STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

October 18, 2017

Addendum No. 5

Contract No.:	C204003
TIP No.:	R-4467
County:	Perquimans
Project Description:	US 17 Business / NC 37 (North Church Street) from south of the Perquimans River Bridge to north of NC 37 (Winfall Boulevard); including the replacement of Bridge No. 8
RE:	Addendum No. 5 to Final RFP

November 21, 2017 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals Including Addendum No. 1 dated July 18, 2017 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 5 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. 102 of the *General Section* has been revised. Please void Page No. 102 in your proposal and staple the revised Page No. 102 thereto.

Page Nos. 121, 122 and 123 of the *Structures Scope of Work* have been revised. Please void Page Nos. 121, 122 and 123 in your proposal and staple the revised Page Nos. 121, 122 and 123 thereto.

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

Sincerely,

Ronald E. Davenport, Jr., PE
State Contract Officer

cc: Chris Werner, PE
Teresa Bruton, PE
David Hering, LG, PE
Jerry Jennings, PE
Ron McCollum, PE
File

Mailing Address:
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COVER SHEET

PROPOSAL SHEETS

PROJECT SPECIAL PROVISIONS *PAGE NO.*

SCOPES OF WORK

STANDARD SPECIAL PROVISIONS

- Show mainline typical sections.
- Show proposed deviations to the preliminary design provided by the Department, not required herein.
- Identify drainage modifications and designs to be implemented.
- Identify all hydraulically deficient box culverts and / or pipes within the existing / proposed right of way and their proposed hydraulic mitigation or replacement.
- Document existing and future watershed conditions, associated variables with hydrologic method, and data sources.
- Indicate if the Design-Build Team will develop two new two-dimensional (2D) Flow Models. Identify previous relative two-dimensional (2D) flow modeling experience, if applicable.
- Identify the appropriate design criteria for each feature, if not provided herein.
- Identify all bridge types to be constructed, including any special design features or construction techniques needed.
- Provide a detailed description of the proposed communication system for the remote operation of the swing span, including but not limited to 1) a plan for determining the extent of existing infrastructure and maximizing its use, 2) supplemental infrastructure needs, and 3) features that will be incorporated for redundancy, reliability, safety and security.
- Indicate the type and number of bridge expansion joints.
- Identify any deviations, including proposed design exceptions, from the established design criteria that will be utilized. Explain why the deviation is necessary.
- Describe any geotechnical investigations to be performed by the Design-Build Team and note any deviations to NCDOT requirements for subsurface investigations noted in the Geotechnical Scope of Work found elsewhere in this RFP.
- **** NOTE **** Deleted bullet on stockpile of 30” square prestressed concrete piles
- Identify any aesthetic considerations not required herein that will be part of the design.
- Describe how utility conflicts will be addressed and any special utility design considerations. Describe how the Design-Build Team’s design and construction methods minimize the Department’s utility relocation costs.
- Indicate any impacts to the Hertford Public Works pump station located at the southern terminus of the existing bridge and / or the Town of Winfall pump station located near the existing US 17 Business / NC 37 (Winfall Boulevard) intersection.
- Identify the months the Department should schedule the interagency hydraulic design review meeting and the interagency permit impacts meeting.
- Describe how the design will affect the Department’s right of way costs.
- Identify types of any retaining walls, if applicable.
- Provide a Preliminary Signing Concept Map that includes, at a minimum, all proposed bridge mounted and ground mounted guide signs.

STRUCTURES SCOPE OF WORK (10-18-17)

Throughout this RFP, references to the approach spans shall denote the sections of the bridge outside of the limits of the swing span section of the bridge.

Throughout this RFP, references to the bridge and / or the Perquimans River Bridge shall denote the entire bridge.

Throughout this RFP, references to the Minimum Technical Requirements shall denote the October 18, 2017 R-4467 Swing Span Minimum Technical Requirements document provided by the Department.

Project Details

The Design-Build Team shall design and construct a bridge to replace the existing bridge over the Perquimans River (Bridge No. 8). The replacement structure shall include a swing span section over the navigational channel of the Perquimans River and bridge the adjacent earthen causeway as shown on the Preliminary Roadway Plans provided by the Department.

The bridge typical section shall consist of two 12-foot travel lanes, minimum four-foot shoulders on both sides of the bridge, and a 5.5-foot raised concrete sidewalk along the east side of the bridge. On both sides of the bridge, the bridge rails shall be 42-inch Oregon Rail, per standard drawings BMR1011_12. However, the final bridge rail designs must be reviewed and endorsed by the State Historic Preservation Officer, as required by Section 106 commitments to be provided by the Department, prior to incorporation.

The bridge shall meet the accepted roadway typical section and grades. Bridge geometry (width, length, skew, span arrangement, etc.) shall be in accordance with the requirements herein and the Structure Recommendations and / or the Hydraulic Bridge Survey Report prepared by the Design-Build Team and accepted by the Department.

The minimum vertical clearance for the swing span section of the bridge shall be 12’-0” above the mean high water elevation. The minimum vertical clearance for the portions of the approach span sections of the bridge constructed (1) over the Perquimans River and (2) within the limits of proposed deck drains shall be 12’-0” above the mean high water elevation. Outside the aforementioned areas, the minimum vertical clearance of the bridge shall be 4’-0” above mean high water or final finished grade, whichever is higher.

The minimum vertical roadway clearance from the top surface of the roadway to the lowest element of the swing span truss, including but not limited to all non-structural attachments, shall be 15’-6”.

The Design-Build Team shall design and construct two six-foot wide by ten-foot long observation areas, level with the sidewalk, along the east side of the bridge. Unless noted otherwise elsewhere in this RFP, the observation areas shall be located at approximately the locations shown on the Preliminary Roadway Plans provided by the Department. If the horizontal alignment required to obtain the minimum navigational channel depth prevents locating one of the aforementioned observation areas south of the swing span section of the bridge, in the Department’s sole discretion, the Design-Build Team shall relocate that observation area to a location near the turtle log. The observation areas shall not be located between the traffic gates for the swing span.

All proposed retaining walls located within the historic district shall be designed and constructed with non-stained concrete and stamped with an ashlar stone pattern.

The Design-Build Team shall design and construct aesthetic treatments on the bridge in accordance with the following requirements:

- Decorative street lighting and outriggers to support the decorative street lighting shall be provided along the approach spans in accordance with the Lighting Scope of Work found elsewhere in this RFP.

- Decorative treatments for the Bridge Tender's house shall be provided in accordance with the Section 106 commitments to be provided by the Department.

- In accordance with the Section 106 commitments to be provided by the Department, a stationary flagpole, with appropriate lighting, shall be provided on the eastern side of the southern approach span. The flagpole shall be at least as tall as the existing flagpole. The Design-Build Team shall provide and install all-weather U.S. and N.C. flags on the aforementioned flagpole that are at least as large as the existing flags. (Reference the Lighting Scope of Work found elsewhere in this RFP)

Unless noted otherwise elsewhere in this RFP or Minimum Technical Requirements, vessel impact design will not be required for the bridge substructure and superstructure.

The bridge foundations, bulkhead, and retaining walls shall be designed for scour as detailed in the Hydraulics and Geotechnical Scopes of Work found elsewhere in this RFP.

Waterline pile footings over open water shall be constructed such that the bottom of the pile footing is no higher than one foot above the mean low water elevation. Precast soffits used as falsework and forms for waterline footings shall meet all corrosion protection and reinforcing steel requirements. Precast soffits shall be sacrificial and shall not contribute to footing strength. All steel precast soffit supports to remain within the cast-in-place footing shall be epoxy coated.

The Design-Build Team shall not use concrete pile splices and buildups.

A stockpile of 30" square prestressed concrete piles will **NOT** be available for the Design-Build Team's use. If the Design-Build Team intended to use a portion of the concrete piles for construction of the R-4467 Project or take ownership of all the concrete piles, the Design-Build Team will not be required to modify the Technical Proposal to reflect the unavailability of the concrete piles; but shall provide a clarification letter to Mr. Ron Davenport, PE, State Contract Office. The clarification letter shall 1) provide sufficient information to clearly identify those items, including but not limited to construction procedures, that have changed due to the unavailability of the stockpile of 30" square presteressed concrete piles, 2) only detail changes made to address the unavailability of the aforementioned concrete piles, and 3) be included with each Technical Proposal submitted to the Department (12 copies) at the date and time indicated elsewhere in this RFP. The Department will evaluate the Technical Proposal in conjunction with the aforementioned clarification letter. However, the Department will not evaluate any design features and / or construction method changes provided in the aforementioned clarification letter that are not directly related to the unavailability of the

concrete piles. If the Design-Build Proposal is accepted and the Department Awards the contract, both the Technical Proposal and clarification letter submitted by the Design-Build Team shall be, by reference, incorporated and made part of this contract. The Design-Build Team shall include all costs associated with the unavailability of the 30" square prestressed concrete piles in the lump sum price bid for the entire project.

From the beginning of the existing timber bulkhead located on the southeast side of the existing bridge near the bridge tender's house continuously to the northeast Waddell property corner, the Design-Build Team shall design and construct a painted galvanized steel sheet pile bulkhead or a concrete sheet pile bulkhead. The aforementioned new bulkhead shall (1) be designed and constructed with cast-in-place coping and (2) be installed at the location of the existing bulkhead or in front of the existing bulkhead at an offset distance not to exceed two-feet. The top elevation of the new bulkhead shall be at or above the existing natural ground elevation behind the existing bulkhead. A maximum three-inch lateral deflection will be allowed at the top of the bulkhead. If the Design-Build Team elects to construct the new bulkhead in front of the existing bulkhead, the area between the new and existing bulkhead shall be backfilled with sand and / or soil. (Reference the *Painting Over Hot Dip Galvanized Surfaces* Project Special Provision found elsewhere in this RFP)

The number of expansion joints for the approach spans shall be kept to a minimum. Structures shall be integral if the criteria listed in the NCDOT *Structures Management Unit Manual* is met. When required by the criteria in Section 6.2.3.2 of the NCDOT *Structures Management Unit Manual*, the Design-Build Team shall use expansion joints, except Bullets 3 and 4 in the aforementioned Section shall apply to all roadways.

The Design-Build Team shall use one type of expansion joint throughout the approach spans. Expansion joints shall have a maximum four-inch joint opening and a minimum ¾" opening. Creep and shrinkage movement may be excluded from the total movement calculations. The Design-Build Team shall indicate the type and number of bridge expansion joints in the Technical Proposal. For joint requirements at the interface between the approach spans and the swing span, reference the Minimum Technical Requirements.