



Bridge Replacement Br. No. H 12-039  
Interstate 495 (NB & SB) over Merrimack River  
Haverhill | Project File No. 605306

An aerial photograph showing a multi-lane highway bridge spanning a wide river. The river has some brownish patches in the water. Lush green trees line both banks of the river. In the background, there are some industrial buildings and a large parking lot filled with cars. The sky is clear and blue.

MassDOT Capital Program Committee  
May 9, 2018

# Overview

- Bridge was built in 1961 and has been subject to frequent structural repairs.
  - Repairs completed in August 2017 to ensure bridges remain operational throughout replacement construction
  - \$1 million in annual repair costs
- Replacement is part of the 2018 Transportation Improvement Program for the Merrimack Valley Metropolitan Planning Organization
  - 2017-2021 CIP - \$ 60,223,040 Total Project Cost
  - 2018-2022 CIP - \$ 58,523,890 Total Project Cost
  - Updated CIP - \$108,833,832 Total Project Cost



# Project Area



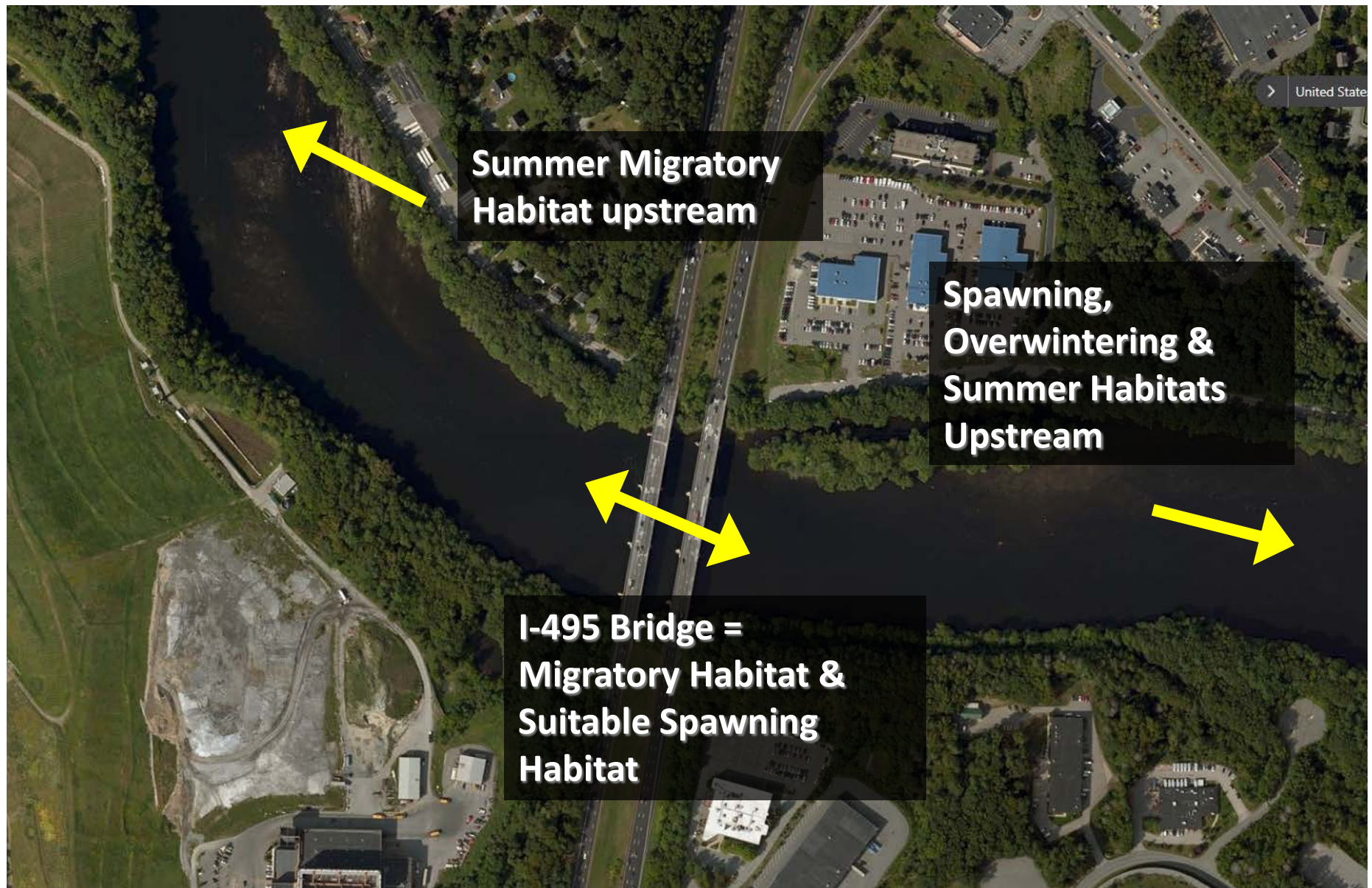
**I-495 in Haverhill between Exits 48 and 49**

# Project Goals

- 75–Year Design Life of Bridge Structures
- 40–Year Design Life of New Roadway Pavements
- Utilize innovative construction techniques to meet construction schedule
- Minimize Traffic Impacts
- Minimize Impacts to Merrimack River
  - in-water work within environmental window
  - maintain 30ft. high by 70 ft. wide navigation channel



# Shortnose Sturgeon Behavior





# Existing Conditions



# Existing Conditions (cont.)



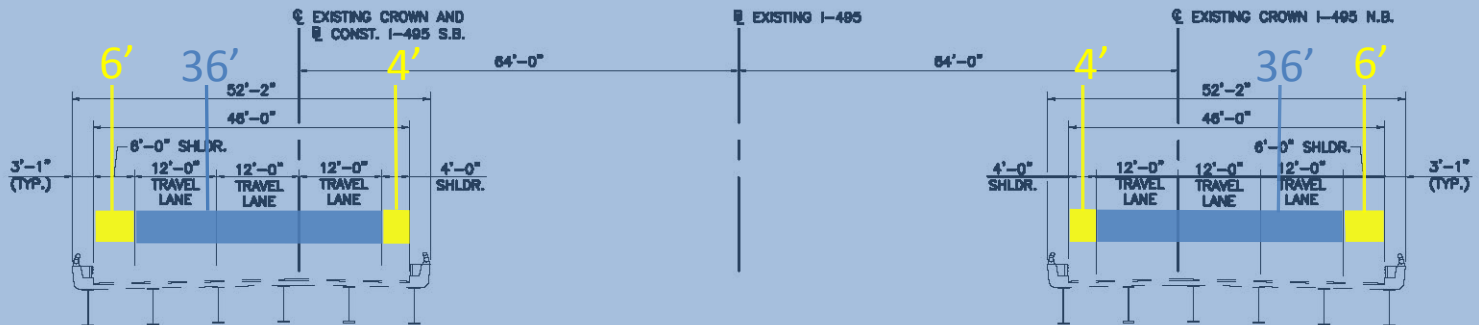


# Proposed Condition

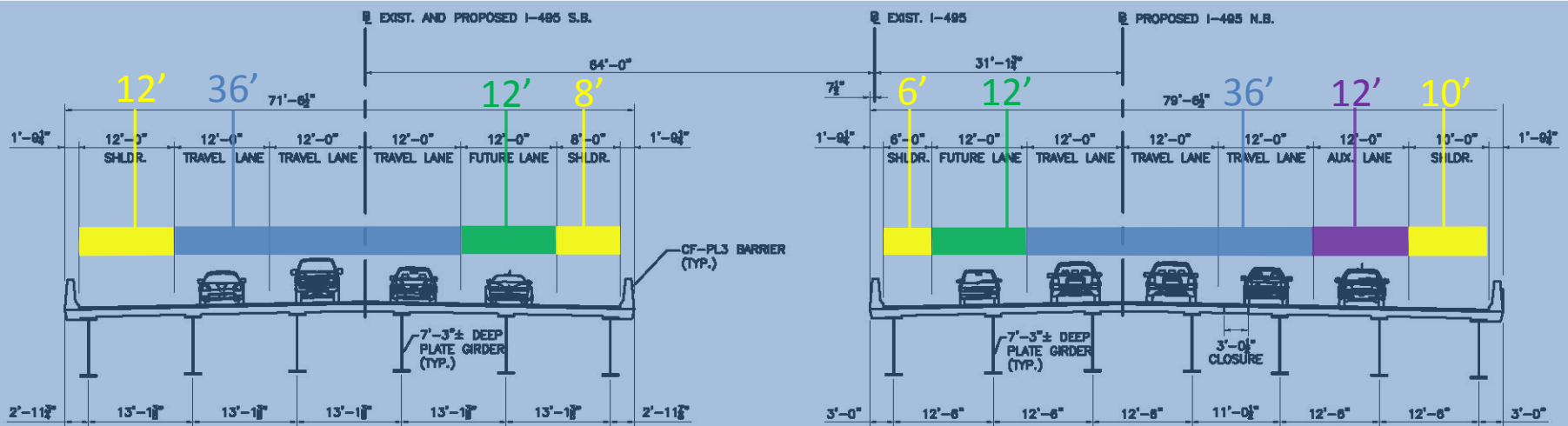




# Existing to Proposed Condition



Cross Section – Existing Condition



Cross Section – Proposed Condition

# Construction Animation



# Procurement

- Design-Build Project Delivery
- Request for Letters of Interest August 26, 2017
- Technical/Price Proposals March 29, 2018
- Public Price Opening April 27, 2018
- Price Proposal reviewed and verified that documents are in order and that Best Value Proposer is responsive

# Best Value Calculation

Proposer	Price (P)	Technical Score (TS)	Overall Value Rating P/TS
SPS New England, Inc.	\$89,554,105	91.19	982,061
Barletta Heavy Division, Inc.	\$99,788,000	89.93	1,109,619
J F White Contracting Co	\$108,977,930	73.40	1,484,713

Lowest Overall Value Rating = Best Value

Office Estimate: \$91,996,680

Best Value Price Proposal: 2.7% below Office Estimate

Average Price Proposals: \$99,440,012



# Project Costs

Office Estimate (advertised)	<b>\$91,996,680</b>
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Best Value (SPS New England)	<b>\$89,554,105</b>
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Contingencies (10%)	\$8,955,411
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Construction Engineering (5%)	\$4,683,643
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Traffic Police	\$2,860,100
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Trainees	\$24,500
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Telephone	\$8,400
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<b>TOTAL CONSTRUCTION COST</b>	<b>\$106,024,871</b>
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Non-Participating (FHWA) Cost	<b>\$1,287,045</b>
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State/Federal Cost	<b>\$107,311,916</b>
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