Cape Cod Bridges Program

Sagamore Bridge Replacement Project: Industry Day

April 17, 2026

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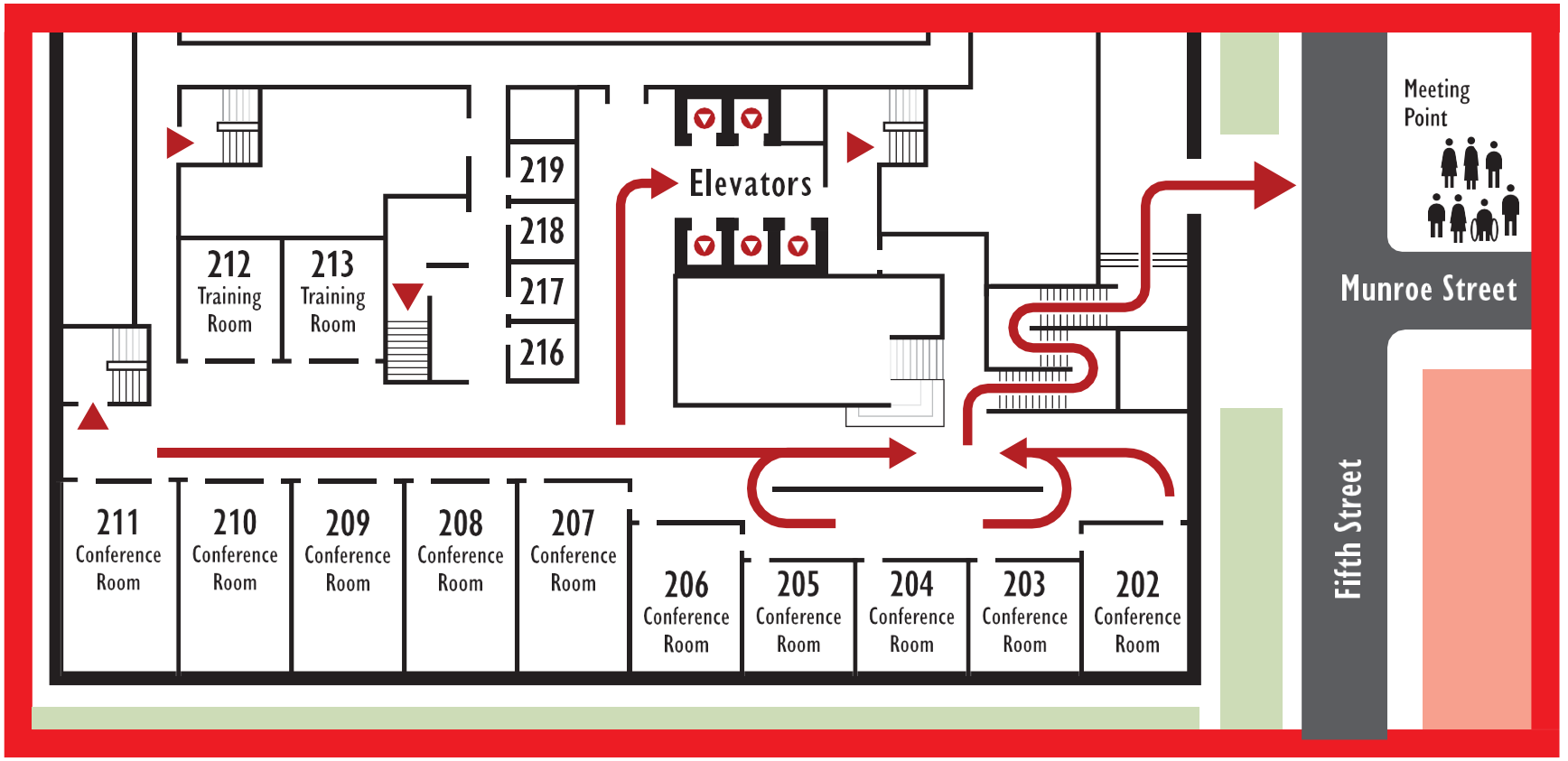

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Welcome to U.S. DOT Volpe Center

Stephen Popkin, Ph.D.
Director for Research and Innovative Technology

Welcome from MassDOT

Jonathan Gulliver
Undersecretary and Highway Administrator

Overview of Industry Day

Luisa Paiewonsky

Executive Director, Megaprojects

Delivery Office

Today's Presentation Topics

1. Introductions of Project Team
2. Project Overview
3. Design Overview
4. Phasing, Utilities, and Right-of-Way
5. Environmental and Public Process
6. Procurement
7. Next Steps
8. Q&A, Discussion

Project Team/ Presenters

MassDOT Megaprojects Delivery Office

Luisa Paiewonsky, Anne Canaday, Susan Harrington, Mikayla Rooney

HNTB

David Anderson, Mark Kolonoski, John Smith, James Barnak, Michael Beintum, Patrick Marvin, Erica Blonde

Project Overview

1. Purpose and Goals
2. Delivery Partners and Key Governmental Stakeholders
3. Project Scope and Background

Purpose and Goals

Purpose and Need

The purpose of the Cape Cod Bridges Program is to improve cross-canal mobility and accessibility between Cape Cod and mainland Massachusetts for all road users and to address the increasing maintenance needs and functional obsolescence of the aging Cape Cod Canal highway bridges.

Project Goals

- Replace 90 year-old spans across Cape Cod Canal.
- Remove traffic from existing bridges as soon as practicable.
- Maintain two lanes of traffic across the canal in each direction, at all times.
- Maintain connections between the mainline roadways and the local roadway network.
- Minimize impacts to navigation.
- Minimize impacts to residents, visitors and businesses.

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Delivery Partners and Key Governmental Stakeholders

Delivery Partners and Governmental Stakeholders

MassDOT

- Lead project delivery agency to complete the feasibility study and alternatives analysis, preliminary design and environmental permitting process, and construct replacement Bridges
- Own, operate, and maintain the completed Bridges and Approaches

USACE

- Own, operate, and maintain the existing Bridges until the new Bridges are in place
- Share information, provide technical support, and facilitate the transfer of ownership of the new bridges to MassDOT

FHWA

- Lead Federal agency for the NEPA Process
- Provide oversight for the delivery of the Cape Cod Bridges Program

Delivery Partners and Key Governmental Stakeholders

Advisory Group

- State and Federal Elected Officials
- Stakeholders – Including the Town of Bourne, Planning Commissions, Emergency Services, Economic Development Representatives, and Chambers of Commerce

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Project Scope and Background

Scope and Background – Priority of Cape Cod Bridges

- Bourne and Sagamore Bridges provide the only roadway access for more than 38 million vehicles that cross Cape Cod Canal each year.
- There are more than 230,000 year-round residents on Cape Cod & Islands.
- Bridges are only road evacuation route and connection to Joint Base Cape Cod.
- Approximately 15,000 vessels transit the Cape Cod Canal annually.

https://www.nae.usace.army.mil/Missions/Recreation/Cape-Cod-Canal/

Scope and Background – Need for Replacement

- The Cape Cod Bridges are 90 years old, functionally obsolete, and no longer meet the needs of the public.
- Bridges consist of two undivided through lanes in each direction with a sidewalk on one side.
- Traffic delays prevalent during the summer on bridges, major corridors and at several intersections.
- High crash rates and congestion can be attributed directly to the existing cross sections of the bridges.

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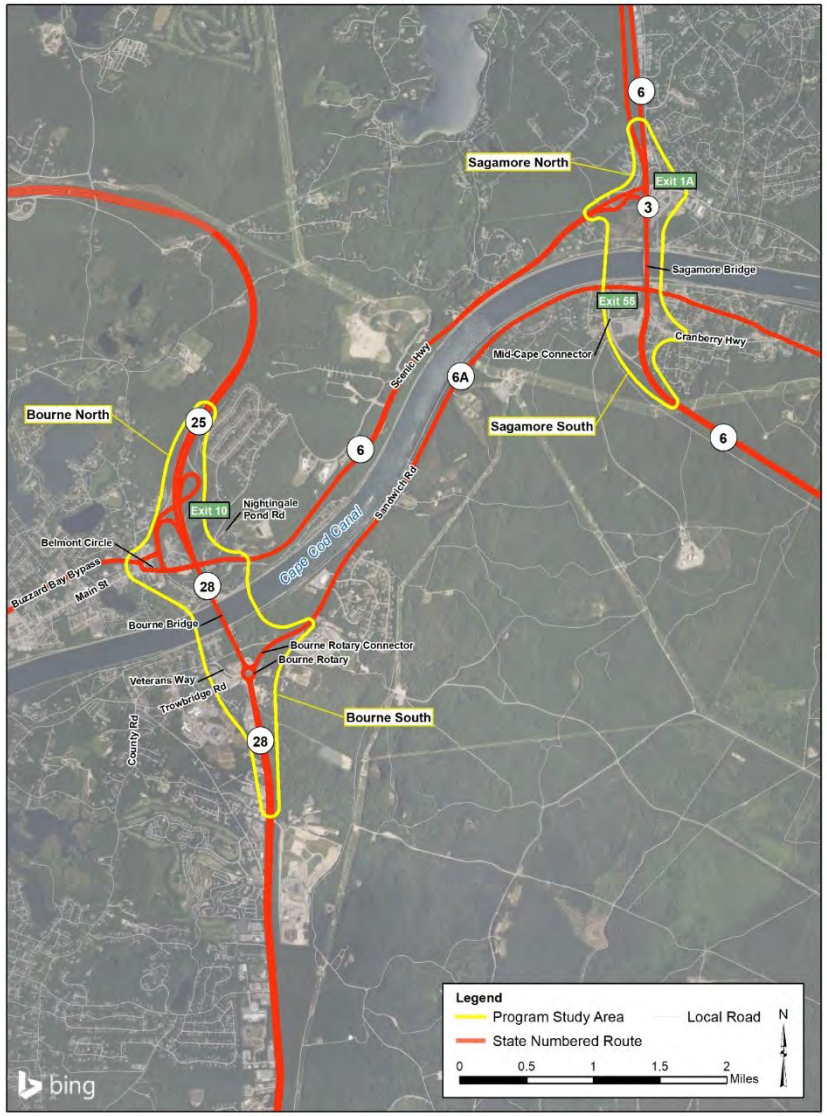
Scope and Background – Funding and Permits

- Complete funding plan in place for the Sagamore Bridge: federal grants, USACE funding, and Commonwealth funds.
- MassDOT/USACE joint request for BIP grant for Bourne Bridge; awaiting response.
- Design, NEPA and MEPA for both bridges are nearing completion.
- Federal and state environmental permits are in process.

Scope and Background – Packaging and Procurement Plan



- The Cape Cod Bridges Program will be delivered through two Design-Build procurements: Sagamore Bridge and Bourne Bridge.
- Each includes bridge replacement, interchange reconfigurations, and bike/ped infrastructure.
- Both projects will use a Best Value Design-Build procurement in accordance with M.G.L. c. 149A.
- The MassDOT RFP will include a Base Technical Concept.

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Scope and Background – Bridge Type

- Twin Tied Arch Bridges supporting an approximate 720-foot mainline span.
- Bridge piers at the waterline adjacent to the service road (shoreline piers), into the tidal rip rap slope.

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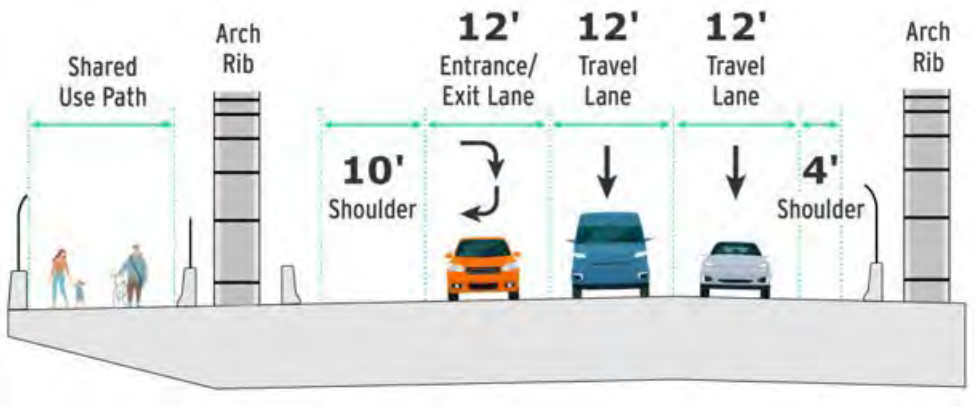
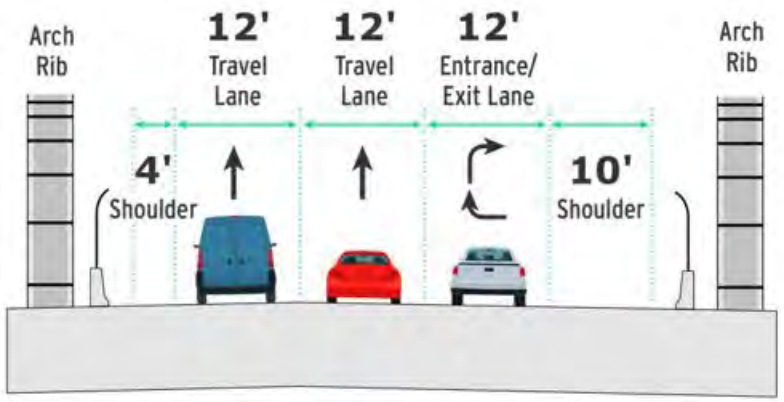
Scope and Background – Bridge Configuration

Lane configuration consistent with state and federal design guidelines.
Applicable for both directions of travel at each crossing (Bourne and Sagamore)

- Through travel lanes – 12 feet wide
- Entrance/Exit lane – 12 feet wide
- Left shoulder – 4 feet wide
- Right shoulder – 10 feet wide





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Scope and Background

- TMPs allow for active construction at both crossings at the same time.
- For planning purposes, assumed construction of the Bourne would start one year after Sagamore (subject to funding).
- The remainder of this presentation will focus on the Sagamore Bridge Project.

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Scope and Background – Sagamore North Interchange

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Scope and Background – Sagamore South Interchange

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Design Overview

1. Major Bridge Design
2. Geotechnical
3. Civil Design

Base Technical Concept

Base Technical Concept provides a feasible way to meet the projects performance requirements and prescriptive design elements.

The following slides present a feasible method for the Base Technical Concept consistent with permitting, construction and Right-of-Way requirements.

MassDOT encourages innovation in project delivery. Proposers may submit an unlimited number of Alternative Technical Concepts (ATCs). MassDOT anticipates approving a defined number of ATCs based on feasibility, technical merit, and consistency with project goals.

Major Bridge Design

Base Technical Concept – Major Bridge Design

- Twin network tied arches with inclined “basket handle” ribs
- Delta frames cantilevered from shoreline pier into canal
- Span arrangement constraints/optimization
- Structural redundancy
- Aesthetics: public process, historic existing bridge, detailing

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Major Bridge Design – Prescriptive Elements

- Navigational channel clearances (horizontal and vertical)
- Twin steel network tied arches supported by delta frames
- Minimum main span 720 feet pier-to-pier
- EB and WB span arrangements identical
- EB and WB arches same width (sidewalk outboard of arch)

Major Bridge Design – Prescriptive Elements (continued)

- No fracture critical members other than arch-tie girder joint
- Arch tie girder: internally redundant mechanically fastened
- Arch floor system: continuity and fatigue detailing requirements
- Cable network: visual consistency of crossing points
- Other restrictions (no hollow piers, no post-tensioned deck, *etc.*)

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Major Bridge Design – Performance Requirements

- Redundancy (internal and/or system) and cable loss
- Wind: wind tunnel testing, buffeting analysis, stability evaluation, open barriers on arch *(project-specific climatology provided)*
- Seismic: essentially-elastic design, SDC C detailing *(project-specific ground motion provided)*

Major Bridge Design – Performance Requirements (cont.)

- Vessel Collision: AASHTO risk-based analysis for piers *(vessel statistics provided)*, design of delta legs for deckhouse collision, *some riprap geometry requirements are prescriptive*
- Scour: Scour determination, design for scour

Major Bridge Design – Performance Requirements (cont.)

- Aesthetics: aesthetic advisor, pier/arch/delta shaping, aesthetic lighting, mesh fence details *(extensive public engagement has already occurred)*
- Maintenance: replaceable deck, bearings, joints, hanger cables
- Inspection access: access plan including traveler for main spans
- Utilities: utility coordination, utility supports on bridge

Major Bridge Design – Performance Requirements (cont.)

- Canal navigation and marine operation limitations
- Restrictions on large barge-mounted cranes
- Arch installation
- Existing truss removal
- Wind during construction *(prescriptive minimum wind speeds)*

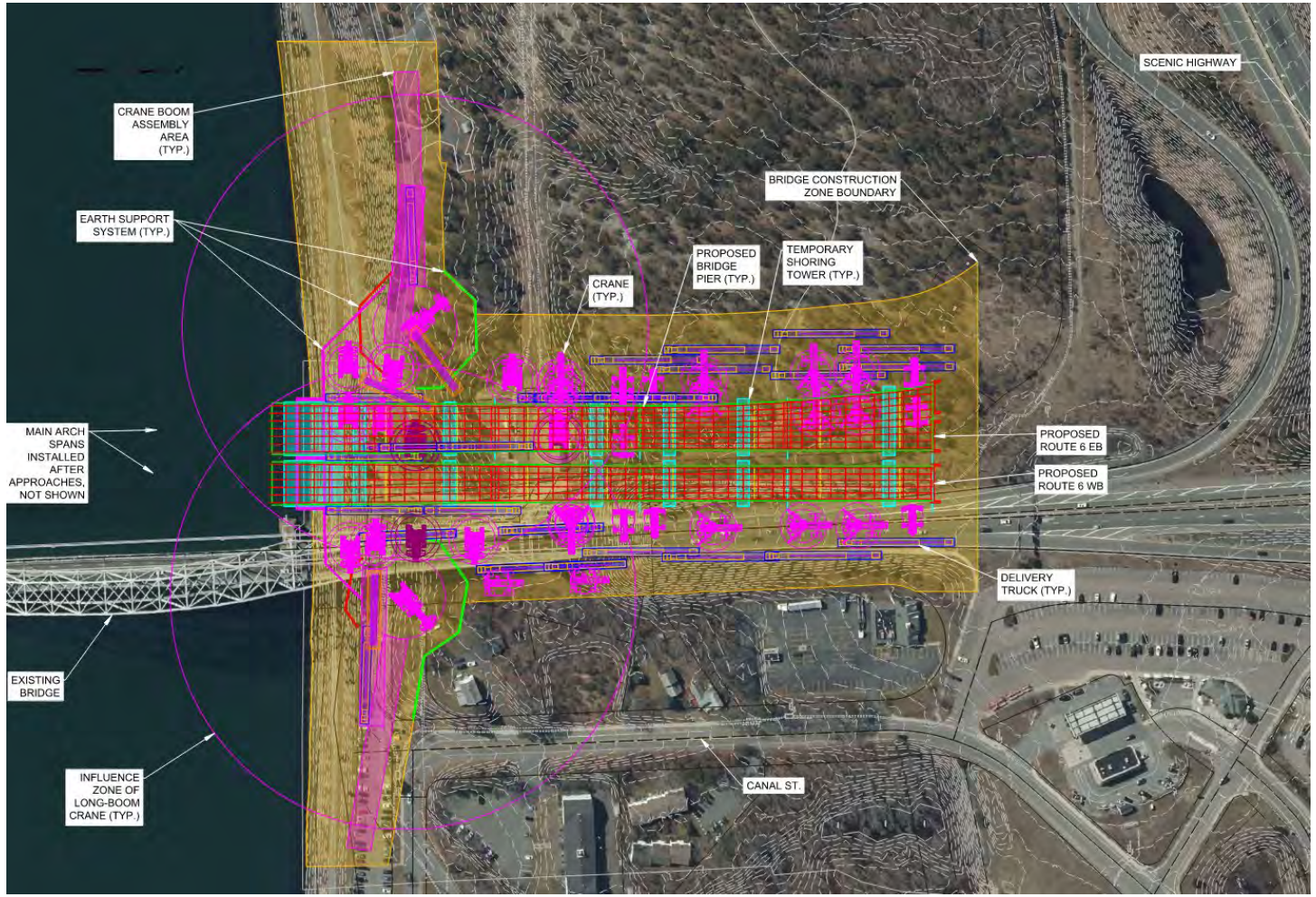
Major Bridge Design – Performance Summary

Interrelated design elements include:

- bridge geometry
- aesthetics
- redundancy
- wind
- seismic
- vessel collision
- construction means and methods

Alternative Technical Concepts must address interdependencies

Major Bridge Construction Footprint – Sagamore North



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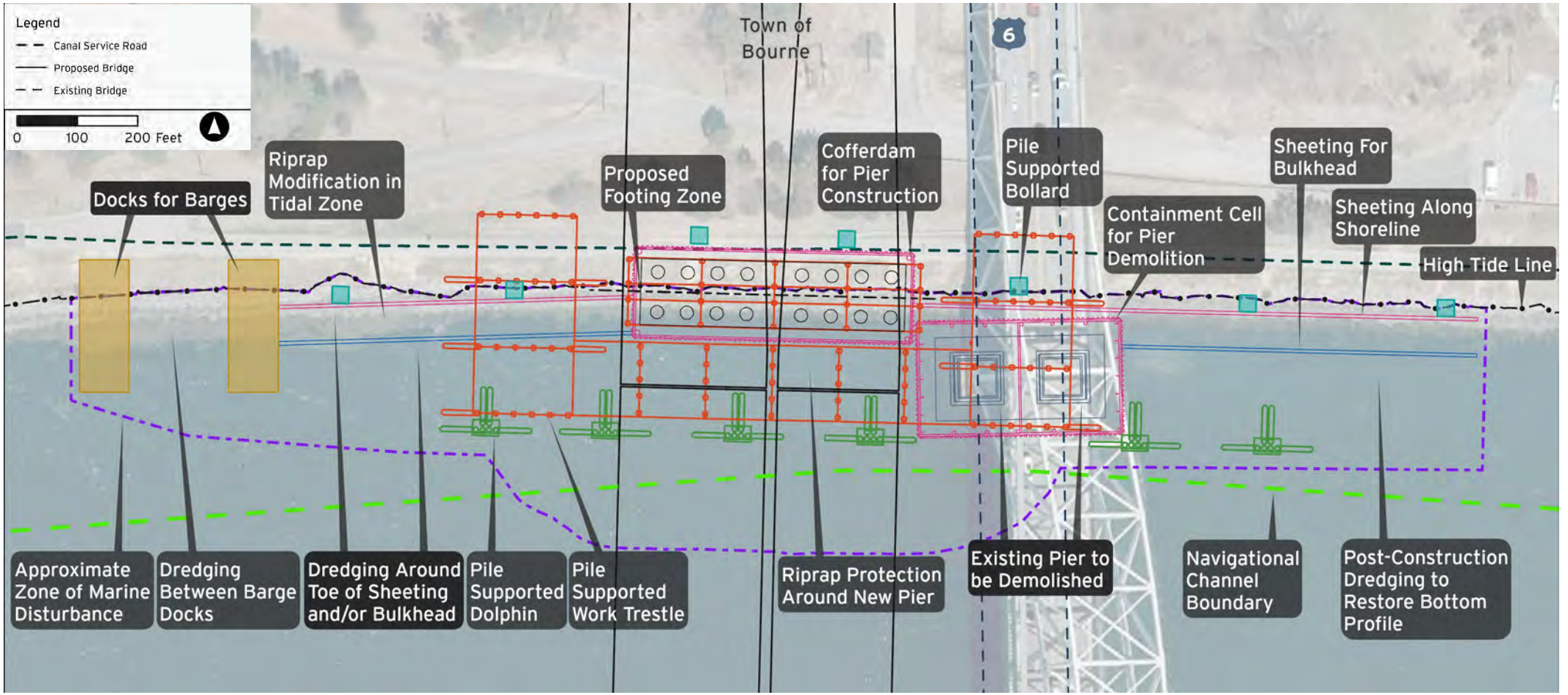
In-Water Permitting – Sagamore North



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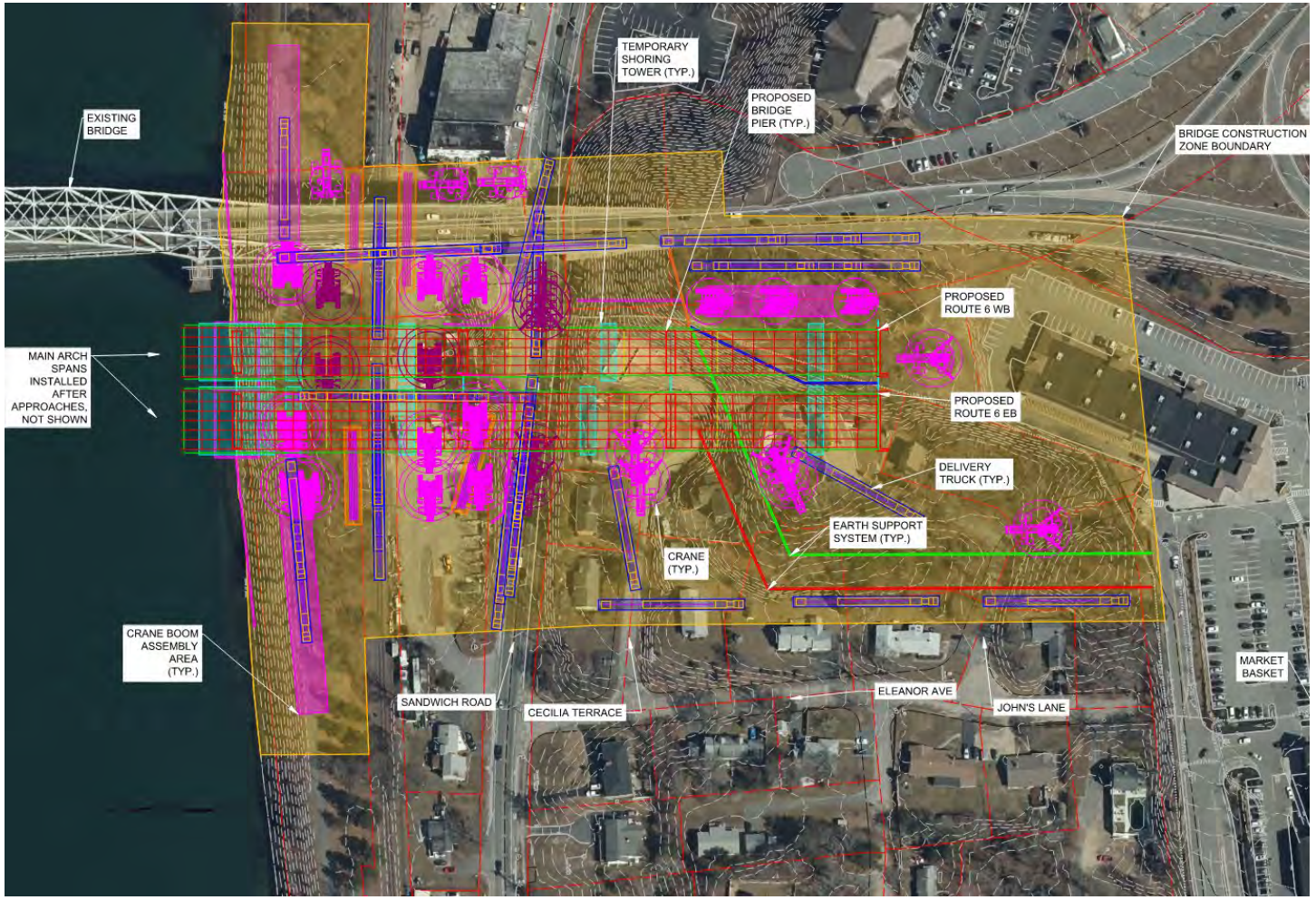
Major Bridge Construction Footprint – Sagamore South



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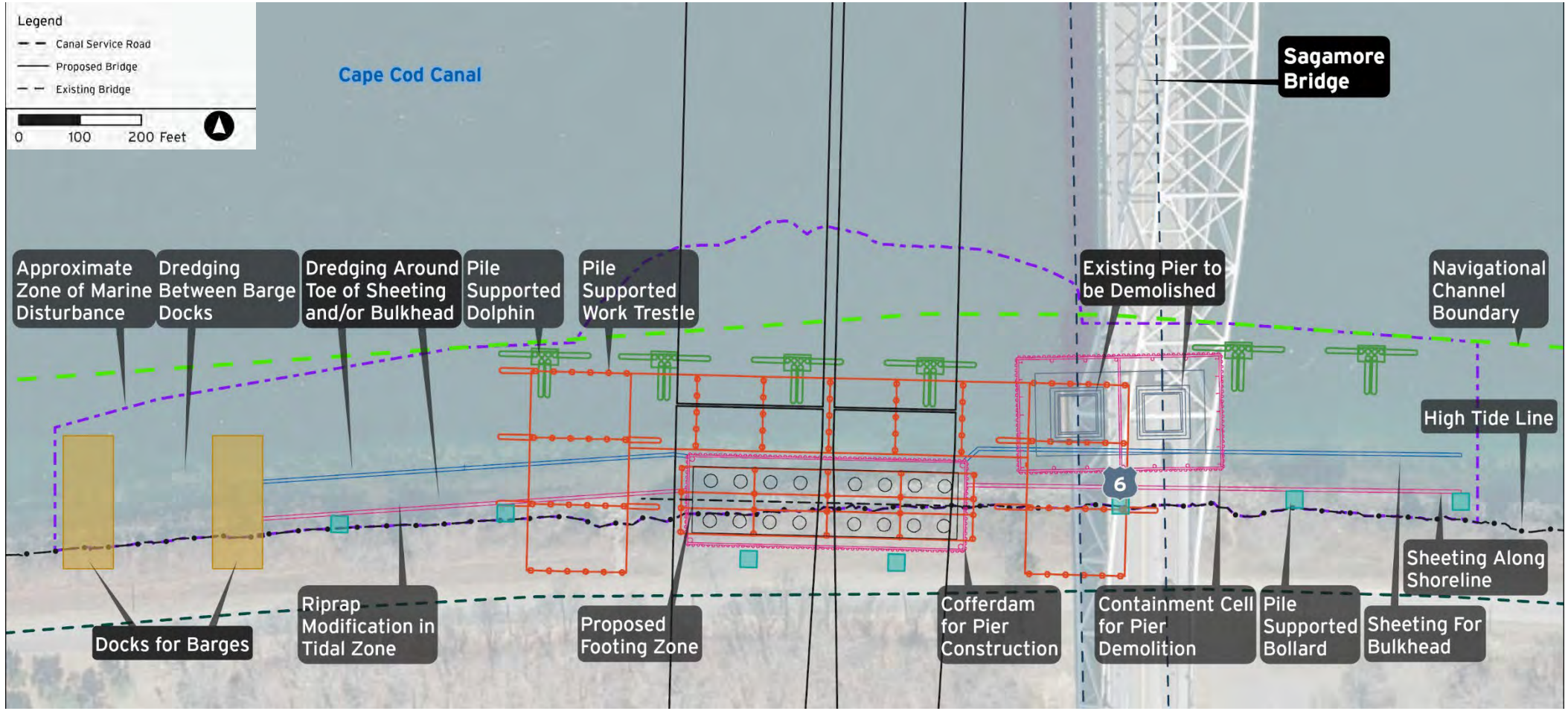
In-Water Permitting – Sagamore South



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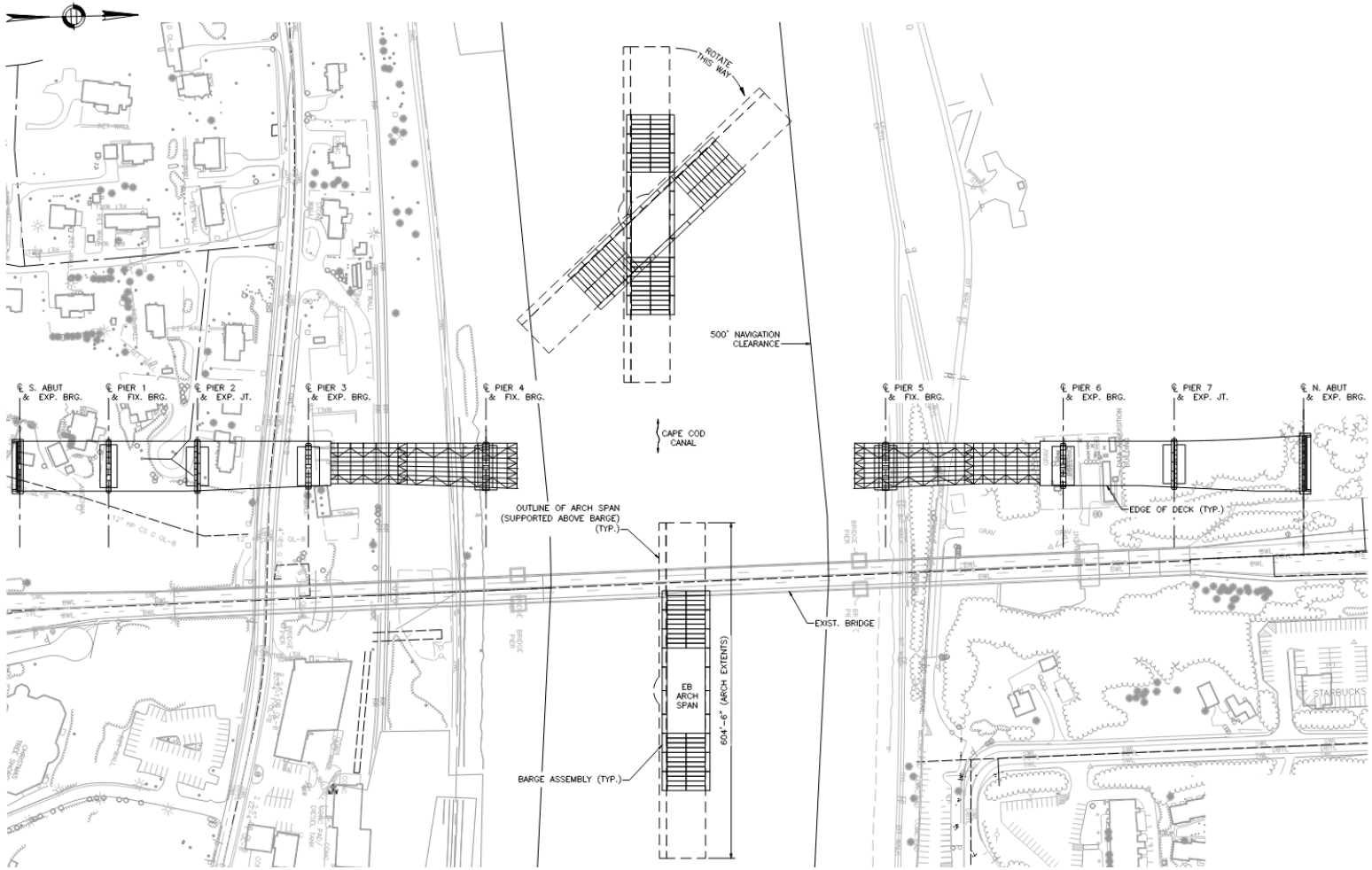
BTC Arch Construction Concept



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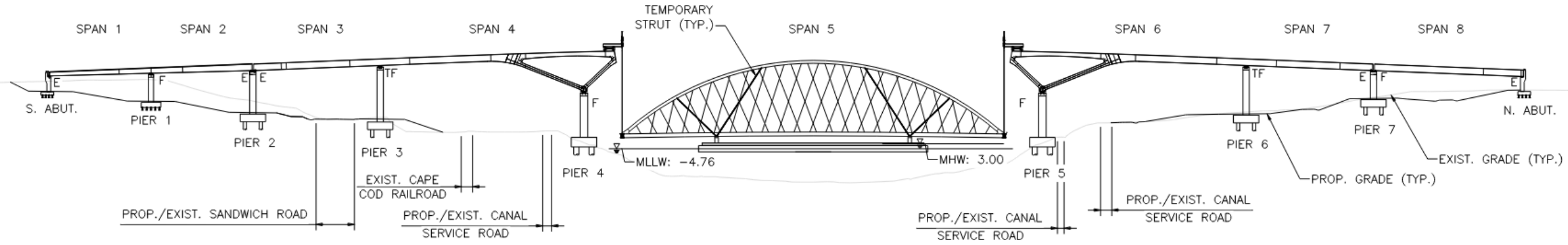
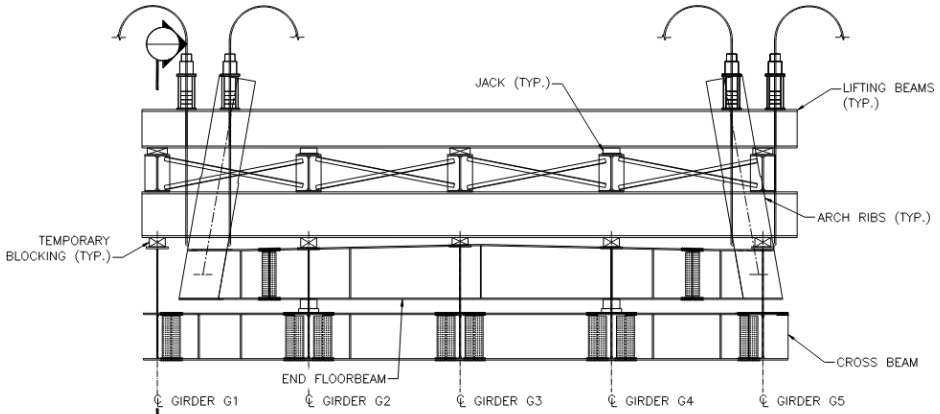
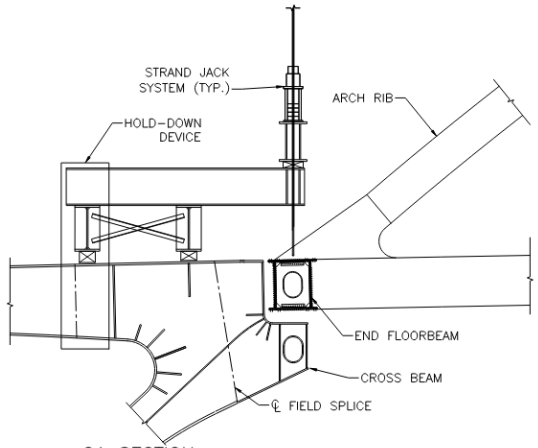
BTC Arch Construction Concept





STAGE 2 – LIFT ARCH FROM ARCH RIB AND SPLICE END FLOORBEAM AND CROSS BEAM

SCALE: 1" = 8'-0"



G1 SECTION

(G5 SECTION SIMILAR)
SCALE: 1" = 8'-0"

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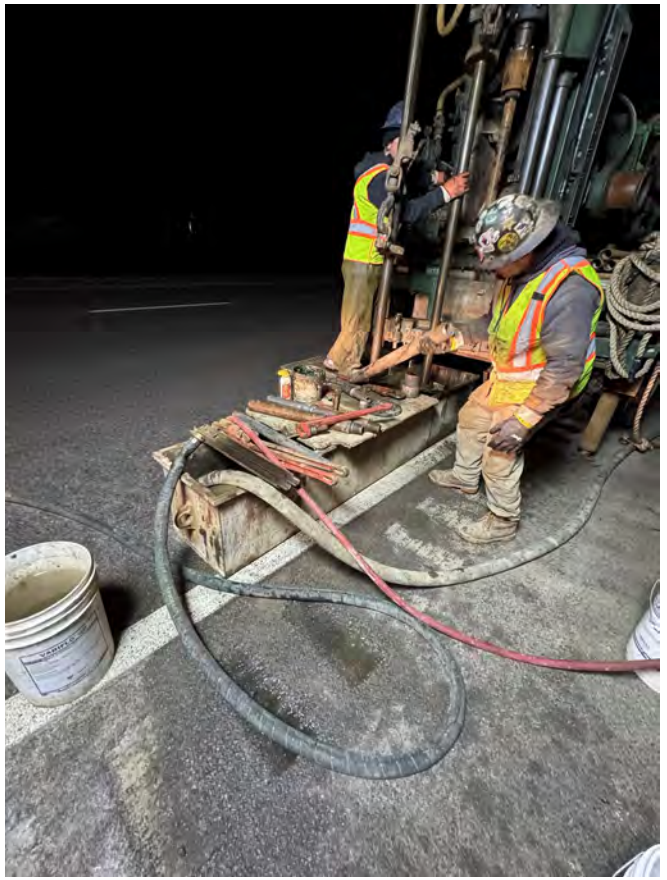
Geotechnical

Geotechnical – Subsurface Explorations

Robust subsurface exploration plan to support bridge, interchange, wall, pavement, and stormwater design.

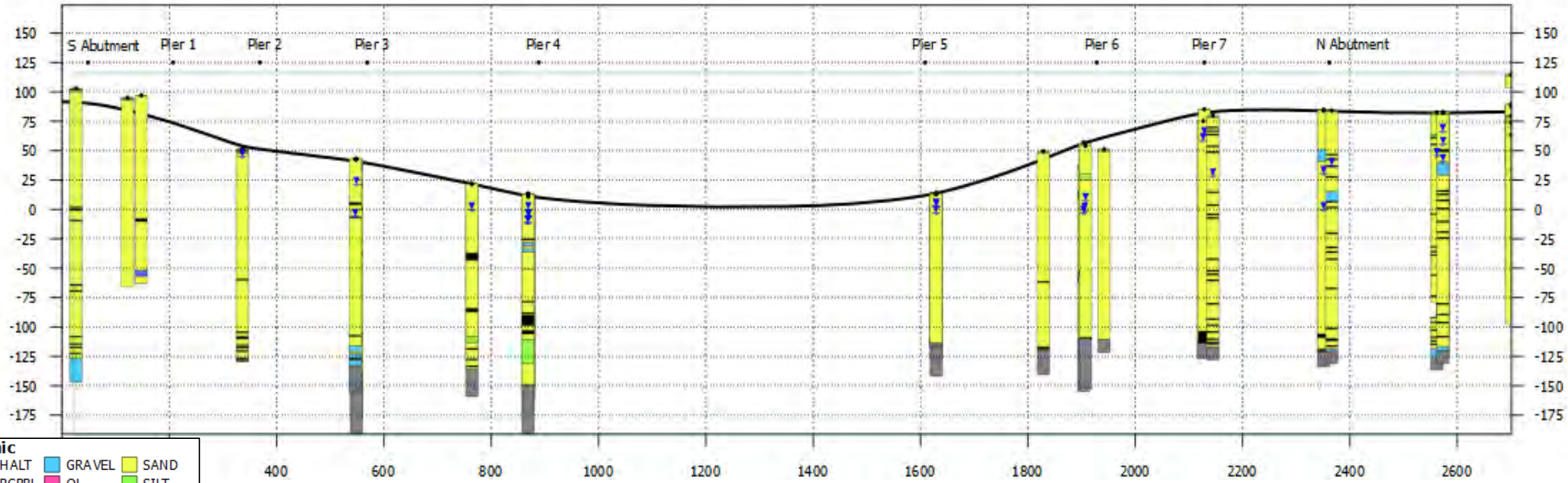
205 of 220 borings for the Sagamore Bridge Project have been completed.

Remaining borings will be completed prior to the issuance of the RFP.



Geotechnical – Subsurface Explorations

- Primarily sand and gravel with instances of Cobbles/Boulders
- Depth to Bedrock Varies between 125ft to 190ft below grade



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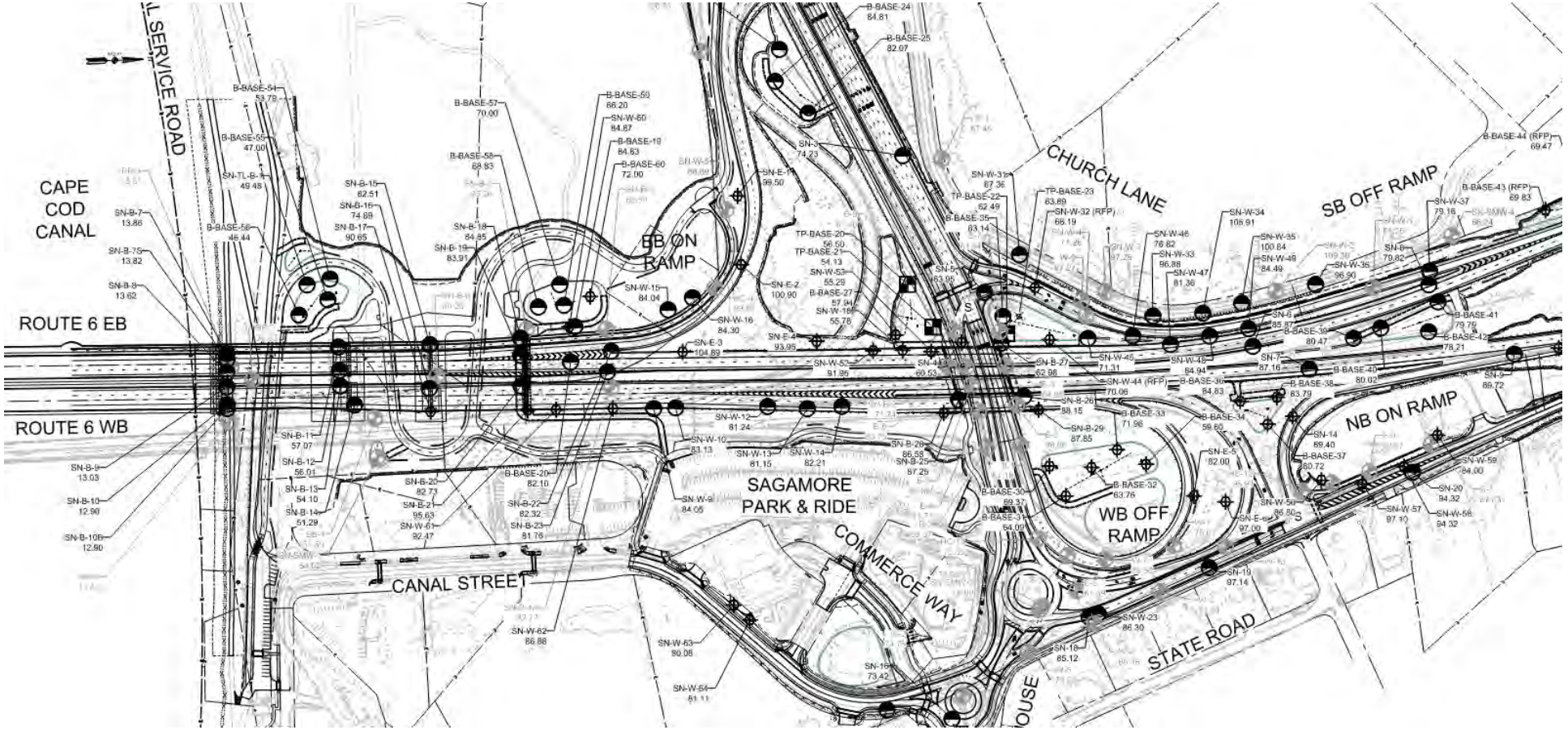
Geotechnical – Subsurface Explorations

Partial Exploration Plan



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Geotechnical – BTC Foundations

Drilled Shafts (socketed into rock)
- Canal Crossing – Canal Piers
- Canal Crossing – First two interior piers from Canal

Driven Piles
- Canal Crossing – Approach Piers
- Canal Crossing – Abutments

Shallow Foundations
- All Interchange Bridge Abutments

Geotechnical – Foundation Load Tests

Sagamore North

Location #4

- Two 16-in diameter concrete filled pipe piles
- Two HP 14x117 piles

Location #3

- One 5-ft diameter drilled shaft

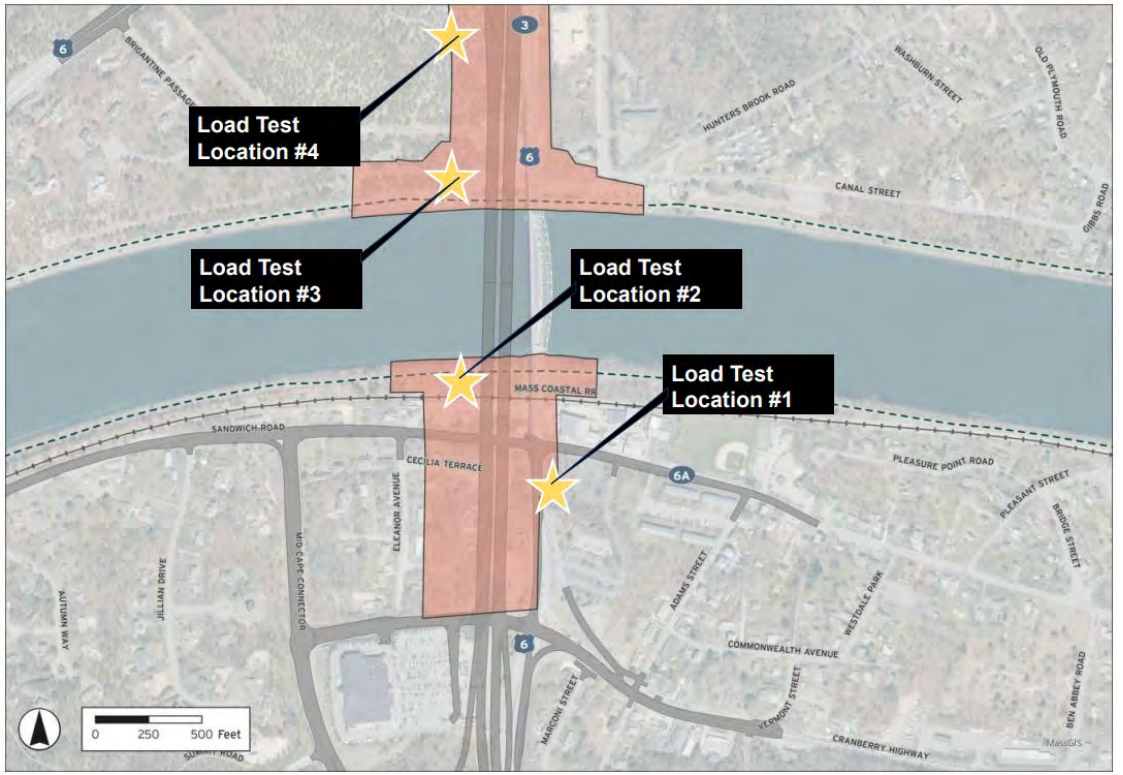
Sagamore South

Location #2

- One 5-ft and one 8-ft drilled shaft

Location #1

- Two 16-in diameter concrete filled pipe piles
- Two HP 14x117 piles



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Geotechnical – Foundation Load Test

Drilled shaft

- Axial load test

Driven Piles

- Tension load test
- Compression load test
- Lateral load test

Results of load test program will be provided in the RFP

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Civil Design

Civil Design Overview – Sagamore North (Looking SE)

Conceptual 3D massing simulation prepared for Industry Day to illustrate preliminary scale, layout, and spatial relationships for planning and discussion purposes only.

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Civil Design Overview – Sagamore South (Looking NW)

Conceptual 3D massing simulation prepared for Industry Day to illustrate preliminary scale, layout, and spatial relationships for planning and discussion purposes only.

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Civil Design Overview

- Most-prescriptive AASHTO / MassDOT PDDG criteria
- FHWA and MassDOT compliant Route 3 / Route 6 geometry
- Significant earthwork; net cut
- Drainage designed per MA Stormwater Handbook
- Roadway and pedestrian lighting
- Site restoration, reforestation, and trailhead/plaza hardscape
- MUTCD and MassDOT Amendment compliant

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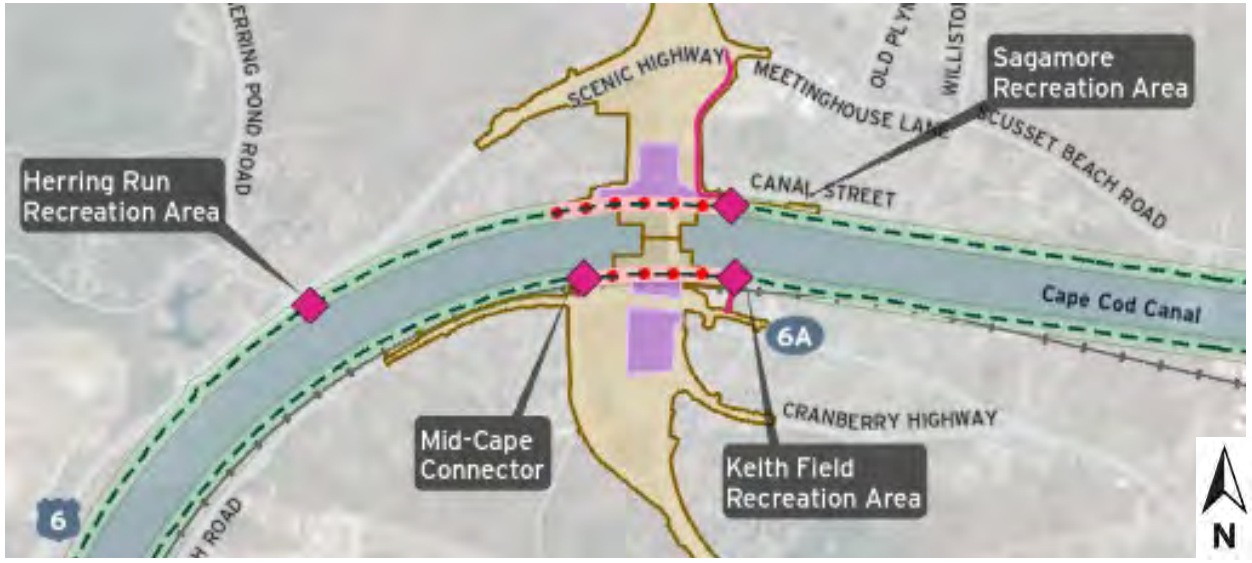
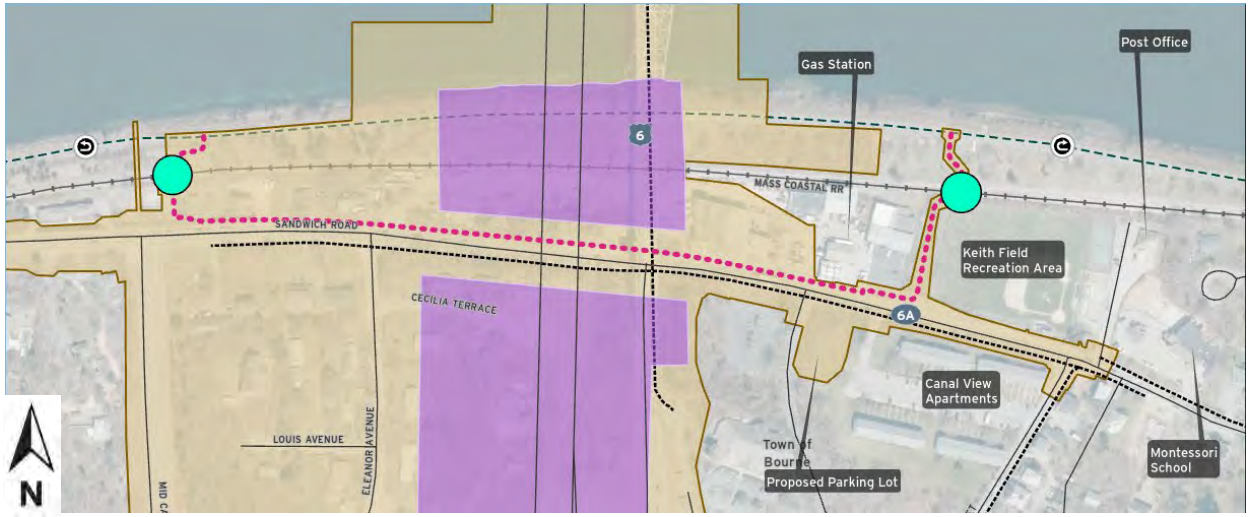
Canal Service Road Closures – Safety and Operations





- Canal Service Road closed within construction zones
- Authorized USACE and rail access only
- Two at-grade rail crossings at Mid-Cape Connector and Keith Field
- Temporary pedestrian detour at Sagamore South
- Limited public access where safely feasible (partial mainland, uninterrupted Cape side)

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Civil ATC Prescriptive Elements – Design

- Geometry limited to BTC grade criteria: 4.0% maximum on the mainline and 6.0% on ramps.
- Mainline design speed of 60 mph, with 50 mph maintained during construction.
- Ramp design speeds of 25 mph or 30 mph.
- Left-turn lane to Pave Paws Rd. shall be maintained.
- For intersections included in the BTC, the selected traffic control approach is expected to be maintained. Any proposed change that modifies an existing intersection or introduces a new intersection must be supported by MassDOT's Intersection Control Evaluation (ICE) Procedure and explicitly addressed in the proposal.
- Full-parcel Right-of-Way acquisition is not permitted.

Civil ATC Prescriptive Elements - Construction

- Mainline shall maintain two lanes per direction with 11-ft lanes, 1-ft shoulder on structure, 2-ft shoulder off structure.
- Ramps shall maintain an 18-foot minimum clear width and a 20-mph temporary design speed during construction.
- Pedestrian access shall be maintained at all times or accommodated with a minimum 6-foot-clear temporary pedestrian facility.
- A continuous multimodal detour of the canal service road between the Mid-Cape Connector and Keith Field along Sandwich Road shall be provided throughout construction.
- Roadway, bridge, and ramp closures are expected to be minimized. Closures extending beyond three consecutive calendar days will require MassDOT approval.

Phasing, Utilities, and Right-of-Way

1. Construction Phasing
2. Utility Relocations
3. Right-of-Way

Construction Phasing

Sagamore Crossing – Contract Milestones

These milestones define a clear sequence and timeline for opening the new crossing and completing all work, offering contractors transparency to support effective planning and scheduling.

Milestone Deadlines (Years from NTP)

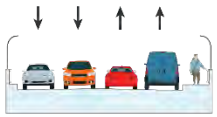
→ Milestone 4 – All traffic off existing Sagamore Bridge: ~5.5 years

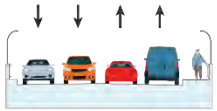
→ Milestone 3 – New EB and WB Bridges open to traffic: ~8.5 years

→ Milestone 2 – Substantial Completion: ~8.7 years

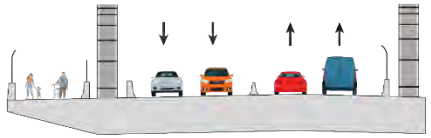
→ Milestone 1 – Field Completion: ~9.0 years

Sagamore Phasing – Major Phasing Milestones



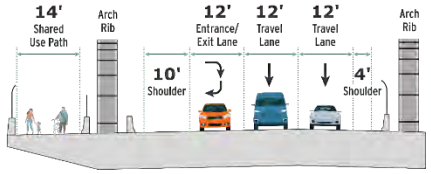


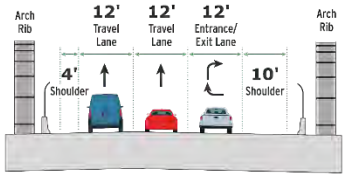
Construct new EB Bridge



Shift EB and WB traffic and demolition of Existing Bridge

Construct new WB Bridge





Open WB traffic to new WB Bridge and remaining connections

Phasing Goals

→ Maintain existing roadway and ramp connections throughout construction to avoid long-term detours.

→ Minimize the number of traffic shifts.

→ Provide the Design-Build entity with large, efficient work zones to reduce schedule delays.

→ Maintain pedestrian and bicycle access equal to existing conditions for the duration of construction.

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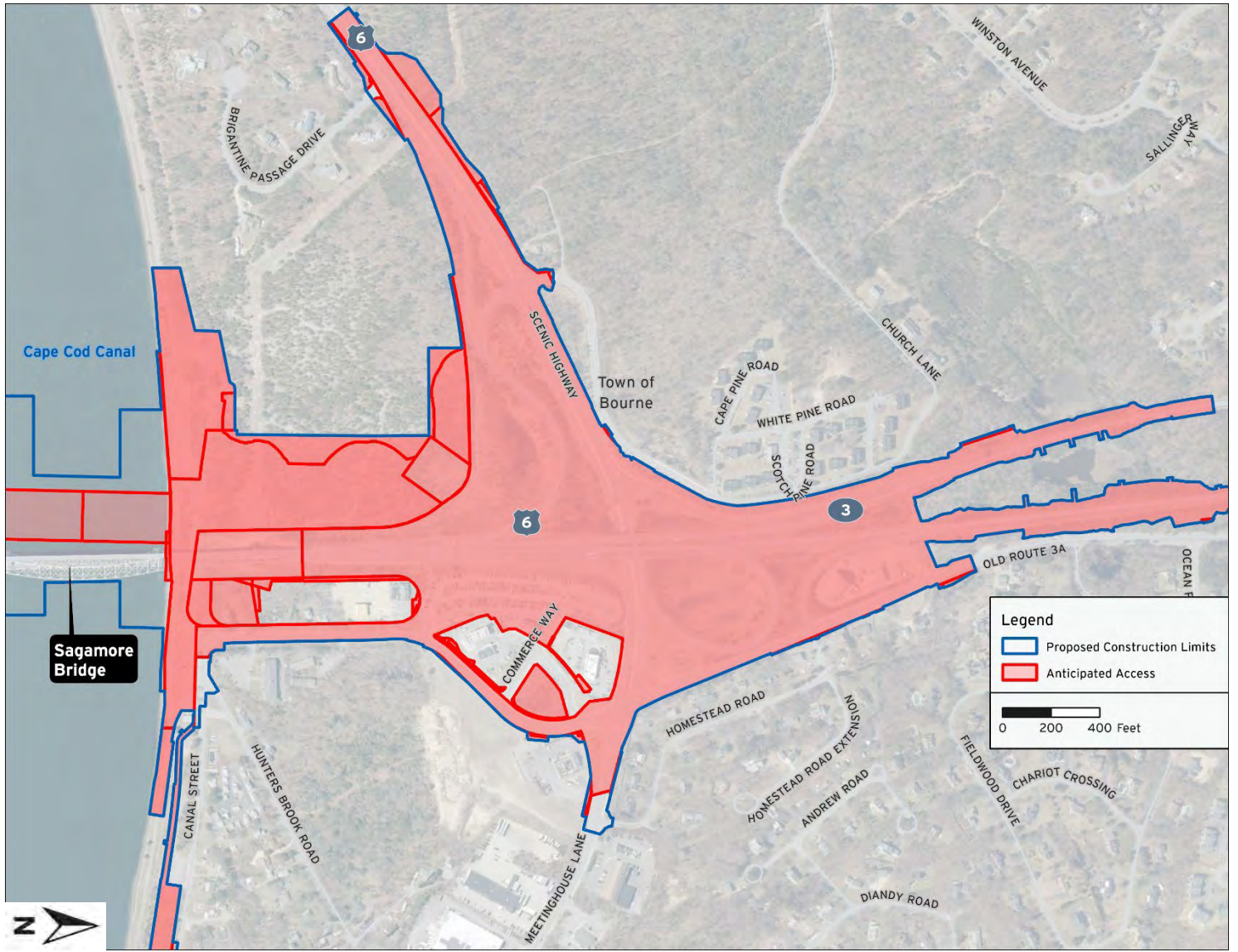
Project Work Zone and Construction Flexibility

- Prioritizes large, flexible work zones while maintaining traffic
- Uses staged shifts and temporary alignments to maximize workspace
- Maintains two lanes per direction throughout construction
- Work zones provide space required for safe equipment, material, and crane operations
- Access and sequencing for third-party coordination required with USACE, Rail operations, Market Basket, Utilities etc.

Anticipated Access – Sagamore North



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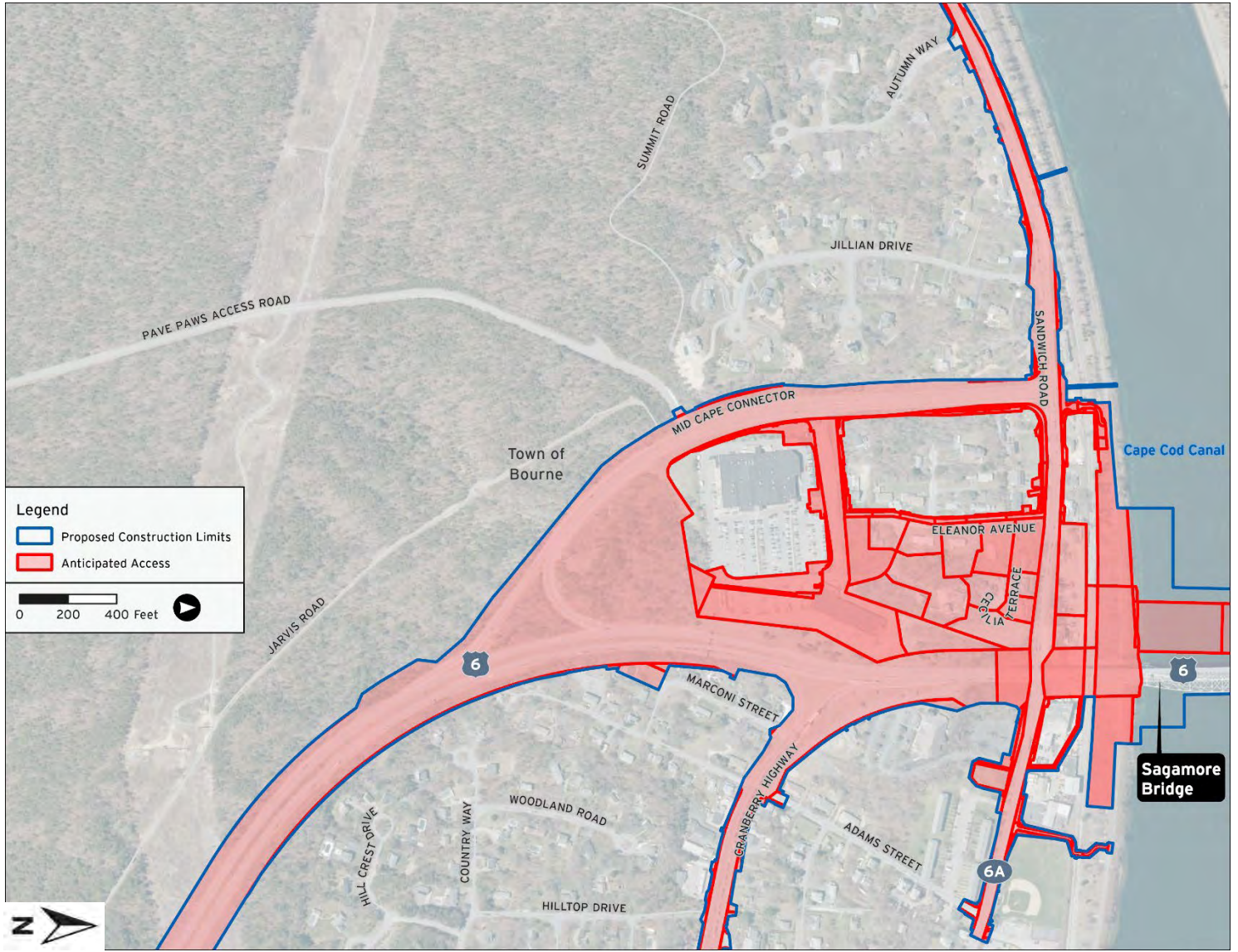
Anticipated Access – Sagamore South



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Phase 1 – Begin Construction of Eastbound Bridge

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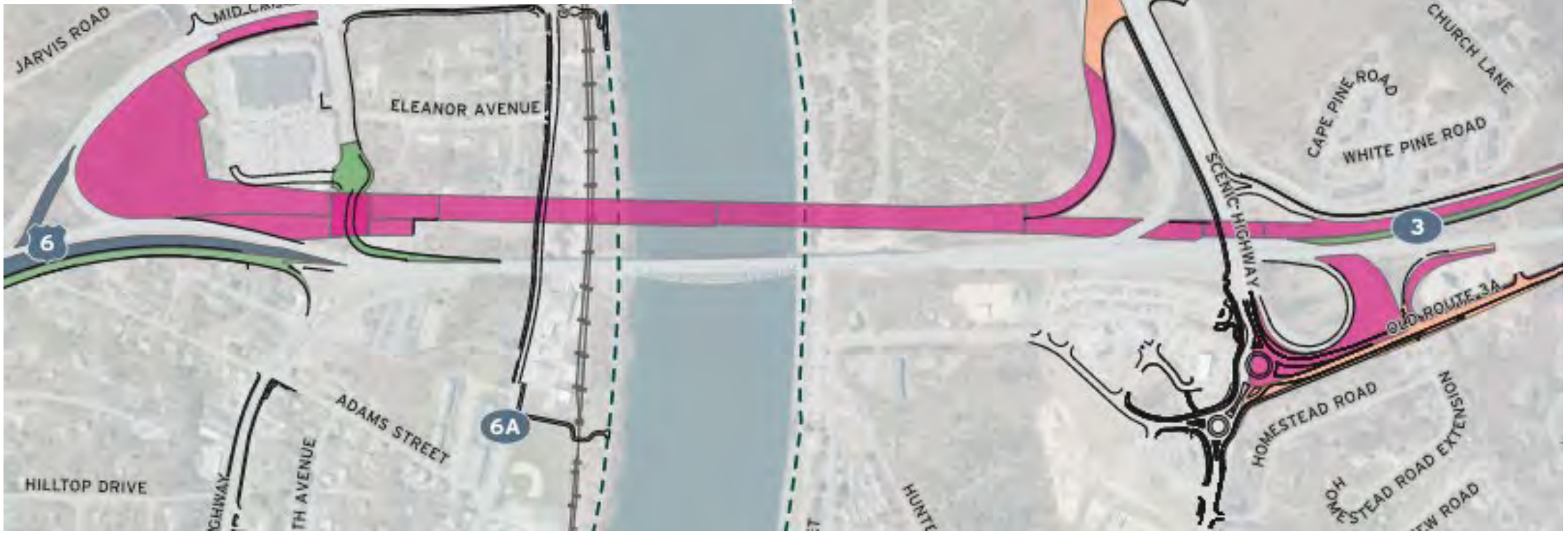
Phase 2 – Temporary Traffic Infrastructure

Under Construction



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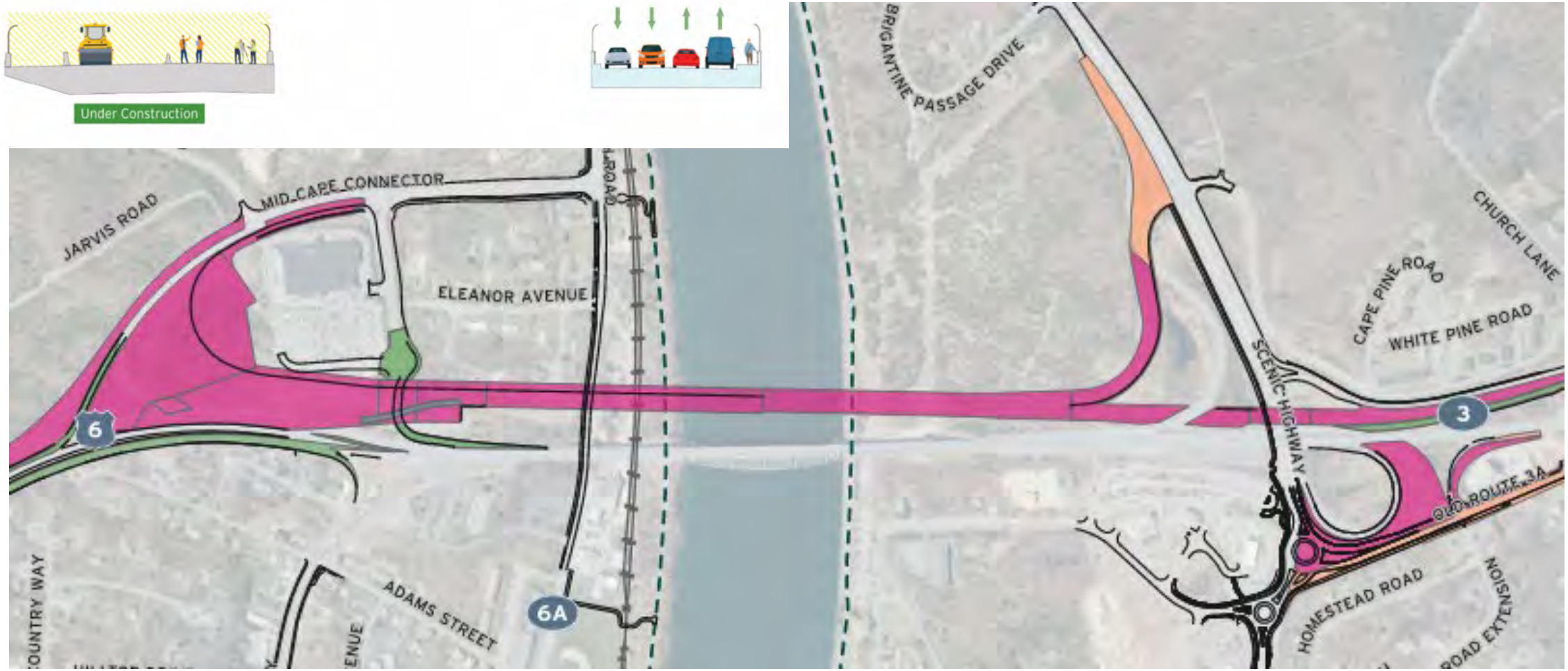
Phase 3 – Eastbound Bridge Construction Continues



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Phase 4 – Eastbound Bridge Milestone

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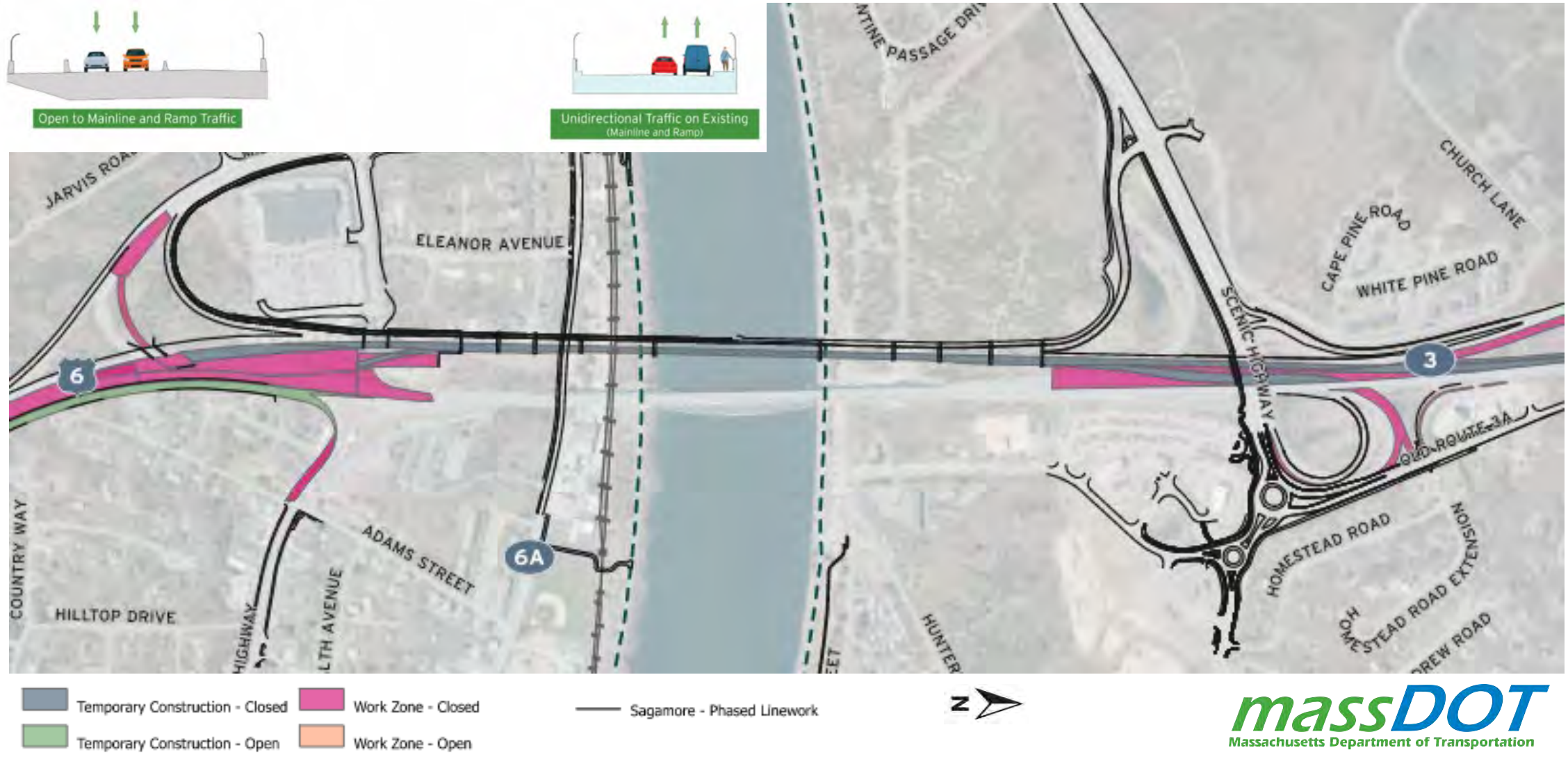
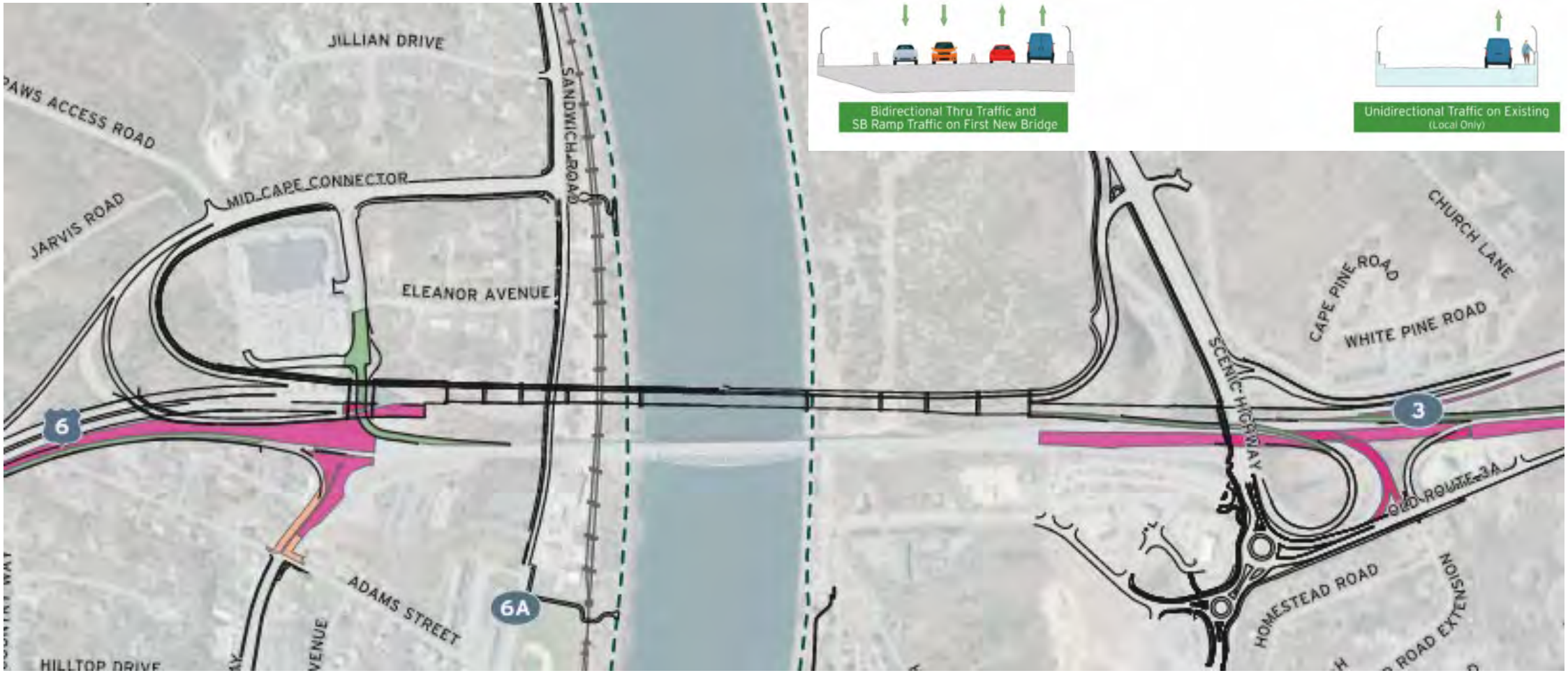
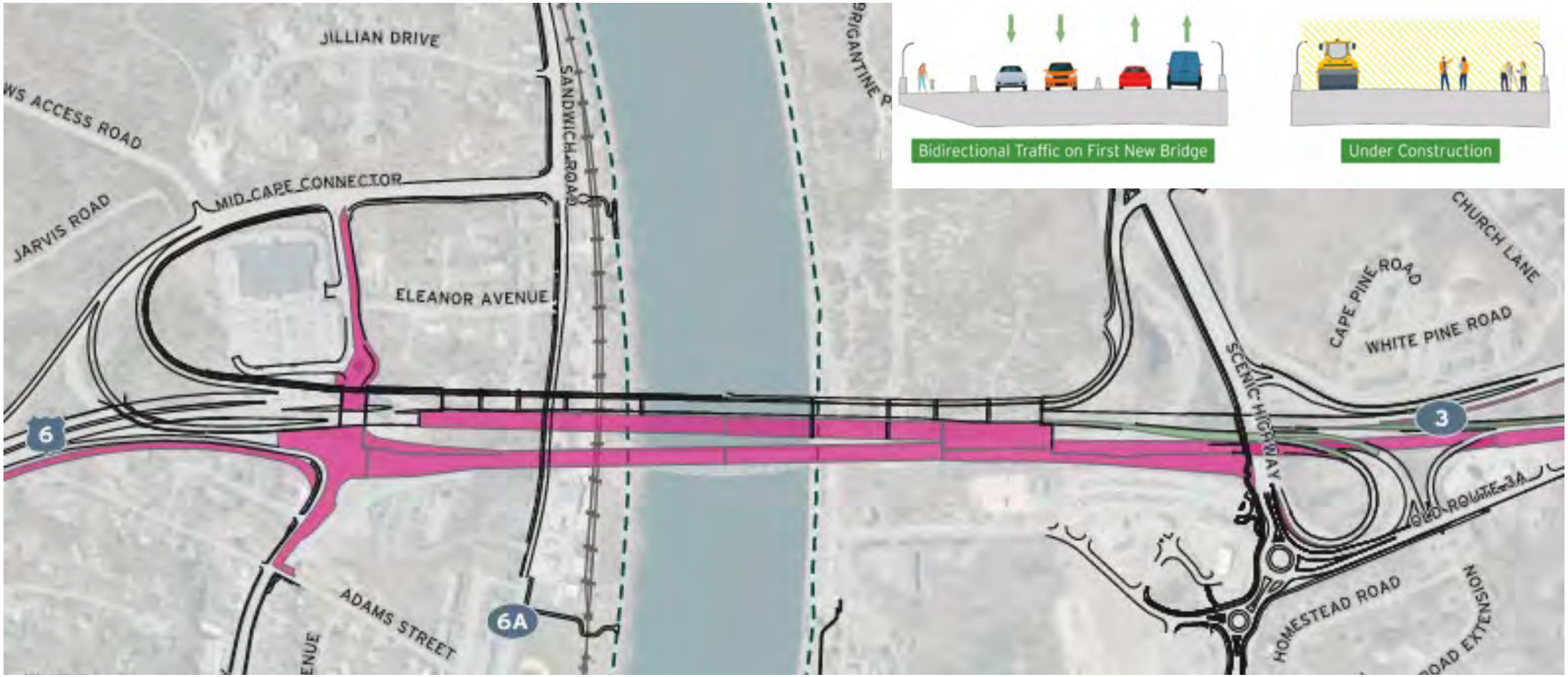
Phase 5 – Begin Westbound Bridge Prep Work



Phase 6 – Westbound Access and Local Connectivity



Phase 7 – Demolition and Westbound Bridge Construction



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Phase 8 – Westbound Bridge Milestone

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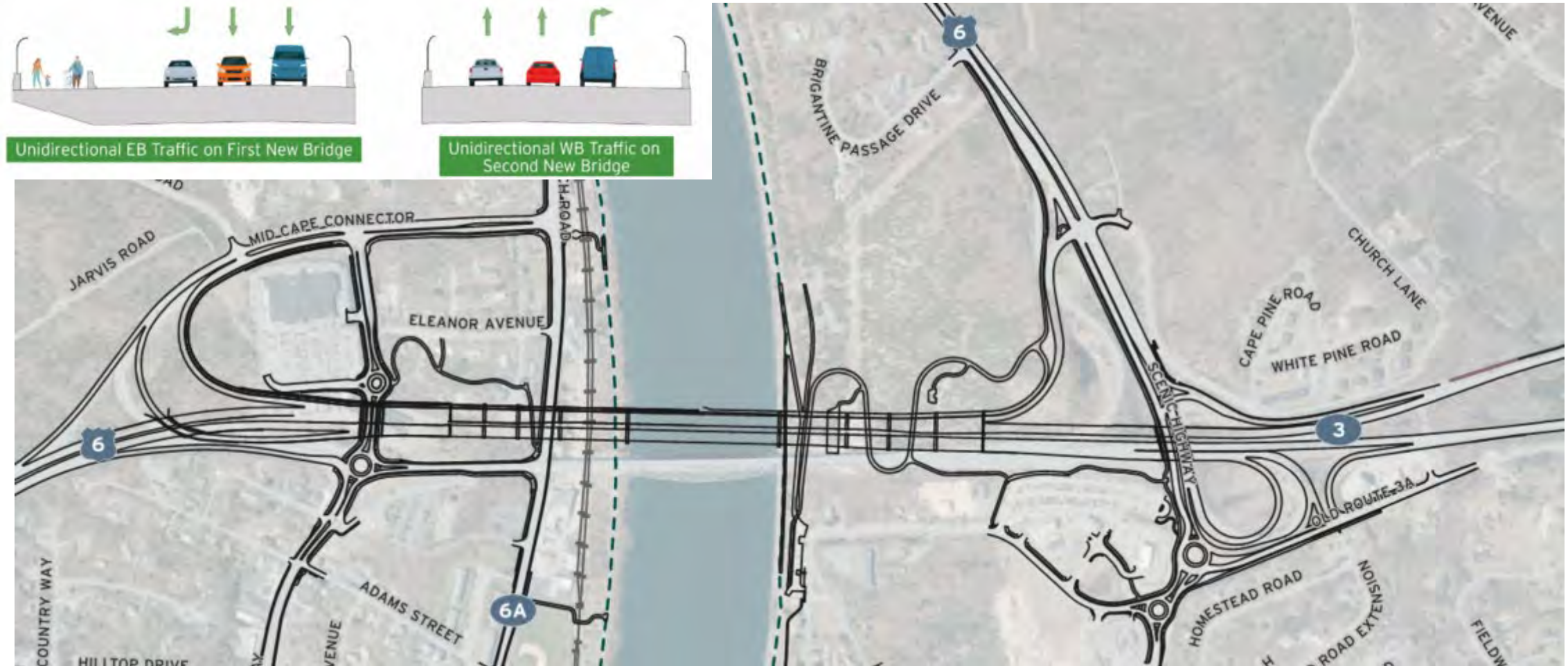
Phase 9 and 10 – Remove Temporary Features and Closeout



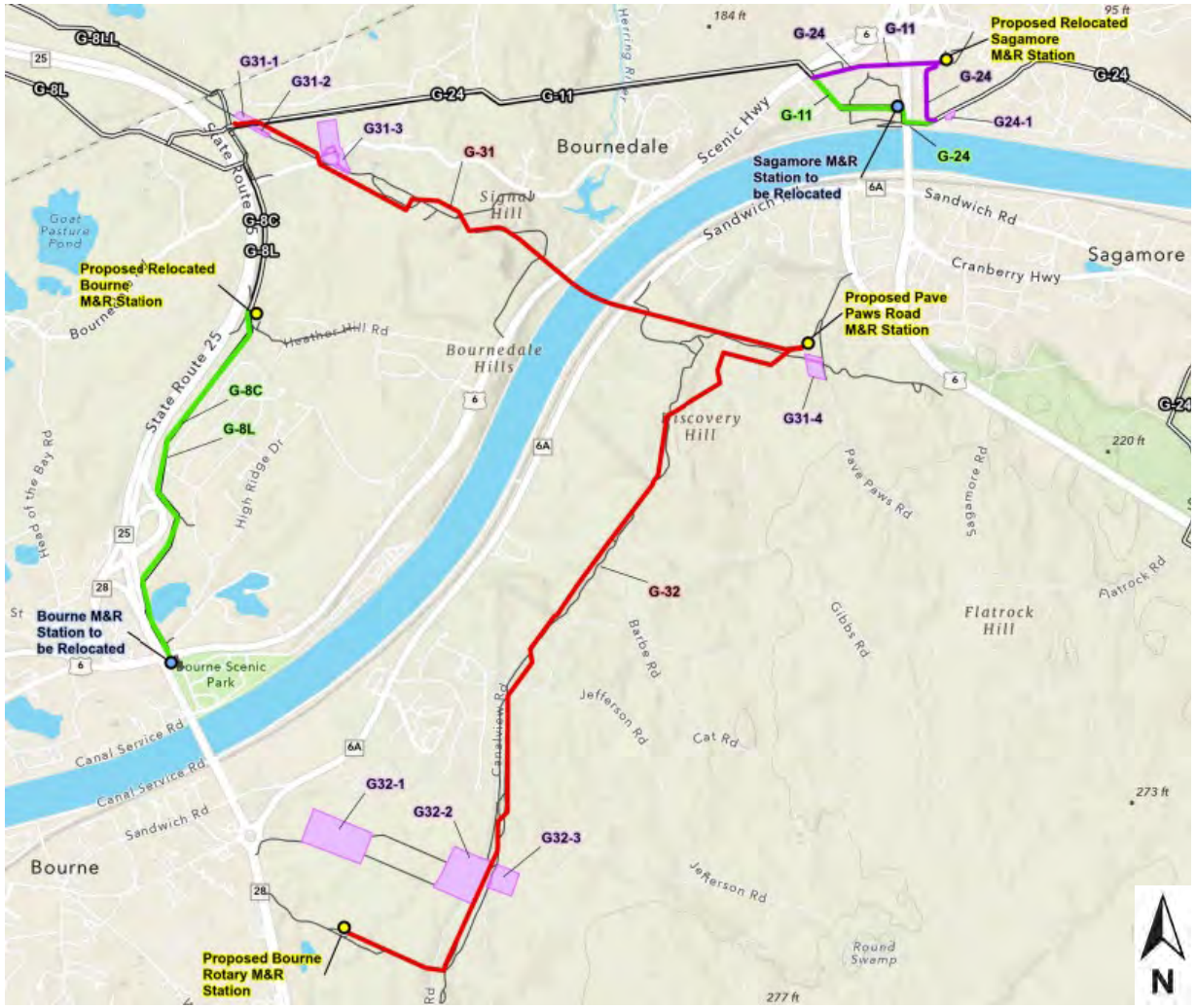
Opportunities and Delivery Approach

Design-Builders are encouraged to consider flexibility and innovation in both design development and delivery strategies. ATCs may address design refinements, constructability improvements, and delivery efficiencies, including but not limited to:

- Schedule and phasing strategies
- Design refinements within prescriptive requirements
- Temporary works and traffic management
- Network tied-arch bridge erection concepts
- Earthwork balancing and material management
- Early work packaging and parallel delivery
- Means-and-methods innovation within defined constraints

Utility Relocations

Enbridge/National Grid Gas Line Replacement



- Existing gas lines currently carried on the Bourne and Sagamore Bridges will be removed.
- A new consolidated gas pipeline will be installed beneath the Cape Cod Canal, outside the proposed bridge footprints.
- Enbridge is leading design, permitting, and construction as an independent utility project.
- Pipeline installation will use horizontal directional drilling (HDD) to minimize canal and surface impacts.
- Enbridge's schedule targets Sagamore site turnover to MassDOT in spring 2028.

https://www.enbridge.com/capecodcanal

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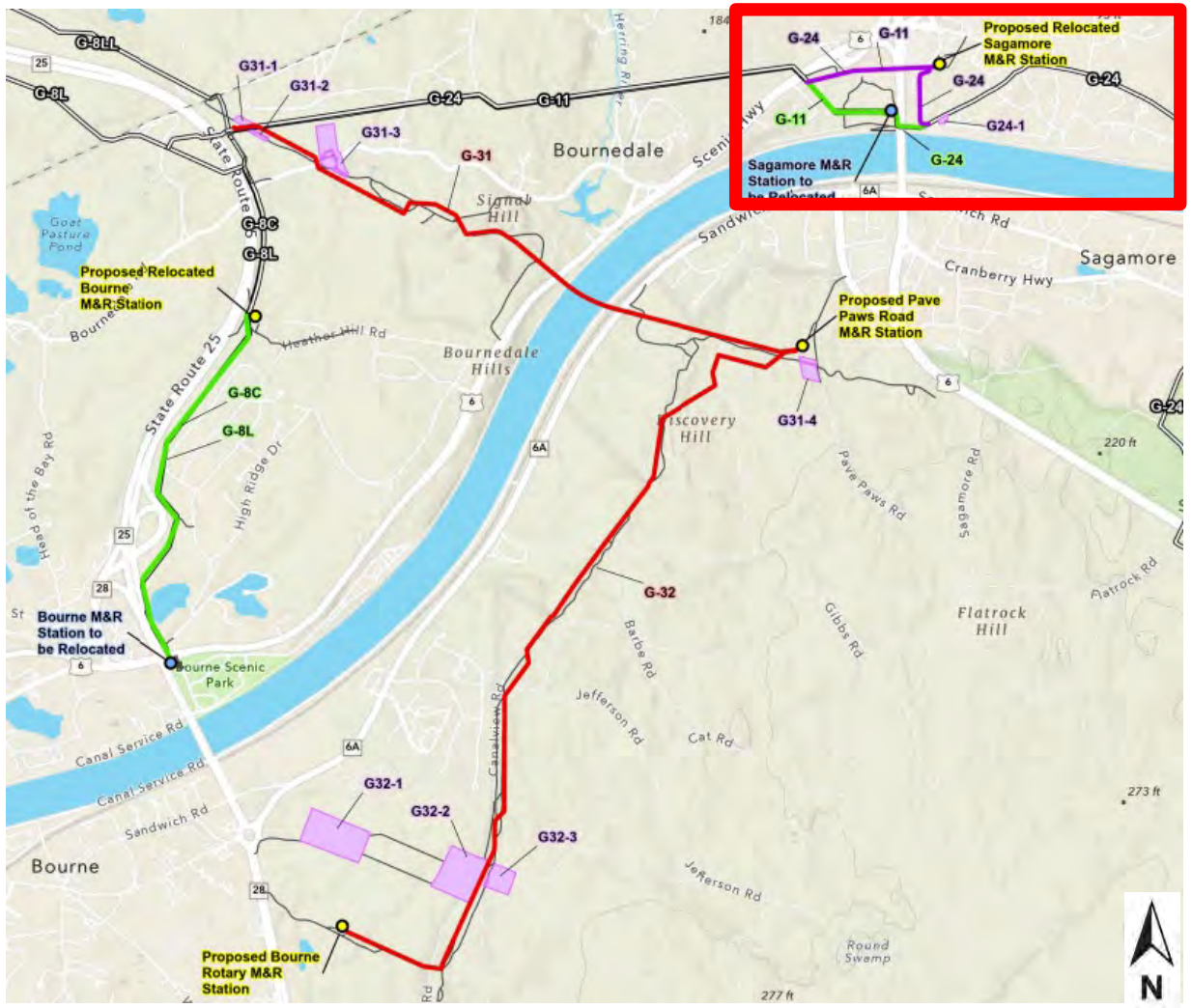
Enbridge Pipeline Relocation – Current Design



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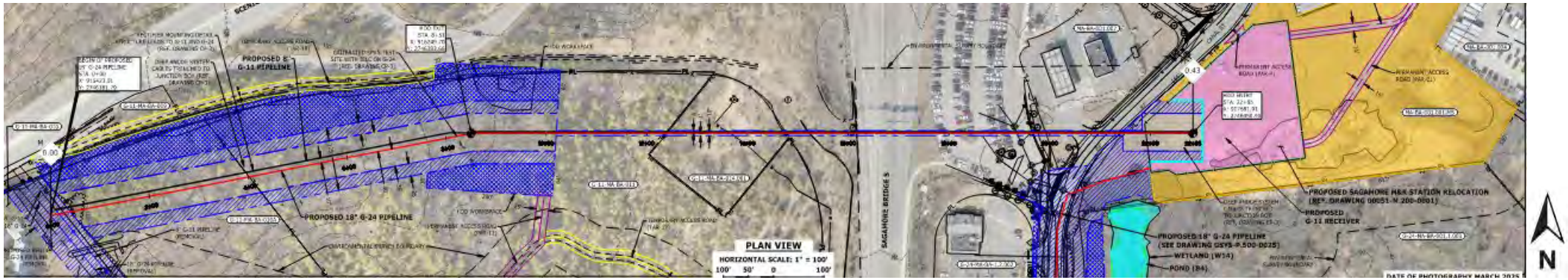
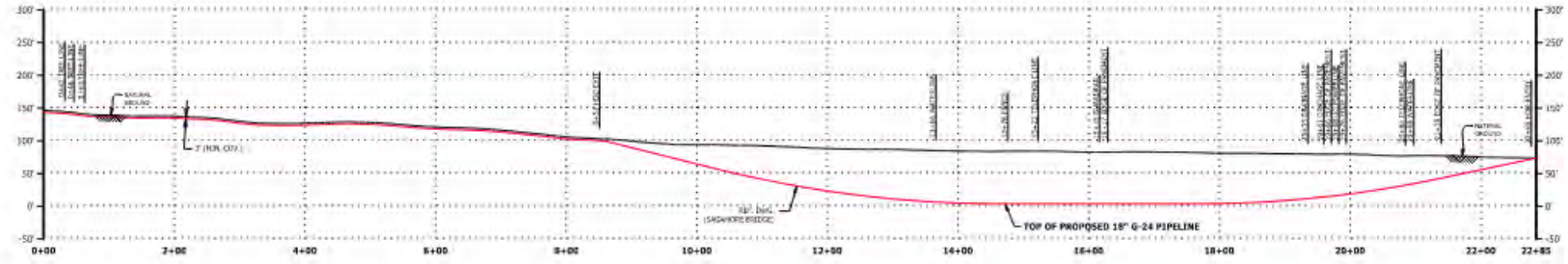
Enbridge Pipeline Relocation – HDD under Route 3

- Plans include HDD installation of one 8-inch and one 18-inch pipeline beneath Route 3.
- Design-builder shall account for coordination, as-built confirmation, and potential impacts to staging and sequencing.





"Cape Cod Canal Pipeline Relocation Project" DEIR (EEA# 16947), submitted to MEPA in January 2026. The DEIR (including the Project Alignment Sheets) was published in the *Environmental Monitor* for public review and comment on January 23, 2026.

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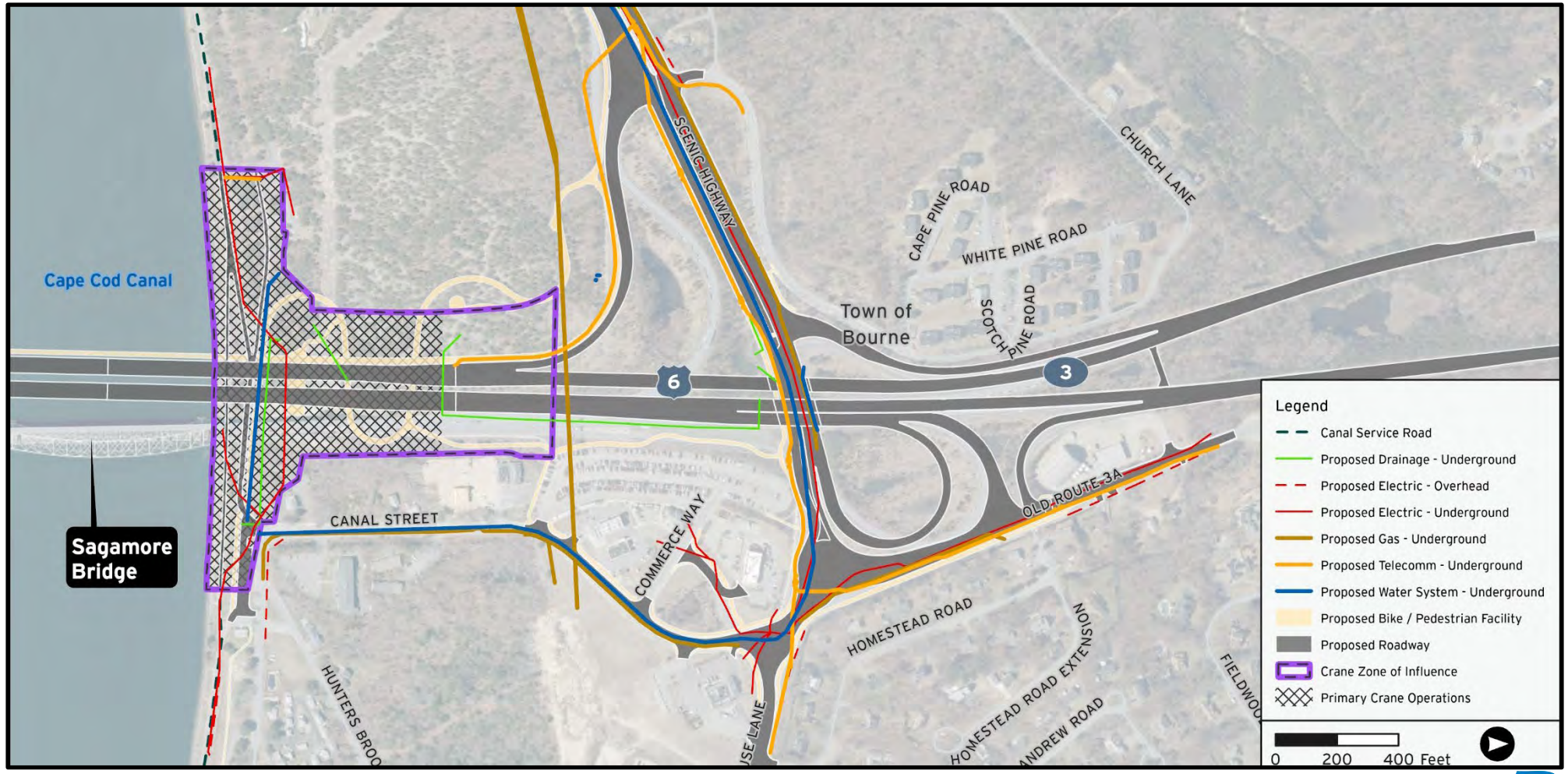
Utility Relocations – Sagamore North



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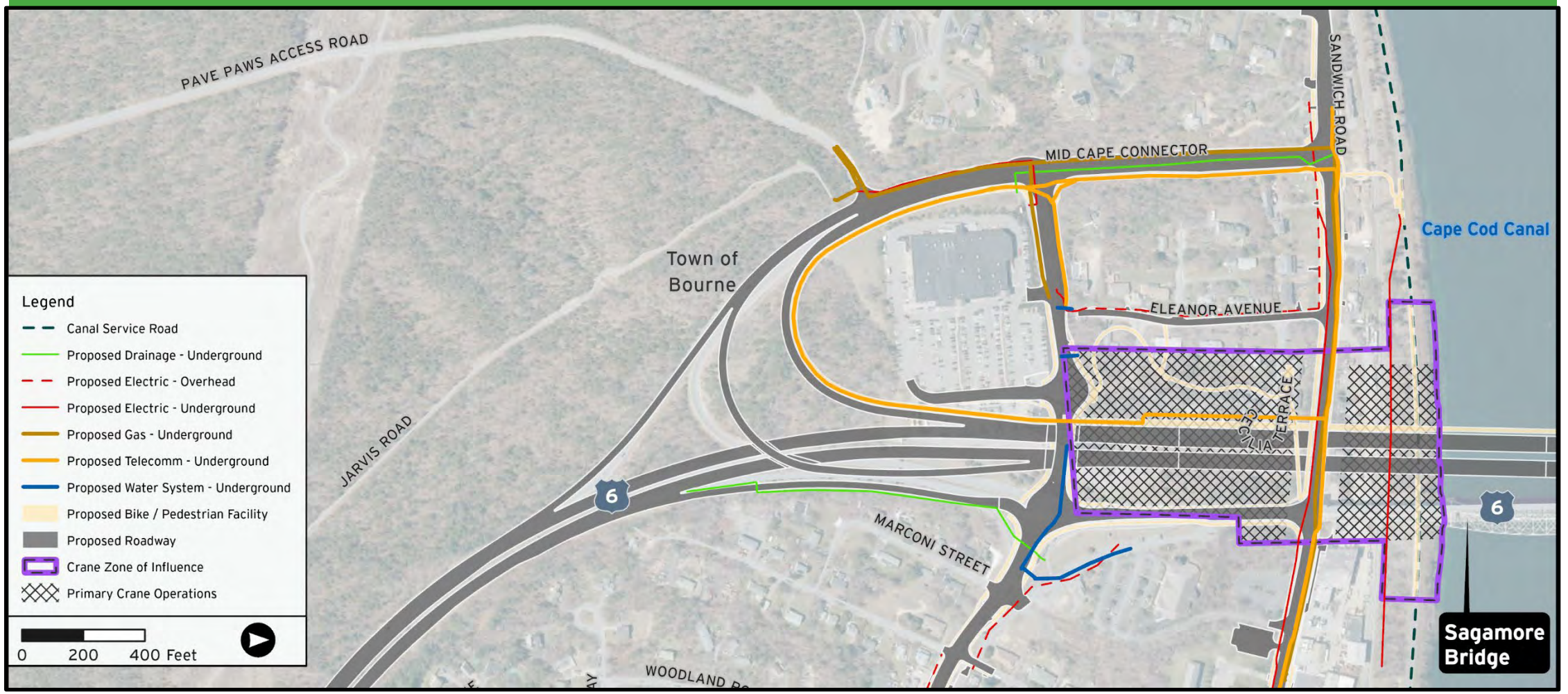
Utility Relocations – Sagamore South



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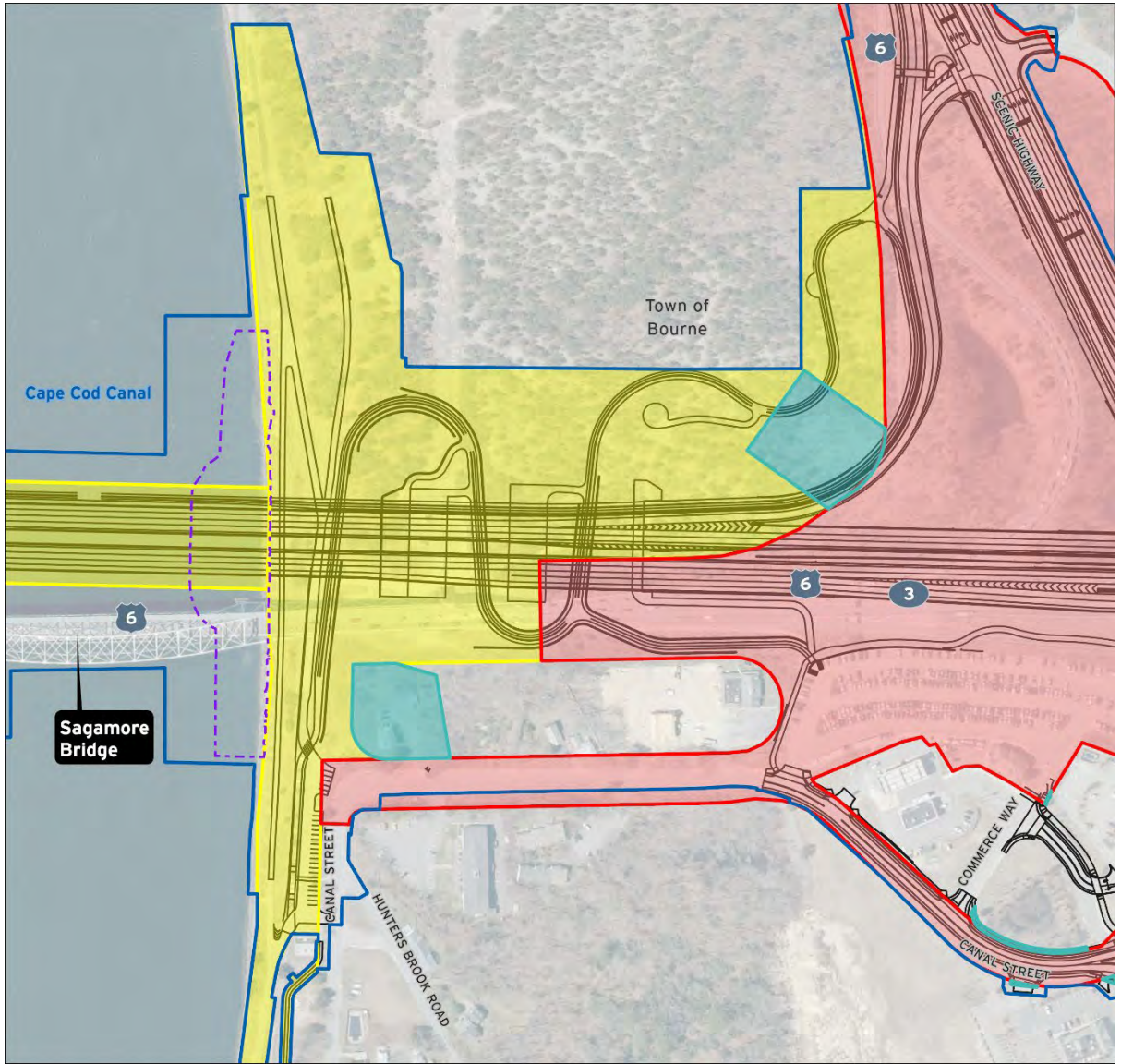
Right of Way

ROW Status

- The Sagamore Bridge Replacement requires the acquisition and relocation of a number of residential and commercial properties.
- MassDOT obtained early FHWA approval to acquire properties in advance of the completion of NEPA.
- MassDOT has acquired 11 of the 13 residential properties required to complete the project. The relocation process is ongoing.
- Permanent and temporary easements will also be required.
- MassDOT's goal to secure all property rights necessary to construct the BTC prior to the issuance of the Design-Build Notice to Proceed.

ROW Status – Sagamore North



Legend

- Proposed Construction Limits
- Highway Features
- Planned Acquisitions
- USACE Property - Proposed Temporary Easements/Long-Term Access Agreements
- Existing State Highway Layout
- Approximate Zone of Marine Disturbance

0 150 300 Feet

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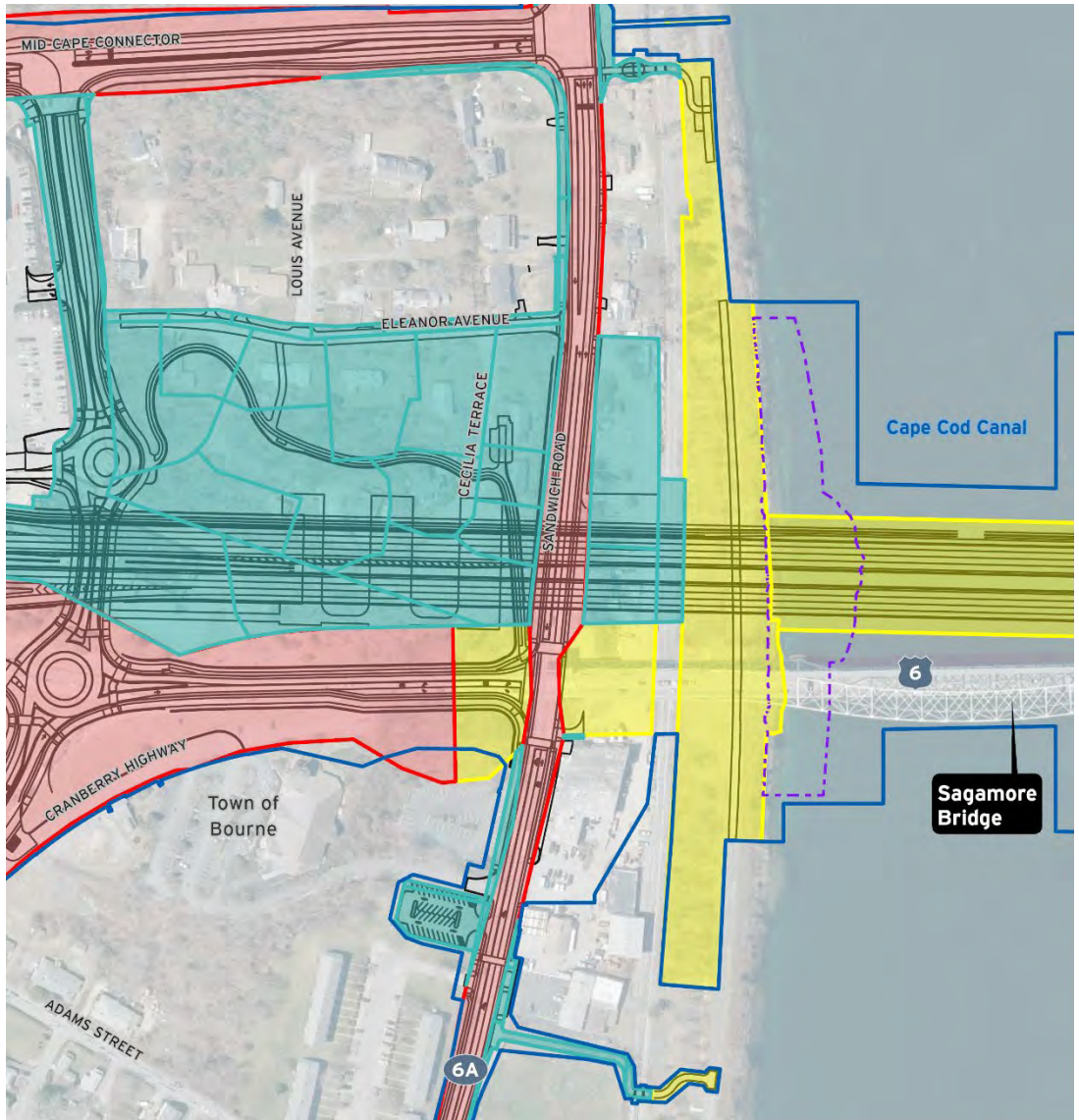
ROW Status – Sagamore South



Please note that the proposed Town of Bourne parking lot along Sandwich Road is conceptual and subject to ongoing coordination.

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Environmental and Public Process

1. Permitting Process
2. Public Involvement

Permitting Process

Environmental Reviews: MEPA and NEPA Updates

MEPA

- Final Environmental Impact Report (FEIR) published in the Environmental Monitor on March 11, 2026.
- Secretary's Certificate on FEIR and MEPA completion anticipated April 2026.
- Final Certificate will allow for the issuance of State-level environmental permits.

NEPA

- MassDOT is developing a combined FEIS/Record of Decision in coordination with FHWA.
- Draft FEIS/ROD provided to Cooperating Agencies for review in March 2026, with comments anticipated mid-April.
- FEIS/ROD final signatures anticipated June 2026, indicating NEPA completion.
- FEIS/ROD Notice of Availability publication in Federal Register anticipated July 2026.
- All required Federal authorizations completed within 90 days of ROD.

Status of State Reviews, Permits, and Approvals

State Agency	Review/Permit/Approval (applicable to *Cape Cod Bridges Program* or *Sagamore Bridge Project*)	Receipt Date
Massachusetts Division of Fisheries and Wildlife (MA DFW)	***Sagamore Bridge Project*** Conditional No Take Determination under the Massachusetts Endangered Species Act (MESA) (321 CMR 10.00).	Received, April 2026
Massachusetts Environmental Policy Act (MEPA) Office	***Cape Cod Bridges Program*** Secretary Certification under the Massachusetts Environmental Policy Act (MEPA), (301 Code of Massachusetts Regulations [CMR] 11.00)	Anticipated April 2026
Bourne Conservation Commission	***Sagamore Bridge Project*** Order of Conditions (OOC) under the Massachusetts Wetlands Protection Act (310 CMR 10.00)	Anticipated May 2026
Massachusetts Department of Environmental Protection (MassDEP)	***Sagamore Bridge Project*** 401 Water Quality Certification (WQC) under 314 CMR 9.00	Anticipated August 2026
Massachusetts Office of Coastal Zone Management (MA CZM)	***Cape Cod Bridges Program*** Federal Consistency Review under the Coastal Zone Management Act (321 CMR 20.00)	Anticipated September 2026

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Status of Federal Reviews, Permits, and Approvals

Federal Agency	Review/Permit/Approval (applicable to *Cape Cod Bridges Program* or *Sagamore Bridge Project*)	Receipt Date
Federal Highway Administration	***Cape Cod Bridges Program*** FEIS/ROD, National Environmental Policy Act, FHWA regulations (23 CFR 771)	Anticipated June 2026
	Cape Cod Bridges Program Approval, Section 4(f) of the U.S. Department of Transportation Act [49 USC 303(c)]	Anticipated June 2026 (with ROD)
	Cape Cod Bridges Program Programmatic Agreement, Section 106 of the National Historic Preservation Act (54 USC 306108)	Anticipated June 2026 (with ROD)
US Army Corps of Engineers (USACE)	***Sagamore Bridge Project*** Section 408 Approval, Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408)	Anticipated August 2026
	Sagamore Bridge Project Individual Permit, Section 404 of the Clean Water Act (33 USC 1344)	Anticipated September 2026
US Coast Guard (USCG)	***Sagamore Bridge Permit***, Section 9 of the Rivers and Harbors Act of 1899 (33 USC 401)	Anticipated September 2026
National Marine Fisheries Service (NOAA Fisheries)	***Cape Cod Bridges Program*** Concurrence, Section 7 of the Endangered Species Act (16 USC 1536)	Received, March 2026
	Cape Cod Bridges Program Conservation Measures, Magnuson-Stevens Fishery Conservation and Management Act (16 USC 1801- 1891d)	Received, April 2025; updated, March 2026

Status of Federal Reviews, Permits, and Approvals (cont.)

Federal Agency	Review/Permit/Approval (applicable to *Cape Cod Bridges Program* or *Sagamore Bridge Project*)	Receipt Date
U.S. Fish and Wildlife Service (USFWS)	***Cape Cod Bridges Program*** Concurrence, Section 7 of the Endangered Species Act (16 USC 1536)	Received, May 2025; updated March 2026
	Cape Cod Bridges Program Approvals, Migratory Bird Treaty Act of 1918 (16 USC 703), Bald and Golden Eagle Protection Act (16 USC 668), and Fish and Wildlife Coordination Act (16 US. 661)	Anticipated June 2026 (with ROD)
U.S. Environmental Protection Agency (USEPA)	***Sagamore Bridge Project*** National Pollutant Discharge Elimination System (NPDES) Construction General Permit, Section 402 of the Clean Water Act (33 USC 1342)	Prior to Construction Start
Federal Aviation Administration (FAA)	***Sagamore Bridge Project*** Notice of Proposed Construction or Alteration/Determination of No Hazard to Air Navigation, Air Commerce and Safety Regulations (29 USC 44718)	Prior to Construction Start

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Environmental Permits and Approvals – Overall Understandings

- To facilitate DB contracting, **separate environmental permits and approvals** will be issued per project.
- **MassDOT intends to secure all state and federal environmental permits and approvals** necessary to support construction of the Sagamore Bridge Project BTC.
- MassDOT plans to have **all permits obtained 90 days after the NEPA ROD, prior to the mandatory pre-proposal meeting**.
- The **RFP will include the MEPA Certificate on the FEIR and the NEPA ROD** (with Section 4(f) approvals and Section 106 Programmatic Agreement), which include conditions (best management practices and time-of-year restrictions), impact boundaries, and construction protocols.
- **State and federal environmental permits, plans, and conditions** will be included in the **BTC plans**, specifications, and special provisions.
- The DB contractor will be required to obtain certain approvals and permits (e.g., NPDES Construction General Permit) prior to construction start.
- Permit conditions will require contractor submittals and ongoing coordination with regulating agencies.
- Changes to the BTC, including construction approach and reported/approved impacts, will require agency reviews and approvals before work can proceed.

Environment Permits: Land-Based Work Activities*

- **Minimize impacts** to state-mapped Priority Habitat (No inland state or federal protected resources would be impacted during construction).

- Avoid removing trees within 0.25-miles of known bat roost trees during the pup season (June 1 through August 15); avoid removing trees within 0.25-miles of known bat hibernacula.

- **Comply with time-of-year (TOY) restrictions** for tree clearing, avoiding the summer occupancy period for bats and the typical nesting season for migratory birds:
  - March 15 to November 30 on the Cape Cod side
  - April 15 to October 31 on the mainland side

- Implement a combined **Stormwater Pollution Prevention Plan/Construction Period Erosion, Sedimentation, and Pollution Prevention Plan** to minimize erosion, sediment, and other construction-related stormwater pollutants).

- Implement **air quality best management practices**, **Noise Control Plan**, **Vibration Control** and Monitoring Plan.

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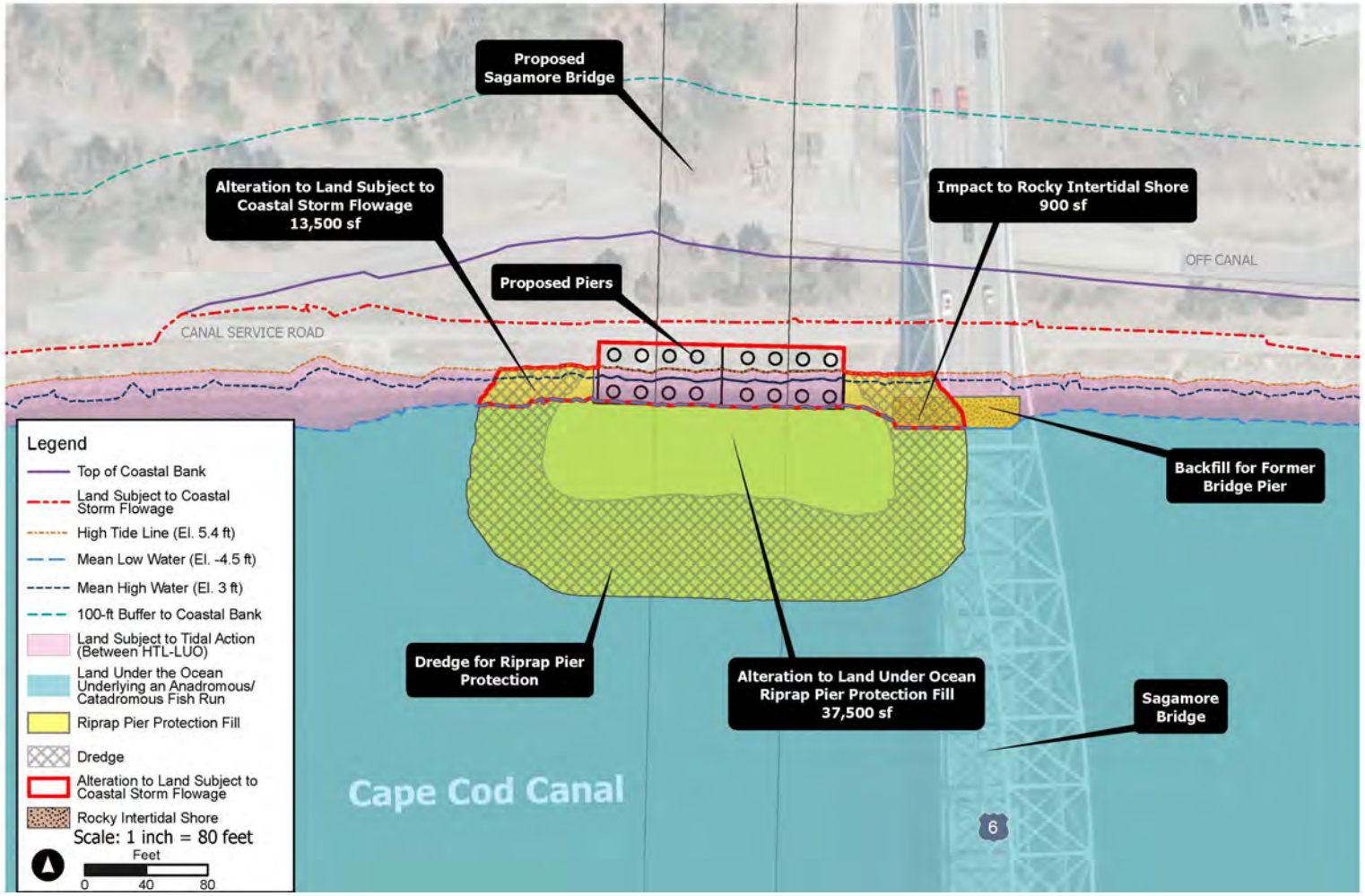
**** Examples of permit conditions to be implemented through construction.***

Environmental Permits: In-Water Work Activities*

- **Confine temporary and permanent impacts** to resources as specified in **federal and state permits**.
- **Confine in-water work to Zone of Marine Disturbance**, including temporary work structures and permanent rip-rap placement.
- **Coordinate channel encroachments and closures with U.S. Army Corps of Engineers Marine Traffic Controller and U.S. Coast Guard**.
- Comply with TOY restriction of March 1 to August 31 for in-water work with the potential to cause acoustic effects (e.g., impact or vibratory pile driving and rotary drilling).
- Use equipment ramp-ups and soft starts during pile driving and rotary drilling.
- Implement the Marine Mammal and Sea Turtle Monitoring and Mitigation Plan, which includes operational requirements and restrictions.

**** Examples of permit conditions to be implemented through construction.***

Environmental Permitting of In-Water Work: Sagamore North



Permanent Impacts to Coastal Resources:

- Land under the Ocean: 37,500 sf
- Rocky Intertidal Shore: 900 sf
- Land Subject to Coastal Storm Flowage (100-year flood): 13,500 sf
- Land Containing Shellfish: 1,200 sf

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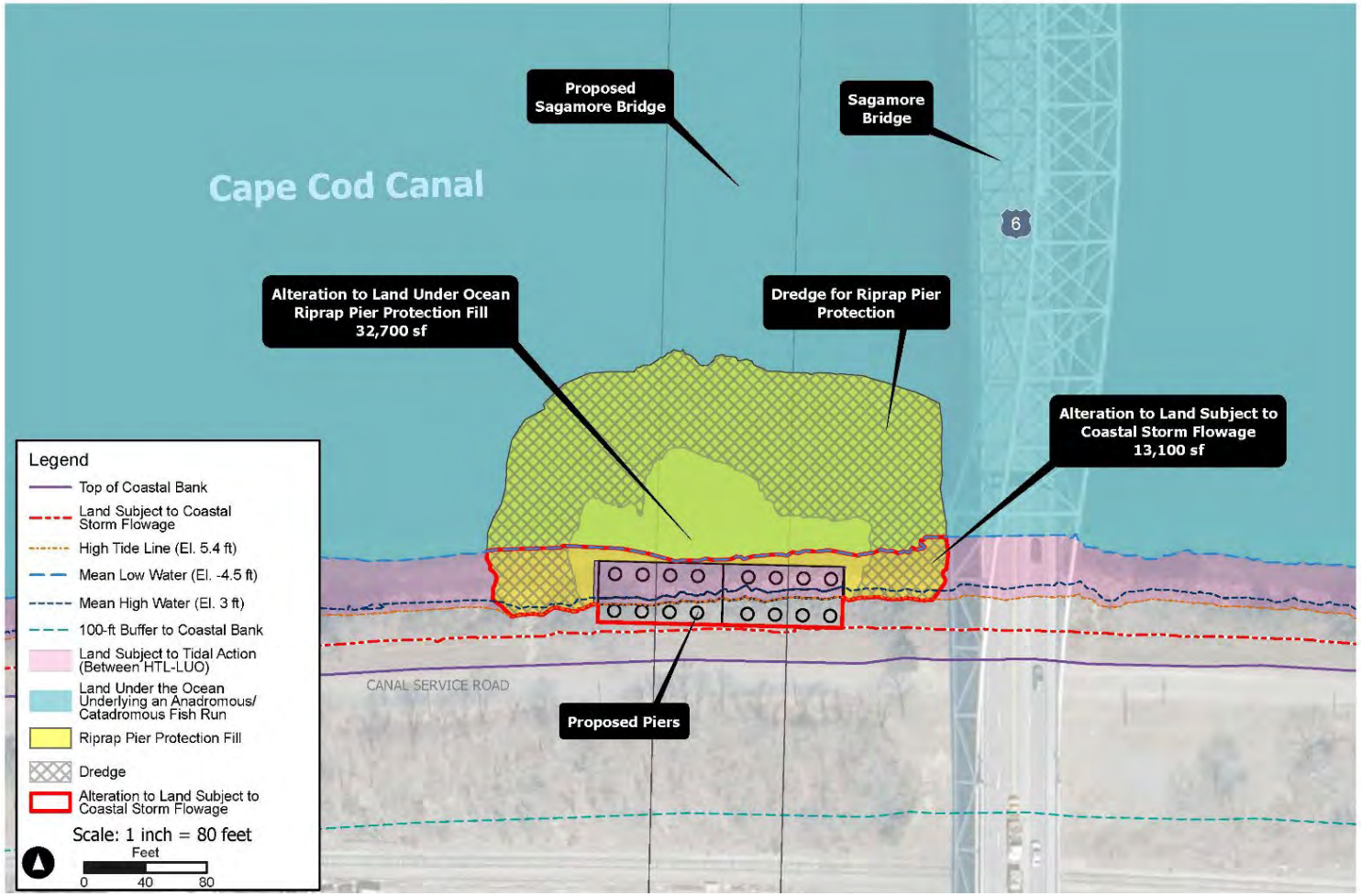
Environmental Permitting of In-Water Work: Sagamore South



Permanent Impacts to Coastal Resources:

- Land under the Ocean: 32,700 sf
- Land Subject to Coastal Storm Flowage (100-year flood): 13,100 sf
- Land Containing Shellfish: 1,200 sf

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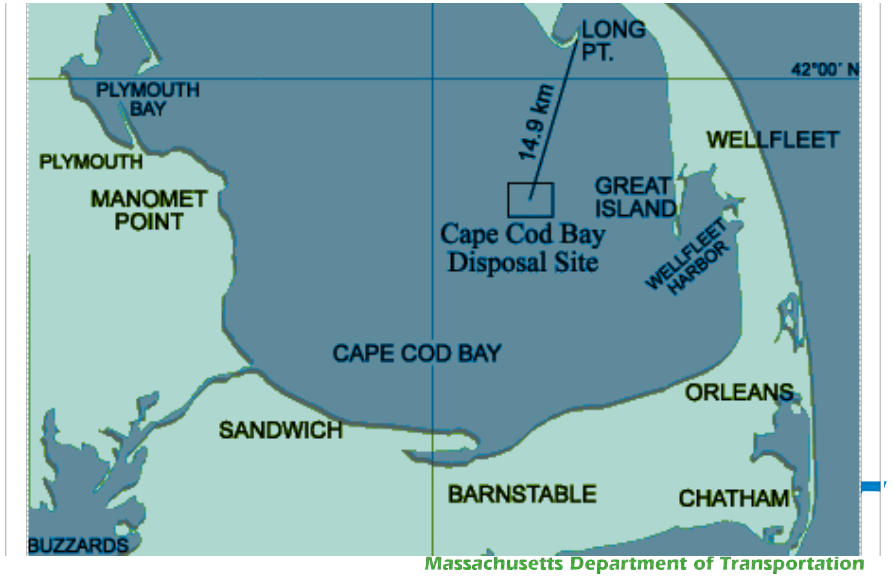
Dredged Material Management

Approximately **55,000 cubic yards of dredged material** will require disposal. Potential receiving sites for dredged material include:

- **Ocean disposal** at Cape Cod Bay Disposal Site
- **Nearshore placement** at Springhill Beach, Sandwich
- **Upland reuse or disposal:**
  - Upland reuse within the project area
  - Off-site reuse within an upland area
  - In-state landfill reuse or disposal
  - Out-of-state landfill disposal

MassDOT will perform testing of initial dredge phase to obtain USACE and MassDEP permit approvals.

The **DB entity will be required to perform additional sampling and testing to ensure compliance** with facility acceptance criteria and MassDOT specifications.



Public Involvement

Public Outreach

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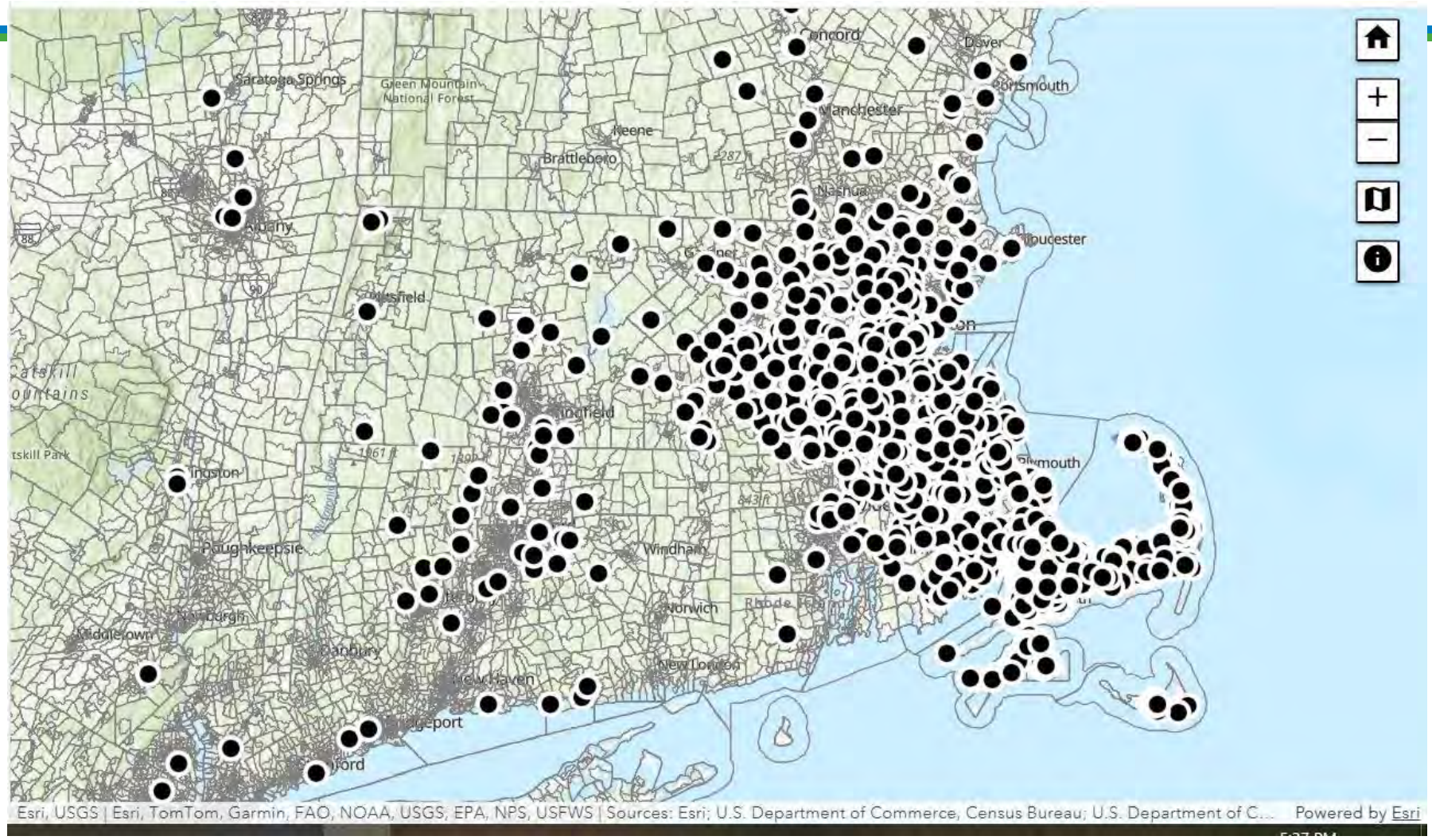
Stakeholder Input



Each black dot represents at least one stakeholder.

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Procurement

1. Project Schedule
2. RFP Requirements

Project Schedule

Schedule – Procurement Process

March 28, 2026

- Request For Letters of Interest

May 27, 2026

- Request for Letters of Interest Due

May 29, 2026

- Request for Qualifications Issued

July 28, 2026

- Statement of Qualifications Due

September 3, 2026

- Shortlisted and Non-Shortlisted firms notified

September 16, 2026

- RFP Issued

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Schedule – Procurement Process

October 2026
- Confidential RFP Meetings

March 2027
- Last Day to submit ATCs

May 2027
- Technical and Price Proposals Due

June 2027
- Oral Presentations

July 2027
- Public Price Opening

December 2027
- NTP Issued

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Cost and Schedule Risk Assessment (CSRA) Workshop

First CSRA conducted in May 2023

Led by FHWA - evaluated key cost and schedule risks.

MassDOT has implemented actions to mitigate the identified risks in first CSRA.

A second CSRA, led by MassDOT, scheduled for April 27-29, 2026 to further evaluate and mitigate remaining and emerging risks.

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Cost Estimate Update

Since CSRA

- ICE completed for bridge and civil design
- Recommended interchange option selected
- Design development and environmental mitigation identified

25% Cost Estimate

- Submitted August 2025
- ICE reconciliation completed March 2026

RFP Requirements

RFP Requirements

Project Labor Agreement (PLA): MassDOT is preparing a PLA Evaluation and Analysis; FHWA concurrence will be requested pending results.

MWBE/DBE: Consistent with October 3, 2025 federal guidance.

Stipend: $3.2 Million

RFP Requirements

Incentive/Disincentive: MassDOT is currently evaluating appropriate Incentive/Disincentive provisions for two major milestones:

- Removing traffic from the existing bridge.
- Substantial completion.

Price Adjustment Clauses: Hot Mix Asphalt, Diesel Fuel and Gasoline, Structural Steel and Reinforcing Steel, Portland Cement Concrete Mixes.

Next Steps

- **Borings, Surveys, Subsurface Investigations**
- **Foundation Load Tests**
- **Completion of MEPA/NEPA Documents, Permits**
- **Completion of Preliminary Design**
- **Continued Public Outreach**
- **Discussions/Resolution with FHWA and USACE re: Construction Phasing**
- **Finalization of Incentive/Disincentive, Price Adjustment Clauses**

ThankYou

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