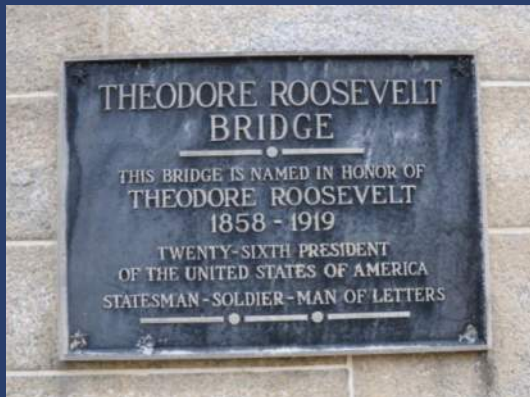




Theodore Roosevelt Bridge Rehabilitation

September 25, 2023

Industry Day





Project Scope

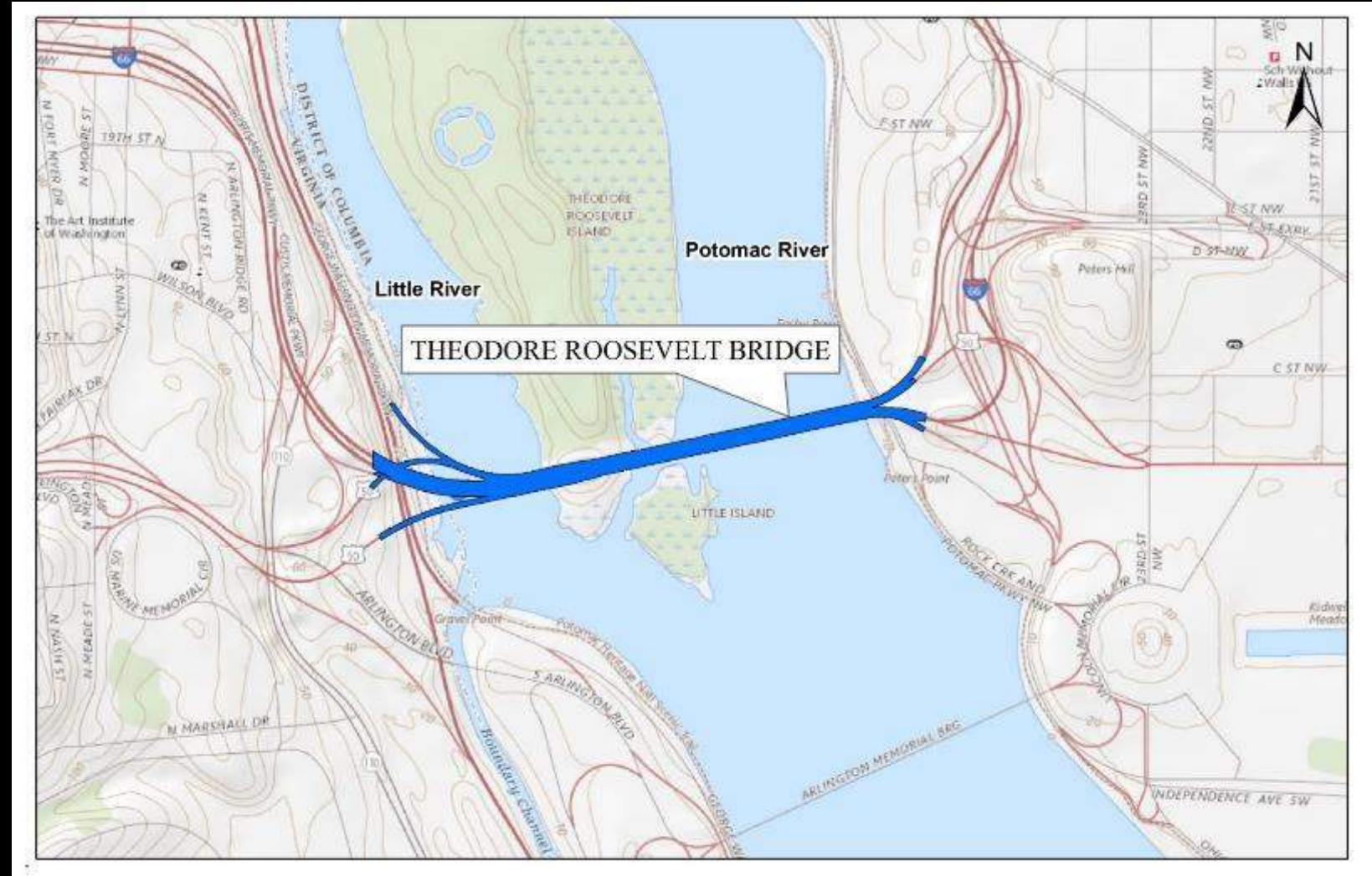
Behrooz Rad, PE – DDOT PM

James Gregg, PE - EOR

Project Overview

Project Limits

- Theodore Roosevelt Bridge



Project Need

Safety Need

- Functionally obsolete
- Substandard bridge elements

Structurally Needs

- Deck is deficient
- Steel structure

Protective Paint

- No longer protects the steel superstructure
- Visually impaired

Signage

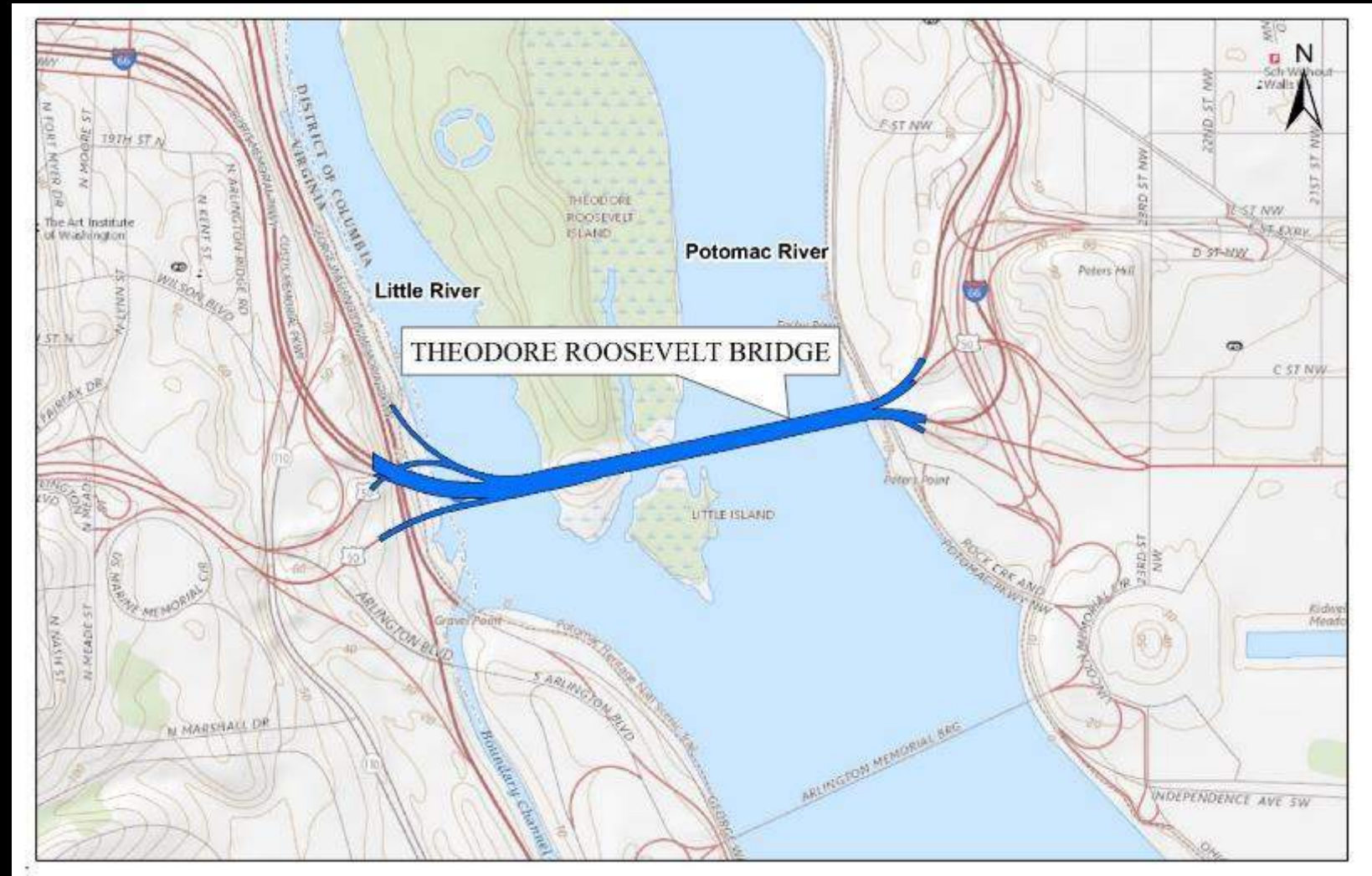
- Substandard signage



Project Goals

Project Goals

- Rehabilitate TR Bridge to extend service life
- Improve multi-modal safety for pedestrians and bicyclists





Rock Creek Parkway

Ramp D

Ramp A

Ramp K

Ramp J

Ramp M

Ramp E

Ramp D

Ramp F

Ramp C

District

Virginia

GNMP

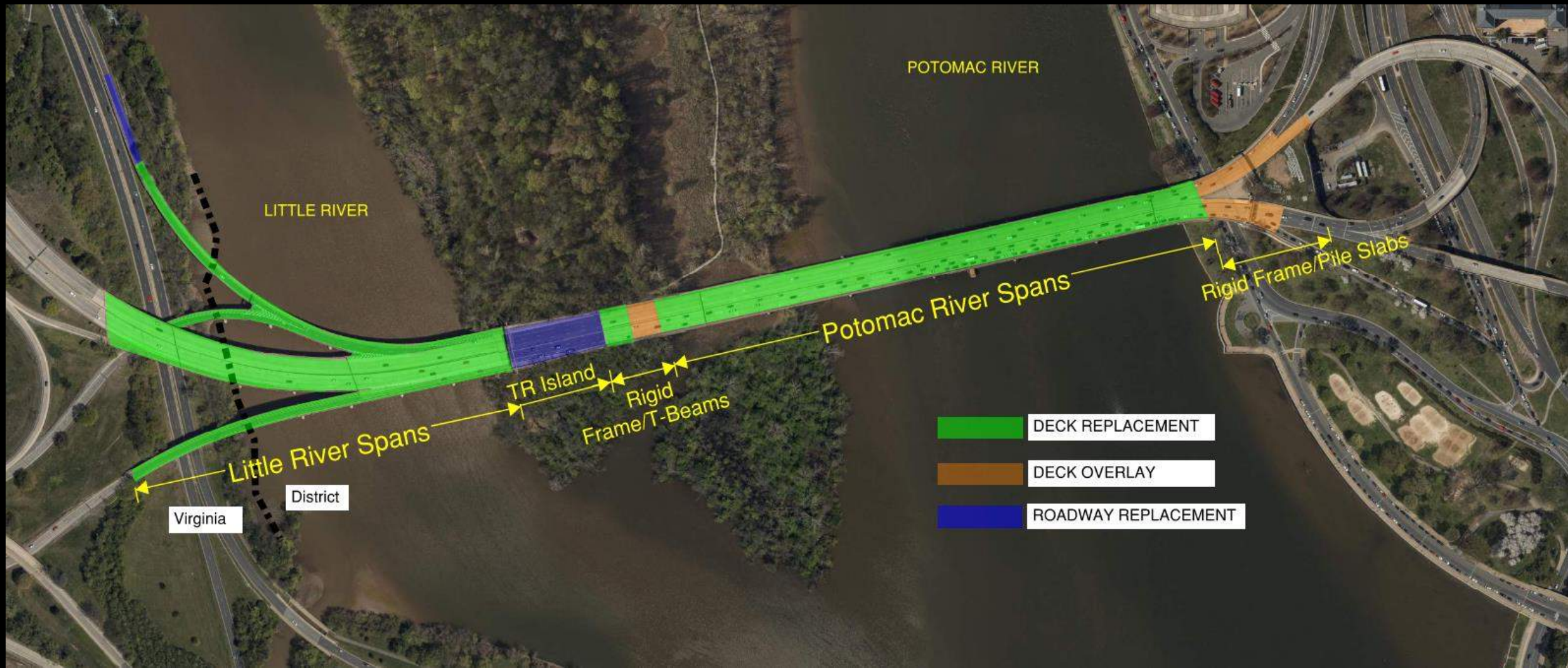


BRIDGE



AT-GRADE

Deck Replacement / Overlay



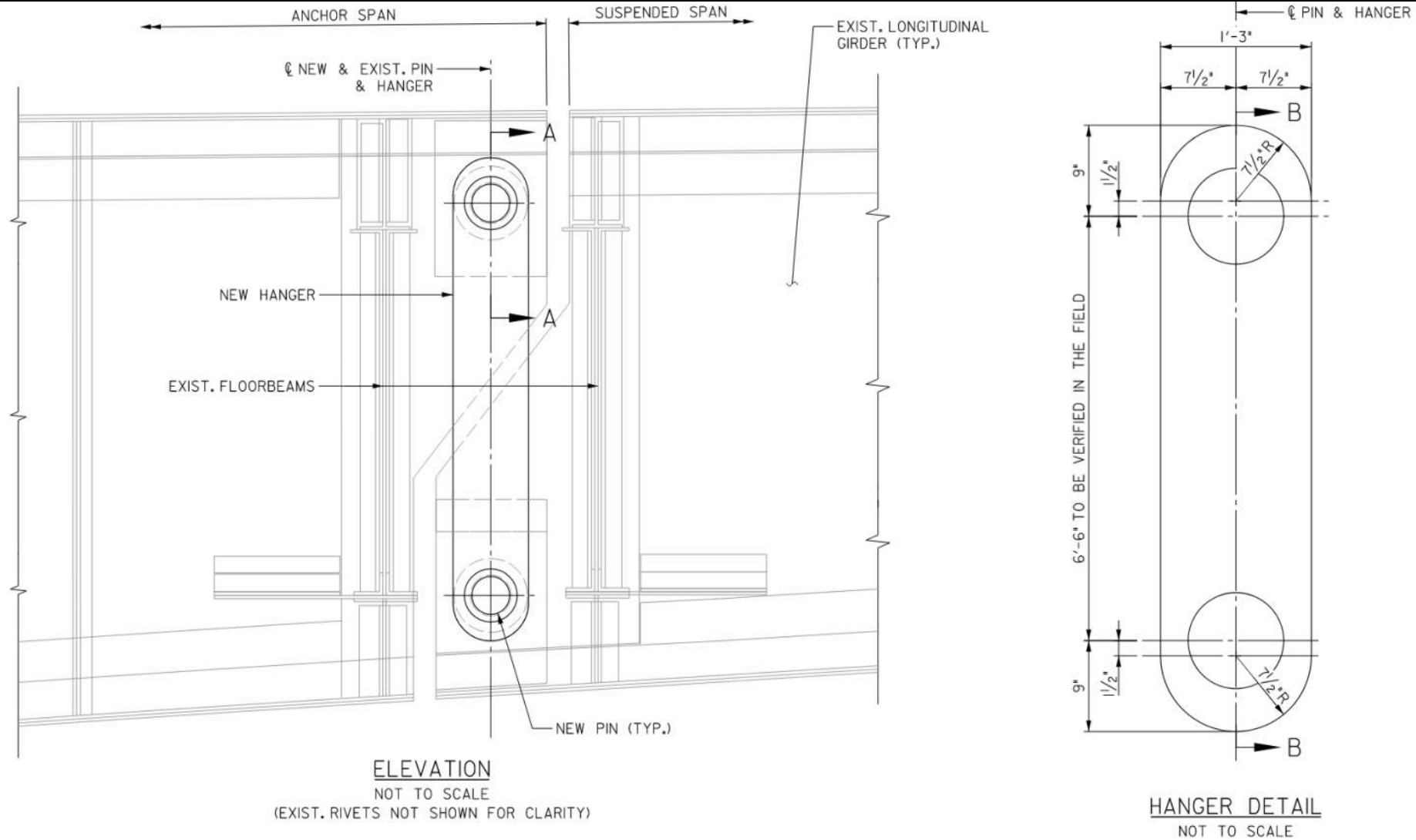
Sidewalk Widening



Project Scope – Sidewalk, Traffic Barrier, Railing, Lighting



Project Scope – Pin and Hanger Replacement



Project Scope – Painting, Substructure, Sign Structures



The drawing consists of two main views: a Plan view at the top and an Elevation view at the bottom.

Plan View: Shows the top-down layout of the pier. It is an elongated, rounded rectangular structure. Key features include:

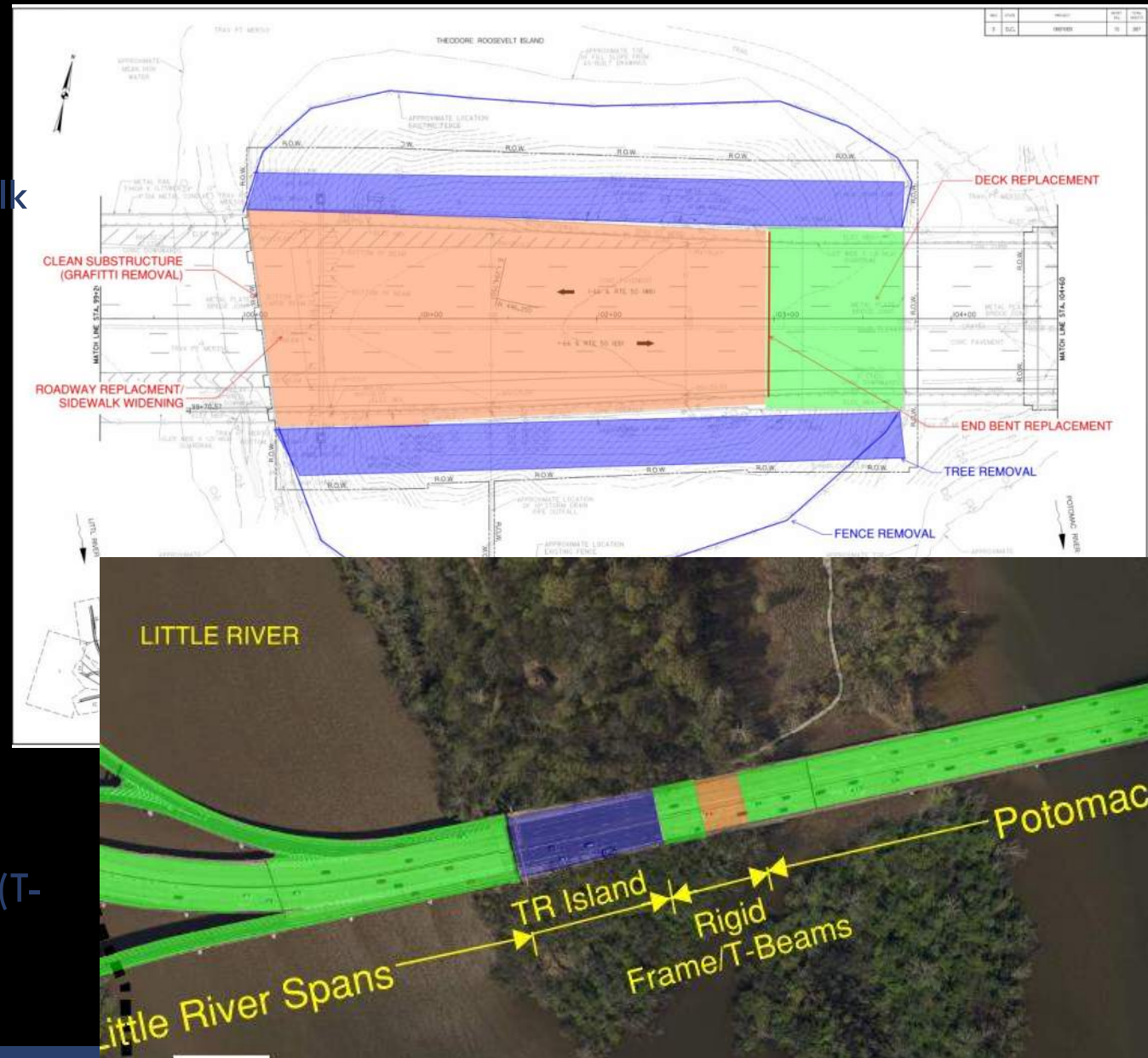
- Dimensions:** Total length is 57'-5 5/8". It is divided into sections with widths of 11'-6", 28'-8", 28'-8", 28'-8", and 11'-6".
- Structural Elements:** Shows a grid of timbers including 6x10 @ 11" cc, 8x12, 12x12, 12x16, and 4x12 Scab/4x12 Diagonal. It also indicates 13 Spaces @ 6'-3" = 81'-3".
- Annotations:** "Vertically dressed bands to be provided in rock faced masonry for attachment of 12" timbers.", "Anchor Bolts 1 1/2" x 3/4" (typical)", "Pitch Line", "Dress Line", "Outline of Distribution Block", "E of Pier", "W.R.", "3'-0" W.I.P.", "3'-4'-6" W.I.P.", "3'-7'-0" W.I.P.", "8'-0" W.I.P.", "EXIST. FENDER REPLACE IN-KI".

Elevation View: Shows the side profile of the pier. Key features include:

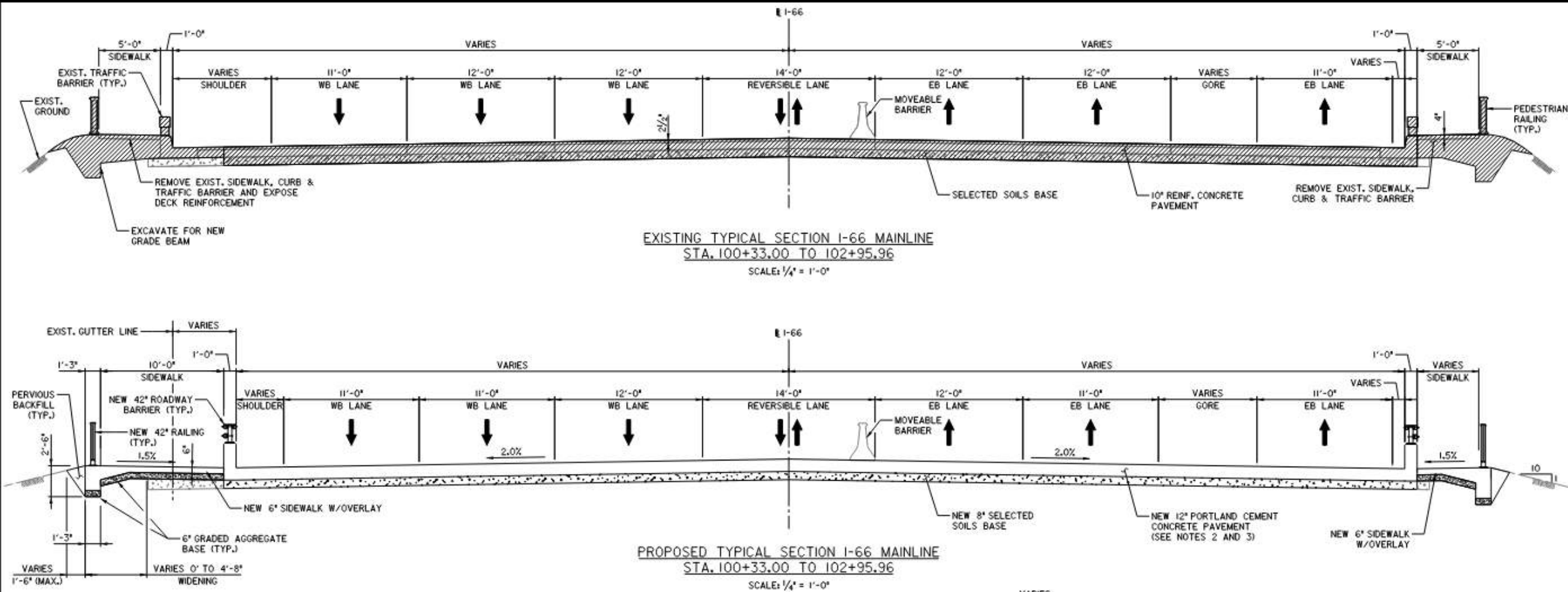
- Dimensions:** Total width is 57'-5 5/8".
- Structural Elements:** Shows the vertical arrangement of timbers and girders. Labels include "E of Girder", "E of Pier", "2'-8" x 12" Boat Spikes each Timber-Typical", "6x10 @ 11cc", "4x12 Scab", "4x12 Diag", "Top of Distribution Block El. -6.20 (Pier)", and "-5.82 (Pier)".
- Annotations:** "El. 10.75", "EXIST. F. REPLAC", "El. 0.00", "El. -4.00".

TR Island

- Resource Sensitive Area
 - No heavy equipment allowed outside sidewalk limits
- Key activities
 - Tree removal (100+/-) and limbing
 - Tree planting
 - Fence removal
 - Sidewalk widening/ drainage improvements (within current limits)
 - Utility relocation
 - Sign structure removal and replacement
 - Substructure repairs and cleaning (Graffiti removal)
 - Superstructure and substructure replacement (T-Beam Span)

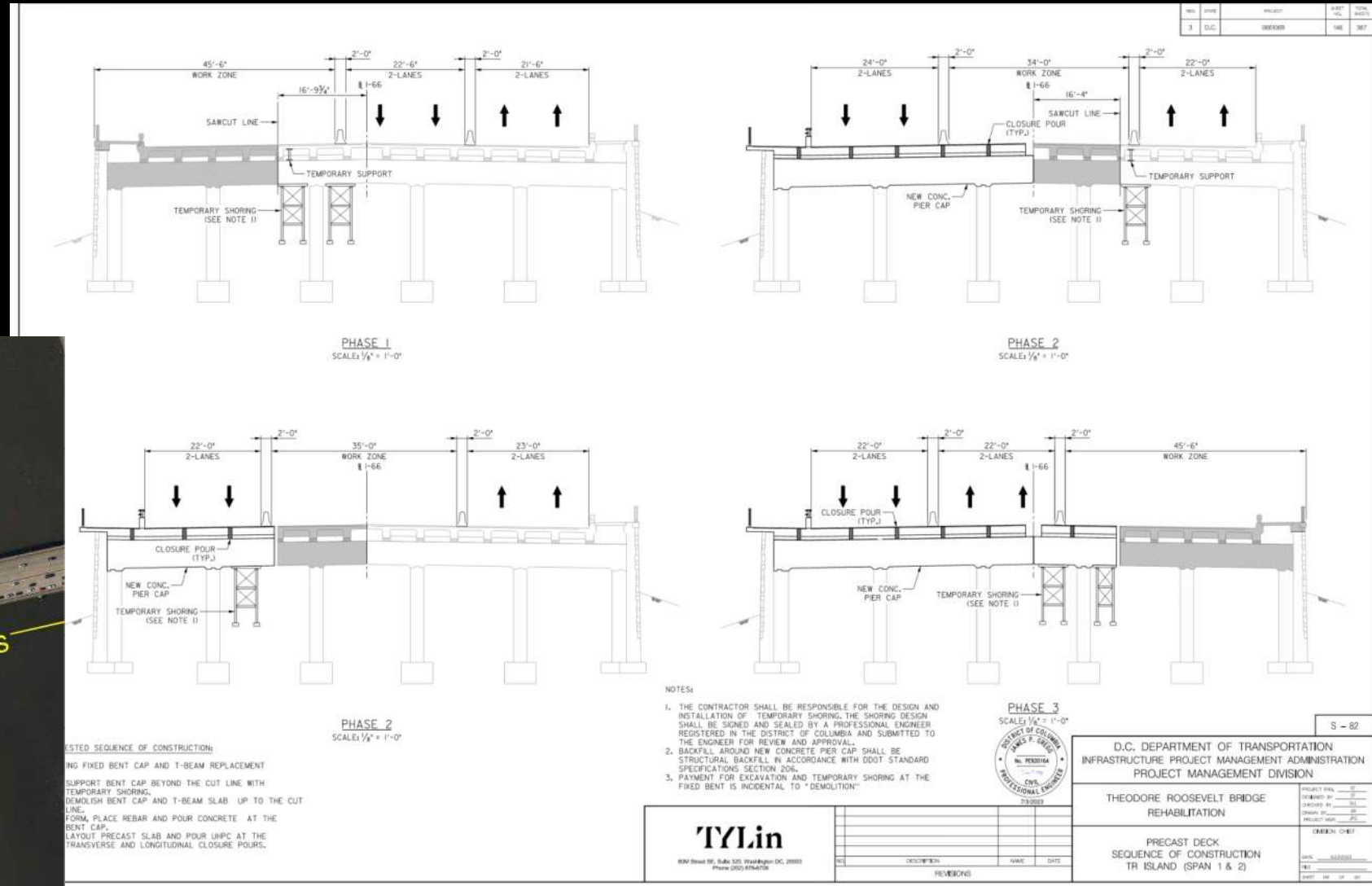
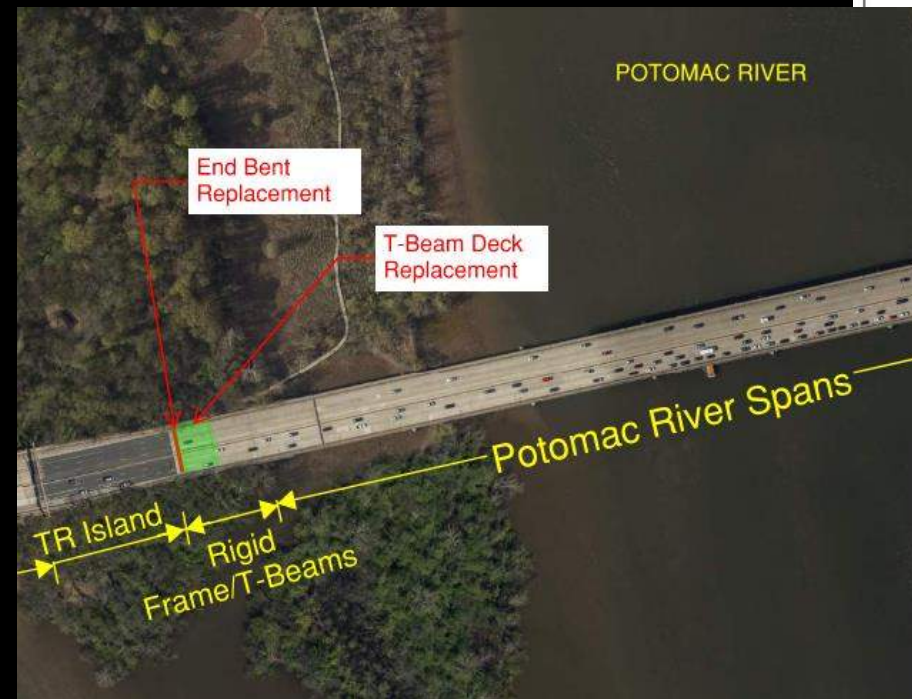


TR Island – Roadway Replacement



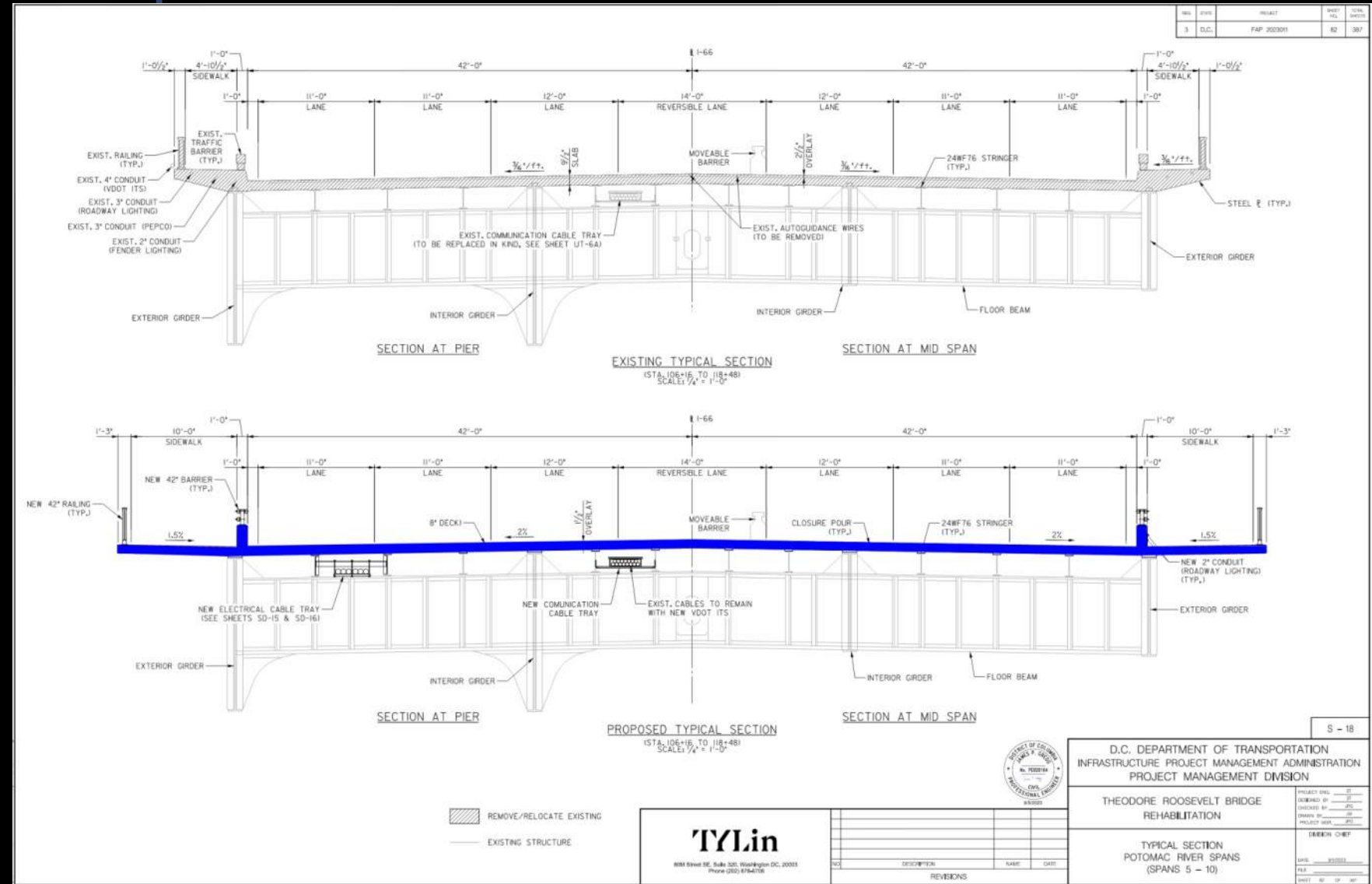
TR Island – End Bent Replacement

- Span 1 and 2 (T-Beam Span)
- Superstructure replacement
- End bent replacement

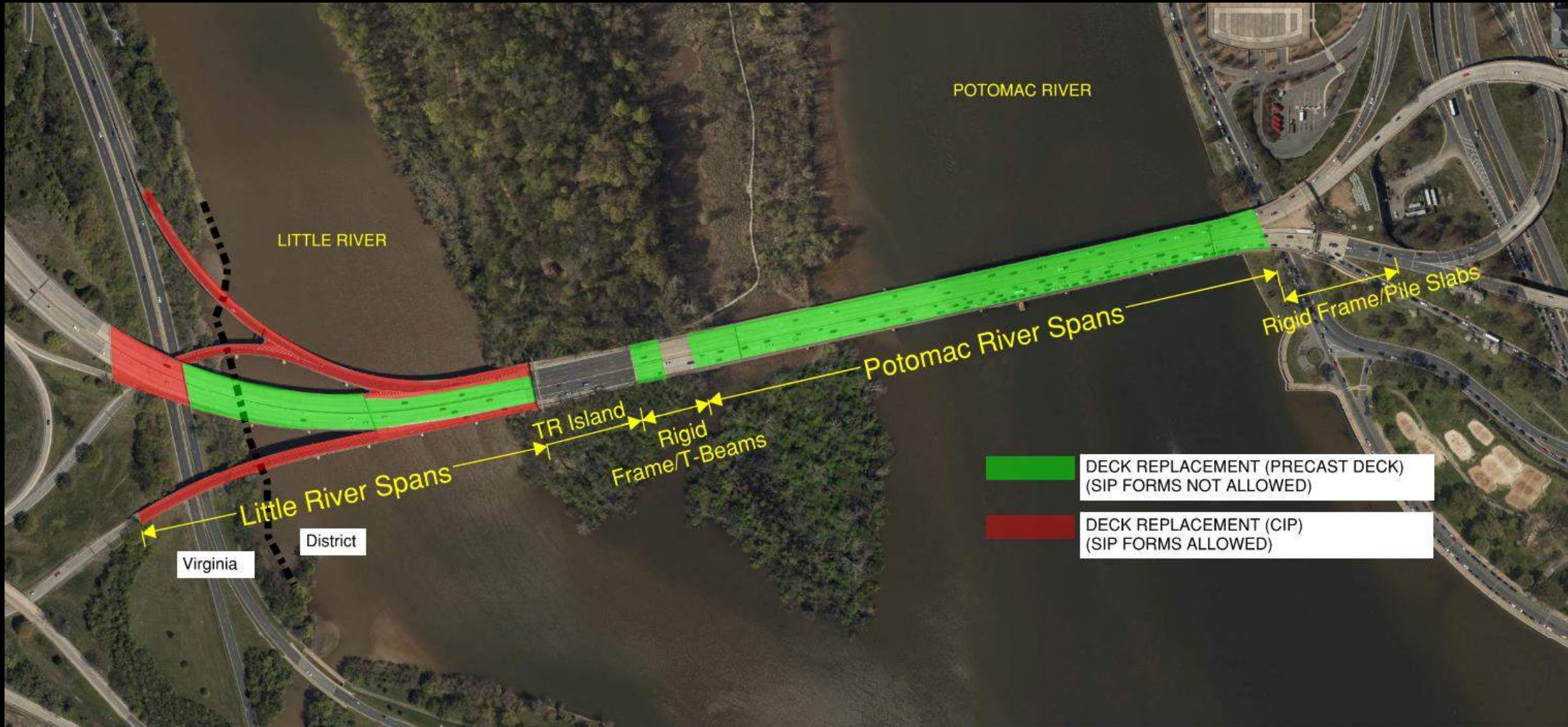


Project Scope - Deck Replacement

- DDOT has committed to minimize impact to traffic
- Existing deck
 - Mainline 9 1/2" thick
 - VA Ramps 7" thick
 - 0" haunch at girders
- New deck
 - Raise profile
 - 9 1/2" mainline
 - 8 1/2' ramps

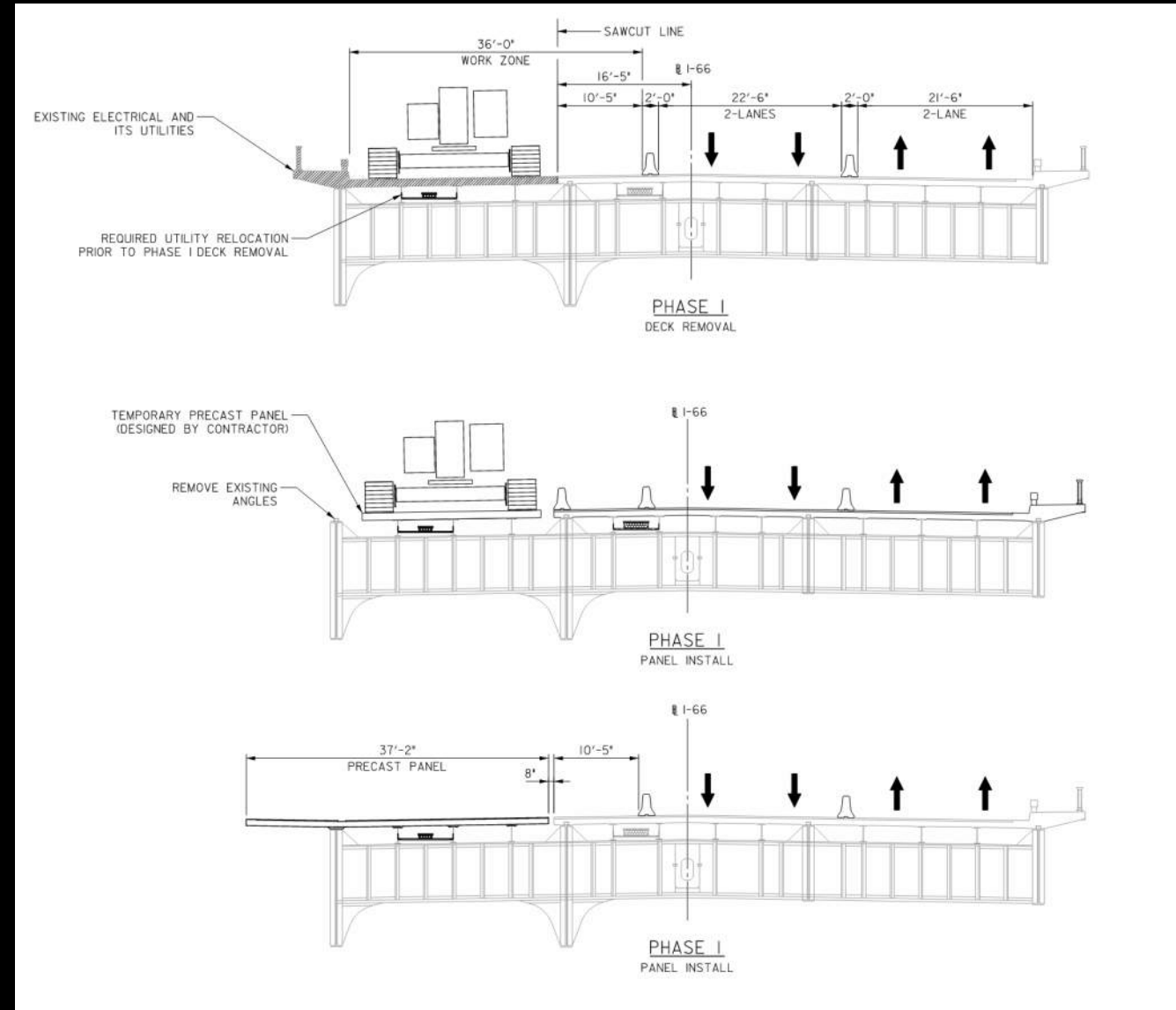


Project Scope - Deck Replacement

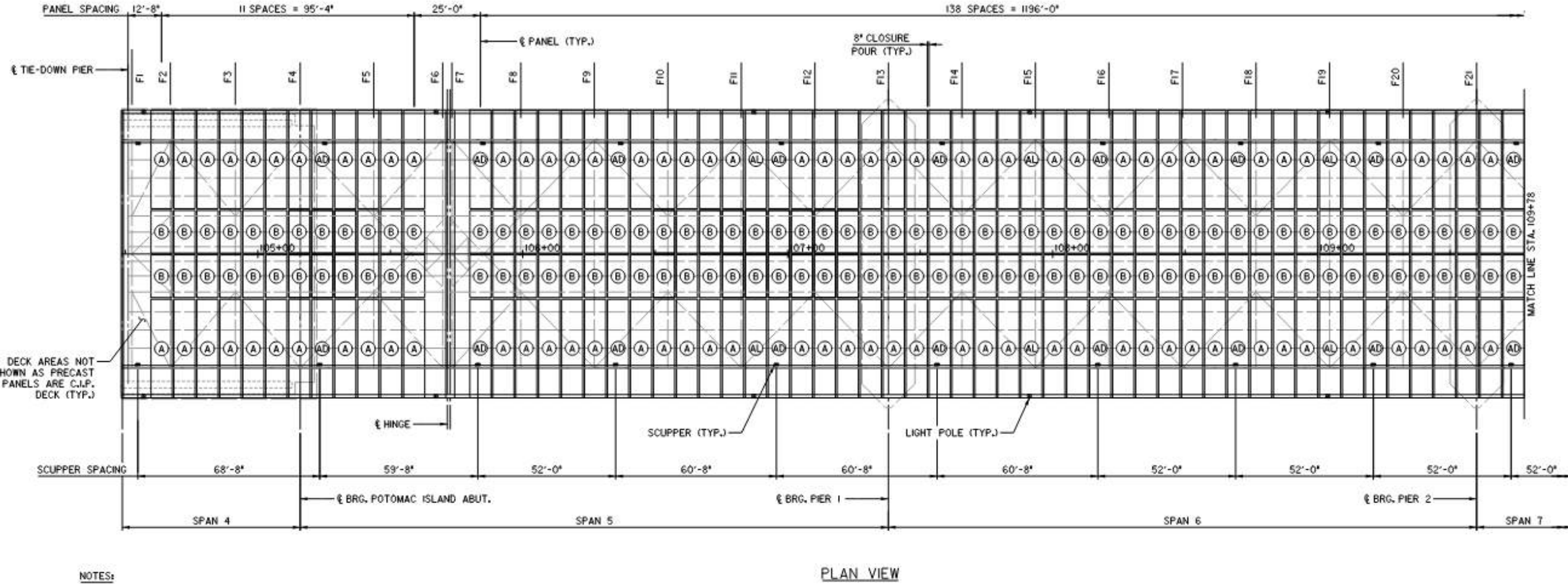


Deck Replacement

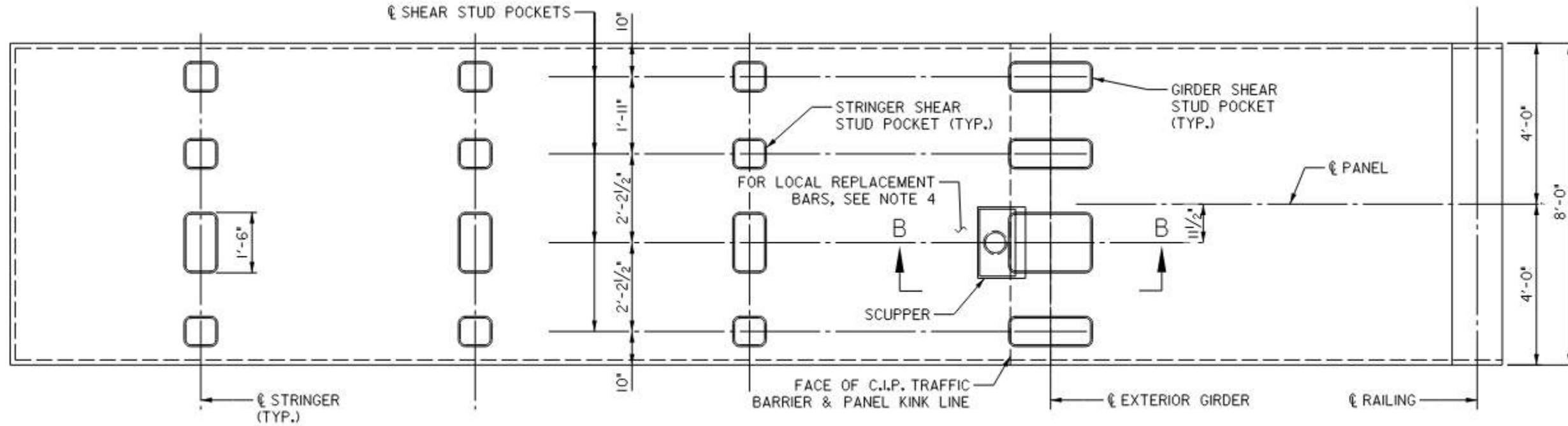
- Phase project to minimize traffic impact
- Reduce number of traffic lanes
 - Reduce from 7 -lanes to 4-lanes (2-EB, 2-WB)
- Accelerated Bridge Construction (ABC)
 - Precast deck panels
- Close Virginia ramps for deck replacement
 - Detour traffic via Key or Arlington Memorial Bridge
- Close north sidewalk for deck replacement
 - Detour pedestrian traffic via Key or Arlington Memorial Bridge
- Close south sidewalk for duration of project



Deck Replacement



Deck Replacement



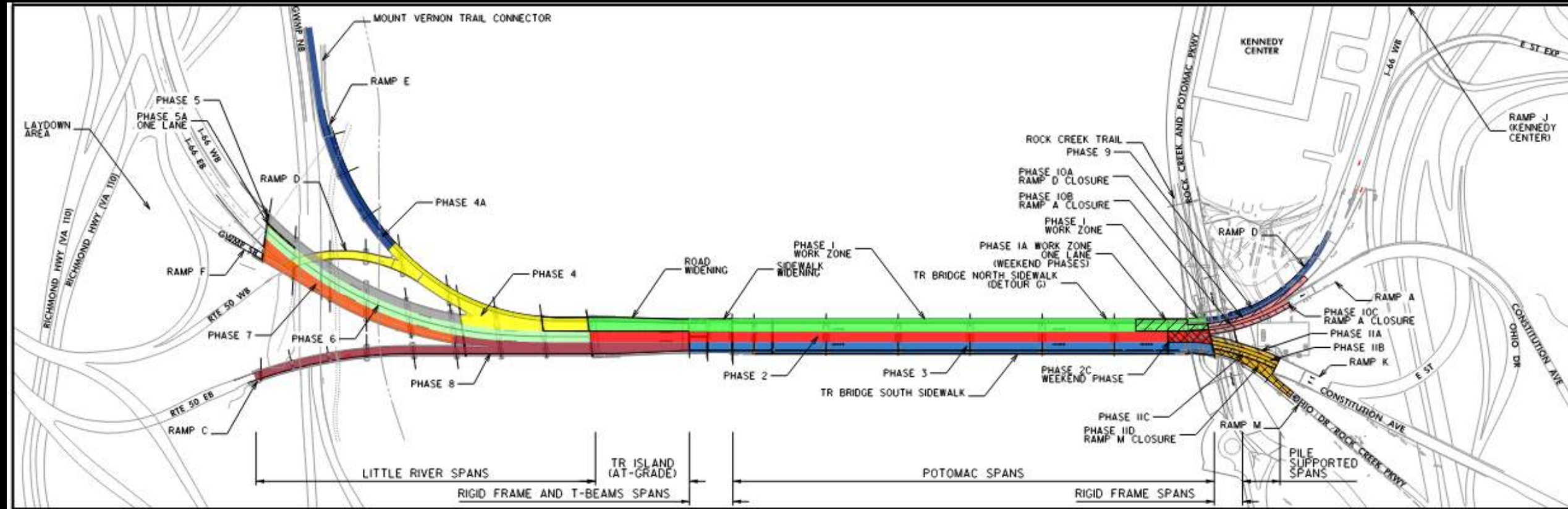
- Precast Deck Panels
 - 37' +/- long
 - 8'-0" wide
 - 8" thick
 - 1.5" LMC overlay

PLAN - PANEL TYPE AD
SCALE: 1/2" = 1'-0"

- Connections
 - Ultra High-Performance Concrete (UHPC)
 - Removable angles with tension straps

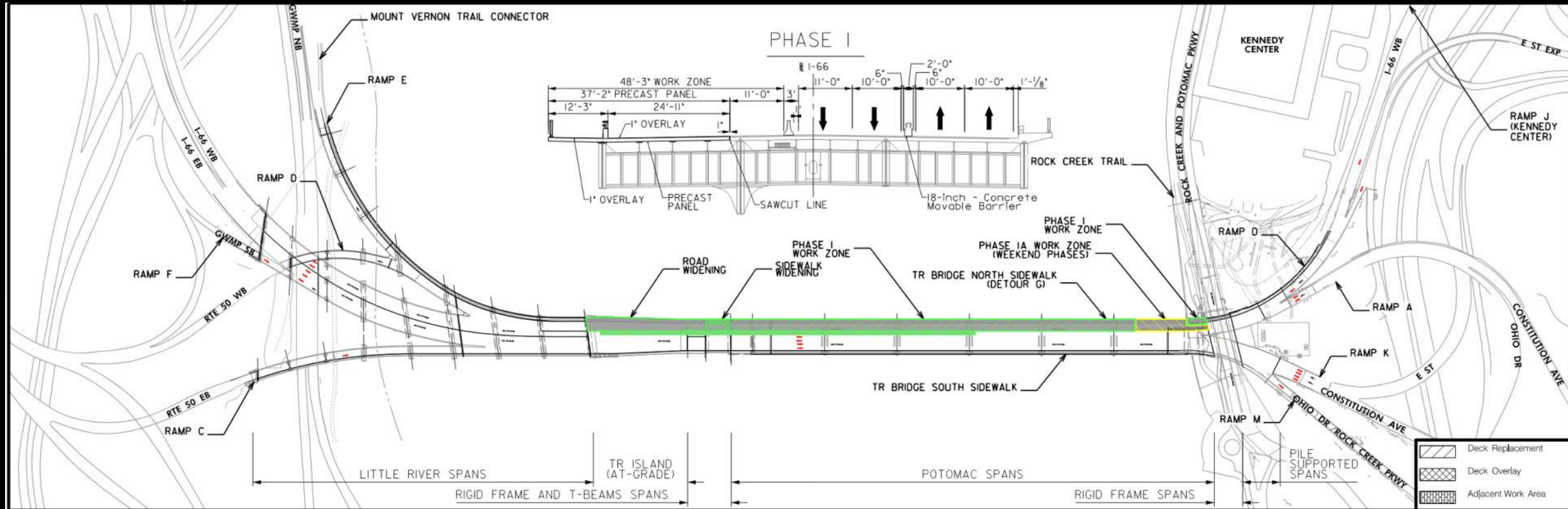
Maintenance of Traffic

- Project Phasing Overview



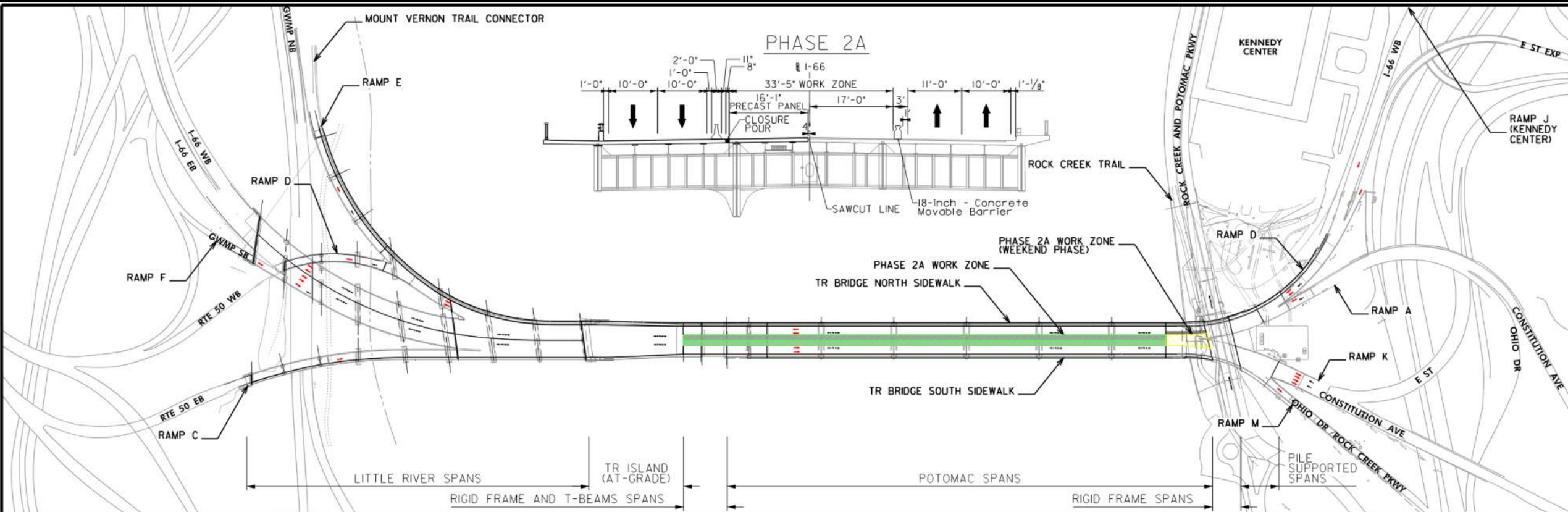
Maintenance of Traffic

- Phase 1
 - Potomac River span north side
 - Preferably not in October and November



Maintenance of Traffic

- Phase 2
 - Potomac River span middle

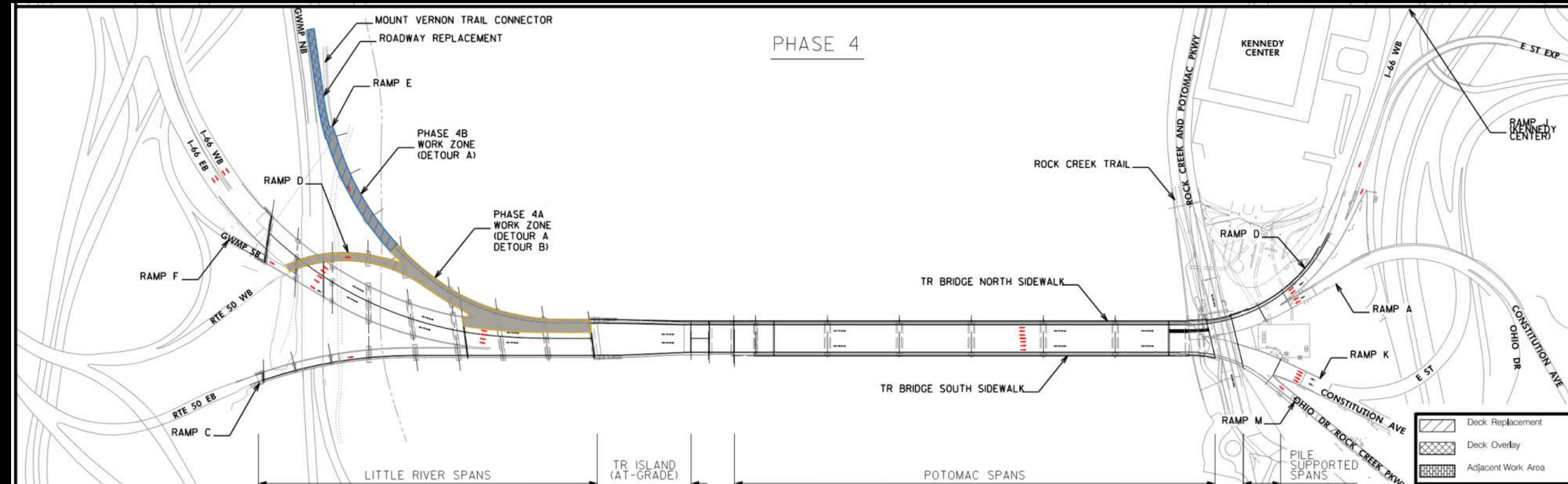


- Phase 3
 - Potomac River south side



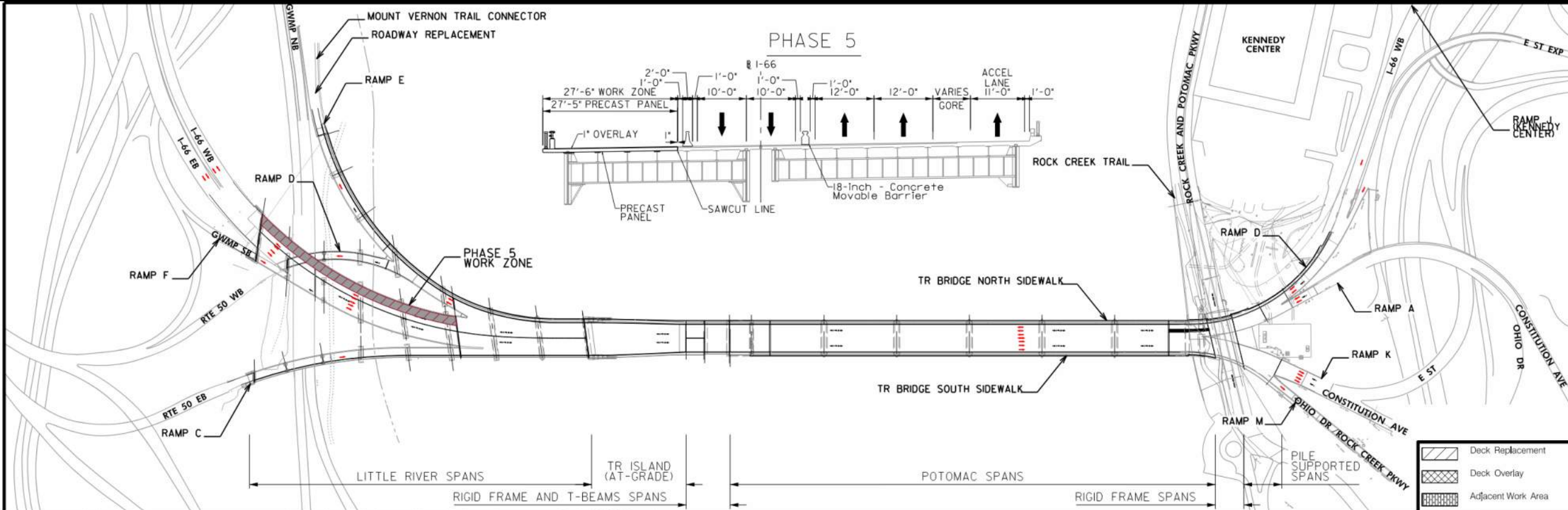
Maintenance of Traffic

- Phase 4
 - I-66 westbound ramp closures
 - Route 50 WB
 - GWMP NB



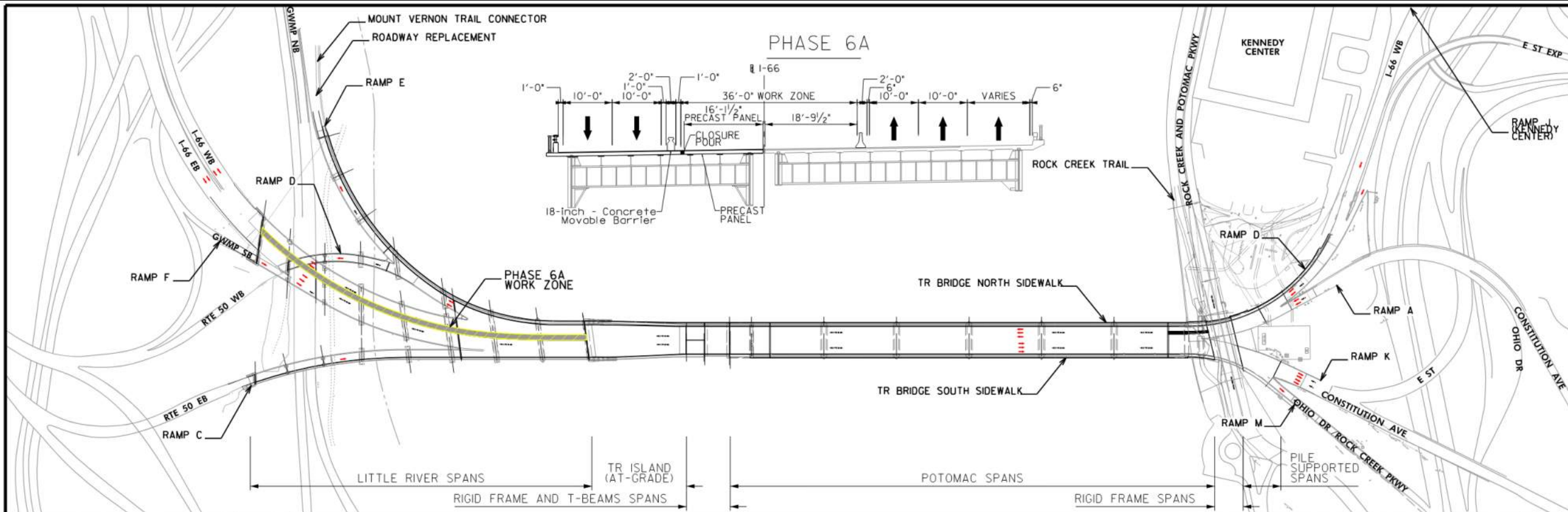
Maintenance of Traffic

- Phase 5
 - Little River I-66 WB



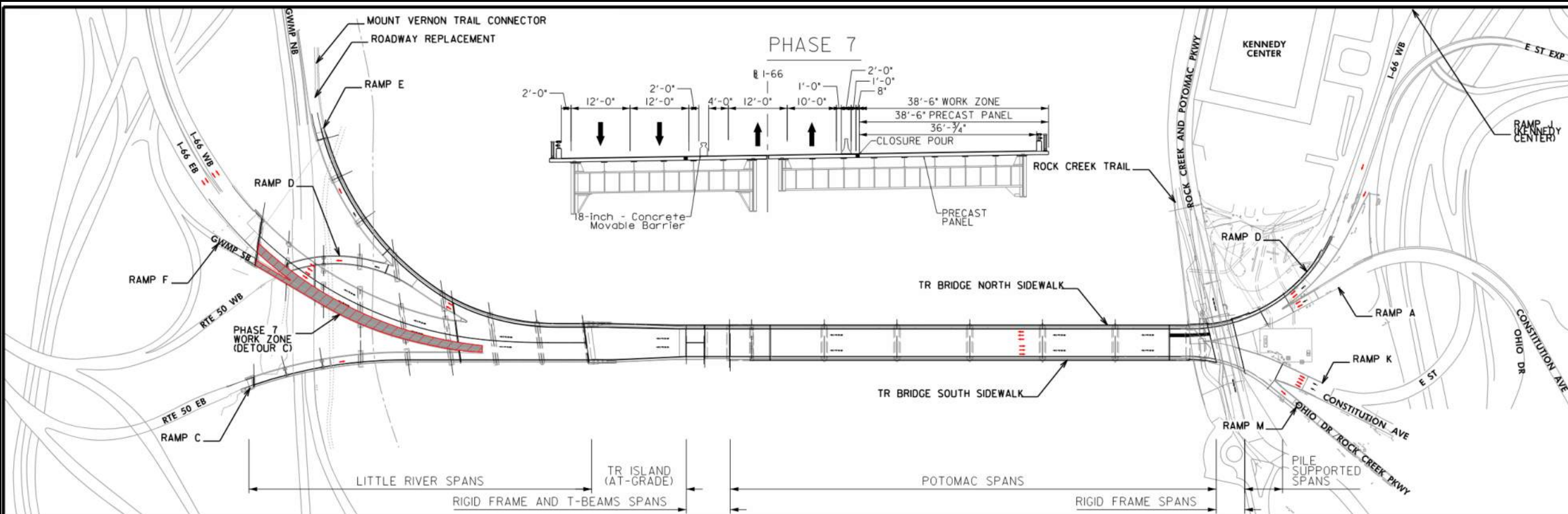
Maintenance of Traffic

- Phase 6
 - Little River I-66 middle



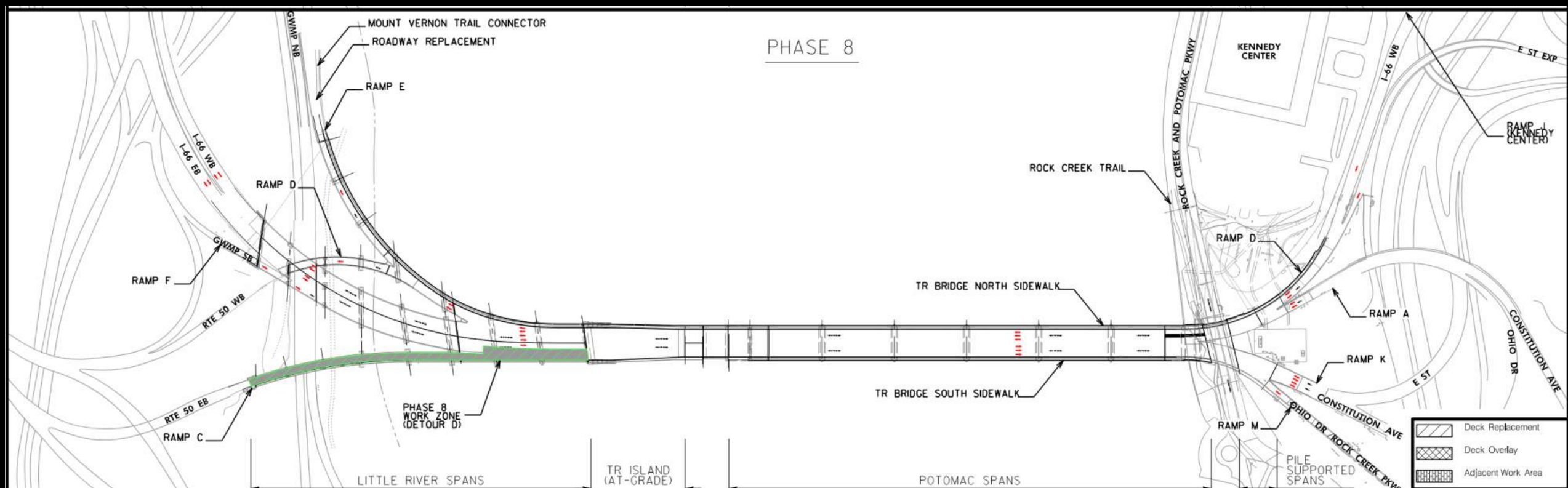
Maintenance of Traffic

- Phase 7
 - Little River I-66 EB
 - GWMP SB to I-66 EB ramp closure



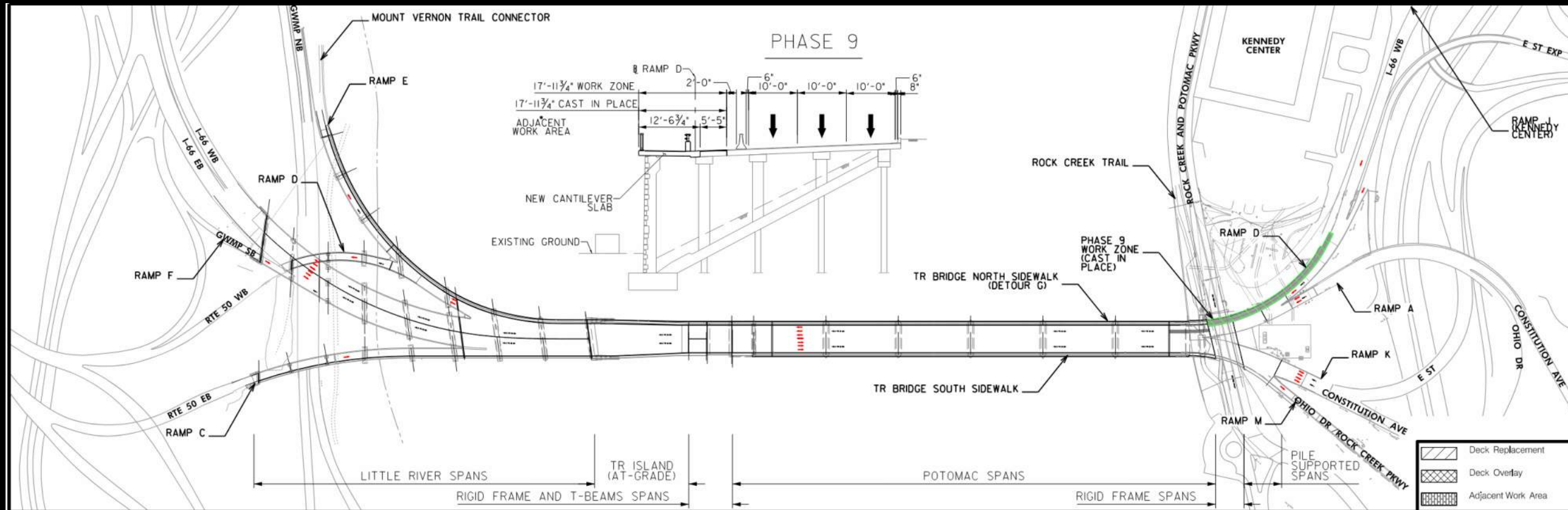
Maintenance of Traffic

- Phase 8
 - Route 50 EB to I-66 EB ramp closure

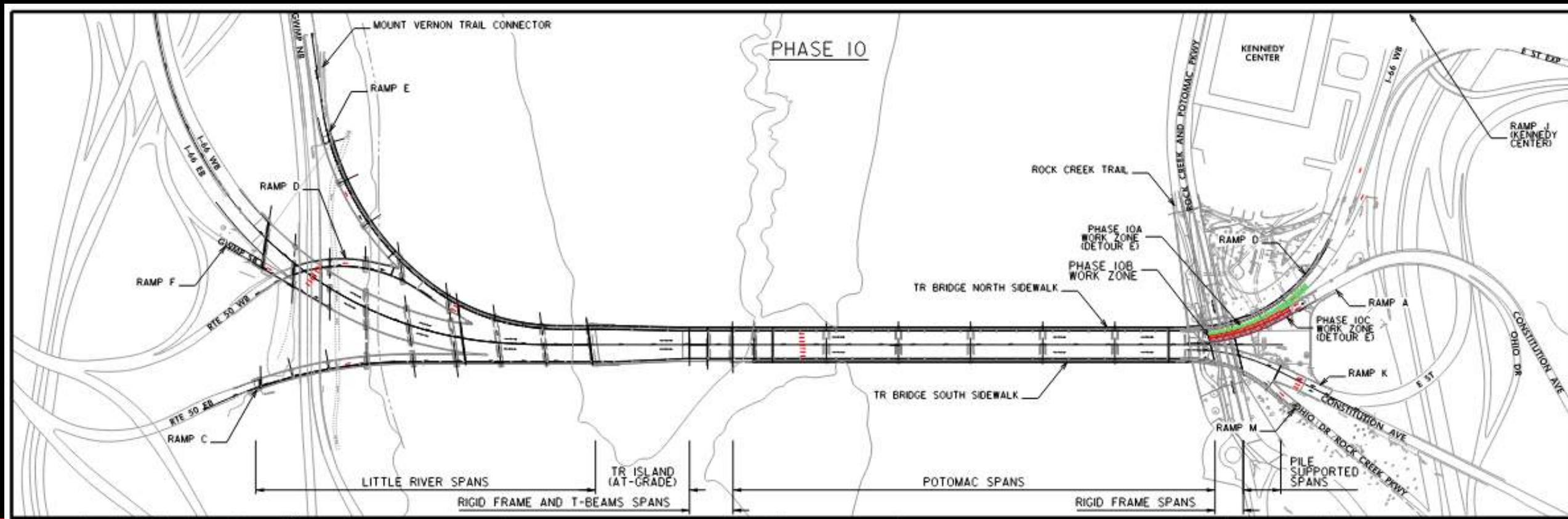


Maintenance of Traffic

- Phase 9
 - Sidewalk widening near Kennedy Center

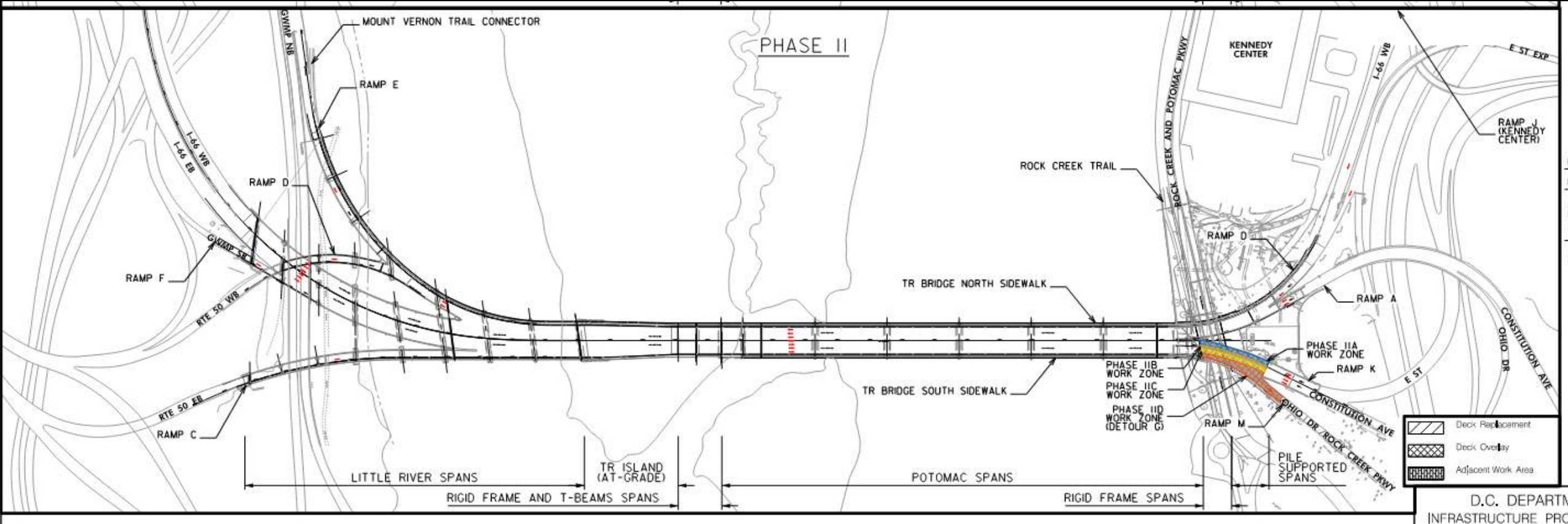


Maintenance of Traffic



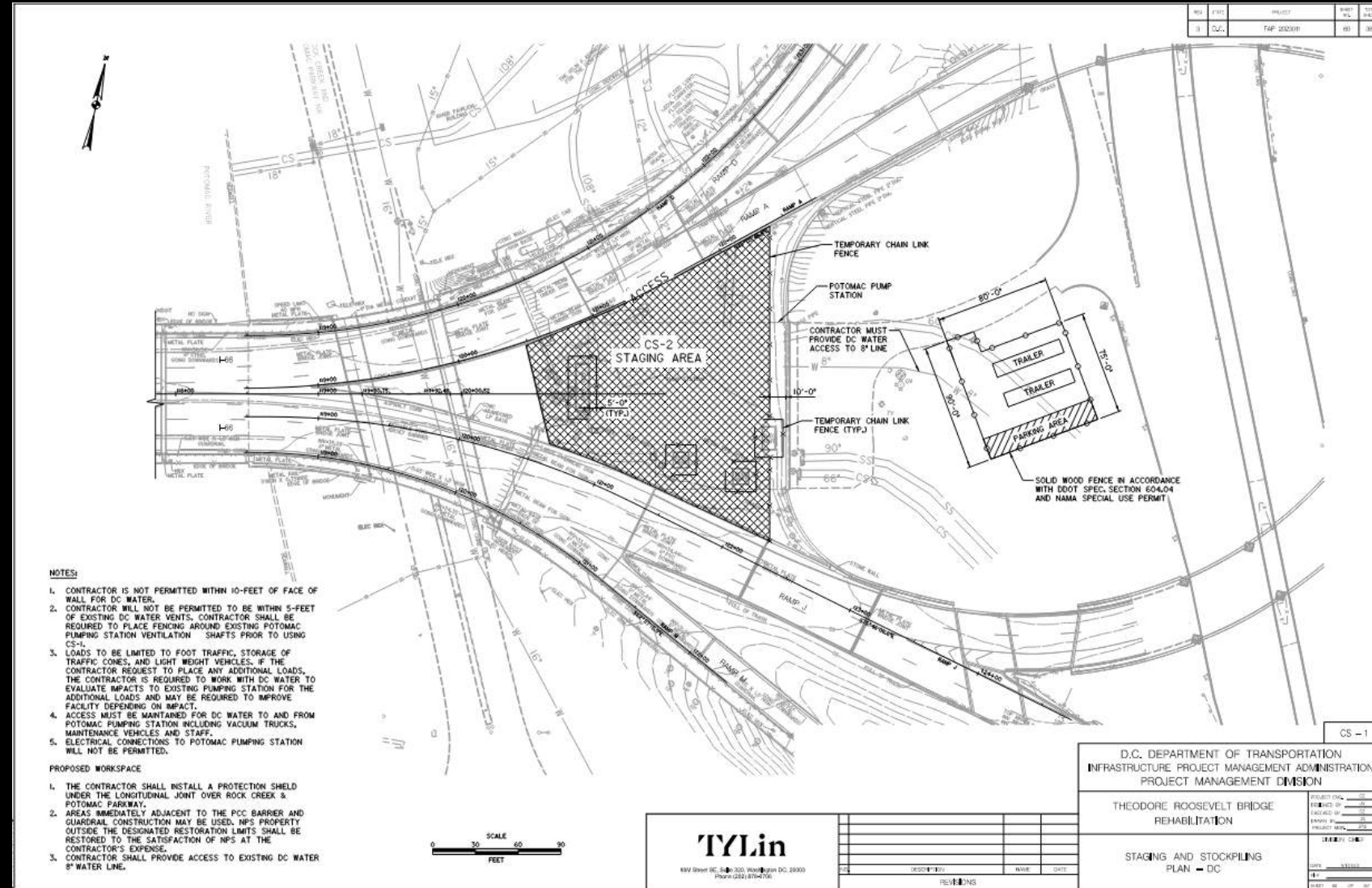
Maintenance of Traffic

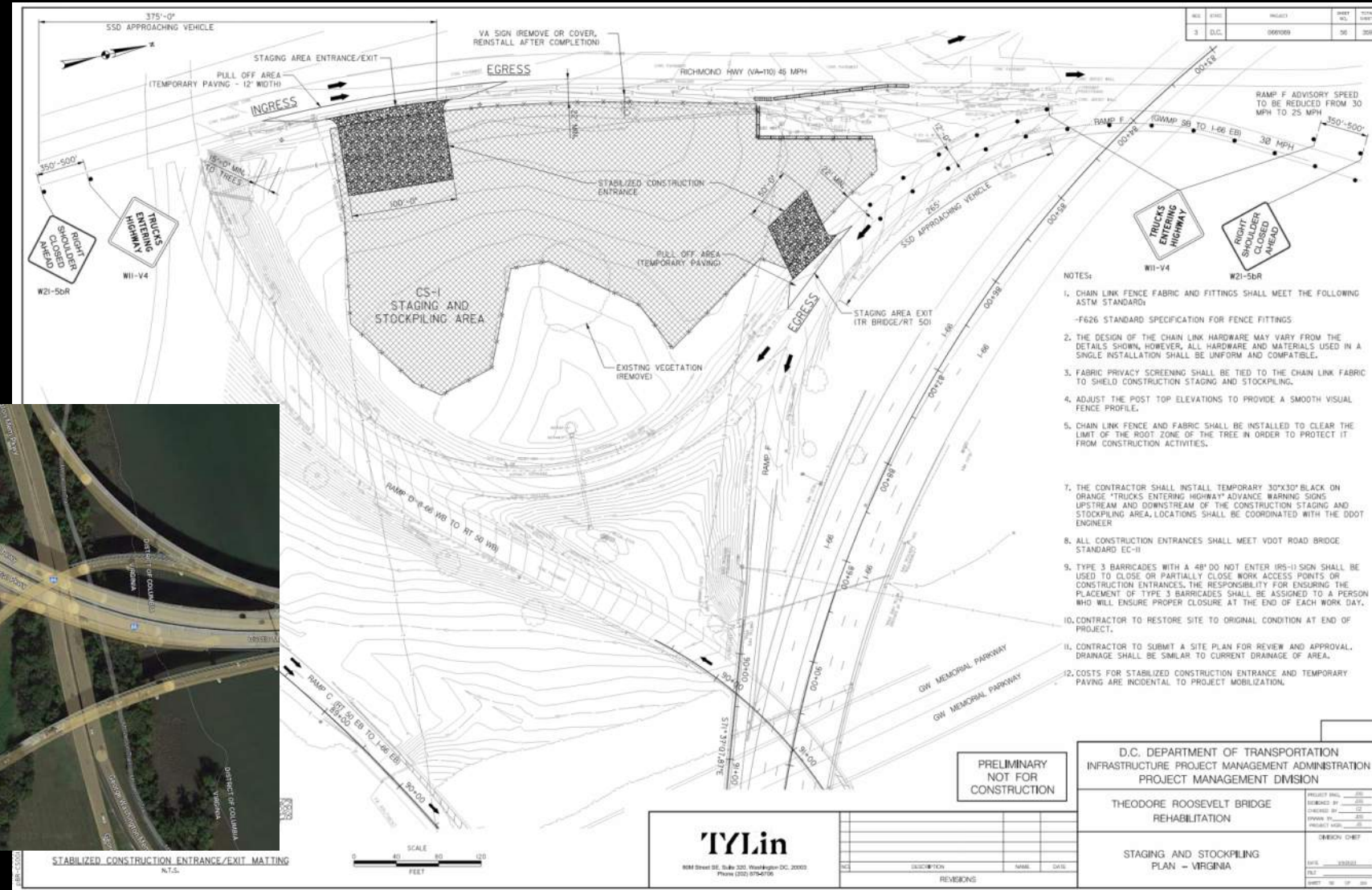
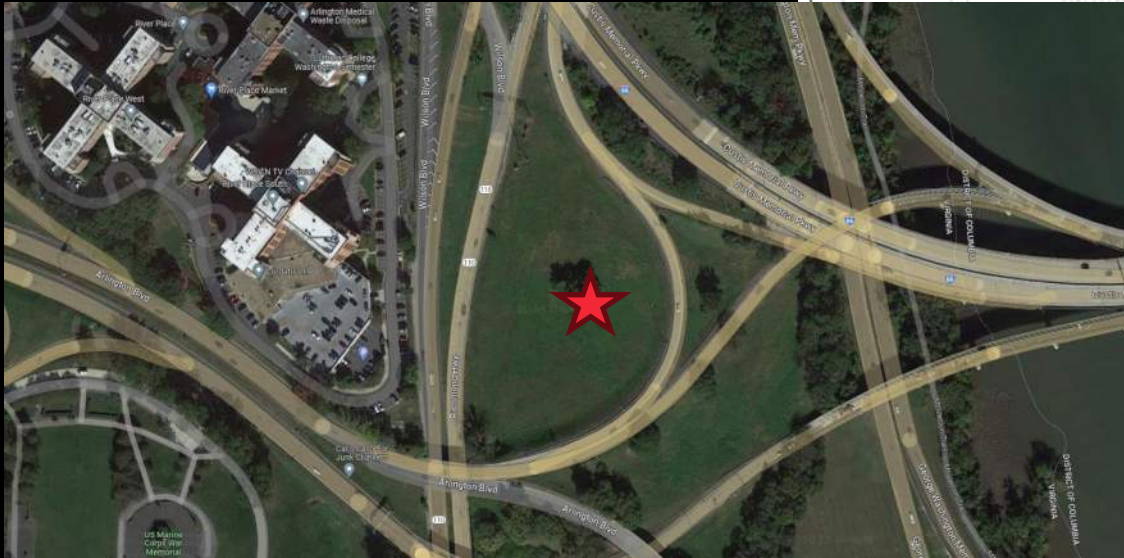
- Phase 11
 - LMC overlay on pile supported spans
 - South sidewalk reconstruction



Staging Area

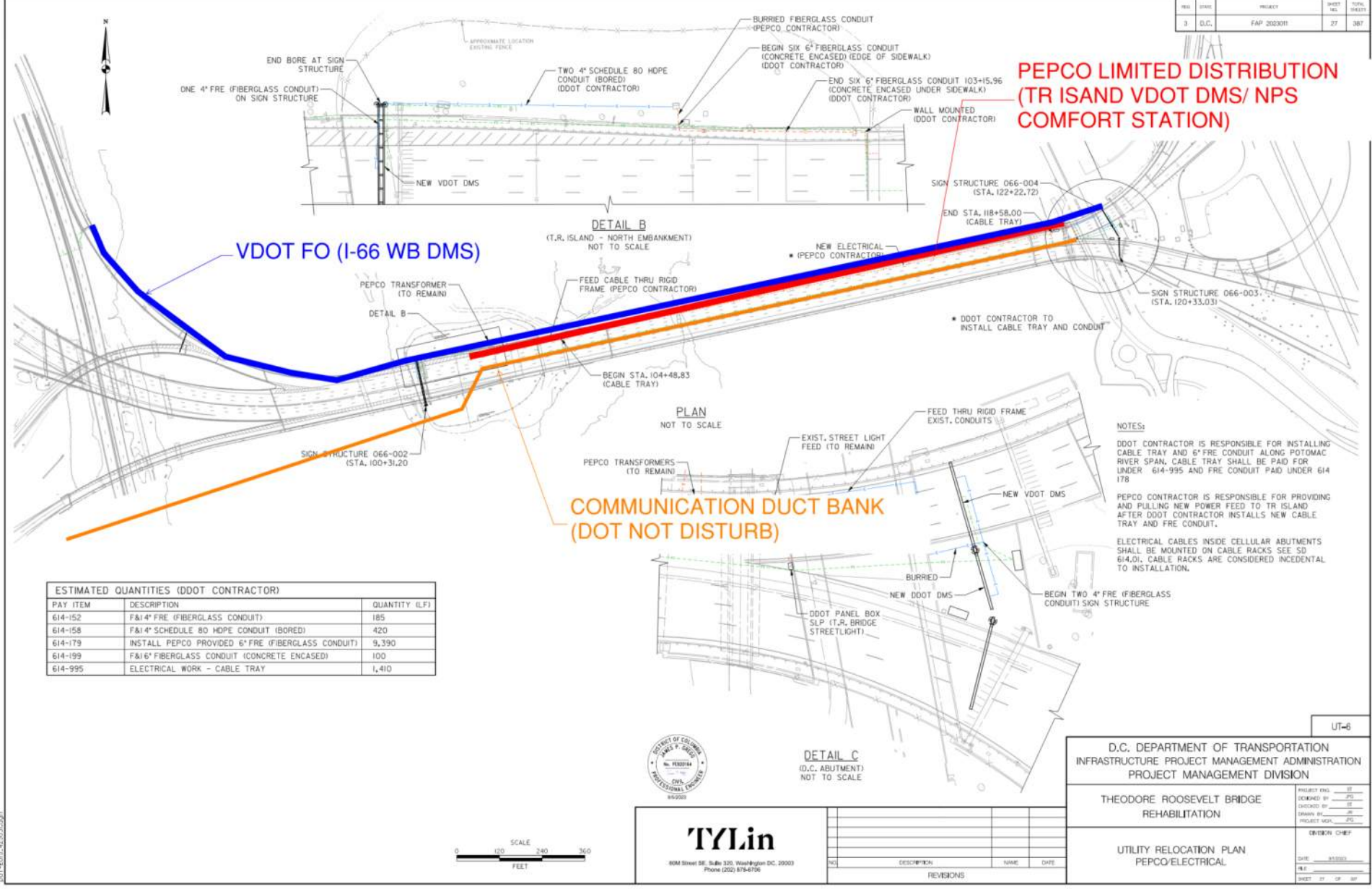
- Permitted
- No heavy equipment allowed above DC Water pump station (CS-2)
- Trailers are allowed at entrance of DC Water pump station

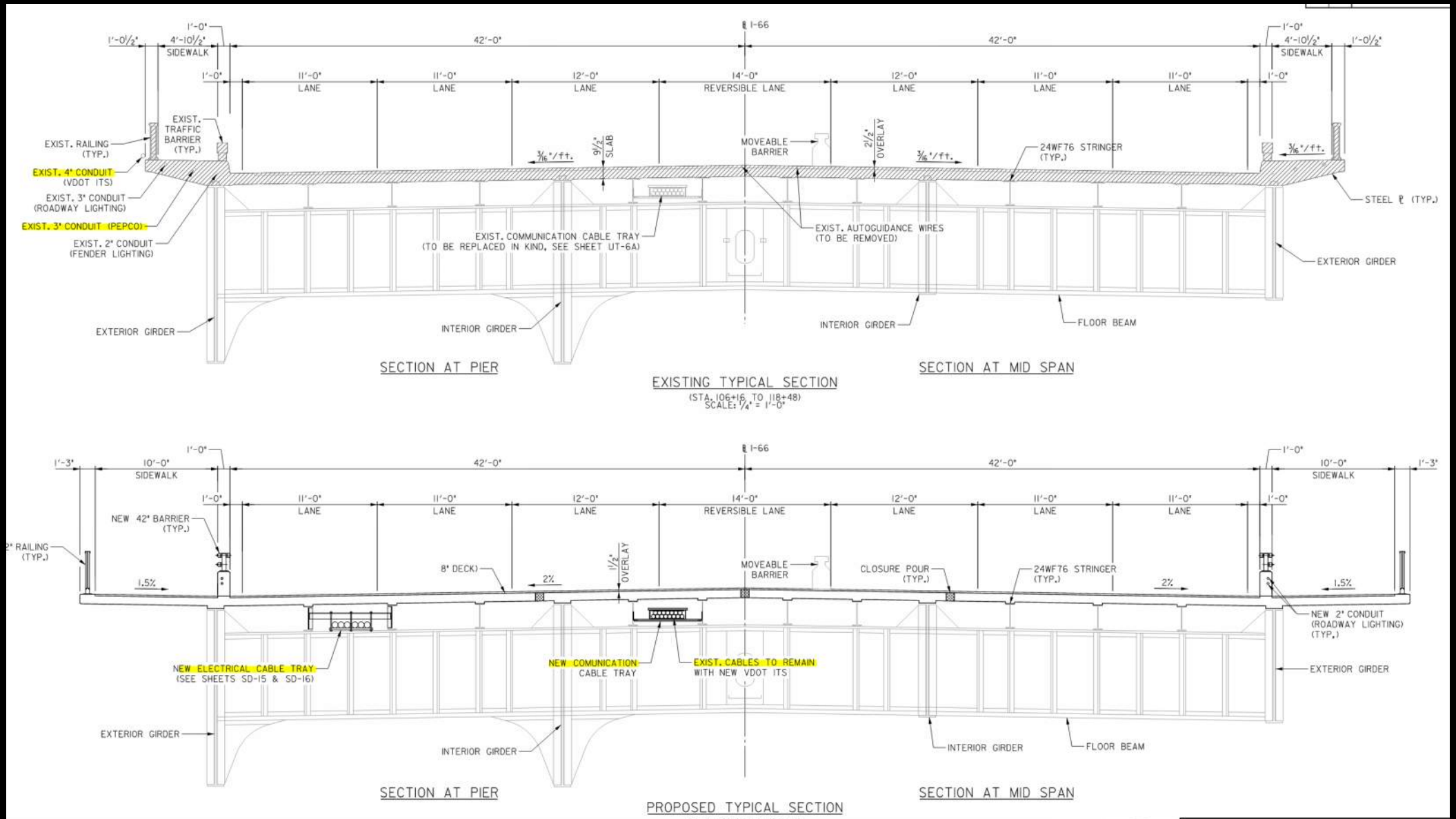




Utilities

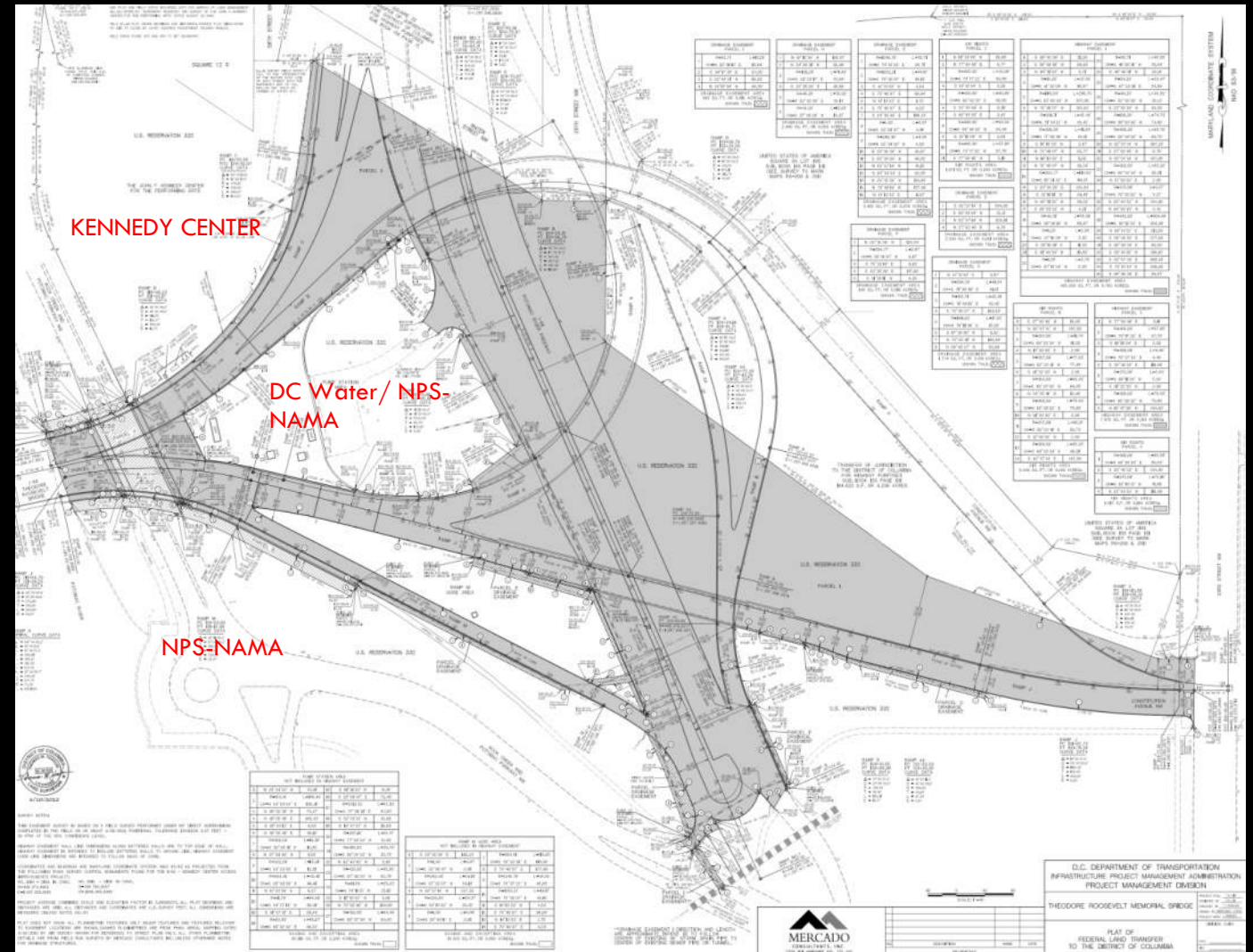
Utility	Impact	Special Requirements
PEPCO	Power to TR Island located in Potomac Span deck	<ul style="list-style-type: none"> • Contractor to construct new cable tray • PEPCO to relocate power before deck removal
VDOT FO	FO located on deck	<ul style="list-style-type: none"> • Contractor may disconnect FO – VDOT to operate DMS remotely • Contractor to install new FO
Verizon/AT&T	Communication cable tray located on Potomac Spans	<ul style="list-style-type: none"> • Contractor to protect communication – No impact anticipated
DC Water	DC Water Pump Station	<ul style="list-style-type: none"> • Permit approved to use area above DC Water Pump Station • Loads will be limited
Washington Gas	None	<ul style="list-style-type: none"> • No gas within project limits

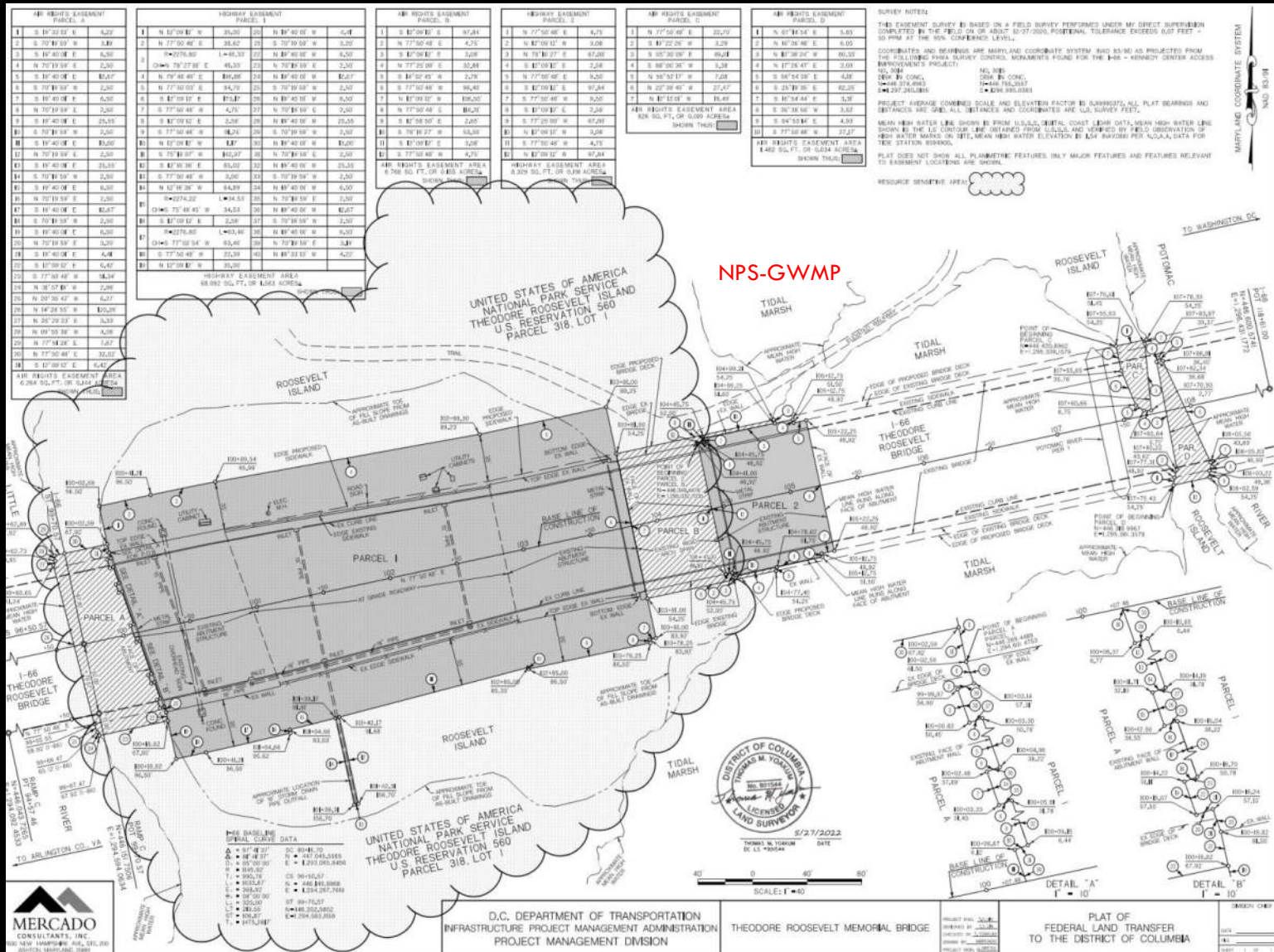


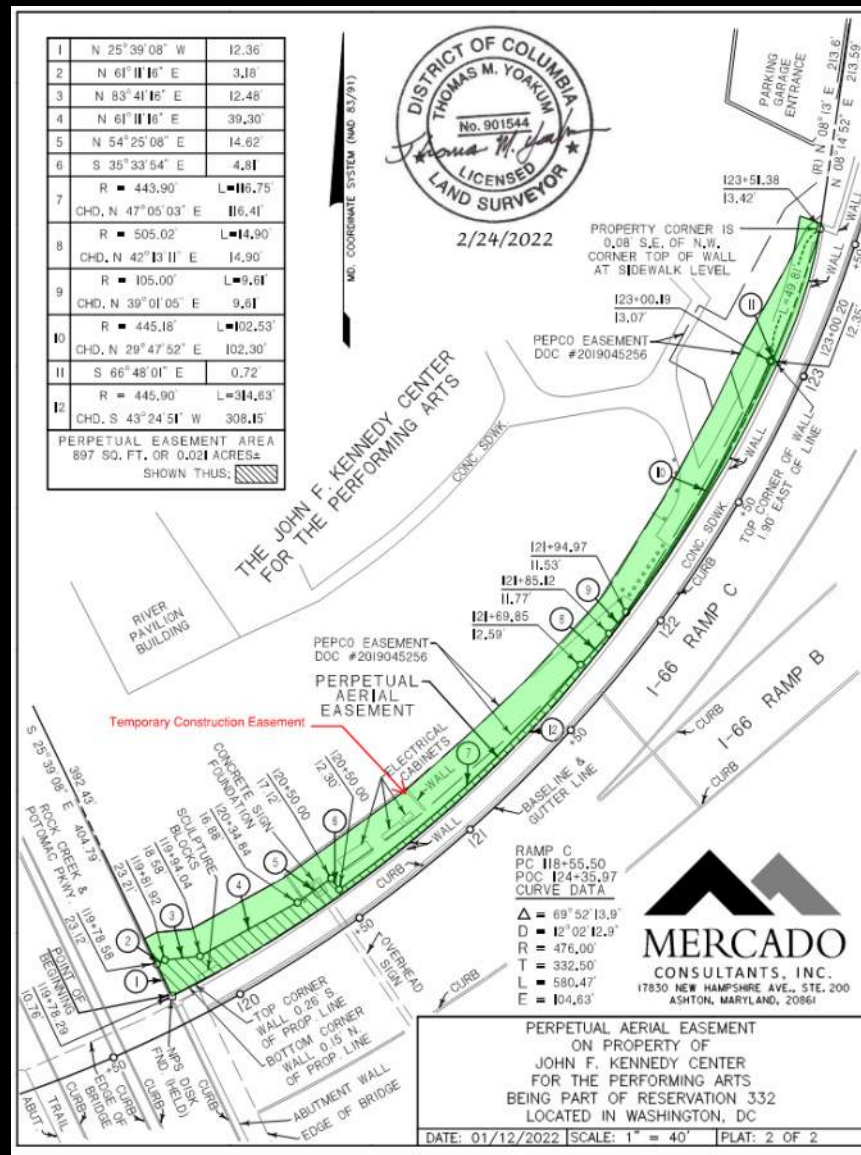


ROW

- DDOT ROW is limited
- Adjacent property
 - National Park Service
 - Kennedy Center
 - VDOT
 - DC Water
- DDOT has coordinated with all adjacent landowners on right of entry or permits







Permits

All permits for construction have been obtained

Agency	Application	Special Requirements
US Coast Guard - Baltimore District	Consultation	<ul style="list-style-type: none">• Contractor may place barges in navigation span• 90-day notification
US Army of Corps of Engineers	Nationwide Permit (NWP) 3 - Section 10	<ul style="list-style-type: none">• Contractor may spud barges into riverbed• Dredging is not permitted
DOEE	401 Water Quality Permit	<ul style="list-style-type: none">• Any dewatering within bridge abutments must be analyzed in accordance with 40 CRF 136 before dewatering in streams• Turbidity and sediment control and monitoring requirements• Restrictions around submerged aquatic vegetation (SAV)• Water quality reporting requirements• Northern long-eared bat
USFWL	Section 7 – Endangered Species	<ul style="list-style-type: none">• Tricolored bat• DDOT to complete bat survey of cellular abutments prior to deck removal

Permits

Agency	Application	Special Requirements
NPS – TR Island	SUP	<ul style="list-style-type: none"> • TOY restrictions for tree cutting (<u>April 1 – Nov. 15 restricted</u>) • No access from TR Island Ped Bridge • Environmentally Sensitive Area – No heavy equipment on TR Island • Mount Vernon Trail must remain open – Shielding • Contractor to coordinate with NPS on tree replanting plan • Contractor to pay agreed to tree mitigation cost
NPS - GWMP	SUP	<ul style="list-style-type: none"> • Single lane closures on GWMP permitted • TR Bridge Ramp Closures permitted
NPS – NAMA (DC Abutment)	SUP	<ul style="list-style-type: none"> • TOY restrictions for tree cutting • Field office permitted on NPS ROW • 3 – no workdays for special performance
John F. Kennedy Center for Performing Arts	Right of Entry	<ul style="list-style-type: none"> • TOY restrictions for work adjacent to JFKPC (<u>June 1 – Sept 30</u>) • TOD restrictions for demo work adjacent to JFKPC (<u>5PM – Midnight</u>) • TOD restriction for sidewalk widening (<u>7PM – Midnight</u>)



Procurement Process

Troy Francis – Chief Procurement Officer OCP/DDOT

Procurement Process

- Two contracts for discussion and overview at this Industry Day:
 - Invitation for Bids (IFB)
 - Construction Management (CM)
- The construction contract will be an open market IFB using A+B methodology:
 - Factor A will be lowest cost
 - Factor B will be the time component. For the time component, DDOT will define the duration period you will be bidding on and give you the road user cost that will be applied to the duration.
- The CM contract will be an open market RFQ

Procurement Process

- A + B
 - “A” Base Cost – **CONTRACT VALUE**
 - “B” Schedule x Road User Cost
 - Amount Evaluated for Award Consideration: A + B
- "B" Schedule – **PHASE 1-9 (DECK REPLACEMENT)**
 - Start to finish on completing Phase 1 thru 9 (Specifically Deck Replacement)
 - 600 days (min) (20 months)
 - 860 days (max) (28 months)
 - New Project Schedule for Phase 1-9
- Road User Cost
 - \$25,000/ day

Procurement Process

- Total Project Schedule
 - 4-years
 - DDOT standard LD's for total project schedule
- Incentive/ Disincentive
 - \$25,000/ day
 - Based on contractor's bid schedule

Procurement Process: The Project Labor Agreement (PLA)

- Under District of Columbia law, any project with construction costs of over 75 million dollars requires a PLA.
- All PLAs must be approved by the Executive Office of the Mayor.
- For Projects with Federal Funding, the PLA process must also be approved by FHWA.
- Status of the PLA for TR Bridge
- The IFB will be released when the PLA is approved.



DBE/ OJT

Andrea Jackson – Equity and Inclusion Division

DBE Contract Compliance Requirements

(49 CFR Part 26)

- The Construction contract DBE Goal is: 17%
- The Construction Management contract DBE Goal is: 22%
- DBEs listed on the approved DBE Utilization Plan MUST perform work on the project as indicated unless a modification plan is submitted.
- Modified DBE Plans MUST be submitted to OCP for approval by OCR.
- A copy of all executed DBE subcontracts must be submitted to OCR seven (7) days after execution of the contract.
- Approvals or modifications for DBE Firms or contract amounts must be approved by Damien Mayo, Damien.Mayo@dc.gov.

DBE Contract Compliance Requirements

49 CFR Part 26

"No terminations or substitutions of DBEs are allowed without the written prior approval by the Office of Civil Rights and following all requirements in 49 CFR Part 26.53 (f) (1)-(6)."

If a substitution is necessary, the new firm must be within the same NAIC Code as the previous DBE firm and must be approved by the Office of Contract and Procurement and the Office of Civil Rights.

DBE Contract Compliance Requirements

49 CFR Part 26

- Commercially Useful Function Reviews will be conducted for all DBE firms on the project.
- Subcontractor Prompt Payment is monitored and confirmed by the subcontractor. Payments to all subcontractors must be made within 7 days of receipt of the Contractor's payment in accordance with DC Quick Pay Act.
- The contractor is responsible for posting all payments for the Prime and all subcontractors in the Civil Rights Compliance System on a monthly basis.
- Contractor must make a Good Faith Effort to meet and/or exceed the DBE goal.
- Issues arising with DBE subcontractors should be addressed to Andrea Jackson, Andrea.Jackson@dc.gov.

On-the-Job Training Requirements

23 CFR 230 Subpart A, Appendix B, “Training Special Provisions,” and DDOT Standard Specifications per Section 103.04, “Employee Training Requirements.”

The (TR Bridge) project has a requirement to train 14 trainees in 8 DDOT Pre-Approved OJT classifications for a total of 11,610 training hours.

DDOT Pre-Approved OJT Classifications	Training Hour Requirement Per OJT Classification	Total Required OJT Trainees	Total Required Training Hours
1. Carpenter	1,040 hrs. per trainee	1	= 1,040 hrs.
2. Concrete Finisher	1,040 hrs. per trainee	2	= 2,080 hrs.
3. Electrical Trainee	520 hrs. per trainee	2	= 1,040 hrs.
4. Form Setter	720 hrs. per trainee	2	= 1,040 hrs.
5. General Laborer	1,040 hrs. per trainee	4	= 4,160 hrs.
6. Iron Worker, Reinforcing	720 hrs. per trainee	1	= 720 hrs.
7. Painter – Structural Steel Bridge	760 hrs. per trainee	1	= 760 hrs.
8. Welder	770 hrs. per trainee	1	= 770 hrs.
		14	11,610

On-the-Job Training Requirements

- 1. DDOT Pre-Approved OJT Programs** – DDOT has 42 FHWA pre-approved OJT training classifications.
- 2. OJT Trainee/Apprentice Enrollment** – Contractors or Subcontractor(s) with OJT requirements must submit a Trainee/Apprentice enrollment form for approval before a trainee or apprentice starts work on the project.
- 3. Reporting** – Contractors and subcontractors with trainees are required to submit to the DDOT OJT Program Manager; *“Weekly”* OJT training reports within 5 days following the ending pay period and *“Monthly”* OJT training Summary reports by the 5th day of the preceding month detailing completed training.

OJT Program Contact - Questions about DDOT’s OJT program should be sent to: Troy Parham, Troy.Parham@dc.gov



QUESTIONS?

Behrooz Rad, PE – Project Manager: Behrooz.Rad@dc.gov

Carol Hessler – Deputy Chief Contracting Officer: Carol.hessler@dc.gov



District Department of Transportation