

NO.	DATE	PROJECT	FILE	SHEET	TOTAL
3	1949	87-5876 (1)	1949	13	13

STATE OF KANSAS STATE HIGHWAY COMMISSION SEDGWICK COUNTY

PLAN AND PROFILE FEDERAL AID SECONDARY PROJECT 87-5876 (1) TRAFFIC CENSUS 325 V.P.D. 1936 CENSUS

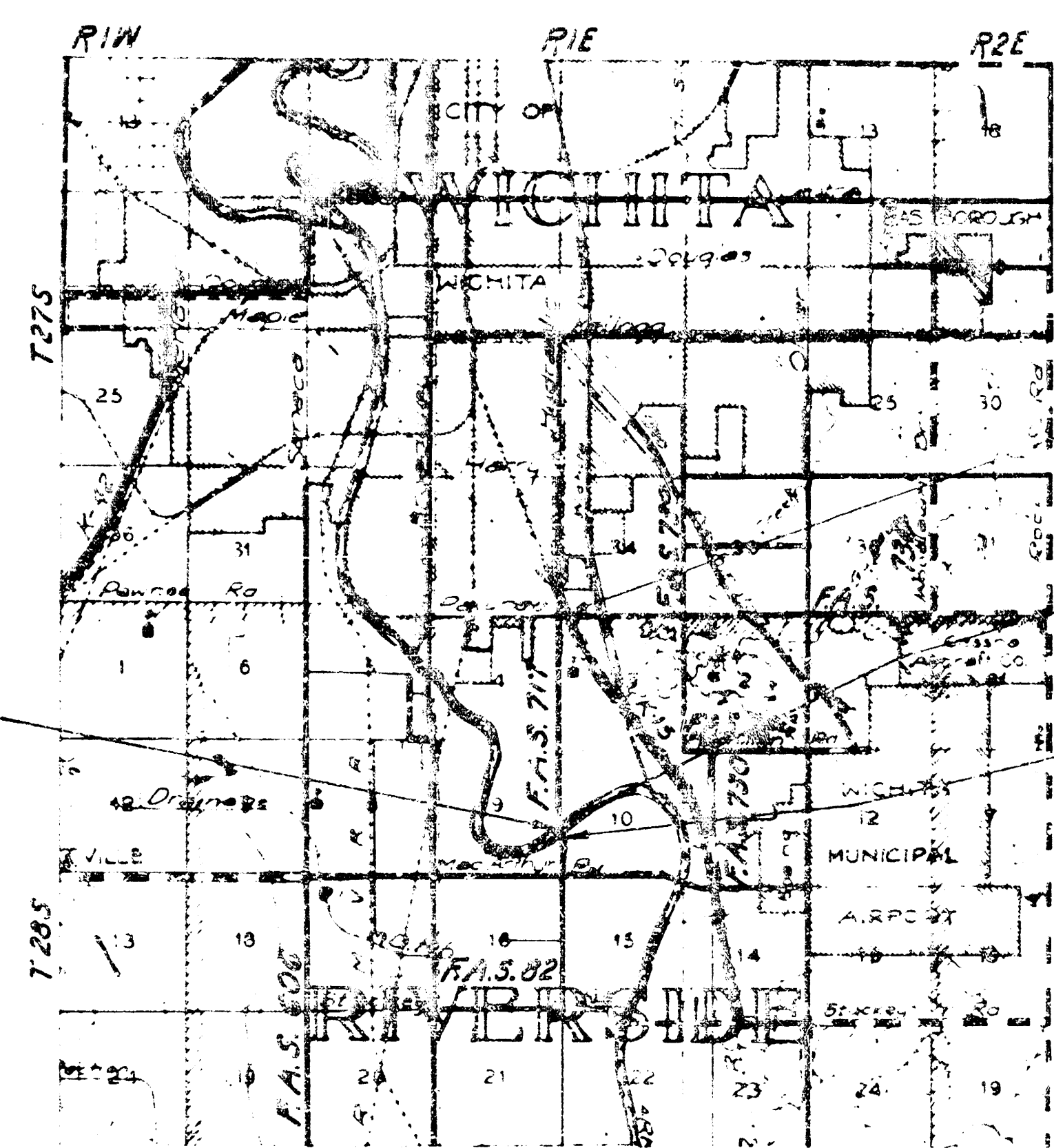
INDEX OF SHEETS

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BRIDGE



Scale 1"=1 Mi.



Scale 1"=1 Mile

CONVENTIONAL SIGNS

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

GROSS LENGTH OF PROJECT	222.50 FT.	1.0 MILES
EXCEPTIONS	None	
ADDITIONS	None	
NET LENGTH OF PROJECT	222.50 FT.	1.0 MILES
NET LENGTH OF BRIDGES	222.50 FT.	1.0 MILES
NET LENGTH OF ROAD	0.0 FT.	0.0 MILES

PLANS PREPARED BY:

Rafael L. ...
SEDGWICK COUNTY ENGINEER
DATE 1949

APPROVED: COUNTY COMMISSIONERS

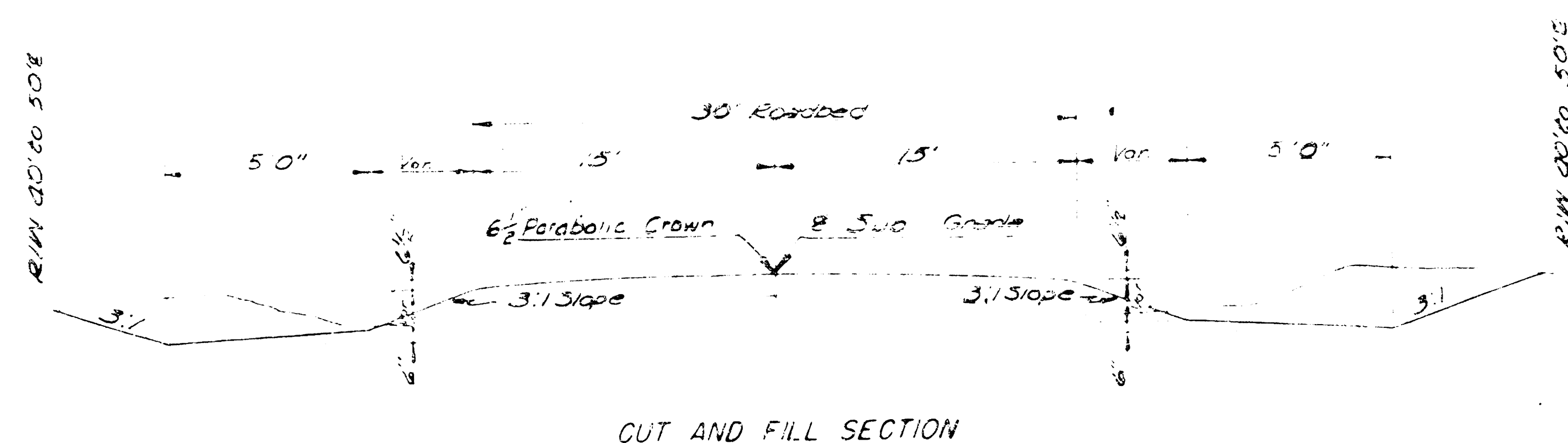
[Signature]
DATE 1949

RECOMMENDED FOR APPROVAL DATE	RECOMMENDED FOR APPROVAL DATE
ENGINEER OF SECONDARY ROADS STATE HIGHWAY COMMISSION OF KANSAS	DISTRICT ENGINEER PUBLIC ROADS ADMINISTRATION FEDERAL WORKS AGENCY
APPROVED DATE	APPROVED DATE
STATE HIGHWAY ENGINEER STATE HIGHWAY COMMISSION OF KANSAS	DIVISION ENGINEER PUBLIC ROADS ADMINISTRATION FEDERAL WORKS AGENCY

Hydraulic
and
Arch. River
Bridge

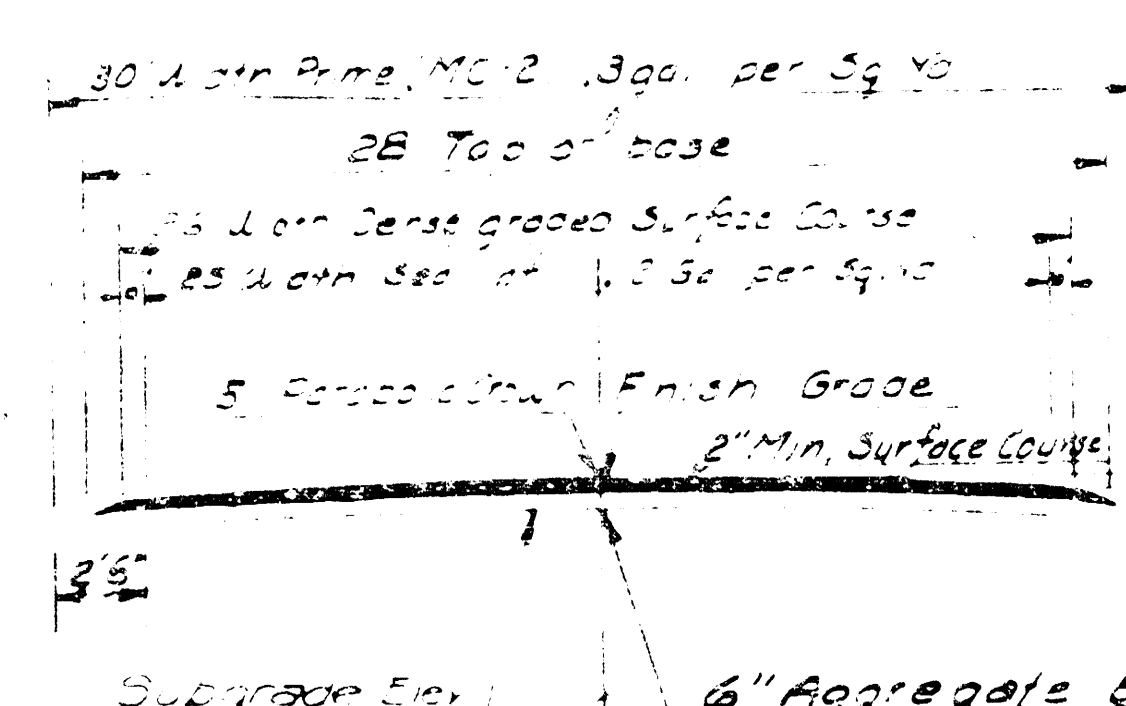
ROAD NO. 100
 PROJECT 100
 SHEET NO. 100
 TOTAL SHEETS 100

TYPICAL GRADING CROSS SECTIONS



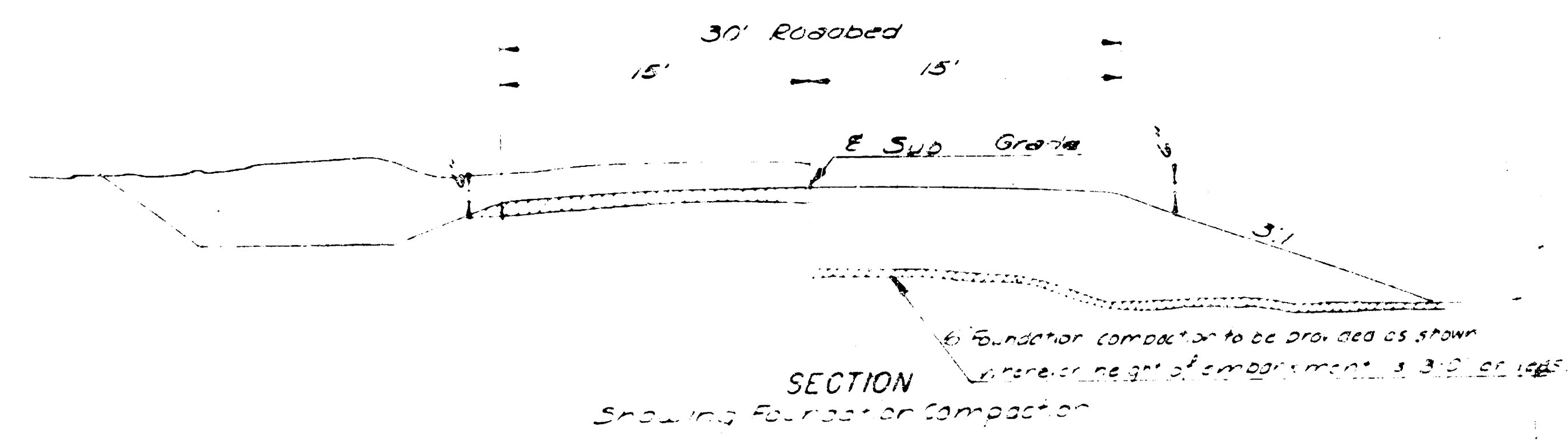
CUT AND FILL SECTION

FINISHED GRADE



Seal with MC-4, 0.3 Gal.
 Per Sq. Yd. after Mat has
 been laid.

TYPICAL SECTION BASE COURSE DENSE GRADED SURFACE COURSE



SECTION
Showing Foundation Compaction

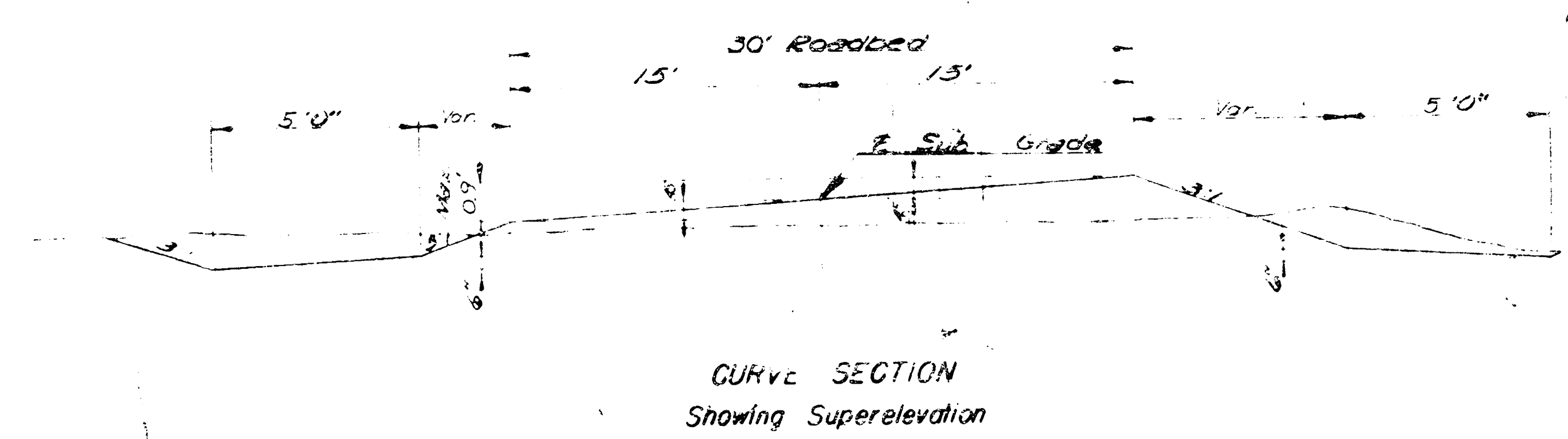
Summary of Quantities for Base Course		
ITEM	Qty. per Sq. Yd.	Unit
Combined Material (A-B-2)	2.76 x 2	Tons
Water	126.25	Gal.
Man. per sq. yd.	27.25	Sq.

Summary of Quantities for Surface Course		
Dense Graded Surface Course (Class C-1)		
ITEM	Qty. per Sq. Yd.	Unit
Aggregate (BMA-1)	738.31	Tons
Cut-back Asph. (MC-2) or Prime	27.25	Gal.
Cut-back Asph. (MC-2) or Prime	32.70	Gal.
Man. per sq. yd.	27.25	Sq.

SURFACING

Quantities have been based on the following:
 Combined Material (A-B-2) 40 sq. yd. per cu. yd.
 Water 5 M. Gal. per sq. yd.
 Aggregate (BMA-1) 125 lbs. per cu. ft. of Mat.
 Cut-back Asph. (MC-2) for Mat 5% of Mat of Agg.
 Manipulation 100 ft. x 1 ft. Sfd.
 Mat Seal MC-4 0.2 Gal. Per Sq. Yd.
 Shoulder Seal MC-4 0.3 Gal. Per Sq. Yd.
 Base Prime MC-2 0.3 Gal. Per Sq. Yd.

NOTE: Grading & Surfacing to be done by Sedgwick
 County and is not to be considered part
 of the project.



CURVE SECTION
Showing Superelevation

Embankment grade to be brought to subgrade Ee.
 Use 6" stabilized base protected by a bitum. mat.
 mat surface course having a minimum thickness
 of 2". The base to be aggregate under base
 course Type A-B-2 as covered in the Standard
 Specifications. Type A compaction shall be used
 through the project for all embankment and locations
 where foundation compaction is required. Quantities
 for foundation compaction are included in companion
 of earth work Type A.
 Surfacing to be 2" Dense Graded Road Mix Surface Course (Class C-1)

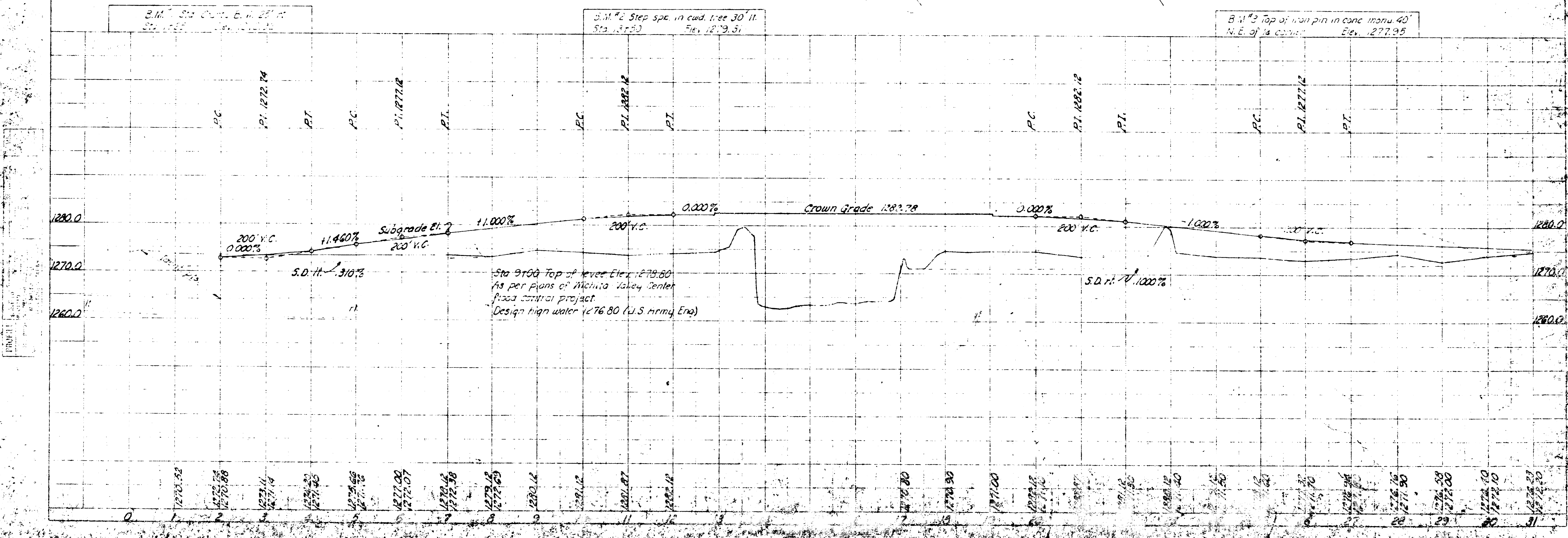
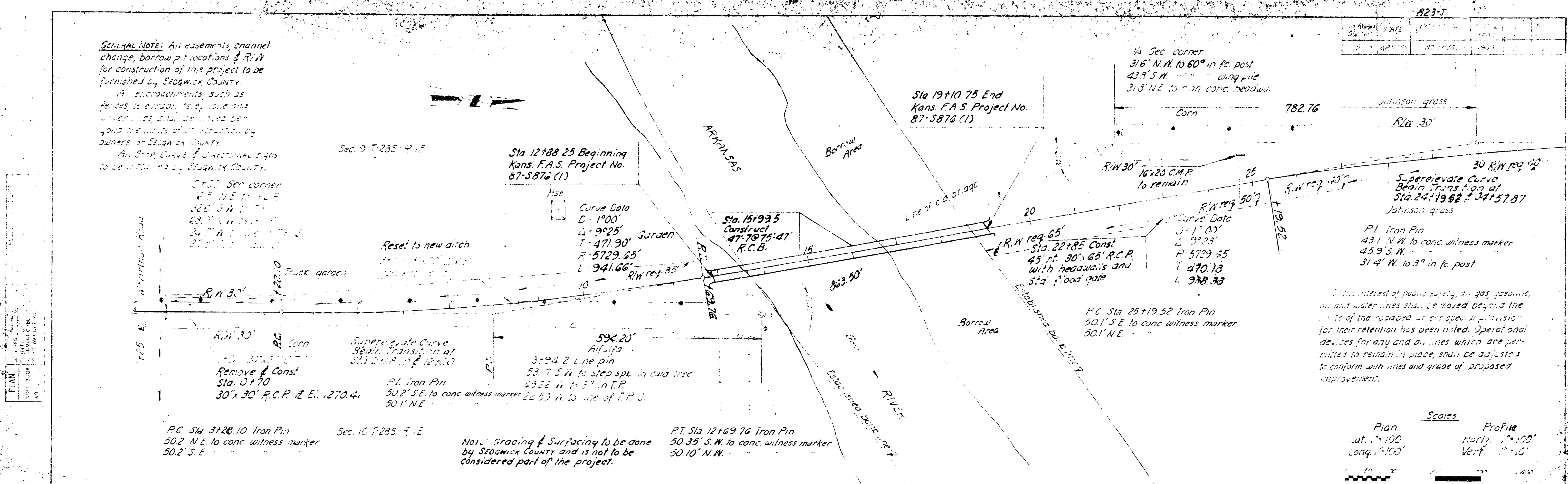
TYPICAL SECTIONS

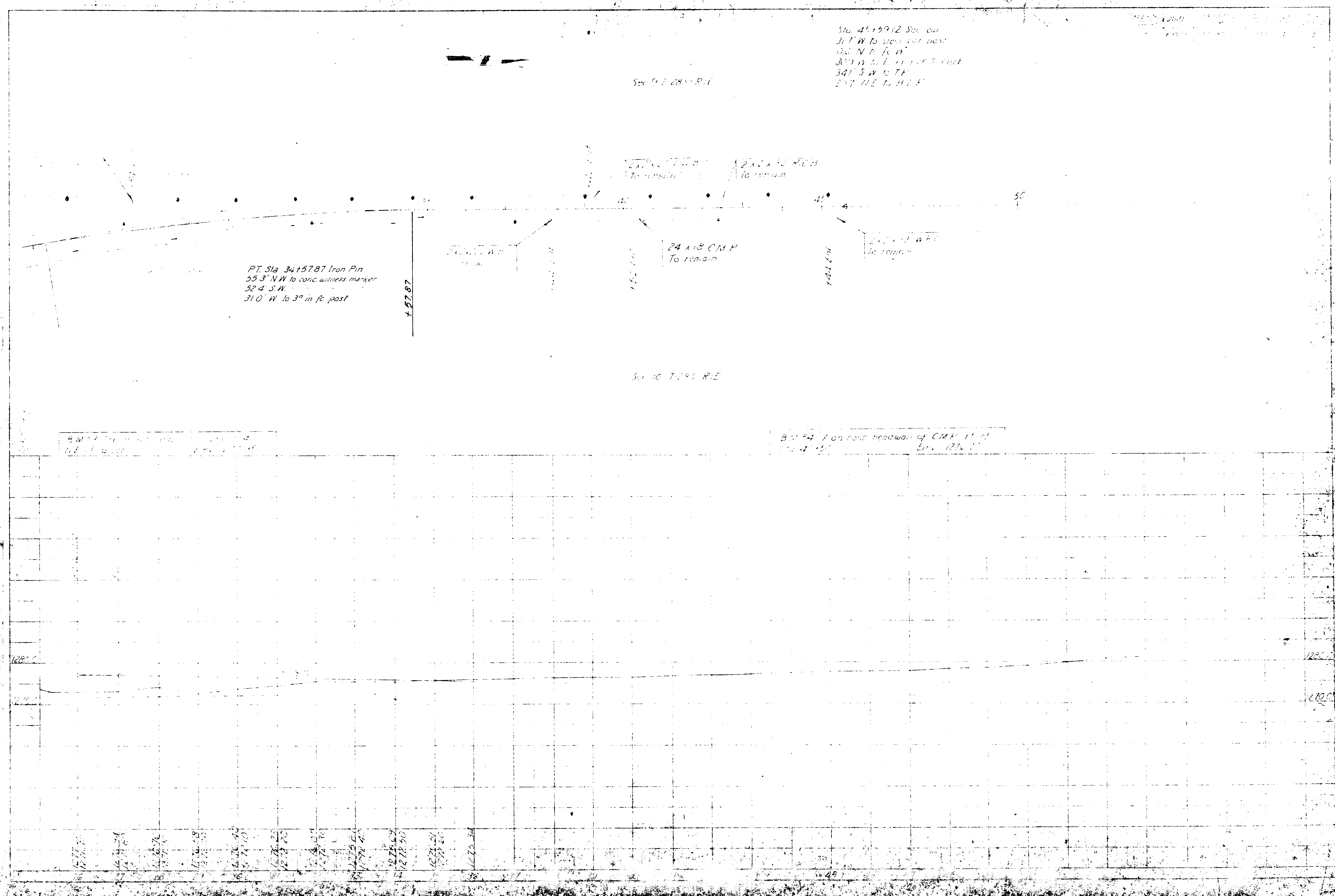
PREPARED BY SEDGWICK COUNTY ENGINEERING DEPT. RUFUS S. KIRK COUNTY ENGINEER	
REVISION 1. As Shown JRK	DATE 6-20-47
PLANT FILE 10-20-47	TOTAL SHEETS 10-20-47

GENERAL NOTE: All easements, channel change, borrow pit locations & R/W for construction of this project to be furnished by Steadman County.

All encroachments, such as fences, etc., to be removed and the limits of construction by owners of Steadman County.

All State Curve & Directional signs to be installed by Steadman County.





PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	ARKANSAS	87-3816 (1)	1949	5	15

Sec. 9 T28S R1E

Sta. 15+99.5 Construct
47'-7" 75'-47" Continuous
I-beam Bridge 26' R/W.
Skew 20° Lt.

Sta. 813+64.4

Sta. 793+32.7

Established Bank Line

Sta. 781+82.17

Sta. 791+37.73

Sta. 795+87.12

Note For Sea Level Datum
Add 1200' to Contour Elevations

Sec. 10 T28S R1E

Sta. 799+68

Sta. 804+25.4

Sta. 800+38.4

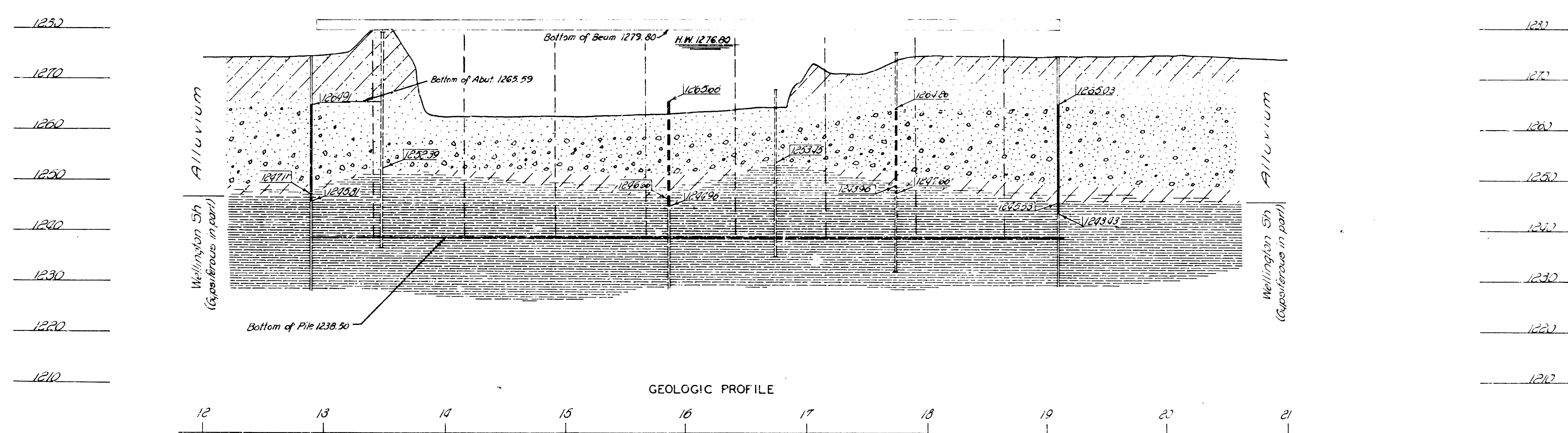
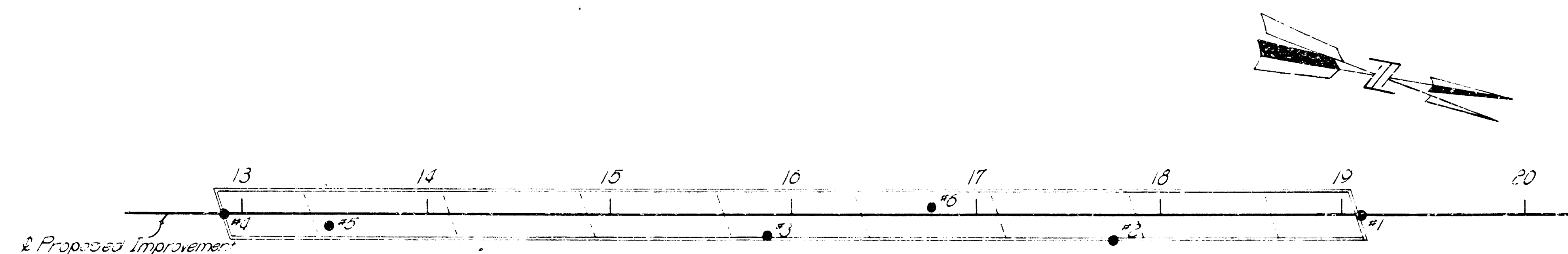
Sta. 813+64.4

Established Bank Line

CONTOUR MAP ARKANSAS RIVER BRIDGE NO. 823 T 1600

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

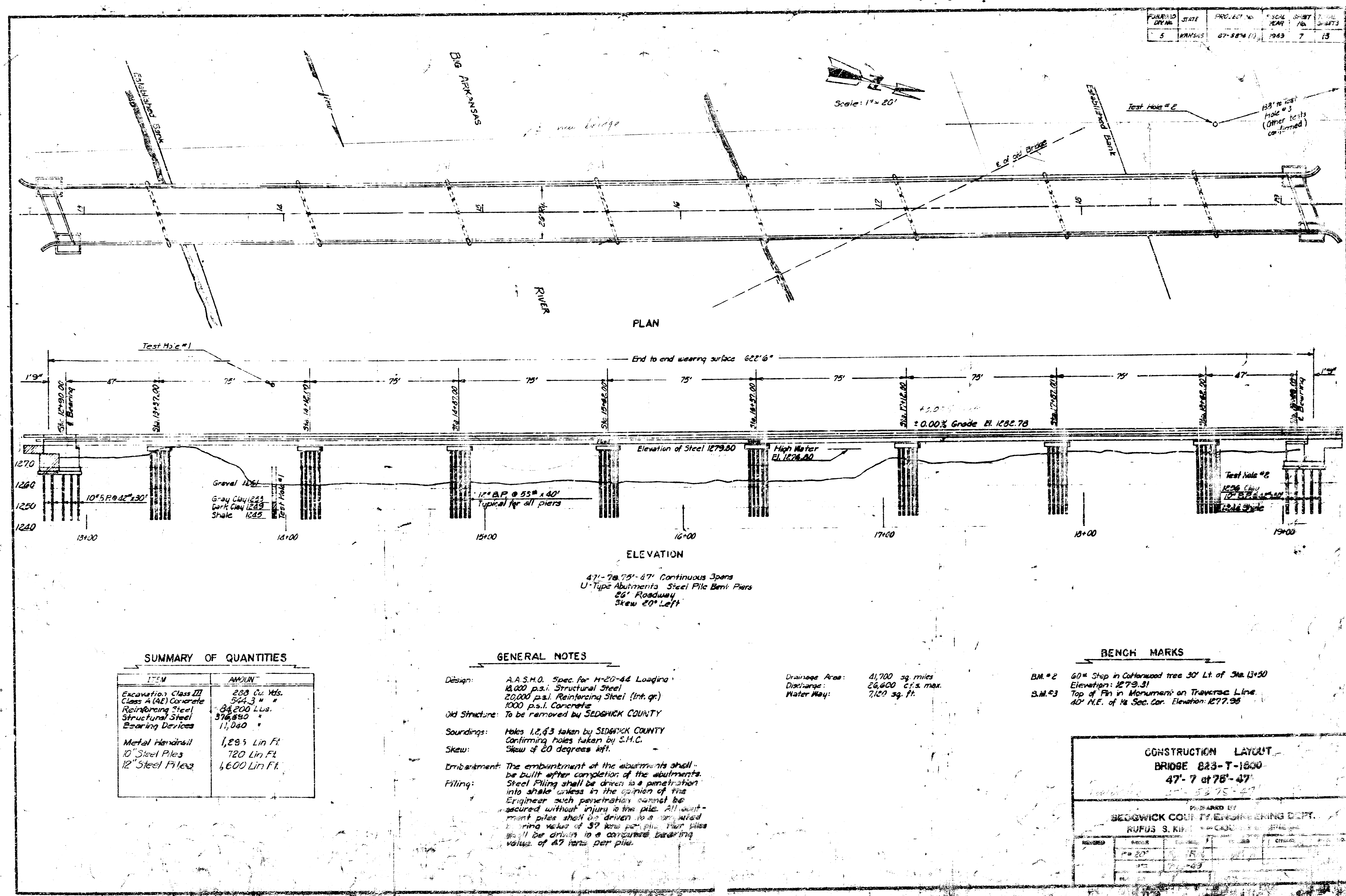
REVISED	SCALE	DESIGNED	BY	CHECKED	SHEET NO.
	1" = 100'	SHUBERT			
	PLAN				



- SYMBOLS:
- Silty Sand
 - Sand
 - Shale
 - Clay
 - Gravel
 - Sounding
 - Actual Sounding Elevation
 - Interpolated Elevations from adjacent soundings
 - Casing Set
 - Casing Refusal

SOUNDINGS:
 Note: The soundings shown on these plans are taken from notes obtained in the field and represent the best information available to the Kansas Highway Commission

STATE HIGHWAY COMMISSION OF KANSAS
 BR. NO. ENGINEERING GEOLOGY STA.
 ARKANSAS RIVER
 PROJ. NO. 87-S876(1) SEDGWICK CO.
 SHEET NO. OF SCALE: Horiz. 1"=40' Vert. 1"=10'
 DESIGNED BY DATE DETAILED BY THALES BY FM5
 CHECKED BY APPROVED BY DATE



PLANNED	STATE	PROJECT NO.	SCALE	SHEET	TOTAL SHEETS
OK	OK	823-T-1600	1"=20'	7	13

SUMMARY OF QUANTITIES

ITEM	AMOUNT
Excavation Class III	233 Cu. Yds.
Class A (40) Concrete	544.3 cu. yd.
Reinforcing Steel	64,200 Lbs.
Structural Steel	37,680 Lbs.
Bracing Devices	11,040 Lbs.
Metal Handrail	1,283 Lin. Ft.
10" Steel Piles	720 Lin. Ft.
12" Steel Piles	4,600 Lin. Ft.

GENERAL NOTES

Design: A.A.S.H.O. Spec. for H-20-44 Loading
18,000 p.s.i. Structural Steel
20,000 p.s.i. Reinforcing Steel (Int. gr.)
1000 p.s.i. Concrete

Old Structure: To be removed by SEDGWICK COUNTY

Soundings: Holes 1, 2, 3 taken by SEDGWICK COUNTY
Confirming holes taken by S.H.C.

Skew: Skew of 20 degrees left.

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

Piling: Steel Piling shall be driven to a penetration into shale unless in the opinion of the Engineer such penetration cannot be secured without injury to the pile. All abutment piles shall be driven to a penetration value of 37 tons per pile. The piles shall be driven to a computed bearing value of 47 tons per pile.

Drainage Area: 41,700 sq. miles
Discharge: 28,600 c.f.s. max.
Water Way: 7,120 sq. ft.

BENCH MARKS

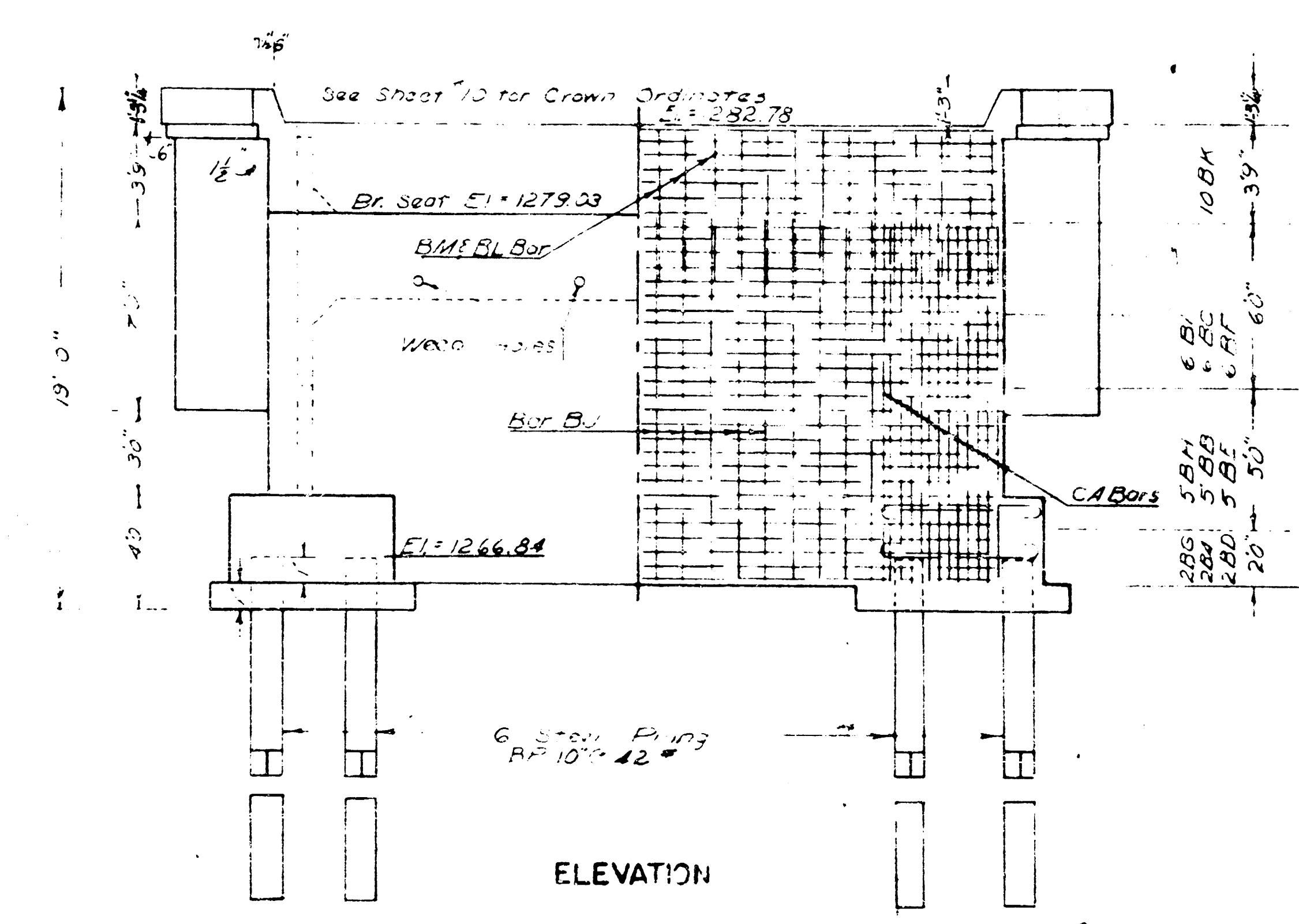
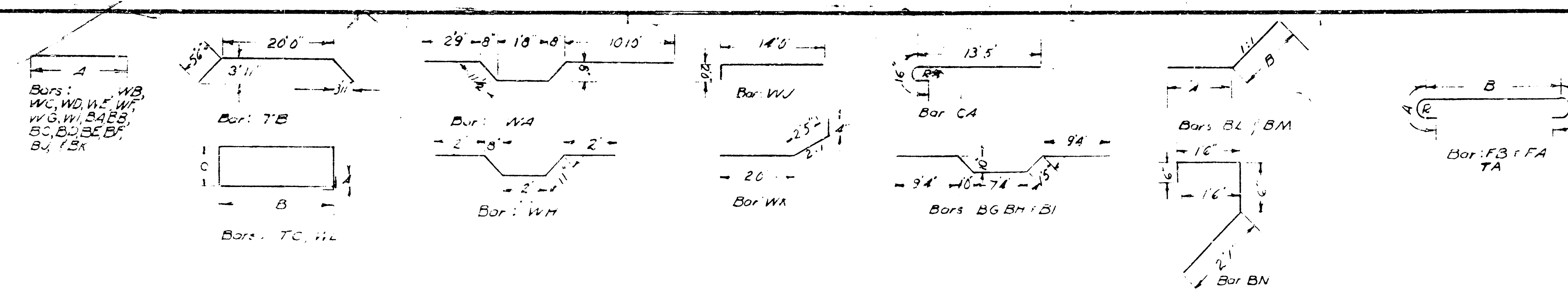
BM #2 60" Step in Coffered tree 30' Lt. of Sta. 13+50
Elevation: 1279.31

S.M. #3 Top of Pin in Monument on Traverse Line
40' N.E. of 1/4 Sec. Cor. Elevation: 1277.95

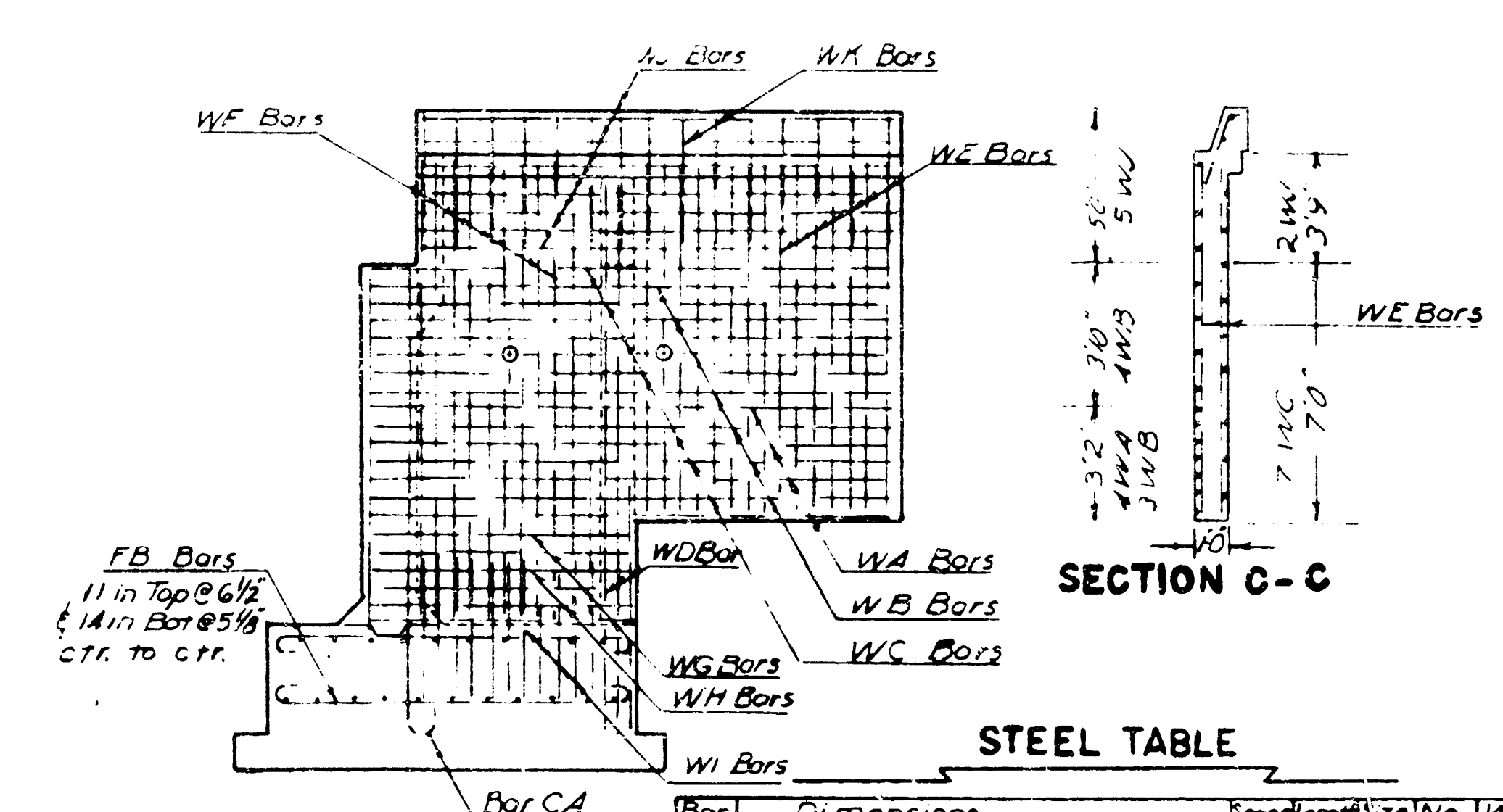
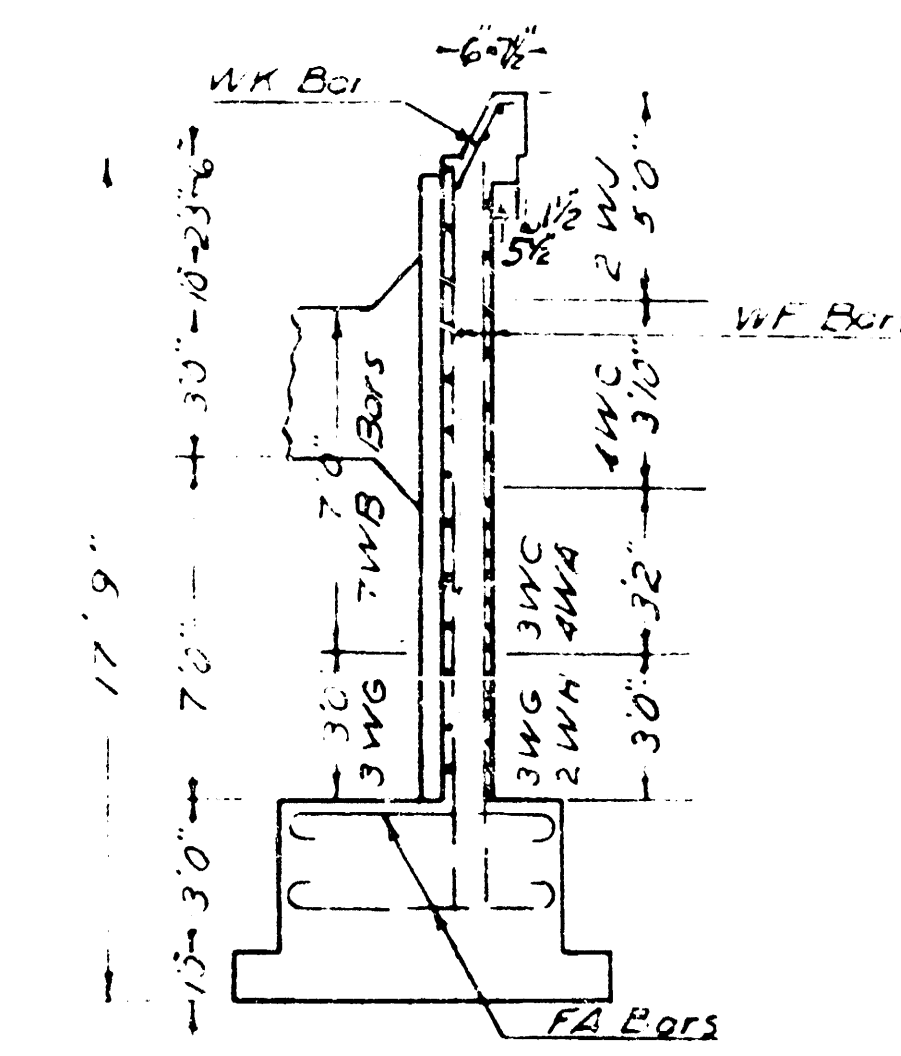
CONSTRUCTION LAYOUT
BRIDGE 823-T-1600
47'-7" at 75'-47"

PREPARED BY	
SEDGWICK COUNTY ENGINEERING DEPT.	
RUFUS S. KIRK	
REVIEWED	DATE
DATE	DATE

P.R. ROAD DIST. NO.	STATE	PROJECT No.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-5876(1)	1949	8	13



BENDING DIAGRAMS

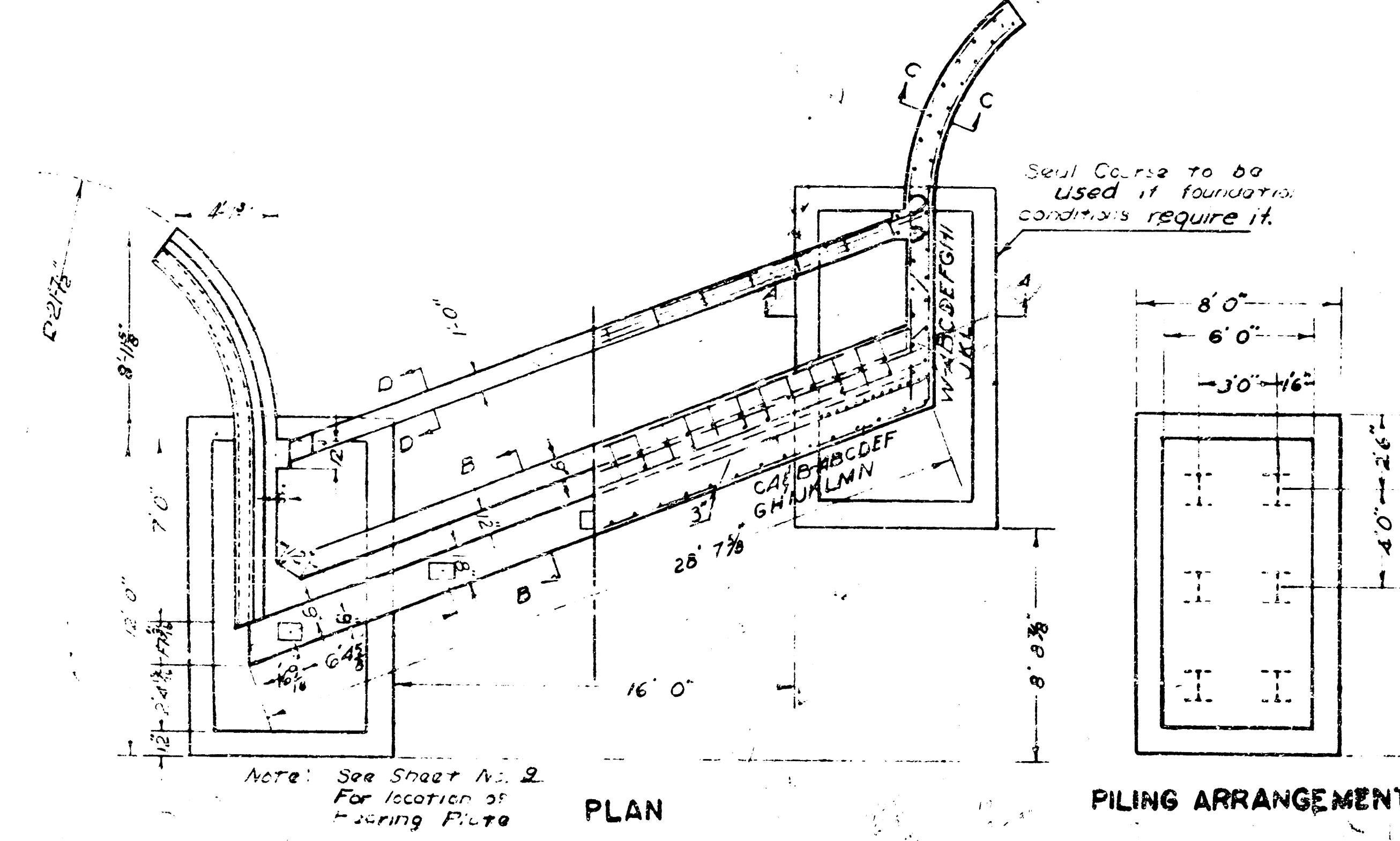
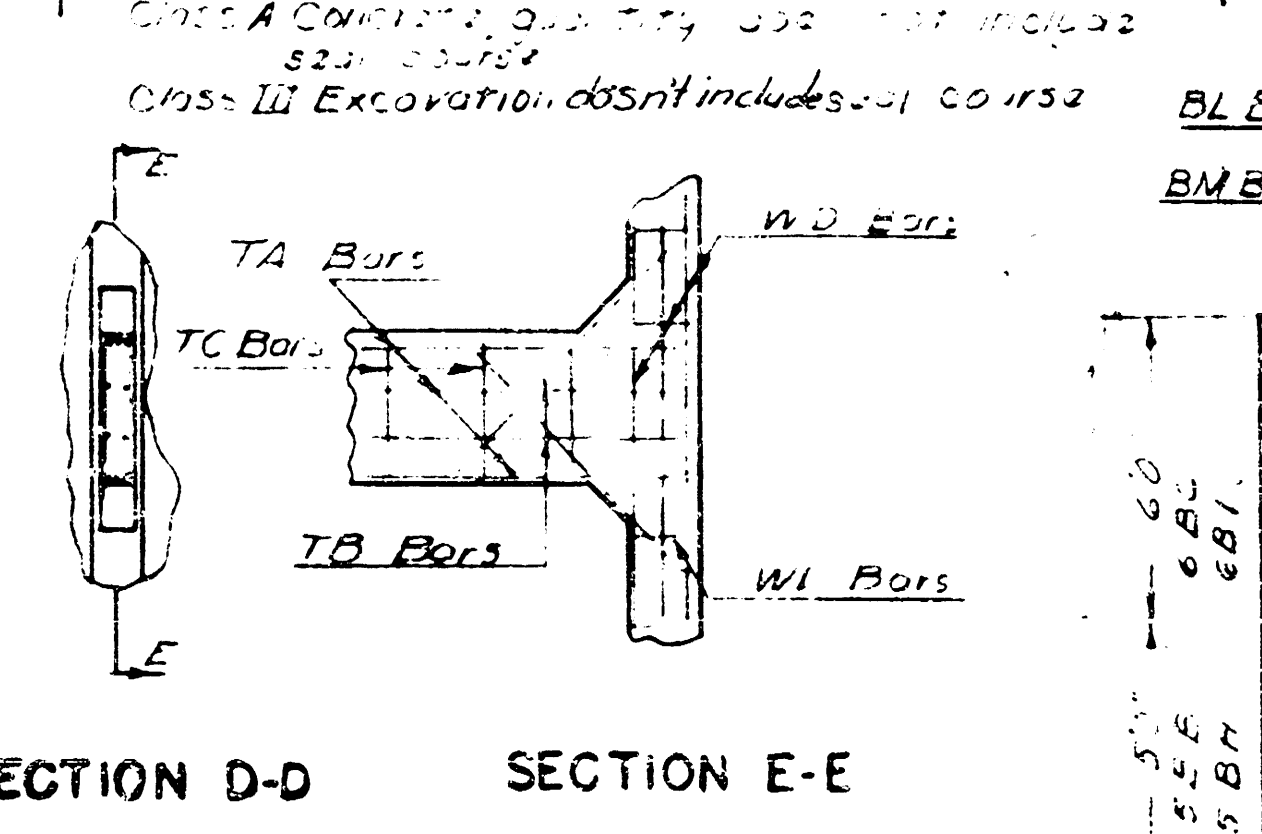


STEEL TABLE

Bar	Dimensions	Length	Weight
TA	1'-0" 2 1/2"	29'-0" 3/4"	10
TB	See Bending Diagrams	31'-0" 3/4"	18
TC	0.3 2 1/2" GS	2'-0" 7 1/2"	37
WA	See Bending Diagrams	1'-0" 17 1/2"	3
WB	1'-0" 6 1/2"	16'-0" 1/2"	14
WC	1'-0" 6 1/2"	16'-0" 1/2"	14
WD	1'-0" 10 1/2"	16'-0" 1/2"	16
WE	1'-0" 10 1/2"	16'-0" 1/2"	30
WF	1'-0" 13 1/2"	16'-0" 1/2"	28
WG	1'-0" 7 1/2"	16'-0" 1/2"	12
WH	1'-0" 7 1/2"	16'-0" 1/2"	4
WI	1'-0" 4 1/2"	16'-0" 1/2"	22
WJ	1'-0" 16 1/2"	16'-0" 1/2"	14
WK	1'-0" 4 1/2"	16'-0" 1/2"	30
WL	1'-0" 4 1/2"	16'-0" 1/2"	26
WM	1'-0" 28 1/2"	16'-0" 1/2"	2
WN	1'-0" 28 1/2"	16'-0" 1/2"	5
WO	1'-0" 28 1/2"	16'-0" 1/2"	6
WP	1'-0" 10 1/2"	16'-0" 1/2"	4
WQ	1'-0" 10 1/2"	16'-0" 1/2"	10
WR	1'-0" 10 1/2"	16'-0" 1/2"	12
WS	1'-0" 28 1/2"	16'-0" 1/2"	2
WT	1'-0" 28 1/2"	16'-0" 1/2"	5
WU	1'-0" 28 1/2"	16'-0" 1/2"	6
WV	1'-0" 33 1/2"	16'-0" 1/2"	28
WW	1'-0" 33 1/2"	16'-0" 1/2"	10
WX	1'-0" 33 1/2"	16'-0" 1/2"	28
WY	1'-0" 5 1/2"	16'-0" 1/2"	14
WZ	1'-0" 4 1/2"	16'-0" 1/2"	28
XA	1'-0" 6 1/2"	16'-0" 1/2"	44
XB	1'-0" 6 1/2"	16'-0" 1/2"	30

SUMMARY OF QUANTITIES

Item	Amount
Class A (AE) Concrete	4-6 cu yds.
Reinforcing Steel	6940 lbs.
Class III Excavation	160 cu yds.
10" Steel Piling	360 2 in ft.



GENERAL NOTES

Cover to be 2 in. unless otherwise shown; dimensions are to center of bar. Use Class A (AE) concrete, bavel exposed edges with 3/4" Δ mulling. Weep are 4" in diameter & are placed 12" above outside ground level. Place 100# crushed rock back of each opening. Max. Pile Load = 37 Tons

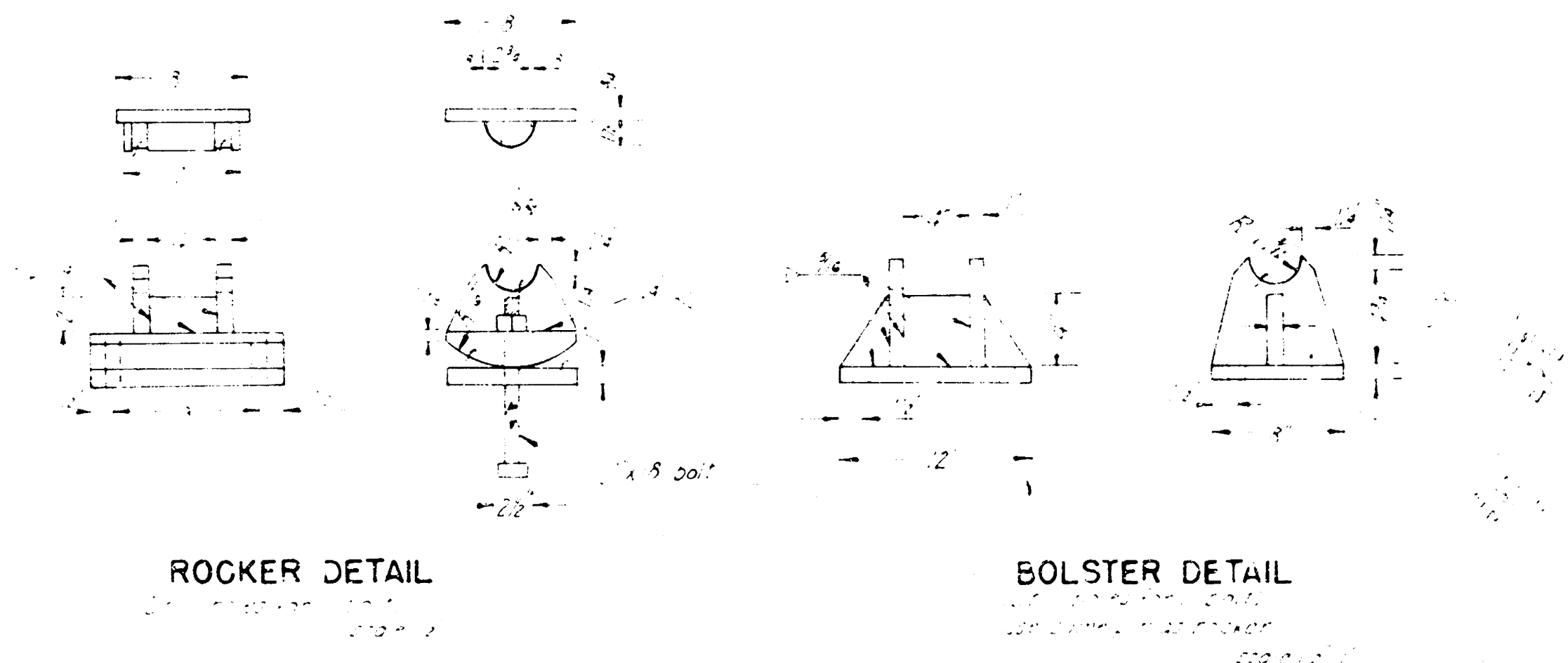
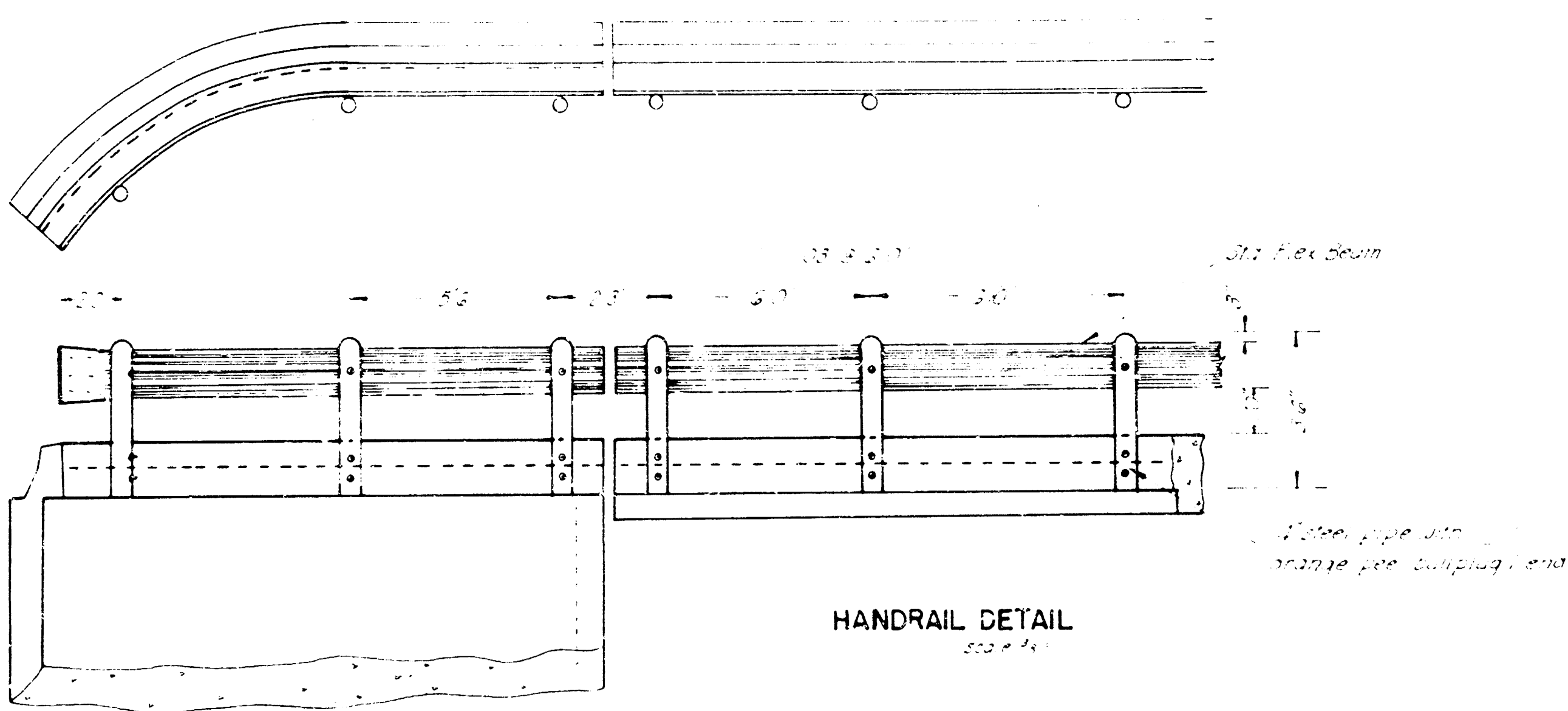
ABUTMENT DETAILS

BRIDGE NO. 823-T-1600

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

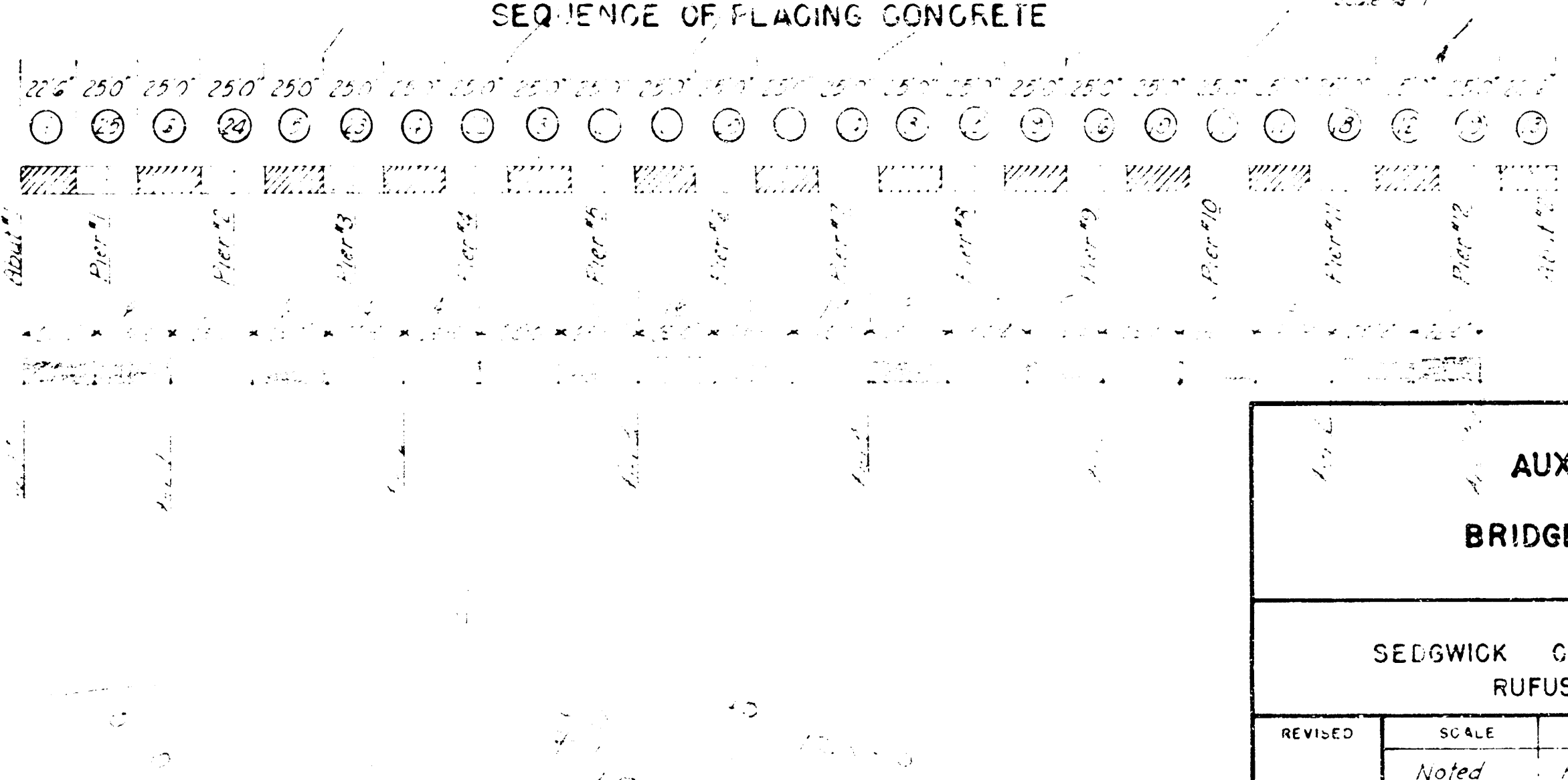
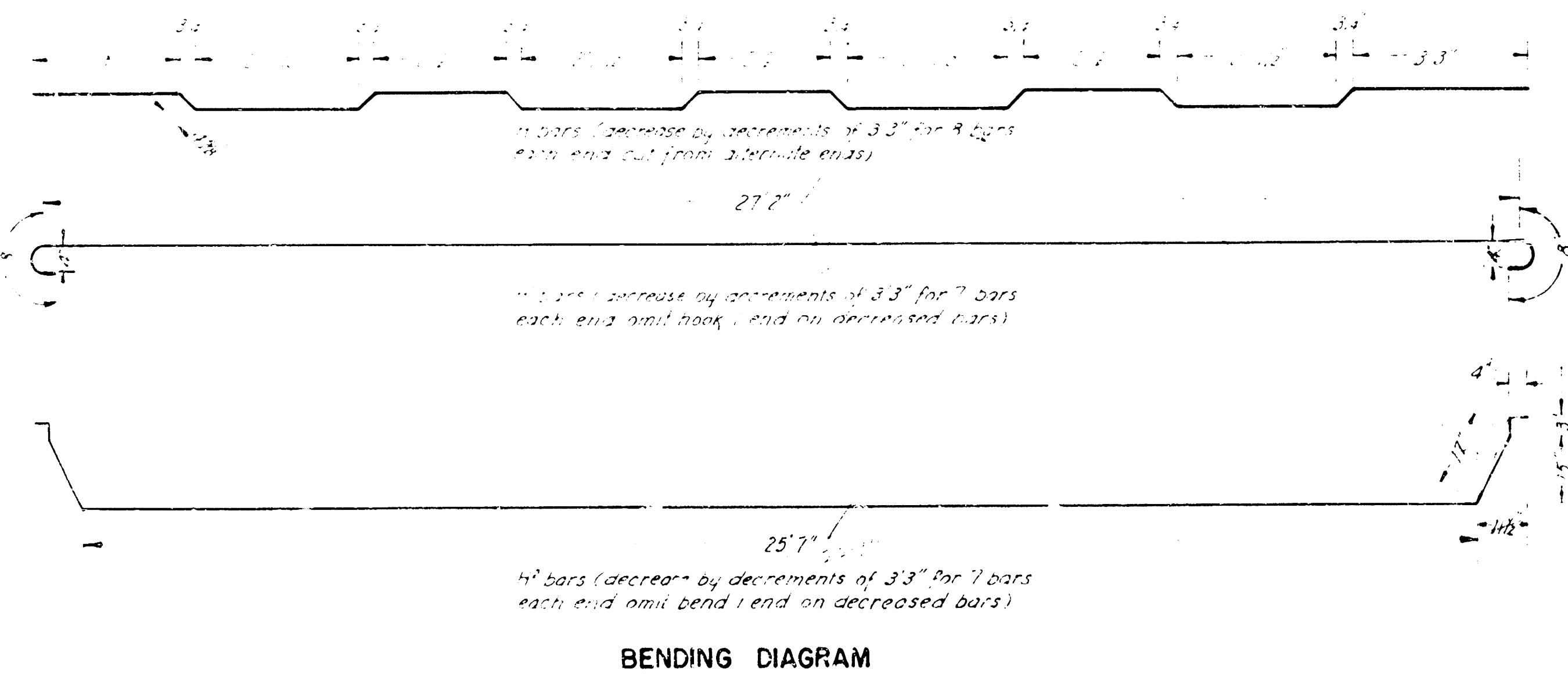
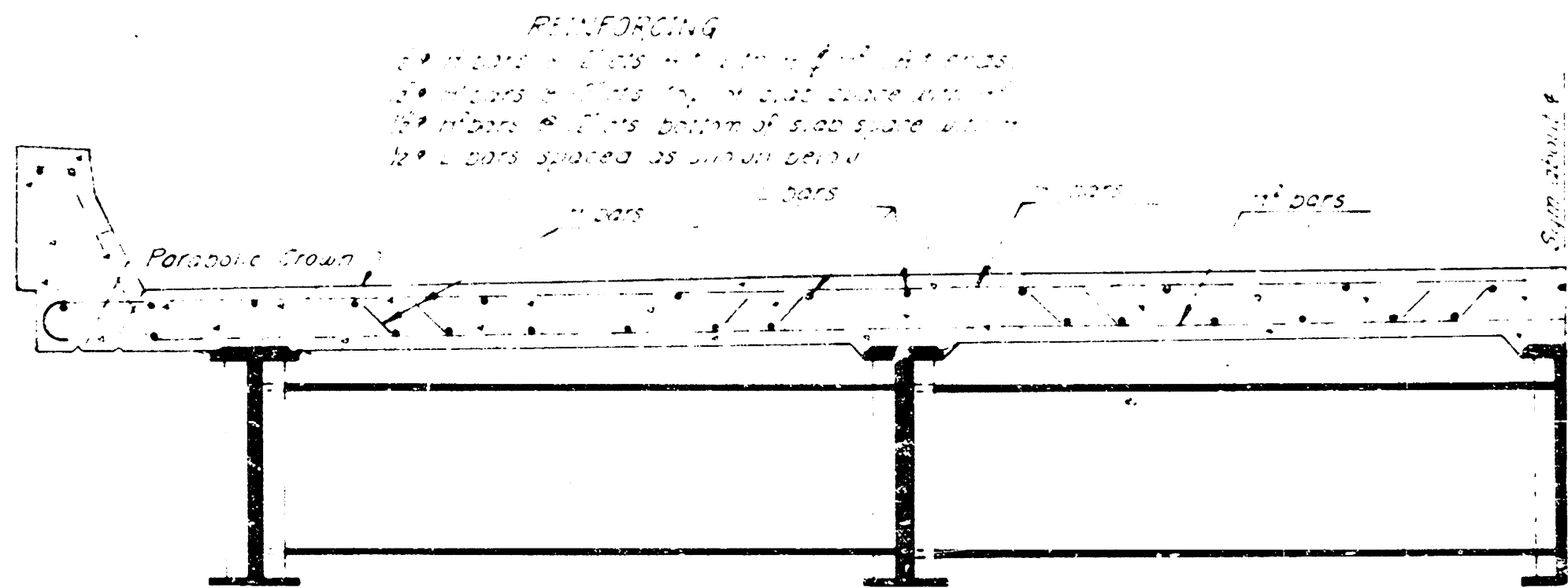
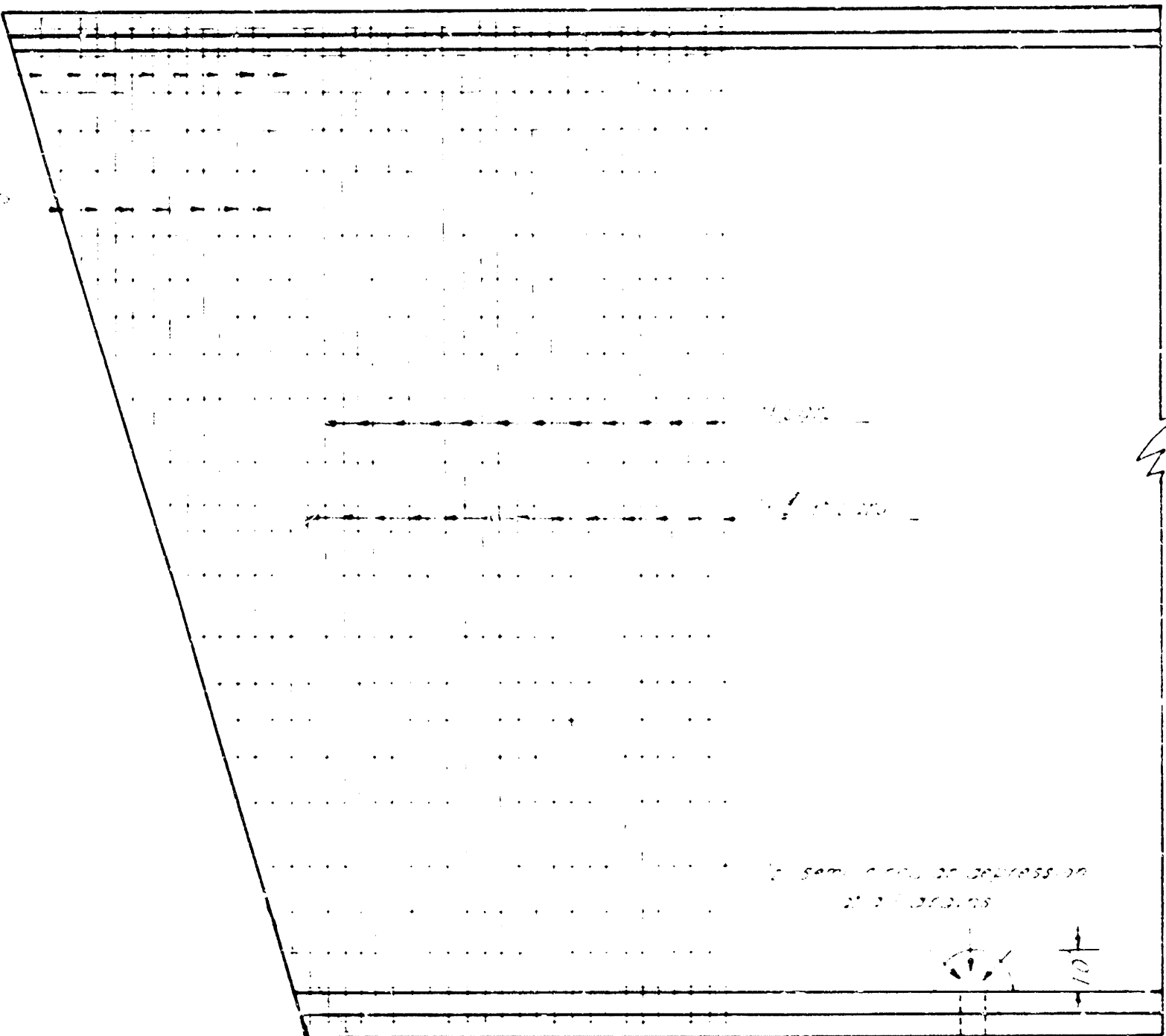
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	None	ELI F.M.	R.V.		
	DATE				
	PLANFILE			TOTAL SHEETS	

Highway	State	Project No.	Sheet No.	Sheet
5	ARKANSAS	BR 236-10	142	1



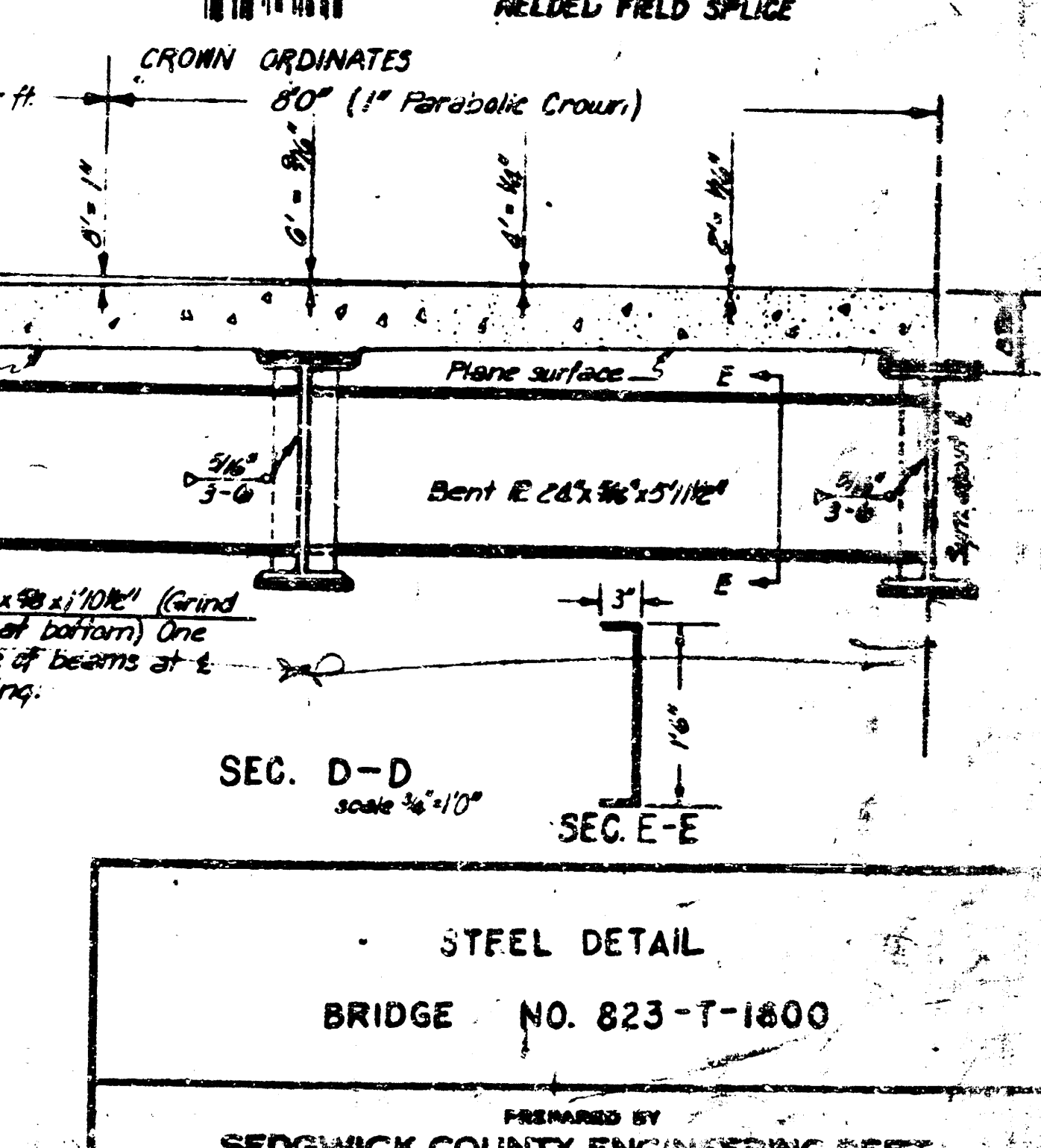
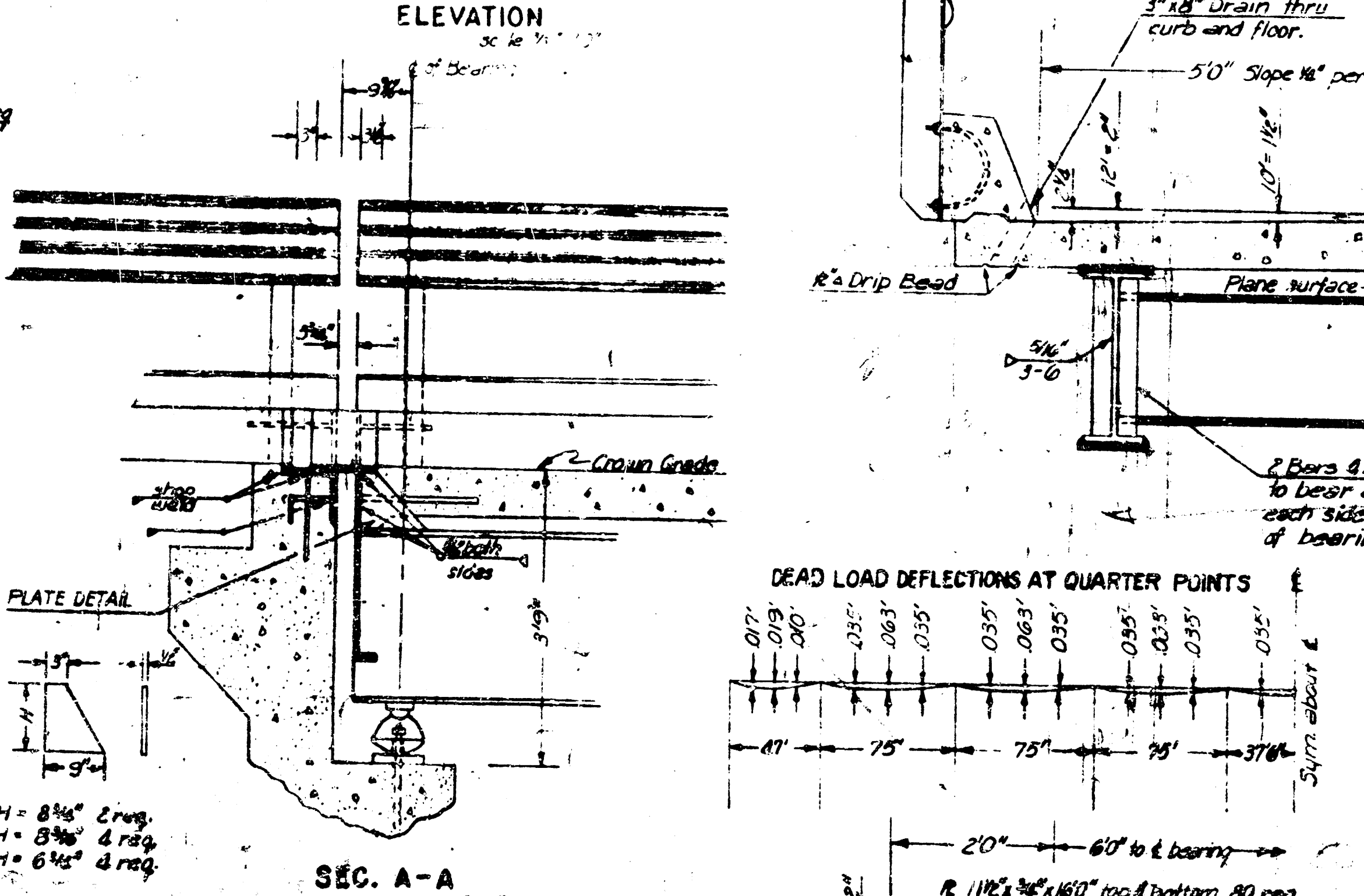
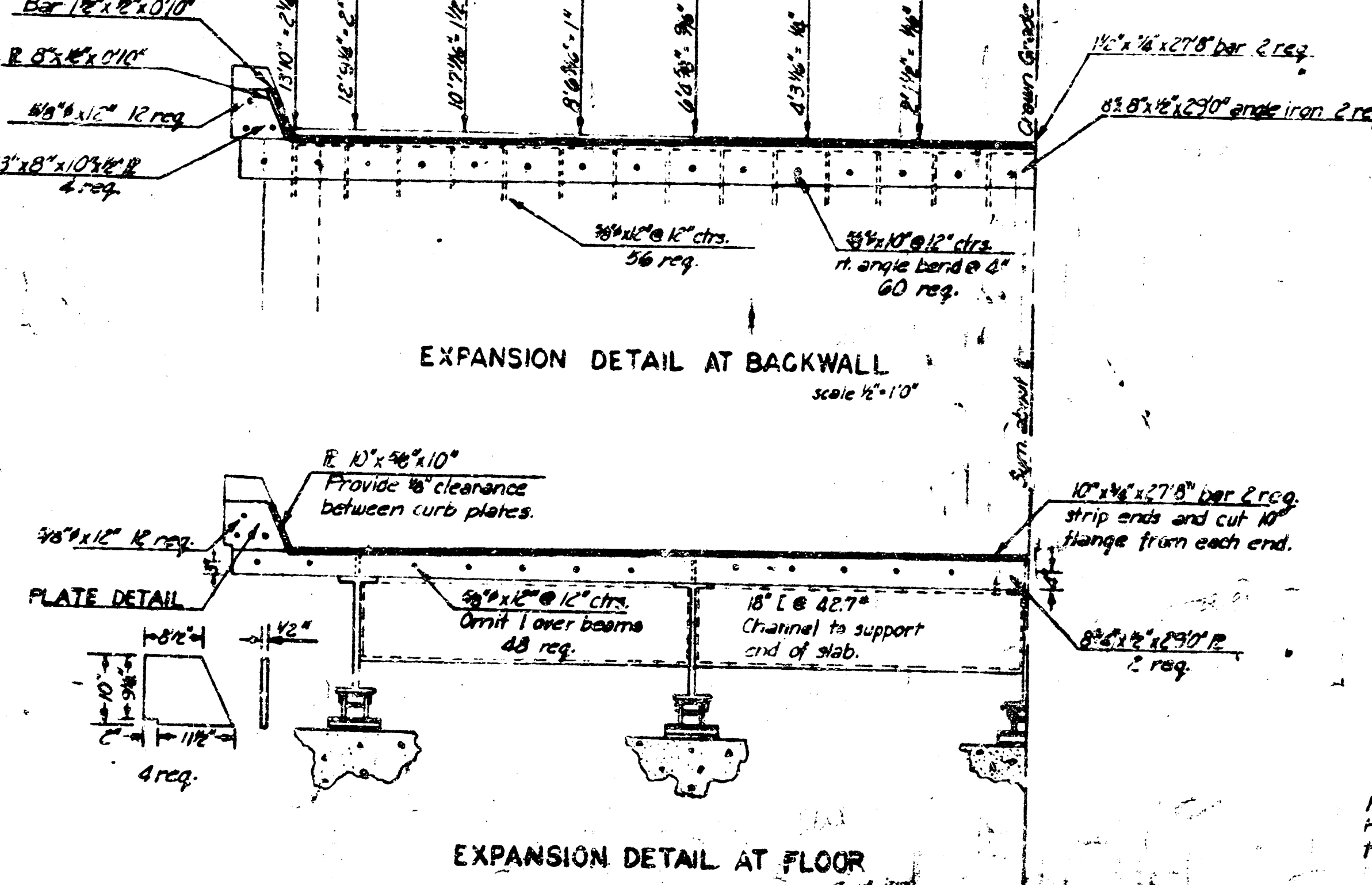
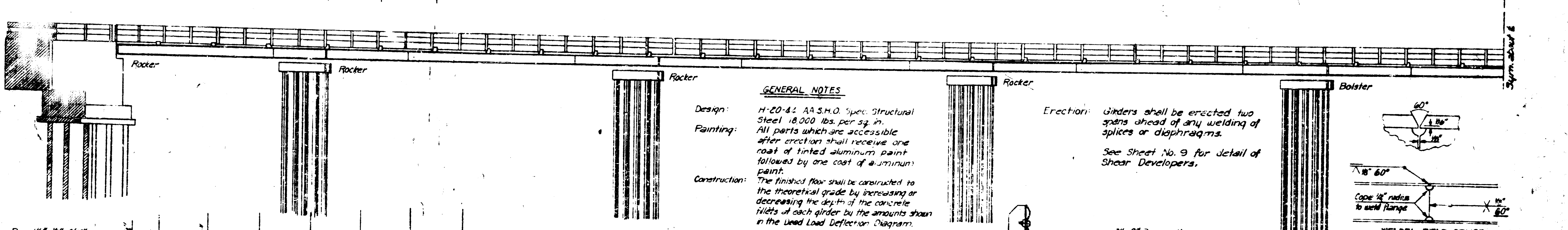
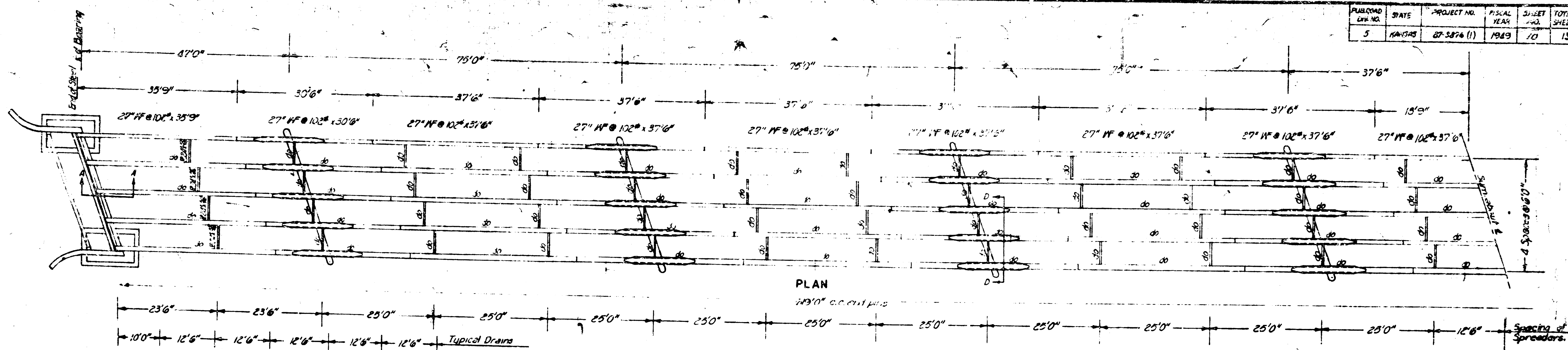
Bar	No.	Size	Length
H	212	5"	28'
H'	211	5"	28'
F	211	5"	28'
L	100	5"	33'

Summary of Quantities	
Class A Concrete	316 C.Y.
Reinforcing Steel	53,620 Lbs.
Bearing Devices	7,628 Lbs.
Flex Beam	1828 L.F.
Flex Beam Ends	4
Handrail Posts	28
Boils	315 Lbs.

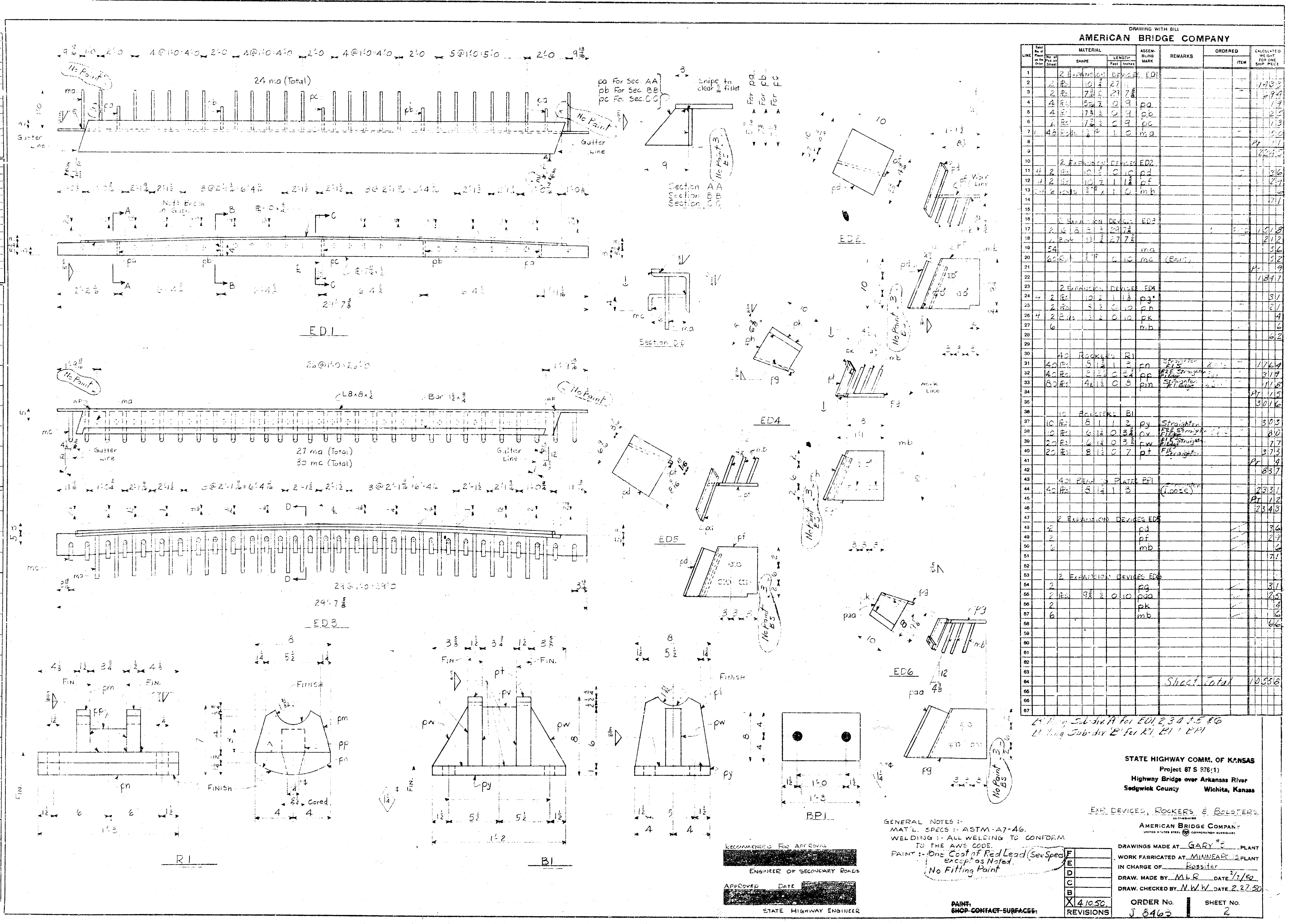


AUXILLARY DETAILS				
BRIDGE NO. 823-T-1600				
PREPARED BY				
SEDGWICK COUNTY ENGINEERING DEPT.				
RUFUS S. KIRK - COUNTY ENGINEER				
REVISED	SCALE	DATE	CHECKED	SHEET NO.
	Noted	5/26/10		

PLAN NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	67-5874 (1)	1949	10	13



DESIGNED BY	CHECKED BY	DATE
R. J. KIRK	R. J. KIRK	9-15-49



DRAWING WITH BILL									
AMERICAN BRIDGE COMPANY									
LINE	QTY	DESCRIPTION	SHAPE	LENTH	ASSEMBLY MARK	REMARKS	ORDERED	ITEM	CALCULATED WEIGHT
1	2	EXPANSION DEVICES	ED1						
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3	2	EXPANSION DEVICES	ED3						
4	2	EXPANSION DEVICES	ED4						
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STATE HIGHWAY COMM. OF KANSAS
Project 87 S 276(1)
Highway Bridge over Arkansas River
Sedgwick County, Wichita, Kansas

EXP. DEVICES, ROCKERS & BOLSTERS

AMERICAN BRIDGE COMPANY
UNITED STATES STEEL CORPORATION

DRAWINGS MADE AT GARY, INDIANA
WORK FABRICATED AT MINNEAPOLIS, MINN.
IN CHARGE OF ROSSITER
DRAW. MADE BY M.L.R. DATE 3/1/50
DRAW. CHECKED BY N.W.W. DATE 2/27/50

ORDER No. 8463 SHEET No. 2

GENERAL NOTES:
MATERIAL SPEC.: ASTM-A7-A6.
WELDING: ALL WELDING TO CONFORM TO THE AWS CODE.
PAINT: One Coat of Red Lead (See Spec.) except as noted.
No Filling Point.

REVISIONS
X 4/10/50

PAINT SHOP CONTACT SURFACES

RECOMMENDED FOR APPROVAL
ENGINEER OF SEDGEMOUNT ROAD
APPROVED DATE
STATE HIGHWAY ENGINEER

