

U-2827B / C-5620A Project Synopsis

Revised February 5, 2016

Stipend

- A stipulated fee of **\$125,000** 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

- The Design-Build Project U-2827B / C-5620A will reconstruct US 421 / I-40 Business from west of Fourth Street to east of Church Street, including mainline pavement reconstruction, interchange modifications and bridge replacements. The project will also provide a multi-use path from Fourth Street to Liberty Street and provide intersection safety improvements outside the US 421 / I-40 Business corridor.
- The purpose of the project is to improve traffic flow, operation and safety on US 421 / I-40 Business, and to enhance multimodal transportation facilities within the City of Winston-Salem.

Planning

- The U-2827B Environmental Assessment (EA) was approved on February 28, 2014.
- The U-2827B Finding of No Significant Impact (FONSI) was approved on February 27, 2015.
- The C-5620A Categorical Exclusion (CE) is anticipated to be approved in June 2016.
- The Design-Build Team shall adhere to all environmental document commitments. A copy of the U-2827B EA and FONSI, and the C-5620A 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 9 Office and the Construction Unit to inform the public of lane closures, construction progress, etc.
- Spanish accommodations will be required.

Roadway

- The Design-Build Team shall design and construct a four-lane divided facility with a 10-foot median from west of Fourth Street to east of Church Street. The US 421 / I-40 Business reconstruction shall be designed and constructed to meet a 50 mph design speed for an urban freeway.
- The Design-Build Team shall design and construct interchange modifications at the US 421 / I-40 Business interchanges with Peters Creek Parkway, Marshall Street, Cherry Street and Main Street.
- The Design-Build Team shall design and construct a ten-foot multi-use path from Fourth Street to Liberty Street.
- The Design-Build Team shall design and construct permanent safety improvements at the following locations:
 - On Academy Street, in proximity to NC 150 (Peters Creek Parkway)
 - On North Martin Luther King, Jr. Drive / Eight Street, between Marshall Street and North Liberty Street / North Main Street
 - On Marshall Street, in proximity to North Martin Luther King, Jr. Drive / Eight Street
- The Design-Build Team shall design and construct temporary intersection safety improvements at the following locations:
 - NC 150 (Peters Creek Parkway) at the proposed US 421 / I-40 Business eastbound entrance ramp
 - NC 150 (Peters Creek Parkway) at the proposed US 421 / I-40 Business westbound exit ramp
 - NC 150 (Peters Creek Parkway) / Second Street at First Street
 - Broad Street at Second Street
 - Broad Street at Fifth Street
 - Broad Street at Sixth Street
 - Marshall Street at Academy Street
 - Third Street at Liberty Street
 - Martin Luther King Jr. Drive at Marshall Street / Cherry Street
 - First Street at Northwest Boulevard
 - First Street at Hawthorne Road
 - Northwest Boulevard at Broad Street / Thurmond Road
 - NC 150 (Peters Creek Parkway) at Silas Creek Parkway

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.

Structures

- The Design-Build Team shall design and construct all structures necessary to complete the project, including but not limited to structures at the following locations:
 - Pedestrian Bridge on Strollway over US 421 / I-40 Business, with accommodations for irrigation and landscaping beds
 - Roadway Bridge on Liberty Street over US 421 / I-40 Business
- The Design-Build Team shall replace the following roadway structures, as identified in the Request for Proposals:
 - Bridge No. 269 on Fourth Street over US 421 / I-40 Business
 - Bridge No. 278 on NC 150 (Peters Creek Parkway) over US 421 / I-40 Business
 - Bridge No. 178 on Broad Street over US 421 / I-40 Business
 - Bridge No. 288 on US 421 / I-40 Business over Brookstown Avenue
 - Bridge No. 293 on Marshall Street over US 421 / I-40 Business
 - Bridge No. 305 on Cherry Street over US 421 / I-40 Business
 - Bridge No. 313 on Main Street over US 421 / I-40 Business
 - Bridge No. 336 on Church Street over US 421 / I-40 Business
- The Design-Build Team shall replace Bridge No. 286 on Green Street over US 421 / I-40 Business with a cable-stayed pedestrian bridge.
- The Design-Build Team shall permanently remove and dispose of the structures at the following locations:
 - Bridge No. 291 on Spruce Street over US 421 / I-40 Business
 - Bridge No. 312 on US 421 / I-40 Business over Liberty Street
- The Design-Build Team shall design and construct a pedestrian culvert beneath NC 150 (Peters Creek Parkway).
- 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 retaining walls and sound barrier walls. The Department will provide the Final Design Noise Report.

Hydraulics

- The Design-Build Team shall design and construct all storm drainage.

- The Design-Build Team shall obtain FEMA compliance for the regulated stream crossing, if necessary.
- The Design-Build Team shall be responsible for all Culvert Survey Reports, if necessary.
- The Design-Build Team shall develop a 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.
- The Design-Build Team shall be responsible for blasting rock and controlling the resulting vibration.

GeoEnvironmental

- Four (4) underground storage tanks (UST's) and one (1) other site have been discovered on the project and have the potential to be contaminated. The NCDOT will provide preliminary environmental studies on these sites to the short-listed teams.
- The Design-Build Team and NCDOT responsibilities for geoenvironmental remediation will be outlined in the Request for Proposals.

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.

Signing

- The Design-Build Team shall design, fabricate and install all roadway signs.
- The Design-Build Team and NCDOT responsibilities for the design, fabrication and installation of wayfinding signs will be outlined in the Request for Proposals.

Pavement Markings

- The Design-Build Team shall develop Pavement Marking Plans and install all required temporary and permanent pavement markings and markers.

Traffic Signals

- The Design-Build Team design and install all temporary and permanent traffic signals.
- The Design-Build Team shall install two (2) new traffic signals and upgrade 15 existing traffic signals.

ITS

- The Design-Build Team shall design, install and integrate ITS devices and a communication cable system, including but not limited to a Dynamic Message Sign, Closed Circuit Television Cameras and fiber optic cable.

Lighting

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

Erosion Control

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

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, preparing and / or obtaining all necessary utility agreements.
- The Design-Build Team shall coordinate the construction / relocation of private utilities with the appropriate owners.

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 Nationwide 14 Permit and a NC Department of Environmental Quality (DEQ) Division of Water Resources (DWR) Section 401 Water Quality Certification.

- Project U-2827B / C-5620A is not in the Merger Process used by the environmental agencies and the Department to obtain environmental permits. The Design-Build Team shall participate and present information for an interagency hydraulic design review meeting and an interagency permit impacts meeting. These meetings shall adhere to the Concurrence Point 4B and Concurrence Point 4C requirements of the Merger Process.

Location and Surveys

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

Right of Way

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

Aesthetics

- The Design-Build Team shall design and construct aesthetic components for the project, including but not limited to aesthetic treatments on bridges, retaining walls and sound barrier walls. The specific aesthetic treatment requirements will be outlined in the Request for Proposals.

Construction Engineering Inspection (CEI) Scope of Work

- The Department will be responsible for CEI work.