

R-2510B Project Synopsis
Revised September 16, 2005

Project Description and Purpose :

- The Design Build Project, R-2510B, extends from south of SR 1149 (Price Road) to north of SR 1509 (Springs Road), a distance of approximately 6.8 miles. The proposed improvements consist of a four-lane divided facility with sections of freeway (full control of access) and expressway (partial control of access).
- The purpose of this project is to improve safety, increase traffic capacity to meet projected transportation needs and reduce travel times.

Planning:

- A Draft Environmental Impact Statement and Draft Section 4(F) Evaluation were approved on June 5, 2002. A Final Environmental Impact Statement was approved on August 31, 2004. A Record of Decision was published in December 2004. The Design Build Team shall adhere to all commitments stated in the environmental documents. Copies of these documents will be made available to the short-listed Design Build Teams and / or posted on the NCDOT Design Build web page.
- The Design Build Team shall address all commitments outlined in a municipal agreement with the City of Washington that is currently being procured. A copy of the agreement will be provided to the short-listed Design Build Teams.

Public Involvement Scope of Work:

- During the project's construction, the Design Build Team shall coordinate with the Division 2 Office, the Construction Unit, and the City of Washington to inform the public of lane closures, construction progress, etc.

Roadway Scope of Work:

- The Design Build Team shall design and construct a four-lane divided facility with a 46' median from south of SR 1149 (Price Road) to north of SR 1509 (Springs Road).
- Along the existing alignment, US 17 shall be widened to a four-lane divided facility that meets a 60-mph design speed for a flat rural expressway.
- Along new alignment, the proposed new location facility shall be designed to meet a 70-mph design speed for a flat rural freeway.
- At-grade intersections with directional crossovers shall be designed and constructed along the mainline at SR 1149 (Price Road), US 17 Business north of Washington and at SR 1509 (Springs Road). The US 17 Bypass / US 17 Business intersection shall be designed to

accommodate a future interchange. The Design Build Team shall be responsible for the development of preliminary plans for this future interchange.

- The Design Build Team shall design and construct interchanges at NC 33 and US 264.
- The Design Build Team shall design and construct several -Y- lines and service roads. The limits of -Y-line construction shall be of sufficient length to tie to the existing alignments based upon the current guidelines and standards.
- The project's proposed typical section shall end at Station 570+00 –L-. However, the Design Build Team shall design and construct a transition that ties the proposed typical section to the existing traffic pattern. Within this transition area, a U-turn bulb shall be designed and constructed at approximately Station 575+00 –L- to accommodate the indirect left turn movement from the westbound approach of Springs Road.

Structure Scope of Work:

- The Design Build Team shall design and construct dual bridges on proposed US 17 over NC 33.
- The Design Build Team shall design and construct an approximately 2.8 mile long bridge over the Tar River and adjacent wetlands, including the crossings of existing US 17, SR 1171 (Packing House Road), Norfolk Southern Railway, and SR 1165 (Sandhole Road). During preliminary design, the USCG has indicated that minimum clearances of 40' vertical and 60' horizontal shall be required over the navigable waterway. The Design Build Team shall coordinate with the USCG to verify these clearances. The Design Build Team shall design the bridge for vessel impact and scour. **Cored slab, box girder, cast-in place deck slab, and deck girder shall not be allowed. Painted steel girders may be allowed on portions of the bridge.** Vertical clearance gages and navigational lights shall be required.
- The Design Build Team shall design and construct dual bridges on proposed US 17 over US 264.
- The Design Build Team shall design and construct dual bridges on proposed US 17 over 15th Street Extension.
- The Design Build Team shall design and construct reinforced concrete box culverts at the following locations:
 - Cherry Run Creek
 - Existing pond at approximately Station 250+00 –L-
 - Within the proposed US 17 / US 33 interchange
- The Design Build Team shall coordinate with Norfolk Southern Railway to obtain plan approval and a signed legal agreement.

Hydraulic Scope of Work:

- The Design Build Team shall be responsible for all storm drainage design and construction.
- The Design Build Team shall be responsible for a CLOMR for Maple Branch.
- Due to tidal conditions at the Tar River, the Design Build Team shall develop a 2D Flow Model (Tidal Hydraulics). The Design Build Team shall determine velocities for vessel impact studies and bridge scour calculations based on the 2D Flow Model.
- The Design Build Team shall be responsible for obtaining the HECRAS model for Maple Branch and Maple Branch Tributary from FEMA.
- The Design Build Team shall conduct the 4B and 4C meetings. The Design Build Team shall be responsible for development of the hydraulic plans and permit impact sheets for these meetings.

Location & Surveys Scope of Work:

- Full electronic surveys are completed and will be provided to the short-listed teams. Supplemental surveys shall be the responsibility of the Design Build Team.
- Known existing utilities have been located and will be included with the survey data. All supplemental SUE work shall be the responsibility of the Design Build Team.

Geotechnical Investigation Scope of Work:

- Roadway and structure subsurface investigations will be provided to the short-listed Design Build Teams. The Department may be willing to obtain an additional 5-10 borings for each short-listed team. If feasible, the additional requested subsurface information will be obtained and provided to all teams. The Design Build Team shall be responsible for all recommendations, as well as supplemental structural and roadway investigations.
- All foundation designs and recommendations shall be the responsibility of the Design Build Team.

Geoenvironmental Scope of Work:

- Preliminary Site Assessment (PSA) reports and Geoenvironmental Right of Way Recommendations will be provided to the short-listed teams.
- The Design Build Team shall be responsible for geoenvironmental remediations as noted in the RFP.

Environmental Scope of Work:

- The Design Build Team shall be responsible for preparing all documents necessary for the Department to obtain the environmental permits or modification of existing permits for this project. Permit modifications will be needed for the following: US Army Corps of Engineers Section 404 Individual Permit, the NC Department of Natural Resources, Division of Water Quality (DWQ) Section 401 Water Quality Certification, and Division of Water Resources. Permit applications will be needed for the following: Division of Coastal Management (DCM) Major Development Permit, U.S. Coast Guard and a Central Coastal Plain Capacity Use Area Permit (CCPCUA).
- A construction moratorium between February 15 through June 15 for anadromous fish shall be adhered to for in-water work.
- Data recovery shall be completed by NCDOT at Site 31BF340, a Middle Woodland limited activity location, before construction will be allowed in that area. Every effort should be made by the Design Build Team to acquire right of way to access this site as early as possible.
- Onsite mitigation requirements for the Design Build Team will be determined before the release of the Final RFP.

Erosion Control Scope of Work:

- All erosion control designs and implementation shall be the responsibility of the Design Build Team.
- The Design Build Team shall have an erosion control inspector on the project at all times during construction.

Traffic Control and Pavement Marking Scope of Work:

- A list of parameters, such as lane closures, time restrictions and general guidelines, will be provided to the short-listed teams.
- The Design Build Team shall be responsible for development and installation of the Traffic Control and Pavement Marking Plans.

Pavement Design Scope of Work:

- Final asphalt pavement designs will be provided to all short-listed Design Build Teams.
- The Design Build Team shall be responsible for all temporary pavement designs and the evaluation of existing shoulders regarding their suitability for carrying traffic during construction.

Signing Scope of Work:

- Design and installation of roadway signs shall be the responsibility of the Design Build Team.
- Due to the proximity of the proposed US 17 Bypass / US 264 interchange to the Tar River Bridge, the Design Build Team shall be responsible for the design and installation of signs mounted on the bridge.

Signal Scope of Work:

- The design and installation of signals and associated equipment shall be the responsibility of the Design Build Team.

Right of Way Acquisition Scope of Work:

- All right of way and easement acquisitions required by the proposed design and / or construction shall be the responsibility of the Design Build Team.
- The Design Build Team shall be responsible for acquiring right of way to accommodate a future US 17 Bypass / US 17 Business interchange.

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 any and all necessary utility agreements when applicable.
- The Design Build Team shall be responsible for coordinating the construction / relocation of private utilities with the appropriate owners. The Department shall be responsible for non-betterment utility relocation costs when the utility company has prior rights of way/compensable interest. The utility company shall be responsible for the relocation cost if they cannot furnish evidence of prior rights of way or a compensable interest in their facilities.

Construction Engineering Inspection (CEI) Scope of Work:

- The Division Office shall be responsible for CEI work.