Chuck Ford

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

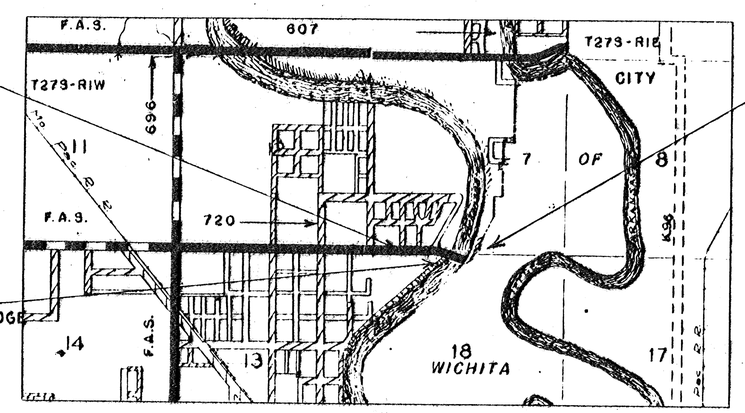
SEDGWICK COUNTY HIGHWAY DEPARTMENT

BRIDGE NO. 616-25-2371

6,158 V.P.D. 1950

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



BEGIN PROJECT STA. 21+58.5

END PROJECT STA. 25+83.5

STA. 23+71.0 CONSTRUCT
36-7 at 30-36 RE. CON. BRIDGE

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

Rufus L. Kirk
COUNTY ENGINEER

DATE 12-14-50

APPROVED DATE 12-18-50

Walter Johnson
ENGINEER OF SECONDARY ROADS

APPROVED 12-18-50 DATE

R C Kerling
STATE HIGHWAY ENGINEER

13th Street
616-25

	State	Fiscal Year	Sheet No.	Total Sheets
	Kansas	1940	8	11

Sec 12-T27S-R11W

Sec 7-T27S-R12E

Sec 13-T27S-R11W

Sec 18-T27S-R12E

Sta 0+00 Sec. Cor.
31.1' N.W. to x on curb
45.4' S.W. " " " "
21.45' S.E. " " " "
Ft. 95' N.E. " " " "

Sta 11+44.8 Iron Pin P.I.
42.25' N.W. to S.E. Cor. of Brick Bldg.
37.00' N.E. to Ash Elm
39.00' W. to N. Face of Brick Bldg.
18.00' W. to W. Face of 2 Story Ilse

Sta 13+44.8 Iron Pin P.C.
23.4' N. to St. Sign Post
33.7' N. to 8" Elm
34.2' N.W. to Pipe of Gas Meter
48.7' N.E. to Tel. P.

Sta 13+44.23 Iron Pin P.T.
1.0' S. to Line of N. Bri. Truss

Sta 23+71 Construct 36"-7930'-36" R.C.B.

Δ = 17°21'
D = 8°14'
R = 696.04'
T = 109.00'
L = 198.74'

Sta 15+44.3

Sta 19+44.23

Sta 23+71

Sta 27+40.08 P.I.
= 542.27 Ω1

Sta 28+08.82 P.T.
= 542.28 Ω2

Sta 27+40.08 P.I.
= 542.27 Ω1

Sta 28+08.82 P.T.
= 542.28 Ω2

Sta 23+71

+17 (30.83) Bld.

+30 6"ϕ Water Main Loop Box

BM #1 Elevation 1303.02
Square-cut top curb 15' N & 31' E
NW cor Sec 13

BM #2 Elevation 1309.80
60 d Spike in Tel. Pole
24' E of Sta 17+01

BM #3 Elevation 1312.13
USC&GS Stdrd. Tablet
in 36" of 36" con. bridge

SCALE
Horiz. 1" = 100'
Vert. 1" = 10'

1310
1305
1300
1295
1290

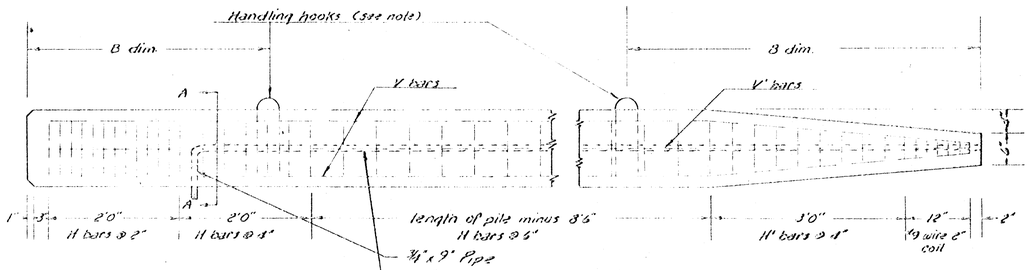
PLATE 1 - PLAN-PROFILE C.E.R.P.R.B.C. STANDARD
REVISED & ISSUED COLUMBUS, OHIO

MARCH No. 3 1940

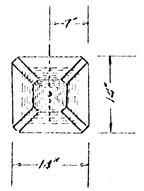
Lowell Hardacre

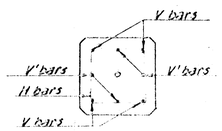
	State		Fiscal Year	Sheet No.	Total Sheets
	Kansas		1950	11	11

PLAN VIEW



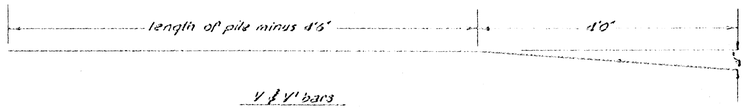
Note: Handling hooks are to be 1'-2'3" rebars with loops large enough to accomodate attaching hooks.



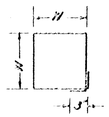


A-A SECTION

BENDING DIAGRAM



V & V' bars



H dim. in H bars - 10" in H' bars decrease by increments of 2"

Guard 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, while 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 4 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

20½" PILE					32½" PILE				
Bar	V	V'	H	H'	Bar	V	V'	H	H'
Number	4		43	2	Number	4		51	2
Size	#3		#3	#3	Size	#3		#3	#3
Length	20'0"		4'0"	Etc.	Length	32'0"		4'0"	Etc.
B dim.	8'3"				B dim.	6'9"			
Total Steel			153#		Total Steel			203#	
Concrete			1.04 Cu Yds.		Concrete			1.45 Cu Yds.	

24½" PILE					35½" PILE				
Bar	V	V'	H	H'	Bar	V	V'	H	H'
Number	4		51	2	Number	4		65	2
Size	#3		#3	#3	Size	#4		#3	#3
Length	24'0"		4'0"	Etc.	Length	35'0"		4'0"	Etc.
B dim.	7'7"				B dim.	7'1"			
Total Steel			187#		Total Steel			333#	
Concrete			1.28 Cu Yds.		Concrete			1.64 Cu Yds.	

27½" PILE					30½" PILE				
Bar	V	V'	H	H'	Bar	V	V'	H	H'
Number	4		59	2	Number	4	4	81	2
Size	#3		#3	#3	Size	#4	#3	#3	#3
Length	27'0"		4'0"	Etc.	Length	30'0"	30'0"	4'0"	Etc.
B dim.	8'11"				B dim.	8'5"			
Total Steel			211#		Total Steel			418#	
Concrete			1.45 Cu Yds.		Concrete			2.04 Cu Yds.	

CONCRETE PILING 14" X 14"

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO
	1"=1'0"	Baskell	Manion	H.J.B.	
	DATE	12-27		12-27-49	
	PLANFILE		TOTAL SHEETS		

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

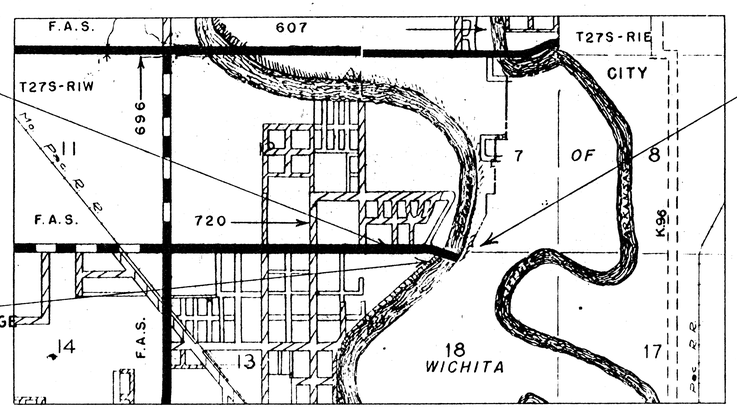
SEDGWICK COUNTY HIGHWAY DEPARTMENT

BRIDGE NO. 616-25-2371

INDEX OF SHEETS

SHEET NO.	TITLE SHEET
1	TITLE SHEET
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7	ABUTMENT DETAIL
8	PIER DETAIL
9	AUXILIARY DETAIL
10	LIGHTING DETAIL
11	PILING DETAIL

6,158 V.P.D. 1950



BEGIN PROJECT STA. 21+58.5

END PROJECT STA. 25+83.5

STA. 23+71.0 CONSTRUCT
36-7at50-36 RE. CON. BRIDGE

2687201

2697491

CONVENTIONAL SIGNS

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

R.B. Smith 1-22-46

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

Rufus S. Kirk
COUNTY ENGINEER

DATE 12-14-50

APPROVED DATE 12-18-50

Walter Johnson Co
ENGINEER OF SECONDARY ROADS

APPROVED 12-18-50 DATE

R C Keeling
STATE HIGHWAY ENGINEER

13th Street
616-25

State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1950	2	11

Sec 12-T27S-R1W

Sta. 0+00 Sec. Cor.
31.1' N.W. to X on curb
45.4' S.W. " " " "
21.45' S.E. " " " "
34.95' N.E. " " " "

Wheat

MERIDIAN AVE.

+10 Hse. End.
+94 Hse. End.
+61 Hse. End.
+34 Hse. End.
+00 Hse. End.
+19 Hse. End.
+76 Hse. End.
+53 Hse. End.
+31 W. St. Clair St.
+18 Hse. End.
+18 Hse. End.
+44 Hse. End.
+87 Hse. End.
+47 Athenian Ave.
+28 Hse. End.
+08 Hse. End.
+26 Hse. End.
+30 Hse. End.
+88 Hse. End.
+22 E. Clarence Ave.

Hse.
Farm
Yard
+88 Hse. End.

Sta. 15+44.5 P.C.
+72 Fld. End.

Pasture

Δ = 17°30'
D = 4°24'
R = 1300.00'
T = 200.00'
L = 397.73'

Sta. 15+44.5 Iron Pin P.C.
23.4' N. to St. Sign Post
33.7' N. to 8" Elm
34.2' N.W. to Pipe at Gas Meter
48.7' N.E. to H.L.P.

Sec. 13-T27S-R1W

Sta. 17+44.5 Iron Pin P.I.
62.75' N.W. to S.E. Cor. of Brick Bldg.
37.00' N.E. to 14" Elm
39.00' W. to E. Face of Brick Bldg.
18.00' E. to E. Face of 2 Story Hse

+44.3 P.I.
+89 Hse. End.
Shop
Scale
+13 E. Charles St.
+27 Hse. End.
Electrical Service

Pasture

Sta. 19+42.23 P.C.

Sta. 19+42.23 Iron Pin P.T.
1.0' S. to Line of N. Bri. Truss

TH #1
TH #2
TH #3
Brg
How

Sec 7-T27S-R1E

Sta. 23+71 Construct
36'-70°30'-36' R.C.B.

Arkansas River

Δ = 17°21'
D = 8°14'
R = 696.04'
T = 100.00'
L = 198.74'

Sta. 20+40.68 P.C.
+17 USC&GS BM
+30.6 4" Water Main Insp. Box.
Sta. 27+40.08 P.T.
= Sta. 26+21.42

Sta. 28+08.82 P.T.
= Sta. 28+21

Store Bldg.
Store
+45 E. Percy Ave.
+08 Driveway
+30 Driveway
+00 Driveway
+40 Driveway
+80 Driveway
+34 E. Colledge Ave.
+49 E. Alley
+62 Driveway
Hse.
50

Sec 18-T27S-R1E

BM #1 Elevation 1305.02
Square-cut top curb 16'N & 31'E
NW cor Sec 13

BM #2 Elevation 1309.80
60d Spike in Tel. Pole
24' Et Sta. 17+61

BM #3 Elevation 1312.13
USC&GS Stndrd. tablet
34'SE of S.E. cor. bridge

SCALE
Horiz. 1"=100'
Vert. 1"=10'

300' C.

PC Sta 21+72
1311.0
PT Sta 22+72
1312.23
PC Sta 26+21
1311.0
PT Sta 27+21
1312.25

1310
1305
1300
1295
1290

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

PLAT | BY | DATE
SURVEYED | Judy | 6-7-50
COMPUTED | Schmidt | 6-20
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.

PROFILE | BY | DATE
SURVEYED
COMPUTED
GRADES CHECKED
S. MAS NOTES
STRUCTURE NOTES CHKD.
NOTE BOOK
NO.

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

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

Sec. 12-T27S-R1W

Sec. 7-T27S-R1E

Sec. 18-T27S-R1E

Sec. 13-T27S-R1W

P.C.

P.I.

P.T.

17+44.5

River

Big Arkansas

BENCH MARKS

B.M. #2 - 60d 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.

Scale 1" = 50'

Topographical Map

Vicinity, Bridge No. 614-25-2356 - (13th St.)

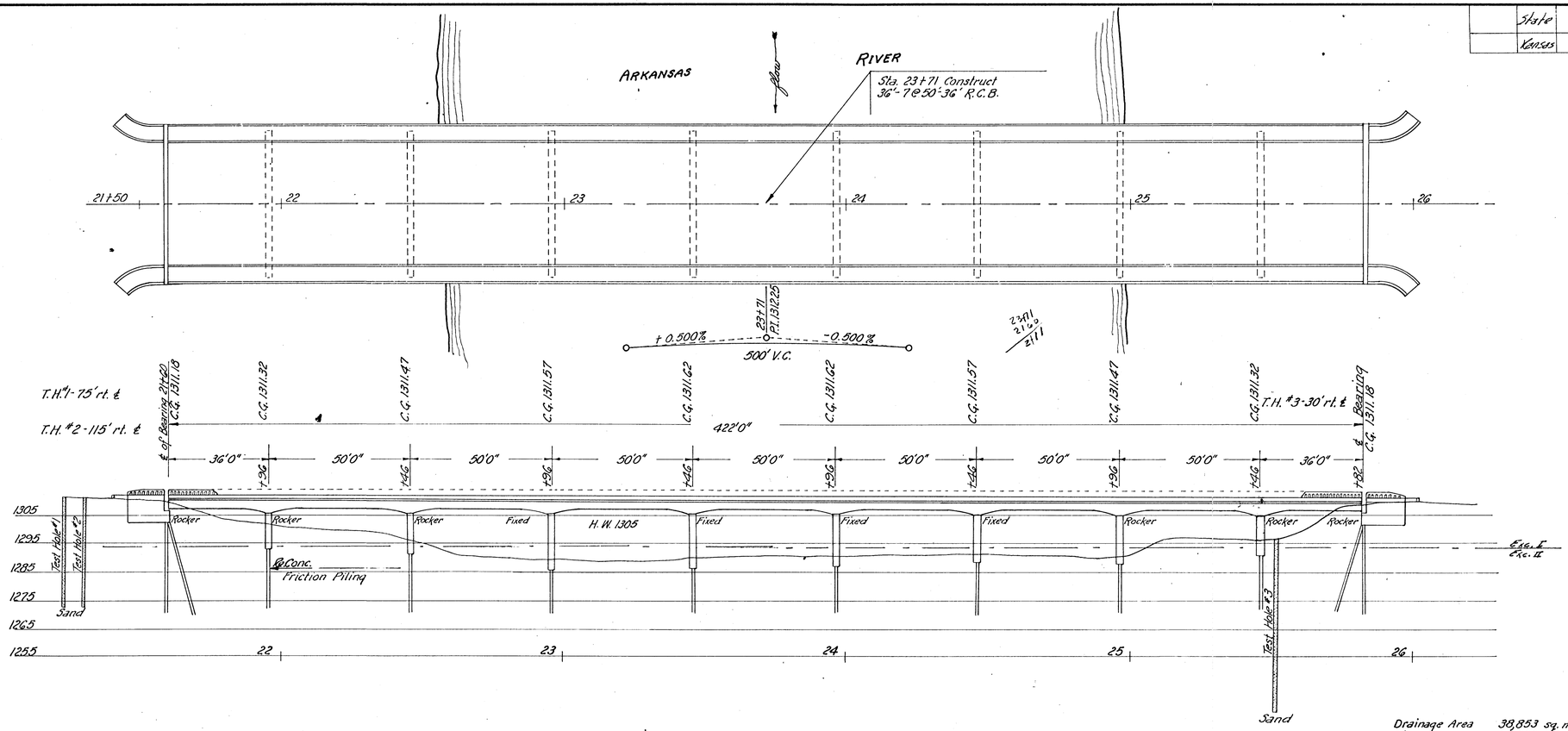
PREPARED BY

SEDGWICK COUNTY ENGINEERING DEPT.

— COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1" = 50'		Shymate		
	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	
Bearing Devices	27,612 lbs.
Re. Conc. Piling	7,960 lin. ft.
Cast Iron	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		

Vicinity Bridge No. C16-23-2236 (Item 81)

Topographical Map

PREPARED BY

SEDGWICK COUNTY ENGINEERING DEPT.

— COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED
	1" = 50'		Stanmark	
	DATE			
	PLAN/FILE		TOTAL SHEETS	

Sec. 18-T27S-R1E

Sec. 13-T27S-R1W

Sec. 7-T27S-R1E

Sec. 18-T27S-R1W

Scale 1"= 50'

BENCH MARKS

B.M. #2 - Cap in T.P. 24'+/- Sta. 17+61 El. 1309.80

B.M. #3 - U.S.C. & G. Std. tablet 24'S.E. of cor. of bridge El. 1312.13

Note: For interior details see revised sheet#2

(1968) River Improvement Map - Big Arkansas River:

Big Arkansas River

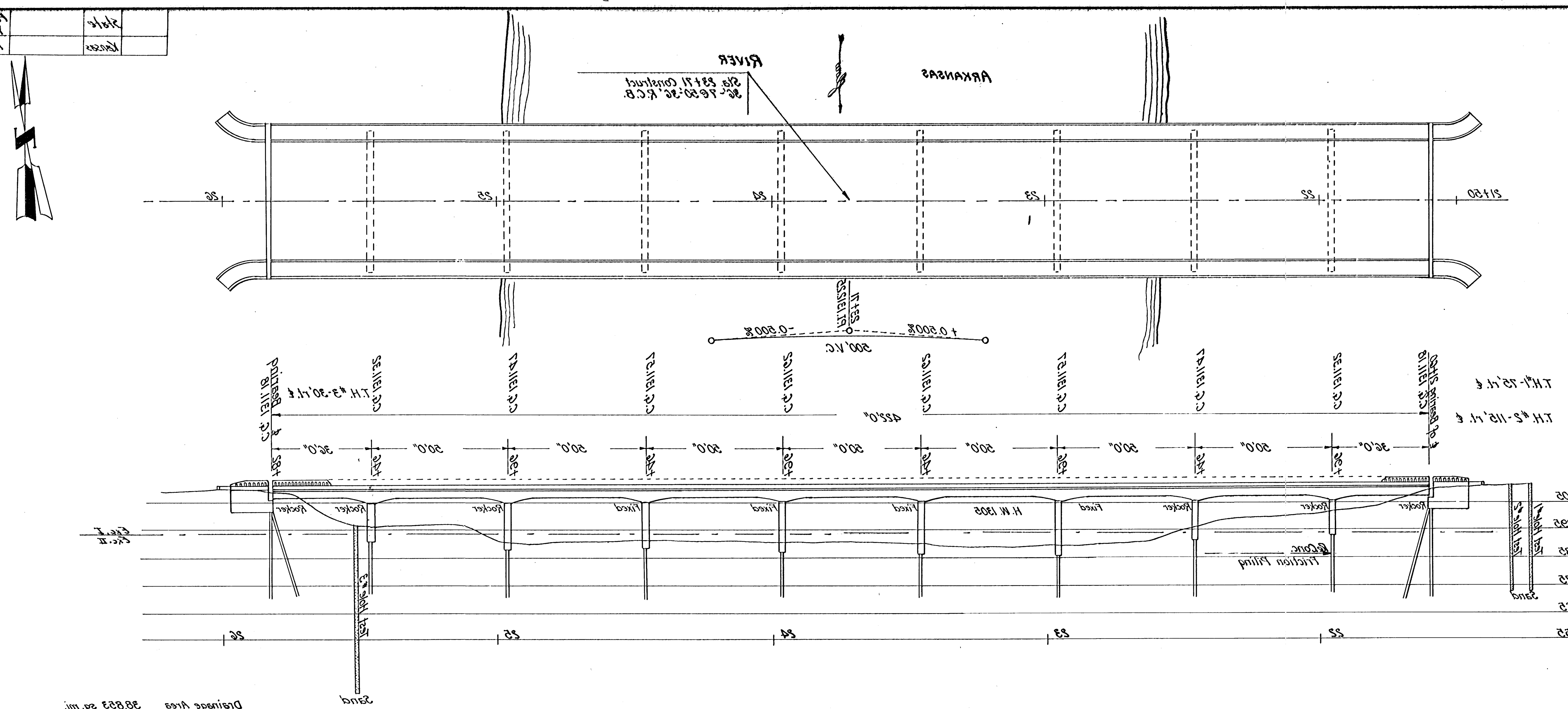
P.C.

P.T.

P.C.

P.T.

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

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 3/4" 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.

SUMMARY OF QUANTITIES

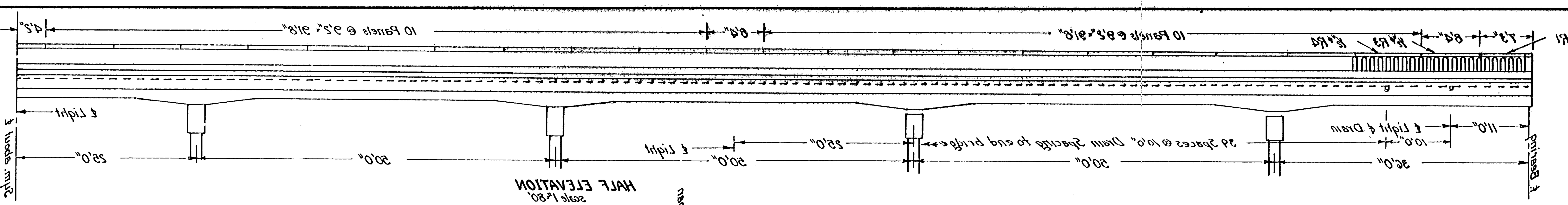
Excavation Class I	407 cu. yds.
Excavation Class II	324 cu. yds.
Concrete Class A (AE)	1707.5 cu. yds.
Reinforcing Steel	270,034 lbs.
Structural Steel	
Bearing Devices	27,612 lbs.
Re. Conc. Piling	7,960 lin. ft.
Cast Iron	1574 lbs.
2" Conduit	926 lin. ft.

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		

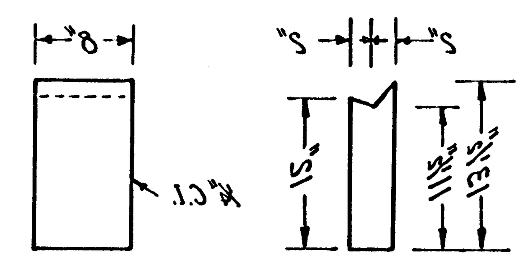
State	Fiscal Year	Sheet No.	Total Sheets
Kansas	1990	5	11



HALF ELEVATION
scale 1"=80'

SUMMARY OF QUANTITIES
SPANNING SUPERSTRUCTURE

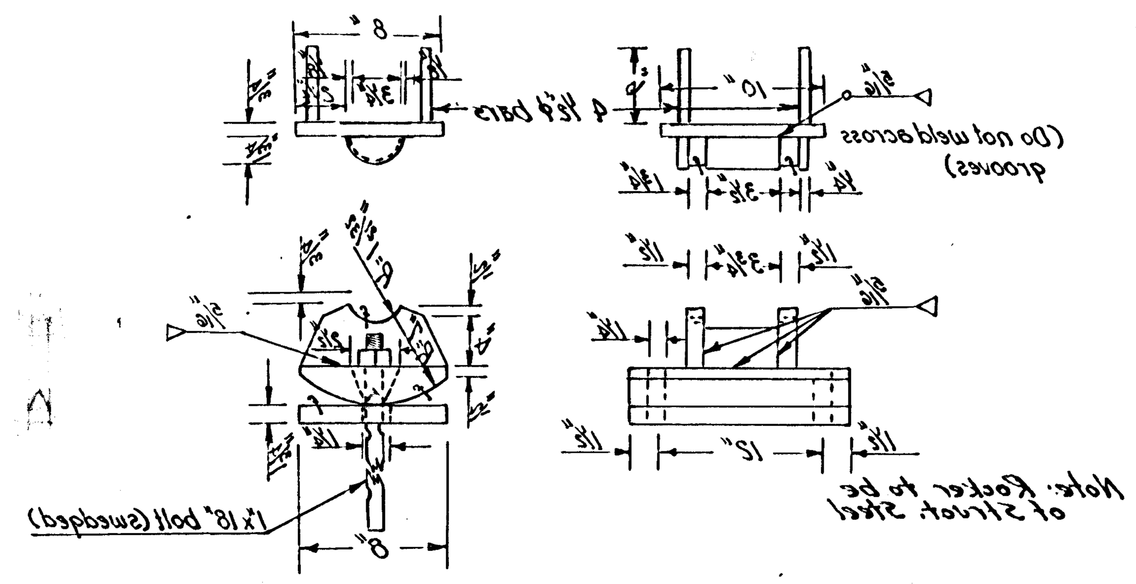
Concrete Class A (AE)	1062 Cu. Yds.
Reinforcing Steel	241,830 Lbs.
Cast Iron	1574 Lbs.
Rocker Steel	27,612 Lbs.



CAST IRON DRAIN
Computed wt. 19.2 lbs.
82 Required

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.

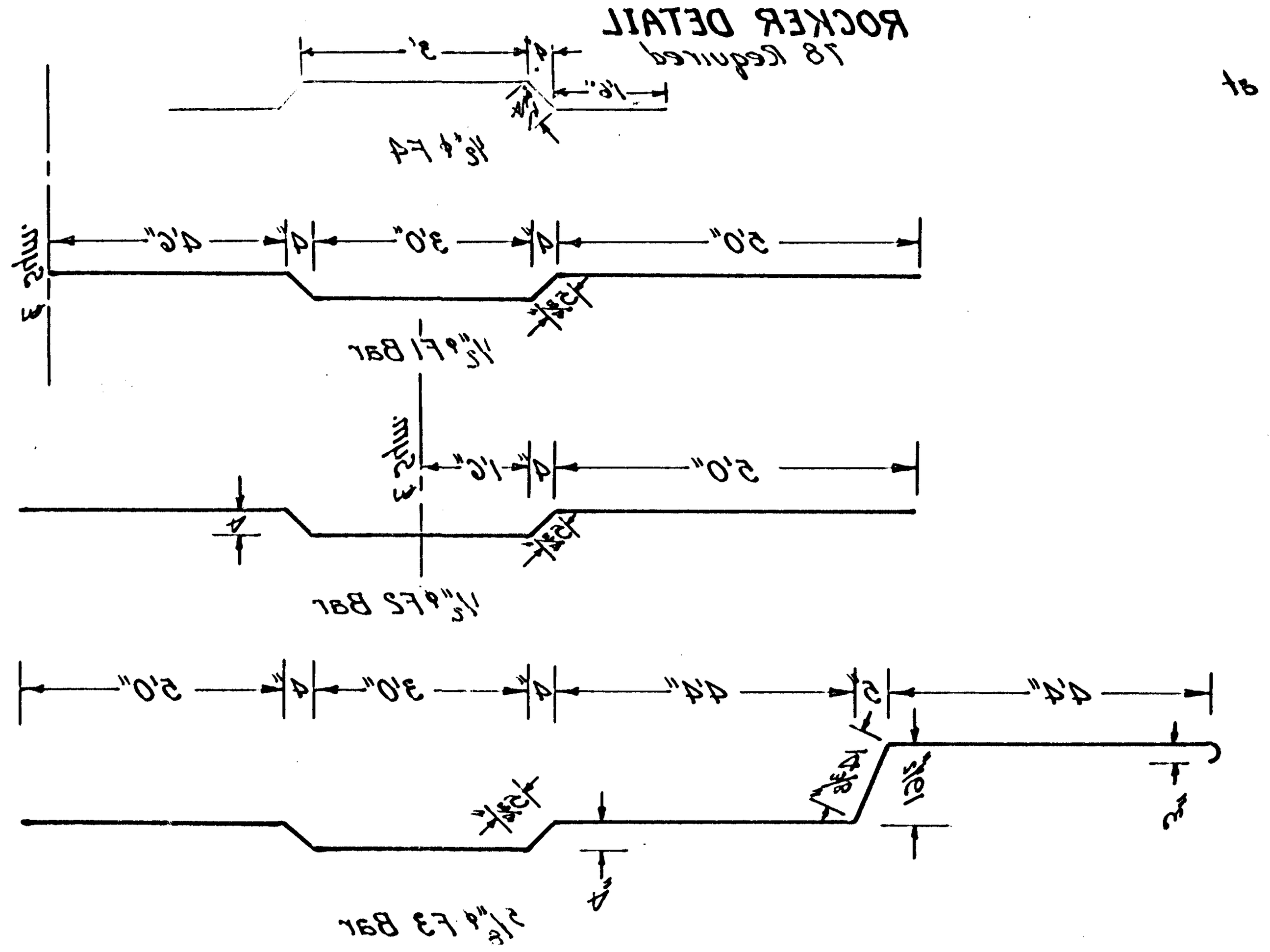


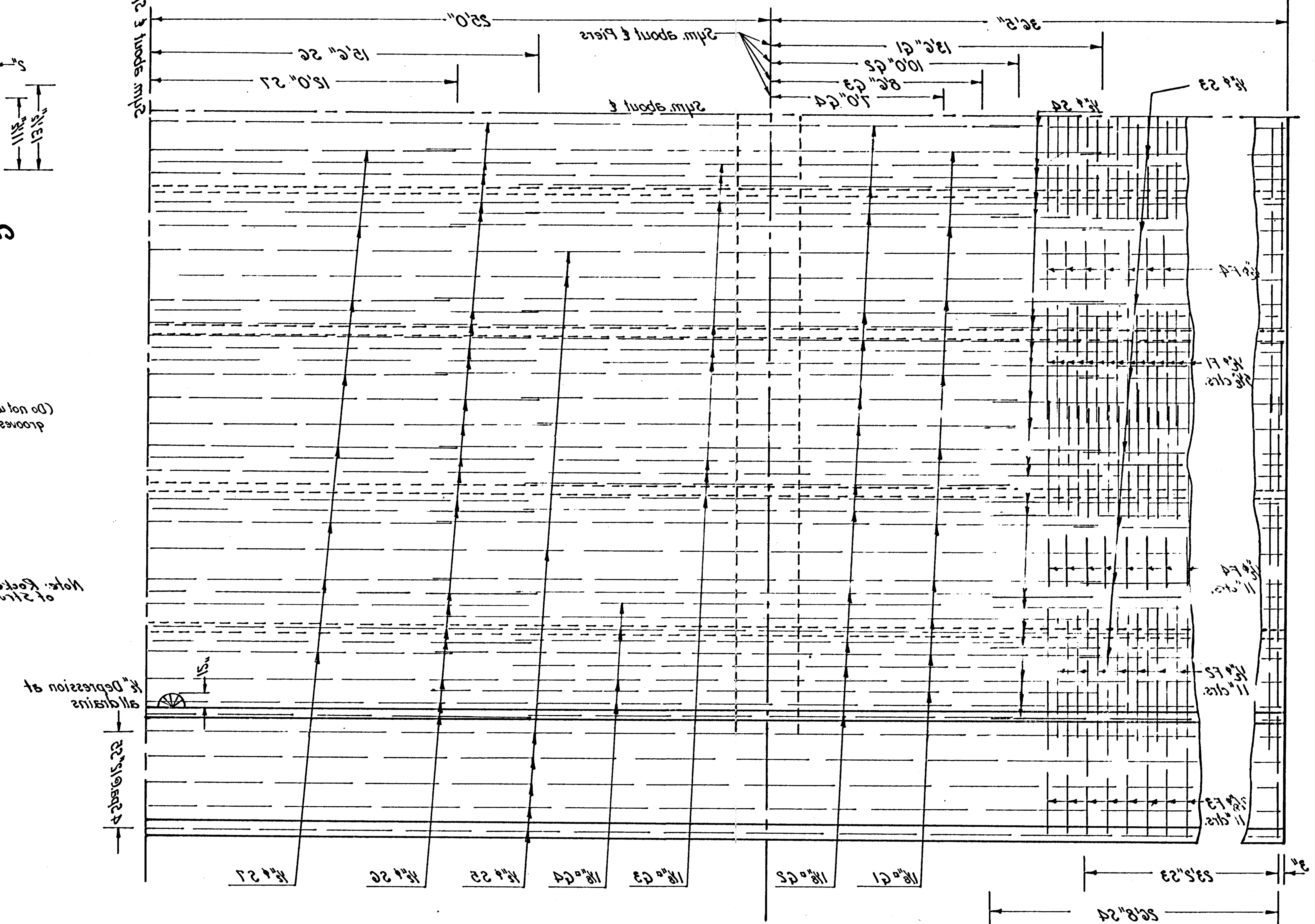
ROCKER DETAIL
78 Required

STEEL TABLE
TOP OF SLAB & WALK

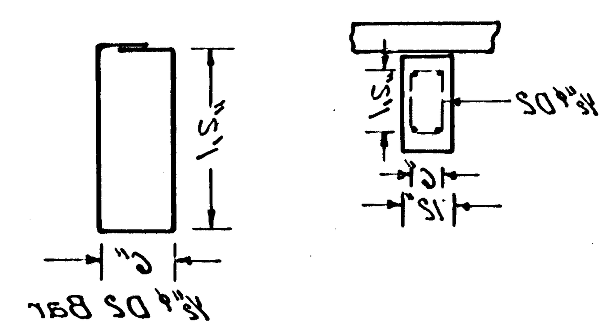
BAR	SIZE	NO.	LENGTH	WEIGHT
G1	1⅛"□	160	27'0"	16,376
G2	"	208	20'0"	17,888
G3	"	144	17'0"	10,526
G4	"	64	14'0"	3,855
*F1	½"φ	922	26'11"	16,635
*F2	½"φ	922	13'5½"	8,339
*F3	5/8"φ	922	19'3"	18,457
S3	½"φ	32	23'2"	497
S4	"	88	26'8"	926
S5	"	126	48'0"	4,008
S6	"	308	31'0"	6,397
S7	"	112	24'0"	1,800
D1	⅜"φ	160 ~~240~~	9'0"	~~1,443~~
*D2	⅜"φ	240 ~~160~~	3'8"	~~400~~

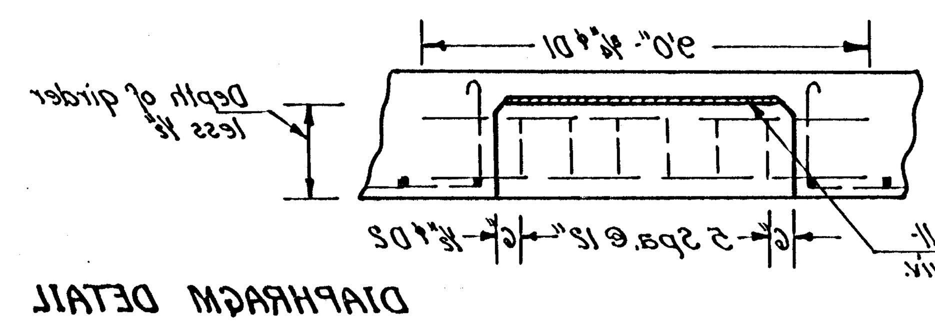
*See Bending Diagram



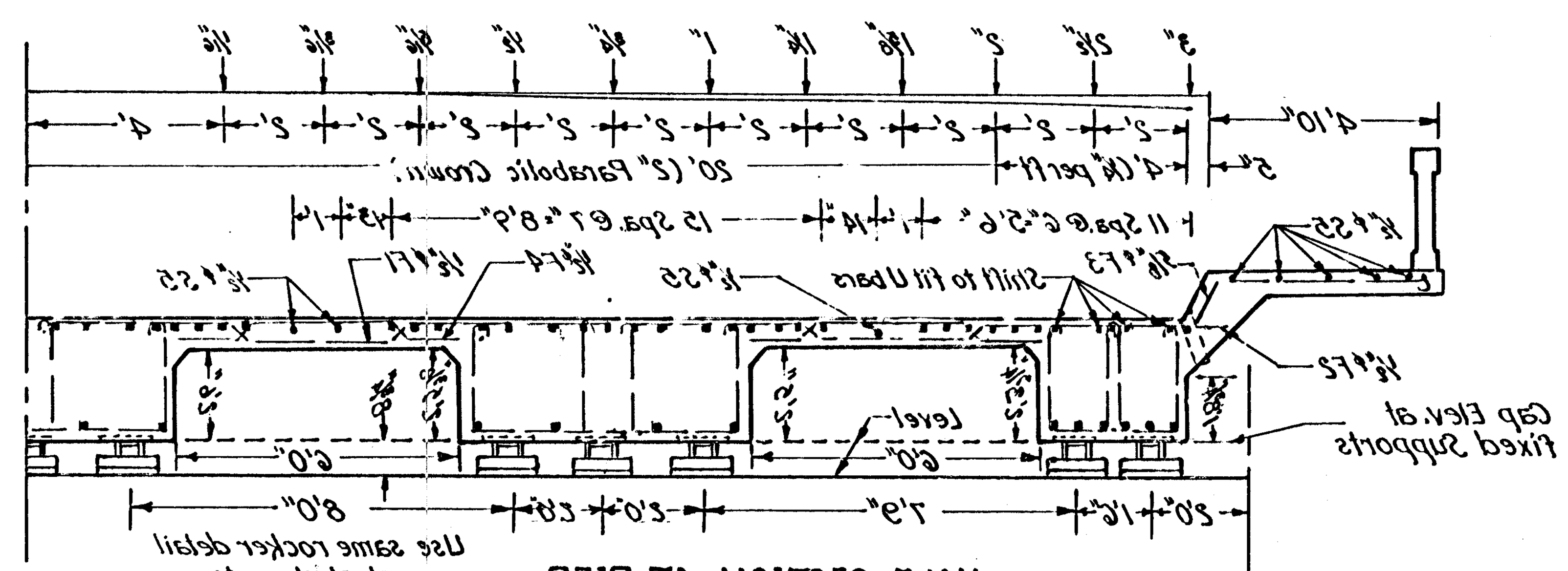


PART PLAN RE. STEEL IN TOP OF SLAB & WALK





DIAPHRAGM DETAIL
Place between girders at all supports



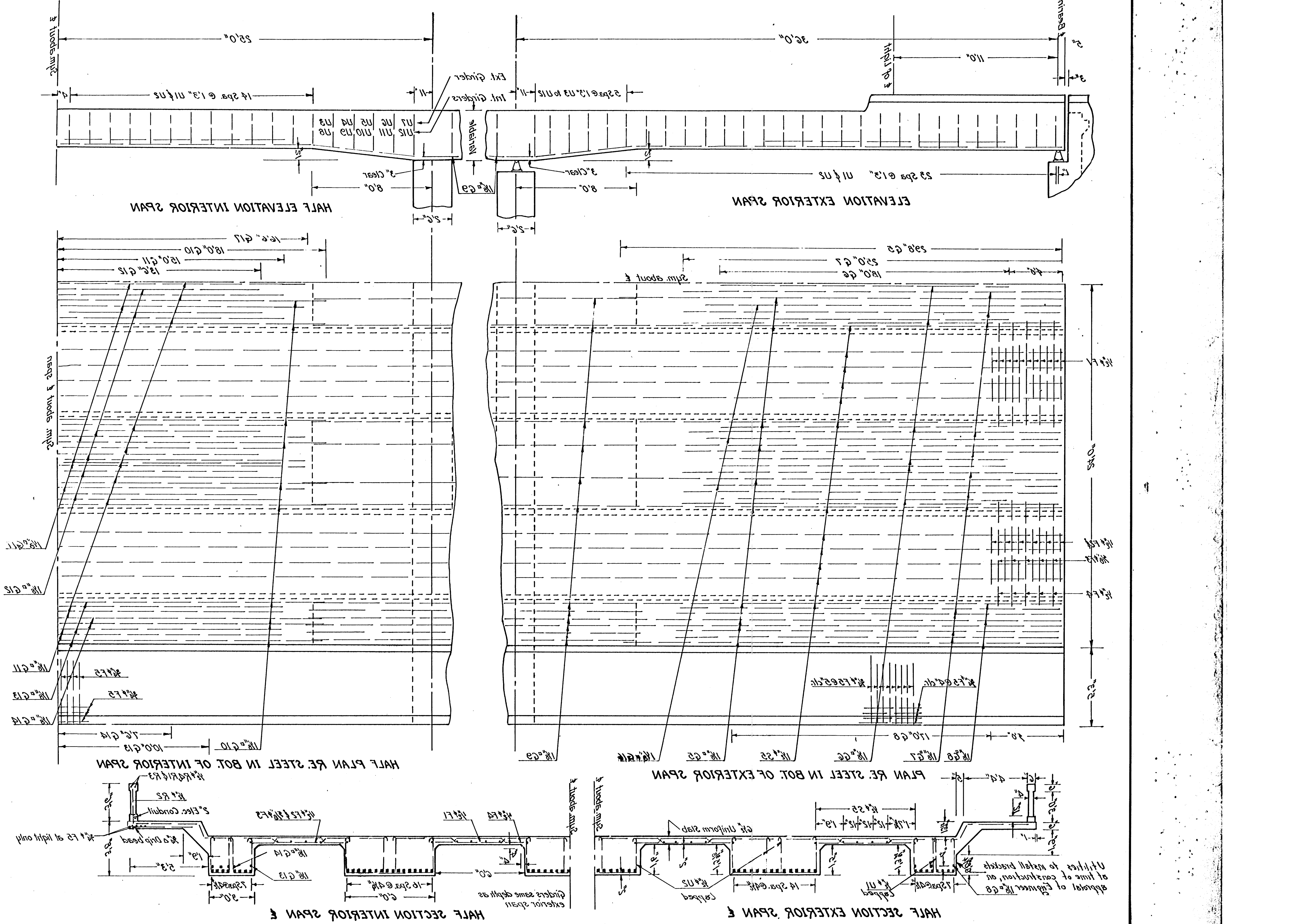
HALF SECTION AT PIER
scale 1"=3'0"

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

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
—— COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
11-20 M.S.	Noted	M.E.S.	R.W.M.		
	DATE				
	PLANFILE		TOTAL SHEETS		

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



STEEL TABLE

BOTTOM OF SLAB AND WALK

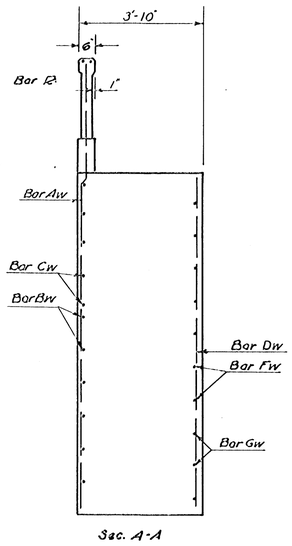
BAR	SIZE	NO.	LENGTH	WEIGHT
G5	1⅛"□	40	29'8"	5,104
G6	1⅛"□	24	18'0"	1,858
G7	1⅛"□	48	25'0"	5,160
G8	1⅛"□	12	17'0"	877
G9	1⅛"□	192	16'8"	13,800
G10	1⅛"□	140	36'0"	21,687
G11	1⅛"□	168	30'0"	21,687
G12	1⅛"□	84	27'0"	9,759
G13	1⅛"□	42	20'0"	3,612
G14	1⅛"□	28	15'0"	1807
G15	1"φ		12'11"	
F4	½"φ	1844	7'0"	8,648
F5	⅜"φ	120	4'3"	780
S5	½"φ	216	48'0"	6,925
U1	½"φ	1032	4'7"	3,180
U2	½"φ	1548	6'11"	7,187
U3	½"φ	64	4'11"	211
U4	½"φ	64	5'1"	218
U5	½"φ	64	5'5"	236
U6	½"φ	64	5'8"	243
U7	½"φ	64	5'11"	255
U8	½"φ	96	7'3"	466
U9	½"φ	96	7'5"	482
U10	½"φ	96	7'9"	498
U11	½"φ	96	8'0"	515
U12	½"φ	96	8'3"	531
R1	½"φ	8	7'0"	37
R2	½"φ	922	3'8"	2258
R3	½"φ	40	4'0"	107
R4	½"φ	160	8'11"	990
G16	1⅛"□	12	23'0"	1187
G17	"	84	33'0"	11778

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

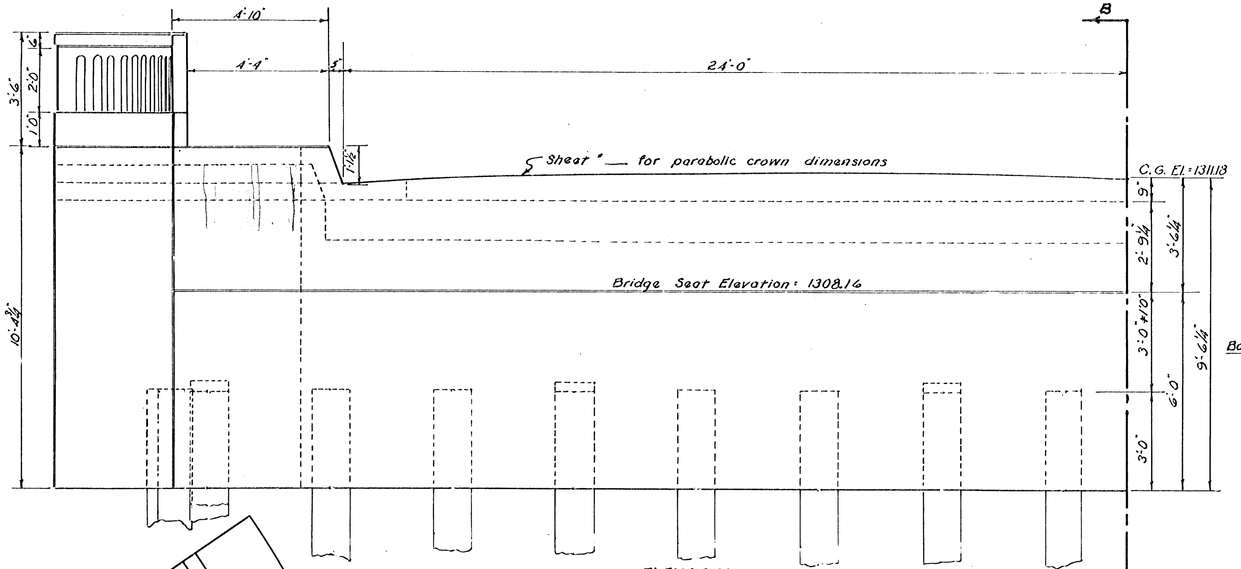
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

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

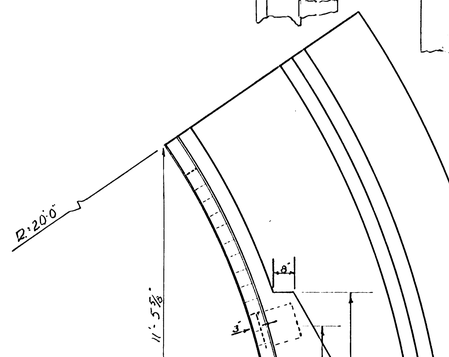
State		Fiscal Year	No.	Sheets
Kansas		1950	7	11

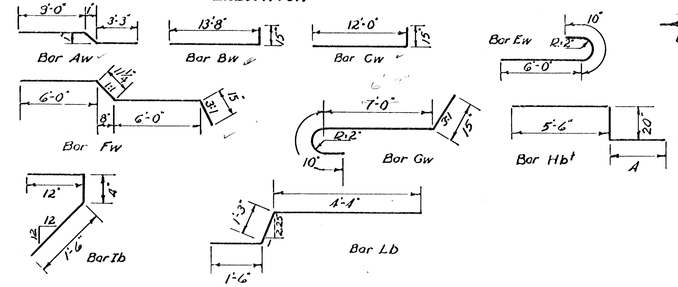


Sec. A-A

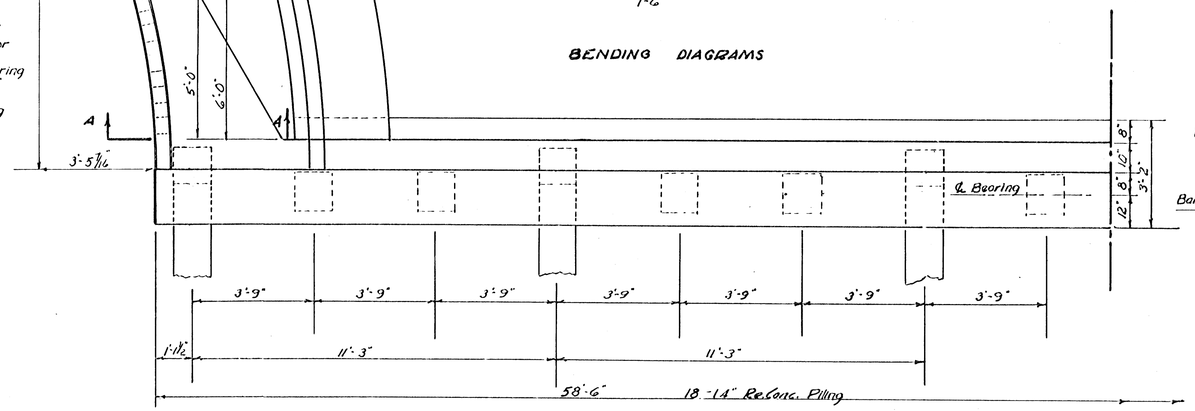


ELEVATION





BENDING DIAGRAMS



PLAN

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(ae)

STEEL TABLE
(one abut.)

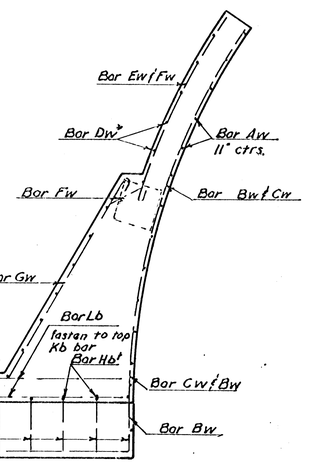
Bar	Space	No.	Size	Length	Wt.	Revised Weight
Aw	11"	36	½"ϕ	12'-4"	297	296.5
Bw	12"	12	"	14'-11"	120	119.6
Cw	12"	10	"	13'-3"	89	88.5
Dw'	12"	76	"	10'-0"	508	475.0
Ew	12"	6	"	6'-10"	27	27.4
Fw	12"	14	"	14'-2"	133	132.7
Gw	12"	6	"	9'-1"	37	36.4
Hb'	12"	58	"	10'-5"	202	406.4
Ib	12"	48	"	2'-10"	91	90.7
Jb	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 lb

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"



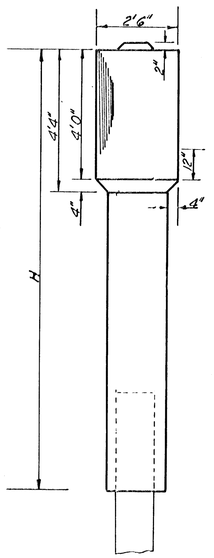
Sec. B-B

ABUTMENT DETAIL
BRIDGE NO. 616-25-2371

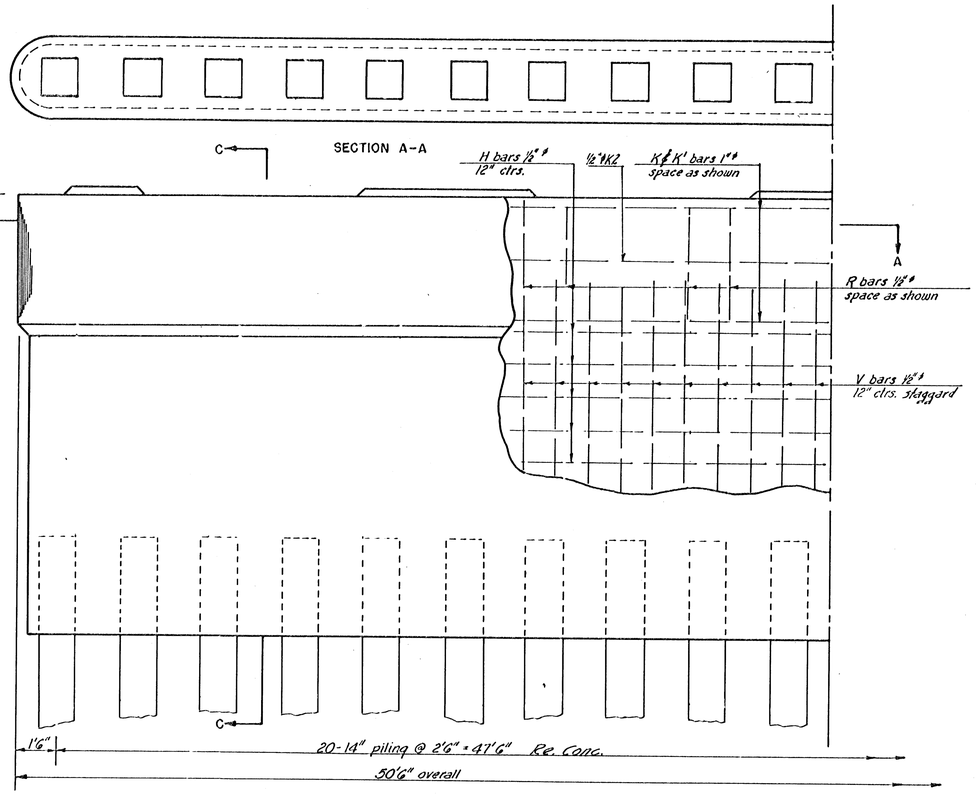
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
Rufus S. Kirk — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	½" = 1'-0"	M.S. & R.J.	R.J.		
	DATE	10-20-50			
	PLANFILE		TOTAL SHEETS		

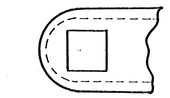
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	Kansas		1950	8	11



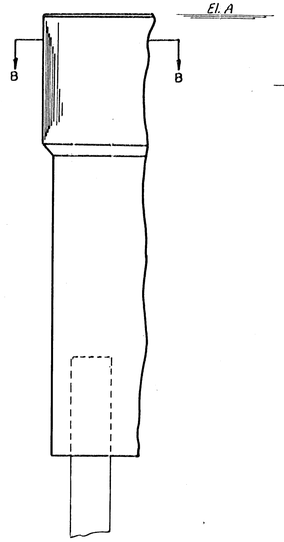
END VIEW



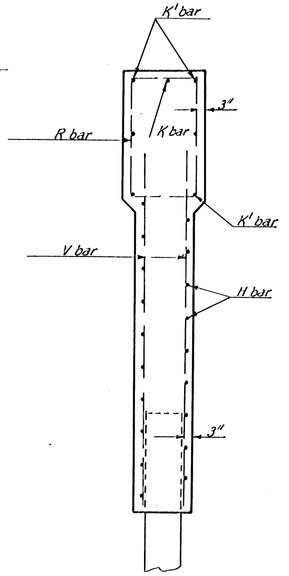
ELEVATION



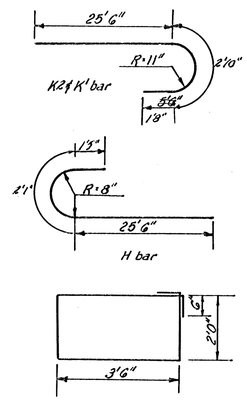
SECTION B-B



PILING ELEVATIONS
PIERS 1-2-7&8 only



SECTION C-C



BENDING DIAGRAMS
no scale

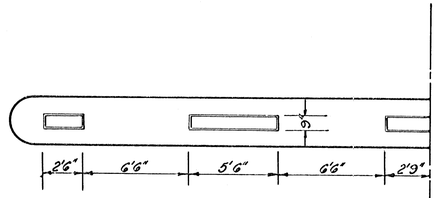
PIER	TABLE of ELEVATIONS				TABLE of STEEL												QUANTITIES					H A	GENERAL NOTES
	ELEVATION A	ELEVATION B	ELEVATION C	ELEVATION D	Number ½" ø P bars	Length ½" ø P bars	Number 1" ø K bars	Length 1" ø K bars	Number 1" ø K' bars	Length 1" ø K' bars	Number ½" ø V bars	Length ½" ø V bars	Number ½" ø H bars	Length ½" ø H bars	8"x15"x18" Bearing #2	L.F. Test Pile	L.F. Friction Pile	Cu. Yds. Concrete	Lbs. Re-bars	No. ½" ø K2 bars	Length	Revised Lb. Rebar
#1	1307.55	1304.55	1297.55	1294.55	40	120'	2	26'6	8	3½9	51	10'6	26	50'6	10	40'6	8'10	43.62	2351	13	4	30'	1928.3
#2	1307.70	1304.70	1294.70	1291.70	40	120'	2	26'6	8	3½9	51	13'6	32	50'6	10	0	"	53.78	2854	16	4	30'	2146.7
#3	1308.53	1305.53	1289.53	1286.53	40	120'	2	26'6	8	3½9	51	19'6	44	50'6	0	0	"	80.13	3259	22	4	"	2583.6
#4	1308.58	1305.58	1290.58	1287.58	40	120'	2	26'6	8	3½9	51	18'6	42	50'6	0	0	"	76.14	3153	21	4	"	2510.8
#5	1308.58	1305.58	1291.58	1288.58	40	120'	2	26'6	8	3½9	51	17'6	40	50'6	0	40'6	"	73.35	3060	20	4	"	2437.9
#6	1308.53	1303.53	1291.53	1288.53	40	120'	2	26'6	8	3½9	51	17'6	40	50'6	0	0	"	73.35	3060	20	4	"	2437.9
#7	1307.70	1304.70	1290.70	1287.70	40	120'	2	26'6	8	3½9	51	17'6	40	50'6	10	0	"	73.35	3060	20	4	"	2437.9
#8	1307.55	1304.55	1297.55 1294.55	1294.55	40	120'	2	26'6	8	3½9	51	14'6	34	50'6	10	40'6	"	63.18	2751	17 4	4	"	2219.5
						30'		TOTALS						29'	40	121'6		549.3	23356				18,702.6

Revision 5-31-51 M.S.

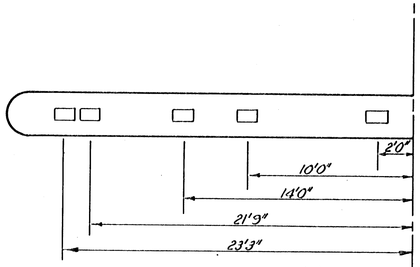
GENERAL NOTES

Class A (AE) Concrete shall be used thruout. Bevel all exposed edges with a ¾" triangular molding unless otherwise noted.

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



LOCATION OF KEYS
PIERS 3-4-5&6 only
no scale



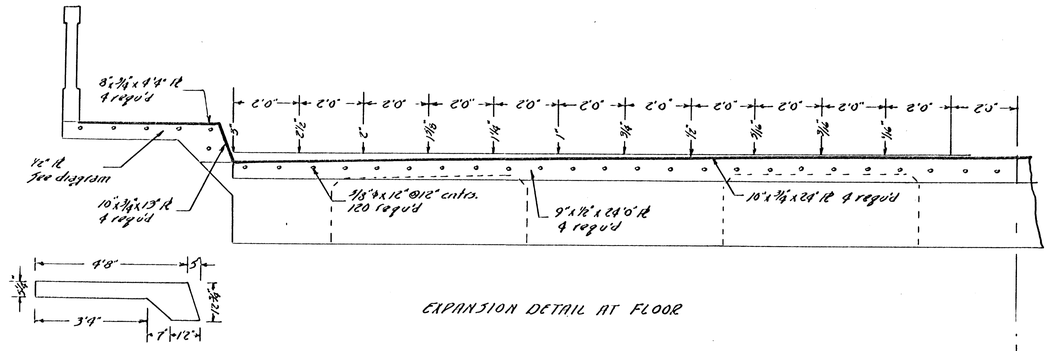
LOCATION OF BEARING PLATES
PIERS 1-2-7&8 only (omit key)
no scale

PIER DETAILS
BRIDGE No. 616-25-2371

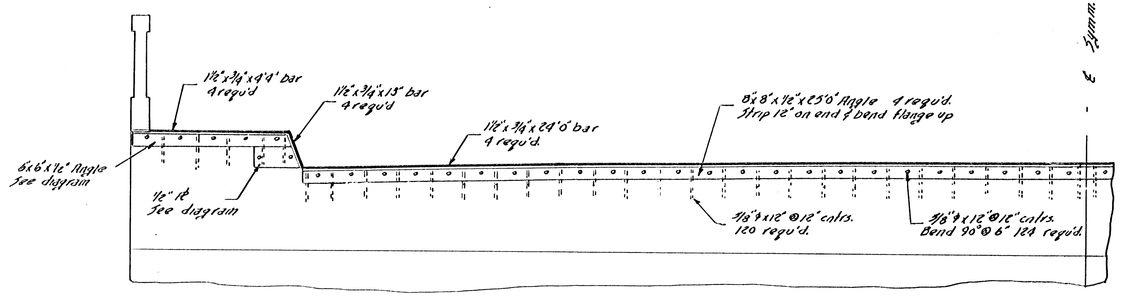
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
— COUNTY ENGINEER

REVISED 11-10-45.	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1/2" = 1'0"	M.S. & R.J.	R.M.		
	DATE				
	PLANFILE		TOTAL SHEETS		

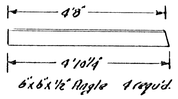
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	Kansas		1950	9	11



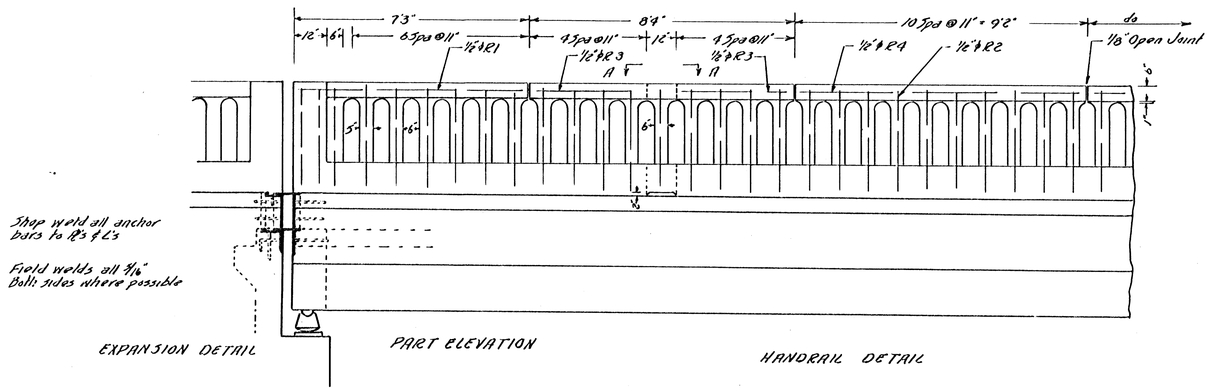
EXPANSION DETAIL AT FLOOR



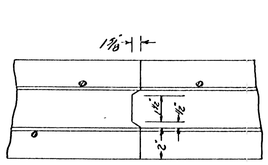
EXPANSION DETAIL AT BACKWALL



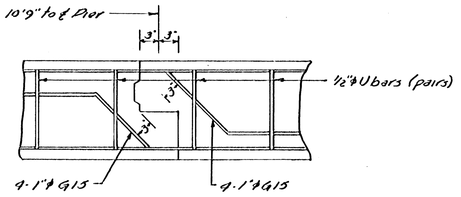




HANDRAIL DETAIL

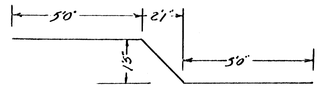


SLAB JOINT



GIRDER JOINT

CONSTRUCTION JOINT DETAILS



1"ϕ Bar G13



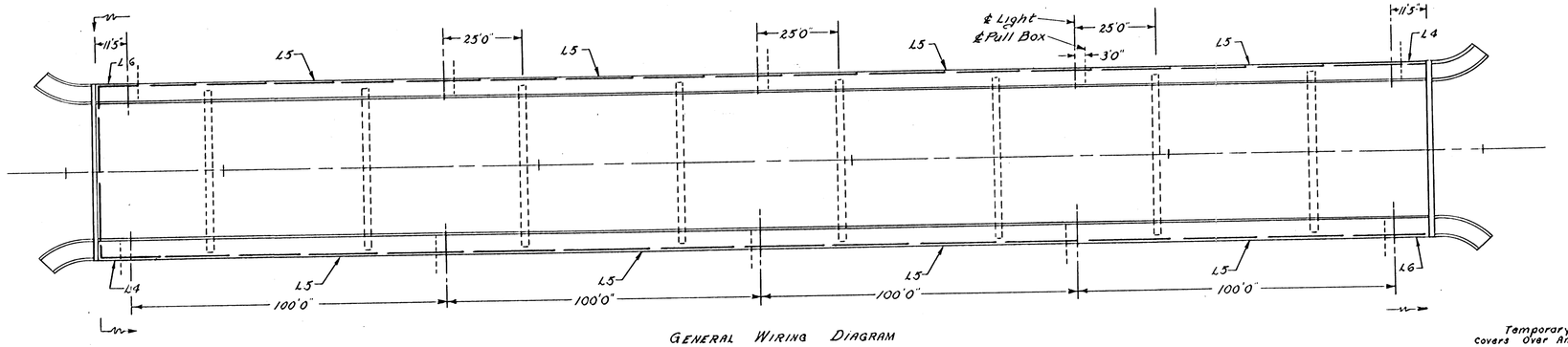
SECTION AA

AUXILIARY DETAILS
BRIDGE NO. 616-25-2371

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

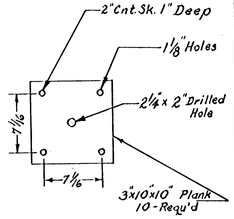
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=2'-0"	M.E.S.	M.E.S.		
	DATE				
	PLANFILE		TOTAL SHEETS		

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

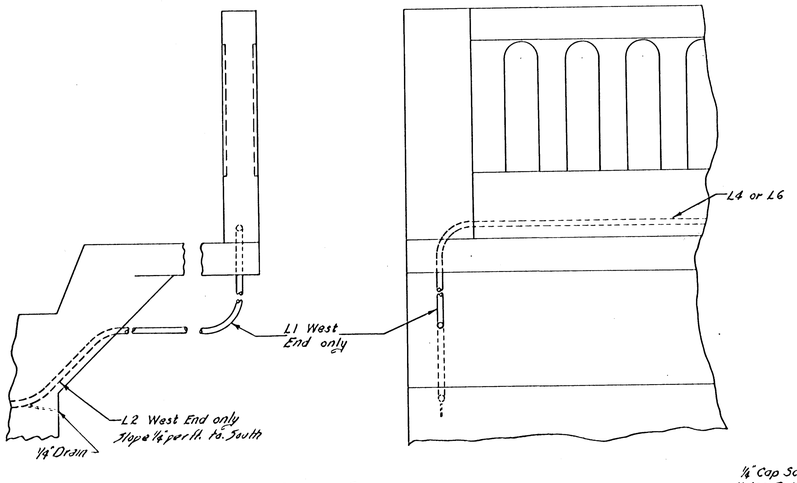


GENERAL WIRING DIAGRAM

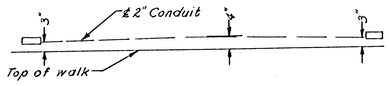




Temporary Covers Over Anchor Bolts



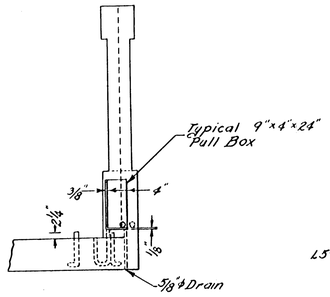
DETAIL AT ENDS OF BRIDGE



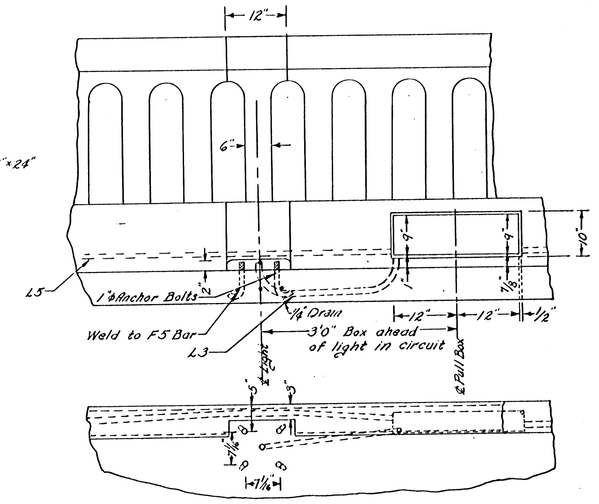
Typical Slope of Conduit between Pull Boxes

CONDUIT TABLE			
SYMBOL	No.	Length	Tot Lgth
L1	2	4' 1½"	8'3"
L2	1	53'4½"	53' 4½"
L3	10	1' 10½"	18' 9"
L4	2	3' 1½"	6' 3"
L5	8	100' 2"	801' 4"
L6	2	14' 1½"	28' 3"
		Total	926' 2½"

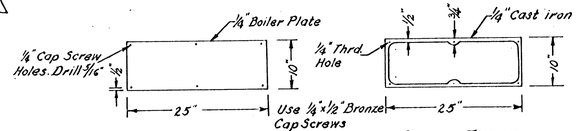
All conduit 2" ø non-metallic

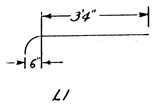


Section through Pull Box

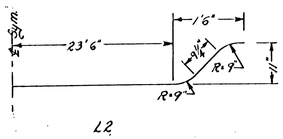


DETAIL AT PULL BOX AND LIGHT

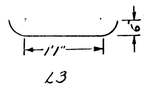




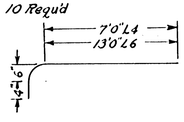
L1

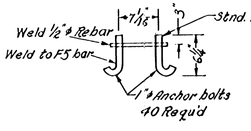


L2



L3



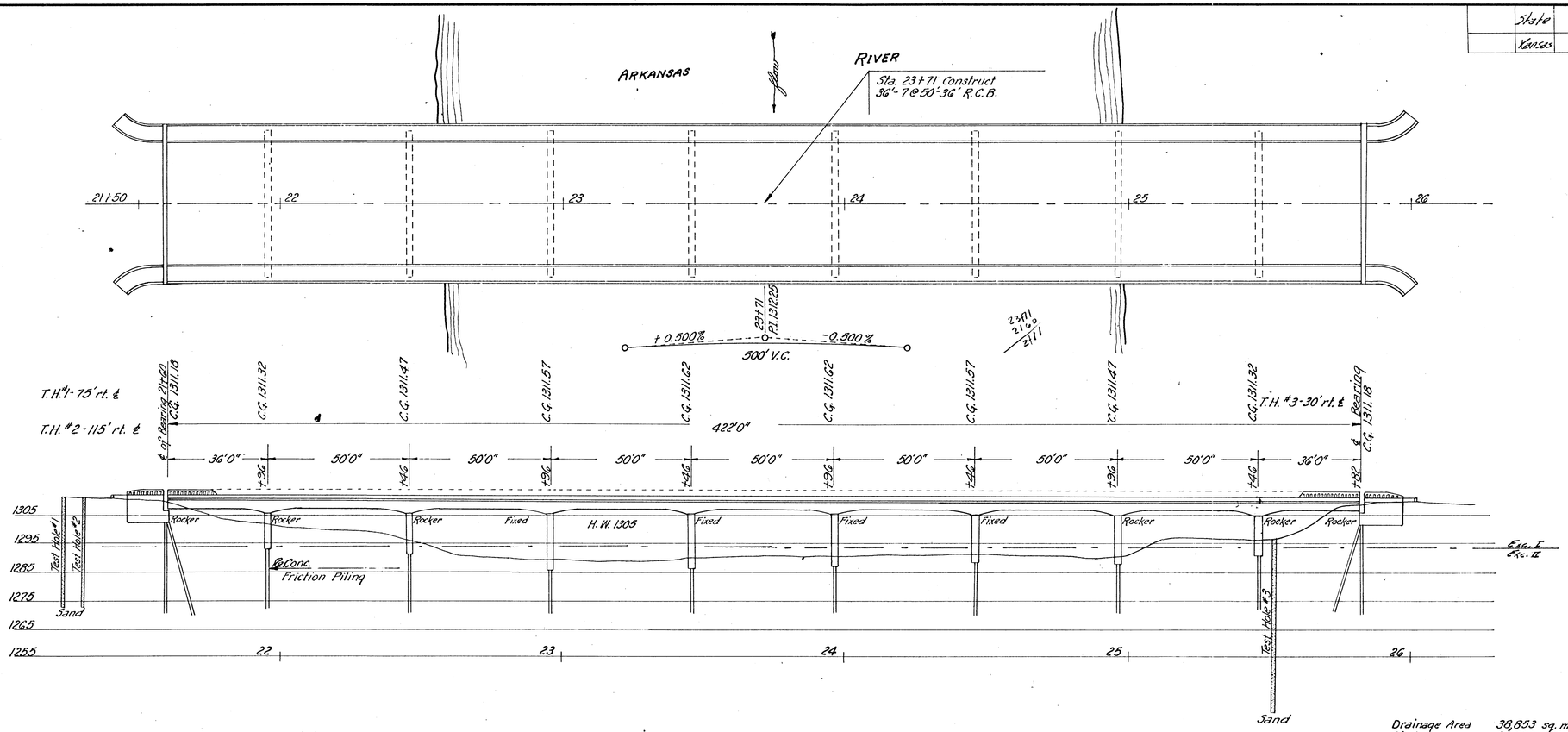


LIGHTING DETAILS
BRIDGE NO. 616-25-2371

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

REVISED 11-30-50 M.S.	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
		M.E.S.	C.D.H.		
	DATE	10-50	10-25-50		
	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.

3502 3/2 3

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	
Bearing Devices	27,612 lbs.
Re. Conc. Piling	7,960 lin. ft.
Cast Iron	1574 lbs.
2" Conduit	926 lin. ft.

GENERAL NOTES

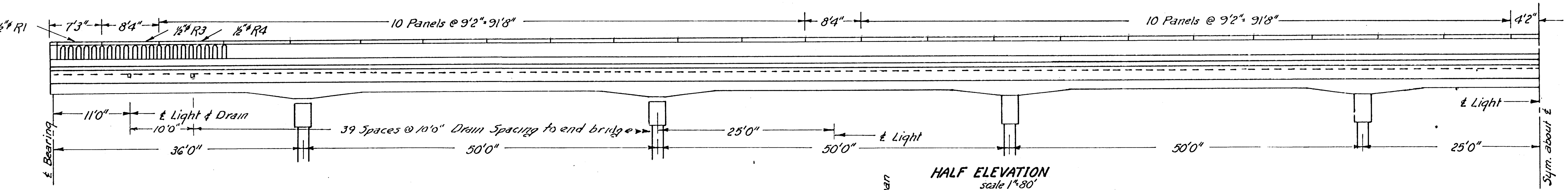
DESIGN: A.A.S.H.O. for H-20-44 Loading
20,000 p.s.i. Reinforcing Steel (int. gr).
1,000 p.s.i. Concrete.
OLD STRUCTURE: To be removed by SEDGWICK COUNTY.
SOUNDINGS: Taken with ¾" jet by SEDGWICK COUNTY.
EMBANKMENT: The embankment at the abutments shall be built after completion of the abutments.
PILING: 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

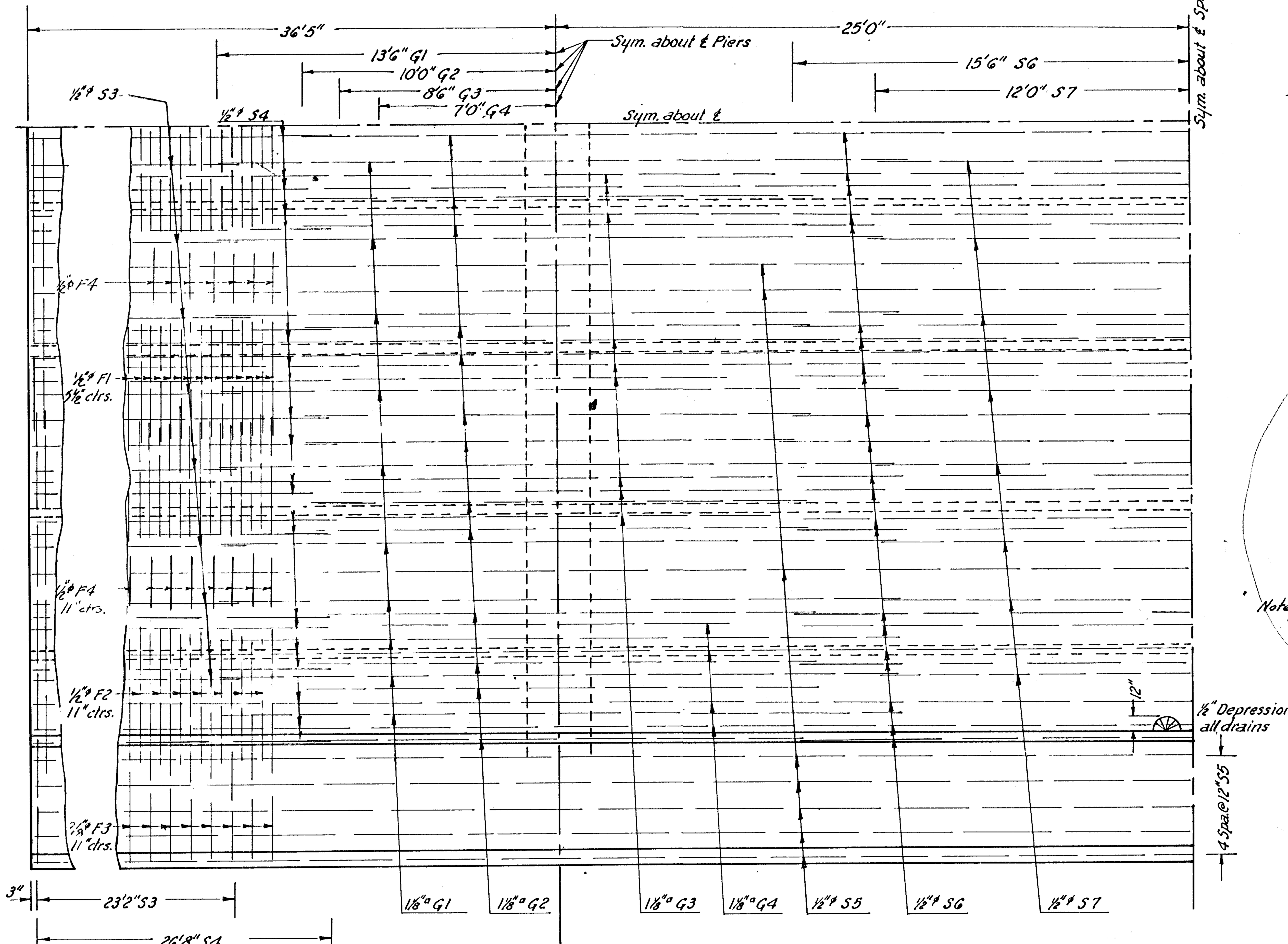
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
COUNTY ENGINEER

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

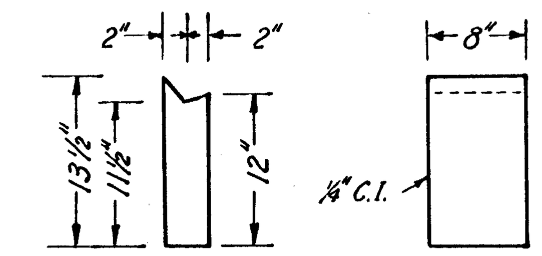
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	Kansas		1950	5	11



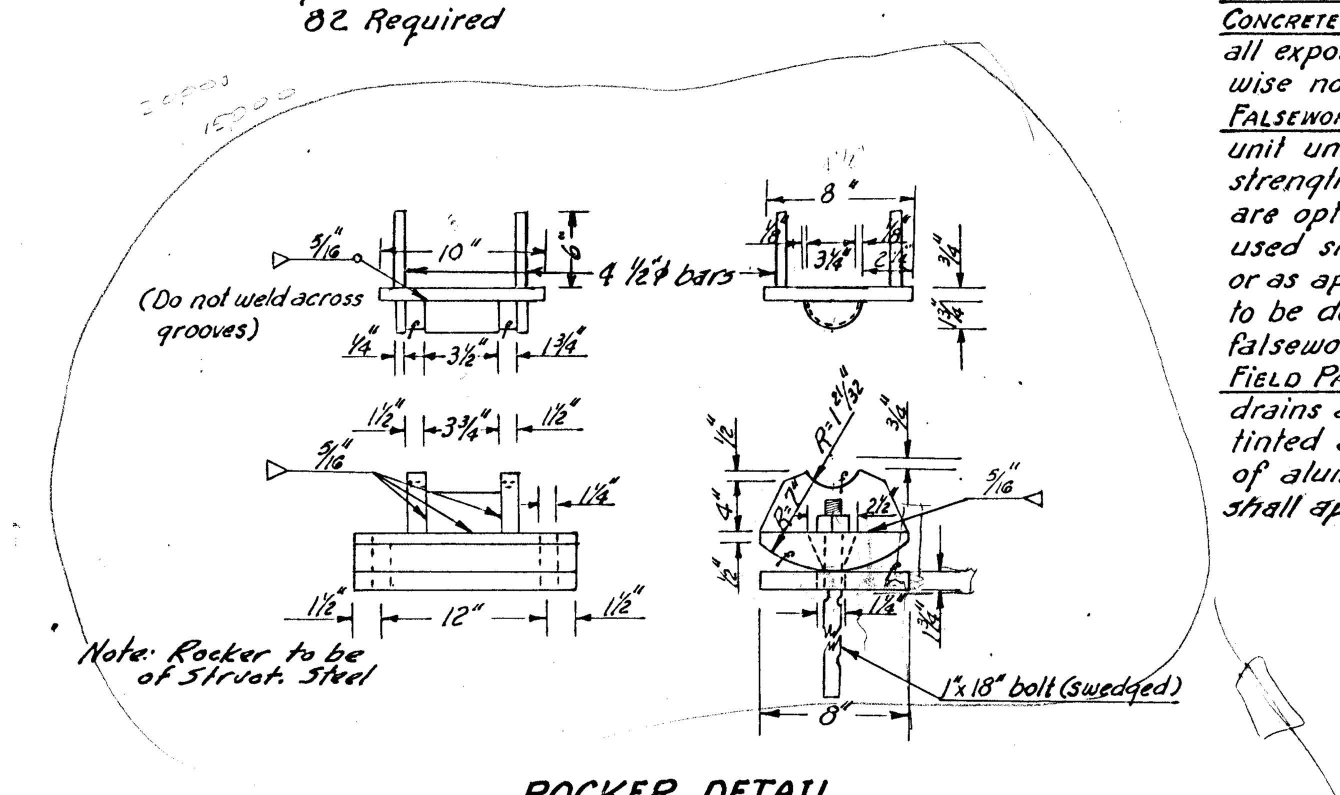
HALF ELEVATION
scale 1"=80'



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	241,830 Lbs.
Cast Iron	1574 Lbs.
Rocker Steel	27,612 Lbs.

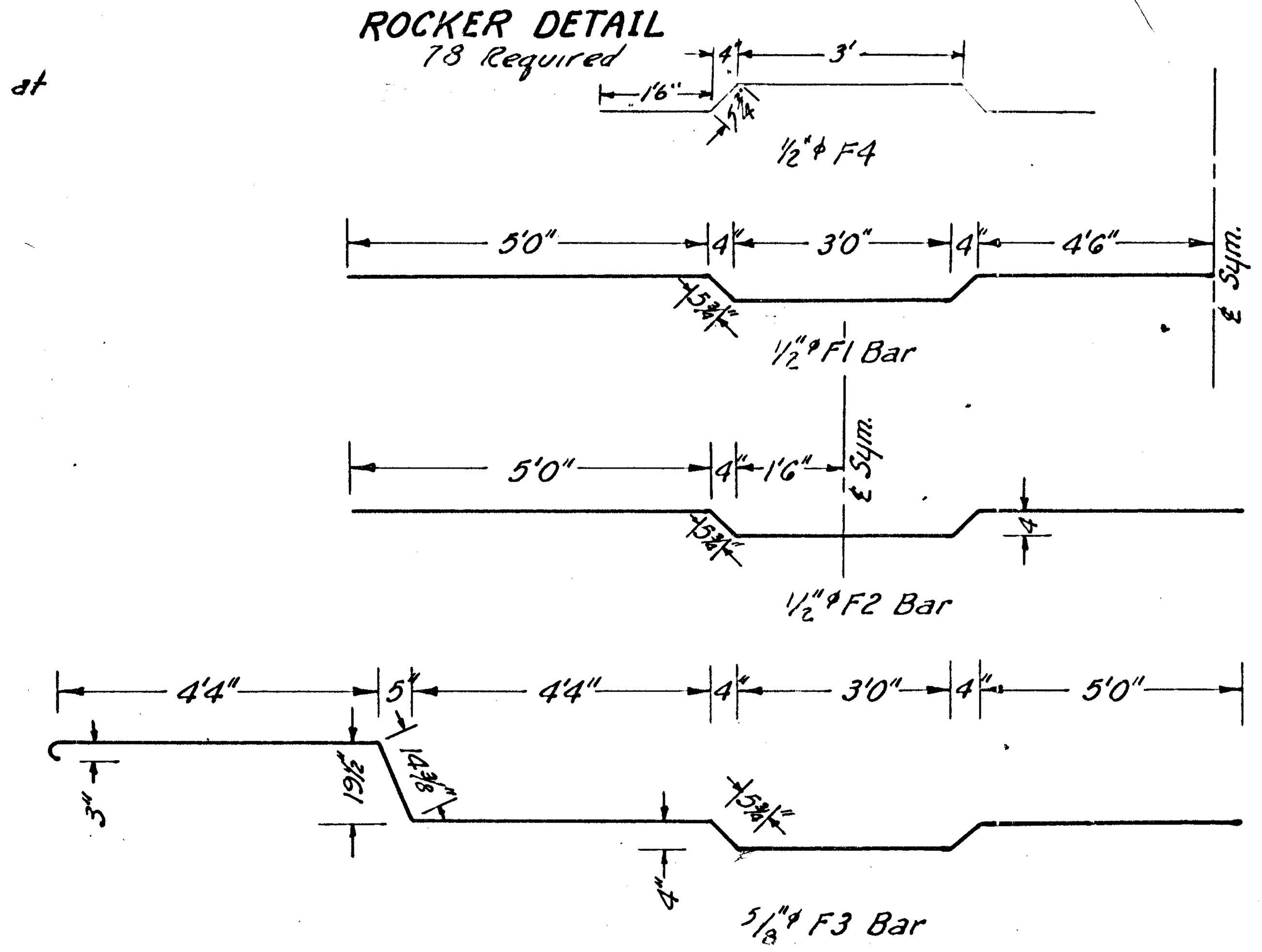
GENERAL NOTES

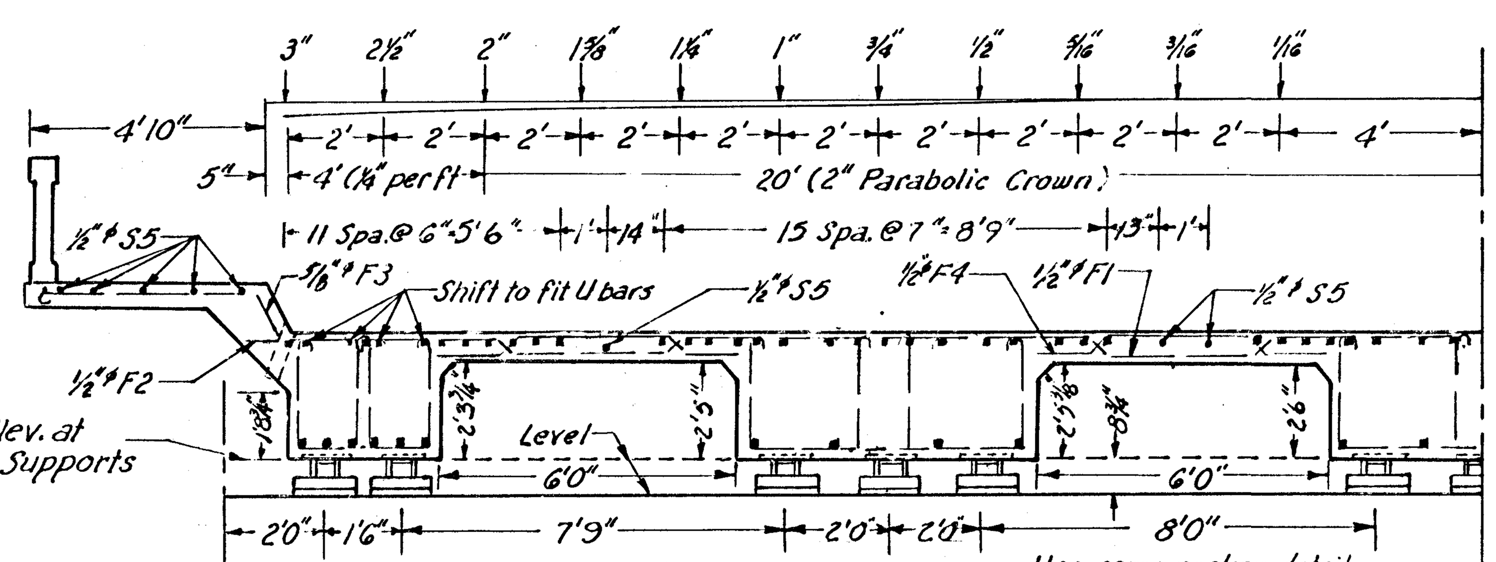
LOADING: H-20-44 A.A.S.H.O.
DESIGN STRESS: fs = 18,000 p.s.i.; fc = 1000 p.s.i. n = 10
CONCRETE: Class: A (AE) to be used throughout. Bevel all exposed edges with ¾"Δ moulding unless otherwise noted.
FALSEWORK: Falsework shall be in place for entire unit until all the concrete has attained its design 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

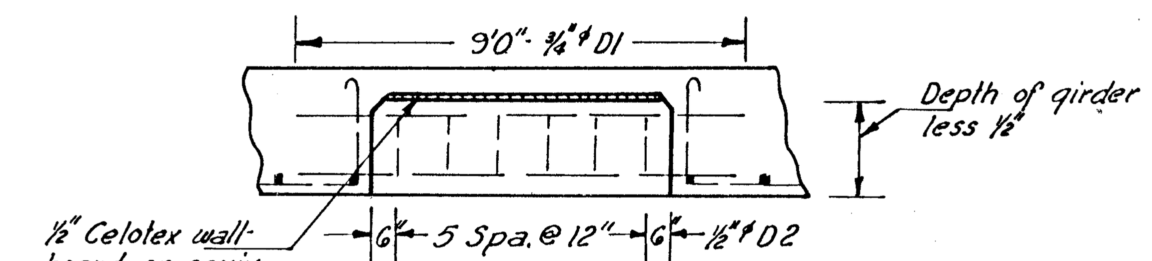
BAR	SIZE	NO.	LENGTH	WEIGHT
G1	1⅛"□	160	27'0"	18,576
G2	"	208	20'0"	17,888
G3	"	144	17'0"	10,526
G4	"	64	14'0"	3,855
*F1	½"φ	922	26'11"	16,635
*F2	½"φ	922	13'5½"	8,339
*F3	⅝"φ	922	19'3"	18,457
S3	½"φ	32	23'2"	497
S4	"	88	26'8"	926
S5	"	126	48'0"	4,008
S6	"	308	31'0"	6,397
S7	"	112	24'0"	1,800
D1	½"φ	260 ~~240~~	9'0"	~~1,443~~
*D2	½"φ	240 ~~160~~	3'8"	~~400~~

*See Bending Diagram

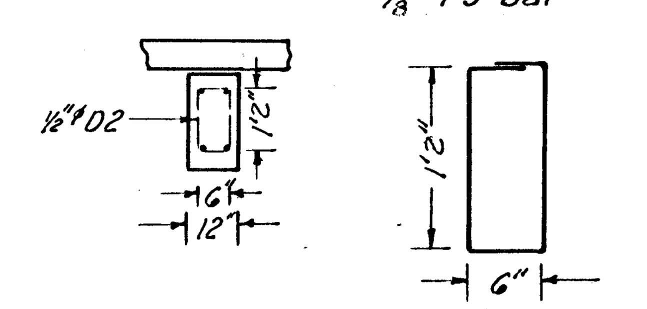




HALF SECTION AT PIER
scale 1"=3'0"



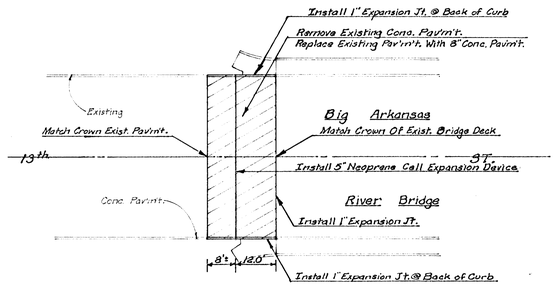
DIAPHRAGM DETAIL
Place between girders at all supports

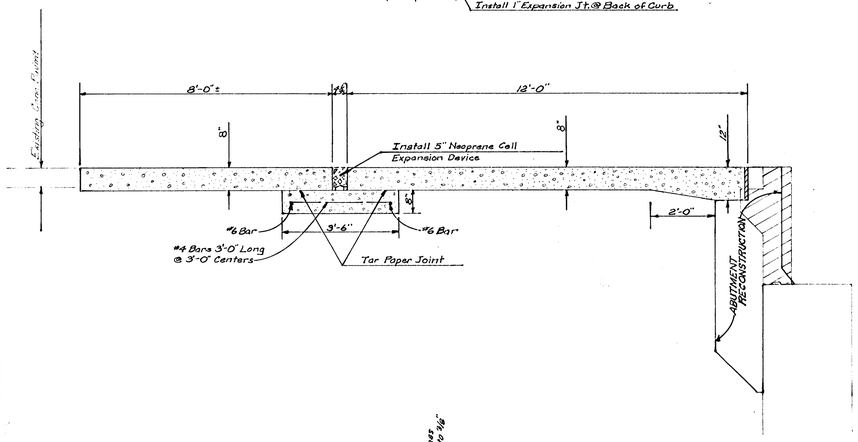


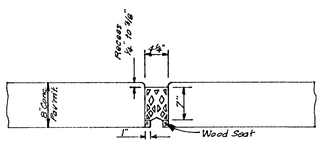
SLAB AND GIRDER DETAILS
BRIDGE NO. 616-25-2371

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
— COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
11-50 M.S.	Noted	M.E.S.	R.W.M.		
	DATE				
	PLANFILE		TOTAL SHEETS		



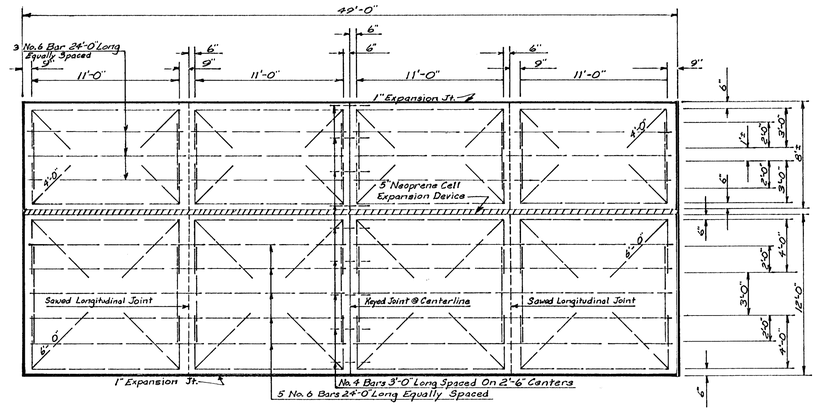




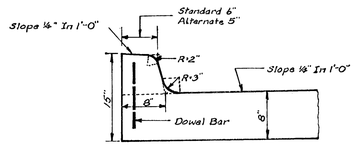
Install 5" Wide Preformed Open Cell Neoprene Joint Seal. Use "H" Series Delastic Bridge Seal Catalog No. H-5000, D. S. Brown Co. Or An Approved Equal.

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

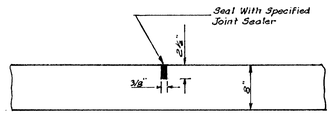


STEEL PATTERN FOR 8" CONCRETE PAVEMENT



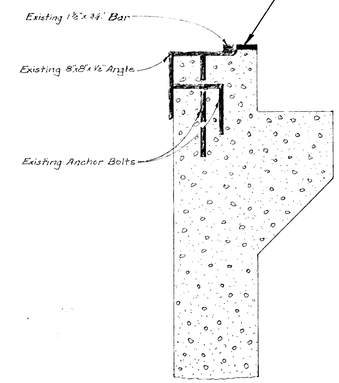
DETAIL OF INTEGRAL CURB

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.

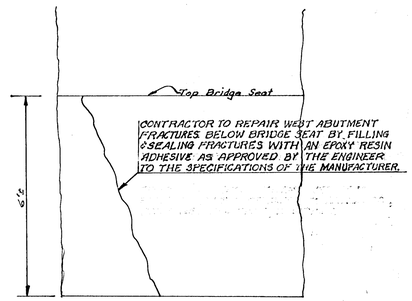


DETAIL OF SAWED LONGITUDINAL JOINT

Contractor To Remove Existing Concrete As Needed To Weld 2½"x⅛"x24" (2 Needed) Structural Steel Bar To Existing 1⅝"x¾" 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.



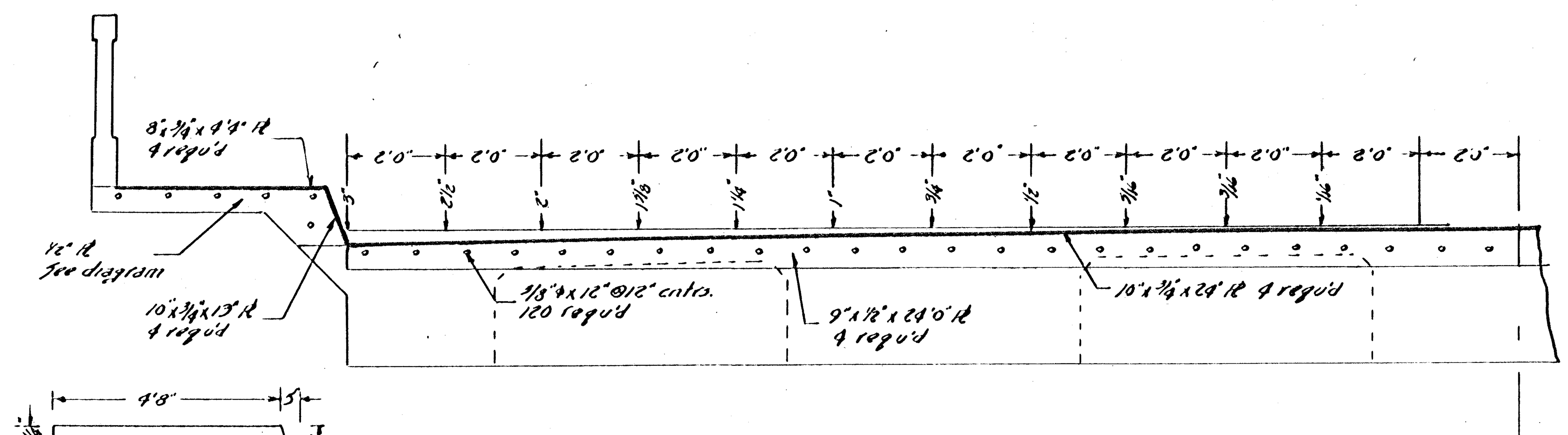
EAST ABUTMENT PARAPET WALL



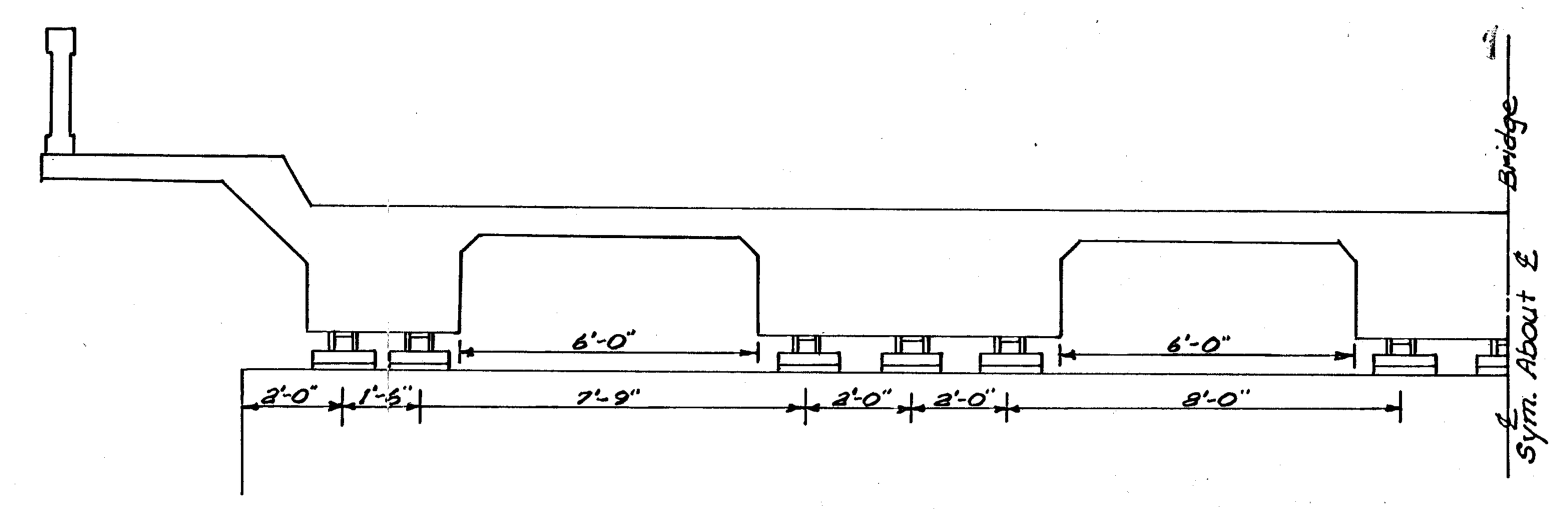
WEST BRIDGE SEAT REPAIR DETAIL

LARRY W. LAURSEN LICENSED 6363 KANSAS PROFESSIONAL ENGINEER

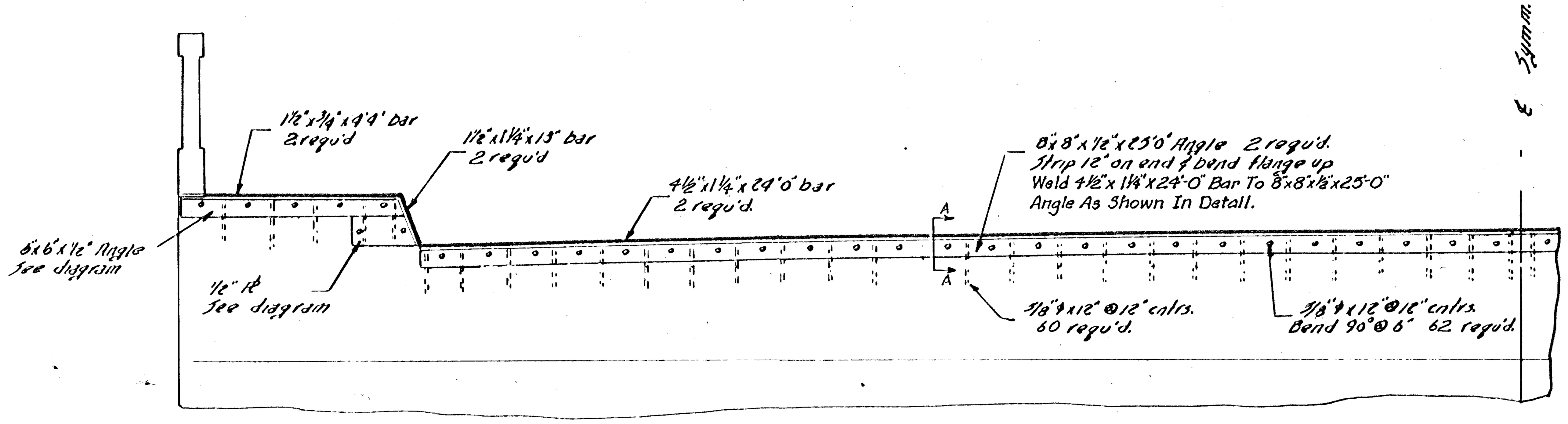
BRIDGE ABUTMENT REPAIR
PROJ. NO. DAKB 572018



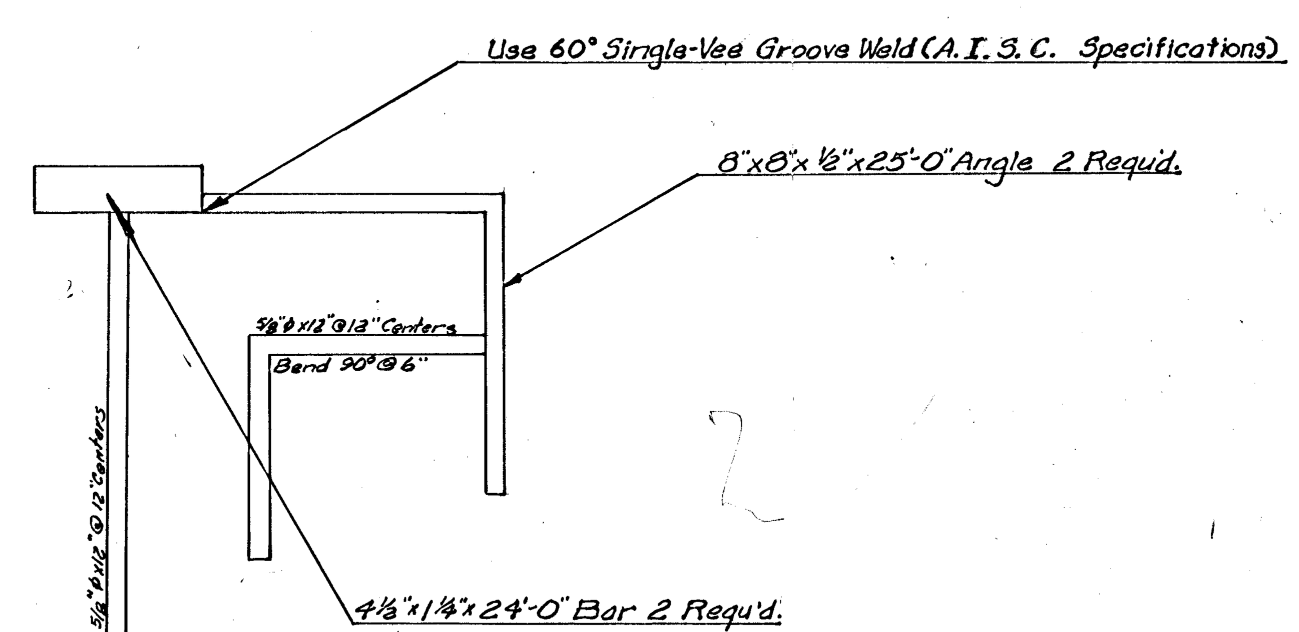
EXPANSION DETAIL AT FLOOR
TO REMAIN IN PLACE
CONTRACTOR TO CLEAN & PAINT AS
DIRECTED BY THE ENGINEER



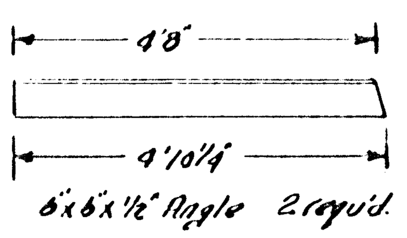
ROCKER DETAIL AT ABUTMENTS
HALF SECTION AT ABUTMENTS
CONTRACTOR SHALL REPLACE ALL ROCKER AND
ROCKER BEARING PLATES AT BOTH ABUTMENTS
AS DETAILED.

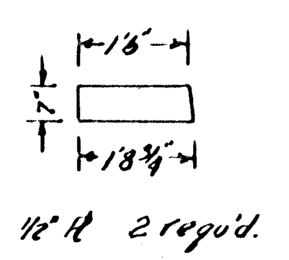


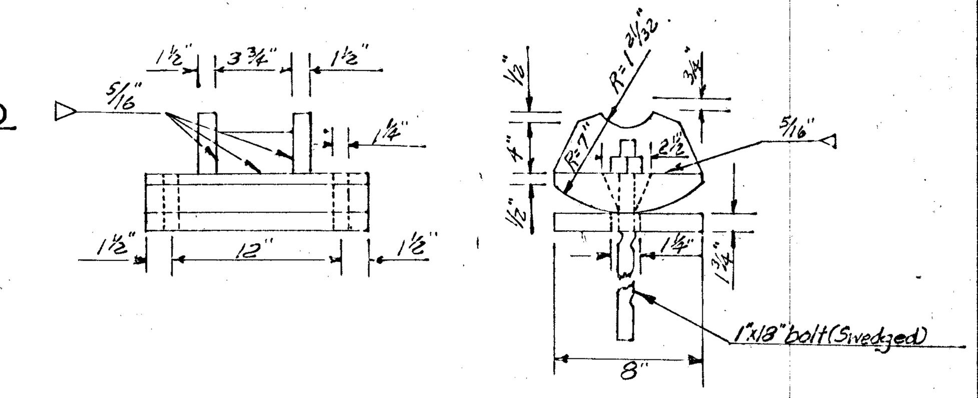
EXPANSION DETAIL AT BACKWALL
CONTRACTOR TO REPLACE EXISTING AS
DETAILED.



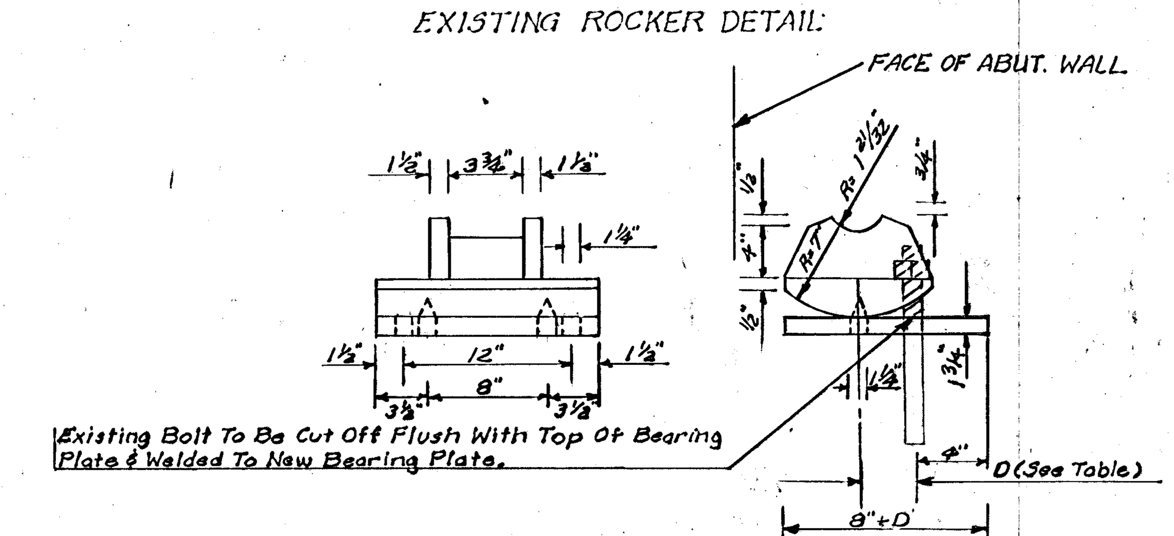
SECTION A-A







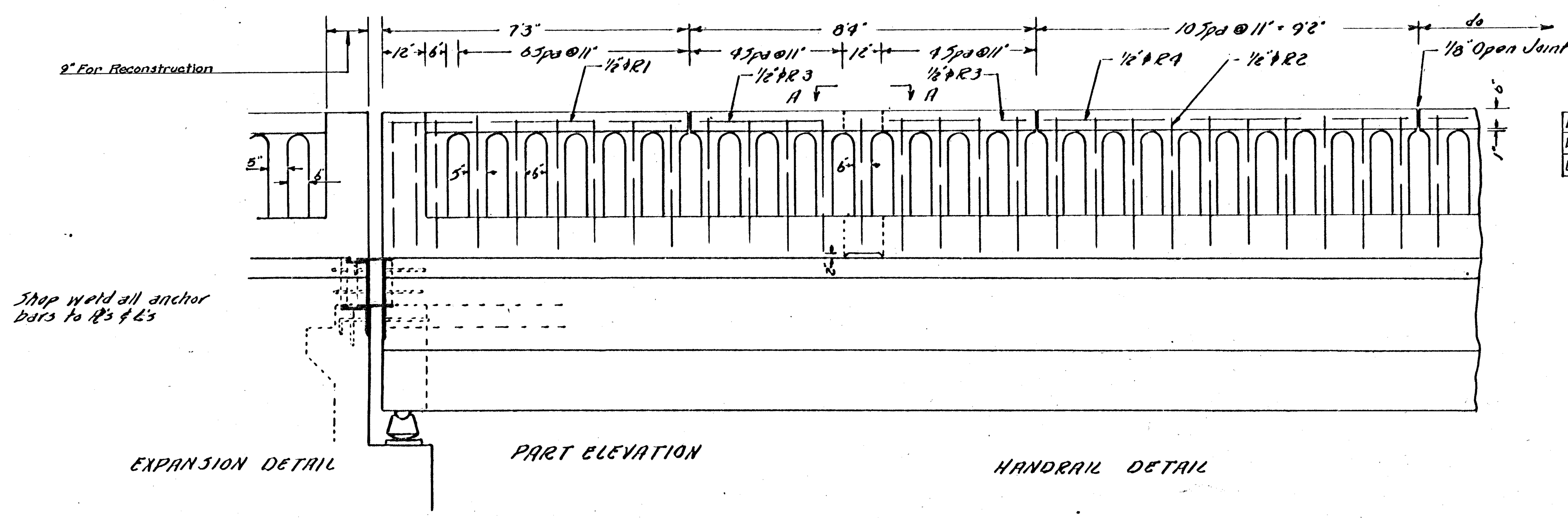
EXISTING ROCKER DETAIL



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 5/16"	1 9/16"	1 5/16"	1 5/16"	11/16"	11/16"	1 3/16"	15/16"	11/16"	15/16"	13/16"	15/16"	15/16"	S	West Abutment
Dimension D (")	N	2 3/16"	1 15/16"	2 7/16"	2 11/16"	2 7/16"	2 13/16"	2 3/16"	2 11/16"	2 7/16"	2 1/16"	2 3/16"	2 3/16"	1 15/16"	S	East Abutment

← NORTH SOUTH →



EXPANSION DETAIL

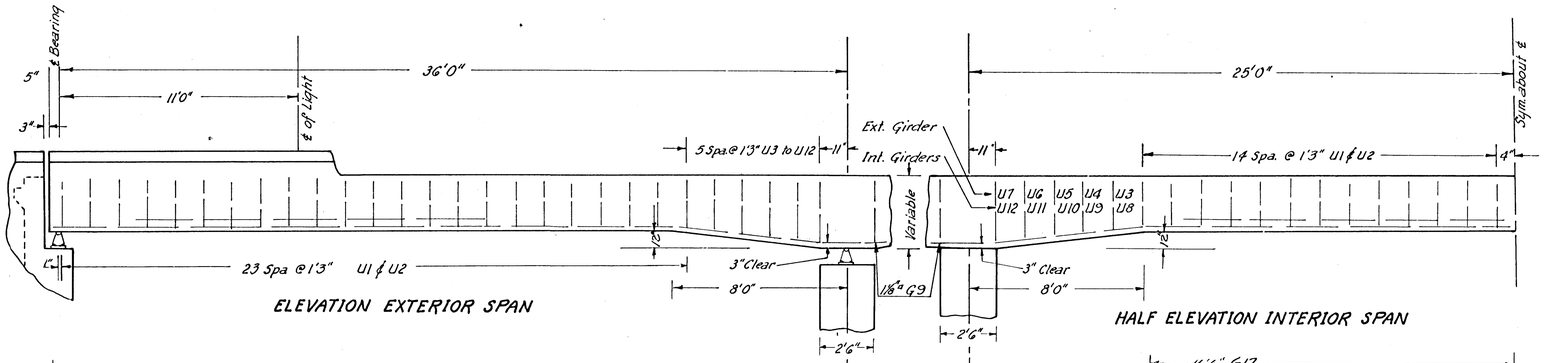
PART ELEVATION

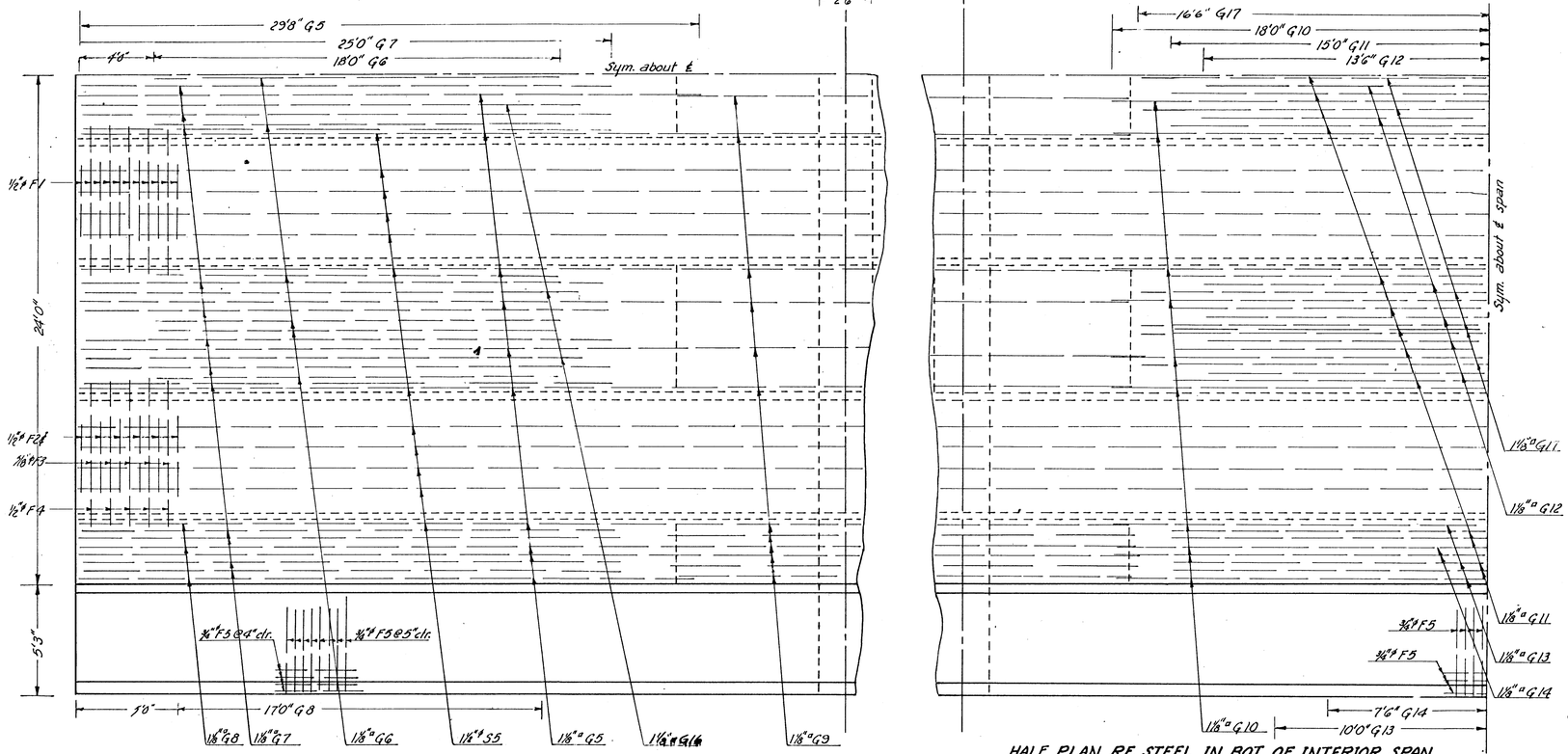
HANDRAIL DETAIL

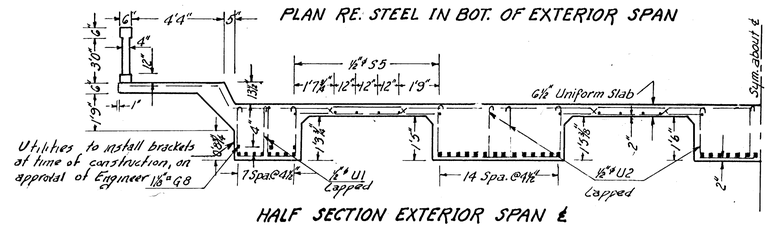
LARRY W. LAURSEN LICENSED 6363 KANSAS PROFESSIONAL ENGINEER

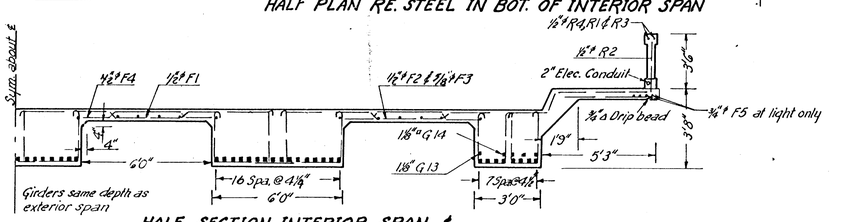
BRIDGE ABUTMENT REPAIR
PROJ. NO. DAKB 572018

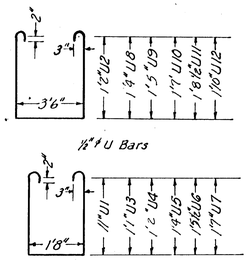
	State		Fiscal Year	Sheet No.	Total Sheets
	Kansas		1950	6	11

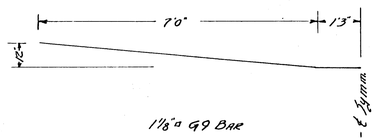












STEEL TABLE

Bottom of Slab and Walk

Bar	Size	No.	Length	Weight
G5	1⅛" a	90	29'8"	3,104
G6	1⅛" a	24	18'0"	1,893
G7	1⅛" a	98	25'0"	3,160
G8	1⅛" a	12	17'9"	877
G9	1⅛" a	192	16'8"	13,800
G10	1⅛" a	140	36'0"	21,687
G11	1⅛" a	168	30'0"	21,687
G12	1⅛" a	84	27'0"	9,739
G13	1⅛" a	42	20'0"	3,612
G14	1⅛" a	28	15'0"	1807
G15	1" a		12'11"	
F4	½" ℄	1894	7'0"	8,648
F5	⅜" ℄	120	4'3"	780
S5	½" ℄	216	28'0"	6,925
U1	½" ℄	1032	4'7"	3,180
U2	½" ℄	1518	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"	243
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" ℄	90	4'0"	107
R4	½" ℄	160	8'11"	390
G16	1⅛" a	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 1950	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1" = 3'0"	M.E.S.	R.W.M.		
	DATE	10-50	10-20-50		
	PLANFILE	.	TOTAL SHEETS		

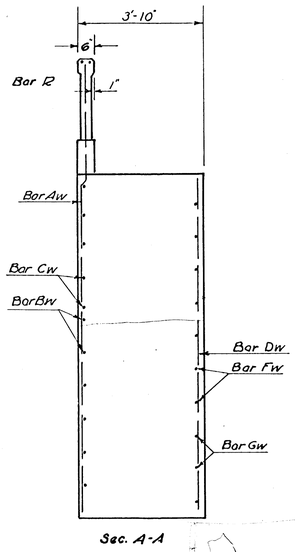
State		Fiscal Year	Sheet No.	Total Sheets
Kansas		1950	7	11

STEEL TABLE
(one abut.)

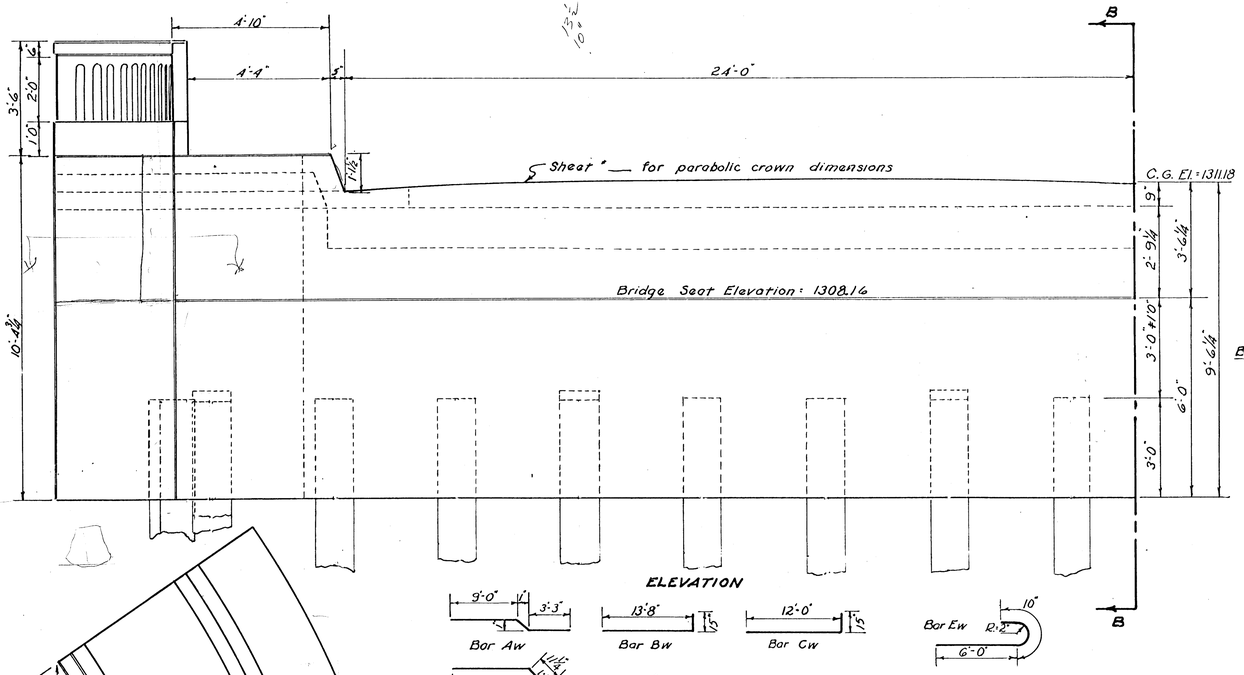
Bar	Space	No.	Size	Length	Wt.	Revised Weight
Aw	11"	36	½" ϕ	12'-4"	297	296.5
Bw	12"	12	"	14'-11"	120	119.6
Cw	12"	10	"	13'-3"	89	88.5
Dw*	12"	76	"	10'-0"	508	475.0
Ew	12"	6	"	6'-10"	27	27.4
Fw	12"	14	"	14'-2"	133	132.7
Gw	12"	6	"	9'-1"	37	36.4
Hb†	12"	58	"	10'-5"	202	406.4
Ib	12"	48	"	2'-10"	91	90.7
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 lb

QUANTITIES per ABUTMENT

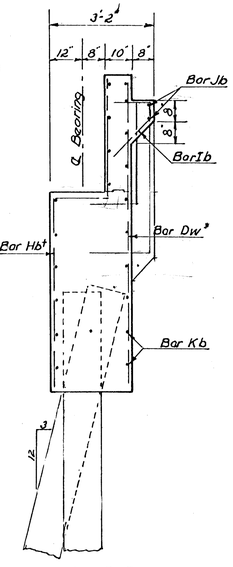
Cu. yd. Concrete	48.0
Bearing Devices	10
L.F. Friction Piling	740



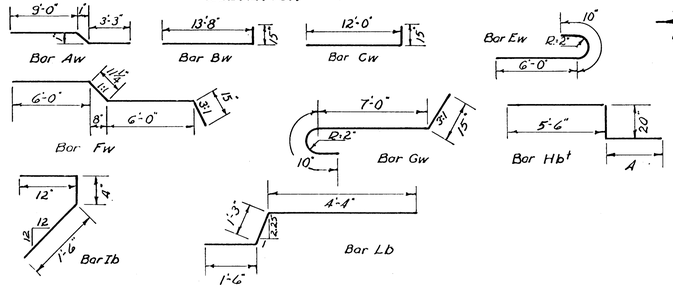
Sec. A-A



ELEVATION



Sec. B-B

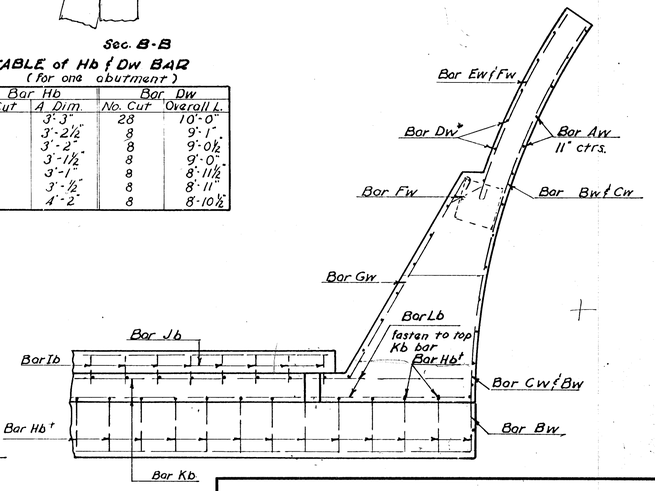


BENDING DIAGRAMS

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"

PLAN



GENERAL NOTES

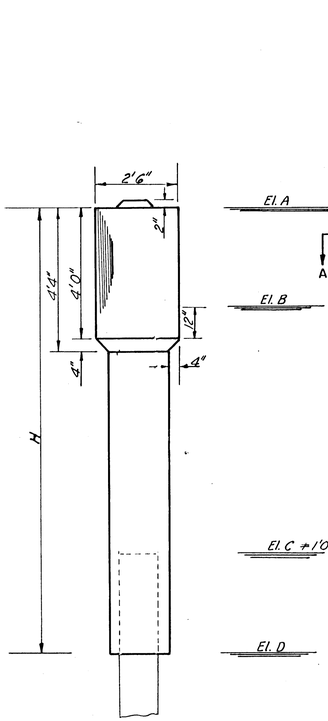
Bearing plates to be spaced as those for pier. (see sheet —.
Piling to be driven to a computed bearing value of 28 tons and at least 31'-6" below the bridge seat.
Bevel all exposed edges with ¾" Δ molding
Concrete to be class A(oe)

ABUTMENT DETAIL
BRIDGE NO. 616-25-2371

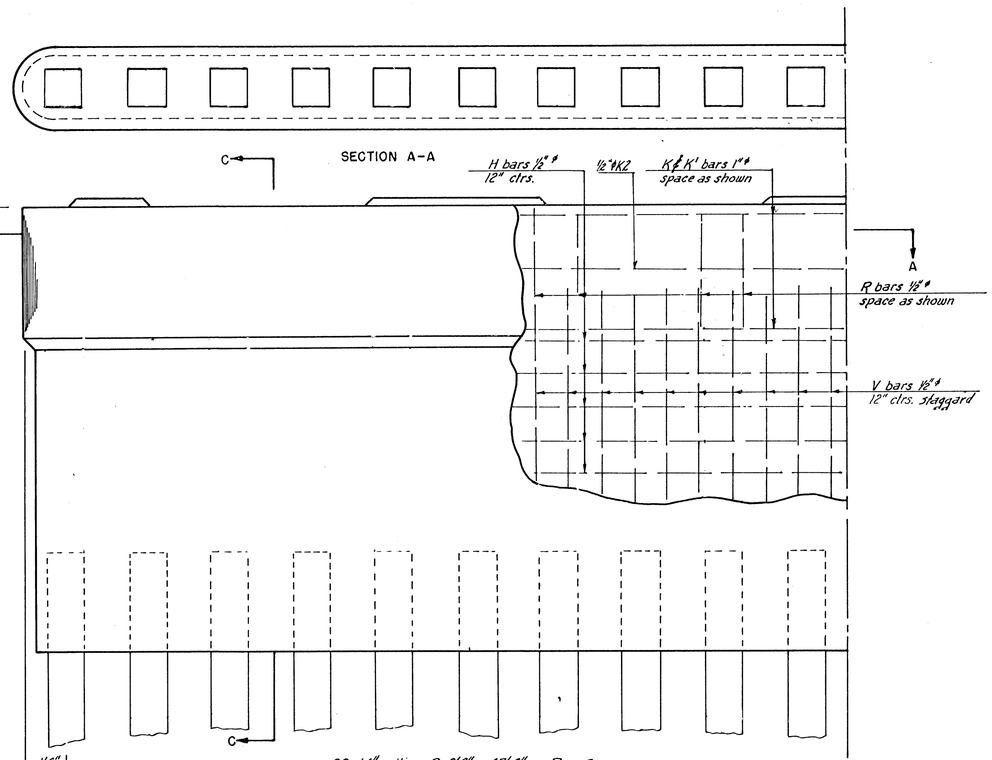
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
Rufus S. Kirk — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	½" = 1'-0"	M.S. & R.J.	R.J.		
	DATE	10-20-50			
	PLANFILE		TOTAL SHEETS		

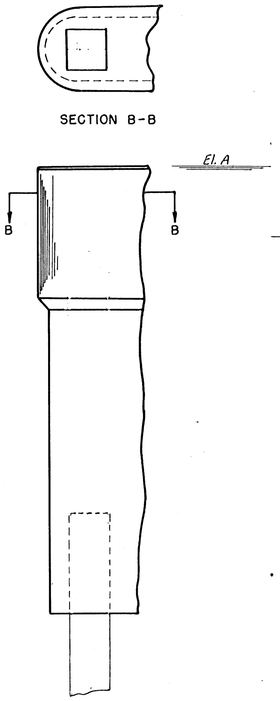
	State		Fiscal Year	Sheet No.	Total Sheets
	Kansas		1950	8	11



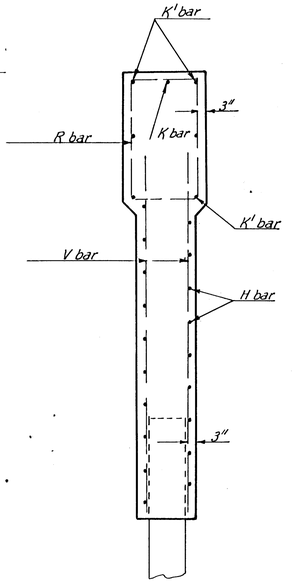
END VIEW



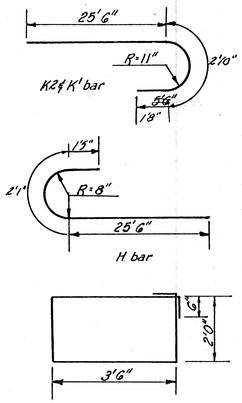
ELEVATION



PILING ELEVATIONS
PIERS 1-2-7 & 8 only



SECTION C-C



BENDING DIAGRAMS
no scale

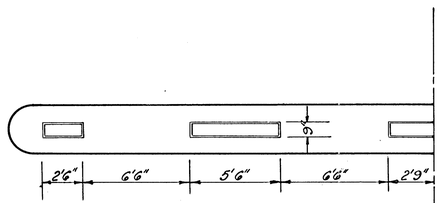
PIER	TABLE of ELEVATIONS				TABLE of STEEL								QUANTITIES					H A	No. ½" ϕ K2 bars	Length	Revised Lb. Rebar
	ELEVATION A	ELEVATION B	ELEVATION C	ELEVATION D	Number 16"ϕ R bars	Length ½"ϕ R bars	Number 1"ϕ K' bars	Length 1"ϕ K' bars	Number 1"ϕ K' bars	Length 1"ϕ K' bars	Number ½"ϕ V bars	Length ½"ϕ V bars	Number ½"ϕ H bars	Length ½"ϕ H bars	8"x15"x1/8" Bearing PL	L.F. Test Pile	L.F. Friction Pile	Cu. Yds. Concrete	Lbs. Re-bars				
#1	1307.55	1304.55	1297.55	1294.55	40	120'	2	26'6	8	~~3'6~~	51	10'6	26	~~508~~	10	40'6	810	49.62	~~2351~~	13	4	30'	1928.3
#2	1307.70	1304.70	1294.70	1291.70	40	120'	2	26'6	8	~~3'10~~	51	13'6	32	~~506~~	10	0	--	59.78	~~2654~~	16	4	30'	2146.7
#3	1308.53	1305.53	1289.53	1286.53	40	120'	2	26'6	8	~~3'6~~	51	19'6	44	~~508~~	0	0	--	80.13	~~3259~~	22	4	"	2583.6
#4	1308.58	1305.58	1290.58	1287.58	40	120'	2	26'6	8	~~3'10~~	51	18'6	42	~~508~~	0	0	--	76.74	~~3153~~	21	4	"	2510.8
#5	1308.58	1305.58	1291.58	1288.58	40	120'	2	26'6	8	~~3'10~~	51	17'6	40	~~508~~	0	40'6	--	73.35	~~3060~~	20	4	"	2437.9
#6	1308.53	1303.53	1291.53	1288.53	40	120'	2	26'6	8	~~3'10~~	51	17'6	40	~~508~~	0	0	--	73.35	~~3060~~	20	4	"	2437.9
#7	1307.70	1304.70	1290.70	1287.70	40	120'	2	26'6	8	~~3'10~~	51	17'6	40	~~508~~	10	0	--	73.35	~~3060~~	20	4	"	2437.9
#8	1307.55	1304.55	1297.55	1294.55	40	120'	2	26'6	8	~~3'10~~	51	14'6	34	~~508~~	10	40'6	--	63.18	~~2754~~	13	4	"	2219.5
			1297.55				30"		TOTALS				29"		40	1216		543.3	~~23356~~				18,702.6

Revision 5-31-51 M.S.

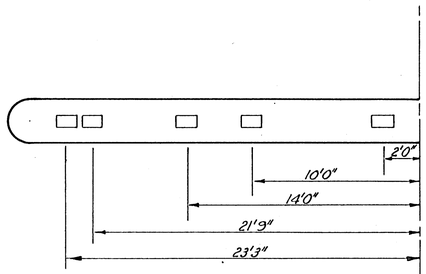
GENERAL NOTES

Class A (AE) Concrete shall be used thruout. Bevel all exposed edges with a ¾" triangular molding unless otherwise noted.

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



LOCATION OF KEYS
PIERS 3-4-5&6 only
no scale



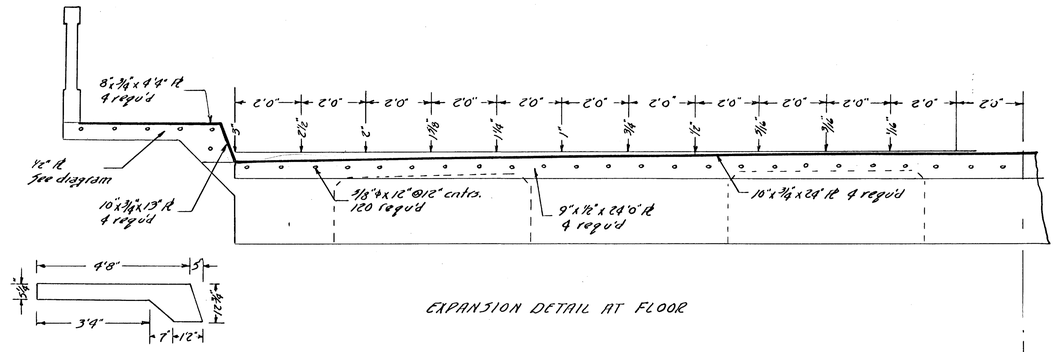
LOCATION OF BEARING PLATES
PIERS 1-2-7&8 only (omit key)
no scale

PIER DETAILS
BRIDGE No. 616-25-2371

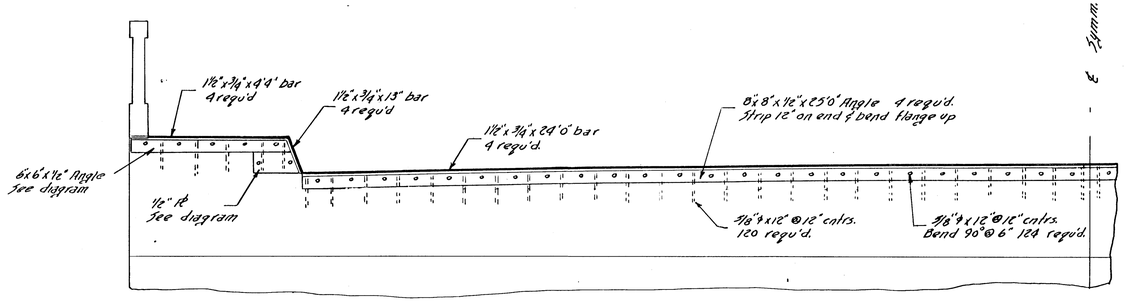
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
— COUNTY ENGINEER

REVISED 11-30 M.S.	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1/8" = 1'0"	M.S. & R.J.	R.M.		
	DATE				
	PLANFILE		TOTAL SHEETS		

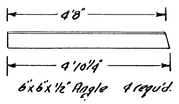
	State		Fiscal Year	Sheet No.	Total Sheets
	Kansas		1950	9	11



EXPANSION DETAIL AT FLOOR

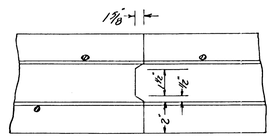


EXPANSION DETAIL AT BACKWALL

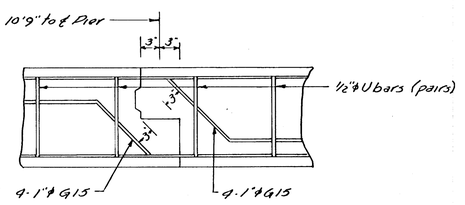




1/2" Pl 4 req'd.

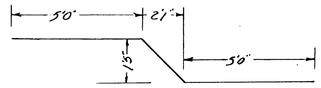


SLAB JOINT

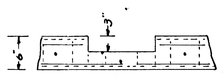


GIRDER JOINT

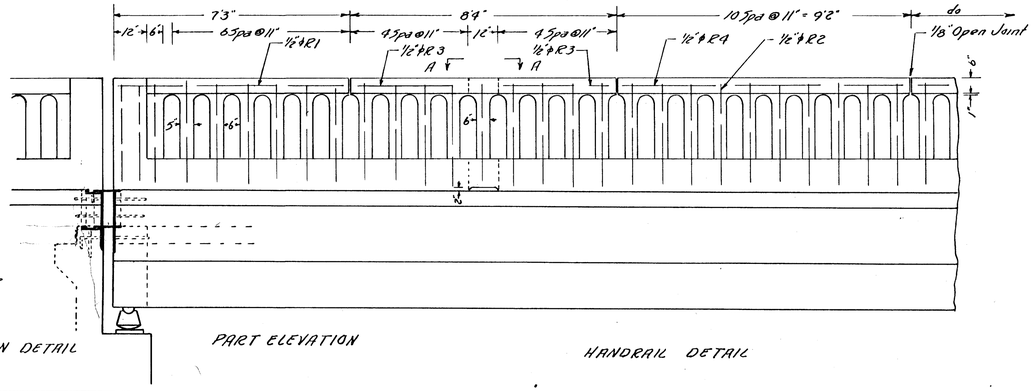
CONSTRUCTION JOINT DETAILS



1"ϕ Bar G15



SECTION AA



Shop weld all anchor bars to W's & C's

Field welds all 3/16" Both sides where possible

EXPANSION DETAIL

PART ELEVATION

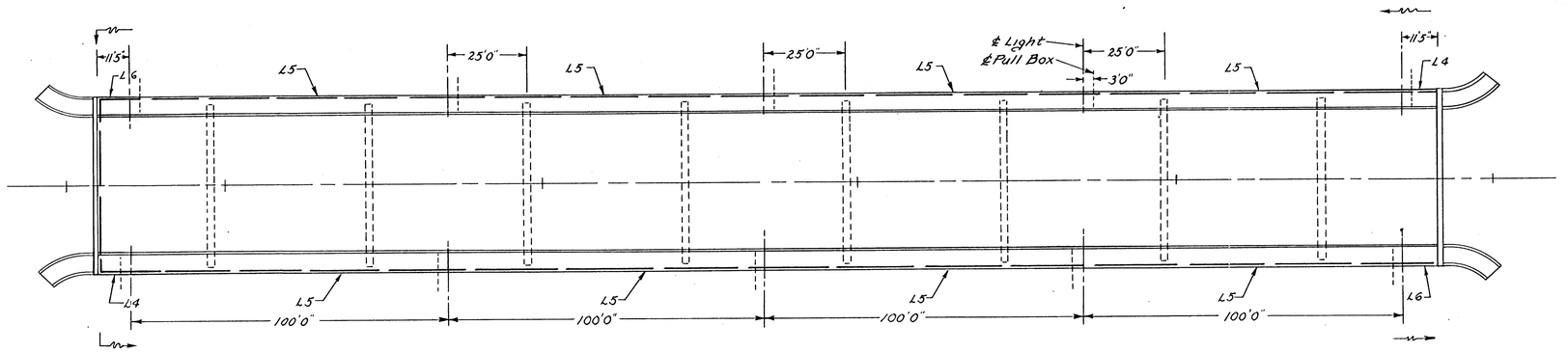
HANDRAIL DETAIL

AUXILIARY DETAILS
BRIDGE NO. 616-25-2371

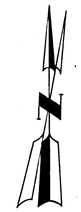
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

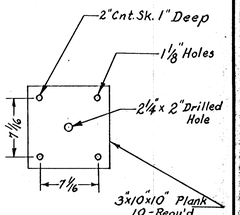
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=2'0"	M.E.S.	M.E.S.		
	DATE				
	PLANFILE		TOTAL SHEETS		

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

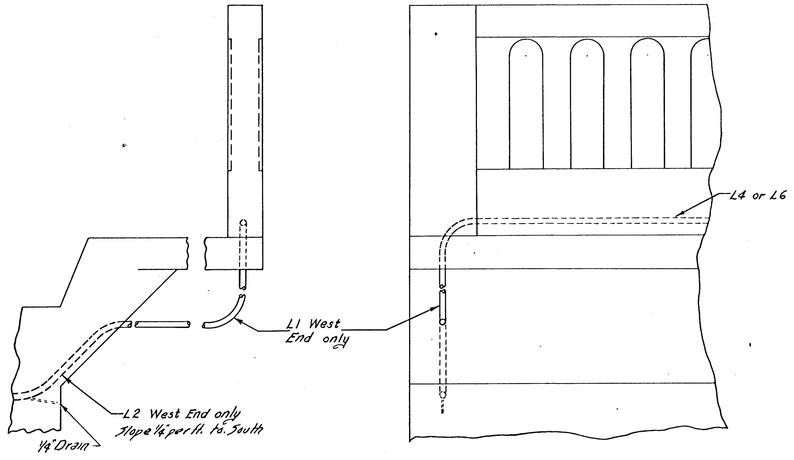


GENERAL WIRING DIAGRAM

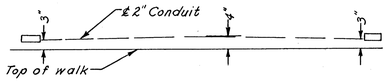




Temporary Covers Over Anchor Bolts



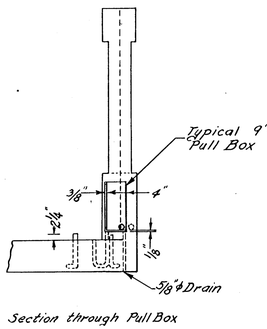
DETAIL AT ENDS OF BRIDGE



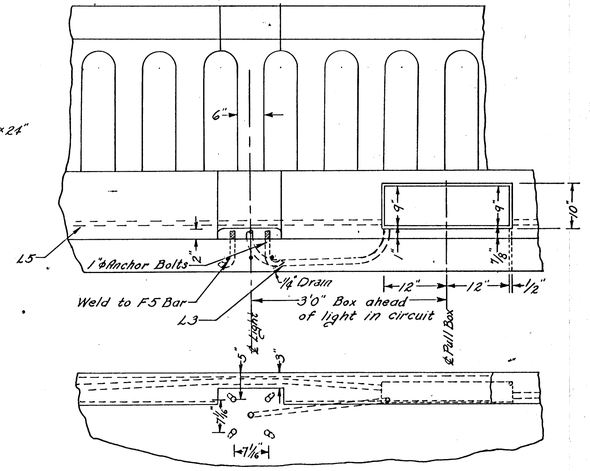
Typical Slope of Conduit between Pull Boxes

CONDUIT TABLE			
Symbol	No.	Length	Tot. Lgth
L1	2	4' 1½"	8' 3"
L2	1	53' 4½"	53' 4½"
L3	10	1' 10½"	18' 9"
L4	2	8' 1½"	16' 3"
L5	8	100' 2"	801' 4"
L6	2	14' 1½"	28' 3"
		Total	926' 2½"

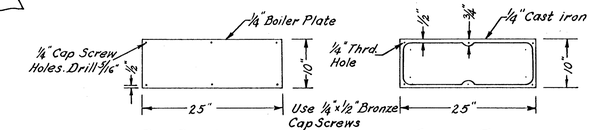
All conduit 2" ϕ non-metallic

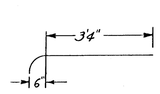


Section through Pull Box

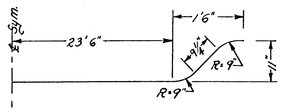


DETAIL AT PULL BOX AND LIGHT

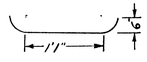




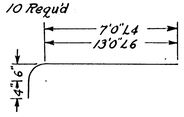
L1

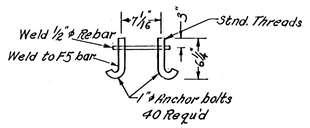


L2



L3





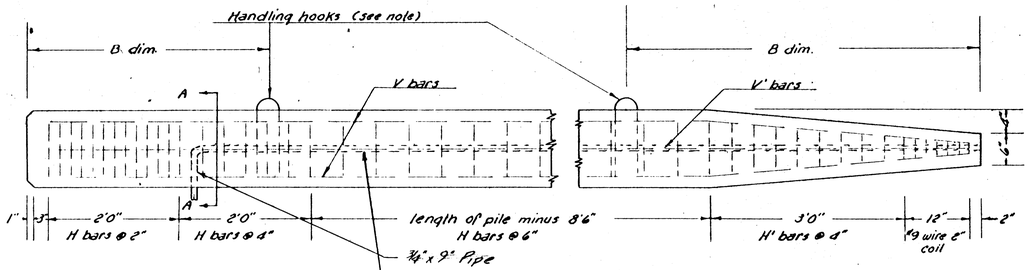
LIGHTING DETAILS
BRIDGE NO. 616-25-2371

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RUFUS S. KIRK — COUNTY ENGINEER

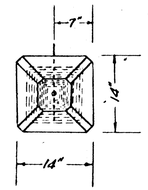
REVISED 11-50 M.S.	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
		M.E.S.	C.D.H.		
	DATE	10-50	10-25-50		
	PLANFILE		TOTAL SHEETS		

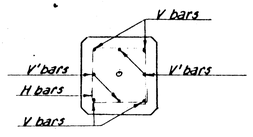
	State		Fiscal Year	Sheet No.	Total Sheets
	Kansas		1950	11	11

PLAN VIEW



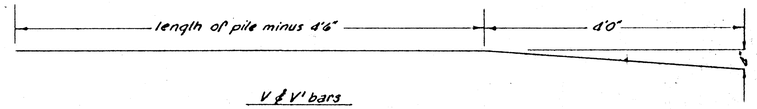
Note: Handling hooks are to be 1'-2'-3" rebars with loops large enough to accomodate attaching hooks.



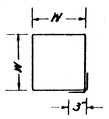


A-A SECTION

BENDING DIAGRAM



V & V' bars



W dim. in H bars = 10" in H' bars decrease by decrements of 1/8"

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				
Bar	V	V'	H	H'
Number	4		43	9
Size	#8		#4	#4
Length	20'0"		4'0"	Var.
B dim.	4'3"			
Total Steel	158#			
Concrete	1.04 Cu. Yds.			

24'6" PILE				
Bar	V	V'	H	H'
Number	4		51	9
Size	#8		#4	#4
Length	24'0"		4'0"	Var.
B dim.	5'1"			
Total Steel	187#			
Concrete	1.23 Cu. Yds.			

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

32'6" PILE				
Bar	V	V'	H	H'
Number	4		67	9
Size	#8		#4	#4
Length	32'0"		4'0"	Var.
B dim.	6'9"			
Total Steel	303#			
Concrete	1.65 Cu. Yds.			

36'6" PILE				
Bar	V	V'	H	H'
Number	4		75	9
Size	#8		#4	#4
Length	36'0"		4'0"	Var.
B dim.	7'7"			
Total Steel	339#			
Concrete	1.86 Cu. Yds.			

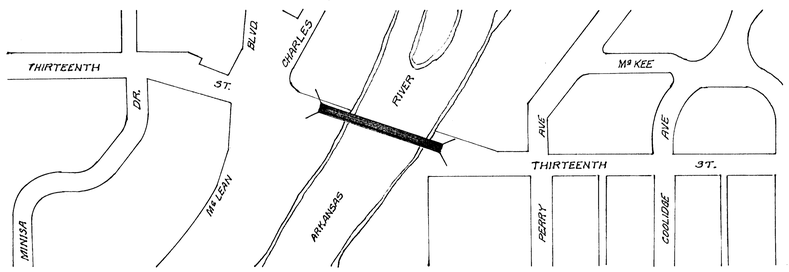
40'6" PILE				
Bar	V	V'	H	H'
Number	4	4	83	9
Size	#8	#8	#4	#4
Length	40'0"	40'0"	4'0"	Var.
B dim.	8'3"			
Total Steel	413#			
Concrete	2.06 Cu. Yds.			

CONCRETE PILING 14" X 14"

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
-	1" = 10"	Baskett	Manion	HJG 12-17-47	
	DATE	12-47			
	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=20000 psi., f'_c=3000 psi. n = 9. CLASS A-AE CONCRETE TO BE USED THROUGHOUT. BEVEL ALL EXPOSED EDGES WITH ¾" Δ 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 F2-5(c), Q_1 & 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.

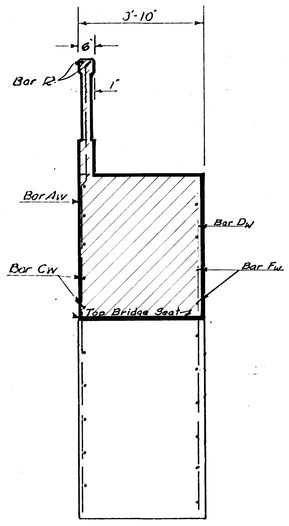
CONRAD E. SCHNEIDER LICENSED 6311 KANSAS PROFESSIONAL ENGINEER

LARRY W. LAURSEN LICENSED 6363 KANSAS PROFESSIONAL ENGINEER

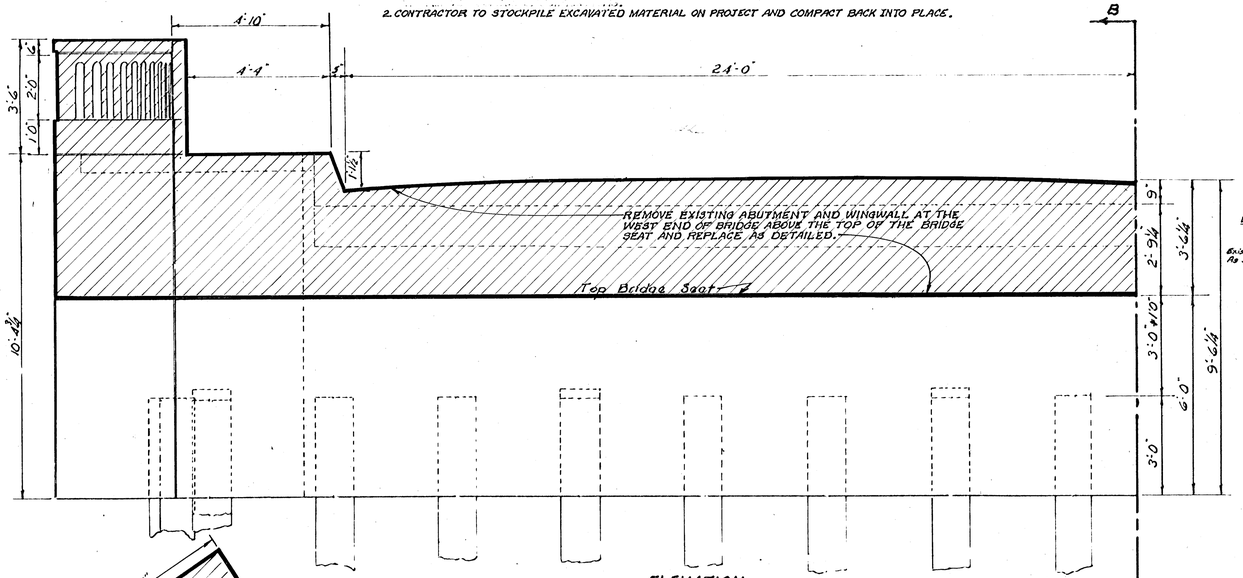
R. W. LINN LICENSED 3691 KANSAS PROFESSIONAL ENGINEER

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

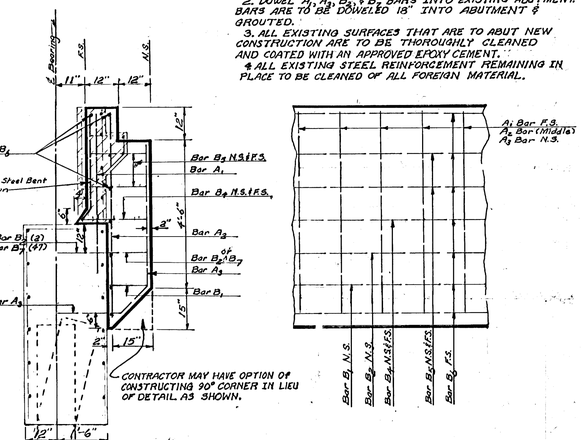
NOTES:
1. ALL VERTICAL REINF. STEEL IN THE WINGWALLS & PARAPET WALL IS TO BE SAVED TO TIE THE REINF. STEEL TOO IN THE NEW CONSTRUCTION.
2. DOWEL A_1, A_2, B_2, & B_4 BARS INTO EXISTING ABUTMENT. BARS ARE TO BE DOWELED 18" INTO ABUTMENT & GROUTED.
3. ALL EXISTING SURFACES THAT ARE TO ABUT NEW CONSTRUCTION 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.



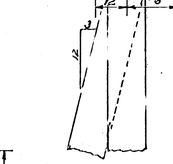
Sec. A-A

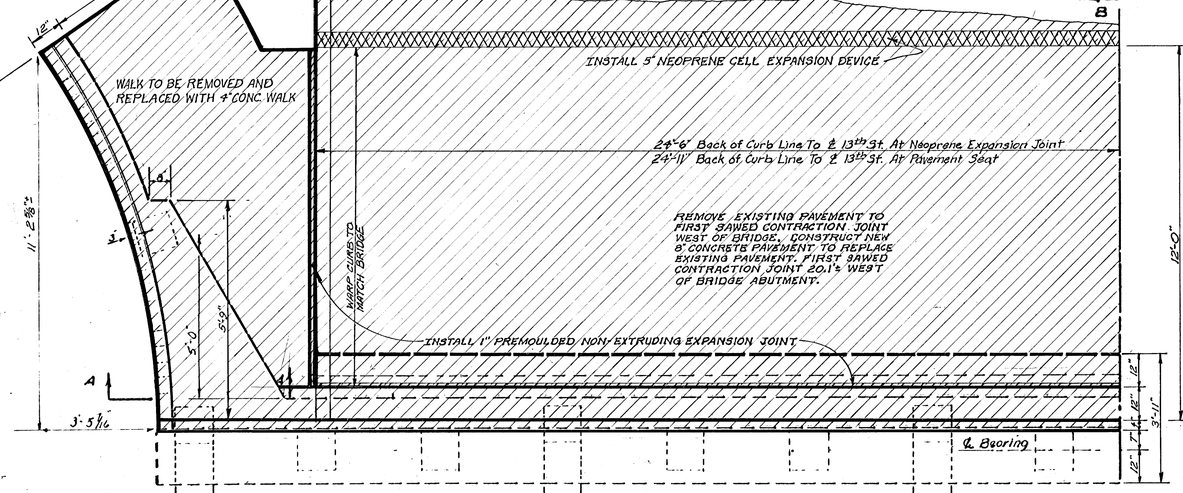


ELEVATION

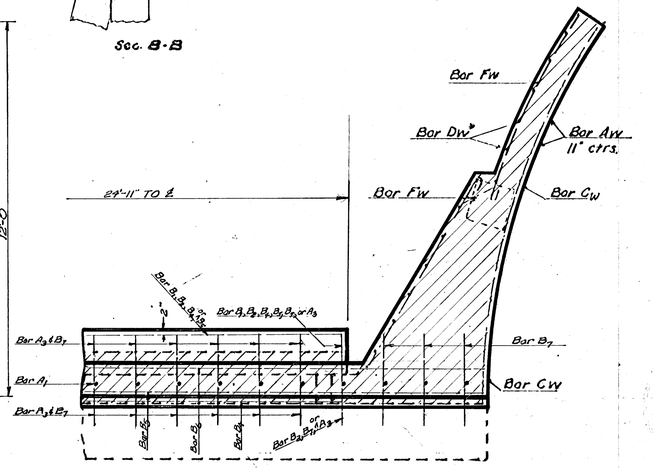


REINFORCING STEEL IN HALF OF ABUTMENT
(Symmetrical About Centerline)


Sec. B-B



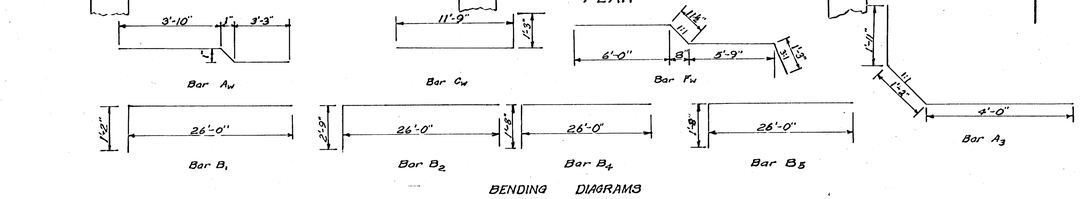
PLAN



STEEL TABLE
(WEST ABUT.)

Bar	Space	No.	Size	Length	Weight
A_1 *	15"	47	⅜"	4'-8"	329.44#
A_2 *	15"	40	⅜"	6'-2"	370.50#
A_3	15"	40	⅜"	7'-11"	430.57#
B_1		2	⅜"	27'-2"	81.61#
B_2		2	⅜"	28'-9"	86.37#
B_3		4	⅜"	27'-8"	166.22#
B_4	12"	8	⅜"	27'-8"	332.44#
B_6 *	12"	16	⅜"	2'-6"	62.83#
B_7 *	15"	47	⅜"	2'-9"	194.13#
R		4	½"	11'-9"	31.90#
A_{IV}	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	3056.19#

* INDICATES STRAIGHT BARS



BENDING DIAGRAMS



BRIDGE ABUTMENT REPAIR
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