



**TRANSPORTATION CABINET**

Frankfort, Kentucky 40622  
www.transportation.ky.gov/

**Steven L. Beshear**  
Governor

**Michael W. Hancock, P.E.**  
Secretary

April 21, 2015

CALL NO. 366  
CONTRACT ID NO. 152971  
ADDENDUM # 1

Subject: Warren County, FE02 114 2629 B00072N  
Letting April 24, 2015

- (1) Revised - Note - Pages 12-14 of 76
- (2) Revised - Bid Items - Page 76 of 76

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

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

Sincerely,

A handwritten signature in cursive script that reads "Robert C. Lewis".

Robert C. Lewis, P.E.  
Acting Director  
Division of Construction Procurement

RL:ks  
Enclosures



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specifications noted herein. The completed work product shall be representative of the plan documents. The workmanship to construct the scour countermeasure improvements shall be square, plumb, correctly sloped and fully complete. The contractor shall not pollute the Drakes Creek and the work area should be kept clean at all times. All waste products shall be properly disposed off-site. The temporary work platforms will be removed as indicated per the drawings or as the engineer directs. **The following site preparation items will be incidental to the project are: site temporary construction work, constructing the temporary work platforms and removal of the platforms, installation of access roads and redress access roads, tree and brush removal, structural analysis of bridge loading, managing/controlling water while constructing the bridge scour countermeasures, shoring, dismantling and re-assembling fence/guardrail, sheet pile connectors, abandoned concrete bridge pieces in the creek and all other construction debris removal.**

#### **DESCRIPTION:**

Perform all work in accordance with the Kentucky Transportation Cabinet, and the attached detail drawings. Section references are to the KYTC Standard Specifications. This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Provide access to and from bridge site; (3) Properly construct the scour countermeasures per plans and specifications; (4) Maintain and control traffic; and (4) Any other work items specified as part of the contract.

#### **MATERIALS AND SPECIFICATIONS:**

##### **1. Steel Sheet Pile Scour Wall**

The contractor shall furnish hot rolled zee shaped steel sheet pile sections with interconnecting ball and socket ends that are capable of being connected together . The sheet pile scour wall shall be left in place at the completion of the project. The permanent sheet pile should be new and the contractor shall submit the mill inspection and certification reports of all material. **All sheet pile materials shall be hot dipped galvanized.** The sheet pile material shall conform to ASTM 572, Grade 50 with an elastic section modulus, moment of inertia and section area equal to or greater than indicted below:

Height, 17.66 in

Width, 27.88

Section Modulus, S= 106.3 in<sup>3</sup>

Moment of Inertia, I=938.7 in<sup>4</sup>

Weight, = 29.9 lb/sqft

The steel sheet pile corner connectors shall be PZ-45 (Colt) ASTM A-572 Grade 50 to change the direction angle of the adjoining sheet pile members. Provide standard handling holes for all sheet pile sections.

2. Concrete: see Section 601 for concrete and proportioning and placement and finishing requirements. The concrete shall conform to the American Concrete Institute (ACI) latest edition of ACI 318 "Building Code Requirements for Reinforced Concrete". The strength of the concrete shall attain design strength of 4,000 psi in 28 days. The concrete mix shall be air entrained a minimum of 4% ± 2% air for exterior exposure.

3. Concrete Reinforcement: The concrete reinforcement shall be epoxy coated rebar conforming to ASTM A775 grade 60, deformed. Deformed Welded Wire Fabric must equal to the area of steel and strength, may be used in flat sheets. The reinforcement shall be properly tied and chaired up before placing concrete.
4. Filter Fabric: See Section 843-Geotextile Fabrics for Type I filter fabric.
5. Aggregates: See Section 805 Coarse Aggregates (Class III modified) The Class III (modified) channel lining material will be graded; such that, 100% passes the 24"X24" sieve and no more than 20% will pass the 12"X12" sieve.

6. Structural Steel: The contractor shall supply hot rolled H-pile as required. The structural steel members shall conform to ASTM A-572, grade 50 hot dipped galvanized with an elastic section modulus, moment of inertia and section area equal to or greater than indicated below:

HP 14x73  
Section Modulus, S= 107. in<sup>3</sup>  
Moment of Inertia, I=729. in<sup>4</sup>  
Area, A=21.4 in<sup>2</sup>

#### **B. SUBMITTALS:**

The Contractor shall comply with the submittal requirements detailed in Section 108 of the 2012 Standard Specifications for Road and Bridge Construction and submit the following written items to the Project Engineer **14 days** prior to the Pre-Construction Conference:

- A. A detailed Progress of Work Schedule. The Progress of Work Schedule will be reviewed and approved by the KYTC Engineer.
- B. Traffic Control Plan. The Traffic Control Plan will be reviewed and approved by the KYTC Engineer.
- C. Worker Protection Plan. The Worker Protection Plan will be reviewed by the KYTC Engineer.
- D. Environmental Compliance Plan will be reviewed by the KYTC Engineer.

**All submittals must be received, accepted and/or approved prior to beginning any construction work.**

#### **C. INSTALLATION:**

The contractor shall remove all tree debris, earth, concrete debris, trash and soft loose bearing material down to suitable bearing material to construct temporary construction platforms to drive sheet pile scour walls. The contractor shall drive the sheet pile to the

desired plan bottom (tip) elevation as indicated on the KYTC drawings. The sheet pile members shall be continuous without vertical laps. The vertical bridge clearance between the bottom of the concrete pile caps (elev. 438.5'±) and top of bridge Pier #2 (elev. 466.5'±) is 28'±. Due to limited vertical height bridge clearance and the varying water level, short sections of sheet pile will be required to be joined together by full penetration type welds below the bridge. Short sections of sheet pile for the scour wall shall be shop saw cut straight, shop beveled and field welded together, using full penetration groove welds with backer bars. The backer bar and welds shall be cleaned sprayed with cold galvanization coating over affected areas. Once welded into place, the sheet piles will be hammered downward to a point where another section of sheet pile will be welded on top to advance the sheet pile to the required tip elevation. The sheet pile can be driven into place by an excavator mounted vibratory sheet pile driver or other type of suitable sheet pile driving equipment due to limited overhead height clearances. Sheet piles outside the limits of the bridge superstructure will be uncut sheets with no height limitations. The contractor should be check for overhead utilities etc. The pile driving equipment shall have adequate capacity to drive the sheet pile to the desired plan bottom (tip) elevation. All field welding shall be performed by AWS certified welders. The use of oxyacetylene cutting torches to cut sheet pile material will not be permitted in the field. The

The sheet piles sections shall be driven straight and plumb into final position. The sheet pile members shall align and join together with the ball and socket interlocking connecting ends. The interlocking sheet piles should be clean of debris and kept free from distortion. Sheet pile transition connectors will be installed to change the angle and direction of the sheet pile wall and are incidental to the unit bid for sheet pile. The top of the sheet pile wing walls shall slope upward to meet the creek bank while tip elevation remains the same. A sheet pile log of the driven lengths of sheet pile shall be maintained for KYTC review.

However, if the contractor chooses work and set up construction equipment and material from the existing bridge deck, the contractor shall hire a professional engineer licensed in State of Kentucky to determine if the equipment and materials loading will cause structural damage to the existing bridge structure. A set of the bridge plans can be requested by the successful bidder for this sole purpose. Once the bridge has been structurally determined to be adequate by an engineer for the intended loading conditions, the structural calculations shall be sent to Ms. Anne Irish for review and approval, located at KYTC Bridge Preservation, Loading Rating Section, located on the 3<sup>rd</sup> floor, at 200 Mero Street, Frankfort, Kentucky 40622. The contractor will be required to place a wooden grillage mats under crane outriggers and other concentrated construction loads to prevent damage to the concrete bridge deck. In either case a traffic control plan will be required to maintain traffic across the bridge. This plan will required to be submitted and approved by KYTC before construction work can commence.

A perimeter band beam consisting of HP14x73 will be bolted 1'-0" from the top of the sheet pile scour wall using 4-7/8" diameter hot dipped galvanized A-325 bolts. The bolt holes shall be drilled or stamped. The use of cutting torches will not be permitted.

### PROPOSAL BID ITEMS

152971

Report Date 4/21/15

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#### Section: 0001 - BBRI - BRIDGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00078		CRUSHED AGGREGATE SIZE NO 2	210.00	TON		\$	
0020	02187		SITE PREPARATION	1.00	EACH		\$	
0040	02562		TEMPORARY SIGNS	150.00	SQFT		\$	
0050	02596		FABRIC-GEOTEXTILE TYPE I	112.00	SQYD		\$	
0060	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0070	02701		TEMP SILT FENCE	200.00	LF		\$	
0080	02726		STAKING	1.00	LS		\$	
0090	03235		EXCAVATION AND BACKFILL (REVISED: 4-21-15)	25.00	CUYD		\$	
0100	05985		SEEDING AND PROTECTION	1,000.00	SQYD		\$	
0110	08050		PILES-STEEL HP14X73 SCOUR WALL BAND BEAM	90.00	LF		\$	
0120	21600EN		SHEET PILING	86.00	LF		\$	
0130	23864EC		CHANNEL LINING CLASS III-MOD	140.00	TON		\$	

#### Section: 0002 - DEMOB

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0140	02569		DEMOBILIZATION	1.00	LS		\$	