

# Newington-Dover

## Improvements to NH Rte. 16 / Spaulding Turnpike / General Sullivan Bridge

Public Informational Meeting  
Dover City Hall  
January 30, 2018



# Meeting Agenda

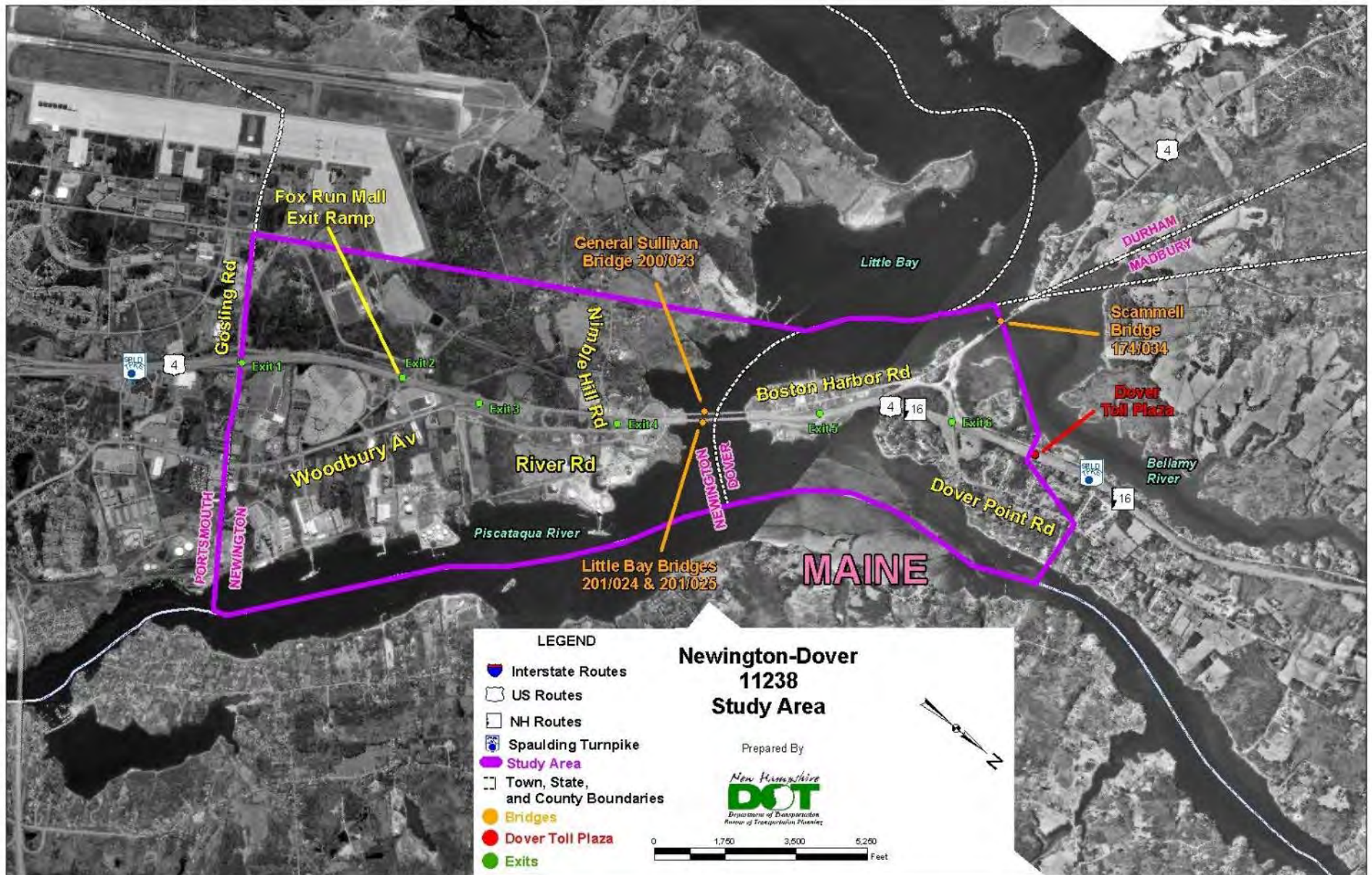
- Project Overview
- General Sullivan Bridge
  - NEPA Supplemental EIS/4(f) Evaluation/Section 106 Consultation
  - Alternatives to be Evaluated
- Project Update by Contract
- Upcoming Turnpike Projects
  - Newington Maintenance Facility
  - Dover Open Road Tolling



# Project Overview

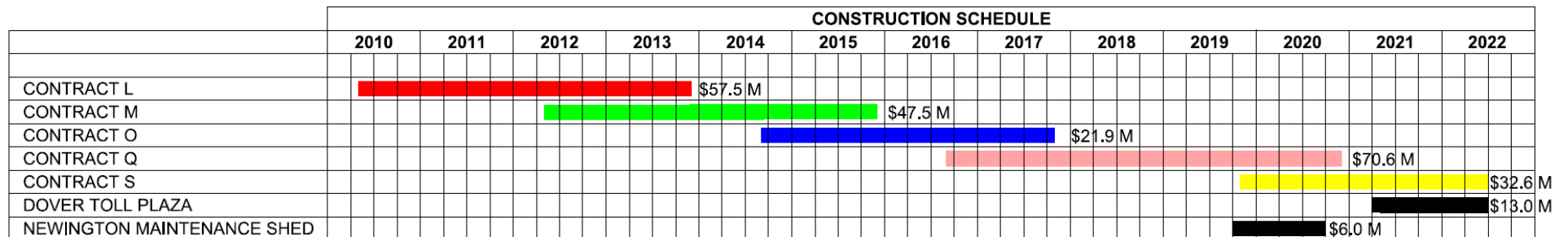
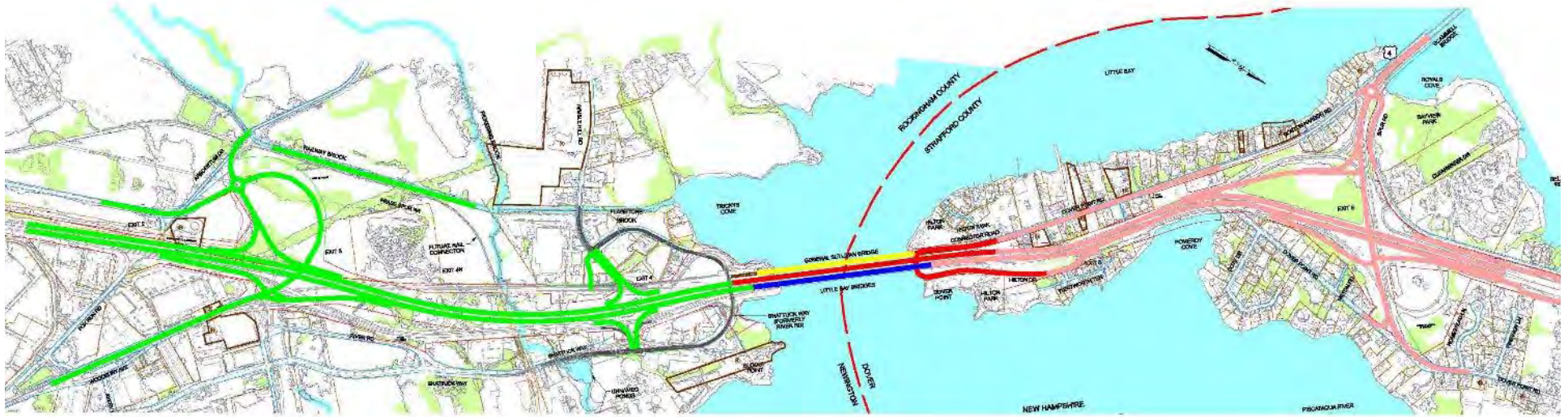


# Project Area





# Contract Breakout & Schedule



# Project & Construction Outreach

[Jump to content](#) | [A](#) [A](#) [A](#)

an official **NEW HAMPSHIRE** government website



Home | Project History | Project Information | Project Process | Details/Maps | Selected Alternatives | Schedule | Project Documents | Final Environmental Impact Statement | Roundabouts | Meetings | FAQs | Contact Us | Feedback/Mailing List | Newsletters/Fact Sheets | Construction Updates and Alerts | Webpage Listing

**GO TO  
GENERAL SULLIVAN BRIDGE  
WEBSITE**

Visit the [GEN. SULLIVAN  
BRIDGE](#) website

## Welcome to Spaulding Turnpike Newton-Dover Project Website



**NEW:** Read the [Coordination Plan for Agency and Public Involvement](#) in support for the development of the Supplemental Environmental Impact Statement (SEIS) for the General Sullivan Bridge.

From 2003 to 2008, the project team, advisory task force (ATF), and interested Seacoast stakeholders have evaluated a range of reasonable alternatives to identify a preferred alternative to improve long-term mobility and safety along the Spaulding Turnpike between Exit 1 and the Dover toll plaza, just north of Exit 6. The 3.5-mile stretch of the Turnpike in this area is characterized by closely spaced interchanges, substandard geometry and shoulder areas, and capacity constrained conditions during the weekday morning and evening commuter periods. Currently, the Turnpike carries in excess of 70,000 vehicles per day. Future travel demand projections (approximately 94,000 vehicles per day are forecasted in 2025) indicate that if the Turnpike is not improved, weekday traffic congestion will spread to additional hours of the morning and evening, and safety conditions will continue to deteriorate.

Following the completion of the Environmental Impact Statement (EIS), a successful Public Hearing and the Federal Highway Administration's issuance of the Record of Decision in October, 2008, the Selected Alternative was approved to advance into final design to be developed into contract plans. [Preliminary and Final design](#) of the [selected alternative](#) was initiated on December 18, 2008.

### Major Project Elements:

- 4 lanes in each direction (3 general purpose and 1 auxiliary lane) between Exit 3 (Woodbury Avenue) and Exit 6 (U.S. Route 4/Dover Point Road)
- 3 lanes in each direction south of Exit 3 and north of Exit 6
- 5 interchanges consolidated or reconfigured – Exit 2 and 5 are eliminated with Exits 3, 4 and 6 providing full access in all directions
- Rehabilitation and widening of Little Bay Bridges to accommodate 4 lanes in each direction
- Future planning for an elevated rail connection from the Newton Branch Line into Pease Tradeport
- Rehabilitation of General Sullivan Bridge for pedestrian, bicycle, and recreational uses
- Park and ride facilities at Exit 9 in Dover, Exit 13 in Rochester, and along U.S. 4 in Lee



## Construction Updates and Traffic Alerts

### What's New...

[Upcoming Public Informational Meeting January 30, 2018](#)  
Public announcement about the January 30, 2018 Public Informational Meeting.  
*Posted January 16, 2018*

[Newton-Dover 11238Q Project Update - September 2017](#)  
PDF file of Construction Update - September 2017 - Little Bay Bridge Rehabilitation Project  
*Posted September 26, 2017*

[Tenants Association at Pease Presentation](#)  
View the presentation given at the Tenants Association at Pease on April 4, 2017.  
*Posted April 11, 2017*

[Newton-Dover 11238Q January 2017 Update](#)  
View the Newton-Dover 11238Q January 2017 Update (12-page PDF file)  
*Posted February 9, 2017*

[Construction Update - January 2017 - Little Bay Bridge Rehabilitation Project](#)  
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[Northbound Ramp Relocation in Dover;](#)

Website: [www.newington-dover.com](http://www.newington-dover.com)



# Project & Construction Outreach

Jump to content | A A A an official NEW HAMPSHIRE government website

New Hampshire  
**DOT**  
Department of Transportation

Air Rail Highway Bike/Ped Public Transit

Home  
Project History  
Project Information  
Project Process  
Details/Maps  
Selected Alternatives  
Schedule  
Project Documents  
Final Environmental Impact Statement  
Roundabouts  
Meetings  
FAQs  
Contact Us  
Feedback/Mailing List  
Newsletters/Fact Sheets  
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From 2003 to 2008, the project team, advisory task force (ATF), and interested Seacoast stakeholders have evaluated a range of reasonable alternatives to improve mobility and safety along the Spaulding Turnpike between Exit 6 and Exit 7. The 3.5-mile stretch of the Turnpike is characterized by closely spaced interchanges, substandard shoulder areas, and capacity constrained conditions during the morning and evening commuter periods. Currently, the Turnpike carries approximately 10,000 vehicles per day. Future travel demand projections (approved in 2015) indicate that the Turnpike will carry approximately 15,000 vehicles per day are forecasted in 2025) indicate that the Turnpike will carry approximately 15,000 vehicles per day. Future travel demand projections (approved in 2015) indicate that the Turnpike will carry approximately 15,000 vehicles per day. Future travel demand projections (approved in 2015) indicate that the Turnpike will carry approximately 15,000 vehicles per day.

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### Major Projects:

- Rehabilitation and widening of Little Bay Bridges to accommodate 4 lanes in each direction
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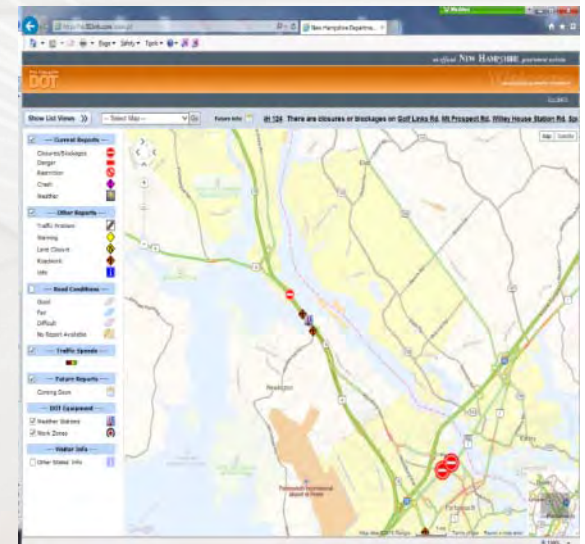
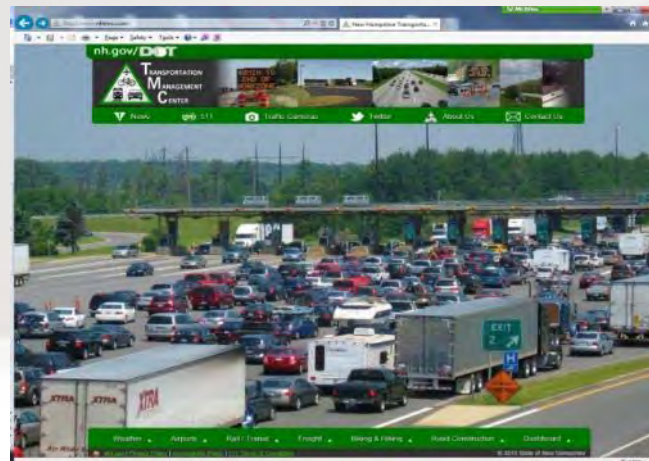
Website: [www.newington-dover.com](http://www.newington-dover.com)

# Construction Outreach

- For traveler/real-time information, please visit [www.nhtmc.com](http://www.nhtmc.com).



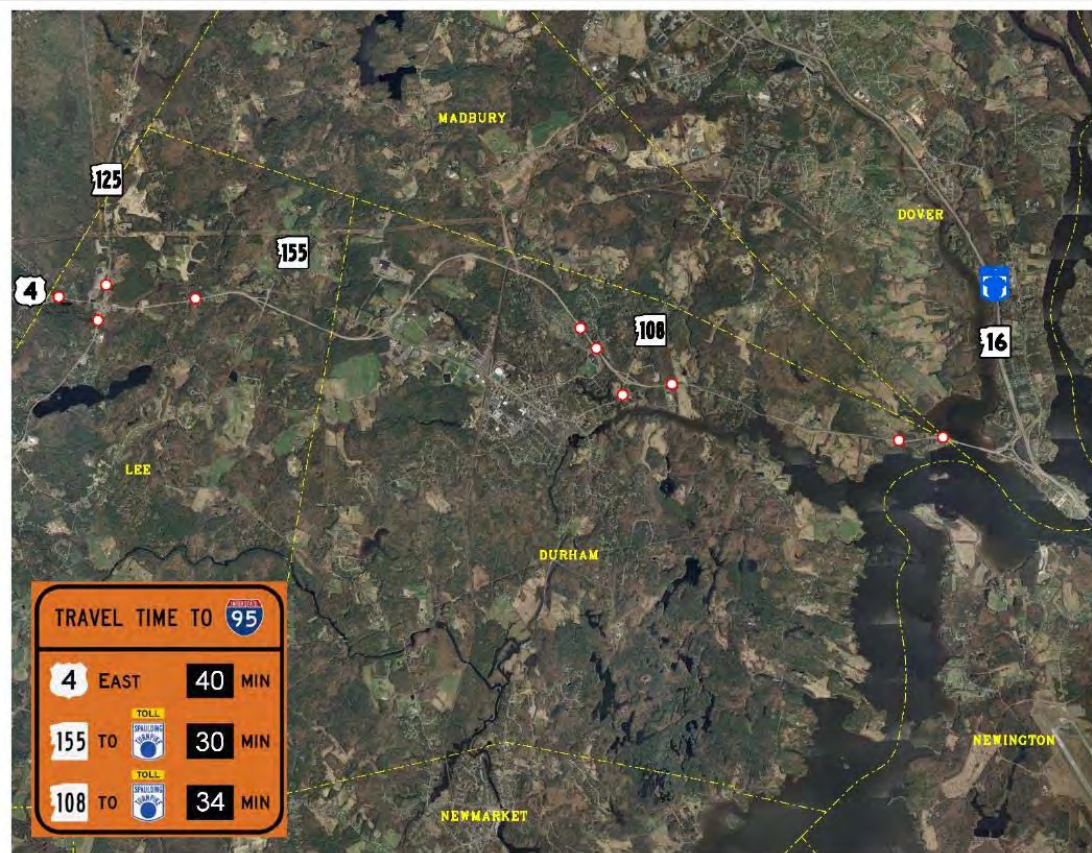
Twitter



Traffic Cameras



# Real-Time Traffic Management System



# **Contract S – General Sullivan Bridge**



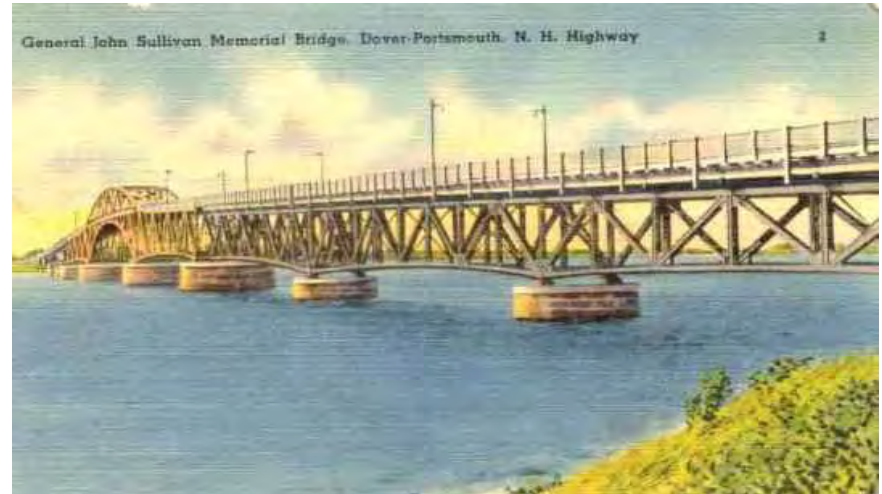
# Contract S

## General Sullivan Bridge



# GSB is a Historic Structure

- Eligible for listing on the National Register of Historic Places
- Significant at both the state and national levels
- Protection under federal law for eligible properties are:
  - Section 106 of the National Historic Preservation Act
  - Section 4(f) of the USDOT Act
- Historic Preservation under NH Law:
  - RSA 227-C:9 Directive for Cooperation in the Protection of Historic Resources

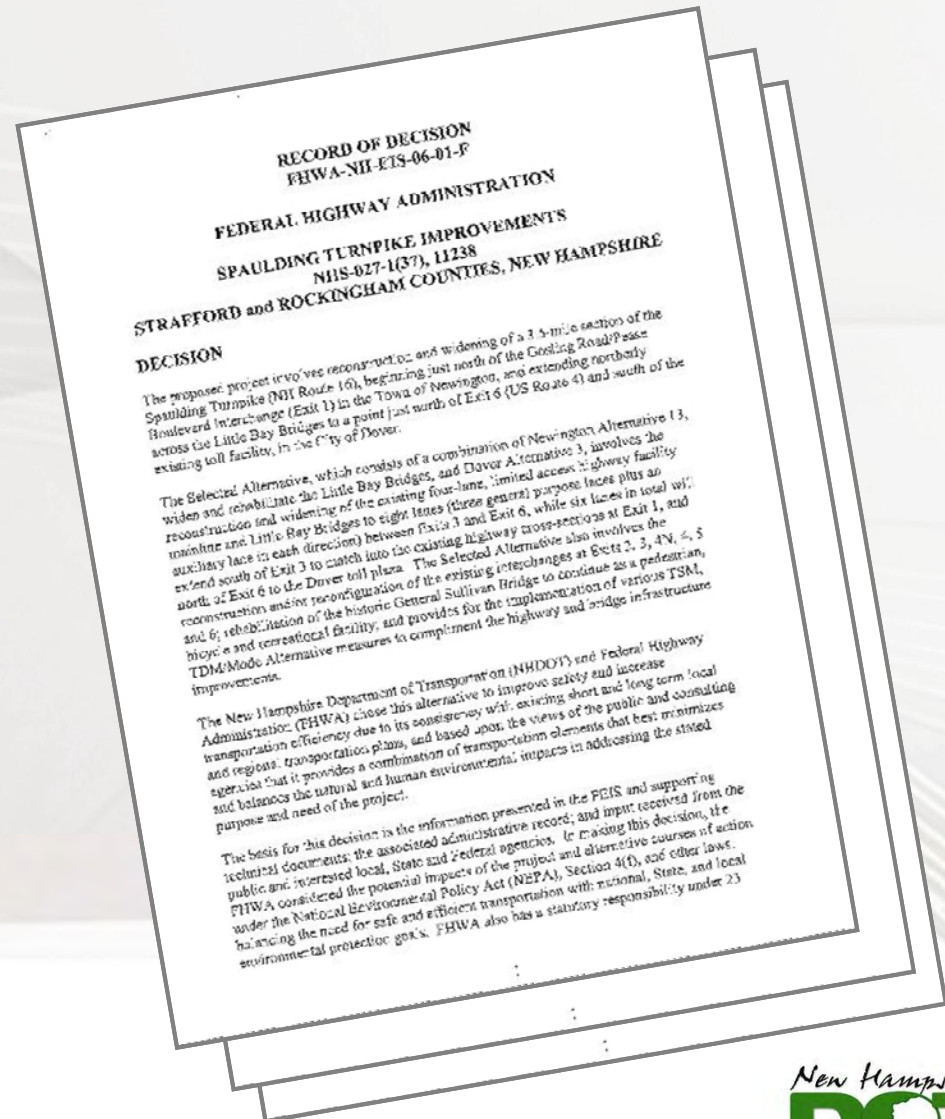




# 2008 NEPA Record of Decision

## GSB Commitments:

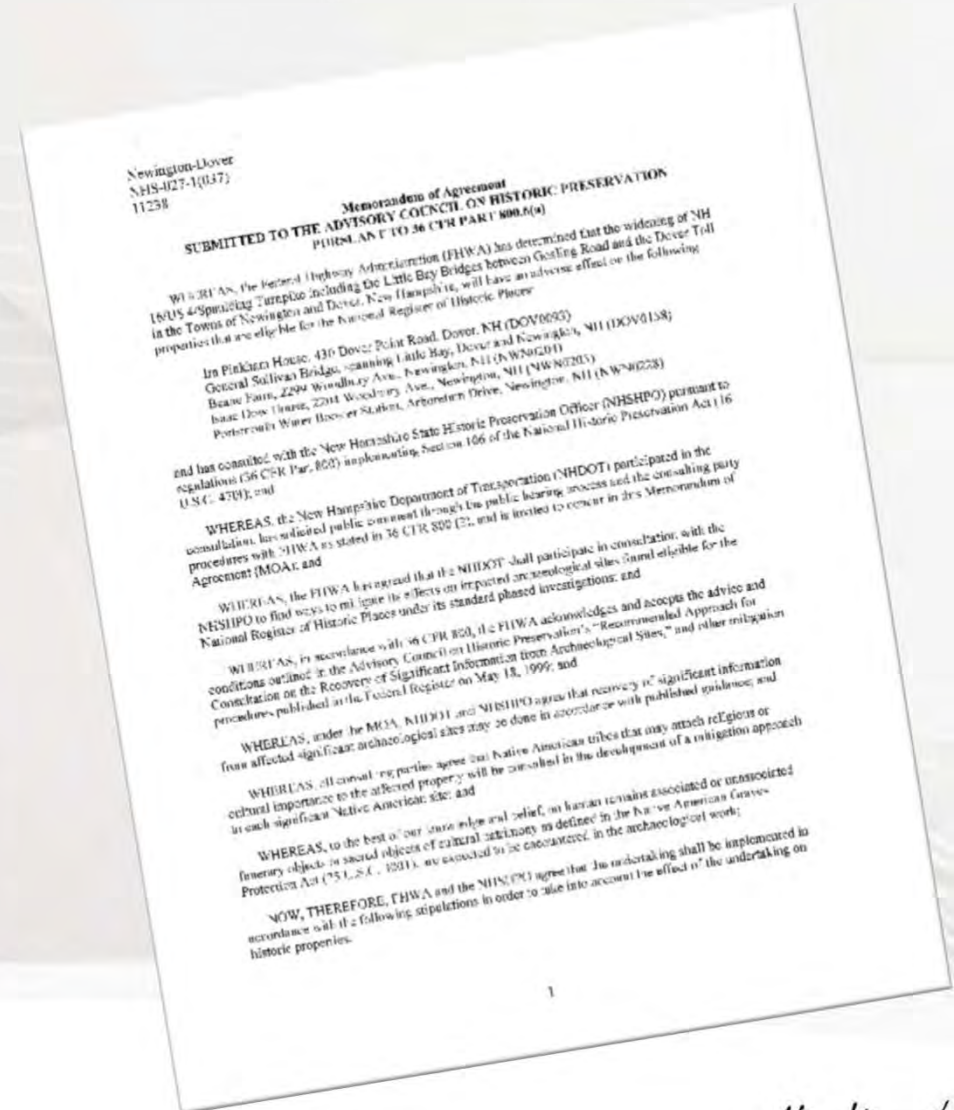
- Maintain bicycle and pedestrian access
- Rehabilitate the GSB



# 2008 Memorandum of Agreement

## Record of Decision (ROD) Incorporated:

- Section 106  
Memorandum of  
Agreement
- Section 4(f)  
Evaluation





# Section 106 MOA - April 4, 2008

MOA requires rehabilitation of the General Sullivan Bridge, allowing for these activities:

- Removal and replacement of the deck and floor system
- Replacement of rivets with high strength bolts as necessary
- Removal of the north embankment and portions of the north abutment **(Completed 2011)**

# Preparing for Rehabilitation of the GSB

- **2009/2010**

In-depth Inspection, Load Rating, & Deck Study

- **2014/2016**

In-depth Inspections & Load Ratings

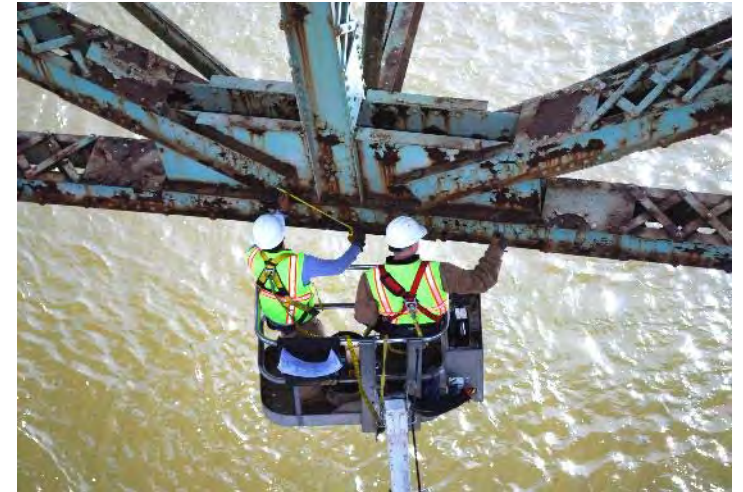
- **2017**

GSB Type, Span, and Location Study

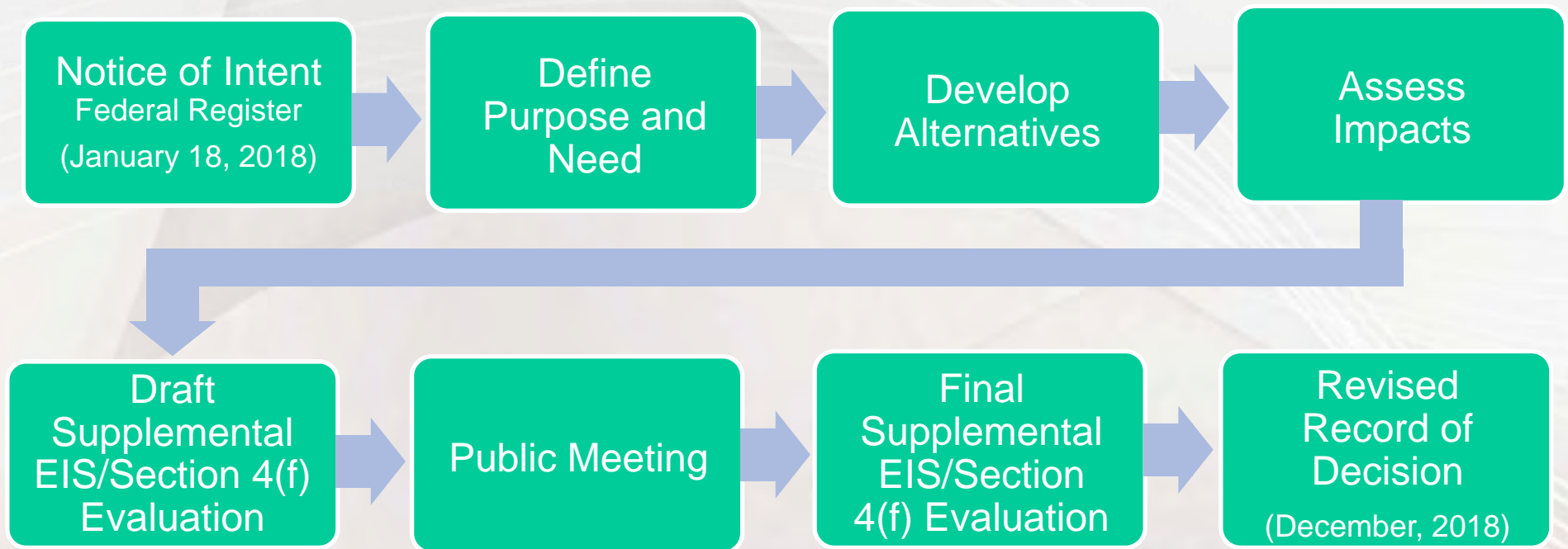


# Assessing the Rehabilitation of the GSB

- In depth inspections and engineering analyses (2010-2017) found that rehabilitation:
  - Has high risk
  - Has high cost
  - Would provide limited service life
- Further evaluation of rehabilitation and other alternatives is warranted



# Supplemental EIS





# Supplemental EIS: Purpose and Need

## ***Project Purpose***

*“To provide access and connectivity between Newington and Dover, across Little Bay, for non-motorized use.”*

## **Bicycle/Pedestrian Use**

SUMMER 2016		
	DOVER END	NEWINGTON END
AVERAGE WEEKDAY	114	66
AVERAGE WEEKEND	145	86
AVERAGE DAILY	119	66

*Data analysis is preliminary and subject to change.*



# Supplemental EIS – Public Participation

Public Participation is critical to the NEPA (SEIS) process, and required by Section 106 and Section 4(f)

## Public Meeting #1 (January 30, 2018)

- Draft Purpose and Need
- SEIS Process
- Consulting Party Invitation

## Public Meeting #2 (April/May 2018)

- Review Range of Alternatives
- Preliminary Alternatives Evaluation

## Public Meeting #3 (August/Sept. 2018)

- Presentation of Preferred Alternative
- Public Input on Draft SEIS



# National Historic Preservation Act

## Section 106 – Consulting Parties

Interested persons or organizations may request **Consulting Party** status from FHWA:

Jamie Sikora  
Environmental Program Manager  
Federal Highway Administration  
NH Division Office  
53 Pleasant Street, Suite 200  
Concord, NH 03301  
Jamie.Sikora@fhwa.dot.gov



**SECTION 106  
CONSULTING PARTY  
PROCESS  
IN NEW HAMPSHIRE**

In the National Historic Preservation Act (NHPA), Congress established a comprehensive program to preserve the historical and cultural foundations of the Nation as a living part of community life. Section 106 of NHPA is crucial to that program, because it requires consideration of historic preservation in the multitude of Federal actions that take place nationwide and throughout New Hampshire.

Section 106 requires Federal agencies to consider the effects of their actions on historic properties and provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on Federal projects prior to implementation.

For more information on how you can become a consulting party contact:

Jamie Sikora  
Environmental Program Manager  
Federal Highway Administration  
NH Division Office  
53 Pleasant Street, Suite 2200  
Concord, NH 03301  
Jamie.Sikora@fhwa dot gov

Historic properties should be maintained.

More Information:

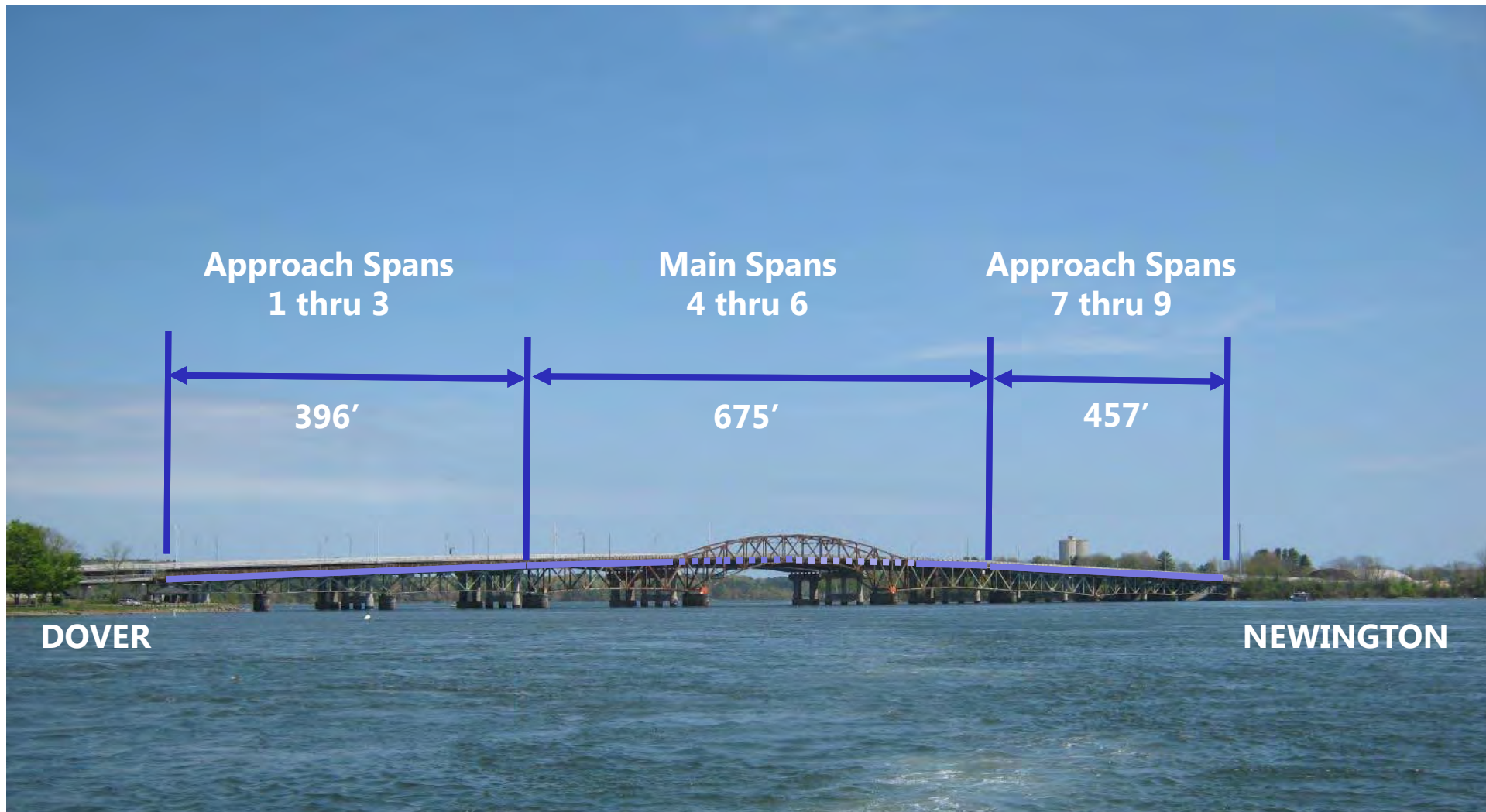
<https://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/cultural.htm>

# **GSB Alternatives Currently Under Consideration**



# Reasonable Range of Alternatives

- Rehabilitation (Consistent with MOA)
- Complete Superstructure Replacement, Retain Substructure
- Partial Rehabilitation
- Complete Bridge Replacement (Including Substructure)
- Reconfigure/Widen Southbound Little Bay Bridge to Accommodate Bicycles/Pedestrian Use



## Rehabilitation Alternative



**Existing Bridge**



**Rehabilitated Bridge (All Spans)**





## Complete Superstructure Replacement Alternative



## Existing Bridge



## New Truss on Existing Piers





## Partial Rehabilitation (New Approach Spans)

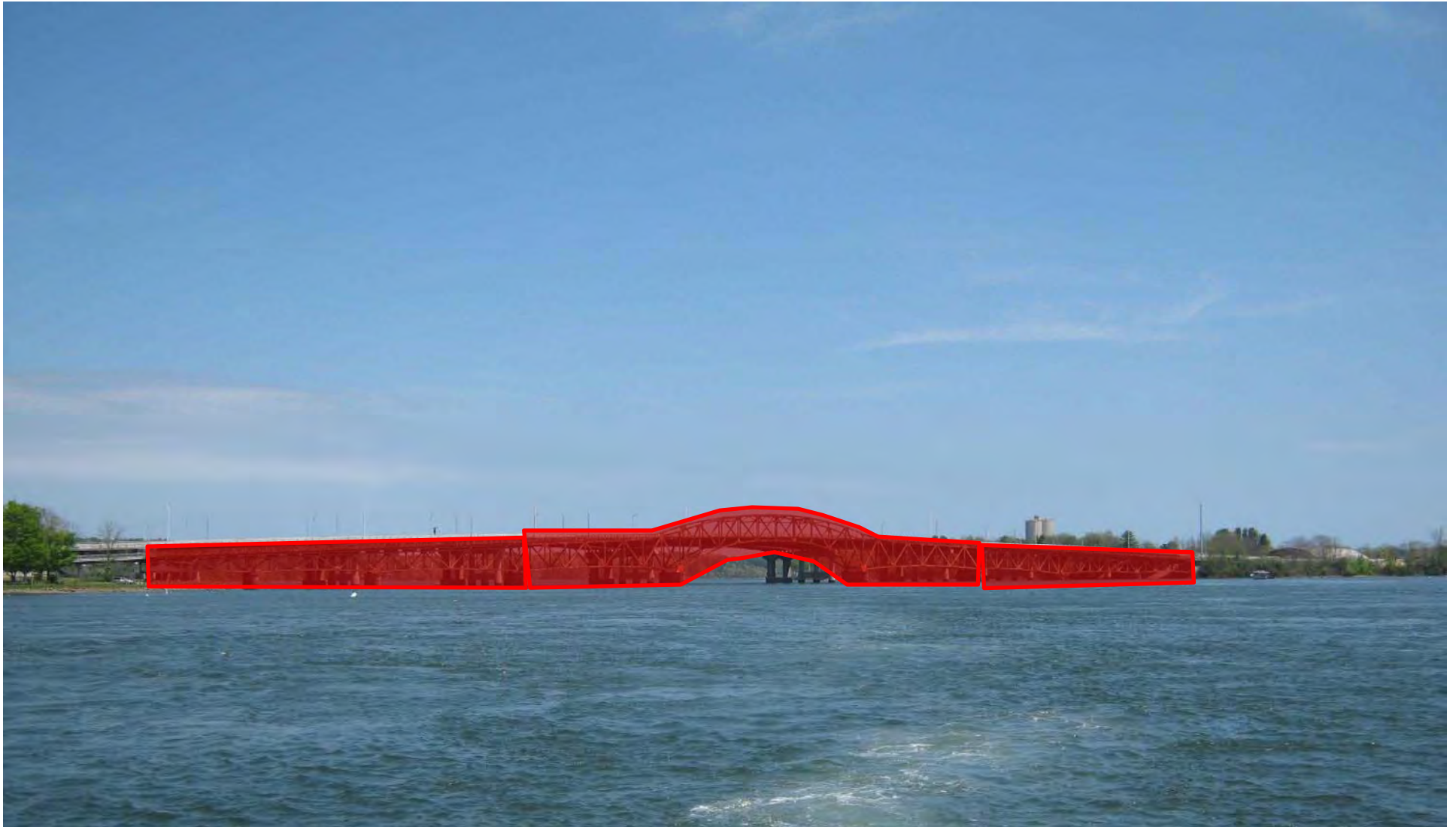


## Existing Bridge



## Rehabilitated Main Spans with New Approach Spans





## Complete Bridge Replacement Alternative



# Alternatives Evaluated in the TS&L

Alternative	Cost	LCC (Present Value)	LCC (Constant Dollars)	Const. Risk	Const. Duration	Historic Impact	Main-tenance
1A – Truss Rehab	\$43.9 M	\$53.9 M	\$85.6 M	High	1-2 years	Low	High
2C – Truss Replacement	\$32.6 M	\$33.4 M	\$35.6 M	Low	1-2 years	High	Mod.
3 – Approach Spans Replaced	\$38.2 M	\$44.4 M	\$247 M	Moderate	2-3 years	Moderate	High

Alternative 1A – Rehabilitation consistent with MOA;

Alternative 2C – Truss superstructure replacement is least cost with bridge having similar mass and size (lowest capital and life cycle cost);

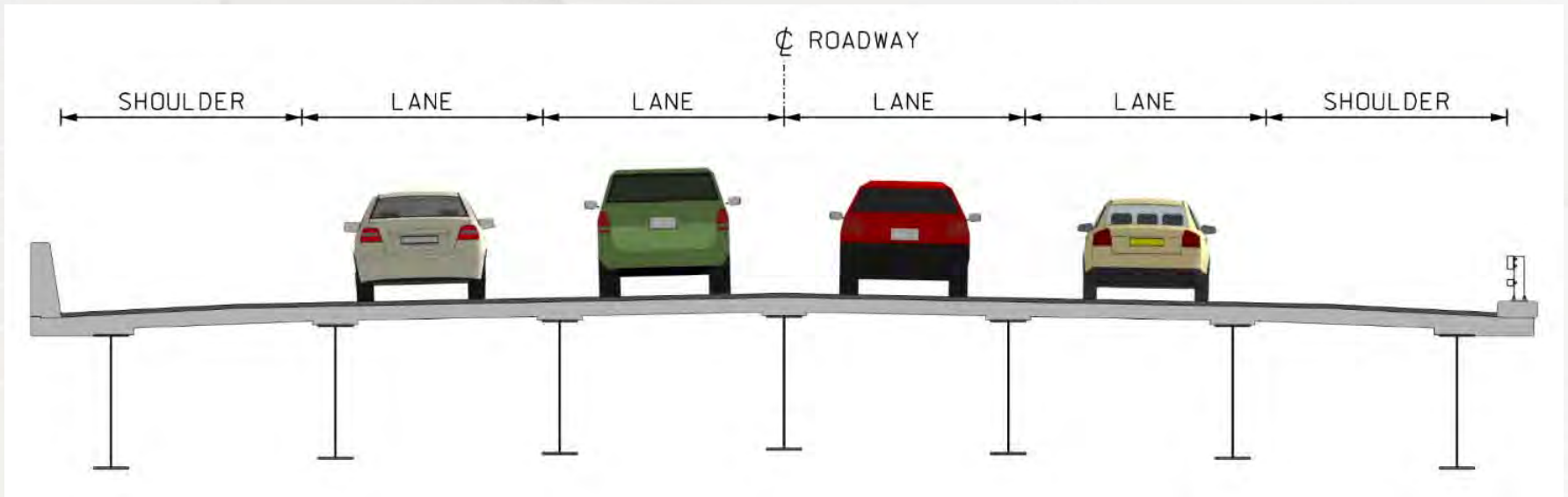
Alternative 3 – Truss replacement of approach spans and rehabilitation of main arch, continuous truss; and

Alternative 4 – Not shown; complete bridge replacement; estimated cost of \$42.2 M for comparison purposes.



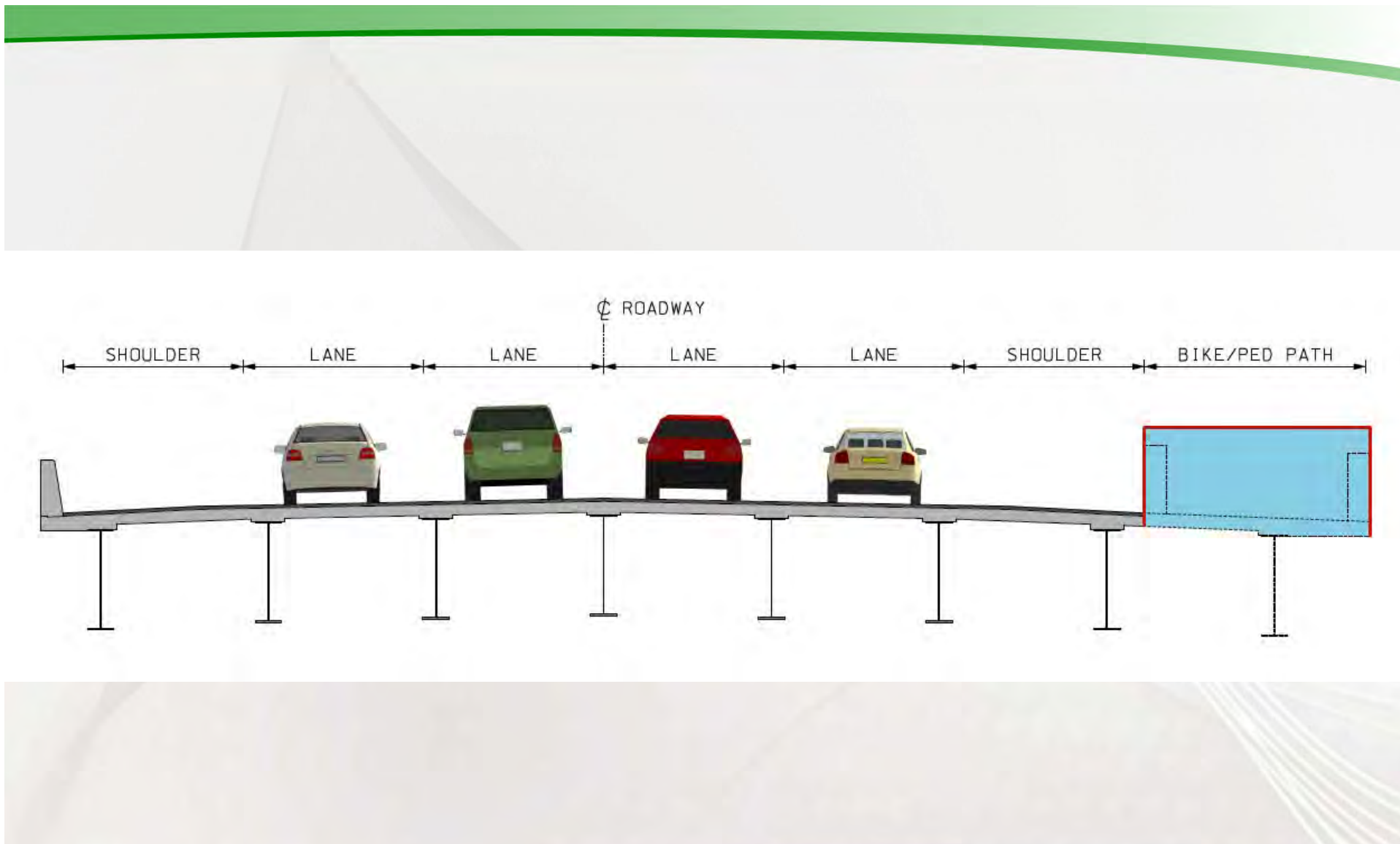
**Reconfigure/Widen Southbound Little Bay Bridge Alternative**





Existing Little Bay Bridge Section





Reconfigured/Widen to Accommodate Bike/Pedestrian

# Construction Update



# Contract L (Completed 2013)

## New Little Bay Bridge



BRIDGE ENGINEERING, INC.



# Contract M (Completed 2015) Newington





# Contract O (Completed 2017) Rehabilitate Old Little Bay Bridge



# Contract Q (COMPLETION 2020)



- Provides a Full Service Interchange at Exit 6
- Eliminates Exit 5
- Introduces 2 Signalized Intersections for Exit 6 Ramps
- Roundabout Replaces Signalized Intersection at Boston Harbor Rd.
- Constructs 4 Soundwalls – N. and S. of: Exit 6 (SB), and; of the Dover Toll Plaza (NB and SB)



# Contract Q Ground Improvements Wick Drain Installations 3 Million LF – 50% Complete



ADDRESSING UNDERLYING MARINE CLAY

# Contract Q

## Sound Wall Construction

17500 LF – 40% Complete

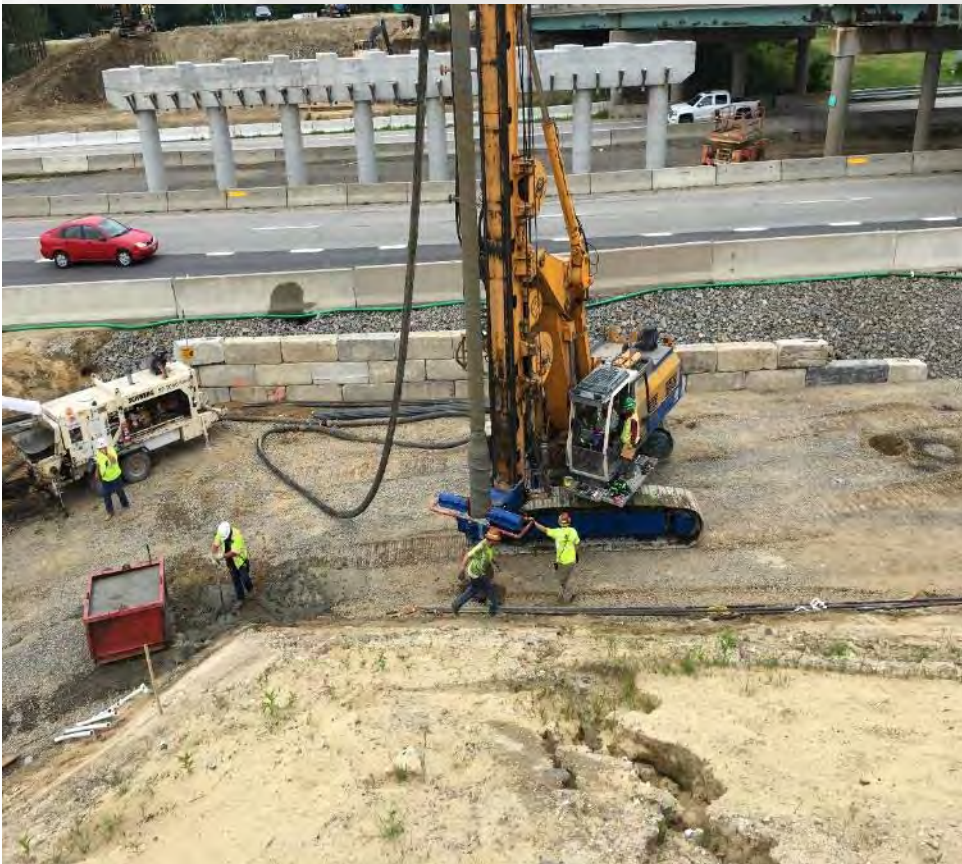




# Contract Q

## Exit 6 Bridge Abutments

High Modulus Grout Columns  
to support Abutments



Mechanically Stabilized Earth





# Contract Q

## Exit 6 Bridge Girders

### Precast Concrete - Erected December 2017





# Contract Q Roadway Construction

Exit 6 NB Off Ramp  
Opening in 2018



Exit 6 SB On Ramp  
Now in Service



# Contract Q

## Roadway Construction

### Route 4 Approaches – Opening in 2018.

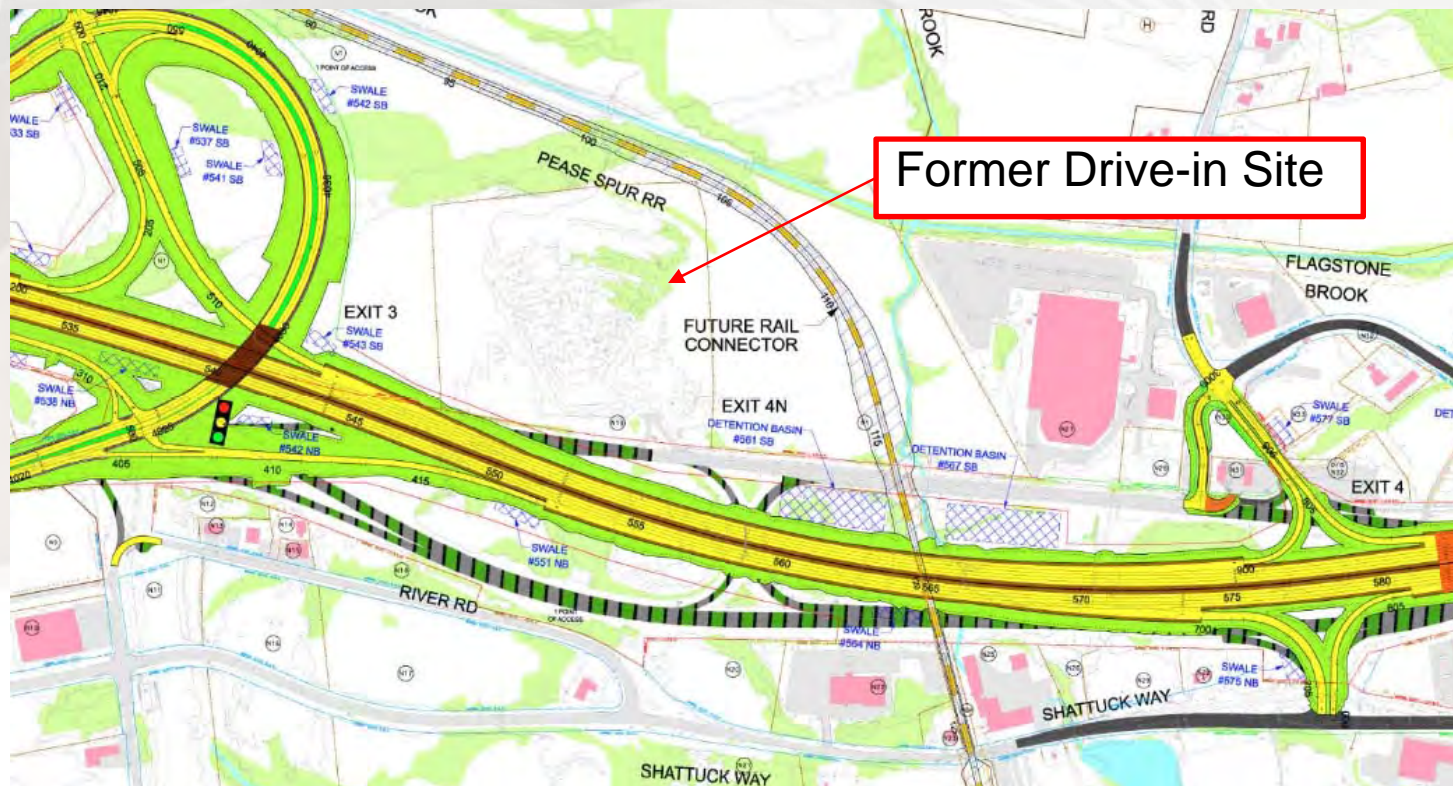




# Upcoming Turnpike Projects

# Newington Maintenance Facility

- Needed to accommodate expansion of Spaulding Turnpike
- Proposed location on Turnpike owned parcel (former drive-in site)
- Between Exits 3 and 4 on west side of Spaulding Turnpike





# Newington Maintenance Facility

- Funded in Ten Year Plan 2019 - 2028
- Anticipated start of construction – Summer/Fall 2019
- Anticipated completion of construction – Fall 2020



# Newington Maintenance Facility

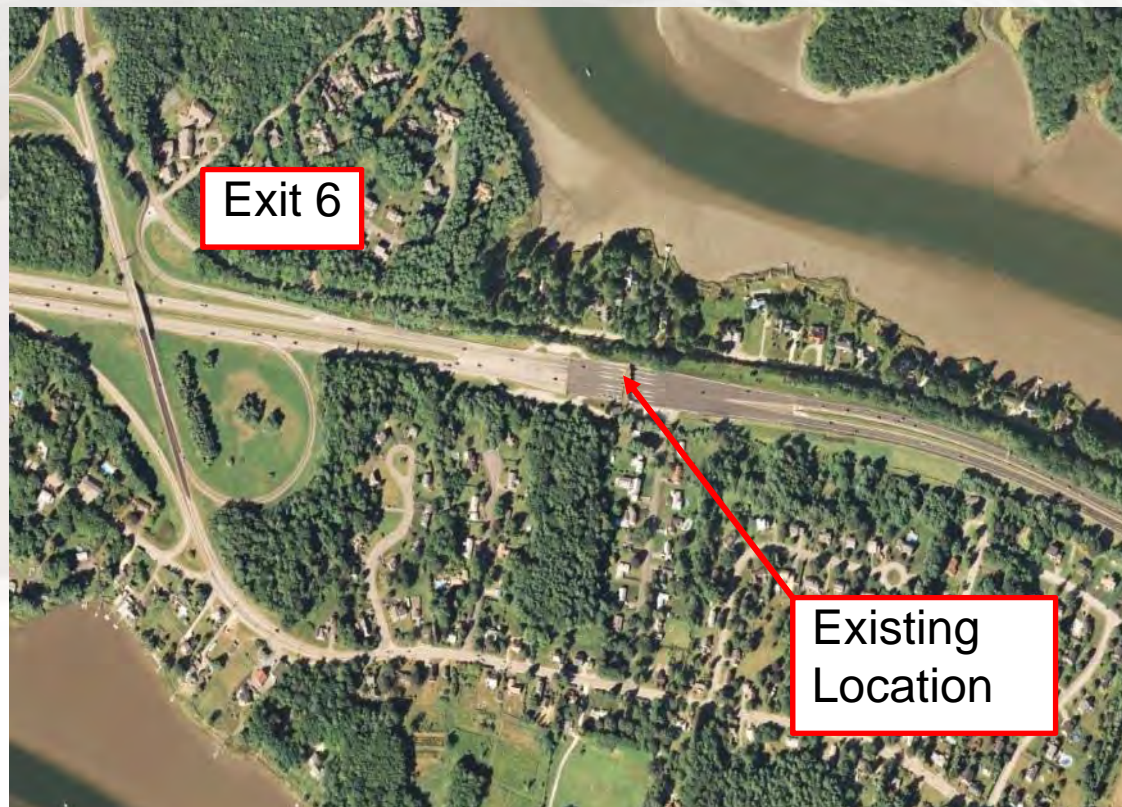
- Existing Dover maintenance shed to be discontinued in Fall 2020
- Following environmental clearance, property anticipated to be declared “surplus State property.”





# Dover Toll Plaza - Existing Conditions

- Existing facility built in 1956
- Rehabilitation results in “No Realized Benefit” to customers
- Operational challenges exist with Exit 6 ramps at current location



# Dover Toll Plaza

## Assessment of Alternatives

- Implementation of Open Road Tolling (ORT) will require shifting toll booth approximately one mile north
- Open Road Tolling (ORT) designs “on hold”
- An All Electronic Tolling (AET) solution under consideration
- All Electronic Tolling (AET) requires legislative authority for implementation by NHDOT
- Under legislative overview with the draft 2019-2028 Ten Year Plan

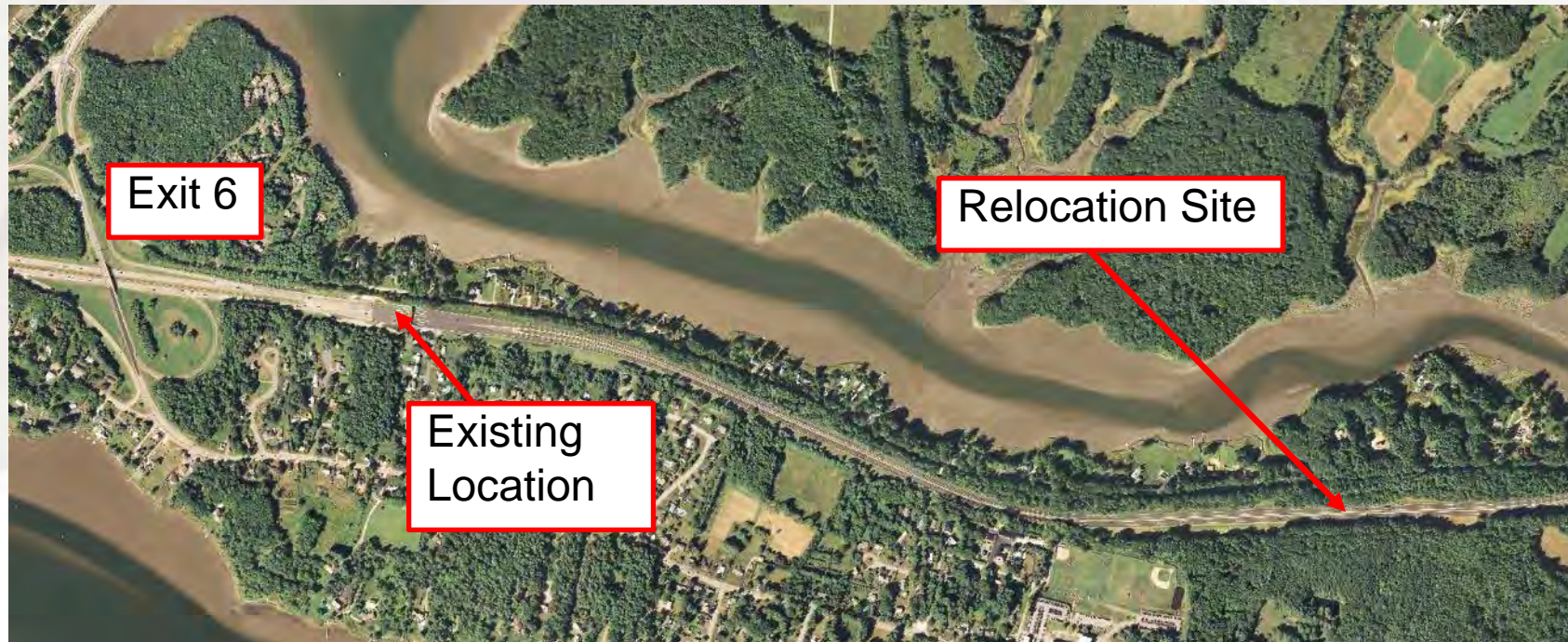


# Dover Toll Plaza Improvements

- ORT provides benefits to customers who prefer or need to maintain cash payment options
- AET does require reduced capital costs however may require surcharges or adjusted rates
- ORT and AET both offer benefits to include the following:
  - Increased mobility
  - Reduced travel time
  - Reduction in accidents
  - Improved safety for travelers and employees
  - Reduced energy consumption

# Dover Toll Plaza Improvements

- Existing Location
  - Reconstruction to ORT not feasible
  - Reconstruction to AET is feasible
- Relocation 1.25 miles north
  - Reconstruction to ORT or AET is feasible





# Dover Toll Plaza Improvement Schedule

- Funded in Ten Year Plan 2019 – 2028
- Anticipated Start of Construction Spring 2021\*
- Anticipated Completion of Construction Fall 2022\*

\*Contingent upon identification of tolling solution (ORT or AET)  
in a timely manner to allow for project development process

# Contact Information

## Newington-Dover

Keith Cota, PE  
Chief Project Manager  
NH Dept. of Transportation  
J.O. Morton Building  
7 Hazen Drive  
PO Box 483  
Concord, NH 03302-0483  
Phone : (603) 271-1615  
Email: Keith.Cota@dot.nh.gov

<http://www.newington-dover.com/>

## Upcoming Turnpike Projects

Dave Smith, PE  
Asst. Administrator of Turnpikes  
NH Dept. of Transportation  
I-93 Exit 11 (Hooksett)  
PO Box 2950  
Concord, NH 03302-2950  
Phone : (603) 485-3806  
Email: David.Smith@dot.nh.gov





# Thank You!

## Questions/Comments?

<http://www.Newington-dover.com/>

