

KENTUCKY DEPARTMENT OF HIGHWAYS

OHIO COUNTY

BOWLING GREEN-OWENSBORO PKWY.

W.K.P. OVER B.O.P.

CONSTRUCTION REVISION No. 2

DESCRIPTION: Change location of Working Points on Layout
Change Elevation and Columns on Abut 1E
SUBMITTED BY: *Hubert Rosche Engineers, Inc.* DATE: *Mar 14, 1971*
RECOMMENDED BY: *Michael J. Conally* DATE: *5-17-71*
RECOMMENDED BY: *Brighton Engineering* DATE: *5-18-71*
APPROVED BY: *John H. Williams* DATE: *5-21-71*
ASST. STATE HIGHWAY ENGINEER-CONSTRUCTION

* BILL OF INCIDENTAL MATERIAL

ITEM	NO.	SIZE & LOCATION
Preformed Jt. Sealer	2	2 1/2" x 2 1/2" x 47' 0" For 1 1/2" Joints
Prem. Cork Exp. Jt. Filler	2	1 1/2" x 7 1/2" x 42' 4" For 1 1/2" Joints
4-Bolt Insert Assembly	4	1 1/2" x 1 1/2" x 1-3/8" Abut. 1 & End Bent 2
	6	@ Ends of Wings,

* Bill of Incidental Material is for Both Bridges.
* Std. Dwg. 1740, Current Edition.

STANDARD DRAWINGS

Standard Drawings listed below are the current edition and are to be used with the Bridge Plans.
AE1-D G354C 1740A
AE2-D H11GC P212A
G353F SF2B

SPECIAL PROVISIONS

- *B-A Linseed Oil Protective Coating.
- *30-B Membrane Curing of Concrete Structures.
- *35-B Class AA Concrete.
- *37-B Preformed Compression Joint Seals.
- *77-B Styrene-Butadiene Protective Coating.
- *79 Concrete Deck Finishing Machine.
- *80-A Blast Cleaning and Painting Structural Steel.

REFERENCE AND ESTIMATE OF QUANTITIES - WESTBOUND

ITEM	SHEET NO.	CONCRETE CU. YD.	REINF. STEEL LB.	STR. EXC. CU. YD.	END BENT BACKFILL CU. YD.	HIGH STRENGTH HANDRAIL LIN. FT.	CRUSHED AGGREGATE SLOPE PROT. SQ. YD.	STRUCTURAL STEEL LUMP SUM	STEEL PILES 12 BP 53 LB. LIN. FT.	STYRENE BUTADIENE PROT. COATING GALS.	LINSEED OIL PROT. COATING SQ. YD.	SHEAR CONNECTORS LUMP SUM	ELECTRICAL CONDUIT LUMP SUM
LOCATION		CL A' CL AA'		COM S.R.					FURNISH DRIVE				
QUANTITIES	1												
NOTES	2												
LAYOUT	3												
SOUNDINGS	4												
PILE RECORD	5												
ABUTMENT 1	6.7 & 11	54.6	26.5	3263	200	50	350			1			
END BENT 2	8.9 & 11	45.4	26.1	6,951	130	65	380		299	299			
PIER 1	10 & 11	47.3		6,668	40					3			
PIER 2	10 & 11	43.3		7,107	40					3			
PIER 3	10 & 11	45.7		6,604	40					3			
SUPERSTRUCTURE	12-15	324.5	77,159			540		①		11	1,162	②	
ELEVATIONS	16 & 17												
ELECTRICAL CONDUIT	18												③
SUPERSTRUCTURE TOTALS		324.5	77,159			540		①		11	1,162	②	③
SUBSTRUCTURE TOTALS		236.3	52.6	36,873	330	170	65	730	299	299	11		
TOTALS		236.3	377.1	114,032	330	170	65	540	730	22	1,162	②	③

① Approximate Weight of Structural Steel is 275,100 Lbs. ② Shear Connectors, Approximate Weight of 3/4" x 4" Studs is 2,993 Lbs. ③ For Electrical Conduit Quantities, See Bill of Material, Sheet 18.

REFERENCE AND ESTIMATE OF QUANTITIES - EASTBOUND

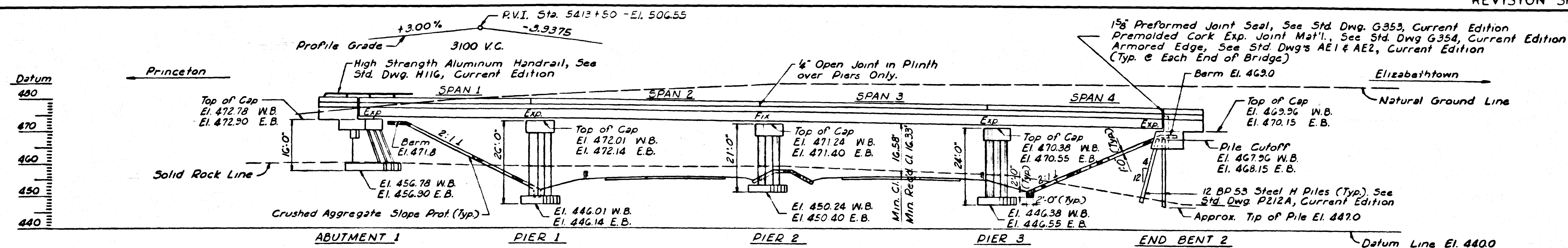
ITEM	SHEET NO.	CONCRETE CU. YD.	REINF. STEEL LB.	STR. EXC. CU. YD.	END BENT BACKFILL CU. YD.	HIGH STRENGTH HANDRAIL LIN. FT.	CRUSHED AGGREGATE SLOPE PROT. SQ. YD.	STRUCTURAL STEEL LUMP SUM	STEEL PILES 12 BP 53 LB. LIN. FT.	STYRENE BUTADIENE PROT. COATING GALS.	LINSEED OIL PROT. COATING SQ. YD.	SHEAR CONNECTORS LUMP SUM	ELECTRICAL CONDUIT LUMP SUM
LOCATION		CL A' CL AA'		COM S.R.					FURNISH DRIVE				
QUANTITIES	1												
NOTES	2												
LAYOUT	3												
SOUNDINGS	4												
PILE RECORD	5												
ABUTMENT 1	6.7 & 11	54.6	26.5	3263	200	50	350			1			
END BENT 2	8.9 & 11	45.3	25.8	6,951	130	65	380		299	299			
PIER 1	10 & 11	47.2		6,868	40					3			
PIER 2	10 & 11	43.2		7,107	40					3			
PIER 3	10 & 11	45.6		6,684	40					3			
SUPERSTRUCTURE	12 & 15	324.5	77,159			540		④		11	1,162	⑤	
ELEVATIONS	16 & 17												
ELECTRICAL CONDUIT	18												⑥
SUPERSTRUCTURE TOTALS		324.5	77,159			540		④		11	1,162	⑤	⑥
SUBSTRUCTURE TOTALS		236.3	52.1	36,873	330	170	65	730	299	299	11		
TOTALS		236.3	376.6	114,032	330	170	65	540	730	22	1,162	⑤	⑥

④ Approximate Weight of Structural Steel is 275,100 Lbs. ⑤ Shear Connectors, Approximate Weight of 3/4" x 4" Studs is 2,993 Lbs. ⑥ For Electric Conduit Quantities, See Bill of Material, Sh. 18.

W.K.P. OVER B.O.P. SHEET 1A OF 2

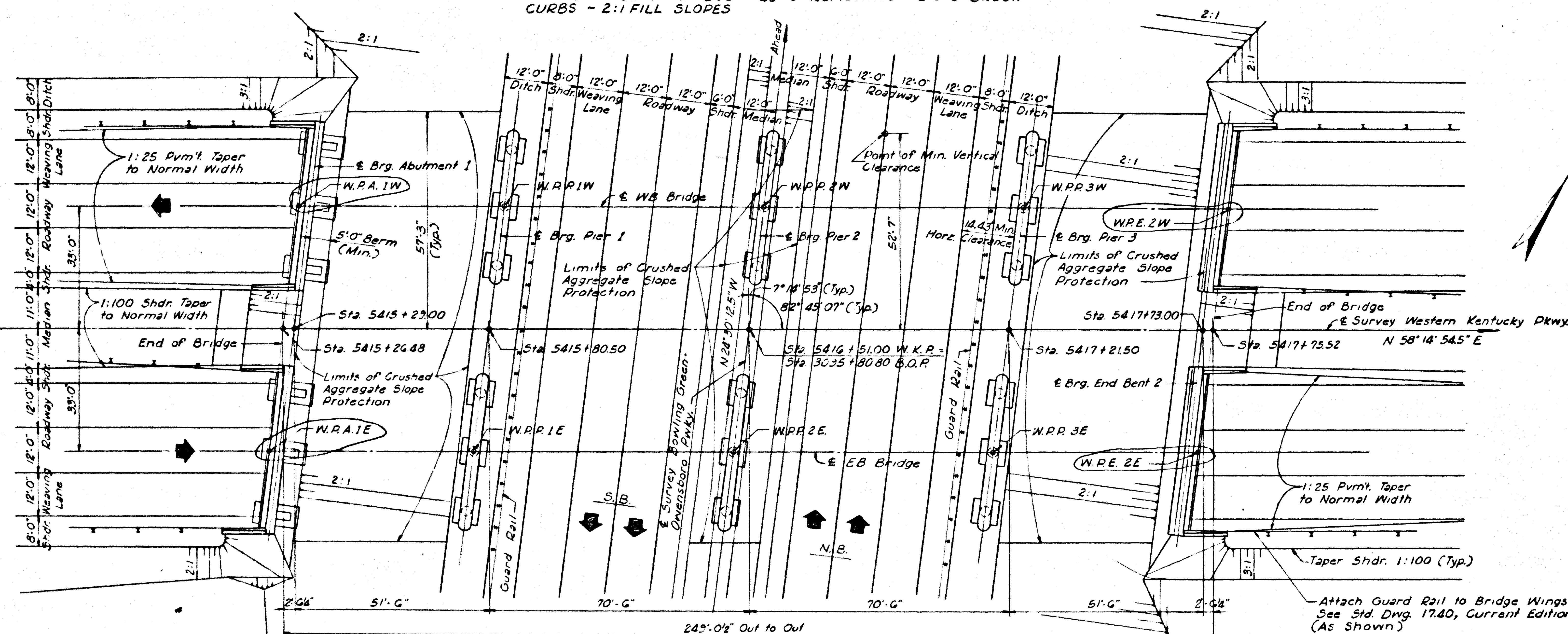
COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
OHIO	
BOWLING GREEN-OWENSBORO PKWY.	
3095-8080 B.O.P. ROAD	BOP 3-2
STATION 546+51.00 W.K.P.	P.E. PROJECT NO. SP 92-203-1L
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.
	DRAWING NO. 18094

BRIDGE

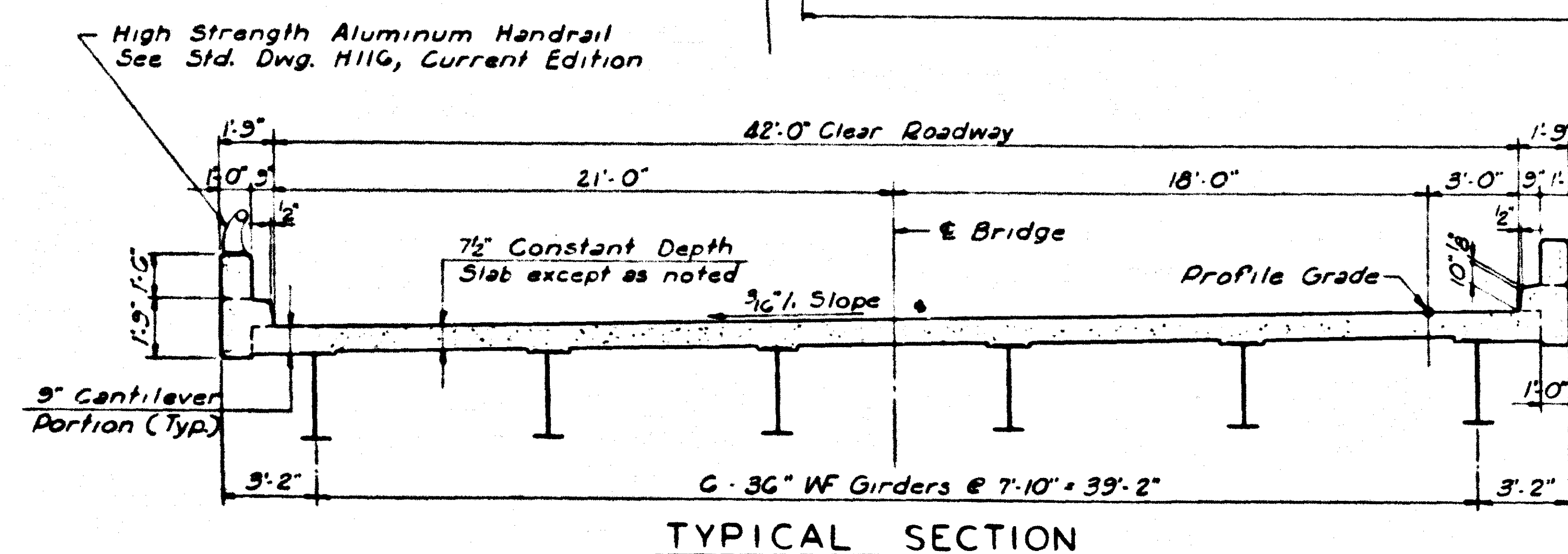


ELEVATION

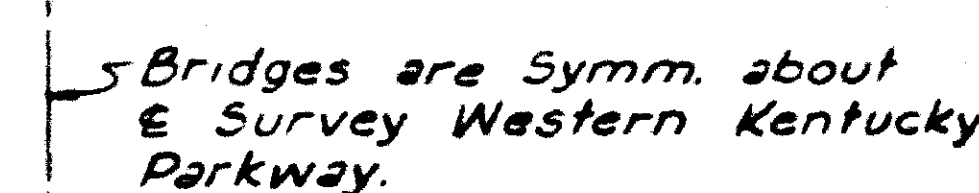
TWIN 51'-6" - 70'-6" - 70'-6" - 51'-6" CONTINUOUS COMPOSITE WF DECK
GIRDER SPANS - 7'-14" 53" SKEW RT. - HS 20-44 A LOADING
119'-6" SHOULDERS @ BRIDGE - 42'-0" ROADWAYS - 2'-0"-9" BRUSH
CURBS - 2:1 FILL SLOPES



PLAN
[Text removed]



TYPICAL SECTION



LAYOUT

W K P OVER B C P

SHEET 3A

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF

OHIO

BOWLING GREEN-OWENSBORO PKWY.

309548080 BOP : ROAD

STATION 5416+51.00 W.K.P. P.E. PROJECT NO.

CONSTRUCTION PROJECT

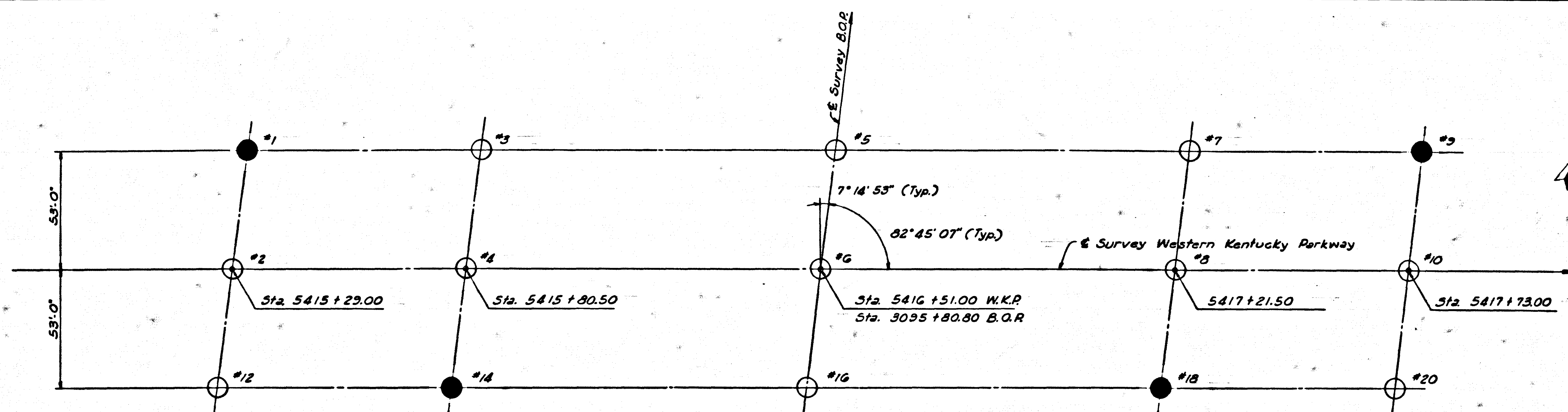
MAINTENANCE PROJECT W

DRAWING NO.
18094

16094

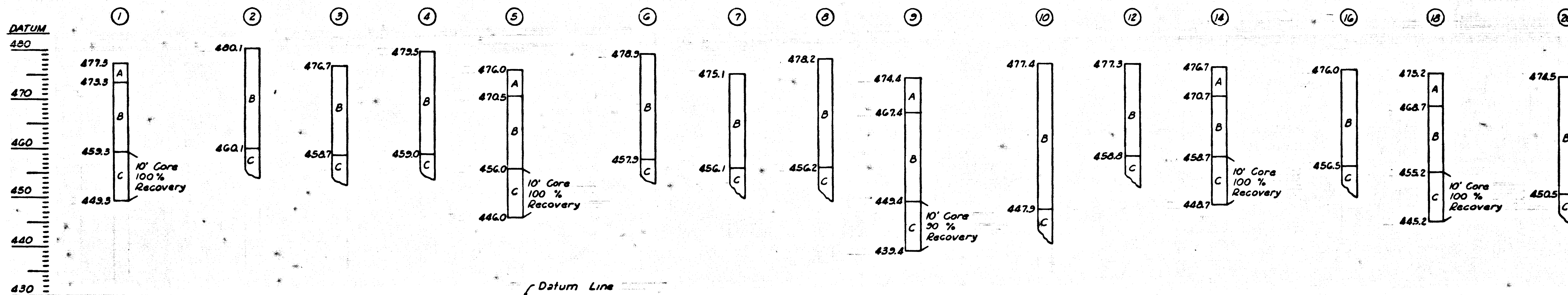
BRIDGE

LETTING DATE



PLAN

- Indicates Sounding to Solid Rock
- Indicates Core 10' into Solid Rock



SOUNDING LOG

LEGEND

- A : Silty Clay, Brown, Stiff & Moist
- B : Sandstone, Brown, Very Soft & Moist
- C : Sandstone, Med. Hard

SOUNDINGS

W.K.P. OVER B.O.P. SHEET 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO

BOWLING GREEN-OWENSBORO PKWY.

3095+80.80 B.O.R. ROAD
STATION 5416+51.00 W.K.P. P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING NO.
18094

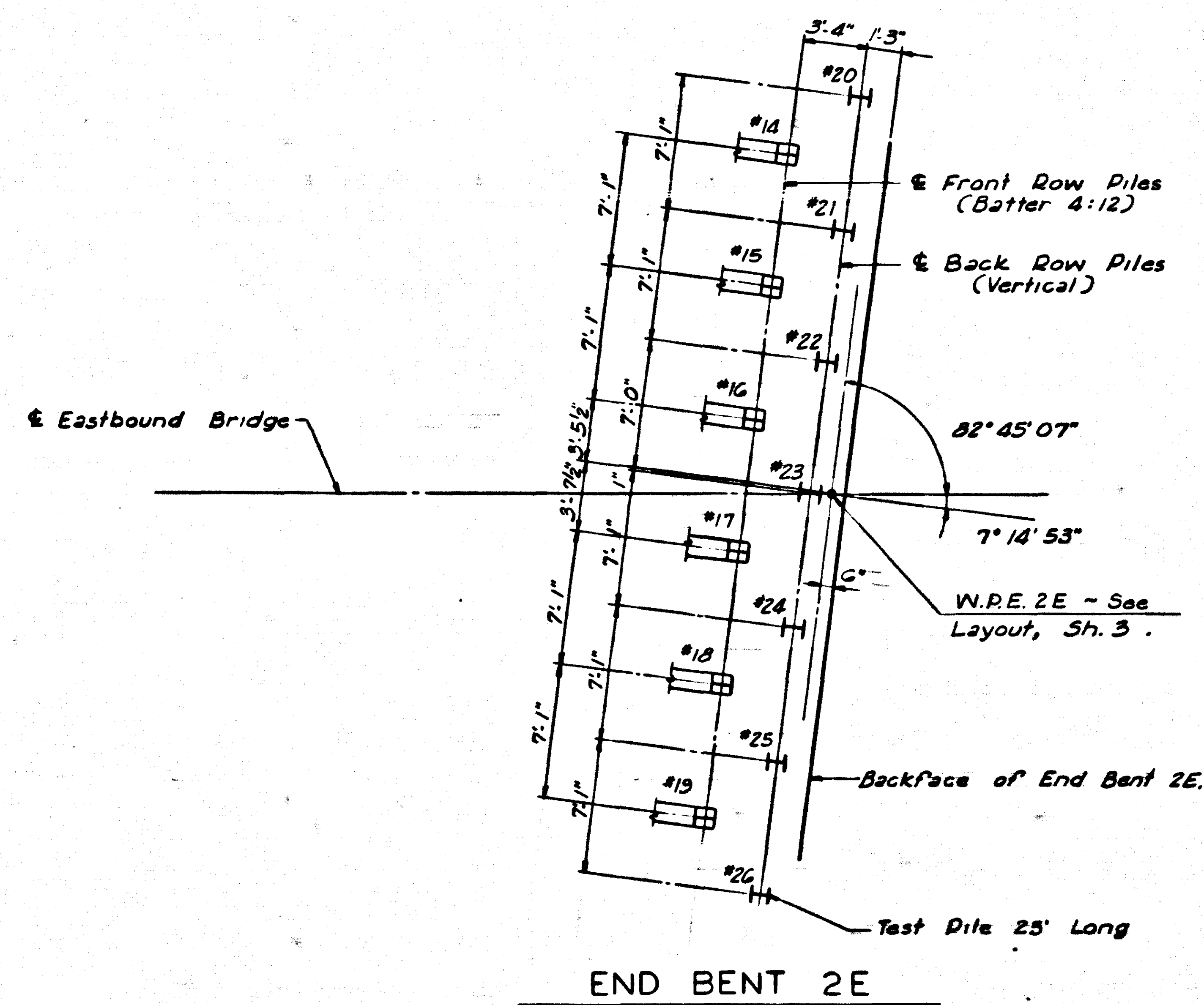
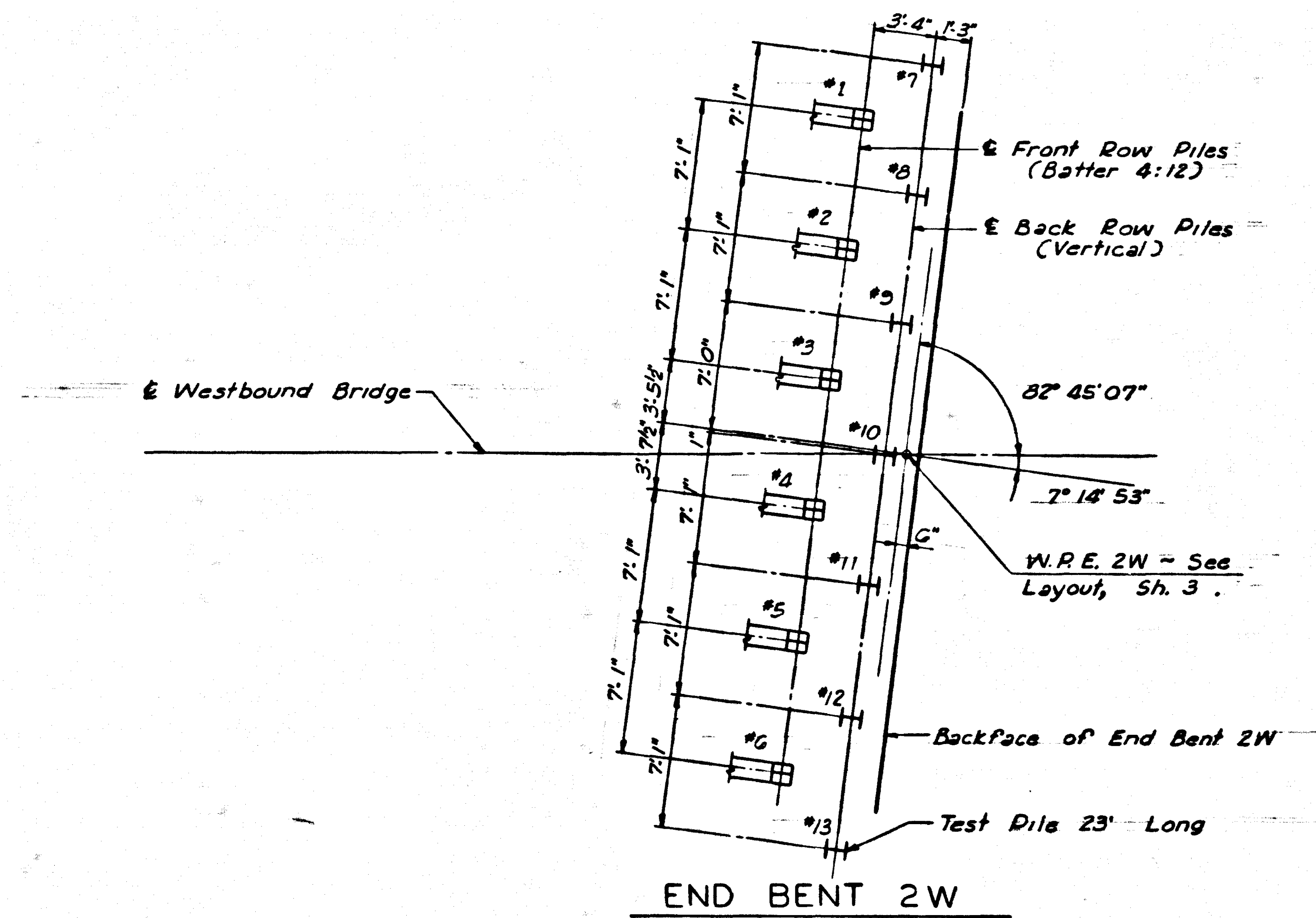
SOUNDINGS BY: ATLAS SOILS, INC. OTHELL WHITE, DRILLER

DATE: 10/26/66
BY: J.B. PCW
CHECKED BY: J.B. PCW
DATE: 10/26/66

PILE RECORD					
Location	Pile No.	Cutoff Elev. Shown	Tip of Pile Elevation as Driven	Pile Length in Place Lin. Ft.	Calculated Bearing Capacity (Tons)
End Bent 2W	1	467.96			
"	2	"			
"	3	"			
"	4	"			
"	5	"			
"	6	"			
"	7	"			
"	8	"			
"	9	"			
"	10	"			
"	11	"			
"	12	"			
End Bent 2E	14	468.15			
"	15	"			
"	16	"			
"	17	"			
"	18	"			
"	19	"			
"	20	"			
"	21	"			
"	22	"			
"	23	"			
"	24	"			
"	25	"			
"	26	"			

NOTE:

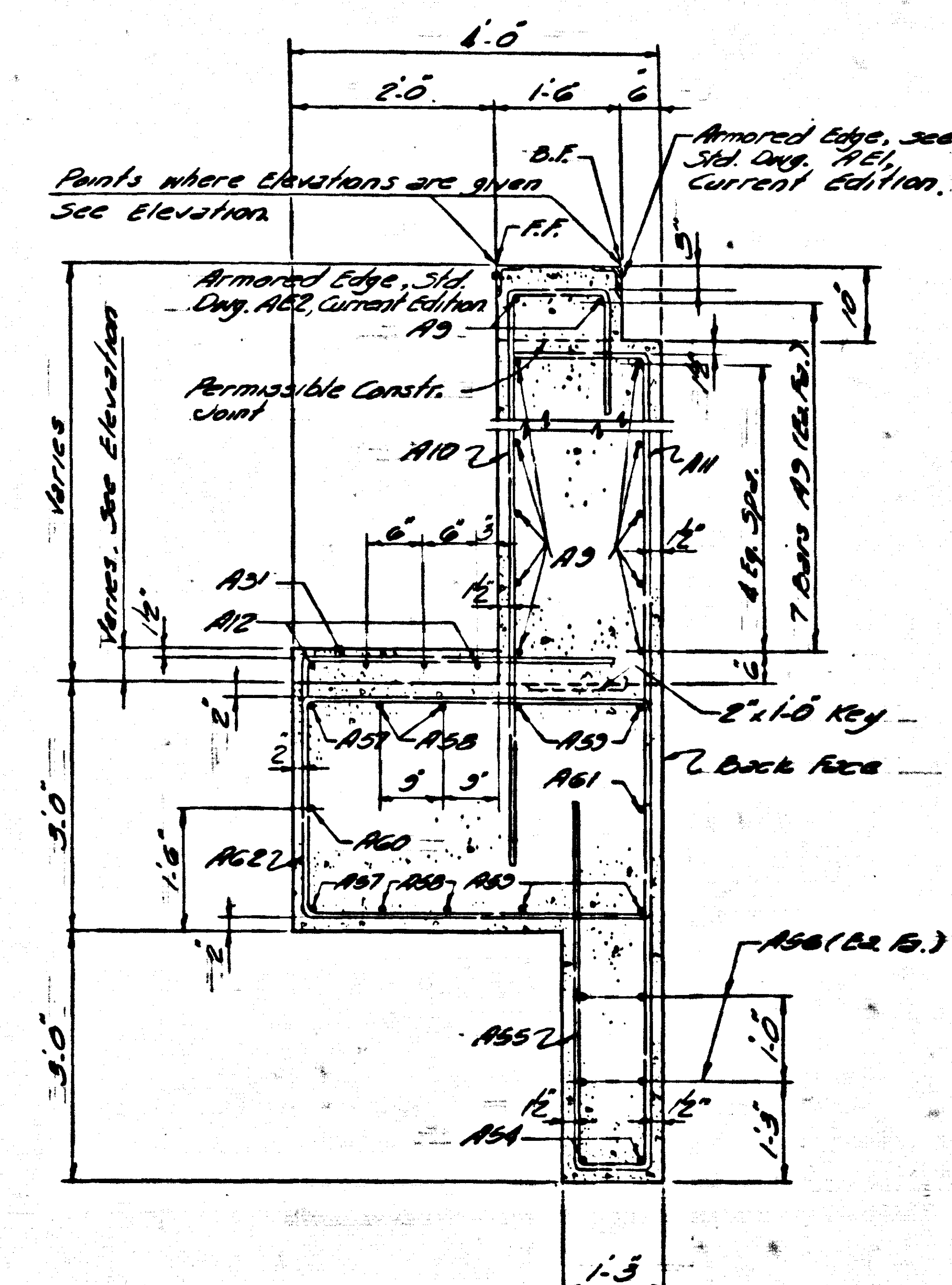
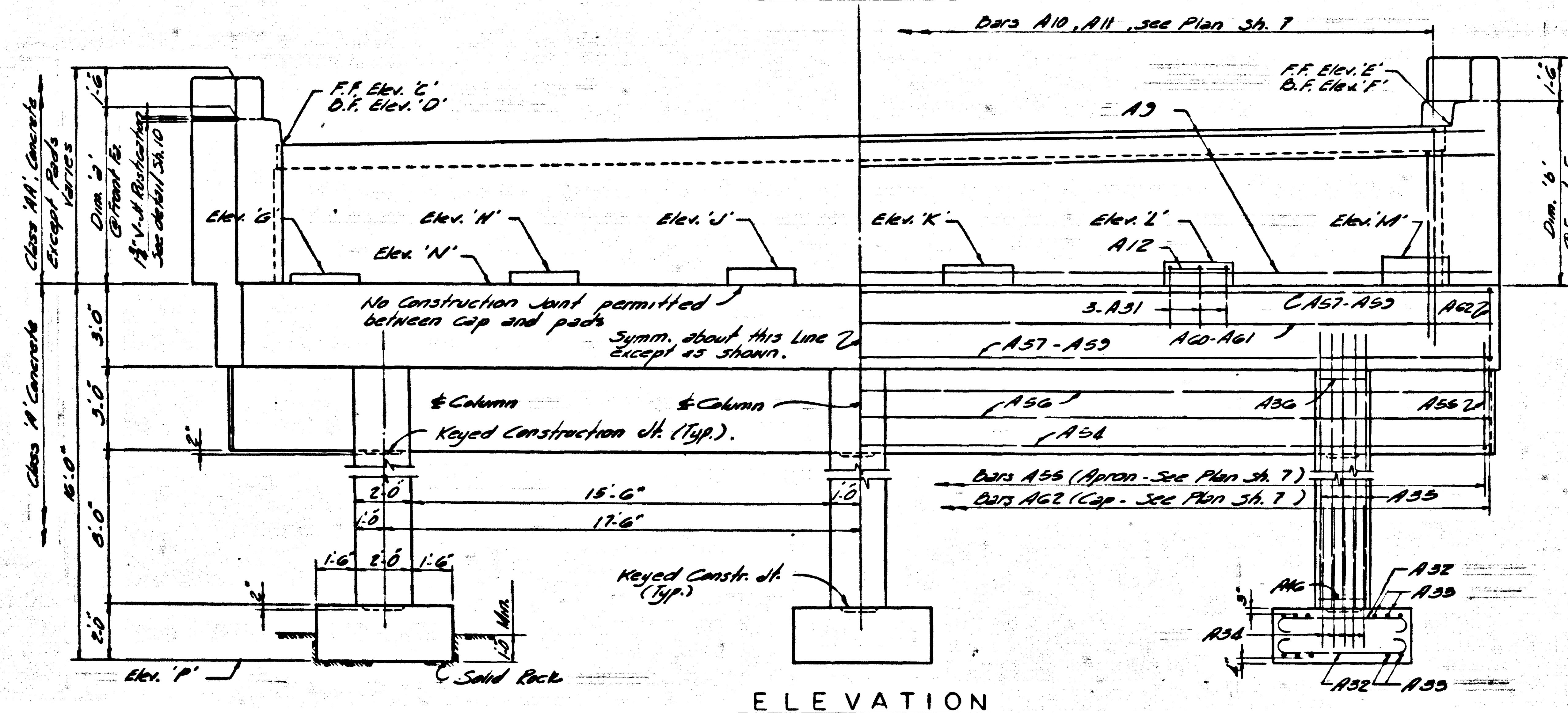
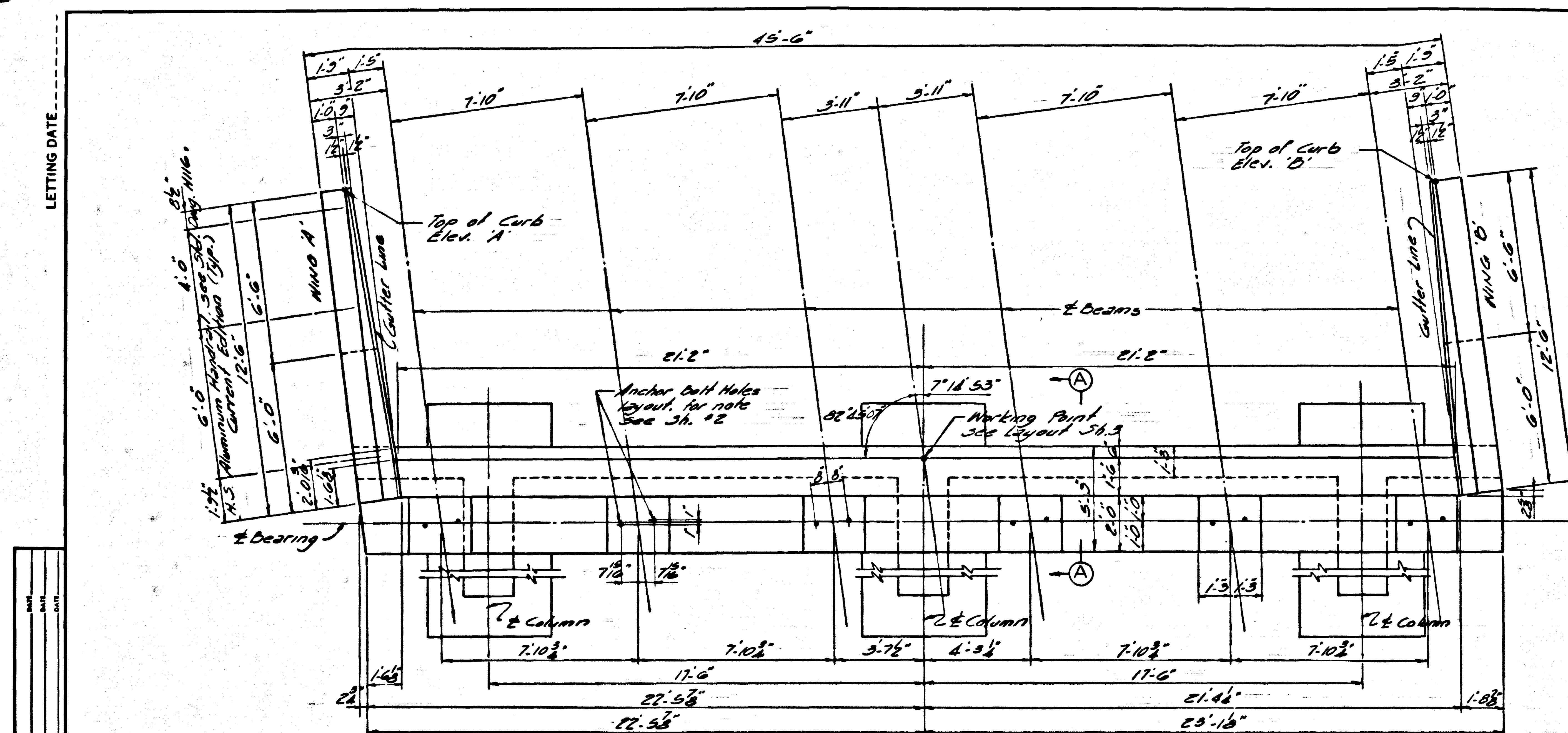
After all piles have been driven, the Resident Engineer shall record for each pile, the tip-of-pile elevation as driven, the length of pile in place and the calculated bearing capacity and shall return one blue print copy of this sheet with this data to the Director of the Division of Bridges so that the data may be recorded on the original plans. Lengths of piles in place shown hereon are the actual lengths of piles in the finished structure below cutoff elevations and are not necessarily pay items. This pile record does not replace other records required to be kept and submitted by the Resident Engineer.
For pile notes and details, see Std. Dwg. D212A (Current Edition).



PILE RECORD

W.K.P. OVER B.O.P.		SHEET 5	
COMMONWEALTH OF KENTUCKY			
DEPARTMENT OF HIGHWAYS			
FRANKFORT			
COUNTY OF			
OHIO			
BOWLING GREEN-OWENSBORO PKWY.			
3095+80.80 B.O.P. ROAD		P.E. PROJECT NO.	
STATION 5416+51.00 W.K.P.		CONSTRUCTION PROJECT NO.	
		MAINTENANCE PROJECT NO.	
		DRAWING NO.	
		18094	

BRIDGE



SECTION A-A

ESTIMATE OF QUANTITIES

	<u>Abutment 1EB</u>	<u>Abutment 1MB</u>	
Concrete, Class AA	26.5	26.5	Cu. Yds.
Concrete, Class A	54.5	54.6	Cu. Yds.
Reinforcement	3263	3263	Lbs.

W.K.P. OVER B.O.P.

SHEET 6

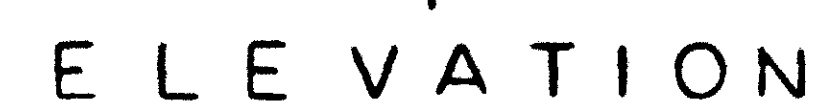
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO
BOWLING GREEN - OWENSBORO PKWY.

3095+80.80 B.O.P.		ROAD
STATION 5416+51.00 W.K.P.		P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.		MAINTENANCE PROJECT

DRAWING NO.	18094
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ABUTMENTS

IEB & IWB



Concrete, Class AA
Concrete, Class A
Reinforcement

<u>Attachment 1EB</u>	<u>Attachment 1NB</u>	
26.3	26.5	Ca. Yds
60.3	58.6	Ca. Yds
9,263	9,263	Yds.
10,340		

* Rev. No 2
Revised due to the M.P. shown on
the original plans incorrect. The
Contractor had placed concrete for
K.P. OVER B.O.P. ^{four' 6" that had to be} poured out in the SHEET

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO

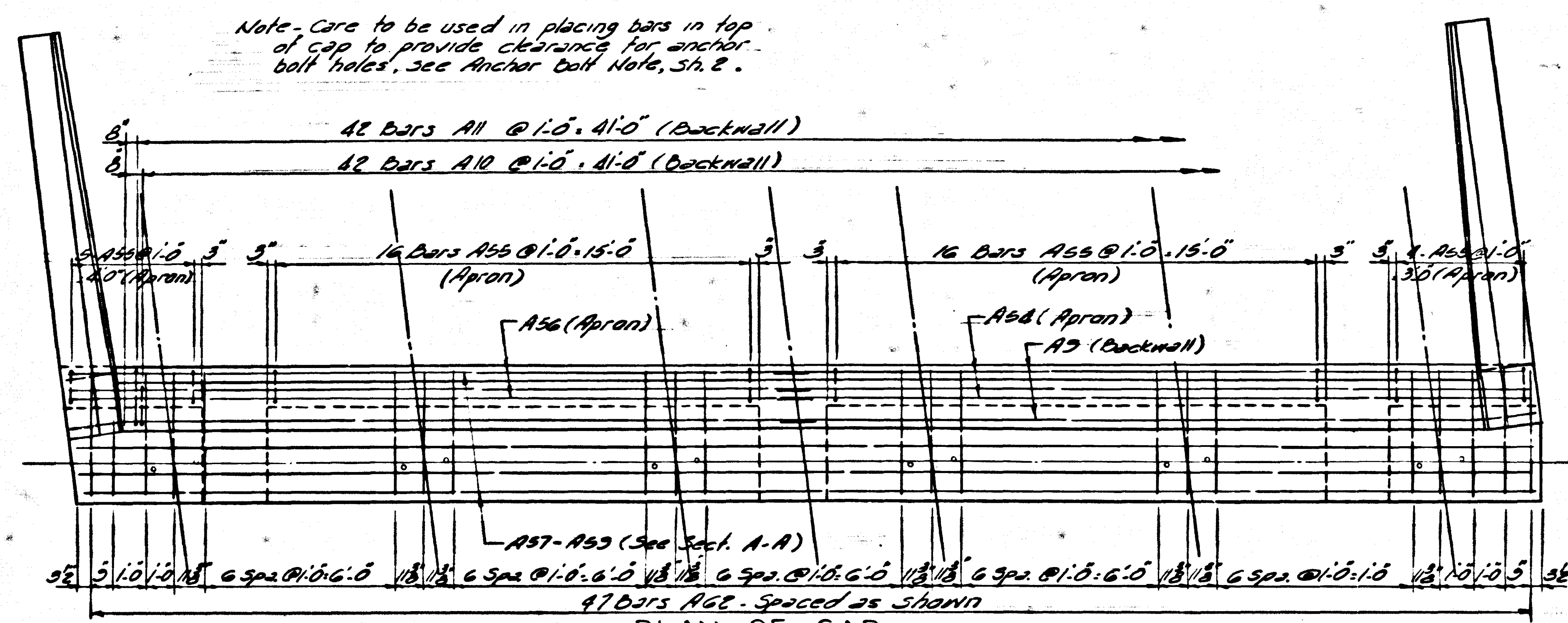
BOWLING GREEN - OWENSBORO PKWY.		
3095 + 80.80 BOP		ROAD
STATION 5416 + 5100 W.K.P.		P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.

Note:
Dimensions on this sheet apply to
Abut IEB only. For Abut. IWB see
Construction Plans.

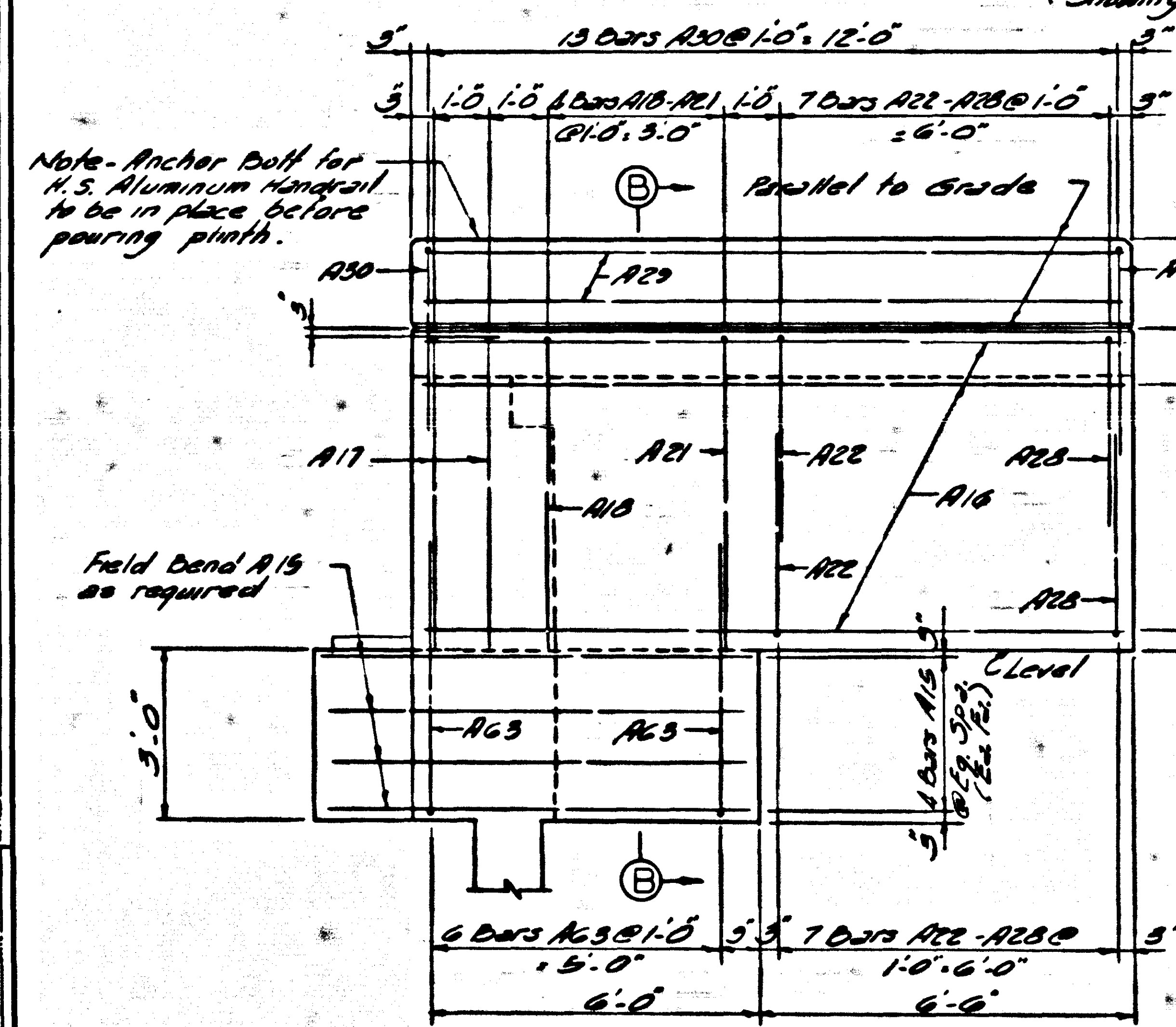
ABUTMENT IEB

BRIDGE

LETTING DATE _____

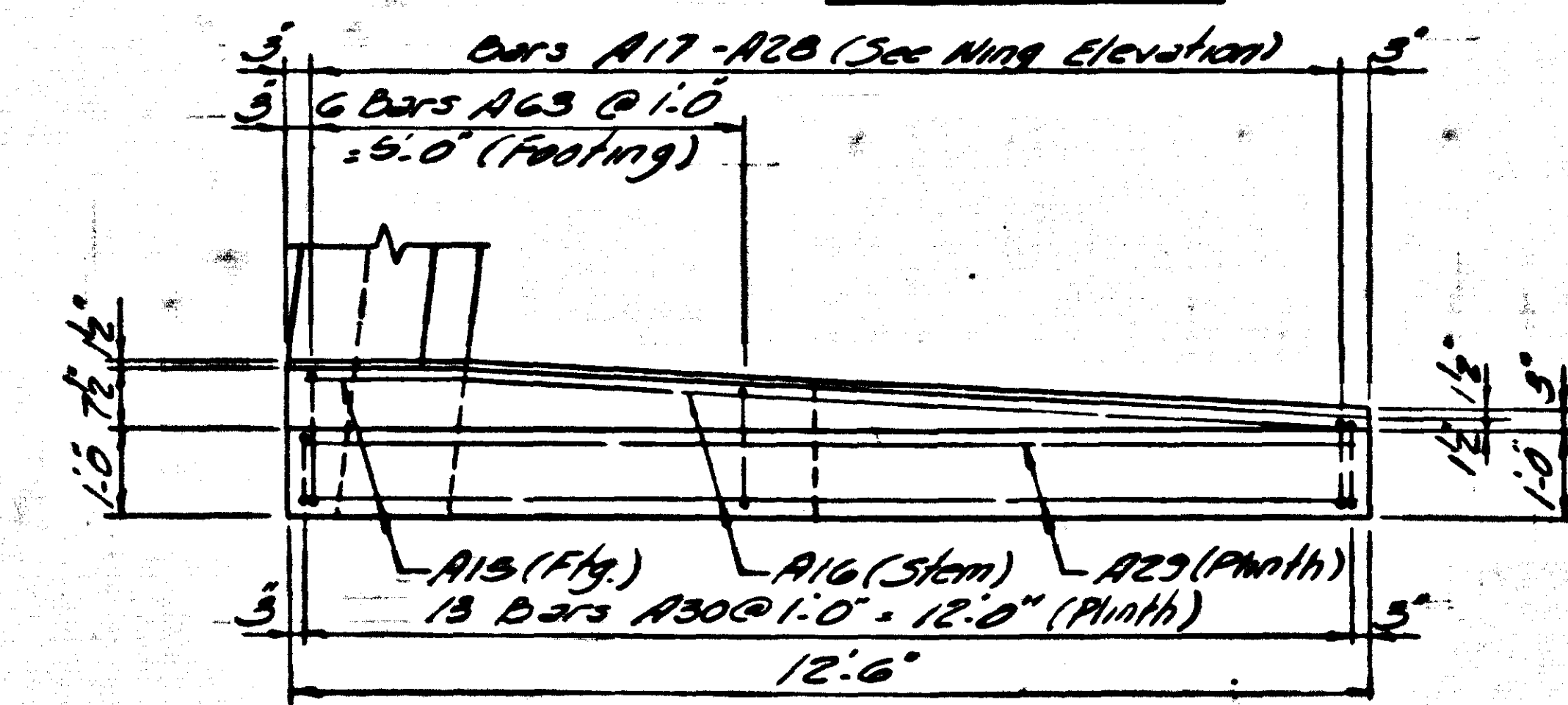


PLAN OF CAP
(Showing Reinforcement)

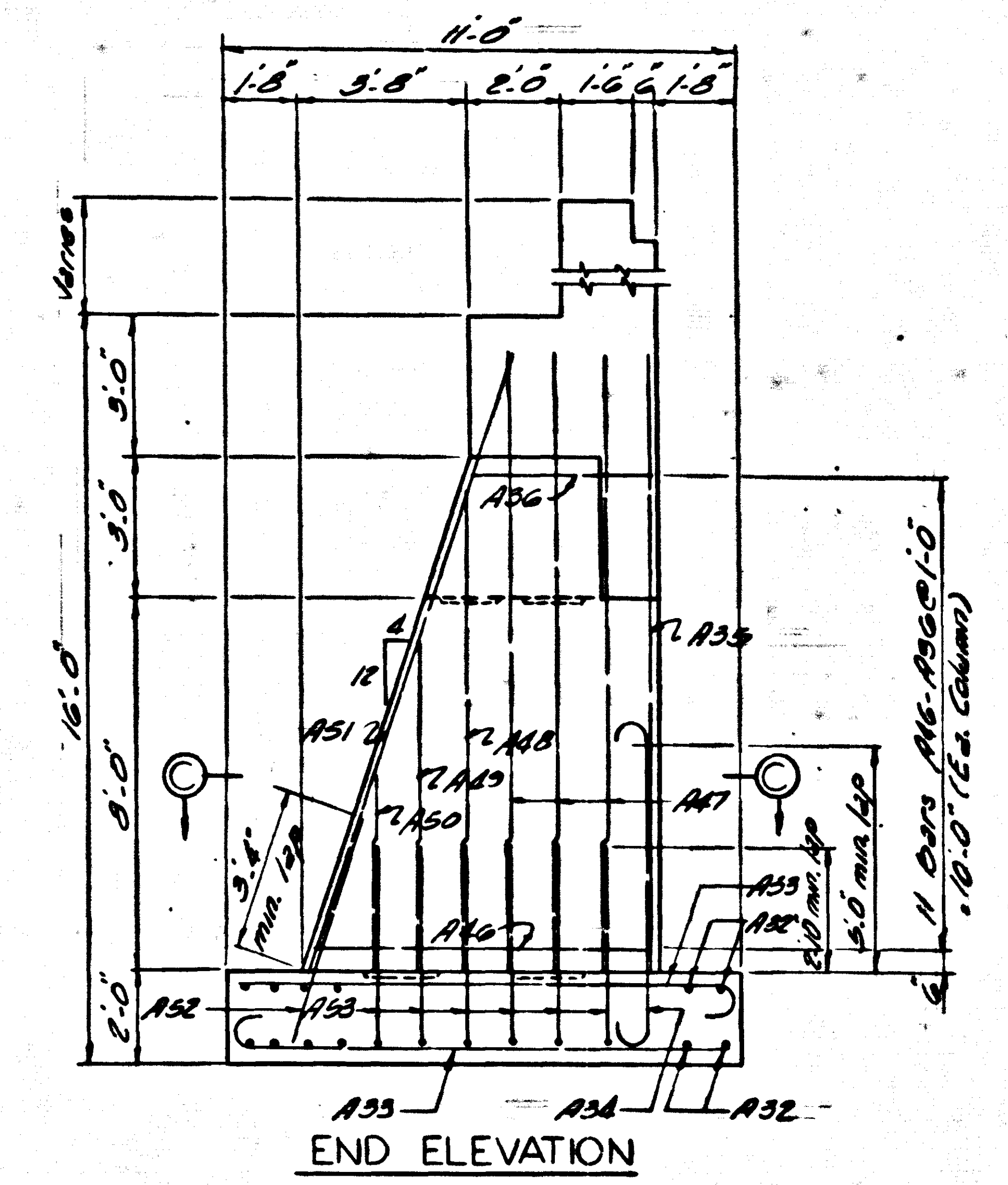


WING ELEVATION

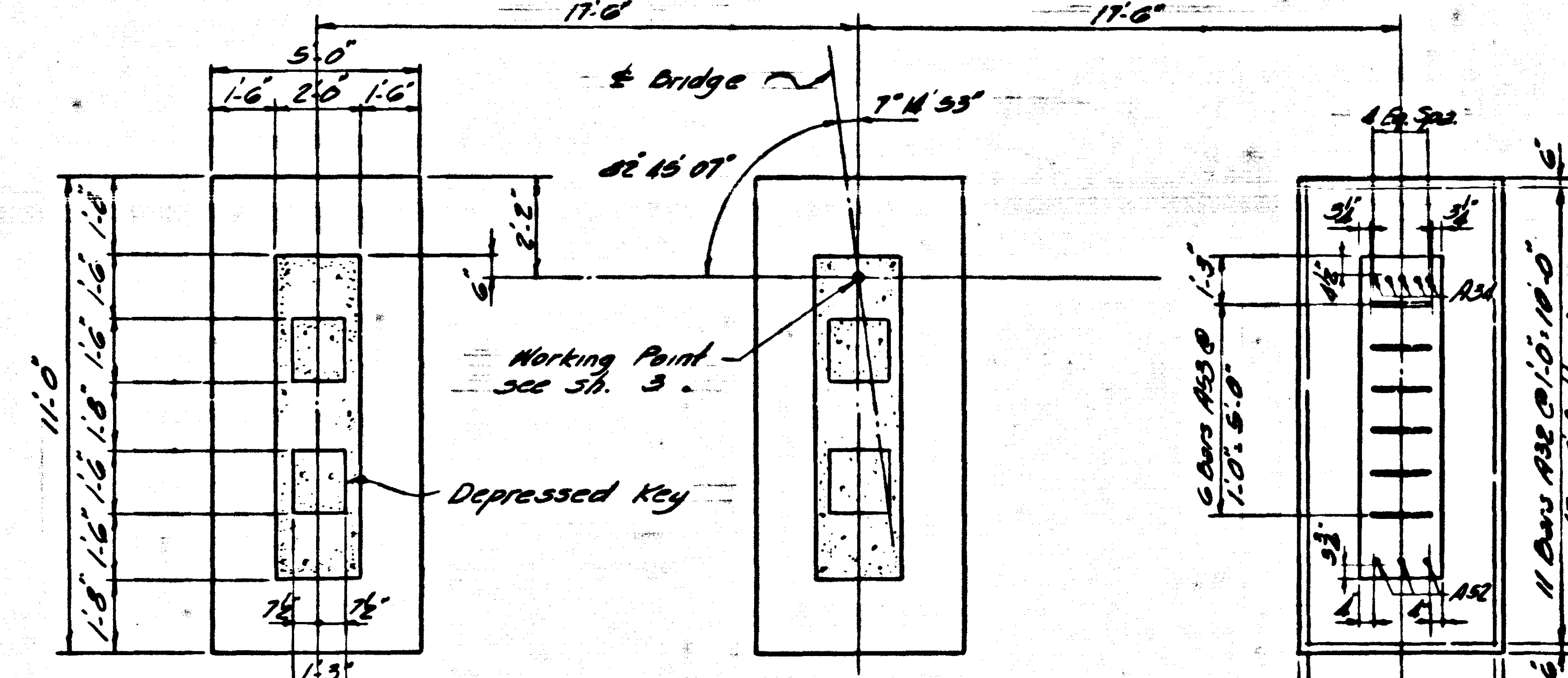
TABLE OF ELEVATIONS AND DIMENSIONS					
	Abut. IEB	Abut. IWB		Abut. IEB	Abut. IWB
Elev. A	478.877	478.463	Elev. L	478.686	478.246
Elev. B	479.400	478.761	Elev. M	800	115
Elev. C	477.328	512	Elev. N	472.50	472.78
Elev. D	521	525	Elev. P	456.30	456.78
Elev. E	478.338	477.809	Dim. a	5'-10 1/2"	6'-0 1/2"
Elev. F	551	822	Dim. b	6'-5 1/2"	5'-10 1/2"
Elev. G	473.231	473.710	Dim. c	5'-11 3/4"	6'-8 3/4"
Elev. H	345	639	Dim. d	6'-7 1/2"	5'-11 3/4"
Elev. J	459	508			
Elev. K	572	577			



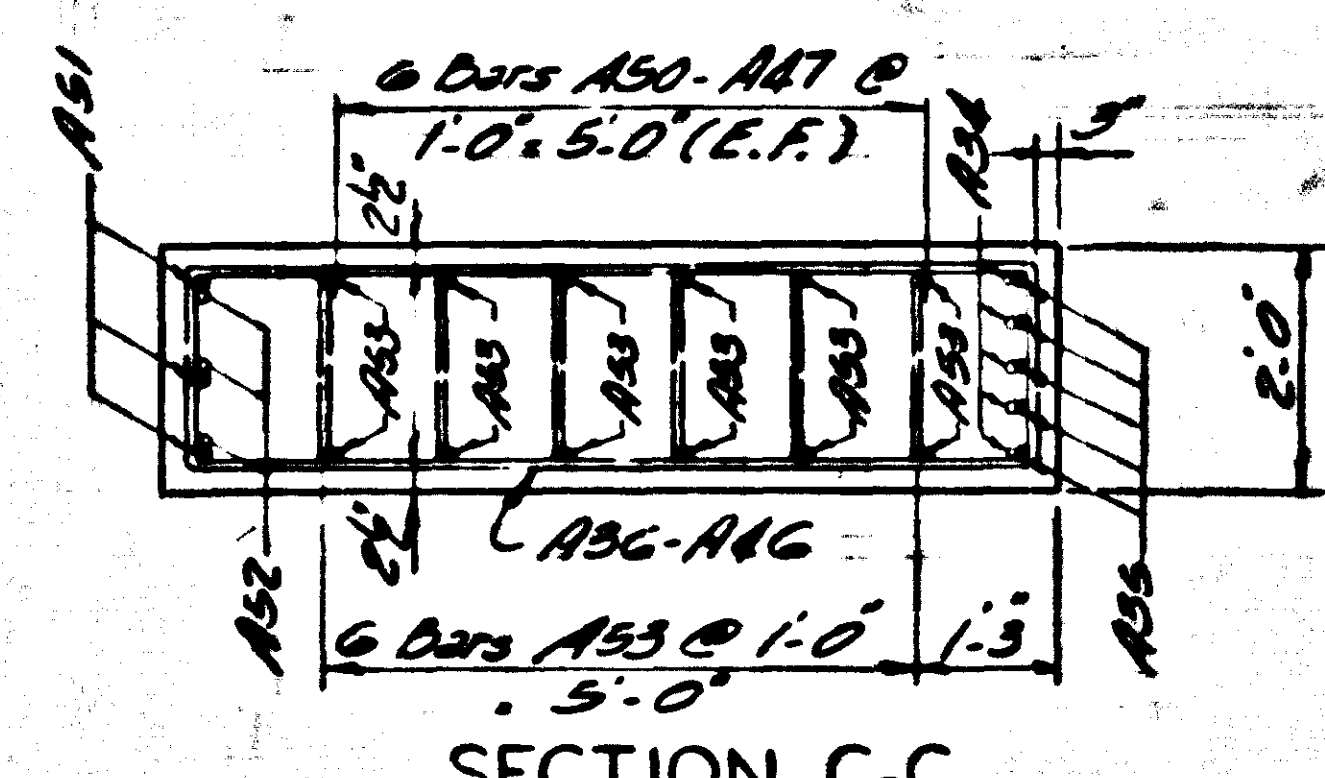
WING PLAN



END ELEVATION



PLAN OF FOOTINGS

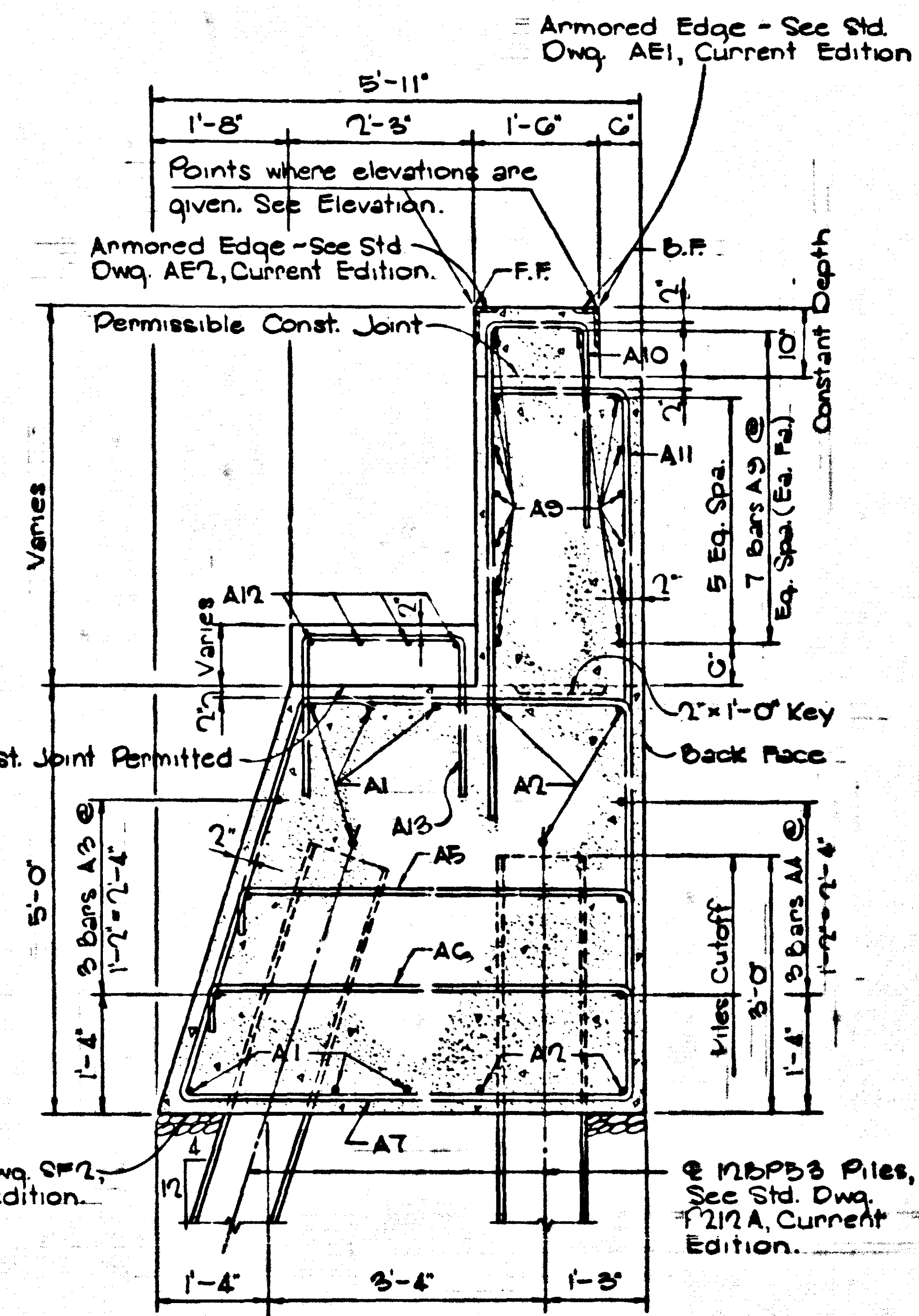


SECTION C-C
ABUTMENTS IEB & IWB

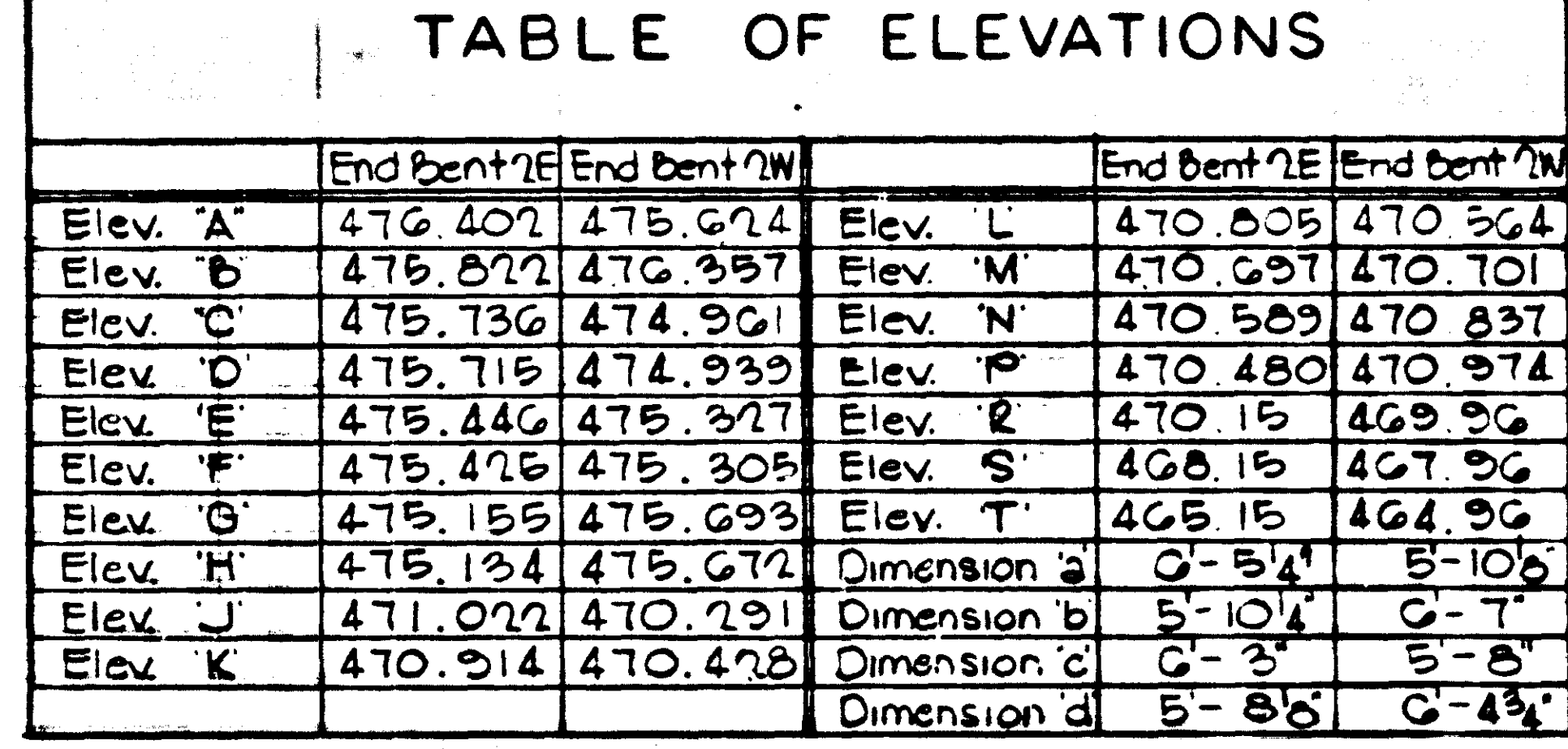
W.K.P. OVER B.O.P. SHEET 7

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 OHIO

BOWLING GREEN - OWENSBORO PKWY.
 3095 + 80.80 B.O.P. ROAD
 STATION 5416 + 5100 W.K.P. P.E. PROJECT NO.
 CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18094



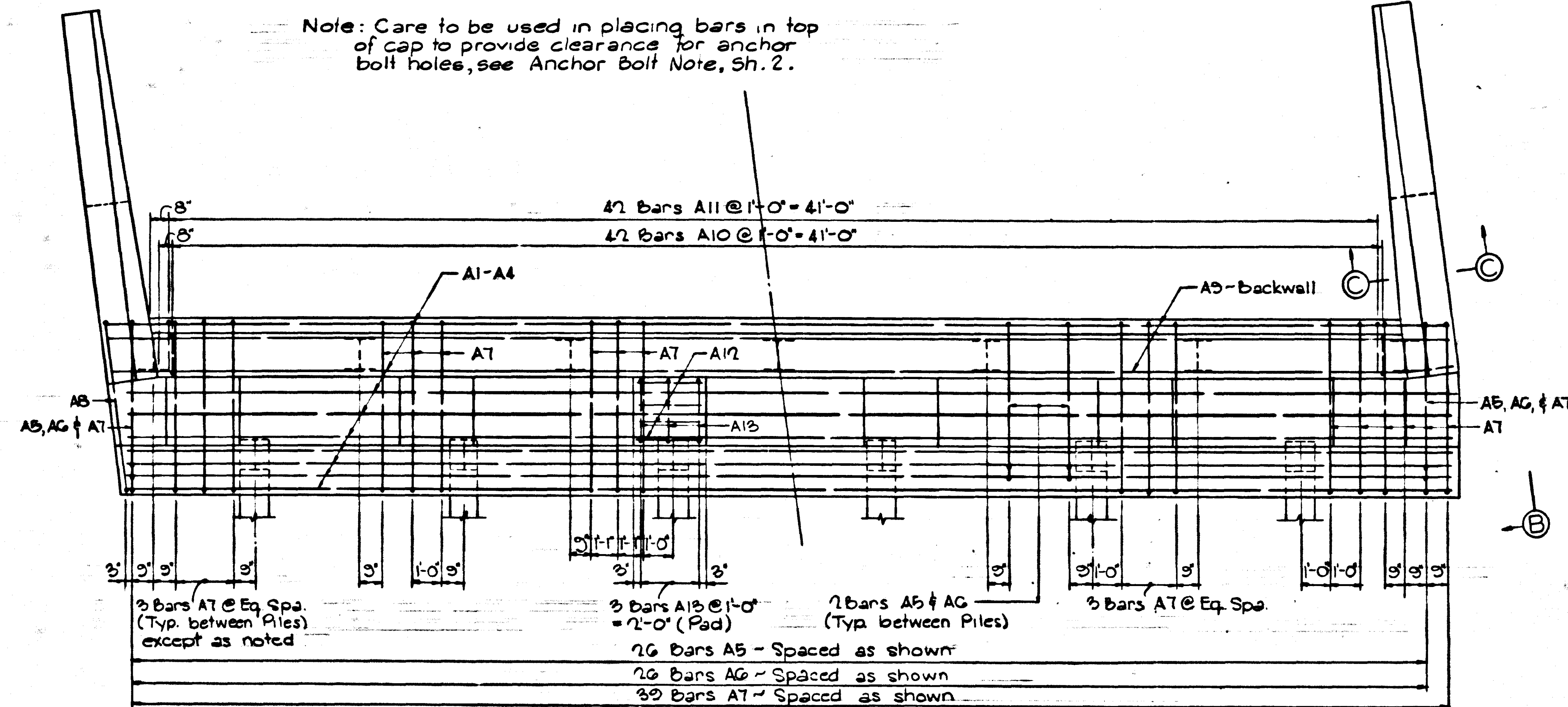
PLAN OF CAP



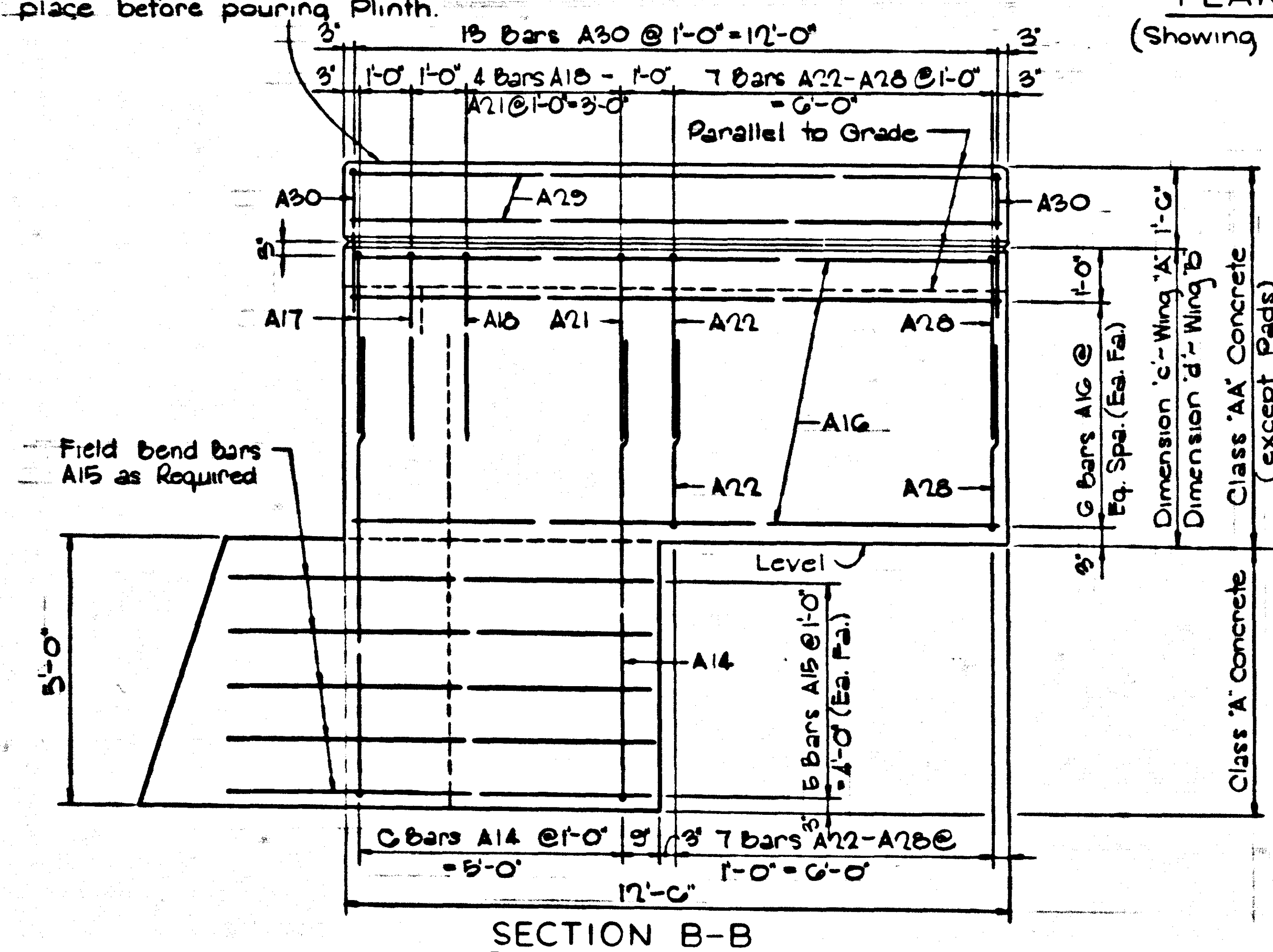
END BENTS

W.K.P. OVER B.O.P.		SHEET 8	
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF OHIO BOWLING GREEN-OWENSBORO PKWY.			
3095 + 80.80 B.O.P. - ROAD			
STATION 5416 + 51.00 W.K.P.		P.E. PROJECT NO.	
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.		DRAWING NO.
			18094

LETTING DATE

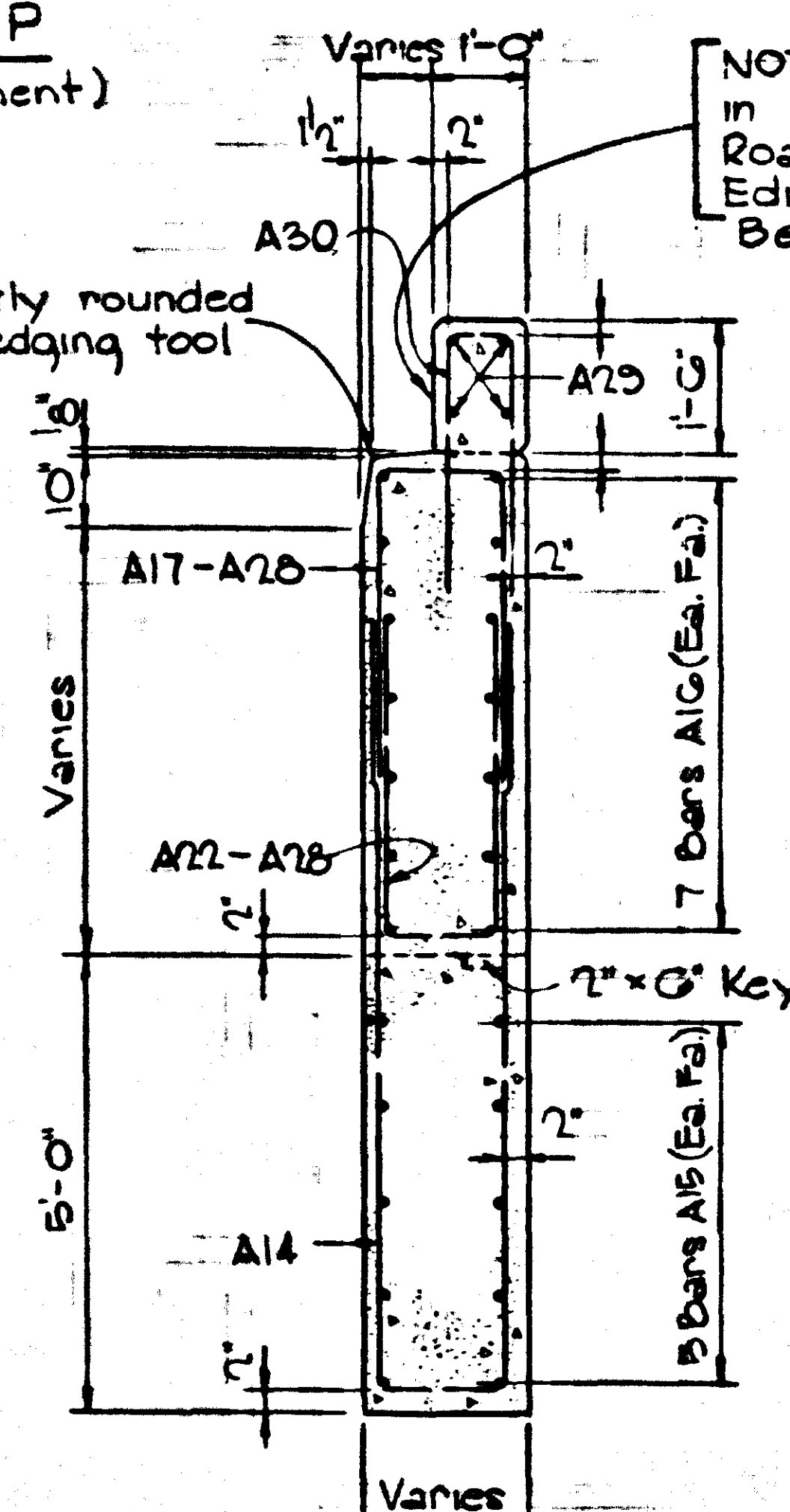


Anchor bolts for High Strength Aluminum Handrail to be in place before pouring Plinth.



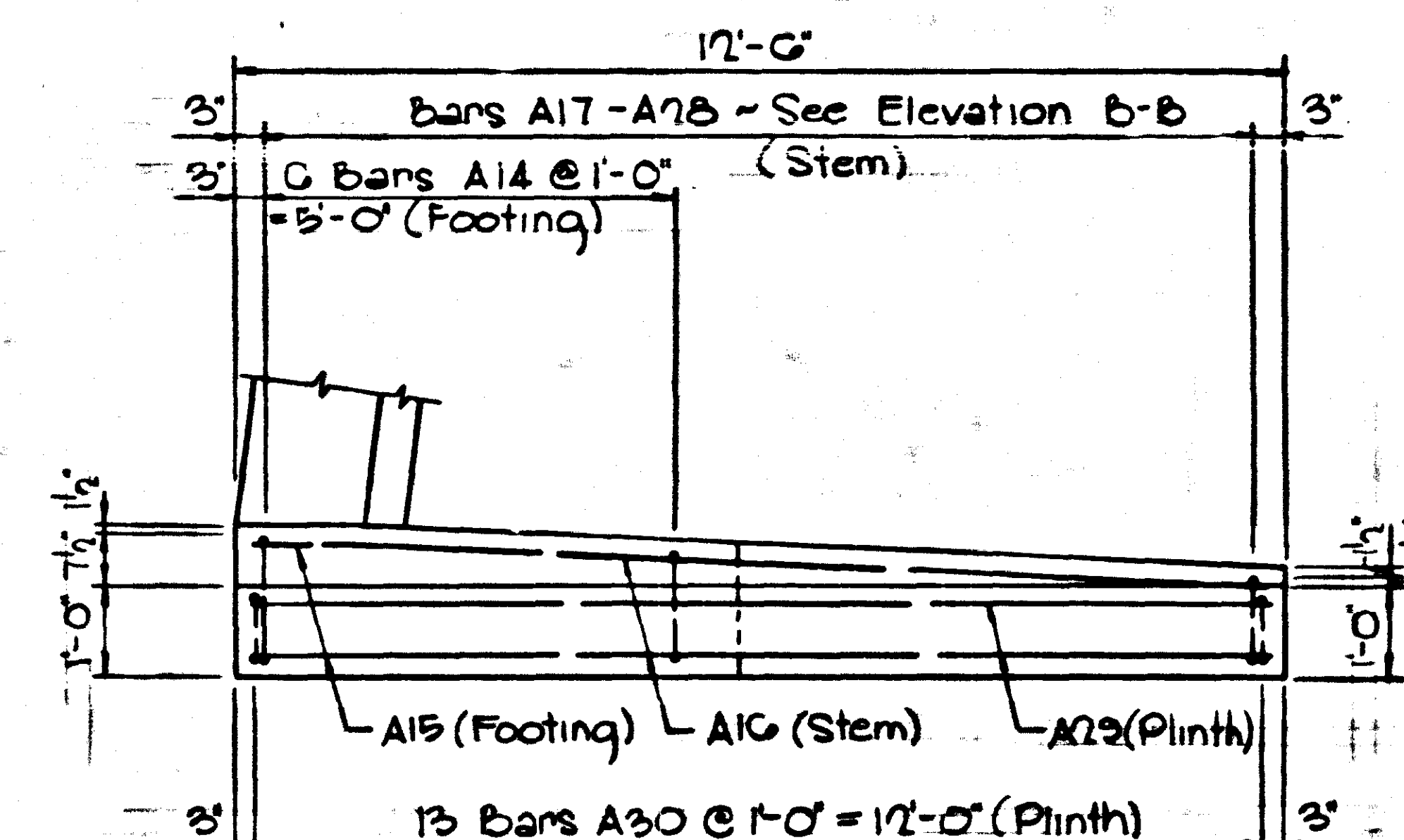
SECTION B-B

To be neatly rounded with an edging tool



SECTION C-C

NOTE: 4 Bolt Insert Assembly to be in place before pouring Plinth. See Roadway Standard Dwg. 17.40, Current Edition. Typ. Except wing 'A' End Bent 2 EBL.



TYPICAL WING PLAN

ESTIMATE OF QUANTITIES

	End Bent 2E	End Bent 2W	
Concrete, Class 'A'	45.3	45.4	Cu. Yd.
Concrete, Class 'AA'	75.8	76.1	Cu. Yd.
Reinforcement	6,251	6,251	Lb.

END BENTS

W.K.P. OVER B.O.P.

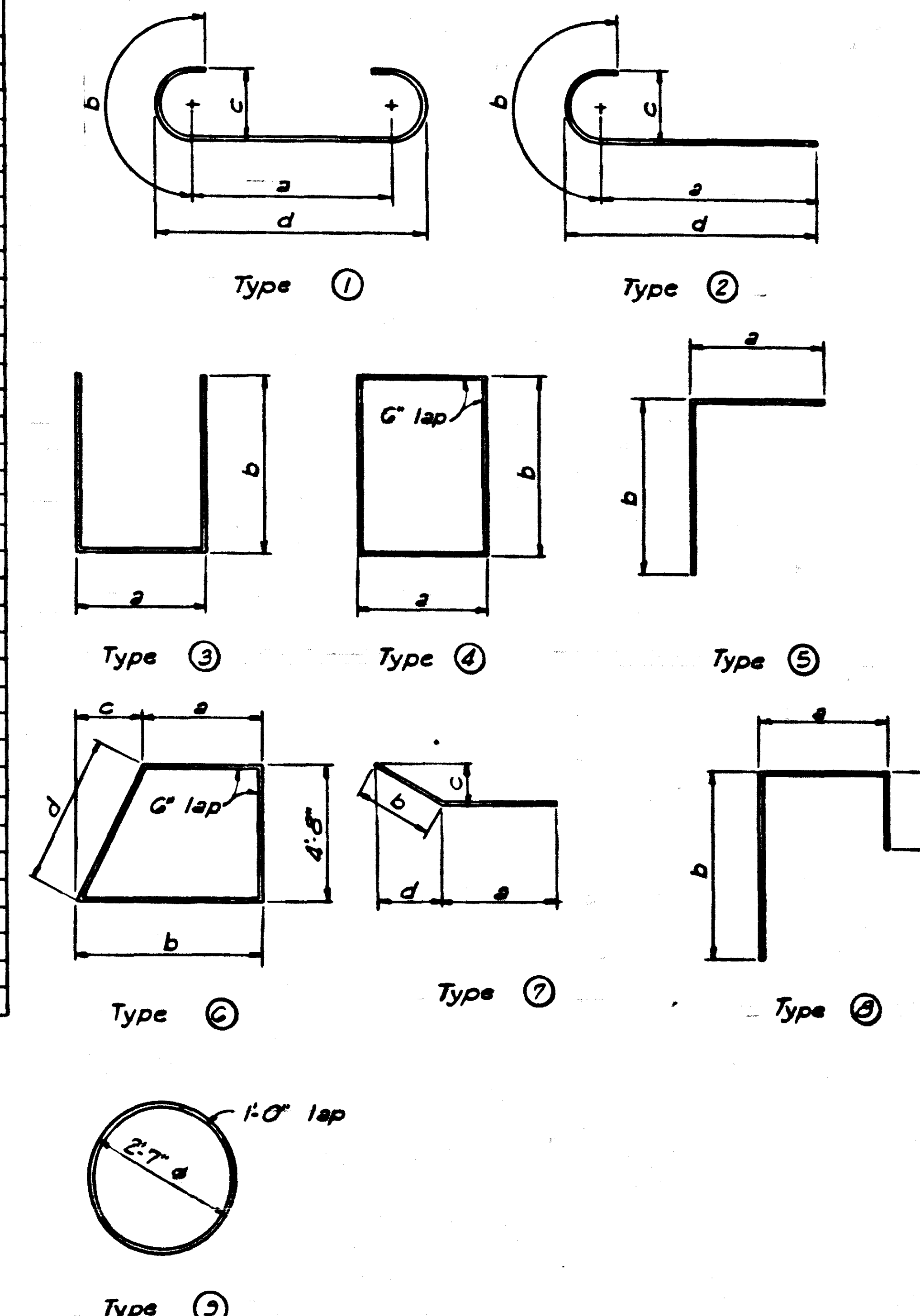
SHEET 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO
BOWLING GREEN-OWENSBORO PKWY.
3095+80.80 B.O.P. - ROAD
STATION 5416+51.00 W.K.P. P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO.
DRAWING NO. 18094

BRIDGE

BILL OF REINFORCEMENT

ABUTMENTS & END BENTS														PIERS													
Mark	Type	Number				Bar Size	Length	Location				a	b	Mark	Type	Number				Bar Size	Length	Location					
		1W	1E	2W	2E		Ft. In.	Ft.	In.	Ft.	In.	Ft.	In.			1W	1E	2W	2E	3W	3E		Ft. In.	Ft.	In.		
A1	Str.	—	—	7	7	8	45 2	Cap						P1	(1)	3G	3G	3G	3G	3G	3G	5	7 5	Bottom of Ftg.	5	9	
A2	Str.	—	—	5	5	8	45 3	"						P2	"	30	30	30	30	30	30	5	6 11	"	5	3	
A3	Str.	—	—	6	6	8	23 10	"						P3	Str.	18	18	18	18	18	18	5	6 2	Top of Ftg.			
A4	Str.	—	—	6	6	8	24 2	"						P4	"	21	21	21	21	21	21	5	5 8	"			
A5	(3)	—	—	8G	8G	8	5 7	"						P5	(2)	3G	3G	—	—	3G	3G	8	7 8	Column Dowels	6	2	
A6	"	—	—	8G	8G	8	6 0	"						P6	"	—	—	3G	3G	—	—	9	8 5	"	6	3	
A7	(2)	—	—	32	32	5	13 9	"						P7	Str.	3G	3G	—	—	—	—	7	23 0	Columns	6	3	
A8	"	—	—	1	1	5	13 10	"						P8	"	—	—	3G	3G	—	—	8	18 0	"			
A9	(1)	28	28	28	28	5	23 10	Backwall	22	3	1	7	0 23 1	68	P9	"	—	—	—	—	3G	3G	7	21 0	"		
A10	(2)	42	42	42	42	6	10 10	"	1	3	7	6	2 3	P10	(3)	60	60	45	45	54	54	4	9 2	Column Hoops			
A11	(2)	42	42	42	42	7	3 5	"	1	3	6	10		P11	Str.	2	2	2	2	2	2	2	3 41	Cap			
A12	Str.	24	24	24	24	6	2 3	Pads						P12	"	3	3	3	3	3	3	3	42 10	"			
A13	(3)	—	—	18	18	5	5 4	"	1	11	1	3		P13	"	4	4	4	4	4	4	6	41 0	"			
A14	"	—	—	12	12	5	12 2	WINGS	1	3	3	0		P14	(2)	8	8	8	8	8	8	5	12 0	"	10	4	
A15	Str.	20	20	20	20	6	3 1	"						P15	Str.	4	4	4	4	4	4	9	9 10	"			
A16	"	28	28	28	28	9	12 3	"						P16	(1)	2	2	2	2	2	2	11	43 10	"	39	10	
A17	(2)	4	4	4	4	5	10 1	"	1	4	4	5		P17	"	2	2	2	2	2	2	11	45 8	"	41	8	
A18	"	2	2	2	2	5	10 1	"	1	3 1/2	4	5		P18	(4)	20	20	20	20	20	20	5	11 11	Cap Stirrups	2	5	
A19	"	2	2	2	2	5	10 0	"	1	5	4	5		P19	"	30	30	30	30	30	30	5	13 5	"	3	2	
A20	"	2	2	2	2	5	10 0	"	1	2 1/2	4	5		P20	"	2	2	2	2	2	2	5	12 7	"	2	9	
A21	"	2	2	2	2	5	9 11	"	1	2	4	5		P21	"	2	2	2	2	2	2	5	10 9	"	1	10	
A22	"	2	2	2	2	5	3 11	"	1	1 1/2	4	5		P22	Str.	24	24	24	24	24	24	5	2 8	Pads			
A23	"	2	2	2	2	5	3 10	"	1	1	4	5		P23	(3)	22	22	22	22	22	22	5	7 3	"	2	8	
A24	"	2	2	2	2	5	3 10	"	1	0 1/2	4	5		P24	"	2	2	2	2	2	2	5	6 4	"	1	9	
A25	"	2	2	2	2	5	3 9	"	0	11 1/2	4	5															
A26	"	2	2	2	2	5	3 9	"	0	11	4	5															
A27	"	2	2	2	2	5	3 8	"	0	10 1/2	4	5															
A28	"	2	2	2	2	5	3 8	"	0	10 1/2	4	5															
A29	Str.	8	8	8	8	5	12 3	"	0	8	2	8															
A30	(2)	20	20	20	20	3	5 11	"	3	1	2	8															
A31	(2)	18	18	—	—	5	5 7	Pads																			
A32	(1)	60	60	—	—	5	5 1	Footings	4	3	0	10	0 5 4 8														
A33	(2)	60	60	—	—	5	11 4	"	10	6	0	10	0 5 10 8 1/2														
A34	(1)	15	15	—	—	9	9 10	Column Dowels	6	6	1	0	11 1/2 7 3 1/2														
A35	Str.	18	18	—	—	5	13 6	Column																			
A36	(2)	3	3	—	—	4	11 3	Column Hoops	1	7	3	8															
A37	"	3	3	—	—	4	11 11	"	1	7	4	0															
A38	"	3	3	—	—	4	12 7	"	1	7	4	4															
A39	"	3	3	—	—	4	13 3	"	1	7	4	8															
A40	"	3	3	—	—	4	13 11	"	1	7	5	0															
A41	"	3	3	—	—	4	14 7	"	1	7	5	4															
A42	"	3	3	—	—	4	15 3	"	1	7	5	8															
A43	"	3	3	—	—	4	15 11	"	1	7	6	0															
A44	"	3	3	—	—	4	16 7	"	1	7	6	4															
A45	"	3	3	—	—	4	17 3	"	1	7	6	8															
A46	"	3	3	—	—	4	17 11	"	1	7	7	0															
A47	Str.	18	18	—	—	5	13 6	Column																			
A48	"	6	6	—	—	5	3 10	"																			
A49	"	6	6	—	—	5	3 10	"																			
A50	"	6	6	—	—	5	3 10	"																			
A51	"	3	3	—	—	6	14 1	"																			
A52	"	3	3	—	—	6	5 1	Column Dowels																			
A53	(2)	10	10	—	—	5	8 10	"	1	5	3	3															
A54	Str.	8	8	—	—	8	45 6	Apron																			
A55	(2)	41	41	—	—	6	10 3	"	1	0	4	11															
A56	Str.	8	8	—	—	5	23 11	"																			
A57	Str.	2	2	—	—	8	45 3	Cap																			
A58	Str.	4	4	—	—	8	45 6	"																			
A59	Str.	4	4	—	—	8	45 7	"																			
A60	Str.	2	2	—	—	6	24 0	"																			
A61	Str.	2	2	—	—	6	24 1	"																			
A62	(2)	47	47	—	—	6	13 6	"	2	8	3	0 1/2															
A63	(2)	12	12	—	—	5	14 7	"	1	3	6	3															

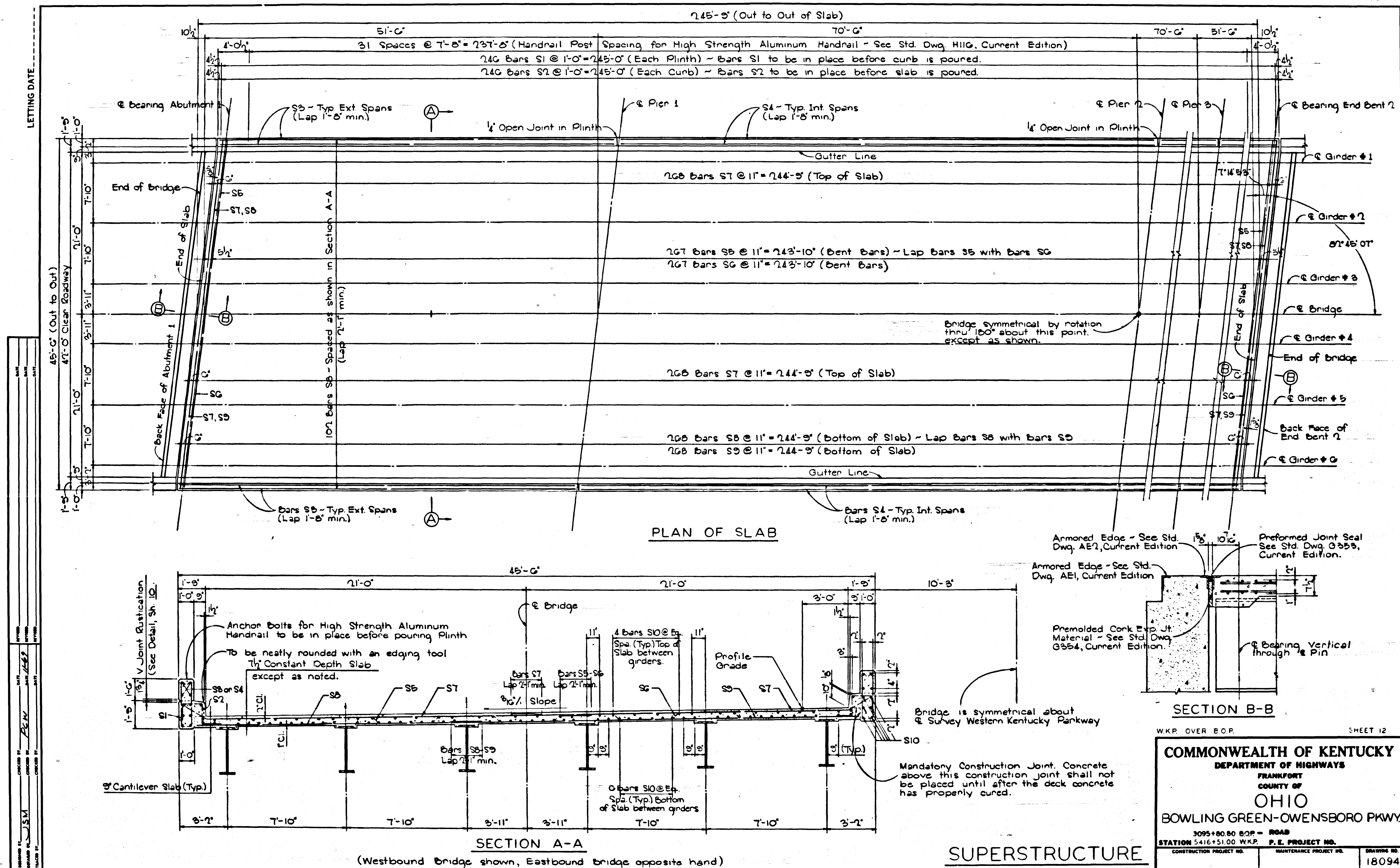


SUBSTRUCTURE

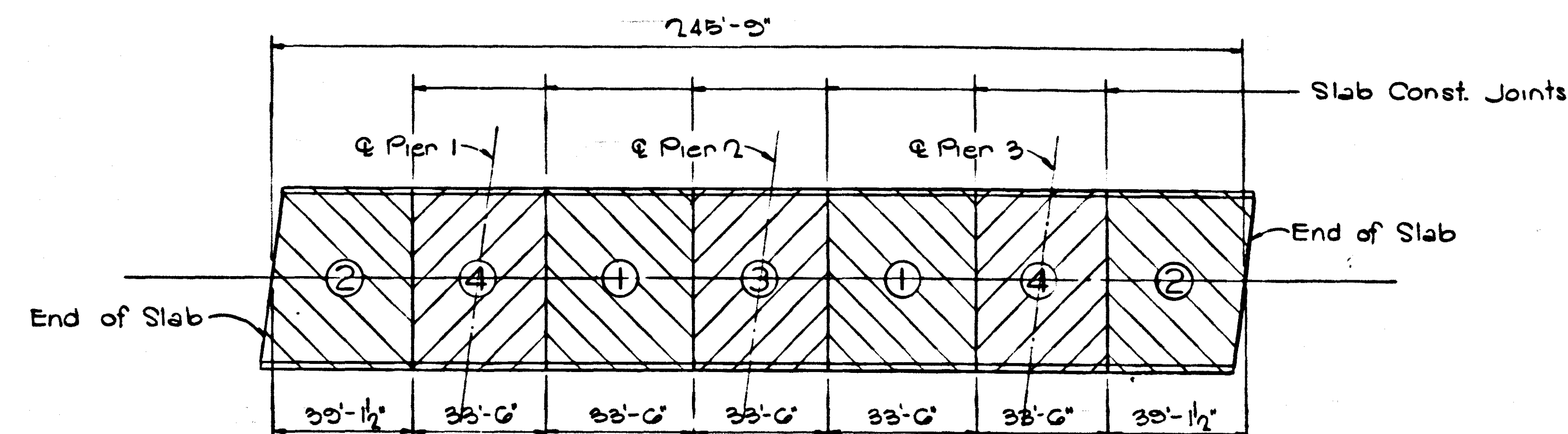
W.K.P. OVER B.O.P. SHEET 11

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO
BOWLING GREEN-OWENSBORO PKWY.

3095+8080 B.O.P. ROAD
STATION 5416+5100 W.K.P. P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18094

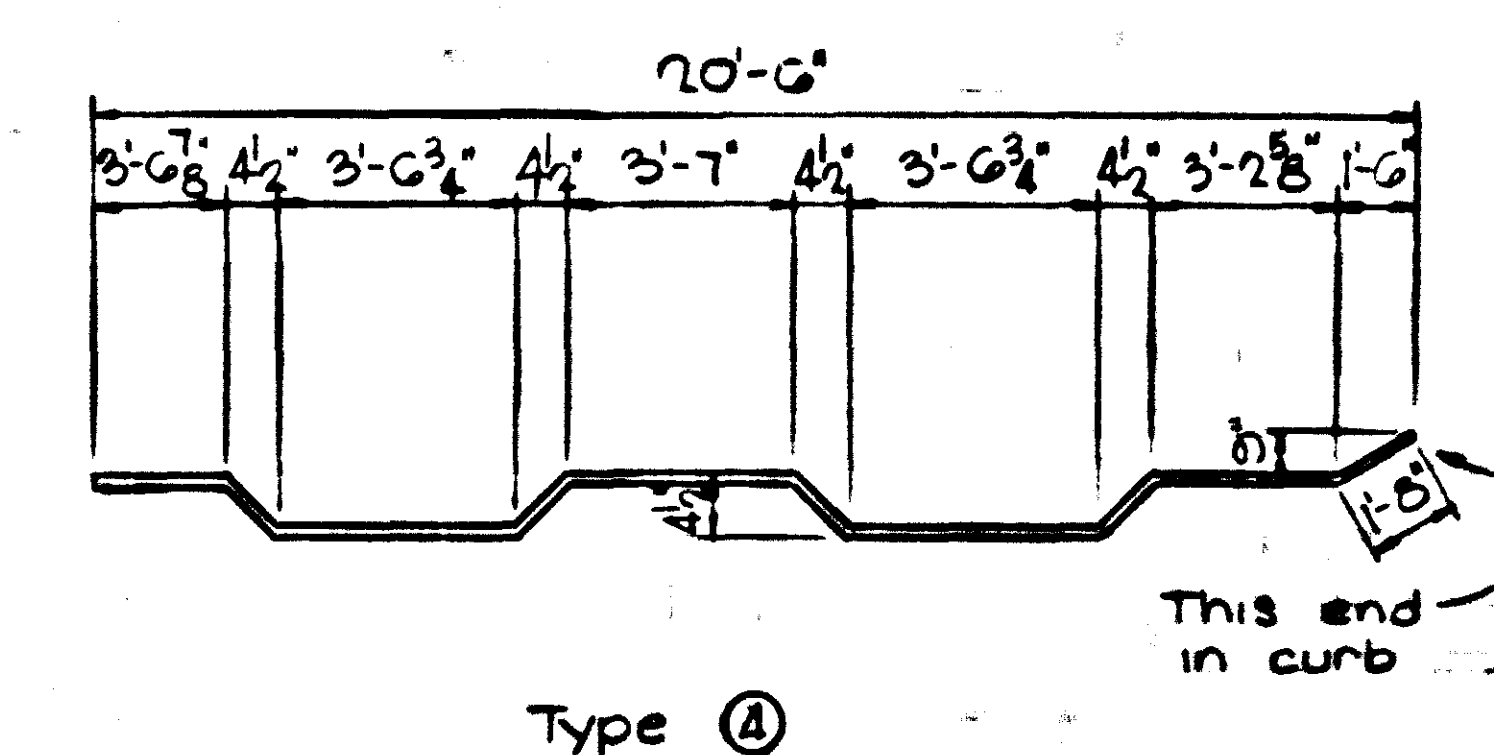
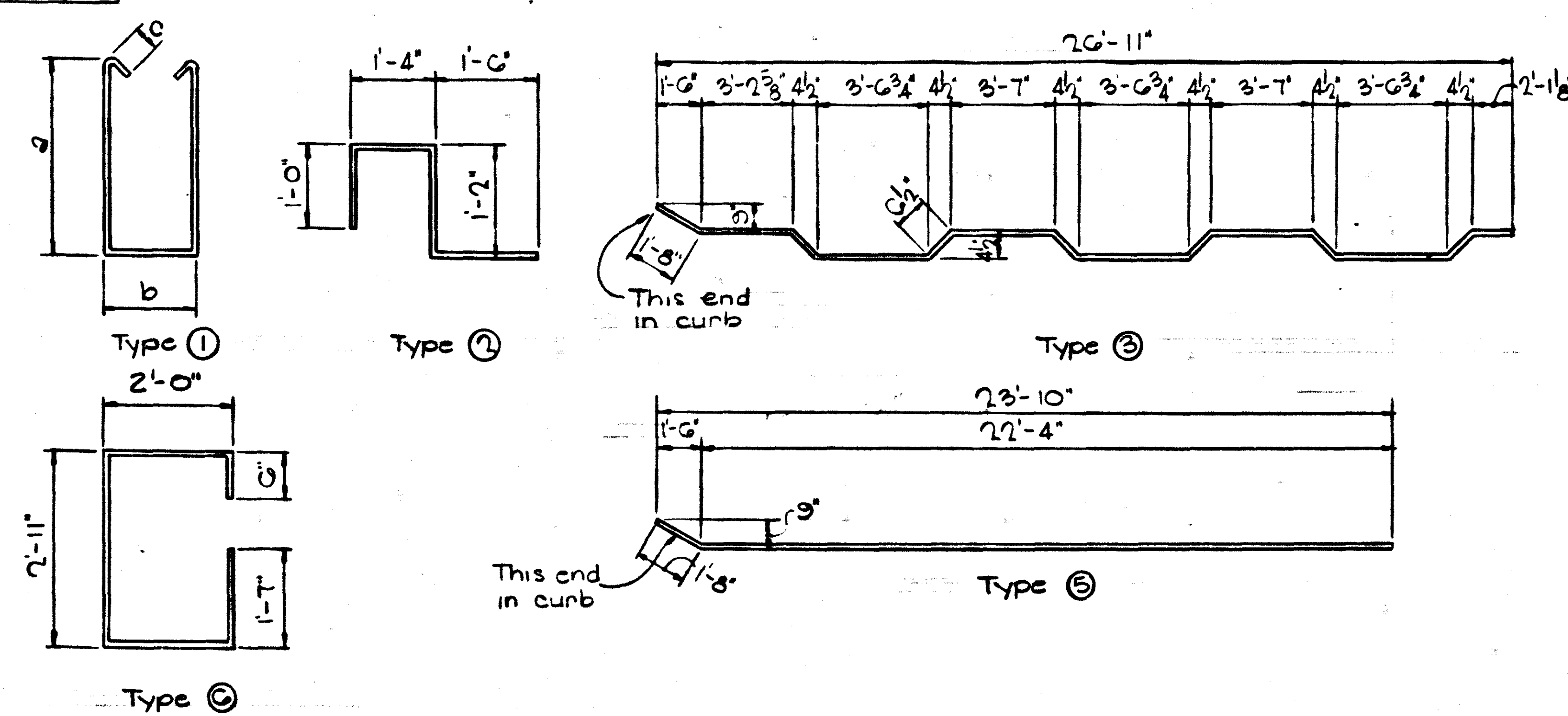


BILL OF REINFORCEMENT											
Mark	Type	No.	W/bd	Bar	Length	Location	a	b	c	d	
				Size	Ft. In.		Ft. In.	Ft. In.	Ft. In.	Ft. In.	
S1	①	432	432	5	6	Plinth	2	11	0	0	3
S2	②	432	432	7	4	Curb					
S3	Str	32	32	4	26	Plinth					
S4	Str	32	32	4	36	Plinth					
S5	③	267	267	5	28	Slab - Bent Bars					
S6	④	267	267	5	21	"					
S7	⑤	536	536	5	24	" - Top					
S8	Str	268	268	5	18	" - Bottom					
S9	Str	268	268	5	26	"					
S10	Str	714	714	5	36	" - Longitudinal					
S11	⑥	3	3	6	8	Lighting Bracket					
S12	⑦	6	6	6	2		2	0	1	8	0



POURING ORDER

NOTE: The pouring sequence of the slab may be changed with the written approval of the Engineer.



ESTIMATE OF QUANTITIES

	Eastbound	Westbound	
Concrete, Class "AA"	324.5	324.5	Cu. Yds.
Reinforcement	77,159	77,159	Lbs.

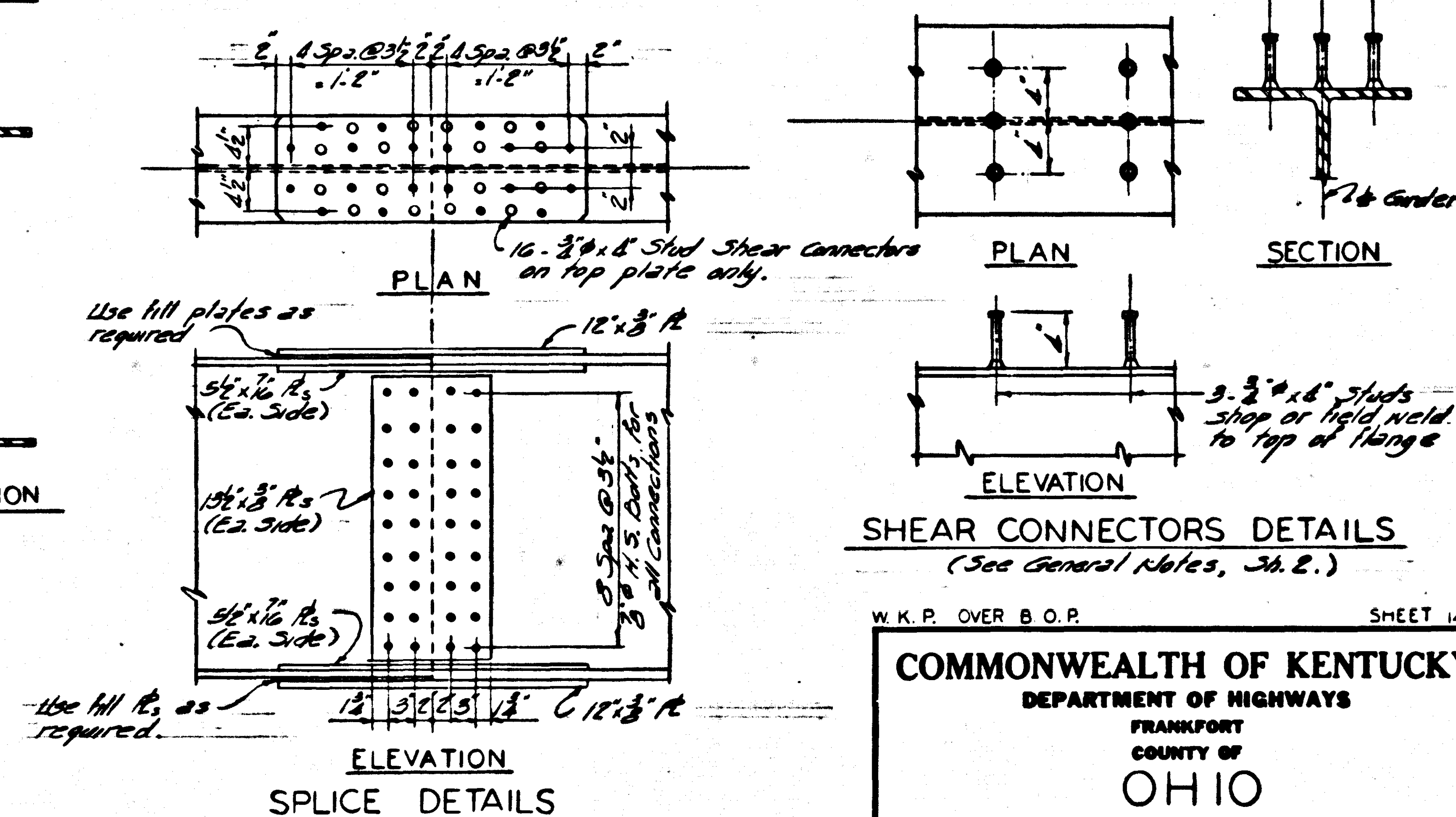
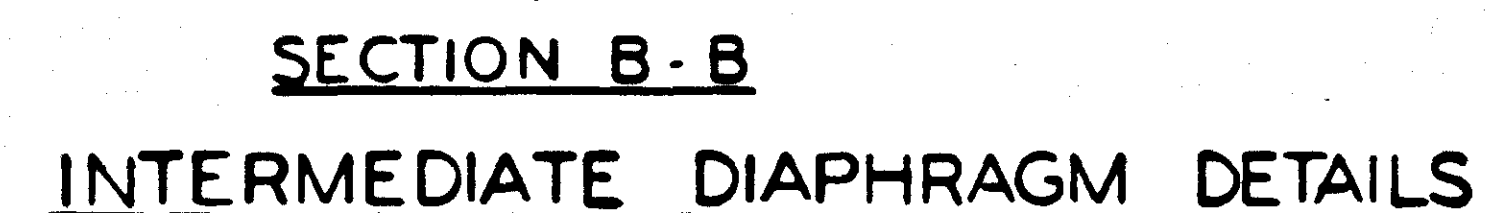
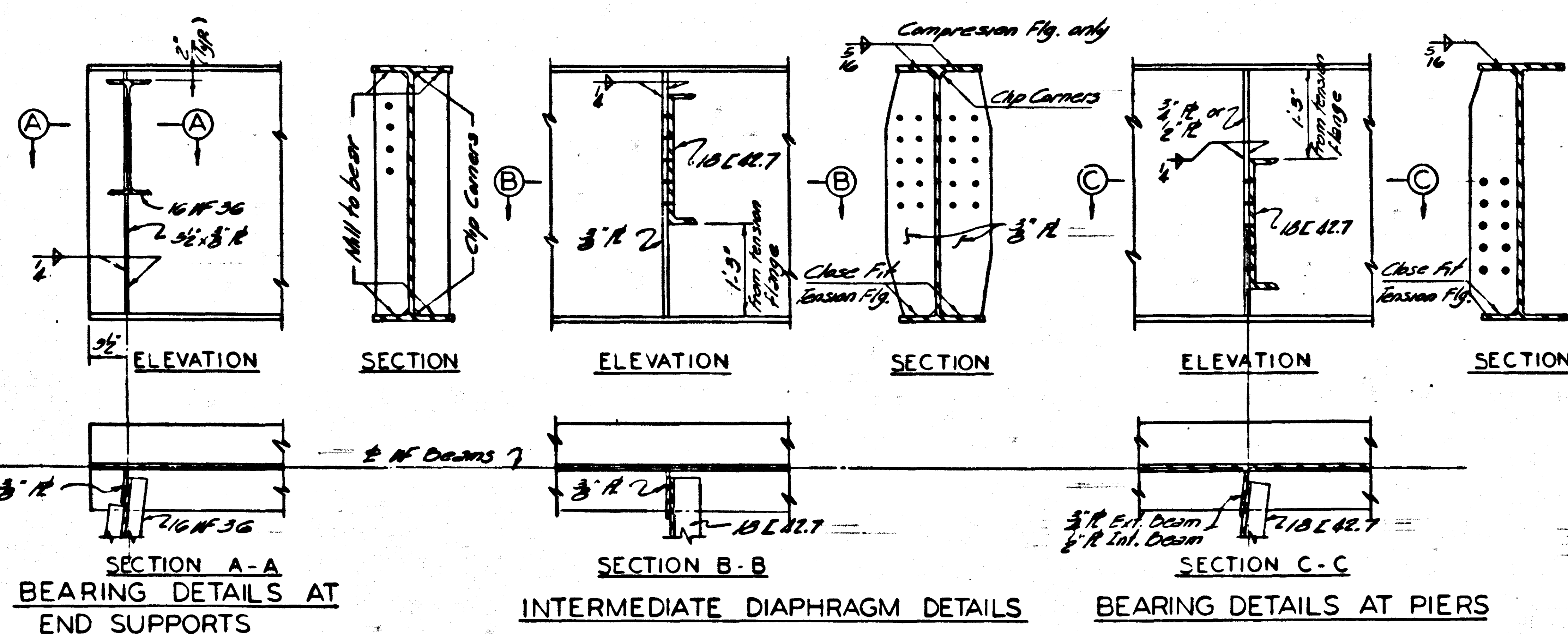
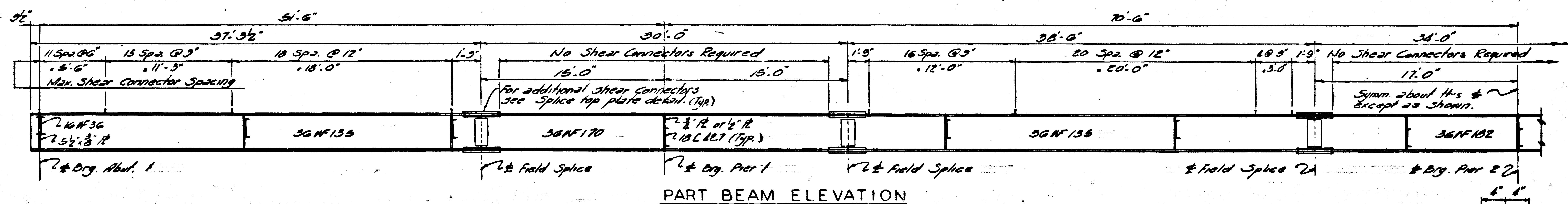
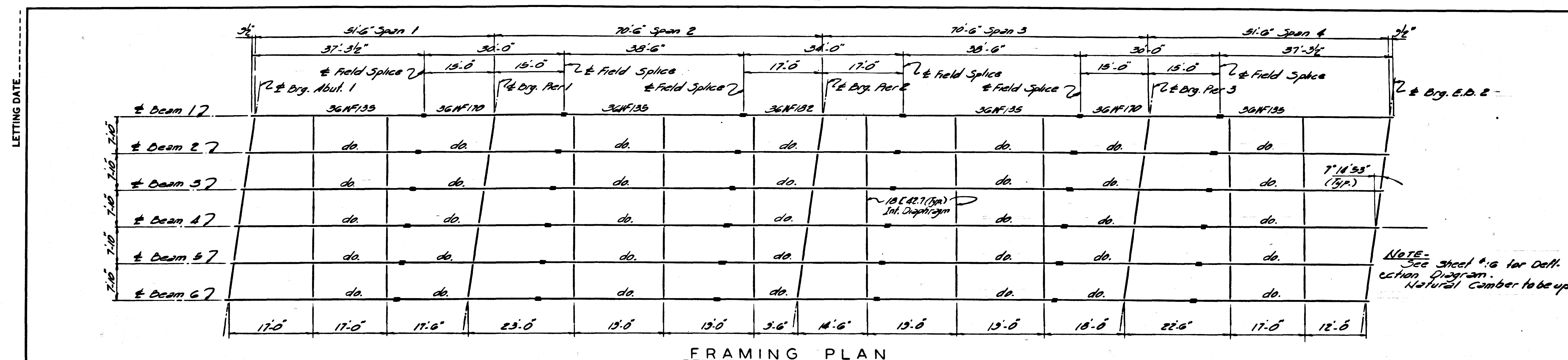
W.K.P. OVER B.O.P.

SHEET 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO
BOWLING GREEN-OWENSBORO PKWY.
3095+80.80 B.O.P. - ROAD
STATION 5416+51.00 W.K.P. PROJECT NO.
BRIDGE NUMBER 18094

SUPERSTRUCTURE

BRIDGE



NOTE: All above details are for Exterior Beam,
Interior Beams same except as shown.

SUPERSTRUCTURE

W. K. P. OVER B. O. P. SHEET 14

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

FRANKFORT

COUNTY OF

OHIO

BOWLING GREEN - OWENSBORO PKWY.

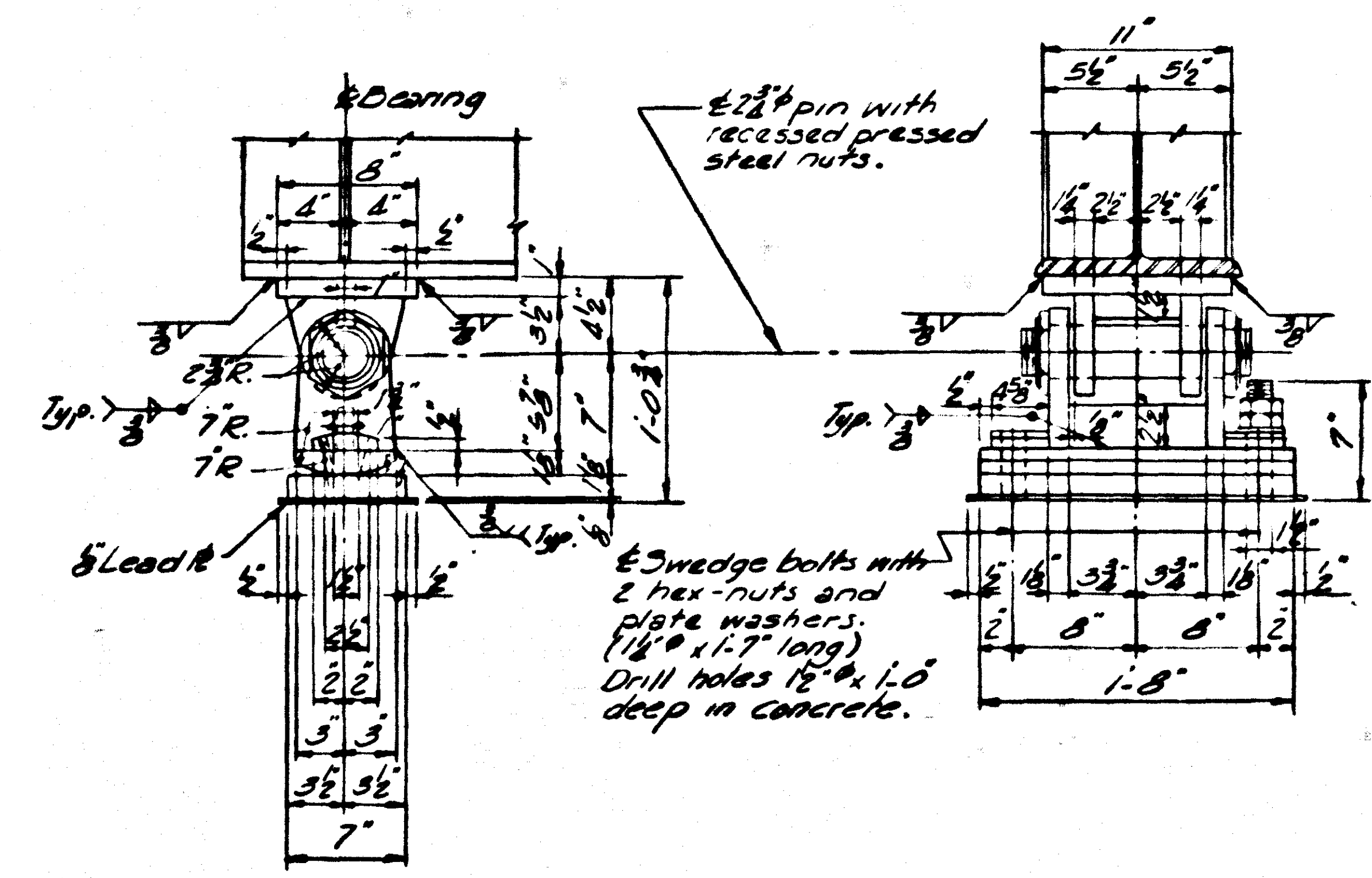
3095 + 80.80 B.O.P. ROAD

STATION 5416 + 51.00 W. K. P. P. E. PROJECT NO.

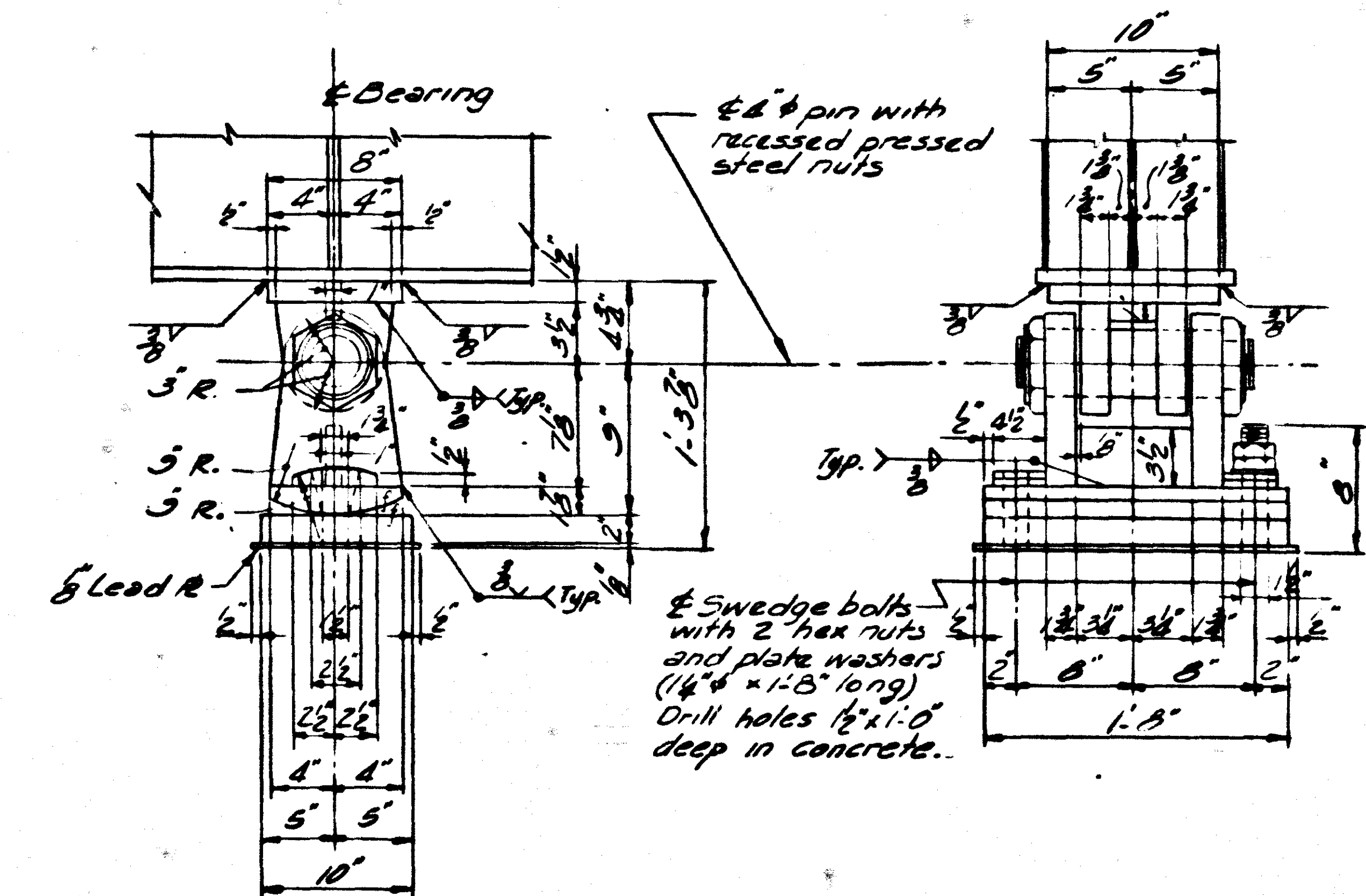
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.

DRAWING NO.
18094

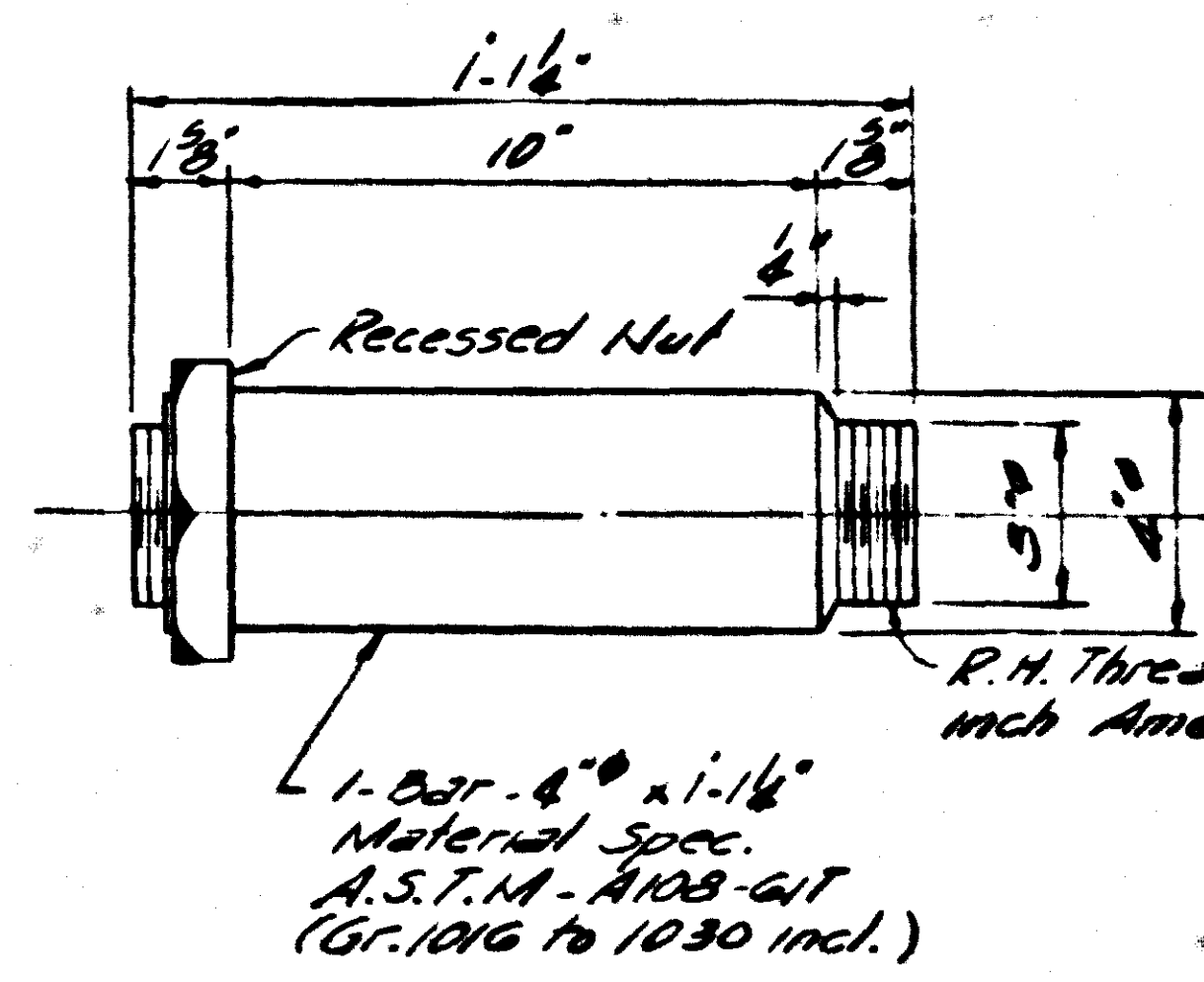
PRO. NO.	STATE	FEED. NO.	FEED. YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



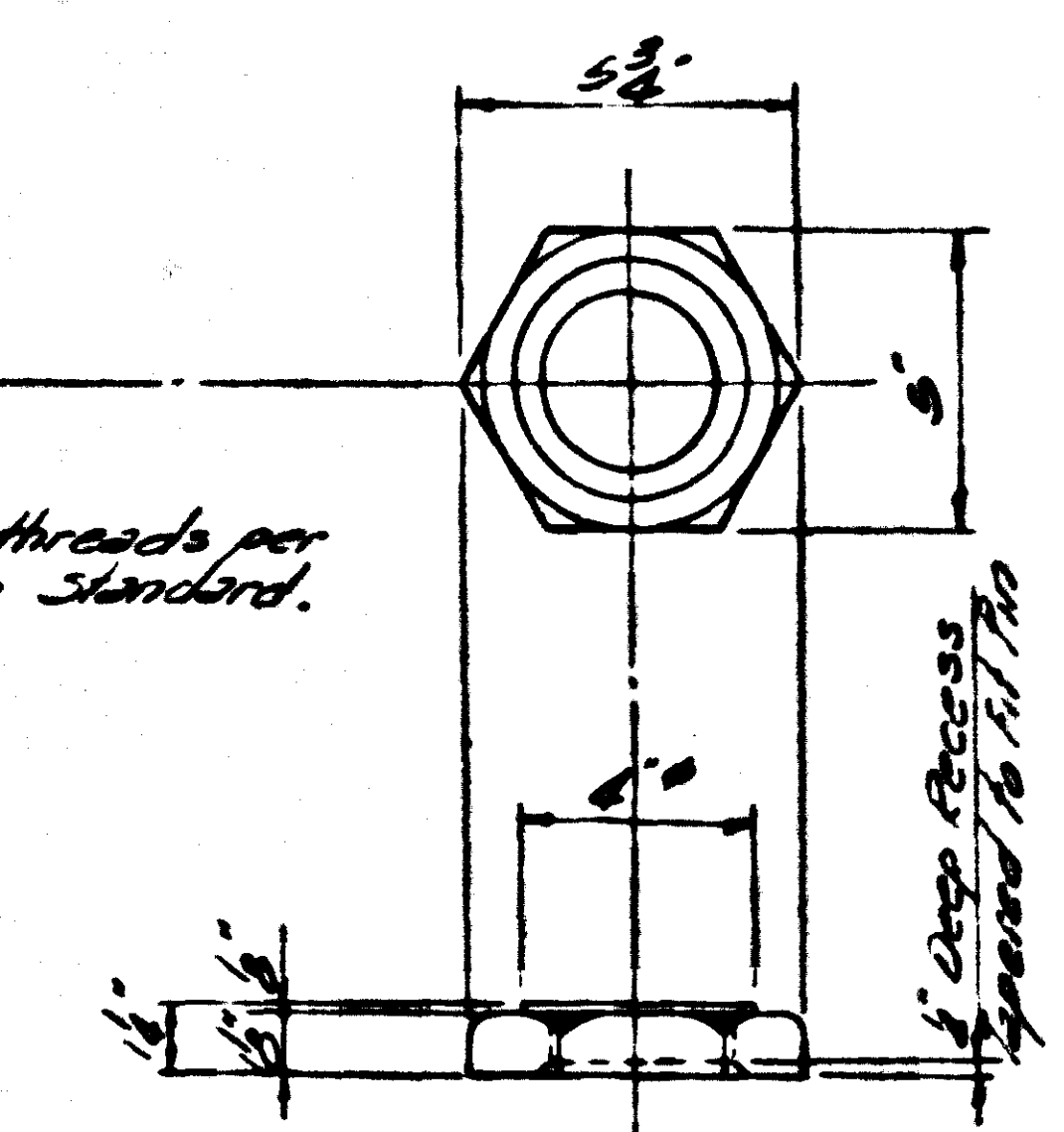
DETAIL OF EXPANSION ROCKER AT ABUT. OR END BENT
Capacity 80 kips
Weight, each shoe assembly 207 lb.



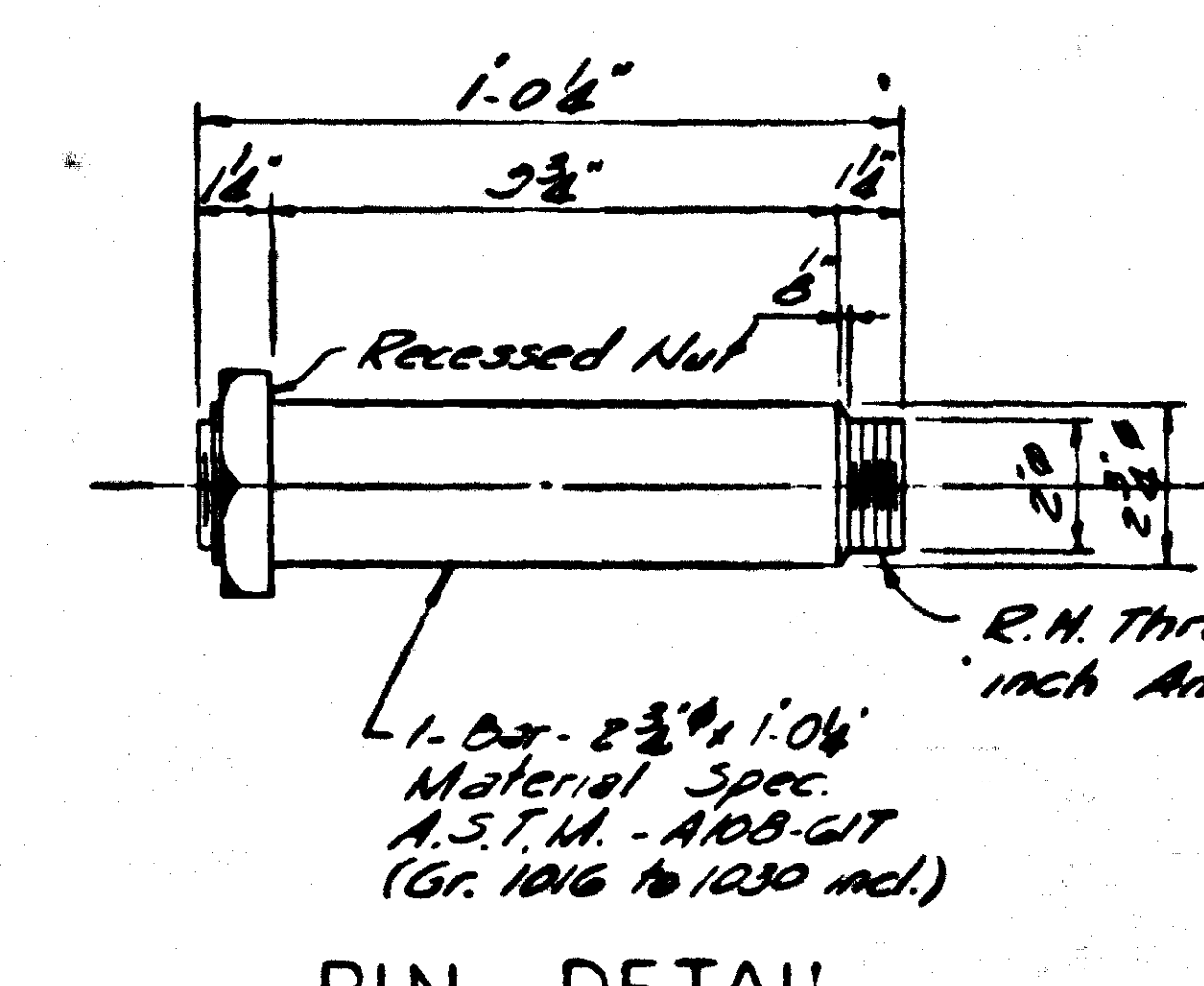
DETAIL OF EXPANSION ROCKER AT PIERS 1 & 3
Capacity 180 kips
Weight, each shoe assembly 390 lb.



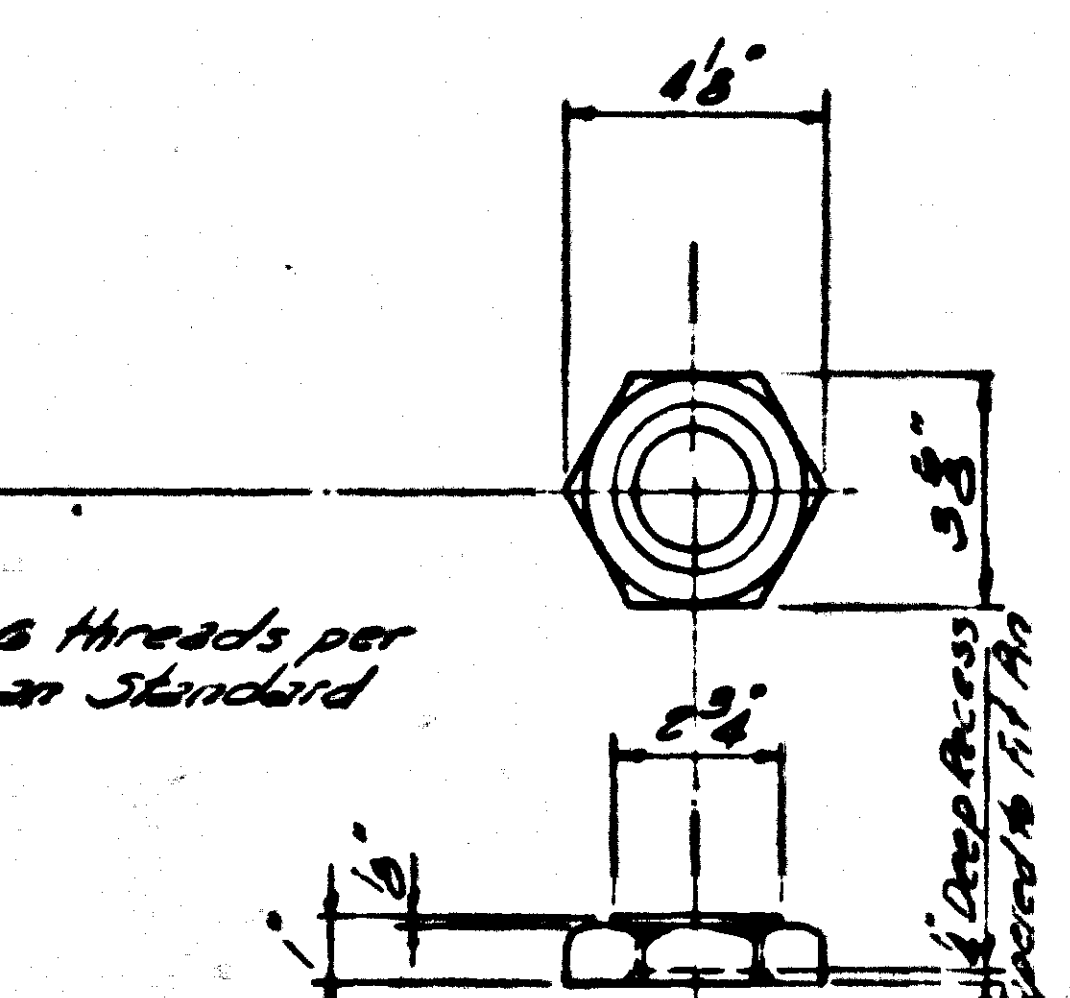
PIN DETAIL



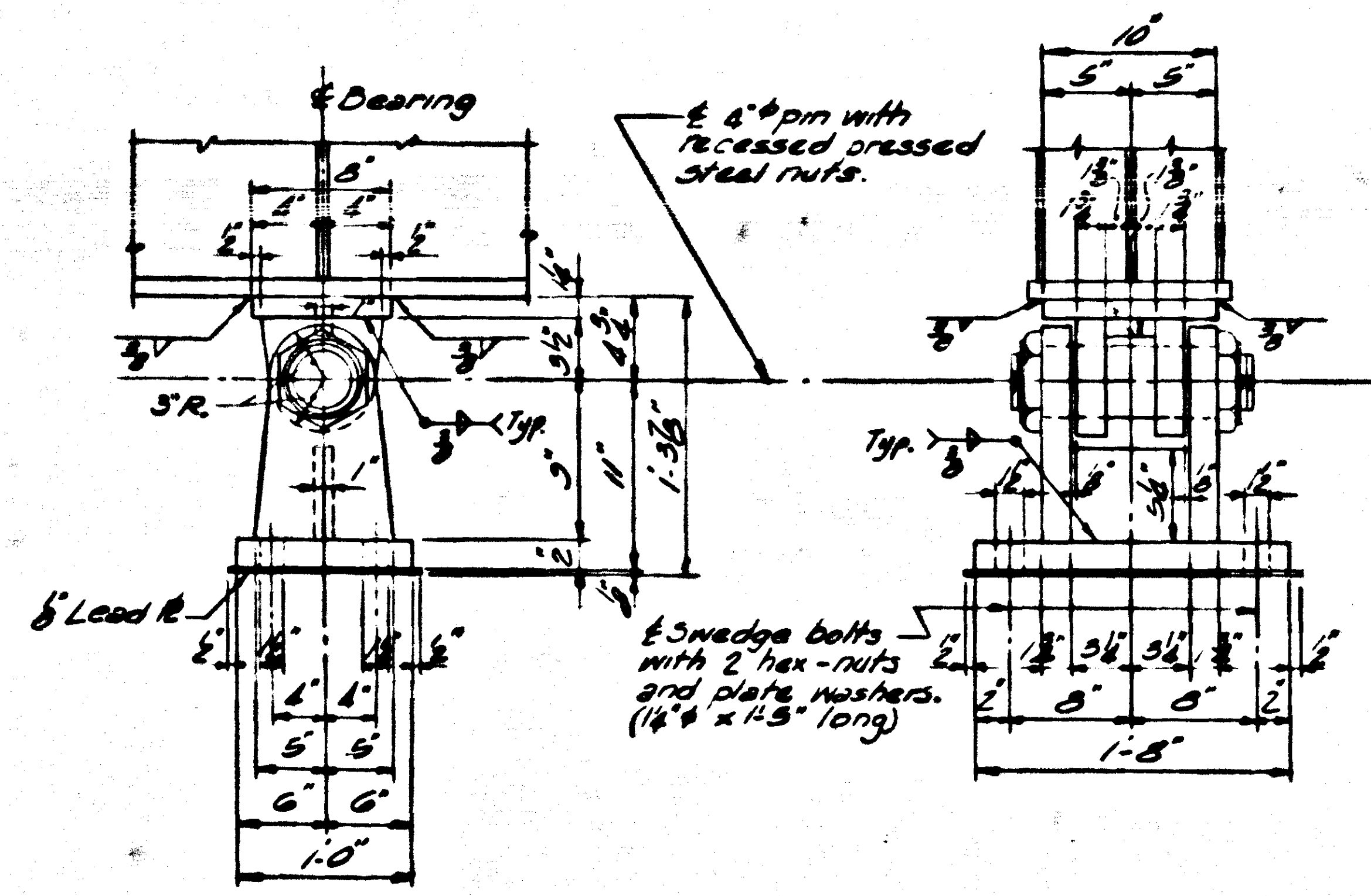
RECESSED NUT



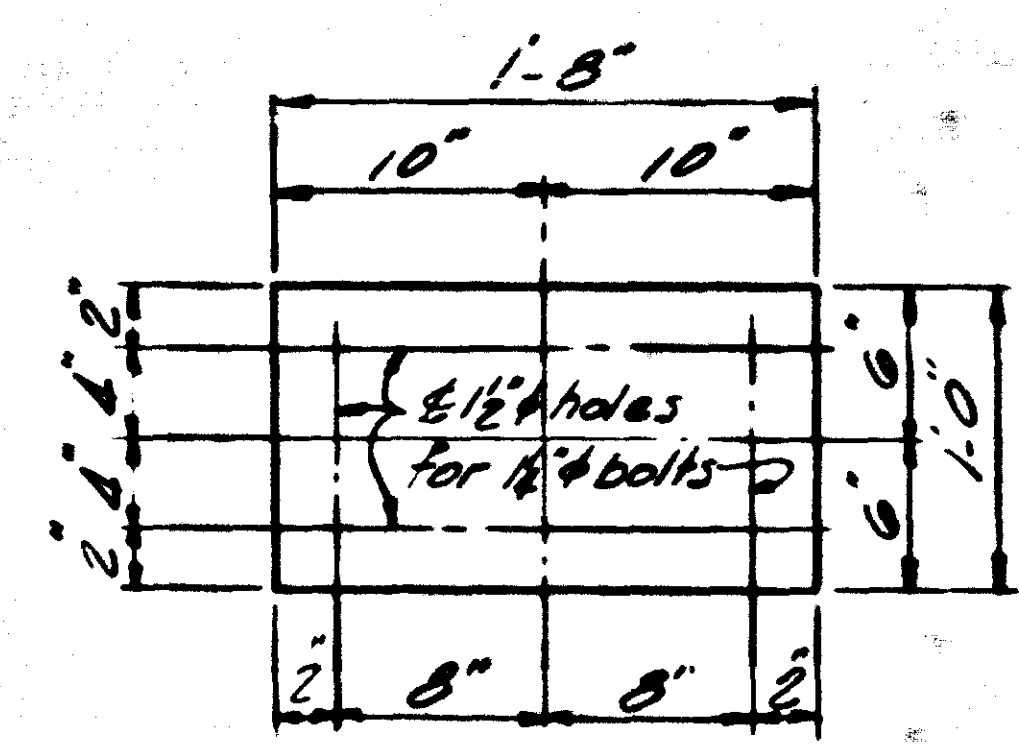
PIN DETAIL



RECESSED NUT



DETAIL OF FIXED SHOE AT PIER 2
Vertical Capacity 180 kips
Weight, each shoe assembly 377 lbs

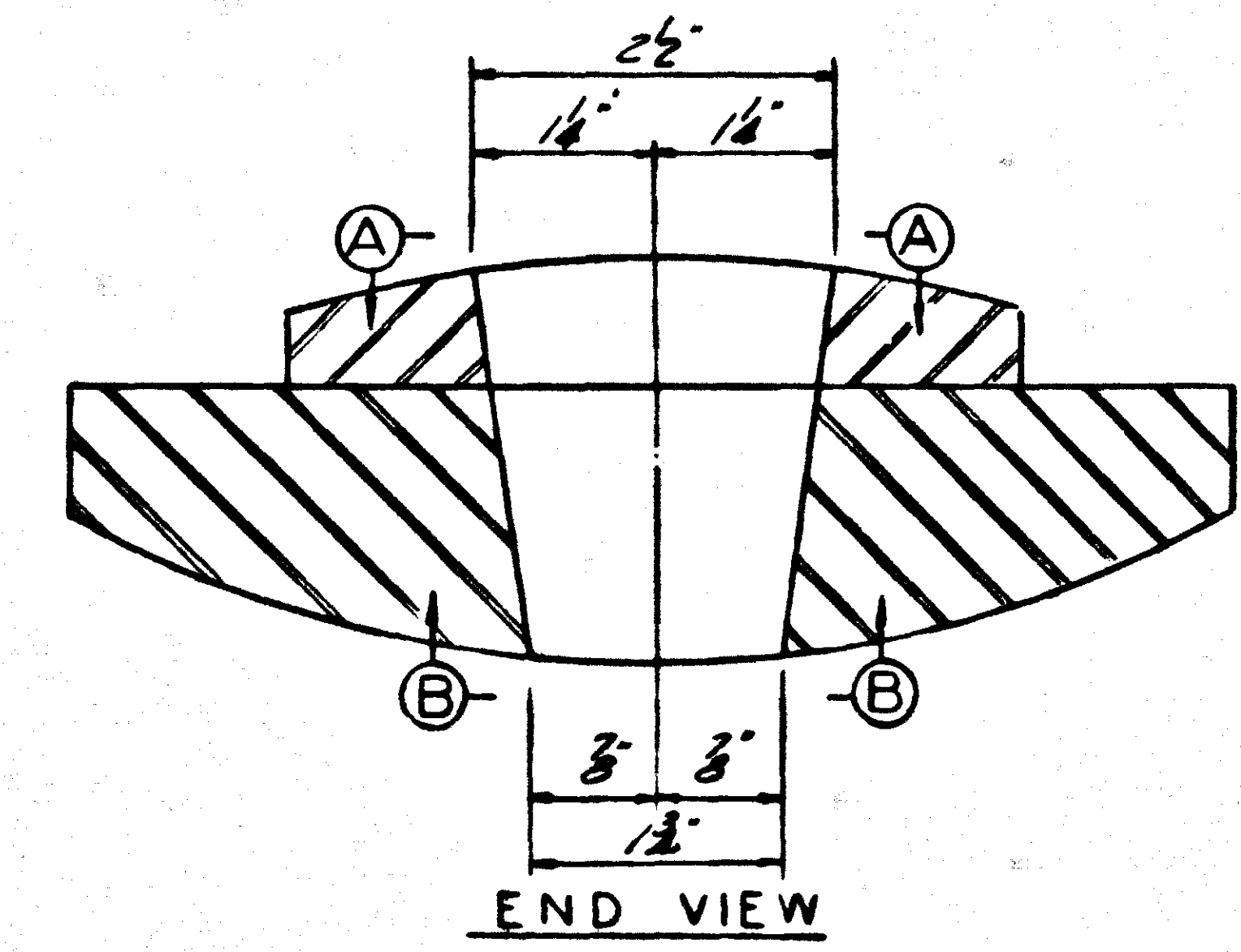


PLAN OF BOTTOM PLATE

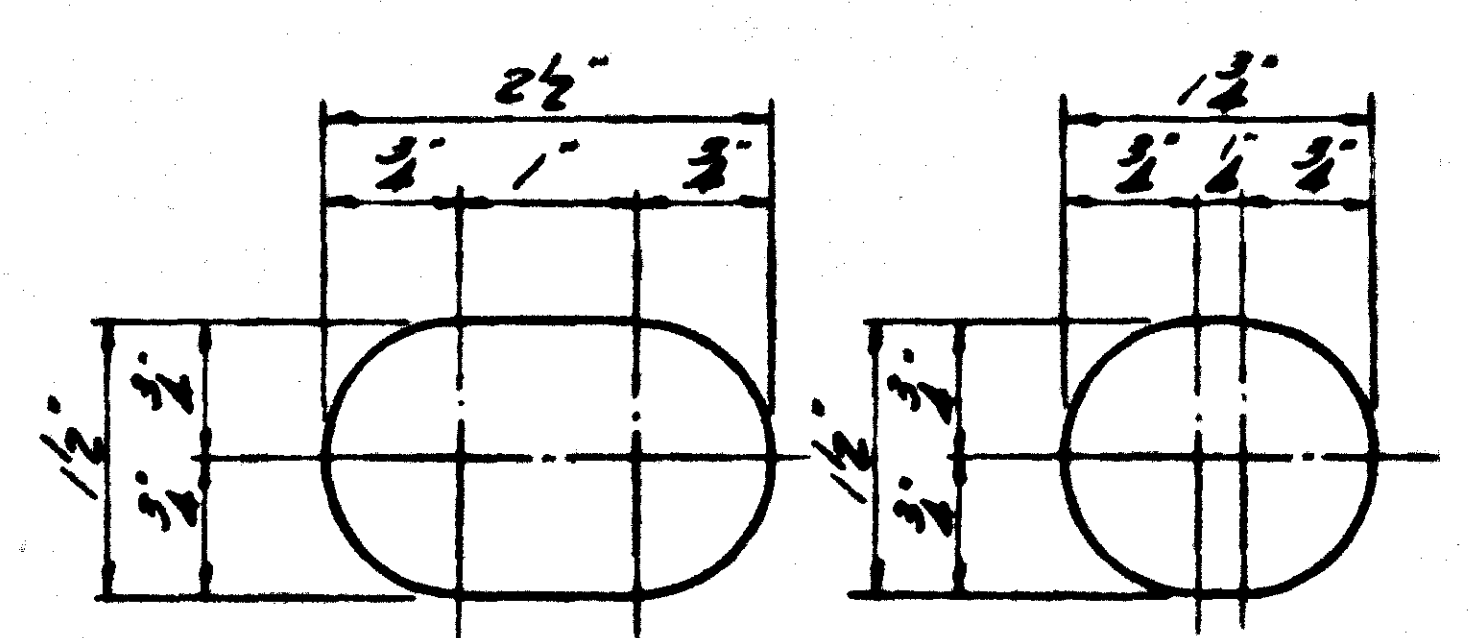
NOTE - For all Shoes and Rockers
WELDS - Use 3/8" fillet welds except as shown for fabricating bearing devices.
PLATES - Plates must be true and free from warp.
ANCHOR BOLTS - See Anchor Bolt Note, sheet 2.
HOLES for Anchor Bolts are to be
All surfaces of plates in contact except bearing surfaces to be welded.

SURFACE FINISH OF STEEL SPECIFICATIONS

Steel Slabs	A.S.A. 2000
Heavy Plates in contact in shoes to be welded	A.S.A. 1000
Milled Ends of compression members	A.S.A. 600
Bridge Rockers and Rollers	A.S.A. 260
Pins and Pin Holes	A.S.A. 125



DETAIL OF FLARED SLOT



SECTION A-A SECTION B-B

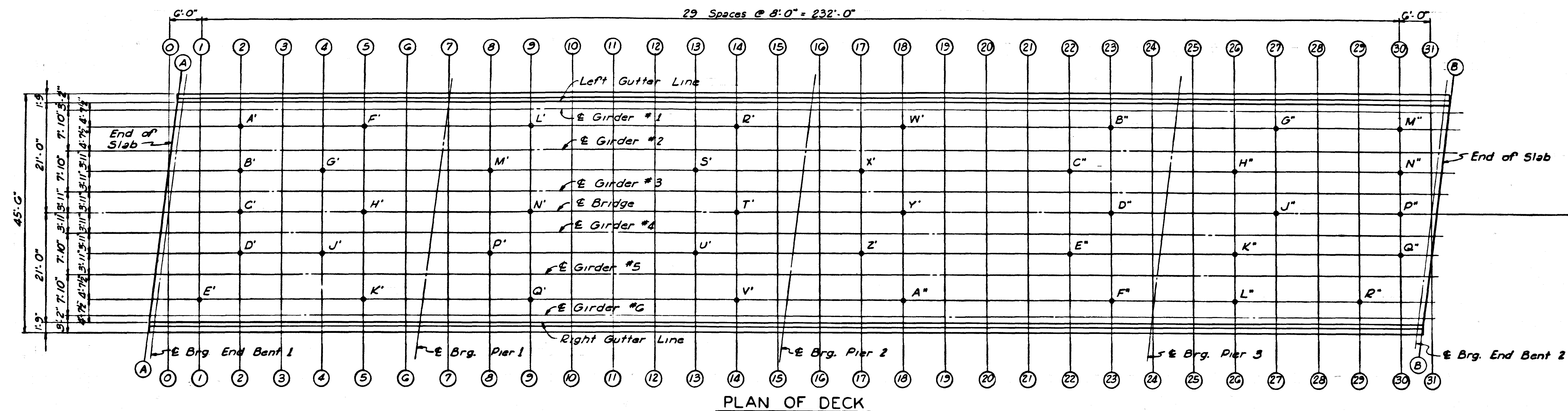
SUPERSTRUCTURE

W.K.P. OVER B.O.P. SHEET 15

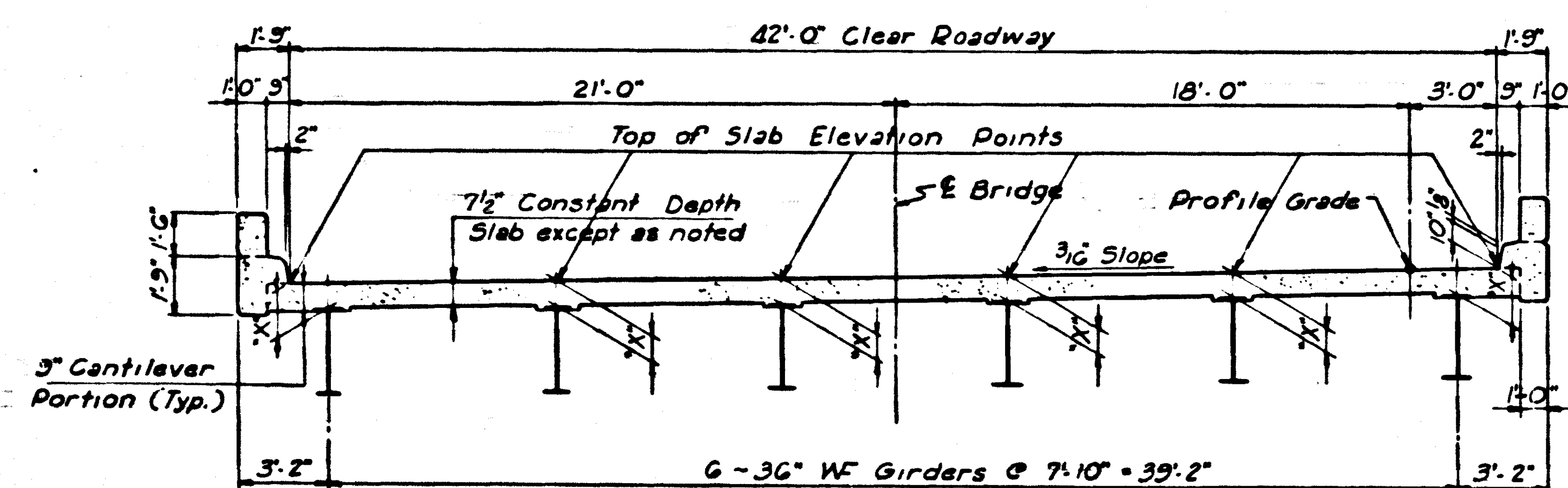
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO
BOWLING GREEN - OWENSBORO PKWY.
3095 80 80 B.O.P. ROAD
STATION 5416 + 5100 W.K.P. PROJECT NO.
BRIDGE NUMBER 18094



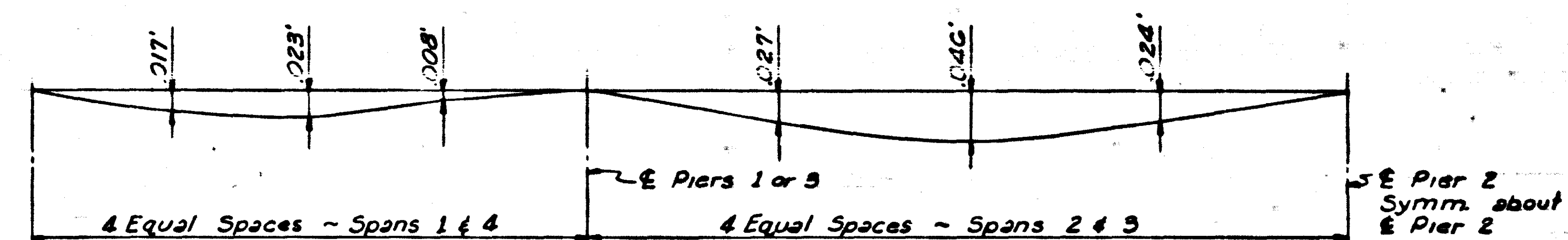
LETTING DATE



PLAN OF DECK



TYPICAL SECTION



DEFLECTION DIAGRAM

ELEVATIONS

W.K.P. OVER B.O.P.

SHEET 16

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
OHIO
BOWLING GREEN-OWENSBORO PKWY.
3095+80.80 B.O.P. ROAD
STATION 5416+5100 W.K.P. F.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18094

BRIDGE

LETTING DATE:

TABLE OF ELEVATIONS (WESTBOUND)																		
	Left Gutter Line			Girder #2			Girder #3			Girder #4			Girder #5			Right Gutter Line		
	Const. Elev.	Top of Steel	Dim. "X"	Const. Elev.	Top of Steel	Dim. "X"	Const. Elev.	Top of Steel	Dim. "X"	Const. Elev.	Top of Steel	Dim. "X"	Const. Elev.	Top of Steel	Dim. "X"	Const. Elev.	Top of Steel	Dim. "X"
A - A	477.808															478.511		
O - O										478.214			478.339			478.484		
1 - 1	477.776			477.922			478.047			.169			.223			.439		
2 - 2	.712			.857			477.981			.104			.228			.372		
3 - 3	.645			.789			.912			.034			.157			.300		
4 - 4	.567			.710			.832			477.954			.074			.219		
5 - 5	.484			.627			.749			.871			477.993			.136		
6 - 6	.399			.542			.664			.786			.908			.052		
7 - 7	.317			.462			.586			.708			.832			477.977		
8 - 8	.244			.389			.514			.637			.761			.906		
9 - 9	.174			.320			.445			.569			.693			.839		
10 - 10	.104			.248			.372			.495			.619			.763		
11 - 11	.024			.169			.292			.414			.537			.681		
12 - 12	476.937			.080			.202			.323			.445			.588		
13 - 13	.841			476.983			.105			.224			.348			.487		
14 - 14	.737			.879			.000			.121			.242			.385		
15 - 15	.635			.778			476.900			.022			.144			.287		
16 - 16	.539			.684			.808			476.930			.054			.199		
17 - 17	.452			.597			.722			.845			476.970			.116		
18 - 18	.370			.516			.641			.766			.890			.036		
19 - 19	.287			.432			.556			.679			.803			476.948		
20 - 20	.196			.340			.463			.585			.708			.851		
21 - 21	.096			.238			.360			.481			.603			.747		
22 - 22	475.984			.127			.249			.369			.490			.632		
23 - 23	.869			.011			.133			.254			.375			.518		
24 - 24	.754			475.897			.019			.141			.263			.406		
25 - 25	.645			.789			475.913			.035			.159			.304		
26 - 26	.545			.690			.814			475.936			.060			.205		
27 - 27	.444			.589			.713			.835			475.959			.101		
28 - 28	.340			.485			.608			.730			.853			475.997		
29 - 29	.229			.373			.495			.616			.738			.881		
30 - 30	.110			.252			.374			.496			.617			.759		
31 - 31	.071			.160			.281											
B - B	474.963															475.695		

TABLE OF ELEVATIONS (EASTBOUND)																		
	Left Gutter Line			Girder #2			Girder #3			Girder #4			Girder #5			Right Gutter Line		
	Const. Elev.	Top of Steel	Dim. X'	Const. Elev.	Top of Steel	Dim. X'	Const. Elev.	Top of Steel	Dim. X'	Const. Elev.	Top of Steel	Dim. X'	Const. Elev.	Top of Steel	Dim. X'	Const. Elev.	Top of Steel	Dim. X'
A - A	478.537															477.927		
O - O										478.125			478.029			477.901		
1 - 1	478.505			478.363			478.242			.120			477.998			.856		
2 - 2	.444			.301			.179			.058			.536			.792		
3 - 3	.378			.234			.111			477.989			.866			.721		
4 - 4	.302			.157			.033			.911			.787			.642		
5 - 5	.220			.075			477.951			.829			.705			.560		
6 - 6	.136			477.991			.867			.745			.621			.477		
7 - 7	.056			.913			.791			.669			.547			.404		
8 - 8	477.984			.841			.721			.599			.477			.334		
9 - 9	.916			.774			.653			.533			.411			.269		
10 - 10	.848			.704			.582			.461			.339			.195		
11 - 11	.769			.626			.503			.381			.258			.114		
12 - 12	.683			.538			.414			.291			.167			.022		
13 - 13	.589			.443			.319			.194			.069			476.923		
14 - 14	.486			.340			.215			.092			476.967			.822		
15 - 15	.386			.241			.117			476.995			.871			.726		
16 - 16	.291			.148			.026			.904			.782			.639		
17 - 17	.206			.063			476.942			.821			.700			.558		
18 - 18	.126			476.984			.863			.744			.622			.480		
19 - 19	.044			.901			.779			.658			.536			.393		
20 - 20	476.955			.811			.688			.566			.443			.289		
21 - 21	.854			.710			.586			.463			.339			.195		
22 - 22	.747			.601			.477			.353			.229			.082		
23 - 23	.631			.486			.362			.239			.114			475.969		
24 - 24	.519			.374			.250			.128			.004			.859		
25 - 25	.411			.267			.145			.023			475.901			.758		
26 - 26	.312			.169			.047			475.925			.803			.660		
27 - 27	.213			.070			475.948			.826			.704			.561		
28 - 28	.111			475.968			.845			.723			.600			.456		
29 - 29	.001			.857			.733			.610			.486			.341		
30 - 30	475.884			.738			.614			.492			.367			.221		
31 - 31	.792			.647			.522											
B - B	475.738															475.157		

WESTBOUND
TABLE OF ELEV. FOR CONTROL
OF SLAB THICKNESS

Slab Check Point	Top of Slab Elevation	Bottom of Slab Elevation	Computed Slab Thickness
A'	477.787		
B'	.919		
C'	478.043		
D'	.166		
E'	.366		
F'	477.556		
G'	.771		
H'	.810		
J'	478.015		
K'	.065		
L'	477.247		
M'	.452		
N'	.507		
P'	.699		
Q'	.766		
R'	476.808		
S'	477.044		
T'	.061		
U'	.285		
V'	.314		
W'	476.443		
X'	.660		
Y'	.704		
Z'	.908		
A''	.963		
B''	475.940		
C''	476.188		
D''	.194		
E''	.430		
F''	.447		
G''	475.517		
H''	.752		
J''	.774		
K''	.998		
L''	476.133		
M''	475.181		
N''	.313		
P''	.435		
Q''	.557		
R''	.810		

EASTBOUND
TABLE OF ELEV. FOR CONTROL
OF SLAB THICKNESS

Slab Check Point	Top of Slab Elevation	Bottom of Slab Elevation	Computed Slab Thickness
A'	478.373		
B'	.240		
C'	.119		
D'	477.997		
E'	.927		
F'	478.148		
G'	.095		
H'	477.890		
J'	.849		
K'	.633		
L'	.845		
M'	.781		
N'	.593		
P'	.538		
Q'	.340		
R'	.413		
S'	.381		
T'	.154		
U'	.132		
V'	476.894		
W'	477.055		
X'	.003		
Y'	476.804		
Z'	.761		
A''	.551		
B''	.559		
C''	.539		
D''	.301		
E''	.291		
F''	.042		
G''	.142		
H''	.108		
J''	475.887		
K''	.864		
L''	.732		
M''	.811		
N''	.676		
P''	.553		
Q''	.430		
R''	.414		

NOTE

SLAB THICKNESS CONTROL - After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than 1/4" from the plan thickness, allowing 1/800 of the slab span for deflection of the form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.

CONSTRUCTION NOTES

Layout Section 0-0 to 31-31 as shown in plan on Sheet 16. (Center punch marks on top of girders for elevation points.)
Take elevations on top of steel at points indicated after cross frames are in place and after all false work has been removed, but before forms for concrete slab have been put in place. Read elevations to three decimals using a target rod and enter readings in table under "Top of Slab".
Compute Dimension "X" as follows: Construction Elevation minus Top of Steel equals Dimension "X". Construction Elevations include camber due to weight of Concrete Slab, plinth, handrail and future surfacing.
For setting templates measure Dimension "X" above Top of Steel for top of template. Do not set template by elevations.
Construct handrail plinth to curb grade. Do not add camber to handrail plinth.

Note: For Plan of Slab and Typical Section showing location of elevation points, see Sh. 16.

W.K.P. OVER B.O.P.

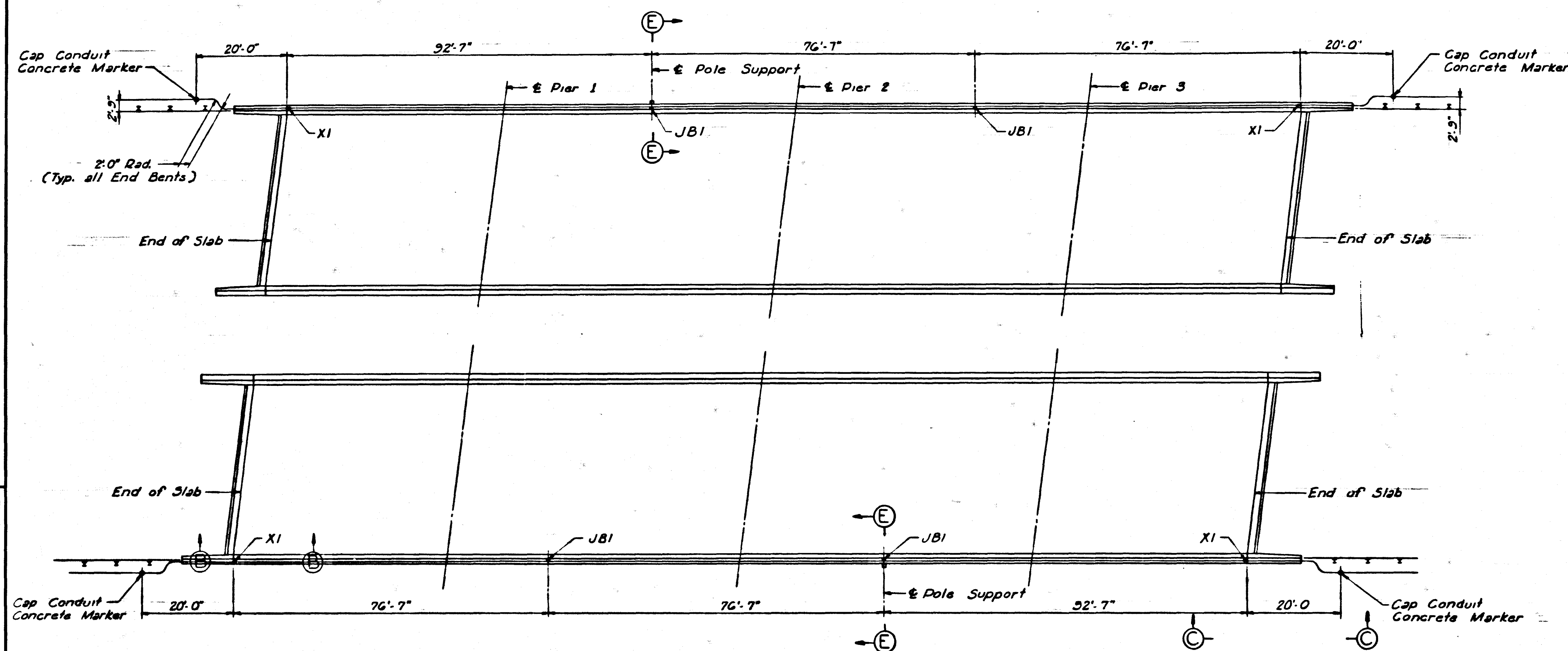
SHEET 17

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
OHIO	
BOWLING GREEN-OWENSBORO PKWY.	
3095+8080 B.O.P.	ROAD
STATION 5416+5100 W.K.P.	P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.
	DRAWING NO.
	18094

ELEVATIONS

BRIDGE

LETTING DATE



NOTE

All conduit to be rigid galvanized. Concrete and reinforcement for brackets, where required, are included in Superstructure Quantities. Junction Boxes and Conduit are to be placed so as to interfere with a minimum amount of reinforcement. Band reinforcement where necessary.

Concrete Marker at terminal points of conduit is to consist of a 4"x4"x36" reinforced concrete post with 4 size #4 (No. 2) reinforcing steel rods and a 2" brass disc in the end of the post inscribed "End of Duct" Marker to be 2" above grade with disc exposed.

XI = Expansion fitting for 2" conduit; manufacturer and number may be any of the following, or approved equal:

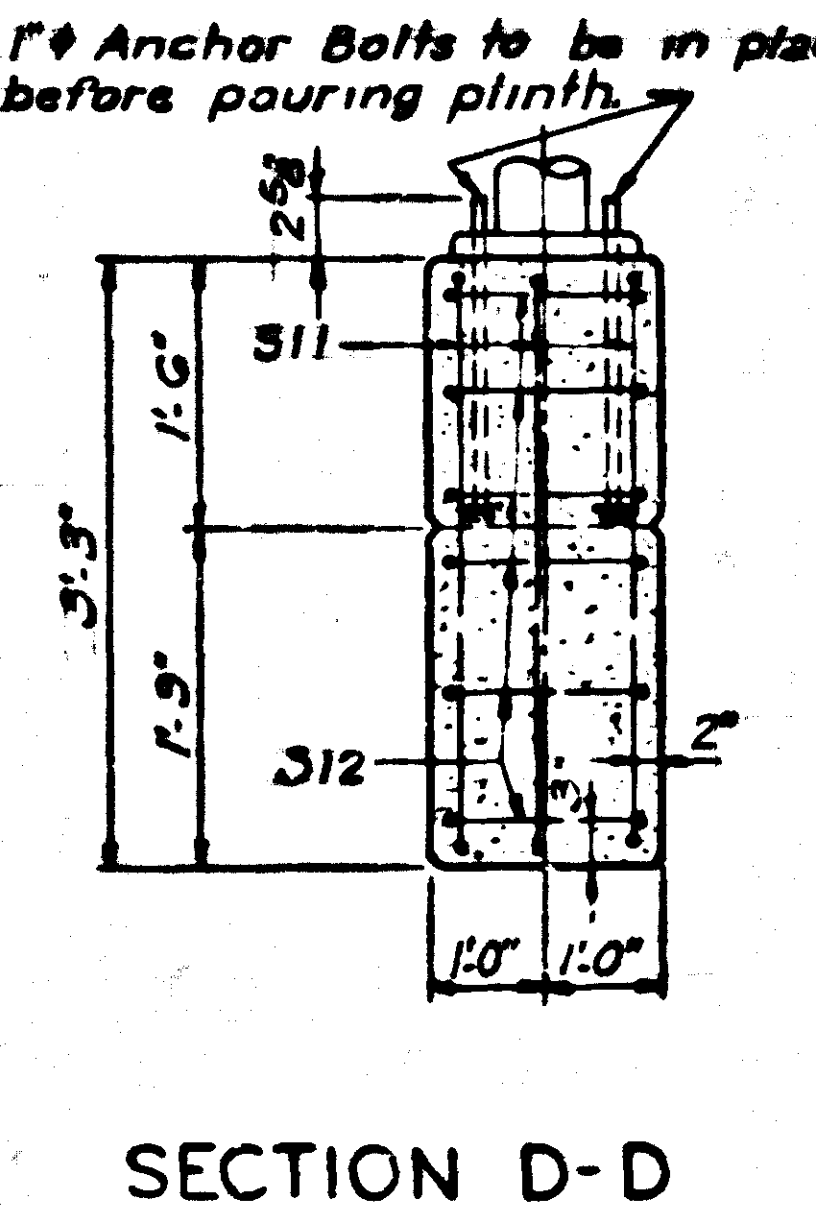
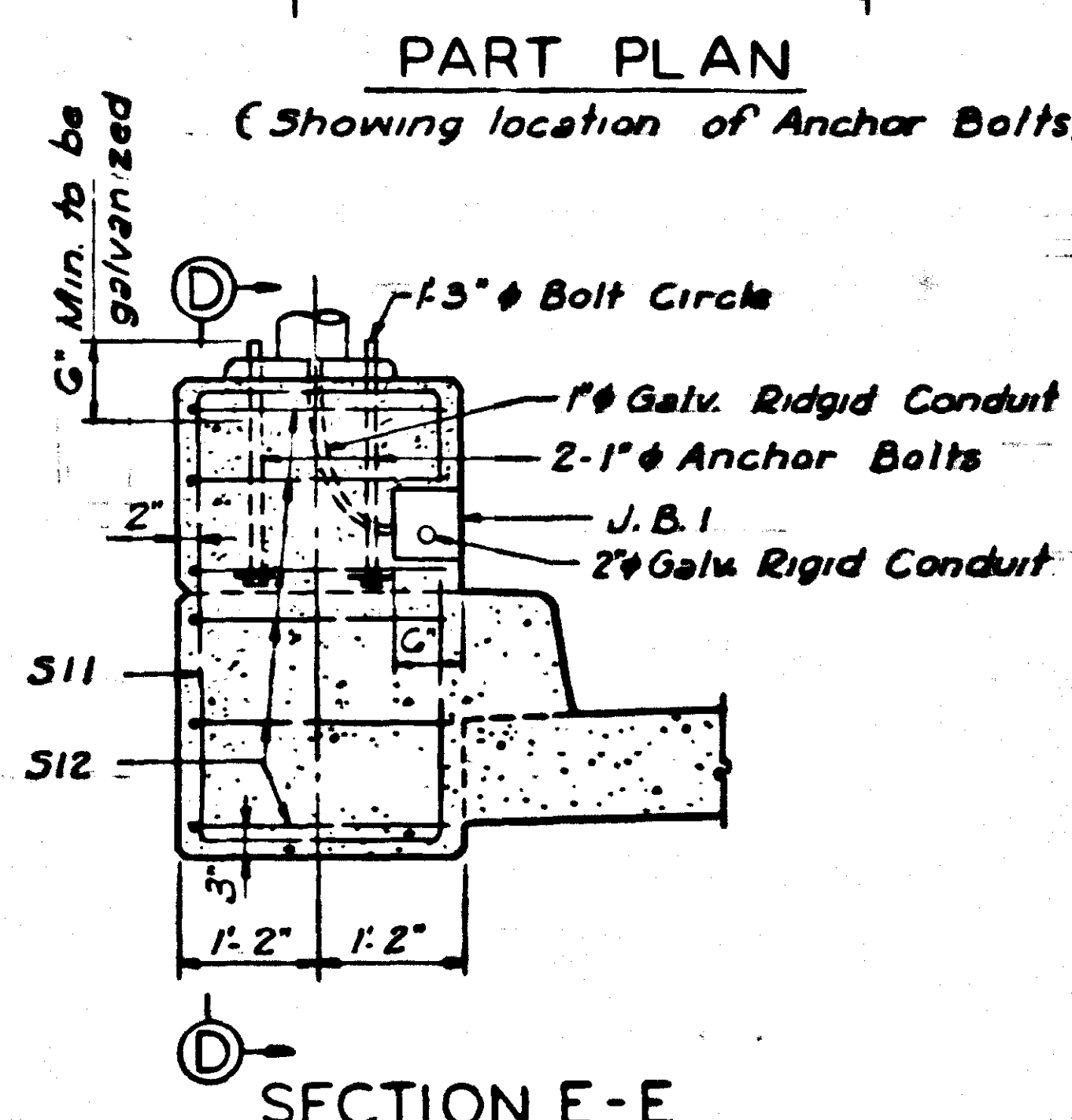
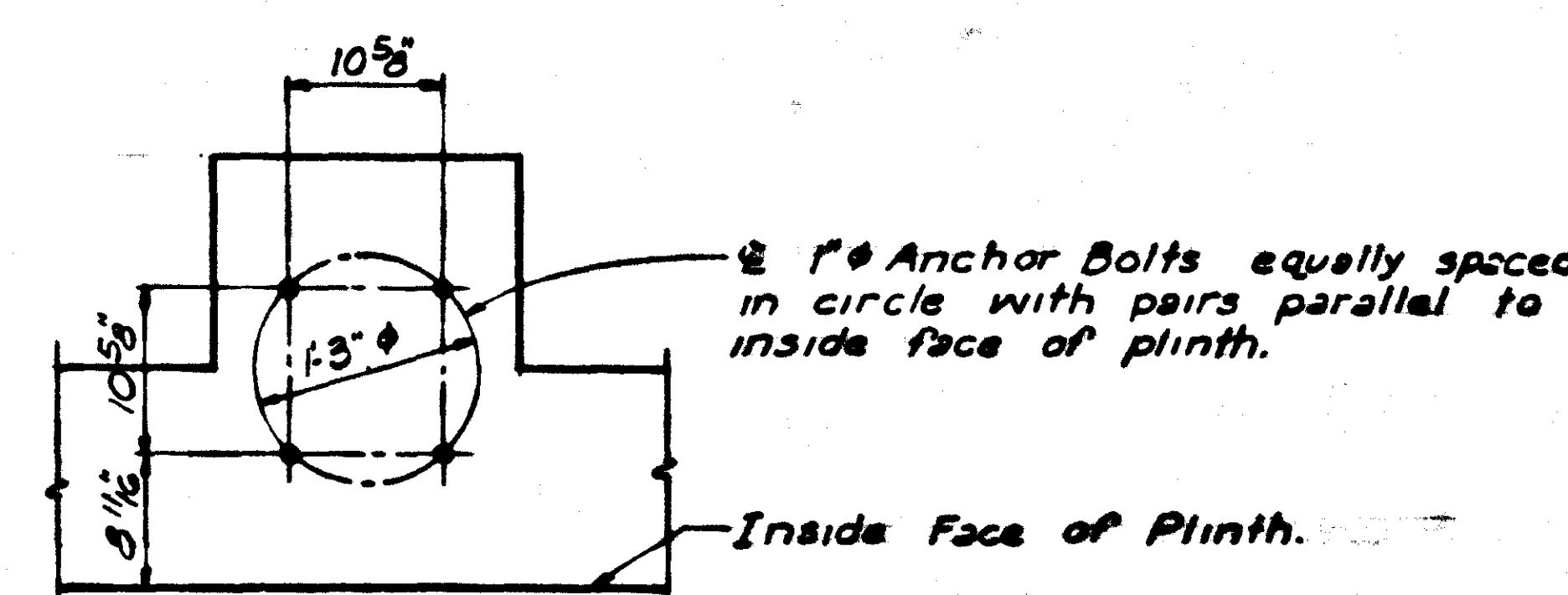
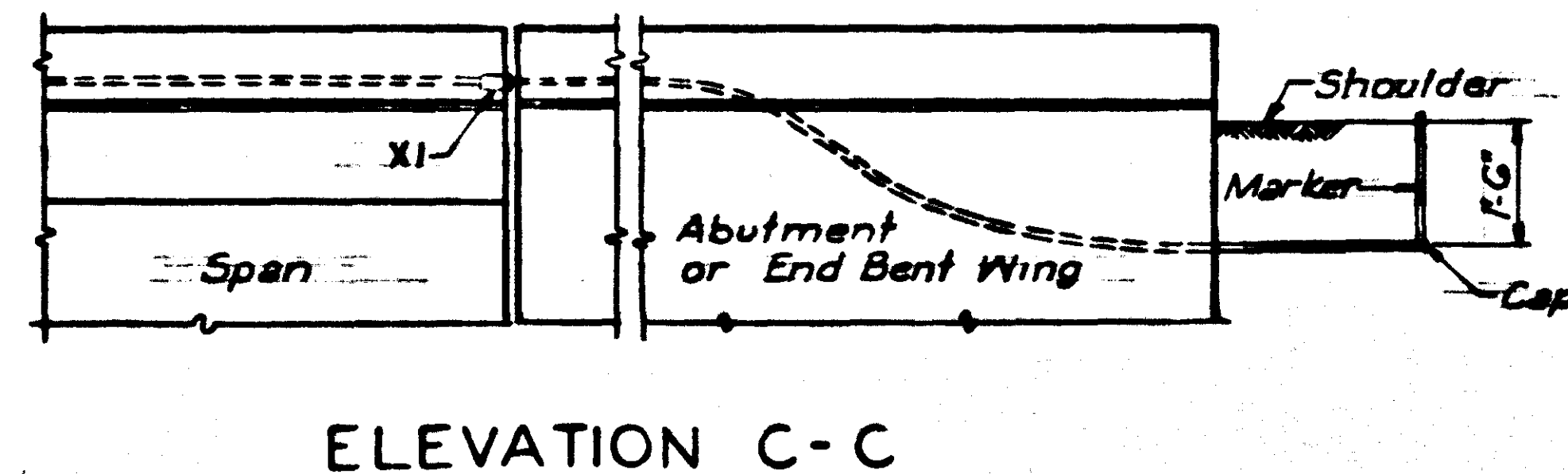
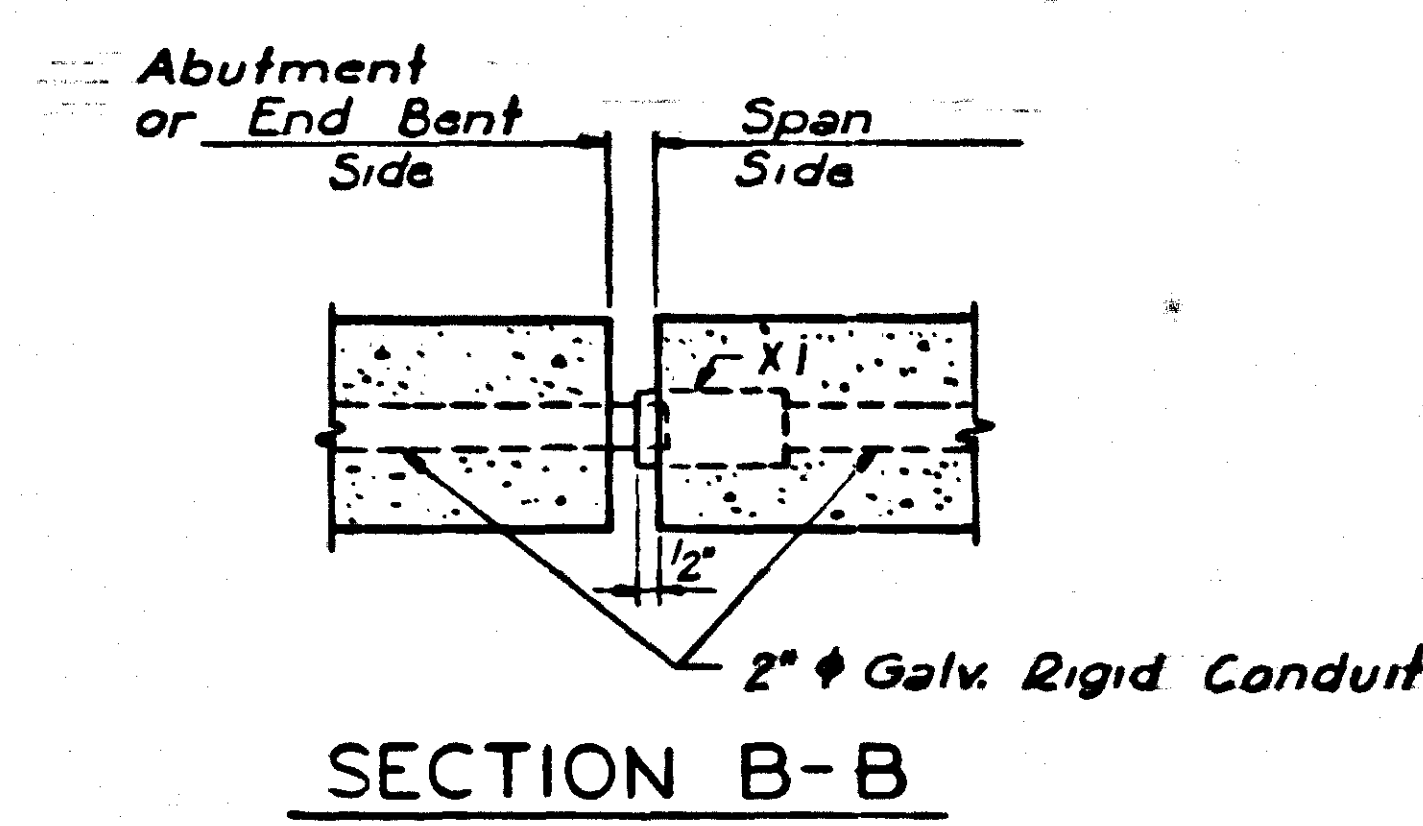
Manufacturer	Type	Number
Crouse-Hinds Co.	Type XJG41 with GC100 Bonding Jumper	
OZ Electric Co.	Type EX200 with BJ1520-24 Bonding Jumper	
Spring City Electric Co.	Type EF200 with EJ200 Bonding Jumper	

JBI = Junction Box; manufacturer and number may be any of the following, or approved equal:

Manufacturer	Type	Number
OZ Electric Co.	Type YU	Type YR
Spring City Electric Co.	Type IR	Type ER
Hope Elec. Products Co.	Type HG200	Type H700

BILL OF MATERIAL

	WB	EB	Lin. Ft.
2" Galv. Rigid Conduit	232	232	
Concrete Markers	2	2	Each
JBI Junction Boxes	2	2	Each
Expansion Fittings	2	2	Each
2" Galv. Conduit Caps	2	2	Each
2" Galv. Rigid Conduit	2	2	Lin. Ft.
1" Anchor Bolts	4	4	Each
*1" Long, includes hex nut & plate washer - 6" min. @ threaded end to be galvanized.			
*JBI Junction Boxes to be 16"x6"x6" or 18"x6"x6"			



ELECTRICAL CONDUIT

W.K.P. OVER B.O.P. SHEET 18

COMMONWEALTH OF KENTUCKY
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 3095+60.80 B.O.P. ROAD
 STATION 5416+51.00 W.K.P.
 CONSTRUCTION PROJECT NO. P.E. PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18094