STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85066	2014	98	388

GENERAL NOTES

BRIDGE EXCAVATION: All excavation shall be Class III. See the Bridge Excavation sheet for the limits of pay excavation.

ABUTMENT STRIP DRAIN: See the General Notes on the "Abutment Strip Drain" sheet.

BRIDGE BACKWALL PROTECTION SYSTEM: See the General Notes on the "Abutment Strip Drain" sheet.

BACKFILL COMPACTION: Compact backfill at the abutments and piers.

EMBANKMENT: Complete the embankment at the abutments as shown on the Bridge Excavation sheet prior to driving the abutment piling or commencing with the abutment footing excavation.

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

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

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

PILING: Drive all piling to penetrate the Wellington Member formation. Driving shall stop when in the opinion of the Engineer additional driving may damage the piling. Drive all piling to the Pile Drilling Formula Load of:

Abutment No. 1	63.9 Tons
Pier No. 1	57.3 Tons
Pier No. 2	57.3 Tons
Abutment No. 2	63.9 Tons

As a minimum drive each pile to the load and penetration, but in no case shall the pile be driven to more than 110% of Pile Driving Formula Driving Load. At any location where problems are experienced, pile damage is suspected, or the Pile Driving Formula Load occurs significantly above the design pile tip elevation, the Engineer may request that the Pile Driving Analyzer (PDA) equipment be used.

TEST PILING: Drive test piling at the locations shown on the plans or as directed by the Engineer. The test piling shall remain in place as permanent piling.

PILING SPLICE LOCATION: Integral pile splice locations and weld testing criteria for, Abutments 1 and 2 and Piers 1 and 2 will follow the "Standard Pile Details" Sheet (BR110).

PRE-DRILLING: All steel piles in abutments shall be pre-drilled to a depth of 15'-0" below the bottom of the abutment and all steel piles in Pier #1 shall be pre-drilled to a depth of 10'-0" below the bottom of the footing. Piles shall be set and driven to the computed bearing value shown. After driving the holes shall be backfilled with Concrete (Grade 3.0).

CONCRETE: Superstructure concrete is bid as Concrete (Grade 4.0)(AE) (SA). Substructure concrete is bid as Concrete (Grade 4.0)(AE). If desired, the Contractor may use Concrete (Grade 4.0) in the footings and in the abutments below the construction joint. Bevel all exposed edges of all concrete with a ¾ inch triangular molding, except where noted on the plans. Construction joints are optional, but if used, place only at locations shown, or at locations approved by the Engineer.

REINFORCING STEEL: All reinforcing steel dimensions are to the centerline of bars unless otherwise noted. All reinforcing steel, except the spiral bars, shall conform to the requirements of ASTM A615, Grade 60. Spiral bars may meet the requirements of either ASTM A615, (Gr. 40 or 60) or A82, and are included in the bid item "Reinforcing Steel (Gr. 60)".

Where non-coated bars come in contact with epoxy coated bars, they need not be coated.

PRESTRESSED BEAM CONCRETE: Use air entrained concrete with select coarse aggregate as specified in the Special Provisions. The release strength and 28 day strength requirements shall be as noted on the plans. Submit mix designs to the Bureau of Construction and Materials for approval.

COLUMN CONSTRUCTION: Cure the column footing as required by the KDOT Specifications before beginning the column construction (placing resteel or formwork). Do not place cast in place shear bolts, coil inserts or other devices used as falsework support in the column without the approval of the Engineer. Do not remove column formwork without the approval of the Engineer. Curing shall continue after the formwork is removed as required by the KDOT Specifications.

PIER BEAM CONSTRUCTION: Cure the columns as required by the KDOT Specifications before beginning the pier beam construction (placing resteel or formwork). Do not drill and grout bolts or other devices into the columns used for falsework support unless shown on the plans. Cure the columns as required by the KDOT Specifications before placing pier beam concrete. Do not remove falsework used to support the pier beam until the pier beam concrete has cured as required by the KDOT Specifications. Do not set girders or beams on the pier beam until after the falsework is removed and the pier beam concrete has 0.75f'c strength as tested.

ERECTION ELEVATION CHECKS: After the abutment and pier concrete has cured and before setting any prestressed beams, present verification to the Engineer that the elevations at the bearings match plan elevation (± ¼").

CONSTRUCTION LOADS: Limited traffic is permitted on the new sub-deck, one-course deck or any concrete overlay during the curing period, keep any exposed deck wet during the curing period. See KDOT Specifications Section 710 Tables 710-1 & 710-2 for additional information.

SILICA FUME OVERLAY: Place a 1½" Silica Fume Overlay over the deck surface to the limits shown on the plans.

FALSEWORK PLANS: A licensed Professional Engineer shall design the falsework details. Details shall bear the seal of a licensed Professional Engineer. See the Bridge Design Manual, Section 5.1 "Review and Approval of Falsework Plans", for a listing of items to be included on the falsework plan. Submit electronic plans conforming to 105.10(b) of the Standard Specification with details in compliance with KDOT Specifications to the Field Engineer for review.

FALSEWORK PLANS & SHOP DRAWINGS: Use the U.S. Customary system of units on falsework plans and shop drawing details.

DECK FORMS: Steel or prestressed concrete stay-in-place forms will not be allowed.

ERECTION PLANS: This is a Category C Structure. Submit detailed Erection Plans to the State Bridge Office (or Bureau of Local Projects) at least 4 weeks before beginning the erection process. Portions of the submitted details shall bear the seal of a licensed Professional Engineer. Identify, on the Erection Plans, the Erection Supervisor required by KDOT Specifications. The Erection Supervisor will attend the required pre-erection meeting before these operations begin as described in KDOT Specifications. No structural erection work will begin without approved erection plans.

DEMOLITION PLANS: This is a Category C Demolition. Submit detailed Demolition Plans to the State Bridge Office at least 4 weeks before beginning the demolition process. Portions of the submitted details shall bear the seal of a Licensed Professional Engineer. Identify, on the plans, the Demolition Supervisor meeting the requirements of the KDOT Specifications. The Demolition Supervisor will attend the required pre-demolition meeting before these operations begin, as described in KDOT Specifications. No demolition work will begin without approved Demolition Plans.

REMOVAL OF EXISTING STRUCTURE: See Construction Layout sheets for listing of bridge removal items to be paid for in teh project bid item "REMOVAL OF EXISTING STRUCTURE".

DESIGN DATA

DESIGN SPECIFICATIONS:
AASHTO Specifications, 2013 Edition and latest Interim Specifications. Load and Resistance Factor Design

DESIGN LOADING:
HL-93
Design Dead Load includes an allowance of 15 psf for a future wearing surface.

UNIT STRESSES:

Concrete (Grade 4.0)	f'c = 4,000 psi, fc = 1,600 psi
Concrete (Grade 4.0)(AE)	f'c = 4,000 psi, fc = 1,600 psi
Concrete (Grade 4.0)(AE)(SA)	f'c = 4,000 psi, fc = 1,600 psi
Prestressed Beam Concrete	f'c = 6,000 psi, fci = 5,000 psi
Reinforcing Steel (Grade 60)	fy = 60,000 psi, fs = 24,000 psi
Prestressed Strand	½" Ø Grade 270 uncoated 7-wire low-relaxation strand

LRFD DESIGN PILE LOAD:

	Factored Loading (Tons/Pile)	Factored Resistance (Strength I) (Tons/Pile)	Phi
Abutments 1 & 2	63.9	75.0	0.50
Piers 1 & 2	57.3	75.0	0.50

INDEX OF BRIDGE SHEETS

No.	Revisions	By	Date
1			

BR. NO. 96-87-32.78 (412) E.B. STA. 463+49.36
BR. NO. 96-87-32.79 (411) W.B. STA. 463+48.72

GENERAL NOTES

K-96 OVER GREENWICH ROAD

PROJECT NO. 472-85066 SEDGWICK COUNTY

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Designed by	C.W.P.J.	Checked by	M.S.N.
Drawn by	C.W.P.J.	Date Jan. 2014	Job No. 09521