STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		1950	1	11

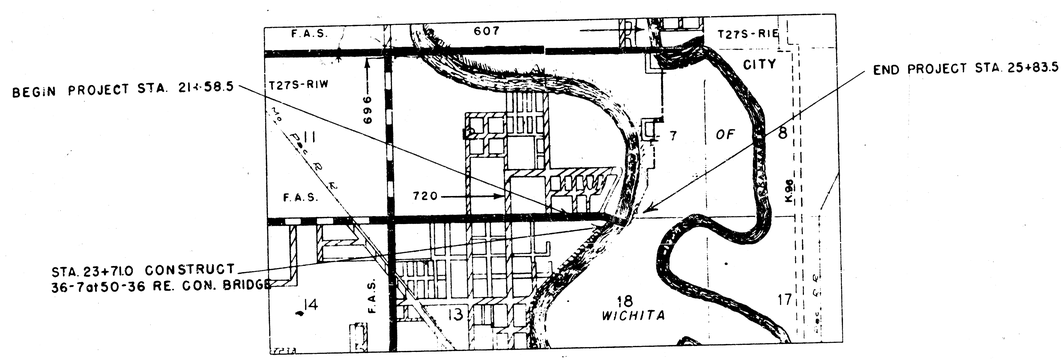
SEDGWICK COUNTY HIGHWAY DEPARTMENT

BRIDGE NO. 616-25-2371

INDEX OF SHEETS

SHEET NO.	TITLE SHEET
1	TITLE SHEET
2	PLAN & PROFILE
3	TOPOGRAPHY
4	CONSTRUCTION LAYOUT
5-6	SLAB & GIRDER DETAIL
7	ABUTMENT DETAIL
8	PIER DETAIL
9	AUXILIARY DETAIL
10	LIGHTING DETAIL
11	PILING DETAIL

6,158 V.P.D. 1950



CONVENTIONAL SIGNS

COUNTY LINE
SECTION LINE
WIRE FENCE
HEDGE ROW
RAILROADS
SURVEY LINE
RIGHT OF WAY
TELEPHONE POLE
POWER POLE
TRAVELED WAY

NET LENGTH OF PROJECT	425.0	FT.	.08	MILES
NET LENGTH OF BRIDGES	425.0	FT.	.08	MILES
NET LENGTH OF ROAD		FT.		MILES
EXCEPTIONS		FT.		MILES
ADDITONS		FT.		MILES
GROSS LENGTH OF PROJECT		FT.		MILES

PLANS PREPARED BY

DATE

APPROVED

Walter Johnson
ENGINEER OF SECONDARY ROADS

DATE 12-18-50

APPROVED

Rufus Stark
COUNTY ENGINEER

DATE 12-14-50

APPROVED 12-17-50 DATE

R C Kuhlmann
STATE HIGHWAY ENGINEER

13th Street
616-25.

State	Fiscal Year	Sheet No.	Total Sheets
Kansas	19 50	2	11

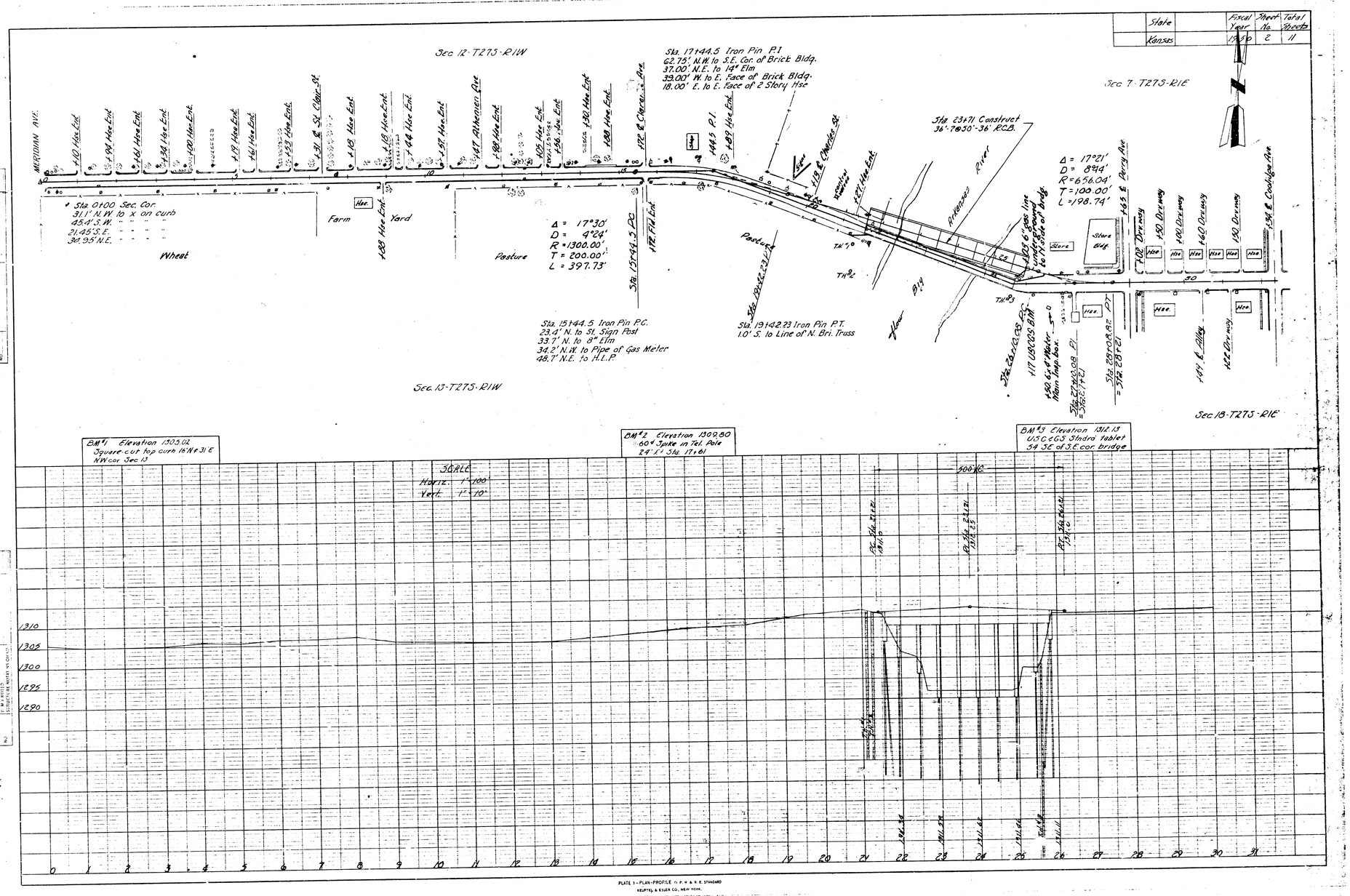
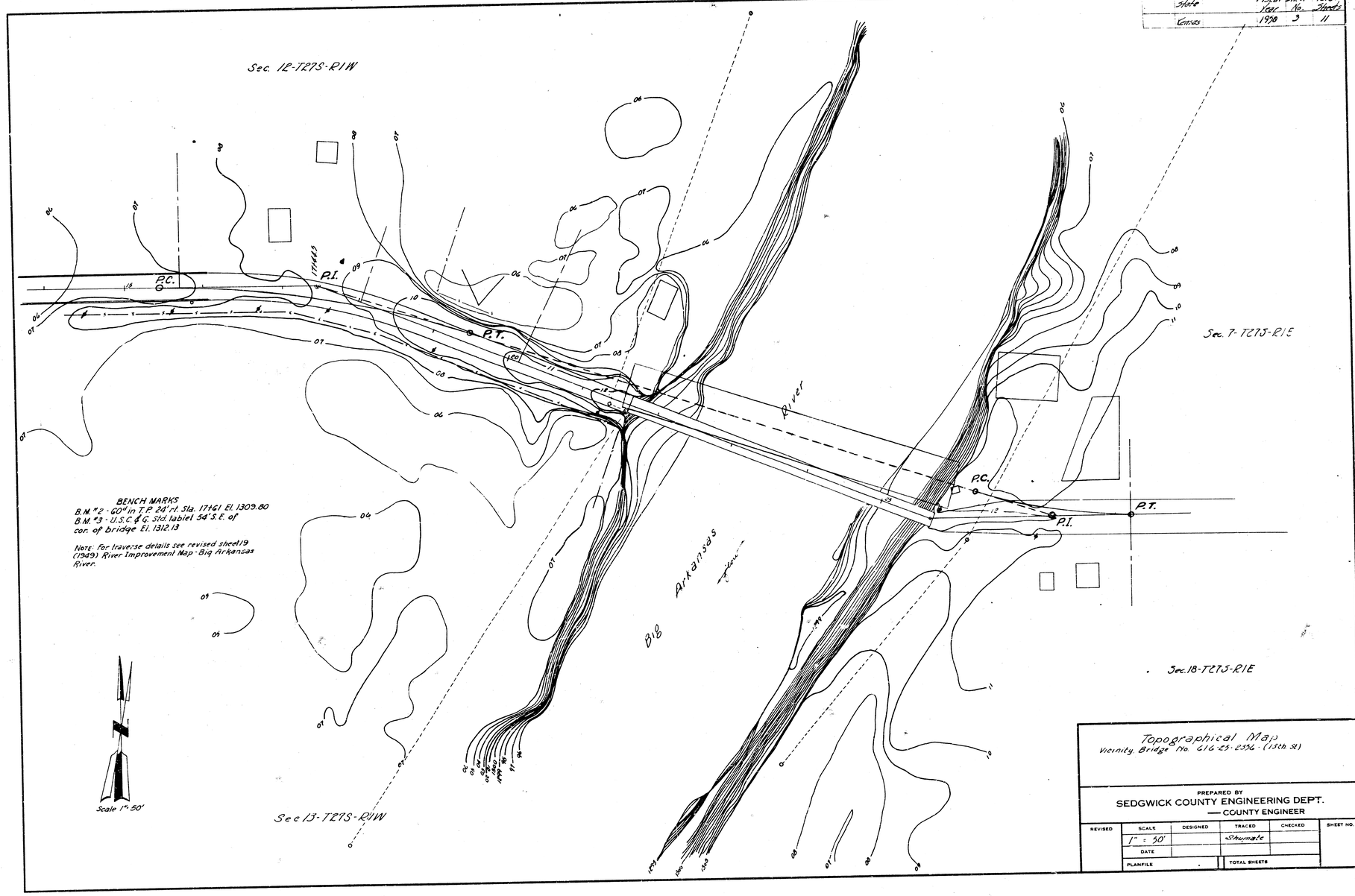


PLATE 1—PLAN-PROFILE ©. P. W. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1970	3	11



BENCH MARKS
B.M. #2 - 60" in T.P. 24' rt. Sta. 17+61 El. 1309.80
B.M. #3 - U.S.C. & G. Std. tablet 54' S.E. of cor. of bridge El. 1312.13

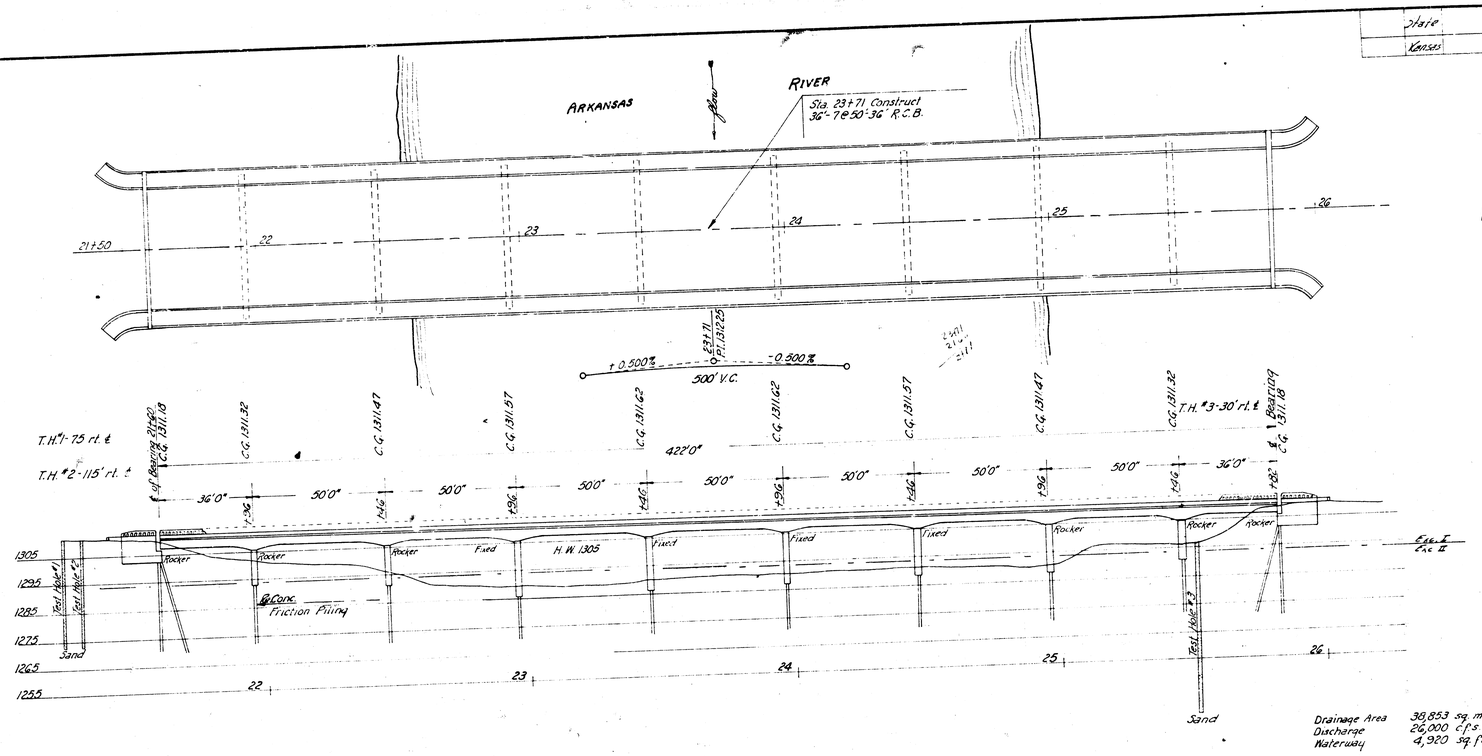
Note: For traverse details see revised sheet 19 (1949) River Improvement Map - Big Arkansas River.

Topographical Map
Vicinity Bridge No. 616-23-2356 - (13th St.)

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
— COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1" = 50'		Shumate		
	DATE				
	PLANFILE		TOTAL SHEETS		

State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	4	11



Drainage Area 38,853 sq. mi.
Discharge 26,000 c.f.s.
Waterway 4,920 sq. ft.

PLAN AND ELEVATION

36'-7@50'-36' CONTINUOUS CONCRETE SPANS ON CONCRETE ~~ENCASED STEEL~~ TYPE BENT PIERS, 48' ROADWAY OPEN ABUTMENTS, 4' SIDEWALKS.

BENCH MARKS

B.M. #2 60d in T.P. 24' rt. Sta 17+61
Elev. 1309.80

B.M. #3 U.S.C. & G.S. std. tablet
54' S.E. of S.E. cor. of bri. Elev. 1312.13

SUMMARY OF QUANTITIES

Excavation Class I	407 cu. yds.
Excavation Class II	329 cu. yds.
Concrete Class A (AE)	1707.5 cu. yds.
Reinforcing Steel	270 034 lbs.
Structural Steel	27,612 lbs.
Bearing Devices	7,960 lin. ft.
Re Conc. Piling	1574 lbs.
2" Conduit	926 lin. ft.

GENERAL NOTES

DESIGN: A.A.S.H.O for H-20-44 Loading
20,000 p.s.i. Reinforcing Steel (int. gr.)
1,000 p.s.i. Concrete.

OLD STRUCTURE: To be removed by SEDGWICK COUNTY.

SOUNDINGS: Taken with ¾" jet by SEDGWICK COUNTY.

EMBANKMENT: The embankment at the abutments shall be built after completion of the abutments.

PILING: Conc. piling shall be driven to a computed bearing value of twenty eight tons per pile. Piling shall be driven to a minimum depth of thirty feet below the bottom of the encasements.

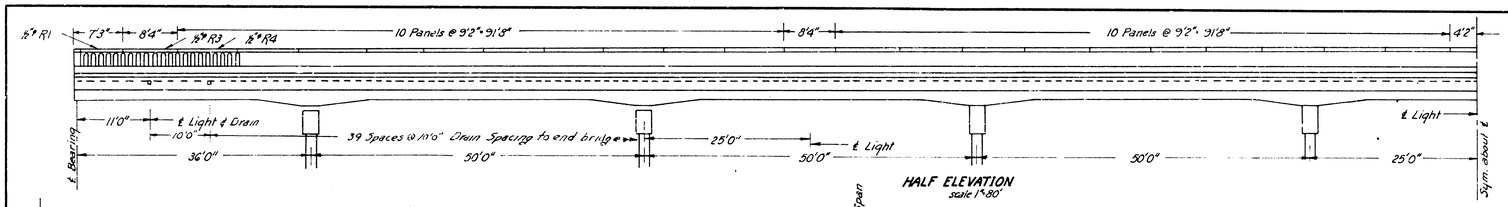
LIGHTING: Conduit, pull boxes and pole anchor bolts to be installed at time of construction. Poles, wiring etc. to be installed at a later date, and are not a part of this project.

CONSTRUCTION LAYOUT
BRIDGE NO. 616-25-2371

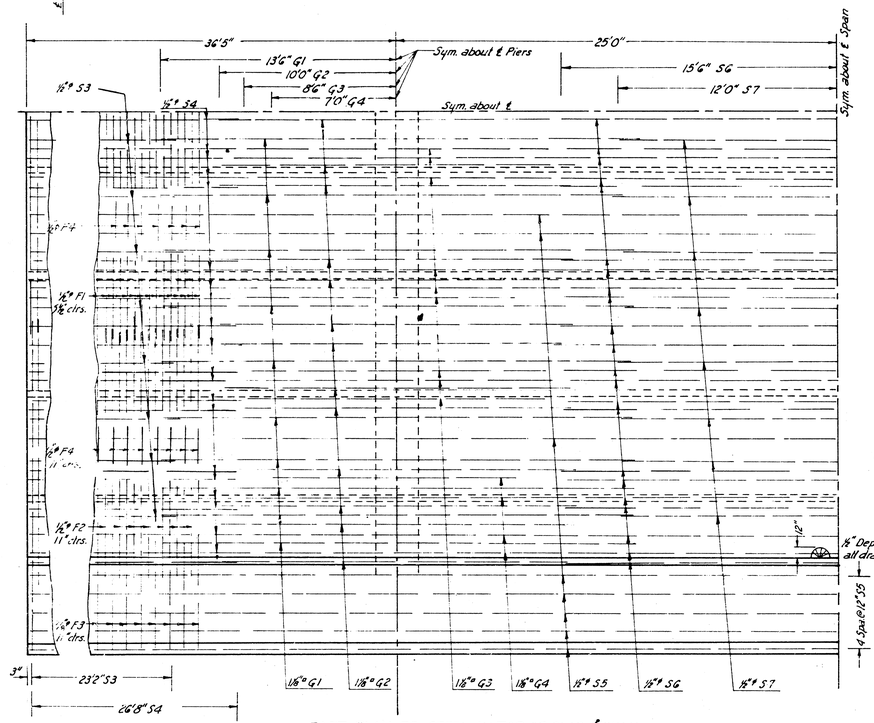
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=20'	M.E.S.	R.W.M.		
	DATE				
	PLANFILE		TOTAL SHEETS		

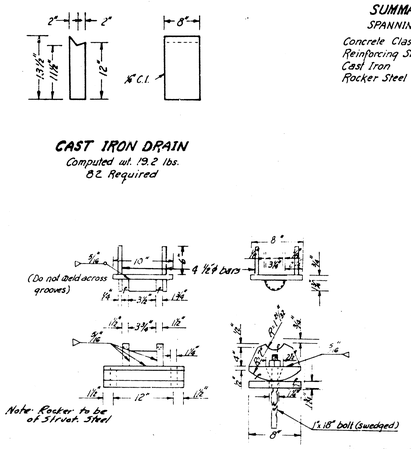
State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	5	11



HALF ELEVATION
scale 1" = 80'



PART PLAN RE. STEEL IN TOP OF SLAB & WALK



CAST IRON DRAIN
Computed wt. 19.2 lbs.
82 Required

ROCKER DETAIL
78 Required

SUMMARY OF QUANTITIES

SPANNING SUPERSTRUCTURE

Concrete Class A (AE)	1062 Cu. Yds.
Reinforcing Steel	241,030 Lbs.
Cast Iron	1,974 Lbs.
Rocker Steel	27,612 Lbs.

GENERAL NOTES

LOADING: H-20-44 A.A.S.H.O.

DESIGN STRESS: fs = 18,000 p.s.i.; fc = 1000 p.s.i. n = 10

CONCRETE: Class A (AE) to be used throughout. Bevel all exposed edges with ¾" Δ moulding unless otherwise noted.

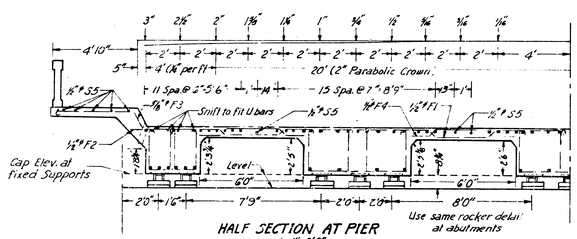
FALSEWORK: Falsework shall be in place for entire unit until all the concrete has attained its design strength. Construction joints shown on sheet No. are optional with the Bridge Contractor but if used shall be made only at the locations shown or as approved by the Engineer. Pouring sequence to be designated by Engineer subject to type of falsework used by Bridge Contractor.

FIELD PAINT: All accessible parts of cast iron drains and rockers shall recieve one coat of tinted aluminum paint followed by one coat of aluminum paint after erection. The same shall apply to light pull boxes.

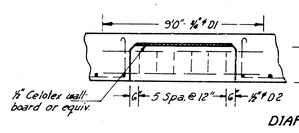
STEEL TABLE
TOP OF SLAB & WALK

BAR	SIZE	NO.	LENGTH	WEIGHT
G1	⅝" ϕ	160	27'0"	18,576
G2	"	208	20'0"	17,888
G3	"	144	17'0"	10,226
G4	"	68	14'0"	3,855
*F1	½" ϕ	922	26'11"	16,675
*F2	½" ϕ	922	13'5½"	8,339
*F3	⅝" ϕ	922	19'3"	18,437
S3	⅝" ϕ	32	23'2"	497
S4	"	88	26'8"	926
S5	"	126	48'0"	4,008
S6	"	208	31'0"	6,397
S7	"	112	24'0"	1,800
D1	⅝" ϕ	~~240~~ 260	9'0"	~~1,443~~
D2	½" ϕ	~~240~~ 160	3'8"	~~400~~

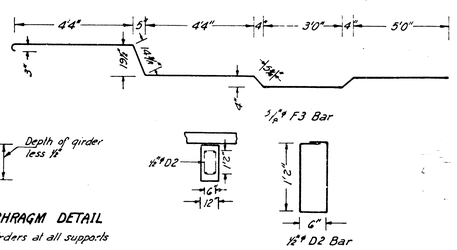
*See Bending Diagram



HALF SECTION AT PIER
scale 1" = 3'0"



DIAPHRAGM DETAIL
Place between girders at all supports

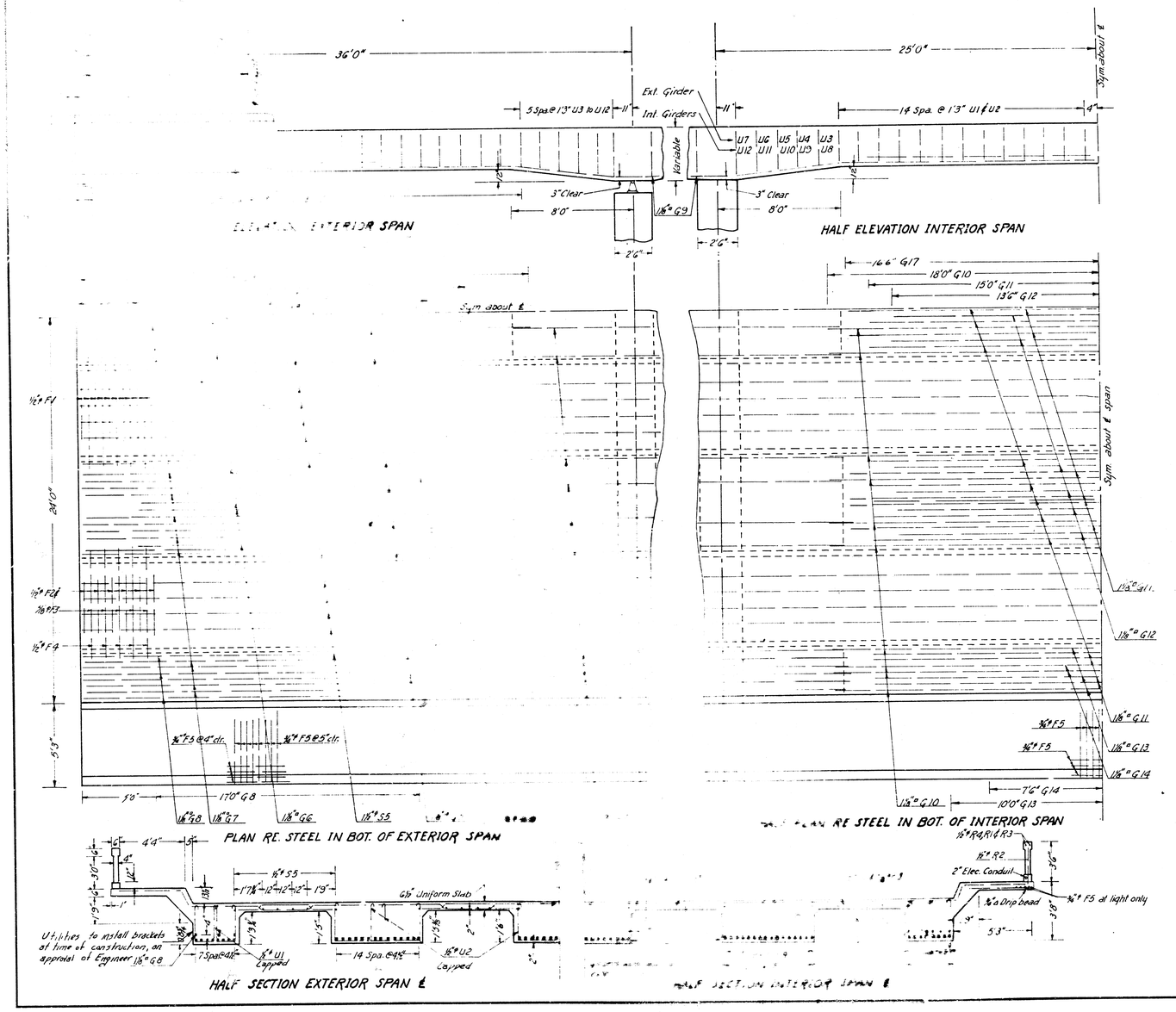


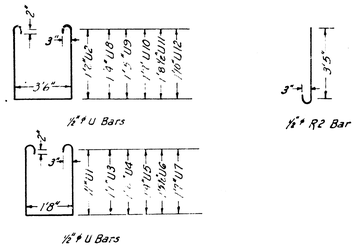
SLAB AND GIRDER DETAILS
BRIDGE NO. 616-25-2371

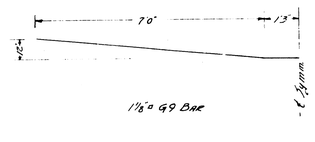
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
— COUNTY ENGINEER

REVISED 11-30-1962	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	Noted	M.E.S.	R.W.N.		
	DATE				
	PLAN FILE		TOTAL SHEETS		

State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	6	11







STEEL TABLE

BOTTOM OF SLAB AND WALK

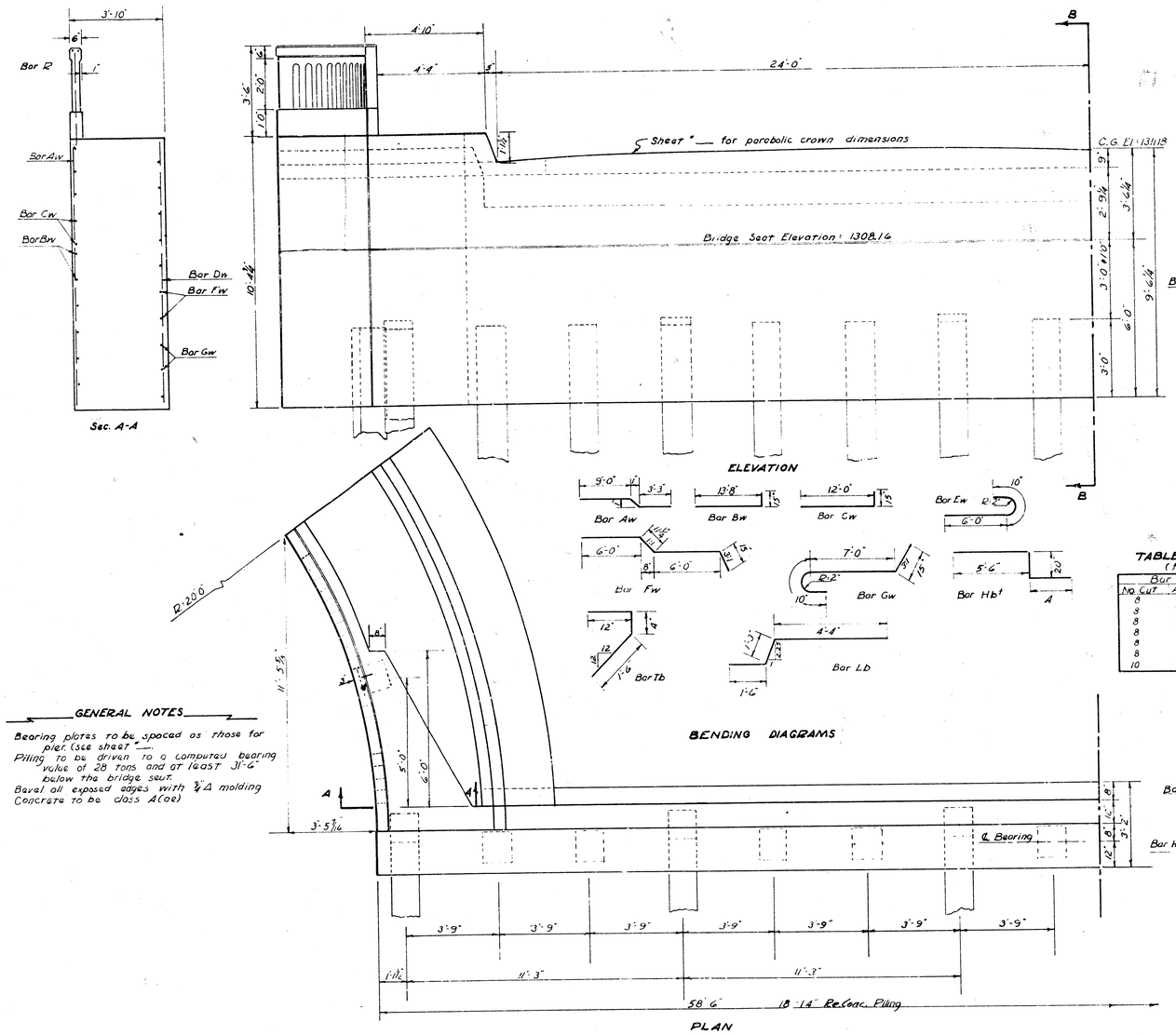
Bar	Size	No.	Length	Weight
G3	1⅛" ▱	90	29'8"	5,104
G6	1⅛" ▱	54	18'0"	1,870
G7	1⅛" ▱	90	25'0"	5,160
G8	1⅛" ▱	12	17'0"	877
G9	1⅛" ▱	192	16'8"	13,800
G10	1⅛" ▱	140	36'0"	21,687
G11	1⅛" ▱	168	30'0"	21,687
G12	1⅛" ▱	84	27'0"	9,759
G13	1⅛" ▱	42	20'0"	3,612
G14	1⅛" ▱	28	15'0"	1,807
G15	1" ▱		12'11"	
F4	1½" ▱	1894	7'0"	8,649
F5	⅜" ▱	120	4'3"	780
S5	½" ▱	216	9'8"	6,925
U1	½" ▱	1352	4'7"	3,190
U2	½" ▱	1548	4'11"	7,187
U3	½" ▱	64	4'11"	211
U4	½" ▱	64	5'1"	218
U5	½" ▱	64	5'3"	236
U6	½" ▱	64	5'8"	249
U7	½" ▱	64	5'11"	255
U8	½" ▱	96	7'3"	466
U9	½" ▱	96	7'5"	482
U10	½" ▱	96	7'9"	498
U11	½" ▱	96	8'0"	515
U12	½" ▱	96	8'3"	531
R1	½" ▱	8	7'0"	37
R2	½" ▱	922	3'8"	2258
R3	½" ▱	40	6'0"	107
R4	½" ▱	160	6'11"	990
G16	1⅛" ▱	12	23'0"	1187
G17	"	84	33'0"	11778

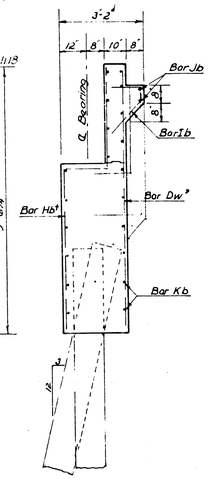
SLAB AND GIRDER DETAILS
BRIDGE NO. 616-25-2371

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK. — COUNTY ENGINEER

REVISED 11-30-50	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1" = 3'0"	M.E.S.	R.W.A.		
	DATE	10-50	10-20-50		
	PLANFILE		TOTAL SHEETS		

	Date		Fiscal Year	Sheet No.	Total Sheets
	Letter		1950	7	11





STEEL TABLE
(one abut.)

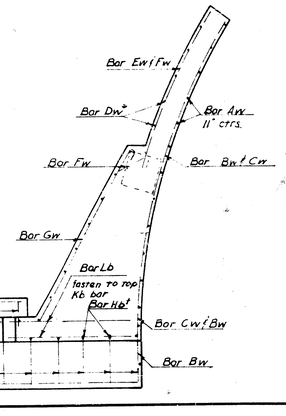
Bar	Space	No.	Size	Length	Wt.	Revised Weight
Aw	11"	36	½" ϕ	12'-4"	297	296.5
Bw	12"	12	"	14'-11"	120	119.6
Cw	12"	10	"	13'-3"	89	88.5
Dw'	12"	76	"	10'-0"	508	477.0
Ew	12"	6	"	6'-10"	27	27.4
Fw	12"	14	"	14'-2"	133	132.7
Gw	12"	6	"	9'-1"	37	36.9
Hb'	12"	58	"	10'-5"	202	406.4
Tb	12"	48	"	2'-10"	91	90.7
Jb	4"	4	"	25'-0"	67	66.8
Kb	12"	40	"	30'-0"	802	801.60
Lb		4	"	7'-1"	19	18.92
R		4	"	12'-0"	32	32.1
			Total	3625#	2424	2592.3#

QUANTITIES per ABUTMENT

Cu. yd. Concrete	48.0
Bearing Devices	10
L.F. Friction Piling	740

TABLE of Hb & Dw BAR
(for one abutment)

Bar Hb		Bar Dw	
No. Cut	A Dim.	No. Cut	Overall L.
8	3'-3"	28	10'-0"
8	3'-2½"	8	9'-1"
8	3'-2"	8	9'-0½"
8	3'-1½"	8	9'-0"
8	3'-1"	8	8'-11½"
8	3'-½"	8	8'-11"
10	4'-2"	8	8'-10½"



GENERAL NOTES

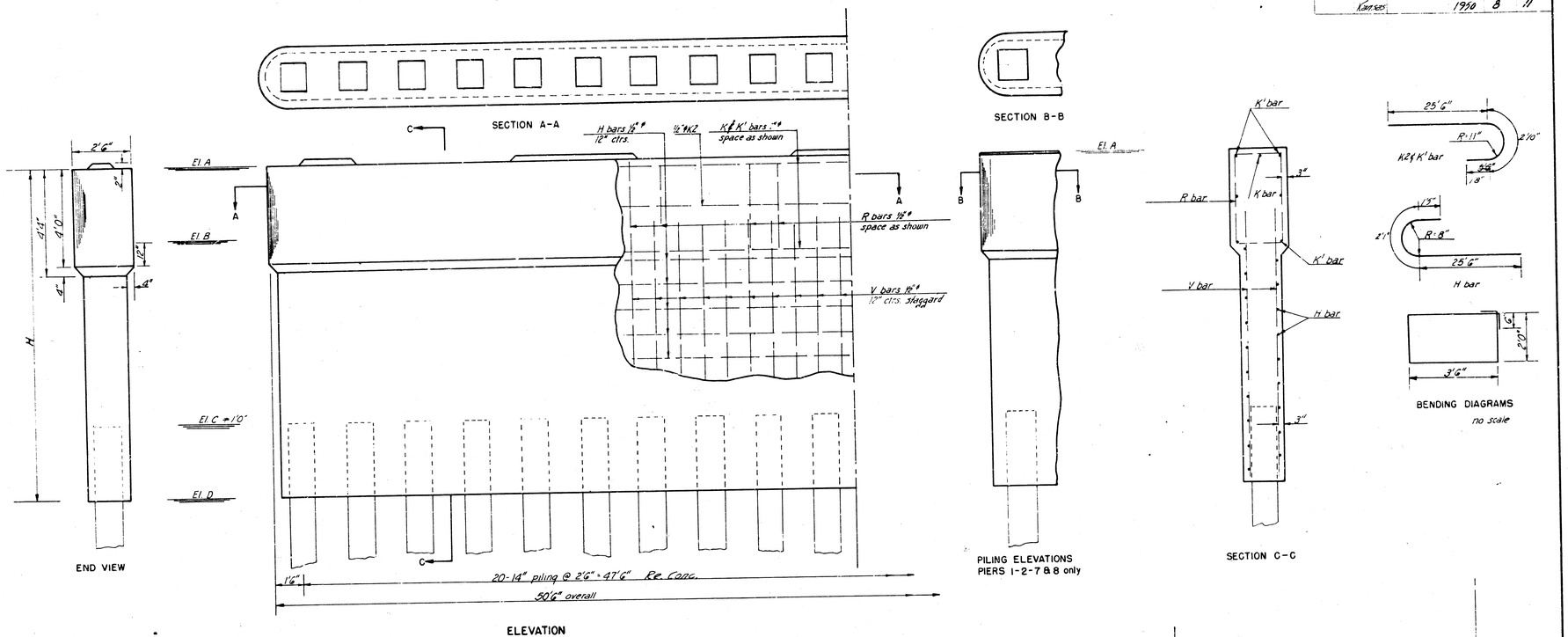
Bearing plates to be spaced as those for pier. (see sheet "—.
Piling to be driven to a computed bearing value of 28 tons and at least 31'-6" below the bridge seat.
Bevel all exposed edges with ¾" Δ molding
Concrete to be class A(ce)

ABUTMENT DETAIL
BRIDGE NO. 616-25-2371

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
Rufus S. Kirk — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	½" = 1'-0"	MS & RJ	RJ		
	DATE	10-20-50			
	PLANFILE		TOTAL SHEETS		

State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	8	11



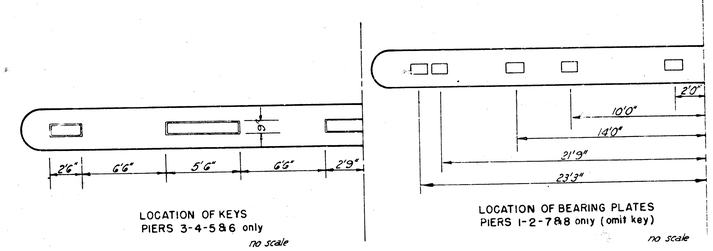
PIER	TABLE of ELEVATIONS				TABLE of STEEL										QUANTITIES					H A		
	ELEVATION A	ELEVATION B	ELEVATION C	ELEVATION D	Number 1/2" R bars	Length 1/2" R bars	Number 1" H bars	Length 1" H bars	Number 1" K' bars	Length 1" K' bars	Number 1/2" V bars	Length 1/2" V bars	Number 1/2" H bars	Length 1/2" H bars	8"x15'x1/2" Bearing Pl.	L.F. Test Pile	L.F. Friction Pile	Cu. Yds. Concrete	Lbs. Re-bars	No. 1/2" ⊕ K2 bars	Length	Revised Lb. Rebar
#1	1307.55	1304.55	1297.55	1294.55	40	120'	2	26'6"	8	~~34'6"~~	51	10'6"	26	~~500'~~	10	406.8	10	49.62	~~2351~~ 13	4	300'	1928.3
#2	1307.70	1304.70	1294.70	1291.70	40	120'	2	26'6"	8	~~37'0"~~	51	13'6"	32	~~600'~~	10	0	--	59.73	~~2851~~ 16	4	300'	2146.7
#3	1308.53	1305.53	1289.53	1286.53	40	120'	2	26'6"	8	~~34'6"~~	51	19'6"	44	~~800'~~	0	0	--	80.13	~~3255~~ 22	4	"	2583.6
#4	1308.58	1305.58	1290.58	1287.58	40	120'	2	26'6"	8	~~37'0"~~	51	18'6"	42	~~900'~~	0	0	--	76.74	~~3155~~ 21	4	"	2510.8
#5	1308.58	1305.58	1291.58	1288.58	40	120'	2	26'6"	8	~~37'0"~~	51	17'6"	40	~~900'~~	0	406	--	73.35	~~3060~~ 20	4	"	2437.9
#6	1308.53	1303.53	1291.53	1288.53	40	120'	2	26'6"	8	~~37'0"~~	51	17'6"	40	~~900'~~	0	0	--	73.35	~~3060~~ 20	4	"	2437.9
#7	1307.70	1304.70	1290.70	1287.70	40	120'	2	26'6"	8	~~37'0"~~	51	17'6"	40	~~900'~~	10	0	--	73.35	~~3060~~ 20	4	"	2437.9
#8	1307.55	1304.55	1292.55	1289.55	40	120'	2	26'6"	8	~~34'6"~~	51	14'6"	34	~~800'~~	10	406	--	63.18	~~2750~~ 19	4	"	2219.5
															TOTALS							18,702.6

1-27-51 30" 29" Revised 5-31-51

GENERAL NOTES

Class A (AE) Concrete shall be used thruout. Bevel all exposed edges with a 3/4" triangular molding unless otherwise noted.

: All dimensions shown relative to reinforcing steel are to ℄ of bar.

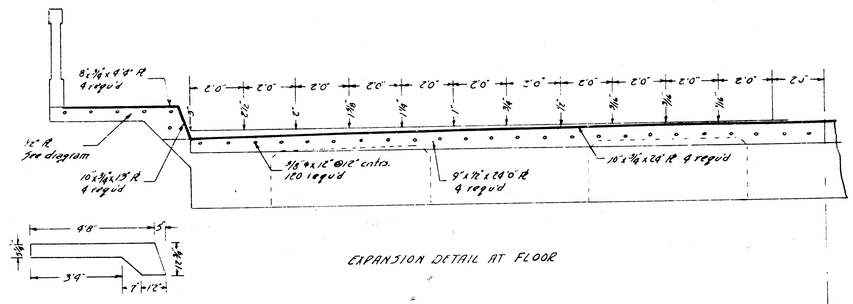


PIER DETAILS
BRIDGE No. 616-25-2371

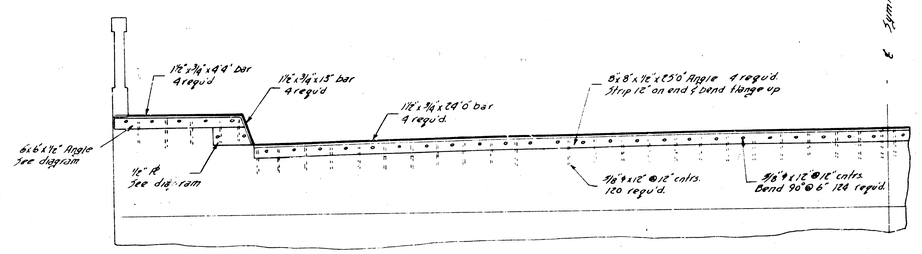
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
—COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
2-14-50	1/8" = 1'0"	M.S. & R.J.	R.M.		
	DATE				
	PLANFILE		TOTAL SHEETS		

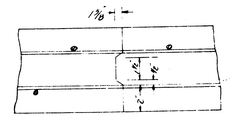
State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	9	11



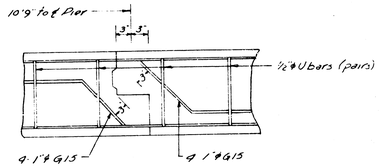
EXPANSION DETAIL AT FLOOR



EXPANSION DETAIL AT BACKWALL

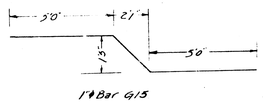


SLAB JOINT



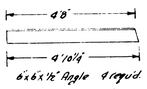
GIRDER JOINT

CONSTRUCTION JOINT DETAILS



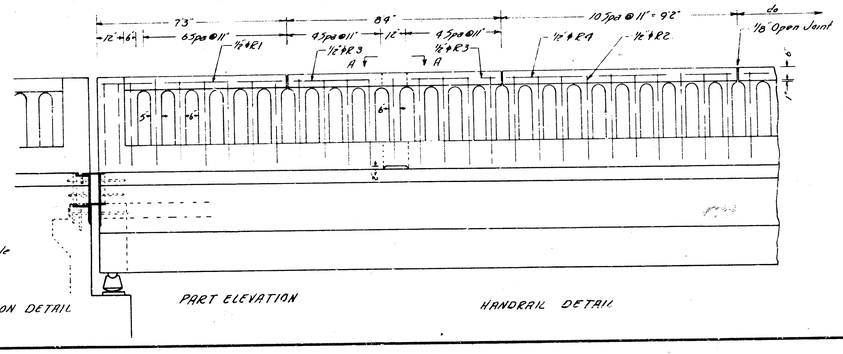
1" ϕ Bar G15

SECTION AA



6"x6"x7/8" Angle 4 req'd.

1/2" R 4 req'd.



EXPANSION DETAIL

PART ELEVATION

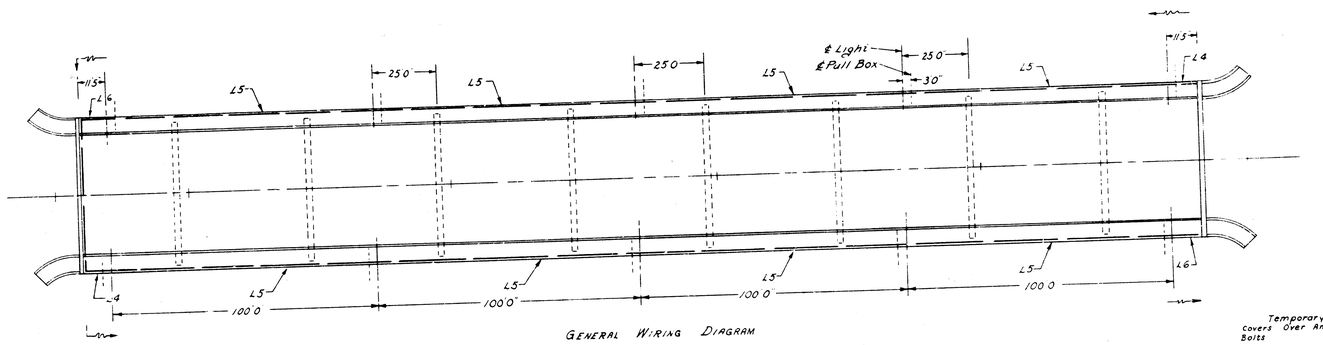
HANDRAIL DETAIL

AUXILIARY DETAILS
BRIDGE NO. 616-25-2371

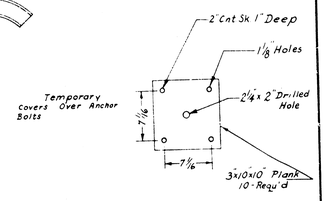
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=2'-0"	M.E.S.	M.E.S.		
	DATE				
	PLANFILE		TOTAL SHEETS		

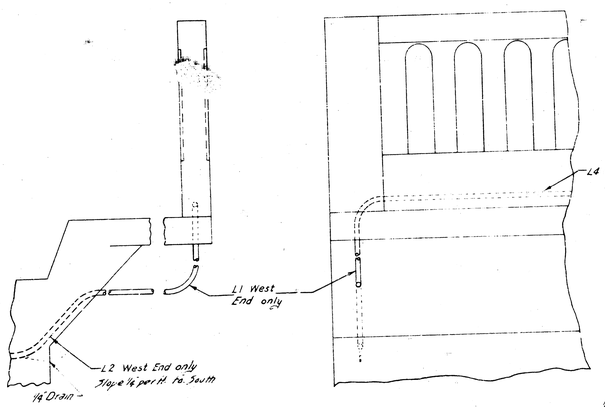
State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	10	11



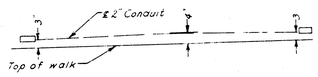
GENERAL WIRING DIAGRAM



Temporary Covers Over Anchor Bolts



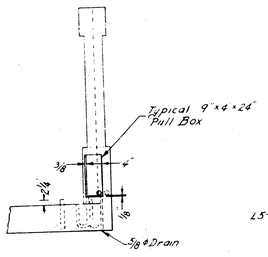
DETAIL AT ENDS OF BRIDGE



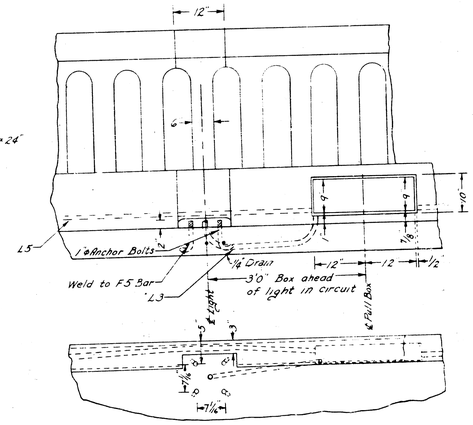
Typical Slope of Conduit between Pull Boxes

CONDUIT TABLE			
SYMBOL	No	Length	Tot Lgth
L1	2	4' 1/2"	8' 3"
L2	1	53' 4 1/2"	53' 4 1/2"
L3	10	1' 10 1/2"	18' 9"
L4	2	8' 1/2"	16' 3"
L5	8	100' 2"	801' 9"
L6	2	14' 1/2"	28' 3"
		Total	928' 2 1/2"

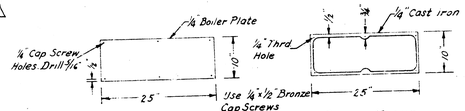
All conduit 2" non metallic



Section through Pull Box

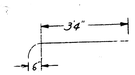


DETAIL AT PULL BOX AND LIGHT

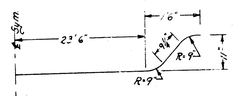


PULL BOX COVER
10 Req'd

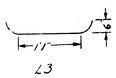
COVER FRAME
10 Req'd



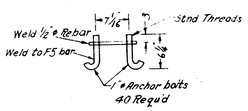
L1



L2



L3



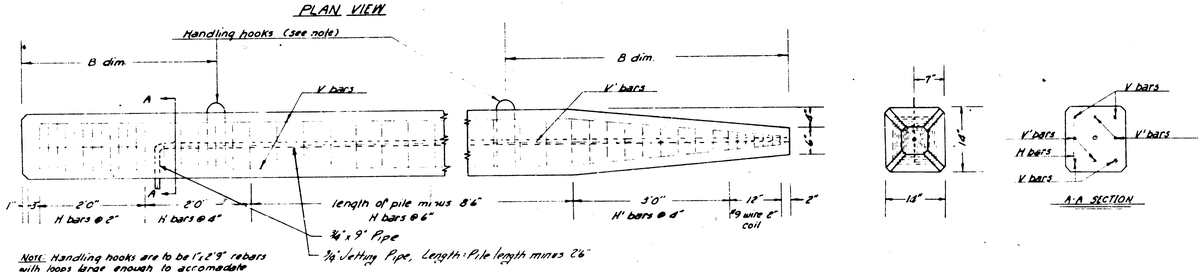
LIGHTING DETAILS
BRIDGE NO. 616-25-2371

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
		M.E.S.	C.D.H.		
	DATE	10-50	11-25-50		
	PLANFILE		TOTAL SHEETS		

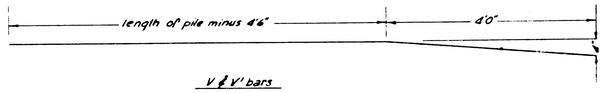
State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	11	11

PLAN VIEW

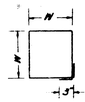


Note: Handling hooks are to be 1'-2'9" rebars with loops large enough to accomodate attaching hooks.

BENDING DIAGRAM



V & V' bars



W dim. in H bars - 10" in H' bars decrease by decrements of 4"

General Notes:

Piling are to be constructed of class A concrete mix to be of such consistency that the concrete will be thoroughly compacted by tamping & vibrating. Piling are to be lifted with handling hooks (placed at B dim.) only. Top of piling must have a smooth and level surface, where not attained in forming, surface must be leveled by grinding or other suitable methods. All exposed edges are to have a 1" bevel.

Piling should remain in forms for 14 days and cured for a minimum of 6 weeks before being driven.

Piling are to be painted with suitable coating 5" above & 5" below normal water line.

Each pile shall be stamped or marked with the date of its manufacture.

All steel shall have 2" cover unless otherwise noted.

BILL OF MATERIAL

20'6" PILE					32'6" PILE				
Bar	V	V'	H	H'	Bar	V	V'	H	H'
Number	4		43	9	Number	4		67	9
Size	#6		#6	#6	Size	#6		#6	#6
Length	20'0"		4'0"	Var.	Length	32'0"		4'0"	Var.
B dim.	4'5"				B dim.	6'9"			
Total Steel			158#		Total Steel			303#	
Concrete			1.04 Cu. Yds.		Concrete			1.65 Cu. Yds.	

24'6" PILE					36'6" PILE				
Bar	V	V'	H	H'	Bar	V	V'	H	H'
Number	4		51	9	Number	4		75	9
Size	#6		#6	#6	Size	#6		#6	#6
Length	24'0"		4'0"	Var.	Length	36'0"		4'0"	Var.
B dim.	5'1"				B dim.	7'1"			
Total Steel			187#		Total Steel			339#	
Concrete			1.25 Cu. Yds.		Concrete			1.86 Cu. Yds.	

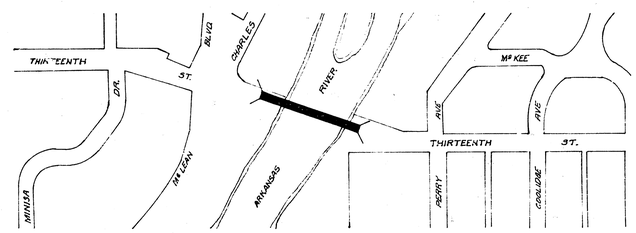
28'6" PILE					40'6" PILE				
Bar	V	V'	H	H'	Bar	V	V'	H	H'
Number	4		59	9	Number	4	4	83	9
Size	#6		#6	#6	Size	#6	#6	#6	#6
Length	28'0"		4'0"	Var.	Length	40'0"	40'0"	4'0"	Var.
B dim.	5'11"				B dim.	8'5"			
Total Steel			217#		Total Steel			615#	
Concrete			1.45 Cu. Yds.		Concrete			2.06 Cu. Yds.	

CONCRETE PILING 14" X 14"

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
H. J. GREELEY ——— COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO
	1"=1'0"	Baskett	Marion	7.L.G.	
	DATE	12-47		2-7-47	
	PLANFILE		TOTAL SHEETS		

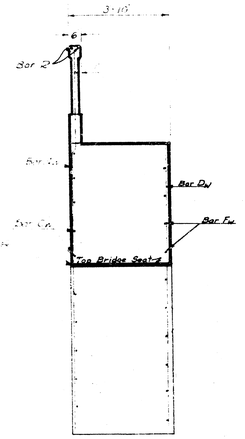
13th STREET BRIDGE OVER BIG ARKANSAS RIVER
BRIDGE ABUTMENT REPAIR
PROJ. NO. DAKB 572018
CITY OF WICHITA, KANSAS
R. W. LINN, CITY ENGINEER

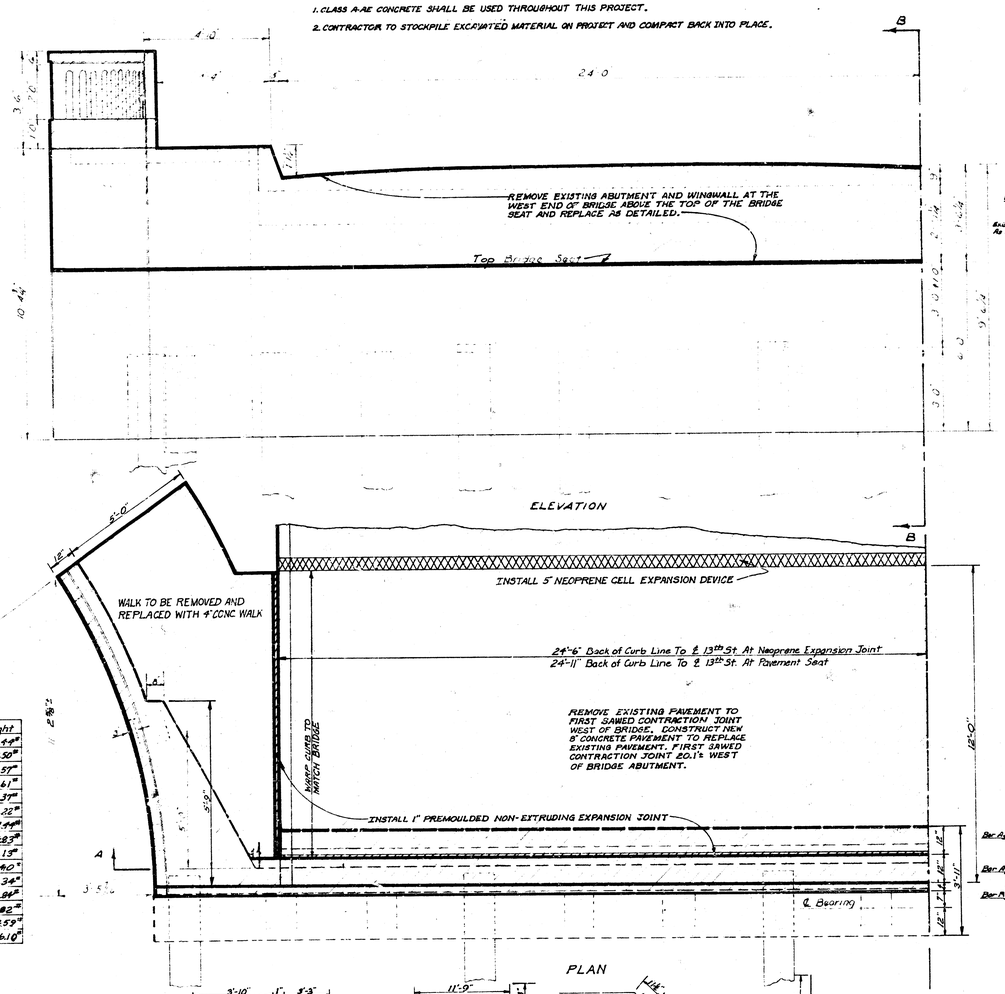


GENERAL NOTES:

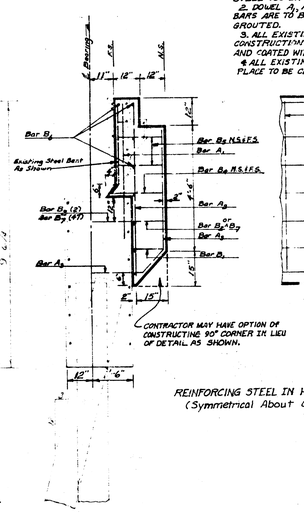
1. THE LUMP SUM BID ITEM OF "ABUTMENT REPAIR" SHALL INCLUDE ALL COSTS OF:
   - A. REMOVAL & RECONSTRUCTION OF WEST ABUTMENT & WINGWALLS AS DETAILED.
   - B. REMOVAL & REPLACEMENT OF CONCRETE PAVEMENT, CONCRETE CURBS, & CONCRETE SIDEWALK.
   - C. REPAIR OF EAST ABUTMENT PARAPET WALL.
   - D. EXCAVATION & COMPACTION OF EMBANKMENT AS REQUIRED.
   - E. INSTALLATION OF 5" NEOPRENE CELL EXPANSION DEVICE.
   - F. REMOVAL & REPLACEMENT OF BRIDGE ROCKERS & ROCKER PLATES AT BOTH ABUTMENTS.
   - G. EPOXY REPAIR OF THE FRACTURES IN THE WEST ABUTMENT BELOW THE BRIDGE SEAT.
2. LOADING H-20-44 A.A.S.H.O. DESIGN STRESS f_s 20,000 psi., f'_c 3000 psi n = 9. CLASS A-AE CONCRETE TO BE USED THROUGHOUT. BEVEL ALL EXPOSED EDGES WITH ¾" △ MOULDING UNLESS OTHERWISE NOTED.
3. ANY DAMAGE TO THE EXISTING STRUCTURE DUE TO NEGLIGENCE ON THE PART OF THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.
4. ALL ACCESSIBLE PARTS OF THE STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF TINTED ALUMINUM PAINT FOLLOWED BY ONE COAT OF ALUMINUM PAINT AFTER ERECTION. (STRUCTURAL STEEL AT ABUTMENTS ONLY.)
5. SHOP PAINTING OF ALL STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS SET FORTH IN SECTIONS F2-3(a), Q, & Q_2 OF THE "STANDARD SPECIFICATIONS FOR STATE ROAD & BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF KANSAS 1966 EDITION".
6. FIELD PAINTING OF ALL STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS SET FORTH IN SECTION F2-6(e) OF THE "STANDARD SPECIFICATIONS FOR STATE ROAD & BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF KANSAS 1966 EDITION."
7. ALL STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS SET FORTH IN SECTION U5-2 OF THE "STANDARD SPECIFICATIONS FOR STATE ROAD & BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF KANSAS 1966 EDITION."
8. GROUTING REINFORCING STEEL IN OLD CONCRETE SHALL CONFORM TO PARAGRAPH 66P-17 OF "SUPPLEMENT NUMBER ONE TO THE STANDARD SPECIFICATIONS FOR STATE ROAD & BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF KANSAS 1970 EDITION."
9. THOROUGHLY SWAB THE BRIDGE-SEAT BEARING AREA WITH RED LEAD PAINT AND PLACE UPON IT THREE LAYERS OF TWELVE TO FOURTEEN OUNCE DUCK, EACH LAYER BEING THOROUGHLY SWABBED ON ITS TOP SURFACE WITH RED LEAD PAINT. PLACE THE SUPERSTRUCTURE SHOES OR PEDESTALS IN POSITION WHILE THE PAINT IS PLASTIC.
10. FORMWORK, CONCRETE MATERIALS, & CONCRETE PROPORTIONS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE "STANDARD SPECIFICATIONS FOR STATE ROAD & BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF KANSAS 1966 EDITION."
11. CONTRACTOR TO BLOCK OUT FOR PROPOSED ELECTRICAL CONDUITS AT WEST ABUTMENT. CONTRACTOR TO CONTACT KANSAS GAS & ELECTRIC COMPANY FOR LOCATION OF CONDUITS.

1. CLASS A-AE CONCRETE SHALL BE USED THROUGHOUT THIS PROJECT.
2. CONTRACTOR TO STOCKPILE EXCAVATED MATERIAL ON PROJECT AND COMPACT BACK INTO PLACE.

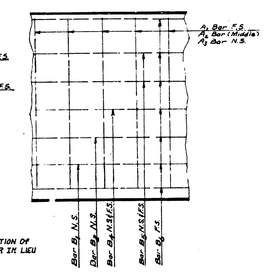


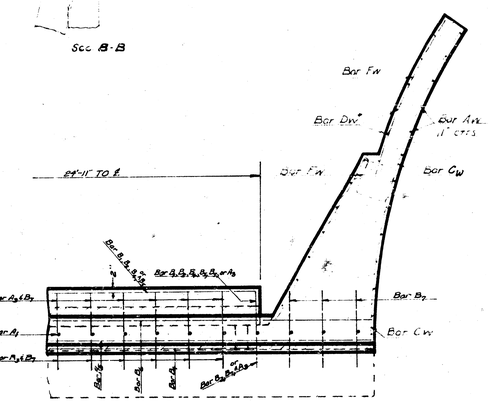


NOTES:
1. ALL VERTICAL REINF. STEEL IN THE WINGWALLS & PARAPET WALL IS TO BE BENT TO TIE THE REINF. STEEL TOO IN THE NEW CONSTRUCTION.
2. DOWEL A_1, A_2, B_1, & B_2 BARS INTO EXISTING ABUTMENT. BARS ARE TO BE DOWELED 18" INTO ABUTMENT & GROUTED.
3. ALL EXISTING SURFACES THAT ARE TO ABUT NEW CONSTRUCTION ARE TO BE THOROUGHLY CLEANED AND COATED WITH AN APPROVED EPOXY CEMENT.
4. ALL EXISTING STEEL REINFORCEMENT REMAINING IN PLACE TO BE CLEANED OF ALL FOREIGN MATERIAL.



REINFORCING STEEL IN HALF OF ABUTMENT
(Symmetrical About Centerline)

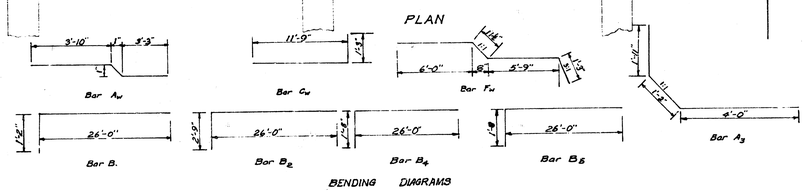




STEEL TABLE
(WEST ABUT.)

Bar	Space	No.	Size	Length	Weight
A_1 *	15"	47	¾"	4'-8	325.44#
A_2 *	15"	40	¾"	6'-2"	370.50#
A_3	15"	40	¾"	7'-11"	430.57#
B_1		2	¾"	27'-2"	81.61#
B_2		2	¾"	28'-9"	86.37#
B_3		4	¾"	27'-8"	166.22#
B_4	12"	8	¾"	27'-8"	332.44#
B_5 *	12"	16	¾"	26'-0"	624.83#
B_7 *	15"	47	¾"	2'-9"	194.13#
R		4	½"	11'-9"	31.40#
A_W	11"	36	½"	7'-2"	172.34#
C_W	12"	10	½"	13'-0"	86.84#
D_W *	12"	28	½"	4'-0"	74.82#
F_W	12"	8	½"	13'-11½"	74.53#
				Total	3056.10#

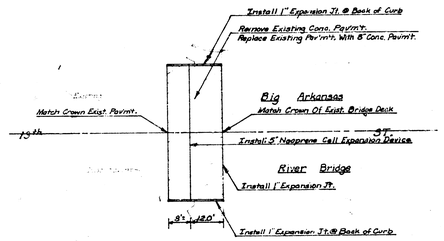
* INDICATES STRAIGHT BARS

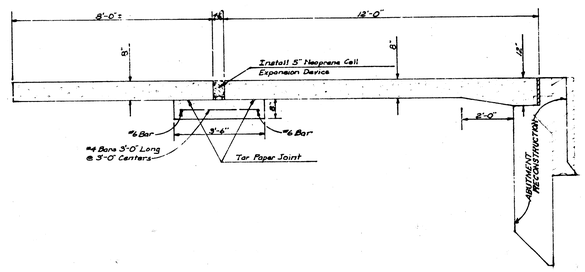


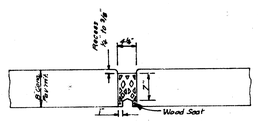
BENDING DIAGRAMS

BRIDGE ABUTMENT REPAIR
PROJ. NO. DAKB 572018

2/4



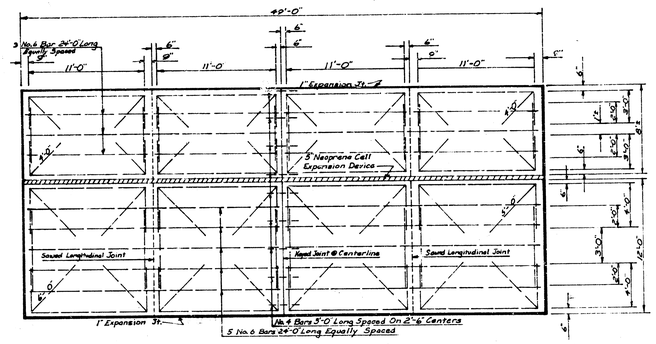




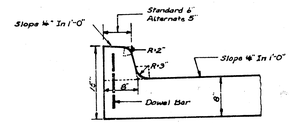
Install 5" Wide Preformed Open Cell Neoprene Joint Seal, Use "H" Series Delastic Bridge Seal Catalog No. H-5000, D.S. Brown Co. Or An Approved Equal.

The Neoprene Joint Material Shall Be Machine Installed With Equipment Capable Of Placing The Strips At The Specified Depth Without Increasing Or Decreasing The Length As Taken From The Roll Or Box By More Than 5%. No Splices Will Be Permitted Across The Roadway. 6' Long Sections Are To Be Installed Vertical In The Curb Section Of The Roadway Pavement. The Seals Shall Be Secured In Place With An Approved Lubricant Adhesive Which Shall Cover Both Sides Of The Seal Over The Full Contact Area.

EXPANSION DEVICE DETAILS

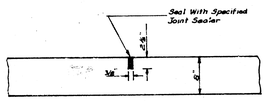


STEEL PATTERN FOR 8" CONCRETE PAVEMENT



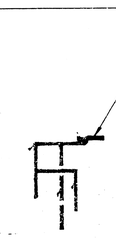
DETAIL OF INTEGRAL CURB

Integral Curb Shall Be Cut Through To The Pavement In Uniform Lengths Of Not More Than Ten Foot Intervals Between Expansion Joints. Expansion Joints Having The Same Thickness As The Expansion Joints In The Pavement Shall Be Constructed In The Integral Curb At The Specified Locations. Number 4 Or Number 6 Dowels Shall Be Installed In The Integral Curb As Shown On Approximately 2'-6" Centers.

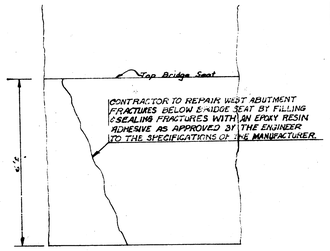


DETAIL OF SAWED LONGITUDINAL JOINT

Contractor To Remove Existing Concrete As Needed To Weld 2 1/2" x 1/2" x 24" (2 Needed) Structural Steel Bar To Existing 1 1/2" x 3/4" Structural Steel Bar. Pressure Grout Concrete Under New Bar As Needed To Fill Voids. Use 60" Single-Vee Groove Weld (A.I.S.C. Specifications) To Weld Bars. Bars To Be Welded Such That Top Of New Bar Is On The Same Plane As The Existing Bar.



EAST ABUTMENT PARAPET WALL



WEST BRIDGE SEAT REPAIR DETAIL

BRIDGE ABUTMENT REPAIR
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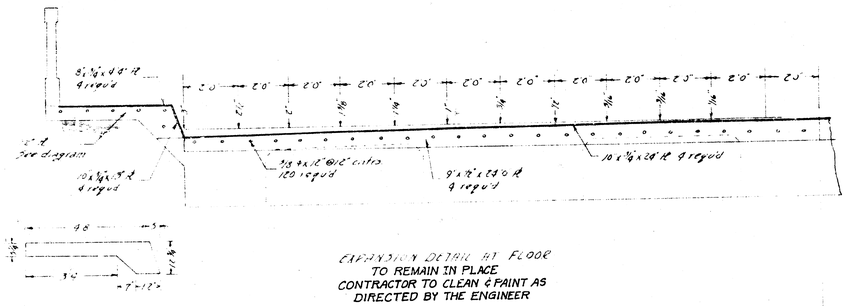
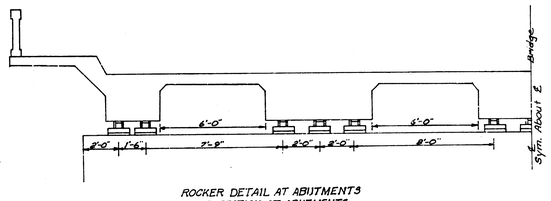
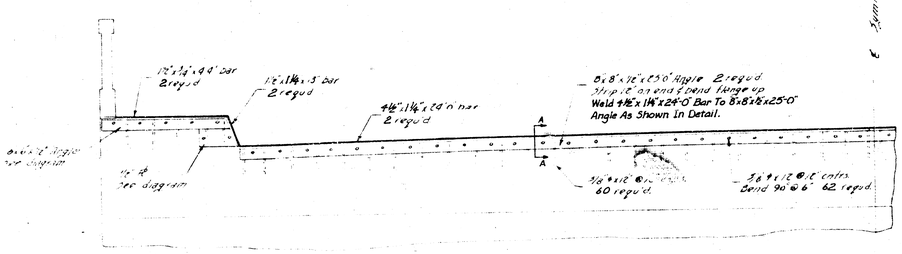


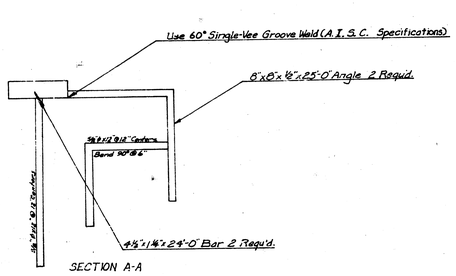
EXPANSION DETAIL AT FLOOR
TO REMAIN IN PLACE
CONTRACTOR TO CLEAN & PAINT AS
DIRECTED BY THE ENGINEER



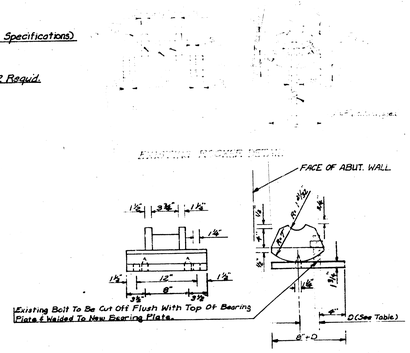
ROCKER DETAIL AT ABUTMENTS
HALF SECTION AT ABUTMENTS
CONTRACTOR SHALL REPLACE ALL ROCKER AND
ROCKER BEARING PLATES AT BOTH ABUTMENTS
AS DETAILED.



EXPANSION DETAIL AT BACKWALL
CONTRACTOR TO REPLACE EXISTING AS
DETAILED.



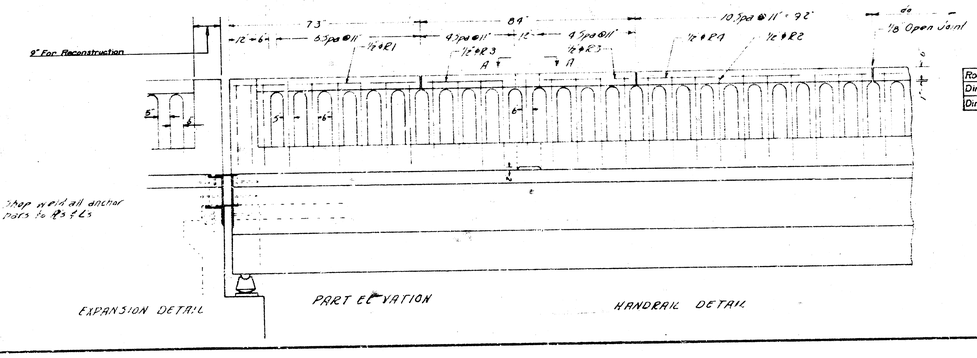
SECTION A-A



PROPOSED ROCKER DETAIL

Rocker Number	End	1	2	3	4	5	6	7	8	9	10	11	12	13	End	
Dimension D(inches)	N	1 9/16	1 9/16	1 5/16	1 5/16	11/16	11/16	1 3/16	1 3/16	11/16	1 5/16	11/16	1 5/16	1 3/16	S	West Abutment
Dimension DX	N	2 3/16	1 9/16	2 7/16	2 7/16	2 7/16	2 7/16	2 3/16	2 11/16	2 7/16	2 1/16	2 7/16	2 3/16	1 9/16	S	East Abutment

NORTH — SOUTH



EXPANSION DETAIL — PART ELEVATION — HANDRAIL DETAIL

BRIDGE ABUTMENT REPAIR
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