



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

May 16, 2011

Addendum No. 4

RE: Contract ID C202599

WBS # 35742.3.1

F.A. # STP-0158(51)

Pasquotank, Camden Counties (U-4438)

US-158 From US-17B (N. Road Street) to East of Pasquotank River in Elizabeth City

May 17, 2011 Letting

To Whom It May Concern:

Reference is made to the proposal furnished to you on this project.

On Page No. 352 paragraphs one, three and five of "2.0 QUALIFICATIONS OF CONTROL SYSTEMS VENDOR (A) General Requirements" have been revised to remove the requirement that the references and naming of the Control System Vendor be submitted with the bid. Please void Page No. 352 in your proposal and staple the revised Page No. 352 thereto. The contract will be prepared accordingly.

Sincerely,

R. A. Garris, PE
Contract Officer

RAG/jag

Attachments

cc: Mr. Jon Nance, PE
Mr. Ron Hancock, PE
Mr. J. Jennings, PE
Ms. D. M. Barbour, PE
Mr. Art McMillan, PE
Mr. J. V. Barbour, PE
Ms. Lori Strickland
Project File (2)

Mr. R.E. Davenport, PE
Mr. G. R. Perfetti, PE
Ms. Natalie Roskam, PE
Mr. Larry Strickland
Ms. Penny Higgins
Ms. Jaci Kincaid
Ms. Marsha Sample
Mr. Ronnie Higgins

MAILING ADDRESS:

NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT UNIT
1591 MAIL SERVICE CENTER
RALEIGH NC 27699-1591

TELEPHONE: 919-250-4128

FAX: 919-250-4119

WEBSITE: WWW.NCDOT.ORG

LOCATION:

CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

2.0 QUALIFICATIONS OF CONTROL SYSTEMS VENDOR

(A.) General Requirements

1. Each bidder shall identify the intended Control System Vendor (assembler/supplier of the integrated control system), and submit a sufficient previous experience log to verify that the Vendor meets the requirements listed herein. The equipment furnished by the Control System Vendor shall include, but not necessarily be limited to, the PLC and all associated components, the PLC program, resolvers, encoders, limit switches, flux vector drives, motor control center and the bridge control console.
2. The Control System Vendor must be able to demonstrate experience in movable bridge control systems by having completed five previous successful movable bridge control systems, at least three of which shall have incorporated a PLC system with flux vector variable speed drives.
3. All required previous project references, including names of bridge owners and contact persons with phone numbers, must be submitted to the Engineer.
4. The Control System Vendor's PLC program developer shall be on site during initial startup and testing of the control system for the new EB bridge, and then again for startup and testing of the new control system and flux vector drives on the existing WB bridge.
5. Control System Vendors unable to demonstrate compliance with the above requirements will not be accepted.

3.0 PLC SYSTEM

(A.) PLC

1. Bridge control logic functions shall be performed by a programmable logic controller, such as a Model SLC 5/05 or ControlLogix, as manufactured by the Allen-Bradley Company, or equal accepted by the Engineer. The PLC processor shall utilize ladder-logic programming, with an advanced instruction set including: file handling, sequencing, diagnostics, shift register(s), program control instructions, timing, and mathematical functions. Processor memory shall be 64K or larger, battery backed static RAM. Processor shall be capable of interfacing with up to 4096 inputs and 4096 outputs, with a scan time of 20 milliseconds or faster. Processor shall include built-in Ethernet and RS-232 ports.
2. In general, except for traffic control and other specific exceptions as may be granted by the Engineer, all control logic, timing, counting and other control functions shall be performed by the PLC. All necessary modules, interfaces internal and external to the controlled equipment, and other accessories shall be included to provide a