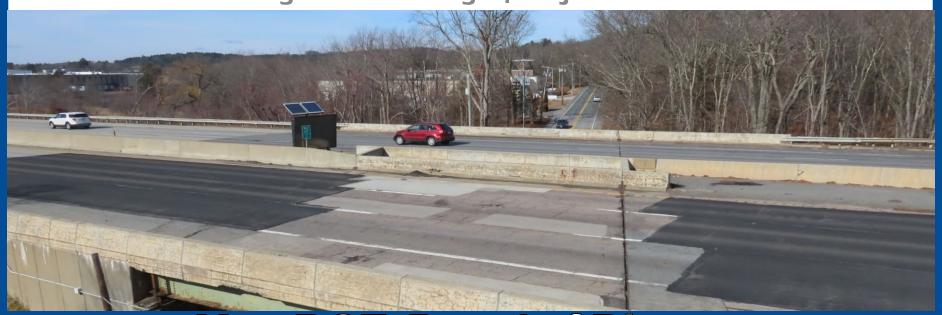


Interstate 90 Superstructure Replacements (EB & WB) over Woodland, Cordaville, Parkerville, and Flanders Roads Southborough-Westborough | Project File No. 608335



MassDOT Board of Directors

July 2020



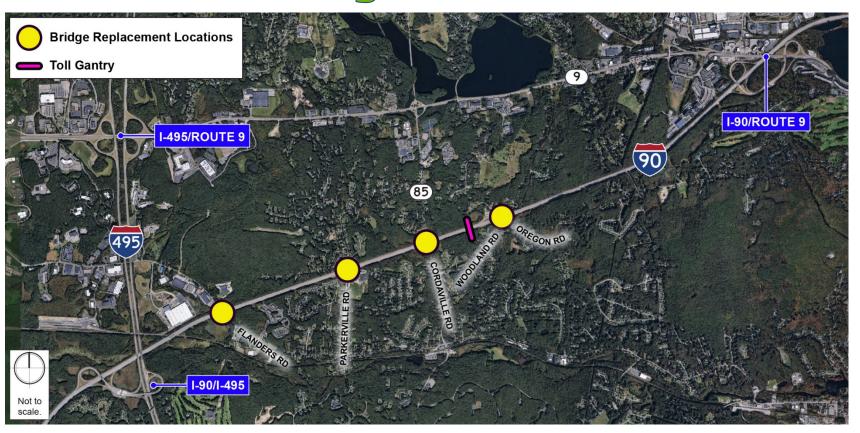
#### **Acceler-8 Overview**

- 8 Bridges were built in 1955 with Deck Reconstruction in 1986 and Painting in 1994.
  - Numerous Minor and Severe deficiencies identified with Priority or ASAP Urgency
- Acceler-8 program will use accelerated bridge construction methods to limit closures/impacts to roadway customers, using an approach similar to Commonwealth Ave Bridge replacement project.
  - 6 Superstructure Replacements
  - 2 Full Bridge Replacements
- Replacements scheduled ahead of the I-90/495 Interchange Reconstruction Project (which is scheduled for advertising in October 2021 with construction starting late 2022)
- \$ 48,987,600 Total Project Cost
  - \$ 61,572,740 Including Contingencies





# **Project Area**



I-90 in Southborough and Westborough



#### **Project Goals**

- 75–Year Design Life of Bridge Structures
- 40–Year Design Life of New Roadway Pavements
- Utilize Accelerated Bridge Construction(ABC)
   Techniques
- Minimize Traffic Impacts
- Improve Safety with new Median Barrier and Guardrail
- Complete construction by September 2021, prior to I-90/I-495 Interchange reconstruction project in 2022



## **Existing Conditions**















# Existing Conditions (cont.)



**Cordaville Road** 



# **Existing Conditions** (cont.)



**Parkerville Road** 



#### **Procurement**

- Design-Build Project Delivery
- Request for Letters of Interest December 12, 2019
- Technical/Price Proposals May 13, 2020
- Public Price Opening June 17, 2020
- Price Proposal reviewed and verified that documents are in order and that Best Value Proposer is responsive





### **Best Value Comparison**

#### **Base Concept**

- 8 Bridges/8 Weekends Closures
- 8 weekend I-90 Cross-overs
- Local detours over 8 weekends

#### Alternative Phasing:

- Parkerville & Flanders Rd Bridges same weekends
- 6 weekend I-90 Cross-overs
- Local detours 6 weekends

- More bridge work done in advance of closures
  - No additional traffic impacts
- Less done on weekends
  - Reduced risks for delayed Monday re-opening
  - Fewer closures = less impact to HWY customers



#### **Best Value Calculation**

Proposer	Price (P)	Technical Score (TS)	Overall Value Rating P/TS
J.F. White Contracting Co.	\$48,987,600	460.73	106,326.048
The Middlesex Corp.	\$47,715,836	447.20	106,699.097
Walsh Construction Company II LLC	\$54,996,150	446.60	123,144.089

Lowest Overall Value Rating = Best Value

Office Estimate: \$47,675,888

Best Value Price Proposal: 2.75% above Office Estimate

Average Price Proposals: \$50,566,529



## **Incentives for On-time Delivery**

Contract includes **incentives for on-time project delivery and penalties** should key project elements be delivered late.

- \$2,200,000 8 bridges/superstructures replaced by September 3, 2021
- A total of \$650,000 in potential other incentives or penalties for meeting other key project milestones

Ensuring on-time lane openings

Design-Builder **penalized** if I-90 is not opened to three travel lanes by 5:00 AM the Monday morning following each of the eight (8) weekend bridge replacements - **up to \$500,000 per bridge** 



### **Project Costs**

Best Value (J.F. White Contracting Co.)	\$48,987,600
Contingencies (15%)	\$7,348,140
Incentives	\$2,850,000

Telephone

**Traffic Police** 

\$2,383,000 **Utility Force Accounts** \$45,973 \$61,618,713 **TOTAL CONSTRUCTION COST** 

**Tolls-Western Turnpike** 

Office Estimate (advertised)

\$61,618,713

\$47,675,888

\$4,000