



**MassDOT Highway Construction Contract: 112337**

**NORTHAMPTON**

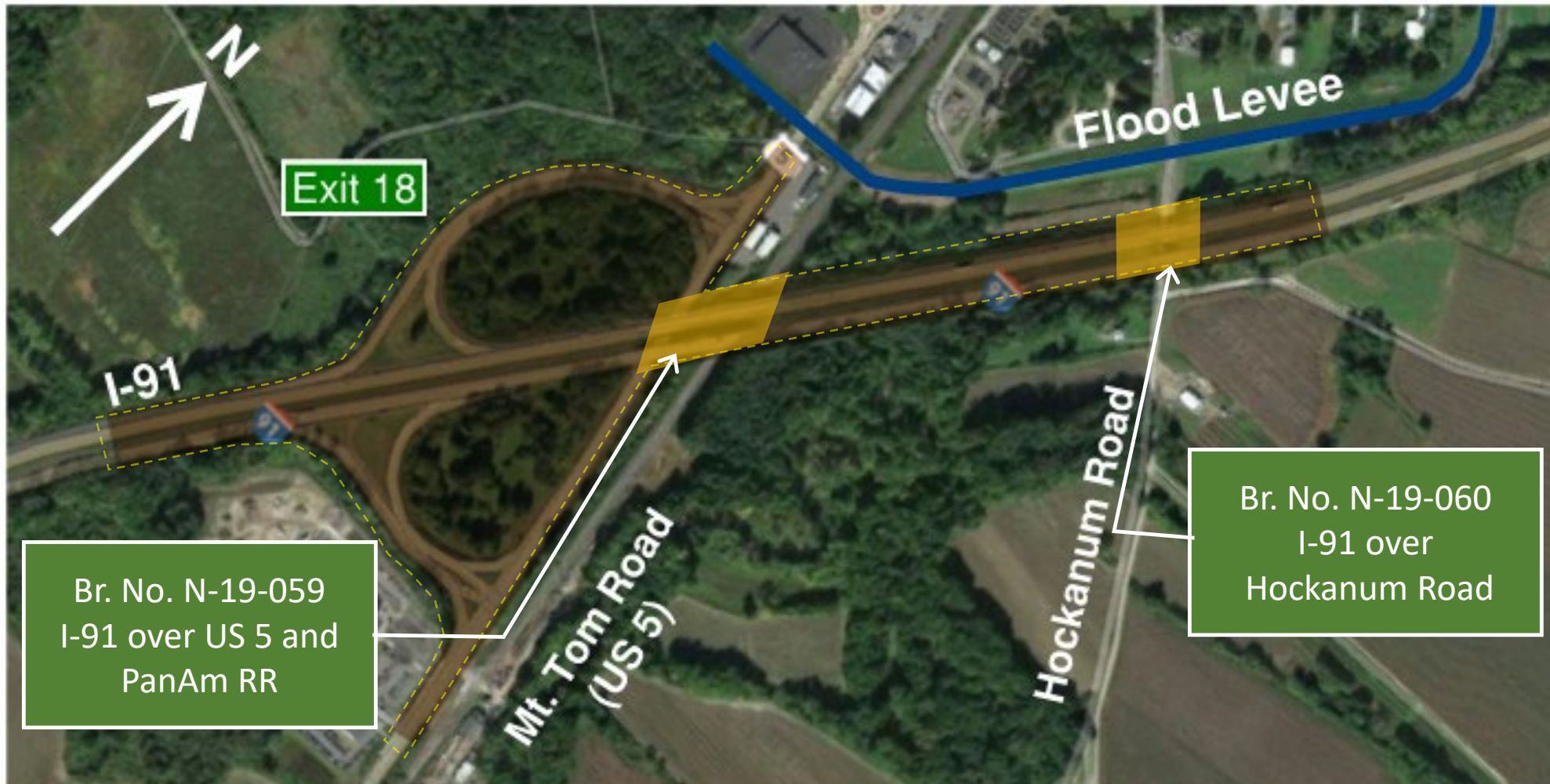
**Federal Aid Project Nos. HIP(BR)-091S(001) & NHP(BR-ON)-091S(001)**

**Bridge Replacements and Related Work (Including Signals) along a Section of Interstate 91  
at Interchange 18, Br. No. N-19-059 (Steel) over Route 5 and B&M Railroad  
and Br. No. N-19-060 (Steel) over Hockanum Road**

MassDOT Board Meeting Presentation

January 11, 2021

# Project Locus



# Overview



- Replacement of Bridge N-19-059 and Bridge N-19-060 to address structurally deficient and functionally obsolete bridges
- 2700 feet of Route 5 NB & SB improvements, including sidewalks, turning lanes, signals and bicycle lanes.
- Relocation of congested utilities along Route 5 into utility duct banks
- Requesting MassDOT Board approval of \$42.1M contract with J F White Construction Inc
- Work will take 4 years to complete; 2 lanes of traffic in each direction on I-91 will be maintained utilizing temporary bridges



# Purpose and Need



Wood cribbing installed



Excessive spalling

- Bridge N-19-059 and Bridge N-19-060 are structurally deficient and functionally obsolete
- Wood cribbing currently installed at Bridge N-19-059 to support deteriorated stringers in span 1 of northbound travel lane
- Stringers at Bridge N-19-059 and N-19-060 have previously gone through repairs in 2011
- Concrete end diaphragms and deck joints are deteriorated

# Purpose and Need (cont'd)



- Congestion on US Route 5 and I-91 at Interchange 18



# Purpose and Need (cont'd)



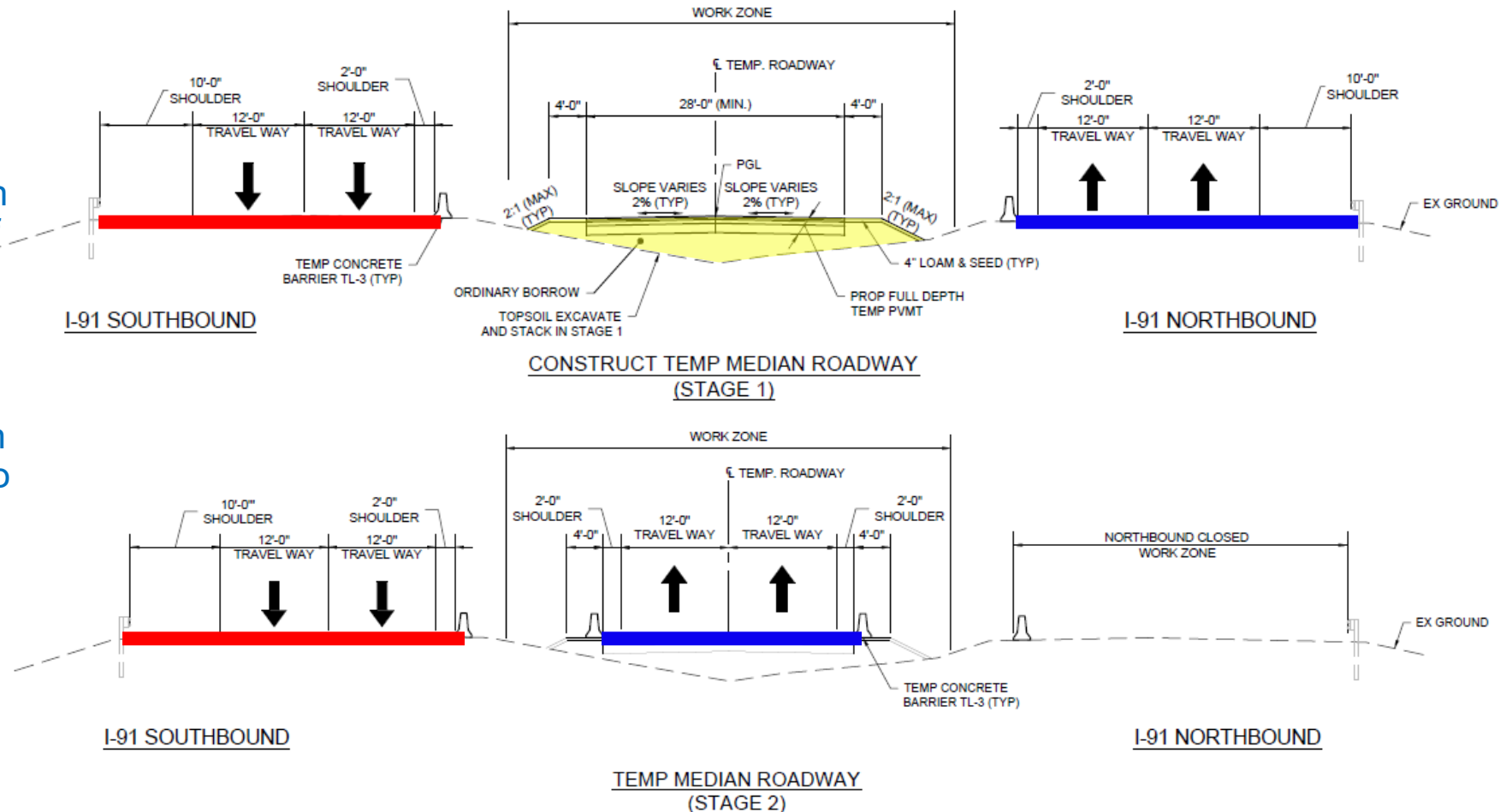
- Inadequate pedestrian and bicycle accommodations
- Poor travel lanes configuration

- Enhance signalization and add crosswalks at ramp locations to improve vehicle and pedestrian safety
- Update drainage, add curbing, re-align and widen ramps

# Construction Scope

## Sequence of Construction – I 91 Typical Section

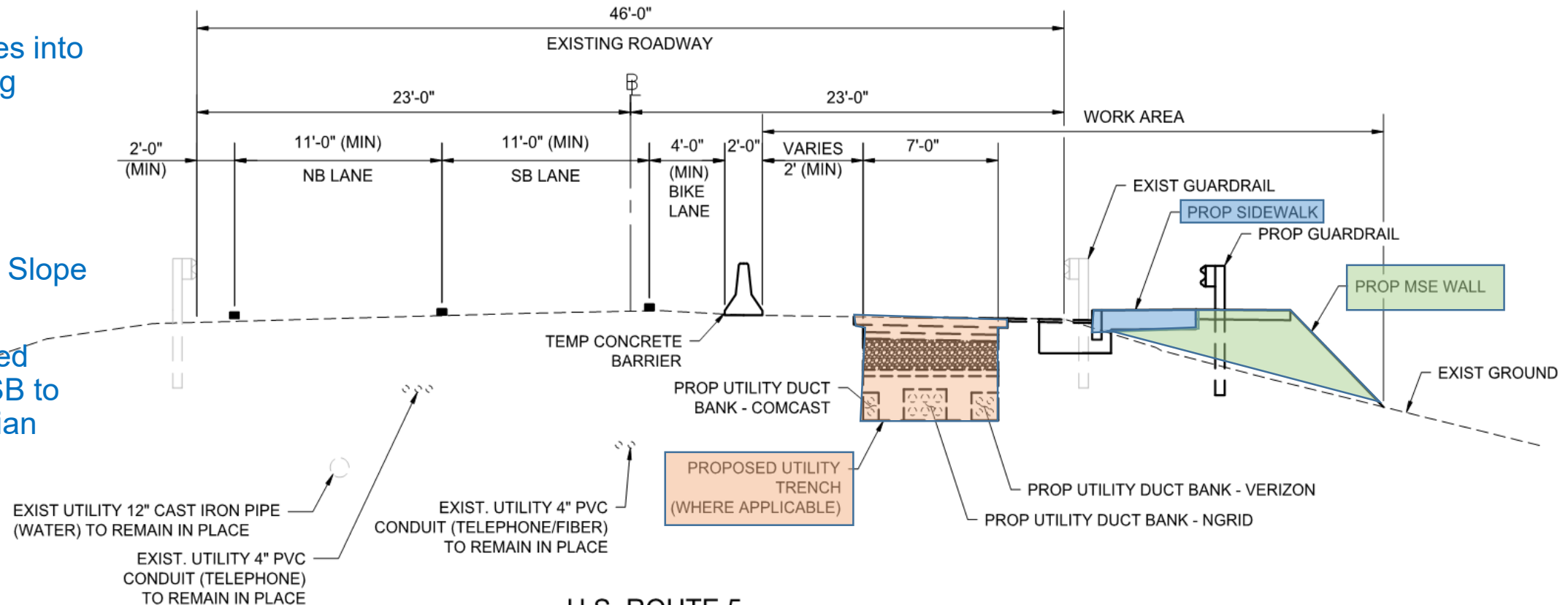
- Bridges replaced in stages utilizing temporary bridges
- Temporary bridges installed in median to maintain 2 lanes of traffic for I-91 NB and SB.
- NB bridges replaced first followed by SB bridges
- Bridge foundations located on existing foundation footprint to take advantage of existing ground improvements



# Construction Scope (cont'd)

## Sequence of Construction – Route 5

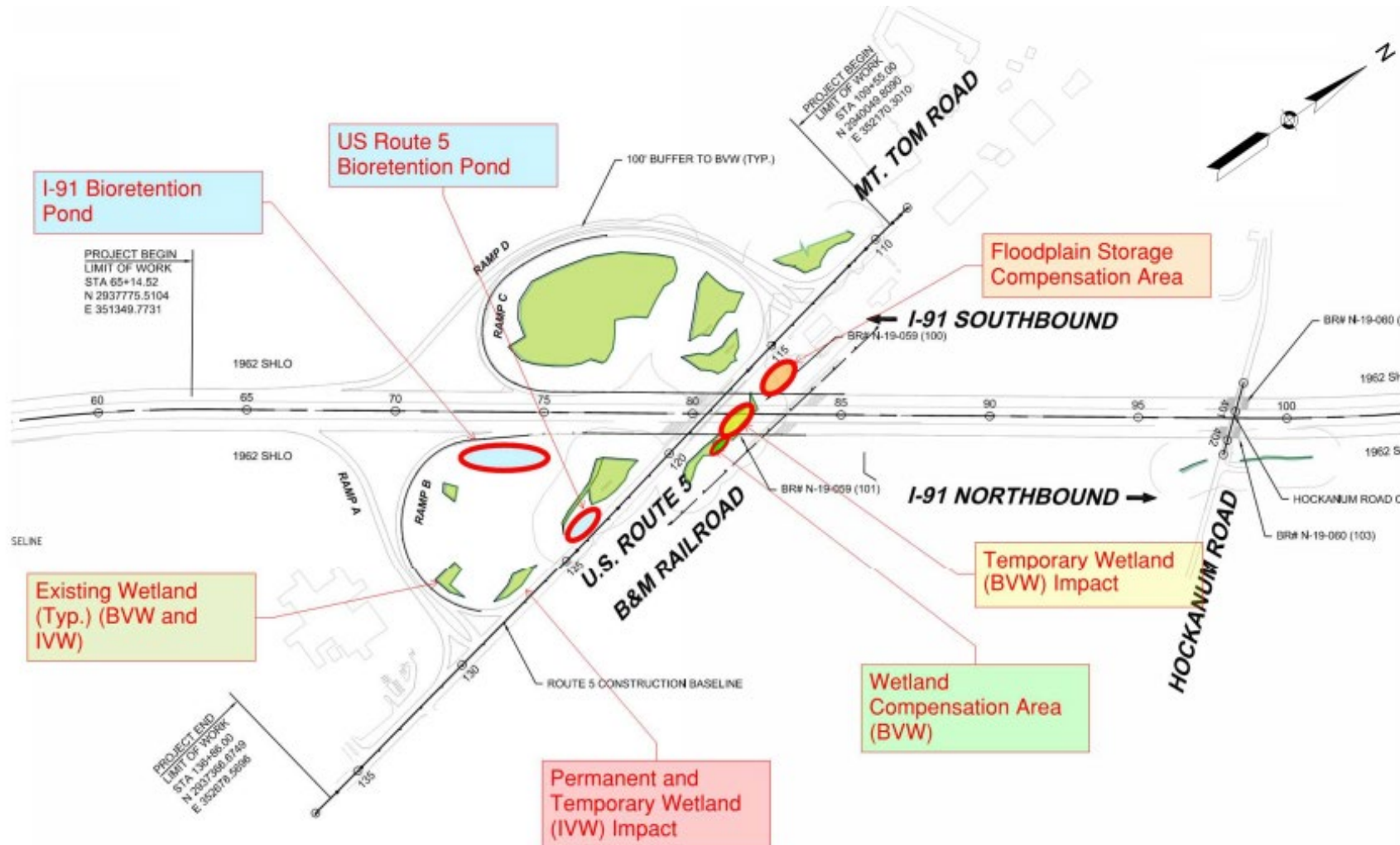
- Relocated utilities into duct banks along Route 5 and Hockanum road
- Construct Mechanically Stabilized Earth Slope along Route 5
- Sidewalk installed along Route 5 SB to provide pedestrian access



U.S. ROUTE 5 -  
UTILITY AND MSE WALL CONSTRUCTION TYP SECTION



# Construction Scope (cont'd)



- Construct detention basin along Route 5 and I-91 Ramp
- Construct Floodplain Storage Compensation Area
- Installation of signalized intersections including pedestrian signals and crosswalks.
- Pavement markings and striping including bicycle and dedicated turning lanes

# Traffic Impacts

- Two lanes of traffic on I-91 in each direction will be maintained at all times utilizing temporary roadway and bridges in median
- Temporary ramp alignment and reconfiguration
- 45mph speed limit along I-91 during construction
- Nighttime lane closures and short-term detours are available during demolition and erection of steel on US Route 5
- One lane of traffic on US Route 5 in each direction will be maintained at all times during daytime operations

# Public Process



- Design Public Meeting - April 24, 2019 for main project
- Environmental Permitting Meetings
  - Meeting on MA WPA NOI – January 23, 2020
  - Continuance Meeting on MA WPA NOI – April 23, 2020



# Procurement



- Project was advertised August 1, 2020
- Engineers Estimate was \$47,529,577.00
- Bid Opening was December 8, 2020
- Seven (7) bids were received:

• <b>J F White Construction Inc</b>	<b>\$42,115,135.60</b>
• ET&L Corp	\$44,397,013.60
• SPS New England Inc	\$45,603,534.00
• Aetna Bridge Company	\$45,766,986.00
• Daniel Oconnells Sons Inc	\$45,995,000.50
• Mohawk Northeast Inc	\$47,887,338.00
• MAB Northampton Constructors LLC	\$50,999,000.00

# Overall Project Budget

Line Item	Budget
Bid Amount	\$42,115,135.60
Contingencies (10%)	\$4,211,513.56
5% Construction Engineering	\$2,491,758.85
RR Flaggers	\$ 500,000.00
<b>Total</b>	<b>\$49,318,408.01</b>

- 80% Federal funding, 20% State funding
- Programmed Cost in the 2020-24 CIP: \$64.62M

# Proposed Vote



It is hereby **VOTED:**

To authorize the Secretary, and/or her designee, to award and execute, in the name of and on behalf of the Massachusetts Department of Transportation, and in a form approved by the General Counsel, a certain Highway Division Contract (#112337) entitled “Bridge Replacements and Related Work (Including Signals) along a Section of Interstate 91 at Interchange 18, Br. No. N-19-059 (Steel) over Route 5 and B&M Railroad and Br. No. N-19-060 (Steel) over Hockanum Road,” in the amount of \$42,115,135.60, with J.F. White Contracting Company.