February 17, 2010

CALL NO. 309
CONTRACT ID NO. 102913
ADDENDUM # 1

Subject: Marshall County, FE02 079 0068 B00023
Letting February 19, 2010

(1) Revised - Special Note(s) Applicable to Project
    Pages 16, 17, 24, 26, & 27 of 114
(2) Revised - Traffic Control Plan - Pages 31-33 of 114
(3) Revised - Bridge Drawings - Pages 43, 63, & 64 of 114
(4) Revised - Bid Items - Pages 113-114 of 114

Proposal revisions are available at http://transportation.ky.gov/contract/.

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

Sincerely,

Ryan Griffith, P.E.
Director
Division of Construction Procurement

Enclosures
RG:ks
SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway’s current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:
(1) Furnish all labor, materials, tools, and equipment
(2) Remove the existing overlay
(3) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606
(4) Maintain and control traffic
(5) Any other work specified as part of this contract

All construction will be in accordance with Section 606 unless otherwise specified.

II. MATERIALS

A. Latex Concrete. See Section 606.03.07 use Type III cement
B. Class “M” Concrete. Use either “M1” or “M2”. See Section 601.
C. Epoxy-Sand Slurry. See Section 606.03.10.

III. CONSTRUCTION

A. Remove Existing Overlay. In addition to Section 606.03.03, totally remove the existing concrete overlay by grinding or scarifying the deck to a depth slightly below or equal to the original bridge slab surface. Machine preparation of the existing slab to a depth of at least ¼” below the existing surface is NOT required. When removal of an existing overlay is a pay item, no payment will be allowed for “Machine Preparation of Existing Slab”. This work is incidental to the pay item “Removal of Existing Overlay – Square Yard”.
B. Surface Texturing. Contrary to Section 606.03.09, surface texturing is not required. The minimum thickness of the overlay shall be 1” for Latex Cement Concrete.
C. Approach Pavement Repair. The Contractor shall repair any and all damage to the approach pavement due to this construction. A new asphalt surface wedge for all approaches to each structure in this project shall be placed and compacted to the satisfaction of the Engineer prior to allowing traffic back on a section of the new overlay. No additional payment will be allowed for this work, as it will be considered incidental to the pay item “Armored Edge for Concrete”.

IV. MEASUREMENT
See Section 606.

V. PAYMENT

See Section 606, except that contrary to the specifications, payment for “Blast Cleaning”, and “Epoxy-Sand Slurry” will be incidental to “Concrete Overlay – Latex”.
the patch so that the interface between the old concrete and patch area are perpendicular. Remove all deteriorated loose concrete to a minimum depth of 2” for repairs using vertical and overhead patching material and 4” for repairs using Class M Concrete. Also ensure concrete removal in the patch area extends at least three-quarters (3/4) inch beyond any steel reinforcement more than 50 percent exposed. Dispose of all removed material entirely away from the job site or as directed by the Engineer.

Extreme care shall be taken when removing the existing spalled or delaminated concrete so as not to damage the existing reinforcing steel. Complete clean all existing steel reinforcement encountered free of rust and leave in place. Wire brushing may be required to thoroughly clean exposed steel reinforcement. Repair or replace any damaged steel reinforcement as directed by the Engineer at no additional cost to the Department. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04. The Contractor must consult the Engineer before removing any concrete that is directly below the beam bearings.

B. Prepare Concrete Surfaces for Patching. Prepare concrete surfaces to be patched in accordance with Section 510.03.01. Final blast cleaning shall be completed within twelve (12) hours prior to placement of the epoxy mortar patch. Concrete must be sound, dry, and clean prior to placement of epoxy resin prime coat.

C. Apply Vertical and Overhead Patching Material or Class M Concrete. The Contractor has the option of designating a spalled or delaminated area to be repaired using Class M high early strength concrete or a Vertical and Overhead Patching Material. Any material used must be approved by the Engineer. Refer to the Transportation Cabinet, Division of Materials’ List of Approved Materials for currently approved materials for vertical and overhead patching. Place either the class M Concrete or Vertical and Overhead Patching Material as approved by the Engineer. Place the epoxy resin prime in accordance with the standard specifications and manufacturer’s recommendations. Place the Vertical and Overhead Patching Material in accordance with the manufacturer’s specifications to restore the deteriorated areas to their original dimensions as shown on the detail drawing(s) or as directed by the Engineer. Place Class M Concrete according to the Standard Specifications. See the “Special Note for Traffic Control on Bridge Repair Contracts” and attached drawing(s).

IV. MEASUREMENT

A. Concrete Repair. The Department will measure the quantity in cubic feet.  

SPECIAL NOTE FOR TRUSS BEARING REPAIR

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawing(s). Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, and equipment.
2. Installing new materials in accordance with the attached detail drawings.
3. Maintain and control traffic.
4. Any other work specified as part of this contract.

II. MATERIALS

A. Structural Steel. Use new commercial grade AASHTO M270 (ASTM A709) Grade 36 steel, suitable for welding. See Section 812.
B. Bolts, Nuts, and Washers. Ensure all bolted connections are ASTM A307 bolts, nuts, and washers.
C. Stainless Steel Banding and Buckles. Conform to AISI 200 steel.
D. Epoxy Resin. See Section 826

III. CONSTRUCTION

A. Dimensions. The Contractor shall determine dimensions and thickness of parts with field measurements prior to ordering materials or fabricating steelwork. Existing plans of the bearings are not available, therefore the Contractor should match existing dimensions.
B. Rocker Nest Bearing Repair. Install retrofit angles in accordance with the attached detail drawings. Drill and grout bolts in accordance with Section 511.03.01.
C. Bearing Nut Retrofit. Install stainless steel banding and buckles on cracked pin nuts as shown on the attached detail drawings. Banding should be installed tight to secure the nuts on the pins. Install the banding in accordance with manufacturers recommendations.
D. Welding. No welding of any nature shall be performed on the bridge except as shown on the attached drawings without the written consent of the Director, Division of Bridge Design, and then only in the manner and at the locations designated in the authorization.
E. Damage to the Structure. The Contractor shall bear full responsibility and expense for any and all damage to the structure, should such damage result from the Contractor's actions.
F. Painting. Following the installation of the angles, clean and paint the structural steel in accordance with Section 607.03.23 “Cleaning and Painting Structural Steel
Bridges”. Apply field coatings to new steel and steel to be overcoated in accordance with Section 614. Shop and field painting of all new and existing structural steel will be considered incidental to “Rocker Nest Bearing Repair”.

IV. MEASUREMENT

A. Rocker Nest Bearing Repair. Measurement will be for each bearing location that is retrofitted.

B. Bearing Nut Retrofit. Measurement will be for each bearing nut retrofit.

V. PAYMENT

A. Rocker Nest Bearing Repair. Payment at the contract unit price is full compensation for drilling, furnishing and installing all new materials, grouting, labor, equipment, tools and incidentals necessary to complete the work as shown on the attached detail drawings.

B. Bearing Nut Retrofit. Payment at the contract unit price is full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work as specified by this note.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.
SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS

I. TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current Standard Specifications, Section 112. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to “Maintain and Control Traffic”.

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in new condition, at the beginning of the work and maintained in like new condition until completion of the work.

II. TRAFFIC COORDINATOR

Furnish a Traffic Coordinator as per Section 112. The Traffic Coordinator shall inspect the project maintenance of traffic, at least three times daily, or as directed by the Engineer, during the Contractor’s operations and at any time a lane closure is in place. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents.

The Traffic Coordinator shall report all incidents throughout the work zone to the Engineer on the project. The Contractor shall furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

III. SIGNS

Contrary to Section 112.04.02, only long term signs (sign intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

IV. TEMPORARY PAVEMENT STRIPING

Skip lines and/or solid lines through the length of the tapers for lane closures and other striping as directed by the Engineer shall be temporarily covered with 6” black removable tape. Permanent removal of all other pavement striping for traffic control shall be considered incidental to Maintain and Control Traffic in accordance with Section 112.04.15. Temporary pavement striping shall be paid only once per course in accordance with Section 112.04.08. The Contractor shall replace any temporary striping that becomes damaged or fails to adhere to the pavement before dark on the day of the notification. Liquidated damages shall be assessed to the Contractor at a rate of $500 per day for failing to replace temporary striping within this time limit.
V. PROTECTION OF WATERWAY UNDERNEATH

No material should be allowed to drop into the waterway below.

VI. PROJECT PHASING & CONSTRUCTION PROCEDURES

Maintain one lane of traffic during Phase I through Phase IV construction in accordance with Standard Drawing No. TTC-110 for lane closures, and the attached detail drawing. For the channelization devices shown on Standard Drawing TTC-110, provide vertical panels or 42” high “Grabber Cones” (or approved equivalent). The spacing of the channelization devices should be no more than 35-feet throughout the closure area. The cost of installing, furnishing, moving, and removing channelization devices is to be incidental to “Maintain and Control Traffic”.

At the beginning and end of the work area, a Truck Mounted Attenuator (TMA) should be utilized.

At locations of joint repairs with concrete removal, provide water filled barriers in accordance with the attached detail drawings. Drums should be utilized in the immediate area of the joint repair. From dusk to dawn, the contractor is to place steel plating completely over joints in which the concrete has been completely or partially removed and not yet repaired. This is not required if the contractor is working at night on the immediate joint, in which case the area must be properly lighted. The cost of installing, furnishing, moving, and removing the steel plating is to be incidental to “Maintain and Control Traffic”.

If he desires, the contractor is allowed to completely close the bridge for a maximum of six nights. The closure may occur between the hours of 6:00 P.M. and 6:00 A.M. starting at 6:00 P.M. on a Monday, Tuesday, Wednesday, or Thursday only. $1,000 will be charged to the contractor every 15 minutes that the bridge is not reopened to traffic past the 6:00 A.M. deadline. The Contractor is to notify the Engineer in writing, 21 days in advance of the planned nighttime closures.

While shifting traffic, placing barrier wall, and placing temporary striping, the Contractor may be allowed to further reduce traffic lanes as approved by the Engineer. Any traffic reduction beyond those listed above must be approved by the Engineer at least two weeks prior to the reduction and should take place between the hours of 10:00 P.M. and 5:30 A.M. - $1,000 will be charged to the contractor every 15 minutes that the required minimum lanes of traffic listed above, in each direction, are not open after the 5:30 A.M. deadline.

Lane closures will not be permitted on these days:  
- Easter Weekend (Thursday-Sunday)  
- Memorial Day Weekend (Friday-Monday)  
- Independence Day, when July 4th is on Tuesday, Wednesday, or Thursday; or
Independence Day Weekend, when July 4\textsuperscript{th} is on Monday (Saturday-Monday) or Friday (Friday-Sunday)
Labor Day Weekend (Friday-Monday)
Thanksgiving Day Weekend (Thursday-Sunday)
Christmas/New Years (December 24-January 2)

VIII. VARIABLE MESSAGE SIGNS

If deemed necessary by the Engineer, variable message signs will be installed, operated, and maintained by the Department.

IX. TEMPORARY SIGNAL

The Contractor must provide a 24-hour contact person and number available to maintain the temporary signals as needed.

X. TRUCK DETOUR

A detour for truck traffic must be installed according to the attached detail drawings. This detour route signage must be in place any time a lane closure is in place. The signage must not be in place (or visible) more than 24 hours prior to beginning of the restricted lane width, or more than 24 hours following the ending of the restricted lane width. Detour signage must be installed through post mounting and will be measured for payment the first time it is installed.

During the nighttime closures, the Contractor is to cover the 24” x 12” “TRUCK” signs and the words “TO VEHICLES OVER 7’-6” WIDE” on the large signs no more than 12 hours prior to the closure and removed no more than 12 hours following the end of the closure.

XI. WATER FILLED BARRIER

The water-filled barrier wall shall be polyethylene barrier known as "Triton Barrier" manufactured by Energy Absorption Systems. Inc. (ph. 312-467-6750) or "Guardian Safety Barrier with 350 Highway Kit" manufactured by Safety Barrier Systems (ph. 717-824-0799) or an approved equal. Follow all the manufacturer's recommended installation procedures as approved by the Engineer and in accordance with the Standard Drawings and MUTCD.

Payment of the contract unit price per linear foot for "Water-Filled Barrier" shall be full compensation for furnishing, installing, maintaining, adjusting alignment as needed, removing the barrier when no longer needed, and all incidental items necessary to complete the work. Clean or replace sections of barrier with poor reflectivity or leakage as directed by the Engineer.

Provide one side mounted barrier wall delineator per each section of barrier. See Standard Drawing RBM-020 for types. No direct payment allowed for delineators.
REPAIRS
1. Saw-clean-resal transverse joint
2. Joint sealing
3. Expansion joint replacement - 1"
4. Armored edge for concrete
5. Eliminate transverse joint
6. Expansion joint replacement - 4"
7. Concrete patching repair
8. Rocker nest bearing repair
9. Bearing nut retrofit

ELEVATION
Note: Roadway profile not shown

TYPICAL SECTION
ROCKER NEST BEARING RETROFIT

EXISTING ANCHOR BOLT (TYP.)
INSTALL L6x8x(1/2) (TYP.)
3/4" STIFFENER
DRILL AND GROUT 1 1/4" DIA. BOLT (TYP.)

EXISTING BOTTOM EDGE OF OUTSIDE ROCKER

VIEW A-A

NOTE:
The pay item for "ROCKER NEST BEARING REPAIR" includes the installation of the retrofit angle on both sides of the bearing.
BEARING WITH CRACKED NUT

(PIER 3, SPAN 4 SHOWN. OTHER LOCATIONS SIMILAR)

CRACKED NUT LOCATIONS

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