



COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
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Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

April 21, 2021

CALL NO. 300
CONTRACT ID NO. 212205
ADDENDUM # 1

Subject: ALLEN COUNTY, FD04 002 0100 015-020
Letting April 23, 2021

(1) Added - Special Notes for Culvert Pipe - Pages 1-6 of 6

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

Rachel Mills,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mr
Enclosures

SPECIAL NOTES FOR CULVERT PIPE

A. Excavation. Saw cut the existing asphalt pavement and base to a neat edge prior to excavation. Obtain the Engineer's approval of trench width prior to cutting pavement. Excavate trench as directed or approved by the Engineer without disturbing existing underground utilities. Be responsible for all excavation (common, roadway, structure, solid rock, and unclassified) required for foundation preparation, inlet boxes, toe walls, and all other excavation required for construction. Excavate rock in channel as required to allow for construction of foundation and construction of any inlet boxes.

Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all removed materials not incorporated into the work at sites off the right of way obtained by the Contractor at no additional cost to the Department (see Special Note for Waste and Borrow). Perform all excavation and removal of obstructions only as approved or directed by the Engineer.

B. Culvert Pipe and Foundation Preparation. Construct culvert pipes according to the Drainage Structure Replacement Schedule. The Engineer will establish final centerline, flow lines and skew to obtain the best fit of the existing ditches and channels. Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings. Use approved connecting bands or concrete anchors as required. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide Positive drainage upon completion of pipe installation.

C. Backfilling and Asphalt Resurfacing. Backfill trench around the pipe with flowable fill to subgrade elevation. Restore pavement with CL2 ASPH BASE 1.0D, PG 64-22 (4 inch maximum lifts) up to finished grade. Backfill excavated area around the new drainage structure inlets according to Section 710.03.

Where it may become necessary, and only in the most extraordinary situation, to maintain one lane of traffic or leave open trenches at night, the Contractor shall strictly adhere to all nighttime traffic control regulations per MUTCD. The project shall **not** be closed to through traffic and one lane of traffic each in each direction shall be maintained at all times. Access to all local business shall be maintained at all times.

D. Final Dressing, Clean Up, and Seeding and Protection. After all work is completed, completely remove debris from the construction site. Perform Final Dressing on all disturbed areas, both on and off the Right of-Way. Sow all disturbed earthen areas with Seed Mix Type I. Top-Dressing will not be required.

E. Disposal of Waste. Dispose of all excess materials, waste, and debris off the right-of-way at approved sites obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow Sites.

F. Property Damage and Restoration. The Contractor shall be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design at no additional cost to the Department.

G. On-Site Inspection. Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims resulting from site conditions.

H. Caution. Do not take information shown on the plans and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction. Without regard to the materials encountered, all excavation shall be unclassified. It shall be distinctly understood that any reference to rock, earth, or any other material on the plans or cross sections, whether in numbers or words, letters, or lines, is solely for the Department's information and is not to be taken as an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown.

I. Right-of-Way Limits. The Department has not determined exact limits of Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary Easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

J. Utility Clearance. Work around and do not disturb existing utilities. It is not anticipated that any utility facilities will require relocation and/or adjustment; however, in the event utilities are discovered that require relocation, the utility companies will work concurrently with the Contractor while relocating their facilities. Working days will not be charged for those days on which work on the controlling item is delayed due to the utility company's phase of the work, as provided in the Specifications. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work.

IV. METHOD OF MEASUREMENT

Only the items listed in Section V. will be measured for payment. All other items required to complete the work according to the Drawings, Specifications, these notes, and as directed by the Engineer shall be incidental to the applicable listed items.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Site Preparation will be considered incidental to other items of work.

C. Erosion Control. See Erosion Control notes.

D. Restoration, Final Dressing, Clean Up, and Seeding and Protection. The Department will not measure Restoration, Final Dressing, clean up, and Seeding and Protection for separate payment, but shall be incidental to other items of work.

V. BASIS OF PAYMENT

No direct payment will be made other than for the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Culvert Pipe. Accept payment at the contract unit price per linear foot as full compensation for all materials, equipment, labor and incidentals necessary to complete the work as specified in these notes and the Standard Specifications for furnishing and installing the Culvert Pipe and backfilling the Culvert Pipe.

SPECIAL NOTE FOR CULVERT PIPE REHABILITATION WITH HDPE PIPE

- 1. Description.** Perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, current edition, and any applicable Special Provisions, and applicable Standard and Sepia Drawings, except as hereafter specified. Furnish all materials, labor, equipment, and incidentals for installing and grouting necessary to rehabilitate existing culvert pipe by slip lining an existing culvert pipe with high density polyethylene (HDPE) pipe. The pipes shall be sizes, types, design and dimensions shown on the summary and shall include all connections, joints and other appurtenances as required to complete the work. The slip lining process will require the contractor to completely grout the annular void between the host and liner pipe. The grout and grouting process shall be considered incidental to this item.
- 2. Materials.** Unless otherwise specified on the plans or herein, culvert pipe renewal shall conform to the following:
 - A. Liner Material - High Density Polyethylene (HDPE) Pipe**
 - 1.** High density polyethylene pipe and fittings shall meet the requirements in the AASHTO M326-08 and ASTM F894 Specifications. Contractors must furnish a certificate of compliance at bid time from the pipe manufacturer that the liner pipe to be installed has been tested by a certified 3rd party laboratory and meets all AASHTO M326 requirements. The certification must list the laboratory and contact person with phone number.
 - B. Designation of Type.**
 - 1.** The HDPE pipes used for liners in gravity flow culverts shall be solid wall construction with mechanical end connectors, male and female.
 - C.** Pipe joints shall comply with ASTM D3212 Standard Specification for Joint tightness.
 - D.** Hydraulic flow characteristics for the liner pipe shall provide a Manning's coefficient of $n = 0.00914$.
 - E. Grouting Material.** Contractor shall utilize material specifications for solidification of the annular void between host and the inserted liner with low density flowable fill or cellular grout. The grouting material shall have a density of not less than 40 lbs per cubic foot nor greater than 125 lbs per cubic foot.
- 3. Cleaning.** The existing culvert pipe shall be cleaned by whatever means necessary to remove all obstructions which may be encountered that would prevent insertion of the pipe liner into the host pipe as approved by the engineer. This work will not be paid for directly, but shall be considered incidental to this item
- 4. Construction.**
 - A. Site Preparation.** Be responsible for all site preparation. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; shoulder preparation and restoration, temporary and permanent erosion and pollution control; and all incidentals.

Site preparation will be only as approved or directed by the Engineer. Other than the bid items listed, no direct payment will be made for site preparation, but will be incidental to the other items of work.

- B. Liner Pipe.** Liner pipe shall be inserted and installed in accordance with manufacturer's recommendations. Slip liner pipe grade shall be maintained parallel to grade of host pipe.
- C. Grouting.** Upon completion or partial completion of the slip lining process grouting will be required to be placed in the annular void between the insertion pipe and the host pipe. Cellular grout with a density between 40 and 125 lbs per cubic foot shall be used.

A detailed plan on holding the liner pipe on the invert of the host pipe shall be submitted to the engineer for approval.

The annular void shall be completely grout filled without deflecting the insertion pipe greater than 1.5 percent.

The contractor shall provide bulkheads at the open points of each run of pipe to be grouted.

The annular void shall be grouted solid by injecting grout from one end of the pipe run and allowing it to flow toward the other end. Venting of the annular void shall be performed to assure uniform filling of the void space during the grouting process.

An open ended, high point tap or equivalent vent must be provided and monitored at the bulkhead opposite to the point of grouting.

Pressure on the annular void shall not exceed 2 PSI to avoid damage to the liner pipe. Regardless of the pressure, the contractor shall be solely responsible for any damage or distortion to the insertion pipe due to the grouting process.

- D. Pipe Stockpiling and Handling.** Pipe and fittings shall be stockpiled in a safe manner at each contractor staging area or pit location. The stockpiling shall be arranged to cause a minimum of interference to pedestrian and stored outside the safety clear zone of vehicular traffic. When handling slip lining pipe, the contractor shall take all precautions necessary to avoid damaging the pipe. No liner pipe shall be permitted to drag across the ground. All liner pipe must be fully supported or carried above the ground while being moved until inserted into the host culvert. Pipe with deep cuts, scratches, or gouges shall be rejected or replaced at the entire expense of the contractor. If pipe is found to have developed an irregular shape that will not allow pipe joining or insertion without the use of outside forces to bring pipe to round shape, it shall be rejected and replaced at the entire expense of the contractor. An irregularly shaped pipe that would necessitate the use of undue force that could cause damage to the pipe or the joints shall be rejected and replaced at the entire expense of the contractor.
- 5. Clean-up and Restoration.** Upon acceptance of the installation work and testing, the contractor shall clean-up and restore the project area affected by operations as approved by the Engineer.
 - 6. Measurement.** This item shall be measured by the foot. Such measurement shall be made along the flow line of the liner pipe complete in place.

The accepted quantities of pipe liner will be paid for at the contract unit price per linear foot for the size of the existing pipe in which the liner is installed, complete in place.

7. **Payment.** The Department will pay for HDPE Pipe Liner at the linear foot price. Payment is full compensation for cleaning existing pipe; for furnishing, hauling, installing liner pipe and placing grout, all connections and for all labor, tools equipment, materials, clean-up and incidentals.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24583EC	HDPE PIPE LINER (XX INCH)	LF