

**STAFF SUMMARY SHEET
Board of Directors Meeting**

TO		FOR		FROM:	
1	SEC/C EO	1&2	Approval	Dept.: Highway Division	Presenter : Thomas Donald
		1	Signature		
2	BD	2	Vote	Subject: Highway Division Contract No. 97935 Hanover-Norwell 2 Bridge Replacements on Route 3 (Pilgrims Highway) Br. No. H-06-010 (Steel) over Route 123 (Webster Street) and Br. No. N-24-003 (Steel) over High Street	Date: March 13, 2017
			Info		

Implications: (The implications checked below are involved in this action, are discussed below or in a separate enclosure, and have been considered in the final recommendation.)

Capital Budget
 Operating Budget
 Legal
 Other (State Obligation Bond)

PURPOSE:

The purpose of this Staff Summary is to request the Board of Directors to award and authorize the Secretary/CEO and/or the Administrator of the Highway Division to execute a contract entitled "2 Bridge Replacements on Route 3 (Pilgrims Highway) Br. No. H-06-010 (Steel) over Route 123 (Webster Street) and Br. No. N-24-003 (Steel) over High Street" with D.W. White Construction Inc. in the amount of \$29,424,712.50 with a contract duration of 1252 calendar days.

TOTAL PROJECT COST:

This contract is for the bridge replacement of the aforementioned crossings and associated roadway work. The estimated project costs include the following:

Bid Amount	\$ 29,424,712.50
Traffic Police	\$ 1,702,654.35
Contingencies (10%)	\$ 2,942,471.25
5% Constr. Engr.	\$ 1,471,235.62
Telephone	\$ 2,000.00
Trainees	\$ 7,600.00
Total	\$ 35,548,673.72

The total cost for this construction contract is funded with 80% Federal Funds and 20% State Funds.

The design of this project was prepared by WSP USA Corp.

The Engineer's Estimate for this project was prepared in accordance with the Project Development and Design Guide, the Bridge Manual, the Standard Specifications for Highways and Bridges, Engineering Directives and Standard Operating Procedures. The contract bid documents were prepared and advertised for construction consistent with Massachusetts Public Bidding Laws

DISCUSSION:

The work to be performed under this Contract consists of the complete replacement of four bridges (MassDOT Bridge Nos. N-24-003 and H-06-010) that carry State Route 3 (Pilgrims Highway) over High Street in the Town of Norwell, MA and over State Route 123 (Webster Street) in the Town of Hanover, MA. The work includes the complete replacement of the existing bridges, each with a single span steel girder superstructure, an 8" composite concrete deck and a hot mix asphalt overlay founded on reinforced concrete abutments. Construction will be completed in stages with two (2) new bridges constructed in the median (one (1) at each location) between the existing bridges prior to the construction of temporary crossover roadways to shift traffic off of two (2) of the existing bridges (one (1) at each location). The

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offline existing bridges will be demolished and the remaining two (2) new bridges will be constructed in their place. Traffic will then be shifted off of the new bridges constructed in the median to the reconstructed bridges in their original location on the mainline.. The temporary roadways will be removed and new realigned mainline roadways will be constructed to align with the new bridges that were constructed in the median. This proposed construction approach minimizes impacts to traffic by maintaining all lanes of traffic in both the Northbound and Southbound directions throughout the construction duration.

Work under this Contract also includes approximately 1.8 miles of roadway work along Route 3 in order to tie in the new bridge locations and profile grades. The roadway work includes vertical profile adjustments, temporary roadway construction, reconstruction of the existing roadway with placement of a new asphalt pavement structure, slope protection, highway guardrail installation, wetland replication, embankment construction, drainage alterations and additions and other safety elements such as new signage and markings.

On September 24, 2016, the Highway Division advertised this contract for bids. A total of eighteen (18) firms purchased plans and specifications. On February 14, 2017, the Highway Division opened bids for this contract and eleven (11) bids were received. D.W. White Construction, Inc. was the lowest responsible and eligible bidder with a bid price of \$29,424,712.50.

The bids were reviewed by engineers in the Construction, Construction Contracts and Bridge Sections. The Highway Division has accepted the bid submitted by D.W. White Construction, Inc. which at \$29,424,712.50 is 14.1% below the design estimate of \$34,257,397.50.

The following is the listing of bidders with the corresponding bid prices:

D.W. WHITE CONSTRUCTION, INC	\$29,424,712.50
S&R CORPORATION	\$31,193,305.00
SPS NEW ENGLAND INC.	\$32,223,273.75
BARLETTA HEAVY DIVISION INC	\$32,279,000.00
DANIEL O'CONNELLS SONS INC.	\$33,560,000.00
E.T. & L. CORPORATION	\$33,924,140.00
MIG/MANFORT BROTHERS INC. JV	\$33,936,738.85
AETNA BRIDGE COMPANY	\$34,277,770.15
A.A. WILL CORPORATION	\$34,867,283.50
MCCOURT CONSTRUCTION COMPANY, INC.	\$37,537,453.00
J.F. WHITE CONTRACTING COMPANY	\$38,267,538.00

In order to submit a bid for this project, contractors must be prequalified by the Highway Division in the Class of Work "Bridge – Construction" or "Highway – Construction. A review of the Contractor Evaluation scores for D.W. White Construction, Inc. on file with the Highway Division reflects an average score of 90. D.W. White Construction, Inc. has 4 active construction contracts with MassDOT at this time.

DISADVANTAGED BUSINESS ENTERPRISE(S) PARTICIPATION:

On this Contract, the Massachusetts Department of Transportation (MassDOT) has established a goal of 11% for participation by Disadvantaged Business Enterprise(s) (DBE) for the project. To achieve this goal the general contractor, D.W. White Construction, Inc. has identified two (2) firms. Saugus Construction Corp. will furnish and install the structural steel and shear connectors for an amount of \$2,377,950.00. This represents 8.1% of the total bid amount of \$29,424,712.50. Andella Iron, Inc. will furnish and install reinforcing steel for an amount of \$859,500.00. This represents 2.9% of the total amount bid of \$29,424,712.50. These two combined totals equal \$3,237,450.00 which represents 11.0% of the total amount bid of \$29,424,712.50.

SUSTAINABILITY:

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The two roads that Route 3 crosses, Rt. 123 (Webster St.) and High St., both currently have 5 foot wide sidewalks on both sides, which are being increased to 6 feet on each side to provide for increased connectivity to the areas outside the Rt. 3 ROW. The existing shoulder widths are 8 feet to 10 feet wide, and will remain. These local roads will also be milled, resurfaced and receive new pavement markings. Accessible ramps are being provided at each end of the sidewalks, where none exist now.

We are improving water quality by the installation of water quality swales and dry grassed swales with check dams. This will provide more water quality treatment and infiltration for a majority of the project length along the median. We also are installing these swales at several locations along the outside shoulder along the “abandoned” segments of Route 3.

FINANCIAL IMPACT:

The total cost for this construction contract is funded with 80% Federal Aid Funds and 20% State Transportation Funds. All the funding necessary for the construction of this project is provided by the Highway Transportation programs. There will be no potential projects placed at risk with the approval of this request by the MassDOT Board of Directors as this project has been fully funded per the State Transportation Improvement Program.

ALTERNATIVE:

This action can be denied; however, denial of this action would produce delays in the replacement of the existing deteriorating bridge structures and may eventually require reduced load posting to restrict the use of heavy trucks. Route 3 has an Average Daily Traffic (ADT 2015) of 48,069 (NB) and 34,808 (SB). The structures will continue to deteriorate and may require expensive repairs to keep open. A structurally deficient bridge will remain in service if not replaced. In addition, the approval of this project will ensure advancement of transportation reform principles, including reduction of the number of structurally deficient bridges, investment in long overdue transportation projects, job creation, and hedging against future inflation of construction costs.

The Highway Division’s Standard Specifications for Highways and Bridges indicate that for federal aid projects, the two lowest bidders shall keep their bids open for at least 45 days after the bid opening. After 45 days the low bidder may withdraw their bid and request the return of the proposal guaranty, in which case the proposal guaranty of both the two lowest bidders will be returned and the second lowest bidder’s proposal shall not be considered for award. The Highway Division would then be responsible for re-advertising the project.

RECOMMENDATION:

It is recommended that the MassDOT Board award and authorize the Secretary/CEO and/or the Administrator of the Highway Division or her designee to execute in the name of and on behalf of the MassDOT, and in a form approved by the General Counsel, a contract in the amount of **\$29,424,712.50**.

RECOMMENDATION:

It is recommended that the MassDOT Board authorize the Secretary/CEO and/or the Administrator of the Highway Division or her designee to award and execute in the name of and on behalf of the MassDOT, and in a form approved by the General Counsel, a contract for the Hanover – Norwell 2 Bridge Replacements on Route 3 (Pilgrims Highway) Br. No. H-06-010 (Steel) over Route 123 (Webster Street) and Br. No. N-24-003 (Steel) over High Street.

ENCLOSURES:

- TAB A -- Vote
- TAB B -- Pre-Award Documentation
- TAB C – Bid Form
- TAB D – Disadvantaged Business Enterprises Documentation

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RECOMMEND APPROVAL:

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Division Administrator

Chief Financial Officer

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VOTE:

That the Secretary/CEO and/or Administrator for the Highway Division, be and hereby is, authorized to award and execute, in the name and on behalf of the Department, and in a form approved by General Counsel, a certain Highway Division Contract entitled, "Hanover – Norwell 2 Bridge Replacements on Route 3 (Pilgrims Highway) Br. No. H-06-010 (Steel) over Route 123 (Webster Street) and Br. No. N-24-003 (Steel) over High Street" with a contractor in an amount based upon a schedule of unit prices, said contractor being the lowest responsible and eligible bidder in response to requests for sealed proposals.

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TAB A

VOTE

Subject: Highway Division Contract No. 97935 **HANOVER-NORWELL**
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TAB B

PRE-AWARD DOCUMENTATION

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TAB C
BID FORM

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TAB D

DISADVANTAGED BUSINESS ENTERPRISE DOCUMENTATION