GENERAL NOTES:

CHANNEL CHANGE EXCAVATIONS: All common excavation shall be unclassified. The Contractor shall remove all substances encountered in excavating to the required elevation and grade. No separate payment will be made for excavation classification regardless of the nature or condition of the material.

EMBANKMENTS: The Contractor shall construct the embankments to the lines and grades at the abutments as shown on Sheet No. 3 and on the Construction Profile prior to construction of the bridge.

EXCAVATION: All bridge excavation shall be Class III. See Specifications for limits of excavation.

SUBSURFACE SOIL BORING INFORMATION shown on Sheet No. 3 is as obtained from borings made in the field by Engineering Testing Company, and represents the best information available to the City of Wichita.

PILING: Piling shall be 10" prestressed concrete piles in piers and 10" steel piles in abutments as described and detailed on Sheet No. 8. Piles shall be driven to the penetration shown unless in the opinion of the Engineer such penetration cannot be secured without injury to the piles. All piles shall be driven to a minimum computed bearing of 40 tons per pile in abutments, 40 tons per pile in piers.

All concrete piles shall be driven with a steam or diesel hammer. If a diesel hammer is used, sufficient hammer data shall be provided for rating by the Engineer before driving starts.

CONCRETE: Class AAA(AE) Concrete shall be used in the bridge and approach slabs. Class A(AE) Concrete shall be used in retaining walls, curb and gutter, and concrete riprap. Bevel all exposed edges with a 3/4" triangular molding unless otherwise noted.

REINFORCING STEEL: All dimensions relative to reinforcing steel placement are to centerline of bars unless otherwise noted. All dimensions shown in bending diagrams are out to out of bars.

DECK TREATMENT: Sidewalks, riprap and approach slabs shall be cured with Linseed Oil Emulsion, in accordance with the Supplemental Specifications. Bridge deck shall receive a wearing course consisting of latex modified concrete. Thickness to be 1 1/4 inches. (See Supplemental Specifications.)

FALSEWORK AND FORMING: Falsework under superstructure, including the sidewalk slabs, shall be left in place until the concrete shall have attained its design strength; but in no case shall the falsework be removed before 14 days after placing concrete. Traffic rails may be placed after falsework is removed. Camber shall be provided in the amounts shown on the Dead-Load Camber Diagram.

APPROACH SLABS: The item "Approach Slab" includes fine grading, and furnishing, forming, placing and finishing all concrete and reinforcing steel required for one approach slab at each end of the bridge, as detailed on Sheet No. 6.

STEEL HANDRAIL: Steel for handrail shall conform to ASTM A-501, structural steel tubing; base plates and clip angles to be ASTM A-36 steel. Pay length for handrail is center to center of end posts. Posts shall set vertically in the transverse direction, and perpendicular to the grade longitudinally. Steel Handrail shall be painted in accordance with the Standard Specifications (Lead Silico-Chromate System).

SPECIAL CONCRETE FINISH: See the Supplemental Specifications for details and limits of the special Concrete Finish.

QUANTITIES: All quantities shown on these plans shall be used as final pay quantities except that measurement of piling, common excavation and compaction of earthwork shall be in accordance with the Specifications.

GENERAL REQUIREMENTS: It is the intention of these plans and specifications that construction of the bridge shall be in accordance with applicable standard specifications and requirements of the Kansas Department of Transportation and that materials shall conform to those specifications unless otherwise noted.

DESIGN LOADING: HS20-44 A.A.S.H.T.O. Spec. (1973 Edition)

UNIT STRESSES
- f'c - 4,000 p.s.i. Class AAA(AE)
- f'c - 3,000 p.s.i. Class A(AE)
- fc - 1,600 p.s.i. Class AAA(AE)
- fc - 1,200 p.s.i. Class A(AE)
- fs -20,000 p.s.i. (Reinforcing)

DESIGN PILE LOADING: 35 Tons per Pile (Abut.)
40 Tons per Pile (Pier)

SUMMARY OF PROJECT QUANTITIES

BRIDGE QUANTITIES

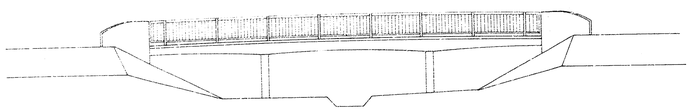
ITEM	QUANTITY	UNIT
Class III Excavation	105	Cu. Yds.
Class AAA(AE) Concrete	198.2	Cu. Yds.
Reinforcing Steel	43,820	Lbs.
Steel Piling (10")	~~230~~ 296.9	Lin. Ft.
Prestressed Concrete Piling (12")	~~320~~ 311.8	Lin. Ft.
Steel Handrail	114	Lin. Ft.
Approach Slabs	2	Each
Electric Lighting	Lump Sum	L.S.
Special Concrete Finish	~~111~~ 121.6	Sq. Yds.
Latex Surface Course (1 1/4")	325.1	Sq. Yds.

GRADING QUANTITIES

ITEM	QUANTITY	UNIT
Removal of Existing Structures	Lump Sum	L.S.
Large Trees	20	Each
Common Excavation (ch.ch.)	1,040	Cu. Yds.
Common Excav. (Contr. Furn.)	1,520	Cu. Yds.
Compaction of Earthwork	2,020	Cu. Yds
Class A(AE) Concrete	9.9	Cu. Yds.
Reinforcing Steel	720	Lbs.
Chain Link Fence	60	Lin. Ft.
Concrete Riprap (5")	~~537~~ 577.8	Sq. Yds.
Grouted Stone Ditch Lining	61	Sq. Yds.
12" Storm Sewer (B.C.C.M.P.)	22	Lin. Ft.

INDEX OF SHEETS

1. General Notes and Summary of Quantities
2. Contour Map and Profile
3. Construction Layout
4. Abutment and Pier Details
5. Superstructure Details
6. Approach Slab, Rails and Retaining Wall
7. Bar List and Bending Diagrams
8. Pile Details
9. Bar Supports, Bridge Excavation and Electric Lighting



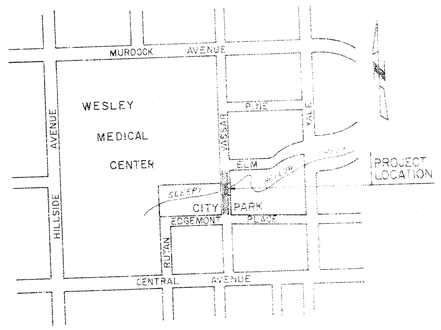
19'-26'-19' R.C. Slab Spans

VASSAR STREET BRIDGE

OVER

SLEEPY HOLLOW CREEK

PROJECT NO. DAKS 574106



VICINITY MAP

CITY OF WICHITA
DEPARTMENT OF PUBLIC WORKS

R.W. BRUGGEMAN, P.E. DIRECTOR OF PUBLIC WORKS

R.W. LINN, P.E. CITY ENGINEER

DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

DECEMBER, 1975

REV.	BY	DATE	DESCRIPTION
	C.S.	1-11-77	As Built

79-R

SHEET	OF
2	9

P.O.T. Sta. 2+97.93
½" Iron Pipe @ P.O.T.
North Property Line, Edgemont Place

Proj. Sta 4+84 =
Ch. Ch. Sta. 10+00

P.O.T. Sta. 6+60.88
½" Iron Pipe @ P.O.T.
Iron on ℄

Sta. 5+23.60 Construct 61.5 Lin. Ft. Concrete Retaining Wall & Chain Link Fence, Left. See Sheet No. 6

R/W 40' ℄

Sta. 3+60 Begin Embankment

℄ VASSAR STREET

See Sh. No. 3 for Storm Sewer

Sta. 6+12 End Embankment

Base Line

EDGEMONT PLACE

ELM STREET

8" San. Sewer (by others)

Sta. 4+84, Construct 19'-2'-19" Continuous R.C. Slab Span Bridge Pile Bent Type Abutments & Piers. 43'-8" Roadway & 4'-4" Sidewalks.

CURVE DATA
(Channel Change)
Δ = 60°
D = 57°17'-45"
R = 100.00'
L = 104.72'

4' (min.) Ramp Down

Slope to Drain

CONC. ARCH BRIDGE

Encasement (Remove)

5" Piles (Remove)

59.72 P.T.

NOTE:
Plug ends of abandoned Sanitary Sewer Pipes.

SUMMARY OF GRADING QUANTITIES

Excess Construction (Chan. Change):	1,040 Cu. Yds.
Roadway Excavation (Contr. Furnish):	1,520 Cu. Yds.
Total Excavation	2,560 Cu. Yds.
Compacted Fill Required	
Earth Embankment	1,070 Cu. Yds.
Earth Backslopes	930 Cu. Yds.
Total	2,000 Cu. Yds.
Overcompacted Fill Acquired	
Channel Fill, Rt. Sta. 5+55:	30 Cu. Yds.

The cost of compacted fill includes all compaction of whatever type within limits indicated. Approximate quantities are as follows:
Type AA(MP-90): 1520 Cu. Yds.
Type AA(MP-5): 480 Cu. Yds.
(No change allowance of 25% provided)

TYPICAL ROADWAY SECTION
(Fill)

CHANNEL SECTION AT BRIDGE

NOTE: Top of Curb Profile = Crown Gr. on Bridge.

CHANNEL - CHANGE PROFILE

Scale: 1"=20'

℄ Pier Piles

Wrap Piles with 1"x6" Exp. Joint Filler (Type B) (Typ.)

Grouted Stone Ditch Lining

℄ Brg. Abut.

El. 151.95
½" Exp. Jt. Filler (Type B)

℄ Channel

PART PLAN
CONCRETE RIPRAP LAYOUT

SECTION A-A

Reinf. Conc. Riprap (5")

Pay Width

GROUTED STONE DITCH LINING

SECTION B-B

NOTE:
RIPRAP: REINFORCED CONCRETE RIPRAP SHALL BE OF CLASS "A" CONCRETE. WIRE REINFORCING MESH SHALL BE COMPOSED OF NO. 1/4 STEEL WIRE SPACED AT 6" CENTERS EACH WAY. REINFORCEMENT AS SHOWN IS INCLUDED IN UNIT PRICE BID FOR "REINFORCED CONCRETE RIPRAP (5")". MEASUREMENT OF CONCRETE SHALL BE IN SQ. YDS. AND SHALL BE THE OUTSIDE SURFACE AREA, INCLUDING THE TOE WALL, REGARDLESS OF THE THICKENING SHOWN ON THE PLANS.

	C.S.	1-11-77	As Built
	BY	DATE	REVISION(S)

CITY OF WICHITA, KANSAS
R.W. LINN, P.E., CITY ENGINEER

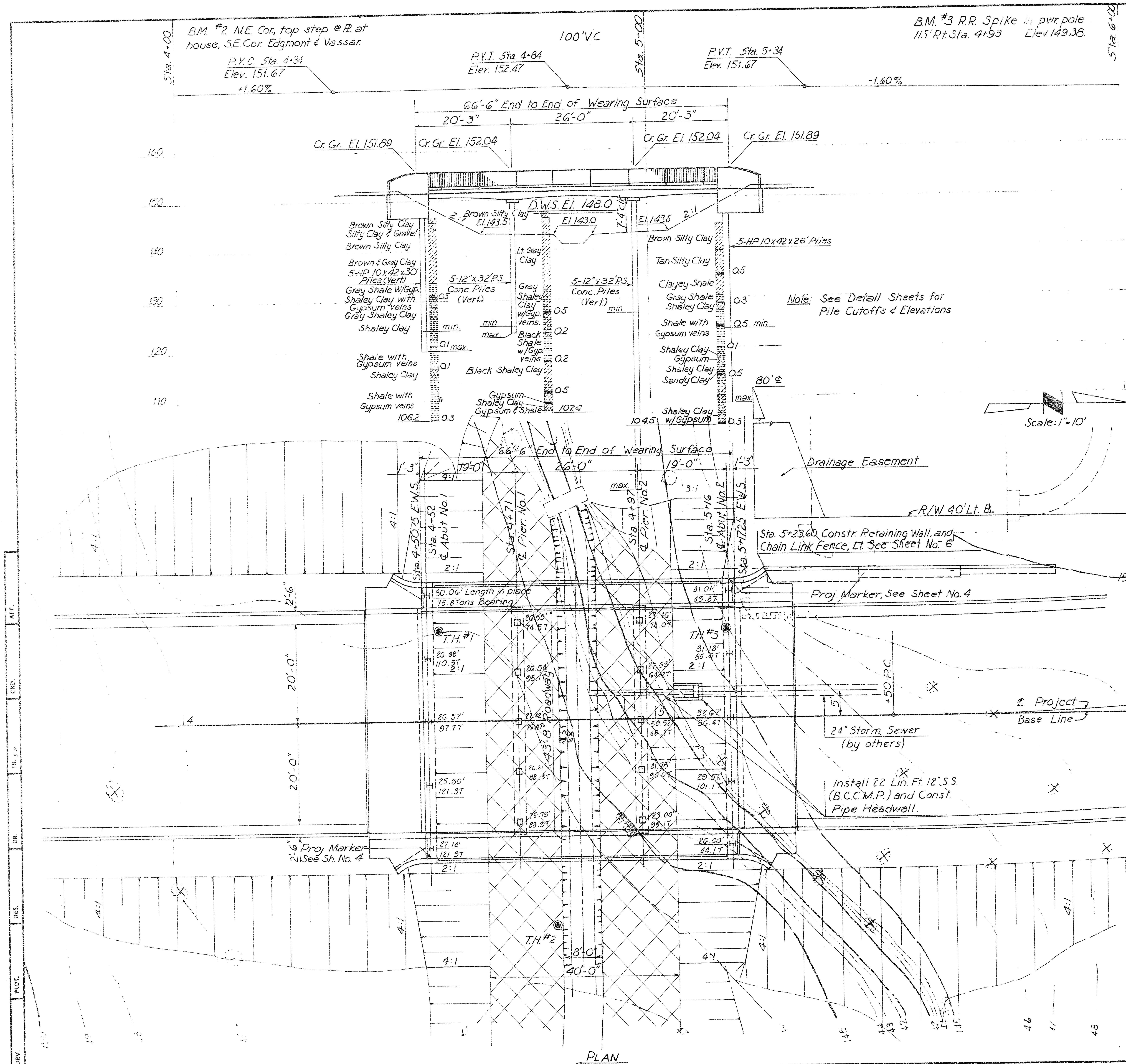
VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK

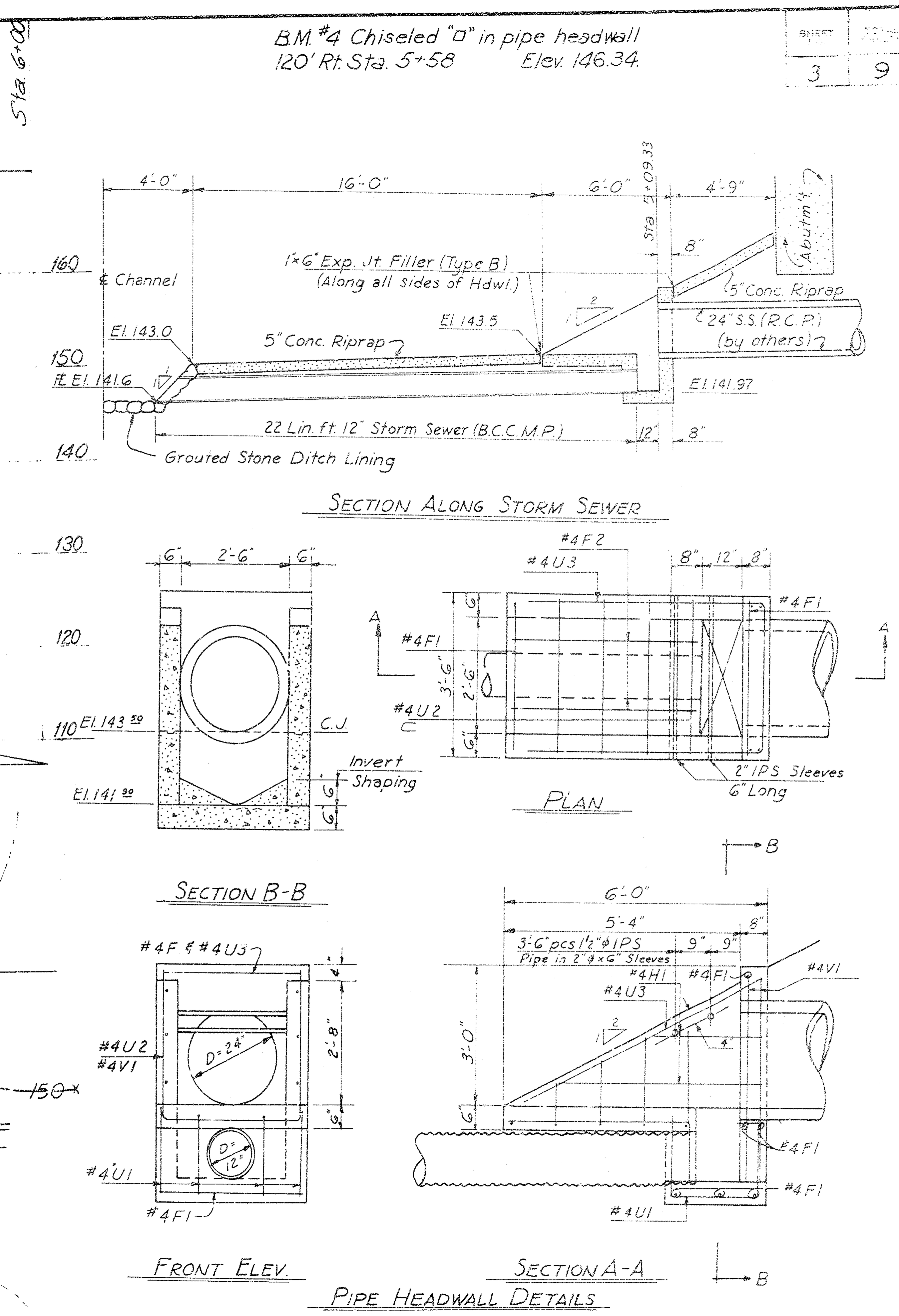
CONTOUR MAP & PROFILE

DFS
DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

SCALE | DATE December, 1975 | DWG. NO. 79-R-2

APP. | CKD. | DR. | DES. | PLOT. | SURV.





NOTE:
CLASS A (AE) CONCRETE SHALL BE USED IN CONSTRUCTING PIPE HEADWALL. CONCRETE AND REINFORCING STEEL FOR PIPE HEADWALL ARE INCLUDED IN THE RESPECTIVE ITEMS UNDER "GRADING QUANTITIES". EXCAVATION FOR 12" STORM SEWER AND PIPE HEADWALL SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO 12" STORM SEWER (B.C.C.M.P.) AND CLASS A (AE) CONCRETE.

DESIGN LOADING: HS20-44 A.A.S.H.T.O. - SPEC. (1973 EDITION)

DRAINAGE DATA

DRAINAGE AREA	510	ACRES
DESIGN DISCHARGE	1,000	C.F.S.
AVERAGE FLOW:	LESS THAN 5	C.F.S.
WATERWAY PROVIDED:		
BELOW D.W.S.	242	SQ.FT.
TOTAL	348	SQ.FT.

SEE SHEET NO. 1 FOR GENERAL NOTES AND SUMMARY OF QUANTITIES.

C.S. 1-11-77 As Built

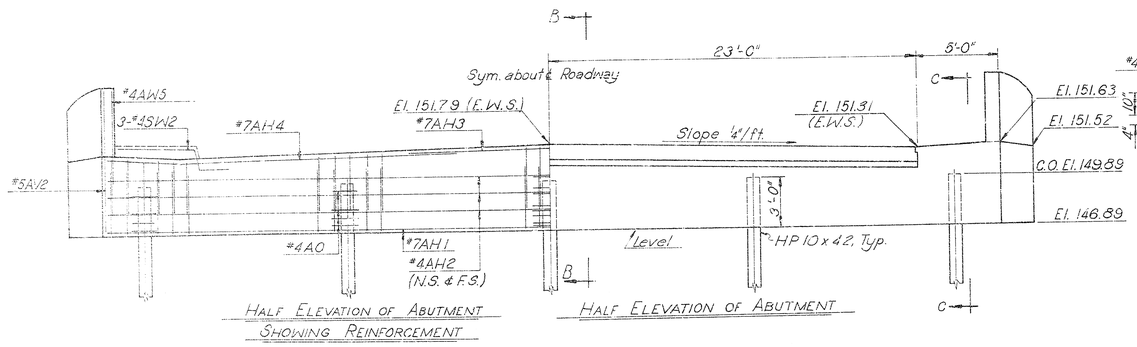
CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

VASSAR STREET BRIDGE OVER SLEEPY HOLLOW CREEK

CONSTRUCTION LAYOUT

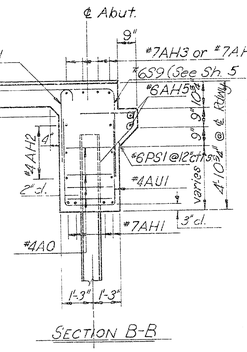
DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

SCALE | DATE December, 1975 | DWG. NO. 79-R-3

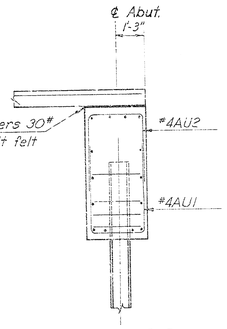


HALF ELEVATION OF ABUTMENT SHOWING REINFORCEMENT

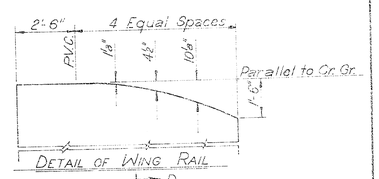
HALF ELEVATION OF ABUTMENT



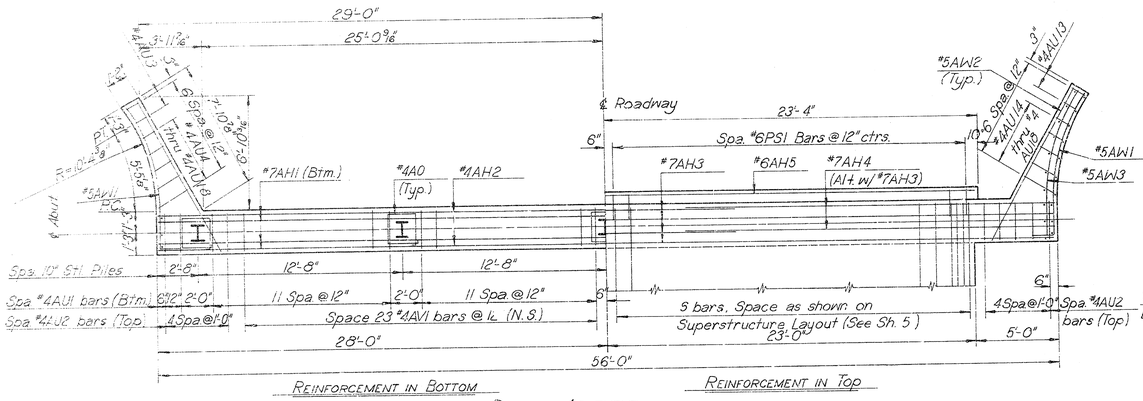
SECTION B-B



SECTION C-C



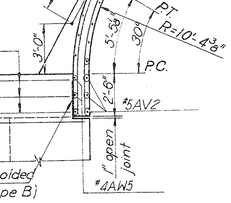
DETAIL OF WING RAIL



REINFORCEMENT IN BOTTOM

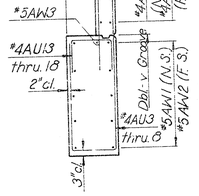
REINFORCEMENT IN TOP

PLAN OF ABUTMENT

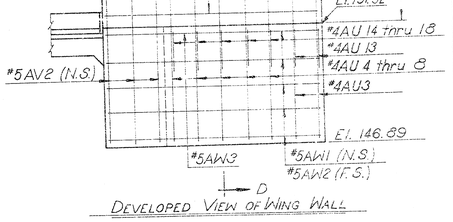


½"x7½"x2'-6" Premolded Exp. Jt. Filler (Type B)

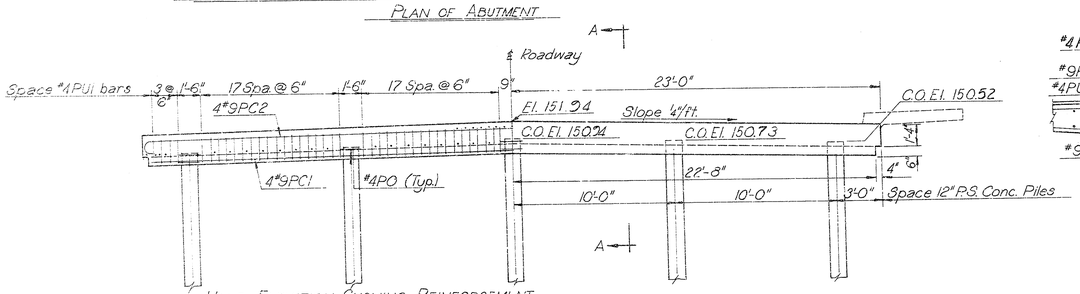
PLAN OF WING



SECTION D-D

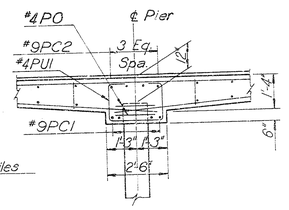


DEVELOPED VIEW OF WING WALL

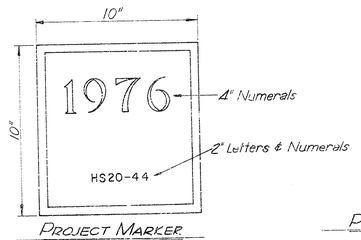


HALF ELEVATION SHOWING REINFORCEMENT

ELEVATION OF PIER

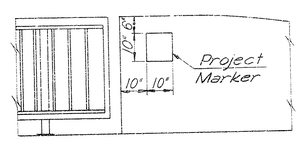


SECTION A-A



PROJECT MARKER

Indent Border & Numerals approximately ⅛" deep.



PROJECT MARKER LOCATION SKETCH

See also Sheet #3

NOTE:
Vertical dimensions do not include 1½" Latex Surface Course

NOTES

ALL CONCRETE SHALL BE CLASS AAA(AE) WITH ¾" CHAMFER ON EXPOSED EDGES WITH ¾" TRIANGULAR MOLDING UNLESS OTHERWISE NOTED.

DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

ABUTMENT PILES SHALL BE HP 10x42 STEEL PILES AND PIER PILES SHALL BE 12" PRESTRESSED CONCRETE PILES AS INDICATED ON SHEET NO. 3 AND DETAILED ON SHEET NO. 8.

SEE SHEET NO. 1 FOR GENERAL NOTES.
SEE SHEET NO. 7 FOR BAR LIST AND BENDING DIAGRAMS.

DESIGN LOADING: HS20-44 A.A.S.H.T.O. SPEC. (1973 EDITION)

UNIT STRESSES: f'_c - 1,600 P.S.I. CLASS AAA(AE)
f'_c - 4,000 P.S.I. CLASS AAA(AE)
f_s -20,000 P.S.I. (REINF.)

DESIGN PILE LOADING: 35 TONS PER PILE (ABUT.)
40 TONS PER PILE (PIER)

REV.	BY	DATE	DESCRIPTION
—	C.S.	1-11-77	As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

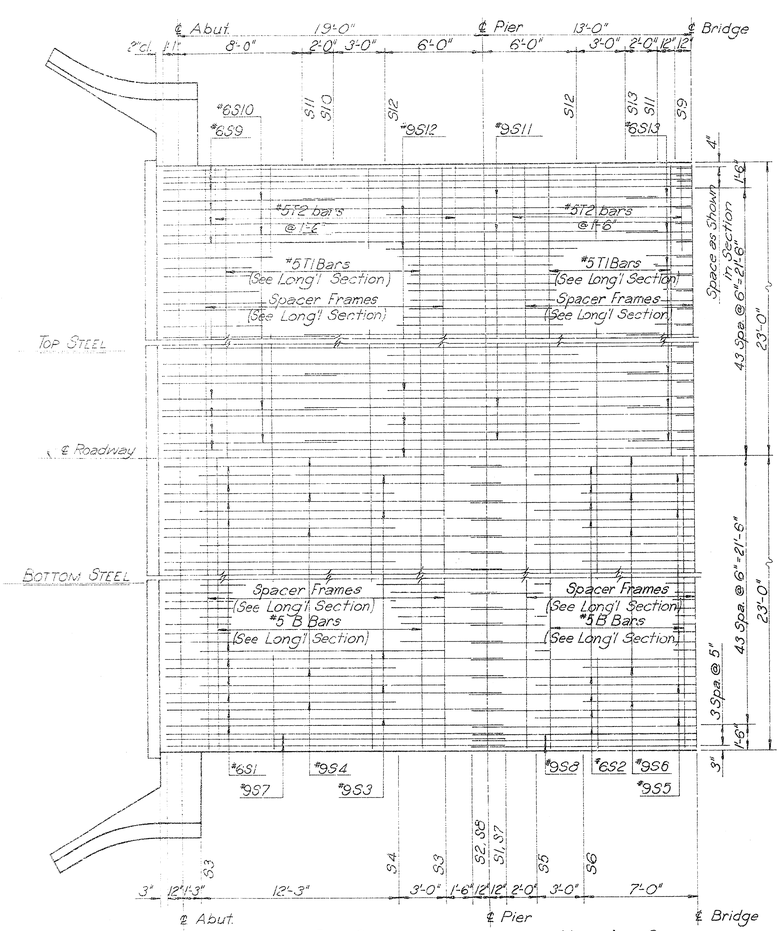
VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK

ABUTMENT & PIER DETAILS

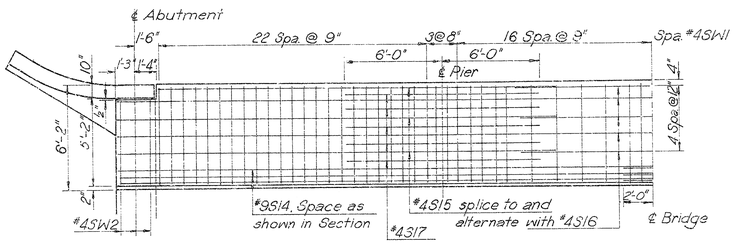
DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

SCALE | DATE December, 1975 | DWG. NO. 79-R-4

APP. CKD. TR. DR. DES. PLOT. SURV.

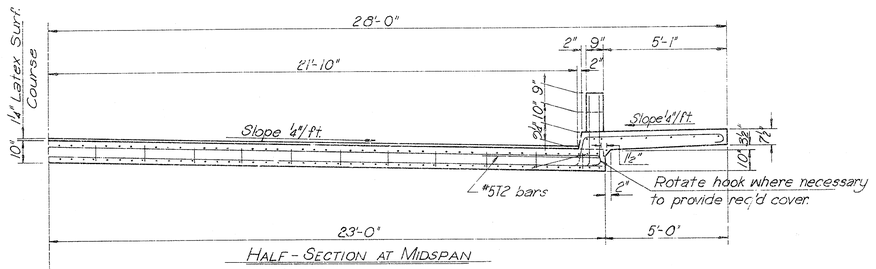


HALF PLAN SHOWING REINFORCEMENT

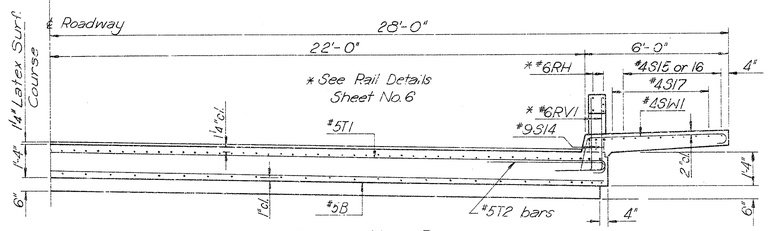


PART PLAN OF SIDEWALK

NOTE: See Sheet No. 6 for Rail Details

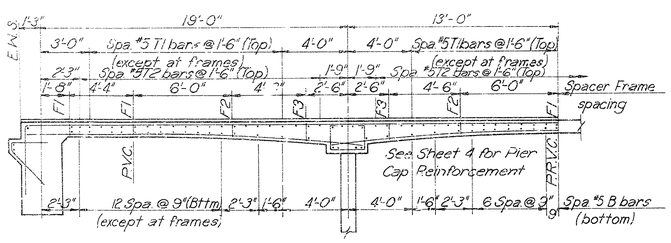


HALF-SECTION AT MIDSPAN

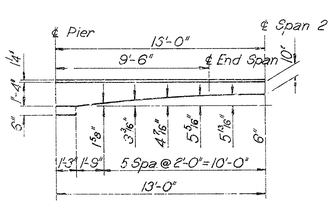


HALF-SECTION NEAR PIER

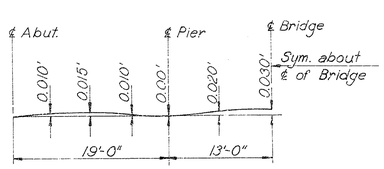
NOTES:
All concrete shall be Class AAA(AE).
Bevel all exposed edges with ¾" triangular molding unless otherwise noted.
Dimensions relative to placement of reinforcing are to centerline of bars unless otherwise noted.
See Sheet No. 1 for General Notes.
See Sheet No. 7 for Bar List and Bending Diagrams.
DESIGN LOADING: HS20-44 A.A.S.H.T.O. Spec. (1973 Edition)
UNIT STRESSES: fc-1,600 p.s.i. Class AAA(AE)
fc-4,000 p.s.i. Class AAA(AE)
fs-20,000 p.s.i (Reinf.)



HALF LONGITUDINAL SECTION



HAUNCH ORDINATES



DEAD LOAD DEFLECTIONS AT QUARTER POINTS

REV.	BY	DATE	DESCRIPTION
—	C.S.	1-11-77	As Built

CITY OF WICHITA, KANSAS
R.W. LINN, P.E., CITY ENGINEER

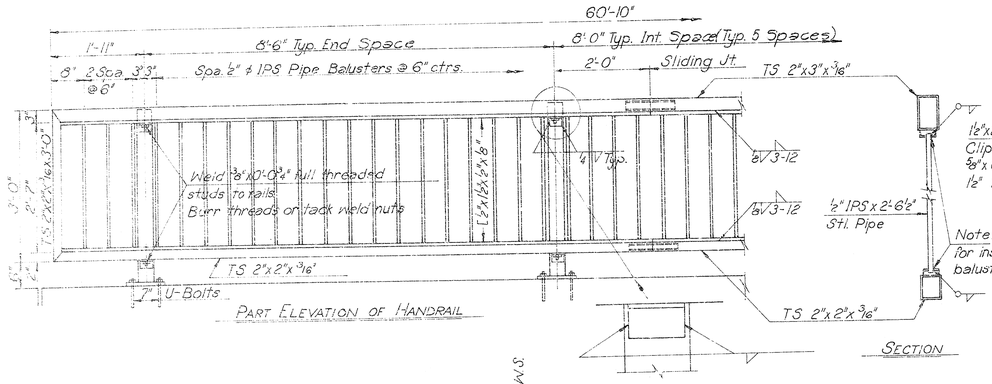
VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK

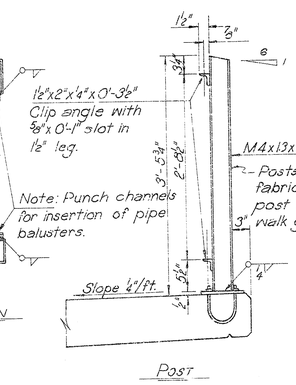
SUPER STRUCTURE LAYOUT & DETAILS

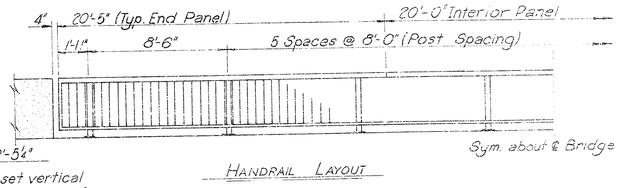
DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

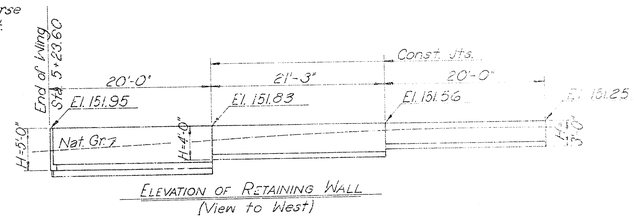
SCALE | DATE December, 1975 | DWG. NO. 79-R-5

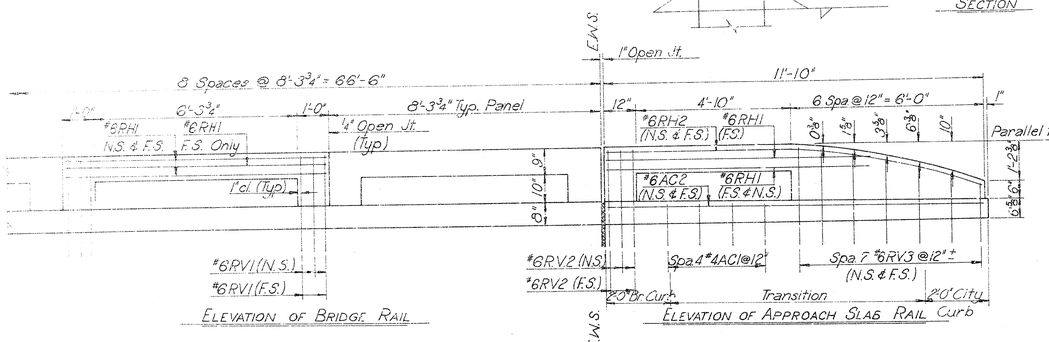
APP. | END. | DR. | DES. | CHK. | SURV.

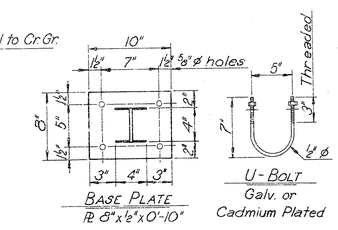


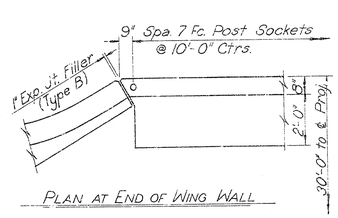


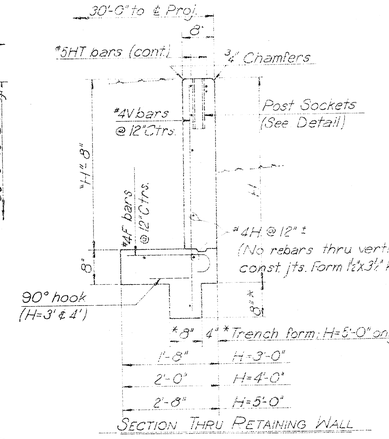


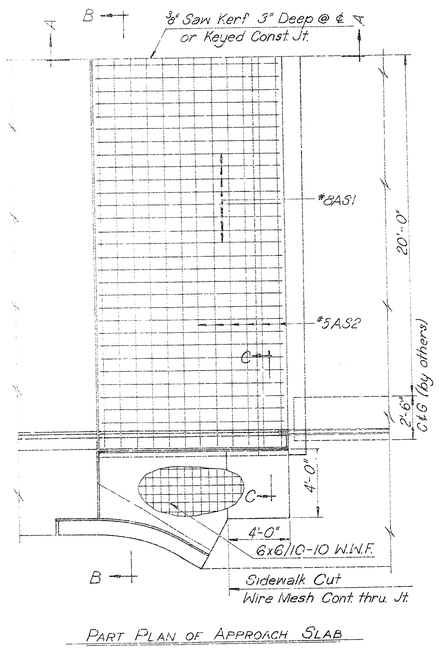


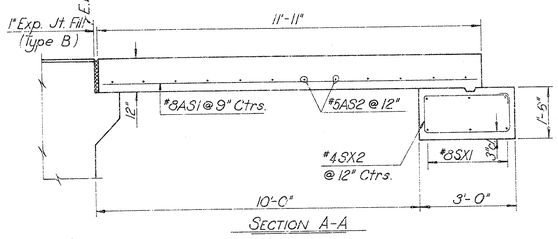


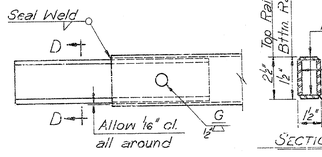


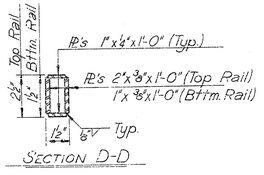


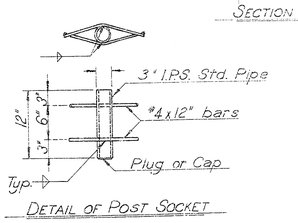


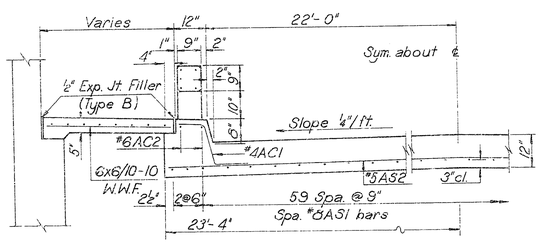


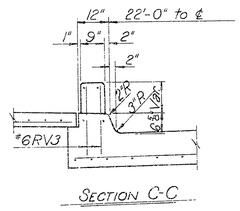












NOTE:
Class AAA (AE) Concrete shall be used in approach slabs, including sidewalks and rails. Cure the concrete as provided for bridge deck.
Approximate quantities, each slab (two thus);
Class AAA (AE) Concrete: 31.5 Cu. Yds.
Reinforcing Steel: 3,960 Lbs.*
*Includes 25 Lbs. welded wire mesh.

Class A (AE) Concrete shall be used in retaining walls. Post sockets will not be paid for directly, but shall be subsidiary to the item "Chain Link Fence." Excavation for retaining wall shall not be paid for directly, but shall be considered subsidiary to the item "Class A (AE) Concrete".
See Sheet No. 1 for General Notes.
See Sheet No. 7 for Bar List and Bending Diagrams.

REV.	BY	DATE	DESCRIPTION
		C.S. 1-11-77	As Built

CITY OF WICHITA, KANSAS
R.W. LINN, P.E., CITY ENGINEER

VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK

APPROACH SLAB, RAILS, RETAINING WALL

DFS DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

SCALE | DATE December, 1975 | DRG. NO. 79-R-6

APP. CKD. DR. DES. PLOT. SURV.

ABUTMENT (ONE)

Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
AH1	8	7	29'-0"				
AH2	12	4	29'-0"				
AH3	4	7	35'-0"				
AH4	4	7	23'-0"				
AH5	2	6	46'-0"	AU1	52	4	9'-2"
				AU2	10	4	6'-6"
				AU3	4	4	11'-1"
				AU4	2	4	12'-7½"
				AU5	2	4	13'-0½"
				AU6	2	4	13'-6½"
				AU7	2	4	14'-4½"
				AU8	2	4	14'-10"
				AU13	4	4	3'-10"
				AU14	2	4	3'-10½"
				AU15	2	4	4'-0½"
				AU16	2	4	4'-3½"
				AU17	2	4	4'-10½"
				AU18	2	4	5'-3"
AW2	6	5	6'-4"	AV1	46	4	3'-0"
AW5	10	5	10'-0"	AW1	10	5	10'-3"
AW4	2	4	#	AW3	2	5	9'-2"
AW6	6	4	5'-4"	AW6	6	4	8'-11"
AW7	6	4	9'-3"	AW7	6	4	9'-2"
				AO	20	4	9'-1"
				PS1	46	6	5'-0"

See Bending Diagrams

PIER (ONE)

Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
PC1	4	9	44'-10"	PC2	4	9	46'-0"
				PO	10	4	9'-1"
				PU1	80	4	6'-2"

SUPERSTRUCTURE

Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
B	46	5	45'-3"	F1	5	#	#
				F2	4	#	#
				F3	4	#	#
RH1	80	6	8'-2"	RV1	160	6	3'-7½"
S1	88	6	21'-0"	S9	100	6	38'-0"
S2	44	6	28'-0"	S10	44	6	13'-0"
S3	44	9	15'-3"				
S4	42	9	14'-6"	SW1	168	4	8'-5"
S5	22	9	20'-0"	SW2	12	4	7'-1"
S6	21	9	14'-0"				
S7	12	9	21'-0"	T1	48	5	24'-3"
S8	8	9	29'-0"	T2	76	5	5'-7"
S11	44	9	22'-0"				
S12	42	9	12'-0"				
S13	22	6	8'-0"				
S14	12	9	35'-0"				
S15	10	4	28'-0"				
S16	10	4	40'-0"				
S17	20	4	12'-0"				

APPROACH SLAB (ONE) (INFORMATION ONLY)

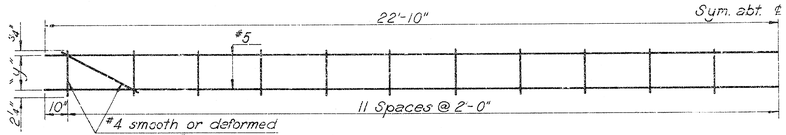
Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
AC2	4	6	11'-8"	AC1	8	4	3'-0"
AS1	64	8	11'-8"				
AS2	12	5	46'-5"				
RH1	6	6	8'-2"	RH2	4	6	11'-9"
RV2	10	6	3'-0"				
RV3	28	6	#				
SX1	6	8	46'-5"	SX2	47	4	7'-9"

See Bending Diagrams

RETAINING WALLS

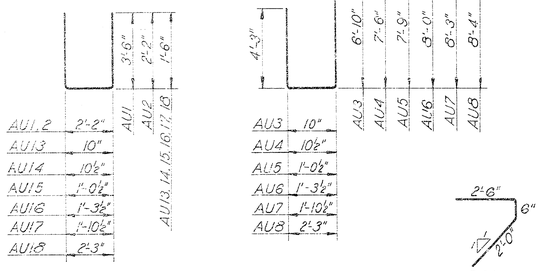
Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
H3	5	4	19'-9"	F3	20	4	1'-10"
H4	5	4	21'-0"	F4	22	4	2'-2"
H5	7	4	19'-9"	F5	21	4	2'-10"
HT3	2	5	19'-9"				
HT4	2	5	21'-0"				
HT5	2	5	19'-9"				
				V3	21	4	3'-4"
V5	21	4	5'-5"	V4	22	4	4'-4"

Note: Suffix digit indicates height "H" of wall section.

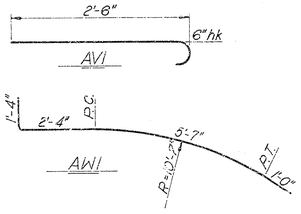


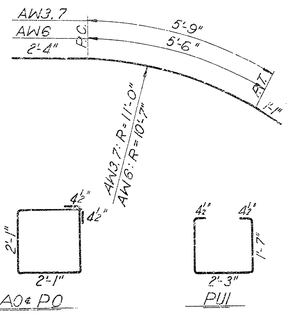
"F" FRAMES

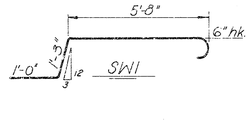
Frame	"y"
F1	5⅜"
F2	6 13/16"
F3	10⅛"

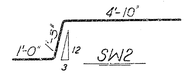


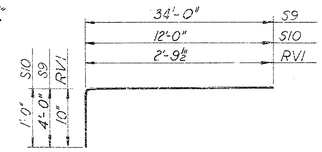
Increase from 3'-10" to 5'-4" by 3" inc.
Cut 4 each length
AW4

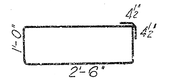




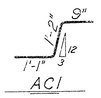


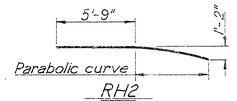


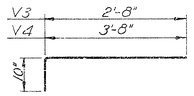


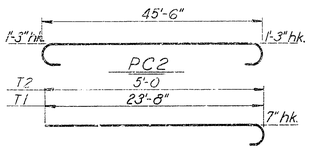


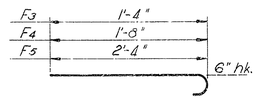
Increase from 1'-9" to 3'-0" by 2½"
Cut 8 ea. length
RV3











NOTES:
All dimensions shown in the bending diagrams are out to out of bars unless otherwise noted.

Note that the bar list for Approach Slab is furnished for information only; bar quantities are not included in Reinforcing Steel pay item.

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK

BAR LIST & BENDING DIAGRAMS

DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

SCALE

DATE December, 1975

DWG. NO. 79-R-7

NO.	BY	DATE	DESCRIPTION
	C.S.	1-11-77	As Built

A.P.P. CK'D. TR. DI. DES. PLOT. SURV.

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS		19	8	9

NOTE: Piles must not be damaged below cutoff elevation.

Alternate to 10¾" & 12¾" Pipe pile

O.D. 12¼"	Pipe pile	O.D. 10¾"	T. = 0.179"
O.D. 14"	Alternate to 14" O.D. pipe	O.D. 12¾"	T. = 0.194"
		O.D. 14"	T. = 0.194"

Pile shall be driven with a good steel head having a projecting ring fitting inside the pipe. Clearance between ring and pipe should be ¼".

Mandrel driven

Maximum pile lengths with 8¼" diam. point.

Butt diam.	Max. L
12¼"	40'
14⅛"	56'
16⅛"	72'

Pipe extension may be used with step taper pile to attain greater lengths

Each section has a total length of 20'-0" and tapers ⅜" in 2'-0"

NOTE: If additional driving is required, use ½" pitch as shown.

Length
Pick-up point
0.7 L 0.3 L
SINGLE POINT PICK-UP
L
Pick-up points
0.21 L 0.58 L 0.21 L
DOUBLE POINT PICK-UP
L
Pick-up points
0.13 L 0.37 L 0.37 L 0.13 L
THREE POINT PICK-UP

NOTE: Piles shall be marked at Pick-up points to indicate Proper points for attaching handling lines.

12"x 12" Piles
Max. length - 50' Single point pick-up
Max. length - 75' Double Point pick-up
Max. length - 115' Three point pick-up (Prestress only)
14"x 14" Piles
Max. length - 60' Single point pick-up
Max. length - 85' Double point pick-up
Max. length - 115' Three point pick-up (Precast only)

NOTE: All corners to be chamfered 1".

PIPE PILE SPLICE DETAIL

NOTE: Pile pipe may be Spiral Welded, Longitudinal Welded, or Seamless Steel Pipe.

SEC. A-A.

SEC. B-B. BUILD UP SEC.

12-⅜"ϕ S.R. Strands @ 10,500 lbs. each 12"x 12" Piles

12-⅜"ϕ S.R. Strands @ 14,000 lbs. each 14"x 14" Piles.

SECTION THRU FLANGE

PILE SPLICE DETAIL

FOR INFORMATION ONLY

PILES

STEEL PILES	EQUIVALENT CONCRETE PILES					
	Precast	Pipe	Fluted	Steptaper	PRE-STRESSED	±
HP10×42	14"	10¾"	12"	12⅛"	12"	12⅛"
HP12×53	16"	12¾"	14"	14⅛"	14"	12⅛"
HP14×73	18"	14"	16"	16⅛"		14"

± Helical Corrugated Pipe Shell

CONCRETE PILES

PIPE PILE	EQUIVALENT CONCRETE PILES					
	Precast	Fluted	Steptaper	PRE-STRESSED	±	
10¾"	14"	12"	12⅛"	12"	12⅛"	
12¾"	16"	14"	14⅛"	14"	12⅛"	
14"	18"	16"	16⅛"		14"	

PRECAST PILES

CAST IN PLACE PILES

GENERAL NOTES

1. Specifications:
Standard Specifications for State Road and Bridge Construction as currently used by the State Highway Commission of Kansas. (Ed. 1973).
2. Concrete:
Concrete for cast-in-place shall be Class A concrete. $f'c = 3{,}000$ p.s.i. See Sub-Article 703.07 (f)(2) Standard Specifications.
Concrete for Precast and for Prestressed shall be Class AAA concrete $f'c = 4{,}000$ p.s.i. See Article 703.07 (a) Standard Specifications.
3. Reinforcement:
Reinforcing bars shall be new billet steel A.S.T.M. Designation A-615 grade 40 without exception. Hoops and spirals may be either plain or deformed bars. See Sub-Section 1006.01 Standard Specifications.
4. Precast Piles:
Precast piles shall conform to the requirements of Article 703.07 (a)(b)(c.)(d) Standard Specifications.
5. Cast-in-Place Shells:
Steel shells for Cast-in-Place Concrete Piles shall conform to the requirements of Sub-Section 1006.06 Standard Specifications.
All piles driven without mandrel shall be of the minimum gages or thicknesses shown above, except fluted pile use No. 9 gage minimum. Piles driven with mandrel shall be of sufficient strength and thickness to withstand driving without injury and to resist harmful distortion and/or buckling due to soil pressure after the mandrel is removed.
Improperly driven, broken or otherwise defective shells shall be removed and replaced or otherwise corrected to the satisfaction of the Engineer, or the driving of an additional pile at no extra cost.
The contractor shall maintain on the job at all times prior to and during the filling of the shells, a light suitable for visual inspection of the pile.
6. Steel Pile:
Steel pile shall conform to requirements of Article 1006.04 (e) Standard Specifications.
7. Pile Points:
Pile points shall conform to the dimensions shown and requirements of Sub-Article 1006.06 (b)(3) Standard Specification. Pile points shall be mill welded to pile.
8. Welding:
All field welding shall meet the requirements of Sub-Section 703.06 Standard Specifications.
9. Paint:
All paint shall comply with Sub-Section 1008.06 Standard Specifications, or as specified on the plans.
10. Test Piles:
Test Piles shall be driven where called for on the Bridge plans. The test piles located within the limits of the substructure will become a part of the Bridge Pile System.
11. Splices:
Splices for Steel Piles and Shell Piling shall be in accordance with details shown on this sheet and shall comply with Sub-Section 703.06 Standard Specifications.
Precast Concrete Pile splices shall comply with Sub-Article 703.07 (g)(1) Standard Specifications.
Prestressed Concrete Pile splices shall be made in accordance with the manufacturers recommendations subject to the approval of the Engineer.
12. Driving Formula:
Driving formula shall conform to Sub-Article 703.04 (d.)(3) Standard Specifications.
13. Mill Test Reports:
Steel Piles test reports shall comply with Sub-Article 1006.04 (e.)(3) Standard Specifications.
Steel Shells test reports for cast-in-place piles shall comply with Article 1006.06 (d.) Standard Specifications.
14. Measurement and Payment:
Measurement for all piles shall comply with Sub-Section 703.08 Standard Specifications.
Payment for all piles shall comply with Sub-Section 703.09 Standard Specifications.

△ DETAIL OF P.S. CONC. PILE SPLICE

NO.	DATE	REVISIONS	BY	APP'D
△	1-11-77	79-2 As Built	C.S.	
6	9-4-73	Revised for 1973 Const. Spec.	G.F.K.	C.E.W.
5	8-26-66	Revise Entire Gen. Note	J.C.L.	E.E.W.
4	4-8-64	Add Longitudinal Welded Pipe Pile	J.C.L.	T.W.O.
3	4-4-61	Revise Choice of Pile Note, Route	J.C.L.	T.W.O.
2	3-27-61	Revise Pipe Pile General Note	J.C.L.	T.W.O.
1	1-24-61	Remove hole in Prestressed Conc. Pile	J.C.L.	T.W.O.

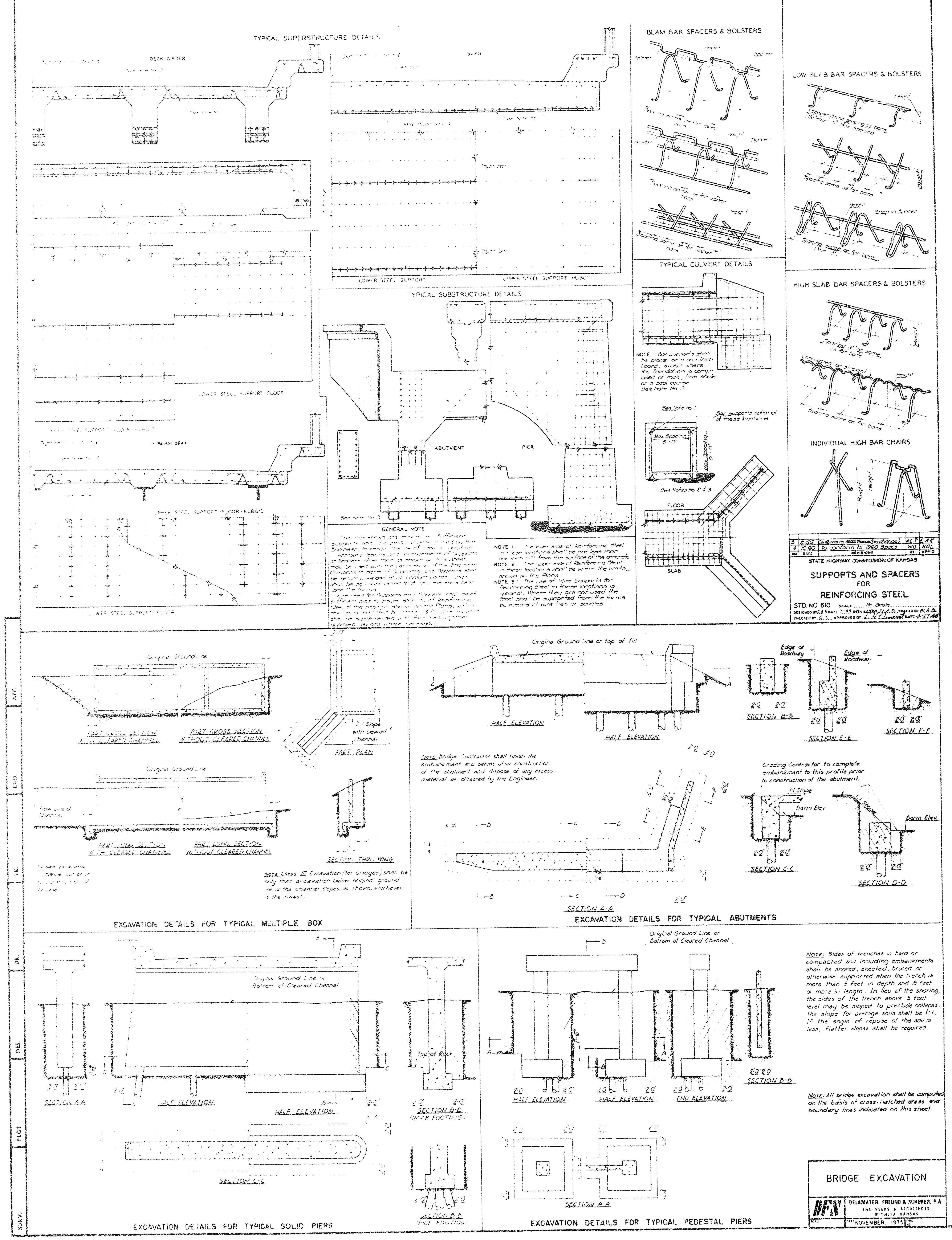
STATE HIGHWAY COMMISSION OF KANSAS

STANDARD PILE DETAILS

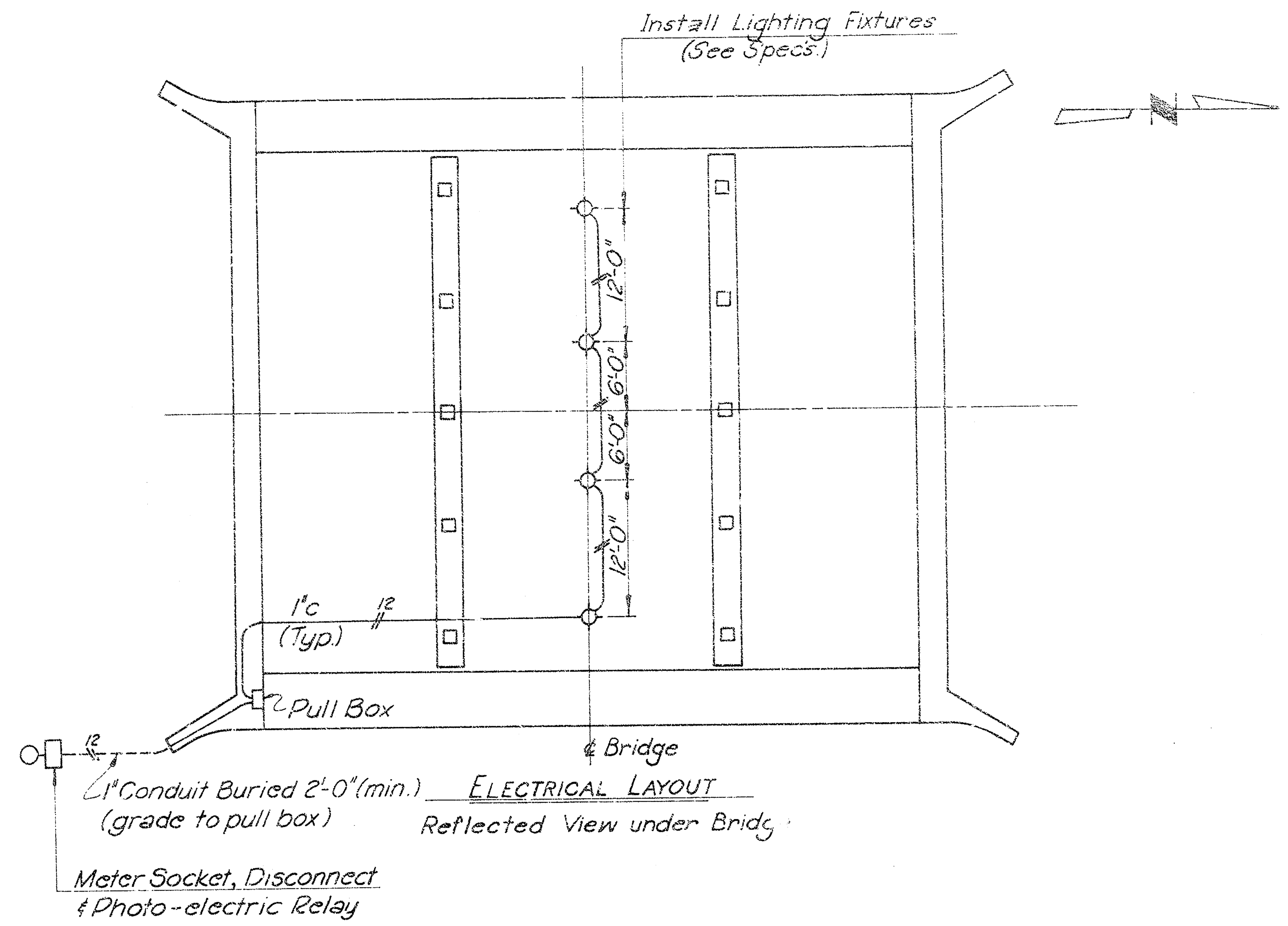
STD. NO. 102

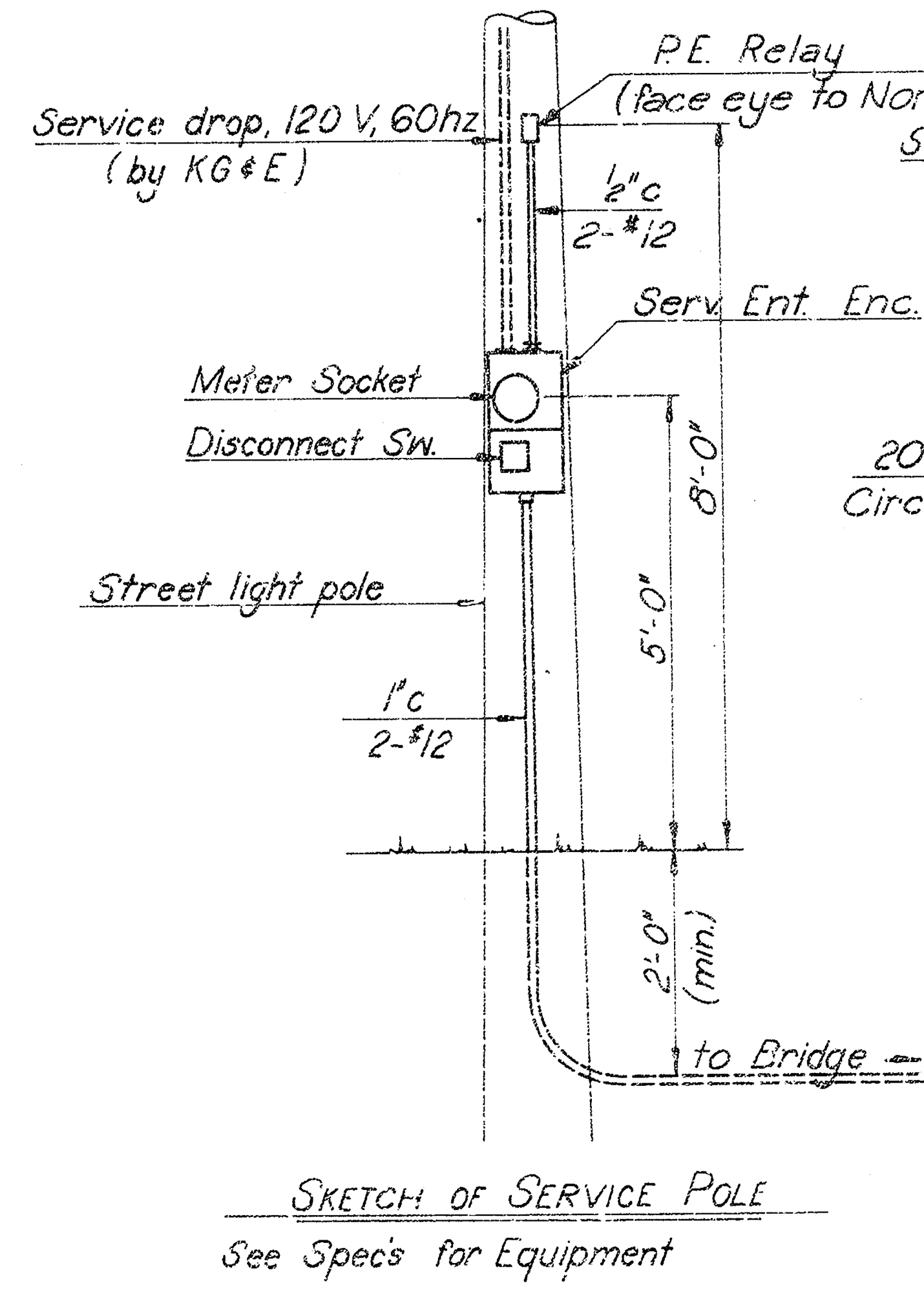
SHEET NO. 8 OF 9	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED Kpal
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRAFFIC

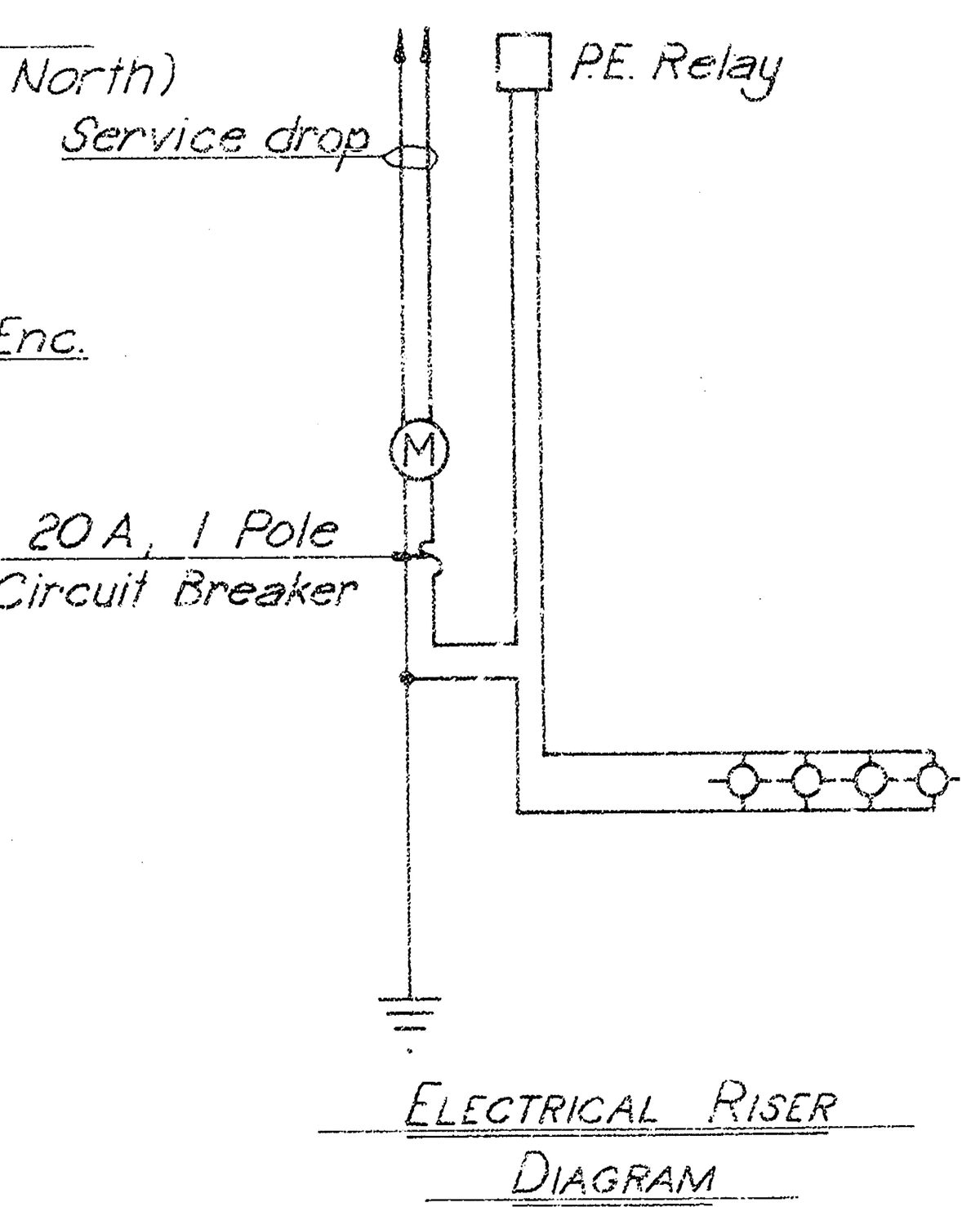
STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		19	9	9



TYPICAL SUPERSTRUCTURE DETAILS
BEAM BAR SPACERS & BOLSTERS
LOW SLAB BAR SPACERS & BOLSTERS
TYPICAL CULVERT DETAILS
HIGH SLAB BAR SPACERS & BOLSTERS
TYPICAL SUBSTRUCTURE DETAILS
INDIVIDUAL HIGH BAR CHAIRS
GENERAL NOTE
STATE HIGHWAY COMMISSION OF KANSAS
SUPPORTS AND SPACERS FOR REINFORCING STEEL
EXCAVATION DETAILS FOR TYPICAL MULTIPLE BOX
EXCAVATION DETAILS FOR TYPICAL ABUTMENTS
EXCAVATION DETAILS FOR TYPICAL SOLID PIERS
EXCAVATION DETAILS FOR TYPICAL PEDESTAL PIERS
BRIDGE EXCAVATION
DELAMATER, FREUND & SCHERER, P.A.







REV.	BY	DATE	DESCRIPTION
	C.S.	1-11-77	As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK

BAR SUPPORTS, BRIDGE EXCAVATION & ELECTRIC LIGHTING

DELAMATER, FREUND & SCHERER, P.A.
ENGINEERS & ARCHITECTS
WICHITA, KANSAS

SCALE | DATE December, 1975 | DWG. NO. 79-R-9

10 S S 50