

FED. ROAD DIST. NO.	STATE	W.P.A. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	466-756	1939	1	3
STATE JOB NO. 4263					

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

INDEX OF SHEETS

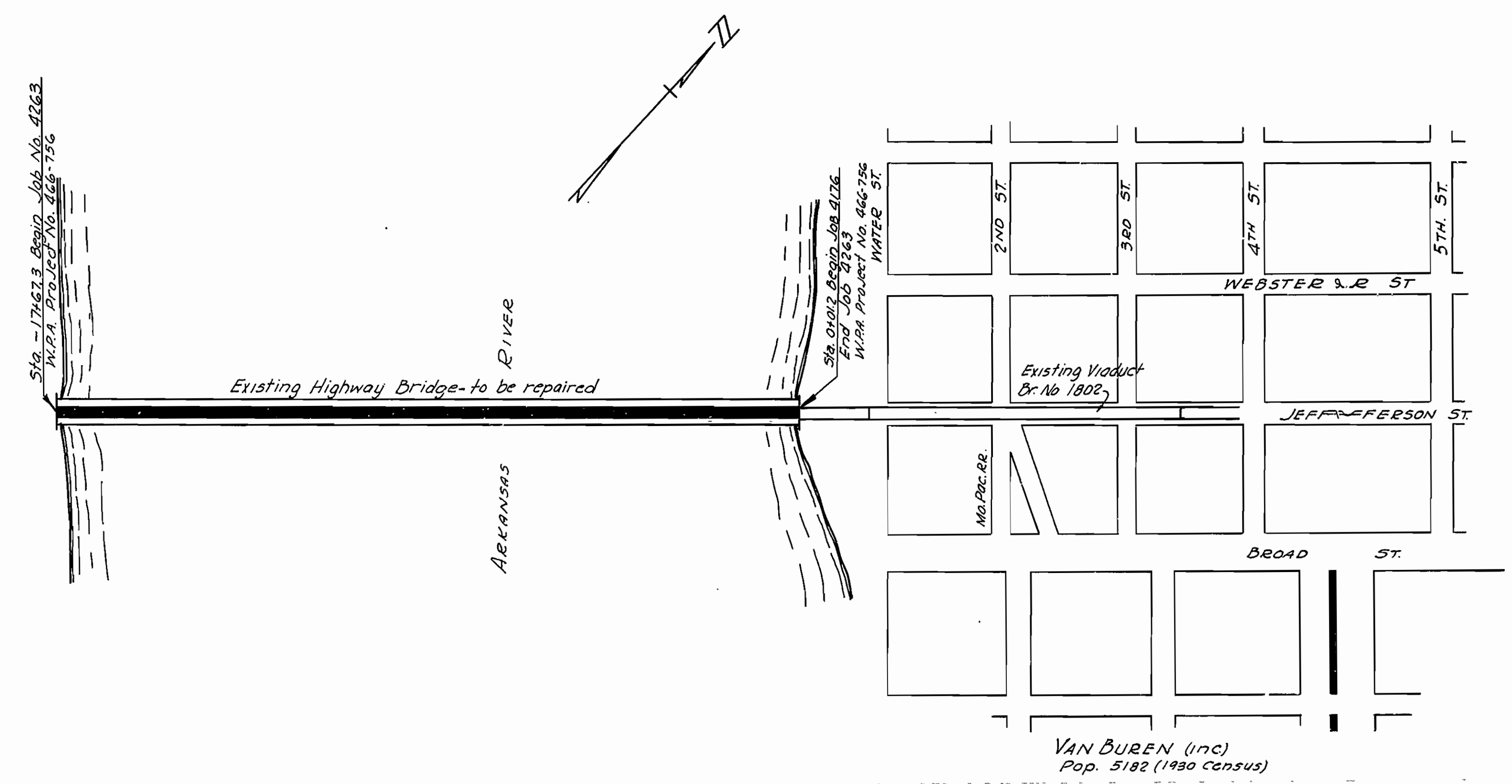
SHEET NO.	DWG NO.	DESCRIPTION
1	3429	Title Sheet
2	3429A	Layout and Cross-sections
3	3429B	Repairs of 21' Roadway - Br. No 1784

PLAN OF PROPOSED BRIDGE
REPAIRS TO BRIDGE OVER ARKANSAS RIVER
VAN BUREN-FORT SMITH ROAD

ROUTE 64 SEC. 1
JOB N^o 4263
W.P.A. PROJECT NO. 466-756

QUANTITIES

Item No.	Item	Quantity	Unit
802	Class 5' Concrete for Bridges	904	Cu Yds
803	Reinforcing Steel	168580	Lbs.
807	Structural Steel in Truss Spans	17010	Lbs.
809	Treated Bridge Timber	27,600	M.F.B.M
50	Asphalt Plant	4000	Sq. Ft.
504	Class C, Type C-1 Bituminous Surf Course 458		Sq. Yds.



Revised 3/1/40

SPECIFICATIONS: Arkansas State Highway Commission
Standard Specifications for Road and Bridge Construction,
adopted June 30, 1936

- Pamphlets
- Division I
 - Division II Part 8a
 - " " " 8b
 - " " " 8c
 - " " " 5

- Special Provisions
- ~~Membrane Water proofing, Asphalt Plant~~
 - ~~and Compaction~~
 - 504-1 Liquid Asphalt For Surface Course 1 "
 - 504-2 Revisions Of Article 504-4 1 "
 - 504-3 Seal Coat 1 "

LAYOUT
Scale: 1" = 200 Ft.

LENGTH OF PROJECT = 1768.5 Ft = .334 Mi.
LENGTH OF BRIDGES = 1768.5 Ft = .334 Mi.
LENGTH OF EMBANKMENT = 0.0 Ft = 0.0 Mi.
LENGTH OF JOB = 1768.5 Ft = .334 Mi.

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC WORKS AGENCY
PUBLIC ROADS ADMINISTRATION

APPROVED

COMMISSIONER
PUBLIC WORKS AGENCY
PUBLIC ROADS ADMINISTRATION

APPROVED

CHAIRMAN - STATE HIGHWAY COMMISSION

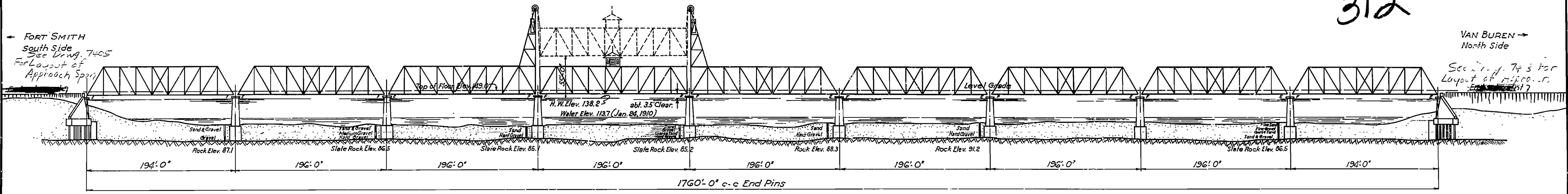
APPROVED

STATE HIGHWAY ENGINEER

PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

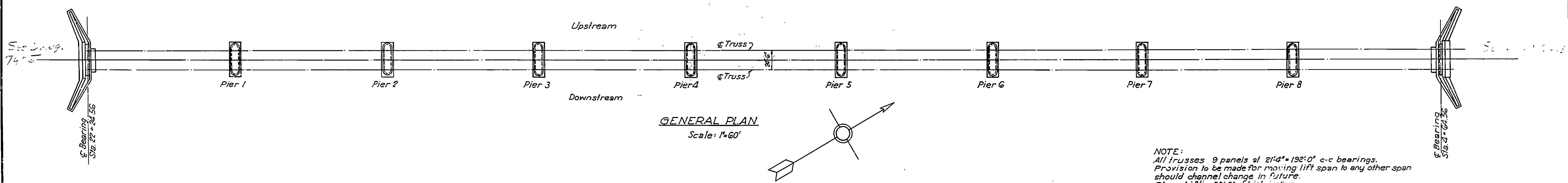
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
STATE JOB NO.					

312



NOTE:
 E indicates expansion end
 F indicates fixed end

GENERAL PROFILE
 Scale: 1" = 60'



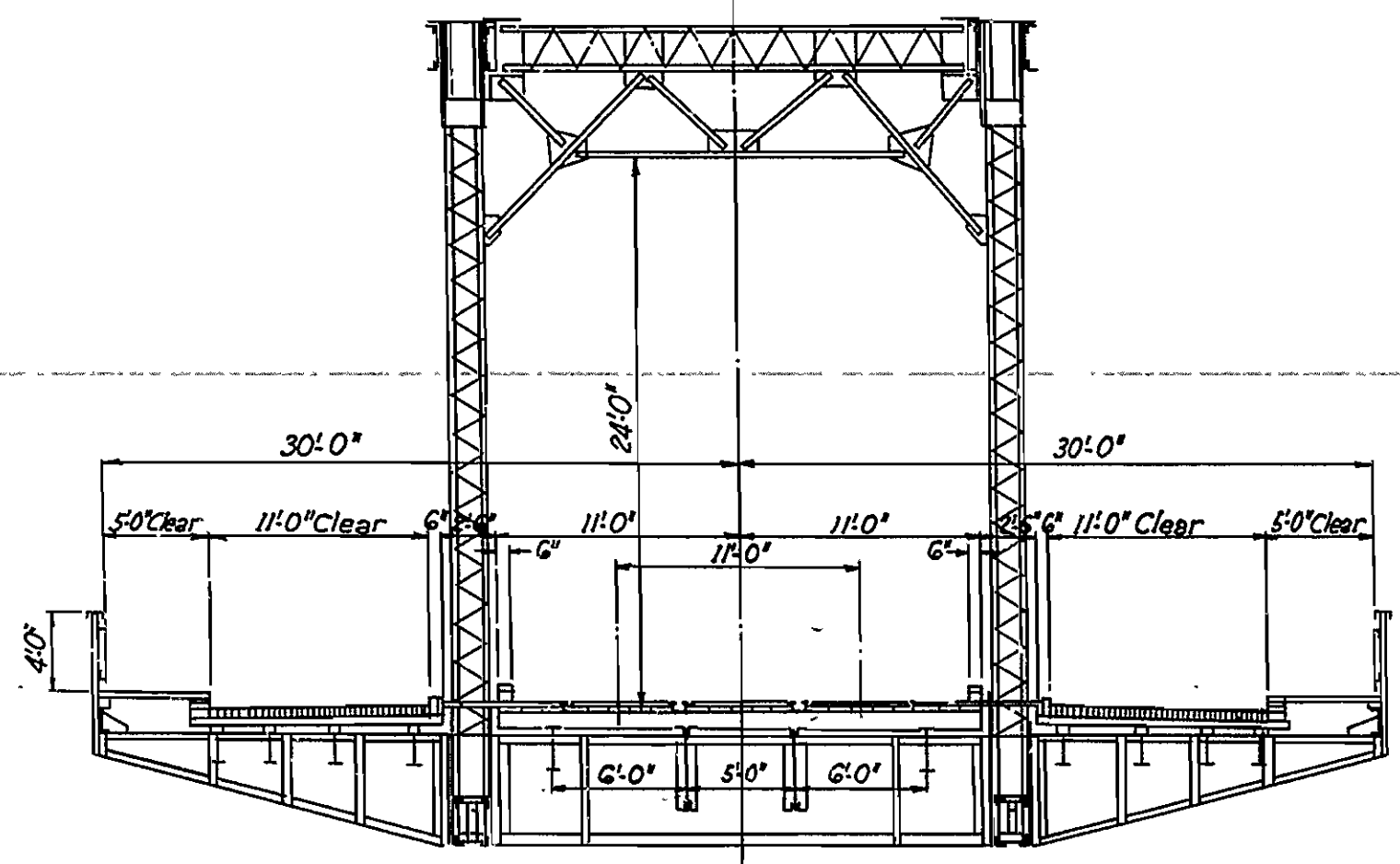
GENERAL PLAN
 Scale: 1" = 60'

NOTE:
 All trusses 9 panels of 21'4" = 192'0" c-c bearings.
 Provision to be made for moving lift span to any other span should channel change in future.
 Clear Lift = 55'-0" at high water.
 Clear Span under Lift = 180'-0" (at low water)
 Elevations referred to a datum plane which is 152.2' below elevation of base of rail at east end Frisco bridge.
 This datum plane is also 145.8' below B.M. on West Abutment bridge seal near corner at intersection of upstream and river faces of stone.
 Pluses given measured from @ Main Track of St. L., I.M. & S. R.R. as shown in Mr. Graham's Notes, Book #1. See Sheet 24.
 Elev. B.R. of St. L., I.M. & S. R.R. on @ Jefferson Street 137.88
 Elev. B.R. of St. L., I.M. & S. R.R. at @ Depot 139.30

CLEARANCE GAUGE

On Piers-
 A gauge whose zero point is at lowest point of bottom chord of Lift Span and reading downward to low water is to be painted on downstream end of a pier so that it can be read from end of bridge.
 Gauge to have division lines every foot and marked every 5 feet with numbers 15" high, lines 2" wide.
 Gauge to be painted white on a black background.
 Division lines to be about 2" long and numbers to be at middle of lines, Number 0 to be marked on bottom chord of Truss span.

On Towers-
 A gauge whose zero point is at lowest point of bottom chord of Lift Span and reading upward to 60 feet is to be painted on upstream face of main column of south tower and on downstream face of main column of north tower so that they can be read from boat approaching to the bridge.
 Gauges to have division lines every foot and marked every ten feet with numbers 18" high. Division lines to be 2 1/2" wide and run full width of column. Division lines at every 10 feet to be omitted for numbers. Division lines at every intermediate 5 feet to have special marks. Gauges to be painted white on black background.

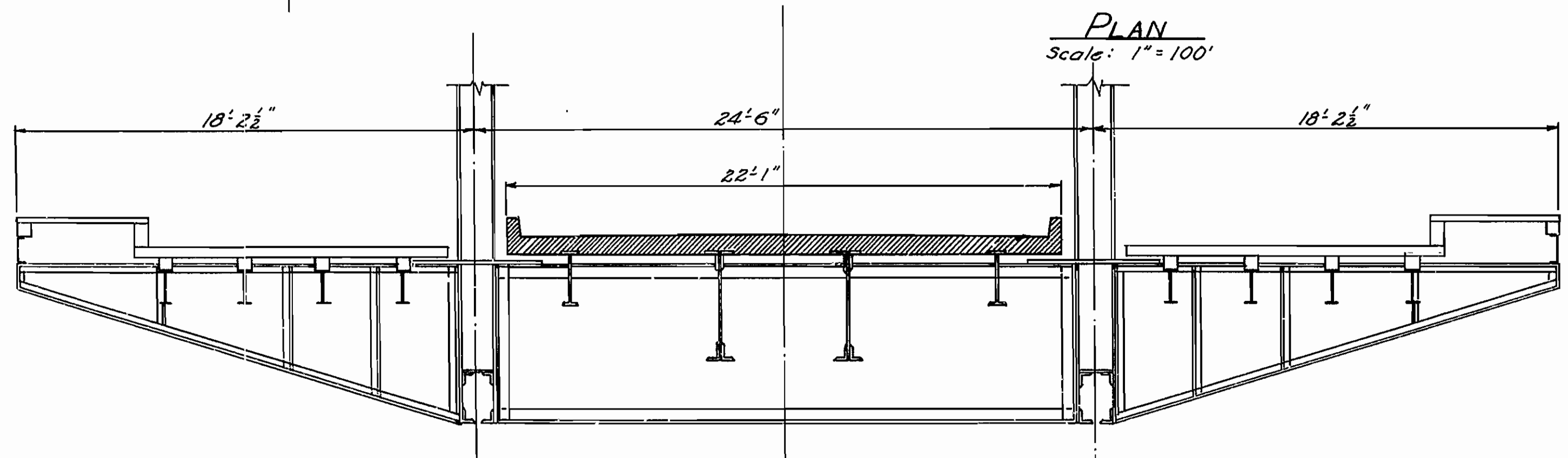
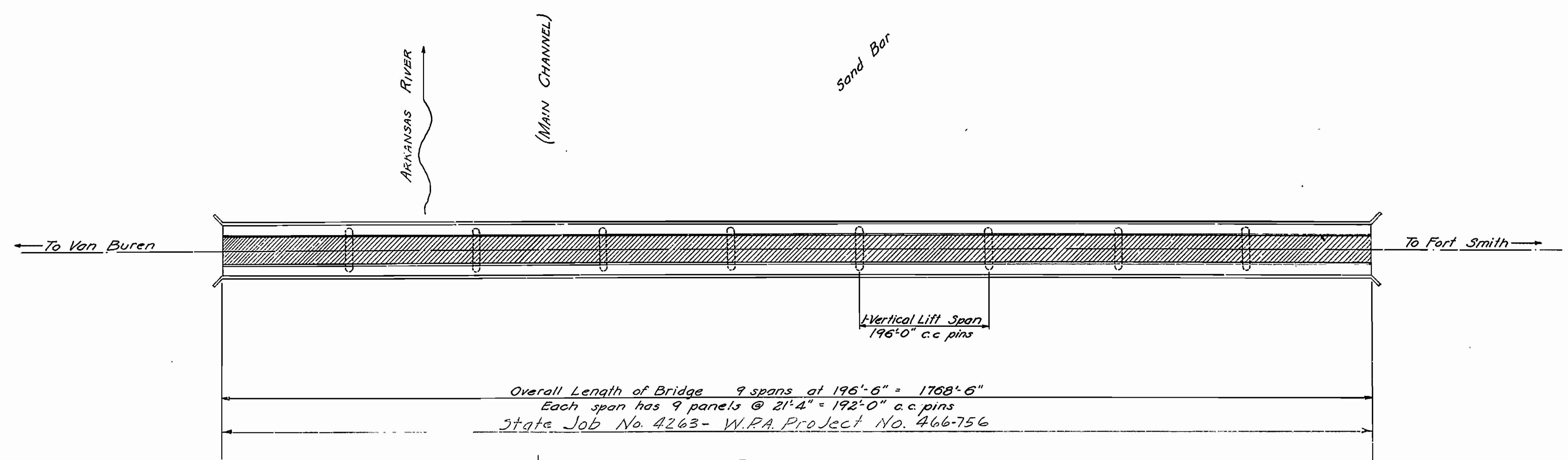


TYPICAL CROSS SECTION OF SPANS
 Double track street railway and Single track steam railway between trusses. 1'-11'-0" (clear) roadway and 1'-5'-0" (clear) sidewalk on cantilevers on each side.
 Scale: 1/8" = 1'-0"

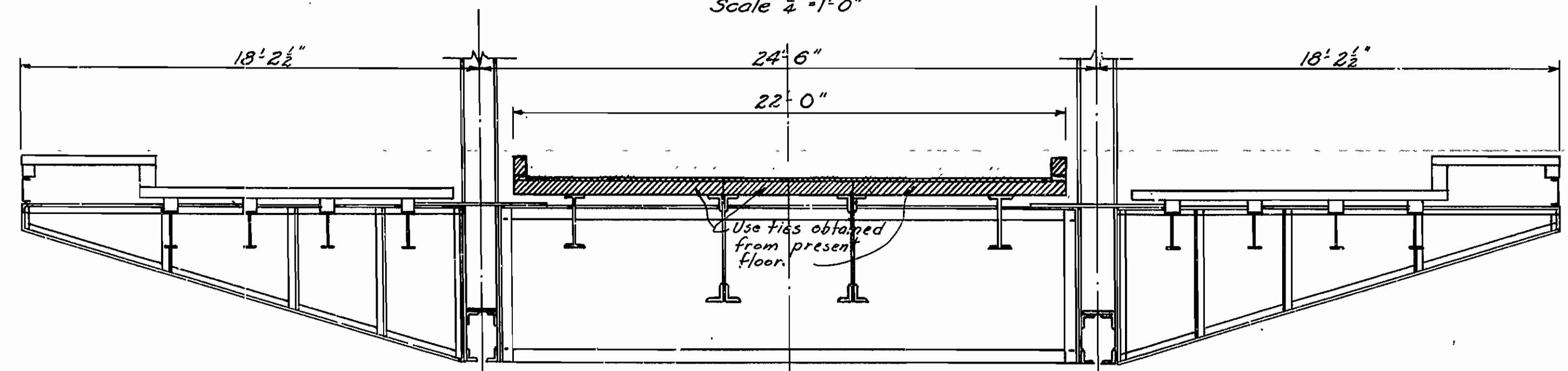
TRACED FROM DRAWING, DATED FEB. 11, 1910, PREPARED BY
 Weddell & Harrington, Consulting Engineers,
 Kansas City, Mo.
GENERAL PLAN, PROFILE & CROSS SECTION
BRIDGE OVER ARKANSAS RIVER
BETWEEN FT. SMITH AND VAN BUREN
SEBASTIAN & CRAWFORD COUNTIES
 ROUTE 64 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: _____ Date: _____
 Traced By: EAW Date: 6-12-43
 Checked By: _____ Date: _____
 BRIDGE NO. 1784 DRAWING NO. 5046

PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	WPA PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	466 756	1934	2	3
STATE JOB NO. 4263					



TYPICAL CROSS SECTION OF FIXED SPAN
New Floor Construction Shaded
Scale: 1/4" = 1'-0"



CROSS SECTION OF LIFT SPAN
New Floor Construction Shaded
Scale: 1/4" = 1'-0"

QUANTITIES IN ONE FIXED SPAN

Class "S" Concrete	113.00 Cu. Yds.
Reinforcing Steel	20,391 Pounds
Structural Steel	1,878 Pounds

Rev. 3/1/40 to use ties for floor on lift span.

LAYOUT AND CROSS SECTIONS
REPAIR TO CENTER 21'-0" ROADWAY
BRIDGE OVER ARKANSAS RIVER
VAN BUREN, ARK.
SEBASTIAN - CRAWFORD COUNTIES

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: M.W.K. Date: 7-12-38
Traced By: L.E.B. Date: 7-13-38
Checked By: _____ Date: _____
Scale: as shown in = ft.
BRIDGE NO. 1784 DRAWING NO. 3429A

M.B. Barrows
BRIDGE ENGINEER

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
STATE JOB NO.					

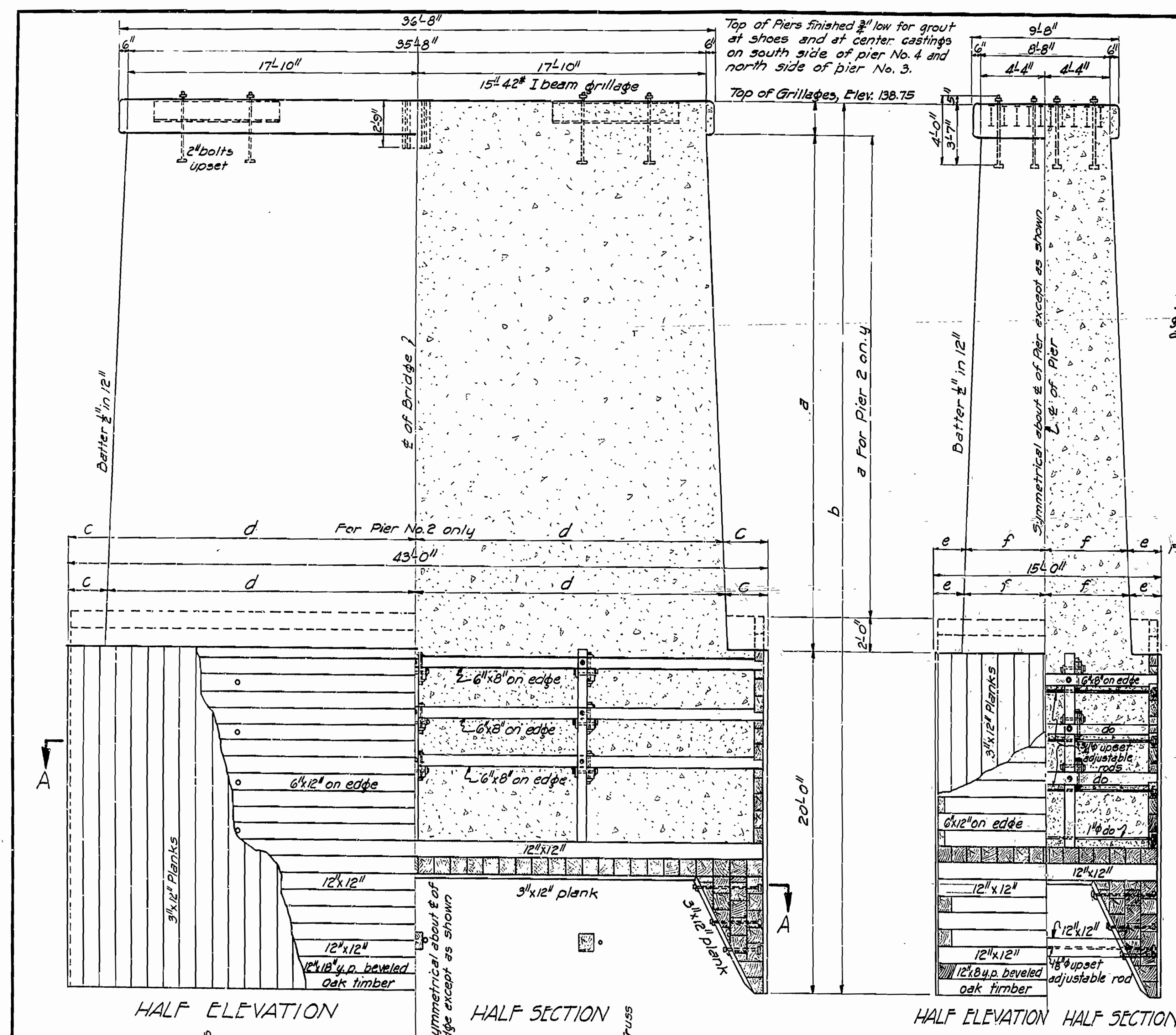
314

Pier No.	El. of C.E.	a	b	c	d	e	f
1	86.99	29'-9"	51'-9"	2'-5"	19'-0"	1'-11"	5'-6"
2	85.68	29'-0"	53'-0"	2'-5"	19'-0"	1'-11"	5'-6"
3	84.46	32'-3"	54'-3"	2'-3"	19'-2"	1'-9"	5'-8"
4	85.06	31'-8"	53'-8"	2'-4"	19'-1"	1'-10"	5'-7"
5	85.26	31'-5"	53'-5"	2'-4"	19'-1"	1'-10"	5'-7"
6	90.43	26'-3"	48'-3"	2'-6"	18'-11"	2'-0"	5'-5"
7	89.45	27'-3"	49'-3"	2'-6"	18'-11"	2'-0"	5'-5"
8	88.91	27'-10"	49'-10"	2'-6"	18'-11"	2'-0"	5'-5"

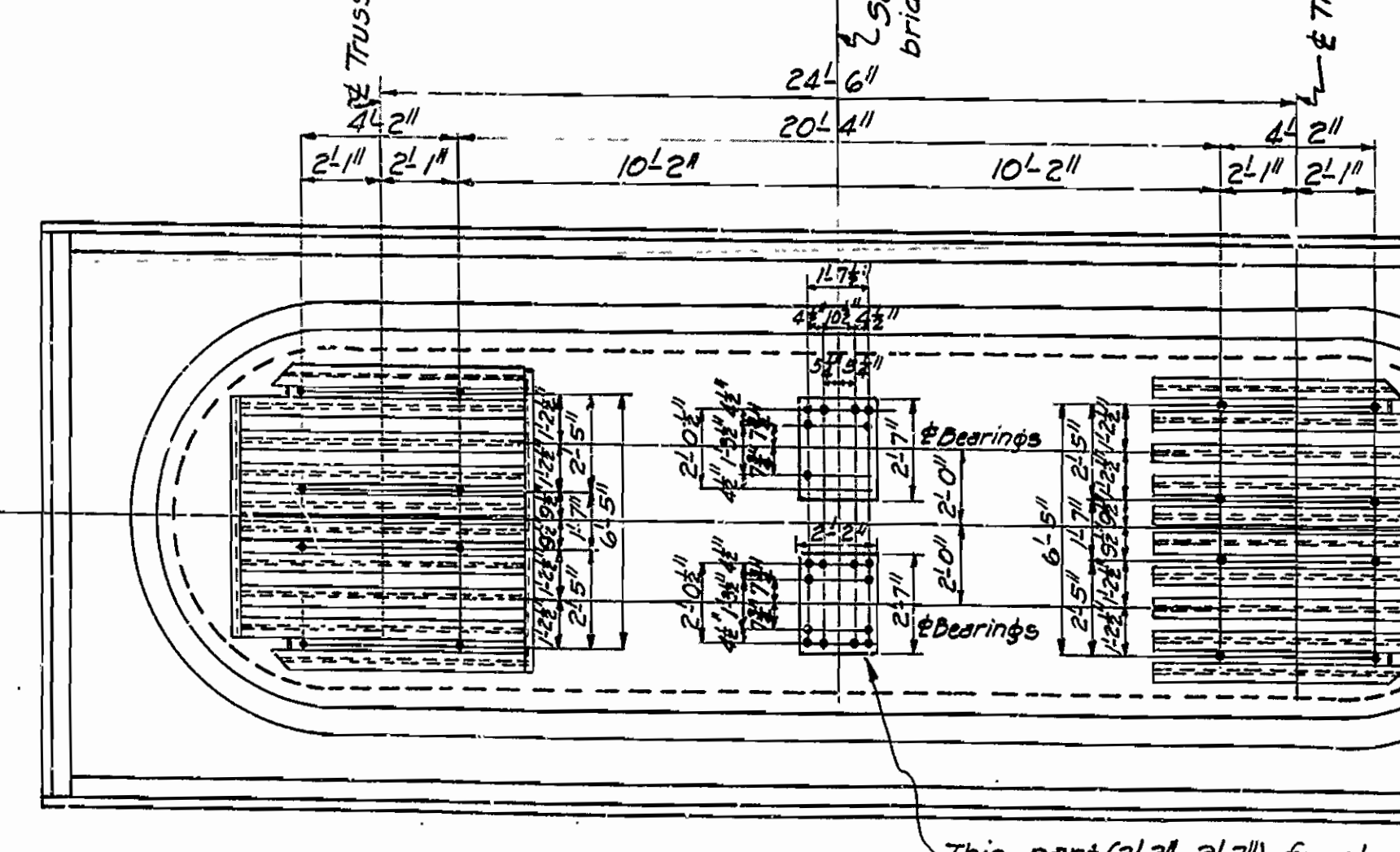
Provision made in all Piers both sides of $\frac{1}{2}$ so that $\frac{1}{4}$ " anchor bolts can be set in future should lift span be moved. All holes 3" in diameter and 2'-9" deep. Holes filled with sand and grouted over to depth of 1" except in south side of Pier 4 and north side of Pier 3, where left open.

GENERAL NOTES :-

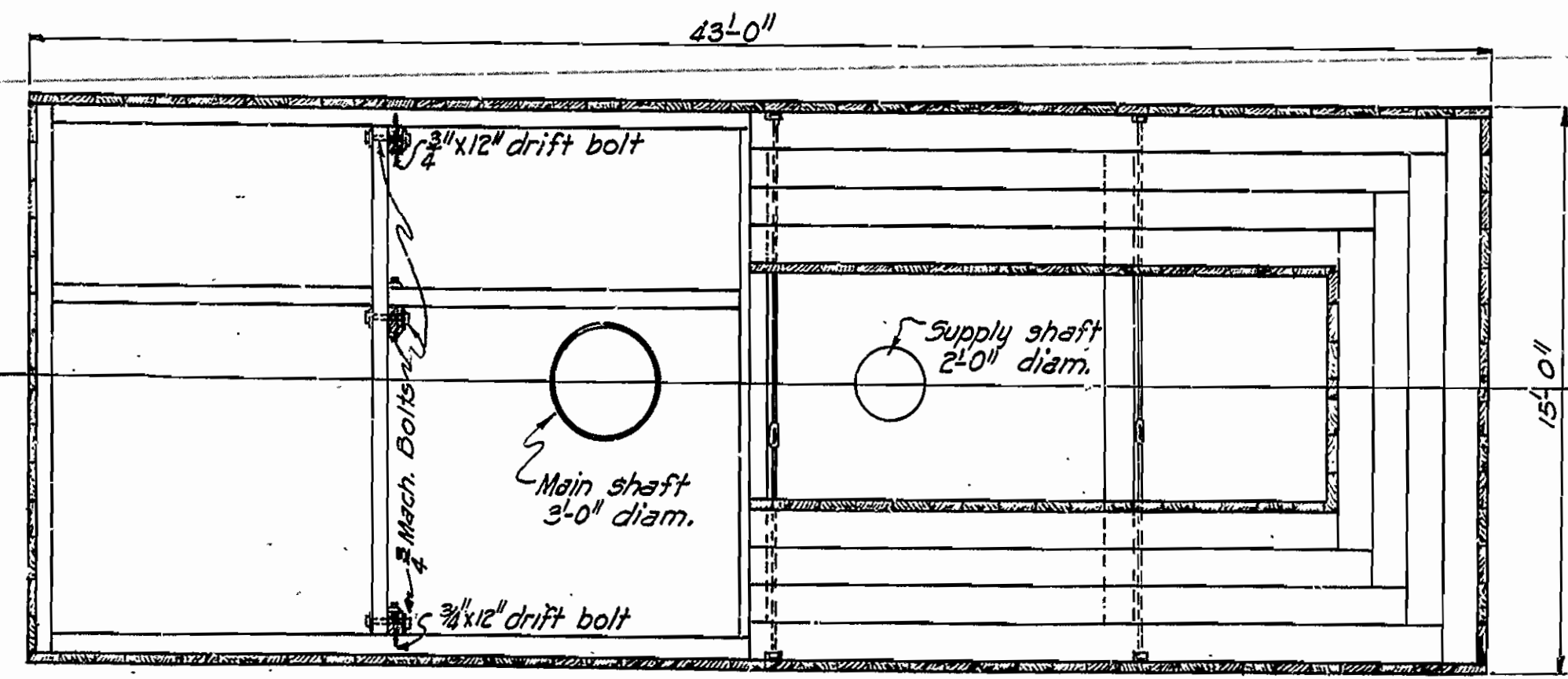
- All exposed corners rounded to 3" radius.
- Caisson
- Timbers drift bolted together every 3'-0" with drift bolts $\frac{3}{4}$ " dia. and 2" shorter than total thickness of timbers drifted together.
- Outside sheathing planks set vertically and either extending full height or breaking joints 4'-0" where cut.
- Sheathing inside working chamber dressed for calking and all cracks thoroughly calked.
- Nails for sheathing $\frac{3}{4}$ " x 7" boat spikes.
- Bolts $\frac{3}{4}$ " dia. per except as noted and supplied with O.G. Washers.
- Concrete
- For working chamber and coping, one part cement, two parts sand and three parts broken stone or gravel. For all other work one part cement, three parts sand, and five parts broken stone or gravel.
- Broken stone from Ft. Smith Light & Tractor Co's. quarry, used for concrete in Piers #1, #2 & #3.
- Gravel obtained from River bed, used in Piers #4, #5, #6, #7 & #8.
- Sand obtained from River bed.
- Cement - Western States Portland Cement - Cowboy Brand.



Note: Additional 2'-0" shown by dotted lines at top of caisson on Pier 2 only.



PLAN



SECTION A-A

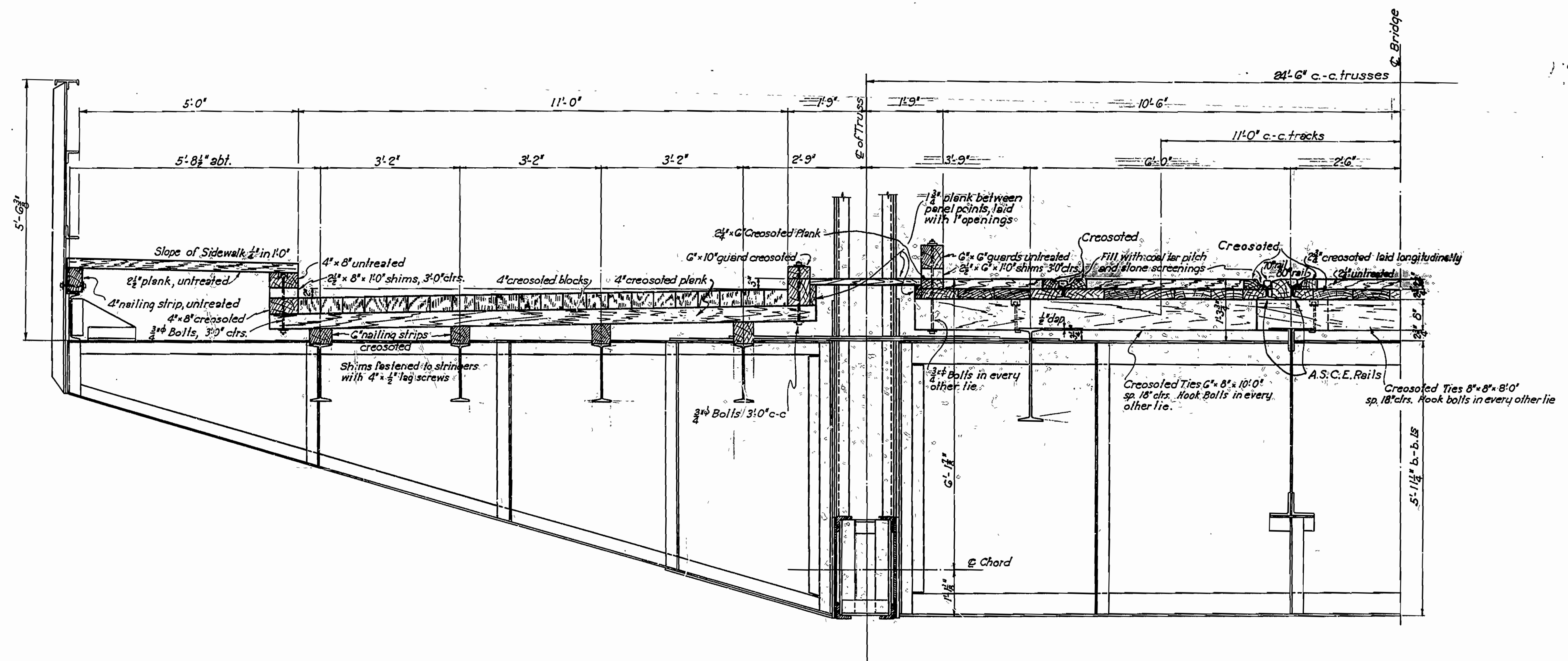
Traced from Drawing dated 9-1-11 prepared by Waddell & Harrington, Consulting Engineers, Kansas City, Mo.

**DETAILS OF PIERS AS BUILT
BRIDGE OVER ARKANSAS RIVER
BETWEEN FT. SMITH & VAN BUREN
SEBASTIAN - CRAWFORD COUNTIES
ROUTE 64 SEC. 1 & 2**

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

Drawn By: _____ Date: _____
Traced By: L.A.M. Date: 6-17-43
Checked By: _____ Date: _____
Scale: $\frac{1}{4}$ in. = 1 ft.
BRIDGE NO. 1784 DRAWING NO. 5048

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
STATE JOB NO.					



GENERAL NOTE:
 All creosoted planking for the floor is to be laid close.
 Surface planking of roadways is to be laid square with ϵ of Bridge.
 Sidewalk planking to be laid with $\frac{1}{4}$ " openings.
 Outside of Trusses use 2-8" spikes at each shim for roadway plank.
 Between Trusses fasten Longitudinal plank to each tie with 2-5" spikes. Use 2-5" spikes to each square foot of top course.
 Fasten sidewalk planking with 2-5" spikes at each end.
 Wire spikes may be used.

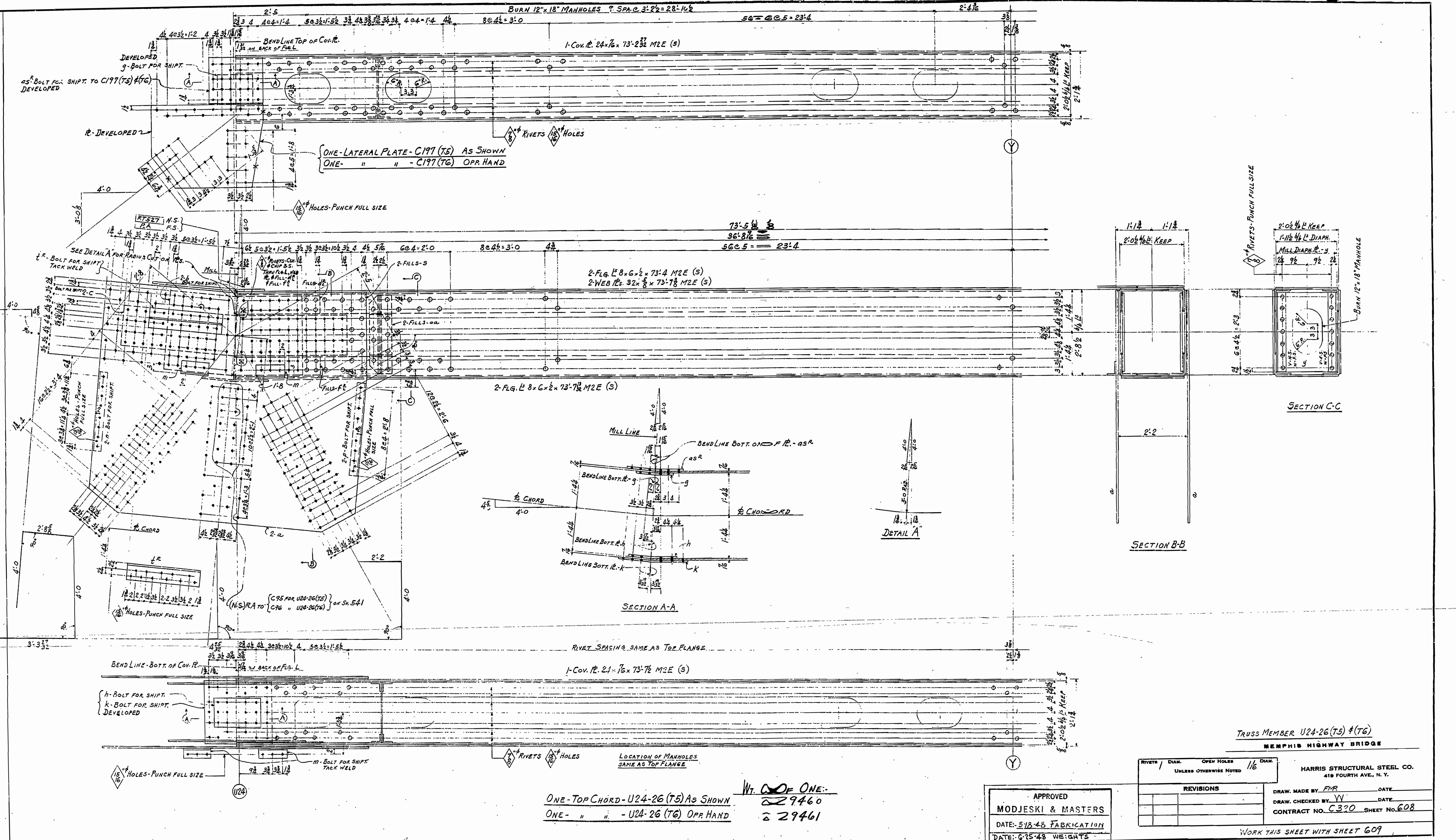
TRACED FROM DRAWING, DATED MAR. 28, 1910, PREPARED BY
 Waddell & Harrington, Consulting Engineers,
 Kansas City, Mo.

CROSS SECTION
BRIDGE OVER ARKANSAS RIVER
BETWEEN FT SMITH AND VAN BUREN
SEBASTIAN & CRAWFORD COUNTIES

ROUTE 64 SEC. 182

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: _____ Date: _____
 Traced By: E.A.W. Date: 6-15-43
 Checked By: _____ Date: _____
 Scale: $\frac{3}{4}$ " = 1 ft.
BRIDGE NO. 1784 DRAWING NO. 5049



ONE - TOP CHORD - U24-26 (T5) AS SHOWN
 ONE - " " - U24-26 (T6) OPP. HAND

WT. OF ONE -
 29460
 29461

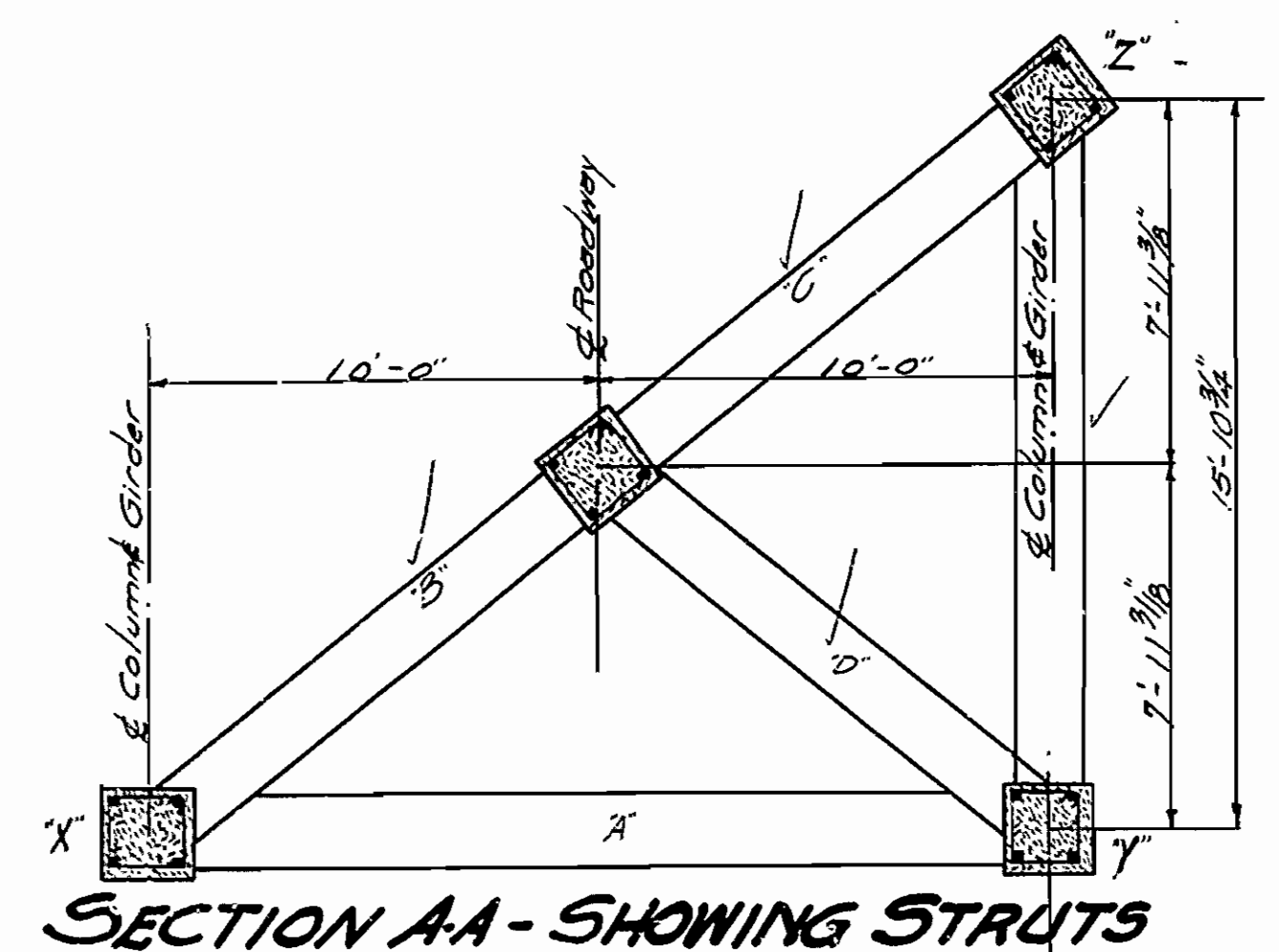
APPROVED
 MODJESKI & MASTERS
 DATE: 5-18-48 FABRICATION
 DATE: 6-25-48 WEIGHTS

RIVETS / DIAM.	OPEN HOLES / DIAM.
UNLESS OTHERWISE NOTED	1/16
REVISIONS	

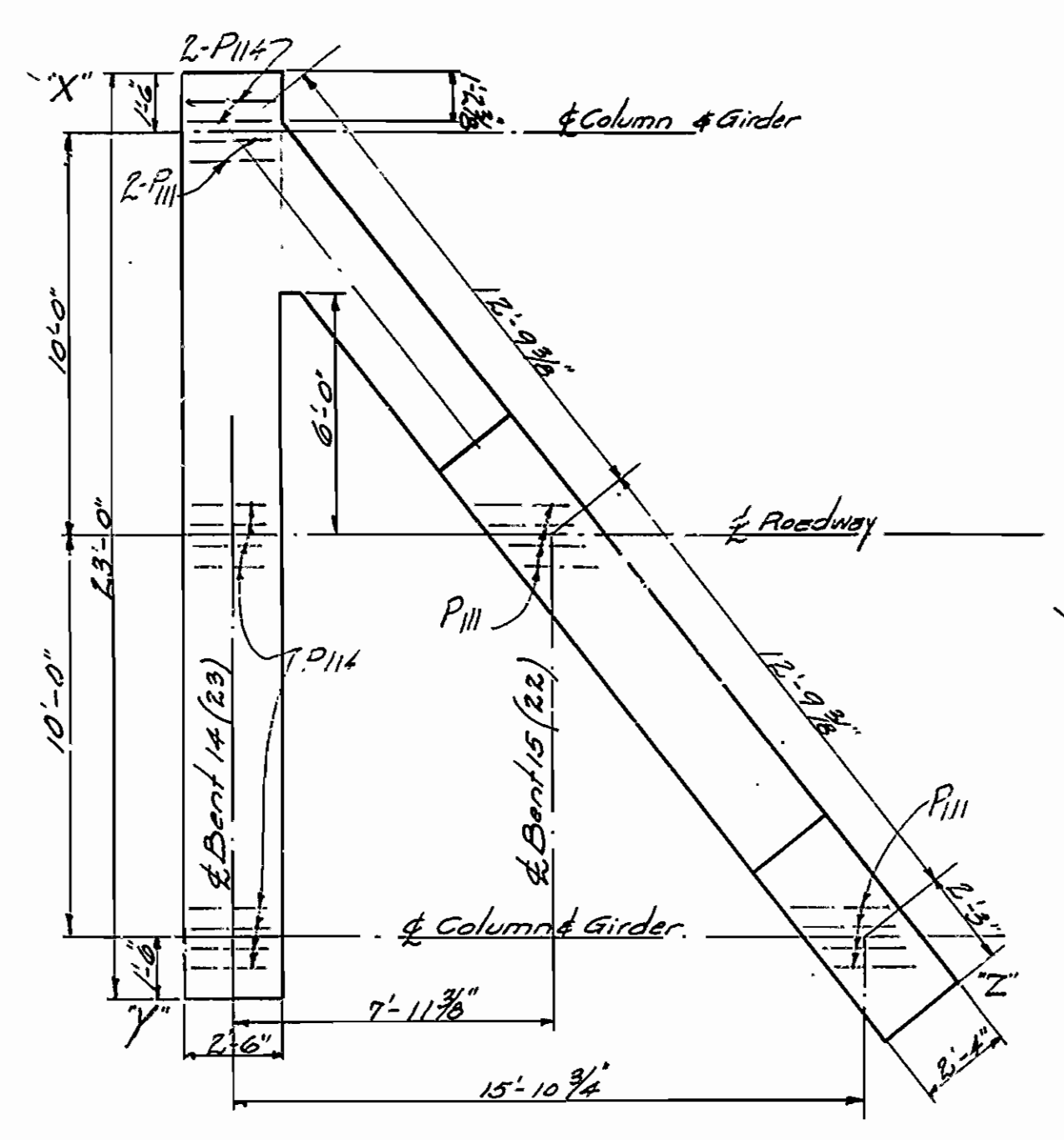
HARRIS STRUCTURAL STEEL CO.
 419 FOURTH AVE., N. Y.
 DRAW. MADE BY: F.M.P. DATE:
 DRAW. CHECKED BY: W.V. DATE:
 CONTRACT NO. C320 SHEET NO. 608

WORK THIS SHEET WITH SHEET 609

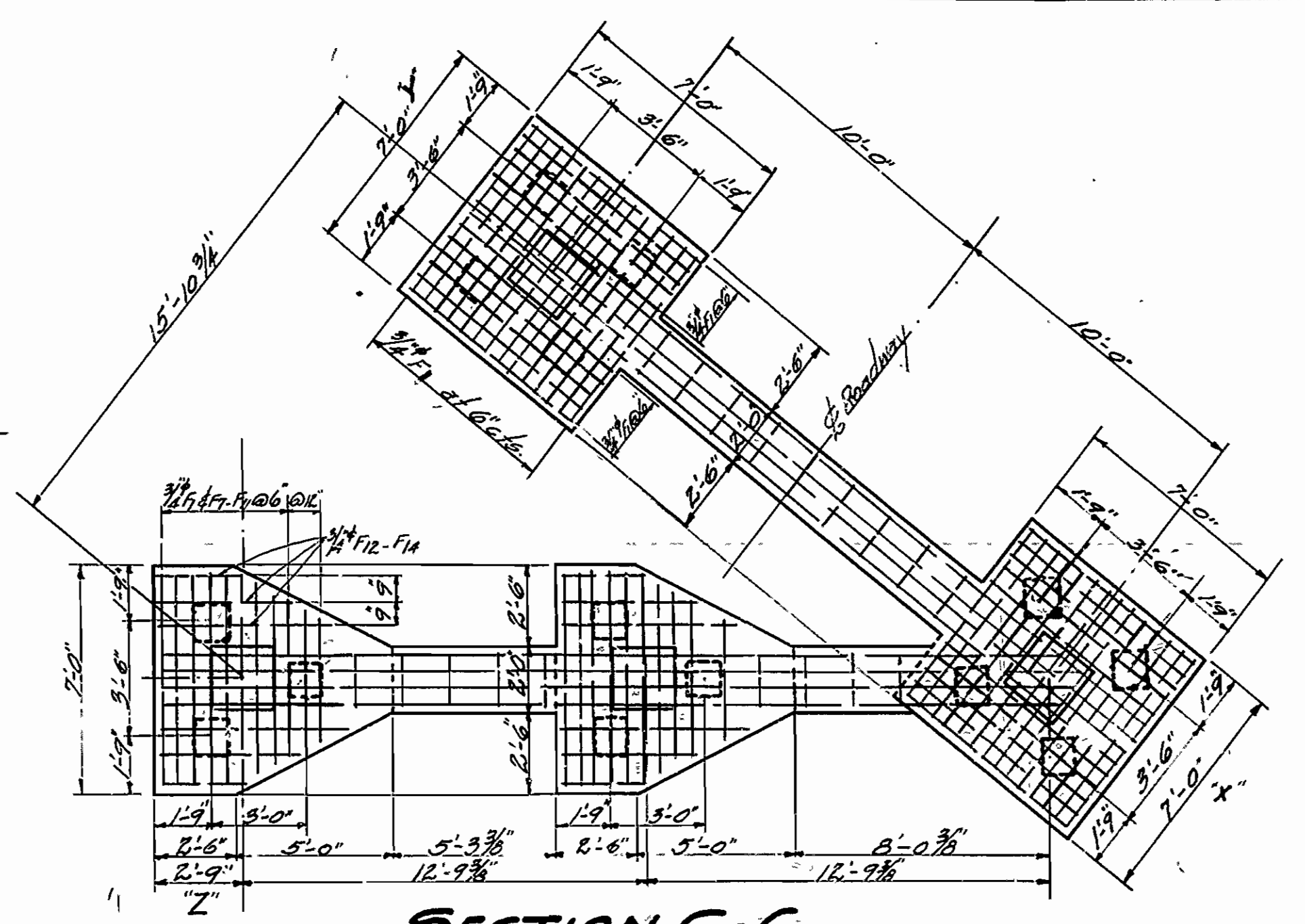
FISCAL YEAR	Tab No	SHEET NO.	TOTAL SHEETS
1929	321	6	18



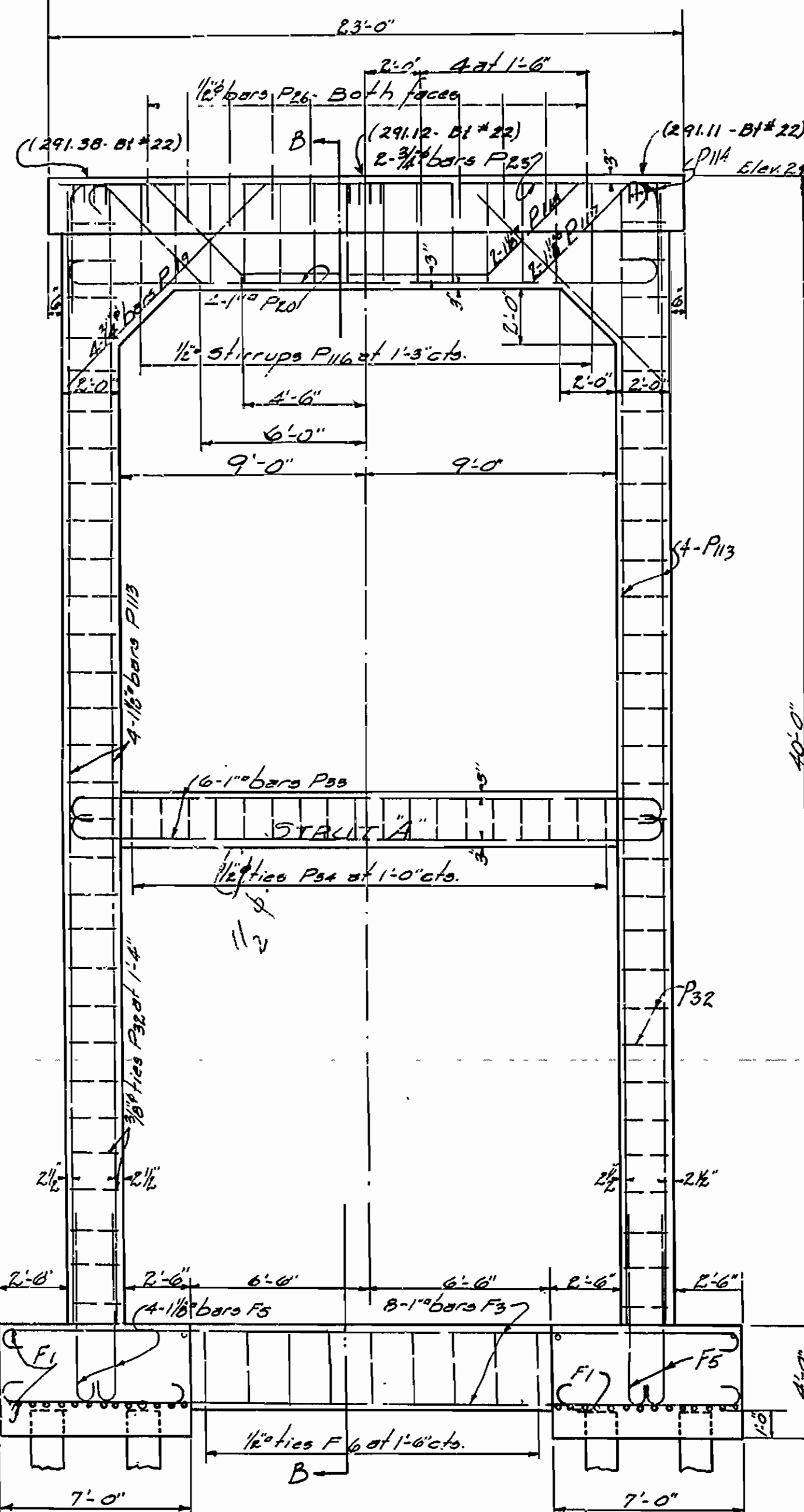
SECTION AA - SHOWING STRUTS



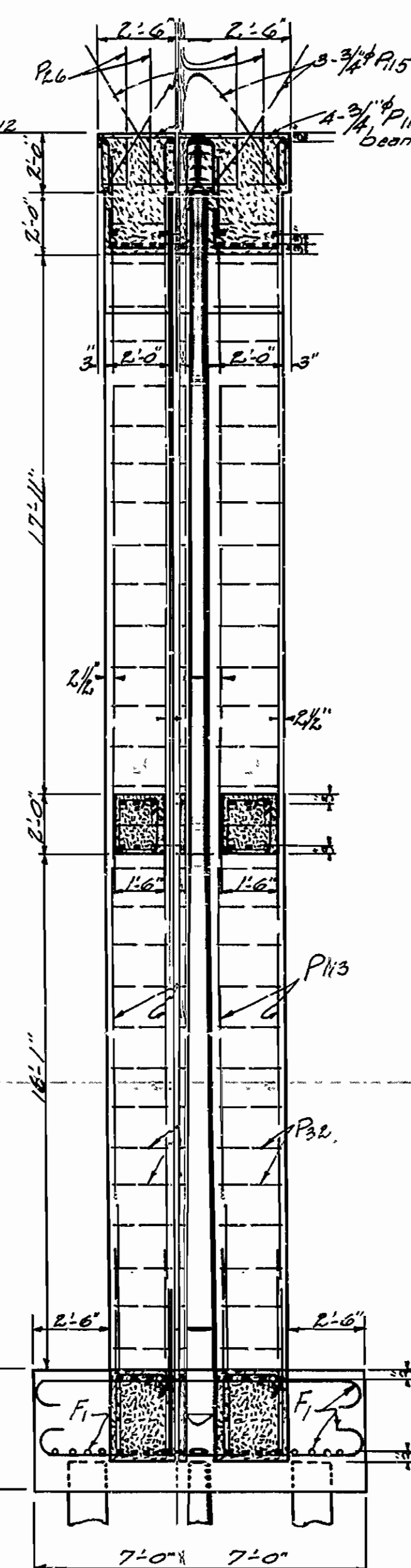
PLAN OF CAP



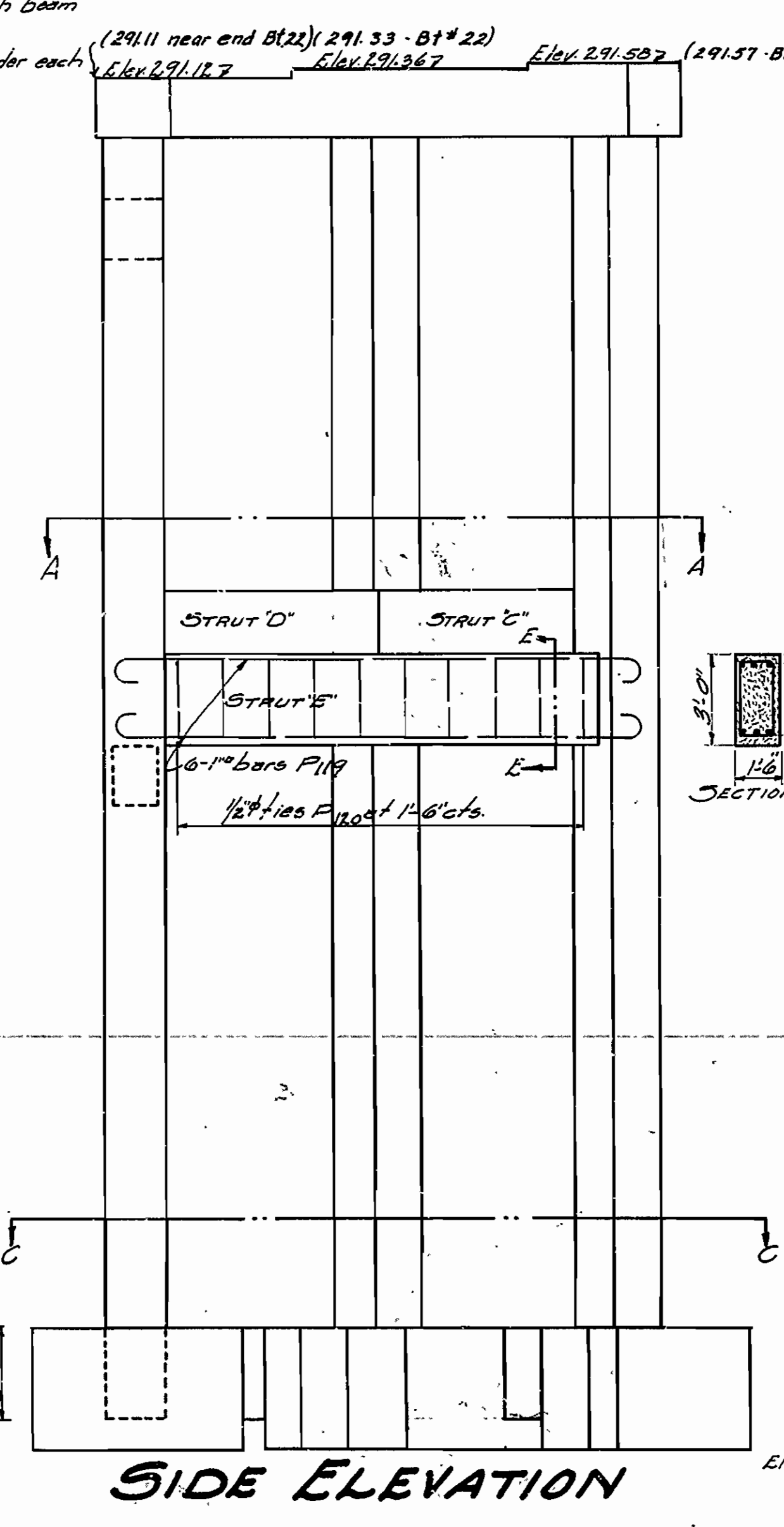
SECTION C-C



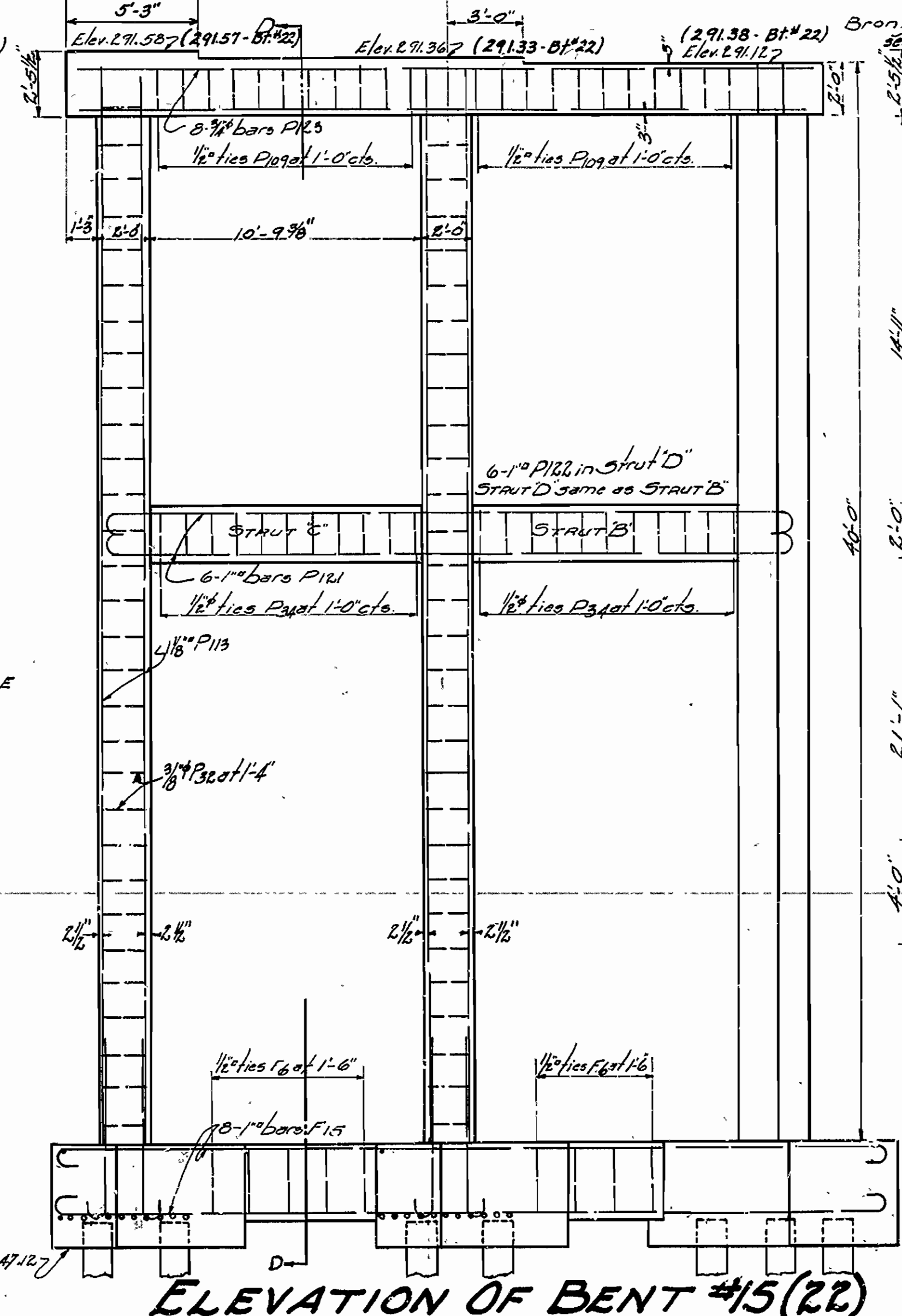
ELEVATION OF BENT #14 (23)



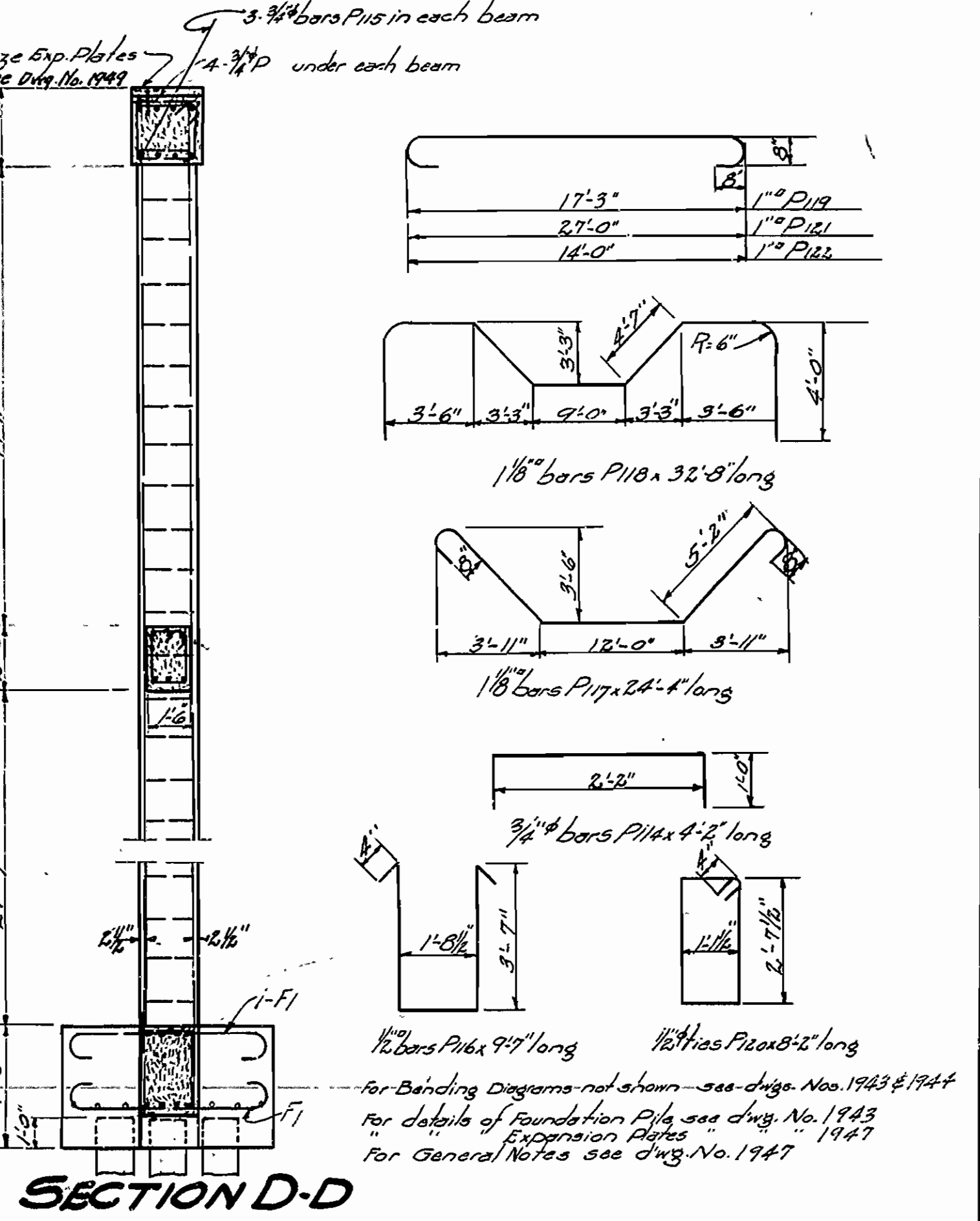
SEC. C-C-B-B



SIDE ELEVATION



ELEVATION OF BENT #15 (22)

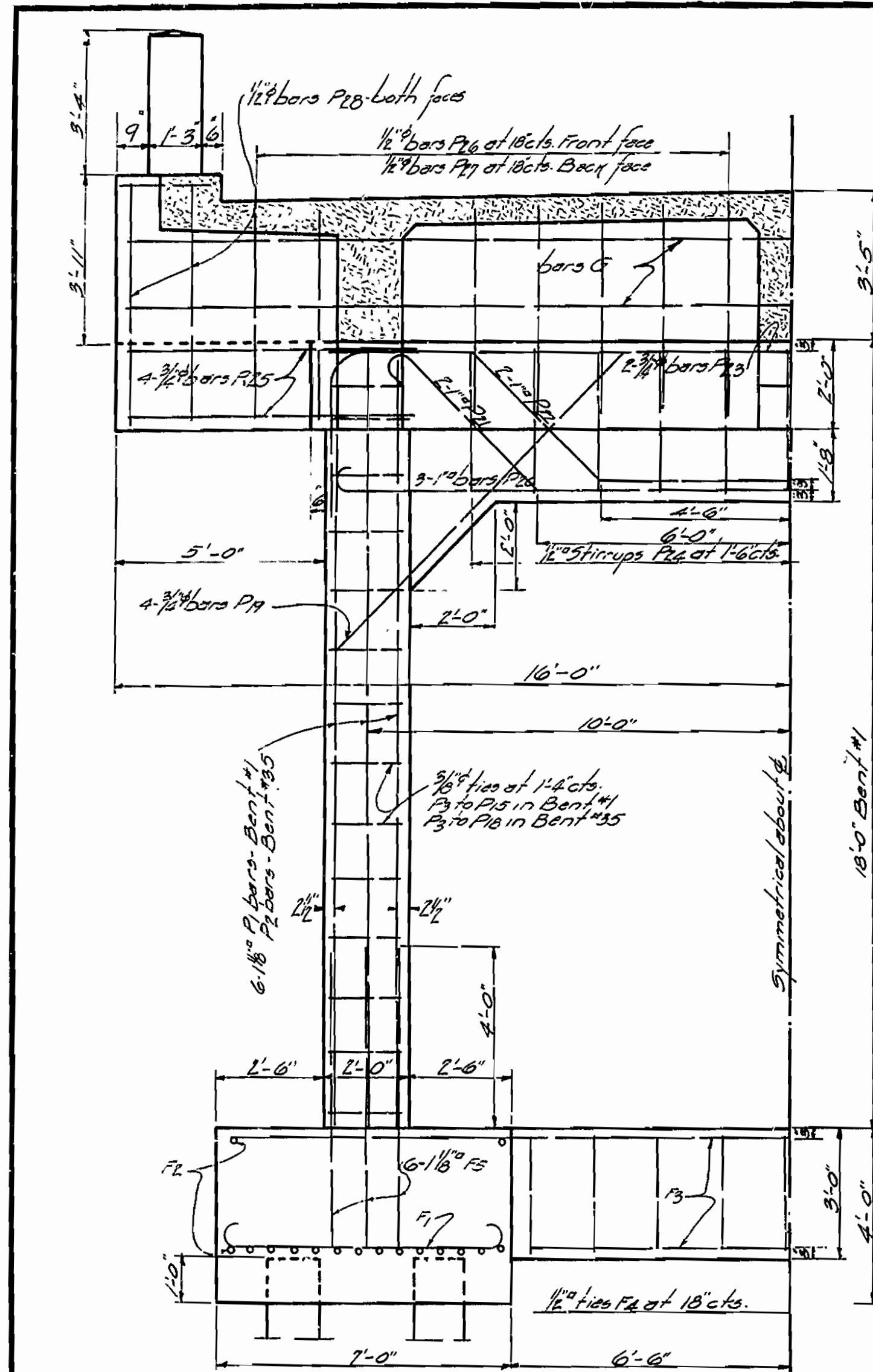


SECTION D-D

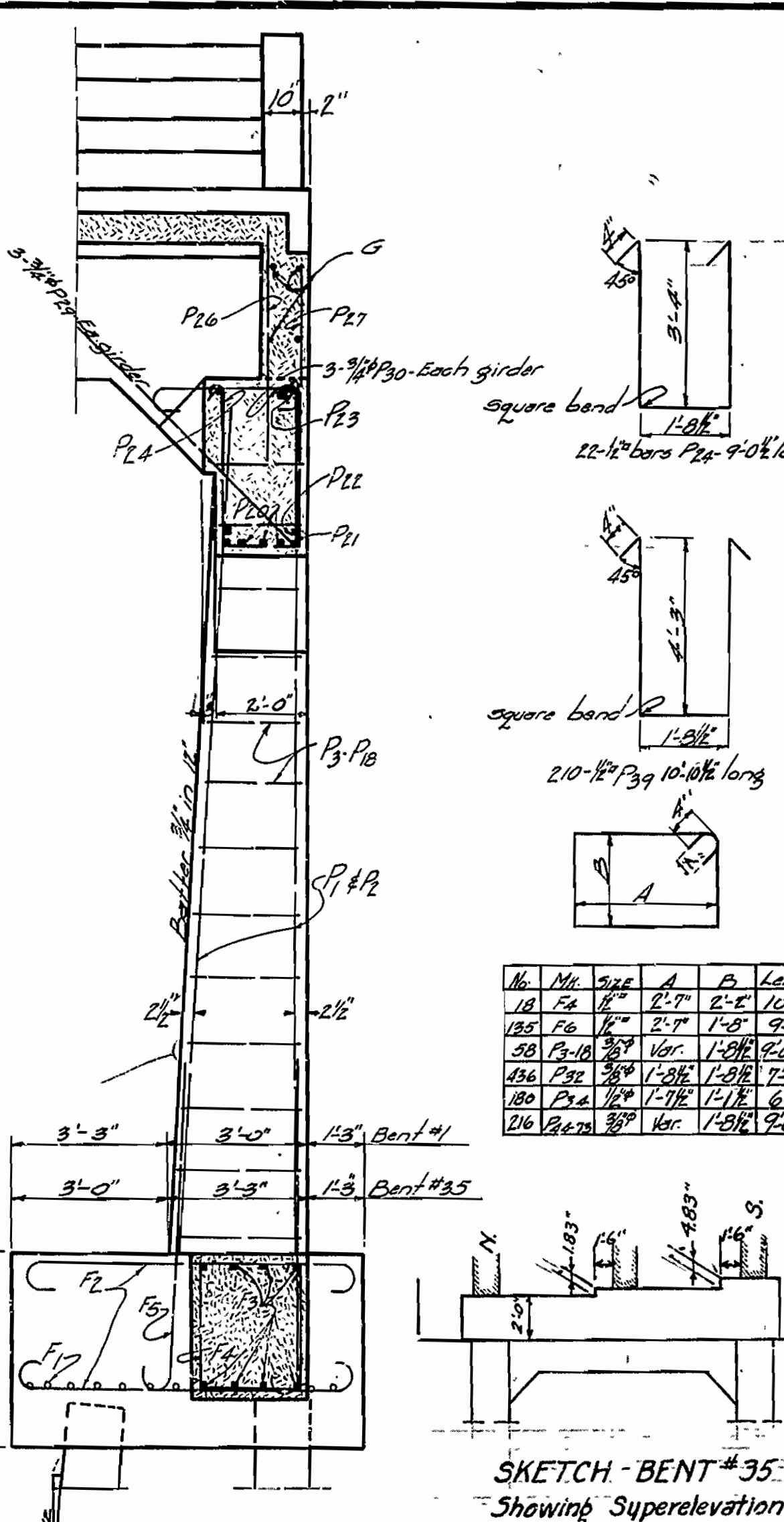
DETAILS OF
BENTS 14, 15, 22 & 23
BRIDGE OVER MO. PAC. RY.
WEST OF FULTON, ARK.
MILLER COUNTY
ROUTE 67 SEC. 1

ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

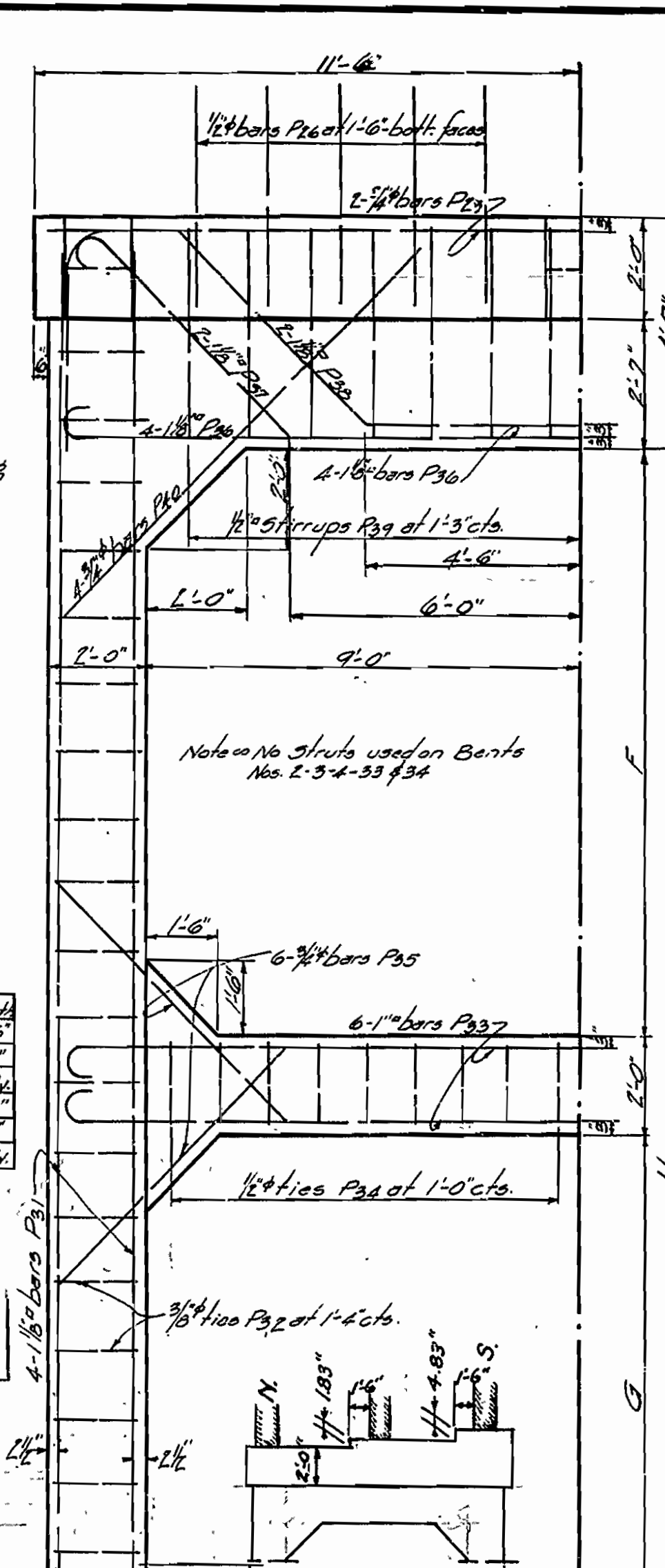
Drawn By: *G.S.V.* Date: 12-1-29
Traced By: *G.S.V.* Date: 12-15-29
Checked By: *M.W.* Date: 12-4-29
Scale: 1/4" = 1 ft.
BRIDGE NO. 893 DRAWING NO. 1945



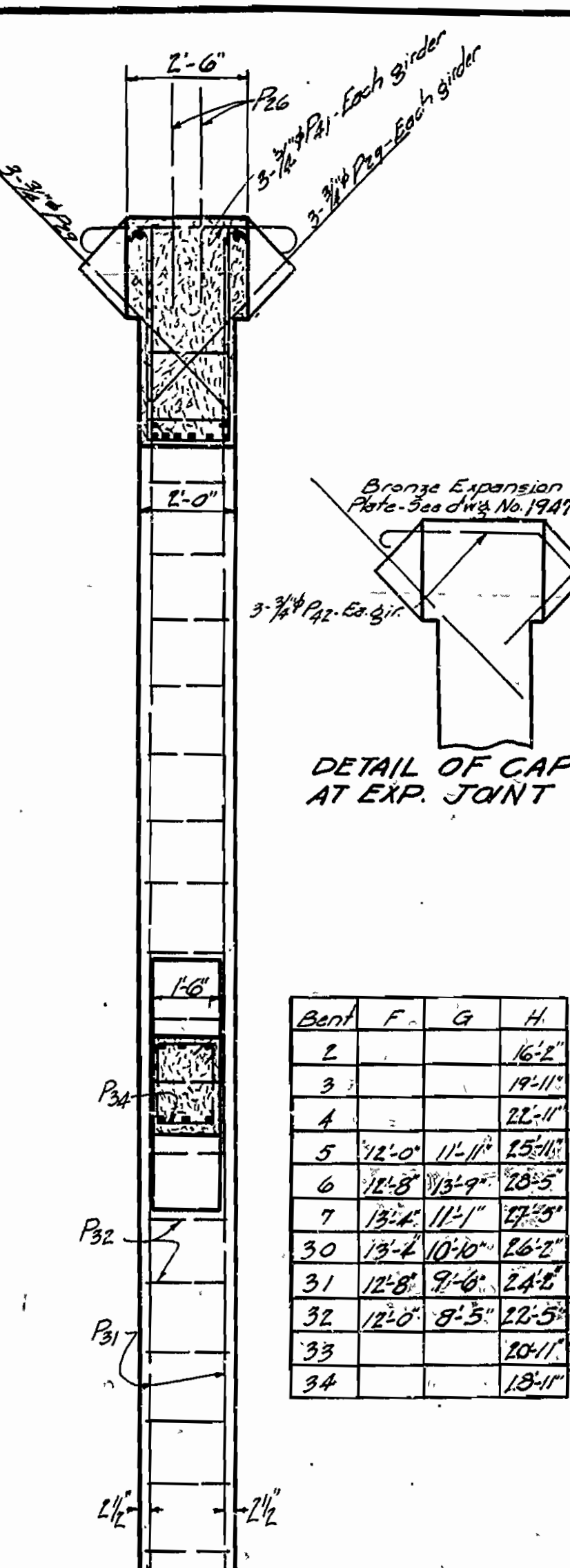
HALF FRONT ELEVATION



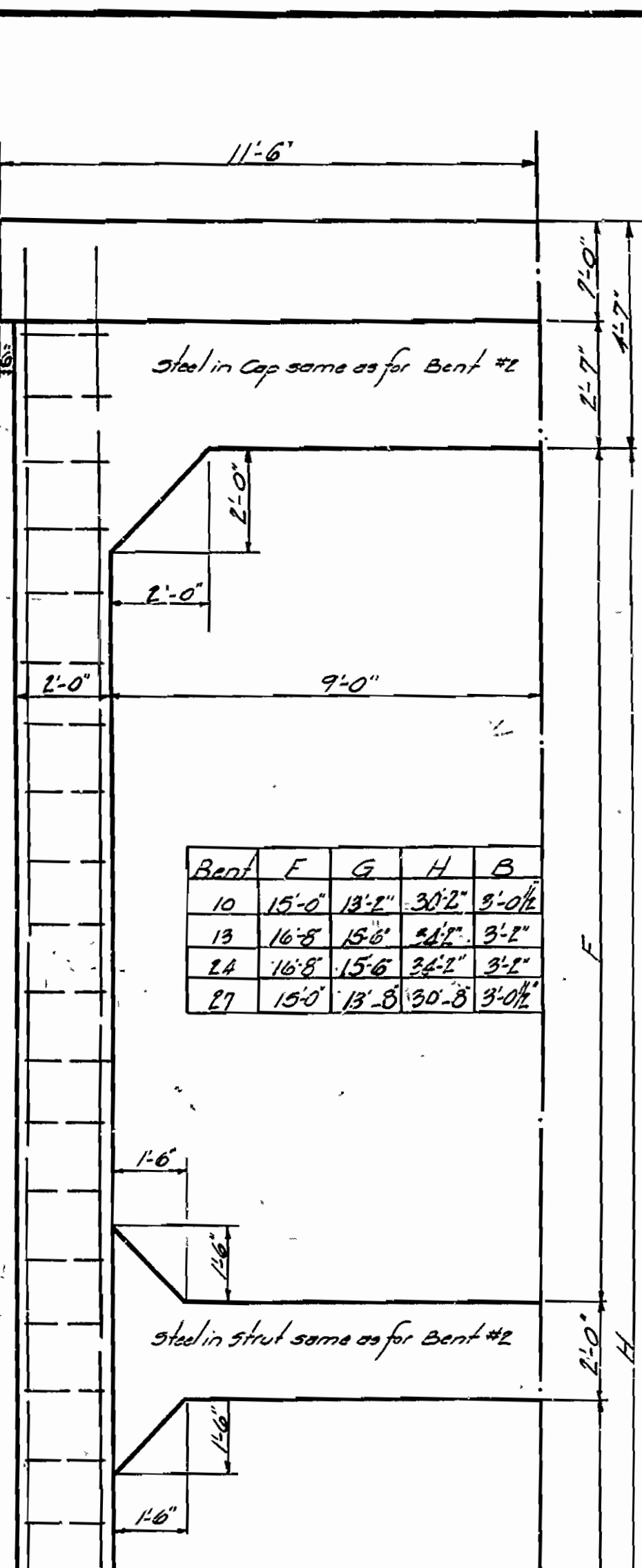
HALF SEC. NEAR C



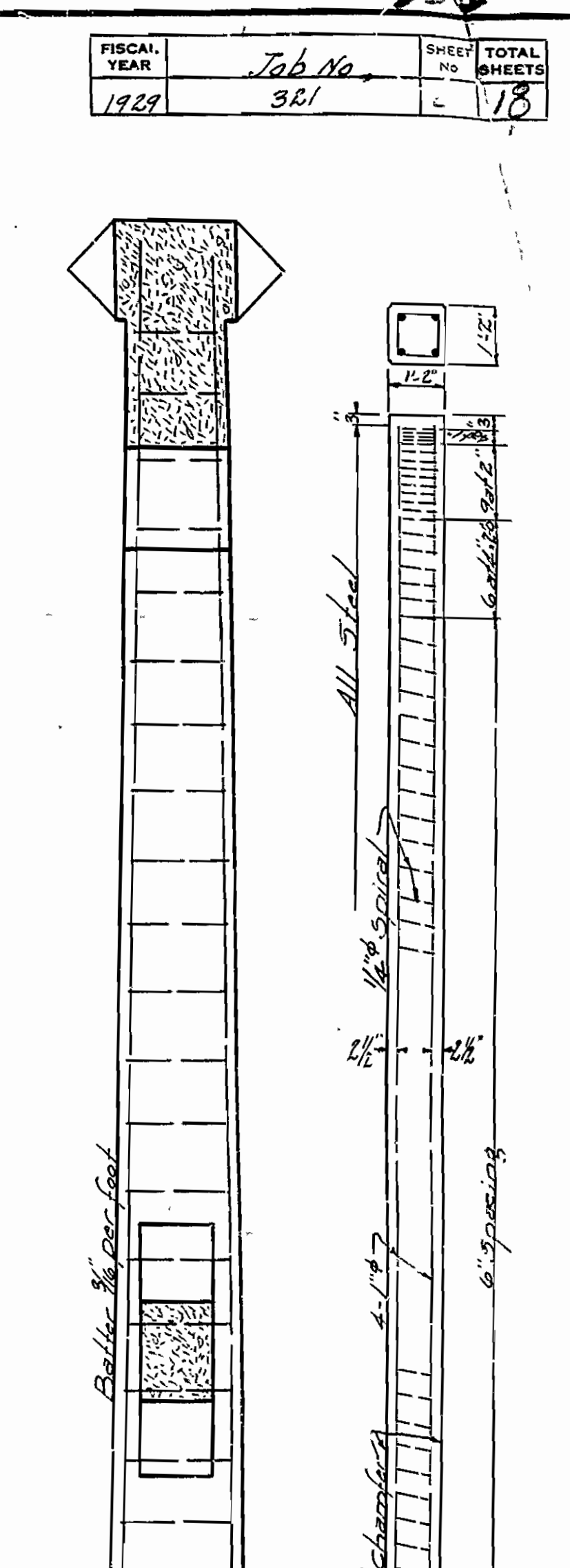
HALF SIDE ELEVATION



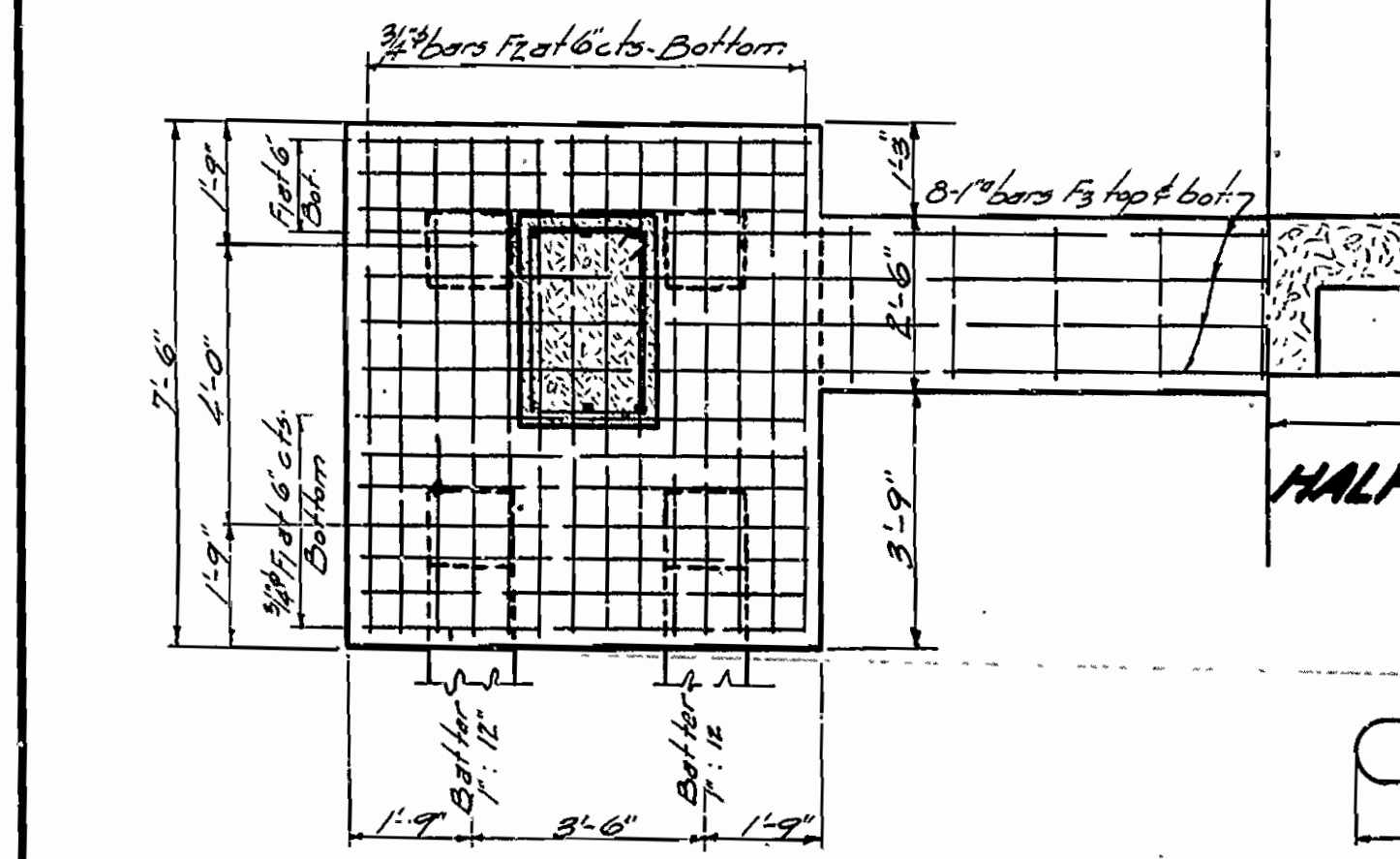
HALF SEC. NEAR C



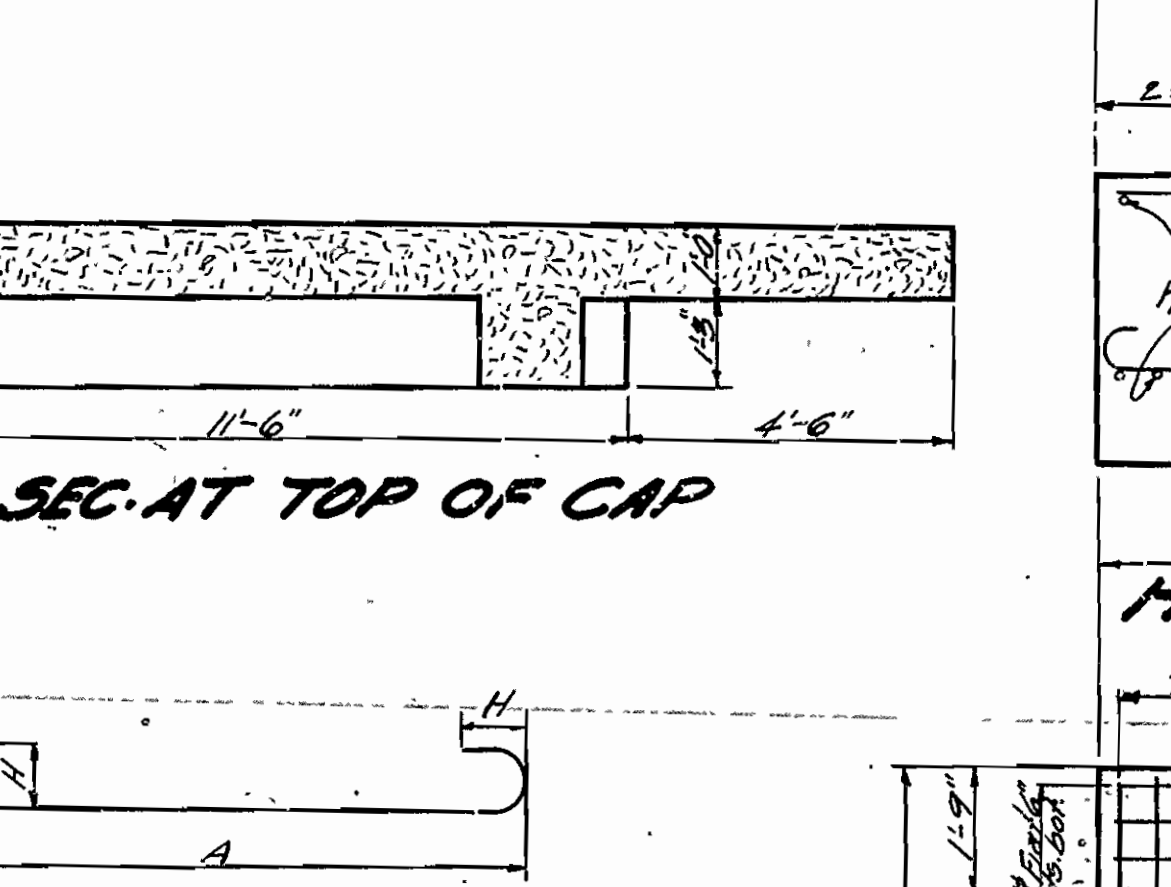
HALF ELEVATION



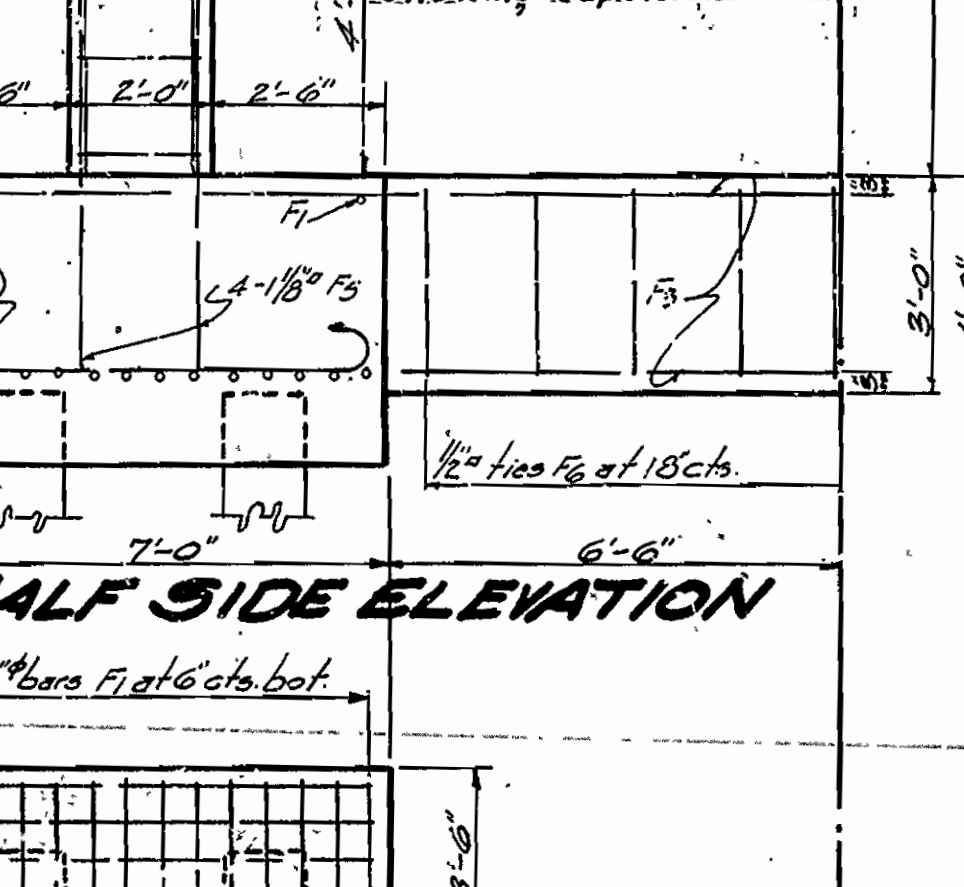
SEC. NEAR C



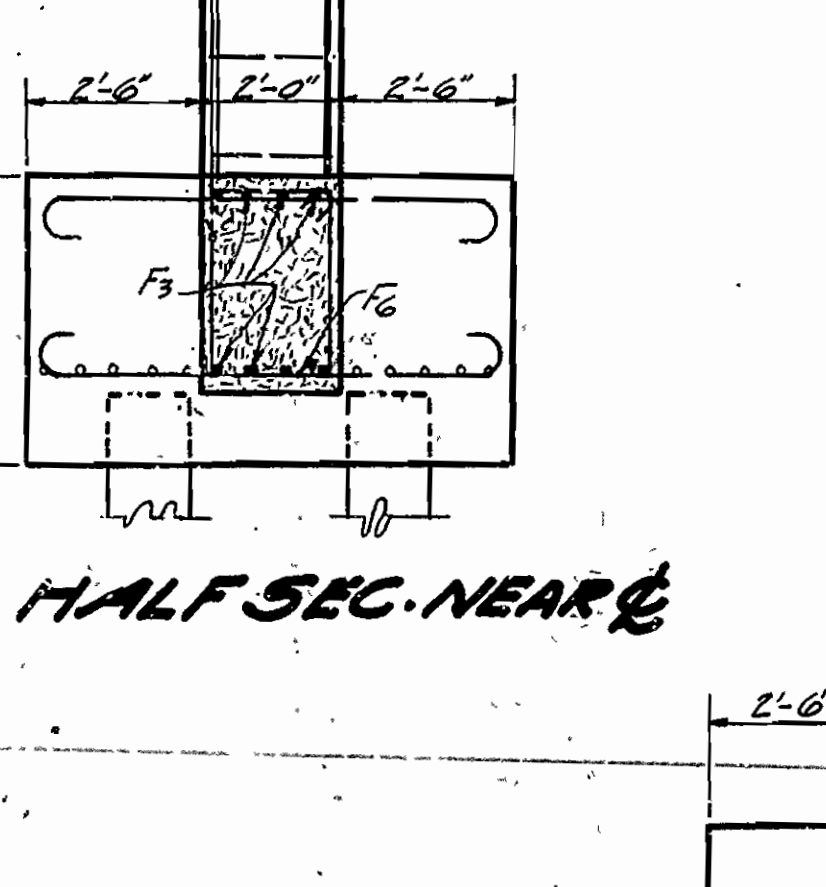
HALF SEC. AT TOP OF FOOTING
DETAILS OF END BENTS



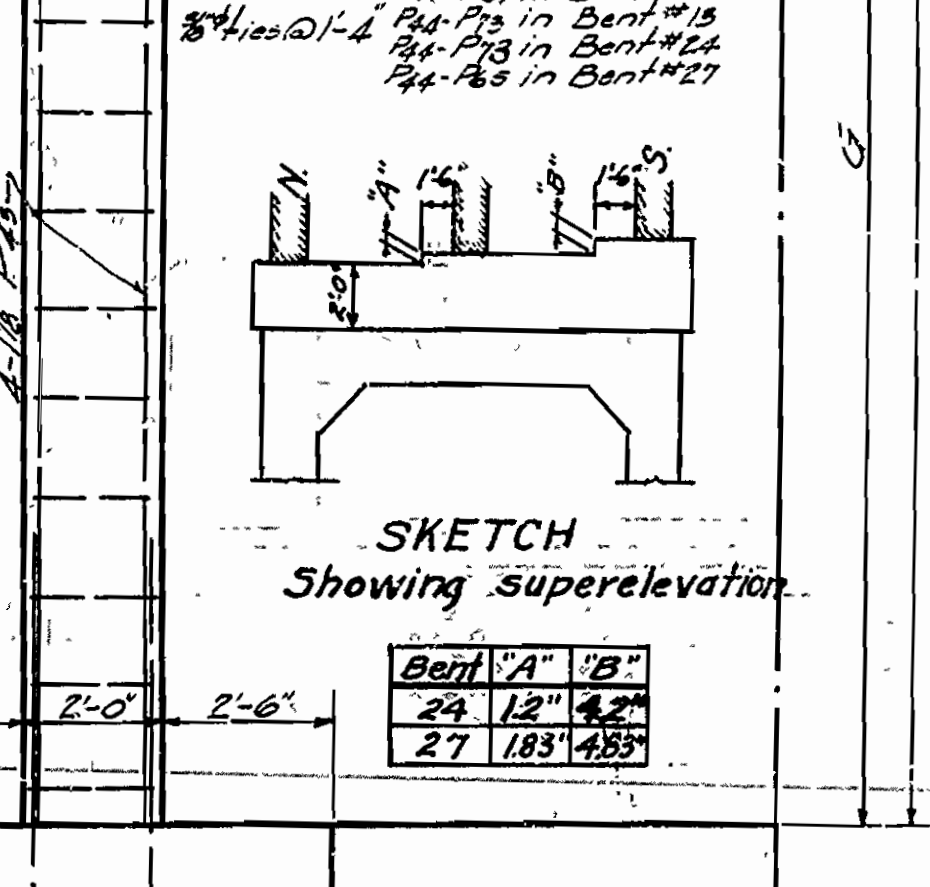
HALF SEC. AT TOP OF CAP



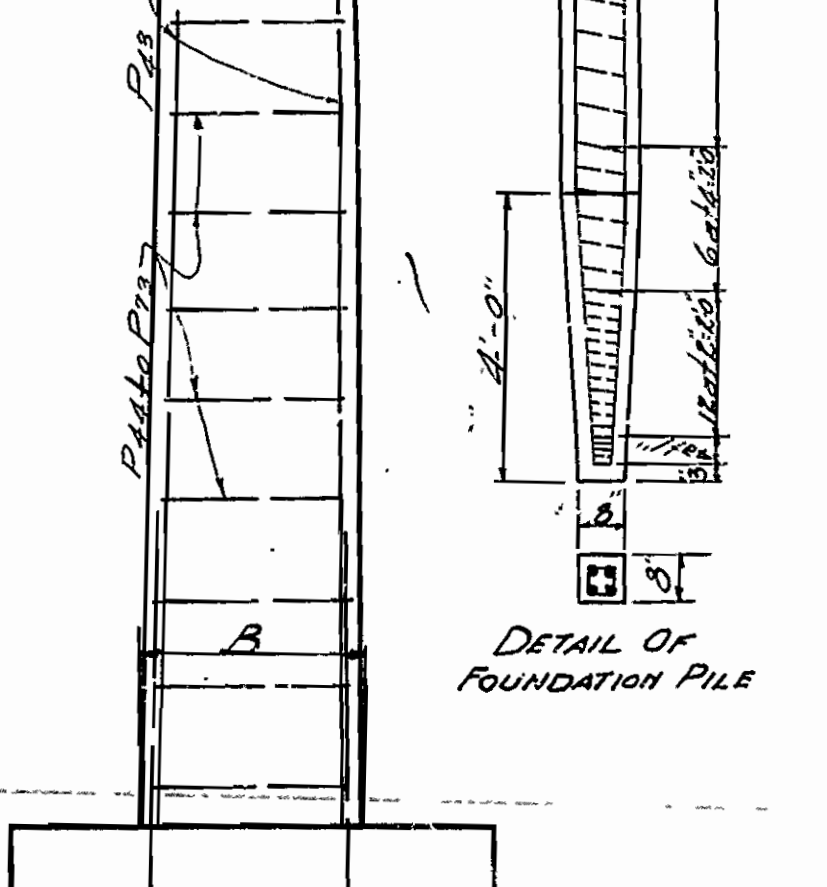
HALF PLAN
DETAILS OF BENTS 26, 7 & 30 to 34



HALF SEC. NEAR C



HALF ELEVATION
DETAILS OF BENTS
10-15-24 & 27



SEC. NEAR C

No.	Mk.	SIZE	A	H	Length
18	F1	3/4"	2'-7"	2'-5"	10'-6"
182	F6	1"	2'-7"	1'-8"	9'-8"
30	F10	3/4"	Var.	1'-8"	6'-0"
436	P22	3/4"	1'-8"	1'-8"	7'-0"
180	P14	1"	7'-7"	1'-7"	6'-6"
216	B22	3/4"	Var.	1'-8"	9'-0"

SKETCH - BENT #35
Showing Super-elevation

SKETCH - BENTS 30-34
Showing super-elevation

Bent	F	G	H	B
10	15'-0"	13'-1"	30'-2"	9'-0"
13	16'-8"	15'-8"	24'-1"	9'-1"
24	16'-8"	15'-6"	24'-1"	9'-1"
27	15'-0"	13'-8"	30'-8"	9'-0"

Bent	F	G	H
2			16'-2"
3			19'-11"
4			22'-11"
5	12'-0"	11'-11"	25'-11"
6	12'-8"	13'-9"	28'-5"
7	13'-2"	11'-1"	27'-5"
30	13'-2"	10'-10"	26'-5"
31	12'-8"	9'-6"	24'-8"
32	12'-0"	9'-5"	22'-5"
33			20'-11"
34			18'-11"

No.	Mk.	SIZE	A	H	Length
724	F1	3/4"	6'-6"	6'	8'-0"
64	F2	3/4"	7'-0"	6'	8'-0"
136	F3	1"	2'-6"	8'	28'-6"
6	P20	1"	7'-6"	5'	23'-8"
18	P20	3/4"	3'-3"	6'	4'-9"
60	P23	1"	21'-0"	8'	23'-8"
60	P26	1 1/8"	21'-6"	8'	23'-8"
72	P24	3/4"	4'-9"	6'	6'-3"

For General Notes see drawing No. 1947
For details of Superstructure see drawing No. 1947

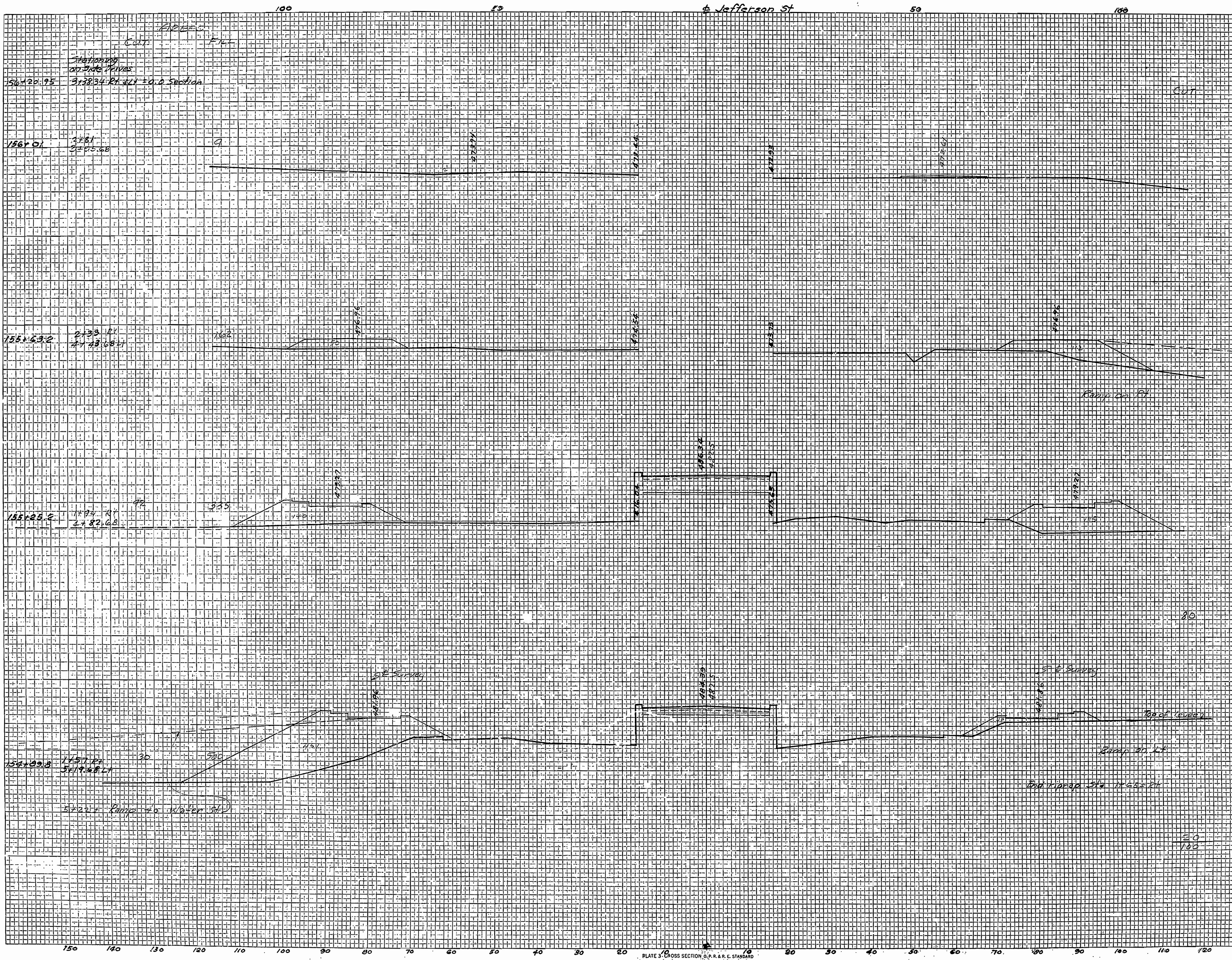
SUBSTRUCTURE DETAILS
BRIDGE OVER MO. PAC. RR.
WEST OF FULTON, ARK.
MILLER COUNTY
ROUTE 67 SEC. 1

ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

Drawn By: G.S.K. Date: 12-29-29
Traced By: [Signature] Date: 1-23-30
Checked By: G.S.K. Date: 12-6-29
BRIDGE NO. 073 DRAWING NO. 1943

BRIDGE ENGINEER

FE - ROAD DIST NO.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
6	ARK.			
STATE JOB NO. 4331		1949 44	44	



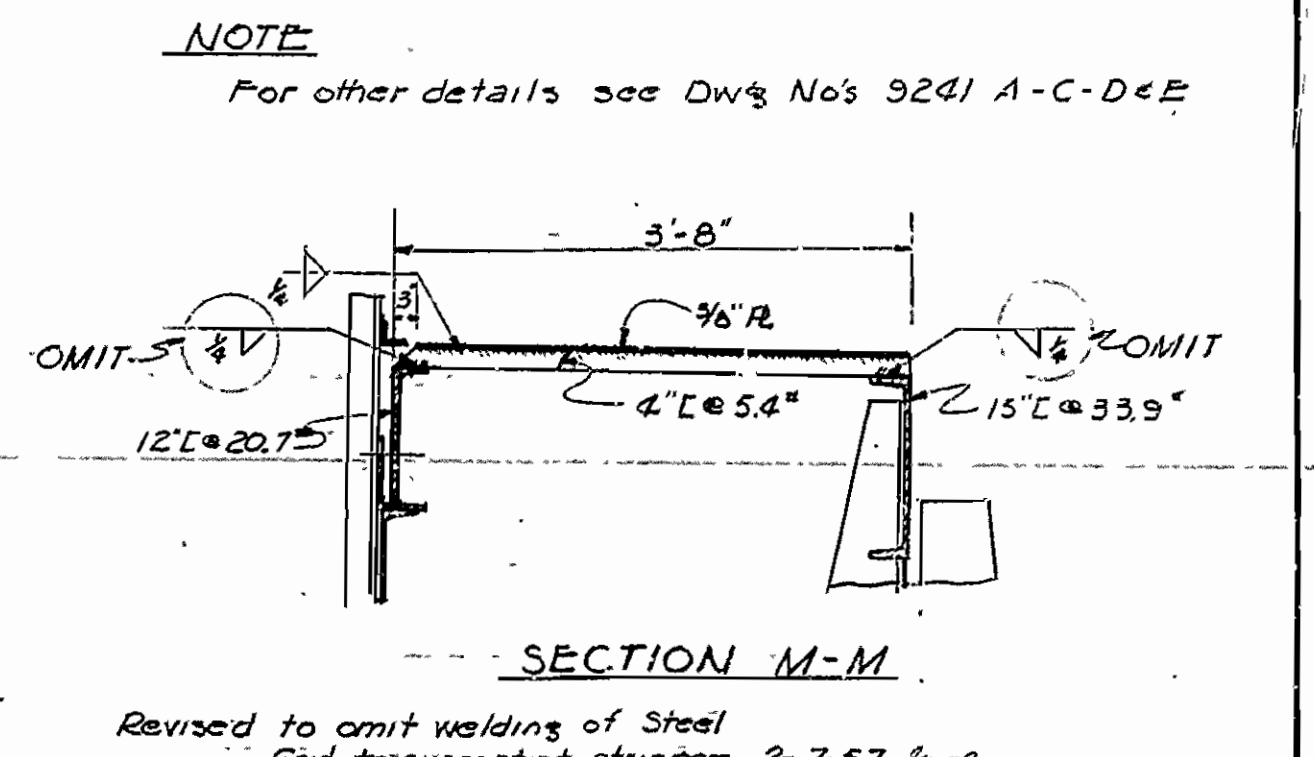
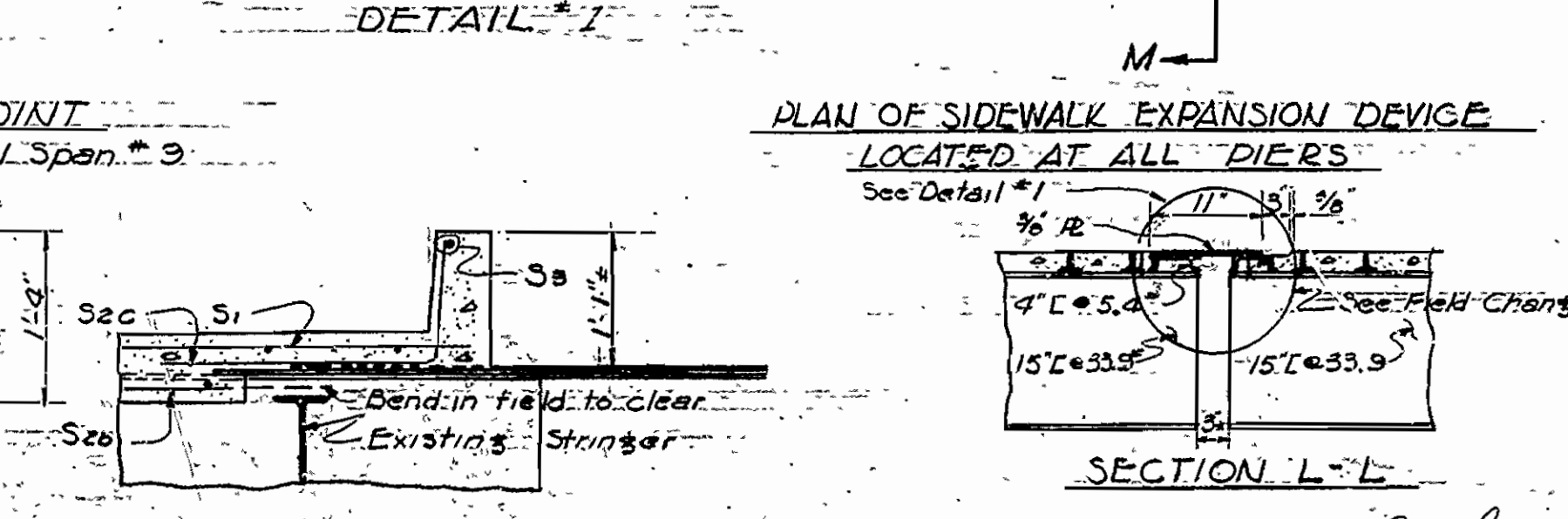
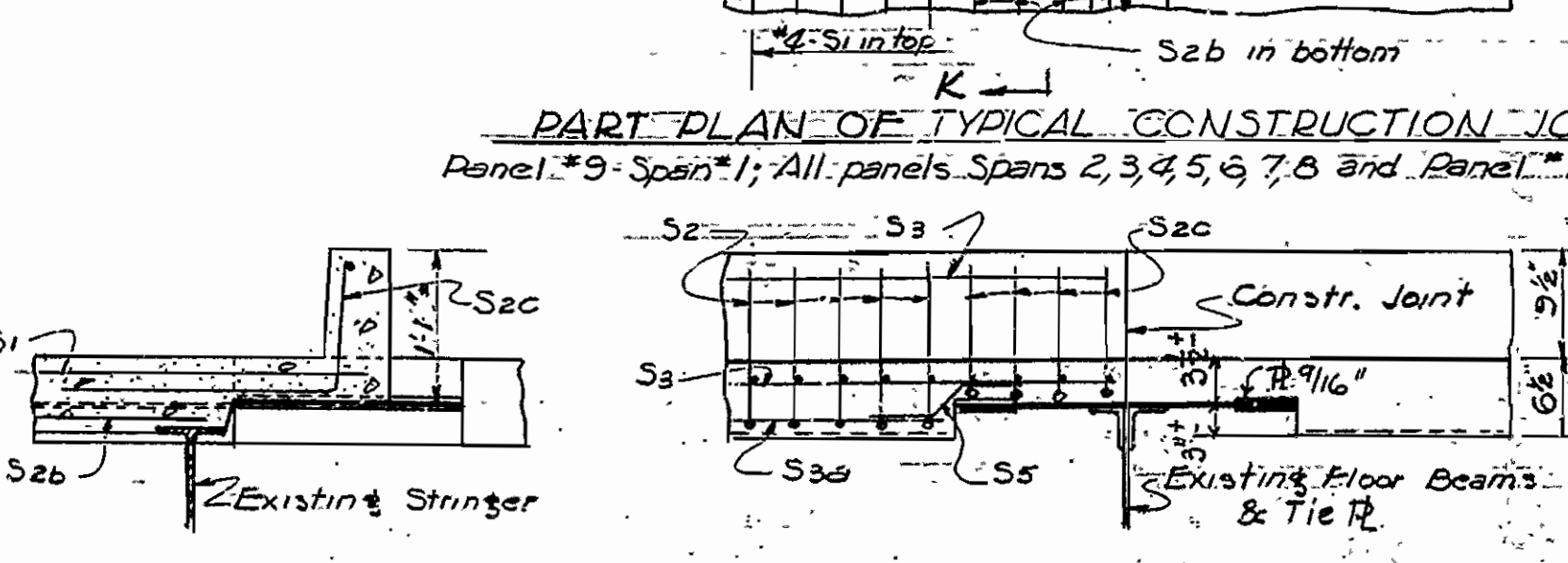
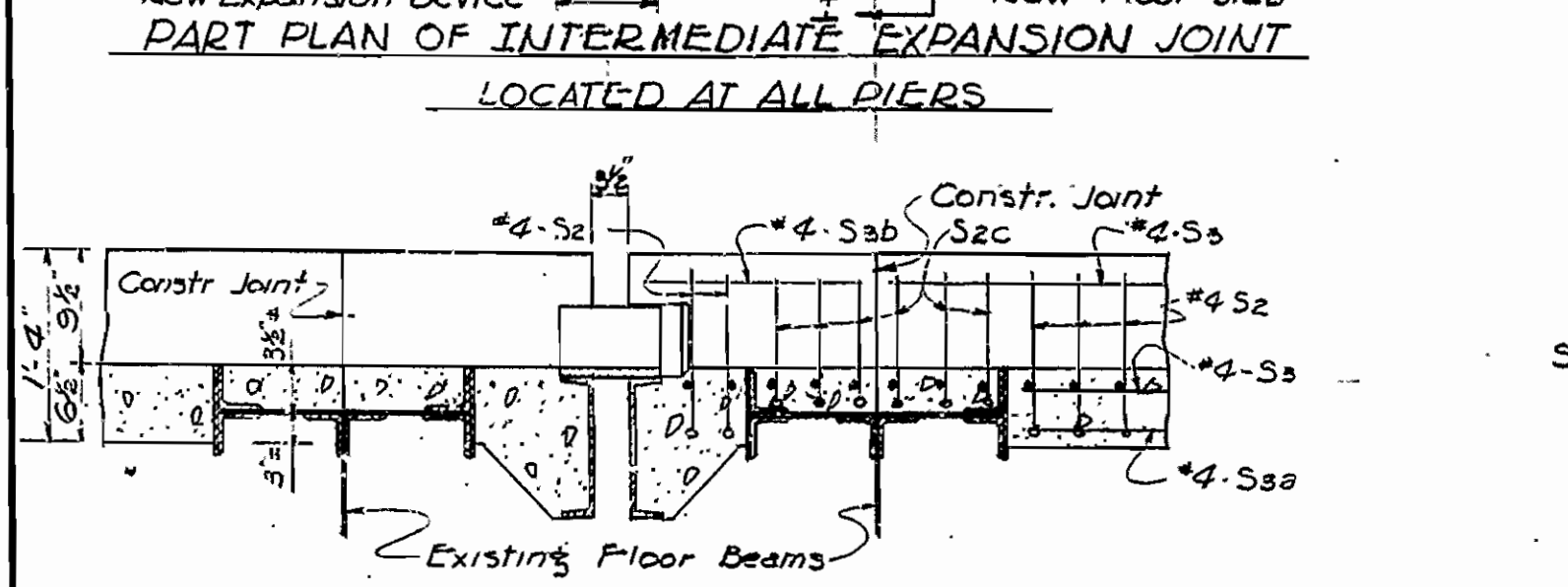
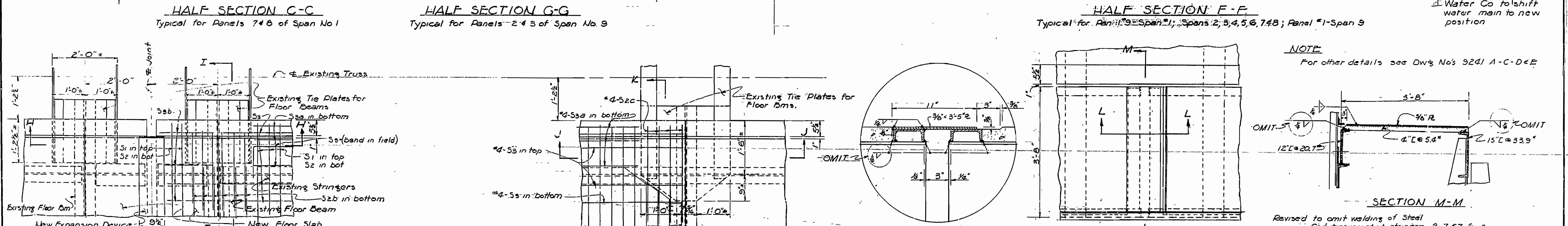
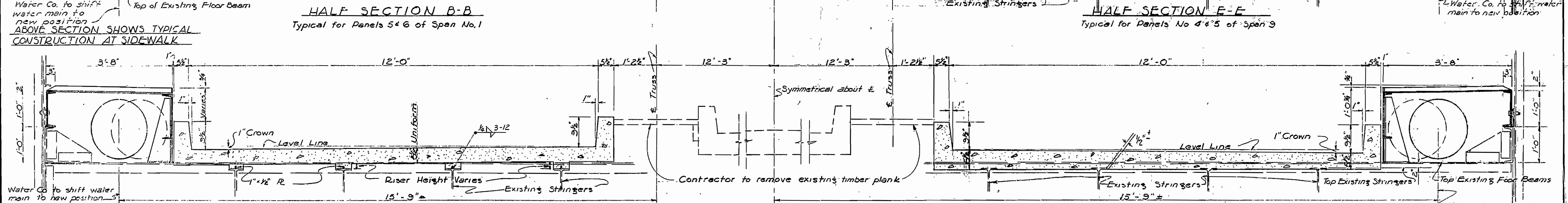
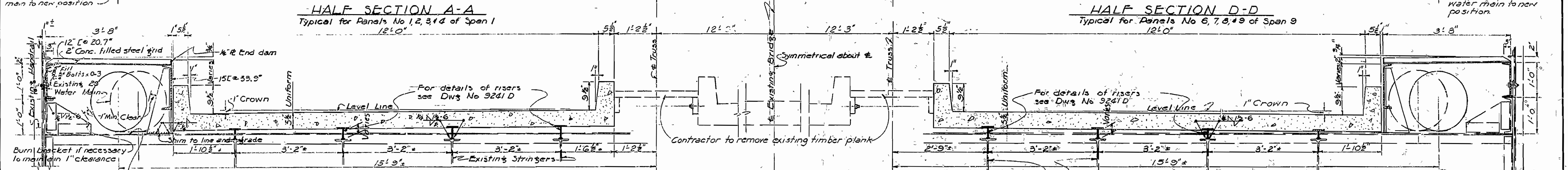
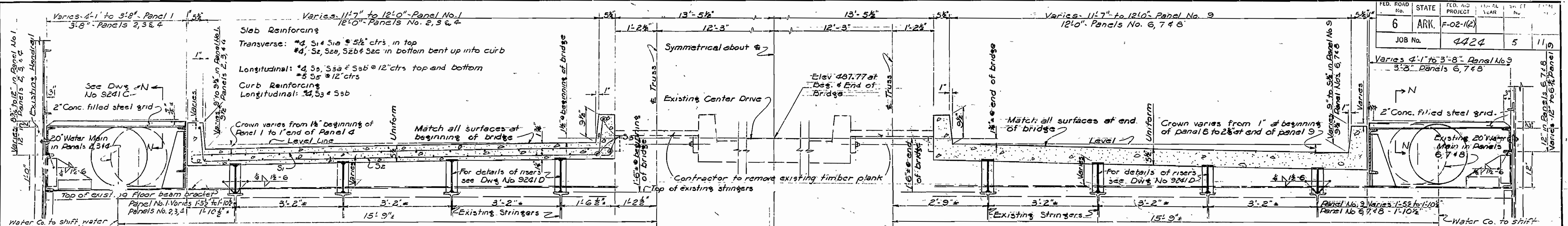
CUT	FILE	VOLUME	FILE
	10	12	
	155	178	
	285	328	
	300	414	
	80	575	661
	440	506	
	225	949	
	2650	3048	
	20	100	

FINAL SURVEY NOTE BOOK NO.	DATE

ORIGINAL SURVEY NOTE BOOK NO.	DATE

CROSS SECTIONS
 STA 154+82.8 TO STA 156+20.95
 NORTH APPROACH
 BRIDGE OVER ARKANSAS RIVER
 AT VAN BUREN, ARK
 CRAIG FORD COUNTY
 BR. NO. 1184 A DRAWING NO. 291

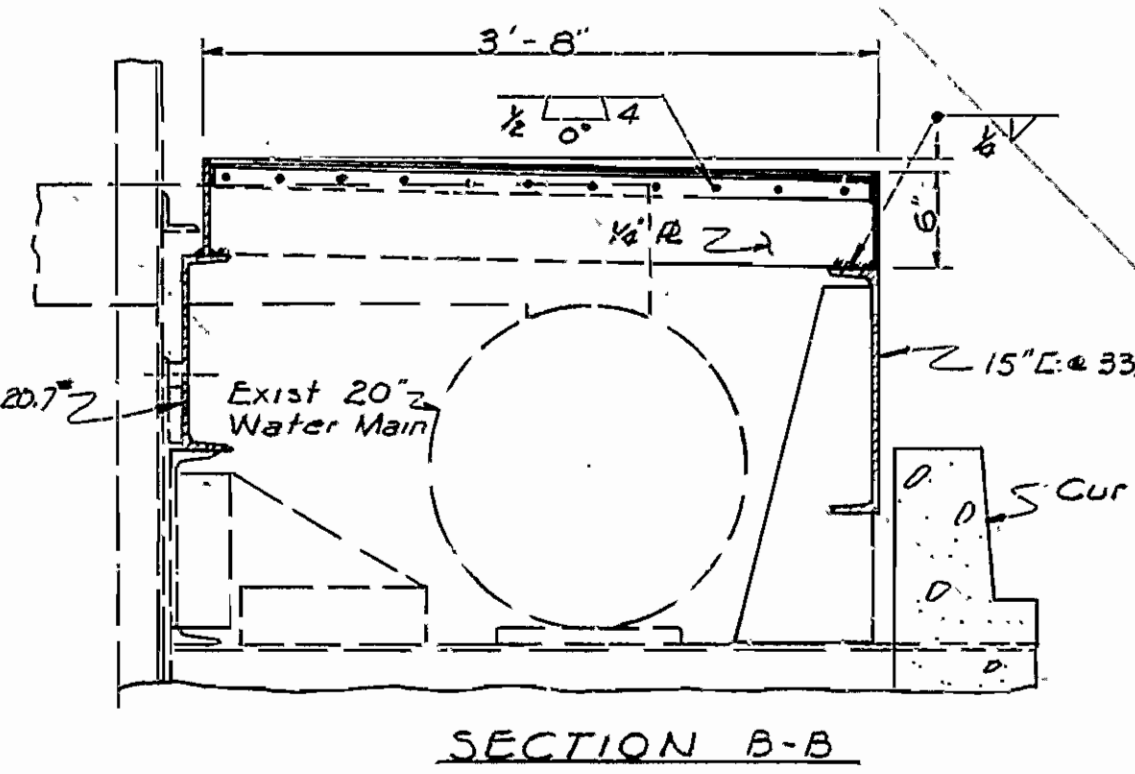
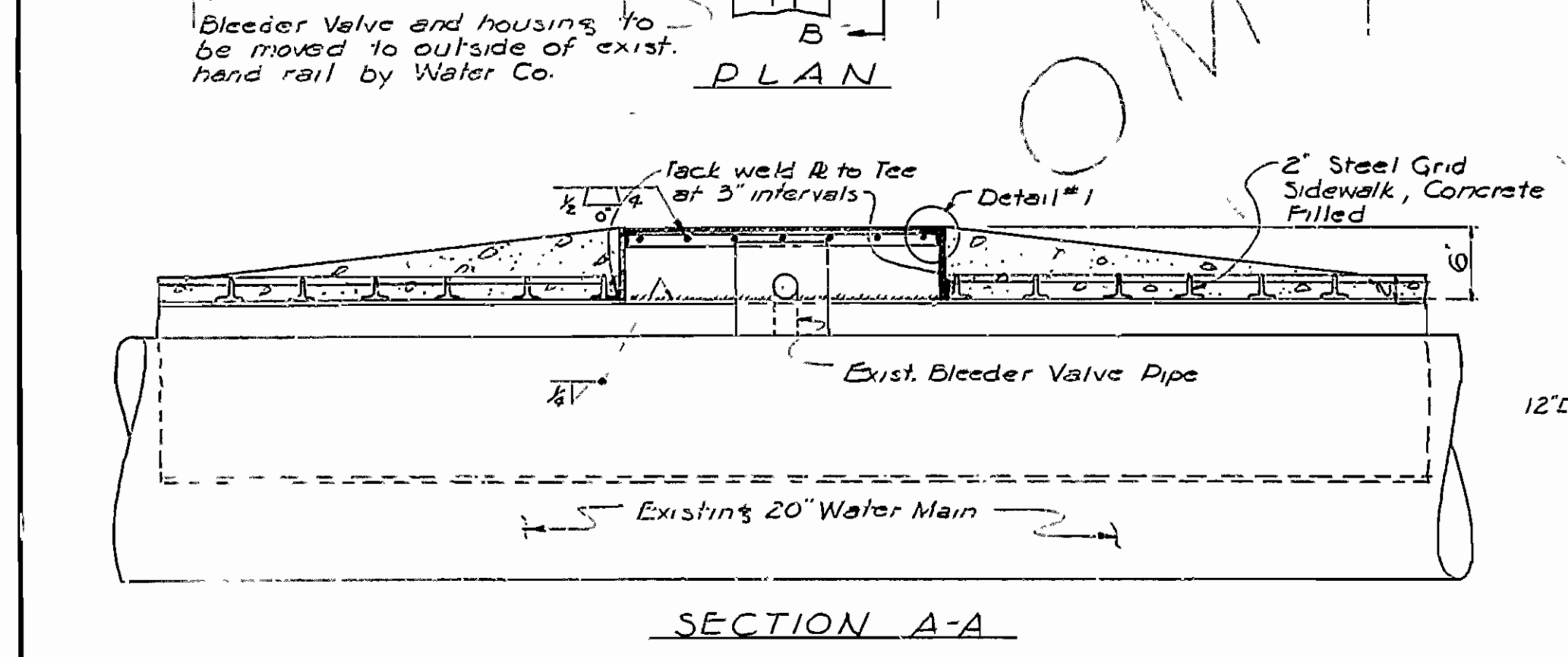
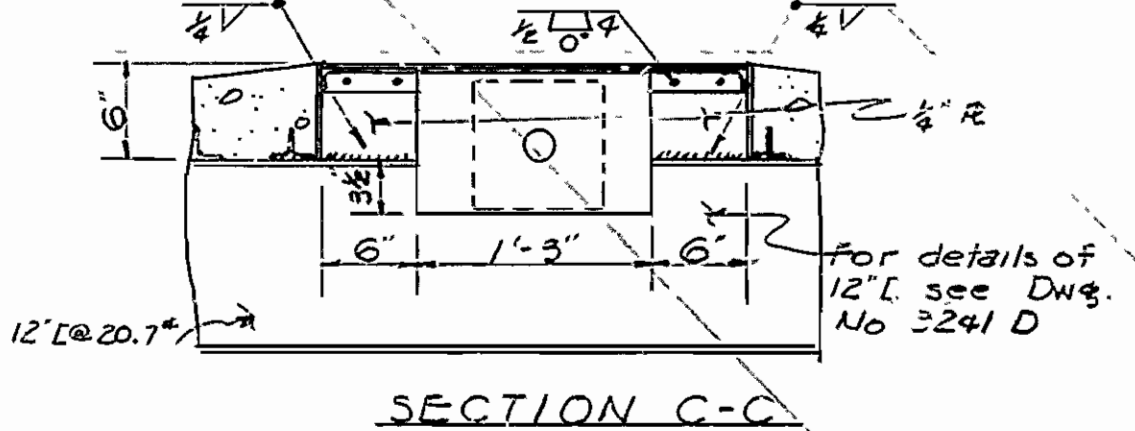
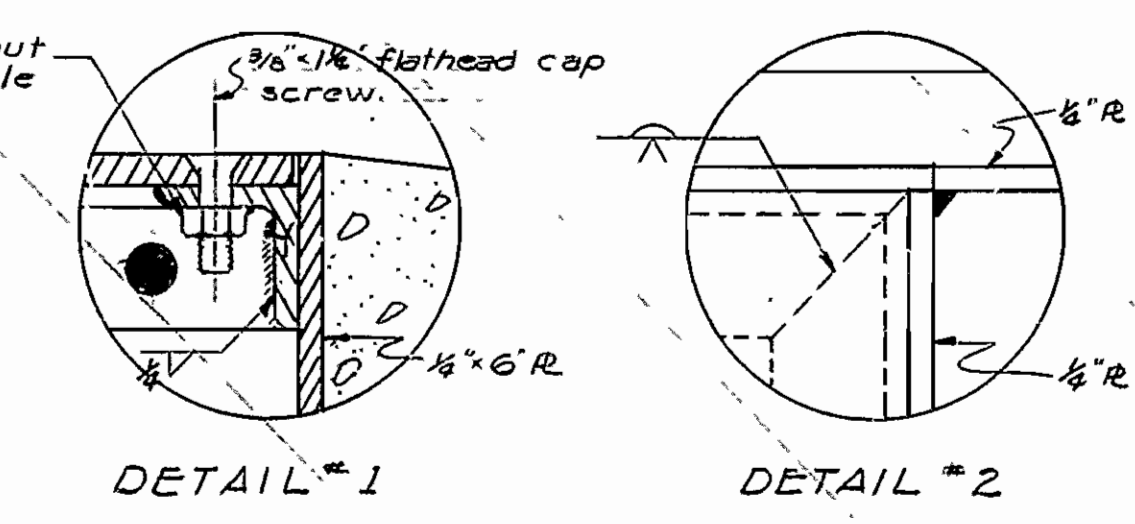
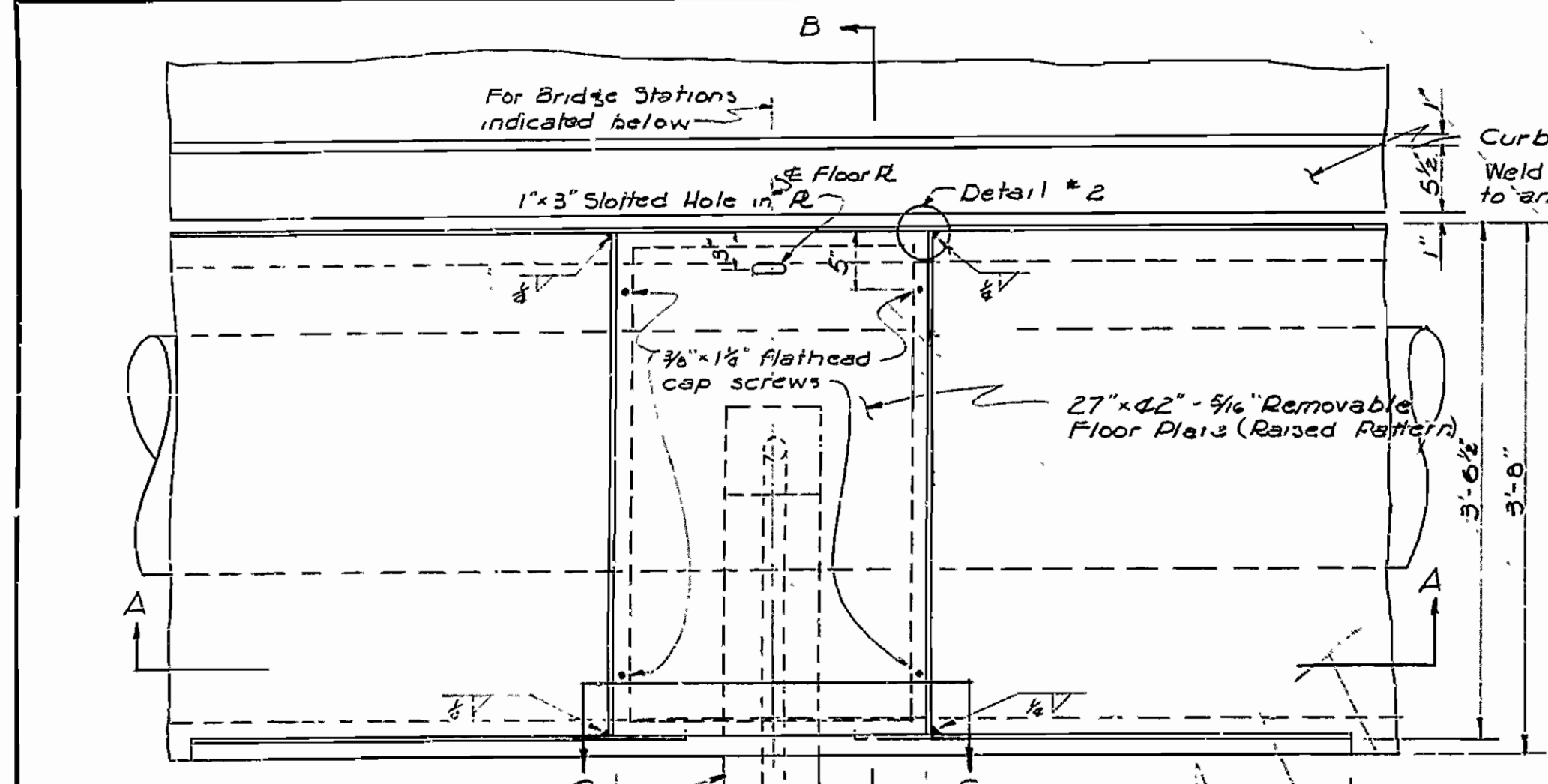
FED. ROAD No.	STATE	FED. AID PROJECT No.	CONTRACT No.	SHEET No.
6	ARK.	F-02-112	4424	5
JOB No.		4424	5	119



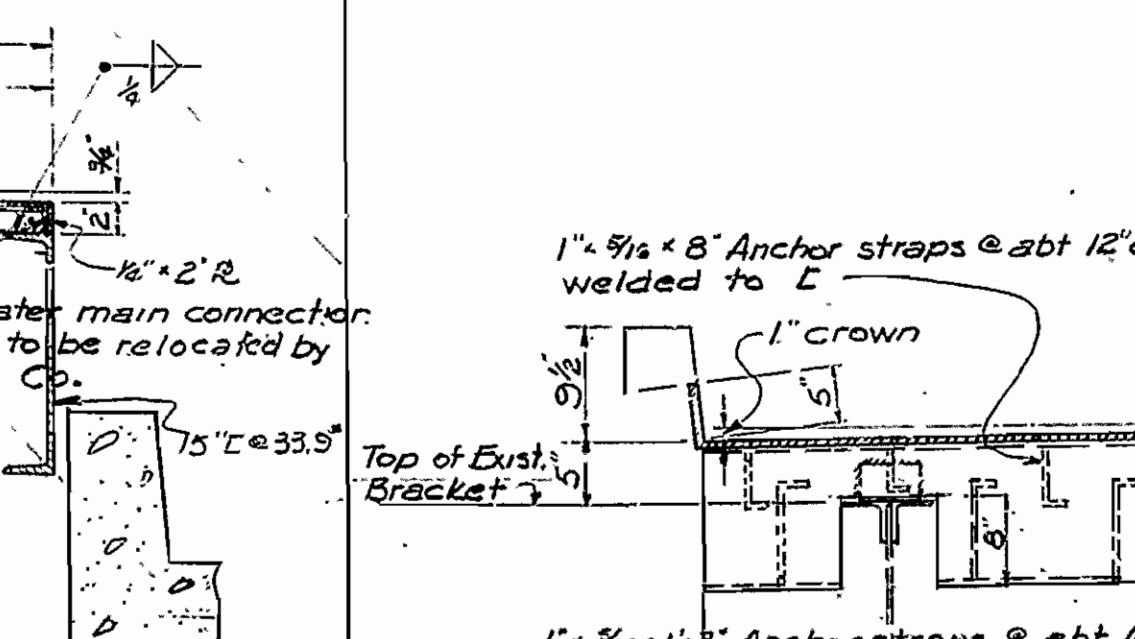
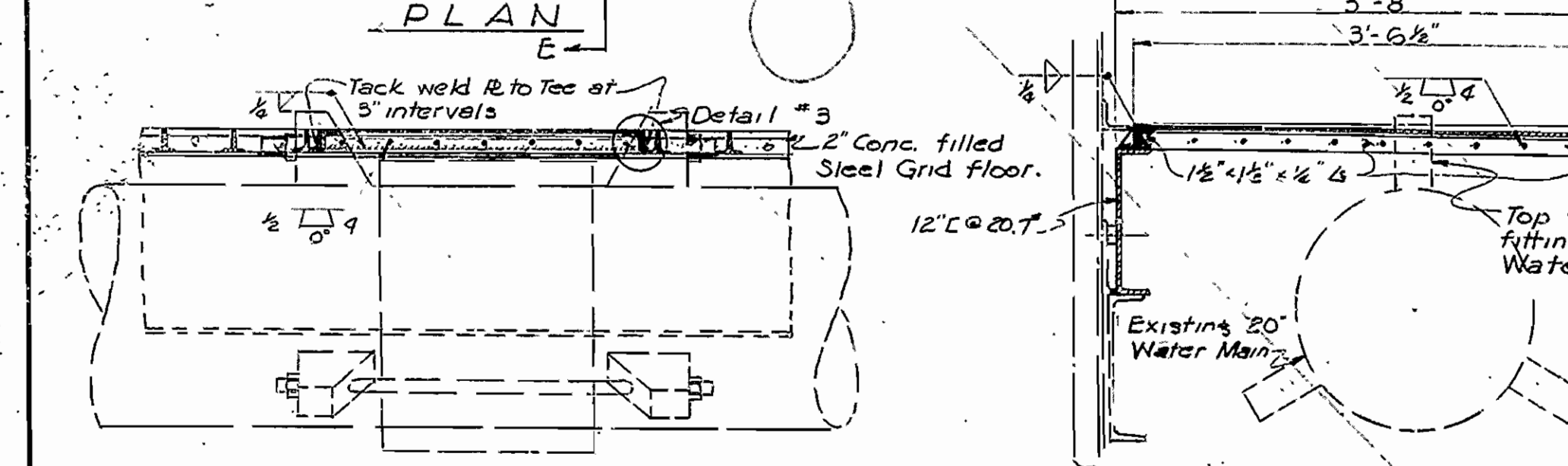
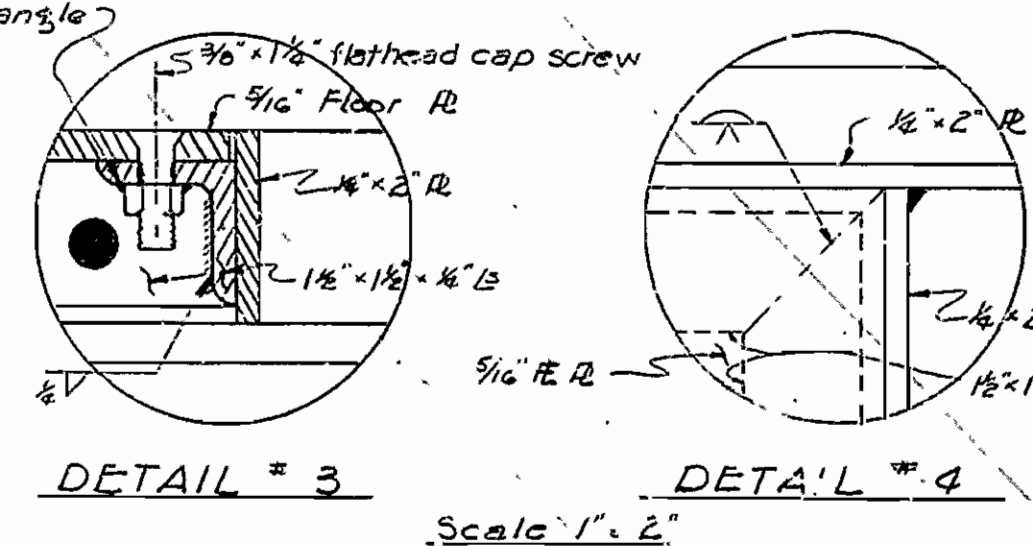
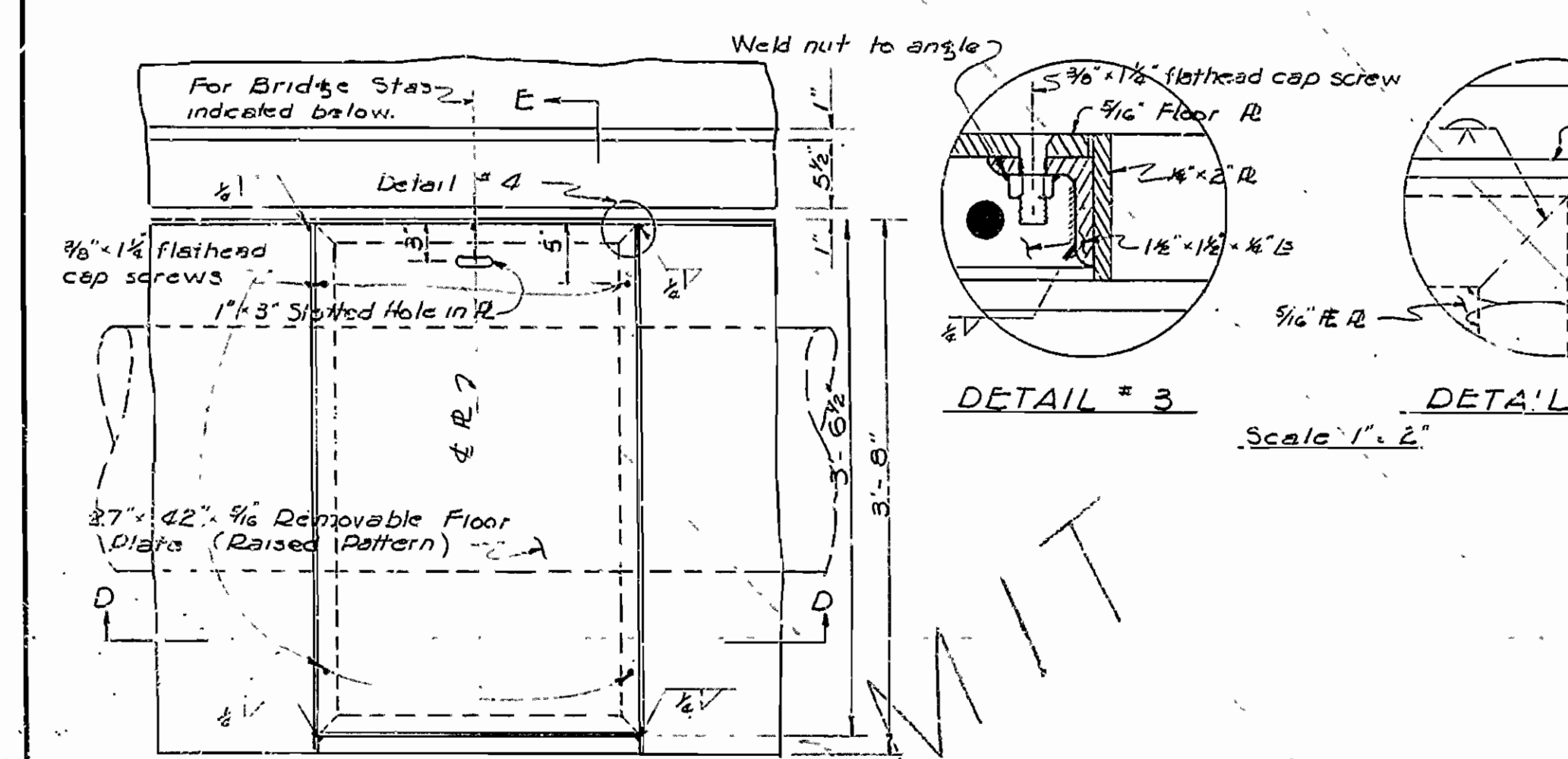
DETAILS OF WIDENING SIDE DRIVES
ARKANSAS RIVER BRIDGE (VAN BUREN)
CRAWFORD & SEBASTIAN COUNTIES
ROUTE 64 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: *luc* DATE: 6-17-56
TRACED BY: *vca* DATE: 11-1-56
BRIDGE NO. 1784-B DRAWING NO. 9241 B

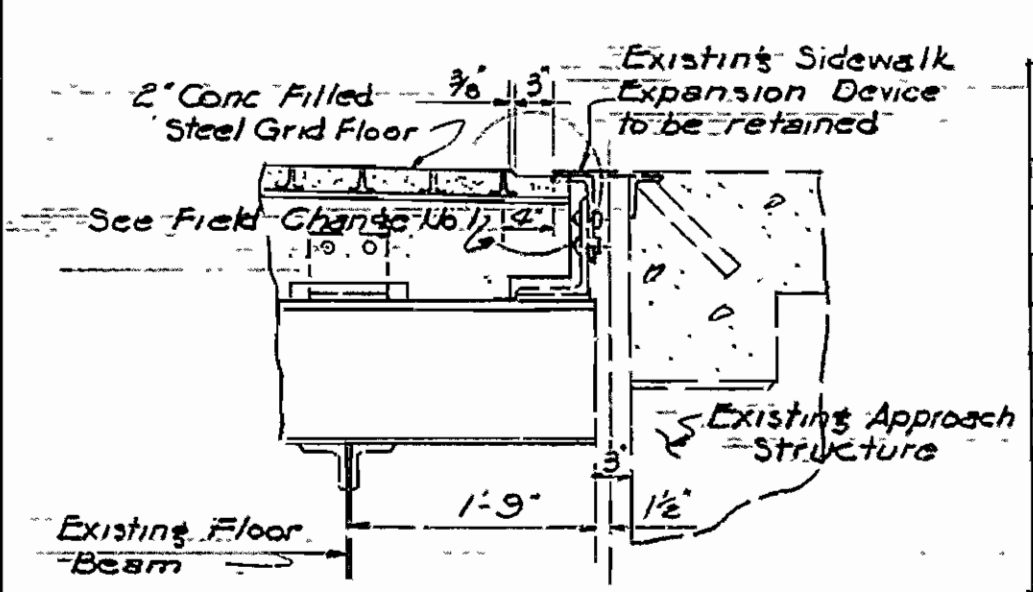
REVISED	DATE	BY	REASON
6	APR. 1-02-12		
JOB NO. 4424		6	11



SIDEWALK DETAILS AT BLEEDER VALVES
UPSTREAM SIDEDRIVE AT STA. 144+75.70; DOWNSTREAM SIDEDRIVE AT STA. 144+74.0
Scale 1"=1'-0"



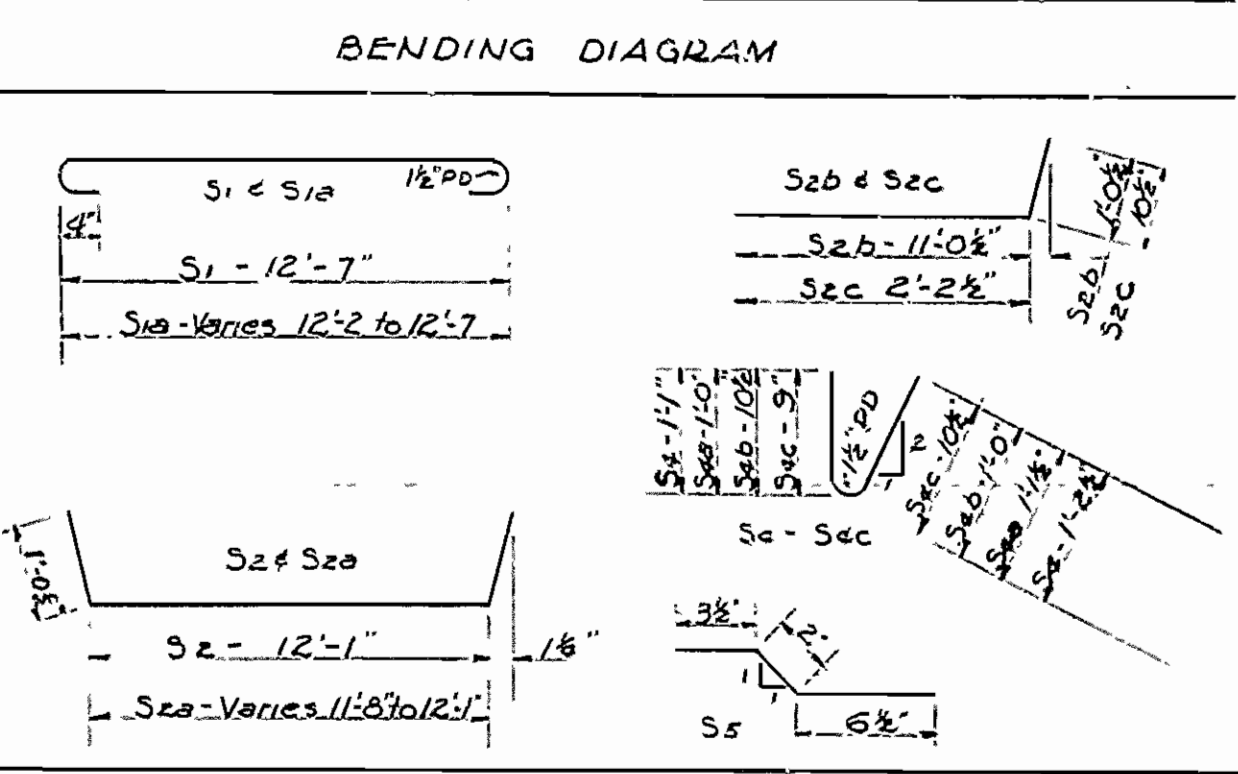
SIDEWALK DETAILS AT JOINTS IN WATER MAIN
Located at Upstream Sidedrive, Stations 136+14.85, 136+41.54, 136+81.39, 138+81.10, 143+60.40, 148+39.55, 153+18.30
Downstream Sidedrive, Stations 136+15.68, 139+25.20, 144+00.30, 148+79.6, 153+26.05



SECTION N-N
Drawing No. 9241 B
Scale 3/4"=1'-0"

LIST OF REINFORCING STEEL

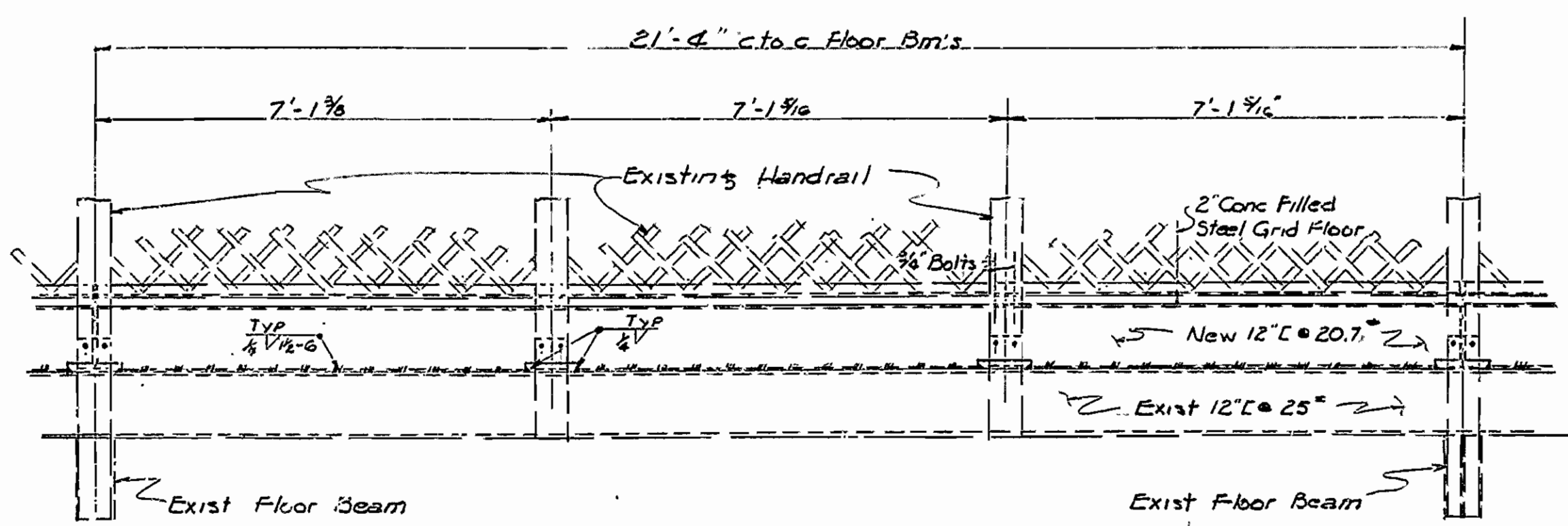
MARK	SIZE	No. Required	SPAN	LENGTH
1	2	3	4	5
S1	#4	786	886	786
S1a	#4	100	—	100
S2	#4	758	734	758
S2a	#4	100	—	100
S2b	#4	28	152	28
S2c	#4	34	152	34
S3	#4	510	468	510
S3a	#4	12	54	12
S3b	#4	108	108	108
S4	#4	26	—	26
S4a	#4	52	—	52
S4b	#4	52	—	52
S5	#5	144	480	144



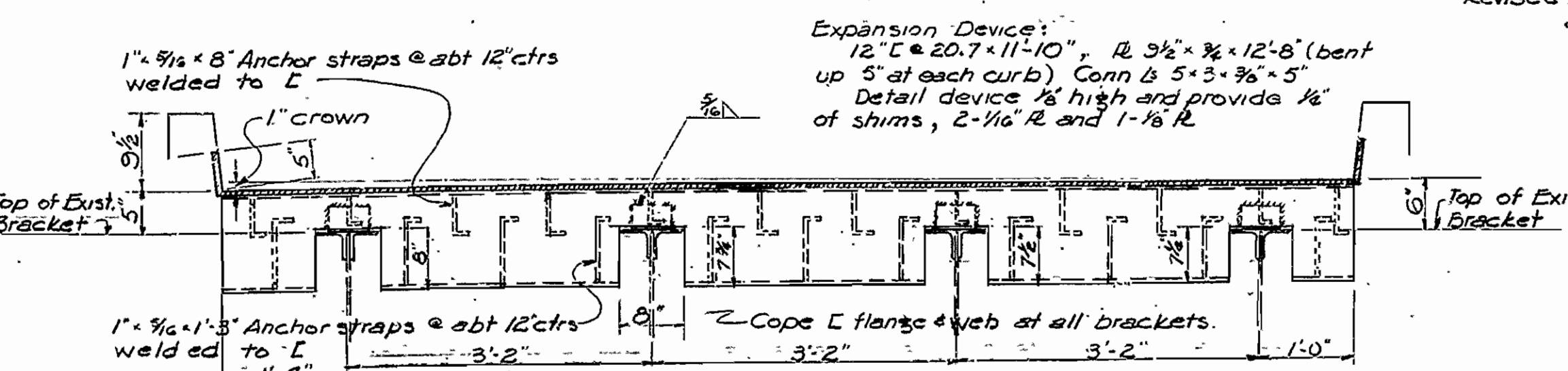
NOTE: Dimensions are to center bars except pin diameters.

GENERAL NOTES

Concrete to be Class S. Coarse and fine aggregate to be an approved lightweight aggregate; See Special Provisions. Maximum size of coarse aggregate for fill for sidewalk steel grid floor to be 3/4".
 Ensure a good riding surface the roadway slab shall be struck off with a longitudinal strike-off of length not less than the distance between truss bracing. To provide for dead load deflection the slab shall be thickened to a minimum at midspan of stringers of approximately 1/8".
 Reinforcing steel to be deformed bars of intermediate grade unless otherwise modified by special provisions. Steel shall be accurately located in forms and firmly held in place by means of steel wire supports, sufficient in size and number to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item of "Reinforcing Steel".
 Lists and bending diagrams of reinforcing steel including steel wire supports shall be submitted and approval secured before fabrication is begun.
 Holes in steel members to be 1/8" diameter. Field connections to be 3/8" malleable bolts, unless otherwise shown.
 Steel grid for sidewalk floor to be 2" thickness with a section modulus for steel of not less than 1.42 in³ per foot of grid width, with 20 gage formings tack welded to grid. Steel to comply with A.S.T.M. Designation A-7-33; copper content to be 0.2% minimum. Surfaces of steel grid not in contact with concrete to be painted the same as structural steel. Soldered welding to supports to be in accordance with Manufacturer's directions. Steel grid floor including concrete and dams, sidewalk expansion devices, normal floor plates and supports and form strips to be measured and paid for as concrete filled steel grid floor slabs.
 Natural shapes of equal or greater strength may be substituted for the shown, but payment will be made on the basis of shapes shown or the actually used whichever is the lesser.
 Welded connections to be 1/2" fillet welds except as noted. All welds shall conform to the current Specifications for Welded Highway and Heavy Bridges of the American Welding Society.
 PAINT: All structural steel except surfaces in contact with concrete, shall have one coat of red lead and raw linseed oil before shipment.
 PAINT: 1st coat, white lead paint tinted with lamp black.
 2nd coat, aluminum paint.
 Steel plate guard shall be of the type shown or an equivalent rigid type as approved by the Engineer. Steel plate guard, including posts and all bolted attachments shall be paid for at the unit price per linear foot bid in "Steel Plate Guard".
 Shop drawings showing general features of design only. Shop drawings of structural steel, steel grid and steel plate guard shall be made in accordance with the Specifications and shall be submitted and approved before fabrication is begun.
 Dimensions relating to the existing structure are general only and shall be verified in the field before construction is begun.
 Removal of timber flooring from side drives and sidewalks, cleaning of surfaces of existing bracket steel, and readjusting existing steel sidewalk railing to line and grade shall be paid for under the item "Remainder Side Drives of Existing Bridge". See Special Provisions.



PART ELEVATION OF SIDEWALK (TYP)
Scale 3/4"=1'-0"



ROADWAY SECTION AT EXPANSION DEVICE
Scale 3/4"=1'-0"

Refer other details see Dwg's No. 9241 A, B, D & E

Revised 2-7-57 limit details and partial notes, etc.

DETAILS OF WIDENING SIDE DRIVES
ARKANSAS RIVER BRIDGE (VAN BUREN)
CRAWFORD & SEBASTIAN COUNTIES
ROUTE 64 SEC. 142
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: [Signature] DATE: 11-6
TRACED BY: [Signature] DATE: [Blank] SCALE: Noted
CHECKED BY: J.E.M. DATE: 11-7-56
BRIDGE NO. 1784 B DRAWING NO. 9241 C