

STATE OF KANSAS
STATE HIGHWAY COMMISSION
SEDGWICK COUNTY
PLAN AND PROFILE
PROJECT F. C. 314 (B)

INDEX OF SHEETS

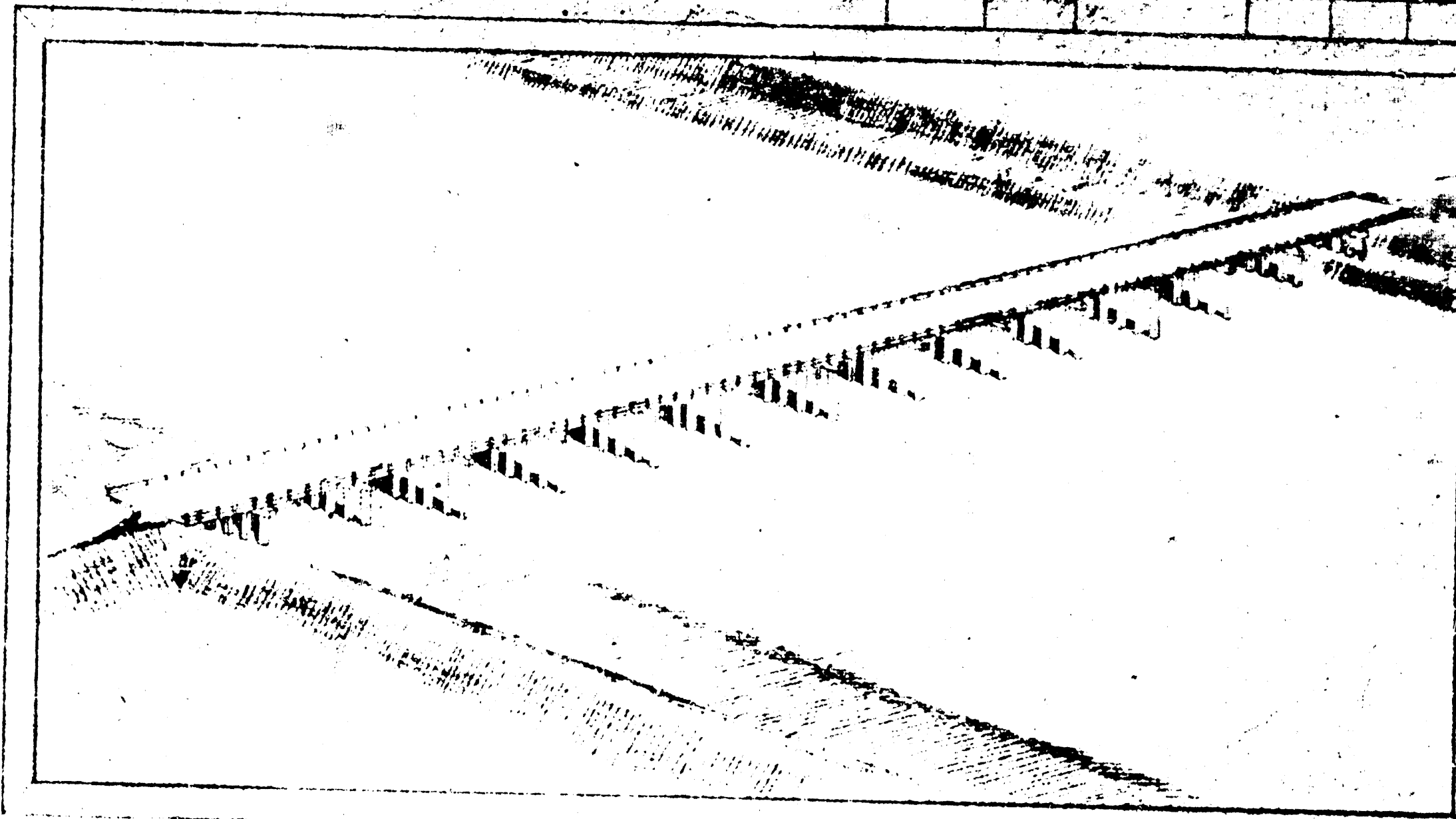
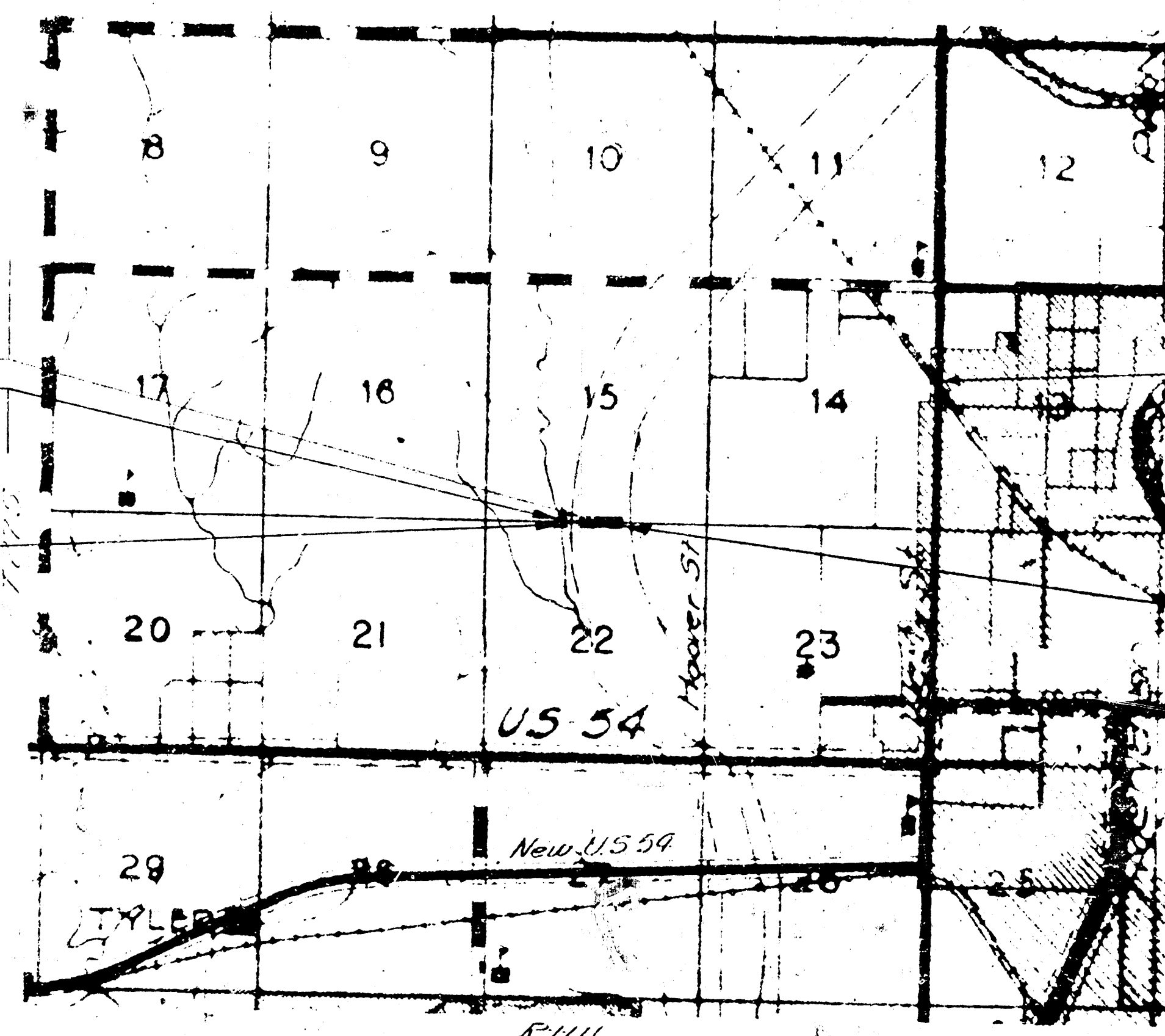
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Summary of Quantities (COMBINED)	
Concrete Class A (42)	794.1 CY
Reinforcing Steel	169,100 Lb
14"x14" Conc. Piling	4,070 LF
Bearing Devices	7,570 Lb
Metal Handrail	1,291.5 LF
Structural Steel	22,150 Lb

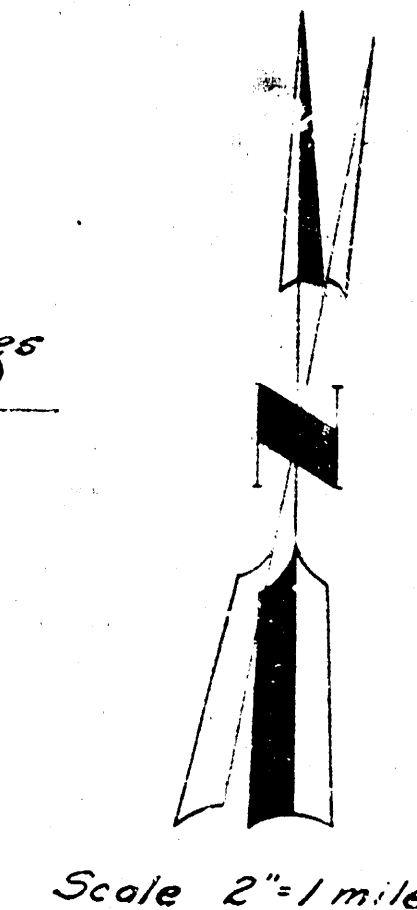
Sta. 27+75
Const. 30'-5"-13'-36"
30'-5" R.C.B.

Sta. 18+56 Const.
30'-5"-36'-0"-30'-5" R.C.B.

Begin Project
Sta. 18+05.2



BRIDGES ONLY



PLANS PREPARED BY:

COUNTY ENGINEER
DATE 11-21-1953

APPROVED:

COUNTY COMMISSIONER
DATE 4-20-1954

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 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

RECOMMENDED FOR APPROVAL DATE

ENGINEER OF SECONDARY ROADS
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE

STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

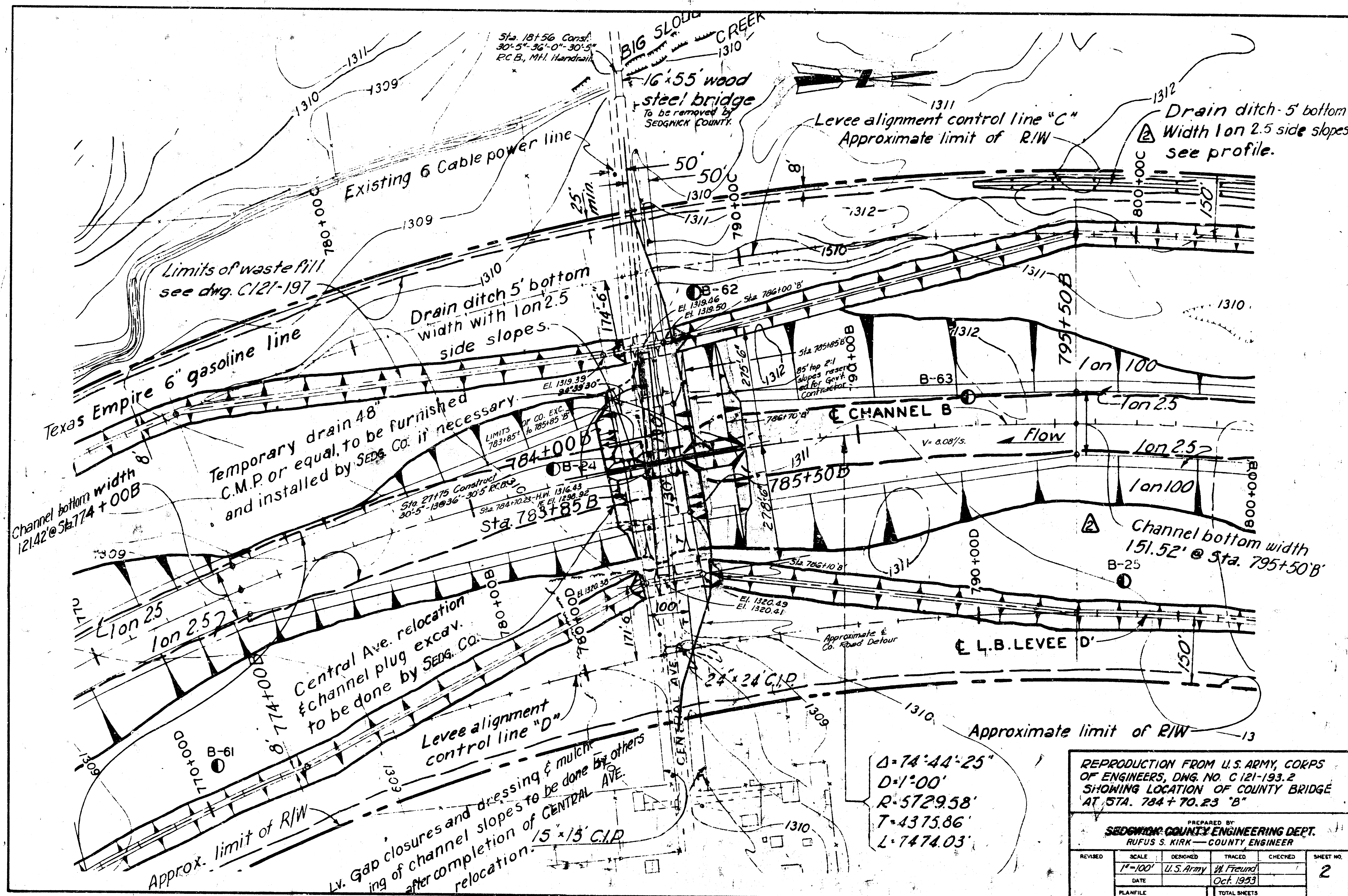
RECOMMENDED FOR APPROVAL DATE

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



$\Delta = 74^{\circ}44'25''$
 $D = 1^{\circ}00'$
 $R = 5729.58'$
 $T = 4375.86'$
 $L = 7474.03'$

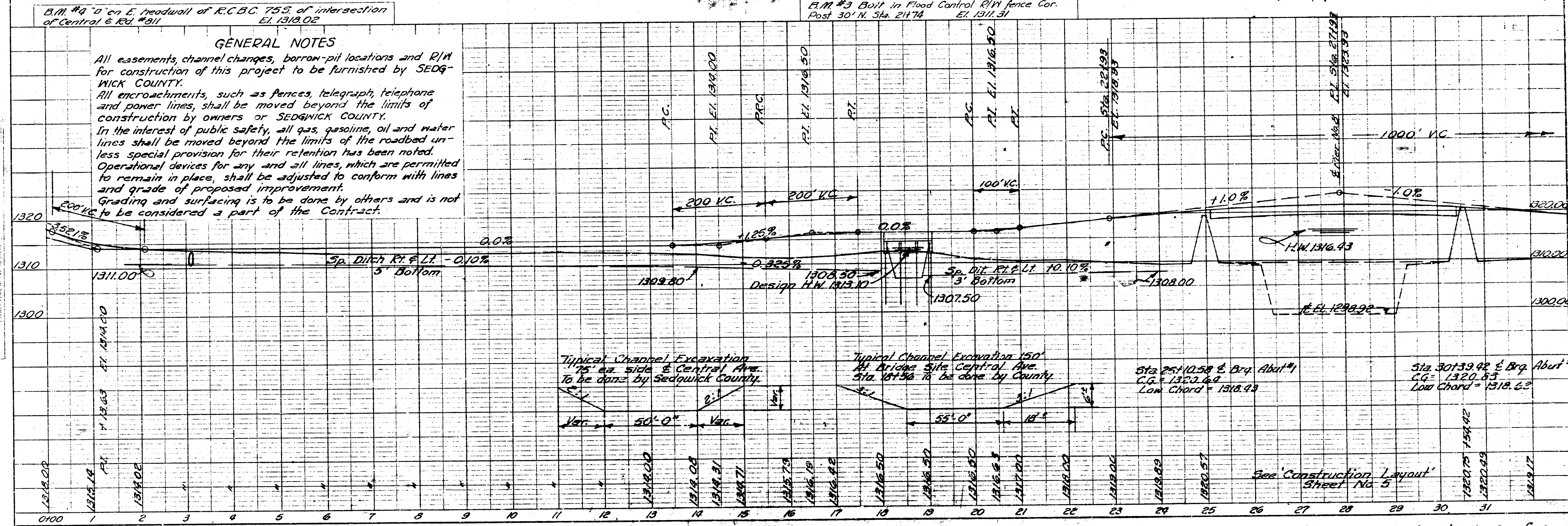
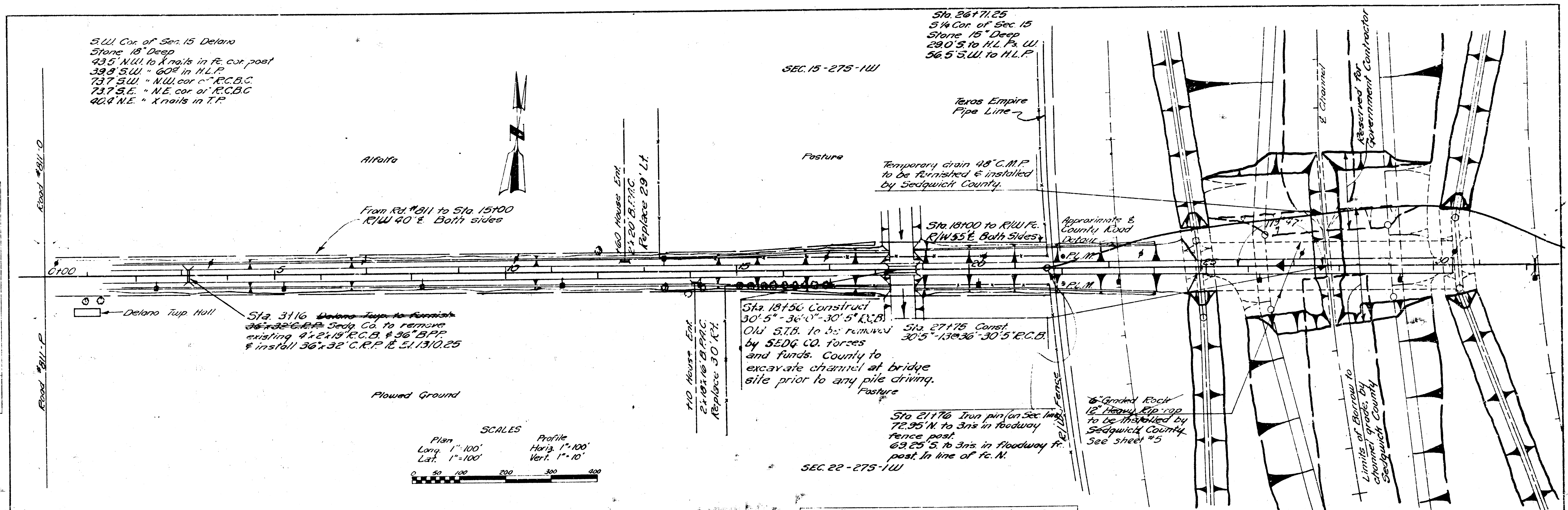
REPRODUCTION FROM U.S. ARMY, CORPS OF ENGINEERS, DWG. NO. C 121-193.2 SHOWING LOCATION OF COUNTY BRIDGE AT STA. 784 + 70.23 'B'

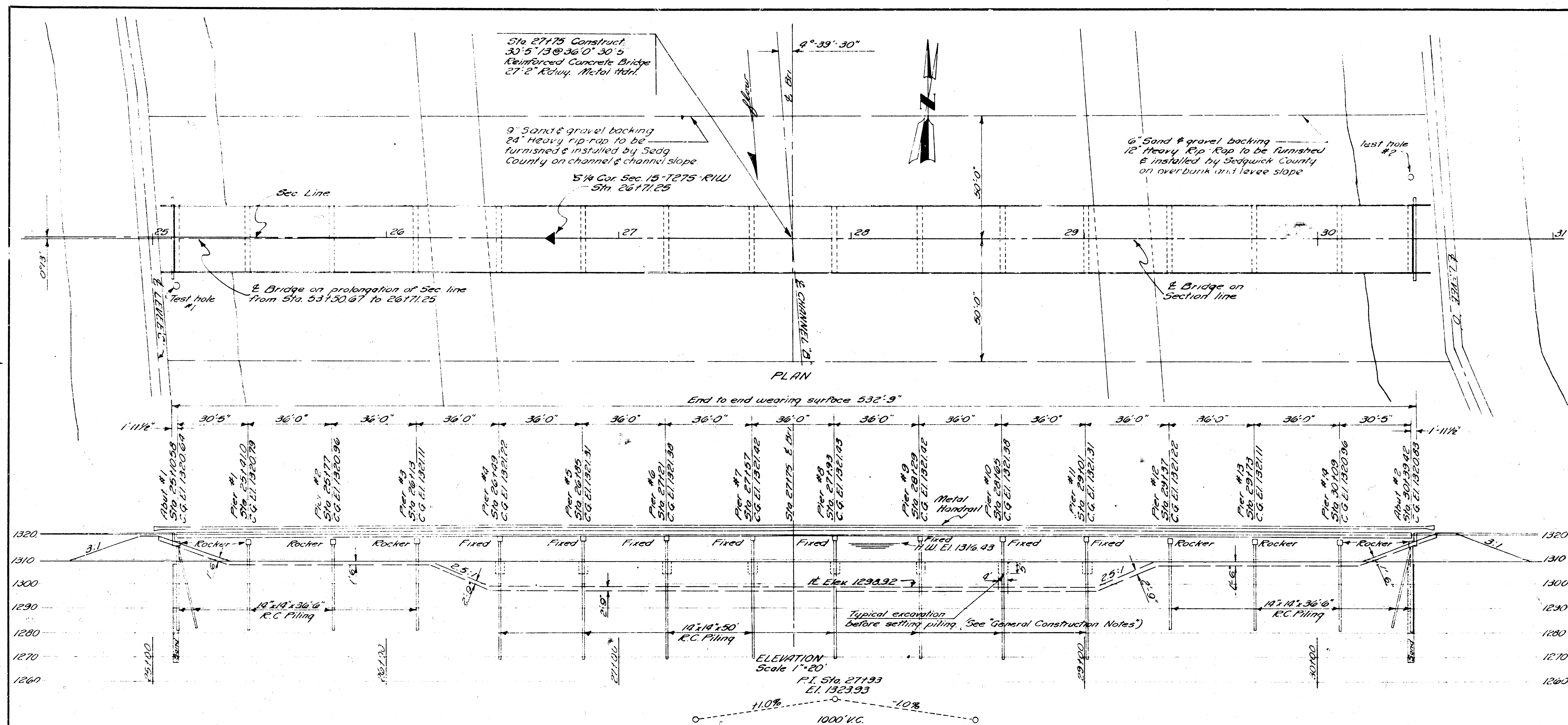
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
 RUFUS S. KIRK — COUNTY ENGINEER

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

PLAN	DATE	BY	CHECKED	DATE	BY
DESIGNED					
DRAWN					
CHECKED					
APPROVED					

PROFILE	DATE	BY	CHECKED	DATE	BY
DESIGNED					
DRAWN					
CHECKED					
APPROVED					





FLOODWAY DATA
 Top of Levee "C" El. 1319.46
 Top of Levee "D" El. 1220.81
 Bottom of channel El. 1298.92
 Highwater El. 1316.43
 Width of channel @ bottom 260'
 Side slopes of channel 1 on 2.5
 Side slopes of Levees 1 on 3
 Width of floodway, etc. to etc. of levees 550'
 Estimated flow 46,500
 Estimated velocity 0.081/Sec.

GENERAL NOTES
 Design: According to A.R.S.H.O. Specifications, Edition of 1949. 120-44 Loading; 16" 20,000 psi; 16" 15,000 psi.
 Soundings: Taken by SEDGWICK COUNTY with 3/4" jet.
 Piling: Concrete piling to be driven to a computed resistance of 28 tons per pile.
 Concrete: Use class A(RC) concrete thruout. Bevel all exposed edges with a 3/4" 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 live 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 placed up by Contractor of the SEDGWICK COUNTY YARDS, 1015 Stillwell, 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 50.48 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.

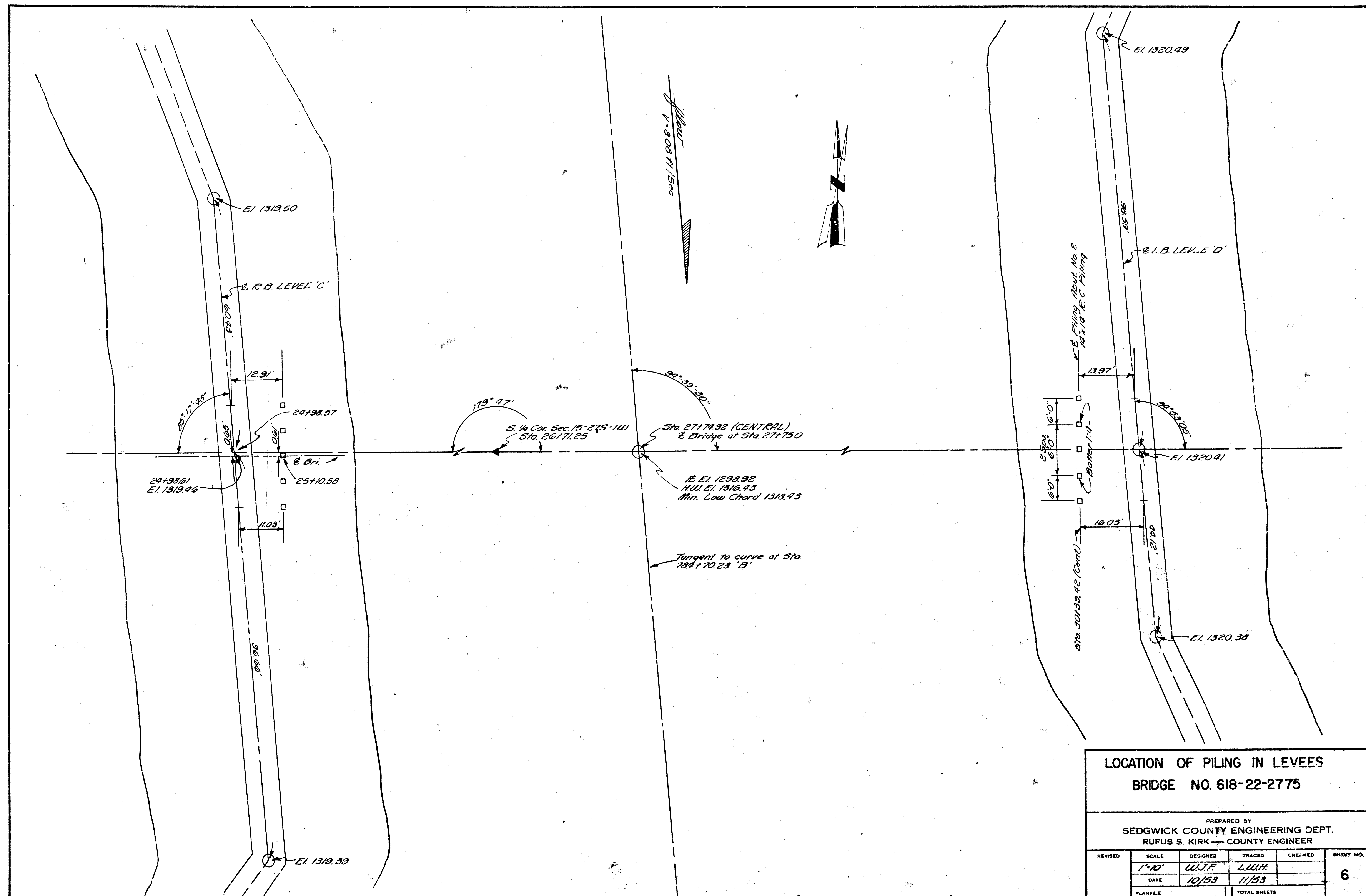
Since the speed and simplicity of these projects will be greatly increased if construction is well underway before the waterway and levees are constructed, work on forming of piling must start within two weeks and pile driving must start within three weeks after the contract is let. A trench 5' x 28' 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.

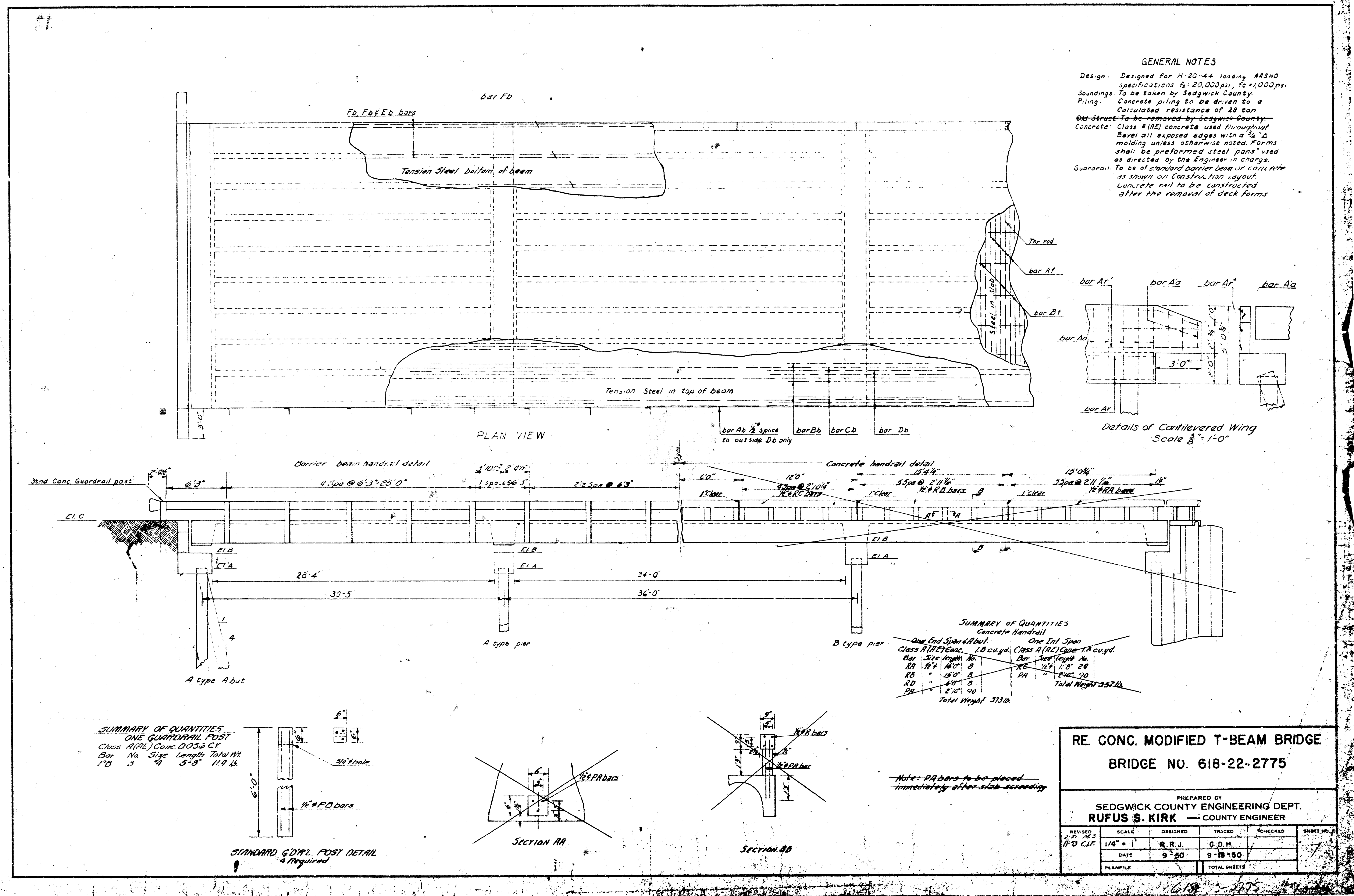
CONSTRUCTION LAYOUT BRIDGE NO. 618-22-2775

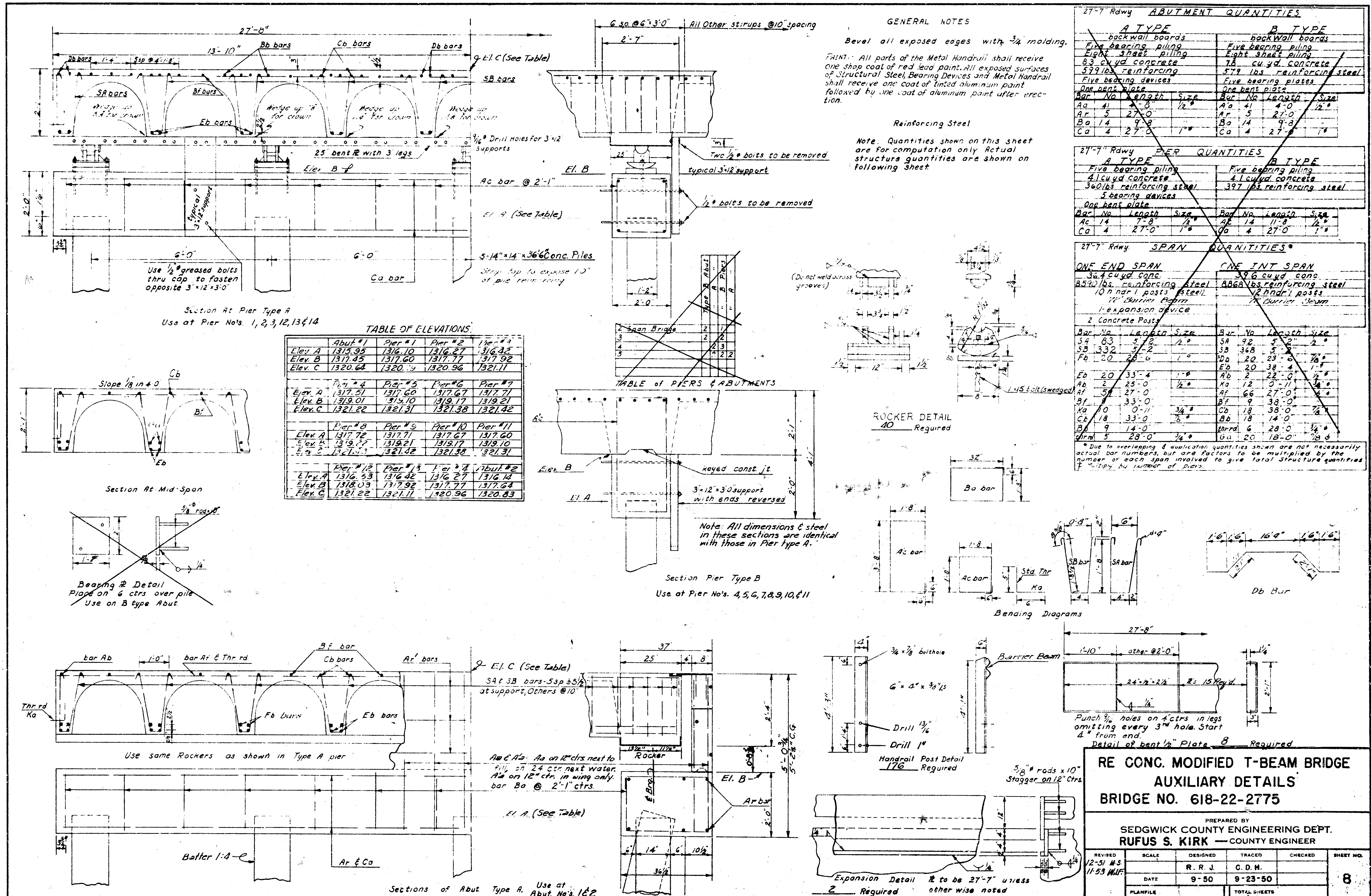
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

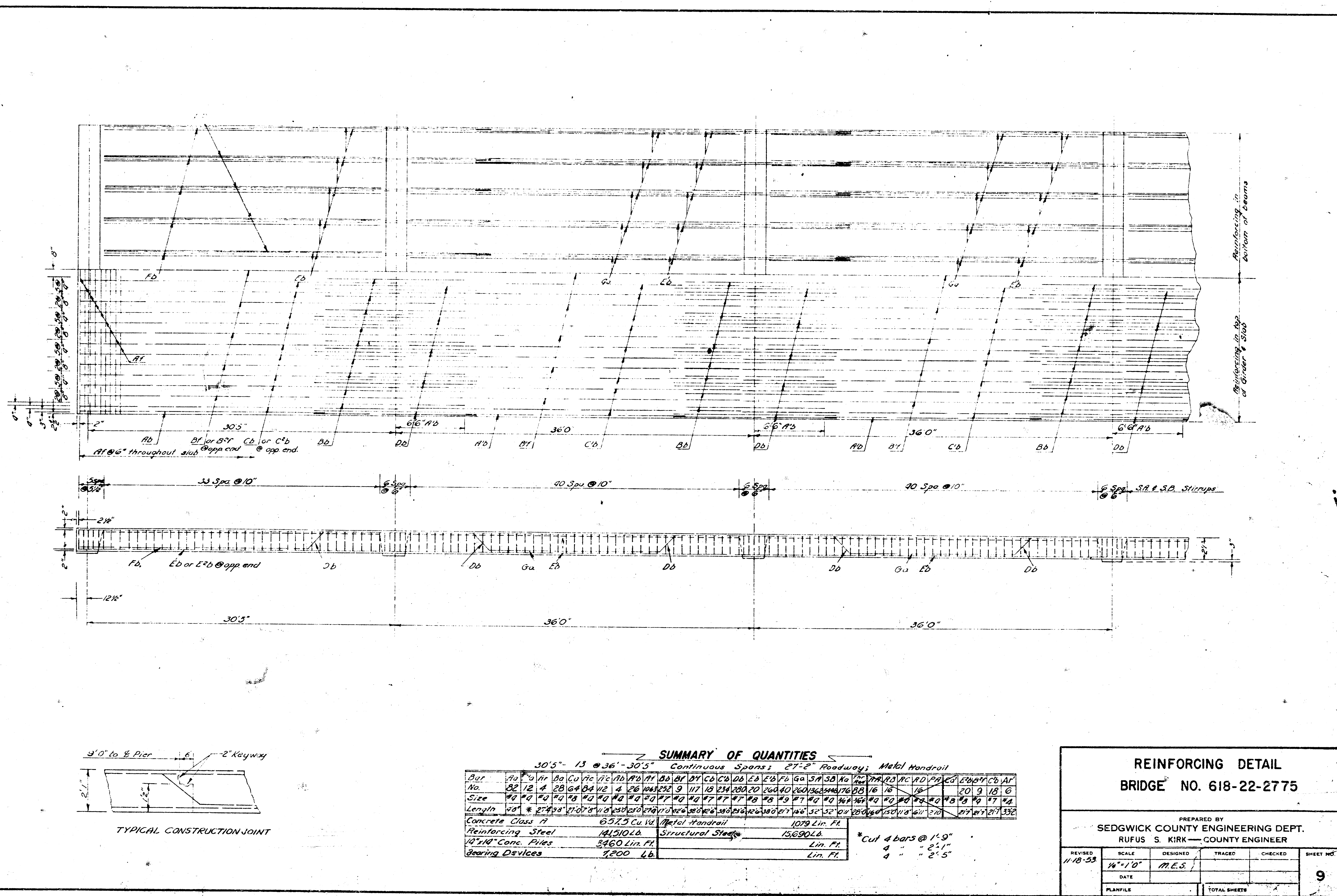
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=20'	W.J.F.	L.W.H.		5
	DATE	11/53	11/53		
	PLANFILE		TOTAL SHEETS		

11/53-14









618-3-1715 = 9 of 14

Technical drawing showing two pipe sections. The left section is labeled "File Length" and has dimensions: "b" (length), "14" (height), "3" (width), and "15 Spaces @ 3" S1 bars". It also shows "V1 bar" and "V bars". The right section is labeled "C" and has dimensions: "4' 0" (length) and "15 Spa. @ 3" S1 bars". Both sections show a "Left Hook" and a "Set Pipe".

14"

Y bar
Y1 bar
S4S1 bar

Jet Pipe

Diagram illustrating a pile with a linear load distribution. The pile is divided into two sections: the first section is labeled "Pile Length less 4'2"

A schematic diagram of a side jet pipe. It consists of a vertical section of height d and a horizontal section of length e . The vertical section is labeled "Sinara Pipe Thrd" at the top. The horizontal section is labeled "d Dia Jet Pipe" at the bottom.

Diagram of a square with side length $s = 9$. The top and left sides are labeled $s = 9$. The bottom side is labeled $s = 9 \text{ bar}$. The right side is labeled 2 .

General Notes

Design: According to AASHTO Specifications.
1949 Edition Class II, 2000 psi. f'c = 1,000 psi.
Concrete Use class A throughout if Piling
are to be cast in place otherwise protect-
ed Use class A (AE) if piling is to be
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
curved forms for a minimum of 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. 59.40 of the Standard Specifications of Kansas, 1951 Edition.

10 req'd												10 req'd												40 req'd											
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.	Size	length	No.														
Y	#1	20'6"	4	#7	24'6"	4	#7	28'6"	4	#7	32'6"	4	#6	36'6"	4	#6	40'6"	4																	
V	#2	3'4"	41	#2	3'4"	41	#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"	2	Var 15"	2	Var 15"	2																		
Left 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																	
Set Type																																			
"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"													1'8"																						
"e"													29'0"																						
x	4	x 3	100	8	2	3	8	2	3	8	2	3	8	2	3	8	2	3	8	2	3														
Concrete	9'4 Cu Yds.			114 Cu Yds.			134 Cu Yds.			155 Cu Yds.			175 Cu Yds.			195 Cu Yds.																			
Rebar	209 Lbs.			247 Lbs.			284 Lbs.			321 Lbs.			472 Lbs.			524 Lbs.																			

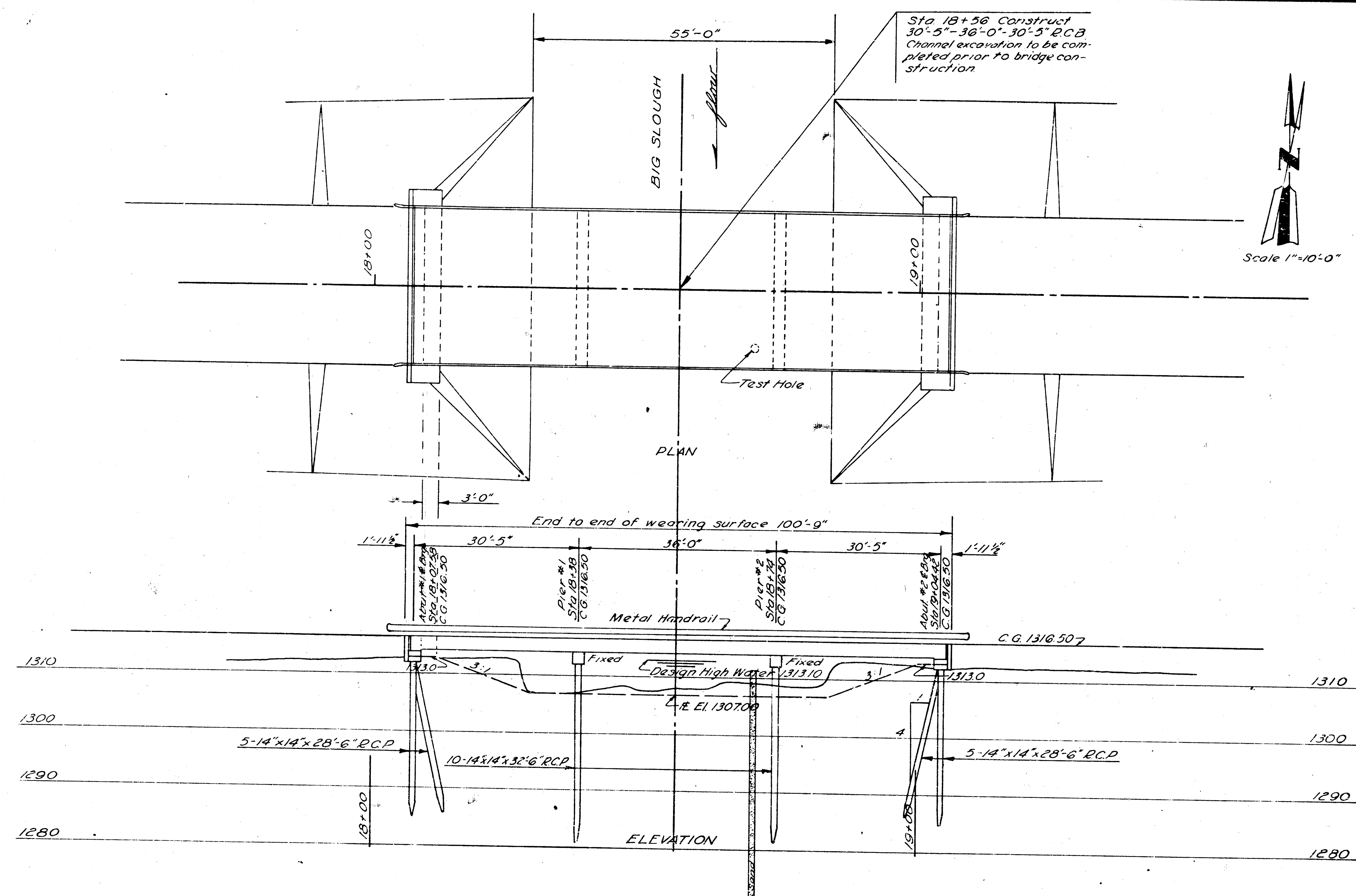
Pile Length 370'		30'-0"		40'-0"		50'-0"	
Bar	Size Length No	Size Length No	Size Length No	Size Length No	Size Length No	Size Length No	Size Length No
Y	# 36 8 4	# 49 8 4					
Y1	# 33 0 4	# 45 10 4					
S	# 34 14	# 54 100					
SL	# Var 15	# Var 15					
W/Hook	# 30 2	# 30 2					
Net Pipe	1	1					
a	10'	6'					
b	10' 10"	14'-0"					
c	11' 11"	16'-0"					
d		18'					
e		41'-0"					
X	4 x 34 to 3 1/4 by 4	38 to 38 by 8					
Concrete	1.82 Cu Yds	2.43 Cu Yds					
Rebar	482 Lbs	956 Lbs					

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. 10
		Schwab	Hauseman		
	DATE	12-51	1-52		
	PLANFILE		TOTAL SHEETS		

618-22-2775 #10 of 126



GENERAL NOTES

Design: According to AASHTO Specifications, Edition of 1949 H20-44 Loading; 15,000 psi; 15,000 psi.

Soundings Taken by Sedgwick County with 1/2" jet.

Piling: Concrete Piling to be driven to a computed resistance of 25 tons per pile.

Concrete: Use Class A(AE) concrete thruout. Bevel all exposed edges with a 1/4" triangular mauling.

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 and abutment locations-the cost of which is to be included in the unit price bid for piling.

GENERAL CONSTRUCTION NOTES

Timber cribbing of 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. 2048 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.O. 25
Waterway provided 414 sq ft

CONSTRUCTION LAYOUT **BRIDGE NO. 618-22-1856**

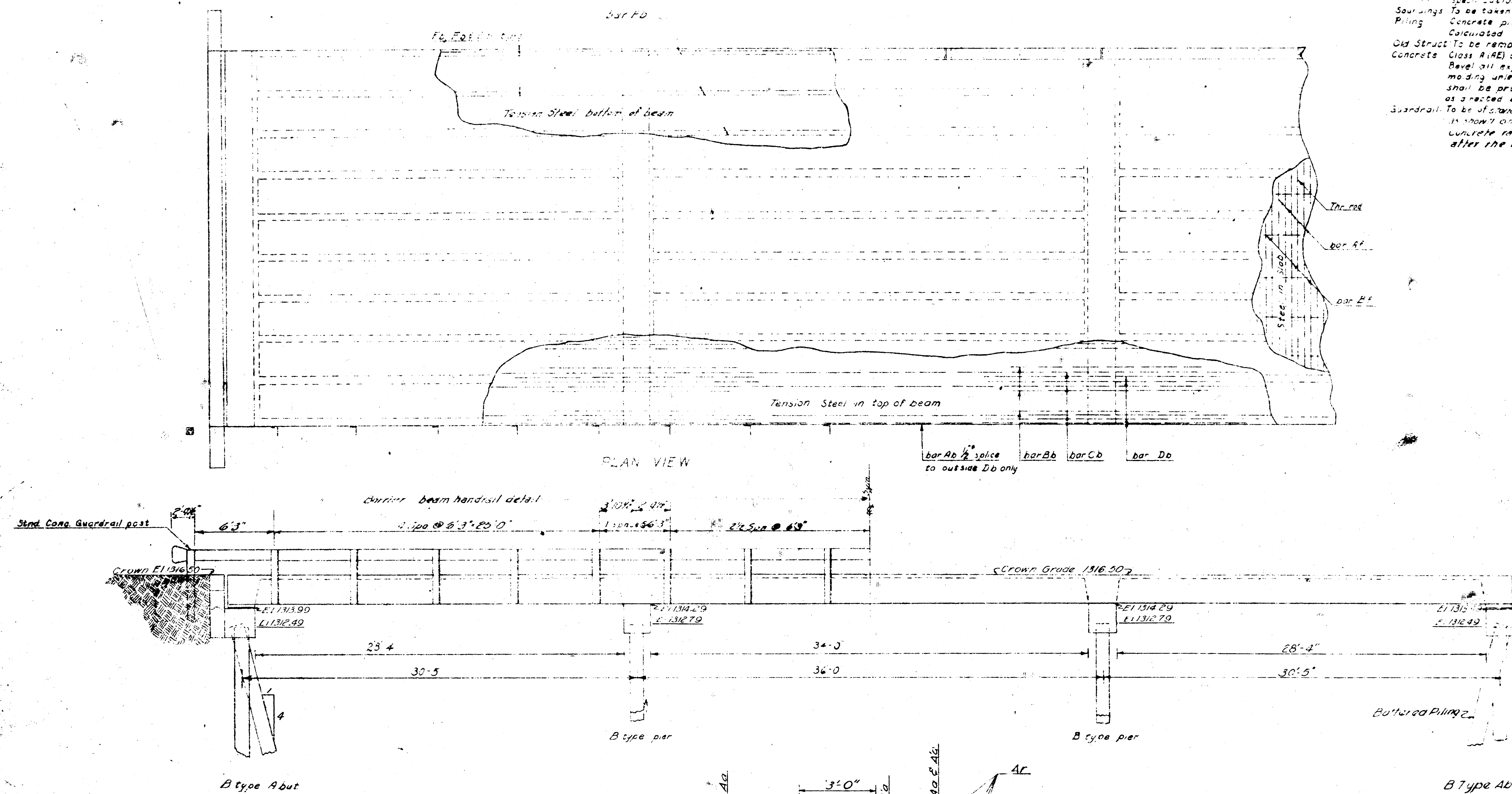
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK - COUNTY ENGINEER

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

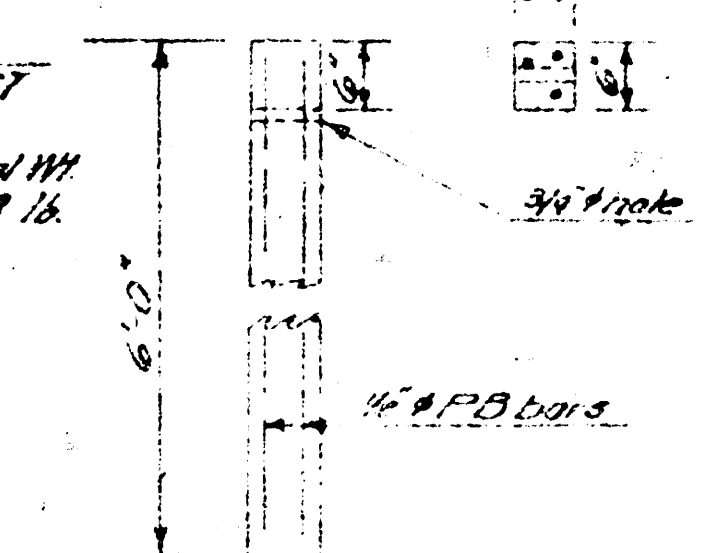
618-22-1856 14

GENERAL NOTES

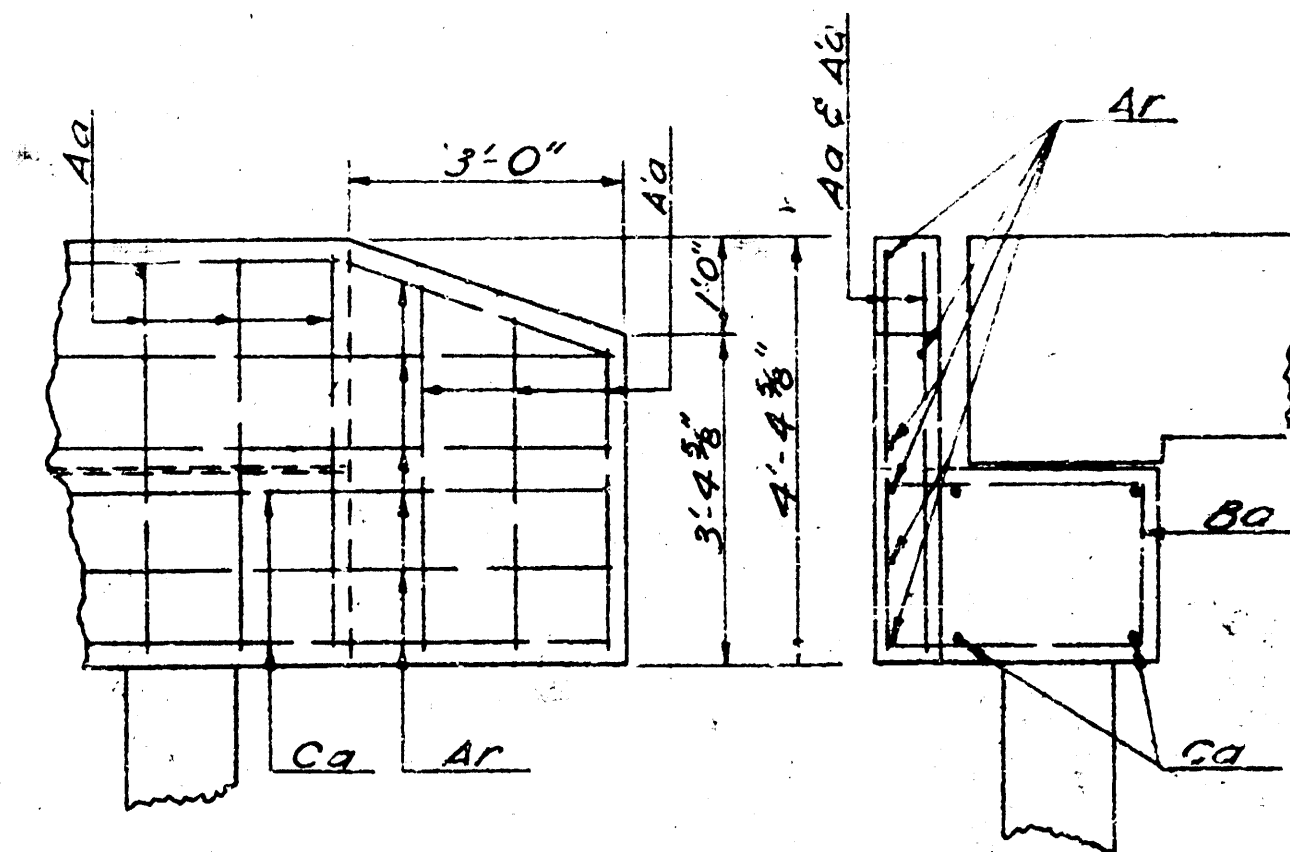
Design: Designed for 40 kips loading. 44100
 Specifications: AASHTO 1950, to 1950
 Soundings: To be taken by Sedgwick County
 Piling: Concrete piling to be driven to a
 Calculated resistance of 18 tons
 Old Structure: To be removed by Sedgwick County
 Concrete: Class A(AC) concrete used throughout
 Reveal: All exposed edges with 3" to 4" $\pm$
 masonry unless otherwise noted. Forms
 shall be performed using "true" used
 as directed by the Engineer in charge
 Guardrail: To be of standard barrier beam or, otherwise
 as shown on construction layout.
 Concrete rail to be constructed
 after the removal of deck forms



SUMMARY OF QUANTITIES
 ONE GUARDRAIL POST
 Class A(AC) Conc. 0.036 cu yd
 Bar No. Size Length Total Wt.
 PB 3 1/2 5'-8" 11.8 lb



STANDARD GUARDRAIL POST DETAIL
 4 Required



WING WALL DETAILS
 Scale 1/2" = 1'-0"

RE. CONC. MODIFIED T-BEAM BRIDGE

BRIDGE NO. 618-22-1856

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

REVISION	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
1-2-50	1/8" = 1'	R.R.J.	C.D.H.		12
DATE	9-50	9-18-50			
PLANFILE		TOTAL SHEETS			

