

The Texas Turnaround:

4th Street Ramp Traffic and Safety Improvement Project

KYTC Item No. 6-82.00

September 4, 2024



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Agenda



Planning & Design

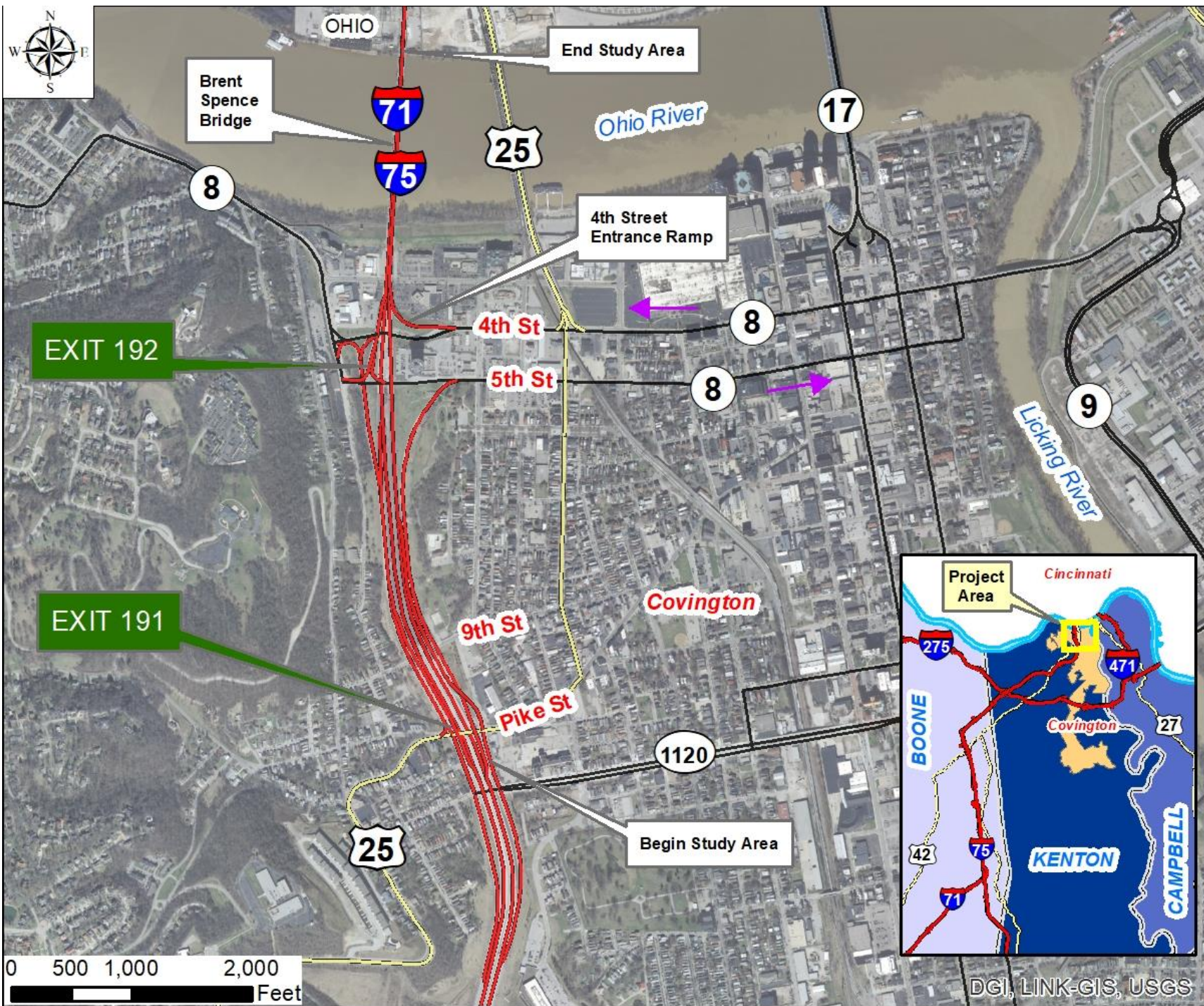
1. Project Overview
2. Goals & Issues
3. Project Features
4. Traffic Signals & Signing



Construction

5. Project Letting
6. Maintenance of Traffic
7. Construction Progress





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Project Area

Studied under the
Brent Spence
Strategic Corridor
Study (KYTC Item
No. 6-431)



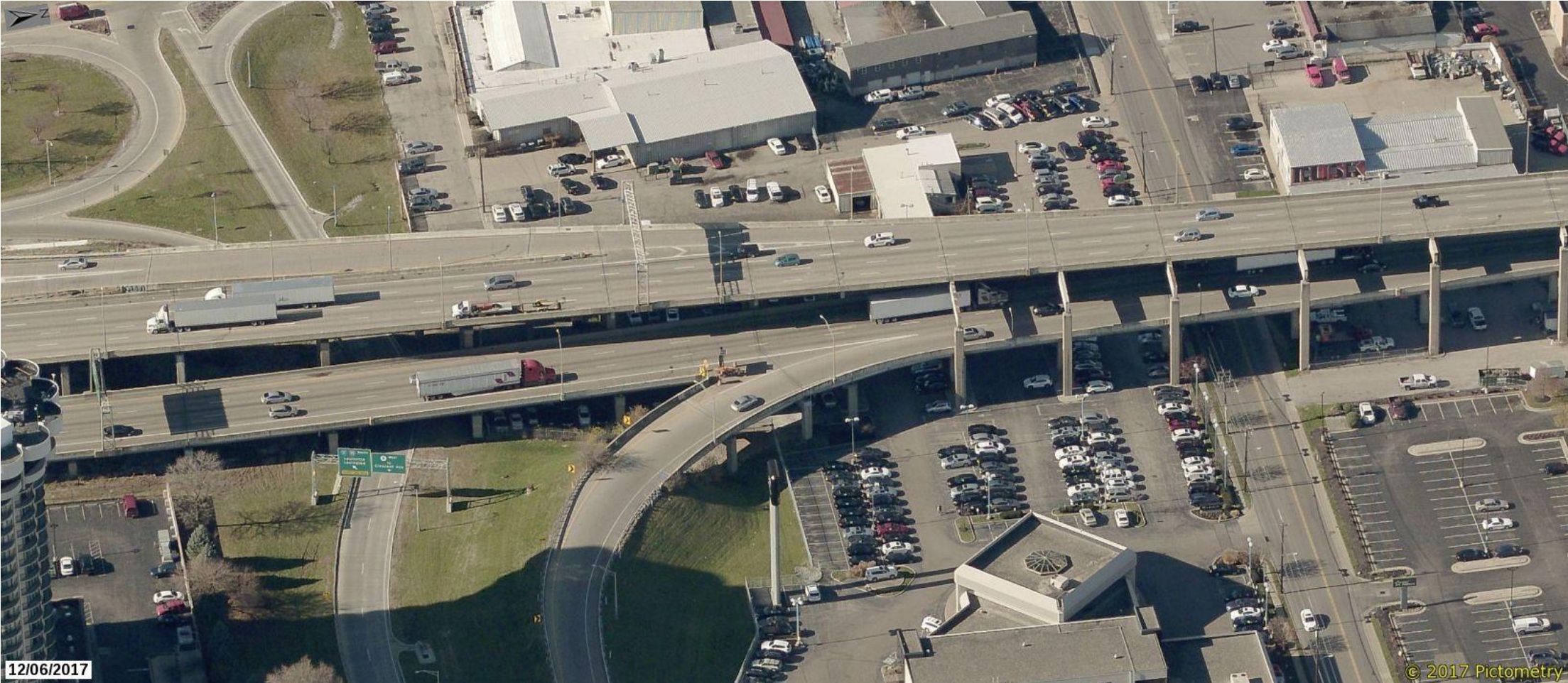
An aerial photograph showing a complex highway interchange. A red arrow points from a text box to a specific ramp. The interchange includes a large bridge structure crossing a river. The surrounding area contains residential neighborhoods, commercial buildings, and parking lots.

4th Street Ramp

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© 2016 Pictometry (03/08/2016)

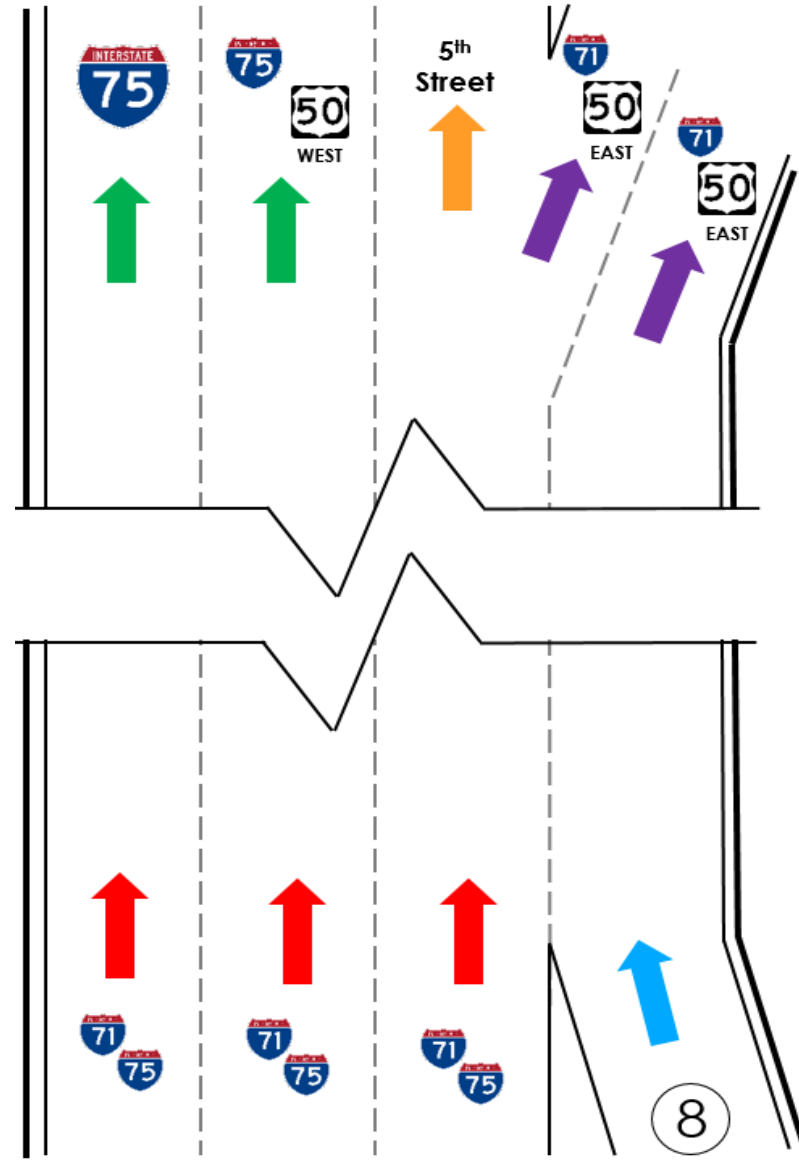
4th Street Entrance Ramp



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Weaving

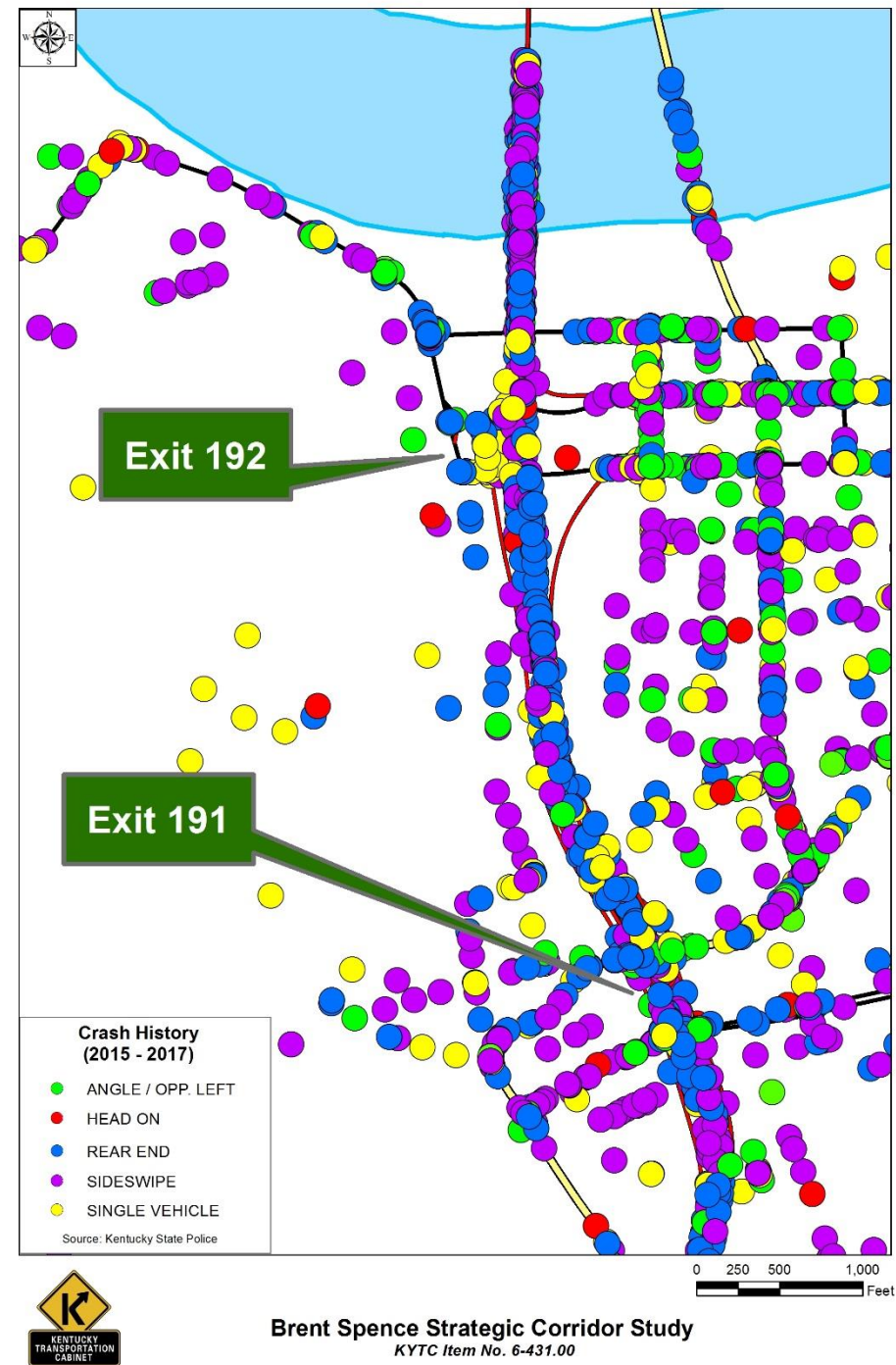
- Brent Spence Bridge is about 2,800' long
- 4th Street traffic weaved across two lanes to access I-75 northbound



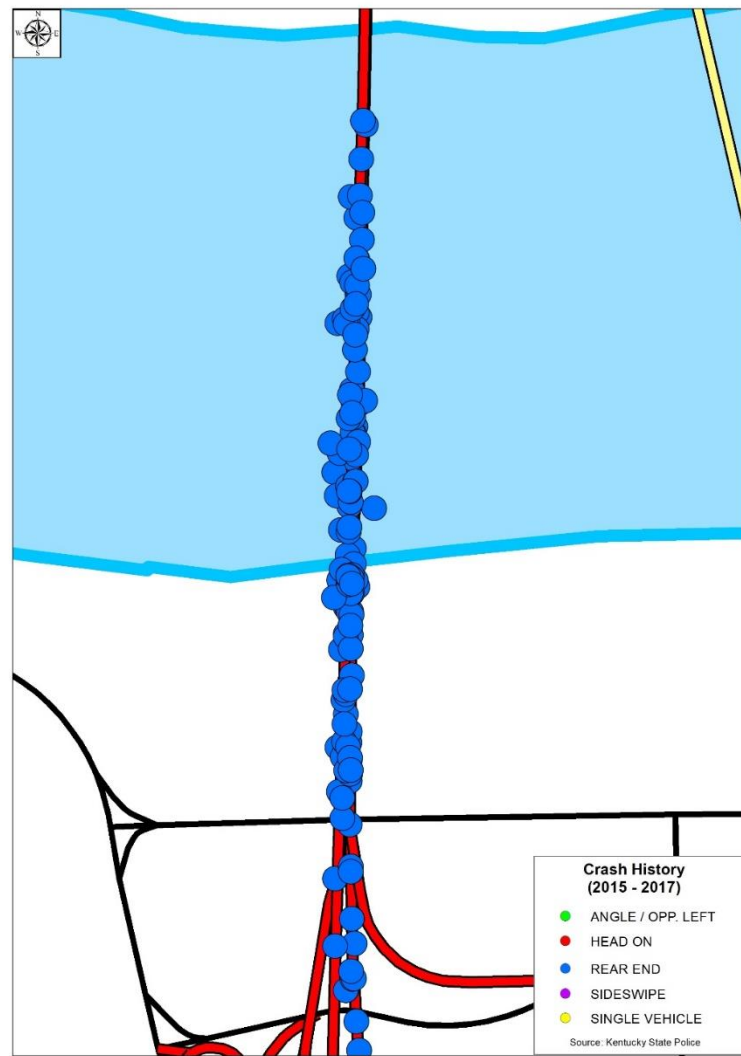
I-75 Crash History

2015-2017

- MP 190 – 191.777
(OH State Line)
- 708 Crashes



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Brent Spence Strategic Corridor Study
KYTC Item No. 6-431.00

124 Rear End
Crashes



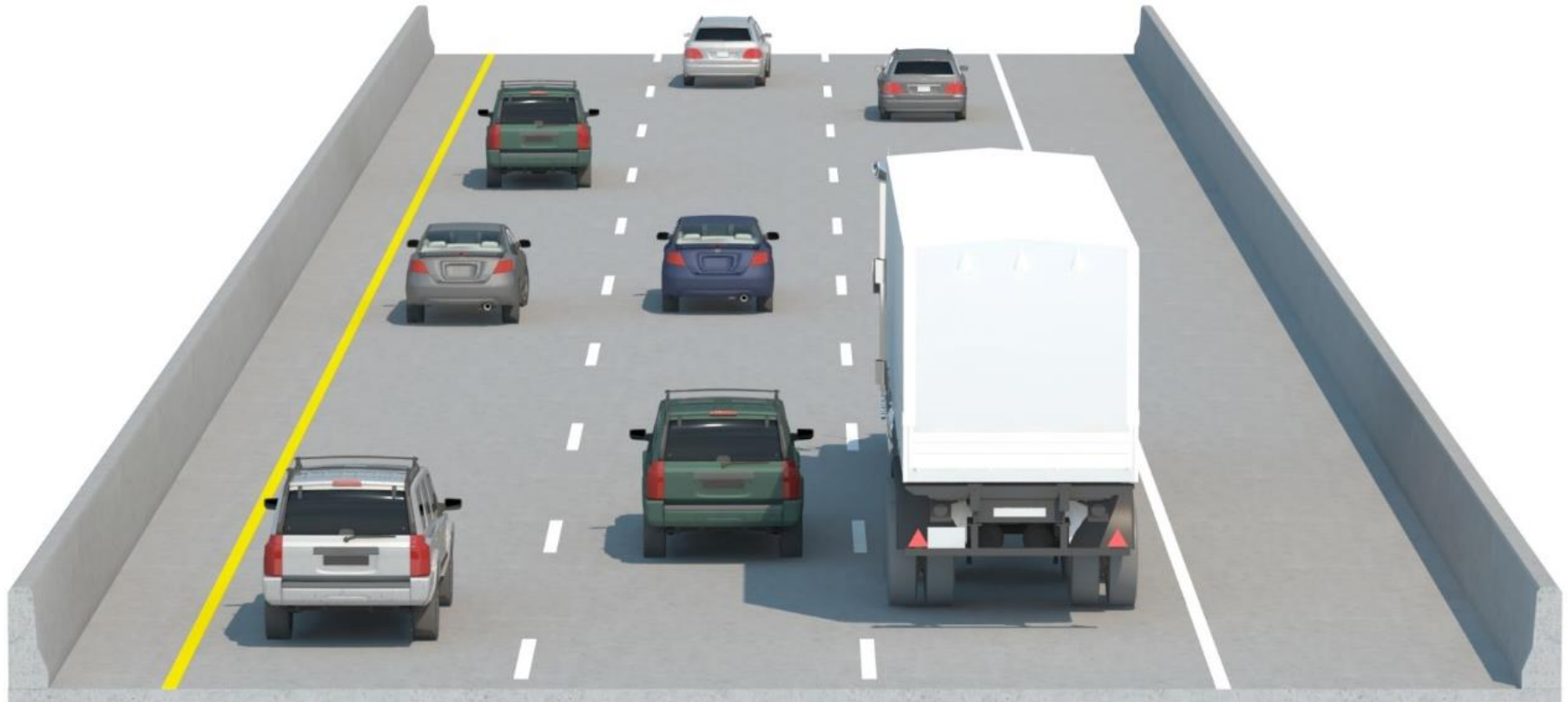
Brent Spence Strategic Corridor Study
KYTC Item No. 6-431.00

124 Sideswipe
Crashes

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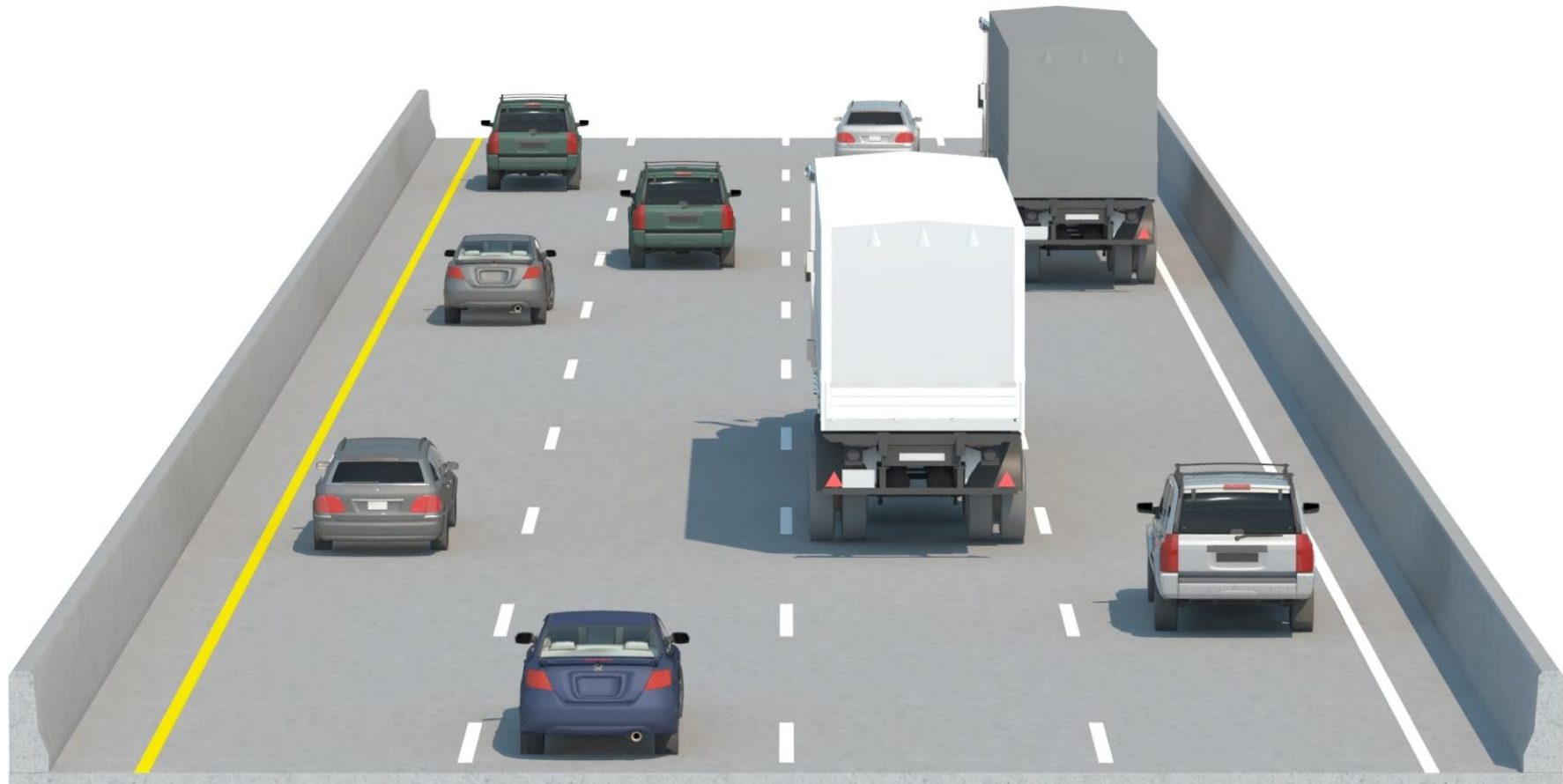
Previous Typical - South of 4th Street

Three lanes with shoulders



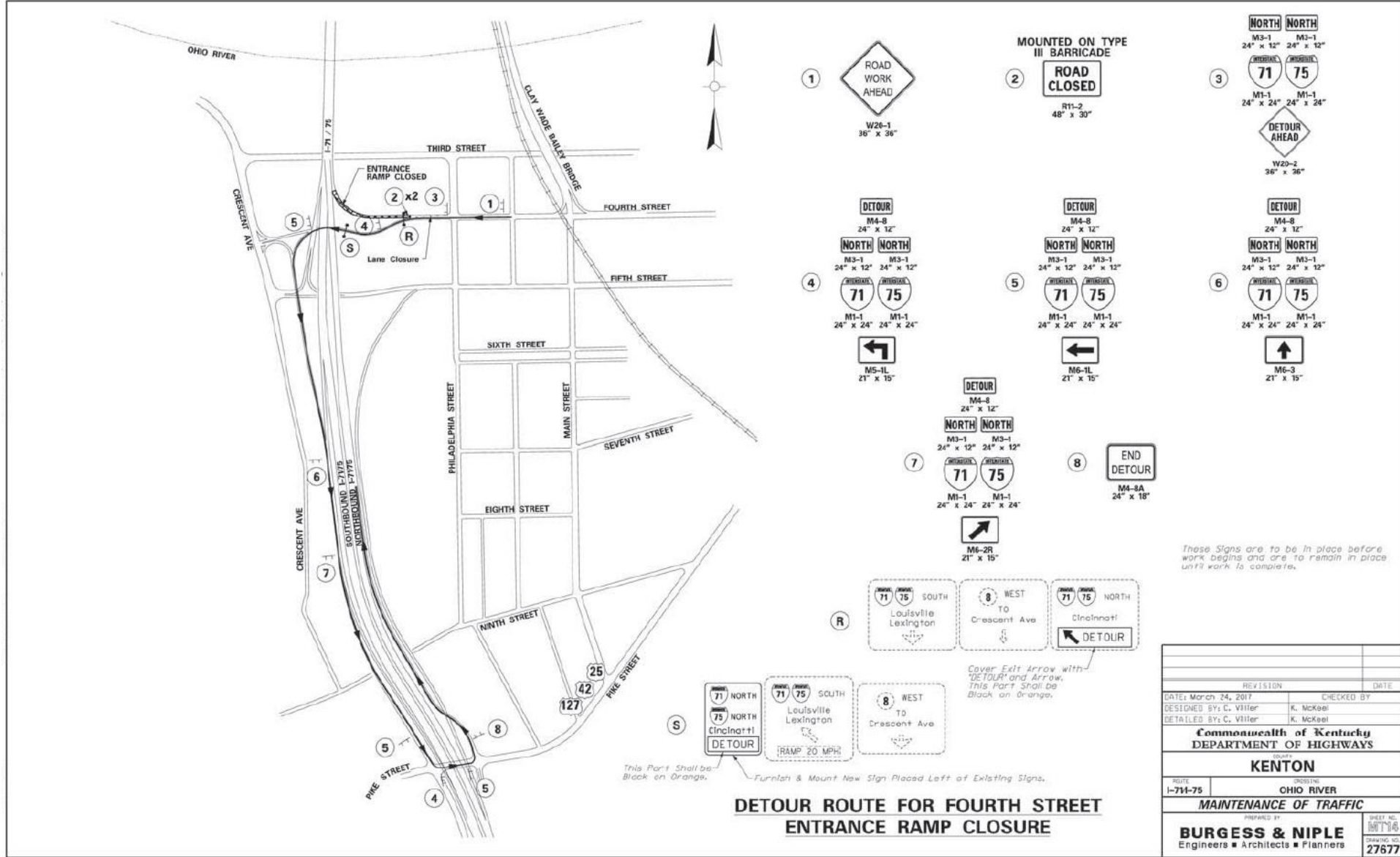
The Goal - South of 4th Street

Four lanes with reduced shoulders



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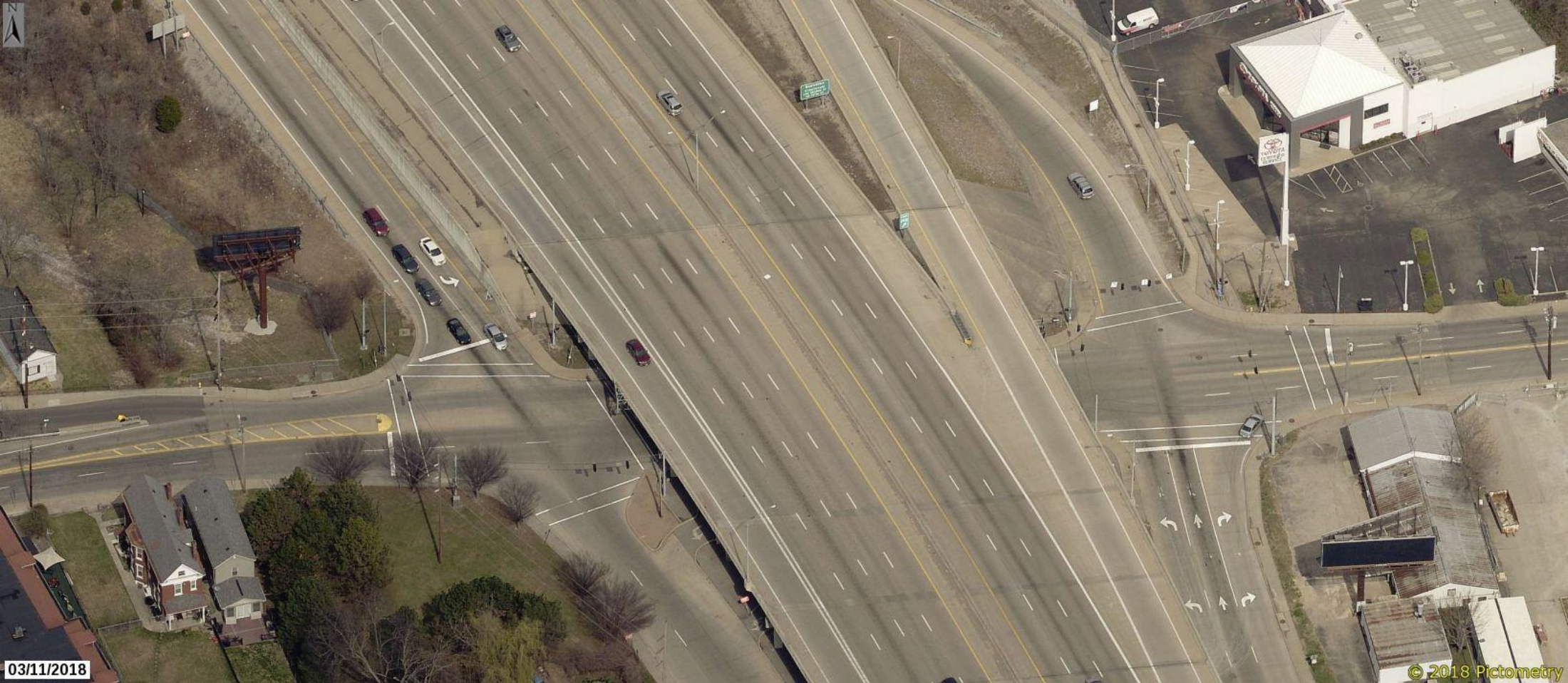
BSB Rehab - 4th Street Detour



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| | | |
|--|------------------------|-------|
| REVISION | | DATE |
| DATE: March 24, 2017 | CHECKED BY: | |
| DESIGNED BY: C. Viller | K. McKeel | |
| DETAILED BY: C. Viller | K. McKeel | |
| Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS | | |
| COUNTY KENTON | | |
| ROUTE I-71-75 | CROSSING OHIO RIVER | |
| MAINTENANCE OF TRAFFIC | | |
| PREPARED BY BURGESS & NIPLE Engineers ■ Architects ■ Planners | | |
| SHEET NO. DRAWING NO. | | 27677 |

Pike Street

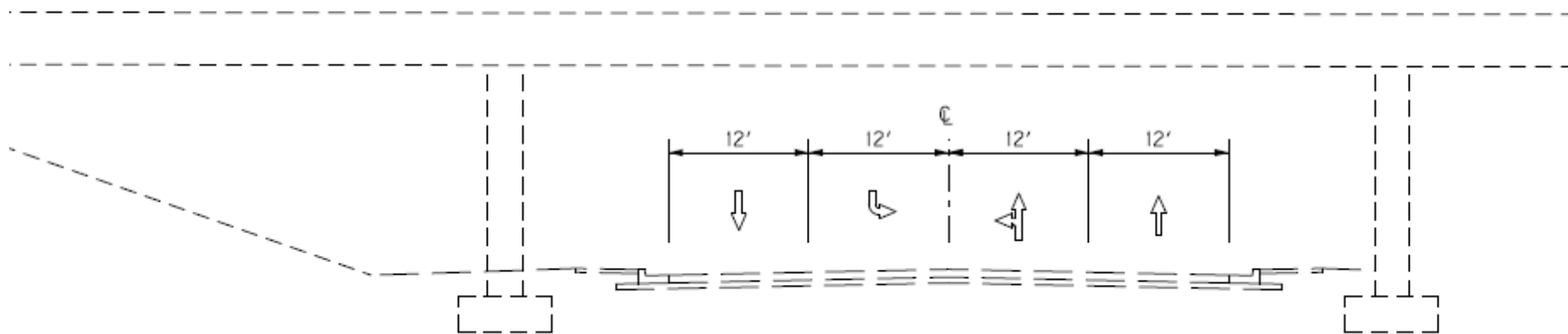


03/11/2018

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Pike Street – Pre-Project



The Concept

- Reroute 4th Street Access to Pike Street & provide free-flow turnaround
- Restripe northbound I-71 / I-75 for four lanes

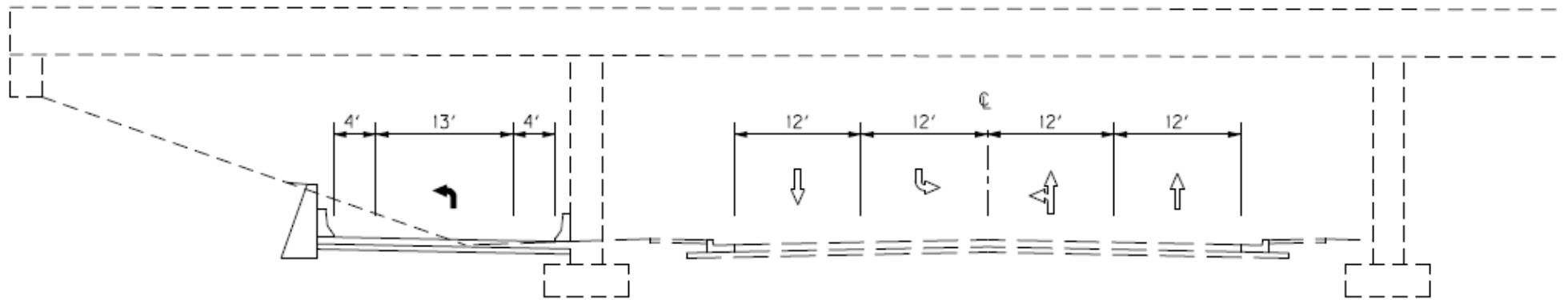


Pike Street – Pre-Project



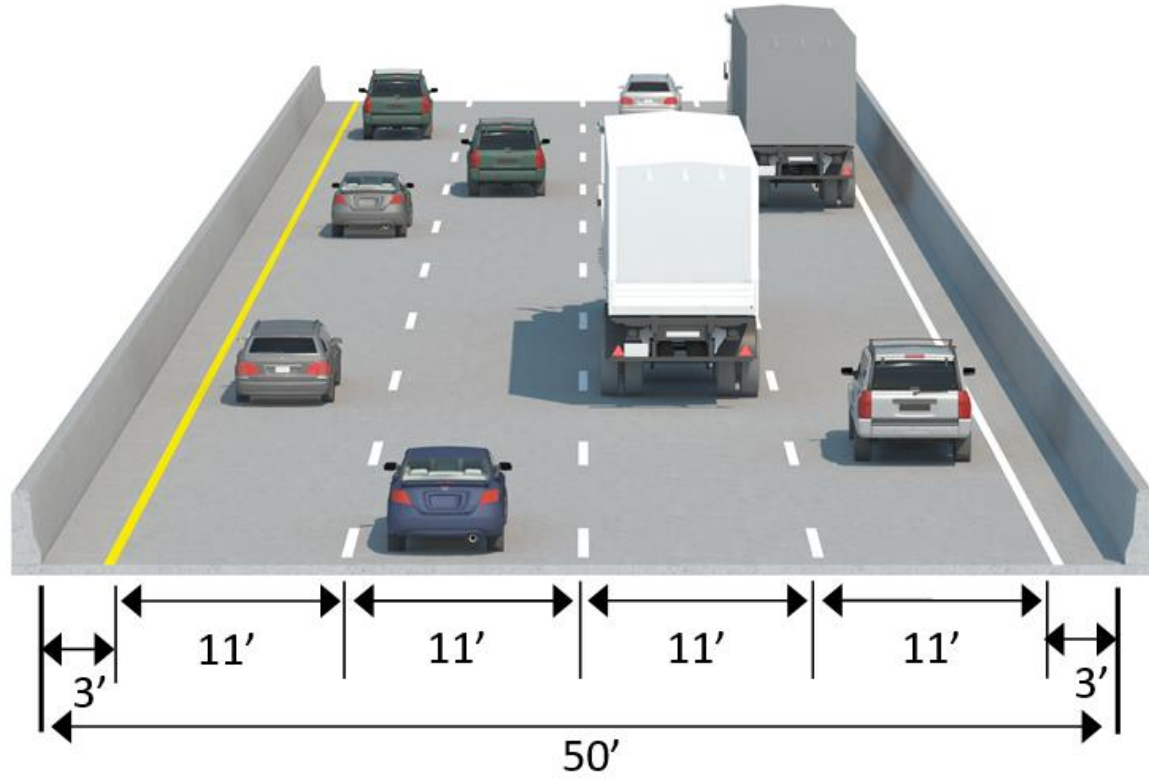
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Pike Street - Texas Turnaround

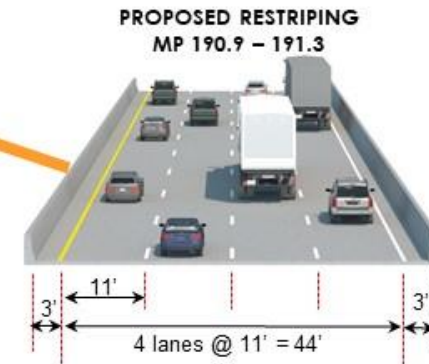
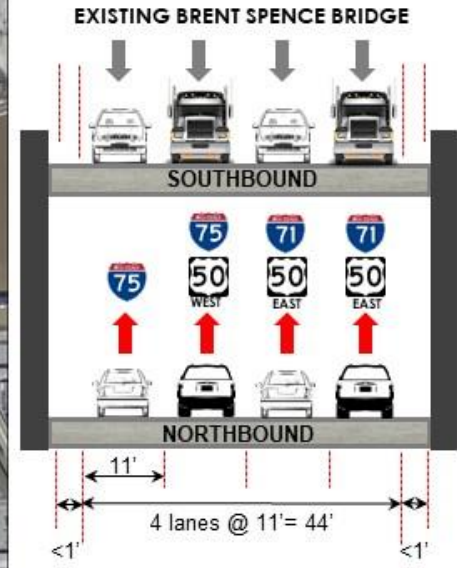


TEXAS TURNAROUND / LOOP AROUND OPTION

“Transition” Typical Section



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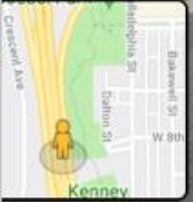


Emergency Vehicle Access at 4th Street



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Signing Plans – Overhead Assemblies



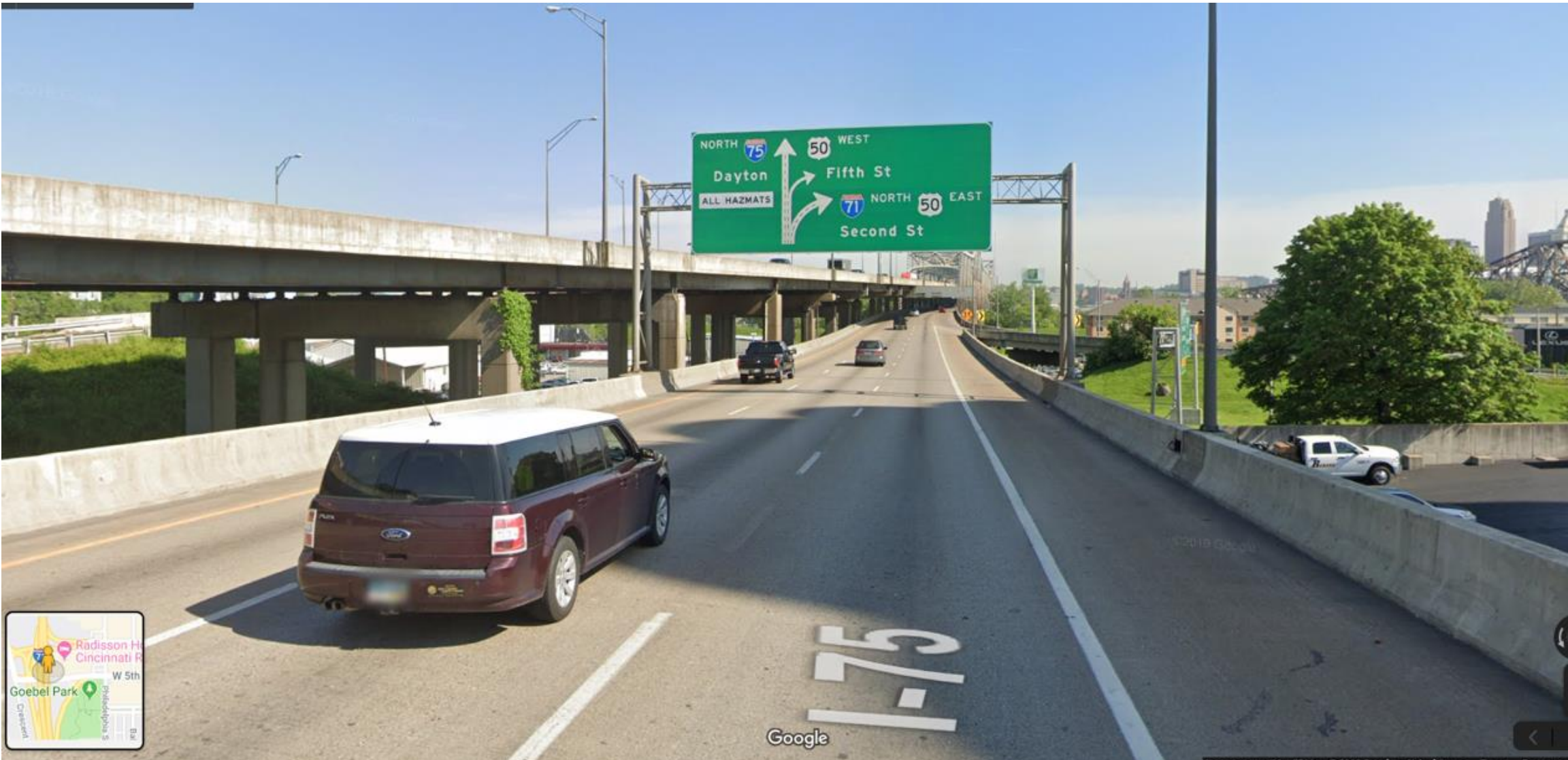
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Signing Plans – Overhead Assemblies



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Signing Plans – Overhead Assemblies



Google

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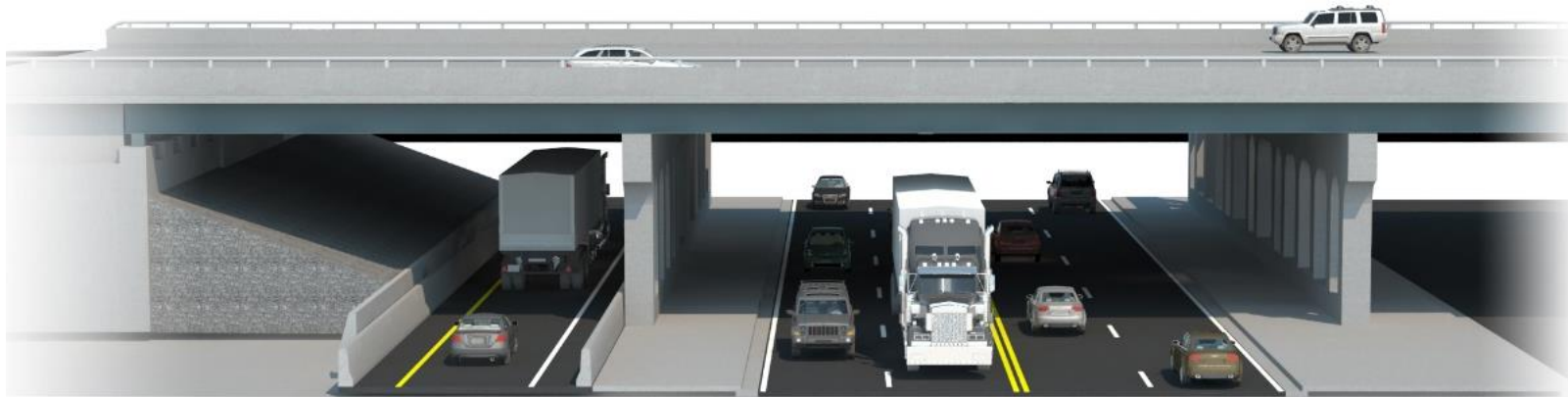
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Signing Plans – Overhead Assemblies



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Construction



Construction Letting

- Originally let in September 2021
 - Low bid was 81% over Engineer's Estimate
 - KYTC rejected bids
- KYTC Modified Project Requirements
 - Completion remained 12/1/2022
 - Ramp B / C closures changed from 90 to 180 days
 - Liquidated damages for mainline I-71/I-75 lanes only
 - Engineer's Estimate was revised

Construction Letting #2

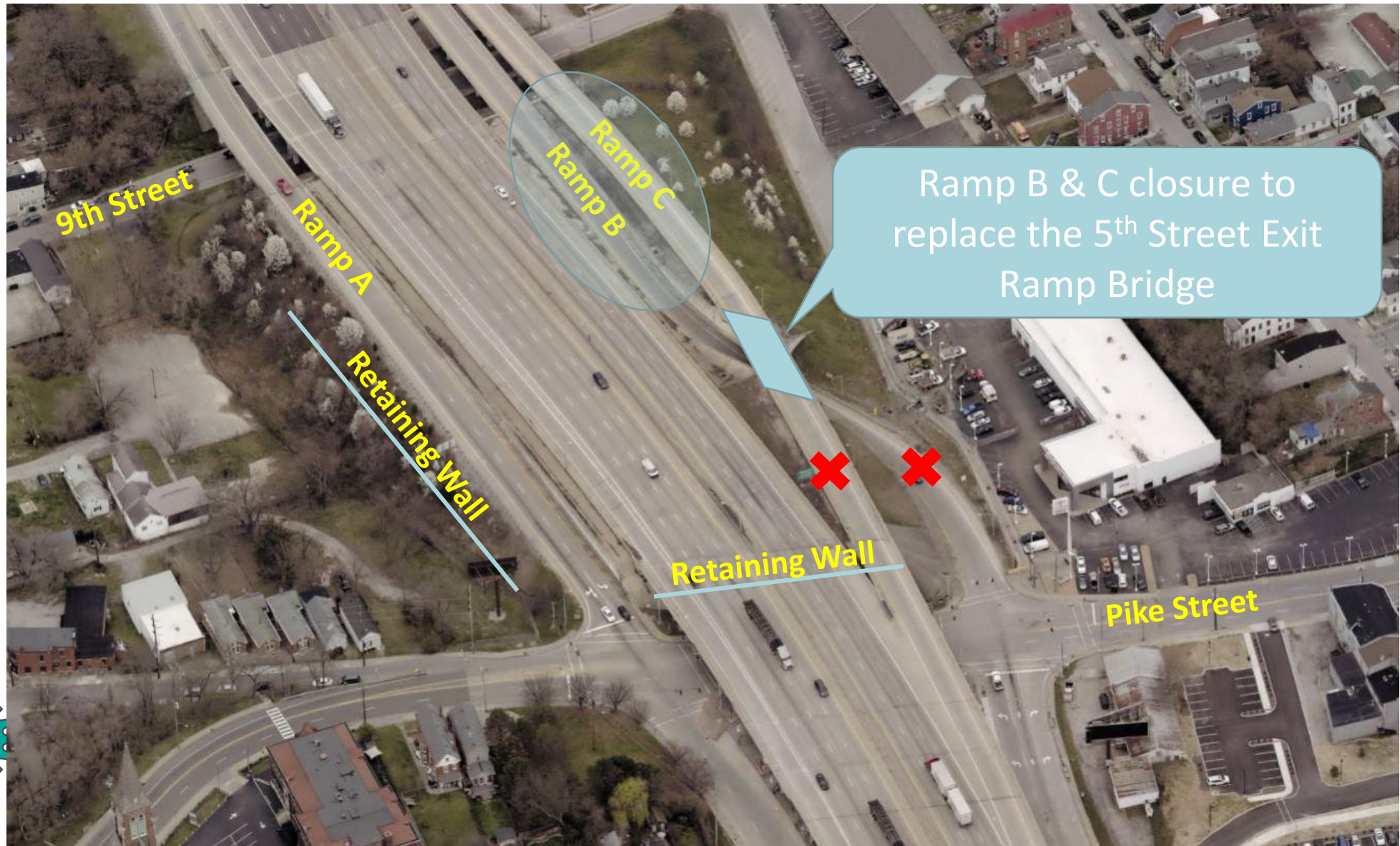
- November 2021

Call #: 103 **Contract ID:** 211349 **Results Status:** Awarded to SUNESIS CONSTRUCTION COMPANY on 12/1/2021
County: KENTON **Project Description:** TURNAROUND INCLUDING NORTH LANES AND ENTRANCE RAMPS
Project: CM 0758 (106)
Road: I-75/I-71

| Engineer's Estimate: \$8,624,176.24 | |
|-------------------------------------|-----------------|
| SUNESIS CONSTRUCTION COMPANY | \$8,781,411.00 |
| EATON ASPHALT PAVING CO INC AND | \$10,776,160.03 |

- Project was awarded to Sunesis Construction Co.
- Pre-construction conference was held on February 9, 2022
- Work began on Mar 16, 2022

Structures



5th Street Ramp Bridge

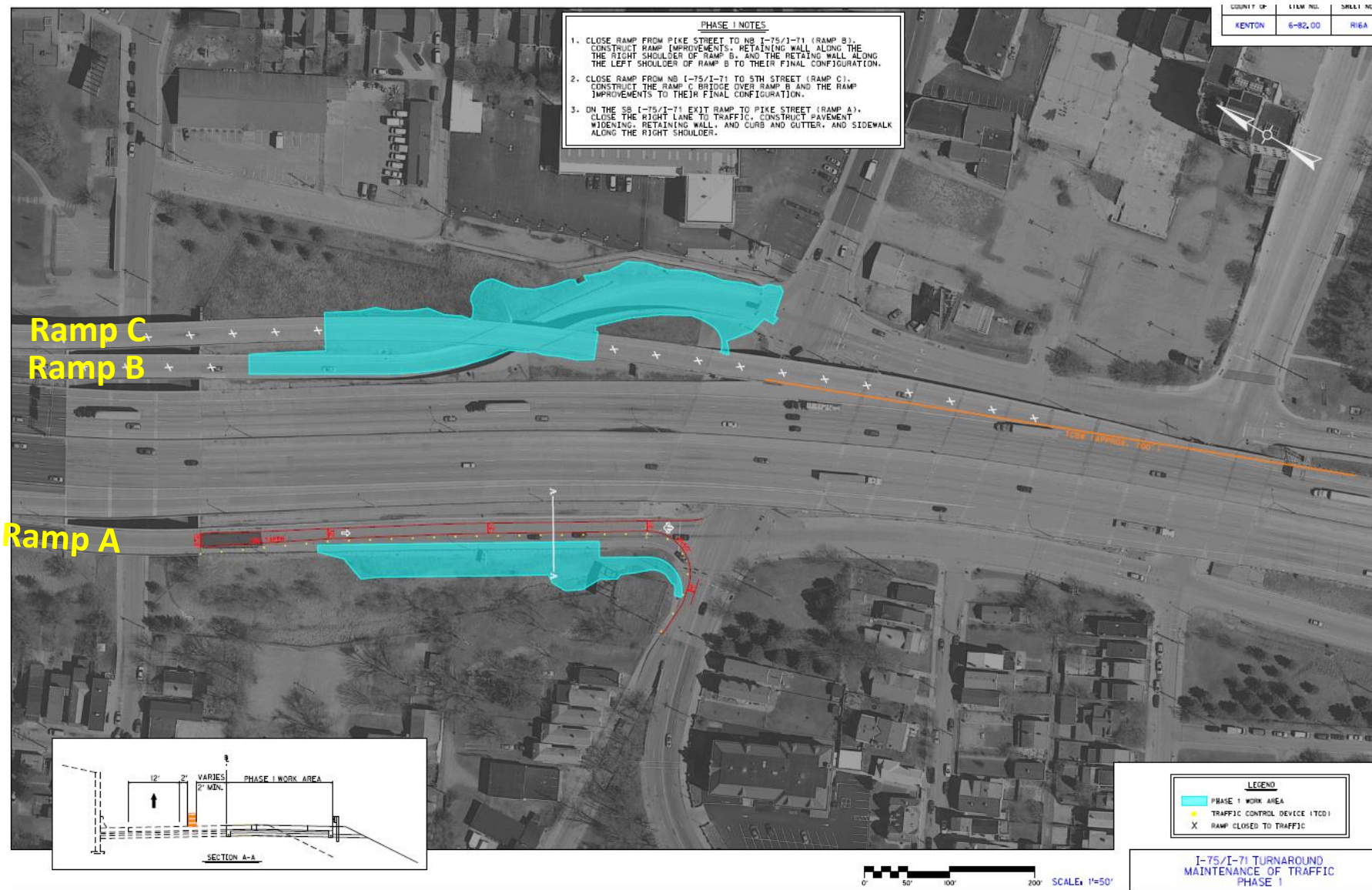


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Pre-Construction Activities

- KYTC met with local Emergency Management personnel on Mar 7, 2022
 - KYTC is partnering with local agencies to support their needs and allow them to continue their work with minimal disruption
- KYTC D6 is working with Lochner through Statewide CEI contract for field engineering and inspection services

Maintenance of Traffic – Phase 1



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May 19, 2022



May 19, 2022





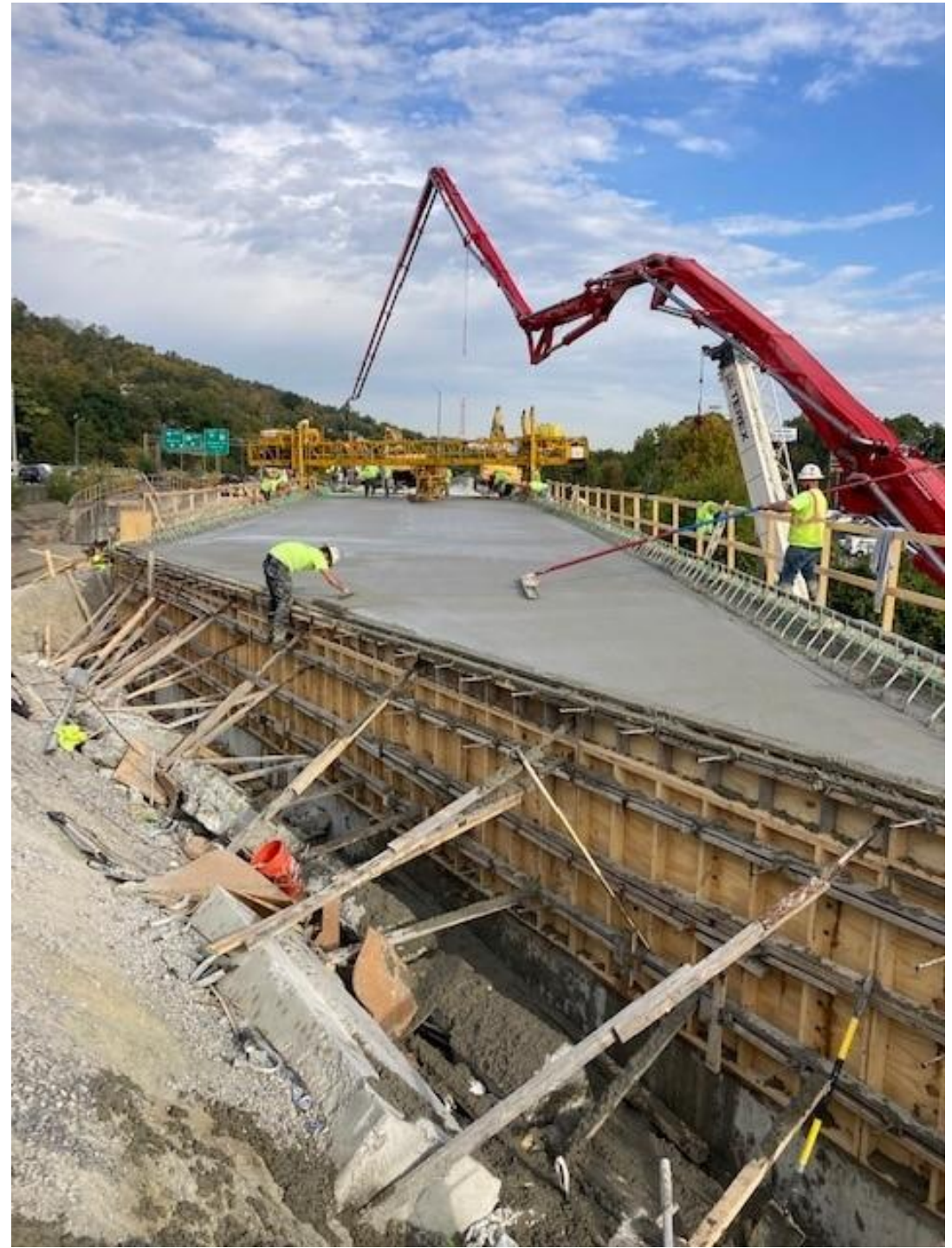
Ramps B & C

- Ramps B & C are closed for construction of new 5th Street Exit Ramp bridge



Ramps B & C

- Ramps B & C are closed for construction of new 5th Street Exit Ramp bridge



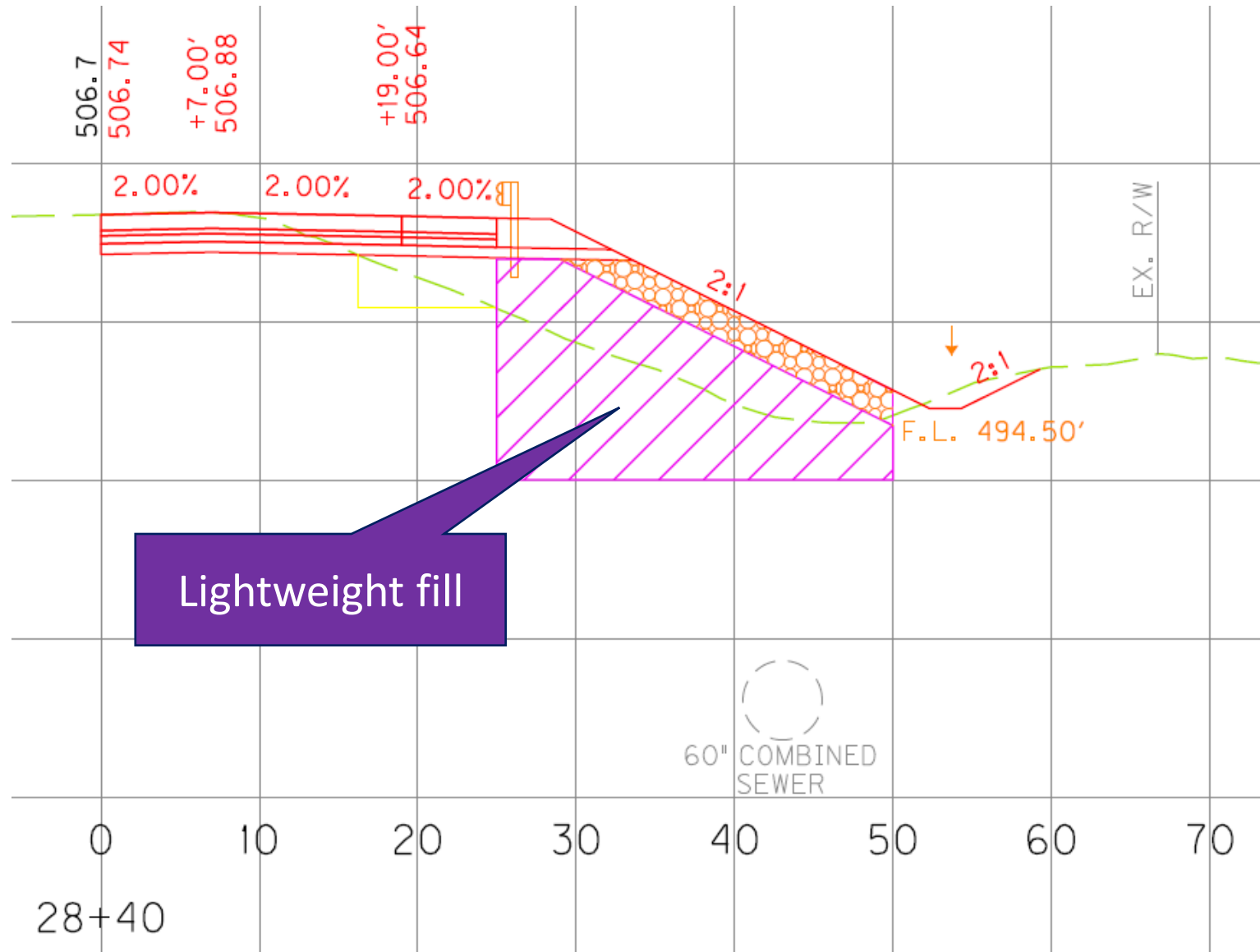
Ramps B & C

- Beams from Pre-Stressed Services in Melbourne, KY (30 minutes)
- Critical milestone – September 16

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Ramp A - Minimizing Utility Conflict



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Ramp A

- EPS Foam Cell Blocks used to protect SD-1 Combined Sewer





Caisson Drilling



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Granular Backfill

- Drilling for “cans” in granular backfill was tricky
- Timber lagging wall with open excavation



Soil Nail Wall

- Grout columns prior to soil nails helped with excavation and minimize grout overruns



Barrier Gate

- Vendor from North Carolina
- Remote controlled
- Rep provided training with Covington Emergency Personnel



How is the Texas Turnaround Operating?

In the Texas Turnaround's first year of operation, crashes fell 41.6 percent from the previous year and 42.5 percent from the previous eight-year average, according to the Northern Kentucky office of the Kentucky Transportation Cabinet...

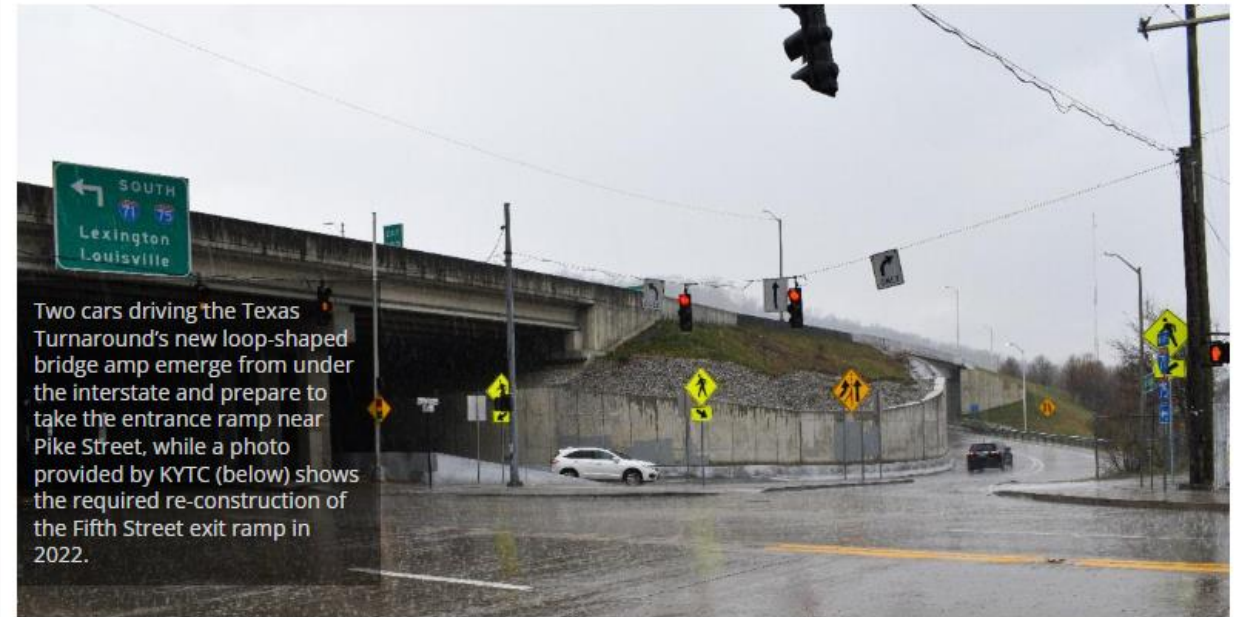
- The Lane Report

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Covington's 'Texas Turnaround' bridge ramp cuts wrecks 41.6%

In first year, redesign of entrance ramp to Brent Spence delivered on safety promise

🕒 March 5, 2024 📖 1,184 Views



COVINGTON, Ky. — Crash statistics show the “Texas Turnaround” is delivering as promised when it comes to improving safety on the Brent Spence Bridge entrance ramp, lowering an average of 36 crashes annually to 21 in its first year.

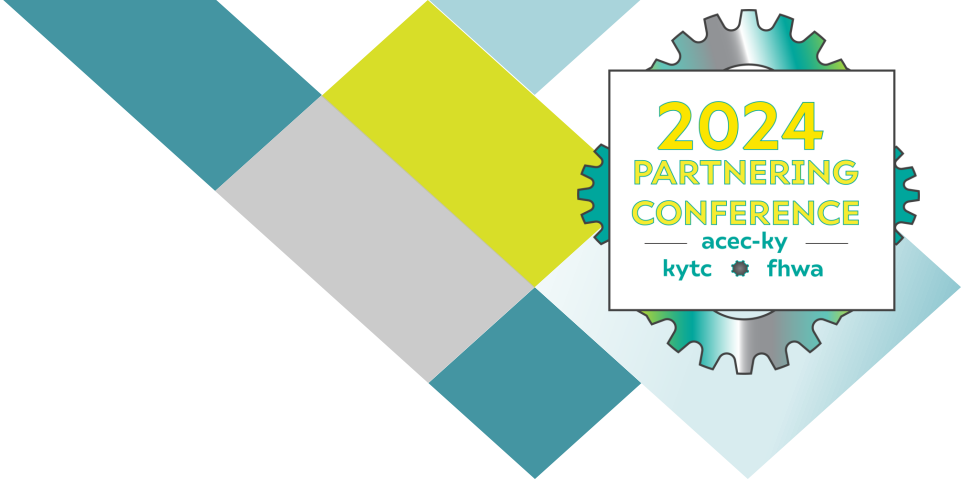
Questions?



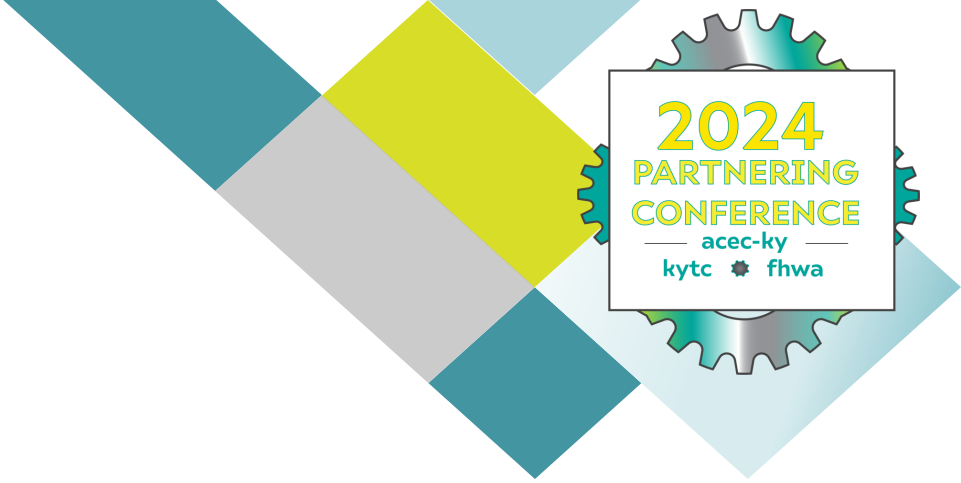
TEAM KENTUCKY®

TRANSPORTATION
CABINET





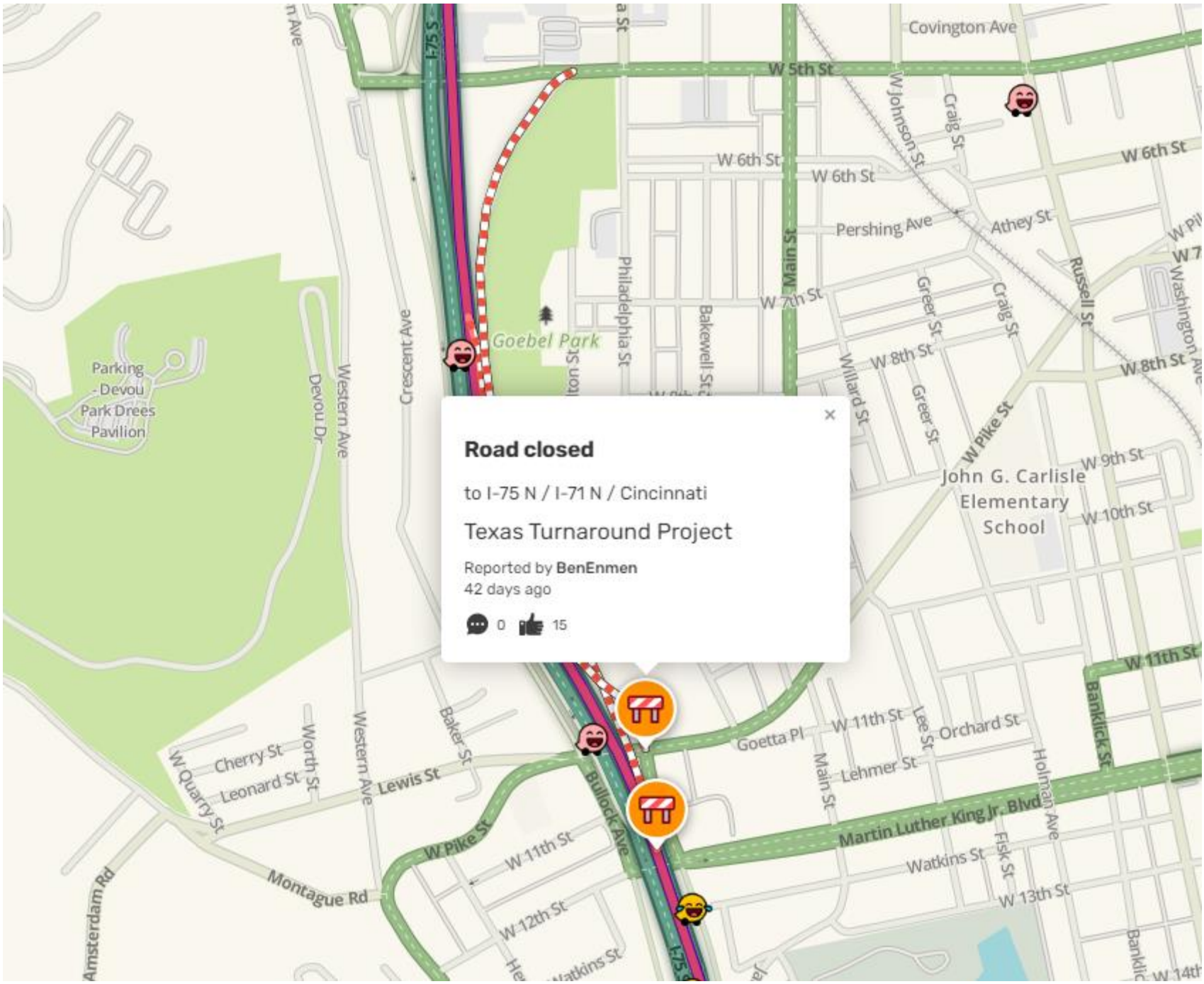
Texas Turnaround on I-75/I-71 in Covington 10:50am



Texas Turnaround on I-75/I-71 in Covington 3:50 pm

Traffic Counts – 6-431 Study

- January 2017 – 12,200 VPD
 - AM Peak – 1,225 VPH
 - PM Peak – 805 VPH
- March 2017 – Avg. 12,560 VPD; Max 13,750 VPD
 - AM Peak – 1,230 VPH
 - PM Peak – 800 VPH



Road closed

to I-75 N / I-71 N / Cincinnati

Texas Turnaround Project

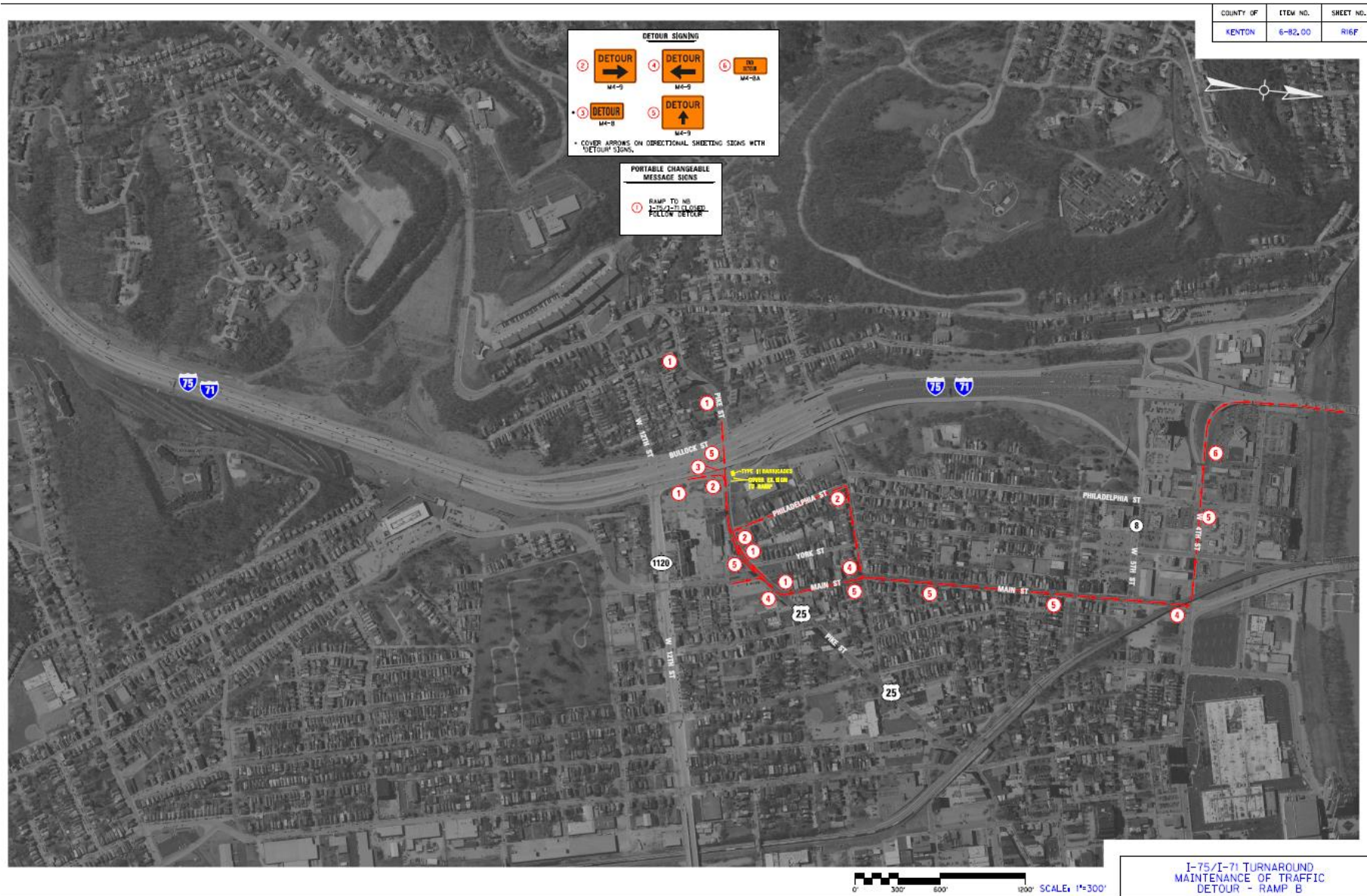
Reported by BenEnmen
42 days ago

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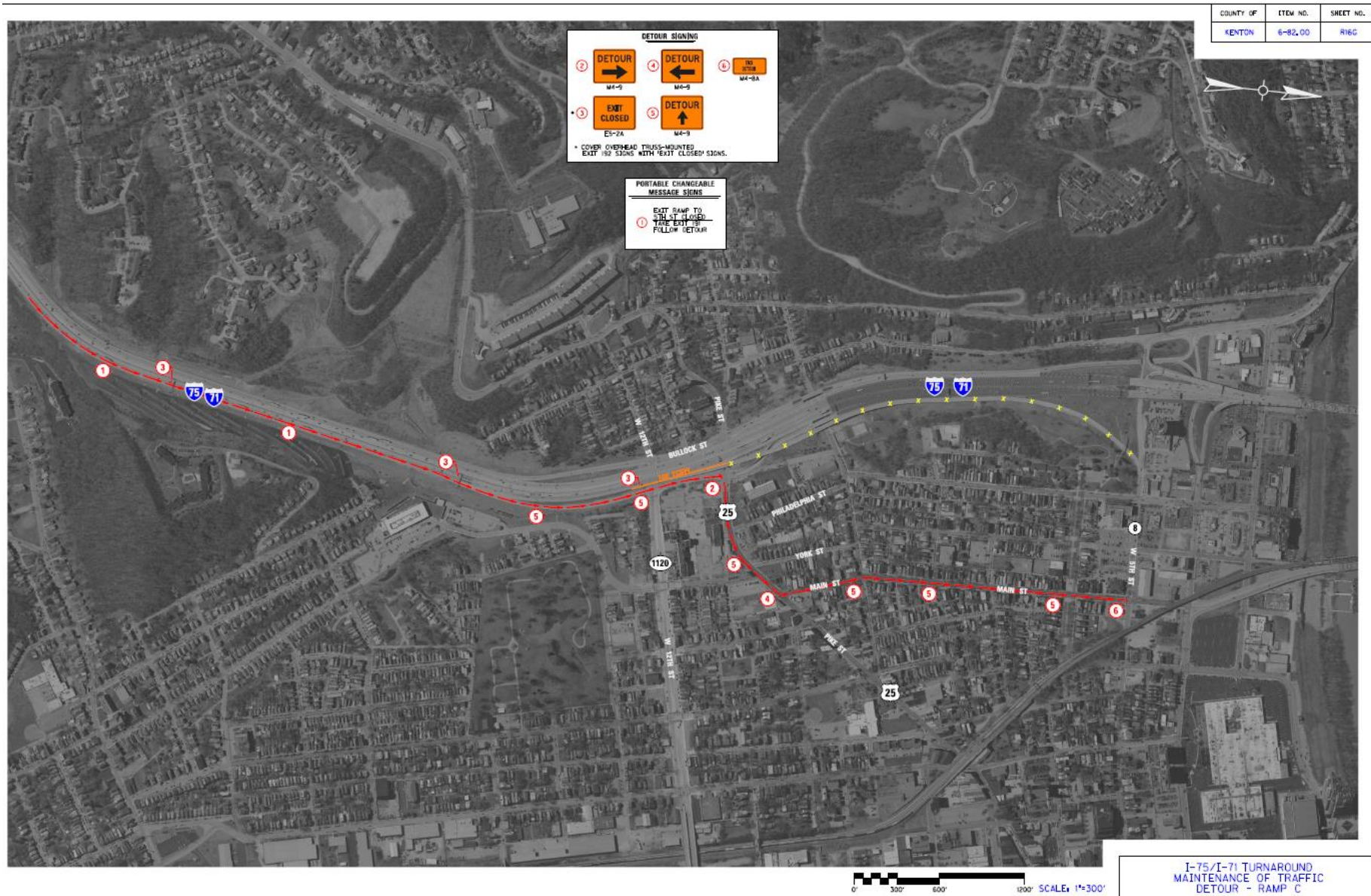
Pike Street – Texas Turnaround



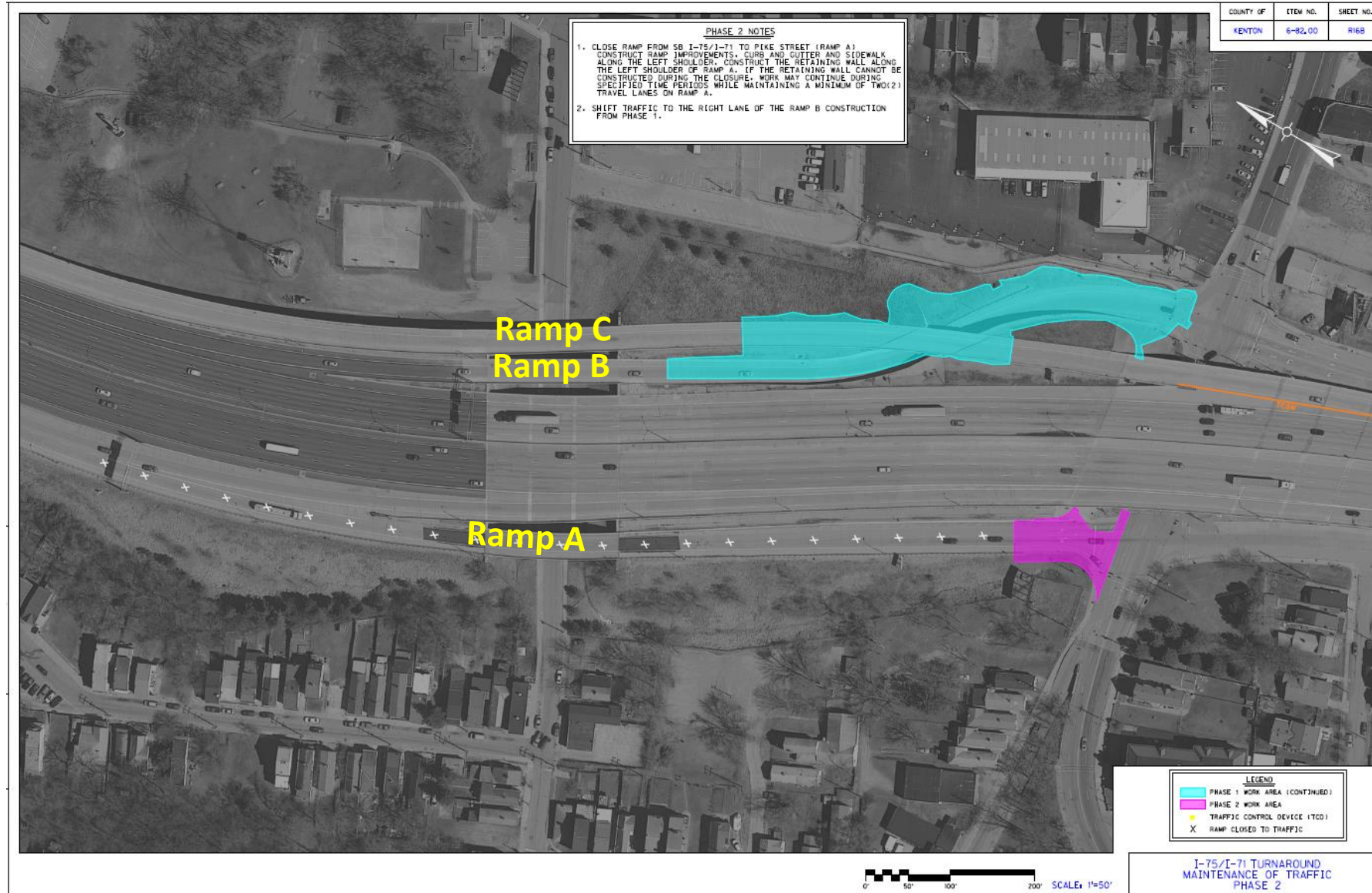
Maintenance of Traffic – Ramp B



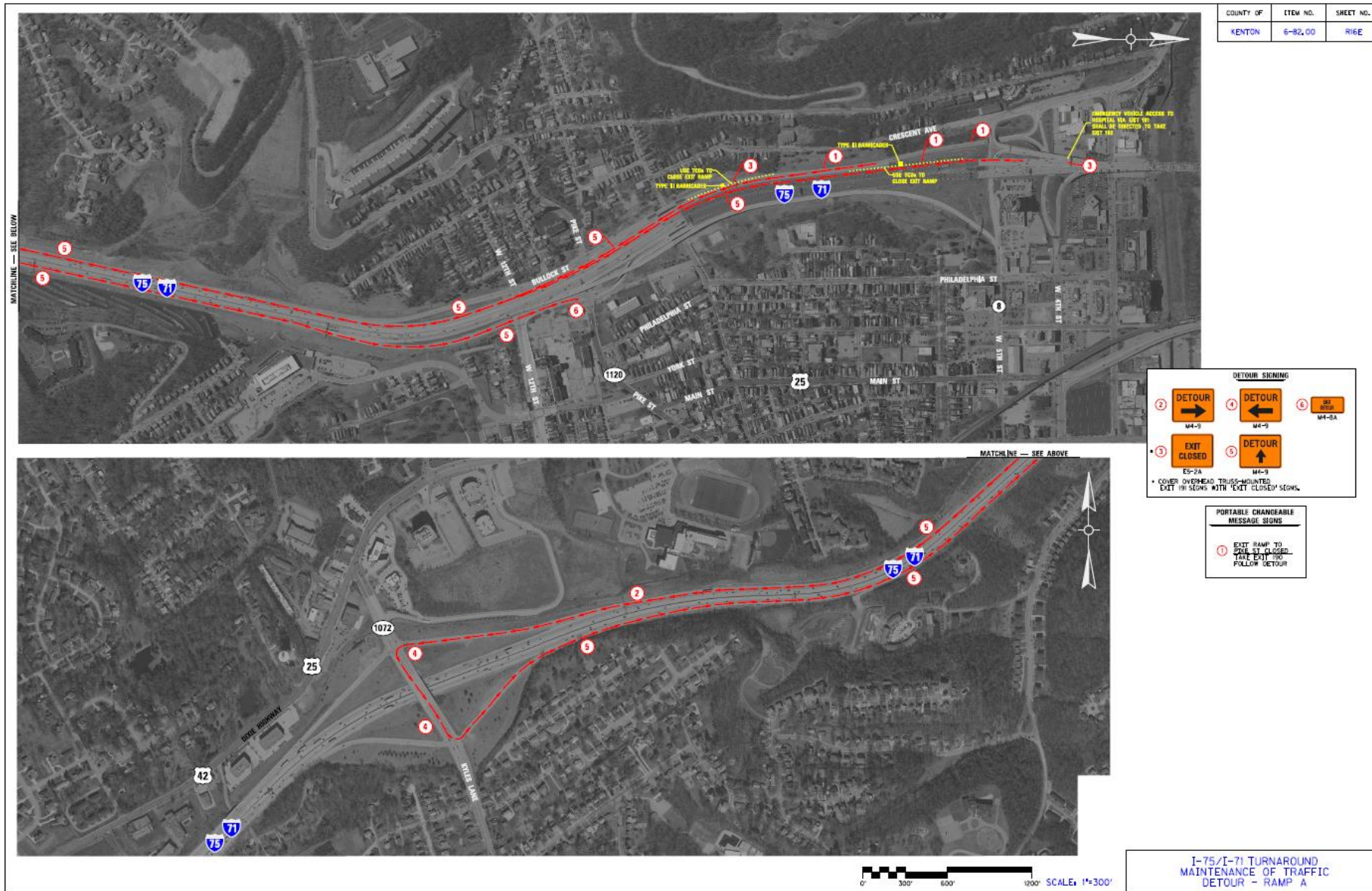
Maintenance of Traffic – Ramp C



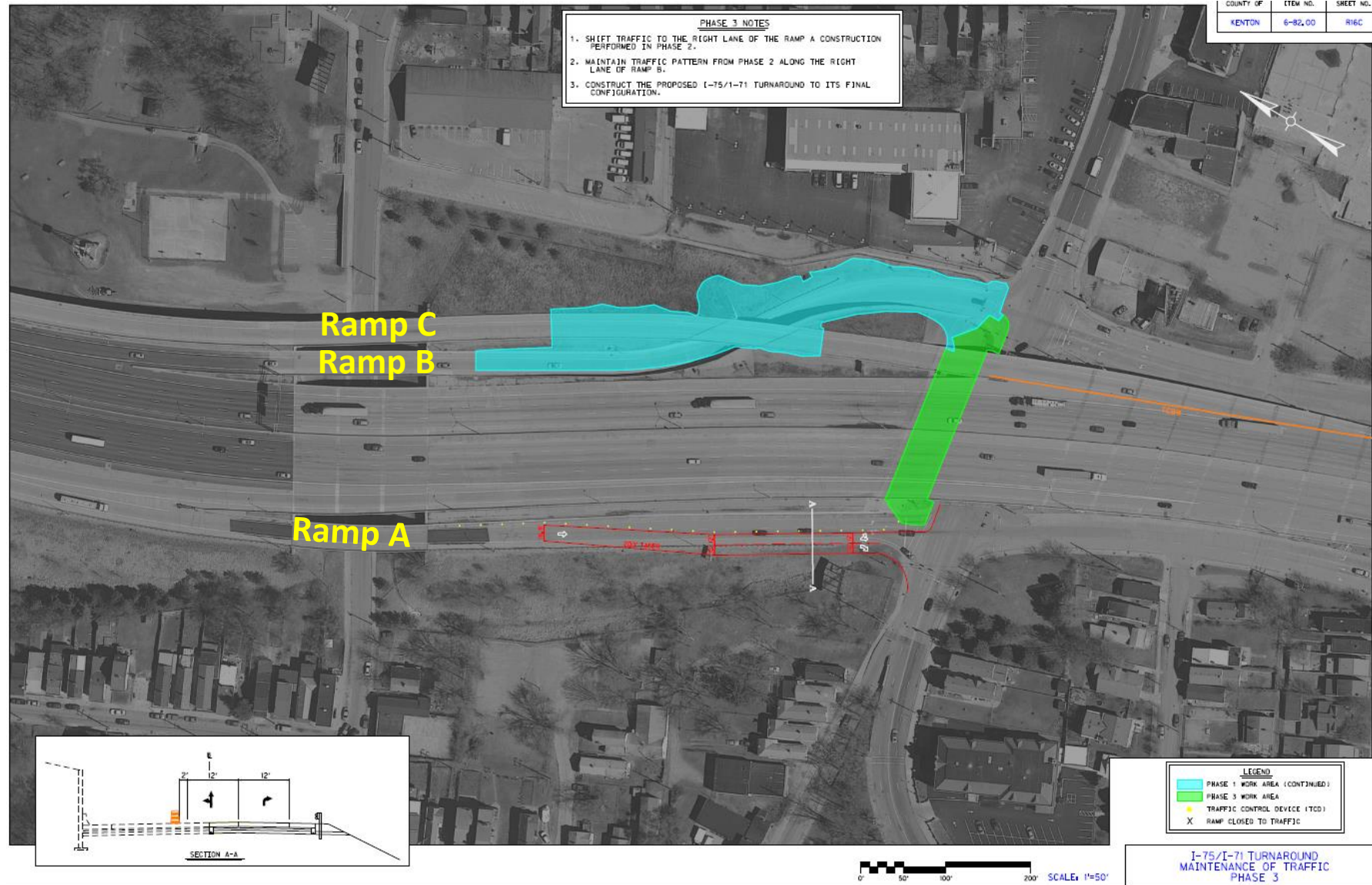
Maintenance of Traffic – Phase 2



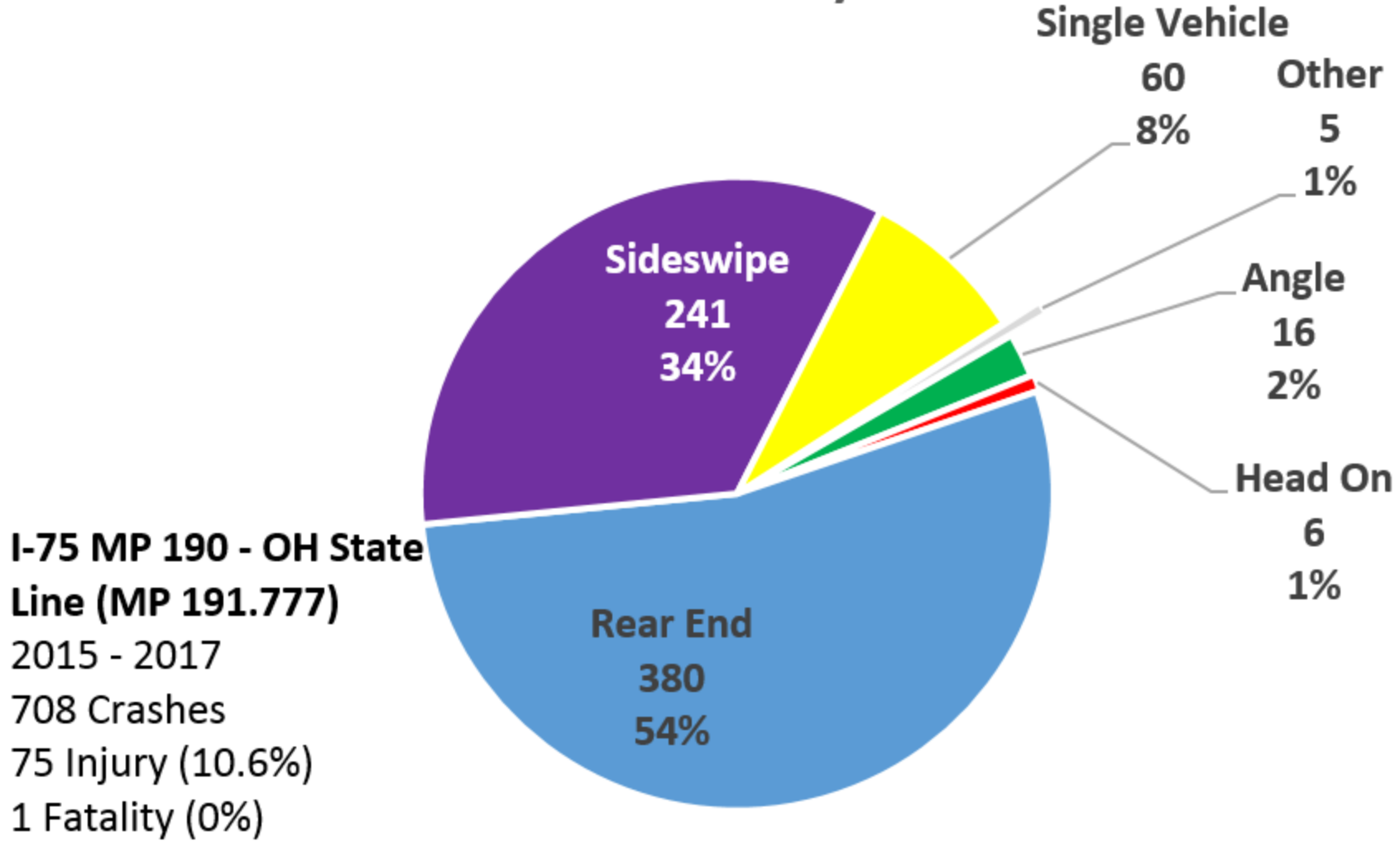
Maintenance of Traffic – Ramp A



Maintenance of Traffic – Phase 3



Crash History



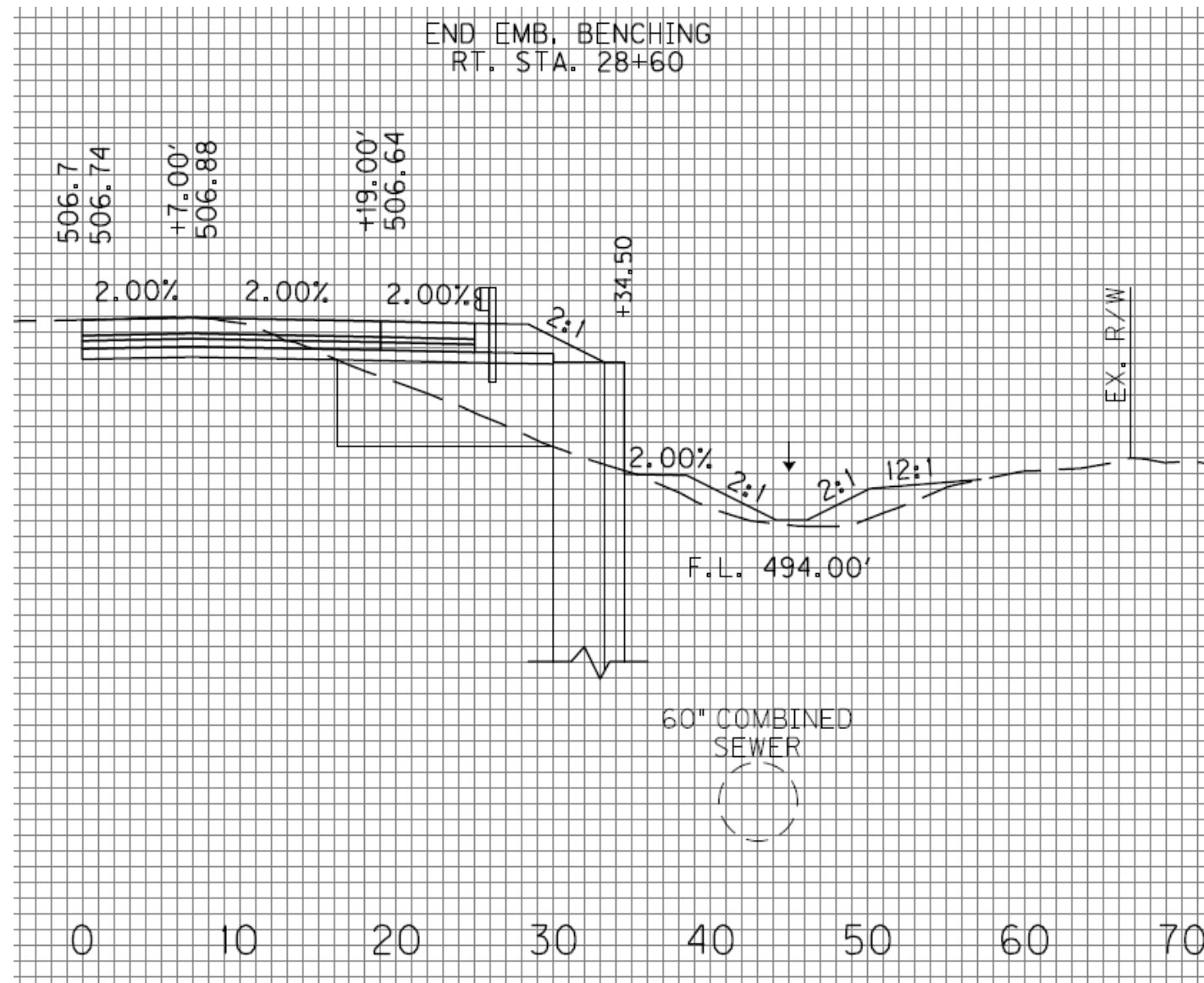
Ramp A



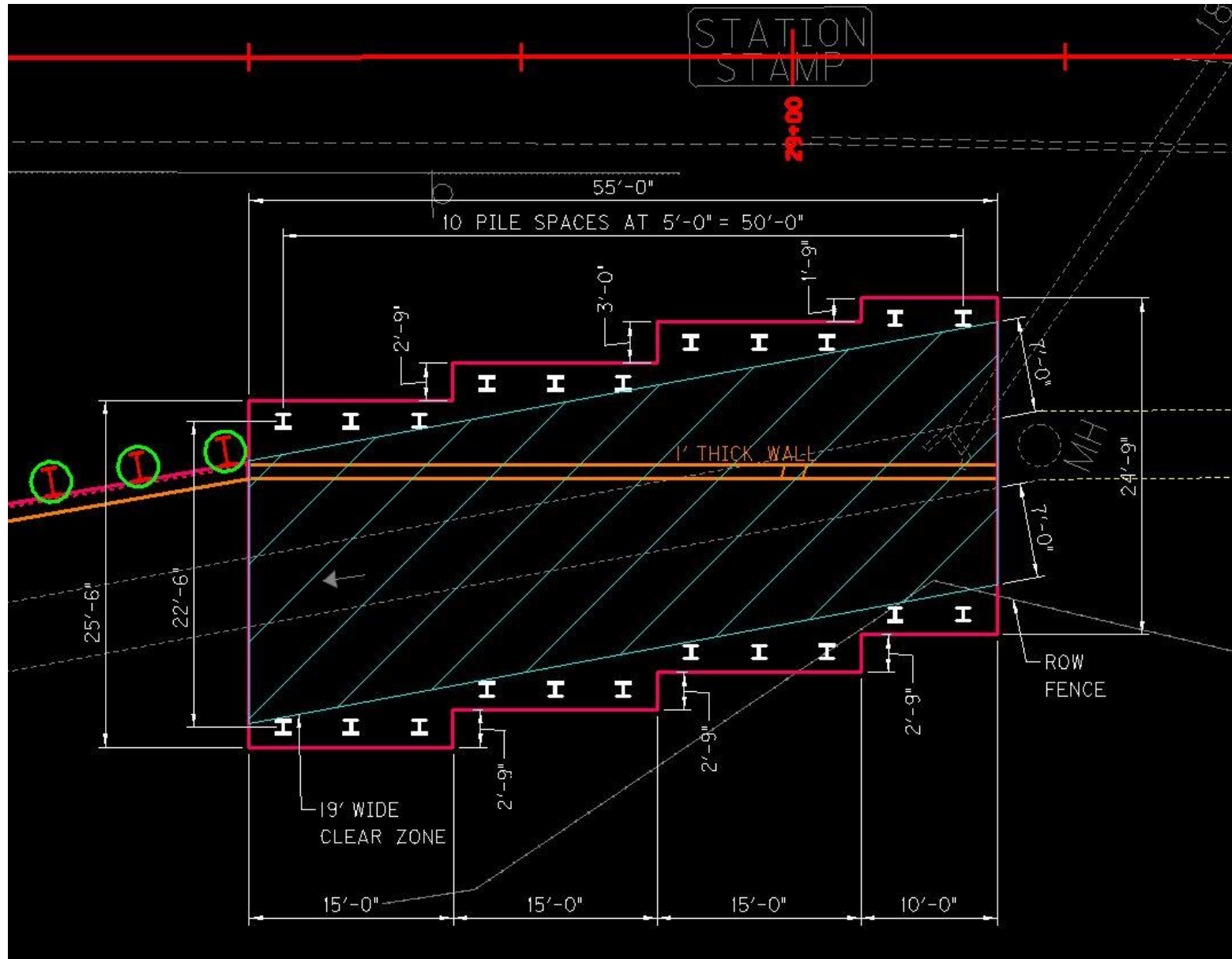
Ramp A



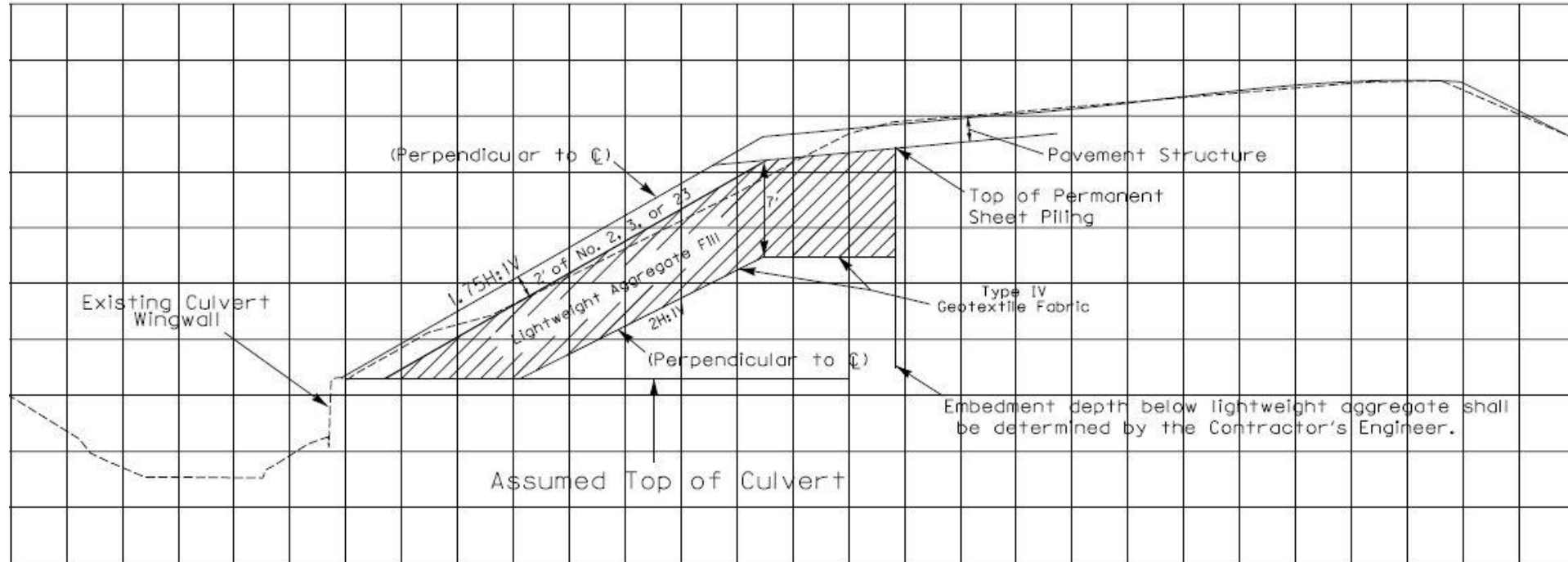
Ramp A Wall – Submitted Plans



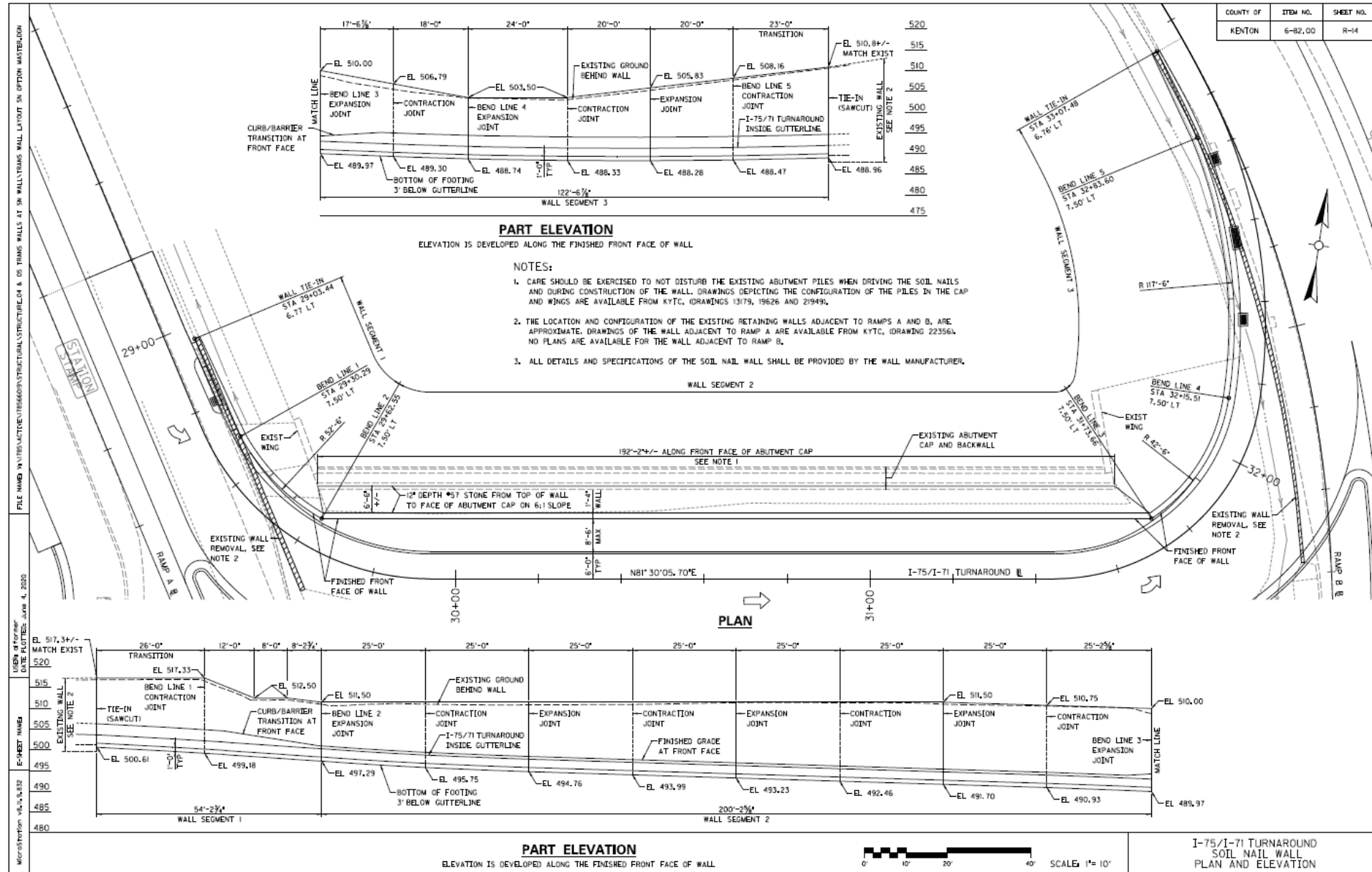
Ramp A Wall



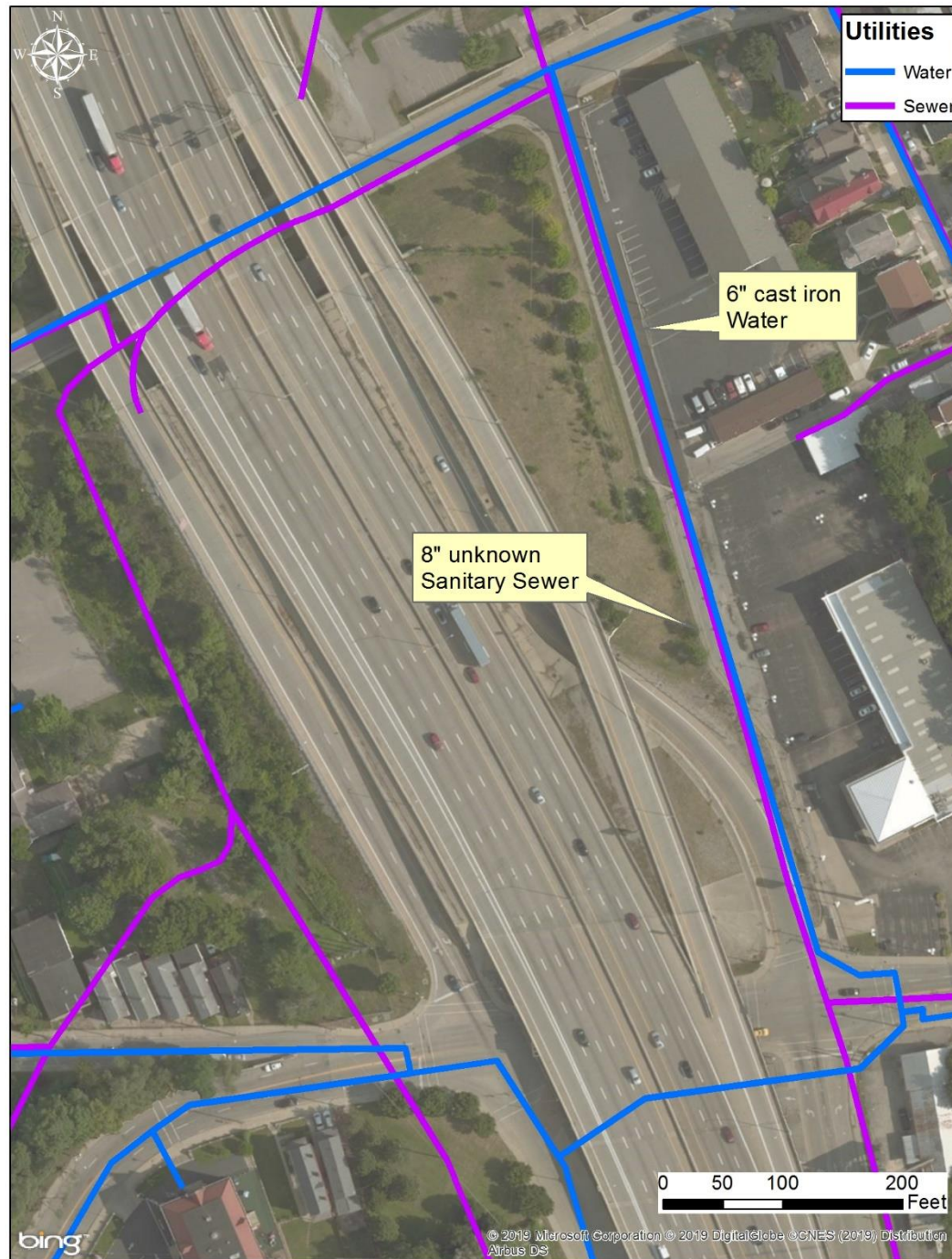
Ramp A – Lightweight Fill Option



Pike Street Soil Nail Wall



Utilities



Lighting & Signals

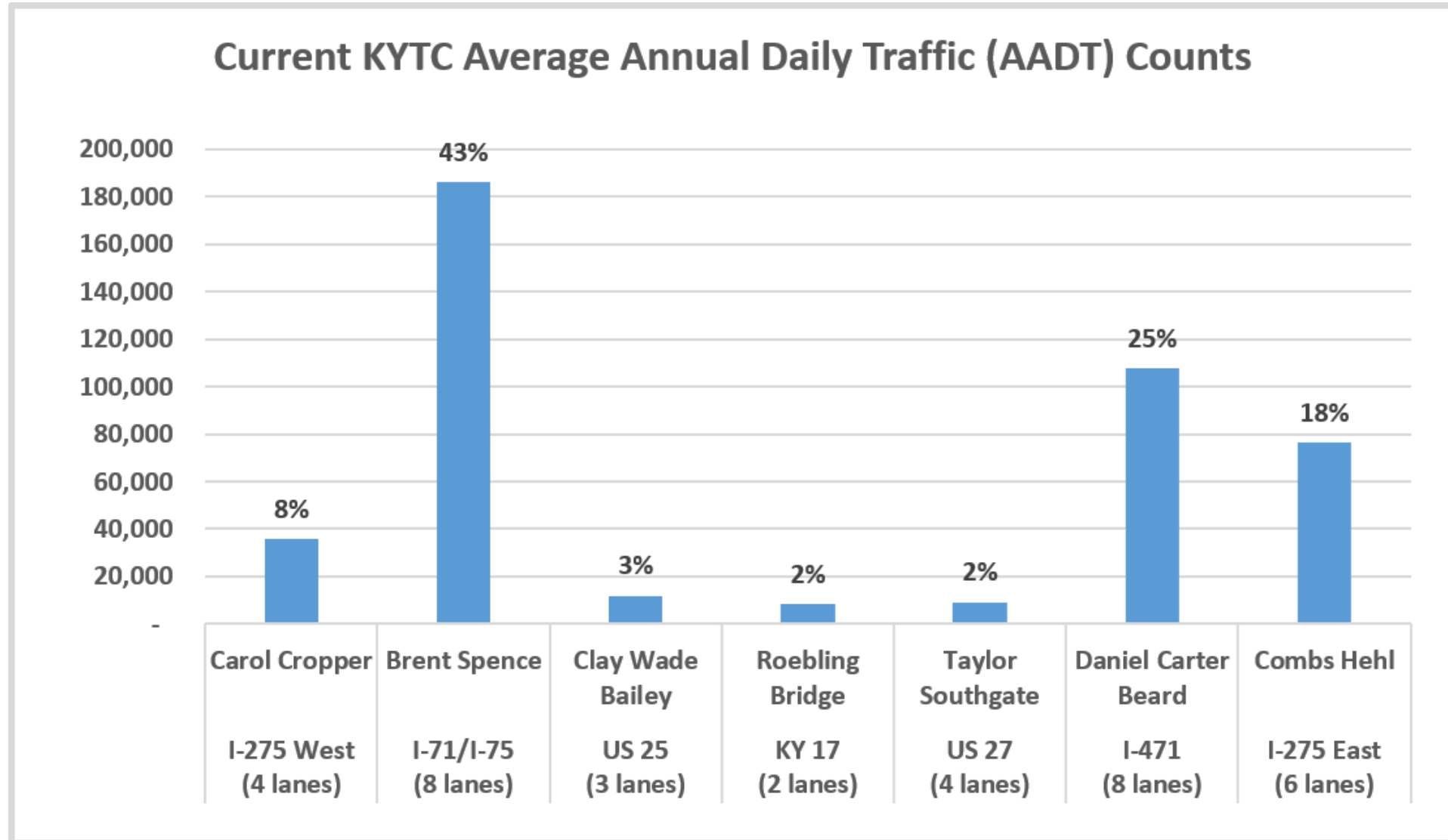


Cost Estimate

| Phase | Project Manager's Toolbox | Current Estimated Cost | Percent Difference |
|---------------------|----------------------------------|-------------------------------|---------------------------|
| Utilities | \$108,000 | \$0 | N/A |
| Construction | \$3,894,000 | \$4,865,000* | +25% |
| TOTAL | \$4,002,000 | \$4,865,000 | +22% |

*Includes 10% contingency

Current Ohio River Crossings



Pike Street - Existing



Signing Plans – Overhead Assemblies

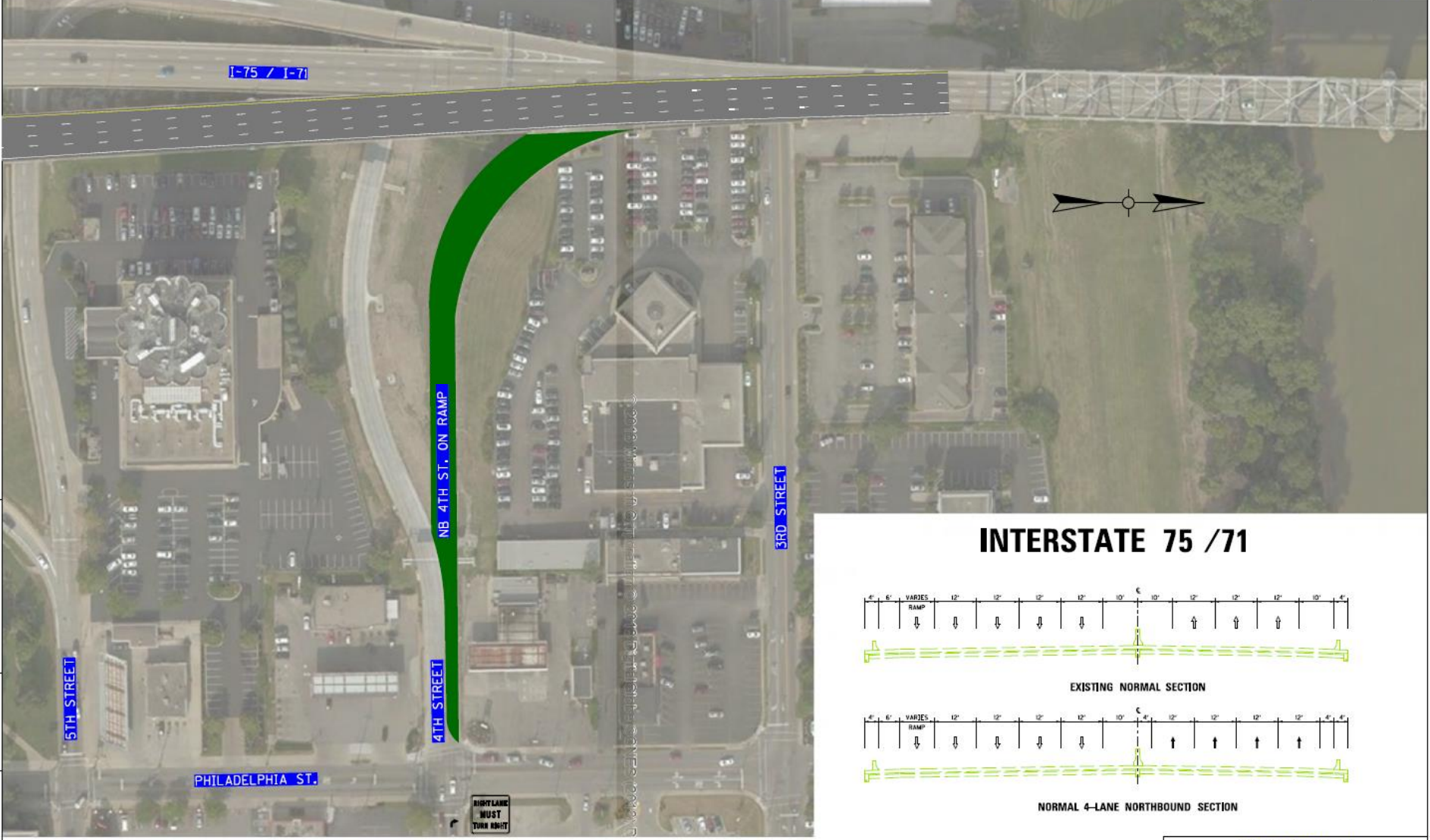


Signing Plans – Overhead Assemblies

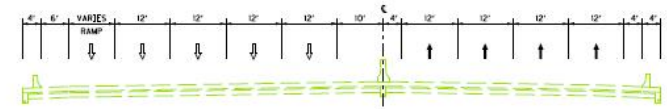
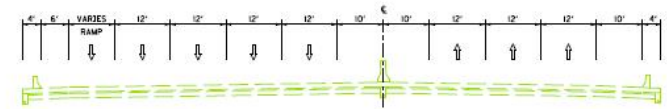


| | | |
|-----------|----------|-----------|
| COUNTY OF | ITEM NO. | SHEET NO. |
| KENTON | | R2 |

MicroStation v8.011.1.410 E-SHEET NAME USER: kwardle DATE PLOTTED: June 26, 2018 FILE NAME: I:\NTS\6603\TRANSPORTATION\PROJECTS\410\KENTON\410\PLAN\PLAN.DGN



INTERSTATE 75 /71



INTERSTATE 75 /71
4 LANES NORTHBOUND
4TH STREET NB ON RAMP CLOSURE

RIGHT LANE
MUST
TURN RIGHT

Agenda



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- Introduction
- Building confidence
- Engaging the audience
- Visual aids
- Final tips & takeaways

Engaging the audience

- Make eye contact with your audience to create a sense of intimacy and involvement
- Weave relatable stories into your presentation using narratives that make your message memorable and impactful
- Encourage questions and provide thoughtful responses to enhance audience participation
- Use live polls or surveys to gather audience opinions, promoting engagement and making sure the audience feel involved



Selecting visual aids

- Enhancing your presentation



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Effective delivery techniques

- This is a powerful tool in public speaking. It involves varying pitch, tone, and volume to convey emotion, emphasize points, and maintain interest:
 - Pitch variation
 - Tone inflection
 - Volume control
- Effective body language enhances your message, making it more impactful and memorable:
 - Meaningful eye contact
 - Purposeful gestures
 - Maintain good posture
 - Control your expressions

