

R-2635A, B & C Project Synopsis

Project Description and Purpose:

- The Design-Build project R-2635, which is a portion of the Triangle Expressway and referred to as the Western Wake Freeway, extends from NC 55 at Old Smithfield Road to NC 55 near Alston Avenue, a distance of approximately 12.6 miles. The proposed roadway consists of a new six-lane divided toll facility with a 78-foot median. For consistency with the NCDOT's project descriptions, project R-2635 has been separated into three sections: R-2635A, B, and C. R-2635A begins at NC 55 near Old Smithfield Road and extends westward to east of US 1, a distance of approximately 2.0 miles. R-2635B extends from east of US 1 to north of Olive Chapel Road, a distance of approximately 3.3 miles. R-2635C extends from north of Olive Chapel Road to NC 55 near Alston Avenue, a distance of approximately 7.3 miles. All three sections are being let as one contract.
- The purpose of this project is to provide a high speed, multi-lane, controlled-access freeway to accommodate the increasing transportation demand in the western Wake County area.

Planning:

- The Reevaluation Report for the Final Environmental Impact Statement (FEIS) was approved on September 7, 2007. A Final Environmental Impact Statement was approved on January 21, 2004. A Record of Decision was approved on April 30, 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.
- The Design-Build Team shall address all commitments outlined in all Municipal Agreements, including those with the Town of Apex, Town of Cary and Wake County. A copy of the agreements 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 NCTA, NCDOT, the Town of Cary, Town of Apex, Wake County, Feltonville Community, and other appropriate entities to inform the public of lane closures, construction progress, etc.

Roadway Scope of Work:

- Only open road tolling, including electronic toll collection (ETC) and video tolling, will be utilized on the Triangle Expressway project. Therefore, any contract documents or supplied information that depicts, references or refers to cash toll collection and associated facilities / activities necessitated by toll cash collection shall be disregarded and excluded from the design and construction of this project.
- The Design-Build Team shall design and construct a six-lane divided facility with a 78-foot median that adheres to a 70-mph design speed for a rolling urban freeway.

- Unless noted otherwise, the Design-Build Team shall design and construct -Y- Lines, ramps, cul-de-sacs and service roads providing access, widening and improvements as indicated on the February 8, 2007 Citizens Informational Workshop Maps. At the beginning of the project, the Design-Build Team shall design and construct the NC 55 Bypass Ramp A as a two-lane exit ramp.
- The Design-Build Team shall design and construct interchanges along the -L- Line at NC 55 Bypass, US 1, Old US 1, Green Level West Road and US 64. The project ties into the NC 55 interchange on NC 540.
- The Design-Build Team shall be responsible for the design and construction of the noise walls shown on the February 8, 2007 Citizens Informational Workshop Maps and an additional wall at Olive Chapel Elementary School. Final Design Noise reports will be provided to the short-listed Design-Build Teams.

Toll Facilities Scope of Work:

- The Design-Build Team shall be responsible for the design and construction of the infrastructure (structures, conduit, toll utility buildings, electrical generators, etc.) for all electronic toll collection (ETC) facilities necessary to complete the project. Toll hardware and technology will be performed under a separate contract.

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 all bridges including, but not limited to, those listed below to the AASHTO *LRFD Bridge Design Specifications*.

R-2635A

- Anticipated bridges:
 - Westbound bridge on Western Wake Freeway over NC 55 Bypass
 - Dual bridges on Western Wake Freeway over Old Holly Springs- Apex Road
- Anticipated reinforced concrete box culvert locations:
 - Tributary to Little Branch
 - Little Branch - with greenway accommodations
 - Tributary to Big Branch

R-2635B

- Anticipated bridges:

- Dual bridges on Western Wake Freeway over Flyover B at US 1
- Dual bridges on Western Wake Freeway over US 1
- Flyover A over US 1
- Flyover A over Western Wake Freeway at US 1
- Flyover B over US 1
- Western Wake Freeway over Flyover B at US 1
- CSX Railroad over Western Wake Freeway
- Old US 1 over Western Wake Freeway
- Apex-Barbecue Road over Western Wake Freeway
- Dual bridges over Beaver Creek - with greenway accommodations
- Olive Chapel Road over Western Wake Freeway
- Anticipated reinforced concrete box culvert locations:
 - Big Branch
 - Tributary to Beaver Creek - with greenway accommodations
- Other anticipated structures:
 - Noise walls - Four locations
 - Retaining wall(s) may be needed based on the final project design

R-2635C

- Anticipated bridges:
 - Beaver Creek Commons Drive (three-lane) over Western Wake Freeway
 - Dual bridges on US 64 over Western Wake Freeway
 - Kelly Road over US 64
 - Jenks Road over Western Wake Freeway
 - Roberts Road over Western Wake Freeway
 - Dual bridges on Western Wake Freeway over Jack Branch
 - Dual bridges on Western Wake Freeway over White Oak Creek - with greenway accommodations
 - Green Level West Road over Western Wake Freeway
 - Green Hope School Road over Western Wake Freeway
 - Morrisville Parkway (two-lane) over Western Wake Freeway
 - Dual bridges on Western Wake Freeway over Panther Creek
 - Carpenter Fire Station Road over Western Wake Freeway
 - Dual bridges on Western Wake Freeway over future McCrimmon Parkway
 - Dual bridges on Western Wake Freeway over Nancy Branch and future East-West Collector

- Anticipated reinforced concrete box culvert locations:
 - Tributary to Reedy Branch
 - Tributary to Bachelor Branch
 - Bachelor Branch - with greenway accommodations
 - Tributary to Panther Creek
 - Morris Branch

- Other anticipated structures:
 - Retaining walls

Railroad Coordination Scope of Work:

- The Design-Build Team shall be responsible for all coordination required with CSX Transportation to obtain plan approval and a signed legal agreement.
- The Design-Build Team shall be responsible for all design and construction details required for the CSX Transportation bridge over Western Wake Freeway, near Old US 1. The Design-Build Team shall be responsible for all agreements required by NCTA, NCDOT and / or CSX Transportation.

Hydraulics Scope of Work:

- The Design-Build Team shall design and install all storm drainage systems.
- The Design-Build Team shall revise Culvert or Bridge Survey Reports for structures revised in any way from those provided. The Design-Build Team shall be responsible for all new Culvert and Bridge Survey Reports.
- The NCTA will provide a corridor permit that contains the final permit required for R-2635C. The Design-Build Team shall prepare a permit modification resulting from any variation in the NCTA's design, construction methods or utility relocation / construction for R-2635C, as well as the final permit for the construction of sections R-2635A and B.
- The Design-Build Team shall prepare CLOMR packages for all crossings that deviate in any way from those provided. The Design-Build Team shall prepare CLOMR packages for all regulated floodways beyond those provided by NCTA.
- The Design-Build Team shall prepare LOMR packages for any regulated streams impacted by the design for NCTA's submittal to FEMA.

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 Engineering 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 structural and roadway investigations.
- This project is located within the Triassic Basin consisting of sandstone, mudstone, and siltstone. Therefore, the Design-Build Team and the prequalified geotechnical firm shall take the nature of this material into account and incorporate that into any design and construction recommendations.
- The Design-Build Team shall be responsible for the design and construction of all foundations, embankments, slopes, retaining walls and temporary structures.

Environmental Permits Scope of Work:

- **R-2635A and B:** The Design-Build Team shall be responsible for preparing all documents necessary for the NCTA to obtain the environmental permits or modifications of existing permits. 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.
- The NCTA / NCDOT has reached Concurrence Point 4A for the R-2635A section, and has reached concurrence point 4B for the R-2635B section. Any required coordination with or approvals from the environmental agencies, including Merger meetings, public involvement and / or permit modifications resulting from a variation in the NCTA / NCDOT's preliminary design shall be the sole responsibility of the Design-Build Team.
- **R-2635C:** NCTA has applied for permits for the R-2635C section. Any required coordination with or approvals from the environmental agencies, public involvement and / or permit modifications resulting from a variation in the NCTA / NCDOT's preliminary design, construction methods or utility relocation/construction shall be the sole responsibility of the Design-Build Team.
- On-site 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:

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

Pavement Scope of Work:

- Final concrete pavement designs will be provided to all short-listed Design-Build Teams although an alternate asphalt pavement design is under evaluation.
- 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 necessary. 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 toll and standard signs required through the construction limits, and outside the construction limits to provide appropriate signing of the mainline, all -Y- Lines, all service roads and all cul-de-sacs. A signing strip map will be provided to all short-listed Design-Build Teams.

Signals Scope of Work:

- The design and installation of signals and associated equipment shall be the responsibility of the Design-Build Team.
- It is anticipated that new or revised signals will be required at 12 – 14 intersections.

Right of Way Scope of Work:

- All right of way and easement acquisitions, unless otherwise noted in the RFP, required by the proposed design and / or construction shall be the responsibility of NCTA, including required acquisitions resulting from a change in the preliminary plans provided by NCTA.

- The Design-Build Team will be required to prioritize parcel acquisition for the NCTA based on critical path construction activities.

Utility Conflicts and/or Construction Scope of Work:

- The Design-Build Team shall be responsible for all utility conflicts / relocations. Coordination shall include any and all necessary utility agreements when applicable.
- Utility By Others Plans will be provided to all short-listed Design-Build Teams. 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 relocating any water and sewer conflicts associated with this project. Preliminary routing plans will be provided.

Lighting Scope of Work:

- The Design-Build Team shall be responsible for the design and construction of all roadway lighting for this facility.

Construction Engineering Inspection (CEI) Scope of Work:

- The Design-Build Team shall be responsible for CEI work.

Critical Path Method (CPM) Scope of Work:

- The Design-Build Team shall provide a Cost-Loaded Critical Path Method Project Schedule.

Warranty:

- The Design-Build Team shall provide a comprehensive project warranty of no less than 3 years.