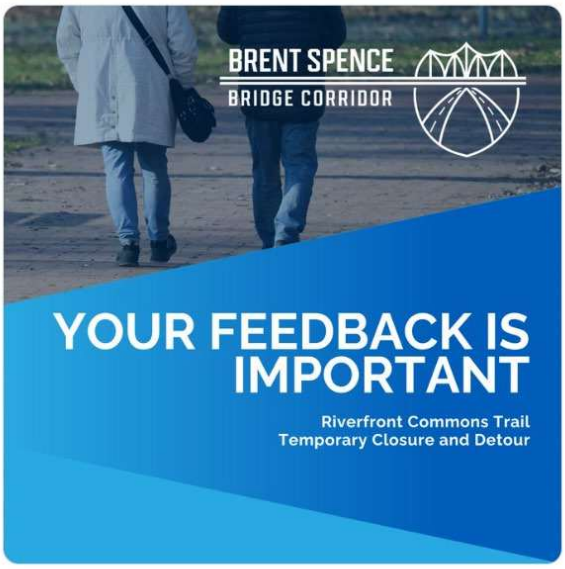


1:34 PM · Feb 19, 2025 · **152** Views

Brent Spence Bridge Corridor
@BSBCorridor

As part of the @BSBCorridor Project, a portion of the Riverfront Commons Trail in Covington will be temporarily closed during periods of construction. For more information on the temporary closure, a 1-mile-long Trail detour, and to provide feedback, please visit:

brentspencebridgecorridor.com/public-notice-...



9:16 AM · Jan 24, 2025 · **290** Views

Brent Spence Bridge Corridor
February 19 ·

As part of the Brent Spence Bridge Corridor Project, a portion of the Riverfront Commons Trail in Covington will be temporarily closed during periods of construction.

For more information on the 1-mile-long Trail detour (0.2 miles longer than the original trail), and to provide feedback on the temporary closure, please visit: https://brentspencebridgecorridor.com/public-notice-and.../

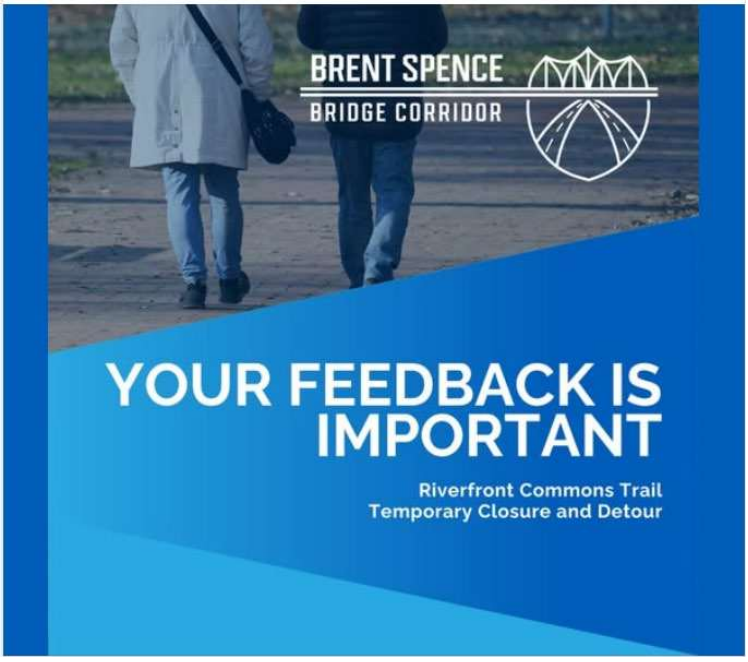


Brent Spence Bridge Corridor
January 24 ·

As part of the Brent Spence Bridge Corridor Project, a portion of the Riverfront Commons Trail in Covington will be temporarily closed during periods of construction.

For more information on the temporary closure, a 1-mile-long Trail detour, and to provide feedback, please visit:

https://brentspencebridgecorridor.com/public-notice-and.../




BSB Public Notice Signs
OHIO
OHIO
Ohio River
Notice Signage
Notice Signage
Notice Signage
Notice Signage
LICKING RIVERSIDE
MUTTER GOTTES
Covington
N
2000 ft
Google Earth

Roebling Signage



PPB Signage



CWG
Signage



Attachment 2: Public Comments

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Annika Seppala <noreply@adv.actionnetwork.org>
Sent on: Tuesday, February 4, 2025 3:17:37 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save Riverfront Commons

KYTC Project Manager Stacee Hans,

According to the Environmental Justice Mapping Tool, the area for the planned highway expansion by Riverfront Commons is currently in the high-90 percentile for many air quality issues, including particulate matter, nitrogen dioxide, and toxic releases to air. Please reject KYTC's plan to close the Riverfront Commons and allow residents to continue to utilize the access to nature that the trail provides. Thank you!

Annika Seppala

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Sean Buckley <noreply@adv.actionnetwork.org>
Sent on: Wednesday, February 5, 2025 2:28:37 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Covington Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

Hello, I am concerned about the closure of the Riverfront Commons Trail during the I-75 expansion project and the project as a whole. This project undoubtedly has many negative externalities for Covington which include reduced air quality and noise, increased traffic due to induced demand and reduction of amenities for those who do not own cars or choose to not drive 100% of the time. Myself and many people I know use the Riverfront Commons trail a multiple times a week.

It is concerning that individuals would roll over in the face of what will ultimately be a negative for all parties including operators of automobiles. This highway expansion helps no one and only pushes individuals like myself who would like to own a home in Covington to reconsider in the face of a council not interested in fighting for its citizens on this front and a state agency that does not have in my opinion the #1 priority being safety rather than travel times.

In regards to the Riverfront Commons Trail closure I would like to see this used as an opportunity to instead of having multiple changes in routing there be a push for on street amenities in Covington such as the planned 4th Street road diet. There are currently no bike lanes in Covington, this is inexcusable in a modern city. Let us ask the state and work as a community to make that change. I implore you to implement the already adopted Covington and Newport Bicycle transportation plan so that we can lessen the impact this highway expansion will have.

Thank you for your time if you would like to talk further on these matters feel free to reach out to me. I am always happy to talk.

Sean Buckley, Vice President Ride The Cov

[redacted]

Sean Buckley

[redacted]
Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Elena Suggs <noreply@adv.actionnetwork.org>
Sent on: Wednesday, February 5, 2025 2:43:01 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Stop Highway Expansion

KYTC Project Manager Stacee Hans,

I oppose any efforts to expand I-75, especially at the Brett Spence Bridge. Environmental experts warn that it will cause community disruption. I am not concerned about traffic flow; I greatly encourage the city to examine ways to encourage alternative transportation methods rather than enabling personal vehicular transportation.

Elena Suggs



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Kurt Holocher <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:37:10 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Against i75 Expansion

KYTC Project Manager Stacee Hans,

Studies have shown that adding lanes does not reduce traffic congestion. Our nation needs to focus more on public mass transit and micro-mobility options in lieu of single-occupancy automobiles. You have an opportunity to have one of the most unique and sought after areas in the greater Cincinnati region if you foster more small-business, walkability/bikeability, and housing. Expanding the highway will worsen air quality and noise pollution in some of your best neighborhoods!

Kurt Holocher

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Jody Chrowl <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:35:05 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Closing of riverfront commons trail

KYTC Project Manager Stacee Hans,

I'm upset that KYTC would close the new riverfront commons trail for 5 years. I live in Covington because it offers wonderful river pathways that I can walk or bike on. I can't believe they are unable to find a different solution or closing it for less time. Please voice my concerns to KYTC.

Jody Chrowl

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Patrick McCue <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:35:06 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Concerned Western Covington Citizen

KYTC Project Manager Stacee Hans,

As a resident of the [redacted] who is also a cycling and dad of two kids who love riding their bikes, shutting down the river front commons section between our neighborhood and the plaza would take away our safe route of traveling from our house into downtown Covington for shopping, coffee shop visits and exercise. I hope you all reconsider closing this vital SAFE trail / commuting route that many of our community members utilize every day of the week. Pushing us to use other ways to get to where we need to go will lead to someone getting hurt.

Patrick McCue
[redacted]

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Jaden Leman <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:52:59 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Don’t expand the highway

KYTC Project Manager Stacee Hans,

Please favor multi-use transit and trail systems over car infrastructure. We need to be climate resilient as soon as possible, and highways are moving in the wrong direction of our future. Please save the trail!

Jaden Leman



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Emily Benoit <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:41:34 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Help Covington grow

KYTC Project Manager Stacee Hans,

I'm writing to strongly oppose the plan to close the Riverfront Commons Trail and other pedestrian paths for I 75 construction. Covington has grown so much over recent years. Its walkability and bikeability are the foundation of its new vibrancy. Undoing all the work of the community for - at minimum - 5 years is a ridiculous, giant step backwards. Covington is not an in the way obstacle of interstate traffic. It's a community in its own right, and its citizens and locals deserve continued safe, clean access to everything the city has to offer.

Emily Benoit



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Hannah Toton <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 9:42:42 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: KYTC- This project isn't worth it

KYTC Project Manager Stacee Hans,

The parks and trails of Cincinnati and N. Kentucky has made my experience as a "transplant" better- and everyone time one is shut down, my choices between driving and walking are often made for me.

shutting down these trails for 5+ years isn't the answer. Honestly, it's like shutting them down for good for a less than ideal result as it is.

This is not in line with the goals we have as the greater Cincinnati area for climate change, mobility, and accessibility options for everyone (not just the personal vehicle commuter).

Even if trails remain intact or improve, air pollution increases and deincentivizes those choosing to walk and bike, or simply be outside for exercise and enjoyment.

Our air quality is already bad enough. As someone whose job relies on speaking and singing, air quality is a critical factor in choosing how and where to spend my time.

Please reconsider other solutions that do not involve drastic highway expansion that impacts the trails that exist to this degree. Having a wholistic city that considers everyone should be a priority, and this in no way achieves that.

Hannah Toton

Hannah Toton

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Julia Lankisch <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:38:35 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: KYTC

KYTC Project Manager Stacee Hans,

Closing the trail is not just for now, and constituents know it. We want transparency & a legitimate say.

Julia Lankisch



From: Nathaniel Weyand-Geise [redacted]
Sent on: Thursday, February 6, 2025 9:15:08 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Make the Riverfront Commons Re-Route the Best it Can Be

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.
Report Suspicious

Dear Stacee,

I have been living in [redacted] for three years now. I actually purchased a home in [redacted] because of its proximity to the Riverfront Commons trail. Nearly everyday I would ride that trail to work, to visit friends, or just enjoy the way the trail gets you so close to the Ohio River. The Riverfront commons is a great asset to me, and my neighbors. It's truly one of the most joyful parts of our neighborhood.

Please try and make the reroute as safe and consistent across the whole trail.

There are key intersections that need improvement along this re-route which would greatly help in the safety of all street users.

Make W. 3 and Crescent Intersection Safer: The slip lanes at the intersection of W. 3rd and Crescent has for a very long time been a dangerous place for pedestrians and cars and bikes. Please consider closing the slip lanes at that intersection when the re-route is passed through there. Folks should come to a complete stop, but they never do. instead cars treat those slip lanes like high speed turns.

Maintain Access at Wright Street: Please maintain an entrance at Wright Street and Highway Ave, where the planned reroute starts. All neighbors on John St., Spring St., and Wright St. cannot use the trail if that access point is closed. We have used that for years and it doesn't cause any issue. Please do not close that entrance for us.

Please Maintain Access East of Scribble Park:
This is not in the project area. Please maintain access here.

Thank you for receiving my feedback,
Nate

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Nate Weyand-Geise <noreply@adv.actionnetwork.org>
Sent on: Monday, February 10, 2025 7:15:21 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Do not Hastily Close the Trail

KYTC Project Manager Stacee Hans,

Please do not hastily close the trail. The trail should only close as a needed basis. I rely on this trail to get to work. My neighbors love this trail for recreation and the access it provides to the river.
Please do not close this trail. If a reroute is required, ensure it is consistent in feel and safety and is open when the trail is closed.

Nate Weyand-Geise

Redacted

From: Nathaniel Weyand-Geise [redacted]
Sent on: Friday, February 7, 2025 5:33:02 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Fwd: Riverfront Commons - Alternative Routing Options?

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.

Report Suspicious

Hello Stacee,

I had previously articulated my comments about the trail closure to City Manager Ken Smith and Elizabeth Wetzel via email. Please enter the following email chain and all my comments into the official record. I was recently made aware that only if you received my comments on the trail closure would my comments be recorded.

Thank you,
Nate

---------- Forwarded message ---------
From: **Nathaniel Weyand-Geise** [redacted]
Date: Wed, Jan 29, 2025 at 1:44 PM
Subject: Re: Riverfront Commons - Alternative Routing Options?
To: Elizabeth Wetzel <Elizabeth.Wetzel@covingtonky.gov>
Cc: Ken Smith <ksmith@covingtonky.gov>, Sebastian Torres <Sebastian.Torres@covingtonky.gov>

Elizabeth,

Thank you for your thorough answer.

My specific concern is as follows: If KYTC is planning to build this reroute infrastructure, let's use this as an opportunity to build something that will remain additive to Covington well after the Brent Spence project is complete.

This proposed reroute could really help folks more easily navigate inside and around the City. Crescent to West 3rd Street has all those hotels, businesses, bars, and restaurants in addition to being the main route entering into West Covington from the rest of the City. This reroute is an opportunity to make that whole strip feel more welcoming for folks visiting Covington in those hotels, as well as the residents riding and walking to their homes in West Covington.

The Brent Spence Bridge project has promised to enhance the City. Getting the design of this trail is part of fulfilling that promise.

Thank you,
Nate

On Tue, Jan 28, 2025 at 10:35 AM Elizabeth Wetzel <Elizabeth.Wetzel@covingtonky.gov> wrote:

> Good morning, Nate,
>
> KYTC has shared with us that the usual Riverfront Commons trail will be closed near the Brent Spence Bridge during active construction, as the trail runs directly under the construction area. Although it won't be ideal to have the Riverfront Commons trail closed, it's necessary for safety. The temporary trail re-route will be just south of the current trail area, on-street.
>
> As Ken mentioned, KYTC plans to redesign the area of 3rd and Crescent at Highway Ave before the other BSB corridor construction, which we anticipate will improve conditions for multi-modal transportation. My understanding is that KYTC plans to route the temp walk/bike trail along Rivercenter Blvd and 3rd St. as much as possible. The temp route may have to change over time (depending when CCR Phase 2 work along Rivercenter Blvd. occurs). KYTC and FHWA are working out the needed notice, signage and temporary routing during BSB construction. Also, the permanent designated bike lane on 4th at CCR should be complete well before BSB construction begins, but that's designed as a west-bound lane only.
>
> All of that is to say that KYTC and FHWA are working to ensure there will be signed temporary re-route of the Riverfront Commons trail during active construction of the Brent Spence Bridge above. Once the initial temporary route is determined, KYTC indicates they will ensure the route will have directional signs to aid in navigation. If you have specific questions or things you think should be considered, please let me know and I will ask KYTC to address them.
>
> Thank you,
>
> Elizabeth
>
> ---
>
> **From:** Ken Smith <ksmith@covingtonky.gov>
> **Sent:** Monday, January 27, 2025 7:21 PM
> **To:** Elizabeth Wetzel <Elizabeth.Wetzel@covingtonky.gov>
> **Subject:** FW: Riverfront Commons - Alternative Routing Options?
>
> Could you confirm what I guessed below and report back to Nate?
>
> Ken
>
> **J. Kenneth Smith**

City Manager
City of Covington, Administration
20 West Pike, 2nd Floor Covington, KY 41011
859-292-2125 direct | 859-292-2160 main

From: Ken Smith
Sent: Monday, January 27, 2025 7:20 PM
To: 'Nathaniel Weyand-Geise' [redacted]
Subject: RE: Riverfront Commons - Alternative Routing Options?

Nate,

I don't know if we have specifically discussed this with KYTC, but I should have anticipated it as the construction set-up will be directly under the current and new bridges. There would be absolutely no way to safely maintain bike/ped access.

I will add this to our agenda and report back. If it's any consolation, there will be bike lanes added to all the new and reconstructed streets including Route 8 presumably from the current end to 3rd and onto Johnson. I think this may be completed before the actual bridge work beings. Again, I will confirm.

Ken

J. Kenneth Smith
City Manager
City of Covington, Administration
20 West Pike, 2nd Floor Covington, KY 41011
859-292-2125 direct | 859-292-2160 main

From: Nathaniel Weyand-Geise [redacted]
Sent: Friday, January 24, 2025 5:10 PM
To: Ken Smith <ksmith@covingtonky.gov>
Subject: Riverfront Commons - Alternative Routing Options?

Ken,

I'm disappointed to learn that the Riverfront Commons will be closed for a very long time.

Can we explore routing alternatives to help folks easily connect to the riverfront from my neighborhood of Redacted?

I'd be happy to meet with you and other city and state representatives to explore how we can create a safe alternative now that this trail will be closed.

Thank you,

Nate

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Seth Hershey <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:49:07 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: More lanes = more problems

KYTC Project Manager Stacee Hans,

Widening highways does not ease traffic flow. Infringing on other modes of transportation reduces options and increases traffic flow. You need to think about the long plan. Is this plan sustainable? Highways are the norm, but they are not a long term answer for local residents.

Seth Hershey



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Melissa Navarra <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:45:15 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No Highway Expansion

KYTC Project Manager Stacee Hans,

The highway expansion is inconsistent with Cincinnati and Covington's climate and mobility goals because it encourages more driving. Additional highway lanes do not decrease congestion, but public transit does. Additionally, this project will worsen the air quality in the area. We do not want this project, but would rather see investment in sustainable alternatives like public transportation.

Melissa Navarra



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Nick Summe <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 11:55:45 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No on Expansion

KYTC Project Manager Stacee Hans,

We need our trails for our quality of life and community. Our city of Covington is special and unique. We need our trails and green spaces to interact with our neighbors, walk our dogs and exercise for our well-being.

Nick Summe



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Anastasia Summe <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 10:17:01 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No to Highway Expansion

KYTC Project Manager Stacee Hans,

I live within blocks of the proposed expansion. The noise and pollution is already problematic in my neighborhood. I am firmly against the expansion of the interstate and the removal of existing walking and biking paths in Covington. Please listen to your constituents and consider the impact on quality of life for all Covingtonians. We need to move towards sustainability and community, not bigger better faster more.

Anastasia Summe

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Benjamin Gerber <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 9:59:55 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Preserve our Cities

KYTC Project Manager Stacee Hans,

The Brent Spence Bridge Corridor Project already poses a direct threat to alternative modes of transportation by encroaching on communities and expanding an already destructive car-culture in our cities. I constantly hear of the downstream effects of this project, just like this one, to the point where it's challenging to see how the project is beneficial to our citizens. Please don't further exacerbate the historical issues of interconnection and sustainability in our cities.

Benjamin Gerber

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Margaret Leonhard <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:33:47 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Proposed pedestrian and cycle lane closure.

KYTC Project Manager Stacee Hans,

I can't think of a worse idea. Just don't do it!

Margaret Leonhard



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Seth Moore <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 9:24:32 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Protect public health, don't expand I-75

KYTC Project Manager Stacee Hans,

The Riverfront Commons trail is a vital access route for pedestrians and bikers connecting our communities along the river. The trail is scenic and offers families and individuals a safe place to walk, run, and bike away from the risk of car traffic. Closing it harms the beauty of Covington. As a local resident who volunteers with Keep Covington Beautiful, I am personally invested in maintaining this footpath open. I also use it frequently during warmer weather. As an avid city walker, I have trecked from Covington to Dayton multiple times for the exercise and the freedom.

Expanding I-75 is a bad idea in its own right. It is a proven fact that traffic always increases as lanes increase. Expanding the interstate will only create additional traffic in the future. As a city, we need to champion public transit like bringing the Streetcar across the river and connecting with Newport along the 4th Street Bridge. More cars means more pollution, more noise, more accidents, more infrastructure costs in the future. We cannot increase our car infrastructure indefinitely, and we cannot just kick the can down the road for the next generation to deal with. Infrastructure must be people-focused first and foremost.

Seth Moore

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Cierra Clark <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 7:02:09 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Reject Highway Expansion!

KYTC Project Manager Stacee Hans,

Hi I am a graduate of the University of Cincinnati and thus have a deep appreciation for the city. Earning a degree in environmental science it means everything to me to improve our Earth and take steps to improve our cities and living. Expanding I-75 will encourage more driving, and is inconsistent with Cincinnati and Covington's climate and mobility goals.
Transit does not work well when cities have lots of highway lane miles.
The project will worsen air quality, including near Riverfront Commons, Goebel Park, Mainstrasse and Lewisburg - Covington's levels of soot pollution (PM2.5) are already too high.
Please please take these concerns into consideration and reject any further highway expansions.

Cierra Clark



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Christopher Smith <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 9:22:37 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Common Trail

KYTC Project Manager Stacee Hans,

The Riverfront Common Trail is an essential component of the community and needs to be treated with the appropriate respect. The trail can remain open during construction. Closing it for that amount of time would kill it in the eyes of the community. Spend the extra dollars to keep it open and available during the upcoming construction.
Thank you!
Sincerely,
Christopher E Smith
Redacted

Christopher Smith
Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Elliot Willoughby <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:36:29 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

99% of the time I am a bike commuter who relies on infrastructure such as the riverfront commons trail to be able to traverse safely. I live in a household that shares one car and bike commuting has honestly been a very welcoming addition to my life, health, and routine. Not only has it helped explore a more active lifestyle, it also helps me see and appreciate my city in new ways.

Shutting down trails like this not only make it difficult for me to commute, but also intrude on critical public assets. With infrastructure such as this being shut down for 5 years (holy cow that's long) that means that people like myself with be diverted to other routes. Creating a more hazardous commute and inevitably more traffic. Cycling and pedestrians around this city are already clinging onto what little (consistently accessible) infrastructure they have available. Please don't make this harder for these people.

Elliot Willoughby

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Leslie Schicht <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 11:39:00 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

Please - our trail is a hidden gem that my children ride bikes on, that I exercise my dog on and that so many of us in Covington enjoy. It's our River access and a slice of nature as I75 whizzes by. Please - losing it for five years is unimaginable. I understand and appreciate the need for a replacement for the Brent Spence but the larger impact on the residents of Covington must be considered.

Leslie Schicht



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Casey Williams <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:26:58 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trails

KYTC Project Manager Stacee Hans,

I really enjoy this trail and it makes for the safest crossing from Covington to Ludlow for pedestrians and cyclists

Casey Williams

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Melissa Adams <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 10:53:09 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons walking trails

KYTC Project Manager Stacee Hans,

The riverfront belongs to the state and its people. Continually the riverfront is sold off; blocked views and commercialized. Allow the use of the trails to continue, our time is now. Claim our accessibility to the river walkways. Thank you!

Melissa Adams
REALTOR
State of KY

Melissa Adams

Redacted

This Message Originated from Outside the Organization
The sender's identity could not be verified and someone may be impersonating the sender.

Report Suspicious

From: Curt Coulter [redacted]
Sent on: Thursday, February 6, 2025 8:28:26 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save Riverfront Commons Trail!

KYTC Project Manager Stacee Hans,

I absolutely love what you have done to expand and freshen up this trail and now learn you want to shit it down. Please figure another way as I love walking the river and need it for my exercise program. Thank you

Curt Coulter

[redacted]

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Melanie Powers <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 9:33:13 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

Expanding I-75 will encourage more driving, and is inconsistent with Cincinnati and Covington's climate and mobility goals.
Transit does not work well when cities have lots of highway lane miles.
The project will worsen air quality, including near Riverfront Commons, Goebel Park, Mainstrasse and Lewisburg - Covington's levels of soot pollution (PM2.5) are already too high.

Melanie Powers

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Kevin Weigand <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:36:02 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save the trail

KYTC Project Manager Stacee Hans,

Save the trail please

Kevin Weigand

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Christopher Beard <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 6, 2025 8:38:47 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Trail closure

KYTC Project Manager Stacee Hans,

Please don’t close the riverfront common trail as it’s a resource I use often

Christopher Beard

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Nicholas Wright <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 1:36:25 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Against highway expansion and riverfront trails.

KYTC Project Manager Stacee Hans,

Hi,
The decision to expand 75 is a poor one. One that will only encourage more driving, that will create more cars on the road, and ultimately more traffic.
All of Northern Kentucky's air quality will worse and to shut down the largest non-car trail in the area only exasperates this issue.
Please reconsider and spend this money on transit instead.

-Nick Wright

Nicholas Wright



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Teagan Fowler <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 12:41:48 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Careless innovation means destruction for all

KYTC Project Manager Stacee Hans,

Innovation is one of the greatest gifts offered to humanity, but when it's not paired with careful socioecological analysis, it can be cataclysmic for the entire planet, human and nonhuman. Business as usual in the climate crisis is how we got to this point. We need and deserve more innovative, balanced, sustainable development and undevelopment plans.

I am a fool who lives on this dying planet, and so are you. Who will benefit from this project when even more life across Earth is dead?

Teagan Fowler

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Jude Cope <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 3:25:36 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Keep Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

I am not a bike rider, but many of my friends and coworkers are. Now, more than ever, Covington needs to keep its few safe bike paths. Covington has a thriving community of bike riders, and forcing them to ride on busy streets is dangerous. Even if a bike rider does everything properly, they are at the risk of someone in a car, a bus, on a motorbike, NOT doing everything properly, and killing them. It has been almost a year since Jonathan Hussing was struck on the corner of a busy street because a bus driver didn't look before barrelling into a turn - we will lose more people to negligence like that if we lose the Riverfront Commons Trail.

Jude Cope

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Jack Reynoldd <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 12:30:19 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Please do not close the trail

KYTC Project Manager Stacee Hans,

I live in Redacted and use the Riverfront Commons Trail nearly every day. This trail is essential to my mental and physical health, and expanding I-75 threatens this incredible community resource.

More highway lanes will encourage more driving, increase pollution, and worsen air quality in places like Riverfront Commons, Goebel Park, Mainstrasse, and Lewisburg—areas already struggling with high soot pollution (PM2.5). This project also contradicts Covington and Cincinnati's climate and mobility goals. Instead of expanding highways, we should invest in better transit and walkable, bike-friendly infrastructure.

Please prioritize our health and environment over more traffic and pollution. Say no to highway expansion and protect Riverfront Commons Trail.

Thank you,
Jack Reynolds

Jack Reynoldd

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Anson Jeng <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 4:59:11 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Please don’t close riverfront commons

KYTC Project Manager Stacee Hans,

I walk here most days with my dog and for exercise

Anson Jeng



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Sallie Parker Lotz <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 1:08:46 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Common Trail

KYTC Project Manager Stacee Hans,

I urge you to be strategic in your approach to closing the Riverfront Common Trail. Closing it for a solid 5 years seems extreme. Periodic and announced closures would allow continued use and minimize the intersection of walkers and bikers with cars, trucks and buses on the city streets. Thank you for your attention to this issue.

Sallie Parker Lotz

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Elise Aultman <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 2:20:31 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

We do not want I-75 expanded! This will be detrimental to the city of Cincinnati, both to residents health and environmental goals. This will increase pollution in the area, which is already too high, and destroy Cincinnati's riverfront appeal for locals and visitors alike. Some of my favorite memories include going downtown and walking along the riverfront before going out for drinks, or attending events along the trail. How much business will you lose because of this?

Elise Aultman

Redacted

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.

Report Suspicious

From: Sheila Gray [redacted]
Sent on: Friday, February 7, 2025 4:00:57 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trail

Ms. Hans,

I have concerns about how the 5-year closure of Riverfront Commons Trail is being managed.

I understand that safety is a top concern.

What I want to make sure is also being considered is the safety for those using the proposed detour.

There were no maps visible in the information about the detour, but I know from experience that Highway/Crescent Ave can be quite narrow and unnavigable for pedestrians, especially those with mobility issues. It also has lots of debris on the sides of the roads where I assume non-motorized travelers are relegated on this detour. As the detour is designed, please consider creating a designated, separate lane clear of roadside debris for pedestrians in areas where there are no sidewalks and for sidewalk areas, confirm that they are fully accessible.

While the OneNKY building at the entrance to the Roebling Bridge is not a KYTC project, it gives a good example of how pedestrian and non-motorized access can be completely disregarded creating a dangerous situation. The east side of the road is completely blocked to all but motorized vehicles and the west side sidewalk has no ramp or accessibility. Those trapped on the east side have no safe or accessible way to get to the west side sidewalk. Please look at this example of a poorly designed detour with no signage to help non-motorized travelers navigate and work to preserve usage of the Riverfront Commons Trail as you design the detour.

This trail is just starting to gain significant usage numbers. I fear a 5-year closure, especially one without a viable detour, will sabotage the decade-long efforts to connect these riverfront communities.

Thank you,
[redacted]

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: sophie welsh <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 2:00:43 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: save riverfront commons trail!!!!

KYTC Project Manager Stacee Hans,

absolutely no need to expand the highway! as a new resident of covington i have been hopeful for the future of a beautiful, green and environmentally stable area. would be deeply disappointed if this expansion carries out.

sophie welsh



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Evan Walker <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 2:49:25 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: We need trails

KYTC Project Manager Stacee Hans,

It's taken decades to secure and expand a still limited trail network in the Cincinnati area and we need to expand not reduce every mile of trail we have. Quality of life is what brings people to cities these days. Riverfront trails and parks are our crown Jewels, not our highways.

Evan Walker



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Lydia Noll-Giska <noreply@adv.actionnetwork.org>
Sent on: Friday, February 7, 2025 12:10:02 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Yes to riverfront commons trail

KYTC Project Manager Stacee Hans,

We love this trail as a family. Green spaces and nature are more important than interstate expansion! Let us have nature!! It improves our beautiful city!

Lydia Noll-Giska

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Lee Day <noreply@adv.actionnetwork.org>
Sent on: Saturday, February 8, 2025 7:51:55 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No to Highway Expansion and Save Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

Our family and neighbors use the trail and highway expansion will create more pollution in our city.

Lee Day



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Alexandra Todd-Middleditch <noreply@adv.actionnetwork.org>
Sent on: Saturday, February 8, 2025 3:56:31 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Towns should be for people, not cars.

KYTC Project Manager Stacee Hans,

Please do not consider expanding road space to parkway and parking lots, it harms communities. I need to walk to get to work and by adding more space for cars, and thereby removing spaces for people, you are contributing greatly to danger to myself and others. If nothing else, please consider children, who need places outside to play and commute, by adding space for cars you are taking away their space to exist and will only lead to more injury and death among pedestrians who are trying to commute to work (like me) or use the trail recreationally.

Alexandra Todd-Middleditch



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Wil Burke <noreply@adv.actionnetwork.org>
Sent on: Monday, February 10, 2025 8:49:09 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Don’t Ruin the Riverfront

KYTC Project Manager Stacee Hans,

I’m right next to [redacted] in Newport. Since my Kia was totaled by the “Kia Boys” late in 2023. I have relied almost exclusively on my bike to get to and from work and any obligations in Covington and downtown Cincy. This piece of biking infrastructure is already a gem that’s few and far between in the Ohio Kentucky area. Gutting for more lanes of highway traffic is beyond needless and removes one of the few places those who must or choose to bike have any actual protections.

Wil Burke

[redacted]

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Jacob Hutson <noreply@adv.actionnetwork.org>
Sent on: Monday, February 10, 2025 7:04:30 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Don't Ruin the Riverfront

KYTC Project Manager Stacee Hans,

I have lived within biking distance of Covington for years now. The Riverfront Commons is a gem of biking infrastructure that provides some of the only safe biking infrastructure in Covington. I fully oppose the expansion of the highway to begin with, but the closure of some of the only biking infrastructure for half a decade to expand a 8 lane highway is pouring salt on an already gaping wound. Please reconsider the highway expansion, and please reconsider the closure of a key piece of infrastructure for those who bike!

Jacob Hutson

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Patrick LaFleur <noreply@adv.actionnetwork.org>
Sent on: Monday, February 10, 2025 1:22:31 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Reject Plan to Close Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

TO: MAYOR WASHINGTON and COVINGTON CITY COMMISSIONERS
CC: KYTC DISTRICT 6 (Project Manager Stacee Hans)

I live [redacted]. I don't need to dig through the myriad details for why the Brent Spence expansion project is detrimental to the wellbeing of my family and the home we've kept in Covington for more than a decade. More pollutants of all kinds will pervade our neighborhood; more will be encouraged to drive -- and spew even more of those pollutants -- through the heart of our city and our region; those who will bear the biggest environmental burden are also largely our most vulnerable populations.

The list goes on, and I know you've heard it all. But I want you to hear it again because the hits seem to keep coming.

As I know you've also heard, KYTC plans to close access to nearly a mile of the Riverfront Commons Trail, a stretch that connects Newport to Ludlow via Covington's northernmost neighborhoods. This is a critical pedestrian and cycling connection for the thousands of Northern Kentuckians who cannot or do not want to bear the burden and expense of owning a personal motor vehicle.

I'm asking two things of you, the public servants elected and appointed to represent my and my neighbors' best interests:

1) To every extent you still can, resist urban highway expansion, especially oversized and categorically harmful projects like the Brent Spence Corridor expansion. Before it's too late, please rethink the project to include more accommodations for car-alternatives like transit, cycling, walking and rolling. Cars are 20th century; it's time to join the 21st.

2) At the very least -- the detour plans for Riverfront Commons must be revised, and a better plan put into place. Directing trail users back onto the very streets from which the trail was meant to provide non-drivers relief... It's laughable at best and downright dangerous to boot.

Can you promise the trail will reopen, good as new, after the Brent Spence corridor is wrapped? Has KYTC promised to restore the trail to its prior condition after the area is torn apart to make way for more highway lanes? Will a five-year closure become an indefinite one?

Without answers to these questions, I'm asking the Covington City Commission to push back on KYTC's plan to close the Riverfront Commons Trail for who knows how long. The plan isn't just contradictory to the commission's expressed infrastructure priorities; it's not just myopic and uncreative. It's also an unjust dereliction of duty to the city of Covington and its residents. I urge you to consider these points as conversations between KYTC and the city continue.

Thank you for your time and consideration,

PATRICK ("PAT") F. LAFLEUR

Redacted

Patrick LaFleur

Redacted

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.

Report Suspicious

From: Pat LaFleur [redacted]
Sent on: Friday, February 14, 2025 1:01:34 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trail and Brent Spence project

Good morning, Ms. Hans —

I realized I copied you on a letter to the Covington City Commission, but I failed to provide the courtesy first of sending you a note directly regarding concerns I have with KYTC's recent announcement about closing the Riverfront Commons Trail. I apologize and hope you'll forgive my oversight. I also hope it's not too late for me to share some of my concerns with you in earnest, or at the very least, I hope this email can enter the public record as an official comment, as I understand your office is seeking feedback until Feb. 23.

As I told the mayor and commissioners, I live [redacted]. While I understand the logistical realities of the trail's intersection with the corridor expansion's footprint, I am concerned mostly by the current proposed alternative (or apparent lack thereof), which really just puts would-be trail users back out onto the very high-speed roads from which the trail was meant to provide relief. Is there a way to rededicate any of that vehicular right-of-way to pedestrians and cyclists with temporary barriers for the duration of the trail closure (particularly on Highway)? There must be something further to be done than what's currently planned. I know you do not have the power to put a halt to this project altogether, but I hope we can come up with the best possible solutions for everyone to minimize its numerous detrimental impacts -- on this and other inevitable pain points throughout the process.

I know I don't have to tell you, but it bears stating anyway: This trail was built as a critical pedestrian and cycling connection for the thousands of Northern Kentuckians who cannot or do not want to bear the costs and other burdens, both personal and societal, of owning a personal motor vehicle. Aside from the detour, I have a couple other logistical questions:

- Is there a plan in place to ensure the trail will reopen, in commensurate condition, after the Brent Spence corridor is complete?

- What's to stop a five-year closure from becoming a 10-year one, an indefinite one?

I'm sure my level of concern was clear from my note to the mayor and commissioners, and I won't belabor those sentiments further, out of respect for your time, which I appreciate you spending to read my comments.

Thank you again, and godspeed as the project picks up momentum,

Pat LaFleur (he/they)
[redacted]

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.

Report Suspicious

From: Pat LaFleur [redacted]
Sent on: Tuesday, February 18, 2025 1:26:35 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Re: Riverfront Commons Trail and Brent Spence project

Good morning again, Ms. Hans — I wanted to follow up my previous email to say over the weekend I saw the slides re: temporary redesign options for Third Street. While I still wonder about the existing trail's ultimate condition throughout and post-construction, but the slides (which I hadn't seen before sending my initial note to you on Friday) were very reassuring.

Thank you again,

Pat LaFleur (he/him)
[redacted]

On Feb 14, 2025, at 8:01 AM, Pat LaFleur [redacted] wrote:

Good morning, Ms. Hans —

I realized I copied you on a letter to the Covington City Commission, but I failed to provide the courtesy first of sending you a note directly regarding concerns I have with KYTC's recent announcement about closing the Riverfront Commons Trail. I apologize and hope you'll forgive my oversight. I also hope it's not too late for me to share some of my concerns with you in earnest, or at the very least, I hope this email can enter the public record as an official comment, as I understand your office is seeking feedback until Feb. 23.

As I told the mayor and commissioners, I live on [redacted] in close proximity to the I-71/75 overpass. While I understand the logistical realities of the trail's intersection with the corridor expansion's footprint, I am concerned mostly by the current proposed alternative (or apparent lack thereof), which really just puts would-be trail users back out onto the very high-speed roads from which the trail was meant to provide relief. Is there a way to rededicate any of that vehicular right-of-way to pedestrians and cyclists with temporary barriers for the duration of the trail closure (particularly on Highway)? There must be something further to be done than what's currently planned. I know you do not have the power to put a halt to this project altogether, but I hope we can come up with the best possible solutions for everyone to minimize its numerous detrimental impacts -- on this and other inevitable pain points throughout the process.

I know I don't have to tell you, but it bears stating anyway: This trail was built as a critical pedestrian and cycling connection for the thousands of Northern Kentuckians who cannot or do not want to bear the costs and other burdens, both personal and societal, of owning a personal motor vehicle. Aside from the detour, I have a couple other logistical questions:

- Is there a plan in place to ensure the trail will reopen, in commensurate condition, after the Brent Spence corridor is complete?

- What's to stop a five-year closure from becoming a 10-year one, an indefinite one?

I'm sure my level of concern was clear from my note to the mayor and commissioners, and I won't belabor those sentiments further, out of respect for your time, which I appreciate you spending to read my comments.

Thank you again, and godspeed as the project picks up momentum,

Pat LaFleur (he/they)

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Jennifer Schoultheis <noreply@adv.actionnetwork.org>
Sent on: Tuesday, February 11, 2025 12:29:37 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

Riverfront commons trail is a safe and accessible path that I regularly walk, bike, and exercise on. Closing this for a minimum of 5 years leaves no safe options to bike in Covington and risks myself and my family to be injured by automobiles. It is dangerous and thoughtless to close this trail. Find an alternative. Do better. This highway is already taking so much.

Jennifer Schoultheis



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Leanna Young <noreply@adv.actionnetwork.org>
Sent on: Tuesday, February 11, 2025 9:27:41 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save the bats! Do Willow Run Blvd.

KYTC Project Manager Stacee Hans,

I moved here from AUSTIN almost 3 years ago and when I heard about this project, I immediately was concerned about the bats. Did you know that bats keep the mosquito population down? They're vital for the whole city. It sounds like willow run boulevard would be a be better for the bats and design of the city. How cool to have a bike trail!

Leanna Young

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Cristina Morgan <noreply@adv.actionnetwork.org>
Sent on: Wednesday, February 12, 2025 1:25:15 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Reject Proposed Temporary Use of a Portion of Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

I am writing you today as a resident of the City of Covington, to let you know that I oppose the changes proposed by to close and reroute Covington's Commons Trail for pedestrian and cycling infrastructure as part of the Brent Spence Bridge expansion. This plan will significantly impact our community by prioritizing vehicles over environment health. I demand a solution that preserves and improves non-motorized transportation options, as this project will encourage more driving, which will create more congestion and increase pollution over time. Covington already struggles with poor air quality compared to other larger cities in the country. This will cause more health problems for a lot of our citizens!! We need action from our commissioners to keep the last little bit of air quality we have left.
I personally use the trail significantly, my dogs enjoy the nice walks, and we refuse to be rerouted to parking lots that can be potentially dangerous. Are you planning on paying for all my vet bills if anything happens to my dogs? Are you planning on paying for everyone's dogs vet bills if needed? Please realize that this neighborhood does not need this expansion and that we want to maintain our quality of life. We need solutions that prioritize people, not cars!!!
Be the leaders we voted you to be. Keep us and our community safe!!!!
Sincerely,
Cristina Morgan

Cristina Morgan



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: AJ Gambill <noreply@adv.actionnetwork.org>
Sent on: Thursday, February 13, 2025 11:00:58 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Trail Closure

KYTC Project Manager Stacee Hans,

This movement to close the trail “temporarily” will only continue down the path of more car dependence. We’ve seen continued encroachment on the agreements made to improve walkability in Covington, this is just another step away from walkability. What makes Covington better than other greater Cincinnati neighborhoods is how walkable and accessible everything is. This is a step further into squandering that advantage. Bike routes and trails are few and far to come by, especially ones away from roads. We have a duty to protect bikers and pedestrians from vehicles. I moved to Covington because of the walkability, because of how easy it is to just hop on a bike; we don’t want to ruin that to help build a highway that will do nothing but make it easy to drive through and not interact with our town. Drivers on the highway aren’t shopping at local Covington businesses, walkers and bikers are. Stop the closure of the Riverfront Commons Trail, even if it is only “temporarily”.

AJ Gambill



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Noah Breeze <noreply@adv.actionnetwork.org>
Sent on: Friday, February 14, 2025 3:52:34 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No to Highway Expansion

KYTC Project Manager Stacee Hans,

I am a college student at the University of Cincinnati. I am an avid cyclist and user of public transportation in Cincinnati and Northern Kentucky. I do not envision a future where I will be driving much, and many, many other younger people I talk with and see share the same sentiment. Expanding I-75 does nothing for me and many others, and we envision and want a future where we are able to easily move around on public transportation and bicyles. Transit does not work well when cities have lots of highway lane miles. Please Say No to Highway Expansion and Save Riverfront Commons Trail

Noah Breeze



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Stephen Davis <noreply@adv.actionnetwork.org>
Sent on: Friday, February 14, 2025 7:28:03 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Opposition to KYTC's Proposed Changes to Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

I am writing to express my strong opposition to the Kentucky Transportation Cabinet's (KYTC) proposed changes to Covington's vital pedestrian and cycling infrastructure as part of the Brent Spence highway expansion project. These changes will have a significant negative impact on our community for years to come.

The KYTC plans to close and reroute almost all of the Riverfront Commons Trail in Covington, a critical east-west safe route for people walking and biking. This closure directly contradicts Covington's recently passed bicycle transportation plan. Additionally, KYTC has removed both the sidewalk and the proposed multi-use trail on 5th Street, labeling this removal an "innovation" while providing only vague references to studying alternative routes.

KYTC's Current Plans Include:

* Closing Riverfront Commons from Highway Avenue to Covington Plaza
* Rerouting pedestrians and cyclists onto busy city streets and through parking lots
* Removing access to Scribble Park by closing the Waterfront Lot
* Placing aggregate over the existing path for heavy machinery movement
* Removing safe bike/pedestrian infrastructure until 2030, with additional closures possible until project completion

Impact on Our Community:

* Forces trail users onto dangerous, high-speed roads
* Creates hazardous conditions at construction entrances
* Requires multiple street crossings and navigation through parking lots
* Increases travel distance for current route users
* Limits recreational and commuter access to parkland and Scribble Park
* Reduces community access to natural spaces
* Disproportionately affects the 20% of Covington residents who don't own automobiles

Local leaders have voiced their concerns about these plans. Nate Weyand-Geise, president of Ride the Cov, warns that this could be just the first step in a series of concessions over the life of the project. Dr. Amy Townsend-Small, Professor of Environmental Science at the University of

Cincinnati, emphasizes that this project fails to address core transportation issues and will lead to more traffic, pollution, noise, and disturbance to the communities.

I urge you to reconsider these plans and prioritize community safety and accessibility over vehicle traffic. The Riverfront Commons Trail is a critical piece of infrastructure that supports the health, safety, and well-being of our community. Please take action to prevent KYTC from implementing these detrimental changes.

Thank you for your attention to this important matter.

Sincerely,

Stephen Davis

Stephen Davis



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Gracia Ostendorf <noreply@adv.actionnetwork.org>
Sent on: Friday, February 14, 2025 3:55:51 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Resident's Concern for Riverfront Trail Closures

KYTC Project Manager Stacee Hans,

Hi,

I'm writing to express concern about plans to close the Riverfront Commons trail during the Brent Spence Bridge expansion project. I am a resident of the [redacted] and am concerned about the current plans to close the trail at a critical connection point between my neighborhood and downtown for the length of the project. That is something that I feel cannot and should not happen. It would remove the only safe pathway I and my neighbors have as a pedestrian to get downtown as the sidewalk on the opposite side of Highway Avenue is seriously degraded, narrow and vulnerable to car traffic as is. It also requires multiple street crossings. I often see pedestrians in the car lanes due to issues with the sidewalks. Closing Riverfront Commons would push pedestrians into the streets. This is unacceptable. While I recognize the bridge project is important to the community, I insist that the parties responsible come up with a more intelligent way to maintain pedestrian traffi c pathways that are safe and sensible for the communities that the project is impacting. Closing the pathway for any extended amount of time is not a solution.

Sincerely,
Resident of [redacted]

Gracia Ostendorf

[redacted]

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Cody Schumacher <noreply@adv.actionnetwork.org>
Sent on: Friday, February 14, 2025 5:17:15 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Save our health, save our trails

KYTC Project Manager Stacee Hans,

Closing the Riverfront Commons Trail is a death blow to the mobility of many Northern Kentuckians and the quality of life around them. The highway expansion is a regrettable step backwards for our home, punishing the very people who serve to nourish it.

I ask that you prevent these irreversible steps and listen to the citizens, the ones that have much to lose while the growing sounds of the highway, to the detriment of our children's future (Newbury et al. 2024), drown us out.

Cody Schumacher



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Kean BAbcock <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 2:50:03 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Brent Spence Corridor Expansion and Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

Hello Sir/Ma'am,

My name is Kean Babcock, I am a concerned citizen of Covington and am writing to inform you of my non-consent for the removal of the Riverfront Commons trail as well as the expansion of Brent Spence Bridge Corridor. It is a well known fact that highway expansion only leads to more traffic, congestion, and pollution and is a temporary band-aid to traffic at best. The resulting induced demand and swelling of traffic would be catastrophic for Cincinnati and Covington. One only needs to look at Houston or the King's highway 401 in Toronto to see the damage endless expansion does to a city. The consequences of expansion would be exacerbated in Cincinnati, however, as it is such a small city concentrated in the basin between the ring of hills that surround them. Unlike Houston, who is able to somewhat mitigate the affects of congestion by increasing it's urban sprawl, Cincinnati may be doomed to a future of outrageous traffic jams as the unnecessary local commuters are attempting to ent er the city mixed with the increased regional through traffic. Of course, all this increased traffic will contribute a disastrous amount to the air and water pollution of our city of Covington, of which that sits so close to the highway, a whole acre of Goebel park will be sacrificed to the impending expansion. The expansion will bring this monster even closer to homes, families, and businesses than it already is, so prepare for an economic disinvestment from Mainstrausse as it becomes too unpleasant a neighborhood to live. We are already seeing the negative impact of this expansion before it's even beginning construction as we're making plans to shut down the Riverfront Commons Trail to accommodate the expansion. This trail is important to so many families of the Covington community and is a staple of our city. We are actively making our city a terrible place to live, knowing damn well the solution to heavy traffic congestion is NOT highway expansion. As a Navy Vet who served for 7 years, I had the great privilege of living in Japan for some time. I saw, first-hand, the incredible affect public transit had on curbing traffic. The city proper of Tokyo has over 14 million residents, yet, while I was there, experienced NO traffic jams, even during "rush hour"! Because most of the country takes ALTERNATIVE transit to commute. So please, tell me why in a city of 311 thousand (341 thousand if including Covington), must it take me 30 minutes to commute from University of Cincinnati to Covington? Our bus service is subpar, underfunded, while Cincinnati's street car is tied up in a political battle for funds and lacking any support of Convington's city government, and light rail is literally non-existent. These alternative means of transportation, Busses, street cars, light-rail, trains, etc. take cars OFF the highways! One light rail line from Covington to Cincinnati along I-71 and 75 could actually return the Brent Spence bridge to a functional status again! A train can transport hundreds of people at once, that's hundreds of local traffic taken off the bridge, off the highways, and off the streets, while saving over 3 billion in tax payers money for an abysmally small and ineffective expansion. As a concerned citizen, I IMPLORE you to rethink supporting the expansion. This would have catastrophic consequences on our small city's traffic and do irreversible damage to Covington's communities. Please explore alternatives such as light rail and street cars before it's too late. With Cincinnati's overwhelming public support to finish construction on the subway, now would be the perfect time to suggest light rail to the public as an alternative to this disastrous plan. Thank you for your time.

Kean BAbcock
Redacted

From: Brad Ostendorf [redacted]
Sent on: Sunday, February 16, 2025 6:52:04 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Covington Resident's Concern for Riverfront Commons Trail closure

---

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.

Report Suspicious

Hi,

I'm writing to express concern about plans to close the Riverfront Commons trail during the Brent Spence Bridge expansion project. I am a resident of the [redacted] and am concerned about the current plans to close the trail at a critical connection point between my neighborhood and downtown for the length of the project. That is something that I feel cannot and should not happen. It would remove the only safe pathway I and my neighbors have as a pedestrian to get downtown as the sidewalk on the opposite side of Highway Avenue is seriously degraded, narrow and vulnerable to car traffic as is. It also requires multiple street crossings. I often see pedestrians in the car lanes due to issues with the sidewalks. Closing Riverfront Commons would push pedestrians into the streets. This is unacceptable. While I recognize the bridge project is important to the community, I insist that the parties responsible come up with a more intelligent way to maintain pedestrian traffi c pathways that are safe and sensible for the communities that the project is impacting. Closing the pathway for any extended amount of time is not a solution.

Sincerely,
Resident of [redacted]

Brad Ostendorf
[redacted]

--

Brad Ostendorf
[redacted]
[redacted]
[redacted]

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Trey Finkenstead <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 4:27:27 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Don't expand the highway

KYTC Project Manager Stacee Hans,

Transit does not work well when cities have lots of highway lane miles. The reason why I live here is because transit without a car is possible and enjoyable. And this project will make it worse for the community to live and thrive here.
The project will worsen air quality, including near Riverfront Commons, Goebel Park, Mainstrasse and Lewisburg - Covington's levels of soot pollution (PM2.5) are already too high!!!

Trey Finkenstead



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Catherine Lopez <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 5:32:41 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No to Highway Expansion

KYTC Project Manager Stacee Hans,

I am opposed to the highway expansion of I-75. Studies show that increased highway lanes do not help with traffic congestion- places like Los Angeles show this. This project will worsen air quality for the area and negatively impact residents. Please protect and prioritize green space and alternative transportation options for Cincinnati and NKY residents!

Catherine Lopez



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Chelsea Esmeier <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 8:40:17 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No to highway expansion

KYTC Project Manager Stacee Hans,

I live and walk in this area. This will affect my life and my community. I am extremely concerned about the pollution, which seems to be a violation of the rights of those who were already living in this area.

Chelsea Esmeier



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Domagoj Bui <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 4:53:13 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: People over Cars

KYTC Project Manager Stacee Hans,

People who live and pay taxes in Covington and Cincinnati are worth more than people who live elsewhere and pass through and do not core or leave money in our communities. Serve the people in your communities, not cars from other cities.

Domagoj Bui



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Kyle Kathman <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 6:23:09 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Please say no to highway expansion to save riverfront common trails

KYTC Project Manager Stacee Hans,

Please do not take out the riverfront commons trail. I ride my bike here every day that I can when it's nice. It's away from cars and the safest way to enjoy my hobby. There have been so many accidents involving bicyclists and cars that have resulted in death in our area. Keeping this trail allows for so much more safety and enjoyment in our community

Kyle Kathman

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Leslie Jump <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 6:20:48 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Sever concerns for kytc project

KYTC Project Manager Stacee Hans,

The last thing this world needs is more highway. Downtown Covington has so few nature spaces. And is also home to many who don't have access to vehicles to take them to other green/nature spaces. This project stands to severely effect the traffic and basically rip out the base of what we have till some vague end years and years down the road. These projects snowball and escalate at such a fast pace that I worry what little is being promised will quickly dwindle and we will lose another beautiful accessible nature space to yet more ugly dangerous pollution filled highway

Leslie Jump



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Noah Wadley <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 16, 2025 4:10:18 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: The Brent Spence Corridor

KYTC Project Manager Stacee Hans,

Hello all,
My name is Noah wadley and I am a current resident of Covington, KY. The current plan to expand the Brent Spence corridor highway is extreme negligent of our goals as a city and community. Cincinnati and NKY have long been a place I viewed as progressing successfully toward a greener model, but this plan is a back track. By expanding, you will be damaging one of the major attractions for residents of NKY. The riverside trail is part of the reason I moved here. This expansion project is harmful toward my community, the riverside trail, the air quality of our city, and our goals as a city. Please instead invest this money into more public transportation, bike lanes, pedestrian walkways and safety measures. These alternatives would contribute towards traffic reduction while also when utilized, reducing our carbon footprint as a city. I am hopeful you will take this communities wishes to heart and do what is best.

Thank you,
Noah Wadley

Noah Wadley

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Brianna Wood <noreply@adv.actionnetwork.org>
Sent on: Monday, February 17, 2025 1:02:03 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Don’t do this anymore

KYTC Project Manager Stacee Hans,

I have been a resident my entire life. My parents tell stores of when there were no highways and that seemed crazy to even consider. That being said, we would like to keep the heavy traffic to the utmost minimum that is possible! We need as much green space and sustainable resources and traffic flow down to the least dangerous impacts.

Brianna Wood



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Susan Vogt <noreply@adv.actionnetwork.org>
Sent on: Tuesday, February 18, 2025 5:29:10 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: I Say "No" to Highway Expansion. We need to Save Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

The proposed Highway Expansion would:
*Force trail users onto dangerous, high-speed roads
*Create hazardous conditions at construction entrances
*Require multiple street crossings and navigation through parking lots
*Increase travel distance for current route users
*Limit recreational and commuter access to parkland and Scribble Park
*Reduce community access to natural spaces
*Disproportionately affects the 20% of Covington residents who don't own automobiles
Susan Vogt

Susan Vogt



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Emily Jaster <noreply@adv.actionnetwork.org>
Sent on: Tuesday, February 18, 2025 3:16:17 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No Highway Expansion!

KYTC Project Manager Stacee Hans,

I came to Cincinnati to study architecture and urban planning, and among the first lessons we learned was that expanding roads does not alleviate traffic. Road expansions encourage more drivers, worsen air and noise pollution, divide cities, and damage ecosystems. To alleviate traffic, Cincinnati should invest in public transit and walkability, especially as young people increasingly prefer walkable cities — to which expanded roads are counterintuitive. The highway wreaked havoc on Cincinnati's neighborhoods when first built, and the proposed expansion would continue and worsen historic wrongs. A wider highway would favor distance travelers at the expense of local community residents. Although the proposal includes a multi-modal path, that alone is not enough to compensate for the harms of the proposed highway expansion. Even the proposed parks will suffer from highway runoff and noise pollution. The Brent Spence corridor plan needs serious reconsideration before implementation to focus on creating a walkable, sustainable city, such as by transitioning the highway into a boulevard with slower traffic that attracts travelers to local businesses and remains passable by pedestrians.

Emily Jaster



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Barbara Schuchter <noreply@adv.actionnetwork.org>
Sent on: Tuesday, February 18, 2025 11:48:38 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Not here

KYTC Project Manager Stacee Hans,

We moved to Covington 15 years ago and have loved that it has great parks, it's close to everything, hip restaurants etc. I have joked that's it's a more affordable Northside. Fun, weird, attracting artist types, creatives, nature lovers, and more. I have recently started a successful nature school here at my home and this would negatively impact that too. It would bring more noise pollution, general pollution, all around this sounds like a bad idea. It sounds like it's taking away from our people centered vision, one of the things that keeps us here.
Thanks,
Barbara

Barbara Schuchter



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Suzanne Fuhrman <noreply@adv.actionnetwork.org>
Sent on: Wednesday, February 19, 2025 4:14:09 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: importance of cycling

KYTC Project Manager Stacee Hans,

Hello, my name is Suzanne, and I often use the Riverfront Commons Trail for cycling. It is quite a gem in the city, and is such a refreshing transit route compared to always needing to fight traffic on the road. I am very saddened to hear the news that the trail may close, even temporarily! (can 5 years really even be called temporary though? temporary seems more appropriate for some days/weeks, whereas 5 years is almost permanent).

As a resident of Cincinnati, I am against the expansion of I-75. We know that expanding lanes on roadways doesnt solve traffic problems, and in fact can make traffic more dangerous.

Additionally, I think more than ever, now is the time to invest in safer, cleaner transit, through expanding mass transition options and greener options. I often taken the bus as a much more pleasant experience than driving, however the busses often only 1 run time per hour, which limits their usage (when i need to be somewhere at a certain time, or cannot wait an hour for a bus as I have many places to be).

I am against the expansion of I-75 as it is inconsistent with Cincinnati and Covington's climate and mobility goals. I do not have children yet, but I hope to un the future. And this is not the future I want for my children. I am as well concerned that the traffic will worsen air quality.

Suzanne Fuhrman



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Gerhard Weidl <noreply@adv.actionnetwork.org>
Sent on: Friday, February 21, 2025 2:59:20 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: No to Highway Expansion and Save Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

I've lived in Lewisburg since the 1950s & have seen the negative affects from I75 tearing our community apart, taking all the 5 ballparks from Goeble Park through the the non existent "cut in the hill"…a detestation for Covington kids! The noise & pollution from the vehicles & especially the trucks makes it impossible to use the back yard as I75 has encroached further from successive "improvements". I believe all all non-local tragic should use I275.

I use Riverfront Commons Trail several times a week & oppose closing it for highway expansion & I especially oppose cutting down the full growth riverfront forest…sadly Newport clear cut the beautiful mature forest along the east shore of the Licking River just so millionaires would have a clearer view of the Cincy skyline & sunsets.

More lane miles won't help transit or our community I believe Willow Run & Mill Creek Boulevards would be a positive improvement in quality of life for Cincy & Northern Ky & local transit options!

Gerhard Weidl



From: Botany Hills <botanyhillsna@gmail.com>
Sent on: Friday, February 21, 2025 2:49:47 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
CC: tim.acri@covingtonky.gov; james.toebbe@covingtonky.gov; sebastian.torres@covingtonky.goov; [redacted]
Subject: RCT Detour Recommendations
Attachments: RCT_Detour_BHNA_Reco.pdf (6.69 MB)

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

This Message Originated from Outside the Organization
You have not previously corresponded with this sender.

Report Suspicious

21 February 2025 RE: Riverfront Commons Trail Detour Recommendations Dear Stacee Hans, We hope this note finds you well. On behalf of the Botany Hills Neighborhood Association, attached please find the PDF file with our recommendations for the RCT Detour. We're glad to provide clarification, or answer any questions you and your team may have. Earlier this month we met with Tim Acri, James Toebbe, and Sebastian Torres about the project and are copying them here as well. Thank you for your consideration.
--

Warm regards,
Botany Hills Neighborhood Association

Visit us at www.botanyhills.org
Mail botanyhillsna@gmail.com
Connect with us on Facebook

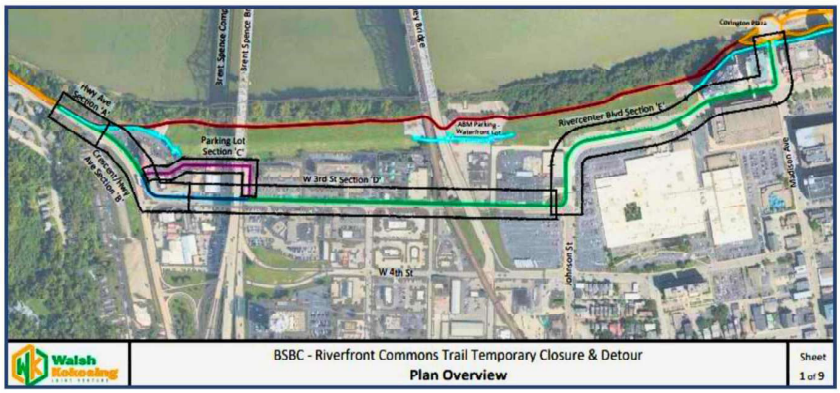


Botany Hills
NEIGHBORHOOD ASSOCIATION



THE RCT DETOUR - 3 Recommendations

Botany Hills Neighborhood Association



1. Section A - **Increase mobility safety via new trail entrance + crosswalk**
2. Section B - **Convert the West 3rd Street slip lane into a bicycle lane**
3. Section D - **Make W 3rd ONE-WAY from Philadelphia St to Crescent**

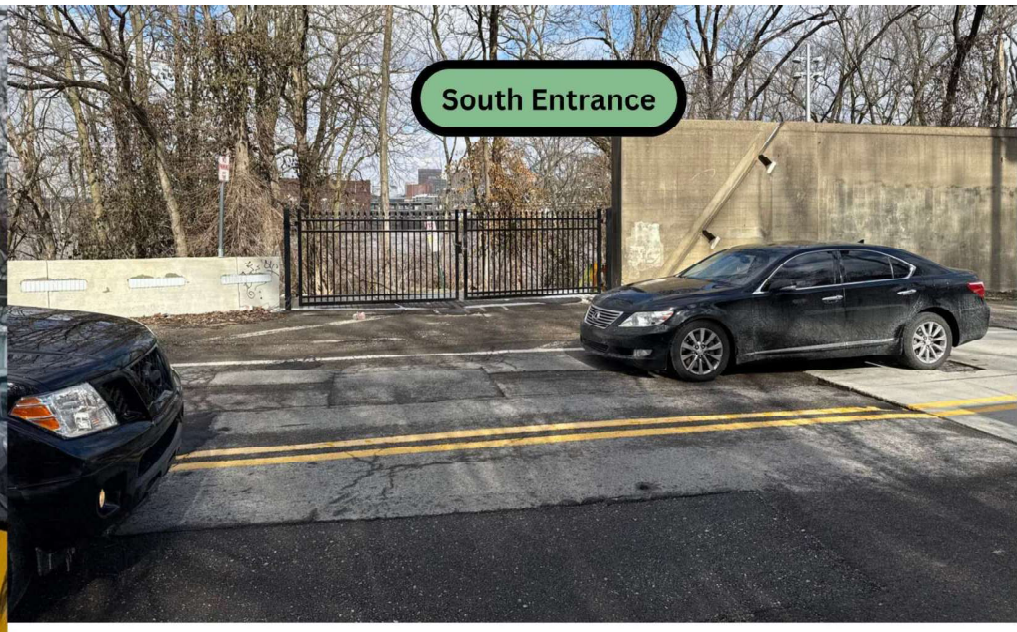
1. Section A

We recommend the addition of a new entrance to the Riverfront Commons hike and bike trail through the existing Highway Ave barrier wall.

A formal crosswalk at the Spring St - Hwy Ave intersection will increase both safety and accessibility for residents and tourists.


THE RCT DETOUR - VISUALIZATION
1. Section A To enhance mobility safety, install a new trail entrance and crosswalk near the Y-junction of Highway Avenue, where Spring and Wright Streets meet.
NEW
Note: Southbound from Ludlow, the Altamont Road stoplight is the last stop the driver has to make until the stop sign at the bottom of the hill at West 3rd Street.
North Entrance
South Entrance
Singh Restoration
Hathaway Court Apartments
Westport River
Ohio River
Parkway Ave
Hillcrest Ave
View Pl
Hathaway Ct
Hwy Ave
Parkway Ave
St. Ann Roman Catholic Church
Learning Grove - Altamont
Clark St
Epworth Methodist Church
Spring St
Spring St
SOCIALINEX
St John's Congregational Church
Altamont Rd
High St
High St
John St
Wilson
Vernon Pl
Wright St
Virginia Ln
The Futuro House
Hwy Ave
Western Ave
Crescent Ave
Holiday Inn Express & Suites Cincinnati...
4.2 (370)
3-star hotel
W Spring St
John St
Division St
Forest Ave
John St
Forest Ave
Forest Ave
Cone St
STOP
W 3rd St
Corken Steel Products - Roofing
Roofing supply store



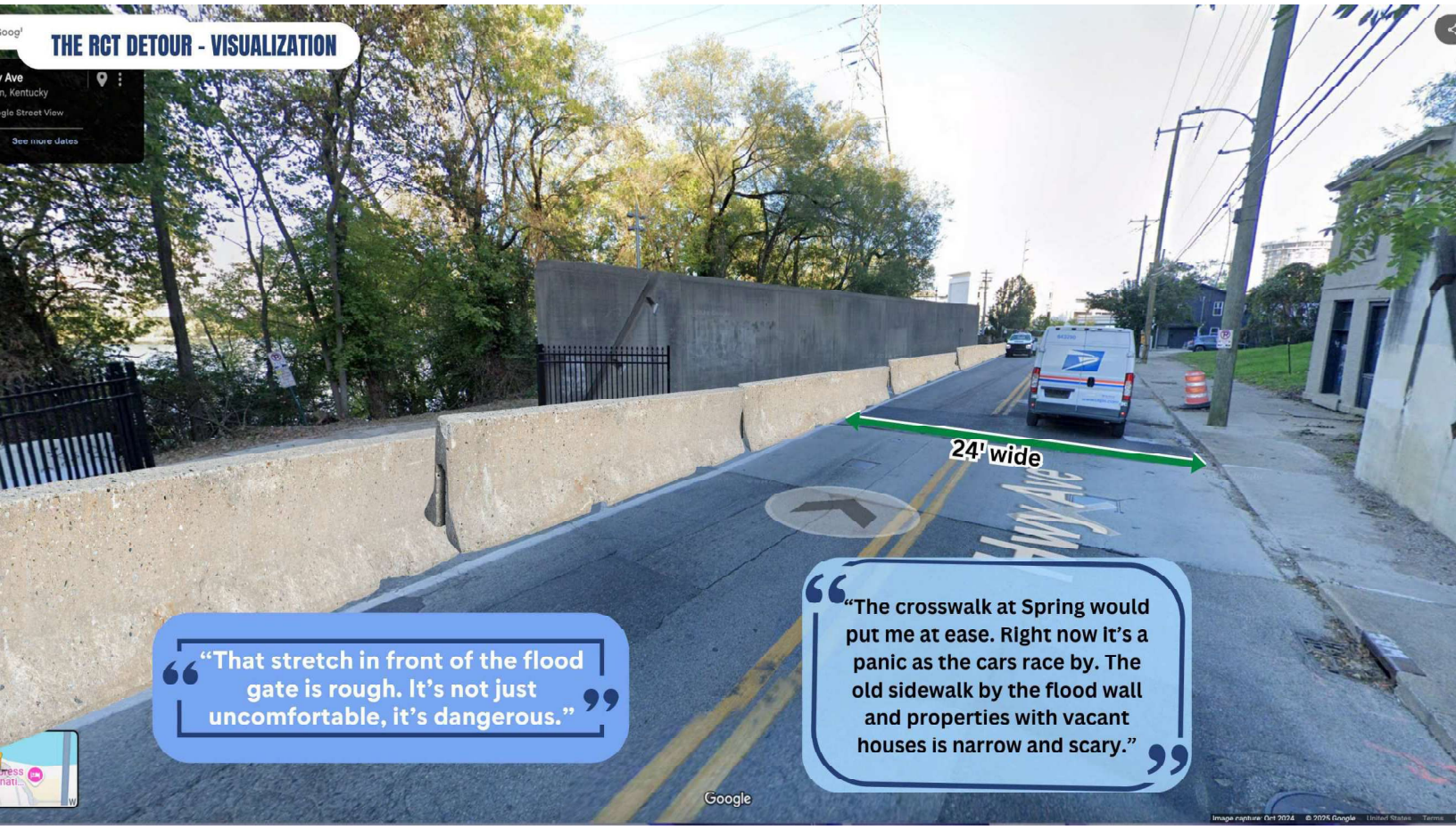


February 19, 2025

Pedestrians who entered the RC Trail at the **North Entrance** on Hwy Ave could not exit at the **South Entrance because the gates were locked**.

If there was an entrance at Spring St with a crosswalk, then pedestrians could have safely exited the trail without having to walk back up the hill.


THE RCT DETOUR - VISUALIZATION
Highway Avenue runs along the Ohio River and connects Wright and Spring Streets.
Wright St
Highway Ave
Spring St
STOP
32' wide
BUS STOP
"The Y-junction on Highway Avenue is a great site for a crosswalk and entry to the Riverfront Commons Trail. There's more elbow room and it's easy to see what's coming."
"Tourists visiting The Futuro House could walk from their hotel [to the attraction]. And it's convenient because the bus stops right there at Spring."


THE RCT DETOUR - VISUALIZATION
24' wide
"That stretch in front of the flood gate is rough. It's not just uncomfortable, it's dangerous."
"The crosswalk at Spring would put me at ease. Right now it's a panic as the cars race by. The old sidewalk by the flood wall and properties with vacant houses is narrow and scary."
Google

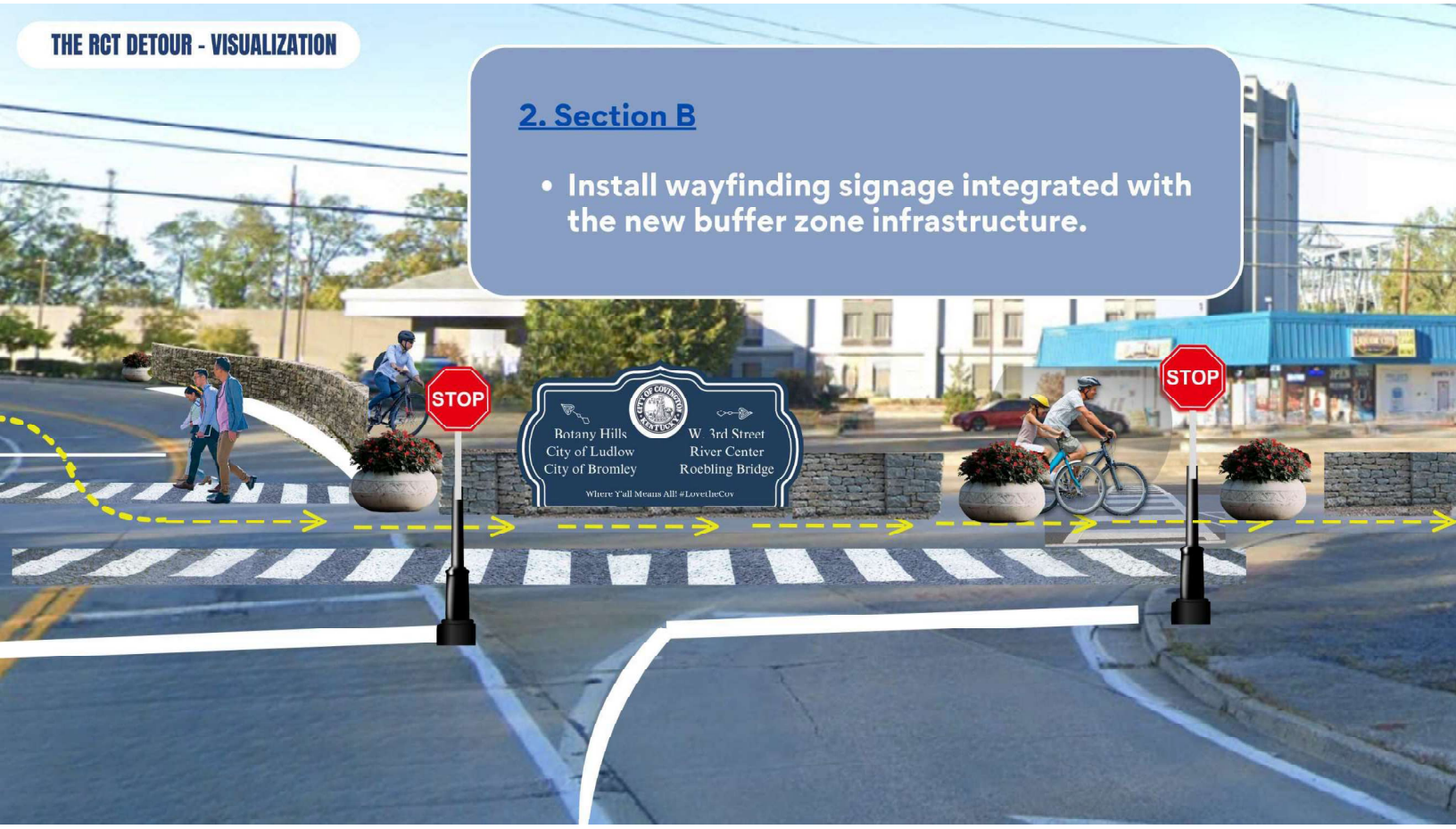
2. Section B

We recommend to:

- convert the West 3rd Street turn-lane into a 2-way bicycle lane
- upgrade the existing crosswalks to continuous crosswalks
- install wayfinding signage integrated with the new buffer zone infrastructure


THE RCT DETOUR - VISUALIZATION
691 W 3rd St
Covington, Kentucky
Google Street View
Oct 2024 See more dates
2. Section B Convert the existing West 3rd Street turn lane (north-bound slip lane) into a 2-way bicycle lane which will also insulate pedestrians from vehicle traffic.
W 3rd St
Google


THE RCT DETOUR - VISUALIZATION
2. Section B
• Upgrade existing crosswalks to continuous, high-visibility crosswalks across W 3rd St and Crescent Avenue
Crescent Ave
ONE WAY >>>
ONE WAY >>>
ONE WAY >>>
ONE WAY >>>
664
675
673-75
673
320


THE RCT DETOUR - VISUALIZATION
2. Section B
• Install wayfinding signage integrated with the new buffer zone infrastructure.
STOP
Botany Hills
City of Ludlow
City of Bromley
W. 3rd Street
River Center
Roebling Bridge
Where Y'all Means All! #LoveItsCov
STOP

3. Section D

We recommend converting the west-bound stretch of West 3rd Street into a 2-way bicycle lane, from Philadelphia Street to Crescent Ave, with a physical barrier between the vehicle traffic lane.

The two east-bound lanes of West 3rd Street would remain unchanged.


THE RCT DETOUR - VISUALIZATION
W 3rd St
"Pedestrians and cyclists who travel on West 3rd Street on the other side of a physical barrier would not only be safer, but it would offer more predictability."


THE RCT DETOUR - VISUALIZATION
“The protection that is afforded to pedestrians on the RC Trail is excellent. West 3rd Street should have more distance between vehicles and the sidewalk. It would match the safety like the RCT offers.”
Philadelphia St



If W 3rd Street was converted to one-way traffic between Philadelphia St and Crescent,



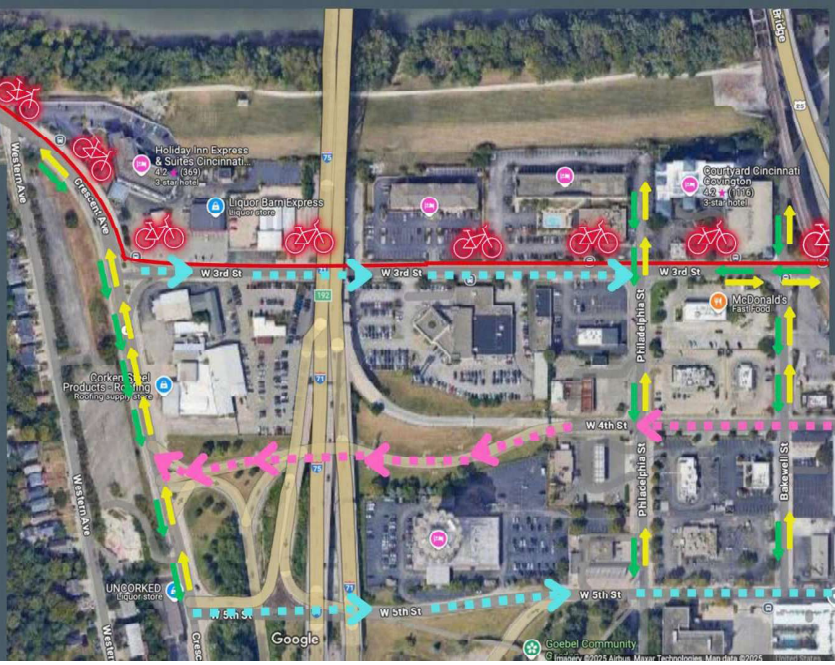
one option for TANK could be to modify the current Ludlow/Bromley loop by traveling one block south on W 4th St to Crescent Ave.

THE RCT DETOUR - SUMMARY

1 SECTION A

Increase micro mobility safety via a New Trail Entrance with Crosswalk across Highway Ave @ the intersection of Spring and Wright Streets.





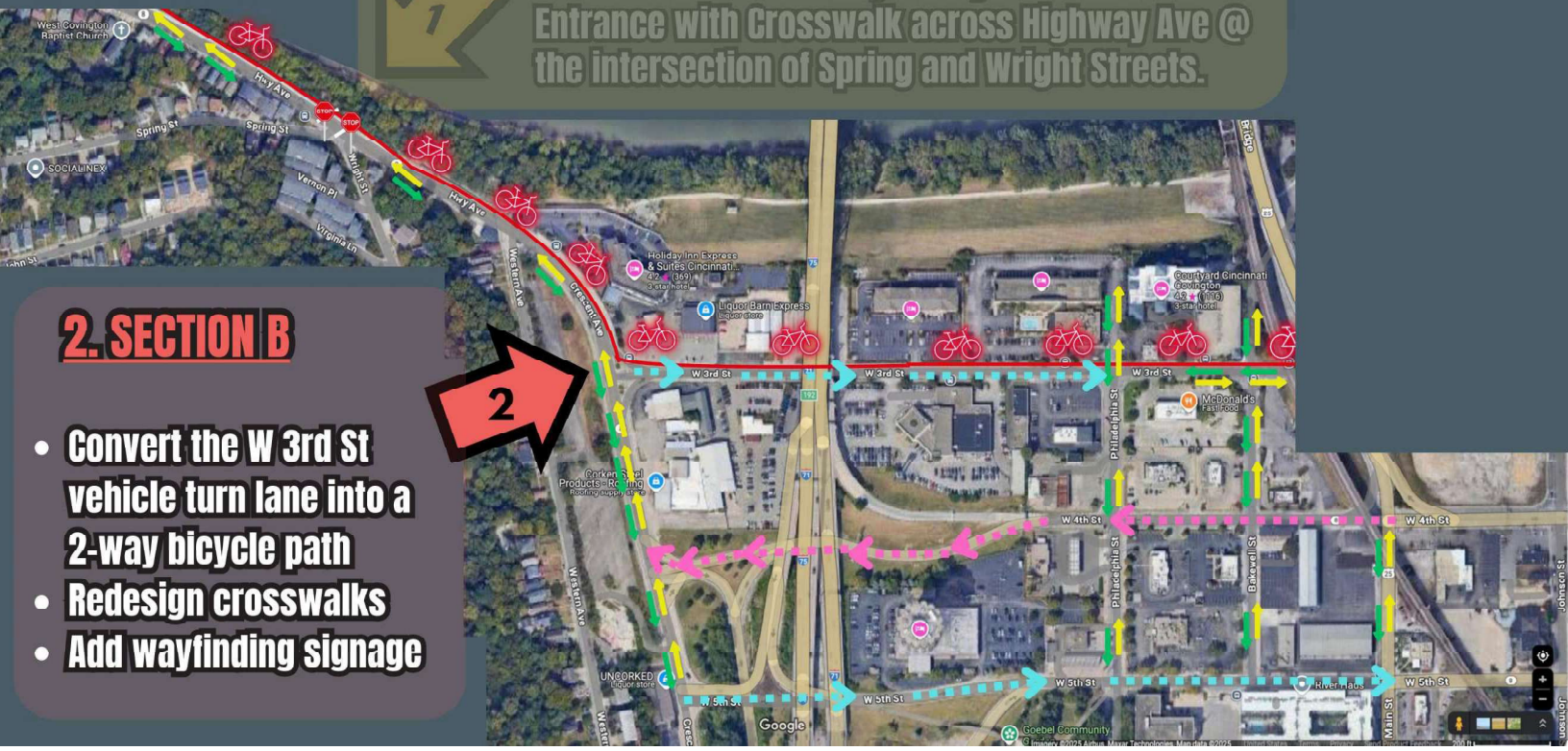
THE RCT DETOUR - SUMMARY

1 SECTION A

Increase micro mobility safety via a New Trail Entrance with Crosswalk across Highway Ave @ the intersection of Spring and Wright Streets.

2. SECTION B

- Convert the W 3rd St vehicle turn lane into a 2-way bicycle path
- Redesign crosswalks
- Add wayfinding signage




THE RCT DETOUR - SUMMARY
1 SECTION A
Increase micro mobility safety via a New Trail Entrance with Crosswalk across Highway Ave @ the intersection of Spring and Wright Streets.
1
3. SECTION D
Make West 3rd Street ONE WAY east-bound between Philadelphia - Crescent Ave
3
2. SECTION B
Convert the W 3rd St vehicle turn lane into a 2-way bicycle path
Redesign crosswalks
Add wayfinding signage
2
West Covington Baptist Church
Hwy Ave
Spring St
Wright St
Vernon Pl
Virginia Ln
John St
SOCIALINEX
Western Ave
Crescent Ave
Holiday Inn Express & Suites Cincinnati...
Liquor Barn Express
Courtyard Cincinnati Covington
McDonald's
W 3rd St
W 4th St
W 5th St
Philadelphia St
Bakewell St
Main St
Johnson St
UNCORKED
Goebel Community
Google



THE RCT DETOUR - 3 Recommendations

Botany Hills Neighborhood Association

Thank you for your consideration.

From: Will Weber <Will@SouthbankPartners.com>
Sent on: Sunday, February 23, 2025 3:50:22 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
CC: Ken Smith <ksmith@covingtonky.gov>; John Hayden <jhayden@newportky.gov>; frank.warnock@bellevueky.org; jfossett@daytonky.com; Matthew Kremer [Redacted] Robert Yoder <ryoder@cityofsilvergroveky.com>; ssmith@ludlow.org; Brittany Hinzman <bhinzman@CityofBromley.com>
Subject: BSB - Riverfront Commons Temp Detour - Response
Urgent: High

Attachments: BSBC - Riverfront Commons Temporary Detour - SP Response Packet.pdf (24.38 MB)

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

This Message Originated from Outside the Organization
This Message Is From an External Sender.
Report Suspicious

Hello Stacee,

Thank you again for your time over the past few weeks to meet and discuss the BSBC project and the proposed temporary detour of the Riverwalk at Riverfront Commons in Covington from Highway Ave to Madison Ave.

Per our conversations, and in accordance with the public notice, I am attaching a response packet from Southbank Partners to this email. As the project manager of Riverfront Commons, we represent the interests of the following 8 cities as it pertains to this project- Covington, Newport, Bellevue, Dayton, Fort Thomas, Silver Grove, Ludlow, and Bromley.

Thank you,
Will

Will Weber
President & CEO
Southbank Partners
[Redacted]
1 Levee Way Suite 3111 | Newport, KY 41071
www.SouthbankPartners.com

This email and any files transmitted with it are intended solely for the use of the individual or entity to whom it is addressed. If you have received this email in error please notify the sender. If you are not the intended recipient you should not disseminate, distribute, or take any action in reliance on the contents of this information.

SOUTHBANK
PARTNERS

February 21, 2025

Stacee Hans
KYTC Project Manager
Brent Spence Bridge Corridor Project
KYTC District 6

RE: BSBC – Public Notice Riverfront Commons Temporary Detour

Hello Stacee,

On behalf of Southbank Partners, we are providing comments to the Public Notice issued on Friday, January 24th regarding a temporary closure to a section of Riverfront Commons in the City of Covington. As the project manager of Riverfront Commons, which includes the 20-mile Riverwalk from Devou Park to Pendery Park, we have detailed our review and responses below.

Upon review, we understand the area of impact to be in the City of Covington from Highway Ave to Madison Ave. We further understand the objective of the temporary detour to facilitate construction of the new companion bridge and rehabilitation of the existing Brent Spence Bridge while maintaining a safe connection for pedestrians and bicyclists (see attached Sheet 1 of 9). Therefore, you must temporarily detour .8 miles of the path until the companion bridge is substantially complete out of an abundance of caution to the public.

We have detailed our comments by a color-coded section in alignment with your exhibits on the public notice. Please know our goals are to mitigate the direct and indirect impacts of the Brent Spence Bridge project on Riverfront Commons; as well as improving both the temporary conditions of the detour and the existing riverwalk. Our recommendations below focus on safety, connectivity, vibrancy, and efficiency all of which are in alignment with the BSBC project as well as the KYTC Complete Streets, Roads, and Highways Manual (2022).

Section A: The Levee Gate at Highway Ave to Holiday Inn Express

Recommendation: Trail Detour will be located on new permanent 8' sidewalk with 4' Buffer Zone from the Levee Gate on Hwy Ave to Crescent/Hwy & 3rd intersection. (See attached Sheet 5 of 9)

SOUTHBANK PARTNERS

Response: Ensure the traffic control device placed at the Ohio River Levee Gate along Highway Avenue are in alignment with Riverfront Commons signage to provide a seamless visual transition from the existing Riverwalk to the new temporary detour. Additionally, we recommend the physical buffer zone materials provide a safe separation from vehicles, with a visually appealing nature to avoid the look of an active construction site, and the ability for these barriers to be a permanent fixture along Highway Avenue to and from the Riverwalk and 3rd Street.

Section C: For Crescent/Hwy & 3rd Street (Phase 1)

Recommendation: The Trail Detour will be relocated away from the intersection to the parking lots as shown on the plan. The Trail Detour will be striped and delineated by construction barrels. (See attached Sheet 7 of 9)

Response: We understand this additional Phase for this section is due to the reconstruction of 3rd Street and the intersection at 3rd St/ Cresent Ave/ Highway Ave. We would ask the BSBC to prioritize the completion of this intersection reconstruction as part of an early bid package to eliminate the need for this additional phase all together; or at least minimize the duration of this disruption as part of the temporary detour. If this phase is necessary and the temporary detour is running concurrently with the intersection reconstruction, we recommend that as part of the restriping of the existing parking lots that additional methods be evaluated instead of orange barrels, such as orange water wall barriers with a fencing system through the area.

Section B: Crescent/Hwy & 3rd Street (Phase 2)

Recommendation: Trail Detour will be located on new permanent 8' sidewalk with 4' Buffer Zone from the Levee Gate on Hwy Ave to Crescent/Hwy & 3rd intersection. For Crescent/Hwy & 3rd Phase 2, the Trail Detour will be located on a new permanent 8' sidewalk with 4' Buffer Zone at the intersection. (See attached Sheet 6 of 9)

SOUTHBANK PARTNERS

Response: As mentioned above, ideally the intersection reconstruction will be complete prior to the temporary detour for Riverfront Commons, and we can transition directly to this Section. We understand on the north side of 3rd street a new and permanent 8ft wide sidewalk will be created with a 4ft wide landscaping buffer beginning at the 3rd Street intersection and transitioning to 3rd Street. This is a tremendous improvement to the existing 4.5ft wide sidewalk. We recommend the BSBC continue to work with the adjacent businesses to ensure minimal impacts to their operations during this phase and provide opportunities to assist those businesses with upgrading the quality of the landscaping buffer.

Section D: 3rd Street at BSB to Johnson Street

Recommendation: After Crescent/Hwy & 3rd Street Phase 2, trail detour then transitions back to existing sidewalk on 3rd. Existing sidewalk to be temporarily widened to 8' as necessary. (See attached Sheet 8 of 9)

Response: We understand on the north side of 3rd street the existing sidewalk will be temporarily widened as necessary to 8ft on a raised curb. We recommend the BSBC ensure these improvements are not just temporary, but a permanent improvement to the area. This will be a tremendous improvement to the existing 4.5ft wide sidewalk. Similar to Section B, we recommend the BSBC continue to work with the adjacent businesses to ensure minimal impacts to their operations during this phase and provide opportunities to assist those businesses with upgrading the quality of the landscaping buffer.

Section E: 3rd Street at BSB to Johnson Street

Recommendation: Trail Detour will use the existing 4' sidewalk from Johnson & 3rd intersection and along Rivercenter Blvd and Madison Ave to the Covington Plaza entrance. A bike lane will be located on restriped roadway and separated by a striped 2' buffer within these limits (See attached Sheet 9 of 9)

SOUTHBANK PARTNERS

Response: We understand this section will transition from the 8ft wide shared-use path as mentioned in the previous sections to a minimum 4ft sidewalk with a bi-directional bike lane that will be striped dividing itself from the roadway. We recommend the sidewalk portion of this section be improved where possible and where missing, be created to ensure a continuous paved path from Covington Plaza to the Johnson and 3rd intersection. As for the bi-directional bike lane, we appreciate the BSBC creating the first bi-directional bike lane in Northern Kentucky along this heavily used section. However, we do encourage the BSB to create additional visual barriers such as flexible bollards for drivers and striping bi-directional within the bike lane for a reminder to cyclists. Additionally, we understand this section runs adjacent to the ongoing Covington Central Riverfront (CCR) development and as that project moves forward, we encourage the BSBC to continue working with the City of Covington to minimize any disruptions. In the event this Section would need to be rerouted during the 60-month planned temporary detour, we implore the BSBC to explore options such as through the planned 3rd street extension to Madison Ave and create such improvements as necessary to connect back to Covington Plaza.

Existing Trail Sections to Temporary Close

Riverwalk (Ohio River Levee Gate to Scribble Art Park/ Waterfront Lot)

Recommendation: After the temporary closure, we recommend the BSBC remove the large rocks/stones placed along the south side of the paved path and replace them with at least 8in thick of concrete and ensure the full width of the path is at least 14 ft wide. It is imperative that the path is functional as not only an active transportation system and recreational trail, but also an occasional maintenance path for utility companies to service their infrastructure along the earthen levee and riverbank.

Additionally, as part of the mobilization site at the Scribble Art Park parking lot we understand the contractors will need to clear portions of the riverbank, remove the chain-link fencing under the CSX railroad along the existing riverwalk, and install a bulkhead along the riverbank. We recommend that the appropriate vegetation is planted along the

riverbank to ensure no future riverbank erosion or destabilization occurs and the future tree plantings are in alignment with the goals of the City of Covington to provide sufficient shade along the path. Furthermore, we ask that the BSBC explore a different solution than the existing chain link fencing under the CSX railroad that unintentionally has created an unsafe environment for users of the riverwalk. As for the bulkhead installation, we ask that after the project is substantially complete that the bulkhead remain along the riverbank and the BSBC would assist with both the functionality and aesthetics to transition from a concrete bulkhead riverbank to a vibrant shoreline park that integrates with the existing riverwalk. These improvements could be the incorporation of a pier/dock the City could use for their emergency responses on the river as well as reconnecting the existing riverwalk down to this new amenity at the trailhead. Out of an abundance of safety, we ask that additional lighting to be included along the path and throughout the parking lot to ensure the area is a safe place for the community. Lastly, we want to ensure the area will be fully restored with the reinstallation of signage, lighting, benches, trash/ recycling receptacles, landscaping etc.

Riverwalk (Scribble Art Park to Covington Plaza)

Recommendation: During the temporary closure, we recommend the BSBC grant as-needed access to City of Covington, Southbank Partners, and its designees to design, engineer, and construct additional sections of the Riverwalk. During this temporary detour, we want to continue moving Riverfront Commons forward with the City of Covington as part of CCR Phase 3. Lastly, we want to ensure the area will be fully restored with the reinstallation of signage, lighting, benches, trash/ recycling receptacles, landscaping, etc.

SOUTHBANK
PARTNERS

Existing Trail to Remain Open

Riverwalk (Swain Ct to Levee Gate):

Recommendation: As the existing trail will remain open with appropriate traffic control devices at the end of the existing path directing users through the Levee gate onto the temporary detour along Highway Avenue.

Covington Plaza (Greenup St to Madison Ave):

Recommendation: We understand the existing trail and riverfront park will remain open and largely unimpacted. The trail will be temporarily closed approximately 150ft west of Madison allowing users to travel to/from the higher and lower sides of Covington Plaza.

In summary, we understand the temporary closure of a section of the Riverwalk is a necessary reality during the Brent Spence Bridge project and you will still continue to provide continuity through the temporary detour. Please note, Riverfront Commons is a world-class active destination that connects eight cities into one community (see attached map). While the main attraction is a 20-mile Riverwalk from Devou Park to Pendery Park, the project entails much more- it's reconnecting our cities to the river. The Riverwalk is more than just a recreational trail- it's a safe active transportation system for urban living.

We implore BSBC to continue working with Southbank Partners and City of Covington to ensure the appropriate Riverfront Commons signage is used, and both parties receive advanced notice prior to the initial temporary detour as well as any ongoing intermittent closures.

We greatly appreciate KYTC's time and attention to this portion of the overall BSB project as a 60-month temporary detour will certainly be a disruption, but we are optimistic that the existing section of the Riverwalk as well as the Scribble Art Park Trailhead will be improved at the end of the project. We also look forward to seeing permanent multi-modal infrastructure along 3rd Street in Covington. On behalf of the eight city partners on this project, we appreciate the opportunity to provide our response to the public notice with recommendations that focus on safety, connectivity, vibrancy, and efficiency.

Thank you,

Will Weber
President & CEO, Southbank Partners

Table of Contents

Exhibit A: KYTC Public Notice Materials

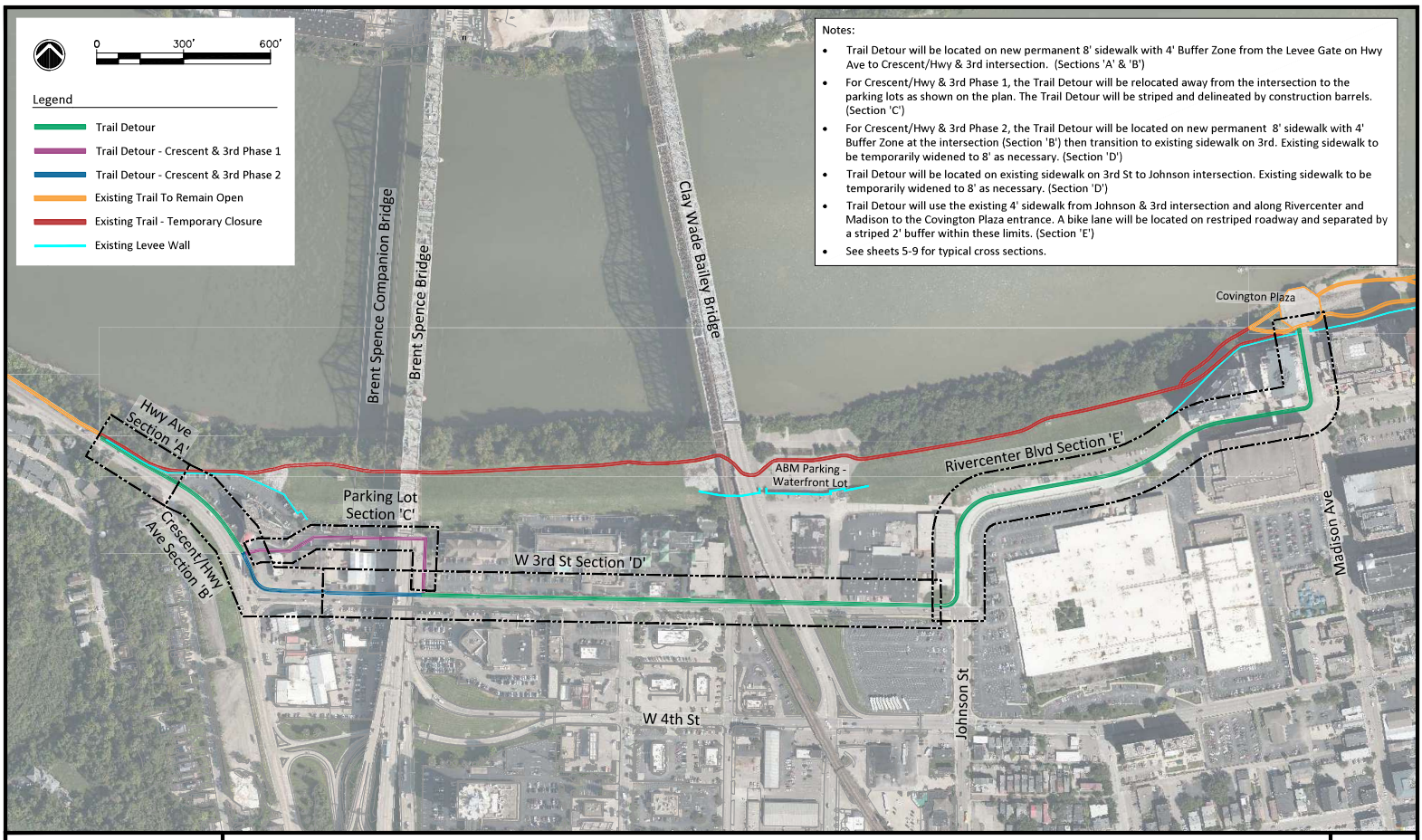
Map and Typical Cross Sections 1-7

Exhibit B: Riverfront Commons Materials

Overall Map, Covington Sections, and Signage 8-12

Exhibit A:

KYTC Public Notice Materials



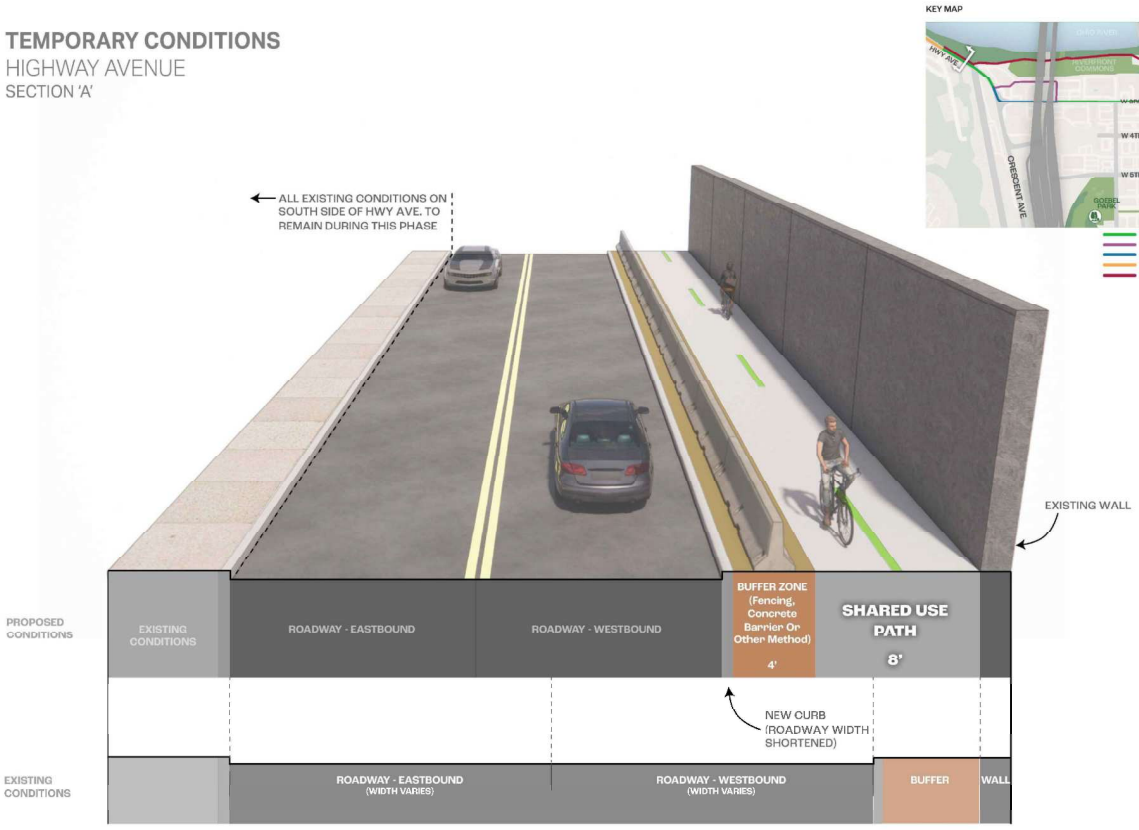
BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Plan Overview

TEMPORARY CONDITIONS
HIGHWAY AVENUE
SECTION 'A'



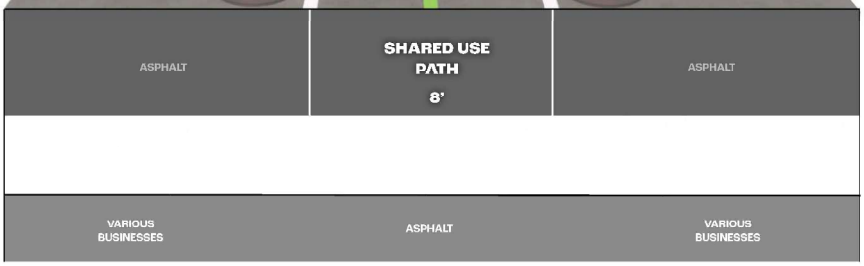
TEMPORARY CONDITIONS
PARKING LOT
SECTION 'C'

KEY MAP





PROPOSED CONDITIONS



EXISTING CONDITIONS

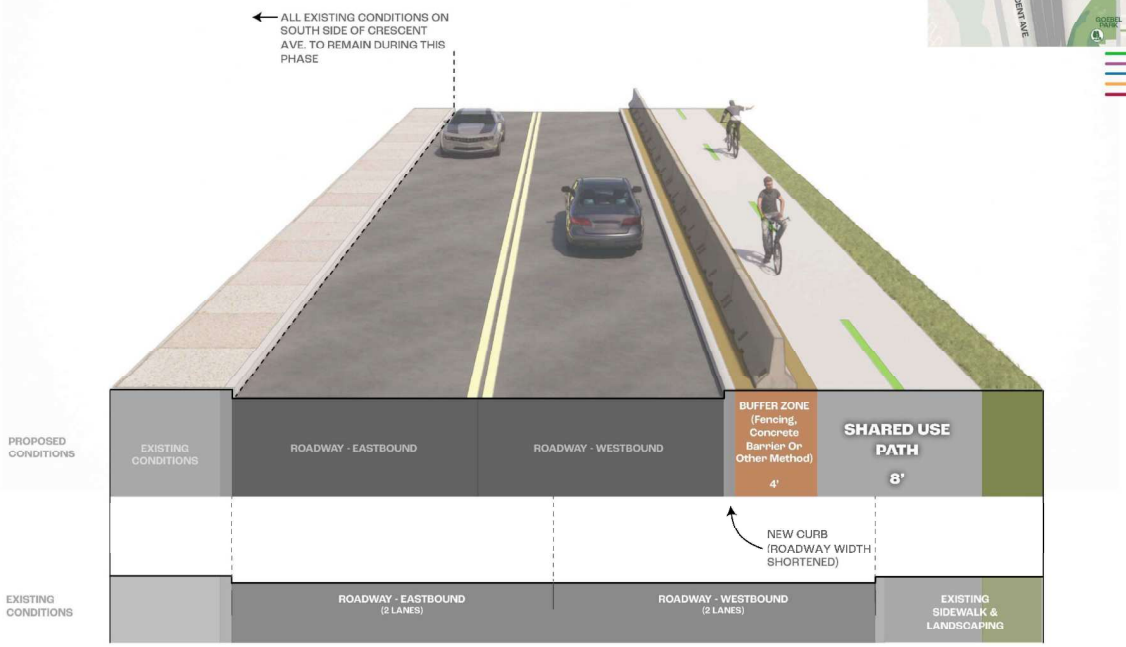
TEMPORARY CONDITIONS

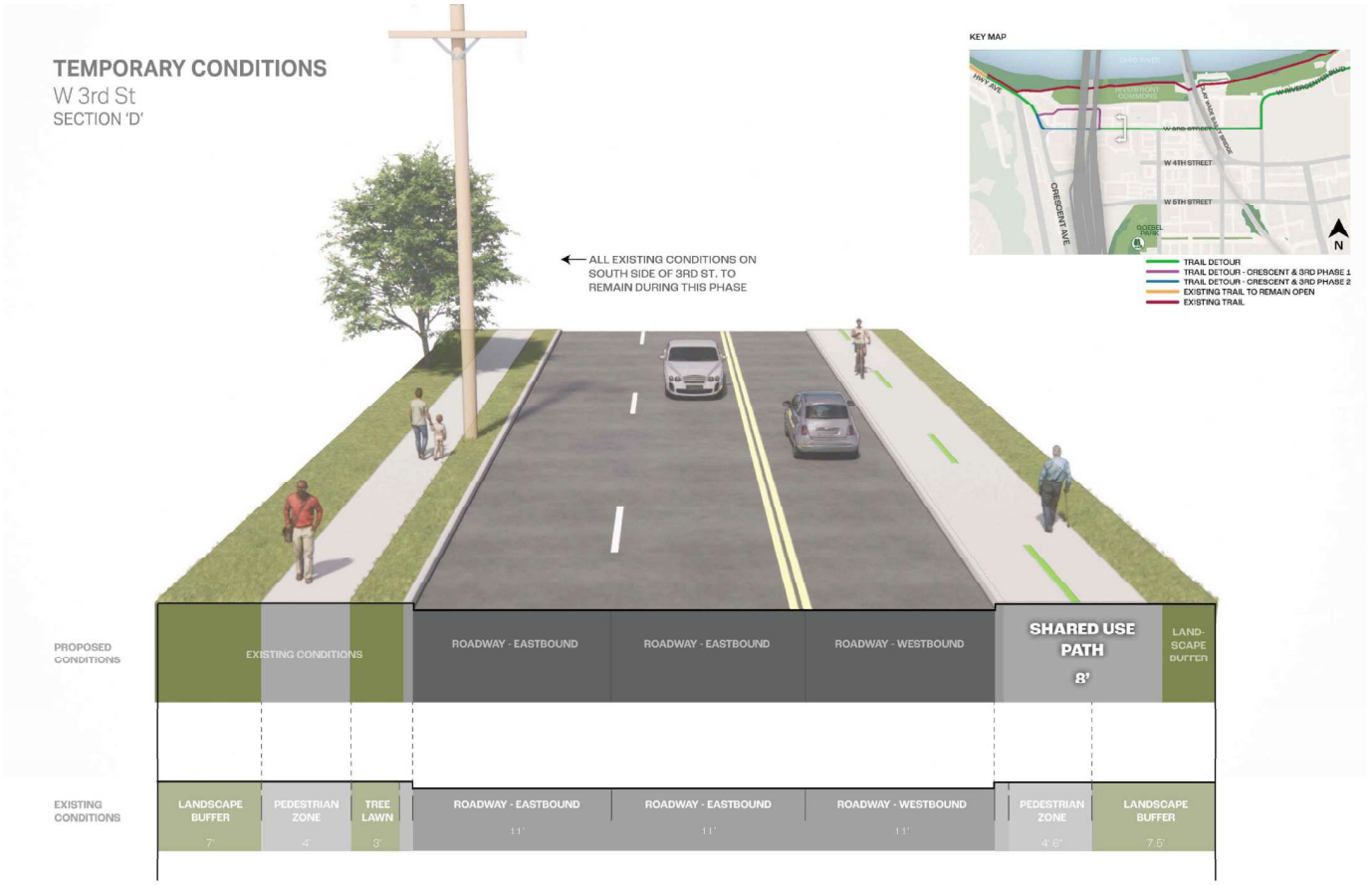
CRESCENT / HIGHWAY AVENUE

SECTION 'B'

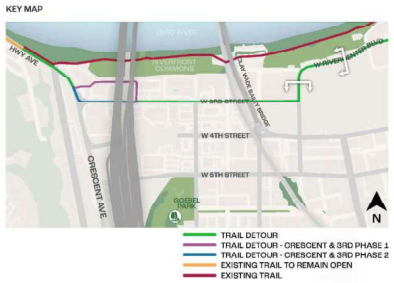
KEY MAP

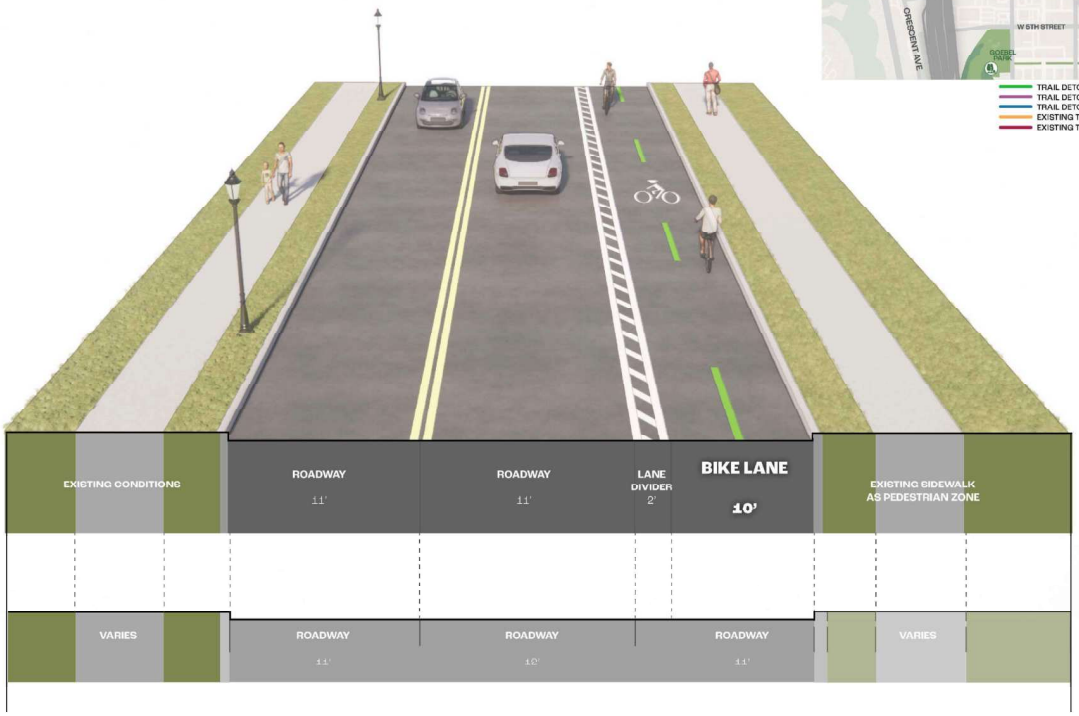





TEMPORARY CONDITIONS
W 3rd St
SECTION 'D'
KEY MAP
W 4TH STREET
W 5TH STREET
CRESCENT AVE
N
TRAIL DETOUR
TRAIL DETOUR - CRESCENT & 3RD PHASE 1
TRAIL DETOUR - CRESCENT & 3RD PHASE 2
EXISTING TRAIL TO REMAIN OPEN
EXISTING TRAIL
ALL EXISTING CONDITIONS ON SOUTH SIDE OF 3RD ST. TO REMAIN DURING THIS PHASE
PROPOSED CONDITIONS
EXISTING CONDITIONS
ROADWAY - EASTBOUND
ROADWAY - EASTBOUND
ROADWAY - WESTBOUND
SHARED USE PATH
8'
LAND-SCAPE BUFFER
EXISTING CONDITIONS
LANDSCAPE BUFFER
7'
PEDESTRIAN ZONE
4'
TREE LAWN
3'
ROADWAY - EASTBOUND
11'
ROADWAY - EASTBOUND
11'
ROADWAY - WESTBOUND
11'
PEDESTRIAN ZONE
4'6"
LANDSCAPE BUFFER
7.5'

TEMPORARY CONDITIONS
RIVERCENTER BLVD
SECTION 'E'





BSBC – Riverfront Commons Trail Temporary Closure & Detour Plot Date: January 18, 2025

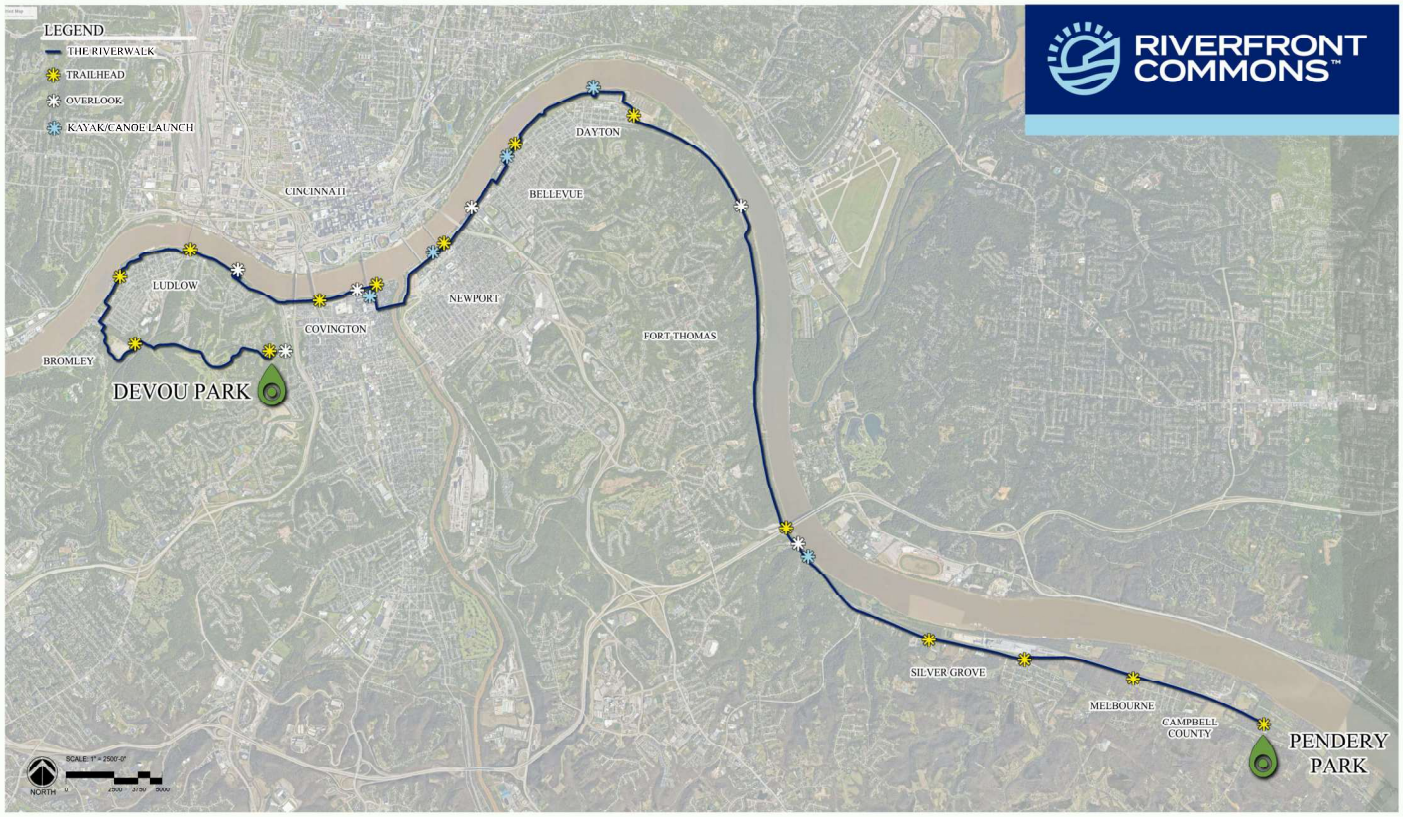
Walsh Kokosing JOINT VENTURE

BSBC - Riverfront Commons Trail Temporary Closure & Detour

Rivercenter Blvd Section 'E'

Exhibit B:

Riverfront Commons Materials



THE RIVERWALK

DEVOU PARK TO PENDERY PARK

COVINGTON ◦ LUDLOW ◦ BROMLEY ◦ NEWPORT ◦ BELLEVUE ◦ DAYTON ◦ FORT THOMAS ◦ SILVER GROVE ◦ MELBOURNE ◦ CAMPBELL COUNTY

SOUTHBANK PARTNERS

place WORKSHOP
Landscape Architecture
Urban Design
Planning
Environmental Graphics



THE RIVERWALK COVINGTON, KENTUCKY

SOUTHBANK PARTNERS

place WORKSHOP Landscape Architecture Urban Design Planning Environmental Graphics



THE RIVERWALK COVINGTON, KENTUCKY

NORTH

SCALE: 1" = 100'-0"

0 100' 150' 200'

SOUTHBANK PARTNERS

place WORKSHOP Landscape Architecture Urban Design Planning Environmental Graphics

RIVERFRONT COMMONS

DESIGN DEVELOPMENT – SIGN FAMILY

06.06.24 kolar



HID1
Primary
Hub / Trailhead ID

HID2
Secondary
Hub / Trailhead ID
& Directional

HID3
Tertiary
Hub / Trailhead
Directional

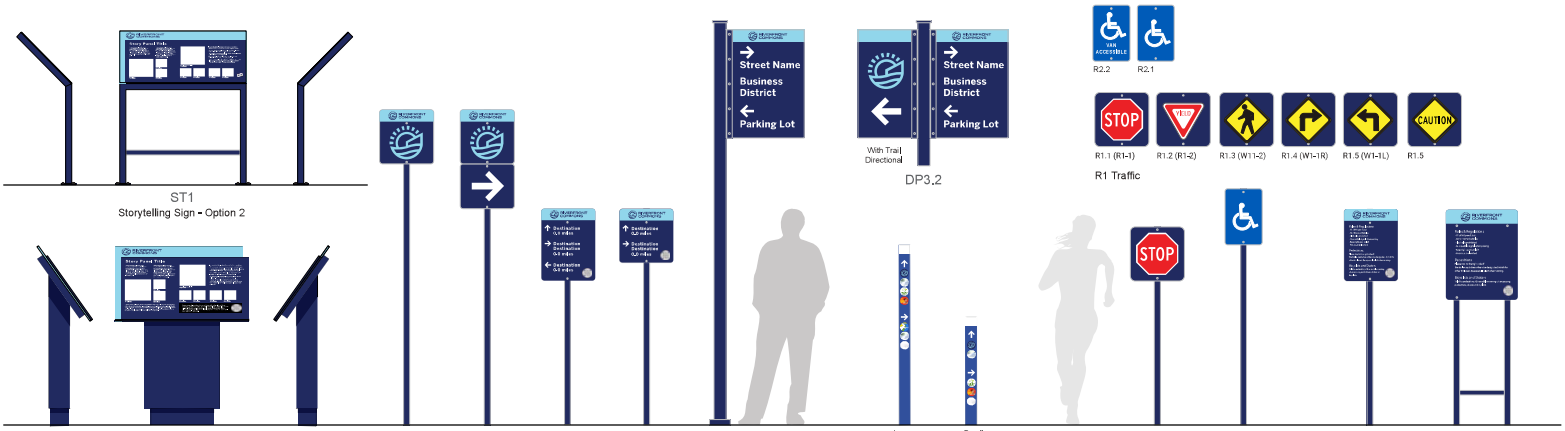
TH1
Primary Trailhead Map
(only at Trailheads / Stations)

TH2
Secondary Trailhead Map

TM1
Freestanding
Trail Map

TH3
Digital Kiosk

MM1
Mile Markers
(Ground)



ST1
Storytelling Sign – Option 2

ST1
Storytelling Sign – Option 1

TID
Trail ID

TDD
Trail ID / Directional

DP1
Pedestrian Directional
Sign On Trail

DP2

DP3.1
Pedestrian Directional
Sign Off Trail

DP3.2

R2.2

R2.1

R1.1 (R1-1)

R1.2 (R1-2)

R1.3 (W11-2)

R1.4 (W1-1R)

R1.5 (W1-1L)

R1.5

R1 Traffic

Large

Small

TD1

TD2
Trail Directional (Icons only)

R1
Traffic
Option 1

R2
Traffic

R3.1

R3.2
Rules of Conduct

Scale: 3/8" = 1'-0"

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Christopher Wyatt <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 23, 2025 8:11:48 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Please Protect Covington and the Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

I am 46 years old and was born and raised in Cincinnati. During my childhood, I fell in love with the beauty of not only my City, but also the beauty of Covington, Newport, and the entire Tri-State area. Since then, I've devoted my entire life to traveling the World and studying how cities can become more accessible, inclusive, and sustainable. Please understand- every single aspect of the current I-75 corridor expansion project works against these goals. Increasing highway capacity in urban areas has been shown time and time again to only offer temporary relief from congestion, while the dramatic increases in noise, pollution, and traffic will remain forever. There are better solutions to our traffic problem than simply increasing capacity and pouring more concrete. Those solutions may not seem as easy as maintaining the status quo, but they are imperative if we are to ever see a region that is both equitable and sustainable. I implore you- PLEASE allow us to PAUSE this project IMMEDIATELY. In the meantime, please also guarantee continued public access to the Riverfront Commons Trail for all to enjoy. Thank you for considering my position and taking the time to read this letter.

Christopher Wyatt



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Brandon Fuchs <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 23, 2025 7:23:48 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Please protect the trail

KYTC Project Manager Stacee Hans,

The highway project would kill this trail. Please build out the trail to further enable citizens and visitors to live happy healthy lives.

Brandon Fuchs



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Anthony Isaacs <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 23, 2025 5:32:34 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Rethink wasteful highway expansion

KYTC Project Manager Stacee Hans,

There's no need to spend taxpayer dollars on expanding I-75. Through traffic should be routed around the urban area, rather than through it. Use pricing via tolls to manage traffic. This is more effective and much more efficient.

Don't punish local residents for the convenience of people driving through our city.

Anthony Isaacs



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Joseph Duffner <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 23, 2025 5:08:14 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons closure

KYTC Project Manager Stacee Hans,

I walk this trail from Westport complex to the historic district on a daily basis, (weather permitting). Closing this area for 5 years would affect many people and pets, as a lot of dog walkers and bike riders use this trail.

Joseph Duffner



This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Shad Beard <noreply@adv.actionnetwork.org>
Sent on: Sunday, February 23, 2025 6:47:16 PM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Stop highway expansion

KYTC Project Manager Stacee Hans,

There are now many decades of evidence that highway expansions do not fix traffic and the external negative effects are numerous. When Cincinnati built I-75, it displaced tens of thousands of people and massively polluted the area. The economic effects of highways are terrible for our communities. In my town, they want to remove large parts of a park and shut down one of the only bike trails. The community continues to speak out against this plan. This entire project is outrageously expensive and is a bandaid on fixing traffic issues. Almost every highway project ends up having the same traffic issues a few years later. The only way to fix traffic issues to provide safe, efficient alternatives to cars. There's a famous GM propoganda video from the 1950's that the traffic engineers of that day were making the same expansion arguments that ODOT and KYTC are making now about traffic congestion. Expansion did not fix it then, and it won't today. People want walkable, billable cities, not highways. The definition of insanity is doing the same thing and expecting a different result. Invest in transit, sidewalks, and bike lanes and stop building highways!

Shad Beard



From: Wade Johnston <wade@tristatetrails.org>
Sent on: Monday, February 24, 2025 3:57:57 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
CC: Will Weber <Will@southbankpartners.com>; Ken Smith <ksmith@covingtonky.gov>
Subject: Riverfront Commons Closure during Brent Spence Bridge Construction
Attachments: TST letter to KYTC 2023-02-23.pdf (252.66 KB)

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

Dear Ms. Hans:

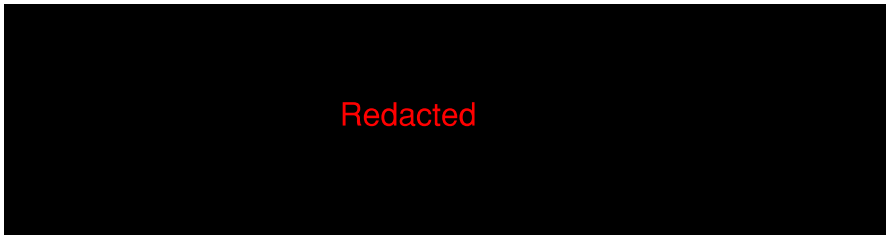
Attached are Tri-State Trails' comments and feedback on the Riverfront Commons Closure during Brent Spence Bridge Construction.

Respectfully,

Wade Johnston, AICP (he/him)

Executive Director

Tri-State Trails



3080 Exploration Avenue, Suite 640
Cincinnati, OH 45206

Redacted
www.tristatetrails.org

February 23, 2025

Stacee Hans, Project Manager
Kentucky Transportation Cabinet, District 6
421 Buttermilk Pike
Fort Mitchell, KY 41017

Re: Riverfront Commons Closure during Brent Spence Bridge Construction

Dear Ms. Hans:

On behalf of Tri-State Trails, we are providing comments on the Public Notice issued on January 24, 2025, regarding the temporary closure of Riverfront Commons in the City of Covington during the construction of the Brent Spence Bridge Corridor Project.

Tri-State Trails is a regional nonprofit advocacy organization working to connect and expand Northern Kentucky's trail and bikeway network. Our team recently authored the Covington + Newport Bicycle Transportation Plan, which was adopted by both City Commissions in August 2024. We also work closely with Southbank Partners and the City of Covington to support trail development efforts for the Riverfront Commons Trail.

We appreciate the Brent Spence Bridge Corridor Project (BSB) team's creation of a detour for pedestrians and bicyclists during the bridge construction process. Tri-State Trails supports Southbank Partners' comments and recommendations for mitigating the impacts of the BSB construction to the Riverfront Commons trail (attached). In addition, we would like to offer some additional recommendations and comments:

- **Temporary Detour:** We recommend that all facilities proposed for the bicycle and pedestrian detour during BSB construction be designed and built to remain as permanent additions to the bicycle transportation network. This would provide a lasting benefit to residents and visitors of Covington while extending the reach of the bicycle network to businesses along West Third Street and the future Covington Central Riverfront development. Where sidewalks are proposed to be widened to meet shared-use path width requirements, we urge you to demolish the existing sidewalks and lay new concrete or asphalt to ensure a user-friendly and safe surface for pedestrians and cyclists.
- **8' Shared Use Path:** Tri-State Trails recommends that KYTC widen the proposed shared-use path from 8 feet to a minimum of 10 to 12 feet throughout the detour. An 8-foot width is generally considered too narrow to accommodate a busy shared-

use path with frequent passing of pedestrians, cyclists, and individuals using mobility devices.

- **West Third Street (Section D**): Tri-State Trails recommends that the proposed shared-use path be separated from the roadway with a physical barrier and/or landscaped median.
- **Rivercenter Boulevard (Section E):** Tri-State Trails recommends that the two-way bike lane along Rivercenter Boulevard include a 6-inch concrete curb and lane delineators to separate vehicular traffic from cyclists.

We appreciate the Brent Spence Bridge Corridor Project team's attention to the needs of pedestrians and cyclists who will be impacted by the 60-month closure of the Riverfront Commons Trail. By incorporating the recommendations listed above, the investments in the shared-use path detour along West Third Street and Rivercenter Boulevard can serve not only as a temporary solution but also as a lasting improvement for residents and visitors of Covington.

Thank you for your consideration.

Respectfully,



Wade Johnston, AICP
Executive Director
Tri-State Trails
Redacted

SOUTHBANK
PARTNERS

February 21, 2025

Stacee Hans
KYTC Project Manager
Brent Spence Bridge Corridor Project
KYTC District 6

RE: BSBC – Public Notice Riverfront Commons Temporary Detour

Hello Stacee,

On behalf of Southbank Partners, we are providing comments to the Public Notice issued on Friday, January 24th regarding a temporary closure to a section of Riverfront Commons in the City of Covington. As the project manager of Riverfront Commons, which includes the 20-mile Riverwalk from Devou Park to Pendery Park, we have detailed our review and responses below.

Upon review, we understand the area of impact to be in the City of Covington from Highway Ave to Madison Ave. We further understand the objective of the temporary detour to facilitate construction of the new companion bridge and rehabilitation of the existing Brent Spence Bridge while maintaining a safe connection for pedestrians and bicyclists (see attached Sheet 1 of 9). Therefore, you must temporarily detour .8 miles of the path until the companion bridge is substantially complete out of an abundance of caution to the public.

We have detailed our comments by a color-coded section in alignment with your exhibits on the public notice. Please know our goals are to mitigate the direct and indirect impacts of the Brent Spence Bridge project on Riverfront Commons; as well as improving both the temporary conditions of the detour and the existing riverwalk. Our recommendations below focus on safety, connectivity, vibrancy, and efficiency all of which are in alignment with the BSBC project as well as the KYTC Complete Streets, Roads, and Highways Manual (2022).

Section A: The Levee Gate at Highway Ave to Holiday Inn Express

Recommendation: Trail Detour will be located on new permanent 8' sidewalk with 4' Buffer Zone from the Levee Gate on Hwy Ave to Crescent/Hwy & 3rd intersection. (See attached Sheet 5 of 9)

SOUTHBANK PARTNERS

Response: Ensure the traffic control device placed at the Ohio River Levee Gate along Highway Avenue are in alignment with Riverfront Commons signage to provide a seamless visual transition from the existing Riverwalk to the new temporary detour. Additionally, we recommend the physical buffer zone materials provide a safe separation from vehicles, with a visually appealing nature to avoid the look of an active construction site, and the ability for these barriers to be a permanent fixture along Highway Avenue to and from the Riverwalk and 3rd Street.

Section C: For Crescent/Hwy & 3rd Street (Phase 1)

Recommendation: The Trail Detour will be relocated away from the intersection to the parking lots as shown on the plan. The Trail Detour will be striped and delineated by construction barrels. (See attached Sheet 7 of 9)

Response: We understand this additional Phase for this section is due to the reconstruction of 3rd Street and the intersection at 3rd St/ Cresent Ave/ Highway Ave. We would ask the BSBC to prioritize the completion of this intersection reconstruction as part of an early bid package to eliminate the need for this additional phase all together; or at least minimize the duration of this disruption as part of the temporary detour. If this phase is necessary and the temporary detour is running concurrently with the intersection reconstruction, we recommend that as part of the restriping of the existing parking lots that additional methods be evaluated instead of orange barrels, such as orange water wall barriers with a fencing system through the area.

Section B: Crescent/Hwy & 3rd Street (Phase 2)

Recommendation: Trail Detour will be located on new permanent 8' sidewalk with 4' Buffer Zone from the Levee Gate on Hwy Ave to Crescent/Hwy & 3rd intersection. For Crescent/Hwy & 3rd Phase 2, the Trail Detour will be located on a new permanent 8' sidewalk with 4' Buffer Zone at the intersection. (See attached Sheet 6 of 9)

SOUTHBANK PARTNERS

Response: As mentioned above, ideally the intersection reconstruction will be complete prior to the temporary detour for Riverfront Commons, and we can transition directly to this Section. We understand on the north side of 3rd street a new and permanent 8ft wide sidewalk will be created with a 4ft wide landscaping buffer beginning at the 3rd Street intersection and transitioning to 3rd Street. This is a tremendous improvement to the existing 4.5ft wide sidewalk. We recommend the BSBC continue to work with the adjacent businesses to ensure minimal impacts to their operations during this phase and provide opportunities to assist those businesses with upgrading the quality of the landscaping buffer.

Section D: 3rd Street at BSB to Johnson Street

Recommendation: After Crescent/Hwy & 3rd Street Phase 2, trail detour then transitions back to existing sidewalk on 3rd. Existing sidewalk to be temporarily widened to 8' as necessary. (See attached Sheet 8 of 9)

Response: We understand on the north side of 3rd street the existing sidewalk will be temporarily widened as necessary to 8ft on a raised curb. We recommend the BSBC ensure these improvements are not just temporary, but a permanent improvement to the area. This will be a tremendous improvement to the existing 4.5ft wide sidewalk. Similar to Section B, we recommend the BSBC continue to work with the adjacent businesses to ensure minimal impacts to their operations during this phase and provide opportunities to assist those businesses with upgrading the quality of the landscaping buffer.

Section E: 3rd Street at BSB to Johnson Street

Recommendation: Trail Detour will use the existing 4' sidewalk from Johnson & 3rd intersection and along Rivercenter Blvd and Madison Ave to the Covington Plaza entrance. A bike lane will be located on restriped roadway and separated by a striped 2' buffer within these limits (See attached Sheet 9 of 9)

SOUTHBANK PARTNERS

Response: We understand this section will transition from the 8ft wide shared-use path as mentioned in the previous sections to a minimum 4ft sidewalk with a bi-directional bike lane that will be striped dividing itself from the roadway. We recommend the sidewalk portion of this section be improved where possible and where missing, be created to ensure a continuous paved path from Covington Plaza to the Johnson and 3rd intersection. As for the bi-directional bike lane, we appreciate the BSBC creating the first bi-directional bike lane in Northern Kentucky along this heavily used section. However, we do encourage the BSB to create additional visual barriers such as flexible bollards for drivers and striping bi-directional within the bike lane for a reminder to cyclists. Additionally, we understand this section runs adjacent to the ongoing Covington Central Riverfront (CCR) development and as that project moves forward, we encourage the BSBC to continue working with the City of Covington to minimize any disruptions. In the event this Section would need to be rerouted during the 60-month planned temporary detour, we implore the BSBC to explore options such as through the planned 3rd street extension to Madison Ave and create such improvements as necessary to connect back to Covington Plaza.

Existing Trail Sections to Temporary Close

Riverwalk (Ohio River Levee Gate to Scribble Art Park/ Waterfront Lot)

Recommendation: After the temporary closure, we recommend the BSBC remove the large rocks/stones placed along the south side of the paved path and replace them with at least 8in thick of concrete and ensure the full width of the path is at least 14 ft wide. It is imperative that the path is functional as not only an active transportation system and recreational trail, but also an occasional maintenance path for utility companies to service their infrastructure along the earthen levee and riverbank.

Additionally, as part of the mobilization site at the Scribble Art Park parking lot we understand the contractors will need to clear portions of the riverbank, remove the chain-link fencing under the CSX railroad along the existing riverwalk, and install a bulkhead along the riverbank. We recommend that the appropriate vegetation is planted along the

riverbank to ensure no future riverbank erosion or destabilization occurs and the future tree plantings are in alignment with the goals of the City of Covington to provide sufficient shade along the path. Furthermore, we ask that the BSBC explore a different solution than the existing chain link fencing under the CSX railroad that unintentionally has created an unsafe environment for users of the riverwalk. As for the bulkhead installation, we ask that after the project is substantially complete that the bulkhead remain along the riverbank and the BSBC would assist with both the functionality and aesthetics to transition from a concrete bulkhead riverbank to a vibrant shoreline park that integrates with the existing riverwalk. These improvements could be the incorporation of a pier/dock the City could use for their emergency responses on the river as well as reconnecting the existing riverwalk down to this new amenity at the trailhead. Out of an abundance of safety, we ask that additional lighting to be included along the path and throughout the parking lot to ensure the area is a safe place for the community. Lastly, we want to ensure the area will be fully restored with the reinstallation of signage, lighting, benches, trash/ recycling receptacles, landscaping etc.

Riverwalk (Scribble Art Park to Covington Plaza)

Recommendation: During the temporary closure, we recommend the BSBC grant as-needed access to City of Covington, Southbank Partners, and its designees to design, engineer, and construct additional sections of the Riverwalk. During this temporary detour, we want to continue moving Riverfront Commons forward with the City of Covington as part of CCR Phase 3. Lastly, we want to ensure the area will be fully restored with the reinstallation of signage, lighting, benches, trash/ recycling receptacles, landscaping, etc.

SOUTHBANK
PARTNERS

Existing Trail to Remain Open

Riverwalk (Swain Ct to Levee Gate):

Recommendation: As the existing trail will remain open with appropriate traffic control devices at the end of the existing path directing users through the Levee gate onto the temporary detour along Highway Avenue.

Covington Plaza (Greenup St to Madison Ave):

Recommendation: We understand the existing trail and riverfront park will remain open and largely unimpacted. The trail will be temporarily closed approximately 150ft west of Madison allowing users to travel to/from the higher and lower sides of Covington Plaza.

In summary, we understand the temporary closure of a section of the Riverwalk is a necessary reality during the Brent Spence Bridge project and you will still continue to provide continuity through the temporary detour. Please note, Riverfront Commons is a world-class active destination that connects eight cities into one community (see attached map). While the main attraction is a 20-mile Riverwalk from Devou Park to Pendery Park, the project entails much more- it's reconnecting our cities to the river. The Riverwalk is more than just a recreational trail- it's a safe active transportation system for urban living.

We implore BSBC to continue working with Southbank Partners and City of Covington to ensure the appropriate Riverfront Commons signage is used, and both parties receive advanced notice prior to the initial temporary detour as well as any ongoing intermittent closures.

We greatly appreciate KYTC's time and attention to this portion of the overall BSB project as a 60-month temporary detour will certainly be a disruption, but we are optimistic that the existing section of the Riverwalk as well as the Scribble Art Park Trailhead will be improved at the end of the project. We also look forward to seeing permanent multi-modal infrastructure along 3rd Street in Covington. On behalf of the eight city partners on this project, we appreciate the opportunity to provide our response to the public notice with recommendations that focus on safety, connectivity, vibrancy, and efficiency.

Thank you,

Will Weber
President & CEO, Southbank Partners

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Mary Krippenstapel <noreply@adv.actionnetwork.org>
Sent on: Monday, February 24, 2025 2:18:33 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Riverfront Commons Trail

KYTC Project Manager Stacee Hans,

I'm writing to ask you to please protect the Riverfront Commons Trail during bridge construction.

The Trail is a vital to Covington's connection to the river, and to its future as a progressive river city.

I use the trail as a link to local retailers and restaurants.

Please preserve this valuable asset.

Thank you.

Mary Krippenstapel

Redacted

This Message Originated from Outside the Organization
This Message Is From an External Sender.

Report Suspicious

From: Erica Rausch <noreply@adv.actionnetwork.org>
Sent on: Monday, February 24, 2025 1:08:03 AM
To: Hans, Stacee D (KYTC) <Stacee.hans@ky.gov>
Subject: Stop the Highway Expansion

KYTC Project Manager Stacee Hans,

I'm writing to ask you to reject the plans to expand I-75. Expanding the highway would increase air pollution and destroy a valuable trail that many enjoy and gives Covington character. Transit, not highways are the way to spend our resources to make the greater Cincinnati area a place that people will want to live in.

Erica Rausch



Appendix C: Section 106 Consultation

Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

April 10, 2025

Mr. Craig Potts
Executive Director and
State Historic Preservation Officer
The Barstow House
410 High Street
Frankfort, KY 40601

SUBJECT: Concurrence for the Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Potts:

Please find the revised cultural historic report and survey forms submitted with this transmittal for the above project. After a concurrent review discussion with your office, KYTC is now requesting concurrence for eligibilities and effects.

In all, Stantec newly recorded 42 resources (KE-1355–KE-1396) for the second addendum report. See Table 1 below for the complete list of Stantec's National Register of Historic Places (NRHP) eligibility recommendations for these newly documented resources.

Table 1. Consultant Eligibility Recommendations for Newly Documents Sites

Eligible (Criterion Consideration A/ Criterion A)	KE-1372	–	–	–	–
Not Eligible	KE-1355	KE-1364	KE-1373	KE-1381	KE-1389
	KE-1356	KE-1365	KE-1374	KE-1382	KE-1390
	KE-1357	KE-1366	KE-1375	KE-1383	KE-1391
	KE-1358	KE-1367	KE-1376	KE-1384	KE-1392
	KE-1359	KE-1368	KE-1377	KE-1385	KE-1393
	KE-1360	KE-1369	KE-1378	KE-1386	KE-1394
	KE-1361	KE-1370	KE-1379	KE-1387	KE-1395
	KE-1362	KE-1371	KE-1380	KE-1388	KE-1396
	KE-1363	–	–	–	–

In addition, Stantec recommended an effect finding of No Adverse Effect to KE-1372, Garden of Hope.

Table 2. Consultant Effects Recommendations for Previously Documented NRHP-Listed and Determined NRHP-Eligible Sites and Historic Districts

KHC Survey Number	Resource Name	Solid Noise Wall Option*	Transparent Noise Wall Option*	No Build Noise Wall Option*	Temporary Access Road	Bridge Construction Activities	Bulkhead Construction
KE-07 and KE-08	Elberta Apartments Historic District	Adverse Effect	Adverse Effect	No Effect	N/A*	N/A	N/A
KE-09	West Side/Main Strasse Historic District (Expansion)	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-10	Lewisburg Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-11	Old Ft. Mitchell Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-12	Beechwood Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-13	Hillsdale Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-952	Sisters of Notre Dame Convent and Cemetery	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0107	C&O Railroad Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0456	1000 Emery Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0458	45 Rivard Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0460	829-831 Highway Avenue	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0462	Bavarian Brewery Bottling Works/Glier's Goetta	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0820	Brent Spence Bridge	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1011	534 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1038	626 West 5th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1048	Futuro House/224 Wright Street	N/A	N/A	N/A	N/A	No Adverse Effect	N/A
KEC-1064	402 Bakewell Street	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEC-1068	Covington Levee System	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1075	Clay Wade Bailey Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	No Adverse Effect
KECL-0692	536 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-0815	Bavarian Brewing Co./Kenton Government Center	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-1018	521 Western Avenue	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEFM-150	Highland Cemetery Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A

Notes: *Not all sites in this table have noise wall options proposed near them;
N/A = not applicable. Any column with N/A indicates this particular activity will not take place at or near this specific site.

Stantec also evaluated 18 previously documented resources and six historic districts, which are NRHP-Listed and previously determined NRHP-Eligible, for additional effects related to the additional proposed work activities and proposed noise wall options (solid, translucent, and no build) as applicable. Not all proposed additional activities or noise wall considerations apply to all resources. For the previous eligibility and effects evaluations for these resources, please see the *Cultural Historic Survey Report, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Kennedy et al. 2022) and *Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Harris and Ryall 2023). Table 2 presents the Stantec effects recommendations for these resources.

Stantec recommended an Adverse Effect for both the solid and transparent noise wall options for the Elberta Apartments Historic District (KE-07 and KE-08). Stantec recommended an overall additional Adverse Effect finding for the project.

KYTC, determines on behalf of FHWA, KE-1372 is individually eligible for listing on the NRHP under Criterion Consideration A and Criterion A for its association with the theme of tourism and recreation in the automobile age. In addition, KYTC concurs with the recommended NRHP boundary. KYTC determines sites KE-1355–KE-1371 and KE-1373–KE-1396 are all not eligible for the NRHP under any criteria.

For the proposed noise wall options, KYTC concurs with the recommended effects for sites KE-09; KE-10; KE-11; KE-12; KE-13; KE-952; KEC-0456; KEC-0458; KEC-0462; KEC-1011; KEC-1038; KECL-0692; and KECL-0815 and determines the solid noise wall and the transparent noise wall options will have *No Adverse Effect* and the no build option will have *No Effect* for these sites. KYTC concurs with the recommended effects for sites KEC-1064 and KECL-1018 and determines the solid noise wall; the transparent noise wall; and the no build options will all have *No Effect* on these two sites.

KYTC disagrees with the recommended effects for the proposed solid and transparent noise wall options for the Elberta Apartments Historic District (sites KE-07 and KE-08). The St. Joseph Lane portion of the Elberta Apartments Historic District was built prior to the construction of Interstate 75. The adjacent section of the interstate was completed in 1962 and has been within the viewshed of the apartments ever since. The trees that currently provide some screening of the interstate are deciduous and lose their leaves in the fall and winter, during which the apartments are clearly visible from the interstate and the apartments can clearly view the interstate. Stantec claims some of the trees were planted by 1969 and had matured by 1993. It is unclear who Stantec claims planted the existing trees and vegetation along the existing right-of-way (ROW) fence; nor did they provide information beyond the historical aerial maps and photographs if they had additional information about the confirmed the age of the existing trees. Based on an examination of archived KYTC plans for Interstate 75, there were no vegetation plantings as part of the original interstate construction, nor for the later projects along this area. Any tree or bush that has grown up within the existing ROW is a volunteer plant, not an intentional planting.

Stantec clearly states the existing trees are not contributing elements of the Elberta Apartments Historic District. Removal of the existing trees on either side of the ROW fence to install any type of noise wall will not result in an impact to the historic district. In addition, the installation of either a solid or transparent noise wall will not impact the aspects of design, setting, or feeling; will not result in the removal or alteration of any of the contributing elements of the Elberta Apartments Historic District; and will not alter the area of significance of community planning and development under which the Elberta Apartments Historic District was determined eligible under Criterion A. Therefore, KYTC determines the proposed solid noise wall and the translucent noise wall options will have *No Adverse Effect* and the no build wall option will have *No Effect* on the Elberta Apartments Historic District (KE-07 and KE-08).

KYTC disagrees with the recommended effects for the proposed solid and transparent noise wall options for KEFM-150 (Highland Cemetery Historic District). The proposed noise wall locations are significantly outside of the district boundary and are completely within the existing ROW. The northbound entrance ramp for Interstate 75/71 was also moved away from the Highland Cemetery Historic District between 1998 and 2001 during a widening, rehabilitation, and relocation project for the interstate. Between the construction of the interstate in the late 1950s through the realignment of the northbound entrance ramp in the late 1990s, historic aerial imagery indicates there were not trees providing screening for the Highland Cemetery Historic District during that period. The tree cover in the space between the cemetery boundary and the interstate grew up after the 1998-2001 project was completed. Since its completion in the 1960s, the interstate has been within the viewshed of the Highland Cemetery Historic District. In addition, the proposed noise wall location off of the northbound exit ramp across would be visually blocked by the Kroger expansion and fuel station and the Beechwood High School tennis courts, both of which were constructed between 2010 and 2012. Therefore, KYTC determines the proposed solid noise wall option; the translucent noise wall option; and the no build wall option will all have *No Effect* on KEFM-150.

For the proposed temporary access road to be built from the proposed bulkhead at Pete Road Pier to the western Covington Levee gate on Highway Avenue/KY-8, KYTC concurs with the recommended effects and determines the temporary access road will have *No Adverse Effect* for sites KEC-107; KEC-460; KEC-820; KEC-1068; and KEC-1075.

For the proposed bulkhead construction activities at Pete Road Pier, KYTC concurs with the recommended effect and determines the bulkhead construction activities will have *No Adverse Effect* for site KEC-1075.

For the proposed Brent Spence Companion Bridge construction activities, which include the construction of temporary falsework, ramps, and additional grading of the existing levee, KYTC concurs with the recommended effects for sites KEC-820 and KEC-1068 and determines the bridge construction activities will have *No Adverse Effect* for sites KEC-820 and KEC-1068.

KYTC disagrees with the recommended No Adverse Effect recommendation for KEC-1048 (the Futuro House at 224 Wright Street) as the bridge construction activities are significantly outside of the boundaries of this site and will not impact the aspects of integrity which make it eligible under Criterion C. KYTC determines the proposed Brent Spence Companion Bridge construction activities will have *No Effect* on KEC-1048.

Please note that the final decisions regarding noise wall options have not been made at this time. The Brent Spence Bridge Corridor Project team is currently seeking feedback from the residents at the proposed noise wall locations regarding the residents' noise wall option preferences.

KYTC determines a finding of *No Adverse Effect* for the additional work and potential noise walls evaluated in this report. Overall, the project remains an *Adverse Effect* for the original impacts to the Lewisburg Historic District, as originally determined in 2022.

KYTC requests concurrence with the above eligibility and effects determinations at your earliest convenience. If you have any questions, please contact Stephanie Lechert or me at 502-782-5038.

Sincerely,

Daniel R Peake

Danny R. Peake, Director
Division of Environmental Analysis

DRP/sel
Enclosure
cc: R. Jennings (KHC), S. Schurman (DEA), S. Hans (D-6), S. Lechert (DEA), B. Rude (HNTB)

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

April 10, 2025

Daniel R. Peake
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, KY 40622

RE: Concurrence for the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*
Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Peake,

Thank you for your digital submission of a letter, *Second Addendum Cultural Historic Survey*, survey forms, and photographs for the above-listed project which is pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f) and implementing regulations at 36 C.F.R. Part 800.

The Second Addendum Cultural Historic Survey report discusses the identification of 42 cultural historic sites within the area of potential effects. Sites KE-1355-KE-1371 and KE-1373-KE1396 were recommended as *not eligible* for the National Register of Historic Places (NRHP). KE 1372 was recommended eligible under Consideration A/Criterion A for its association with the theme of tourism and recreation in the automobile age. In addition, KYTC concurred with the recommended NRHP boundary. KYTC determined a finding of No Adverse Effect to KE-1372, Garden of Hope.

Stantec evaluated 18 previously NRHP-Listed resources and six historic districts, which are NRHP-Listed and previously determined NRHP-Eligible, for additional effects related to the additional proposed work activities and proposed noise wall options. Table 2 from the KYTC transmittal letter presents the Stantec effects recommendations for these resources.

Table 2. Consultant Effects Recommendations for Previously Documented NRHP-Listed and Determined NRHP-Eligible Sites and Historic Districts

KHC Survey Number	Resource Name	Solid Noise Wall Option*	Transparent Noise Wall Option*	No Build Noise Wall Option*	Temporary Access Road	Bridge Construction Activities	Bulkhead Construction
KE-07 and KE-08	Elberta Apartments Historic District	Adverse Effect	Adverse Effect	No Effect	N/A*	N/A	N/A
KE-09	West Side/Main Strasse Historic District (Expansion)	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-10	Lewisburg Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-11	Old Ft. Mitchell Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-12	Beechwood Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-13	Hillsdale Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KE-952	Sisters of Notre Dame Convent and Cemetery	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0107	C&O Railroad Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0456	1000 Emery Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0458	45 Rivard Drive	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0460	829-831 Highway Avenue	N/A	N/A	N/A	No Adverse Effect	N/A	N/A
KEC-0462	Bavarian Brewery Bottling Works/Glier's Goetta	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-0820	Brent Spence Bridge	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1011	534 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1038	626 West 5th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KEC-1048	Futuro House/224 Wright Street	N/A	N/A	N/A	N/A	No Adverse Effect	N/A
KEC-1064	402 Bakewell Street	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEC-1068	Covington Levee System	N/A	N/A	N/A	No Adverse Effect	No Adverse Effect	N/A
KEC-1075	Clay Wade Bailey Bridge	N/A	N/A	N/A	No Adverse Effect	N/A	No Adverse Effect
KECL-0692	536 West 13th Street	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-0815	Bavarian Brewing Co./Kenton Government Center	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A
KECL-1018	521 Western Avenue	No Effect	No Effect	No Effect	N/A	N/A	N/A
KEFM-150	Highland Cemetery Historic District	No Adverse Effect	No Adverse Effect	No Effect	N/A	N/A	N/A

Notes: *Not all sites in this table have noise wall options proposed near them;
N/A = not applicable. Any column with N/A indicates this particular activity will not take place at or near this specific site.

RE: Concurrence for the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*
Covington, Kenton County, Kentucky
KYTC Item No. 6-17

The previous eligibility and effects evaluations for these resources, are given in the *Cultural Historic Survey Report, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Kennedy et al. 2022) and *Cultural Historic Survey Report Addendum, Brent Spence Bridge Renewal Project, Covington, Kenton County, Kentucky* (Harris and Ryall 2023).

Stantec recommended an Adverse Effect for both the solid and transparent noise wall options for the Elberta Apartments Historic District (KE-07 and KE-08). Stantec recommended an overall additional Adverse Effect finding for the project.

For the proposed noise wall options, KYTC concurred with the recommended effects for sites KE-09; KE-10; KE-11; KE-12; KE-13; KE-952; KEC-0456; KEC-0458; KEC-0462; KEC-1011; KEC-1038; KECL-0692; and KECL-0815 and determined the solid noise wall and the transparent noise wall options will have *No Adverse Effect* and the no build option will have *No Effect* for these sites. KYTC concurred with the recommended effects for sites KEC-1064 and KECL-1018 and determined the solid noise wall; the transparent noise wall; and the no build options will all have *No Effect* on these two sites.

KYTC disagreed with the recommended effects for the proposed solid and transparent noise wall options for the Elberta Apartments Historic District (sites KE-07 and KE-08). The St. Joseph Lane portion of the Elberta Apartments Historic District was built prior to the construction of Interstate 75. The adjacent section of the interstate was completed in 1962 and has been within the viewshed of the apartments since that time.

Stantec stated that the existing trees are not contributing elements of the Elberta Apartments Historic District. KYTC stated that the removal of the existing trees on either side of the ROW fence to install any type of noise wall will not result in an impact to the historic district. In addition, the installation of either a solid or transparent noise wall will not impact the aspects of design, setting, or feeling; will not result in the removal or alteration of any of the contributing elements of the Elberta Apartments Historic District; and will not alter the area of significance of community planning and development under which the Elberta Apartments Historic District was determined eligible under Criterion A. Therefore, KYTC determined the proposed solid noise wall and the translucent noise wall options will have *No Adverse Effect* and the no build wall option will have *No Effect* on the Elberta Apartments Historic District (KE-07 and KE-08).

KYTC disagreed with the recommended effects for the proposed solid and transparent noise wall options for KEFM-150 (Highland Cemetery Historic District). The proposed noise wall

locations are significantly outside of the district boundary and are completely within the existing ROW. The tree cover in the space between the cemetery boundary and the interstate grew up after the period from 1998-2001. In addition, the proposed noise wall location off of the northbound exit ramp across would be visually blocked by the Kroger expansion and fuel station and the Beechwood High School tennis courts, both of which were constructed between 2010 and 2012. Therefore, KYTC determined the proposed solid noise wall option; the translucent noise wall option; and the no build wall option will all have *No Effect* on KEFM-150.

For the proposed temporary access road to be built from the proposed bulkhead at Pete Road Pier to the western Covington Levee gate on Highway Avenue/KY-8, KYTC concurred with the recommended effects and determines the temporary access road will have *No Adverse Effect* for sites KEC-107; KEC-460; KEC-820; KEC-1068; and KEC-1075.

For the proposed bulkhead construction activities at Pete Road Pier, KYTC concurs with the recommended effect and determines the bulkhead construction activities will have *No Adverse Effect* for site KEC-1075.

For the proposed Brent Spence Companion Bridge construction activities, which include the construction of temporary falsework, ramps, and additional grading of the existing levee, KYTC concurs with the recommended effects for sites KEC-820 and KEC-1068 and determines the bridge construction activities will have *No Adverse Effect* for sites KEC-820 and KEC-1068.

KYTC disagrees with the recommended No Adverse Effect recommendation for KEC-1048 (the Futuro House at 224 Wright Street) as the bridge construction activities are significantly outside of the boundaries of this site and will not impact the aspects of integrity which make it eligible under Criterion C. KYTC determines the proposed Brent Spence Companion Bridge construction activities will have *No Effect* on KEC-1048.

It was noted by KYTC that the final decisions regarding noise wall options have not been made at this time.

KYTC determined a finding of ***No Adverse Effect*** for the additional work and potential noise walls evaluated in the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*. Overall, the project remains an ***Adverse Effect*** for the original impacts to the Lewisburg Historic District, as originally determined in 2022.

RE: Concurrence for the *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*
Covington, Kenton County, Kentucky
KYTC Item No. 6-17

We **Concur** with KYTC's eligibility recommendations and with their determination of ***No Adverse Effect*** for the additional work and potential noise walls proposed in *Second Addendum Cultural Historic Survey for the Brent Spence Bridge Project*. Overall, the project remains an ***Adverse Effect*** for the original impacts to the Lewisburg Historic District.

Should you have any questions, please feel free to contact RaShae Jennings of my staff at rashae.jennings@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director
and State Historic Preservation Officer

KHC #250404
CP:rj
e.cc: Stephanie Lechert (KYTC-DEA)

Becky Rude

From: Schurman, Scott R (KYTC) <Scott.Schurman@ky.gov>
Sent: Wednesday, March 26, 2025 5:17 PM
To: Karl Lietzenmayer; Kaitlin BRYAN; rebecca@rebeccaweber.com; brandon.holmes@covingtonky.gov; ron.washington@covingtonky.gov
Cc: Hans, Stacee D (KYTC-D06); Peake, Danny R (KYTC); Lechert, Stephanie E (KYTC); Davis, Daniel B (KYTC); John.Ballantyne@dot.gov; Baughman, Pamela (FHWA); Valentine, Gary (KYTC); Becky Rude
Subject: Updated Historic Eligiblity and Effects Report for Brent Spence Bridge Project

Categories: Reference

External Email: Use caution when clicking on links, replying, or opening attachments.

Brent Spence Bridge Project Consulting Party Member,

Shortly following the approval of the Brent Spence Bridge Project Supplemental Environmental Assessment/Finding of No Significant Impact (SEA/FONSI), KYTC and ODOT began efforts to identify and evaluate measures to improve the design and constructability of the project while reducing overall costs and impacts. These efforts have resulted in modifications to the project's preferred selected Alternative I-W that was originally approved by the FHWA in the 2024 SEA/FONSI. The proposed project modifications include the following:

- The addition of an access point to deliver and stage materials and equipment from the Ohio River. To accommodate this need, a concrete bulkhead and loading ramp at the Waterfront Lot off Pete Rose Pier, north of the Covington Levee is being proposed to be built.

- The realignment of the intersection of West Fourth Street/KY-8 and Main Street/US-127/US-25/US-42 at the Clay Wade Bailey Bridge. The realignment will improve the safety of pedestrians and other users of the multi-use path being constructed by the City of Covington as a separate project.

- The addition of drainage work south of I-75 and west of Emery Drive in Covington, KY. This drainage work will consist of retrofitting an existing outlet structure and connecting it into a separate drainage system. The second area of drainage work is located to the east of the I-75 corridor within the existing right-of-way (ROW), but west of Highland Avenue in Covington, KY. The proposed work will consist of the construction of a retention pond and connecting that pond to the existing drainage/sewer system trunk line under Highland Avenue. In addition, the work will result in the removal of a wooded area adjacent to historic-age resources which were not part of the previous cultural historic reporting.

- The proposed construction of a noise wall area located east of I-75 near Edgecliff Road at the southern end, and continuing north along the existing ROW boundary and terminates just south of the intersection of James Simpson Jr. Way and West 14th Street in Covington, KY. This noise wall would be adjacent to historic-age resources which were not part of the previous cultural historic reporting.

Thus, these project modifications required the assessment of historic properties for these areas. This required the project's original area of potential effect (APE) to be updated and expanded. The updated APE was coordinated between KYTC and the Kentucky State Historic Preservation Office (KY-SHPO), and was ultimately approved by KY-SHPO. These project changes also required a historic addendum report be completed for the project. This

updated report assessed properties within the updated APE for potential historic eligibility and effects from these project modifications. The updated report is currently being coordinated for final eligibity and effect determinations with KY-SHPO. Attached below is a link to this report.

Brent Spence Bridge_Stantec reportrev_March252025.pdf

Since this is a discovery of new information regarding historic resources, we are affording you the opportunity to review and comment on the content of this report. We would ask for to review this report and send back any comments you have by Wednesday April 9, 2025. If you have any problems accessing the report, or if you have any questions, please feel free to contact me. Thank you for your consideration and time.

Scott

Scott R. Schurman
Environmental Scientist Consultant
Kentucky Transportation Cabinet
scott.schurman@ky.gov
Office: 502 782 -5031

Appendix N: Section 6(f) Coordination

LWCF

National Park Service
U.S. Department of the Interior

State and Local Assistance Programs

21-00541.1 Goebel Park Conversion Complex Partial Conversion	Covington, Kenton County, Kentucky
Project Number and Name	City, County, State

Proposed NPS LWCF Federal Action:

Approval of a Land and Water Conservation Fund (LWCF) grant amendment to remove 2.84 acres from the LWCF assisted Goebel Park Complex Park site for transportation use, and replace it with 2.23 acres of state-owned property located adjacent to the existing Goebel Park Complex at the exit ramp of I-71/I-75 and West 5th Street in Kenton County, KY.

UPDATE Per 2025 Appraisals and NPS Review – Approval of a Land and Water Conservation Fund (LWCF) grant amendment to remove **2.18** acres from the LWCF assisted Goebel Park Complex Park site for transportation use, and replace it with **2.11** acres of state-owned property located adjacent to the existing Goebel Park Complex at the exit ramp of I-71/I-75 and West 5th Street in Kenton County, KY.

Categorical Exclusion

Based on the evaluation of the environmental impacts and documentation provided within the Environmental Assessment (2012) and the Supplemental Environmental Assessment (2024) prepared for the Brent Spence Bridge Corridor Project, the NPS LWCF program is categorically excluding the described 6(f)-conversion proposal from further National Environmental Policy Act (NEPA) analysis. The action is fully described within the ODOT and KYTC Environmental Assessment and Supplemental Environmental Assessment. This NPS LWCF conversion has been environmentally certified as a Categorical Exclusion (CE) under item C.2. Land exchanges which will not lead to significant changes in the use of the land" of Department Manual (DM), Series 31, part 516, Chapter 12. There will be minimal loss of recreation at the remaining Goebel Park Complex as a result of this conversion from outdoor recreation use.

Keilah Spann — 04/30/2025

Keilah Spann — **Date**
Supervisory compliance Officer
Land and Water Conservation Fund
National Park Service – Interior Region 2
Atlanta, Georgia

OMB Control No. 1024-0031
Expiration Date 10/31/2023

AMENDMENT TO PROJECT AGREEMENT
Land and Water Conservation Fund

State: KENTUCKY

Project Amendment No. 1

THIS AMENDMENT to Project Agreement No. 21-00541 is hereby made and agreed upon by the United States of America, acting through the Director of the National Park Service and by the State of Kentucky pursuant to the Land and Water Conservation Fund Act of 1965, 78 Stat. 897 (1964).

The State and the United States, in mutual consideration of the promises made herein and in the agreement of which this is an amendment, do promise as follows:

That the above-mentioned agreement is amended by adding the following:

In accordance with LWCF Manual Chapter 8.F. Conversion of Use. A grant amendment to convert 2.18 acres of the existing Goebel Park Complex and to replace it with 2.11 acres of state-owned property located adjacent to the existing park at the exit ramp of I-71/I-75 and West 5th Street in Kenton County, KY. The conversion will allow reconstruction of 7.8 miles of I-71/I-75, widening to add one lane in each direction, and construction of a new companion bridge west of the existing Brent Spence Bridge over the Ohio River in Kenton County, KY and Hamilton County, OH.

In all other respects the agreement of which this is an amendment, and the plans and specifications relevant thereto, shall remain in full force and effect. In witness thereof the parties hereto have executed this amendment as of the date entered below.

THE UNITED STATES OF AMERICA

By Keilah Spann
(Signature)

Supervisory Outdoor Recreation Planner (Compliance Team)
(Title)

National Park Service
United States Department of the Interior

Date

STATE OF KENTUCKY

By Billie R. Johnson
Alternate State Liaison Officer
(Signature)

Alternate State Liaison Officer
(Title)

Kentucky Department for Local Government
(Agency)

RECORDS RETENTION – PERMANENT ACTIVE. (NPS Records Schedule, National Assistance Programs (Item 8.A.2) (N1-79-08-7))

NOTICES

Paperwork Reduction Act Statement

In accordance with the Paperwork Reduction Act (44 U.S.C. 3501), please note the following. This information collection is authorized by the Land and Water Conservation Fund Act of 1965 (54 U.S.C. 200301 et. seq.). Your response is required to obtain or retain a benefit. We use this information to document changes made to original grant agreement following the close-out of the grant. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid Office of Management and Budget control number. OMB has assigned control number 1024-0031 to this collection.

Estimated Burden Statement

Public reporting burden for this form is estimated to average 1 hours per response including the time it takes to read, gather data, review instructions, and complete the form. Direct comments regarding this burden estimate, or any aspects of this form, to the Information Collection Clearance Officer, National Park Service, 12201 Sunrise Valley Drive, Mail Stop 242, Reston, VA 20192. Please do not send your form to this address.

LWCF

National Park Service
U.S. Department of the Interior
State and Local Assistance Programs

Compliance and Stewardship (C&S) Form

Grant Name & Project Number(s): Goebel Park Conversion Request, LWCF #21-00541

Park Name(s): Goebel Park – This complex now consists of three individual parks: Goebel Park, Kenney Shields Park and the SFC Jason Bishop Memorial Dog Park.

LWCF Sponsor(s): City of Covington, Kentucky, and Kentucky Transportation Cabinet

The purpose of the C&S form is to provide information about Land and Water Conservation Fund (LWCF) compliance and stewardship proposals submitted for National Park Service (NPS) review. This form should be completed for any proposal that will impact a park or other recreation area that received LWCF assistance. Consultation with the NPS should occur before the form is completed. All proposals will be reviewed by the NPS in accordance with the LWCF Manual and other applicable federal laws, regulations, and guidance.

Generally, all compliance actions require the completion of all of Section 3.0 – Resource Information. Any exceptions are noted in the instructions for Section 3.0.

☒ Conversion of Use (fill out 1.0 with relevant sub-section(s), 3.0, and 4.0)
- ☐ All Conversions (1.1)
- ☒ Small Conversions (1.1 and 1.2)

☐ Other Compliance Actions Requiring NPS Review and Approval (fill out 2.0 with relevant sub-section(s), 3.0, and 4.0)
- ☐ Sponsor Change (2.1)
- ☐ Significant Change in Use (2.2)
- ☐ Temporary Non-Conforming Use (2.3)
- ☐ Sheltering (2.4)
- ☐ New Public Facility (2.5)

Brief Description of the Proposal:
The Brent Spence Bridge Corridor project through the Kentucky Transportation Cabinet (KYTC) and the Ohio Department of Transportation (ODOT) will reconstruct 7.8 miles of I-71/I-75, including widening to add one lane in each direction and build a new double-decker companion bridge west of the existing Brent Spence Bridge over the Ohio River (KYTC Item No. 6-17.00 and ODOT PID 116649).

The Goebel Park Complex is adjacent to the existing I-71/I-75 roadway and the proposed project would require the conversion of approximately 2.18 acres of flood-prone land from the Goebel Park Complex to transportation use, and replacing it with 2.11 acres of currently state-owned property. Other mitigation measures, including funding for new basketball courts and swimming pools, are also proposed.

SECTION 1.0 CONVERSION OF USE

1.1 Required Information for All Conversions

Part A and B should be completed for all conversions, including full, partial, and small conversions.

A. Attachments checklist

☒ Transmittal letter from the SLO/ASLO that indicates the state's support for the proposal
☐ LWCF project amendment form
☐ Documentation of NPS concurrence with the existing LWCF boundary area and the proposed conversion footprint
☐ Documentation of NPS concurrence that the proposed replacement property meets LWCF requirements
☒ Valuation documentation for conversion and replacement sites – either (a) appraisals and appraisal reviews OR (b) waiver valuations (as applicable)
☐ NEPA documentation (as applicable)
☒ NHPA documentation (as applicable)
☐ Evidence of other federal law compliance as needed (i.e. ESA, CWA, etc.)
☒ Intergovernmental review comments (as applicable)
☒ DNF
☒ Maps:
- ☒ Signed and dated proposed LWCF boundary map(s) for the replacement site(s) and, for partial conversions, the original remaining park site
- ☐ Site development plan for the proposed replacement property
- ☒ Site plan for the remaining parkland (for partial conversions)
- ☐ Location map depicting the locations of the conversion and the replacement properties and their relative location to one another

B. Basic conversion information

Reproduce tables as needed for multiple sites.

CONVERSION SUMMARY & APPRAISAL/WAIVER VALUATION CERTIFICATION

Conversion site	Name(s) Goebel Park
	Converted acreage 2.18
	Remaining acreages at site, if any 12.49
	Fair market value $610,000.00
	Appraisal effective date 11/18/2024
	☒ A State-certified Review Appraiser has reviewed the appraisal and has determined that it was prepared in conformity with the Uniform Appraisal Standards for Federal Land Acquisitions OR ☐ The State has prepared a waiver valuation for this property in conformity with 49 C.F.R. 24.102(c)(2)(ii)

Replacement site	Name(s) State-owned property, northwest corner of Goebel Park
	Replacement acreage 2.11
	Fair market value $1,380,000.00
	Appraisal effective date 11/18/2024
	☒ A State-certified Review Appraiser has reviewed the appraisal and has determined that it was prepared in conformity with the Uniform Appraisal Standards for Federal Land Acquisitions OR ☐ The State has prepared a waiver valuation for this property in conformity with 49 C.F.R. 24.102(c)(2)(ii)

Billie R. Johnson
Alternate State Liaison Officer

3/15/2025

SLO/ASLO Signature — Date

Bille R. Johnson, Alternate State Liaison, Department for Local Government, State of Kentucky

Name, Title, and Agency

1. A detailed explanation of the sponsor's need to convert the LWCF parkland including all efforts to consider other practical alternatives to this conversion, how they were evaluated, and the reasons they were not pursued.
   Current project plans associated with the preferred Alternative I-W require approximately 2.18 acres of Goebel Park property to be acquired as right of way as a result of the Brent Spence Bridge (BSB) Corridor Project. During the project development process, avoidance alternatives and build alternate impacts to Goebel Park were evaluated and analyzed to help minimize impacts.

   Beginning in 2004, KYTC and ODOT developed a range of alternatives for improving the BSB corridor. Through a series of preliminary engineering and planning studies coupled with public outreach and stakeholder involvement, KYTC and ODOT narrowed the range of alternatives to two feasible alternatives: Alternative E and Alternative I. Alternative E, Alternative I, and the No-Build Alternative were evaluated in the 2012 Environmental Assessment (EA). In August 2012, FHWA issued a Finding of No Significant Impact (FONSI) identifying Alternative I as the selected alternative for the BSB Corridor Project.

   Alternative E, Alternative I, and the No-Build Alternative were also evaluated in the 2012 BSB Corridor Project Final Individual Section 4(f) Evaluation, which demonstrated that Selected Alternative I (from the 2012 EA/FONSI) resulted in the least overall harm to Section 4(f) properties including Goebel Park. In August 2012, FHWA determined that there is no feasible and prudent avoidance alternative as defined in 23 CFR 774.17, to the use of land from Section 4(f) properties.

   Shortly following the approval of the 2012 EA/FONSI, KYTC and ODOT began efforts to identify methods to identify and evaluate measures to improve the design and constructability of the project while reducing the costs and impacts. These efforts resulted in several refinements to the project's design, which have been designated Refined Alternative I (Concept I-W).

Avoidance Alternatives

All of the conceptual alternatives and feasible alternatives developed for the BSB Corridor Project impact Section 4(f) properties. Additionally, each alternative directly impacts both historic properties and public parks including Goebel Park. Due to the densely developed urban environment of the project area, it was not possible to develop a build alternative that avoided impacts to Goebel Park and satisfies the project's purpose and need.

The only alternative that avoids Goebel Park is the No-Build Alternative; however, it is not considered to be a prudent and feasible alternative for the BSB Corridor Project.

2. An explanation of how the conversion is in accord with the goals and objectives of the current State Comprehensive Outdoor Recreation Plan (SCORP).

   Goal 7: Increase and promote coordination and definition of roles among the various federal, state, regional, local, and private agencies that are responsible for the planning, programming, and implementation of recreation facilities and opportunities.
   Goal 8: Make the most efficient use of existing recreation facilities and resources.

   This conversion request is the result of years of coordination between the city, state, and federal governments. To replace acreage lost, the KYTC is transferring ownership of adjacent valuable green space to the city for the park's future growth.

1.2 Additional Details for Small Conversions

The following section should be completed for small conversions only if you have been directed to do so after consultation with the NPS.

1. For the park land proposed for conversion, a detailed description including the following:
   a. Description of the area proposed for the conversion including the acreage to be converted and any acreage remaining. For determining the size of the conversion, consider not only the physical footprint of the activity precipitating the conversion, but how the precipitating activity will impact the entire LWCF park area. In many cases the size of the converted area is larger than the physical footprint. Include a description of the recreation resources, facilities, and recreation opportunities that will be impacted, displaced or lost due to the proposed conversion. For proposals to partially convert a LWCF park area, the remaining LWCF park land must remain recreationally viable and not be impacted by the activities that are precipitating the conversion. If it is anticipated that the precipitating activities will impact the remaining LWCF area, the proposed area for the conversion should be expanded to encompass all impacted park land.

      The Goebel Park Complex is a 14.67 acre public park owned and operated by the City of Covington, Kentucky. It is located immediately east of the I-71/I-75 roadway and between the local streets of 9th Street and West 5th Street. When originally constructed, the entire area was considered Goebel Park, however, today it consists of three individual parks, Goebel Park, Kenney Shields Park, and the SFC Jason Bishop Memorial Dog Park.

      - **Goebel Park** – located at the northern end of the complex and the largest park in the complex. It's bound by the I-71I-75 off-ramp to West 5th Street, as well as various local

streets. The park offers a pool area, playground, grilling and picnic areas, and walking trail. The pool includes an Olympic sized pool, a baby pool, and a bath house with showers. The walking trail meanders throughout the park and provides connections to the Kenney Shields Park and surrounding local streets. The Carroll Chimes Clock Tower is also located within Goebel Park. This clock tower is a 100-foot German-style clock tower that displays a puppet show of the Pied Piper on the hour. It is an important landmark for the local community and a destination stop for tourists.

- **Kenney Shields Park** – located at the southern end of the park complex and is bound by I-71/I-75 and West 9th Street. Within the park are basketball courts, greenspace, and a walking trail.

- **SFC Jason Bishop Memorial Dog Park** – located at the southeast corner of the complex and bound by West.

The proposed BSB project will require the conversion of land from the Goebel Park Complex to transportation use. Potential impacts to the Goebel Park Complex were assessed during the alternative development process, and of the two feasible alternatives carried through the project's Environmental Assessment document, the Preferred Alternative I had the least amount of impact to the Goebel Park Complex. As described in Chapter 1, the Preferred Alternative I was later refined and renamed as Concept I-W. Direct impacts to the Goebel Park Complex from the current selected alternative, Concept I-W, include:

- **Property Acquisition** – estimated 2.18 acres of parkland, consisting of 1.58 acres of Goebel Park and 0.60 acres of Kenney Shields Park. Much of this area, particularly in the southern corner of the park complex, is considered flood prone.

- **Walking Trail** – approximately 360 feet of the existing walking trail within Goebel Park.

- **Basketball Courts and Associated Resources** – the basketball courts and associated resources in Kenney Shields Park.

- In addition to the direct impacts described, KYTC also recognizes the effects that will occur to the outdoor pool facility due to its proximity to the new proposed roadway location. The proposed roadway will shift the nearest traffic lane from approximately 185 feet from the swimming pool to about 60 feet away.

b. Description of the community and population(s) served by the park, including users of the park and recreation uses.

The Goebel Park Complex serves downtown Covington and all of Kenton County. There are sidewalks connecting the parks to the residential areas that surround it and parking is available to each location. It is also conveniently located directly off of I-71/I-75, making it easily accessible for tourists. The park provides numerous recreational and non-recreational activities.

2. For each proposed replacement site:
    a. Description of the site's physical characteristics and resource attributes with number and types of resources and features on the site, for example, 15 acres wetland, 2,000 feet beachfront, 50 acres forest, scenic views, 75 acres riparian, vacant lot, special habitat, any unique or special features, structures, recreation amenities, historic/cultural resources, hazardous materials/contamination history, restrictions, institutional controls, easements, rights-of-way, overhead/underground utilities including overhead wires, towers, etc.
    The Kentucky Transportation Cabinet (KYTC) proposes to replace the 2.18 acres of flood-prone park property with an estimated 2.11 acres of currently state-owned property at the northwest corner of Goebel Park. The existing I-71/I-75 off ramp to West 5th Street is being removed with the proposed project and being replaced by a collector-distributor roadway that creates a new t-intersection with West 5th Street.

    b. Identification of the owner of the replacement site and its recent history of use/function up to the present.
    The owner of the replacement site is KYTC. The replacement site is currently an exit ramp off of I-71/I-75 and the associated grassy area between the ramp and the interstate.

    c. Detailed explanation of how the proposed replacement site is of reasonably equivalent usefulness and location as the property being converted, including a description of the recreation needs that will be met and/or developed at the new replacement parks, population(s) to be served, and new outdoor recreation resources, facilities, and opportunities to be provided.
    The replacement property is not in a flood-prone area like the converted area. This will provide greater use of the area and more value to the park. Since the replacement property borders the existing park, there will be no change to the population(s) served or recreational resources provided.

    d. Identification of owner and manager of the new replacement park.
    The replacement park will be incorporated into Goebel Park, which is owned and managed by the City of Covington.

    e. Name of the new replacement park. If the replacement park land will be added to an existing public park area, the existing area is expected to be included within the LWCF boundary. What is the name of the existing public park area? Is the existing park already LWCF-protected?
    The replacement park will be incorporated into Goebel Park.

    f. Timeframe for completing development of the new outdoor recreation area(s) to replace the recreation opportunity lost per the terms of conversion approval and the date the replacement park(s) will be open to the public.
    Based on the current project schedule, acquisition of Goebel Park property in expected to begin in June 2025. Construction activities in Goebel Park vicinity are expected to begin in the fall of 2025 and be completed by December 2030. Final transfer of the replacement property from KYTC to the City of Covington will take no longer than 2 years and be completed by December 31, 2032.

SECTION 2.0 OTHER COMPLIANCE ACTIONS FOR NPS REVIEW AND APPROVAL

2.1 Sponsor Change

A change in sponsor is an administrative change so the completion of Section 3.0 – Resource Information is not necessary.

A. Attachments checklist

☐ LWCF project amendment form
☐ LWCF boundary map with signature/date by the new sponsor and the state

B. Description

1. Why is the change in sponsor necessary?

2. What is the process and timeline for amending the state/local LWCF agreement?

3. What is the legal name of the proposed new sponsor? Are they an eligible sponsor for the LWCF program?

2.2 Significant Change in Use

A. Attachments checklist

☐ Transmittal letter or email from the SLO/ASLO that indicates the state's support for the proposal
☐ Map – site plan showing the location of the proposed use in relation to the LWCF boundary

B. Description

1. Description of the proposed changes and how they significantly contravene the original plans or intent for use of the site as documented in the LWCF grant agreement(s).

2. Explanation of the need for change in use and how the change is consistent with local plans and the goals and objectives of the current SCORP.

2.3 Temporary Non-Conforming Use

A. Attachments checklist

☐ Transmittal letter from the SLO/ASLO that indicates the state's support for the proposal
☐ Maps:
  ☐ Drawings and/or renderings of the proposed use
  ☐ Site plan showing the location of the proposed use in relation to the LWCF boundary

B. Description

1. Describe in detail the proposed temporary non-conforming use and all associated activities, why it is needed, and alternative locations that were considered and why they were not pursued.

2. Explain length of time needed for the temporary non-conforming use and why.

3. Describe the size of the LWCF area that will be affected by the temporary non-conforming use activities and expected impacts to public outdoor recreation areas, facilities and opportunities. Explain plans or efforts to keep the size of the area impacted to a minimum.

4. Describe any anticipated temporary/permanent impacts to the LWCF area and how the sponsor will mitigate them during and after the non-conforming use ceases.

2.4 Sheltering

An enclosed or sheltered recreation facility is defined as a facility that was originally assisted by LWCF or would be eligible for LWCF assistance if it was to be outdoors. LWCF assistance may be provided to shelter swimming pools and ice skating rinks only, when they are located in areas that meet specific cold climatic criteria. Project sponsors may seek approval to shelter or enclose other types of recreation facilities at their own expense, regardless of prevailing climatic conditions.

A. Attachments checklist

☐ Transmittal letter from the SLO/ASLO that indicates the state's support for the proposal
☐ Drawings and/or renderings of the proposed facility
☐ Site plan showing the location of the facility to be enclosed in relation to the LWCF boundary
☐ Provide a copy of the cold climatic data used to make the eligibility determination (if applicable; see manual).

B. Description

1. (If applicable) Explain how it was determined that the site meets the cold climate criteria described in the LWCF manual.

2. Describe the proposed sheltered facility, how it would operate, the recreation uses that could typically occur outdoors, and how the primary purpose of the sheltered facility will be recreation.

3. Explain how the sheltered facility would not substantially diminish the outdoor recreation values of the site including how the sheltered facility will be compatible with and significantly supportive of the outdoor recreation resources present and/or planned.

4. Explain how the sheltered facility will benefit the total park's outdoor recreation use.

5. Describe efforts provided to the public to review the proposal to shelter the facility and has local support.

6. Document that the sheltered facility will be under the control and tenure of the public agency that sponsors and administers the underlying park area.

2.5 New Public Facility

A. Attachments checklist

☐ Transmittal letter from the SLO/ASLO that indicates the state's support for the proposal, why it would result in a net benefit to outdoor recreation at the site, and the life expectancy of the facility.

☐ Maps:

- ☐Drawings and/or renderings of the proposed facility
- ☐ Site plan showing the location of the proposed use (and any surrounding impacted area) in relation to the LWCF boundary

B. Description

1. Describe the purpose and all proposed uses of the public facility such as types of programming, recreation activities, and special events including intended users of the new facility and any agency, organization, or other party to occupy the facility. Describe the interior and exterior of the facility, such as office space, meeting rooms, food/beverage area, residential/lodging area, classrooms, gyms, etc.

2. Explain how the facility will be compatible with and not diminish the outdoor recreation area. Explain how the facility and associated uses will significantly support and enhance existing and planned outdoor recreation resources and uses of the site, and how outdoor recreation use will remain the primary function of the site. (The public's outdoor recreation use must continue to be greater than that expected for any indoor use, unless the site is a single facility, such as a swimming pool, which virtually occupies the entire site.)

3. Explain the design and location alternatives considered for the public facility and why they were not pursued.

4. Explain who will own and/or operate and maintain the facility? Attach any 3rd party leases and operation and management agreements. When will the facility be open to the public? Will the facility ever be used for private functions and closed to the public? Explain any user or other fees that will be instituted, including the fee structure.

SECTION 3.0 RESOURCE INFORMATION

Consultation with NPS regarding the NEPA pathway for a proposal should occur prior to completing this section. If has already been determined that the proposal will require an EA or EIS, you may go directly to the questions following Tables 1 and 2. The Environmental Resources Survey should be reproduced and completed for the conversion site(s) and the replacement site(s).

A. Environmental resources survey

The tables below serve as a record of the environmental resources present at the site, whether the proposed action is likely to have a significantly negative impact those resources, and whether further information is needed to determine the potential impact. Review the listed resources and identify any resources that may be significantly impacted by the action. The Environmental Resources Survey should be completed with professional input from resource experts and in consultation with relevant local, state, tribal, and federal governments, as appropriate.

Table 1 – For each resource indicate if positive impacts or negative impacts are anticipated to result from the action or if further information is needed to determine the potential impact.

\+ indicates positive impacts are anticipated to result from the action
\- indicates negative impacts are anticipated to result from the action
? indicates further information is needed to determine the potential impact

Site Name:

	How will the project affect the following resources?	+	-	?
1	Air quality	☒	☐	☐
2	Circulation and transportation	☒	☐	☐
3	Climate	☒	☐	☐
4	Contamination or hazardous materials even if remediated	☒	☐	☐
5	Endangered species: (listed or proposed threatened or endangered) including associated habitat	☐	☒	☐
6	Environmental justice: minority and low-income populations	☒	☐	☐
7	Geological resources: soils, bedrock, slopes, streambeds, landforms, etc.	☒	☐	☐
8	Historic or cultural resources	☒	☐	☐
9	Invasive species	☒	☐	☐
10	Land use plans or policies from other agencies including tribes	☒	☐	☐
11	Lightscapes especially night sky	☒	☐	☐
12	Migratory birds	☒	☐	☐
13	Recreation resources	☐	☒	☐
14	Socioeconomics: changes to tax base or competition with private sector	☒	☐	☐
15	Sound (noise impacts)	☐	☒	☐
16	Unique ecosystems, such as biosphere reserves, World Heritage sites, old growth forests, etc.	☒	☐	☐
17	Water quality and/or quantity	☒	☐	☐
18	Water: coastal barrier resources or coastal zones	☒	☐	☐
19	Water: marine and/or estuarine	☒	☐	☐
20	Water: stream flow characteristics	☒	☐	☐
21	Water: wetlands and floodplains	☒	☐	☐
22	Other important resources Explain:	☐	☐	☐

Table 2 – This is a list of mandatory impact criteria that preclude the use of a categorical exclusion. If you answer "yes" or "?" for any of the mandatory criteria, you must develop an EA or EIS regardless of your answers in table 1.

Site Name:

	Will your proposal:	Y	N	?
1	Have significant negative impacts on public health or safety?	☐	☒	☐
2	Have significant negative impacts on unique natural resource or geographic characteristics such as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; national monuments; migratory birds; and other ecologically significant or critical areas?	☐	☒	☐
3	Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources?	☐	☒	☐
4	Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	☐	☒	☐
5	Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	☐	☒	☐
6	Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects?	☐	☒	☐
7	Have significant adverse effects on properties listed or eligible for listing in the National Register of Historic Places as determined by NPS?	☐	☒	☐
8	Have significant negative impacts to species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated critical habitat for these species?	☐	☒	☐
9	Violate a federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment?	☐	☒	☐
10	Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	☐	☒	☐
11	Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites?	☐	☒	☐
12	Contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species?	☐	☒	☐

1. Have there been any previous NEPA/SEPA documents prepared that are relevant to this proposal or this specific site?
   a. ☒ No
   b. ☐ Yes – Attach and summarize findings and include page number references below

2. Explain any negative or unknown impacts identified in Table 1 of the Environmental Resources Survey or any boxes marked "yes" in Table 2 (mandatory criteria).
   Endangered Species: The project will require clearing approximately 1.1 acres within the Goebel Park Complex of "potential" forested habitat for the Indiana bat. Coordination with the U.S. Fish and Wildlife Service (USFWS) was completed as part of the Biological Assessment prepared for the BSB Corridor project and it was determined the project "may affect, is likely to adversely affect" the Indiana

bat within the Kentucky portion of the proposed project. KYTC is addressing impacts to the Indiana bat in accordance with the Programmatic Biological Opinion on the Effects of Transportation Projects in Kentucky on the Indiana Bat and Gray Bat. As a minimization measure, seasonal tree-clearing restrictions from June 1 to July 31 will be imposed.

Recreational Areas: The project will impact approximately 360 feet of the existing walking trail within Goebel Park and will require the removal of basketball courts and associated resources in Kenney Shields Park. In addition, KYTC also recognizes the effects that will occur to the outdoor pool facility due to its proximity to the new proposed roadway location. The proposed roadway will shift the nearest traffic lane from approximately 185 feet from the swimming pool to about 60 feet away. Mitigation measures include:

- The taking of approximately 360 feet of walking trail will be mitigated by reconstructing the walking trail within the park on location to be determined in coordination with the City of Covington during the project's final design phase.
- Approximately $94,500 will be allocated from the project funds for replacement and enhancement of the basketball courts or for other outdoor recreational facilities within the park. Additional funding will be allocated for the temporary replacement of the basketball courts within the park during construction activities. In the event project phasing requires the basketball courts to be impacted prior to replacement facilities being constructed, up to $75,000 of project funds will be allocated to construct a temporary facility within a portion of the Goebel Park Complex not impacted by the project.
- Approximately $100,000.00 of project funds will be allocated for the development of a Goebel Park Complex Master Plan. The plan will document future park plans, uses, and locations of facilities within the park complex.
- Approximately $1,337,400.00 of project funds will be allocated for the construction of a new pool and associated facilities, or other comparable aquatic facilities serving the same recreational purposes within the Goebel Park Complex.

Sound (noise impacts): The project would increase the capacity of I-71/I-75, and move vehicles closer to the park's recreational uses, both contributing to higher noise levels. The Traffic Noise Impact Analysis predicted the project would result in an increased noise level in Goebel Park, but a noise reduction in Kenney Shields Park. Table 4.7–1 below gives the 2049 predicted noise level compared to the existing noise level. Both Goebel Park locations, though, will be considered a noise impact per the FHWA and KYTC guidelines due to noise levels over 66 dB(A).

Table 4.7–1. 2049 Predicted Noise Levels at the Goebel Park Complex

LOCATION (POINT NAME)	EXISTING NOISE LEVEL dB(A)	2049 PREDICTED NOISE LEVEL dB(A)	2049 PREDICTED NOISE LEVEL WITH BARRIER dB(A)
Goebel Park Playground Area (B00117-F)	65.2	67.0	62.4
Goebel Park Pool Area (B01301-F)	68.6	73.3	57.9
Kenney Shields Park Basketball Courts (B04225-F)	67.5	59.6	51.5

A barrier analysis was performed that evaluated the potential noise reduction of a barrier located adjacent to the Goebel Park Complex. The analysis found that a barrier was feasible, but it was not considered reasonable in accordance with KYTC's noise policy. However, with noise being a big concern of the public, KYTC is continuing to evaluate potential barriers in this area. KYTC is evaluating barriers with consideration to noise, aesthetics, and constructability. Final decisions on implementation of a barrier wall will occur during the final design phase and in coordination with the City of Covington. Potential barriers, if constructed, could reduce this impact, however, the noise is still a moderate, long-term impact to the Goebel Park Complex.

KYTC is further evaluating the potential for adding barrier walls between the proposed roadway and the Goebel Park Complex. The walls would provide both a visual and noise screening, helping to reduce the impact of moving the roadway closer to the park area. KYTC will coordinate with the City of Covington regarding the desire for the barrier walls and the type of barrier wall.

3. How was the information in the tables derived and what sources of data were used to justify the impact selection?
   Numerous technical studies were completed as part of the NEPA process completed for the BSB Corridor project. These technical studies included coordinating with various regulatory agencies, public involvement, numerous field surveys, and extensive database research.

4. Who contributed to filling out the Environmental Resources Survey (include name, title, agency) and what qualifications do they have that provide the necessary resource expertise to determine impact significance?
   Scott Schurman (Environmental Project Manager), KYTC – Scott has over 18 years of experience managing environmental projects for KYTC. He serves as the environmental project manager for the BSB project and has been intricately involved with all aspects of the project's environmental process.

   Michael Leathers, PE, (Environmental Division Manager) at HMB Professional Engineers, Inc. – Michael has nearly 10 years of experience performing environmental studies for KYTC and has authored numerous NEPA documents. For the BSB project, Michael has contributed to the preparation of the Biological Assessment and the Highway Traffic Noise Impact Study.

5. List all required federal, state, and local permits/approvals needed for the proposal and explain their purpose and status.
   Section 7 Clearance – Section 7 of the Endangered Species Act is requiring "Federal agencies to consult with the Service to ensure that actions they fund, authorize, permit, or otherwise carry out will not jeopardize the continued existence of any listed species or adversely modify designated critical habitats." It's managed by the U.S. Fish and Wildlife Service (USFWS). All field investigations, reporting, and coordination with USFWS have been completed.

   Section 106 Clearance – Section 106 is a part of the National Historic Preservation Act of 1966 (NHPA). This is regulated by the Kentucky Heritage Council (KHC), which is the State Historic Preservation Office (SHPO) in Kentucky, and the Ohio Historic Preservation Office (OHPO). This law requires federal agencies to "consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve throughout the country." For cultural historic, both state SHPO's have concurred with the eligibility determinations, adverse effect findings, and mitigation measures on the Lewisburg

Historic District in Kentucky, and for Longworth Hall in Ohio. This information is currently being captured and summarized in an overall Section 106 Bi-state Programmatic Agreement.

Section 404 Permit – This is a requirement of the Clean Water Act and is managed through the U.S. Army Corps of Engineers (USACE). Its purpose is to regulate the "discharge of dredged or fill material into waters of the United States, including wetlands." Field investigations to identify streams and wetlands have been completed. A jurisdictional site visit with the USACE has also been held. The permit application will be submitted by the contractor.

Section 401 Certification – This is another requirement of the Clean Water Act concerning discharge into waters of the U.S. This certification will be obtained from the Kentucky Division of Water and the Ohio Environmental Protection Agency (OEPA). Field investigations to identify streams and wetlands have been completed, but the permit application will be submitted by the contractor.

Section 408 Permit – The USACE operates the Section 408 program of the Clean Water Act, which allows for the altering of a USACE Civil Works project. KYTC and ODOT conducted preliminary coordination with USACE regarding the Section 408 permit. Construction of the BSB Corridor Project will not commence until the Section 408 permit has been acquired.

Section 9 Permit – Impacts to the Ohio River are regulated by U.S. Coast Guard under Section 9 of the Rivers and Harbors Act. Construction of the BSB Corridor Project will not commence until the Section 9 permit has been acquired.

Section 10 Permit – Impacts to the Ohio River are also regulated by USACE under the Rivers and Harbors Act. Construction of the BSB Corridor Project will not commence until the Section 10 permit has been acquired.

Floodplain Permits – There is a regulatory floodway along the north and south banks of the Ohio River and the new piers for the companion bridge would be constructed in the floodway. Hydraulic analyses will be completed based on the bridge type selected during the project's design-build phase (see Section 3.3.3). Floodplain permits will be obtained from the City of Cincinnati and the City of Covington before construction activities impacting floodplains/floodways occur. In addition, a Conditional Letter of Map Revision (CLOMR)/Letter of Map Revision (LOMR) will be obtained from the Federal Emergency Management Agency (FEMA) before construction activities impacting floodways occur.

A National Pollutant Discharge Elimination System (NPDES) Permit – the NPDES permit program was created by the Clean Water Act. It is managed on the state-level, so the necessary permit will be obtained by the Ohio Environmental Protection Agency (OEPA) and the Kentucky Department of Environmental Protection (DEP) before construction activities begin.

NEPA Pathway Recommendation

Attach documentation of NPS concurrence with the recommended NEPA Pathway

☒ This proposal qualifies for a Categorical Exclusion (CE). List: _____

☐ This proposal requires an Environmental Assessment (EA), which is attached and has been produced in accordance with the LWCF Manual

☐ This proposal may require an Environmental Impact Statement (EIS)

B. Cultural and historic resources review

Have there been any previous cultural and/or historic resource surveys completed that included this site within the area of potential effect that was assessed?

☐ No – Describe any construction planned as a result of this project that will extend beyond the pre-existing disturbance area (including surface area and depth).

☒ Yes – Attach survey and summarize findings and include page number references below.

NOTICES

Paperwork Reduction Act Statement

In accordance with the Paperwork Reduction Act (44 U.S.C. 3501), please note the following. This information collection is authorized by the Land and Water Conservation Fund Act of 1965 (54 U.S.C. 200301 et. seq.). Your response is required to obtain or retain a benefit. We use this information to obtain descriptive and environmental information about the proposal. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid Office of Management and Budget control number. OMB has assigned control number 1024-0031 to this collection.

Estimated Burden Statement

Completion times vary widely depending on the use of the form. We estimate that the average completion time for this form is 16 hours for most stewardship requests, and 92.5 hours for a conversion of use (although a difficult conversion can take up to 500 hours), including the time necessary to read, gather data, review instructions, and complete the form. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information Collection Officer, National Park Service, 12201 Sunrise Valley Drive, MS-242 Rm. 2C114, Reston, VA 20192. Please do not send your completed form to this address.

Chapman Appraisals LLC

An Appraisal Review

Appraisal Review of
Goebel Park Conversion Property

Goebel Park Conversion Property
501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by City of Covington
Covington, Kentucky 41011

Appraised By:
Bluegrass Valuation Group, LLC
William L. Berkley
366 Waller Avenue, Suite 203
Lexington, Kentucky 24004

Date of Appraisal Report Under Review: December 18, 2024
Effective Date of Before and After Appraisal Value under Review: November 18, 2024
Effective Date of Review: December 18, 2024

Prepared By
Matthew L Chapman, MAI
Chapman Appraisals LLC
3813 Poplar Level Road
Louisville, Kentucky 40213
www.chapmanappraisers.com

Prepared For
Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities
Mr. Eric Monhollon
Appraisal Branch Manager
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622

Approved in the Amount of: $610,000.00

Digitally signed by Eric R. Monhollon
Date: 2024.12.19 09:30:55 -05'00'

Appraisal Branch Manager

December 18, 2024

Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities
Mr. Eric Monhollon
Appraisal Branch Manager
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622

RE: Appraisal Review
Goebel Park Conversion Property
501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by City of Covington
Covington, Kentucky 41011
FILE # 24-0027B

Mr. Eric Monhollon:

Thank you for the opportunity to provide services for you. As requested, we have performed the necessary analysis for purposes of developing and reporting an appraisal review. The specific real property interest, real estate, and type of value are detailed in the body of the accompanying report which was prepared in conformance with the Uniform Standards of Federal Land Acquisition (2016) (UASFLA); Uniform Standards of Professional Appraisal Practice (USPAP 2024); 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36CFR 59.3(b)(2); and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual.

The depth of discussion contained in this report is specific to the needs of the client and the intended use as specified in the body of the report. The liability of Chapman Appraisals, subcontractors, and employees is limited to the fee collected for the preparation of the appraisal review. There is no accountability or liability to any third parties.

The value reported is qualified the assumptions and limiting conditions contained in the appraisal under review and specifically (or in addition to):

- Information supplied by others is believed to be reliable. However, no warranty is given for its accuracy.
- No responsibility is assumed for legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.
- The property is appraised free and clear of any and all liens or encumbrances unless otherwise stated.
- It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless otherwise stated in this report.
- The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate valuations for land and buildings should not be used in conjunction with other appraisals and are invalid if so used.

- The value opinions, and costs used, are as of the date of the value opinion.
- All engineering is assumed to be correct. Any plot plans, sketches, maps, and illustrative material in this report are included only to assist the reader in visualizing the property.
- Responsible ownership and competent property management are assumed.
- All mechanical components are assumed to be in good, operable condition unless otherwise noted.
- Any proposed improvements, on or off-site, as well as any repairs required, are assumed to be completed in a good workmanlike manner in accordance with the information submitted and/or considered by the appraiser.
- It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering or environmental studies that may be required to discover them.
- Unless otherwise stated in this report, the existence of hazardous material or conditions, which may or may not be present on the property, was not observed by the appraiser. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.
- It is assumed that the utilization of the land and improvements is within boundaries or property lines of the property described and that there is no encroachment or trespass unless otherwise stated in this report.
- This appraiser is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.
- Our opinion of value does not consider the effect (if any) of possible noncompliance with the requirements of ADA.
- It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined and considered in this report. It is assumed that all required licenses, certificates of occupancy or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report are based.
- The appraisal is to be used only in its entirety. Possession of the report or any copy does not carry with it the right of publication. The report may not be used by any person or corporation other than the client or the party to whom it is addressed or copied without the written consent of the signing appraiser(s).

EXTRAORDINARY ASSUMPTIONS

No Extraordinary Assumptions were made for this assignment.

HYPOTHETICAL CONDITIONS

Hypothetical Conditions were made for this assignment. The valuation is based on a condition that the acquisition has taken place as of the effective date of the appraisal which is not the case. It is also subject to a condition that the zoning of the property is Traditional Mixed Use Urban (TUMU) per assignment condition for both the before and after valuation. In order to determine the highest and best use of the park property, the appraiser is to ignore the actual zoning of the property if the zoning is a non-economic zoning established to recognize the "open space" characteristics of the park or to foster the preservation of the park. In this situation, the appraiser is to determine the most likely zoning that would have come about under the hypothetical condition the park was never created. In so doing, the appraiser will consider likely property uses based upon all germane factors as well as the actual present zoning of comparable, nearby, privately owned properties. Under this scenario, the cost, risk, and time associated with obtaining a zoning change would not be appropriate. This procedure is necessary to avoid penalizing the conversion property because it was taken out of private ownership and dedicated to a non-economic use."

JURISDICATIONAL EXCEPTION

Per UASFLA and overriding federal law, a market exposure time is not linked to the value opinions reported here in. As this is contrary to USPAP Standards Rule 1-2(c)., a Jurisdictional Exception to USPAP is invoked for this assignment. Marketing period is also not reported.

ACCEPTANCE OF, AND/OR USE OF, THIS APPRAISAL REVIEW CONSTITUTES ACCEPTANCE OF THE ABOVE CONSIDERATIONS.

I certify that, to the best of my knowledge and belief:

1) The statements of fact contained in this report are true and correct.
2) The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and legal instructions, and are the personal, unbiased, professional analyses, opinions, and conclusions of the appraiser.
3) I have no present or prospective interest in the property that is the subject of the work under review and no personal interest with respect to the parties involved.
4) My compensation for completing this assignment is not contingent upon the development or reporting of predetermined assignment results or assignment results that favors the cause of the client, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal review.
5) The appraisal was made and the appraisal review report prepared in conformity with the Uniform Appraisal Standards for Federal Land Acquisitions.
6) The appraisal was developed and the appraisal report prepared in conformance with the Appraisal Standards Board's *Uniform Standards of Professional Appraisal Practice* and complies with USPAP's Jurisdictional Exception Rule when invoked by Section 1.2.7.2 of the *Uniform Appraisal Standards for Federal Land Acquisitions*.
7) I have no bias with respect to the property that is the subject of the work under review or to the parties involved with this assignment.
8) My engagement in this assignment was not contingent upon developing or reporting predetermined results.
9) My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice and Code of Ethics of the American Society of Appraisers, and Appraisal Institute.
10) The appraiser physically inspected the subject and the property owner representative accompanied him on that inspection. The reviewer made an exterior inspection of the subject property and comparables used in the work under review.
11) No one provided significant appraisal or appraisal review assistance to the person signing this certification.
12) The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13) As of the date of this report, I have completed the continuing education program for Designated Members of the Appraisal Institute.
14) The American Society of Appraisers has a mandatory reaccreditation program for all its designated members. I am in compliance with this program.

15) I performed an appraisal review of this property for a reported dated January 27, 2024 with my review dated January 29, 2024. That appraisal was revised to the current report under review to reflect a new site size in the after. I have performed no other services, as an appraiser or in any capacity, regarding the property that is the subject of the work under review within the three-year period immediately preceding acceptance of this assignment.

We appreciate the opportunity to provide services for you and your firm. Please let us know if we can ever be of more service to you. Thank you.

Sincerely,

CHAPMAN APPRAISALS LLC



Matthew L Chapman, MAI, ASA

Scope of Appraisal Review

In developing an appraisal review assignment, an appraiser acting as a reviewer must identify the problem to be solved, determine the scope of work necessary to solve the problem, and correctly complete research and analyses necessary to produce a credible appraisal review. In reporting the results of an appraisal review assignment, an appraiser acting as a reviewer must communicate each analysis, opinion, and conclusion in a manner that is not misleading.

Comment

STANDARD 3 also addresses the content and level of information required in a report that communicates the results of an appraisal review assignment. STANDARD 3 does not dictate the form, format, or style of Appraisal Review Reports. The substantive content of a report determines its compliance.

STANDARD 3 is directed toward the substantive aspects of developing a credible opinion of the quality of another appraiser's work that was performed as part of an appraisal or appraisal review assignment.

Standards Rule 3-3

In developing an appraisal review, a reviewer must apply the appraisal review methods and techniques that are necessary for credible assignment results.

(a) When necessary for credible assignment results in the review of analyses, opinions, and conclusions, the reviewer must:

(i) develop an opinion as to whether the analyses are appropriate within the context of the requirements applicable to that work;

(ii) develop an opinion as to whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and

(iii) develop the reasons for any disagreement.

Consistent with the reviewer's scope of work, the reviewer is required to develop an opinion as to the ***completeness, accuracy, adequacy, relevance, and reasonableness*** (emphasis added) of the analysis in the work under review, given law, regulations, or intended user requirements applicable to the work under review.

Appraisal Review

Scope of Work: The review is conducted under the following

Client: Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities.

Purpose of this Review:
Per USPAP Standards Rule 3-3:

(i) Develop an opinion as to whether the analyses are appropriate within the context of the requirements applicable to that work;
(ii) Develop an opinion as to whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and
(iii) Develop the reasons for any disagreement.

Consistent with the reviewer's scope of work, develop an opinion as to the ***completeness, accuracy, adequacy, relevance, and reasonableness*** (emphasis added) of the analysis in the work under review, given law, regulations, or intended user requirements applicable to the work under review.

Other Intended Users: National Park Service of the United States Department of Interior; Federal Highway Administration of the United States Department of Transportation

Intended Use of Appraisal: The purpose of the appraisal of the conversion property is to provide an opinion of market value of the subject property (larger parcel) before acquisition of property (before value) and an opinion of market value of the subject property remaining after the acquisition (after value) in compliance with the LWCF manual and the UASFLA. The difference between these before and after values will be will represent the contributory value of the acquisition for the conversion property in the 6(f) process. The appraisal is not intended for any other use.

Intended Use of Review: To determine the appraisal report's compliance with UASFLA, USPAP, LWCF Manual, 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36CFR 59.3(b)(2); and related client standards. Additionally, the intended use of the review is to determine if reasonable and supported conclusions have been developed in support of the before and after values established for acquisition purposes.

Subject Property, AS IDENTIFIED BY APPRAISAL REPORTS UNDER REVIEW:

Goebel Park Conversion Property: 501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by City of Covington
Covington, Kentucky 41011

The subject property is known as Goebel Park and is located at 501 Philadelphia, 847 Philadelphia, 741 Dalton and also consists of existing right of way owned by the City of Covington. The KYTC needs to acquire land from the park for the relocation of the I-75 corridor and Brent Spence Bridge. As the park was developed with LWCF funds, the acquisition and its valuation is subject to LWCF procedures. Under the LWCF the subject property is referred to as the contributing property and a market value before and after the proposed acquisition is required. There are no current entitlements or zoning that would qualify as an "economic use" under the UASFLA and LWCF requirements. As such, the highest and best use analysis and value opinions reported here in reflect the subject property as being available for an "economic use" which for this property has been determined to be for, redevelopment for mixed use commercial and residential development.

The client has not provided any extraordinary legal requirements or instructions.

Before the acquisition the site contains a total of 639,026 square feet and 14.670 acre of land area. The proposed acquisition consists of 94,983 square feet or 2.1805 acres of fee simple right of way. After the acquisition the subject property consists of one remainder and totals 544,043 square feet and 12.49 acres.

Identification of Appraiser Under Review:

William L. Berkley
Bluegrass Valuation Group, LLC
366 Waller Avenue, Suite 203
Lexington, Kentucky 24004
Kentucky State Certified Appraiser 721

Identification of Review Appraiser:

Matthew L Chapman, MAI, ASA, CMA
Chapman Appraisals LLC
3813 Poplar Lavel Road
Louisville, Kentucky 40213
Kentucky State Certified Appraiser 4466

Effective Date of Appraisal: November 18, 2024: Date of Before and After Value
December 18, 2024: Date of Appraisal Report

Date of Review Report: December 18, 2024

Review Appraiser Inspection Date: The review appraiser performed an exterior inspection of the subject December 9, 2024. The review appraiser has also personally viewed all the land comparables used in the appraisal.

DEFINITIONS:

Market Value per UASFLA Standards - Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of value, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither compelled to buy or sell, giving due consideration to all available economic uses of the property.

Fee Simple Interest – Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.[1]

Leased Fee Interest - A freehold (ownership interest) where the possessory interest has been granted to another party be creation of a contractual landlord-tenant relationship. (i.e. a lease) [2]

REASONABLE EXPOSURE:

In the Statement on Appraisal Standards No.6 (SMT-6), Exposure time is defined as follows:

"The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient and reasonable time but also adequate, sufficient and reasonable effort. This statement focuses on the time component.

The fact that exposure time is always presumed to occur prior to the effective date of appraisal is substantiated by related facts in the appraisal process: supply/demand conditions as of the effective date of the appraisal; the use of current cost information; the analysis of historical sales information (sold after exposure and after completion of negotiations between the seller and buyer); and the analysis of the future income expectancy projected from the effective date of the appraisal."

Subject Exposure & Marketing Time:

Per UASFLA and overriding federal law, a market exposure time is not linked to the value opinions reported here in. As this is contrary to USPAP Standards Rule 1-2(c)., a

[1] *The Dictionary of Real Estate Appraisal. 7th* Ed. Chicago: Appraisal Institute, 2022. Page 78.

[2] *The Dictionary of Real Estate Appraisal. 7th* Ed. Chicago: Appraisal Institute, 2022. Page 111.

Jurisdictional Exception to USPAP is invoked for this assignment. Marketing period is also not reported. (Letter of Transmittal)

Prior Services (Appraiser):

The appraiser performed an appraisal dated January 27, 2024. The appraiser has not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of the work under review within the three-year period immediately preceding acceptance of this assignment.

Prior Services (Review Appraiser):

I (Review Appraiser) performed an appraisal review of this property for a reported dated January 27, 2024 with my review dated January 29, 2024. That appraisal was revised to the current report under review to reflect a new site size in the after. I have not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of the work under review within the three-year period immediately preceding acceptance of this assignment.

Competency:

I have appraised numerous appraisals on properties such as the subject. I also regularly conduct appraisal reviews. Files are maintained with historic and current market data relative to the subject. Competency has been established in both the property type and market through work experience or research of market trends. Therefore, I possess the requisite knowledge and experience to perform the appraisal review assignment.

Limiting Conditions, Extraordinary Assumptions, Hypothetical Conditions, and Jurisdictional Exceptions:

Per Scope of Work Instructions: The appraiser may not include any Extraordinary Assumptions, Hypothetical Conditions, or reference any Jurisdictional Exceptions not identified within the LWCF manual, or the UASFLA, without first alerting the client agency of the necessity of their use, discussing the merits of using them with the client agency, and must receive written concurrence from the client agency before using them in the final written appraisal report.

The appraiser employs two hypothetical conditions in completing his assignment; both referenced within the LWCF Manual.

1)The valuation is based on a condition that the acquisition has taken place as of the effective date of the appraisal which is not the case.

2) It is also subject to a condition that the zoning of the property is Traditional Mixed-Use Urban (TUMU) per assignment condition for both the before and after valuation.

For both appraisal assignments, the LWCF manual (page 60 paragraph ii) and the UASFLA require the Highest & Best Use conclusion must be an economic use (i.e., a profitable use).

"The appraiser's estimate of highest and best use must be an "economic" use. A non-economic highest and best use, such as "conservation," "natural lands," "preservation," or any use which requires the property to be withheld from economic production in perpetuity, is not a valid use upon which to estimate market value. Therefore, any appraisal based on such a non-economic highest and best use will not be approved for federal land acquisition purposes. (Section 4.3.2.3, UASFLA, 2016)"

The LWCF manual (page 62, paragraph (b)) provides the following instruction:

"In order to determine the highest and best use of the park property, the appraiser is to ignore the actual zoning of the property if the zoning is a non-economic zoning established to recognize the "open space" characteristics of the park or to foster the preservation of the park. In this situation, the appraiser is to determine the most likely zoning that would have come about under the hypothetical condition the park was never created. In so doing, the appraiser will consider likely property uses based upon all germane factors as well as the actual present zoning of comparable, nearby, privately owned properties. Under this scenario, the cost, risk, and time associated with obtaining a zoning change would not be appropriate. This procedure is necessary to avoid penalizing the conversion property because it was taken out of private ownership and dedicated to a non-economic use."

Significant Observations, Recommendations/Important Issues

1) The subject includes 14.67 acres in the before and 12.49 acres in the after. The property is improved with site and buildings improvements supporting the current use as a park.

2) The subject is appraised as an economic use for its highest and best use in the before and after. The highest and best use is for mixed-use commercial and residential redevelopment in the before and after. As such, the appraiser estimates the cost to raze all the existing site work and building improvements for the redevelopment. (Note, there is a Bell Tower that may add charm to a redevelopment site that might not be razed in the before and after scenarios.) The total demolition cost is estimated at $100,000 (page 41). The value of the subject in the before and after is the land value available for redevelopment less the cost to raze the existing improvements.

3) The property borders I-71/I-75 and is located in an urban in-fill location in Covington, Northern Kentucky. The market benefits from a diverse blend of commercial, professional, residential and community uses along with close proximity to many recreational activities. The market has been increasing due to good livability factors

associated with the region. The outlook for the market area is good into the foreseeable future. (Page 29)

4) The subject is comprised of three tax parcels plus City of Covington Right of Way. All the parcels function as a single larger parcel. The property described herein represents three tax parcels and city owned right of way that is within the boundaries of the park. The property as described represents the larger parcel as there is a unity of highest and best use, unity of title and all being contiguous. (Page 57)

5) The subject property in the before is a rectangular to irregular shaped site totaling 14.67 acres and issues that affect the site developability includes a low-lying area that requires fill dirt and two sewer easements bisecting the site. Overall, it will be well-accepted by the market.

6) The subject property in the after is a rectangular to irregular shaped site totaling 14.67 acres and issues that affect the site developability includes a low-lying area that requires fill dirt and two sewer easements bisecting the site. It is noted that the acquisition area includes some of the low-lying area and in the after, less fill is required for the site. Overall, it will be well-accepted by the market.

7) A land sales comparison approach is used in the before and after appraisal. The income, cost, and improved sales comparison approaches are not applicable to the assignment.

Contingencies of Review

1) **None.**

Reviewer's opinion of whether report is appropriate under the context of the report requirements:

Affirmative – The appraisal under review meets UASFLA, USPAP, LWCF Manual, 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); and 36CFR 59.3(b)(2) standards.

Reviewer's opinion of whether reports under review are reliable:

Affirmative – The appraisal under review is adequate in ***completeness, accuracy, adequacy, relevance, and reasonableness*** to produce reliable findings and develop credible assignment results.

Reviewer's reasons for disagreements:

NA – Based on the data presented, the opinions developed are supported and reasonable.

Conclusions of Appraisal

Summary of Appraisal Under Review

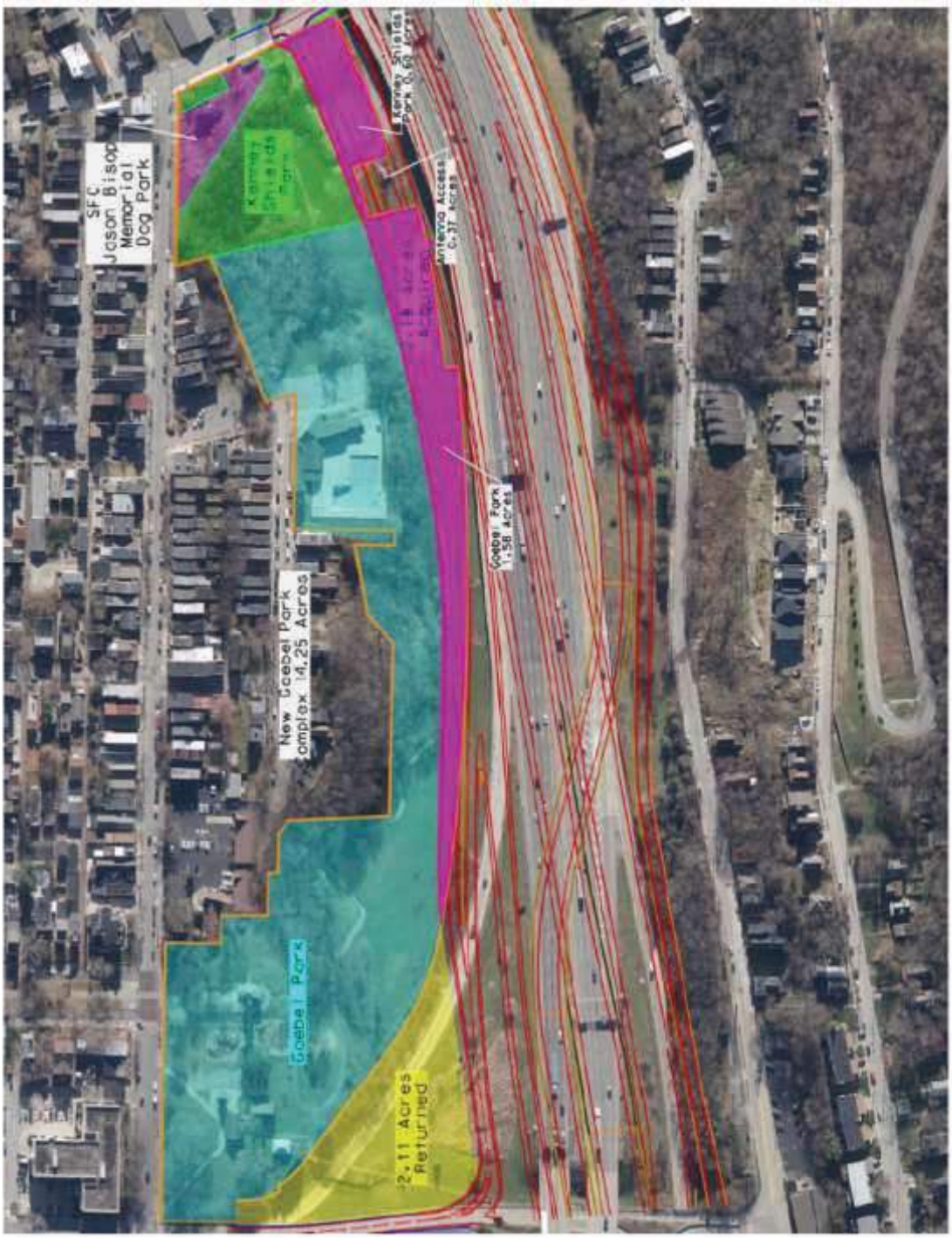
Interest Appraised	Market Value
	Goebel Park Conversion Property
Value Conclusions	Before Value
Date of Value	November 18, 2024
Property Rights Appraised	Fee Simple
Income Capitalization Approach	NA
Sales Comparison Approach	$9,485,000
Cost Approach	NA
Before Value Conclusion	**$9,485,000**
Value Conclusions	After Value
Date of Value	November 18, 2024
Property Rights Appraised	Fee Simple
Income Capitalization Approach	NA
Sales Comparison Approach	$8,875,000
Cost Approach	NA
After Value Conclusion	**$8,875,000**
Difference Between Before and After (Part Taken)	**$610,000**

History of the Subject (page 41)

The subject property has been in use as a public park since 1972.

The subject title is currently recorded in the name of The City of Covington, Kentucky who acquired title to the property in various deeds as follows; March 30, 1981 - $154,100, Kenton County Deed Records, Book & Page 794-220; May 21, 1963 - $1 DB 506-367; May 27, 1963 - $1.00 DB 508-555; 6/26/1979 - $76,400 DB 751-58; October 29, 1970 - $1 DB 573-506. A title was not available for the City of Covington owned public right of way which is a part of the property.

According to county records there has been no transfer of ownership for the subject property in the past ten years and there is no known pending sale or listing of the subject.


SFC Jason Bisop Memorial Dog Park
Kenney Shields Park
Antenna Access 0.37 Acres
Goebel Park 1.58 Acres
New Goebel Park complex 14.25 Acres
Goebel Park
2.11 Acres Returned

Page 6

Site Description (Page 31)

The subject property is in use as a public park with vegetation limited to grass and landscaping. The property consists of 639,026 SF (14.67 acres) and is located between the east side of I-75, south side of W 5th Street, west side of Philadelphia St, and north side of W 9th Street in the City Limits of Covington, KY. The shape of the site is rectangular to irregular and runs from W 5th Street along the north boundary to W 9th Street along the south boundary. There is a total of 2193 +/- feet of frontage in two sections along the East side of I-75 (western boundary), 135 feet along the south side of W 5th Street (north boundary), 807 feet of frontage in two sections along Philadelphia St; 238 feet of frontage along Dalton Street (eastern boundary), and 307 feet of frontage along W 9th Street (southern boundary).

Topography (Page 32)

The site is mostly level with W 5th and Philadelphia Streets as well as Dalton Avenue and slopes downhill towards the west along the W 9th Street frontage to the I-75 right of way. All of the I-75 frontage is below the travel-way by approximately 30 feet with this low-lying area also approximately 15 feet below the more level portions of the site along the eastern boundaries. A total of 3.65 +/- acres lies in the described bottom and would need to be filled in order to become developable. Calculations provided by HMB Engineers indicate that 60,000 yards of fill material would be required to fill the low lying areas along I-75 up to the level areas of the property along the east boundary.

Utilities and Easement (Page 36)

All public utilities including sewer, city water, electric and gas are available to the site and in some cases encumber the property. The low-lying area along I-75 has two large sanitary and storm sewer lines of 36” and 120” which would impact the ability and cost to develop this portion of the site. The maps below depict the system of storm and sanitary sewers as well as public water around the subject property.

As detailed in the zoning analysis section of the report, the most probable zoning for the subject under the hypothetical condition it is not a park use would be Traditional Urban Mixed Use (TUMU) district. Given the size of the site, numerous development plan configurations are conceivable and viable. Where the sewer line easements are located could be parking, streets and/or greenspace to the benefit of the overall development. There may be a cost though in adding fill and developing over the easements. The added costs as well as reduction in fully developable land area is recognized by the appraiser in both the before and after value scenarios.

Floodplain Zone X Panel Number 21117C0009F, dated May 16, 2013. Zone X (unshaded) is a moderate and minimal risk area.

Site Improvements

The site improvements consist of a system of asphalt trails through the park, concrete and asphalt parking lots, basketball and tennis courts, metal and wood fencing, inground metal lined public pool and playground equipment. All of the site improvements are older and some in disrepair. Given that highest and best use of the site would be for its redevelopment, the site improvements do not contribute to value and should be razed. The appraiser estimates $5,000 to raze the basketball and tennis courts plus $5,000 for the playground equipment and $20,000 for all of the parking lots, trails, fencing, and other miscellaneous site improvements for total cost of $30,000.

Building Improvements

The buildings consist of brick and wood frame structures which are classified as being average quality and fair in condition with exception of the Bell Tower which has been renovated more recently. The appraiser considers whether the existing improvements could be incorporated into a redevelopment scenario. The only such feature is possibly the bell tower that could give a redevelopment some charm. That stated, based on a review of redevelopments and new developments when this was done, developers did not place any economic value on these statement features. An example of this is the Phoenix Hill Redevelopment project at Baxter and Broadway in Louisville. At the planning and zoning hearing, the developer was asked about whether he wanted to maintain an old façade and he stated "I think it's neat and we can work with it; but, if you would like us to take it down, we can, or if you would like us to keep it, we can." The other improvements cannot be incorporated into a redevelopment. As such, I consider the cost to raze the improvements at $7.00/SF or $70,000 rounded excluding the bell tower which could go either way. Along with the site improvement cost of $30,000, total razing costs are therefore projected at $100,000.

BUILDING INFORMATION									
	GBA	NRA	YEAR BUILT	ACT. AGE	EFF. AGE	ECON. LIFE	REM. LIFE	FLOORS	CLASS
Park Pavilion & Picnic Shelter	4,396	4,396	1972	52	50	50	0	1	C, D
Bell Tower	634	634	1972	52	50	50	0	2	C
Picnic Gazebo	250	250	1972	52	50	50	0	1	D
Pool House	5,349	5,349	1972	52	50	50	0	1	C,D
TOTAL	**10,629**	**10,629**	**1972**	**52**	**50**	**50**	**0**	**1 - 2**	

Zoning

The current zoning is Recreation (REC). Based on the hypothetical condition of most likely zoning if appraised to an economic use, the appraise opines Traditional Urban Mixed Use (TUMU). This opinion is supported based on prevailing land uses as well as an interview with City of Covington Planning and Zoning Officials.

Land Sales Comparison Approach (Before Value)

The following four sales were selected by the appraiser to best represent comparability to the subject. The adjustment grid is presented below.

LAND SALES COMPARISON TABLE									
	SUBJECT	COMP 1		COMP 2		COMP 3		COMP 4	
Name	Goebel Park Conversion Property	Former IRS Site		Former Montgomery Inn Restaurant Site		Infiniti Auto Dealership		Parking Lot Next to Office Building	
Address	501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington	200 W 4th St		406 Buttermilk Pike		1945 Dixie Hwy		1845 Dixie Hwy	
City	Covington	Covington		Fort Mitchell		Fort Wright		Fort Wright	
State	KY	KY		KY		KY		KY	
Zip	41011	41011		41017		41011		41011	
County	Kenton	Kenton		Kenton		Kenton		Kenton	
Submarket	Covington	Covington		Fort Mitchell		-		-	
Parcel	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00, City of Covington Right of Way	054-12-03-001.00, 054-12-02-001.00		028-10-03-014.04		041-20-00-002.00		041-20-00-009.00	
	-	-		-		-		-	
SALE INFORMATION									
Transaction Price		$20,500,000		$4,000,000		$1,200,000		$540,800	
Transaction Price $/SF		$20.55		$19.33		$14.45		$15.72	
Property Rights [1]		Fee Simple		Fee Simple		Fee Simple		Fee Simple	
Financing [2]		Cash to Seller		Cash to Seller		Conventional		-	
Sale Conditions [3]		Transaction		Transaction		Transaction		Transaction	
Expenditures After Sale [4]		$1,231,500	6.0%	$60,000	1.5%	$0		$0	
Market Conditions [5]		8/3/2020	3.8%	6/15/2022	1.7%	3/15/2019	5.3%	3/25/2022	2.0%
Sale Status		Recorded		Recorded		Recorded		Recorded	
Recording Number		KC35-47		KC 171-214		5966-350		0155-585	
Marketing Status		Open Market		Open Market		Open Market		Open Market	
Marketing Period (Months)		-		-		-		-	
Total Transactional Adjustments		$2.06	10%	$0.63	3%	$0.77	5%	$0.31	2%
Adjusted $/SF		**$22.61**		**$19.96**		**$15.22**		**$16.03**	
PHYSICAL INFORMATION									
Square Feet	639,026	997,698		206,910		83,034		34,412	
Acres	14.6700	22.9040		4.7500	(5%)	1.9062	(5%)	0.7900	(10%)
Location	Good	Excellent	(15%)	Above Average	5%	Above Average	5%	Above Average	5%
Access	Good	Excellent	(10%)	Good		Good		Good	
Shape	Rectangular to Irregular	Generally Rectangular		Generally Rectangular		Generally Rectangular		Generally Rectangular	
Zoning	TUMU	CRM		MU		LHS		PO-1	
Topography	Level to Sloping	Level to Sloping		Level	(6%)	Level	(7%)	Rolling	(7%)
Easements	Sanitary/Storm	No Adverse	(10%)	No Adverse	(10%)	No Adverse	(10%)	No Adverse	(10%)
Total Physical Adjustments		($7.91)	(35%)	($3.19)	(16%)	($2.59)	(17%)	($3.53)	(22%)
Adjusted $/SF		**$14.70**		**$16.77**		**$12.63**		**$12.50**	
CONFIRMATION INFORMATION									
Company		City of Covington		Brandicorp		Infiniti Dealership		Twin Quail Forest Park	
Name		Tom West		Mike Brandi		Clay Greene		Buyer, Rep.Deed, PVA	
Affiliation		Buyers		Buyers		Buyer		Buyer	
Date		1/12/2024		1/12/2024		11/1/2022		11/1/2022	

All the sales were confirmed with parties to the sales.

Adjustments to the comparable sales were considered and made when warranted for expenditures after purchase, property rights transferred, conditions of sale, financing terms, and market conditions.

Next Quantitative percentage adjustments are made for location and physical characteristics such as size, location access, shape, zoning, topography, and easements. Where possible the adjustments applied are based on paired data or other statistical analysis. Noted, the appraiser also interviewed market participants in the analysis as well as demonstrated a thorough understanding of the market throughout the appraisal assignment

The review appraiser opines that the adjustments and overall analysis was well-supported in reaching the value conclusion.

LAND VALUE CONCLUSION

The comparables indicate a unit value, based on a general bracketing analysis, between $12.50/SF and $16.77/SF. Based on the subject's overall locational and physical features, a unit value conclusion of $15/SF is supported. Most weight was placed on Sale No.1-3 as No.4 had more limited zoning. The following table summarizes the comparable land sales analysis and applies the unit value conclusion to the site area to provide an indication of the as-vacant land value. The land value was adjusted $100,000 to account for the cost of demolition of the existing structures and site improvements.

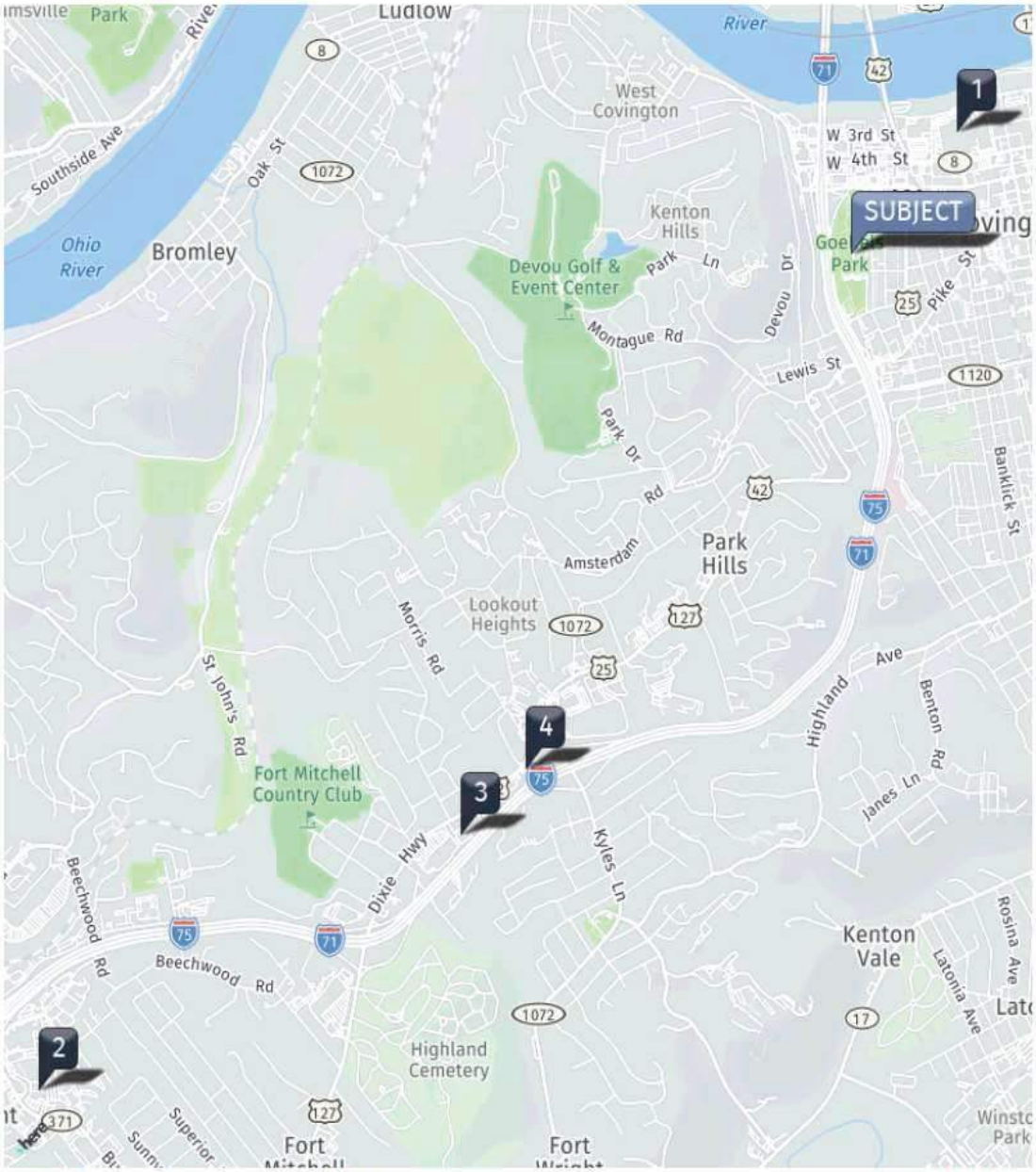
LAND SALES COMPARISON APPROACH CONCLUSION (SF)

	TRANSACTION	ADJUSTMENT				NET	GROSS
	PRICE	TRANSACTIONAL[1]	ADJUSTED	PROPERTY[2]	FINAL	ADJ	ADJ
1	$20.55	10%	$22.61	(35%)	$14.70	(28%)	45%
2	$19.33	3%	$19.96	(16%)	$16.77	(13%)	29%
3	$14.45	5%	$15.22	(17%)	$12.63	(13%)	32%
4	$15.72	2%	$16.03	(22%)	$12.50	(20%)	34%
HIGH	*$20.55*	*10%*	*$22.61*	*(16%)*	*$16.77*	*(13%)*	*45%*
AVG	*$17.51*	*5%*	*$18.46*	*(23%)*	*$14.15*	*(19%)*	*35%*
MED	*$17.53*	*4%*	*$18.00*	*(20%)*	*$13.67*	*(17%)*	*33%*
LOW	*$14.45*	*2%*	*$15.22*	*(35%)*	*$12.50*	*(28%)*	*20%*

	SUBJECT SF		$/SF		VALUE
Total Land Area	639,026	x	$15	=	$9,585,390
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$15.00		$9,585,000
Raze Buildings & Site Improvements			($0)		($100,000)
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$14.84	=	$9,485,000

BEFORE VALUE CONCLUSION $9,485,000

COMPARABLE DATA MAPS



COMPARABLE	LABEL	ADDRESS	MILES FROM SUBJECT
COMPARABLE 1	1	200 W 4th St, Covington, KY, 41011	0.5
COMPARABLE 2	2	406 Buttermilk Pike, Fort Mitchell, KY, 41017	3.8
COMPARABLE 3	3	1945 Dixie Hwy, Fort Wright, KY, 41011	2.2
COMPARABLE 4	4	1845 Dixie Hwy, Fort Wright, KY, 41011	1.9

Reconciliation Comments, Before Value

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate). After considering all factors relevant to the valuation of the subject property, the "as is" market value is as follows (page 63)

RECONCILIATION OF VALUES	
VALUATION SCENARIOS	MARKET VALUE BEFORE
Interest	Fee Simple Estate
Date	January 11, 2024
FINAL VALUE CONCLUSION	
FINAL VALUE CONCLUSION	**$9,485,000**
$/SF Total Land Area	$14.84

Acquisition (Page 64): Per the legal description, 2.18 acres or 94,983 SF will be acquired.

After Valuation: The subject will be 12.49 acres in the after (page 64).

Site Description (Page 65)

The subject property will continue in use as a public park with vegetation limited to grass and landscaping. There are no known marketable minerals associated with the subject property and no rental history. The property consists of 515,706 SF (11.839 acres) and is located between the east side of I-75, south side of W 5th Street, west side of Philadelphia St, and north side of W 9th Street in the City Limits of Covington, KY. The shape of the site is rectangular to irregular and runs from W 5th Street along the north boundary to W 9th Street along the south boundary. There is a total of 2284 +/- feet of frontage along the East side of I-75 (western boundary), 135 feet along the south side of W 5th Street (north boundary), 807 feet of frontage in two sections along Philadelphia St; 238 feet of frontage along Dalton Street (eastern boundary), and 307 feet of frontage along W 9th Street (southern boundary).

Topography

The site is mostly level with W 5th and Philadelphia Streets as well as Dalton Avenue and slopes downhill towards the west along the W 9th Street frontage to the I-75 right of way. All of the I-75 frontage is below the travel-way by approximately 10-20 feet with this low lying area also approximately 15 feet below the more level portions of the site

along the eastern boundaries. A total of 0.819 acre lays in the described bottom. Calculations provided by HMB Engineers indicate that only 13,500 yards of fill material would be required after to fill the low-lying areas along I-75 up to the level areas of the property along the east boundary.

Utilities and Easement (Page 67)

All public utilities including sewer, city water, electric and gas are available to the site and in some cases encumber the property. The low-lying area along I-75 has two large sanitary and storm sewer lines of 36" and 120" which would impact the ability and cost to develop this portion of the site. The maps below depict the system of storm and sanitary sewers as well as public water around the subject property.

As detailed in the zoning analysis section of the report, the most probable zoning for the subject under the hypothetical condition it is not a park use would be Traditional Urban Mixed Use (TUMU) district. Given the size of the site, numerous development plan configurations are conceivable and viable. Where the sewer line easements are located could be parking, streets and/or greenspace to the benefit of the overall development. There may be a cost though in adding fill and developing over the easements. The added costs as well as reduction in fully developable land area is recognized by the appraiser in both the before and after value scenarios.

Floodplain Zone X Panel Number 21117C0009F, dated May 16, 2013. Zone X (unshaded) is a moderate and minimal risk area.

Site Improvements

The site improvements consist of a system of asphalt trails through the park, concrete and asphalt parking lots, basketball and tennis courts, metal and wood fencing, inground metal lined public pool and playground equipment. All of the site improvements are older and some in disrepair. Given that highest and best use of the site would be for its redevelopment, the site improvements do not contribute to value and should be razed. The appraiser estimates $5,000 to raze the basketball and tennis courts plus $5,000 for the playground equipment and $20,000 for all of the parking lots, trails, fencing, and other miscellaneous site improvements for total cost of $30,000.

Building Improvements

The buildings consist of brick and wood frame structures which are classified as being average quality and fair in condition with exception of the Bell Tower which has been renovated more recently. The appraiser considers whether the existing improvements could be incorporated into a redevelopment scenario. The only such feature is possibly the bell tower that could give a redevelopment some charm. That stated, based on a review of redevelopments and new developments when this was done, developers did not place any economic value on these statement features. An example of this is the Phoenix Hill Redevelopment project at Baxter and Broadway in Louisville. At the planning and

zoning hearing, the developer was asked about whether he wanted to maintain an old façade and he stated "I think it's neat and we can work with it; but, if you would like us to take it down, we can, or if you would like us to keep it, we can." The other improvements cannot be incorporated into a redevelopment. As such, I consider the cost to raze the improvements at $7.00/SF or $70,000 rounded excluding the bell tower which could go either way. Along with the site improvement cost of $30,000, total razing costs are therefore projected at $100,000.

BUILDING INFORMATION									
	GBA	NRA	YEAR BUILT	ACT. AGE	EFF. AGE	ECON. LIFE	REM. LIFE	FLOORS	CLASS
Park Pavilion & Picnic Shelter	4,396	4,396	1972	52	50	50	0	1	C, D
Bell Tower	634	634	1972	52	50	50	0	2	C
Picnic Gazebo	250	250	1972	52	50	50	0	1	D
Pool House	5,349	5,349	1972	52	50	50	0	1	C,D
TOTAL	**10,629**	**10,629**	**1972**	**52**	**50**	**50**	**0**	**1 - 2**	

Zoning

The current zoning is Recreation (REC). Based on the hypothetical condition of most likely zoning if appraised to an economic use, the appraise opines Traditional Urban Mixed Use (TUMU). This opinion is supported based on prevailing land uses as well as an interview with City of Covington Planning and Zoning Officials.

Land Sales Comparison Approach (After Value)

The following four sales were selected by the appraiser to best represent comparability to the subject (same sales as used in the before analysis). The adjustment grid is presented below. (Page 75)

2.3.5 DATA ANALYSIS AND CONCLUSIONS - AFTER ACQUISITION (CONTINUED)

LAND SALES COMPARISON TABLE

	SUBJECT	COMP 1		COMP 2		COMP 3		COMP 4	
Name	Goebel Park Conversion Property	Former IRS Site		Former Montgomery Inn Restaurant Site		Infiniti Auto Dealership		Parking Lot Next to Office Building	
Address	501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington	200 W 4th St		406 Buttermilk Pike		1945 Dixie Hwy		1845 Dixie Hwy	
City	Covington	Covington		Fort Mitchell		Fort Wright		Fort Wright	
State	KY	KY		KY		KY		KY	
Zip	41011	41011		41017		41011		41011	
County	Kenton	Kenton		Kenton		Kenton		Kenton	
Submarket	Covington	Covington		Fort Mitchell		-		-	
Parcel	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00, City of Covington Right of Way	054-12-03-001.00, 054-12-02-001.00		028-10-03-014.04		041-20-00-002.00		041-20-00-009.00	
	-	-		-		-		-	
SALE INFORMATION									
Transaction Price		$20,500,000		$4,000,000		$1,200,000		$540,800	
Transaction Price $/SF		$20.55		$19.33		$14.45		$15.72	
Property Rights [1]		Fee Simple		Fee Simple		Fee Simple		Fee Simple	
Financing [2]		Cash to Seller		Cash to Seller		Conventional		-	
Sale Conditions [3]		Arms-Length		Arms-Length		Arms-Length		Arms-Length	
Expenditures After Sale [4]		$1,231,500	6.0%	$60,000	1.5%	$0		$0	
Market Conditions [5]		8/3/2020	4%	6/15/2022	2%	3/15/2019	5%	3/25/2022	2%
Sale Status		Recorded		Recorded		Recorded		Recorded	
Recording Number		KC35-47		KC 171-214		5966-350		0155-585	
Marketing Status		Open Market		Open Market		Open Market		Open Market	
Total Transactional Adjustments		$2.06	10%	$0.63	3%	$0.77	5%	$0.31	2%
Adjusted $/SF		**$22.61**		**$19.96**		**$15.22**		**$16.03**	
PHYSICAL INFORMATION									
Square Feet	515,706	997,698		206,910		83,034		34,412	
Acres	11.839	22.9040		4.7500	(5%)	1.9062	(5%)	0.7900	(10%)
Location	Good	Excellent	(15%)	Above Average	5%	Above Average	5%	Above Average	5%
Access	Good	Excellent	(10%)	Good		Good		Good	
Shape	Irregular to Rect.	Generally Rectangular		Generally Rectangular		Generally Rectangular		Generally Rectangular	
Zoning	TUMU	CRM		MU		LHS		PO-1	
Topography	Level to Sloping	Level to Sloping	4%	Level	(2%)	Level	(2%)	Rolling	(2%)
Easements	Sewer/Sanitary	No Adverse	(5%)	No Adverse	(5%)	No Adverse	(5%)	No Adverse	(5%)
Total Physical Adjustments		($5.88)	(26%)	($1.40)	(7%)	($1.07)	(7%)	($1.92)	(12%)
Adjusted $/SF		**$16.73**		**$18.56**		**$14.15**		**$14.11**	
CONFIRMATION INFORMATION									
Name		Elizabeth Witzel &		Mike Brandi		Clay Greene		Deed, PVA	
Affiliation		Buyers		Buyers		Buyer		Buyer	
Date		1/12/2024		1/12/2024		11/1/2022		11/1/2022	

All the sales were confirmed with parties to the sales.

Adjustments to the comparable sales were considered and made when warranted for expenditures after purchase, property rights transferred, conditions of sale, financing terms, and market conditions.

Next Quantitative percentage adjustments are made for location and physical characteristics such as size, location access, shape, zoning, topography, and easements. Where possible the adjustments applied are based on paired data or other statistical analysis. Noted, the appraiser also interviewed market participants in the analysis as well as demonstrated a thorough understanding of the market throughout the appraisal assignment

The review appraiser opines that the adjustments and overall analysis was well-supported in reaching the value conclusion.

LAND VALUE CONCLUSION

The comparables indicate a unit value, based on a general bracketing analysis, between $14.11/SF and $18.56/SF. Based on the subject's overall locational and physical features, a unit value conclusion of $15.89/SF is supported. Most weight was placed on Sale No.1-3 with Sale No.4 having more limited zoning. The following table summarizes the comparable land sales analysis and applies the unit value conclusion to the site area to provide an indication of the as-vacant land value. Then, demolition costs of $100,000 against the existing building area and site improvements are deducted to provide the as-is land value.

LAND SALES COMPARISON APPROACH CONCLUSION (SF)

	TRANSACTION	ADJUSTMENT				NET	GROSS
	PRICE	TRANSACTIONAL[1]	ADJUSTED	PROPERTY[2]	FINAL	ADJ	ADJ
1	$20.55	11%	$22.81	(26%)	$16.88	(18%)	45%
2	$19.33	4%	$20.14	(7%)	$18.73	(3%)	21%
3	$14.45	6%	$15.35	(7%)	$14.28	(1%)	23%
4	$15.72	3%	$16.18	(12%)	$14.24	(9%)	25%
HIGH	*$20.55*	*11%*	*$22.81*	*(7%)*	*$18.73*	*(1%)*	*45%*
AVG	*$17.51*	*6%*	*$18.62*	*(13%)*	*$16.03*	*(8%)*	*29%*
MED	*$17.53*	*5%*	*$18.16*	*(10%)*	*$15.58*	*(6%)*	*24%*
LOW	*$14.45*	*3%*	*$15.35*	*(26%)*	*$14.24*	*(18%)*	*0%*

	SUBJECT SF		$/SF		VALUE
Total Land Area	544,043	x	$16.50	=	$8,976,710
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$16.50		$8,975,000
Raze Buildings & Site Improvements			-		($100,000)
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$16.31	=	$8,875,000

[1]Cumulative [2]Additive

AFTER VALUE CONCLUSION **$8,875,000**

Reconciliation Comments, Value at Market Rent

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate). After considering all factors relevant to the valuation of the subject property, the "as is" market value is as follows (Page 80)

RECONCILIATION OF VALUES			
VALUATION SCENARIOS	MARKET VALUE BEFORE	MARKET VALUE AFTER	PART TAKEN
Interest	Fee Simple Estate	Fee Simple Estate	Fee Simple Estate
Date	November 18, 2024	November 18, 2024	November 18, 2024
FINAL VALUE CONCLUSION			
FINAL VALUE CONCLUSION	**$9,485,000**	**$8,875,000**	**$610,000**
$/SF Total Land Area	$14.84	$16.31	

Review Appraiser Commentary

The appraisal is reasonable and well supported in reaching its conclusions.

Matthew L Chapman, MAI, ASA, CMA

BUSINESS EXPERIENCE

Chapman Appraisals, Louisville, Kentucky
Principal: Real Estate consulting including appraisal and market study assignments for commercial real estate.

American Appraisers, Louisville, Kentucky
Fee Appraiser: Real Estate consulting including appraisal and market study assignments for commercial real estate.

Gustavson Associates, Boulder, Colorado
Affiliated Analyst: Mineral rights and commercial property consulting.

Integra Realty Resources, Louisville, Kentucky
Analyst: Real Estate consulting including appraisal and market study assignments for commercial real estate.

Crown Appraisal Group, Columbus, Ohio
Fee Appraiser: Real Estate consulting including appraisal and market study assignments for commercial real estate.

Carleton Realty, Columbus, Ohio
Realtor: Real Estate sales throughout central Ohio

Tanknology, Columbus, Ohio
Operations Manager: Environmental compliance testing for gas stations

HIGHER EDUCATION

Miami University, Oxford, Ohio
Bachelor of Science – Environmental Geology
Bachelor of Science – General Business

PROFESSIONAL EDUCATION

Appraisal Institute
Appraisal Principles
Appraisal Procedures
Basic Income Capitalization
General Applications
Standards of Professional Practice 14 Hour
Standards of Professional Practice 7 Hour Update
Advanced Income Capitalization
Highest and Best Use Analysis
Report Writing and Valuation Analysis
Residential Report Writing
Advanced Cost and Sales Approach
Advanced Applications
Cleveland/Akron Regional Markets Industrial/Retail Forum

32nd Annual Economic Seminar 2010 Forecast
Demonstrative Report Writing Seminar
Yellow Book Federal Land Acquisition 2016
Fundamentals of Separating Real Property, Personal Property, and Going Concern
International Valuation Standards – Assessment
General Review Theory
Litigation
Hotels
Convenience Stores

Hondros College
Fair Housing
All classes required for real estate license

Ohio Auctioneers Association
Core Law Update
Real Estate Agents Guide to Advertising Laws

Ohio Association of Realtors
Cannons of Ethics
Fair Housing Update

Edu Mine
Mine Economics

PROFESSIONAL CERTIFICATIONS AND AFFILIATIONS

General Certified Appraiser
- OH: 2008002420
- KY: 4466
- IN: CG41100048
- TX: TX 1380122
- WV: CG424
- NC: A6981, IL, GA, MI, NY, VA

Temp Licenses in other states
Member of Appraisal Institute
Member of American Society of Appraisers
Member American Institute of Mineral Appraisers – Past Newsletter Editor
Member of International Right of Way Association – Past President Region 25

LICENSURE

In the name and by the Authority of the

Commonwealth of Kentucky

Kentucky Real Estate Appraisers Board

Hereby grants a/an Certified General Real Property Appraiser

To Matthew Lewis Chapman
3813 Poplar Level Road Louisville KY 40213

who has complied with the provisions of Chapter 324A of the Kentucky Revised Statutes IN WITNESS WHEREOF, we have caused the official seal to be fixed and attested for the year shown below.

/s John Dexter Outlaw

Chair

License Number: 4466
Issue Date: September 10, 2010
Expire Date: July 1, 2025

APPRAISAL REPORT

GOEBEL PARK CONVERSION PROPERTY

Kenton County
Goebel Park Conversion Property
501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington
Covington, Kentucky 41011

VALUATION DATES

Effective Date of Value: November 18, 2024
Date of Report: December 18, 2024



PREPARED BY

William L. Berkley
Bluegrass Valuation Group
366 Waller Avenue, Suite 203
Lexington, KY 40504
File No: BVG-24004

PREPARED FOR

Mr. Eric Monhollon
Appraisal Branch Manager
Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities
200 Mero Street 5th Floor East,
Frankfort, KY 40622

Bluegrass Valuation Group
366 Waller Avenue, Suite 203
Lexington, KY 40504
+1 (859) 983-2526

December 18, 2024

Mr. Eric Monhollon
Appraisal Branch Manager
Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities
200 Mero Street 5th Floor East
Frankfort, KY 40622

RE: Appraisal Report
Goebel Park Conversion Property

Kenton County
501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington, Covington, Kentucky 41011

Bluegrass Valuation Group File No: BVG-24004

Mr. Monhollon:

Bluegrass Valuation Group is proud to present the appraisal that satisfies the agreed upon scope of work with Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities.

The subject property is known as Goebel Park and is located at 501 Philadelphia, 847 Philadelphia, 741 Dalton and also consists of existing right of way owned by the City of Covington. The KYTC needs to acquire land from the park for the relocation of the I-75 corridor and Brent Spence Bridge. As the park was developed with LWCF funds, the acquisition and its valuation is subject to LWCF procedures. Under the LWCF the subject property is referred to as the contributing property and a market value before and after the proposed acquisition is required. There are no current entitlements or zoning that would qualify as an "economic use" under the UASFLA and LWCF requirements. As such, the highest and best use analysis and value opinions reported here in reflect the subject property as being available for an "economic use" which for this property has been determined to be, redevelopment for mixed use commercial and residential development.

The client has not provided any extraordinary legal requirements or instructions.

Before the acquisition the site contains a total of 639,026 square feet and 14.670 acre of land area. The proposed acquisition consists of 94,983 square feet or 2.181 acres of fee simple right of way. After the acquisition the subject property consists of one remainder and totals 544,043 square feet and 12.490 acres.

Based on this the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate) opinions are as follows;

MARKET VALUE CONCLUSION

VALUATION SCENARIO	INTEREST APPRAISED	EFFECTIVE DATE	VALUE
Market Value Before	Fee Simple Estate	November 18, 2024	$9,485,000
Market Value After	Fee Simple Estate	November 18, 2024	$8,875,000
Part Taken	Fee Simple Estate	November 18, 2024	$610,000

This appraisal preparation, documentation, and reporting conforms with the Uniform Standards of Federal Land Acquisition (2016) (UASFLA) which is generally compatible with the standards and procedures of both the appraisal industry and the Uniform Standards of Professional Appraisal Practice (USPAP 2024). The UASFLA incorporates by reference most of the provisions found in USPAP; however, UASFLA does deviate from USPAP on certain occasions and when this is the case, the appraiser invokes USPAP's "Jurisdictional Exception Rule" when preparing a UASFLA compliant report. This allows USPAP standards to conform to overriding federal law related to the valuation of real estate for LWCF federally assisted acquisition and LWCF conversion purposes.

This report conforms to the current Uniform Standards of Professional Appraisal Practice (USPAP) (2023); the Uniform Appraisal Standards for Federal Land Acquisition (2016); 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36CFR 59.3(b)(2); and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual.

EXTRAORDINARY ASSUMPTIONS

No Extraordinary Assumptions were made for this assignment.

HYPOTHETICAL CONDITIONS

Hypothetical Conditions were made for this assignment. The valuation is based on a condition that the acquisition has taken place as of the effective date of the appraisal which is not the case. It is also subject to a condition that the zoning of the property is Traditional Mixed Use Urban (TUMU) per assignment condition for both the before and after valuation. In order to determine the highest and best use of the park property, the appraiser is to ignore the actual zoning of the property if the zoning is a non-economic zoning established to recognize the "open space" characteristics of the park or to foster the preservation of the park. In this situation, the appraiser is to determine the most likely zoning that would have come about under the hypothetical condition the park was never created. In so doing, the appraiser will consider likely property uses based upon all germane factors as well as the actual present zoning of comparable, nearby, privately owned properties. Under this scenario, the cost, risk, and time associated with obtaining a zoning change would not be appropriate. This procedure is necessary to avoid penalizing the conversion property because it was taken out of private ownership and dedicated to a non-economic use."

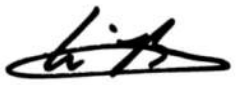
JURISDICATIONAL EXCEPTION

Per UASFLA and overriding federal law, a market exposure time is not linked to the value opinions reported here in. As this is contrary to USPAP Standards Rule 1-2(c)., a Jurisdictional Exception to USPAP is invoked for this assignment. Marketing period is also not reported.

If there are any specific questions or concerns regarding the attached appraisal report, or if Bluegrass Valuation Group can be of additional assistance, please contact the individuals listed below.

Respectfully Submitted,

BLUEGRASS VALUATION GROUP



William L. Berkley
President
Certified General Real Estate Appraiser
Kentucky License No. 721
Expiration Date 6/30/2025
859-276-2278
willberkley@qx.net

(2.3.1.3) TABLE OF CONTENTS

2.3.1 Introduction

(2.3.1.1) Title Page i
(2.3.1.2) Transmittal Letter i
(2.3.1.3) Table of Contents i
(2.3.1.4) Appraisers Certification 1
(2.3.1.5) Executive Summary 3
(2.3.1.6) Photographs 5
(2.3.1.7) Statement of Assumptions & Limiting Conditions 14
(2.3.1.8) Description of Scope of Work 15
Property Owner Contact Information 15

2.3.2 Factual Data – Before Acquisition

(2.3.2.1) Legal Description 19
(2.3.2.2) Area, City and Neighborhood Data 19
(2.3.2.3) Property Data 31
(2.3.2.3.1) Site 31
(2.3.2.3.1) Improvements 41
(2.3.2.3.3) Fixtures 42
(2.3.2.3.4) Use History 42
(2.3.2.3.5) Sales History 42
(2.3.2.3.6) Rental History 42
(2.3.2.3.7) Assessed Value and Annual Tax Load 42
(2.3.2.3.8) Zoning and Other Land Use Regulations 44

2.3.3 Data Analysis and Conclusions – Before Acquisition

(2.3.3.1) Highest and Best Use 53
(2.3.3.1.1) Four Tests 53
(2.3.3.1.2) Larger Parcel 57
(2.3.3.2) Land Valuation 57
(2.3.3.2.1) Sales Comparison Approach 57
(2.3.3.2.2) Subdivision Development Method 62
(2.3.3.3) Cost Approach 62
(2.3.3.4) Sales Comparison Approach 62
(2.3.3.5) Income Capitalization Approach 62
(2.3.3.6) Reconciliation and Final Opinion of Market Value – Before Acquisition 63

2.3.4 Factual Data – After Acquisition

(2.3.4.1) Legal Description 64
(2.3.4.2) Neighborhood Factors 65
(2.3.4.3) Property Data 65
(2.3.4.3.1) Site 65
(2.3.4.3.2) Improvements 70
(2.3.4.3.3) Fixtures 72
(2.3.4.3.4) History 72
(2.3.4.3.5) Assessed Value and Annual Tax Load 72
(2.3.4.3.6) Zoning and Other Land Use Regulations 72

2.3.5 Data Analysis and Conclusions – After Acquisition

(2.3.5.1) Analysis of Highest and Best Use 73
(2.3.5.1.1) Four Tests 73

(2.3.5.2) Land Valuation 75
(2.3.5.3) Cost Approach 79
(2.3.5.4) Sales Comparison Approach 79
(2.3.5.5) Income Capitalization Approach 80
(2.3.5.6) Reconciliation and Final Opinion of Market Value – After Acquisition 80

(2.3.6) Acquisition Analysis
(2.3.6.1) Recapitulation 81
(2.3.6.2) Allocation and Damages 81
(2.3.6.3) Special Benefits 81

(2.3.7) Exhibits and Addenda
Location Map 82
Comparable Data Maps 83
Details of Comparable Sales and Rental Data 84
Plot Plan 90
Floor Plan 94
Title Evidence Reports 96
Other Exhibits 99
Qualifications of the Appraiser 99

(2.3.1.4) APPRAISERS CERTIFICATION

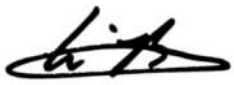
I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions of the signer are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- The signer of this report have no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.
- William L. Berkley has performed prior services, specifically as an appraiser regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment. The prior appraisal was completed in January of 2024 for the same client and subsequent plan changes result in substantial changes to the property warranting a new assignment and effective date.
- The signer is not biased with respect to the property that is the subject of this report or to the parties involved with this assignment.
- The engagement in this assignment was not contingent upon developing or reporting predetermined results.
- The compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The reported analysis, opinions, and conclusions were developed, and this report has been prepared in conformity with the requirements of the *Code of Professional Ethics* and *Standards of Professional Appraisal Practice* of the Appraisal Institute.
- The appraisal was developed and the appraisal report was prepared in conformity with the *Uniform Appraisal Standards for Federal Land Acquisitions(2016)*; 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36 CFR 59.3(b)(2); and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual
- The appraisal was developed and the appraisal report prepared in conformance with the Appraisal Standards Board's *Uniform Standards of Professional Appraisal Practice (2024)* and complies with USPAP's Jurisdictional Exception Rule when invoked by Section 1.2.7.2 of the *Uniform Appraisal Standards for Federal Land Acquisitions*;
- The appraiser acknowledges that the Freedom of Information Act (FOIA) and agency policy may result in the release of all or part of the appraisal report to others.
- William L. Berkley has made a physical inspection of the property appraised and that the property owner representative Ben Oldiges, Park Manager was met on-site for the inspection on January 11, 2024.
- No one provided real property appraisal assistance to the individuals signing this report..

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives. As of the date of this report, William L. Berkley has completed the continuing education requirements for the Appraisal Institute.

The indicated value opinions as of the effective date of the appraisal, November 18, 2024, is as follows;

VALUE CONCLUSION			
VALUATION SCENARIOS	MARKET VALUE BEFORE	MARKET VALUE AFTER	PART TAKEN
Interest	Fee Simple Estate	Fee Simple Estate	Fee Simple Estate
Effective Date	November 18, 2024	November 18, 2024	November 18, 2024
Land Value - Sales Comparison Approach	$9,485,000	$8,875,000	$610,000
Cost Approach	Not Presented	Not Presented	-
Income Capitalization Approach	Not Presented	Not Presented	-
FINAL VALUE CONCLUSION	$9,485,000	$8,875,000	$610,000



William L. Berkley
Certified General Real Estate Appraiser
Kentucky License No. 721
Expiration Date 6/30/2025

(2.3.1.5) EXECUTIVE SUMMARY

PROPERTY IDENTIFICATION	
Name	Goebel Park
Project Name:	Goebel Park Conversion Property
Address	501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington
City, State Zip	Covington, Kentucky 41011
County	Kenton County
MSA	Cincinnati, OH-KY-IN MSA
Market / Submarket	Northern Kentucky / Covington
Geocode	39.082332,-84.520998
Census Tract	21-117-060300

SITE SUMMARY BEFORE & AFTER THE ACQUISITION				
Number of Parcels	4			
Assessor Parcel Number	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00, City			
	BEFORE LAND AREA		AFTER LAND AREA	
Land Area	Square Feet	Acres	Square Feet	Acres
Primary Site Useable	639,026	14.670	544,043	12.490
Excess	0	0.000	0	0.000
Surplus	0	0.000	0	0.000
Unusable	0	0.000	0	0.000
Total	639,026	14.670	544,043	12.490
PROPOSED ACQUISITIONS	Square Feet	Acres		
Fee Simple Acquistion	94,983	2.1805		
Permanent Easement	0	0.0000		
Temporary Easement	0	0.0000		
Zoning	Recreation (Rec)			
Shape	Irregular			
Topography	Level to Sloping at street grade			
Flood Zone	Zone X (Unshaded)			

IMPROVEMENT DESCRIPTION BEFORE AND AFTER			
BEFORE THE ACQUISITION		**AFTER THE ACQUISITION**	
Tenancy	Public Park	Tenancy	Public Park
Net Rentable Area (NRA)	10,629	Net Rentable Area (NRA)	10,629
Gross Building Area (GBA)	10,629	Gross Building Area (GBA)	10,629
Ground Floor SF	10,629	Ground Floor SF	10,629
Total Buildings	4	Total Buildings	4
Floors	1 - 2	Floors	1 - 2
Year Built	1970	Year Built	1970
Actual Age	54 Years	Actual Age	54 Years
Effective Age	50 Years	Effective Age	50 Years
Economic Life	50 Years	Economic Life	50 Years
Remaining Useful Life	0 Years	Remaining Useful Life	0 Years
Land To Building Ratio	60.12 : 1	Land To Building Ratio	48.52:1
Site Coverage Ratio	1.7%	Site Coverage Ratio	2.1%
Parking	5.7 / 1,000 SF NRA	Parking	5.7 / 1,000 SF NRA

HIGHEST & BEST USE	
Before	
As Vacant	Redevelopment for mixed use commercial & residential development
As Improved	Redevelopment for mixed use commercial & residential development
After	
As Vacant	Redevelopment for mixed use commercial & residential development
As Improved	Redevelopment for mixed use commercial & residential development

EXTRAORDINARY ASSUMPTIONS

No Extraordinary Assumptions were made for this assignment.

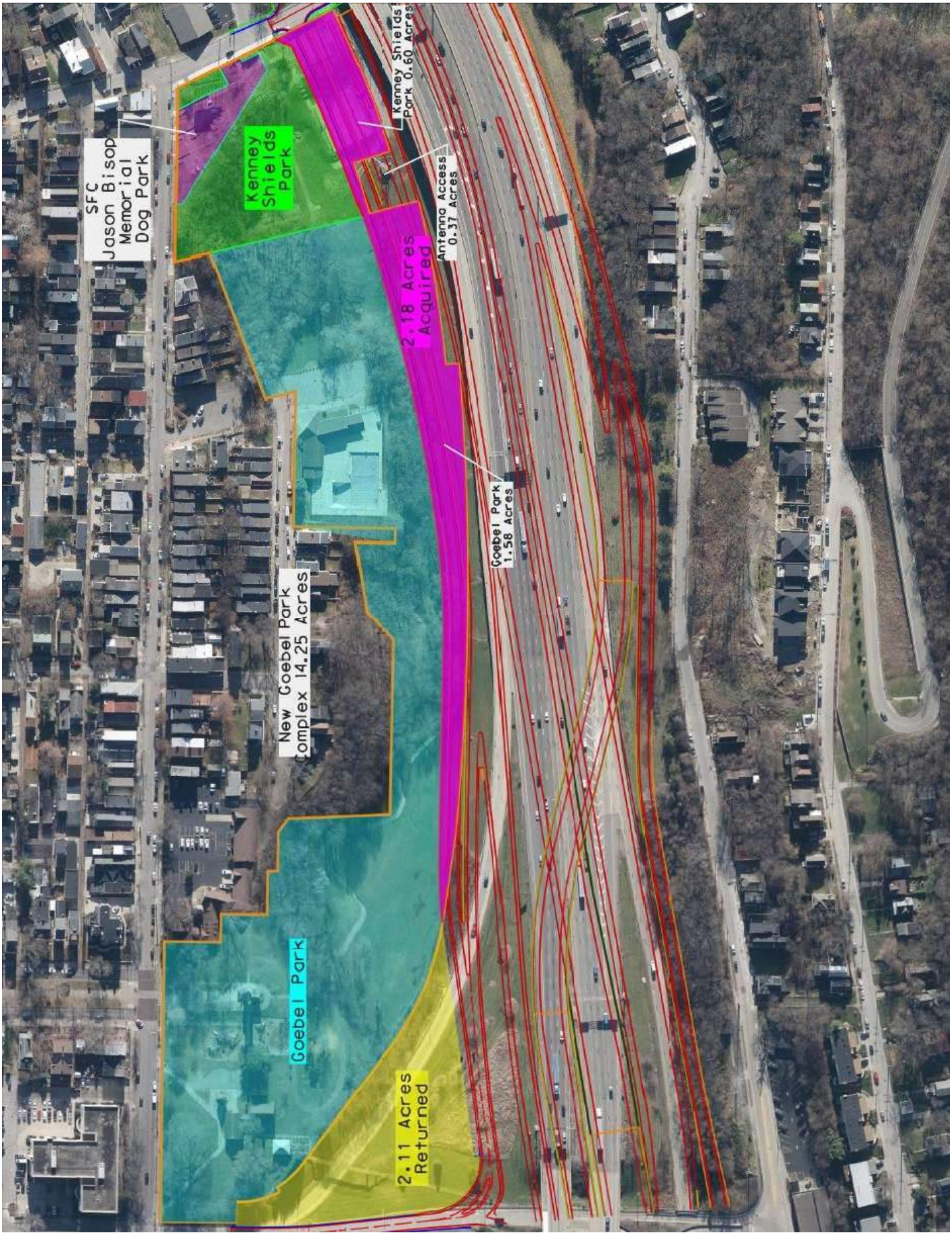
HYPOTHETICAL CONDITIONS

Hypothetical Conditions were made for this assignment. The valuation is based on a condition that the acquisition has taken place as of the effective date of the appraisal which is not the case. It is also subject to a condition that the zoning of the property is Traditional Mixed Use Urban (TUMU) per assignment condition for both the before and after valuation. In order to determine the highest and best use of the park property, the appraiser is to ignore the actual zoning of the property if the zoning is a non-economic zoning established to recognize the "open space" characteristics of the park or to foster the preservation of the park. In this situation, the appraiser is to determine the most likely zoning that would have come about under the hypothetical condition the park was never created. In so doing, the appraiser will consider likely property uses based upon all germane factors as well as the actual present zoning of comparable, nearby, privately owned properties. Under this scenario, the cost, risk, and time associated with obtaining a zoning change would not be appropriate. This procedure is necessary to avoid penalizing the conversion property because it was taken out of private ownership and dedicated to a non-economic use."

VALUE CONCLUSION			
VALUATION SCENARIOS	MARKET VALUE BEFORE	MARKET VALUE AFTER	PART TAKEN
Interest	Fee Simple Estate	Fee Simple Estate	Fee Simple Estate
Effective Date	November 18, 2024	November 18, 2024	November 18, 2024
Land Value - Sales Comparison Approach	$9,485,000	$8,875,000	$610,000
Cost Approach	Not Presented	Not Presented	-
Income Capitalization Approach	Not Presented	Not Presented	-
FINAL VALUE CONCLUSION	$9,485,000	$8,875,000	$610,000

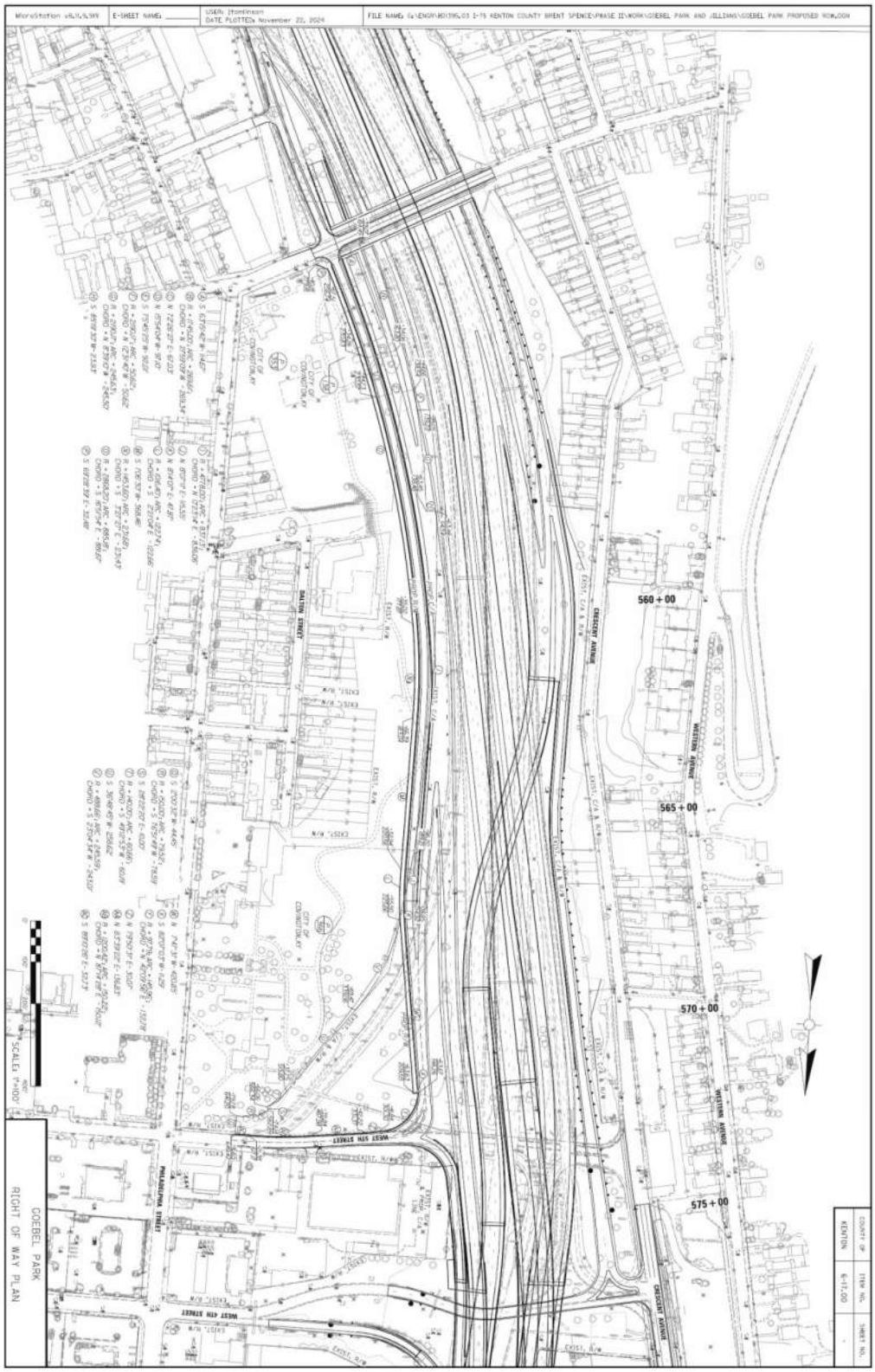
(2.3.1.6) PHOTOGRAPHS




SFC Jason Bisop Memorial Dog Park
Kenney Shields Park
Kenney Shields Park 0.60 Acres
Antenna Access 0.37 Acres
2.18 Acres Acquired
Goebel Park 1.58 Acres
New Goebel Park Complex 14.25 Acres
Goebel Park
2.11 Acres Returned

There are minor differences in the acquisition area and replacement property shown on this exhibit. The appraisal has been based on the provided written legal descriptions contained in the addenda with the Goebel Park Contribution being 2.181 acres and the replacement property being 2.11 acres.

GOEBEL PARK ACQUISITION



Before Area: **639,026SF or 14.670 Acre**

Fee Simple Acquisition: **94,983 SF or 2.181 Acre**

Remaining Property: 544,043 SF or 12.490 Acre

PHOTOGRAPH LOCATION MAP




623-627
647
7
653
721
720
14
741
731
13
15
16
12
819-21


812
814
819-21
828
10
832
834
620
847
844
11
854
9
8
912
902-26



Picture # 1 – Goebel Park Belltower



Picture # 2 – Picnic Pavilion



Picture # 3 - Playgrounds



Picture # 4 – Park Land @ Philadelphia Street



Picture # 5 – Trail System in the Bottoms



Picture # 6 - North View of Acquisition Area



Picture # 7 – South View of Acquisition Area



Picture # 8 – View of Acquisition @ 9th Street (North)



Picture # 9 – Parking Area For Dog Park



Picture # 10 – Dog Park (South)



Picture # 11 – 9th Street Frontage



Picture#12 – Pool House



Picture # 13 – Inground Pool



Picture # 14 – Pool House



Picture # 15 – Parking Lot @ Pool



Picture # 16 – South on Philadelphia St

(2.3.1.7) STATEMENT OF ASSUMPTIONS & LIMITING CONDITIONS

- Information presented in this report has been obtained from reliable sources, and it is assumed that the information is accurate.
- This analysis assumes that the information provided for this appraisal accurately reflect the current condition of the subject property.
- This report shall be used for its intended purpose only, and by the party to whom it is addressed. Possession of this report does not include the right of publication.
- The appraiser may not be required to give testimony or to appear in court by reason of this appraisal, with reference to the property in question, unless prior arrangements have been made.
- The statements of value and all conclusions shall apply as of the dates shown herein.
- There is no present or contemplated future interest in the property by the appraiser which is not specifically disclosed in this report.
- This report must be used in its entirety. Reliance on any portion of the report independent of others, may lead the reader to erroneous conclusions regarding the property values. Unless approval is provided by the author no portion of the report stands alone.
- We assume no responsibility for matters legal in character, nor do we render any opinion as to title, which is assumed to be marketable. All existing liens, encumbrances, and assessments have been disregarded, unless otherwise noted, and the property is appraised as though free and clear, under responsible ownership, and competent management.
- The appraisal has provided exhibits to assist the client(s)/intended user(s) to understand from a graphical standpoint some of the salient issues which impact the subject property. We have made no survey of the property and if further verification is required, a survey by a registered surveyor is advised.
- The appraiser assumes no responsibility for determining if the property requires environmental approval by the appropriate governing agencies, nor if it is in violation thereof, unless otherwise noted herein. This analysis assumes that no asbestos or other hazardous materials are stored or found in or on the subject property. If evidence of hazardous materials of any kind occurs, the reader should seek qualified professional assistance. If hazardous materials are discovered and if future market conditions indicate an impact on value and increased perceived risk, a revision of the concluded values may be necessary.
- The liability of Bluegrass Valuation Group, its principals, agents, and employees is limited to the client. Further, there is no accountability, obligation, or liability to any third party. If this report is provided to anyone other than the client, the client shall make such party aware of all limiting conditions and assumptions of the assignment and related discussions. The appraiser is in no way responsible for any costs incurred to discover or correct any deficiency in the property.
- The appraiser is not qualified to detect the presence of toxic or hazardous substances or materials which may influence or be associated with the property or any adjacent properties, has made no investigation or analysis as to the presence of such materials, and expressly disclaims any duty to note the degree of fault. Bluegrass Valuation Group and its principals, agents, employees, shall not be liable for any costs, expenses, assessments, or penalties, or diminution in value, property damage, or personal injury (including death) resulting from or otherwise attributable to toxic or hazardous substances or materials, including without limitation hazardous waste, asbestos material, formaldehyde, or any smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, solids or gasses, waste materials or other irritants, contaminants or pollutants.
- The appraiser assumeS no responsibility for determining if the subject property complies with the Americans with Disabilities Act (ADA). Bluegrass Valuation Group, its principals, agents, and employees, shall not be liable for any costs, expenses, assessments, penalties or diminution in value resulting from non-compliance.
- This appraisal assumes that the subject meets an acceptable level of compliance with ADA standards; if the subject is not in compliance, the eventual renovation costs and/or penalties would negatively impact the present value of the subject. If the magnitude and time of the cost were known today, they would be reduced from the reported value conclusion.
- Unless otherwise noted herein, a detailed soils study was not provided for this analysis. The subject's soils and sub-soil conditions are assumed to be suitable based upon a visual inspection of the subject property and surrounding properties, which did not indicate evidence of excessive settling or unstable soils. No certification is made regarding the stability or suitability of the soil or sub-soil conditions

(2.3.1.8) DESCRIPTION OF SCOPE OF WORK

Property Owner Contact Information

City of Covington

Elizabeth Wetzel

513-256-8024

CLIENT IDENTIFICATION

The client of this specific assignment is Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities.

INTENDED USE & INTENDED USERS

The purpose of the appraisal is to provide an opinion of market value for the Goebel Park Complex (Conversion Property) before the proposed acquisition by the KYTC and an opinion of market value of the remaining property in compliance with the LWCF manual and the UASFLA standards. In this case the difference between the before and after values represents the market value of the converted property in accordance with the 6(f) process. The appraisal is not intended for any other use. The Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities is the intended user of this report. Additional intended users included: National Park Service of the United States Department of the Interior; Federal Highway Administration of the United States Department of Transportation.

DEFINITION OF MARKET VALUE PER UASFLA STANDARDS

Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of value, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither compelled to buy or sell, giving due consideration to all available economic uses of the property.

DEFINITION OF MARKET RENTAL VALUE PER UASFLA STANDARDS

Market rental value is the rental price in cash or its equivalent that the leasehold would have brought on the date of value on the open market, at or near the location of the property acquired, assuming reasonable time to find a tenant.

PROPERTY CHARACTERISTICS

The subject is the Goebel Park Complex which is located in the Northern Kentucky and Covington area.

EFFECTIVE DATE OF VALUE OPINION

November 18, 2024

PROPERTY RIGHTS APPRAISED

The property rights appraised constitute the fee simple estate.

Fee Simple Interest
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat.[1]

VALUE SCENARIOS

As-Is Value Before and After
The estimate of the value of real property in its current physical condition and available for an "economic use". as of the appraisal date.[2]

PURPOSE

The Goebel Park was established in the 1970's using federal grants from the Land and Water Conservation Fund State Assistance Program (LWCF). The purpose of this appraisal is to develop opinions of the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate). The difference in market value will be used to establish the value of the part taken of conversion property in accordance with the requirements and standards of the Land and Water Conservation Fund State Assistance Program (LWCF).

VALUATION METHODS

In traditional valuation theory, the three approaches to estimating the value of an asset are the cost approach, sales comparison approach, and income capitalization approach. Each approach assumes valuation of the property at the property's highest and best use. From the indications of these analyses, an opinion of value is reached based upon expert judgment within the outline of the appraisal process.

LAND VALUATION

The land value is a specific scope requirement of this assignment. Considering the subject property's underlying redevelopment potential and noting the advanced age of the improvements, the land sales comparison approach is the most reliable method in forming the opinions of market value included here in.

COST APPROACH

The cost approach considers the cost to replace the improvements, less accrued depreciation, plus the market value of the land. The cost approach is based on the understanding that market participants relate value to cost. The value of the property is derived by adding the estimated value of the land to the current cost of constructing a reproduction or replacement for the improvements and then subtracting the amount of depreciation in the structure from all causes. Profit for coordination by the entrepreneur is included in the value indication.

The Cost Approach is not a specific scope requirement of this assignment. The Cost Approach has no applicability due to the age of the improvements and conclusions which support a highest and best use for redevelopment. Based on the preceding information, the Cost Approach will not be presented. Noted while I do not perform a cost approach, I do estimate cost to raze site improvements and various development costs are considered within the sales comparison approach.

[1] *The Dictionary of Real Estate Appraisal, 6th Ed.* (Chicago: Appraisal Institute 2015)

[2] *The Dictionary of Real Estate Appraisal, 7th Ed.* (Chicago: Appraisal Institute 2022)

SALES COMPARISON APPROACH

The sales comparison approach estimates value based on what other purchasers and sellers in the market have agreed to as price for comparable properties. This approach is based upon the principle of substitution, which states that the limits of prices, rents, and rates tend to be set by the prevailing prices, rents, and rates of equally desirable substitutes. In conducting the sales comparison approach, I gather data on reasonably substitutable properties and adjust for transactional and property characteristics. The resulting adjusted prices lead to an estimate of the price one might expect to realize upon sale of the property.

The Sales Comparison Approach is used to value the land. However, as the economic HBU is for redevelopment of the property for mixed use, the improved sales comparison approach does not apply and is not presented within this appraisal.

INCOME CAPITALIZATION APPROACH

The income capitalization approach ("income approach") simulates the reasoning of an investor who views the cash flows that would result from the anticipated revenue and expense on a property throughout its lifetime. The net income developed in the analysis is the balance of potential rental income remaining after vacancy and collection loss, and operating expenses. This net rental income is then capitalized at an appropriate rate to derive an estimate of value. Thus, two key steps are involved: (1) estimating the net rental income applicable to the subject and (2) choosing appropriate capitalization rates. The appropriate rates are ones that will provide both a return on the investment and a return of the investment over the life of the particular property.

The Income Approach is not a scope requirement for this assignment. The subject property type is not typically analyzed on an income basis by buyers and sellers, reducing the applicability of this valuation technique. Therefore, the Income Approach is not developed.

CORRELATION AND CONCLUSION

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate).

ASSIGNMENT CONDITIONS

The client has not provided any extraordinary legal requirements or instructions.

GEOGRAPHIC, MARKET DATA AND ANALYSIS

- The appraisal analyzes the regional and local area profiles including employment, population, household income and real estate trends. The local area was inspected to consider external influences on the subject.
- The appraisal analyzes legal and physical features of the subject including site size, improvement size, flood zone, site zoning, easements, encumbrances, site access, topography and site exposure.
- The appraisal includes market analysis using sales data, vacancy, absorption, supply, and demand data for the Northern Kentucky and Covington area over the last 5 years. The type of market data researched includes mixed use land properties within the Northern Kentucky area. Conclusions were drawn for the subject's competitive position given its physical and locational features, current market conditions and external influences.

- The market data utilized herein was confirmed to the greatest extent possible including; PVA data, Deed, Plats, Planning and Zoning, and parties which were involved or had knowledge of the data or transactions. The extent of data confirmation for the comparable sales is disclosed on the individual data sheets contained in the addenda of the report.
- The appraisal includes a Highest and Best Use analysis and conclusions have been completed for the highest and best use of the subject property As Vacant and As Improved. The analysis considered legal, locational, physical, and financial feasibility characteristics of the subject site and existing improvements both before and after the acquisition.
- In selecting applicable approaches to value, the appraiser considered the agreed upon appraisal scope and assessed the applicability of each traditional approach given the subject's characteristics and the intended use of the appraisal. As a result, this appraisal developed the Land Sales Comparison Approach. The values presented represent the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate).

APPRAISAL REGULATIONS & STANDARDS

- The assignment was prepared as an Appraisal Report in accordance with the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA) (2016), USPAP Standards Rules 2 (2024), 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA), 36 CFR 59.3(b)(2) and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual with the analysis stated within the document and representing a fully described level of analysis.
- The author of this report are aware of the Competency Rule of USPAP and meets the standards.

SOURCES OF INFORMATION

The following sources were contacted to obtain relevant information:

INFORMATION PROVIDED	
Property Assessment & Tax	Kenton County Assessor
Zoning & Land Use Planning	City of Covington Zoning
Site Size	Client
Building Size	Inspection
Supply & Demand	CoStar
Flood Map	FEMA
Demographics	STDB On-Line
Comparable Information	MLS | Public Records | Confirmed by Parties Related
Legal Description	Client
Rent Roll	N/A
Physical Inspection Report	Not Provided
Title	Client
Phase I Environmental Report	Not Provided

The lack of unavailable items could affect the results of this analysis. As part of the general assumptions and limiting conditions, the subject is assumed to have no adverse easements, significant items of deferred maintenance, or be impacted by adverse environmental conditions.

ASSISTANCE PROVIDED

No one provided real property appraisal assistance to the individuals signing this report.

(2.3.2.1) LEGAL DESCRIPTION

Based on information provided by the client the subject property includes 14.67 acres. The subject title is currently recorded in the name of The City of Covington, Kentucky who acquired title to the property in various deeds as follows; March 30, 1981 - $154,100, Kenton County Deed Records, Book & Page 794-220; May 21, 1963 - $1 DB 506-367; May 27, 1963 - $1.00 DB 508-555; 6/26/1979 - $76,400 DB 751-58; October 29, 1970 - $1 DB 573-506. A title was not available for the City of Covington owned public right of way which is a part of the property. Title evidence is found in the addenda of the report.

(2.3.2.2) AREA, CITY AND NEIGHBORHOOD DATA

INTRODUCTION

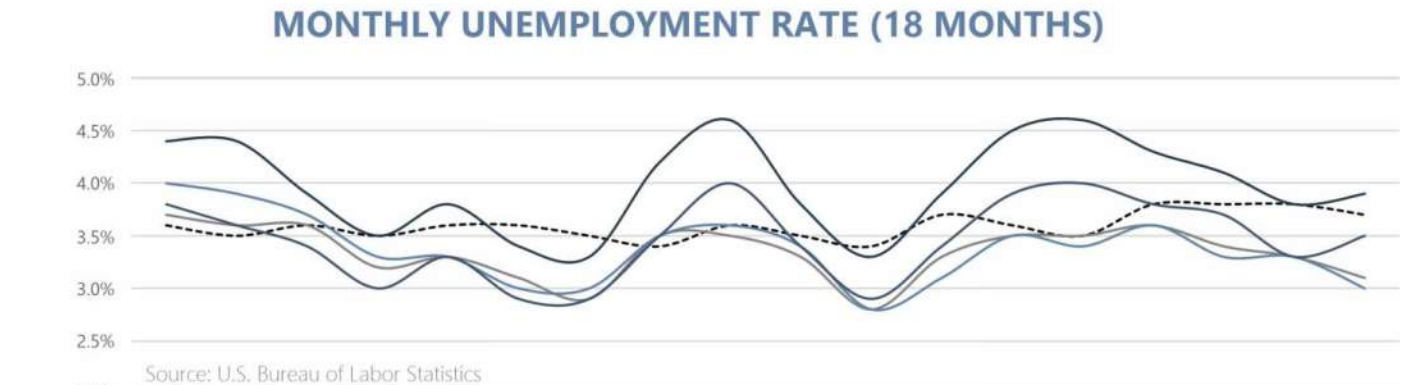
In order to understand the subject's position in the area or region, an analysis of how trends—both historical and projected—in population, employment, personal income, consumer spending, and housing impact supply and demand and influence the subject's area directly and indirectly. This analysis first begins on a broader spectrum, and without respect to the subject itself, and is highlighted in the Regional Area Analysis. Second is, a more narrowly focused study of the aforementioned attributes as they relate directly to the subject and its neighborhood. This discussion is presented in the Local Area Analysis which follows.

REGIONAL AREA ANALYSIS

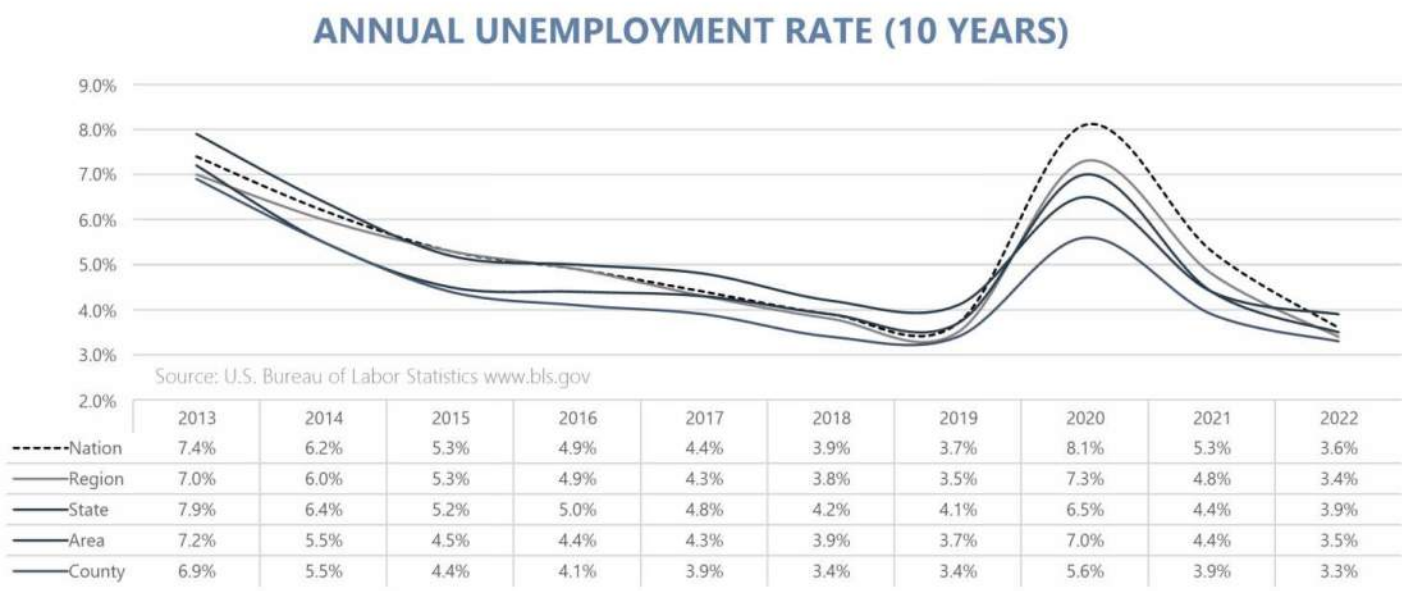
The subject property is located in Covington, Kentucky. The immediate area of the subject is characterized by mixed use urban development.

Unemployment

The following graphs charts the trailing 18 months and trailing 10 years unemployment rate for the United States, South Region, Kentucky, Cincinnati, OH-KY-IN MSA, and Kenton County.



	Jun	Jul	Aug	Sep	Oct	2022 Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	2023 Nov
Nation	3.6%	3.5%	3.6%	3.5%	3.6%	3.6%	3.5%	3.4%	3.6%	3.5%	3.4%	3.7%	3.6%	3.5%	3.8%	3.8%	3.8%	3.7%
Region	3.7%	3.6%	3.6%	3.2%	3.3%	3.1%	2.9%	3.5%	3.5%	3.3%	2.8%	3.3%	3.5%	3.5%	3.6%	3.4%	3.3%	3.1%
State	4.4%	4.4%	3.9%	3.5%	3.8%	3.4%	3.3%	4.2%	4.6%	3.8%	3.3%	3.9%	4.5%	4.6%	4.3%	4.1%	3.8%	3.9%
Area	4.0%	3.9%	3.7%	3.3%	3.3%	3.0%	3.0%	3.5%	3.6%	3.4%	2.8%	3.1%	3.5%	3.4%	3.6%	3.3%	3.3%	3.0%
County	3.8%	3.6%	3.4%	3.0%	3.3%	2.9%	2.9%	3.5%	4.0%	3.4%	2.9%	3.4%	3.9%	4.0%	3.8%	3.7%	3.3%	3.5%



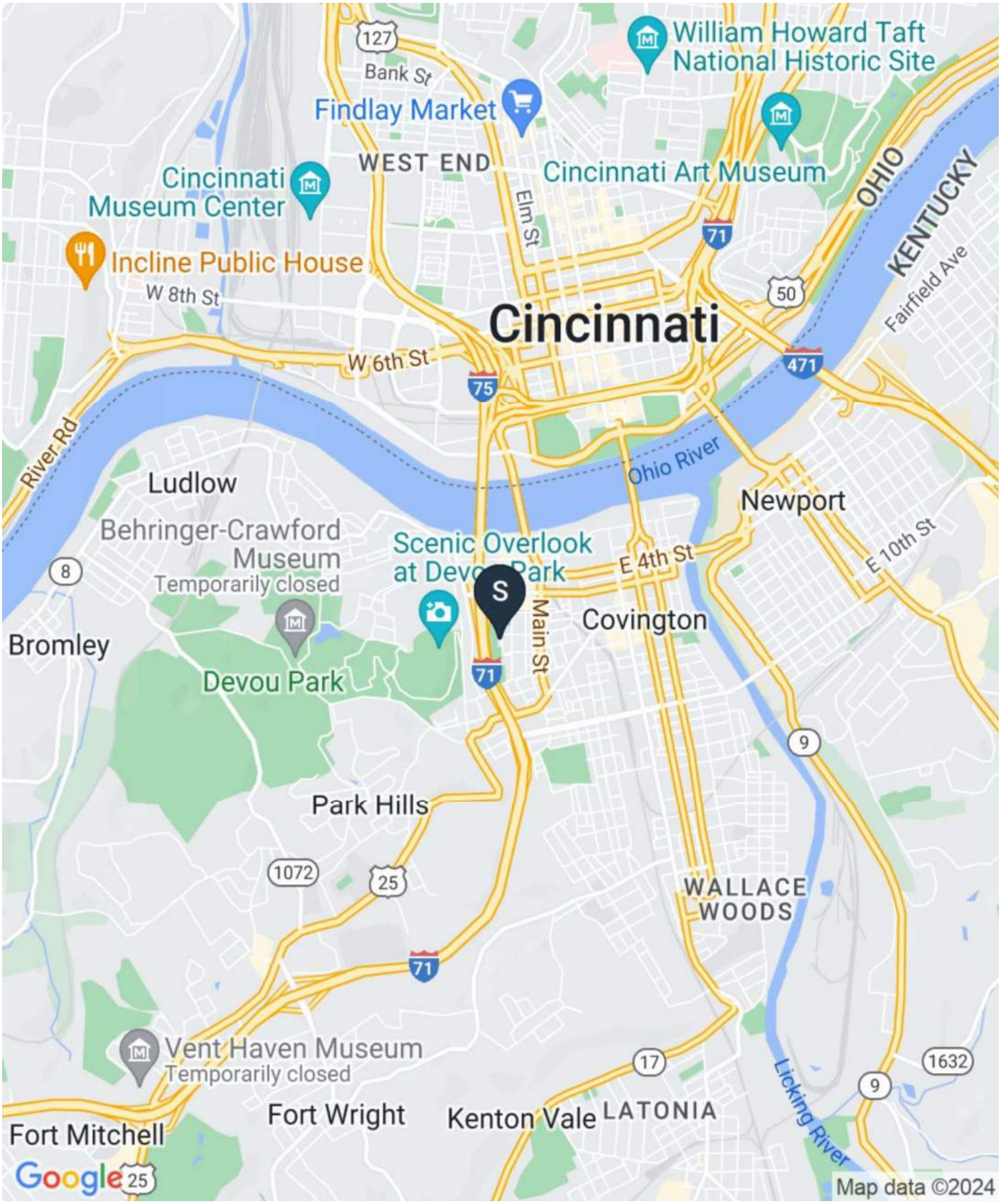
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Nation	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%	5.3%	3.6%
Region	7.0%	6.0%	5.3%	4.9%	4.3%	3.8%	3.5%	7.3%	4.8%	3.4%
State	7.9%	6.4%	5.2%	5.0%	4.8%	4.2%	4.1%	6.5%	4.4%	3.9%
Area	7.2%	5.5%	4.5%	4.4%	4.3%	3.9%	3.7%	7.0%	4.4%	3.5%
County	6.9%	5.5%	4.4%	4.1%	3.9%	3.4%	3.4%	5.6%	3.9%	3.3%

Employment

The following chart shows the trailing 10 years employment for the state of Kentucky, Cincinnati, OH-KY-IN MSA, and Kenton County.

STATE & REGIONAL EMPLOYMENT						
YEAR	STATE	% CHG.	AREA	% CHG.	COUNTY	% CHG.
2013	1,892,777	0.1%	1,000,761	0.4%	79,184	1.3%
2014	1,877,551	(0.8%)	1,018,056	1.7%	78,569	(0.8%)
2015	1,876,009	(0.1%)	1,031,232	1.3%	79,629	1.3%
2016	1,914,479	2.0%	1,046,919	1.5%	81,306	2.1%
2017	1,955,234	2.1%	1,066,746	1.9%	83,259	2.3%
2018	1,966,186	0.6%	1,077,802	1.0%	84,304	1.2%
2019	1,983,872	0.9%	1,096,369	1.7%	85,674	1.6%
2020	1,886,072	(5.2%)	1,039,600	(5.5%)	81,164	(5.6%)
2021	1,937,537	2.7%	1,075,438	3.3%	83,485	2.8%
2022	1,968,121	1.6%	1,098,044	2.1%	85,346	2.2%
CAGR	**0.4%**	-	**1.0%**	-	**0.8%**	-

Source: U.S. Bureau of Labor Statistics www.bls.gov


William Howard Taft National Historic Site
Findlay Market
Bank St
WEST END
Cincinnati Art Museum
Cincinnati Museum Center
Elm St
OHIO
KENTUCKY
Incline Public House
W 8th St
Cincinnati
Fairfield Ave
W 6th St
River Rd
Ohio River
Ludlow
Newport
Behringer-Crawford Museum
Temporarily closed
Scenic Overlook at Devou Park
E 4th St
E 10th St
Covington
Bromley
Devou Park
Main St
Park Hills
WALLACE WOODS
Vent Haven Museum
Temporarily closed
Fort Wright
Kenton Vale
LATONIA
Licking River
Fort Mitchell
Google
Map data ©2024

Demographics

The following information reflects the demographics for the subject's area.

LOCAL AREA & MSA DEMOGRAPHICS

DESCRIPTION	1 MILE	3 MILE	5 MILE	MSA	DESCRIPTION	1 MILE	3 MILE	5 MILE	MSA
POPULATION TOTAL					HOUSEHOLDS				
2010 Census	12,315	115,532	270,149	2,137,663	2010 Census	5,791	50,721	114,532	833,544
2020 Census	12,602	116,610	273,211	2,256,884	2020 Census	6,632	54,568	119,233	890,439
2023 Estimate	13,350	119,564	276,042	2,284,654	2023 Estimate	7,159	56,359	121,511	906,240
2028 Projection	14,241	121,744	279,006	2,301,449	2028 Projection	7,734	58,092	124,122	920,533
Δ 2010-2020	2.33%	0.93%	1.13%	5.58%	Δ 2010-2020	14.52%	7.58%	4.10%	6.83%
Δ 2020-2023	5.94%	2.53%	1.04%	1.23%	Δ 2020-2023	7.95%	3.28%	1.91%	1.77%
Δ 2023-2028	6.67%	1.82%	1.07%	0.74%	Δ 2023-2028	8.03%	3.07%	2.15%	1.58%
Total Daytime Population	23,606	227,461	401,019	2,279,262	**HOUSEHOLDS BY INCOME (2023 ESTIMATE)**				
HOUSING UNITS					<$15,000	13.0%	18.2%	18.3%	9.5%
Total (2023 Estimate)	8,779	65,747	139,039	973,447	$15,000 - $24,999	10.3%	9.2%	9.6%	6.5%
Owner Occupied	28.4%	35.3%	39.0%	63.2%	$25,000 - $34,999	8.9%	8.9%	8.9%	7.0%
Renter Occupied	53.1%	50.4%	48.4%	29.9%	$35,000 - $49,999	13.1%	11.4%	11.5%	10.8%
Vacant Housing Units	18.5%	14.3%	12.6%	6.9%	$50,000 - $74,999	15.4%	14.5%	14.6%	16.2%
Total (2028 Projection)	9,338	67,098	141,121	986,972	$75,000 - $99,999	11.5%	10.5%	10.7%	13.6%
Owner Occupied	27.7%	35.3%	39.3%	63.6%	$100,000 - $149,999	14.2%	13.8%	12.7%	18.0%
Renter Occupied	55.2%	51.3%	48.7%	29.6%	$150,000 - $199,999	6.1%	6.0%	5.9%	8.5%
Vacant Housing Units	17.2%	13.4%	12.0%	6.7%	$200,000+	7.4%	7.5%	7.7%	9.8%
AVERAGE HOUSEHOLD INCOME					**AVERAGE HOUSEHOLD SIZE**				
2023 Estimate	$87,905	$85,566	$85,265	$104,885	2023 Estimate	1.83	2.05	2.16	2.47
2028 Projection	$97,708	$97,104	$97,191	$119,704	2028 Projection	1.81	2.02	2.14	2.45
Δ 2023-2028	11.15%	13.48%	13.99%	14.13%	Δ 2023-2028	(1.09%)	(1.46%)	(0.93%)	(0.81%)
MEDIAN HOUSEHOLD INCOME					**MEDIAN HOME VALUE**				
2023 Estimate	$55,744	$52,927	$52,015	$74,919	2023 Estimate	$275,437	$224,580	$228,607	$235,949
2028 Projection	$62,205	$60,871	$59,590	$84,657	2028 Projection	$315,274	$266,802	$276,192	$277,391
Δ 2023-2028	11.59%	15.01%	14.56%	13.00%	Δ 2023-2028	14.46%	18.80%	20.82%	17.56%
PER CAPITA INCOME					**AVERAGE HOME VALUE**				
2023 Estimate	$47,080	$40,690	$37,815	$41,719	2023 Estimate	$315,316	$275,817	$291,086	$281,726
2028 Projection	$53,006	$46,673	$43,515	$47,993	2028 Projection	$352,557	$317,875	$333,944	$319,687
Δ 2023-2028	12.59%	14.70%	15.07%	15.04%	Δ 2023-2028	11.81%	15.25%	14.72%	13.47%

Source: Sites To Do Business Online

Population

Esri estimates the current 2023 population of the neighborhood 3 mile radius of the subject property to be 119,564 representing a 2.53%change since 2020. The total trade area 5 mile radius of the subject is estimated to have a population of 276,042, which represents a 1.04% change since 2020.

Looking forward, the population of the neighborhood 3 mile radius is forecasted to change to 1.82% by the year 2028. The population within the total trade area 5 mile radius is forecasted to change to 279,006 over the next five years.

Households

Esri estimates that the number of households in the neighborhood 3 mile radius of the subject is 56,359, which is a 3.28% change since 2020. Within the total trade area 5 mile radius, the number of households is estimated to be 121,511, a 1.91% change over the same period of time.

By the year 2028, Esri estimates that the number of households in the neighborhood 3 mile radius will change by 3.07% to 58,092, households. Additionally, households in the entire trade area are expected to change by 2.15% to 124,122 households over the next five years.

The number of households in the neighborhood 3 mile radius of the subject changed 7.58% from 2010 to 2020; and since then, it has changed by 3.28%.

Income

According to Esri, the neighborhood 3 mile radius of the subject property has an estimated median household income of $52,927 and an average household income of $85,566. Esri reports that the total trade area 5 mile radius has a median household income of $52,015, and an average household income of $85,265. With 121,511 households currently in the total trade area 5 mile radius of the subject property, local effective buying income is estimated to be about $10,360,635,415.

CONCLUSION

Based on the Esri data presented above, the demographics in the subject neighborhood are below the average of the MSA. Population growth has increased by 2.53% since 2020 and is expected to increase 1.82% over the next 5 years in the 3 mile radius neighborhood. Average household incomes are below average at nearly $85,566, and the area is populated with 56,359 households in a 3 mile radius around the subject property.

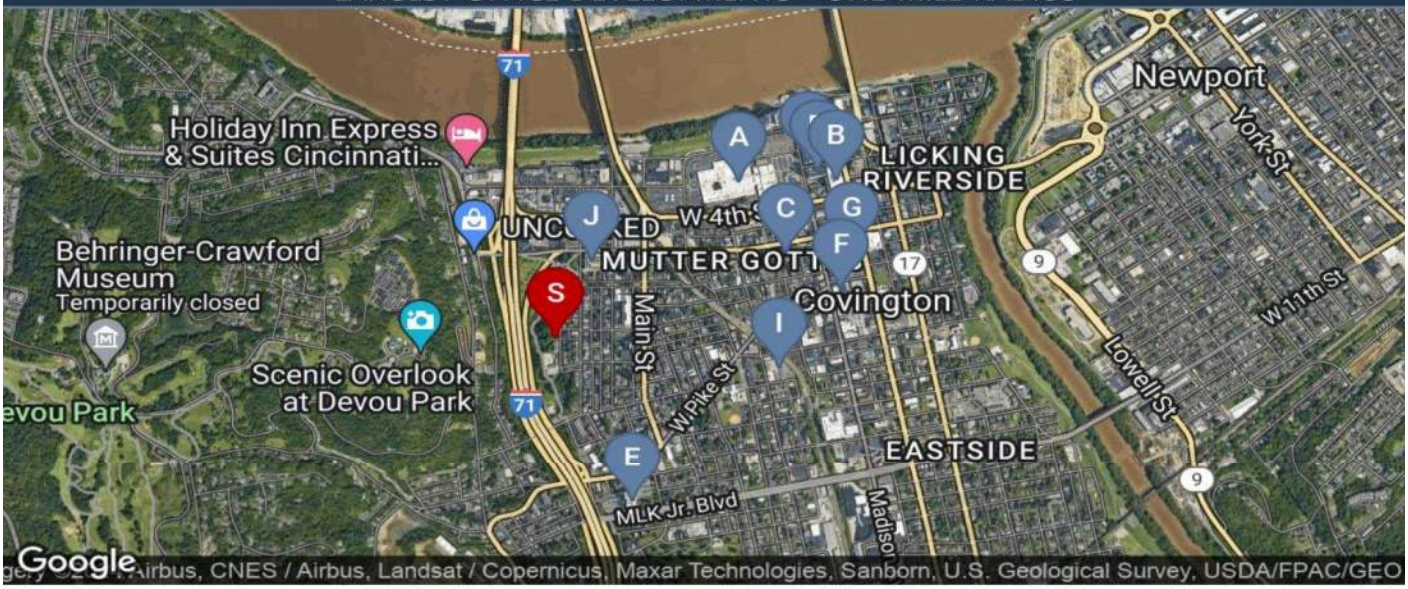
SURROUNDING LAND USES

The following tables and maps highlight the development in and around the subject.

LOCAL AREA OFFICE - ONE-MILE RADIUS				
CLASS	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
A	313,348 SF	2013	89.6	3
B	913,003 SF	1968	96.2	22
C	1,015,132 SF	1933	60.6	84
TOTAL	2,241,483 SF	1960	79.1	109

Source: CoStar

LARGEST OFFICE DEVELOPMENTS - ONE-MILE RADIUS



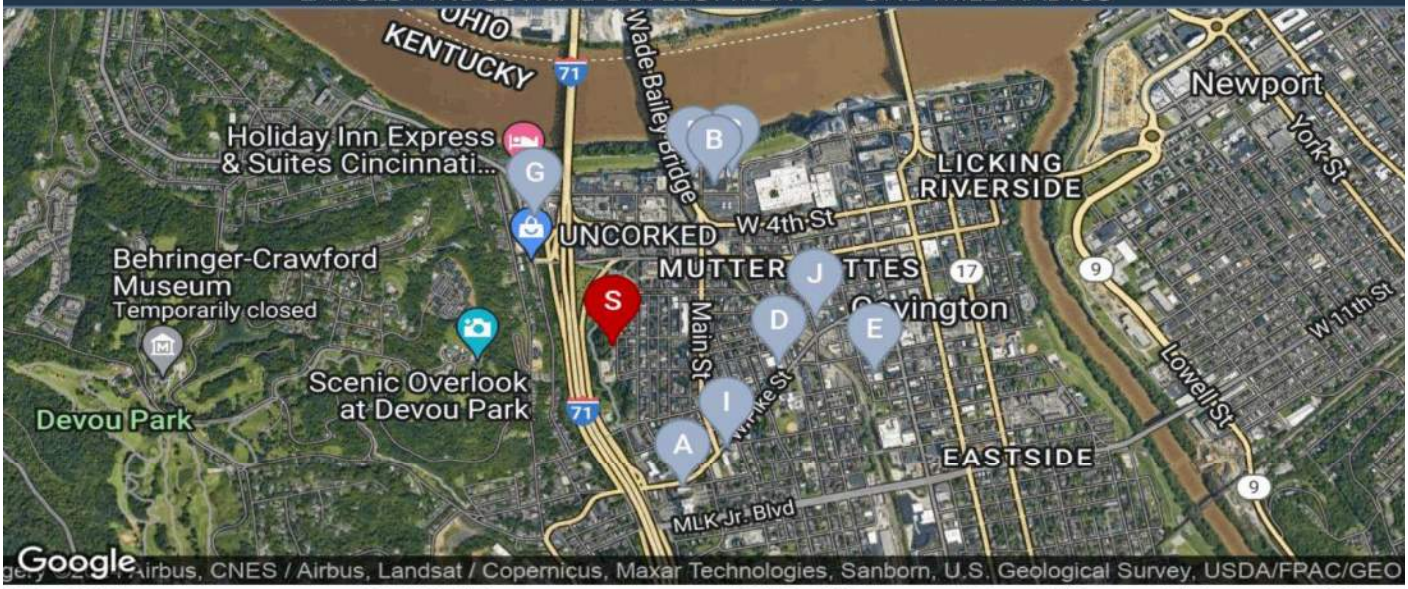
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	%LEASED
A		201 W Rivercenter Blvd, Covington	0.5 mi	386,300	1965	C	0
B	Gateway Center	333 Scott St, Covington	0.7 mi	305,950	1994	B	100
C	United States Courthouse	35 W 5th St, Covington	0.5 mi	152,330	2000	B	100
D	Gateway Center West	300 Madison Ave, Covington	0.7 mi	132,244	2002	A	100
E	Kenton County Administration Buildi	1840 Simon Kenton Way, Covington	0.4 mi	109,833	2019	A	100
F		19 E Pike St, Covington	0.6 mi	72,463	1913	B	100
G	First District	525 Scott St, Covington	0.7 mi	71,271	2022	A	54.35
H	Kenton County Justice Center	230 Madison Ave, Covington	0.7 mi	68,279	1998	B	100
I		812 Russell St, Covington	0.5 mi	67,000	1902	C	100
J	Fifth Street Center	525 W 5th St, Covington	0.2 mi	44,864	1984	B	83.94

Source: CoStar

LOCAL AREA INDUSTRIAL - ONE-MILE RADIUS				
TYPE	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
Flex	35,722 SF	1944	100	3
Gen-Ind <25,000 FT	167,547 SF	1946	100	18
Gen-Ind >25,000 FT	118,500 SF	1939	72	3
TOTAL	321,769 SF	1943	89.6	24

Source: CoStar

LARGEST INDUSTRIAL DEVELOPMENTS - ONE-MILE RADIUS



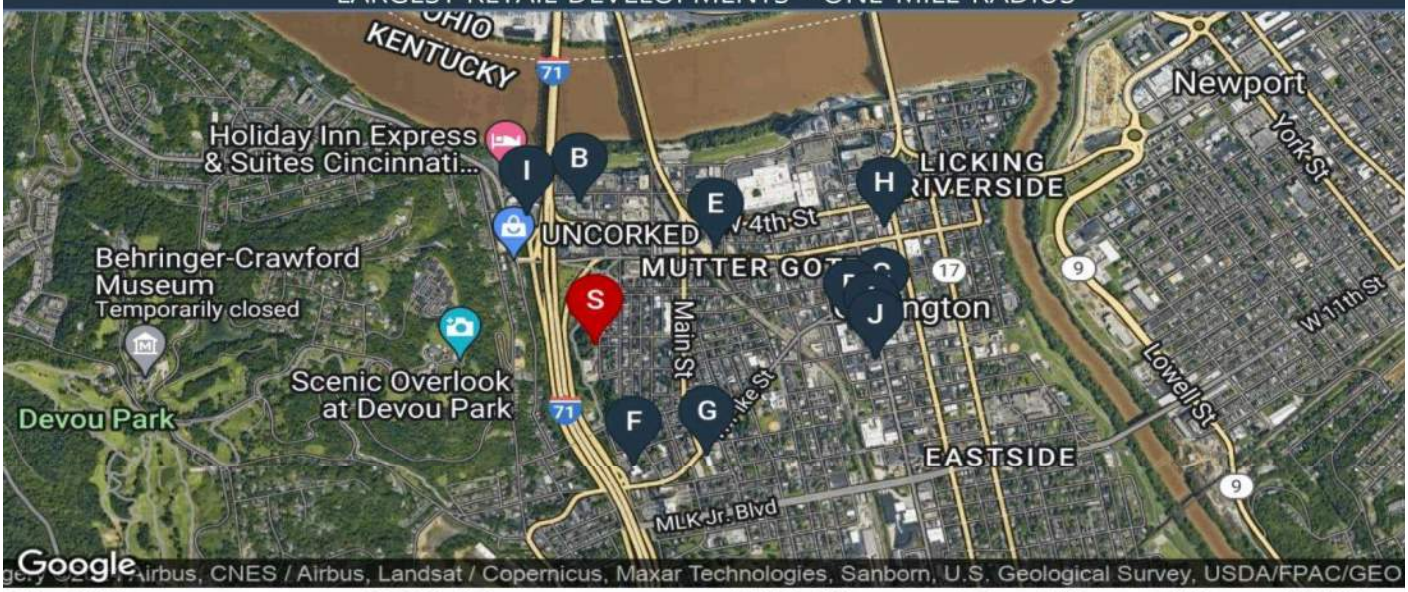
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	TYPE	%LEASED
A		533 Goetta Pl, Covington	0.4 mi	45,000	1946	Industrial	100
B		322 W 3rd St, Covington	0.4 mi	40,000	1948	Industrial	100
C	D C Morrison Co	201 Johnson St, Covington	0.5 mi	33,500	1920	Industrial	0.3
D		242 W Pike St, Covington	0.4 mi	23,000	1930	Industrial	100
E		16-32 W 9th St, Covington	0.6 mi	19,818	2000	Flex	100
F		400 W 3rd St, Covington	0.4 mi	17,872	1974	Industrial	100
G		680 W 4th St, Covington	0.3 mi	17,000	1961	Industrial	100
H		680 W 4th St, Covington	0.3 mi	17,000	1961	Industrial	100
I		411 W Pike St, Covington	0.3 mi	15,000	1910	Industrial	100
J		632 Russell St, Covington	0.4 mi	13,984	1864	Flex	100

Source: CoStar

LOCAL AREA RETAIL - ONE-MILE RADIUS				
SIZE	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
<5,000 FT	482,767 SF	1906	97.6	168
>5,000 FT-<20,000 FT	590,719 SF	1921	98.6	70
>20,000 FT	151,444 SF	1931	100.0	6
TOTAL	1,224,930 SF	1916	98.4	246

Source: CoStar

LARGEST RETAIL DEVELOPMENTS - ONE-MILE RADIUS



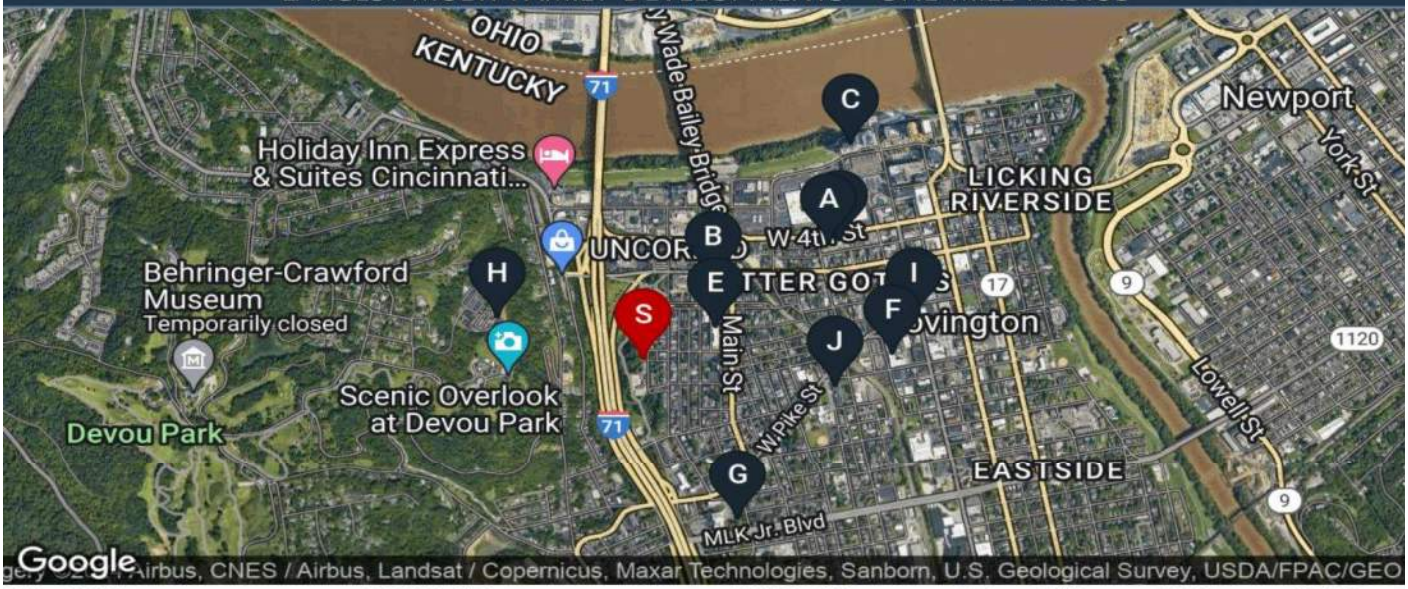
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	%LEASED
A		721-731 Madison Ave, Covington	0.6 mi	33,643	1901	C	100
B		633 W 3rd St, Covington	0.3 mi	30,743	1970	C	100
C		702 Madison Ave, Covington	0.6 mi	23,533	N/A	C	100
D	Mergards Hall	25-29 W 7th St, Covington	0.5 mi	22,080	1914	C	100
E		409-435 Johnson St, Covington	0.3 mi	20,861	N/A	C	100
F		550 W Pike St, Covington	0.3 mi	20,584	1940	B	100
G		419 W Pike St, Covington	0.4 mi	18,535	N/A	C	100
H		423-439 Scott St, Covington	0.7 mi	15,360	1975	C	100
I		670 W 4th St, Covington	0.3 mi	14,400	1950	C	100
J		809-811 Madison Ave, Covington	0.6 mi	14,000	N/A	C	100

Source: CoStar

LOCAL AREA MULTI-FAMILY - ONE-MILE RADIUS				
CLASS	RBA	YEAR BUILT	UNITS	PROPERTIES
A	300,598 SF	2019	297	2
B	1,001,851 SF	1994	1,004	13
C	244,274 SF	1919	310	42
TOTAL	1,546,723 SF	1992	1,622	61

Source: CoStar

LARGEST MULTI-FAMILY DEVELOPMENTS - ONE-MILE RADIUS



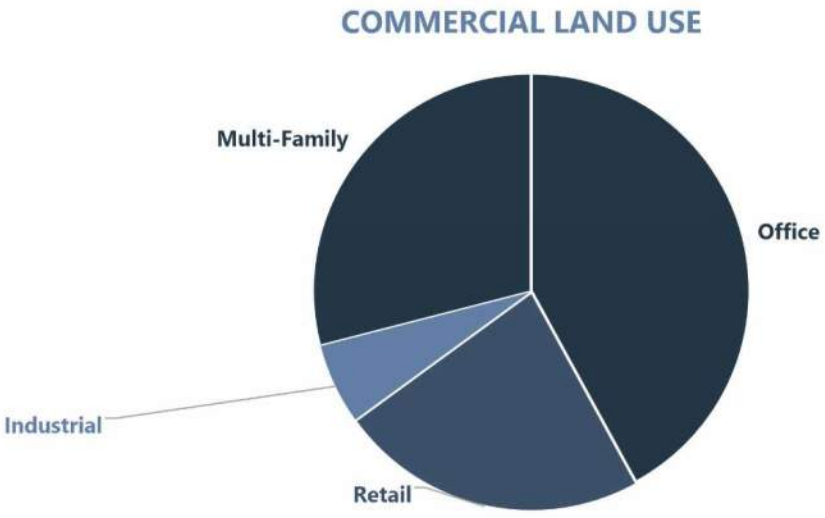
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	STORIES
A	Panorama West Apartments	117 Brent Spence Sq, Covington	0.5 mi	223,009	1972	B	15
B	River Haus	515 Main St, Covington	0.2 mi	200,000	2019	B	5
C	Madison Place	50-100 W Rivercenter Blvd, Covington	0.7 mi	188,000	2020	A	15
D	Panorama Apartments	111 Brent Spence Sq, Covington	0.5 mi	184,408	1973	B	14
E	John R. Green Lofts	437 W 6th St, Covington	0.2 mi	150,000	2021	B	4
F	Duveneck Square	710 Washington St, Covington	0.5 mi	112,598	2018	A	4
G		506 W Martin Luther King Jr Blvd, Covington	0.4 mi	100,000	2025	B	4
H	The Bluffs at Devou Park	100 Winding Way, Covington	0.3 mi	37,465	1972	B	3
I	Mutual Building	619-629 Madison Ave, Covington	0.6 mi	32,162	1921	B	3
J	Seminary Square Lofts	832 Banklick St, Covington	0.4 mi	27,000	2008	B	3

Source: CoStar



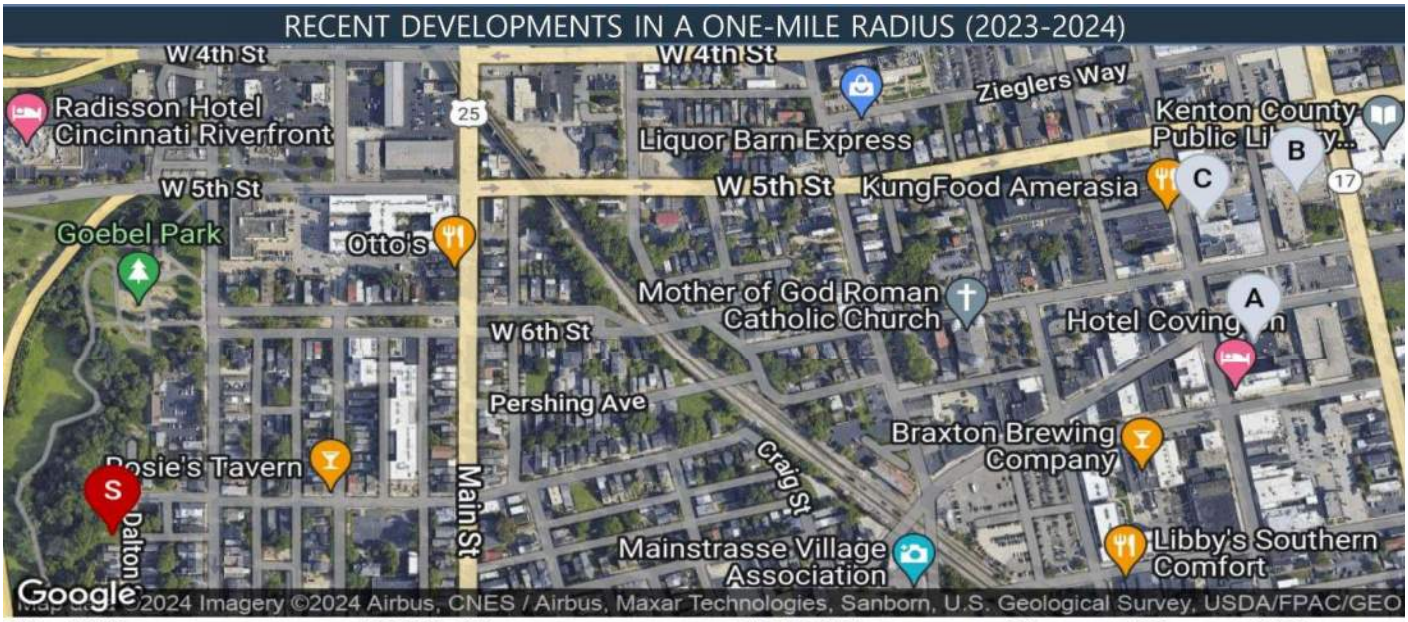
Source: CoStar

The land use in the subject's immediate neighborhood consists of a significant amount of commercial property, comprising of a mix of many property types. Commercial uses in the area include multitenant retail centers, medium-sized retail/industrial/distribution-type properties, larger riverfront office buildings, small- to- medium sized freestanding office and retail properties, as well as service-related uses, restaurants, gas stations/convenience stores and banks. The following chart illustrates the high concentration of office and multifamily in comparison to industrial and retail properties.



RECENT DEVELOPMENT

Currently there are 3 projects that have been recently developed within 0.7 mile of the subject. The range in size of developments is 8,360 SF to the largest development of 87,000 SF. The table details the type and size of the developments.



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A	North by Hotel Covington	620 Madison Ave, Covington	0.6 mi	87,000	Hospitality	B
B	First District	525 Scott St, Covington	0.7 mi	71,271	Office	A
C	Huntington National Bank	536 Madison Ave, Covington	0.6 mi	8,360	Retail	0

Proposed

There is 1 project that is proposed for construction within 0.4 mile of the subject. This consists of a proposed multi-family project shown on the map.



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A		506 W Martin Luther King Jr Blvd, Covington	0.4 mi	100,000	Multi-Family	B

Source: CoStar

ECONOMIC INFLUENCES

The local area economic status is significant to the analysis as the measurement of income levels provides an indication of the ability of the area population to buy, rent and maintain property. The economic status of an area also provides an indication of the population's demand for goods and services. Relevant economic information includes income levels, property ownership vs. rent, property rent levels, rent level trends, property vacancy and new construction.

The vast majority of the housing units within the area are renter occupied, which contrasts with the larger Cincinnati, OH-KY-IN MSA.

GOVERNMENT INFLUENCE

Governmental considerations relate to zoning, building codes, regulations, flood plain restrictions, special assessment, property tax and empowerment zones.

Zoning in the area is mixed, including mixed use, downtown and residential. The zoning code is enforced by the municipality and enforcement in all areas of City of Covington is considered to be strong. Rezoning requires public input and approval of the local planning and city commissioners. Building codes are in force and require a certain standard of construction quality and design. This is a typical influence on properties similar to the subject and falls in line with the zoning classification.

Property taxes in the area are established by Kenton County and are assessed based on fair market value. The assessments in the neighborhood are similar to other neighborhoods in the metropolitan area. There are no known special assessments that affect property in the neighborhood.

ACCESS/PUBLIC TRANSPORTATION

The subject neighborhood has good access as I-75 and the Brent Spence Bridge over to Ohio located along the west side of the neighborhood. The streets within Covington are best described as being in a grid format with I-75 exits at Pike and West 5th Street which run east-west through Covington. Other than I-75 the other main north-south routes would include Main Street, Madison Avenue and Greenup Street on the east side of Covington. With the existing transportation systems, most areas of Covington and County County are accessible from the subject neighborhood and access is considered good.

ENVIRONMENTAL INFLUENCES

The subject area is considered to be a typical urban neighborhood with average building size and density. There are no extraordinary topographical features, nuisances of hazards. Public utilities are available in most all areas in quantities from public and private sources.

LOCAL AREA SUMMARY

The market benefits from a diverse blend of commercial, professional, residential and community uses along with close proximity to many recreational activities. The market has been increasing due to good livability factors associated with the region. The outlook for the market area is good into the foreseeable future.

(2.3.2.3) PROPERTY DATA

(2.3.2.3.1) Site

The following summaries the salient characteristics of the subject site.

Address	**501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington, Covington, Kentucky.**
Census Tract	**21-117-060300**

Number of Parcels	4	
Assessor Parcels	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00, City	
Land Area	Square Feet	Acres
Economic Unit (Primary) Site Size	639,026	14.67
Usable Site Size	**639,026**	**14.67**
Total Land Area	**639,026**	**14.67**
Excess/Surplus Land	No	
Corner	Yes	
Site Topography	Level to Sloping	
Site Shape	Irregular to Rectangular	
Site Grade	At street grade	
Site Quality	Good	
Site Access	Good	
Site Exposure	Good	
Site Utility	Above Average	
Utilities	All Public Available	
Comments	040-43-05-003.00 - Goebel Park; 040-43-05-026.00 - Goebel Pool; 040-44-10-010.00 - Dog Park; City of Covington Right of Way - Existing Right of Way Included in Park Area;	

SITE INFORMATION

		PRIMARY		TOTAL	
APN Number	**Legal**	**SF**	**ACRES**	**SF**	**ACRES**
040-43-05-003.00	SWC 5TH & PHILADELPHIA STS - 501 Philadelphia;	246,550	5.66	246,550	5.66
040-43-05-026.00	ARNOLD H'STD BLK M LOTS 6-7-8 PT 1 TO 5 NWC DALTON & 8TH STS - 741 Dalton;	47,785	1.10	47,785	1.10
040-44-10-010.00	NWC W 9TH & PHILA STS ES I-75;	189,225	4.34	189,225	4.34
City of Covington Right of Way	No Available Legal Description	155,466	3.57	155,466	3.57
TOTAL	639,026	**639,026**	**14.67**	**639,026**	**14.67**

Adjacent Properties

North	5th Street, Hotel, Convenience Store
South	Radio Station Antenna; West 9th Street, Toyota Dealership
East	Single & Small Multi Family Residential
West	I-75; Single & Multi Family Residential On Other Side of I-75

Site Description: The subject property is in use as a public park with vegetation limited to grass and landscaping. There are no known marketable minerals associated with the subject property and no rental history. The property consists of 639,026 SF (14.67 acres) and is located between the east side of I-75, south side of W 5th Street, west side of Philadelphia St, and north side of W 9th Street in the City Limits of Covington, KY. The shape of the site is rectangular to irregular and runs from W 5th Street along the north boundary to W 9th Street along the south boundary. There is a total of 2193 +/- feet of frontage in two sections along the East side of I-75 (western boundary), 135 feet along the south side of W 5th Street (north boundary), 807 feet of frontage in two sections along Philadelphia St; 238 feet of frontage along Dalton Street (eastern boundary), and 307 feet of frontage along W 9th Street (southern boundary).

Access & Traffic Counts: There is good access to the site from Philadelphia Street where there are multiple points of access, from Dalton Avenue, and from W 9th Street where there is one existing curb cut.

STREET & TRAFFIC DETAIL

Street Improvements	Type	Direction	Lanes	Lights	Curbs	Sidewalks	Signals	Median	Parking	Center Lane	Bike Lane
I-75	Major arterial	Two-Way	8	x				x			
West 5th Street	Minor arterial	One-Way	2	x	x						
Philadelphia Street	Minor arterial	One-Way	2	x	x	x			x		
W 9th Street	Neighborhood street	Two-Way	2	x	x	x	x		x		
Frontage											
I-75	2193.2 feet; None. West Boundary										
West 5th Street	135 feet; None. North Boundary										
Philadelphia Street	800 feet; Available. 2 Sections of East Boundary 500' & 300'										
W 9th Street	307 feet; One Curb Cut. South Boundary										

Traffic Counts	Location	Date	Source	Count
I-75	Station 059077	Jan-17	KYTC	159,350
West 5th Street	Station 059D77	Jan-16	KYTC	9,971
	TOTAL			**169,321**



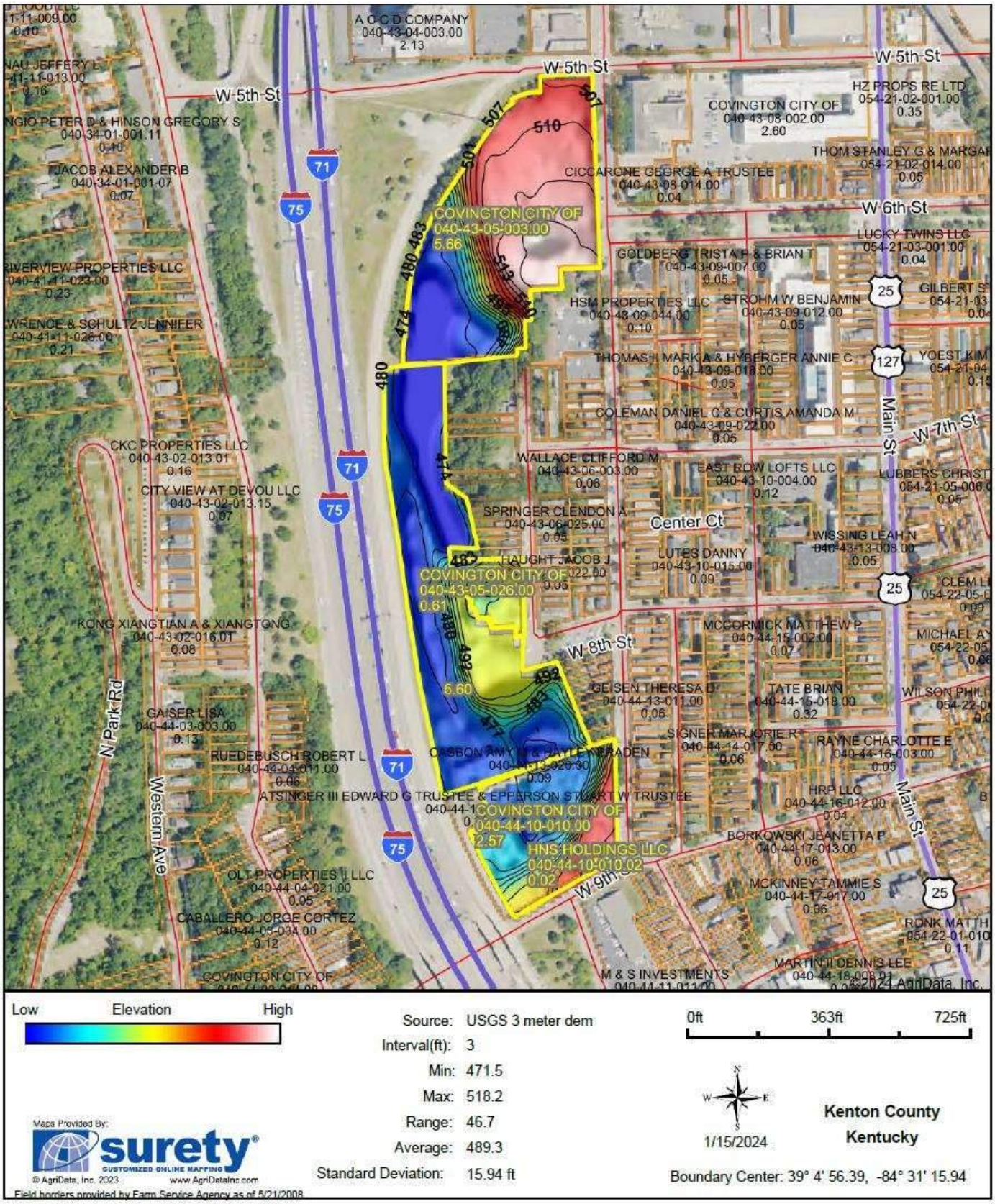
Given the high visibility of site adjacent to I-75 and high traffic count area, the site would be ideal for billboard type advertisement. However, Tom West with the City of Covington indicated that the city had recently adopted an ordinance which will not permit new billboard signs within the city limits.

Topography:

The site is mostly level with W 5th and Philadelphia Streets as well as Dalton Avenue and slopes downhill towards the west along the W 9th Street frontage to the I-75 right of way. All of the I-75 frontage is below the travelway by approximately 30 feet with this low lying area also approximately 15 feet below the more level portions of the site along the eastern boundaries. A total of 3.65 +/- acres lies in the described bottom and would need to be filled in order to become developable. Included below are two topographical maps which depict the subject. Calculations provided by HMB Engineers indicate that 60,000 yards of fill material would be required to fill the low lying areas along I-75 up to the level areas of the property along the east boundary. These low lying areas may also be suitable for development with below grade parking structures more commonly used in urban development, but this would be at a greater cost than filling the site per interview with HMB Engineers and in conjunction with review of cost estimation guides and development budgets from other projects with multi-story structures. In either case there would also be additional cost in developing over the existing utility easements described below. However, in

order to estimate the exact cost, more precise engineering information would be required and is not available. As this is a condition that also exists in the after, this is not a factor which would impact the difference in the before and after value which are adjusted for these conditions.

Topography Hillshade

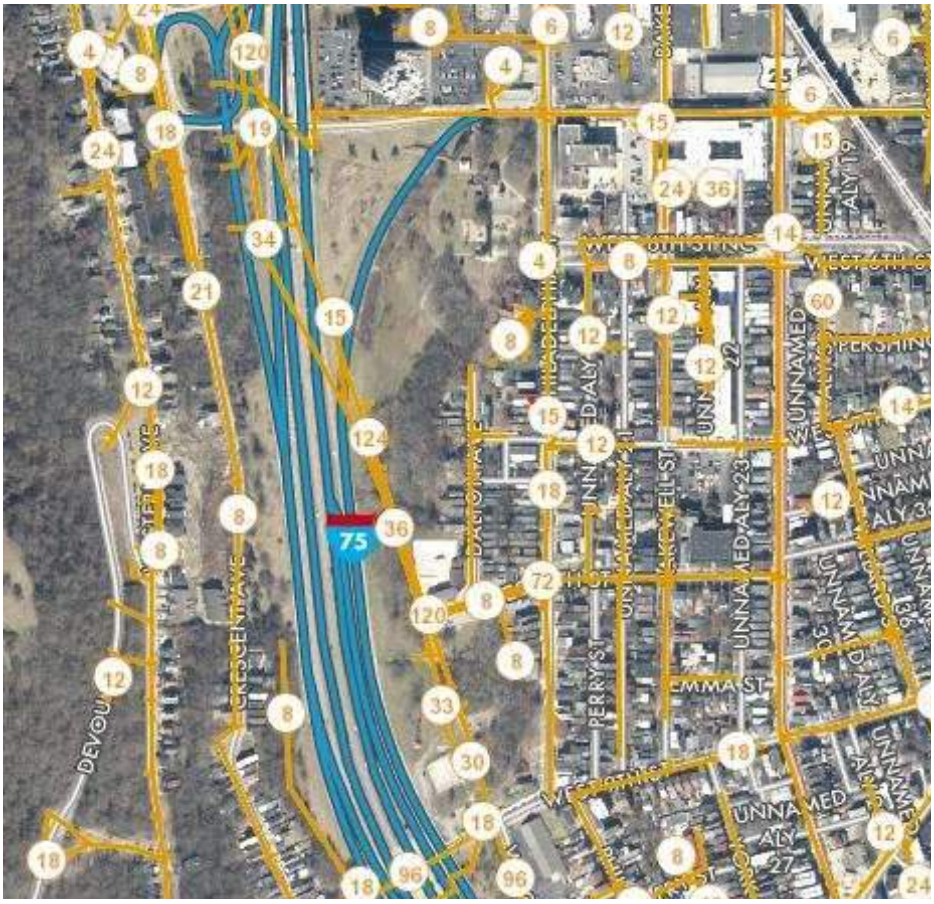


Topography Contours



Utilities: All public utilities including sewer, city water, electric and gas are available to the site and in some cases encumber the property. The low lying area along I-75 has two large sanitary and storm sewer lines of 36" and 120" which would impact the ability and cost to develop this portion of the site. The maps below depict the system of storm and sanitary sewers as well as public water around the subject property.

STORM & SANITARY SEWERS



As will be detailed in the zoning analysis section of the report, the most probable zoning for the subject under the hypothetical condition it is not a park use would be Traditional Urban Mixed Use (TUMU) district. Given the size of the site, numerous development plan configurations are conceivable and viable. Where the sewer line easements are located could be parking, streets and/or greenspace to the benefit of the overall development. There may be a cost though in adding fill and developing over the easements. The added costs as well as reduction in fully developable land area is recognized by the appraiser in both the before and after value scenarios. As such, while no site plan or budget is available to the appraiser, this factor will not impact my opinion to the difference in the before and after value.

PUBLIC WATER


10
8
6
6
4
12
12
4
6
6
2
8
6
75
6
6
4
8
8
6
6
WX2111720
WX2111720
WX2111720

FLOODPLAIN MAP

RiskMeter Core

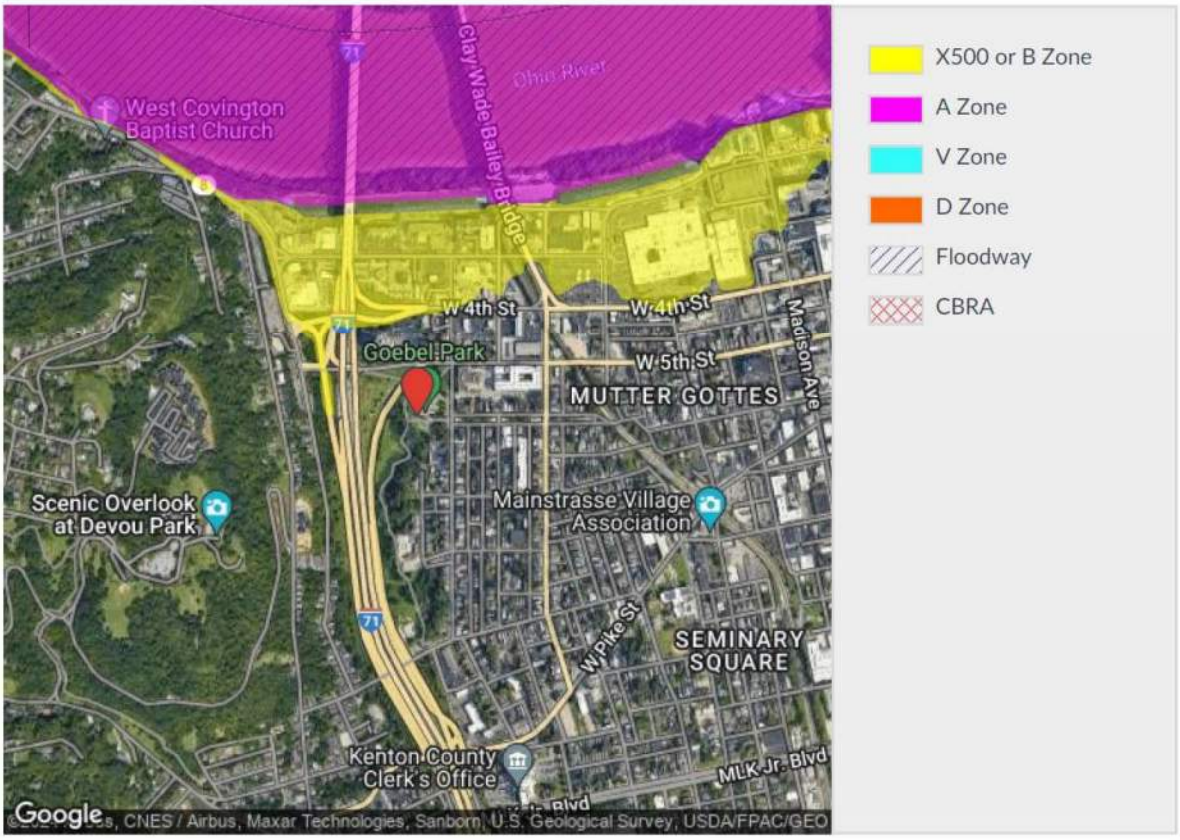
501 PHILADELPHIA ST COVINGTON, KY 41011-1239

LOCATION ACCURACY: Excellent

Flood Zone Determination Report

Flood Zone Determination: OUT

COMMUNITY	210129	PANEL	
PANEL DATE	May 16, 2013	MAP NUMBER	2111



Easements

A review of the provided plans and information from HMB Engineers indicates that the property is encumbered with two sanitary and sewer lines which cross the bottoms of the property closest to I-75. The utility maps indicate that there are 36" and 120" lines in the bottom which could impact ability and cost of development. In addition it was also reported that the Corps of Engineers has storage rights on the low parts of the site. However, pump station

improvements are to be made as a part of the construction of the Brent Spence Bridge which will eliminate this need. Other easements are also for utilities and are mostly located around the perimeter with no adverse affects.

Soils

Due to the urban location a detailed soils analysis was not available for review. Topography maps were reviewed. Based on the surrounding development, it appears the soils are stable and suitable for development in accordance with the highest and best use.

Hazardous Waste

I have not conducted an independent investigation to determine the presence or absence of toxins on the subject property. If questions arise, the reader is strongly cautioned to seek qualified professional assistance in this matter. Please see the Assumptions and Limiting Conditions for a full disclaimer.

Site Rating

Overall, the subject site is considered good as a land site in terms of its location, exposure and access to employment, education, shopping and housing, based on its location along major and minor arterials and neighborhood streets.

Site Improvements

The site improvements consist of a system of asphalt trails through the park, concrete and asphalt parking lots, basketball and tennis courts, metal and wood fencing, inground metal lined public pool and playground equipment. All of the site improvements are older and some in disrepair. Given that highest and best use of the site would be for its redevelopment, the site improvements do not contribute to value and should be razed. The appraiser estimates $5,000 to raze the basketball and tennis courts plus $5,000 for the playground equipment and $20,000 for all of the parking lots, trails, fencing, and other miscellaneous site improvements for total cost of $30,000

(2.3.2.3.2) Improvements

The information presented below is a basic description of the existing improvements that is used in the valuation of the property. Reliance is placed on information provided by sources deemed dependable for this analysis. It is assumed that there are no hidden defects, and that all structural components are functional and operational, unless otherwise noted. If questions arise regarding the integrity of the improvements or their operational components, it may be necessary to consult additional professional resources.

OVERVIEW

Property Type	Land - Commercial Land
Tenancy	Public Park
Net Rentable Area (NRA)	10,629
Gross Building Area (GBA)	10,629
Total Buildings	4
Floors	1 - 2
Year Built	1972
Age/Life Analysis	
Actual Age	52
Effective Age	50
Economic Life	50
Remaining Useful Life	0
Overall Building Quality	Fair
Overall Building Condition	Fair
Overall Building Appeal	Fair
Land to Building Ratio	60.12 : 1
Site Coverage Ratio	1.66% (Based On Total Overall Site Area)
Floor Area Ratio (FAR)	0.02
Total Parking Spaces	61 - Off-Street, Surface - Asphalt spaces
Parking Ratio	5.7 / 1,000 SF NRA

Size The gross building area (GBA) is taken from the site inspection.

BUILDING INFORMATION

	GBA	NRA	YEAR BUILT	ACT. AGE	EFF. AGE	ECON. LIFE	REM. LIFE	FLOORS	CLASS
Park Pavilion & Picnic Shelter	4,396	4,396	1972	52	50	50	0	1	C, D
Bell Tower	634	634	1972	52	50	50	0	2	C
Picnic Gazebo	250	250	1972	52	50	50	0	1	D
Pool House	5,349	5,349	1972	52	50	50	0	1	C,D
TOTAL	**10,629**	**10,629**	**1972**	**52**	**50**	**50**	**0**	**1 - 2**	

The buildings consist of brick and wood frame structures which are classified as being average quality and fair in condition with exception of the Bell Tower which has been renovated more recently. The appraiser considers whether the existing improvements could be incorporated into a redevelopment scenario. The only such feature is possibly the bell tower that could give a redevelopment some charm. That stated, based on a review of redevelopments and new developments when this was done, developers did not place

any economic value on these statement features. An example of this is the Phoenix Hill Redevelopment project at Baxter and Broadway in Louisville. At the planning and zoning hearing, the developer was asked about whether he wanted to maintain an old façade and he stated "I think it's neat and we can work with it; but, if you would like us to take it down, we can, or if you would like us to keep it, we can." The other improvements cannot be incorporated into a redevelopment. As such, I consider the cost to raze the improvements at $7.00/SF or $70,000 rounded excluding the bell tower which could go either way. Along with the site improvement cost of $30,000, total razing costs are therefore projected at $100,000.

Signage	There is signage for the park.
Site Coverage Ratio	1.7% (10,629 SF footprint / 639,026 SF site), which is within market standards for similar commercial land buildings in the area.
Parking	Parking varies by use but is stated as one space per 1,000 SF. The subject provides 61 off-street, surface - asphalt parking spaces, or 5.7 spaces per 1,000 SF of NRA, which is within market standards for land (commercial land) property type.
Deferred Maintenance	Park Pavilion & Picnic Shelter - Deferred; Bell Tower - Ongoing; Picnic Gazebo - Deferred; Pool House - Ongoing.
ADA Comment	This analysis assumes that the subject complies with all ADA requirements. Please refer to the Assumptions and Limiting Conditions section.
Hazardous Materials	A Phase I report was not provided. This appraisal assumes that the improvements are constructed free of all hazardous waste and toxic materials, including (but not limited to) unseen asbestos and mold. Please refer to the Assumptions and Limiting Conditions section regarding this issue.

(2.3.2.3.3)Fixtures
The property includes no fixtures.

(2.3.2.3.4) Use History
The subject property has been in use as a public park since 1972.

2.3.2.3.5) Sales History
The subject title is currently recorded in the name of The City of Covington, Kentucky who acquired title to the property in various deeds as follows; March 30, 1981 - $154,100, Kenton County Deed Records, Book & Page 794-220; May 21, 1963 - $1 DB 506-367; May 27, 1963 - $1.00 DB 508-555; 6/26/1979 - $76,400 DB 751-58; October 29, 1970 - $1 DB 573-506. A title was not available for the City of Covington owned public right of way which is a part of the property.

According to county records there has been no transfer of ownership for the subject property in the past ten years and there is no known pending sale or listing of the subject.

2.3.2.3.6) Rental History
The subject property has no past rental history.

2.3.2.3.7) Assessed Value and Annual Tax Load
The subject's assessed values and property taxes for the current year are summarized in more detail in the following table.

ASSESSMENT & TAXES (2024)						
TAX RATE AREA	**City of Covington**				**TAX RATE**	13.5910
ASSESSOR PARCEL #	**LAND**	**IMPROVEMENTS**	**TOTAL**	**EXEMPTIONS**	**TAXABLE**	**BASE TAX**
040-43-05-003.00	$1,112,000	$650,000	$1,762,000	$1,762,000	$0	$0
040-43-05-026.00	$40,000	$80,000	$120,000	$120,000	$0	$0
040-44-10-010.00	$133,500	$116,500	$250,000	$250,000	$0	$0
City of Covington Right of Wa	$0	$0	$0	$0	$0	$0
Subtotal	$1,285,500	$846,500	$2,132,000	$2,132,000	$0	$0
Subtotal $/NRA	$120.94	$79.64	$200.58	$200.58	$0.00	$0.00
TOTAL BASE TAX $/NRA / $ TOTAL					**$0.00**	**$0**

Source: Kenton County Assessment & Taxation

As shown in the table above, the most recent total assessment for the subject is $2,132,000. As the property is owned by a tax free entity there is a 100% exemption in place. At the indicated market value, the taxes would be as follows;

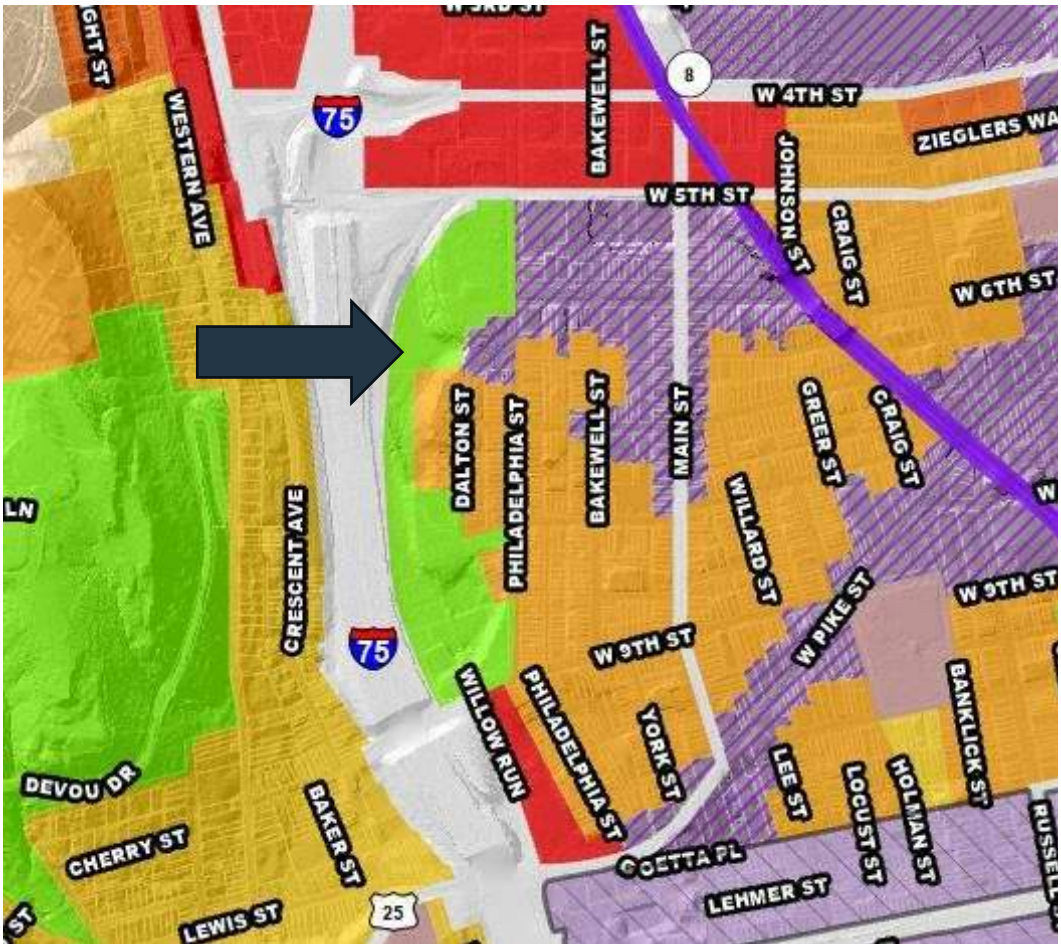
TAXES ESTIMATED BEFORE AND AFTER				
COMPONENT		**BEFORE**		**AFTER**
Land		$9,485,000		$8,875,000
Improvements		$0		$0
Subtotal		$9,485,000		$8,875,000
Assessed Value Ratio		100.00%		100.00%
Assessed Value		**$9,485,000**		**$8,875,000**
Taxes Current Millage Rate	$	13.591	$	13.591
TAXES ESTIMATED BEFORE AND AFTER		**$128,911**		**$120,620**

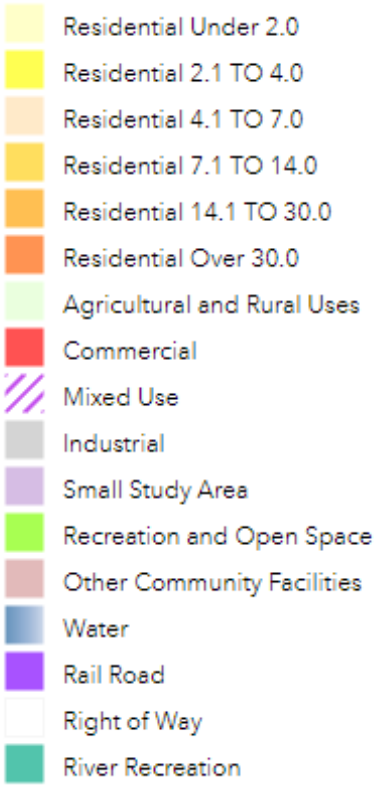
2.3.2.3.8) Zoning and Other Land Use Regulations

ZONING MAP



The subject is located in the Recreation (Rec) zoning area which has not recently been changed. As the UASFLA and LWCF require that the property be valued as available for an economic use, the current zoning does not apply. As the property has been in use as a park, the City of Covington Comprehensive Plan does not provide for a recommended land use. However, recommended land uses for the surrounding properties are relative to the determination of likely zoning and are as follows;





Based on the Comp plan the adjoining recommended land use at the north end of the property next to the historical Mainstrasse area is mixed use. This area is currently zoned TUMU (Traditional Urban Mixed Use) and DTC (Downtown Core). An extension of the Mainstrasse theme should be anticipated for the north end of the subject property. South of Mainstrasse and extending to W 9th Street the recommended land use is high density residential at 14.1 to 30 units per acre. As with the north end of the property, an extension of the adjoining recommended land use should be anticipated as no barriers exist between the subject and the adjoining land uses which would cause a change in use.

Interviews were also conducted with City of Covington Planning and Zoning officials Tom West and special project coordinator Elizabeth Wetzel. These officials stressed the importance of protecting the historic areas, extending the Mainstrasse theme, and achieving maximum density with the TUMU (Traditional Urban Mixed Use) zone recommended as most appropriate for the subject property.

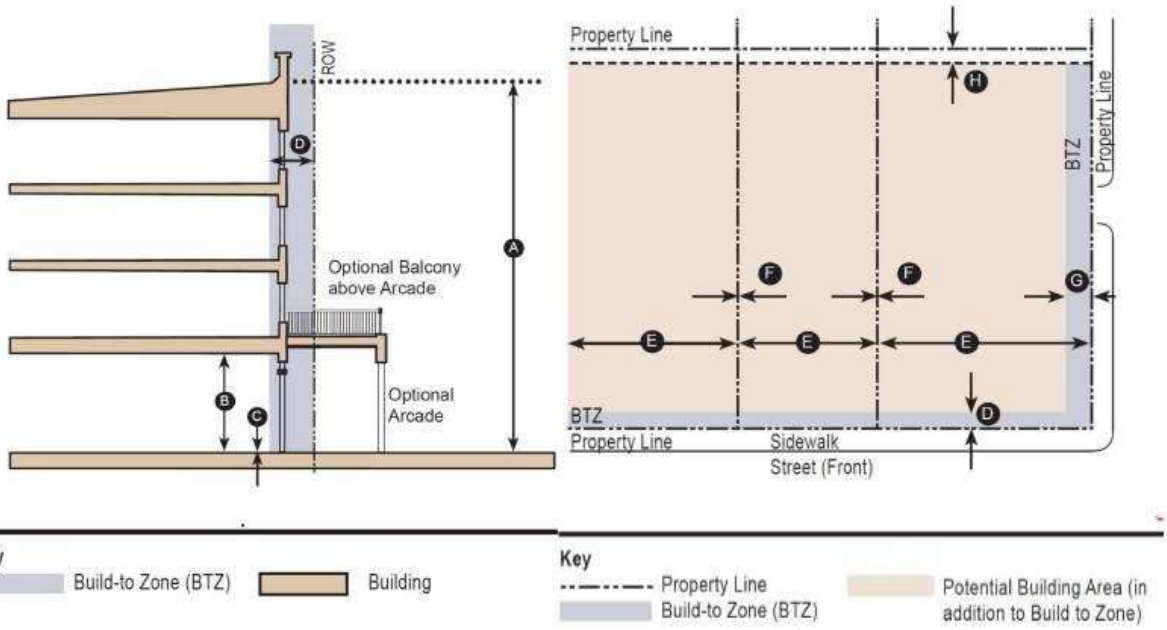
As indicated by the highest and best use analysis which follows, the anticipated zoning for the subject site if available for economic use was also concluded to be TUMU, Traditional Urban Mixed Use. The TUMU zoning code has requirements and allows for the following land uses;

1. TUMU Purpose

The Traditional Urban Mixed-Use (TUMU) district consists of the historic main streets of Covington's in-town neighborhoods. Priority placed on optimizing the physical characteristics of the built environment for increased walkability and a vibrant center building upon the historic character of Covington's neighborhood main streets. This district supports the small-scale fine-grained character the historic neighborhoods with a mix of attached and detached mixed-use buildings on small lots. Buildings are close to the sidewall and off-street parking is screened from public spaces.



Examples of Traditional Urban Mixed Use (TUMU) district- West 6th Street



2. TUMU Building Height[1,2]		
Heights[3,4]		
Minimum Total Building Height	2 stories	A
Maximum Total Building Height[5]	Greater of (1) 3 stories or (2) 120% of context average	A
Ground Floor Elevation (floor to floor)[6]	12' min.(commercial) 9' min.(residential)	B
Ground Finish Floor above sidewalk or finished grade[6]	0" minimum 24" maximum	C

TABLE NOTES:

[1] In case of discrepancy with similar provisions, Table 04.10.2, *Building Placement and Massing Standards by District*, governs.

[2] Where a given standard relates to a context average, the context shall be defined per Sec. 09.28.2, *Identifying the Context*.

[4] Specified building and lot elements may encroach above the maximum permitted height per Sec. 04.10.3, *Permitted Setback and Height Encroachments*.

[4] Basements and attics shall not count as a story.

[5] Towers, cupolas, and other rooftop features with a footprint smaller than 2 feet by 20 feet may extend up to 30 feet above the designated height limit.

[6] In case of discrepancy with similar provisions, any similar standards specifie by a given building type in the subsections of Sec. 04.08.3, *Housing and Building Types*, shall govern.

3. TUMU Building Form and Placement[1,2,3,4]		
Front Street Build-to Zone or Front Street Setback	Minimum: zero feet Maximum: Lesser of (1) 15ft or (2) 120% of context average	D
[Reserved]	[Reserved]	E
Interior Side Setback	Lesser of (1) 3 ft. or (2) 80% of context average[4]	F
Side Street Build-to Zone or Side Street Setback	Minimum: zero feet Maximum: Lesser of (1) 15ft or (2) 120% of context average	G
Minimum Rear Setback	Lesser of (1) 5 ft. or (2) 80% of context average	H
Distance Between Building Entrances on Building/ Within Same Development	50' maximum	--

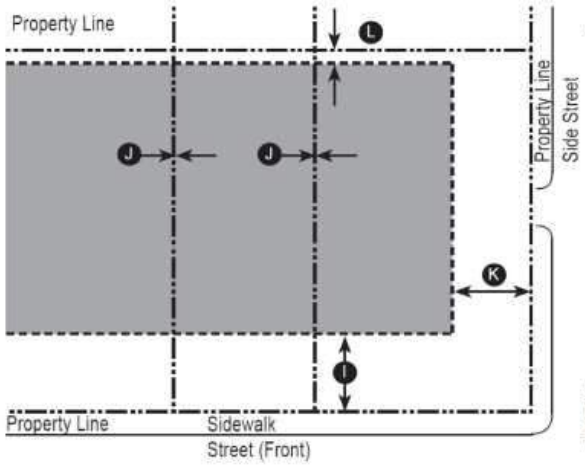
TABLE NOTES:

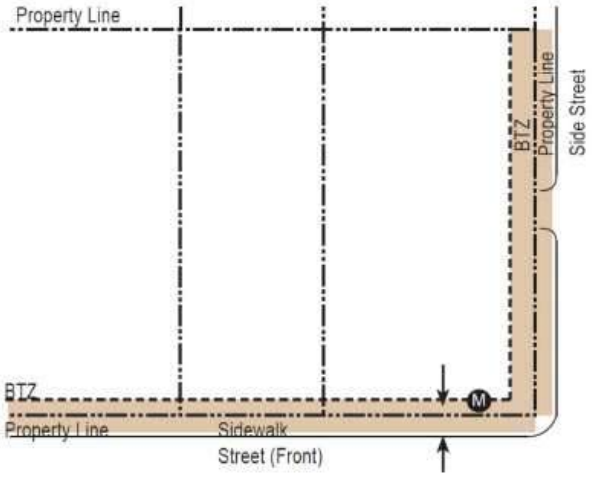
[1] In case of discrepancy with similar provisions, Table 04.10.2, *Building Placement and Massing Standards by District*, governs.

[2] Where a given standard relates to a context average, the context shall be defined per Sec. 09.28.2, *Identifying the Context*.

[3] Any street-facing building elevation wider than 150 ft shall be designed to read as a series of buildings no wider than 75' each.

[4] No side setback is required between single-family attached dwellings and/c between duplex units along a common lot line.





Key
Property Line
Setback Line
Parking Area

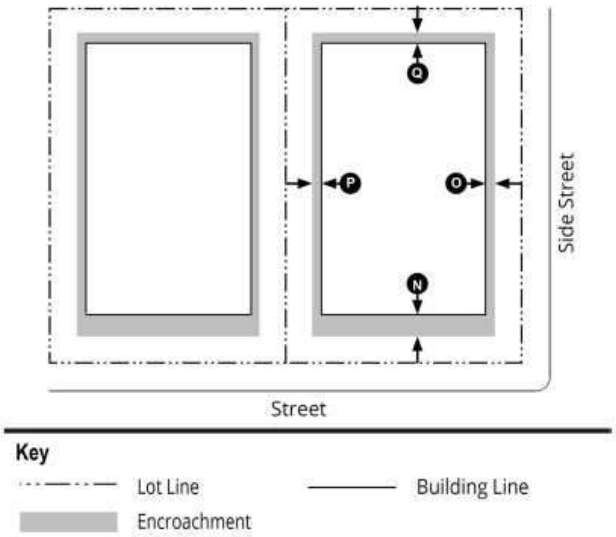
Key
Property Line
Encroachment Area
Max Build-to Zone (BTZ)

4. TUMU Parking Location[1,2]		
Front Street Setback	30' minimum	I
Interior Side Setback (mid-block)	0' minimum	J
Side Street Setback (corner)	30' minimum	K
Rear Setback (from a separate lot)	5' minimum	L
Rear Setback (from an alley)	0' minimum	L
Rear Setback (from a non-alley street)	20' minimum	L

TABLE NOTES:
[1] Parking shall be accessed from rear alleys or side streets whenever possible
[2] The design (including setbacks) of a vehicle use area is further subject to th applicable provisions of Division 11, *Parking, Loading, and Circulation.*

5. TUMU Frontage Elements[1]		
Permitted Frontage Types	See Table 04.08.6.A, *Permitted Frontage Types by Building Type.*	M

TABLE NOTES:
[1] Frontage Elements may encroach forward of the build-to zone and/or into the right-of-way, barring any additional restrictions by the public entity that has control over the public right-of-way.



6. TUMU Encroachments into Facade Zone[1]

	Encroachment Type			
	Front (max.)	Corner Side (max.)	Interior Side (max.)	Rea (max
	N	O	P	Q
Frontage Type				
Arcade/Gallery[2]	10 ft	10 ft	--	--
Shopfront: awning, balcony[2], bay window, projecting shade structure	10 ft	10 ft	--	--
Upper floor Balconies[3]	6 ft	6 ft	5 ft	5 ft
Architectural Features	3 ft	3 ft	3 ft	3 ft
Miscellaneous				
Encroachments are allowed into the facade zone, but may not encroach into the public right-of-way, except for an arcade, gallery, balconies in conjunction with an encroachment permit.				

TABLE NOTES:
[1] Specified building and lot elements may encroach into required setbacks pe Sec. 04.10.3, *Permitted Setback and Height Encroachments*.
[2] May encroach into the street ROW to within 2 ft of the face of the curb, subject to approval by the Public Works Director.
[3] May encroach into the street ROW up to a maximum of 5 ft, subject to approval by the Public Works Director.

7. TUMU Required Street Trees

Infill or Replacement Street Trees	Min. No. Trees
Addition, Renovation, or New Building[1]	
< 1,000 sf	--
≥ 1,000 sf - < 2,500 sf	2
≥ 2,500 sf	4
Miscellaneous	
All street trees shall be planted and maintained to avoid conflicts wi large trucks and fire/emergency vehicles. The min. canopy clearance at maturity is 14 ft.	
The use of native species is encouraged.	

8. TUMU Other Applicable Development Standards

Title	Reference
Generally Applicable	
Use-Specific Standards -Limited and conditional uses -Accessory uses such as outdoor display -Temporary uses	Division 07
General Provisions -Tiny House Neighborhood -Building Types -Frontage Types -Open Space Types	Division 08
Lots	Division 09
Buildings, Elements, and Utilities	Division 10
Parking, Loading, and Circulation -Maximum Parking Ratios -Parking Area Design -Special Studies -Shared Parking	Division 11
Landscaping, Screening, and Buffering	Division 12
Signs	Division 13
Environment -Flood Hazard Reduction	Division 14
For Properties within Specific Secondary (Overlay) Districts	
Historic Preservation (HP) Overlay	Sec. 02.05.2
Hillside Stability (HS) Overlay	Sec. 02.05.3
12th Street Corridor (TS) Overlay	Sec. 02.05.4

9. TUMU Land Uses	
Use Type	**TUMU**
Agriculture and Animal Service	
Community garden	L
Kennel	--
Market garden or Nursery (retail)	C
Roadside stand	--
Veterinary Clinic or Veterinary Hospital	--
Other Agriculture and Animal Service including: Animal Production; Crop Production; Stable (Private and Non-Commercial); Stable (Public or Commercial)	P
Household Living	
Accessory dwelling unit	--
Dwelling, single-; two-; three- or four-; or multi-family (5 or more)	P
Short-term rental, host occupied	L
Short-term rental, non host occupied	C
Sober living home (6 or fewer residents)	P
Upper-story dwelling unit	P
Group Living	
Addiction treatment facility	--
Nursing home or Residential care facility	P
Youth shelter	C
Civic	
Airport or heliport	--
Bus or train passenger terminal	--
Cemetery, columbarium, mausoleum, or memorial park	C
Day care, type 1 or 2	L
Government / non-profit parking lot or maintenance area	--
Park-and-ride facility	--
Other Civic uses including: Adult day care; College, university, or vocational school; Community, senior, or youth center; Government service; Museum or gallery; Park, playground, or common open space; Pre-school or child day care center; Public assembly facility; School, elementary, middle, or high; Swimming pool (public)	P
Medical Facilities	
Chiropractor, or acupuncture, medical or dental clinic	L
Other Medical Facilities including: Blood or plasma center; Drug, alcohol or psychiatric treatment center, out-patient; Hospice center; Hospital; Medical or dental laboratory	--
Utilities	
Utilities, minor	P
Utilities, major	C

9. TUMU Land Uses (cont.)	
Use Type	**TUMU**
Entertainment, Indoor	
Skateboard or trampoline park(indoor)	--
Other Indoor Entertainment including: Archery / firearms range (indoor); Axe throwing lounge; Bar or tavern; Bingo hall; Body art service; Bowling center; Brewpub; Convention center; Dance club or dance hall; Fitness gym; Gymnastic, dance, or martial arts facility; Microbrewery or micro-distillery; Movie or other theater; Pool hall; Skating rink; Tennis or racquetball facility	L
Entertainment, Outdoor	
Farmers market	L
Other Outdoor Entertainment uses including: Amphitheater; Amusement park; Campground without overnight accommodation; Fairgrounds; Golf course, golf driving range, or mini-golf course; Marina; Paintball facility; Race track (vehicle); Skateboard park; Stadium, running track, or ball field	--
Office	
Bank or credit union (with drive-through)	--
Currency exchange (check cashing) or payday loan business	C
Office uses including: Accounting, advertising, architecture, bill collection, charitable organization, consulting, counseling, data processing, design, engineering, investment or brokerage, law, real estate or insurance, sales, temporary employment, or travel; Bank or credit union (without drive-through); TV or radio studio	P
Overnight Accommodations	
Bed and breakfast inn	L
Hotel or motel	P
Overnight Accommodations including: Campground with overnight accommodations; Recreational vehicle park; Resort	--
Restaurant	
Restaurant, drive-in or drive-through	--
Other Restaurant uses including: Candy or ice cream shop; Catering establishment; Coffee shop; Food delivery; Restaurant, sit-down	L
Retail Repair, Sales, and Service	
Mobile food vending service	L
Mobile retail vending service	L
Package liquor	L
Pawn shop	--
Temporary Vendor	L
All Repair-Oriented Uses	L
All other Sales-Oriented Uses	L

All Service-Oriented Uses	L
Vehicle Sales and Services	
Vehicle service, minor	L
Other Vehicle Sales and Service uses including: Car wash; Fuel sales (retail); Rental or sales of manufactured homes, mobile homes, portable buildings or trailers; Truck stop; Vehicle repair, major; Vehicle sales, rental, and leasing	–
Light Industrial	
Building or development contractor	–
Bulk mailing service	L
Micro-manufacturing	L
Repair of scientific or professional instruments	L
Research, testing, and development laboratory	L
Other Light Industrial uses including Manufacture or Assembly of Certain Goods listed in Sec. 09.27.3	L

TABLE NOTES:
[1] In case of discrepancy with this summary table, Table 03.06.3, *Permitted Us by District*, shall govern.

10. TUMU Permitted Land Uses Key

P	"P" means that the land use is Permitted by Right, subject to the standards that apply to all Permitted Uses. The use is approved by the Administrator.
L	"L" means that the land use is Permitted with Limitations, in tl same manner as a Permitted Use, but is subject to Division 07, *Use-Specific Standards*.
C	"C" means that the use is allowed as a Conditional Use, which may be approved following a public hearing by the Board of Architectural Review and Development (BOARD), subject to: 1. Division 07, *Use-Specific Standards*; and 2. The procedures set forth in Sec. 07.23.2, *Conditional Use Permit*.
–	Use is prohibited.

(Ord. No. O-13-21, 09/28/2021)

Effective on: 10/6/2021

The code document is very useful in demonstrating that this zone requires the smallest of setbacks for both building and parking area thereby maximizing useable area. The code also requires multi-story buildings and permits a variety of anticipated commercial uses including retail, restaurants, hotels as well as high density residential. Given the size of the subject property required off-street parking based on use and open space requirements can also be met.

In addition to zoning, there is no other land use and environmental regulations that have an impact on the highest and best use and value of the property. Further, there are no known private restrictions on the property, such as deed and/or plat restrictions.

(2.3.3.1) HIGHEST AND BEST USE

The highest and best use of the subject property provides the foundation for the valuation section. Highest and best use is defined in the 6th edition of *The Dictionary of Real Estate Appraisal* (Appraisal Institute, Chicago, 2015), as follows:

> The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Highest and best use analysis uses the following steps for the subject:

- Highest & Best Use As Vacant
- Determination of the ideal improvements
- Highest & Best Use As Improved
- Conclusion of the Highest & Best Use

The analysis of highest and best use can be thought of as the logical end of a spectrum of market analysis procedures, running from the macroeconomic overview of a general market study, through more detailed marketability studies and analyses of financial feasibility, to the formal analysis of highest and best use. In theory, the highest and best use is commonly described as that reasonable and most profitable use that will support its highest present value. The highest and best use, or most profitable use, must be legally permissible, physically possible, financially feasible, and maximally productive.

This section develops the highest and best use of the subject property As-Vacant and As Improved. Per the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA) requirements, "The appraiser's estimate of highest and best use must be an "economic" use. A non-economic highest and best use, such as "conservation," "natural lands," "preservation," or any use which requires the property to be withheld from economic production in perpetuity, is not a valid use upon which to estimate market value. (Section 4.3.2.3, UASFLA, 2016)"

Further the LWCF manual (page 62, paragraph (b)) provides the following instruction: "In order to determine the highest and best use of the park property, the appraiser is to ignore the actual zoning of the property if the zoning is a non-economic zoning established to recognize the "open space" characteristics of the park or to foster the preservation of the park. In this situation, the appraiser is to determine the most likely zoning that would have come about under the hypothetical condition the park was never created. In so doing, the appraiser will consider likely property uses based upon all germane factors as well as the actual present zoning of comparable, nearby, privately owned properties. Under this scenario, the cost, risk, and time associated with obtaining a zoning change would not be appropriate. This procedure is necessary to avoid penalizing the conversion property because it was taken out of private ownership and dedicated to a non-economic use."

(2.3.3.1.1) FOUR TESTS

AS VACANT ANALYSIS

In this section the highest and best use of the subject as-vacant is concluded after taking into consideration financial feasibility, maximal productivity, marketability, legal, and physical factors.

Legally Permissible

Private restrictions, zoning, building codes, historic district controls, and environmental regulations are considered, if applicable to the subject site. The legal factors influencing the highest and best use of the subject site are primarily government regulations such as zoning ordinances. Based on interviews with local zoning officials and developers along with a review of the comprehensive plan, if the property were available for an economic use, the zoning should encourage mixed use development. The TUMU(Traditional Urban Mixed Use) zone is found in the adjacent Mainstrasse area of Covington and TUR (Traditional Urban Residential) is located south of Mainstrasse to W 9th Street where there is some commercial transition. The TUMU zone appears most appropriate when incorporating the proximity to I-75 and the historic main streets of Covington's in-town neighborhoods. Priority is placed on optimizing the physical characteristics of the built environment for increased walkability and a vibrant center building upon the historic character of Covington's neighborhood main streets. This district supports the small-scale fine-grained character of the historic neighborhoods with a mix of attached and detached mixed-use buildings on small lots. Buildings should be close to the sidewalk and off-street parking is screened from public spaces As such, the legally possible uses are a combination of commercial, retail, restaurants, hotels, office, and dense residential development as permitted by the TUMU zoning. Although the site would be an excellent location for billboard signs, the city of Covington has indicated that no additional billboards will be permitted.

Physical Possible

The test of what is physically possible for the subject site considers physical and locational characteristics that influence its highest and best use. In terms of physical features, the subject site totals 14.6700-acres (639,026 SF), it is rectangular to irregular in shape and has a level to sloping topography. The site has good exposure from I-75, W 5th, Philadelphia, Dalton and W 9th Street and good overall direct access to all streets with exception of I-75, a limited access highway. In this location I-75 has traffic counts in excess of 150,000 cars per day. As such, the western boundary of the property should be reserved for higher traffic commercial uses such a retail, restaurants, offices and hotels, forming a buffer to the high density residential uses closer to Philadelphia Street. As mentioned in the site description, the western 3.65 acres that lay along I-75 is below the road and would either need 60,000 yards of fill or possibly developed as underground parking for urban development. In addition, there are large storm and sanitary sewer lines that encumber a portion of the bottomland. Discussions with Ken Sperry of HMB engineers indicate that these factors would not ultimately restrict the developable area but would result in higher development costs. For the remaining 11.02 acres of the site there are no known physical limitations that would prohibit development of any of the by-right uses on the site. Further under the TUMU zoning, the developable area of the subject is maximized with buildings which are a minimum of 2 stories and close to the individual lot boundaries.

Financial Feasibility

The test of financial feasibility focuses on market demand, supply, cost and profit. Currently the IRS site which is along the Covington riverfront would represent the primary competition for the subject site. This 23 acre development has been master planned by the City of Covington as an urban core economic development project which will feature individual lots which range from 0.66 to 2.59 acres that will be sold to various developers at current price of $2,000,000 per acre pad ready. A new zoning code was developed for this site which requires mixed use development as well as public spaces.

Supply and demand data for the retail and hospitality, multi-family residential and office sectors were also gathered from Costar data for the Northern Kentucky area and Covington submarket. This information is summarized in the following tables;

RETAIL MARKET AND SUBMARKET DATA SUMMARY (5 YEARS)					
		INVENTORY SUPPLY (SF)		VACANCY (%)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	24,155,194	3,893,085	2.2%	3.0%
Q3	2023	24,152,969	3,893,085	2.3%	3.0%
Q2	2023	24,147,569	3,893,085	2.2%	3.4%
Q1	2023	24,142,569	3,893,085	2.2%	3.5%
	2023	24,142,569	3,893,085	2.2%	3.5%
	2022	24,135,219	3,891,135	2.2%	3.0%
	2021	24,058,071	3,882,775	2.1%	2.3%
	2020	24,308,356	3,964,533	3.1%	2.9%
		RENT $/SF		NET ABSORPTION (SF)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	$17.09	$24.08	25,542	(1,725)
Q3	2023	$16.76	$24.63	(14,686)	17,099
Q2	2023	$15.83	$24.44	12,117	3,746
Q1	2023	$16.24	$23.08	3,777	(17,123)
	2023	$17.09	$23.08	26,750	1,997
	2022	$15.54	$23.47	42,441	(22,659)
	2021	$13.10	$15.16	(2,145)	(55,103)
	2020	$12.13	$12.55	91,071	5,507

Source: CoStar Property®

The Northern Kentucky Retail and Hospitality market demonstrates positive conditions. There has been little variance in supply over the last year. Vacancy has continued to decrease since Covid to the current level of 2.2%. Asking rents continue to increase and there was positive net absorption since 2021.

The Covington Retail and Hospitality submarket also demonstrates positive conditions. There was no new supply added in 2023 and vacancy has been positive in the last two quarters at 3%. Net absorption has also been positive over the last year. Rent levels are substantially above the wider market area, which is due to the urban location.

The following charts detail the multi-family market.

APARTMENT MARKET AND SUBMARKET DATA SUMMARY (5 YEARS)					
		INVENTORY SUPPLY (UNITS)		VACANCY (%)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	31,854	5,173	5.6%	8.6%
Q3	2023	31,797	5,173	5.6%	8.8%
Q2	2023	31,797	5,173	6.1%	9.3%
Q1	2023	31,797	5,173	7.3%	12.0%
	2023	31,854	5,173	5.6%	8.6%
	2022	31,219	5,040	6.5%	10.4%
	2021	30,156	4,773	3.2%	3.9%
	2020	30,011	4,599	4.2%	7.7%
		RENT $/UNIT/MONTH		NET ABSORPTION (UNITS)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	$1,201.00	$1,410.00	56	10
Q3	2023	$1,198.00	$1,403.00	148	24
Q2	2023	$1,201.00	$1,442.00	384	144
Q1	2023	$1,185.00	$1,399.00	300	34
	2023	$1,201.00	$1,410.00	888	212
	2022	$1,157.00	$1,378.00	7	(72)
	2021	$1,083.00	$1,314.00	424	342
	2020	$1,002.00	$1,227.00	1,012	414

Source: CoStar Property®

The Northern Kentucky Multi-Family market also demonstrates positive conditions. There has been little variance in supply over the last year. Vacancy has continued to decrease over the last year to the current level of 5.6%. Rents continue to increase and there has been positive net absorption since 2019.

The Covington Multi-Family submarket also demonstrates positive conditions. There was no new supply added in 2023 and vacancy has declined by 3.4% over the last year. Net absorption has also been positive over the last year. Rent levels are substantially above the wider market area, which is due to the urban location. Rent levels have increased 7.3% over the last 2 years.

The Covid pandemic altered the need for large scale office product and as such, the percentage of office that would be developed in this area should be less than in other mixed use development that has occurred in the past in other areas of Covington. The table below reflects the office supply, demand, vacancy and rental levels.

OFFICE MARKET AND SUBMARKET DATA SUMMARY (5 YEARS)

		INVENTORY SUPPLY (SF)		VACANCY (%)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	15,021,310	4,883,967	7.8%	4.8%
Q3	2023	15,021,310	4,883,967	7.9%	5.8%
Q2	2023	14,921,310	4,783,967	7.6%	4.5%
Q1	2023	14,921,310	4,783,967	7.7%	4.1%
	2022	15,258,221	5,078,996	7.1%	12.9%
	2021	15,250,221	5,078,996	9.5%	12.3%
	2020	15,332,910	5,286,748	9.2%	13.9%
	2019	15,355,390	5,289,828	6.7%	6.3%
		RENT $/SF		NET ABSORPTION (SF)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	$18.28	$19.24	14,795	48,336
Q3	2023	$18.33	$18.96	35,256	30,686
Q2	2023	$18.39	$19.05	14,583	(16,058)
Q1	2023	$18.39	$18.92	(47,690)	(19,592)
	2022	$19.22	$19.11	26,386	149,041
	2021	$19.15	$19.05	(122,766)	(95,448)
	2020	$19.10	$19.85	(400,300)	(405,600)
	2019	$17.69	$18.48	155,031	135,333

Source: CoStar Property®

MARKET INTERVIEWS

Also, as a part of this analysis, recent transactions and trends were discussed with knowledgeable local brokers, developers, and owners. Of the participants that were interviewed, the majority pointed to continued increases in pricing in the residential, retail, restaurant and hotel markets in the immediate area and were optimistic of new activity including the proposed IRS site to the northeast of the subject property and the Ovation mixed use project along the Newport riverfront, a Corporex Development.

Greg Sheper with Corporex, one of Northern Kentucky's largest developers, provided information on a nearby 24 unit townhouse development which will be located northwest of the subject and I-75. This project will include 4 story townhouse units which will be marketed for sale in a price range of $700,000-$800,000 for base units. Mr. Sheper noted that as construction costs have continued to decline across most sectors and with developer profit levels in the 15-20% range, there should be continued demand to search out new opportunities in the local market.

Based on the analysis of the subject's market and an examination of supply, demand, vacancy, cost, and developer profit levels, newly constructed mixed use buildings with a minimum of 2 floors and high density residential development should have a value commensurate with its cost and market profit levels.

Maximum Productivity

There is only one use that creates value and at the same time conforms to the requirements of the first three tests. Financial feasibility, maximal productivity, marketability, legal, and physical factors have been considered and the highest and best use of the subject site as-vacant concluded to be for development with mixed use commercial & dense residential uses with minimum of 2 stories, close to the streets, and less focus on office going forward.

AS IMPROVED ANALYSIS

The legal factors influencing the highest and best use of the subject property are primarily governmental regulations such as zoning and building codes. The subject's improvements were constructed in 1972 and are a legal, conforming use. The physical and location characteristics of the subject improvements have been previously discussed in this report. The project is of fair quality construction and in fair condition. Due to the minor nature of the improvements along with their age, condition and location, the buildings and site improvements, if available for development should be razed in favor of more dense mixed use commercial and high density residential development similar to the conclusion for the property as vacant.

MOST PROBABLE BUYER

Based on the type of property and the income generating potential, the most probable buyer for the subject would be a local or regional developer.

(2.3.3.1.2) LARGER PARCEL

The property described herein represents three tax parcels and city owned right of way that is within the boundaries of the park. The property as described represents the larger parcel as there is a unity of highest and best use, unity of title and all being contiguous.

(2.3.3.2) LAND VALUATION

(2.3.3.2.1) SALES COMPARISON APPROACH

This section values the subject site by comparing it with substitute land sales or listings within the local market area or in competitive areas throughout the region. Land value is influenced by a number of factors; most notably development and use potential. These factors, as well as others, are factored in the following analysis.

UNIT OF COMPARISON

The most relevant unit of comparison for competing land is the $/SF. All of the comparable sales presented in this section were reported on this basis.

COMPARABLE SELECTION

A thorough search was made for similar land sales in the area. The parameters of the survey were highest and best use, zoning, proximity to the subject, size, and date of sale. In selecting comparables, emphasis was placed on confirming recent sales of sites that are similar to the subject property in terms of location and physical characteristics. Overall, the sales used represent the best comparables available for this analysis.

PRESENTATION

The following Land Sales Comparison table summarizes the sales data. Following these items, the sales are adjusted for applicable elements of comparison and the site value is concluded. A location map, and detail of comparable sales is included in the addenda of the report.

LAND SALES COMPARISON TABLE

	SUBJECT	COMP 1		COMP 2		COMP 3		COMP 4	
Name	Goebel Park Conversion Property	Former IRS Site		Former Montgomery Inn Restaurant Site		Infiniti Auto Dealership		-	
Address	501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington	200 W 4th St		406 Buttermilk Pike		1945 Dixie Hwy		1845 Dixie Hwy	
City	Covington	Covington		Fort Mitchell		Fort Wright		Fort Wright	
State	KY	KY		KY		KY		KY	
Zip	41011	41011		41017		41011		41011	
County	Kenton	Kenton		Kenton		Kenton		Kenton	
Submarket	Covington	Covington		Fort Mitchell		-		-	
Parcel	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00, City of Covington Right of Way	054-12-03-001.00, 054-12-02-001.00		028-10-03-014.04		041-20-00-002.00		041-20-00-009.00	
	-	-		-		-		-	
SALE INFORMATION									
Transaction Price		$20,500,000		$4,000,000		$1,200,000		$540,800	
Transaction Price $/SF		$20.55		$19.33		$14.45		$15.72	
Property Rights [1]		Fee Simple		Fee Simple		Fee Simple		Fee Simple	
Financing [2]		Cash to Seller		Cash to Seller		Conventional		-	
Sale Conditions [3]		Transaction		Transaction		Transaction		Transaction	
Expenditures After Sale [4]		$1,231,500	6.0%	$60,000	1.5%	$0		$0	
Market Conditions [5]		8/3/2020	4.7%	6/15/2022	2.7%	3/15/2019	6.3%	3/25/2022	2.9%
Sale Status		Recorded		Recorded		Recorded		Recorded	
Recording Number		KC35-47		KC 171-214		5966-350		0155-585	
Marketing Status		Open Market		Open Market		Open Market		Open Market	
Marketing Period (Months)		-		-		-		-	
Total Transactional Adjustments		$2.26	11%	$0.81	4%	$0.90	6%	$0.46	3%
Adjusted $/SF		**$22.81**		**$20.14**		**$15.35**		**$16.18**	
PHYSICAL INFORMATION									
Square Feet	639,026	997,698		206,910		83,034		34,412	
Acres	14.6700	22.9040		4.7500	(5%)	1.9062	(5%)	0.7900	(10%)
Location	Good	Excellent	(15%)	Above Average	5%	Above Average	5%	Above Average	5%
Access	Good	Excellent	(10%)	Good		Good		Good	
Shape	Rectangular to Irregular	Generally Rectangular		Generally Rectangular		Generally Rectangular		Generally Rectangular	
Zoning	TUMU	CRM		MU		LHS		PO-1	
Topography	Level to Sloping	Level to Sloping		Level	(6%)	Level	(7%)	Rolling	(7%)
Easements	Sanitary/Storm	No Adverse	(10%)	No Adverse	(10%)	No Adverse	(10%)	No Adverse	(10%)
Total Physical Adjustments		($7.98)	(35%)	($3.22)	(16%)	($2.61)	(17%)	($3.56)	(22%)
Adjusted $/SF		**$14.83**		**$16.92**		**$12.74**		**$12.62**	
CONFIRMATION INFORMATION									
Company		City of Covington		Brandicorp		-		-	
Name		Tom West		Mike Brandi		Clay Greene		Deed, PVA	
Affiliation		Buyers		Buyers		Buyer		Buyer	
Date		1/12/2024		1/12/2024		11/1/2022		11/1/2022	

ADJUSTMENTS

Adjustments to the comparable sales were considered and made when warranted for expenditures after purchase, property rights transferred, conditions of sale, financing terms, and market conditions.

1. **Property Rights -** All of the sale comparables were fee simple reflecting the property rights appraised herein per the agreed upon scope of work.
2. **Financing -** The sales all reflected typical cash equivalent, lender-financed transactions and no adjustments were required for financing terms.
3. **Sale Conditions -** None of the comparables required a condition of sale adjustment, as all were confirmed to be arm's length transactions.
4. **Expenditures After Sale -** Expenses that the buyer incurs after purchase (demolition, cleanup costs, etc.). Sale No.1 and 2 both required adjustment for demolition costs after the purchase. The indicated costs were confirmed by participants and result in upward adjustment to the sales.
5. **Market Conditions (Time) -** Based on research and interpretation of value trends, the analysis applies an upward market conditions adjustment of 1.10% annually reflecting the relatively consistent appreciation that occurred between the oldest comparable sale date up through the effective valuation date. Sale No.3 and 4 were nearby sites that sold approximately 3 years apart with a reported price difference of nearly 9%. Of this a small 5% was due to site size differences with the remaining difference of 1.1% annually indicated to be related to time/market conditions.

QUANTITATIVE ADJUSTMENT PROCESS

Quantitative percentage adjustments are also made for location and physical characteristics such as size, location quality, access, exposure, as well as other applicable elements of comparison. Where possible the adjustments applied are based on paired data or other statistical analysis. The adjustment process is meant to illustrate the logic in deriving a value opinion for the subject property by the Land Sales Comparison Approach.

LAND SALES ADJUSTMENT DISCUSSION

The comparable land sales indicate an overall unadjusted value range from $14.45/SF to $20.55/SF, and average of $17.51/SF. After adjustments, the comparables indicate a narrower range for the subject site between $12.62/SF and $16.92/SF with an average of $14.28/SF. The adjustment process is described below.

Land Sale 1 ($14.83/SF Adjusted) – Consists of two lots. Front and middle of site are below grade by as much as 15 feet. Former IRS site. Was zoned for government use and rezoned CRM for mixed use economic development project which is the highest and best use. Property is located along the Covington riverfront and directly across the Ohio River from the NLF Bengals Paycor Stadium and Cincinnati skyline. The city of Covington is developing the site with fill, utilities, and original grid style street system for small individual lots that will be sold. Estimated sale price of the pad ready lots will be $2,000,000/Acre. There are also future plans to build an underground parking garage along the flood wall at the rear of the site which will allow for riverfront development. The old IRS buildings were decommissioned in 2019 and razed in 2022 at an cost of $1,931,500 less a $700,000 credit for value of recycled materials for net cost of $1,231,500 which is added to the sale price to arrive at the analysis price. The site will also require fill to raise to the 4th Street elevation. The city recently purchased 27,000 yards of fill material which has been stockpiled onsite at a cost of $160,000. Bo Hubbard project manager indicates another 27,000 yards of material will be needed to raise the front and middle of the site by 15 feet. The cost of grading the site will be included in the street infrastructure bid which will be presented on February 8, 2024. Current site plan is attached and shows proposed lots ranging from 0.66 to 2.59 acres in size.

As this comparable is located along the Covington riverfront and has superior views of the river and Cincinnati Skyline warrants a location adjustment when compared to the subject being adjacent to I-75 and having more limited city views. Further, the IRS site has a street system on all four sides with superior access and development potential. Comparing the unit value of this sale to the others, a total adjustment of -25% is indicated for these differences of which -15% was allocated to the location and -10% to access. Sale was rezoned CRM which is also for mixed use development and is considered to be comparable to the subject's anticipated zoning of TUMU. This sale also required similar amount of fill with no topography difference. However, the subject is encumbered by two large storm and sanitary sewer lines in the bottomland of the park that will be more costly to develop over, relocate or result in less usable land area. As such, a -10% adjustment is warranted for all sales under the category of easements.

Land Sale 2 ($16.92/SF Adjusted) – This was the former Montgomery Inn restaurant site. This also a part of the redevelopment of the former Drawbridge Inn Site. The Drawbridge Inn site, also referred to as the Kentucky Gateway Project, is ground zero for a $44 million mixed-use redevelopment project that includes the construction of a nine-story retirement center, office building, hotel, and spaces for drive-thru restaurants. The restaurant building on this site was razed at a reported cost of $60,000 and will be redeveloped with a hotel and possible restaurant site.

This comparable is considered to be slightly superior in site size and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -5% for size. Subject's location closer to the urban core and visibility along I-75 is considered to be slightly superior to the more suburban location of the sale with +5% location difference. Sale was zoned MU which is also for mixed use development and is considered to be comparable to the subject's anticipated zoning of TUMU. Subject would require 60,000 yards of fill material in order to raise the lower parts of the site. The estimated cost of $12/yd was extracted from data gathered from the confirmation of the IRS site (Sale No.1). Anticipated cost of $720,000 over the total site area resulted in an adjustment of approximately $1.13/SF which is the basis for the topography adjustment. Sale is also adjusted in similar fashion as No.1 for the encumbrances on the subject site which will increase development costs or reduce useable area.

Land Sale 3 ($12.74/SF Adjusted) – - Site fronts on Dixie Highway and I-71/75. Property has been developed as the Infiniti automobile dealership.

This comparable is also considered to be slightly superior in site size and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -5% for size. Subject's location closer to the urban core is considered to be slightly superior to the more suburban location of the sale with +5% location difference. Sale was zoned LRH which is a retail zone which allows most uses anticipated for the subject and therefore zoning is considered to be similar. Subject would require 60,000 yards of fill material in order to raise the lower parts of the site. The estimated cost of $12/yd was extracted from data gathered from the confirmation of the IRS site (Sale No.1). Anticipated cost of $720,000 over the total site area resulted in an adjustment of approximately $1.13/SF which is the basis for the topography adjustment. Sale is also adjusted in similar fashion as No.1 for the encumbrances on the subject site which will increase development costs or reduce useable area.

Land Sale 4 ($12.62/SF Adjusted) – - Sale has frontage on I-71/75 and located along Dixie Highway. It is mostly level and has been developed as 48 parking spaces by the adjoining office building owner who purchased the site.

This comparable is the smallest of the sites and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -10% for size. Subject's location closer to the urban core is considered to be slightly superior to the more suburban location of the sale with +5% location difference. Sale is zoned PO-1 which is primarily an office zone. For the reason that the sale lays along the highway in an area which

has mixed zoning, it is considered likely that there would be flexibility in zoning for this location. As a result a zoning adjustment is not made but rather the sale is given less emphasis in correlating the overall value. Subject would require 60,000 yards of fill material in order to raise the lower parts of the site. The estimated cost of $12/yd was extracted from data gathered from the confirmation of the IRS site (Sale No.1). Anticipated cost of $720,000 over the total site area resulted in an adjustment of approximately $1.13/SF which is the basis for the topography adjustment. Sale is also adjusted in similar fashion as No.1 for the encumbrances on the subject site which will increase development costs or reduce useable area.

LAND VALUE CONCLUSION

The comparables indicate a unit value, based on a general bracketing analysis, between $12.62/SF and $16.92/SF. Based on the subject's overall locational and physical features, a unit value conclusion of $15/SF is supported. Most weight was placed on Sale No.1-3 as No.4 had more limited zoning. The following table summarizes the comparable land sales analysis and applies the unit value conclusion to the site area to provide an indication of the as-vacant land value. The land value was adjusted $100,000 to account for the cost of demolition of the existing structures and site improvements.

LAND SALES COMPARISON APPROACH CONCLUSION (SF)

	TRANSACTION	ADJUSTMENT				NET	GROSS
	PRICE	TRANSACTIONAL[1]	ADJUSTED	PROPERTY[2]	FINAL	ADJ	ADJ
1	$20.55	11%	$22.81	(35%)	$14.83	(28%)	46%
2	$19.33	4%	$20.14	(16%)	$16.92	(12%)	30%
3	$14.45	6%	$15.35	(17%)	$12.74	(12%)	33%
4	$15.72	3%	$16.18	(22%)	$12.62	(20%)	35%
HIGH	*$20.55*	*11%*	*$22.81*	*(16%)*	*$16.92*	*(12%)*	*46%*
AVG	*$17.51*	*6%*	*$18.62*	*(23%)*	*$14.28*	*(18%)*	*36%*
MED	*$17.53*	*5%*	*$18.16*	*(20%)*	*$13.79*	*(16%)*	*34%*
LOW	*$14.45*	*3%*	*$15.35*	*(35%)*	*$12.62*	*(28%)*	*20%*

	SUBJECT SF		$/SF		VALUE
Total Land Area	639,026	x	$15	=	$9,585,390
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$15.00		$9,585,000
Raze Buildings & Site Improvements			($0)		($100,000)
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$14.84	=	$9,485,000

[1]Cumulative [2]Additive

(2.3.3.2.2) SUBDIVISION DEVELOPMENT METHOD

The subdivision development method does not apply for the subject property type.

(2.3.3.3) COST APPROACH

The cost approach does not apply to the subject property.

(2.3.3.4) SALES COMPARISON APPROACH

The improved sales comparison approach does not apply to the subject property.

(2.3.3.5) INCOME CAPITALIZATION APPROACH

The Income Approach does not apply for the subject property type.

(2.3.3.6) RECONCILIATION AND FINAL OPINION OF MARKET VALUE – BEFORE ACQUISITION

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate). After considering all factors relevant to the valuation of the subject property, the "as is" market value is as follows;

RECONCILIATION OF VALUES	
VALUATION SCENARIOS	MARKET VALUE BEFORE
Interest	Fee Simple Estate
Date	November 18, 2024
FINAL VALUE CONCLUSION	
FINAL VALUE CONCLUSION	**$9,485,000**
$/SF Total Land Area	$14.84

(2.3.4.1) LEGAL DESCRIPTION

The legal description of the subject property should be revised with the following acquisition legal description.

CITY OF COVINGTON, KENTUCKY TO

KENTUCKY TRANSPORTATION CABINET

Being a tract of land lying in Kenton County along I-75 approximately 500 feet north of the I-75 and 9th Street interchange, and more particularly described as follows:

Beginning at a point in the existing right-of-way line 279.16 feet right of I-75 Mainline at Station 550+40.18; thence with said line South 63°15'42" West a distance of 114.67 feet to a point in the existing right-of-way line 164.49 feet right of I-75 Mainline at Station 550+39.07; thence with said line along an arc 269.61 feet to the right, having a radius of 1745.00 feet, the chord of which is North 21°59'09" West for a distance of 269.34 feet, to a point in the existing right-of-way line 163.80 feet right of I-75 Mainline at Station 553+34.06; thence with said line North 72°26'27" East a distance of 67.03 feet to a point in the existing right-of-way line 230.83 feet right of I-75 Mainline at Station 553+34.26; thence with said line North 15°54'04" West a distance of 97.10 feet to a point in the existing right-of-way line 230.57 feet right of I-75 Mainline at Station 554+44.73; thence with said line South 75°45'25" West a distance of 92.01 feet to a point in the existing right-of-way line 138.56 feet right of I-75 Mainline at Station 554+44.46; thence with said line along an arc 50.62 feet to the right, having a radius of 2190.17 feet, the chord of which is North 12°31'40" West for a distance of 50.62 feet, to a point in the existing right-of-way line 139.22 feet right of I-75 Mainline at Station 554+99.05; thence with said line along an arc 245.63 feet to the right, having a radius of 2190.17 feet, the chord of which is North 8°39'10" West for a distance of 245.50 feet, to a point in the existing right-of-way line 138.48 feet right of I-75 Mainline at Station 557+63.45; thence with said line South 85°19'30" West a distance of 23.93 feet to a point in the existing right-of-way line 114.54 feet right of I-75 Mainline at Station 557+63.48; thence with said line along an arc 837.13 feet to the right, having a radius of 4778.00 feet, the chord of which is North 0°23'14" East for a distance of 836.06 feet, to a point in the existing right-of-way line 189.21 feet right of I-75 Mainline at Station 565+96.20; thence with said line North 8°07'11" East a distance of 115.55 feet to a point in the existing right-of-way line 214.92 feet right of I-75 Mainline at Station 567+08.85; thence with said line North 8°14'07" East a distance of 47.87 feet to a point in the proposed right-of-way line 225.66 feet right of I-75 Mainline at Station 567+55.50; thence with said line along an arc 122.74 feet to the right, having a radius of 1016.40 feet, the chord of which is South 2°21'04" East for a distance of 122.66 feet, to a point in the proposed right-of-way line 220.56 feet right of I-75 Mainline at Station 566+32.94; thence with said line South 1°06'30" West a distance of 368.46 feet to a point in the proposed right-of-way line 183.04 feet right of I-75 Mainline at Station 562+66.39; thence with said line along an arc 231.68 feet to the left, having a radius of 1453.60 feet, the chord of which is South 3°27'27" East for a distance of 231.43 feet, to a point in the proposed right-of-way line 177.87 feet right of I-75 Mainline at Station 560+35.02; thence with said line along an arc 885.18 feet to the left, having a radius of 2868.20 feet, the chord of which is South 16°51'54" East for a distance of 881.67 feet, to a point in the proposed right-of-way line 256.74 feet right of I-75 Mainline at Station 550+67.51; thence with said line South 69°28'39" East a distance of 32.48 feet to a point in the existing right-of-way line 279.16 feet right of I-75 Mainline at Station 550+40.18 and the POINT OF BEGINNING.

The above described parcel contains 2.18 acres (94,983 sq. ft.)

After the acquisition the subject property consists of one remainder and totals 544,043 square feet and 12.490 acres. Plot Plan in shown in the addenda.

(2.3.4.2) NEIGHBORHOOD FACTORS

The project is for the realignment of I-75 and reconstruction of the Brent Spence Bridge. This will improve traffic flow through the neighborhood and should result in more exposure along I-75 which moves closer to the property in the after. No negative impacts are anticipated on the neighborhood or remaining subject property.

(2.3.4.3) PROPERTY DATA

(2.3.4.3.1) Site

The following summaries the salient characteristics of the subject site.

Address	501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington, Covington, Kentucky.	
Census Tract	21-117-060300	
Number of Parcels	4	
Assessor Parcels	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00,	
Land Area	Square Feet	Acres
Economic Unit (Primary) Site Size	544,043	12.490
Usable Site Size	**544,043**	**12.490**
Total Land Area	**544,043**	**12.490**
Excess/Surplus Land	No	
Corner	Yes	
Site Topography	Level to Sloping	
Site Shape	Irregular to Rectangular	
Site Grade	At street grade	
Site Quality	Good	
Site Access	Good	
Site Exposure	Good	
Site Utility	Above Average	
Utilities	All Public Available	
Comments	040-43-05-003.00 - Goebel Park; 040-43-05-026.00 - Goebel Pool; 040-44-10-010.00 - Dog Park; City of Covington Right of Way - Existing Right of Way Included in Park Area;	

Adjacent Properties

North	5th Street, Hotel, Convenience Store
South	Radio Station Antenna; West 9th Street, Toyota Dealership
East	Single & Small Multi Family Residential
West	I-75; Single & Multi Family Residential On Other Side of I-75

Site Description: The subject property will continue in use as a public park with vegetation limited to grass and landscaping. There are no known marketable minerals associated with the subject property and no rental history. The property consists of 544,043 SF (12.49 acres) and is located between the east side of I-75, south side of W 5th Street, west side of Philadelphia St, and north side of W 9th Street in the City Limits of Covington, KY. The shape of the site is rectangular to irregular and runs from W 5th Street along the north boundary to W 9th Street along the south boundary. There is a total of 2284 +/- feet of frontage along the East side of I-75 (western boundary), 135 feet along the south side of W 5th Street (north boundary), 807 feet of frontage in two sections along Philadelphia St; 238 feet of frontage along Dalton Street (eastern boundary), and 307 feet of frontage along W 9th Street (southern boundary).

Access & Traffic Counts: There is good access to the site from Philadelphia Street where there are multiple points of access, from Dalton Avenue, and from W 9th Street where there is one existing curb cut.

STREET & TRAFFIC DETAIL

Street Improvements	Type	Direction	Lanes	Lights	Curbs	Sidewalks	Signals	Median	Parking	Center Lane	Bike Lane
I-75	Major arterial	Two-Way	8	x				x			
West 5th Street	Minor arterial	One-Way	2	x	x						
Philadelphia Street	Minor arterial	One-Way	2	x	x	x			x		
W 9th Street	Neighborhood street	Two-Way	2	x	x	x	x		x		

Frontage	
I-75	2284.4 feet; None. West Boundary
West 5th Street	135 feet; None. North Boundary
Philadelphia Street	800 feet; Available. 2 Sections of East Boundary 500' & 300'
W 9th Street	307 feet; One Curb Cut. South Boundary

Traffic Counts	Location	Date	Source	Count
I-75	Station 059077	Jan-17	KYTC	159,350
West 5th Street	Station 059D77	Jan-16	KYTC	9,971
	TOTAL			**169,321**



Given the high visibility of site adjacent to I-75 and high traffic count area, the site would be ideal for billboard type advertisement. However, Tom West with the City of Covington indicated that the city had recently adopted an ordinance which will not permit new billboard signs within the city limits.

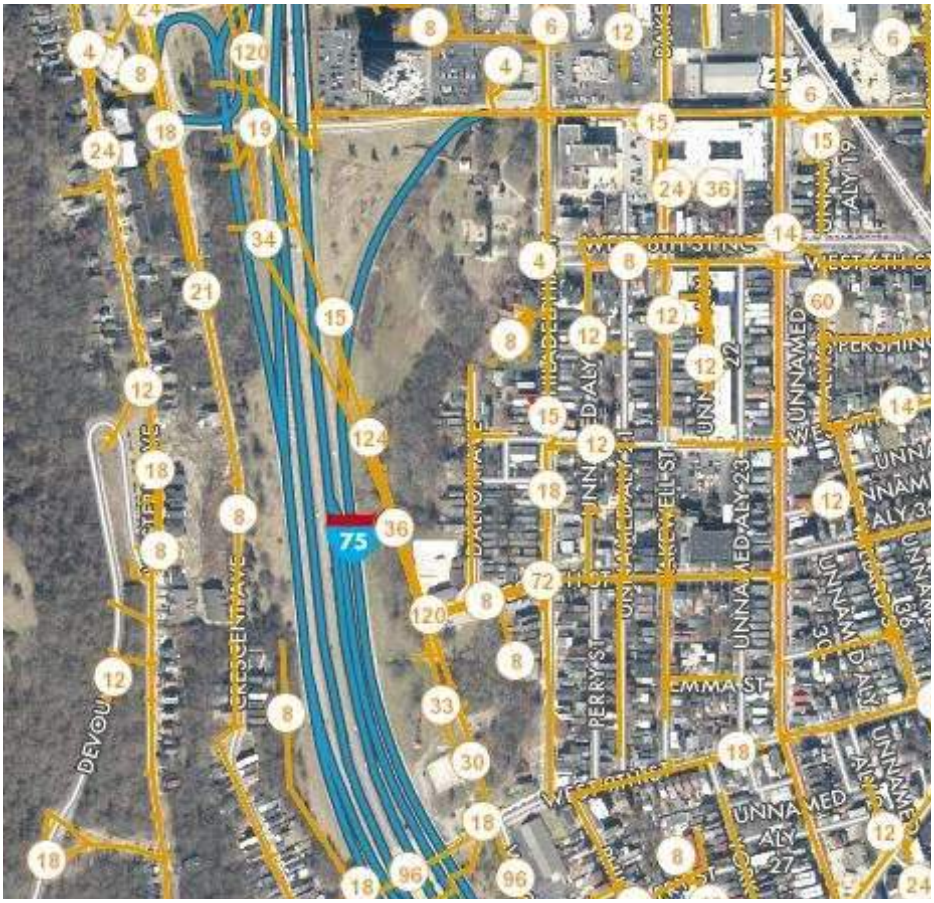
Topography:

The site is mostly level with W 5th and Philadelphia Streets as well as Dalton Avenue and slopes downhill towards the west along the W 9th Street frontage to the I-75 right of way. All of the I-75 frontage is below the travelway by approximately 10-20 feet with this low lying area also approximately 15 feet below the more level portions of the site along the eastern boundaries. A total of 0.819 acre lays in the described bottom. Calculations provided by HMB Engineers indicate that only 13,500 yards of fill material would be required after to fill the low lying areas along I-75 up to the level areas of the property along the east boundary. These low lying areas may also be suitable for development with below grade parking structures more commonly used in urban development, but this would be at a greater cost than filling the site per interview with HMB Engineers and in conjunction with review of cost estimation guides and development budgets from other projects with multi-story structures. In either case there would also be additional cost in developing over the existing utility easements described below. However, in order to estimate the exact cost, more precise engineering information would be required and is

not available. As this is a condition that also exists in the after, this is not a factor which would impact the difference in the before and after value which are adjusted for these conditions.

Utilities: All public utilities including sewer, city water, electric and gas are available to the site and in some cases encumber the property. The low lying area along I-75 has two large sanitary and storm sewer lines of 36" and 120" which would impact the ability and cost to develop this portion of the site. The property would have the same accessibility to the system of storm and sanitary sewers as well as public water around the subject property.

STORM & SANITARY SEWERS



As will be detailed in the zoning analysis section of the report, the most probable zoning for the subject under the hypothetical condition it is not a park use would be Traditional Urban Mixed Use (TUMU) district. Given the size of the site, numerous development plan configurations are conceivable and viable. Where the sewer line easements are located could be parking, streets and/or greenspace to the benefit of the overall development. There may be a cost though in adding fill and developing over the easements. The added costs as well as reduction in fully developable land area is recognized by the appraiser in both the before and after value scenarios. As such, while no site plan or budget is available to the appraiser, this factor will not impact my opinion to the difference in the before and after value.

PUBLIC WATER



Flood Plain

The property is anticipated to remain in Zone X (Unshaded). This is referenced by Panel Number 21117C0009F, dated May 16, 2013. Zone X (unshaded) is a moderate and minimal risk area. Areas of moderate or minimal hazard are studied based upon the principal source of flood in the area. However, buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems. Local storm water drainage systems are not normally considered in a community's flood insurance study. The failure of a local drainage system can create areas of high flood risk within these zones. Flood insurance is available in participating communities, but is not required by regulation in these zones. Nearly 25% of all flood claims filed are for structures located within these zones. Minimal risk areas outside the 1% and 0.2% annual chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)

Easements A review of the provided plans and information from HMB Engineers indicates that the property is encumbered with two sanitary and sewer lines but less than before as a portion of the lines are within the acquisition. The utility maps indicate that there are 36" and 120" lines in the bottom which could impact ability and cost of development. Other easements are also for utilities and are mostly located around the perimeter with no adverse effects.

Soils Due to the urban location a detailed soils analysis was not available for review. Topography maps were reviewed. Based on the surrounding development, it appears the soils are stable and suitable for development in accordance with the highest and best use.

Hazardous Waste I have not conducted an independent investigation to determine the presence or absence of toxins on the subject property. If questions arise, the reader is strongly cautioned to seek qualified professional assistance in this matter. Please see the Assumptions and Limiting Conditions for a full disclaimer.

Site Rating Overall, the subject site is considered good as a land site in terms of its location, exposure and access to employment, education, shopping and housing, based on its location along major and minor arterials and neighborhood streets.

Site Improvements The site improvements consist of a system of asphalt trails through the park, concrete and asphalt parking lots, basketball and tennis courts, metal and wood fencing, inground metal lined public pool and playground equipment All of the site improvements are older and some in disrepair. Given that highest and best use of the site would be for its redevelopment, the site improvements do not contribute to value and should be razed. The appraiser estimates $5,000 to raze the basketball and tennis courts plus $5,000 for the playground equipment and $20,000 for all of the parking lots, trails, fencing, and other miscellaneous site improvements for total cost of $30,000

(2.3.4.3.2) Improvements

The information presented below is a basic description of the existing improvements that is used in the valuation of the property. Reliance is placed on information provided by sources deemed dependable for this analysis. It is assumed that there are no hidden defects, and that all structural components are functional and operational, unless otherwise noted. If questions arise regarding the integrity of the improvements or their operational components, it may be necessary to consult additional professional resources.

OVERVIEW

Property Type	Land - Commercial Land
Tenancy	Public Park
Net Rentable Area (NRA)	10,629
Gross Building Area (GBA)	10,629
Total Buildings	4
Floors	1 - 2
Year Built	1972
Age/Life Analysis	
Actual Age	52
Effective Age	50
Economic Life	50
Remaining Useful Life	0
Overall Building Quality	Fair
Overall Building Condition	Fair
Overall Building Appeal	Fair
Land to Building Ratio	60.12 : 1
Site Coverage Ratio	1.66% (Based On Total Overall Site Area)
Floor Area Ratio (FAR)	0.02
Total Parking Spaces	61 - Off-Street, Surface - Asphalt spaces
Parking Ratio	5.7 / 1,000 SF NRA

Size The gross building area (GBA) is taken from the site inspection.

BUILDING INFORMATION

	GBA	NRA	YEAR BUILT	ACT. AGE	EFF. AGE	ECON. LIFE	REM. LIFE	FLOORS	CLASS
Park Pavilion & Picnic Shelter	4,396	4,396	1972	52	50	50	0	1	C, D
Bell Tower	634	634	1972	52	50	50	0	2	C
Picnic Gazebo	250	250	1972	52	50	50	0	1	D
Pool House	5,349	5,349	1972	52	50	50	0	1	C,D
TOTAL	**10,629**	**10,629**	**1972**	**52**	**50**	**50**	**0**	**1 - 2**	

The buildings consist of brick and wood frame structures which are classified as being average quality and fair in condition with exception of the Bell Tower which has been renovated more recently. The appraiser considers whether the existing improvements could be incorporated into a redevelopment scenario. The only such feature is possibly the bell tower that could give a redevelopment some charm. That stated, based on a review of redevelopments and new developments when this was done, developers did not place any economic value on these statement features. An example of this is the Phoenix Hill Redevelopment project at Baxter and Broadway in Louisville. At the planning and zoning hearing, the developer was asked about whether he wanted to maintain an old façade and he stated "I think it's neat and we can work with it; but, if you would like us to take it down, we can, or if you would like us to keep it, we can." The other improvements cannot be incorporated into a redevelopment. As such, I consider the cost to raze the improvements at $7.00/SF or $70,000 rounded excluding the bell tower which could go either way. Along with the site improvement cost of $30,000, total razing costs are therefore projected at $100,000.

Signage	There is signage for the park.
Site Coverage Ratio	1.7% (10,629 SF footprint / 639,026 SF site), which is within market standards for similar commercial land buildings in the area.
Parking	Parking varies by use but is stated as one space per 1,000 SF. The subject provides 61 off-street, surface - asphalt parking spaces, or 5.7 spaces per 1,000 SF of NRA, which is within market standards for land (commercial land) property type.
Deferred Maintenance	Park Pavilion & Picnic Shelter - Deferred; Bell Tower - Ongoing; Picnic Gazebo - Deferred; Pool House - Ongoing.
ADA Comment	This analysis assumes that the subject complies with all ADA requirements. Please refer to the Assumptions and Limiting Conditions section.
Hazardous Materials	A Phase I report was not provided. This appraisal assumes that the improvements are constructed free of all hazardous waste and toxic materials, including (but not limited to) unseen asbestos and mold. Please refer to the Assumptions and Limiting Conditions section regarding this issue.

(2.3.4.3.3)Fixtures
The appraisal includes no fixtures.

(2.3.4.3.4) History
The acquisition is proposed so there is no history after the acquisition. Nor has the property been leased or sold.

2.3.4.3.5) Assessed Value and Annual Tax Load
After the acquisition the tax load should be adjusted as follows;

TAXES ESTIMATED BEFORE AND AFTER

COMPONENT		BEFORE		AFTER
Land		$9,485,000		$8,875,000
Improvements		$0		$0
Subtotal		$9,485,000		$8,875,000
Assessed Value Ratio		100.00%		100.00%
Assessed Value		**$9,485,000**		**$8,875,000**
Taxes Current Millage Rate	$	13.591	$	13.591
TAXES ESTIMATED BEFORE AND AFTER		**$128,911**		**$120,620**

2.3.4.3.6) Zoning and Other Land Use Regulations
There is no anticipated change in the zoning or other land use regulations after the acquisition or as a result of the project. The remaining property is conforming to the land use regulations in areas such as lot area requirements, setbacks, and off-street parking. The zoning for the subject in the after is Traditional Urban Mixed Use (TUMU) district.

(2.3.5.1) ANALYSIS OF HIGHEST AND BEST USE

The highest and best use of the subject property provides the foundation for the valuation section. Highest and best use is defined in the 6th edition of *The Dictionary of Real Estate Appraisal* (Appraisal Institute, Chicago, 2015), as follows:

> The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Highest and best use analysis uses the following steps for the subject:

- Highest & Best Use As Vacant
- Determination of the ideal improvements
- Highest & Best Use As Improved
- Conclusion of the Highest & Best Use

The analysis of highest and best use can be thought of as the logical end of a spectrum of market analysis procedures, running from the macroeconomic overview of a general market study, through more detailed marketability studies and analyses of financial feasibility, to the formal analysis of highest and best use. In theory, the highest and best use is commonly described as that reasonable and most profitable use that will support its highest present value. The highest and best use, or most profitable use, must be legally permissible, physically possible, financially feasible, and maximally productive.

This section develops the highest and best use of the subject property As-Vacant and As Improved. Per the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA) requirements, "The appraiser's estimate of highest and best use must be an "economic" use. A non-economic highest and best use, such as "conservation," "natural lands," "preservation," or any use which requires the property to be withheld from economic production in perpetuity, is not a valid use upon which to estimate market value. (Section 4.3.2.3, UASFLA, 2016)"

Further the LWCF manual (page 62, paragraph (b)) provides the following instruction: "In order to determine the highest and best use of the park property, the appraiser is to ignore the actual zoning of the property if the zoning is a non-economic zoning established to recognize the "open space" characteristics of the park or to foster the preservation of the park. In this situation, the appraiser is to determine the most likely zoning that would have come about under the hypothetical condition the park was never created. In so doing, the appraiser will consider likely property uses based upon all germane factors as well as the actual present zoning of comparable, nearby, privately owned properties. Under this scenario, the cost, risk, and time associated with obtaining a zoning change would not be appropriate. This procedure is necessary to avoid penalizing the conversion property because it was taken out of private ownership and dedicated to a non-economic use."

(2.3.5.1.1) FOUR TESTS

AS VACANT ANALYSIS

In this section the highest and best use of the subject as-vacant is concluded after taking into consideration financial feasibility, maximal productivity, marketability, legal, and physical factors. As indicated in the zoning analysis there is no anticipated change in the zoning or other land use regulations after the acquisition or as a result of the project. The development potential is unchanged and there is a reduced amount of the more difficult portions of the site to develop which are remaining. As such, the four tests and HBU analysis

presented in the before is also applicable in the after. Financial feasibility, maximal productivity, marketability, legal, and physical factors have been considered and the highest and best use of the subject site as-vacant concluded to be for development with mixed use commercial & dense residential uses with less focus on office going forward.

AS IMPROVED ANALYSIS

The legal factors influencing the highest and best use of the subject property are primarily governmental regulations such as zoning and building codes. The subject's improvements were constructed in 1972 and are a legal, conforming use. The physical and location characteristics of the subject improvements have been previously discussed in this report. The project is of fair quality construction and in fair condition. Due to the minor nature of the improvements along with their age, condition and location, the buildings and site improvements, if available for development should be razed in favor of more dense mixed use commercial and high density residential development similar to the conclusion for the property as vacant.

MOST PROBABLE BUYER

Based on the type of property and the income generating potential, the most probable buyer for the subject would be a local or regional developer.

(2.3.5.2) LAND VALUATION

SALES COMPARISON APPROACH

This section values the subject site by comparing it with substitute land sales or listings within the local market area or in competitive areas throughout the region. Land value is influenced by a number of factors; most notably development and use potential. These factors, as well as others, are factored in the following analysis.

UNIT OF COMPARISON

The most relevant unit of comparison for competing land is the $/SF. All of the comparable sales presented in this section were reported on this basis.

COMPARABLE SELECTION

A thorough search was made for similar land sales in the area. The parameters of the survey were highest and best use, zoning, proximity to the subject, size, and date of sale. In selecting comparables, emphasis was placed on confirming recent sales of sites that are similar to the subject property in terms of location and physical characteristics. Overall, the sales used represent the best comparables available for this analysis.

PRESENTATION

The following Land Sales Comparison table summarizes the sales data. Following these items, the sales are adjusted for applicable elements of comparison and the site value is concluded. A location map, and detail of comparable sales is included in the addenda of the report.

LAND SALES COMPARISON TABLE

	SUBJECT	COMP 1		COMP 2		COMP 3		COMP 4	
Name	Goebel Park Conversion Property	Former IRS Site		Former Montgomery Inn Restaurant Site		Infiniti Auto Dealership		-	
Address	501 Philadelphia, 847 Philadelphia, 741 Dalton & Existing Right of Way Owned by the City of Covington	200 W 4th St		406 Buttermilk Pike		1945 Dixie Hwy		1845 Dixie Hwy	
City	Covington	Covington		Fort Mitchell		Fort Wright		Fort Wright	
State	KY	KY		KY		KY		KY	
Zip	41011	41011		41017		41011		41011	
County	Kenton	Kenton		Kenton		Kenton		Kenton	
Submarket	Covington	Covington		Fort Mitchell		-		-	
Parcel	040-43-05-003.00, 040-43-05-026.00, 040-44-10-010.00, City of Covington Right of Way	054-12-03-001.00, 054-12-02-001.00		028-10-03-014.04		041-20-00-002.00		041-20-00-009.00	
	-	-		-		-		-	
SALE INFORMATION									
Transaction Price		$20,500,000		$4,000,000		$1,200,000		$540,800	
Transaction Price $/SF		$20.55		$19.33		$14.45		$15.72	
Property Rights [1]		Fee Simple		Fee Simple		Fee Simple		Fee Simple	
Financing [2]		Cash to Seller		Cash to Seller		Conventional		-	
Sale Conditions [3]		Arms-Length		Arms-Length		Arms-Length		Arms-Length	
Expenditures After Sale [4]		$1,231,500	6.0%	$60,000	1.5%	$0		$0	
Market Conditions [5]		8/3/2020	5%	6/15/2022	3%	3/15/2019	6%	3/25/2022	3%
Sale Status		Recorded		Recorded		Recorded		Recorded	
Recording Number		KC35-47		KC 171-214		5966-350		0155-585	
Marketing Status		Open Market		Open Market		Open Market		Open Market	
Total Transactional Adjustments		$2.26	11%	$0.81	4%	$0.90	6%	$0.46	3%
Adjusted $/SF		**$22.81**		**$20.14**		**$15.35**		**$16.18**	
PHYSICAL INFORMATION									
Square Feet	544,043	997,698		206,910		83,034		34,412	
Acres	12.490	22.9040		4.7500	(5%)	1.9062	(5%)	0.7900	(10%)
Location	Good	Excellent	(15%)	Above Average	5%	Above Average	5%	Above Average	5%
Access	Good	Excellent	(10%)	Good		Good		Good	
Shape	Irregular to Rect.	Generally Rectangular		Generally Rectangular		Generally Rectangular		Generally Rectangular	
Zoning	TUMU	CRM		MU		LHS		PO-1	
Topography	Level to Sloping	Level to Sloping	4%	Level	(2%)	Level	(2%)	Rolling	(2%)
Easements	Sewer/Sanitary	No Adverse	(5%)	No Adverse	(5%)	No Adverse	(5%)	No Adverse	(5%)
Total Physical Adjustments		($5.93)	(26%)	($1.41)	(7%)	($1.07)	(7%)	($1.94)	(12%)
Adjusted $/SF		**$16.88**		**$18.73**		**$14.28**		**$14.24**	
CONFIRMATION INFORMATION									
Name		Elizabeth Witzel & Tom		Mike Brandi		Clay Greene		Deed, PVA	
Affiliation		Buyers		Buyers		Buyer		Buyer	
Date		1/12/2024		1/12/2024		11/1/2022		-	

ADJUSTMENTS

Adjustments to the comparable sales were considered and made when warranted for expenditures after purchase, property rights transferred, conditions of sale, financing terms, and market conditions.

1. **Property Rights -** All of the sale comparables were fee simple reflecting the property rights appraised herein per the agreed upon scope of work.
2. **Financing -** The sales all reflected typical cash equivalent, lender-financed transactions and no adjustments were required for financing terms.
3. **Sale Conditions -** None of the comparables required a condition of sale adjustment, as all were confirmed to be arm's length transactions.
4. **Expenditures After Sale -** Expenses that the buyer incurs after purchase (demolition, cleanup costs, etc.). Sale No.1 and 2 both required adjustment for demolition costs after the purchase. The indicated costs were confirmed by participants and result in upward adjustment to the sales.
5. **Market Conditions (Time) -** Based on research and interpretation of value trends, the analysis applies an upward market conditions adjustment of 1.10% annually reflecting the relatively consistent appreciation that occurred between the oldest comparable sale date up through the effective valuation date. Sale No.3 and 4 were nearby sites that sold approximately 3 years apart with a reported price difference of nearly 9%. Of this a small 5% was due to site size differences with the remaining difference of 1.1% annually indicated to be related to time/market conditions.

QUANTITATIVE ADJUSTMENT PROCESS

Quantitative percentage adjustments are also made for location and physical characteristics such as size, location quality, access, exposure, as well as other applicable elements of comparison. Where possible the adjustments applied are based on paired data or other statistical analysis. The adjustment process is meant to illustrate the logic in deriving a value opinion for the subject property by the Land Sales Comparison Approach.

LAND SALES ADJUSTMENT DISCUSSION

The comparable land sales indicate an overall unadjusted value range from $14.45/SF to $20.55/SF, and average of $17.51/SF. After adjustments, the comparables indicate a narrower range for the subject site between $14.24/SF and $18.73/SF with an average of $16.03/SF. The adjustment process is described below.

Land Sale 1 ($16.88/SF Adjusted) – Consists of two lots. Front and middle of site are below grade by as much as 15 feet. Former IRS site. Was zoned for government use and rezoned CRM for mixed use economic development project which is the highest and best use. Property is located along the Covington riverfront and directly across the Ohio River from the NLF Bengals Paycor Stadium and Cincinnati skyline. The city of Covington is developing the site with fill, utilities, and original grid style street system for small individual lots that will be sold. Estimated sale price of the pad ready lots will be $2,000,000/Acre. There are also future plans to build an underground parking garage along the flood wall at the rear of the site which will allow for riverfront development. The old IRS buildings were decommissioned in 2019 and razed in 2022 at an cost of $1,931,500 less a $700,000 credit for value of recycled materials for net cost of $1,231,500 which is added to the sale price to arrive at the analysis price. The site will also require fill to raise to the 4th Street elevation. The city recently purchased 27,000 yards of fill material which has been stockpiled onsite at a cost of $160,000. Bo Hubbard project manager indicates another 27,000 yards of material will be needed to raise the front and middle of the site by 15 feet. The cost of grading the site will be included in the street infrastructure bid which

will be presented on February 8, 2024. Current site plan is attached and shows proposed lots ranging from 0.66 to 2.59 acres in size.

As this comparable is located along the Covington riverfront and has superior views of the river and Cincinnati Skyline warrants a location adjustment when compared to the subject being adjacent to I-75 and having more limited city views. Further, the IRS site has a street system on all four sides with superior access and development potential. Comparing the unit value of this sale to the others, a total adjustment of -25% is indicated for these differences of which -15% was allocated to the location and -10% to access. Sale was rezoned CRM which is also for mixed use development and is considered to be comparable to the subject's anticipated zoning of TUMU. This sale requires more fill than the subject does in the after with upward adjustment of +4% indicated. After the subject also has smaller area encumbered with the two large storm and sanitary sewer lines in the bottomland of the park. As such, the cost to develop over, relocate or reduction in useable land area is less than the before. As such, a -5% adjustment is warranted for all sales under the category of easements.

Land Sale 2 ($18.73/SF Adjusted) – – This was the former Montgomery Inn restaurant site. This also a part of the redevelopment of the former Drawbridge Inn Site. The Drawbridge Inn site, also referred to as the Kentucky Gateway Project, is ground zero for a $44 million mixed-use redevelopment project that includes the construction of a nine-story retirement center, office building, hotel, and spaces for drive-thru restaurants. The restaurant building on this site was razed at a reported cost of $60,000 and will be redeveloped with a hotel and possible restaurant site.

This comparable is considered to be slightly superior in site size and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -5% for size. Subject's location closer to the urban core and visibility along I-75 is considered to be slightly superior to the more suburban location of the sale with +5% location difference. Sale was zoned MU which is also for mixed use development and is considered to be comparable to the subject's anticipated zoning of TUMU. Subject would require only 13,500 yards of fill material in order to raise the lower parts of the site in the after. The estimated cost of $12/yd was extracted from data gathered from the confirmation of the IRS site (Sale No.1). Anticipated cost of $162,000 over the total site area resulted in an adjustment of approximately $0.30/SF which is the basis for the topography adjustment. Sale is also adjusted in similar fashion as No.1 for the encumbrances on the subject site which will increase development costs or result in less useable land area.

Land Sale 3 ($14.28/SF Adjusted) – – - Site fronts on Dixie Highway and I-71/75. Property has been developed as the Infiniti automobile dealership.

This comparable is also considered to be slightly superior in site size and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -5% for size. Subject's location closer to the urban core is considered to be slightly superior to the more suburban location of the sale with +5% location difference. Sale was zoned LRH which is a retail zone which allows most uses anticipated for the subject and therefore zoning is considered to be similar. Subject would require 13,500 yards of fill material in order to raise the lower parts of the site. The estimated cost of $12/yd was extracted from data gathered from the confirmation of the IRS site (Sale No.1). Anticipated cost of $162,000 over the total site area resulted in an adjustment of approximately $0.30/SF which is the basis for the topography adjustment. Sale is also adjusted in similar fashion as No.1 for the encumbrances on the subject site which will increase development costs or result in less useable land area.

Land Sale 4 ($14.24/SF Adjusted) – - Sale has frontage on I-71/75 and located along Dixie Highway. It is mostly level and has been developed as 48 parking spaces by the adjoining office building owner who purchased the site.

This comparable is the smallest of the sites and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -10% for size. Subject's location closer to the urban core is considered to be slightly superior to the more suburban location of the sale with +5% location difference. Sale is zoned PO-1 which is primarily an office zone. For the reason that the sale lays along the highway in an area which has mixed zoning, it is considered likely that there would be flexibility in zoning for this location. As a result a zoning adjustment is not made but rather the sale is given less emphasis in correlating the overall value. Subject would require 13,500 yards of fill material in order to raise the lower parts of the site. The estimated cost of $12/yd was extracted from data gathered from the confirmation of the IRS site (Sale No.1). Anticipated cost of $162,000 over the total site area resulted in an adjustment of approximately $0.30/SF which is the basis for the topography adjustment. Sale is also adjusted in similar fashion as No.1 for the encumbrances on the subject site which will increase development costs or result in less useable land area.

LAND VALUE CONCLUSION

The comparables indicate a unit value, based on a general bracketing analysis, between $14.24/SF and $18.73/SF. Based on the subject's overall locational and physical features, a unit value conclusion of $16.03/SF is supported. Most weight was placed on Sale No.1-3 with Sale No.4 having more limited zoning. The following table summarizes the comparable land sales analysis and applies the unit value conclusion to the site area to provide an indication of the as-vacant land value. Then, demolition costs of $100,000 against the existing building area and site improvements are deducted to provide the as-is land value.

LAND SALES COMPARISON APPROACH CONCLUSION (SF)

	TRANSACTION	ADJUSTMENT				NET	GROSS
	PRICE	TRANSACTIONAL[1]	ADJUSTED	PROPERTY[2]	FINAL	ADJ	ADJ
1	$20.55	11%	$22.81	(26%)	$16.88	(18%)	45%
2	$19.33	4%	$20.14	(7%)	$18.73	(3%)	21%
3	$14.45	6%	$15.35	(7%)	$14.28	(1%)	23%
4	$15.72	3%	$16.18	(12%)	$14.24	(9%)	25%
HIGH	*$20.55*	*11%*	*$22.81*	*(7%)*	*$18.73*	*(1%)*	*45%*
AVG	*$17.51*	*6%*	*$18.62*	*(13%)*	*$16.03*	*(8%)*	*29%*
MED	*$17.53*	*5%*	*$18.16*	*(10%)*	*$15.58*	*(6%)*	*24%*
LOW	*$14.45*	*3%*	*$15.35*	*(26%)*	*$14.24*	*(18%)*	*0%*

	SUBJECT SF		$/SF		VALUE
Total Land Area	544,043	x	$16.50	=	$8,976,710
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$16.50		$8,975,000
Raze Buildings & Site Improvements			-		($100,000)
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$16.31	=	$8,875,000

[1]Cumulative [2]Additive

SUBDIVISION DEVELOPMENT METHOD

The subdivision development method does not apply for the subject property type.

(2.3.5.3) COST APPROACH

The cost approach does not apply to the subject property.

(2.3.5.4) SALES COMPARISON APPROACH

The improved Sales Comparison Approach does not apply to the subject property.

(2.3.5.5) INCOME CAPITALIZATION APPROACH

The Income Approach does not apply for the subject property type.

(2.3.5.6) RECONCILIATION AND FINAL OPINION OF MARKET VALUE – AFTER ACQUISITION

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the Market Value Before (Fee Simple Estate), Market Value After (Fee Simple Estate), and Part Taken (Fee Simple Estate). After considering all factors relevant to the valuation of the subject property, the "as is" market value is as follows;

RECONCILIATION OF VALUES			
VALUATION SCENARIOS	MARKET VALUE BEFORE	MARKET VALUE AFTER	PART TAKEN
Interest	Fee Simple Estate	Fee Simple Estate	Fee Simple Estate
Date	November 18, 2024	November 18, 2024	November 18, 2024
FINAL VALUE CONCLUSION			
FINAL VALUE CONCLUSION	**$9,485,000**	**$8,875,000**	**$610,000**
$/SF Total Land Area	$14.84	$16.31	-

(2.3.6.1) RECAPITULATION

The analysis has indicated the following difference between the before value of the larger parcel and the value of the remainder as follows;

RECONCILIATION OF VALUES			
VALUATION SCENARIOS	MARKET VALUE BEFORE	MARKET VALUE AFTER	PART TAKEN
Interest	Fee Simple Estate	Fee Simple Estate	Fee Simple Estate
Date	January 11, 2024	January 11, 2024	January 11, 2024
FINAL VALUE CONCLUSION			
FINAL VALUE CONCLUSION	**$9,485,000**	**$8,410,000**	**$1,075,000**
$/SF Total Land Area	$14.84	$16.31	-

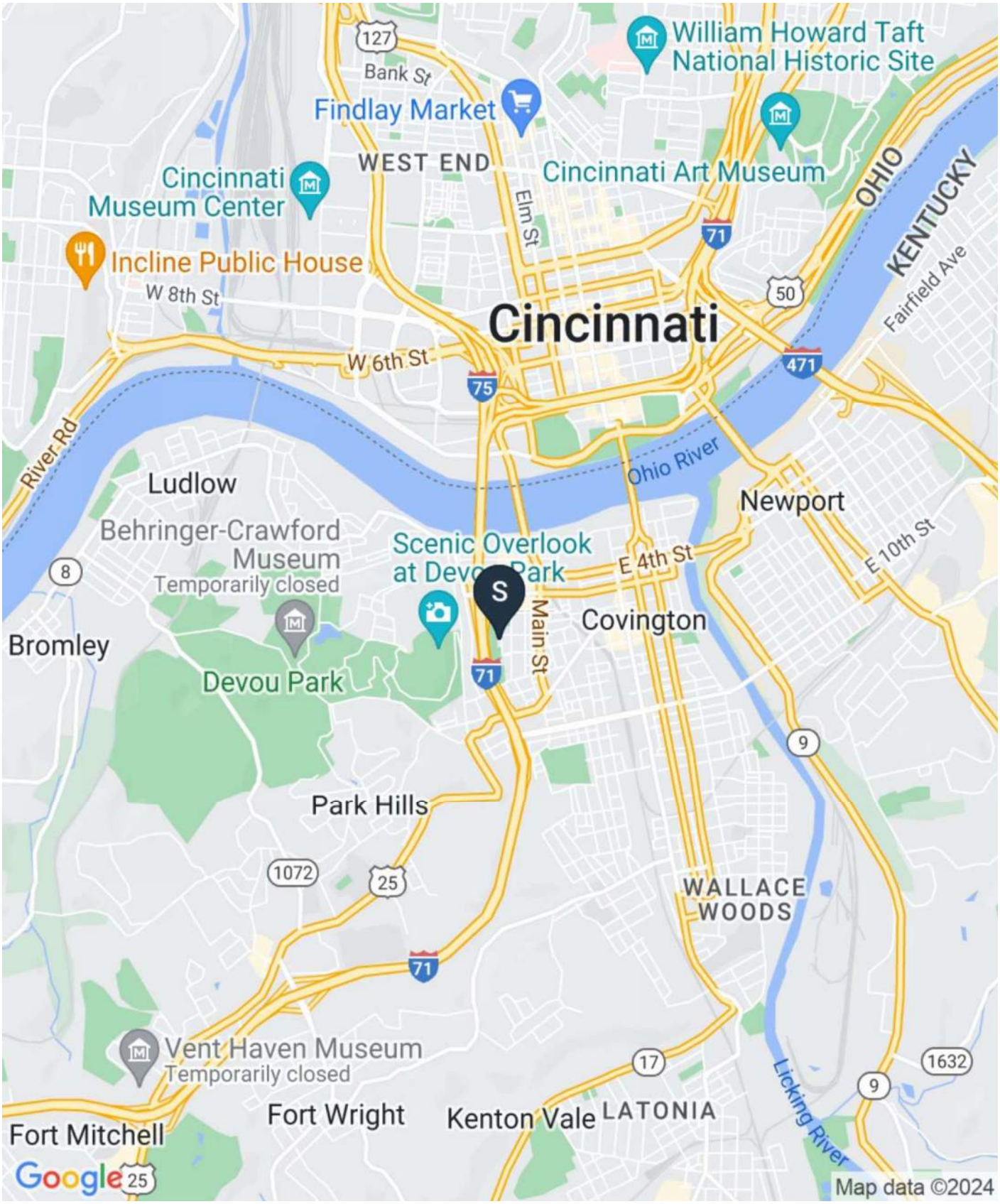
(2.3.6.2) ALLOCATION AND DAMAGES

There is no damage to the remainder property.

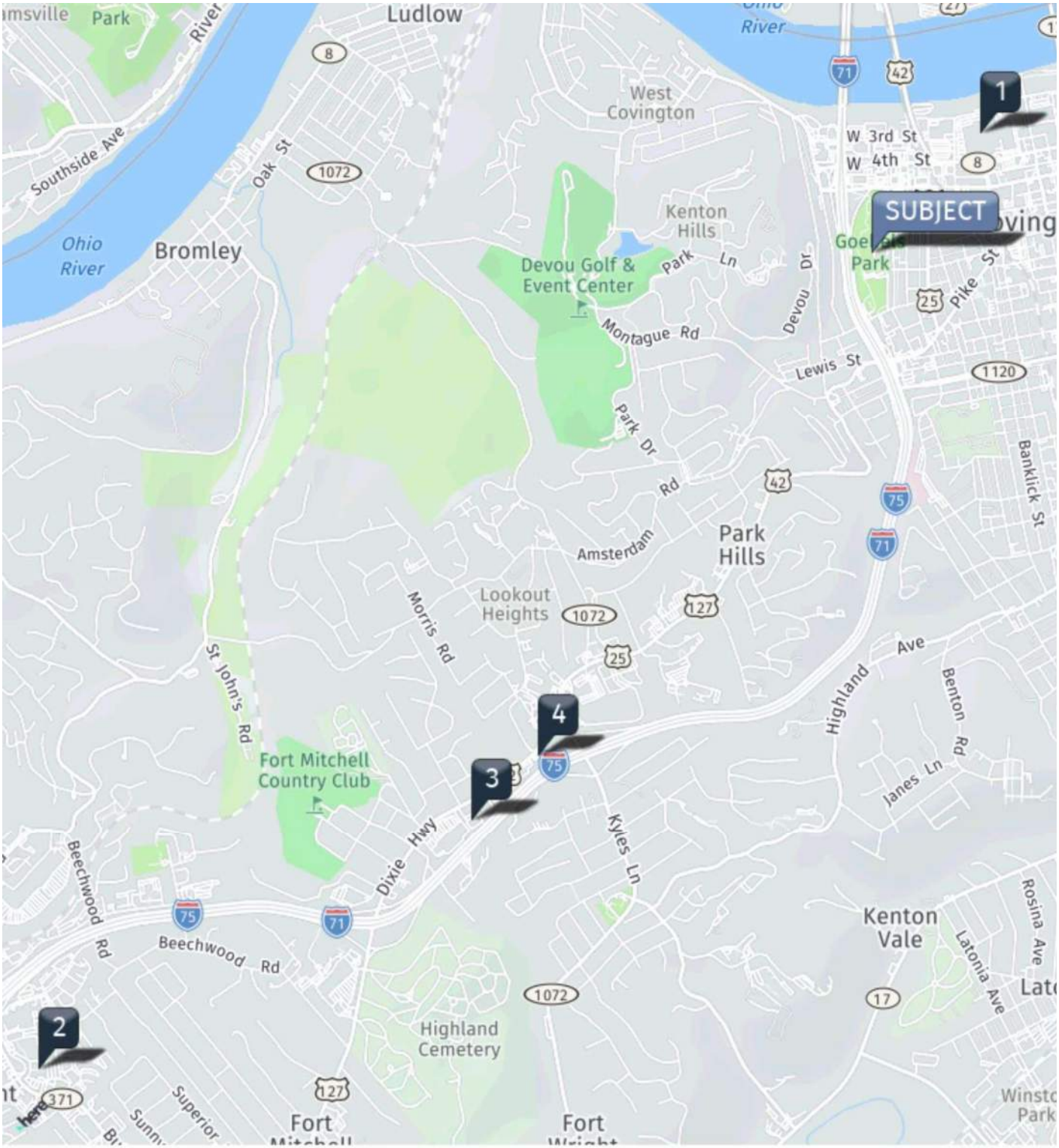
(2.3.6.3) SPECIAL BENEFITS

There are no special benefits accruing to the remainder property.

(2.3.7) LOCATION MAP



COMPARABLE DATA MAPS



COMPARABLE	LABEL	ADDRESS	MILES FROM SUBJECT
COMPARABLE 1	1	200 W 4th St, Covington, KY, 41011	0.5
COMPARABLE 2	2	406 Buttermilk Pike, Fort Mitchell, KY, 41017	3.8
COMPARABLE 3	3	1945 Dixie Hwy, Fort Wright, KY, 41011	2.2
COMPARABLE 4	4	1845 Dixie Hwy, Fort Wright, KY, 41011	1.9

DETAILS OF COMPARABLE SALES AND RENTAL DATA

Former IRS Site

Comparable 1

Sale Information

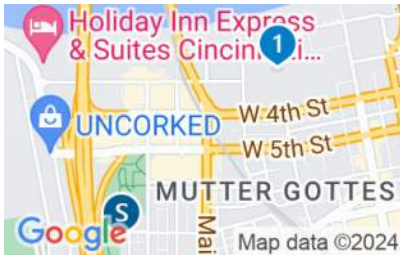
Buyer	City of Covington	
Seller	United States of America	
Sale Date	8/3/2020	
Transaction Status	Recorded	
Sale Price	$20,500,000	$20.55 /SF Land $895,040 /AC
Analysis Price	$21,731,500	$21.78 /SF Land $948,808 /AC
Recording Number	KC35-47	
Rights Transferred	Fee Simple	
Financing	Cash to Seller	
Conditions of Sale	Arms-Length Transaction	

Property

Land Area	22.904 Acres (997,698 SF)
Number of Parcels	2
Zoning	CRM
Shape	Generally Rectangular
Topography	Level to Sloping
Corner	Yes; Signalized
Off-Site Improvements	Utilities Will Have to be Extended For Redevelopment
View	Water
Utilities	All Public Available
Easements	No Adverse
Environmental	None Assumed
Flood Zones	Zone X (Unshaded)



200 W 4th St
Covington, KY 41011



County
Kenton

Submarket
Covington

APN
054-12-03-001.00, 054-12-02-001.00

Confirmation

Name	Elizabeth Witzel & Tom West & Bo Hubbard
Company	City of Covington
Phone Number	513-256-8024
Affiliation	Buyers
Date	1/12/2024

Remarks

Consists of two lots. Front and middle of site are below grade by as much as 15 feet.

Former IRS site. Was zoned for government use and rezoned CRM for mixed use economic development project which is the highest and best use. Property is located along the Covington riverfront and directly across the Ohio River from the NLF Bengals Paycor Stadium and Cincinnati skyline. The city of Covington is developing the site with fill, utilities, and original grid style street system for small individual lots that will be sold. Estimated sale price of the pad ready lots will be $2,000,000/Acre. There are also future plans to build an underground parking garage along the flood wall at the rear of the site which will allow for riverfront development. The old IRS buildings were decommissioned in 2019 and razed in 2022 at a cost of $1,931,500 less a $700,000 credit for value of recycled materials for net cost of $1,231,500 which is added to the sale price to arrive at the analysis price. The site will also require fill to raise to the 4th Street elevation. The city recently purchased 27,000 yards of fill material which has been stockpiled onsite at a cost of $160,000. Bo

Hubbard project manager indicates a total of between 55,000-60,000 yards of material will be needed to raise the front and middle of the site by 15 feet. The cost of grading the site will be included in the street infrastructure bid which will be presented on February 8, 2024. Current site plan is attached and shows proposed lots ranging from 0.66 to 2.59 acres in size.

PROPOSED SITE PLAN



Former Montgomery Inn Restaurant Site

Comparable 2

Sale Information

Buyer	B/FMP Land Company, LLC	
Seller	The Christ Hospital	
Sale Date	6/15/2022	
Transaction Status	Recorded	
Sale Price	$4,000,000	$19.33 /SF Land $842,105 /AC
Analysis Price	$4,060,000	$19.62 /SF Land $854,737 /AC
Recording Number	KC 171-214	
Rights Transferred	Fee Simple	
Financing	Cash to Seller	
Conditions of Sale	Arms-Length Transaction	

Property

Land Area	4.75 Acres (206,910 SF)
Number of Parcels	1
Zoning	MU
Shape	Generally Rectangular
Topography	Level
Corner	No
Highest and Best Use	Mixed Use Development
Off-Site Improvements	None
Utilities	All Public Available
Easements	No Adverse
Environmental	None Assumed
Flood Zones	Zone X (Unshaded)



406 Buttermilk Pike
Fort Mitchell, KY 41017



County
Kenton

Submarket
Fort Mitchell

APN
028-10-03-014.04

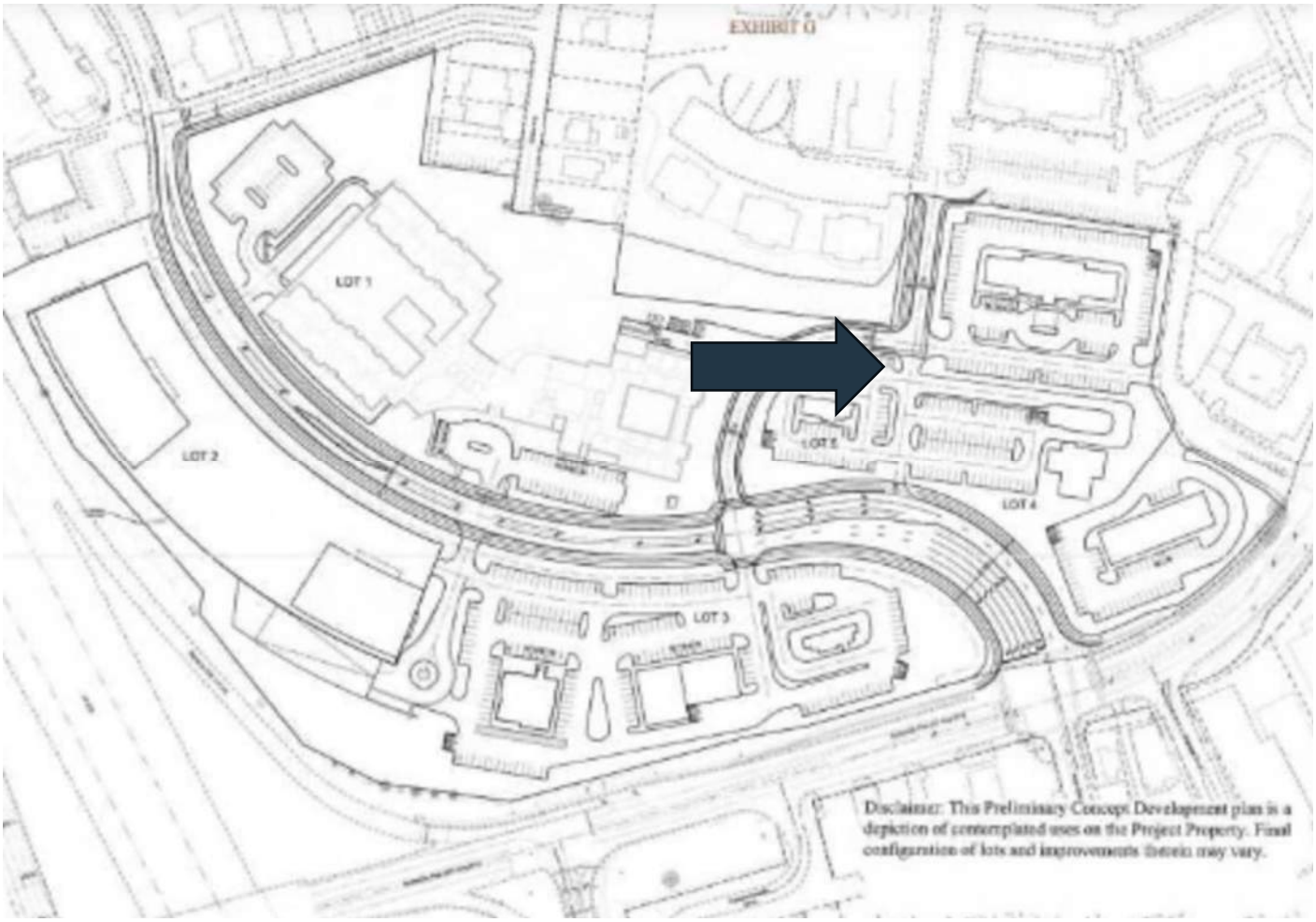
Confirmation

Name	Mike Brandi
Company	Brandicorp
Affiliation	Buyers
Date	1/12/2024

Remarks

This was the former Montgomery Inn restaurant site. This is also a part of the redevelopment of the former Drawbridge Inn Site. The Drawbridge Inn site, also referred to as the Kentucky Gateway Project, is ground zero for a $44 million mixed-use redevelopment project that includes the construction of a nine-story retirement center, office building, hotel, and spaces for drive-thru restaurants. The restaurant building on this site was razed at a reported cost of $60,000 and will be redeveloped with a hotel and possible restaurant site.

PRELIMINARY DEVELOPMENT PLAN



Infiniti Auto Dealership

Comparable 3

Sale Information

Buyer	Triple C Realty, LLC	
Seller	Hospitality Associates of Ft. Wright, LTD	
Sale Date	3/15/2019	
Transaction Status	Recorded	
Sale Price	$1,200,000	$14.45 /SF Land
		$629,525 /AC
Analysis Price	$1,200,000	$14.45 /SF Land
		$629,525 /AC
Recording Number	5966-350	
Rights Transferred	Fee Simple	
Financing	Conventional	
Conditions of Sale	Arms-Length Transaction	

Property

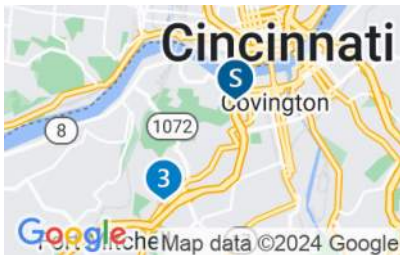
Land Area	1.9062 Acres (83,034 SF)
Number of Parcels	1
Zoning	LHS
Shape	Generally Rectangular
Topography	Level
Corner	No
Highest and Best Use	Commercial Development
Easements	No Adverse
Environmental	None Assumed
Flood Zones	No Flood Zones



1945 Dixie Hwy
Fort Wright, KY 41011

County
Kenton

APN
041-20-00-002.00



Confirmation

Name	Clay Greene
Affiliation	Buyer
Date	11/1/2022

Remarks

Site fronts on Dixie Highway and I-71/75. Property has been developed as the Infiniti automobile dealership.

1845 Dixie Hwy

Comparable 4

Sale Information

Buyer	Twin Quail Forest Park, LLC	
Seller	FFF Holdings, LLC	
Sale Date	3/25/2022	
Transaction Status	Recorded	
Sale Price	$540,800	$15.72 /SF Land
		$684,557 /AC
Analysis Price	$540,800	$15.72 /SF Land
		$684,557 /AC
Recording Number	0155-585	
Rights Transferred	Fee Simple	
Conditions of Sale	Arms-Length Transaction	

Property

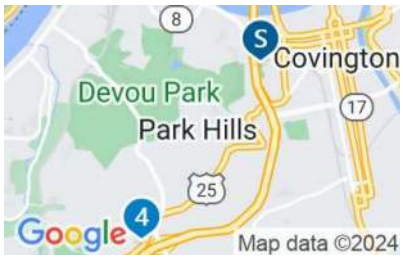
Land Area	0.79 Acres (34,412 SF)
Number of Parcels	1
Zoning	PO-1
Shape	Generally Rectangular
Topography	Rolling
Corner	No
Highest and Best Use	Professional Office
Easements	No Adverse
Flood Zones	No Flood Zones



1845 Dixie Hwy
Fort Wright, KY 41011

County
Kenton

APN
041-20-00-009.00



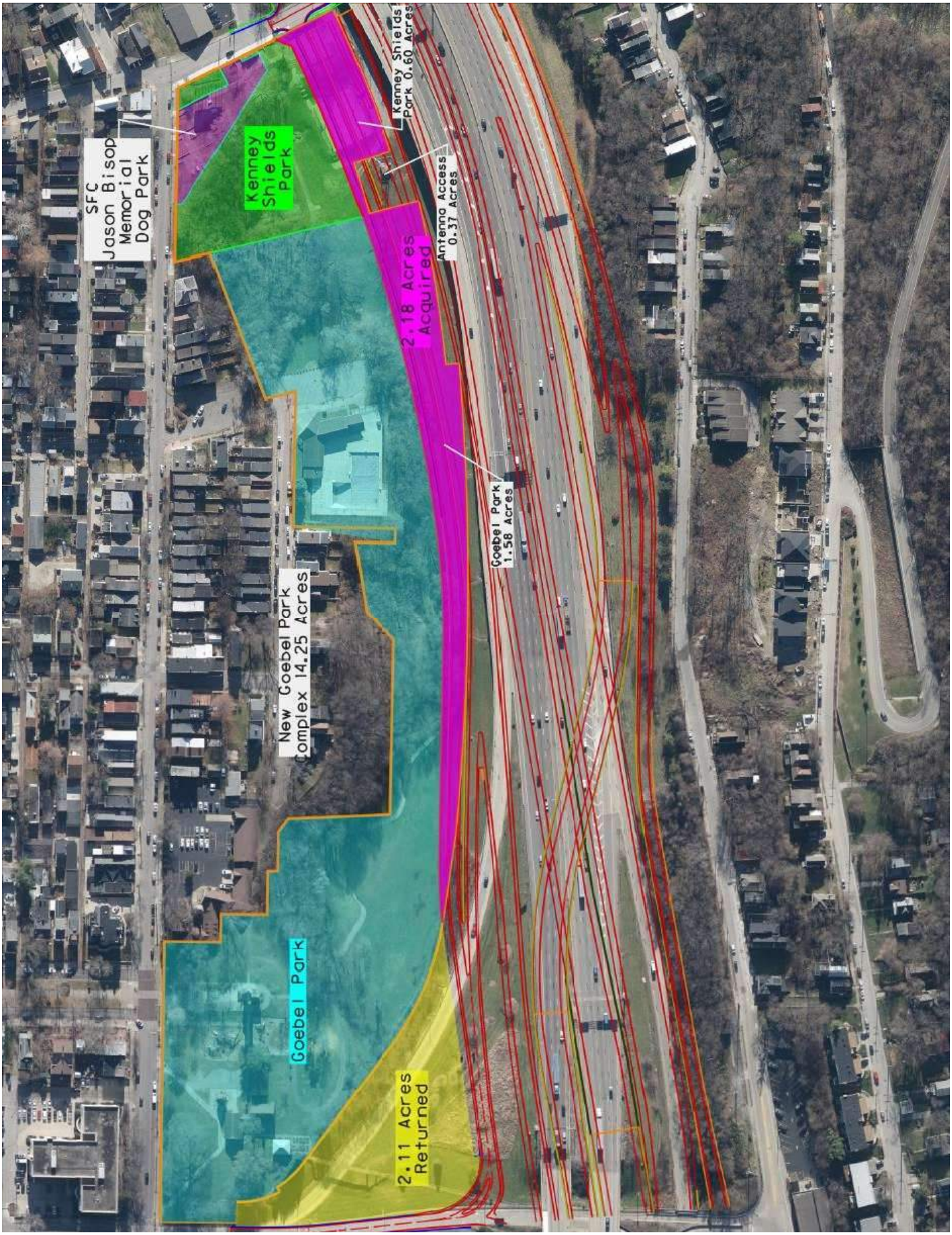
Confirmation

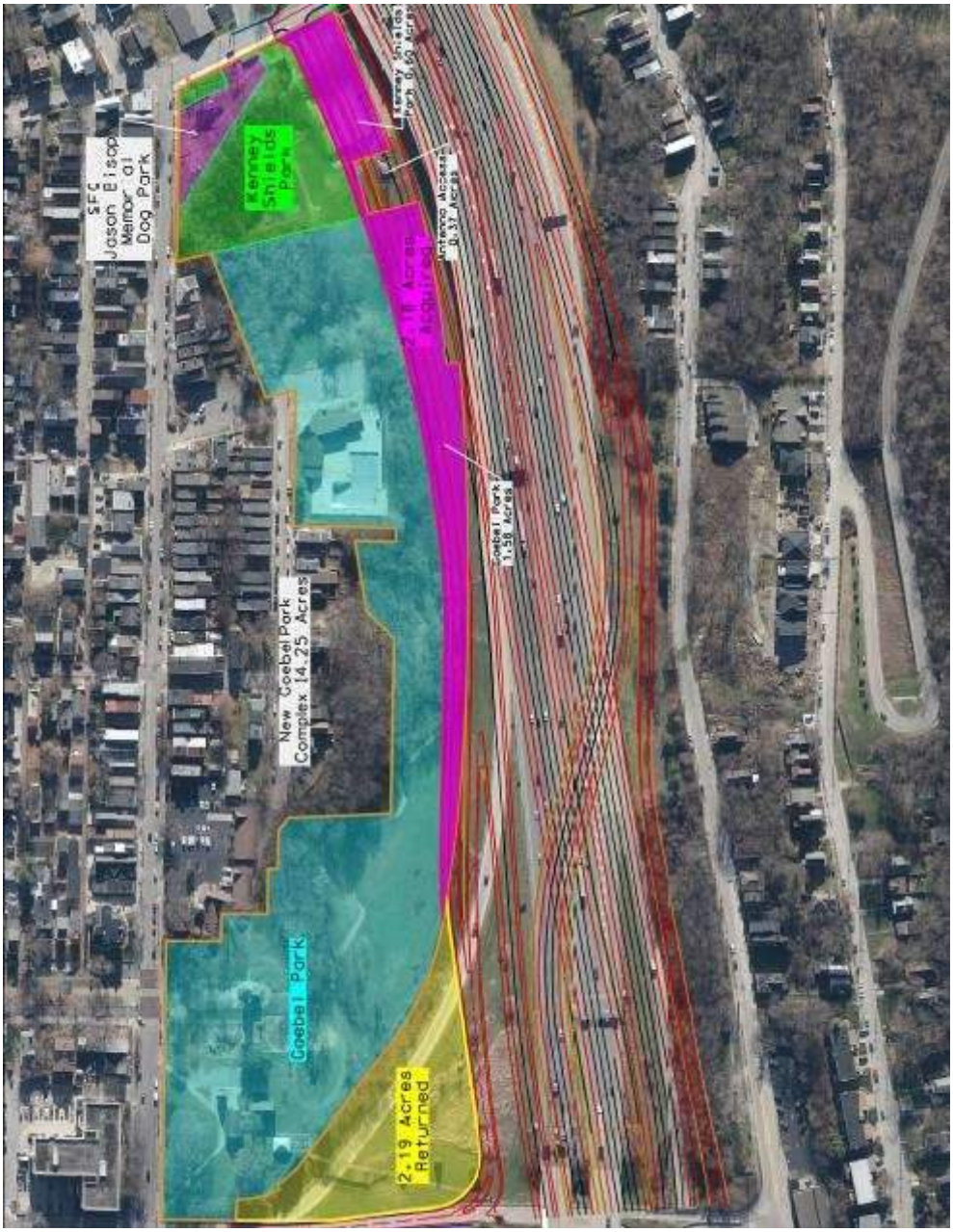
Name	Teresa Clay Property Manager Buyer Rep. Deed, PVA
Date	11/1/2022

Remarks

Sale has frontage on I-71/75 and located along Dixie Highway. It is mostly level and has been developed as 48 parking spaces by the adjoining office building owner who purchased the site.

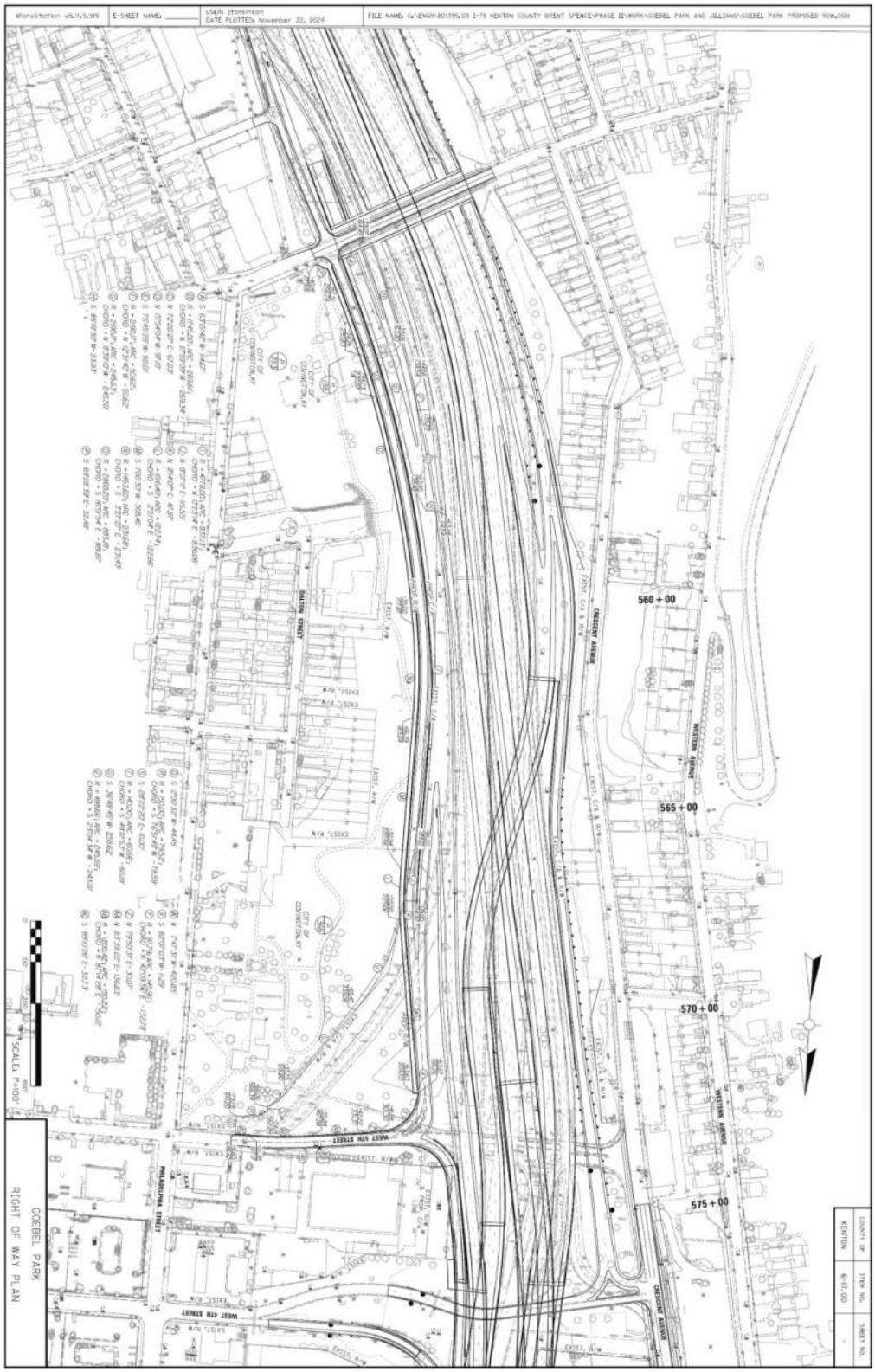
PLOT PLAN


SFC Jason Bisop Memorial Dog Park
Kenney Shields Park
Kenney Shields Park 0.60 Acres
Antenna Access 0.37 Acres
2.18 Acres Acquired
Goebel Park 1.58 Acres
New Goebel Park Complex 14.25 Acres
Goebel Park
2.11 Acres Returned



There are minor differences in the acquisition area and replacement property shown on this exhibit. The appraisal has been based on the provided written legal descriptions contained in the addenda with the Goebel Park Contribution being 2.181 acres and the replacement property being 2.11 acres.

GOEBEL PARK ACQUISITION



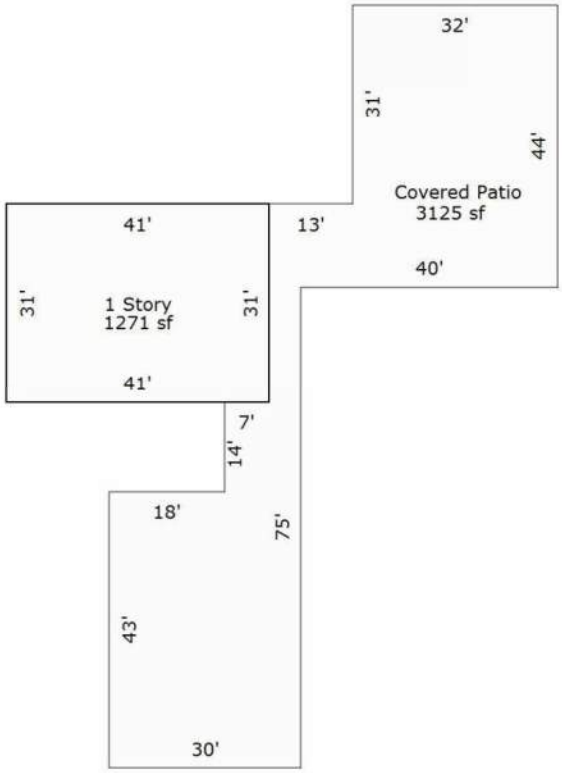
Before Area: **639,026SF or 14.670 Acre**

Fee Simple Acquisition: **94,983 SF or 2.181 Acre**

Remaining Property: 544,043 SF or 12.490 Acre

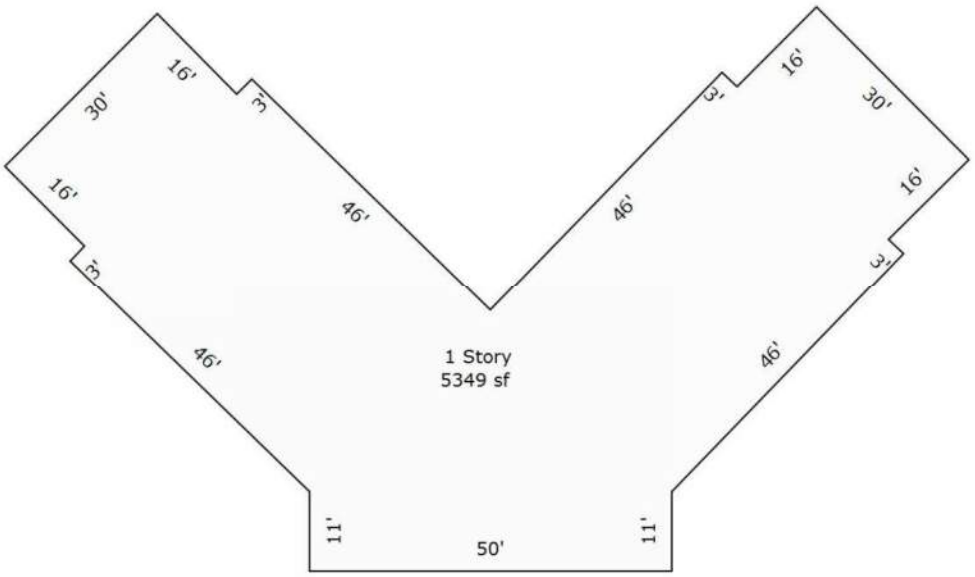
FLOOR PLAN

PICNIC PAVILION



Sketch by Apex Sketch

POOL PAVILION



Sketch by Apex Sketch

BELLTOWER

The belltower has two rectangular sections measuring 10'X15' and 22' X 22' for a total of 634 square feet.

PICNIC GAZEBO

The picnic gazebo is 8 sided at 6' each and total 250 square feet.

Title Evidence Reports

Kentucky Transportation Cabinet
Office of Legal Services
TITLE REPORT

TC 11-18
06/2014
Page 1 of 4

COUNTY: Kenton

PARCEL NO.: 138
PIDN: 040-44-10-010.00 Group: 2860

ROAD: Brent Spence Bridge

ITEM NO.: 06-17.00

STATE NO.:

FEDERAL NO.:

OWNER(S): City of Covington, Kentucky

This is to certify that the undersigned, employed by the Transportation Cabinet, has examined the records of the County Clerk, and has run the chain of title of the hereinabove designated parcel back for a period of not less than 35 years. The undersigned further certifies that no unreleased liens were found on any of the deeds in the chain of title, except as shown in Paragraph 4. The undersigned further certifies that all the mortgage records and other title records, including those specifically noted in the first portion of Paragraph 4, were examined and the undersigned was unable to find indexed of record or awaiting indexing of record any unreleased mortgages, liens, or other encumbrances against said property, except as specifically shown in Paragraph 4.

PARAGRAPH 1. The deed or deeds or other means by which title to said property was acquired by the current owner or owners is as follows, the source of title should relate back to one or more listed Deed(s) of Conveyance, add space for additional exhibits as required:

(Exhibit 1 attached.)

Grantor: Joseph U. Meyer and Dale A. Meyer, husband and wife, and David Zimmer and Rose Zimmer, husband and wife
Grantee: City of Covington, Kentucky
Date: March 30, 1981
Book & Page: Deed Book 794, page 220

PARAGRAPH 2. All transfers affecting this property within the 35 years, next last past, or the next last transfer if it is prior to the 35 years, next last past, add space for additional exhibits as required:

(Exhibit 2 attached.)

*** Possible off-conveyance**
Grantor: City of Covington, Kentucky
Grantee: Guardian Communications, Inc., a Delaware corporation
Date: March 7, 1994
Book & Page: Deed Book 1126, page 275

PARAGRAPH 3. The record description of the property which is the subject of this report is as set forth in the Deed(s) of Conveyance mentioned below if different from Paragraph 1, add space for additional exhibits as required:

(Exhibit _ attached [if different from Exhibit 1].)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 4. Liens, encumbrances, and objections which are to be removed or eliminated prior to, or at the time of closing, if any, are checked and described below and attached and labeled as individual exhibits, add space for additional exhibits as required for each type:

(a) ☐ Mortgages **(Exhibit _ attached)**

Mortgagor:
Mortgagee:
Date:
Book & Page:

(b) ☐ Vendor liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(c) ☐ Mechanics liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

Kentucky Transportation Cabinet
Office of Legal Services
TITLE REPORT

TC 11-18
06/2014
Page 1 of 4

COUNTY: Kenton

PARCEL NO.: 138
PIDN: 040-44-10-010.00 Group: 2860

ROAD: Brent Spence Bridge

ITEM NO.: 06-17.00

STATE NO.:

FEDERAL NO.:

OWNER(S): City of Covington, Kentucky

This is to certify that the undersigned, employed by the Transportation Cabinet, has examined the records of the County Clerk, and has run the chain of title of the hereinabove designated parcel back for a period of not less than 35 years. The undersigned further certifies that no unreleased liens were found on any of the deeds in the chain of title, except as shown in Paragraph 4. The undersigned further certifies that all the mortgage records and other title records, including those specifically noted in the first portion of Paragraph 4, were examined and the undersigned was unable to find indexed of record or awaiting indexing of record any unreleased mortgages, liens, or other encumbrances against said property, except as specifically shown in Paragraph 4.

PARAGRAPH 1. The deed or deeds or other means by which title to said property was acquired by the current owner or owners is as follows, the source of title should relate back to one or more listed Deed(s) of Conveyance, add space for additional exhibits as required:

(Exhibit 1 attached.)

Grantor: Joseph U. Meyer and Dale A. Meyer, husband and wife, and David Zimmer and Rose Zimmer, husband and wife
Grantee: City of Covington, Kentucky
Date: March 30, 1981
Book & Page: Deed Book 794, page 220

PARAGRAPH 2. All transfers affecting this property within the 35 years, next last past, or the next last transfer if it is prior to the 35 years, next last past, add space for additional exhibits as required:

(Exhibit 2 attached.)

*** Possible off-conveyance**
Grantor: City of Covington, Kentucky
Grantee: Guardian Communications, Inc., a Delaware corporation
Date: March 7, 1994
Book & Page: Deed Book 1126, page 275

PARAGRAPH 3. The record description of the property which is the subject of this report is as set forth in the Deed(s) of Conveyance mentioned below if different from Paragraph 1, add space for additional exhibits as required:

(Exhibit _ attached [if different from Exhibit 1].)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 4. Liens, encumbrances, and objections which are to be removed or eliminated prior to, or at the time of closing, if any, are checked and described below and attached and labeled as individual exhibits, add space for additional exhibits as required for each type:

(a) ☐ Mortgages **(Exhibit _ attached)**

Mortgagor:
Mortgagee:
Date:
Book & Page:

(b) ☐ Vendor liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(c) ☐ Mechanics liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

Kentucky Transportation Cabinet
Office of Legal Services
TITLE REPORT

TC 11-18
06/2014
Page 1 of 4

COUNTY: Kenton

PARCEL NO.: 138
PIDN: 040-44-10-010.00 Group: 2860

ROAD: Brent Spence Bridge

ITEM NO.: 06-17.00

STATE NO.:

FEDERAL NO.:

OWNER(S): City of Covington, Kentucky

This is to certify that the undersigned, employed by the Transportation Cabinet, has examined the records of the County Clerk, and has run the chain of title of the hereinabove designated parcel back for a period of not less than 35 years. The undersigned further certifies that no unreleased liens were found on any of the deeds in the chain of title, except as shown in Paragraph 4. The undersigned further certifies that all the mortgage records and other title records, including those specifically noted in the first portion of Paragraph 4, were examined and the undersigned was unable to find indexed of record or awaiting indexing of record any unreleased mortgages, liens, or other encumbrances against said property, except as specifically shown in Paragraph 4.

PARAGRAPH 1. The deed or deeds or other means by which title to said property was acquired by the current owner or owners is as follows, the source of title should relate back to one or more listed Deed(s) of Conveyance, add space for additional exhibits as required:

(Exhibit 1 attached.)

Grantor: Joseph U. Meyer and Dale A. Meyer, husband and wife, and David Zimmer and Rose Zimmer, husband and wife
Grantee: City of Covington, Kentucky
Date: March 30, 1981
Book & Page: Deed Book 794, page 220

PARAGRAPH 2. All transfers affecting this property within the 35 years, next last past, or the next last transfer if it is prior to the 35 years, next last past, add space for additional exhibits as required:

(Exhibit 2 attached.)

*** Possible off-conveyance**
Grantor: City of Covington, Kentucky
Grantee: Guardian Communications, Inc., a Delaware corporation
Date: March 7, 1994
Book & Page: Deed Book 1126, page 275

PARAGRAPH 3. The record description of the property which is the subject of this report is as set forth in the Deed(s) of Conveyance mentioned below if different from Paragraph 1, add space for additional exhibits as required:

(Exhibit _ attached [if different from Exhibit 1].)

Grantor:
Grantee:
Date:
Book & Page:

PARAGRAPH 4. Liens, encumbrances, and objections which are to be removed or eliminated prior to, or at the time of closing, if any, are checked and described below and attached and labeled as individual exhibits, add space for additional exhibits as required for each type:

(a) ☐ Mortgages **(Exhibit _ attached)**

Mortgagor:
Mortgagee:
Date:
Book & Page:

(b) ☐ Vendor liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

(c) ☐ Mechanics liens **(Exhibit _ attached)**

Lien holder:
Property:
Date:
Book & Page:

OTHER EXHIBITS

QUALIFICATIONS OF THE APPRAISER

William L. Berkley, Jr.

Professional Affiliations:

- General Certification - Kentucky Real Estate Appraisers Board No.721.

- Appraisal Institute.
  Candidate No: M90-0111.
  Past Treasurer & Secretary - Bluegrass Chapter of Appraisal Institute

- Licensed Real Estate Broker in the State of Kentucky

- Member of the International Right of Way Association

Education:

- Graduated: University of Kentucky,
  BS in Business Administration, Finance Major.
  Courses include Real Estate Principles, Real Estate Finance, Independent Study in Real Estate, Statistical Inference, Statistical Probability.

- Graduated: Lexington Community College,
  Associate of Applied Science, Real Estate Major.
  Courses include Real Estate Appraisal, Real Estate Principles, Real Estate Marketing I & II, Real Estate Law, Real Estate Finance, Real Estate Investment, Real Estate Property Management.

- Course work through the Appraisal Institute: Real Estate Appraisal Principles, Capitalization A, Capitalization B, Advanced Applications, Report Writing and Valuation Analysis, Uniform Standards of Professional Practice, Fundamentals of Rural Appraisal.

- Seminars through the Appraisal Institute: Uniform Standards for Federal Land Acquisition, USPAP Update, Site to Do Business, Attacking & Defending an Appraisal for Litigation, Appraisal Practices for Litigation, Easement Valuation, Subdivision Analysis, Understanding Limited Appraisals, Highest and Best Use Analysis, Dynamics of Office Building Valuation, Money Market, Appraising From Blueprints and Specifications, Reviewing Appraisals, Evaluating Residential Construction, Survey Research Techniques, Appraising Troubled Properties, Applied Sales Comparison Approach, Appraisal Regulations of the Federal Banking Agencies, Farm Valuation, Accrued Depreciation, Cash Equivalency, Rates, Ratios & Reasonableness.

Experience:

Full time career in appraising commercial, industrial, multi-family, subdivisions, easement, condemnation, conservation easements, farm, and multi-family residential properties. Owner and manager of investment property. Commissioner Lexington Fayette Urban County Planning Commission 2011-2019.

RECENT APPRAISAL CLIENTS:

Financial Institutions:

Traditional Bank, Republic Bank, Fifth Third Bank, Traditional Bank, BB&T, City National Bank, PNC Bank, Huntington National Bank, Bank of Kentucky, Heritage Bank, Central Bank & Trust Company, Bank One (JP Morgan Chase). Non-bank lender clients include; Law firm of White, Peck & Carrington; Law firm of Greenbaum, Doll & McDonald; Law Firm of Stoll, Keenon & Park; Law Firm of Wethington, Hurt & Crosby; Law Firm of McBrayer, McGinnis & Kirkland; Law firm of Deters, Benzinger & Lavelle; Law Firm of Adams, Stepner, Woltermann & Dusing.

Governmental, Utilities, & Railroads:

Commonwealth of Kentucky Department of Transportation - Right of Way and Legal Departments, Tennessee Valley Authority (TVA), Commonwealth of Kentucky Real Property Division, Columbia Gas of Kentucky, Kentucky American Water Company, East Kentucky Power Cooperative, Kentucky Utilities Company, Sanitation District No.1, CSX Real Property, Norfolk Southern Railroad, United States Postal Service, General Services Administration, University of Kentucky, Morehead State University, Northern Kentucky University, Eastern Kentucky University, Lexington Fayette Urban County Government, Lexington Fayette County Airport Board.

APPRAISED FOR:

Full Range of Commercial Properties, Multi-Family Residential, Subdivision Development, General and Horse Farms, Condemnation cases for both Plaintiff and Defendant, Tax & Divorce Cases, Gas, Water & Electric Utility Companies, Kentucky Department of Highway Projects, Conservation Easements, Partition of Real Property, Urban Renewal, and Major Industrial Properties.

QUALIFIED AS EXPERT IN REAL ESTATE VALUES:

Federal Bankruptcy Court Eastern Division State of Kentucky. Testified in Bankruptcy Court.

Qualified as Expert Witness in Circuit Court. Testified in condemnation and damage proceedings.

Review Appraiser Status – Commonwealth of Kentucky

In the name and by the Authority of the

Commonwealth of Kentucky

Kentucky Real Estate Appraisers Board

Hereby grants a/an Certified General Real Property Appraiser

To William L Berkley
366 Waller Ave., Ste. 203 Lexington KY 40504

who has complied with the provisions of Chapter 324A of the Kentucky Revised Statutes IN WITNESS WHEREOF, we have caused the official seal to be fixed and attested for the year shown below.

/s John Dexter Outlaw

Chair

License Number: 721
Issue Date: June 26, 1992
Expire Date: July 1, 2025

Chapman Appraisals LLC

An Appraisal Review

Appraisal Review of
Goebel Park Replacement Property

Goebel Park Replacement Property
Excess Right of Way W 5th Street
Covington, Kentucky 41011

Appraised By:
Bluegrass Valuation Group, LLC
William L. Berkley
366 Waller Avenue, Suite 203
Lexington, Kentucky 24004

Date of Appraisal Report Under Review: December 18, 2024
Effective Date of Before and After Appraisal Value under Review: November 18, 2024
Effective Date of Review: December 18, 2024

Prepared By
Matthew L Chapman, MAI
Chapman Appraisals LLC
3813 Poplar Level Road
Louisville, Kentucky 40213
www.chapmanappraisers.com

Prepared For
Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities
Mr. Eric Monhollon
Appraisal Branch Manager
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622

Approved in the Amount of: $1,380,000.00

Eric R. Monhollon
Digitally signed by Eric R. Monhollon
Date: 2024.12.19 09:24:33 -05'00'

Appraisal Branch Manager

December 18, 2024

Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities
Mr. Eric Monhollon
Appraisal Branch Manager
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622

RE: Appraisal Review
Goebel Park Replacement Property
Excess Right of Way W 5th Street
Covington, Kentucky 41011
FILE # 24-0027B

Mr. Eric Monhollon:

Thank you for the opportunity to provide services for you. As requested, we have performed the necessary analysis for purposes of developing and reporting an appraisal review. The specific real property interest, real estate, and type of value are detailed in the body of the accompanying report which was prepared in conformance with the Uniform Standards of Federal Land Acquisition (2016) (UASFLA); Uniform Standards of Professional Appraisal Practice (USPAP 2024); 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36CFR 59.3(b)(2); and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual.

The depth of discussion contained in this report is specific to the needs of the client and the intended use as specified in the body of the report. The liability of Chapman Appraisals, subcontractors, and employees is limited to the fee collected for the preparation of the appraisal review. There is no accountability or liability to any third parties.

The value reported is qualified the assumptions and limiting conditions contained in the appraisal under review and specifically (or in addition to):

- Information supplied by others is believed to be reliable. However, no warranty is given for its accuracy.
- No responsibility is assumed for legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.
- The property is appraised free and clear of any and all liens or encumbrances unless otherwise stated.
- It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless otherwise stated in this report.
- The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate valuations for land and buildings should not be used in conjunction with other appraisals and are invalid if so used.
- The value opinions, and costs used, are as of the date of the value opinion.

- All engineering is assumed to be correct. Any plot plans, sketches, maps, and illustrative material in this report are included only to assist the reader in visualizing the property.
- Responsible ownership and competent property management are assumed.
- All mechanical components are assumed to be in good, operable condition unless otherwise noted.
- Any proposed improvements, on or off-site, as well as any repairs required, are assumed to be completed in a good workmanlike manner in accordance with the information submitted and/or considered by the appraiser.
- It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering or environmental studies that may be required to discover them.
- Unless otherwise stated in this report, the existence of hazardous material or conditions, which may or may not be present on the property, was not observed by the appraiser. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.
- It is assumed that the utilization of the land and improvements is within boundaries or property lines of the property described and that there is no encroachment or trespass unless otherwise stated in this report.
- This appraiser is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.
- Our opinion of value does not consider the effect (if any) of possible noncompliance with the requirements of ADA.
- It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined and considered in this report. It is assumed that all required licenses, certificates of occupancy or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report are based.
- The appraisal is to be used only in its entirety. Possession of the report or any copy does not carry with it the right of publication. The report may not be used by any person or corporation other than the client or the party to whom it is addressed or copied without the written consent of the signing appraiser(s).

EXTRAORDINARY ASSUMPTIONS

No Extraordinary Assumptions were made for this assignment.

HYPOTHETICAL CONDITIONS

The use of a hypothetical condition(s) may have impacted the results of the assignment. The site is currently state-owned right of way. Upon completion of the Brent Spence Bridge project, it is to be classified as surplus and transferred to the City of Covington as excess right of way to be used for replacement property for the adjoining Goebel Park in order to comply with LWCF requirements. Further the KYTC has indicated that the existing road infrastructure on the site is to be removed and will be graded to an elevation level with the existing 5th Street. As this has not occurred as of the effective date of the value opinion, the valuation is subject to these hypothetical conditions.

JURISDICATIONAL EXCEPTION

Per UASFLA and overriding federal law, a market exposure time is not linked to the value opinions reported here in. As this is contrary to USPAP Standards Rule 1-2(c)., a Jurisdictional Exception to USPAP is invoked for this assignment. Marketing period is also not reported.

ACCEPTANCE OF, AND/OR USE OF, THIS APPRAISAL REVIEW CONSTITUTES ACCEPTANCE OF THE ABOVE CONSIDERATIONS.

I certify that, to the best of my knowledge and belief:

1) The statements of fact contained in this report are true and correct.
2) The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and legal instructions, and are the personal, unbiased, professional analyses, opinions, and conclusions of the appraiser.
3) I have no present or prospective interest in the property that is the subject of the work under review and no personal interest with respect to the parties involved.
4) My compensation for completing this assignment is not contingent upon the development or reporting of predetermined assignment results or assignment results that favors the cause of the client, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal review.
5) The appraisal was made and the appraisal review report prepared in conformity with the Uniform Appraisal Standards for Federal Land Acquisitions.
6) The appraisal was developed and the appraisal report prepared in conformance with the Appraisal Standards Board's *Uniform Standards of Professional Appraisal Practice* and complies with USPAP's Jurisdictional Exception Rule when invoked by Section 1.2.7.2 of the *Uniform Appraisal Standards for Federal Land Acquisitions*.
7) I have no bias with respect to the property that is the subject of the work under review or to the parties involved with this assignment.
8) My engagement in this assignment was not contingent upon developing or reporting predetermined results.
9) My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice and Code of Ethics of the American Society of Appraisers, and Appraisal Institute.
10) The appraiser physically inspected the subject and the property owner representative accompanied him on that inspection. The reviewer made an exterior inspection of the subject property and comparables used in the work under review.
11) No one provided significant appraisal or appraisal review assistance to the person signing this certification.
12) The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13) As of the date of this report, I have completed the continuing education program for Designated Members of the Appraisal Institute.
14) The American Society of Appraisers has a mandatory reaccreditation program for all its designated members. I am in compliance with this program.

15) I reviewed a prior appraisal of the subject property written January, 2024. That appraisal was revised to reflect new area of the replacement property and is reflected in the current appraisal under review. I have performed no other services, as an appraiser or in any capacity, regarding the property that is the subject of the work under review within the three-year period immediately preceding acceptance of this assignment.

We appreciate the opportunity to provide services for you and your firm. Please let us know if we can ever be of more service to you. Thank you.

Sincerely,

CHAPMAN APPRAISALS LLC



Matthew L Chapman, MAI, ASA

Scope of Appraisal Review

In developing an appraisal review assignment, an appraiser acting as a reviewer must identify the problem to be solved, determine the scope of work necessary to solve the problem, and correctly complete research and analyses necessary to produce a credible appraisal review. In reporting the results of an appraisal review assignment, an appraiser acting as a reviewer must communicate each analysis, opinion, and conclusion in a manner that is not misleading.

Comment
STANDARD 3 also addresses the content and level of information required in a report that communicates the results of an appraisal review assignment. STANDARD 3 does not dictate the form, format, or style of Appraisal Review Reports. The substantive content of a report determines its compliance.
STANDARD 3 is directed toward the substantive aspects of developing a credible opinion of the quality of another appraiser's work that was performed as part of an appraisal or appraisal review assignment.

Standards Rule 3-3
In developing an appraisal review, a reviewer must apply the appraisal review methods and techniques that are necessary for credible assignment results.

(a) When necessary for credible assignment results in the review of analyses, opinions, and conclusions, the reviewer must:
(i) develop an opinion as to whether the analyses are appropriate within the context of the requirements applicable to that work;
(ii) develop an opinion as to whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and
(iii) develop the reasons for any disagreement.

Consistent with the reviewer's scope of work, the reviewer is required to develop an opinion as to the ***completeness, accuracy, adequacy, relevance, and reasonableness*** (emphasis added) of the analysis in the work under review, given law, regulations, or intended user requirements applicable to the work under review.

Appraisal Review

Scope of Work: The review is conducted under the following

Client: Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities.

Purpose of this Review:
Per USPAP Standards Rule 3-3:

(i) Develop an opinion as to whether the analyses are appropriate within the context of the requirements applicable to that work;
(ii) Develop an opinion as to whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and
(iii) Develop the reasons for any disagreement.

Consistent with the reviewer's scope of work, develop an opinion as to the ***completeness, accuracy, adequacy, relevance, and reasonableness*** (emphasis added) of the analysis in the work under review, given law, regulations, or intended user requirements applicable to the work under review.

Other Intended Users*:* National Park Service of the United States Department of Interior; Federal Highway Administration of the United States Department of Transportation

Intended Use of Appraisal*:* The purpose of the appraisal of the conversion property is to provide an opinion of market value of the subject property (larger parcel) before acquisition of property (before value) and an opinion of market value of the subject property remaining after the acquisition (after value) in compliance with the LWCF manual and the UASFLA. The difference between these before and after values will be will represent the contributory value of the acquisition for the conversion property in the 6(f) process. The appraisal is not intended for any other use.

Intended Use of Review*:* To determine the appraisal report's compliance with UASFLA, USPAP, LWCF Manual, 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36CFR 59.3(b)(2); and related client standards. Additionally, the intended use of the review is to determine if reasonable and supported conclusions have been developed in support of the before and after values established for acquisition purposes.

Subject Property, AS IDENTIFIED BY APPRAISAL REPORTS UNDER REVIEW:

Goebel Park Replacement Property**:** Excess Right of Way W 5th Street
Covington, Kentucky 41011

The subject property is located on the east side of I-75 and south side of W 5th Street. At completion of the Brent Spence Bridge project, the site is to be classified as excess right of way and transferred to the City of Covington for use as replacement property for the Goebel Park in accordance with LWCF requirements. Further the site is to have all existing road infrastructure improvements removed and graded to level with W 5th Street which will be its only point of vehicular access, a hypothetical condition as of the effective date of the appraisal. There are no current entitlements or zoning that would qualify as an "economic use" under the UASFLA and LWCF requirements. As such, the highest and best use analysis and value opinions reported here in reflect the subject property as being available for an "economic use" which for this property has been determined to be, redevelopment for mixed use commercial.

The client has not provided any extraordinary legal requirements or instructions.

The site contains a total of 92,099 square feet or 2.114 acres of land area.

Identification of Appraiser Under Review:

William L. Berkley
Bluegrass Valuation Group, LLC
366 Waller Avenue, Suite 203
Lexington, Kentucky 24004
Kentucky State Certified Appraiser 721

Identification of Review Appraiser:

Matthew L Chapman, MAI, ASA, CMA
Chapman Appraisals LLC
3813 Poplar Lavel Road
Louisville, Kentucky 40213
Kentucky State Certified Appraiser 4466

Effective Date of Appraisal: November 18, 2024: Date of Before and After Value
December 18, 2024: Date of Appraisal Report

Date of Review Report: December 18, 2024

Review Appraiser Inspection Date: The review appraiser performed an exterior inspection of the subject December 9, 2024. The review appraiser has also personally viewed all the land comparables used in the appraisal.

DEFINITIONS:

Market Value per UASFLA Standards - Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of value, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither compelled to buy or sell, giving due consideration to all available economic uses of the property.

Fee Simple Interest – Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.[1]

Leased Fee Interest - A freehold (ownership interest) where the possessory interest has been granted to another party be creation of a contractual landlord-tenant relationship. (i.e. a lease) [2]

REASONABLE EXPOSURE:

In the Statement on Appraisal Standards No.6 (SMT-6), Exposure time is defined as follows:

"The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient and reasonable time but also adequate, sufficient and reasonable effort. This statement focuses on the time component.

The fact that exposure time is always presumed to occur prior to the effective date of appraisal is substantiated by related facts in the appraisal process: supply/demand conditions as of the effective date of the appraisal; the use of current cost information; the analysis of historical sales information (sold after exposure and after completion of negotiations between the seller and buyer); and the analysis of the future income expectancy projected from the effective date of the appraisal."

Subject Exposure & Marketing Time:

Per UASFLA and overriding federal law, a market exposure time is not linked to the value opinions reported here in. As this is contrary to USPAP Standards Rule 1-2(c)., a

[1] *The Dictionary of Real Estate Appraisal. 7th* Ed. Chicago: Appraisal Institute, 2022. Page 78.

[2] *The Dictionary of Real Estate Appraisal. 7th* Ed. Chicago: Appraisal Institute, 2022. Page 111.

Jurisdictional Exception to USPAP is invoked for this assignment. Marketing period is also not reported. (Letter of Transmittal)

Prior Services:

The appraiser disclosed prior appraisal services January, 2024. That appraisal was revised to reflect new area of the replacement property and is reflected in the current appraisal. He has not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of the work under review within the three-year period immediately preceding acceptance of this assignment.

Prior Services (Reviewer):

I (Review Appraiser) reviewed a prior appraisal of the subject property written January, 2024. That appraisal was revised to reflect new area of the replacement property and is reflected in the current appraisal under review. I have not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of the work under review within the three-year period immediately preceding acceptance of this assignment.

Competency:

I have appraised numerous appraisals on properties such as the subject. I also regularly conduct appraisal reviews. Files are maintained with historic and current market data relative to the subject. Competency has been established in both the property type and market through work experience or research of market trends. Therefore, I possess the requisite knowledge and experience to perform the appraisal review assignment.

Limiting Conditions, Extraordinary Assumptions, Hypothetical Conditions, and Jurisdictional Exceptions:

Per Scope of Work Instructions: The appraiser may not include any Extraordinary Assumptions, Hypothetical Conditions, or reference any Jurisdictional Exceptions not identified within the LWCF manual, or the UASFLA, without first alerting the client agency of the necessity of their use, discussing the merits of using them with the client agency, and must receive written concurrence from the client agency before using them in the final written appraisal report.

The appraiser requested use of a hypothetical condition and was given permission as it was warranted to properly complete the appraisal analysis. The email correspondence documentation is at the end of the review.

The appraiser employs one hypothetical condition in completing his assignment.

1). The use of a hypothetical condition(s) may have impacted the results of the assignment. The site is currently state owned right of way. Upon completion of

the Brent Spence Bridge project, it is to be classified as surplus and transferred to the City of Covington as excess right of way to be used for replacement property for the adjoining Goebel Park in order to comply with LWCF requirements. Further the KYTC has indicated that the existing road infrastructure on the site is to be removed and will be graded to an elevation level with the existing 5th Street. As this has not occurred as of the effective date of the value opinion, the valuation is subject to these hypothetical conditions.

Significant Observations, Recommendations/Important Issues

1) The subject includes 2.114 acres. The property is appraised as though vacant.

2) The subject is appraised as an economic use for its highest and best use. The highest and best use is for mixed-use commercial and residential redevelopment. The value of the subject is the land value available for development.

3) The property borders I-71/I-75 and is located in an urban in-fill location in Covington, Northern Kentucky. The market benefits from a diverse blend of commercial, professional, residential and community uses along with close proximity to many recreational activities. The market has been increasing due to good livability factors associated with the region. The outlook for the market area is good into the foreseeable future. (Page 29)

4) The subject is an off-ramp that will have the road improvements removed and site will be regraded to adjacent land level. The site is triangular in shape.

5) The property described herein represents state owned right of way that is adjacent to Goebel park and is to be deemed excess. The property as described represents the larger parcel as there is a unity of highest and best use, unity of title and all being contiguous. (Page 49)

6) A land sales comparison approach is used in the before and after appraisal. The income, cost, and improved sales comparison approaches are not applicable to the assignment.

Contingencies of Review

1) **None.**

Reviewer's opinion of whether report is appropriate under the context of the report requirements:

Affirmative – The appraisal under review meets UASFLA, USPAP, LWCF Manual, 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); and 36CFR 59.3(b)(2) standards.

Reviewer's opinion of whether reports under review are reliable:

Affirmative – The appraisal under review is adequate in ***completeness, accuracy, adequacy, relevance, and reasonableness*** to produce reliable findings and develop credible assignment results.

Reviewer's reasons for disagreements:

NA – Based on the data presented, the opinions developed are supported and reasonable.

Conclusions of Appraisal

Summary of Appraisal Under Review

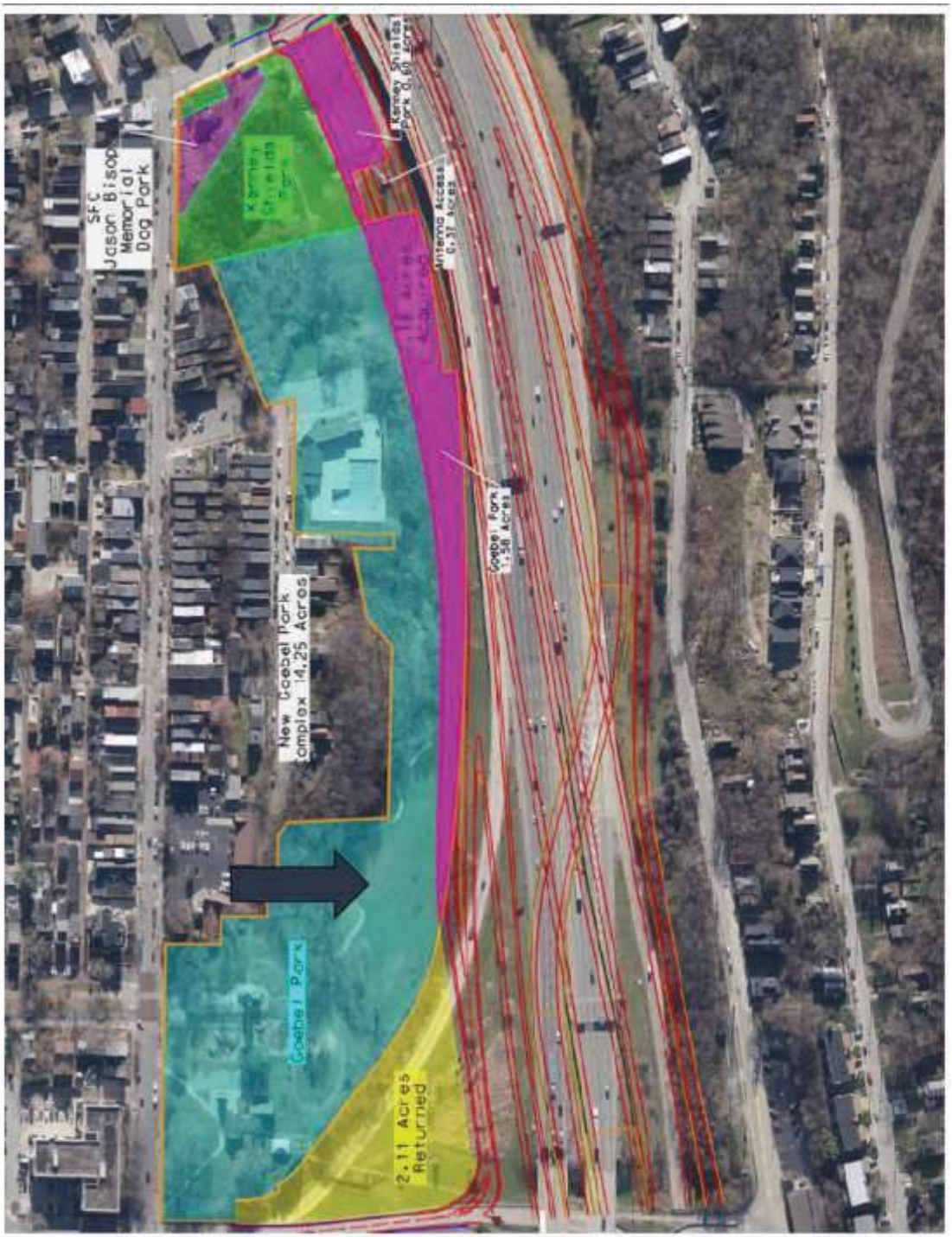
Interest Appraised	Market Value
	Goebel Park Replacement Property
Value Conclusions	As-Is Value
Date of Value	November 18, 2024
Property Rights Appraised	Fee Simple
Income Capitalization Approach	NA
Sales Comparison Approach	$1,380,000
Cost Approach	NA
Final Value Conclusion	**$1,380,000**

History of the Subject (page 41)

The subject property has been in use as public right of way for an extended period of time.

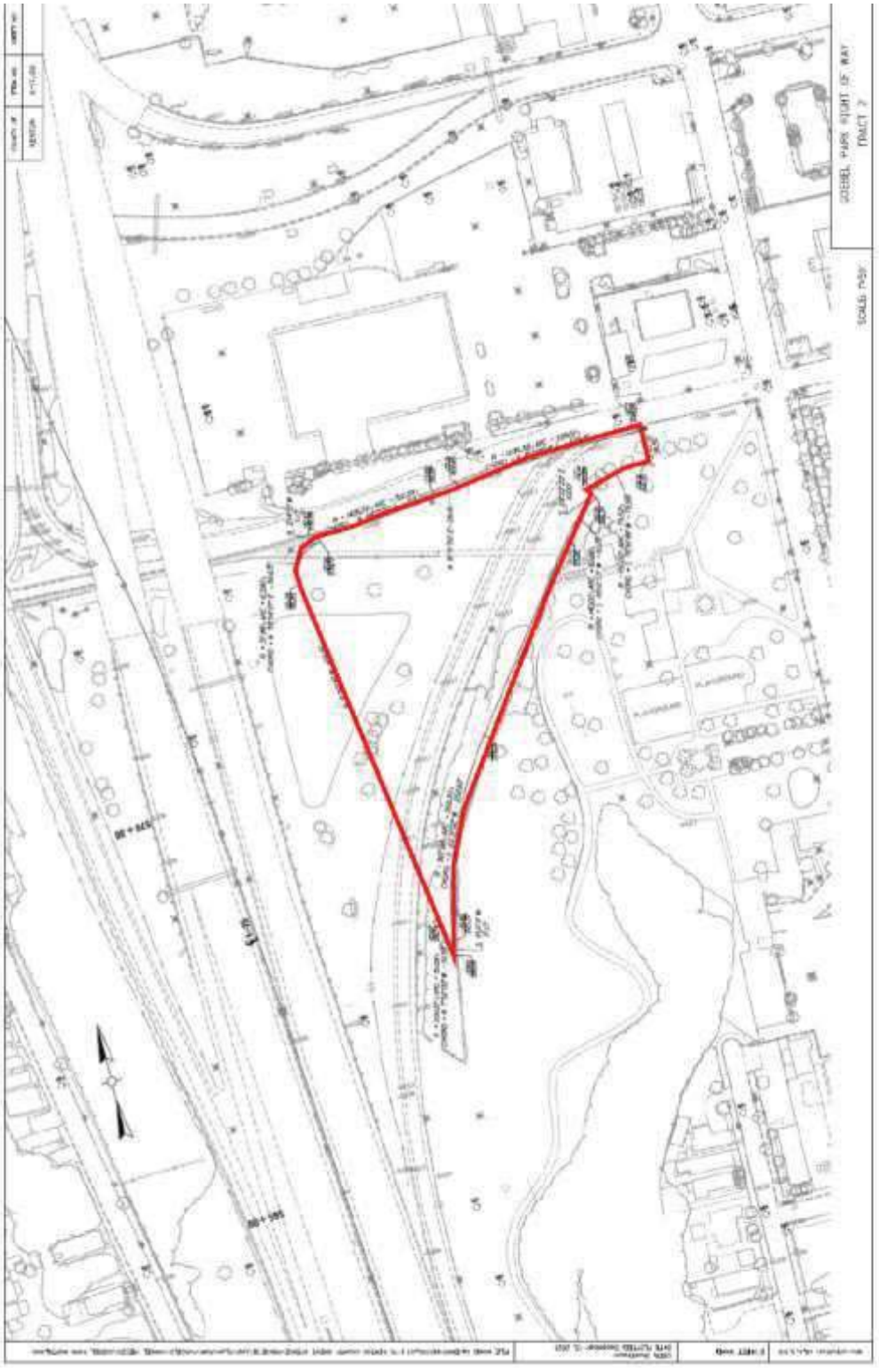
The subject title is currently recorded in the name of Commonwealth of Kentucky Department of Transportation who acquired title to the property presumably as a part of the I-75 project. Upon completion of the Brent Spence Bridge Project, the site is to be deemed surplus and will become excess right of way. There was no title available for this assignment.

There has been no transfer of ownership for the subject property in the past ten years and there is no known pending sale or listing of the subject.



Page 6

There are minor differences in the acquisition area and replacement property shown on this exhibit. The appraisal has been based on the provided written legal descriptions contained in the addenda with the Goebel Park Contribution being 2.181 acres and the replacement property being 2.114 acres.



Page 7

Site Description (Page 29)

The subject property is in use as I-75 right of way with vegetation limited to grass and landscaping. The W 5th Street ramp is currently on the site along with an overhead walkway between the site and the Goebel Park. All of the existing road infrastructure is to be removed and the site graded to level with W 5th Street, a hypothetical condition of the value opinion. There are no known marketable minerals associated with the subject property and no rental history. The property consists of 95,985 SF (2.204 acres) and is located between the east side of I-75, south side of W 5th Street and west side of Goebel Park in the City Limits of Covington, KY. The shape of the site is triangular and runs along W 5th Street, its north boundary for a total of 443 to the Goebel Park where the east boundary is 710 feet. The remaining I-75 right of way forms the west boundary for a total length of 520 feet. As a result of the triangular shape, the area which could be developed with buildings is likely reduced but could be used for parking. The proposed W 5th Street ramp will be located between the subject and the I-75 travel-way but there will be no access from the ramp.

Topography (Page 31)

The site is mostly level with W 5th and then slopes up towards the rear of the site. As a part of construction of the Brent Spence Bridge project the site is to be graded level with W 5th Street, a hypothetical condition of the value opinion.

Utilities and Easement (Page 31)

All public utilities including sewer, city water, electric and gas are available to the site but will need to be extended. The maps below depict the system of storm and sanitary sewers as well as public water around the subject property.

Floodplain Zone X Panel Number 21117C0009F, dated May 16, 2013. Zone X (unshaded) is a moderate and minimal risk area.

Site Improvements

The site improvements are limited to an overhead walkway between Goebel Park, portions of the existing 5th Street ramp and minor landscaping. The existing site improvements are to be removed by the KYTC, a hypothetical condition of the value opinion.

Building Improvements

The subject is unimproved.

Zoning

The subject is existing right of way and not zoned nor has it recently been changed. As the UASFLA and LWCF require that the property be valued as available for an economic use, a zoning analysis is presented. As the property has been in use as right of way, the City of Covington Comprehensive Plan also does not provide for a recommended land use.

Based on the research of the appraiser which includes a review of the Comp Plan, a review of prevailing land uses, as well as an interview with City of Covington Planning and Zoning Officials, the appraiser opines the most probable zoning for the subejct to be Traditional Urban Mixed Use (TUMU).

Land Sales Comparison Approach

The following four sales were selected by the appraiser to best represent comparability to the subject. The adjustment grid is presented below.

LAND SALES COMPARISON TABLE									
	SUBJECT	COMP 1		COMP 2		COMP 3		COMP 4	
Name	Goebel Park Replacement Property	Vacant Parking Lot in Front of Montgomery Inn		Former Montgomery Inn Restaurant Site		Infiniti Auto Dealership		Parking Lot Next to Office Building	
Address	W 5th St	380 Buttermilk Pike		406 Buttermilk Pike		1945 Dixie Hwy		1845 Dixie Hwy	
City	Covington	Lakeside Park		Fort Mitchell		Fort Wright		Fort Wright	
State	KY	KY		KY		KY		KY	
Zip	41011	41017		41017		41011		41011	
County	Kenton	Kenton		Kenton		Kenton		Kenton	
Submarket	Covington	Fort Mitchell		Fort Mitchell		-		-	
Parcel	Excess State Right of Way	028-10-03-014.05		028-10-03-014.04		041-20-00-002.00		041-20-00-009.00	
SALE INFORMATION									
Transaction Price		$1,170,000		$4,000,000		$1,200,000		$540,800	
Transaction Price $/SF		$26.86		$19.33		$14.45		$15.72	
Property Rights [1]		Fee Simple		Fee Simple		Fee Simple		Fee Simple	
Financing [2]		Conventional		Cash to Seller		Conventional		-	
Sale Conditions [3]		Transaction		Transaction		Transaction		Transaction	
Expenditures After Sale [4]		$0		$60,000	1.5%	$0		$0	
Market Conditions [5]		12/16/2019	4%	6/15/2022	2%	3/15/2019	5%	3/25/2022	2%
Sale Status		Recorded		Recorded		Recorded		Recorded	
Recording Number		C 6832/0321		KC 171-214		5966-350		0155-585	
Total Transactional Adjustments		$1.20	4%	$0.63	3%	$0.77	5%	$0.31	2%
Adjusted $/SF		**$28.06**		**$19.96**		**$15.22**		**$16.03**	
PHYSICAL INFORMATION									
Square Feet	95,985	43,560		206,910		83,034		34,412	
Acres	2.2035	1.0000	(5%)	4.7500		1.9062		0.7900	(5%)
Location	Good	Good		Above Average	5%	Above Average	5%	Above Average	5%
Access	Above Average	Very Good	(10%)	Good	(5%)	Good	(5%)	Good	(5%)
Shape	Triangular	Generally Rectangular	(10%)	Generally Rectangular	(10%)	Generally Rectangular	(10%)	Generally Rectangular	(5%)
Zoning	TUMU	MU		MU		LHS		PO-1	
Topography	Level	Level		Level		Level		Rolling	
Site Impr.	None	Parking Lot	(14%)						
Total Physical Adjustments		($10.94)	(39%)	($2.00)	(10%)	($1.52)	(10%)	($1.60)	(10%)
Adjusted $/SF		**$17.12**		**$17.96**		**$13.70**		**$14.43**	
CONFIRMATION INFORMATION									
Company		Brandicorp		Brandicorp		Infinit Dealership		Twin Quail Forest Prk	
Name		Mike Brandi		Mike Brandi		Clay Greene		Teresa Clay, Deed, PVA	
Affiliation		Buyers		Buyers		Buyer		Buyer	

All the sales were confirmed with parties to the sales.

Adjustments to the comparable sales were considered and made when warranted for expenditures after purchase, property rights transferred, conditions of sale, financing terms, and market conditions.

Next Quantitative percentage adjustments are made for location and physical characteristics such as size, location access, shape, zoning, topography, and easements. Where possible the adjustments applied are based on paired data or other statistical analysis. Noted, the appraiser also interviewed market participants in the analysis as well as demonstrated a thorough understanding of the market throughout the appraisal assignment

The review appraiser opines that the adjustments and overall analysis was well-supported in reaching the value conclusion.

LAND VALUE CONCLUSION

The comparables indicate a unit value, based on a general bracketing analysis, between $13.70/SF and $17.96/SF. Based on the subject's overall locational and physical features, a unit value conclusion of $15/SF is supported. Most weight was placed on Sale No.1-3 as No.4 had more limited zoning. The following table summarizes the comparable land sales analysis and applies the unit value conclusion to the site area to provide an indication of the as-vacant land value.

LAND SALES COMPARISON APPROACH CONCLUSION (SF)

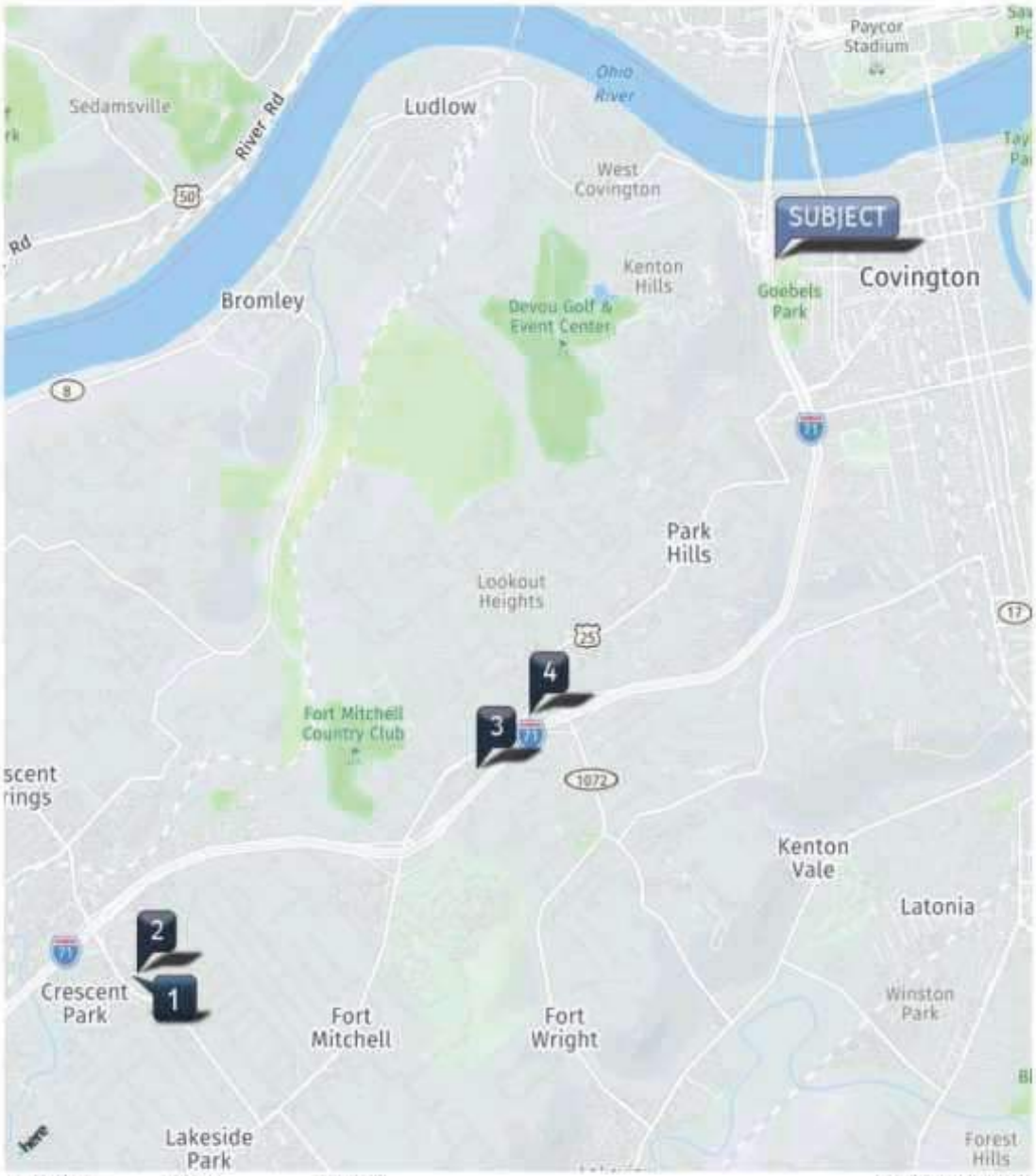
	TRANSACTION	ADJUSTMENT				NET	GROSS
	PRICE	TRANSACTIONAL[1]	ADJUSTED	PROPERTY[2]	FINAL	ADJ	ADJ
1	$26.86	5%	$28.32	(39%)	$17.28	(36%)	44%
2	$19.33	4%	$20.14	(10%)	$18.13	(6%)	24%
3	$14.45	6%	$15.35	(10%)	$13.82	(4%)	26%
4	$15.72	3%	$16.18	(10%)	$14.56	(7%)	23%
HIGH	*$26.86*	*6%*	*$28.32*	*(10%)*	*$18.13*	*(4%)*	*44%*
AVG	*$19.09*	*5%*	*$20.00*	*(17%)*	*$15.95*	*(13%)*	*29%*
MED	*$17.53*	*5%*	*$18.16*	*(10%)*	*$15.92*	*(7%)*	*25%*
LOW	*$14.45*	*3%*	*$15.35*	*(39%)*	*$13.82*	*(36%)*	*23%*

	SUBJECT SF		$/SF		VALUE
Total Land Area	92,099	x	$15	=	$1,381,485
INDICATED VALUE (ROUNDED TO NEAREST $5,000)			$14.98		$1,380,000

[1]Cumulative [2]Additive

INDICATED VALUE CONCLUSION $1,380,000

COMPARABLE DATA MAPS



COMPARABLE	LABEL	ADDRESS	MILES FROM SUBJECT
COMPARABLE 1	1	380 Buttermilk Pike, Lakeside Park, KY, 41017	
COMPARABLE 2	2	406 Buttermilk Pike, Fort Mitchell, KY, 41017	3.8
COMPARABLE 3	3	1945 Dixie Hwy, Fort Wright, KY, 41011	2.3
COMPARABLE 4	4	1845 Dixie Hwy, Fort Wright, KY, 41011	2.1

Reconciliation Comments, Before Value

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the As-Is Market Value (Fee Simple Estate). (page 55)

VALUE CONCLUSION	
VALUATION SCENARIOS	AS-IS MARKET VALUE
Interest	Fee Simple Estate
Effective Date	November 18, 2024
Land Value	$1,380,000
Cost Approach	Not Presented
Improved Sales Comparison Approach	Not Presented
Income Capitalization Approach	Not Presented
FINAL VALUE CONCLUSION	$1,380,000

Review Appraiser Commentary

The appraisal is reasonable and well supported in reaching its conclusions.

EMAIL REQUESTING USE OF HYPOTHETICAL CONDITION

Matthew Chapman

From: O'Grady, Richard (FHWA) <richard.ogrady@dot.gov>
Sent: Friday, January 19, 2024 3:33 PM
To: Matthew Chapman
Subject: RE: Goebel Park Replacement Property - Hypothetical Condition language

Hi Matt,

Since the purpose of the appraisal is to determine the market value of the Replacement site when KYTC completes the property disposal, it makes sense that a market participant (purchaser) would need to know what condition the site would be in at the time of the disposal (transaction). However, the effective date of the appraisal precedes the KYTC site preparation so it would seem a hypothetical condition is warranted.

Sometimes it is easier to explain to the reader when the appraiser discusses the need for the Hypothetical Condition that they directly respond to the USPAP requirements in their discussion paragraph.

> **From SR 1**
> **(g) identify any hypothetical conditions necessary in the assignment. A hypothetical condition may be used in an assignment only if:**
> **(i) use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison; and**
> **(ii) use of the hypothetical condition results in a credible analysis;**
>
> **From SR 2**
> **xv) clearly and conspicuously:**
> - **state all extraordinary assumptions and hypothetical conditions; and**
> - **state that their use might have affected the assignment results; and**

I hope this is helpful.

Kevin

R. Kevin O'Grady | Chief Appraiser
USDOT | FHWA | Office of Real Estate Services (HEPR)
1200 New Jersey Ave, SE, Washington, DC 20590
(202) 961-0903 | richard.ogrady@dot.gov
https://www.fhwa.dot.gov/real_estate/index.cfm

From: Matthew Chapman <matt@chapmanappraisers.com>
Sent: Thursday, January 18, 2024 9:37 AM
To: O'Grady, Richard (FHWA) <richard.ogrady@dot.gov>
Subject: RE: Goebel Park Replacement Property

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Kevin

This is the hypothetical condition language Will intends to use in the surplus property report. I want to confirm that it will be acceptable by Federal Appraisal oversight. It is of my opinion this is acceptable but if you can confirm that would be appreciated.

Thanks!

Matt Chapman, MAI, ASA, CMA
Chapman Appraisals
3813 Poplar Level Road
Louisville, Kentucky 40213
O. 502-259-9700
C. 614-507-1888
matt@chapmanappraisers.com
www.chapmanappraisers.com

From: willberkley@qx.net <willberkley@qx.net>
Sent: Thursday, January 18, 2024 9:32 AM
To: Matthew Chapman <matt@chapmanappraisers.com>
Subject: Goebel Park Replacement Property

Matt:

Attached is the language I am using for the hypothetical condition for the excess right of way replacement property. Richard asked that I send this to you in advance.

The site is currently state-owned right of way. Upon completion of the Brent Spence Bridge project, it is to be classified as surplus and transferred to the City of Covington as excess right of way to be used for replacement property for the adjoining Goebel Park in order to comply with LWCF requirements. Further the KYTC has indicated that the existing road infrastructure on the site is to be removed and will be graded to an elevation level with the existing 5th Street. As this has not occurred as of the effective date of the value opinion, the valuation is subject to these hypothetical conditions.

Regards

Will Berkley
Bluegrass Valuation Group, LLC
366 Waller Avenue Suite 203
Lexington, KY 40504
M)859-983-2526
F)800-341-9597
willberkley53@gmail.com

Matthew L Chapman, MAI, ASA, CMA

BUSINESS EXPERIENCE

Chapman Appraisals, Louisville, Kentucky
Principal: Real Estate consulting including appraisal and market study assignments for commercial real estate.

American Appraisers, Louisville, Kentucky
Fee Appraiser: Real Estate consulting including appraisal and market study assignments for commercial real estate.

Gustavson Associates, Boulder, Colorado
Affiliated Analyst: Mineral rights and commercial property consulting.

Integra Realty Resources, Louisville, Kentucky
Analyst: Real Estate consulting including appraisal and market study assignments for commercial real estate.

Crown Appraisal Group, Columbus, Ohio
Fee Appraiser: Real Estate consulting including appraisal and market study assignments for commercial real estate.

Carleton Realty, Columbus, Ohio
Realtor: Real Estate sales throughout central Ohio

Tanknology, Columbus, Ohio
Operations Manager: Environmental compliance testing for gas stations

HIGHER EDUCATION

Miami University, Oxford, Ohio
Bachelor of Science – Environmental Geology
Bachelor of Science – General Business

PROFESSIONAL EDUCATION

Appraisal Institute
Appraisal Principles
Appraisal Procedures
Basic Income Capitalization
General Applications
Standards of Professional Practice 14 Hour
Standards of Professional Practice 7 Hour Update
Advanced Income Capitalization
Highest and Best Use Analysis
Report Writing and Valuation Analysis
Residential Report Writing
Advanced Cost and Sales Approach
Advanced Applications
Cleveland/Akron Regional Markets Industrial/Retail Forum

32nd Annual Economic Seminar 2010 Forecast
Demonstrative Report Writing Seminar
Yellow Book Federal Land Acquisition 2016
Fundamentals of Separating Real Property, Personal Property, and Going Concern
International Valuation Standards – Assessment
General Review Theory
Litigation
Hotels
Convenience Stores

Hondros College
Fair Housing
All classes required for real estate license

Ohio Auctioneers Association
Core Law Update
Real Estate Agents Guide to Advertising Laws

Ohio Association of Realtors
Cannons of Ethics
Fair Housing Update

Edu Mine
Mine Economics

PROFESSIONAL CERTIFICATIONS AND AFFILIATIONS

General Certified Appraiser
- OH: 2008002420
- KY: 4466
- IN: CG41100048
- TX: TX 1380122
- WV: CG424
- NC: A6981, IL, GA, MI, NY

Temp Licenses in other states
Member of Appraisal Institute
Member of American Society of Appraisers
Member American Institute of Mineral Appraisers – Past Newsletter Editor
Member of International Right of Way Association – Past President Region 25

LICENSURE

In the name and by the Authority of the

Commonwealth of Kentucky

Kentucky Real Estate Appraisers Board

Hereby grants a/an Certified General Real Property Appraiser

To Matthew Lewis Chapman
3813 Poplar Level Road Louisville KY 40213

who has complied with the provisions of Chapter 324A of the Kentucky Revised Statutes IN WITNESS WHEREOF, we have caused the official seal to be fixed and attested for the year shown below.

/s John Dexter Outlaw

Chair

License Number: 4466
Issue Date: September 10, 2010
Expire Date: July 1, 2025

APPRAISAL REPORT

GOEBEL PARK REPLACEMENT PROPERTY

Kenton County
Excess Right of Way
W 5th St
Covington, Kentucky 41011

VALUATION DATES

Effective Date of Value: November 18, 2024
Date of Report: December 18, 2024



PREPARED BY

William L. Berkley
Bluegrass Valuation Group
366 Waller Avenue, Suite 203
Lexington, KY 40504
File No: BVG-24007

PREPARED FOR

Mr. Eric Monhollon
Appraisal Branch Manager
Commonwealth of Kentucky Department of Transportation
200 Mero Street 5th Floor East,
Frankfort, KY 40622

Bluegrass Valuation Group
366 Waller Avenue, Suite 203
Lexington, KY 40504
+1 (859) 983-2526

December 18, 2024

Mr. Eric Monhollon
Appraisal Branch Manager
Commonwealth of Kentucky Department of Transportation
200 Mero Street 5th Floor East
Frankfort, KY 40622

RE: Appraisal Report
Goebel Park Replacement Property

Kenton County
W 5th St, Covington, Kentucky 41011

Bluegrass Valuation Group File No: BVG-24007

Mr. Monhollon:

Bluegrass Valuation Group is proud to present the appraisal that satisfies the agreed upon scope of work with Commonwealth of Kentucky Department of Transportation.

The subject property is located on the east side of I-75 and south side of W 5th Street. At completion of the Brent Spence Bridge project, the site is to be classified as excess right of way and transferred to the City of Covington for use as replacement property for the Goebel Park in accordance with LWCF requirements. Further the site is to have all existing road infrastructure improvements removed and graded to level with W 5th Street which will be its only point of vehicular access, a hypothetical condition as of the effective date of the appraisal. There are no current entitlements or zoning that would qualify as an "economic use" under the UASFLA and LWCF requirements. As such, the highest and best use analysis and value opinions reported here in reflect the subject property as being available for an "economic use" which for this property has been determined to be, redevelopment for mixed use commercial and residential development.

The client has not provided any extraordinary legal requirements or instructions.

The site contains a total of 92,099 square feet and 2.114 acre of land area. Based on this the As-Is Market Value (Fee Simple Estate) opinion is as follows;

MARKET VALUE CONCLUSION			
VALUATION SCENARIO	INTEREST APPRAISED	EFFECTIVE DATE	VALUE
As-Is Market Value	Fee Simple Estate	November 18, 2024	$1,380,000

This appraisal preparation, documentation, and reporting conforms with the Uniform Standards of Federal Land Acquisition (2016) (UASFLA) which is generally compatible with the standards and procedures of both the appraisal industry and the Uniform Standards of Professional Appraisal Practice (USPAP 2024). The UASFLA incorporates by reference most of the provisions found in USPAP; however, UASFLA does deviate from USPAP on certain occasions and when this is the case, the appraiser invokes USPAP's "Jurisdictional Exception Rule" when preparing a UASFLA compliant report. This allows USPAP standards to conform to

overriding federal law related to the valuation of real estate for LWCF federally assisted acquisition and LWCF conversion purposes.

As such, this report conforms to the current Uniform Standards of Professional Appraisal Practice (USPAP) (2024); the Uniform Appraisal Standards for Federal Land Acquisition (2016); 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36CFR 59.3(b)(2); National Park Service of the United States Department of the Interior; Federal Highway Administration of the United States Department of Transportation and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual.

EXTRAORDINARY ASSUMPTIONS

No Extraordinary Assumptions were made for this assignment.

HYPOTHETICAL CONDITIONS

The use of a hypothetical condition(s) may have impacted the results of the assignment. The site is currently state owned right of way. Upon completion of the Brent Spence Bridge project it is to be classified as surplus and transferred to the City of Covington as excess right of way to be used for replacement property for the adjoining Goebel Park in order to comply with LWCF requirements. Further the KYTC has indicated that the existing road infrastructure on the site is to be removed and will be graded to an elevation level with the existing 5th Street. As this has not occurred as of the effective date of the value opinion, the valuation is subject to these hypothetical conditions.

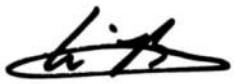
JURISDICATIONAL EXCEPTION

Per UASFLA and overriding federal law, a market exposure time is not linked to the value opinions reported here in. As this is contrary to USPAP Standards Rule 1-2(c), a Jurisdictional Exception to USPAP is invoked for this assignment. Marketing time is also not provided.

If there are any specific questions or concerns regarding the attached appraisal report, or if Bluegrass Valuation Group can be of additional assistance, please contact the individuals listed below.

Respectfully Submitted,

BLUEGRASS VALUATION GROUP



William L. Berkley
President
Certified General Real Estate Appraiser
Kentucky License No. 721
Expiration Date 6/30/2025
859-276-2278
willberkley@qx.net

(2.3.1.3) TABLE OF CONTENTS

2.3.1 Introduction

(2.3.1.1) Title Page i
(2.3.1.2) Transmittal Letter i
(2.3.1.3) Table of Contents i
(2.3.1.4) Appraisers Certification 1
(2.3.1.5) Executive Summary 3
(2.3.1.6) Photographs 5
(2.3.1.7) Statement of Assumptions & Limiting Conditions 12
(2.3.1.8) Description of Scope of Work 13

2.3.2 Factual Data

(2.3.2.1) Legal Description 17
(2.3.2.2) Area, City and Neighborhood Data 17
(2.3.2.3) Property Data 30
(2.3.2.3.1) Site 30
(2.3.2.3.1) Improvements 36
(2.3.2.3.3) Fixtures 36
(2.3.2.3.4) Use History 36
(2.3.2.3.5) Sales History 36
(2.3.2.3.6) Rental History 36
(2.3.2.3.7) Assessed Value and Annual Tax Load 36
(2.3.2.3.8) Zoning and Other Land Use Regulations 37

2.3.3 Data Analysis and Conclusions

(2.3.3.1) Highest and Best Use 46
(2.3.3.1.1) Four Tests 46
(2.3.3.1.2) Larger Parcel 50
(2.3.3.2) Land Valuation 50
(2.3.3.2.1) Sales Comparison Approach 50
(2.3.3.2.2) Subdivision Development Method 54
(2.3.3.3) Cost Approach 54
(2.3.3.4) Sales Comparison Approach 54
(2.3.3.5) Income Capitalization Approach 54
(2.3.3.6) Reconciliation and Final Opinion of Market Value 55

(2.3.7) Exhibits and Addenda

Location Map 56
Comparable Data Maps 57
Details of Comparable Sales and Rental Data 58
Plot Plan 64
Floor Plan 66
Title Evidence Reports 66
Other Exhibits 66
Qualifications of the Appraiser 67

(2.3.1.4) APPRAISERS CERTIFICATION

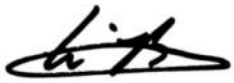
I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions of the signer are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- The signer of this report has no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.
- William L. Berkley has performed prior services, specifically as an appraiser regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment. The prior appraisal was completed in January of 2024 for the same client and subsequent plan changes result in substantial changes to the property warranting a new assignment and effective date..
- The signer is not biased with respect to the property that is the subject of this report or to the parties involved with this assignment.
- The engagement in this assignment was not contingent upon developing or reporting predetermined results.
- The compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The reported analysis, opinions, and conclusions were developed, and this report has been prepared in conformity with the requirements of the *Code of Professional Ethics* and *Standards of Professional Appraisal Practice* of the Appraisal Institute.
- The appraisal was developed and the appraisal report was prepared in conformity with the *Uniform Appraisal Standards for Federal Land Acquisitions(2016)*; 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act (URA); 36 CFR 59.3(b)(2); and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual
- The appraisal was developed and the appraisal report prepared in conformance with the Appraisal Standards Board's *Uniform Standards of Professional Appraisal Practice (2024)* and complies with USPAP's Jurisdictional Exception Rule when invoked by Section 1.2.7.2 of the *Uniform Appraisal Standards for Federal Land Acquisitions*;
- The appraiser acknowledges that the Freedom of Information Act (FOIA) and agency policy may result in the release of all or part of the appraisal report to others.
- William L. Berkley has made a physical inspection of the property appraised and that the property owner, KYTC did not attend the inspection which was conducted on January 11, 2024.
- No one provided real property appraisal assistance to the individuals signing this report..

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives. As of the date of this report, William L. Berkley has completed the continuing education requirements for the Appraisal Institute.

The indicated value opinions as of the effective date of the appraisal, November 18, 2024, is as follows;

MARKET VALUE CONCLUSION			
VALUATION SCENARIO	INTEREST APPRAISED	EFFECTIVE DATE	VALUE
As-Is Market Value	Fee Simple Estate	November 18, 2024	$1,380,000



William L. Berkley
Certified General Real Estate Appraiser
Kentucky License No. 721
Expiration Date 6/30/2025

(2.3.1.5) EXECUTIVE SUMMARY

PROPERTY IDENTIFICATION	
Name	Goebel Park Replacement Property
Property	Land - Commercial Land
Address	W 5th St
City, State Zip	Covington, Kentucky 41011
County	Kenton County
MSA	Cincinnati, OH-KY-IN MSA
Market / Submarket	Northern Kentucky / Covington
Geocode	39.084722,-84.522126
Census Tract	21-117-060300

SITE DESCRIPTION		
Number of Parcels	1	
Assessor Parcel Number	Excess State Right of Way	
Land Area	Square Feet	Acres
Usable	92,099	2.114
Total	92,099	2.114
Zoning	NA Excess Right of Way (NA)	
Shape	Triangular	
Topography	Level at street grade	
Flood Zone	Zone X (Unshaded)	

QUALITATIVE ANALYSIS	
Site Quality	Good
Site Access	Above Average
Site Exposure	Very Good
Site Utility	Good

HIGHEST & BEST USE	
Proposed Construction	No
As Vacant	Redevelopment for mixed use commercial

SITE DESCRIPTION		
Number of Parcels	1	
Assessor Parcel Number	Excess State Right of Way	
Land Area	Square Feet	Acres
Usable	92,099	2.114
Total	92,099	2.114
Zoning	NA Excess Right of Way (NA)	
Shape	Triangular	
Topography	Level at street grade	
Flood Zone	Zone X (Unshaded)	

VALUE CONCLUSION	
VALUATION SCENARIOS	AS-IS MARKET VALUE
Interest	Fee Simple Estate
Effective Date	November 18, 2024
Land Value	$1,380,000
Cost Approach	Not Presented
Improved Sales Comparison Approach	Not Presented
Income Capitalization Approach	Not Presented
FINAL VALUE CONCLUSION	$1,380,000

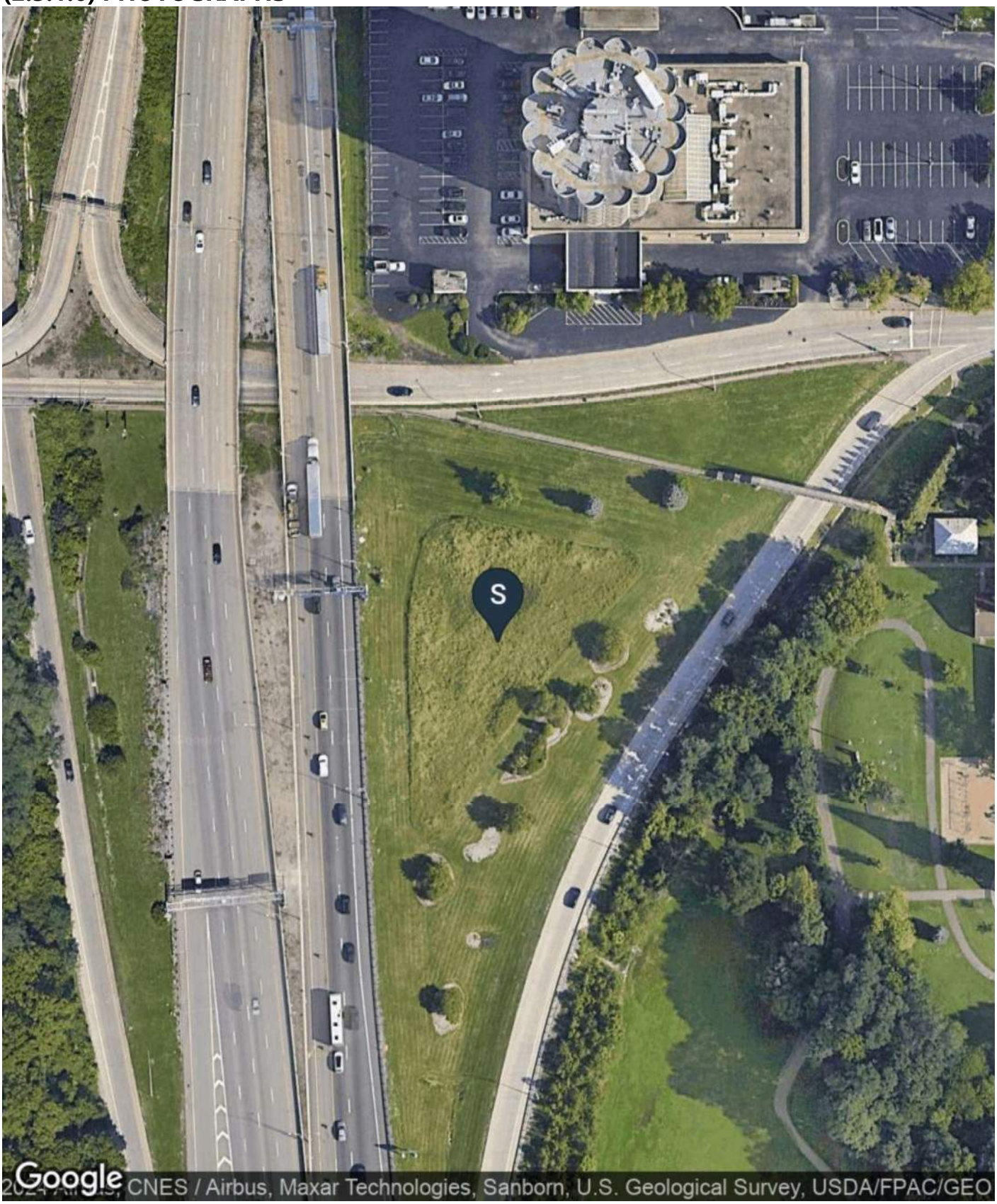
EXTRAORDINARY ASSUMPTIONS

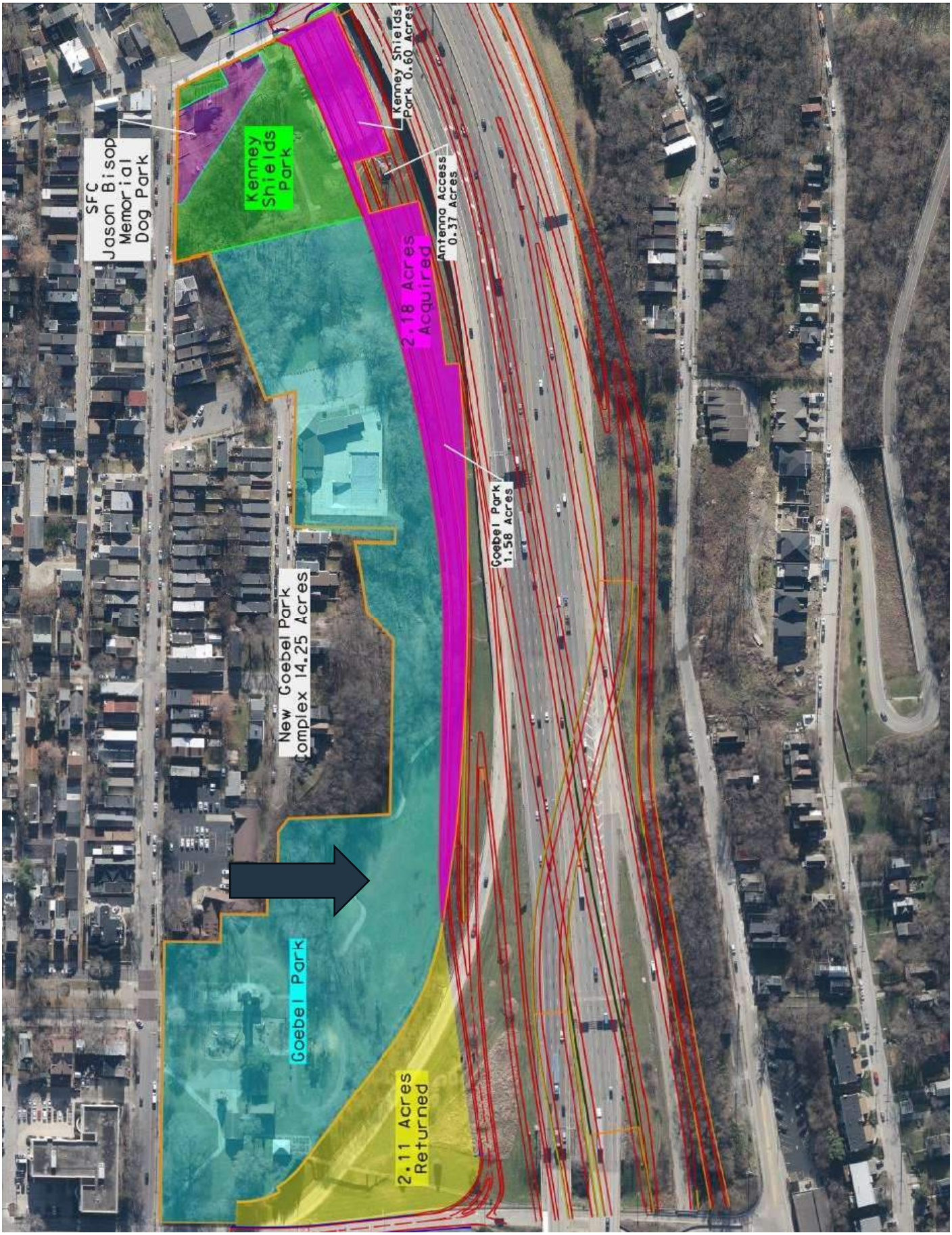
No Extraordinary Assumptions were made for this assignment.

HYPOTHETICAL CONDITIONS

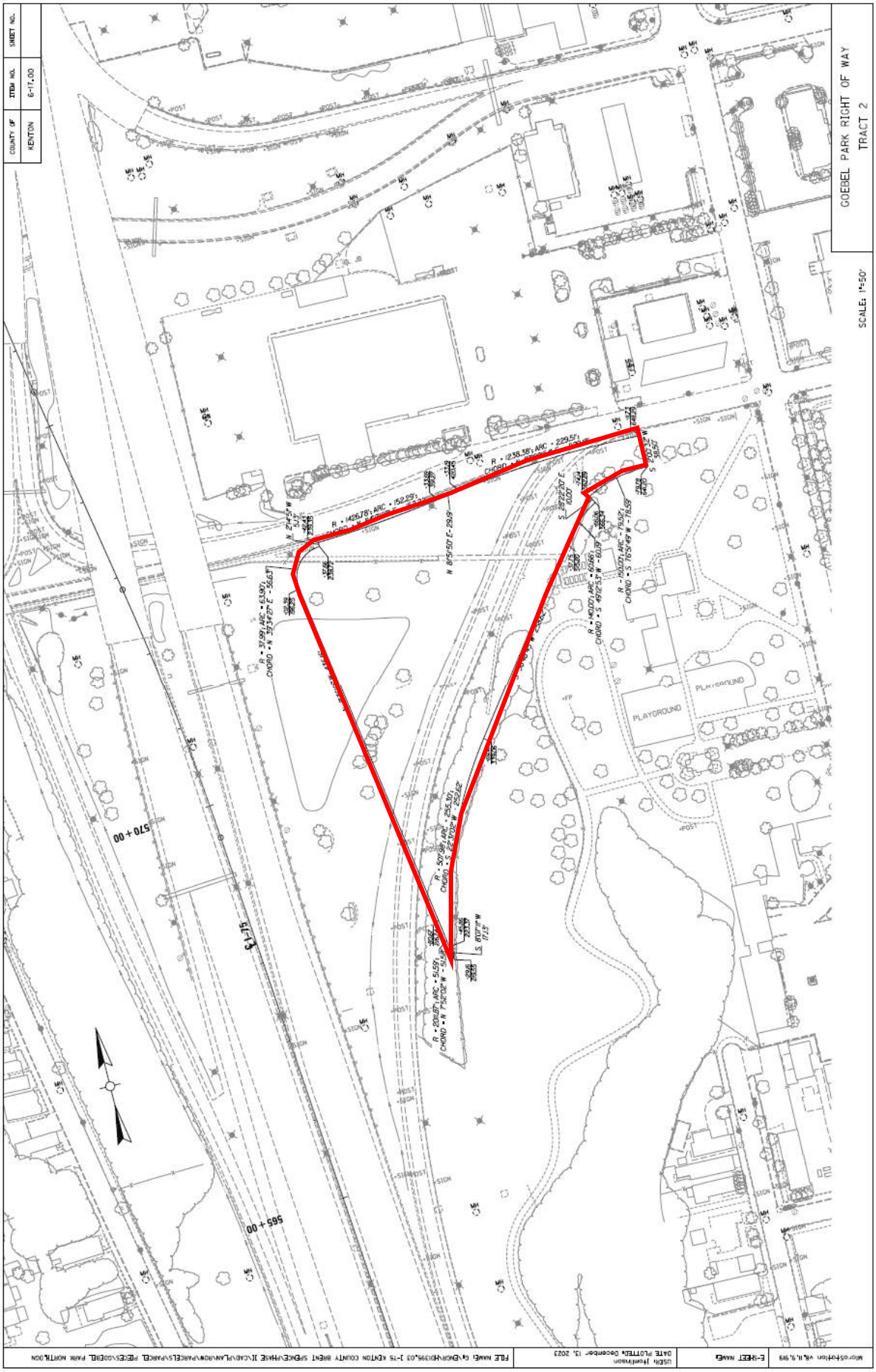
The use of a hypothetical condition(s) may have impacted the results of the assignment. The site is currently state owned right of way. Upon completion of the Brent Spence Bridge project it is to be classified as surplus and transferred to the City of Covington as excess right of way to be used for replacement property for the adjoining Goebel Park in order to comply with LWCF requirements. Further the KYTC has indicated that the existing road infrastructure on the site is to be removed and will be graded to an elevation level with the existing 5th Street. As this has not occurred as of the effective date of the value opinion, the valuation is subject to these hypothetical conditions.

(2.3.1.6) PHOTOGRAPHS




SFC Jason Bisop Memorial Dog Park
Kenney Shields Park
Kenney Shields Park 0.60 Acres
Antenna Access 0.37 Acres
2.18 Acres Acquired
Goebel Park 1.58 Acres
New Goebel Park Complex 14.25 Acres
Goebel Park
2.11 Acres Returned

There are minor differences in the acquisition area and replacement property shown on this exhibit. The appraisal has been based on the provided written legal descriptions contained in the addenda with the Goebel Park Contribution being 2.181 acres and the replacement property being 2.114 acres.


GOEBEL PARK RIGHT OF WAY
TRACT 2
SCALE: 1"=50'
PLAYGROUND
PLAYGROUND
570+00
565+00

PHOTOGRAPH LOCATION MAP





Picture # 1 – Southwest View of Site



Picture # 2 – East on W 5th Street



Picture # 3 – West on 5th Street Frontage



Picture # 4 – W 5th Street Frontage



Picture # 5 – West 5th Street Frontage



Picture # 6 - South View of Site



Picture # 7 – Pedestrian Bridge Over Ramp Area



Picture # 8 – Interior View of Site



Picture # 9 – Interior View of Site



Picture # 10 – Adjoining Boundary With Goebel Park

(2.3.1.7) STATEMENT OF ASSUMPTIONS & LIMITING CONDITIONS

- Information presented in this report has been obtained from reliable sources, and it is assumed that the information is accurate.
- This analysis assumes that the information provided for this appraisal accurately reflect the current condition of the subject property.
- This report shall be used for its intended purpose only, and by the party to whom it is addressed. Possession of this report does not include the right of publication.
- The appraiser may not be required to give testimony or to appear in court by reason of this appraisal, with reference to the property in question, unless prior arrangements have been made.
- The statements of value and all conclusions shall apply as of the dates shown herein.
- There is no present or contemplated future interest in the property by the appraiser which is not specifically disclosed in this report.
- This report must be used in its entirety. Reliance on any portion of the report independent of others, may lead the reader to erroneous conclusions regarding the property values. Unless approval is provided by the author no portion of the report stands alone.
- We assume no responsibility for matters legal in character, nor do we render any opinion as to title, which is assumed to be marketable. All existing liens, encumbrances, and assessments have been disregarded, unless otherwise noted, and the property is appraised as though free and clear, under responsible ownership, and competent management.
- The appraisal has provided exhibits to assist the client(s)/intended user(s) to understand from a graphical standpoint some of the salient issues which impact the subject property. We have made no survey of the property and if further verification is required, a survey by a registered surveyor is advised.
- The appraiser assumes no responsibility for determining if the property requires environmental approval by the appropriate governing agencies, nor if it is in violation thereof, unless otherwise noted herein. This analysis assumes that no asbestos or other hazardous materials are stored or found in or on the subject property. If evidence of hazardous materials of any kind occurs, the reader should seek qualified professional assistance. If hazardous materials are discovered and if future market conditions indicate an impact on value and increased perceived risk, a revision of the concluded values may be necessary.
- The liability of Bluegrass Valuation Group, its principals, agents, and employees is limited to the client. Further, there is no accountability, obligation, or liability to any third party. If this report is provided to anyone other than the client, the client shall make such party aware of all limiting conditions and assumptions of the assignment and related discussions. The appraiser is in no way responsible for any costs incurred to discover or correct any deficiency in the property.
- The appraiser is not qualified to detect the presence of toxic or hazardous substances or materials which may influence or be associated with the property or any adjacent properties, has made no investigation or analysis as to the presence of such materials, and expressly disclaims any duty to note the degree of fault. Bluegrass Valuation Group and its principals, agents, employees, shall not be liable for any costs, expenses, assessments, or penalties, or diminution in value, property damage, or personal injury (including death) resulting from or otherwise attributable to toxic or hazardous substances or materials, including without limitation hazardous waste, asbestos material, formaldehyde, or any smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, solids or gasses, waste materials or other irritants, contaminants or pollutants.
- The appraiser assumes no responsibility for determining if the subject property complies with the Americans with Disabilities Act (ADA). Bluegrass Valuation Group, its principals, agents, and employees, shall not be liable for any costs, expenses, assessments, penalties or diminution in value resulting from non-compliance.
- This appraisal assumes that the subject meets an acceptable level of compliance with ADA standards; if the subject is not in compliance, the eventual renovation costs and/or penalties would negatively impact the present value of the subject. If the magnitude and time of the cost were known today, they would be reduced from the reported value conclusion.
- Unless otherwise noted herein, a detailed soils study was not provided for this analysis. The subject's soils and sub-soil conditions are assumed to be suitable based upon a visual inspection of the subject property and surrounding properties, which did not indicate evidence of excessive settling or unstable soils. No certification is made regarding the stability or suitability of the soil or sub-soil conditions

(2.3.1.8) DESCRIPTION OF SCOPE OF WORK

CLIENT IDENTIFICATION

The client of this specific assignment is Commonwealth of Kentucky Department of Transportation.

INTENDED USE & INTENDED USERS

The purpose of the appraisal is to provide an opinion of market value for the Goebel Park Replacement Property in compliance with the LWCF manual, UASFLA standards and the 6(f) process. The appraisal is not intended for any other use. The Commonwealth of Kentucky Department of Transportation, Division of Right of Way and Utilities is the intended user of this report. Additional intended users included: National Park Service of the United States Department of the Interior; Federal Highway Administration of the United States Department of Transportation.

DEFINITION OF MARKET VALUE PER UASFLA STANDARDS

Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of value, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither compelled to buy or sell, giving due consideration to all available economic uses of the property.

DEFINITION OF MARKET RENTAL VALUE PER UASFLA STANDARDS

Market rental value is the rental price in cash or its equivalent that the leasehold would have brought on the date of value on the open market, at or near the location of the property acquired, assuming reasonable time to find a tenant.

PROPERTY CHARACTERISTICS

The subject is Land which is located in the Northern Kentucky and Covington area.

EFFECTIVE DATE OF VALUE OPINION

November 18, 2024

PROPERTY RIGHTS APPRAISED

The property rights appraised constitute the fee simple estate.

Fee Simple Interest
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat.[1]

VALUE SCENARIOS

As-Is Value
The estimate of the value of real property in its hypothetical physical condition and available for an "economic use". as of the appraisal date.[2]

[1] *The Dictionary of Real Estate Appraisal, 7th Ed.* (Chicago: Appraisal Institute 2022)

[2] *The Dictionary of Real Estate Appraisal, 7th Ed.* (Chicago: Appraisal Institute 2022)

PURPOSE

The Goebel Park was established in the 1970's using federal grants from the Land and Water Conservation Fund State Assistance Program (LWCF). The purpose of this appraisal is to develop an opinion of the As-Is Market Value (Fee Simple Estate). This will be used to establish the value of the replacement property for the Goebel Park in accordance with the requirements and standards of the Land and Water Conservation Fund State Assistance Program (LWCF).

VALUATION METHODS

In traditional valuation theory, the three approaches to estimating the value of an asset are the cost approach, sales comparison approach, and income capitalization approach. Each approach assumes valuation of the property at the property's highest and best use. From the indications of these analyses, an opinion of value is reached based upon expert judgment within the outline of the appraisal process.

LAND VALUATION

The land value is a specific scope requirement of this assignment. Considering the subject property's underlying redevelopment potential and the fact that it is unimproved, the land sales comparison approach is the most reliable method in forming the opinion of market value included here in.

COST APPROACH

The cost approach considers the cost to replace the improvements, less accrued depreciation, plus the market value of the land. The cost approach is based on the understanding that market participants relate value to cost. The value of the property is derived by adding the estimated value of the land to the current cost of constructing a reproduction or replacement for the improvements and then subtracting the amount of depreciation in the structure from all causes. Profit for coordination by the entrepreneur is included in the value indication.

The Cost Approach is not a specific scope requirement of this assignment as the property is unimproved land. Characteristics specific to the subject property do not warrant that this valuation technique is developed. Based on the preceding information, the Cost Approach will not be presented.

SALES COMPARISON APPROACH

The sales comparison approach estimates value based on what other purchasers and sellers in the market have agreed to as price for comparable properties. This approach is based upon the principle of substitution, which states that the limits of prices, rents, and rates tend to be set by the prevailing prices, rents, and rates of equally desirable substitutes. In conducting the sales comparison approach, I gather data on reasonably substitutable properties and adjust for transactional and property characteristics. The resulting adjusted prices lead to an estimate of the price one might expect to realize upon sale of the property.

The Sales Comparison Approach is used to value the land. As the site is unimproved an improved sales comparison approach is not a scope requirement of this assignment. Based on this, the Improved Sales Comparison Approach is not presented within this appraisal.

INCOME CAPITALIZATION APPROACH

The income capitalization approach ("income approach") simulates the reasoning of an investor who views the cash flows that would result from the anticipated revenue and expense on a property throughout its lifetime. The net income developed in the analysis is the balance of potential rental income remaining after vacancy and collection loss, and operating expenses. This net rental income is then capitalized at an

appropriate rate to derive an estimate of value. Thus, two key steps are involved: (1) estimating the net rental income applicable to the subject and (2) choosing appropriate capitalization rates. The appropriate rates are ones that will provide both a return on the investment and a return of the investment over the life of the particular property.

The Income Approach is not a scope requirement for this assignment. The subject property type is not typically analyzed on an income basis by buyers and sellers, reducing the applicability of this valuation technique. Therefore, the Income Approach is not developed.

CORRELATION AND CONCLUSION

Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the As-Is Market Value (Fee Simple Estate).

ASSIGNMENT CONDITIONS

The client has not provided any extraordinary legal requirements or instructions.

GEOGRAPHIC, MARKET DATA AND ANALYSIS

- The appraisal analyzes the regional and local area profiles including employment, population, household income and real estate trends. The local area was inspected to consider external influences on the subject.
- The appraisal analyzes legal and physical features of the subject including site size, improvement size, flood zone, site zoning, easements, encumbrances, site access, topography and site exposure.
- The appraisal includes market analysis using sales data, vacancy, absorption, supply, and demand data for the Northern Kentucky and Covington area over the last 5 years. The type of market data researched includes mixed use land properties within the Northern Kentucky area. Conclusions were drawn for the subject's competitive position given its physical and locational features, current market conditions and external influences.
- The market data utilized herein was confirmed to the greatest extent possible including; PVA data, Deed, Plats, Planning and Zoning, and parties which were involved or had knowledge of the data or transactions. The extent of data confirmation for the comparable sales is disclosed on the individual data sheets contained in the addenda of the report.
- The appraisal includes a Highest and Best Use analysis and conclusions have been completed for the highest and best use of the subject property As Vacant and As Improved. The analysis considered legal, locational, physical, and financial feasibility characteristics of the subject site and existing improvements both before and after the acquisition.
- In selecting applicable approaches to value, the appraiser considered the agreed upon appraisal scope and assessed the applicability of each traditional approach given the subject's characteristics and the intended use of the appraisal. As a result, this appraisal developed the Land Sales Comparison Approach. The values presented represent the As-Is Market Value (Fee Simple Estate).

APPRAISAL REGULATIONS & STANDARDS

- The assignment was prepared as an Appraisal Report in accordance with the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA) (2016), USPAP Standards Rules 2 (2024), 49 CFR 24.103 Criteria for Appraisals under the Uniform Relocation Assistance & Real Property Acquisition Policies Act

(URA), 36 CFR 59.3(b)(2) and the Land and Water Conservation Fund (LWCF) State Assistance Program Manual with the analysis stated within the document and representing a fully described level of analysis.

- The author of this report are aware of the Competency Rule of USPAP and meets the standards.

SOURCES OF INFORMATION

The following sources were contacted to obtain relevant information:

INFORMATION PROVIDED	
Property Assessment & Tax	Kenton County Assessor
Zoning & Land Use Planning	City of Covington Zoning
Site Size	Client
Supply & Demand	CoStar
Flood Map	FEMA
Demographics	STDB On-Line
Comparable Information	MLS | Public Records | Confirmed by Local Agents
Legal Description	Client
Title	Not Provided
Phase I Environmental Report	Not Provided

The lack of unavailable items could affect the results of this analysis. As part of the general assumptions and limiting conditions, the subject is assumed to have no adverse easements, significant items of deferred maintenance, or be impacted by adverse environmental conditions.

ASSISTANCE PROVIDED

No one provided real property appraisal assistance to the individuals signing this report.

(2.3.2.1) LEGAL DESCRIPTION

Based on information provided by the client the subject property includes 2.114 acres. The subject title is currently recorded in the name of Commonwealth of Kentucky Department of Transportation who acquired title to the property presumably as a part of the I-75 project. Upon completion of the Brent Spence Bridge Project, the site is to be deemed surplus and will become excess right of way. There was no title available for this assignment. The legal description of the subject property is as follows;

KENTUCKY TRANSPORTATION CABINET TO

CITY OF COVINGTON, KENTUCKY

Being a tract of land lying in Kenton County along I-75 approximately 500 feet southeast of the I-75 and 5th Street interchange, and more particularly described as follows:

Beginning at a point in the existing right-of-way line649.42 feet right of I-75 Mainline at Station 572+16.65; thence with said line South 2°00'32" West a distance of 44.45 feet to a point in the existing right-of-way line 641.20 feet right of I-75 Mainline at Station 571+79.78; thence with said line along an arc 79.52 feet to the left, having a radius of 150.00 feet, the chord of which is South 76°51'49" West for a distance of 78.59 feet, to a point in the existing right-of-way line 562.89 feet right of I-75 Mainline at Station 571+74.14; thence with said line South 28°22'20" East a distance of 10.00 feet to a point in the existing right-of-way line 566.34 feet right of I-75 Mainline at Station 571+66.06; thence with said line along an arc 60.66 feet to the left, having a radius of 140.00 feet, the chord of which is South 49°12'53" West for a distance of 60.19 feet, to a point in the existing right-of-way line 515.80 feet right of I-75 Mainline at Station 571+37.75; thence with said line South 36°48'45" West a distance of 258.62 feet to a point in the existing right-of-way line 339.06 feet right of I-75 Mainline at Station 569+69.47; thence with said line along an arc 245.59 feet to the left, having a radius of 488.66 feet, the chord of which is South 23°04'34" West for a distance of 243.01 feet to a point in the proposed right-of-way line 225.66 feet right of I-75 Mainline at Station 567+55.50; thence with said line North 7°47'31" West a distance of 420.85 feet to a point in the proposed right-of-way line 209.55 feet right of I-75 Mainline at Station 571+63.63; thence with said line South 82°07'03" West a distance of 11.29 feet to a point in the proposed right-of-way line 198.26 feet right of I-75 Mainline at Station 571+63.67; thence with said line along an arc 1 feet to the right, having a radius of 97.79 feet, the chord of which is North 42°09'56" East for a distance of 132.78 feet, to a point in the proposed right-of-way line 301.30 feet right of I-75 Mainline at Station 572+41.84; thence with said line North 79°50'31" East a distance of 30.07 feet to a point in the proposed right-of-way line 331.37 feet right of I-75 Mainline at Station 572+42.22; thence with said line North 83°39'22" East a distance of 136.83 feet to a point in the proposed right-of-way line 467.98 feet right of I-75 Mainline at Station 572+35.84; thence with said line along an arc 150.22 feet to the right, having a radius of 1200.42 feet, the chord of which is North 87°14'28" East for a distance of 150.12 feet, to a point in the proposed right-of-way line 617.17 feet right of I-75 Mainline at Station 572+21.38; thence with said line South 89°10'26" East a distance of 32.73 feet to a point in the existing right-of-way line 649.42 feet right of I-75 Mainline at Station 572+16.65 and the POINT OF BEGINNING.;

The above described parcel contains 2.11 acres (92099 sq. ft.)

.

(2.3.2.2) AREA, CITY AND NEIGHBORHOOD DATA

INTRODUCTION

In order to understand the subject's position in the area or region, an analysis of how trends—both historical and projected—in population, employment, personal income, consumer spending, and housing impact supply and demand and influence the subject's area directly and indirectly. This analysis first begins on a broader spectrum, and without respect to the subject itself, and is highlighted in the Regional Area Analysis. Second is, a more narrowly focused study of the aforementioned attributes as they relate directly to the subject and its neighborhood. This discussion is presented in the Local Area Analysis which follows.

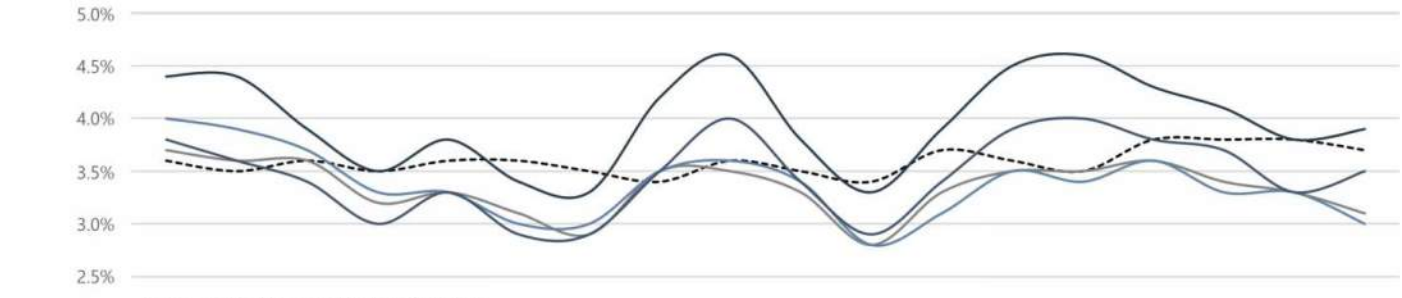
REGIONAL AREA ANALYSIS

The subject property is located in Covington, Kentucky. The immediate area of the subject is characterized by mixed use urban development.

Unemployment

The following graphs charts the trailing 18 months and trailing 10 years unemployment rate for the United States, South Region, Kentucky, Cincinnati, OH-KY-IN MSA, and Kenton County.

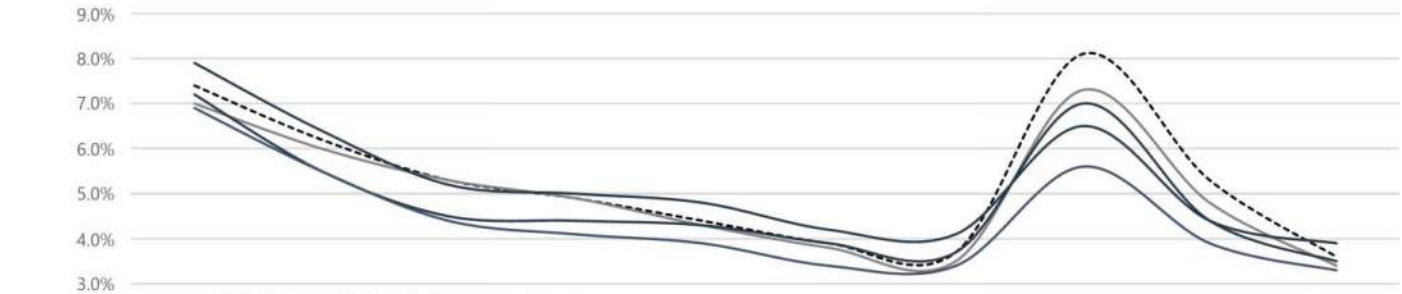
MONTHLY UNEMPLOYMENT RATE (18 MONTHS)



Source: U.S. Bureau of Labor Statistics

	Jun	Jul	Aug	Sep	Oct	2022 Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	2023 Nov
Nation	3.6%	3.5%	3.6%	3.5%	3.6%	3.6%	3.5%	3.4%	3.6%	3.5%	3.4%	3.7%	3.6%	3.5%	3.8%	3.8%	3.8%	3.7%
Region	3.7%	3.6%	3.6%	3.2%	3.3%	3.1%	2.9%	3.5%	3.5%	3.3%	2.8%	3.3%	3.5%	3.5%	3.6%	3.4%	3.3%	3.1%
State	4.4%	4.4%	3.9%	3.5%	3.8%	3.4%	3.3%	4.2%	4.6%	3.8%	3.3%	3.9%	4.5%	4.6%	4.3%	4.1%	3.8%	3.9%
Area	4.0%	3.9%	3.7%	3.3%	3.3%	3.0%	3.0%	3.5%	3.6%	3.4%	2.8%	3.1%	3.5%	3.4%	3.6%	3.3%	3.3%	3.0%
County	3.8%	3.6%	3.4%	3.0%	3.3%	2.9%	2.9%	3.5%	4.0%	3.4%	2.9%	3.4%	3.9%	4.0%	3.8%	3.7%	3.3%	3.5%

ANNUAL UNEMPLOYMENT RATE (10 YEARS)



Source: U.S. Bureau of Labor Statistics www.bls.gov

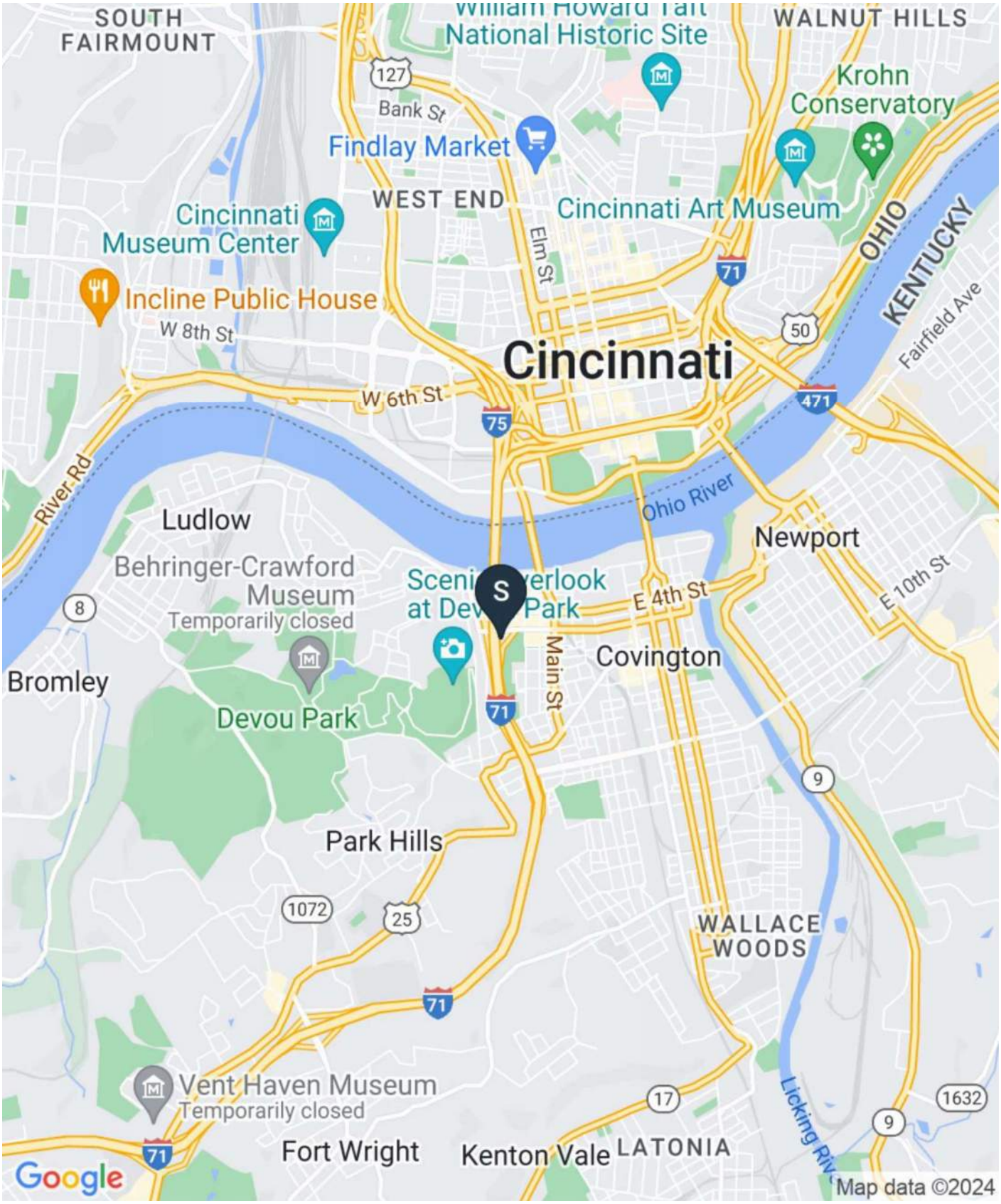
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Nation	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%	5.3%	3.6%
Region	7.0%	6.0%	5.3%	4.9%	4.3%	3.8%	3.5%	7.3%	4.8%	3.4%
State	7.9%	6.4%	5.2%	5.0%	4.8%	4.2%	4.1%	6.5%	4.4%	3.9%
Area	7.2%	5.5%	4.5%	4.4%	4.3%	3.9%	3.7%	7.0%	4.4%	3.5%
County	6.9%	5.5%	4.4%	4.1%	3.9%	3.4%	3.4%	5.6%	3.9%	3.3%

Employment

The following chart shows the trailing 10 years employment for the state of Kentucky, Cincinnati, OH-KY-IN MSA, and Kenton County.

STATE & REGIONAL EMPLOYMENT						
YEAR	STATE	% CHG.	AREA	% CHG.	COUNTY	% CHG.
2013	1,892,777	0.1%	1,000,761	0.4%	79,184	1.3%
2014	1,877,551	(0.8%)	1,018,056	1.7%	78,569	(0.8%)
2015	1,876,009	(0.1%)	1,031,232	1.3%	79,629	1.3%
2016	1,914,479	2.0%	1,046,919	1.5%	81,306	2.1%
2017	1,955,234	2.1%	1,066,746	1.9%	83,259	2.3%
2018	1,966,186	0.6%	1,077,802	1.0%	84,304	1.2%
2019	1,983,872	0.9%	1,096,369	1.7%	85,674	1.6%
2020	1,886,072	(5.2%)	1,039,600	(5.5%)	81,164	(5.6%)
2021	1,937,537	2.7%	1,075,438	3.3%	83,485	2.8%
2022	1,968,121	1.6%	1,098,044	2.1%	85,346	2.2%
CAGR	**0.4%**	-	**1.0%**	-	**0.8%**	-

Source: U.S. Bureau of Labor Statistics www.bls.gov


SOUTH FAIRMOUNT
William Howard Taft National Historic Site
WALNUT HILLS
127
Bank St
Findlay Market
Krohn Conservatory
WEST END
Cincinnati Art Museum
Cincinnati Museum Center
OHIO
KENTUCKY
Elm St
71
Incline Public House
W 8th St
50
Cincinnati
Fairfield Ave
W 6th St
471
75
River Rd
Ohio River
Ludlow
Newport
Behringer-Crawford Museum
Temporarily closed
Scenic Overlook at Devou Park
E 4th St
E 10th St
8
Covington
Bromley
Main St
Devou Park
71
9
Park Hills
1072
25
WALLACE WOODS
71
Vent Haven Museum
Temporarily closed
17
1632
9
Fort Wright
Kenton Vale
LATONIA
71
Google
Map data ©2024

Demographics

The following information reflects the demographics for the subject's area.

LOCAL AREA & MSA DEMOGRAPHICS

DESCRIPTION	1 MILE	3 MILE	5 MILE	MSA	DESCRIPTION	1 MILE	3 MILE	5 MILE	MSA
POPULATION TOTAL					HOUSEHOLDS				
2010 Census	12,315	115,532	270,149	2,137,663	2010 Census	5,791	50,721	114,532	833,544
2020 Census	12,602	116,610	273,211	2,256,884	2020 Census	6,632	54,568	119,233	890,439
2023 Estimate	13,350	119,564	276,042	2,284,654	2023 Estimate	7,159	56,359	121,511	906,240
2028 Projection	14,241	121,744	279,006	2,301,449	2028 Projection	7,734	58,092	124,122	920,533
Δ 2010-2020	2.33%	0.93%	1.13%	5.58%	Δ 2010-2020	14.52%	7.58%	4.10%	6.83%
Δ 2020-2023	5.94%	2.53%	1.04%	1.23%	Δ 2020-2023	7.95%	3.28%	1.91%	1.77%
Δ 2023-2028	6.67%	1.82%	1.07%	0.74%	Δ 2023-2028	8.03%	3.07%	2.15%	1.58%
Total Daytime Population	23,606	227,461	401,019	2,279,262	**HOUSEHOLDS BY INCOME (2023 ESTIMATE)**				
HOUSING UNITS					<$15,000	13.0%	18.2%	18.3%	9.5%
Total (2023 Estimate)	8,779	65,747	139,039	973,447	$15,000 - $24,999	10.3%	9.2%	9.6%	6.5%
Owner Occupied	28.4%	35.3%	39.0%	63.2%	$25,000 - $34,999	8.9%	8.9%	8.9%	7.0%
Renter Occupied	53.1%	50.4%	48.4%	29.9%	$35,000 - $49,999	13.1%	11.4%	11.5%	10.8%
Vacant Housing Units	18.5%	14.3%	12.6%	6.9%	$50,000 - $74,999	15.4%	14.5%	14.6%	16.2%
Total (2028 Projection)	9,338	67,098	141,121	986,972	$75,000 - $99,999	11.5%	10.5%	10.7%	13.6%
Owner Occupied	27.7%	35.3%	39.3%	63.6%	$100,000 - $149,999	14.2%	13.8%	12.7%	18.0%
Renter Occupied	55.2%	51.3%	48.7%	29.6%	$150,000 - $199,999	6.1%	6.0%	5.9%	8.5%
Vacant Housing Units	17.2%	13.4%	12.0%	6.7%	$200,000+	7.4%	7.5%	7.7%	9.8%
AVERAGE HOUSEHOLD INCOME					**AVERAGE HOUSEHOLD SIZE**				
2023 Estimate	$87,905	$85,566	$85,265	$104,885	2023 Estimate	1.83	2.05	2.16	2.47
2028 Projection	$97,708	$97,104	$97,191	$119,704	2028 Projection	1.81	2.02	2.14	2.45
Δ 2023-2028	11.15%	13.48%	13.99%	14.13%	Δ 2023-2028	(1.09%)	(1.46%)	(0.93%)	(0.81%)
MEDIAN HOUSEHOLD INCOME					**MEDIAN HOME VALUE**				
2023 Estimate	$55,744	$52,927	$52,015	$74,919	2023 Estimate	$275,437	$224,580	$228,607	$235,949
2028 Projection	$62,205	$60,871	$59,590	$84,657	2028 Projection	$315,274	$266,802	$276,192	$277,391
Δ 2023-2028	11.59%	15.01%	14.56%	13.00%	Δ 2023-2028	14.46%	18.80%	20.82%	17.56%
PER CAPITA INCOME					**AVERAGE HOME VALUE**				
2023 Estimate	$47,080	$40,690	$37,815	$41,719	2023 Estimate	$315,316	$275,817	$291,086	$281,726
2028 Projection	$53,006	$46,673	$43,515	$47,993	2028 Projection	$352,557	$317,875	$333,944	$319,687
Δ 2023-2028	12.59%	14.70%	15.07%	15.04%	Δ 2023-2028	11.81%	15.25%	14.72%	13.47%

Source: Sites To Do Business Online

Population

Esri estimates the current 2023 population of the neighborhood 3 mile radius of the subject property to be 119,564 representing a 2.53%change since 2020. The total trade area 5 mile radius of the subject is estimated to have a population of 276,042, which represents a 1.04% change since 2020.

Looking forward, the population of the neighborhood 3 mile radius is forecasted to change to 1.82% by the year 2028. The population within the total trade area 5 mile radius is forecasted to change to 279,006 over the next five years.

Households

Esri estimates that the number of households in the neighborhood 3 mile radius of the subject is 56,359, which is a 3.28% change since 2020. Within the total trade area 5 mile radius, the number of households is estimated to be 121,511, a 1.91% change over the same period of time.

By the year 2028, Esri estimates that the number of households in the neighborhood 3 mile radius will change by 3.07% to 58,092, households. Additionally, households in the entire trade area are expected to change by 2.15% to 124,122 households over the next five years.

The number of households in the neighborhood 3 mile radius of the subject changed 7.58% from 2010 to 2020; and since then, it has changed by 3.28%.

Income

According to Esri, the neighborhood 3 mile radius of the subject property has an estimated median household income of $52,927 and an average household income of $85,566. Esri reports that the total trade area 5 mile radius has a median household income of $52,015, and an average household income of $85,265. With 121,511 households currently in the total trade area 5 mile radius of the subject property, local effective buying income is estimated to be about $10,360,635,415.

CONCLUSION

Based on the Esri data presented above, the demographics in the subject neighborhood are below the average of the MSA. Population growth has increased by 2.53% since 2020 and is expected to increase 1.82% over the next 5 years in the 3 mile radius neighborhood. Average household incomes are below average at nearly $85,566, and the area is populated with 56,359 households in a 3 mile radius around the subject property.

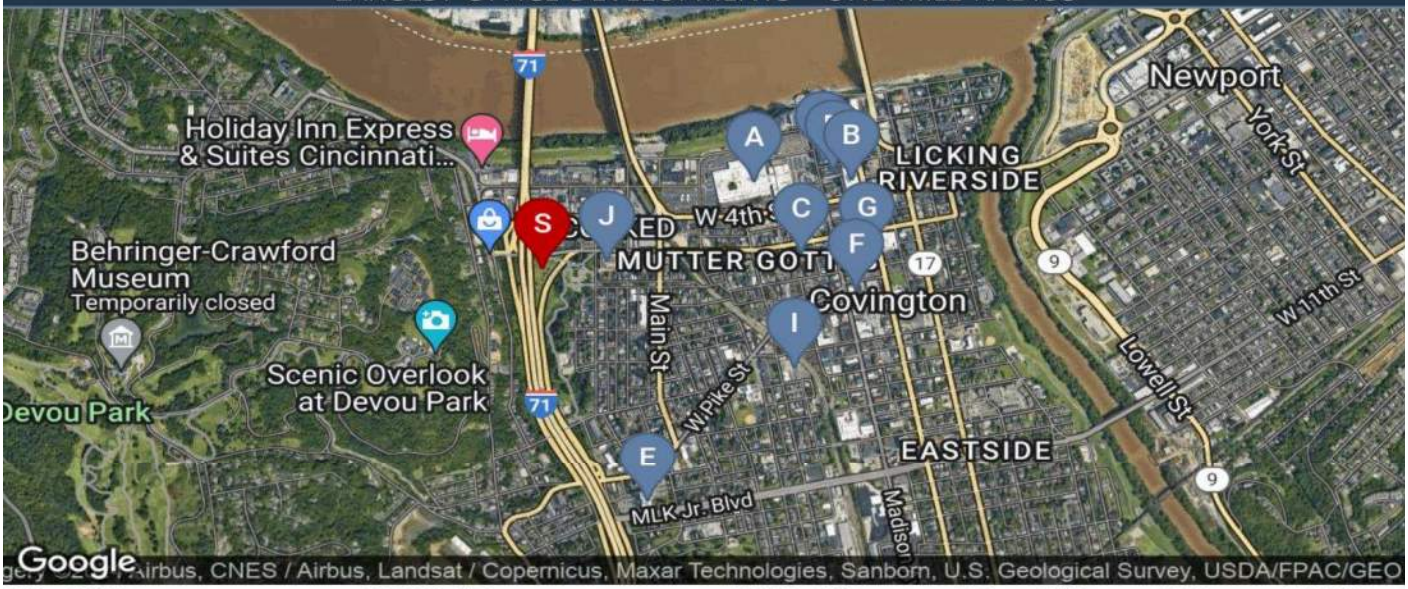
SURROUNDING LAND USES

The immediate surrounding land uses include an older high rise hotel and convenience store across 5th Street from the subject and the Goebel Park along the east boundary. The following tables and maps highlight the development in and around the subject.

LOCAL AREA OFFICE - ONE-MILE RADIUS				
CLASS	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
A	313,348 SF	2013	89.6	3
B	913,003 SF	1968	96.2	22
C	1,015,132 SF	1933	60.6	84
TOTAL	2,241,483 SF	1960	79.1	109

Source: CoStar

LARGEST OFFICE DEVELOPMENTS - ONE-MILE RADIUS



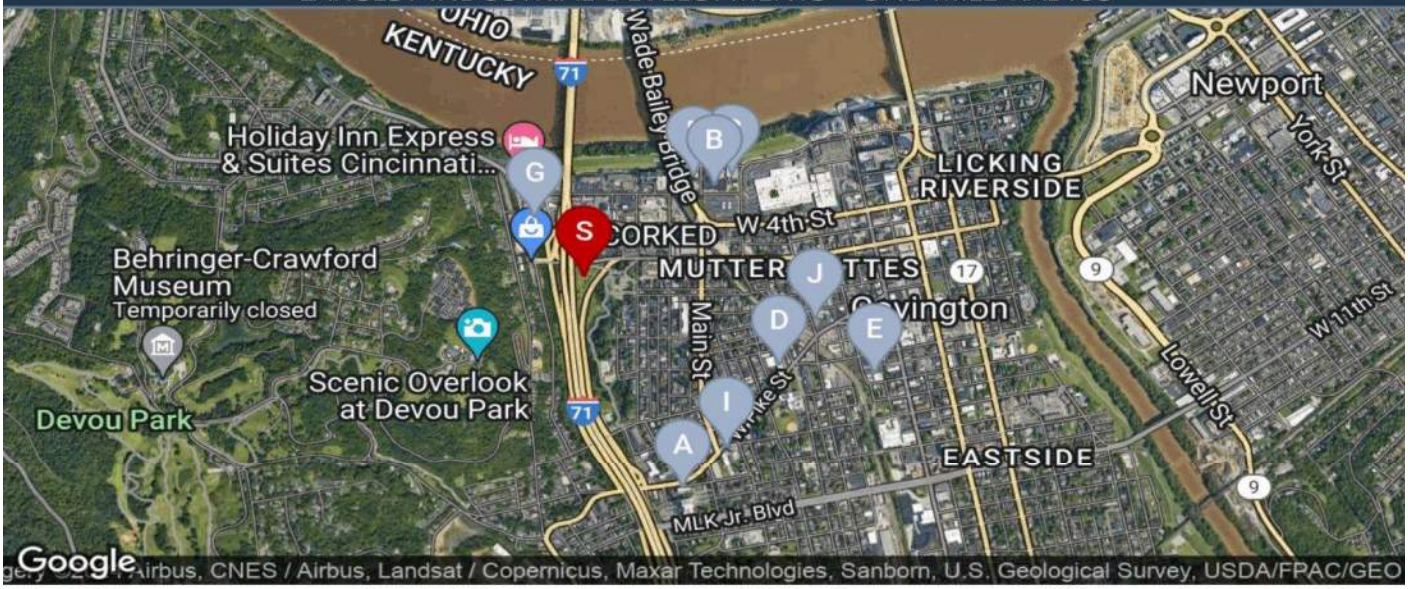
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	%LEASED
A		201 W Rivercenter Blvd, Covington	0.5 mi	386,300	1965	C	0
B	Gateway Center	333 Scott St, Covington	0.7 mi	305,950	1994	B	100
C	United States Courthouse	35 W 5th St, Covington	0.5 mi	152,330	2000	B	100
D	Gateway Center West	300 Madison Ave, Covington	0.7 mi	132,244	2002	A	100
E	Kenton County Administration Buildi	1840 Simon Kenton Way, Covington	0.6 mi	109,833	2019	A	100
F		19 E Pike St, Covington	0.7 mi	72,463	1913	B	100
G	First District	525 Scott St, Covington	0.7 mi	71,271	2022	A	54.35
H	Kenton County Justice Center	230 Madison Ave, Covington	0.6 mi	68,279	1998	B	100
I		812 Russell St, Covington	0.6 mi	67,000	1902	C	100
J	Fifth Street Center	525 W 5th St, Covington	0.1 mi	44,864	1984	B	83.94

Source: CoStar

LOCAL AREA INDUSTRIAL - ONE-MILE RADIUS				
TYPE	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
Flex	35,722 SF	1944	100	3
Gen-Ind <25,000 FT	167,547 SF	1946	100	18
Gen-Ind >25,000 FT	118,500 SF	1939	72	3
TOTAL	321,769 SF	1943	89.6	24

Source: CoStar

LARGEST INDUSTRIAL DEVELOPMENTS - ONE-MILE RADIUS



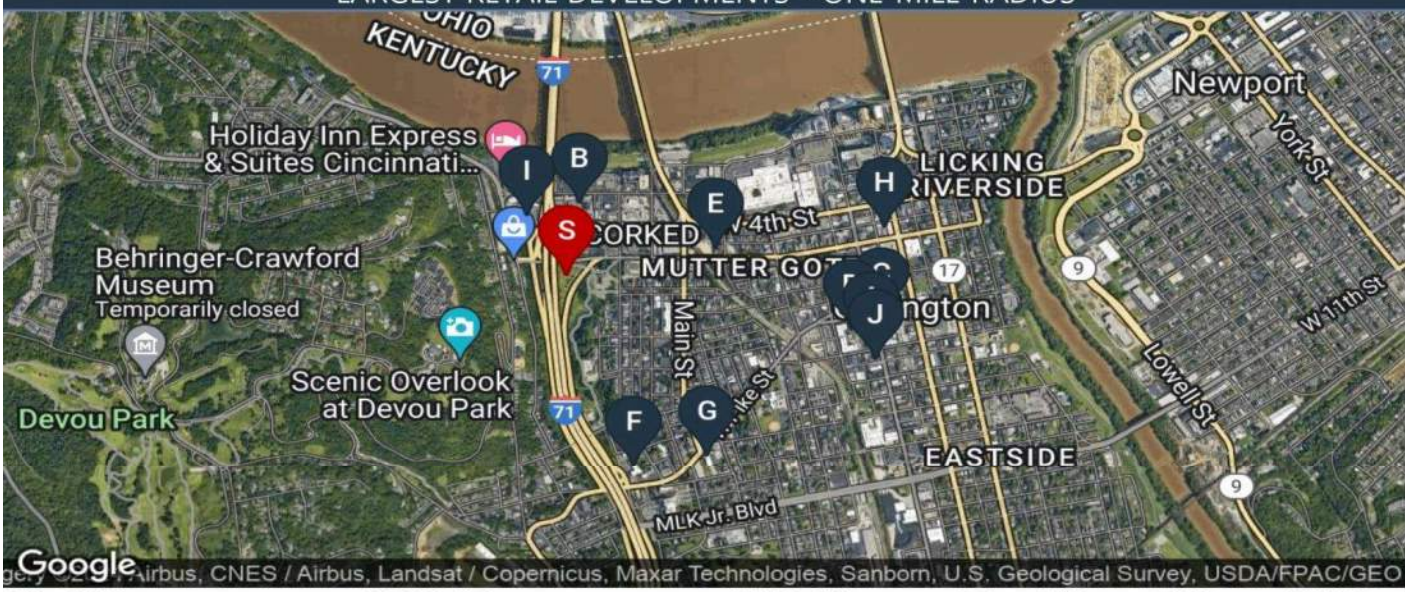
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	TYPE	%LEASED
A		533 Goetta Pl, Covington	0.5 mi	45,000	1946	Industrial	100
B		322 W 3rd St, Covington	0.4 mi	40,000	1948	Industrial	100
C	D C Morrison Co	201 Johnson St, Covington	0.4 mi	33,500	1920	Industrial	0.3
D		242 W Pike St, Covington	0.5 mi	23,000	1930	Industrial	100
E		16-32 W 9th St, Covington	0.7 mi	19,818	2000	Flex	100
F		400 W 3rd St, Covington	0.3 mi	17,872	1974	Industrial	100
G		680 W 4th St, Covington	0.2 mi	17,000	1961	Industrial	100
H		680 W 4th St, Covington	0.2 mi	17,000	1961	Industrial	100
I		411 W Pike St, Covington	0.5 mi	15,000	1910	Industrial	100
J		632 Russell St, Covington	0.5 mi	13,984	1864	Flex	100

Source: CoStar

LOCAL AREA RETAIL - ONE-MILE RADIUS				
SIZE	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
<5,000 FT	482,767 SF	1906	97.6	168
>5,000 FT-<20,000 FT	590,719 SF	1921	98.6	70
>20,000 FT	151,444 SF	1931	100.0	6
TOTAL	1,224,930 SF	1916	98.4	246

Source: CoStar

LARGEST RETAIL DEVELOPMENTS - ONE-MILE RADIUS



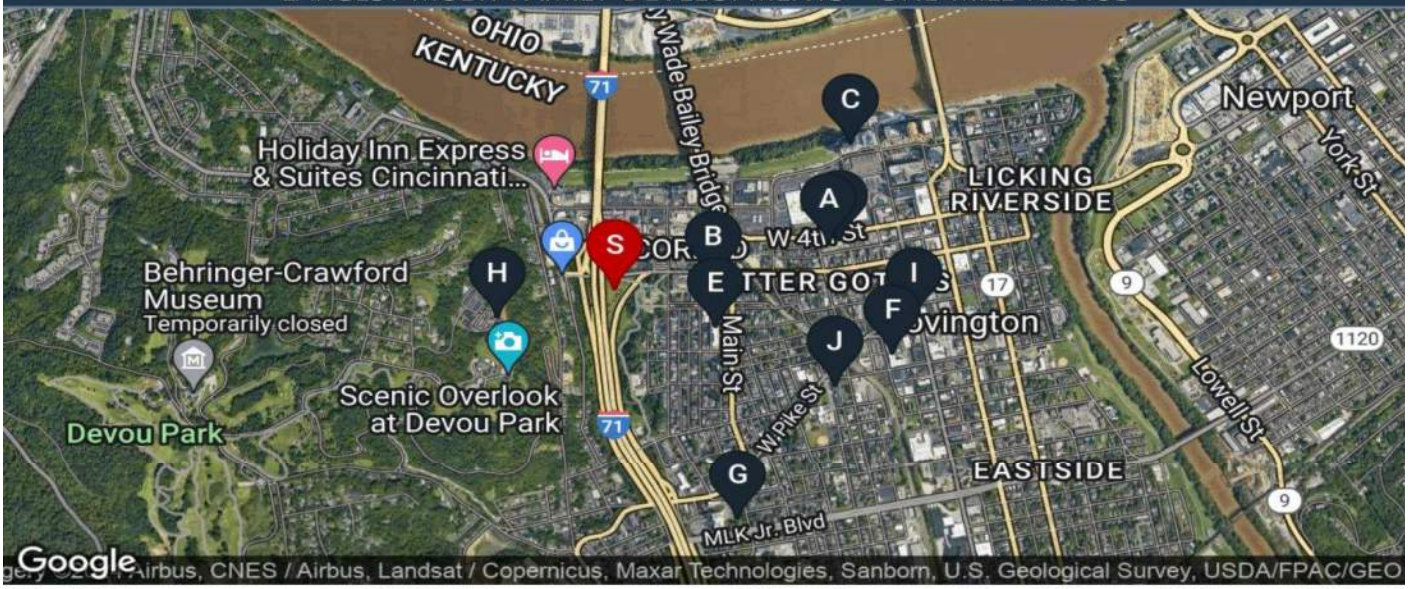
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	%LEASED
A		721-731 Madison Ave, Covington	0.7 mi	33,643	1901	C	100
B		633 W 3rd St, Covington	0.2 mi	30,743	1970	C	100
C		702 Madison Ave, Covington	0.7 mi	23,533	N/A	C	100
D	Mergards Hall	25-29 W 7th St, Covington	0.6 mi	22,080	1914	C	100
E		409-435 Johnson St, Covington	0.3 mi	20,861	N/A	C	100
F		550 W Pike St, Covington	0.5 mi	20,584	1940	B	100
G		419 W Pike St, Covington	0.5 mi	18,535	N/A	C	100
H		423-439 Scott St, Covington	0.7 mi	15,360	1975	C	100
I		670 W 4th St, Covington	0.2 mi	14,400	1950	C	100
J		809-811 Madison Ave, Covington	0.7 mi	14,000	N/A	C	100

Source: CoStar

LOCAL AREA MULTI-FAMILY - ONE-MILE RADIUS				
CLASS	RBA	YEAR BUILT	UNITS	PROPERTIES
A	300,598 SF	2019	297	2
B	1,001,851 SF	1994	1,004	13
C	244,274 SF	1919	310	42
TOTAL	1,546,723 SF	1992	1,622	61

Source: CoStar

LARGEST MULTI-FAMILY DEVELOPMENTS - ONE-MILE RADIUS



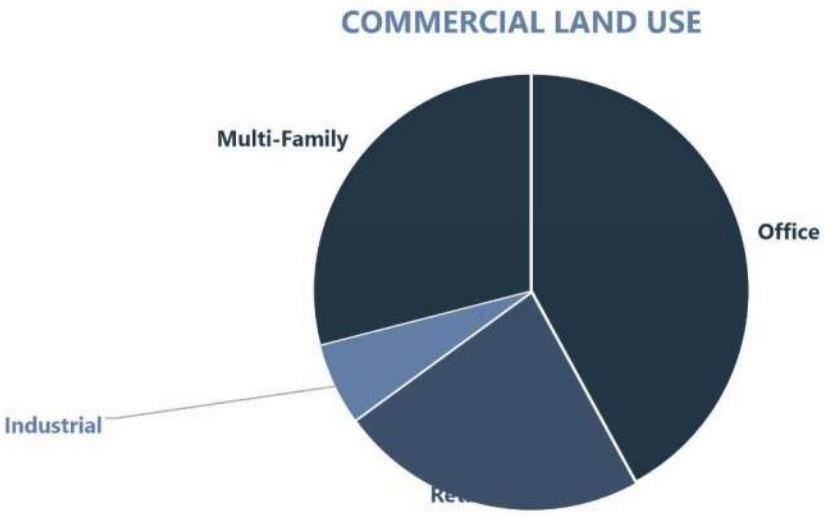
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	STORIES
A	Panorama West Apartments	117 Brent Spence Sq, Covington	0.5 mi	223,009	1972	B	15
B	River Haus	515 Main St, Covington	0.2 mi	200,000	2019	B	5
C	Madison Place	50-100 W Rivercenter Blvd, Covington	0.6 mi	188,000	2020	A	15
D	Panorama Apartments	111 Brent Spence Sq, Covington	0.5 mi	184,408	1973	B	14
E	John R. Green Lofts	437 W 6th St, Covington	0.2 mi	150,000	2021	B	4
F	Duveneck Square	710 Washington St, Covington	0.6 mi	112,598	2018	A	4
G		506 W Martin Luther King Jr Blvd, Covington	0.6 mi	100,000	2025	B	4
H	The Bluffs at Devou Park	100 Winding Way, Covington	0.3 mi	37,465	1972	B	3
I	Mutual Building	619-629 Madison Ave, Covington	0.6 mi	32,162	1921	B	3
J	Seminary Square Lofts	832 Banklick St, Covington	0.5 mi	27,000	2008	B	3

Source: CoStar



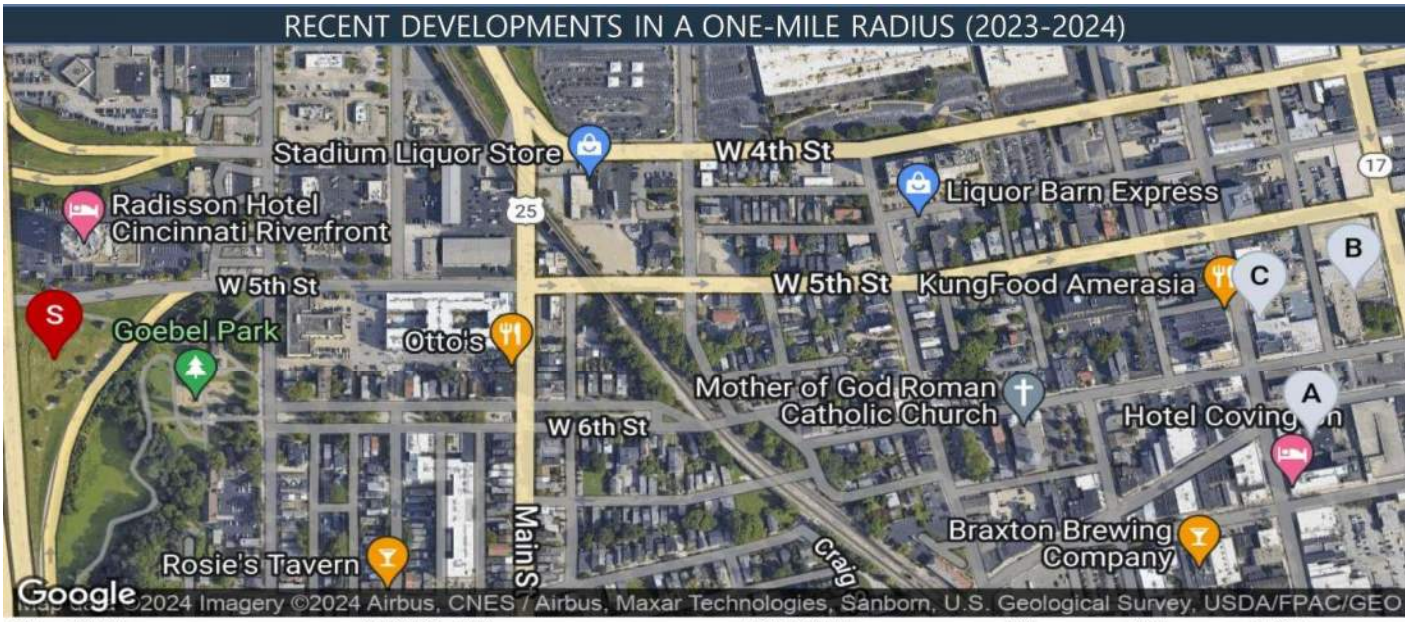
Source: CoStar

The land use in the subject's immediate neighborhood consists of a significant amount of commercial property, comprising of a mix of many property types. Commercial uses in the area include multitenant retail centers, medium-sized retail/industrial/distribution-type properties, larger riverfront office buildings, small- to- medium sized freestanding office and retail properties, as well as service-related uses, restaurants, gas stations/convenience stores and banks. The following chart illustrates the high concentration of office and multifamily in comparison to industrial and retail properties.



RECENT DEVELOPMENT

There are 3 projects that have been recently developed within 0.7 mile of the subject. The range in size of developments is 8,360 SF to the largest development of 87,000 SF. The table below depicts the findings;



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A	North by Hotel Covington	620 Madison Ave, Covington	0.7 mi	87,000	Hospitality	B
B	First District	525 Scott St, Covington	0.7 mi	71,271	Office	A
C	Huntington National Bank	536 Madison Ave, Covington	0.6 mi	8,360	Retail	0

Source: CoStar

Proposed

There is 1 project that is proposed for construction within 0.6 mile of the subject. The proposed development is 100,000 SF and multi-family in nature. The map depicts the location in relation to the subject property.



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A		506 W Martin Luther King Jr Blvd, Covington	0.6 mi	100,000	Multi-Family	B

Source: CoStar

ECONOMIC INFLUENCES

The local area economic status is significant to the analysis as the measurement of income levels provides an indication of the ability of the area population to buy, rent and maintain property. The economic status of an area also provides an indication of the population's demand for goods and services. Relevant economic information includes income levels, property ownership vs. rent, property rent levels, rent level trends, property vacancy and new construction.

The vast majority of the housing units within the area are renter occupied, which contrasts with the larger Cincinnati, OH-KY-IN MSA.

GOVERNMENT INFLUENCE

Governmental considerations relate to zoning, building codes, regulations, flood plain restrictions, special assessment, property tax and empowerment zones.

Zoning in the area is mixed, including mixed use, downtown and residential. The zoning code is enforced by the municipality and enforcement in all areas of City of Covington is considered to be strong. Rezoning requires public input and approval of the local planning and city commissioners. Building codes are in force and require a certain standard of construction quality and design. This is a typical influence on properties similar to the subject and falls in line with the zoning classification.

Property taxes in the area are established by Kenton County and are assessed based on fair market value. The assessments in the neighborhood are similar to other neighborhoods in the metropolitan area. There are no known special assessments that affect property in the neighborhood.

ACCESS/PUBLIC TRANSPORTATION

The subject neighborhood has good access as I-75 and the Brent Spence Bridge over to Ohio is located along the west side of the neighborhood. The streets within Covington are best described as being in a grid format with I-75 exits at Pike and West 5th Street which run east-west through Covington. Other than I-75 the other main north-south routes would include Main Street, Madison Avenue and Greenup Street on the east side of Covington. With the existing transportation systems, most areas of Covington and Kenton County are accessible from the subject neighborhood and access is considered good. W 5th Street which runs along the subject's north boundary will provide access to the subject site. This section of 5th Street is one way east bound traffic in this location. A new ramp from I-75 is to be constructed along the east boundary of the subject site per the plans but no access would be available along this frontage.

ENVIRONMENTAL INFLUENCES

The subject area is considered to be a typical urban neighborhood with average building size and density. There are no extraordinary topographical features, nuisances of hazards. Public utilities are available in most all areas in quantities from public and private sources.

LOCAL AREA SUMMARY

The market benefits from a diverse blend of commercial, professional, residential and community uses along with close proximity to many recreational activities. The market has been increasing due to good livability factors associated with the region. The outlook for the market area is good into the foreseeable future.

(2.3.2.3) PROPERTY DATA

(2.3.2.3.1) Site

The following summaries the salient characteristics of the subject site.

Address	W 5th St, Covington, Kentucky.
Census Tract	21-117-060300

Number of Parcels	1	
Assessor Parcel	Excess State Right of Way	
Land Area	Square Feet	Acres
Economic Unit (Primary) Site Size	92,099	2.114
Usable Site Size	**92,099**	**2.114**
Total Land Area	**92,099**	**2.114**
Excess/Surplus Land	No	
Corner	Yes	
Permitted Building Height	2 Story Minimum	
Site Topography	Level At street grade	
Site Shape	Triangular	
Site Grade	At street grade	
Site Quality	Good	
Site Access	Above Average	
Site Exposure	Very Good	
Site Utility	Good	
Utilities	All Public Available	

Adjacent Properties

North	5th Street, Hotel, Convenience Store
South	Goebel Park/I-75
East	Goebel Park
West	I-75; Commercial and Industrial On Other Side of I-75

Site Description: The subject property is in use as I-75 right of way with vegetation limited to grass and landscaping. The W 5th Street ramp is currently on the site along with an overhead walkway between the site and the Goebel Park. All of the existing road infrastructure is to be removed and the site graded to level with W 5th Street, a hypothetical condition of the value opinion. There are no known marketable minerals associated with the subject property and no rental history. The property consists of 92,099 SF (2.114 acres) and is located between the east side of I-75, south side of W 5th Street and west side of Goebel Park in the City Limits of Covington, KY. The shape of the site is triangular and runs along W 5th Street, its north boundary for a total of 443 to the Goebel Park where the east boundary is 710 feet. The remaining I-75 right of way forms the west boundary for a total length of 520 feet. As a result of the triangular shape, the area which

could be developed with buildings is likely reduced but could be used for parking. The proposed W 5th Street ramp will be located between the subject and the I-75 travelway but there will be no access from the ramp.

Access & Traffic Counts: There will be one way east bound access to the site from W 5th Street where at least one curb cut is anticipated. No other access is anticipated.

STREET & TRAFFIC DETAIL

Street Improvements	Type	Direction	Lanes	Lights	Curbs	Sidewalks	Signals	Median	Parking	Center Lane	Bike Lane
W 5th Street	Minor arterial	One-Way	2	x	x	x					
I-75 & 5th Street Ramp	Major arterial	Two-Way	8	x				x			
Frontage											
W 5th Street	443 feet; Future. North Boundary										
I-75 & 5th Street Ramp	520 feet; None - Controlled Access. West Boundary										



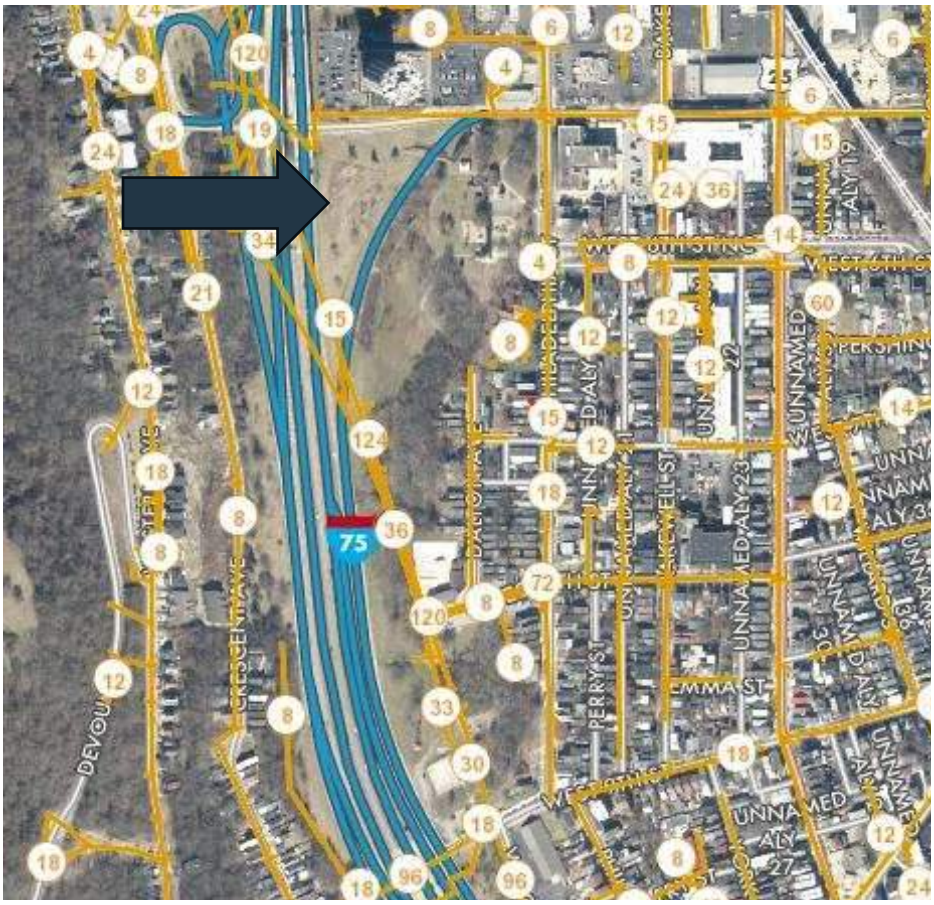
Given the high visibility of site adjacent to I-75 and high traffic count area, the site would be ideal for billboard type advertisement. However, Tom West with

the City of Covington indicated that the city had recently adopted an ordinance which will not permit new billboard signs within the city limits.

Topography: The site is mostly level with W 5th and then slopes up towards the rear of the site. As a part of construction of the Brent Spence Bridge project the site is to be graded level with W 5th Street, a hypothetical condition of the value opinion.

Utilities: All public utilities including sewer, city water, electric and gas are available to the site but will need to be extended. The maps below depict the system of storm and sanitary sewers as well as public water around the subject property.

STORM & SANITARY SEWERS



PUBLIC WATER



Flood Plain

The property is located in Zone X (Unshaded). This is referenced by Panel Number 21117C0009F, dated May 16, 2013. Zone X (unshaded) is a moderate and minimal risk area. Areas of moderate or minimal hazard are studied based upon the principal source of flood in the area. However, buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems. Local storm water drainage systems are not normally considered in a community's flood insurance study. The failure of a local drainage system can create areas of high flood risk within these zones. Flood insurance is available in participating communities, but is not required by regulation in these zones. Nearly 25% of all flood claims filed are for structures located within these zones. Minimal risk areas outside the 1% and 0.2% annual chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)

FLOODPLAIN MAP

RiskMeter Core

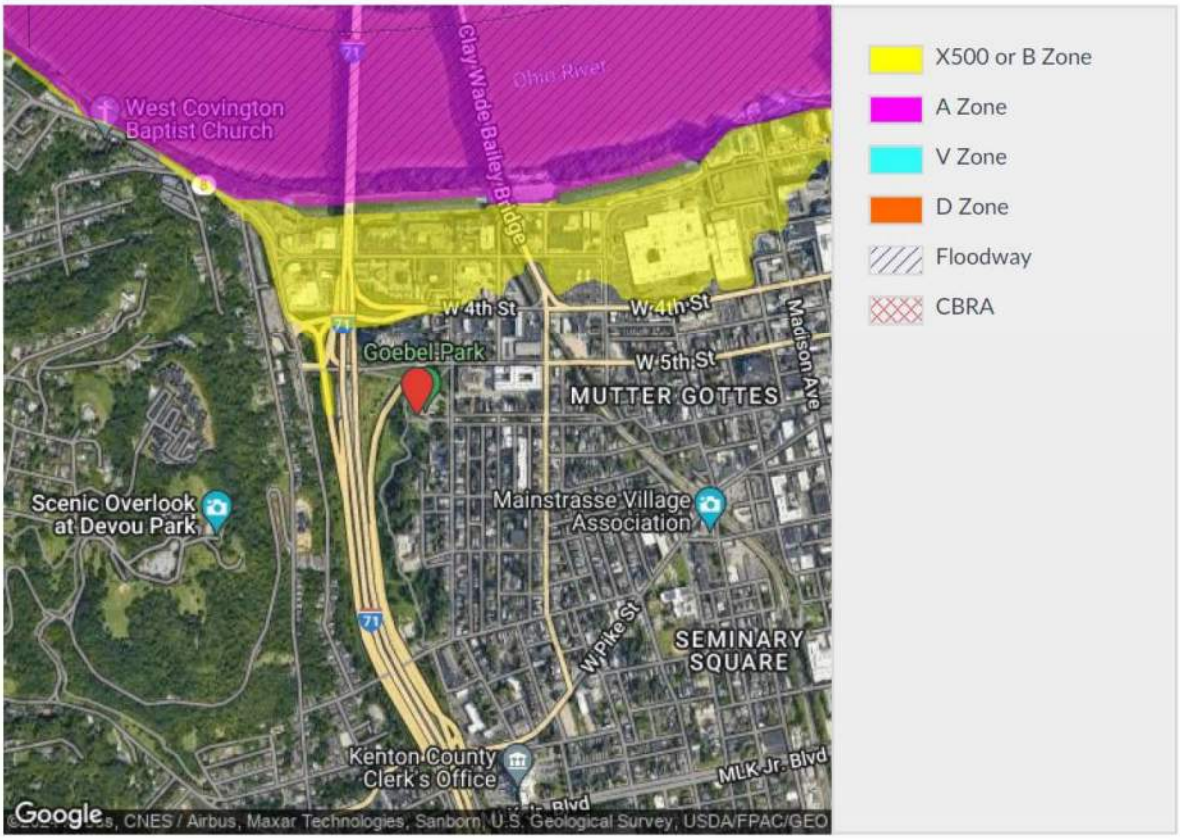
501 PHILADELPHIA ST COVINGTON, KY 41011-1239

LOCATION ACCURACY: Excellent

Flood Zone Determination Report

Flood Zone Determination: OUT

COMMUNITY	210129	PANEL	
PANEL DATE	May 16, 2013	MAP NUMBER	2111



Easements A preliminary title report was not available for review. During the property inspection, no adverse easements or encumbrances were noted. This appraisal assumes that there are no adverse easements present. If questions arise, further research is advised.

Soils Due to the urban location a detailed soils analysis was not available for review. Topography maps were reviewed. Based on the surrounding development, it

	appears the soils are stable and suitable for development in accordance with the highest and best use.
Hazardous Waste	I have not conducted an independent investigation to determine the presence or absence of toxins on the subject property. If questions arise, the reader is strongly cautioned to seek qualified professional assistance in this matter. Please see the Assumptions and Limiting Conditions for a full disclaimer.
Site Rating	Overall, the subject site is considered good as a land site in terms of its location, exposure and access to employment, education, shopping and housing, based on its location along major and minor arterials and neighborhood streets.
Site Improvements	The site improvements are limited to an overhead walkway between Goebel Park, portions of the existing 5th Street ramp and minor landscaping. The existing site improvements are to be removed by the KYTC, a hypothetical condition of the value opinion.
ADA Comment	This analysis assumes that the subject complies with all ADA requirements. Please refer to the Assumptions and Limiting Conditions section.

(2.3.2.3.2) Improvements
The subject property is unimproved

(2.3.2.3.3)Fixtures
The property includes no fixtures.

(2.3.2.3.4) Use History
The subject property has been in use as public right of way for an extended period of time.

2.3.2.3.5) Sales History
The subject title is currently recorded in the name of Commonwealth of Kentucky Department of Transportation who acquired title to the property presumably as a part of the I-75 project. Upon completion of the Brent Spence Bridge Project, the site is to be deemed surplus and will become excess right of way. There was no title available for this assignment.

There has been no transfer of ownership for the subject property in the past ten years and there is no known pending sale or listing of the subject.

2.3.2.3.6) Rental History
The subject property has no past rental history.

2.3.2.3.7) Assessed Value and Annual Tax Load
As the property is existing right of way, there is no assessment or taxes paid. At the indicated market value, the taxes would be as follows;

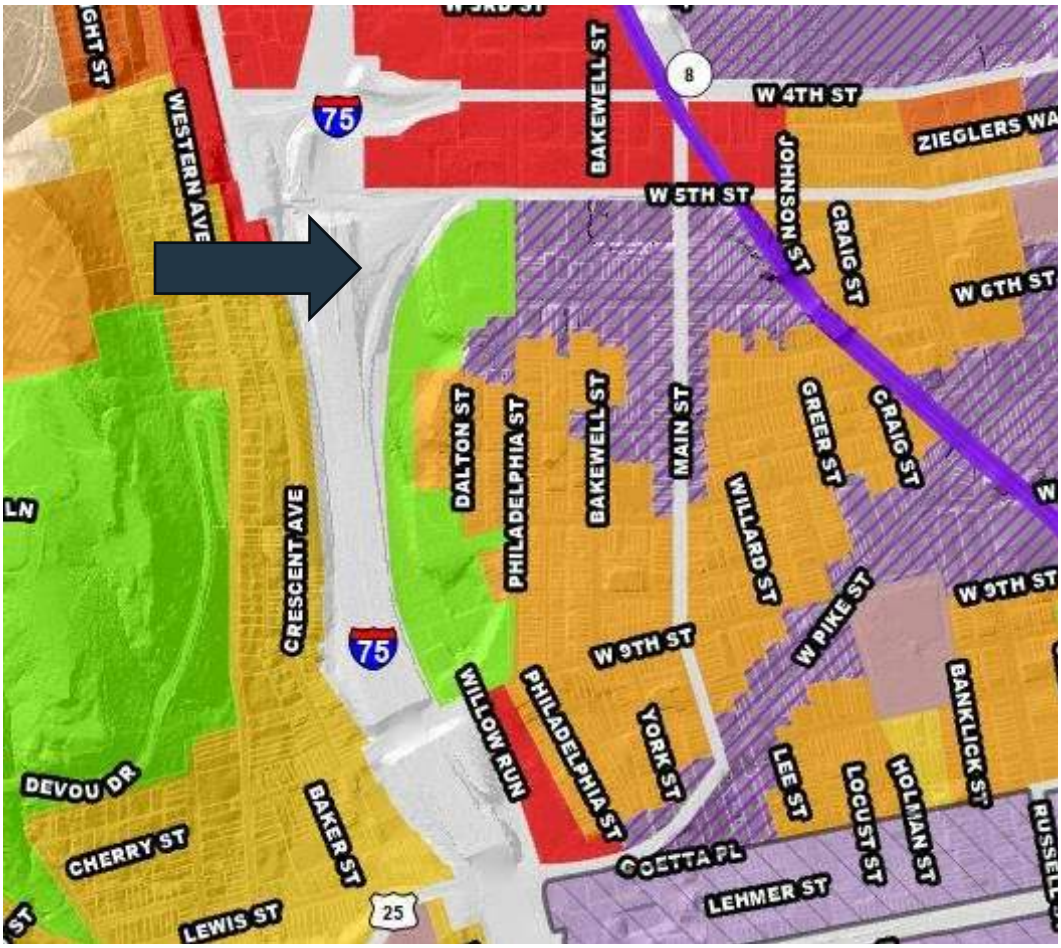
TAXES ESTIMATED FOR PRO FORMA	
COMPONENT	**PRO FORMA**
Land	$1,380,000
Improvements	--
Subtotal	$1,380,000
Assessed Value Ratio	100.00%
Assessed Value	**$1,380,000**
Taxes Current Millage Rate	$13.591
Net Total	**$18,756**
Add Special Assessments (Non-Ad Valorem)	$0
TAXES ESTIMATED FOR PRO FORMA	**$18,756**

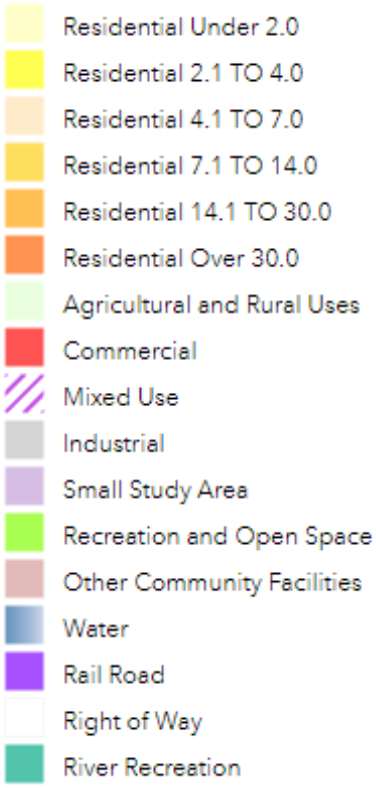
2.3.2.3.8) Zoning and Other Land Use Regulations

ZONING MAP



The subject is existing right of way and not zoned nor has it recently been changed. As the UASFLA and LWCF require that the property be valued as available for an economic use, a zoning analysis is presented. As the property has been in use as right of way, the City of Covington Comprehensive Plan also does not provide for a recommended land use. However, recommended land uses for the surrounding properties are relative to the determination of likely zoning and are as follows;





Based on the Comp plan the adjoining recommended land use at the north end of the property across 5th Street is commercial (AUC zoning) where a high rise hotel and convenience store are currently located. Beyond the Goebel Park east is the historical Mainstrasse area which is mixed use. This area is currently zoned TUMU (Traditional Urban Mixed Use) and DTC (Downtown Core). An extension of the Mainstrasse theme should be anticipated for the subject property. South of Mainstrasse and extending to W 9th Street the recommended land use is high density residential at 14.1 to 30 units per acre. This type of zoning is not anticipated for subject site due to its proximity to I-75. I-75 forms a barrier between the subject site and the land uses on the west side of I-75 which are considered to be less likely as a result.

Interviews were also conducted with City of Covington Planning and Zoning officials Tom West and special project coordinator Elizabeth Wetzel. These officials stressed the importance of protecting the historic areas, extending the Mainstrasse theme, and achieving maximum density with the TUMU (Traditional Urban Mixed Use) zone recommended as most appropriate for the subject property.

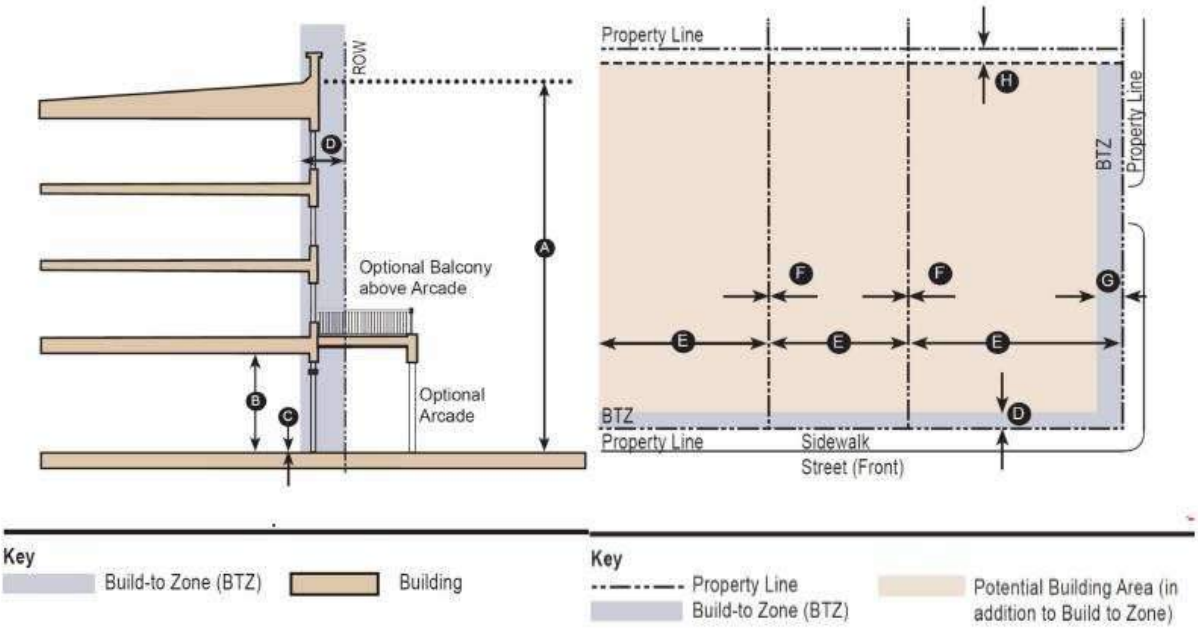
As indicated by the highest and best use analysis which follows, the anticipated zoning for the subject site if available for economic use was also concluded to be TUMU, Traditional Urban Mixed Use. The TUMU zoning code has requirements and allows for the following land uses;

1. TUMU Purpose

The Traditional Urban Mixed-Use (TUMU) district consists of the historic main streets of Covington's in-town neighborhoods. Priority placed on optimizing the physical characteristics of the built environment for increased walkability and a vibrant center building upon the historic character of Covington's neighborhood main streets. This district supports the small-scale fine-grained character the historic neighborhoods with a mix of attached and detached mixed-use buildings on small lots. Buildings are close to the sidewall and off-street parking is screened from public spaces.



Examples of Traditional Urban Mixed Use (TUMU) district- West 6th Street



2. TUMU Building Height[1, 2]		
Heights[3, 4]		
Minimum Total Building Height	2 stories	A
Maximum Total Building Height[5]	Greater of (1) 3 stories or (2) 120% of context average	A
Ground Floor Elevation (floor to floor)[6]	12' min.(commercial) 9' min.(residential)	B
Ground Finish Floor above sidewalk or finished grade[6]	0" minimum 24" maximum	C

TABLE NOTES:

[1] In case of discrepancy with similar provisions, Table 04.10.2, *Building Placement and Massing Standards by District*, governs.

[2] Where a given standard relates to a context average, the context shall be defined per Sec. 09.28.2, *Identifying the Context*.

[4] Specified building and lot elements may encroach above the maximum permitted height per Sec. 04.10.3, *Permitted Setback and Height Encroachments*.

[4] Basements and attics shall not count as a story.

[5] Towers, cupolas, and other rooftop features with a footprint smaller than 2 feet by 20 feet may extend up to 30 feet above the designated height limit.

[6] In case of discrepancy with similar provisions, any similar standards specifie by a given building type in the subsections of Sec. 04.08.3, *Housing and Building Types*, shall govern.

3. TUMU Building Form and Placement[1, 2, 3, 4]		
Front Street Build-to Zone or Front Street Setback	Minimum: zero feet Maximum: Lesser of (1) 15ft or (2) 120% of context average	D
[Reserved]	[Reserved]	E
Interior Side Setback	Lesser of (1) 3 ft. or (2) 80% of context average[4]	F
Side Street Build-to Zone or Side Street Setback	Minimum: zero feet Maximum: Lesser of (1) 15ft or (2) 120% of context average	G
Minimum Rear Setback	Lesser of (1) 5 ft. or (2) 80% of context average	H
Distance Between Building Entrances on Building/ Within Same Development	50' maximum	--

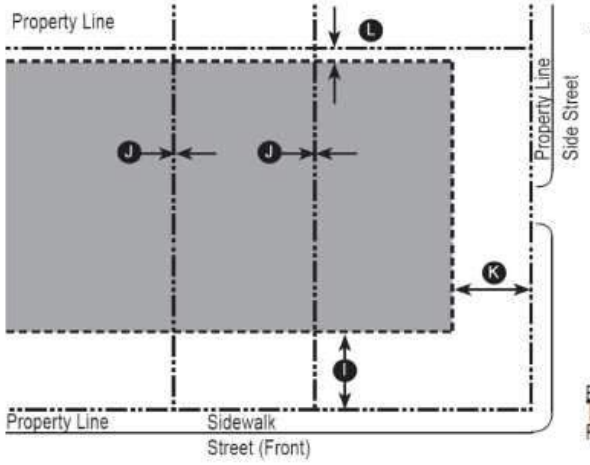
TABLE NOTES:

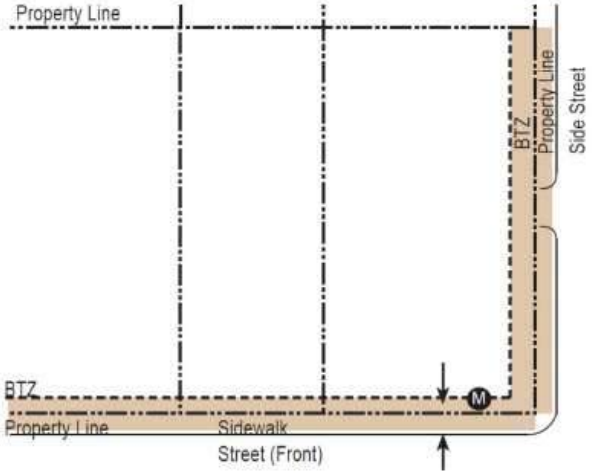
[1] In case of discrepancy with similar provisions, Table 04.10.2, *Building Placement and Massing Standards by District*, governs.

[2] Where a given standard relates to a context average, the context shall be defined per Sec. 09.28.2, *Identifying the Context*.

[3] Any street-facing building elevation wider than 150 ft shall be designed to read as a series of buildings no wider than 75' each.

[4] No side setback is required between single-family attached dwellings and/c between duplex units along a common lot line.





Key
Property Line
Setback Line
Parking Area

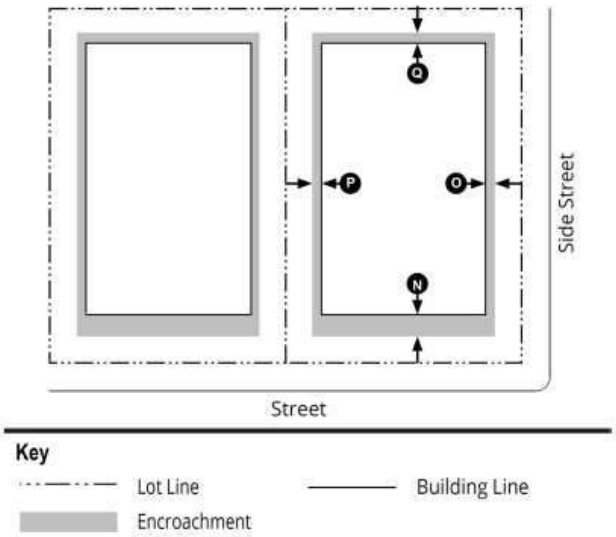
Key
Property Line
Encroachment Area
Max Build-to Zone (BTZ)

4. TUMU Parking Location[1,2]		
Front Street Setback	30' minimum	I
Interior Side Setback (mid-block)	0' minimum	J
Side Street Setback (corner)	30' minimum	K
Rear Setback (from a separate lot)	5' minimum	L
Rear Setback (from an alley)	0' minimum	L
Rear Setback (from a non-alley street)	20' minimum	L

TABLE NOTES:
[1] Parking shall be accessed from rear alleys or side streets whenever possible
[2] The design (including setbacks) of a vehicle use area is further subject to th applicable provisions of Division 11, *Parking, Loading, and Circulation.*

5. TUMU Frontage Elements[1]		
Permitted Frontage Types	See Table 04.08.6.A, *Permitted Frontage Types by Building Type.*	M

TABLE NOTES:
[1] Frontage Elements may encroach forward of the build-to zone and/or into the right-of-way, barring any additional restrictions by the public entity that has control over the public right-of-way.



Key
Lot Line
Building Line
Encroachment

6. TUMU Encroachments into Facade Zone[1]

	Encroachment Type			
	Front (max.)	Corner Side (max.)	Interior Side (max.)	Rea (max
	N	O	P	Q
Frontage Type				
Arcade/Gallery[2]	10 ft	10 ft	--	--
Shopfront: awning, balcony[2], bay window, projecting shade structure	10 ft	10 ft	--	--
Upper floor Balconies[3]	6 ft	6 ft	5 ft	5 ft
Architectural Features	3 ft	3 ft	3 ft	3 ft
Miscellaneous				
Encroachments are allowed into the facade zone, but may not encroach into the public right-of-way, except for an arcade, gallery, balconies in conjunction with an encroachment permit.				

TABLE NOTES:
[1] Specified building and lot elements may encroach into required setbacks pe Sec. 04.10.3, *Permitted Setback and Height Encroachments*.
[2] May encroach into the street ROW to within 2 ft of the face of the curb, subject to approval by the Public Works Director.
[3] May encroach into the street ROW up to a maximum of 5 ft, subject to approval by the Public Works Director.

7. TUMU Required Street Trees

Infill or Replacement Street Trees	Min. No. Trees
Addition, Renovation, or New Building[1]	
< 1,000 sf	--
≥ 1,000 sf - < 2,500 sf	2
≥ 2,500 sf	4
Miscellaneous	
All street trees shall be planted and maintained to avoid conflicts wi large trucks and fire/emergency vehicles. The min. canopy clearance at maturity is 14 ft.	
The use of native species is encouraged.	

8. TUMU Other Applicable Development Standards

Title	Reference
Generally Applicable	
Use-Specific Standards -Limited and conditional uses -Accessory uses such as outdoor display -Temporary uses	Division 07
General Provisions -Tiny House Neighborhood -Building Types -Frontage Types -Open Space Types	Division 08
Lots	Division 09
Buildings, Elements, and Utilities	Division 10
Parking, Loading, and Circulation -Maximum Parking Ratios -Parking Area Design -Special Studies -Shared Parking	Division 11
Landscaping, Screening, and Buffering	Division 12
Signs	Division 13
Environment -Flood Hazard Reduction	Division 14
For Properties within Specific Secondary (Overlay) Districts	
Historic Preservation (HP) Overlay	Sec. 02.05.2
Hillside Stability (HS) Overlay	Sec. 02.05.3
12th Street Corridor (TS) Overlay	Sec. 02.05.4

9. TUMU Land Uses	
Use Type	**TUMU**
Agriculture and Animal Service	
Community garden	L
Kennel	--
Market garden or Nursery (retail)	C
Roadside stand	--
Veterinary Clinic or Veterinary Hospital	--
Other Agriculture and Animal Service including: Animal Production; Crop Production; Stable (Private and Non-Commercial); Stable (Public or Commercial)	P
Household Living	
Accessory dwelling unit	--
Dwelling, single-; two-; three- or four-; or multi-family (5 or more)	P
Short-term rental, host occupied	L
Short-term rental, non host occupied	C
Sober living home (6 or fewer residents)	P
Upper-story dwelling unit	P
Group Living	
Addiction treatment facility	--
Nursing home or Residential care facility	P
Youth shelter	C
Civic	
Airport or heliport	--
Bus or train passenger terminal	--
Cemetery, columbarium, mausoleum, or memorial park	C
Day care, type 1 or 2	L
Government / non-profit parking lot or maintenance area	--
Park-and-ride facility	--
Other Civic uses including: Adult day care; College, university, or vocational school; Community, senior, or youth center; Government service; Museum or gallery; Park, playground, or common open space; Pre-school or child day care center; Public assembly facility; School, elementary, middle, or high; Swimming pool (public)	P
Medical Facilities	
Chiropractor, or acupuncture, medical or dental clinic	L
Other Medical Facilities including: Blood or plasma center; Drug, alcohol or psychiatric treatment center, out-patient; Hospice center; Hospital; Medical or dental laboratory	--
Utilities	
Utilities, minor	P
Utilities, major	C

9. TUMU Land Uses (cont.)	
Use Type	**TUMU**
Entertainment, Indoor	
Skateboard or trampoline park(indoor)	--
Other Indoor Entertainment including: Archery / firearms range (indoor); Axe throwing lounge; Bar or tavern; Bingo hall; Body art service; Bowling center; Brewpub; Convention center; Dance club or dance hall; Fitness gym; Gymnastic, dance, or martial arts facility; Microbrewery or micro-distillery; Movie or other theater; Pool hall; Skating rink; Tennis or racquetball facility	L
Entertainment, Outdoor	
Farmers market	L
Other Outdoor Entertainment uses including: Amphitheater; Amusement park; Campground without overnight accommodation; Fairgrounds; Golf course, golf driving range, or mini-golf course; Marina; Paintball facility; Race track (vehicle); Skateboard park; Stadium, running track, or ball field	--
Office	
Bank or credit union (with drive-through)	--
Currency exchange (check cashing) or payday loan business	C
Office uses including: Accounting, advertising, architecture, bill collection, charitable organization, consulting, counseling, data processing, design, engineering, investment or brokerage, law, real estate or insurance, sales, temporary employment, or travel; Bank or credit union (without drive-through); TV or radio studio	P
Overnight Accommodations	
Bed and breakfast inn	L
Hotel or motel	P
Overnight Accommodations including: Campground with overnight accommodations; Recreational vehicle park; Resort	--
Restaurant	
Restaurant, drive-in or drive-through	--
Other Restaurant uses including: Candy or ice cream shop; Catering establishment; Coffee shop; Food delivery; Restaurant, sit-down	L
Retail Repair, Sales, and Service	
Mobile food vending service	L
Mobile retail vending service	L
Package liquor	L
Pawn shop	--
Temporary Vendor	L
All Repair-Oriented Uses	L
All other Sales-Oriented Uses	L

All Service-Oriented Uses	L
Vehicle Sales and Services	
Vehicle service, minor	L
Other Vehicle Sales and Service uses including: Car wash; Fuel sales (retail); Rental or sales of manufactured homes, mobile homes, portable buildings or trailers; Truck stop; Vehicle repair, major; Vehicle sales, rental, and leasing	--
Light Industrial	
Building or development contractor	--
Bulk mailing service	L
Micro-manufacturing	L
Repair of scientific or professional instruments	L
Research, testing, and development laboratory	L
Other Light Industrial uses including Manufacture or Assembly of Certain Goods listed in Sec. 09.27.3	L

TABLE NOTES:
[1] In case of discrepancy with this summary table, Table 03.06.3, *Permitted Us by District*, shall govern.

10. TUMU Permitted Land Uses Key

P	"P" means that the land use is Permitted by Right, subject to the standards that apply to all Permitted Uses. The use is approved by the Administrator.
L	"L" means that the land use is Permitted with Limitations, in tl same manner as a Permitted Use, but is subject to Division 07, *Use-Specific Standards*.
C	"C" means that the use is allowed as a Conditional Use, which may be approved following a public hearing by the Board of Architectural Review and Development (BOARD), subject to: 1. Division 07, *Use-Specific Standards*; and 2. The procedures set forth in Sec. 07.23.2, *Conditional Use Permit*.
--	Use is prohibited.

(Ord. No. O-13-21, 09/28/2021)

Effective on: 10/6/2021

The code document is very useful in demonstrating that this zone encourages buildings close to the street and the smallest of setbacks for both building and parking area thereby maximizing useable area. The code also requires multi-story buildings and permits a variety of anticipated commercial uses including retail, restaurants, hotels as well as high density residential. Given the size of the subject property required off-street parking based on use and open space requirements can also be met.

In addition to zoning, there is no other land use and environmental regulations that have an impact on the highest and best use and value of the property. Further, there are no known private restrictions on the property, such as deed and/or plat restrictions.

(2.3.3.1) HIGHEST AND BEST USE

The highest and best use of the subject property provides the foundation for the valuation section. Highest and best use is defined in the 6th edition of *The Dictionary of Real Estate Appraisal* (Appraisal Institute, Chicago, 2015), as follows:

> The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Highest and best use analysis uses the following steps for the subject:

- Highest & Best Use As Vacant
- Determination of the ideal improvements
- Highest & Best Use As Improved
- Conclusion of the Highest & Best Use

The analysis of highest and best use can be thought of as the logical end of a spectrum of market analysis procedures, running from the macroeconomic overview of a general market study, through more detailed marketability studies and analyses of financial feasibility, to the formal analysis of highest and best use. In theory, the highest and best use is commonly described as that reasonable and most profitable use that will support its highest present value. The highest and best use, or most profitable use, must be legally permissible, physically possible, financially feasible, and maximally productive.

This section develops the highest and best use of the subject property As-Vacant and As Improved. Per the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA) requirements, "The appraiser's estimate of highest and best use must be an "economic" use. A non-economic highest and best use, such as "conservation," "natural lands," "preservation," or any use which requires the property to be withheld from economic production in perpetuity, is not a valid use upon which to estimate market value. (Section 4.3.2.3, UASFLA, 2016)"

(2.3.3.1.1) FOUR TESTS

AS VACANT ANALYSIS

In this section the highest and best use of the subject as-vacant is concluded after taking into consideration financial feasibility, maximal productivity, marketability, legal, and physical factors.

Legally Permissible

Private restrictions, zoning, building codes, historic district controls, and environmental regulations are considered, if applicable to the subject site. The legal factors influencing the highest and best use of the subject site are primarily government regulations such as zoning ordinances. Based on interviews with local zoning officials and developers along with a review of the comprehensive plan, if the property were available for an economic use, the zoning should encourage mixed use development. The TUMU(Traditional Urban Mixed Use) zone is found in the adjacent Mainstrasse area of Covington. The TUMU zone appears most appropriate when incorporating the proximity to I-75 and the historic main streets of Covington's in-town neighborhoods. Priority is placed on optimizing the physical characteristics of the built environment for increased walkability and a vibrant center building upon the historic character of Covington's neighborhood main streets. This district supports the small-scale fine-grained character of the historic neighborhoods with a mix of attached and detached mixed-use buildings on small lots. Buildings should be close to the sidewalk and off-street parking is screened from public spaces As such, the legally possible uses are a combination of

commercial, retail, restaurants, hotels, office, and dense residential development as permitted by the TUMU zoning. Given the location adjacent to I-75 as well as existing surrounding development and available access, a commercial use is most likely with retail and/or hospitality use considered to be ideal. Although the site would also be an excellent location for billboard signs, the city of Covington has indicated that no additional billboards will be permitted.

Physical Possible

The test of what is physically possible for the subject site considers physical and locational characteristics that influence its highest and best use. In terms of physical features, the subject site totals 2.1143-acres (92,099 SF), is triangular in shape and is to have a level useable topography. The shape of the site will restrict the placement of buildings on the property but would be functional for on-site parking. The site has very good exposure from I-75 and W 5th Street with access anticipated to be limited to one way east bound traffic along W 5th Street. In this location I-75 has traffic counts in excess of 150,000 cars per day. Further under the TUMU zoning, the developable area of the subject is maximized with buildings which are a minimum of 2 stories and close to the individual lot boundaries.

Financial Feasibility

The test of financial feasibility focuses on market demand, supply, cost and profit. Currently the IRS site which is along the Covington riverfront would represent the primary competition for the subject site. This 23 acre development has been master planned by the City of Covington as an urban core economic development project which will feature individual lots which range from 0.66 to 2.59 acres that will be sold to various developers at current price of $2,000,000 per acre pad ready. A new zoning code was developed for this site which requires mixed use development as well as public spaces.

Supply and demand data for the retail and hospitality, multi-family residential and office sectors were also gathered from Costar data for the Northern Kentucky area and Covington submarket. This information is summarized in the following tables;

RETAIL MARKET AND SUBMARKET DATA SUMMARY (5 YEARS)

		INVENTORY SUPPLY (SF)		VACANCY (%)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	24,155,194	3,893,085	2.2%	3.0%
Q3	2023	24,152,969	3,893,085	2.3%	3.0%
Q2	2023	24,147,569	3,893,085	2.2%	3.4%
Q1	2023	24,142,569	3,893,085	2.2%	3.5%
	2023	24,142,569	3,893,085	2.2%	3.5%
	2022	24,135,219	3,891,135	2.2%	3.0%
	2021	24,058,071	3,882,775	2.1%	2.3%
	2020	24,308,356	3,964,533	3.1%	2.9%
	2019	24,322,329	3,978,033	3.5%	3.3%
		RENT $/SF		NET ABSORPTION (SF)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	$17.09	$24.08	25,542	(1,725)
Q3	2023	$16.76	$24.63	(14,686)	17,099
Q2	2023	$15.83	$24.44	12,117	3,746
Q1	2023	$16.24	$23.08	3,777	(17,123)
	2023	$17.09	$23.08	26,750	1,997
	2022	$15.54	$23.47	42,441	(22,659)
	2021	$13.10	$15.16	(2,145)	(55,103)
	2020	$12.13	$12.55	91,071	5,507
	2019	$14.32	$10.85	163,002	(75,162)

Source: CoStar Property®

The Northern Kentucky Retail and Hospitality market demonstrates positive conditions. There has been little variance in supply over the last year. Vacancy has continued to decrease since Covid to the current level of 2.2%. Asking rents continue to increase and there was positive net absorption since 2021.

The Covington Retail and Hospitality submarket also demonstrates positive conditions. There was no new supply added in 2023 and vacancy has been positive in the last two quarters at 3%. Net absorption has also been positive over the last year. Rent levels are substantially above the wider market area, which is due to the urban location.

Residential is considered to be least likely use for the subject site due to the fact that it lays adjacent to the very busy I-75 corridor. However, the following charts detail the multi-family market.

APARTMENT MARKET AND SUBMARKET DATA SUMMARY (5 YEARS)

		INVENTORY SUPPLY (UNITS)		VACANCY (%)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	31,854	5,173	5.6%	8.6%
Q3	2023	31,797	5,173	5.6%	8.8%
Q2	2023	31,797	5,173	6.1%	9.3%
Q1	2023	31,797	5,173	7.3%	12.0%
	2023	31,854	5,173	5.6%	8.6%
	2022	31,219	5,040	6.5%	10.4%
	2021	30,156	4,773	3.2%	3.9%
	2020	30,011	4,599	4.2%	7.7%
	2019	29,267	4,195	5.2%	8.6%
		RENT $/UNIT/MONTH		NET ABSORPTION (UNITS)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	$1,201.00	$1,410.00	56	10
Q3	2023	$1,198.00	$1,403.00	148	24
Q2	2023	$1,201.00	$1,442.00	384	144
Q1	2023	$1,185.00	$1,399.00	300	34
	2023	$1,201.00	$1,410.00	888	212
	2022	$1,157.00	$1,378.00	7	(72)
	2021	$1,083.00	$1,314.00	424	342
	2020	$1,002.00	$1,227.00	1,012	414
	2019	$978.00	$1,239.00	312	39

Source: CoStar Property®

The Northern Kentucky Multi-Family market also demonstrates positive conditions. There has been little variance in supply over the last year. Vacancy has continued to decrease over the last year to the current level of 5.6%. Rents continue to increase and there has been positive net absorption since 2019.

The Covington Multi-Family submarket also demonstrates positive conditions. There was no new supply added in 2023 and vacancy has declined by 3.4% over the last year. Net absorption has also been positive over the last year. Rent levels are substantially above the wider market area, which is due to the urban location. Rent levels have increased 7.3% over the last 2 years.

The Covid pandemic altered the need for large scale office product and as such, the percentage of office that would be developed in this area should be less than in other mixed use development that has occurred in the past in other areas of Covington. The table below reflects the office supply, demand, vacancy and rental levels.

OFFICE MARKET AND SUBMARKET DATA SUMMARY (5 YEARS)					
		INVENTORY SUPPLY (SF)		VACANCY (%)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	15,021,310	4,883,967	7.8%	4.8%
Q3	2023	15,021,310	4,883,967	7.9%	5.8%
Q2	2023	14,921,310	4,783,967	7.6%	4.5%
Q1	2023	14,921,310	4,783,967	7.7%	4.1%
	2022	15,258,221	5,078,996	7.1%	12.9%
	2021	15,250,221	5,078,996	9.5%	12.3%
	2020	15,332,910	5,286,748	9.2%	13.9%
	2019	15,355,390	5,289,828	6.7%	6.3%
		RENT $/SF		NET ABSORPTION (SF)	
QTR	YEAR	MARKET	SUBMARKET	MARKET	SUBMARKET
Q4	2023	$18.28	$19.24	14,795	48,336
Q3	2023	$18.33	$18.96	35,256	30,686
Q2	2023	$18.39	$19.05	14,583	(16,058)
Q1	2023	$18.39	$18.92	(47,690)	(19,592)
	2022	$19.22	$19.11	26,386	149,041
	2021	$19.15	$19.05	(122,766)	(95,448)
	2020	$19.10	$19.85	(400,300)	(405,600)
	2019	$17.69	$18.48	155,031	135,333

Source: CoStar Property®

MARKET INTERVIEWS

Also, as a part of this analysis, recent transactions and trends were discussed with knowledgeable local brokers, developers, and owners. Of the participants that were interviewed, the majority pointed to continued increases in pricing in the residential, retail, restaurant and hotel markets in the immediate area and were optimistic of new activity including the proposed IRS site to the northeast of the subject property and the Ovation mixed use project along the Newport riverfront, a Corporex Development.

Greg Sheper with Corporex, one of Northern Kentucky's largest developers, provided information on a nearby 24 unit townhouse development which will be located northwest of the subject and I-75. This project will include 4 story townhouse units which will be marketed for sale in a price range of $700,000-$800,000 for base units. Mr. Sheper noted that as construction costs have continued to decline across most sectors and with developer profit levels in the 15-20% range, there should be continued demand to search out new opportunities in the local market.

Based on the analysis of the subject's market and an examination of supply, demand, vacancy, cost, and developer profit levels, newly constructed commercial buildings with a minimum of 2 floors of development should have a value commensurate with its cost and market profit levels.

Maximum Productivity

There is only one use that creates value and at the same time conforms to the requirements of the first three tests. Financial feasibility, maximal productivity, marketability, legal, and physical factors have been considered and the highest and best use of the subject site as-vacant concluded to be for development with commercial uses with minimum of 2 stories, close to the streets, and less focus on office going forward. Within the commercial category, a hotel use is considered to be highly likely given the size of the site, location and available access.

AS IMPROVED ANALYSIS

The site is unimproved.

MOST PROBABLE BUYER

Based on the type of property and the income generating potential, the most probable buyer for the subject would be a local or regional developer.

(2.3.3.1.2) LARGER PARCEL

The property described herein represents state owned right of way that is adjacent to Goebel park and is to be deemed excess. The property as described represents the larger parcel as there is a unity of highest and best use, unity of title and all being contiguous.

(2.3.3.2) LAND VALUATION

(2.3.3.2.1) SALES COMPARISON APPROACH

This section values the subject site by comparing it with substitute land sales or listings within the local market area or in competitive areas throughout the region. Land value is influenced by a number of factors; most notably development and use potential. These factors, as well as others, are factored in the following analysis.

UNIT OF COMPARISON

The most relevant unit of comparison for competing land is the $/SF. All of the comparable sales presented in this section were reported on this basis.

COMPARABLE SELECTION

A thorough search was made for similar land sales in the area. The parameters of the survey were highest and best use, zoning, proximity to the subject, size, and date of sale. In selecting comparables, emphasis was placed on confirming recent sales of sites that are similar to the subject property in terms of location and physical characteristics. Overall, the sales used represent the best comparables available for this analysis.

PRESENTATION

The following Land Sales Comparison table summarizes the sales data. Following these items, the sales are adjusted for applicable elements of comparison and the site value is concluded. A location map, and detail of comparable sales is included in the addenda of the report.

LAND SALES COMPARISON TABLE									
	SUBJECT	COMP 1		COMP 2		COMP 3		COMP 4	
Name	Goebel Park Replacement Property	Vacant Parking Lot in Front of Montgomery Inn		Former Montgomery Inn Restaurant Site		Infiniti Auto Dealership		Parking Lot Next to Office Building	
Address	W 5th St	380 Buttermilk Pike		406 Buttermilk Pike		1945 Dixie Hwy		1845 Dixie Hwy	
City	Covington	Lakeside Park		Fort Mitchell		Fort Wright		Fort Wright	
State	KY	KY		KY		KY		KY	
Zip	41011	41017		41017		41011		41011	
County	Kenton	Kenton		Kenton		Kenton		Kenton	
Submarket	Covington	Fort Mitchell		Fort Mitchell		-		-	
Parcel	Excess State Right of Way	028-10-03-014.05		028-10-03-014.04		041-20-00-002.00		041-20-00-009.00	
SALE INFORMATION									
Transaction Price		$1,170,000		$4,000,000		$1,200,000		$540,800	
Transaction Price $/SF		$26.86		$19.33		$14.45		$15.72	
Property Rights [1]		Fee Simple		Fee Simple		Fee Simple		Fee Simple	
Financing [2]		Conventional		Cash to Seller		Conventional		-	
Sale Conditions [3]		Transaction		Transaction		Transaction		Transaction	
Expenditures After Sale [4]		$0		$60,000	1.5%	$0		$0	
Market Conditions [5]		12/16/2019	5%	6/15/2022	3%	3/15/2019	6%	3/25/2022	3%
Sale Status		Recorded		Recorded		Recorded		Recorded	
Recording Number		C 6832/0321		KC 171-214		5966-350		0155-585	
Total Transactional Adjustments		$1.46	5%	$0.81	4%	$0.90	6%	$0.46	3%
Adjusted $/SF		**$28.32**		**$20.14**		**$15.35**		**$16.18**	
PHYSICAL INFORMATION									
Square Feet	92,099	43,560		206,910		83,034		34,412	
Acres	2.1143	1.0000	(5%)	4.7500		1.9062		0.7900	(5%)
Location	Good	Good		Above Average	5%	Above Average	5%	Above Average	5%
Access	Above Average	Very Good	(10%)	Good	(5%)	Good	(5%)	Good	(5%)
Shape	Triangular	Generally Rectangular	(10%)	Generally Rectangular	(10%)	Generally Rectangular	(10%)	Generally Rectangular	(5%)
Zoning	TUMU	MU		MU		LHS		PO-1	
Topography	Level	Level		Level		Level		Rolling	
Site Impr.	None	Parking Lot	(14%)						
Total Physical Adjustments		($11.04)	(39%)	($2.01)	(10%)	($1.53)	(10%)	($1.62)	(10%)
Adjusted $/SF		**$17.28**		**$18.13**		**$13.82**		**$14.56**	
CONFIRMATION INFORMATION									
Company		Brandicorp		Brandicorp		Infinit Dealership		Twin Quail Forest Prk	
Name		Mike Brandi		Mike Brandi		Clay Greene		Teresa Clay, Deed, PVA	
Affiliation		Buyers		Buyers		Buyer		Buyer	

ADJUSTMENTS

Adjustments to the comparable sales were considered and made when warranted for expenditures after purchase, property rights transferred, conditions of sale, financing terms, and market conditions.

1. **Property Rights -** All of the sale comparables were fee simple reflecting the property rights appraised herein per the agreed upon scope of work.
2. **Financing -** The sales all reflected typical cash equivalent, lender-financed transactions and no adjustments were required for financing terms.

3. **Sale Conditions -** None of the comparables required a condition of sale adjustment, as all were confirmed to be arm's length transactions.
4. **Expenditures After Sale -** Expenses that the buyer incurs after purchase (demolition, cleanup costs, etc.). Sale No.1 and 2 both required adjustment for demolition costs after the purchase. The indicated costs were confirmed by participants and result in upward adjustment to the sales.
5. **Market Conditions (Time) -** Based on research and interpretation of value trends, the analysis applies an upward market conditions adjustment of 1.1% annually reflecting the relatively consistent appreciation that occurred between the oldest comparable sale date up through the effective valuation date. Sale No.3 and 4 were nearby sites that sold approximately 3 years apart with a reported price difference of nearly 9%. Of this a small 5% was due to site size differences with the remaining difference of 1.1% annually indicated to be related to time/market conditions.

QUANTITATIVE ADJUSTMENT PROCESS

Quantitative percentage adjustments are also made for location and physical characteristics such as size, location quality, access, exposure, as well as other applicable elements of comparison. Where possible the adjustments applied are based on paired data or other statistical analysis. The adjustment process is meant to illustrate the logic in deriving a value opinion for the subject property by the Land Sales Comparison Approach.

LAND SALES ADJUSTMENT DISCUSSION

The comparable land sales indicate an overall unadjusted value range from $14.45/SF to $26.86/SF, and average of $19.09/SF. After adjustments, the comparables indicate a narrower range for the subject site between $13.82/SF and $18.13/SF with an average of $15.95/SF. The adjustment process is described below.

Land Sale 1 ($17.28/SF Adjusted) – - Parking lot which adjoined a mixed use redevelopment project known as the former Drawbridge Inn. Property was purchased by the lead local developer to assemble as part of a $44 million dollar mixed use, assisted living, medical, office, retail and restaurant redevelopment project. Sold 1/13/2014 for $250,000. Parking lot has an estimated contributory value of $170,000.

This comparable is considered to be slightly superior in site size and sales do indicate that larger sites are demanding lower unit prices. As such, sale is adjusted -5% for size. Subject's location closer to the urban core and visibility along I-75 is considered to be superior to the more suburban location of the sale. However, the sale is a corner lot which is superior and offsetting with no net adjustment for location. Also, as a result of its corner location, the sale has better access than subject which is anticipated to be from one way street and an adjustment of -10% is justified when comparing the unit value of this sale to the others. Sale has a generally rectangular shape compared to subject's triangular shape. The irregular shape of subject results in a more limited developable area and sales are adjusted -10%. Sale was zoned MU which is also for mixed use development and is considered to be comparable to the subject's anticipated zoning of TUMU. Sale was improved with a paved asphalt parking lot which had contributory value of $170,000 or $3.90/SF which is the basis for the adjustment.

Land Sale 2 ($18.13/SF Adjusted) – This was the former Montgomery Inn restaurant site. This also a part of the redevelopment of the former Drawbridge Inn Site. The Drawbridge Inn site, also referred to as the Kentucky Gateway Project, is ground zero for a $44 million mixed-use redevelopment project that includes the construction of a nine-story retirement center, office building, hotel, and spaces for drive-thru restaurants. The restaurant building on this site was razed at a reported cost of $60,000 and will be redeveloped with a hotel and possible restaurant site.

Subject's location closer to the urban core and visibility along I-75 is considered to be superior to the more suburban location of the sale and -5% adjustment for location is indicated. Subject's access will be from one way street which is less desirable for a commercial use and sale is adjusted -5% for access differences. Sale has a generally rectangular shape compared to subject's triangular shape. The irregular shape of subject results in a more limited developable area and sales are adjusted -10%. Sale was zoned MU which is also for mixed use development and is considered to be comparable to the subject's anticipated zoning of TUMU.

Land Sale 3 ($13.82/SF Adjusted) – - Site fronts on Dixie Highway and I-71/75. Property has been developed as the Infiniti automobile dealership.

Subject's location closer to the urban core and visibility along I-75 is considered to be superior to the more suburban location of the sale and -5% adjustment for location is indicated. Subject's access will be from one way street which is less desirable for a commercial use and sale is adjusted -5% for access differences. Sale has a generally rectangular shape compared to subject's triangular shape. The irregular shape of subject results in a more limited developable area and sales are adjusted -10%. Sale was zoned LHU which is also for retail and commercial development and is considered to be comparable to the subject's anticipated zoning of TUMU.

Land Sale 4 ($14.56/SF Adjusted) – - Sale has frontage on I-71/75 and located along Dixie Highway. It is mostly level and has been developed as 48 parking spaces by the adjoining office building owner who purchased the site.

This comparable is the smallest of the sites and sales do indicate that larger sites are demanding slightly lower unit prices. As such, sale is adjusted -5% for size. Subject's location closer to the urban core and visibility along I-75 is considered to be superior to the more suburban location of the sale and -5% adjustment for location is indicated. Subject's access will be from one way street which is less desirable for a commercial use and sale is adjusted -5% for access differences. Sale has a relatively narrow shape compared to subject's triangular shape. The irregular shape of subject results in a more limited developable area and sale is adjusted -5%. Sale is zoned PO-1 which is primarily an office zone. For the reason that the sale lays along the highway in an area which has mixed zoning, it is considered likely that there would be flexibility in zoning for this location. As a result, a zoning adjustment is not made but rather the sale is given less emphasis in correlating the overall value.

LAND VALUE CONCLUSION

The comparables indicate a unit value, based on a general bracketing analysis, between $13.82/SF and $18.13/SF. Based on the subject's overall locational and physical features, a unit value conclusion of $15/SF is supported. Most weight was placed on Sale No.1-3 as No.4 had more limited zoning. The following table summarizes the comparable land sales analysis and applies the unit value conclusion to the site area to provide an indication of the as-vacant land value.

LAND SALES COMPARISON APPROACH CONCLUSION (SF)							
	TRANSACTION	ADJUSTMENT				NET	GROSS
	PRICE	TRANSACTIONAL[1]	ADJUSTED	PROPERTY[2]	FINAL	ADJ	ADJ
1	$26.86	5%	$28.32	(39%)	$17.28	(36%)	44%
2	$19.33	4%	$20.14	(10%)	$18.13	(6%)	24%
3	$14.45	6%	$15.35	(10%)	$13.82	(4%)	26%
4	$15.72	3%	$16.18	(10%)	$14.56	(7%)	23%
HIGH	*$26.86*	*6%*	*$28.32*	*(10%)*	*$18.13*	*(4%)*	*44%*
AVG	*$19.09*	*5%*	*$20.00*	*(17%)*	*$15.95*	*(13%)*	*29%*
MED	*$17.53*	*5%*	*$18.16*	*(10%)*	*$15.92*	*(7%)*	*25%*
LOW	*$14.45*	*3%*	*$15.35*	*(39%)*	*$13.82*	*(36%)*	*23%*
		SUBJECT SF		$/SF		VALUE	
Total Land Area		92,099	x	$15	=	$1,381,485	
INDICATED VALUE (ROUNDED TO NEAREST $5,000)				$14.98		$1,380,000	

[1]Cumulative [2]Additive

(2.3.3.2.2) SUBDIVISION DEVELOPMENT METHOD

The subdivision development method does not apply for the subject property type.

(2.3.3.3) COST APPROACH

The cost approach does not apply to the subject property.

(2.3.3.4) SALES COMPARISON APPROACH

The improved sales comparison approach does not apply to the subject property.

(2.3.3.5) INCOME CAPITALIZATION APPROACH

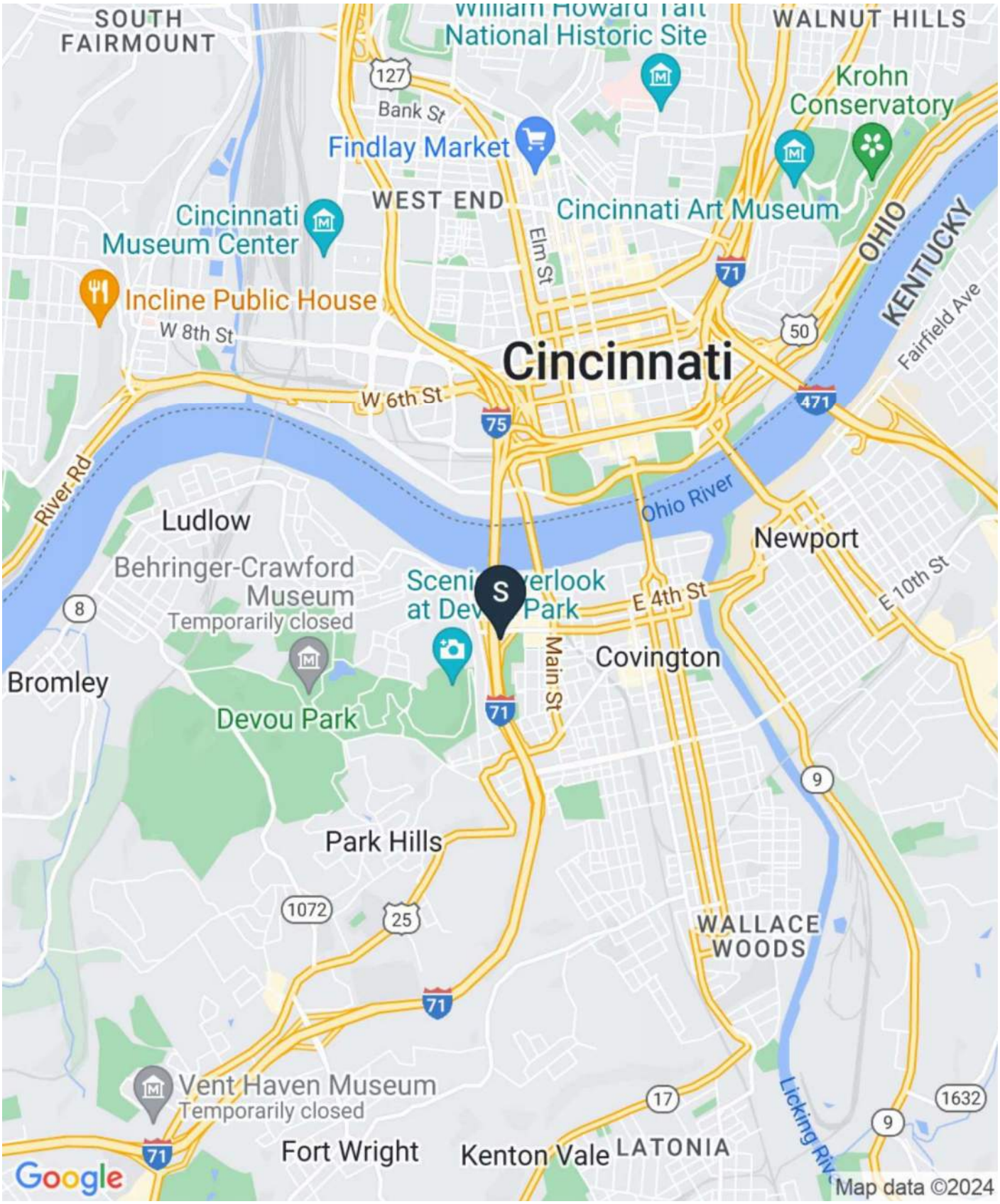
The Income Approach does not apply for the subject property type.

(2.3.3.6) RECONCILIATION AND FINAL OPINION OF MARKET VALUE

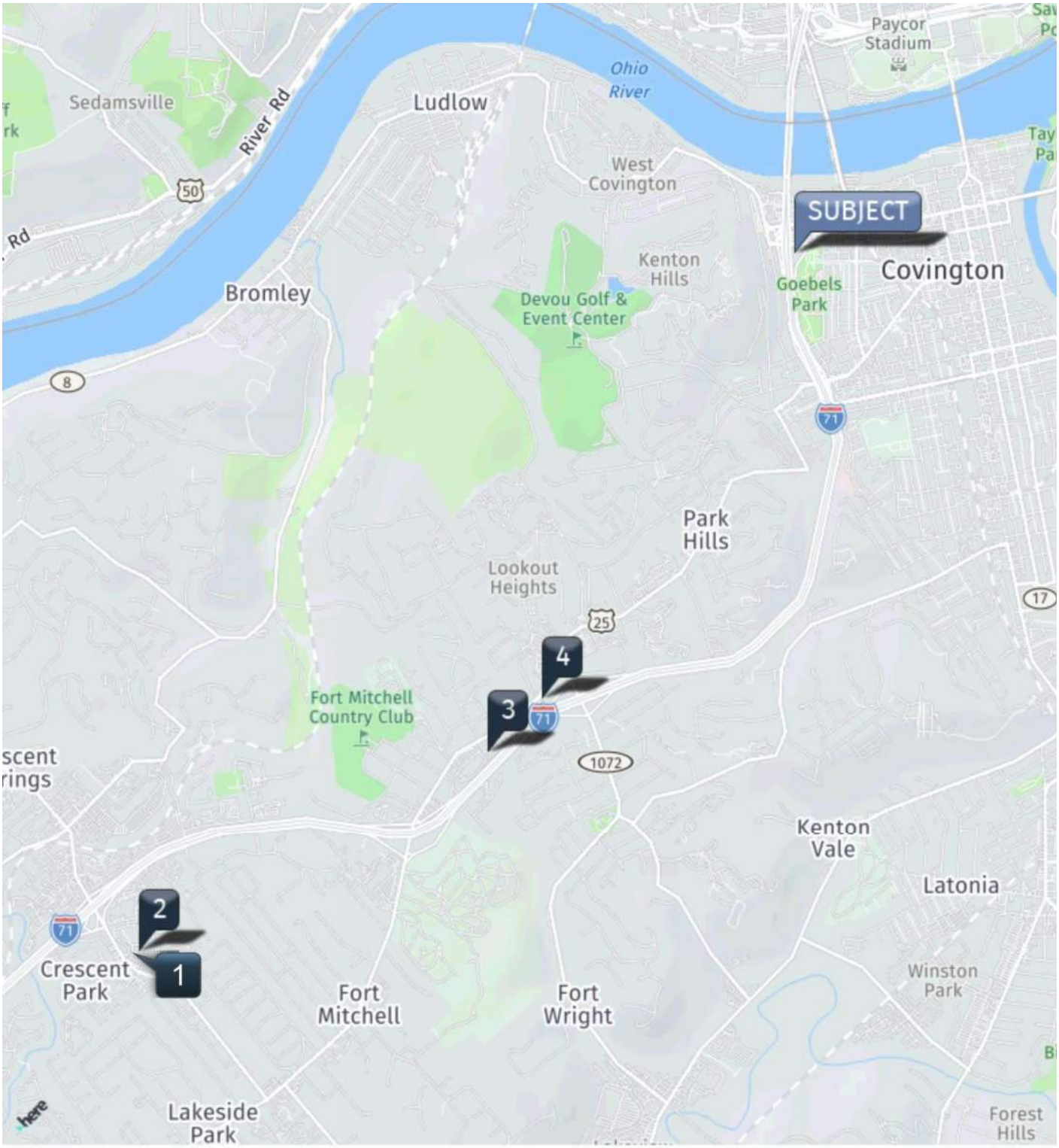
Based on the agreed upon scope with the client, the subject's specific characteristics and the interest appraised, this appraisal developed Land Sales Comparison Approach. The values presented represent the As-Is Market Value (Fee Simple Estate). After considering all factors relevant to the valuation of the subject property, the "as is" market value is as follows;

VALUE CONCLUSION	
VALUATION SCENARIOS	AS-IS MARKET VALUE
Interest	Fee Simple Estate
Effective Date	November 18, 2024
Land Value	$1,380,000
Cost Approach	Not Presented
Improved Sales Comparison Approach	Not Presented
Income Capitalization Approach	Not Presented
FINAL VALUE CONCLUSION	$1,380,000

(2.3.7) LOCATION MAP



COMPARABLE DATA MAPS



COMPARABLE	LABEL	ADDRESS	MILES FROM SUBJECT
COMPARABLE 1	1	380 Buttermilk Pike, Lakeside Park, KY, 41017	
COMPARABLE 2	2	406 Buttermilk Pike, Fort Mitchell, KY, 41017	3.8
COMPARABLE 3	3	1945 Dixie Hwy, Fort Wright, KY, 41011	2.3
COMPARABLE 4	4	1845 Dixie Hwy, Fort Wright, KY, 41011	2.1

DETAILS OF COMPARABLE SALES AND RENTAL DATA

Vacant Parking Lot in Front of Montgomery Inn

Comparable 1



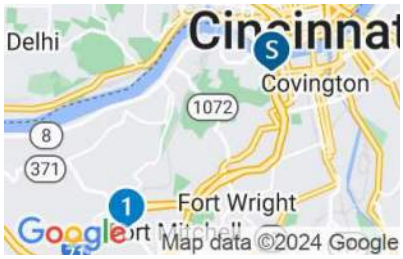
Sale Information

Buyer	MB Buttermilk, LLC	
Seller	400 BUTTERMILK PIKE LLC	
Sale Date	12/16/2019	
Transaction Status	Recorded	
Sale Price	$1,170,000	$1,170,000 /AC
Analysis Price	$1,170,000	$1,170,000 /AC
Recording Number	C 6832/0321	
Rights Transferred	Fee Simple	
Financing	Conventional	
Conditions of Sale	Arms-Length Transaction	

Property

Land Area	1 Acres (43,560 SF)
Number of Parcels	1
Zoning	MU
Shape	Generally Rectangular
Topography	Level
Corner	Yes; Signalized
Highest and Best Use	Mixed Use Development
Off-Site Improvements	Common Storm Sewer Infrastructure
Easements	No Adverse
Environmental	None Assumed
Flood Zones	Zone X (Unshaded)

380 Buttermilk Pike
Lakeside Park, KY 41017



County
Kenton

Submarket
Fort Mitchell

APN
028-10-03-014.05

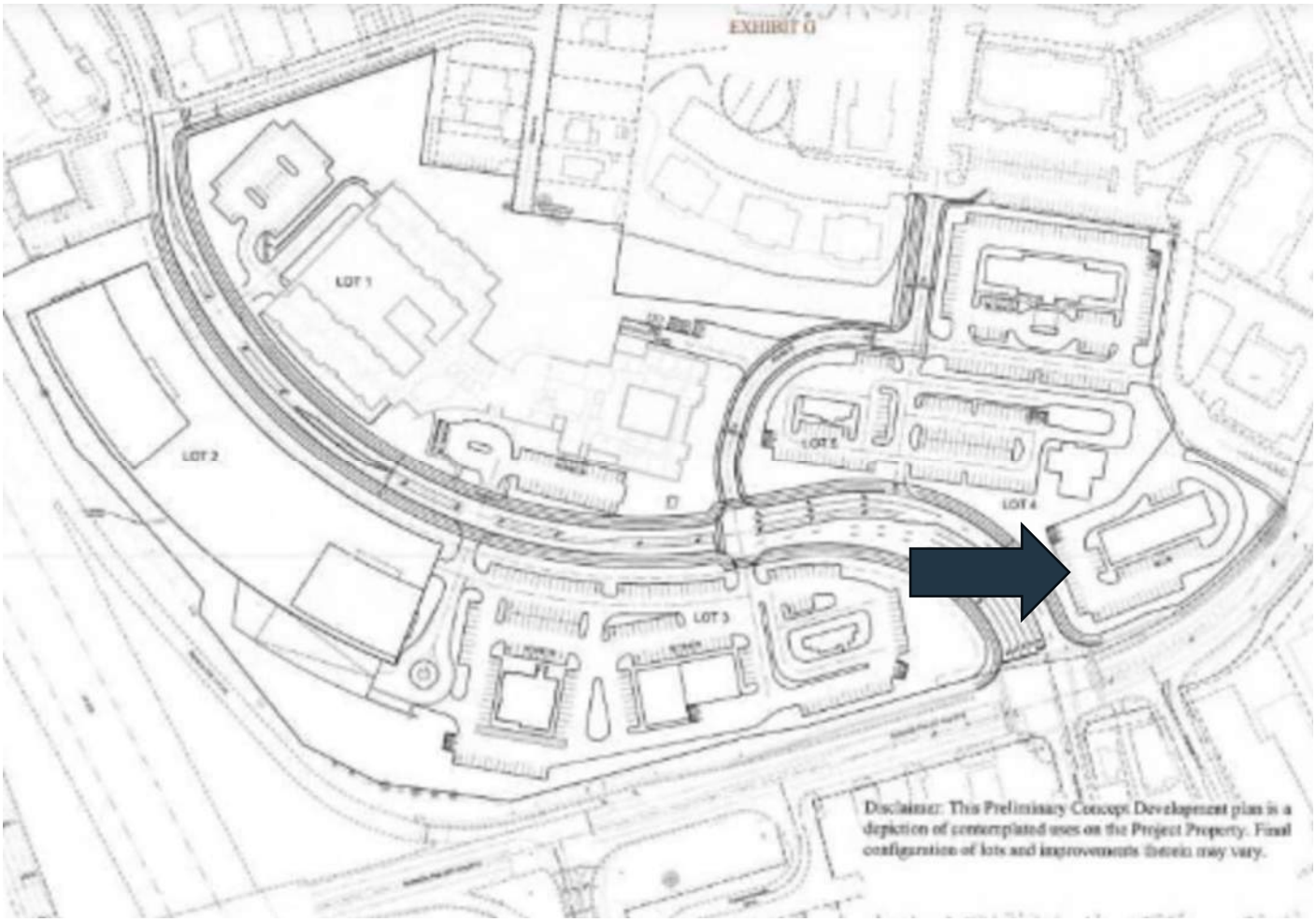
Confirmation

Name	Mike Brandi
Company	Brandicorp
Affiliation	Buyers
Date	1/12/2024

Remarks

Parking lot which adjoined a mixed use redevelopment project known as the former Drawbridge Inn. Property was purchased by the lead local developer to assemble as part of a $44 million dollar mixed use, assisted living, medical, office, retail and restaurant redevelopment project. Sold 1/13/2014 for $250,000. Parking lot has an estimated contributory value of $170,000.

PRELIMINARY DEVELOPMENT PLAN



Former Montgomery Inn Restaurant Site

Comparable 2

Sale Information

Buyer	B/FMP Land Company, LLC	
Seller	The Christ Hospital	
Sale Date	6/15/2022	
Transaction Status	Recorded	
Sale Price	$4,000,000	$19.33 /SF Land
		$842,105 /AC
Analysis Price	$4,060,000	$19.62 /SF Land
		$854,737 /AC
Recording Number	KC 171-214	
Rights Transferred	Fee Simple	
Financing	Cash to Seller	
Conditions of Sale	Arms-Length Transaction	

Property

Land Area	4.75 Acres (206,910 SF)
Number of Parcels	1
Zoning	MU
Shape	Generally Rectangular
Topography	Level
Corner	No
Highest and Best Use	Mixed Use Development
Off-Site Improvements	None
Utilities	All Public Available
Easements	No Adverse
Environmental	None Assumed
Flood Zones	Zone X (Unshaded)



406 Buttermilk Pike
Fort Mitchell, KY 41017



County
Kenton

Submarket
Fort Mitchell

APN
028-10-03-014.04

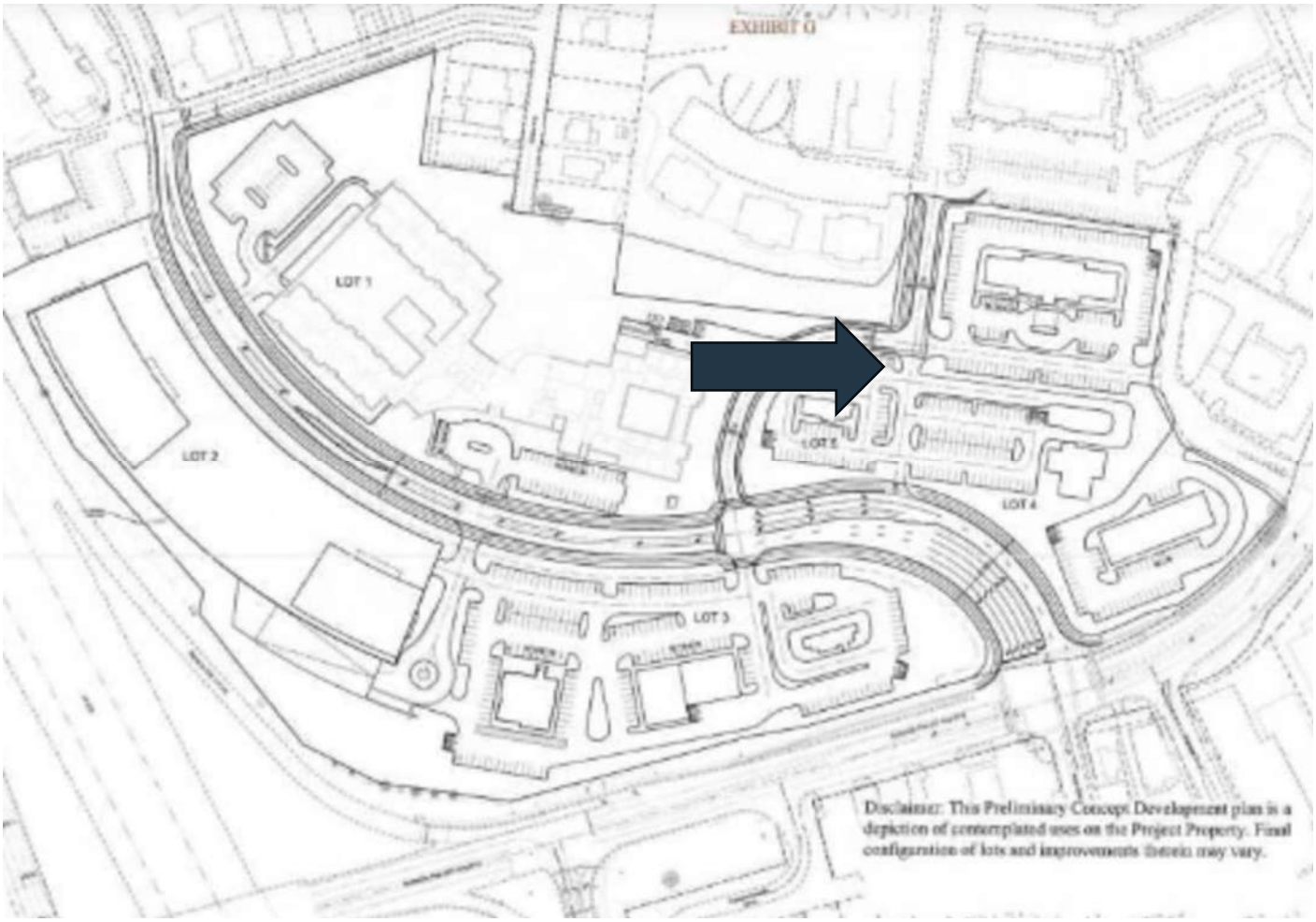
Confirmation

Name	Mike Brandi
Company	Brandicorp
Affiliation	Buyers
Date	1/12/2024

Remarks

This was the former Montgomery Inn restaurant site. This is also a part of the redevelopment of the former Drawbridge Inn Site. The Drawbridge Inn site, also referred to as the Kentucky Gateway Project, is ground zero for a $44 million mixed-use redevelopment project that includes the construction of a nine-story retirement center, office building, hotel, and spaces for drive-thru restaurants. The restaurant building on this site was razed at a reported cost of $60,000 and will be redeveloped with a hotel and possible restaurant site.

PRELIMINARY DEVELOPMENT PLAN



Infiniti Auto Dealership

Comparable 3

Sale Information

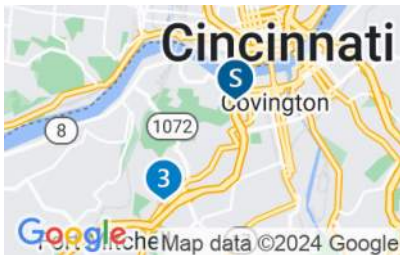
Buyer	Triple C Realty, LLC	
Seller	Hospitality Associates of Ft. Wright, LTD	
Sale Date	3/15/2019	
Transaction Status	Recorded	
Sale Price	$1,200,000	$14.45 /SF Land $629,525 /AC
Analysis Price	$1,200,000	$14.45 /SF Land $629,525 /AC
Recording Number	5966-350	
Rights Transferred	Fee Simple	
Financing	Conventional	
Conditions of Sale	Arms-Length Transaction	

Property

Land Area	1.9062 Acres (83,034 SF)
Number of Parcels	1
Zoning	LHS
Shape	Generally Rectangular
Topography	Level
Corner	No
Highest and Best Use	Commercial Development
Easements	No Adverse
Environmental	None Assumed
Flood Zones	No Flood Zones



1945 Dixie Hwy
Fort Wright, KY 41011



County
Kenton

APN
041-20-00-002.00

Confirmation

Name	Clay Greene
Affiliation	Buyer
Date	11/1/2022

Remarks

Site fronts on Dixie Highway and I-71/75. Property has been developed as the Infiniti automobile dealership.

1845 Dixie Hwy

Comparable 4

Sale Information

Buyer	Twin Quail Forest Park, LLC	
Seller	FFF Holdings, LLC	
Sale Date	3/25/2022	
Transaction Status	Recorded	
Sale Price	$540,800	$15.72 /SF Land
		$684,557 /AC
Analysis Price	$540,800	$15.72 /SF Land
		$684,557 /AC
Recording Number	0155-585	
Rights Transferred	Fee Simple	
Conditions of Sale	Arms-Length Transaction	

Property

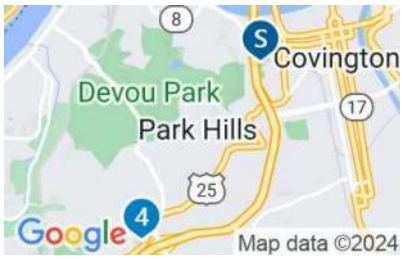
Land Area	0.79 Acres (34,412 SF)
Number of Parcels	1
Zoning	PO-1
Shape	Generally Rectangular
Topography	Rolling
Corner	No
Highest and Best Use	Professional Office
Easements	No Adverse
Flood Zones	No Flood Zones



1845 Dixie Hwy
Fort Wright, KY 41011

County
Kenton

APN
041-20-00-009.00



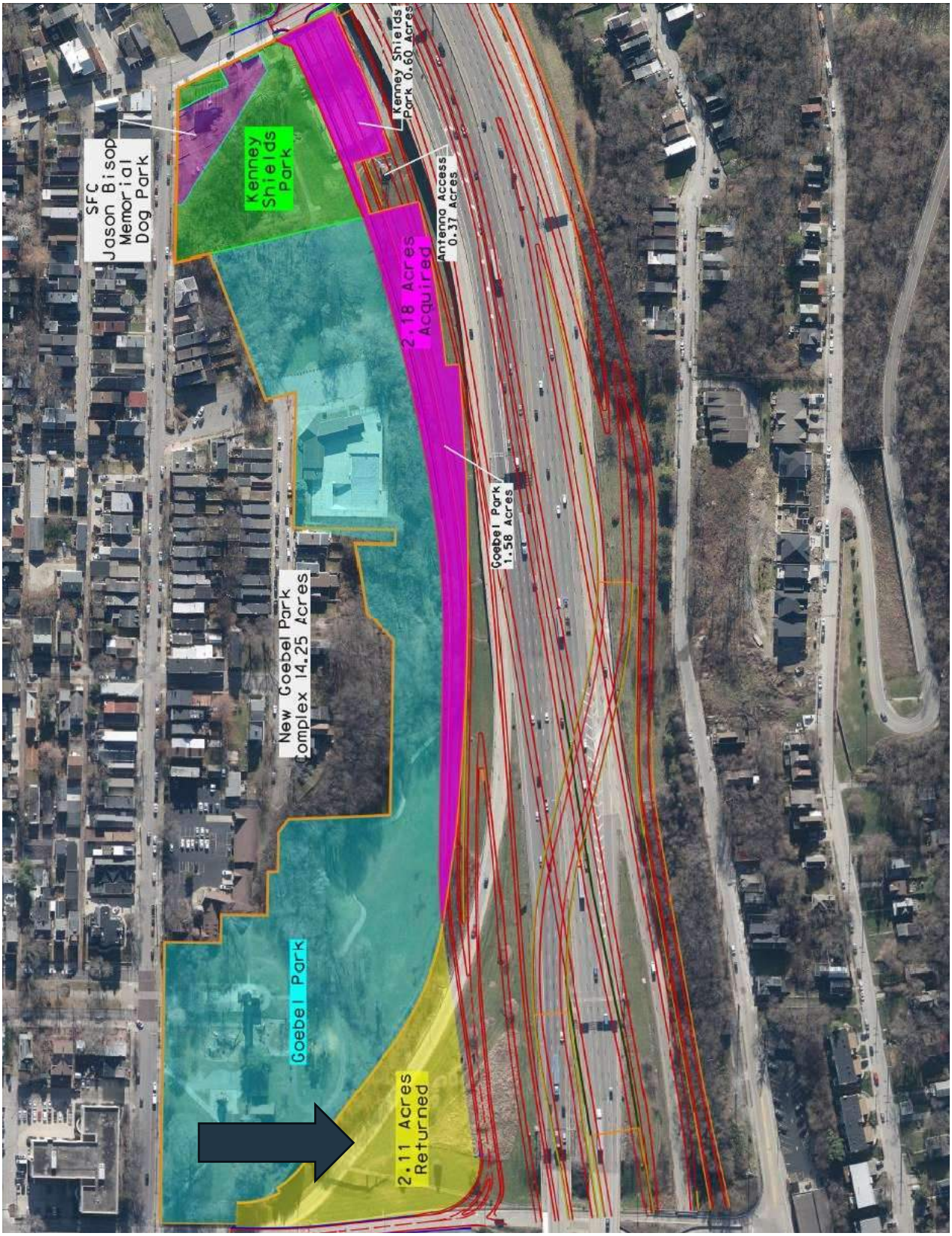
Confirmation

Name	Teresa Clay, Deed, PVA Buyer Rep, Property Manager
Date	11/1/2022

Remarks

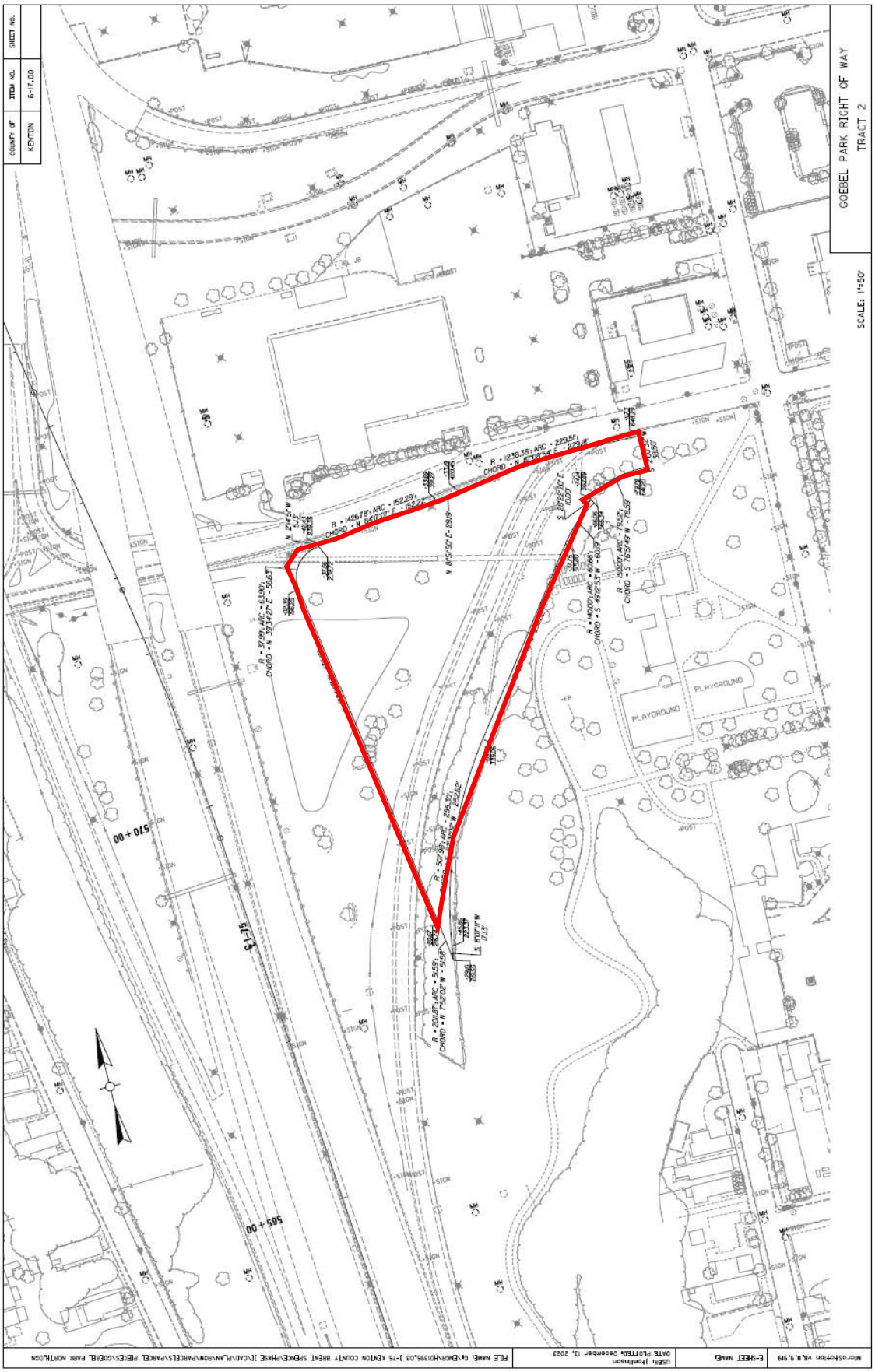
Sale has frontage on I-71/75 and located along Dixie Highway. It is mostly level and has been developed as 48 parking spaces by the adjoining office building owner who purchased the site.

PLOT PLAN



There are minor differences in the acquisition area and replacement property shown on this exhibit. The appraisal has been based on the provided written legal descriptions contained in the addenda with the Goebel Park Contribution being 2.181 acres and the replacement property being 2.114 acres.

GOEBEL PARK REPLACEMENT PROPERTY



FLOOR PLAN

The property is unimproved.

TITLE EVIDENCE REPORTS

A title was not available for this assignment.

OTHER EXHIBITS

QUALIFICATIONS OF THE APPRAISER

William L. Berkley, Jr.

Professional Affiliations:

- General Certification - Kentucky Real Estate Appraisers Board No.721.

- Appraisal Institute.
  Candidate No: M90-0111.
  Past Treasurer & Secretary - Bluegrass Chapter of Appraisal Institute

- Licensed Real Estate Broker in the State of Kentucky

- Member of the International Right of Way Association

Education:

- Graduated: University of Kentucky,
  BS in Business Administration, Finance Major.
  Courses include Real Estate Principles, Real Estate Finance, Independent Study in Real Estate, Statistical Inference, Statistical Probability.

- Graduated: Lexington Community College,
  Associate of Applied Science, Real Estate Major.
  Courses include Real Estate Appraisal, Real Estate Principles, Real Estate Marketing I & II, Real Estate Law, Real Estate Finance, Real Estate Investment, Real Estate Property Management.

- Course work through the Appraisal Institute: Real Estate Appraisal Principles, Capitalization A, Capitalization B, Advanced Applications, Report Writing and Valuation Analysis, Uniform Standards of Professional Practice, Fundamentals of Rural Appraisal.

- Seminars through the Appraisal Institute: Uniform Standards for Federal Land Acquisition, USPAP Update, Site to Do Business, Attacking & Defending an Appraisal for Litigation, Appraisal Practices for Litigation, Easement Valuation, Subdivision Analysis, Understanding Limited Appraisals, Highest and Best Use Analysis, Dynamics of Office Building Valuation, Money Market, Appraising From Blueprints and Specifications, Reviewing Appraisals, Evaluating Residential Construction, Survey Research Techniques, Appraising Troubled Properties, Applied Sales Comparison Approach, Appraisal Regulations of the Federal Banking Agencies, Farm Valuation, Accrued Depreciation, Cash Equivalency, Rates, Ratios & Reasonableness.

Experience:

Full time career in appraising commercial, industrial, multi-family, subdivisions, easement, condemnation, conservation easements, farm, and multi-family residential properties. Owner and manager of investment property. Commissioner Lexington Fayette Urban County Planning Commission 2011-2019.

RECENT APPRAISAL CLIENTS:

Financial Institutions:

Traditional Bank, Republic Bank, Fifth Third Bank, Traditional Bank, BB&T, City National Bank, PNC Bank, Huntington National Bank, Bank of Kentucky, Heritage Bank, Central Bank & Trust Company, Bank One (JP Morgan Chase). Non-bank lender clients include; Law firm of White, Peck & Carrington; Law firm of Greenbaum, Doll & McDonald; Law Firm of Stoll, Keenon & Park; Law Firm of Wethington, Hurt & Crosby; Law Firm of McBrayer, McGinnis & Kirkland; Law firm of Deters, Benzinger & Lavelle; Law Firm of Adams, Stepner, Woltermann & Dusing.

Governmental, Utilities, & Railroads:

Commonwealth of Kentucky Department of Transportation - Right of Way and Legal Departments, Tennessee Valley Authority (TVA), Commonwealth of Kentucky Real Property Division, Columbia Gas of Kentucky, Kentucky American Water Company, East Kentucky Power Cooperative, Kentucky Utilities Company, Sanitation District No.1, CSX Real Property, Norfolk Southern Railroad, United States Postal Service, General Services Administration, University of Kentucky, Morehead State University, Northern Kentucky University, Eastern Kentucky University, Lexington Fayette Urban County Government, Lexington Fayette County Airport Board.

APPRAISED FOR:

Full Range of Commercial Properties, Multi-Family Residential, Subdivision Development, General and Horse Farms, Condemnation cases for both Plaintiff and Defendant, Tax & Divorce Cases, Gas, Water & Electric Utility Companies, Kentucky Department of Highway Projects, Conservation Easements, Partition of Real Property, Urban Renewal, and Major Industrial Properties.

QUALIFIED AS EXPERT IN REAL ESTATE VALUES:

Federal Bankruptcy Court Eastern Division State of Kentucky. Testified in Bankruptcy Court.

Qualified as Expert Witness in Circuit Court. Testified in condemnation and damage proceedings.

Review Appraiser Status – Commonwealth of Kentucky

In the name and by the Authority of the

Commonwealth of Kentucky

Kentucky Real Estate Appraisers Board

Hereby grants a/an Certified General Real Property Appraiser

To William L Berkley
366 Waller Ave., Ste. 203 Lexington KY 40504

who has complied with the provisions of Chapter 324A of the Kentucky Revised Statutes IN WITNESS WHEREOF, we have caused the official seal to be fixed and attested for the year shown below.

/s John Dexter Outlaw

Chair

License Number: 721
Issue Date: June 26, 1992
Expire Date: July 1, 2025

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

MICHAEL E. BERRY
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

October 12, 2022

Mr. Daniel Peake, Director
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40622

Re: *Phase I Cultural Resources Investigation I-75 Brent Spence Bridge Project, Kenton County, Kentucky (Item No. 6-17.00)* by Duane Simpson, Amber Stimpson, Elise Hargiss, and Michael Loughlin
KYTC Item No. 6-17.00

Dear Mr. Peake,

Thank you for the digital submission of the above-referenced revised archaeology report. Concurrent review between Carl Shields (KYTC) and Patti Hutchins (KHC) was completed with the result that the report was accepted without comment. The report details the findings of an archaeological survey covering approximately 20.9 acres, of which 1.3 acres were located on land and 19.6 acres were located within the active channel of the Ohio River. Methods included pedestrian survey, shovel testing, and auger testing along the terrestrial portion, and multibeam sounding and side scan sonar along the marine portion. No new archaeological sites were identified during the survey. The KYTC requests concurrence with a finding of No Historic Properties Affected. We concur with a finding of *No Historic Properties Affected*.

Should you have any questions or concerns, please do not hesitate to contact Patti Hutchins of my staff via email at patricia.hutchins@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director and
State Historic Preservation Officer

KHC # 66166
CP/peh

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

MICHAEL E. BERRY
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

November 17, 2022

Mr. Daniel R. Peake
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street Frankfort, KY 40622

Re: Revised Cultural Historic Survey for the Brent Spence Bridge Project in Covington, Kenton County, Kentucky
KYTC Item No. 6-17

Dear Mr. Peake,

Thank you for your digital submission of the revised Cultural Historic Survey and survey forms for the above-listed project which is pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f) and implementing regulations at 36 C.F.R. Part 800.

Our office understands that the above proposed project involves an eight-mile interstate widening project between Dixie Highway in Kentucky and Ezzard Charles Drive in Ohio, with approximately six miles of the project in Kentucky. We understand that the project also includes the construction of a new companion bridge adjacent to the existing Brent Spence Bridge, reconstructed interchanges and overpasses, new frontage roads, upgraded drainage facilities, relocated utilities, expanded sidewalks and new multiuse facilities, retaining walls, and noise walls are also proposed. We understand that a total of 214 historic-age resources within the area of potential effects were identified: Ninety-seven were previously documented while 117 were newly recorded. Five previously National Register (NR) listed historic districts and two newly recommended historic districts were identified within the APE.

We understand FHWA/KYTC's eligibility and effects determinations as outlined in Tables #1, #2, #3, and #4 of your November 7, 2022 letter. We also understand that FHWA/KYTC has proposed a revised NR boundary for Bavarian Brewing Co./Kenton Co. Govt. Center (KECL-815) that will expand to encompass the original bottling works (KEC-462), now Glier's Goetta, and eliminate the parking lots on the east and west sides from the NR boundary. We also understand that an expansion for the West Side/Main Strasse Historic District (KE-09) to the south of the existing district has been proposed. The following sites are recommended for the expansion: KEC-462; KECL-815; KEC-626; KEC-1013; and KECL/KEC-918.

We understand that KYTC has determined that the project will have an Adverse Effect due to the impacts to the NRHP-listed Lewisburg Historic District and its contributing resources. We understand from the report that several properties including National Register-listed contributing elements FS 209/KECL-115 and FS 213/KECL-136 will need to be acquired and demolished. Additionally, strip takings from the eastern property boundaries of National Register-listed contributing elements FS 210/KECL-117, FS 211/KECL-119, and FS 214/KECL-137 will also be required. The paved portion of the interstate and/or local roads will also be placed generally closer to the district and the undertaking will encroach on the eastern National Register boundary and require its narrowing around Bullock, 11th, and 12th Streets.

Based on our review, our office agrees with the eligibility findings as outlined in your November 7th, 2022 letter and with the NRHP boundary modifications and as a result, **Concur** with your eligibility determinations and finding of **Adverse Effect.**

We would like to thank FHWA, KYTC and the design team for their efforts to avoid impacts to the West Side/Mainstrasse Historic District. We look forward to continued consultation as the MOA is developed. Should you have any questions, please feel free to contact Matt Yagle of my staff at matthew.yagle@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director and State Historic Preservation Officer

CP: my, KHC #220186; 66015
CC: Stephanie Lechert (KYTC-DEA)

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

March 27, 2023

Mr. Craig Potts
Executive Director and
State Historic Preservation Officer
410 High Street
Frankfort, KY 40601

SUBJECT: Proposed Archaeological Monitoring Revisions
Brent Spence Bridge Project
Kenton County, Kentucky
KYTC Item Number 6-17.00

Dear Mr. Potts,

The Kentucky Transportation Cabinet, on behalf of the Federal Highway Administration is submitting for your staff's review and concurrence proposed revisions to archaeological monitoring areas outlined as stipulated in the project MOA (attached). This letter details a desktop review of the archaeological monitoring areas conducted between our offices in Spring 2022.

Following the approval of the initial Phase I archaeological survey of the project in 2012, archaeological monitoring was recommended for 19 parcels that were inaccessible due to coverage from parking lots or other impediments. A signed project MOA in 2012 addresses Section 106 concerns, including a stipulation for archaeological monitoring of these parcels. In 2022, refinements to the Preferred Alternative in resulted in the general reduction of the project's footprint, and therefore a reduction in the number of parcels needing archaeological monitoring. As part of these refinements to the Preferred Alternative, additional ROW was expanded in the parcel that includes the parking lot of the Kenton County Government Offices.

A desktop review of the revised monitoring areas was conducted between Carl Shields of my staff and Patricia Hutchins of your staff in Spring 2022. This desktop review entailed an examination of available historic mapping, detailed Sanborn maps, high resolution aerial photographs, and KYTC engineering plans for the initial construction of I-75. This review considered areas that were previously disturbed as well as areas that may not be disturbed and have the potential to contain archaeological sites eligible for listing on the National Register of Historic Places. Following this review, two possibly undisturbed areas that may have archaeological potential within the revised monitoring areas and additional ROW were identified. These areas may contain archaeological remnants of residential structures adjacent to the Bavarian Brewing Company. These areas are both located within the parking lot of the Kenton County Government Offices

Attached to this letter are maps that identify the original monitoring areas, revised monitoring areas, additional ROW, and final monitoring areas based upon the desktop review. We recommend the monitoring of two areas, identified as Final Monitoring, both located within parking lot of the Kenton County Government Offices. If access to these areas is granted prior to construction, then archaeological investigations should occur at that time.

All other stipulations for archaeology within the project MOA have been met. A report that documented the results of Phase I survey of four discontinuous parcels that were not previously surveyed, the results of deep testing along the Ohio River, and side-scan sonar survey was approved by your office on October 12, 2022 (letter attached). No archaeological sites were documented in any of these efforts, and the authors recommend no additional investigation. This office agreed with these recommendations. Your office concurred with these recommendations and provided a No Historic Properties Affected letter. Because archaeological work is still pending, this office could not recommend a finding of No Historic Properties Affected.

We ask for your concurrence with the recommended revisions to archaeological monitoring. Two areas, both located within the parking lot of the Kenton County Government Offices, are identified as Final Monitoring on the attached mapping. These areas should be monitored by archaeologists during construction. If access to these areas is granted prior to construction, then archaeological investigations should occur at that time.

We also ask for concurrence there were no sites eligible for listing on the National Register of Historic Places and that this agency has met the other stipulations for archaeological resources outlined in the project MOA.

Should you have any questions, please contact Carl Shields of my staff at Carl.Shields@ky.gov.

Sincerely,

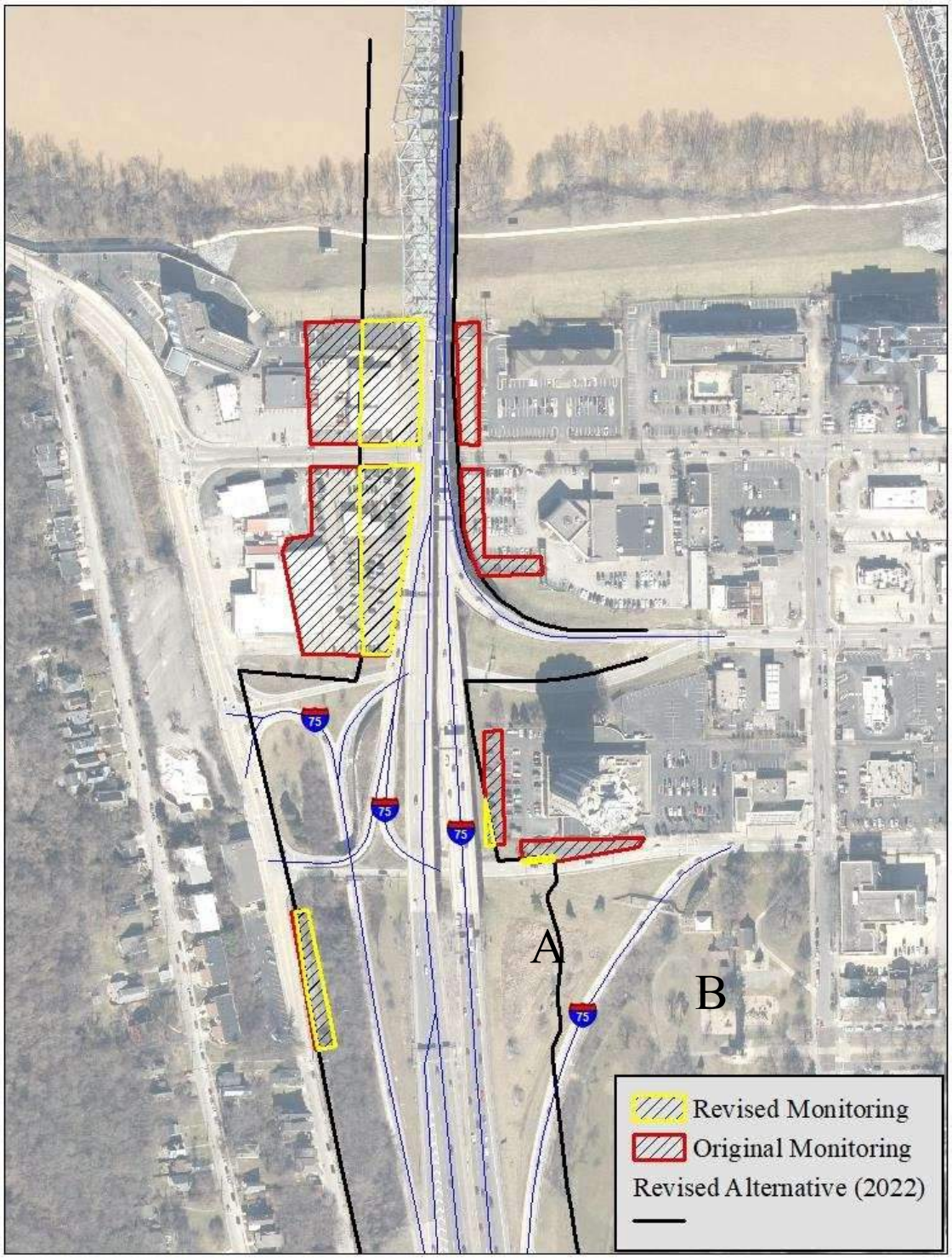
Daniel R Peake

Daniel R. Peake, Director
Division of Environmental Analysis

DRP/crs
enclosures
c: Stacee Hans
Scott Schurman
Mour Diop (FHWA)
Ann Perkins

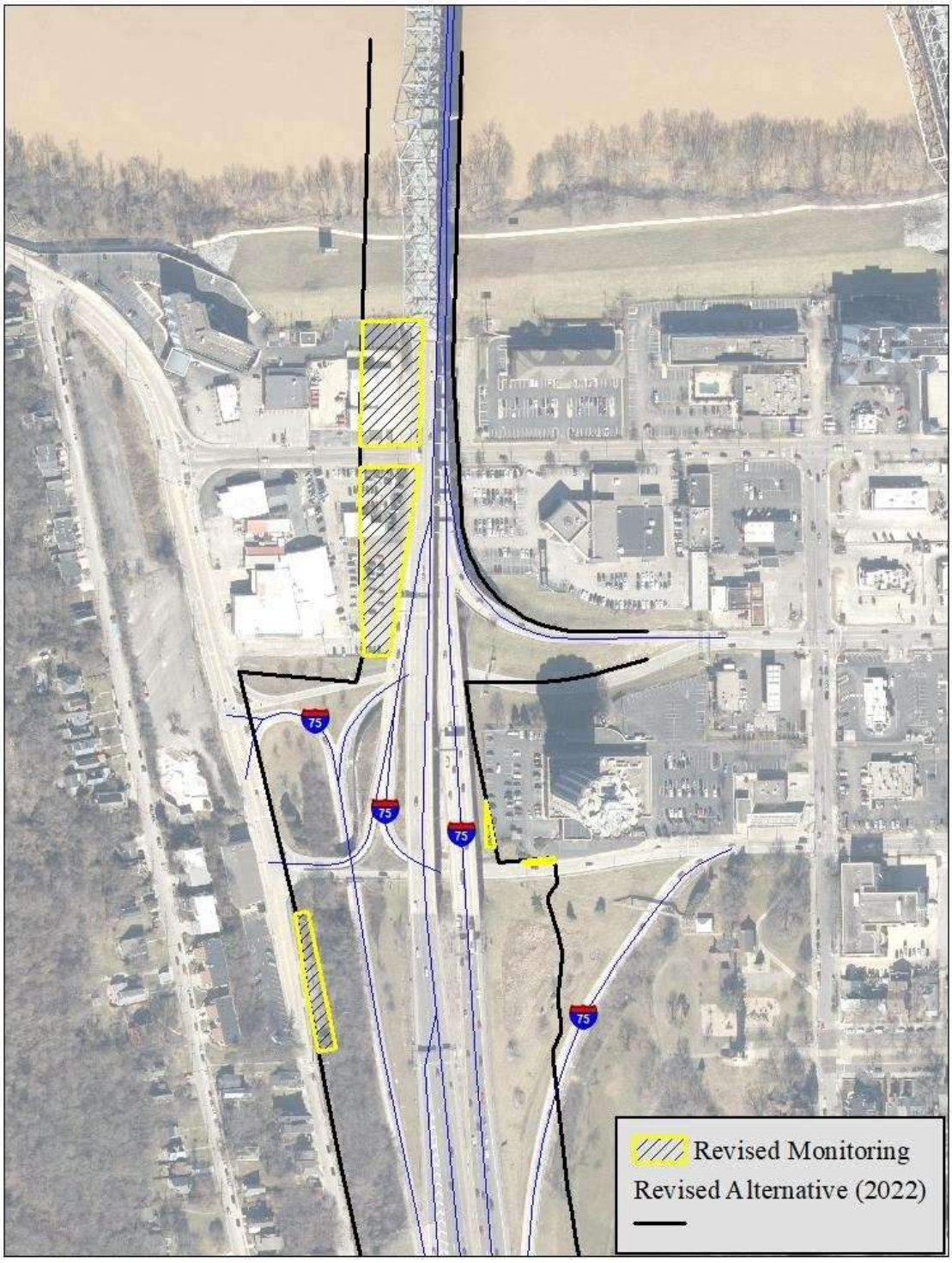


Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint, additional right-of-way (ROW) and monitoring areas.

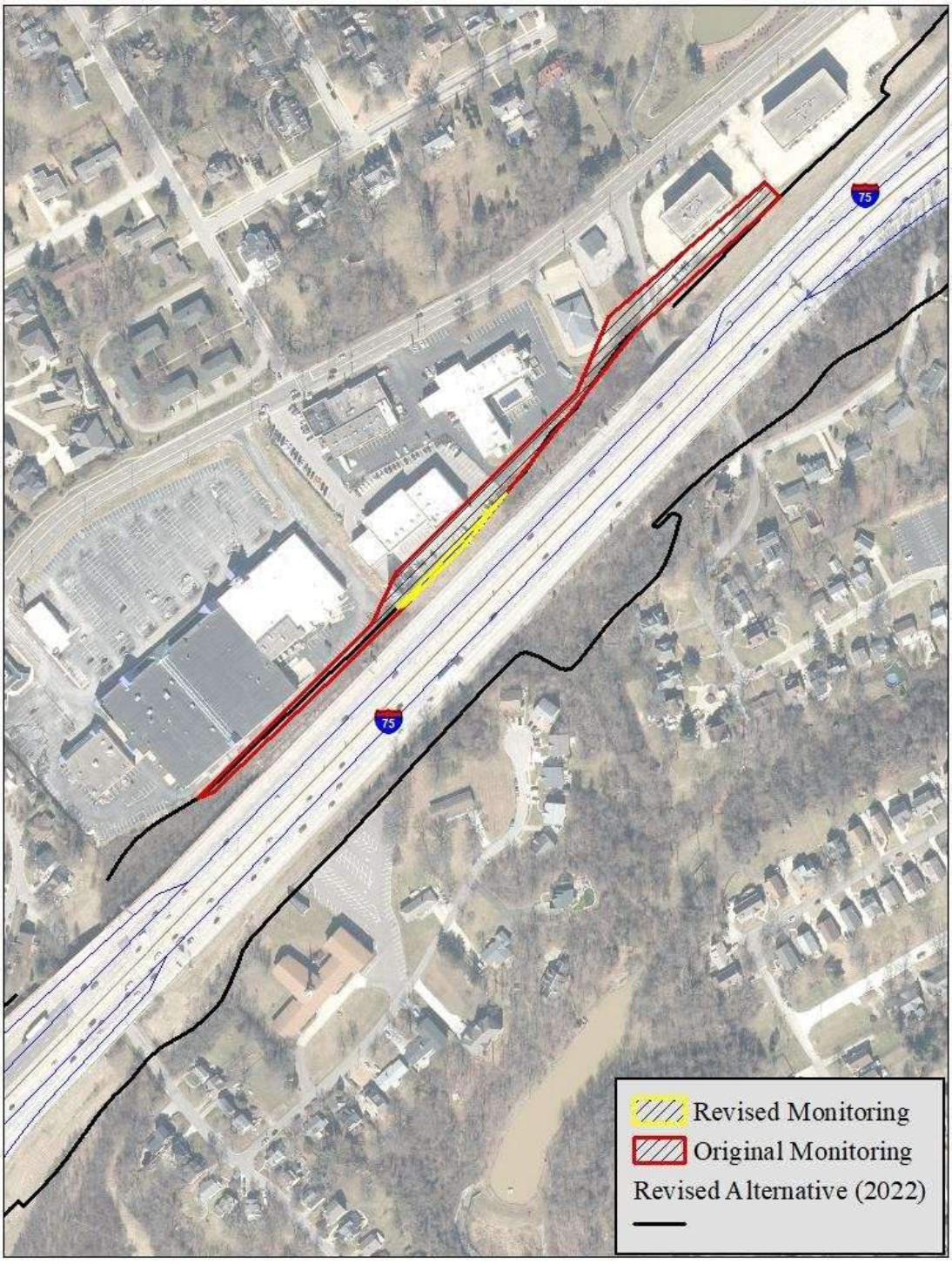


Northern end of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint and original (Red) and revised (Yellow) monitoring areas.

8/2023 - For reference, A is the proposed replacement property. B is Goebel Park. (JH)



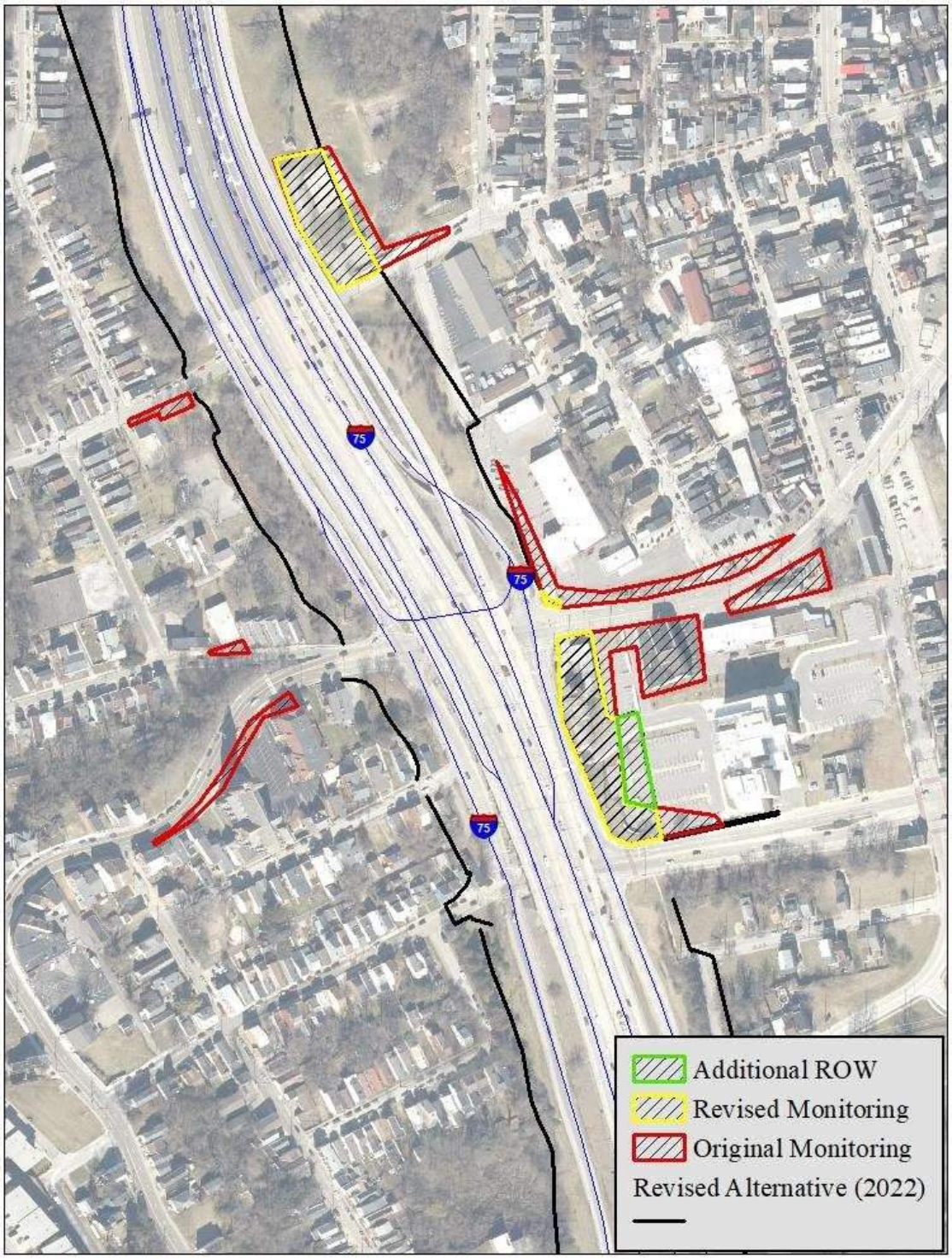
Northern end of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint and only the revised (Yellow) monitoring areas.



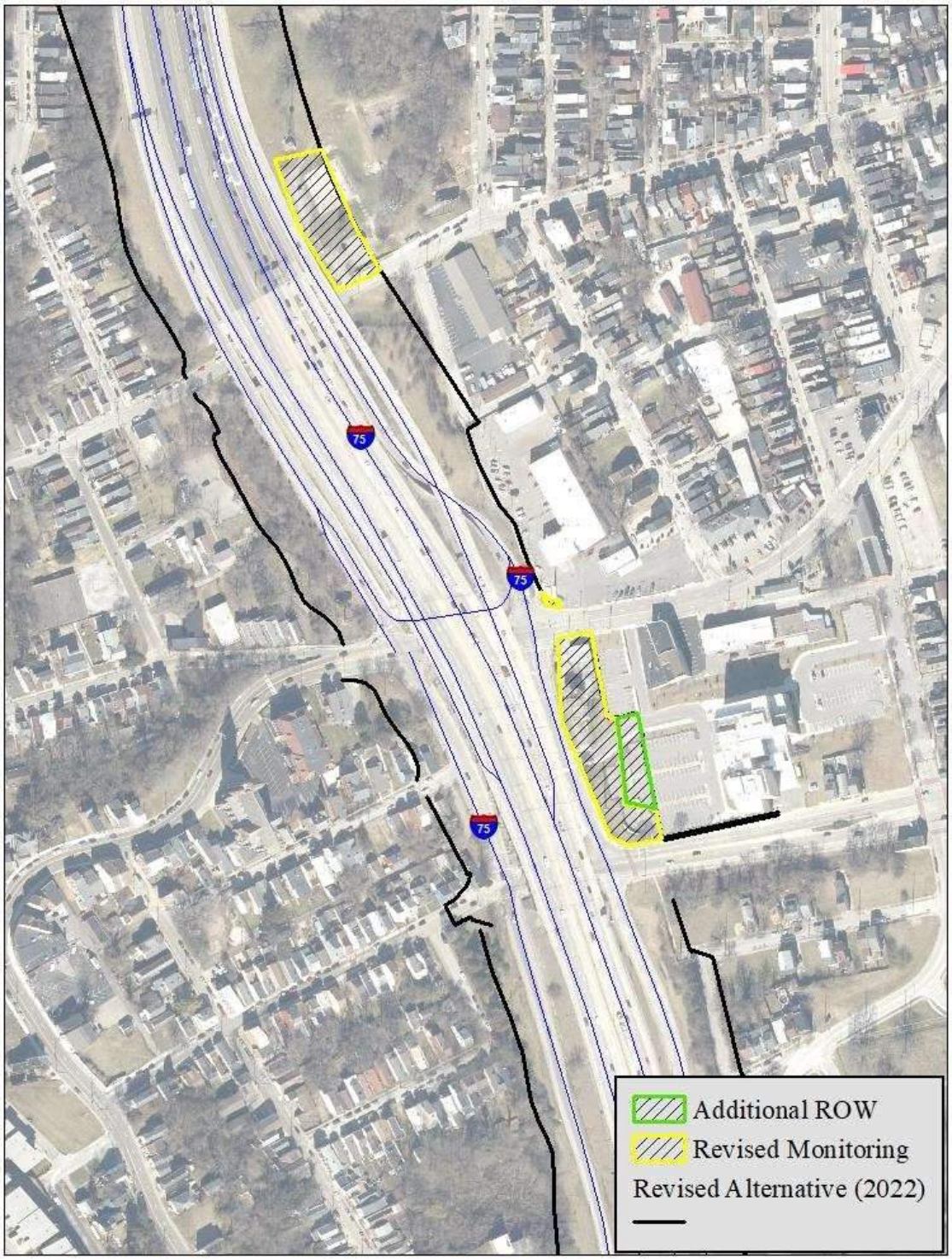
Southern end of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint and original (Red) and revised (Yellow) monitoring areas.



Southern end of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint and only the revised (Yellow) monitoring areas.



Central portion of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint that includes additional ROW (Green) and original (Red) and revised (Yellow) monitoring areas.



Central portion of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint that includes additional ROW (Green) and revised (Yellow) monitoring areas.

.



Close-up of the Central portion of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint that includes additional ROW (Green) and revised (Yellow) monitoring areas on a 2022 aerial.



Close-up of the Central portion of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint that includes additional ROW (Green) and revised (Yellow) monitoring areas on a 1949 Sanborn map.



Close-up of the Central portion of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint on a 1949 Sanborn map. Potentially undisturbed areas that may have archaeological potential within the revised monitoring areas and additional ROW are identified as Final Monitoring (Orange).



Close-up of the Central portion of the Brent Spence Bridge Project (6-17 Kenton) within Kentucky showing the current project footprint on a 2022 aerial photography. Potentially undisturbed areas that may have archaeological potential within the revised monitoring areas and additional ROW are identified as Final Monitoring (Orange).

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

December 15, 2022

Laura S. Leffler
Ohio Division Administrator
Federal Highway Administration
200 North Hight Street, Room 328
Columbus, Ohio 43215

Re: FWS 2022-0055658; Brent Spence Bridge Corridor Project in Kenton County, Kentucky and Hamilton County, Ohio; KYTC Item Number 6-17 and ODOT PID Number 116649

Dear Laura S. Leffler:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) and Ohio Field Office (OHFO) have reviewed the above-referenced project information and request for concurrence received on November 16, 2022. The KFO, as the lead Service office for this Endangered Species Act (ESA) consultation, offers the following comments in accordance with ESA of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq*.).

Project Description
According to the information provided, the proposed project involves the reconstruction of 7.8 miles of I-71/I-75 including the construction of a new companion bridge to the existing Brent Spence Bridge over the Ohio River in Kenton County, Kentucky and Hamilton County, Ohio. Specifically, the project would include construction of a new bridge, addition of one interstate lane in each direction, rehabilitation to the existing bridge, construction of overpass bridges and interchanges, and construction/improvements to drainage systems. Impacts to the landscape include typical road construction activities, tree removal for construction access, disturbance to the Ohio River, and grading to allow for proper drainage.

Federally Listed Species
The Federal Highway Administration (FHWA) has determined that the proposed action has the potential to affect the gray bat *(Myotis grisescens)*, Indiana bat *(Myotis sodalis)*, northern long-eared bat (NLEB), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), orangefoot pimpleback (*Plethobasus cooperianus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Quadrula cylindrica cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Epioblasma obliquata*), spectaclecase (*Cumberlandia monodonta*), northern riffleshell *(Epioblasma torulosa rangiana*),

sheepnose (*Plethobasus cyphyus*), and snuffbox (*Epioblasma triquetra*). Service comments regarding these species and potential adverse effects are provided below.

Gray Bats

Ohio Comments

Gray bat was not identified as being within the area of influence of the Ohio portion of the proposed project; therefore, this species was not addressed in the BA specific to Ohio impacts. FHWA did not make an effects determination for gray bat within the Ohio portion.

Kentucky Comments

Field assessments within the Kentucky portion concluded that no caves or karst features suitable for summer or winter gray bat roosting would be affected by the proposed project. Therefore, the proposed project is not likely to impact gray bat hibernacula or roosting habitat.

The Kentucky Transportation Cabinet (KYTC) utilized the processes identified in the Federal Highway Administration Kentucky Division's 2020 Programmatic Consultation on the effects of transportation projects on the gray bat to evaluate potential adverse effects on foraging and commuting habitat for the gray bat. The KFO agrees with the results from the ESA compliance process, and we concur with the FHWA's determination that the proposed action may affect but is not likely to adversely affect the gray bat within the Kentucky portion of the proposed project.

Indiana Bats

Ohio Comments

Potential impacts to the Indiana bat and NLEB were assessed by the Ohio Department of Transportation (ODOT) in accordance with the *Framework Programmatic Biological Opinion* (OHPBO) issued to ODOT on February 29, 2016 and revised on December 12, 2017 (https://www.dot.state.oh.us/environmental-services/manuals_guidance1/Ecological/RelevantAgreements/Indiana%20Bat%20and%20Northern%20Long-Eared%20Bat%20Programmatic%20Agreement%20January%202018.pdf). We understand the project is expected to clear 15.80 acres of suitable wooded habitat for the Indiana bat in Ohio. However, all habitat to be impacted is located within 100 feet from the edge of existing pavement. These impacts, given ODOT's commitment to clear trees only during the bat's inactive season (i.e., October 1 through March 30), meet the criteria for Consultation Category 1 (CC1) in the OHPBO. ODOT determined that CC1 projects may affect but are not likely to adversely affect the Indiana bat and NLEB. The Service (OHFO) concurred with ODOT's determination within the OHPBO. Therefore, the OHFO concurs with FHWA's determination that the proposed project may affect but is not likely to adversely affect the Indiana bat within the Ohio portion of the proposed project.

Kentucky Comments

Based on the information provided in the BA, no impacts to suitable winter habitat for this species is likely to occur. However, the proposed project requires removal of approximately 74.2 acres of "potential" forested habitats for the Indiana bat. KYTC believes that this species is reasonably certain to utilize forested habitat within the project area, and has determined that the action "may affect, is likely to adversely affect" the Indiana bat. KYTC proposes to account for

potential adverse effects to the Indiana bat and its habitat through the processes identified in the FHWA Kentucky Division's 2020 Programmatic Consultation and accompanying biological opinion on the effects of Kentucky transportation projects on the Indiana bat. The Service concurs with the FHWA's effects determination that the proposed project may affect and is likely to adversely affect the Indiana bat within the Kentucky portion of the proposed project. The KFO agrees with the proposed ESA compliance process to address Indiana bats within the Kentucky portion of the project.

Northern Long-eared Bats

Ohio Comments

Potential impacts to the NLEB were assessed by ODOT in conjunction with the process and analysis discussed previously for Indiana bats (see Ohio Comments above). Therefore, the OHFO concurs with FHWA's determination that the portion of the proposed project within Ohio may affect but is not likely to adversely affect the NLEB.

Kentucky Comments

Within the Kentucky portion of the proposed project, this project may affect the NLEB, but with no effects beyond those previously evaluated in the Service's programmatic biological opinion for the NLEB final 4(d) rule dated January 5, 2016 (FWS Log# 03E00000-2016-F-0001). Any taking that may occur incidental to this project is not prohibited under the final 4(d) rule (50 CFR §17.40(o)). Therefore, the KYTC/FHWA may fulfill its responsibilities under ESA section 7(a)(2) relative to the NLEB for this project by requesting reliance on the Service's programmatic biological opinion for the 4(d) rule.

Federally Listed Mussels

Joint Office Comments (KFO and OHFO)

In July 2022, Stantec Consulting Services and HMB performed a presence/absence survey for federally listed mussel species within the project area of the Ohio River. The survey followed the *Ohio Mussel Survey Protocol* issued by the Ohio Department of Natural Resources and OHFO in April 2022. Although 905 mussels belonging to twenty species were encountered during the survey, no federally listed species were found. Therefore, The Service concurs with FHWA's determination that the proposed project may affect but is not likely to adversely affect any of the aforementioned federally listed mussel species.

Conclusion

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 46110 or Phil_DeGarmo@fws.gov.

Sincerely,

VIRGIL ANDREWS

Digitally signed by VIRGIL ANDREWS
Date: 2022.12.15 18:52:55 -05'00'

Virgil Lee Andrews, Jr.
Field Supervisor

cc: Mour Diop, FHWA, Frankfort
Andrew Logsdon, KYTC, Frankfort
Timothy Long, FHWA, Columbus
Karen Hallberg, USFWS, Columbus

Andy Beshear
Governor

OFFICE OF THE GOVERNOR
DEPARTMENT FOR LOCAL GOVERNMENT
100 AIRPORT ROAD, THIRD FLOOR
FRANKFORT, KENTUCKY 40601
PHONE (502) 573-2382
FAX (502) 227-8691
www.kydlgweb.ky.gov

Dennis Keene
Commissioner

September 5, 2023

Mr. Benjamin Oldiges
City of Covington
20 West Pike Street
Covington, KY 41011

RE: Brent Spence Bridge Corridor Project
SAI# KY202308171358
CFDA# 20.205

Dear Mr. Oldiges:

The Kentucky State e-Clearinghouse is the official designated Single Point of Contact (SPOC) for the Commonwealth pursuant to Presidential Executive Order 12372, and supported by Kentucky Statutes KRS 45.031. The primary function of the SPOC is to streamline the review aforementioned process for the applicant and the funding agency. This process helps in vocalizing the statutory and regulatory requirements. Information in the form of comments, if any, will be attached to this correspondence.

This proposal has been reviewed by the appropriate state agencies in the e-Clearinghouse for conflicts with state or local plans, goals and objectives. After receiving this letter, you should make it available to the funding agency and continue with the funding agencies application process. This e-Clearinghouse SPOC letter signifies only that the project has followed the state reviewing requirements, and is neither a commitment of funds from this agency or any other state or federal agency. Please remember if any federal reviews are required the applicant must follow through with those federal agencies.

The results of this review are valid for one year from the date of this letter. If the project is not submitted to the funding agency or not approved within one year after the completion of this review, the applicant can request an extension by email to Lee.Nalley@ky.gov. If the project changes in any way after the review, the applicant must reapply through the e-Clearinghouse for a new review. There are no exceptions.

If you have any questions regarding this letter or the review process please contact the e-Clearinghouse office at 502-892-3462.

Sincerely,

Lee Nalley

Lee Nalley, SPOC
Kentucky State Clearinghouse

Attachment

TEAM KENTUCKY

An Equal Opportunity Employer M/F/D

Department for Environmental Protection
Louanna Aldridge

Carole Catalfo - Endorse with Comments SAI# KY202308171358 - Kenton County; Brent Spence Bridge Corridor Project

The proposed project is subject to Division of Water (DOW) jurisdiction because the following are or appear to be involved: floodplain construction; and source water protection. The applicant must cite the State Application Identifier (SAI #KY202308171358) when submitting information to the DOW.

PROJECT DESCRIPTION: he Brent Spence Bridge corridor consists of 7.8 total miles of I-71 and I-75 located within portions of Ohio and Kentucky. This corridor is located within the Greater Cincinnati/Northern Kentucky region and is a major route for regional and local mobility. Regionally, the BSB carries both I-71 and I-75 traffic over the Ohio River and connects to I-74, I-275, and US-50. The corridor is also one of the busiest trucking routes in the United States, connecting Michigan to Florida via I-75. The BSB corridor also facilitates local travel by providing access to downtown Cincinnati in Hamilton County, Ohio and Covington in Kenton County, Kentucky. The project will:
• Reconstruct I-71/I-75 and add one lane in each direction;
• Rebuild the overpass bridges and interchanges in the corridor, including removing some left hand exits and adding a new exit at Ezzard Charles Drive in Ohio;
• Construct a collector-distributor system between West 12th Street/Martin Luther King Jr. Boulevard in Kentucky and Ezzard Charles Drive in Ohio;
• Extend frontage roads connecting Pike Street to West 4th Street and West 5th Street in Kentucky;
• Add collector-distributor lanes between Dixie Highway and Kyles Lane in Kentucky;
• Rehabilitate and reconfigure the existing double decker BSB to carry local traffic; and
• Build a new double decker companion bridge west of the existing BSB to carry through interstate traffic.

Division of Water

Water Quality Branch
Comment: Best management practices should be utilized to reduce runoff from project activities into nearby waters.
Questions should be directed to Andrea Fredenburg, (502) 782-6950, Andrea.Fredenburg@ky.gov.

Field Operations Branch
Comment: Endorse.
Questions should be directed to Daniel Fraley, (606) 782-8794, Daniel.Fraley@ky.gov.

Watershed Management Branch
Water Supply Section:
Comment: The proposed project will impact the source water protection Zone 2 for Louisville Water Company (KY0560258). These zones are based on potential time of travel of a contaminant to the drinking water intake and are defined as follows:
Source Water Protection Planning Zones:

Zone 1 (Critical Zone/Less than 1 hour Time of Travel)
Zone 2 (Zone of Responsibility/1 hour to 5 hour Time of Travel)
Zone 3 (Zone of Potential Impact/2.5 to 12.5 hour Time of Travel)

Source Water Protection should include best management practices or BMP's that prevent, reduce, or eliminate storm water runoff, soil erosion, and movement of nutrients, bacteria, and contaminants into unprotected waterways that may pose threats to public drinking water supplies. It should also include contingency planning

strategies if protective measures fail or accidents and/or disasters occur and emergency response planning for water supply contamination or service interruption. Examples can be referenced here: https://www.epa.gov/sourcewaterprotection/source-water-protection-practices or https://eec.ky.gov/Environmental-Protection/Water/Protection/Pages/SWP.aspx
Questions should be directed to Dale Booth at (502) 782-6895, Dale.Booth@ky.gov.

Groundwater Section:
Comment: It is the recommendation of the Groundwater Section of the Watershed Management Branch that the project be made aware of the requirements of 401 KAR 5:037 and the need to develop a groundwater protection plan (GPP) for the protection of groundwater resources. This will include installation, construction, operation or abandonment of wells, bore holes or core holes and any other project activities that may need a GPP. 401 KAR 5:037 § 2(2)(m) references the scope and applicability of the proposed project. Also, the project needs to be aware of 401 KAR Chapter 6 and the need for licensed well drillers in the Commonwealth of Kentucky in addition to well construction and installation will have to meet standards of 401 KAR 6:350.
Questions should be directed to Bronson McQueen at (502) 782-6036, Bronson.McQueen@ky.gov or Adam Smith at (502) 782-6453, Adam.Smith@ky.gov

Water Resources Branch
Floodplain Management Section:
Comment: KYTC is exempt from state stream construction permitting for highway projects, but must self enforce to meet all FEMA requirements. Local floodplain permitting is still required. See https://eec.ky.gov/Environmental-Protection/Water/FloodDrought/Documents/FloodplainCoordinatorsList.pdf for local coordinators.

This project will also require a water quality certification from the Division of Water. See the following page for information on permitting procedures: https://eec.ky.gov/Environmental-Protection/Water/PermitCert/WQ401Cert/Pages/Apply-for-Certification.aspx
Questions should be directed to Shawn Hokanson at (502) 782-6977, Shawn.Hokanson@ky.gov.

Water Quality Certification Section:
Comment: If the activity requires a federal permit due to activities in or near Waters of the U.S., a Clean Water Act Section 401 Water Quality Certification from the DOW may be required for this project.
Questions should be directed to the Water Quality Certification Section, (502) 564-3410, 401WQC@ky.gov.

Surface Water Permits Branch
Permit Support Section:
Comment: If the construction area disturbed is equal to or greater than 1 acre, the applicant will need to apply for a Kentucky Pollutant Discharge Elimination System (KPDES) stormwater discharge permit.
Questions should be directed to the Permit Support Section, (502) 564-3410, SWPBsupport@ky.gov.

The Kentucky Division of Water supports the goals of EPA's Sustainable Infrastructure Initiative. This Initiative seeks to promote sustainable practices that will help to reduce the potential gap between funding needs and spending at the local and national level. The Sustainable Infrastructure Initiative will guide our efforts in changing how Kentucky views, values, manages, and invests in its water infrastructure. This website, www.epa.gov/waterinfrastructure/, contains information that will help you ensure your facility and operations are consistent with and can benefit from the aims of the Sustainable Infrastructure Initiative.

Mark Cleland - Endorse with Comments Linda Metts - Endorse with Comments The Division of Enforcement has no concerns with the proposed project(s).

Department of Housing Buildings and Construction
Don Newberry

The Department of Housing Buildings and Construction, Division of Building Code Enforcement, has no comments concerning this proposed project. Please contact the Local Jurisdiction to inquire about the requirements for permitting.

Division of Water
Andrea Fredenburg

Best management practices should be utilized to reduce runoff from project activities into nearby waters.

DOW
Daniel Fraley

Endorse

KDOW
Dale Booth

The proposed project will impact the source water protection Zone 2 for Louisville Water Company (KY0560258). These zones are based on potential time of travel of a contaminant to the drinking water intake and are defined as follows:
Source Water Protection Planning Zones:

Zone 1 (Critical Zone/Less than 1 hour Time of Travel)
Zone 2 (Zone of Responsibility/1 hour to 5 hour Time of Travel)
Zone 3 (Zone of Potential Impact/2.5 to 12.5 hour Time of Travel)

Source Water Protection should include best management practices or BMP's that prevent, reduce, or eliminate storm water runoff, soil erosion, and movement of nutrients, bacteria, and contaminants into unprotected waterways that may pose threats to public drinking water supplies. It should also include contingency planning strategies if protective measures fail or accidents and/or disasters occur and emergency response planning for water supply contamination or service interruption. Examples can be referenced here: https://www.epa.gov/sourcewaterprotection/source-water-protection-practices or https://eec.ky.gov/Environmental-Protection/Water/Protection/Pages/SWP.aspx

Kentucky Department of Fish & Wildlife Resources
Doug Dawson

Based on the information provided, the Kentucky Department of Fish & Wildlife Resources has no comments concerning the proposed project. Please contact Doug Dawson at 502-892-4472 or doug.dawson@ky.gov if you have further questions or require additional information.

Kentucky Division of Water
Shawn Hokanson

KYTC is exempt from state stream construction permitting for highway projects, but must self enforce to meet all FEMA requirements. Local floodplain permitting is still required. See https://eec.ky.gov/Environmental-Protection/Water/FloodDrought/Documents/FloodplainCoordinatorsList.pdf for local coordinators.

This project will also require a water quality certification from the Division of Water. See the following page for information on permitting procedures: https://eec.ky.gov/Environmental-Protection/Water/PermitCert/WQ401Cert/Pages/Apply-for-Certification.aspx

Kentucky Division of Water
Bronson McQueen

It is the recommendation of the Groundwater Section of the Watershed Management Branch that the project be made aware of the requirements of 401 KAR 5:037 and the need to develop a groundwater protection plan (GPP) for the protection of groundwater resources. This will include installation, construction, operation or abandonment of wells, bore holes or core holes and any other project activities that may need a GPP. 401 KAR 5:037 § 2(2)(m) references the scope and applicability of the proposed project. Also, the project needs to be aware of 401 KAR Chapter 6 and the need for licensed well drillers in the Commonwealth of Kentucky in addition to well construction and installation will have to meet standards of 401 KAR 6:350.

Kentucky Transportation Cabinet
Gerald Bezold

federal funds for Brent Spence Bridge Project

KY Heritage Council
Yvonne Sherrick

To receive a review from the KY Heritage Council/State Historical Preservation Office (SHPO) you must follow the instructions located on their website at https://heritage.ky.gov/compliance/Pages/overview.aspx. There you will find the required documents for the Section 106 Review and Compliance for 36 CFR Part 800. This Section 106 submission process to SHPO will assist applicants and agencies in providing the appropriate level of information to receive comments from SHPO. If you have any questions please contact Yvonne Sherrick, via email at yvonne.sherrick@ky.gov.

Please note: If your project is funded through Transportation Alternative (TAP), Transportation Enhancements (TE), Congestion, Mitigation, Air Quality (CMAQ), or Safe Routes to School (SRTS) you will need to send this information to Michael Jones, Historic Preservation Program Administrator with the Kentucky Transportation Cabinet via email to MichaelR.Jones2@ky.gov or hard copy to Michael Jones, Office of Local Programs, KY Transportation Cabinet, 200 Mero Street Frankfort, KY 40622. Do not send materials directly to SHPO if your project involves funding from these four sources as it will cause delays in the review process. Michael Jones will consult directly with the SHPO on projects with these funding sources to complete the Section 106 review.

Northern Kentucky Area Development District
Simon Boxall

Endorsed

OMB Control No. 1024-0031
Expiration Date 10/31/2023

DESCRIPTION AND NOTIFICATION FORM
Land and Water Conservation Fund

State	Grant #	Amend #	For NPS Use:	Date Received	Date Approved	Start Date	End Date
21	541						

Grant Name	CONVERSION – Goebel Park
Sub-Grantee Agency	Commonwealth of Kentucky, Department for Local Government
Sub-grantee Address	100 Airport Road, 3rd Floor, Frankfort KY 40601 **Email:** kara.campbell@ky.gov
Co-Sponsor Agency	City of Covington & Kentucky Transportation Cabinet
Co-Sponsor Address	20 West Pike Street, Covington, KY 41011

Type C — A = Acquisition; D = New Development; R = Renovation Dev't.; P = Planning; C = Combination; S = Stewardship

Sponsor S — L = Local; C = County; S = State

Number of Parks * 1

Acreage Acquired	Donated Acres	Federal Acquisition $ Share	Federal Acquisition % Share	Source of Match
				☐ Fed ☐ State ☐ Local

PARK INFORMATION (SITE 1)

Park Name	Park County	Park City	Zip Code	+4 Zip Code
Goebel Park	Kenton	Covington	41011	

Park Street Address	Cong. Dist.	Prior LWCF Assistance?
501 Philadelphia Street	4	☒ Yes ☐ No

New LWCF Acres at	Existing LWCF Acres at Park	Total LWCF Acres at Park	Latitude	Longitude
Park 2.11	14.67	14.60	39°05'03"N	84°31'14"W

SPECIAL INDICES

- ☐ Leased land – federal
- ☐ Leased land – non-federal (public)
- ☐ Leased land – private
- ☐ Leased land - expired
- ☐ Transferred to federal agency
- ☐ Less than fee title
- ☐ National Historic Register
- ☐ National Natural Landmark
- ☐ National Historic Landmarks
- ☐ School park
- ☐ National Recreation Trail

FACILITY CATEGORIES

- ☐ **CAMPING**
  - ☐ Individual camp sites
  - ☐ Group campground
  - ☐ Cabins/yurts
- ☐ **ATHLETICS/SPORTS**
  - ☐ Field sports
  - ☐ Diamond sports
  - ☐ Court sports
  - ☐ Firearms and archery
  - ☐ Golf
  - ☐ Disc Golf
  - ☐ Equestrian
  - ☐ Skateboard/BMX
  - ☐ Track
  - ☐ Winter sports
- ☐ **AQUATIC**
  - ☐ Beach
  - ☐ Pool
  - ☐ Spray feature
  - ☐ Fishing
  - ☐ Boating
  - ☐ Marina
- ☐ **TRAILS**
  - ☐ Hiking / Nature
  - ☐ Equestrian
  - ☐ Bicycle
  - ☐ Off-road
  - ☐ Water
  - ☐ Fitness
  - ☐ Trailhead
- ☐ **INDOOR SUPPORT BUILDING**
  - ☐ Administration / Maintenance
  - ☐ Restroom / Bathhouse
  - ☐ Concession / Score Box
  - ☐ Visitor or Interpretive Center
- ☐ **LAND MANAGEMENT**
  - ☐ Restoration
  - ☐ Lake impoundment
  - ☐ Stream improvement
  - ☐ Wildlife habitat
- ☐ **SHELTERED/ENCLOSED**
  - ☐ Shelter
  - ☐ Pool or Ice Rink
  - ☐ Other Recreation:
- ☐ **INFRASTRUCTURE**
  - ☐ General site improvements
  - ☐ Individual picnic sites
  - ☐ Group picnic shelter/pavilion
  - ☐ Lighting
  - ☐ Utilities
  - ☐ Parking / Roads
  - ☐ Signs / Exhibits
  - ☐ Amphitheater
  - ☐ Community garden
  - ☐ Dog Park
  - ☐ Energy conservation
  - ☐ Park entry plaza
  - ☐ Playground
- ☐ **HUNTING**
- ☐ **NATURAL AREA**
- ☐ **PASSIVE PARK**
- ☐ **OTHER:**

OMB Control No. 1024-0031
Expiration Date 10/31/2023

DESCRIPTION AND NOTIFICATION FORM
Continuation Sheet

Site #	Grant #

PARK INFORMATION

Park Name	Park County	Park City	Zip Code	+4 Zip

Park Street Address	Cong. Dist.	Prior LWCF Assistance?
		☐ Yes ☐ No

New LWCF Acres at Park	Existing LWCF Acres at Park	Total LWCF Acres at Park	Latitude	Longitude

SPECIAL INDICES

- ☐ Leased land – federal
- ☐ Leased land – non-federal (public)
- ☐ Leased land – private
- ☐ Leased land – expired
- ☐ Transferred to federal agency
- ☐ Less than fee title
- ☐ National Historic Register
- ☐ National Natural Landmark
- ☐ National Historic Landmarks
- ☐ School park
- ☐ National Recreation Trail

FACILITY CATEGORIES

☐ **CAMPING**
- ☐ Individual camp sites
- ☐ Group campground
- ☐ Cabins/yurts

☐ **ATHLETICS/SPORTS**
- ☐ Field sports
- ☐ Diamond sports
- ☐ Court sports
- ☐ Firearms and archery
- ☐ Golf
- ☐ Disc Golf
- ☐ Equestrian
- ☐ Skateboard/BMX
- ☐ Track
- ☐ Winter sports

☐ **AQUATIC**
- ☐ Beach
- ☐ Pool
- ☐ Spray feature
- ☐ Fishing
- ☐ Boating
- ☐ Marina

☐ **TRAILS**
- ☐ Hiking / Nature
- ☐ Equestrian
- ☐ Bicycle
- ☐ Off-road vehicles
- ☐ Water
- ☐ Fitness
- ☐ Trailhead

☐ **INDOOR SUPPORT BUILDING**
- ☐ Administration / Maintenance
- ☐ Restroom / Bathhouse
- ☐ Concession / Score Box
- ☐ Visitor or Interpretive Center

☐ **LAND MANAGEMENT**
- ☐ Restoration
- ☐ Lake impoundment
- ☐ Stream improvement
- ☐ Wildlife habitat

☐ **SHELTERED/ENCLOSED**
- ☐ Shelter
- ☐ Pool or Ice Rink
- ☐ Other recreation:

☐ **INFRASTRUCTURE**
- ☐ General site improvements
- ☐ Individual picnic sites
- ☐ Group picnic shelter/pavilion
- ☐ Lighting
- ☐ Utilities
- ☐ Parking / Roads
- ☐ Signs / Exhibits
- ☐ Amphitheater
- ☐ Community garden
- ☐ Dog park
- ☐ Energy conservation
- ☐ Park entry plaza
- ☐ Playground

☐ **HUNTING**

☐ **NATURAL AREA**

☐ **PASSIVE PARK**

☐ **OTHER:**

NOTICES

Paperwork Reduction Act Statement

In accordance with the Paperwork Reduction Act (44 U.S.C. 3501), please note the following. This information collection is authorized by the Land and Water Conservation Fund Act of 1965 (54 U.S.C. 200301 et. seq.). Your response is required to obtain or retain a benefit. We use this information to record and track grant project details and to analyze trends in requests for program funding. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid Office of Management and Budget control number. OMB has assigned control number 1024-0031 to this collection.

Estimated Burden Statement

Public reporting burden for this form is estimated to average 1 hour per response, including the time it takes to read, gather and maintain data, review instructions, and complete the form. Direct comments regarding this burden estimate, or any aspects of this form, to the Information Collection Clearance Officer, National Park Service, 12201 Sunrise Valley Drive, Mail Stop 242, Reston, VA 20192. Please do not send your form to this address.

OMB Control No. 1024-0031
Expiration Date 10/31/2023

DESCRIPTION AND NOTIFICATION FORM
Instructions (Rev. 11/2019)

The Description and Notification Form (DNF) captures information about LWCF grants and the parks and recreation areas assisted through approval of a new grant, an amendment to an existing grant, or a Conversion of Use request. This information is used to aid in reporting the performance of the program to Members of Congress and the American people. The following directions are provided to assist you. For amendments, only relevant portions are to be completed or as noted below.

GRANT INFORMATION	Summery information for the entire grant or amendment regardless of number of specific park areas or parcels involved.
State	Enter the appropriate two-digit FIPS State Code (e.g., California = 06)
Grant No.	Enter the five digit number for the Grant if known, (e.g., 00456; to be verified by NPS)
Amendment No.	Enter the sequential Amendment Number (to be verified by NPS).
Date Received	(Completed by NPS) Enter the date on which an actionable application or amendment request is received by the regional office. If the information received is returned to the State as incomplete and subsequently resubmitted, the date the resubmitted project was received shall be entered.
Approval Date	(Completed by NPS) Enter the date the project application or amendment was approved as shown on the project agreement or amendment form.
Start Date	(Completed by NPS) Enter the Start Date of the grant Period of Performance if different from the date used on the SF-424. If there is a previously approved Waiver of Retroactivity; the waiver approval date is the Start Date.
End Date	(Completed by NPS) Enter the End Date of the grant Period of Performance if different from the date used on the SF-424.
Grant Name	Enter Project Title from the agreement document in all caps, not to exceed 50 characters.
Element Name	Leave blank unless a consolidated project is being amended; use all caps, not to exceed 50 characters.
Sub-grantee Agency	Enter the name of the sub-grantee agency.
Sub-grantee Address	Enter the address of the sub-grantee agency.
Co-Sponsor Agency	If a second agency is a co-signer to the grant (e.g., because the project site is under a lease), enter the name of the co-sponsor agency.
Co-Sponsor Address	Enter the address of the co-sponsor
Type	Enter the appropriate letter for type of grant. Use the definition below for guidance. **A = Acquisition**: grants for the acquisition of land or water or interest in land in water. **D = New Development**: grants where the majority of the assistance is devoted to development of new recreation or eligible support facilities. **R = Redevelopment**: grants primarily involving renovations, rehabilitation, replacement, or retrofitting of existing recreation and support facilities. **P = Planning**: grants related to the development of a SCORP document. **C = Combination**: grants involving both acquisition and development of land. **S = Stewardship**: Any post-grant completion action such as a conversion.
Sponsor	Enter appropriate letter for sponsor type. **L = Local**: a local unit of government (including tribes) other than a county or parish **C = County or Parish** **S = State**
No. of Parks	Identify the number of separate park sites (distinct park units) being assisted under this project. Complete the park information section for each site, using as many continuation sheets as needed. For conversions, the total number of park sites associated with the grant as a result of a conversion should be entered (e.g., enter 1 for a total conversion and replacement; enter 2 for a partial conversion with one replacement site).
Acreage Acquired	When the project type is either A or C, enter the total numbers of acres to be acquired for the project, rounded to the nearest tenth of an acre, regardless of number of parcels or their location (purchased acres + donated acreage)
Donated Acres	Indicate to the nearest tenth of an acre that portion of the acreage acquired through donation, if any.
Federal Acquisition $ Share	Enter the amount of LWCF assistance provided to cover actual cash outlay for real property purchased, including project administration and relocation costs. For C projects, administration costs will be prorated between development and acquisition. If all the acres acquired are donated, i.e., total acres acquired = donated acres acquired, there is no acquisition cost and "0" should be entered in this field. If the total acres acquired are larger than the donated acres acquired, acquisition assistance is to be entered.
Federal Acquisition % Share	If LWCF assistance is being provided to cover actual cash outlay for real property purchased, enter the % share of the purchase price the LWCF assistance will cover.
Source of Match	Identify the source of the non-LWCF share of the project cost by selecting the appropriate box. Other federal programs authorized by law to match LWCF grants will be considered "Federal" (e.g., CDBG). Note: the application of a negotiated indirect cost rate requires a State contribution and must be so identified.

PARK INFORMATION	Information related to each park or recreation area impacted by the grant (or added through a conversion). For projects involving more than one park/area, attach a Continuation Sheet for each site. This information does not apply to planning grants.
Park Name	Enter the official name of the park or recreation area (XYZ Park, Recreation Area, State Natural Area, Playground, Field, Preserve, etc.). If unknown, enter a generic name as a place holder for subsequent correction. Do not repeat descriptors often found in the Grant Name which are not designated park names such as "development", "improvement", "Phase II," etc. If the funded development is a named facility within a park (e.g., ABC Tennis Courts within XYZ Park), XYZ Park is to be entered.
Park County	Enter the county in which the funded park or recreation area is located. If in more than one county, list all.
Park City	Enter the name of the city (or township, etc.) in which the funded park or recreation area is located. For projects not located within a sub-county jurisdiction, enter the name of the jurisdiction located nearest to the actual park site.
Zip + 4 Codes	Enter the 5-digit + 4-digit zip codes (if available) in which the funded park or recreation area is located (00000-0000).
Park Street Address	Enter the street address of the primary entrance of the park, if available. If there is no formal addresses, the name of the street only, or an intersection reference (if applicable), could be used.
Congressional District	Enter the 2-digit number for the Congressional District in which the funded park or recreation area is located. If in more than one district, list all.
Prior LWCF Assistance	Check appropriate box to indicate whether this park or recreation area has ever received LWCF assistance before. If XYZ Park has neither been acquired in total or in part nor previously developed through a prior LWCF grant, enter "No".
New LWCF Acres at Park	Enter the total acreage of the LWCF area that is being newly protected as a result of this grant due to an acquisition, new development, redevelopment, or a combination project. The area should be clearly shown on the LWCF Boundary Map and in most cases will include the acreage of the entire park. If the park is already protected under the LWCF and no acreage is being added, enter 0 (however, if the park has expanded since the last time an LWCF grant was received, new acres could include the additional acreage being incorporated into the existing LWCF boundary). For amendments, new acres will only be shown if there is an increase in the Federal share for the purpose of adding additional acres to the project scope.
Existing LWCF Acres at Park	If the park is already protected under LWCF, enter the amount of previously protected LWCF acreage at the park or recreation area that is receiving assistance through a new development, renovation development or combination project. In other words, the park area is receiving further improvement in addition to what has been received through prior LWCF assistance. The acreage is not limited to the footprint of the development being funded but includes the total acreage previously protected through prior grants and identified on the pre-existing LWCF Boundary Map. For amendments, existing acres will only be shown for amendments which increase the Federal share for the specific purpose of adding new scope items within the LWCF area.
Total Number of LWCF Acres at Park	Enter the total number of LWCF acres (new + existing) now protected as a result of the current and all previous grants or amendments at the site. It is intended to capture the size of the LWCF- protected recreation estate at the facility as a result of both current and past LWCF involvement. This number should reflect changes resulting from conversions.
Latitude/Longitude	Enter the latitude and longitude coordinates in degrees, minutes, seconds, and direction for the park or recreation area. This coordinate should refer to the approximate center point of the LWCF area as is feasible. In all cases, the coordinates should correspond to area within the LWCF Boundary. For projects involving linear parks, such as trails, the reference point should relate to the middle of the trail.
Special Indices	These indices reflect special/unusual features of a proposal. Select all that are relevant. For amendments that add or delete special indices previously entered, overwrite the special indices originally entered with all those applicable as of the latest amendment.
Facility Codes	Select as many facility categories (primary plus subcategories) as necessary to describe the specific facilities being developed. For acquisition projects, select only the primary categories (Bolded Text) that represent the future planned use(s) of the site. For combination projects, select the primary catgories plus appropriate subcategories. For amendments that add or delete facility codes previously entered, overwrite the facility codes originally entered with all those applicable as of the latest amendment.
Camping – Individual Sites	Inclusive of tent sites and RV sites
Athletics – Field sports	Inclusive of specialized and multi-sport fields for activities like soccer, football, lacrosse, etc. as well as general purpose playfields
Diamond sports	Inclusive of fields for baseball, T-ball, softball, etc.
Court sports	Inclusive of sports such as tennis, basketball, pickleball, volleyball, and other court-based sports
Firearms and archery	Inclusive of rifle/pistol ranges, trap/skeet field, archery
Golf	Inclusive of 18-hole, 9-hole, par 3, driving range, pitch and putt, and miniature golf
Equestrian	Inclusive of recreation activities that involve horses, including rodeo facilities but excluding trails
Winter sports	Inclusive of facilities and equipment for skiing (lifts, slopes, jumps, snow-making, cross-country trails), sledding/tobogganing, outdoor ice skating rinks, and warming huts
Aquatic – Boating	Inclusive of launch ramps for motorized and non-motorized boats, docks, berths, boat lifts, other boating access/facilities

OMB Control No. 1024-0031
Expiration Date 10/31/2023

Fishing	Inclusive of piers and other fishing access facilities
Trails – Off-road Trail	Inclusive of any off-road motorized vehicle including ATVs and snowmobiles
Land Management -- Restoration	Inclusive of activities to rehabilitate land damaged by natural disasters, convert land from a previously developed use, etc. but excluding landscaping
Stream improvements	Activities designed to improve habitat for sport fish to increase fishing opportunity
Wildlife management	Plantings to support bird or animal species to increase wildlife viewing or hunting opportunity
Sheltered/Enclosed	If the project is to construct only the shelter but not the underlying pool or ice rink, check shelter only. If the project is inclusive of the shelter AND the pool or ice rink, check both categories. If the DNF is being submitted with a sheltered facility request, check Shelter and Other Recreation and provide the type of recreation that will be sheltered.
Infrastructure -- General site improvements	Landscaping, walkways (connections among recreation facilities), park furniture/equipment (e.g., benches, trash cans)



Exhibit 1: Goebel Park Complex

- Goebel Park Complex
- Goebel Park
- SFC Jason Bishop Memorial Dog Park
- Kenney Shields Park
- Walking Trail
- Radio Antenna Access (Not Park

Brent Spence Bridge Corridor
KYTC Item No: 6-17.00
ODOT PID: 116649

Feet
0 250 500



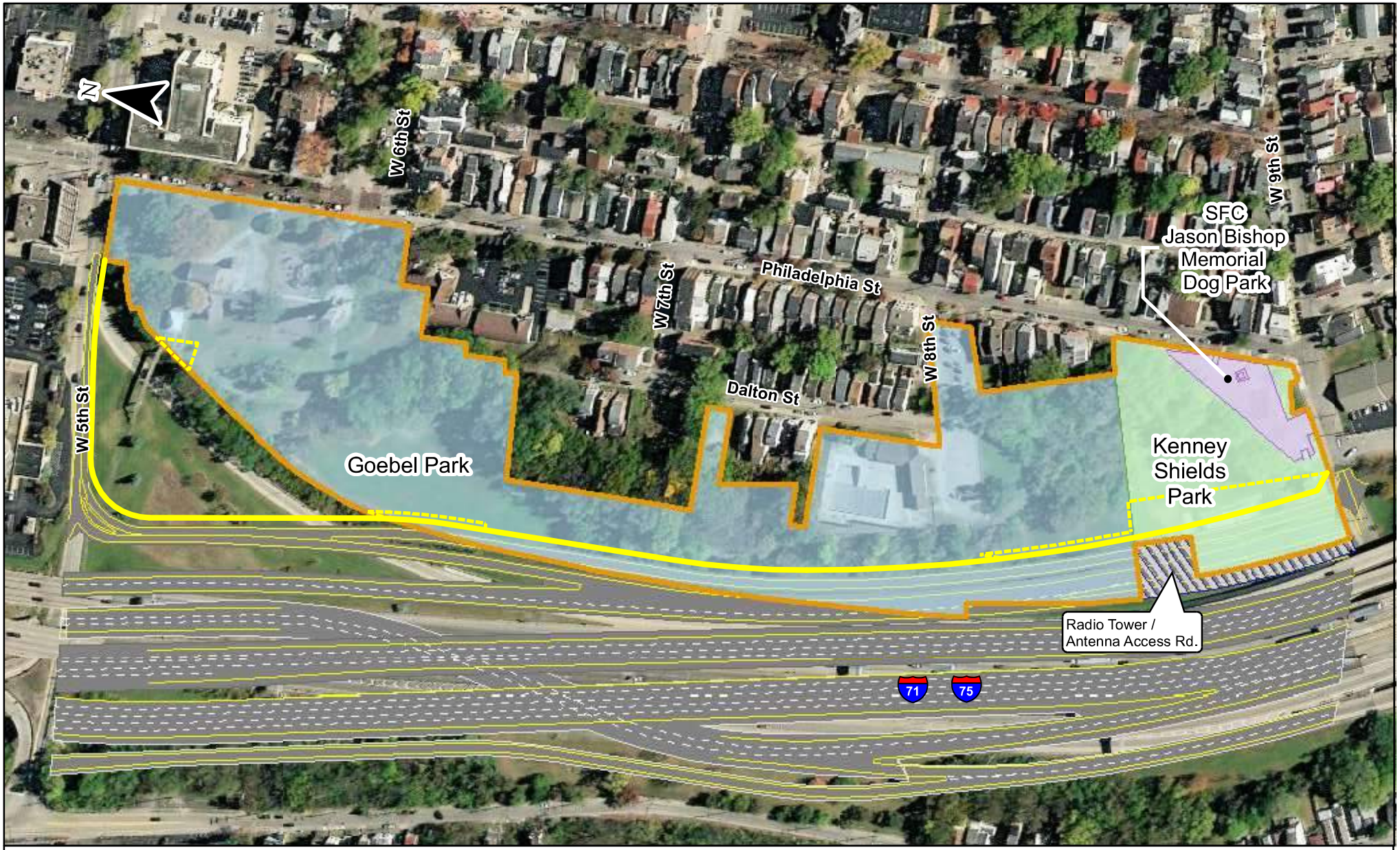


Exhibit 2: Proposed Brent Spence Bridge Corridor Project

Brent Spence Bridge Corridor
KYTC Item No: 6-17.00
ODOT PID: 116649

- Proposed Temporary Easement
- Proposed Right of Way
- Goebel Park Complex
- Radio Antenna Access (Not Park

0 250 500 Feet





Exhibit 3: Project Land Replacement

Acquired Park Land
Goebel Park Complex
Land Returned
Radio Antenna Access (Not Park Property)

Brent Spence Bridge Corridor
KYTC Item No: 6-17.00
ODOT PID: 116649
Updated 11/22/2024

0 250 500 Feet



Appendix O: Innovations Outreach

From: Brent Spence Bridge Corridor <info@brentspencebridgecorridor.com>
Sent: Friday, May 31, 2024 3:03 PM
To:
Subject: Brent Spence Bridge Corridor Project Update: Project Innovations Recommended

External Email: Use caution when clicking on links, replying, or opening attachments.

Brent Spence Bridge Corridor May 31, 2024 eNewsletter



BRENT SPENCE BRIDGE CORRIDOR PROJECT TEAM RECOMMENDS INNOVATIONS TO RECONNECT COMMUNITIES AND IMPROVE SAFETY

Kentucky Governor Andy Beshear and Ohio Governor Mike DeWine today announced that a new “street grid” reconnecting downtown Cincinnati to Queensgate and reduced impacts to Goebel Park in Covington are among seven major innovations to enhance the transformative $3.6 billion Brent Spence Bridge Corridor (BSBC) Project based on engineering evaluations and public feedback.

The recommended design refinements meet or exceed the contract objectives of improving quality, reducing costs, shortening schedule, improving safety and/or supporting local communities. More than 100 suggestions submitted to the project team from the public, key local stakeholders, and the design-build team were evaluated based on objectives. Find out more here.

Recommended Innovations

Kentucky

1. Vertical profile optimization
2. Pike Street access optimization
3. Hillside cut alignment shift

Ohio

1. Southbound roadway reconfiguration
2. Combination of 2nd and 3rd Street connections
3. US-50 Roadway Consolidation
4. Realization of Street Grid Concept



BUILDING FUTURES AND FOSTERING ECONOMIC GROWTH

FHWA Green Light Unlocks Career-Building Jobs and Bidding Opportunities

With the recent Federal Highway Administration (FHWA) "Finding of No Significant Impact," the Brent Spence Bridge Corridor Project is moving full speed ahead, allowing the project to advance to design and construction. Beyond improving safety and traffic flow for one of the worst truck bottlenecks in the nation, the FHWA decision represents a gateway to rewarding careers and lasting economic impacts for the region.

At peak construction, the project will require a skilled workforce of at least 700 individuals, ranging from laborers and equipment operators to project managers and engineers. To meet this demand, the project team is collaborating with local labor unions and trade organizations to provide comprehensive training programs, opening doors for both seasoned professionals and those seeking new career paths.

Among the resources for career information is the Walsh Kokosing Design-Build Team's website, where individuals can learn more about outreach, assistance and mentoring opportunities.

Additionally, businesses and entrepreneurs have a unique chance to contribute their expertise to this transformative project. Walsh Kokosing is actively seeking subcontractors, suppliers, and vendors. Visit https://walshkokosing.com/bsbc-current-opportunities to explore current bidding opportunities and stay updated on future procurement needs.

Anyone interested in learning more about joining this history-making team can go to the Brent Spence Bridge Corridor Project website where they can sign up to receive monthly e-newsletters and get connected to local resources supporting workforce development.

Now is the time for a new generation to transform our region and experience a lifelong sense of accomplishment as part of a legacy project for Greater Cincinnati and Northern Kentucky.

OPPORTUNITIES FOR DISADVANTAGED BUSINESS ENTERPRISE (DBE) COMPANIES

The Brent Spence Bridge Corridor (BSBC) project team wants to ensure this massive project benefits everyone and is reflective of the richly diverse region it will serve. As planning concludes and the real work begins, there will be continuous opportunities for businesses and individuals to become involved in this $3.6 billion project. From construction to catering, this transformative project requires a cast of thousands and will directly impact countless Greater Cincinnati businesses and workers.



The people who bring this transformation to life should hold up a mirror to the people it will serve for years to come. It has been proven time and again that promoting diversity and inclusion leads to increased innovation, creativity, and problem-solving. A diverse workforce and diverse contractors bring unique perspectives and experiences — experiences that can lead to more effective and efficient results.

Click here to learn more about project resources for DBE businesses, the steps needed to become a part of the team, and sign up to be included on communications about networking events and opportunities. And click here to hear community leaders talk about those opportunities.

A FOCUS ON SAFETY FOR THE PROJECT'S DESIGN-BUILD TEAM

Getting the job done is important; getting the job done safely is priority #1.

As part of the U.S. Department of Labor's Occupational Health and Safety Administration's recent Construction Safety Week, the Walsh Kokosing Design-Build Team held a series of events to promote and plan for this important topic. While construction on the Brent Spence Bridge Project hasn't started yet, it's never too early to start thinking about safety.



Topics for the week included marine safety, tool safety, personal protective equipment, fall protection hazard recognition and maintenance of traffic during construction.
"Safety is always our top priority, and the planning starts on day one," said Joel Halterman, Construction Superintendent River Crossing. "The design and planning we're doing now will help keep our workers safe when construction begins."

Drivers can always do their part by slowing down in construction zones and avoiding distractions.

ABOUT THE PROJECT

Stretching from the Western Hills Viaduct in Ohio to Dixie Highway in Kentucky, the $3.6 billion project will be built without tolls and transform an eight-mile portion of the I-71/75 interstate corridor, including a companion bridge immediately to the west of the existing bridge. More information about the project is available at BrentSpenceBridgeCorridor.com. A video outlining last year's progress can be viewed here.

Stay Connected

There are several ways to stay connected with the Brent Spence Bridge Corridor Project.

Visit our website | Sign up for updates | Submit a comment

© 2022 Brent Spence Bridge Corridor. All Rights Reserved.

Brent Spence Bridge Corridor | 505 South State Route 741, Lebanon, OH 45036

Update Profile | Constant Contact Data Notice

Sent by info@brentspencebridgecorridor.com powered by

Constant Contact

Try email marketing for free today!

BRENT SPENCE BRIDGE CORRIDOR PROJECT TEAM RECOMMENDS INNOVATIONS TO RECONNECT COMMUNITIES AND IMPROVE SAFETY

FRIDAY MAY 31, 2024

New "street grid" from downtown Cincinnati to Queensgate and reduced impacts to Goebel Park in Covington among seven innovations revealed today

FRANKFORT, Ky., May 31, 2024 – Kentucky Governor Andy Beshear and Ohio Governor Mike DeWine today announced that a new "street grid" reconnecting downtown Cincinnati to Queensgate and reduced impacts to Goebel Park in Covington are among seven major innovations to enhance the transformative $3.6 billion Brent Spence Bridge Corridor (BSBC) Project based on engineering evaluations and public feedback.

The recommended design refinements meet or exceed the contract objectives of improving quality, reducing costs, shortening schedule, improving safety and/or supporting local communities. More than 100 suggestions submitted to the project team from the public, key local stakeholders, and the design-build team were evaluated based on objectives.

"These innovations are a key part of continuing the transformational changes we're making to boost Kentucky's economy and ensure a higher quality of life here and beyond our borders," said Gov. Beshear. "They are a testament to the collaboration, teamwork, and goals each state shares to build a better corridor while fulfilling our good neighbor pledge."

MEDIA CONTACTS

KYTC: Naitore Djigbenou – 502-782-4829
ODOT: Matt Bruning – (614) 466-6906

RECENT NEWS RELEASES

- Brent Spence Bridge Corridor Project team recommends innovations to reconnect communities and improve safety
- Ohio, Kentucky Receive Federal Environmental Approval for BSBC Project, Clearing Path Forward
- Walsh Kokosing Design-Build Team Celebrates Women in Construction Week
- Apprenticeship Readiness Program to Expand Career Pathways in Skilled Trades
- Prime Contractor Named for Longworth Hall Buildout

Privacy - Terms

"These thoughts and ideas will make the Brent Spence Bridge Corridor even better," said Gov. DeWine. "These enhancements aren't just about reducing congestion on an interstate, it's about improving safety, reconnecting communities, and enhancing the lives of those who live, work, and visit the area."

Ohio Refinements

The project team improved the project in Ohio with four innovative refinements.

First, the project team will free up an additional acre for development or green space by moving southbound I-75 to the western edge of the corridor. In addition, this move allows the roadway to be constructed while minimizing disruptions to traffic on existing southbound I-75. The extra acre for development or green space is in addition to the 9.5 acres that were freed up in November 2022, bringing the total to nearly 11 acres.

Second, to reconnect the downtown Cincinnati street grid with Queensgate, a new intersection will be added at West Ninth and Gest streets, and improvements will be made at the intersection of West Seventh and Gest streets. The project also includes extending West Fifth and West Sixth streets across I-75 to Queensgate. Finally, the West Fifth extension will enable the roadway to connect with Gest in the future. This design will improve safety for pedestrians and those using the shared use path by shortening the distance across I-75 and reducing the speed limit.

"As I walked the neighborhood west of downtown with Cincinnati Mayor Aftab Pureval and his team last year, we discussed ways to improve the city and the need to connect neighborhoods previously divided by the interstate," said Director Marchbanks. "Our team really rose to the occasion and is making that happen."

Third, the project team plans to combine the I-75 southbound ramps to 2nd and 3rd streets, which will reduce both costs and the project footprint.

Finally, the project team will reconfigure the U.S. 50 lanes, which will improve safety and traffic flow for this important east-west connection.

"As a native Cincinnatian, I am committed to ensuring this project makes our community better. With these innovations, I firmly believe we are doing something we can be proud of for generations to come," said BSBC Ohio Project Manager Tommy Arnold.

Kentucky Refinements

Three significant design improvements are planned in Northern Kentucky.

"From our earlier commitments to separate stormwater systems and pilot Kentucky's first transparent noise screens, these latest innovations are further proof we're listening to input and refining the project to make it even better," said Secretary Gray.

- 'It's our bridge': Local workers hope BSB corridor project brings once-in-a-lifetime opportunity
- More Than 550 Attend Public Hearings
- Five Things to Know as Brent Spence Bridge Project Marks Another Milestone
- Brent Spence companion bridge project update: New bridge could open by 2029
- Brent Spence Bridge Corridor important to Dayton region, chamber leader says

The first innovation lowers the profile of the interstate by as much as 30 ft between Ninth Street and the new companion bridge, addressing a visibility concern raised by Covington residents during the environmental phase of the project. The height reduction is achieved by shifting the southbound ramp to the local roadway network a few hundred feet to the south, aligning the exit ramp on the east side of the interstate and closing the local Fifth Street roadway between Crescent Avenue and Philadelphia Street. In doing so, Fifth Street traffic will be redistributed to Third Street allowing for a gateway intersection to be constructed at Crescent and Third.

"In working closely with the City of Covington, we made design refinements that reflect the requests of their residents that also integrate seamlessly into their plans for the Covington Central Riverfront development," said BSBC Kentucky Project Manager Stacee Hans.

Second, entrance locations to the interstate system are being adjusted to line up more like they are today near Pike Street. This change addresses concerns raised during the environmental phase about increased traffic changing the residential character of Ninth Street.

"With this improvement, Ninth Street will not see an influx in traffic. In addition, keeping interstate access at Pike Street will minimize the impacts on Goebel Park, both physically and visually," Hans said.

And finally, the interstate alignment through the "cut in the hill" just south of Covington will be shifted to the east to eliminate the need for significant excavation of the rock embankment and construction of a retaining wall. This will significantly reduce costs and improve the construction schedule.

About the Innovation Process

Shortly after being named prime contractor last year, the Walsh Kokosing Design-Build Team began evaluating 117 suggested changes to the base plan for the BSBC Project. To date, 26 are recommended to be incorporated into the project's design. Twenty-four were dismissed because they were not feasible or didn't meet project objectives. Sixty-seven suggestions, most of which are focused on detailed design, are still under review while the design process continues.

The next step in the process will be to continue refining the project through detailed design and updating and confirming traffic and environmental studies, as needed.

For a description of major innovations recommended to be incorporated into the project's base design, visit the project website Document Center.

About the Brent Spence Bridge Corridor Project

Stretching from the Western Hills Viaduct in Ohio to Dixie Highway in Kentucky, the Brent Spence Bridge Corridor Project is designed to improve approximately five miles of Interstates 71 and 75 in Kentucky and three miles in Ohio. The project, which has been in

development since 2005, will include the addition of a new companion bridge immediately to the west of the existing Brent Spence Bridge. The goals are to reduce congestion, improve traffic flow and safety, and maintain key regional and national transportation corridors.

For more information, visit BrentSpenceBridgeCorridor.com.

GET IN TOUCH

Thank you for visiting the Brent Spence Bridge Corridor website. If you have a question or comment for the project team, please complete the form below.

NAME

EMAIL

MESSAGE

ZIP CODE

protected by reCAPTCHA
Privacy - Terms

SUBMIT

SIGN UP FOR UPDATES

Please enter your contact information to receive our project newsletter and periodic project updates, including notification of upcoming public meetings.

NAME

EMAIL

SIGN UP

Si desea asistencia traduciendo esta sitio web a español, contacte a Domingo Martinez a Domingo.Martinez@dot.ohio.gov o por teléfono a 513-933-6136.

Ohio Department of Transportation | 1980 W Broad St | Columbus, OH 43223

Kentucky Transportation Cabinet | 200 Mero St | Frankfort, KY 40622

© 2024 Brent Spence Bridge Corridor. All Rights Reserved.

Brent Spence Bridge Corridor Project
Innovation Process and Design
Summary of Outreach Efforts

Date	Begin	End	Location	Stakeholders/Organizations Represented	Topics Discussed	Questions/Feedback
5/29/2024	8:30 AM	9:00 AM	City Hall	Cincinnati Department of Transportation and Engineering and Councilmember Meeka Owens	Recommended Ohio Innovations	Draft presentation in preparation for the CEI Committee meeting scheduled for 6/4
5/31/2024	10:00 AM	11:20 AM	OKI 4th Floor Conference Room	BSB Project Advisory Committee	Recommended Ohio and Kentucky Innovations	- Requests for clarification of east-west connections in Cincinnati - Question about outreach to Kentucky first responders - Question about pedestrian/bicycle connections in Covington
6/3/2024	4:00 PM	5:00 PM	Virtual	Cincinnati Advisory Committee	Recommended Ohio Innovations	- Discussion of ramp changes resulting from innovations
6/4/2024	10:00 AM	12:00 PM	City of Cincinnati Council Chambers, Room 300	Cincinnati Climate, Environment, and Infrastructure Committee	Recommended Ohio Innovations	<u>Cincinnati Council Members</u> - General support for recommended Ohio innovations - Workforce development/job creation - DBE, minority, and women-owned business goals - Funding/sponsor for potential future extension of 5th Street - Coordination with riverfront stakeholders (Cincinnati Bengals and Reds) - Ongoing coordination efforts with Cincinnati Community Councils - Timeline for BSBCP construction phases - Environmental commitment for display in West End neighborhood - Upcoming progressive design-build milestones - Request for ongoing project updates - Ongoing land use master planning efforts (as part of separate city-sponsored initiative) <u>Public</u> - General support for recommended Ohio innovations - Continued focus on non-motorized travel - Ongoing land use master planning efforts (as part of separate city-sponsored initiative) - Righting past wrongs - Developing black business district in Queensgate - Desire for city-sponsored legislation related to the project
6/17/2024	4:15 PM	4:45 PM	Queen City Club	Cincinnati Regional Business Committee	Brent Spence Bridge Corridor Project Innovations	- Q: How will the existing BSB be lit? A: still evaluating lighting design
6/18/2024	6:10 PM	6:40 PM	Lincoln Recreation Center 1027 Linn Street Cincinnati, OH	Hybrid (in-person and virtual) meeting of the West End Community Council	Brent Spence Bridge Corridor Project - Project overview - Environmental decision update - Noise barrier public involvement discussion - Diversity and inclusion efforts - Contract objectives - Recommended innovations - Environmental commitments	- Q: Concerns about the potential for graffiti on noise barriers. A: ODOT applies sealant to make cleaning process easier. - Q: Who is responsible for maintenance and graffiti removal? What is the response time for maintenance requests? A: ODOT is responsible for maintenance. Tommy will have to check on response times for maintenance requests. - Q: The president of City West Home Owners Association has previously shown interest in noise barriers. A: Thank you for the feedback. The noise barriers that are recommended for the Brent Spence Bridge Corridor Project are not in the area referenced by the commenter. - Q: Lack of community engagement on noise public involvement can be an indicator that individuals do not have an opinion. How was outreach conducted? A: Individual letters were mailed to benefitted owners and tenants. - The West End Community Council offered to utilize their social media channels and other contacts to encourage individuals to respond to noise surveys. - Tommy proposed the idea of setting a day aside to work in the Lincoln Recreation Center to allow benefitted residents/owners to come ask questions about the proposed noise barriers. The community council suggested an evening availability is preferred to daytime to accommodate work schedules. ODOT will continue evaluating options and follow up with the West End Community Council. - Q: Has the project considered opening up areas for potential redevelopment? A: With the innovations, the project will open up about 11 acres for potential redevelopment. - As a representative of Bridge Forward, thank you for the refinements that have been incorporated into the project. The individual also encouraged the residents of West End to continue to be involved in the project by responding to noise barrier surveys and taking advantage of diversity and inclusion efforts. - It is good to hear that Bridge Forward is supportive of the innovations. Thank you for working with Bridge Forward to refine the project. - Q: West End was pleased to hear feedback from Bridge Forward that ODOT had made a good faith effort to consider and incorporate their ideas into the design. Wide bridges like the one proposed for Ezzard Charles Drive are a benefit to the community. West End would like to see more bridges over the interstate built this way. A: The bridges over I-75 are all being designed to promote a local street feel with buffers, sidewalks and multiuse paths, and screen walls to visually screen the highway.
6/25/2024	8:00 AM	9:00 AM	Wegman Company 1531 Western Avenue Cincinnati, OH	Queensgate Business Alliance	Brent Spence Bridge Corridor Project Innovations	- Q: Clarification on the elimination of the Western Avenue ramp. A. ODOT reviewed the new ramp connection to the collector-distributor roadway system from the new 9th Street intersection. No further questions after review. - Q: Regarding the US-50/Gest Street exit elimination. why not leave it in rather than the proposed innovation to use the Linn Street ramp? A: This was eliminated to allow for the construction of the new intersection with 6th Street and Gest Street. There is a new northbound Ezzard Charles Drive exit that will improve access to Queensgate. - Q: Is there the ability to get off on Ezzard Charles Drive from Fort Washington Way? A: yes you can continue on the new collector-distributor to Ezzard Charles Drive rather than taking US-50 over to the Linn Street exit. - Q: What is going to happen during construction to improve traffic flow on the local street grid? The group requests that Dalton Avenue be reviewed for potential modifications to replace the stop signs with temporary signals. A: The Bi-State Management Team (BSMT) and Walsh-Kokosing Design-Build Team (WKDBT) are looking at maintenance of traffic (MOT) modeling to improve operations on local streets during construction. The BSMT will review Dalton Avenue in the MOT traffic model to confirm potential temporary improvements. The City also discussed how the Viaduct project ties to the construction of the BSB project and MOT to coordinate both projects. - Q: Is there an estimated timeline for the project (start to finish)? A: Early work is starting in 2025. 200 feet of Longworth Hall reconstruction will start in early 2025. Most of Phase III will not start until the end of 2025 and early 2026. Work will continue into 2030. - Q: From the time of the height of construction, what is the plan for the through traffic? A: The BSMT and WKDBT are still working out the MOT and can come back to give an update on MOT for through traffic - Q: Is the Duke substation going to be moved? A: No. It has already been moved for the project. There is some additional underground work that has to be done. - The City provided an update on the 2011 Revive 75 planning study, which will be starting this summer. There will be considerable public involvement for the plan update, and the City will reach out to this group to be actively engaged in the process. - Q: In regards to the development land, when the area is cleared, will it be owned by ODOT or will it go to the City or what happens to who owns it? A: It is not an easy answer. There were local streets in the area prior to the interstate construction, and the City has rights to that original right-of-way. If it is made available for public or private use, there is a different process on how the land is given back for development. There is a potential of giving back money to the federal government since it was purchased as right-of-way for the interstate; however, there is additional coordination needed. - Q: Taking into account the connectivity of planned bike and pedestrian; crown network, etc. is there a way to get interaction with the design team to make sure Crown and Mill Creek connect and how it connects to the Western Hills Viaduct? Is there something in the process to along Mehring Way to make sure we are not missing opportunities to complete the Crown network in the future? A: The City indicated this would be a City project and not part of the BSB corridor project. The City has been reviewing the WKDBT design and how future connections to the bike facilities with the new street grid can be made. The City received a Raise grant from Linn Street to 6th Street and will add bike facilities (from Central Avenue across 9th Street and extending to State Avenue).

Brent Spence Bridge Corridor Project
Innovation Process and Design
Summary of Outreach Efforts

Date	Begin	End	Location	Stakeholders/Organizations Represented	Topics Discussed	Questions/Feedback
6/25/2024	8:00 AM	9:00 AM	Wegman Company 1531 Western Avenue Cincinnati, OH	(continued) Queensgate Business Alliance	(continued) Brent Spence Bridge Corridor Project Innovations	(continued) -Q: A follow up question on pedestrian and bicycle facilities: what is being done on Mehring Way to the Paycore stadium? The group appreciated the other bike and pedestrian projects discussion. A: The BSMT indicated the BSB corridor project is not precluding the construction of the shared use paths and future trail connections. The City indicated it will be their responsibility to review the future trail project once funding is identified. The BSMT will prepare an exhibit of how the pedestrians and bicycles can get from 3rd Street to 5th Street to Clay Wade Bailey. - Q: Will there be more event traffic on Mehring Way? A: Based on traffic modeling, the vehicles will be using 3rd Street or 5th Street. We are currently working with the Reds and Bengals on event traffic. The City is excited to allow for more entrances and exits for event traffic. These options are then being coordinated with Reds and Bengals. Once it is finalized, this will be shared with the stakeholders. - Q: Where is the 30 acres coming from on Bridge Forward website? A: The BSMT focused the BSB Phase Innovation exhibit on the area between 3rd Street and 6th Street only for the development land within the Bridge Forward concept to obtain the 14 acres vs. 11 acres. The City indicated Bridge Forward option provided land that has existing buildings and undevelopable land slivers to obtain the 30 acres. - There is a concern on how to get trucks into and out of Queensgate for industry. Based on the Queensgate Business Group's review of the design, it benefits the truck and traffic connections from the west. - Q: On Gest Street, will new ramp connections be signalized? A: Yes it is anticipated these would be signalized. The BSMT indicated 5th Street is set up for future connection and redevelopment. - Q: Were the caps included in the Bridge Forward acreage? A: The caps are going to be evaluated during the City planning study update.
6/25/2024	3:00 PM	4:00 PM	Paycor Stadium	Cincinnati Bengals	Brent Spence Bridge Corridor Project Innovations	The Cincinnati Bengals are supporters of the Brent Spence Bridge (BSB) Corridor Project. Discussion centered on: - The need to proactively communicate traffic disruptions during construction so the Bengals can provide information to their customers, particularly their season ticket holders. The Bengals typically reach out to their customers in October of each year. ODOT can work to provide information about planned construction activities to the Bengals prior to October each year. - The need to understand parking impacts so the Bengals can communicate information to patrons. ODOT can work to provide a map of parking lots, including when they will be impacted during construction, the duration and extent of impact, and other pertinent information. - The need to accommodate event traffic in the project design, both during and after construction.
6/18/2024	11:30 AM	--	Virtual	Fort Mitchell Mayor and City Administrator	Brent Spence Bridge Corridor Project Environmental Update and Innovations	- The City is interested in the potential roundabout innovation at the Dixie Highway interchange and wants to further investigate with a focus on pedestrian safety and access management. KYTC will provide additional visuals and renderings to the City. - The City will evaluate and provide feedback on decorative lighting options for the interchange area and the Fort Mitchell sign. - The City is interested in aesthetic landscaping for any potential stormwater detention/retention facilities within the interchange area.
7/1/2024	3:00 PM	--	Virtual	Fort Wright Mayor and City Administrator	Brent Spence Bridge Corridor Project Environmental Update and Innovations	Regarding the potential roundabout innovation at the Kyles Lane interchange: - Q: What is the benefit? A: SAFETY is the first major improvement as roundabouts reduce fatal and injury crashes; they would calm traffic and improve safety for all modes of transportation. - Q: What would this do to the aesthetics already chosen? Concern with barrier wall look that separates the traffic and pedestrians-would want something visually pleasing. Voiced concern with width of median to ensure plantings would be viable. - Q: Will existing homes and businesses be impacted? A: There are no additional impacts. - Q: Concern with long term maintenance costs, inquired about how much this would increase (significantly increase?). Understood that it would be determined by what the City chose to plant. - Wanted to ensure the 2 City Community Sign Post would still be able to be constructed and visual to drivers. - The City administration will present visuals to the City Council prior to next meeting 7/17 for feedback and initial reaction. Q: Asked about the sound barrier look, have heard transparent may be utilized. Inquired if that is project wide? Voiced concern with transparent walls for Ft. Wright. A: the project will present noise walls as design develops and inquire with community if they want noise walls and what look they desire.
8/1/2024	6:00 PM	7:00 PM	Covington Center for Great Neighborhoods 321 W. MLK/12th Street Covington, KY	Covington Neighborhood Collaborative	Brent Spence Bridge Corridor Project Innovations and Project Update	Q: Do you know who the contractors are for Phase III? • KYTC yes we know who the contractors are it is a joint venture of Walsh-Kokosing with lead designer as AECOM and Jacobs along with subconsultants under the lead designers to deliver the project. HNTB is project contract oversight, Michael Baker is reviewing the designs, WSP on board for construction inspection Q: Do you know where the contractors are located/headquartered? - Kokosing is out of Westerville, OH - Walsh is out of Chicago, IL and Crown point, IN Q: Does 4th street remain open under the bridge? - Yes it remains open and goes to Crescent. Q: Will the connections be taken away from Pike Street area? - No the connections remain the same only the connections will be on the collector - distributer road on the existing BSB to the interstate exits / entrance ramps. - If you want to go to Covington or downtown Cincinnati heading northbound before St. Elizabeth will make a decision to enter the CD or stay on the interstate - With this configuration how does the CD speed and weaving work on the new CD? - The CD will operate at a slower speed and be posted at a slower speed than the interstate and will have wider lanes than today. -The project will be looking at local opportunities to the local streets at 9th, 5th, 4th, and 3rd. There will be dedicated bike and pedestrian facilities in the corridor. - The innovation is also improving the north south connectivity for shared used paths up to 3rd and multimodal of bicycles and pedestrians. - The walking path through Goebel will remain? - Yes it will remain but reconstructed with the project and there will be re-established park land the project gives back to the park. City of Covington will evaluate how the park is updated through their planning study. Q: How much does the hillside cut alignment shift to the east? - Action Item: Stacee will provide the distance of the shift to the CNC. Indicated it is within the existing right of way and does not require additional right of way being purchased. Q: How many miles from the river would SB motorists have to make a decision if they have to make a decision to go to Cincinnati or Covington? - Ezzard Charles will be the decision point and will be signed to take the CD or for the interstate traffic. Then as you are on the CD then there will be exit decision points for Cincinnati and Covington. Q: Do you have any more close up photos of the impacts to Goebel Park? - These are on the website under maps / renderings. Stacee provided her email to ask questions on links to the renderings. Stacee.hans@ky.gov
8/13/2024	6:00 PM	7:00 PM	First Financial Innovation Center Lobby 1 East Fourth Street Cincinnati, OH	Downtown Residents Council	Brent Spence Bridge Corridor Project Innovations	Q: Has the bridge type been determined yet? - The design and analysis of the bridge type is still underway. Q: A question was asked about cleaning up litter on the ramp from Reading Road/Liberty to southbound I-471. - Action Item: Tommy will contact ODOT PIO and Hamilton County Operations forces about the comment A resident that lives north of 9th street expressed concern about noise. - The project incorporates noise walls where they are reasonable and feasible, including areas north of 9th street.

City of Cincinnati

801 Plum Street
Cincinnati, OH 45202

Agenda - Final-revised

Climate, Environment & Infrastructure

Councilmember Meeka Owens, Chairperson
Councilmember Mark Jeffreys, Vice-Chair
Councilmember Jeff Cramerding, Member
Councilmember Seth Walsh, Member

Tuesday, June 4, 2024 **10:00 AM** **Council Chambers, Room 300**

PRESENTATIONS

METRO Update

Andrew Aiello-Chief of Staff, Khaled Shammout-Chief of Strategic Planning, Development & Innovation Officer

Brent Spence Bridge Corridor

John S. Brazina,. Director-Department of Transportation and Engineering

AGENDA

1. 202401443 **ORDINANCE (EMERGENCY)**, submitted by Sheryl M. M. Long, City Manager, on 5/22/2024, **APPROPRIATING** to public use certain real property interests necessary to construct, install, reconstruct, operate, maintain, repair, replace, modify, and remove water mains and related fixtures, equipment, and appurtenances to provide for and protect the supply of water as part of the Budd Street Transmission Main Project.

Sponsors: City Manager

Attachments: Transmittal
Ordinance
Attachment A
Attachment B

2. 202401444 **RESOLUTION (LEGISLATIVE) (EMERGENCY)**, submitted by Sheryl M. M. Long, City Manager, on 5/22/2024, **DECLARING** the intent to appropriate to public use certain real-property interests necessary to construct, install, reconstruct, operate, maintain, repair, replace, modify, and remove water mains and related fixtures, equipment, and appurtenances to provide for and protect the supply of water as part of the Budd Street Transmission Main Project.

Sponsors: City Manager

Attachments: Transmittal
Resolution
Attachment A
Attachment B

3. 202401554 **PRESENTATION** submitted by Sheryl M. M. Long, City Manager, dated 6/4/2024, regarding Brent Spence Bridge Corridor Update.

Sponsors: City Manager

Attachments: Transmittal
Presentation

4. 202401566 **PRESENTATION**, submitted by Councilmember Owens, from Andrew Aiello, titled METRO Update.

Sponsors: Owens

Attachments: Presentation

ADJOURNMENT

6/18 Fort Mitchell Coordination Meeting

Tuesday, June 18, 2024 11:31 AM

Agenda

Update and Innovations

June 18th, 2024 3:00
Attendees: Mayor Jude Hehman
Edwin King
Stacee Hans
Nikki Boden

We started the meeting with introductions and Stacee lead discussion with the Environmental Update and Innovations.

Roundabout Innovation|

City shared interest in this innovation and wants to discuss details. Initial concerns were

1. Access Management-Concerns with Lefts out of Maple Avenue as well as turning movements from Daycare, Bank and restaurant on the north side of Dixie. Opportunity to implement access management to improve safety? Would like to see potential solution options.
2. SW corner, draft innovation looks close to existing R/W, concerns with the proximity of work here.
3. Kroger Rin/Rout entrance-Safety concern here with existing traffic movements (many perform U-turn here or turn left), opportunity to implement access management with median landscaping/yiled median to restrict movements with either interchange design.
4. City requested new visuals to also showcase I-71/75 improvements with mainline widening.

Pedestrian Safety Concerns|
City shared concerns with pedestrian safety overall and wants to ensure movements are enhanced all possible ways. Mayor requested rendering of Dixie Highway cross section to visualize pedestrian movements, asked about barriers for protection. The EB to SB movement to the school was highlighted. City also inquired about feasibility of taking pedestrians under the SB ramps in SW corner in front of car dealership, potential ample vertical relief to accomplish.

Lighting|

Ft. Mitchell is a part of the Duke Lighting program and will review the Duke portfolio to choose a light option. Mayor shared desire to have up-lighting for the Ft. Mitchell sign, low lit decorative lighting and will review light options to provide feedback.

Stormwater Improvements|

BSMT shared the innovations on stormwater separation and addition of KY Detention Basin #1. City inquired about potential detention/retention within the interchange. Shared they anticipate this being a part of the project improvements and would like to see the proposed aesthetics for that area. See this as an opportunity to introduce beautification with planting, flowers etc.
Edwin noted Nicole Clemmons is the chair of the City's tree board and wanted to share her concerns with runoff. BSMT shared that we have met with her in her Banklick Creek role and discussed those drainage concerns.
Edwin noted Nicole Clements is the chair of the City's tree board and wanted to share her concerns with runoff. BSMT shared that we have met with her in her Banklick Creek role and discussed those drainage concerns.
MOT and Construction Schedule| Edwin inquired about the start of construction and the duration/approach to the interchange. BSMT shared currently MOT will keep interchange open and do partial construction, duration details and visuals are currently being developed. Initial look at full closure would not be attainable during the summer break.

Additional Topics| Mayor inquired about the below additional topics.

1. Are HOV/High Occupancy Lanes being utilized on BSB project-BSMT shared that no those are not being implemented.
2. Are Truck Only Lanes or No Truck Lanes going to be established, the design team is evaluating but no determination yet.
3. Project 6-8951.00 Improve Ex alignment with Buttermilk Pike, Orphanage Road and US 25 was discussed. Mayor shared this would be a impactful traffic operation improvement and possibly should be expedited for completion before BSB project. Funding is currently: D 2023, R 2025, U & C 2026.

Action Items

No.	Description	Owner	Need By
	Mayor to review Duke lighting portfolio and share choices with BSMT	City	7/30
	BSMT to follow up with visuals/renderings and schedule coordination meeting Sept 2024	Nikki	8/30/24

7/1 Fort Wright Coordination Meeting

Tuesday, June 18, 2024 11:31 AM

Agenda

Update and Innovations

July 1st, 2024 3:00 (Virtual via MSTeams)
Attendees: Mayor Dave Hatter
Jill Bailey-City Administrator
Stacee Hans-Brent Spence Bridge (BSB) Project Manager
Cory Wilson-BSB Construction Lead
Nikki Boden-BSB Design Lead

We started the meeting with introductions of new BSB team members (Nikki Boden and Cory Wilson) Stacee lead discussion regarding intent of meeting and topics to be covered, including Powerpoint presentation to share visual exhibits.

Environmental Decision Update| Stacee provided update on public hearing held early 2024 and Finding of No Significant Impact (FONSI) issued May 8, 2024.

Innovations Process Update| Stacee provided update on innovations process, including schedule and outcome of the larger project corridor innovations. Moved to potential innovation specific to Fort Wright (roundabout innovation).

Roundabout Innovation|

City shared interest in this innovation and wants to discuss details. Initial concerns were

1. First question Mayor had-What is the benefit? SAFETY is the first major improvement as RBTs reduce fatal and injury crashes; they would calm traffic and improve safety for all modes of transportation.
2. What would this do to the aesthetics already chosen? Concern with barrier wall look that separates the traffic and pedestrians-would want something visually pleasing. Voiced concern with width of median to ensure plantings would be viable.
3. First concern was impacting existing homes and businesses, we shared there are no additional impacts.
4. Concern with long term maintenance costs, inquired about how much this would increase (significantly increase?). Understood that it would be determined by what the City chose to plant.
5. Wanted to ensure the 2 City Community Sign Post showcased in the AE-05 would still be able to be constructed and visual to drivers.
6. City requested this visual to run by City Council prior to next meeting 7/17 for feedback and initial reaction.
7. Asked about the sound barrier look, have heard transparent may be utilized. Inquired if that is project wide? Voiced concern with transparent walls for Ft. Wright. Stacee shared project will present noise walls as design develops and inquire with community if they want noise walls and what look they desire.

Lighting| Ft. Wright is interested in participating in the Duke Lighting Program. Nikki will set up meeting with Duke Program Lead to discuss details and light options of this program.

Environmental Commitments|Stacee shared that the FONSI document lists all the environmental commitments made for City of Ft. Wright. City shared they have a new Police Chief that was recently appointed (need new contact information).

Next Steps and Schedule| Stacee shared 30% plans scheduled for August 2024 and BSB team will engage First Responders Fall 2024.

Action Items

No.	Description	Owner	Need By
	Nikki to schedule meeting with City and Duke Lead to discussion Lighting Program	Nikki	7/30
	Nikki to forward preliminary RBT innovation	Nikki	7/5/24



BRENT SPENCE
BRIDGE CORRIDOR

West End Community Council Meeting

June 18, 2024

Ohio Department of Transportation

Agenda

- Project overview
- Environmental decision update
- Contract objectives
- Recommended innovations
- Environmental commitments
- Next steps





Project Overview

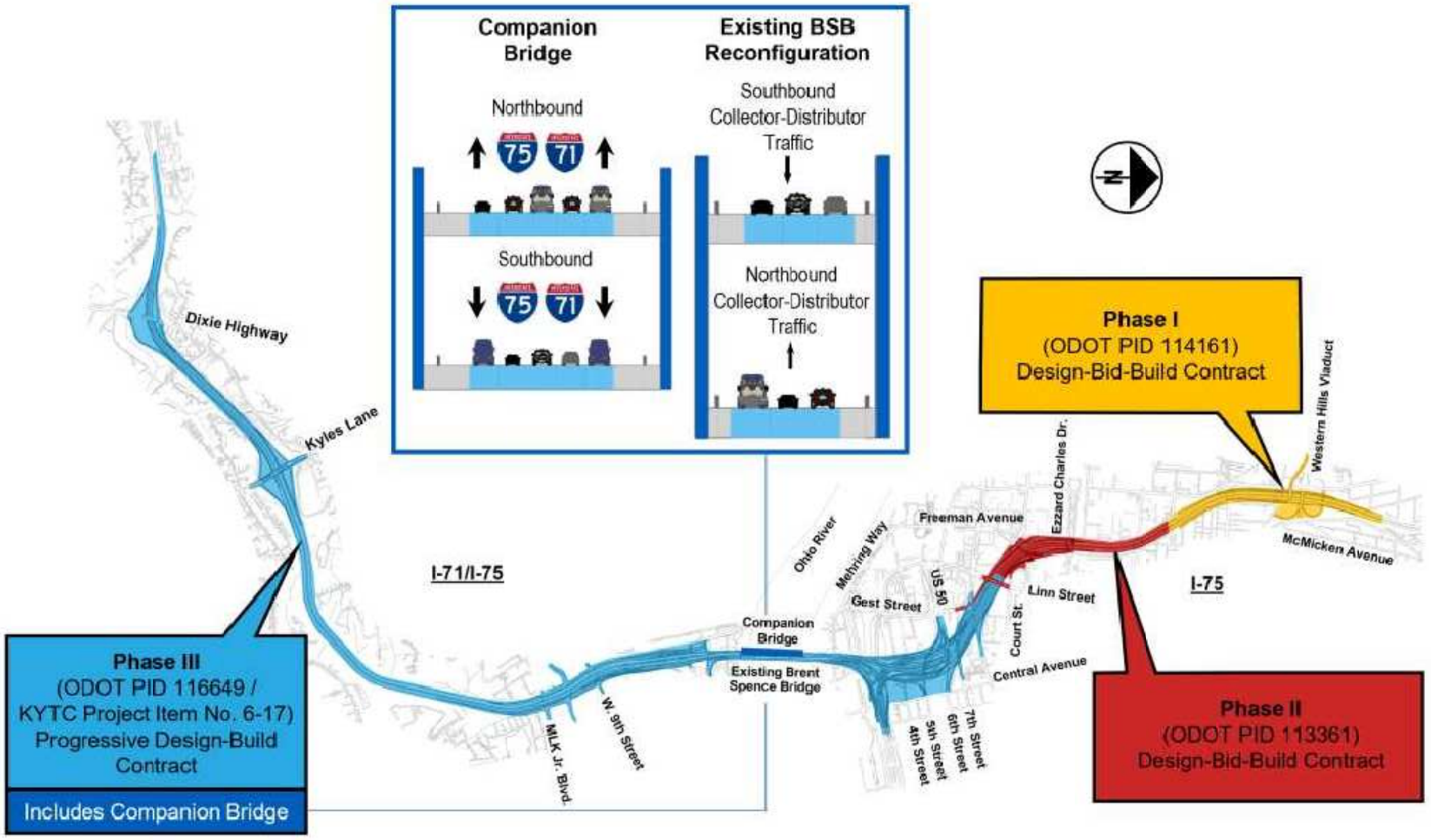
Project Overview

Purpose and Need

- Improve traffic flow and level of service
- Improve safety
- Correct geometric deficiencies
- Maintain connections to key regional and national transportation corridors



Project Overview

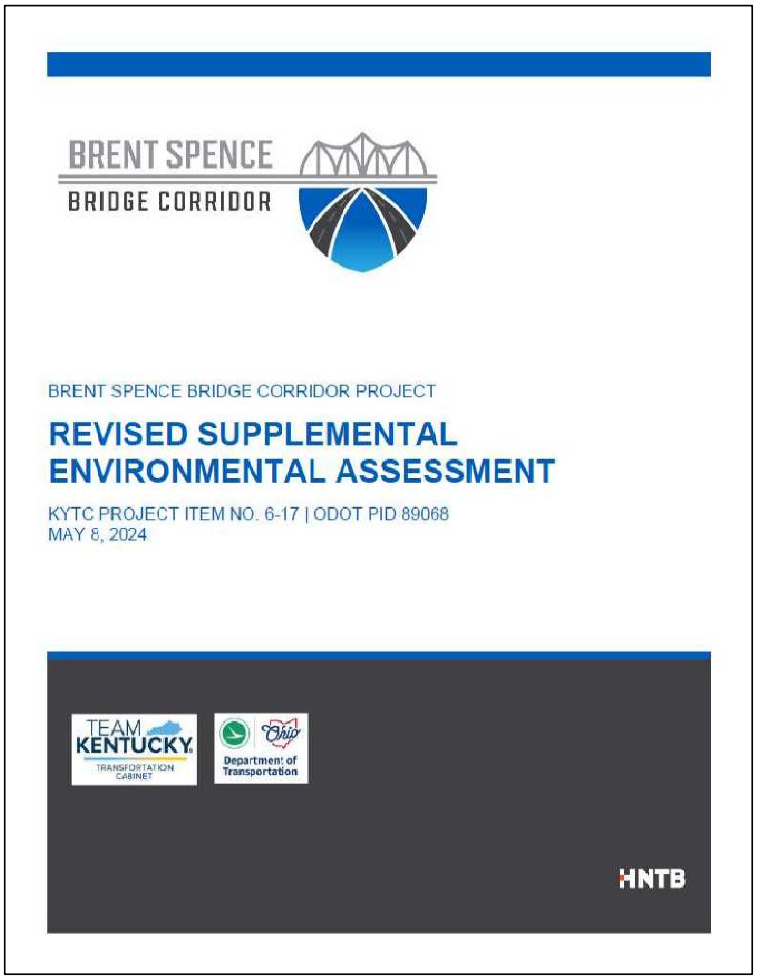




Environmental Decision Update

Environmental Decision Update

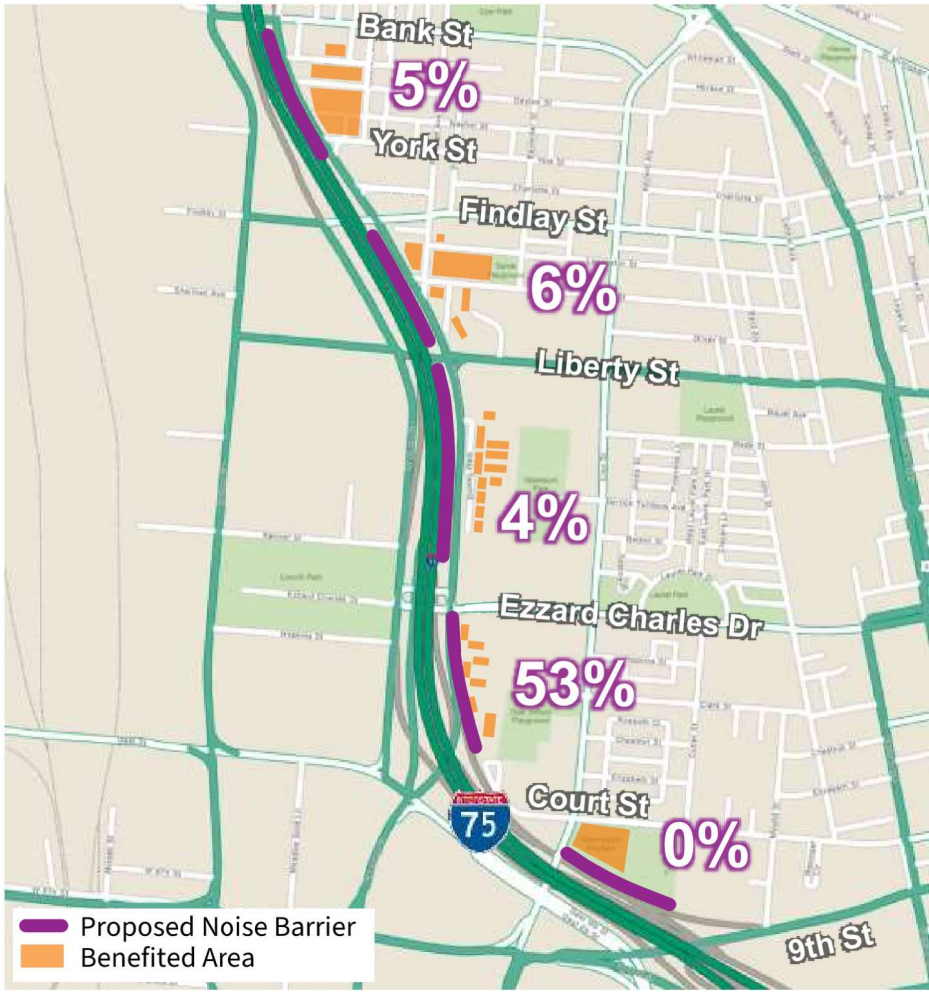
- 5 public hearings held in February 2024
  - 209 public comments (165 commenters)
  - 6 federal, state and local agency comments
- Responses prepared for all comments
- Minor updates to the Supplemental Environmental Assessment
- FHWA issued a Finding of No Significant Impact (FONSI) on May 8, 2024
- All documents on project website (www.brentspencebridgecorridor.com/documents)



Environmental Decision Update

Proposed Noise Barriers

- 5 proposed noise barriers in West End
- ODOT considers viewpoints of property owners and tenants who will benefit from the proposed noise barriers
- Surveys mailed March 2024
- Target response rate is > 50%
- Actual response rate 0-6%
- ODOT recommends moving forward with building noise barriers, despite low response rate



Environmental Decision Update

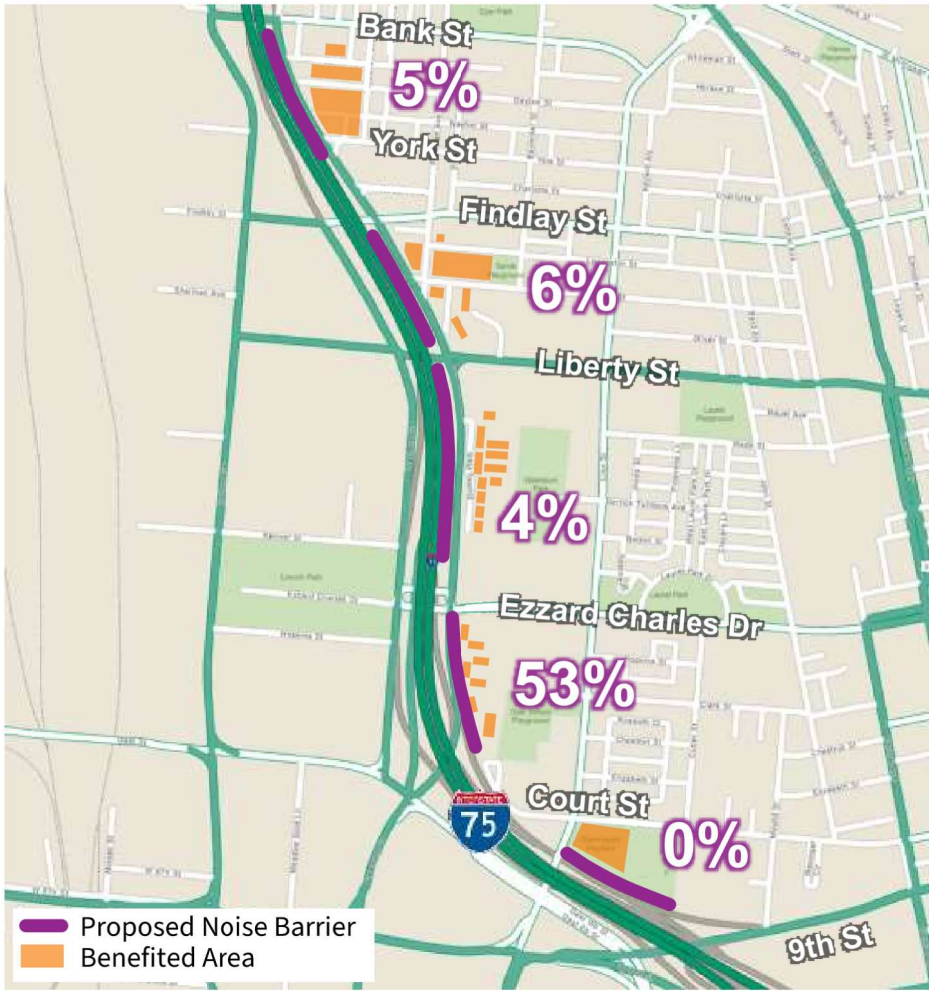
Proposed Noise Barriers

- Feedback from benefitted areas encouraged
- Any suggestions from West End Community Council?
- If there are questions, please contact:

Keith Smith, ODOT District 8

Keith.Smith@dot.ohio.gov

1-800-831-2142





Contract Objectives

Contract Objectives

- Maximize the project scope within the programmed funding amounts through innovation, design optimization and effective risk mitigation
- Achieve effective project delivery
- Open the new companion bridge to traffic in 2029
- Minimize traffic disruption during construction, with minimal detours or diversion of traffic to local streets
- Minimize physical intrusion and impact
- Maximize public investment by minimizing the footprint
- Minimize the footprint to maximize potential developable space
- Improve neighborhood connectivity across the interstate
- Build the project with a context sensitive design that fits within the community
- Provide strong aesthetic value
- Improve the local road aesthetics when crossing the interstate
- Provide opportunities for workforce development and DBE utilization
- Create best environmental outcomes
- Design for sustained quality of life





Landmark Opportunity for Diversity and Inclusion

- Historic federal investment in our region with guidelines and requirements for:
  - Disadvantaged Business Enterprise (DBE) participation
    - Phase 1: 9% goal
    - Phase 2: 7% target
  - Workforce development
    - On the job training: 15% target



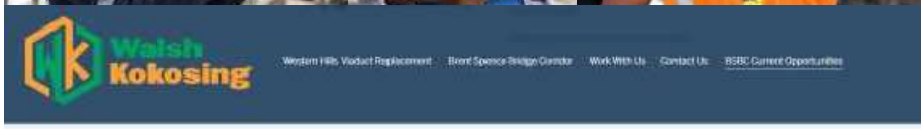


Snapshot of Opportunities

- ODOT has partnered with community action agencies and truck driving schools to offer CDL program to students; KYTC has a similar opportunity
- ODOT is partnering with the Urban League on the Building Futures program
- WKJV posts opportunities on their website; updated weekly!
- And more!









BSBC Current Bidding Opportunities

Scope Number	Scope Description	Price Range	Scope Status	Release for Bid	Quotes Due
15	Utility Design	$100,000 to $500,000	Not Released	TBD	TBD
16	Landscape/Aesthetic design	$100,000 to $500,000	Not Released	TBD	TBD
17	Electrical Design	$100,000 to $500,000	Not Released	TBD	TBD
20	Design Verification Review - Independent Design Quality Firm (IDQF) - Phase 1B	$1,000,000 to $5,000,000	Not Released	TBD	TBD
24	Office Cleaning	$0-$100,000	Invitation to Bid	04/29/2024	6/7/2024
25	Office Supplies	$0-$100,000	Invitation to Bid	1/1/2024	Ongoing
26	Catering/Event Planning	$0-$100,000	Invitation to Bid	1/11/2024	Ongoing
27	Project DBE/EEO /Compliance Consultant	$100,000 to $500,000	Invitation to Bid	1/11/2024	Ongoing
28	Printing/Plan production	$0-$100,000	Invitation to Bid	1/11/2024	Ongoing
29	Project Website/Social Media/Graphic Design	$0-$100,000	Not Released	Q2 2024	TBD
30	Public Information/Outreach/marketing	$0-$100,000	Not Released	Q2 2024	TBD



Recommended Innovations

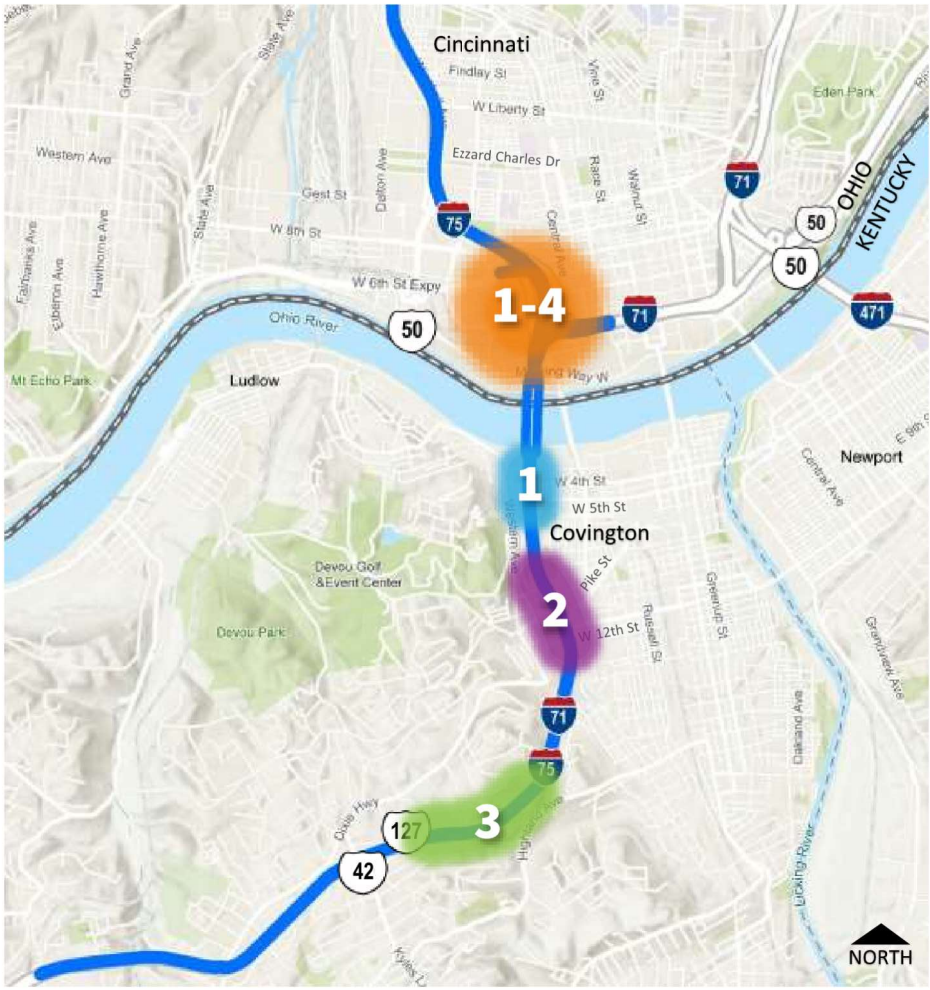
Recommended Innovations

Kentucky

1. Vertical profile optimization
2. Pike Street access optimization
3. Hillside cut alignment shift

Ohio

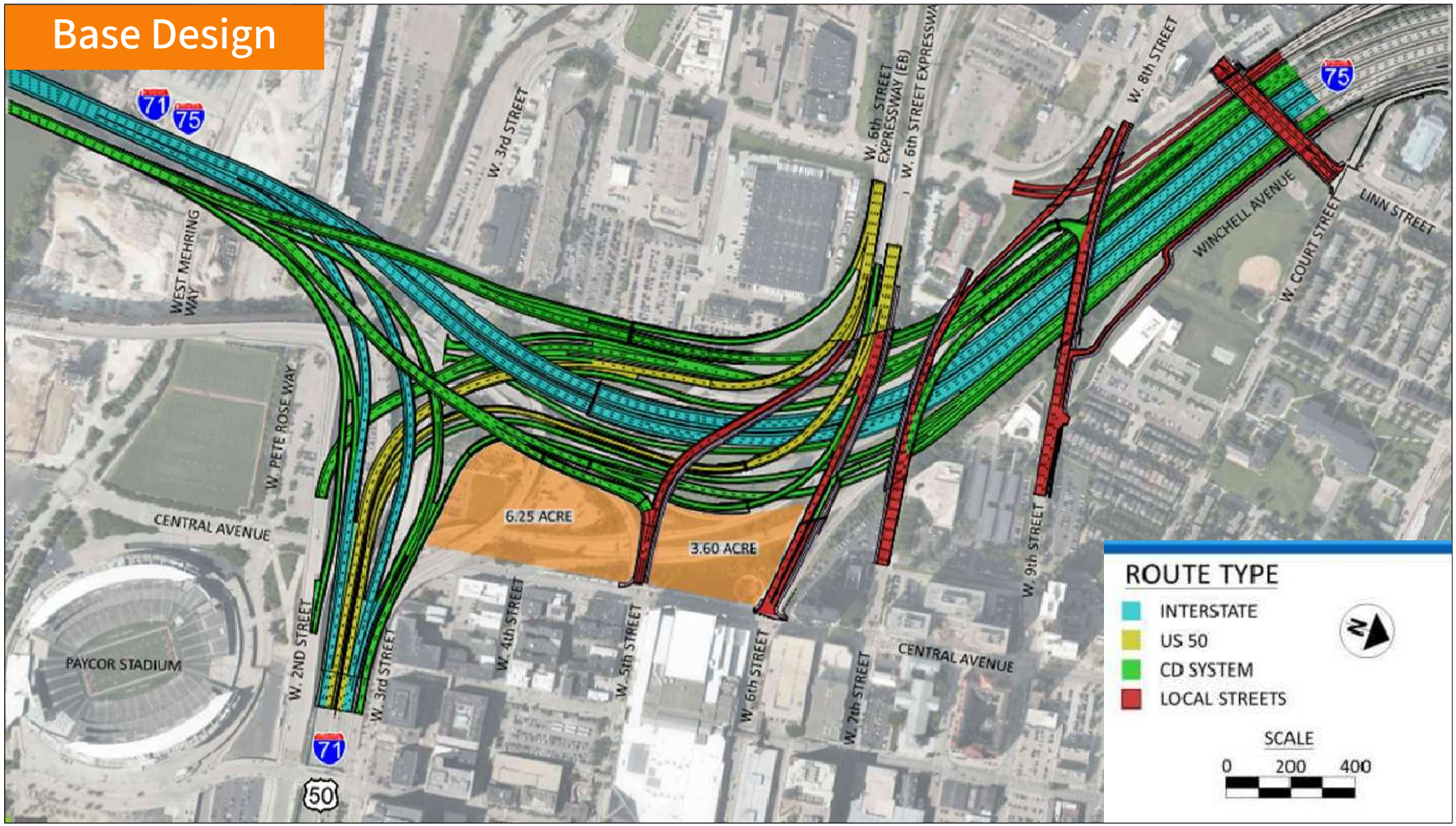
1. Southbound roadway reconfiguration
2. Combination of 2nd and 3rd Street connections
3. US-50 roadway consolidation
4. Realization of street grid concept



Ohio Recommended Innovations



Base Design





Ohio Recommended Innovations

OH Innovations



Ohio Recommended Innovations

1 | Southbound Roadway Reconfiguration

- Southbound I-71/I-75 moved to outside
- Southbound collector-distributor roadway moved to inside
- Southbound I-75 constructed offline
- Simplified constructability
- Reduces cost
- Improves safety



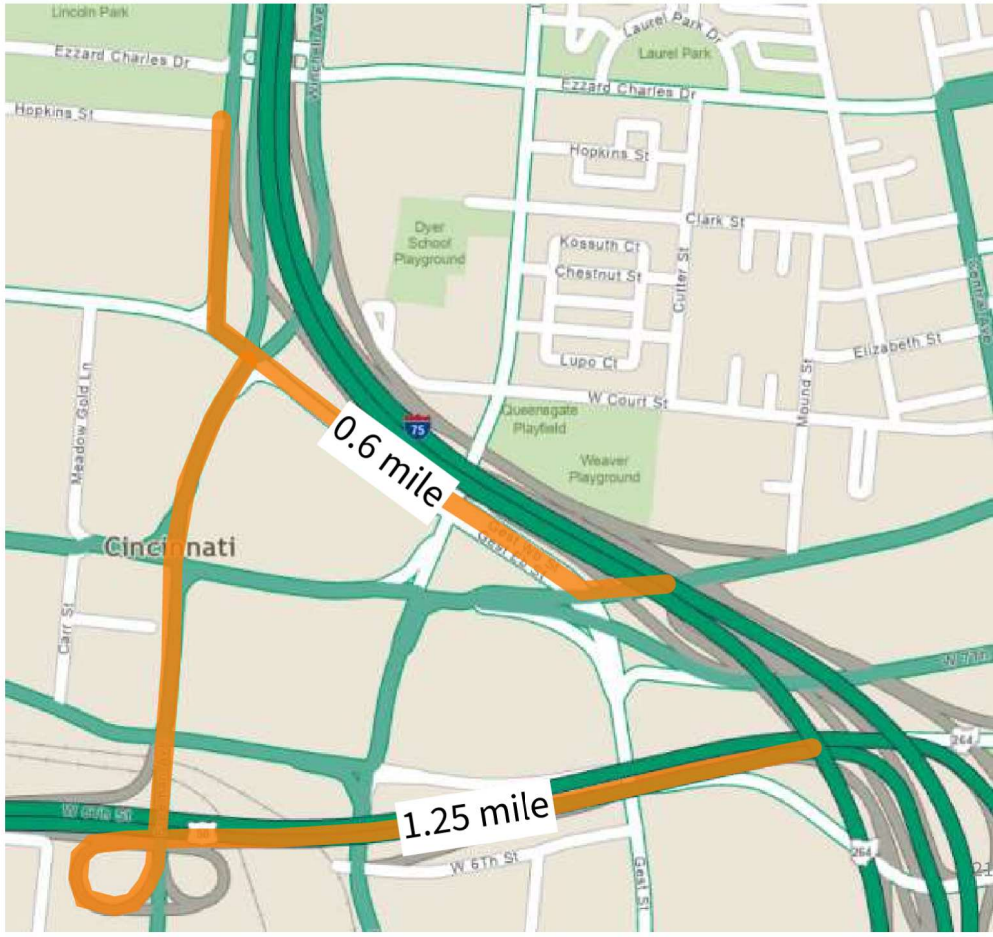




Ohio Recommended Innovations

1 | Southbound Roadway Reconfiguration

- Western Avenue ramp to southbound I-75 removed
- Alternate routes
  - Proposed 9th Street entrance (+0.6 mile)
  - Existing Freeman Avenue interchange (+1.25 mile)
- Low volumes
  - 300 vehicles in PM peak hour





Ohio Recommended Innovations

2 | Combination of 2nd and 3rd Street Connections

- Traffic rerouted through upgraded at-grade 2nd and 3rd Street intersections



3 | US-50 Roadway Consolidation

- Reconfigure US-50 eastbound and westbound to follow a single alignment
- Reduces footprint

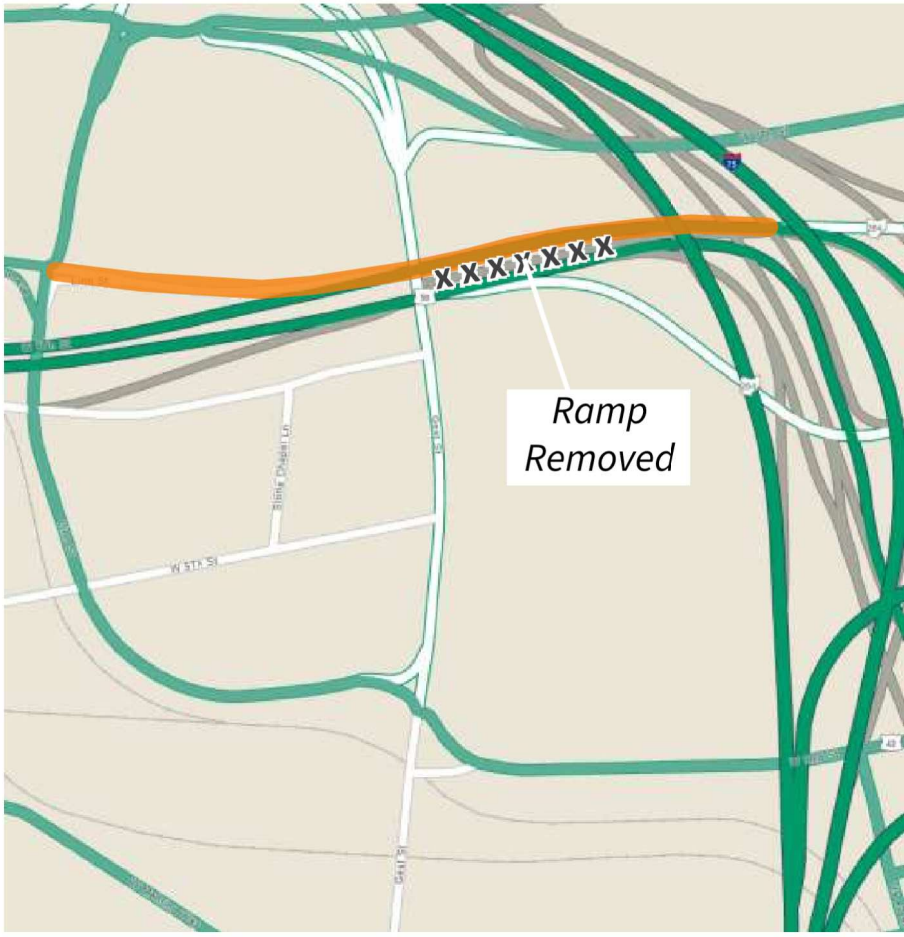




Ohio Recommended Innovations

3 | US-50 Roadway Consolidation

- Ramp from westbound US-50 to Gest Street removed
- Traffic rerouted to existing Linn Street exit
- Relatively low volumes
  - 580 vehicles in the AM peak hour

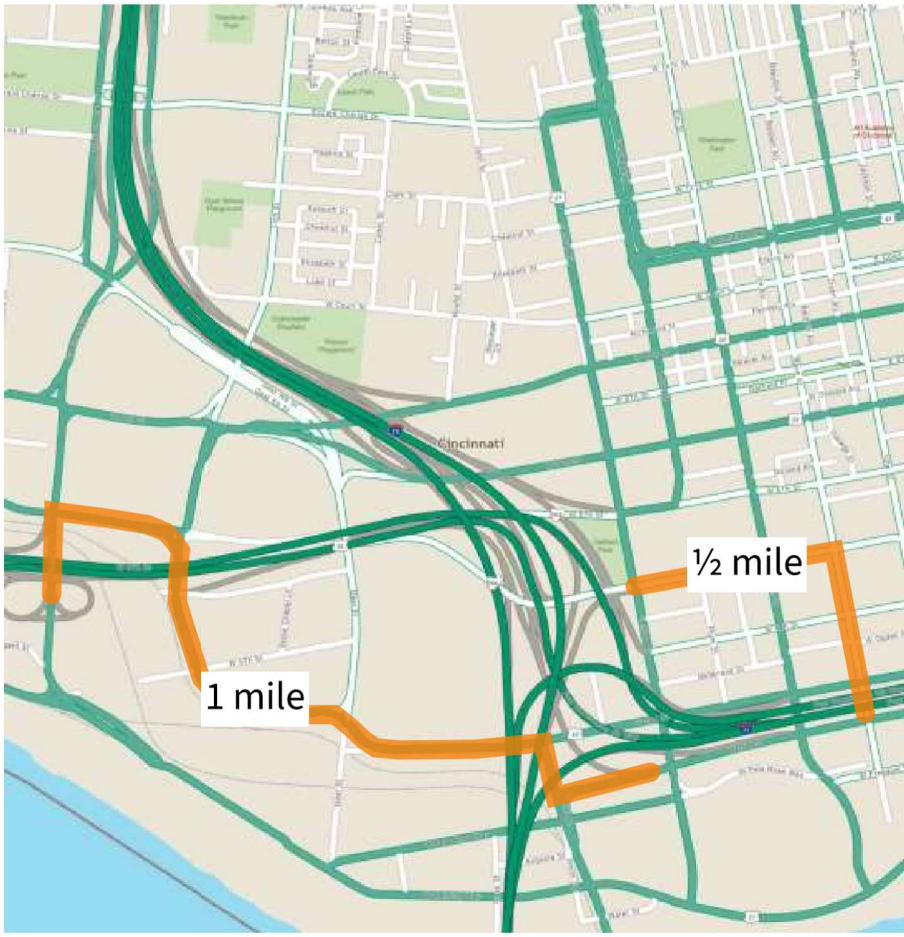




Ohio Recommended Innovations

3 | US-50 Roadway Consolidation

- Ramp from eastbound US-50 to 2nd Street removed
- Alternate routes
  - Existing Freeman Avenue exit (+1 mile)
  - 5th Street exit (+1/2 mile)
- Low volumes
  - 220 vehicles in AM peak hour
  - 90 vehicles in PM peak hour



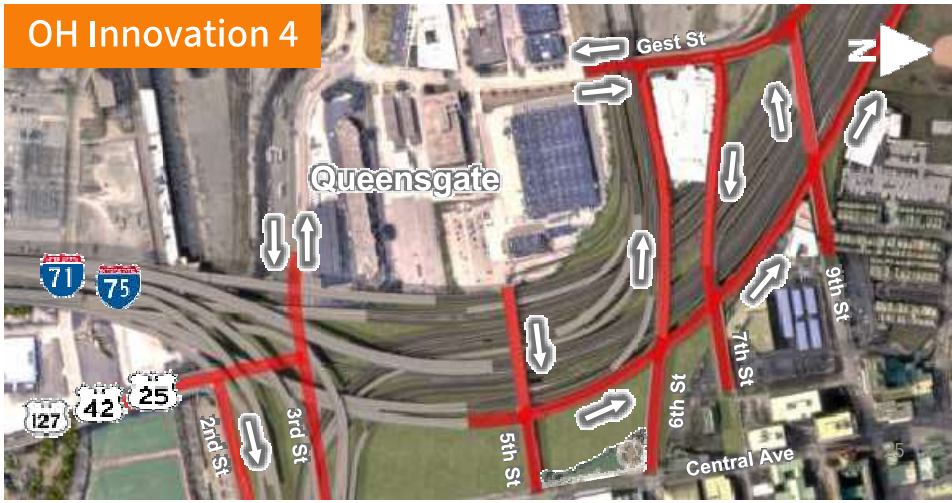


Ohio Recommended Innovations

4 | Realization of Street Grid Concept

- Improves connections to Queensgate for all modes of travel
- Shortens pedestrian crossing from downtown to Queensgate
- Condenses interchange footprint
- May open up additional developable land



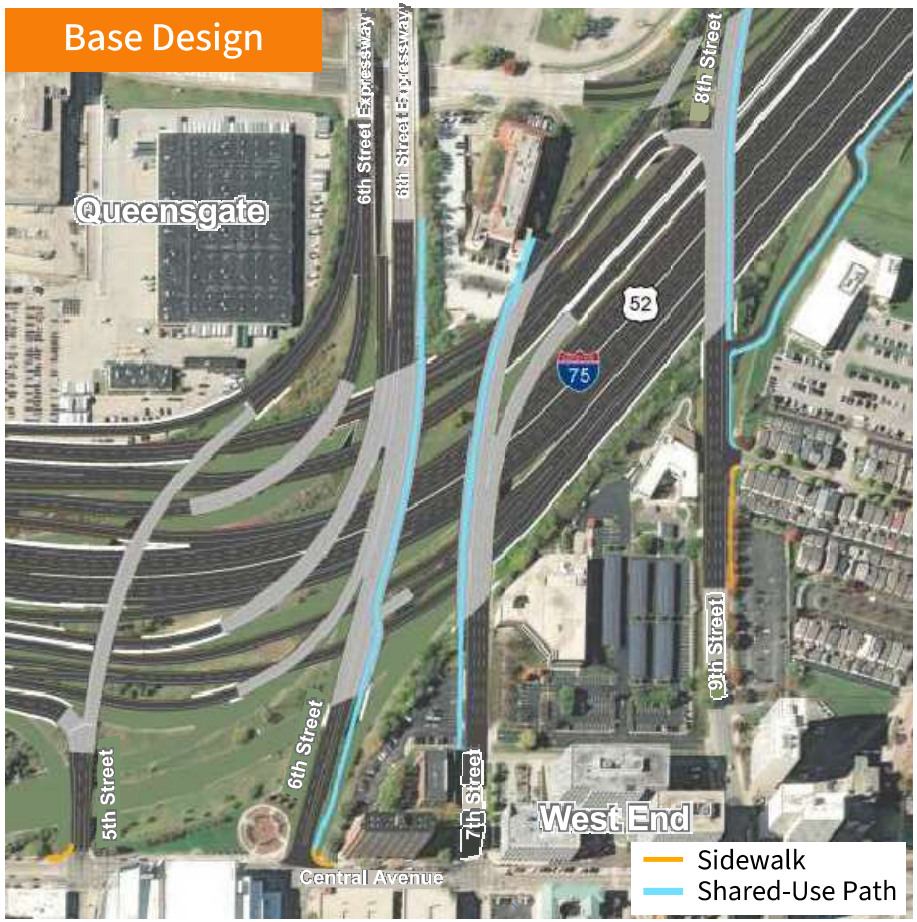




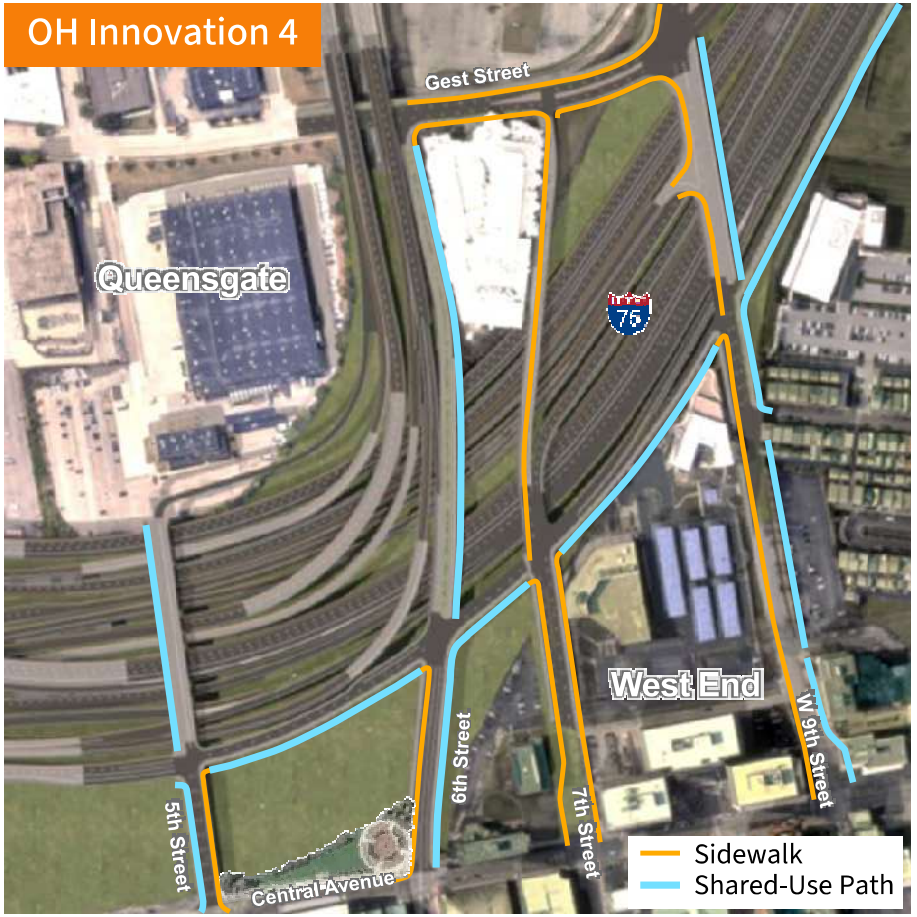
Ohio Recommended Innovations

4 | Realization of Street Grid Concept

Base Design



OH Innovation 4





Ohio Recommended Innovations

4 | Realization of Street Grid Concept





Environmental Commitments

Environmental Commitments

- Commitments to be carried out by KYTC and ODOT as the project progresses through detailed design and construction
- 62 total environmental commitments
  - Commitment 1: Innovation process
  - Commitment 31: Display in West End
  - Commitment 51: Specific design refinements to be evaluated

Environmental Commitment 31

In recognition of the history of city-sponsored urban renewal and the original Mill Creek Expressway (I-75) construction and as an enhancement in the West End neighborhood, ODOT will work with the City of Cincinnati, which includes the West End Community Council, to develop content for an interpretive display describing the West End community in relation to historic city urban renewal and the Millcreek Expressway construction and to identify a location in proximity to the I-75 corridor to install the display.

Environmental Commitments

- Commitments to be carried out by KYTC and ODOT as the project progresses through detailed design and construction
- 62 total environmental commitments
  - Commitment 1: Innovation process
  - Commitment 31: Display in West End
  - Commitment 51: Specific design refinements to be evaluated

Environmental Commitment 51

The following refinements suggested during public involvement activities will be further evaluated during the innovation process for the Phase III progressive design-build contract:

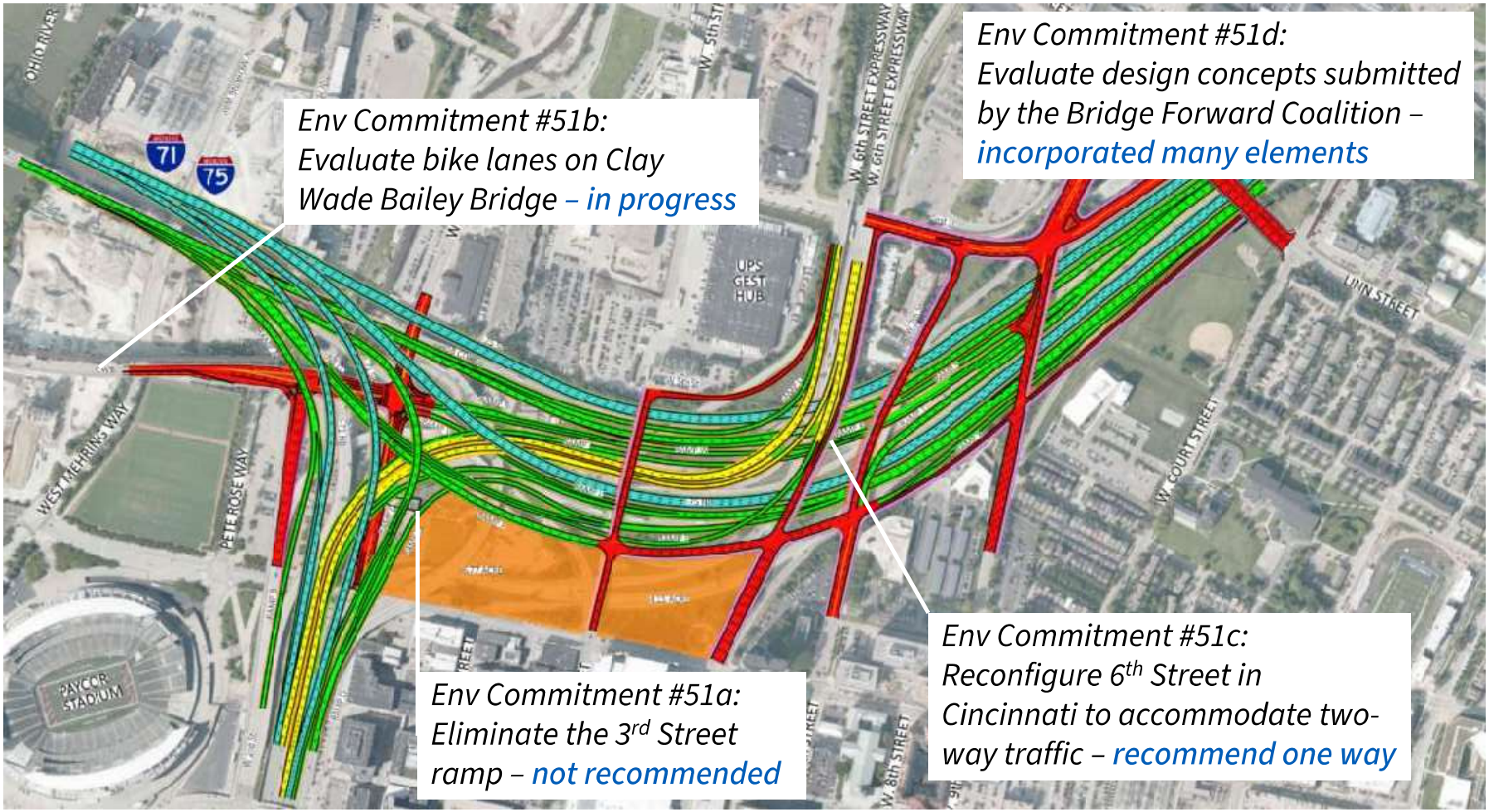
a. Eliminate the 3rd Street ramp to the northbound collector-distributor system in Cincinnati and redirect traffic to the proposed connection at the end of the Clay Wade Bailey Bridge;

b. Reconfigure the lanes on the Clay Wade Bailey Bridge to add bicycle lanes;

c. Reconfigure 6th Street in Cincinnati to accommodate two-way traffic; and

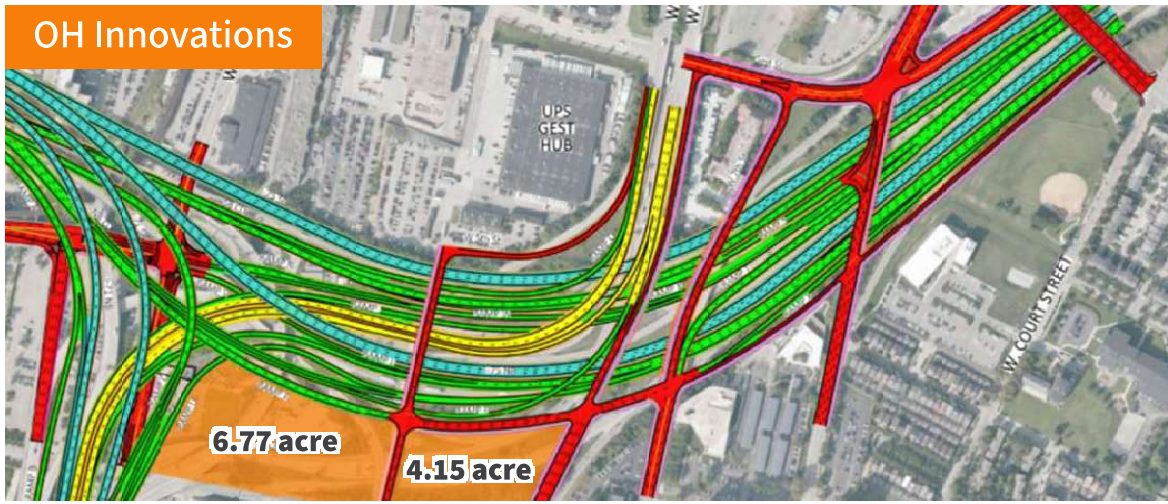
d. Design concepts submitted by the Bridge Forward Coalition.

Environmental Commitments



Environmental Commitments

- Recommended Ohio innovations and Bridge Forward design accomplish many of the same goals





Environmental Commitments

MEETS OR EXCEEDS OBJECTIVES

Operation	Reconnecting Communities	Pedestrian Access	Developable Land	Constructability	Safety	Cost	Schedule
IN Similar to base design.	IN BF Queensgate connections via 6th, 7th, and 9th. Allows for future extension of 5th.	IN BF CBD to Queensgate connection approximately **575ft**/**460ft** along 5th.	IN BF **11 acres**/ **14 acres**	IN Larger work area. Less temporary pavement. Reduced traffic impacts during construction.	IN Less overhead work. Improved safety for motoring public. Contractor preferred for worker safety.	IN 1% decrease	IN Comparable to base design.

DOES NOT MEET OBJECTIVES

Operation	Reconnecting Communities	Pedestrian Access	Developable Land	Constructability	Safety	Cost	Schedule
Cannot function as submitted. Operations fail even with significant design changes. BF				Constrained work area. Trench work area. Multi-level construction. BF	Increased worker and motoring public exposure to high-risk traffic conditions. BF	25-30% increase BF	Additional 1-2 years. BF

Recommended Ohio Innovations IN

Bridge Forward Concept BF



Next Steps

Next Steps

- Conduct outreach to community councils, neighborhood groups, and other stakeholders
- Update and confirm traffic and environmental studies for the recommended innovations
- Proceed to detailed design (Phase III)
  - 30% plans by August 2024
  - Contractual estimate update
  - Identify early work packages
- City of Cincinnati is updating the 2011 planning study, often referred to as “Revive 75”



BRENT SPENCE
BRIDGE CORRIDOR

THANK YOU!

www.brentspencebridgecorridor.com

Department of Transportation

TEAM KENTUCKY
TRANSPORTATION CABINET