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Massachusetts Department of Transportation
Highway Division

Fairhaven – New Bedford Swing Bridge Replacement

In-Person Public Information Meeting

Hayden-McFadden Elementary School | January 9, 2024 | 6:00 – 7:30 PM

Project File No. 612557

Welcome & Meeting Overview

- In-person and recorded to be posted online at a future date
- 30-minute presentation
  - Joseph Breen, P.E., Project Manager, Massachusetts Department of Transportation (MassDOT)
- Question and comment period
  - Joseph Breen, P.E., Project Manager, MassDOT
  - Richard Belski, P.E., District 5 Design Engineer
  - Francisco Lovera, P.E., Complete Streets Director, MassDOT
  - Thomas Cole, P.E., Project Manager, Modjeski and Masters, Inc.

This meeting is being recorded and will be made available at www.mass.gov/orgs/highway-division/events

Notice of MassDOT's policy on diversity and civil rights

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- MassDOT complies with all federal and state civil rights requirements preventing discrimination based on sex, race, color, ancestry, national origin (limited English proficiency), religion, creed, gender, sexual orientation, gender identity or expression, or veteran's status
- 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

All questions and comments are welcome and appreciated, however we do request that you refrain from any disrespectful comments.

Presentation Agenda

1. Project Background and Goals
2. Alternatives Considered and Eliminated
3. Selected Bridge Type
4. Vertical Lift Bridge Advantages
5. Next Steps

Meeting Coordinators

- **MassDOT, Project Coordinator & Manager**
  - Joseph Breen, P.E. – Project Manager
  - Richard Bilski, P.E. – District 5 Design Engineer
- **Modjeski and Masters, Inc. – Design Consultant**
  - Thomas Cole, P.E. – Project Manager
- **FHI Studio – Community Engagement**
  - Toni Pignatelli, AICP – Community Engagement Specialist
  - Kevin Rivera – Community Engagement Specialist
  - Raul Irizarry – Community Engagement Specialist

Language Translation Speakers

- **Español**
  - Lisa – En Persona
  - Miguel – En Persona
- **Português**
  - – En Persona
- **American Sign Language**
  - Kylie
- Stenographer
  - Advanced Court Reporters

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Project Background and Goals

Project Goals

- Reconstruct the bridge to ensure 75-year design life
- Minimize disruptions to bridge users during construction
- Eliminate functional deficiencies
  - Long opening time (time from bridge fully closed to bridge fully open) causes delays for vehicular, pedestrian, and bicyclists
  - Minimal under-bridge clearance requires bridge to open for most vessels
  - Narrow navigational channels (approx. 95 feet each) and center pier location
    - Larger vessels cannot enter upper harbor
    - Center pier increases potential for vessel impacts
  - New bridge sidewalks to be studied for possible future expansion of bicycle and pedestrian paths along Route 6

Bridge History

1903
Current Fairhaven – New Bedford Bridge is completed

1965
First Bridge Replacement Study authorized

1984
Major bridge rehabilitation to prolong life of bridge

2014
Route 6 Corridor Study identifies potential replacement alternatives

2022
Funds secured for design, development, and advancement of project

2023
Preliminary Studies, Agency Coordination and Bridge Type Determination

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Bridge History

- A&P Roberts and Company began construction in 1899
  - Completed in 1903
  - Called Fairhaven – New Bedford Swing Bridge
- Rehabilitation and repairs:
  - Three major rehabilitations (1920, 1992, 2014)
  - Repair contracts approximately every 10 years between rehabilitations

Stakeholder Coordination

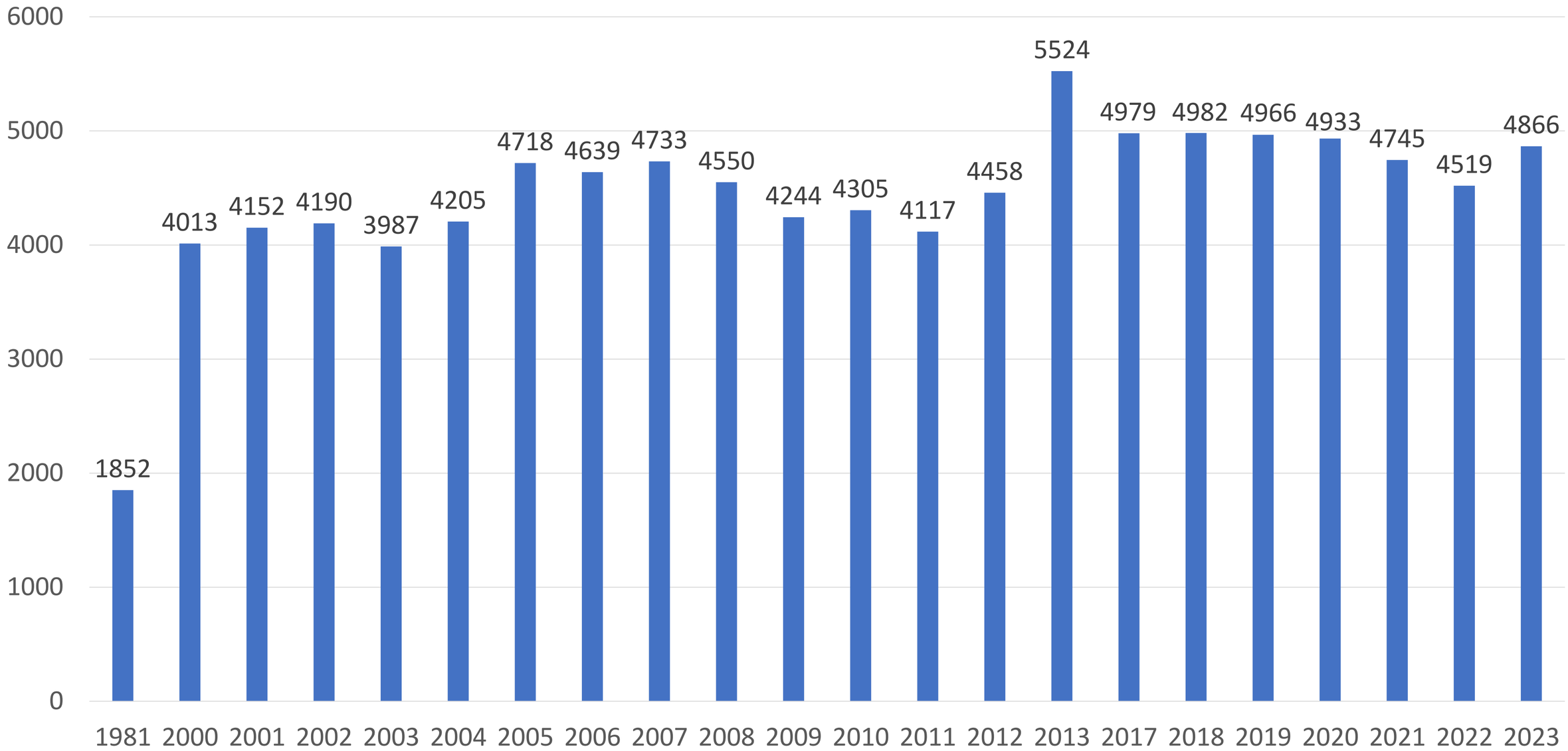
- Navigation channel users
  - Commercial fishing
  - Freight
  - Recreational boating
  - Maritime construction / maintenance
- Bridge users
  - Vehicular
  - Pedestrians and bicyclists
- Communities of New Bedford and Fairhaven
- Environmental and Historic Preservation Agencies
- Emergency services and local government
- U.S. Coast Guard and U.S. Army Corps of Engineers
- FHWA
- MassDOT

Previous Studies

- First replacement study authorized in 1965
- Additional studies prepared in 1967, 1969, 1977, 1978, 1979, 1985, 1987, 2002, 2004, 2010
- Most recent study:

  2014: Fairhaven – New Bedford Bridge Corridor Study

Bridge Openings (1981 - 2023)



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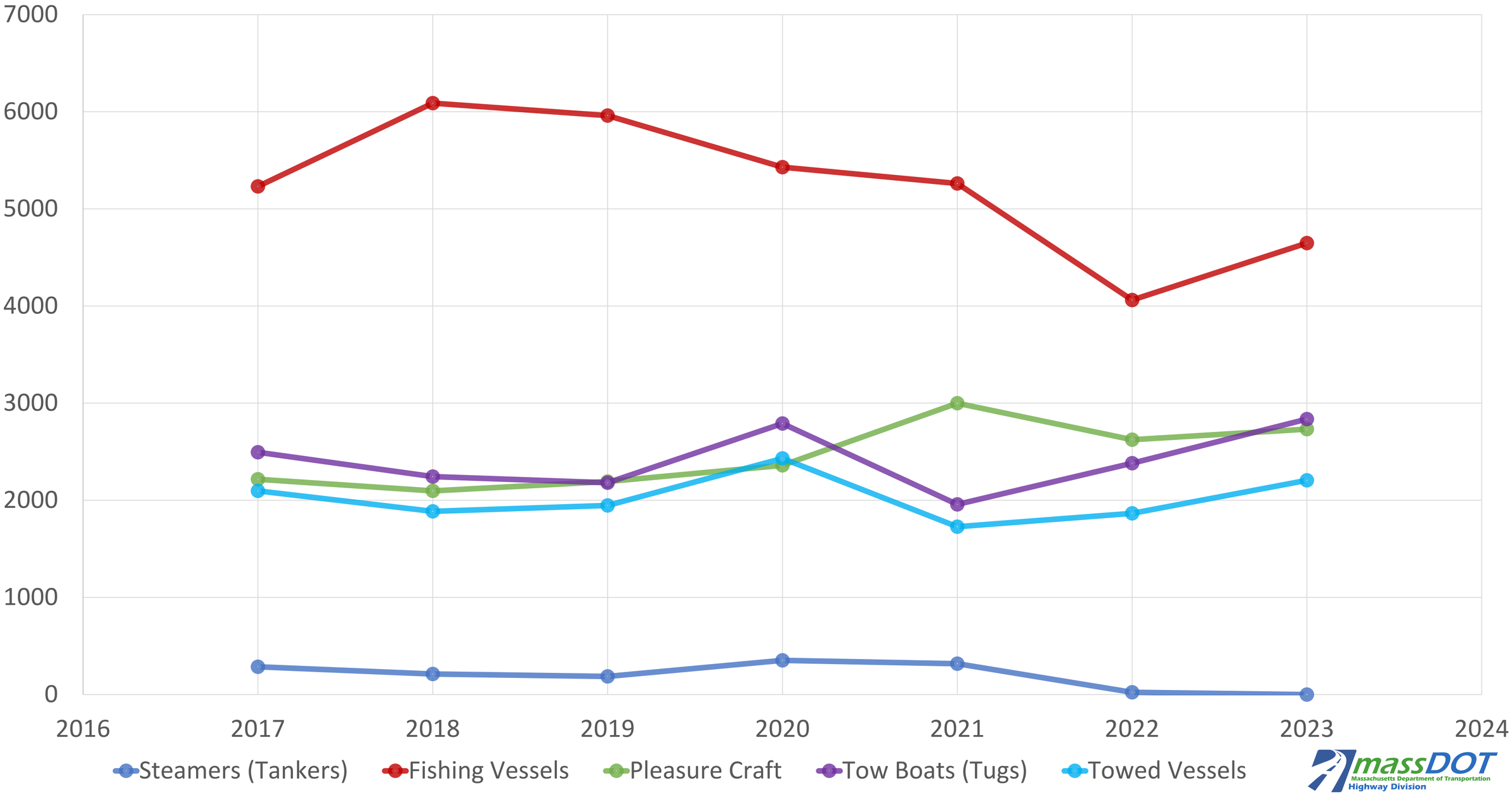
Bridge Passages By Vessel Type

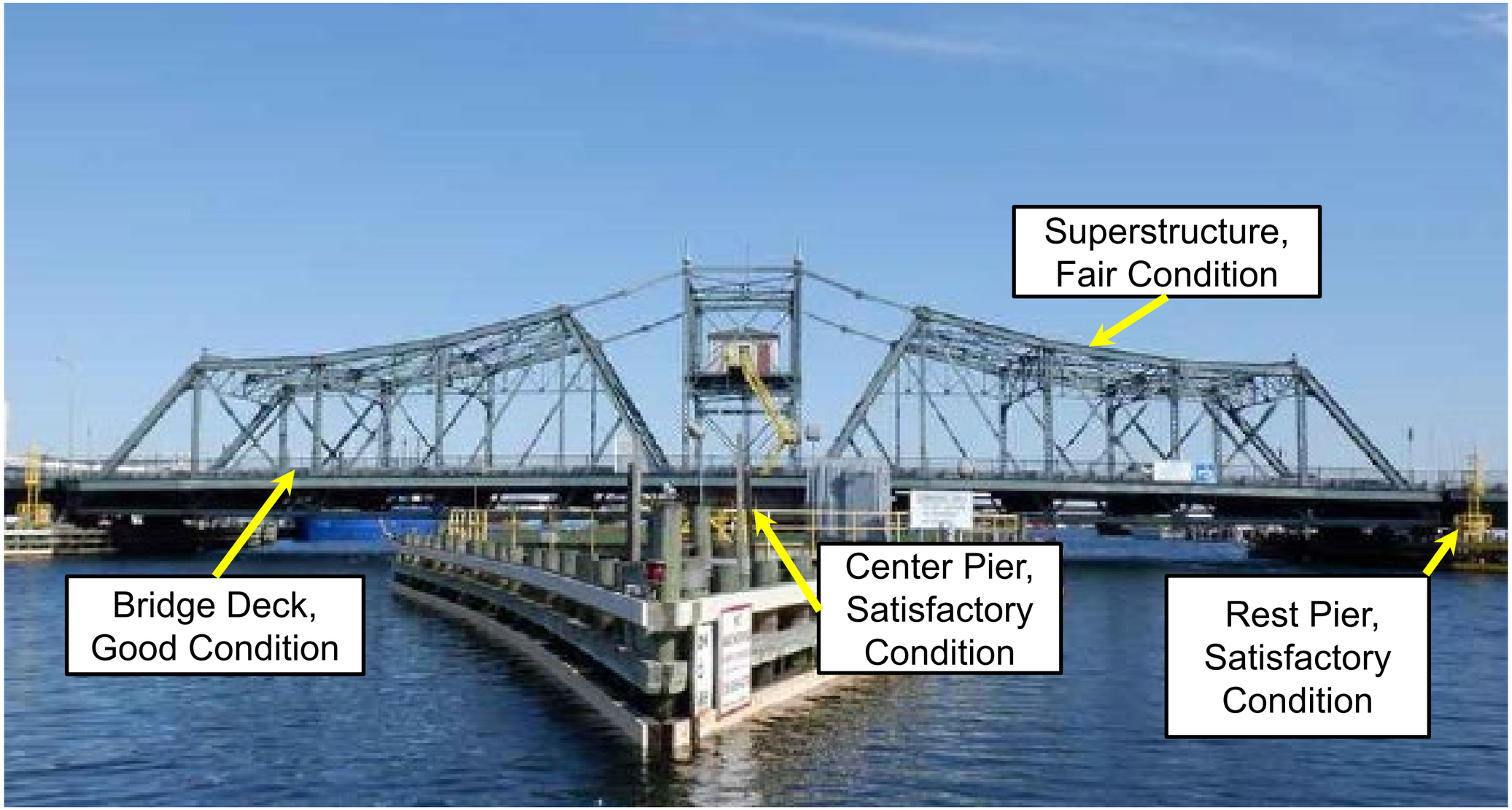


Existing Conditions

- Bridge is inspected by MassDOT personnel or consultants every two years
- Given age and design of bridge, some aspects are inspected annually under “Fracture Critical” designation
- Bridge operation is always controlled and observed by two on-site operators

Existing Conditions

Inspection Current Condition Factors



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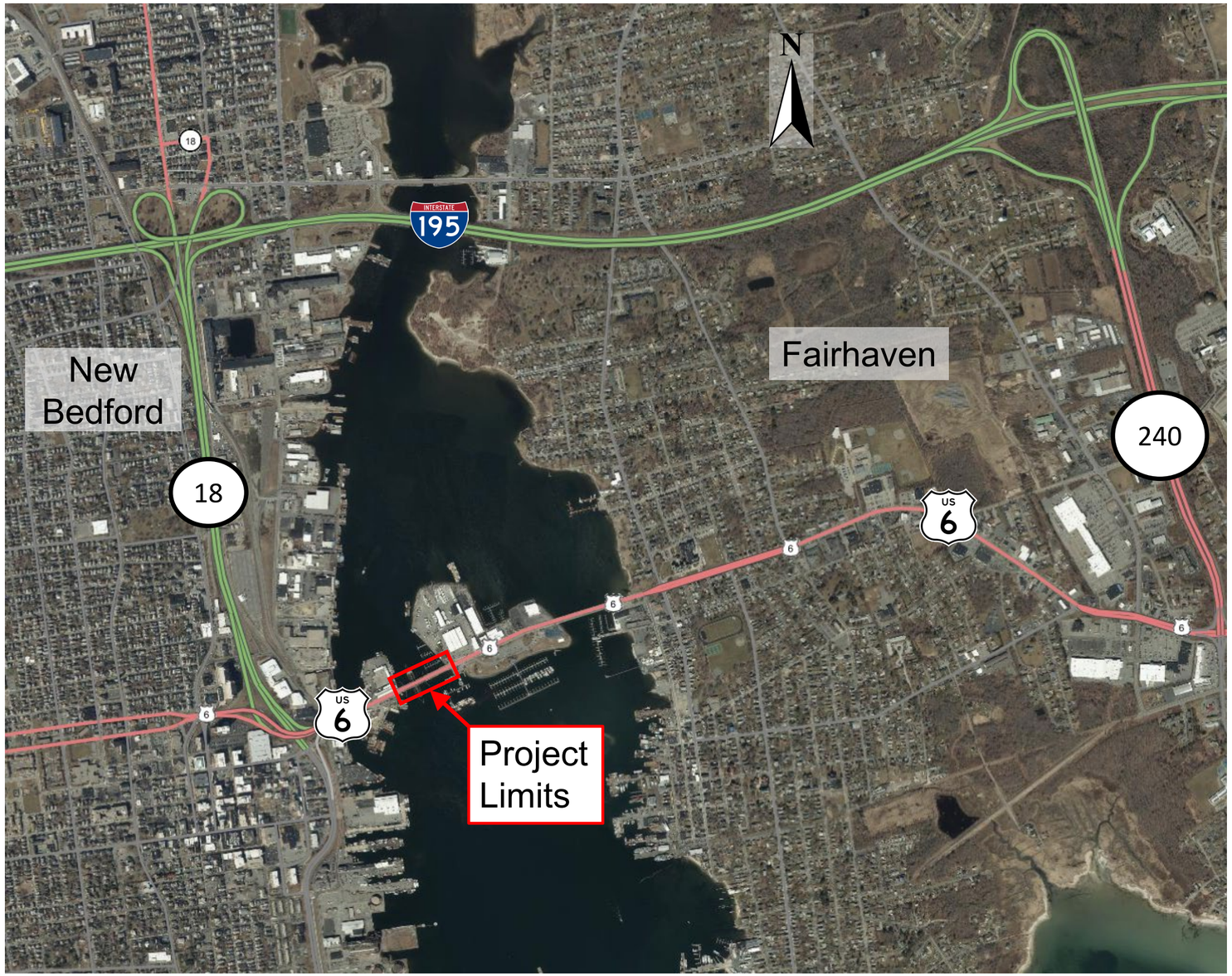

Project Scope

- Replace the moveable span and flanking approach spans between Fish Island and Pope's Island
- Maintain the existing Route 6 corridor with least interruptions possible
- Incorporate allowances for future corridor improvements into the replacement bridge

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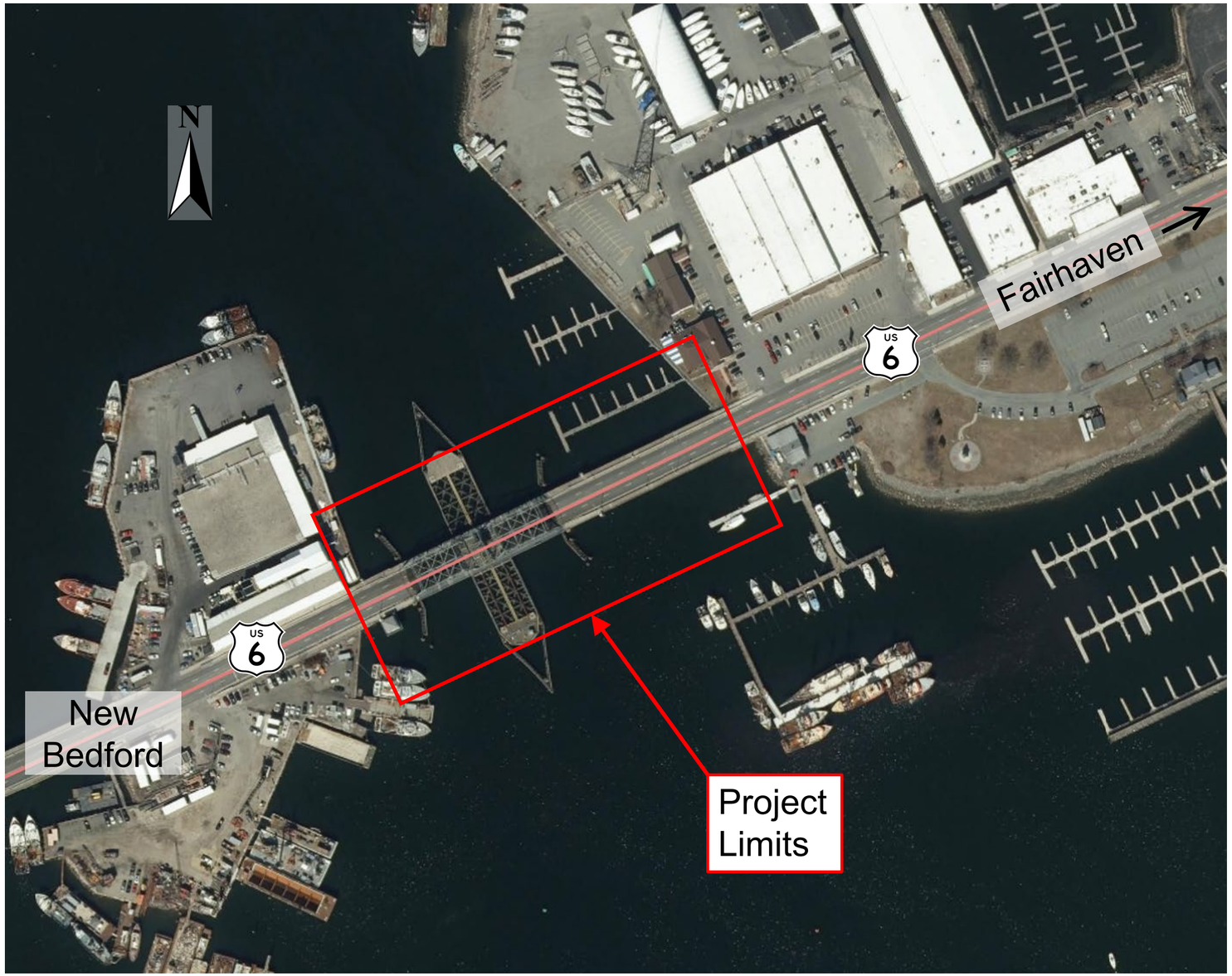

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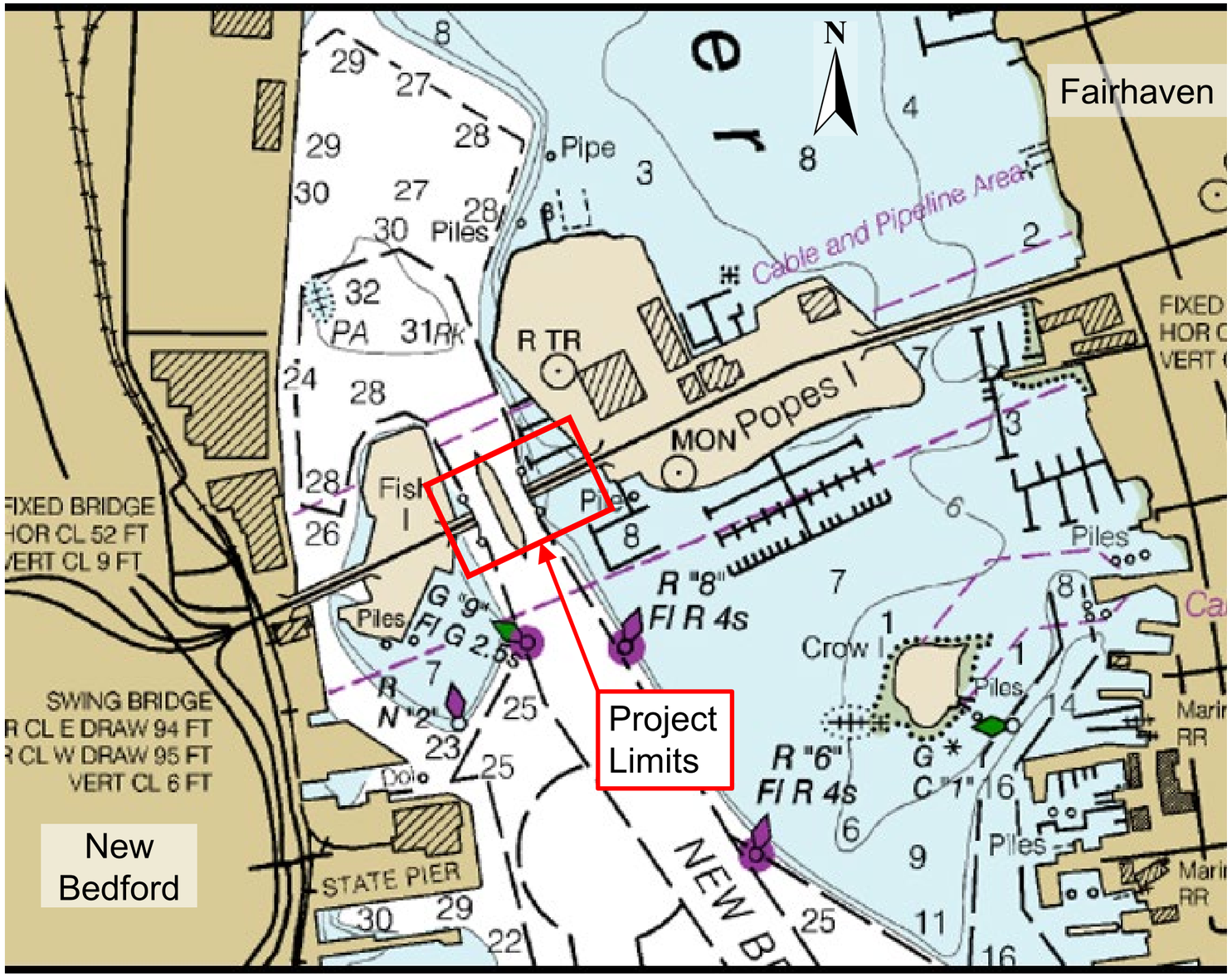

Project Scope

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Alternatives Considered and Eliminated

Swing Bridge – Eliminated

Fairhaven-New Bedford Swing Bridge

Little Potato Slough Bridge, Terminous, CA

Swing Bridge – Eliminated

- Narrow navigational channels and center pier
- Larger vessels cannot access upper harbor
- Center pier increases potential for vessel impact
- Extended roadway closure duration for construction

Rolling Lift Bascule Bridge – Eliminated

Market Street Bridge, Chattanooga, TN

North Draw Bridge (MBTA), Boston, MA

Rolling Lift Bascule Bridge – Eliminated

- Limited navigational opening width
- Bridge clearance in the closed position is reduced from the existing
- Increased mechanical maintenance and inspection costs
- Mechanical equipment at roadway level
- Extended roadway closure duration for construction

Trunnion Bascule Bridge – Eliminated

South Market Street Bridge, Wilmington, DE

Casco Bay Bridge, Portland, ME

Trunnion Bascule Bridge – Eliminated

- Narrow navigational opening width
- Bridge clearance in the closed position is reduced from the existing
- Larger impact to surrounding properties
- Mechanical equipment below or at roadway level
- Extended roadway closure duration for construction

Selected Bridge Type

Selected Bridge Type – Vertical Lift Span

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- Navigational channel width: 260 ft
- Navigational vertical opening: 138 ft

  (135 feet + 3 feet for predicted sea level rise)
- Navigational vertical opening (closed): 6 feet (MHW)
- Intermediate vertical opening: 80 feet (proposed)
- Bridge width: 76 feet
  - 4 – 11-foot travel lanes
  - 2 – 8-foot sidewalks*
    - * - Shared use pathways on the proposed bridge are being investigated
  - Safety barrier between roadway and sidewalks

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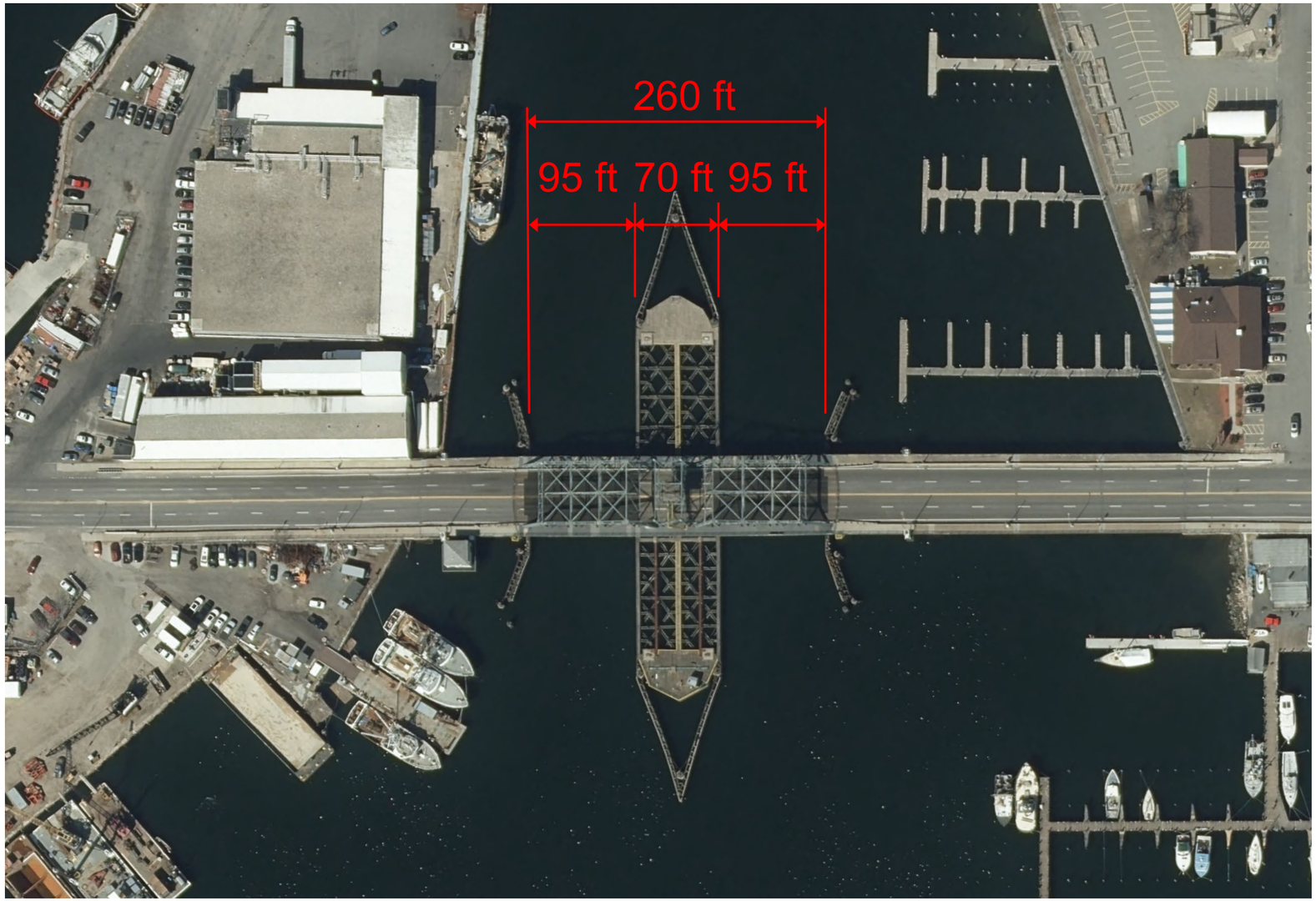
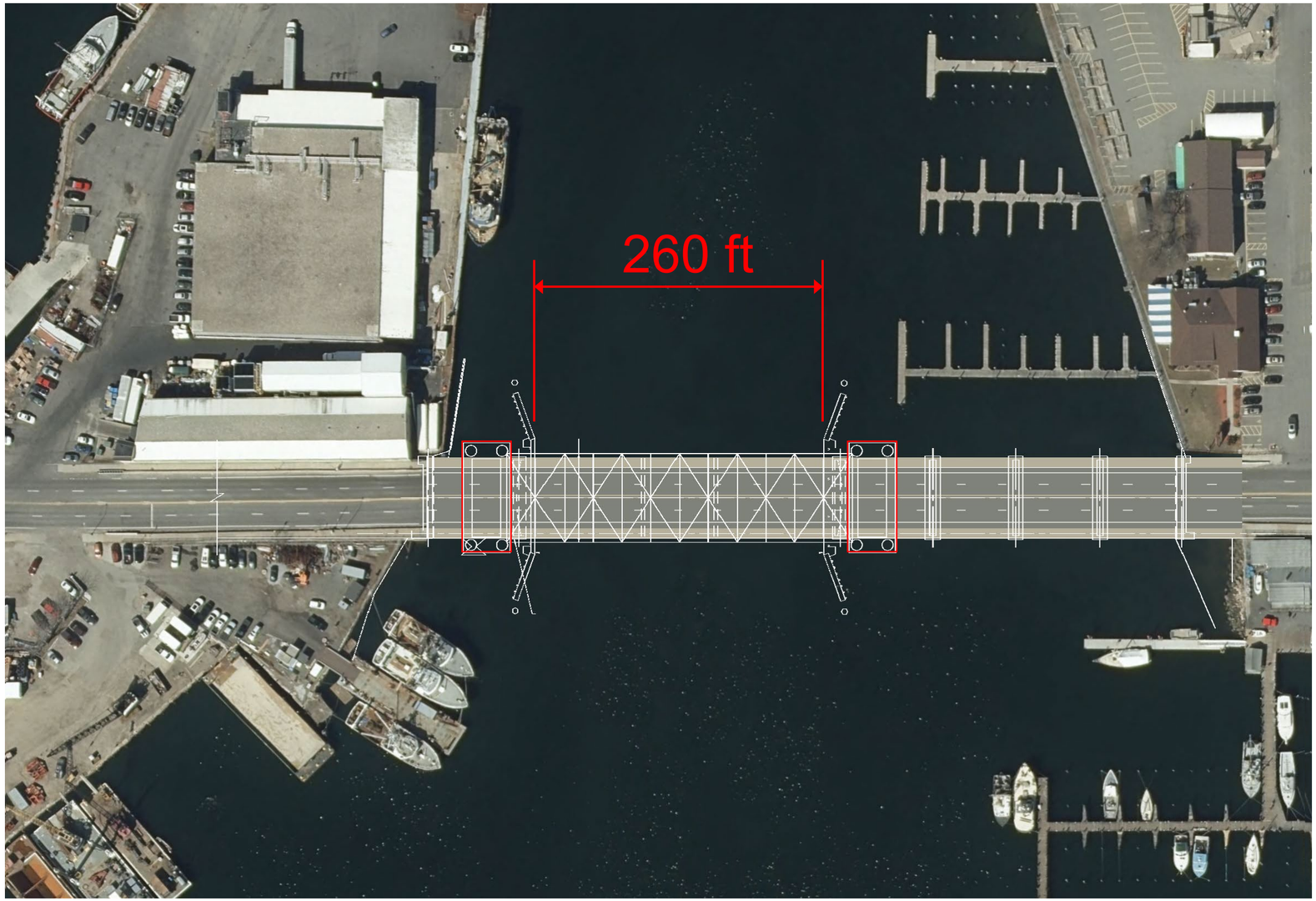
Selected Bridge Type – Vertical Lift Span

- Navigational channel width: 260 feet
- Proposed fender system located in approximate location of the existing fenders
- No obstructions in the channel



Selected Bridge Type – Vertical Lift Span

- Navigational Channel Width: 260 ft
- Proposed fender system located in approximate location of the existing fenders
- No Obstructions in the channel
- Piers and new fender system shown in white



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Selected Bridge Type – Vertical Lift Span

- Tower height above roadway: ~190 feet
- Proposed two opening heights: 80 feet – daily and 138 feet - maximum
- 76-foot-wide bridge
  - 4 lanes of traffic with railing separated sidewalks on either side

Vertical Lift Bridge Advantages

Vertical Lift Span Advantages: Navigational

- Navigation will be maintained, exception for occasional outages that will be approved by USCG in advance and communicated to all mariners
- Lowest impact during construction:
  - Commercial fishing vessels
  - Pleasure craft
  - Other commercial vessels
    - Towed
    - Tugs
    - Steamers (tankers / freight)
- Limited restrictions to navigational opening during construction

Vertical Lift Span Advantages: Roadway

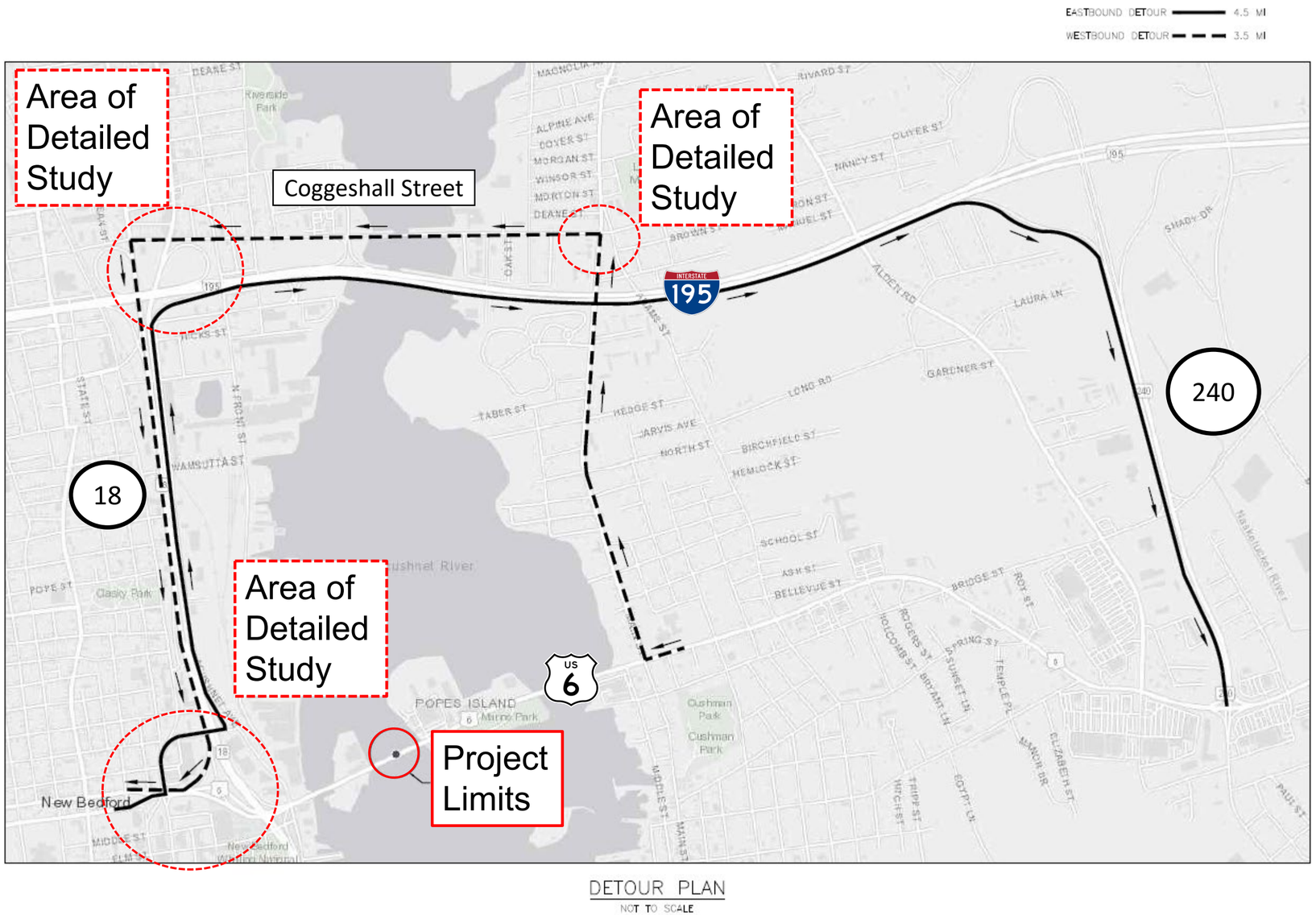
- Shortest duration of bridge outage during construction:
  - Potentially 1 – 1½ years
  - Versus 3 – 5 years for other alternatives
- Minimizes traffic detour duration
- Minimizes impacts to adjacent / local businesses on Fish and Popes Island
- Access for people walking and biking will have similar impacts to traffic

Vertical Lift Span Advantages: Construction

- Optimal choice for constructability:
  - Smallest foundation footprint
  - Allows for accelerated construction methods
- Lift towers can be constructed with minimal impacts to:
  - Navigation
  - Vehicular traffic
  - People walking and biking

Potential Detour Routes

- Studies for Proposed Detour Routes will start with previous detours
- Additional Traffic Studies will be performed at key intersections:
  - Benoit Square (the intersection of Howland Rd and Main St)
  - The intersection of Coggeshall St and Route 18
  - The “Octopus” intersection (US Rte 6, Pleasant St, Foster St)
- Detour Routes and alternative transportation will be studied for people walking and biking.



Vertical Lift

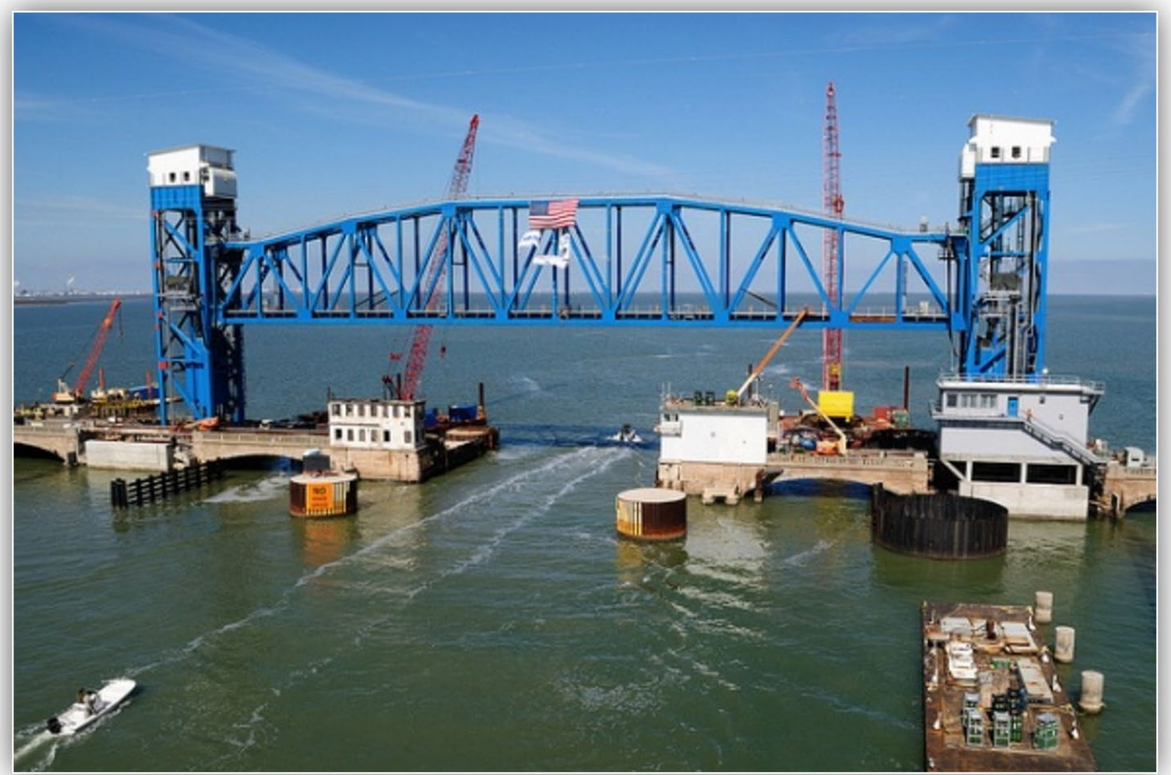
Fore River Bridge, Quincy and Weymouth, MA

Pont de Recouvrance, Brest, France

Vertical Lift

Wittpenn Bridge, Jersey City, NJ

Galveston Bay Bridge, Galveston, TX



Vertical Lift

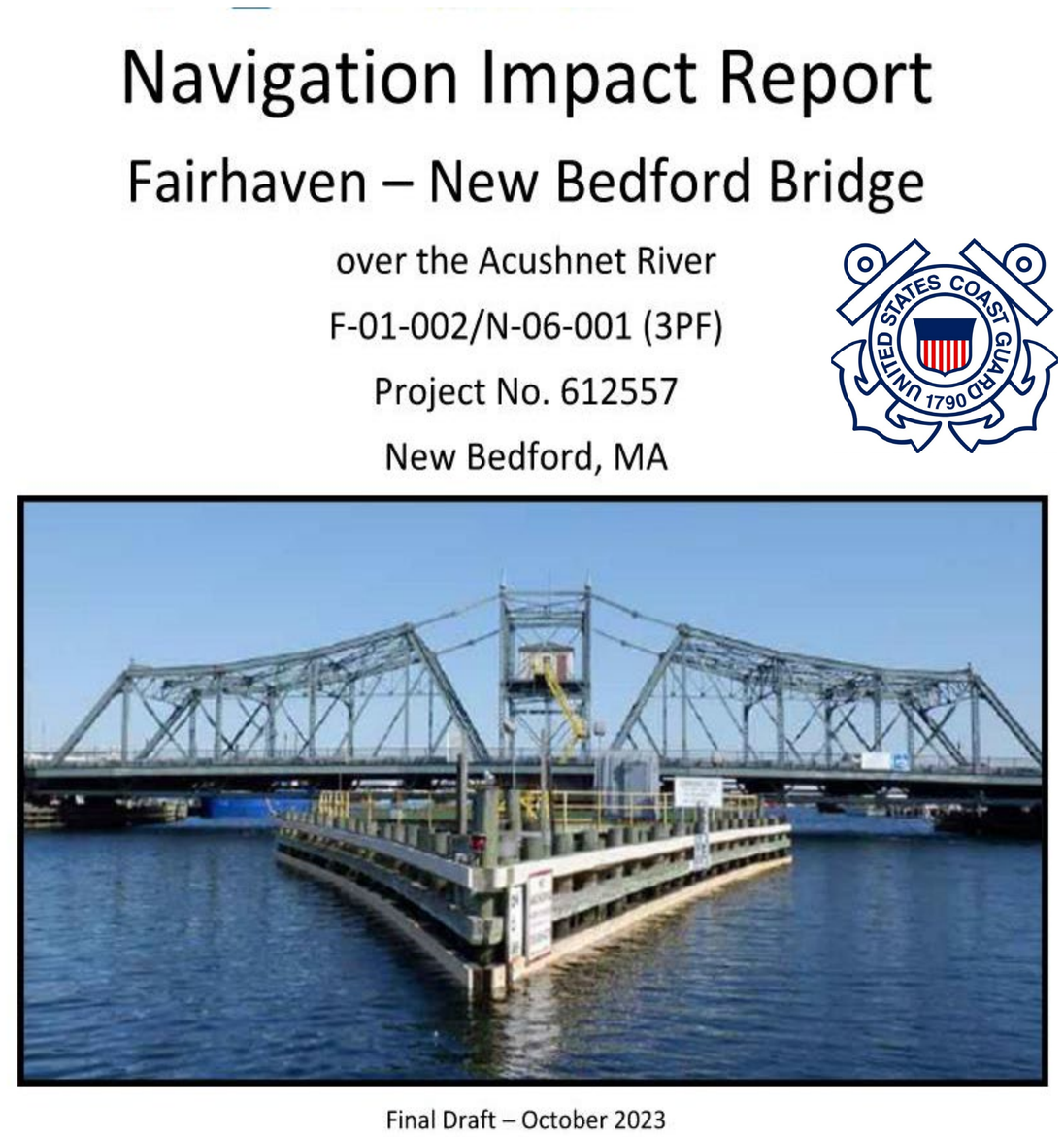
T-Bois Bridge, Bayou Lafourche, LA

Alsop Bridge, Jacksonville, FL

Next Steps

USCG Navigation Impact Report

- A Navigation Impact Report (NIR) has been prepared and submitted to USCG for review
- The NIR recommends the same lift bridge alternative and two lift heights
- USCG will review NIR and provide preliminary clearance requirements in concurrence with recommendations



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Study Schedule

1	2	3	4	5
Early Public Engagement	Public Agency Coordination Initial Investigations Navigation Study & Report	Alternatives Development and Analysis Preliminary Roadway and Detour Analysis	Pre-25% Design Level Submission and Approval	25% Design Level Public Information Meetings
October 2022	**Fall 2022 – Summer 2023**	**Spring 2023 – Fall 2023**	**Early 2024**	**2024**

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Next Steps

6

25% Design Level Submission and Approval

7

75% Design Level Submission and Approval

8

100% Design Level Submission and Approval

9

Construction Project Advertisement

10

Construction

2024

2027

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Question and Comment Period

Questions and Comments

- Use Microphone provided and please line up three (3) at a time.
- Please state your 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. We will get to all questions

All questions and comments are subject to disclosure for public records.
Please use these functions for project related business only.

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How to Stay Involved

- Email: MassDOTMajorProjects@dot.state.ma.us

- Visit project website
  - https://www.mass.gov/new-bedford-fairhaven-swing-bridge-reconstruction or use QR Code

- Visit MassDOT for information on hearings
  - https://www.mass.gov/massdot-highway-design-public-hearings

- Write to Carrie Lavallee, P.E. Chief Engineer
  MassDOT
  10 Park Plaza
  Boston, MA 02116
  Attention: Major Projects, PROJECT FILE NO. 612557

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Thank You

Fairhaven – New Bedford Swing Bridge Replacement

Hayden-McFadden Elementary School | January 9, 2024 | 6:00 – 7:30 PM

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