

R-2635D Project Synopsis

Stipend

- A stipulated fee of **\$25,000** will be awarded to each short-listed Design-Build Team that provides a responsive, but unsuccessful, Design-Build Proposal in response to the Final Request for Proposals and all associated Addenda. If a contract award is not made, all short-listed Design-Build Teams that provide a responsive Design-Build Proposal shall receive the stipulated fee. In the event that the Department suspends or discontinues the procurement process prior to the Design-Build Proposal submittal date current at the time of the suspension, no stipulated fee will be paid.

Project Description and Purpose

- Project R-2635D provides an interchange at the Triangle Expressway (Toll NC 540) and Old Holly Springs - Apex Road (SR 1153). The approximately 1.4 mile project will also provide auxiliary lanes along the Triangle Expressway (Toll NC 540) between the NC 55 Bypass and US 1 interchanges.
- The primary purpose of this project is to improve access and roadway connectivity in response to planned and anticipated development in southern Apex.

Planning

- The R-2635D State Combined Environmental Assessment / Finding of No Significant Impact is anticipated to be approved in February 2015.
- The Design-Build Team shall adhere to all environmental document commitments. A copy of the State Combined Environmental Assessment / Finding of No Significant Impact will be made available to the short-listed Design-Build Teams.
- The Design-Build Team shall adhere to all commitments outlined in the Municipal Agreement with the Town of Apex. A copy of the agreement will be made available to the short-listed Design-Build Teams.

Public Information

- During the project's construction, the Design-Build Team shall coordinate with NCTA, NCDOT, the Town of Apex, the Division 5 Office and the Construction Unit to inform the public of lane closures, construction progress, etc.

Roadway

- The Design-Build Team shall design and construct an interchange at the Triangle Expressway (Toll NC 540) and Old Holly Springs - Apex Road (SR 1153). The Triangle Expressway (Toll NC 540) shall be designed and constructed to meet a 70 mph design speed for a rolling urban freeway.

- The Design-Build Team shall design and construct auxiliary lanes along the Triangle Expressway (Toll NC 540) between the NC 55 Bypass and US 1 interchanges.

Structures

- The Design-Build Team shall design and construct all structures necessary to complete the project, including but not limited to widening the bridge on Old Holly Springs – Apex Road (SR 1153) over the Triangle Expressway (Toll NC 540).
- The Design-Build Team shall extend all reinforced concrete box culverts impacted by the project’s design and / or construction. It is anticipated that two reinforced concrete box culverts will require extensions.
- The Design-Build Team shall design and construct all required retaining walls. It is anticipated that at least one retaining wall will be required.

Aesthetics

- Aesthetic treatments shall be consistent with the aesthetics elements constructed as part of the Triangle Expressway Project. The required aesthetic treatments shall include, but not be limited to, MSE retaining walls, bridge abutments and bents, tolling areas, and sign structures. The specific Design-Build Team and NCDOT aesthetic requirements will be outlined in the Request for Proposals.

Hydraulics

- The Design-Build Team shall design and construct all storm drainage.
- The Design-Build Team shall develop all Culvert Survey Reports.
- The Design-Build Team shall develop a State Stormwater Management Plan.

Geotechnical

- 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 design and construct all foundations, embankments, slopes, retaining walls and temporary structures.
- This project is located within the Triassic Basin that consists of sandstone, mudstone and siltstone. Therefore, the Design-Build Team and the prequalified geotechnical firm shall mitigate for the unique nature of this material in their design and construction.

Geoenvironmental

- The specific Design-Build Team and NCDOT geoenvironmental remediation responsibilities will be outlined in the Request for Proposals.

Environmental

- The Design-Build Team shall prepare all documents necessary for the Department to obtain the environmental permits for this project. The anticipated required permits include a US Army Corps of Engineers (USACE) Individual Section 404 Permit and a NC Department of Environment and Natural Resources (DENR) Division of Water Resources (DWR) Section 401 Water Quality Certification.
- Project R-2635D was only required to follow Concurrence Points 4A, 4B and 4C of the Merger 01 Process. The Concurrence Point 4A, Avoidance and Minimization Meeting, is anticipated to be held in January 2015. The Design-Build Team shall complete the modified Merger 01 Process, including Concurrence Point 4B, hydraulic design review meeting, and Concurrence Point 4C, permit impacts meeting.

Erosion Control

- The Design-Build Team shall be responsible for all erosion control designs and implementation.

Transportation Management

- The Design-Build Team shall develop and implement the Transportation Management Plans. A list of parameters, such as lane closures, time restrictions and general guidelines will be provided in the Request for Proposals.

Pavement Markings

- The Design-Build Team shall develop the Pavement Marking Plans and install all pavement markings / markers.

Traffic Signals

- The Design-Build Team shall design and install all traffic signals and associated equipment. It is anticipated that two new traffic signals will be required.

All-Electronic Tolling (AET) Toll Zone Facilities Infrastructure

- The Design-Build Team shall design and construct the infrastructure (structures, conduit, toll utility buildings, electrical generators, etc.) for all AET toll zone facilities.

- The North Carolina Turnpike Authority will procure and install all roadside toll technology components (antennas, cameras, cables, etc.).

ITS

- The Design-Build Team shall design and install all Intelligent Traffic Systems (ITS) infrastructure and devices, including, but not limited to, new Microwave Vehicle Detectors (MVDs).
- It is anticipated that the Design-Build Team will be required to relocate one existing CCTV camera and two MVDs.
- The Design-Build Team shall modify an existing fiber-optic trunkline and provide a new fiber-optic trunkline.

Pavement

- Final mainline concrete pavement designs will be provided in the Request for Proposals.
- The Design-Build Team shall design all temporary pavements and evaluate existing shoulders and roadways regarding their suitability for carrying traffic during construction, if necessary.

Signing

- The Design-Build Team shall design, fabricate and install all toll and standard signs required to appropriately sign the mainline and all -Y- Lines.
- The Department will provide a signing strip map to all short-listed Design-Build Teams.

Location and Surveys

- Electronic surveys are complete and 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

- The Design-Build Team shall design and construct the relocation of all water and sewer facilities in conflict with the project.

R/W Utilities, Conflicts and / or Construction

- 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 coordinate the construction / relocation of private utilities with the appropriate owners.

Right of Way

- The Department has begun the right of way acquisition process. The Design-Build Team shall acquire all right of way and easements not finalized upon Award of the contract.
- The Design-Build Team shall acquire all additional right of way and / or easements required by the proposed design and / or construction for those parcels that the Department completed the right of way acquisition process.

Lighting

- The Department will provide signed and sealed Lighting Plans.
- The Design-Build Team shall install all lighting.

Construction Engineering Inspection (CEI)

- The Department will be responsible for CEI work.