

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	S-449			
STATE JOB NO. 5307					

STATE OF ARKANSAS  
STATE HIGHWAY COMMISSION

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION  
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION  
ADOPTED MARCH 1, 1940 WITH THE SPECIAL PROVISIONS LISTED BELOW

INDEX OF SHEETS

SHEET NO.	DWG. NO.	DESCRIPTION
1	7100	Title Sheet Job No. 5307
2	7101	Summary Sheet Job No. 5307
3	7102	Layout Bridge No. 2308
4	7103	Details Abutment No. 1
5	7104	Details of Piers
6	7105	Details of Abutment No. 2
7	5102	Details of 50" I-Beam Spans
8	7106	Layout Bridge No. 2309 & 2309-A
9	7107	Layout Bridge No. 2310
10-11	2222-A & 2222-B	Details of Quadruple Culverts
12	1883	Details of Embankment Construction at Bridge Ends and Backfill for Structures.
13	1851	Basis of Computing Excavation for Structures
14	2397	Bridge Name Plates
15	1886	Standard Barricade, Warning, and Signs
17-20	7108-7111	Cross Sections
* 16	GR 5 (Rev)	Permissible Types of Steel Plate Guard Fence

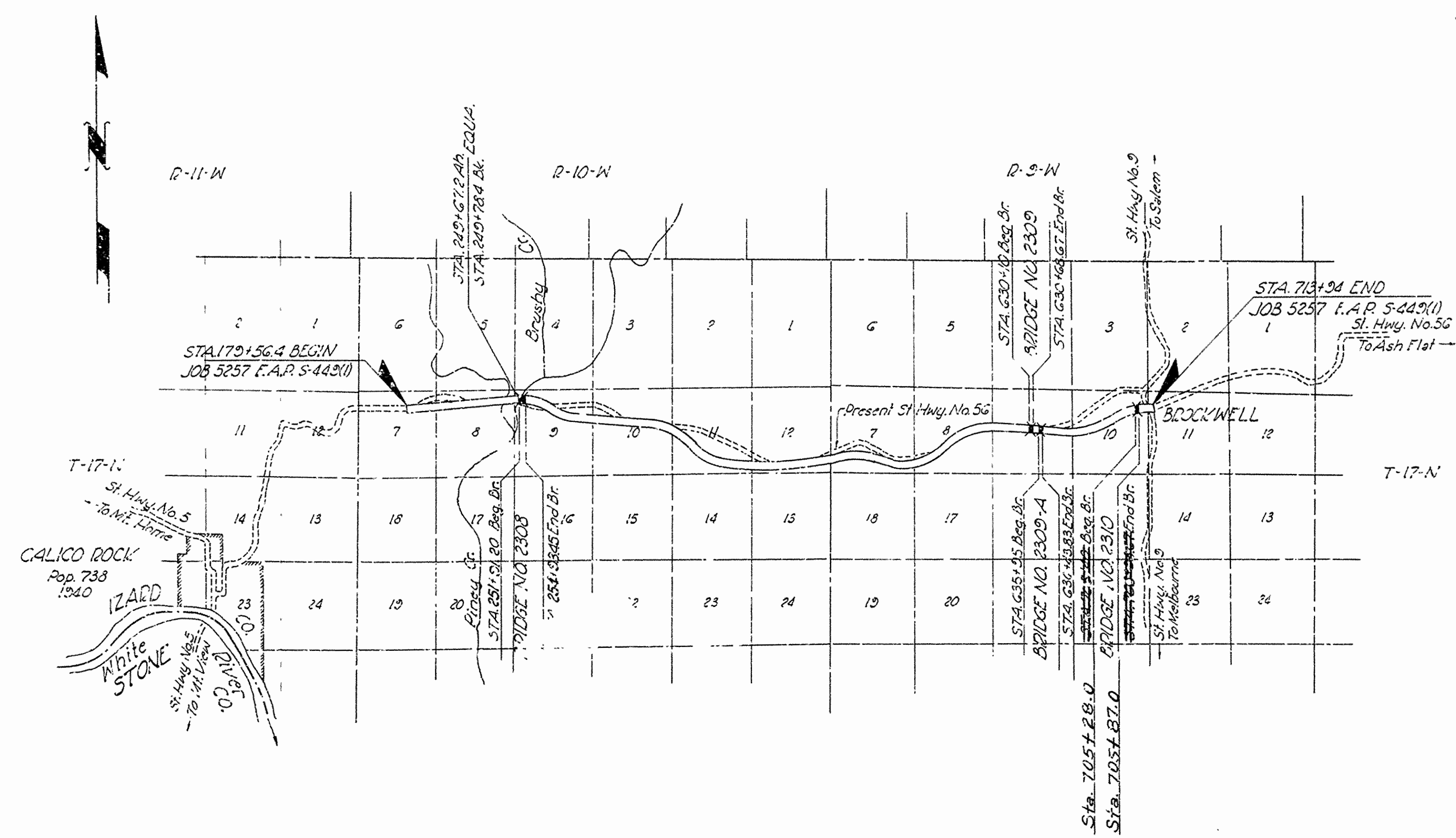
PLAN OF PROPOSED BRIDGES  
CALICO ROCK - BROCKWELL ROAD  
IZARD COUNTY  
ROUTE 56 SEC. 1  
JOB NO 5307

FEDERAL AID PROJECT NO. S-449 (2)

PAMPHLETS

DIVISION	PART
I	
II	1, 2, 3, 9
III	
IV	

NO.	SPECIAL PROVISIONS TITLE	NO. SHEETS
	Required Contract Provisions	7
2-1	Revision of Article 2.11 (appr. 2-8-41)	2
2-2	Equipment List Required	1
2-4	State License for Contractors	1
4-1	Revision of Article 4.9	1
8-3	Special Provision Pertaining to the Required Contract Provisions for Federal Aid Projects	2
9-5	Partial Payments	1
803-1	Revision of Article 803.21	1
850-1	Engineer's Field Office	1
853-1	Machine Mixing	1
Job No. 5307	Removal of Existing Bridges/Maintaining Traffic	1
803-3	Steel Plate Guard Rail	1



REVISED 7-6-48  
REVISED 7-29-48  
REVISED 9-9-48  
" 2-21-49

LAYOUT  
Scale: 1"=62,500'

FINAL LENGTH

LENGTH OF PROJECT=  
LENGTH OF BRIDGES=  
LENGTH OF EMBANKMENT=  
LENGTH OF JOB=

468.75 Feet or 0.088 Mile

APPROVED  
CHIEF ENGINEER-STATE HIGHWAY COMMISSION

APPROVED  
CHAIRMAN-STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL  
DISTRICT ENGINEER  
PUBLIC ROADS ADMINISTRATION  
FEDERAL WORKS AGENCY

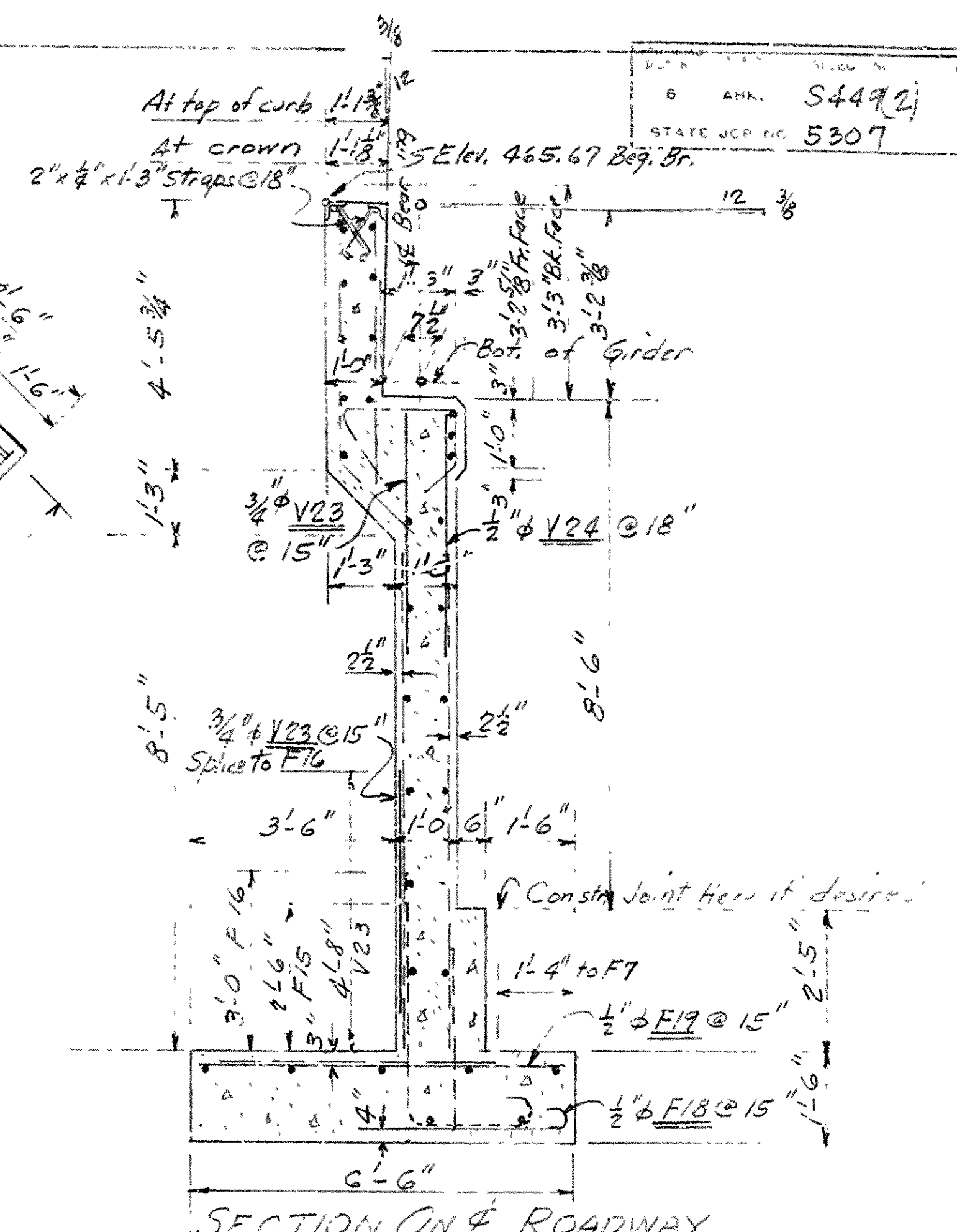
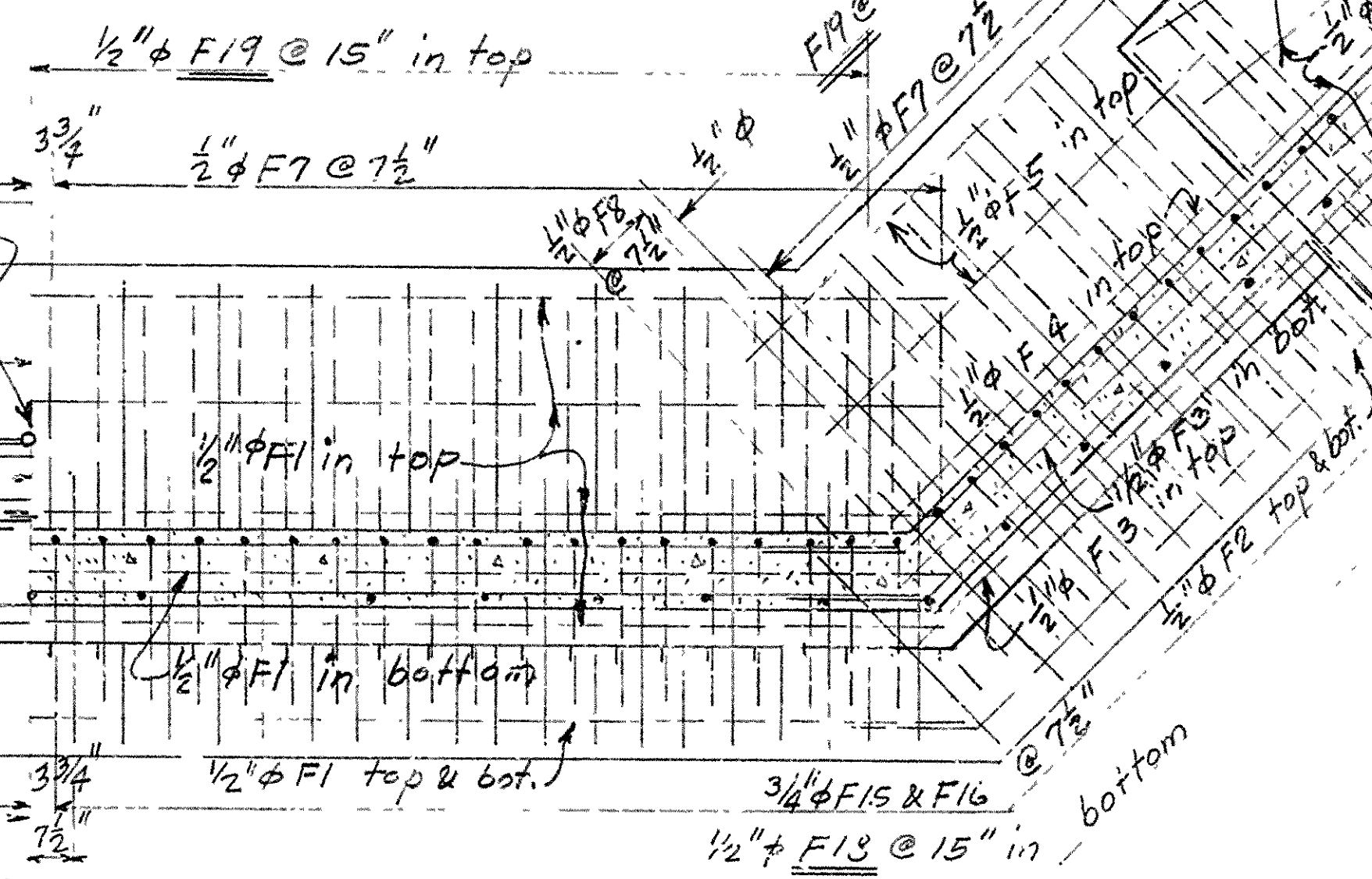
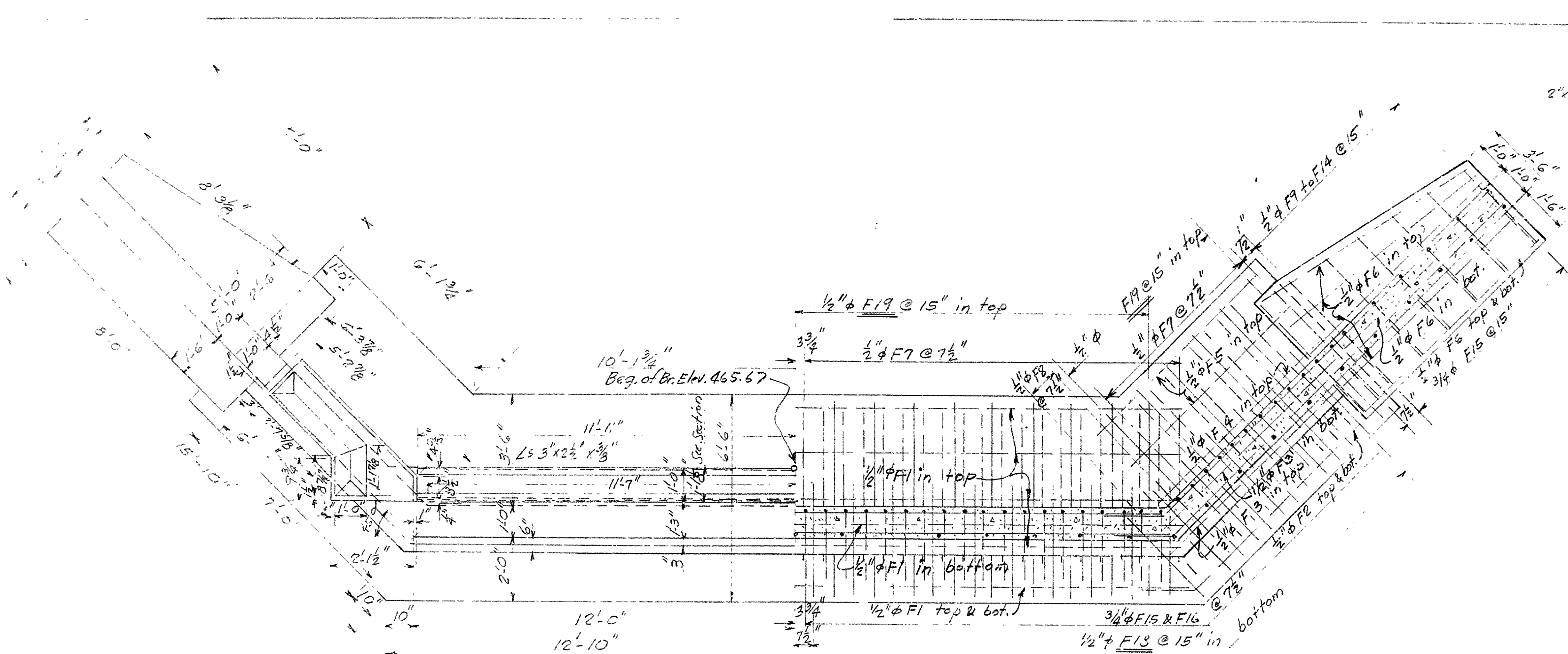
APPROVED  
DIVISION ENGINEER  
PUBLIC ROADS ADMINISTRATION  
FEDERAL WORKS AGENCY

N.B. Garrow  
PRINCIPAL HIGHWAY ENGINEER

BRIDGES Nos. 2308, 2309, 2309-A, & 2310

DRAWING No. 7100



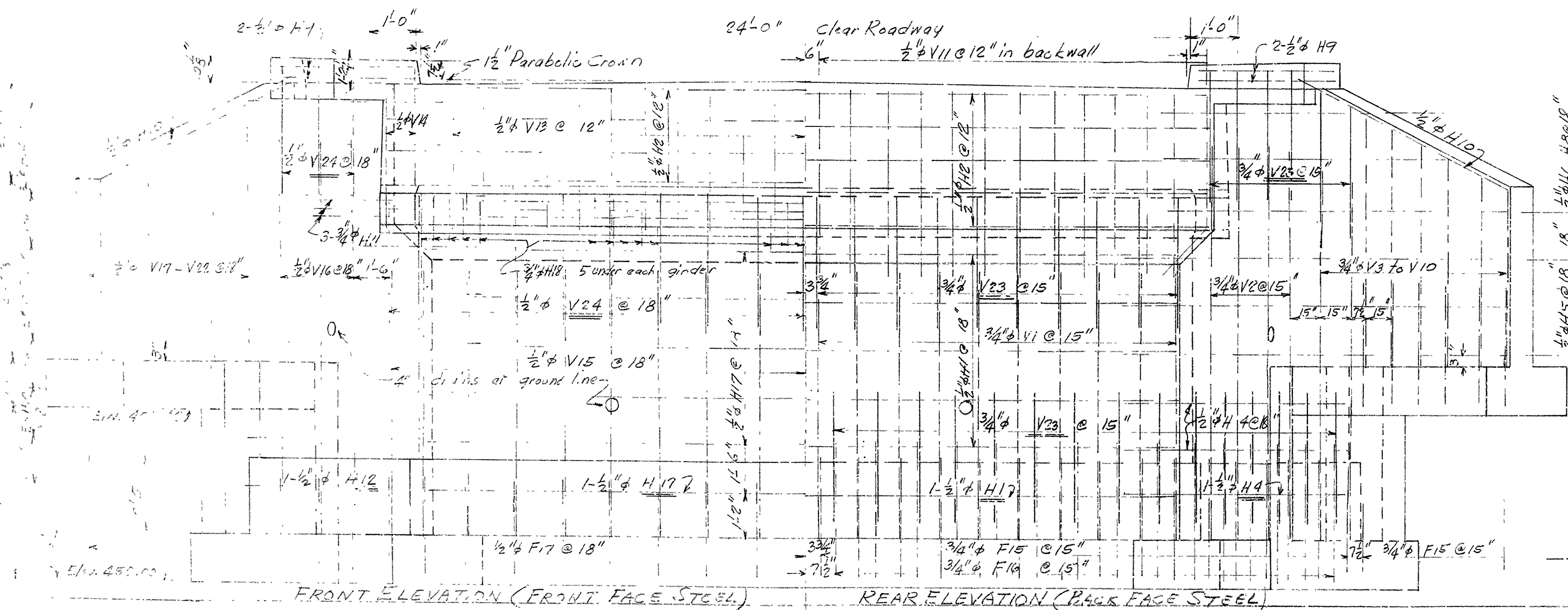


ADDITIONAL RODS REQUIRED

No.	Mark	Size	Length	Bending
34	F18	$\frac{1}{2}$ " $\phi$	4'-0"	
2	H4	$\frac{1}{2}$ " $\phi$	9'-5"	
2	H12	$\frac{1}{2}$ " $\phi$	9'-10"	
1	H1	$\frac{1}{2}$ " $\phi$	23'-6"	
1	H7	$\frac{1}{2}$ " $\phi$	22'-0"	
G2	V23	$\frac{3}{4}$ " $\phi$	4'-0"	
25	V24	$\frac{1}{2}$ " $\phi$	4'-0"	
31	F19	$\frac{1}{2}$ " $\phi$	6'-2"	

Additional Class "A" Concrete For Bridges 8.74 cu. yd.  
" Reinforcing Steel 71.5 LB.

For details not shown see entry 7103



REVISED DETAILS OF  
ABUTMENT NO. 1  
BRIDGE OVER PINEY CREEK  
CALICO ROCK BROCKWELL ROAD  
IZARD COUNTY  
ROUTE 56 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

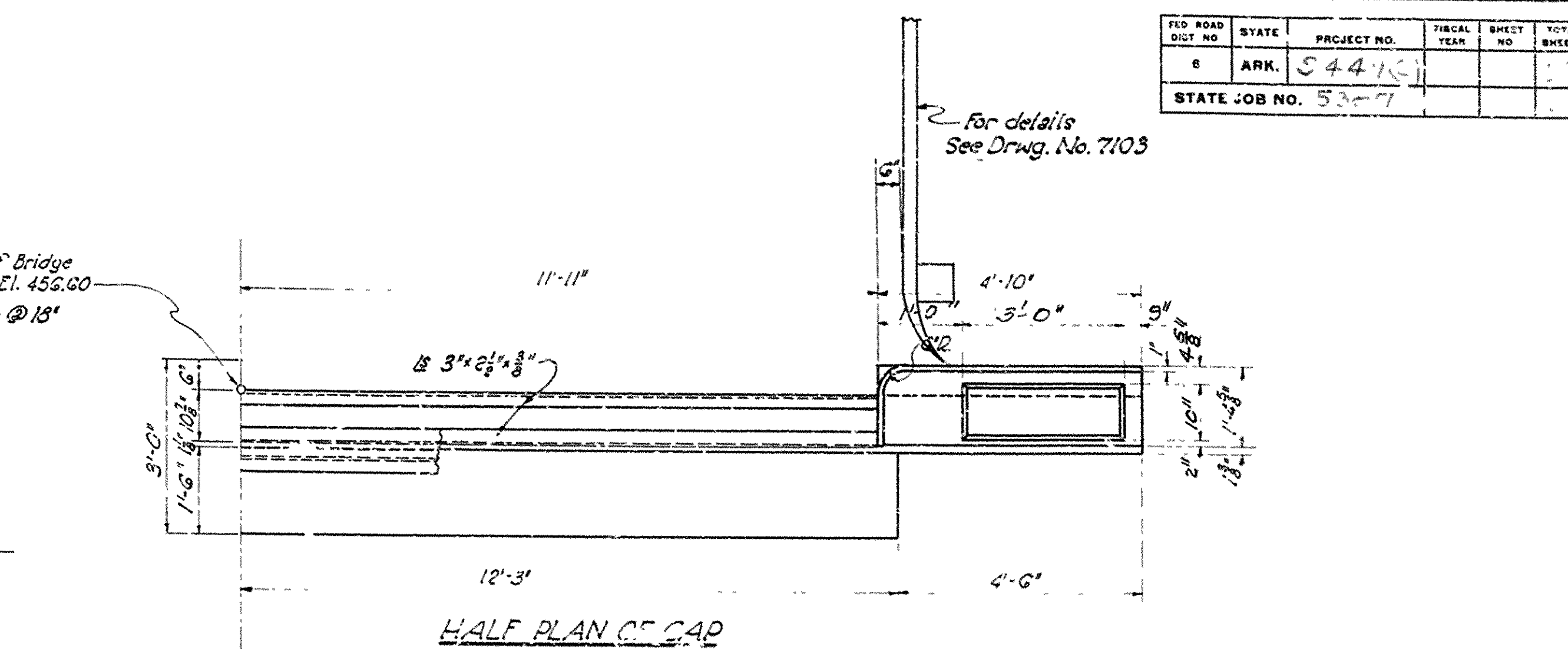
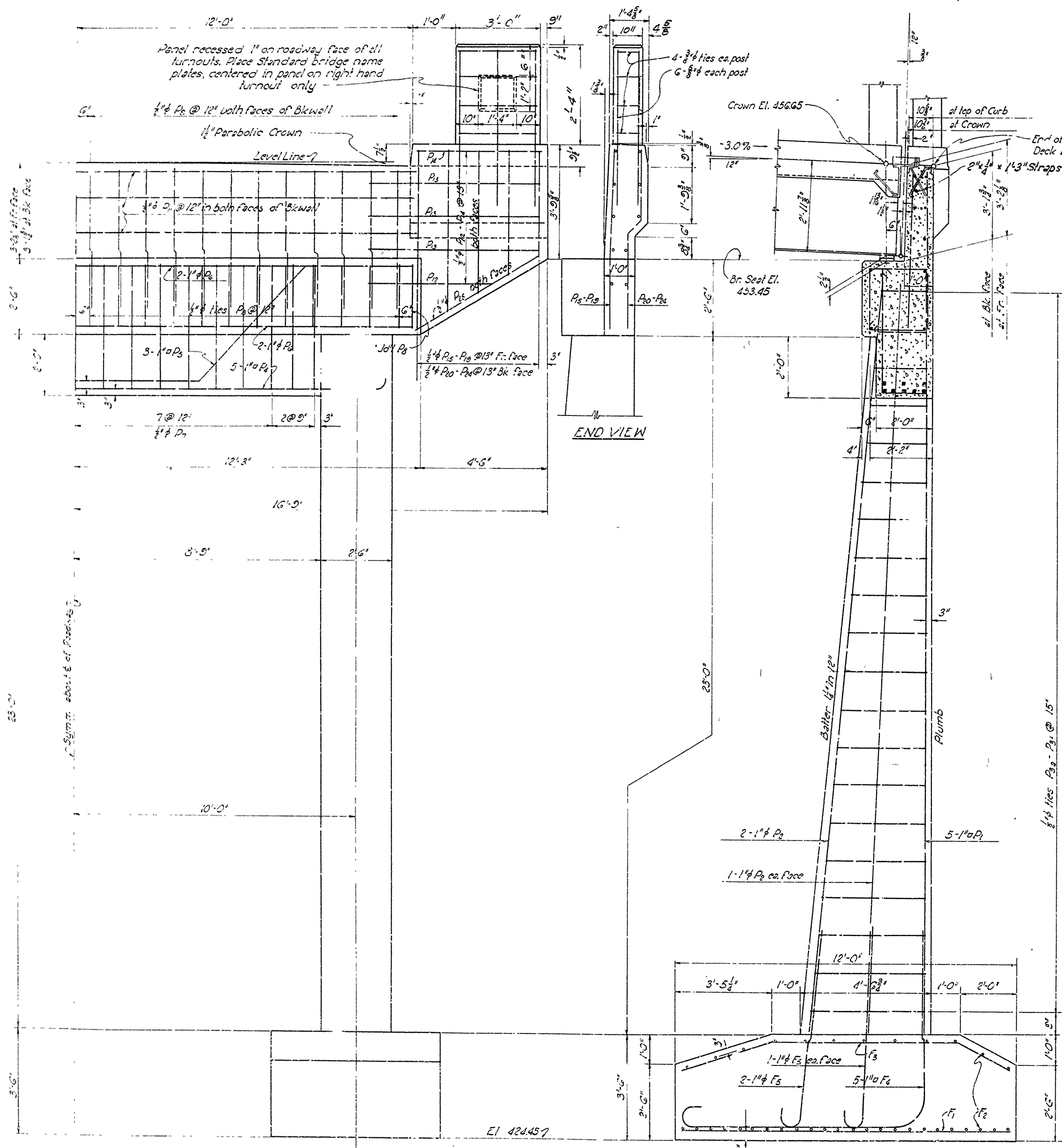
Drawn By W.C. 8-25-49 Scale  $\frac{1}{2}$  in = 1 ft.

BRIDGE No. 2308      DRAWING NO. 7103-A

Bridge Engineer

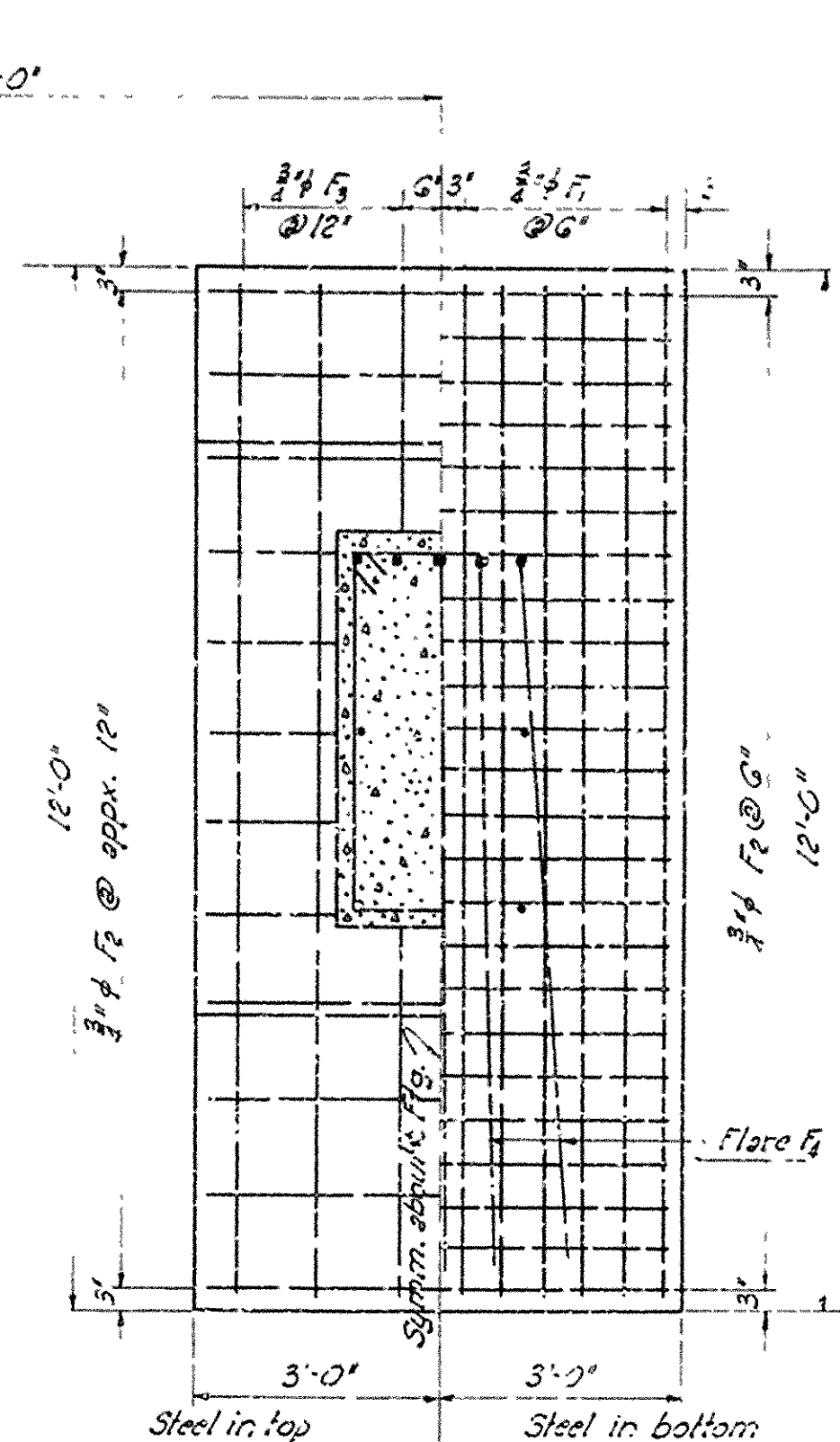


FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	54413			
STATE JOB NO. 53-71					



LIST OF BENT BARS

Mark	Size	Length	A	B	Diagram
F <sub>3</sub>	3/4"	12'-0"			
F <sub>4</sub>	1"	15'-9"	6'-0"	8'-8"	
F <sub>5</sub>	1"	7'-6"	6'-0"		
P <sub>3a</sub>	1/2"	10'-8 1/2"	1'-7 1/2"	2'-1 1/2"	
P <sub>3b</sub>	1/2"	10'-8 1/2"	1'-7 1/2"	2'-1 1/2"	
P <sub>4</sub>	1"	26'-0"	24'-0"		
P <sub>5</sub>	1"	27'-3"			
P <sub>7</sub>	1/2"	12'-3"	4'-1 1/2"	1'-7 1/2"	
P <sub>8</sub>	1/2"	9'-3"	2'-1 1/2"	2'-1 1/2"	
P <sub>20</sub>	1/2"	3'-11 1/2"	0'-9"	2'-3 1/2"	
P <sub>21</sub>	1/2"	3'-2"	3'-2"		



**General Notes:**  
 All concrete to be Class 'A'. All exposed corners to have 3/4" chamfer unless otherwise shown.  
 All concrete to be poured in the dry.  
 Shop lists and bending diagrams of reinforcing steel shall be submitted and approval secured before fabrication is begun.  
 Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1st, 1940.  
 Max. Foundation Pressure = 2 1/2 Tons Per Sq. Ft.  
 For details of Superstructure See Drwg. #5193

Revised 7-6-48 Paving North Out  
 " 7-29-48 Guard Fence at bridge End  
 " 9-9-48 Rail & Curb.

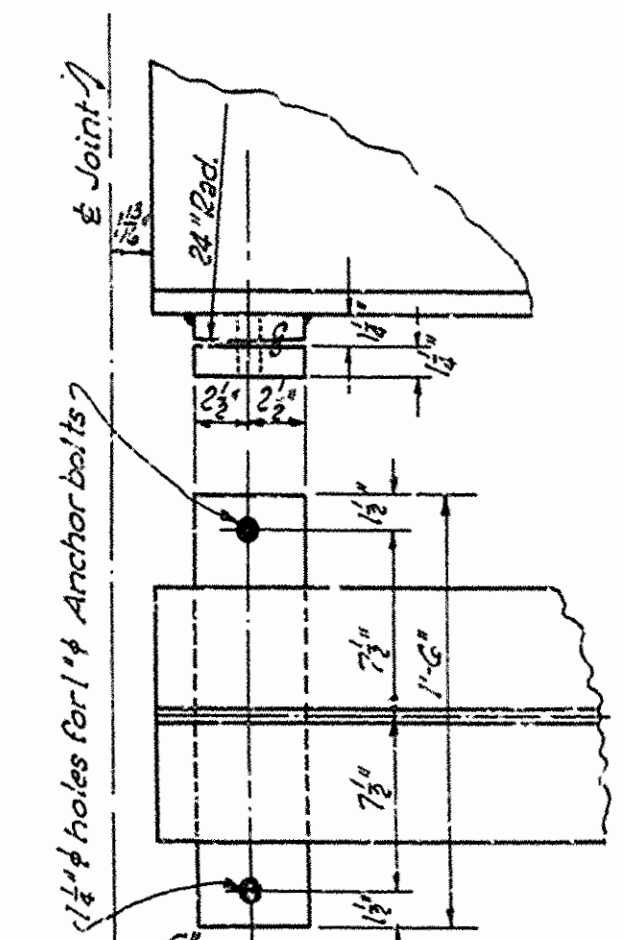
**DETAILS OF**  
**ABUTMENT NO. 2**  
**BRIDGE OVER PINEY CREEK**  
**CALICO ROCK - BROCKWELL ROAD**  
**IZARD COUNTY**

ROUTE 56 SEC. 1  
**ARKANSAS STATE HIGHWAY COMMISSION**  
 LITTLE ROCK, ARK.  
 Drawn By: E.A.W. Date: 2-18-47  
 Traced By: E.T.S. Date: 10-22-47  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 BRIDGE NO 2308 DRAWING NO. 7105

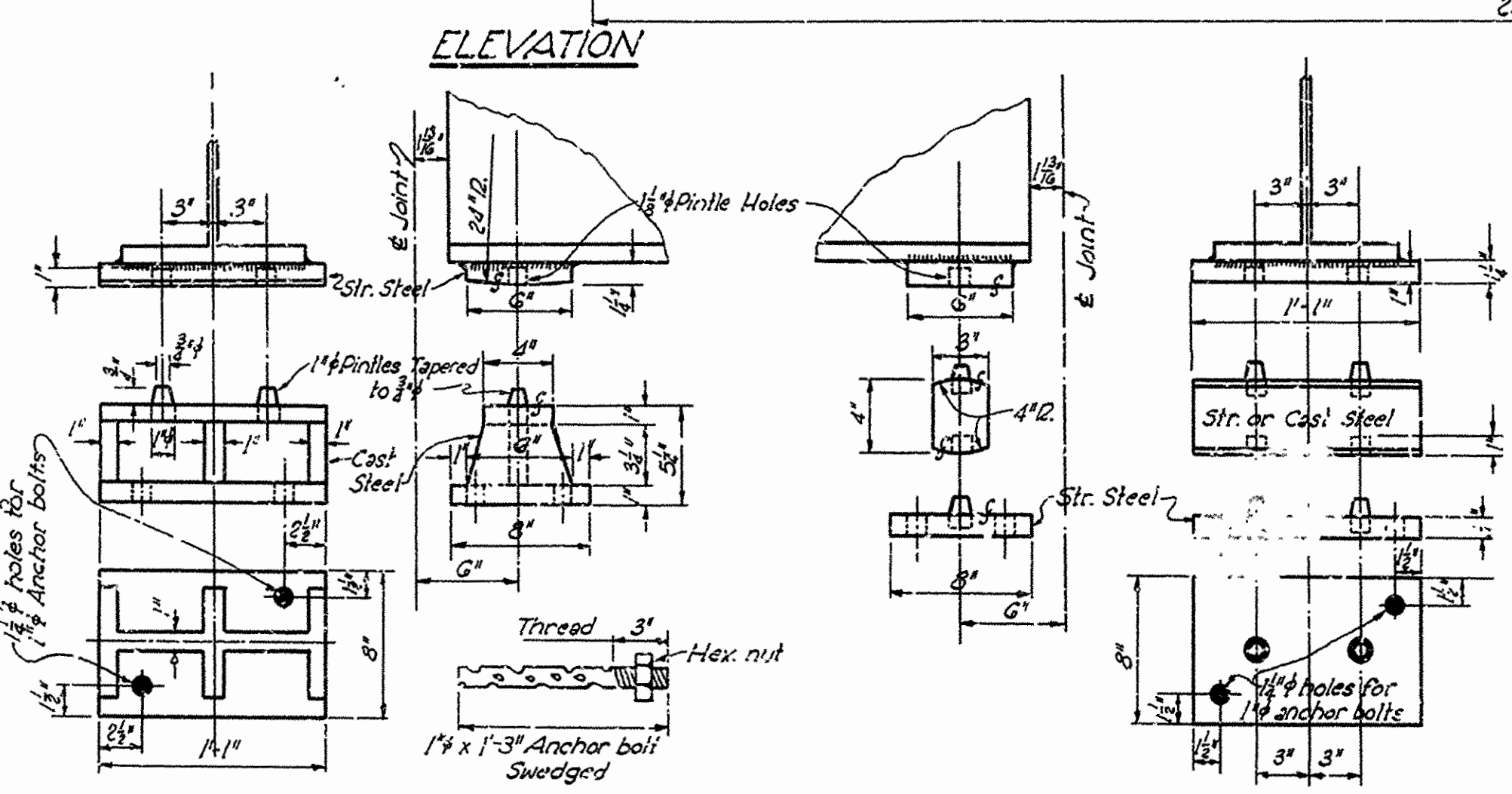
*M.W. Garver*  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)



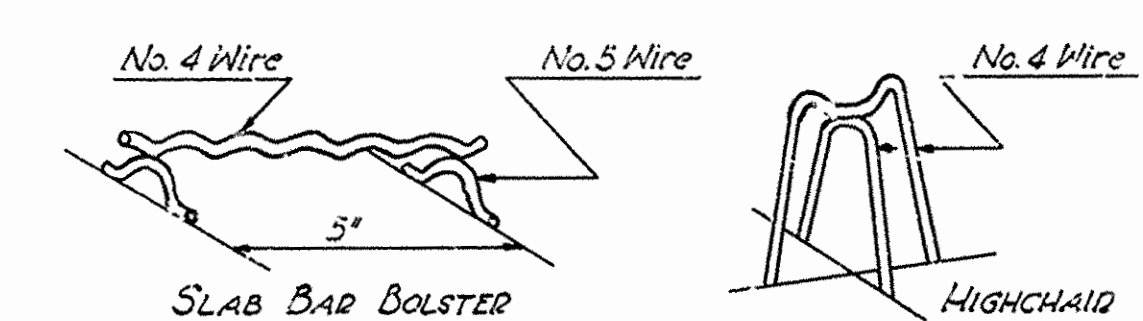




BEARING PLATES AT  
ABUTMENTS  
Scale:  $1\frac{1}{2}'' = 1'-0''$



FIXED SHOE EXPANSION  
DETAILS OF BEARINGS AT INTERMEDIATE BENTS  
Scale: 1/4" = 1'-0"



All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire chair supports adequate to prevent displacement during the course of construction and to keep the steel a proper distance from the forms.

Bar supports are to be sufficient in number and sufficiently heavy to properly carry the steel they support. Wire sizes shall not be less than shown.

Wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel." Shop lists and diagrams must be submitted for approval.

GENERAL NOTES

All concrete to be Class "S". All exposed corners to have  $\frac{3}{4}$ " chamfer unless otherwise noted.  
Rivets  $\frac{3}{4}$ ". Open holes  $\frac{1}{16}$ ". Where bolts are indicated use machine bolts.

Structural shapes of equal or greater strength may be substituted for shapes shown but payment will be made on basis of shapes shown or those actually used whichever is the lesser.

All welded connections to be 3/4" fillet shop welds except as noted.

Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: First, White Lead tinted with Lamp Black. Second coat, Aluminum.

All bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans."

Weight of C.I. Drains to be included in weight of Reinforcing Steel.

Care shall be exercised to obtain 90° in the angle between flange and web of beams at bearing points.

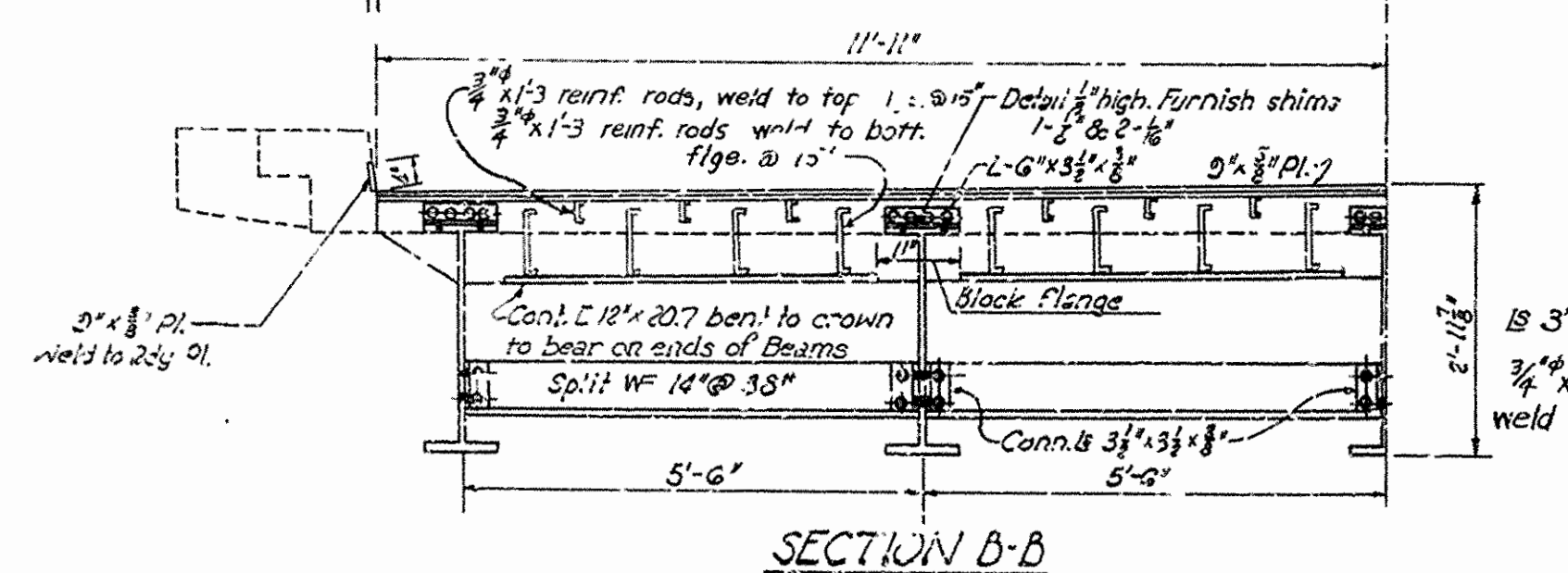
This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

In order to secure a good riding surface it will be required that the floor slab be struck off from curb to curb with a half span long longitudinal strike-off. The strike-off shall be sufficiently stiff so as to have no appreciable vertical deflection.

**SPECIFICATIONS:** Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction. Adopted March 13, 1940.

Bearings shall be finally sealed on 3 layers of bur'ap saturated with red lead. This work and material to be included in the unit price bid for "Structural Steel in Beam Spans."

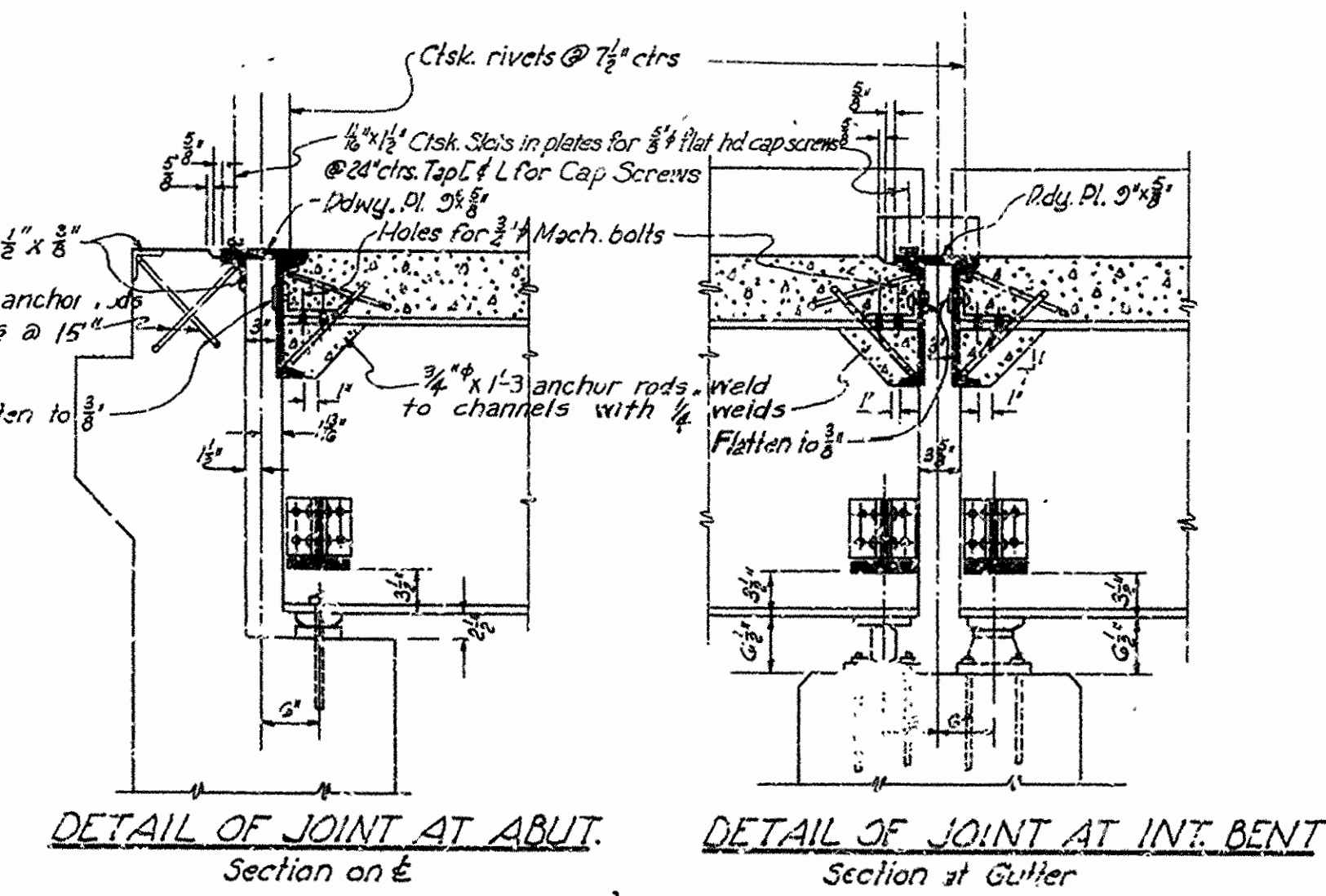
The steel plate guard rail shall be of the type shown or an equivalent rigid type as approved by the Engineer. The rail, including concrete posts, shall be paid for at the unit price bid per linear foot for "Steel Plate Guard Rail."



LIST OF BENT BARS

**BENDING DIAGRAM**

MEMBER	SIZE	LENGTH
S <sub>1</sub>	8" x 8"	23'-9"
S <sub>2</sub>	8" x 8"	26'-0"
S <sub>3</sub>	8" x 8"	20'-0 1/2"
S <sub>4</sub>	8" x 8"	3'-0"
S <sub>5</sub>	8" x 8"	8'-6"
S <sub>6</sub>	8" x 8"	8'-0"
S <sub>7</sub>	12" x 8"	8'-0"



DETAIL OF JOINT AT ABUT.      DETAIL OF JOINT AT INT. BENT  
Section on E      Section at Gutter  
Scale:  $\frac{3}{8}" = 1'-0"$

REVISED 7-2-48  
REVISED 7-30-48 Handrail  
REVISED 9-13-48 Handrail  
REVISED 4-25-50 Cap Screws in Lieu  
of Tap Bolts

REVISED 6-30-50 Anchor Bolts  
REVISED 7-6-50 Angles at End berit  
" 7-28-52 Rail Posts, Reinf. Bars  
and Anchor Rods

DETAILS OF  
STANDARD 50'-0" I-BEAM SPAN  
24'-0" CLEAR ROADWAY 1'-0" CURB

**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.

Drawn By: L.A.M. Date: 8-28-47  
Traced By: E.F.S. Date: 9-30-47  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Scale:  $\frac{1}{2}$  in. = 1 ft.  
and as noted

**BRIDGE NO.** \_\_\_\_\_ **DRAWING NO.** 5193