

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

FED. DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	260-C	1930	1	10
FISCAL YEAR	JOB NO.	SHEET NO.	TOTAL SHEETS		
1930	584	1	10		

INDEX OF SHEETS

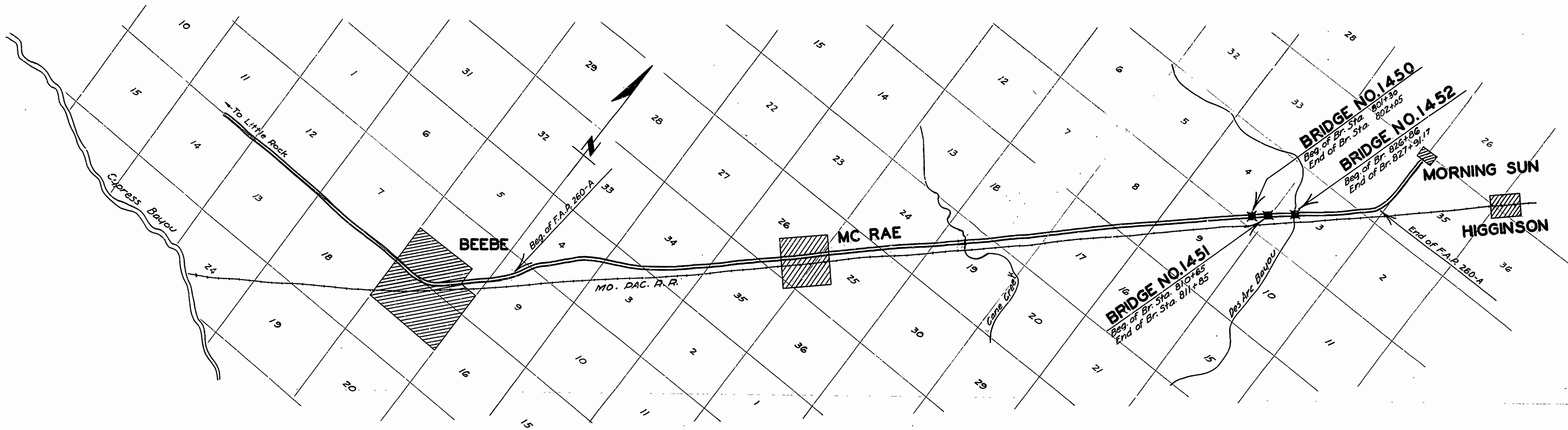
Sheet No.	Drawg No.	Title Sheet
2	2926	Layout of Br. 1450
3	2312	Details of Standard 25'-0" Span, R.C.D. Girder, 24'-0" Rdwy, 4 Girder Type.
4	2927	Details of Substructure Bents
5	2928	Layout of Br. 1451
6	2316	Details of Standard 40'-0" Span, R.C.D. Girder, 24'-0" Rdwy, 3 Girder Type.
7	2929	Details of Substructure Bents
8	2930	Layout of Br. 1452
9	2449	Details of Standard 100'-0" Steel Truss, 24'-0" Roadway
10	2931	Details of Abutments

PLAN OF PROPOSED BRIDGES
ON
BEEBE-MORNING SUN ROAD
WHITE COUNTY

ROUTE 67 SEC. 12
JOB No 584
FEDERAL AID PROJECT NO. 260 - C

QUANTITIES

* S.P. & Item No. 12	Earth Excavation	600	Cu.Yds.
" " 13	Dry Excavation for Structures	120.4	" "
" " 13	Wet " "	88.4	" "
" " 54	Class "A" Concrete	503.86	" "
" " 54	" " " "	303.61	" "
" " 55	Reinforcing Steel	156,684	Lbs.
" " 56	Structural Steel (Trusses)	107,335	" "
S.P. & " 52	Untreated Timber Piling	3030	Lin.Ft.
S.P. & " 69	Rip Rap	122	Cu.Yds.
S.P. " 74	Concrete Railing for Structures	420.35	Lin.Ft.
S.P.	Removing Old Bridges and Constructing Detour Bridges		Lump Sum
Note: Item marked thus * are Non-participating in Federal Aid. (Two Federal Aid Marker Plates of Approved Design (furnished by State) to be placed at ends of each bridge.)			



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

ReVISIONS	Item	No. of Sheets
Pamphlet A Revised Sept. 1st, 1928 Approved June 1st, 1929	Pamphlet I	51
" B JUL 1ST 1930	Earth Excavation	3
" C JUL 1ST 1930	Untreated Timber Piling	12
" D Revised July 1st, 1928 Approved Nov. 24th, 1928	Rip Rap	1
" E Revised Jan. 1st, 1930	Removing Old Bridges and	
" F Revised Aug. 1st, 1929	Constructing Detour Bridges	2
" G Revised June 1st, 1929		
" H Revised Jan. 1st, 1930		
" I MAY 30 1925		
" J Revised Jan. 1st, 1929 Approved June 1st, 1929		
" K MAY 30 1925		
" L Revised Jan. 1st, 1929 Approved June 1st, 1929		

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" G Revised June 1st, 1929	Rip Rap	1
" H Revised Jan. 1st, 1930	Removing Old Bridges and	
" I MAY 30 1925	Constructing Detour Bridges	2
" J Revised Jan. 1st, 1929 Approved June 1st, 1929		
" K MAY 30 1925		
" L Revised Jan. 1st, 1929 Approved June 1st, 1929		

LAYOUT
Scale: 1"=3000'

LENGTH OF PROJECT	= 300'-2" = 0.0568 Mi.
LENGTH OF BRIDGES	= 300'-2"
LENGTH OF EMBANKMENT	= 15'-0"
LENGTH OF JOB	= 315'-2"

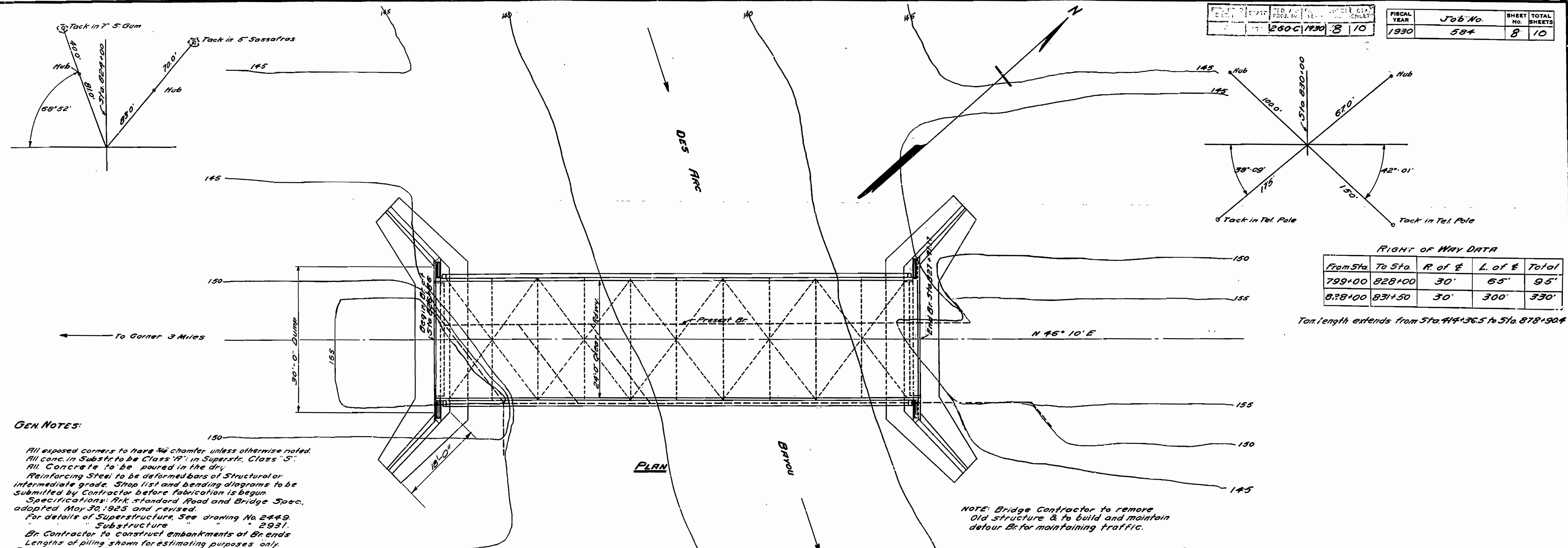
APPROVED
CHIEF ENGINEER - U. S. BUREAU OF PUBLIC ROADS
APPROVED
DISTRICT ENGINEER - U. S. BUREAU OF PUBLIC ROADS
APPROVED
CHIEF - U. S. BUREAU OF PUBLIC ROADS
APPROVED
CHAIRMAN - STATE HIGHWAY COMMISSION
APPROVED
STATE HIGHWAY ENGINEER

N. B. Lewis
BRIDGE ENGINEER

BRIDGES No. 1450, 1451 & 1452

DRAWING NO. 2921

PROJECT STATE	NO. SHEETS	FISCAL YEAR	JOB No.	SHEET TOTAL
2600	1930	8	10	584
1930				8
				10



RIGHT OF WAY DATA

From Sta.	To Sta.	R. of E.	L. of E.	Total
799+00	828+00	30'	65'	95'
828+00	831+50	30'	300'	330'

Total length extends from Sta. 826+86.5 to Sta. 828+90.4

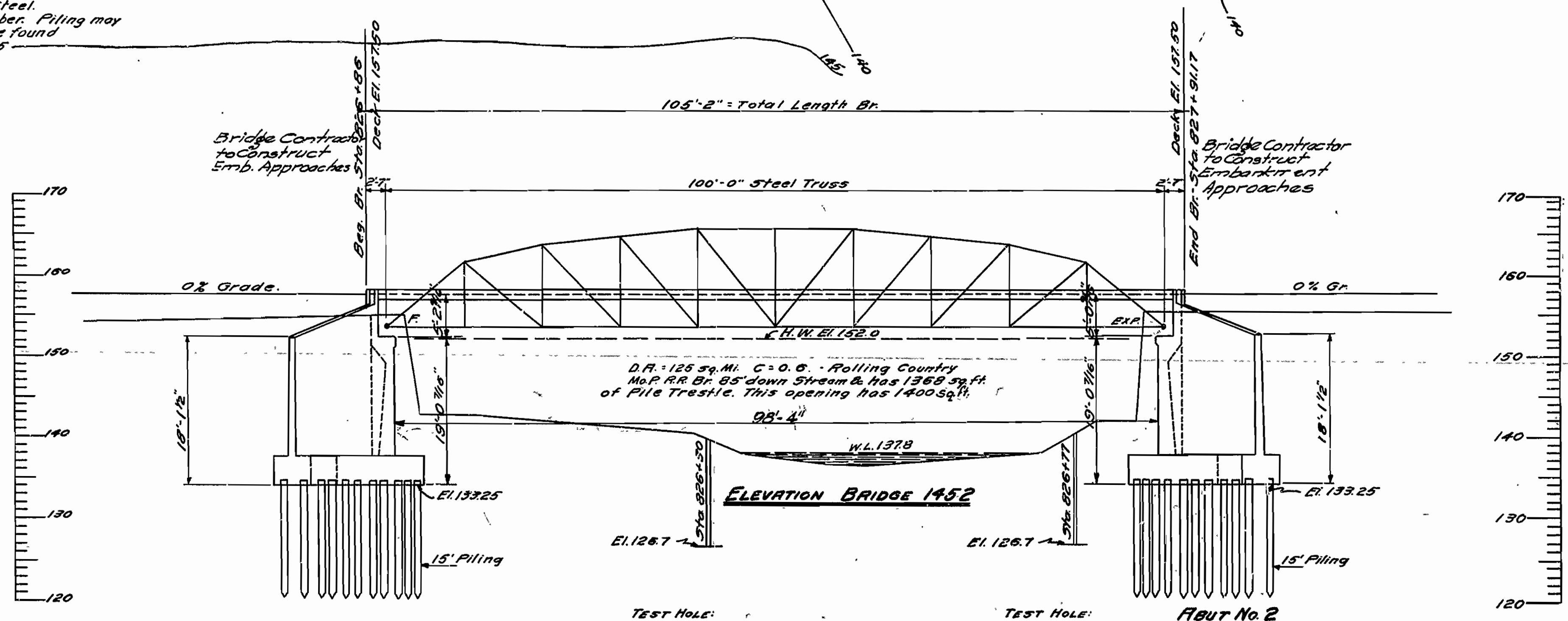
GEN. NOTES:

All exposed corners to have 3/4" chamfer unless otherwise noted.
 All conc. in Substr. to be Class "A" in Superstr. Class "S".
 All Concrete to be poured in the dry.
 Reinforcing Steel to be deformed bars of Structural or intermediate grade. Shop list and bending diagrams to be submitted by Contractor before fabrication is begun.
 Specifications: Ark. Standard Road and Bridge Spec. adopted May 30, 1925 and revised.
 For details of Superstructure, See drawing No. 2449.
 Substructure
 Br. Contractor to construct embankments of Br. ends.
 Lengths of piling shown for estimating purposes only.
 Actual lengths to be determined in the field.
 Roadway drains and expansion devices to be paid for at unit price bid for reinforcing steel.
 Foundation piling to be untreated timber. Piling may be omitted if foundation conditions are found satisfactory to the engineer.

NOTE: Bridge Contractor to remove Old structure & to build and maintain detour Br. for maintaining traffic.

QUANTITIES:

Item No.	SP#2	Earth Excavation		Cu. Yds.
13		Dry Struct.	400	
13		Wet	370	
54		Class "A" Concrete	308.53	
54		"S"	74.00	
55		Reinforcing Steel	539.30	Lbs.
56		Structural In Truss Br.	107.335	
57		Untreated Tim. Piling	18.90	Lin. Ft.
74		Conc. Paving for Structs.	14'-4"	



B.M. #48 - Elev. 155.65 on SW cor. RR Signal Sta. 70 RR Sta. 826+35.

Max. capacity per pile in footing toe = 15 Tons.

TEST HOLE:
 SUR. EL. 138.7
 8' Sand and Silt
 4' Packed Sand
 Stopped in Packed Sand - Med. Fine

TEST HOLE:
 SUR. EL. 138.7
 8' Sand and Silt
 4' Packed Sand
 Stopped in Packed Sand - Med. Fine
 Max. Bearing per pile in footing toe = 15 tons.

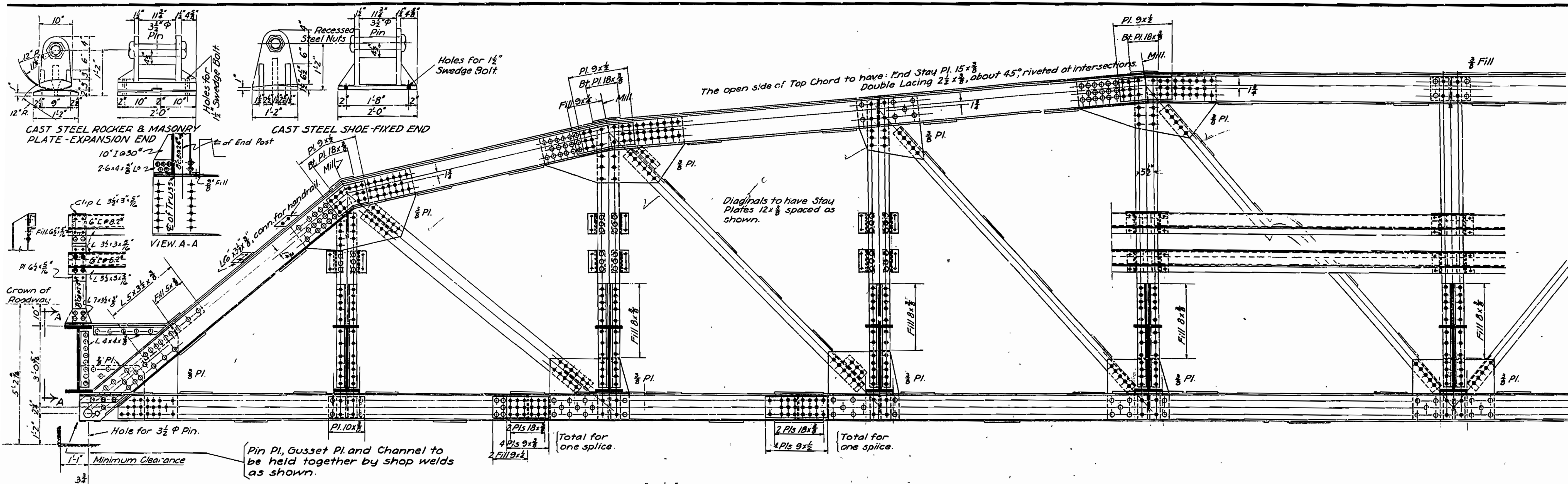
LAYOUT FOR BRIDGE
 OVER DES ARC BAYOU
 STA 826+86 TO STA. 827+91.7
 BEEBE-MORNING SUN ROAD
 WHITE CO.
 ROUTE 67 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

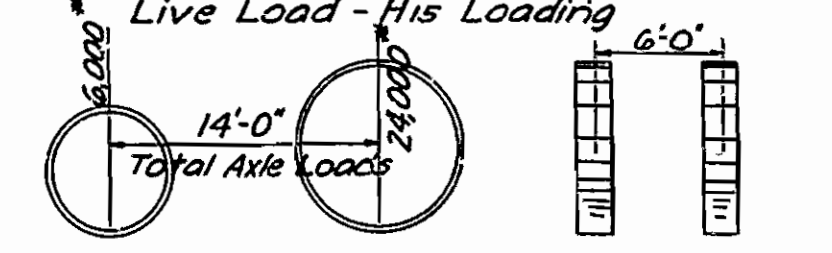
Drawn By: P.E.H. Date: 10-2-30
 Traced By: J.H.K. Date: 10-2-30
 Checked By: N.E.S. Date: 10-27-30
 BRIDGE NO. 1452 DRAWING NO. 2930
 Scale: 1 in. = 10 ft.

BRIDGE ENGINEER

FISCAL YEAR	Job No.	SHEET	TOTAL SHEETS
1934	8173	7	19



Unit Stresses
 Concrete = 750 per sq. in.
 Reinforcing Steel = 16,000 per sq. in.
 Structural Steel = 16,000 per sq. in.

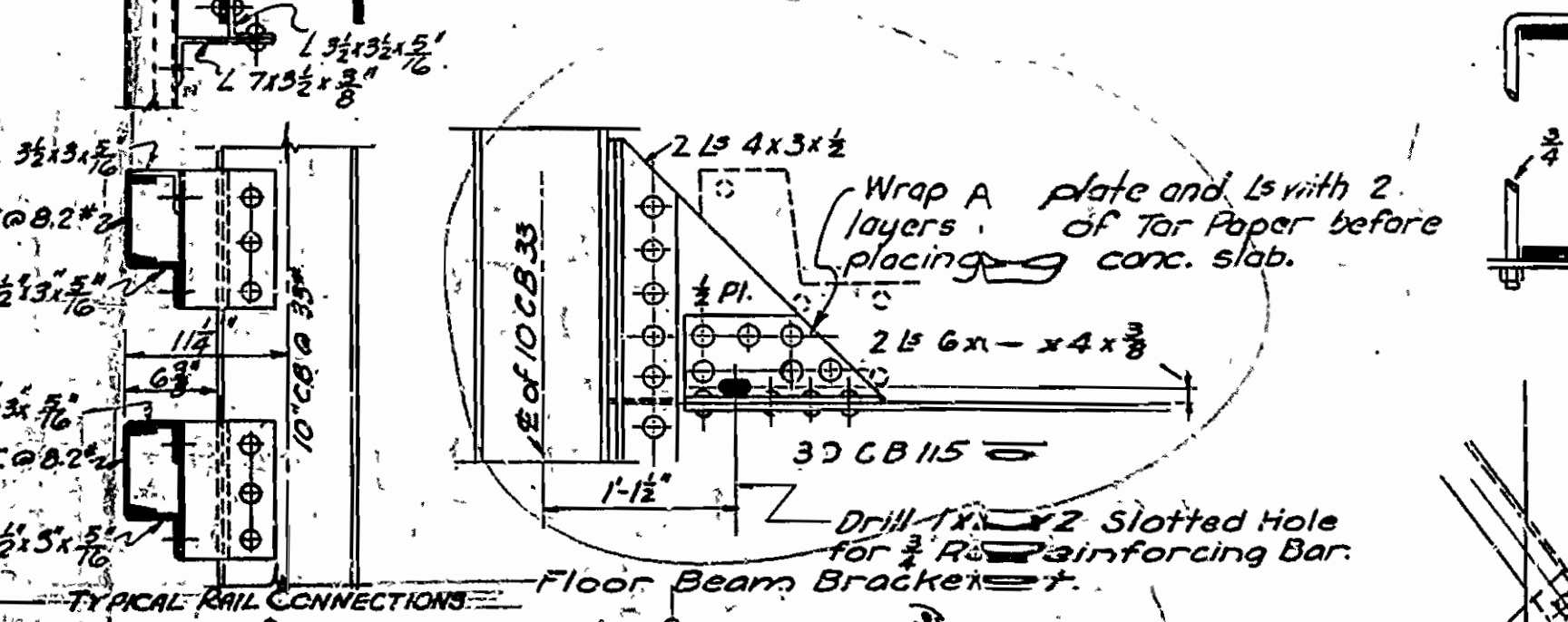
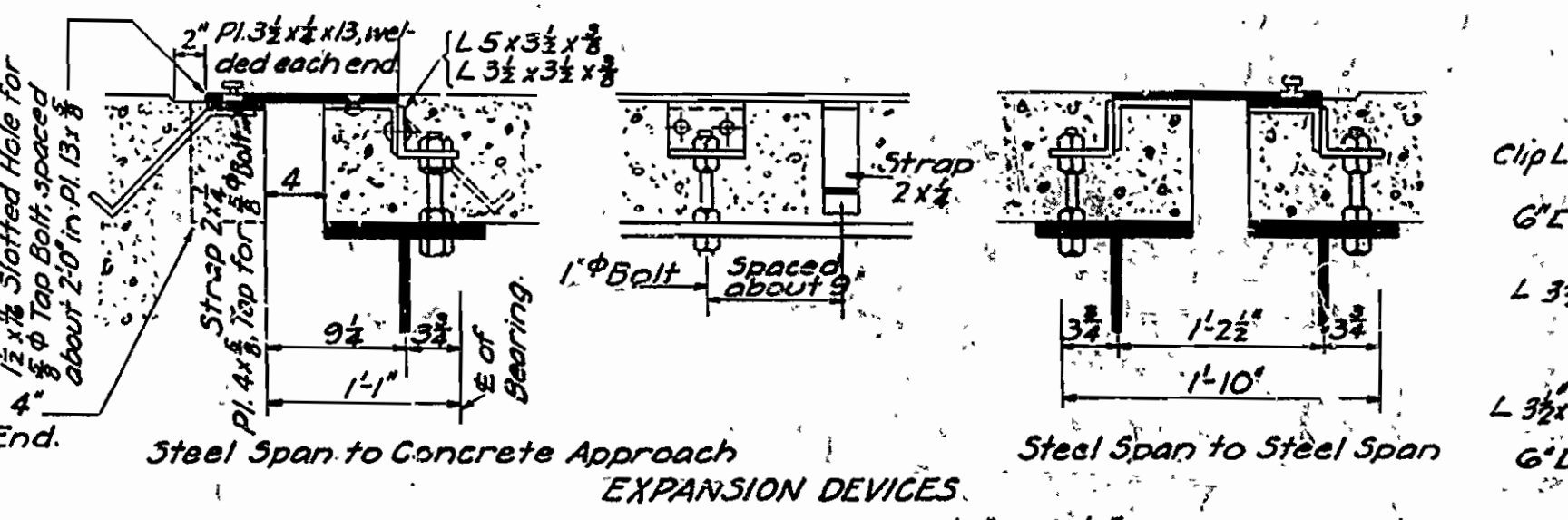
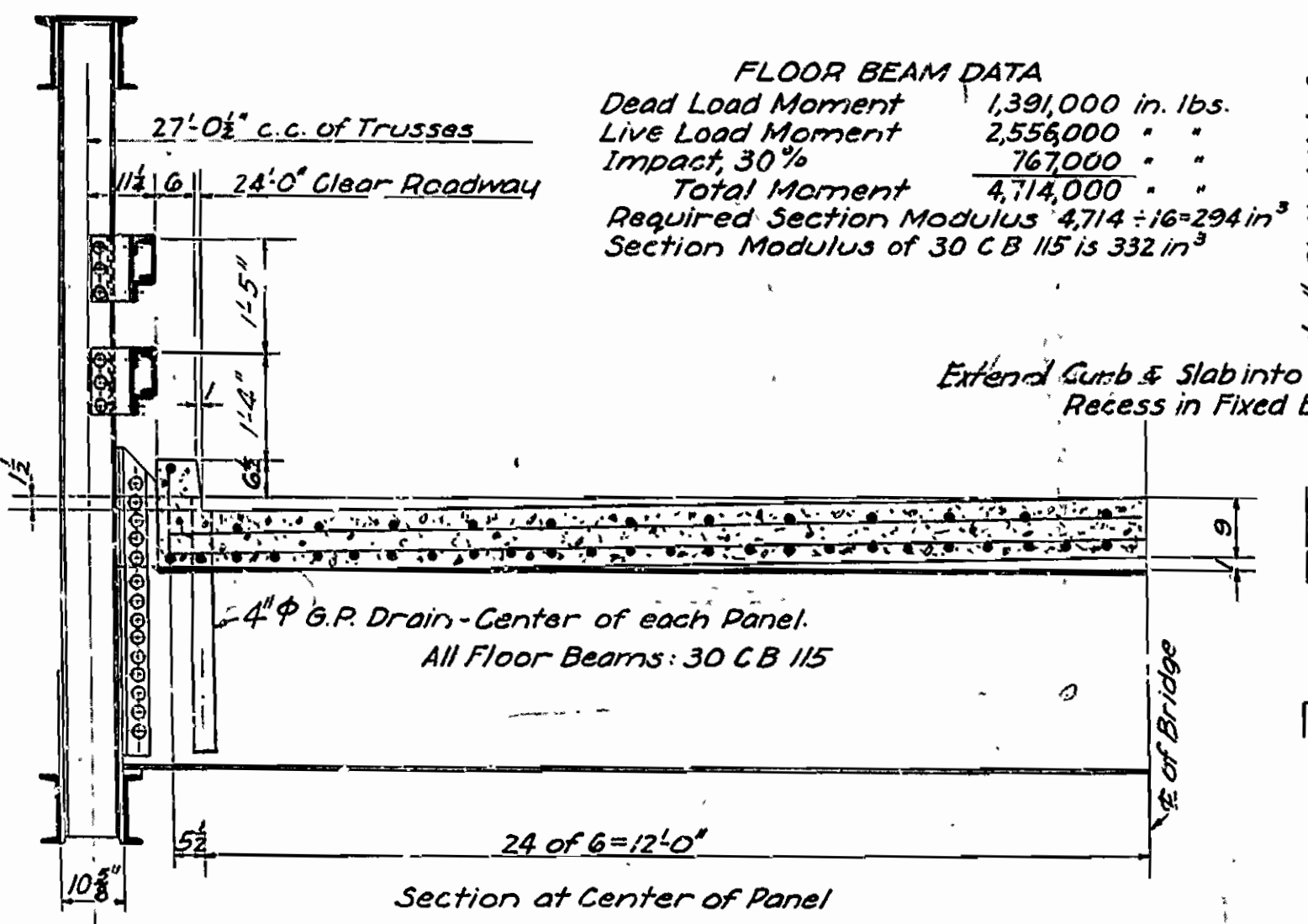


ESTIMATED QUANTITIES
 Class "S" Concrete 74.0 Cu. Yds.
 Reinforcing Steel 14,750 Lbs.
 Struct'l Steel (including drains) 108,300 "
 Cast Steel 1,700 "

Expansion Device:-
 Steel to Concrete 1235 Lbs. each
 Steel to Steel 1475 "

FLOOR BEAM DATA

Dead Load Moment	1,391,000 in. lbs.
Live Load Moment	2,556,000 "
Impact, 30%	767,000 "
Total Moment	4,714,000 "
Required Section Modulus	4,714 ÷ 16 = 294 in ³
Section Modulus of 30 C B 115	is 332 in ³



Notes

Rivets 3/4" Open holes 1 1/2"

All holes in truss connections to be sub-punched 1/8" and reamed to size while truss is assembled; this applies to field as well as shop rivets.

Floor beam connections to be sub-punched 3/8" and reamed to a metal template.

All field connections shall be riveted.

Shop paint: After being completely assembled and shop work finished, all pieces shall be given one coat of red lead and raw linseed oil before shipment.

Field paint: Apply three coats of different colors as specified by the engineer.

Floor slab: Concrete to be Class "S". One inch has been added for wear.

All floor beams to be milled to exact length after framing angles have been riveted.

Shapes of equal or greater strength may be substituted for shapes shown, but payment will be made in accordance with sizes shown on this plan.

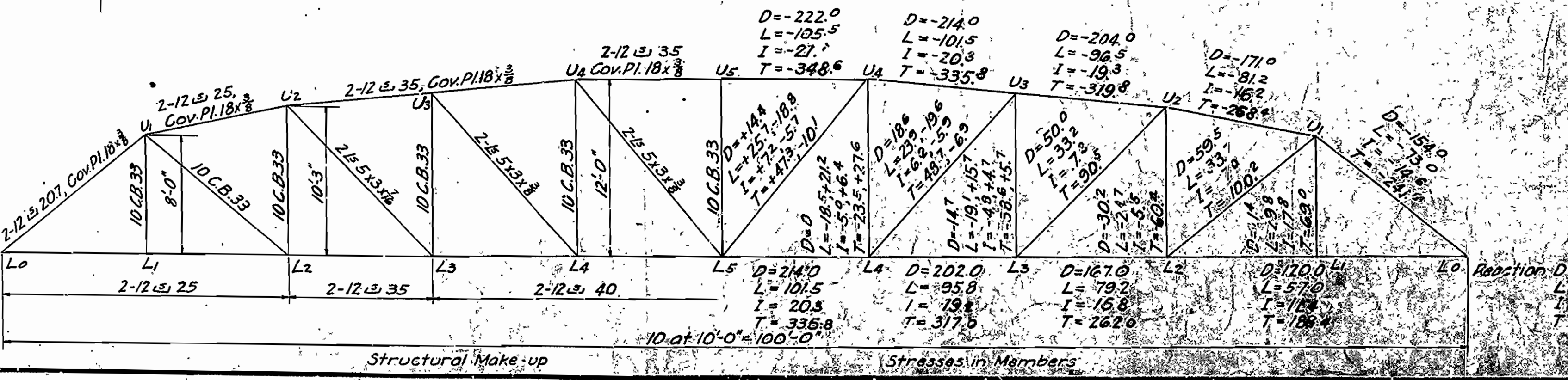
This drawing shows general features of design only.

Shop drawings shall be made in compliance with specifications submitted and approved before fabrication is begun.

Specifications: Ark. Standard Road & Bridge Specifications, adopted May 30, 1925 & Revised.

All dimensions shown are center to center of bars.

Revised Members Handrail, Drains, Quantities, 8-10-33, Shoes - R.E.H. 1-25-33.



STANDARD PLAN
100'-0" LOW TRUSS SPAN
24'-0" CLEAR ROADWAY

ROUTE 66

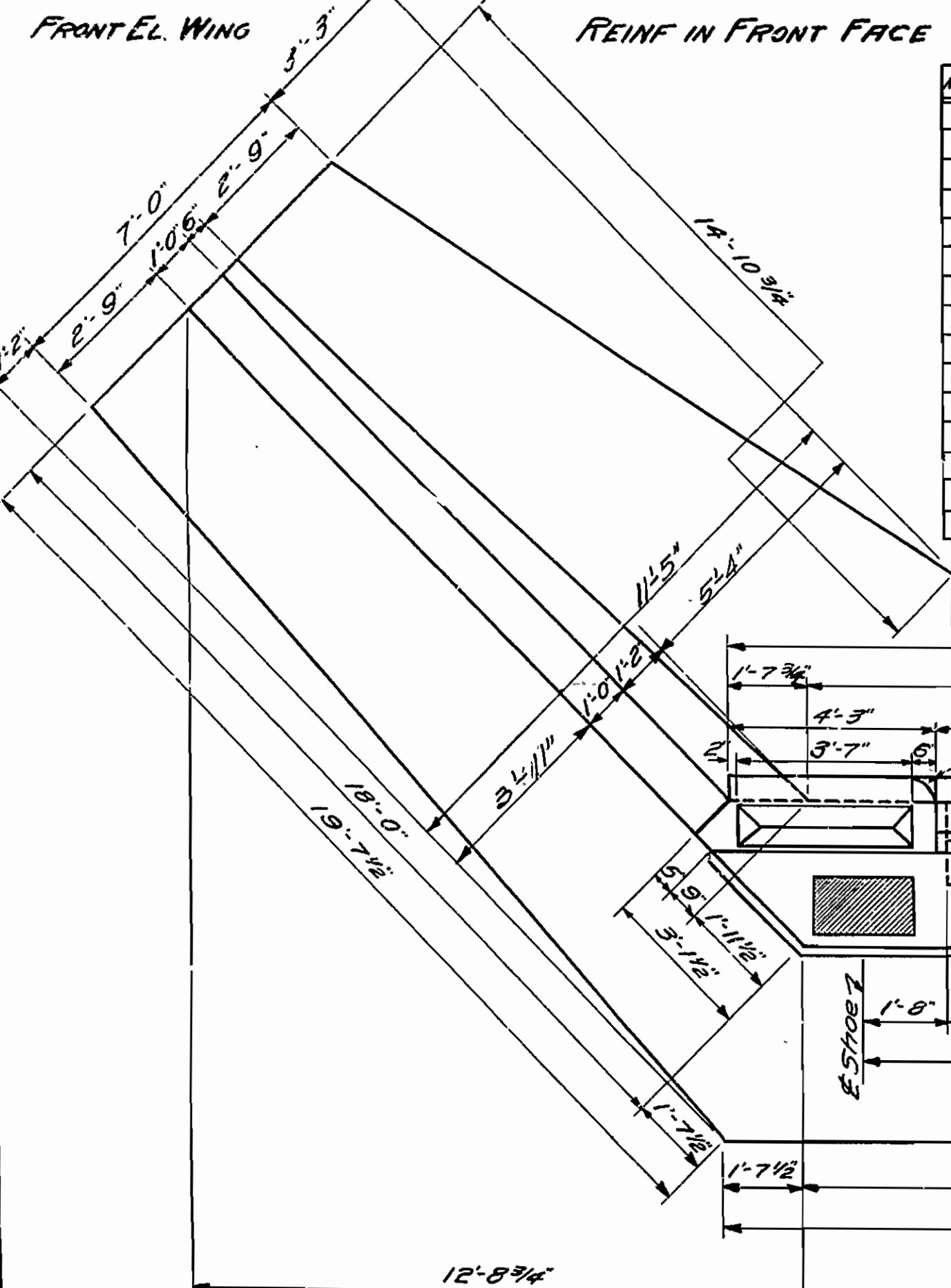
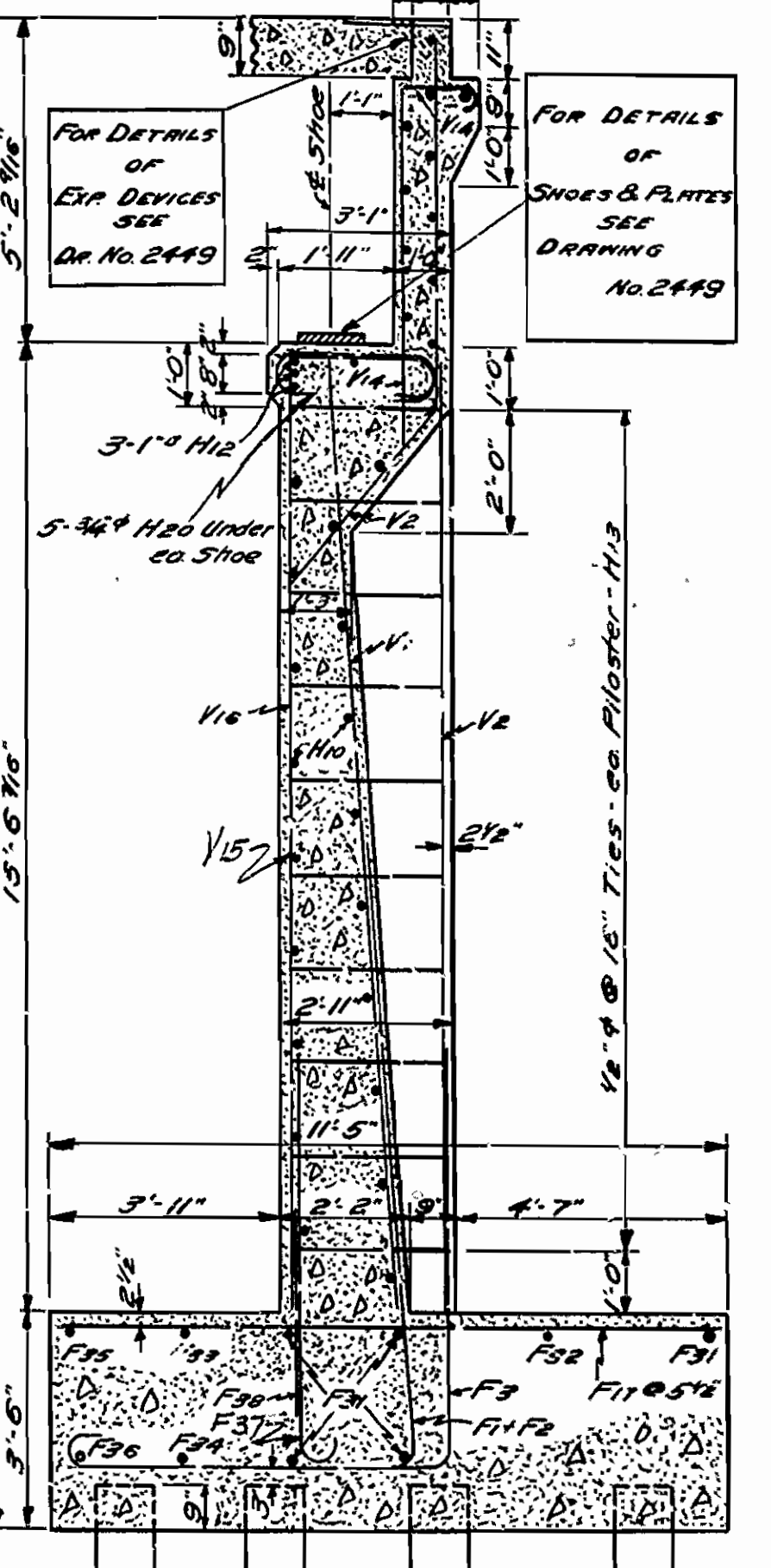
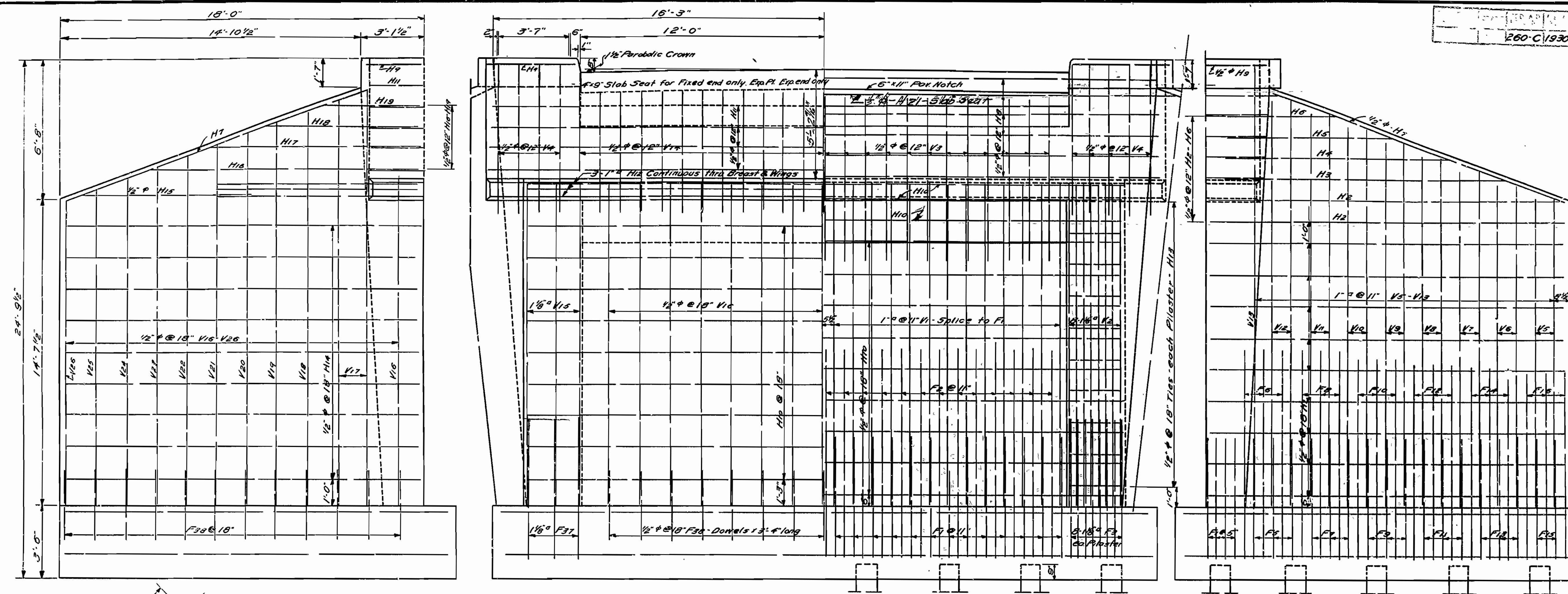
ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.

Drawn By: [Signature] Date: 4-10-30
 Traced By: [Signature] Date: 4-12-30
 Checked By: [Signature] Date: 4-12-30

Scale: 1/2" = 1'-0"

BRIDGE NO. [Blank] DRAWING NO. 2449

FISCAL YEAR	Job No.	SHEET No.	TOTAL SHEETS
1930	584	10	10

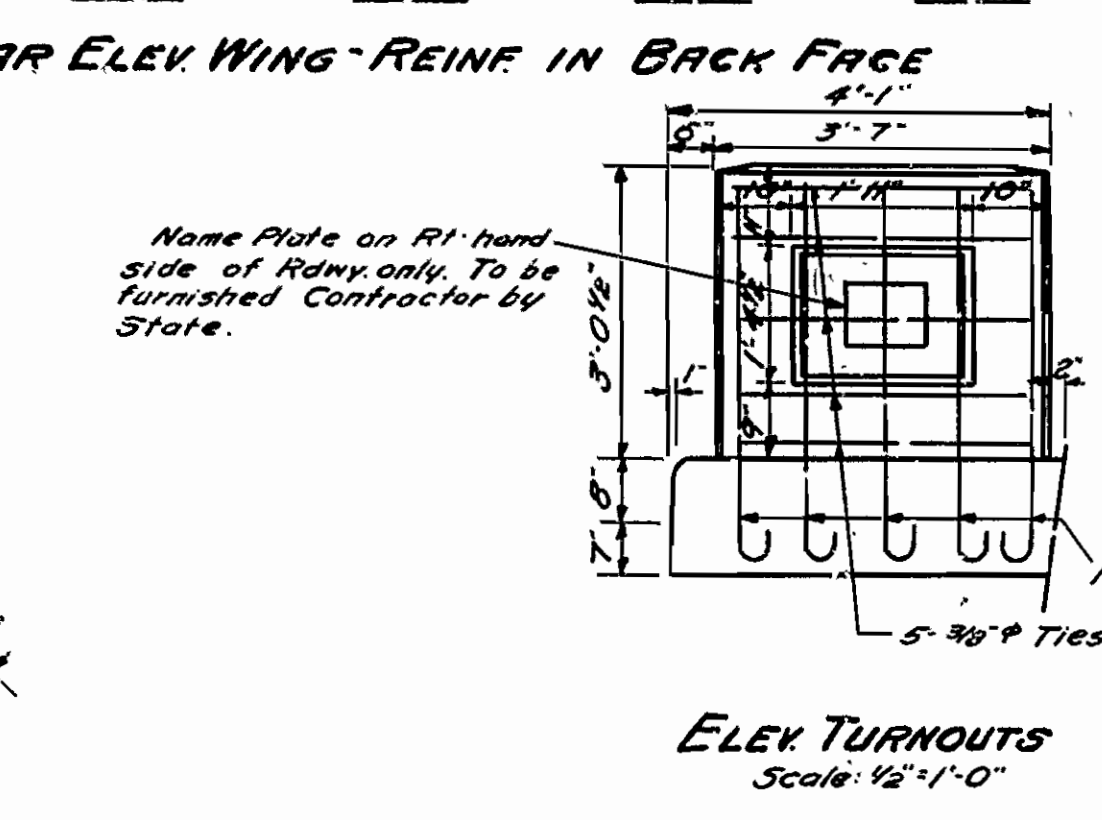


REIN IN FRONT FACE

MARK	SIZE	LENGTH	A	B	C	BENDING DIAGRAM
F1	1"0	12'-6"	5'-10"	5'-10"	5'	
F2	1"0	16'-9"	10'-1"	9'		
F3	1 1/8"	13'-11"	6'-5"	6'-8"	0	
F4	1"0	18'-4"	5'-5"	5'-10"	4'	
F5	1"0	11'-9"	5'-1"	5'-10"	3 1/2'	
F6	1"0	18'-0"	5'-1"	10'-1"	7'	
F7	1"0	11'-9"	5'-1"	5'-10"	3 1/2'	
F8	1"0	18'-0"	5'-1"	10'-1"	6 1/2'	
F9	1"0	11'-6"	4'-10"	5'-10"	3 1/2'	
F10	1"0	15'-4"	9'-8"	9'-8"	5 1/2'	
F11	1"0	11'-3"	4'-7"	5'-10"	3'	
F12	1"0	14'-11"	9'-6"	5'		
F13	1"0	11'-0"	4'-4"	5'-10"	2 1/2'	
F14	1"0	14'-5"	9'-3"	4 1/2'		
F15	1"0	10'-7"	3'-11"	5'-10"	2 1/2'	
F16	1"0	13'-10"	9'-1"	3 1/2'		

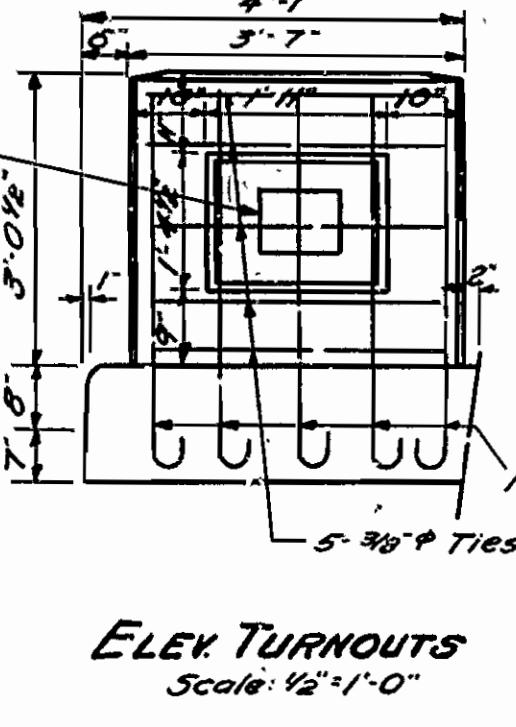
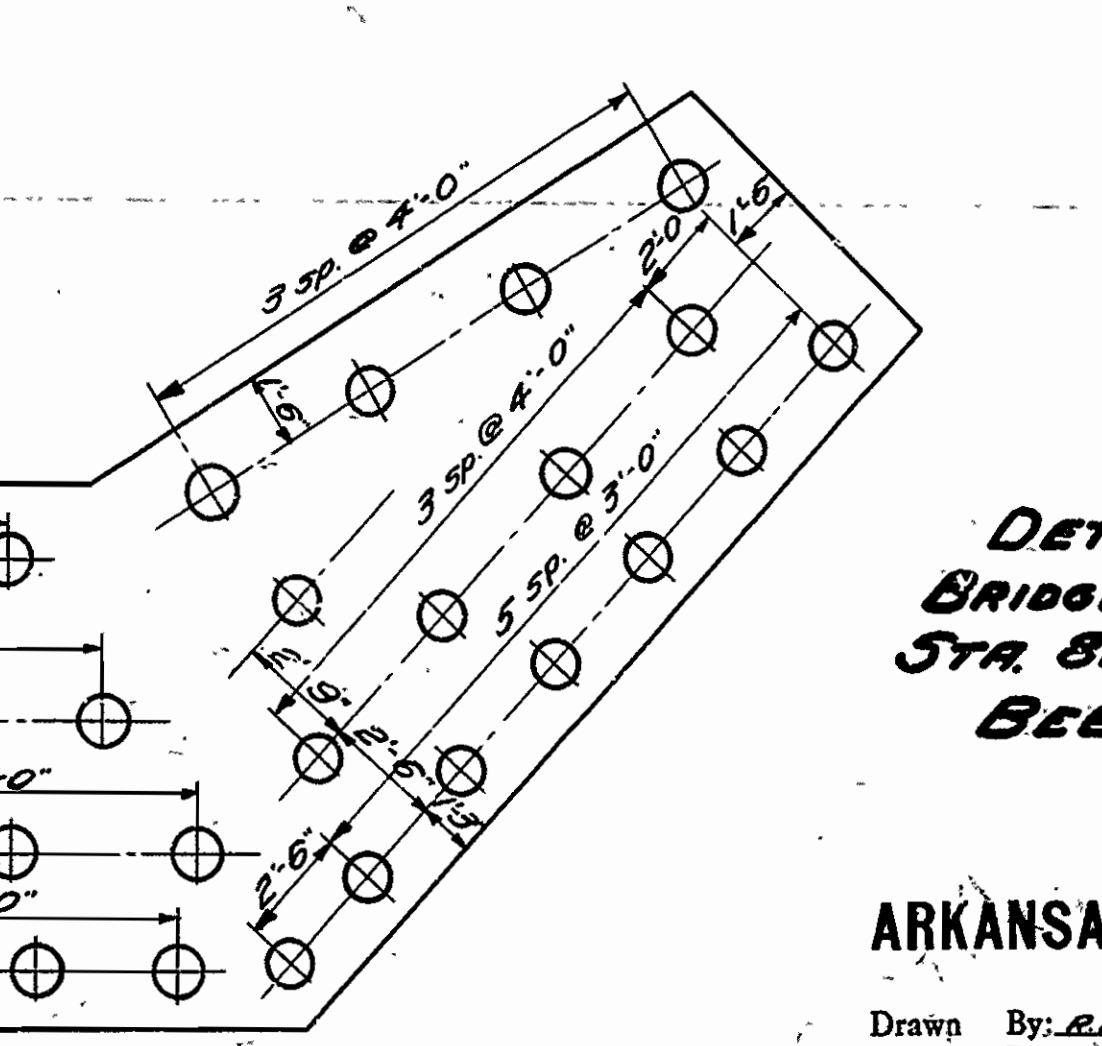
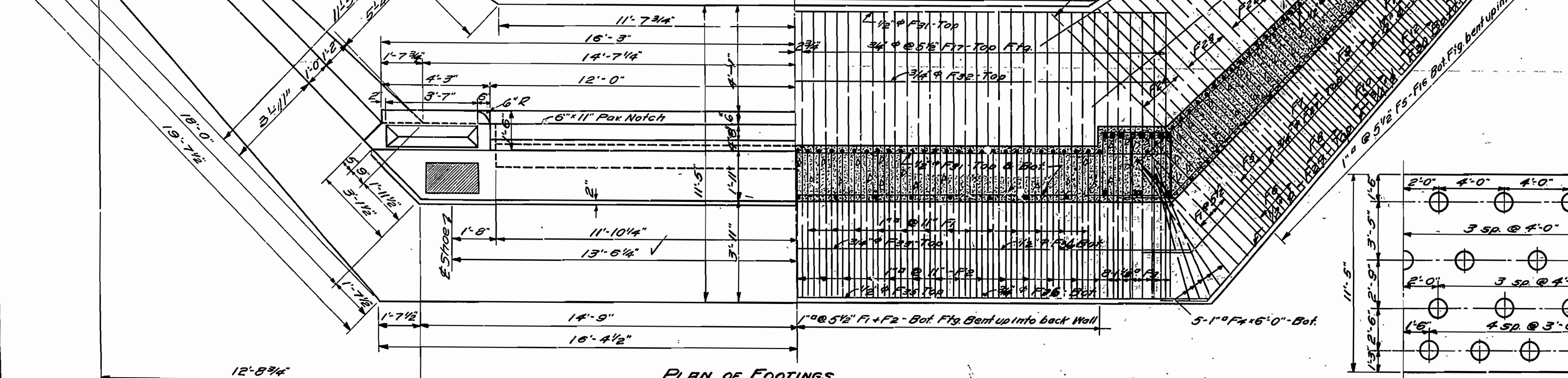
HALF REAR ELEV BREAST-REIN IN BACK FACE

MARK	SIZE	LENGTH	A	B	BENDING DIAGRAM
F27	3/4"	20'-6"	18'-6"	2'-0"	
F28	1/2"	21'-5"	19'-5"		
F29	3/4"	12'-11"	10'-11"		
H3	1/2"	11'-0"	9'-0"		
H4	1/2"	8'-1"	6'-4"		
H5	1/2"	5'-4"	3'-4"		
H6	1/2"	15'-3"	13'-3"		
H7	1/2"	12'-3"	10'-3"		
H8	1/2"	9'-2"	7'-2"		
H9	1/2"	6'-8"	4'-8"		
H10	1/2"	19'-8"	17'-6"		



SEC. THRU BREAST

MARK	SIZE	LENGTH	BENDING DIAGRAM
H11	1/2"	11'-5"	
H12	1"0	40'-5"	
V3	1/2"	10'-0"	
H20	3/4"	4'-4"	
V4	1/2"	7'-5"	
V10	1/2"	18'-15"	



DETAILS OF SUBSTR. FOR
 BRIDGE OVER DES ARC BAYOU
 STA. 826+86 TO STA. 827+91.17
 BEEBE-MORNING SUN ROAD
 WHITE CO.
 ROUTE 67 SEC. 12
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: B.E.H. Date: 10-23-30
 Traced By: S.M.K. Date: 10-23-30
 Checked By: H.G. Date: 10-23-30
 BRIDGE NO. 1452 DRAWING NO. 2931