

Notice of MassDOT's Policy on Diversity and Civil Rights

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We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit <https://www.mass.gov/nondiscrimination-in-transportation-program> to reach the Office of Diversity and Civil Rights.

Cape Cod Bridges Project

DEIS Public Hearing

December 16, 2025

massDOT
Massachusetts Department of Transportation

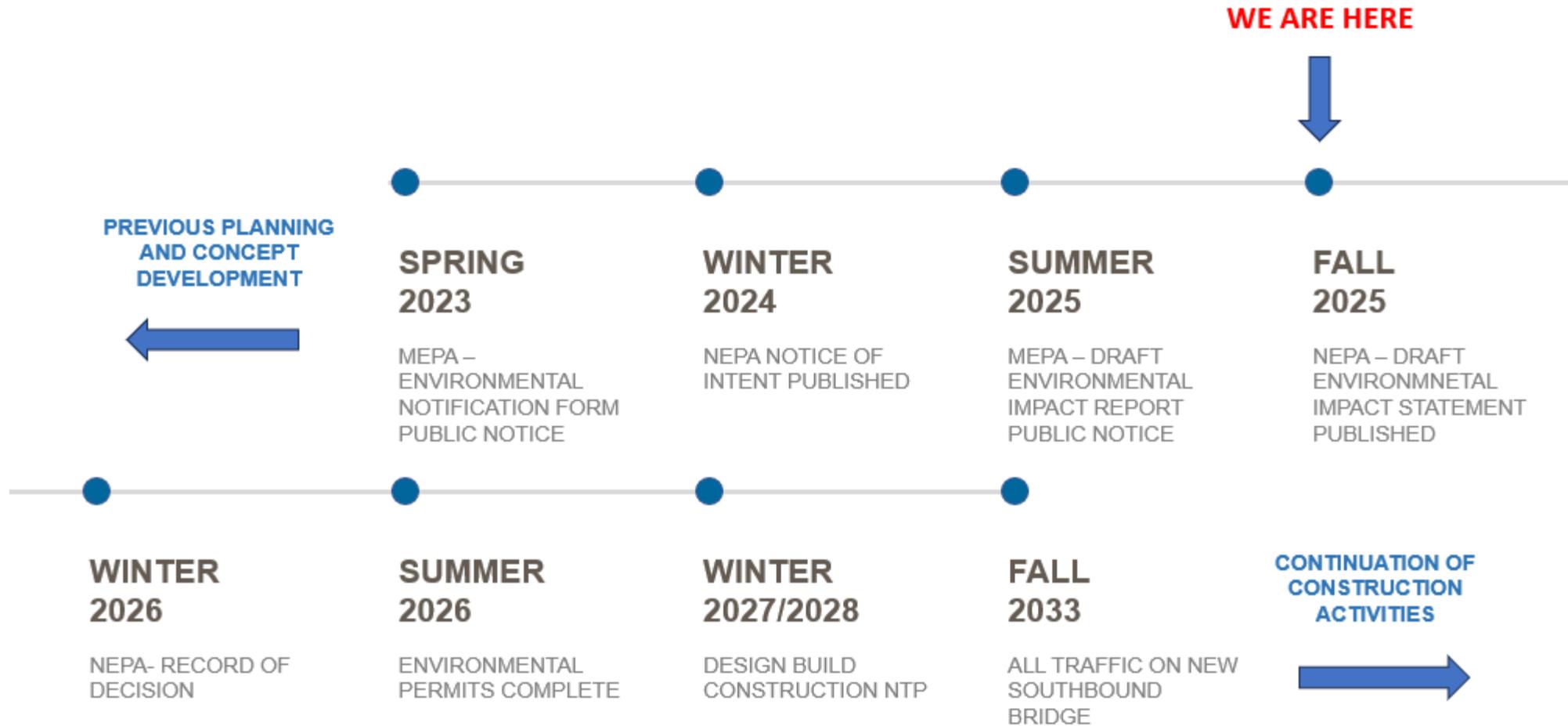


Agenda

1. Project Overview
2. Overview of NEPA
3. Preferred Alternative
4. Overview of Impacts and Mitigation
5. How to view and comment on the DEIS
6. Public Comment

Project Overview

Project Overview Schedule



Project Overview

Ongoing and Future Work

Field Surveys – Ongoing

- To ensure base mapping of the existing conditions is accurate.

Borings – Ongoing

- To provide information about subsurface conditions, such as the composition and strength of soil.

Foundation Load Tests – Spring 2026

- Four locations - (2) at Sagamore North of the canal and (2) at Sagamore South of the canal.
- To confirm construction methods for bridge foundations.



Project Overview

Funding



The Sagamore Bridge Project is fully funded.

Federal Mega Grant	\$372 million
Federal Bridge Investment Program	\$993 million
US Army Corps of Engineers	\$350 million
State Bonds	\$429 million
Total	\$2.144 billion*

*\$302 million in **state funds** are not included in this amount.

Project Overview

Funding



- Total cost for the Bourne Bridge Project is estimated to be \$2.366 billion.
- In August of 2025, MassDOT submitted a federal grant application requesting \$1.183 billion for the Bourne Bridge Project.

Overview of NEPA

NEPA Overview

Background

What is NEPA?

- NEPA is a federal law that requires agencies to consider and evaluate potential environmental impacts of proposed projects before making decisions.
- Promotes transparency and ensures public involvement in the decision-making process.

When is NEPA review required?

- When there is a federal nexus such as federal funding, federal permits, or other federal approvals.

Why does this project require NEPA review?

- It involves federal funding and the issuance of federal permits.

NEPA Overview

DEIS Background

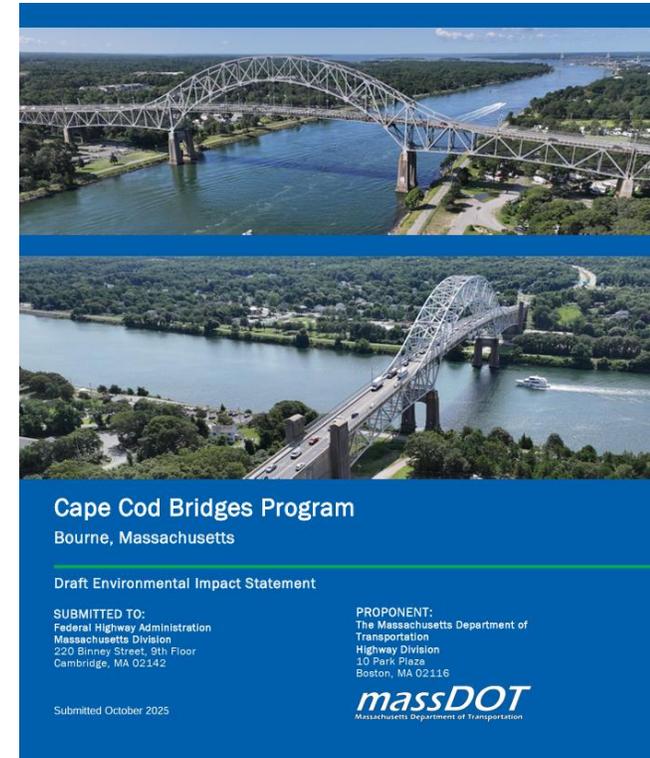
What is the DEIS?

Detailed analysis of the potential environmental impacts of the proposed Cape Cod Bridges Project.

Identifies mitigation measures – public input before final decision.

DEIS Table of Contents:

1. Introduction
2. Purpose and Need
3. Proposed Action and Alternatives
4. Affected Environment, Environmental Consequences, and Mitigation
5. Section 4(f)
6. Agency Coordination and Public Involvement
7. Permits and Approvals
8. Distribution List
9. Preparers



NEPA Overview

Project Purpose and Need

Purpose

- “Improve cross-canal mobility and accessibility between Cape Cod and mainland Massachusetts for all road users
- Address needs and functional obsolescence of Sagamore and Bourne Bridges.”

Needs to be Addressed

- Deteriorating structural condition and escalating maintenance demands of Sagamore and Bourne Bridges.
- Substandard design of bridges and interchanges.
- Traffic operations.
- Pedestrians and bicyclists.



NEPA Overview

Partners

MassDOT prepared the DEIS, with the Federal Highway Administration as the lead federal agency, for the Cape Cod Bridges project. Cooperating agencies:

- US Army Corps of Engineers
- US Coast Guard
- US Fish and Wildlife Service
- US Environmental Protection Agency
- Massachusetts State Historical Commission
- Massachusetts Department of Environmental Protection
- Massachusetts Department of Fish and Game
- Massachusetts Environmental Policy Act/ Executive Office of Energy and Environmental Affairs
- Massachusetts Office of Coastal Zone Management
- National Marine Fisheries Service/Greater Atlantic Regional Fisheries Office

Project Overview

EIS Schedule



We Are Here

Preferred Alternative

Preferred Alternative

Consideration of Alternatives



The Federal NEPA process included considering various alternative options for crossing the canal.

It also included public involvement throughout its evaluation of alternatives.

Various alternative evaluations concluded that replacing the existing bridges with new bridges meeting current design standards was the appropriate course of action.

In the DEIS, MassDOT evaluates the Build Alternative against the No Build Alternative and identifies the Build Alternative as the preferred alternative.

Preferred Alternative

Bridge Type: Twin Arch Canal View



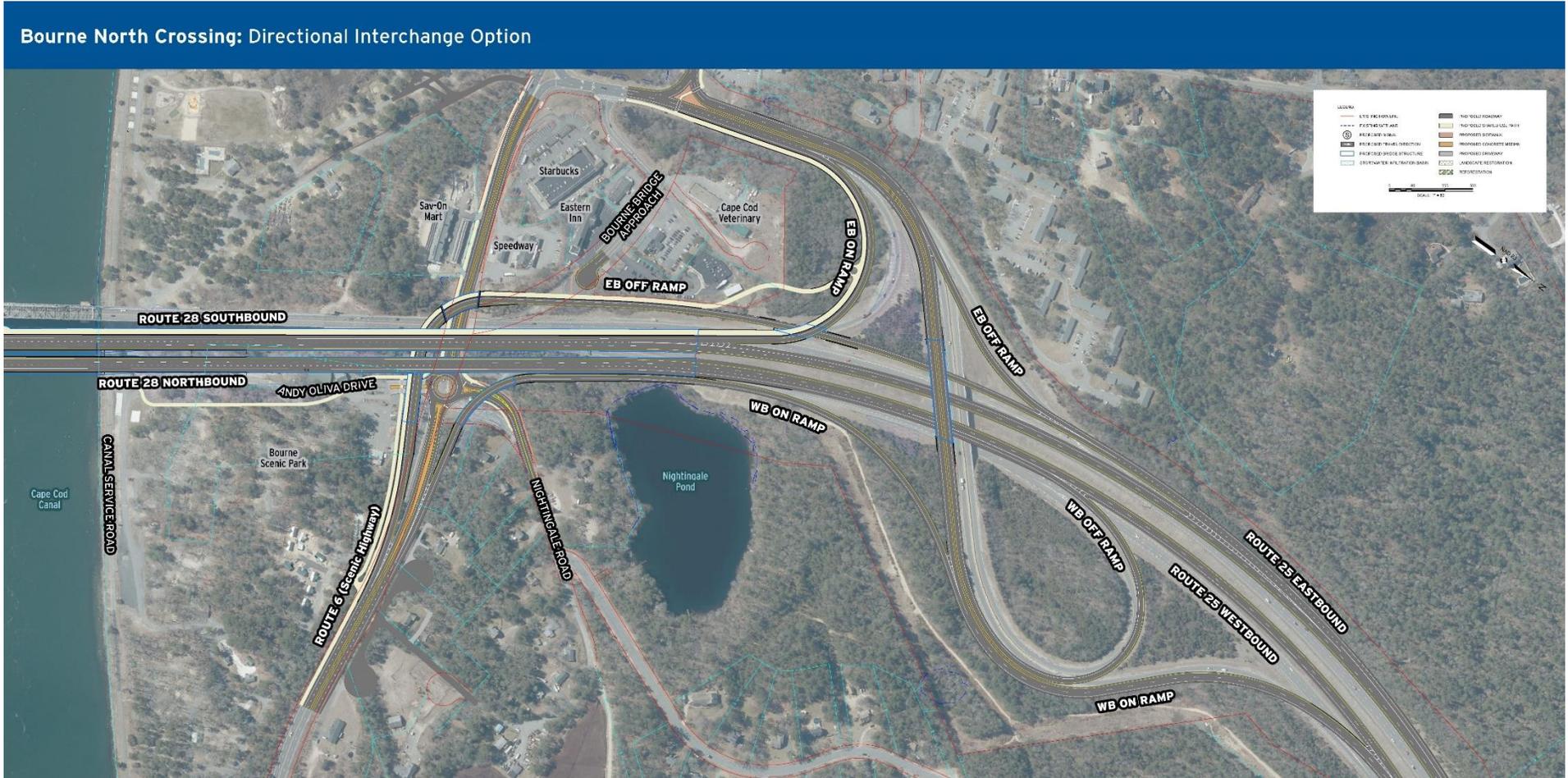
Preferred Alternative

Bridge Type: Twin Arch Driver View

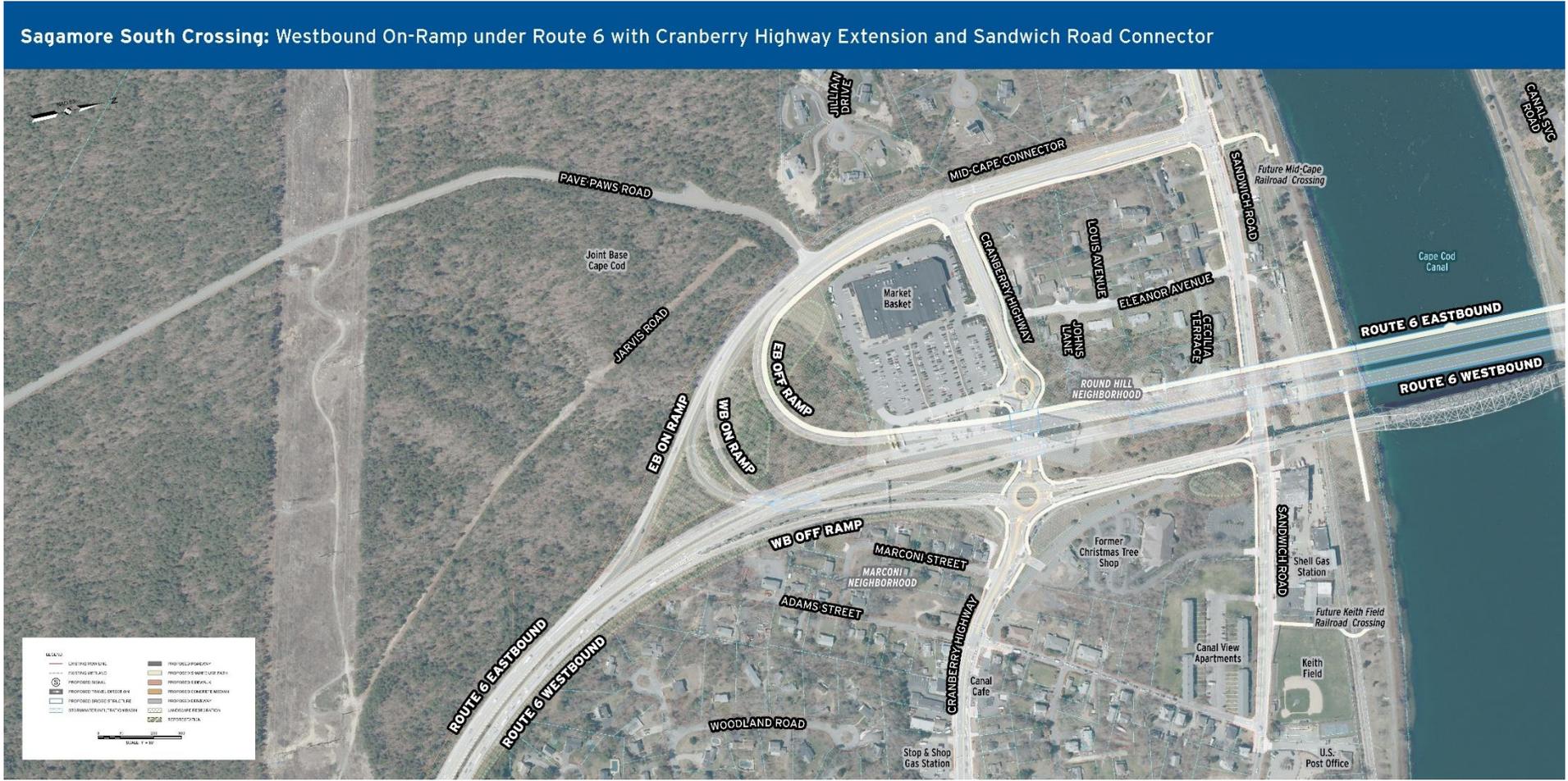


Preferred Alternative

Bourne North Crossing



Preferred Alternative Sagamore South Crossing



Preferred Alternative Construction Sequencing



Existing Bridge



Phase 1 - Construct First Mainline Span



Phase 2 - Shift Traffic to First Mainline Span and Demolish Existing Bridge



Phase 3 - Construct Second Mainline Span



Phase 4 - Reroute Traffic onto Two Mainline Spans in Final Configuration

Overview of Environmental Impacts

Environmental Impacts

Highlights

This presentation highlights the below chapters and sections which are notable due to mitigation and impacts. All sections are analyzed within the DEIS.

- **Transportation, Traffic, and Safety**
- **Pedestrian and Bicycle Travel**
- **Water Traffic and Safety**
- Socioeconomics
- **Land Use, Zoning Policies, and Community Cohesion**
- Community Facilities
- **Property Acquisition, Displacement, and Relocation**
- **Wetlands and Floodplains**
- **Water Quality and Stormwater**
- **Threatened, Endangered, and Protected Species**
- **Air Quality**
- Noise and Vibration
- Visual Resources
- **Cultural Resources**
- **Public Parks, Recreation Areas, and Open Space**
- Solid and Hazardous Waste and Material Management
- Public Utilities
- **Public Health**
- Adaptation and Resiliency
- Indirect Effects
- **Section 4(f)**

Environmental Impacts

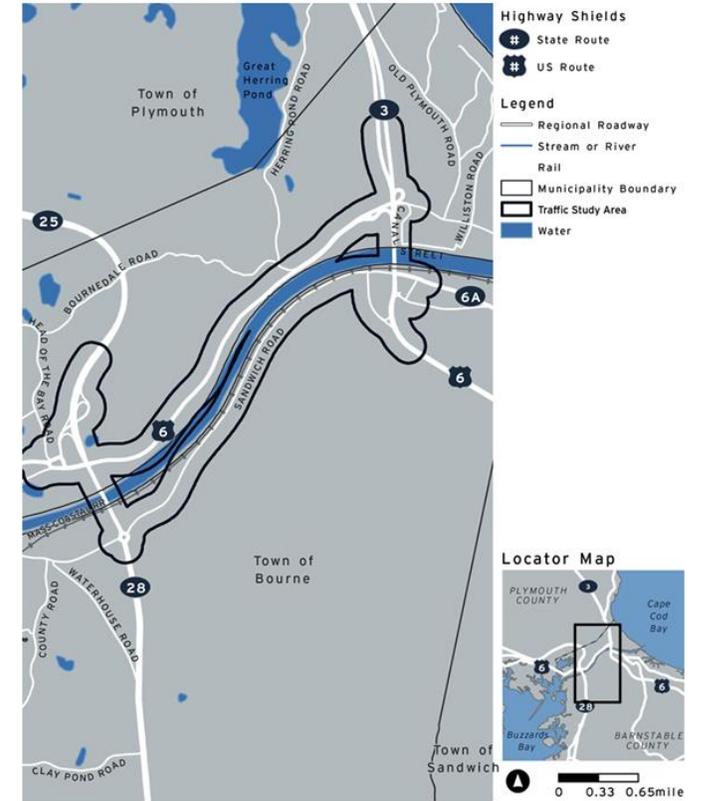
Transportation, Traffic, and Safety

Build Alternative Impacts

- Decreases travel times for vehicles traveling through bridge corridors to and from Cape Cod.
- 48% Crash reduction on Sagamore and Bourne Bridges.
- Traffic delays during construction due to narrowing of lanes and curiosity of drivers.

Mitigation Measures

- Phase work to maintain traffic within the project limits.
- Temporary signs, barriers, and traffic controls to manage flow and reduce driver delays.
- Communication plan to manage potential schedule impacts and inform stakeholders during construction.



Environmental Impacts

Pedestrian and Bicycle Travel

Build Alternative Impacts

- Improved connections for safer pedestrian and bicycle travel.
- New bridges have pedestrian and bicycle paths separated from traffic by a barrier.
- Multimodal improvements on the local roadway networks
- Canal Service Roads need temporary closures in work zone.

Mitigation Measures

- Signs warning of Canal Service Road closures and the distance to the closure, placed at all official trailheads.
- Detour routes to direct users around closed sections of the Canal Service Roads.



Environmental Impacts

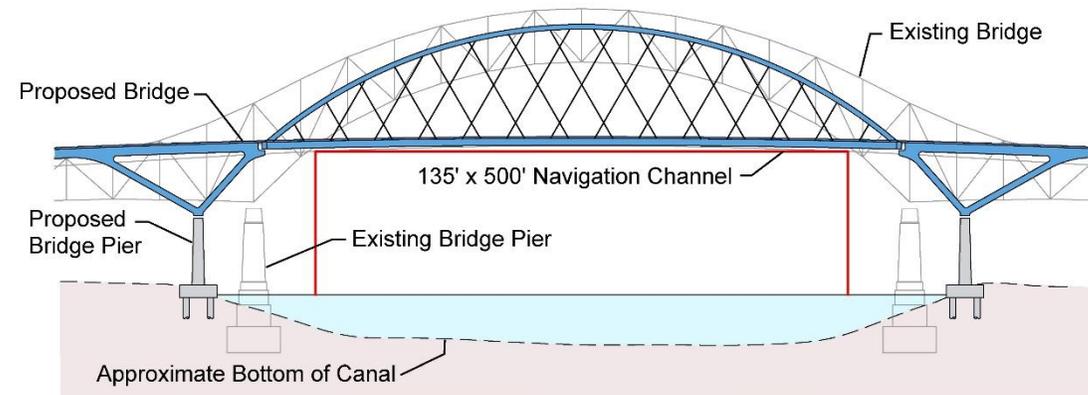
Water Traffic Safety

Build Alternative Impacts

- Bridge piers outside canal's main flow improve safety.
- Bridge decks 138 ft above water (3 ft higher than existing bridges). Allows continued safe passage of large vessels.
- Barges and support vessels may enter Canal during construction.
- Potentially up to 6 short-term Canal closures (3–5 days).

Mitigation Measures

- MassDOT to give advanced notice of any canal closures and work with USACE and U.S. Coast Guard to communicate construction activities that impact water traffic and safety.



Environmental Impacts

Land Use, Zoning, and Community Cohesion

Build Alternative Impacts

- About 306 acres of vegetation clearing and pavement work.
- Adds about 51 acres of pavement (*less than 1% of study area*).
- Strengthens community cohesion via better connectivity for bicycles and pedestrians.
- Supports local and regional plans for improving public access to parks and recreation areas.



Mitigation Measures

- Landscaping plan to plant new trees and vegetation on more than 200 acres of land.
- Stormwater control measures to manage and treat runoff from new paved areas.

Environmental Impacts

Property Acquisition, Displacement, and Relocation

Build Alternative Impacts:

28 Full Acquisitions	13 O.R. 7 V.A.	1 O.R. 1 O.C. 6 V.A.
34 Partial Acquisitions	11 O.R. 2 O.C. 3 V.A. 1 Alt.	6 O.R. 2 O.C. 5 V.A. 3 Alt.
17 Displacements	13 O.R. 1 O.C.	1 O.R. 1 O.C.
114 Properties impacted by easements		

Mitigation Measures

- MassDOT to follow the Uniform and Relocation Assistance and Real Property Acquisitions Policies Act of 1970 and Chapter 79 of the Massachusetts General Laws.
- Ensure displaced individuals and businesses receive fair pay for their property and help moving, if needed.

O.R. = Occupied Residential

V.A. = Vacant Area

O.C. = Occupied Commercial

Alt. = Alternative Property Type

Environmental Impacts

Wetlands and Floodplains

Build Alternative Impacts

- Bridge piers near canal edge will be above water at low tide with some parts above high tide level.
- About 2.5 acres of tidal waters permanently affected by new bridge piers and riprap.
- About 0.07 acres of non-tidal vegetated wetlands permanently impacted.
- About 5,200 cubic feet of food storage lost within the inland 100-year floodplain near Nightingale Pond.
- Dredging over 5,000 cubic yards of material from Cape Cod Canal.
- Work occurring in two areas of critical environmental concern but no wetlands in these areas will be impacted.

Mitigation Measures

- Wetland replication
- Additional flood storage to be provided.
- Vegetation, silt fences, and straw bales to control soil erosion and protect nearby wetlands and waterbodies.
- MassDOT to develop and follow a sampling and analysis plan to manage dredged material.

Environmental Impacts

Water Quality and Stormwater

Build Alternative Impacts

- Adds about 51 acres of pavement
- Added paved surfaces will:
 - Increase stormwater surface runoff.
 - Increase risk of flooding and water pollution.
 - Reduce water soaking into the ground to recharge groundwater.
- Loose soil could wash into nearby wetlands during construction.

Mitigation Measures

- Permanent stormwater control measures such as detention and infiltration basins will be built to prevent flooding, remove pollutants from stormwater, and improve groundwater quality.
- A Stormwater Pollution Prevention Plan to help ensure inspections and prevent stormwater pollution during construction.

Environmental Impacts

Threatened, Endangered, and Protected Species

Build Alternative Impacts

- Loss of 100+ acres of trees where two types of endangered and proposed endangered bats live during summer.
- Direct effects to around 8 acres of essential fish habitat in canal.
- Loss of about 0.06-acres of eelgrass beds.

Mitigation Measures

- To protect bats, no tree clearing:
 - March 15 – Nov 30 (Cape side)
 - April 15 – Oct 31 (mainland side)
- No activities causing underwater noise/turbidity March 1 – Aug 31.
- Bridge piers removed and constructed to limit turbidity.
- MassDOT with MassDEP, USACE, and NOAA will track and offset eelgrass impacts.
- Construction monitoring plan to protect sea turtles and marine mammals.



Environmental Impacts

Air Quality

Build Alternative Impacts

- Emissions not expected to exceed air quality standards due to improved traffic flow, reduced delays, and vehicle emission control technology improvements.
- Daily emissions of pollutants decreased due to fewer vehicle miles traveled and less idling.
- Construction may temporarily affect air quality, but mitigations are in place.

Mitigation Measures

- Construction period emission-reduction measures include using cleaner diesel fuels, avoiding idling, covering trucks with loose materials, and wetting soils to control dust.
- A lead paint management plan will ensure safe bridge removal and protect nearby communities.



Environmental Impacts

Cultural Resources

Build Alternative Impacts

- Under Section 106, an “adverse effect” occurs when an action alters a historic property. Both bridges are key features of the Cape Cod Canal Historic District, eligible for the National Register of Historic Places.
- Removing the existing bridge results in an unavoidable “adverse effect” on the bridges.

Mitigation Measures

- Section 106 Programmatic Agreement to protect history of the Sagamore and Bourne Bridges.
 - Documenting their history through photos, records, and archives.
 - Interpretive signage on the replacement bridges.
 - Preserving key design elements and materials from the originals.
- Rounded arches to reflect existing bridges, blend with surroundings, and avoid adverse effects to the district and nearby historic properties.



Environmental Impacts

Public Health

Build Alternative Impacts

- Long-term Benefits
 - Safer pedestrian & bicycle conditions.
 - Reduced vehicle miles and lower air pollutant emissions.
 - Improved emergency vehicle access.
 - Reduced delays to healthcare and essential services.
- Temporary Construction Effects:
 - Noise affecting nearby communities.
 - Dust and pollution impacting air and water quality.

Mitigation Measures

- Control noise by limiting work to daytime, avoiding idling, maintaining equipment, and monitoring levels.
- Control dust and air pollution by wetting areas, covering trucks, and using cleaner diesel fuels.
- Manage hazardous materials with strict safety, storage, removal, and disposal practices.
- Protect water quality using erosion controls, spill prevention, and regular monitoring.

Environmental Impacts

Effects on Section 4(f) Properties

Build Alternative Impacts

- Results in “direct use” of the following Section 4(f)-protected historic properties:
 - Sagamore Bridge
 - Bourne Bridge
 - Cape Cod Canal Historic District
- Results in “direct use” of the following Section 4(f)-protected publicly owned parks and recreation areas:
 - Bourne Scenic Park
 - Sagamore Recreation Area
 - Bourne Recreation Area
 - Gallo Ice Arena
 - Keith Field Recreation Area

Mitigation Measures

- FHWA and MassDOT, with the Massachusetts Historic Preservation Office, USACE, and partners, are creating a Section 106 Programmatic Agreement.
- Replacement bridges use rounded arches to match the existing design and avoid “adverse effects.”
- FHWA and MassDOT will minimize harm to parks and recreation areas before construction, preserving features that qualify for Section 4(f) protection.

How to View and Comment on the DEIS

How to View and Comment on the DEIS

Public comment is being accepted through January 5, 2026



Interactive Website

- View the interactive summary site and submit comments at <https://capebridgesenvironmentalreport.mass.gov/>



PDFs

- View the DEIS in PDF format at <https://tinyurl.com/Cape-DEIS>



Online Comment Form

- <https://tinyurl.com/Cape-comment>

Hard Copies

- Hard copies are available at Bourne Public Library, Sandwich Public Library, and the MassDOT Transportation Building.

Public Comment



Public Comment



Approach the microphone and please wait your turn to make comments.



To ensure accurate documentation of comments, **please identify yourself by name and affiliation and spell your last name** before your question or comment.



Please share only 1 question or comment at a time, limited to 2 minutes, to allow others to participate.



Comments on the DEIS should be submitted in writing.

All written substantive comments will be responded to in the FEIS

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Thank You

