

SET #1

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 MATERIAL CLASSIFICATION REGARDLESS OF THE NATURE OR CONDITION OF THE MATERIALS.

COMPACTED EMBANKMENTS: THE CONTRACTOR SHALL CONSTRUCT THE EMBANKMENTS AND THE BERMS AT THE ABUTMENTS AS SHOWN ON SHEET NO. 3 AND ON THE CONTOUR MAP AND PROFILE PRIOR TO CONSTRUCTION OF THE BRIDGE.

BRIDGE EXCAVATION: ALL BRIDGE EXCAVATION SHALL BE CLASS III. SEE SHEET NO. 3 FOR LIMITS OF EXCAVATION.

SOUNDINGS: SOUNDING 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.

PILES: PILES SHALL BE 12" 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 PILE. ALL PILES SHALL BE DRIVEN TO A MINIMUM COMPUTED BEARING VALUE OF 35 TONS PER PILE IN ABUTMENTS, 40 TONS PER PILE IN PIERS.

PILE DRIVING: ALL PILES SHALL BE DRIVEN WITH A STEAM OR DIESEL HAMMER; IF A DIESEL HAMMER IS USED, SUFFICIENT HAMMER DATA SHALL BE PROVIDED TO PERMIT 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, PIPE HEADWALL, 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 DIAGRAM 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 THESE SPECIFICATIONS UNLESS OTHERWISE NOTED.

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

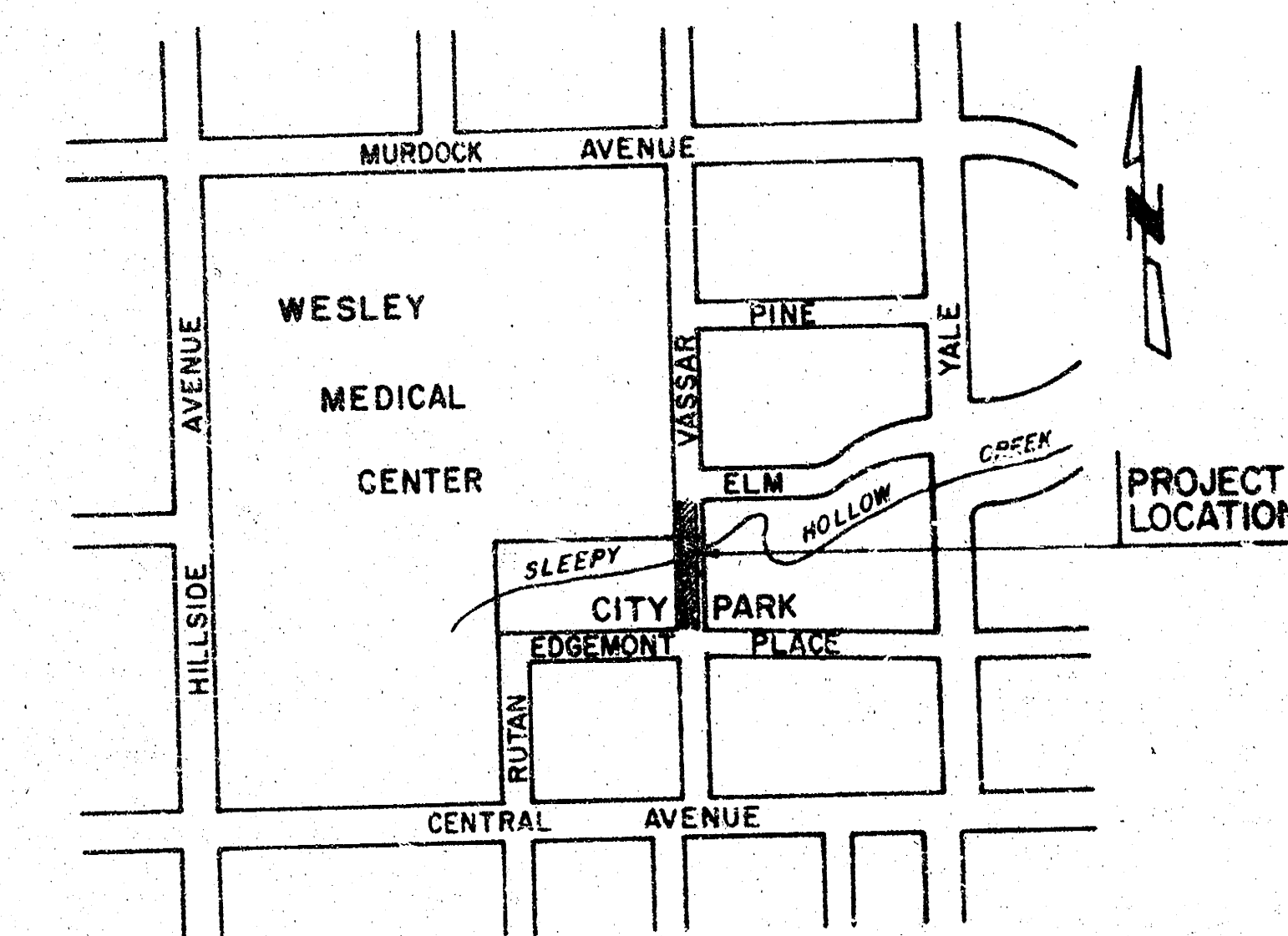
UNIT STRESSES

f'c	- 4,000 P.S.I. CLASS AAA(AE)
f'c	- 3,000 P.S.I. CLASS A(AE)
f'c	- 1,600 P.S.I. CLASS AAA(AE)
f'c	- 1,200 P.S.I. CLASS A(AE)
f's	- 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")	280	LIN. FT.
PRESTRESSED CONCRETE PILING (12")	320	LIN. FT.
STEEL HANDRAIL	114	LIN. FT.
APPROACH SLABS	2	EACH
ELECTRIC LIGHTING	LUMP SUM	L.S.
SPECIAL CONCRETE FINISH	111	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")	584	SQ. YDS.
GROUTED STONE DITCH LINING	61	SQ. YDS.
12" STORM SEWER (B.C.C.M.P.)	22	LIN. FT.

VASSAR STREET BRIDGE OVER SLEEPY HOLLOW CREEK PROJECT NO. DAKB 574106



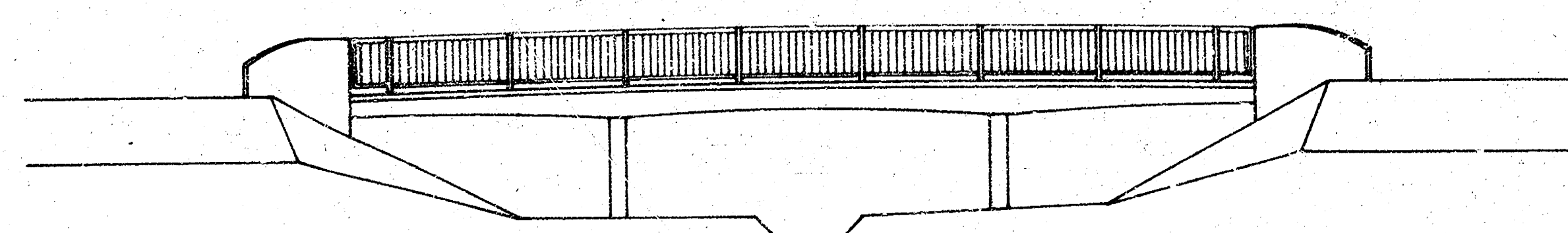
VICINITY MAP

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

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



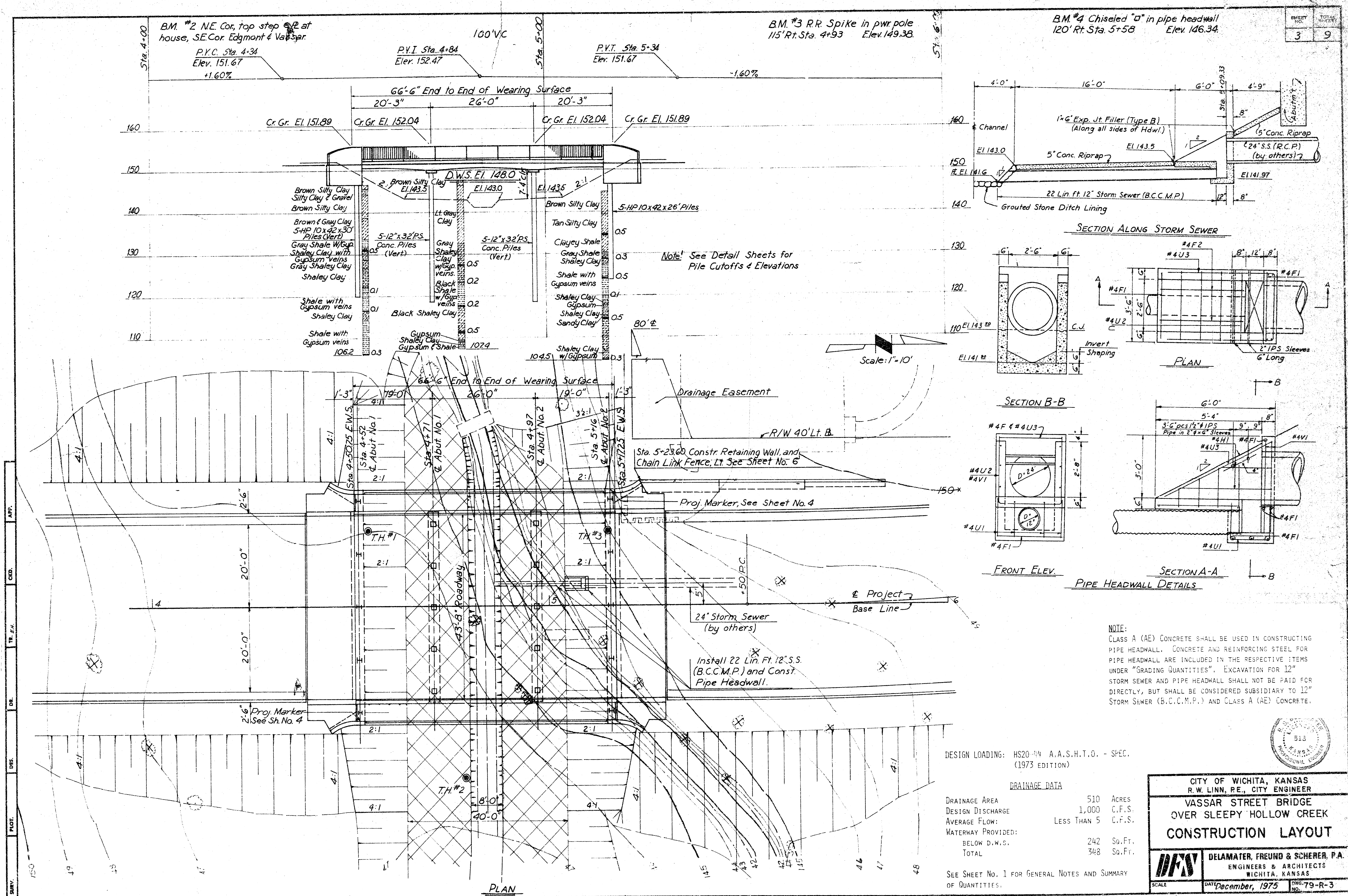
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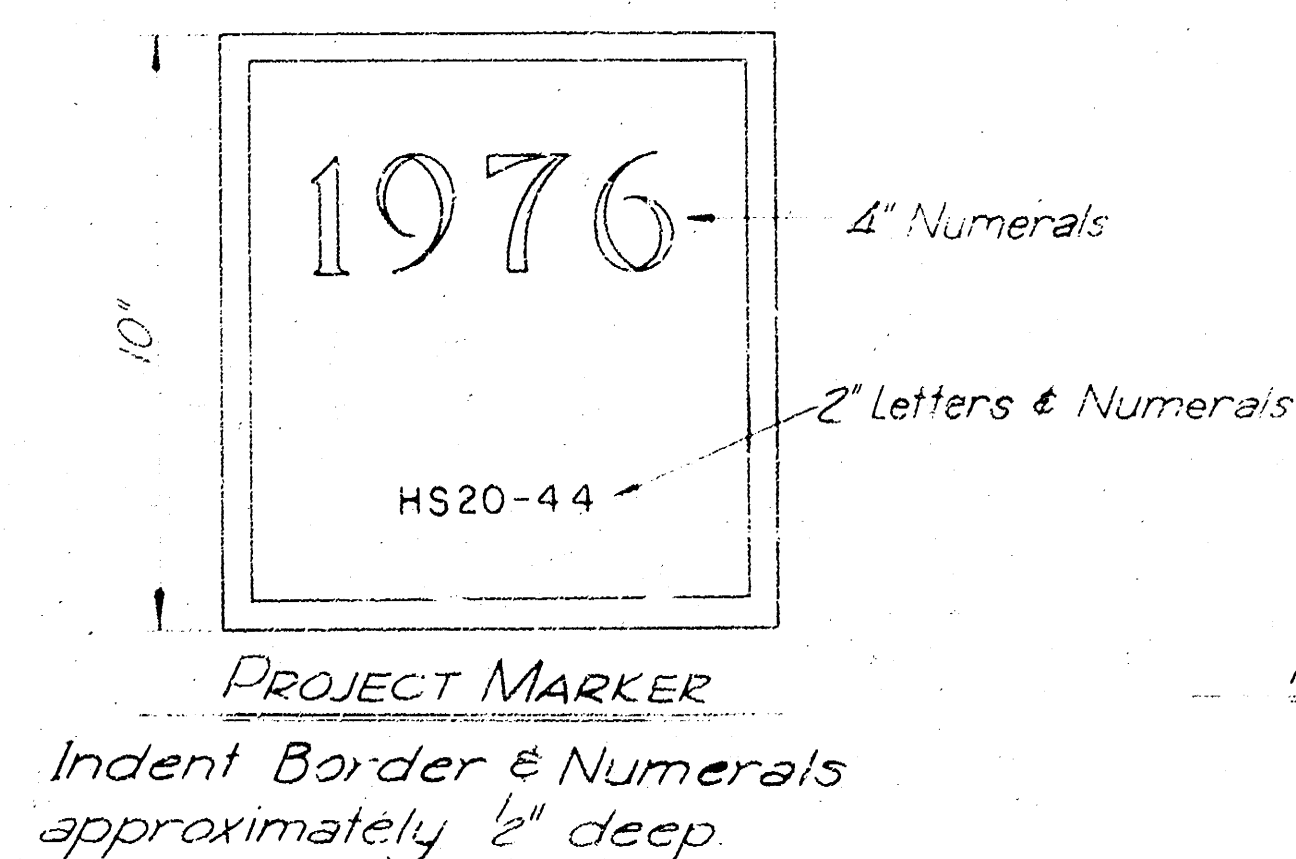
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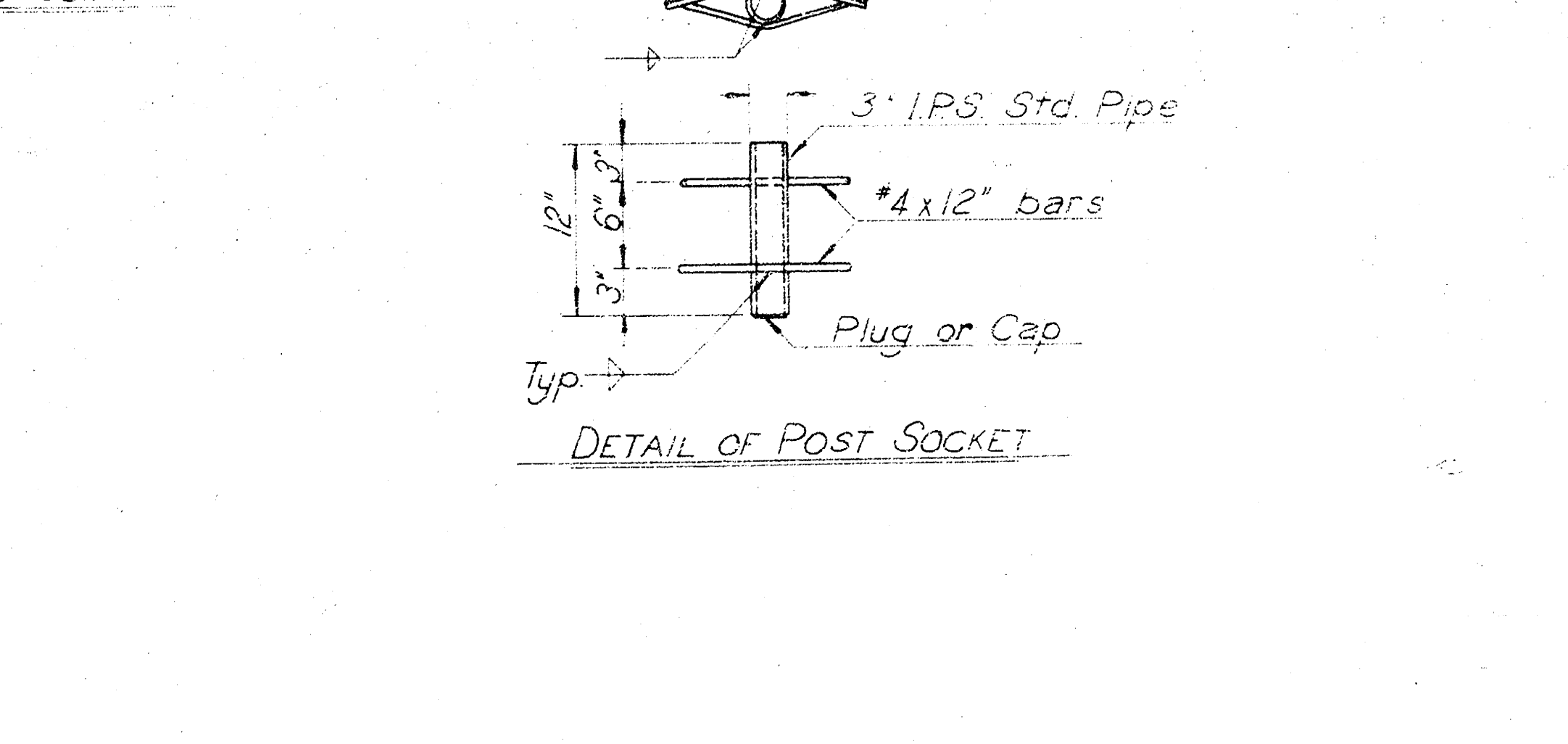
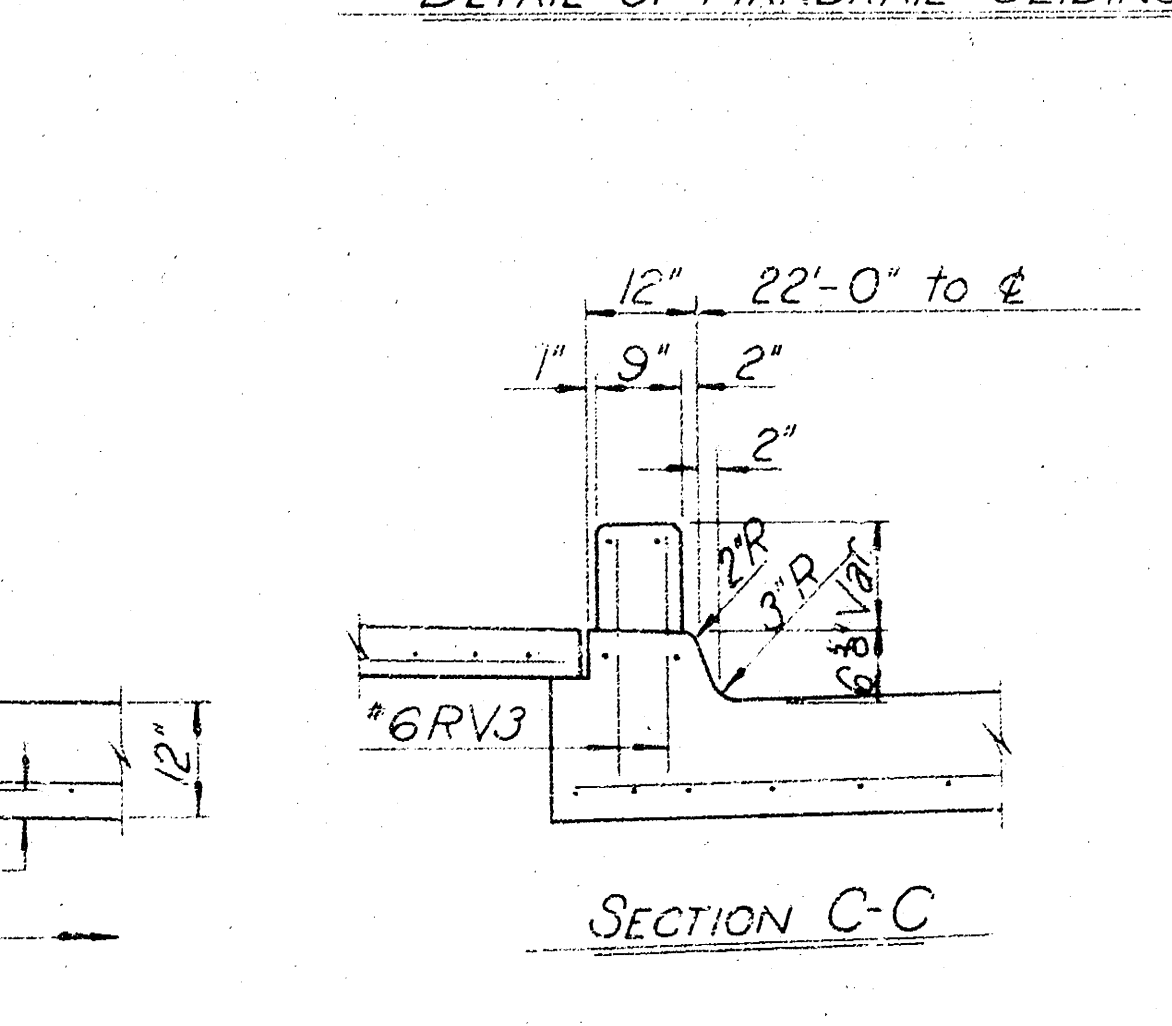
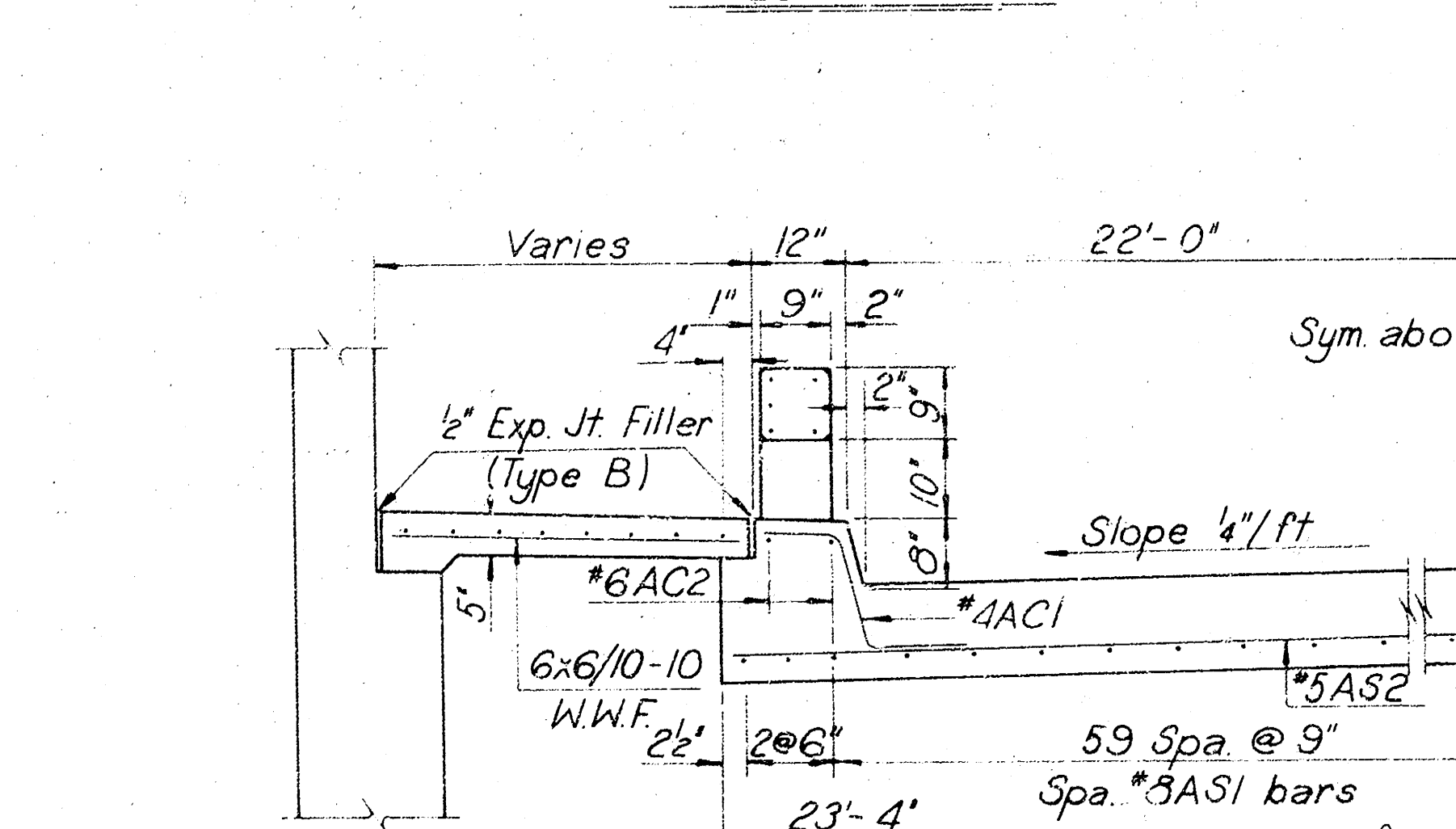
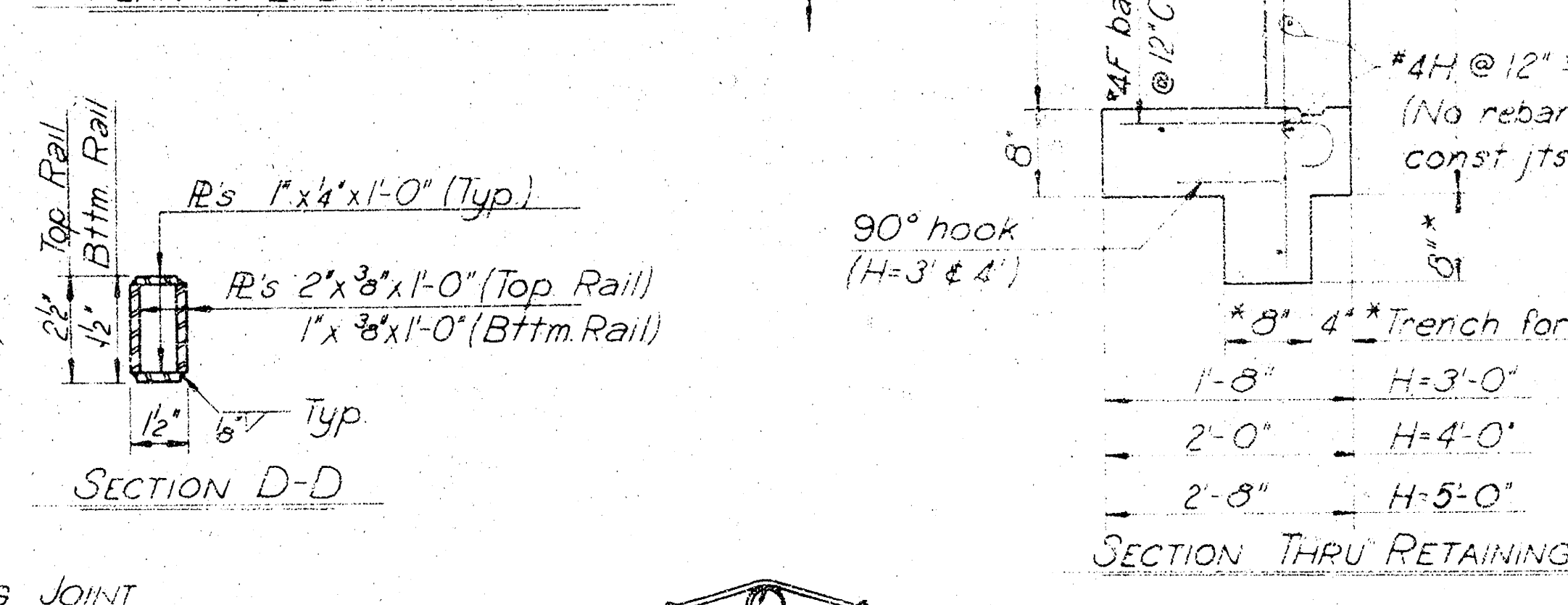
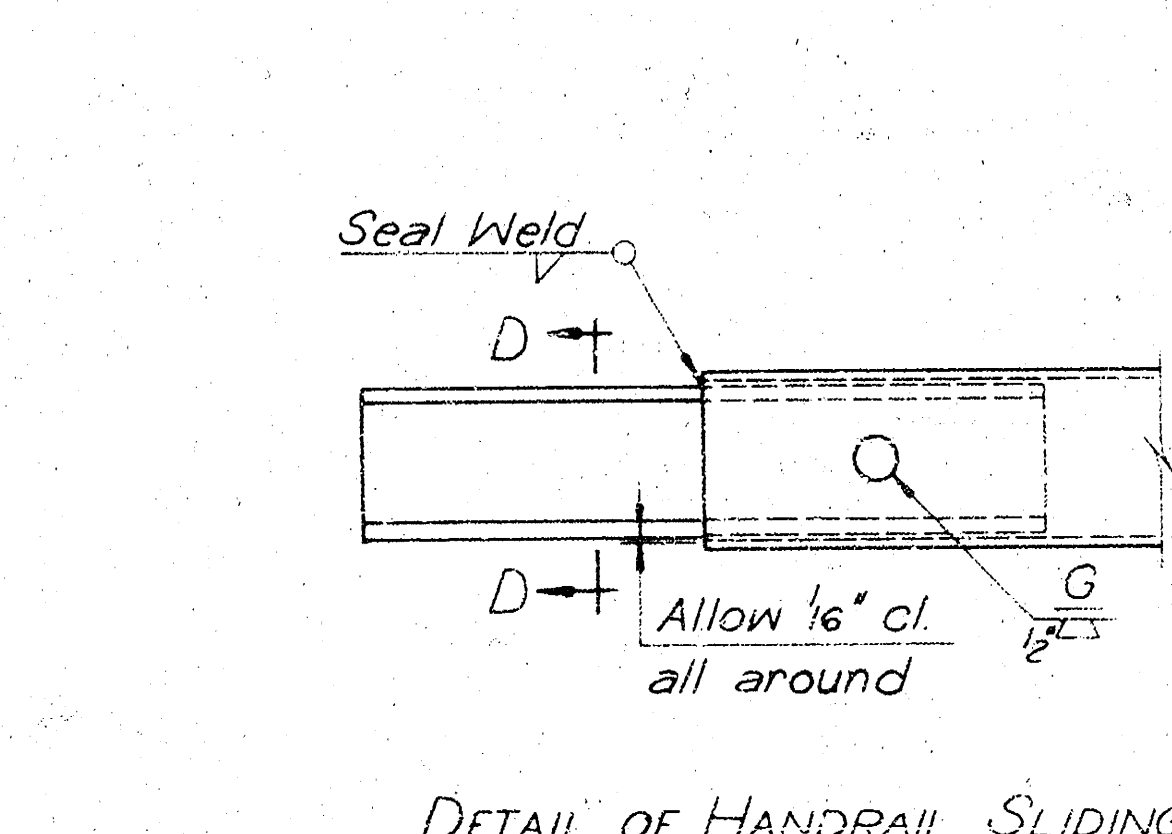
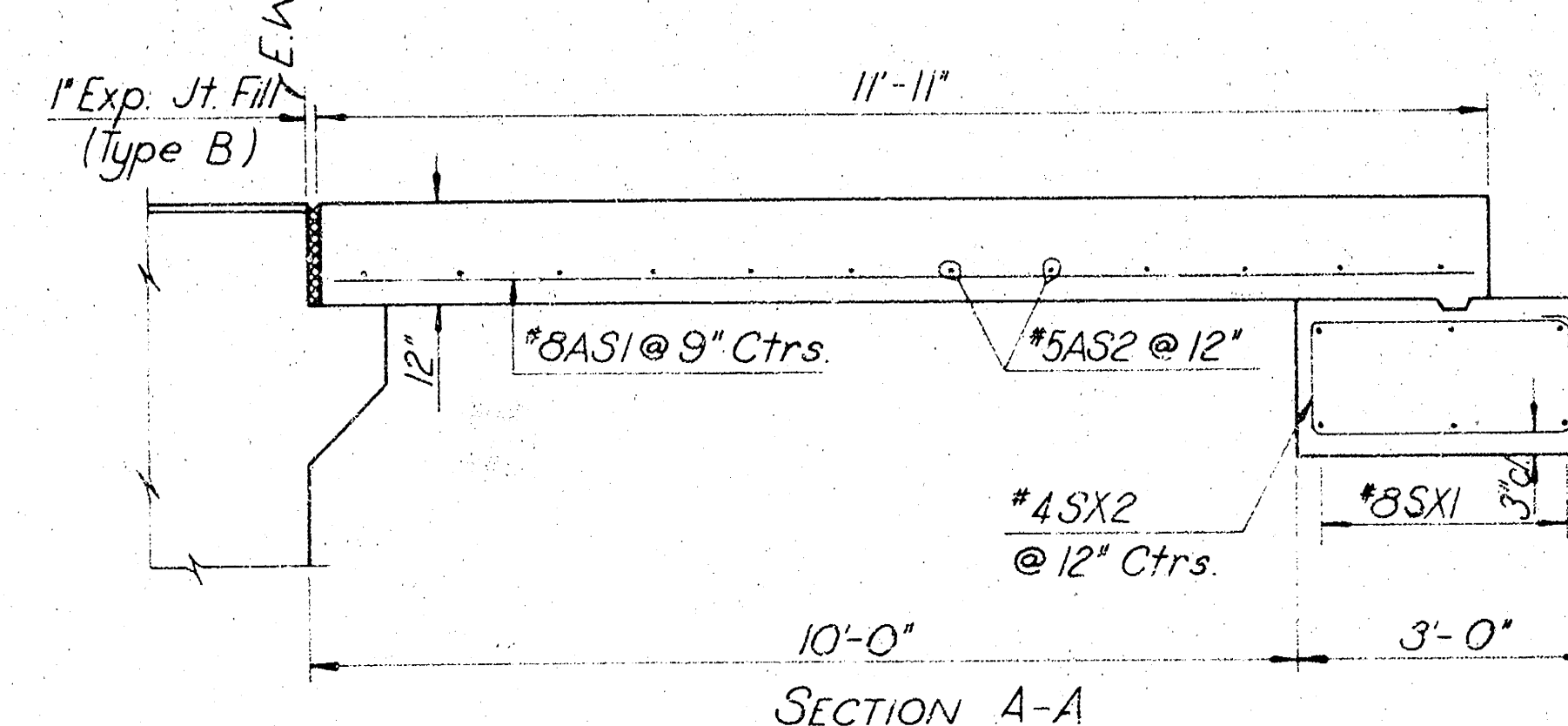
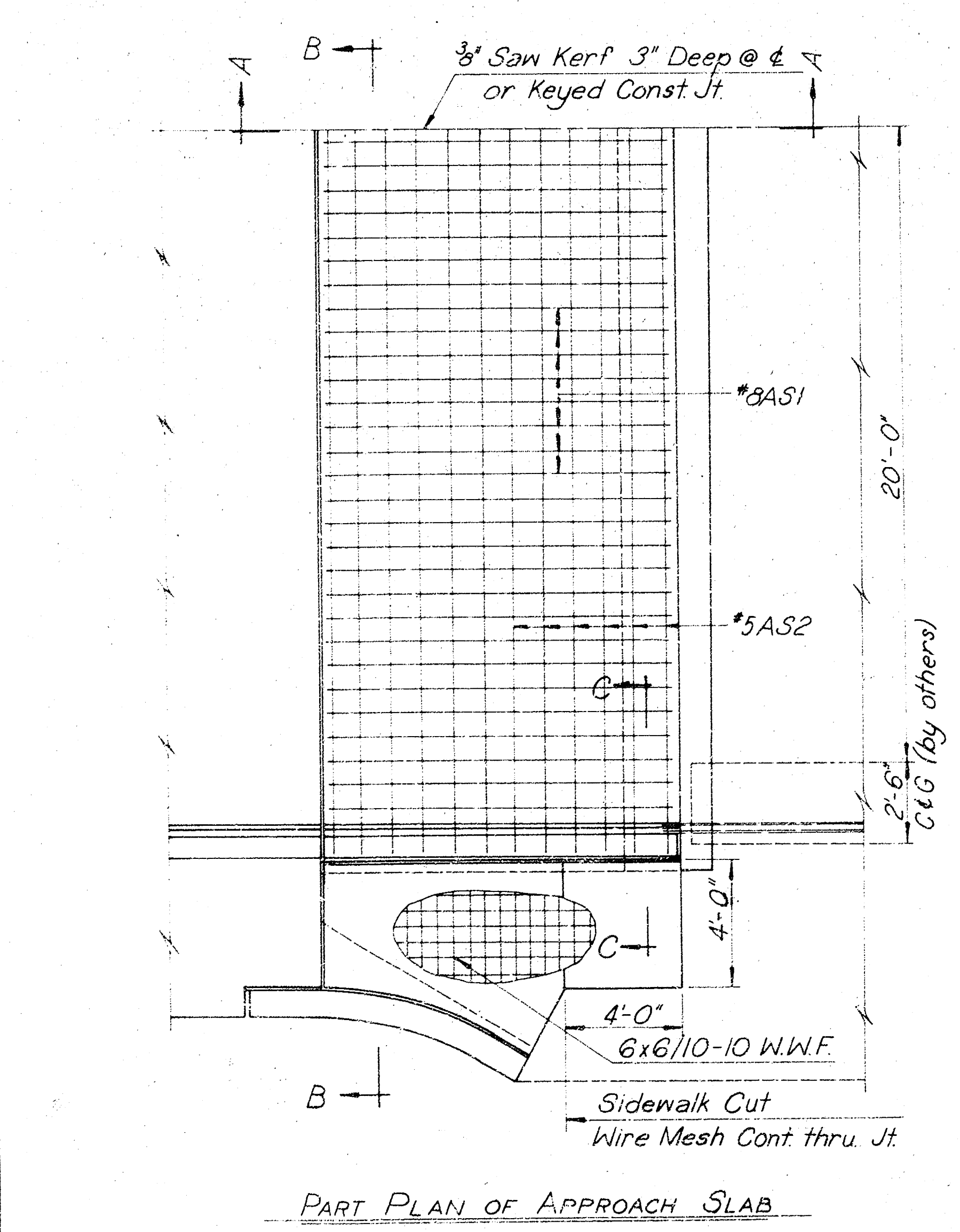
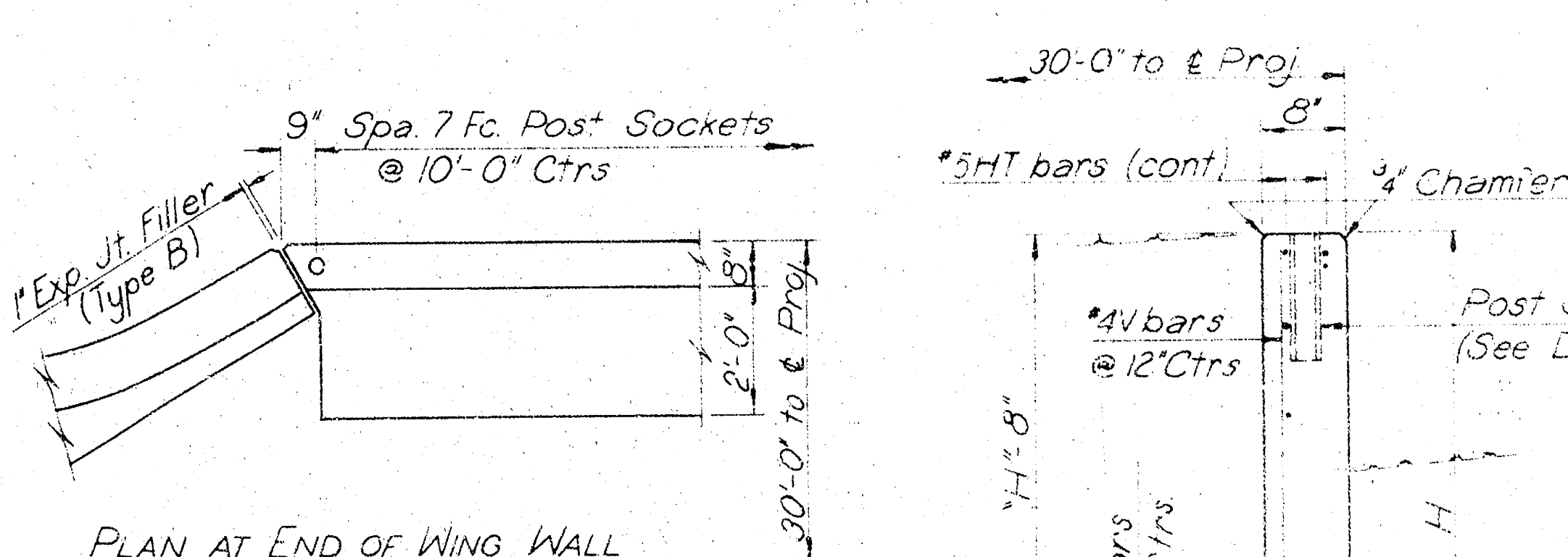
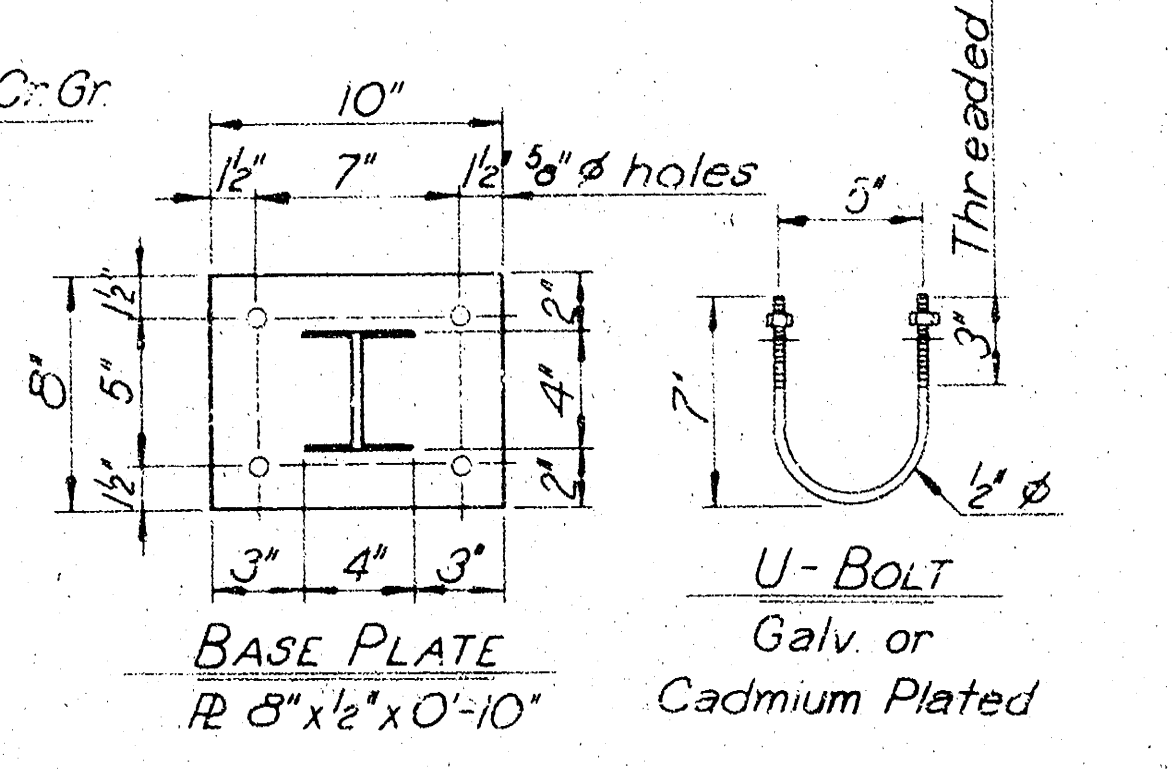
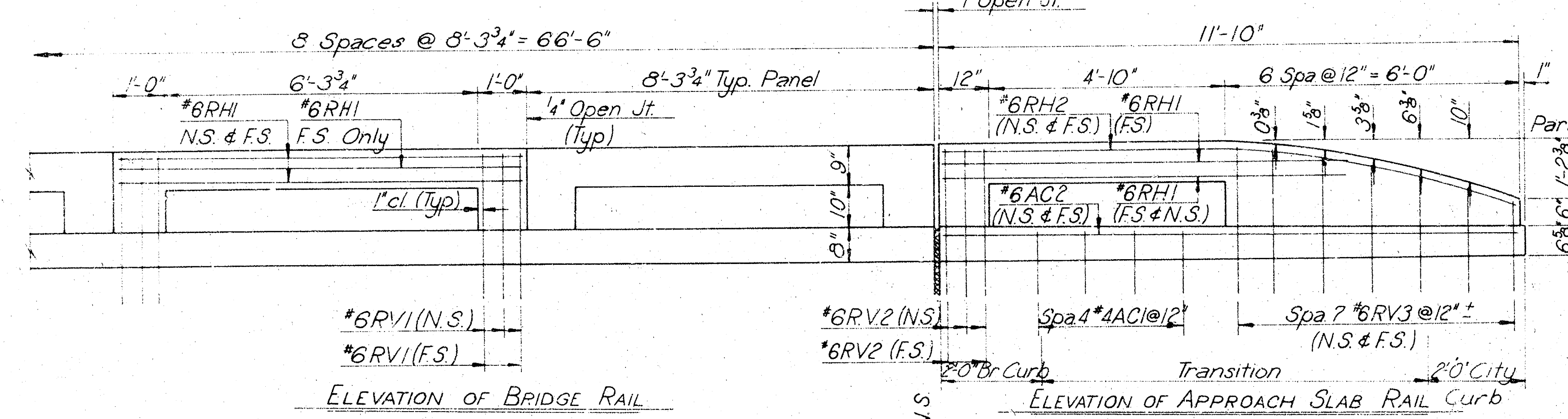
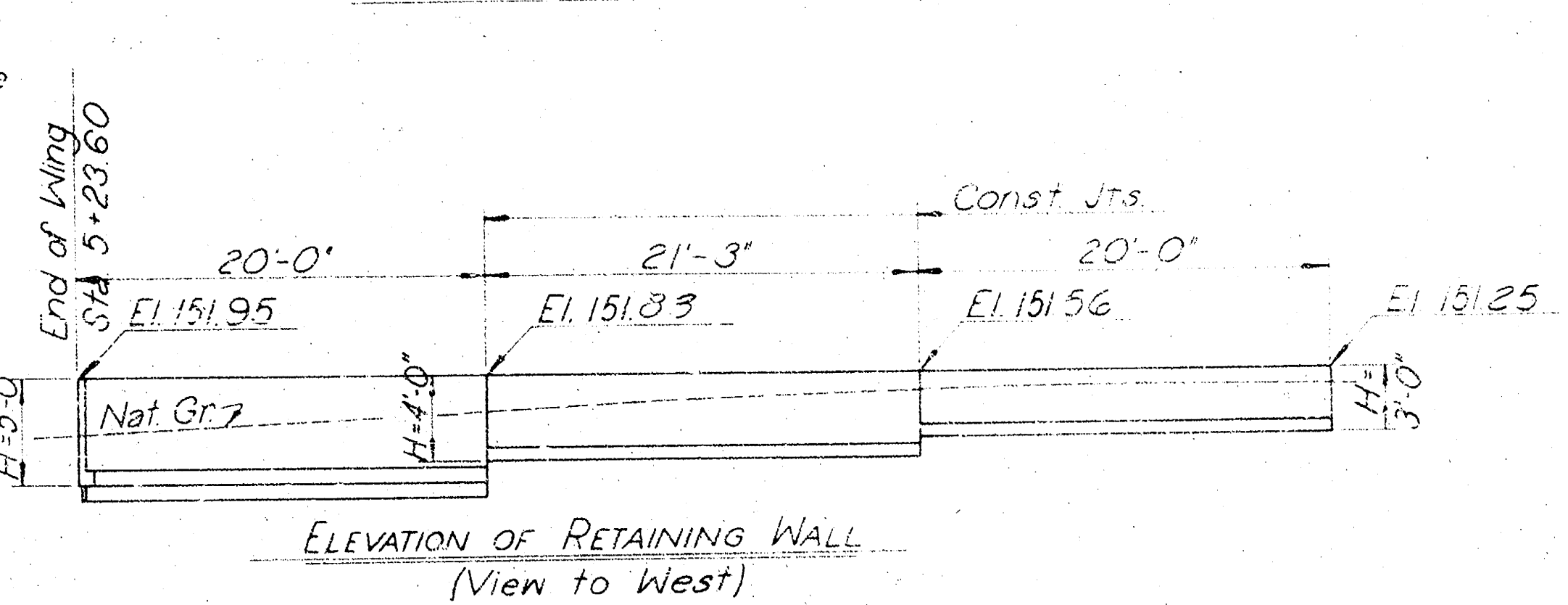
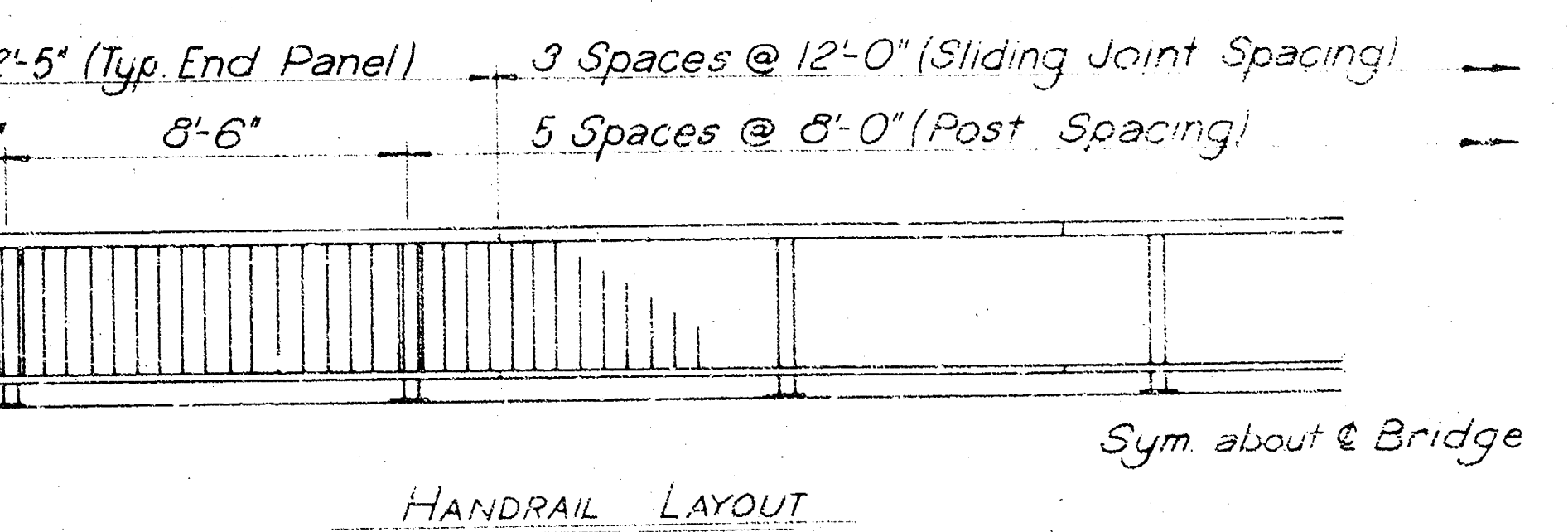
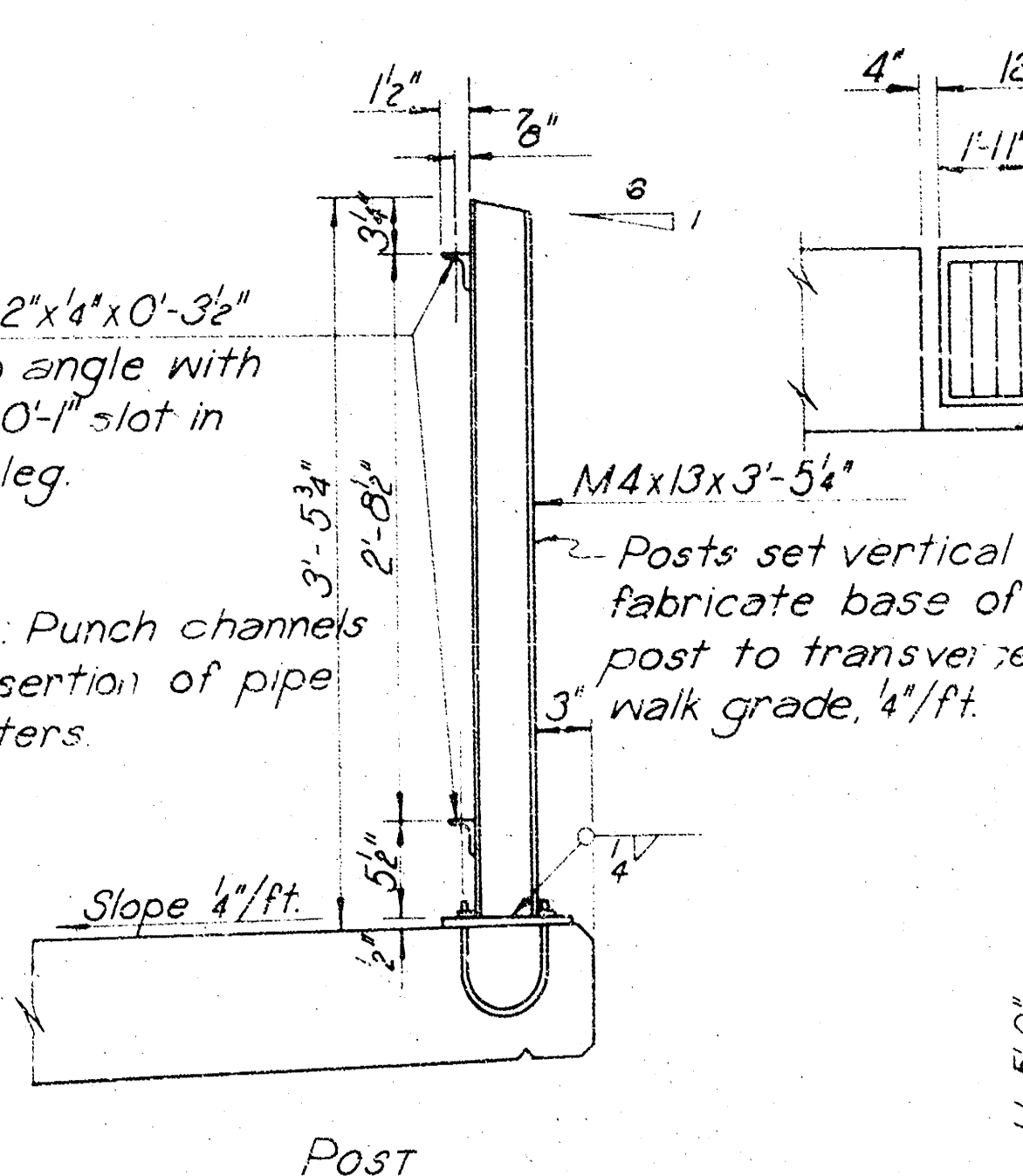
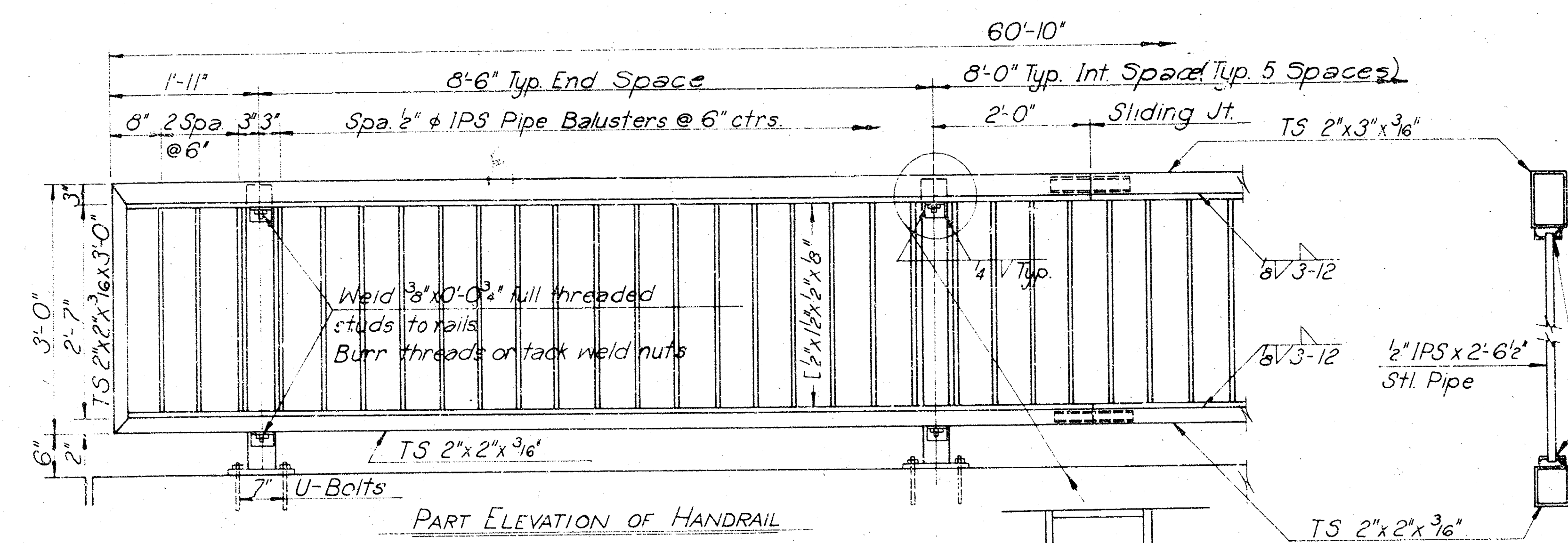




PROJECT MARKER LOCATION SKETCH
See also Sheet #3

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 <i>December, 1975</i>	DRAWN BY <i>79-R-4</i>

CITY OF WICHITA, KANSAS R.W. LINN PE, CITY ENGINEER		
VASSAR STREET BRIDGE OVER SLEEPY HOLLOW CREEK SUPER STRUCTURE LAYOUT & DETAILS		
	DELAMATER, FREUND & SCHERER, P. ENGINEERS & ARCHITECTS WICHITA, KANSAS	
	SCALE	DATE December, 1975
		DRAWN BY 79-R-5



NOTES:
 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: 3960 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 DIAGRAM.

CITY OF WICHITA, KANSAS R. W. LINN, P.E., CITY ENGINEER	
VASSAR STREET BRIDGE OVER SLEEPY HOLLOW CREEK APPROACH SLAB, RAILS, RETAINING WALL	
DELAMATER, FREUND & SCHERER, P.A. ENGINEERS & ARCHITECTS WICHITA, KANSAS	DATE December, 1975

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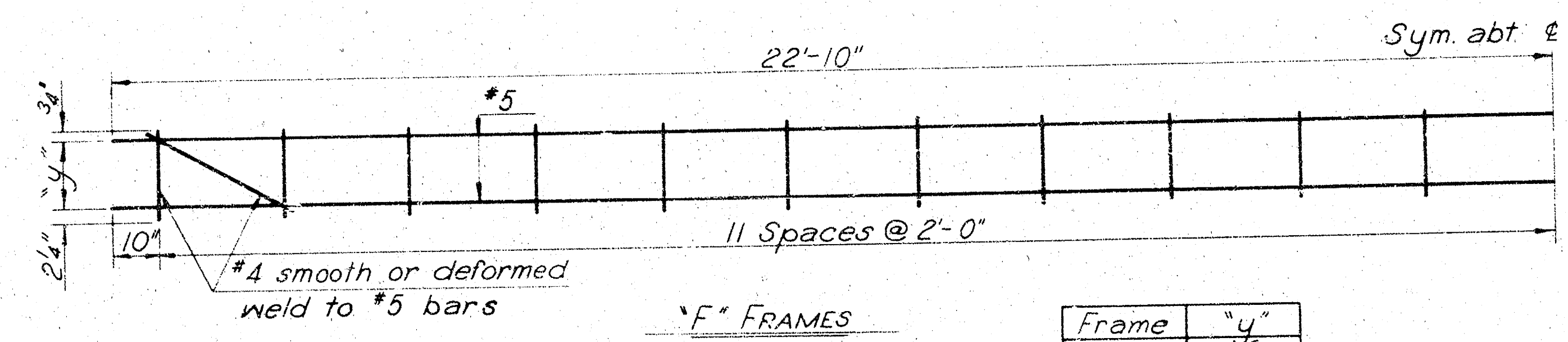
Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
PC1	4	9	44'-10"	PC2	4	9	48'-0"
				PO	10	4	9'-1"
				PUI	80	4	6'-2"

SUPERSTRUCTURE							
Straight Bars				Bent Bars			
Mark	No. Req.	Size	Length	Mark	No. Req.	Size	Length
B	46	5	45'-8"	F1	5	#	#
				F2	4	#	#
				F3	4	#	#
RFH	80	6	8'-2"	RV1	160	6	3'-7½"
S1	88	6	21'-0"	S9	100	6	37'-1"
S2	44	6	28'-0"	S10	44	6	13'-0"
S3	44	9	15'-3"	SW1	166	4	8'-5"
S4	42	9	14'-6"	SW2	12	4	7'-1"
S5	22	9	20'-0"	T1	48	5	24'-3"
S6	21	9	14'-0"	T2	76	5	5'-7"
S7	12	9	21'-0"				
S8	6	9	28'-0"				
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"				

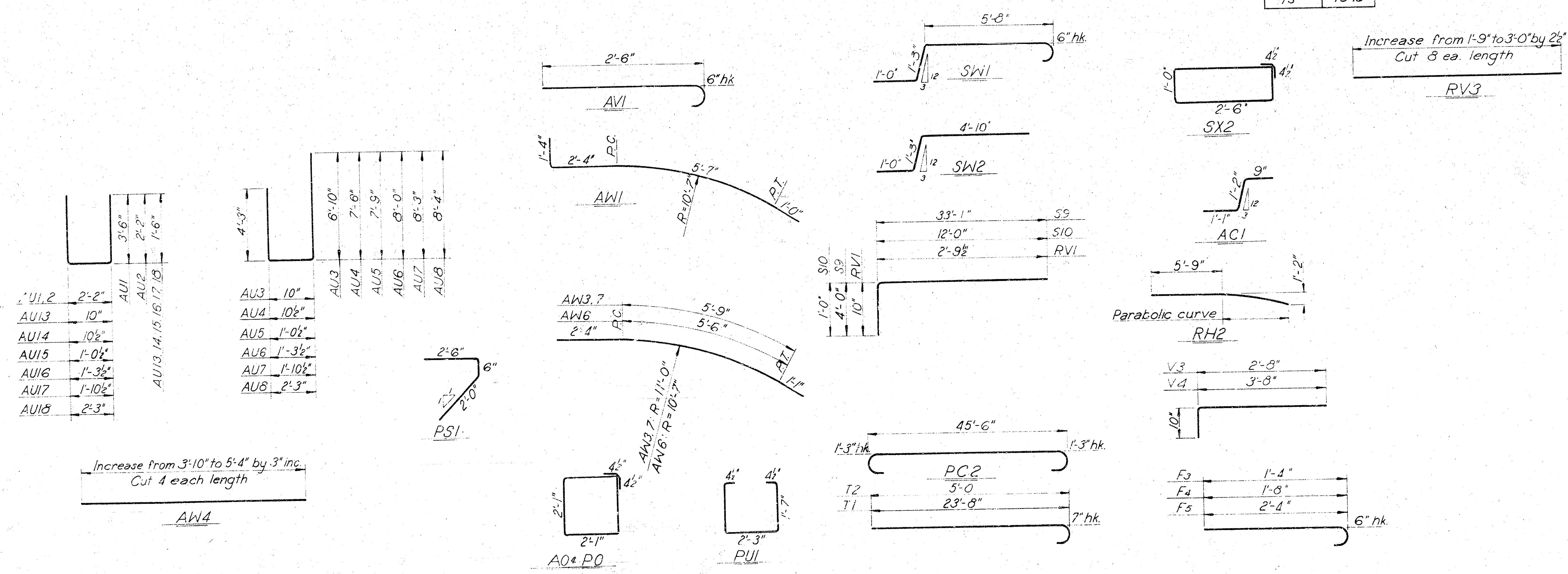
APPROACH SLAB (ONE) (INFORMATION ONLY)							
<i>Straight Bars</i>				<i>Bent Bars</i>			
<i>Mark</i>	<i>No Reg.</i>	<i>Size</i>	<i>Length</i>	<i>Mark</i>	<i>No Reg.</i>	<i>Size</i>	<i>Length</i>
AC2	4	6	11'-8"	AC1	8	4	3'-0"
AS1	64	8	11'-8"				
AS2	12	5	46'-5"				
RH1	6	6	8'-2"	RH2	4	6	11'-9"
RV2	10	6	3'-0"				
RV3	28	6	#				
SX1	6	8	46'-5	SX2	47	4	7'-9"
# See	<i>Bending Diagrams</i>						

REINFORCING PLAN

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"
H73	2	5		19'-9"					
H74	2	5		21'-0"					
H75	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.				



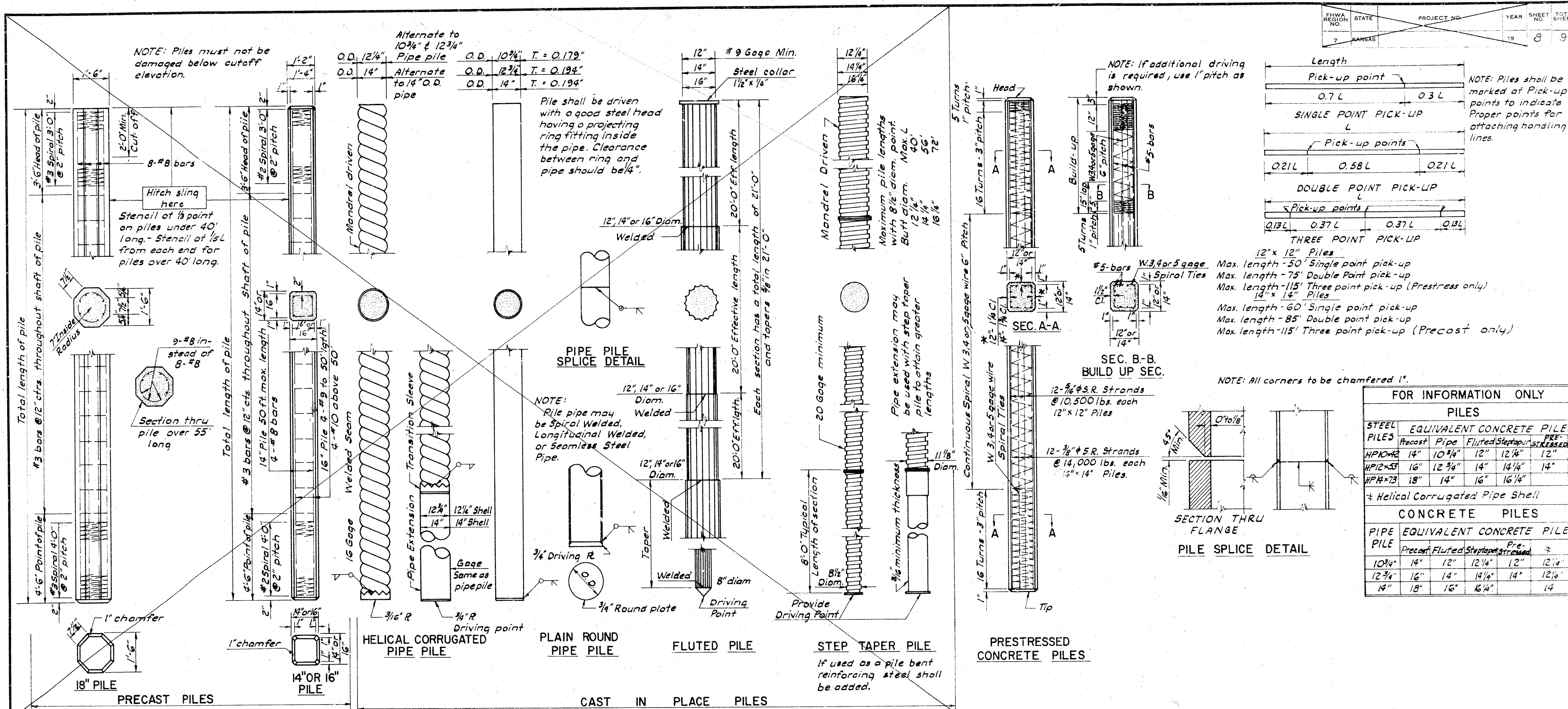
Frame	"y"
F_1	$5^5 8^4$
F_2	$6^{13} 16^8$
F_3	$10^{16} 16^8$



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 <i>December, 1975</i>
		DRG. NO. <i>79-R-7</i>



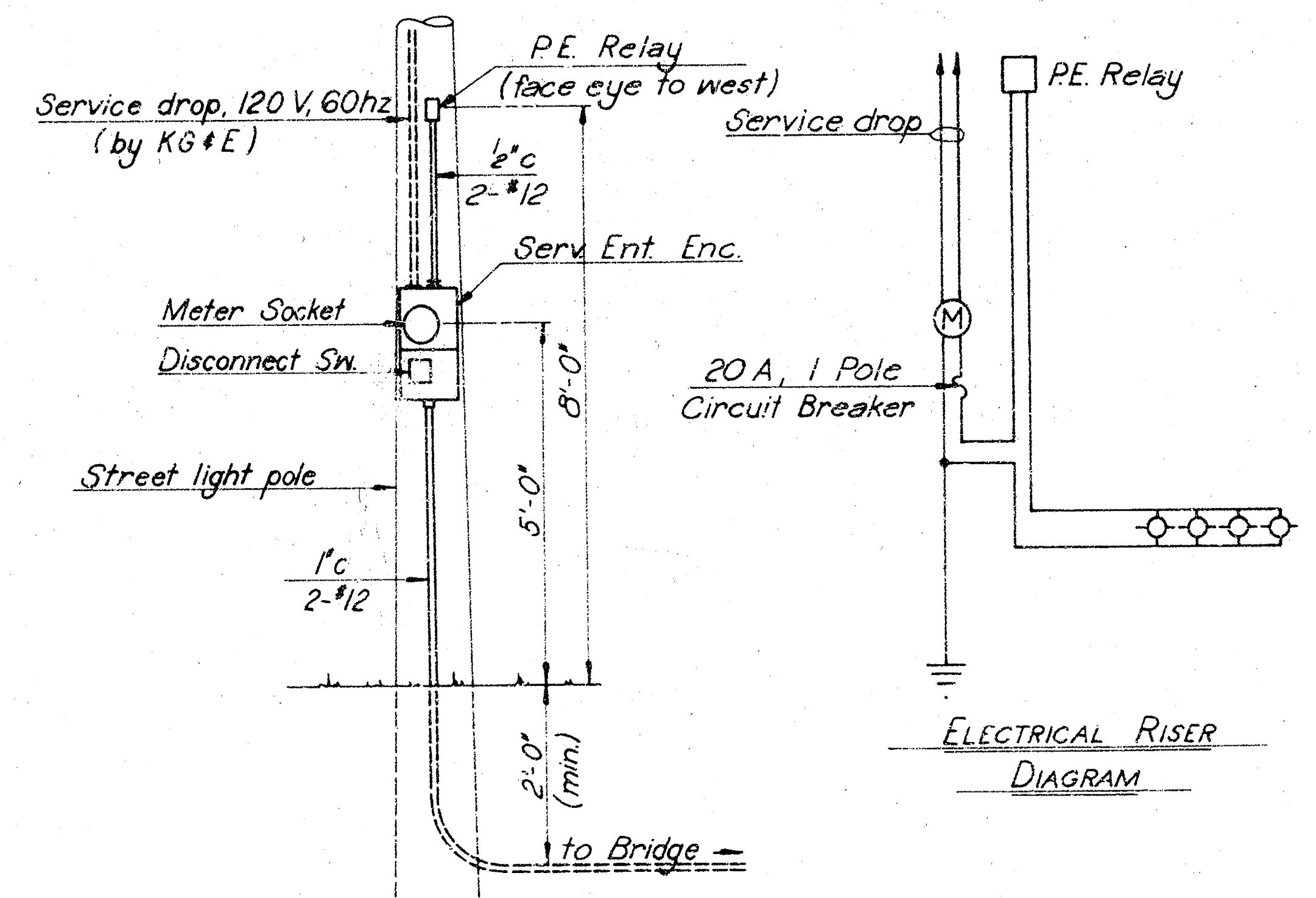
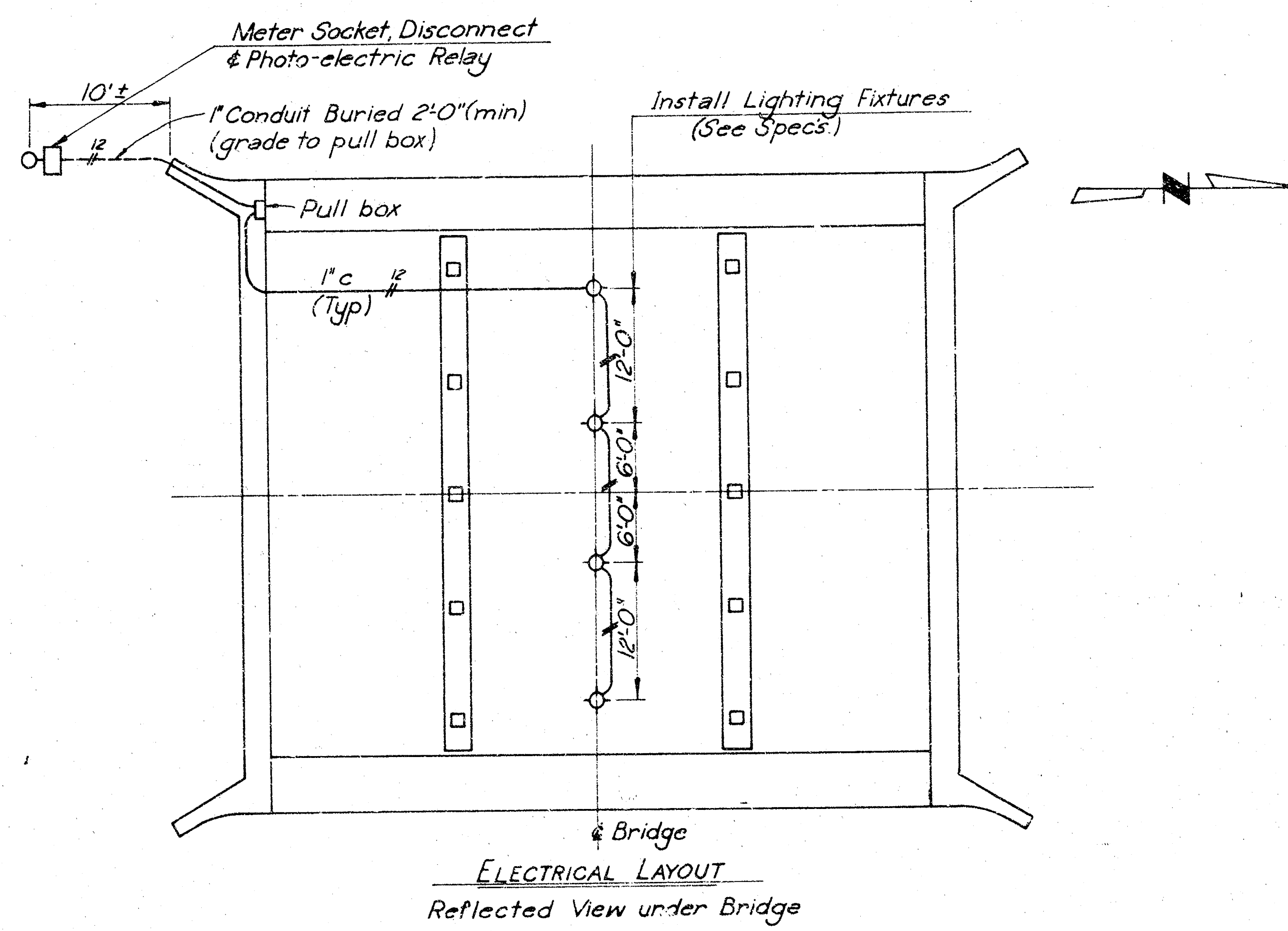
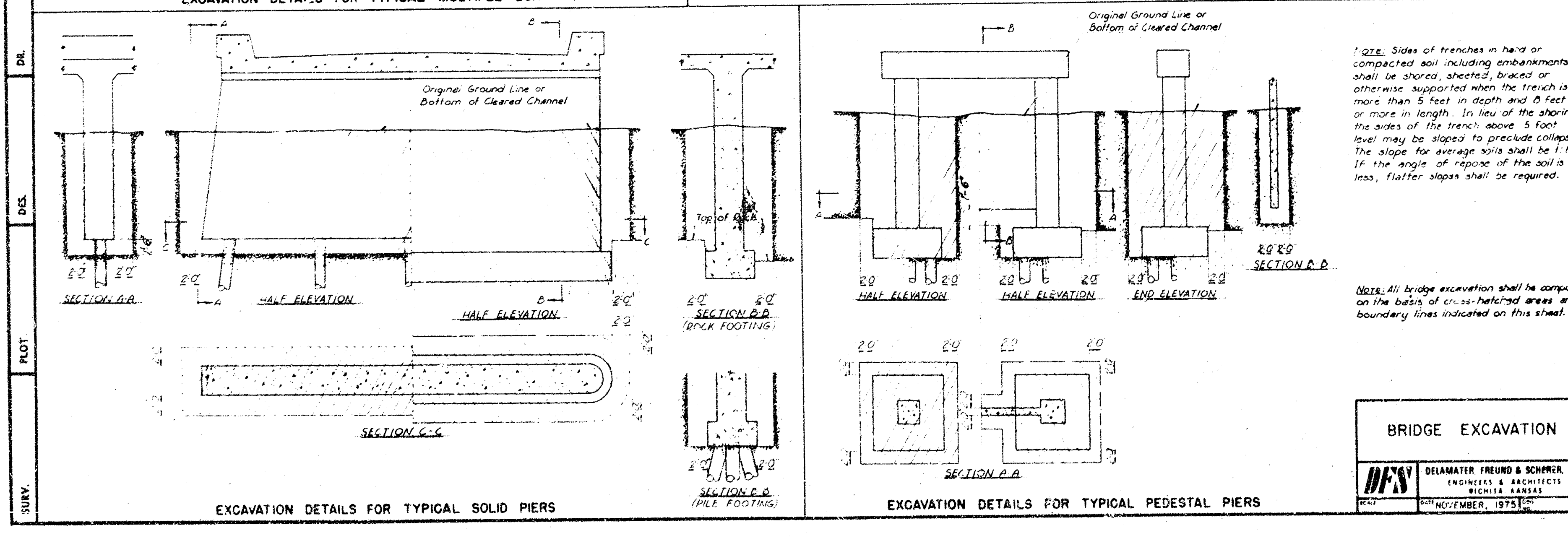
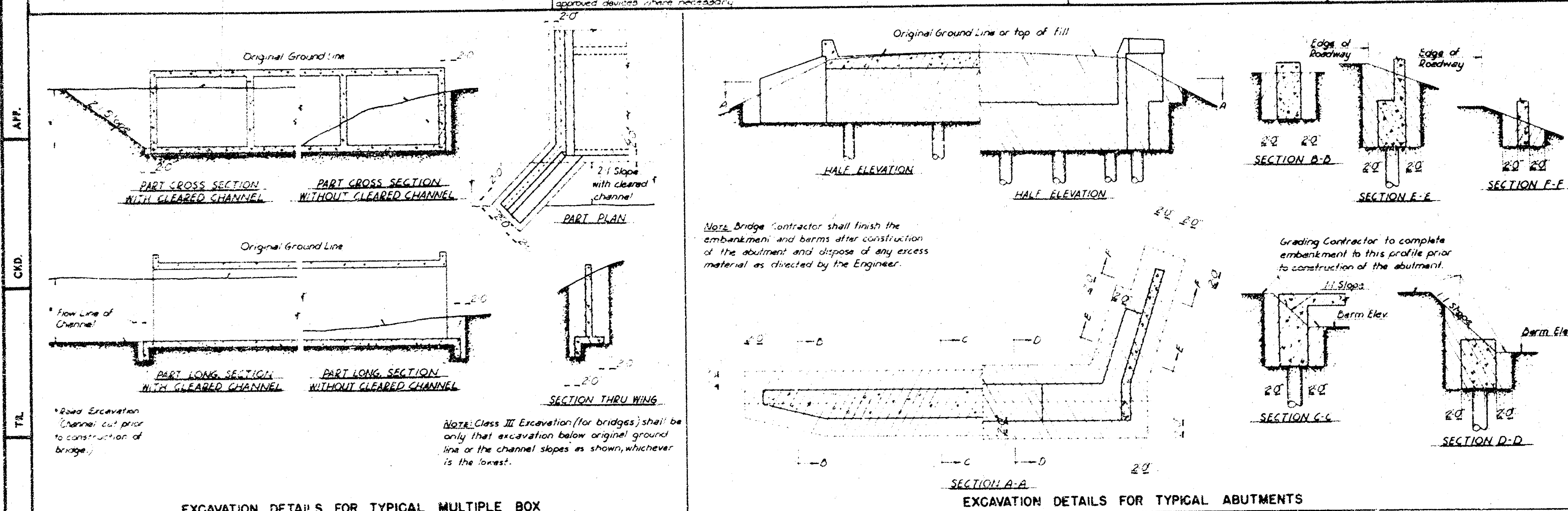
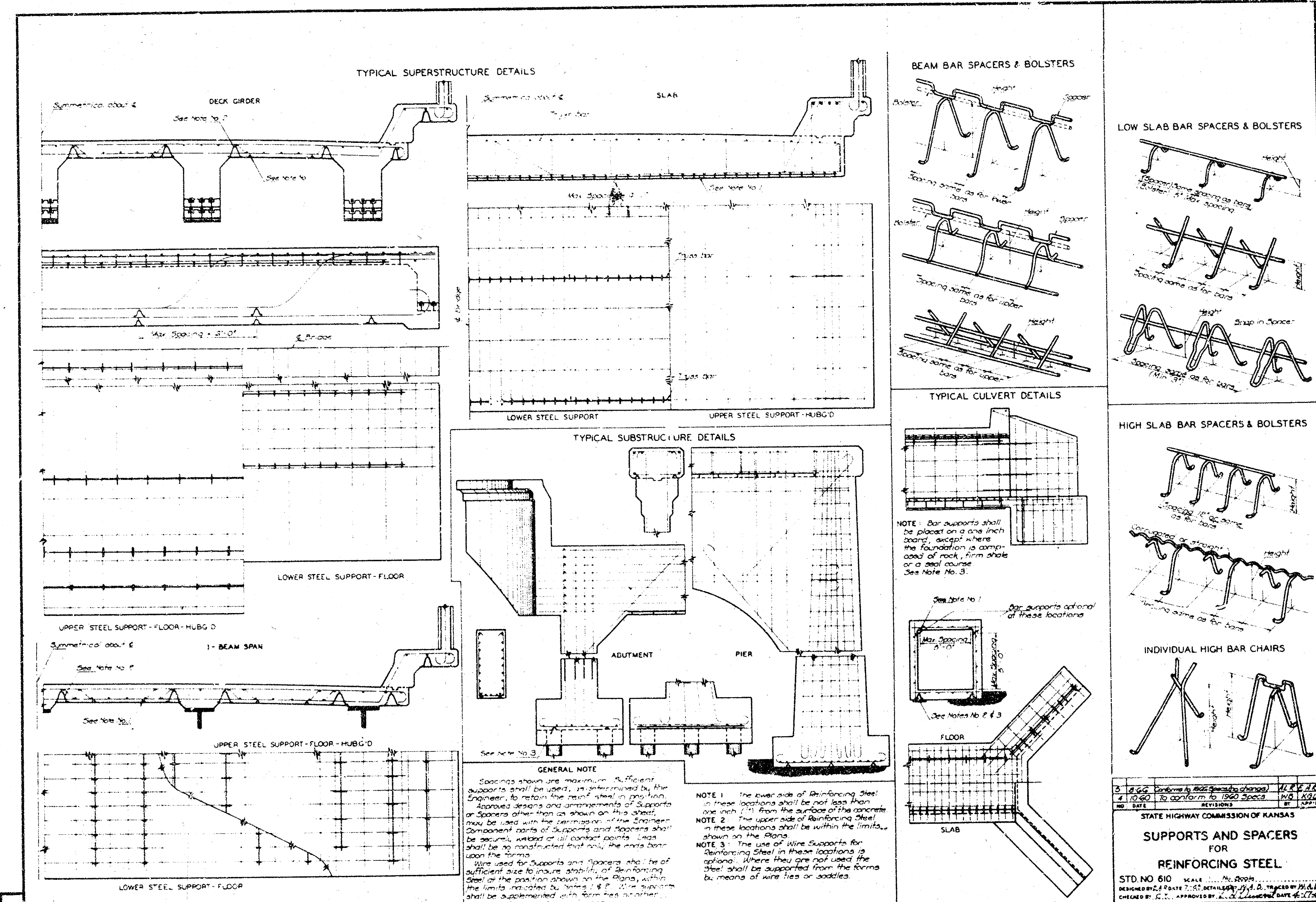
- ### GENERAL NOTES

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)(1)(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, on the driving of an additional pile at no extra cost.
 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 (a)(1) Standard Specifications.
 12. Driving Formula:
Driving Formula shall conform to Sub-Article 703.04 (d)(1)(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.

FOR INFORMATION ONLY						
PILES						
STEEL PILES	Equivalent Precast	Concrete Pipe	Fluted Sheetpiles	Concrete Precast Sheetpiles	Concrete Precast Sheetpiles	Concrete Precast Sheetpiles
HP40X43	14"	10 3/4"	12"	12 1/4"	12"	12"
HP12X53	16"	12 3/4"	14"	14 1/4"	14"	12"
HP14X73	18"	14"	14"	16 1/4"	14"	14"
4 Helical Corrugated Pipe Shell						
CONCRETE PILES						
PIPE PILE	Equivalent Precast	Concrete Fluted	Concrete Sheetpiles	Concrete Precast Sheetpiles	Concrete Precast Sheetpiles	Concrete Precast Sheetpiles
10 3/4"	14"	12"	12 1/4"	12"	12 1/4"	12"
12 3/4"	16"	14"	14 1/4"	14"	14 1/4"	14"
14"	18"	16"	16 1/4"	16"	16 1/4"	16"

6	9-4-73	Revised for 1973 Const. Spec.	GFK	E.S.
5	8-26-66	Revise Entire Gen. Note	JCL	EEH
4	4-8-64	Add Longitudinal Welded Pipe Pile	JCL	T.W.
3	4-4-61	Revise Choice of Pipe Note, Abuts.	JCL	T.W.
2	3-27-61	Revise Pipe Pile General Note	JCL	T.W.
1	1-24-61	Remove hole in Prestressed Concrete Pile	JCL	T.W.
NO.	DATE	REVISIONS	BY	APP.

STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	1-3	19	9	9



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

VASSAR STREET BRIDGE
OVER SLEEPY HOLLOW CREEK
BAR SUPPORTS, BRIDGE EXCAVATION
& ELECTRIC LIGHTING

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

DATE: December, 1975
NO. 79-R-9