



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

June 15, 2010

Addendum No. 2

Contract No.: C 202522
TIP No.: I-3803B
County: Cabarrus
Project Description: I-85 from south of Bruton Smith Boulevard / Concord Mills Boulevard (SR 2894) to north of NC 73 (Davidson Highway)

RE: Addendum No. 2 to Final RFP

July 23, 2010 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated May 19, 2010 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 2 for your information. Please note that all revisions have been highlighted in gray and are as follows:

The first and second pages of the Table of Contents have been revised. Please void the first and second pages in your proposal and staple the revised first and second pages thereto.

Page No. 11 of the *PROJECT SPECIAL PROVISIONS* has been revised. Please void Page No. 11 in your proposal and staple the revised Page No. 11 thereto.

Page Nos. 91, 93, 94, 96, and 97 of the *ROADWAY SCOPE OF WORK* have been revised. Please void Page Nos. 91, 93, 94, 96, and 97 in your proposal and staple the revised Page Nos. 91, 93, 94, 96, and 97 thereto.

Page No. 97A of the *ROADWAY SCOPE OF WORK* has been added. Please add Page No. 97A to your proposal.

Page No. 120 of the *ENVIRONMENTAL PERMITS SCOPE OF WORK* has been revised. Please void Page No. 120 in your proposal and staple the revised Page No. 120 thereto.

Page No. 149 of the *SIGNING SCOPE OF WORK* has been revised. Please void Page No. 149 in your proposal and staple the revised Page No. 149 thereto.

Page Nos. 154 and 155 of the *SIGNALS SCOPE OF WORK* have been revised. Please void Page Nos. 154 and 155 in your proposal and staple the revised Page Nos. 154 and 155 thereto.

Page Nos. 158A and 158B of the *SIGNALS SCOPE OF WORK* have been added. Please add Page Nos. 158A and 158B to your proposal.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROGRAM MANAGEMENT
1595 MAIL SERVICE CENTER
RALEIGH NC 27699-1595

TELEPHONE: 919-250-4234
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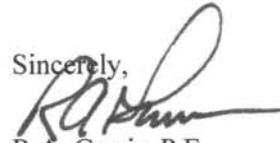
WEBSITE:
WWW.NCDOT.GOV

LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-1
1020 BIRCH RIDGE DRIVE
RALEIGH NC

Page No. 174 of the *PUBLIC INFORMATION SCOPE OF WORK* has been revised. Please void Page No. 174 in your proposal and staple the revised Page No. 174 thereto.

If you have any questions or need additional information, I can be reached by telephone at (919) 250-4124.

Sincerely,



R.A. Garris, P.E.
Contract Officer

RAG/kaa

cc: Mr. Jon Nance, PE
Ms. Deborah Barbour, PE (w/)
Mr. Victor Barbour, PE (w/)
Mr. Art McMillan, PE (w/)
Mr. Randy Garris, PE (w/)
Mr. Ron Hancock, PE (w/)
Mr. Brad Hibbs (w/3)
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Mr. Ed Lewis
Mr. David Harris, PE
Mr. Ron Davenport, PE (w/)
Mr. Scott Allen, PE
Ms. Tawana Brooks, PE (w/2)
Mr. Richard Hancock, PE
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Mr. Scott Cole, PE
Mr. Larry Thompson, PWS, LSS
Mr. James Bridges, PE
Mr. Wilson Stroud
Ms. Pate Butler, PE
Mr. Tom Payne, PE
Ms. Carla Dagnino
Mr. Roger Worthington, PE
Mr. Robert Memory
Ms. Marsha Sample (w/)
Mr. Sam Attum, PE (w/3)
Mr. James Dunlop, PE
Ms. Teresa Bruton, PE (w/7)
Mr. Thomas G. Parker
TRC Members (w/)
Mr. Marshall Clawson, PE
Mr. Mike Robinson, PE
Mr. Lamar Sylvester, PE
File (w/)

Ms. Jackie Armstrong, PE (Roadway)
Mr. Bill Zerman, PE (Hydraulics)
Mr. John Pilipchuk, PE (Geotechnical)
Dr. Clark Morrison, PE (Pavement)
Mr. Barney Blackburn, PE (Erosion & Sed. Cont.)
Ms. Jessica Kuse, PE (Traffic Control)
Ms. Tammy Stewart (Public Information)
Mr. Tim Williams, PE (Signals)
Mr. Tim McFadden (Signing)
Mr. Jay Stancil (Lighting)
Mr. Neal Strickland (Right of Way)
Mr. Cyrus Parker, PE (Geo-Environmental)
Mr. Jason Dilday (Environmental Permit)
Mr. Chris Howard (Pavement Markings)
Mr. Lee Johnson (Utility Coordination)
Mr. Lonnie Brooks, PE (Structures)
Mr. Mohd Aslami, PE (ITS)
Mr. Ricky Greene, Jr., PE
Mr. Jay Bennett, PE
Ms. Judith Corley-Lay, Ph.D., PE
Mr. Virgil Pridemore
Mr. Calvin Leggett, PE
Mr. Barry Moose, PE
Mr. Njoroge Wainaina, PE
Mr. Dave Henderson, PE
Mr. Kevin Lacy, PE
Mr. Greg Perfetti, PE
Mr. Don Lee
Mr. Stuart Bourne, PE
Mr. Ron King, PE
Mr. Dewayne Sykes, PE
Mr. Greg Thorpe, Ph.D.
Mr. Steve Kite, PE
Mr. Tony Houser, PE

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submitting Technical and Price Proposals and it has been approved by the Department (including conditionally approved ATCs, if all conditions are met).

The submittal deadline above applies only to initial ATC submittals. Resubmittal of an ATC that has been revised in response to the Department's requests for further information concerning a prior submittal shall be received by the Department no later than **one week** prior to the deadline for submitting Technical and Price Proposals.

Should the Department revise the RFP after a Formal ATC has been approved, the Design-Build Team shall be solely responsible for reviewing the RFP and determining if the ATC deviates from the revised requirements. If necessary, the Design-Build Team must submit a request for approval of all additional required variance(s) within five business days of the revised RFP distribution.

An ATC shall in no way take advantage of an error or omission in the RFP, or other documents incorporated into the contract by reference. If, at the sole discretion of the Department, an ATC is deemed to take an advantage of an error or omission in the RFP, or other documents incorporated into the contract by reference, the RFP will be revised without regard to confidentiality.

By approving an ATC, the Department acknowledges that the ATC may be included in the design and RFC plans; however, approval of any ATC in no way relieves the Design-Build Team of its obligation to satisfy (1) other contract requirements not specifically identified in the ATC submittal; (2) any obligation that may arise under applicable laws and regulations; and (3) any obligation mandated by the regulatory agencies as a permit condition.

ATC Submittals

Each ATC submittal shall include six individually bound copies and one electronic copy in PDF format. All ATCs shall be submitted to the State Contract Officer at the address listed elsewhere in this RFP.

Formal ATCs

Each Formal ATC submittal shall include the following information:

1. Description. A detailed description and schematic drawings of the configuration of the ATC or other appropriate descriptive information (including, if appropriate, product details [i.e., specifications, construction tolerances, special provisions] and a traffic operational analysis, if appropriate);
2. Usage. Where and how the ATC would be used on the project;
3. Deviations. References to all requirements of the RFP, or other documents incorporated into the contract by reference, that are inconsistent with the proposed ATC, an explanation of the nature of the deviations from said requirements, and a request for approval of such variance(s);

mainline inside and outside paved shoulders, including acceleration, deceleration and auxiliary lanes and ramps to the back of the gore (12-foot width).

- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct -Y- Lines, ramps, service roads and cul-de-sacs providing the same or better access, widening and improvements included in the I-3803B Preliminary Plans provided by the Department. The limits of -Y- Line construction shall be of sufficient length to tie to existing based upon the current NCDOT guidelines and standards.
- The Design-Build Team shall coordinate with Vulcan Quarry, Concord Regional Airport, and the Department to determine the most appropriate location for the Vulcan Quarry main entrance. Pending approval from the three aforementioned stakeholders, the Vulcan Quarry main entrance may be relocated.
- In proximity to the Concord Regional Airport, the existing vertical alignment of Poplar Tent Road shall be lowered a minimum of four feet. The Design-Build Team shall not raise the Poplar Tent Road proposed vertical alignment shown on the I-3803B Preliminary Plans provided by the Department without prior written approval from the Department. However, the Design-Build Team may lower the Poplar Tent Road proposed vertical alignment shown on the aforementioned Preliminary Plans to accommodate the required traffic signals. (Reference the Signal Systems Scope of Work and FAA Notification of Construction Project Special Provision found elsewhere in this RFP)
- The Design-Build Team shall design and construct an exclusive westbound right turn lane on Poplar Tent Road that accesses northbound Odell School Road.
- ** NOTE ** Deleted bullet on future managed travel lanes.
- It is desirable that sag vertical curve low points be located outside a superelevation transition area and full superelevation area. The Design-Build Team shall indicate in their Technical Proposal all areas where a proposed sag vertical curve low point does not adhere to the above.
- The Design-Build Team shall design and construct one-lane ramps that provide a minimum 16-foot lane width. The Design-Build Team shall design and construct two lane ramps that provide minimum 12-foot lanes. All ramps shall have 12-foot inside shoulders, four-foot of which shall be full depth paved shoulders. All ramps shall have 14-foot outside shoulders, four-foot of which shall be full depth paved shoulders.
- The Design-Build Team shall design and construct loops that adhere to Exhibit 3-51, *Design Widths of Pavements for Turning Roadways*, shown in AASHTO's *A Policy on Geometric Design of Highways and Streets* (2004) - Case II / Condition C for one-lane loops; Case III / Condition C for two-lane loops. All loops shall have 12-foot outside shoulders, four-foot of which shall be full depth paved shoulders. All loops shall have 2'-6" curb and gutter along the inside edge of pavement, with a 14-foot berm. The minimum loop design shall be 30-mph with a minimum 250-foot radius.
- Along Poplar Tent Road and NC 73, the Design-Build Team shall design and construct 14-foot wide outside lanes to accommodate bicycles. The Design-Build Team shall design and construct four-foot paved shoulders along the realigned section of Pitts School Road to accommodate bicycles.
- The Design-Build Team shall provide channelization islands at all at-grade intersections with restricted movements.

- Safety fencing shall be installed and maintained around the trees at all times during construction. (Reference the Safety Fence Project Special Provisions found elsewhere in this RFP)
 - Channelization curbing shall not be placed within the historic boundary.
 - For the trees directly in front of the church, the Design-Build Team shall place a special note on the Release for Construction Plans that states, “Do not disturb trees, including overhanging branches”
 - The amount of coordination required with the NCDOT Historic Architecture Supervisor shall be directly based on the extent of tree trimming activities proposed by the Design-Build Team. At a minimum, the Design-Build Team shall contact the NCDOT Historic Architecture Supervisor, via the Transportation Program Management Director, thirty days prior to any tree trimming activities.
- Along the left side of -Y10-, the Design-Build Team shall not impact the trees located on Parcel Nos. 48 and 57.
 - Unless noted otherwise elsewhere in this RFP, all guardrail and cable guiderail placement shall be in accordance with the July 2006 NCDOT *Roadway Standard Drawings* and / or approved details in lieu of standards. Along all 3:1 fill slopes, constructed at fill heights that are equal to or greater than 12 feet, the Design-Build Team shall install guardrail. Along all fill slopes steeper than 3:1, constructed at fill heights that are equal to or greater than six feet, the Design-Build Team shall install guardrail. The guardrail / guiderail design shall be submitted for review with the Preliminary Plans submittal.
 - Along the -L- Line, the Design-Build Team shall design and construct bridge rail offsets that are equal to the approach roadway paved shoulders.
 - For all bridges over roadways, the Design-Build Team shall submit documentation that verifies the actual vertical clearance at all critical points.
 - Along all -Y- Line and driveway intersection radii, the proposed sidewalk shall parallel the curb and gutter, terminating at the radius point. The Design-Build Team shall determine access requirements for commercial parcels and provide street-type driveway connections where large vehicles frequent.
 - Within the project limits, the Design-Build Team shall retrofit existing concrete wheelchair ramps not impacted by construction with detectable warnings. (Reference the Retrofitting Wheelchair Ramps with Detectable Warnings (Raised Truncated Domes) Standard Special Provision found elsewhere in this RFP)
 - The Department has followed the Merger Process used by the Environmental Agencies and the Department to obtain environmental permits. Any variations in the Department's proposed design and / or construction methods that nullify any concurrence points obtained or decisions reached between the Department and the Environmental Agencies; and / or require additional coordination with the Environmental Agencies shall be the sole responsibility of the Design-Build Team. The Department will not allow any contract time extensions or additional compensation associated with any coordination or approval process resulting from design and / or construction modifications.

- The Design-Build Team shall adhere to the Department commitments noted in the January 29, 2010 Post Hearing Meeting Minutes.
- The Design-Build Team shall design and construct the sound barrier wall in the southeast quadrant of the George Liles Parkway / Kannapolis Parkway / I-85 interchange as defined in the February 2010 Final Design Noise Report, including any geotechnical investigations necessary to design the foundations. The Design-Build Team shall be responsible for the wall envelope details. As shown in Section 2-8 of the NCDOT Design Manual, the Design-Build Team shall provide 40-foot overlaps between sound barrier walls spaced 10 feet apart at all cut and fill transitions. The area accessing these breaks, as well as through the breaks, shall be constructed at 4:1 or flatter slopes and be gate protected. If the Design-Build Team revises the horizontal and / or vertical alignments such that greater noise impacts are possible on surrounding receptors, the Design-Build Team shall re-analyze and complete a revised noise report, if necessary, for NCDOT and FHWA review and acceptance. The original Final Design Noise Report will be provided to the Design-Build Team to assist in their determination of anticipated additional noise impact on current receptors due to a design change. If adjustments to, or addition of, sound barrier walls are required as a result of design deviations, the Design-Build Team shall be responsible for all costs associated with the adjustments and / or additions.
- Excluding haul roads, the Design-Build Team shall design and construct resurfacing grades for all roadways impacted by construction. All resurfacing grades shall adhere to the design criteria and standards, provide all required pavement wedging (Reference the Pavement Management Scope of Work found elsewhere in this RFP) and adhere to the minimum requirements noted below:
 - The Design-Build Team shall resurface all lanes and shoulders of an undivided facility throughout the limits of proposed widening and construction.
 - The Design-Build Team shall resurface each one-way roadway of a divided facility throughout the limits of the one-way roadway widening and construction, allowing varying resurfacing limits for the opposing directions of travel.
 - For both divided and undivided facilities, the Design-Build Team shall resurface all lanes and shoulders within the outermost construction limits of all proposed widening and construction, including any gaps along the facility where construction activities are not required.
 - The Design-Build Team shall resurface all existing facilities to the limits of pavement marking obliterations / revisions.
- Unless noted otherwise elsewhere in this RFP, the maximum allowable cut and fill slope shall be 2:1. The slopes in the interchange area shall follow the requirements set forth in the *Roadway Design Guidelines for Design-Build Projects* located on the Design-Build web site.

- At all ramp and loop intersections with -Y- Lines, the design vehicle for all turning movements shall be a WB-65. **Unless noted otherwise elsewhere in this RFP**, the design vehicle for all other turning movements shall be a WB-50.
- If impacted, the Design-Build Team shall replace or repair the Concord Regional Airport security fence in accordance with the Airport Security Fence Project Special Provision found elsewhere in this RFP and the FAA *Operational Safety On Airports During Construction* Advisory Circular. The Design-Build Team shall be responsible for all required coordination with, and approval from, the FAA and the Concord Regional Airport. (Reference the FAA Notification of Construction Project Special Provision found elsewhere in this RFP)

General

- The design shall be in accordance with the 2004 AASHTO *A Policy on Geometric Design of Highways and Streets*, 2002 NCDOT *Roadway Design Manual*, July 2006 NCDOT *Roadway Standard Drawings*, or as superseded by detail sheets located at http://www.ncdot.gov/doh/preconstruct/ps/std_draw/06details/default.html, *Roadway Design Policy and Procedure Manual*, *Roadway Design Guidelines for Design-Build Projects*, 2006 *North Carolina Standard Specifications for Roads and Structures* and the 2002 AASHTO *Roadside Design Guide, 3rd Edition* and 2006 *Chapter 6 Update*.
- If the NCDOT *Roadway Design Manual*, the 2004 AASHTO *A Policy on Geometric Design of Highways and Streets*, the 2006 *Roadway Standard Drawings* and / or any other guidelines, standards or policies have desirable and / or minimum values, the Design-Build Team shall use the desirable values unless noted otherwise elsewhere in this RFP. Similarly, in case of conflicting design parameters, and / or ranges, in the various resources, the proposed design shall adhere to the most conservative values, unless noted otherwise elsewhere in this RFP.
- A sag vertical curve low point shall not be located on any bridge or approach slab.
- The Design-Build Team shall contact Mr. Gary W. Thompson, North Carolina Geodetic Survey Director, prior to disturbing any geodetic monuments.
- The project shall follow the NCDOT-FHWA Oversight Agreement. This agreement shall be provided. Any changes that affect previous approvals shall be re-submitted by the Design-Build Team for FHWA acceptance.
- The Design-Build Team shall identify the need for any special roadway design details (i.e. any special drainage structures, rock embankment, rock plating, special guardrail, retaining walls, concrete barrier designs, etc.) and shall provide special design drawings. The Contract Standards and Development Unit may have special details available that can be provided to the Design-Build Team upon request.

NCDOT Information Supplied

- The NCDOT will provide copies of the Environmental Assessment (EA), Finding of No Significant Impact (FONSI), consultations and the latest list of environmental commitments, municipal agreements and all pertinent approvals and correspondence. Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall adhere to all commitments stated in the environmental documents.
- The NCDOT will provide electronic surveys to the Design-Build Team. Any supplemental surveys, including but not limited to additional topography, existing and proposed roadway, structure sites, underground and overhead utilities, existing and proposed drainage, wetland delineation, right of way, parcel names, and deed research and descriptions shall be the responsibility of the Design-Build Team to acquire and process. Known existing utilities have been located and will be included with the survey data. The Design-Build Team shall be responsible for confirming the location of the utilities and the type / size of facilities. All supplemental SUE work shall be the responsibility of the Design-Build Team.
- The NCDOT will provide the I-3803B Preliminary Plans developed by the Department. The Design-Build Team is cautioned that the preliminary design shown on these plans is provided solely to assist the Design-Build Team in the development of the project design. The Design-Build Team shall be fully and totally responsible for the accuracy and completeness of the project design, including, but not limited to, the use of the NCDOT's design, the use of portions of the NCDOT's design or modifications to the NCDOT's design.
- The NCDOT will provide the R-2123CE Design Public Meeting Map.
- The NCDOT will provide final pavement designs for I-3803B. The Design-Build Team shall be responsible for all temporary pavement designs. (Reference the Pavement Management Scope of Work found elsewhere in this RFP)
- The NCDOT will provide a Geotechnical Subsurface Investigation for I-3803B. The Design-Build Team shall be responsible for any additional geotechnical information, all geotechnical recommendations, as well as supplemental structural and roadway investigations. (Reference the Geotechnical Engineering Scope of Work found elsewhere in this RFP)

Supplemental Requirements

For all disciplines, the Design-Build Team shall include all preconstruction costs required for the following supplemental requirements in the lump sum price bid for the entire project. The Design-Build Team shall be compensated for the following supplemental requirements additional construction costs through a Supplemental Agreement. The Design-Build Team is not required to include any designs associated with the following requirements in the Technical Proposal.

- Poplar Tent Road shall be re-configured as a super-street facility. The lane and intersection configurations shall be as shown on Figure 6-17 of the Interchange Modification Report, with the following anticipated modifications:
 1. The westbound storage length for the U-Turn bulb-out located west of the Poplar Tent Road / Derita Road / Odell School Road intersection shall be a minimum of 800'. The U-Turn bulb-out shall not impact jurisdictional areas.

1. The dual eastbound U-Turn movement at Akins Road, shall be shifted eastward to a U-Turn bulb-out located beyond the limits of the westbound right turn lane that accesses Akins Road.
 2. The Poplar Tent Road / Akins Road intersection configuration shall be as shown on the I-3803B Preliminary Plans provided by the Department.
 3. As shown on the I-3803B Preliminary Plans provided by the Department, Derita Road and Odell School Road shall have two through lanes in each direction.
 4. A U-Turn bulb-out shall be provided a minimum of 800' west of the Vulcan Quarry main entrance. A continuous westbound left turn lane shall extend from the Vulcan Quarry main entrance to the U-Turn bulb-out.
 5. An eastbound leftover shall be provided into the Vulcan Quarry main entrance.
 6. An eastbound leftover shall be provided at Goodman Road.
 7. The eastbound U-Turn bulb-out located at Pitts School Road shall be relocated to the westbound leftover located at the Poplar Tent Presbyterian Church. The eastbound U-Turn bulb-out shall accommodate dual U-Turn movements and not impact the Poplar Tent Presbyterian Church historic property.
 8. The westbound U-Turn bulb-out located in proximity to the Poplar Tent Presbyterian Church will not be provided.
 9. U-Turn bulb-outs shall not be located at -Y- Line or driveway intersections. Full control of access shall be obtained throughout the U-Turn bulb-out limits, on both sides of the roadway.
 10. The dual lane U-Turn bulb-outs shall accommodate concurrent turning movements of a WB-65 in the outside lanes and a passenger car in the inside lanes.
- Bruton Smith / Concord Mills Boulevard shall be re-configured with the following anticipated improvements:
 1. At Bruton Smith Boulevard / Concord Mills Boulevard, the northbound I-85 off-ramp shall provide two exclusive left turn lanes, one left / through / right lane and one exclusive right turn lane.
 2. From Gateway Court to the existing three-lane section west of I-85, three westbound through lanes shall be provided on Bruton Smith Boulevard / Concord Mills Boulevard.
 3. Dual eastbound left turn lanes shall be provided at Weddington Road.
 4. An exclusive westbound right turn lane shall be provided at Weddington Road and the I-85 northbound on-ramp.

Commitments

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize wetland impacts and to provide full compensatory mitigation of all remaining wetland impacts. Avoidance measures were taken during the planning and NEPA phases and minimization measures were incorporated as part of the preliminary design. The Design-Build Team shall incorporate these avoidance and minimization features plus any minimization identified during the 4B and 4C process into the design.

All work by the Design-Build Team must be accomplished in strict compliance with the plans submitted with the Section 404, and 401 permit applications and in compliance with all conditions of the permits and certifications issued by the agencies. The Design-Build Team shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of the permits.

The Design-Build Team shall strictly adhere to these commitments, as well as others, including but not limited to, those made as part of the EA, FONSI, all permits, and Merger meetings.

If the Design-Build Team discovers any previously unknown historic or archeological remains while accomplishing the authorized work, he shall immediately notify NCDOT Staff Archaeologist and/or NCDOT Project Development Engineer, as listed below, who will initiate the required State/Federal coordination. All questions regarding these sites should be addressed to Mr. Matthew Wilkerson, NCDOT Archaeology (919) 431-1609, or Mr. Wilson Stroud, NCDOT Project Development Engineer (919) 733-7844, ext. 310.

On Site Mitigation

The Department has identified four potential stream preservation sites along the main stem and tributaries of Coddle Creek and Rocky River. As shown in the i3803b_rdy_onsitemitigation.dgn electronic file provided by the Department, these sites are identified as Sites 7, 7A, 8 and 8A. For each of these sites, the Design-Build Team shall provide a right of way appraisal and a cost benefit analysis for the approximate right of way limits shown in the aforementioned electronic file. The Design-Build Team shall submit the right of way appraisals and cost benefit analyses to the Transportation Program Management Director a minimum of twelve weeks prior to the 4B Merger 01 interagency meeting. Within ten business days of receiving this submittal, the Department will indicate which sites are feasible to pursue for stream preservation.

For those sites that the Department deems feasible to pursue for stream preservation, the Design-Build Team shall develop a brief narrative for inclusion in the 4B, 4C and Permit packages. The narrative shall define the stream(s) morphology (Rosgen classification), physical characteristics, physiography, land use, plant communities, soils and hydrology. For each site, the narrative shall include a location map and a site map that defines the stream centerline, significant features and proposed protective boundary fencing. For each site, photographs of representative stream sections and significant features shall also be included in the narrative.

For those sites that the environmental agencies deem feasible for stream preservation, the Design-Build Team shall acquire the required right of way and install the protective boundary fencing. (Reference the Right of Way Scope of Work found elsewhere in this RFP)

Team shall also be responsible for the design, fabrication and installation of all signs required beyond the construction limits of all -Y- Lines and all cul-de-sacs to ensure adequate advance signage and spacing is provided.

The posted speed limit for this facility shall be 65 mph.

Sign Design

The Design-Build Team shall be responsible for all Type A, B and D sign designs, fabrication and installation for ground mounted signs. The Design-Build Team shall be responsible for determining, sizing, fabricating, locating and installing all Type E (warning and regulatory signs), Type F signs (route marker assemblies) and milemarkers.

The Design-Build Team shall design, fabricate and install milemarkers every **0.2 mile** on the mainline **median**. Each milemarker location shall have two milemarkers mounted back to back on one U-channel post. The milemarker designs shall be in accordance with the Intermediate Enhanced Reference Location Signs (D10-5) referenced in the *Standard Highway Signs* (2004 Edition).

The Design-Build Team shall design, fabricate and install “Concord NEXT 6 EXITS” and “Kannapolis NEXT 5 EXITS” ground mounted supplemental signs on I-85. The Concord sign shall be installed in advance of Bruton Smith / Concord Mills Blvd interchange for northbound motorist. The Kannapolis sign shall be installed in advance of George W Liles / Kannapolis Parkway interchange for northbound motorist.

Along Poplar Tent Road and Pitts School Road, the Design-Build Team shall design, fabricate and install bike route signing for North Carolina Bike Route 6 (Piedmont Spur) along in accordance with Part 9 of the **2009** *Manual on Uniform Traffic Control Devices (MUTCD)*.

The Design-Build Team shall design, fabricate and install Thru Bolts for Type “A” Signs in accordance with the revised NCDOT Roadway Standard Drawing No. 901.10 dated January 2008. This revised Roadway Standard Drawing is located on the website noted below:

<http://www.ncdot.org/doh/preconstruct/traffic/congestion/SIGN/signstd/>

All individual sign designs shall be included in the Signing Plans. All individual sign designs shall be prepared using the latest version of GuideSign software. The latest GuideSign updates are located on website noted below:

<http://www.ncdot.org/doh/preconstruct/traffic/congestion/SIGN/default.html>

Logo Signs

The Design-Build Team is not responsible for designing, locating, or installing any new Logo signs (blue service signs with specific business panels included on signs). The Design-Build Team shall

The Design-Build Team shall upgrade FIVE (5) existing traffic signals, install **THREE (3)** new traffic signals and remove TWO (2) existing traffic signals. All of these signals shall be interconnected into Closed Loop Signal Systems. Refer to Section III for the system interconnection requirements. The traffic signal detection for the final traffic patterns shall be inductive loop detection. The Design-Build Team may provide video detection only for temporary traffic patterns during construction. The traffic signal work required at each intersection is listed below.

Without prior Department approval, pedestal poles shall not be allowed.

Reference the FAA Notification of Construction Project Special Provision found elsewhere in this RFP for additional traffic signal requirements.

SR 1394 (Poplar Tent Road) – 2 Signal Upgrades		
Signal Number	Intersection Description	Work Requirements
10-1532	SR 1394 (Poplar Tent Rd) at SR 1442 (Odell School Rd) / SR 1445 (Derita Rd)	<p>The Design-Build Team shall upgrade these existing traffic signals to match all temporary construction phasing and the proposed final traffic pattern. This may require new signal supports, signal phasing changes, signal head changes, installation of an auxiliary output file, closed loop system detectors and system interconnection equipment. These signals already have 2070L controllers. The Design-Build Team may reuse the existing controllers and cabinets (if feasible), however all traffic signals must remain in full operation during all temporary construction phases.</p>
10-2041	SR 1394 (Poplar Tent Rd) at SR 1439 (Ivey Cline Rd) / SR 1441 (Goodman Rd)	<p>Signal 10-2041 is a semi-actuated traffic signal with emergency vehicle preemption. The signal shall operate in this manner at all times during construction and upon project completion.</p> <p>The Design-Build Team shall upgrade the signal heads at all protected / permissive left turns to Flashing Yellow Arrow signal heads. The Design-Build Team shall coordinate all Flashing Yellow Arrow signal recommendations with the Division Traffic Engineer and the Regional Traffic Engineer prior to final design and installation.</p> <p>Vehicle detection, as noted above, shall be maintained for all movements throughout the life of the project.</p> <p>The Design-Build Team shall use wood poles as signal supports for all temporary construction phases and for the final traffic patterns.</p> <p>These signals shall be interconnected into a new Closed Loop Signal System along SR 1394 (Poplar Tent Road). See Section III for signal communication requirements.</p>

SR 1394 (Poplar Tent Road) – 3 New Signals		
Signal Number	Intersection Description	Work Requirements
10-1419	<p>** NOTE ** Deleted signal at SR 1394 (Poplar Tent Rd) at Vulcan Quarry</p> <p>SR 1394 (Poplar Tent Rd) at I-85 Southbound Ramps</p>	<p>The Design-Build Team shall design and install three (3) new, fully actuated traffic signals at these locations. They shall include 2070L controllers. The cabinets shall include auxiliary output files, closed loop system detectors and system interconnection equipment.</p> <p>The Design-Build Team shall use Flashing Yellow Arrow signal heads at all protected / permissive left turns. The Design-Build Team shall coordinate all Flashing Yellow Arrow signal recommendations with the Division Traffic Engineer and the Regional Traffic Engineer prior to final design and installation.</p> <p>Vehicle detection, as noted above, shall be maintained for all movements throughout the life of the project.</p>
10-1418	<p>SR 1394 (Poplar Tent Rd) at I-85 Northbound Ramps</p>	<p>The Design-Build Team shall use wood poles as signal supports.</p> <p>These signals shall be interconnected into a new Closed Loop Signal System along SR 1394 (Poplar Tent Road). See Section III for signal communication requirements.</p>
10-2077	<p>SR 1394 (Poplar Tent Rd) at Realigned SR 1305 (Pitts School Rd)</p>	<p>** NOTE ** Relocated bullet on FAA Notification of Construction Project Special Provision</p>

SR 1394 (Poplar Tent Road) – 1 Signal Removal		
Signal Number	Intersection Description	Work Requirements
10-1446	<p>SR 1394 (Poplar Tent Rd) at Existing SR 1305 (Pitts School Rd)</p>	<p>The Design-Build Team shall remove this existing traffic signal. Coordinate the removal of this traffic signal with the Division Traffic Engineer and the Regional Traffic Engineer.</p> <p>The Design-Build Team shall return the traffic signal controller, cabinet (& contents) and signal heads to the Division Traffic Office.</p> <p>The Design-Build Team shall dispose of and / or retain ownership of all other equipment.</p>

Supplemental New Signals, Signal Removal and Signal Upgrades

The Design-Build Team shall include all preconstruction costs required for the following four new signals, one signal removal and three signal upgrades in the lump sum price bid for the entire project. The Design-Build Team shall be compensated for the following four new signals, one signal removal and three signal upgrades additional construction costs through a Supplemental Agreement. The Design-Build Team is not required to include the signal designs associated with the following signal requirements in the Technical Proposal.

SR 1394 (Poplar Tent Road) – 4 New Signals		
Signal Number	Intersection Description	Work Requirements
10-xxxx	SR 1394 (Poplar Tent Rd) at U-Turn bulb-out west of Derita Road / Odell School Road	The Design-Build Team shall design and install four (4) new, fully actuated traffic signals at these locations. They shall include 2070L controllers. The cabinets shall include auxiliary output files, closed loop system detectors and system interconnection equipment.
10-xxxx	SR 1394 (Poplar Tent Rd) at U-Turn bulb-out east of Derita Road / Odell School Road	The Design-Build Team shall use Flashing Yellow Arrow signal heads at all protected / permissive left turns. The Design-Build Team shall coordinate all Flashing Yellow Arrow signal recommendations with the Division Traffic Engineer and the Regional Traffic Engineer prior to final design and installation. Vehicle detection, as noted above, shall be maintained for all movements throughout the life of the project.
10-1418	SR 1394 (Poplar Tent Rd) at U-Turn bulb-out west of Vulcan Quarry main entrance	The Design-Build Team shall use wood poles as signal supports.
10-2077	SR 1394 (Poplar Tent Rd) at U-Turn bulb-out east of Pitts School Road	These signals shall be interconnected into a new Closed Loop Signal System along SR 1394 (Poplar Tent Road). See Section III for signal communication requirements.

SR 1394 (Poplar Tent Road) – 1 Signal Removal

Signal Number	Intersection Description	Work Requirements
10-2041	SR 1394 (Poplar Tent Rd) at SR 1439 (Ivey Cline Rd) / SR 1441 (Goodman Rd)	<p>The Design-Build Team shall remove this existing traffic signal. Coordinate the removal of this traffic signal with the Division Traffic Engineer and the Regional Traffic Engineer.</p> <p>The Design-Build Team shall return the traffic signal controller, cabinet (& contents) and signal heads to the Division Traffic Office.</p> <p>The Design-Build Team shall dispose of and / or retain ownership of all other equipment.</p>

Bruton Smith Boulevard / Concord Mills Boulevard – 3 Signal Upgrades

Signal Number	Intersection Description	Work Requirements
10-xxxx	Bruton Smith Boulevard / Concord Mills Boulevard at I-85 SB Ramps	The Design-Build Team shall upgrade these existing traffic signals to 2070L controllers. The signal designs shall match all temporary construction phasing and the proposed final traffic pattern. This may require new signal supports, signal phasing changes, signal head changes, installation of auxiliary output files, closed loop system detectors and system interconnection equipment.
10-xxxx	Bruton Smith Boulevard / Concord Mills Boulevard at I-85 NB Ramps	<p>The Design-Build Team shall upgrade the signal heads at all protected / permissive left turns to Flashing Yellow Arrow signal heads. The Design-Build Team shall coordinate all Flashing Yellow Arrow signal recommendations with the Division Traffic Engineer and the Regional Traffic Engineer prior to final design and installation.</p> <p>Vehicle detection, as noted above, shall be maintained for all movements throughout the life of the project.</p>
10-xxxx	Bruton Smith Boulevard / Concord Mills Boulevard at Weddington Road	<p>The Design-Build Team shall use wood poles as signal supports for all temporary construction phases and for the final traffic patterns.</p> <p>These signals shall be interconnected into a Closed Loop Signal System along Bruton Smith Boulevard / Concord Mills Boulevard See Section III for signal communication requirements.</p>

the start of construction, major traffic shifts, road closures, ramp closures, detours, night work and project completion. In the event that the Design-Build Team informs the Department of a construction activity that significantly impacts the public less than three weeks in advance, the Design-Build Team shall hand deliver informational material to the target audiences.

Upon acceptance of the Preliminary Roadway Plans developed by the Design-Build Team, the Design-Build Team shall organize and conduct one Citizen's Informational Workshop. The Design-Build Team shall develop and produce informational material for the Citizen's Informational Workshop, including but not limited to announcements, colored maps, and hand-outs. All key Design-Build Team members shall attend the Citizen's Informational Workshop.

The amount of public involvement required for this project is directly based on the Design-Build Team's Traffic Control Plan and construction details. The minimum public information requirements solely associated with the Traffic Control Plans shall include, but not be limited to the following:

- **Public Meetings** – If Beginning of Construction meeting for area businesses and residents is held, attending and / or speaking at this event. Conduct meetings when necessary to inform businesses, residents and motorists of major traffic shifts or construction events.
- **Distribution of Informational Materials** - For beginning of construction and for all road / ramp closures with detour routes, the Design-Build Team shall be responsible for developing and producing informational material for the impacted target audiences. If the Design-Build Team informs the Department of the aforementioned activities less than three weeks in advance, the Design-Build Team shall hand deliver the informational material to the impacted target audiences.

The Design-Build Team shall include in their Lump Sum Bid price for the project, all costs associated with their involvement in Public Information scope of work.

A website site shall be required for this project. The website shall be housed on a non-NCDOT server. The Design-Build Team shall submit the initial general content of the website to the Department for review and approval. The Department reserves the right to periodically review the website for inappropriate content and direct revisions to the content. All costs associated with setting up and maintaining this website shall be include in the lump sum bid for this project.