

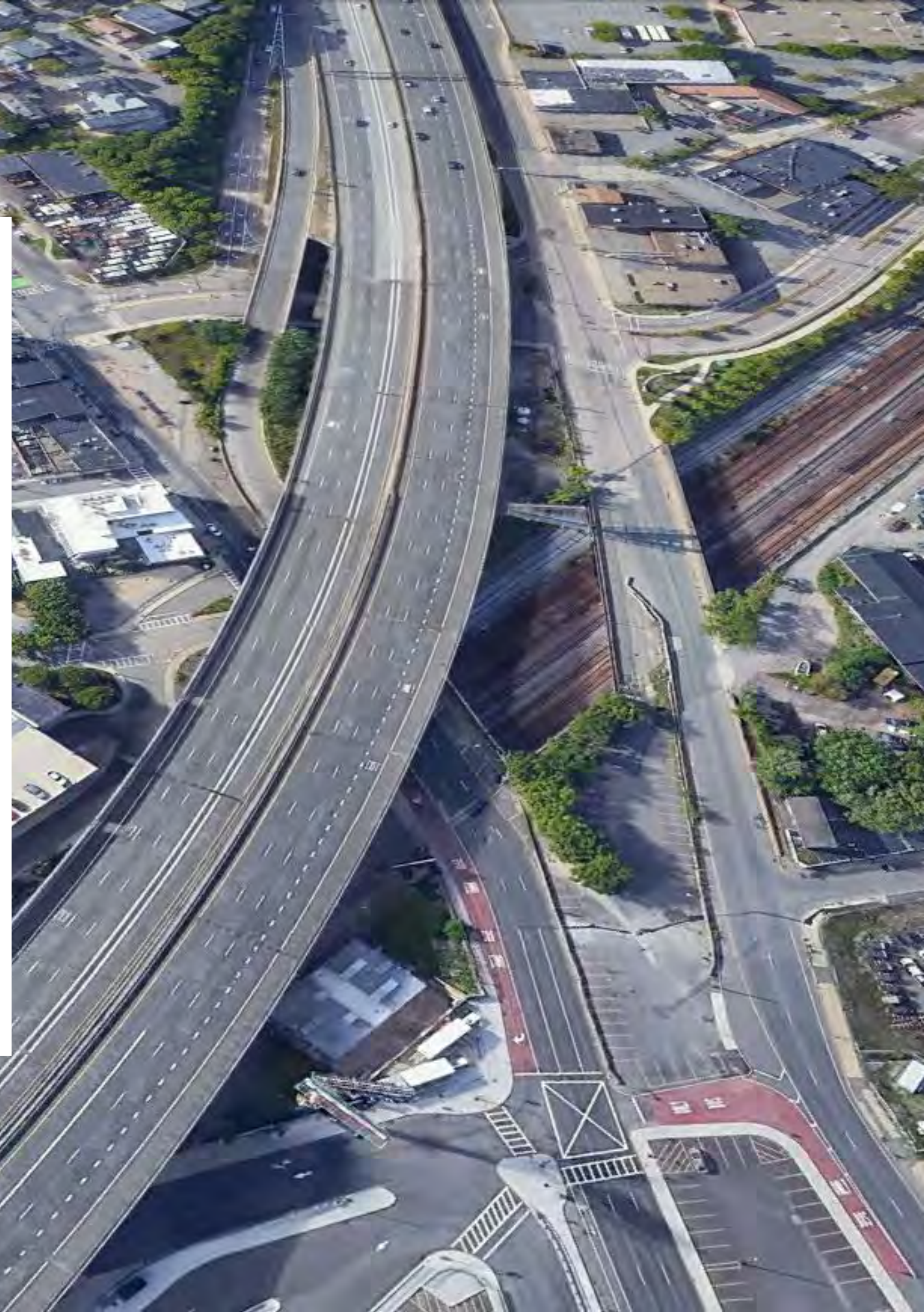


Presentation to the Board

Superstructure Replacement, Maffa Way & Mystic Avenue over MBTA Orange Line and Commuter Rail Bridges, DB Project

February 2, 2023

Boston-Somerville | MassDOT Project File No. 607670



Overview

- Superstructure replacement and substructure rehabilitation of two deteriorated steel stringer bridges over the MBTA Orange Line and Commuter Rail.
- Multimodal roadway improvements including bike lanes, shared-use sidewalks, and bus lanes.





Project Purpose

Purpose and Goals

Purpose

- To improve public safety and promote mobility for pedestrians, cyclists, public transportation, and vehicles.

Project Goals

- Address structural deficiencies by replacing two bridge superstructures on modified piers and abutments with new code-compliant, low-maintenance bridges.
- Address traffic capacity and multimodal accessibility with improved accommodations for pedestrians, bicycles, and transit vehicles.
- Integrate with future projects, including the Rutherford Avenue improvements, One Mystic development, and Assembly Square improvements.



Construction Scope

Project Elements

Bridge Improvements

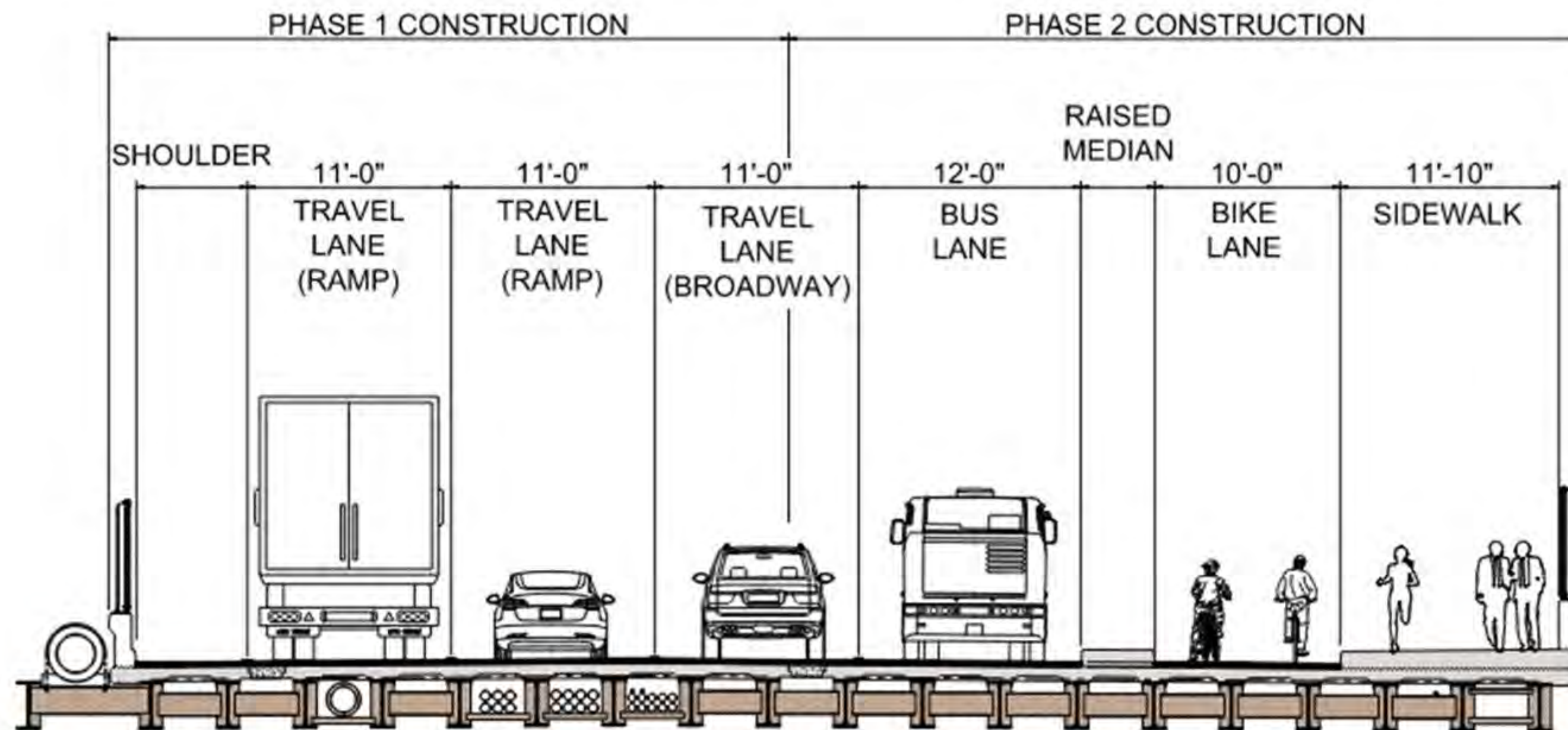
- Replacement of two bridge superstructures
- Substructure stabilization and modifications
- Maintain existing clearances for train traffic
- Construction below Interstate 93

Roadway Improvements

- Dedicated bike lane on Maffa Way Bridge
- Dedicated bus lane on Maffa Way Bridge
- Receiving lanes on Maffa Way Bridge for I-93 Ramp
- Shared-use sidewalk on Mystic Avenue Bridge
- Signal and lighting improvements
- Ties into proposed Rutherford Avenue/Sullivan Square Improvements

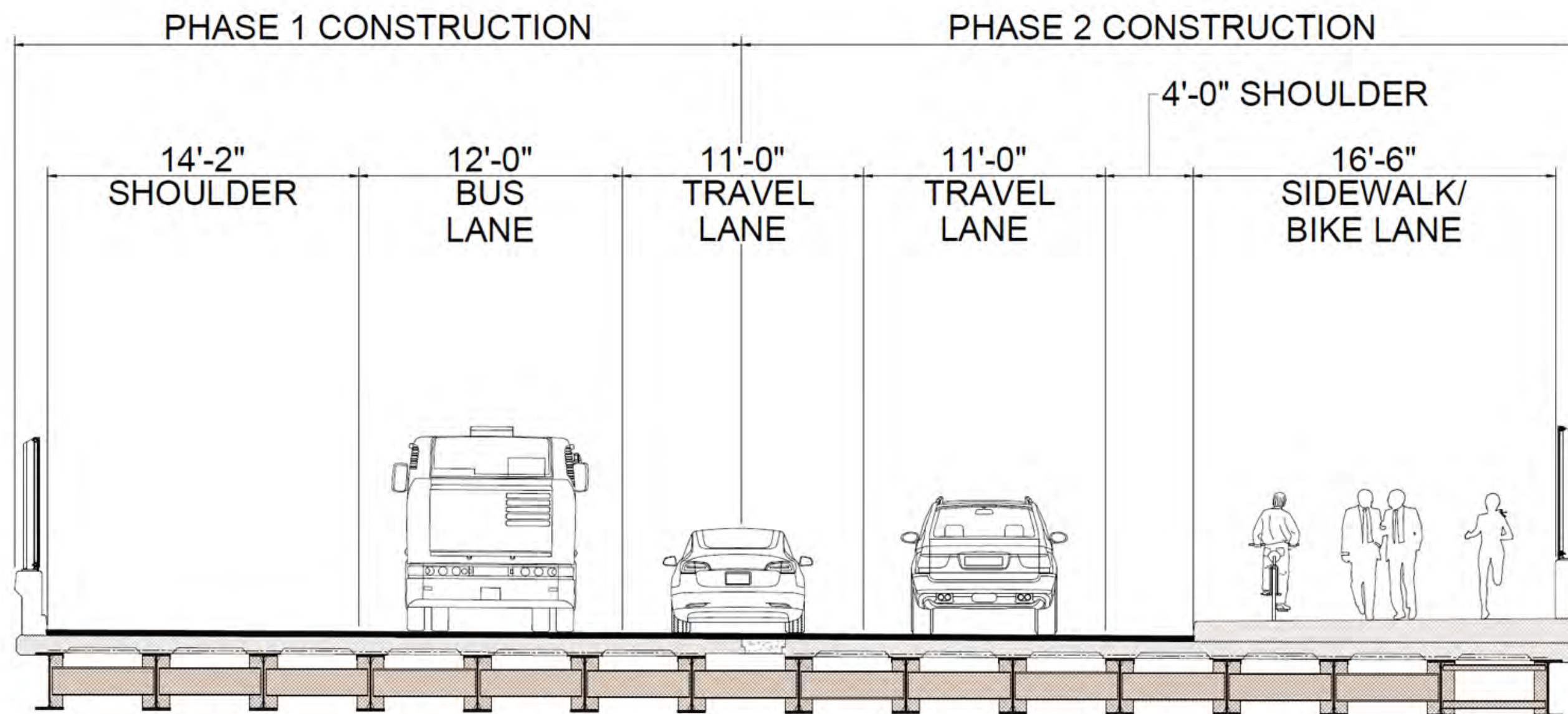
Proposed Bridge Section - Maffa Way (One Way – Eastbound)

- Integrate separate 10-foot wide two-way bike lane and 11'-10" wide sidewalk.
- Provide dedicated bus lane and receiving lanes for I-93 ramp.



Proposed Bridge Section – Mystic Avenue (One Way – Westbound)

- Incorporate a 12-foot shared use facility.
- Maintain turn lanes for capacity demand.



Other Project Elements

MBTA

- Work within MBTA Right of Way
- Coordination with MBTA and Keolis (Commuter Rail, CSX, and Amtrak)
- Maintain existing vertical and horizontal clearances
- Surges and other service disruptions to facilitate construction:
 - Two nine-day Orange Line surges, one each in the summers of 2024 and 2025
 - During surges Orange Line service between Wellington and North Station will be replaced with bus service
 - Four weekend Commuter Rail closures following each surge
 - Busing and alternate rail accommodations during service disruptions
 - Design-Builder to provide traffic analysis and real-time signal adjustments
 - Advance and concurrent public outreach

Other Project Elements

Utilities

- Utility relocations across Maffa Way Bridge
 - Design Builder responsible for relocation: water and MBTA power facilities.
 - Utility company responsible for relocation: gas, electric, and communications.
 - Utilities will be relocated to north side of structure during phased construction.

Coordination

- Cities of Boston and Somerville
- Private development adjacent to Mystic Avenue Bridge

Laydown and Staging Areas

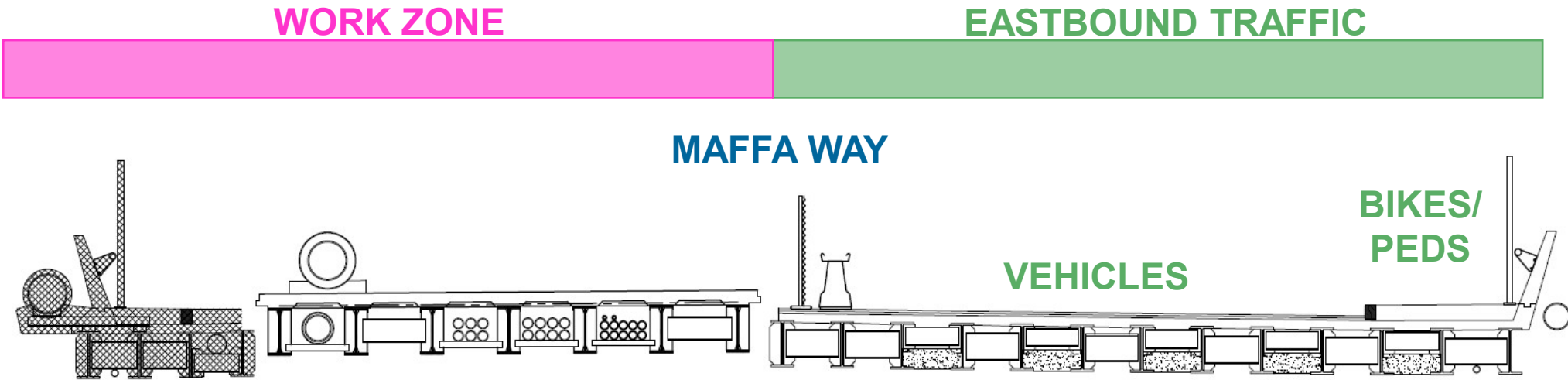
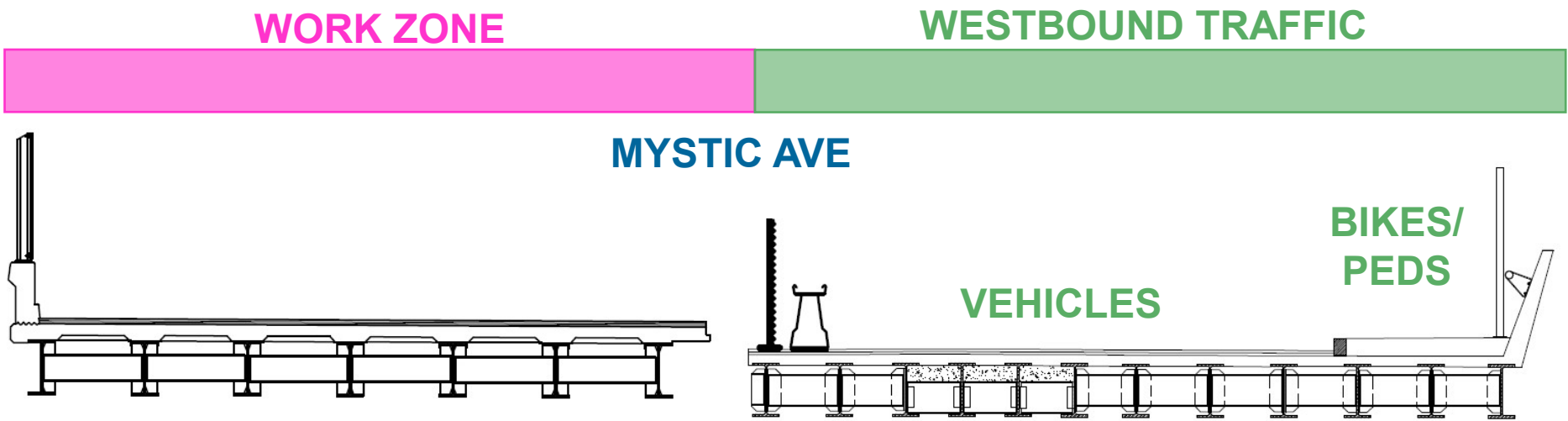
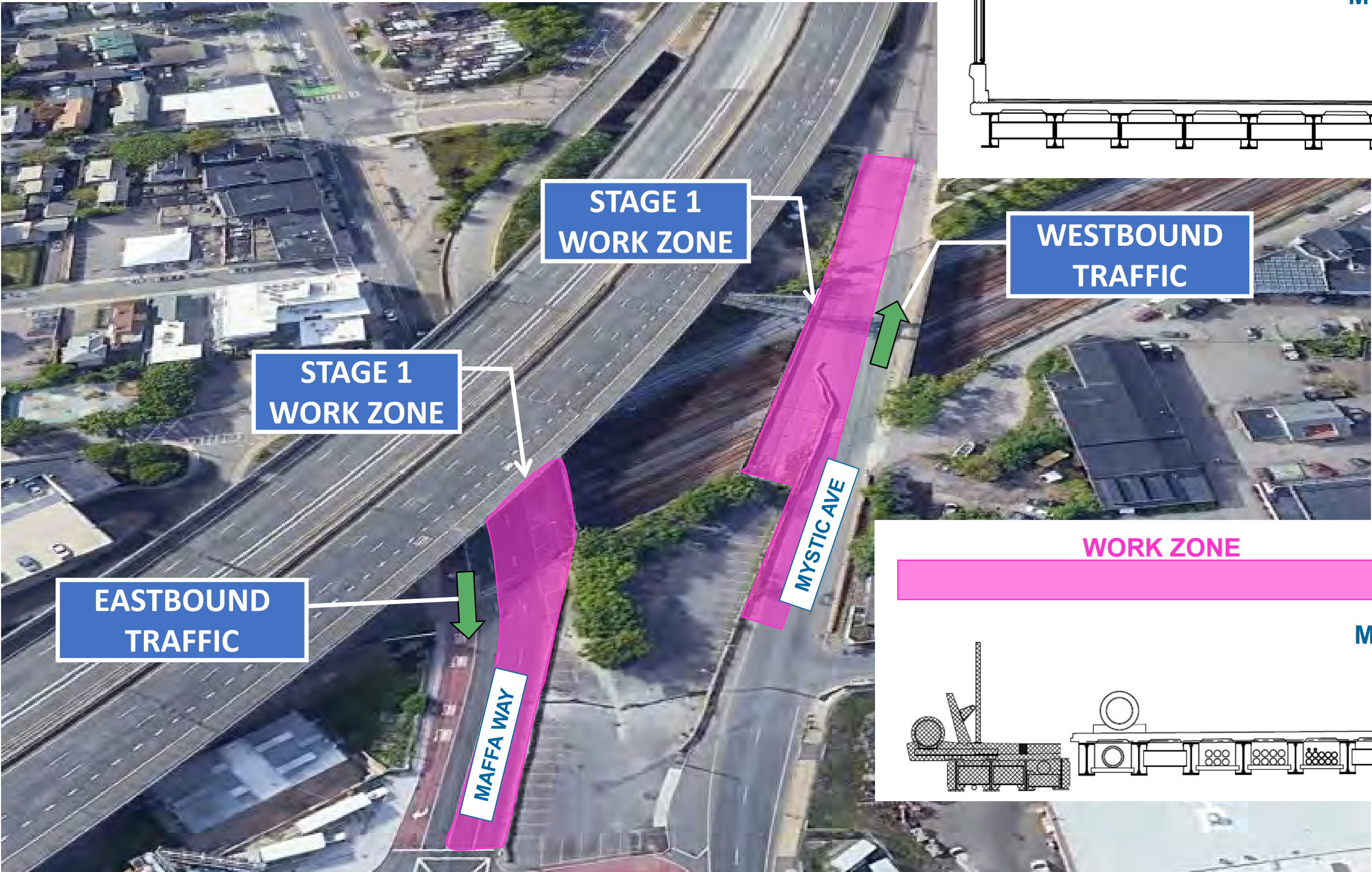
- Design-Builder is responsible for securing their own laydown and staging areas.

Traffic Management

- Phased construction
- Maintain two travel lanes and sidewalks across both bridges.

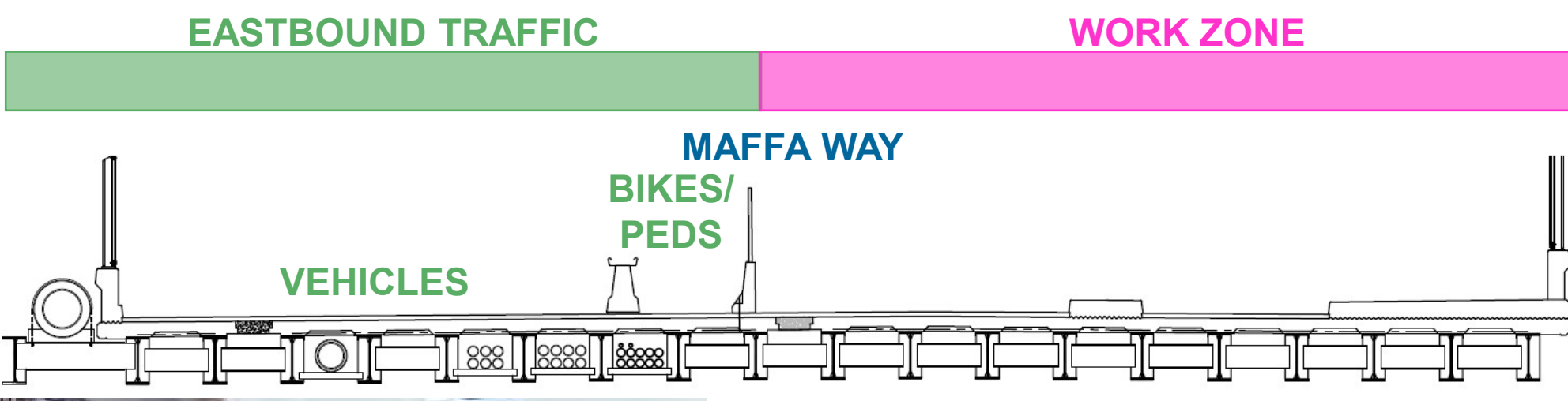
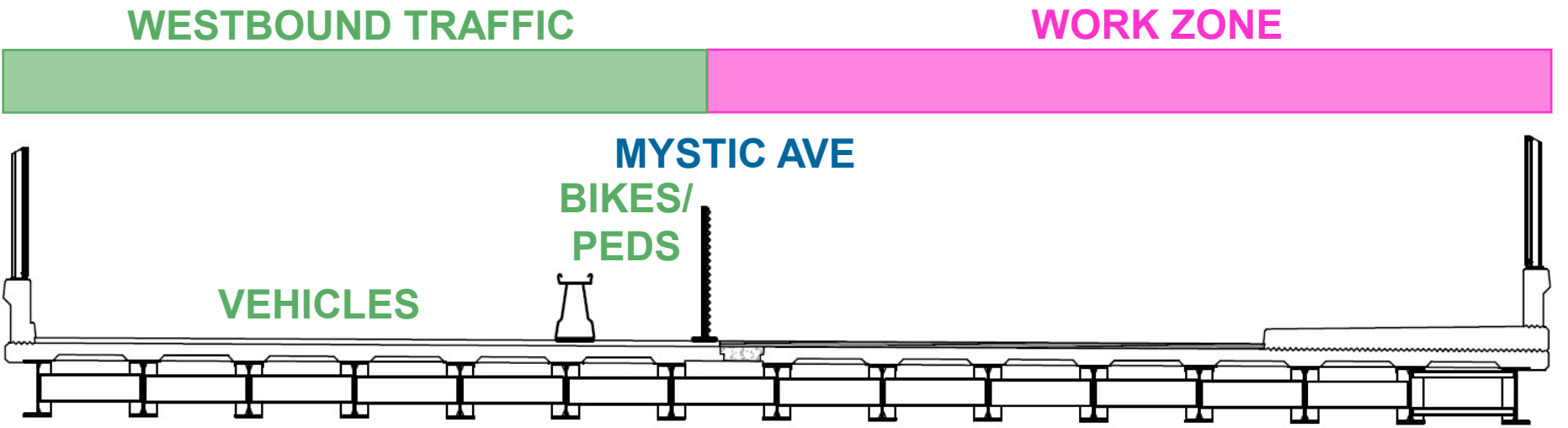
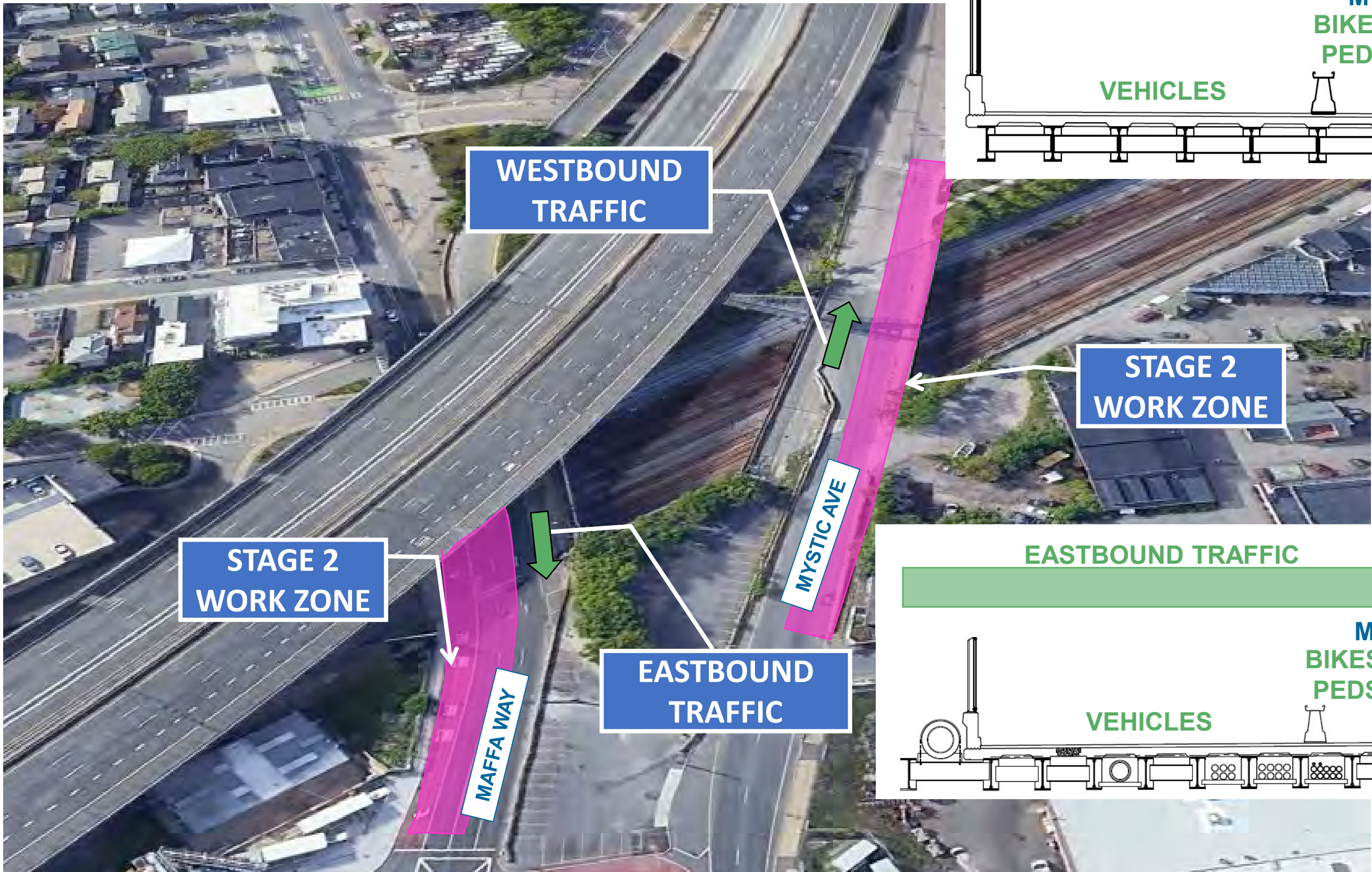
Construction Stage 1

Maintain westbound traffic, pedestrians, and bicycles on north side of Mystic Ave. and eastbound traffic, pedestrians, and bicycles on south side of Maffa Way.
Stage 1 work over railroads to occur mostly during Surge #1 (Summer of 2024)



Construction Stage 2

Maintain westbound traffic, pedestrians, and bicycles on south side of Mystic Ave. and eastbound traffic, pedestrians, and bicycles on north side of Maffa Way.
Stage 2 work over railroads to occur mostly during Surge #2 (Summer of 2025)





Public Process

Public Outreach

Public Involvement

- General public
- Local municipalities
- Neighborhood groups
- Adjacent business owners
- Elected officials

Communication Methods

- Broadcast and print media
- Variable message signs
- Project webpage
- Mobile media
- MassDOT and Commonwealth websites
- Social media
- GovDelivery
- Fliers, fact sheets, newsletters, e-mail, presentations, briefings, meetings, and signs

Public Engagement

- Virtual Legislative Briefing
 - Monday, February 28, 2022
- Virtual Design Public Hearing
 - Wednesday, March 2, 2022
 - Formal responses to written questions provided following public hearing
- Field Meeting with MBTA and the Cities of Boston and Somerville
 - Thursday, June 16, 2022
 - Discussed options for intersection layout, bus lanes, bike lanes, and sidewalks.

Design-Builder's Role

Public Involvement

- Public Participation (Outreach) Plan
- Coordination meetings with MassDOT, MBTA, FHWA, State Police, Local Municipalities and their Emergency Services departments, local elected officials, the community, utility owners, state and local commissions
- Provide content for the MassDOT Project Website
- Public outreach for all disruptions of transit services

Public Information Meetings

- One meeting after MassDOT acceptance of 75% Highway Design
- 30 days prior to commencement of any construction activities
- 30 days prior to completion of major milestones and traffic phase changes
- 7 days prior to short duration closures
- 14 days prior to long term partial or complete closures



**Environmental/
Permitting**

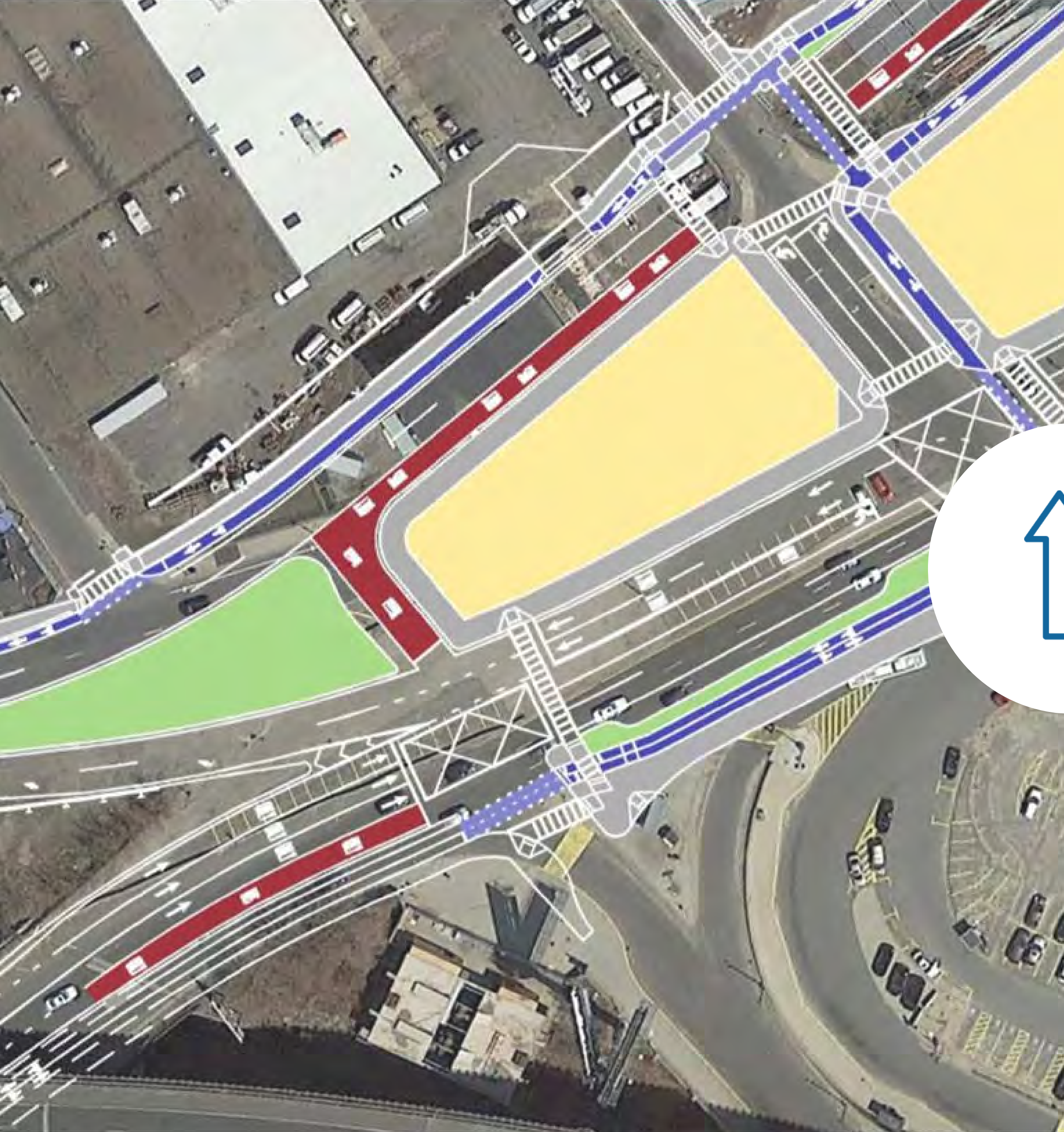
Environmental Considerations

- National Environmental Policy Act (NEPA) – Federal Highway Administration/MassDOT — Programmatic Categorical Exclusion approved by MassDOT on March 28, 2022.
- Project is not currently within any wetland resources.
- Section 106 of the Historic Preservation Act of 1966 – Cleared under a “No Historic Properties Affected” determination on September 21, 2021.
- A Soil Characterization Program revealed no reportable conditions. However, contingency items will cover testing, handling, and disposal of contaminated materials should they be uncovered during construction.

Environmental Considerations

Design-Builder's Responsibilities

- Obtain all required Environmental Approvals/Clearances not already obtained by MassDOT and any Amendments based on design changes
- Preparation of all documentation required to satisfy any conditions in the NPDES Construction General Permit as it relates to their scope of work



Adjacent Projects

Coordination with Other Projects

Active Projects

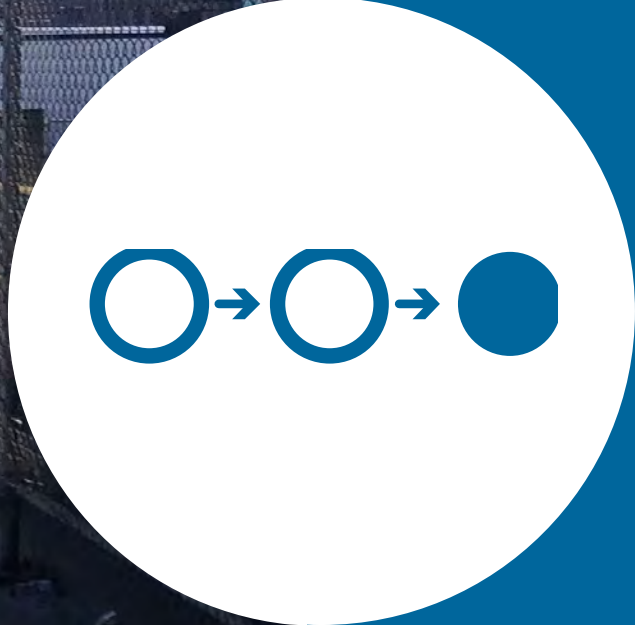
- BOSTON. North Washington St. Bridge Replacement.
- CAMBRIDGE SOMERVILLE. Route 28 Resurfacing, Rufo Road to Broadway.
- CHELMSFORD MEDFORD SOMERVILLE STONEHAM. I-93: Resurfacing
- SOMERVILLE. Bridge Preservation, I-93 NB and SB from Route 28 to Temple Street.
- BOSTON. Sumner Tunnel Rehabilitation. ★

Anticipated Projects

- BOSTON. Reconstruction of Rutherford Avenue from City Square to Sullivan Square ★
- BOSTON. Private development of ONE MYSTIC AVE. ★
- BOSTON. The Lost Village. Sidewalk and Crossing Improvements. ★
- MEDFORD READING SOMERVILLE STONEHAM WINCHESTER WOBURN. I-93 Resurfacing.
- SOMERVILLE. Signal and Intersection Improvements at Mystic Ave & McGrath Highway.
- BOSTON. CANA Electrical System Upgrades.
- BOSTON. I-90/I-93 Resurfacing.
- CAMBRIDGE. Gilmore Bridge.
- BOSTON. Bus Priority Corridor between North and South Station.

Utility Projects

- BOSTON. Eversource improvements between Maffa Way and Mystic Ave near Dorrance Street. ★
- BOSTON. BWSC water main replacement on Rutherford Avenue between Sullivan Square & Gilmore Bridge.



Procurement

Schedule of Events

EVENT	DATE
Request for Letters of Interest	3/12/2022
Letters of Interest Due	4/25/2022
RFO Close Date for Questions	5/17/2022
Statements of Qualifications Due	5/31/2022
Design-Builders Short-Listed	6/29/2022
Draft RFP Issued to Short-Listed Design-Builders	7/6/2022
Final RFP Issued to Short-Listed Design-Builders	8/3/2022
Technical & Price Proposals Due	10/26/2022
Oral Presentations	11/9/2022
Public Price Proposal Opening Date	11/30/2022
Anticipated Award Date	TBD
Anticipated Notice to Proceed	TBD

Best Value Calculation

PRICE OPENING/BEST VALUE DETERMINATION

WEDNESDAY – NOVEMBER 30, 2022



Best Value is lowest price per quality score point

Federal Aid No. CMQ/NHP(BRR-ON)-0036(012)
Superstructure Replacement, B-16-067 (3GV) Maffa Way &
B-16-068=S-17-028 (3GW) Mystic Avenue Over
Orange & MBTA/BMRR
Design-Build

PROJECT VALUE: \$39,000,000.00

<u>BOSTON-SOMERVILLE</u> <u>607670-119537</u>	Design-Builders			STEP
	<u>SKANSKA USA</u> <u>CIVIL NORTHEAST INC</u>	<u>SPS NEW ENGLAND INC</u>	<u>THE MIDDLESEX CORP</u>	
TECHNICAL SCORE	91.13	87.26	89.13	1 Pre-Entered by MassDOT
PRICE PROPOSAL	\$39,200,000.00	\$41,998,425.00	\$40,728,200.00	2 Transferred from Bid Express
OVERALL VALUE RATING = PRICE PROPOSAL / TECHNICAL SCORE	430,154.724	481,302.143	456,952.766	3 Calculated by MassDOT (step 2 / step 1)
	↑			Apparent Winning DB Entity

Overall Project Budget

LINE ITEM	BUDGET
Bid Amount	\$39,200,000.00
Contingencies	\$ 3,921,355.00
Construction Engineering	\$ 2,106,450.00
Railroad Flaggers	\$ 150,000.00
Traffic Police	\$ 2,775,000.00
Trainees	\$ 4,000.00
Incentives	\$ 3,600,000.00
Total	\$51,756,805.00

Request of the Board

Staff request that the MassDOT Board authorize the Secretary of the Massachusetts Department of Transportation, or her designee, to award and execute MassDOT Construction Contract 119537: Superstructure Replacement, B-16-067 (3GV) Maffa Way & B-16-068=S-17-028 (3GW) Mystic Avenue over Orange & MBTA/BMRR Design-Build Project with Skanska USA Civil Northeast, Inc. in the amount of \$39,200,000.00.



Thank You

Presentation to the Board

Wednesday, January 18, 2023

MassDOT #607670