FISCAL YEAR	JOB NO.	SHEET No.	TOTAL SHEETS
1928	574	1	9

PROP. BRS. PANGB. SEC. RD. WHT. Co. Dr. 7153

STATE OF ARKANSAS

STATE HIGHWAY DEPARTMENT

PLAN OF PROPOSED BRIDGES ON PANGBURN-SEARCY ROAD WHITE COUNTY

ROUTE 16 SEC. 13

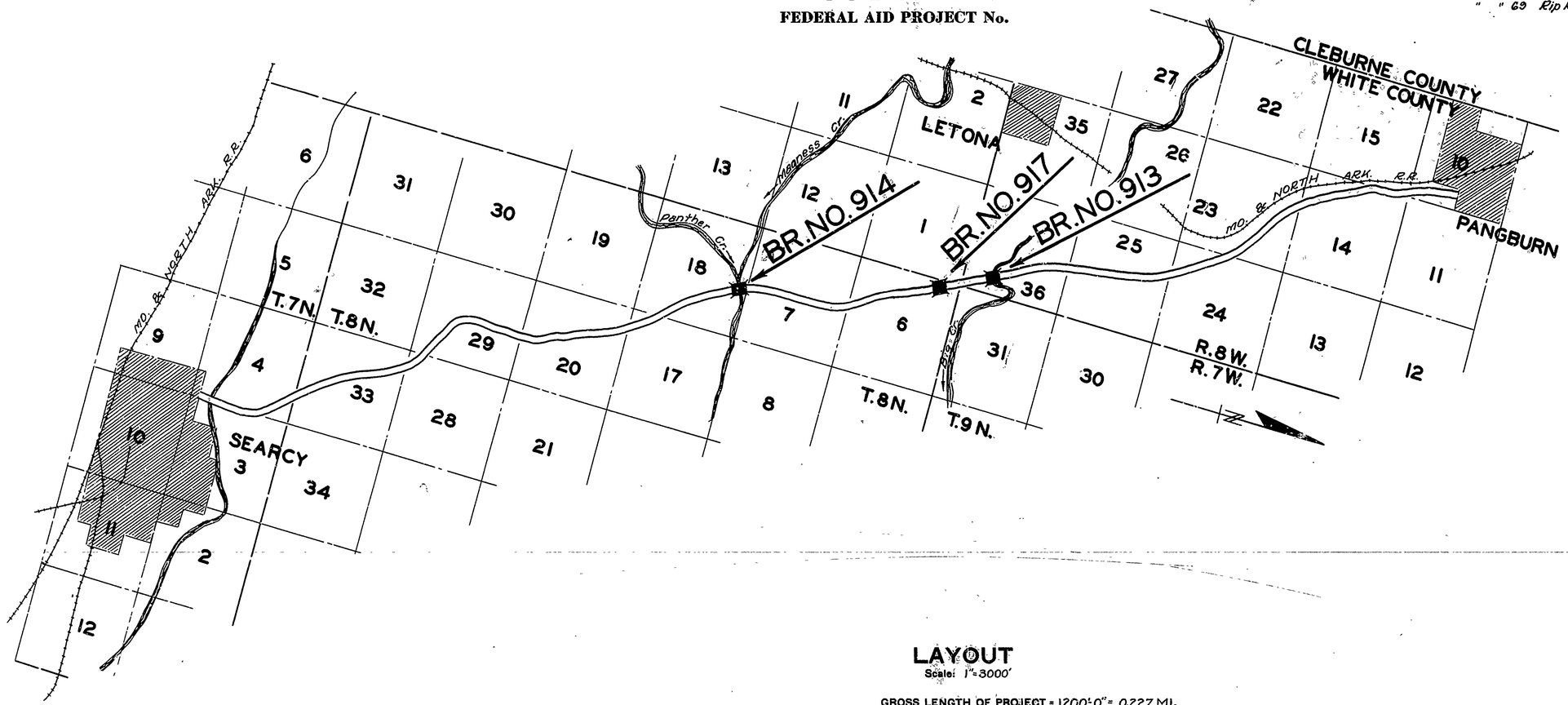
JOB Nº 574

FEDERAL AID PROJECT No.

INDEX OF SHEETS

QUANTITIES

Item No. 13	Dry Excavation For Structures	193	Cu. Yds.
" " 13	Wet Excavation For Structures	216	" "
" " 13	Solid Rock Excav. For Struc's.	23	" "
" " 17	Borrow	5725	" "
" " 52	Untreated Bridge Timber	3.608	M.Ft. B.M.
" " 52	Treated Bridge Timber	97.474	" " " "
" " 54	Class "A" Concrete	180.48	Cu. Yds.
" " 54	Class "S" Concrete	111.84	" "
" " 55	Reinforcing Steel	33812	Lbs.
" " 56	Struc. Steel in Truss Bridges	126,842	"
" " 67	Treated Timber Piling	2494	Lin. Ft.
" " 69	Rip Rap 1" Thick	643	Sq. Yds.



LAYOUT

Scale: 1"=3000'

GROSS LENGTH OF PROJECT = 1200'-0" = 0.227 MI.
NET LENGTH OF PROJECT

APPROVED
[redacted]
COMMISSIONER - STATE LANDS, HIGHWAYS AND IMPROVEMENTS

APPROVED
[redacted]
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL
[redacted]
DISTRICT ENGINEER - U. S. BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL
[redacted]
CHIEF ENGINEER - U. S. BUREAU OF PUBLIC ROADS

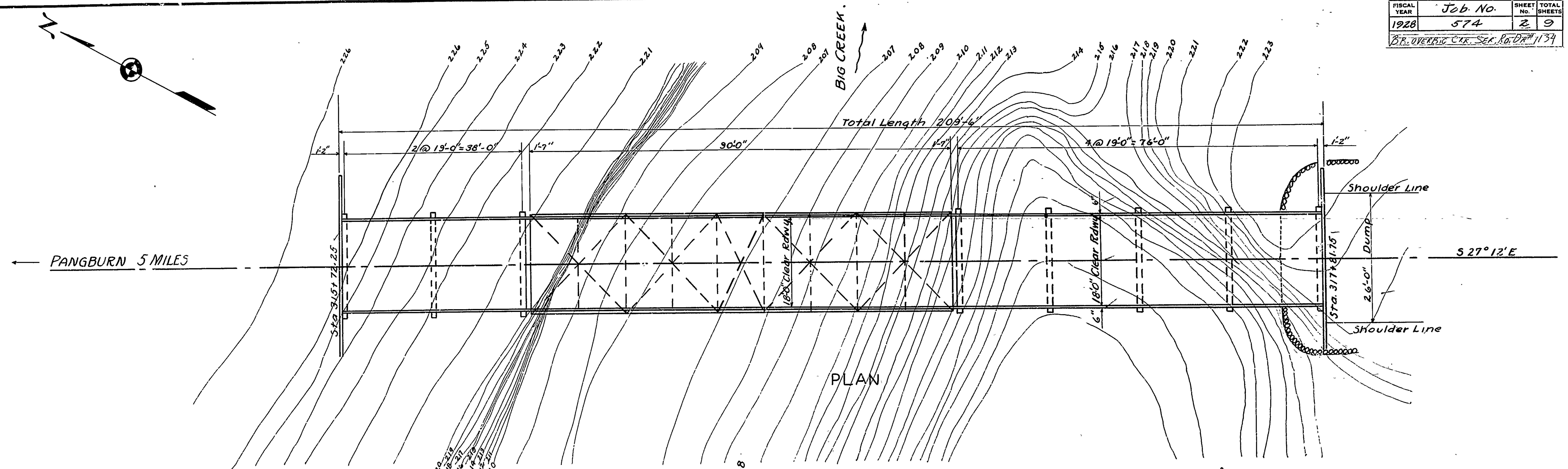
APPROVED
[redacted]
DIRECTOR - U. S. BUREAU OF PUBLIC ROADS

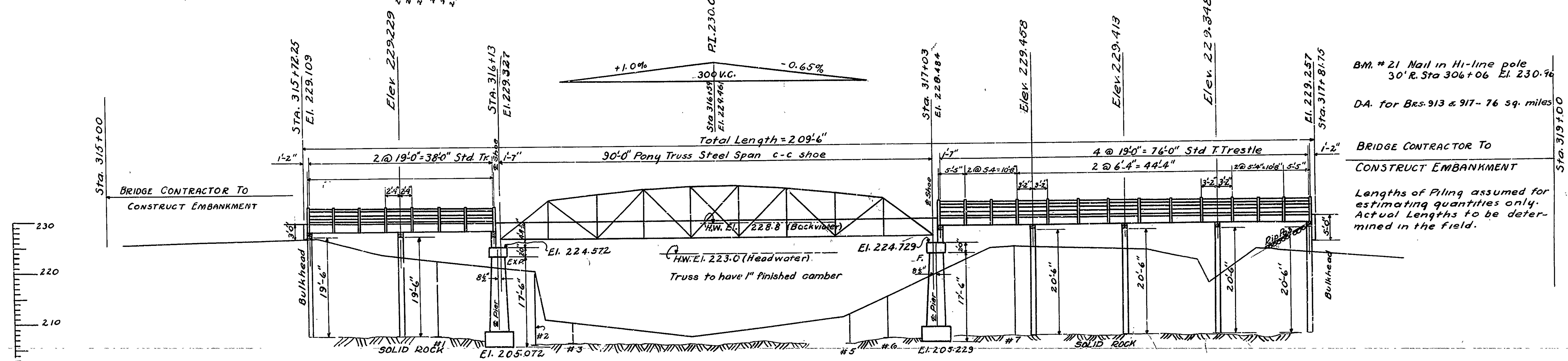
W. B. Garver
BRIDGE ENGINEER

BRIDGE No. 913, 917, 914 DRAWING No. 1133

FISCAL YEAR	Job. No.	SHEET No.	TOTAL SHEETS
1928	574	2	9

Br. over Big Crk. Ser. Rd. Dr.# 1134





B.M. # 21 Nail in Hi-line pole 30' R. Sta 306+06 El. 230.96

D.A. for Brs. 913 & 917 - 76 sq. miles

BRIDGE CONTRACTOR TO CONSTRUCT EMBANKMENT

Lengths of Piling assumed for estimating quantities only. Actual Lengths to be determined in the field.

Quantities

Item Nº 13	Dry Excavation	75 cubic yards
" " 13	Wet "	157 " "
" " 13	Rock "	13 " "
" " 17	Borrow	1995 " "
" " 52	Untreated Timber	0.981 Ft. B.M.
" " 52	Treated "	21.895 " " "
" " 54	Class "A" Concrete	90.24 cubic yards
" " 54	" "S" "	55.92 " "
" " 55	Reinforcing Steel	16,906 lbs.
" " 56	Struct. Steel Trusses	63,421 "
" " 67	Treated Timber Piling	564 Lin. Ft.
" " 69	Rip Rap	111 Sq. yds.

Test Holes

#1	Solid Rock	El. 207.0
#2	" "	El. 205.2
#3	" "	El. 205.6
#4	" "	El. 205.7
#5	" "	El. 205.1
#6	" "	El. 206.1
#7	" "	El. 206.4

Note:-
Exp. = Expansion
F. = Fixed

See Drwg. #1054 for Details of Steel Truss Span
See Drwg. # 1137 for Details of Piers
See Drwg. # 20 for Details of Std. Timber Trestle

LAYOUT

BRIDGE OVER BIG CREEK

PANGBURN SEARCY ROAD

WHITE COUNTY

ROUTE 16 SEC. 13

ARKANSAS STATE HIGHWAY DEPARTMENT

LITTLE ROCK, ARK.

Drawn By: F.P.B. Date: 8-2-28
Traced By: [illegible] Date: 8-2-28
Checked By: [illegible] Date:
Scale: 1 in. = 10 ft.

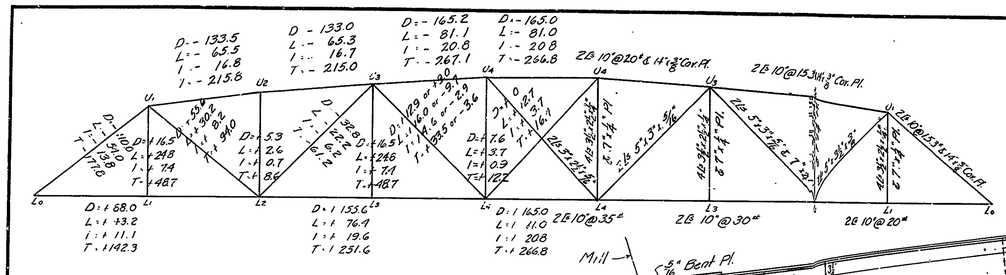
N.B. Garver
BRIDGE ENGINEER

BRIDGE No. 913

DRAWING No. 1134

FISCAL YEAR	JOB NUMBER	SHEET No.	TOTAL SHEETS

35



FLOOR BEAM DATA

D.L.M. = 28157 x 20.5 x 12 ÷ 8 = 865 000"#
L.L.M. = 1,656 000"#
I.M. @ 30% = 496 800"#
Tot. Mom. = 3,017 800"#
Reqd. Sec. Mod. = 3,017,800 ÷ 18000 = 167.6
Sec. Mod. of 24" Beth. I @ 73.5# = 175.1 - O.K.

SPECIFICATIONS

Rivets: 3/4" in diameter
Rivet Holes: Sub-punch all holes in main truss connections (both shop & field) 3/16" smaller than rivet specified and ream to 1/16" larger than rivet specified after being assembled in shop and match-marked.
All field connections riveted. Rivet holes in tension members so spaced that only one hole is deducted from each angle at the point of maximum stress. Deduct 2 web holes and one flange hole from each channel at the point of maximum stress.
Shop Paint - One coat red lead and raw linseed oil.
Field Paint - Two coats of different colors as approved by the engineer.
Batten plates to be spaced not over 3'-0" ctrs on tension members.
Concrete floor slab - Class "S" Extra 1" added for wear.
Stringers and floor beams to be milled to exact length.
This drawing is general only. Shop drawings must be made in compliance with specifications, must be submitted, and approved before fabrication begins.
Specifications: Ark. State Highway Specifications adopted 5-30-25 and revised

LIVE LOAD

Uniform - 90" per sq. ft. of rdy.
Concentrated - 2-15 ton trucks as shown
Impact = 100 ÷ L + 300
Unit Stresses
Concrete : 812.5 lbs per sq. in
Steel : 18000 " " " "
Rein. Steel: 18000 " " " "

ESTIMATED QUANTITIES

STRUCTURAL STEEL WITHOUT EXP DEVICES 62000 LBS.
REINFORCING STEEL (O. TO O. OF END FL. BMS.) 10530 LBS.
CLASS "S" CONCRETE (O. TO O. OF END FL. BMS.) 55.92 CU. YDS.

Revised 11-13-28.
" 1-1-29 & 5-2-29
For General Revisions
By Noe.

STANDARD PLAN
90'0" LOW TRUSS SPAN
18'0" CLEAR ROADWAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

Drawn By: Noe Date:
Traced By: Noe Date:
Checked By: Date:
Scale: 3/4" in. = 1 ft.

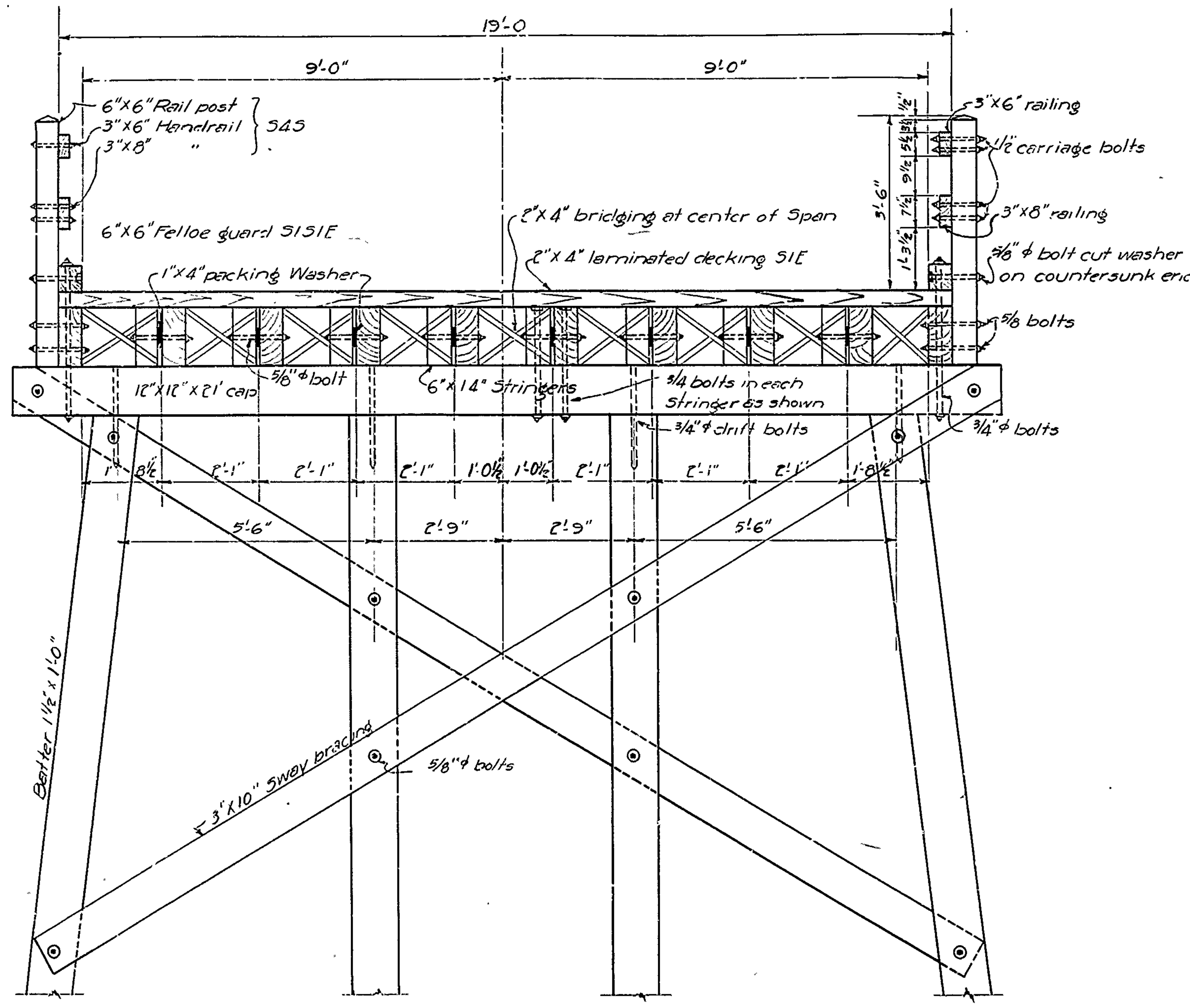
N. B. Garver
BRIDGE ENGINEER

BRIDGE NO. [redacted] DRAWING NO. 1054

323

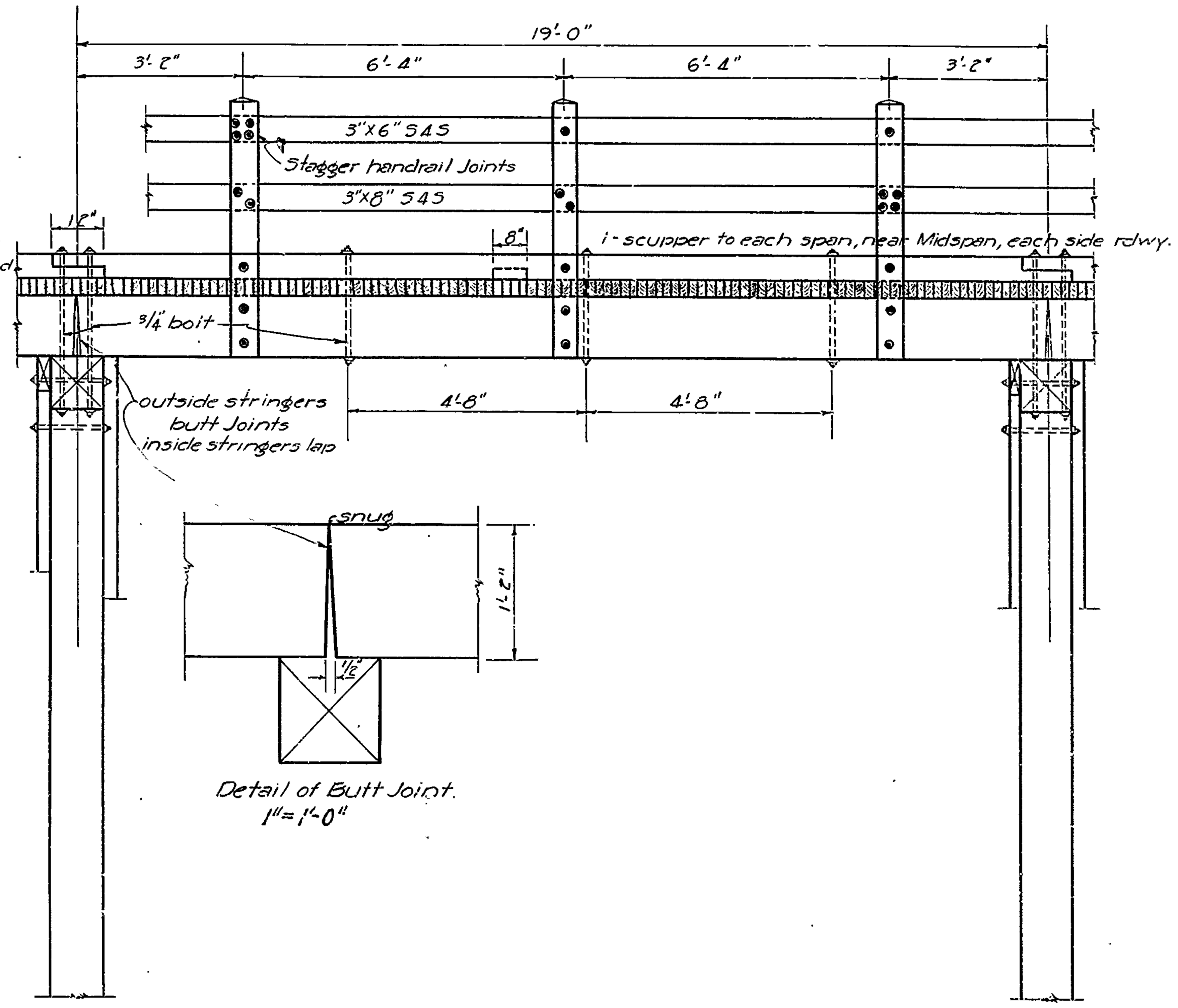
FISCAL YEAR		SHEET No.	TOTAL SHEETS

19' Std. Tim. Test. 18' Cl. Rdwy. 5-32



Cross Section Roadway

1/2" = 1'-0"



Each Stringer to be Spiked to caps with 4 - 40d spikes and to be sized at bearing points in Field. 2"x4" laminated decking S1E. Each piece to be nailed to each adjacent piece once between each Stringer with 30 d spike. Each piece to be nailed to alternate stringers with 30 d spike, alternate pieces to be nailed to alternate stringers. Deck ends to be Flush.

Random length pieces of 2"x4" decking may be used under the following conditions.

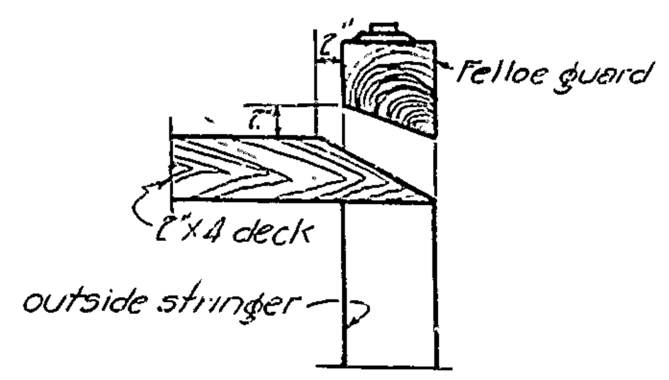
1. Each joint to be made on Stringers.
2. " piece shall cover at least 3 Stringers.
3. No more than one joint in any length lamina.
4. Each joint to be followed by at least 3 full length pcs.

Use Sway bracing on all bents 5'-0" or over in height.
Use Malleable or cast iron washers on both ends of Machine bolts unless noted otherwise.
All timber and piling except 3"x6" and 3"x8" rail members, to be treated.
Handrail shall be made of untreated, seasoned, dressed, lumber, and shall be painted with 3 coats of paint in accordance with paragraph 52.3(a) of Arkansas State Standard Specifications.
All treated timber and piling to be treated by empty cell process in accordance with paragraph 52.2(d) of Arkansas State Standard Specifications.

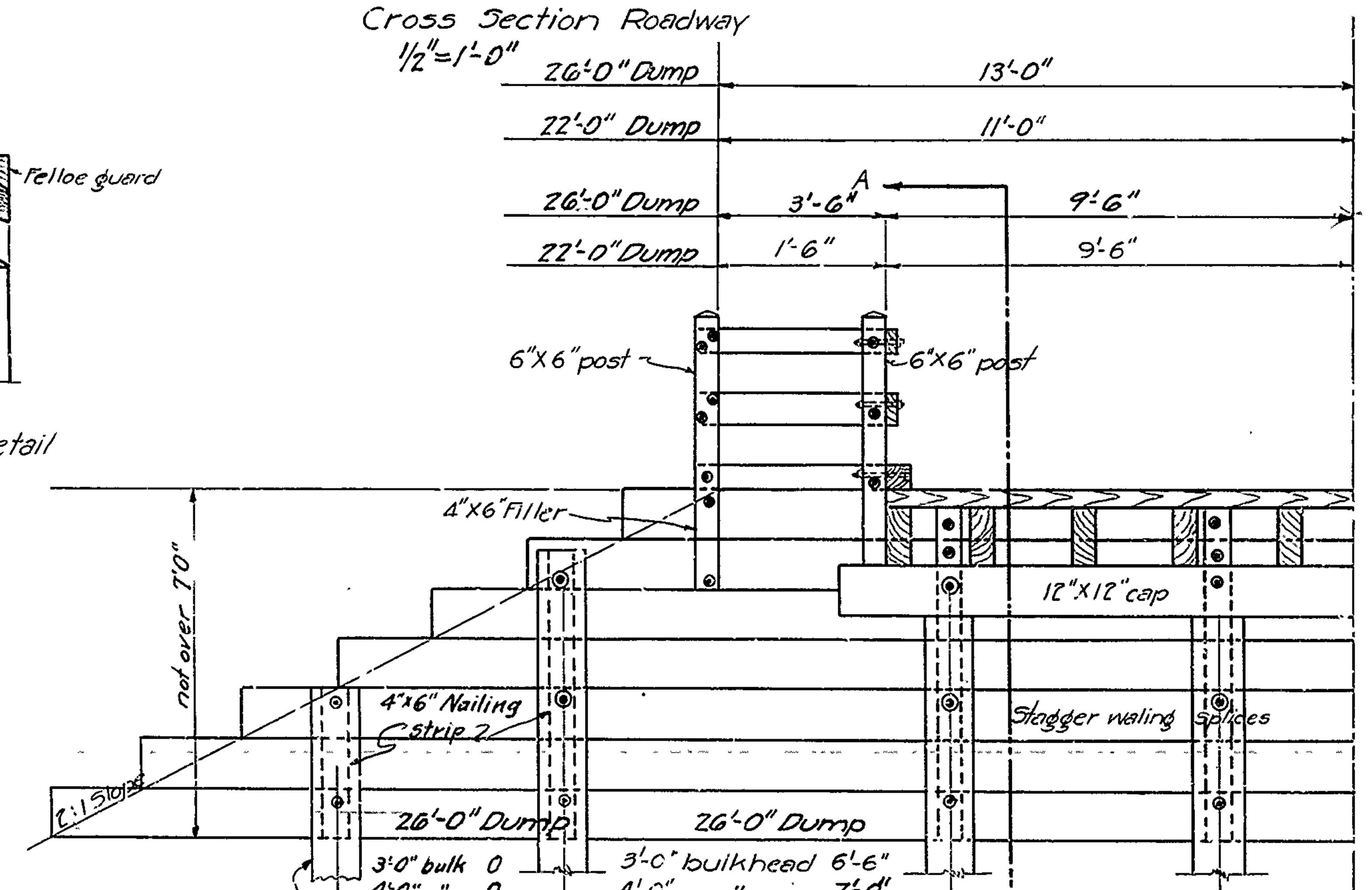
Specifications: Arkansas State Road and Bridge Specifications, adopted May 30, 1925.

Elevation

1/2" = 1'-0"



Scupper Detail



3'-0" bulk 0	3'-0" bulkhead 6'-6"
4'-0" " 0	4'-0" " 7'-0"
5'-0" " 0	5'-0" " 8'-0"
6'-0" " 5'-6"	6'-0" " 6'-3"
7'-0" " 6'-3"	7'-0" " 6'-6"

5'-6" 2'-9"

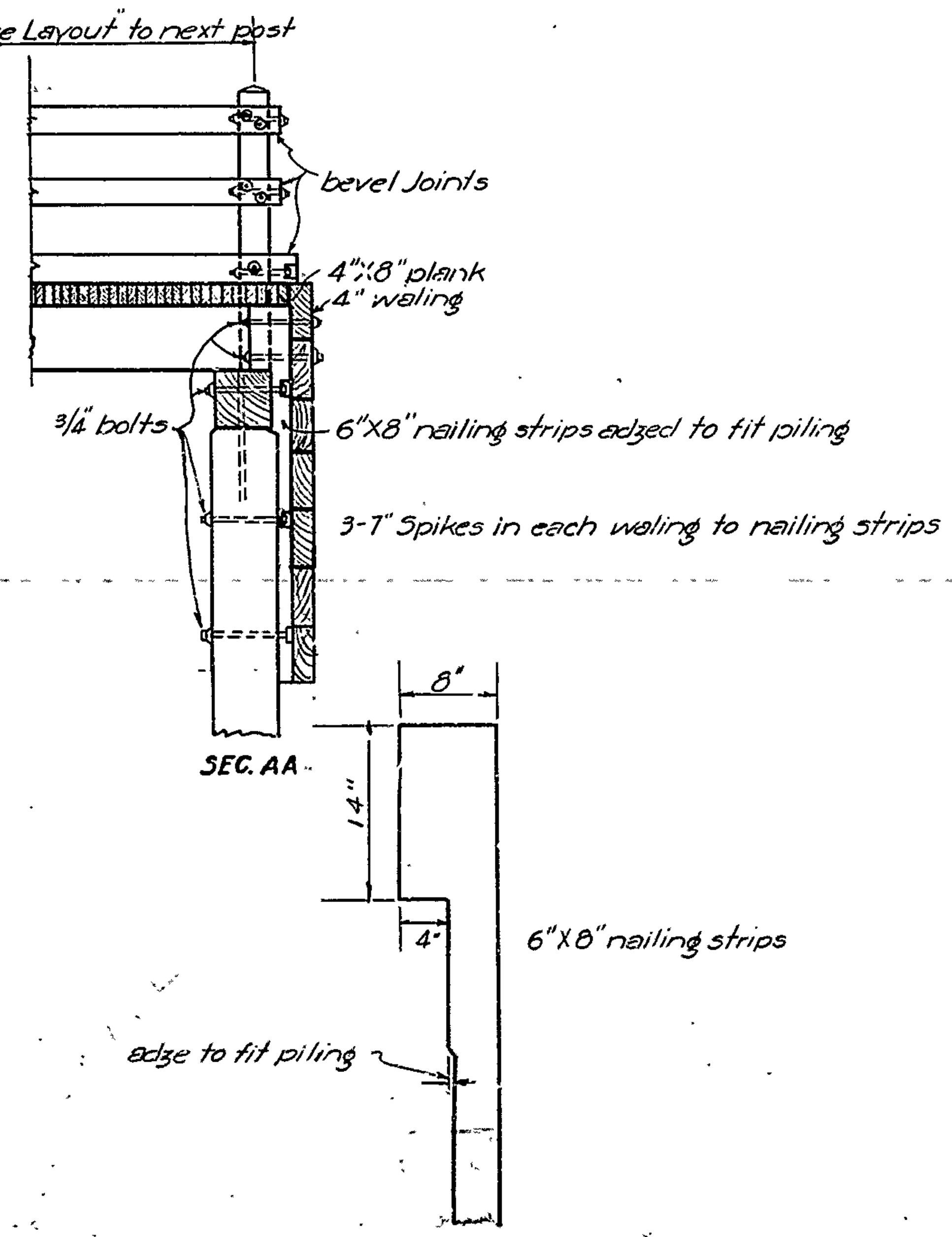
This piling on 6' & 7' Bulkheads only. for 26'-0" Dump

This piling on 7' Bulk. only for 22'-0" Dump

22'-0" Dump	22'-0" Dump A
3'-0" bulk 0	3'-0" bulk 5'-0"
4'-0" " 0	4'-0" " 5'-6"
5'-0" " 0	5'-0" " 7'-0"
6'-0" " 0	6'-0" " 8'-0"
7'-0" " 5'-6"	7'-0" " 5'-6"

Abutment Details

3/8" = 1'-0"



Measurement for payment of the 2"x4" laminated Decking shall be computed at 76 (Seventy Six) Ft. B.M. per lineal Ft. of Bridge.
Ends of Decking to be Flush.

5'-0" Bulkhead to 7'-0" (Max.) 2-23-29 FPB.

Details
19'-0" Standard Timber Trestle
18'-0" Clear Roadway

ROUTE SEC.

ARKANSAS STATE HIGHWAY DEPARTMENT

LITTLE ROCK, ARK.

Drawn By: Britzon Date: 7/31/28
Traced By: McGrath Date: 8/8/28
Checked By: Mac Date:

Scale: as noted

M.B. Garn
BRIDGE ENGINEER

BRIDGE NO.

DRAWING NO. 20

FISCAL YEAR	Job No.	SHEET No.	TOTAL SHEETS
1928	574	6	9

Pt. DETS. PANTH. CR. & BG. CR. Dr. #1137

GENERAL NOTES :-

All exposed corners to have ¾" chamfer unless otherwise noted.

All concrete to be Class 'A'.

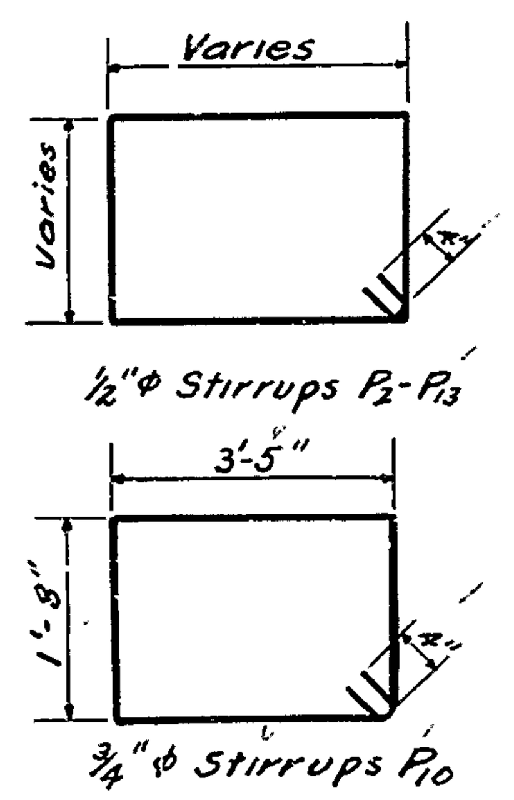
All concrete to be poured in the dry.

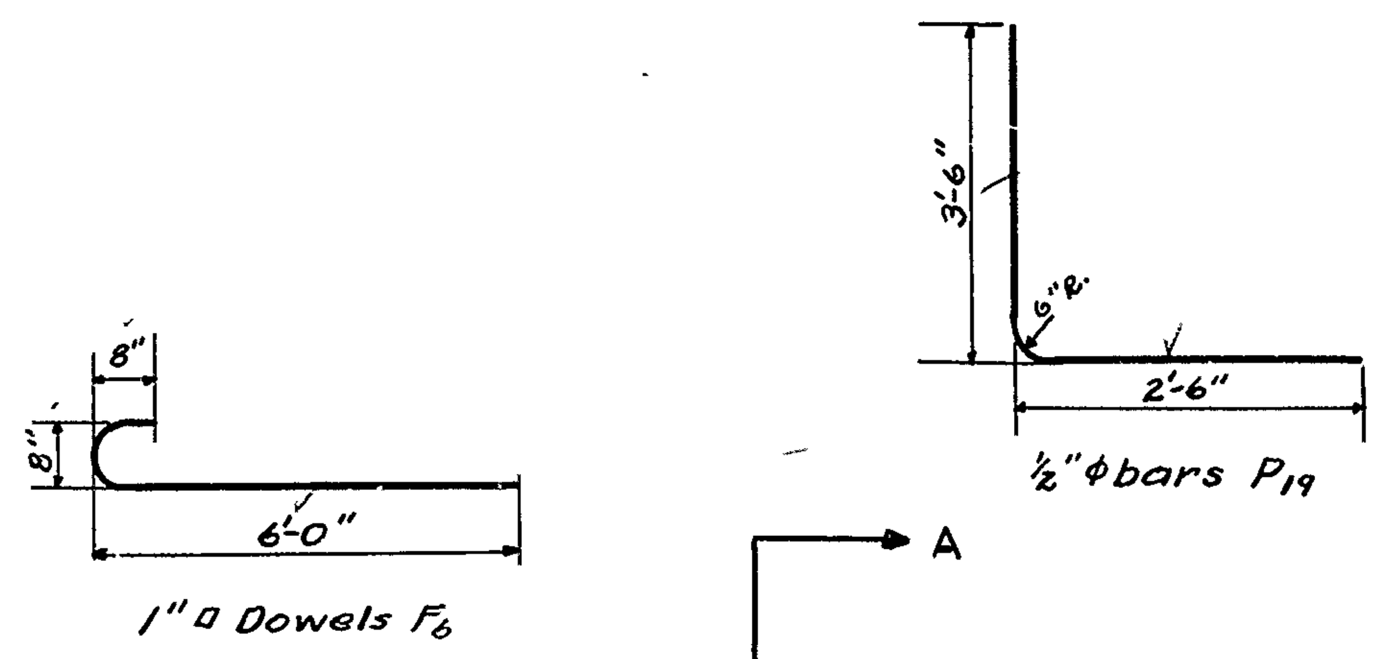
Reinforcing Steel to be deformed bars of Structural or Intermediate grade. Shop lists and bending diagrams shall be submitted by Contractor before fabrication is begun. Roadway drains and expansion devices to be paid for at unit price bid for Structural steel.

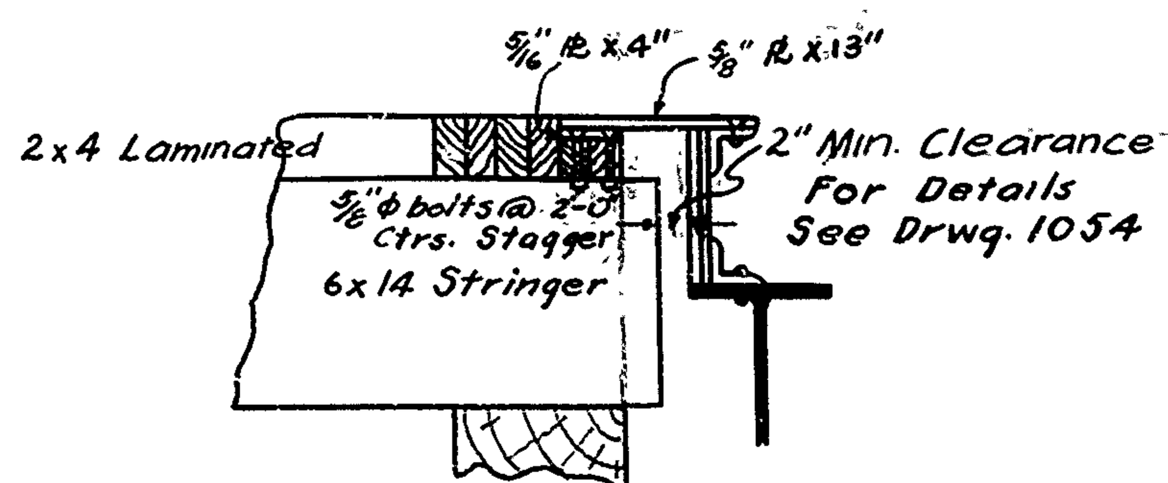
Specifications:- Arkansas Standard Road and Bridge Specifications, Adopted May 30, 1925, and revised.

Stresses: Class 'S' Conc.- f_c = 810 #/in² V = 50 #/in²

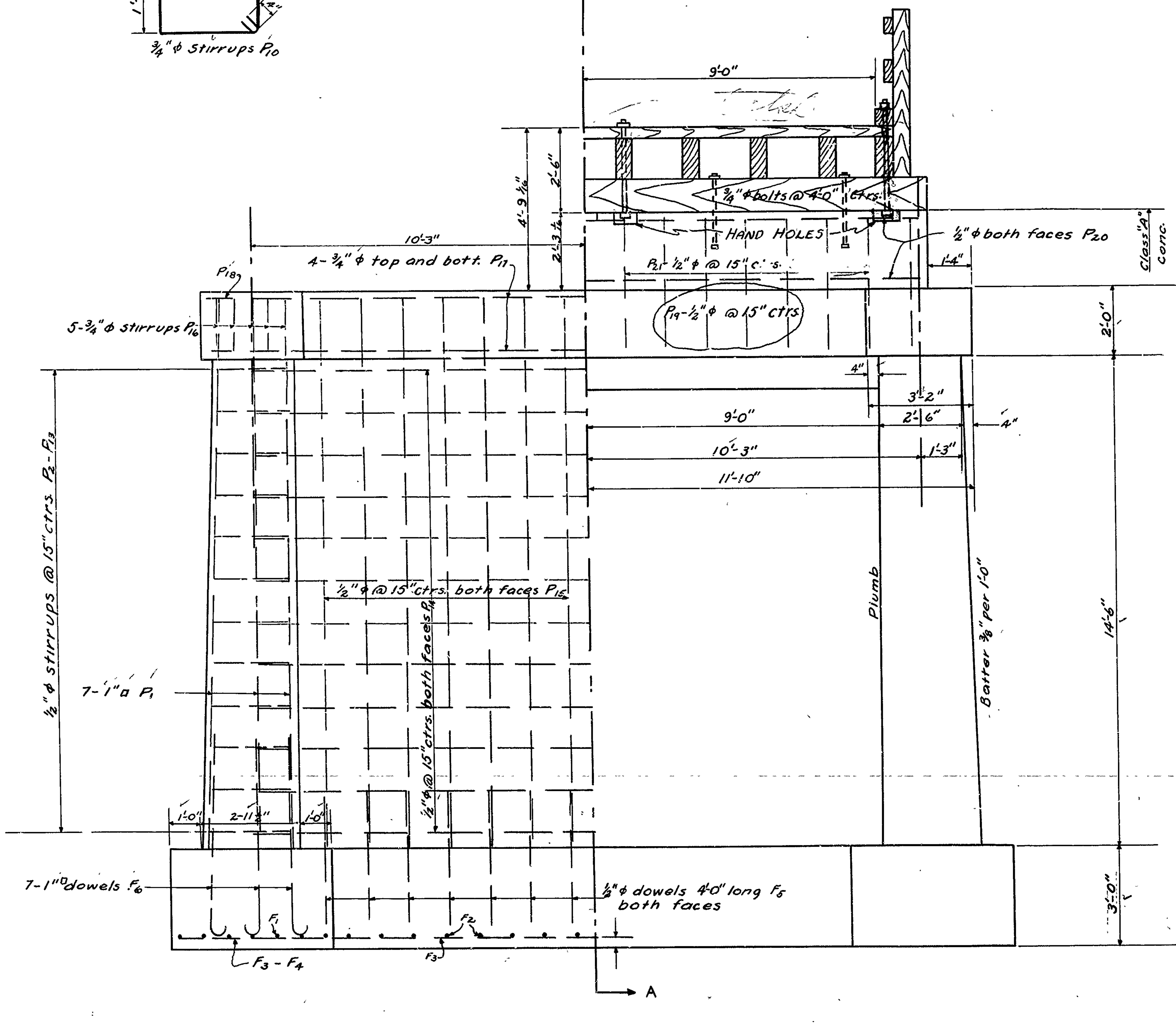
Reinforcing Steel f_s = 18000 #/in²



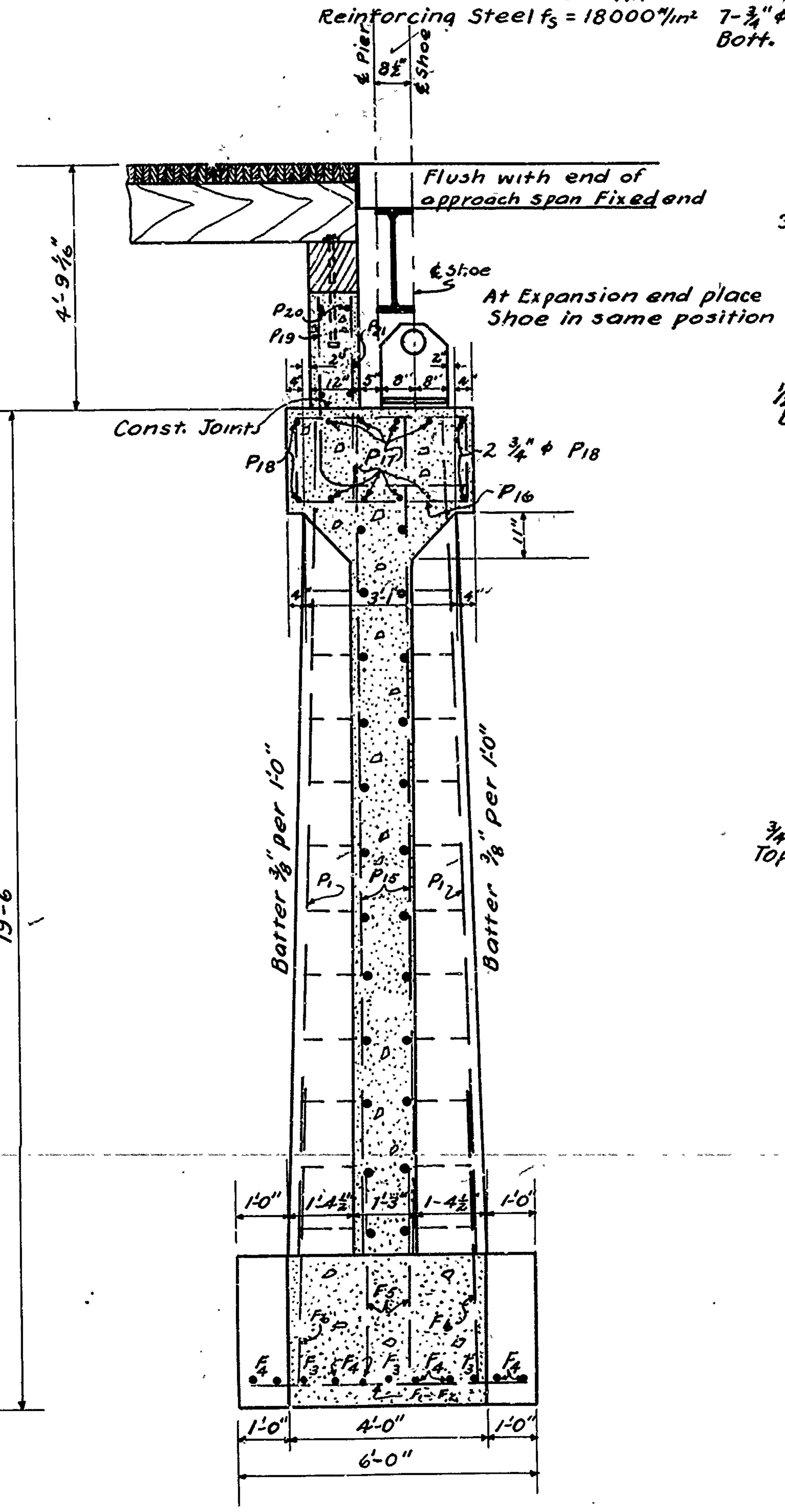




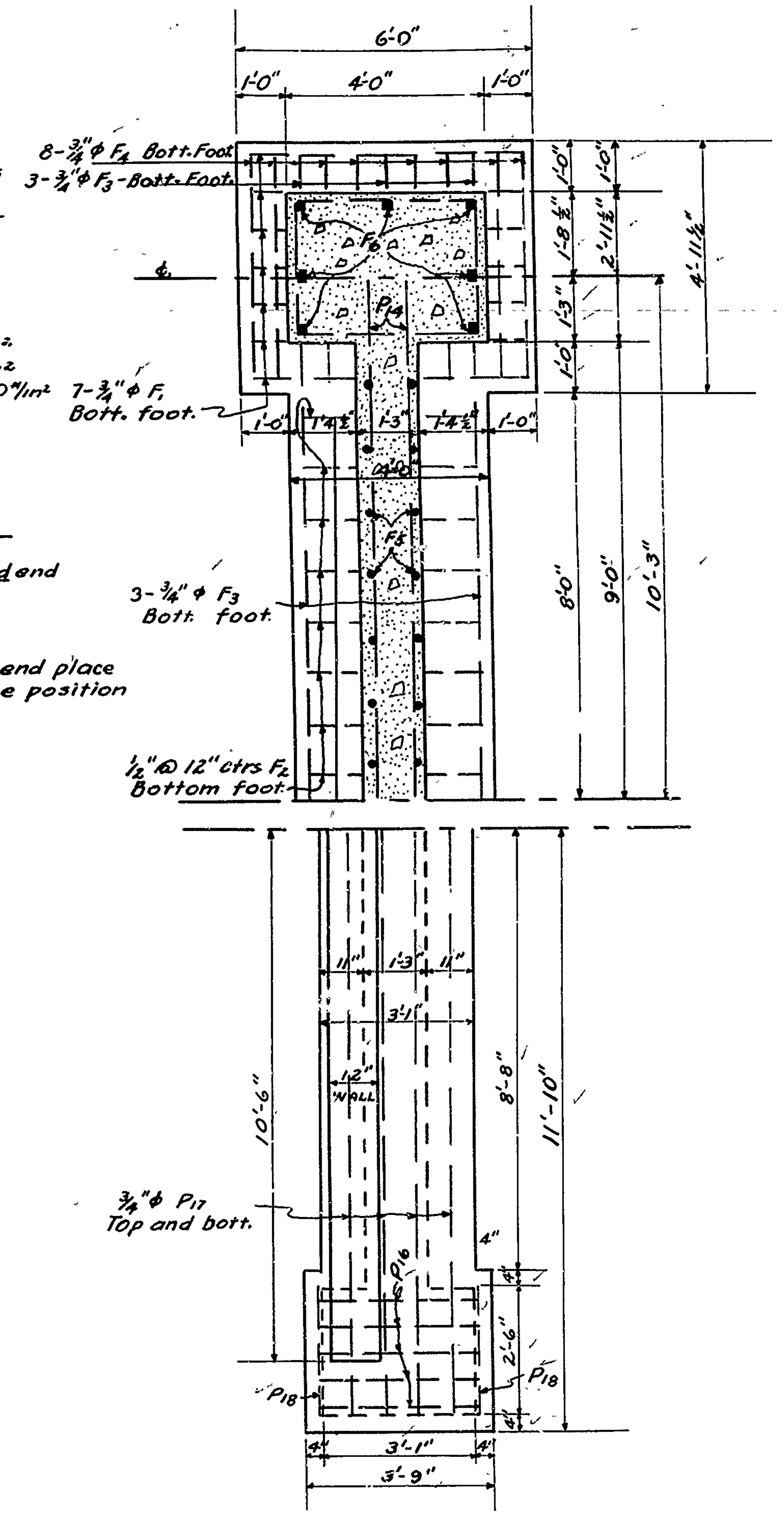
EXPANSION DEVICE



ELEVATION



SECTION A-A



HALF PLAN FOOTING

HALF PLAN CAP

PIER DETAILS

BR. OVER BIG CREEK & PANTHER CR.

PANGBURN SEARCY ROAD WHITE CO.

ROUTE 16 SEC. 13

ARKANSAS STATE HIGHWAY DEPARTMENT

LITTLE ROCK, ARK.

Drawn By: F.P.B. Date: 7-31-28
Traced By: Date: 8-1-28
Checked By: Date:

Scale: ½ in. = 1 ft.

BRIDGE ENGINEER

BRIDGE NO. 913 & 914 DRAWING NO. 1137