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# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 W. CAPITOL AVE. JEFFERSON CITY, MO 65101 Phone (888) 275-6636

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

#### **WILSON & COMPANY**

800 East 101st Terrace, Suite 200 Kansas City, MO 64131 Certificate of Authority: 2003007599 Consultant Phone: (816) 701-3100

If a seal is present on this sheet, JSP's has been electronically sealed and dated.

JOB NO. JNW0013 Linn, Grundy County, MO Date Prepared: 8/6/2025

Only the following items of the Job Special Provisions (Bridge) are authenticated by this seal:  $\mbox{ALL}$ 

### A. CONSTRUCTION REQUIREMENTS

- **1.0 Description.** This provision contains general construction requirements for this project.
- **2.0 Construction Requirements.** The plans and the asbestos and lead inspection report(s) for the existing structure(s) are included in the contract in the bridge electronic deliverables zip file for informational purposes only.
- **2.1** In order to assure the least traffic interference, the work shall be scheduled so that the bridge closure is for the absolute minimum amount of time required to complete the work. The bridge shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed bridge is opened to traffic.
- **2.2** Qualified special mortar shall be a qualified rapid set concrete patching material in accordance with Sec 704. A qualified rapid set concrete patching material will not be permitted for half-sole repair, deck repair with void tube replacement, full depth repair, modified deck repair and substructure repair (formed) unless a note on the bridge plans specifies that a qualified special mortar may be used.
- **2.3** The existing slab for the bridge(s) to be redecked was constructed as composite or non-composite as indicated in the table below.

Bridge No.	Type of Deck
A1802	Composite
P0891	Non-composite
X0153	Non-composite

- **2.4** Provisions shall be made to prevent any debris and material from falling into the waterway. If determined necessary by the engineer, any debris and material that falls below the bridge outside the previously specified limits shall be removed as approved by the engineer at the contractor's expense.
- **2.5** Any damage sustained to the remaining structure as a result of the contractor's operations shall be repaired or the material replaced as approved by the engineer at the contractor's expense.
- **2.6** Provisions shall be made to prevent damage to any existing utilities. Any damage sustained to the utilities as a result of the contractor's operations shall be the responsibility of the contractor. All costs of repair and disruption of service shall be as determined by the utility owners and as approved by the engineer.
- **2.7** A washer shall be required under head and nut when any reaming is performed for bolt installation.
- **2.8** SSPC-SP2 and SSPC-SP3 surface preparation shall be in accordance with the environmental regulations in Sec 1081, and collection of residue shall be in accordance with Sec 1081 for collection of blast residue. SSPC-SP6, SSPC-SP10 and SSPC-SP11 surface preparation shall be in accordance with the approved blast media and environmental regulations in Sec 1081, and collection of blast residue shall be in accordance with Sec 1081.

**3.4 Environmental Contact.** Environmental Section may be contacted at the below address or phone number. The Missouri Department of Health may be contacted at (573) 751-6102.

MoDOT - Design Division - Environmental Section P.O. Box 270 105 W. Capitol Ave., Jefferson City, MO 65102

Telephone: (573) 526-4778

**3.5 Approved Smelter and Hazardous Waste Treatment, Storage and Disposal Facility.** The following is the approved smelter and hazardous waste treatment, storage and disposal facility:

Doe Run Company - Resource Recycling Division - Buick Facility Highway KK

Boss, MO 65440

Telephone: (573) 626-4813

- **4.0 Method of Measurement.** No measurement will be made.
- **5.0 Basis of Payment.** Payment for the above described work will be considered completely covered by the contract unit price for other items included in the contract.

# B. <u>STREAM GAUGING STATION – X01531</u>

**1.0 Description.** The contractor shall notify Clint Bailey and Rich Akins at the Central Midwest Water Science Center a minimum of 3 weeks prior to beginning work on the project. Mr. Bailey and Mr. Akins will coordinate with the contractor to determine if any removal or modification of the stream gauging station is needed. The contractor is only responsible for contacting Mr. Bailey and Mr. Akins; any actual removal or modification of the stream gauging station will be carried out by the Central Midwest Water Science Center's staff. Their contact information is as follows:

Clint Bailey
Hydrologist
U.S. Geological Survey
Central Midwest Water Science Center
1515 W Lincoln Hwy.
DeKalb, IL 60115
Office: (815) 752-2043
cbailey@usgs.gov

Richard "Rich" Akins
Hydrologic Technician
U.S. Geological Survey
Central Midwest Water Science Center
1400 Independence Road
Rolla, MO 65401
Office: (573) 308-3963
rakins@usgs.gov

- **2.0 Method of Measurement.** No measurement will be made.
- **3.0 Basis of Payment.** Payment for the above described work will be considered completely covered by the contract unit price for other items included in the contract.

#### C. DEFLECTION AND HAUNCHING

**1.0 Description.** The contractor shall determine haunching based on field measurements, existing bridge plans and/or adjusted dead load deflections based on the difference between the new and existing dead load weights. A spreadsheet showing adjusted girder or beam deflections

due to the weight of the new deck and barriers is included in the contract in the bridge electronic deliverables zip file.

- **2.0 Construction Requirements.** In order to properly form the haunches for the new deck, the contractor shall survey top of deck elevations above each girder or beam including centerline of roadway and along each girder or beam line (top or bottom flange) prior to deck removal followed by surveying elevations of the girders or beams (top or bottom flange) after deck removal.
- **3.0 Method of Measurement.** No measurement will be made.
- **4.0 Basis of Payment.** Payment for the above described work will be considered completely covered by the contract unit price for other items included in the contract.

#### D. STRENGTHENING EXISTING BEAMS

- **1.0 Description.** This work shall consist of strengthening existing beams as shown on the plans after the deck has been removed.
- 2.0 Materials. Shop drawings shall be submitted to Fabrication@modot.mo.gov.
- **3.0 Construction Requirements.** Structural steel construction shall be in accordance with Sec 712. Prior to installation of the new structural steel, the existing steel shall be carefully inspected for irregularities. Any irregularities shall be brought to the attention of the engineer.
- **3.1 Contact Surfaces.** The surfaces of the existing flanges that will come into contact with the new steel plates shall be cleaned to an SSPC-SP2 degree of cleanliness. The surfaces of new steel shall be cleaned to an SSPC-SP6 degree of cleanliness. The existing and new plate contact surfaces shall be coated with one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081.
- **3.2 Welding Requirements.** The areas to be welded shall be cleaned to an SSPC-SP11 degree of cleanliness. All welding shall be performed by a certified welder in accordance with Sec 712. All welding shall be in accordance with Sec 712. E7018 welding electrode or self- shielded welding process from the MoDOT approved electrode list shall be used.
- **3.3 Gray Epoxy-Mastic Primer.** Any surrounding touch up areas and any existing paint damaged by the repair work shall be cleaned and coated with one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081.
- **4.0 Method of Measurement.** No measurement will be made.
- **5.0 Basis of Payment.** Payment for the above described work, including all material, equipment, labor and any other incidental work needed to complete this item, will be considered completely covered by the contract lump sum price for Strengthening Existing Beams.

#### E. <u>STRUCTURAL STEEL REQUIREMENTS</u>

**1.0 Description.** This provision contains general structural steel requirements for this project.

**2.0 Material.** All material shall be in accordance with Division 1000, Material Details, and specifically as shown below. The gray epoxy-mastic primer (non-aluminum) shall be compatible with concrete and produce a dry film thickness of no less than 3 mils (75  $\mu$ m).

Item	Section
Structural Steel Construction	712
Gray Epoxy-Mastic Primer (non-aluminum)	1045
Structural Steel Fabrication	1080
Coating of Structural Steel	1081

# 3.0 Construction Requirements.

- **3.1** Before fabrication of new metalwork, the contractor shall make the necessary measurements in the field to verify dimensions of the existing structure where new members are affected. Any deviation of the dimensions shown on the plans shall be called to the engineer's attention. The contractor shall be responsible for developing all required dimensional adjustments and coordinating the implementation of the dimensional adjustments with all involved fabricators and subcontractors.
- **3.2** Prior to erection of the new structural steel, the steel that is to remain shall be carefully inspected for irregularities. If such irregularities are found, the irregularities shall be brought to the attention of the engineer.
- **3.3** Holes in the new diaphragm or cross frame connection plates and angles may be used as a template for drilling the holes in the existing material.
- **3.4** A minimum edge distance shall be maintained for all field drilled holes. The minimum edge distance for bolts shall be as shown in table below measured from the centerline of holes.

<b>Bolt Diameter</b>	Minimum Edge Distance
inch (mm)	inch (mm)
3/4 (19.0)	1-1/4 (32)
7/8 (22.2)	1-1/2 (38)
1 (25.4)	1-3/4 (45)

- **3.5** The surfaces of existing steel that will become faying surfaces for non-slip critical new connections, typically secondary members, shall be cleaned according to the manufacturer's recommendation and with a minimum of SSPC-SP-3 surface preparation and coated with one prime coat of Gray Epoxy-Mastic Primer (non-aluminum) in accordance with Sec 1081. The surfaces of existing steel that will become faying surfaces for slip critical new connections, typically primary members, shall be in accordance with contact surfaces in Sec 1081. Primary member connections include girder/beam splices, end diaphragms and intermediate diaphragms in curved structures.
- **3.6** Exposed girder/beam areas that are not faying surfaces or not covered by concrete that are scratched, damaged by the contractor or by field welding operations shall be touched up with Gray Epoxy-Mastic Primer (non-aluminum) in accordance with Sec 1081. The areas shall receive the coating system as shown on the plans.
- **4.0 Method of Measurement.** No measurement will be made.

**5.0 Basis of Payment.** Payment for the above described work will be considered completely covered by the contract unit price for the structural steel items included in the contract. No payments or adjustments will be made where new members are affected due to any deviation of the dimensions shown on plans or shop drawings.

# F. NON-DESTRUCTIVE TESTING

**1.0 Description.** This work shall consist of performing non-destructive testing on the welds of all existing top flange cover plates.

# 2.0 Construction Requirements.

- **2.1** After the concrete deck is removed, the steel that is to remain will be inspected by the engineer. In addition to this inspection, the welds and adjacent base metal at the ends of the top cover plates shall have non-destructive (magnetic particle) testing performed. Non-destructive testing shall be performed by an acceptable testing agency. The contractor shall submit to the engineer and Bridge Division (<a href="Fabrication@modot.mo.gov">Fabrication@modot.mo.gov</a>) the following documentation for each individual performing non-destructive testing (NDT): their certifications, current eye exam and the NDT company written practice, including the Level III individual certification used for written practice. Personnel performing the tests shall be qualified for SNT-TC-1A Level II.
- **2.2** The length of weld to be tested and the base metal, one inch either side of the weld, shall be cleaned of all rust prior to the testing. On cover plates with square ends, the weld shall be tested one inch from each corner along the ends of the cover plate plus 6 inches back along the side from each corner of the plate. On cover plates with tapered ends, the weld shall be tested along the end of the cover plate, along tapered edges and 6 inches back along the cover plate from end of taper.
- 2.3 If fatigue cracks are found, the cracks are expected to be very small and may be located in the base metal at the toe of the welds. Any cracks discovered by testing, regardless of length, shall be marked and reported to the engineer. All repairs shall be made by a certified welder in accordance with Sec 712.6. Any repair work and retesting of the repair work required, as a result of this inspection, will be paid for in accordance with Sec 109. This shall not relieve the contractor from responsibility to repair any damage caused by this work at the contractor's expense. Any delay or inconvenience caused by this inspection requirement will be non-compensable and effect on time of performance non-excusable.
- **3.0 Method of Measurement.** Measurement of non-destructive testing will be to the nearest linear foot. The extent of non-destructive testing may vary from the estimated quantities, but the contract unit price shall prevail regardless of the variation. Final measurements will not be made except for authorized changes during construction, or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.
- **4.0 Basis of Payment.** Accepted quantities of non-destructive testing will be paid for at the contract unit price. Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for Non-Destructive Testing.