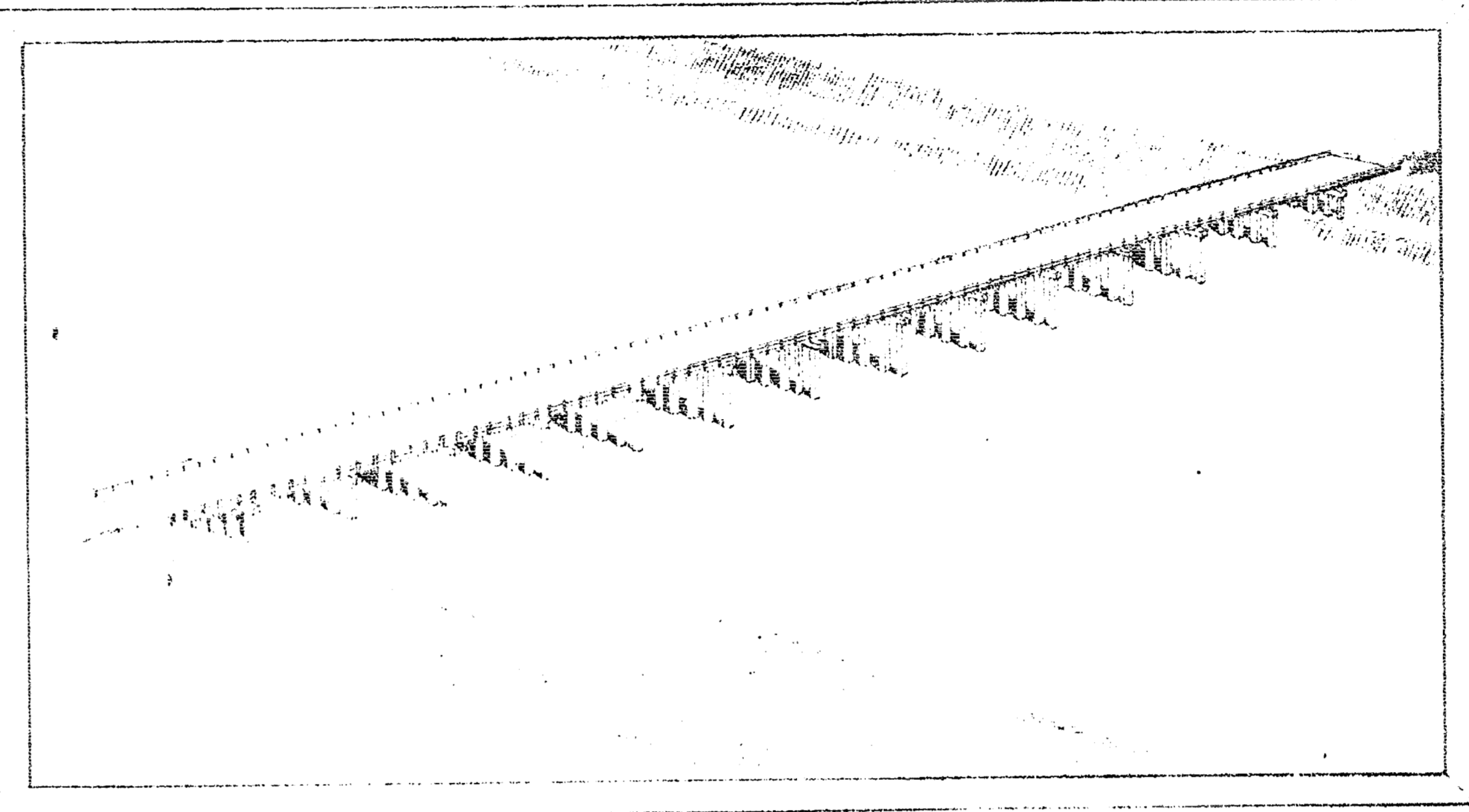


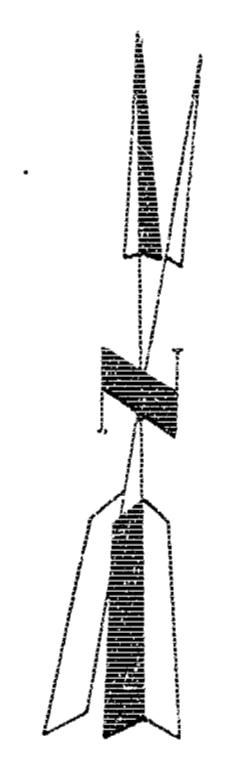
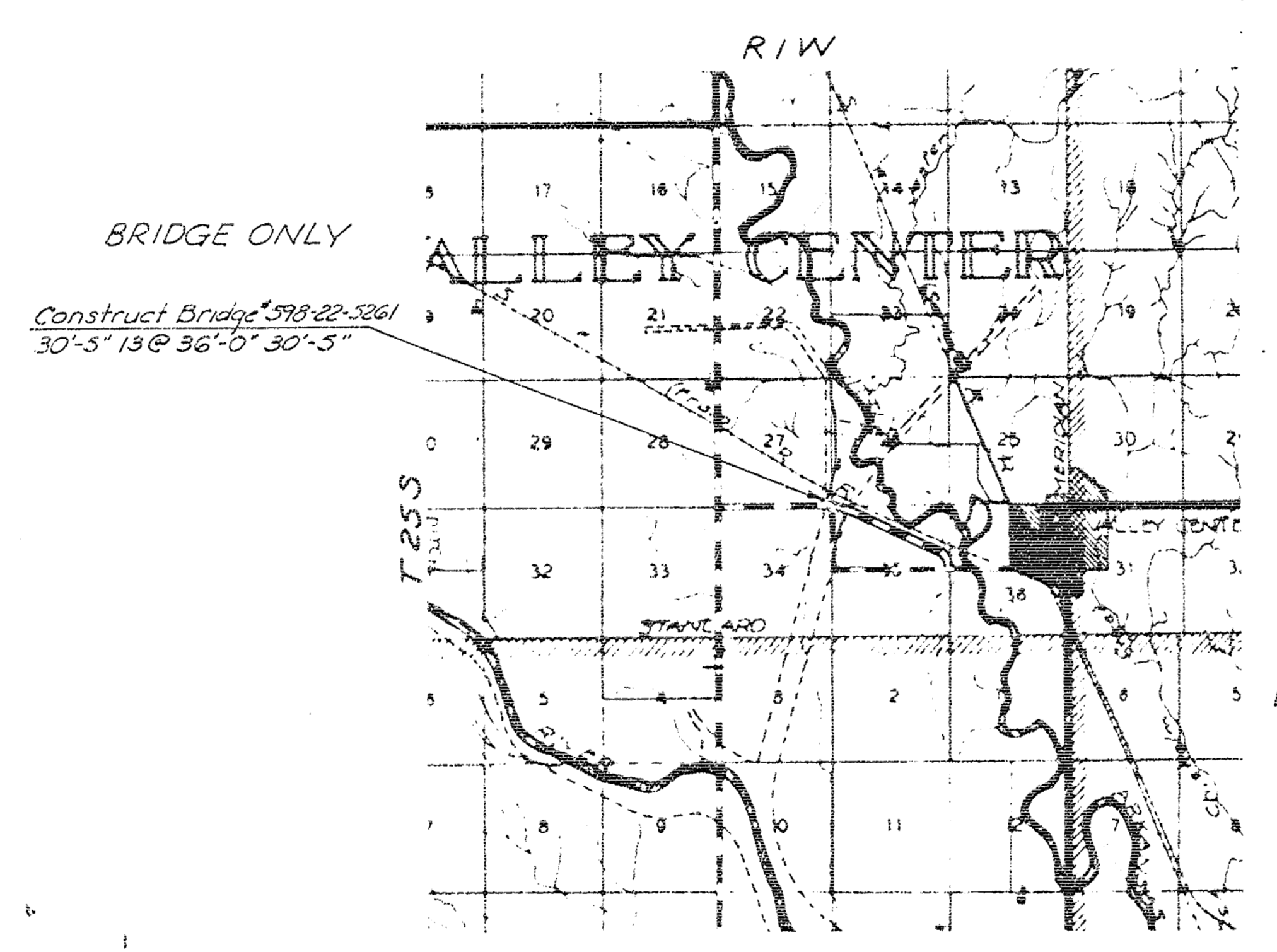
Pub. Rd. Div. No.	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
	Kansas			1	10

STATE OF KANSAS STATE HIGHWAY COMMISSION SEDGWICK COUNTY

PLAN AND PROFILE



- INDEX OF SHEETS**
- Sheet No. 1 Title Sheet
 - Sheet No. 2 Topography
 - Sheet No. 3 Plan & Profile
 - Sheet No. 4 Plan & Profile
 - Sheet No. 5 Construction Layout
 - Sheet No. 6 Location of Abutments in Levels
 - Sheet No. 7 General Details
 - Sheet No. 8 Auxiliary Details
 - Sheet No. 9 Reinforcing Details
 - Sheet No. 10 Piling Details



Scale 1" = 1 mi.

- CONVENTIONAL SIGNS**
- COUNTY LINE -----
 - SECTION LINE -----
 - WIRE FENCE -----
 - HEDGE ROW -----
 - RAILROAD -----
 - SURVEY LINE -----
 - RIGHT OF WAY -----
 - TELEPHONE -----
 - POWER POLE -----
 - TRAVELED WAY -----
 - CITY LIMITS -----
 - TOWNSHIP BOUNDARY -----

GROSS LENGTH OF PROJECT 532.75 FT.
 EXCEPTIONS NONE
 ADDITIONS NONE
 NET LENGTH OF PROJECT 532.75 FT.
 NET LENGTH OF BRIDGES 532.75 FT.

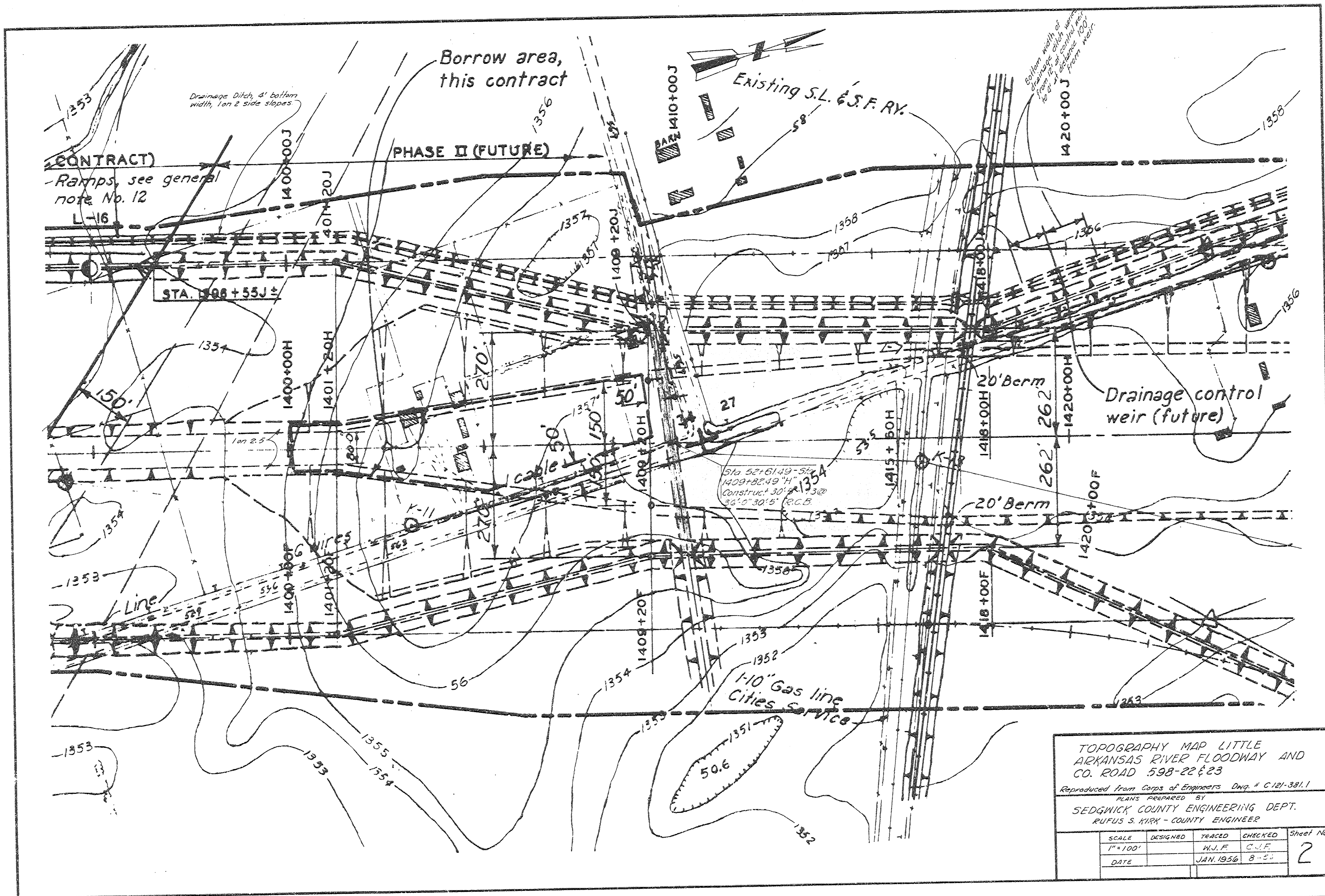
PLANS PREPARED BY:
Raymond Stank
 COUNTY ENGINEER
 DATE

APPROVED:
 COUNTY COMMISSIONER
 DATE

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

Valley

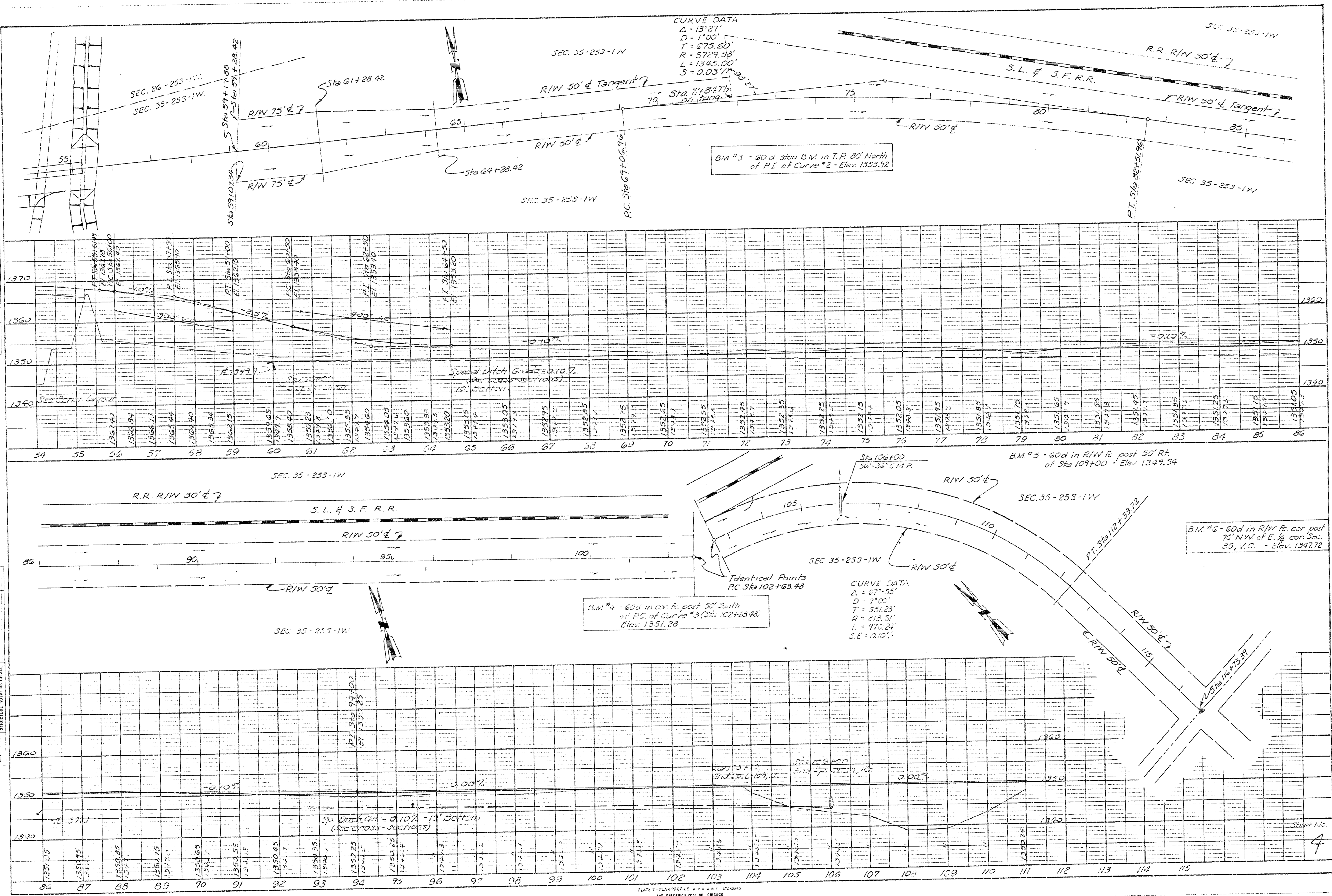


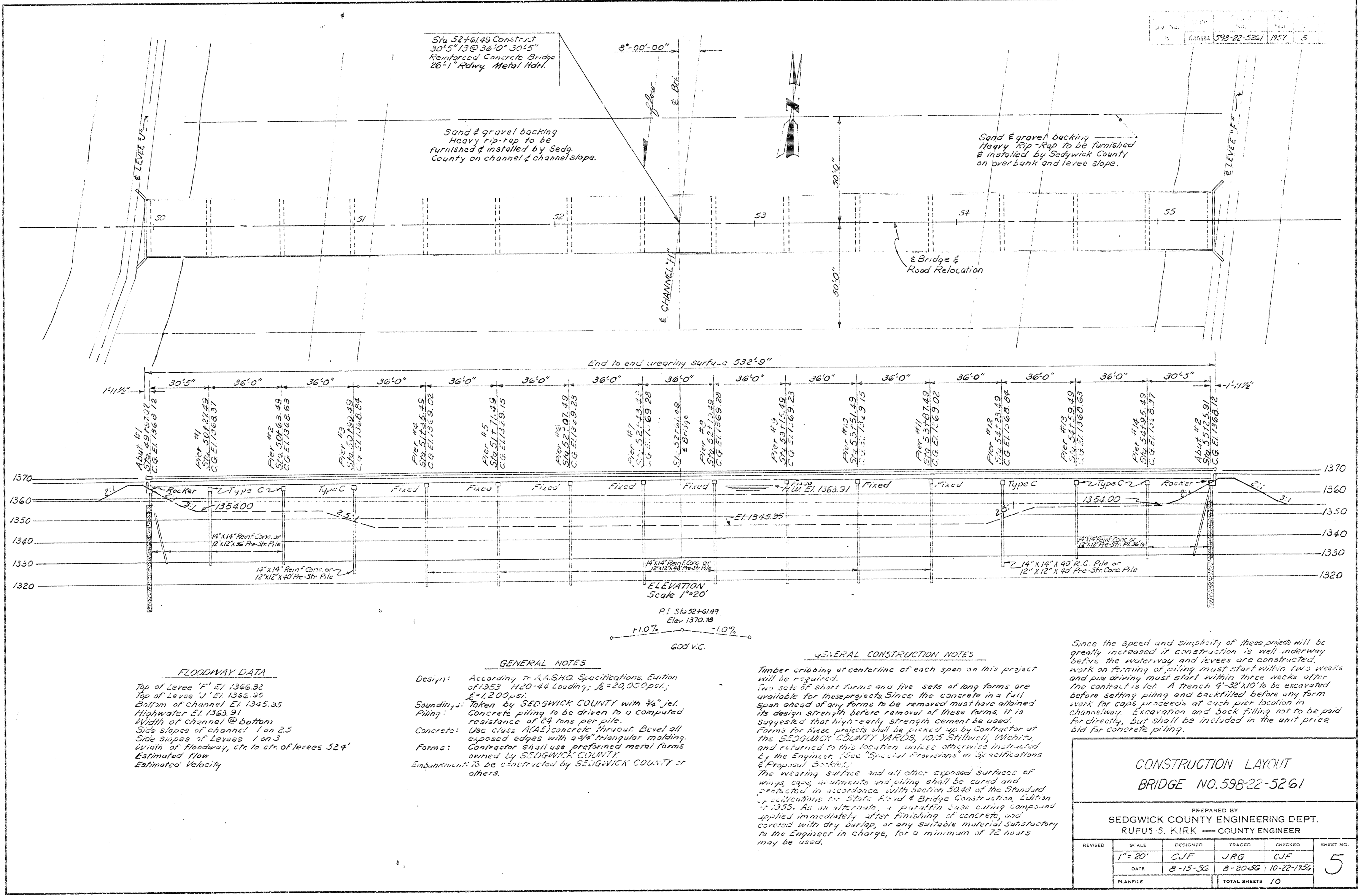
TOPOGRAPHY MAP LITTLE ARKANSAS RIVER FLOODWAY AND CO. ROAD 598-22 & 23
 Reproduced from Corps of Engineers Dwg. # C181-381.1
 PLANS PREPARED BY
 SEDGWICK COUNTY ENGINEERING DEPT.
 RUFUS S. HIRK - COUNTY ENGINEER

SCALE	DESIGNED	TRACED	CHECKED	Sheet No.
1"=100'		M.J.F.	C.V.F.	2
DATE		JAN. 1956	8-56	

DATE	BY
PROJECT	NO.
PROPERTY	
CONTRACT	
DATE WORK	
BY WHOM ENGAGED	

DATE	BY
PROJECT	
PROPERTY	
CONTRACT	
DATE WORK	
BY WHOM ENGAGED	





Sta 52+61.49 Construct
30'5"13@36'0" 30'5"
Reinforced Concrete Bridge
26"1" Rwy. Metal Hdt.

Sand & gravel backing
Heavy rip-rap to be
furnished & installed by Sedgwick
County on channel & channel slope.

Sand & gravel backing
Heavy Rip-Rap to be furnished
& installed by Sedgwick County
on overbank and levee slope.

End to end wearing surface 532'-9"

FLOODWAY DATA

Top of Levee "F" El. 1366.32
Top of Levee "J" El. 1366.30
Bottom of channel El. 1345.35
Highwater El. 1363.91
Width of channel @ Bottom
Side slopes of channel 1 on 2.5
Side slopes of Levees 1 on 3
Width of floodway, cr. to cr. of levees 524'
Estimated flow
Estimated Velocity

GENERAL NOTES

Design: According to A.A.S.H.O. Specifications, Edition of 1953 1120-44 Loading; $f_c = 20,000$ psi; $f_s = 12,000$ psi.
Soundings: Taken by SEDGWICK COUNTY with $\frac{1}{4}$ " jet.
Piling: Concrete piling to be driven to a computed resistance of 29 tons per pile.
Concrete: Use class A(45) concrete. Strout. Bevel all exposed edges with a 4" triangular mauling.
Forms: Contractor shall use precast metal forms owned by SEDGWICK COUNTY.
Equipment: To be constructed by SEDGWICK COUNTY or others.

GENERAL CONSTRUCTION NOTES

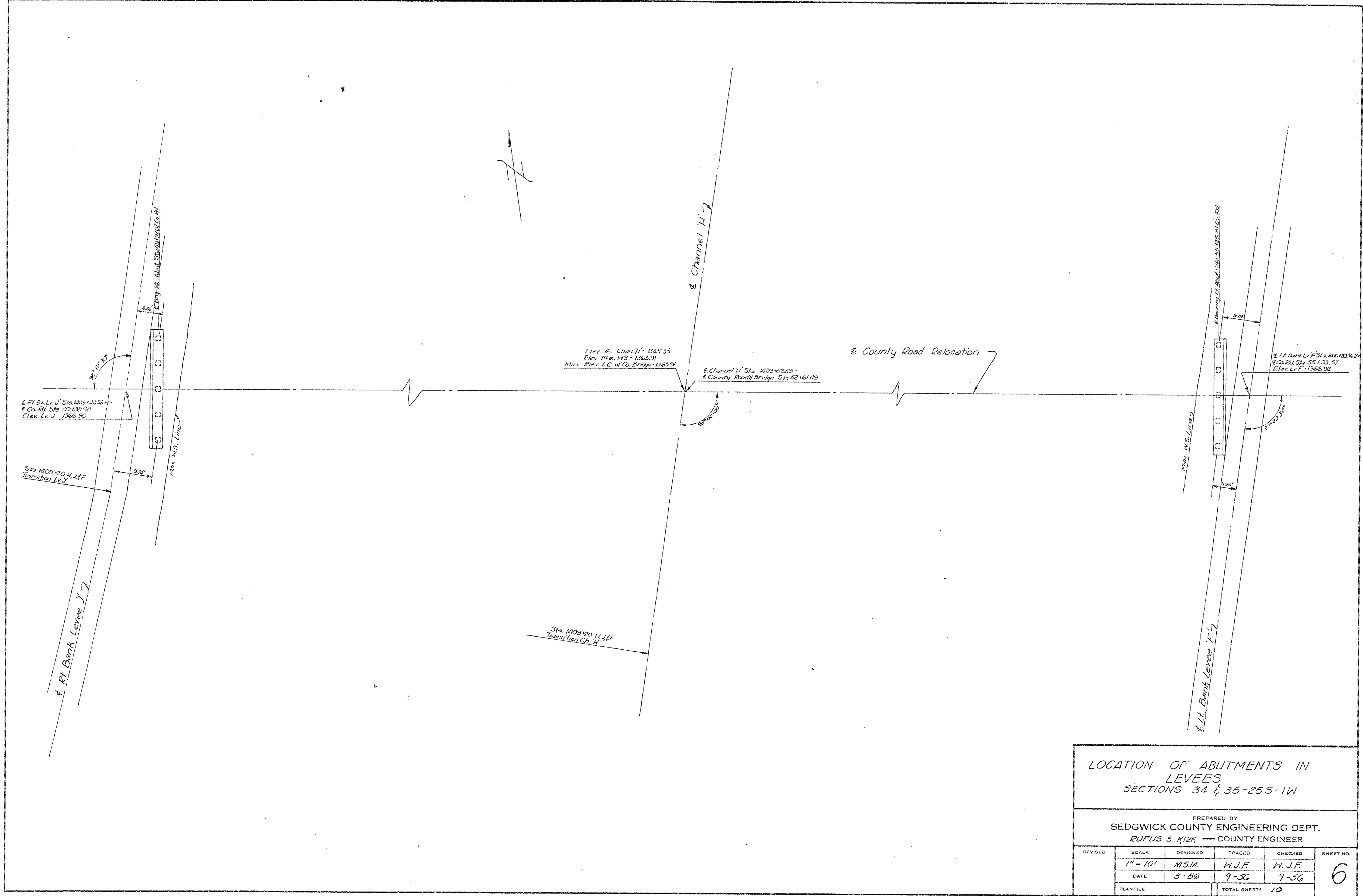
Timber cribbing at centerline of each span on this project will be required.
Two sets of short forms and five sets of long forms are available for these projects. Since the concrete in a full span ahead of any forms to be removed must have attained its design strength before removal of these forms, it 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 Stillwell, Wichita, and returned to this location unless otherwise instructed by the Engineer. Use "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 5043 of the Standard Specifications for State Road & Bridge Construction, Edition of 1955. 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 after the contract is let. A trench 4'-32" x 10' 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. 598-22-526/1**

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

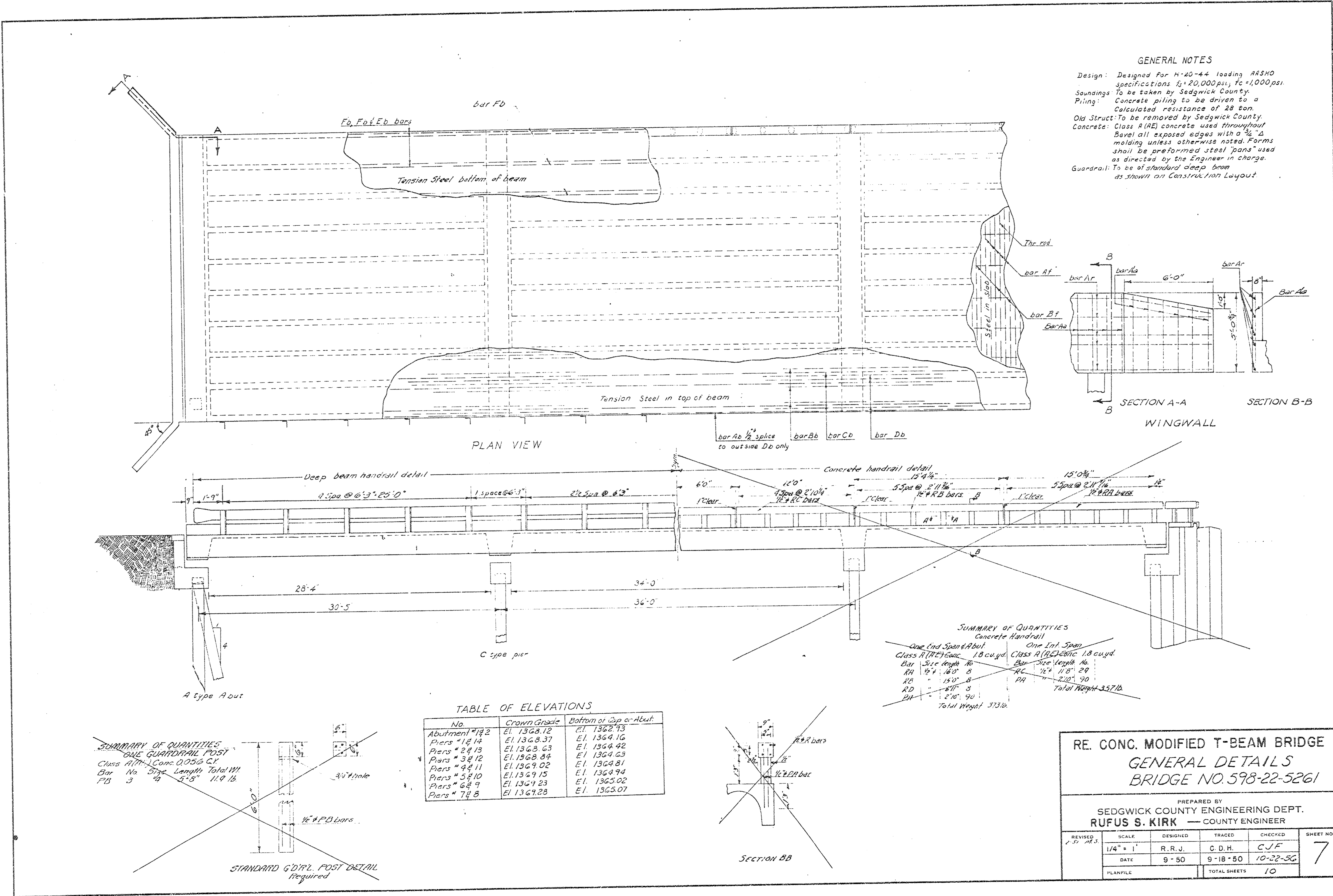
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1" = 20'	CJF	JRG	CJF	5
	DATE	8-15-56	8-20-56	10-22-1956	
	PLANFILE	TOTAL SHEETS 10			



LOCATION OF ABUTMENTS IN
LEVEES
SECTIONS 34 & 35-255-1W

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1" = 10'	M.S.M.	W.J.F.	W.J.F.	6
		5-56	9-56	9-56	
PLANFILE				TOTAL SHEETS	10



GENERAL NOTES

Design: Designed for H-20-44 loading AASHTO specifications $f_c = 20,000 \text{ psi}$; $f_s = 1,000 \text{ psi}$.
 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 $\frac{3}{8}$ " radius unless otherwise noted. Forms shall be preformed steel pans used as directed by the Engineer in charge.
 Guardrail: To be of standard deep beam as shown on Construction Layout.

PLAN VIEW

SECTION A-A SECTION B-B
WINGWALL

TABLE OF ELEVATIONS

No.	Crown Grade	Bottom of Asp. or Abut.
Abutment #192	El. 1368.12	El. 1362.93
Piers #12	El. 1368.37	El. 1364.16
Piers #2 & 13	El. 1368.63	El. 1364.42
Piers #3 & 12	El. 1368.84	El. 1364.63
Piers #4 & 11	El. 1369.02	El. 1364.81
Piers #5 & 10	El. 1369.15	El. 1364.94
Piers #6 & 9	El. 1369.23	El. 1365.02
Piers #7 & 8	El. 1369.28	El. 1365.07

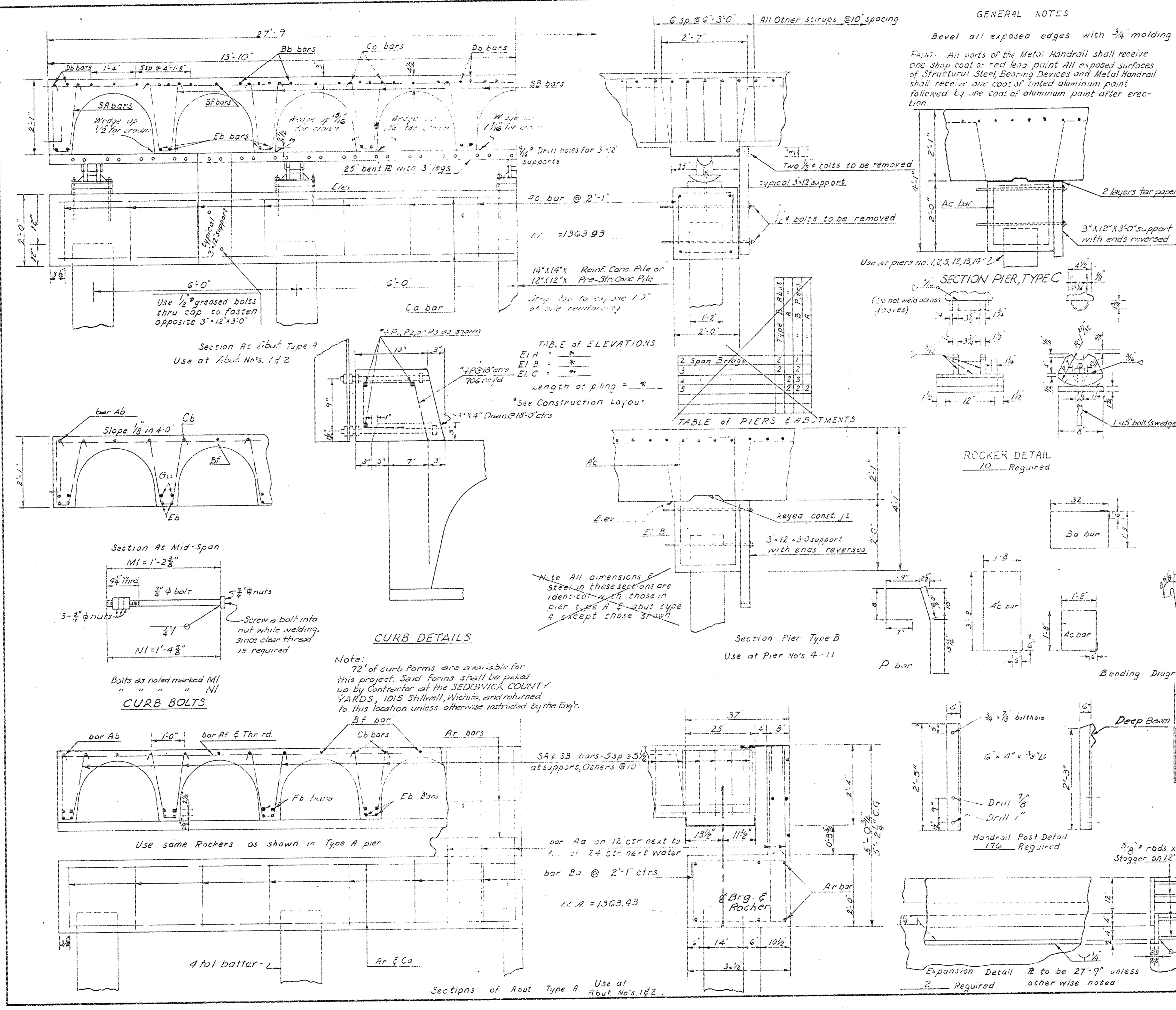
SUMMARY OF QUANTITIES
 Concrete Handrail
 One End Span & Abut. Class A (AE) Conc. 1.8 cu. yd.
 One Int. Span Class A (AE) Conc. 1.8 cu. yd.
 Bar Size Length No. Bar Size Length No.
 #4 18' 8 16' 11' 29
 #8 18' 8 16' 11' 29
 #10 21' 3 21' 3 90
 #11 21' 3 21' 3 90
 Total Weight 373 lb.

SUMMARY OF QUANTITIES
 ONE GUARDRAIL POST
 Class A (AE) Conc. 0.05 cu. yd.
 Bar No. Size Length Total Wt.
 FB 3 10 5' 5" 11.9 lb.
 STANDARD G'D'RL. POST DETAIL Required

RE. CONC. MODIFIED T-BEAM BRIDGE
GENERAL DETAILS
BRIDGE NO. 598-22-5261

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

REVISED 1-51-50	SCALE 1/4" = 1'	DESIGNED R. R. J.	TRACED C. D. H.	CHECKED C. J. F.	SHEET NO. 7
		DATE 9-50	9-18-80	10-22-56	
		PLANFILE	TOTAL SHEETS 10		



27'-9" Rdwy ABUTMENT QUANTITIES

A TYPE			B TYPE		
back wall boards			back wall boards		
Five bearing piling			Five bearing piling		
Eight sheet piling			Eight sheet piling		
8.5 cu yd concrete			18 cu yd concrete		
399 lbs reinforcing steel			377 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	1/2"	Aa	41	1/2"
Ab	3	27'-0"	Ba	14	9/8"
Ac	4	27'-0"	Cc	4	27'-0"

27'-9" Rdwy PIER QUANTITIES

A TYPE			B TYPE		
Five bearing piling			Five bearing piling		
4.1 cu yd concrete			4.1 cu yd concrete		
360 lbs reinforcing steel			397 lbs reinforcing steel		
5 bearing devices			5 bearing devices		
One bent plate			One bent plate		
Bar No.	Length	Size	Bar No.	Length	Size
Ac	14	7/8"	Aa	14	11/8"
Cc	4	27'-0"	Cc	4	27'-0"

27'-9" Rdwy SPAN QUANTITIES

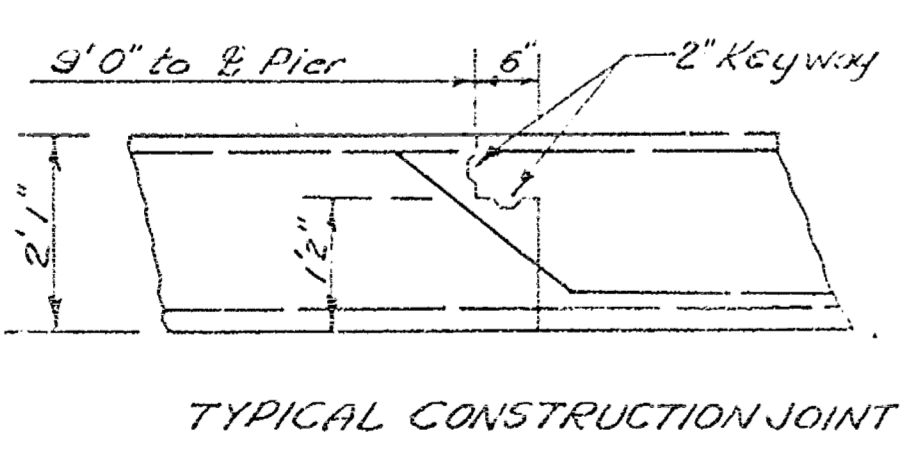
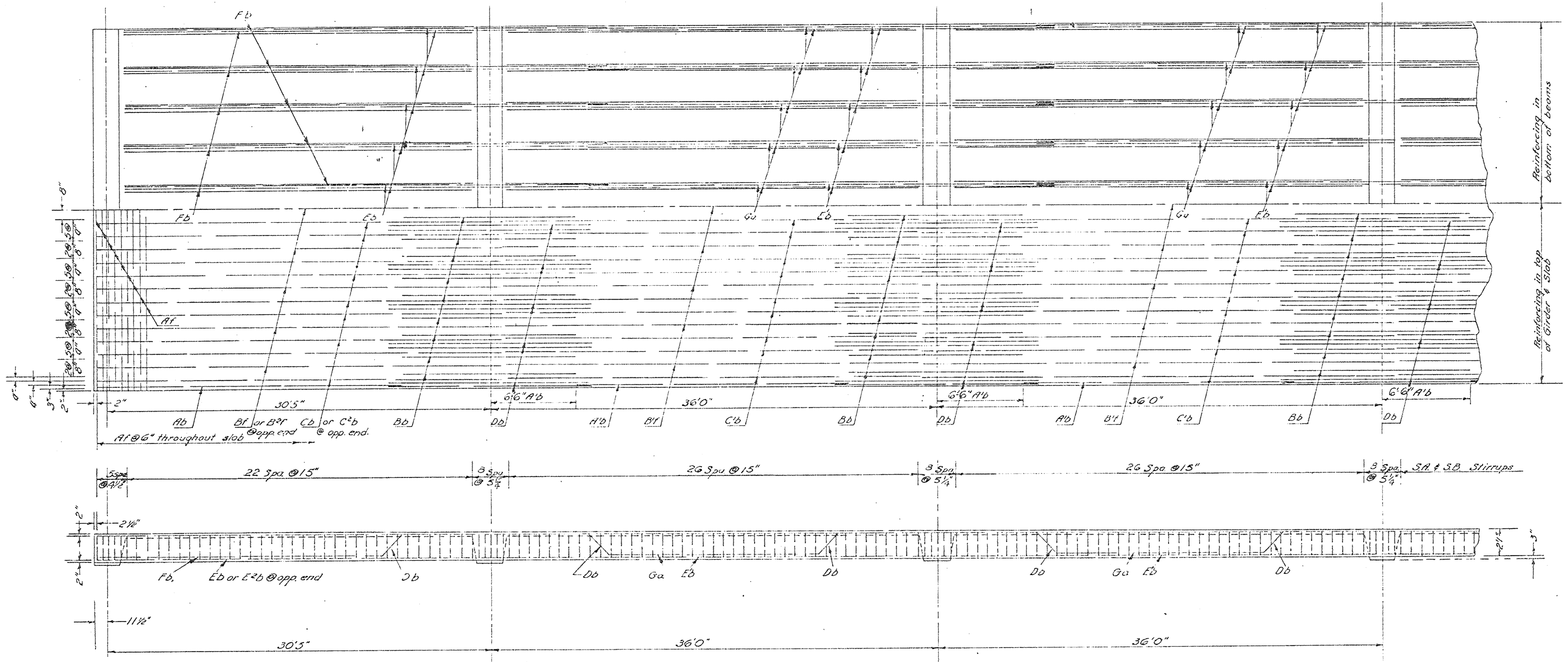
ONE END SPAN			ONE INT SPAN		
36.4 cu yd conc.			39.6 cu yd conc.		
6340 lbs reinforcing steel			6866 lbs reinforcing steel		
10 1/2" bar 1 posts (steel)			12 1/2" bar 1 posts		
1 expansion device			1 expansion device		
2 Concrete Posts			2 Concrete Posts		
Bar No.	Length	Size	Bar No.	Length	Size
SA	83	5/8"	SA	92	5/8"
SB	332	5/8"	SB	368	5/8"
SC	20	23/16"	SC	20	23/16"
SD	20	3/4"	SD	20	3/4"
SE	2	5/8"	SE	2	5/8"
SF	59	27'-0"	SF	66	27'-0"
SG	9	33'-0"	SG	9	33'-0"
SH	10	0-11"	SH	10	0-11"
SI	14	33'-0"	SI	14	33'-0"
SJ	9	14'-0"	SJ	9	14'-0"
SK	5	28'-0"	SK	5	28'-0"

* Due to overlapping & duplication 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. 598-22-5261

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

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
12-31-53		R. R. J.	C. D. H.	C. J. F.	8
		DATE 9-50	9-23-50	10-22-50	
		PLANT FILE	TOTAL SHEETS	10	



SUMMARY OF QUANTITIES

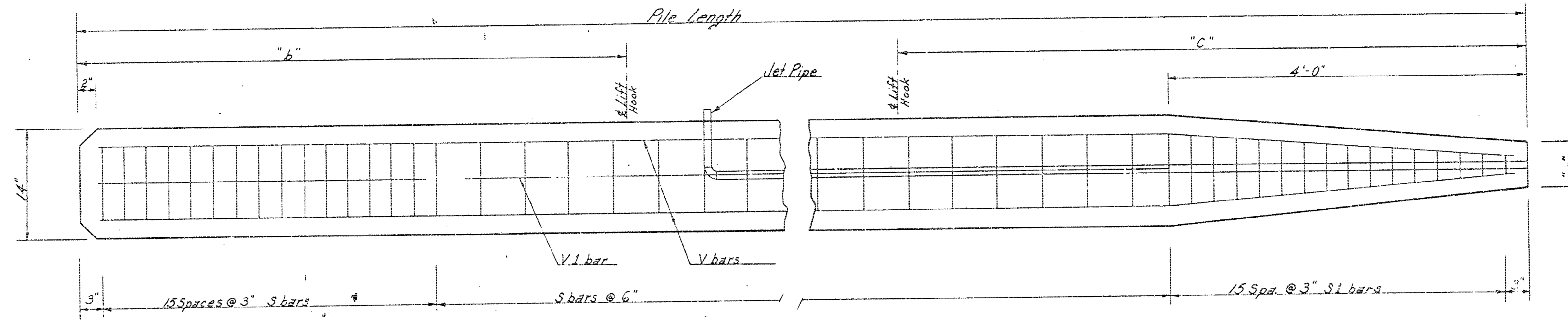
30.5' - 13 @ 36' - 30.5' Continuous Spans; 26" Roadway; Metal Handrail

Bar No	Size	Length	Concrete Class	Reinforcing Steel	Bearing Devices
A1	#4	117	710.6 Cu Yd	138,770 Lb	1275
A2	#4	117		6582 Lb	
A3	#4	117			
A4	#4	117			
A5	#4	117			
A6	#4	117			
A7	#4	117			
A8	#4	117			
A9	#4	117			
A10	#4	117			
A11	#4	117			
A12	#4	117			
A13	#4	117			
A14	#4	117			
A15	#4	117			
A16	#4	117			
A17	#4	117			
A18	#4	117			
A19	#4	117			
A20	#4	117			
A21	#4	117			
A22	#4	117			
A23	#4	117			
A24	#4	117			
A25	#4	117			
A26	#4	117			
A27	#4	117			
A28	#4	117			
A29	#4	117			
A30	#4	117			
A31	#4	117			
A32	#4	117			
A33	#4	117			
A34	#4	117			
A35	#4	117			
A36	#4	117			
A37	#4	117			
A38	#4	117			
A39	#4	117			
A40	#4	117			
A41	#4	117			
A42	#4	117			
A43	#4	117			
A44	#4	117			
A45	#4	117			
A46	#4	117			
A47	#4	117			
A48	#4	117			
A49	#4	117			
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A62	#4	117			
A63	#4	117			
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A67	#4	117			
A68	#4	117			
A69	#4	117			
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A76	#4	117			
A77	#4	117			
A78	#4	117			
A79	#4	117			
A80	#4	117			
A81	#4	117			
A82	#4	117			
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A85	#4	117			
A86	#4	117			
A87	#4	117			
A88	#4	117			
A89	#4	117			
A90	#4	117			
A91	#4	117			
A92	#4	117			
A93	#4	117			
A94	#4	117			
A95	#4	117			
A96	#4	117			
A97	#4	117			
A98	#4	117			
A99	#4	117			
A100	#4	117			

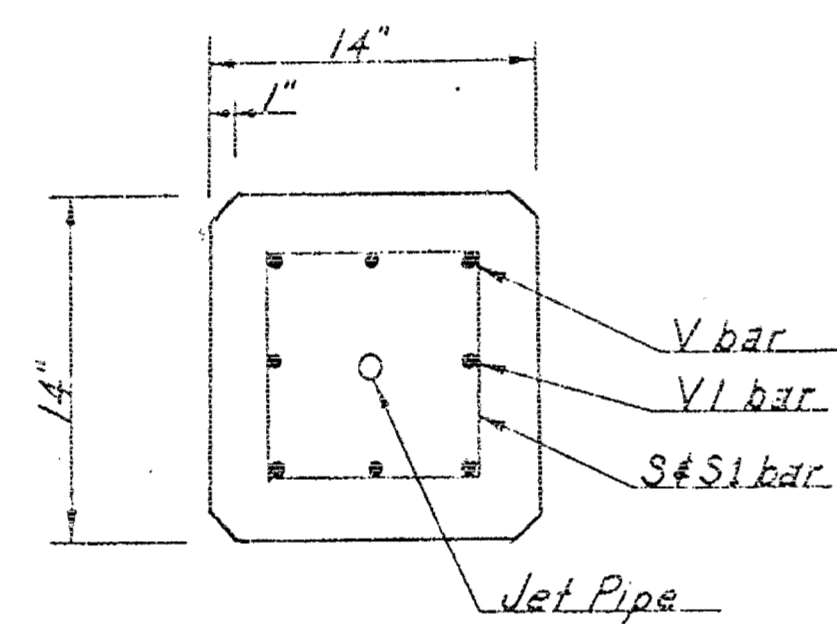
REINFORCING DETAIL
BRIDGE NO. 598-22-5261

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

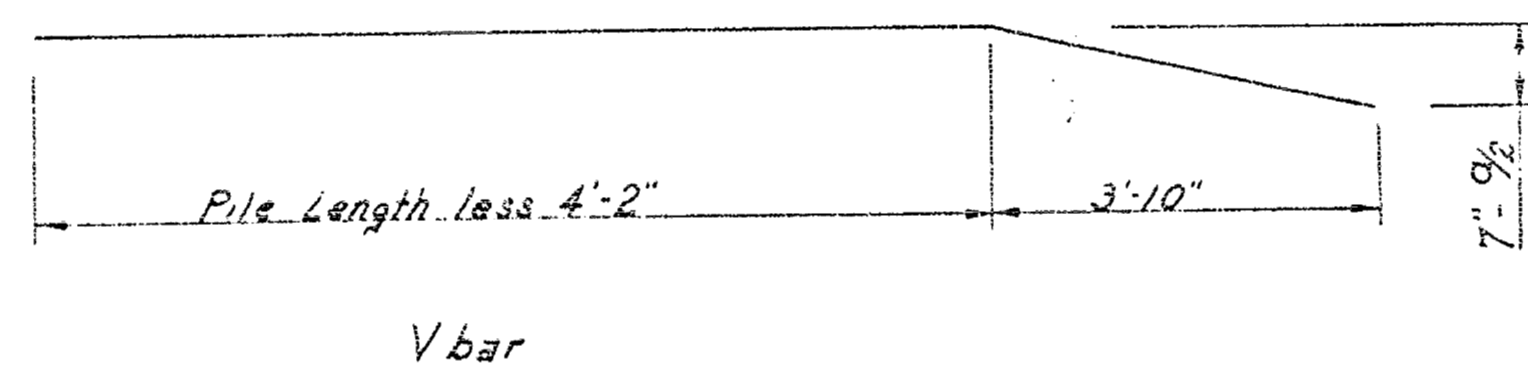
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1/4" = 1'-0"	M.E.S.		C.J.F.	9
		3-52		10-56	
			TOTAL SHEETS	10	



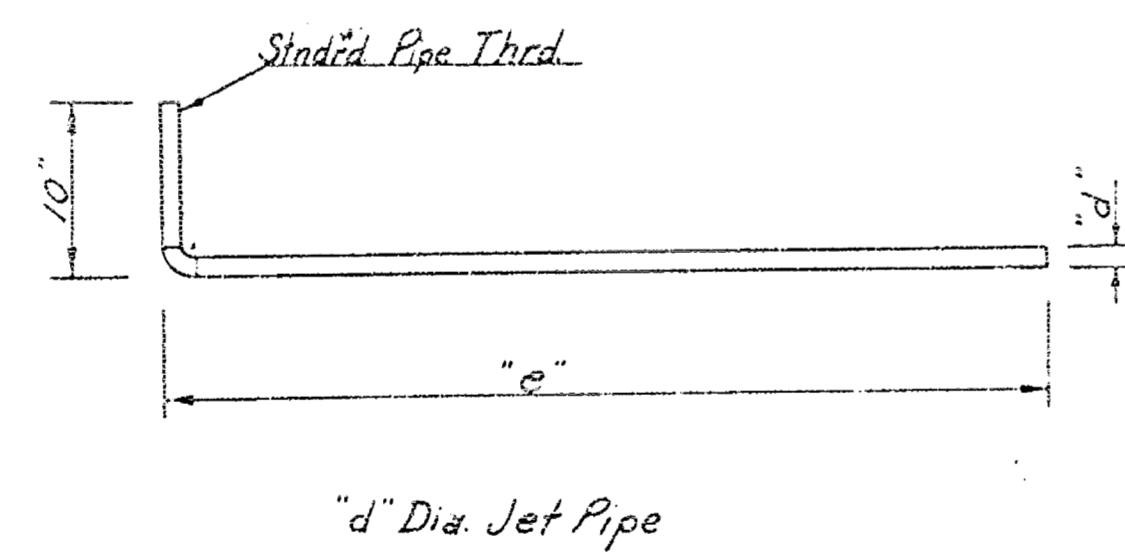
ELEVATION



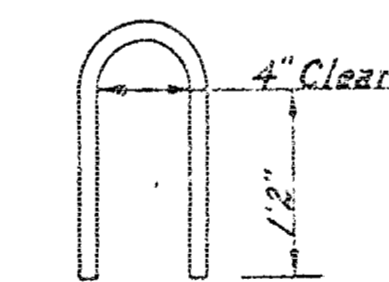
END VIEW



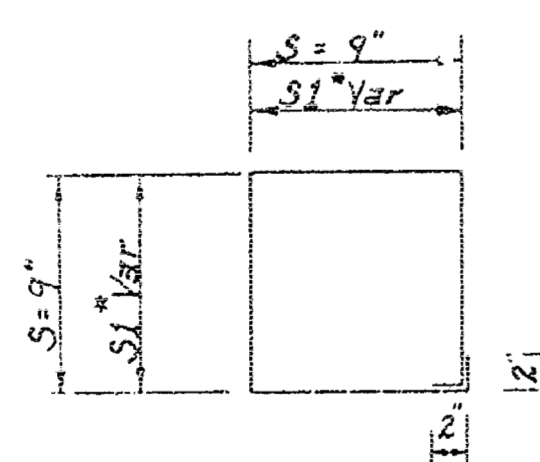
V bar



"d" Dia. Jet Pipe



#8 Lift Hook



S & S.L. bar

*S1 - 15 bars, increase from "x" to "y" by "2" increments

General Notes

Design: According to AASHTO Specifications, 1949 Edition. $f_c = 2,000 \text{ psi}$, $f_s = 1,000 \text{ psi}$.
 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.

Pile Length	20'-6"	24'-6"	28'-6"	32'-6"	36'-6"	40'-6"
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'-6" 4	#7 28'-6" 4	#7 32'-6" 4	#6 36'-6" 4	#6 40'-6" 4
V.L.	#2 3'-4" 41	#2 3'-4" 49	#2 3'-4" 57	#2 3'-4" 65	#2 3'-4" 73	#2 3'-4" 81
S	#2 Var. 15	#2 Var. 15	#2 Var. 15	#2 Var. 15	#2 Var. 15	#2 Var. 15
S.L.	#2 3'-0" 2	#2 3'-0" 2	#2 3'-0" 2	#2 3'-0" 2	#2 3'-0" 2	#2 3'-0" 2
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						
"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"						
"e"						
"x" "y"	3/4" to 8/8" by 3/8"	3/4" to 8/8" by 3/8"	3/4" to 8/8" by 3/8"	3/4" to 8/8" by 3/8"	3/4" to 8/8" by 3/8"	3/4" to 8/8" by 3/8"
Concrete	94 Cu. Yds.	114 Cu. Yds.	134 Cu. Yds.	155 Cu. Yds.	175 Cu. Yds.	195 Cu. Yds.
Rebar	209 Lbs.	247 Lbs.	285 Lbs.	321 Lbs.	472 Lbs.	524 Lbs.

Pile Length	37'-0"	50'-0"	65'-0"
Bar	Size Length No.	Size Length No.	Size Length No.
V	#6 36'-0" 4	#7 40'-0" 4	#7 44'-0" 4
V.L.	#2 3'-4" 41	#2 3'-4" 49	#2 3'-4" 57
S	#2 3'-4" 41	#2 3'-4" 49	#2 3'-4" 57
S.L.	#2 3'-0" 2	#2 3'-0" 2	#2 3'-0" 2
Lift Hook	#8 3'-0" 2	#8 3'-0" 2	#8 3'-0" 2
Jet Pipe			
"a"	6"	6"	6"
"b"	10'-10"	14'-0"	18'-6"
"c"	11'-11"	16'-0"	21'-6"
"d"			
"e"			
"x" "y"	5/8" to 8/8" by 3/8"	5/8" to 8/8" by 3/8"	5/8" to 8/8" by 3/8"
Concrete	182 Cu. Yds.	243 Cu. Yds.	333 Cu. Yds.
Rebar	482 Lbs.	956 Lbs.	1707 Lbs.

14" x 14" Re. Conc. Piling
 BRIDGE NO. 598-22-5261

PREPARED BY SEDGWICK COUNTY ENGINEERING DEPT. RUFUS S. KIRK — COUNTY ENGINEER				
REVISION	SCALE	DESIGNED	TRACED	CHECKED
		Schwab	Housselman	C.J.F.
	DATE	12-51	1-52	10-22-50
	PLANFILE	TOTAL SHEETS		10
				10