



TRANSPORTATION CABINET

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

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

July 3, 2013

CALL NO. 100
CONTRACT ID NO. 132981
Addendum # 1

Subject: LIVINGSTON County, BRO 0601 173
Letting July 12, 2013

- (1) Revised - Completion dates - Page 4 of 78
- (2) Revised - Special Notes - Pages 17-25 of 78
- (3) ADDED - Traffic Control Note - Page 25(a) of 78

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

Plan Revisions are available at: <http://www.lynnimaging.com/kytransportation/>

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

Sincerely,

A handwritten signature in blue ink that reads "Ryan Griffith".

Ryan Griffith
Director
Division of Construction Procurement

RG:jj

Enclosures



An Equal Opportunity Employer M/F/D

ADMINISTRATIVE DISTRICT - 01

CONTRACT ID - 132981

BRO 0601 173

COUNTY - LIVINGSTON

PCN - MB07000601301

BRO 0601 173

US 60 (MP 12.52), US 60 BRIDGE OVER THE CUMBERLAND RIVER AT SMITHLANDBRIDGE SCOUR MITIGATION
SYP NO. 01--01151.

GEOGRAPHIC COORDINATES LATITUDE 37:08:56.75 LONGITUDE 88:23:57.57

COMPLETION DATE(S):

COMPLETED BY 11/15/2013

APPLIES TO ENTIRE CONTRACT

**SPECIAL NOTES
KYTC DISTRICT NO. 1
SMITHLAND BRIDGE SHEET PILE PROJECT
LIVINGSTON COUNTY**

FE02 070 0060 B00017N 12.52

Livingston~ KY Thru Truss Over Cumberland River

Geographic Coordinates

Latitude – 37° 08' 56.75''

Longitude – 088° 23' 57.57''

Description

38,8-101PG, 1-500 THRU TRUSS, 4-101PG, 45BM

**SPECIAL NOTES FOR INSTALLATION AND CONSTRUCTION OF SHEET
PILES FOR SMITHLAND BRIDGE SCOUR WALL PROJECT:**

SPECIAL NOTE FOR SPECIFICATIONS FOR SHEET PILES

SPECIAL NOTE FOR QUALITY CONTROL

SPECIAL NOTE FOR ENVIRONMENTAL AND WORKER SAFETY
REGULATIONS

SPECIAL NOTE FOR PRE-BID CONFERENCE

SPECIAL NOTE FOR SPECIFICATIONS FOR SHEET PILES

All construction shall be in accordance with latest edition of Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction and the following requirements:

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) This section describes furnishing and installation of steel sheet pile (3) Maintain and control traffic; and (4) Any other work specified as part of this contract.

A. MATERIALS:

1. Bridge Pier Steel Sheet Pile

The contractor shall furnish hot rolled zee shaped steel sheet pile with interconnecting ball and socket ends. The sheet pile 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. The sheet pile material shall conform to ASTM 572, Grade 50 with an elastic Section Modulus and Moment of Inertia equal to or greater than indicated below:

Section Modulus, $S = 45.7 \text{ in}^3/\text{wft}$
Moment of Inertia, $I = 404.1 \text{ in}^4/\text{wft}$
Weight, = 29.9 lb/sqft

The sheet pile corner Z-profile connectors shall be extruded PZ-90 ASTM A-572 Grade 50 to interconnecting to adjoin perpendicular sheet pile members. Provide standard handling holes for all sheet pile sections.

2. Steel Sheet Pile Scour Wall

The contractor shall supply hot rolled zee shaped steel sheet pile sections with interconnecting ball and socket ends. The sheet pile material shall conform to ASTM 572, Grade 50 with an elastic Section Modulus and Moment of Inertia equal to or greater than indicated below:

Section Modulus, $S = 45.7 \text{ in}^3/\text{wft}$
Moment of Inertia, $I = 404.1 \text{ in}^4/\text{wft}$
Weight, = 29.9 lb/sqft

The steel sheet pile scour wall shall be new sheet pile material and have mill certification reports. The contractor shall leave the sheet pile material in place at the completion of the project. Provide standard handling holes for all sheet pile sections.

Dimensional tolerances for piling are per section 605.03.08. The sheet pile corner Z-profile connectors shall be extruded at 45 degrees ASTM A-572 Grade 50 to adjoin sheet pile members together and is incidental to the unit bid for sheet pile.

3. **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.
4. **Filter Fabric:** See Section 843-Geotextile Fabrics for Type I filter fabric.
5. **Structural Steel:** The contractor shall supply hot rolled H- pile sections. The HP members shall conform to ASTM 572, Grade 50 with an elastic Section Modulus and Moment of Inertia equal to or greater than indicated below:
Section Modulus, $S=131 \text{ in}^3/\text{wft}$
Moment of Inertia, $I=904 \text{ in}^4/\text{wft}$

See Section 607 and Steel Construction Manual, 14th Edition, American Institute of Steel Construction.

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.
- E. Concrete mix design and structural steel shop drawings.
- F. AWS Welding certificates shall be submitted.

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

C. INSTALLATION:

The contractor shall drive the sheet pile to the desired plan bottom elevation as indicated on the drawings. The sheet pile members shall be continuous without laps, splices, and joints. The sheet piles should be driven plumb along a flat ground surface and should align with adjacent sheet pile members. Corners should intersect perpendicular to the adjoining sheet pile members and an extruded corner Z-connectors should be installed as indicated on the structural drawings and is incidental to the unit bid for sheet pile. The interlocking sheet piles should be clean of debris and kept free of distortion. A sheet pile log of the driven lengths of sheet pile shall be maintained for review. The top of the sheet pile wing walls shall slope upward to meet the stream bank and retain the earth along the scour wall.

1. FABRICATION

Use the structural shapes as indicated on the structural drawings. The contractor should fabricate and erect the materials per the latest Edition of American Institute of Steel Construction (AISC) Steel Construction Manual. The material shall have material certificates that demonstrate the required specifications per the structural plans. All welding shall be per the American Welding Society (AWS). All structural welding shall be performed by certified AWS welders and be inspected by AWS inspector. Welding certificates shall be submitted prior to fabrication.

2. DELIVERY, STORING, & HANDLING

The sheet piles should be delivered to the construction site undamaged and be stored according to steel grade and length. Sheet piles should be clean free of dirt, rust and scale and stored on platforms above the ground surface. The sheet piles should be handled as to prevent damage to connecting ends, warping and bending of the structural sections.

3. STRUCTURAL STEEL

All structural bolting will consist 7/8" diameter A-325 hot dipped galvanized tension controlled bolts and heavy duty washers and is incidental to the unit bid for structural steel.

4. STRUCTURAL BRACING

Install the structural sheet pile bracing per the drawings. The bolt holes should be drilled into the sheet metal panels. Torch cutting bolt holes will not be permitted. Bolted connections should be hot dipped galvanized bolts with heavy duty washers and nuts. It is the responsibility of the contractor to adequately brace the installed work as means and methods of construction during all phases of the construction project.

5. CUTTING OFF SHEET PILES

The sheet pile shall be cut off after the member is driven to the desired elevation and the District Engineer has approved the driven elevations per the sheet pile logs. The sheet pile should be cut-off straight, square and in a clean manner. Tapered sheet pile shall follow the slope of the compacted earth.

6. CONCRETE CONSTRUCTION

All concrete construction shall be in accordance with the American Concrete Institute (ACI) and the latest edition of ACI 318 "Building Code Requirements for Reinforced Concrete." The slab reinforcement should be chaired prior to placing concrete slab. A minimum of 4-6" diameter concrete test cylinders shall be made for 7 days, 2-28 days and a spare for 56 day compressive strength cylinders. The fresh ready mixed concrete shall be sampled and tested by an ACI Concrete Field Testing Technician-Grade I minimum. Reinforcing is incidental to the unit bid for concrete.

7. CONSTRUCTION SUPERVISION

The contractor shall have a fully competent full time field superintendent on the project site during construction phase. The field superintendent should supervise construction work, subcontractors, project schedule, material delivery, quality control, and construction safety for the duration of the project.

8. DRIVING EQUIPMENT

The sheet pile driving equipment shall be adequate to erect and drive the sheet pile members to the plan bottom elevation.

9. SHEET PILE DRIVING LOGS

The contractor shall keep accurate sheet pile driving logs and record the depth of sheet piles driven each day. The driving logs should describe any unexpected conditions encountered; such as, but not limited to soft and hard material, early refusal etc. Notify KYTC engineer of early sheet pile refusal.

10. FILL PLACEMENT

The approved fill material inside to scour wall shall be transported to the site and compacted in place. The fill material shall be compacted to 95% Standard Proctor $\pm 2\%$ moisture. Compaction within 3' of the sheet pile scour wall shall be completed with walk behind plated compactors. Following the fill placement, filter fabric would be placed over the compacted earth. See Section 206

11. PLACEMENT OF FILTER FABRIC

The filter fabric should extent down along the sheet pile wall 1'-0" to encapsulate the dirt before placing the filter fabric on the surface of the compacted earth. The contractor should place the filter fabric without ripping and tearing the filter fabric material. The filter fabric should be lapped 12" minimum at joints. See Section 843

12. PLACEMENT OF CHANNEL LINING

The contractor shall place the channel lining material per the construction documents and in a uniform thickness. The channel lining should be placed without damaging and tearing the filter fabric material. See Section 805

13. DAMAGE TO ADAJCENT STRUCTURES

The contractor shall not damage the existing bridge superstructure and the bridge pier support structures while driving sheet piles. In the event damage does occur to the bridge, the District Bridge Engineer shall be notified immediately.

No equipment, materials, vehicles, trailers nor any combination thereof shall exceed the load rating capacity of the bridge structure that is placed on or that drives across the bridge structure. If the Contractor chooses to stage work from the bridge deck, the contractor must submit a plan for approval by the KYTC Engineer showing equipment placement, erection plans, construction activities, and the weight of all construction equipment and materials. Construction point loads shall not cause damage to the bridge superstructure. If construction work is performed from the bridge, a traffic control plan must be submitted and approved prior to the starting work.

14. DAMAGE TO COMPLETED WORK

The contractor shall ensure that in-place construction work and improvements are not damaged, rendered unsuitable, altered, discolored, and impaired during the course of the construction project. If damages do occur to in-place work, the District Bridge Engineer shall be notified of such damages. All damages to completed work will be repaired at the contractor's expense.

D. MEASUREMENT:

Payment for installed work includes furnishing all labor, equipment, materials, and any necessary supplementary items to complete the work.

- A. Installation of continuous sheet pile per the structural drawings. The Department will measure the quantity in linear feet of acceptable sheet pile installed around the bridge pier and for the sheet pile scour wall. The sheet pile should be driven to the desired depth. No measurement will be made for sheet pile drops.
- B. Install concrete slab. The Department will measure the quantity of concrete in cubic yards.
- C. Earthwork pay unit cubic yards.
- D. Installation of Class III channel lining material and Type I filter fabric will be in square feet installed at the correct depth.

E. PAYMENT:

- A. Installation of sheet pile and lateral bracing. Payment at the contract unit price per linear foot of sheet pile and lateral bracing installed. 73%
- B. Installation of concrete material and including subgrade preparation. Payment at the unit price per cubic yard of concrete. 2%
- C. Earthwork . Cubic yards of earth 10%
- D. Class III channel Lining (tons) and Type I filter fabric (sy) 13%
- E. Rock fill material (Tons) 2%

SPECIAL NOTE FOR QUALITY CONTROL

The contractor shall provide QC inspectors to monitor all construction work, insure that all work is completed in accordance with the plans, Special Notes and Standard Specifications, and record inspection results. The QC inspector(s) shall not perform production work that requires QC/QA inspection. The Department's (QA) inspector shall conduct in-progress reviews of the Contractor's operations and perform follow-up quality assurance (QA) inspections after the QC inspector has certified that a portion of work is complete.

The QC inspector and QA inspector shall jointly assign adjacent control areas consecutive numbers and a short description defining their location. After completion of a phase of work in a control area, the QC inspector shall perform an inspection and shall determine whether the area has been satisfactorily prepared. If work in a control area is unsatisfactory, the QC inspector shall require the contractor to make the necessary corrections. That process shall be repeated as necessary until suitable corrections have been made. All logbooks shall be maintained at the job site at all times during the project, made available, upon request, to the Department's representatives and submitted to the Engineer at the end of the project for his review and records.

SPECIAL NOTE FOR ENVIRONMENTAL AND WORKER SAFETY REGULATIONS

(A) Governing regulations

The existing paint in this project may contain lead, which is classified as a hazardous (toxic) material. Be knowledgeable of and comply with, all **lead-related** environmental and health regulations governing the Contractor's operations. Comply with regulations current at the time the work is performed and all requirements herein. Collect, transport to waste storage sites, and store hazardous wastes in accordance with applicable environmental and health regulations. The contractor is solely responsible for collection, transport, storage and disposal of all industrial wastes.

(B) Liabilities and Obligations

The contractor shall be solely responsible for compliance with all applicable environmental and health and safety regulations to the satisfaction of the applicable government regulatory agencies and the Department. The Department assumes no obligations or liabilities for work stoppages or fines due to enforcement actions by government regulatory agencies or to related delays that the Department deems necessary.

(C) State and Local Regulatory Agencies

State and local regulatory agencies charged with enforcing **most** regulations affecting the generation of hazardous wastes and worker safety issues are:

Kentucky Occupational Safety and Health Program, Labor Cabinet, Commonwealth of Kentucky, Frankfort, Kentucky

Environmental and Public Protection Cabinet, Commonwealth of Kentucky, Frankfort, Kentucky

(D) Groundwater and Surface water Protection

The contractor shall prepare and implement a groundwater and surface water protection plan in accordance with **401 KAR 5:037 (Ground Water), KRS 224.70-110 and 401 KAR 10:031 (Surface water)** with the exception that hazardous waste or hazardous materials container volume is not limited to greater than 55 gallons or weight to 100 pounds.

**SPECIAL NOTE FOR NON-MANDATORY PRE-BID CONFERENCE
DISTRICT 1**

The Department will conduct a NON-MANDATORY Pre-Bid Conference and Field Review of the subject project on: **Tuesday July 9, 2013 at 1:00 PM Central Time**

KYTC District #1 Office Building
5501 Kentucky Dam Road
Paducah, KY 42003
270-994-1938

During the field review, the company representatives and The Department of Highways officials will travel to all the project sites. The field review is not intended for bid estimation. **The Contractor shall be required to furnish approved High Visibility Apparel for all of their representatives present at the field review. The Contractor shall be prepared to follow the KYTC representatives to each location and should allow ample time in which to do so.**

The purpose of the conference and field review is to familiarize all prospective bidders with the contract requirements and the location and existing conditions of all structures within the scope of the contract.

Department of Highways officials present at the conference and during the field review will answer questions concerning the projects.

GENERAL NOTE FOR MAINTAIN AND CONTROL TRAFFIC

All lane closures on this project shall be in accordance with Kentucky Department of Highways Standard Drawings No. **TTC-100, TTC-105, TTC-110 and the FHWA Manual for Uniform Traffic Control Devices (Current Editions) unless otherwise specified.** Lane closures should be used only when absolutely necessary and kept to the shortest duration possible in order to minimize disruption to the traveling public. No work will be conducted over unprotected traffic at any location. At the discretion of the Engineer, lane closures may be restricted on holiday weekends.

The contractor shall be required to submit in writing, to the department, his complete work schedule 14 days prior to the Pre-Construction Conference. The contractor shall be required to coordinate his efforts with those of any other contractor in the construction area so as to eliminate any lane closures which conflict with this traffic note.

In the event it becomes necessary to make emergency repairs at this project by state forces or by other outside contractors, the (painting) contractor shall agree to alter his work pattern as directed by the engineer so as not to interfere with the emergency work.

The contractor shall be required to furnish all traffic control devices whenever his operations endanger or interfere with vehicular traffic as determined by the engineer. The contractor shall furnish any additional traffic control devices necessary to protect traffic and his workmen. Any costs associated with the added traffic control devices (including arrow boards) shall be incidental to the contract lump sum amount for "maintain and control traffic."

Placement of all devices for lane closures shall start and proceed in the direction of flow of traffic. Removal of devices shall start at the end of the construction area and proceed toward oncoming traffic. The contractor shall provide for the installation of all necessary traffic control devices before beginning work and their immediate removal as soon as work is suspended or completed. During the fully operational periods, when no lane closures are permitted, all equipment shall be totally removed from the job site. Traffic control signs shall be removed or covered (if left in a curb lane).

The contractor's vehicles shall always move with and not across or against the flow of traffic. Vehicles shall enter or leave work areas in a manner that will not be hazardous to or interfere with normal roadway traffic. Vehicles shall not park or stop except within designated work areas.

Personal vehicles shall not be permitted to park within the state right-of-way. The contractor's vehicles shall be prohibited from crossing the roadway and all pedestrian movement of the contractor's personnel on the roadway shall be limited to within the closed work area.

Any lane or shoulder closure shall include the use of a TMA placed between oncoming traffic and equipment or vehicles

The Engineer may elect to use Variable Message Boards when necessary.

Payment

All cost for maintain and control traffic if needed shall be considered incidental to the contract.