

I-5111 / I-4739 Project Synopsis

Stipend

- A stipulated fee of **\$100,000** 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 will 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

- From the I-40 / I-440 / US 64 interchange in Wake County to just north of SR 1525 (Cornwallis Road) in Johnston County, the Design-Build Project I-5111 / I-4739 will widen approximately 12.8 miles of I-40. The project will also modify interchanges and replace bridges along I-40.
- The project's primary purpose is to provide relief from present and future congestion and provide a higher level of service on I-40.

Planning

- The I-5111 Categorical Exclusion is anticipated to be approved in December 2017.
- The I-4739 Categorical Exclusion (CE) is anticipated to be approved in January 2018.
- The Design-Build Team shall adhere to all environmental document commitments. A copy of the I-5111 CE and the I-4739 CE 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 the Division 4 Office, Division 5 Office and the Construction Unit to inform the public of lane closures, construction progress, etc.

Roadway

- From the I-40 / I-440 / US 64 interchange in Wake County to just north of SR 1525 (Cornwallis Road) in Johnston County, the Design-Build Team shall widen I-40. In accordance with the Request for Proposal requirements, the I-40 widening shall consist of ten-lane, eight-lane and six-lane sections.

- From the I-40 / I-440 / US 64 interchange to the I-40 / US 70 Business interchange, the Design-Build Team shall design and construct I-40 to meet a 70 mph design speed for a freeway designed to interstate standards. For the remainder of the project, the Design-Build Team shall design and construct I-40 to meet a 75 mph design speed for a freeway designed to interstate standards.
- The Design-Build Team shall design and construct interchange modifications at I-440 / US 64, US 70 Business, US 70 Bypass, and NC 42.
- The Design-Build Team shall design and construct a new interchange at SR 1010 (Cleveland Road).
- The Design-Build Team shall design and construct a Collector Distributor System between the existing I-40 / NC 42 interchange and the new I-40 / SR 1010 (Cleveland Road) interchange.
- The Department will provide the Traffic Noise Report to the short-listed Design-Build Teams. The Design-Build Team shall develop the Design Noise Report.

Structures

- The Design-Build Team shall design and construct all structures necessary to complete the project, including but not limited to the bridge on SR 1010 (Cleveland Road) over I-40.
- The Design-Build Team shall replace the following roadway structures, as identified in the Request for Proposals:
 - Bridge on Ramp -Y1RPBD- over I-440 westbound
 - Bridges on Ramp -Y1RPBD- over I-40 westbound and I-40 eastbound – Replace with one structure
 - Bridge on Ramp -Y1RPWB- over I-440 eastbound
 - Bridge on SR 2542 (Rock Quarry Road) over I-40
 - Bridge on SR 1004 (East Garner Road) over I-40
 - Bridge on I-40 over US 70 Business
 - Bridge on I-40 over Ramp -Y5RPC-
 - Bridge on SR 2700 (White Oak Road) over I-40
 - Bridge on I-40 over Swift Creek
 - Bridge(s) on NC 42 over I-40
- The Design-Build Team shall replace or extend all reinforced concrete box culverts impacted by the project's design and / or construction.
- The Design-Build Team shall design and construct all required sound barrier walls and retaining walls.

Railroad Coordination

- The Design-Build Team shall coordinate all design and construction details on NCRR / NS Railroad right of way and obtain an executed agreement(s) with the Railroad.

Hydraulics

- The Design-Build Team shall design and construct all storm drainage.
- The Design-Build Team shall obtain FEMA compliance for the regulated stream crossings.
- The Design-Build Team shall be responsible for all Bridge Survey Reports and 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.

Geoenvironmental

- There are no known geoenvironmental sites of concern within the current project limits.
- The Design-Build Team and NCDOT responsibilities for geoenvironmental remediation 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 Section 404 Individual Permit, and a NC Department of Environment and Natural Resources, Division of Water Resources (DWR) Section 401 Water Quality Certification.
- Project I-5111 is in the Merger Process used by the environmental agencies and the Department to obtain environmental permits. The Design-Build Team shall complete the Merger Process, including but not limited to obtaining Concurrence Point 4B and

Concurrence Pont 4C. Project I-4739 is not in the Merger Process; however, the Design-Build Team shall include I-4739 with the I-5111 Merger Process.

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 Pavement Marking Plans and install all temporary and permanent pavement markings / markers.

ITS

- The Design-Build Team shall design and install ITS infrastructure, including but not limited to conduit and fiber optic communications cable.
- The Design-Build Team shall design, install and integrate ITS communication equipment, including but not limited to Local Area Network Equipment, Dynamic Message Signs and Closed Circuit Television Cameras.

Traffic Signals

- The Design-Build Team shall design and install all temporary and permanent traffic signals.

Pavement Design

- Alternate asphalt and concrete mainline pavement designs will be provided in the Request for Proposals.
- Asphalt -Y- Line 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 roadway signs.

Location and Surveys

- Electronic surveys will be provided to the short-listed teams. The Design-Build Team shall be responsible for all supplemental surveys.
- Known existing utilities will be 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.
- The Design-Build Team shall be responsible for all structure surveys.

Utility Construction

- For all water and sewer facilities in conflict with the project, the Design-Build Team shall design and construct the required relocations.

Utility Rights of Way, 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, preparing 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 Design-Build Team shall acquire all right of way, easements and control of access required by the proposed design and / or construction.

Lighting

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

Construction Engineering Inspection (CEI) Scope of Work

- The Department will be responsible for CEI work.