

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

Michael W. Hancock, P.E. Secretary

Steven L. Beshear Governor

February 14, 2013

CALL NO. 302 CONTRACT ID NO. 132950 ADDENDUM # 1

Subject: Daviess County, FD04 SPP 030 2262 B00118N Letting February 22, 2013

Revised - Special Note - Pages 42-43(a) of 86
Revised - Note - Pages 48-48(a) of 86
Revised - Drawings - Pages 54 & 57 of 86

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

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

Sincerely,

Ryan Griffith Director Division of Construction Procurement

RG:ks Enclosures



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SPECIAL NOTE FOR BRIDGE PIER REPAIR

These Notes or designated portions thereof, apply where so indicated on the plans, proposals or bidding instruction.

I. DESCRIPTION. Perform all work in accordance with the Department's 2012 Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications. This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing spalled/delaminated concrete; (3) Prepare the existing surface for concrete patching; (4) Place hook fasteners and welded wire fabric over surfaces to be repaired (where applicable); (5) Apply concrete patching as specified by this note and as shown on the attached detail drawings; (6) Finish and cure the new Concrete Patches; (7) Maintain & control traffic; and, (8) Any other work specified as part of this contract.

II. MATERIALS.

- A. Concrete. USE CLASS M OR LATEX CONCRETE.
- **B.** Steel Reinforcement. Use Grade 60. See Section 602
- C. Welded Steel Wire Fabric (WWF). Conform to Section 811
- **D.** Hook Fasteners. Use commercial grade galvanized hook fasteners. Minimum 3/16" diameter.

III. CONSTRUCTION.

A. Concrete Removal and Preparation. The Contractor, as directed by the Engineer shall locate and remove all loose, spalled, deteriorated and delaminated concrete. Sounding shall be used to locate delaminated areas. Care shall be exercised not to damage areas of sound concrete or reinforcing steel during concrete removal operations. Unless specifically *directed by the Engineer*, depth of removal shall not go under plates. Concrete removal shall be in accordance with a sequence approved by the Engineer.

Concrete removal shall be accomplished by chipping with hand picks, chisels or light duty pneumatic or electric chipping hammers (not to exceed 15 lbs.). If sound concrete is encountered before existing reinforcing steel is exposed, the surface shall be prepared and repaired without further removal of the concrete. When corroded reinforcing steel is exposed, concrete removal shall continue until there is a minimum ³/₄ inch clearance around the exposed, corroded reinforcing bar. Care shall be taken to not damage bond to adjacent non-exposed reinforcing steel during concrete removal processes.

The perimeter of all areas where concrete is removed shall be tapered at an approximately 45° angle, except that the outer edges of all chipped areas shall be saw cut to minimum depth of $\frac{3}{4}$ inch to prevent featheredging unless otherwise approved by the Engineer. After all deteriorated concrete has been removed; the repair surface to receive concrete patching shall be prepared by abrasive blast cleaning. Abrasive blast cleaning shall remove all fractured surface concrete and all traces of any unsound material or contaminants such as oil, grease, dirt, slurry, or any materials which could interfere with the bond of freshly placed concrete.

The Contractor shall dispose all removed material off State Right Of Way in an approved site.

- **B**. Steel Reinforcement. All corroded reinforcing steel exposed during concrete removal shall have corrosion products removed by abrasive grit blasting or wire brush whichever is more appropriate. Furnish for replacement, as directed by the Engineer, 400 linear feet of steel reinforcing bars $\frac{1}{2}$ diameter by 20-foot lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Payment will be made in accordance with Section 602. Reinforcing steel displaying deep pitting or loss of more than 20 percent of cross-sectional area shall be removed and replaced. Such bars shall be placed in accordance with the recommendations of ACI 506R, Sections 5.4 and 5.5. In particular, bars shall not be bundled in lapped splices, but shall be placed such that the minimum spacing around each bar is three times the maximum aggregate size to allow for proper encapsulation with concrete patching. Intersecting reinforcing bars shall be tightly secured to each other using tie wire and adequately supported to minimize movement during concrete placement. Welded wire fabric (WWF) shall be provided as shown on the attached sketches. Sheets of adjoining WWF shall be lapped by at least one and one-half spaces at all intersections, in both directions, and be securely fastened. WWF fabric shall be supported no closer than $\frac{1}{2}$ inch to the prepared concrete surface and shall have a minimum concrete cover of 1-1/2 inches. WWF shall be fastened to preset anchors on a grid not more than 12 inches square. Large knots of tie wire which could result in sand pockets and voids during patching shall be avoided.
- C. Hook Fasteners. Hook fasteners shall be positioned at the spacing as stated above or as directed by the Engineer. Any given area shall have a minimum of four anchors. The WWF shall not move or deform excessively during concrete patching. Maximum hook fastener spacing shall not exceed 2 feet on a grid pattern over the entire repair area.

Hook fasteners shall be of commercial grade galvanized steel with a minimum diameter of 3/16". They may be mechanically set or grouted, as approved by the Engineer.

The Department will randomly select hook fasteners to be tested to verify pullout force is sufficient. If any anchors fail to meet the minimum acceptable pullout value, corrective measures shall be taken by the Contractor and further testing will be conducted.

D. PIER CAP REPAIR. Place and finish the new concrete for the patching area in accordance with the manufacturer's recommendations, as shown on the attached detail drawings, or as directed by the Engineer. The Engineer shall approve the Contractor's method of placing and consolidating the concrete prior to the beginning of this operation.

E. **Curing.** On completion of finishing operation, patching concrete shall immediately be prevented from drying out and cracking by fogging, wetting, and/or any appropriate method approved by the Engineer. Curing shall continue for duration recommended by the product manufacturer.

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the 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.

IV. MEASUREMENT.

A. Steel Reinforcement. See Section 602.

- **B. Pier Repair.** The Department will measure the quantity of completed and approved repair patch in square feet. The quantity shall be the actual area of the exposed surface of all accepted patches, irrespective of depth or thickness of the patch. If the patch includes corners or edges of members, all of the exposed surfaces shall be included.
- **C. Welded Wire Fabric & Hook Fasteners.** Welded Wire Fabric and Hook Fasteners will not be measured for payment, but shall be considered incidental to "PIER CAP REPAIR".

V. PAYMENT.

- A. Steel Reinforcement (08150) See Section 602.
- B. **Pier Repair (23031EN).** Payment for this item of work shall be at the contract unit price and payment will be full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Preparation of existing piers; (3) Place new repair patch; (4) Maintain and control traffic; and (5) incidentals necessary to complete the work

The Department will consider payment as full compensation for all work required by this note.

SEASON 1:

The contractor shall close the structure to May 13, 2013 November 15, 2013 for all cleaning and painting operations and specified repairs. Overnight single lane closures using flagging between 8:00 PM and 5:00 AM on days Sunday through Thursday may be used prior to May 10, **2013** for rigging installation. Maintain a minimum 15'-0" vertical clearance with signage for all operations executed during the permitted lane closure. All equipment staged on the structure during this lane closure must be removed and the structure opened to 2 lanes of traffic by 5:00 AM each morning, Monday through Friday. A temporary overnight full structure closure between 8:00 PM and 5:00 AM on days Sunday through Thursday may be used prior to May 10, 2013 for rigging installation. All equipment staged on the structure during this structure closure must be removed and the structure opened to 2 lanes of traffic by 5:00 AM each morning, Monday through Friday. No containment tarps shall be installed prior to May 10, 2013. No lane closures on the structure or structure closure shall be permitted May 10, 2013 through May 12, 2013. The Structure must be fully opened to traffic at or before 5:00 PM November 15, 2013. See attached drawing Maintenance of Traffic for closure, Variable Message Board and Sign placement. Night time lane or full closures as outlined above require a 4 day prior notice to the engineer.

SEASON 2:

Overnight Single lane closures using flagging between 8:00 PM and 5:00 AM on days Sunday through Thursday may be used for bridge railing cleaning and painting operations. All equipment staged on the structure during this lane closure must be removed and the structure opened to 2 lanes of traffic by 5:00 AM each morning, Monday through Friday. All remaining structural steel below the structure deck shall be accessed from below the structure during Season 2. At the discretion of the Engineer an overnight temporary structure closure between 8:00 PM and 5:00 AM on days Sunday through Thursday may be used. All equipment staged on the structure during this structure closure must be removed and the structure opened to 2 lanes of traffic by 5:00 AM each morning, Monday through Friday. No lane closure on the structure or structure closure shall be permitted May 9, 2014 through May 11, 2014. See attached drawing Maintenance of Traffic for closure Message Board and Sign placement. Daytime closures of any kind are not permitted unless approved by the engineer. Night time lane or full closures as outlined above require a 4 day prior notice to the engineer.

SPECIAL NOTE FOR SUNDAYS

The engineer reserves the right to limit or shut down operations in the vicinity of the portion of the structure that is in the downtown Owensboro area, including but not limited to the areas of 1^{st} , 2^{nd} , and 3^{rd} streets, should he determine that the noise level is disruptive for local church services.

SPECIAL NOTE FOR CONTINUATION OF WORK

The contractor shall realize that the shut-down of the bridge is a major inconvenience to the travelling public. Work shall progress on the bridge continuously, with no absence of work for greater than 2 consecutive days without express written consent of the engineer.

SPECIAL NOTE FOR DURATION OF STRUCTURE CLOSURE

The contractor shall maintain progression on completing the work on the overhead truss structure during the full closure of SEASON I. Should this work complete early, the contractor must open the bridge with allowances for overnight lane and full closures as outlined in SEASON 2. The contractor may not utilize the full closure to complete other work, once the overhead truss is complete.

KENTUCKY APPROACH:

Maintain one lane of traffic on CS 1837 (East Second Street) to clean and paint portions of the structure above this crossing.

INDIANA APPROACH:

The Contractor will be permitted to work over protected traffic above Indiana CR 710. Temporary single lane closures using flagging will be permitted for installation of rigging and containment. Maintain 16'-6" minimum vertical clearance.

Payment

Payment of the contract lump sum amount for "maintain and control traffic" shall be full compensation for all items necessary to maintain and control traffic on this project. All traffic control items shall remain the property of the contractor when the work is complete.



