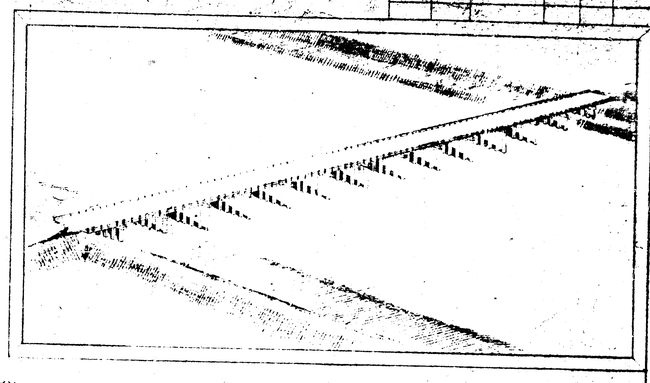
STATE OF KANSAS
STATE HIGHWAY COMMISSION
SEDGWICK COUNTY

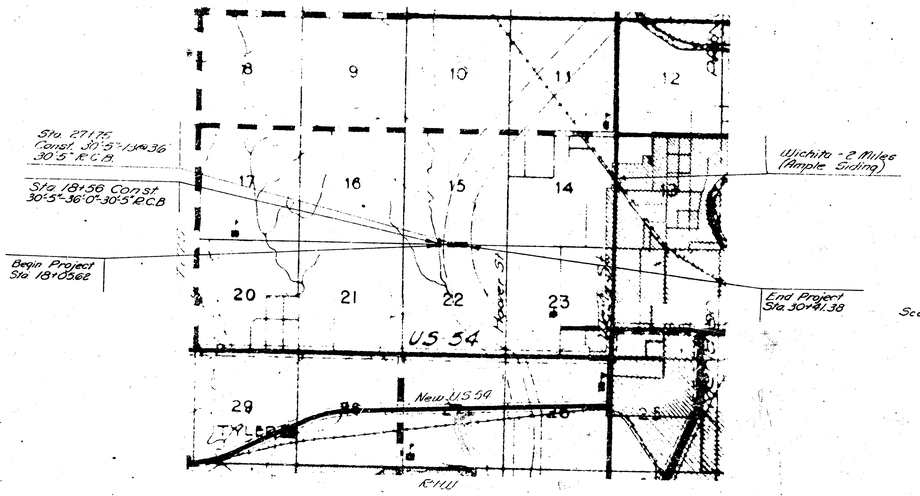
PLAN AND PROFILE

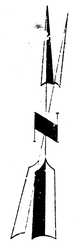
PROJECT F. C. 314 (B)



INDEX OF SHEETS

1 - Title Sheet
2 - Topography
3&4 - Plan & Profile
5 - Construction Layout (618-22-2775)
6 - Piling Location in Levees "
7 - General Details "
8 - Auxiliary " "
9 - Reinforcing " "
10 - Piling " " & (618-22-1856)
11 - Construction Layout (618-22-1856)
12 - General Details "
13 - Auxiliary " "
14 - Reinforcing " "





Scale 2"=1 mile

BRIDGES ONLY

SUMMARY OF QUANTITIES	(COMBINED)
Concrete Class A (AE)	794 I C.Y.
Reinforcing Steel	169,100 Lb.
14"x14" Conc. Piling	4,070 L.F.
Bearing Devices	7,570 Lb.
Metal Handrail	1,291.5 L.F.
Structural Steel	22,150 Lb.

CONVENTIONAL SIGNS

COUNTY LINE
SECTION LINE
WIRE FENCE
HEDGE ROW
RAILROAD
SURVEY LINE
RIGHT OF WAY
TELEPHONE
POWER POLE
TRAVELED WAY
CITY LIMITS
TOWNSHIP BOUNDRY

GROSS LENGTH OF PROJECT	1235.76 FT.	0.234	MILES
EXCEPTIONS	602.26 FT.	0.114	"
ADDITIONS			
NET LENGTH OF PROJECT	633.50 FT.	0.120	MILES
NET LENGTH OF BRIDGES	633.50 FT.	0.120	MILES
NET LENGTH OF ROAD	FT.		MILES

PLANS PREPARED BY.

COUNTY ENGINEER

DATE 11-24-47

APPROVED

COUNTY COMMISSIONER

DATE 11-30-1947

RECOMMENDED FOR APPROVAL DATE

ENGINEER OF SECONDARY ROADS
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE

STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

RECOMMENDED FOR APPROVAL DATE

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED DATE

DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

618-22-1856 AND 618-22-2775

BIG SLOUGH CREEK

16'x55' wood steel bridge
To be removed by SEDGWICK COUNTY.

Sta. 181+56 Const. 30'-5"-36'-0"-30'-5" RC B., M.H. Handrail

Existing 6" Cable power line

Limits of waste fill see dwg. C121-197

Texas Empire 6" gasoline line

Drain ditch 5' bottom width with 1 on 2.5 side slopes.

Temporary drain 48" C.M.P. or equal, to be furnished and installed by SEDG. Co. if necessary.

Channel bottom width 121.42' @ Sta. 774+00B

Sta. 27+75 Construct 30'-5"-136'36"-30'5" RC B.

Sta. 784+10.23-HW El. 1298.96 TW El. 1314.43

Sta. 783+85B

784+00B

B-24

B-61

B-62
El. 1319.46
El. 1319.50
Sta. 786+00 'B'

B-63

Sta. 785+85'B'

85' top 2:1 slopes reset by Govt. for Contractor

Sta. 786+70 'B'

CHANNEL B

Flow

V= 6.08'/s.

785+50B

Sta. 785+10 'B'

El. 1320.49
El. 1320.41

Approximate ℄ Co. Road Detour

℄ L.B. LEVEE 'D'

Drain ditch - 5' bottom Width 1 on 2.5 side slopes see profile.

Levee alignment control line "C"
Approximate limit of R/W

Channel bottom width 151.52' @ Sta. 795+50'B'

B-25

Levee alignment control line "D"

Central Ave. relocation & channel plug excav. to be done by SEDG. Co.

24'x24' C.I.P.

15'x15' C.I.P.

Approximate limit of R/W

Lv. Gap closures and dressing & mulching of channel slopes to be done by others after completion of CENTRAL AVE. relocation.

Δ = 74°-44'-25"
D = 1°-00'
R = 5729.58'
T = 4375.86'
L = 7474.03'

REPRODUCTION FROM U.S. ARMY, CORPS OF ENGINEERS, DWG. NO. C 121-193.2 SHOWING LOCATION OF COUNTY BRIDGE AT STA. 784+70.23 'B'

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=100'	U.S. Army	W. Freund		2
	DATE		Oct. 1953		
	PLANFILE		TOTAL SHEETS		

Sh. #2 of 10 618-22-2775

S.W. Cor. of Sec. 15 Delano
Stone 18" Deep
93.5' N.W. to X mg.ls in fc. cor. post
39.8' S.W. " 60° in H.L.P.
73.7' S.W. " N.W. cor of R.C.B.C.
73.7' S.E. " N.E. cor of R.C.B.C
40.9' N.E. " X nails in T.P.

Road #811-D

Road #811-P

Alfalfa

From Rd. #811 to Sta. 15+00 R'l'W 40' E. Both sides

Delano Twp. Hall

Sta. 31+16 ~~Delano Twp. to furnish~~ Sedg. Co. to remove existing 9'-2"x8'-1" R.C.B. & 36" B.P.P. & install 36"x32" C.R.P. PE SI 1310.25

Plowed Ground

SEC. 15-27S-1W

Sta. 26+71.25
S¼ Cor. of Sec. 15
Stone 15" Deep
29.0' S. to H.L. Pg. W.
36.5' S.W. to H.L.P.

Texas Empire Pipe Line

Pasture

Temporary drain 48" C.M.P. to be furnished & installed by Sedgwick County.

Sta. 18+00 to R'l'W Fc. R'l'W 55' E. Both Sides

Approximate E. County Road Detour

P.I. 18

P.I. 19

Sta. 18+56 Construct 30'-5"-36'-0"-30'-5" R.C.B. Old S.T.B. to be removed by SEDG. CO. forces and funds. County to excavate channel at bridge site prior to any pile driving.

Pasture

Sta. 27+75 Const. 30'-5"-136°36'-30'-5" R.C.B.

E Channel

Reserved for Government Contractor

Limits of Borrow to channel grade by Sedgwick County

6" Graded Rock 12' Heavy Rip-rap to be furnished by Sedgwick County. See sheet #5

Sta. 21+76 Iron pin (on Sec. line) 72.95' N. to 3/8's in roadway fence post. 69.25' S. to 3/8's in floodway Fr. post, in line of Fc. N.

SEC. 22-27S-1W

110 Hours Ent. 21+81.8 R.P.C.C. Replace 30" C.P.

160 Hours Ent. 2+20 28.7 R.C. Replace 29" C.P.

Fence

SCALES
Plan Long. 1"=100' Lat. 1"=100'
Profile Horiz. 1"=100' Vert. 1"=10'
0 50 100 200 300 400

B.M. #4 "O" on E. headwall of R.C.B.C. 753 of intersection of Central & Rd. #811 El. 1318.02

B.M. #3 Bolt in Flood Control R/W fence Cor. Post 30' N. Sta. 21+74 El. 1311.31

GENERAL NOTES

All easements, channel changes, borrow-pit locations and R/W for construction of this project to be furnished by SEDGWICK COUNTY.
All encroachments, such as fences, telegraph, telephone and power lines, shall be moved beyond the limits of construction by owners or SEDGWICK COUNTY.
In the interest of public safety, all gas, gasoline, oil and water lines shall be moved beyond the limits of the roadbed unless special provision for their retention has been noted.
Operational devices for any and all lines, which are permitted to remain in place, shall be adjusted to conform with lines and grade of proposed improvement.
Grading and surfacing is to be done by others and is not to be considered a part of the Contract.

200' V.C. 200' V.C. 100' V.C. 1000' V.C.
3.52%
0.0% 1.25% 0.0% 1.0% -1.0%
Sp. Ditch Rt. & Lt. -0.10% 3' Bottom
0.325%
Sp. Dit. Rt. & Lt. 10.10% 3' Bottom
1311.00
1309.80
1308.50
Design H.W. 1313.10
1307.50
1308.00
H.W. 1316.43
E.P. 1298.92
1320.00
1310.00
1300.00

P.C. El. 1314.00 P.T. El. 1316.50 P.C. El. 1316.50 P.T. El. 1316.50 P.C. Sta. 22+93.98 El. 1318.98 P.T. Sta. 27+69.98 El. 1323.98

Typical Channel Excavation 75' ea. side & Central Ave. To be done by Sedgwick County.
Var. 50'-0" Var.

Typical Channel Excavation 150' At Bridge Site Central Ave. Sta. 18+56 To be done by County.
55'-0" 18'-2"

Sta. 25+10.58 ℄ Brg. Abut #1
C.G. = 1320.64
Low Chord = 1318.93

Sta. 30+39.92 ℄ Brg. Abut #2
C.G. = 1320.53
Low Chord = 1318.62

See 'Construction Layout' Sheet No. 5

0100 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

PLATE 1—PLAN-PROFILE: D.P.P.A.A.E. STANDARD
RUFFEL & ESSER CO., NEW YORK.

618-22-2775 Sheet No. 3 of 14

SEC. 15-27S-1W

Sta. 53150.67
Storm 12 Deep
45 G N.W. to US#3
037 S.W. to X mark's in H.L.P.

#111 24"x24" C.M.P.
Bedg. County to remove
and inst. at # 51 & 33153
48"x96" R.C.P. Fl. El. 1306.37
D.A. 160 Ac. C=0.3

E. Channel

Reserved for Government Contractor

Limits of Borrow in Channel of Gilda Slough County

R/W 39 & @ 37100

Sta 37100 to Bridge Ave. R/W 40'E

#25 18"x 30' C.M.P. To remain in place

#92 18"x 28' C.M.P. to remain

#81 12"x 28' C.M.P. Water tank

E. Nevada St.

U.S. Eng. B.M. Monument

#19 18"x 28' C.M.C.

Sta. 331796
Iron pin (on Sec. line)
Pg. 3'N.W. & 3ns in floodway ft. post
33935.55E. " " " "
In line of ft. SE.

SEC. 22-27S-1W

B.M.#2 Top of conc. R/W Floodway Mon. 75'N of E. Central in east fence. El. 1309.59

B.M.#1 U.S. Eng. Mon. at N.W. cor. of intersection of Central & Gilda El. 1311.11

1000' V.C.

200' V.C.

200' V.C.

E. Prism Wall

-1.0%

-2.92%

-0.20%

+0.075%

5' Bottom

El. 1306.37

El. 1307.60

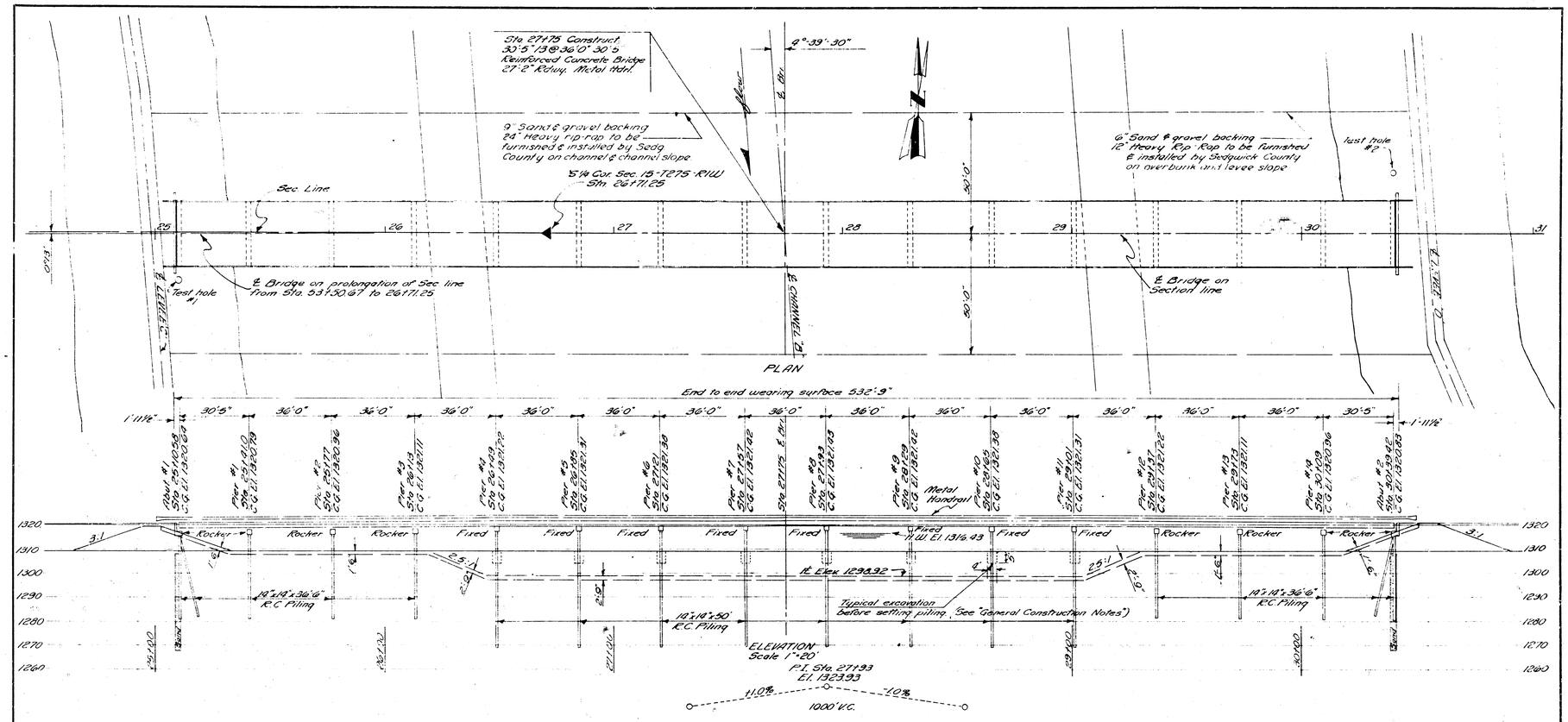
Sta 30+33.92 & Brg. from #2
C.G. = 1320.03
Law Chord = 1318.62

See 'Construction Layout' Sheet No. #5

1360
1310
1300

PLATE 1 - PLAN-PROFILE © H. R. & K. F. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

618-22-2775 Sheet No. 4 of 14



FLOODWAY DATA

Top of Levee "C" El. 1319.96
Top of Levee "D" El. 1320.91
Bottom of channel El. 1298.92
Highwater El. 1316.93
Width of channel @ bottom 260'
Side slopes of channel 1 on 2.5
Side slopes of Levees 1 on 3
Width of floodway, ctr. to ctr. of levees 554'
Estimated flow 96,500.
Estimated Velocity 8.08'/Sec.

GENERAL NOTES

Design: According to AASHO. Specifications, Edition of 1949 (H20-44 Loading; f_s = 20,000 psi; f'_c = 1,000 psi.
Soundings: Taken by SEDGWICK COUNTY with ¾" jet.
Piling: Concrete piling to be driven to a computed resistance of 28 tons per pile.
Concrete: Use class A(AE) concrete throuout. Bevel all exposed edges with a ¾" triangular molding.
Forms: Contractor shall use preformed metal forms owned by SEDGWICK COUNTY.
Embankment: To be constructed by SEDGWICK COUNTY or others. No earthwork is to be considered a part of this project except at pier locations in channelway.

GENERAL CONSTRUCTION NOTES

Timber cribbing at centerline of each span on this project will be required.
Two sets of short forms and five sets of long forms are available for these projects. Since the concrete in a full span ahead of any forms to be removed must have attained its design strength before removal of these forms, it is suggested that high-early strength cement be used.
Forms for these projects shall be picked up by Contractor at the SEDGWICK COUNTY YARDS, 1015 51st, Ilwell, Wichita, and returned to this location unless otherwise instructed by the Engineer. (See "Special Provisions" in Specifications & Proposal Booklet.)
The wearing surface and all other exposed surfaces of wings, caps, abutments and piling shall be cured and protected in accordance with section 5098 of the Standard Specifications for State Road & Bridge Construction, Edition of 1951. As an alternate, a paraffin base curing compound applied immediately after finishing of concrete, and covered with dry burlap, or any suitable material satisfactory to the Engineer in charge, for a minimum of 72 hours may be used.

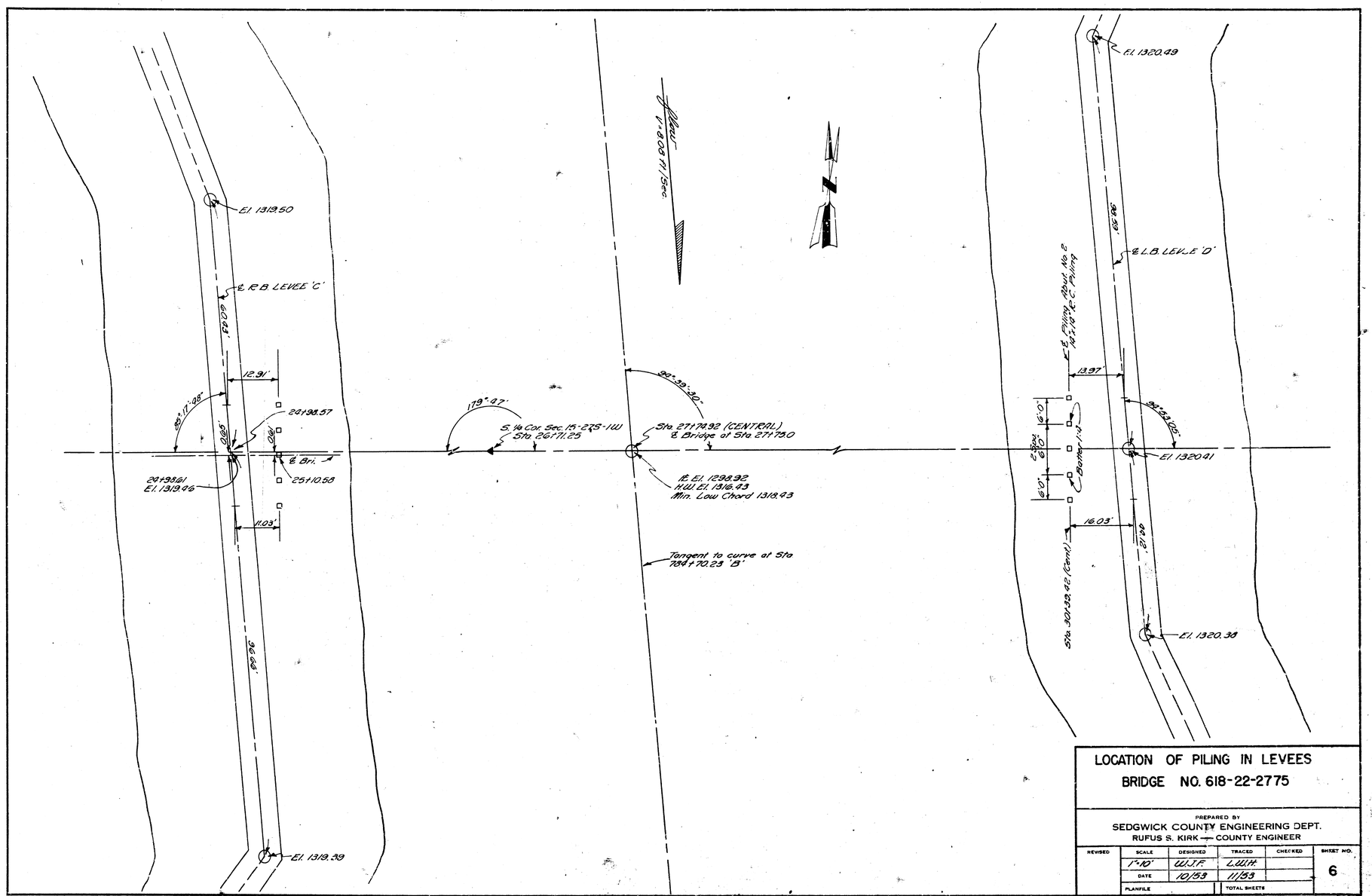
Since the speed and simplicity of these projects will be greatly increased if construction is well underway before the waterway and levees are constructed, work on forming of piling must start within two weeks and pile driving must start within three weeks after the contract is let. A trench 5'x9'x28' to be excavated before setting piling and backfilled before any form work for caps, proceeds at each pier location in channelway. Excavation and back filling not to be paid for directly, but shall be included in the unit price bid for concrete piling.

CONSTRUCTION LAYOUT
BRIDGE NO. 618-22-2775

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=20'	W.J.F.	L.W.H.		5
	DATE	11/53	11/53		
	PLANFILE		TOTAL SHEETS		

1#5-14



LOCATION OF PILING IN LEVEES
BRIDGE NO. 618-22-2775

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=10'	W.J.F.	L.W.H.		6
	DATE	10/53	11/53		
	PLANFILE		TOTAL SHEETS		

618-22-2775 #6 of 14

GENERAL NOTES

Design: Designed for H-20-44 loading AASHO specifications f_s=20,000psi, f'_c=1,000psi

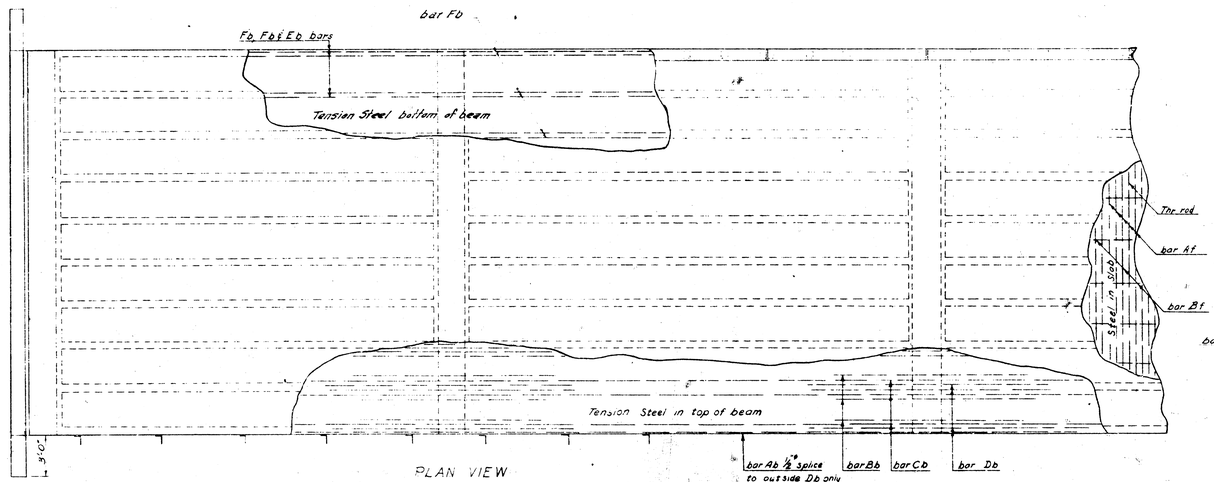
Soundings: To be taken by Sedgwick County

Piling: Concrete piling to be driven to a Calculated resistance of 28 ton

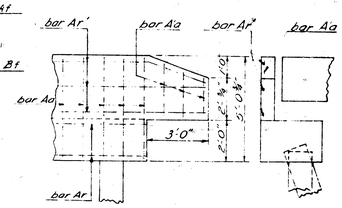
~~Old Struct. To be removed by Sedgwick County~~

Concrete: Class A(AE) concrete used throughout. Bevel all exposed edges with a ¾" Δ molding unless otherwise noted. Forms shall be preformed steel pans" used as directed by the Engineer in charge.

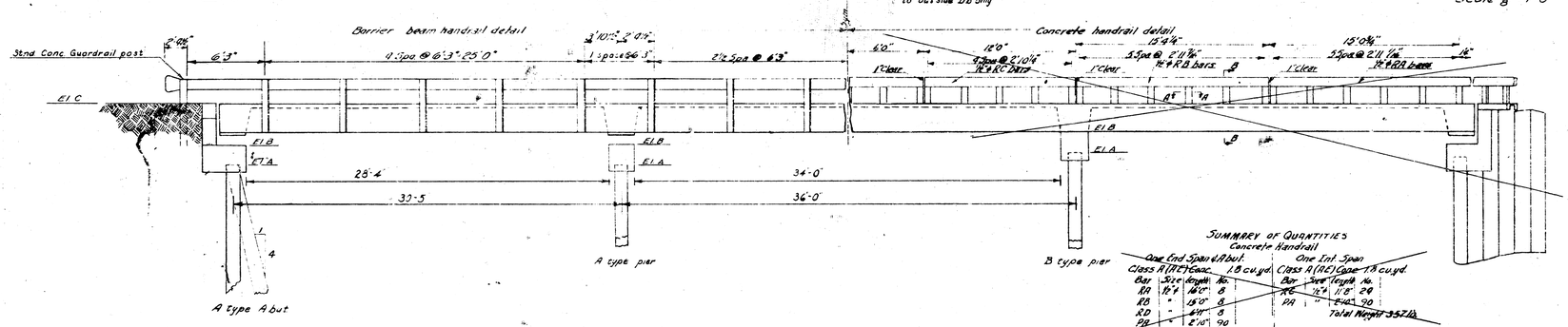
Guardrail: To be of standard barrier beam or concrete as shown on Construction Layout. Concrete rail to be constructed after the removal of deck forms



PLAN VIEW



Details of Cantilevered Wing
Scale ⅜" = 1'-0"



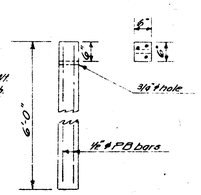
SUMMARY OF QUANTITIES
Concrete Handrail

One End Span & Abut.				One Int. Span			
Class A(AE) Conc. 1.8 cu.yd.				Class A(AE) Conc. 1.8 cu.yd.			
Bar	Size	Length	No.	Bar	Bent Type	Length	No.
RA	#4	16'0"	8	RC	#4	11'8"	20
RB	"	16'0"	8	RA	"	5'10"	90
RD	"	6'11"	8				
RA	"	5'10"	90				

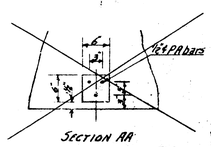
Total Weight 3731lb. — Total Weight 3527lb.

SUMMARY OF QUANTITIES
ONE GUARDRAIL POST
Class A(AE) Conc. 0.05 c.y.

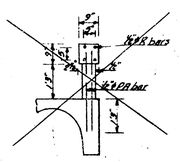
Bar	No.	Size	Length	Total Wt.
FB	3	#4	5'-8"	11.0 lb.



STANDARD GUARD. POST DETAIL
4 Required



Section AA



Section AB

~~Note: PA bars to be placed immediately after slab screeding~~

RE. CONC. MODIFIED T-BEAM BRIDGE
BRIDGE NO. 618-22-2775

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
1-13-53 C.I.F.	1/4" = 1'	R.R.J.	C.D.H.		1
	DATE	9-50	9-19-50		
	PLANFILE		TOTAL SHEETS		

618-2775

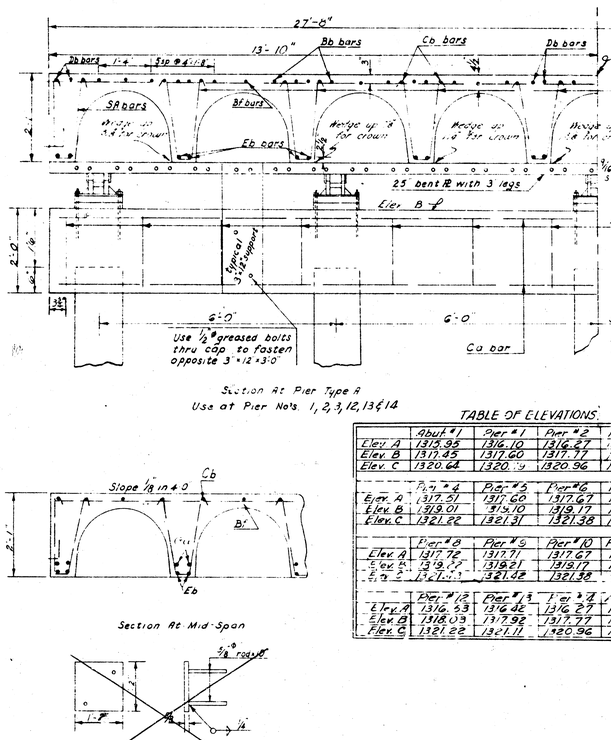


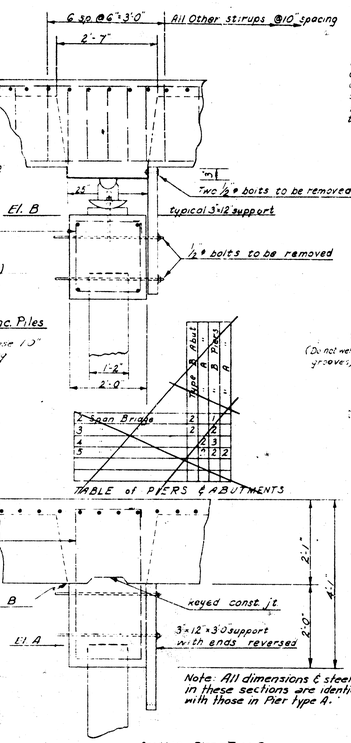
TABLE OF ELEVATIONS

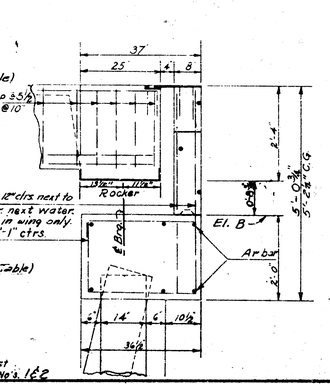
	Abut #1	Pier #1	Pier #2	Pier #3
Elev. A	1319.95	1316.10	1316.27	1316.43
Elev. B	1317.45	1317.60	1317.77	1317.92
Elev. C	1320.64	1320.79	1320.96	1321.11

	Pier #4	Pier #5	Pier #6	Pier #7
Elev. A	1317.51	1317.60	1317.67	1317.71
Elev. B	1319.01	1319.10	1319.17	1319.21
Elev. C	1321.22	1321.31	1321.38	1321.42

	Pier #8	Pier #9	Pier #10	Pier #11
Elev. A	1317.72	1317.71	1317.67	1317.60
Elev. B	1319.17	1319.21	1319.17	1319.10
Elev. C	1321.42	1321.42	1321.38	1321.31

	Pier #12	Pier #13	Pier #14	Abut #2
Elev. A	1316.53	1316.42	1316.27	1316.14
Elev. B	1317.78	1317.77	1317.77	1317.63
Elev. C	1321.22	1321.11	1320.96	1320.83





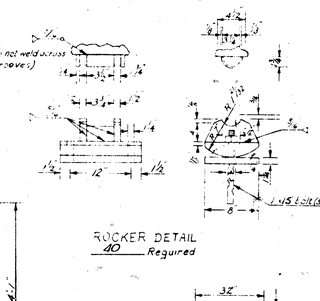
GENERAL NOTES

Bevel all exposed edges with ¾" molding.

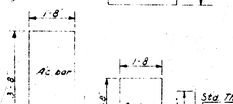
PAINT: All parts of the Metal Handrail shall receive one shop coat of red lead paint. All exposed surfaces of Structural Steel, Bearing Devices and Metal Handrail shall receive one coat of linseed aluminum paint followed by one coat of aluminum paint after erection.

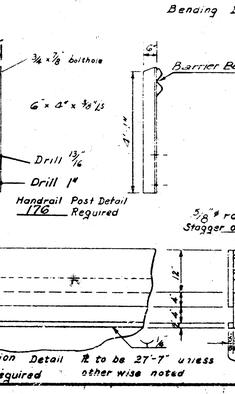
Reinforcing Steel

Note. Quantities shown on this sheet are for computation only. Actual structure quantities are shown on following Sheet.



ROCKER DETAIL
40 Required





27'-7" Rdwy ABUTMENT QUANTITIES

A TYPE				B TYPE			
backwall boards				backwall boards			
Five bearing piling				Five bearing piling			
Eight sheet piling				Eight sheet piling			
83 cu yd concrete				78 cu yd concrete			
5291 lbs reinforcing				579 lbs reinforcing steel			
Five bearing devices				Five bearing plates			
One bent plate				One bent plate			
Bar	No	Length	Size	Bar	No	Length	Size
Aa	41	4'-0"	½"	Aa	41	4'-0"	½"
Ar	5	27'-0"		Ar	5	27'-0"	
Ba	14	9'-8"		Ba	14	9'-8"	
Ca	4	27'-0"	1"	Ca	4	27'-0"	1"

27'-7" Rdwy PIER QUANTITIES

A TYPE				B TYPE			
Five bearing piling				Five bearing piling			
41 cu yd concrete				41 cu yd concrete			
3601 lbs reinforcing steel				397 lbs reinforcing steel			
5 bearing devices							
One bent plate							
Bar	No	Length	Size	Bar	No	Length	Size
Ac	14	7'-8"	½"	Ac	14	11'-8"	½"
Ca	4	27'-0"	1"	Ca	4	27'-0"	1"

27'-7" Rdwy SPAN QUANTITIES*

ONE END SPAN				ONE INT SPAN			
36.4 cu yd conc				39.6 cu yd conc			
8590 lbs reinforcing steel				8068 lbs reinforcing steel			
10 Endr I posts (steel)				(2 Endr I posts			
"W" Barrier Beam				"R" Barrier Beam			
1 expansion device							
2 Concrete Posts							
Bar	No	Length	Size	Bar	No	Length	Size
Sa	83	5'-2"	2"	Sa	92	5'-2"	2"
Sb	1332	5'-2"		Sb	368	5'-2"	
Fb	20	23'-6"	1"	*Da	20	23'-6"	⅛"
				Eb	20	38'-4"	1"
Eb	20	33'-4"	1"	Ab	2	22'-0"	½"
Ab	2	25'-0"	½"	Ka	12	0'-11"	¾"
Ar	58	27'-0"		Ar	66	27'-0"	½"
Bf	9	33'-0"		Bf	9	38'-0"	
Ka	10	0'-11"	¾"	Cb	18	38'-0"	⅛"
Cb	18	33'-0"	⅛"	Bb	18	14'-0"	
Bb	9	14'-0"		Thrd	6	28'-0"	½"
Thrd	5	28'-0"	½"	Ca	20	18'-0"	1"

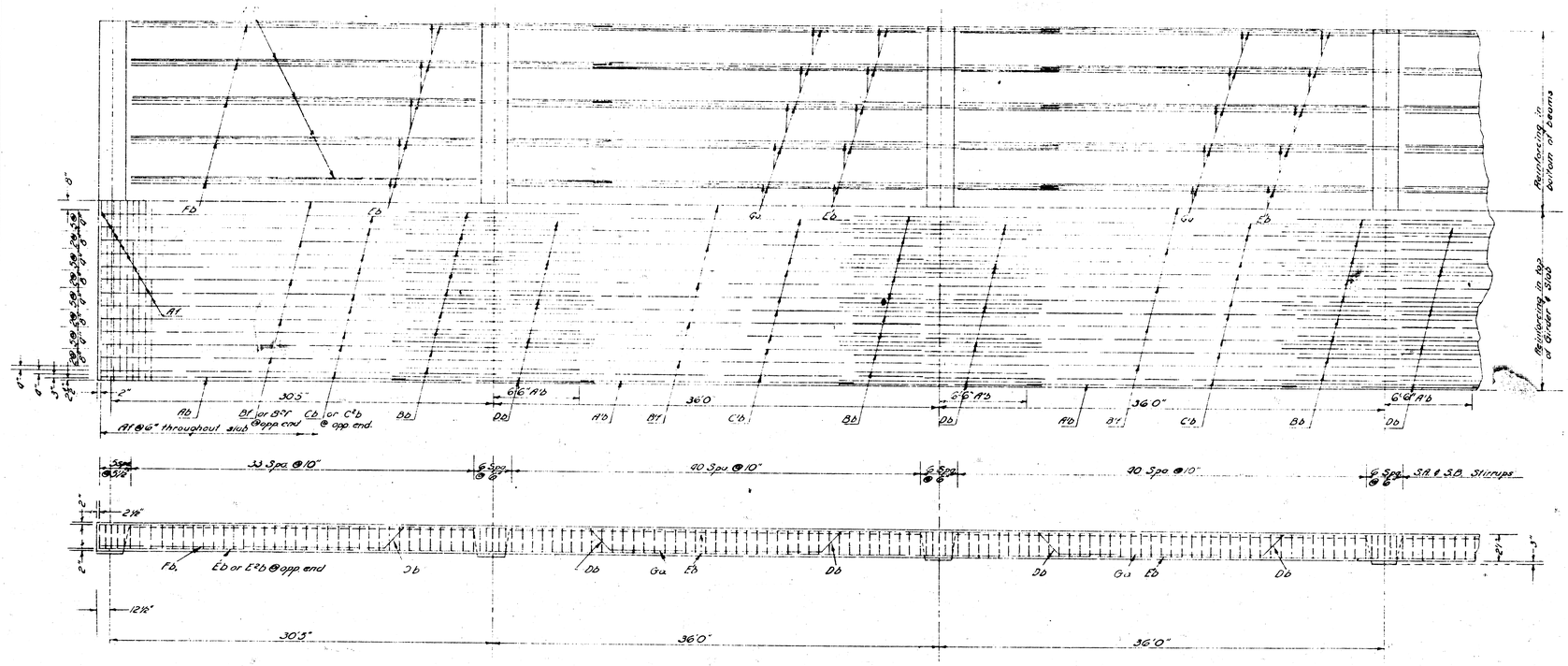
* Due to overlapping & qualification, quantities shown are not necessarily actual bar numbers, but are factors to be multiplied by the number of each span involved to give total structure quantities.
* Multiply by number of piers.

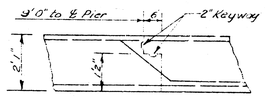
RE CONC. MODIFIED T-BEAM BRIDGE AUXILIARY DETAILS BRIDGE NO. 618-22-2775

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
12-51 MS 11-53 WLF		R. R. J.	C. D. H.		8
	DATE	9-50	9-23-50		
	PLANFILE		TOTAL SHEETS		

618-22-2775 N.S.





TYPICAL CONSTRUCTION JOINT

SUMMARY OF QUANTITIES

30'5"- 13 @ 36'-30'5" Continuous Spans; 27'-2" Roadway; Metal Handrail

Bar	Aa	Ab	Af	Ba	Cu	Ac	Ae	Ab	Ab	Af	Bb	Bf	B'f	Cb	C'b	Db	Eb	E'b	Fb	Ga	S.A	S.B	Ac	Ae	P.A	P.B	P.C	P.D	P.E	C'b	Af
No.	82	12	4	28	64	84	12	4	26	1063	252	9	117	18	234	280	20	260	40	260	364	364	176	88	16	16		16		20	9	18	6
Size	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#8	#7	#7	#7	#8	#8	#8	#9	#7	#8	#8	#8	#8	#8	#8	#8	#8	#8	#9	#7	#4
Length	28'	*	27'-4 3/8"	27'-10"	8'-10"	29'-0"	29'-0"	11'-10"	29'-0"	29'-0"	12'-0"	36'-6"	36'-6"	36'-6"	36'-6"	36'-6"	12'-0"	36'-6"	36'-6"	36'-6"	32'-10"	32'-10"	10'-0"	10'-0"	6'-6"	6'-6"	6'-6"	6'-6"	6'-6"	10'-0"	11'-8"	10'-7"	33'-2"

Concrete Class M	657.5 Cu. Yd.	Metal Handrail	1079 Lin. Ft.
Reinforcing Steel	141,510 Lb.	Structural Steel	136,090 Lb.
10"x10" Conc. Piles	3460 Lin. Ft.		Lin. Ft.
Bearing Devices	4,200 Lb.		Lin. Ft.

*Cut 4 bars @ 1'-9"
4 " " 2'-1"
4 " " 2'-5"

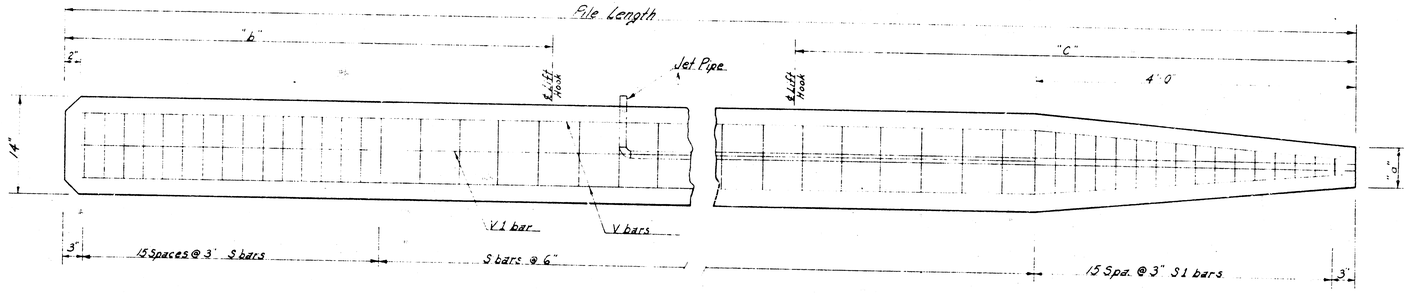
REINFORCING DETAIL
BRIDGE NO. 618-22-2775

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

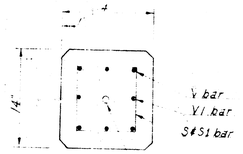
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
11-18-53	1/4"=1'0"	M.E.S.			9
	DATE				
	PLANFILE		TOTAL SHEETS		

618-22-2775 9 of 14

Pub. Rd. Div. No.	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas		1951		

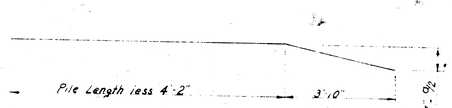


ELEVATION



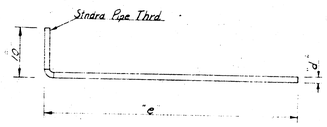
Jet Pipe

END VIEW

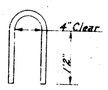


V bar

Pile Length	20'-6"		24'-6"		28'-6"		32'-6"		36'-6"		40'-6"	
		10 req'd		10 req'd		10 req'd		40 req'd				
Bar	Size	Length No.	Size	Length No.	Size	Length No.	Size	Length No.	Size	Length No.	Size	Length No.
V	#7	20'-6" 4	#7	24'-2" 4	#7	28'-2" 4	#7	32'-2" 4	#6	36'-2" 4	#6	40'-2" 4
V1									#6	32'-6" 4	#6	36'-0" 4
S	#2	3'-4" 41	#2	3'-4" 49	#2	3'-4" 57	#2	3'-4" 65	#2	3'-4" 73	#2	3'-4" 81
S1	#2	Var. 15	#2	Var. 15	#2	Var. 15	#2	Var. 15	#2	Var. 15	#2	Var. 15
Lift Hook	#8	3'-0" 2	#8	3'-0" 2	#8	3'-0" 2	#8	3'-0" 2	#8	3'-0" 2	#8	3'-0" 2
Jet Pipe		1		1		1		1		1		1
"a"		6"		6"		6"		6"		6"		6"
"b"		6'-0"		7'-2"		8'-4"		9'-6"		10'-8"		11'-10"
"c"		8'-0"		9'-2"		10'-4"		11'-6"		12'-8"		13'-10"
d										1¼"		
e										29'-0"		
X y	x 3/8 to 8 by 3/8		x 3/8 to 8 by 3/8		x 3/8 to 8 by 3/8		x 3/8 to 8 by 3/8		x 3/8 to 8 by 3/8		x 3/8 to 8 by 3/8	
Concrete	9.4 Cu. Yds.		11.4 Cu. Yds.		13.4 Cu. Yds.		15.5 Cu. Yds.		17.5 Cu. Yds.		19.5 Cu. Yds.	
Rebar	209 Lbs.		247 Lbs.		284 Lbs.		321 Lbs.		472 Lbs.		524 Lbs.	

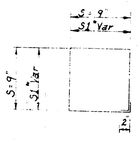


d Dia Jet Pipe



#8 Lift Hook

Pile Length	37'-0"		50'-0"									
			40 req'd									
Bar	Size	Length No.	Size	Length No.	Size	Length No.	Size	Length No.	Size	Length No.	Size	Length No.
V	#6	36'-8" 4	#7	49'-8" 4								
V1	#6	33'-0" 4	#8	45'-10" 4								
S	#2	3'-4" 74	#2	3'-4" 100								
S1	#2	Var. 15	#2	Var. 15								
Lift Hook	#8	3'-0" 2	#8	3'-0" 2								
Jet Pipe		1		1								
"a"		10"		6"								
"b"		10'-10"		14'-0"								
"c"		11'-11"		16'-0"								
d				1¼"								
"e"				41'-0"								
X y	x 3/4 to 8 by 1/4		3/8 to 8 by 3/8									
Concrete	18.2 Cu. Yds.		24.3 Cu. Yds.									
Rebar	482 Lbs.		956 Lb.									



S#S1 bar

*S1 - 15 bars, increase from "x" to "y" by "z" increments

General Notes

Design: According to AASHO Specifications. 1949 Edition. f_s=12,000 psi f_c=1,000 psi.

Concrete: Use class A throughout if Piling are to be encased or otherwise protected Use class A(AE) if piling are to form open bent, unless otherwise noted.

Reinforcing: All dimensions are to center of bars unless otherwise noted.

Jet Pipe: Standard pipe of Dimensions shown unless otherwise approved by Engineer.

Curing: Piling shall be left in forms or otherwise properly cured for at least 7 days. Piling shall not be moved until concrete has attained its design Strength or a minimum of 4 weeks after casting.

Payment: The cost of material and labor used for casting and driving of piles shall be included in the unit bid for concrete piles.

Handling: Piling shall only be lifted by handling hooks or by rigging within 18" of hook location.

Note: Concrete at end of piles shall be removed to expose reinforcing as stated elsewhere on plans. The length for payment of piles shall be as stated in sect 39.40 of the Standard specifications of Kansas, 1951 Edition.

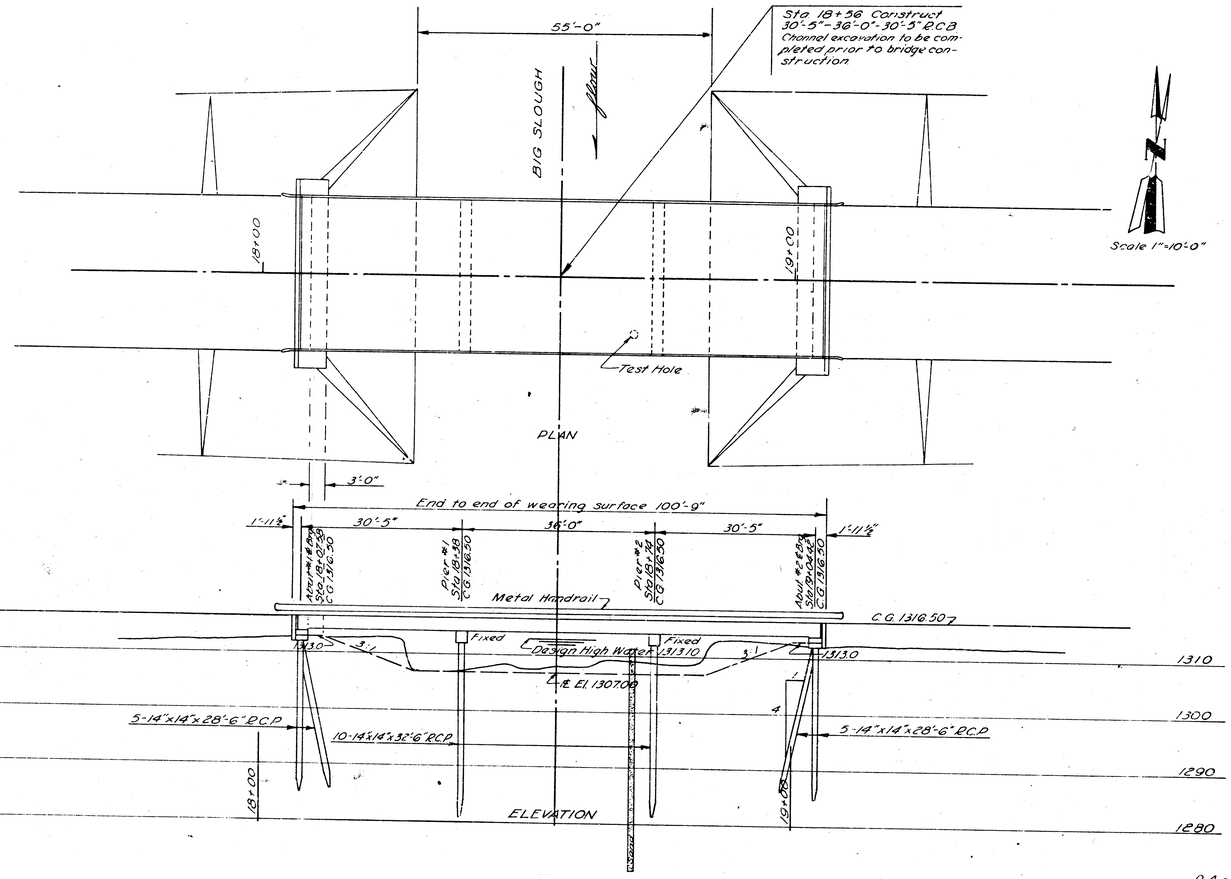
14" x 14" x Re. Conc. Piling

BRIDGE NO. 618-22-2775 & 618-22-1856

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
		Schwab	Housman		10
	DATE	12-51	1-52		
	PLANFILE		TOTAL SHEETS		

618-22-2775 #10 of 10



GENERAL NOTES

Design: According to A.A.S.H.O. Specifications, Edition of 1949 H20-44 Loading; fs 20,000 psi; fc 1,000 psi.
Soundings: Taken by Sedgwick County with ¾" Jet.
Piling: Concrete Piling to be driven to a computed resistance of 28 tons per pile.
Concrete: Use Class A(AE) concrete thruout. Bevel all exposed edges with a ¾" triangular moulding.
Forms: Contractor shall use prefabricated metal forms owned by SEDGWICK COUNTY.
Embankment: To be constructed by SEDGWICK COUNTY or others. No earthwork is to be considered a part of this project except at pier and abutment locations - the cost of which is to be included in the unit price bid for piling.

GENERAL CONSTRUCTION NOTES

Timber cribbing at the centerline of each span on this project will be required.
Two sets of short forms and five sets of long forms are available for these projects. Since the concrete in full span ahead of any forms to be removed must have attained its design strength before removal of these forms it is suggested that high early strength concrete be used.
Forms for these projects shall be picked up by the contractor at the SEDGWICK COUNTY YARDS, 1015 Stillwell, Wichita, and returned to this location unless otherwise instructed by the Engineer. (See "Special Provisions" in Specifications and Proposals Booklet.)
The wearing surface and all other exposed surfaces of wings, caps, abutments, and piling shall be cured and protected in accordance with Sec. 504.9 of the Standard Specifications for State Road & Bridge Construction, Edition of 1951. As an alternate, a paraffin base curing compound applied immediately after finishing of concrete, and covered with dry burlap, or any suitable material satisfactory to the Engineer in charge, for a minimum of 72 hours may be used.

D.A. - 30 Square Miles C - 0.25
Waterway provided 414 sq. ft.

CONSTRUCTION LAYOUT
BRIDGE NO. 618-22-1856

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

REVISED	SCALE	DESIGNED	TRACKED	CHECKED	SHEET NO.
	1"=10'	W.J.F.	C.J.F.		11
	DATE	11-53	11-53		
	PLANFILE		TOTAL SHEETS		

618-22-1856 Sh. No. 11 of 14

GENERAL NOTES

Design Designed for H 20 44 loading AASHO
Specifications fs 20,000psi, fc = 1,000psi

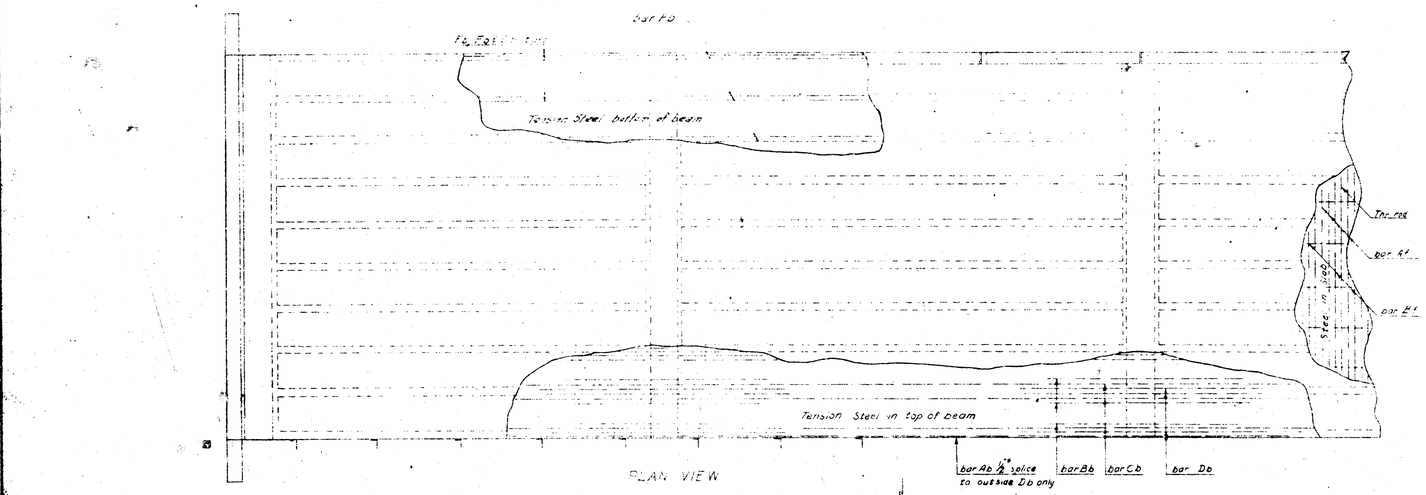
Soundings To be taken by Sedgwick County

Piling Concrete piling to be driven to a Calculated resistance of 28 ton

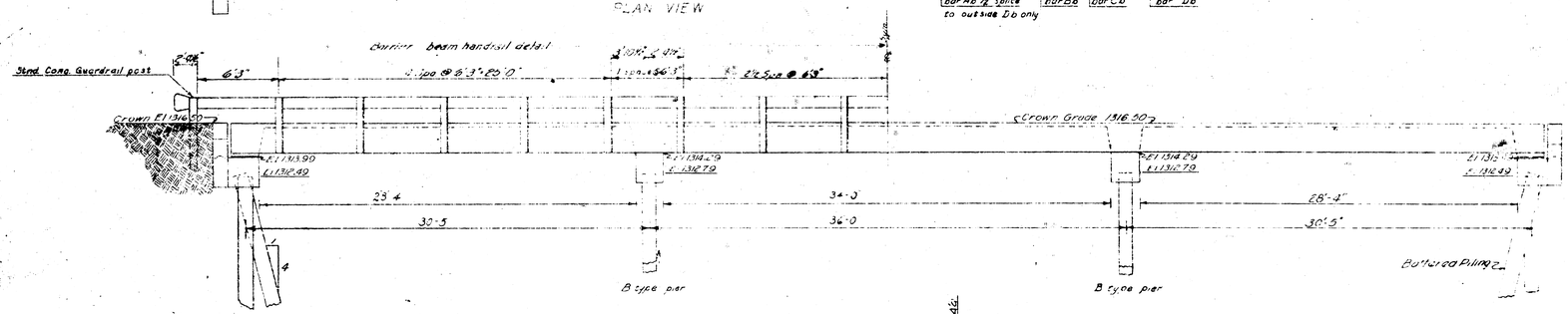
Old Struct To be removed by Sedgwick County

Concrete Class A(AE) concrete used throughout
Bevel all exposed edges with a ¾" chamfering unless otherwise noted. Forms shall be preformed steel panels used as directed by the Engineer in charge

Guardrail To be of standard barrier beam or equivalent as shown on Construction Layout.
Curb to be constructed after the removal of deck forms

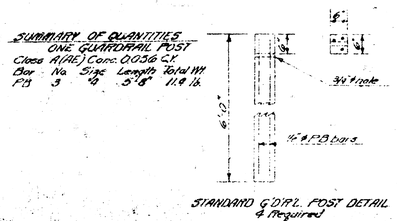


PLAN VIEW

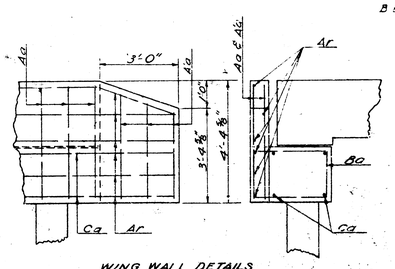


SUMMARY OF QUANTITIES
ONE GUARDRAIL POST
Class A(AE) Conc 0.036 C.Y.

Bar	No	Size	Length	Total Wt
FD	3	#3	5'-8"	11.9 lb.



STANDARD 6'0"L. POST DETAIL
4 Required



WING WALL DETAILS
Scale ½" = 1'-0"

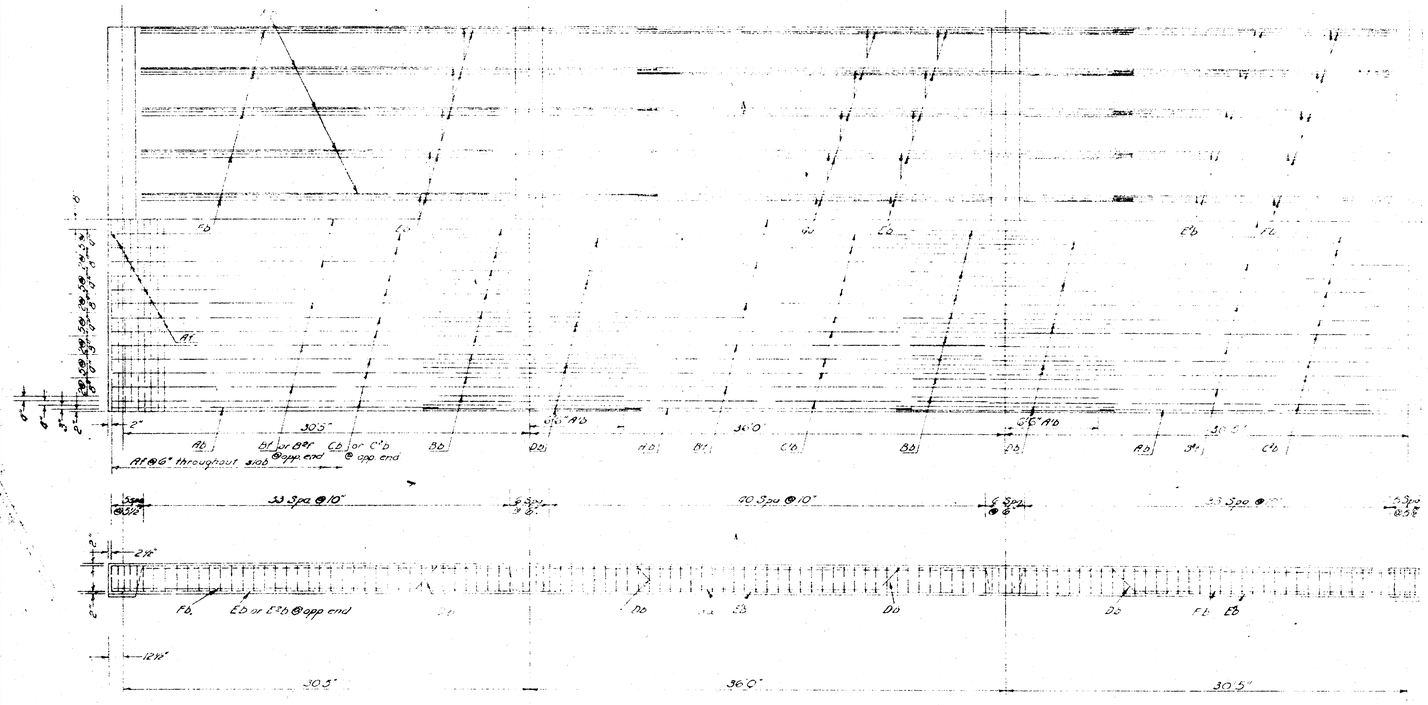
RE. CONC. MODIFIED T-BEAM BRIDGE

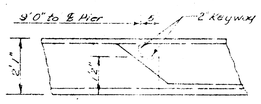
BRIDGE NO. 618-22-1856

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

REVISED 7-27-50	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1/4" = 1'	R.R.J.	C.D.H.		12
	DATE	9-50	9-18-50		
	PLANFILE		TOTAL SHEETS		

618-22-1856 Sh. #12 of 14





SUMMARY OF QUANTITIES

30'5" - 1 @ 36' - 30'5" Continuous Spans; 27'2" Roadway; Metal Handrail

Bar	A1a	A1b	A1c	A2a	A2b	A2c	A2d	A1f	B2	B2f	C2a	C2b	D2a	E2a	E2b	F2a	F2b	G2a	S2a	S2b	K2	K2a	K2b	K2c	P2a	P2b	E2@opp end	C2b
No.	84	24	12	20	16	1	28	4	2	Var	36	2	2	18	18	40	20	20	20	250	102	32	16	16	16	16	2	18
Size	#2	#2	#2	#2	#4	#2	#2	#2	#2	#7	#2	#2	#7	#7	#8	#8	#8	#9	#7	#2	#2	#4	#4	#2	#4	#4	#8	#7
Length	40'-0"	33'-6"	31'-0"	6'-0"	4'-10"	30'-10"	30'-10"	21'-0"	Var.	Var.	30'-0"	30'-0"	36'-0"	30'-0"	30'-0"	36'-0"	30'-0"	31'-10"	32'-0"	0'-10"	30'-0"	4'-8"	4'-8"	6'-0"	4'-8"	4'-8"	6'-0"	12'-7"

Concrete Class H	136 Cu Yd	Metal Handrail	212.5 Lin. Ft.
Reinforcing Steel	27,590 Lb.	Structural Steel	6460 Lb.
14"x14" Conc. Piles	610 Lin. Ft.		Lin. Ft.
Bearing Devices	370 Lb.		Lin. Ft.

*Cut B @ 3'-0"
B @ 3'-4"
B @ 3'-8"

REINFORCING DETAIL
BRIDGE NO. 618-22-1856

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET
	¼"=1'0"	M.E.S.			14
	DATE				
	PLANFILE		TOTAL SHEETS		

618-22-1856 Sh. #14 of 11