STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

March 4, 2013

Addendum No. 1

Contract No.:	C 203273
WBS No.:	17BP.5.R.46
Counties:	Durham, Granville, and Vance
Project Description:	Express Design-Build Bridge Replacements

RE: Addendum No. 1 to Final RFP

March 19, 2013 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated February 14, 2013 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 1 for your information. Please note that all revisions have been highlighted in gray and are as follows:

The first page of the *Table of Contents* has been revised. Please void the first page in your proposal and staple the revised first page thereto.

Page Nos. 44 and 45 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 44 and 45 in your proposal and staple the revised Page Nos. 44 and 45 thereto.

Page Nos. 62, 63, and 69 of the *Traffic Engineering Scope of Work* have been revised. Please void Page Nos. 62, 63, and 69 in your proposal and staple the revised Page Nos. 62, 63, and 69 thereto.

Page Nos. 71, 72, 73, and 74 of the *Environmental Permits Scope of Work* have been revised. Please void Page Nos. 71, 72, 73, and 74 in your proposal and staple the revised Page Nos. 71, 72, 73, and 74 thereto.

If you have any questions or need additional information, I can be reached by telephone at (919) 707-6900.

Sincerely,

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

cc: Mr. Victor Barbour, PE
Mr. Rodger Rochelle, PE
Ms. Teresa Bruton, PE
Mr. Wally Bowman, PE
Ms. Virginia Mabry
File

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
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LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC

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- Bridge approach slabs are required at all bridge ends. The minimum bridge approach slab length shall be 12 feet for the subregional tier sites and the length specified in the Structures Management Unit Manual for regional tier sites.

- The Department has met on-site with the agencies or obtained their comments at all bridge sites listed in this RFP. Any variations in the Design-Build Team's proposed design and / or construction methods that nullifies the 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.

- A crest vertical curve high point is permitted on a bridge or approach slab provided the Design-Build Team can demonstrate that (1) the design directs water off the travel lanes in an effective manner and (2) providing a tangent grade on the structure would create significant additional roadway approach work. In no case shall a sag vertical curve low point be located on any bridge or approach slab. A sag vertical low point shall not be located on any culvert between the end walls.

- Unless otherwise noted herein, reductions in design speeds in order to retain existing horizontal and vertical alignments will be allowed per the NCDOT *Sub Regional Tier Guidelines* dated February 2008; and further reductions will require a design exception. Other design exceptions will only be considered if the proposed criterion meets or exceeds existing conditions. At Bridge No. 310008, the Design-Build Team shall design and construct the bridge and approaches to provide a minimum of a 25 mph design speed for the vertical profile.

- The Design-Build Team shall design and construct smooth vertical alignments that tie to existing without unnecessary vertical crest curves, extending the project limits if necessary.

- The Design-Build Team shall be responsible for furnishing and installing concrete monuments for all proposed right of way.

- Existing driveway access shall be maintained at all times. At Bridge No. 310085, the Design-Build Team shall shop curve the guardrail around the driveway in the southwest quadrant. The driveway entrance shall be shifted south, accessible at all times, and sufficiently wide enough to accommodate a garbage truck (SU-40 Design Vehicle) entering from either direction. The new located entrance shall be connected to the existing driveway. The Design-Build Team shall coordinate with Bob Slaughter (336-504-5751) or Cliff Tillman (919-384-5366) with the City of Durham.

- At Bridge No. 310085, a 20-foot wide opening shall be maintained from Stallings Road beneath the easement for the Duke Energy Transmission lines.

- On the northwest quadrant of Bridge No. 310085, the Design-Build Team shall construct new 5' – 0" sidewalk and curb and gutter to tie to existing and replace any sidewalk damaged during construction. On other quadrants at this bridge, the sidewalk shall be terminated at the guardrail limits or at the driveway turnout.

- At Bridge No. 310093, the Design-Build Team shall design and construct a curb and gutter facility with new 5' – 0" sidewalk on both sides. At the northwest quadrant, the Design-Build Team shall replace in place all existing sidewalk up to the first existing driveway. On the SW quadrant, the sidewalk shall be terminated at the driveway turnout.

- At Bridge No. 310085, the 4 ft. required paved shoulder includes the gutter pan; however, at Bridge No. 310093 the four foot paved shoulders shall be striped as dedicated bike lanes and is in addition to the gutter pan width.

General

- Unless otherwise noted herein, the design shall be in accordance with the NCDOT *Sub Regional Tier Design Guidelines for Bridge Projects* dated February 2008, as applicable, 2011 AASHTO *A Policy on Geometric Design of Highways and Streets, Roadway Design Policy and Procedure Manual, Roadway Design Guidelines for Design-Build Projects*, 2012 NCDOT *Standard Specifications for Roads and Structures*, and the 2002 AASHTO *Roadside Design Guide, 3rd Edition* and 2006 *Chapter 6 Update and* January 2012 NCDOT *Roadway Standard Drawings.*

- Once all changes have been incorporated into the "Released for Construction" roadway plan set for each site, the Design-Build Team shall provide a PDF of the sealed plans to the Director of the Transportation Program Management Unit.

NCDOT Information Supplied

- An electronic copy of *NCDOT Sub-Regional Tier Design Guidelines for Bridge Projects* dated February 2008 will be provided.

- The NCDOT will provide electronic survey, and wetland delineation files to the Design-Build Team for each bridge site. Any additional supplemental surveys, including but not limited to additional topography, existing and proposed roadway, structure sites, underground and overhead utilities, existing and proposed drainage, and wetland delineation shall be the responsibility of the Design-Build Team to acquire and process.

- The Design-Build Team shall be responsible for confirming the location of the utilities and the type / size of facilities. All SUE work shall be the responsibility of the Design-Build Team.

- The NCDOT will provide final pavement designs for all bridge/culvert sites.

- The NCDOT will make available, for information only, the field scoping meeting worksheets for all bridge/culvert sites.

of traffic control devices; construction phasing/sequence, and project notes. Street names are required on detour signing. NCDOT's *January 2012* Roadway Standard Drawings Section 1100 is for traffic control and will need to be incorporated into the plans for most work activities. The detour detail will incorporate NCDOT's *January 2012* Roadway Standard Drawing 1101.03, sheet 1 of 9. Ensure the development of the Traffic Control Plan is in compliance with the North Carolina Department of Transportation Roadway Standard Drawings, NCDOT *January 2012 Standard Specifications for Roads and Structures*, the latest edition of the *Manual on Uniform Traffic Control Devices (M.U.T.C.D.)* and the *NCDOT Standard Specifications for Roads and Structures* (January 2012).

c) Use traffic control devices that conform to all NCDOT requirements and are listed on the Department's Approved Products List as shown on NCDOT's Traffic Control Website.

d) The NCDOT's Traffic Control Website should be utilized when developing the Traffic Control Plan. The Traffic Control Website is updated and provides key information necessary in preparing the Traffic Control Plan. The Traffic Control Website Address:

https://connect.ncdot.gov/projects/WZTC/Pages/default.aspx

B. DESIGN PARAMETERS FOR ON-SITE DETOUR

The Design-Build Team shall replace Bridge No. 310118 utilizing an on-site detour to maintain traffic and prepare the Traffic Control and Pavement Marking Plans following the parameters listed below:

1. Maintain a minimum of two 11-foot clear travel lanes (clear roadway width) for two-lane two-way traffic, utilizing lane shifts and / or a median crossover, unless otherwise noted herein.
2. A minimum 2-foot offset (shy distance) shall be required from the edge of travel lane to the traffic control device.
3. Temporary alignments shall be designed for no less than 45 mph.
4. Roadway Standard Drawing 1101.11 shall be used for merge and shift tapers. All other temporary designs shall follow the NCDOT Roadway Design Manual, 2004 AASHTO A Policy on Geometric Design of Highways and Streets and the most current Highway Capacity Manual.
5. The median crossover, directly south of structure, can be closed for the duration of construction.

C. PROJECT REQUIREMENTS

- The Design-Build Team shall select a Private Engineering Firm (PEF) that has experience designing and sealing Traffic Management Plans for the North Carolina Department of Transportation (NCDOT) on comparable projects.

- The Traffic Management Plans shall adhere to the "Express Design-Build Submittal Guidelines", and the "Guidelines for Preparation of Traffic Control and Pavement Marking Plans for Design-Build Projects", *January 2012 NCDOT Roadway Standard Drawings*, *January 2012 Standard Specifications for Roads and Structures*, and the "*Manual for Uniform Traffic Control Devices"*.
- Adapt the traffic control plans, when directed by the engineer, to meet field conditions to provide safe and efficient traffic movement. Changes may be required when physical dimensions in the detail drawings, standard details and roadway details are not attainable or result in duplicate or undesired overlapping of devices. Modification may include: moving, supplementing, covering or removal of devices.
- The Design-Build Team shall provide one month notice to the Engineer, County EMS and County school officials prior to road closures.
- The Design-Build Team will be allowed five additional days of lane closure per bridge site to complete punch list items identified by the Engineer. The Design-Build Team shall notify the Engineer 15 days prior to installation of a lane closure and submit details for approval by the Engineer.
- As approved by the Engineer, lane closures will be allowed for geotechnical borings and the relocation of utilities prior to the road closure at each bridge site.
- For Bridge No. 310093, no night construction shall be allowed.
- For Bridge No. 310118, the Design-Build Team shall provide safe access for wide-loads and oversized permitted vehicles through the work zone. Safe access shall entail, but is not limited to, a sufficient pavement structure and required vertical clearance and a minimum clear zone width of 16 feet to accommodate a 14 foot wide vehicle. The Design-Build Team shall coordinate with Division to determine an acceptable off-site detour route for vehicles wider than 14 feet.

Lane and Shoulder Closure Requirements for Bridge No. 310118

- The Design-Build Team shall remove lane closure devices from the lane when work is not being performed behind the lane closure or when a lane closure is no longer needed.
- When personnel and / or equipment are working within 15 feet of an open travel lane, the Design-Build Team shall close the nearest open shoulder using NCDOT 2012 Roadway Standard Drawing No. 1101.04, unless the work area is protected by an approved temporary traffic barrier or guardrail.
- When barrier is placed on the shoulder of a roadway, install shoulder closure signs and devices using NCDOT 2012 Roadway Standard Drawing No. 1101.04 in advance of the barrier.
- When personnel and / or equipment are working on the shoulder adjacent to an undivided facility and within 5 feet of an open travel lane, the Design-Build Team shall close the nearest open travel lane using NCDOT 2012 Roadway Standard Drawing No. 1101.02, unless the work area is protected by an approved temporary traffic barrier or guardrail.

III. FINAL PAVEMENT MARKING PLANS

General

Prepare Final Pavement Marking Plans in accordance with the latest *Manual on Uniform Traffic Control Devices (MUTCD)* and the NCDOT *January 2012 Roadway Standard Drawings*.

Final Pavement Marking Plan Requirements

Develop Pavement Marking Plans that maintain all types of traffic (motorists, bicyclists, and pedestrians within the highway, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA), Title II, Paragraph 35.130) as defined by the *Manual for Uniform Traffic Control Devices (MUTCD).*

NCDOT's *January 2012 Roadway Standard Drawings* – Section 1200 pertain to pavement markings and markers and shall be utilized.

The Design-Build Team shall install pavement markings and markers in accordance with NCDOT's *January 2012 Standard Specifications for Roads and Structures*, the manufacturer's procedures and specifications.

Use long life pavement markings and raised or snowplowable pavement marker products that conform to all NCDOT's requirements and specifications and are listed on the Department's Approved Products List and are specified on the list below. (The use of any products that are not shown on the Approved Product List shall require written approval from the Signing and Delineation Unit). The pavement markings shall extend 50 feet further than the roadway construction limits in both directions of travel. A series of 5 centerline markers spaced 80 feet apart shall be placed in advance of each bridge in both directions of travel. Where proposed markings are on existing roadway, remove existing markings prior to placement of final markings.

Install pavement markings and pavement markers on the final surface as follows:

Road Name			**Marking**	**Markers**
Durham	310008	SR 1602	Thermoplastic	Raised
Durham	310085	SR 1814	*Cold Applied Plastic (Type II or III).	Raised
Durham	310093	SR 1945	Thermoplastic	Raised
Durham	310118	US 501	Thermoplastic	Raised
Granville	380130	SR 1300	Thermoplastic	Raised
Granville	380142	SR 1431	Thermoplastic	Raised
Granville	380224	SR 1501	Thermoplastic	Raised
Vance	900085	SR 1348	Thermoplastic	Raised

ENVIRONMENTAL PERMITS SCOPE OF WORK (02-05-13)

General

The Design-Build Team shall be responsible for preparing the permit drawing package and stormwater management plan necessary for the Department to obtain all required environmental permits for construction for each bridge site contained in this contract. The Design-Build Team is responsible for determining the appropriate permits that will apply to each site. The Design-Build Team is encouraged to gain the Department's concurrence on the permits needed prior to beginning permit application work for each bridge. The Design-Build Team shall determine the schedule for submission of each bridge's permit documentation.

Bridge Nos. 380142, 380224, and 900085 requests for use of Land/Water Permit with the U. S. Army Corps of Engineers (USACE) for Kerr Lake and Little Island Creek Reservoirs shall be submitted to USACE Operations Manager, Joshua Deal through the Department. Reference Roadway Scope of Work for additional requirements. The Design-Build Team shall submit plans to USACE for review.

The Design-Build Team shall not begin ground-disturbing activities, including utility relocations in jurisdictional areas, at a given bridge site, until the environmental permits have been issued for that bridge. This restriction does not include investigative borings covered under a Nationwide #6 permit.

The Design-Build Team may begin utility relocation work prior to obtaining the aforementioned permits provided that (1) the Department is notified in writing prior to these activities; (2) such activities are outside jurisdictional resources. Upon consultation with the Division Environmental Officer, a meeting may be required with the permitting agencies prior to beginning work.

The Department will allow no direct contact between the Design-Build Team and representatives of the environmental agencies. No contact between the Design-Build Team and the environmental agencies shall be allowed either by phone, e-mail or in person, without representatives of the Division's Environmental Officer present. A representative from the Transportation Program Management shall be included on all correspondence.

Once the Department has obtained the applicable permits based upon the approved Design-Build Team's proposed design and / or construction methods, the Design-Build Team will be responsible for any change in the proposed design and / or construction methods that nullifies any permit. The Department shall not allow any contract time extensions associated with this additional coordination.

The Design-Build Team shall meet all permit conditions. The Design-Build Team shall be required to staff any personnel necessary to provide permit compliance during all construction activities at each site.

Temporary Class II rip rap causeways will be permitted, if necessary for construction, and if approved by the appropriate agencies. Geotextile should be installed under the Class II rip rap used for causeways. The temporary Class II rip rap causeway must be fully removed in the stream channel prior to project completion. However, Class II rip rap (underlain with geotextile) should remain in place on the streambank to provide long-term stability and is considered a permanent stream impact.

Permit Process

It is the Design-Build Team's responsibility to acquire information and prepare permit drawings that reflect the impacts and minimization efforts from the project as designed by the Design-Build Team. The Department will provide the wetland/stream electronic file and the Data Sheet for each bridge site. The Design-Build Team shall be responsible for entering impact determinations on the Data Sheet. Further it is the Design-Build Team's responsibility to provide the design and construction details to the Department to be included as part of the permit process. At a minimum the associated permit drawings shall consist of the following:

- Roadway Plan and Profile Sheets (half size 11" x 17") shall contain all environmental impacts in a table with calculated proposed permanent or temporary stream / wetland / open water impacts, buffer impacts by type such as fill, bridging, mechanized clearing etc.
- In addition, the Roadway Plan Sheet shall specifically identify jurisdictional streams, open waters, buffer zones, wetland boundaries, all erosive control measures, structures, pier locations, riprap, causeways and other impacts including utility relocation.

The Department will re-verify and update, as needed, the required environmental data that expires prior to the completion of the activity causing the impact in the jurisdictional areas. These include, but are not limited to, federally protected species, re-verification of wetland, stream, and open water jurisdictional areas, historic and archaeological sites, and 303d (impaired) streams.

Direct coordination between the Design-Build Team, the Department's Transportation Program Management Director, Division Environmental Officer (DEO), Division Bridge Program Manager and the Resident Engineer shall be necessary to ensure proper permit drawing development. Upon completion of the permit drawings and the stormwater management plan, the Design-Build Team shall concurrently forward the package to the Transportation Program Management Director, Resident Engineer, Division Bridge Program Manager, Division Environmental Officer, and Hydraulics Unit for review and approval. After all revisions are complete, the Department will subsequently forward the package to the appropriate agencies and the cover letter describing the project.

Any temporary construction measures, including de-watering, construction access, etc. shall be addressed in the permit drawings. Impacts that result from so-called temporary measures may not be judged to be temporary impacts by the agencies. These issues shall be addressed and resolved with the agencies and reviewed by the Division Environmental Officer prior to submission of the permit drawings and environmental impacts to the respective agencies. The Design-Build team shall provide the DEO with any information that is necessary to complete

other forms that are required as part of the permit application. These forms include, but are not limited to, the pre-construction notification form, minimum criteria determination checklist, etc.

The Design-Build Team shall clearly indicate the location of utility relocations in jurisdictional areas. The Design-Build Team shall also identify all proposed borrow and waste sites. Further, the Design-Build Team shall describe the methods of construction of all structures. The description of the temporary impacts (including utility relocations, temporary causeways, etc.) shall include restoration plans, schedules and disposal plans. This information shall be included in the permit drawings and environmental impacts.

The NCDOT hereby commits to ensuring, to the greatest extent possible, that the footprint of the impacts in areas under the jurisdiction of the federal Clean Water Act will not be increased during the Design-Build effort. All fill material shall be immediately stabilized and maintained to prevent sediment from entering adjacent waters or wetlands. The Design-Build Team shall be responsible for ensuring that the design and construction of the project will not impair the movement of aquatic life.

The Design-Build team must ensure that there are no changes to project design (including the stormwater design) that affect the footprint of the project within jurisdictional areas after submittal of the final permit drawings to the DEO. This is done to ensure that the final construction plans are consistent with the permit drawings.

Requests made for modifications to the permits obtained by the Division Environmental Officer shall only be allowed if the Engineer determines it to be in the best interest of the Department and will be strongly discouraged. The Design-Build Team shall not take an iterative approach to hydraulic design issues. The design shall be complete prior to permit modification application.

Permit Timeframe

The Design-Build Team should expect it to take up to 60 days for the Department to acquire the permits necessary for each bridge. The 60 days shall begin at the date that the Department has approved the final permit drawings as submitted by the Design-Build Team. Note that it is the decision of each regulatory agency (and not the Department) to determine if a permit application package is complete. No requests for additional contract time or compensation will be allowed if the permits are obtained within this 60-day period. With the exception of location and survey work and permitted investigative borings covered under a Nationwide #6 permit, no mobilization of men, materials, or equipment for site investigation or construction of the project shall occur prior to obtaining the permits. This limitation does not preclude the off-site fabrication of bridge members or equipment. The Department will not honor any requests for additional contract time or compensation, including idle equipment or mobilization or demobilization costs, for the Design-Build Team mobilizing men, materials (or ordering materials), or equipment prior to obtaining all permits. The Department will consider requests for contract time extensions for obtaining the permits only if the Design-Build Team has pursued the work with due diligence, the delay is beyond the Team's control, and the 60-day period has been exceeded. If time were granted it would be only for that time exceeding the 60-day period.

Commitments

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize impacts to wetland, stream, open water and regulated riparian buffers. Additionally the NCDOT will provide full compensatory mitigation of all stream, wetland and riparian buffer impacts as required by the regulatory agencies.

The Design-Build Team shall strictly adhere to these commitments, as well as others, including but not limited to Neuse River, Tar-Pamlico, and Jordan Lake Buffer Rules.

All work by the Design-Build Team must be accomplished in strict compliance with the plans submitted and approved for the permits drawings and in compliance with all conditions of the permits received 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 approved permit drawings and permits from the regulatory agencies.

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 Division Environmental Officer, 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) 707-6089, or the Division Environmental Officer.