



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

November 9, 2004

Addendum No. 2

RE: Contract ID: C201067
WBS # 34799.3.1
F.A. # STP-274 (4)
Gaston County (U-2408)
NC-274 from NC-275 To
US-29/74 in Gastonia.

November 16, 2004 Letting

To Whom It May Concern:

Reference is made to the proposal form furnished to you on the above-mentioned project.

The following revisions have been made to the proposal form:

Page No. 33 has been revised to clarify the amount of the proposed bridge widening. Also, we are providing a copy of the approved Structure Recommendations with this mailing. Please void Page No. 33 in your proposal and staple the revised Page No. 33 thereto.

On Page No. 51, the second paragraph under "Roadway Foundations" has been deleted. Please void Page No. 51 in your proposal and staple the revised Page No. 51 thereto.

Sincerely,

A handwritten signature in black ink, appearing to read "R. A. Garris".

R. A. Garris, PE
Contract Officer

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Gaston County
Addendum No.2

RAG/jag/pa
Attachments

cc: Mr. W. S. Varnedoe, PE
Mr. S. D. DeWitt, PE
Mr. E. C. Powell, PE
Mr. M. L. Holder, PE
Ms. D. M. Barbour, PE
Mr. Art McMillan, PE
Mr. J. V. Barbour, PE
Mr. Mark Staley (2)
Mr. Aydren Flowers
Mr. R. E. Davenport, Jr., PE
Ms. Marsha Byrd
Ms. Taylor Mishoe
Project File (2)

All work by the Contractor is to be done in a manner satisfactory to the State and in accordance with the established customs, practices, and procedures of the North Carolina Department of Transportation and in conformity with the standards adopted by the American Association of State Highway Transportation Officials, and approved by the Secretary of Transportation as provided in Title 23, US Code, Section 109 (b). The decision of the State is to control in all questions regarding location, type of design, dimension of design, and similar questions.

Ethics Policy:

Employees employed by the Contractor or employees employed by any subconsultant for the Contractor to provide services for this project shall comply with the DEPARTMENT'S ethics policy. Failure to comply with the ethics policy will result in the employee's removal from the project and may result in removal of the Company from the DEPARTMENT'S listing of Registered Qualified Engineering Firms.

STRUCTURES SCOPE OF WORK:

The contractor's primary design firm shall be on the Highway Design Branch list of firms qualified for Structure Design and maintain an office in North Carolina.

Design shall be in accordance with the Sixteenth Edition AASHTO Standard Specifications for Highway Bridges, NCDOT Structure Design Manual (including policy memos), and NCDOT Bridge Policy Manual, and Norfolk Southern Corporation (NSC) "Guidelines for the Design of Grade Separation Structures" and AREMA. Construction and Materials shall be in accordance with 2002 NCDOT Standard Specifications For Roads and Structures, NCDOT Structure Design Unit Project Special Provisions, NCDOT Structure Design Unit Standard Drawings, and Norfolk Southern Corporation special provisions and State-Railroad Agreement.

Alternate designs, details, or construction practices (such as those employed by other states, but not standard practice in NC) are subject to Department review and will be evaluated on a case by case basis.

Structure to be Widened:

Bridge No. 57 on NC 274 over Norfolk Southern RR

The existing bridge shall be widened a minimum of 3.450m on the left side and 1.800m on the right side for a total out to out dimension of 18.050m. The dimensions are based on the existing deck being cut at 6.4 m from the centerline of the existing bridge.

The bridge shall meet approved Roadway typical sections and grades. Bridge geometry (width, length, skew, span arrangement, etc.) shall be in accordance with the approved Structure Recommendation (available upon request).

Bridge railing shall not be in accordance with the approved Structure Recommendation (3-bar metal rail on the east side, jersey barrier on the west side). The bridge railing shall be parapet and 2 bar metal rail (Standards BMR2SM and BMR34SM) with the parapet height increased 50mm or approved equal. Sidewalk will be required on the east side of the bridge.

Design foundations for service loads using allowable stress design. The ultimate bearing capacity of all piles will be determined by "Method B - Wave Equation Analysis" outlined in Division II, Section 4.4 of the current allowable stress design AASHTO *Standard Specifications for Highway Bridges*.

Analyze drilled pier and pile bent foundations using either Lpile or FB-Pier. Drilled piers and vertical piles must be "fixed" in the soil/rock such that a decrease in pier or pile length will not significantly increase the top deflection. The D/B team structural engineer must approve deflections greater than 1 inch (25 mm) in the free head condition for either top of pile for a pile bent or top of column for post and beam construction on drilled piers.

Roadway Foundations

Design all unreinforced fill slopes for a slope of 2:1 (H:V) or flatter except bridge end bent slopes (see Section A) and a minimum stability factor of safety of 1.3. Design all cut slopes for a slope of 1.5:1 (H:V) or flatter and a minimum stability factor of safety of 1.5. Use limiting equilibrium methods, such as Modified Bishop, Simplified Janbu, Spencer or any other generally accepted method for slope stability analysis.

Temporary Structures

Design temporary retaining structures, which include earth retaining structures and cofferdams, in accordance with Section 4 of the 1995 or current allowable stress design AASHTO *Guide Design Specifications for Bridge Temporary Works* and the NCDOT Temporary Shoring for Maintenance of Traffic Special Provision. The only submittal required to use the standard sheeting design is the "Standard Shoring Selection Form".

Design and construct temporary retaining walls in accordance with the applicable NCDOT *Project Special Provision*. For temporary retaining walls, do not place a barrier within 5 feet (1.5 meters) of the face of the wall. If the barrier is between 5 and 9 feet (1.5 to 2.7 meters) from the face of the wall, anchor the barrier in accordance with Roadway Standard Detail No. 11.70.01.

III. SUBMITTALS:

Submit all structure and roadway foundation design recommendation reports, reinforced slope designs and temporary structure designs for review. A separate structure foundation design recommendation report is required for each structure and one roadway foundation design recommendation report is required for the entire project. Seal all foundation design recommendation reports, plans, special provisions and calculations by a registered professional engineer licensed in the state of North Carolina.