

365

FED. ROAD DIST. No.	STATE	PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.		1929	2	16
JOB No.		939			

# ARKANSAS STATE HIGHWAY COMMISSION

DWIGHT H. BLACKWOOD

CHAIRMAN

JUSTIN MATTHEWS  
J. S. PARKS

J. LAN WILLIAMS  
SAM J. WILSON

COMMISSIONERS

## HIGHWAY BRIDGE OVER WHITE RIVER

MARSH RAINBOW ARCH DESIGN

COTTER ARKANSAS

ON HIGHWAY NO. 62 BAXTER-MARION COUNTIES S 9 & 10

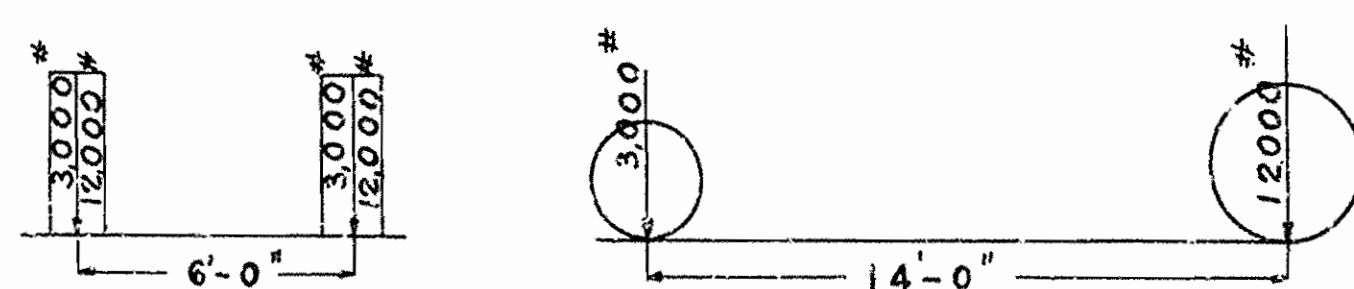
C.S. CHRISTIAN  
HIGHWAY ENGINEER

N.B. GARVER  
BRIDGE ENGINEER

MARSH ENGINEERING COMPANY  
CONSULTING ENGINEERS  
DES MOINES IOWA

	SHEET NO	DRWG. NO.
LOCATION SKETCH	1	4931
TITLE SHEET	2	4932
PLAN & PROFILE	3	4933
PLAN VIEW ELEVATION & BORINGS	4	4934
SITUATION PLAN OF BRIDGE SITE	5	4935
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DETAILS OF TOLL TAKER'S RESIDENCE	16	4946

WHEEL CONCENTRATIONS, CLASS A LOADING

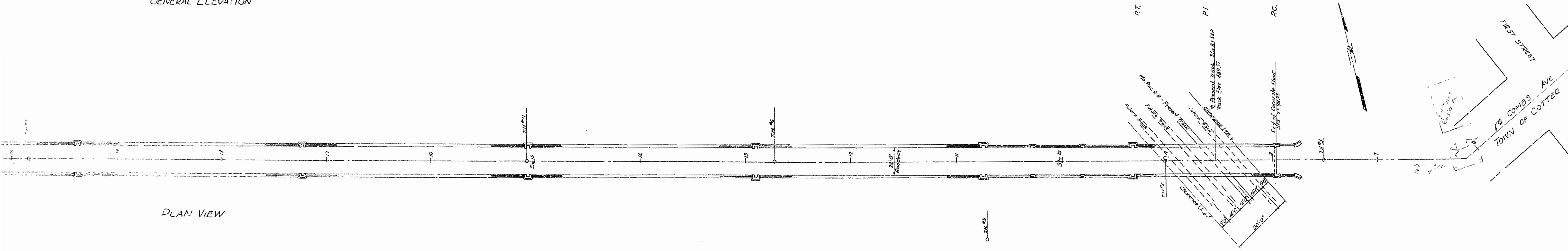
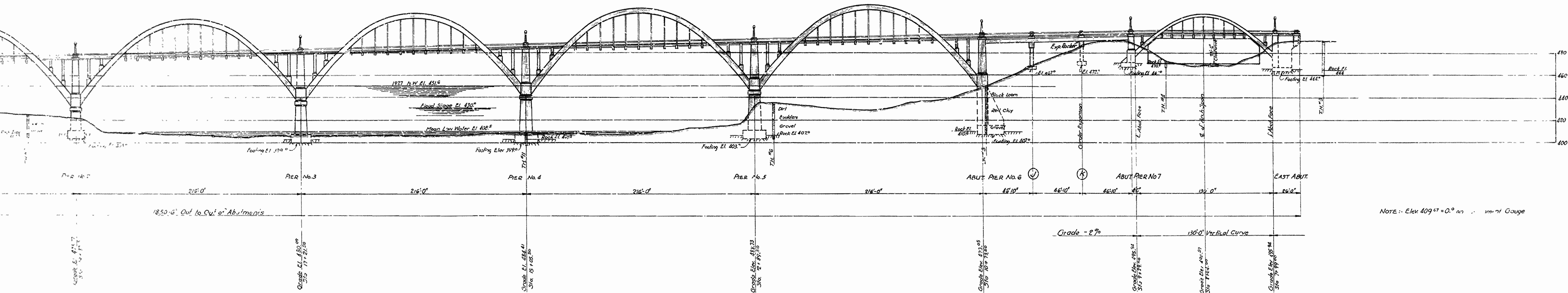


2-15 TON TRUCKS

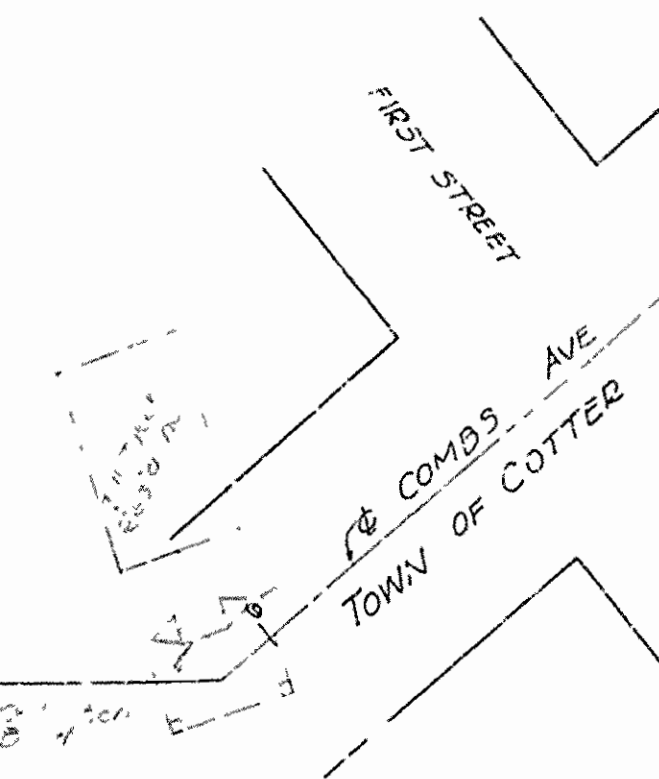
EQUIVALENT UNIFORM LIVE LOADS

25 IMPACT

STATE HIGHWAY JOB NO. 939

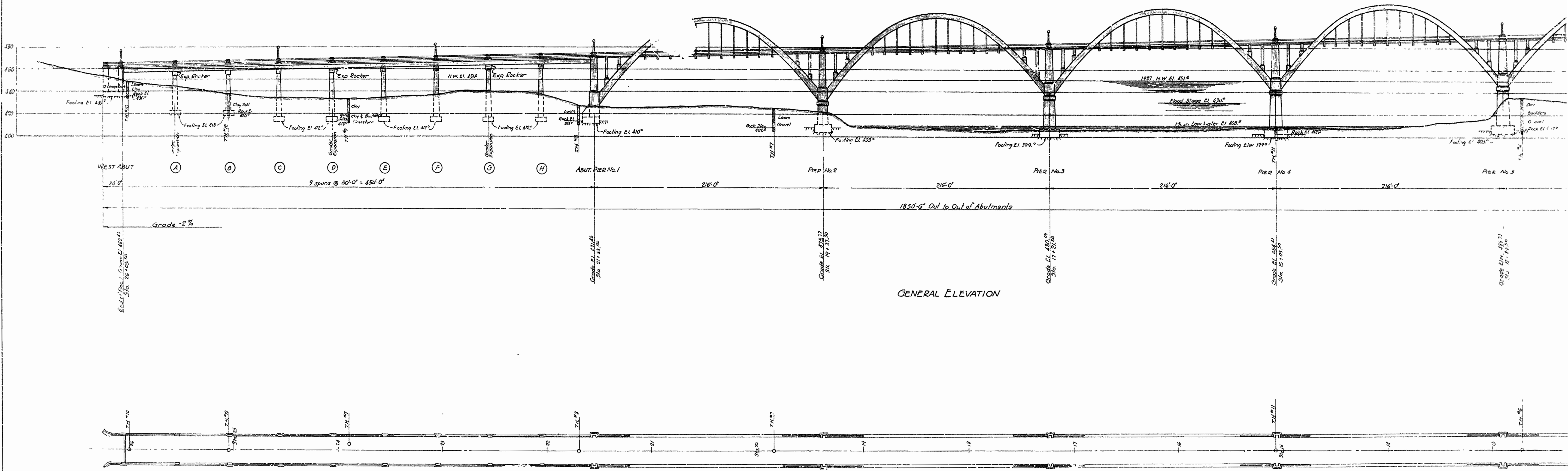


NOTE: Elev 409.47 = 0.0 on ... m. of Gauge



ARKANSAS STATE HIGHWAY COMMISSION  
 HIGHWAY BRIDGE OVER WHITE RIVER  
 MARSH RAINBOW ARCH DESIGN  
 AT COTTER, ARKANSAS  
 BETWEEN BAXTER & MARION COUNTIES  
 PLAN, ELEVATION, AND BORINGS

Scale: 1" = 40'-0"  
 August 1929.  
 BR. No. 702  
 MARSH ENGINEERING CO.  
 Consulting Engineers  
 Des Moines, IOWA.  
 DRWG. No. 4934

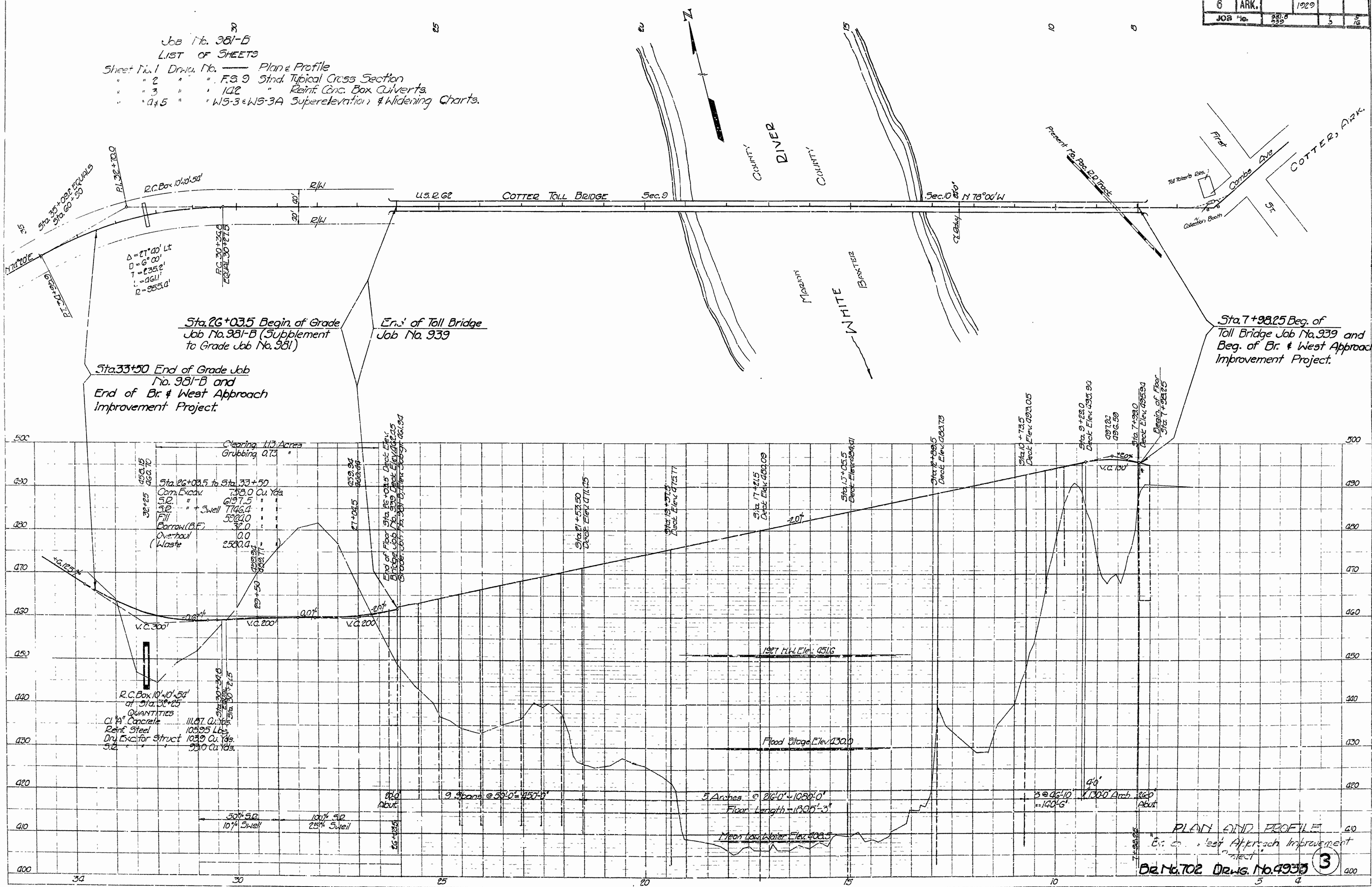


Note:- The Contractor shall submit to the Engineer for checking and approval the shop drawings for all fabricated steel. The shop drawings must show in detail every structural element. The circular arcs and co-ordinates of each working point must be accurately determined and shown.

The Contractor shall also submit to the Engineer for checking and approval, his plans for centering and falsework before work is started. The centering and falsework for the arch span over the Missouri Pacific Railroad tracks must be so designed and constructed that it will provide and maintain the proper clearances as required by said Railroad Company for the safe and uninterrupted movement of its traffic.

FED. ROAD DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.		1929	3	5
JOB No.	381-B			3	5

Job No. 381-B  
 LIST OF SHEETS  
 Sheet No. 1 Draw. No. — Plan & Profile  
 " 2 " " F.S. 9 Std. Typical Cross Section  
 " 3 " " 142 " Reinf. Conc. Box Culverts  
 " 4 & 5 " " W5-3 & W5-3A Superelevation & Widening Charts.



$\Delta = 27' 40''$  Lt  
 $D = 6' 00''$   
 $T = 235.2'$   
 $L = 1611'$   
 $R = 955.4'$

Sta. 26+03.5 Begin of Grade Job No. 981-B (Supplement to Grade Job No. 981)  
 End of Toll Bridge Job No. 939

Sta. 33+50 End of Grade Job No. 981-B and End of Br. & West Approach Improvement Project.

Sta. 7+98.25 Beg. of Toll Bridge Job No. 939 and Beg. of Br. & West Approach Improvement Project.

Clearing 11.3 Acres  
 Grubbing 0.73  
 Sta. 26+03.5 to Sta. 33+50  
 Com. Excav. 253.0 Cu. Yds  
 Fill 697.5  
 " + Swell 746.4  
 Barrow (B.F.) 532.0  
 Overhaul 0.0  
 Waste 2500.0

R.C. Box 10'x10'x50'  
 of Sta. 26+03.5  
 QUANTITIES  
 C. & G. Concrete 111.67 Cu. Yds  
 Reinf. Steel 10595 Lbs.  
 Dry Excavator Struct 1039 Cu. Yds.  
 S.C.

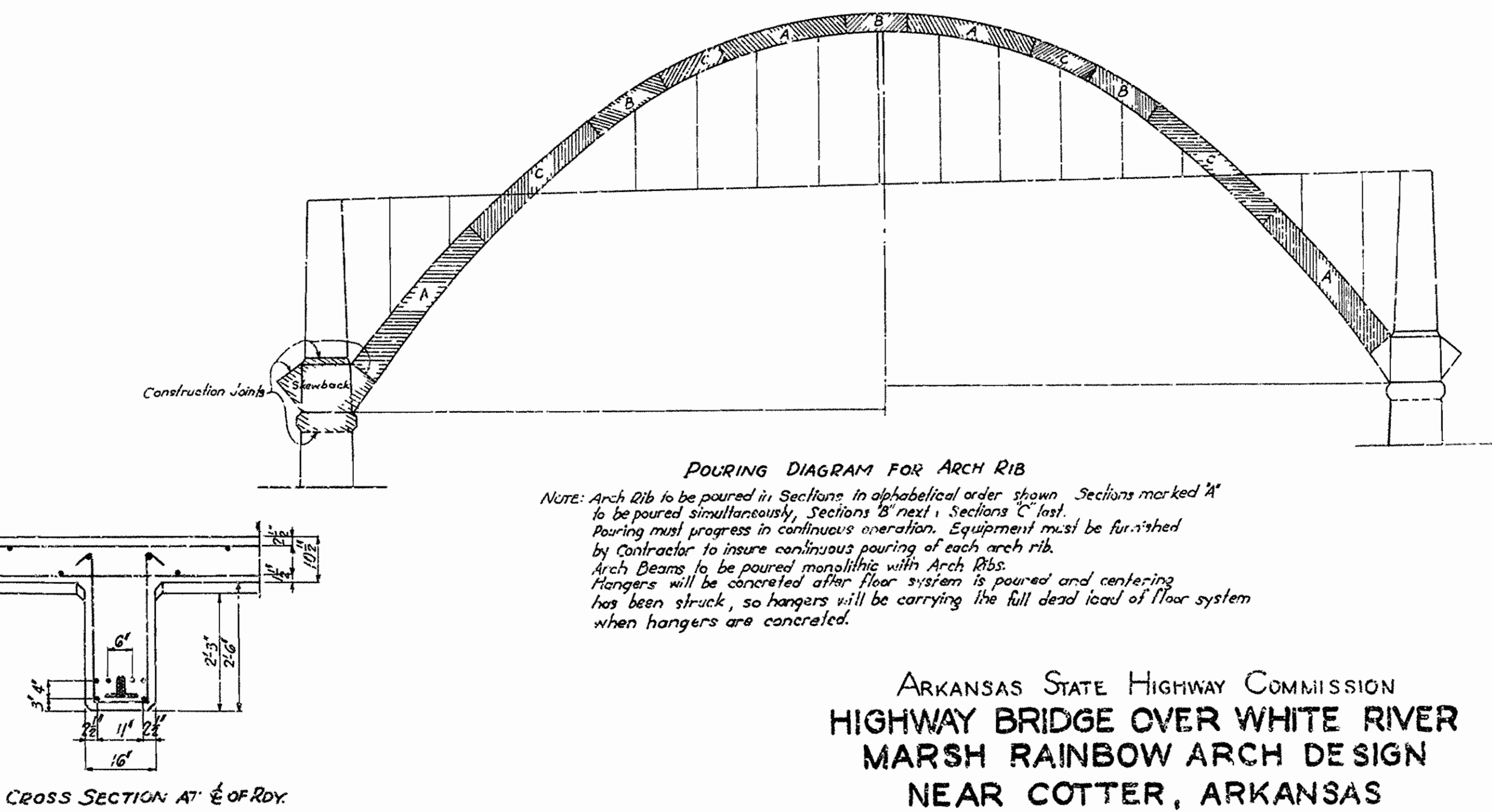
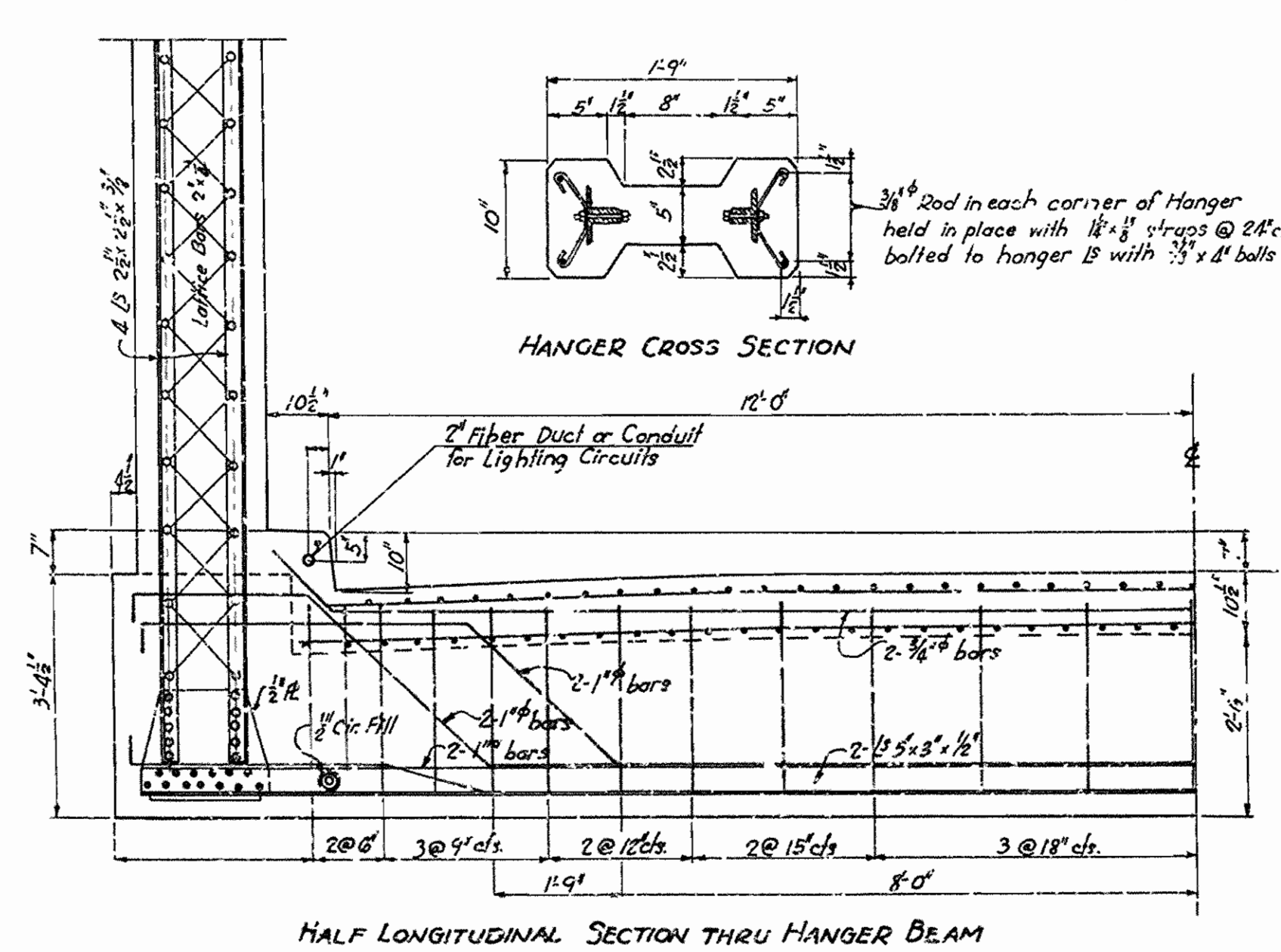
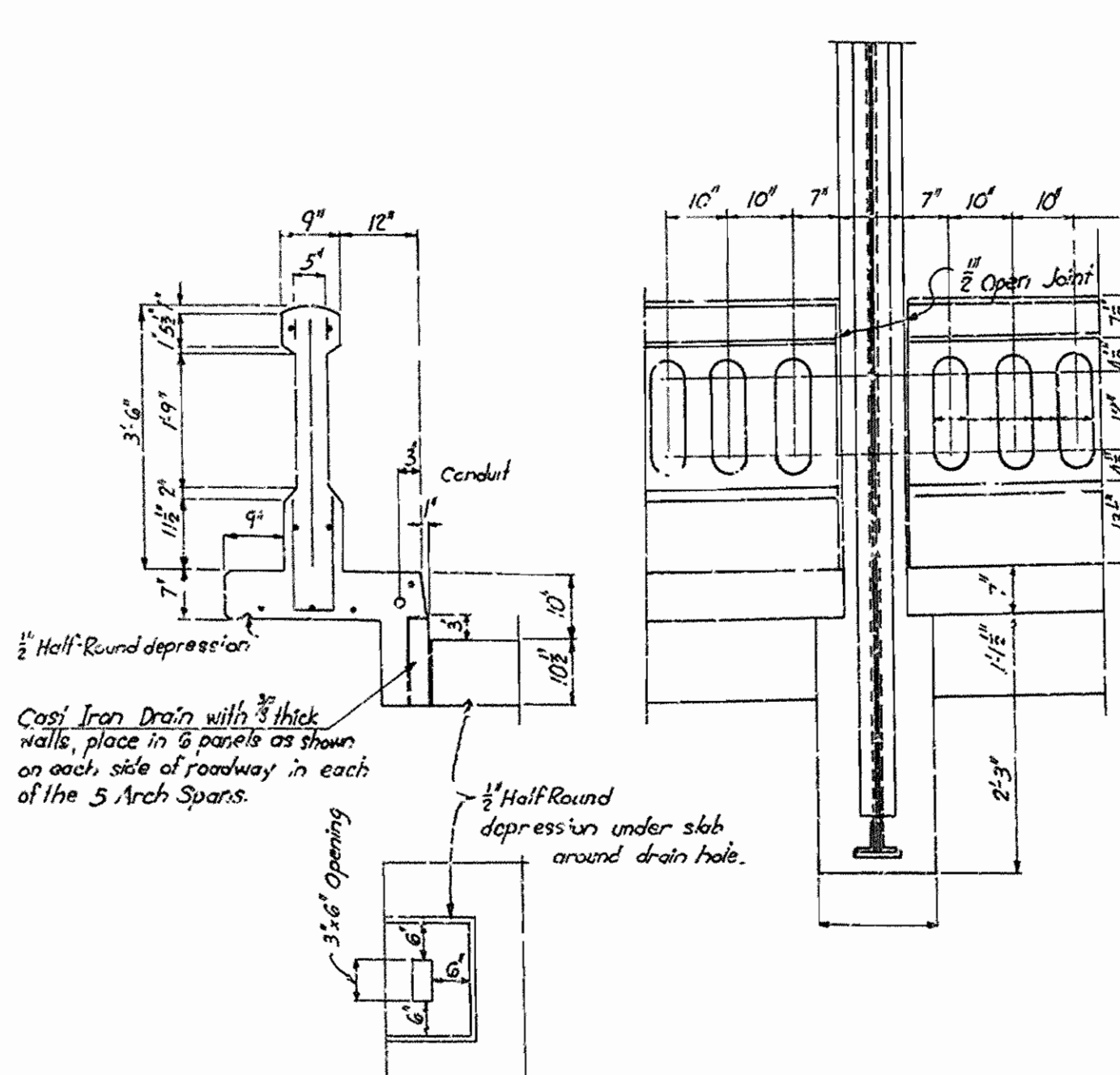
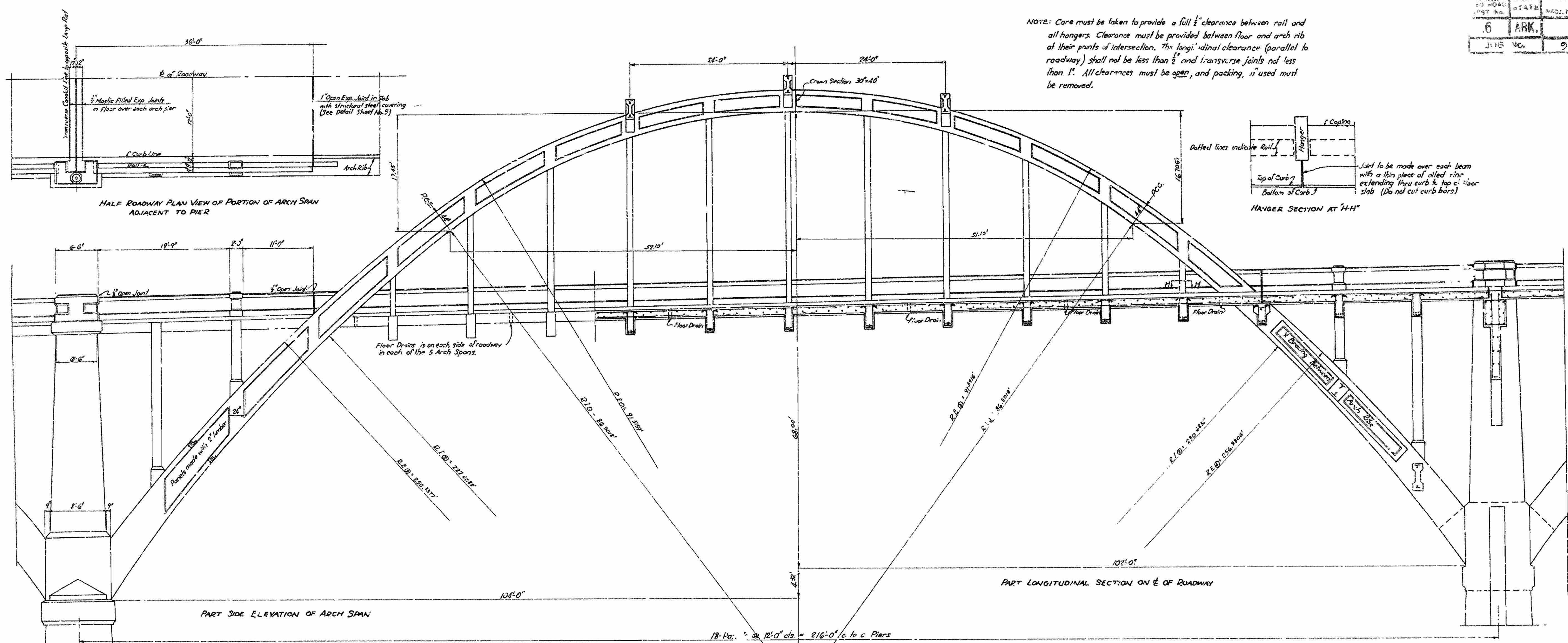
PLAN AND PROFILE  
 E. C. West Approach Improvement Project  
 DR. H. T. ORR, DRWG. NO. 4933 (3)

ROAD DIST No.	STATE	PROJ No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.		1929	5	16
JOB No.		939			

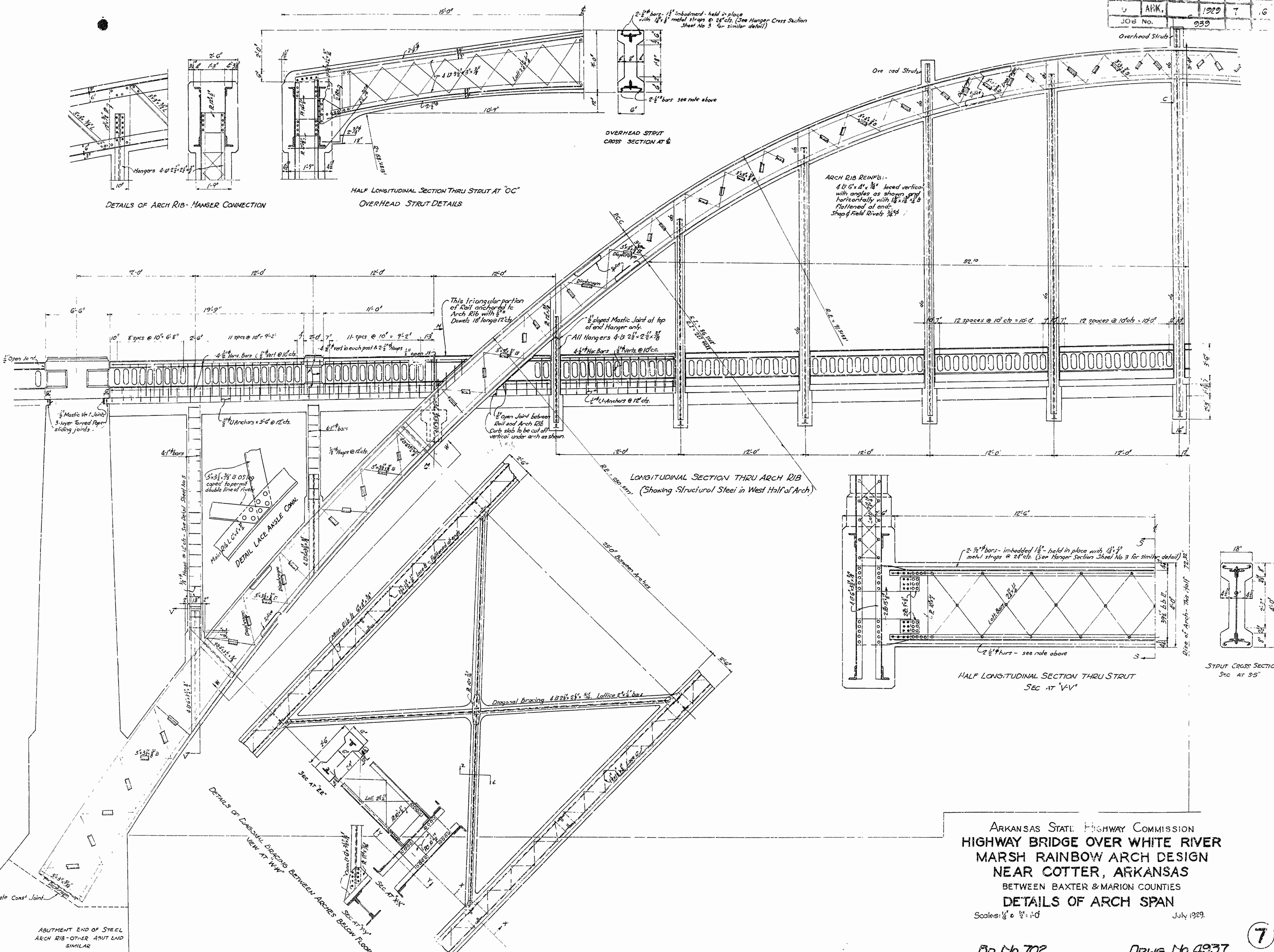


ARKANSAS STATE HIGHWAY COMMISSION  
 HIGHWAY BRIDGE OVER WHITE RIVER  
 ON HIGHWAY NO. 12  
 NEAR COTTER, ARKANSAS  
 BETWEEN BAXTER & MARION COUNTIES  
 SITUATION PLAN OF BRIDGE SITE  
 Scale: 1" = 150'-0"  
 June 1929

STATE	DATE	PROJ. NO.	REV.	BY	CHK.
ARK.	1929	G	16		
JOB NO.	939				



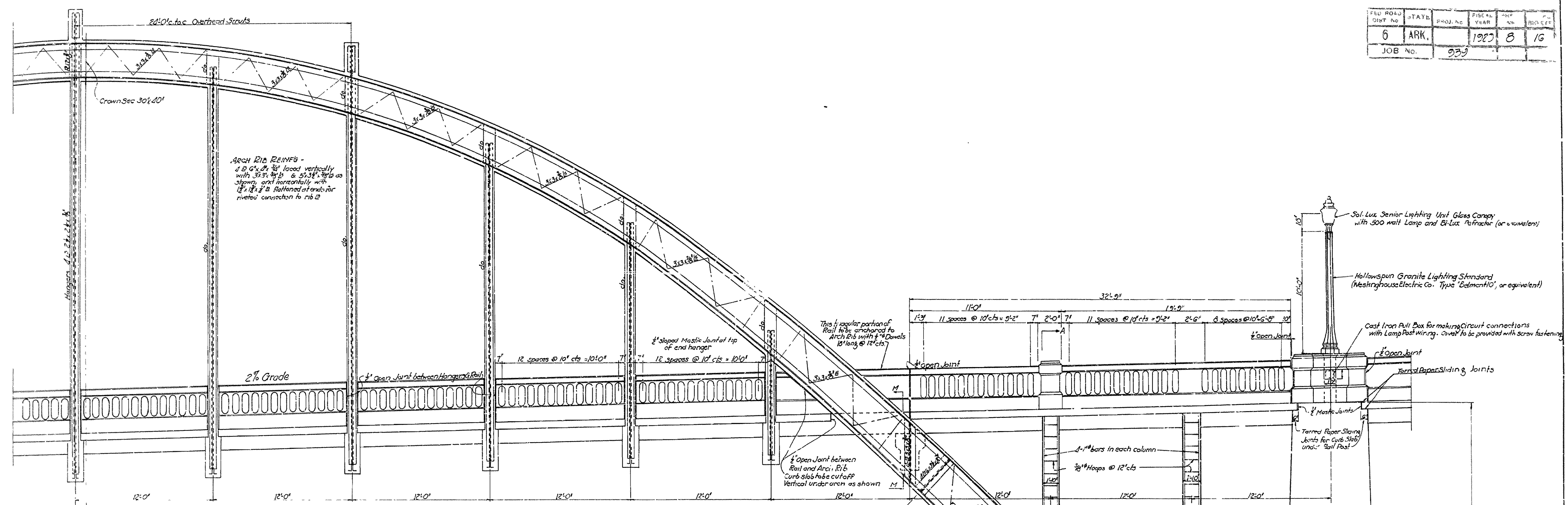
ARKANSAS STATE HIGHWAY COMMISSION  
 HIGHWAY BRIDGE OVER WHITE RIVER  
 MARSH RAINBOW ARCH DE SIGN  
 NEAR COTTER, ARKANSAS  
 BETWEEN BAXTER & MARION COUNTIES  
 DETAILS OF ARCH SPAN  
 Scales: 1/4" = 1'-0" & 3/8" = 1'-0"  
 July 1929



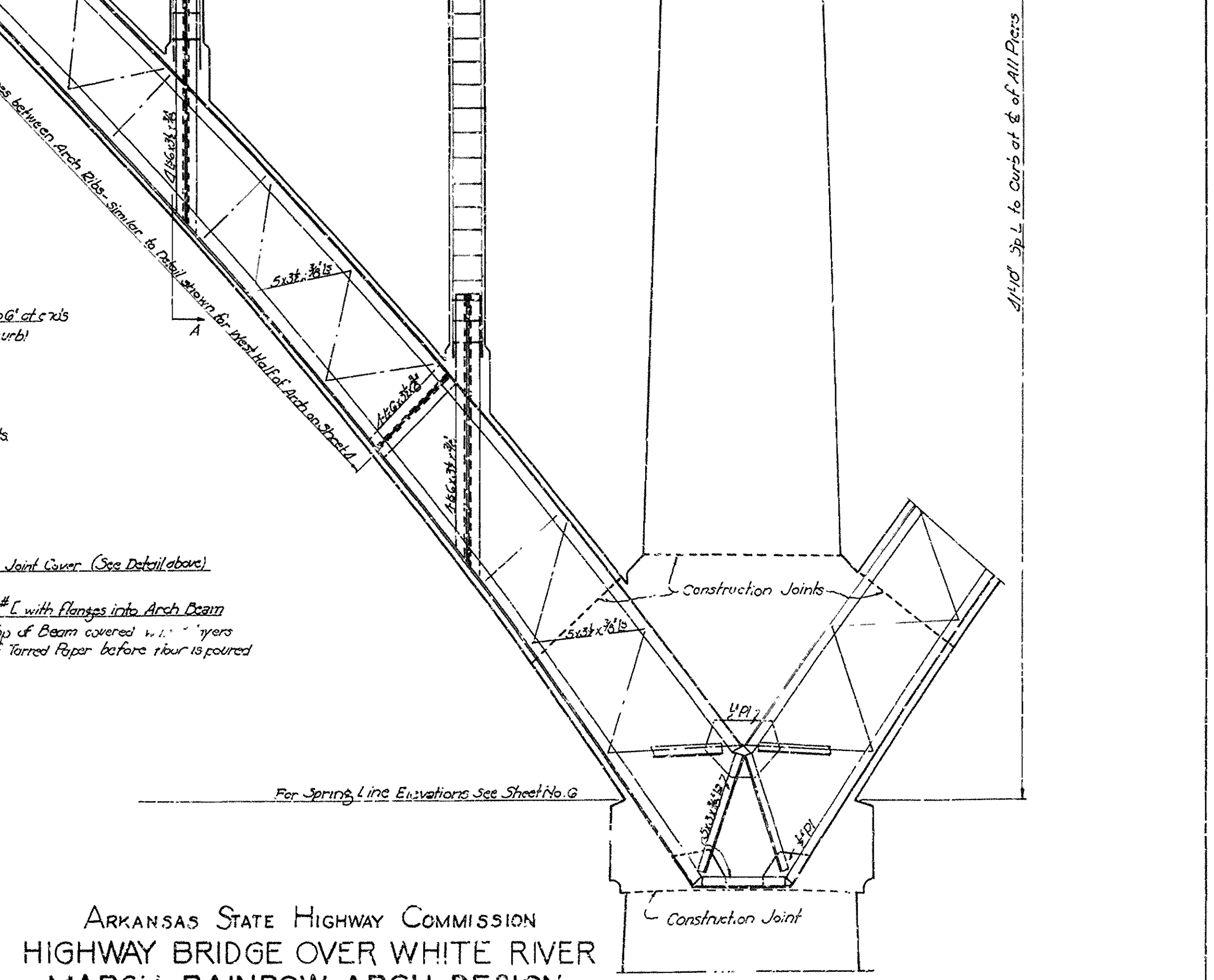
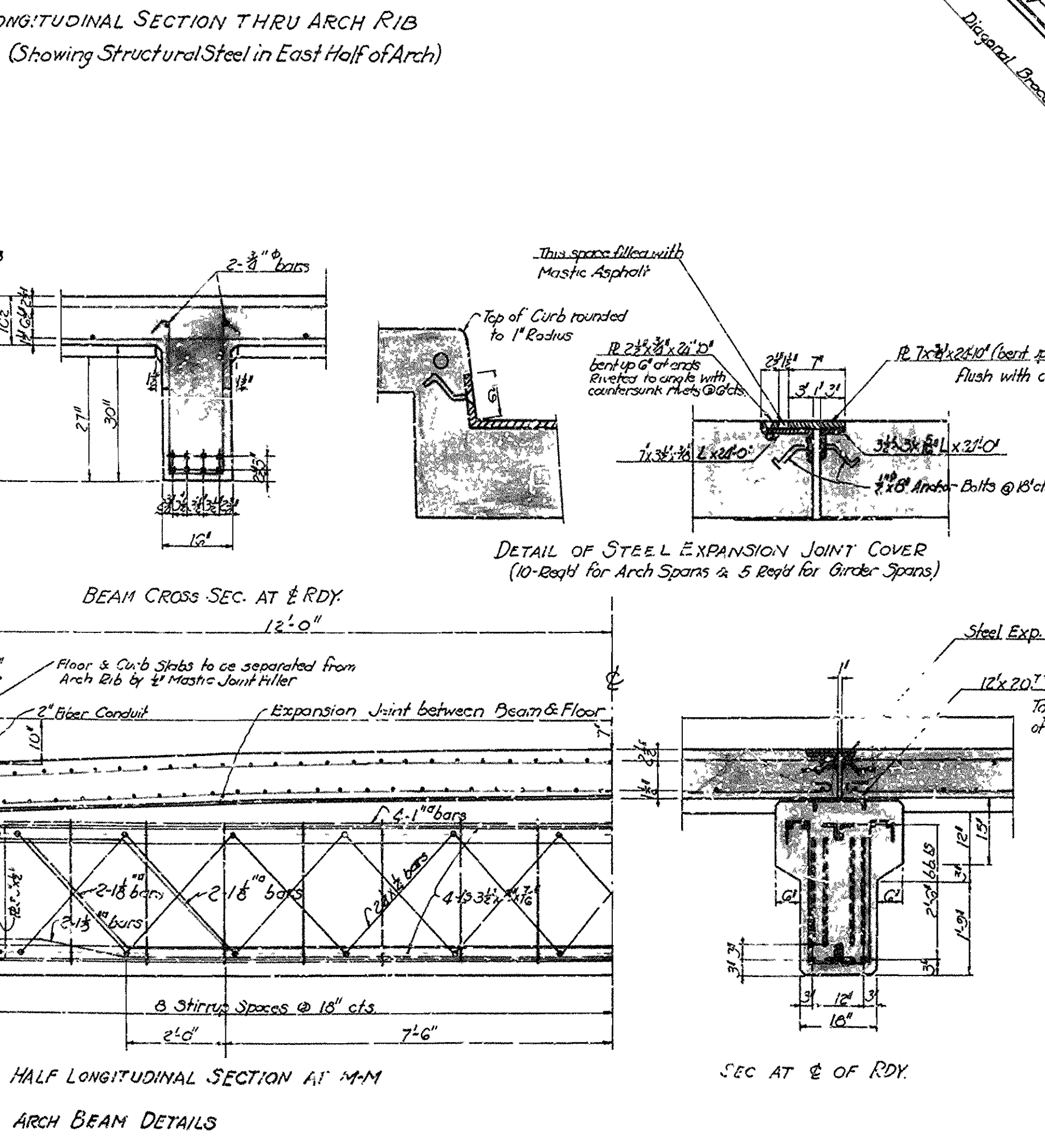
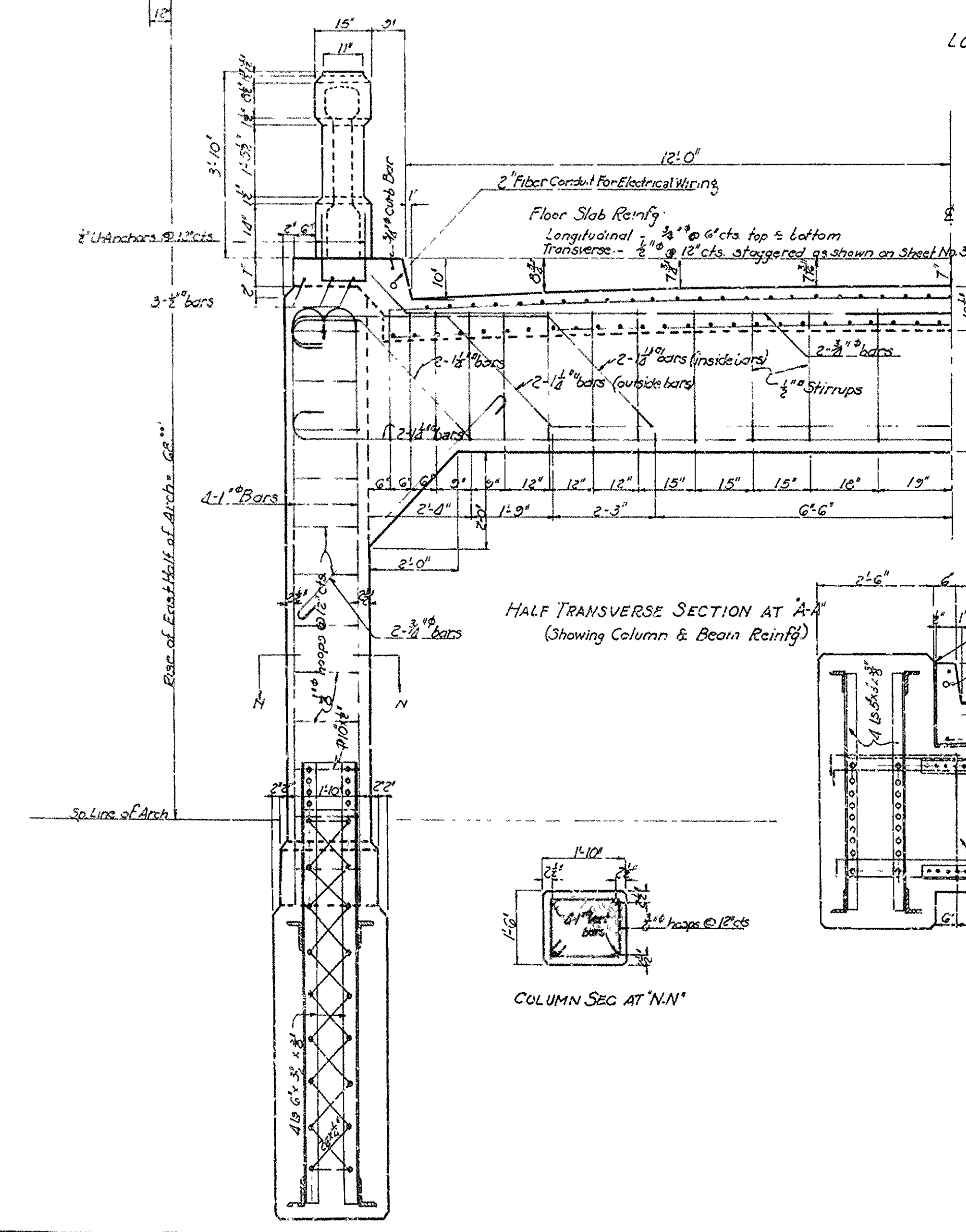
ARKANSAS STATE HIGHWAY COMMISSION  
**HIGHWAY BRIDGE OVER WHITE RIVER**  
**MARSH RAINBOW ARCH DESIGN**  
 NEAR COTTER, ARKANSAS  
 BETWEEN BAXTER & MARION COUNTIES  
**DETAILS OF ARCH SPAN**

Scales: 1/8" = 1'-0" July 1929.

FED. ROAD DIST. No.	STATE	PROJECT No.	YEAR	NO.	DATE
6	ARK.	1927	8	16	
JOB No.		939			



LONGITUDINAL SECTION THRU ARCH RIB  
(Showing Structural Steel in East Half of Arch)



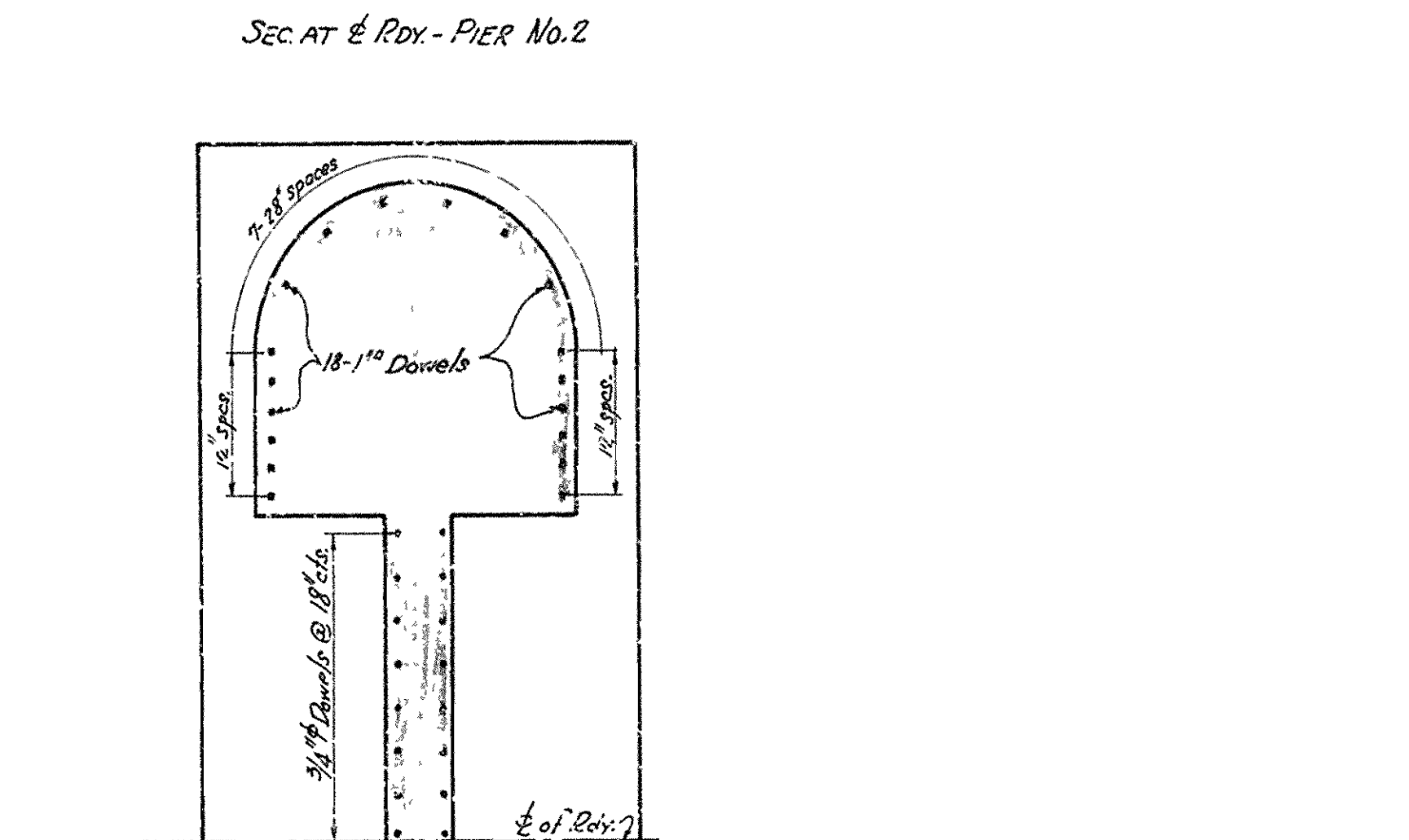
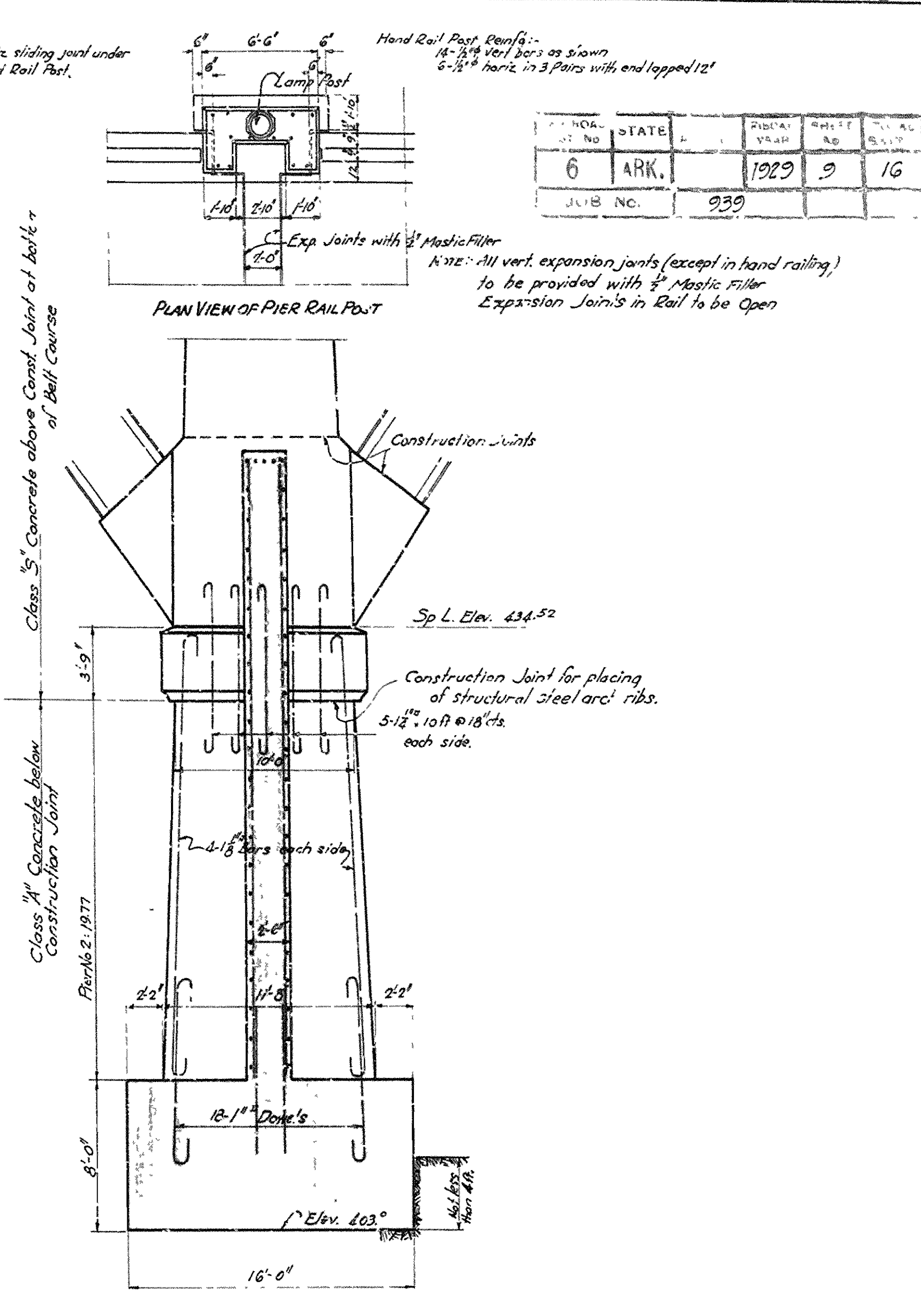
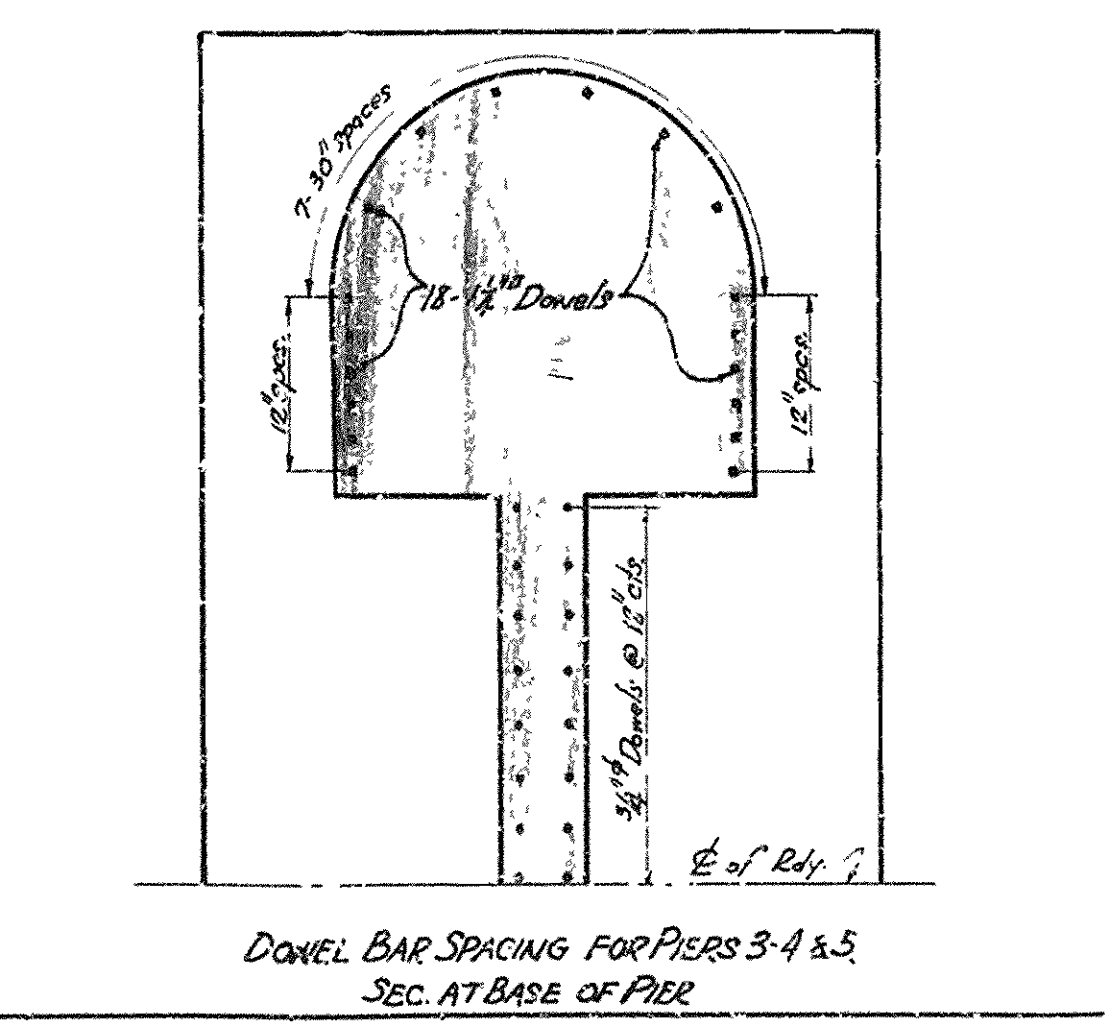
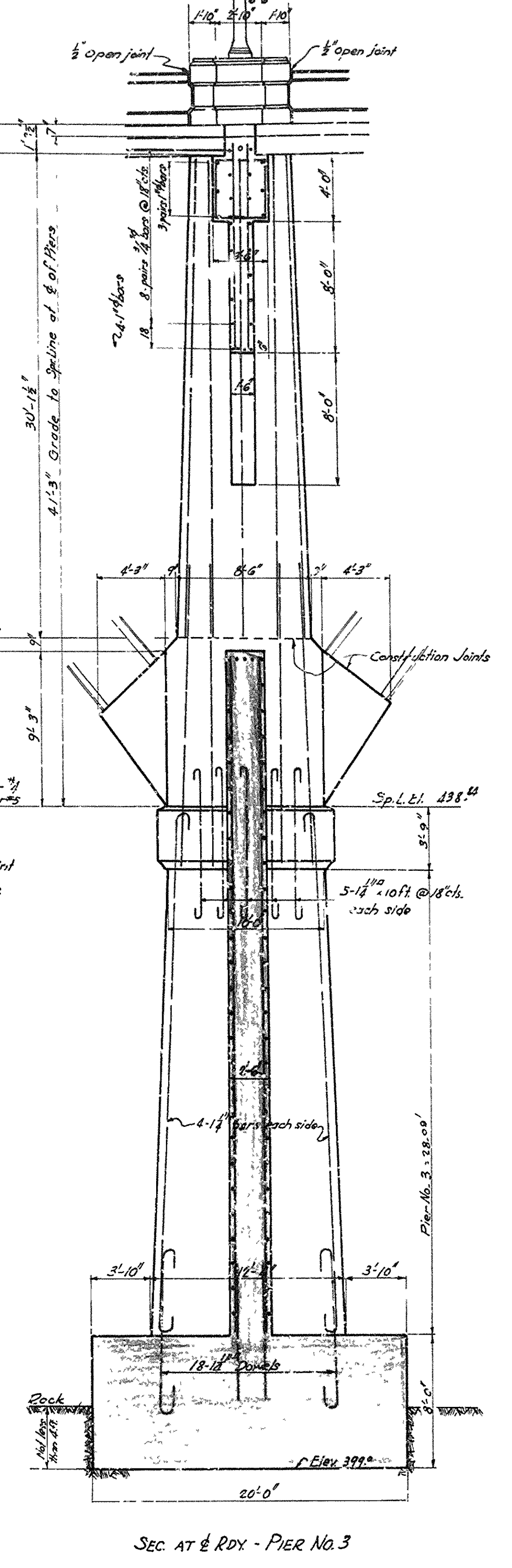
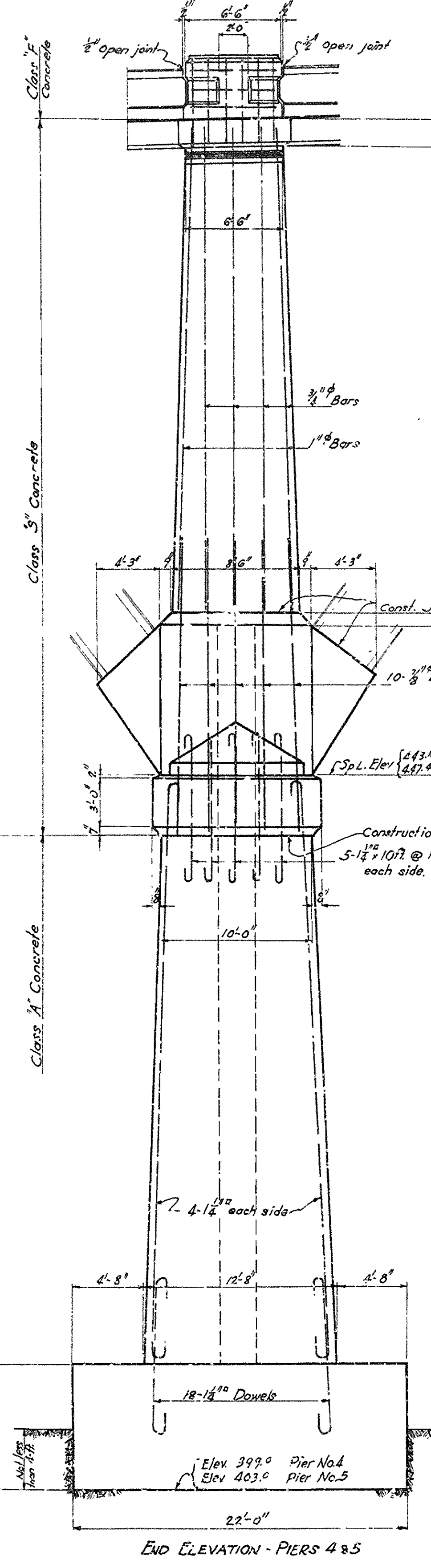
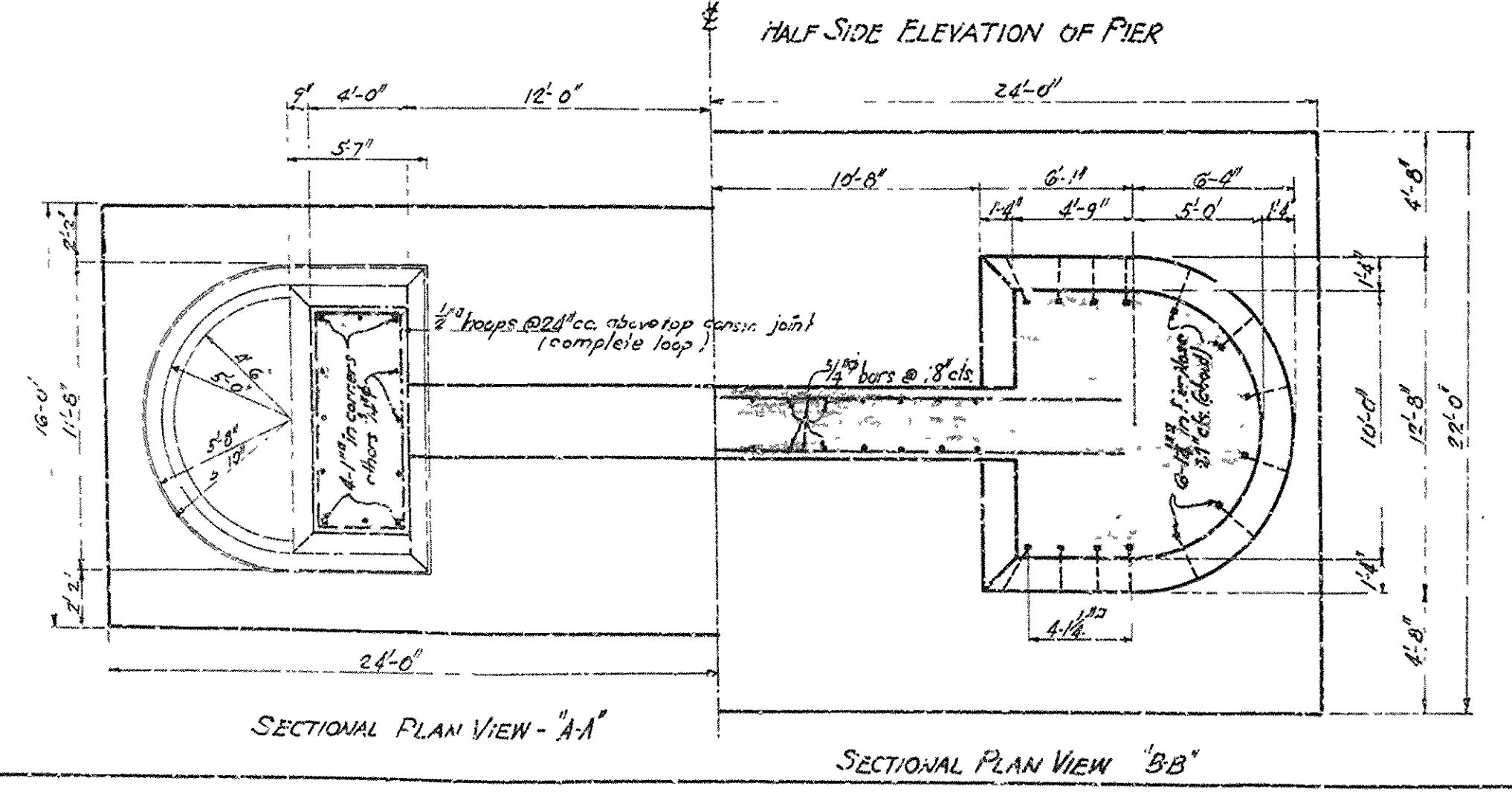
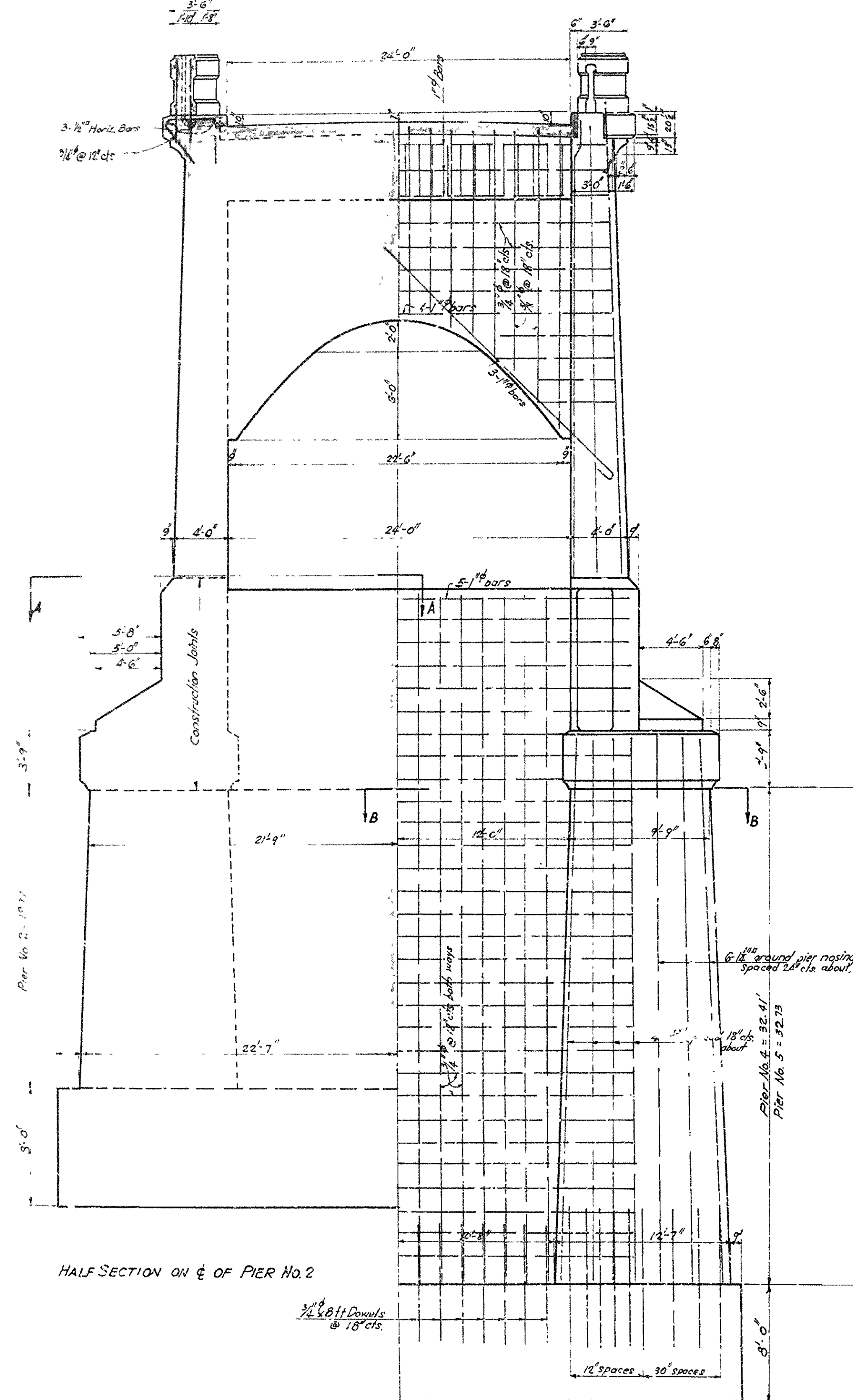
ARKANSAS STATE HIGHWAY COMMISSION  
HIGHWAY BRIDGE OVER WHITE RIVER  
MARSH RAINBOW ARCH DESIGN  
NEAR COTTER ARKANSAS  
BETWEEN BAXTER & MARION COUNTIES  
DETAILS OF ARCH SPAN

Scales 3/4\"/>

July 1929

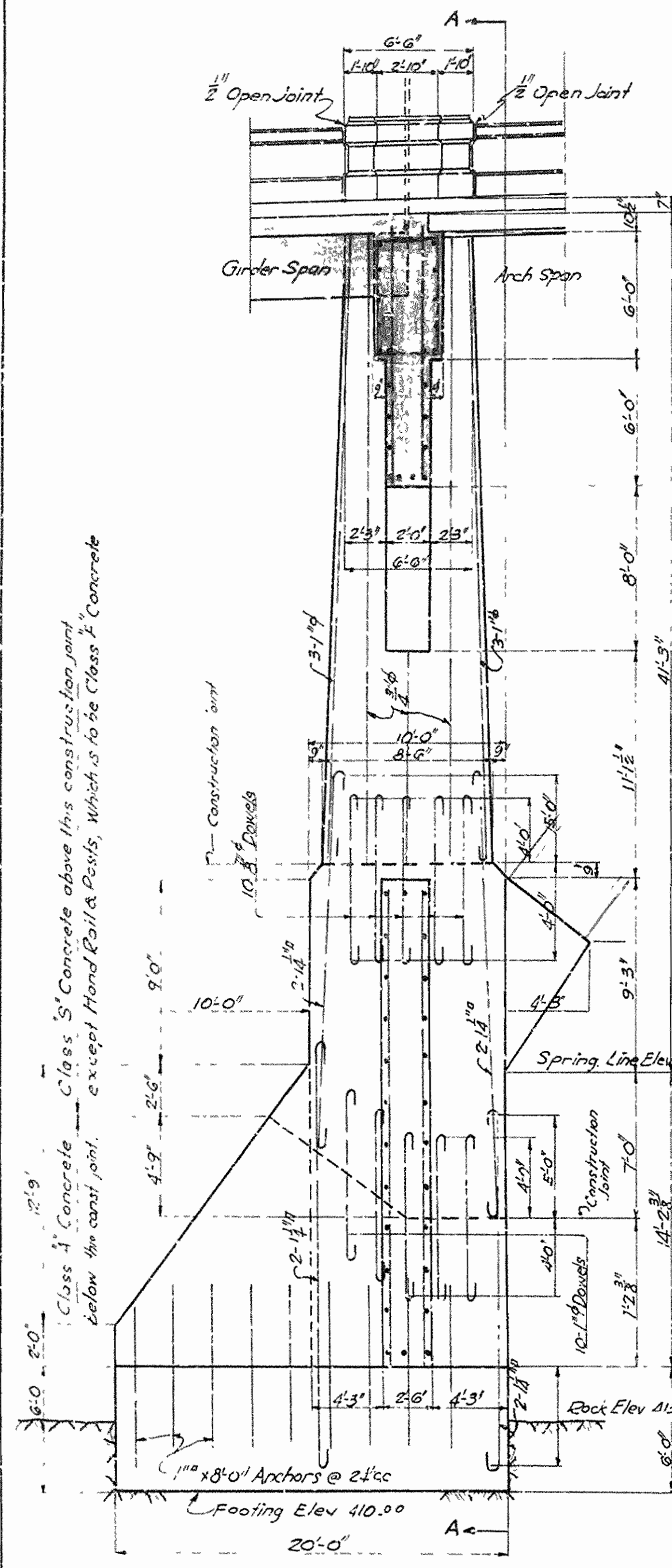


NO. OF NO.	STATE	FEDERAL ROAD DISTRICT	PROJECT NO.	DATE
6	ARK.	1929	9	16
JOB NO.		939		

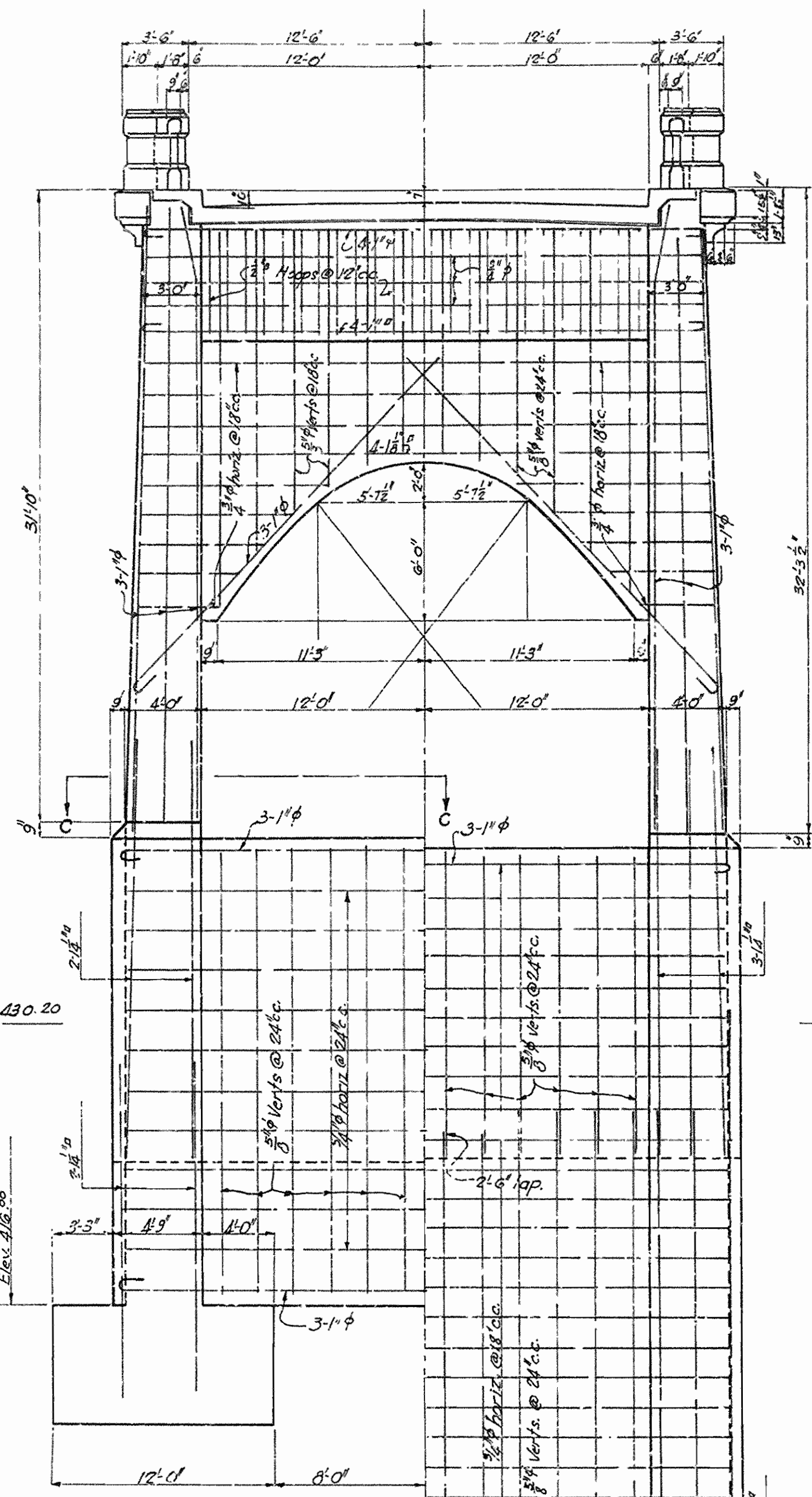


ARKANSAS STATE HIGHWAY COMMISSION  
HIGHWAY BRIDGE OVER WHITE RIVER  
ON HIGHWAY NO. 12  
NEAR COTTER, ARKANSAS  
BETWEEN BAXTER & MARION COUNTIES  
**DETAILS OF PIERS FOR ARCH SPANS**  
Scale: 3/16" = 1'-0"  
July 1929.

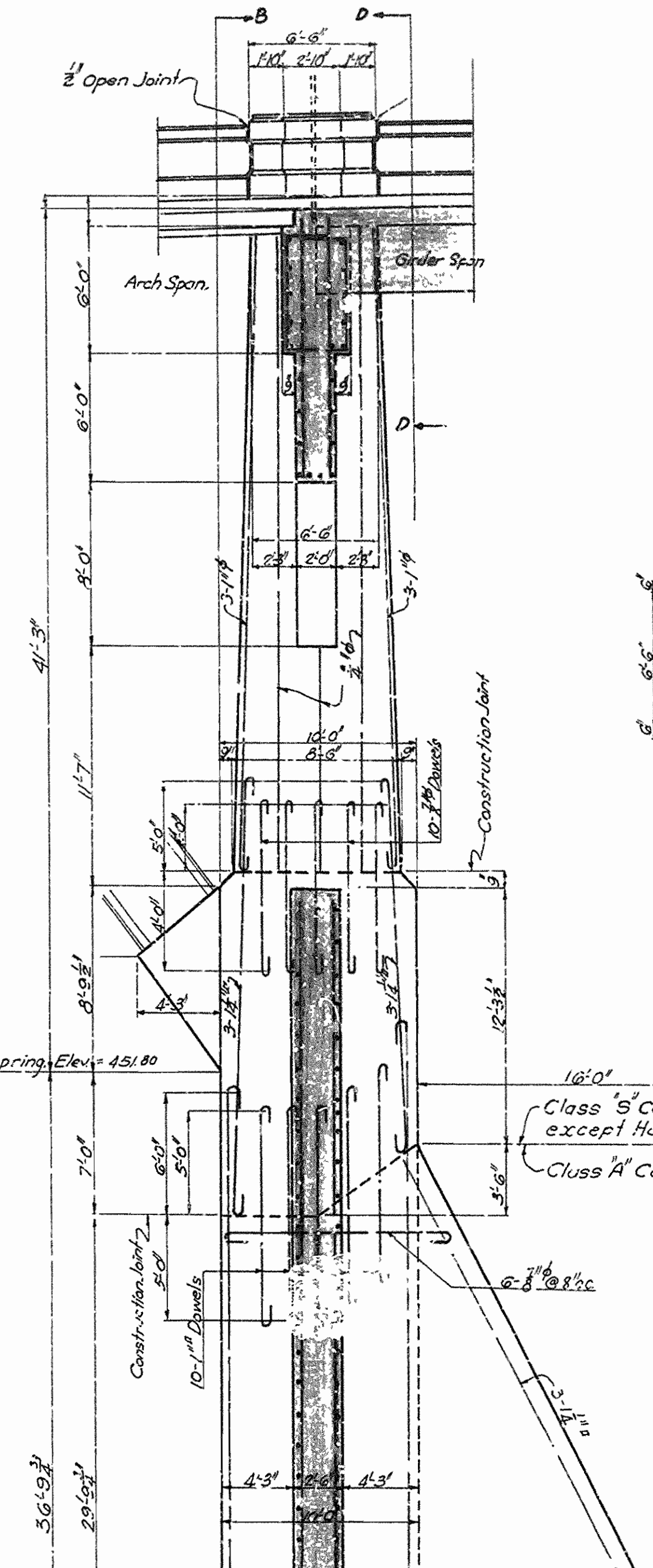
NO. ROLLS	STATE	PROJ. No.	DATE	BY
11	ARK.	1929	10	16
JOB No.	933			



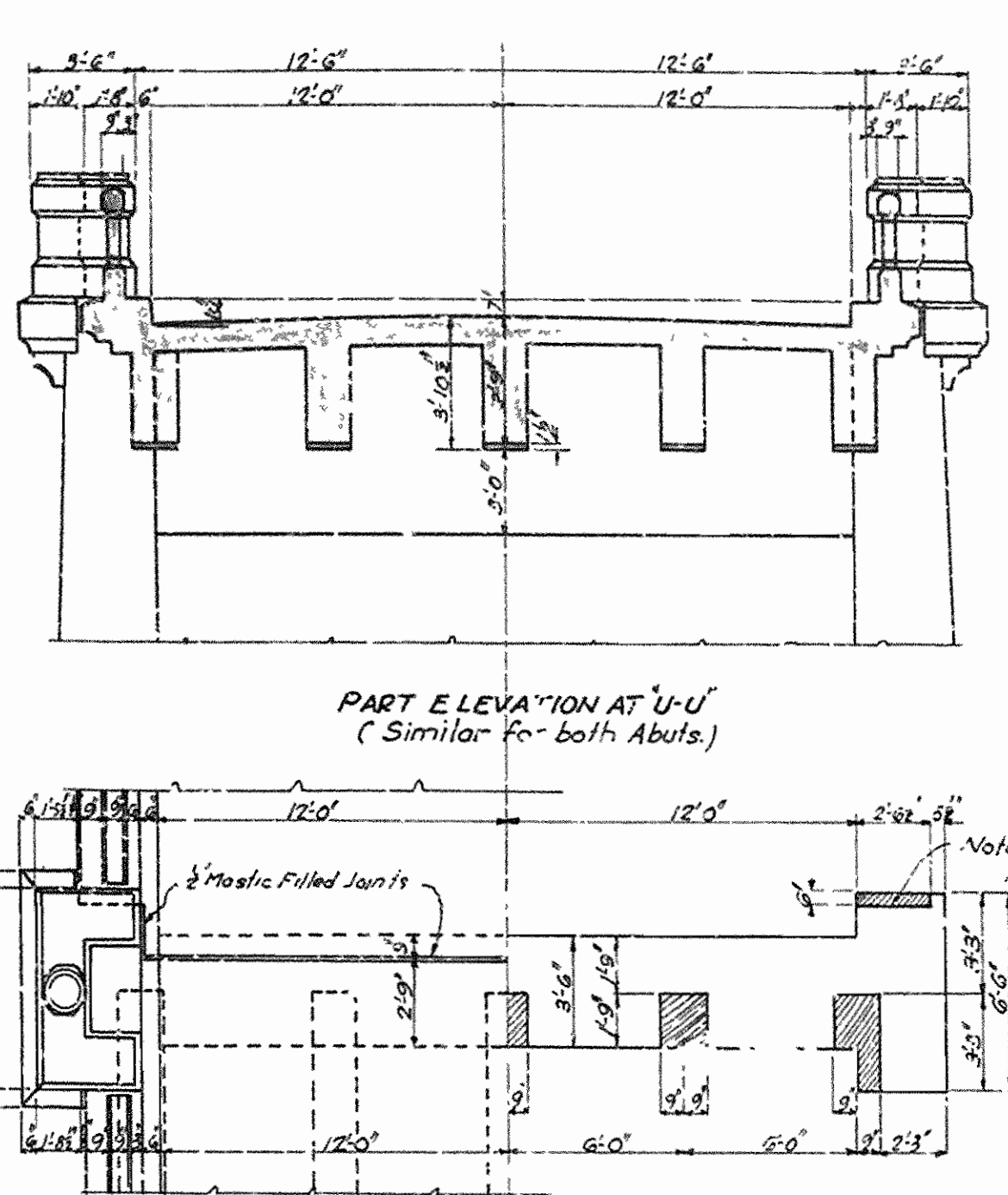
SECTION AT 1/2 OF ROADWAY



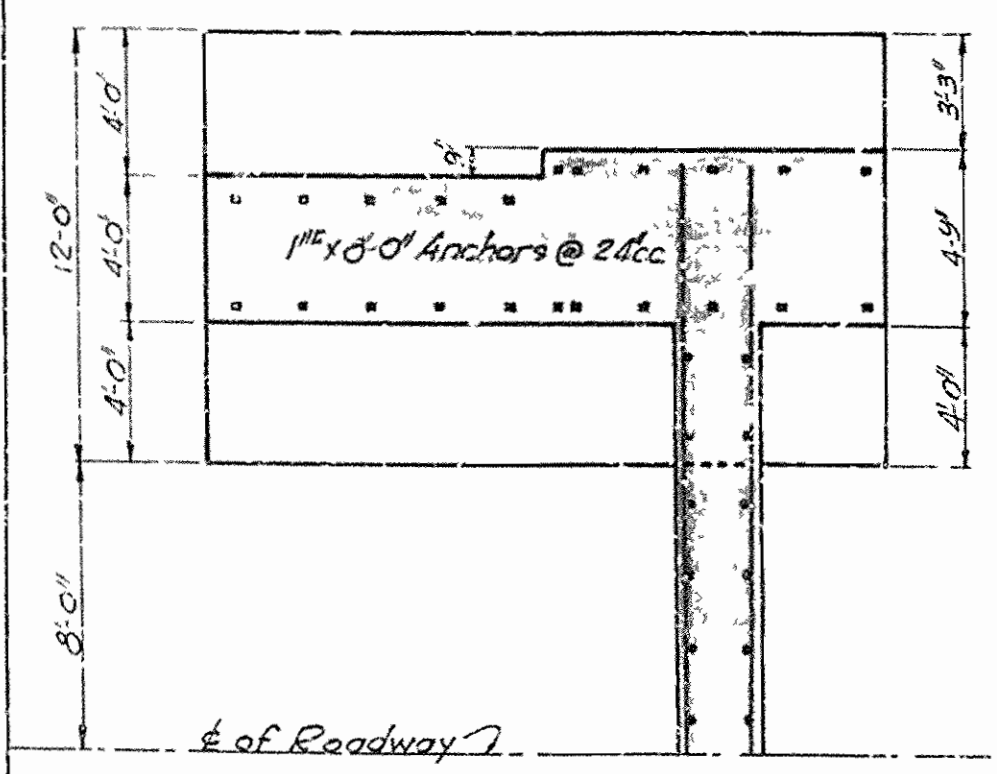
HALF ELEVATION AT 'A-A'



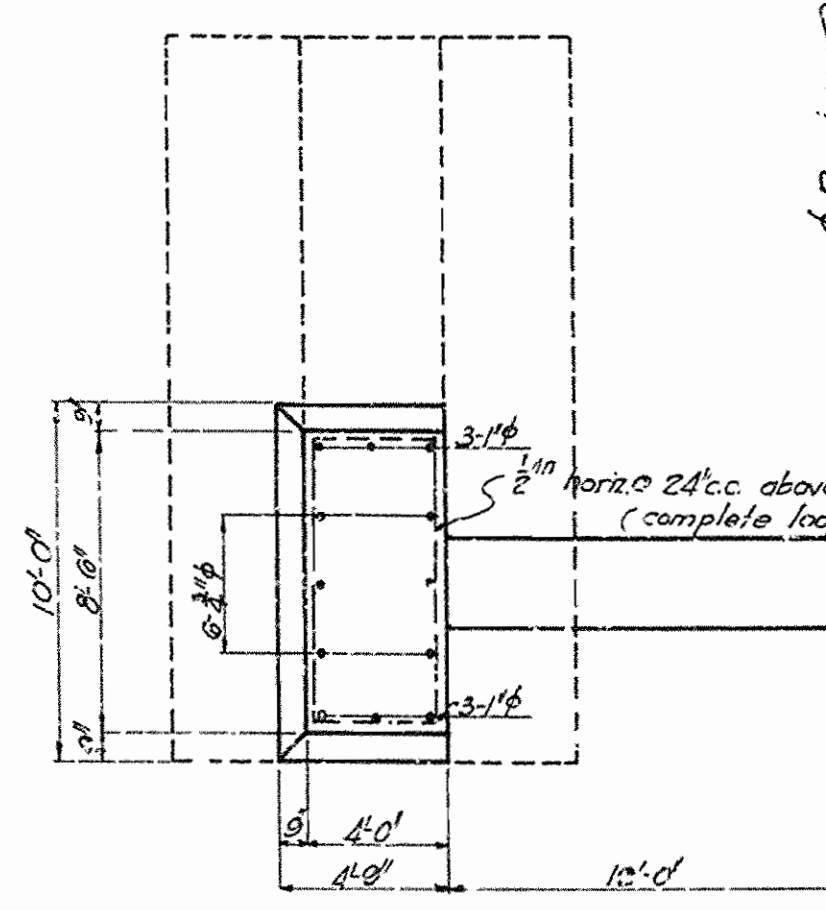
SECTION A-A 1/2 OF ROADWAY



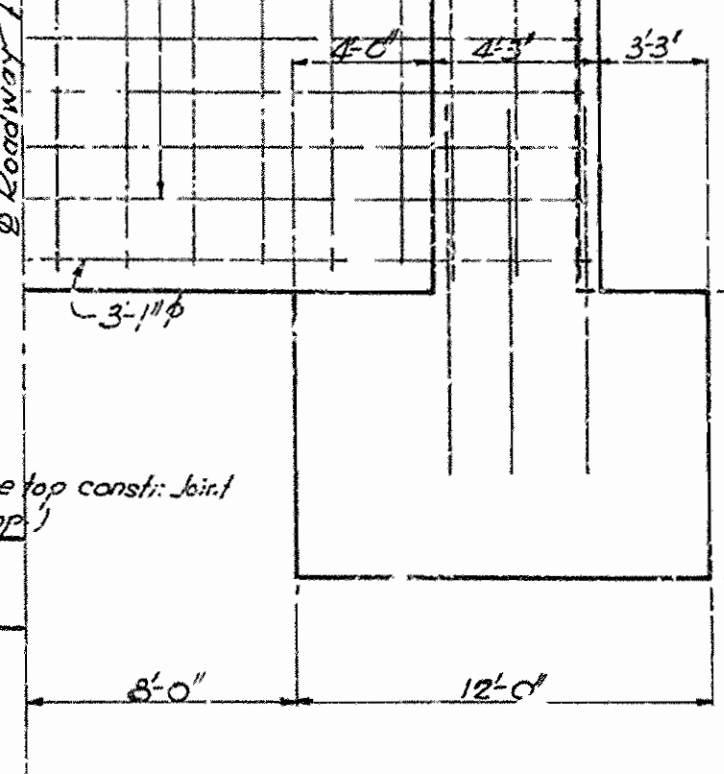
PART PLAN (ABOVE FLOOR) PART PLAN (BELOW FLOOR)  
(Similar for both Abuts.)



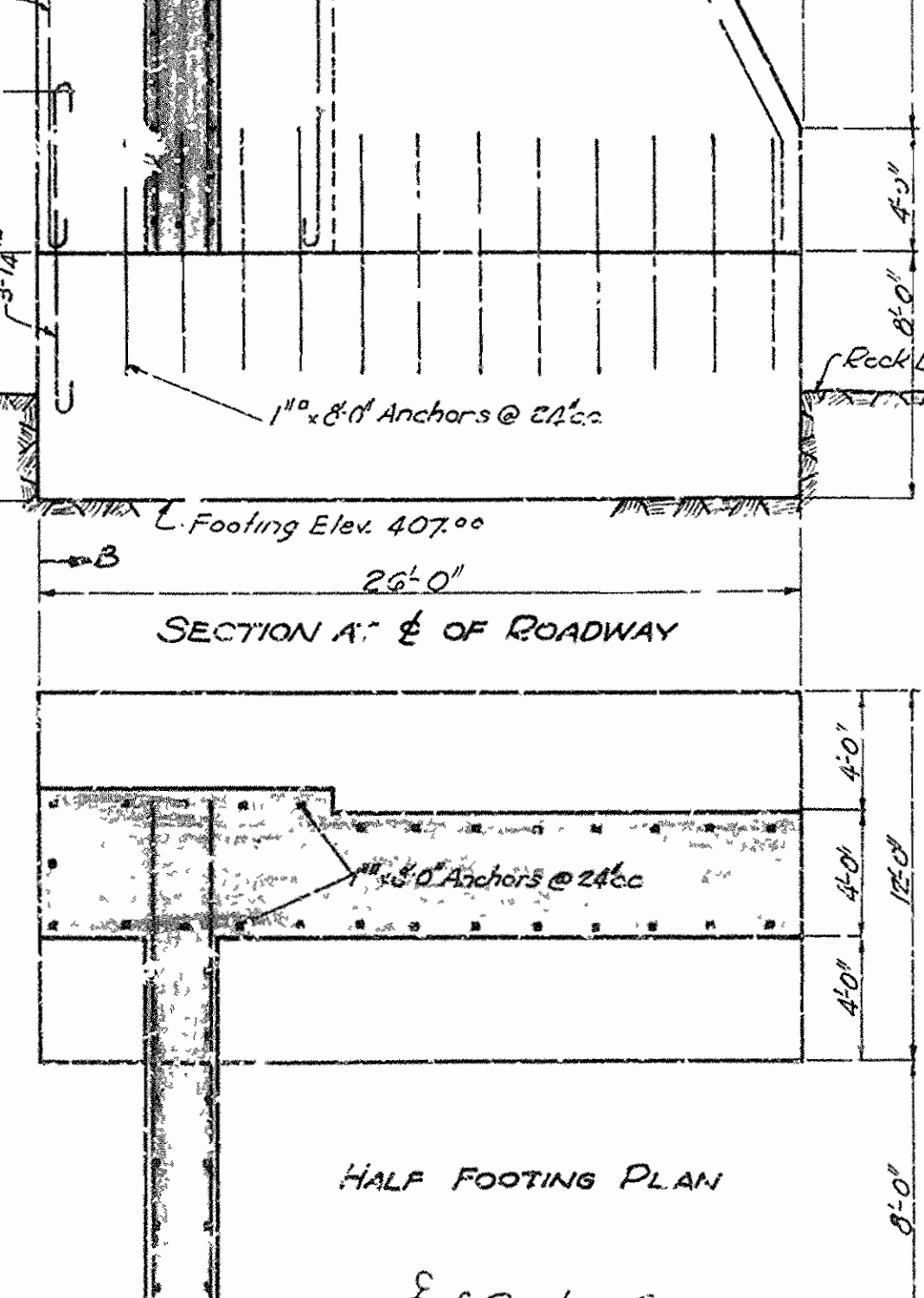
HALF FOOTING PLAN



HALF SECTIONAL PLAN AT 'CC'



HALF ELEVATION AT 'B-B'



HALF FOOTING PLAN

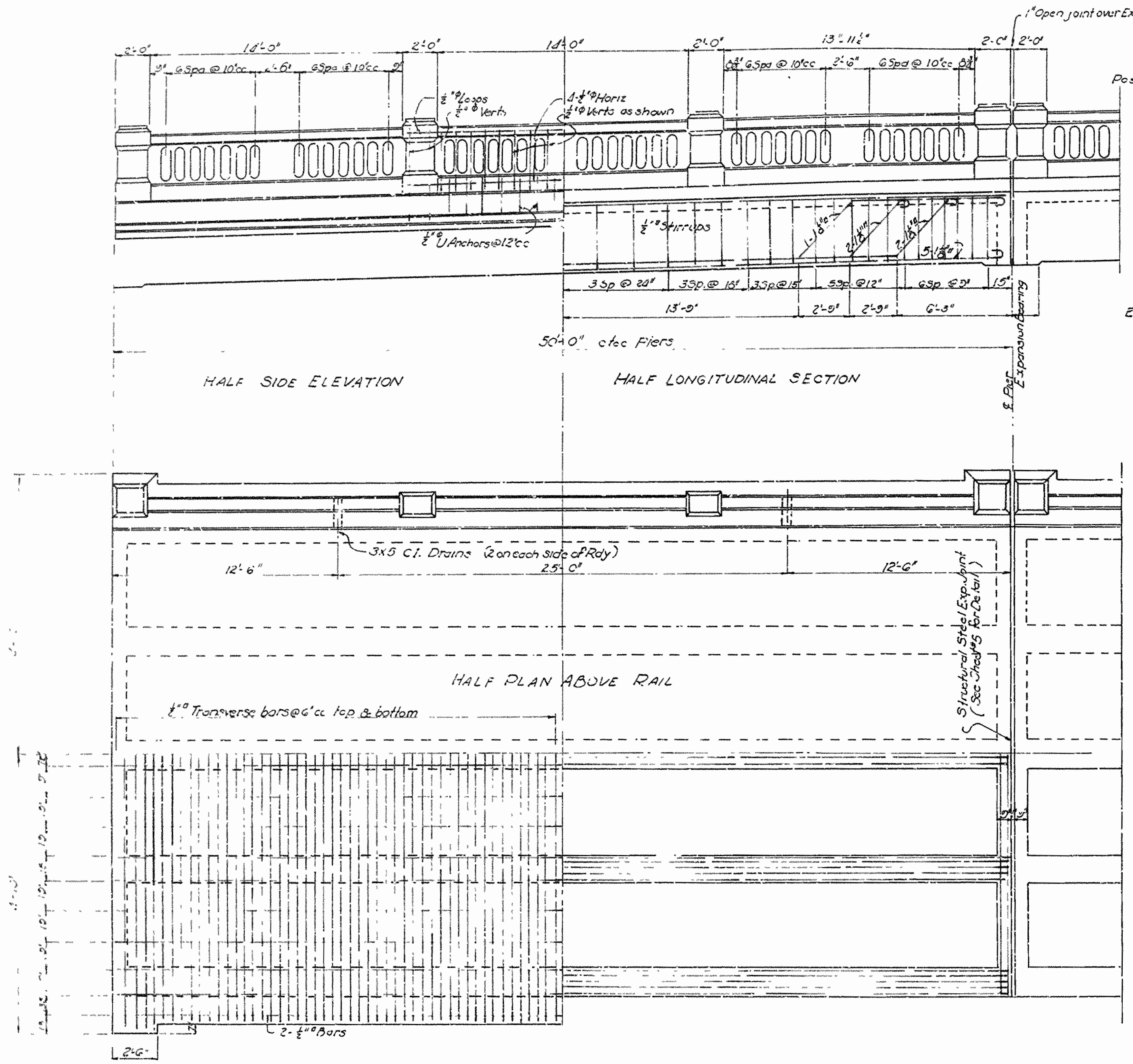
DETAILS FOR ABUTMENT PIER No. 1

DETAILS FOR ABUTMENT PIER No. 6.

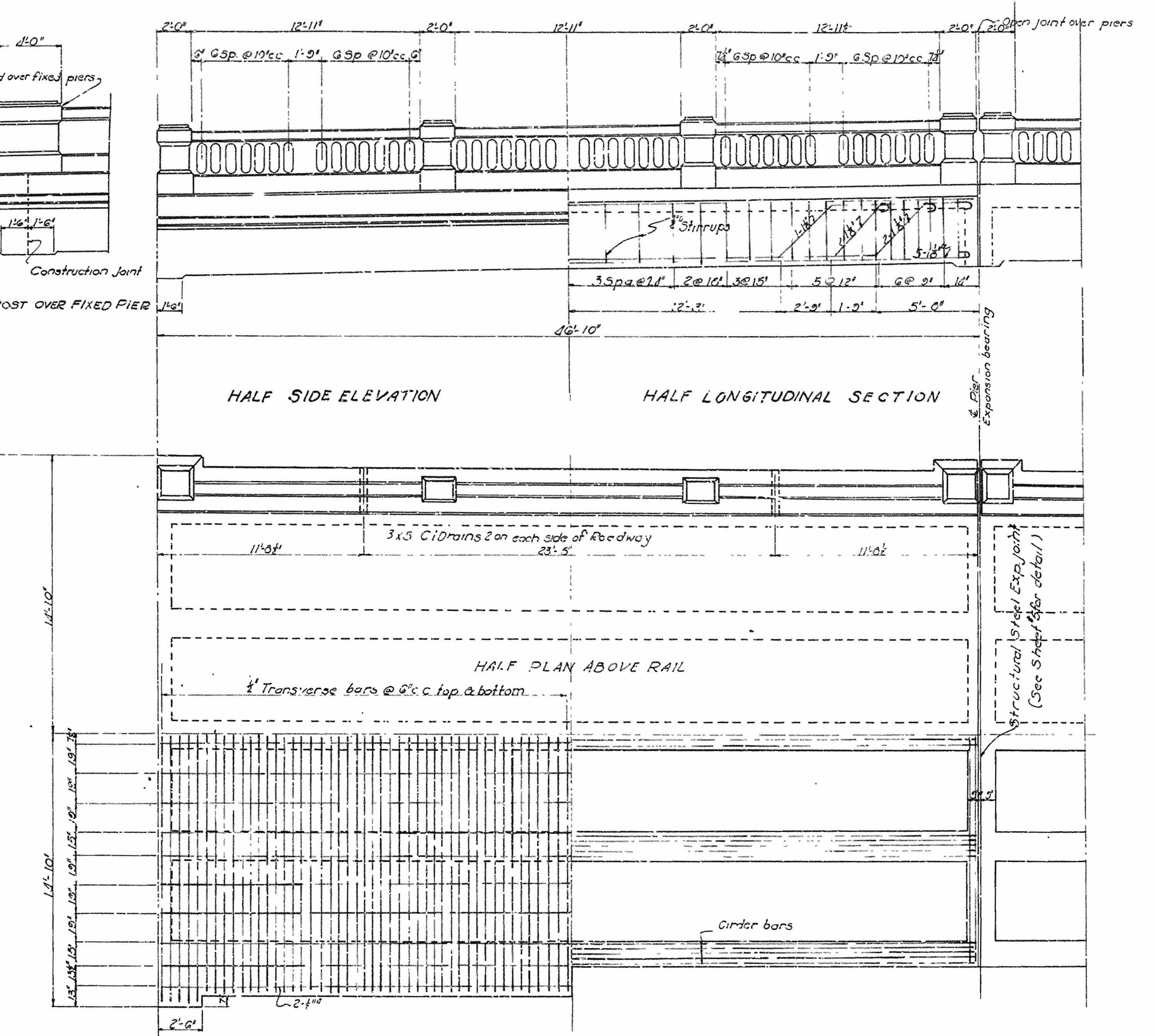
ARKANSAS STATE HIGHWAY COMMISSION  
HIGHWAY BRIDGE OVER WHITE RIVER  
ON HIGHWAY NO. 12  
NEAR COTTER, ARKANSAS  
BETWEEN BAXTER & MARION COUNTIES  
DETAILS OF ABUTMENT PIERS

DR. No. 702

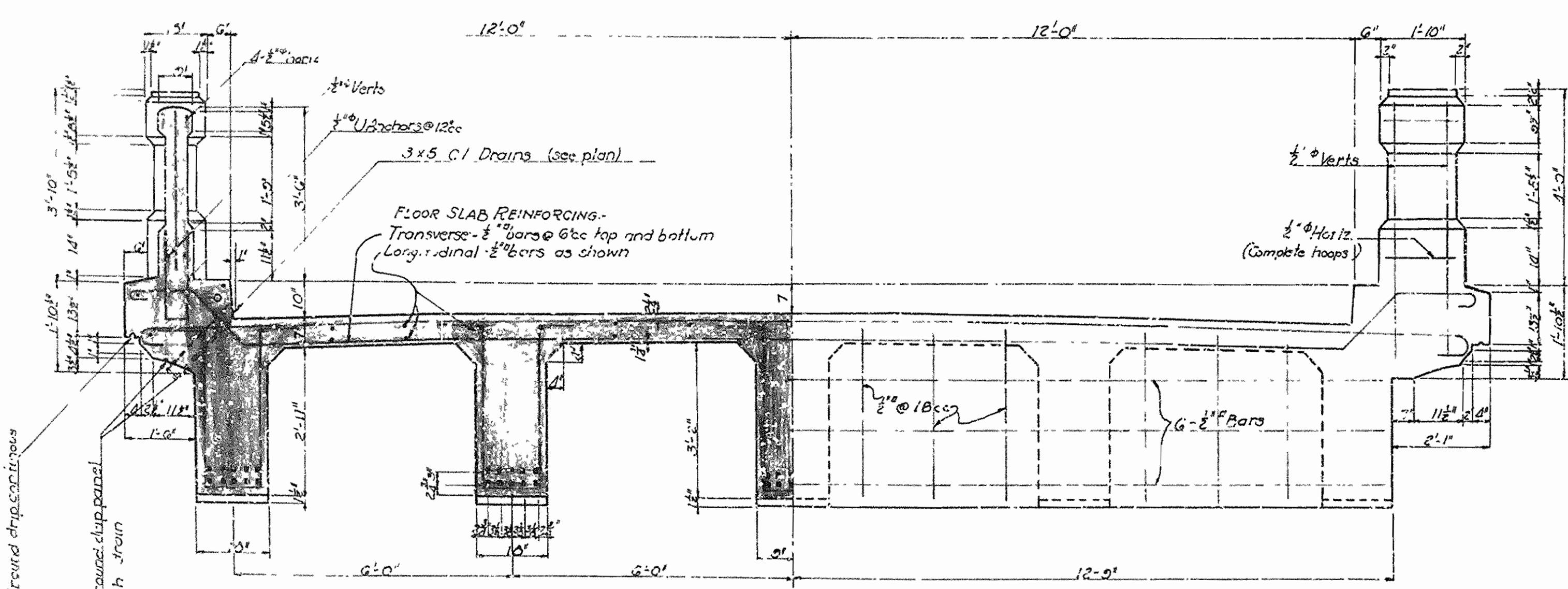
DRWG. No. 4940



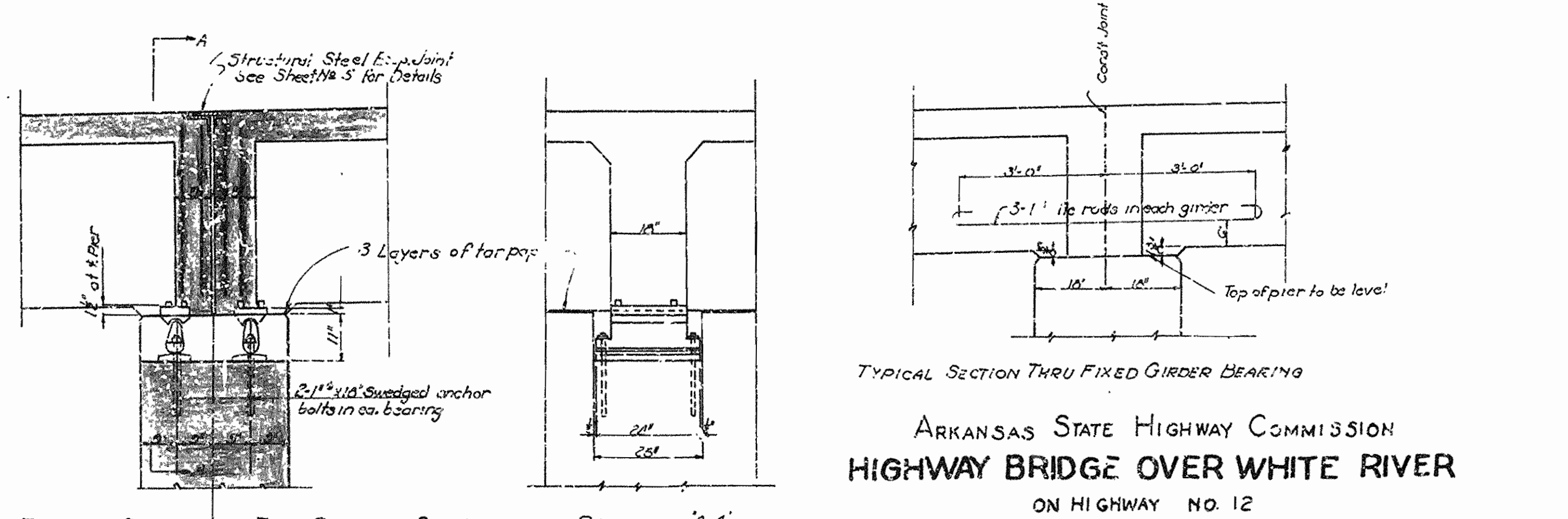
DETAILS FOR 50'-0" DECK GIRDER.



DETAILS FOR 46'-10" DECK GIRDER.



TYPICAL CROSS SECTION TYPICAL END VIEW  
NOTE: Above details similar for both spans



TYPICAL SEC. THRU EXP GIRDER BEARING SECTION 'AA'

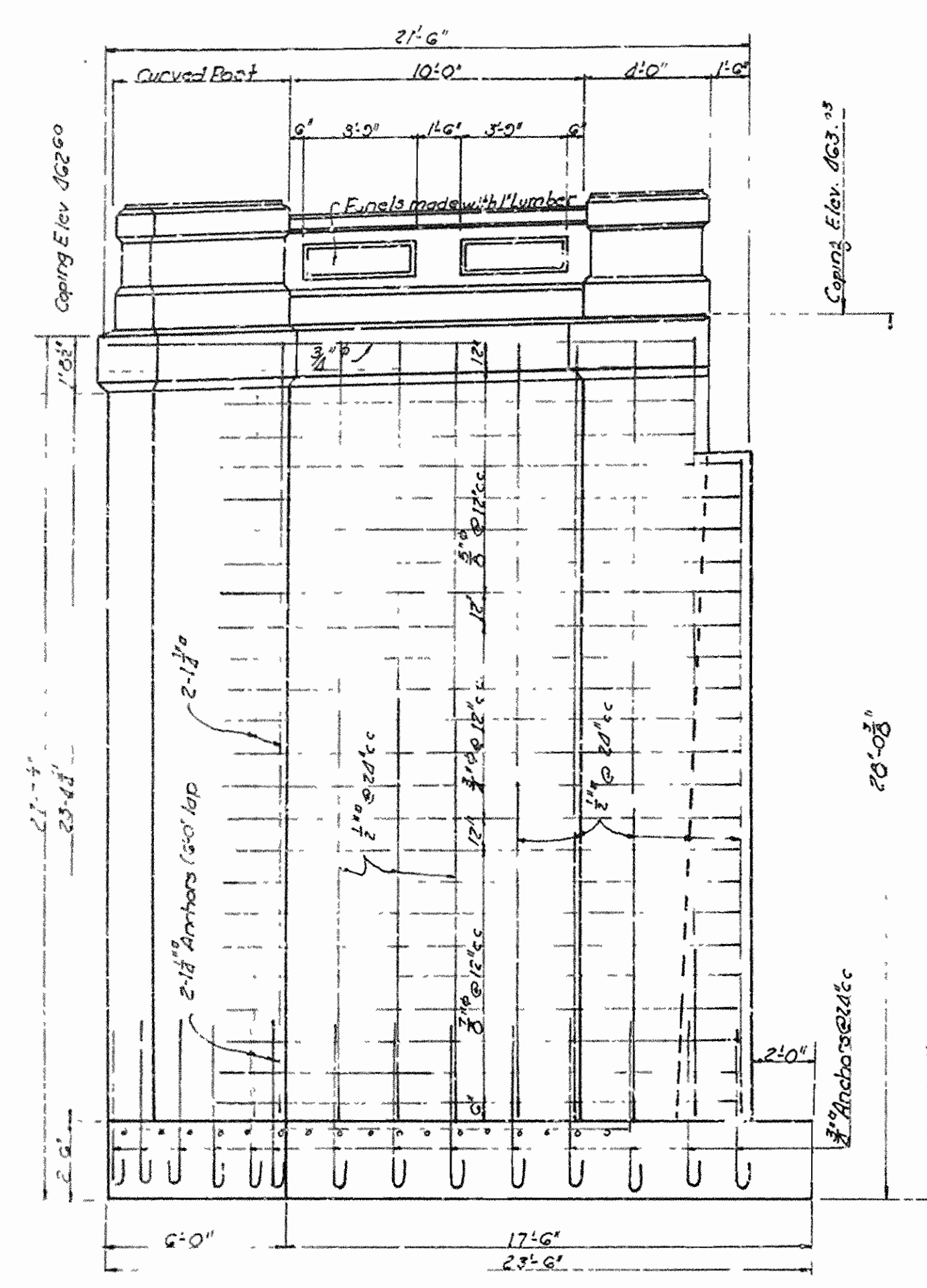
NOTE: All girder concrete to be Class 'S' Except Han., Rail & Posts which are to be Class 'T'

ARKANSAS STATE HIGHWAY COMMISSION  
HIGHWAY BRIDGE OVER WHITE RIVER  
ON HIGHWAY NO. 12  
AT COTTER, ARKANSAS  
BETWEEN BAXTER & MARION COUNTIES  
DETAILS OF DECK GIRDER APPROACHES

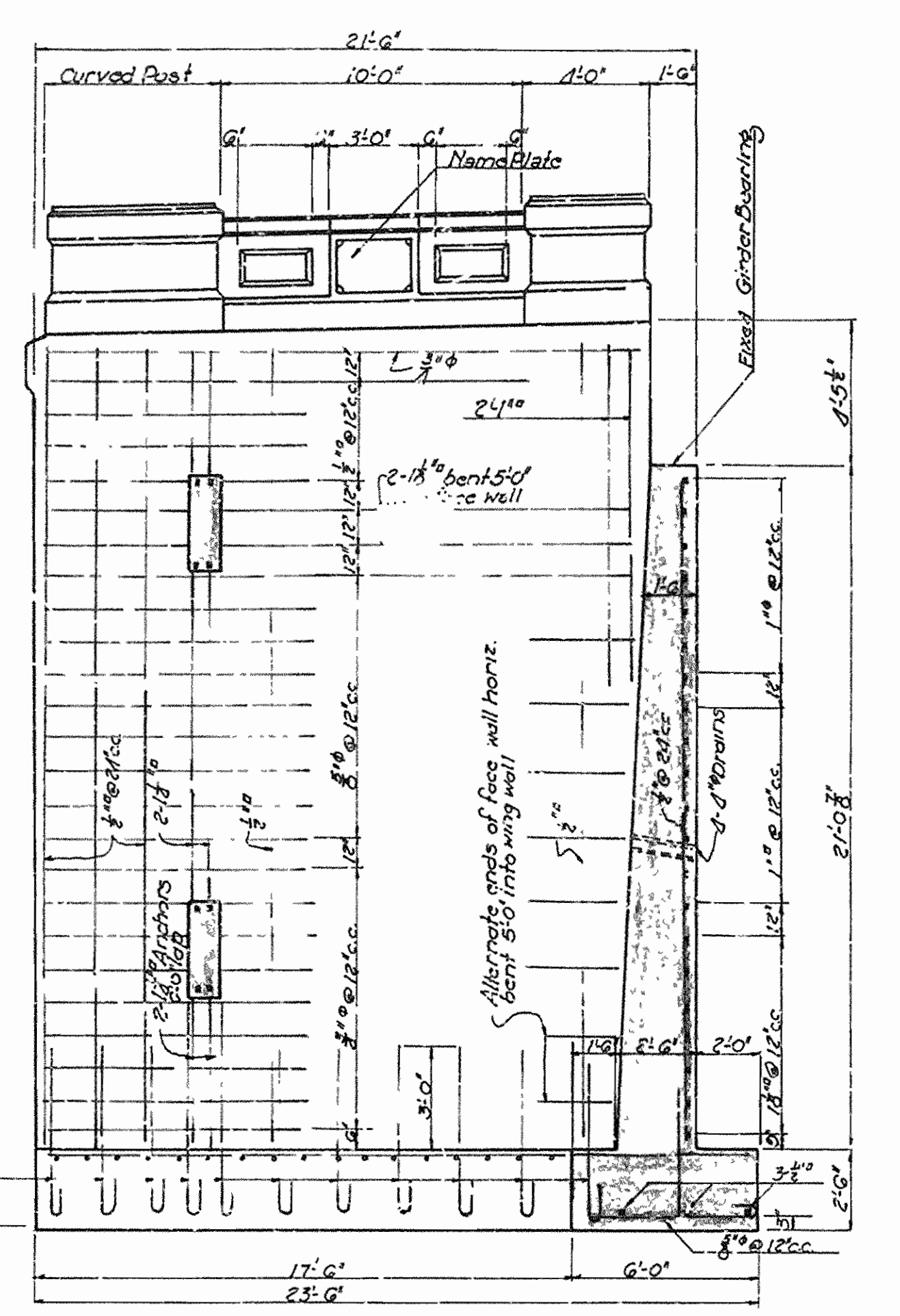
Scales: 1/4" & 1/2" = 1'-0" Aug. 1929



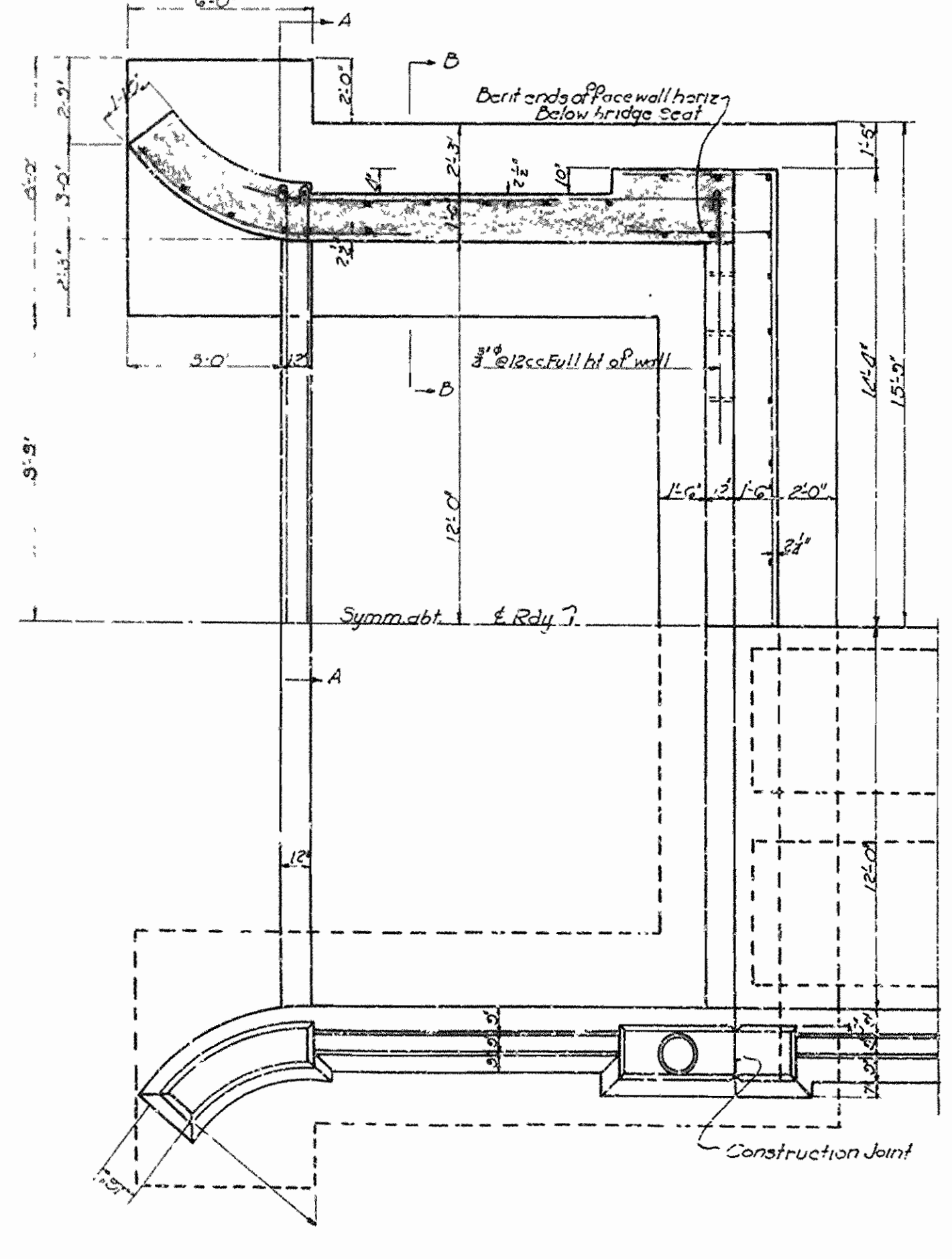
PROJ. NO.	81476	PROJ. NAME	BRIDGE	DATE	1929
DIST. NO.	0	JOB NO.	939	REV.	13 16



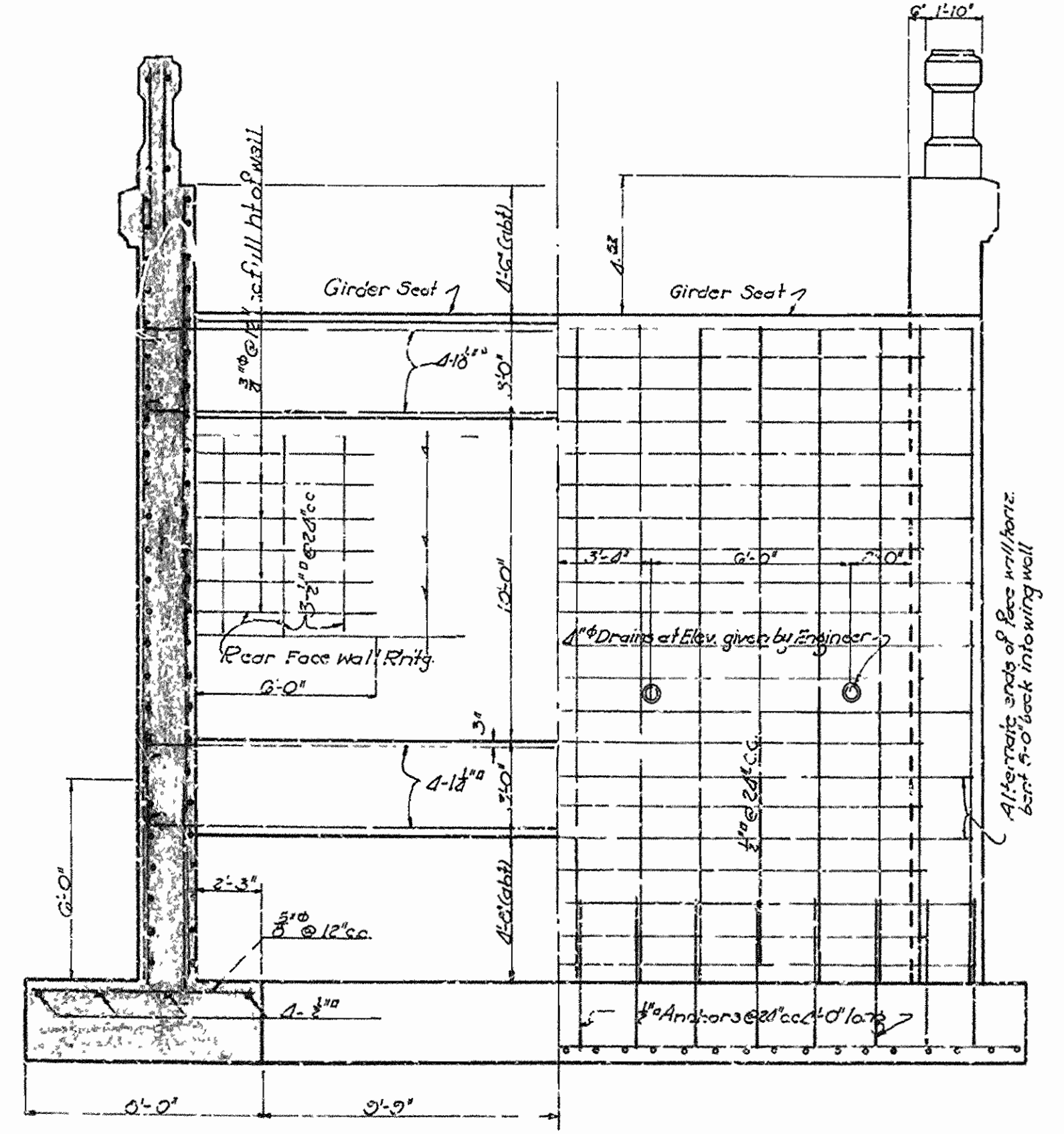
SIDE ELEVATION WEST ABUT



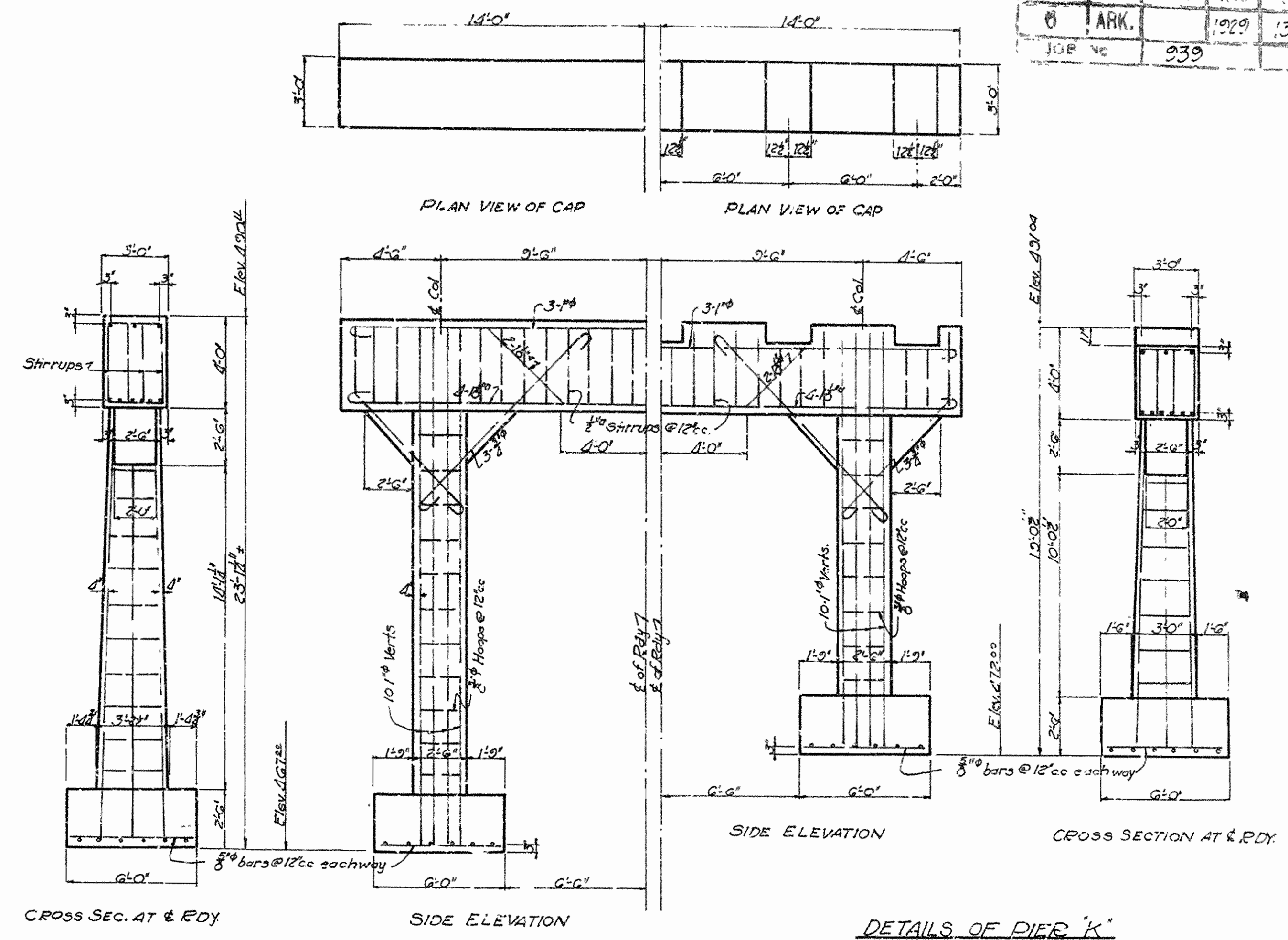
SECTION AT & OF ROADWAY WEST ABUTMENT



PLAN VIEW OF WEST ABUTMENT  
UPPER HALF BELOW COPING LOWER HALF ABOVE RAIL



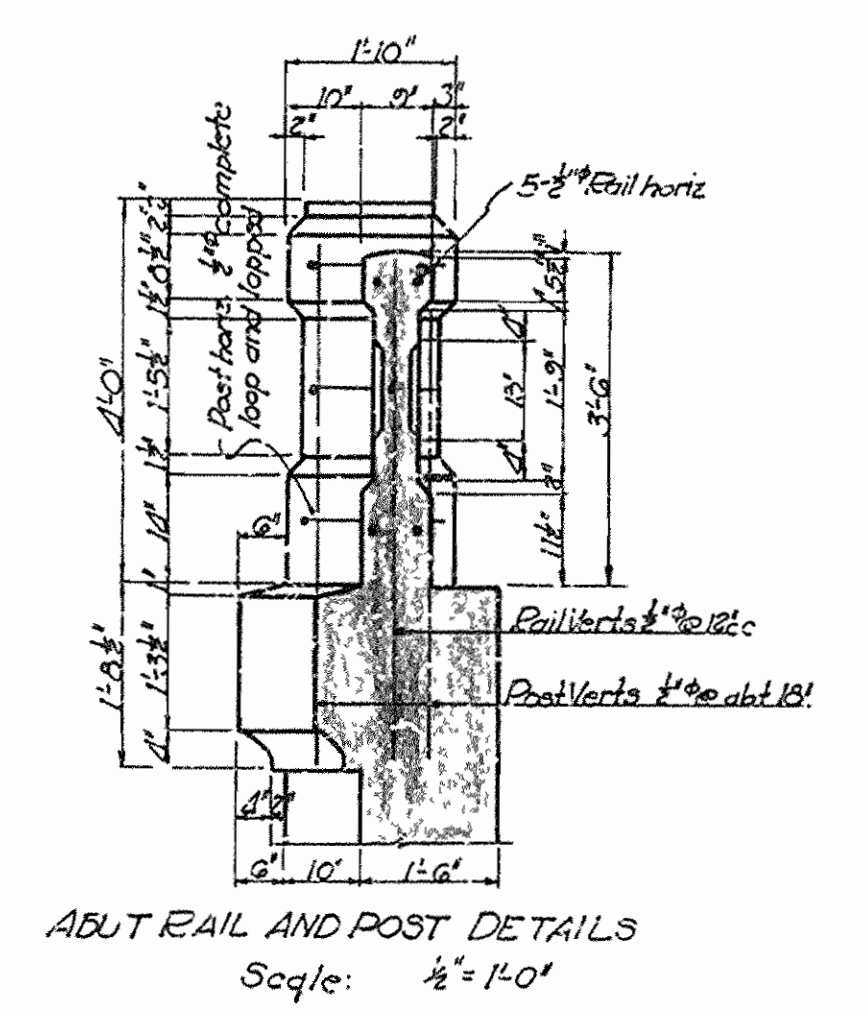
SECTION AT A-A HALF FRONT ELEV.



DETAILS OF PIER 'J'

DETAILS OF PIER 'K'

NOTE: All concrete in Piers 'J' & 'K' to be Class 'A'  
Scale: 1/2" = 1'-0"

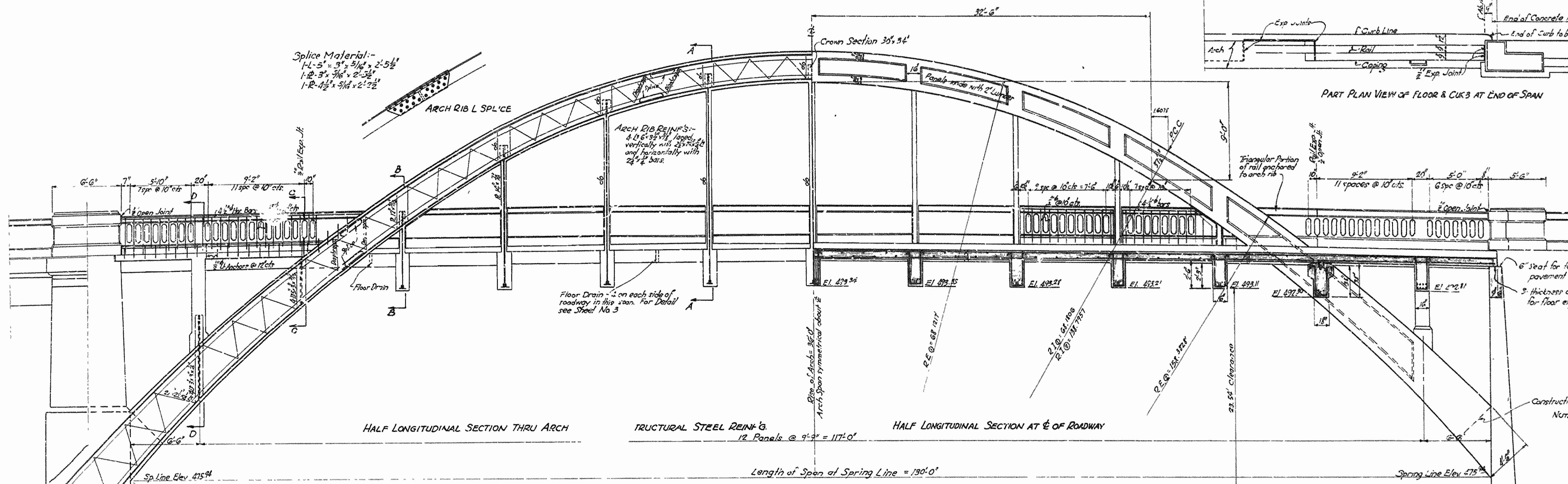


ABUT RAIL AND POST DETAILS  
Scale: 1/2" = 1'-0"

WEST ABUTMENT DETAILS  
NOTE: All abutment concrete to be Class 'A' except  
handrail & posts, which is to be Class 'B'  
Scale: 1/2" = 1'-0"

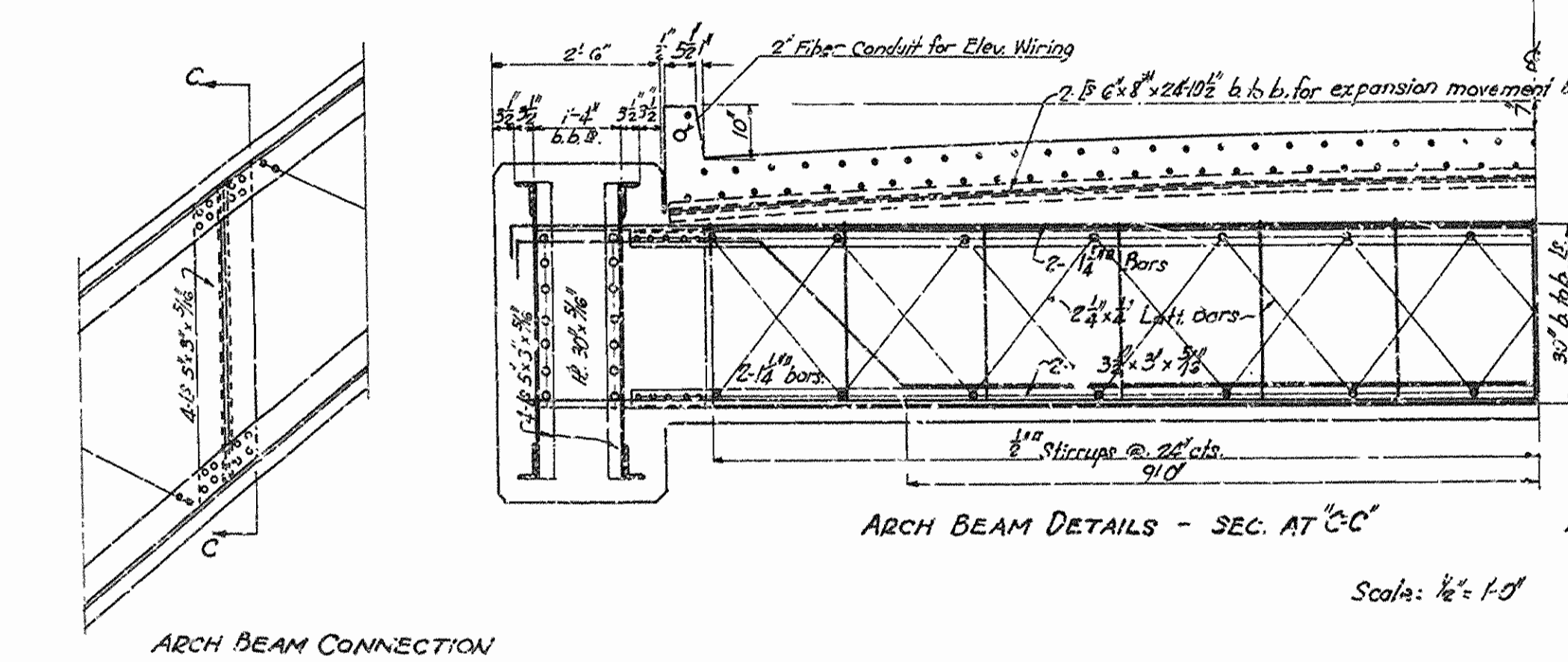
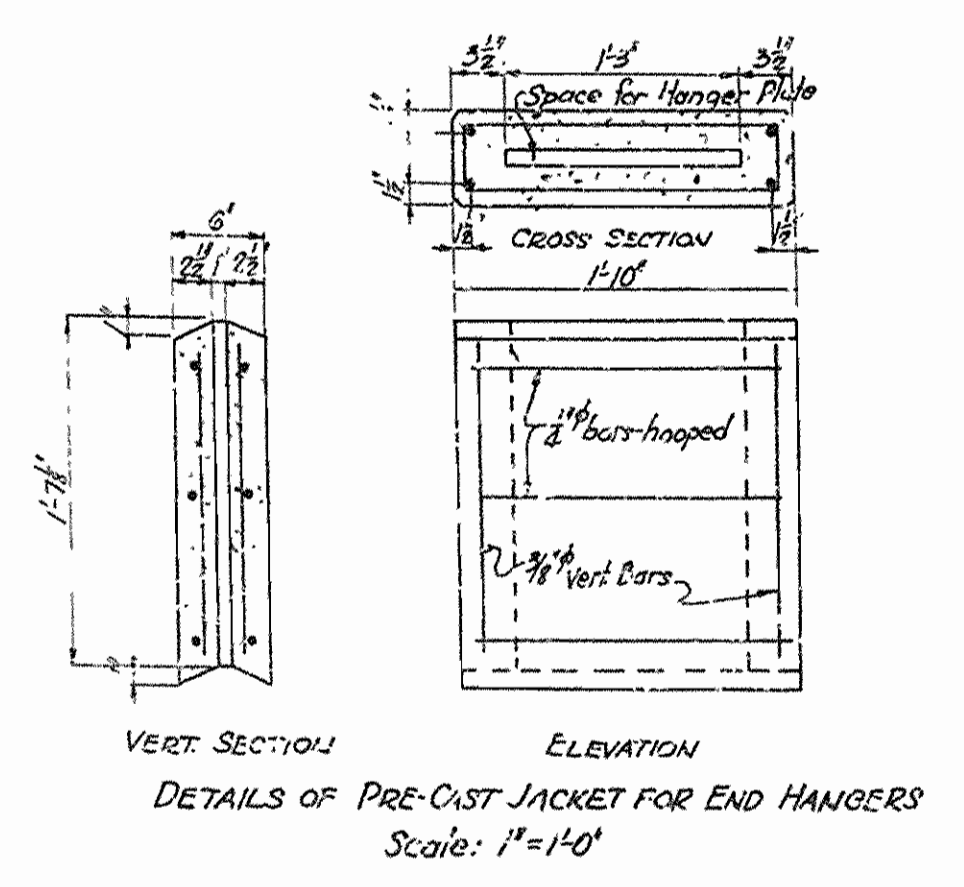
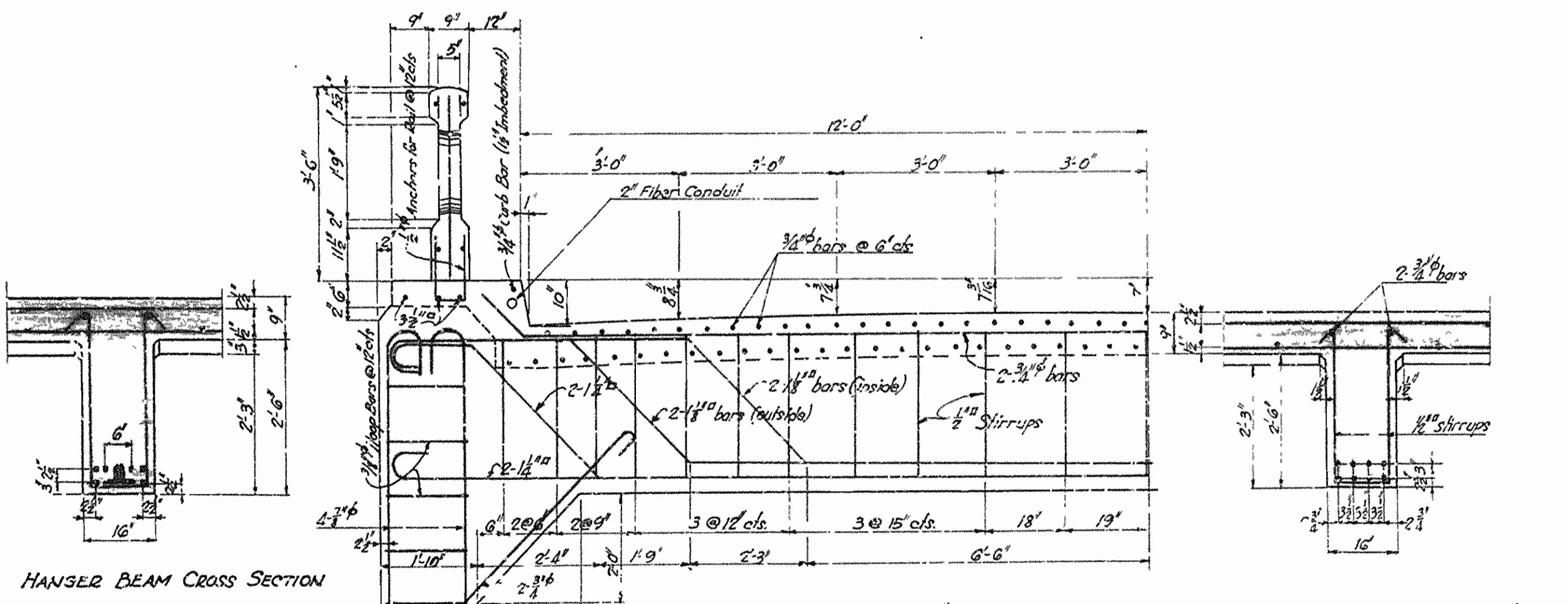
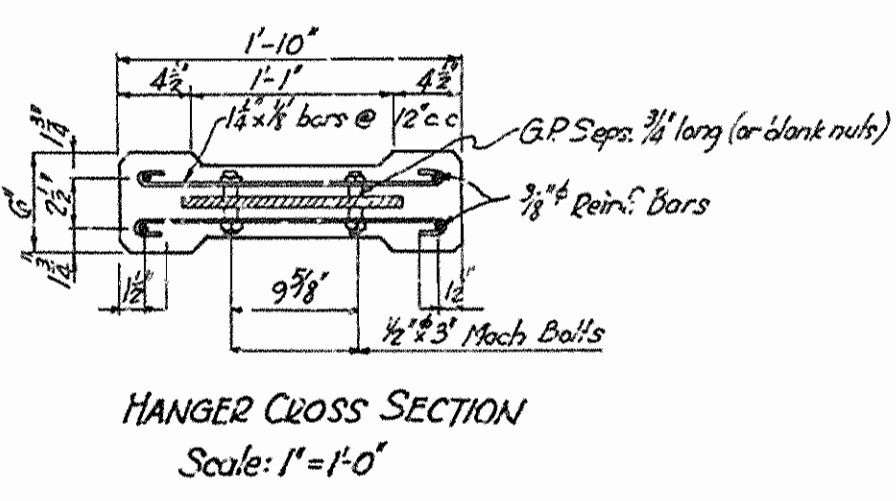
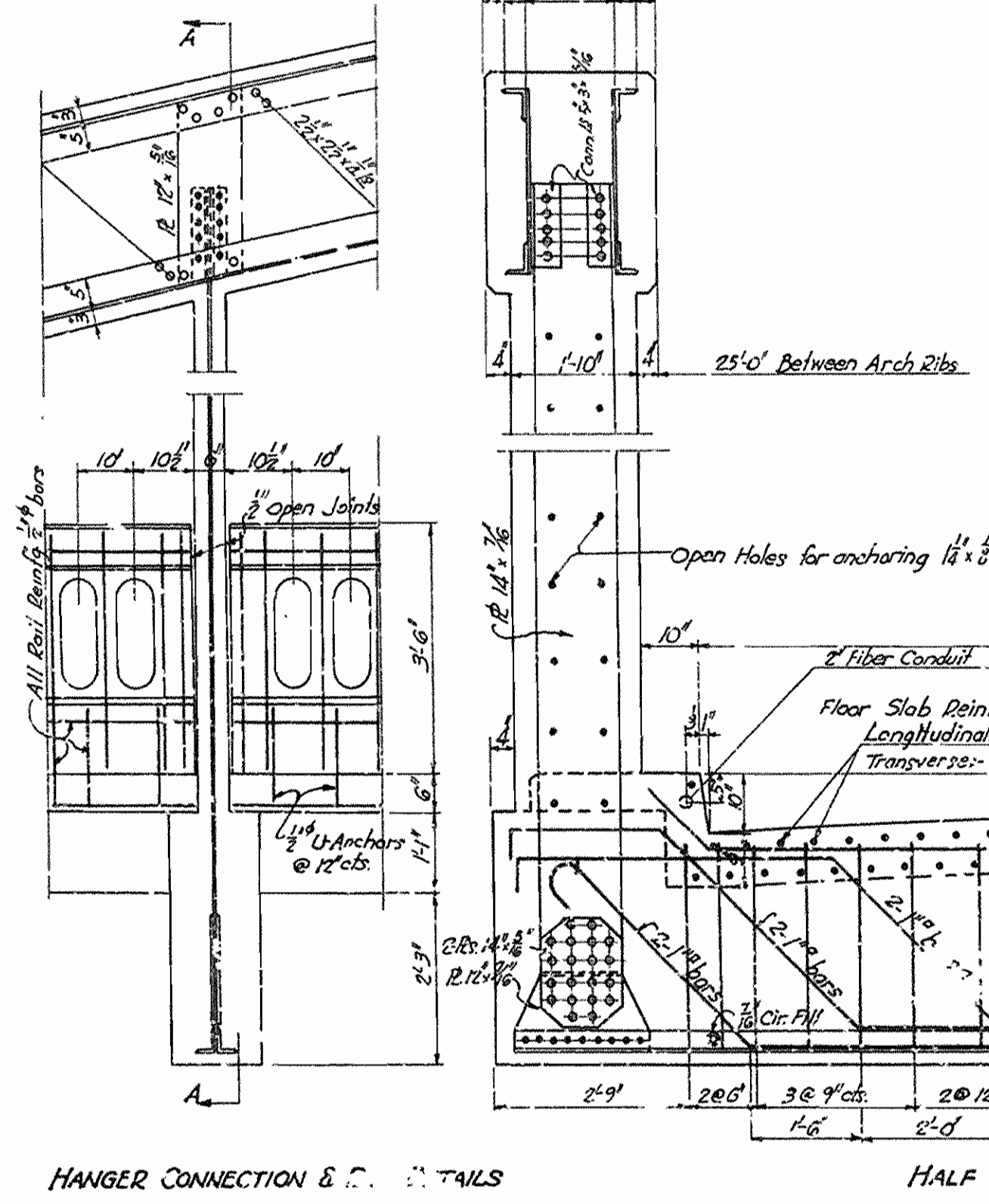
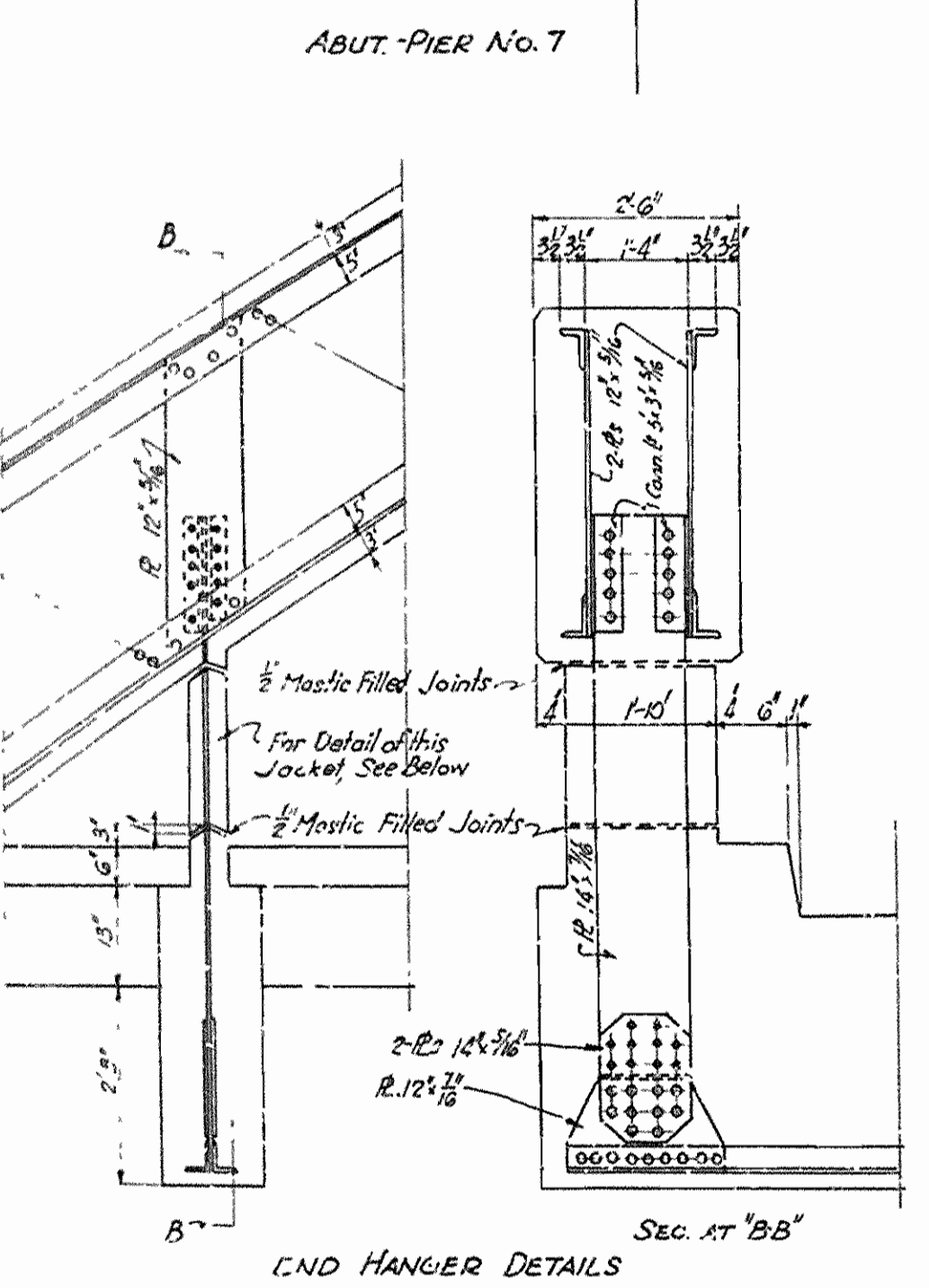
ARKANSAS STATE HIGHWAY COMMISSION  
HIGHWAY BRIDGE OVER WHITE RIVER  
ON HIGHWAY NO 12  
AT COTTER, ARKANSAS  
BETWEEN DAXTER & MARION COUNTIES  
DETAILS OF WEST ABUTMENT  
AND EAST GIRDER PIERS

STATE	NO.	YEAR	DATE
ARK.	939	1929	14 16



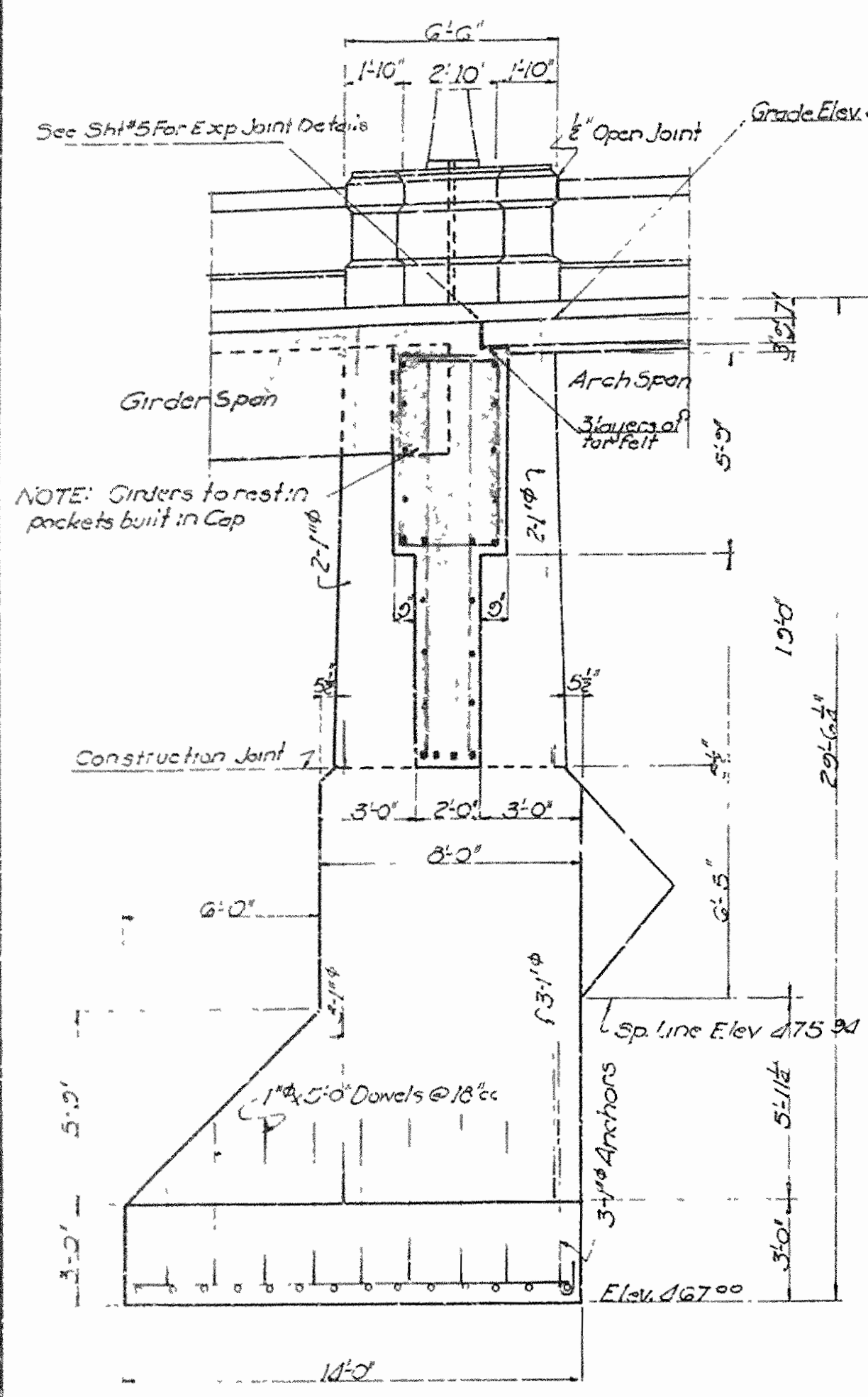
Construction Joint to be normal to arch axis  
 NOTE: Procedure of concreting this arch span superstructure to be similar to that of the long arch spans over river. See Sheet No. 3

EAST ABUT  
 COTTER END

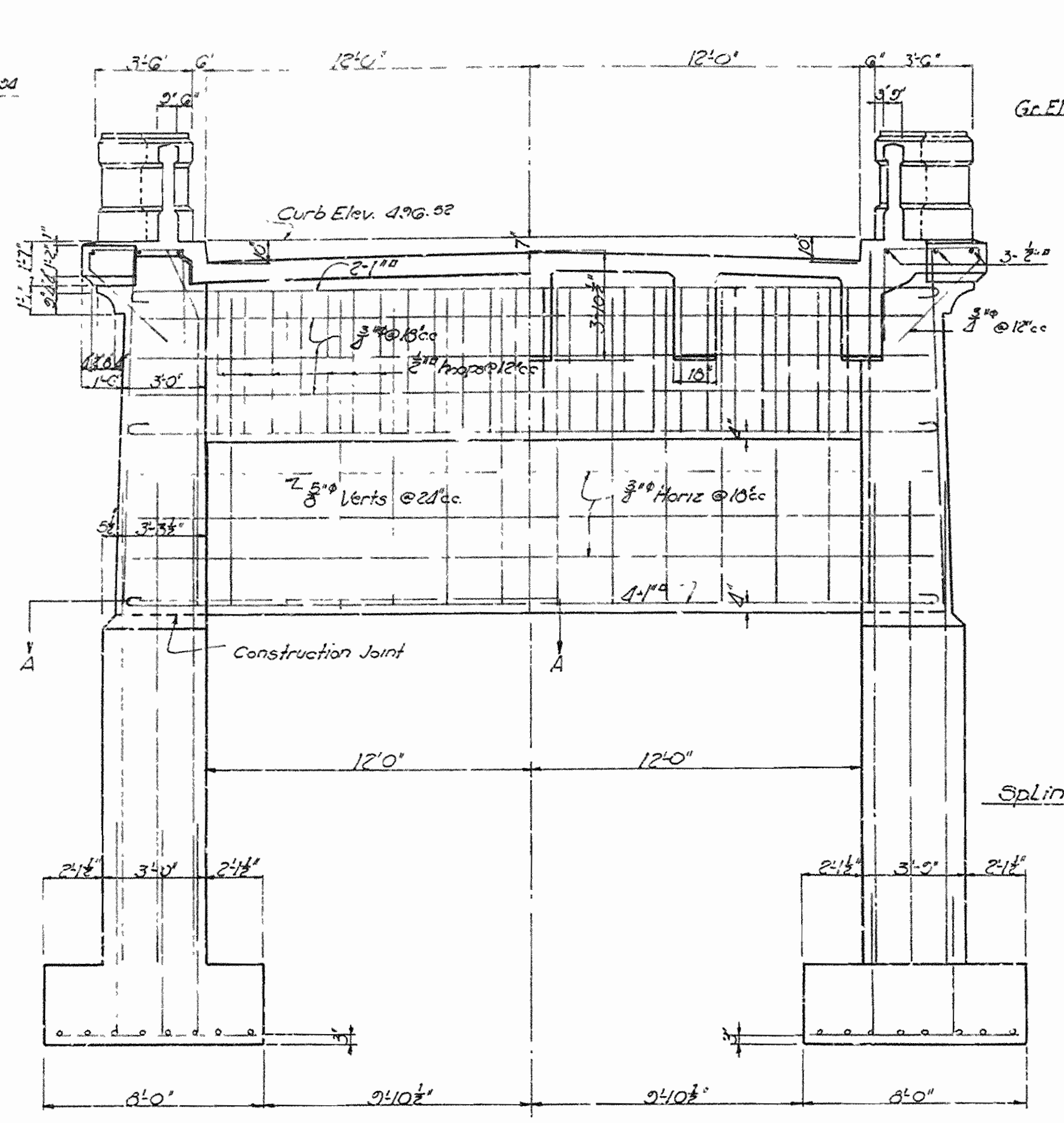


ARKANSAS STATE HIGHWAY COMMISSION  
 HIGHWAY BRIDGE OVER WHITE RIVER  
 ON HIGHWAY NO. 12  
 NEAR COTTER, ARKANSAS  
 BETWEEN BAXTER & MARION COUNTIES  
 RAINBOW ARCH SPAN VIADUCT

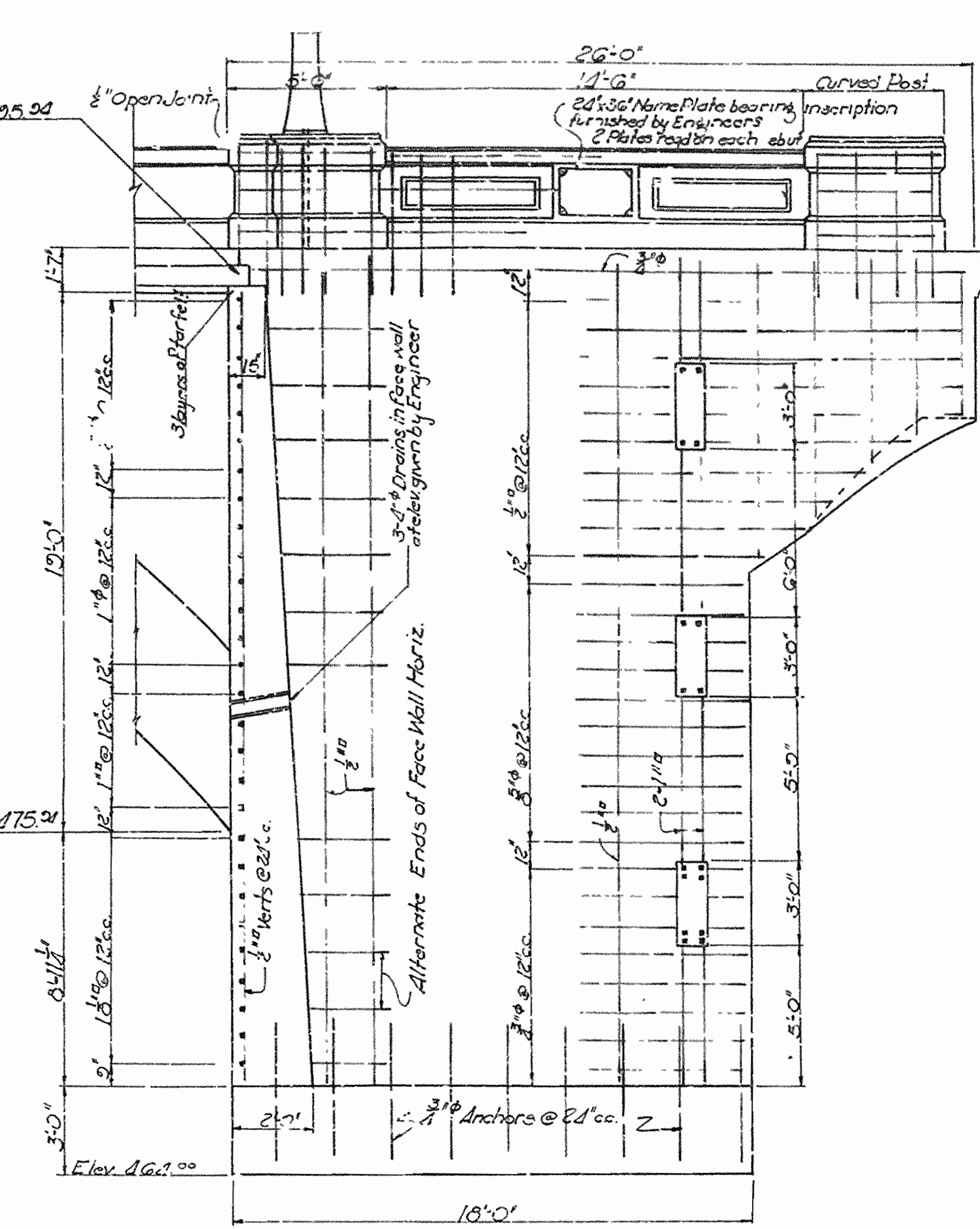
August 1929



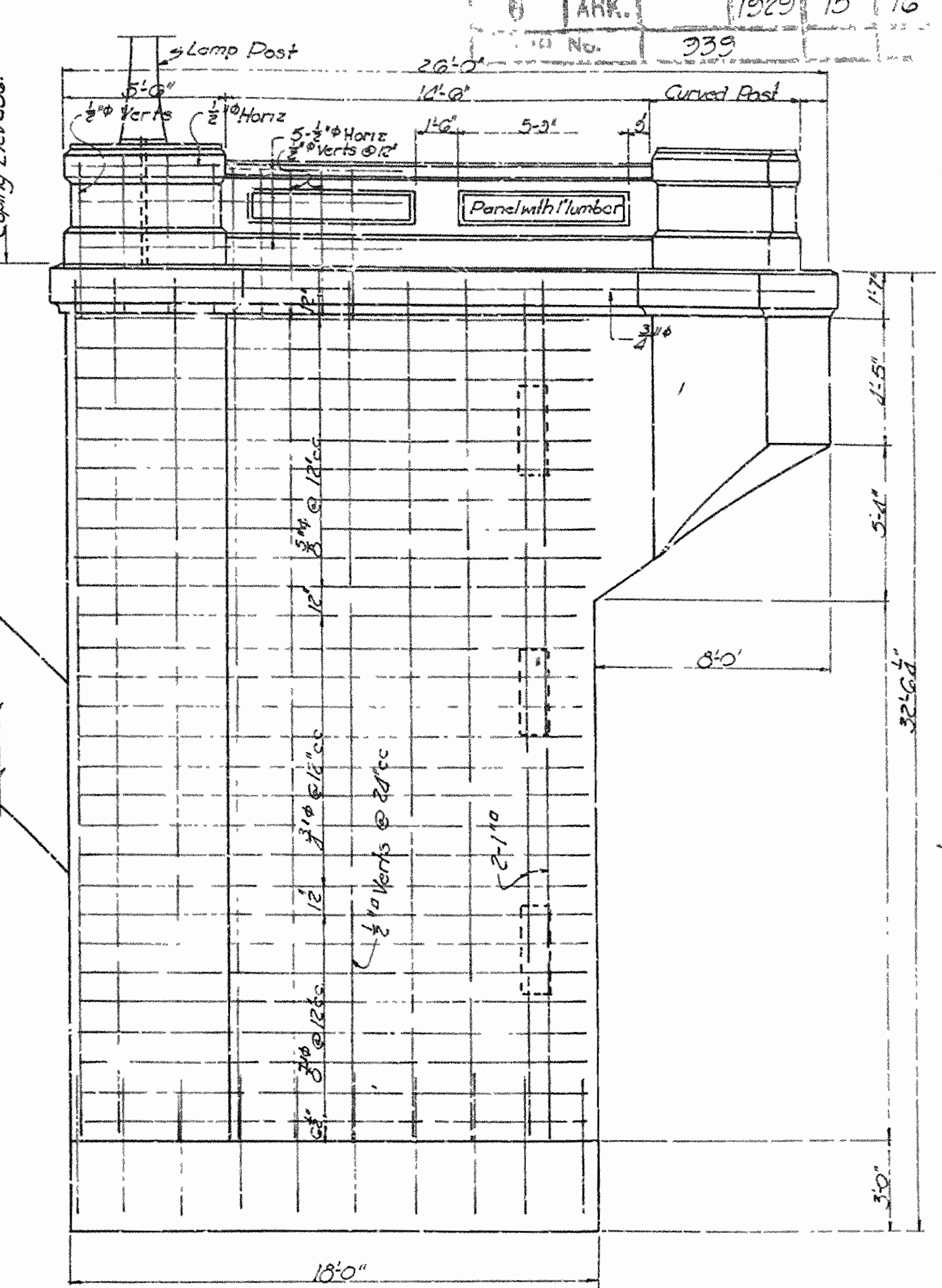
SECTION AT E OF ROADWAY



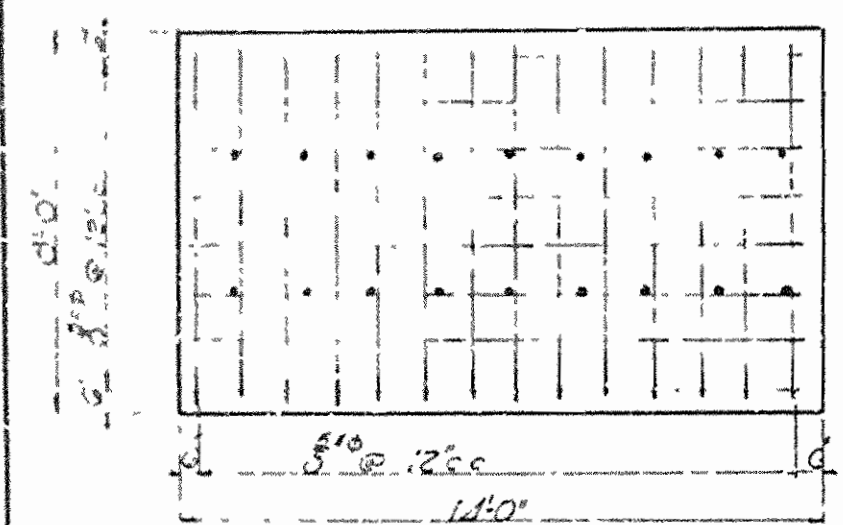
HALF ARCH SPAN SIDE ELEVATION HALF GIRDER SPAN SIDE ELEVATION



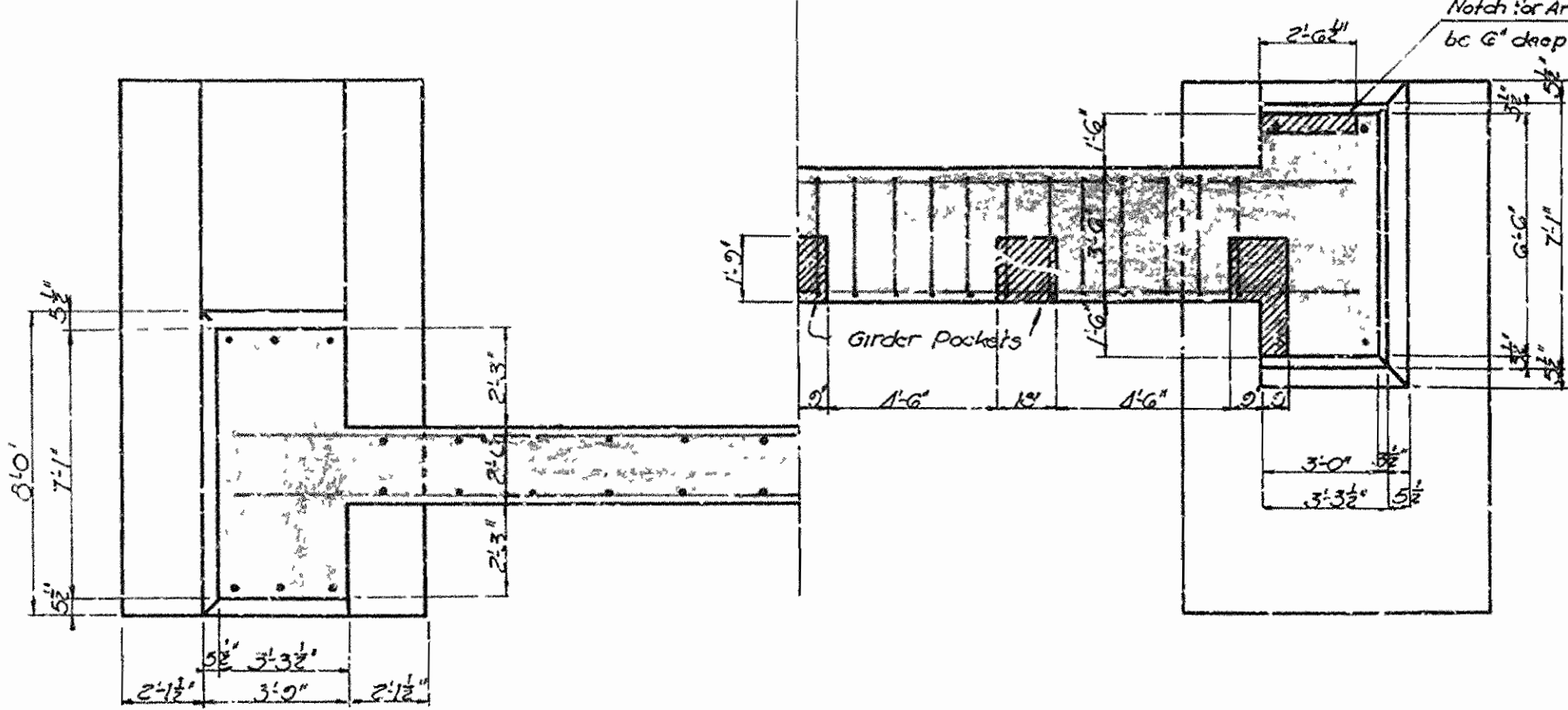
SECTION AT E OF ROADWAY



SIDE ELEVATION



PLAN VIEW OF FOOTING

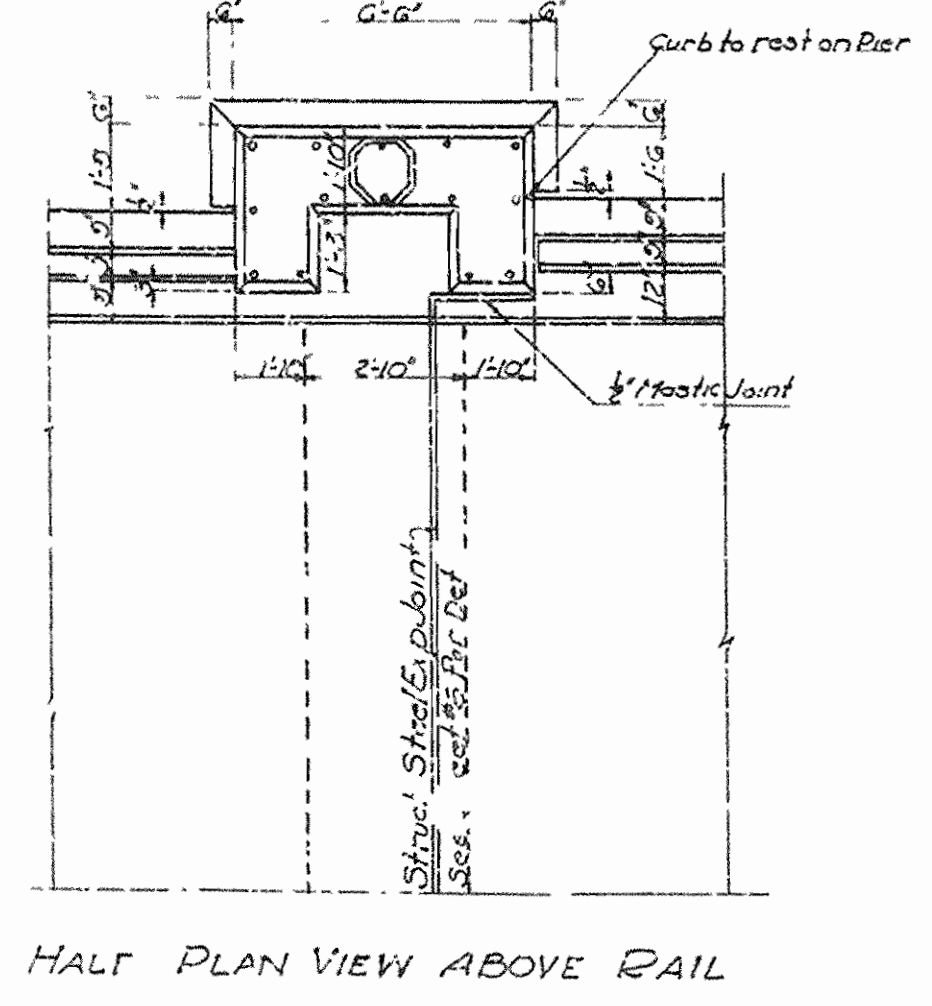


HALF PLAN VIEW AT A-A'

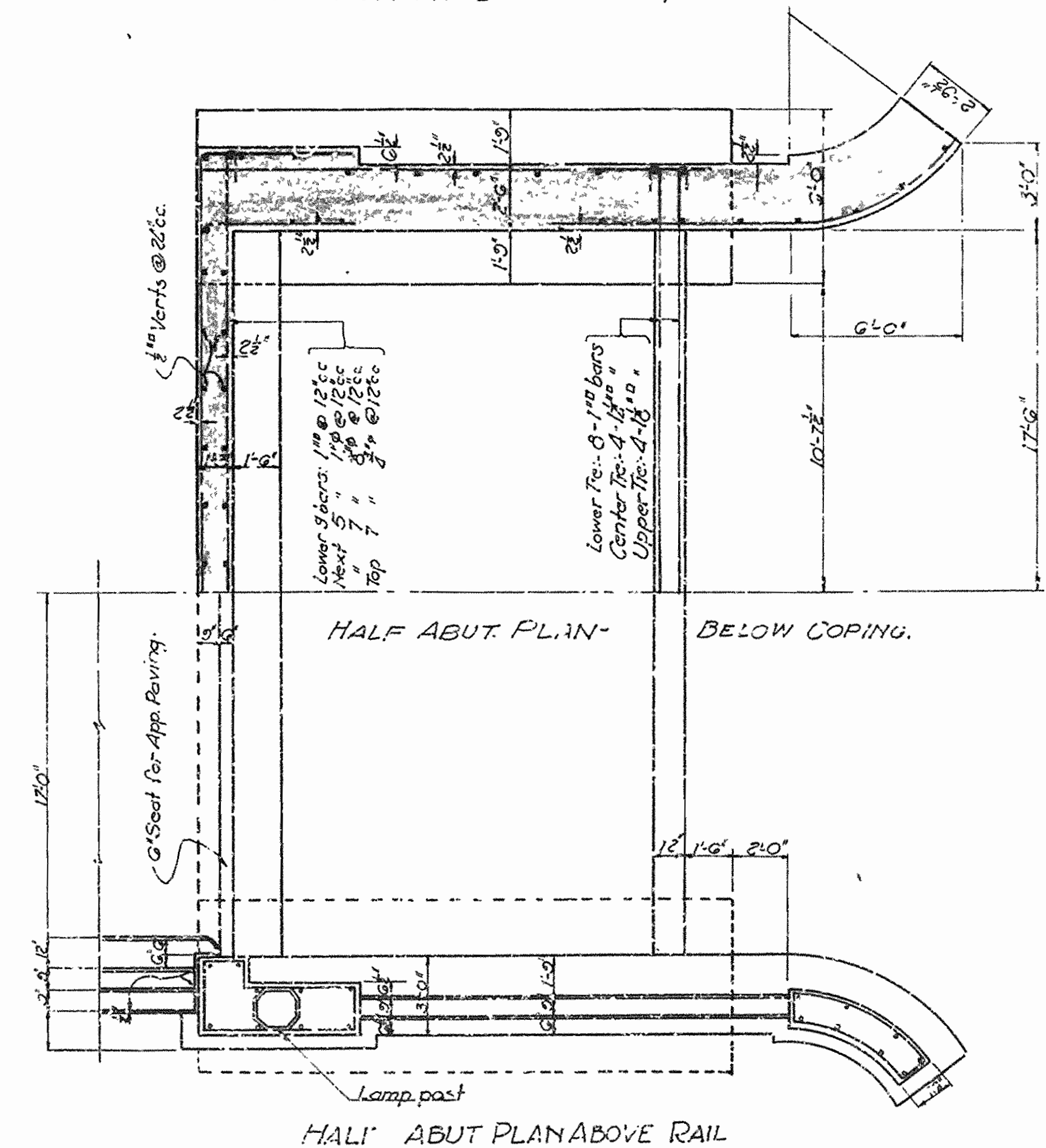
HALF PLAN VIEW BELOW COPING

ABUTMENT PIER NO. 7 DETAILS.  
 Scale: 1/4" = 1'-0"

NOTE: All Abutment Concrete to be Class 'A' except Hand Rail & Posts, which is to be Class 'F'.



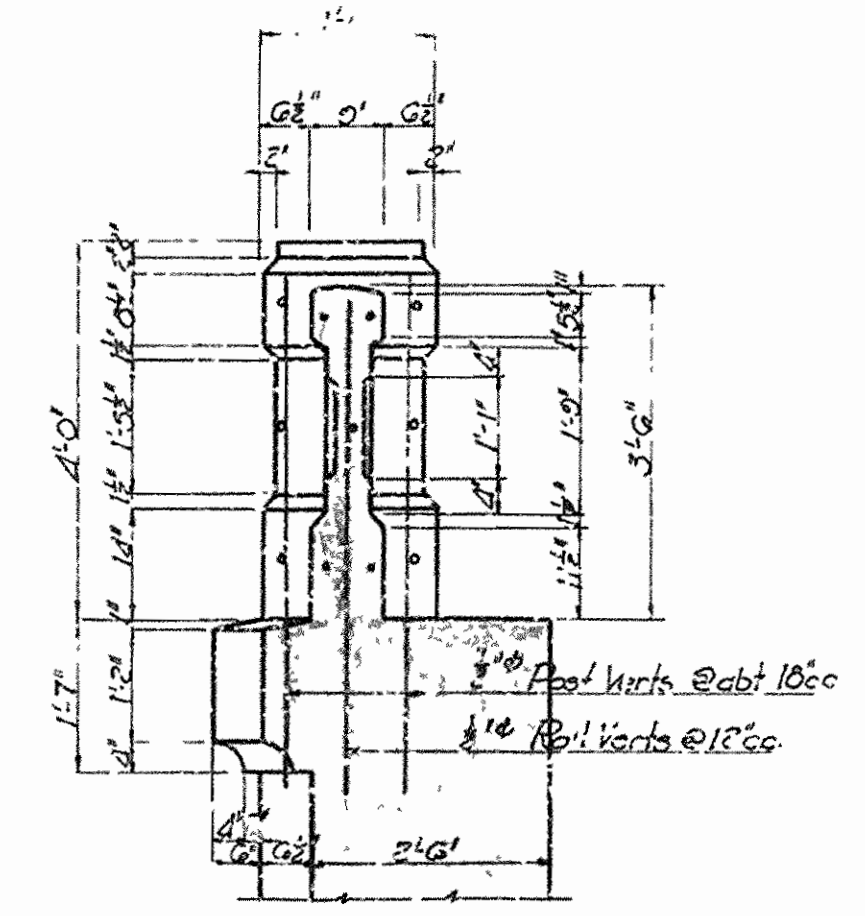
HALF PLAN VIEW ABOVE RAIL



HALF ABUT. PLAN- BELOW COPING.

HALF ABUT. PLAN ABOVE RAIL

EAST ABUTMENT DETAILS.  
 Scale: 1/4" = 1'-0"



ABUTMENT RAIL & POST DETAIL  
 Scale: 1/2" = 1'-0"

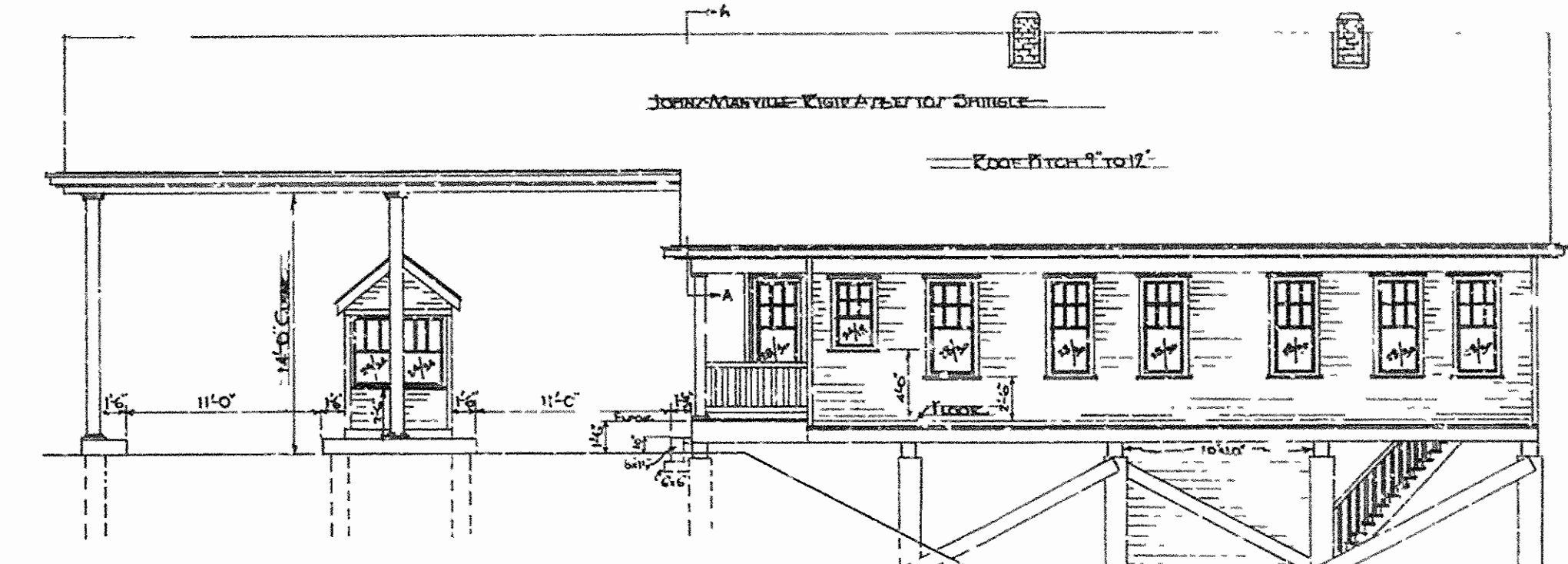
ARKANSAS STATE HIGHWAY COMMISSION  
 HIGHWAY BRIDGE OVER WHITE RIVER  
 ON HIGHWAY NO. 12  
 AT COTTER ARKANSAS  
 BETWEEN BAXTER & MARION COUNTIES  
 ABUTMENTS FOR ARCH SPAN VIADUCT  
 August, 1929.



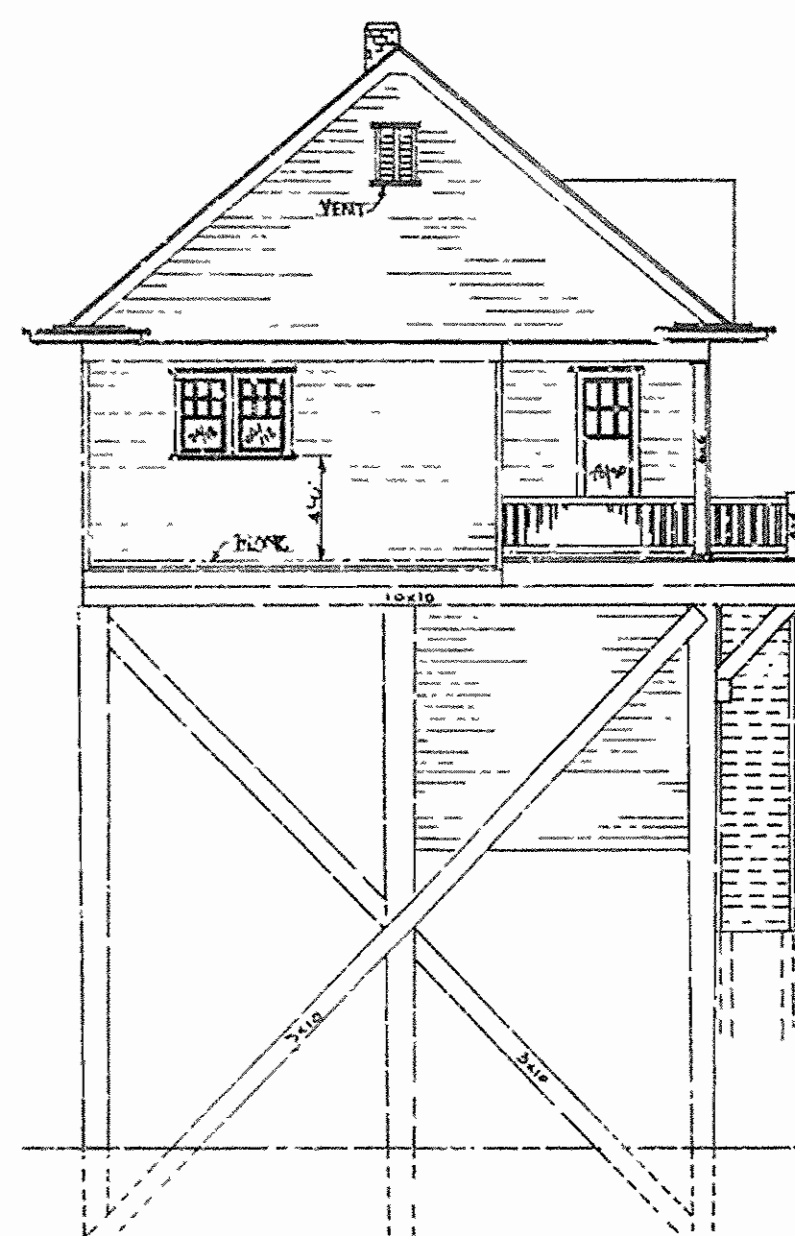
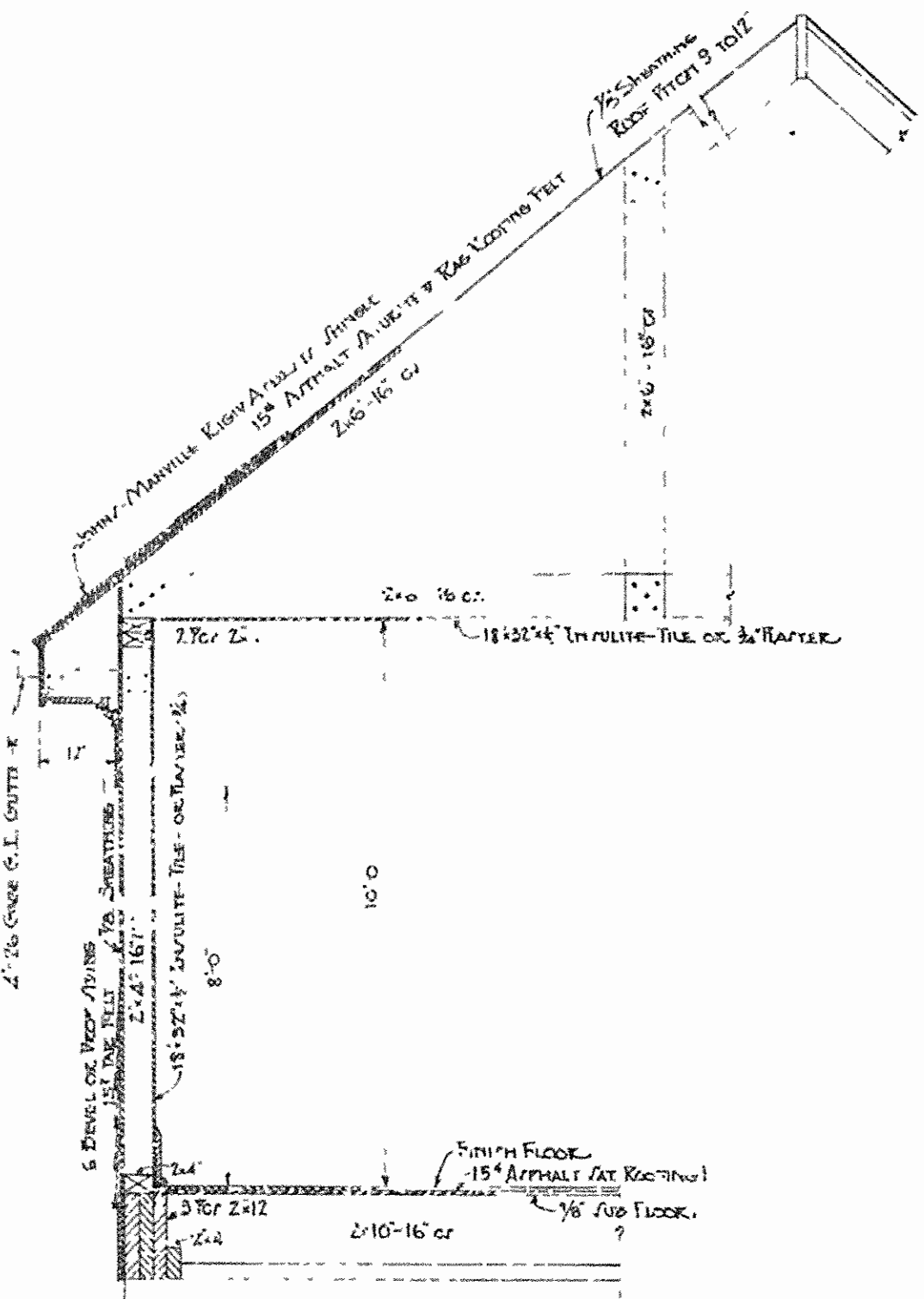
SECTION A-A  
SCALE 1/2"=1'-0"



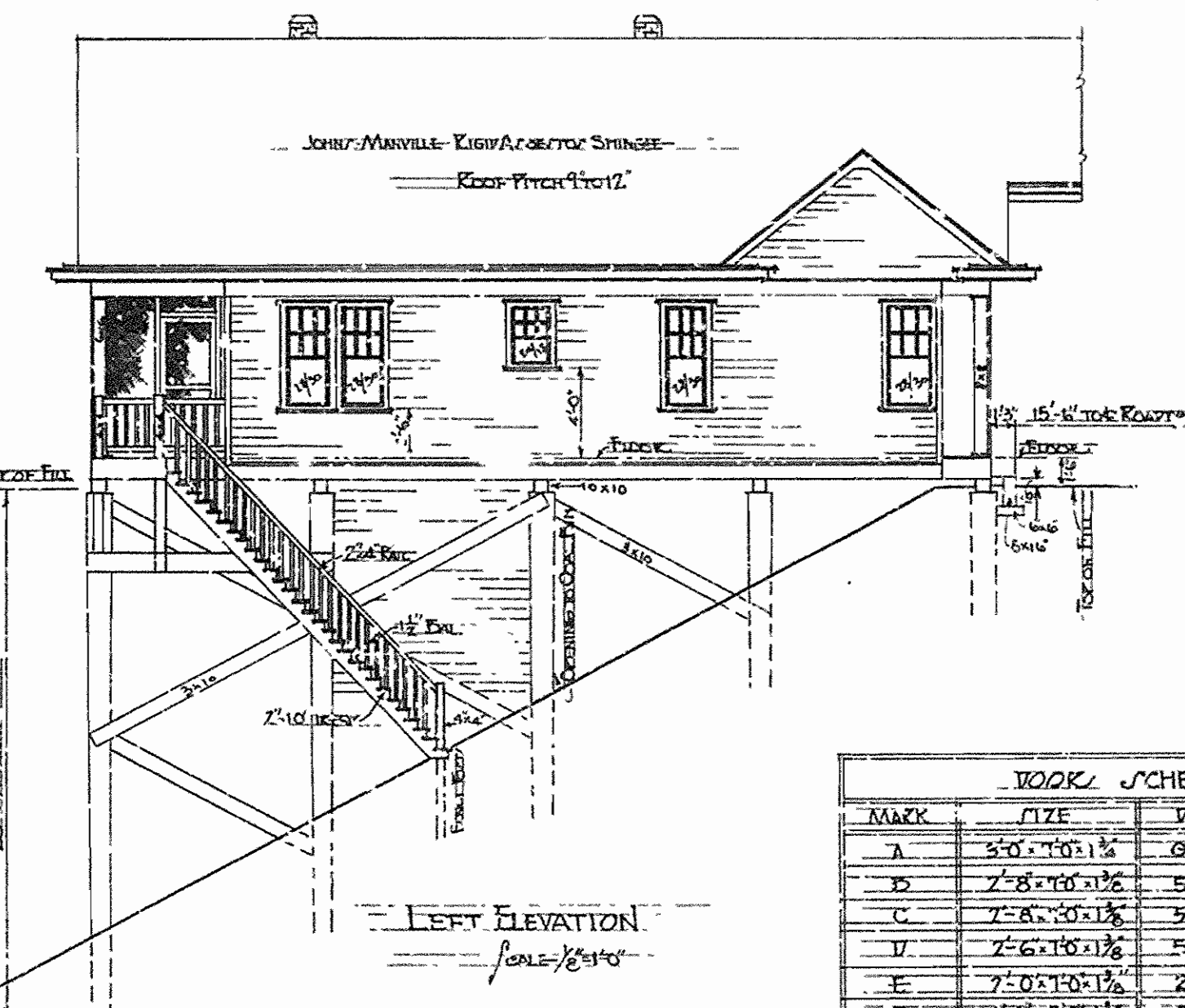
FRONT ELEVATION  
SCALE 1/2"=1'-0"



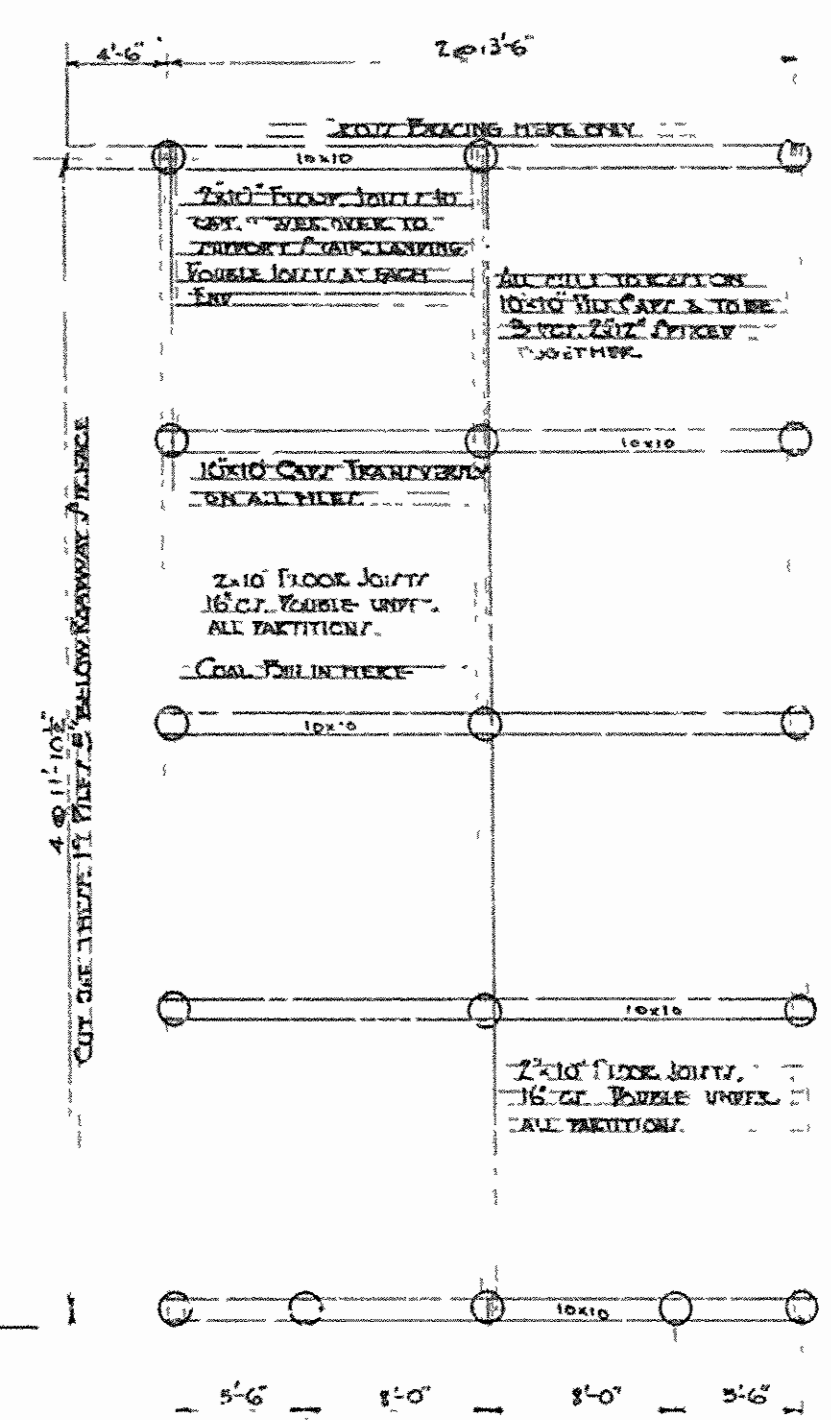
RIGHT ELEVATION  
SCALE 1/2"=1'-0"



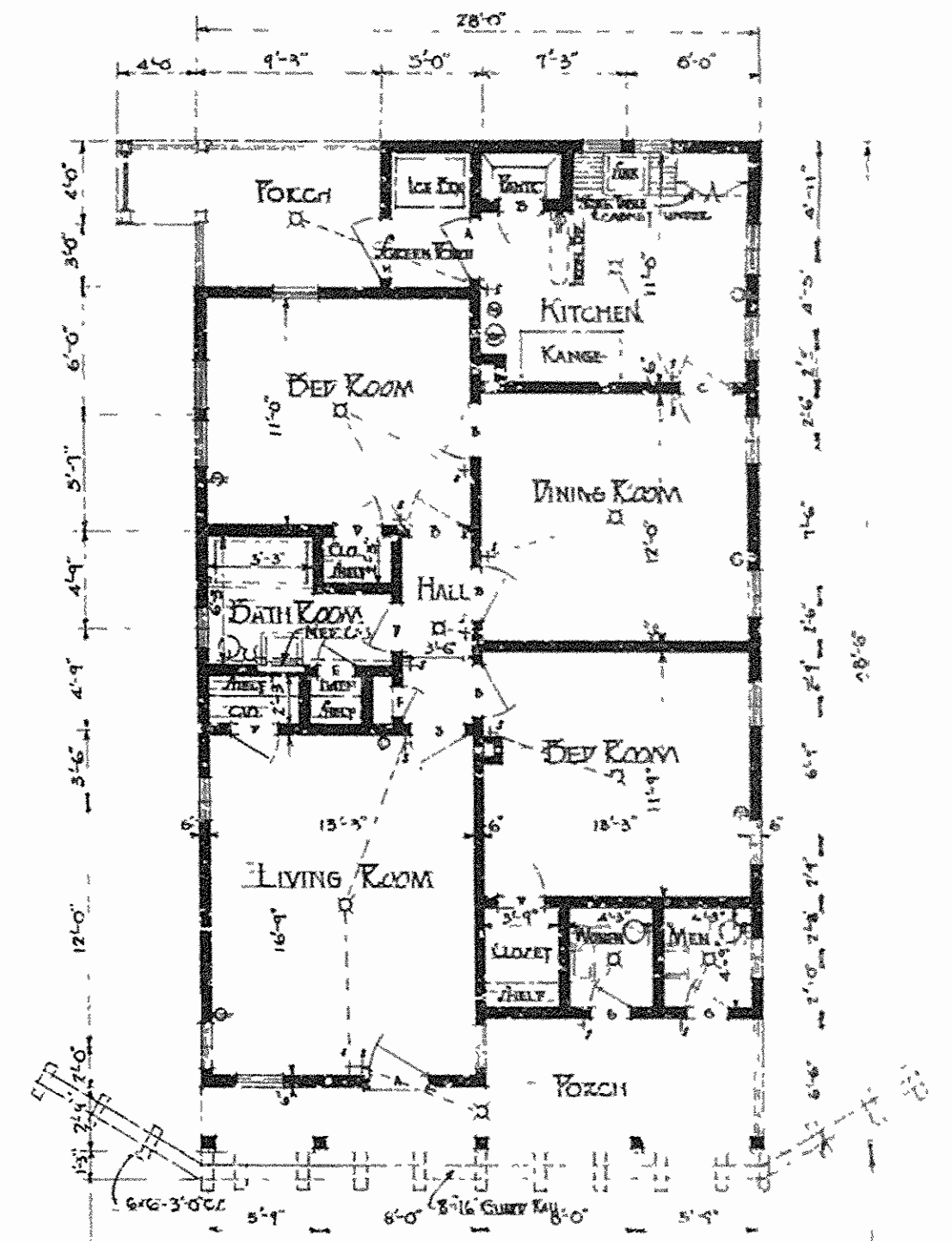
REAR ELEVATION  
SCALE 1/2"=1'-0"



LEFT ELEVATION  
SCALE 1/2"=1'-0"

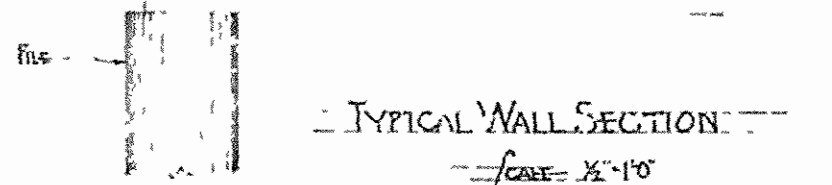


FOUNDATION PLAN  
SCALE 1/2"=1'-0"

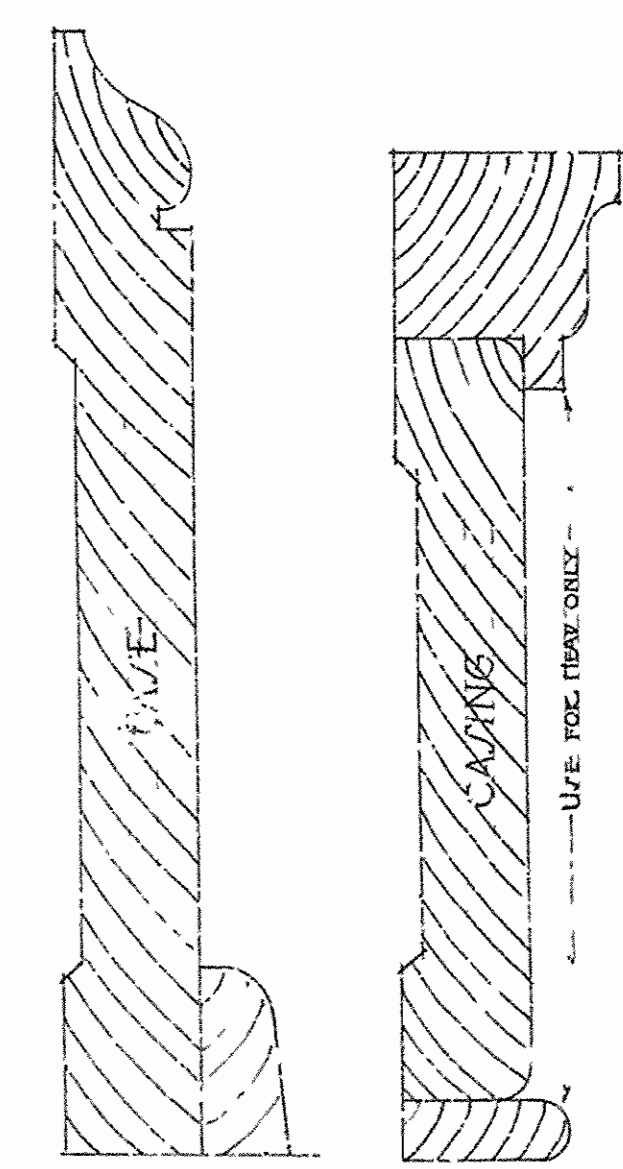


FLOOR PLAN  
SCALE 1/2"=1'-0"

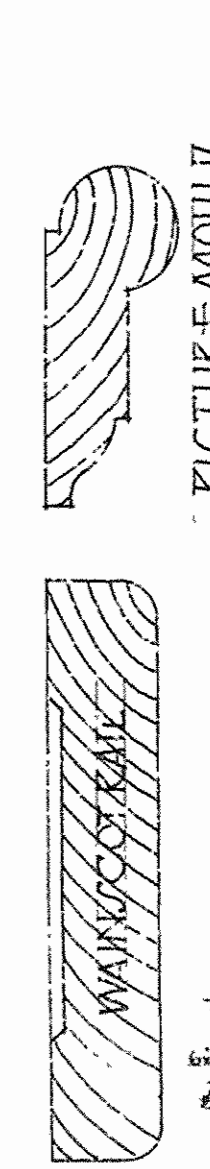
MARK	SIZE	DESCRIPTION	WOOD
A	2-4" x 10" x 1 1/2"	GLASS PNL. LATH	CYP.
B	2-2" x 10" x 1 1/2"	5 WOOD PNL.	PIK.
C	2-2" x 10" x 1 1/2"	5 WOOD PNL. V. ACT.	PIK.
D	2-2" x 10" x 1 1/2"	5 WOOD PNL.	PIK.
E	2-2" x 10" x 1 1/2"	2 WOOD PNL.	PIK.
F	1-6" x 10" x 1 1/2"	2 WOOD PNL.	PIK.
G	2-2" x 10" x 1 1/2"	2 WOOD PNL.	CYP.
H	2-2" x 10" x 1 1/2"	GLASS L WOOD PNL.	CYP.
K	2-2" x 10" x 1 1/2"	JACKED WOOD	CYP.



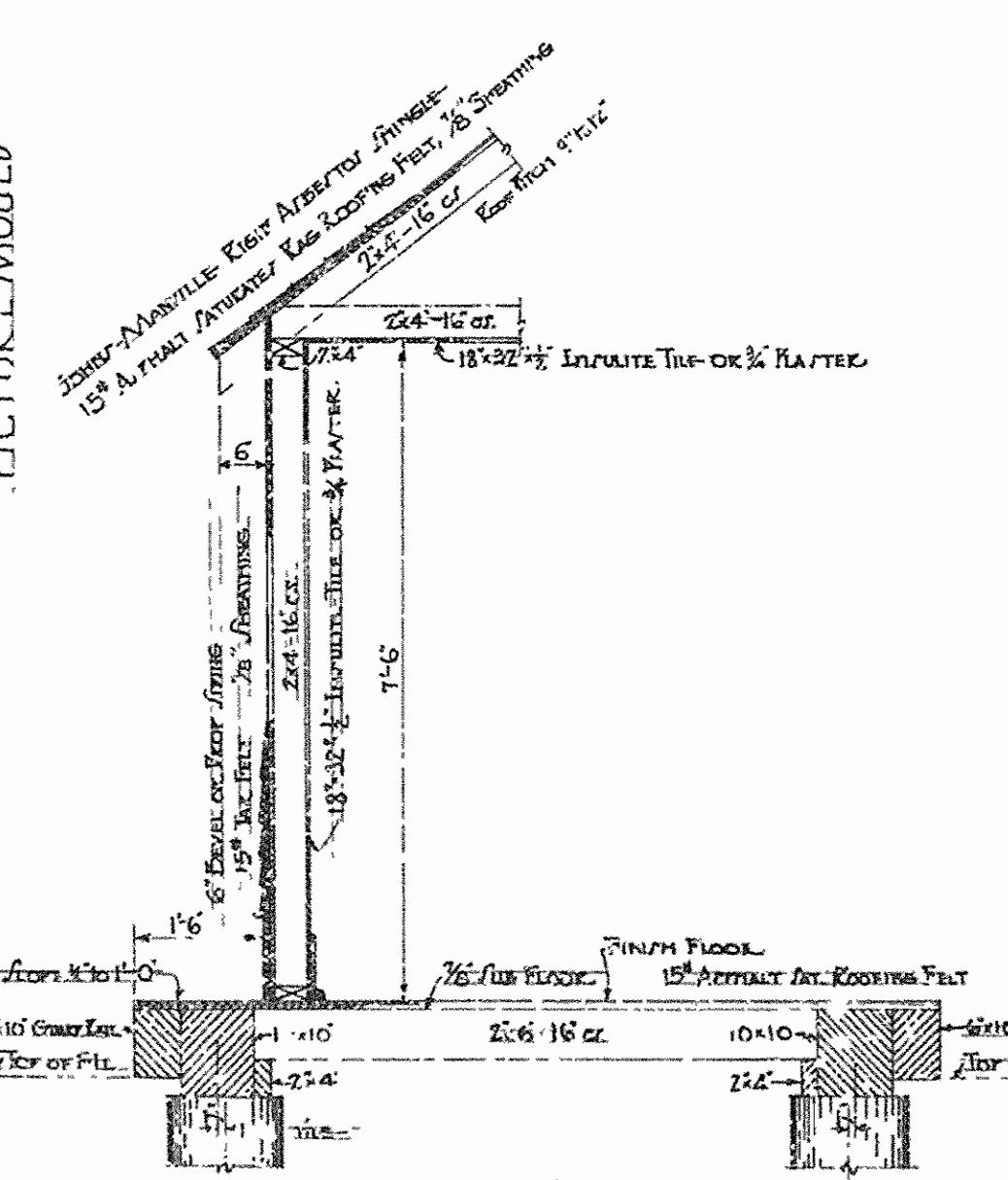
TYPICAL WALL SECTION  
SCALE 1/2"=1'-0"



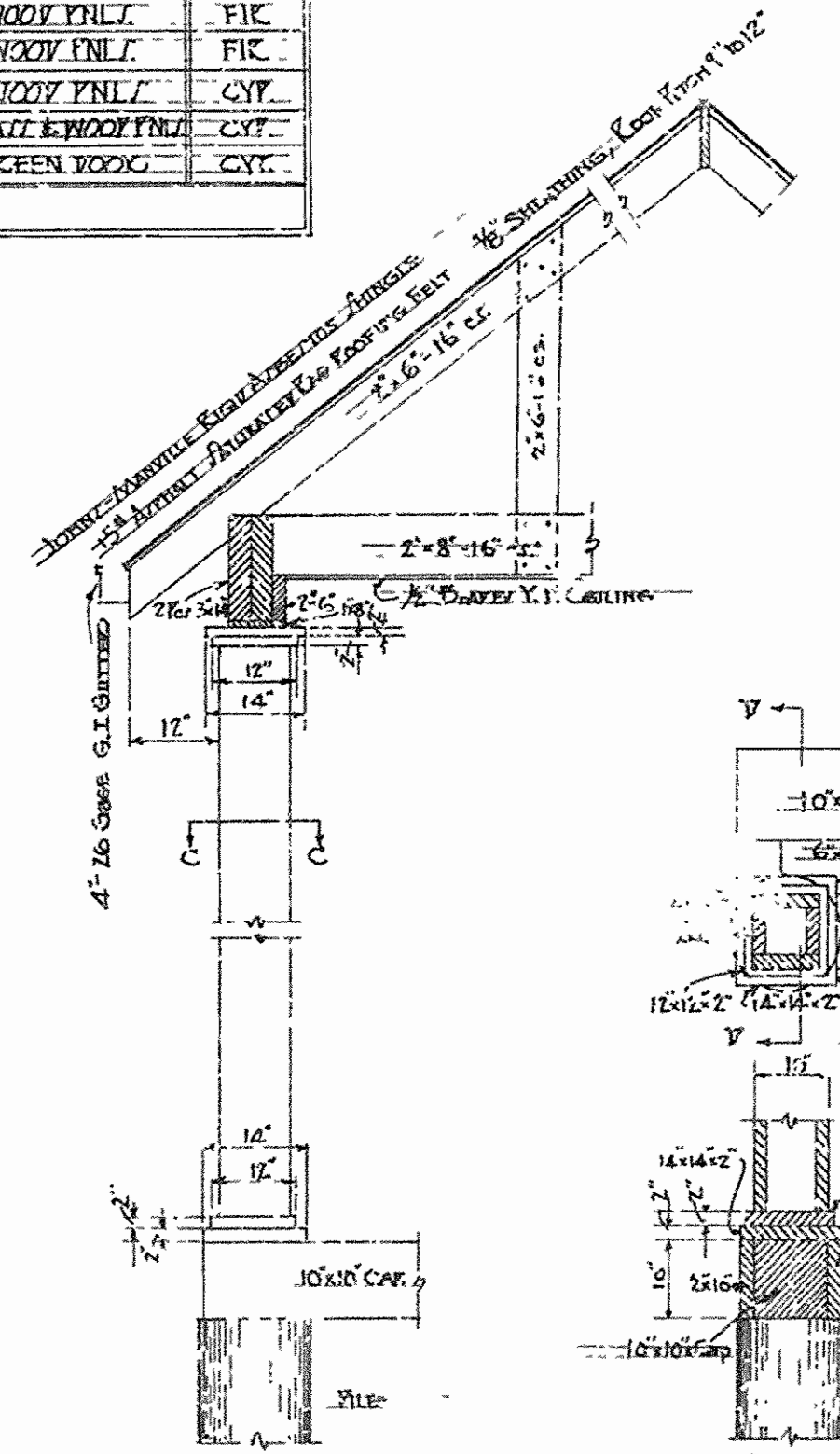
F. S. TRIMA DETAIL



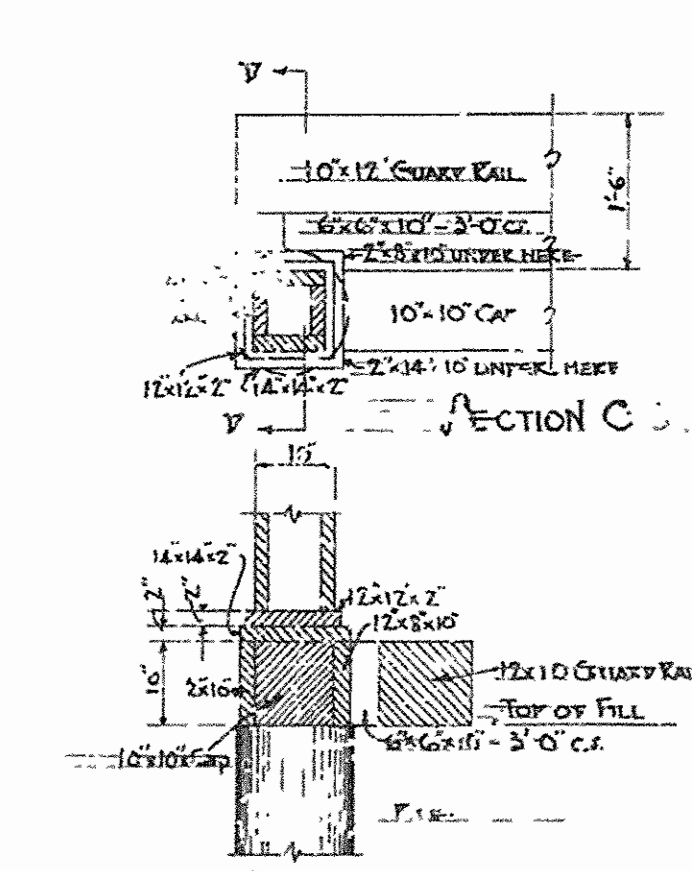
PICTURE MOULD



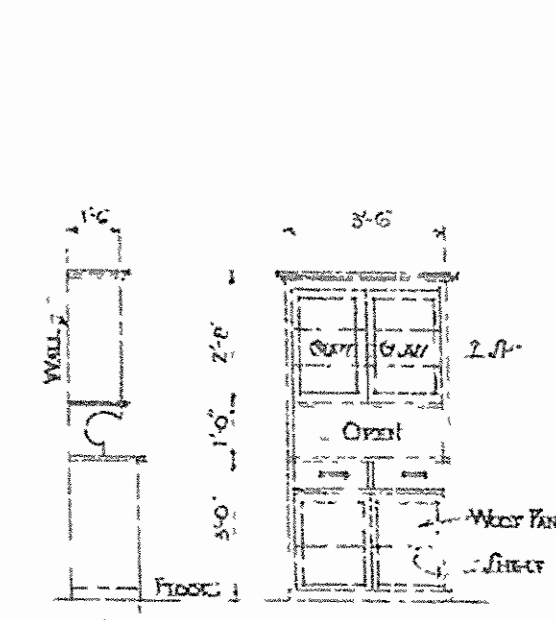
TRANSVERSE SECTION, TOLL TAKER'S OFFICE & PLATFORM  
SCALE 1/2"=1'-0"



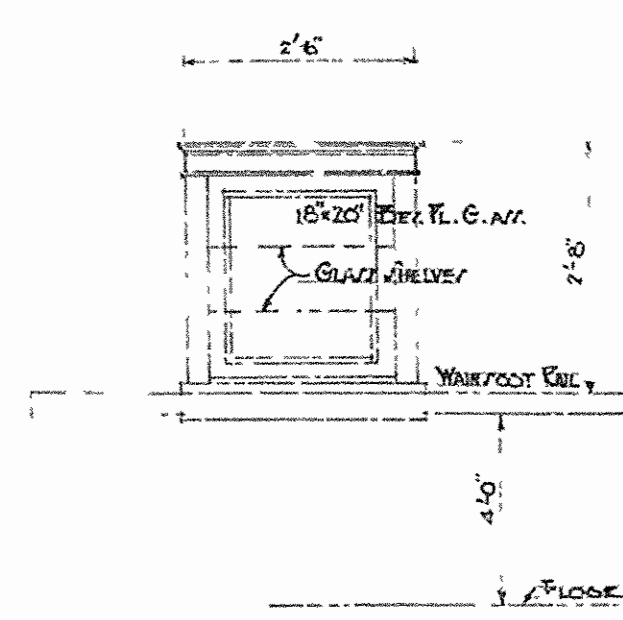
KIDNEY OVER KOATWAY AND END COLUMN



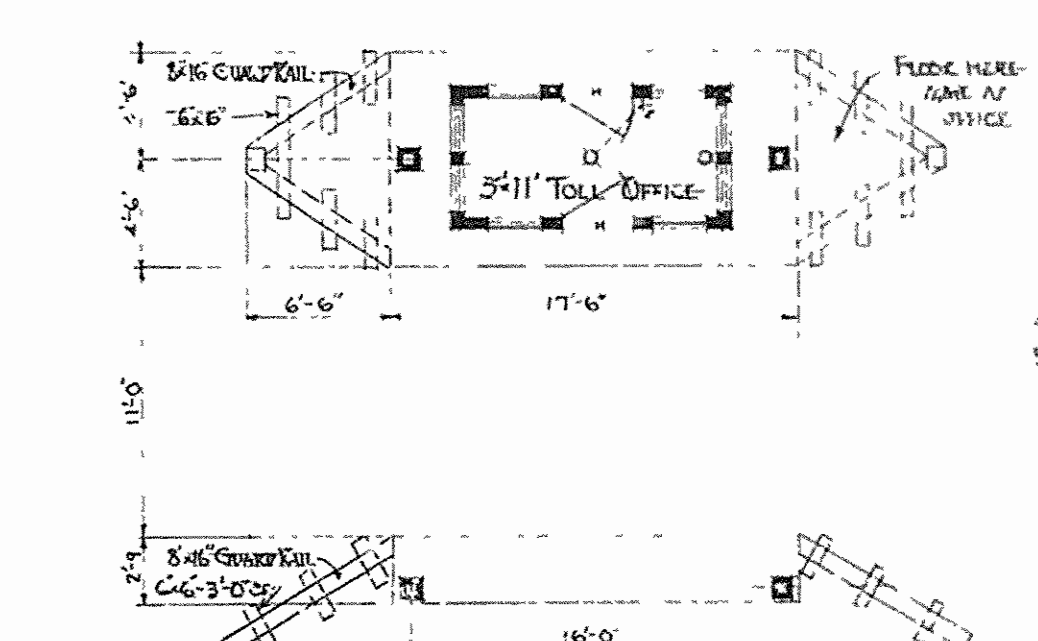
SECTION D-D  
SCALE 1/2"=1'-0"



DETAIL OF KITCHEN CUPB'D  
SCALE 1/2"=1'-0"



BATH ROOM MET. CAB  
SCALE 1/2"=1'-0"



LOCATION, TOLL TAKER'S HOUSE  
SCALE 1/2"=1'-0"

ARKANSAS STATE HIGHWAY COMMISSION  
BRIDGE OVER OJACHITA RIVER  
NEAR LITTLE ROCK  
FELSENTHAL, ARKANSAS  
LOCATION 'C'  
TOLL TAKER'S RESIDENCE

MADE BY: K.E.  
TRACED BY: K.F.  
CHECKED BY: L.D.  
DATE: JULY 1930. SCALE: AS SHOWN. SHEET NO. 10

IRA G. HEDRICK, INC.  
CONSULTING ENGINEERS  
HOT SPRINGS, ARK.