

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0361-01	2011	51	169

MKEC
ENGINEERING
CONSULTANTS, INC.
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GENERAL NOTES (CONT.)

STRUCTURAL STEEL: Girder flange plates and flange splice plates shall meet AASHTO M270 Grade 50WT3 requirements except as noted. Girder web plates and web splice plates shall meet ASTM 709 Grade 50WT3 requirements except as noted. All other structural steel shall meet ASTM 709 Grade 50, unless noted otherwise. Shop and Field Splices shall be made only where shown on the Contract Plans as a "splice" or as an "optional splice." Elimination of any "splice" may be requested.

PAINTING: Blast clean all surfaces of all weathering steel, including all contact surfaces of bolted connections, to meet SSPC-SP6 Specifications (latest Revision). Blast clean to meet SSPC-SP10 Specifications and prime coat the embedded portion of the girders, including the abutment diaphragms; the top flanges, including the shear studs; and the top flange splice plates. Paint the areas of the girder near the expansion devices in accordance with KDOT Specifications.

PAINTING BEARINGS: Blast clean the bearings, in the shop, except for the ANSI 125 finished surfaces. Paint the bridge bearings with an Inorganic Zinc Primer except for the ANSI 125 finished surfaces. Paint the ANSI 125 finished surfaces with an approved dry film lubricant. After erection, apply the water-borne acrylic finish coat to all exposed surfaces.

ANCHOR BOLTS: Place the reinforcing bars below the bearing devices to clear the anchor bolts.

PREFORMED ANCHOR BOLT HOLES: Preform 3 inch diameter holes using only corrugated polyethylene tubing (Type C) at the locations shown. When temperatures are expected to go below freezing, seal the preformed holes or fill them with a propylene glycol-based antifreeze to prevent expansion damage. The holes will be free of water, antifreeze or foreign materials at the time of grouting the anchor bolts. The polyethylene tubing may remain in-place. Trim the tubing flush with the top of concrete. This work shall be subsidiary to Concrete Grade 4.0 (AE).

BOLTS: All bolts, nuts and hardened flat washers shall conform to the heavy hex structural requirements of ASTM A325, Type 3, and KDOT Specifications unless otherwise noted. Direct Tension Indicators (DTIs) are to comply with the requirements of the latest edition of ASTM F959. No allowance will be made for high strength bolts used for permanent or temporary connections. This work is subsidiary to the bid item, "Structural Steel". The number of bolts is shown for the convenience of the Contractor.

BOLTED CONNECTIONS: Girder Connections: Use 7/8 inch diameter heavy hex structural bolts for the main member connections. Use 15/16 inch diameter bolt holes. Do not ream during field erection. Accurately align all connections by driving 15/16 inch diameter drift pins in all corners and in 1/4 of the remaining holes in each plate. See KDOT Specifications.

Secondary Member Connections: Use 7/8 inch diameter heavy hex structural bolts for the secondary member connections. Use 15/16 inch diameter bolt holes. Oversized and/or slotted holes, as specified in the KDOT Specifications, may be used in only one of the two members connected and must be shown in the approved shop drawings. Oversized and/or slotted holes may require additional standard hardened washers or plate washers. Report to the Engineer prior to any required field reaming that will remove more than 1/4 inch of material from one ply of the connected parts.

Use Direct Tension Indicators (DTIs) on all high strength bolts. Place the DTI under the bolt head and turn the nut to tighten. This method is preferred whenever possible. Face the protrusions on the DTI to the underside of the bolt head. Place a hardened flat washer under the nut. See KDOT Specifications.

TEMPERATURE: The design temperature for all dimensions is 60° F.

ERECTION: Bring each line of girders to the correct line, grade (or relative grade) and camber, and secure in place prior to connection of the girder field splices. Provide falsework bents as necessary to maintain the correct line and elevation. Leave the falsework bents in place until all girder splice connections are completed. Submit information which clearly shows the proposed layout and use of falsework bents. The Engineer shall approve such information prior to erection of structural steel.

FABRICATION OF FIELD SPLICES: Prepare joints for the field splices in accordance with KDOT Specifications. Use Type "B" shop laydown.

RADIOGRAPHIC INSPECTION OF GIRDERS: Radiograph all butt welds in the flanges and all but the middle one third of the web butt welds in each span.

WELDING: Material and construction shall conform to KDOT Specifications. On the shop drawings, show a code or symbol at the tail of the weld symbol, which refers to an approved pre-qualified weld procedure.

WELDED STUD SHEAR CONNECTORS : Weld Shear Stud Connectors with automatically timed stud welding equipment connected to a suitable power source. All stud welding shall conform to KDOT Specifications.

CONCRETE PLACING SEQUENCE: The Superstructure Deck Concrete shall be placed continuously from E.W.S. to E.W.S. If, due to an unforeseen emergency situation, the concrete placement is stopped, a transverse construction joint shall be installed 1/4 of the span length short of a pier as directed by the Engineer. The following information shall be provided to the Engineer: The proposed rate of concrete placement in cubic yards per hour, the plant capacity, a description of the equipment used in placing the concrete, proposed admixtures, and the quantity of concrete in each placing segment. Any additional cost for the Contractor's plan of placing concrete, including admixtures, shall be at the Contractor's expense and considered subsidiary to the bid item "Concrete (Grade 4.0)(AE)(SA)". Approval of the Contractor's sequence is required prior to placement of concrete for the Superstructure. The Contractor may submit an alternate placing sequence for review. All falsework supports shall be released and provide adequate deflection for dead load prior to casting the Deck. If the longitudinal construction joint is used, the cross frames and pier frames shall be installed in a loose bolt condition prior to casting the Deck and connection bolts shall be properly torqued after both castings have been completed and the concrete has reached a minimum of 7 day strength. Depending on the Contractor's placing sequence, an uplift may occur at girder ends. The falsework plans may need to include hold-downs or anchor bolts at girder ends.

CONSTRUCTION LOADS: Only foot traffic is permitted on the new sub-deck, one-course deck or any concrete overlay during the seven day curing period, keep any exposed deck wet during the 7-day curing period. See KDOT Specifications Section 710 Table 710-2.

QUANTITIES: Items not listed separately in the Summary of Quantities are subsidiary to other items in the proposal.

DIMENSIONS: All dimensions shown on the design plans are horizontal dimensions unless otherwise noted. Make necessary allowances for roadway grade and cross slope.

CONTRACTOR CONSTRUCTION STAKING: Contractor Construction Staking for clear span bridges requires two independent surveys. See KDOT Specifications.

EXCAVATION: Quantity for Class II Excavation has been included in the bid item "Class I Excavation". All excavation below the Excavation Boundary Plan shall be considered subsidiary to "Class I Excavation".

**LINCOLN STREET BRIDGE AND
DAM IMPROVEMENTS OVER
ARKANSAS RIVER**

GENERAL NOTES AND QUANTITIES

SHEET TITLE	472-84883
PROJECT NUMBER	

DESIGN BY	JAG
DRAWN BY	DPG
CHECKED BY	KJS

ISSUED	1/24/2011
REVISED	

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