



North Washington Street Bridge Replacement Project

Boston, Massachusetts

Knights of Columbus – 545 Medford Street – April 12, 2017



Design Project Team

MassDOT
Highway

Michael O'Dowd, Project Manager

City of Boston

Para Jayasinghe, City Engineer

Benjamin Sun, Chief Structural Engineer

Federal Highway Administration

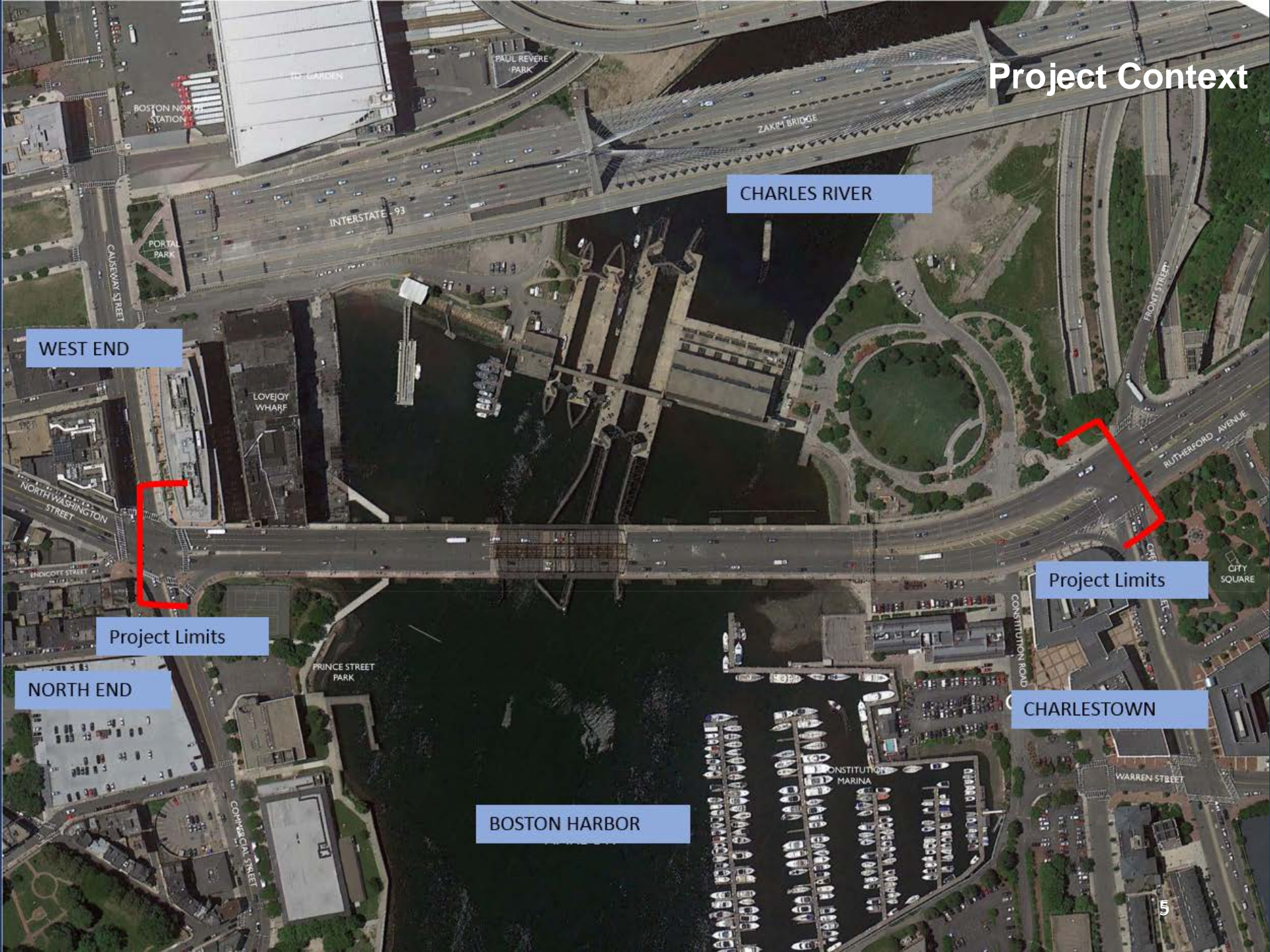


Bridge Engineer: Benesch

Bridge Architect: Rosales +



Project Context



CHARLES RIVER

WEST END

Project Limits

Project Limits

NORTH END

CHARLESTOWN

BOSTON HARBOR

Project History

1898 Existing Bridge Constructed - 12 spans, 1087' in Length

1956 Bridge is Reconstructed

1961 Swing Span Closed Permanently

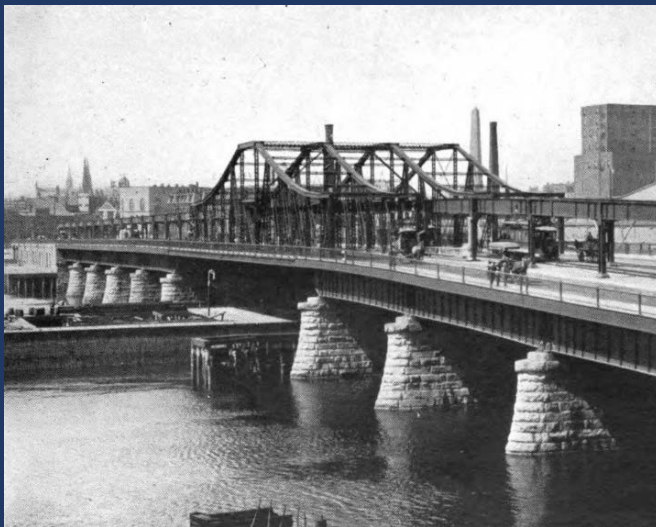
1977 Elevated Street Railway Structure Removed

1992 Adjoining Warehouse Bridge Structure in Charlestown is Replaced

2003 Center Truss Bay Lanes Closed

2004-2017 Ongoing Maintenance and Repairs

October, 2017 Additional Outbound Lane Removed from Service Due to Ongoing Deterioration



- Replace Structurally Deficient Bridge
- Provide Multi-Modal Bridge as a Complete City Street over Water
- Improve Deficient Bike and Pedestrian Accommodations
- Improve Intersections Safety and Functionality
- Improve Navigation Channel
- Provide Context Sensitive Bridge Design in an Important Waterfront and Historic Bridge Location
- Provide Visually Appealing Bridge Design Complementing the Zakim Bridge
- Maintain Traffic, Residential and Economic Needs during Construction

Project Progress and Schedule

- Completed Conceptual Design: Spring 2015
- Preliminary Design: Fall 2015
- Environmental Permits: 2016 to 2017 (updated)
- Final Design: Spring 2017
- 19 public outreach meetings through design period
- Bid opening: February 2018
- Anticipated Construction Activity: Spring 2018 to late 2022



Construction Team

- MassDOT
 - Public Involvement: Howard Stein Hudson
- Successful Bidder - General Contractor (GC)
 - JF White Contracting Co.
- Boston Public Works Department

Coordinating Agencies

- City of Boston
 - PWD
 - BTB
 - BPS
- Boston Police, Boston Fire, Boston EMS
- MBTA
- DCR
- National Park Service
- MA State Police
- US Coast Guard
- Army Corps of Engineers

Coordination Meetings

- Emergency Services Coordination Meetings:
 - October 5, 2016
 - October 18, 2017
- Project has full awareness of emergency access concerns in Charlestown – EMS to station additional forces in Charlestown
- Continuing coordination with Boston Public Schools and METCO regarding PM peak bus traffic
- Close coordination with TD Garden beginning
- Outreach to major shuttle operators beginning

Latest News

Contract process complete by mid-April, then:

- Field office set-up (Location TBD)
- Contractor-initiated plan & schedule submittals
- MassDOT review and acceptance of contractor plans
- Early work by late spring – utility company coordination & early relocation, identifying traffic impacts (if any)

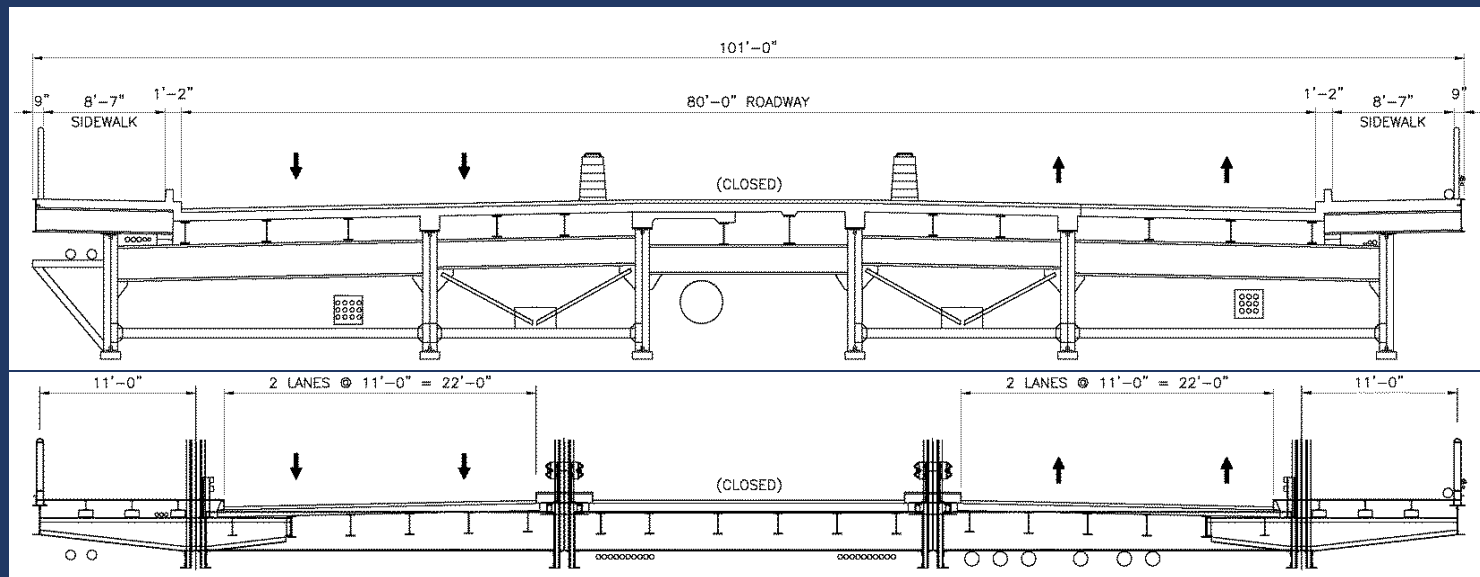
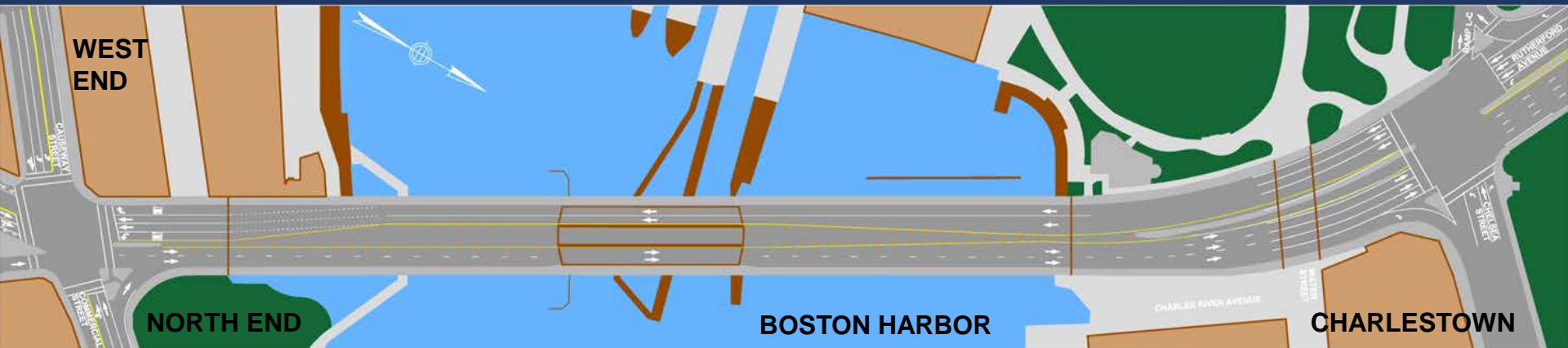
Construction



Before Construction Starts

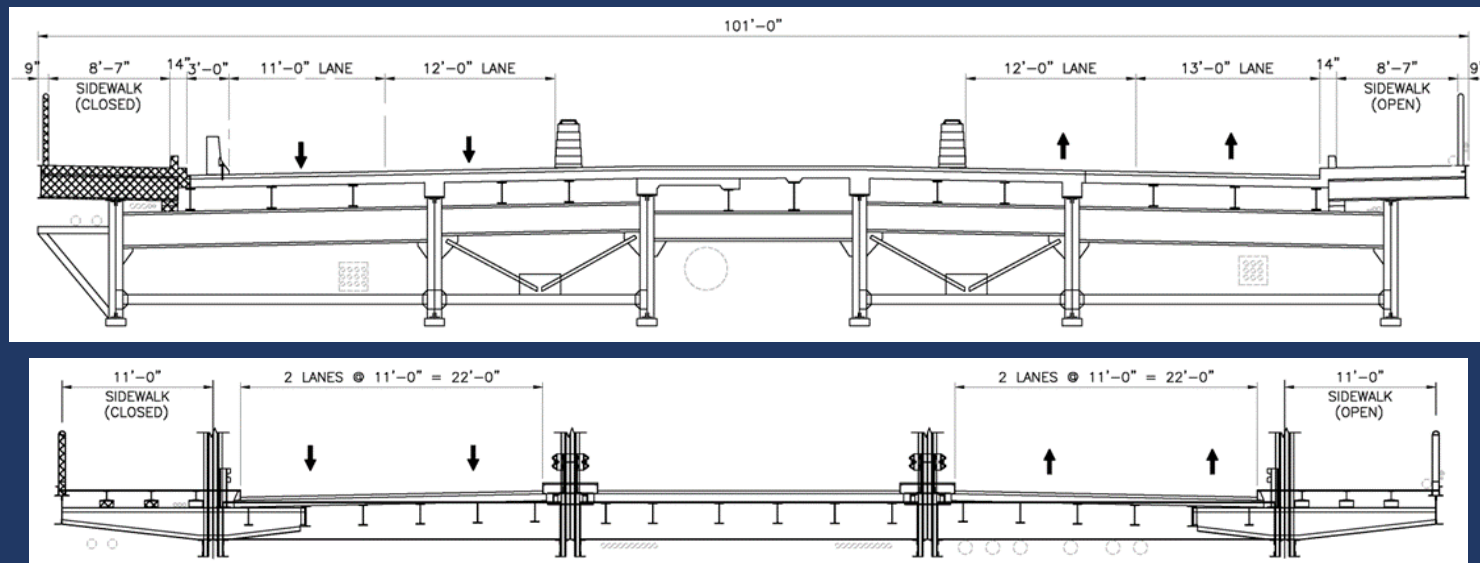
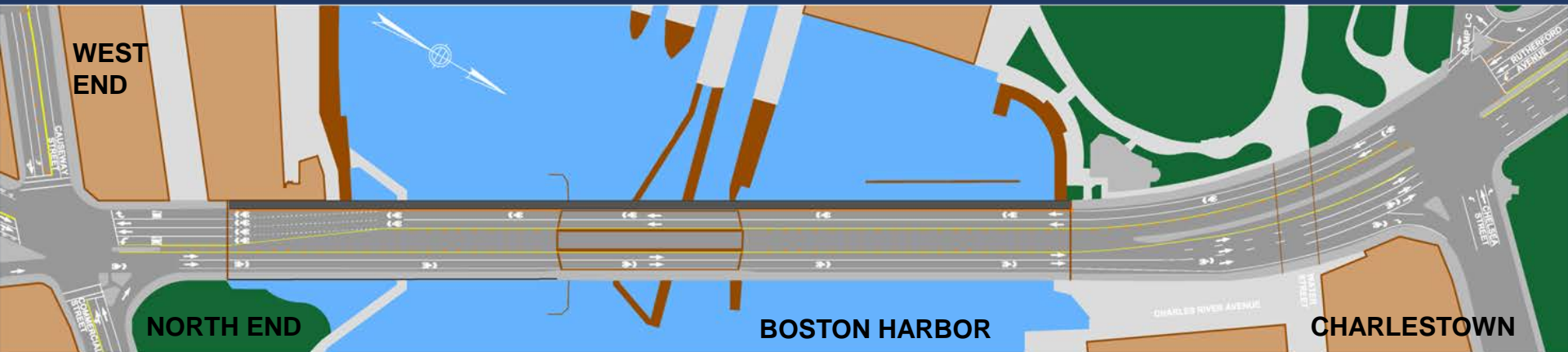
- Contractor submits traffic management plans
- Ongoing coordination among project team and
 - Boston Police
 - Boston Fire Department
 - Boston EMS
 - Boston Public Schools
 - METCO

Existing Bridge



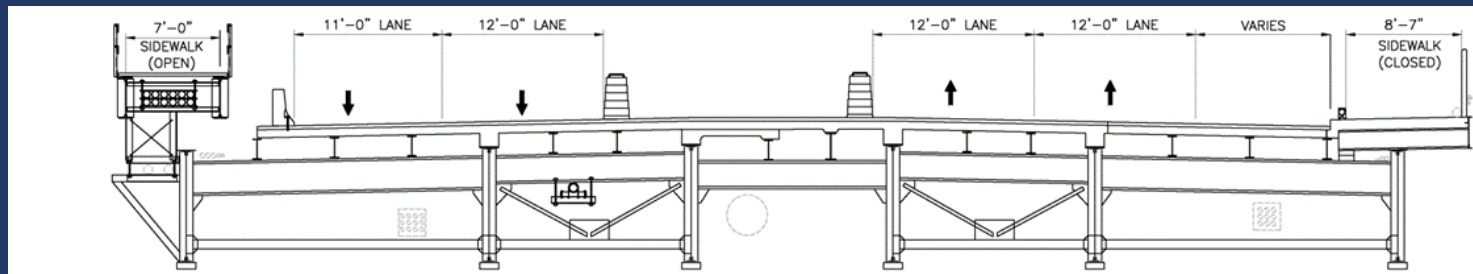
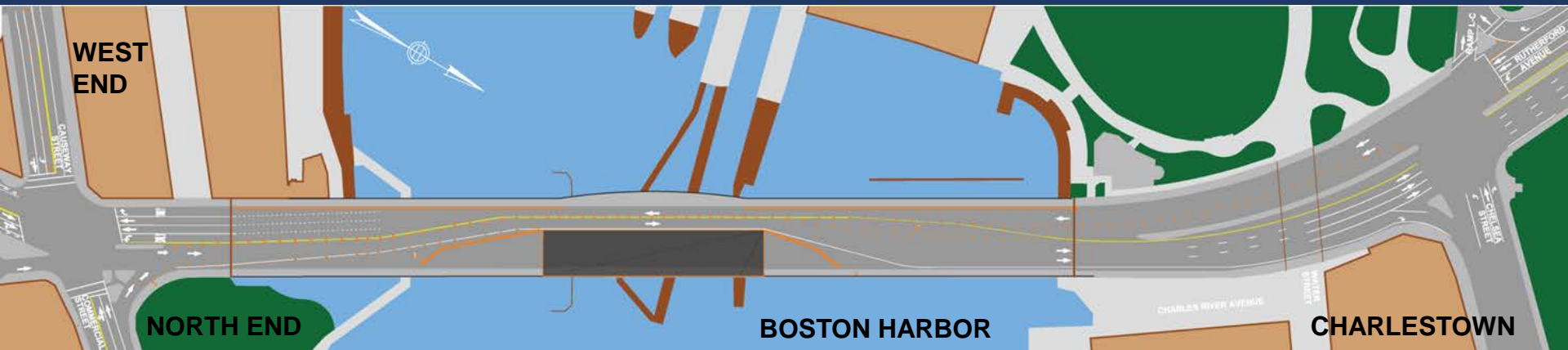
Stage 1A

6 months



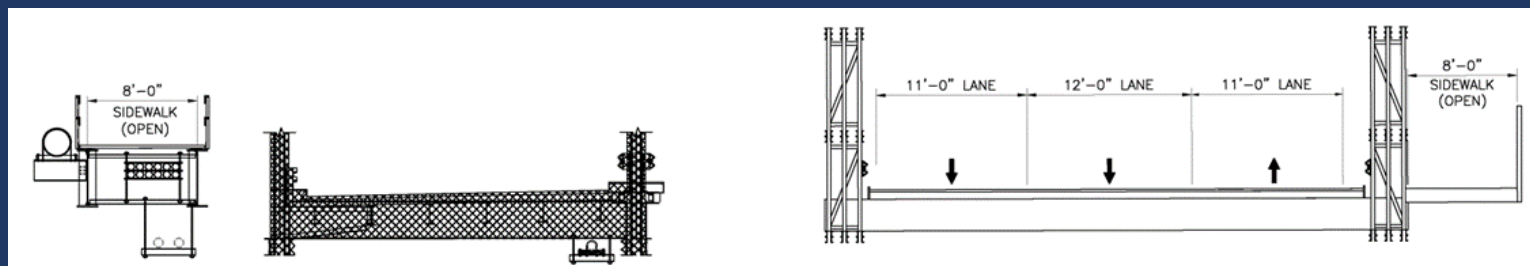
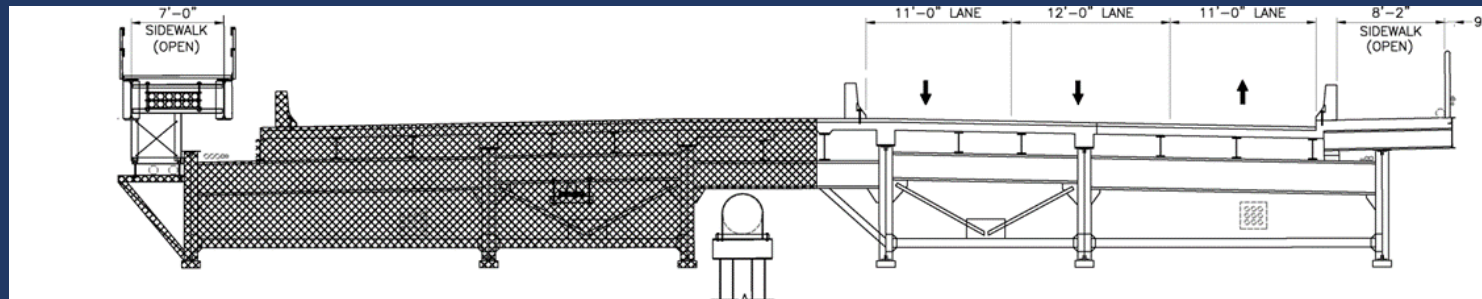
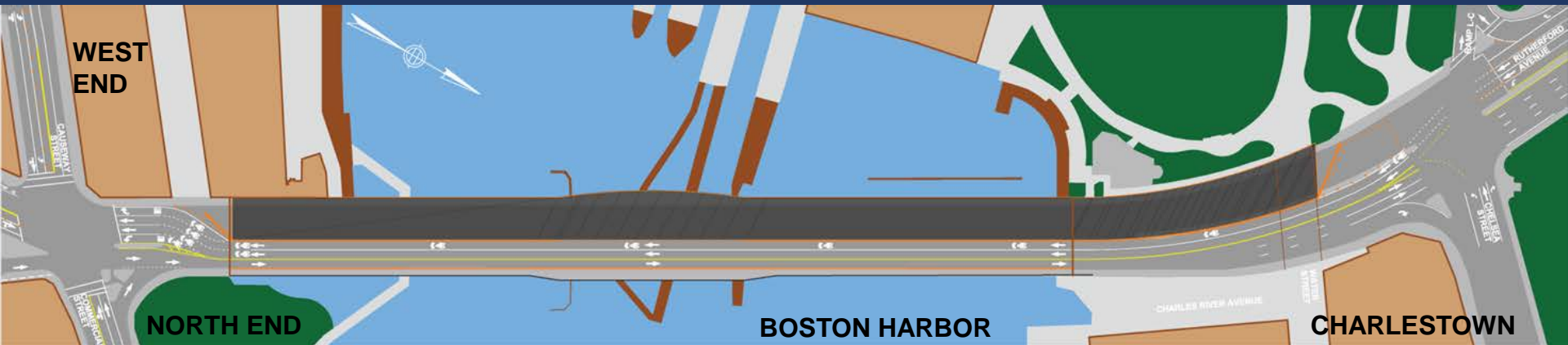
Stage 1B

12 months



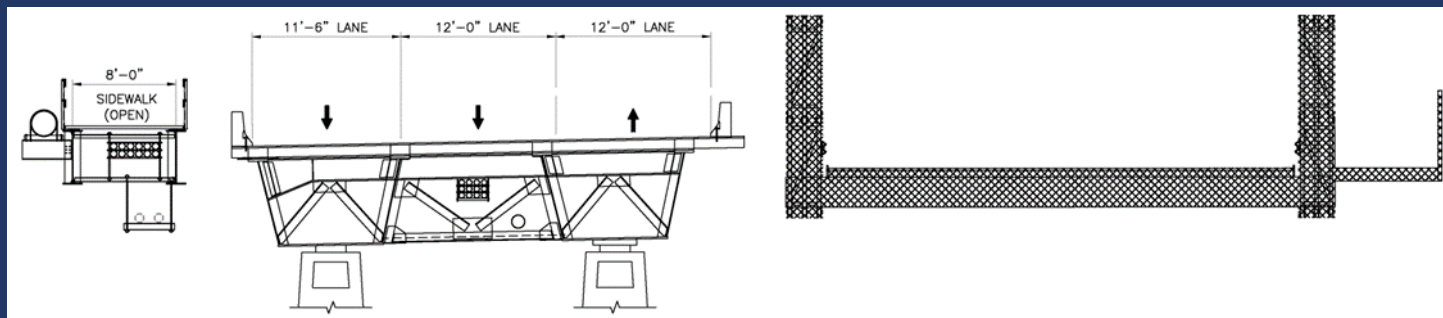
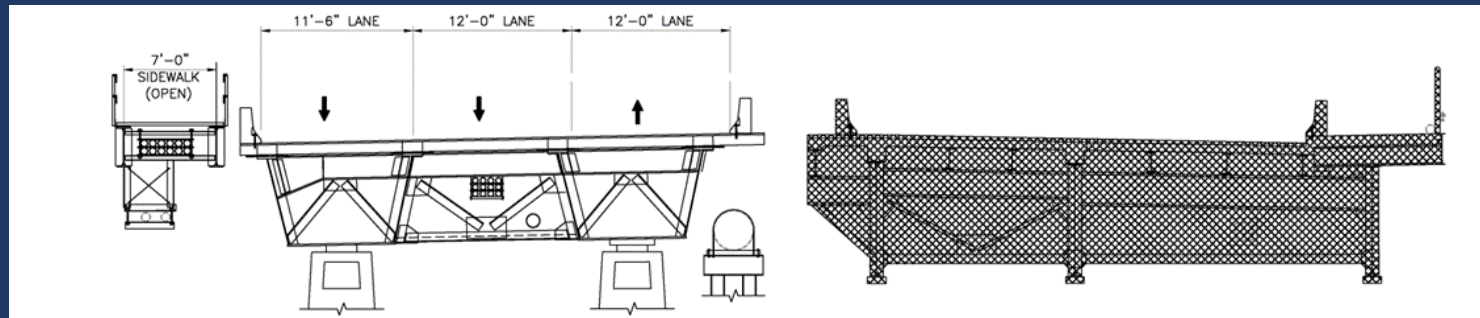
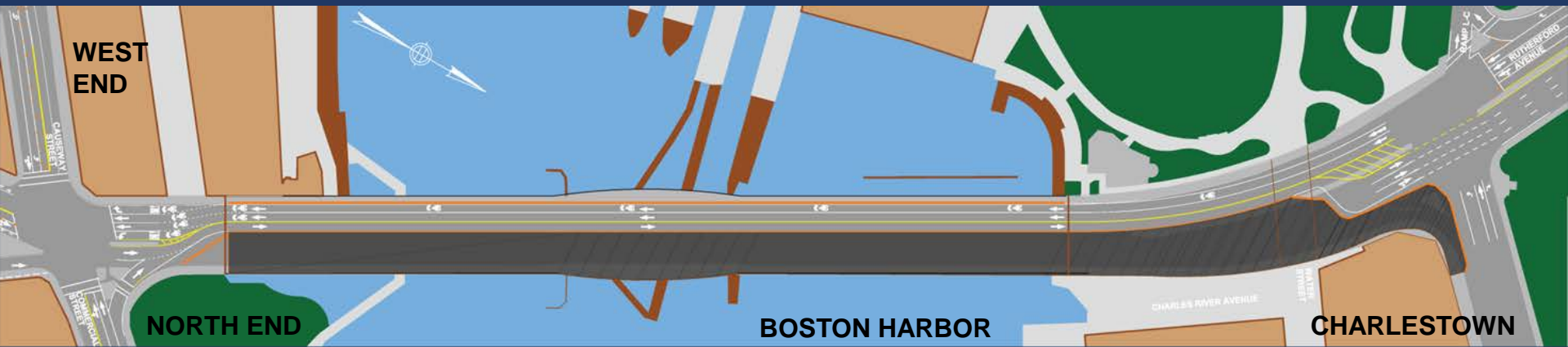
Stage 2

18 months



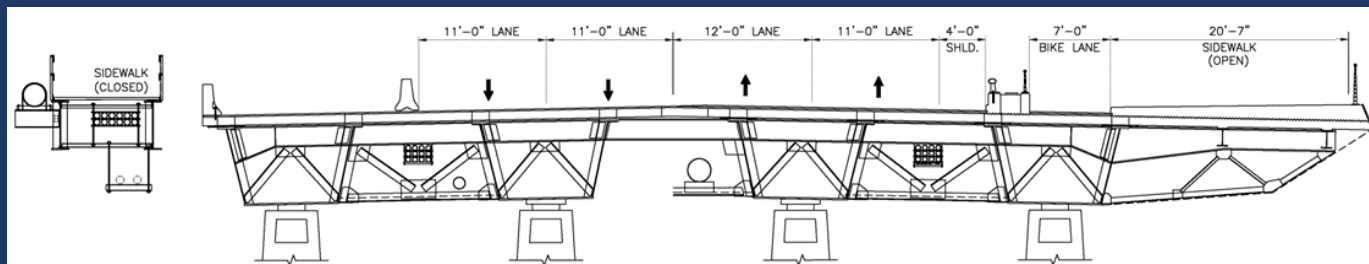
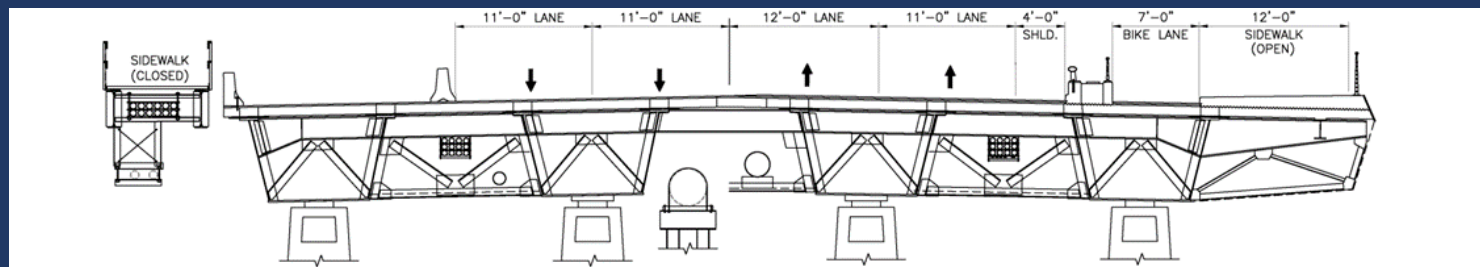
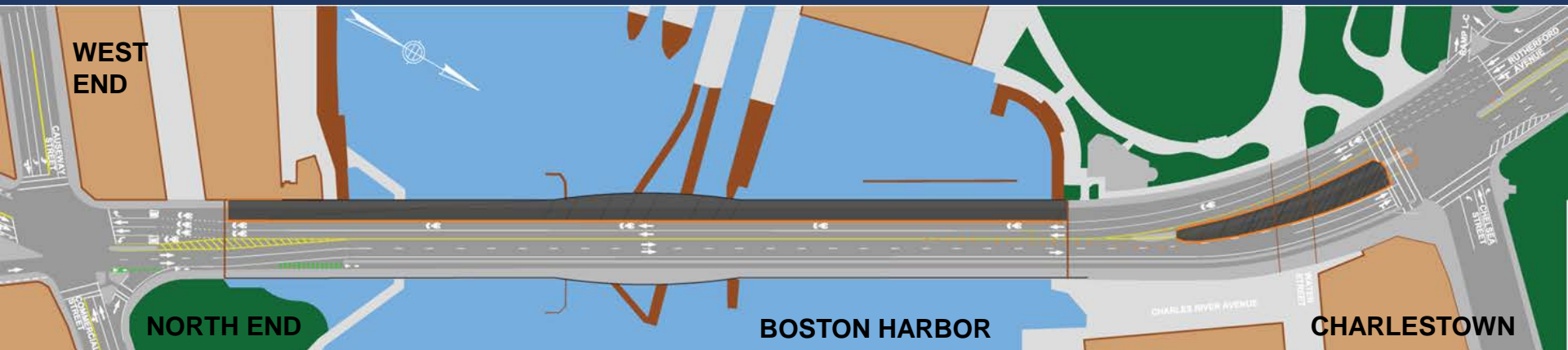
Stage 3

18 months



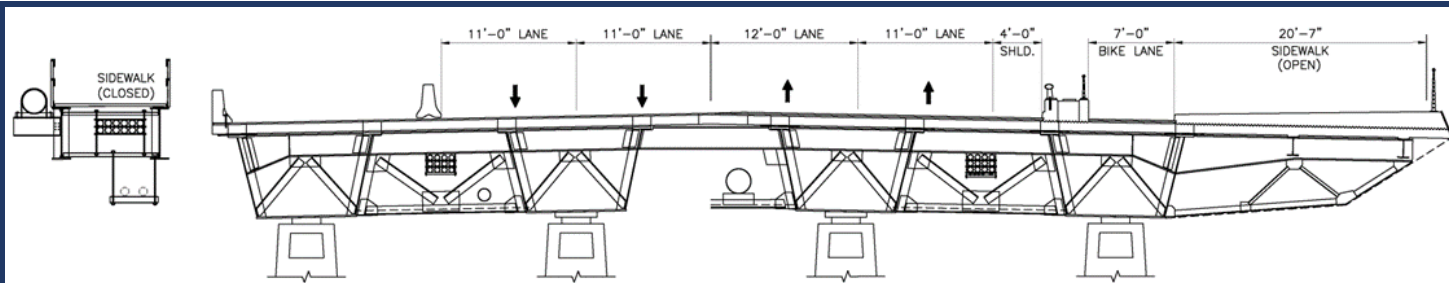
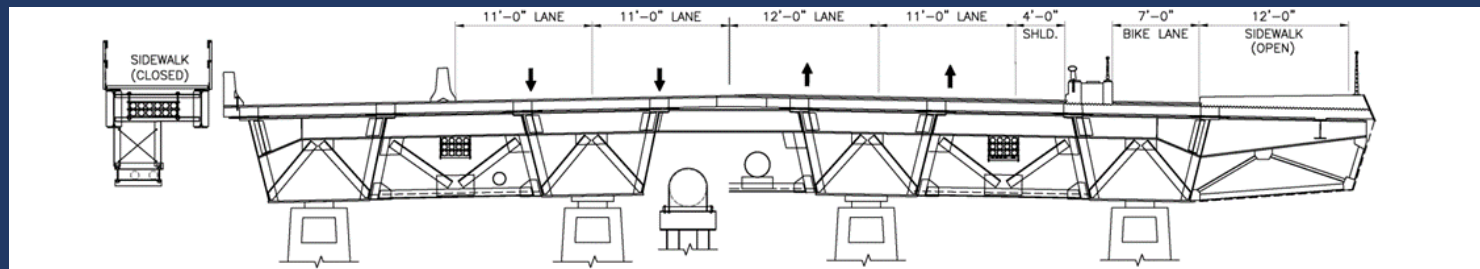
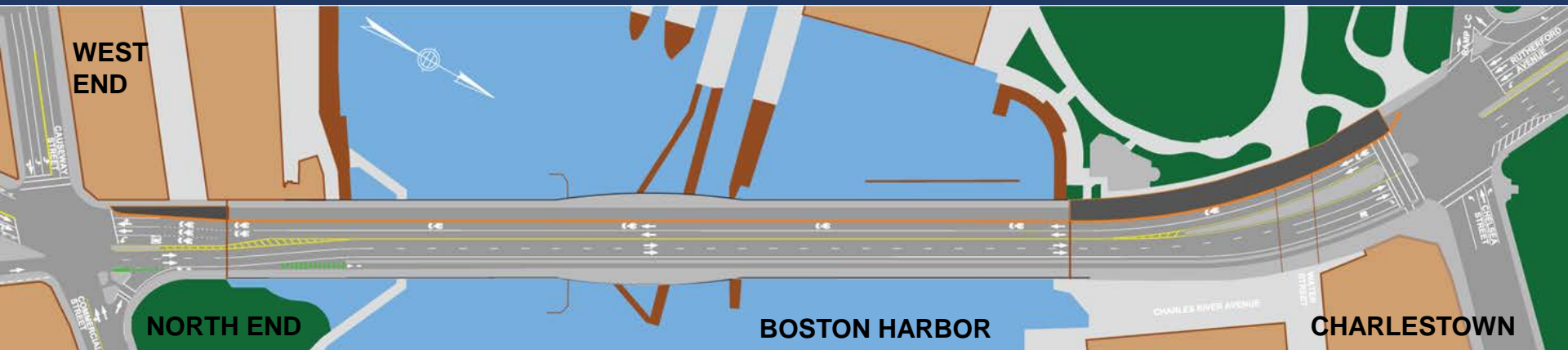
Stage 4A

3 months

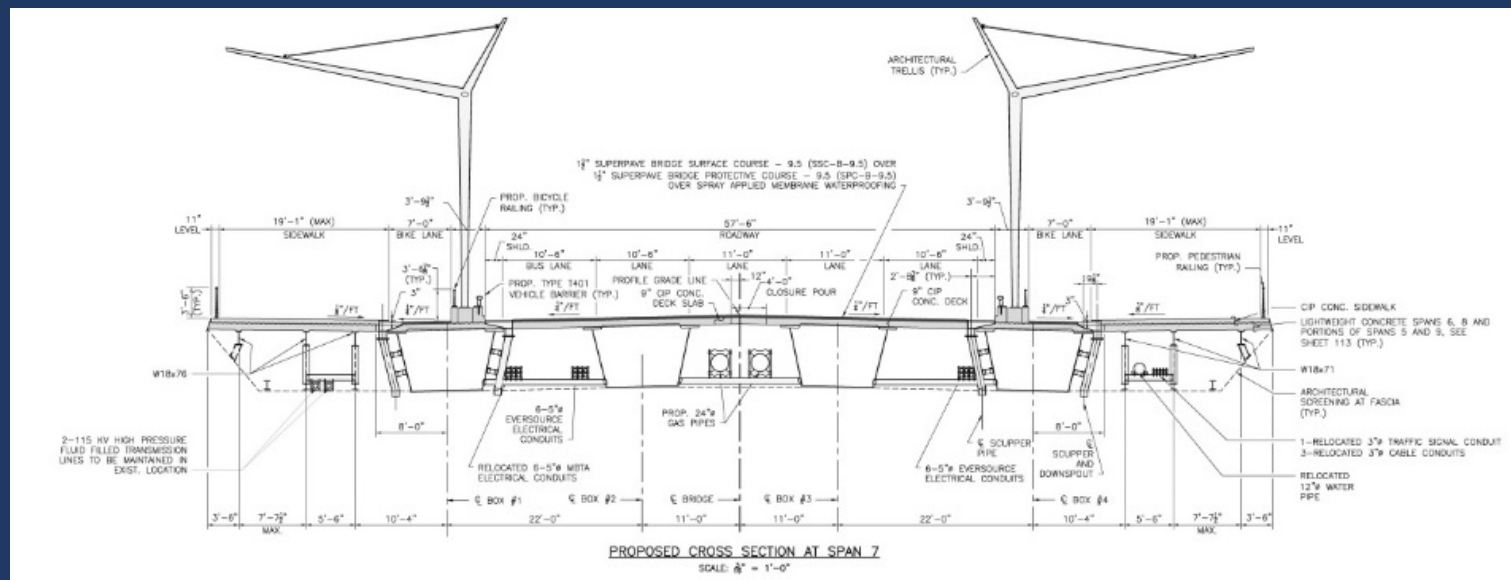
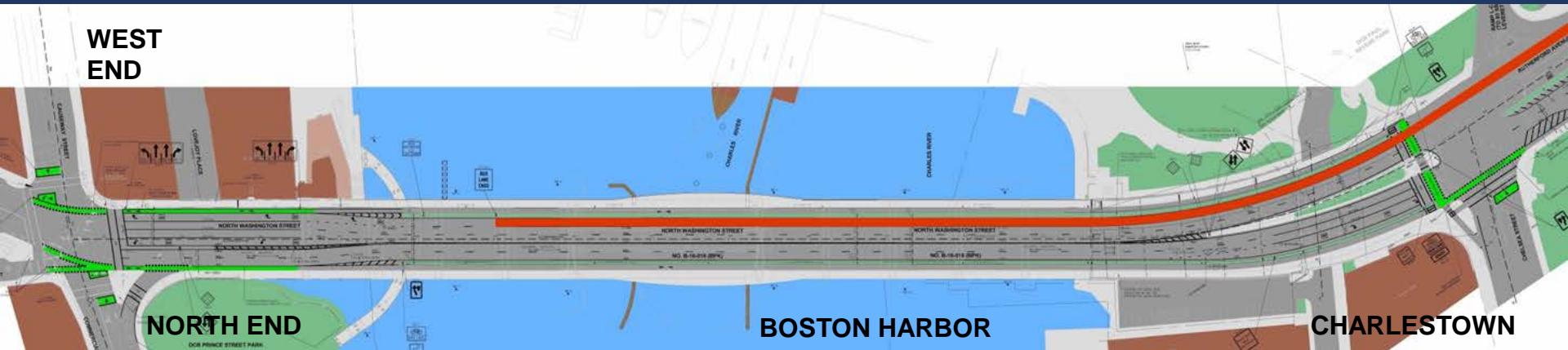


Stage 4B

3 months



Final Condition

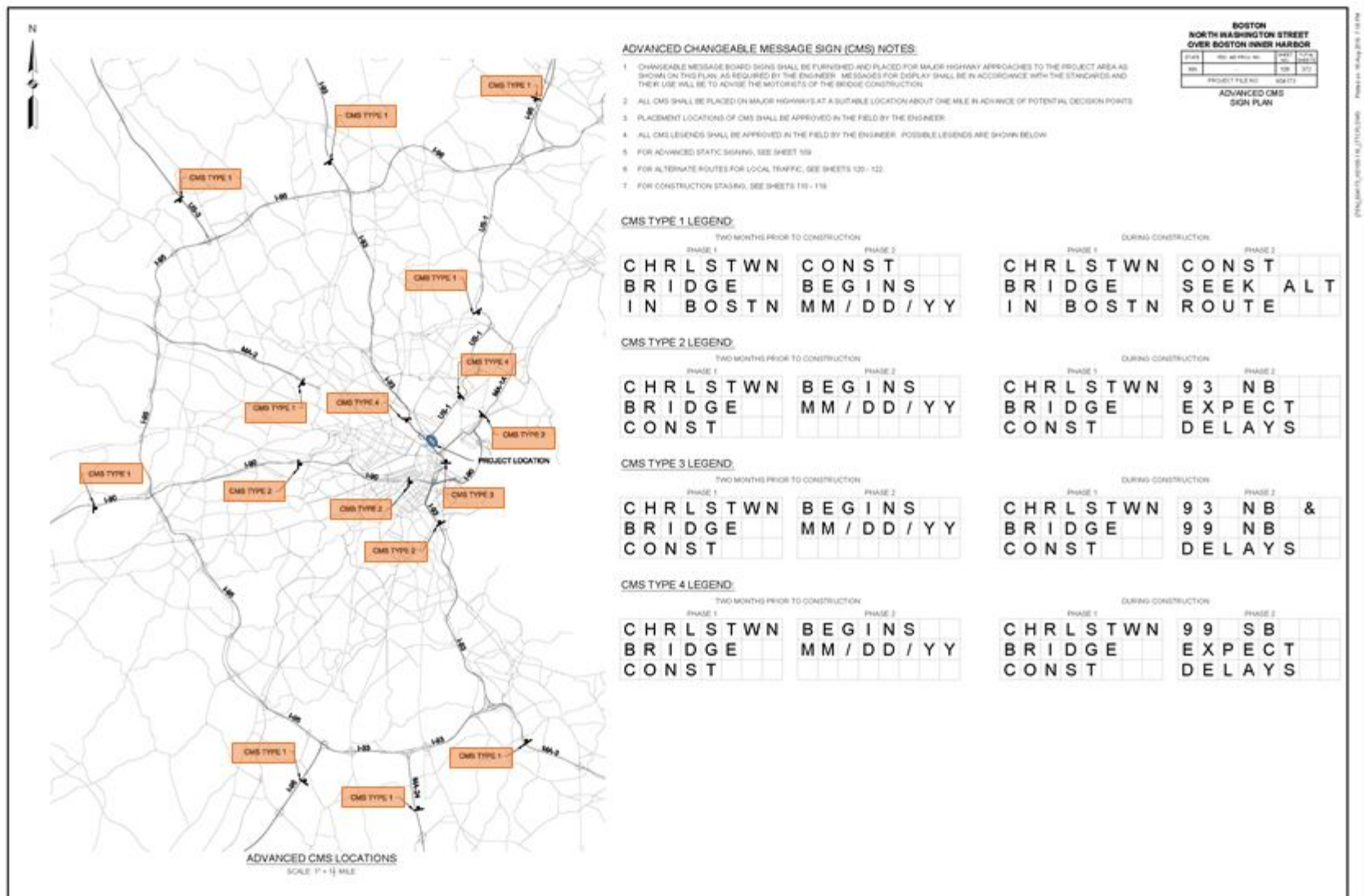


Traffic Management Goals

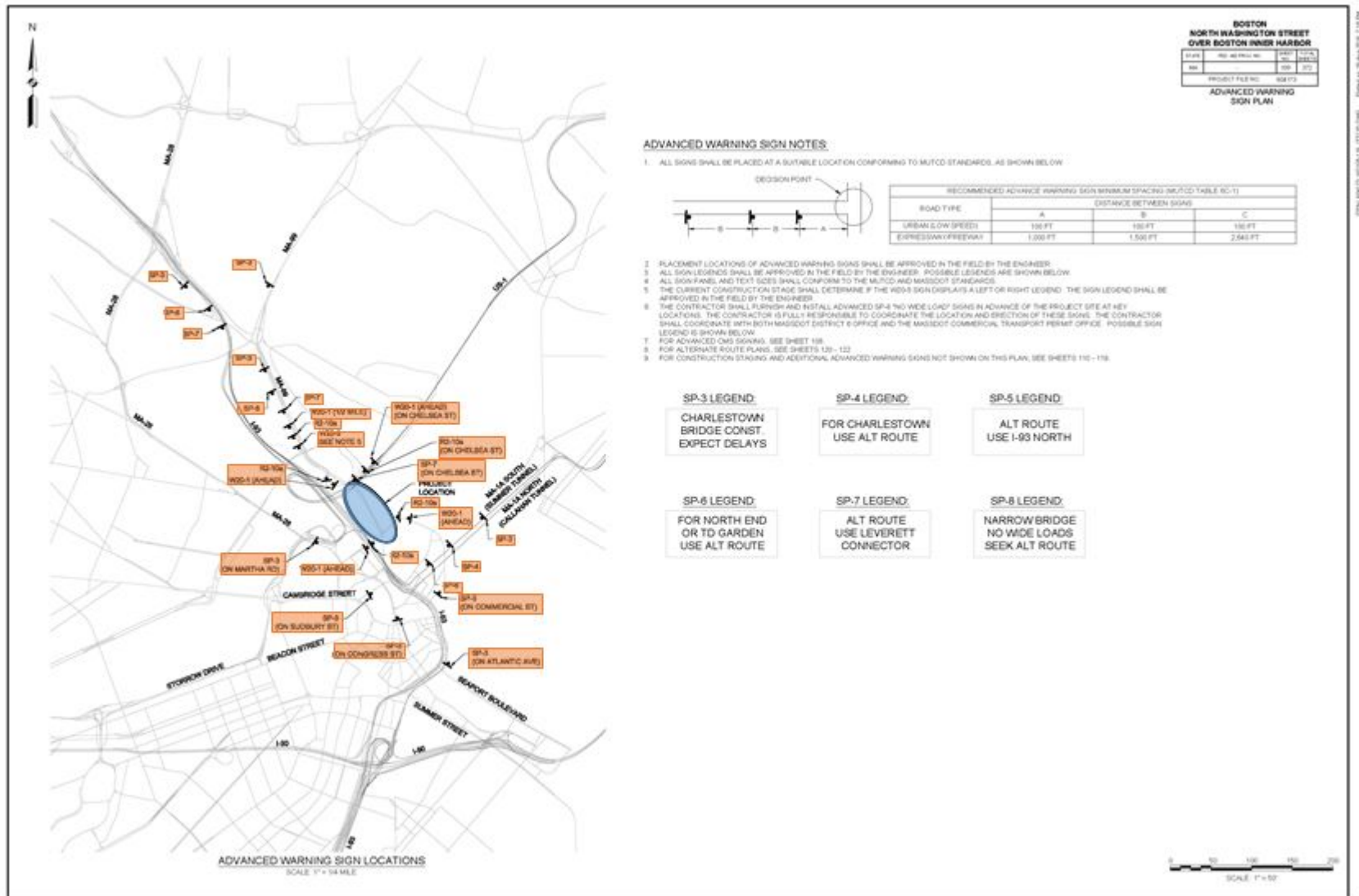


1. Provide early and accurate information so drivers make smart decisions
2. Reduce regional traffic to maximize limited bridge capacity
3. Provide traffic details at major intersections:
 - Keany Square
 - City Square
 - Along Chelsea Street

Advanced Changeable Message Signs



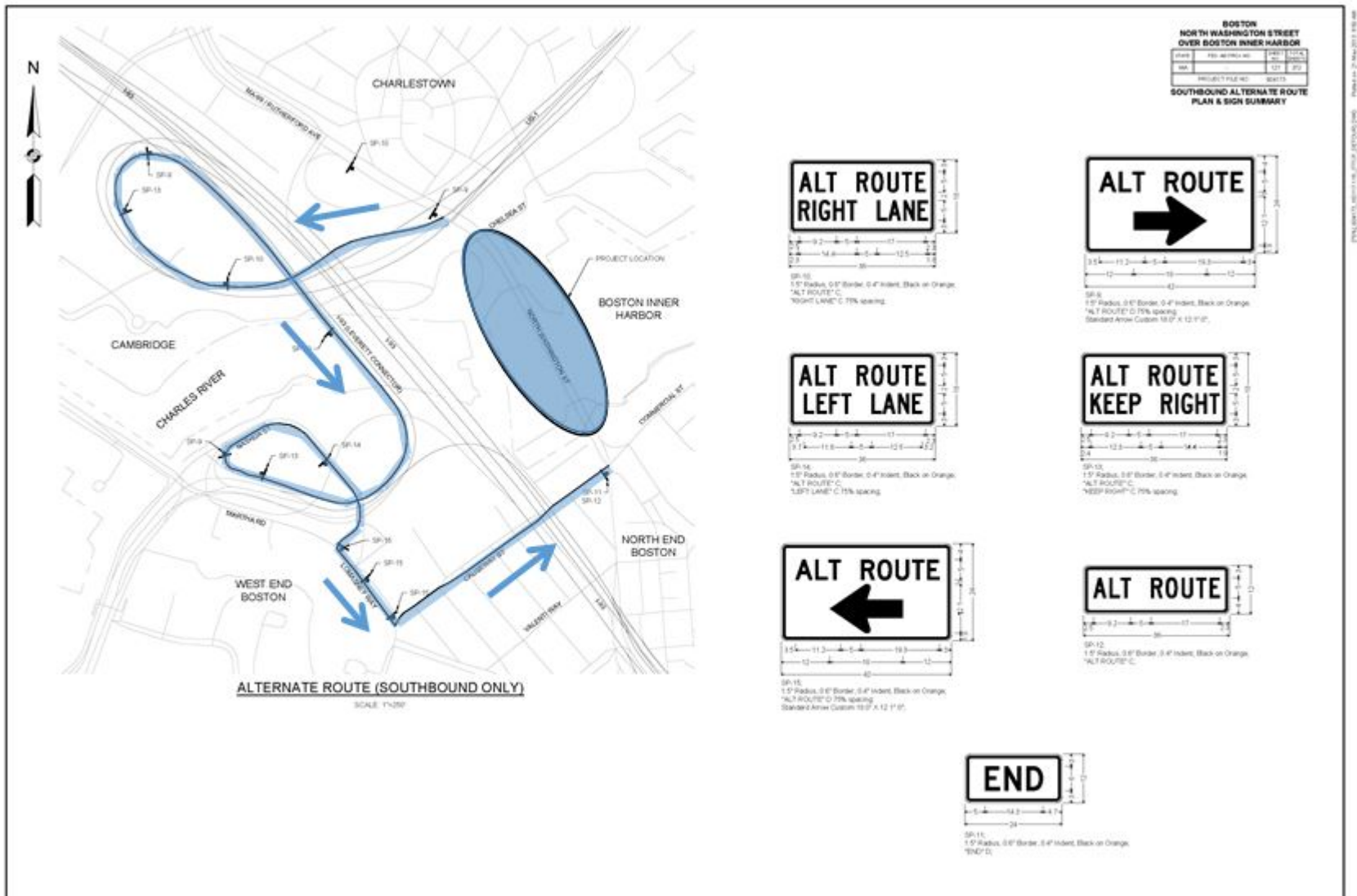
Advanced Warning Signs



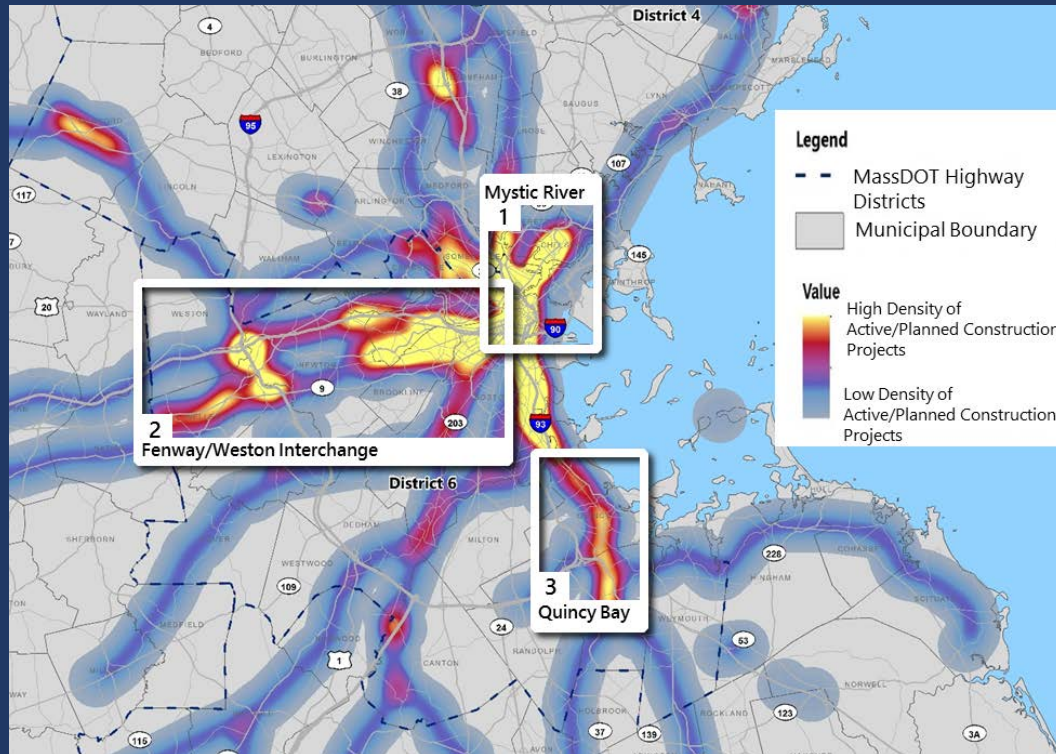
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Alternate Route Southbound



Construction Coordination & Management Planning

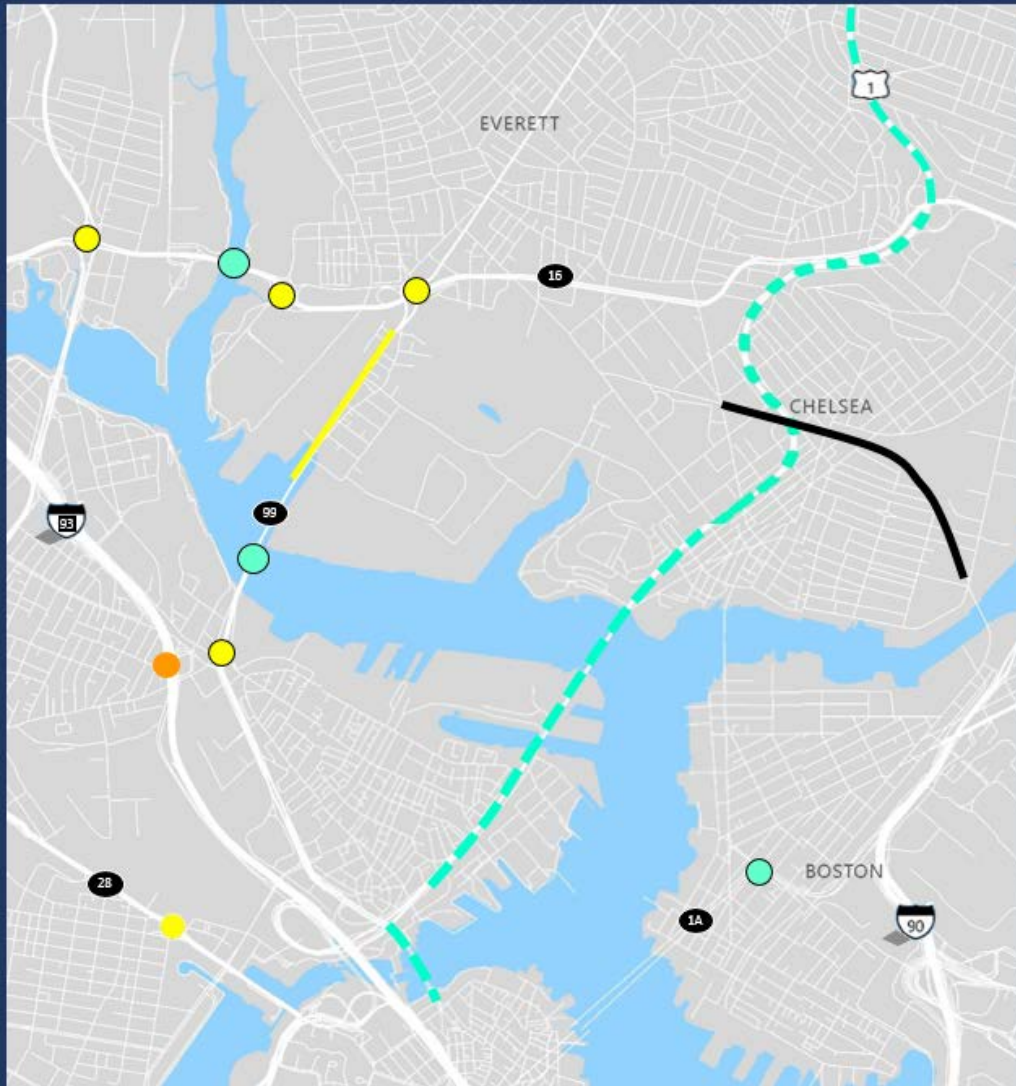


246 projects for 2018

- Joint effort between Highway Division and MBTA to identify potential schedule conflicts and impacts to the public during the 2018 construction season
- Results will allow the Highway Division to focus on improved safety and public outreach strategies



2018 Hot Spot #1 Mystic River



MBTA (2)



Sullivan Square Lower
Busway

Silverline Gateway Phase 1

Private (2)



Wynn Casino Mitigation

North Point Route 28
Improvements (Phase 1)

MassDOT (7)



North Washington Street Bridge

Woods Memorial Bridge
(Revere Beach Parkway Bridge
Replacement)

Route 1 Resurfacing and Related
Work

Tobin Bridge Deck Rehabilitation

Tobin Bridge Painting & Repairs

Sumner Tunnel Legacy Toll Plaza
30 Demolition

Alford Street (Route 99) Bridge
(City of Boston Bridge)

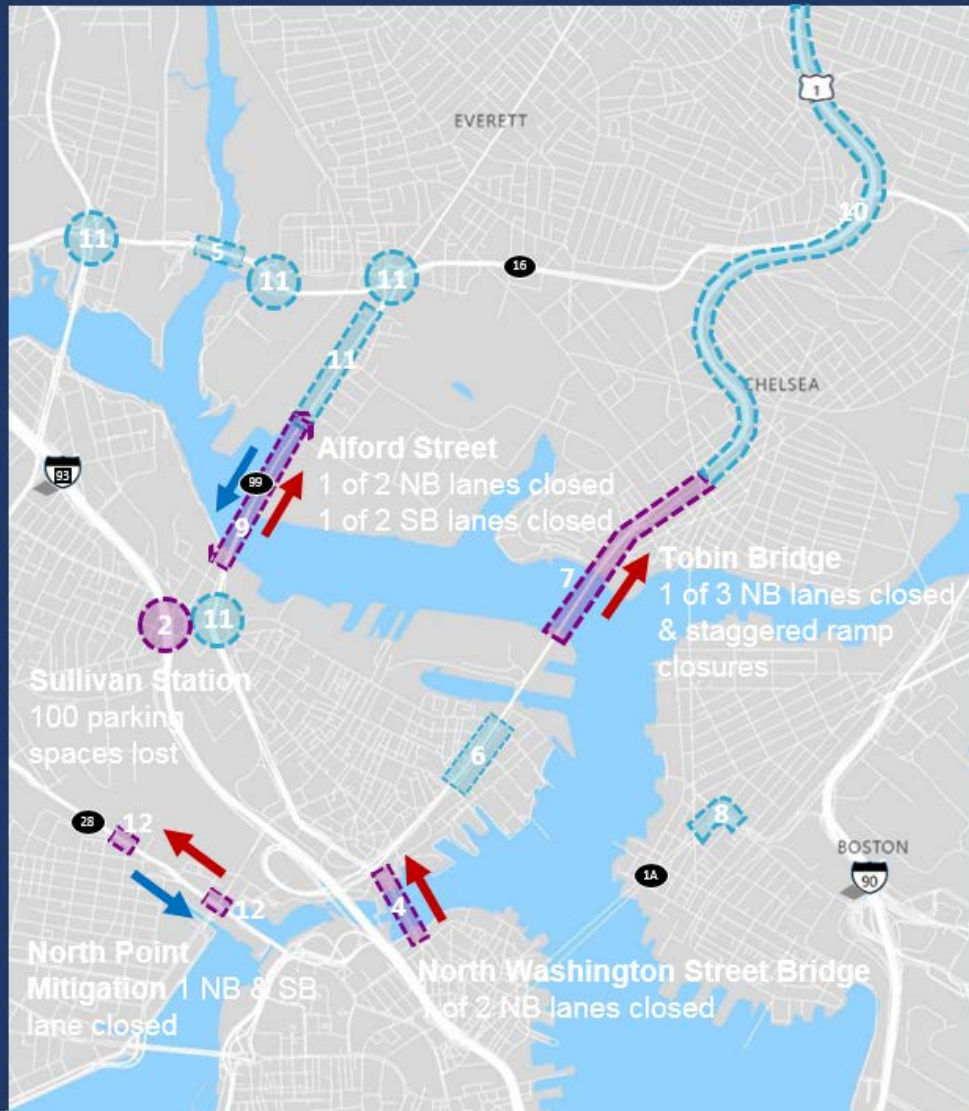


*Dates subject to change based on available resources, weather, emergencies, etc.

Active Construction with Track/Lane Impacts - 24 hours
Active Construction with Track/Lane Impacts - Off-Peak Hours Only



Transportation Schedule Impacts



- Tobin Bridge Closures will have operational impacts to the MBTA Bus Route #111
- Additional MBTA Bus operational/routing impacts related to North Washington Street, Alford Street and North Point mitigation requirements



Northbound from Boston

Southbound to Boston

Numbers refer to project descriptions on previous slide

- Active Construction with Track/Lane Impacts - 24 hours
- Active Construction with Track/Lane Impacts - Off-Peak Hours Only

Outreach

- Continuous updating of MassDOT website to support construction phase, and email updates to project subscribers:
 - Regular 3-week look ahead
 - Notification of major operations and/or night work
- Public information meetings:
 - 30 days before commencement of major work
 - As needed thereafter or upon major project milestones
- MassDOT social media to broaden outreach
- MassDOT will answer all inquiries in timely fashion
- Regional outreach and specific messaging to specific users

Community Protections

- MassDOT Resident Engineer enforces contract specifications for:
 - Dust control
 - Noise control
 - Rodent control
- Dust
 - Contractor will propose process for controlled demolition
 - Common industry methods: shearing steel, wetting concrete
- Noise control
 - Adherence to noise mandated maximum levels for day, evening, and nighttime
 - Means and materials – machinery used, shielding, etc.
- Rodent control
 - baiting/trapping program

FAQs

- Will any part of the bridge remain open while construction is taking place? If so, will both vehicles and pedestrians be accommodated?
 - Generally, there will always be crossings open in both directions; sometimes the lanes will be reduced
- Where will any excess traffic be channeled?
 - As shown tonight: divert regional & optional traffic so local & needed capacity remains
 - Contractor may suggest alternative plans for MassDOT approval

FAQs

- During what hours will construction take place?
 - Typically standard hours (7am-10pm), but there will be times where contractor uses double-shift or 24hr operations to speed construction
 - Earlier start times would have nighttime noise specs
- Are there any plans for noise mitigation?
 - Yes. DOT standards include maximum noise and mitigations; Resident Engineer on-site throughout job to monitor and enforce

FAQs

- How will cyclists be accommodated?
 - Generally sharrow with traffic
 - During some stages, sharing with pedestrians (similar to Longfellow Bridge) may be required
- How will pedestrians be accommodated?
 - One sidewalk will always be available on either the locks or harbor side of the bridge
 - Two sidewalks will be available whenever construction phasing and public safety permit

FAQs

- What about ferry service?
 - MassDOT and MBTA coordinating to explore options
 - Strong local and elected support acknowledged
 - Safety challenge in transiting in-water work zone
 - Cannot unduly hamper contractor means and methods

Jim Kersten, MassDOT
Government & Public Affairs
James.a.Kersten@state.ma.us

Contact

massdot.state.ma.us/highway/HighlightedProjects/NorthWashingtonStreetBridgeReplacement

keepbostonmoving.org/portfolio/north-washington-street-bridge/

public.govdelivery.com/accounts/MADOT/subscriber/new?topic_id=MADOT_126



Thank you

Q & A

North Washington Street Bridge Replacement Project
Boston, Massachusetts

