

FED. DIST. NO.	STATE	U.S. PW PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	ARK.	NRH 311-D	1934	1	17

JOB NO. 3166

244

# STATE OF ARKANSAS STATE HIGHWAY COMMISSION

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## QUANTITIES

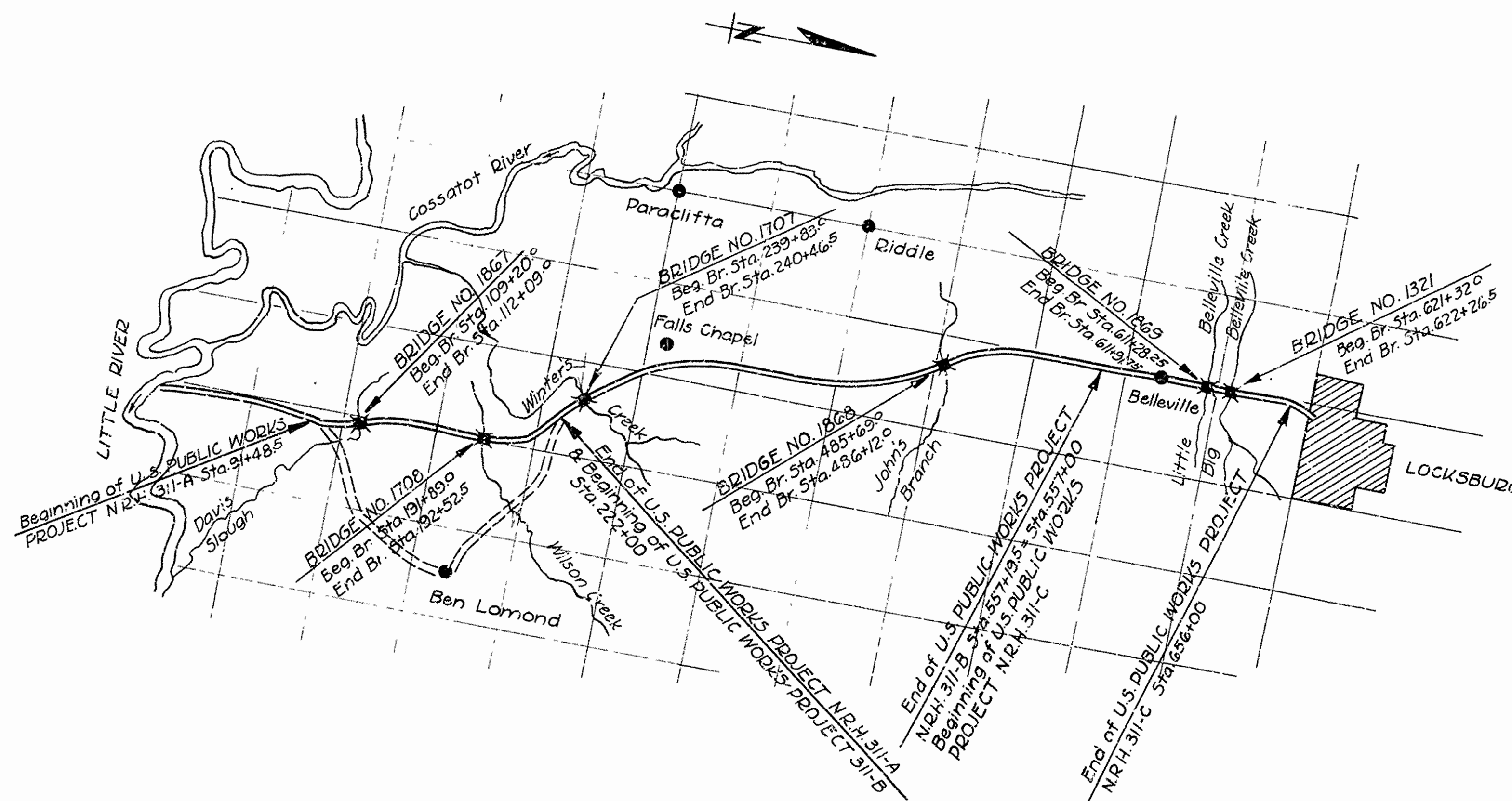
Item No.	Item	Quantity	Unit
13	Dry Excavation for Structures	1,231	Cu.Yds.
13	Wet Excavation for Structures	1,451	Cu.Yds.
91	Class "4" Concrete for Bridges	884.9	Cu.Yds.
91	Class "5" Concrete for Bridges	3673	Cu.Yds.
92	Reinforcing Steel for Bridges	164,673	Lbs.
94	Concrete Railing for Bridges	1,337	Lin.Ft.
95	Dip Rap	449	Cu.Yds.
96	Structural Steel in Beam Spans	280,786	Lbs.
98	Untreated Timber Piling	5,328	Lin.Ft.
S.P.	Machined Bearing Plates	13,496	Lbs.
S.P.	Bronze State Bridge Name Plates	12	Each
S.P.	Bronze Project Marker Plates	12	Each
S.P.	Removal of Existing Structures and Maintaining Traffic	Lump Sum	

# PLAN OF PROPOSED BRIDGES ON LITTLE RIVER-LOCKSBURG ROAD SEVIER COUNTY

ROUTE 71 SEC. 5

JOB No 3166

U.S. PUBLIC WORKS PROJECT N.R.H. 311-D



Specifications approved by Chief, Bureau of Public Roads, September 28, 1925, and adopted by State Highway Commission, March 30, 1925, with revisions and Special Provisions as follows:

Pamphlet	Revised	Month	Year	Appr.	Date
A	L	Feb.	10, 1933		
"	M	Mar.	1, 1931		June 13, 1931
"	N	Oct.	1, 1933		
"	O	Oct.	1, 1933		
"	P	Oct.	1, 1933		

## SPECIAL PROVISIONS

Subletting, Labor & NRA Code Compliance  
Beginning and Prosecution of Work  
Machined Bearing Plates  
Bronze Project Marker Plates & Bronze State Bridge Name Plates  
Removal of Existing Structures & Maintaining Traffic  
Engineer's Field Office

Item	No. of Sheets
Subletting, Labor & NRA Code Compliance	13
Beginning and Prosecution of Work	1
Machined Bearing Plates	1
Bronze Project Marker Plates & Bronze State Bridge Name Plates	1
Removal of Existing Structures & Maintaining Traffic	1
Engineer's Field Office	1

## LAYOUT

Scale: 1"=1 Mile

LENGTH OF PROJECT	= 617'-0"= 0.116 MILES
LENGTH OF BRIDGES	= 617'-0"= 0.116 MILES
LENGTH OF EMBANKMENT	= 0'-0"
LENGTH OF JOB	= 617'-0"= 0.116 MILES

APPROVED	
CHIEF ENGINEER - U. S. BUREAU OF PUBLIC ROADS	
APPROVED	
DISTRICT ENGINEER - U. S. BUREAU OF PUBLIC ROADS	
APPROVED	
CHIEF - U. S. BUREAU OF PUBLIC ROADS	
APPROVED	
CHAIRMAN - STATE HIGHWAY COMMISSION	
APPROVED	
STATE HIGHWAY ENGINEER	

*M.B. Gower*  
BRIDGE ENGINEER

BRIDGES No. 1867, 1708, 1707, 1868, 1869 & 1321  
DRAWING No. 3777

FED. ROAD DIST. NO.	STATE	U.S. PUBLIC WORKS PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	N.R.H.311-D	1934	2	17

JOB NO. 3166

SCHEDULE OF QUANTITIES  
U.S. PUBLIC WORKS PROJECT NO. N.R.H. 311-D  
STATE JOB NO. 3166

Items		Item No. 13 Dry Excav. for Struct's Cu. Yds.	Item No. 13 Wet Excav. for Struct's Cu. Yds.	Item No. 91 Class "A" Conc. for Bridges Cu. Yds.	Item No. 91 Class "S" Conc. for Bridges Cu. Yds.	Item No. 92 Reinf. Steel for Bridges Lbs.	Item No. 94 Conc. Railing for Bridges Lin. Ft.	Item No. 95 Rip Rap Cu. Yds.	Item No. 96 Struct. Steel in Beam Spans Lbs.	Item No. 98 Untr. Timber Piling Lin. Ft.	Item No. 5.P Machined Bear. Plates Lbs.	Item No. 5.P Bronze St. Br. Name Plates Each	Item No. 5.P Bronze Proj. Marker Pl's Each	Item No. 5.P Removal of Exst'g Struct. & Maintain. Traffic.
Bridge No. 1867	Superstructure 7-41' I-Beam Spans	-	-	-	171.7	37,005	574.0	-	147,770	-	6,013	-	-	
	Abutment No. 1	122.0	74.0	59.6	-	6,562	10.5	65.0	-	324.0	-	1	-	
	Bent No. 1	17.0	66.0	28.1	-	2,079	-	-	-	216.0	-	-	-	
	Bent No. 2	0	53.0	28.1	-	2,079	-	-	-	216.0	-	-	-	
	Bent No. 3	0	57.0	28.1	-	2,079	-	-	-	216.0	-	-	-	
	Bent No. 4	2.0	66.0	28.1	-	2,079	-	-	-	216.0	-	-	-	
	Bent No. 5	15.0	66.0	28.1	-	2,079	-	-	-	216.0	-	-	-	
	Bent No. 6	25.0	66.0	28.1	-	2,079	-	-	-	216.0	-	-	-	
	Abutment No. 2	122.0	74.0	59.6	-	6,562	10.5	65.0	-	324.0	-	1	-	
	Totals	303.0	522.0	287.8	171.7	62,603	595.0	130.0	147,770	1,944.0	6,013	2	2	
Bridge No. 1868	Superstructure 1-41' I-Beam Span	-	-	-	24.6	5,354	82.0	-	21,110	-	859	-	-	
	Abutment No. 1	27.0	131.0	57.5	-	4,978	9.0	-	-	-	-	1	-	
	Abutment No. 2	48.0	131.0	57.5	-	4,978	9.0	-	-	-	-	1	-	
	Totals	75.0	262.0	115.0	24.6	15,310	100.0	0.0	21,110	0.0	859	2	2	
Bridge No. 1708	Superstructure 2-31' I-Beam Spans	-	-	-	38.0	8,290	124.0	-	24,868	-	1,472	-	-	
	Abutment No. 1	96.0	63.0	44.7	-	4,961	10.5	29.0	-	288.0	-	1	-	
	Pier No. 1	0	45.0	24.9	-	1,958	-	-	-	216.0	-	-	-	
	Abutment No. 2	136.0	63.0	44.7	-	4,961	10.5	24.0	-	288.0	-	1	-	
	Totals	232.0	171.0	114.3	38.0	20,170	145.0	53.0	24,868	792.0	1,472	2	2	
Bridge No. 1707	Superstructure 2-31' I-Beam Spans	-	-	-	38.0	8,290	124.0	-	24,868	-	1,472	-	-	
	Abutment No. 1	98.0	52.0	44.7	-	4,961	10.5	44.0	-	288.0	-	1	-	
	Pier No. 1	0	57.0	24.9	-	1,958	-	-	-	216.0	-	-	-	
	Abutment No. 2	95.0	52.0	44.7	-	4,961	10.5	44.0	-	288.0	-	1	-	
	Totals	193.0	141.0	114.3	38.0	20,170	145.0	88.0	24,868	792.0	1,472	2	2	
Bridge No. 1869	Superstructure 2-31' I-Beam Spans	-	-	-	38.0	8,290	124.0	-	24,868	-	1,472	-	-	
	Abutment No. 1	70.0	63.0	44.7	-	4,961	10.5	43.0	-	288.0	-	1	-	
	Pier No. 1	0	39.0	24.9	-	1,958	-	-	-	216.0	-	-	-	
	Abutment No. 2	52.0	55.0	44.7	-	4,961	10.5	52.0	-	288.0	-	1	-	
	Totals	122.0	157.0	114.3	38.0	20,170	145.0	95.0	24,868	792.0	1,472	2	2	
Bridge No. 1321	Superstructure 3-31' I-Beam Spans	-	-	-	57.0	12,412	186.0	-	37,302	-	2,208	-	-	
	Abutment No. 1	193.0	64.0	44.7	-	4,961	10.5	40.0	-	288.0	-	1	-	
	Pier No. 1	-	35.0	24.9	-	1,958	-	-	-	216.0	-	-	-	
	Pier No. 2	-	35.0	24.9	-	1,958	-	-	-	216.0	-	-	-	
	Abutment No. 2	107.0	64.0	44.7	-	4,961	10.5	43.0	-	288.0	-	1	-	
	Totals	306.0	198.0	139.2	57.0	26,250	207.0	83.0	37,302	1,008.0	2,208	2	2	
GRAND TOTALS		1,231.0	1,451.0	884.9	367.3	164,673	1,337.0	449.0	280,786	5,328.0	13,496.0	12	12	LUMP SUM

See Special Provisions

SCHEDULE OF QUANTITIES  
FOR BRIDGES ON  
LITTLE RIVER-LOCKSBURG ROAD  
SEVIER COUNTY  
ROUTE 75, SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

*N. B. Kanner*  
BRIDGE ENGINEER

Drawn by: E.B.S. Date: 4-21-34  
Traced by: A. Date: 4-23-34  
Checked by: Dots:  
1867, 1868, 1708, 1707,  
1869 & 1321

BRIDGES NO.

DRWG NO. 3778

From Sta.	To Sta.	Rt. of E	Lt. of E	Total Width
613+00	628+00	100'	50'	150'

TANGENT DISTANCE	
To Beginning of Bridge	From End of Bridge
4456.0'	3373.5'

Equation: Sta. 619+79.7 B = Sta. 620+00 A

# RIP RAP NOTES

Grouted Rip Rap Gutters 1'-0" deep and 1'-0" wide shall be placed at the end of wing walls as shown and as directed by the Engineer.

Full payment for these gutters shall be included in the unit price bid for Rip Rap.

Excavation for Rip Rap Toe below the natural ground surface shall be paid for as Dry Excavation for Structures, except only that portion of trench in excess of that required for 18" depth of toe shall be included in quantity for payment.

Lines of excavation shall be to neat lines of rip rap.

GENERAL NOTES

*All concrete to be placed in the dry.*

All exposed corners to have  $\frac{3}{4}$ " chamfer unless otherwise noted.

All concrete in Substructure to be Class 'A'

Expansion joints to be constructed as shown on Layout.

Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field.

Volume occupied by pile heads will not be included in pay quantities of concrete in footings.

Contractor shall place Rip Rap at Bridge Ends as shown.

Contractor is to remove Existing Bridge. See Special Provisions.

For Details of Abutments, See DWG. No. 3788

For Details of Piers, See DWG. No. 3789

For Details, of 31'-9" I-Beam Spans, See DWG. No. 2153

Specifications: Arkansas Standard Road and Bridge Specifications, adopted May 30, 1925, and Revised.

B.M. Elev. 328.38  
Nail in Root 20' Red Oak  
50' Lt. Sta. 621+00

Drainage Area=4352 Acres

Mountainous-50% Wooded.

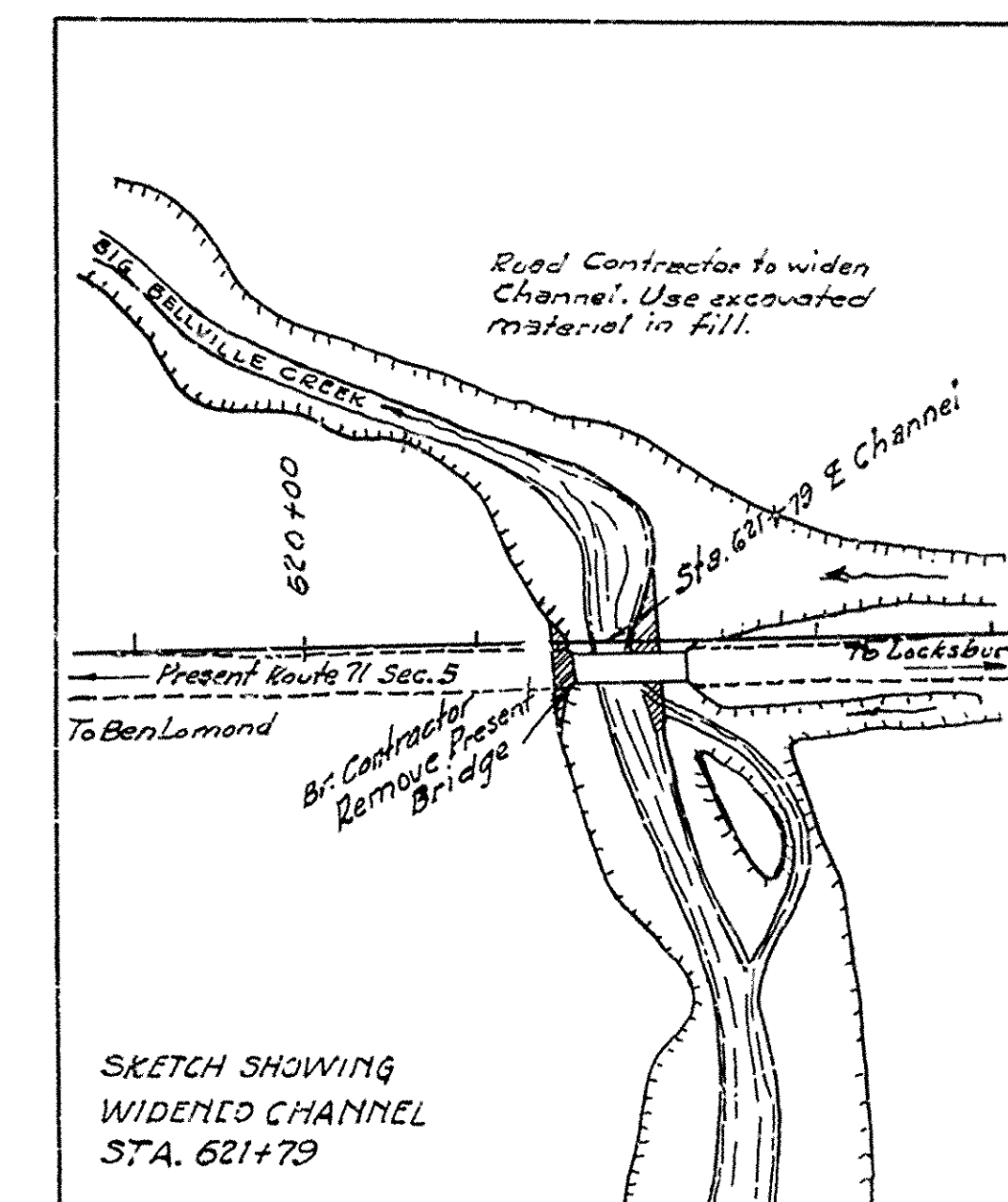
Max Pile Load=15 Tons

## PLAN

ELEVATION

FED. ROAD DIST. No	STATE	U.S. PUB WKS. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
6	ARK	N.R.H. 311-D	1934	12	17

JOB NO. 3166



QUANTITIES

Item No.	Item	Quantity	Unit
13	Dry Excavation for Structures	306.0	Cu Yds
13	Wet Excavation for Structures	198.0	Cu Yds.
91	Class 'A' Concrete for Bridges	139.2	Cu Yds.
91	Class 'B' Concrete for Bridges	57.0	Cu. Yds.
92	Reinforcing Steel for Bridges	26,250	Lbs.
94	Concrete Railing for Bridges	207	Lin. Ft
95	Rip Rap	83.0	Cu Yds.
96	Structural Steel in Beam Spans	37,302	Lbs.
98	Untreated Timber Piling	1003	Lin. Ft
SP	Machined Bearing Plates	2208	Lbs.
SP	Bronze State Bridge Name Plates	2	Each.
SP	Bronze Project Marker Plates	2	Each.
SP	Removal of Existing Structures and Maintaining Traffic		Lump Sum.

### LAYOUT OF BRIDGE

over  
BIG BELLVILLE CREEK  
Little River - Locksburg Road  
Route 71, Section 5, Sevier Co.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK

Drawn By E.B.S.

Traced By W.E.H. Scale 1"=10 ft.

Checked By \_\_\_\_\_

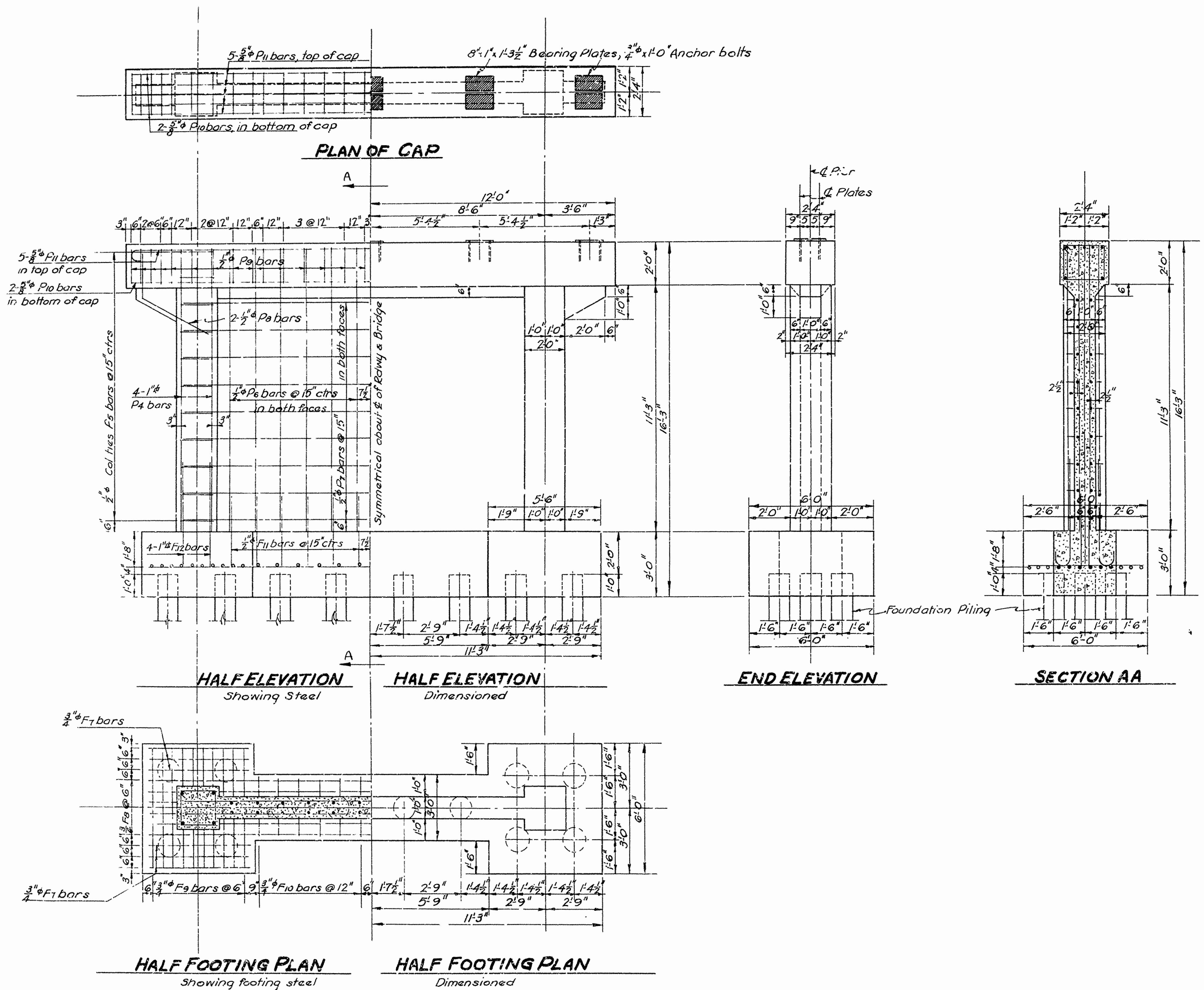
Bridge No. 1321 Drawing No. 3787

W. B. Gaver  
BRIDGE ENGINEER



FED. ROAD DIST. NO.	STATE	U.S. PUB. WORKS PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	N.R.H. 311-D	1934	14	17

Job No. 3166



Mark	Size	Length	A	B	Bending Diagram
F12	1" $\phi$	6'-1"			
P8	5/8" $\phi$	7'-3"	1'-7 1/2"	1'-7 1/2"	
P9	1" $\phi$	7'-11"	1'-7 1/2"	1'-11 1/2"	
F3	5/8" $\phi$	5'-6"			
P11	5/8" $\phi$	24'-9"			

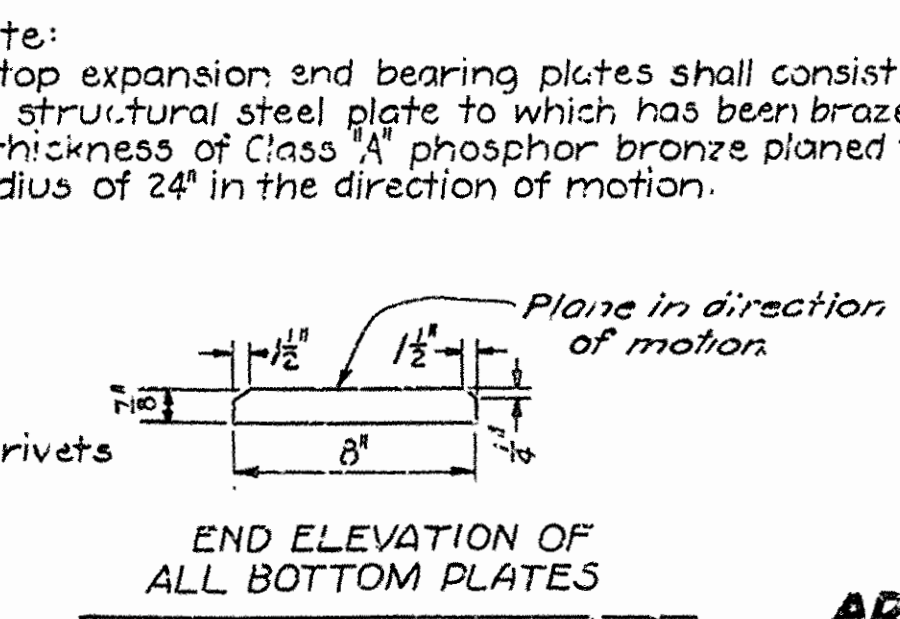
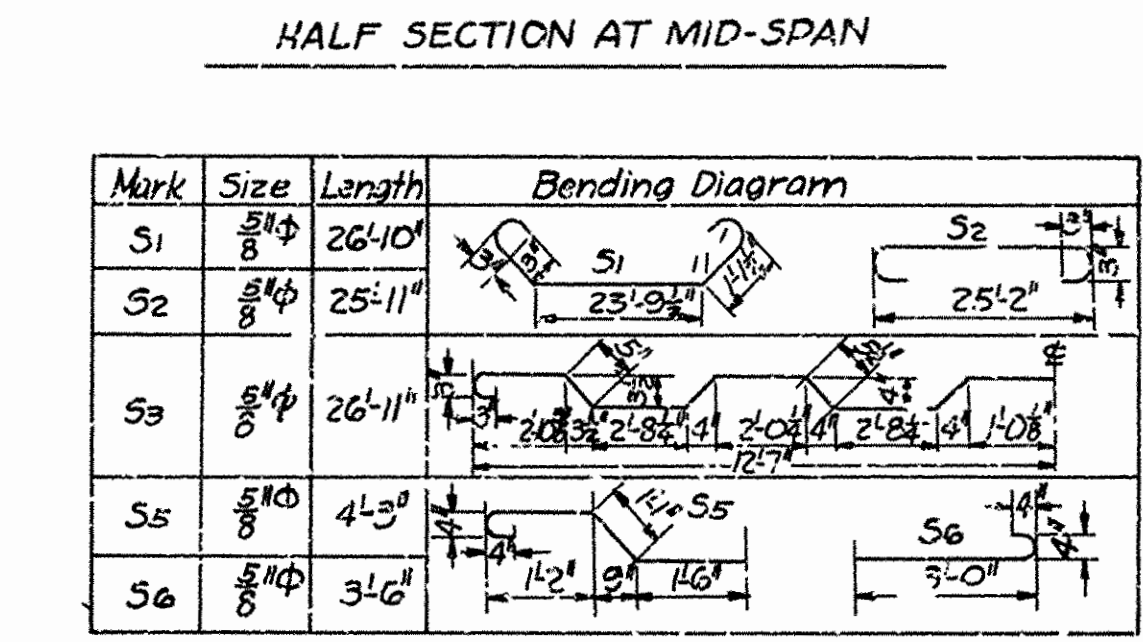
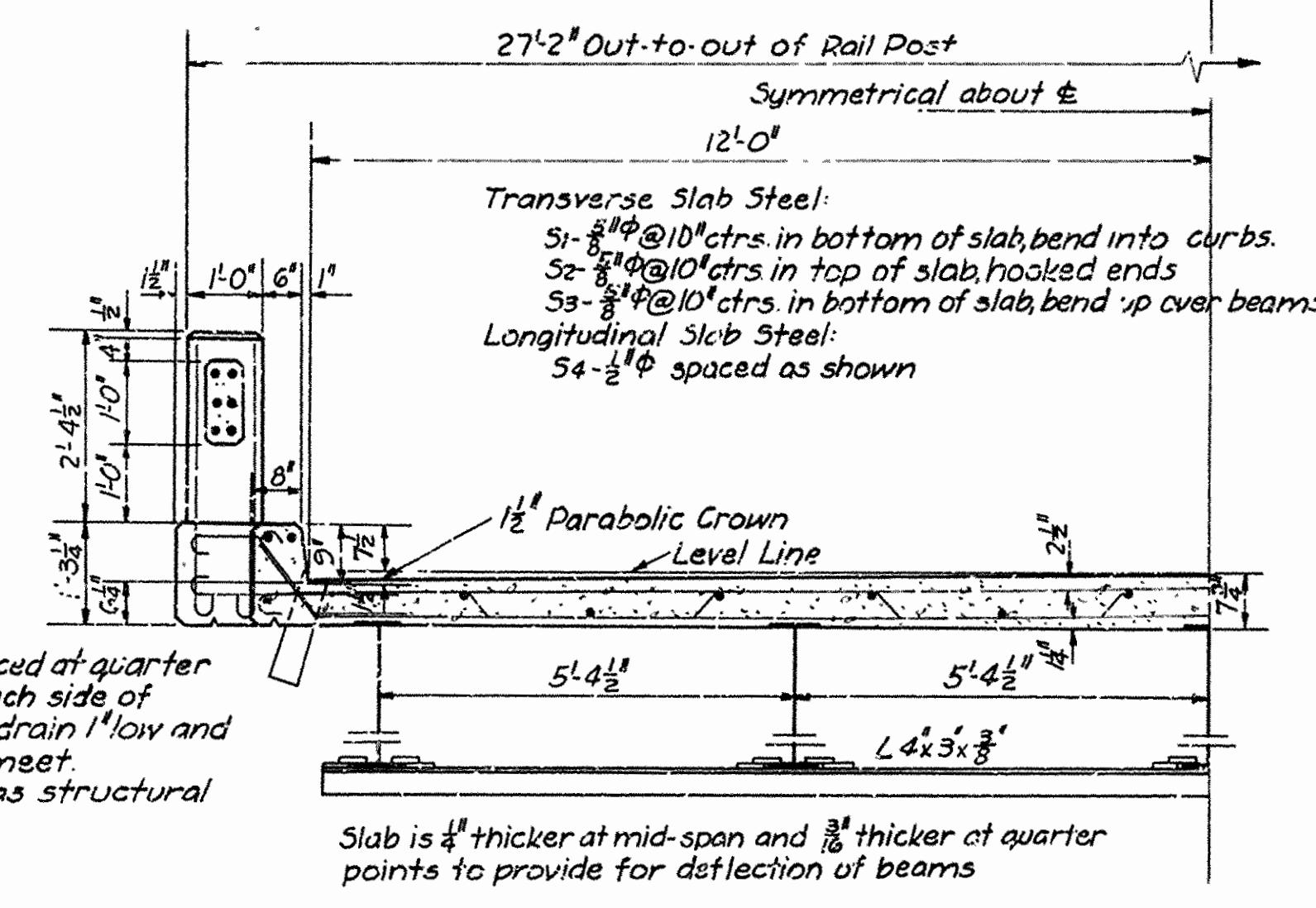
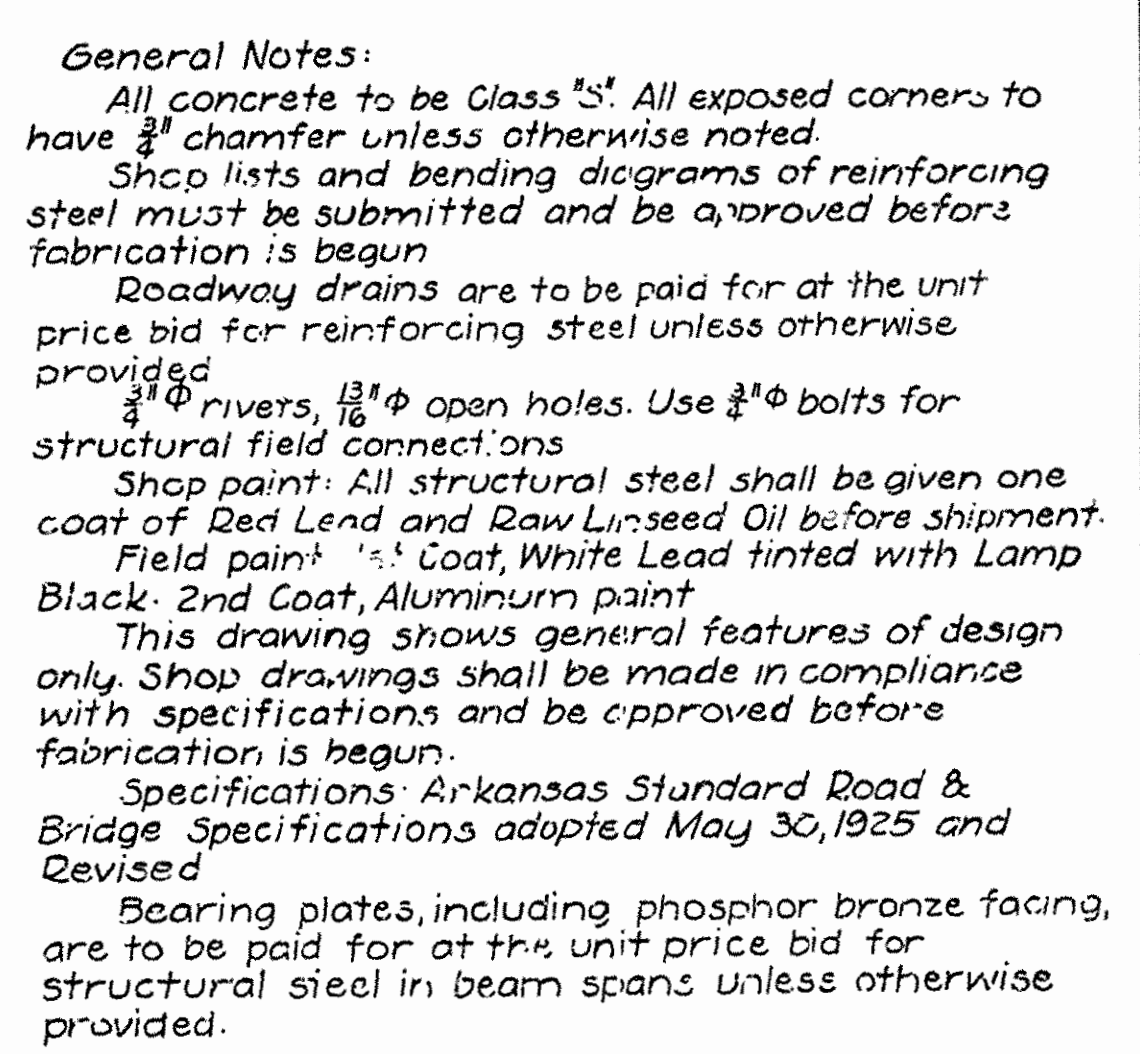
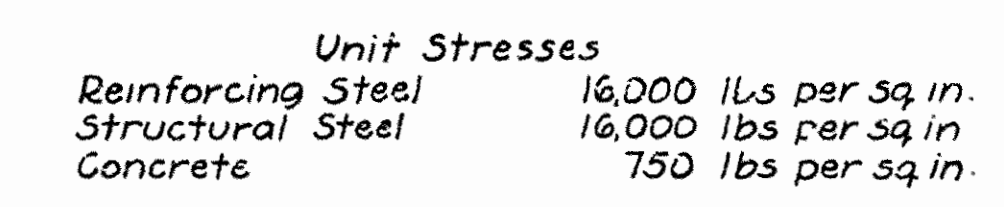
GENERAL NOTES:  
All concrete to be Class 'A'.  
All exposed corners to have 3/4" unless otherwise shown.  
Foundation piling to be of Untreated Timber.  
For Details of Superstructure, See Div. No. 2153

DETAILS OF PIERS  
FOR BRIDGES OVER LITTLE BELLEVILLE, BIG BELLEVILLE, WINTERS & WILSON CREEKS  
LITTLE RIVER-LOCKSBURG ROAD  
SEVIER COUNTY  
ROUTE 71 SEC. 5

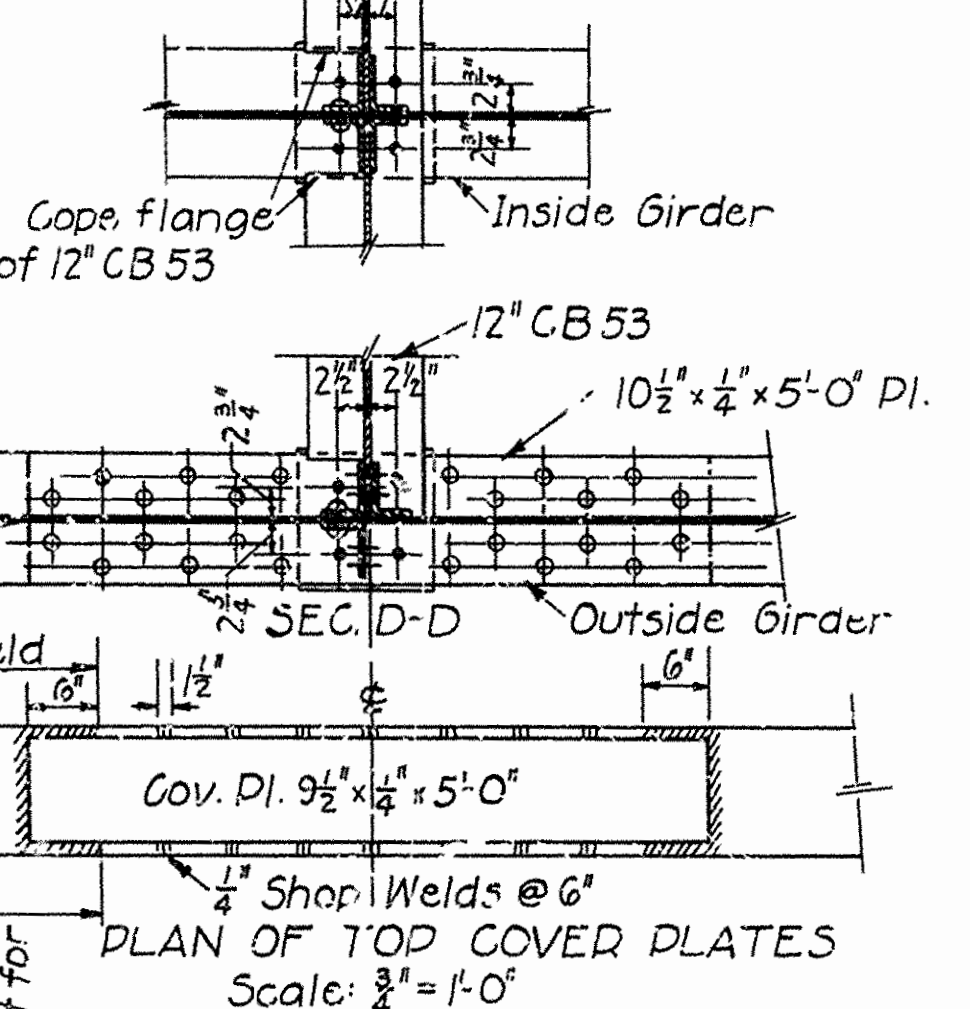
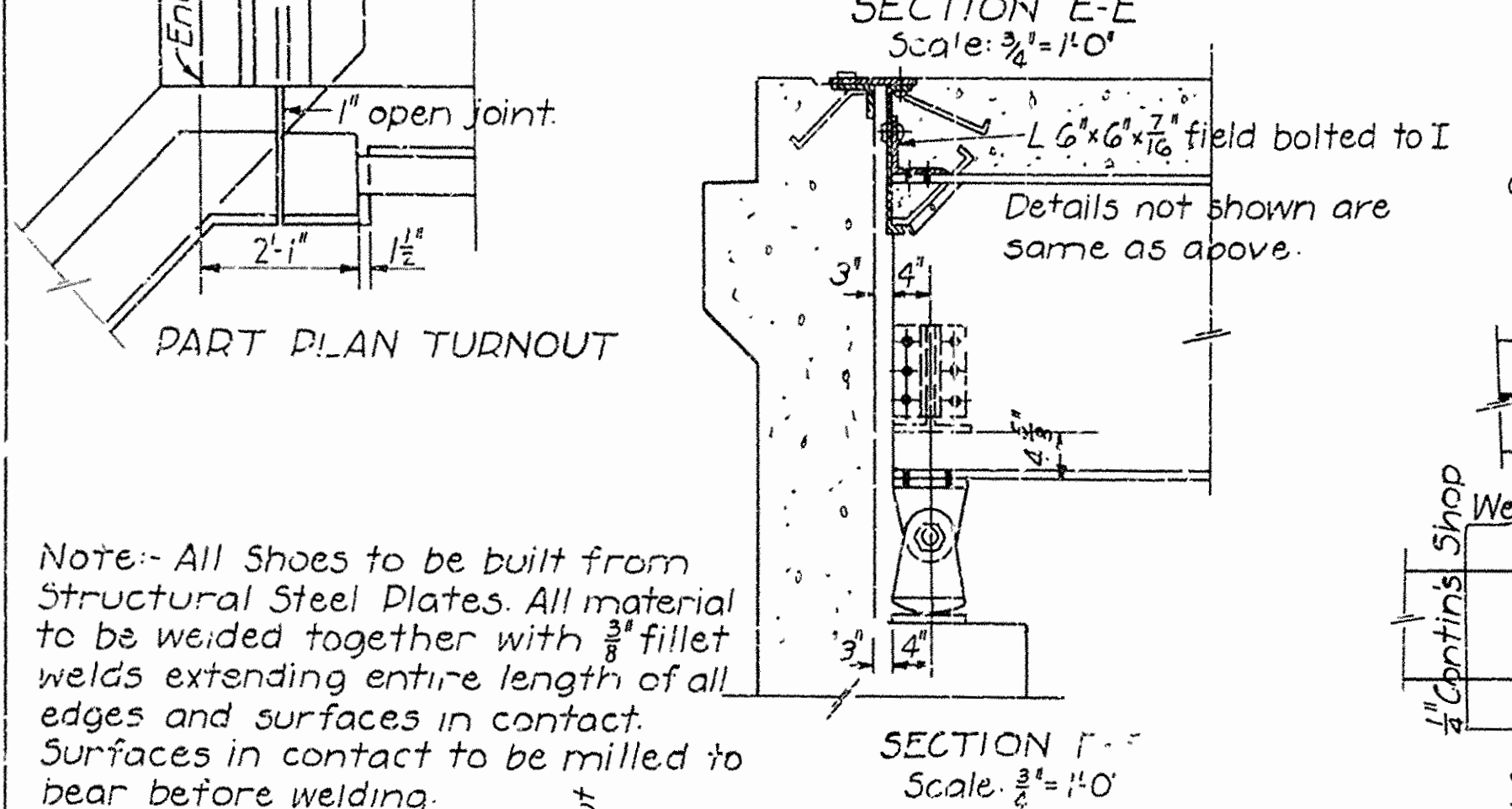
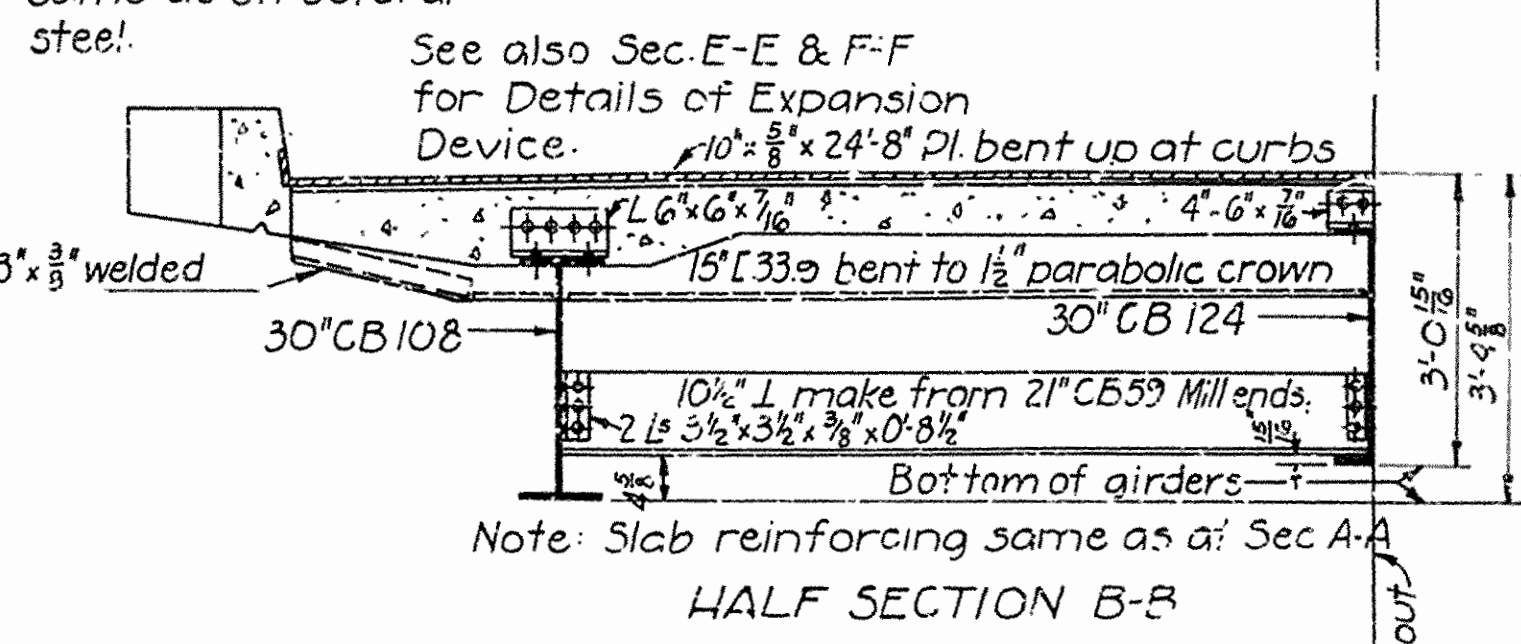
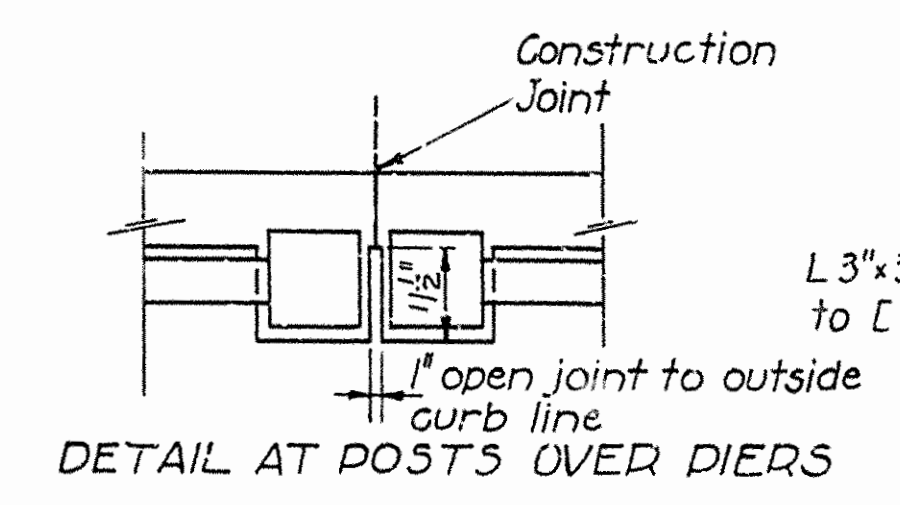
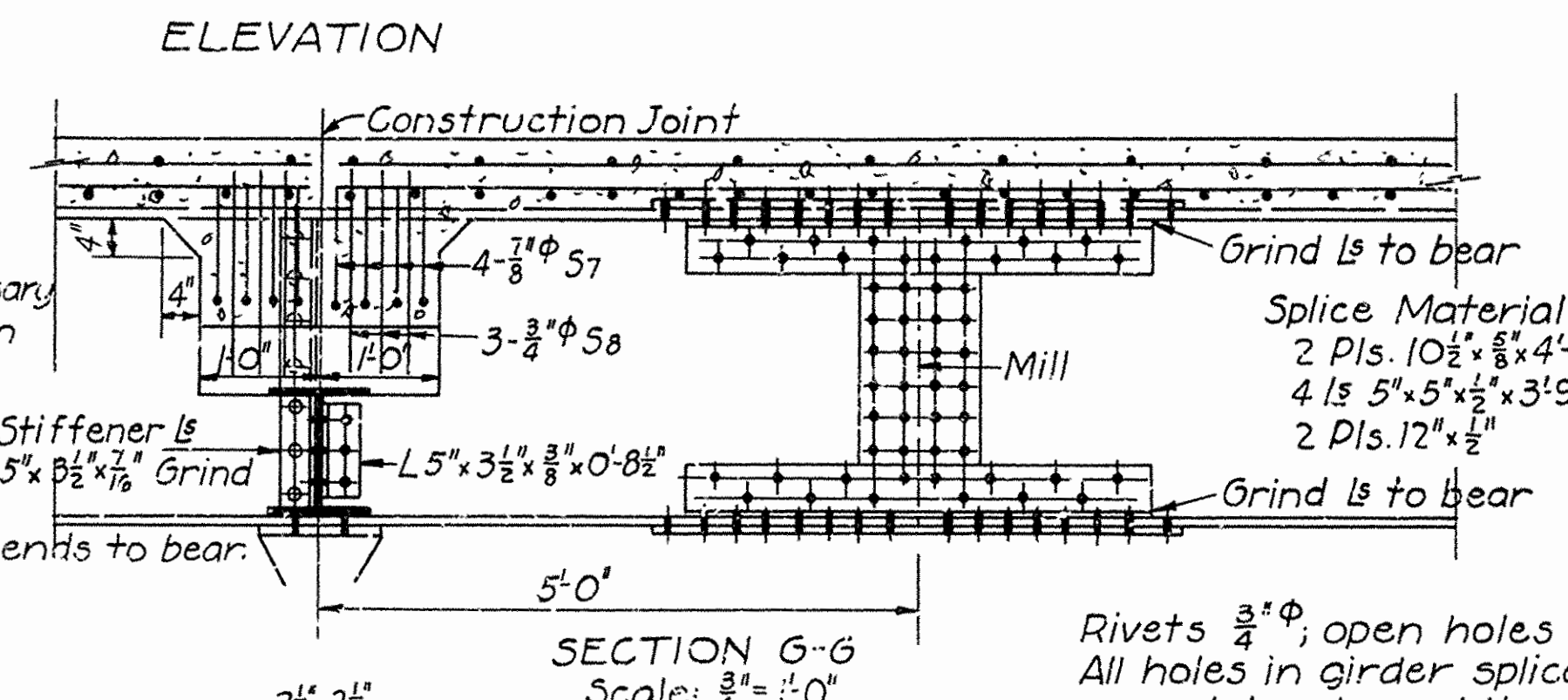
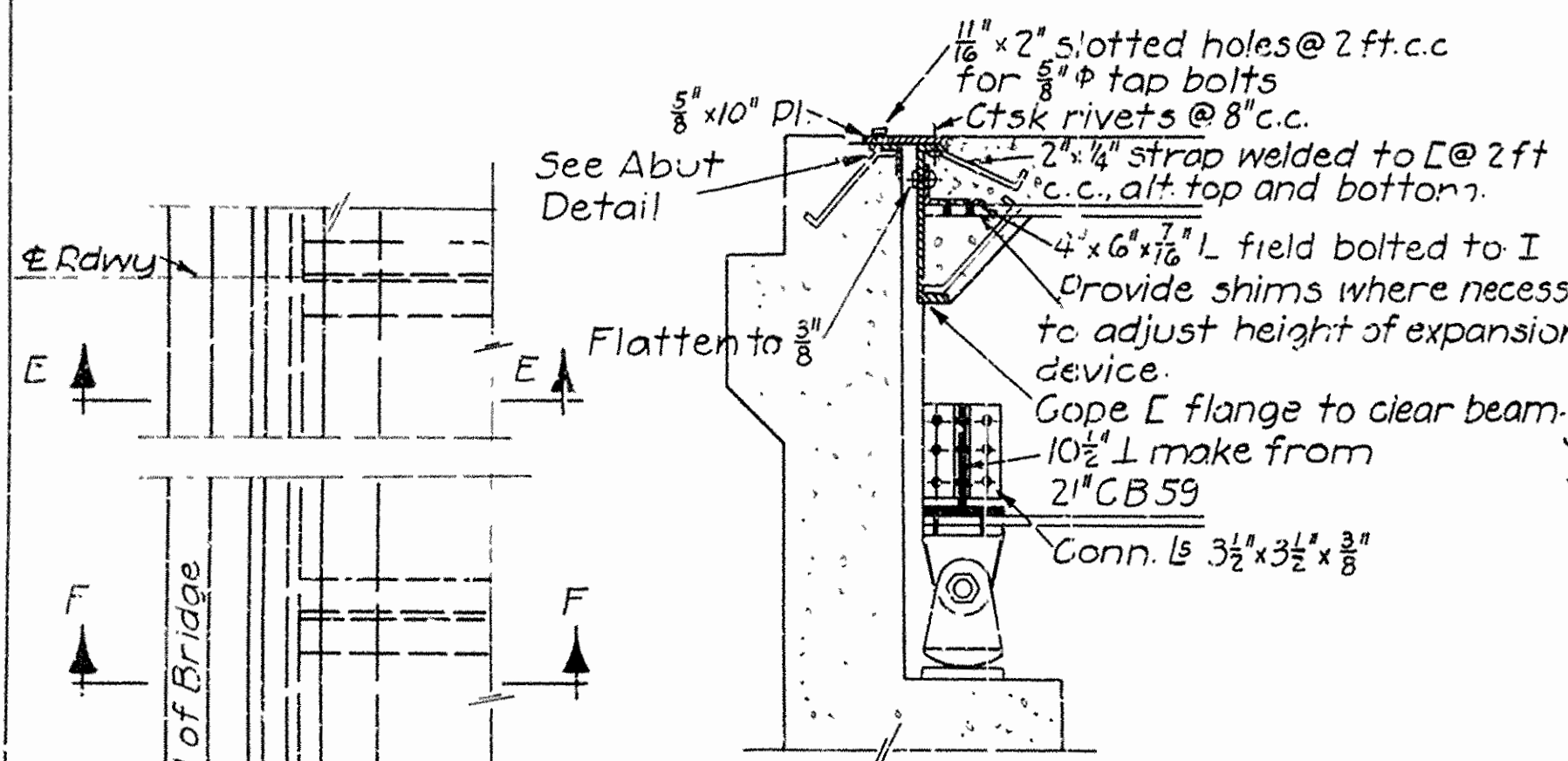
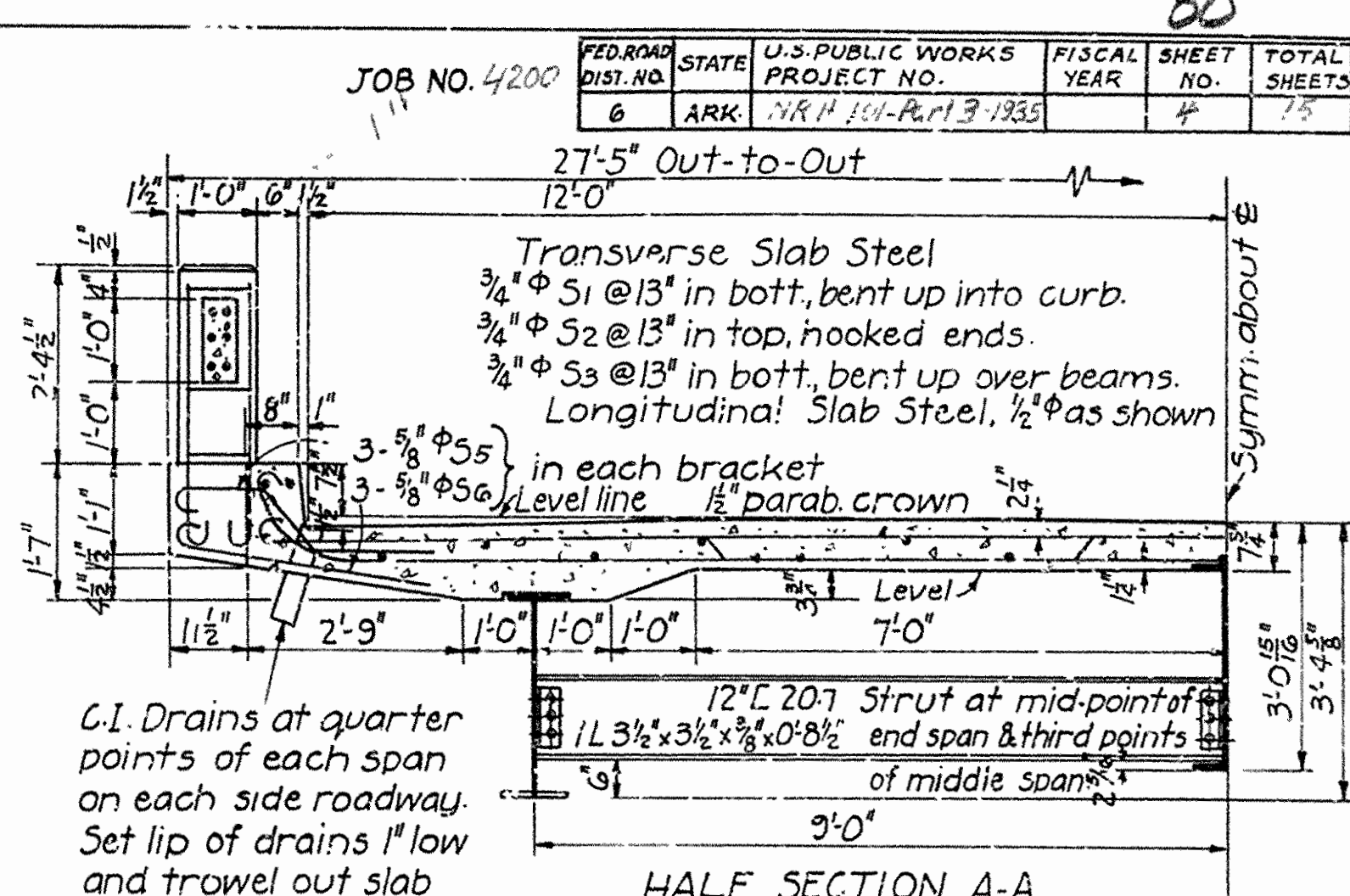
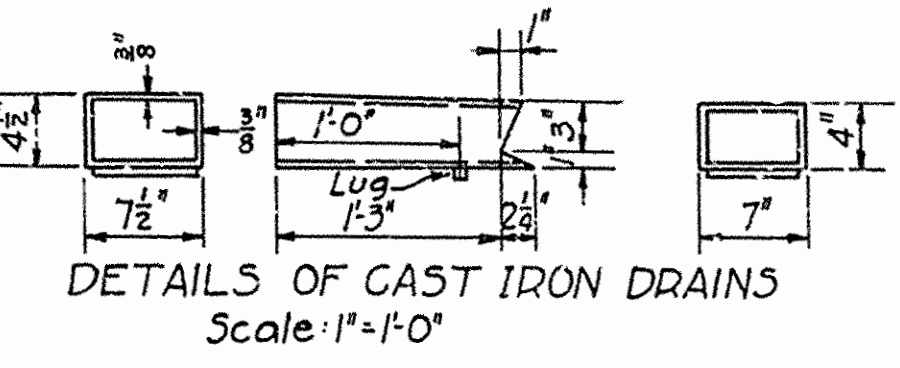
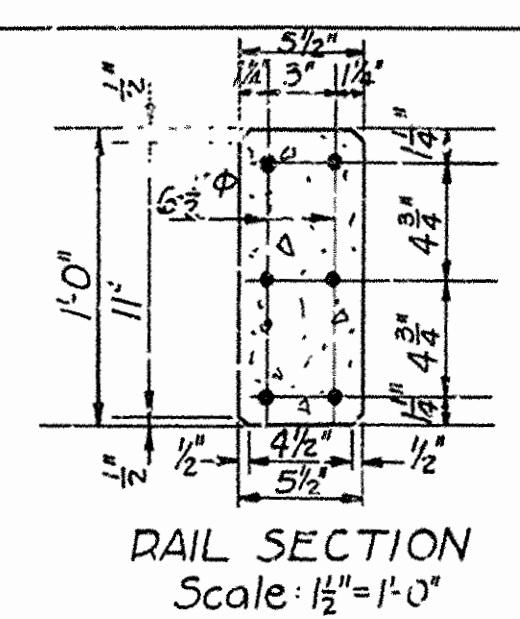
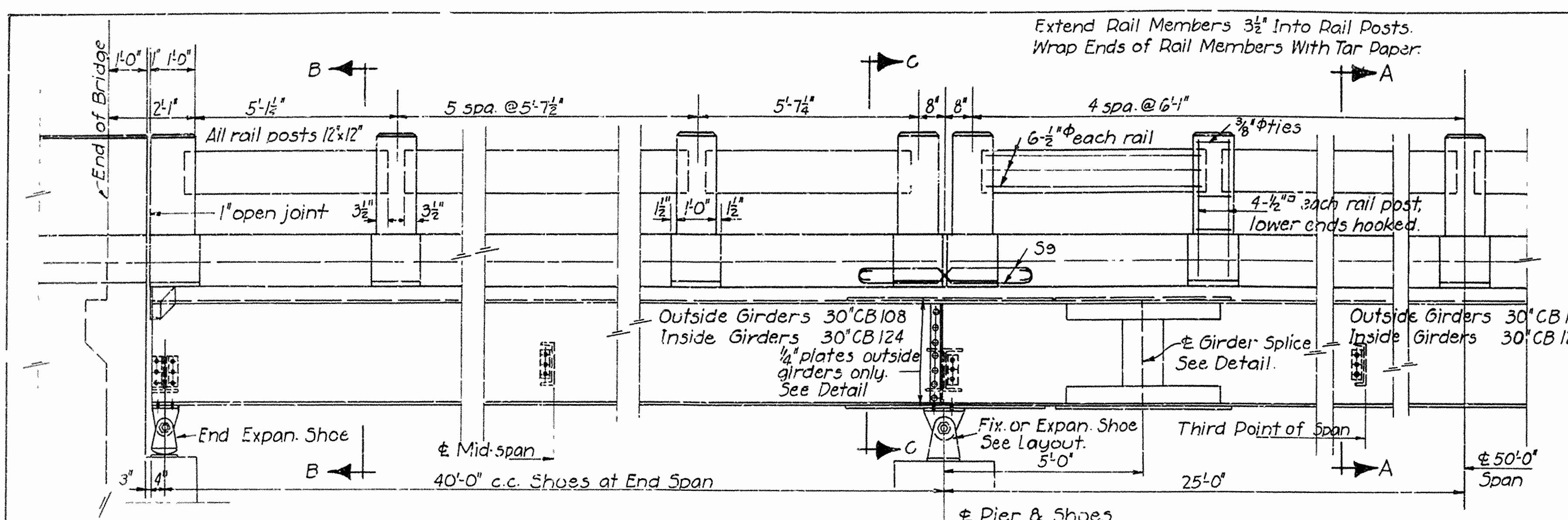
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
Drawn By: E.B.S. Date: 4-6-34  
Traced By: Date: 4-9-34  
Checked By: Date: 1863, 1321, 1707 & 1708  
Scale: 3/8" = 1'-0"  
DRAWING No. 3789

W.H. Barber  
BRIDGE ENGINEER

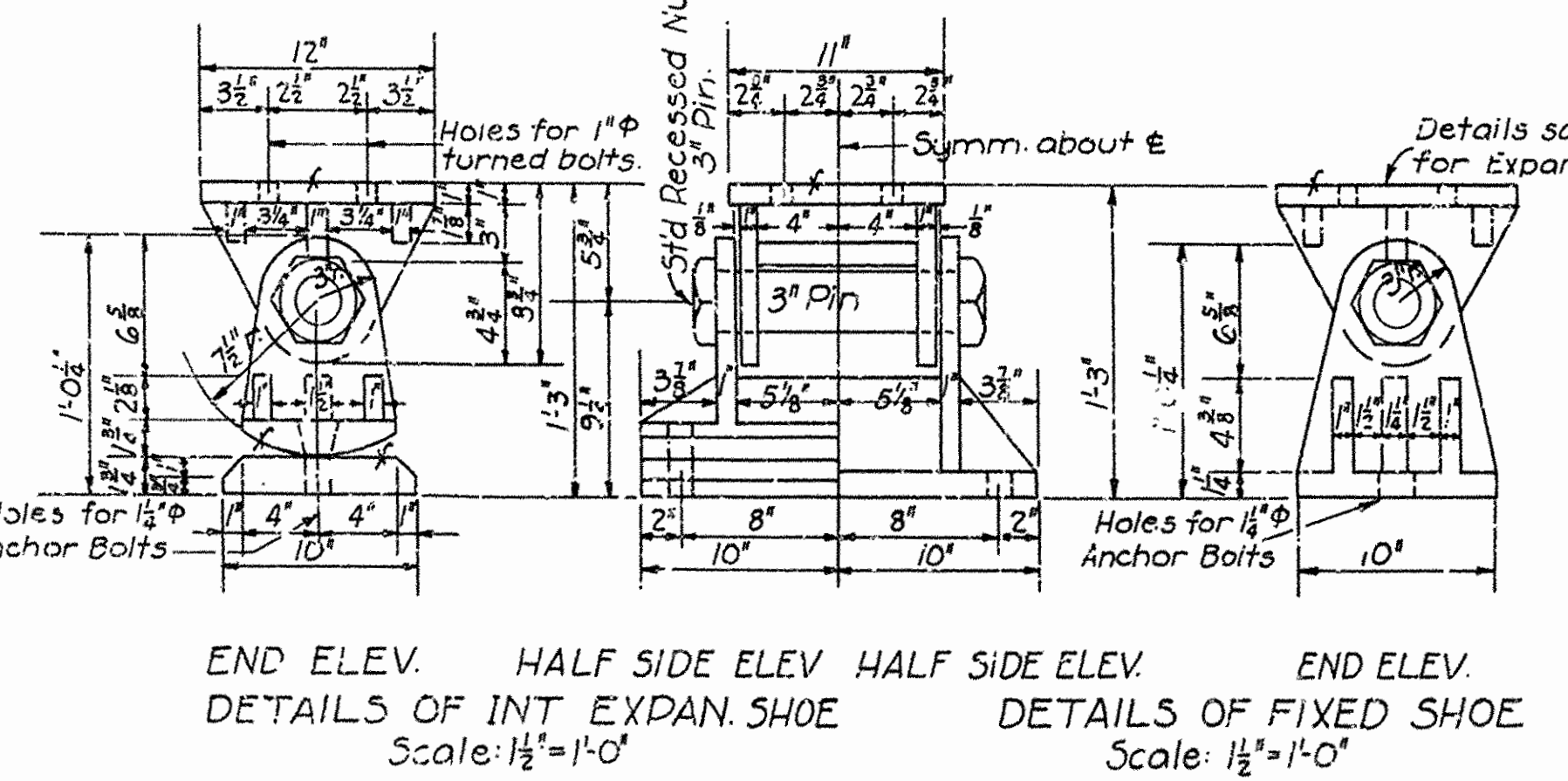
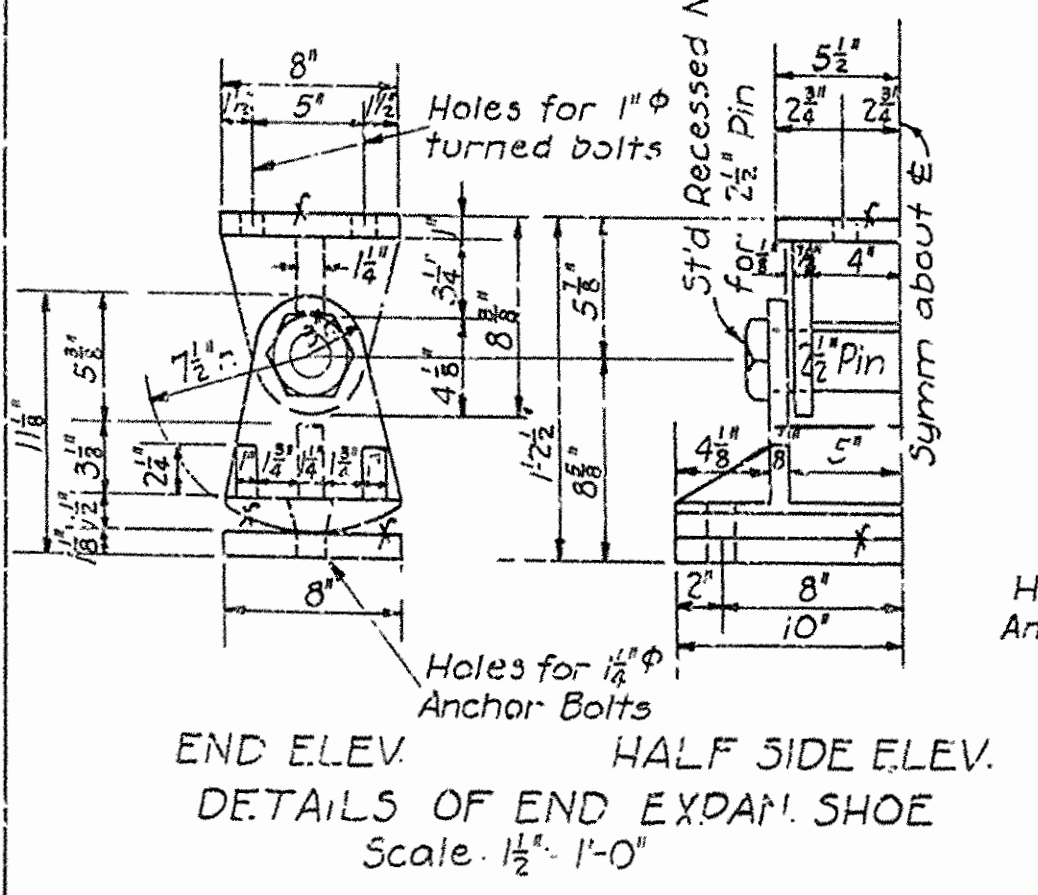




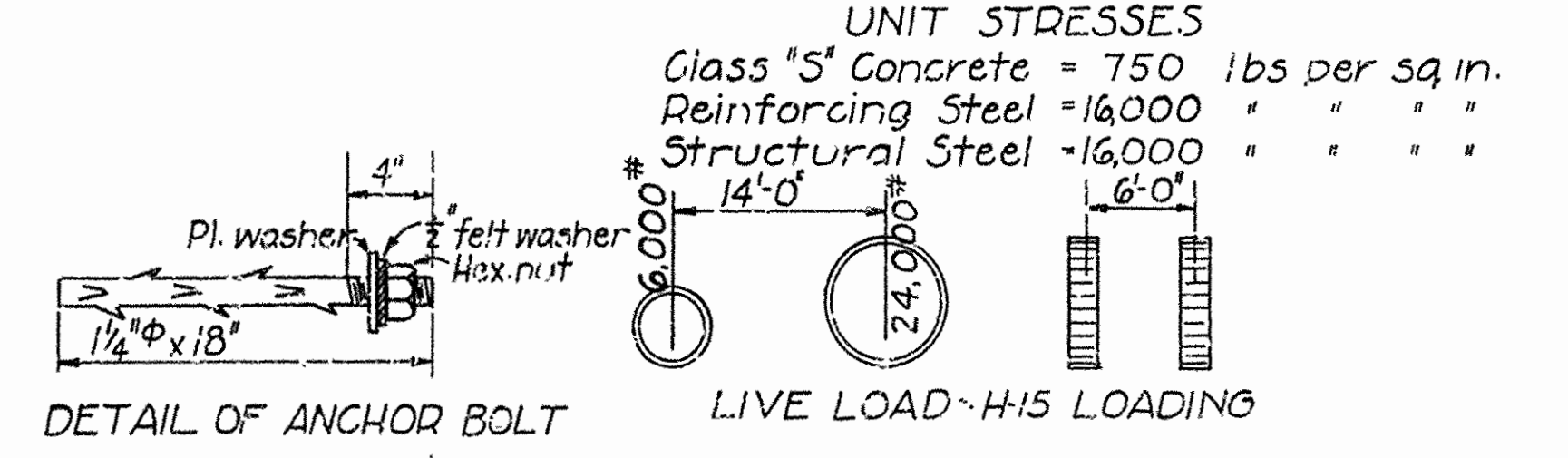
DRWG NO. 2153



**General Notes**  
 Rivets  $\frac{3}{4}$ "  $\phi$ ; open holes  $\frac{1}{2}$ "  $\phi$ . Use machine bolts where indicated.  
 All holes in girder splice connections to be sub-punched  $\frac{3}{16}$ " and reamed to size while girders are assembled.  
 Strut connections are to be sub-punched  $\frac{3}{16}$ " and reamed to a metal template.  
 All struts requiring milled ends are to be milled to exact length after framing angles have been riveted.  
 All field connections shall be riveted, unless otherwise noted.  
 Shapes of equal or greater strength may be substituted for structural shapes shown, but payment will be made on weight of shapes shown or actually used, whichever is the lesser.  
 Shop paint: All structural steel shall be given one coat of red lead and raw linseed oil before shipment.  
 Field paint: 1st Coat, white lead tinted with lamp black. 2nd Coat, aluminum paint.  
 Floor slab concrete to be Glass "S". One inch has been added for wear.  
 All exposed corners to have  $\frac{3}{4}$ " chamfers unless otherwise shown.  
 This drawing shows general features of design only. Shop drawings shall be made in compliance with specifications, and shall be submitted and approved before fabrication is begun.  
 Specifications: Arkansas Standard Road & Bridge Specifications, adopted May 30th, 1925, and revised.



**Note:**  
 Masonry plates shall finally be seated on 3 layers of burlap saturated with red lead.  
 This work and material to be included in the price bid for structural steel.



Mark	Size	Length	Bending Diagram
S1	$\frac{3}{4}$ " $\phi$	27'-6"	
S2	$\frac{3}{4}$ " $\phi$	26'-2"	
S3	$\frac{3}{4}$ " $\phi$	26'-8"	
S5	$\frac{5}{8}$ " $\phi$	4'-1"	
S6	$\frac{5}{8}$ " $\phi$	3'-6"	
S7	$\frac{7}{8}$ " $\phi$	24'-2"	
S8	$\frac{3}{4}$ " $\phi$	5'-6"	
S9	$\frac{3}{4}$ " $\phi$	5'-6"	

**DETAILS OF STANDARD**  
 40'-0" x 50'-0" x 40'-0" CONTINUOUS I-BEAM SPANS  
 CONCRETE DECK - 24'-0" CLEAR ROADWAY  
 THREE GIRDER TYPE  
**ARKANSAS STATE HIGHWAY COMMISSION**  
**LITTLE ROCK, ARK.**  
 Drawn by: L.P.C. Date: 1-10-35  
 Traced by: A. Date: 1-16-35  
 Checked by: Date:  
 BRIDGE NO. 1  
 Scale:  $\frac{1}{2}$ " = 1'-0"  
 (Exceptions noted)  
 DRWG NO. 2186

*M.B. Barber*  
 Bridge Engineer