



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

June 29, 2018

CONTRACT: DB00439  
WBS ELEMENT: 2SP.202541.2  
COUNTY: Lenoir  
ROUTE: SR 1330 (Harold Sutton Road)  
DESCRIPTION: SR 1330(Harold Sutton Rd) Site #2 Pipe Replacement

**ADDENDUM 1**

TO: PROSPECTIVE BIDDERS

Please note the following revisions to the proposal.

- Revision of the General Aluminum Structure Requirements. Please see revised pages 30-32.
- An electronic file has been uploaded to bid express named DB00439.01

**Please make sure to sign the addendum page in the proposal to acknowledge this addendum.**

Sincerely,

DocuSigned by:

*Mary Voelker Moore*

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Mary Voelker Moore, PE  
Division Contract Engineer

cc: Mr. Lang Jones  
Mr. Rhett Gerrald, PE  
Mr. J. Aaron Bullard, PE  
Mr. Jeff Cabanis, PE  
Ms. Claudia Wainwright

**PROJECT SPECIAL PROVISIONS****ROADWAY****112”X75” CORR. ALUMINUM PIPE WITH HEADWALLS**

300

SP

Perform the required aluminum pipe culvert construction in accordance with this Special Provision.

The work covered by this special provision consists of furnishing all labor, equipment, materials and a manufacturer representative on site, to install the aluminum pipe culvert as indicated on the plans and Standard Specifications.

Design of the aluminum pipe culvert shall be the responsibility of the Contractor and shall comply with the latest AASHTO design specifications and requirements. The Contractor shall submit, fourteen (14) days prior to commencing work at each site, two sets of detailed plans and design calculations that have been checked and sealed by a North Carolina Registered Professional Engineer. The plans should be submitted to the Resident Engineer.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
112”X75” Corrugated Aluminum Pipe with Headwalls	LS

**GENERAL ALUMINUM STRUCTURE REQUIREMENTS:**

All items are incidental to Aluminum Box Culvert unless stated otherwise:

- All materials shall meet the requirements of the *2018 Standard Specifications*.
- Pipe material shall be made of aluminum alloy and in dimensions per the standard specifications and hydraulic recommendations.
- Poor quality of workmanship of any materials supplied will constitute grounds for the structure being rejected.
- Manufacturer’s representative, with at least two (2) years of experience in the installation of the type of structure, is required to provide technical assistance with the assembly of structure and headwalls as well as being on site during the installation and backfilling of pipe with headwalls through completion.
- Detailed shop drawings and design calculations shall be submitted for acceptance. The supplier shall provide a design that meets the requirements of AASHTO and is sealed by a NC registered Professional Engineer.
- Headwall locations shall be at or beyond the shoulder point.

- Headwalls will be required on the inlet and outlet of all pipes.
- All headwalls shall be parallel to the roadway.
- Pipe invert elevations shall be 1' below streambed.
- Headwall foundation shall be undercut and backfilled with #57 stone 1' below bottom of headwall elevation.
- Pipe is to be fully welded inside and out to headwalls using two root welds and two finish welds on either side of the wall. All finish welds are to be ground to a smooth finish.
- Headwall and pipe are to be reinforced per AASHTO specifications and structural engineer's requirements.
- All hardware including nuts, bolts, washers, rods, etc. shall be hot dipped galvanized.
- A 2' wide bands and 2' wide flat gasket made of closed cell neoprene rubber which upon assembly provides a watertight seal at each joint will be required.
- The headwalls shall be 27'-0" x 9'-3" fully welded Aluminum Structural Plate.
- All holes or tears in the pipe must be repaired prior to backfilling.
- Pipe bed will be undercut and backfilled with either #57 stone 1' below pipe invert elevations. Work for pipe bed undercut #57 stone will be incidental to the pipe installation.
- Prepare the pipe foundation in accordance with the applicable method as shown in the contract documents, true to line and grade and uniformly firm. Where the material is found to be of poor supporting, value, or rock and when the Engineer cannot make adjustment in the locations of the pipe, undercut existing foundation material within the limits of the plans. Backfill the undercut with the specified material of #57 stone. Encapsulate the #57 stone with foundation conditioning geotextile before placing bedding material. Overlap all transvers and longitudinal joints in the geotextile at least 18". Maintain the pipe foundation in dry condition.
- Any undercut beyond the 1' specified, that is out of the Contractor's control and directed by the Engineer, will be paid for as Undercut Excavation by the CY which will include the fabric and backfill material with #57 stone as agreed to by a (SA) supplemental agreement.
- Backfill material shall be #57 stone from 1' below streambed elevation to midpoint of pipe.
- Backfill material shall extend a minimum of the O.D. plus 3' of the in both directions.

- ABC stone will be placed from midpoint of pipe to subgrade. This will be a separate pay item.
- Supplier to include all necessary wale beams, headwall cap, continuous flat gaskets and galvanized steel tieback rods with DMA plates and adjustable hot dip galvanized turnbuckles.
- Pipe sections and bands shall be assembled and alphanumerically / alignment match-marked at the plant site before shipping to verify fit.
- Bands shall be installed onto the pipe sections prior to shipping.
- Pipe manufacturer must provide certification of the measured dimensions of the pipe, bands and the continuous flat gaskets. Certification must state that the bands and the gaskets have been pre-fitted and will securely tighten around the supplied pipe. Certification of the dimensions must be signed by the manufacturer's representative and dated.

**EXAMPLE:** Supplied pipe measures \_\_\_\_ inches in diameter. Supplied bands and the continuous flat gaskets measure \_\_\_\_ inches in length and will securely fasten pipe sections, without field modification.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**NCDOT APPROVED PIPE AND HEADWALL VENDORS:**

Contech Construction Products, Inc.

Rahn Sutton

Phone: 919-889-0878

Lane Enterprises, Inc.

Paul Vaughn

Phone: 540-674-4645

Pomona Pipe, Inc.

Don Joyce

Phone: 336-255-2655

**LUMP SUM GRADING:**

**Description**

Grade the project to the typical sections and details shown. Grading shall be comprehensive grading as defined in Section 226 of the *2018 Standard Specifications*, and shall include clearing