

Steven L. Beshear Governor Frankfort, Kentucky 40622 www.transportation.ky.gov/

Michael W. Hancock, P.E. Secretary

March 10, 2015

CALL NO. 107

CONTRACT ID NO. 151210

ADDENDUM # 2

Subject:

Magoffin County, STPE 6000 (025)

Letting March 20, 2015

Piana Castle biddiffe

(1) Revised - Plan Sheet - S02

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

Plan revisions are available at <a href="http://www.lynnimaging.com/kytransportation/">http://www.lynnimaging.com/kytransportation/</a>.

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

Sincerely,

Diana Castle Radcliffe

Director

Division of Construction Procurement

DR:ks

Enclosures



### SPECIFICATIONS:

All references to the Standard Specifications are to the 2012 edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, with current supplemental specifications. All references to the AASHTO Specifications are to the 6th edition (2012) of the AASHTO LRFD Bridge Design Specifications with interims thru 2013.

### LIVE LOAD:

This bridge is designed for 90 psf Pedestrian Live Load and H10 vehicle (not concurrent).

### WIND LOAD:

This bridge is designed for a wind load based on a wind velocity of 100 mph.

### DESIGN METHOD:

All reinforced concrete members are designed by the load-and-resistance factor design (LRFD) specified in the current AASHTO Specifications.

### MATERIAL DESIGN SPECIFICATIONS:

For Class "A" Reinforced Concrete:	f'c = 3500 PSI
For Class "AA" Reinforced Concrete:	f'c = 4000 PSI
For Steel Reinforcement:	fy = 60,000 PS
For Structural Steel Piling:	$f_{V} = 50.000 PS$

## CONCRETE:

Class "AA" concrete is to be used throughout the Slab.
All other concrete shall be Class "A" unless otherwise noted.

## FOUNDATION DATA:

See Foundation Layout Sheet.

### **DIMENSIONS:**

Dimensions are for a normal temperature of 60 degrees F. Layout dimensions are horizontal measurements. Stationing and elevations are in feet.

### REINFORCEMENT:

Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2 inches unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with Section 811.10 of the Standard Specifications.

Any reinforcing bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup bar for purposes of bend diameters.

Slab reinforcement shall be epoxy coated.

# MAINTAIN AND CONTROL TRAFFIC:

Contractor shall submit a detailed traffic control plan to the Engineer for approval. The plan shall be submitted at least 30 days prior to commencement of work on applicable bridge components.

The cost of the plan as well as all costs to implement the plan, including but not limited to, providing necessary flaggers, temporary concrete median barriers, signage, etc., shall be included in the lump sum price for Maintain and Control Traffic.

# SUBSTRUCTURE:

The abutments were designed for a superstructure service dead load of 72.70 kips and a maximum service live load of 59.82 kips. The piers were designed for a superstructure service dead load of 111.65 kips and a maximum service live load of 93.57 kips. If these loads are exceeded by the contractor's selected truss, the contractor's design engineer shall submit the actual design loads to Palmer Engineering for approval.

The substructure units were designed to accommodate a 12'-0" out to out bridge width with wind and thermal forces transferred through two bearings on each abutment seat and four bearings on each pier seat.

# SUPERSTRUCTURE:

The contractor shall furnish approved prefabricated weathering steel truss units. For approval, the contractor shall demonstrate the proposed steel truss units meet all requirements designated in the contract documents. Note, the contract drawings are based on Continental truss units by Contech. Even if the contractor selects this truss type, they shall still demonstrate that it meets the contract document requirements. The truss units shall meet the span lengths in the plans and provide a 10'-0" clear width between the face of railings and be ADA compliant. The slab shall be 6" thick reinforced concrete.

# CONTRACTOR DESIGN:

The contractor is responsible for the engineering design of the truss, truss bearings, railings, anchorage of the truss to the substructure, any changes to the substructure required to support the selected truss, reinforced concrete slab, and expansion devices. Designs shall meet the AASHTO LRFD Specifications, applicable KYTC requirements, and be ADA compliant. Design calculations and construction drawings for these components shall be prepared and sealed by an engineer licensed in the Commonwealth of Kentucky. Sealed calculations and construction drawings shall be submitted for approval.

# SHOP DRAWINGS:

Submit shop drawings that are required by the plans and specifications including the truss bearings directly to the contractor's design engineer. If changes in the design plans are proposed by a fabricator or supplier, submit those changes to the contractor's design engineer. Submit all final, approved shop drawings to the Division of Structural Design for final approval.

#### CONSTRUCTION IDENTIFICATION:

The names of the prime contractor and the sub-contractor shall be imprinted in the concrete with 1" letters at a location designated by the engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

### ON-SITE INSPECTION:

Each contractor submitting a bid for this work shall make a thorough inspection of the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department of Highways.

#### MASONRY COATING:

A masonry coating finish shall be applied in accordance with Section 601.03.18 B of the Standard Specifications. This masonry coating shall not be applied until the deck has been completed.

### PILING:

Piling shall be driven to refusal. Test piles shall be driven where designated on the plans to determine the length of the pile required. All test piles shall be accurately located so that they may be used in the finished structure. See Foundation Layout sheet for additional pile details.

### PILE POINTS:

Pile points are required at all substructure units. Pile points shall be in accordance with subsection 604.03.04(c) of the Standard Specifications.

#### BEVELED EDGES:

All exposed edges shall be beveled  $\frac{3}{4}$ " unless otherwise shown.

## COMPLETION OF THE STRUCTURE:

The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

# SLOPE PROTECTION:

Slope protection shall be dry cyclopean stone slope protection in accordance with the plans.

#### TEMPORARY RETAINING STRUCTURE:

The cost of any retaining structure used to retain the adjacent roadway during construction shall be incidental to structure excavation common. The structure type shall receive prior approval by the engineer. The retaining structure shall firmly support the roadway without settlement and cracking of the pavement. The contractor shall be responsible for any damage to the existing roadway to maintain traffic during construction. Any damage shall be repaired immediately.

Temporary shoring, sheeting, cofferdams, and/or dewatering methods may be required to facilitate foundation construction. Excavation, including shallow excavation, shall not be left open to allow accumulation of water due to precipitation and/or run-off.

### TEMPORARY BRIDGE FLOORING:

The contractor shall provide temporary bridge flooring during the construction and demolition of portions of spans which cross highways that are open to traffic. The purpose is to provide fall protection to workers in situations where the danger from the fall are compounded from traffic and to provide protection to the traffic. Temporary flooring shall be installed as soon as practicable after the beams are set. The temporary flooring shall extend across the travel way, ramps and usable shoulders of highways.

The design load for temporary bridge flooring shall consist of the sum of dead load and live vertical loads. Live loads shall be 50 pounds per square foot for horizontal surfaces plus the weight of any dismantled material which will be allowed to fall on the temporary flooring during demolition of the structure or falsework. The design of temporary flooring shall be submitted with the falsework design and shall be subject to review by the engineer.

No separate measurement or payment will be made for providing and subsequently removing temporary bridge flooring as this is considered incidental to the contract.

### PLACING CONCRETE FOOTINGS:

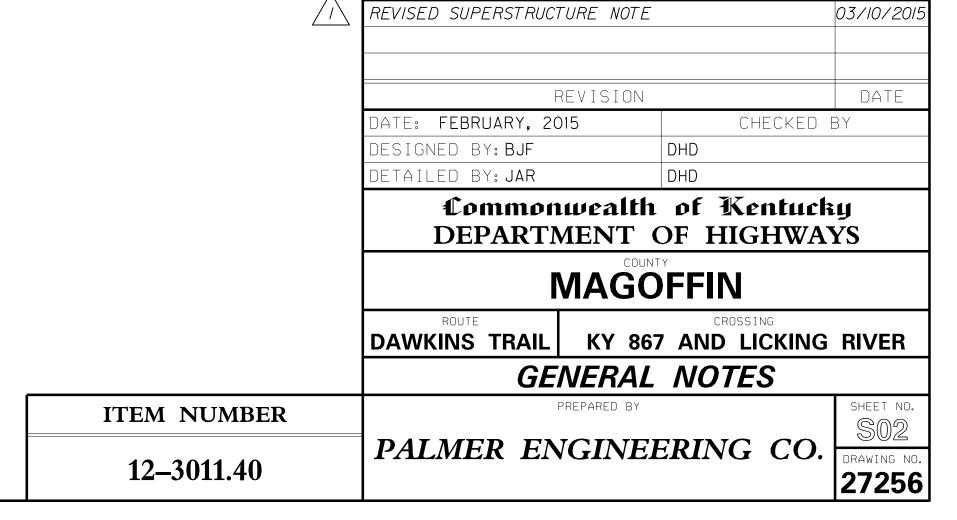
All excavations shall be performed such that the site and the areas immediately surrounding the site which affect construction operations will be continually and effectively drained. The Contractor shall provide drainage and de-watering as required to ensure that all excavations are accomplished with the subgrade soils remaining dry and firm until after footings are placed and backfilled. Removal of surface water, ground water, and any perched water, which might be encountered during the excavation shall be accomplished by approved means.

### FOOTING EXCAVATION:

Prior to placement of any concrete or reinforcing steel in a foundation excavation, the excavation should be clean, and all soft, wet, or loose materials should be removed. In no case should concrete be placed upon compressible or water-softened materials.

## COFFERDAMS:

Cofferdams may be necessary for pier construction. Cost of cofferdam shall be incidental to structure excavation, common.



### LIVE LOAD

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## DESIGN METHOD:

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### MATERIAL DESIGN SPECIFICATIONS:

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For Class "AA" Reinforced Concrete: f'c = 4000 PSI
For Steel Reinforcement: fy = 60,000 PSI
For Structural Steel Piling: fy = 50.000 PSI

### CONCRETE:

Class "AA" concrete is to be used throughout the Slab.
All other concrete shall be Class "A" unless otherwise noted.

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