

U-2800 Project Synopsis

Project Description and Purpose

- The Design-Build Project U-2800 consists of widening Macy Grove Road to multi-lanes, extending the roadway on new location to north of East Mountain Street, and converting the grade separation at I-40 Business/US 421 to an interchange. Grade separations are also proposed on new location crossing Norfolk Southern Railroad (NSRR) and SR 1005 (Old US 421/East Mountain Street).
- The primary purpose of this approximately 0.94-mile project is to provide a link between I-40 Business/US 421 and NC 150 in conjunction with the U-4734 project.

Planning

- The U-2800/U-4734 Environmental Assessment (EA) was approved on September 30, 2010 and the U-2800/U-4734 Finding of No Significant Impact (FONSI) was approved on June 30, 2011. The Design-Build Team shall adhere to all environmental document commitments. A copy of the EA and FONSI will be made available to the short-listed Design-Build Teams.
- TIP Project U-2800 is following the Merger 01 Process. The Department has obtained the necessary concurrence up to Concurrence Point 4A. The Design-Build Team shall be responsible for obtaining all remaining Merger 01 Concurrence Points.

Public Involvement Scope of Work

- During the project's construction, the Design-Build Team shall coordinate with the Division 7 Office and the Construction Unit to inform the public of lane closures, construction progress, etc.

Roadway Scope of Work

- The Design-Build Team shall design and construct Macy Grove Road as four-lane divided facility with a 23-foot median (narrower where needed for turn lanes). The facility shall be designed and constructed to meet a 50 mph design speed with partial control of access south of Industrial Drive and north of East Mountain Street with limited control of access between Industrial Drive and East Mountain Street.
- The Design-Build Team shall design and construct an interchange with I-40 Bus./US 421 in place of the existing grade separation and new grade separations at Norfolk Southern Railroad (NSRR) and East Mountain Street. All other -Y- lines along the mainline shall be at-grade intersections.
- The Design-Build Team shall also design and construct certain improvements and re-alignment of I-40 Business, predominantly to the west of Macy Grove Road.

Structure Scope of Work

- The Design-Build Team shall be responsible for the design and construction of all structures necessary to complete the project. The Design-Build Team shall design and construct bridges that adhere to the AASHTO LRFD Bridge Design Specifications at the following anticipated locations:
 - Dual Bridges on - L - over I-40 Bus./US 421
 - Dual Bridges on - L - over NSRR
 - Dual Bridges on - L - over East Mountain Street

Railroad Coordination

- The Design-Build Team shall be responsible for coordinating all railroad design and construction details on Norfolk Southern Railroad right of way and obtaining an executed agreement with the Railroad.

Hydraulic Scope of Work

- The Design-Build Team shall be responsible for all storm drainage design and construction.
- The Design-Build Team will be responsible for preparing any bridge or culvert survey reports as needed.
- The Design-Build Team shall develop a State Stormwater Management Plan.

Geotechnical Scope of Work

- Roadway and structure subsurface investigations will be provided to the short-listed Design-Build Teams. The Design-Build Team shall be responsible for all recommendations, as well as supplemental roadway and structural investigations.
- The Design-Build Team shall be responsible for the design and construction of all foundations, embankments, slopes, retaining walls and temporary structures.

Geoenvironmental Scope of Work

- Two unregulated dumpsites, one former tire shop/chemical warehouse, and one operating service station were identified within the project limits. The NCDOT has completed preliminary environmental studies on these sites and will provide the results to the short listed teams.
- The Design-Build Team and NCDOT responsibilities for geoenvironmental remediation will be outlined in the Request for Proposals.

Environmental Scope of Work

- The Design-Build Team shall be responsible for preparing all documents necessary for the Department to obtain the environmental permits for this project. The anticipated project permits include a US Army Corps of Engineers Section 404 Individual Permit; a NC Department of Environment and Natural Resources, Division of Water Quality (DWQ) Section 401 Water Quality Certification; Jordan and Randleman Buffer Authorizations; and a State Stormwater Permit.
- The Design-Build Team shall be responsible for completing the Merger 01 process, including obtaining Concurrence Points 4B and 4C.

Erosion Control Scope of Work

- The Design-Build Team shall be responsible for all erosion control designs and implementation.
- The Design-Build Team shall have a certified erosion control inspector on the project at all times during construction.

Traffic Management Scope of Work

- The Design-Build Team shall be responsible for developing and adhering to the Traffic Control Plans. A list of parameters, such as lane closures, time restrictions and general guidelines will be provided in the Request for Proposals.

Pavement Marking Scope of Work

- The Design-Build Team shall be responsible for developing the Pavement Marking Plans and installing all required temporary and permanent pavement markings and markers.

Traffic Signals Scope of Work

- The Design-Build Team shall be responsible for the design and installation of all traffic signals.

Pavement Design Scope of Work

- Final asphalt mainline and –Y- line pavement designs will be provided in the Request for Proposals.
- The Design-Build Team shall be responsible for all temporary pavement designs and the evaluation of existing shoulders and roadways regarding their suitability for carrying traffic during construction. If required, the Design-Build Team shall be responsible for strengthening existing facilities prior to routing traffic on them.

Signing Scope of Work

- The Design-Build Team shall be responsible for the design, fabrication, and installation of all roadway signs.

Location and Surveys Scope of Work

- Electronic surveys will be provided to the short-listed teams. The Design-Build Team shall be responsible for all supplemental surveys.
- Known existing utilities have been located and will be included with the survey data provided to the short-listed teams. The Design-Build Team shall be responsible for all supplemental SUE work.

Utility Construction Scope of Work

- The Design-Build Team shall be responsible for the design and construction of water and sewer facilities in conflict with the project.

R/W Utilities, Conflicts and / or Construction Scope of Work

- The Design-Build Team shall be responsible for all utility conflicts / relocations and utility construction plans. Coordination shall include, but not be limited to, preparations and / or obtaining all necessary utility agreements.
- The Design-Build Team shall be responsible for coordinating the construction / relocation of private utilities with the appropriate owners.
- The Design-Build Team shall be responsible for preparing and / or obtaining all necessary utility agreements.

Right of Way Scope of Work

- The Design-Build Team shall be responsible for all right of way, easement and control of access acquisitions required by the proposed design and / or construction.

Construction Engineering Inspection (CEI) Scope of Work

- The Department will be responsible for CEI work.