

SCHEDULE OF BRIDGE QUANTITIES

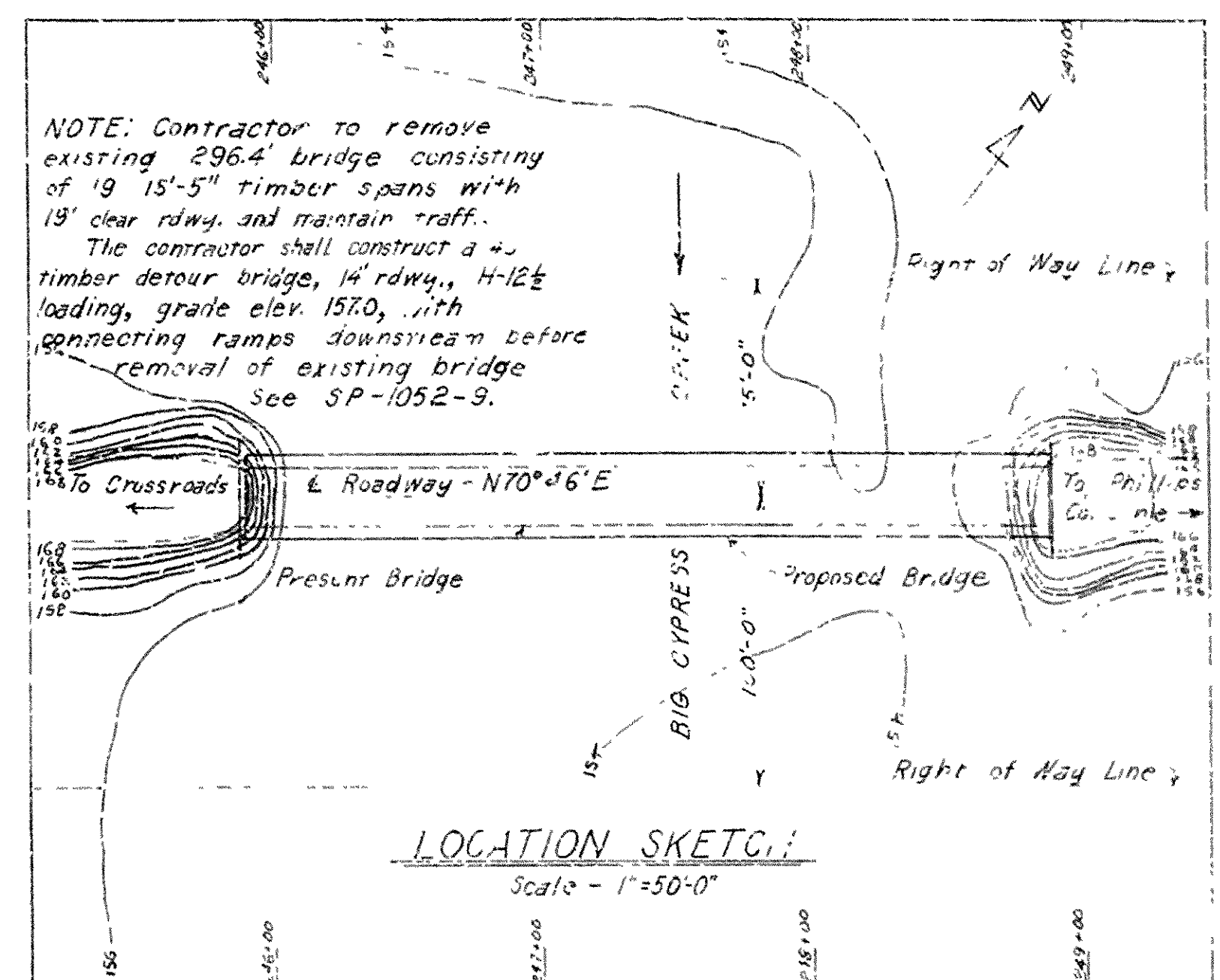
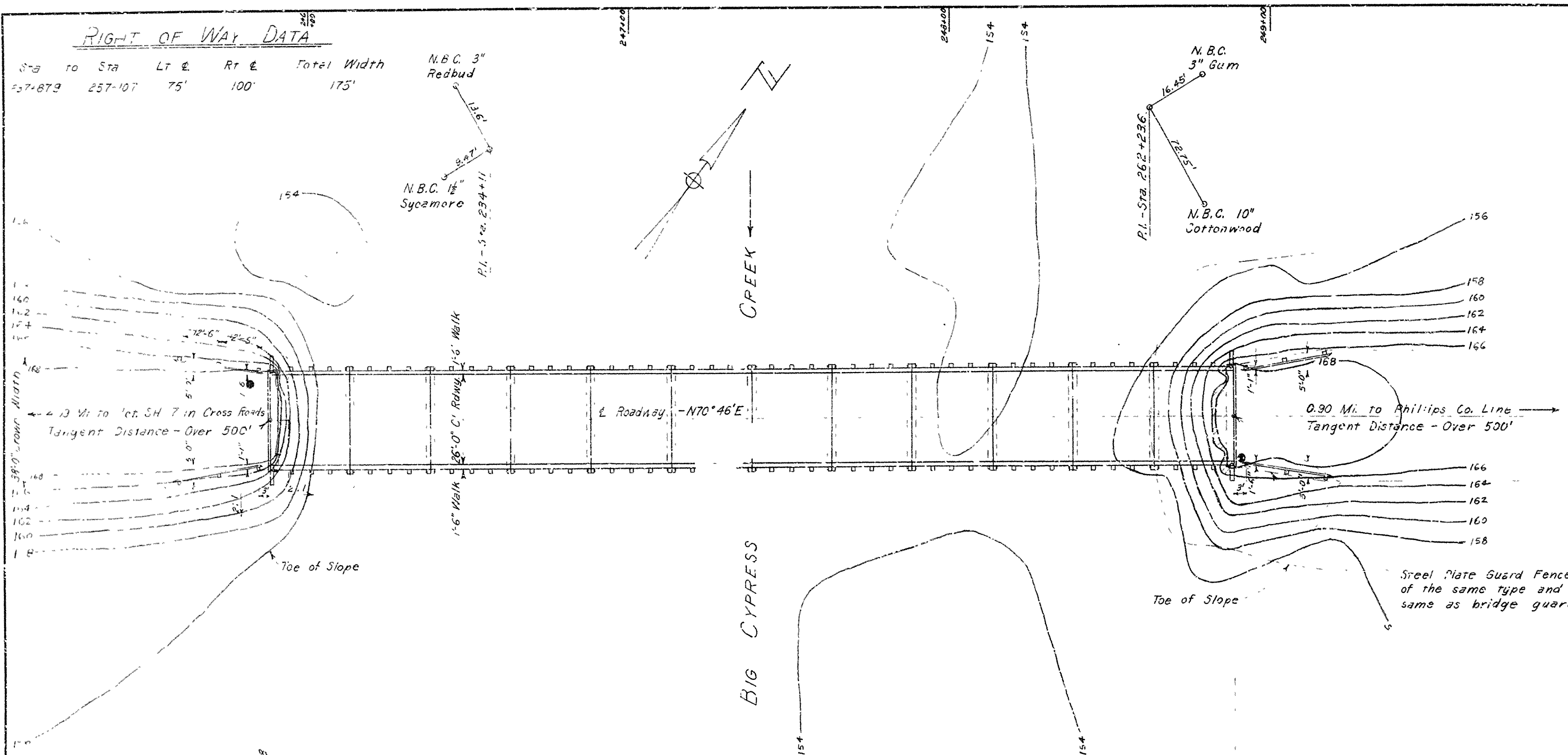
BRIDGE NO.	CODE NO.	ITEM NO.		103	SP & 802	SP & 803	SP& 804	SP-805-3	929	SP-1052-9*
		ITEM	UNIT	DRY	CLASS "S"		CONCRETE	STEEL	BRIDGE	REMOVAL OF
				EXCAVATION	CONCRETE	REINFORCING	PILING	PLATE	NAME	EXISTING BRIDGE
				FOR	FOR	STEEL	(16" C 7.1, DONAL)	GUARD	PLATES	STRUCTURES AND
		UNIT OF BRIDGE		STRUCTURES	BRIDGES			RAIL (10 SA)	(TYPE C)	MAINTENANCE
				CU YD.	CU YD.	LB.	LIN. FT.	LIN. FT.	EACH	OF TRAFFIC
1748 A	X020	END BENT NO. 1		23.5	7.40	1,090	175		1	
		INTERMEDIATE BENTS NO. 2-8 INCL.			45.15	6,800	1,055			
		END BENT NO. 9		23.5	7.40	1,090	175			
		END SPANS NO. 1 & 8			75.10	12,080		104		
		INTERMEDIATE SPANS NO. 2-7 INCL.			224.40	36,060		300		
		TOTALS FOR BRIDGE NO. 1748A		47	359.45	57,120	1,445	404	1	38 %
1747 A	X020	END BENT NO. 1		23.5	7.40	1,090	175		1	
		INTERMEDIATE BENTS NO. 2-12 INCL.			70.95	10,690	1,555			
		END BENT NO. 13		23.5	7.40	1,090	175			
		END SPANS NO 1 & 12			75.10	12,080		104		
		INTERMEDIATE SPANS NO. 2-11 INCL.			374.0	60,100		500		
		TOTALS FOR BRIDGE NO. 1747A		47	534.85	85,050	1,905	604	1	62 %
GRAND TOTALS FOR JOB NO. 11495				94	894.30	142,170	3,350	1,008	2	100 %

\* At the site of each Bridge No. 1747A & 1748A, the Contractor shall construct a 45' timber  
detour bridge, 14' roadway, H-12 $\frac{1}{2}$  loading, grade elevation 157.0, with connecting  
ramps, before removal of existing bridges.

SCHEDULE OF BRIDGE QUANTITIES  
OVER PRAIRIE & BIG CYPRESS CREEKS  
INDIAN DAY - PHILLIPS CO. LINE  
MONROE COUNTY  
ROUTE 1 SEC. 6  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

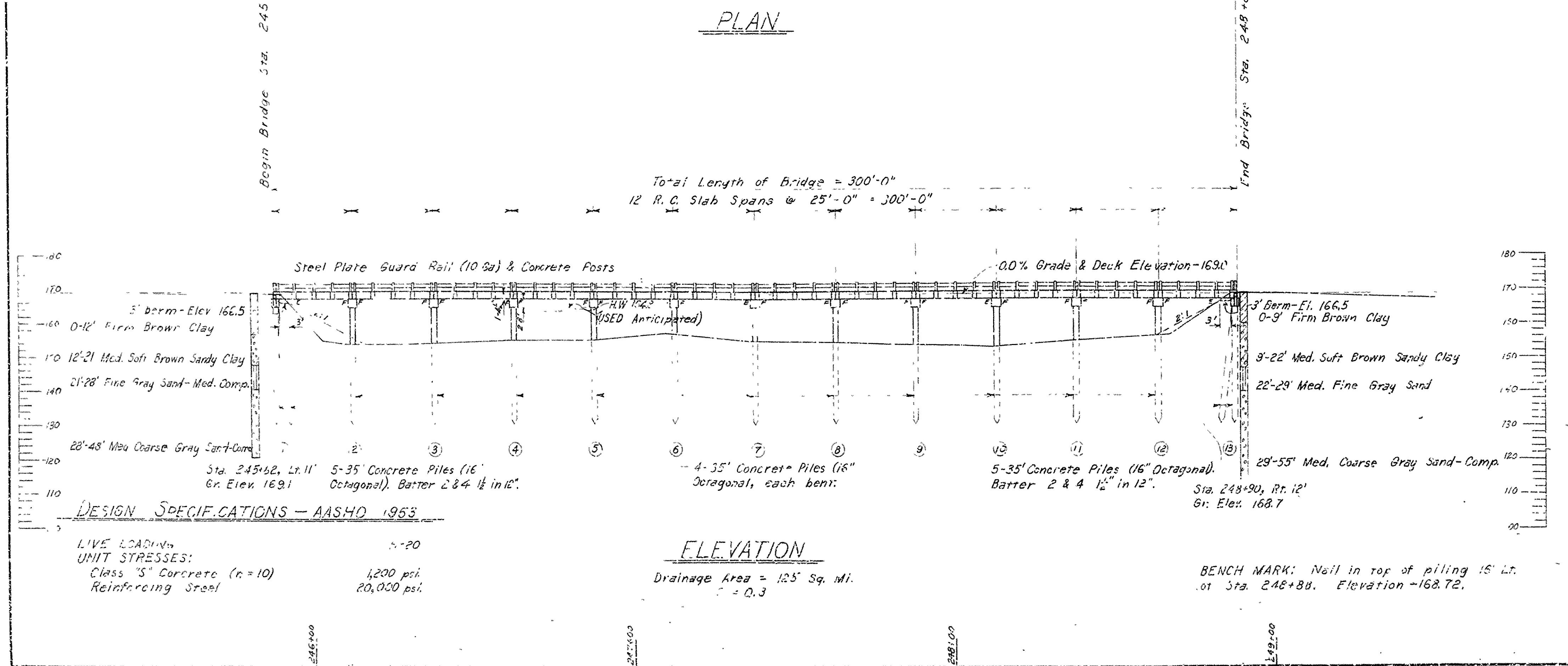
L. P. Carlson  
Refused to sign

Drawn By: W. I. R. Date: 6-2-55  
Traced By: Date:  
Checked By: Date: 7-18-55  
BRIDGE NOS. 1747A & 1748A DRAWING NO. 8909



GENERAL NOTES

All piling to be 16" octagonal precast concrete and shall be driven to a minimum capacity of 35 tons per pile and to a minimum penetration of 20' below natural ground line.  
Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 40' test pile in each of Bents No. 3, 7 & 11.  
For Details of Standard Bents, see Dwg. No. 5415.  
For Details of Standard 25'-0" R.C. Slab Spans, see Dwg. No. 5416.  
SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1, 1940.

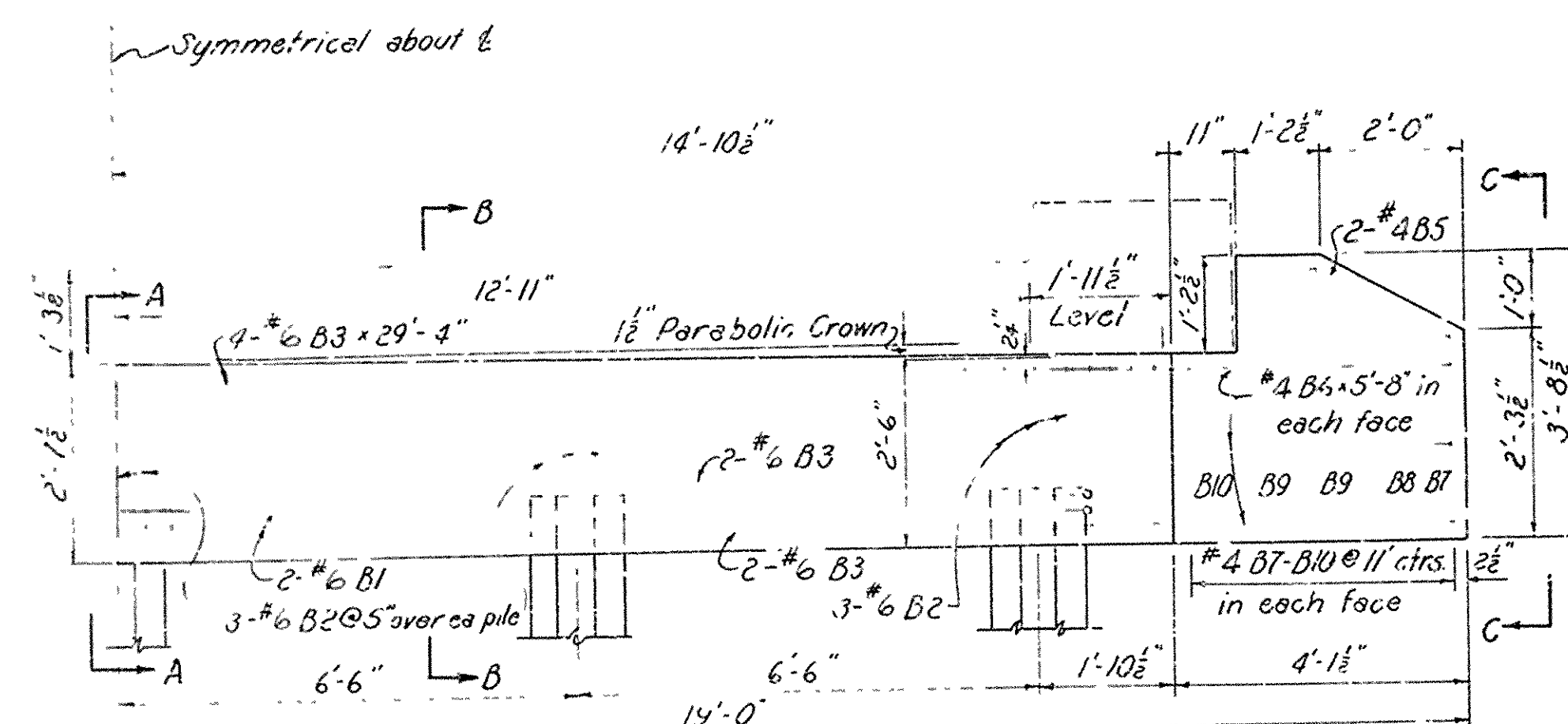


LAYOUT OF BRIDGE  
OVER BIG CYPRESS CREEK  
INDIAN BAY - PHILLIPS CO. LINE  
MONROE COUNTY  
ROUTE 1 SEC. 6  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

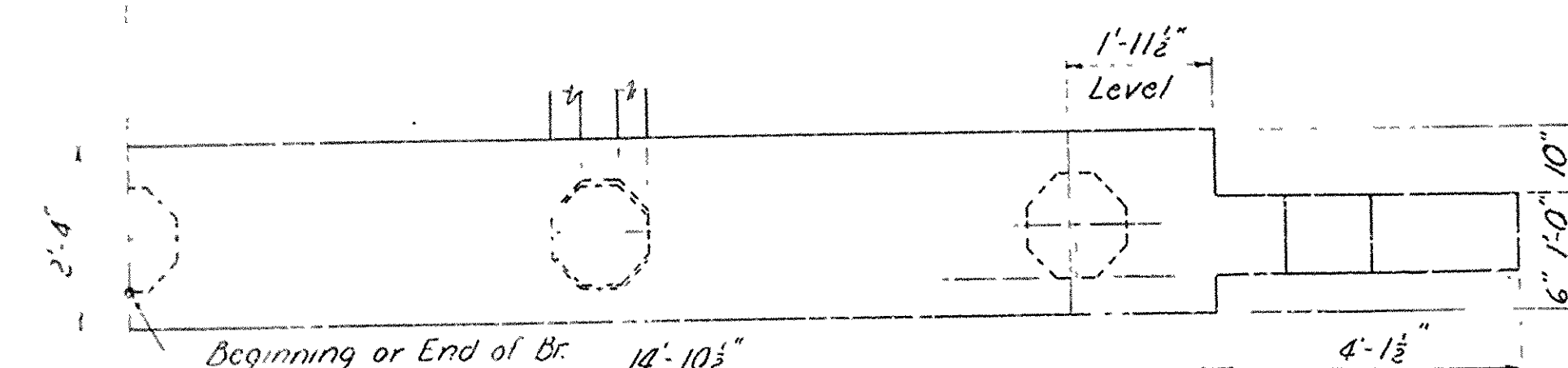
BRIDGE NO. 1747 A DRAWING NO. 8911  
SCALE: 1 in. = 20 ft.  
DATE: 6-55  
CHECKED BY: E.P.F.  
DESIGNED BY: W.L.B.  
BENCH MARK: Nail in top of piling 15' L.R. at Sta. 248+88. Elevation -168.72.



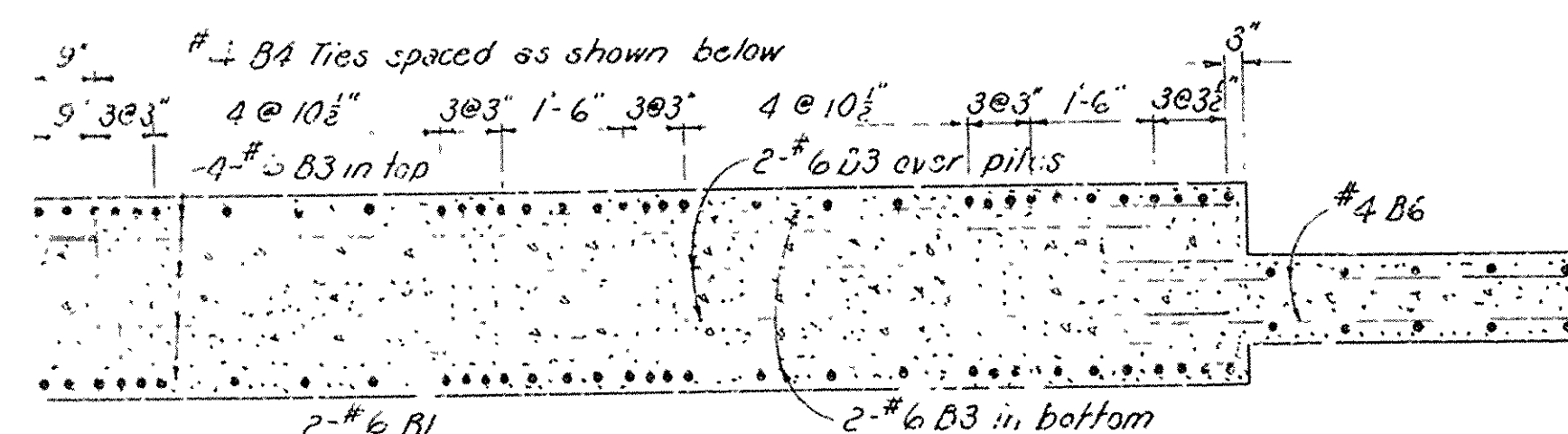
FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			
STATE JOB NO.				



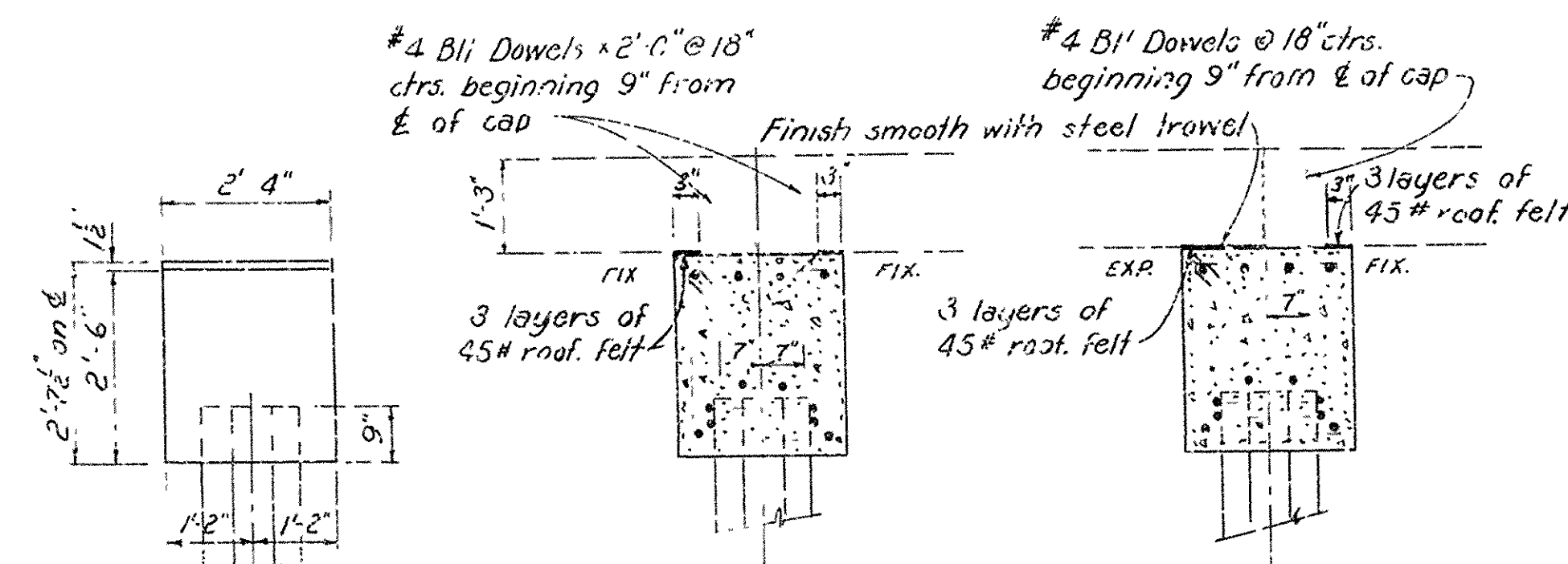
HALF ELEVATION OF END BENT



HALF PLAN OF END BENT



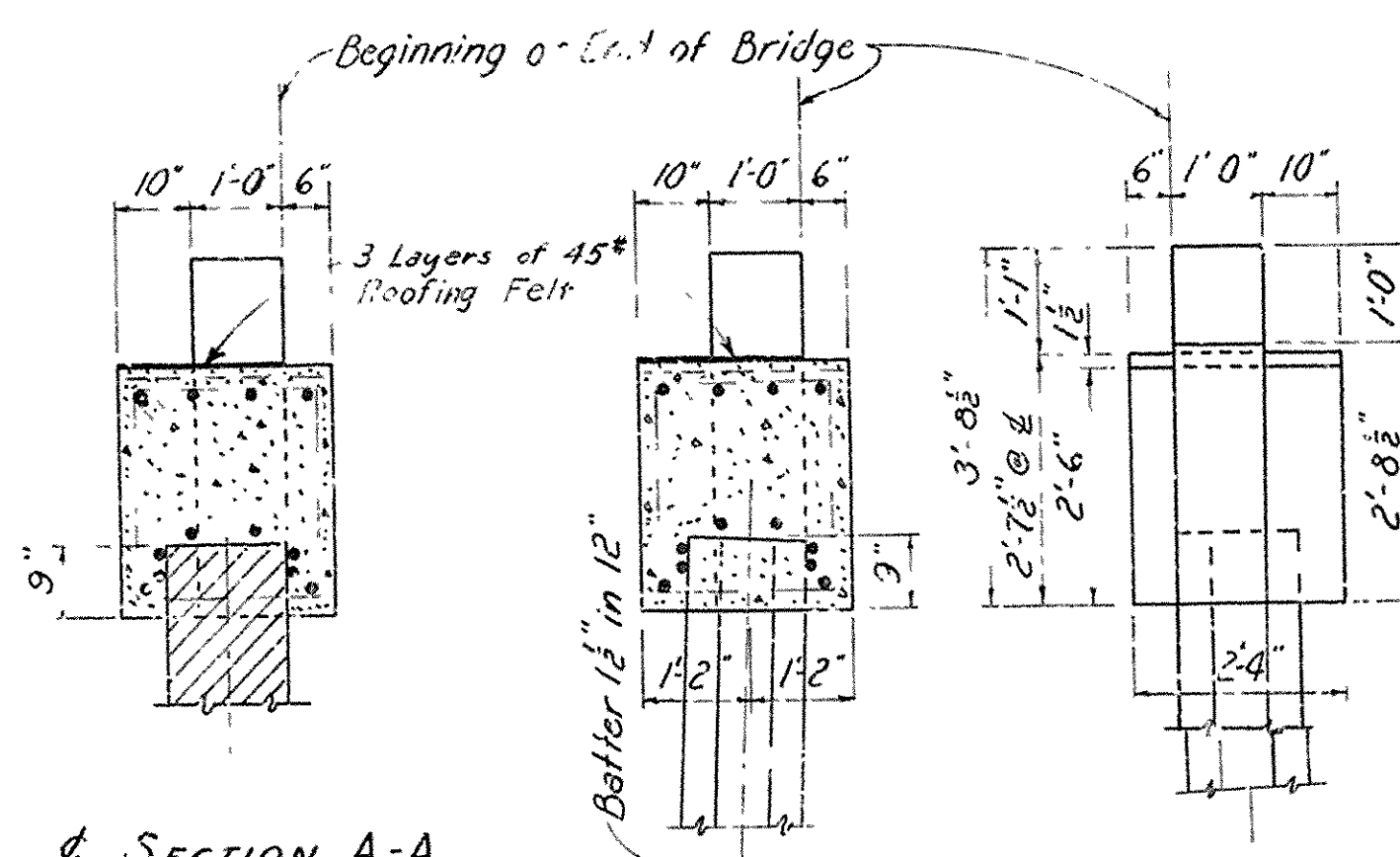
HALF SECTION OF END BENT



END VIEW

SECTIONS ON C OF INTERM. BENTS

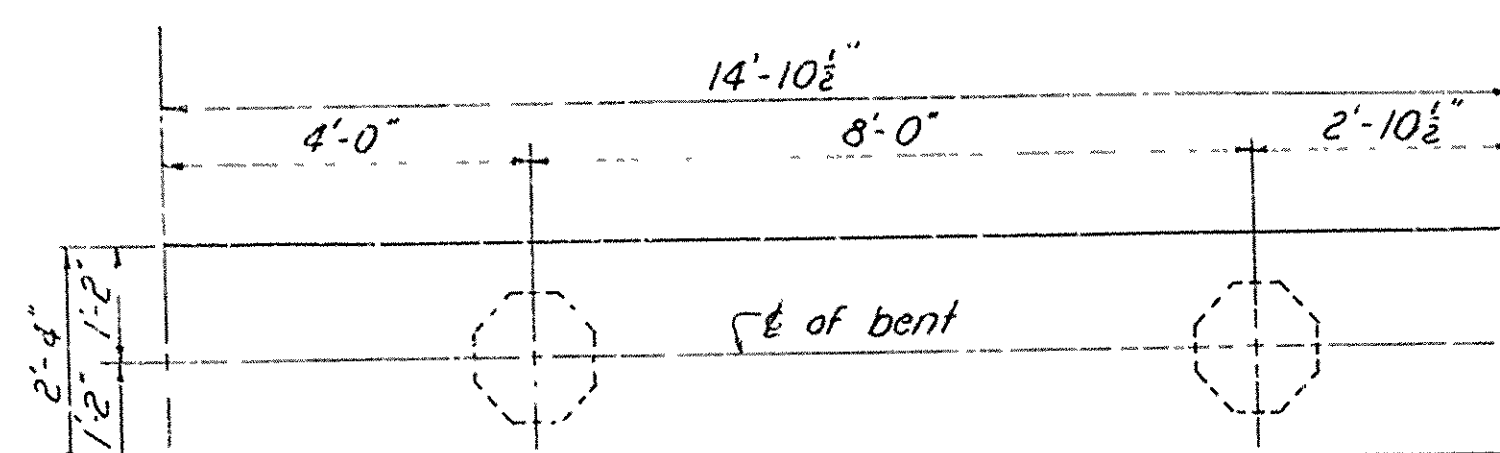
Note: See Layout for location of Expansion and Fixed Ends



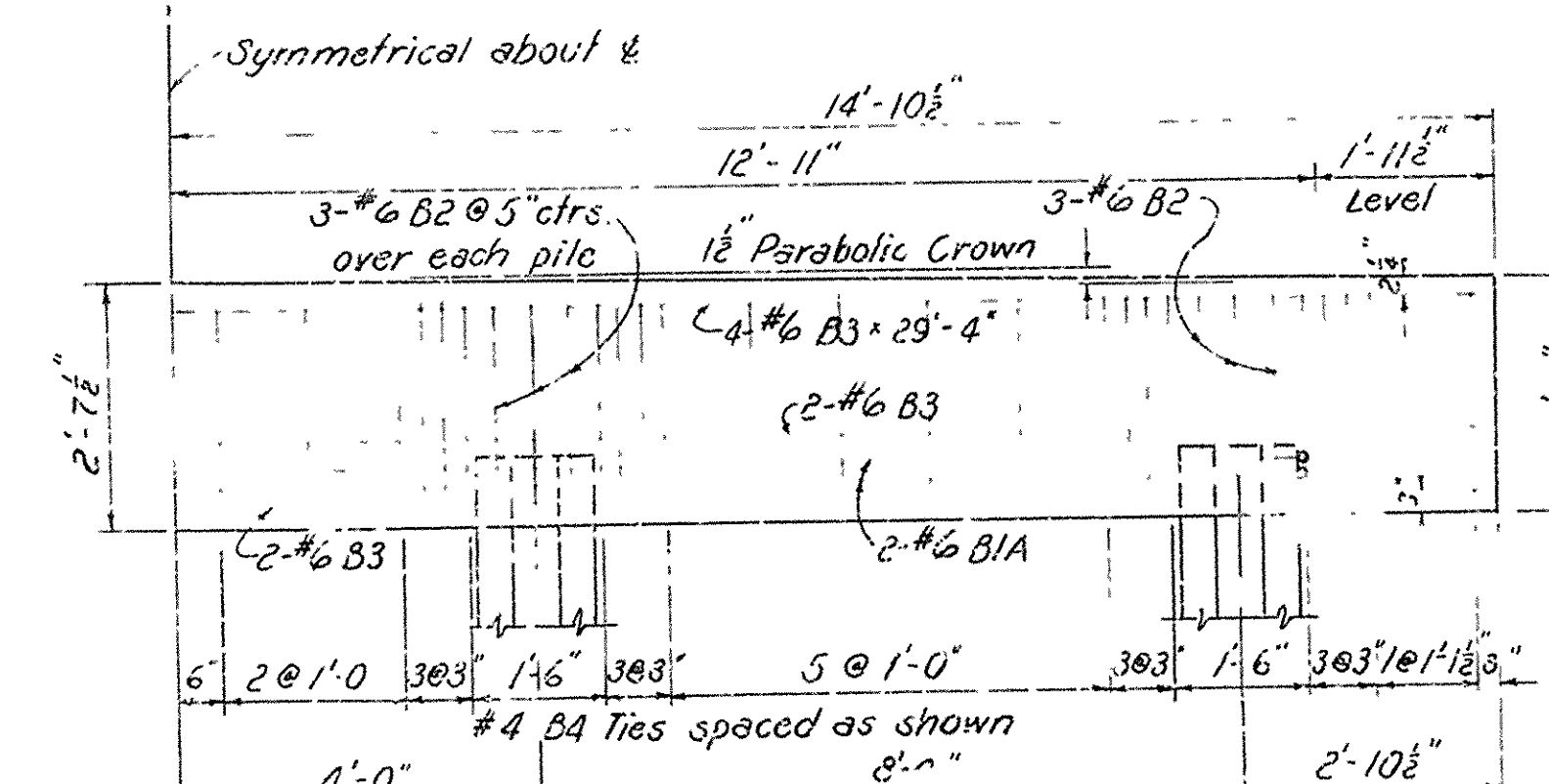
SECTION A-A

END VIEW C-C

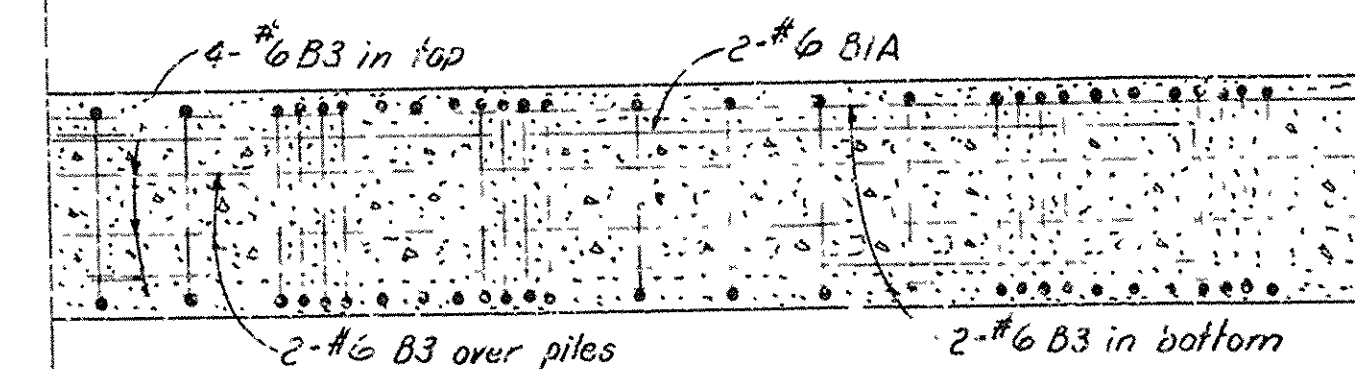
SECTION B-B



HALF PLAN OF INTERMEDIATE BENT



HALF ELEV. OF INTERMEDIATE BENT



HALF SECTION OF INTERMEDIATE BENT

BAR LIST FOR BENTS - EACH					STRAIGHT BARS				
BENT BARS					STRAIGHT BARS				
Mark	Size	No. Req'd	End Bent	Int. Bent	Length	Mark	Size	No. Req'd	Length
B1	#6	4			31'-5"	B3	#6	8	29'-4"
B1A	#6		4		29'-5"	B6	#4	12	5'-8"
B2	#6	15	12		6'-4"	B7	#4	4	2'-5"
B4	#4	52	46		8'-11"	B8	#4	4	2'-11"
B5	#4	4			3'-1"	B9	#4	8	3'-4"
						B10	#4	4	2'-2"
						B11	#4	20	2'-0"

Note: Dimensions relating to reinforcing steel are to centers of bars.

\* One slab end fixed  
x Both slab ends fixed

### GENERAL NOTES

All concrete to be Class S and shall be poured in the dry. All exposed corners to be chamfered 1/4" unless otherwise noted.

Reinforcing steel to be deformed bars of intermediate grade, unless otherwise modified by Special Provisions. Shop lists and bending diagrams are to be submitted for approval.

All piles are to be driven to a minimum capacity of 30.0 tons each. Volume occupied by embedded pile heads will not be included in the quantity of concrete in caps.

For Details of Standard 25'-0" R.C. Slab Spans, see Dwg. No. 5416.

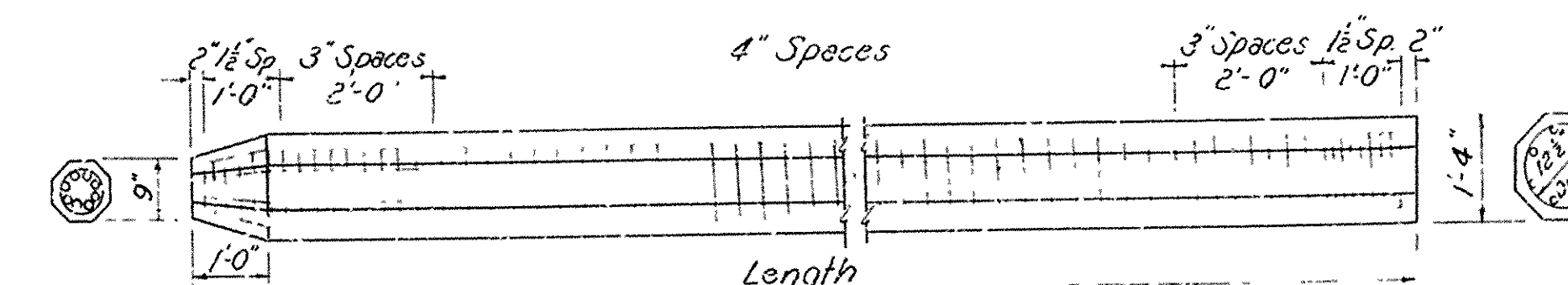
Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

DESIGN LIVE LOAD: H-20 LOADING A.A.S.H.O. 1957

DESIGN UNIT STRESSES:

Class S Concrete (n=10)  
Reinforcing Steel (Int. Grade)

1200 #/sq.  
20,000 #/sq.



Reinforcing Vertical Bars: 8-#6 for lengths up to and including 35'  
8-#7 for lengths 35' to 45'  
Lengths over 45': 8-#7 and 4-#6 in middle third of pile  
Spiral: No. 4 wire for all lengths.

### DETAILS OF 16" OCTAGONAL PRECAST CONG. PILE

(SEE DWG. 2382 FOR LATEST PILE DETAILS)

### DETAILS OF STANDARD R.C. PILE BENTS FOR 25'-0" R.C. SLAB SPANS 26'-0" CLEAR ROADWAY 1'-6" CURBS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

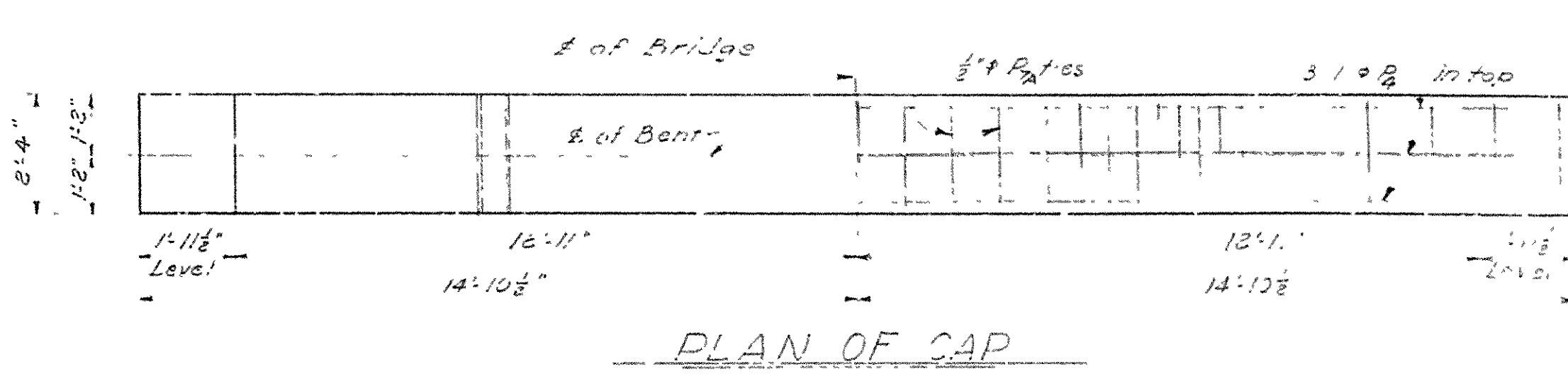
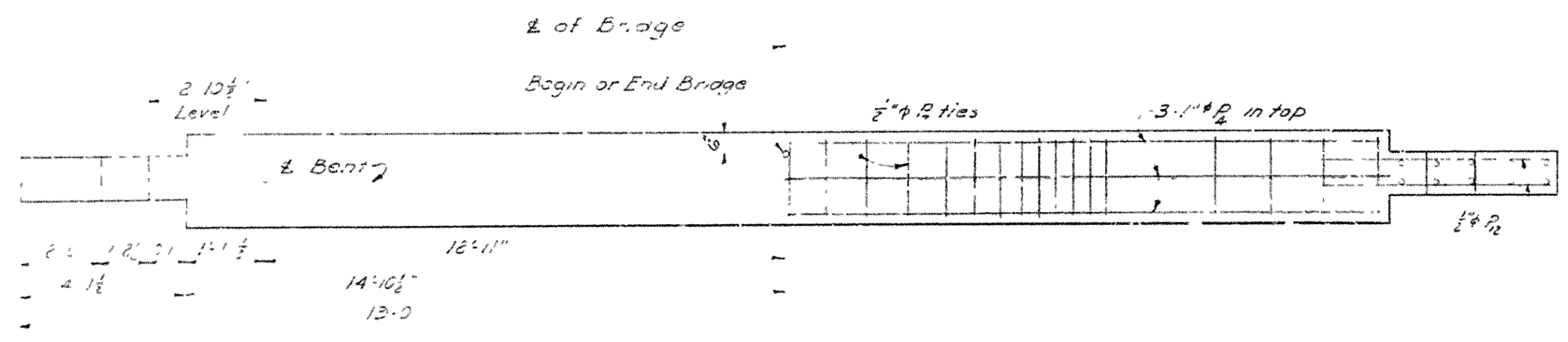
Drawn By: A.J. Date: 10-30-51  
Tracer: B.S. Date: 7-27-53  
Checked By: J.H. Date: 12-22-53

Scale: 1/2" = 1'

BRIDGE NO. DRAWING NO. 5415

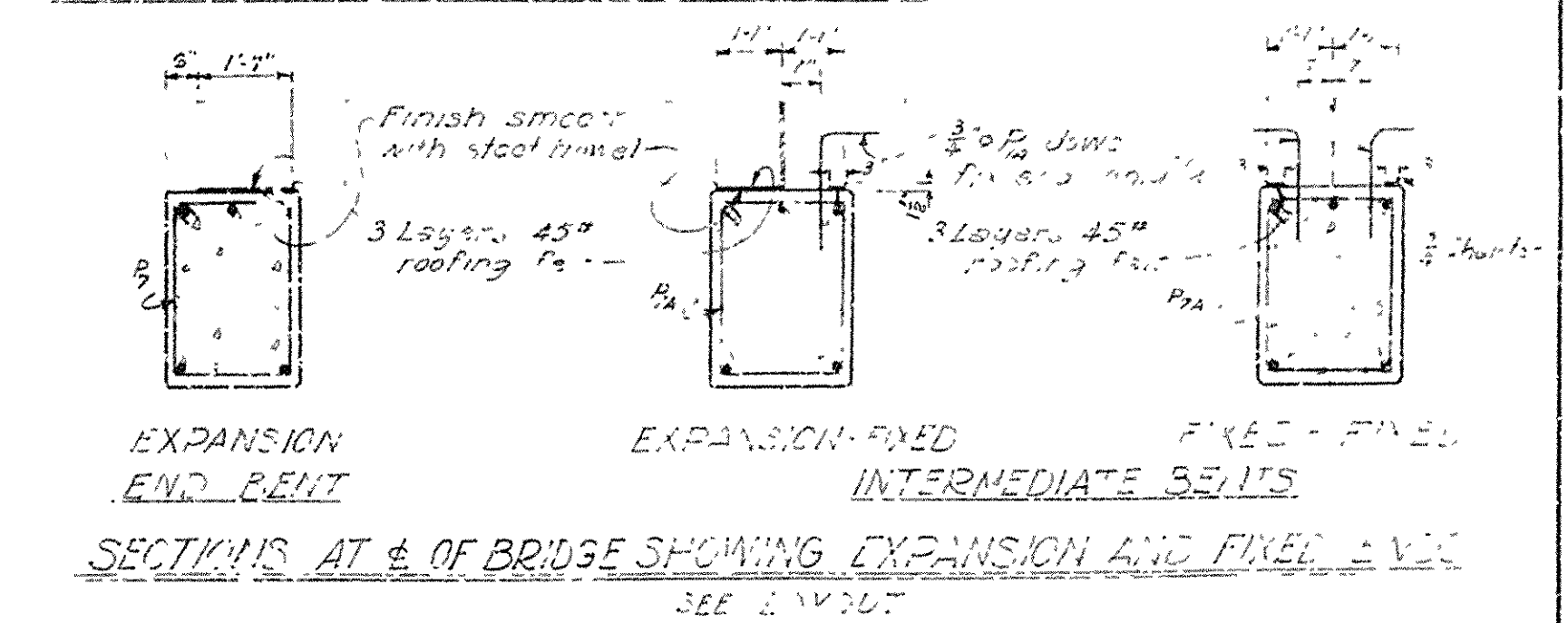
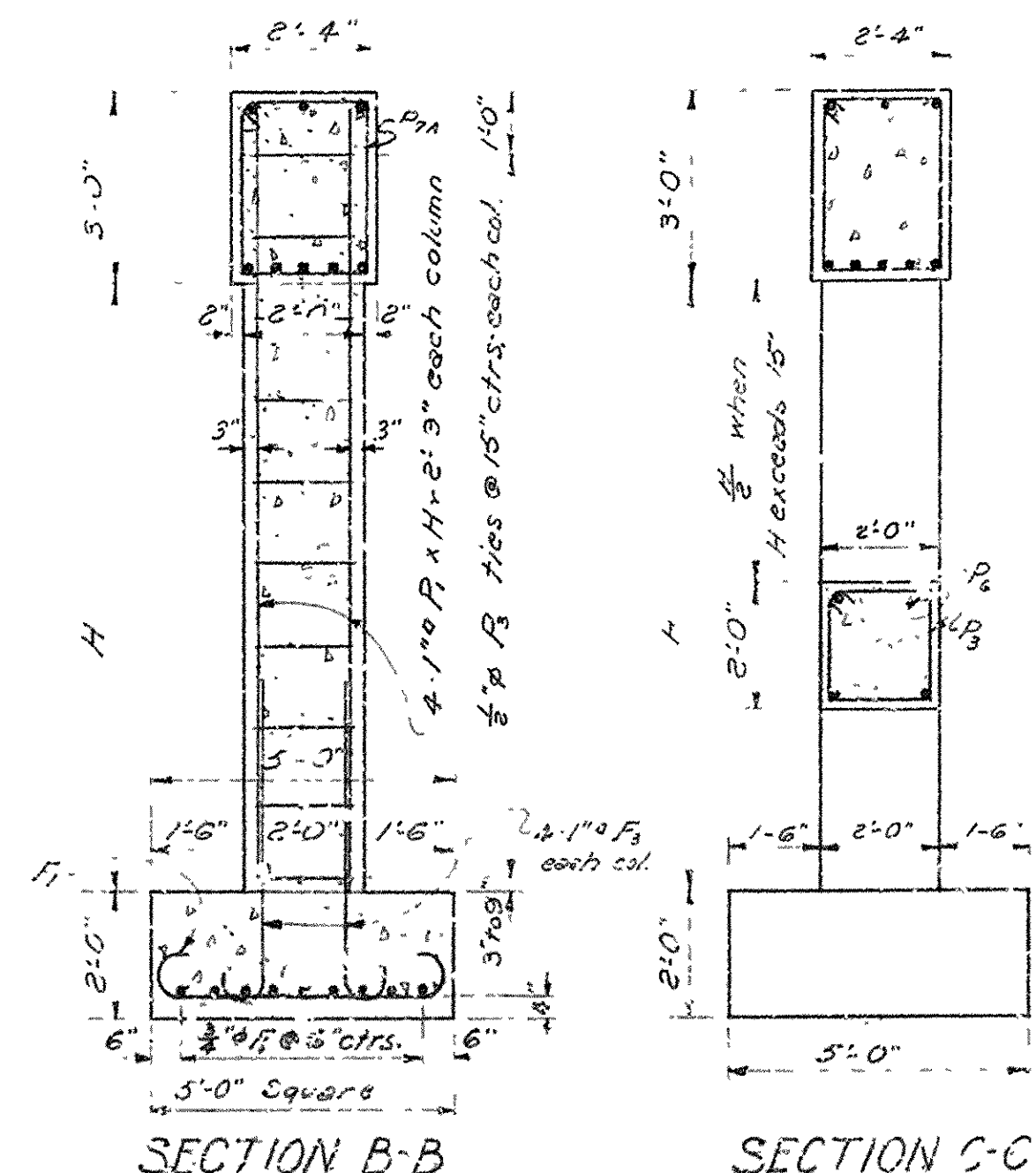
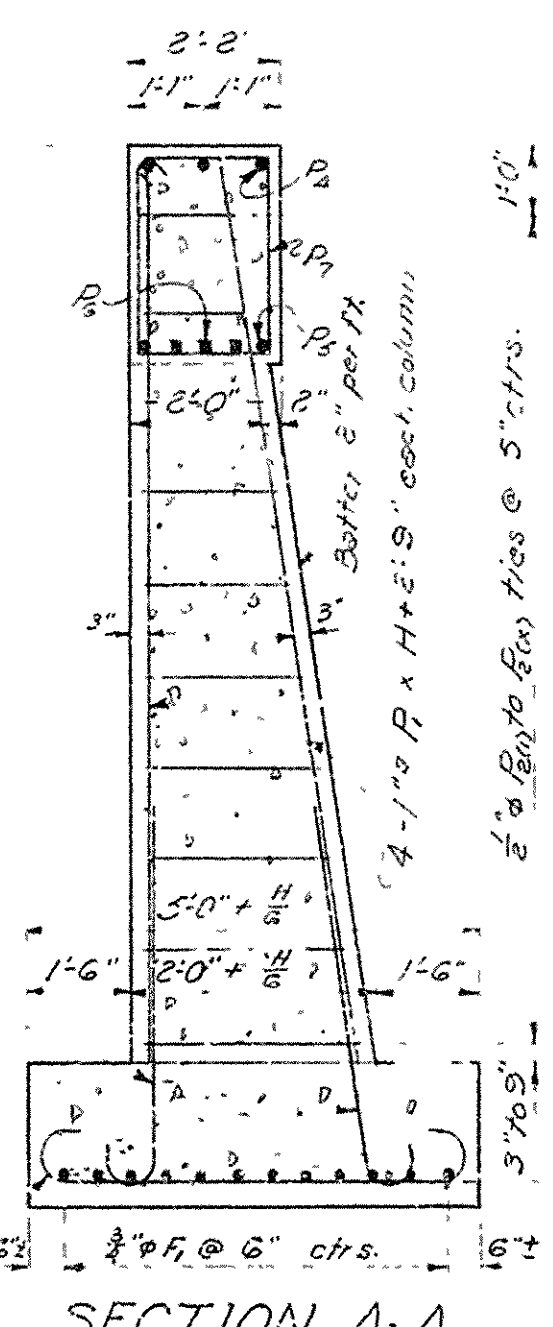
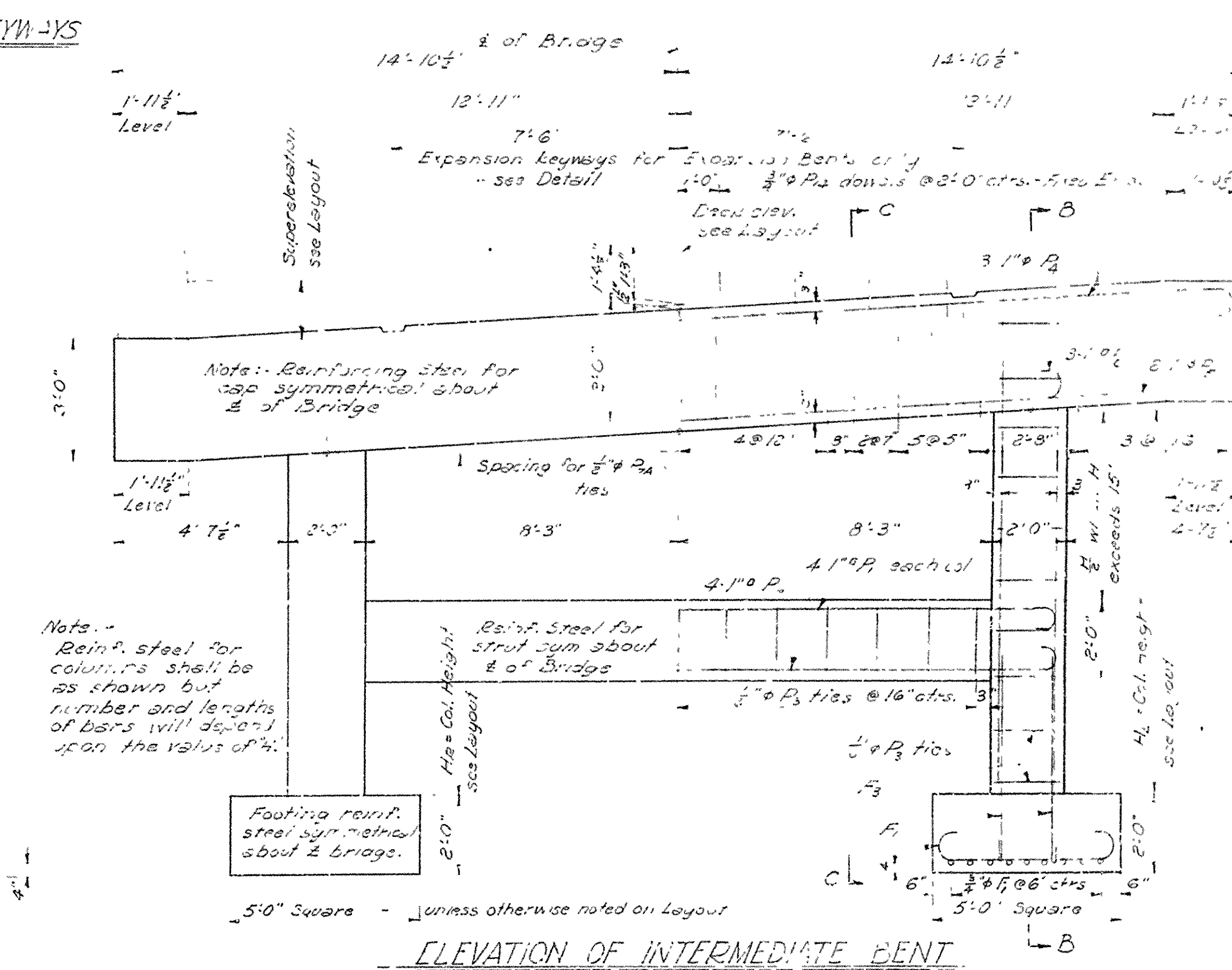
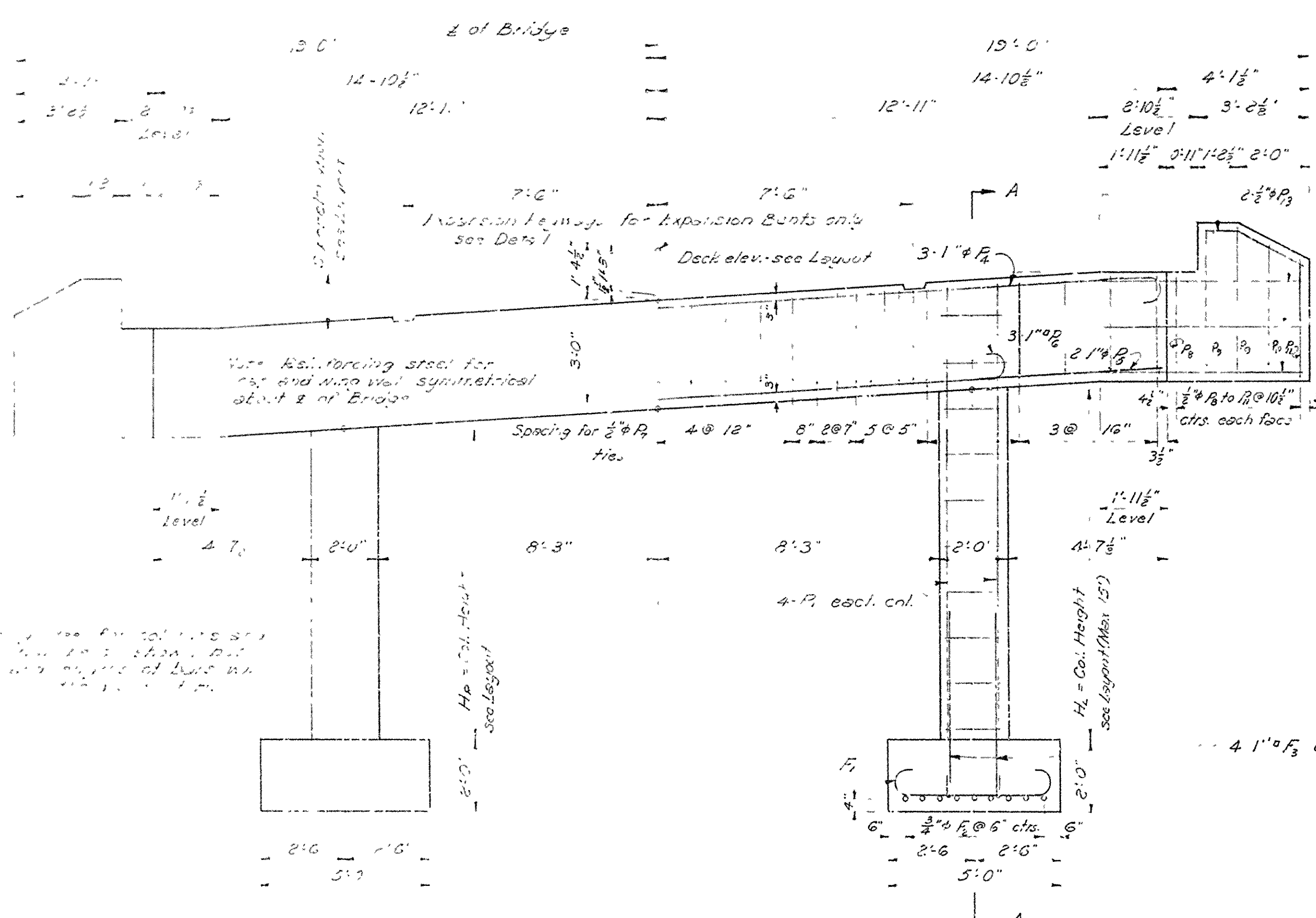
Revision: Pile Capacity Deleted 1-25-55 H.B.  
Revised Spec. Note; Added Pile Note 25 May 60 B.H.  
Changed Bar Designations from rounds to bars.

Ward Goodma  
BRIDGE DESIGN ENGINEER



DETAILS OF EXPANSION KEYWAYS

Scale: 1" = 1'-0"

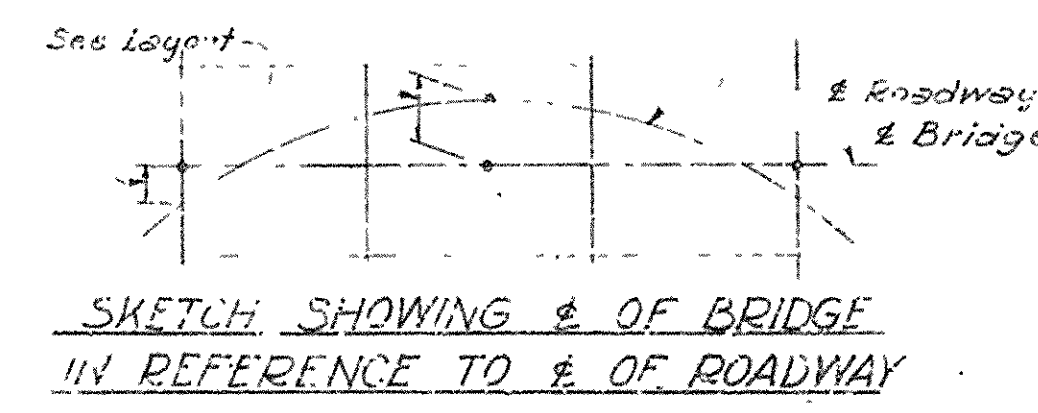


BAR LIST

MARKS FOR BENT				BENT			
MARKS FOR BENT	NO. REIN. BARS	REIN. BARS	REIN. BARS	NO. REIN. BARS	REIN. BARS	REIN. BARS	REIN. BARS
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11
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98	98	98	98	98	98	98	98
99	99	99	99	99	99	99	99
100	100	100	100	100	100	100	100

GENERAL NOTES

All concrete to be Class 'A' and shall be poured in the dry. All exposed corners to be chamfered  $\frac{3}{4}$ " unless otherwise noted. Reinforcing steel to be deformed bars of intermediate grade. Shop marks and bending diagrams shall be submitted and approved before fabrication is begun. In general all construction joints shall be horizontal and shall be provided with keys not less than 5" high covering the middle third of both dimensions. For details of 25'-0" R.C. Slab Spans see Dwg. No. 5416. Maximum foundation pressure = 3.1 tons per sq. ft. Slab to have uniform thickness of 14.9" No crown.



DETAILS OF STANDARD R.C. BENTS FOR 25'-0" R.C. SLAB SPANS - SUPERELEVATED 26'-0" CLEAR ROADWAY 2 WALKS @ 7'-6" & OF BRIDGE ON CHORD OF CURVE

ROUTE SEC.

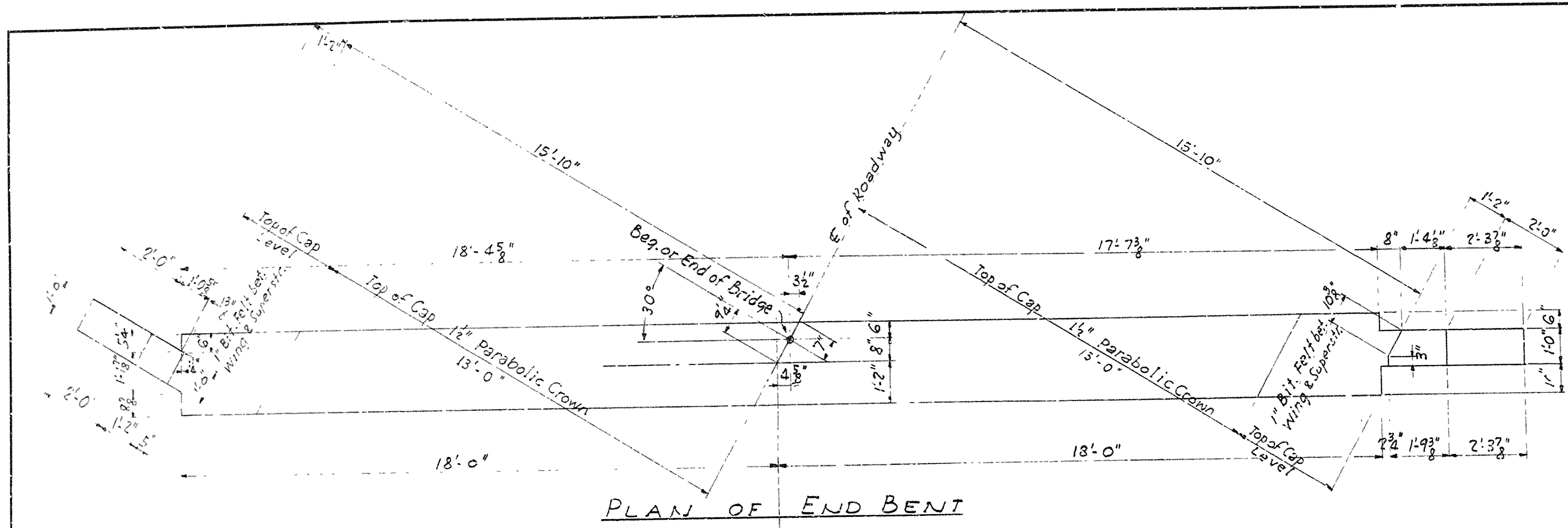
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: J.E.H. DATE: 10-30-54  
CHECKED BY: J.E.H. DATE: 10-21-54  
BRIDGE NO. 5415A  
DRAWING NO. 5415A

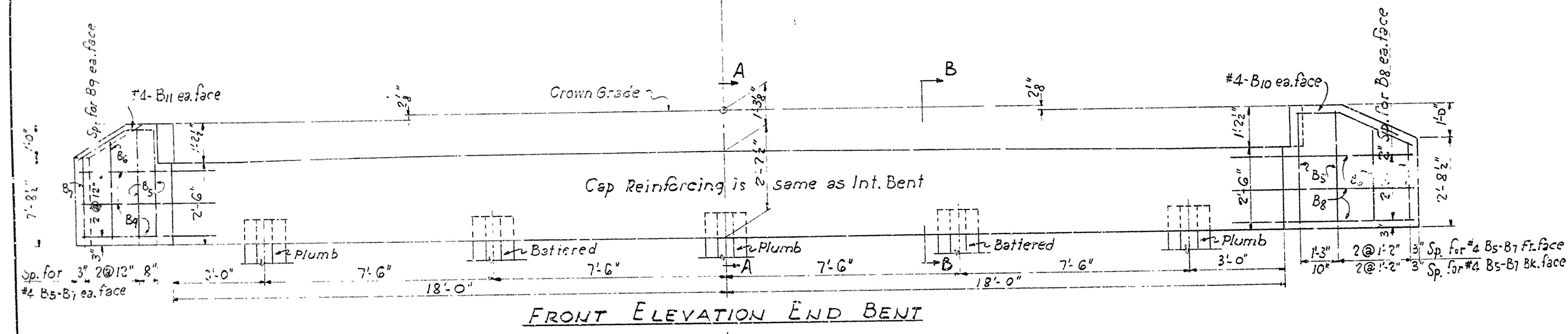
Scale:  $\frac{3}{8}$ " = 1'-0"

Except as Noted

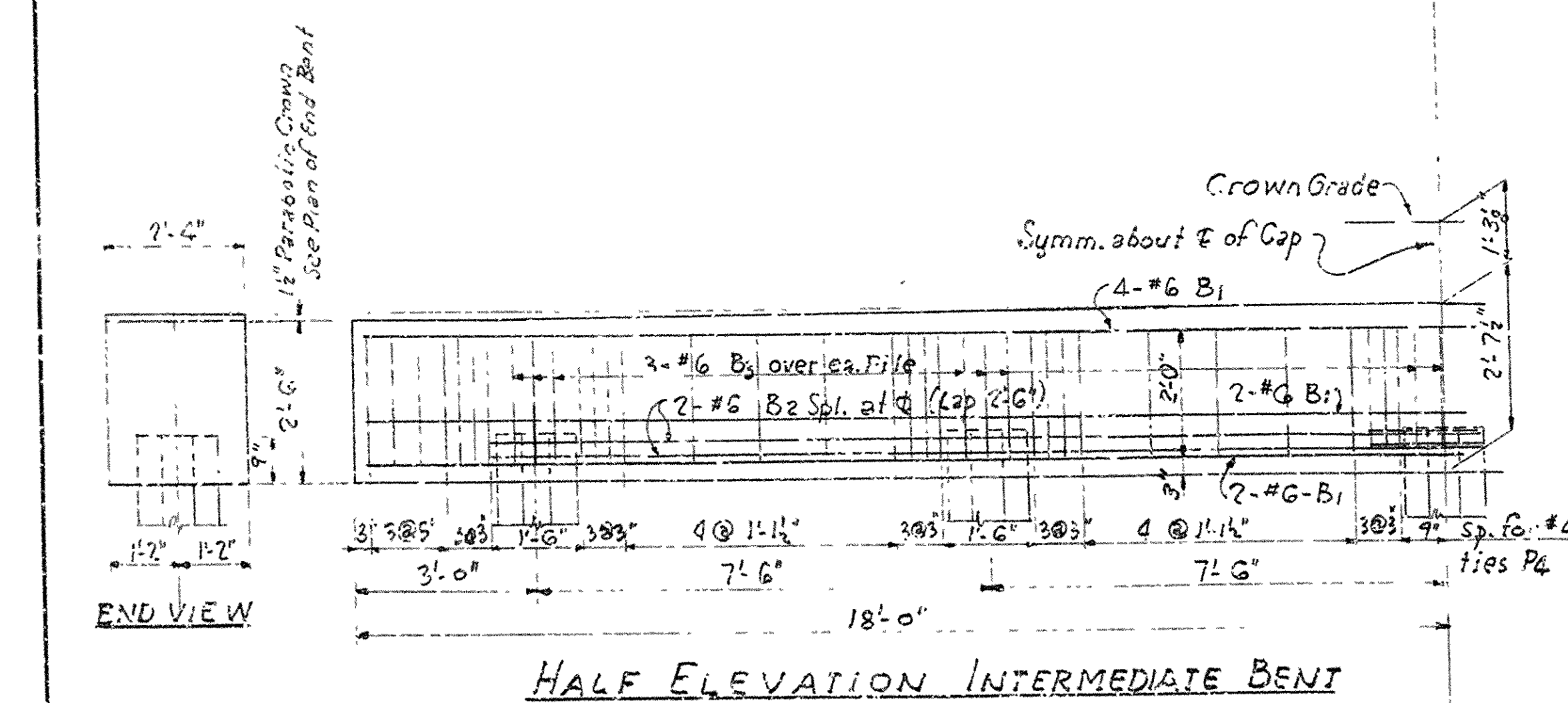




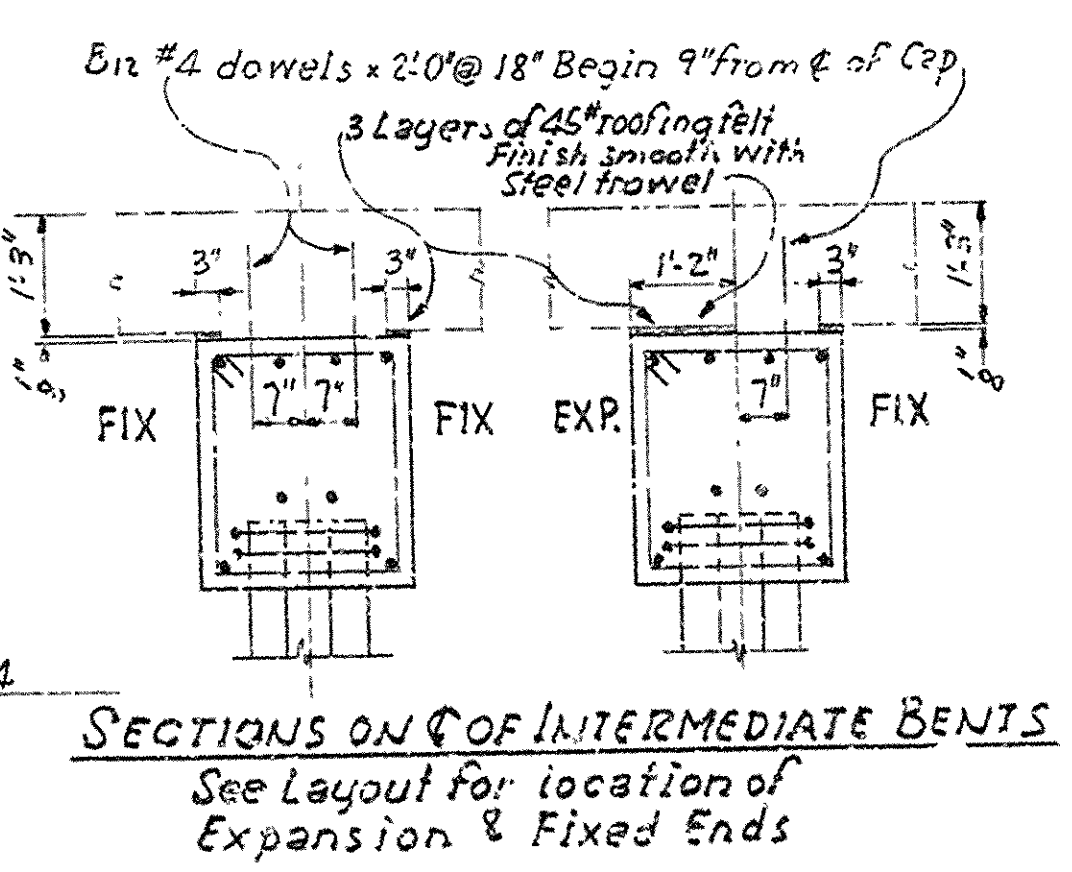
PLAN OF END BENT



FRONT ELEVATION END BENT



HALF ELEVATION INTERMEDIATE BENT

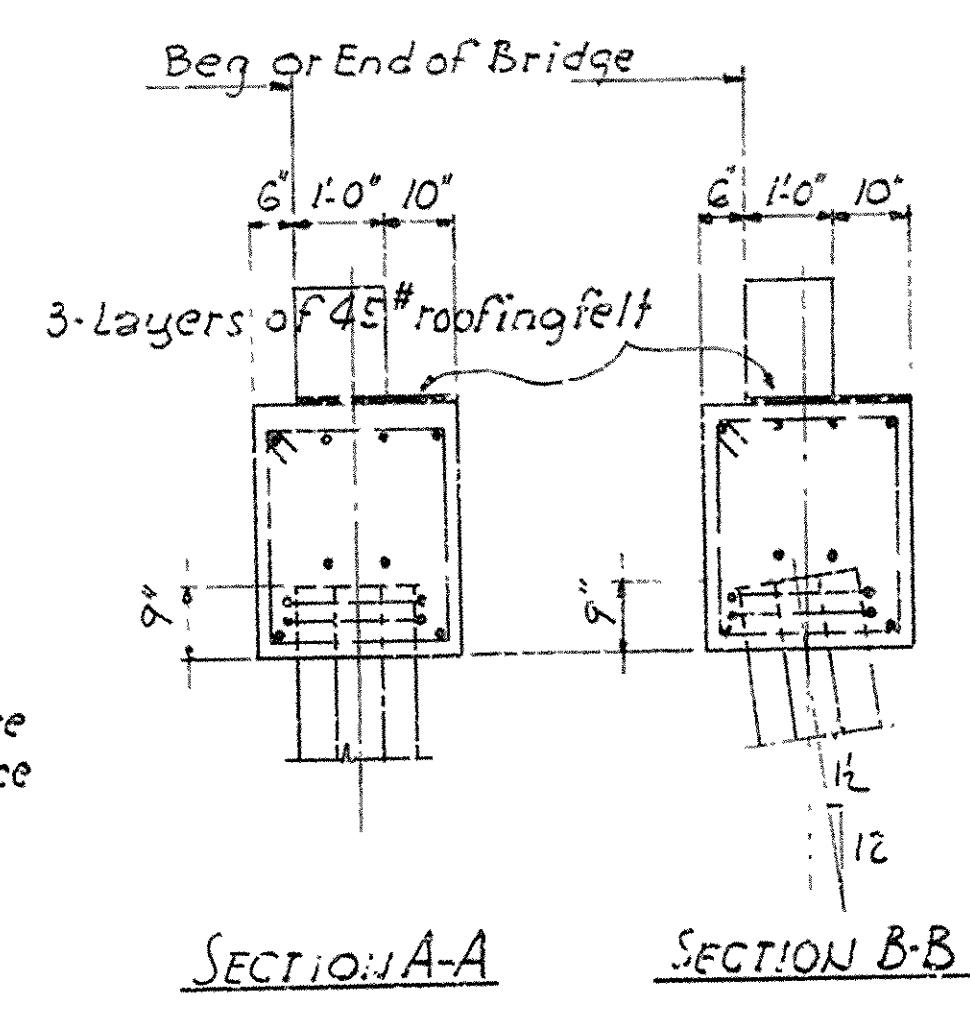


SECTIONS ON C/OF INTERMEDIATE BENTS  
See Layout for location of  
Expansion & Fixed Ends

# BAR LIST FOR ONE BENT

BENT BARS					STRAIGHT BARS					
Mark	Size	No. Req'd End Bent	No. Req'd Int. Bent	Length	Bending Diagram	Mark	Size	No. Req'd End Bent	No. Req'd Int. Bent	Length
B <sub>2</sub>	#6	4	4	35-8						

Note: Dimensions relating to reinforcing steel are to centers of bars.  
\* One Slab end Fixed  
\*\* Both slab ends Fixed



SECTION A-A SECTION B-B

**GENERAL NOTES:**

All concrete to be Class 'S' and shall be poured in the dry. All exposed corners to have 3/4" chamfer unless otherwise noted.

Reinforcing steel to be deformed bars of intermediate grade, unless modified by Special Provision. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun.

All piles are to be driven to a minimum capacity of 35 tons each. Volume occupied by embedded pile heads will not be included in the pay quantity for concrete in caps.

For details of Standard 25'-0" R.C. Slab Spans (30° Skew) See Drawgs. Nos. 5416 and 5416A.

For details of Precast Concrete Piles See Drawg. No. 2382.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1940.

DESIGN LIVE LOAD: H 20 (A.A.S.H.O. 1953 Rev.)

UNIT STRESSES:

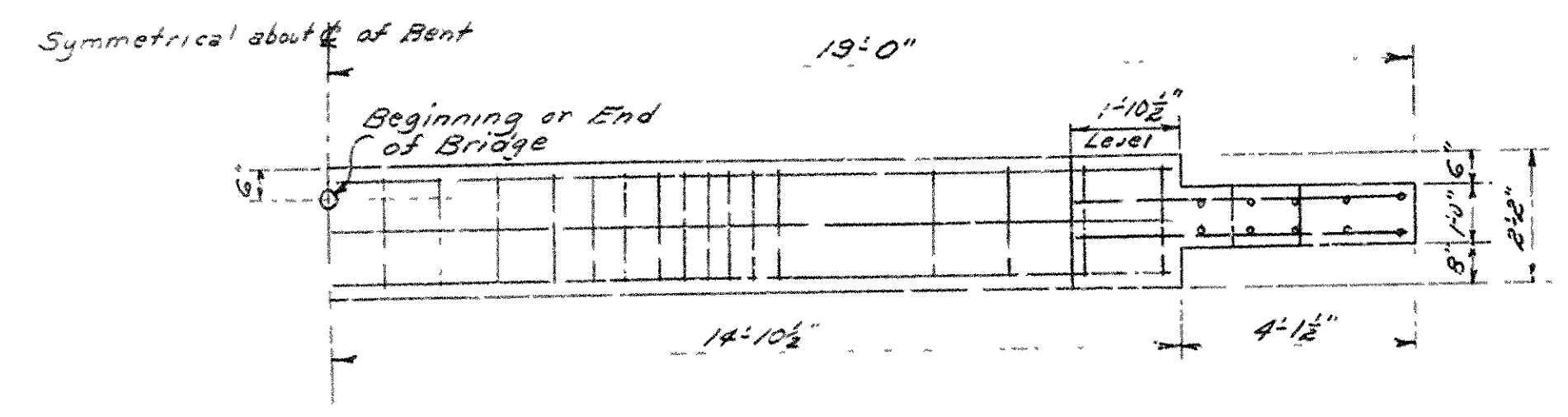
Class S Concrete (n=10) = 1200 #/sq

Reinforcing Steel = 20000 #/sq

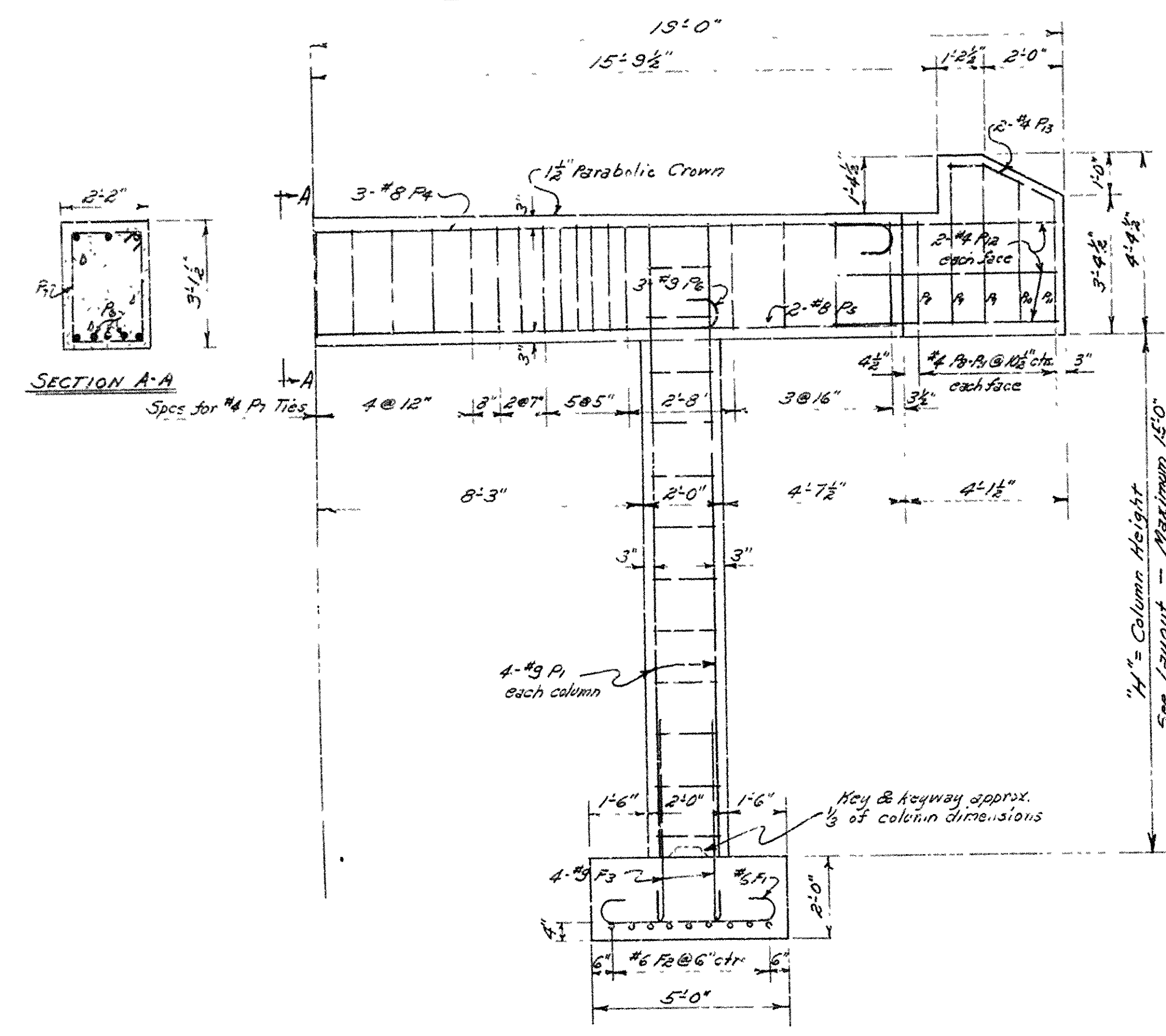
**DETAILS OF  
STANDARD R.C. PILE BENTS  
FOR 25'-0" R.C. SLAB SPANS 30° SKEW RT. FWD.  
26'-0" CLEAR ROADWAY 1'-6" CURBS**

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

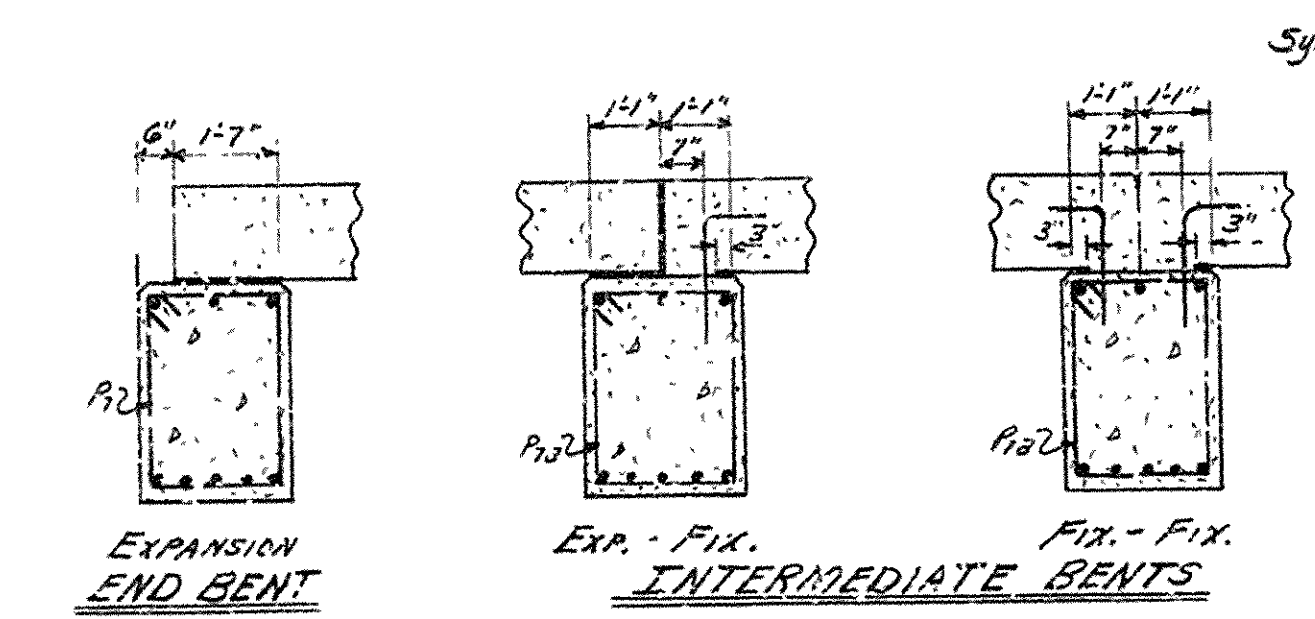
DRAWN BY: EAW DATE: 2-13-57  
TRACED BY: DATE: SCALE: 1/2" = 1'-0"  
CHECKED BY: DATE: BRIDGE NO. DRAWING NO. 5415-B



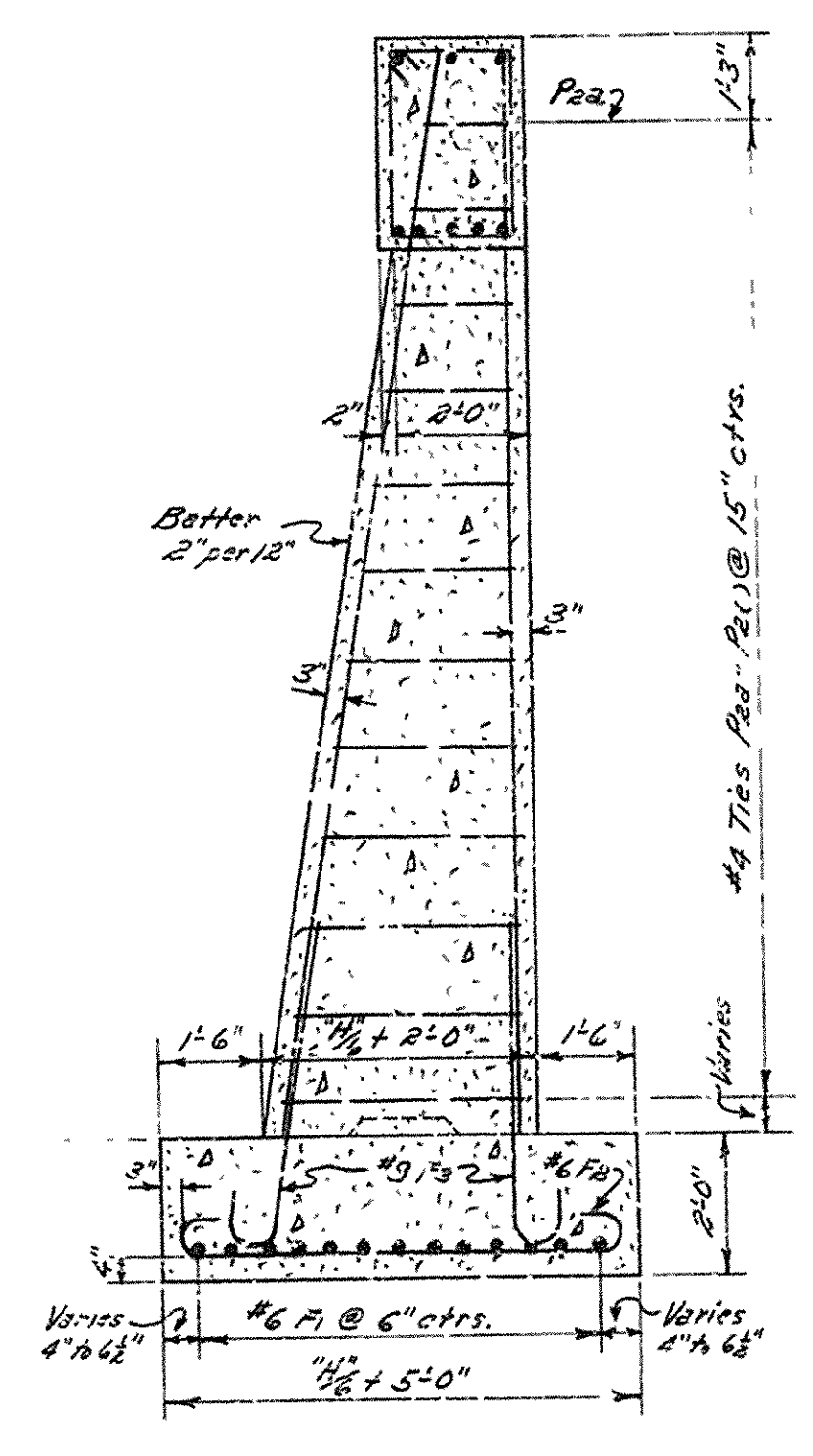
HALF PLAN OF END BENT



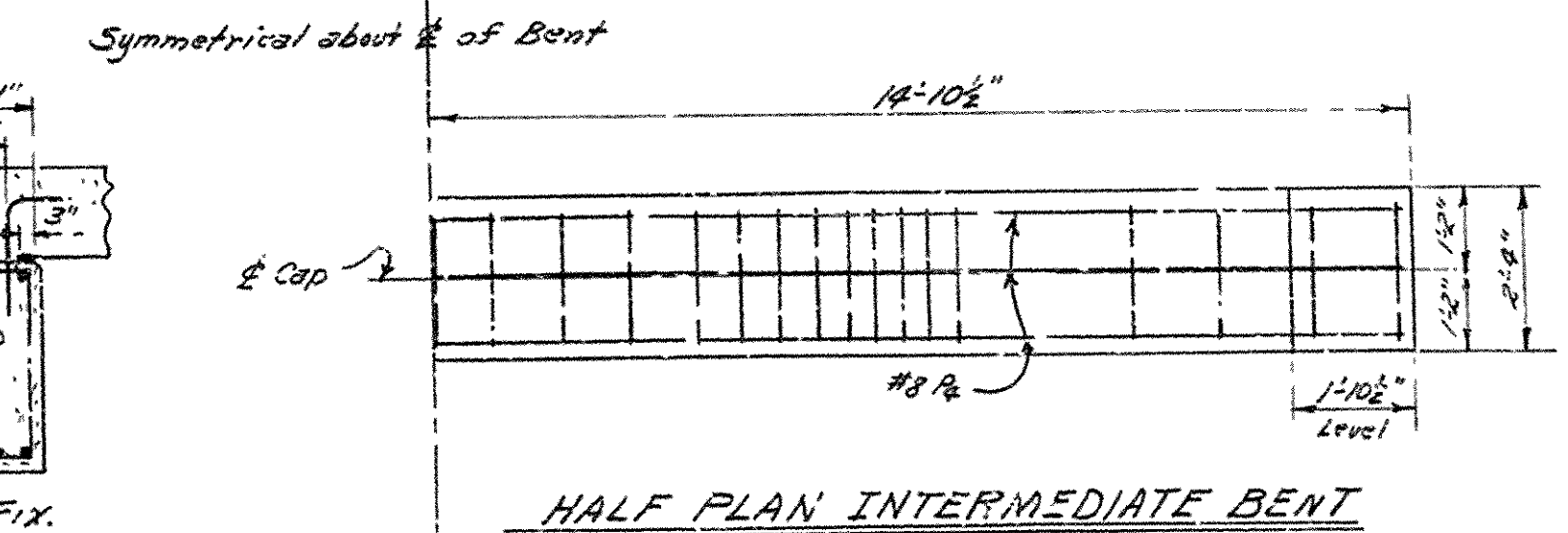
HALF ELEVATION END BENT



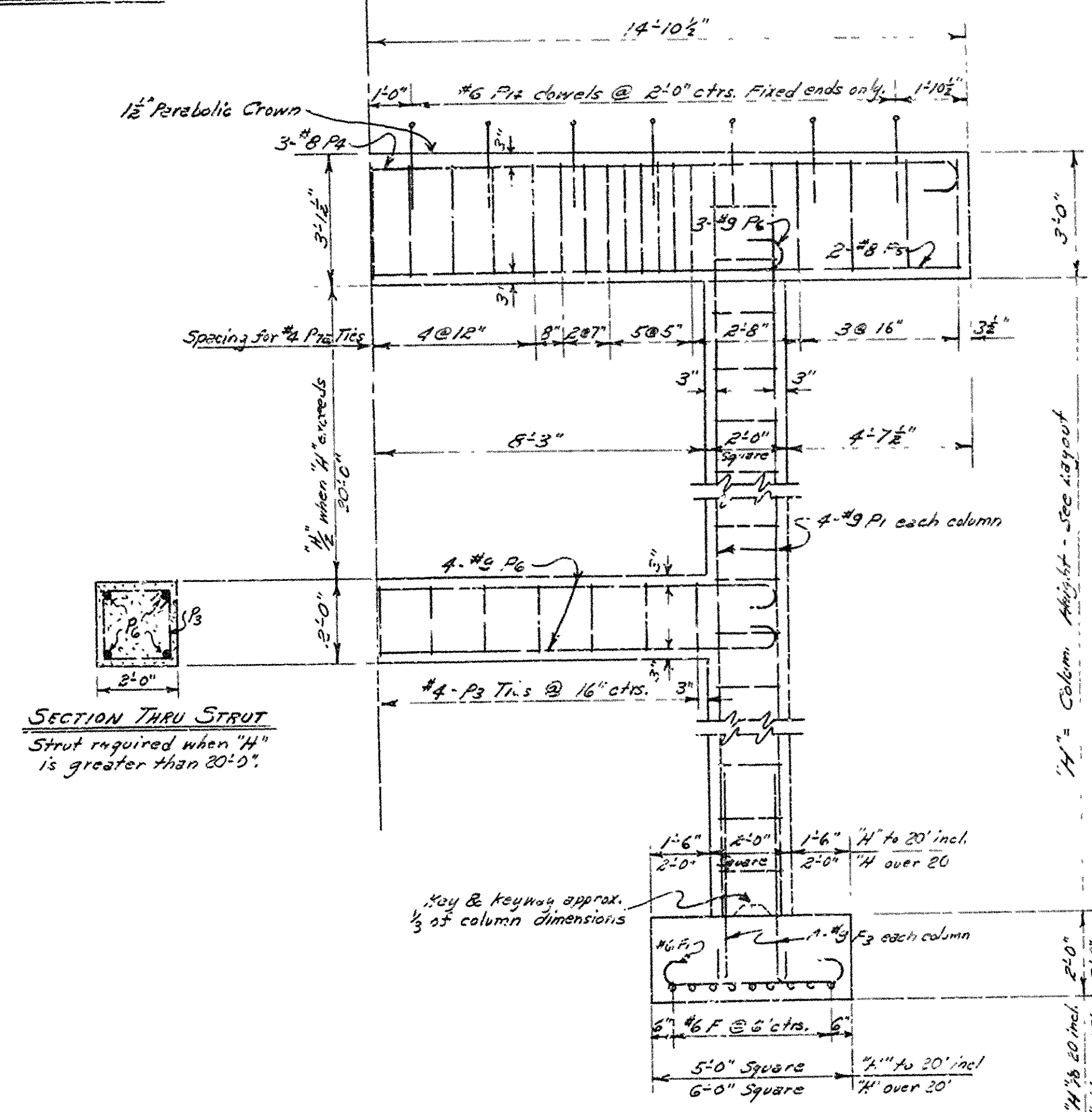
SECTIONS AT END OF BRIDGE SHOWING EXP. & FIX. ENDS  
See Layout for location.



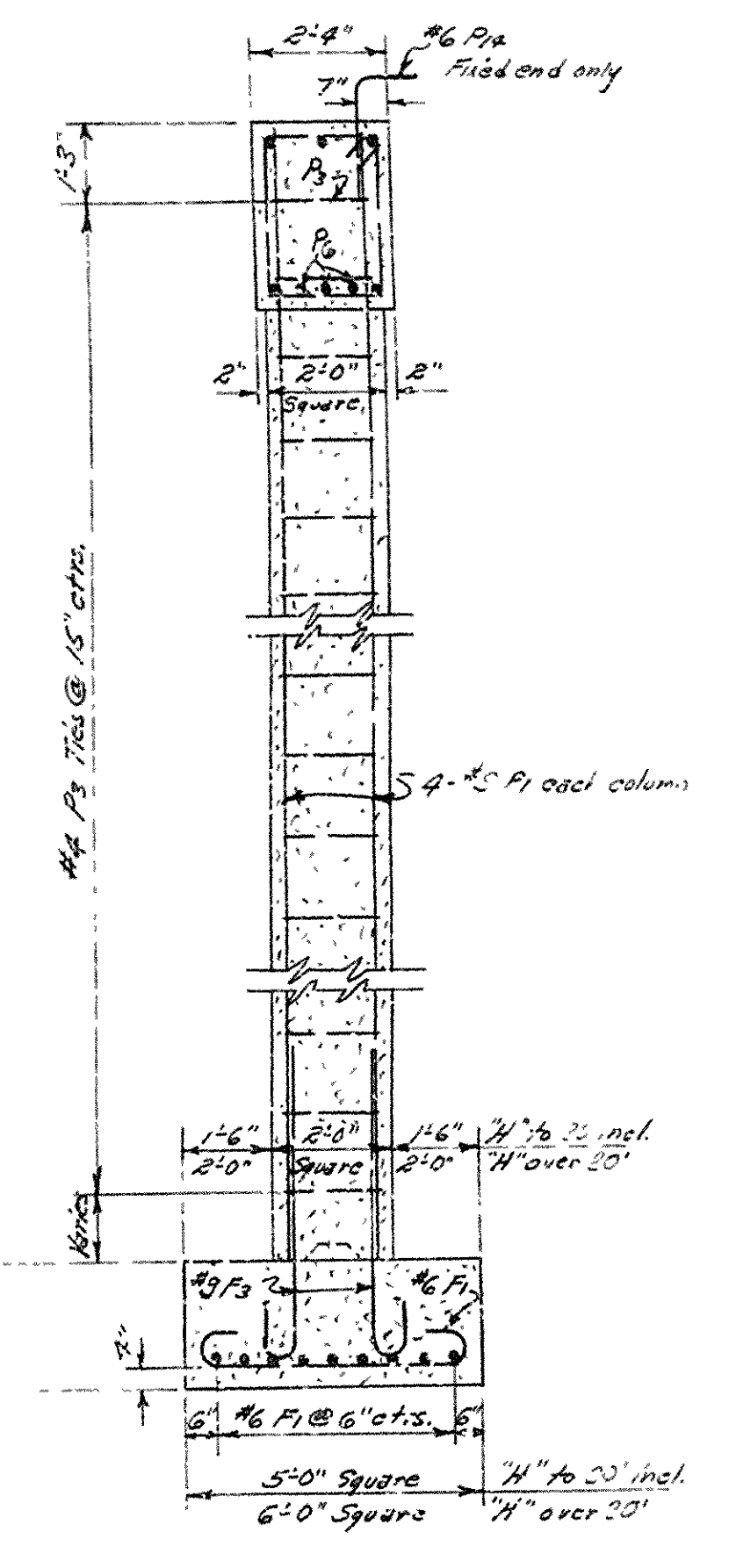
SECTION THRU COLUMN



HALF PLAN INTERMEDIATE BENT



HALF ELEVATION INTERMEDIATE BENT



SECTION THRU COLUMN

BAR LIST					
MARK	SIZE	NO. REQD.	LENGTH	PIN DIA.	BENDING DIAGRAM
P1	#8	8	4'-2 1/2"	Str.	
P2	#4	Varies	Varies from 6'-6" to 5'-5"	1/2"	
P3	#4	—	*Varies 7'-1"	1/2"	
P4	#8	3	3'-1 1/2"	8"	
P5	#8	2	2'-5 1/2"	Str.	
P6	#8	3	2'-6"	9"	
P7	#4	33	3'-5"	1/2"	
P8	#4	—	3'-9"	1/2"	
P9	#4	4	2'-8"	Str.	
P10	#4	4	3'-7"	Str.	
P11	#4	4	3'-1"	Str.	
P12	#4	12	5'-8"	Str.	
P13	#4	4	3'-3"	3"	
P14	#4	—	*14 or 28	4 1/2"	
F1	#6	Varies	Varies	4 1/2"	
F2	#6	18	5'-11" + 1/2"	4 1/2"	
F3	#7	8	6'-4"	3"	

\*Add 1'-0" for 5'-0" Sq. Footings.

NOTES

All concrete in columns, footings & struts to be Class A. All other concrete to be Class S.  
All exposed corners to be chamfered 3/8" inch.  
For details of superstructure see Univ. No. 5415.  
For general notes see Univ. No. 5416.

LOADING: H 20 A.A.S.H.O. 1953  
Stresses: Class A Concrete (f<sub>c</sub> = 15) 840 #/sq. in.  
Class S Concrete (f<sub>c</sub> = 10) 1200 #/sq. in.  
Reinforcing Steel 20,000 #/sq. in.  
Maximum Foundation Pressure (no wind) = 6000 #/sq. ft.

Rev. 7-27-60 column height limit as E.R.B.

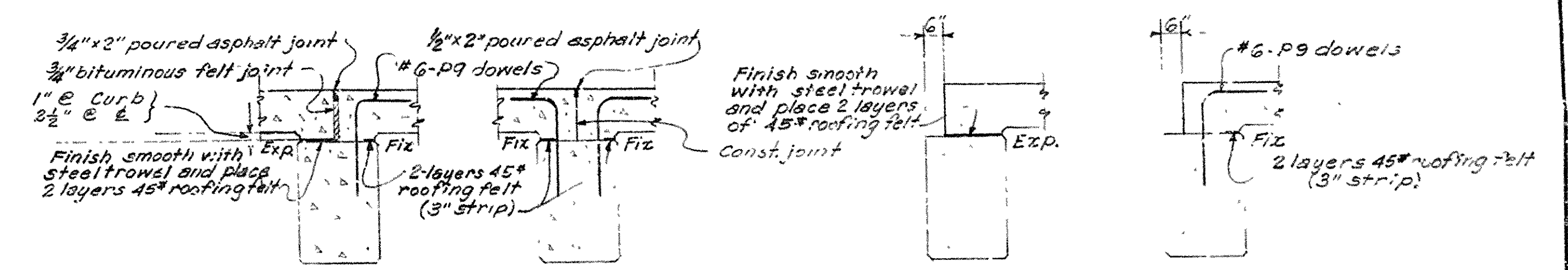
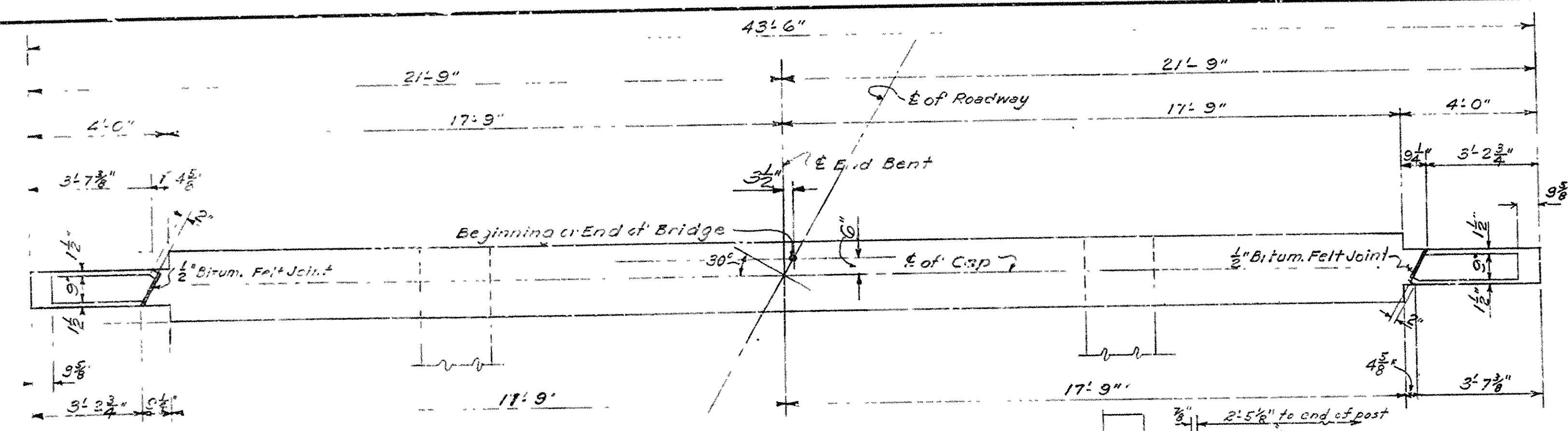
DETAILS OF STANDARD R.C. BENTS  
FOR 25'-0" R.C. SLAB SPANS  
26'-0" CLEAR ROADWAY 1'-6" CURBS  
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: R.M. DATE: 4-2-57  
TRACED BY: DATE: 3-8-57  
CHECKED BY: J.E.M. DATE: 5-1-57  
BRIDGE NO. SCALE: 3/8" = 1'-0"  
DRAWING NO. 5415-C

L.P. Carlson  
BRIDGE DESIGN ENGINEER



STATE JOB NO. \_\_\_\_\_  
PROJECT NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
BRIDGE NO. \_\_\_\_\_



PLAN OF END BENT

REINFORCING STEEL

MARK	SIZE	NUMBER		LENGTH	BENDING DIAGRAM	
		END BT.	INT. BT.		A	B
F1	#9	8	8	6'-3"	5'-0"	0'-10"
F2	#6	Varies	Varies	5'-11"	4'-6"	0'-6"
F3	#6	18	-	Varies	Varies	0'-6"
P1	#9	3	8	Varies	Straight	
P2	#4	-	Varies	7'-1"	1'-7 1/2"	1'-7 1/2"
P2a to P2-	#4	Varies	-	Varies	1'-3 1/2"	1'-7 1/2"
P3	#10	8	8	35'-2"	Straight	
P4	#4	37	37	9'-1"	2'-7 1/2"	1'-7 1/2"
P5	#4	12	-	5'-8"	Straight	
P6	#4	4	-	3'-0"	Straight	
P7	#4	4	-	3'-4"	Straight	
P8	#4	16	-	4'-10"	Straight	
P9	#6	***	***	3'-0"	2'-5 1/2"	1'-3 1/2"
**P10	#8	-	4	22'-9"	20'-6"	0'-9"
P05	#5	12	-	4'-3"	Straight	
P06	#3	6	-	6'-4"	See Diagram	

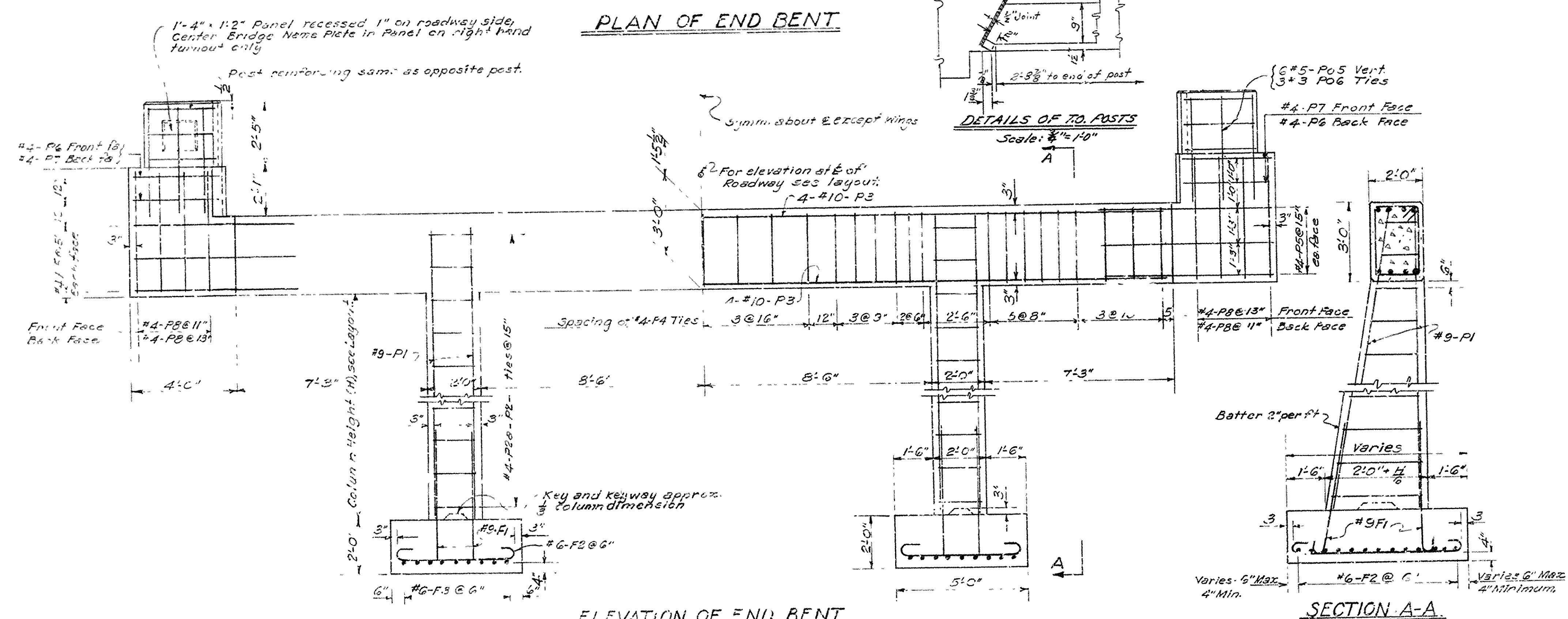
NOTES:  
\*For 5'-0" footing. Increase 1'-0" for 6'-0" footing.  
\*\*Required for strut only.  
\*\*\*23 for fix. exp. bents. 26 for fix-fix bents.

For General Notes and details of slab see Drwgs. No. 5416 & 5416A.  
All concrete in columns, footings and struts to be Class A concrete. All other concrete to be Class S concrete. All exposed corners to have 3/4" chamfer unless otherwise noted.

Loading: H20 (A.A.S.H.O. 1953)  
Stresses:  
Class A Concrete (n=15) 3400 psi  
Class S Concrete (n=10) 1200 psi  
Reinforcing steel 20,000 psi

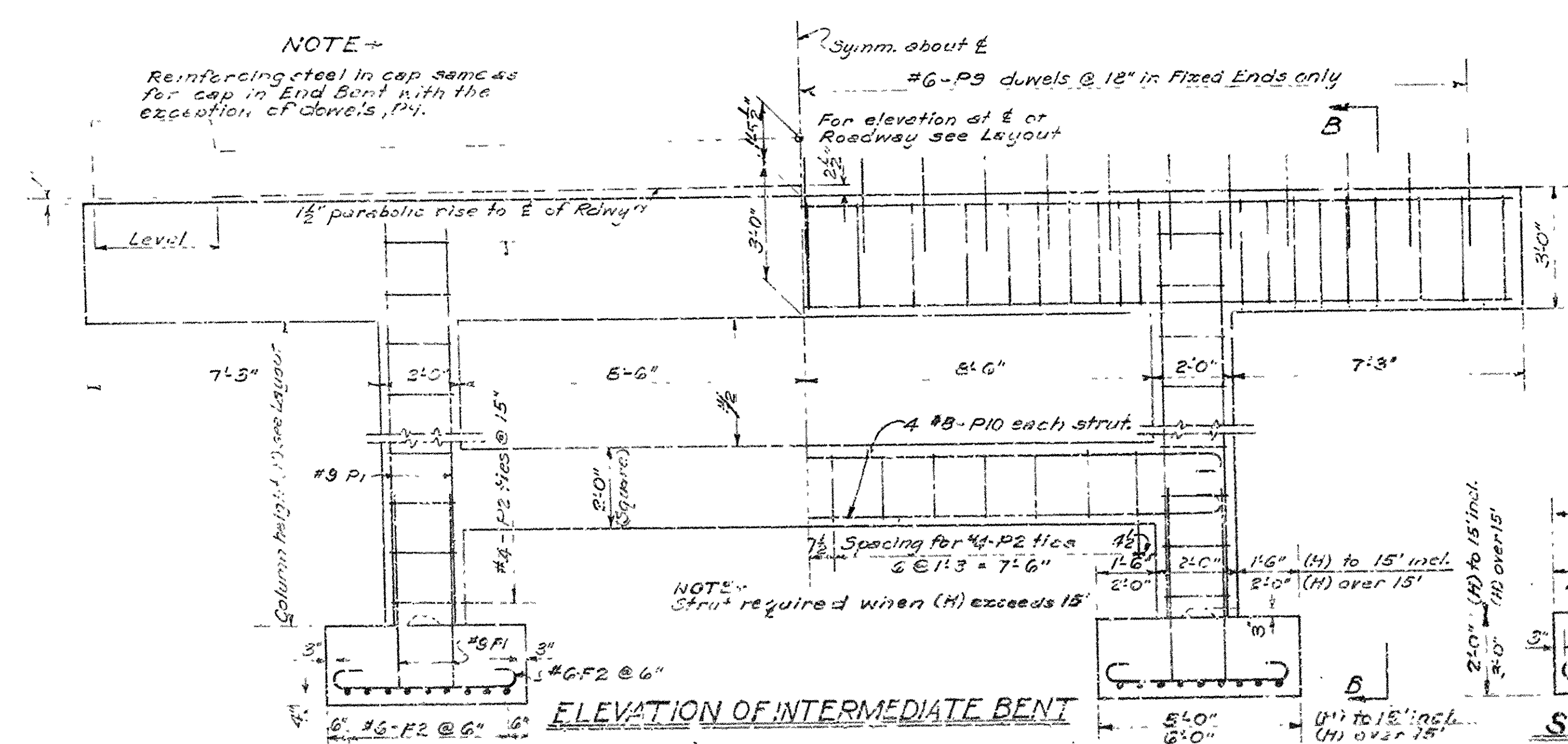
DETAILS OF STANDARD R.C. BENTS  
25'-28' R.C. SLAB SPAN  
26'-0" CLEAR RDWY. 1'-6" CURBS  
30° SKEW RIGHT FORWARD

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: W.E.W. DATE: 5-21-57  
CHECKED BY: J.E.M. DATE: 6-1-57  
BRIDGE NO. \_\_\_\_\_ DRAWING NO. 5415 D



ELEVATION OF END BENT

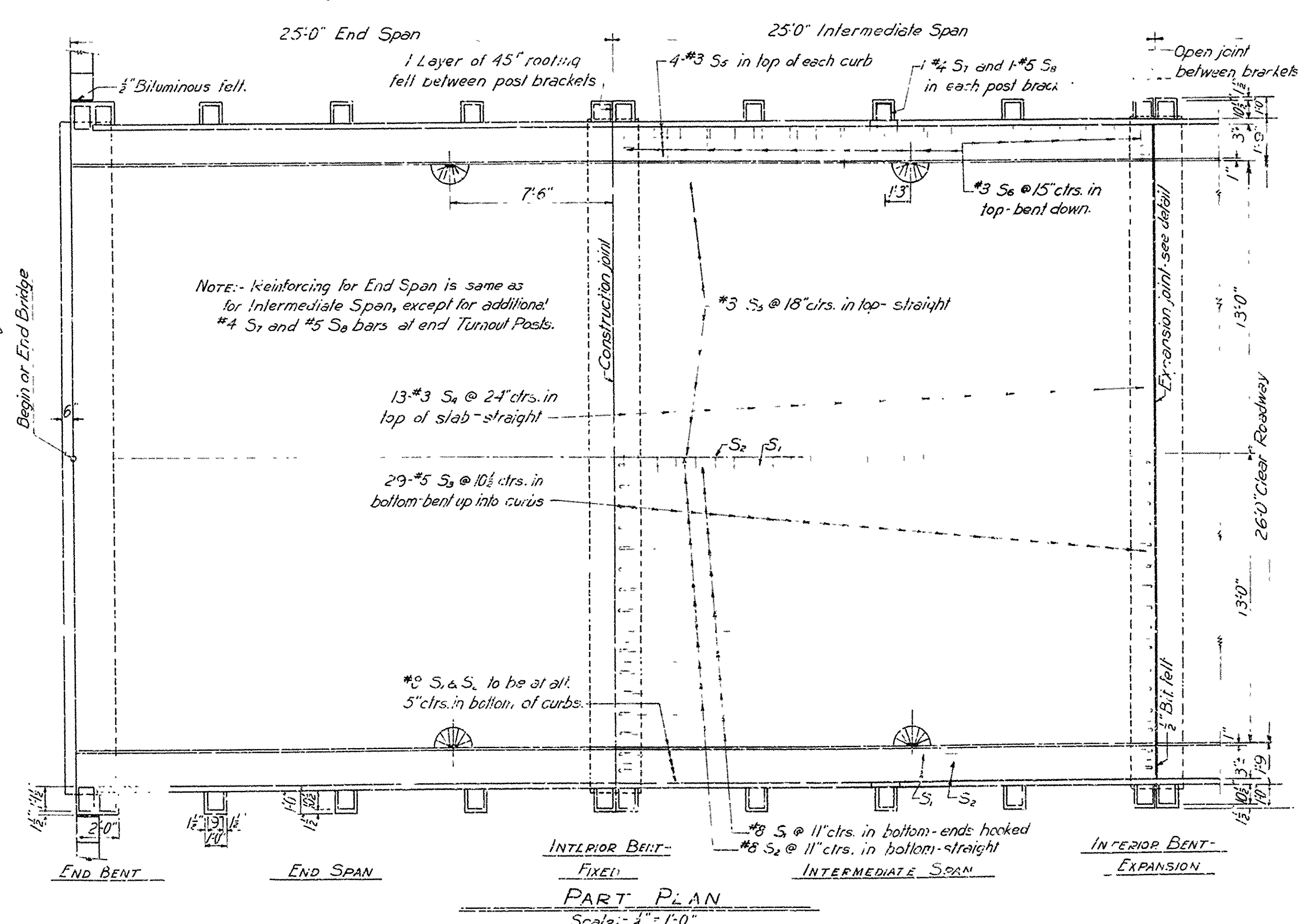
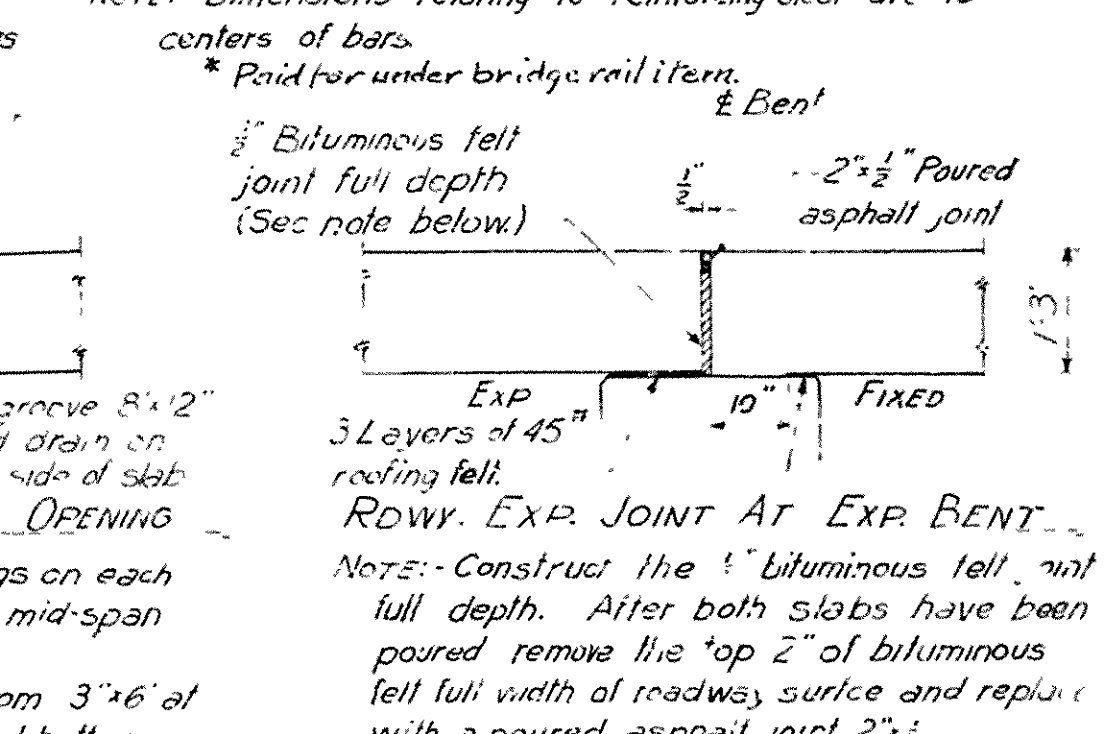
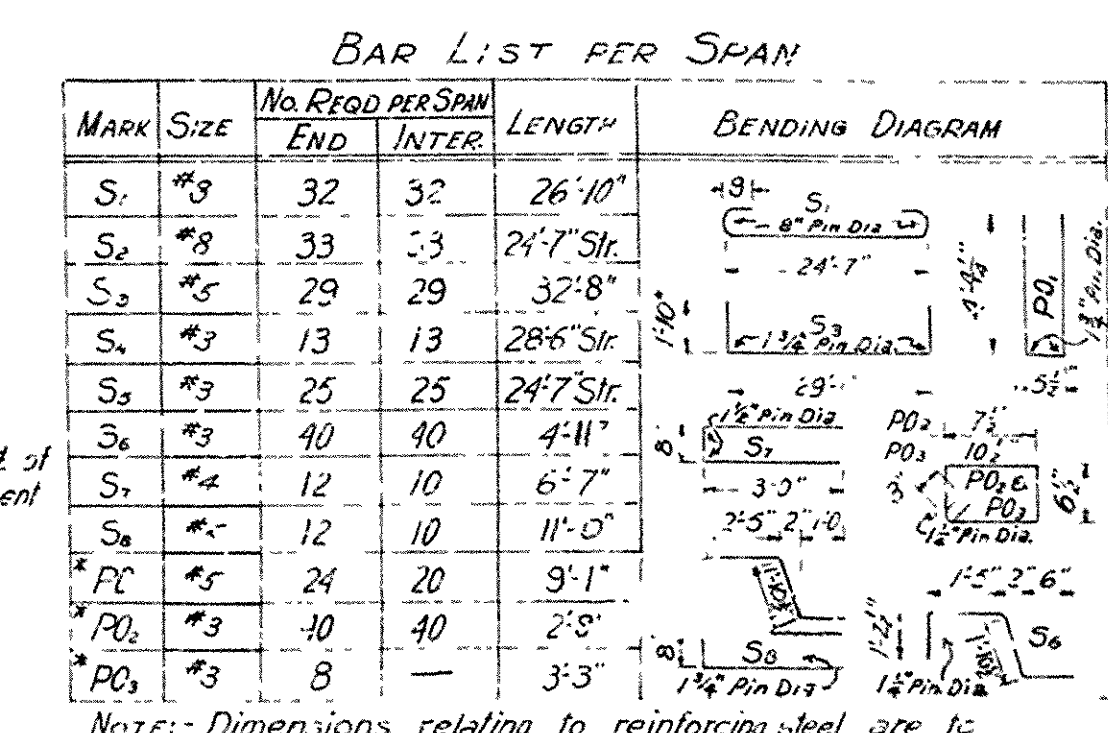
SECTION A-A



ELEVATION OF INTERMEDIATE BENT

SECTION B-B





GENERAL NOTES

All concrete to be Class 'S'. All exposed corners to be chamfered  $\frac{3}{4}$ " unless otherwise noted.

Reinforcing steel to be deformed bars of intermediate grade, unless modified by Special Provisions. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun.

All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire supports of sufficient size and number to prevent misplacement during the course of construction, and to keep the steel a proper distance from the forms. Wire supports will not be paid for directly, but will be considered subsidiary in the item of "Reinforcing Steel." Shop lists and diagrams must be submitted for approval.

Payment for roofing felt, bituminous felt, and poured asphalt joints to be included in the price bid for Class S Concrete.

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

Shop Paint:- The steel plate guard rail shall be painted in accordance with Section 809 of the Specifications before shipment.

Field Paint:- 1st Coat, red lead linseed with lamp black; 2nd Coat Aluminum paint (for steel plate guard only)

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

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

DESIGN LIVE LOAD-H-20 LOADING A.A.S.H.O. 1957

Load distribution to slab:- Dead Load = 195 "lb"  
Live Load = 2175 "lb/feet/ft with 30 "lb Impact

UNIT STRESSES:- Class 'S' Concrete (f<sub>c</sub>) = 1200 "lb/in<sup>2</sup>  
Reinforcing Steel (f<sub>t</sub>) = 20,000 "lb/in<sup>2</sup>

DETAILS - STANDARD  
25'-0" R.C. SLAB SPANS  
26'-0" CLEAR ROADWAY      2 WALKS @ 1'-6"

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
Drawn By: W.C.H. Date: 10-30-51  
Traced By: J.E.H. Date: 4-12-52  
Checked By: J.H.H. Date: 11-9-52  
Scale:  $\frac{1}{2}$  in. = 1 ft.  
EXCEPT AS NOTED  
BRIDGE NO. 11-25-52 DRAINING NO. 5416

Revised Curb Width 1-15-57 E.R.B  
Revised Bar Designation 5-14-57 R.H.M.  
Revised Rail Notes & Spec. Ref. 25 May 60 C.H.H.  
Revised Curb Height 5-13-61 LK