



Transportation

PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

April 15, 2016

Addendum No. 2

Contract No.: C203759
TIP No.: U-2519CA / B-5516
County: Cumberland
Project Description: Future I-295 - Fayetteville Outer Loop from south of US 401 to south of SR 1400 (Cliffdale Road); and Replacement of Bridge No. 14 on SR 3569 (Raeford Road) over Bones Creek (Lake Rim Runoff)

RE: Addendum No. 2 to Final RFP

June 21, 2016 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated March 10, 2016 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:

On the COVER SHEET, change the date for the Technical and Price Proposal submission to May 26, 2016; change the date and time for the Price Proposal Opening to June 21, 2016; change the WBS ELEMENT NO. to 34817.3.13; and change the FEDERAL-AID NO. to NHP-0620(031). Please mark through the dates and numbers shown on the March 10, 2016 (Labeled) RFP and insert the new dates and numbers. These corrections must be done in ink and initialed and dated by your Team's primary contractor (reference the attached example). The corrected Final RFP, must be used to submit the Price Proposal for return to this office.

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. 62 of the *Overhead Sign Supports* Project Special Provision has been revised. Please void Page No. 62 in your proposal and staple the revised Page No. 62 thereto.

Page No. 93 of the *General Section* has been revised. Please void Page No. 93 in your proposal and staple the revised Page No. 93 thereto.

Page Nos. 95, 96 and 97 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 95, 96 and 97 in your proposal and staple the revised Page Nos. 95, 96 and 97 thereto.

Page No. 112 of the *Structures Scope of Work* has been revised. Please void Page No. 112 in your proposal and staple the revised Page No. 112 thereto.



Page No. 132 of the *Geotechnical Engineering Scope of Work* has been revised. Please void Page No. 132 in your proposal and staple the revised Page No. 132 thereto.

Page No. 142 of the *Transportation Management Scope of Work* has been revised. Please void Page No. 142 in your proposal and staple the revised Page No. 142 thereto.

Page No. 182 of the *Erosion and Sedimentation Control Scope of Work* has been revised. Please void Page No. 182 in your proposal and staple the revised Page No. 182 thereto.

Page No. 193 of the *Environmental Permits Scope of Work* has been revised. Please void Page No. 193 in your proposal and staple the revised Page No. 193 thereto.

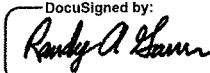
Page No. 201 of the *Right of Way Scope of Work* has been revised. Please void Page No. 201 in your proposal and staple the revised Page No. 201 thereto.

As a reminder, each Team is required to participate in a 30-minute presentation, followed by an oral interview with the Department's Technical Review Committee. The presentations and oral interviews will be held on June 16, 2016 in the Riverwood Conference Room (Century Center Building "B") at the times noted below. A maximum of ten (10) people from the Design-Build Team may attend.

Company	Time
Barnhill Contracting Company	8:30 a.m.
Flatiron Constructors, Inc. / Blythe Development Company - Joint Venture	10:30 a.m.
Zachry Construction Corporation	1:00 p.m.

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

Sincerely,

DocuSigned by:

A7079FC32A09478
R.A. Garris, PE
Contract Officer

RAG/kbc

cc: Rodger Rochelle, PE
Greg Burns, PE
Teresa Bruton, PE
Ron McCollum, PE
Karen Capps, PE
File

-- STATE OF NORTH CAROLINA--
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

FINAL REQUEST FOR PROPOSALS



DESIGN-BUILD PROJECT

TIP U-2519CA / B-5516

March 10, 2016



VOID FOR BIDDING

ABC, Date

May 26, 2016

DATE AND TIME OF TECHNICAL AND PRICE PROPOSAL SUBMISSION: ~~April 26, 2016~~ BY 4:00 PM

DATE AND TIME OF PRICE PROPOSAL OPENING: ~~May 17, 2016~~ AT 2:00 PM

CONTRACT ID: C 203759 June 21, 2016

WBS ELEMENT NO. ~~34817.3.GVS6~~ ^{ABC, Date} 34817.3.13 ^{ABC, Date}

FEDERAL-AID NO. ~~NHP-0620(31)~~ ^{ABC, Date} NHP-0620(031)

COUNTY: Cumberland

NOTE: All revisions are to be handwritten, initialed, and dated in ink.

ROUTE NO. Future I-295

MILES: 3.1

LOCATION: Future I-295 - Fayetteville Outer Loop from south of US 401 to south of SR 1400 (Cliffdale Road); and Replacement of Bridge No. 14 on SR 3569 (Raeford Road) over Bones Creek (Lake Rim Runoff)

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

NOTICE:

ALL PROPOSERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE PROPOSER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. PROPOSERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOT WITHSTANDING THESE LIMITATIONS ON BIDDING, THE PROPOSER WHO IS AWARDED ANY PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING, REGARDLESS OF FUNDING SOURCES.

5% BID BOND OR BID DEPOSIT REQUIRED

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The following Specification interpretations or criteria shall be used in the design of overhead sign assemblies:

- For design of supporting upright posts or columns, the effective length factor for columns “K”, as provided for in Appendix B, Section B.5, shall be taken as the following, unless otherwise approved by the Engineer:
 - Case 1 For a single upright post of cantilever or span type overhead sign structure, the effective column length factor, “K”, shall be taken as 2.0.
 - Case 2 For twin post truss-type upright post with the post connected to one chord of a horizontal truss, the effective column length factor for that column shall be taken as 2.0.
 - Case 3 For twin post truss-type upright post with the post connected to two truss chords of a horizontal tri-chord or box truss, the effective column length factor for that column shall be taken as 1.65
- For twin post truss-type uprights, the unbraced length of the post shall be from the chord to post connection to the top of base plate.

For twin post truss-type uprights, when the post is subject to axial compression, bending moment, shear, and torsion the post shall satisfy the 2009 AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals*, 5th Edition, and the 2010 and 2011 Interim Revisions Equations 5-17, 5-18 and 5-19. To reduce the effects of secondary bending, in lieu of Equation 5-18, the following equation may be used:

$$\frac{f_a}{F_a} + \frac{f_b}{\left(1 - \frac{0.6f_a}{F_e}\right)F_b} + \left(\frac{f_v}{F_v}\right)^2 \leq 1.0$$

Where f_a = Computed axial compression stress at base of post

- The base plate thickness for all uprights and poles shall be a minimum of 2” but not less than that determined by the following criteria and design.
 - Case 1 Circular or rectangular solid base plates with the upright pole welded to the top surface of base plate with full penetration butt weld, and where no stiffeners are provided. A base plate with a small center hole, which is less than 1/5 of the upright diameter, and located concentrically with the upright pole, may be considered as a solid base plate.

The magnitude of bending moment in the base plate, induced by the anchoring force of each anchor bolt shall be calculated as $M = (P \times D_1) / 2$.

In the event that the Department elects to not proceed with a Best and Final Offer (BAFO), then the State Contract Officer will schedule a date and time to publicly reiterate all Price Proposals, and read all Technical Scores and Adjusted Prices.

Provided the Department elects to proceed to request a Best and Final Offer (BAFO), at the date and time specified, the State Contract Officer will open the Best and Final Offer Price Proposals and proceed to publicly read all Price Proposals, Technical Scores and Adjusted Prices.

Best and Final Offer

In the event initial Price Proposals exceed an acceptable range of the Engineer's Estimate or if the Department feels it is necessary for any reason the Department may choose to make amendments to the details of the RFP and request a Best and Final Offer from all of the previously short-listed teams. Alternately, the Department may choose to redistribute to the short-listed Design-Build Teams another RFP for the project with no amendments to the RFP scope.

After receipt of the redistributed RFP, the Design-Build Team has the option of changing their Technical Proposal details. If the Design-Build Team changes any component of the Technical Proposal, the TRC will review those amended components of the Technical Proposal and reevaluate the scores accordingly. The Design-Build Team shall highlight the changes to bring them to the Department's attention. A revised total score will be calculated, if appropriate, based on these amendments to the Technical Proposal.

Additional oral interviews will not be held. The Design-Build Teams shall submit both a revised Price Proposal and a revised Technical Proposal (if applicable) at the time, place and date specified in the redistributed RFP. A revised Quality Credit Percentage (if required) and Adjusted Price will be determined. This will constitute the Design-Build Team's Best and Final Offer. Award of the project may be made to the Design-Build Team with the lowest Adjusted Price on this Best and Final Offer.

Stipend

A stipulated fee of **\$75,000** will be awarded to each short-listed Design-Build Team that provides a responsive, but unsuccessful, Design-Build Proposal. 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. Once award is made, or a decision is made not to award, unsuccessful Design-Build Teams can apply for the stipulated fee by notifying the State Contract Officer in writing and providing an original invoice within 60 days of Award. If the Design-Build Team accepts the stipulated fee, the Department reserves the right to use any ideas or information contained in the Design-Build Proposal and / or Alternative Technical Concepts, whether incorporated into the Design-Build Proposal or not, in connection with any contract awarded for the project, or in connection with any subsequent procurement, with no obligation to pay additional compensation to the unsuccessful Design-Build Team. The stipulated fee shall be paid to eligible Design-Build Teams within ninety days after the award of the contract or the decision not to award. Unsuccessful Design-Build Teams may elect to refuse payment of the stipulated fee and retain any rights to its Design-Build Proposal and the ideas and information contained therein.

ROADWAY SCOPE OF WORK (3-8-16)

It should be noted that TIP Project U-2519CA, as referenced throughout this Request for Proposals (RFP), represents TIP Projects U-2519CA and B-5516. All references to TIP Projects U-2519, U-2519CA and B-5516 in material provided by the Department shall apply to this project.

Throughout this RFP, references to the U-2519CA Preliminary Roadway Plans shall denote 1) the U-2519 Design Public Hearing Map (Rolls 4, 5, and 6 of 21), excluding the Future I-295 / US 401 interchange, 2) the U-2519CA Tight SPUI Preliminary Design, and 3) the B-5516 Preliminary Plans.

Project Details

- The Design-Build Team shall design and construct a four-lane divided facility for the extension of Future I-295 from south of US 401 at Station 580+00 -L-, based on the U-2519BB Project, to south of SR 1400 (Cliffdale Road). Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct the -L- Line (mainline) providing the same or better access, widening, improvements and traffic measures of effectiveness, in the Department's sole discretion, included in the U-2519CA Preliminary Roadway Plans provided by the Department. The limits of the mainline construction shall be of sufficient length to tie to existing based upon the current NCDOT guidelines and standards. The mainline four-lane section shall be designed and constructed to meet a 70-mph design speed for a level urban freeway designed to interstate standards. The Design-Build Team shall provide all other design criteria in the Technical Proposal.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct the mainline shoulders as follows:
 - Design and construct minimum 14-foot outside shoulders (twelve-foot useable shoulder width plus two feet), 12-foot of which shall be full depth paved shoulders, including all acceleration, deceleration and auxiliary lanes, and ramps / loops to the back of the gore (12-foot width).
 - Design and construct minimum 12-foot median shoulders, four-foot of which shall be full depth paved shoulders.
- Throughout the entire project limits, the mainline median width shall be 70 feet.
- To connect the Strickland Road interchange, being constructed under TIP Project U-2519BB, and the US 401 interchange, the Design-Build Team shall design and construct mainline northbound and southbound auxiliary lanes from the beginning of the project to the US 401 southern interchange ramps.
- From the beginning of the project through the Future I-295 / US 401 interchange, the Design-Build Team shall design the mainline, including but not limited to all interchange features.

However, the Design-Build Team shall construct the roadway and interchange features as noted below.

- The Design-Build Team shall construct all features of Ramp A and Ramp D.
 - From the beginning of the project to the southern limits of the dual mainline bridges over Aberdeen and Rockfish Railroad, Bones Creek and US 401, the Design-Build Team shall grade the mainline, including all acceleration, deceleration and auxiliary lanes.
 - Excluding the final pavement surface course layer, the Design-Build Team shall construct all features of Ramp B and Ramp C.
 - Within the graded sections noted above, the Design-Build Team shall grade to an elevation six inches above the future subgrade and construct all required drainage, including but not limited to cross pipes, median drainage and drainage structures.
- As shown on the U-2519CB Final Roadway Plans provided by the Department, the U-2519CB contractor is currently constructing a section of the Fayetteville Outer Loop. The Design-Build Team shall be responsible for completing all remaining design and construction activities, including but not limited to, paving, guardrail / guiderail installation, curb and gutter installation, shoulder berm gutter installation, drainage structure installation and / or elevation adjustment, and sign installation. Using the equality information found in the March 9, 2016 *U-2519CB to U-2519CA Coordinate System Equivalents* document provided by the Department, the Design-Build Team shall convert the U-2519CB horizontal and vertical alignments shown on the U-2519CB Plan Sheet Nos. 4 and 5 to the U-2519CA Project datum. However, the Design-Build Team will be allowed to maintain the lane and shoulder widths, including paved shoulder widths, designated on the aforementioned U-2519CB Final Roadway Plans.
 - The Design-Build Team shall coordinate with Project U-2519BB and Project U-2519CB design and construction to ensure accurate hydrology, capacity, and horizontal and vertical ties that adhere to the design criteria. The Design-Build Team shall not make any design or construction revisions that impact the design or construction of Projects U-2519BB and / or U-2519CB without prior written approval from the Design-Build Unit. The aforementioned prior written approval shall occur 1) through the ATC Process prior to Award or 2) through coordination and / or submittals to the Design-Build Unit after Award. (Reference the *Alternative Technical Concepts and Confidential Questions and Cooperation Between Contractors* Project Special Provisions found elsewhere in this RFP)
 - In lieu of the Future I-295 / US 401 diamond interchange shown on the U-2519 Design Public Hearing Map provided by the Department, the Design-Build Team shall design and construct a tight single point urban interchange (SPUI) with the lane configurations noted in the February 15, 2016 *U-2519CA Capacity Analysis Memorandum Update*, provided by the Department. From the US 401 terminus to the back of gore (12-foot width), the Design-Build Team shall design and construct Ramps B and D with a minimum of two 12-foot lanes. **If ALL the requirements noted below are adhered to, the outside lane of the Ramp D two-lane entrance ramp may terminate prior to the mainline northbound bridge over the Unnamed Tributary to Lake Rim (Bones Creek):**
 - The gap acceptance length (L_g) shall be a minimum of 500 feet.
 - The northern ramp terminus, including the minimum 300-foot ramp taper, shall be located a minimum of 300 feet south of the most southern point of the mainline northbound bridge over the Unnamed Tributary to Lake Rim (Bones Creek).

If any of the Ramp D design parameters noted above cannot be adhered to, the Ramp D outside lane (12-foot width) shall traverse completely across the mainline northbound bridge over the Unnamed Tributary to Lake Rim (Bones Creek). The Design-Build Team shall design and construct the tight SPUI in accordance with the *National Cooperative Highway Research Program (NCHRP) Report 345, Single Point Urban Interchange Design and Operations Analysis*, including but not limited to accommodating the sight distance for the off-ramp left turn movement along the cross road. All turning movements at the tight SPUI shall be designed and constructed with one simple curve (broken-back and compound curves shall not be allowed for turning movements at the SPUI).

- The Design-Build Team shall design and construction the aforementioned SPUI such that a future outside travel lane, with 2'-6" curb and gutter and a ten-foot berm, can be constructed in each direction of US 401 without the need 1) to obtain a design exception, including but not limited to the proposed and future horizontal sight distance requirements, and the proposed and future signal location requirements; and 2) to modify the interchange bridges, interchange retaining walls, and / or interchange left turning movements to and from US 401. The Design-Build Team shall prepare functional horizontal and vertical designs of the Future I-295 / US 401 SPUI with the aforementioned future improvements, as well as a Design Exception Checklist, for the Department's review and acceptance. The Design-Build Team shall also include the aforementioned functional design and checklist in the Technical Proposal.
- At the Future I-295 / US 401 interchange, the outside bridge rail offset for Ramp B shall be 12-foot from the bridge southern terminus to the back of the gore (12-foot width); and the outside bridge rail offset for Ramp C shall be 12-foot for the entire bridge length.
- For all bridges on the mainline (-L-), the minimum median bridge rail offset shall be six feet.
- The minimum width of all grass covered islands / medians shall be eight feet, measured face to face from the surrounding mountable concrete curb and gutter or from edge of pavement to edge of pavement, as appropriate. All grass covered islands shall be constructed with topsoil and appropriate cross slope and median drain with pipe to prevent groundwater and surface water infiltration into the subgrade and / or pavement structure. Prior to construction of the grass covered islands and / or median drain with pipe, the Design-Build Team shall submit to the Design-Build Unit, for review and acceptance, the proposed number of drains, drain locations within the typical section, topsoil specifications and construction details. Within all proposed grass covered island limits, the Design-Build Team shall completely remove and dispose of the existing pavement structure.
- 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, improvements and traffic measures of effectiveness, in the Department's sole discretion, included in the U-2519CA Preliminary Roadway 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.
- Throughout the US 401 construction limits, the Design-Build Team shall design and construct minimum 14-foot outside shoulders, 12-foot of which shall be full depth paved shoulders that are designed and constructed to accommodate a future travel lane with appropriate cross slope.

- *Specifications for Roads and Structures.* The aforementioned existing bridge abutment walls, wingwalls, and spillway walls shall remain in place during and after the bridge replacement.
- A minimum six-inch clearance shall be provided between the top of the existing bridge abutment walls and the bottom of the replacement bridge girders.
- In the area behind the existing bridge abutment walls and the proposed bridge end bents, a minimum three-foot vertical clearance shall be provided beneath the proposed bridge for inspection access. The inspection access shall have a concrete apron that slopes away from both the existing bridge abutment walls and the proposed bridge end bents. The paved inspection access shall provide gravity flow from the north side of SR 3569 (Raeford Road) to the south side of SR 3569.
- The Design-Build Team shall design and construct the replacement bridge with a minimum 70-foot total length centered about the stream. The proposed structure shall be designed and constructed to eliminate any additional lateral loadings to the existing bridge abutment walls, existing wingwalls and existing spillway walls.
- Foundation elements shall be designed and constructed in accordance with the Geotechnical Scope of Work found elsewhere in this RFP.
- Upon inspection by the Engineer, any rehabilitation work deemed necessary on the existing abutment walls, wingwalls and / or spillway walls will be paid for as extra work, in accordance with Subarticle 104-8(A) of the 2012 *Standard Specifications for Roads and Structures*.
- Cored slab or box beam units will be allowed.
- The bridge barrier rails shall be per Standard Drawing BMR3 and BMR4.
- The NCDOT *Sub Regional Tier Design Guidelines for Bridge Projects* may be used for the bridge design.
- As shown in the *Fish Detail – Bridge Rail Bridge No. 14.pdf* file provided by the Department, the Design-Build Team shall provide a fish emblem on the traffic face of each concrete parapet. The fish emblem shall 1) be located in the center of the concrete parapet, 2) be inset into the concrete parapet, not bolted onto the concrete parapet, and 3) be flush with the face of the concrete parapet. The fish emblem shall not be stamped onto the concrete parapet or tiled to form a mosaic. The fish emblem shall be two feet in height with a length that maintains the aspect ratio of the detail in the aforementioned file. Prior to incorporation, the Design-Build Team shall coordinate with the Design-Build Unit, the Division Construction Engineer, and the NC Wildlife Resources Commission - Pechmann Fishing Education Center to finalize the fish emblem details.

The minimum vertical clearance for bridges constructed over all interstates, freeways and arterials shall be 17'-0". The minimum vertical clearance for bridges constructed over all local roads and collector roads shall be 15'-6".

New bridges constructed on I-295 shall allow for the future construction of two additional 12-foot through lanes in each direction of I-295 within the 70-foot grass median without the need for a future design exception, including but not limited to 1) a minimum vertical clearance of 17'-0" over US 401 for the proposed and future construction; and 2) a minimum vertical clearance of 10'-0" over the future greenway noted herein for the proposed and future construction.

For minimum horizontal and vertical clearance requirements for bridges constructed over the A&R, reference the Railroad Coordination Scope of Work found elsewhere in this RFP.

Excluding sections of wetlands impacted on the U-2519CA Design Public Hearing Map and / or unless noted otherwise elsewhere in this RFP, bridges spanning wetlands shall be of sufficient length to provide a minimum 15-foot horizontal clearance from the wetland boundary to the toe of the bridge end bent slope.

The south side of the dual bridges on -L- over the Unnamed Tributary to Lake Rim (Bones Creek), located at approximately Station 651+50 -L- on the U-2519CA Preliminary Roadway Plans, shall be of sufficient length to accommodate a minimum 20-foot horizontal clearance from

D. Temporary Structures

Design temporary retaining structures, which include earth retaining structures and cofferdams, in accordance with current allowable stress design AASHTO *Guide Design Specifications for Bridge Temporary Works*, the *Temporary Shoring Standard Special Provision* found elsewhere in this RFP, and the applicable NCDOT Project Special Provisions available upon request by the Design-Build Team. The only submittal required to use the standard sheeting design is the “Standard Shoring Selection Form”.

Traffic control barrier on top of walls shall be in accordance with the NCDOT Work Zone Traffic Control Unit details available upon request by the Design- Build Team. If anchored barrier is required, then anchor the barrier in accordance with NCDOT 2012 Roadway Standard Drawing No. 1170.01.

III. CONSTRUCTION REQUIREMENTS

All construction and materials shall be in accordance with the 2012 *Standard Specifications for Roads and Structures* and current NCDOT *Project Special Provisions* unless stated otherwise elsewhere in this scope of work. The Design-Build Team shall investigate, propose and incorporate remedial measures for any construction problems related to the following:

Foundations	Subgrades	Slopes
Retaining Walls	Settlement	Construction Vibrations

The NCDOT Geotechnical Engineering Unit shall review and accept these proposals prior to incorporation.

At Bridge No. 14 on SR 3569 (Raeford Road) over Bones Creek (Lake Rim Runoff), the Design-Build Team shall construct the bridge foundation, excavate for the substructure and storm water drainage system, and perform vibratory compaction of all soil and pavement materials when the Lake Rim water level has been lowered. The maximum allowable reduction in water level shall be three feet below the normal water surface elevation. The Lake Rim water level shall not be lowered more than one foot per day; and shall only be lowered between October 1st and February 28th. Once lowered, the water elevation shall be maintained throughout bridge construction. If the Design-Build Team elects to use the existing gates to lower the Lake Rim water level, the Design-Build Team shall coordinate with the NC Wildlife Resources Commission - Pechmann Fishing Education Center and the North Carolina Department of Environmental Quality - Division of Energy, Mineral and Land Resources to determine who will operate the gates.

The Design-Build Team shall be responsible for all activities required to lower the Lake Rim water level, including but not limited to, coordinating with the NC Wildlife Resources Commission - Pechmann Fishing Education Center and the North Carolina Department of Environmental Quality - Division of Energy, Mineral and Land Resources prior to submitting an application to perform construction activities at Lake Rim. At a minimum the aforementioned application shall describe the method and time required to lower the lake, as well as how the lower water elevation will be maintained during bridge construction, including but not limited to during storm events. The Design-Build Team shall submit the application to perform construction activities at Lake Rim to the North Carolina Department of Environmental Quality - Division of Energy, Mineral and Land Resources via the NCDOT.

NCDOT will conduct pre and post-construction condition assessments on the Lake Rim dam and spillway. NCDOT will also conduct dam and spillway walkthroughs during construction to monitor potential changes in the dam and spillway conditions. The Design-Build Team shall be responsible for all costs associated with repairing damages to the dam and / or spillway caused by construction.

The Design-Build Team shall be responsible for any damage and / or claim caused by construction, including but not limited to damage caused by vibration (see Article 107-14 2012 *Standard Specifications for Roads and Structures*) and siltation or draining of ponds off the right of way. The Design-Build Team shall be responsible for deciding what, if any, pre and post-construction monitoring and inventories need to be conducted to satisfy their liability concerns. Any monitoring and inventory work shall be performed by a qualified private engineering firm experienced in the effects of construction on existing structures. At a minimum, the Design-Build Team shall perform pond preconstruction condition assessments as outlined in the NCDOT Geotechnical Engineering Unit *Guidelines and Procedures Manual for Subsurface Investigations*.

The prequalified geotechnical firm that prepared the foundation designs shall review the settlement monitoring data a minimum of once a month and issue a letter prior to releasing the embankment or approach fill from monitoring. Monitoring shall not be

2. Intermediate Contract Time #3 for Road Closure Restrictions for Construction Operations

Unless allowed otherwise elsewhere in this RFP, at a minimum, the Design-Build Team shall maintain the existing traffic pattern and follow the road closure restrictions for the roadway listed below. When a road closure is used, the Design-Build Team shall reopen the travel lanes by the end of the road closure duration to allow the traffic queue to deplete before re-closing the roadway.

Unless allowed otherwise elsewhere in this RFP, the Design-Build Team shall 1) not close any direction of travel on the following road during the times noted below; and 2) only close the following road for the operations listed in this intermediate contract time restriction. Using a median cross-over, exclusively for the operations listed below, shall be defined as a closure of a direction of travel.

A crossover providing one lane in each direction on US 401 will only be allowed for the purpose of bridge girder, overhang, and falsework installation and / or removal during the times set forth below. If the Design-Build Team elects to use a crossover for the aforementioned activities, during the times set forth below, the crossover shall be designed and constructed to meet a 35 mph design speed. The Design-Build Team shall monitor the traffic queue during operation of the crossover. Should the traffic queue extend to the advance warning signs, traffic shall be returned to the existing number of lanes in each direction until the traffic queue is depleted.

Road Name	Day	Time Restrictions
US 401	Monday through Friday	5:00 a.m. until 10:00 p.m.

For the operations noted below, the maximum road closure duration shall not exceed **thirty (30) minutes** without an approved offsite detour.

With an approved offsite detour, the roadways listed above may be closed from 10:00 p.m. Friday to 5:00 a.m. the following Monday morning for the operations noted below:

- Girder, overhang, and falsework installation and / or removal
- Installation of overhead sign assemblies over travel lanes
- Installation / removal of temporary shoring
- Installation / removal of temporary traffic barrier systems
- Utility installation

Prior to incorporation in the TMP, the Design-Build Team shall obtain written approval from the Engineer for all road closures.

Liquidated Damages for Intermediate Contract Time #3 for the above road closure time restrictions for US 401 are \$2,500.00 per 15-minute period or any portion thereof.

From January 1 – December 31, the Design-Build Team shall apply an additional 20# of Sericea Lespedeza on cut and fill slopes 2:1 or steeper.

Fertilizer shall be 10-20-20 analysis or a different analysis that provides a 1-2-2 ratio applied at a rate that provides the same amount of plant food as a 10-20-20 analysis and as directed.

Soil Analysis

If vegetation establishment indicates a deficiency in soil nutrients or an incurred pH level is present, the Design-Build Team shall take soil samples and apply additional soil amendments to the affected area and as directed.

Cut slopes unsuitable to support vegetation due to acidic ground water and / or soil shall be plated with Class B limestone rip rap sufficient to restrain erosion and prevent long term maintenance issues. As directed by the Engineer, the Design-Build Team shall submit soil pH samples to the Department to determine the limits of the aforementioned required Class B limestone rip rap plating. The Department will test the soil pH samples and provide results within three business days of receipt.

Class B limestone rip rap required to 1) plat cut slopes for the conditions noted above, and 2) line ditches, as required by the Geotechnical Scope of Work found elsewhere in this RFP, will be paid for as extra work in accordance with Subarticle 104-8(A) of the 2012 *Standard Specifications for Roads and Structures* at a price of \$75.00 per ton.

Excavated soil that does not meet Section 1019-2 of the NCDOT 2012 *Standard Specifications for Roads and Structures* shall not be left exposed, shall not be used to plate shoulders, and / or shall not be within two feet of exposed fill slopes.

All stone in erosion control devices that collect runoff from cut slopes that require Class B limestone rip rap plating, and / or the associated excavation, shall consist exclusively of limestone materials.

Fertilizer Topdressing

In accordance with the requirements noted below, the Design-Build Team shall apply a minimum of one Fertilizer Topdressing application to all permanently seeded areas immediately prior to completion of the project, twice during every growing season from April 1st through September 30th, and at other times as directed.

Fertilizer used for topdressing shall be 10-20-20 analysis applied at a rate of 500 pounds per acre; or a different analysis that provides a 1-2-2 ratio applied at a rate that provides the same amount of plant food as a 10-20-20 analysis, and as directed.

Fertilizer used for waste and borrow areas shall be 16-8-8 grade applied at a rate of 500 pounds per acre; or a different analysis that provides a 2-1-1 ratio applied at a rate that provides the same amount of plant food as a 16-8-8 analysis, and as directed.

Supplemental Seeding

For all supplemental seeding, the kinds of seed and proportions shall be the same as specified above for *Long Term Stabilization*, with the exception that centipede seed shall not be allowed in the seed mix. The rate of application for supplemental seeding shall be between 25# to 75# per acre. Prior to topdressing, the Design-Build Team shall determine the actual rate per acre for supplemental seeding and submit the supplemental seeding rate and areas to the Department for review and acceptance.

To prevent disturbance of existing vegetation, minimum tillage equipment, consisting of a sod seeder, shall be used to incorporate seed into the soil where degree of slope allows. Where degree of slope prevents the use of a sod seeder, a clodbuster (ball and chain) may be used.

Mowing

The minimum mowing height shall be four inches.

environmental agencies shall be allowed either by phone, e-mail or in person, without representatives of the Department's Natural Environment Section (NES) - Environment Coordination and Permitting Group (ECAP) or the Division's Environmental Officer present. A representative from the Design-Build Unit shall be included on all correspondence.

The Department has reached Concurrence Point 4B in the Merger Process used by the environmental agencies and the Department to obtain environmental permits for projects. However, Concurrence Point 4B was only obtained for a portion of the project. The Design-Build Team shall participate and present information for an additional Concurrence Point 4B and Concurrence Point 4C, for the U-2519CA section of the Fayetteville Outer Loop and replacement of Bridge No. 14 that are necessary to complete the Merger Process. 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 compensation associated with this additional coordination. The Design-Build Team shall follow the appropriate details in the document titled "Section 404 / NEPA Merger Process Information" which can be found at the website noted below:

<https://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/Section404NEPAMergerProcessInformation.pdf>

Unless stipulated otherwise in the Technical Proposal, the Department will schedule the 4B and 4C meetings for January 2017 and April 2017, respectively. The Design-Build Team shall clearly identify in their Technical Proposal what months they would like the Department to schedule these meetings. Failure on the part of the Design-Build Team to meet these dates shall place all responsibility for delays resulting from missing these dates solely in the hands of the Design-Build Team.

Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall be bound by the terms of all signed planning documents, and approved minutes and commitments of all concurrence meetings and shall be held accountable for meeting all permit conditions, including but not limited to the use of work bridges. The Design-Build Team shall be required to staff any personnel necessary to provide permit compliance.

Unless noted otherwise elsewhere in this RFP, the Department will not honor any requests for additional contract time or compensation for any efforts required in order to obtain any permit or permit modification, including but not limited to public involvement, additional design effort, additional construction effort and / or additional environmental agency coordination and approvals.

Permit Application Process

It shall be the Design-Build Team's responsibility to acquire information and prepare permit drawings that reflect the impacts and minimization efforts resulting from the Merger Process and

- For Parcel ID No. 9486-90-7818 (Norma Strother and Gary Parker), the Design-Build Team shall provide all services necessary to acquire all right of way, easements, and / or control of access required for completion of project U-2519CA and project U-2519BB.
- With respect to the payments, costs and fees associated with the acquisition of right of way, easements and / or control of access, the Department will be responsible for only direct payments to property owners for negotiated settlements, recording fees, any relocation benefits, and deposits and fees involved in the filing of condemnation of any claims. The Department will assume responsibility for all costs associated with the litigation of condemned claims, including testimony by the appraiser(s). The Design-Build Team shall be responsible for all other acquisition related payments, costs and fees, including but not limited to attorney fees required for all non-condemnation acquisitions.
- A Department representative will be available to provide technical guidance on right of way acquisition procedures and to make timely decisions on approving relocation benefits and approving administrative adjustment settlements on behalf of the Department over and above the authority granted to the Department Right of Way Consultant Project Managers.
- The Design-Build Team shall submit a right of way project tracking report and right of way quality control plan to the Department. The Department standard forms and documents shall be used to the extent possible.
- The Design-Build Team shall provide a current title certificate for each parcel as of the date of closing or the date of filing of condemnation, unless required otherwise in the April 2015 NCDOT *Right of Way Manual*.
- The Department will prepare all Condemnation Maps. The Design-Build Team shall prepare all Final Condemnation Reports. For all plan revisions on condemned parcels that modify the area acquired, modify the control of access and / or impact the appraised value, the Design- Build Team shall be responsible for the following:
 - The Design-Build Team shall notify the Division Right of Way Agent, the Area Negotiator, Area Appraiser and the Attorney General, in writing, that revisions have been made that impact a condemned parcel, and provide updated plan sheets and revised area takes.
 - The Design-Build Team shall consult with the Attorney General and the Area Appraiser to determine the status of the negotiations and appraisal(s).
 - If the Attorney General and / or Area Appraiser recommend an updated appraisal, the Design-Build Team shall provide an updated Summary Sheet to the Area Appraiser for the Department's use in obtaining an updated appraisal(s).
 - Upon receipt of the approved updated appraisal(s), the Design-Build Team shall develop a revised written offer. If settlement is not reached, the Design-Build Team shall submit an updated Final Condemnation Report. If settlement is reached, the Design-Build Team shall notify the Attorney General and Area Appraiser, in writing, and submit an updated Final Condemnation Report with all necessary documentation.