| SHEET NO. | TOTAL SHEETS |
|---|---|
| 3 | 33 |

# GENERAL NOTES

SPECIFICATIONS:
Design Specifications - AASHTO Standard Specifications for Highway Bridges, 1992 Edition with 1993 Interims. (Load Factor Design).
Construction Specifications - Kansas Department of Transportation, Standard Specifications for State Road and Bridge Construction, 1990 and Special Provisions.
All material and fabrication procedures shall be Shop Certified to comply with applicable specifications referenced in the Plans and Specifications.

DESIGN LOADING:
Live Load Roadway - HS20-44
Other Loads - As specified by AASHTO (Pedestrian Load 85 lbs./ft.$^2$)
Dead Load - Includes an allowance of 15 lbs. per sq. ft. for future wearing surface.

UNIT STRESSES (NEW MATERIAL):

| | | |
|---|---|---|
| Class AAA Concrete (AE) | f'c = 4,000 psi, | fc = 1,600 psi |
| Prestressed Beam Concrete AAA (AE) (PB) | f'c = 5,000 psi, | fci = 4,000 psi |
| Reinforcing Steel (Grade 60) | fy = 60,000 psi, | fs = 24,000 psi |
| Prestressed Strands | 1/2" ø Grade 270 uncoated 7-wire stress- relieved, low-relaxation strand | |

UNIT STRESSES (EXISTING MATERIAL):

| | | |
|---|---|---|
| Concrete (Estimated) | f'c = 2500 psi | |
| | fc = 1200 psi | |
| Reinforcing Steel (Prior to 1954) | Fs = 18,000 psi | |

EXISTING DIMENSION VERIFICATION: Dimensions of the existing structure are based on field surveys and not original 1925 plans. The Contractor shall verify, by field measurement, the as-built dimensions of the existing structure that will be incorporated in the new construction and submit such verification in writing to the Engineer. Verification may include sketches, drawings, photographs and descriptions as needed to clearly define the as-built dimensions.

CONCRETE: All cast-in-place concrete shall be Class AAA(AE).
Bevel all exposed edges of all concrete with a 3/4" triangular molding otherwise specified. Use double 3/4" bevels at certain construction joints as noted on the plans. Construction joints are optional with the Contractor, but if used, shall be made only at locations shown, or at locations approved by the Engineer.
Old concrete surfaces upon which new concrete is to be placed shall be free of all loose material and thoroughly brushed and washed with clean water (No Separate Payment).

REINFORCING STEEL: All dimensions relative to reinforcing steel placement are to the centerline of bars unless otherwise noted. Bar bending and dimensions shall be as shown and noted on the bending diagrams. The clear distance from face of concrete to near edge or end of reinforcing bar shall be 2" unless otherwise noted. All reinforcing steel shall conform to the requirements of ASTM A615, Grade 60.
Existing Reinforcing Steel damaged by the Contractor shall be repaired at the Contractor's expense by drilling and grouting a new bar into the existing concrete to a depth to be determined by the Engineer.

BACKFILL COMPACTION: Only flowable fill will be allowed as backfill at the abutments.

EPOXY GROUTING: This item shall consist of grouting reinforcing steel into the existing concrete, where required by the Engineer, with an epoxy grout. The Contractor shall locate each hole with the aid of a pachometer to miss the existing reinforcing steel. The holes shall be drilled to the specifications required by the grout manufacturer and in such a manner as not to damage adjacent concrete or bars. After the hole is drilled, all loose material shall be removed by using a wire brush to free the dust from the side of the hole and then vacuumed to remove material and dust. The hole will be filled 1/3 to 1/2 full of epoxy grout and the bar inserted. The hole shall then be filled to 1/4" from the top of the hole. The epoxy grout shall be mixed, applied and cured according to manufacturers recommendations. The tools, materials(exclusive of reinforcing), labor and incidentals necessary to complete the work shall be subsidiary to Class AAA Concrete (AE).

PRESTRESSED BEAM CONCRETE: Prestressed beam concrete shall be Class AAA (AE)(PB) concrete with release strength and 28 day strength requirements as noted on the plans.

REMOVAL OF EXISTING STRUCTURE: Removal of existing structure is included in the bid item "Removal of Existing Structure," Lump Sum. All work shall be done in accordance with Section 206 of the Standard Specifications. All materials removed shall be taken from the site and disposed of by the Contractor at locations approved by the Engineer.

RIVER PROTECTION: The Contractor shall execute his work in such a manner and take such precautions as necessary to prohibit the falling of broken concrete and other debris into the Little Arkansas River. The methods of protection, such as catch platforms, proposed by the Contractor shall be approved by the Engineer. (No Separate Payment).

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

CONSTRUCTION JOINTS: Construction joints shall be made only at locations indicated or as approved by the Engineer.

CONSTRUCTION LOADS: Construction loads will be limited to loads and locations approved by the Engineer. Proposed equipment and methods used to construct the repairs shall be submitted to the Engineer for review. Information that defines the construction equipment axle weights and spacings shall be included in the submittal.

JACKING OF EXISTING STRUCTURE: The repair/partial replacement of the abutments will require that the structure be raised. The method and amount of lifting will be considered falsework details.

FALSEWORK PLANS: Falsework details shall be designed and bear the seal of a licensed Professional Engineer. Five sets of details in compliance with KDOT Specifications shall be submitted to the Engineer for review.

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

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

COATING: The coating for steel water pipe shall meet the requirements of AWWA C218. See general specifications for coating requirements. Color to be light blue. Paint sample to be provided to and approved by the Owner.

WATERLINE: The waterline is to be prepared for painting to be compatible with the AWWA C218 coating requirements. The waterline is required to be depressurized prior to the jacking operation and the diaphragm replacement. The depressurization for the painting operation is dependent on the climatic conditions for paint surface requirements. At the Engineers discretion each time the waterlines are depressurized reclorination may be required. This clorination operation will be considered subsidiary to the bid item "Painting". The two existing blowoff valve locations must be modified with Neenah R-1914-A or approved equal. This work shall be considered part of the "Painting" bid item.

| No. | Revisions | By | Date |
|---|---|---|---|
| 1 | | | |

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E.-CITY ENGINEER
MURDOCK BRIDGE
OVER LITTLE ARKANSAS RIVER
GENERAL NOTES
CITY OF WICHITA PROJECT NO. 472-82785

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

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|---|---|---|---|
| Designed by | R.W.A. | Checked by | R.A.S. |
| Drawn by | MAF | Date | Oct. 1998 |
| Job No. | 96940 | | |

i:/1996/96940/gennotedgn
drawn by: maf
plotted by: ras 12-29-98