U-4763B Project Synopsis

Project Description and Purpose:

- The Design-Build project U-4763B, which is a portion of the Triangle Expressway and referred to as the Triangle Parkway, extends from NC 540 to I-40, a distance of approximately 4.2 miles. The proposed roadway consists of a new six-lane divided toll facility with a 46-foot median located within Wake and Durham Counties. Triangle Parkway will be a full control of access facility.

- The purpose of this project is to improve commuter mobility, accessibility and connectivity to Research Triangle Park employment centers and to reduce congestion on existing north-south routes that serve the Triangle Region, primarily NC 55 and NC 54.

Planning:

- A Draft Environmental Assessment document was distributed for NCDOT / FHWA review on November 2, 2007. A Public Hearing is anticipated in March, 2008. A Finding of No Significant Impact (FONSI) is anticipated by April 2008. 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 Morrisville, City of Durham, Durham County, Wake County, and others that may be necessary. 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, Town of Cary, Town of Morrisville, Research Triangle Foundation (RTF) of North Carolina, City of Durham, Durham County, Wake County and other appropriate entities to inform the public of lane closures, construction progress, etc.

Roadway Scope of Work:

- Only open road tolling (ORT), including electronic toll collection (ETC) and video tolling, will be utilized on the Triangle Parkway project. Therefore, any contract documents or supplied information that depicts, references or refers to cash toll collection and associated facilities / activities necessitated by cash toll collection shall be disregarded and excluded from the design and construction of this project.

- Triangle Parkway shall be designed and constructed as a six-lane facility with a 46-foot median that meets a design speed of 70-mph for a rolling urban freeway.

- The northern project termini shall tie to existing NC 147 just north of the East Cornwallis Road interchange. The southern project termini shall tie to the existing NC 540 interchange.

- The Design-Build Team shall design and construct -Y- Lines and service roads, providing access, widening and improvements as indicated on the Combined Corridor / Design Public Hearing Map and Preliminary Plans provided by the NCTA.

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 bridges that adhere to the *AASHTO LRFD Bridge Design Specifications* at the following locations:

    - Bridge on Kit Creek Road over Triangle Parkway
    - Dual bridges on Triangle Parkway over Davis Drive
    - Dual bridges on Triangle Parkway over Hopson Road
    - Dual bridges on Triangle Parkway over Burdens Creek
    - Bridge on NC 54 over Triangle Parkway

- It is anticipated that reinforced concrete box culverts will be required at the following locations:

    - NC 540 interchange, Ramp -YBFLY-
    - NC 540 interchange, Ramp -YBFLY-, extension
    - Private drive off Kit Creek Road
    - Unnamed tributary to Kit Creek
    - Davis Drive interchange, Ramp C
    - Triangle Parkway, within the Davis Drive interchange
    - NC 54, extension
    - I-40, Ramp C

- A noise wall is under consideration adjacent to the EPA property.

- It is anticipated that retaining walls will be required at the following locations:

    - Sigma Xi property
    - EPA property
    - JDL property - Hopson Road interchange, Ramp B frontage
    - Two within the Hopson Road interchange
    - Two within the Davis Drive interchange
    - Keystone Property, Davis Drive frontage

Toll Facilities Scope of Work:

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

Hydraulic Scope of Work:

- The Design-Build Team shall be responsible for the design and installation of all storm drainage systems.

- The Design-Build Team shall verify and finalize all Culvert and Bridge Survey Reports provided by NCTA.

- The Design-Build Team shall prepare permit modifications resulting from any variation in NCTA's design, construction methods or utility relocation / construction.

- The Design-Build Team shall modify and acquire CLOMRs due to any required updates of the CLOMRs provided by NCTA for Burdens Creek and Burdens Creek Tributary.

- The Design-Build Team shall complete LOMR packages for Burdens Creek and Burdens Creek Tributary for NCTA's submittal to FEMA.

Location & Surveys Scope of Work:

- Full electronic surveys are completed and will be provided to the short-listed Design-Build 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.

- The Design-Build Team shall be responsible for the design and construction of all foundations, embankments, slopes, retaining walls and temporary structures.

- This project is located within the Triassic Basin consisting of sandstone, siltstone and mudstone. 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.

Environmental Scope of Work:

- The Design-Build Team shall be responsible for any activities, as deemed necessary by NCTA or FHWA, resulting from changes to the preliminary design, including but not limited to, public involvement and NEPA re-evaluation.

- NCTA will be obtaining the US Army Corps of Engineers Section 404 Permit and the NC Department of Natural Resources (DENR) Division of Water Quality (DWQ) Section 401 Water Quality Certification. Any required coordination with or approval from the

environmental agencies to obtain permit modifications resulting from a variation in NCTA's preliminary design, construction methods or utility relocation / construction included in the permit application package for U-4763B shall be the sole responsibility of the Design-Build Team.

- There are no potential on-site mitigation sites anticipated.

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 Design-Build Teams.

Pavement Scope of Work:

- Final asphalt pavement designs will be provided to all short-listed Design-Build Teams, although an alternate concrete 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 and all service roads. 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 signal installations will be required at ten 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 the design and relocation of all water and sewer conflicts associated with this project. Preliminary routing plans will be provided.

Construction Engineering Inspection (CEI) Scope of Work:

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

Lighting Scope of Work:

- The Design-Build Team shall be responsible for the design and construction of all roadway lighting for this facility, including all required lighting for electronic toll collection facilities.

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 for no less than 3 years.