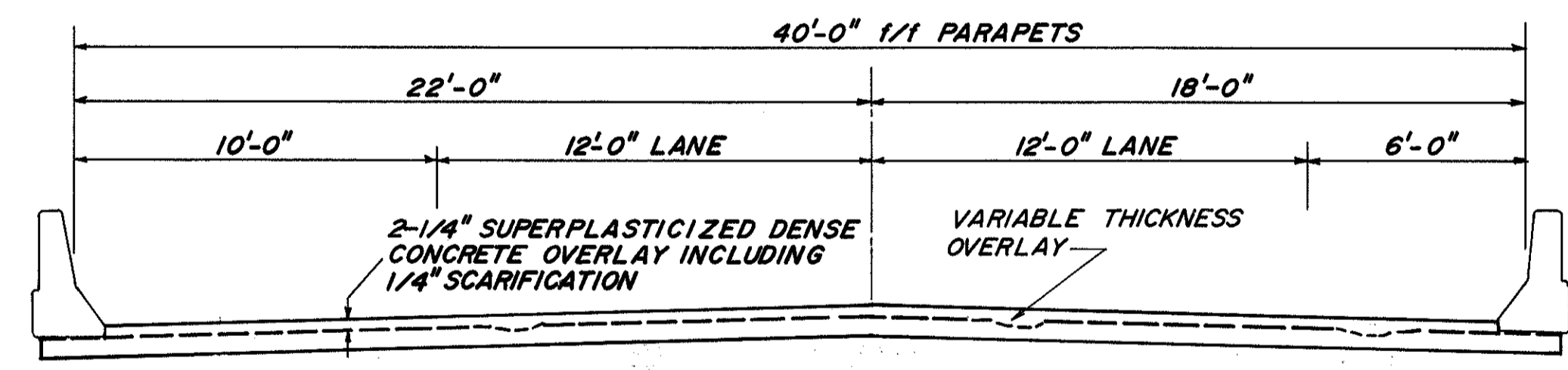


PLAN



TYPICAL SECTION, LEFT BRIDGE

THE RIGHT BRIDGE IS SYMETRICAL TO THE LEFT BRIDGE BY ROTATING AROUND THE MEDIAN CENTERLINE.

- NOTE: 1. PARAPET WALLS & BRIDGE PIERS SHALL BE EPOXY SEALED. SEE SHEET 7/9 FOR QUANTITIES.
2. STRIP SEAL SHALL BE INSTALLED AT EXPANSION JOINTS. SEE SHEET 8/9 FOR TYPICAL DETAIL.

DERIVATION OF QUANTITIES

ITEM	QUANTITY
850 (2-1/4")	= 1070 S.Y. / BRIDGE
850 (VARIABLE)	= 6.0 C.Y. / BRIDGE
516	= 83.77 L.F. / BRIDGE

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**SUPERPLASTICIZED DENSE CONCRETE OVERLAY** 4/9  
 BRIDGE NO. JAC-32-1175, L&R  
 over S.R. 35

JACKSON COUNTY						S.R. 32
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AMK	CLH					



**GENERAL NOTES**

REFERENCE shall be made to Standard Drawings AS-1-67 (Rev. 6/12/69), BR-1-67 (2/1/68), RB-1-55 (Rev. 2/2/59), SD-1-65 (11/8/65) sheets 1, 2 and 3 of 3, and Supplemental Specifications 808 (1/1/69), 811 (dated 11/1/69) & 825 (11/1/69)

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:  
 Design Loading HS 20-44  
 Concrete Class "C" Unit Stress 1200 psi for Superstructure  
 Unit Stress 1333 psi for Substructure  
 Structural Steel ASTM A36 - Unit Stress 20,000 psi  
 Reinforcing Steel ASTM A615, A616 and A617, deformed, intermediate or hard grade. Unit Stress 20,000 psi except that spiral reinforcement shall be plain bars ASTM A306 or A499

ABUTMENT EXCAVATION QUANTITY includes the removal of fill material required for the construction of abutments

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with bedrock. If the length of penetration is approximately equal to the depth of bedrock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in 507.05 is not less than the following value for a pile hammer of the indicated energy rating:

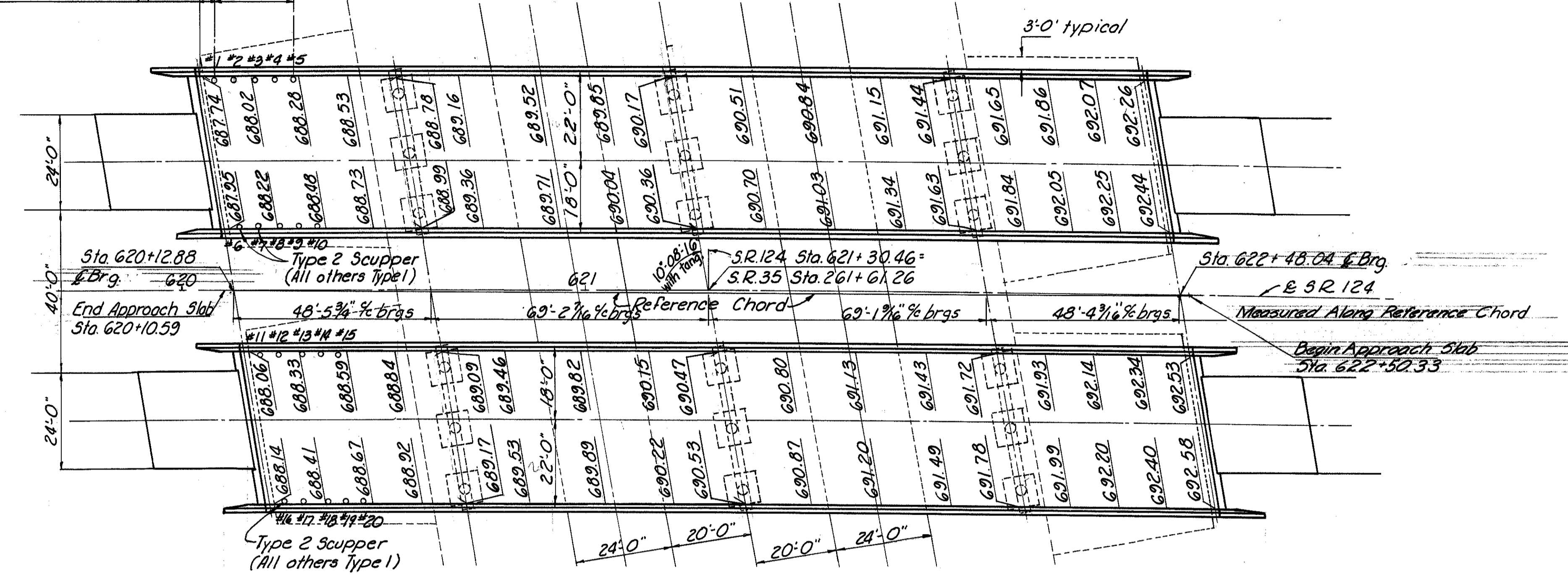
- For the rear abutment piles:  
 61 tons per pile using an 11,000 ft. lb. hammer.  
 55 tons per pile using a 15,000 ft. lb. or greater hammer.
  - For the forward abutment piles:  
 80 tons per pile using an 11,000 ft. lb. hammer.  
 76 tons per pile using a 15,000 ft. lb. or greater hammer.
  - Pier No. 1 and Pier No. 2  
 70 tons per pile using an 11,000 ft. lb. hammer.  
 65 tons per pile using a 15,000 ft. lb. or greater hammer.
  - Pier No. 3  
 65 tons per pile using an 11,000 ft. lb. hammer.  
 57 tons per pile using a 15,000 ft. lb. or greater hammer.
- If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 45 tons per pile for the abutment piles, 45 tons per pile for Piers No. 1 and No. 2, 35 tons per pile for Pier No. 3.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

WELDS on non-stress carrying members are shown thus:

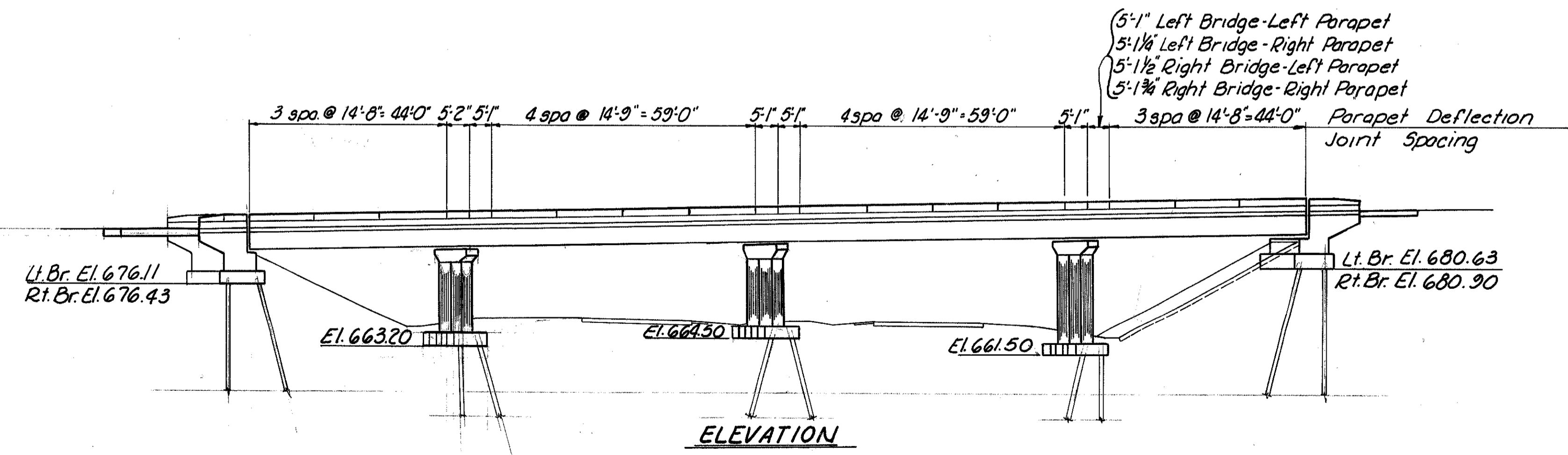
WELDED ATTACHMENTS: No attachments shall be made by field welding to the top flanges of continuous beams within a distance of 0.10 of the span length on either side of the interior supports. Welding for attachments to the top flanges at other parts of the spans shall be kept at least 2" from edge of flange.

Typical Location for Scuppers 3'6" @ 80' ± 32'0"



PLAN

Note: Elevation shown at Gutter Lines are Screed Elevations at Quarter Points of Span and include concrete dead load deflections.



ELEVATION

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FRANKLIN ENGINEERING ASSOCIATES LIMITED Consulting Engineers		COLUMBUS, OHIO	
<b>GENERAL PLAN</b>			
BRIDGE N <sup>o</sup> JAC-124-1175 L&R			
OVER			
S R - 35			
JACKSON COUNTY		SR 124	
DESIGNED HY	DRAWN J	TRACED S.Y.	CHECKED JF
REVIEWED 12/17-68	DATE	REVIS	

JAC 124-10.21

ESTIMATED QUANTITIES TWO BRIDGES													
ITEM	TOTAL BOTH BR.	TOTALS		UNIT	DESCRIPTION	SUPERSTR.		ABUTMENTS		PIERS		GENERAL	
		Left Br.	Right Br.			Left Br.	Right Br.	Left Br.	Right Br.	Left Br.	Right Br.		
503	915	477	438	Cu.Yds	Unclassified Excavation			244	244	233	194		
505	Lump 495	Lump		Sum	First Test Pile							Lump	
507	440	220	220	Lin.Ft.	Steel Piles 10BP42					220	220		+155 495
507	2980	1490	1490	Lin.Ft.	Steel Piles 12BP53			850	850	640	640		
509	265,077	132,453	132,624	Lbs	Reinforcing Steel	95,690	95,690	11,892	11,892	24,871	25,042		
511	638	319	319	Cu.Yds	Class "C" Concrete, Superstructure	319	319						
511	326	163	163	Cu.Yds	Class "C" Concrete, Abutment			163	163				
511	190	95	95	Cu.Yds	Class "C" Concrete, Pier Footing					95	95		
511	162	81	81	Cu.Yds	Class "C" Concrete, Pier above Footing					81	81		
513	477,600	238,800	238,800	Lbs	Structural Steel	238,800	238,800						
518	20	10	10	Each	Scuppers including Scupports	10	10						
518	64	32	32	Cu.Yds	Porous Backfill			32	32				
518	140	70	70	Lin.Ft.	6" Perf. Helical Corrugated Metal Pipe including Special 70701			70	70				
518	96	48	48	Lin.Ft.	6" Non-Perf. Helical Corrugated Metal Pipe 70701			48	48				
601	894	419	475	Sq.Yds	Crushed Aggregate Slope Protection							419	475
808	638	319	319	Units	Water-reducing, set-retarding admixture	319	319						
825	2516	1258	1258	Sq.Yds	Concrete Surface Treatment	1204	1204	54	54				
514	477,600	238,800	238,800	Lbs	Field Painting of Structural Steel	238,800	238,800						

AUG 18 1986

3/12

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COLUMBUS, OHIO

**ESTIMATED QUANTITIES**  
BRIDGE N<sup>o</sup> JAC-124-1175 LAR.  
OVER  
SR-35  
JACKSON COUNTY

SR124

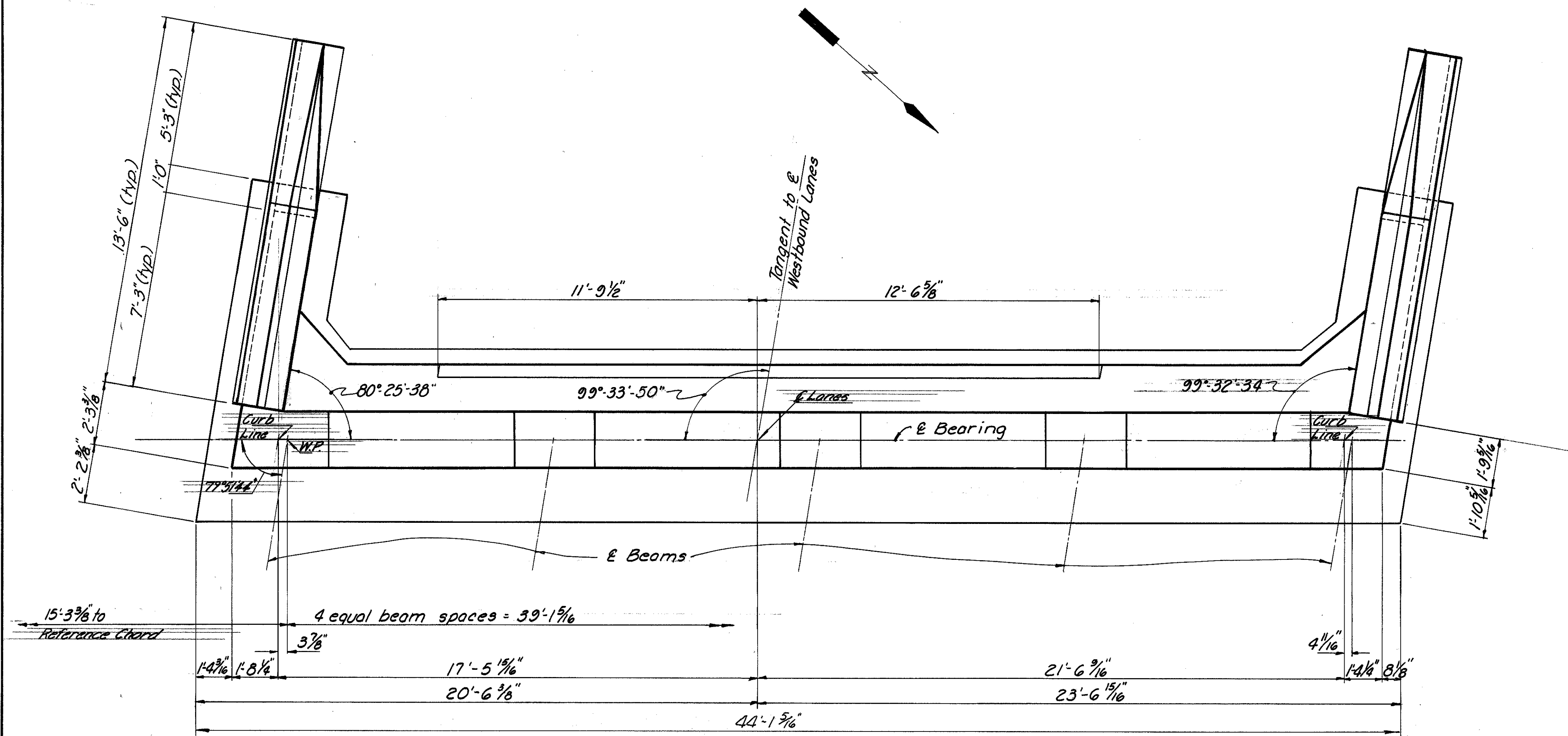
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HM	J		S.Y.	JF	12/17/88	



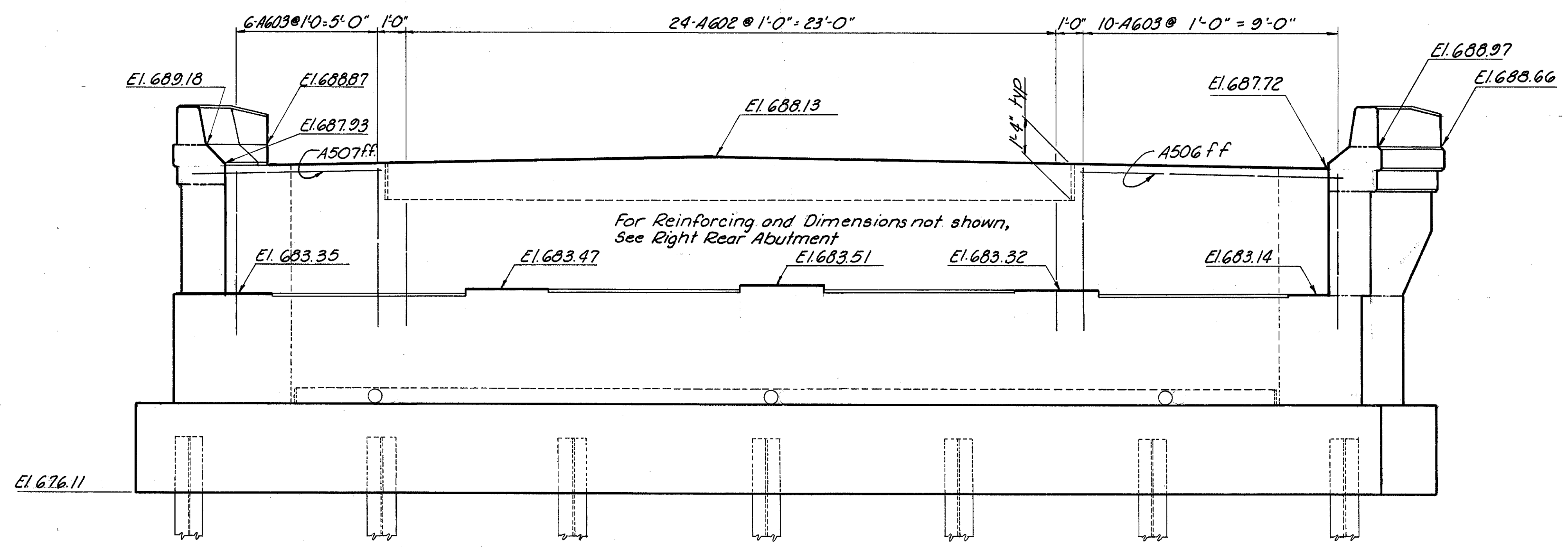
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

411  
430

JAC-124-10.21



PLAN



ELEVATION

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AUG 18 1986

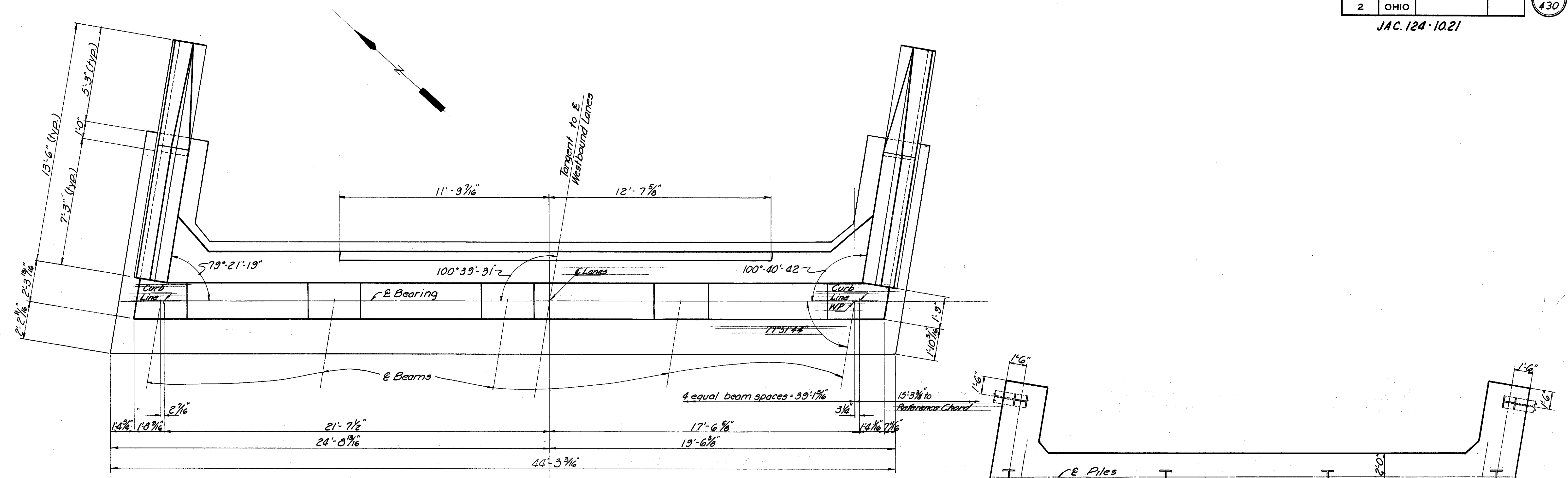
5/12

FRANKLIN ENGINEERING ASSOCIATES LIMITED  
Consulting Engineers  
COLUMBUS, OHIO

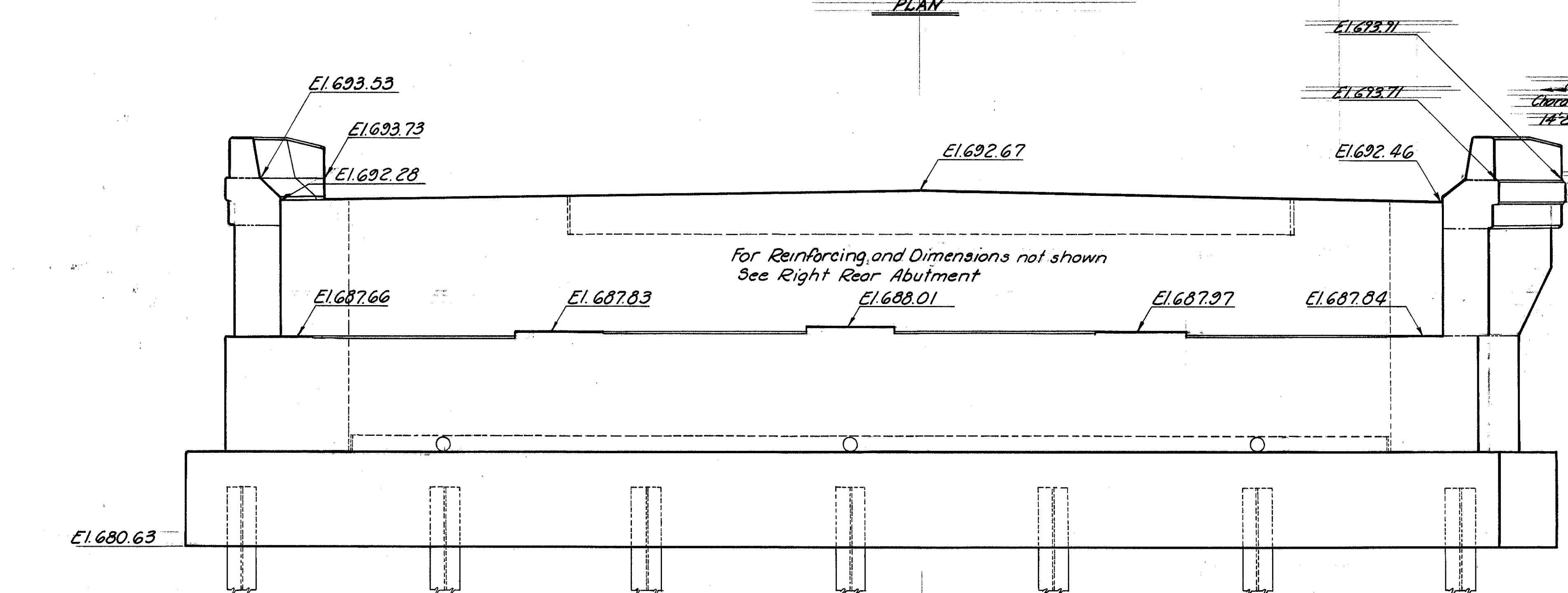
**LEFT REAR ABUTMENT**  
BRIDGE N° JAC-124-1175 L & R  
OVER  
SR 35

JACKSON COUNTY SR 124

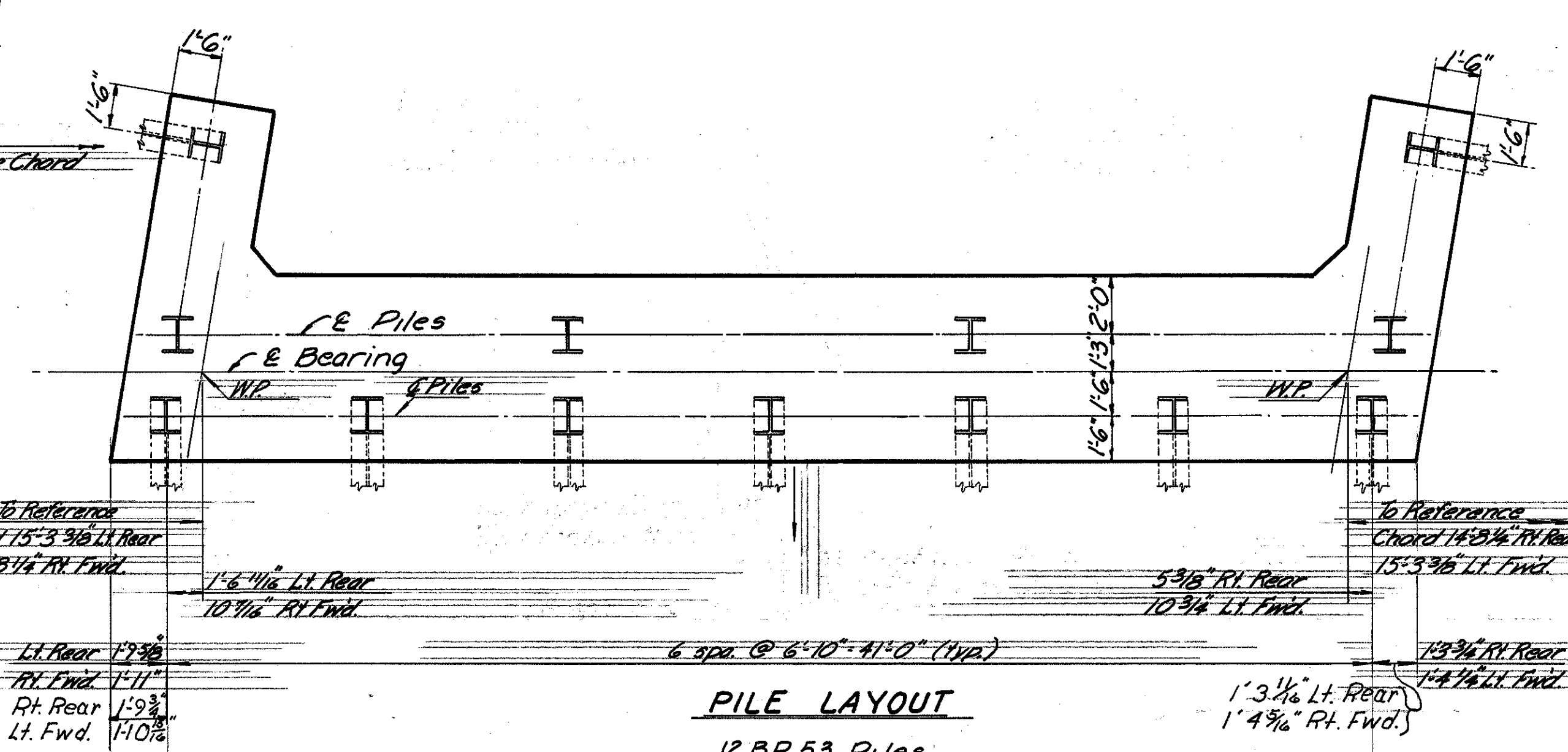
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HM	S		S.Y.	FF	12/17-68	



PLAN



ELEVATION



PILE LAYOUT  
12 BP 53 Piles  
(Typical for all Abutments)

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COLUMBUS, OHIO

LEFT FORWARD ABUTMENT  
BRIDGE N° JAC-124-1175 L&R  
OVER  
SR-35

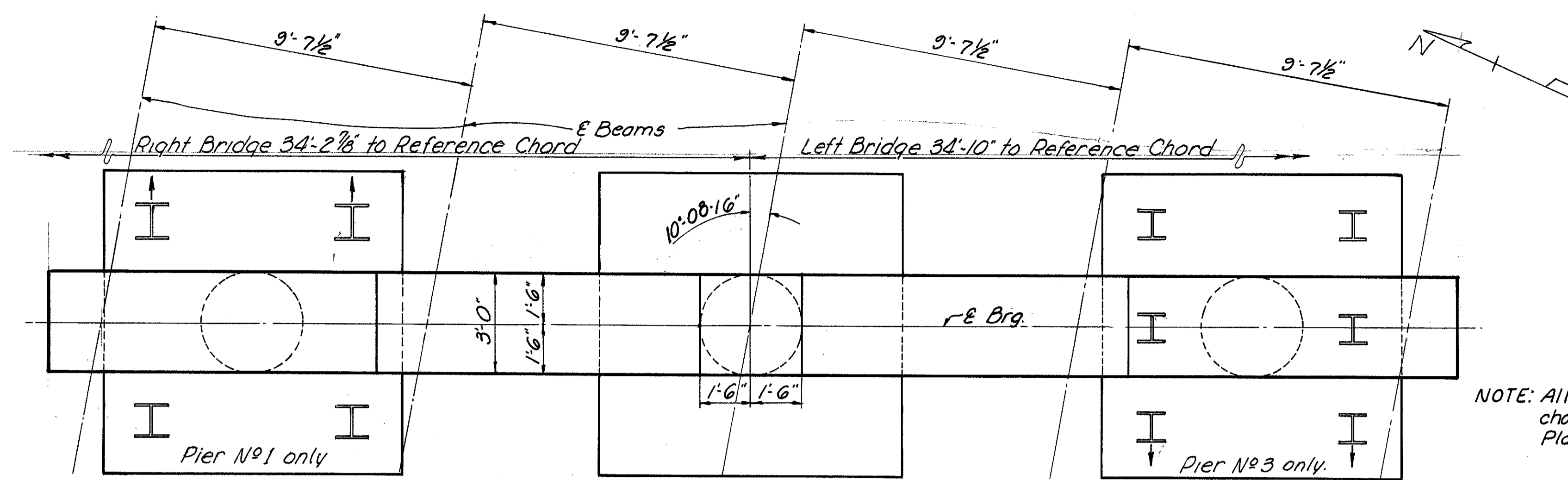
JACKSON COUNTY SR 124

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HM	J		S.Y.	JF	12/17-88	



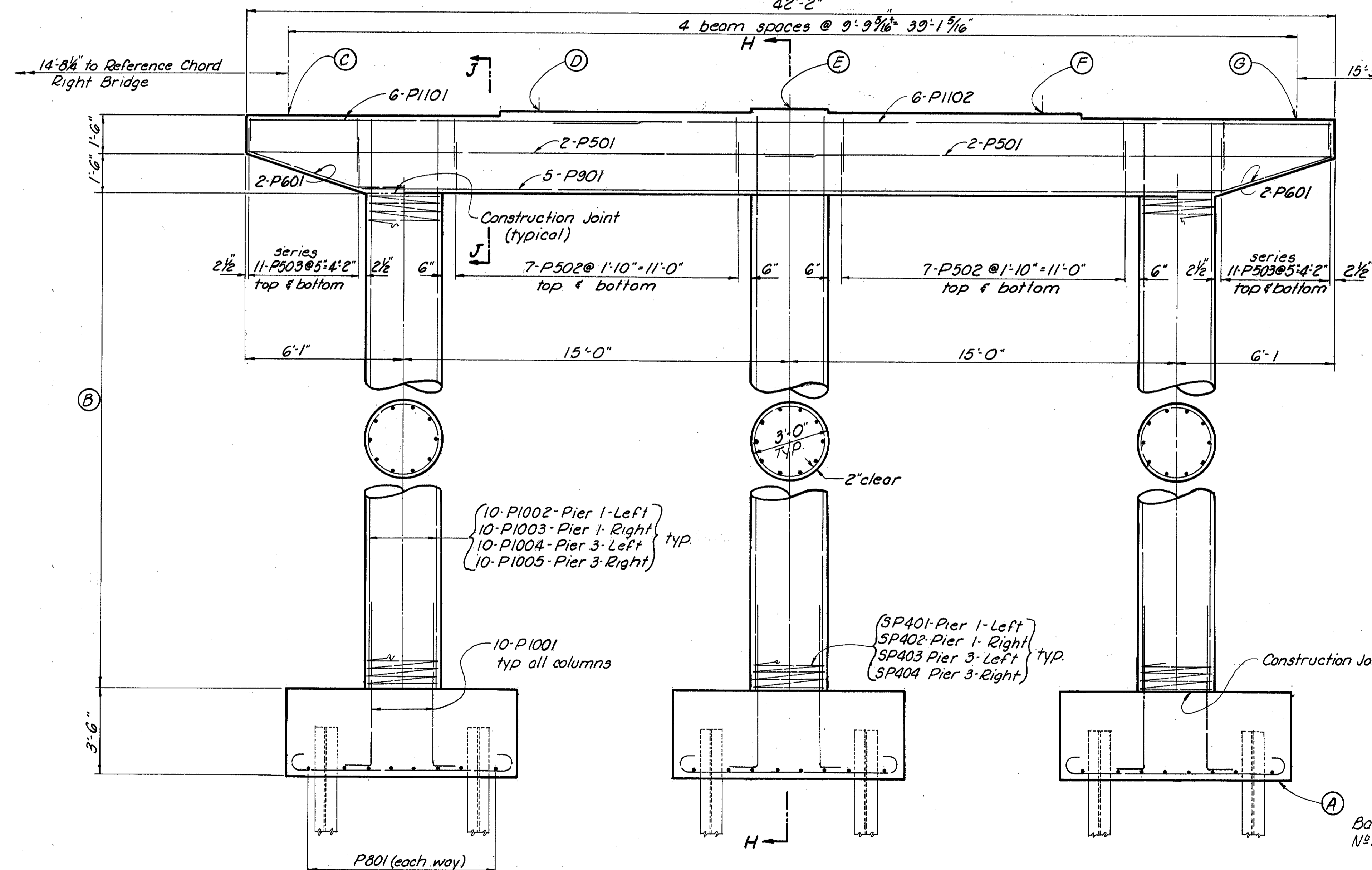
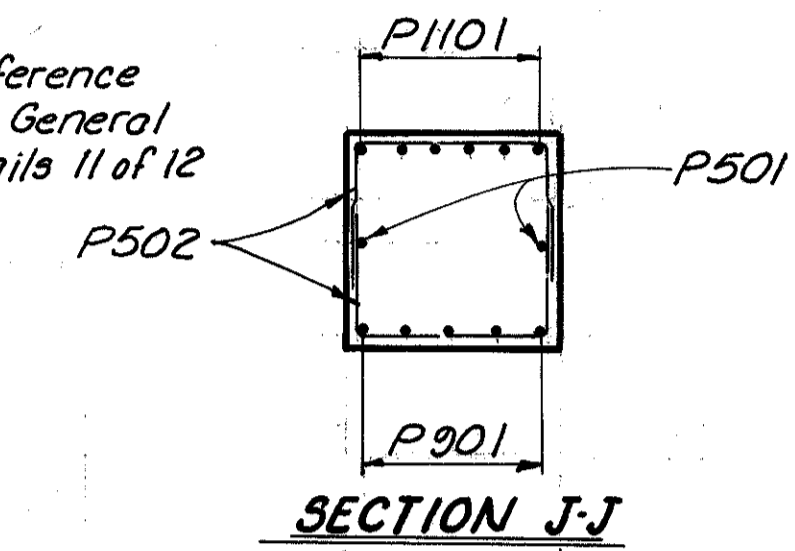


JAC-124-10.21

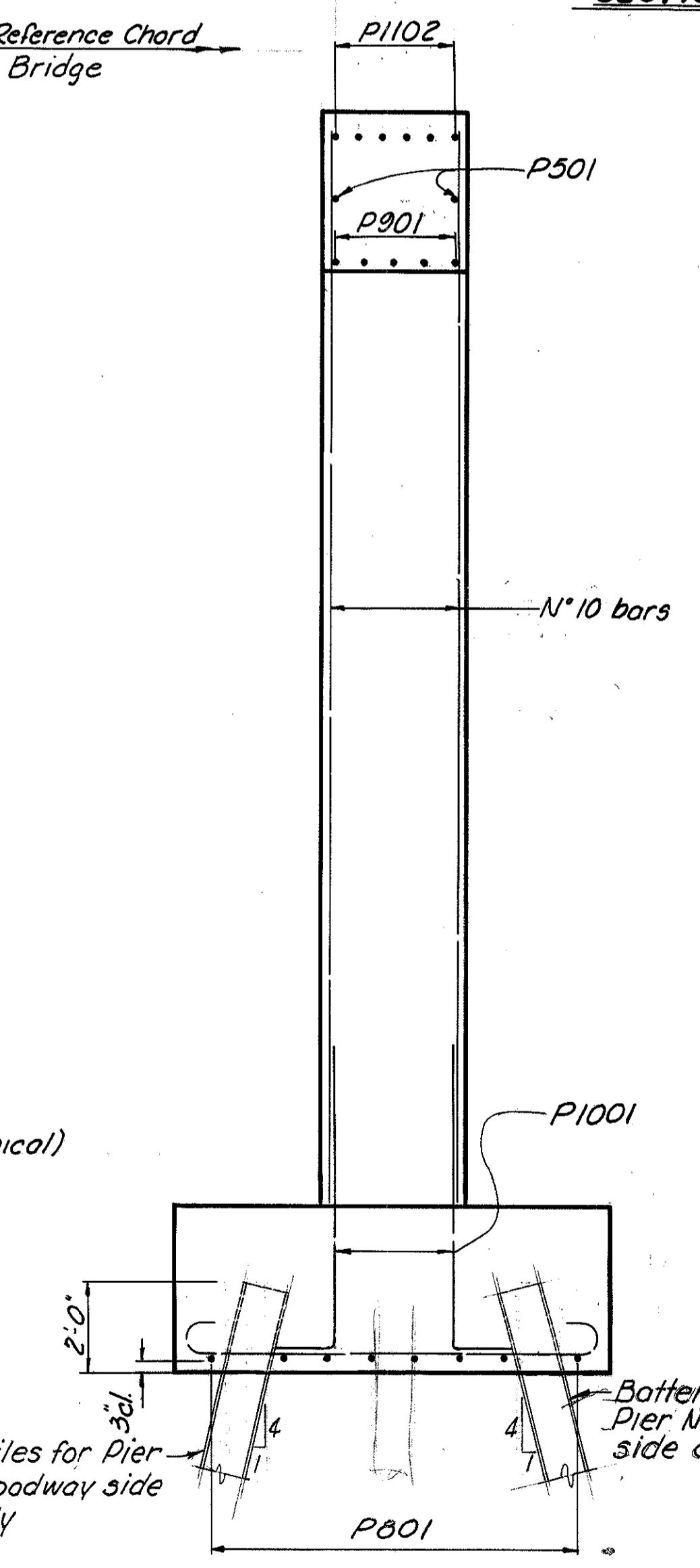


Points	A	B	C	D	E	F	G
Pier 1 Left	663.20	13'-11 1/2"	683.66	683.85	684.03	683.98	683.86
Pier 1 Right	663.20	14'-3 3/4"	683.97	684.16	684.28	684.16	684.05
Pier 3 Left	661.50	18'-3 3/8"	686.32	686.50	686.68	686.62	686.51
Pier 3 Right	661.50	18'-7 1/4"	686.60	686.78	686.90	686.78	686.66

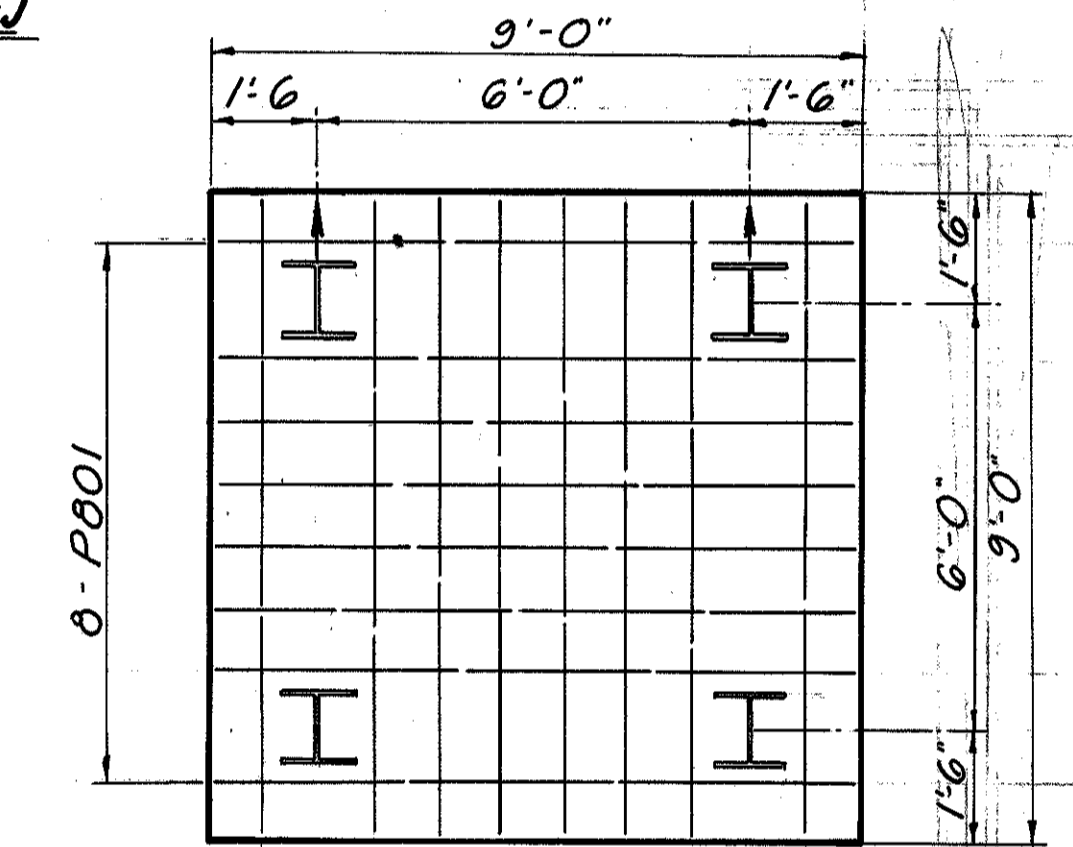
NOTE: All beam are parallel with reference chord. For layout of Piers See General Plan and Superstructure Details 11 of 12



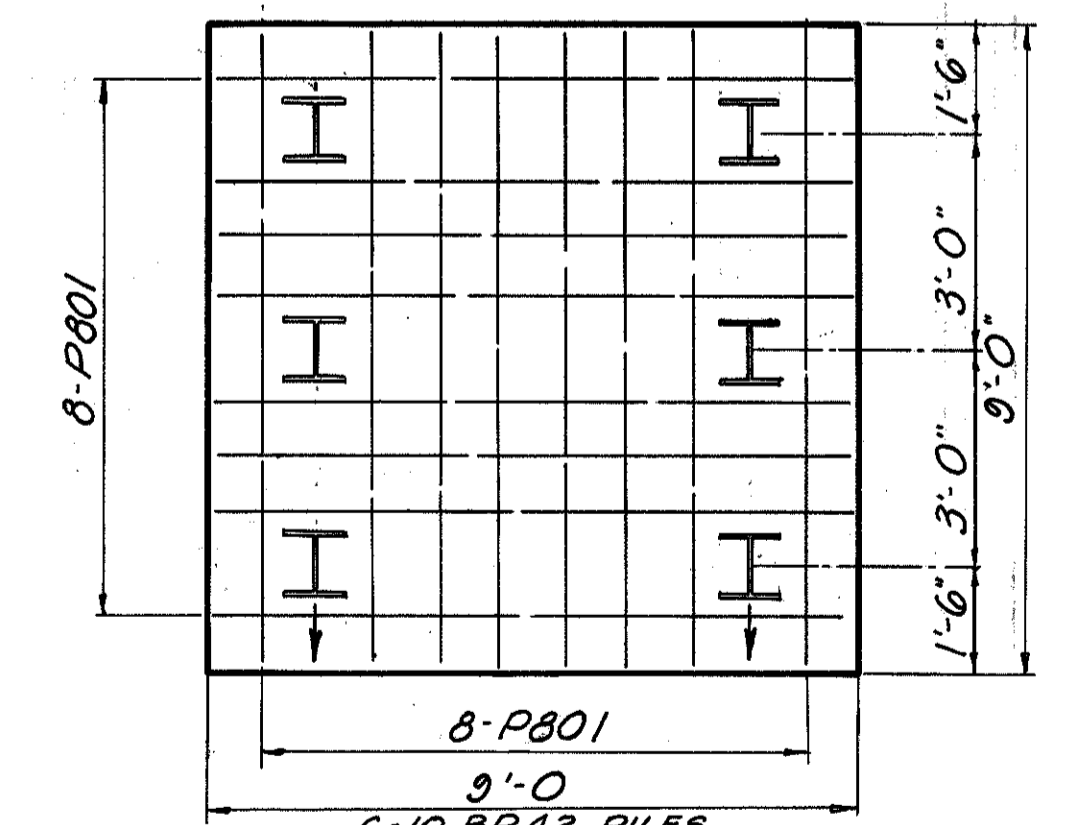
ELEVATION  
LOOKING UPSTATION



SECTION H-H



FOOTING PLAN  
(PIER No 1)



FOOTING PLAN  
(PIER No 3)

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Consulting Engineers  
COLUMBUS, OHIO

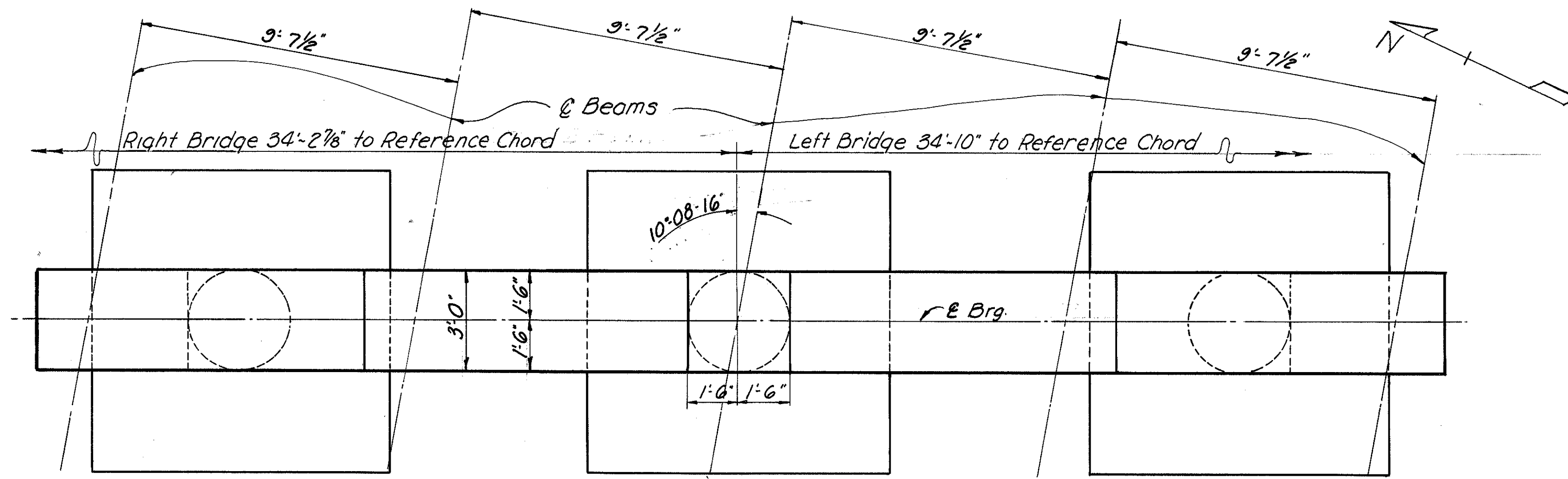
PIERS 1 & 3 DETAILS  
BRIDGE No JAC124-1175 L&R  
OVER  
S.R. 35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HM	3		S.Y.	JF	11/7-68	

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AUG 18 1986

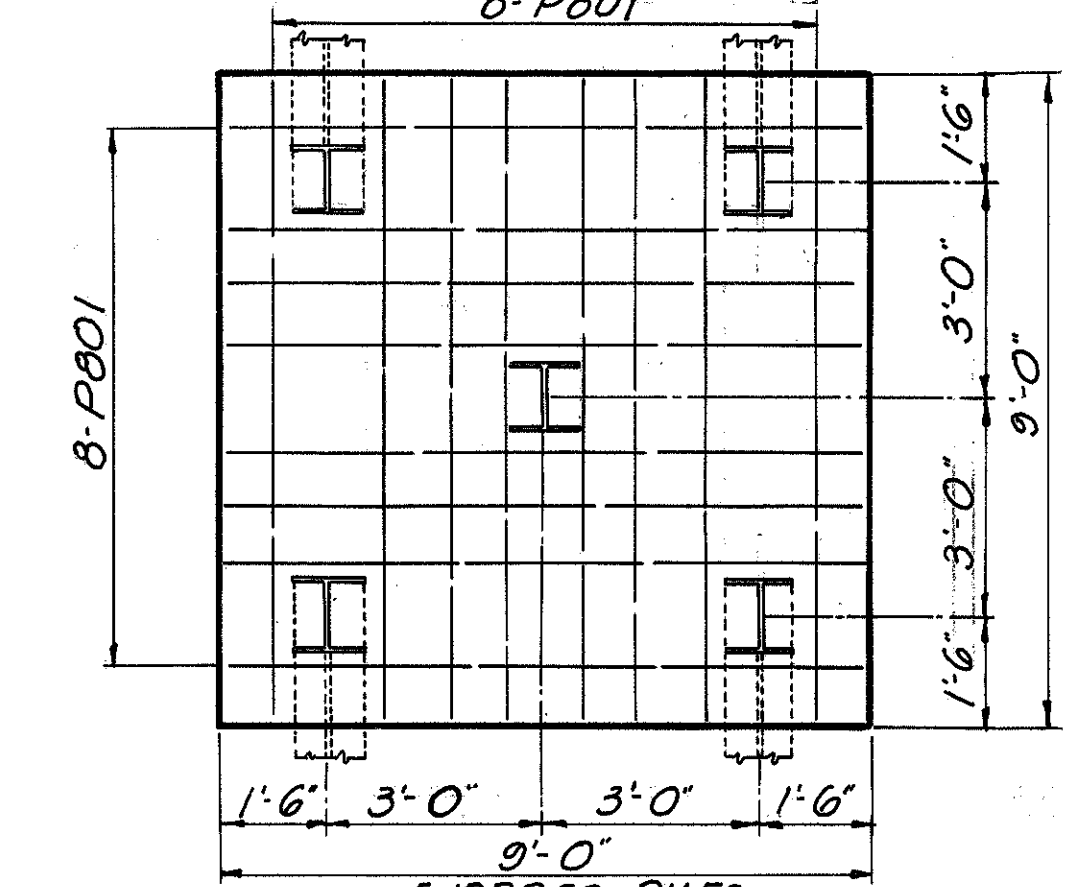
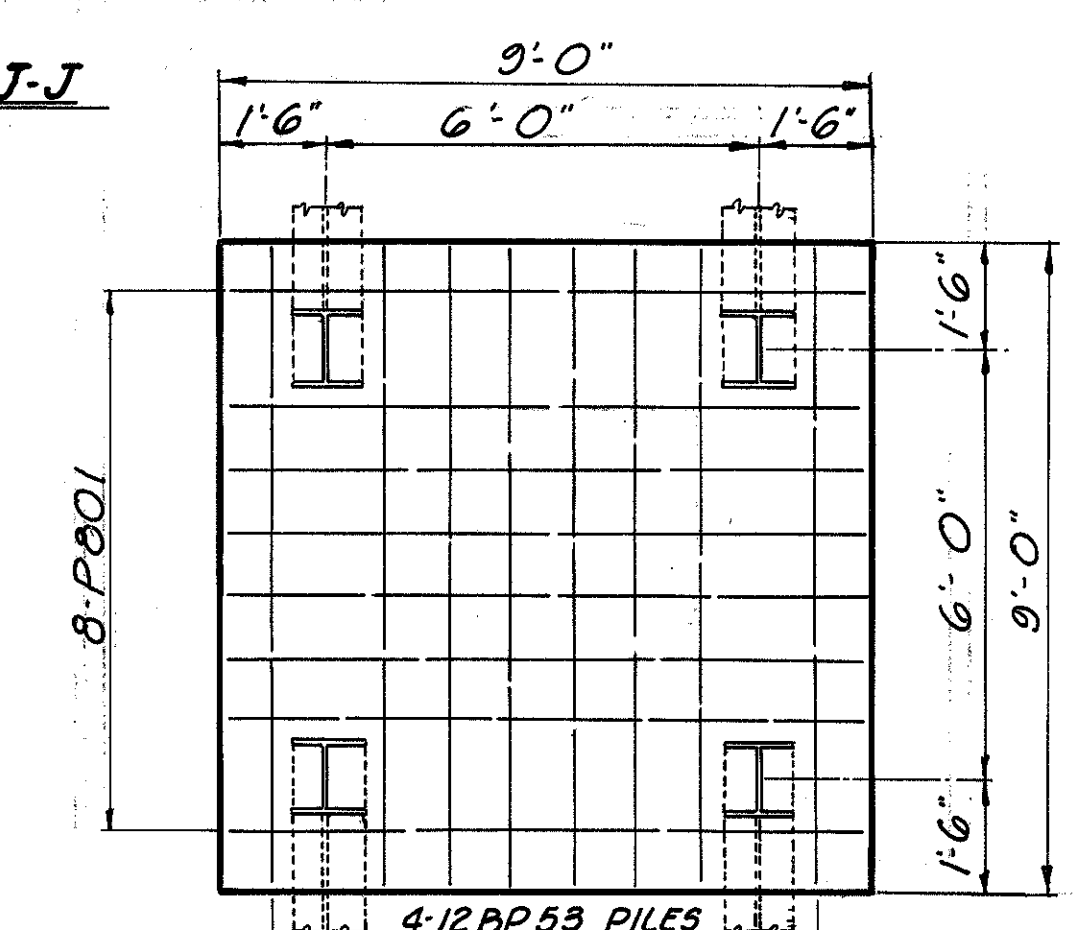
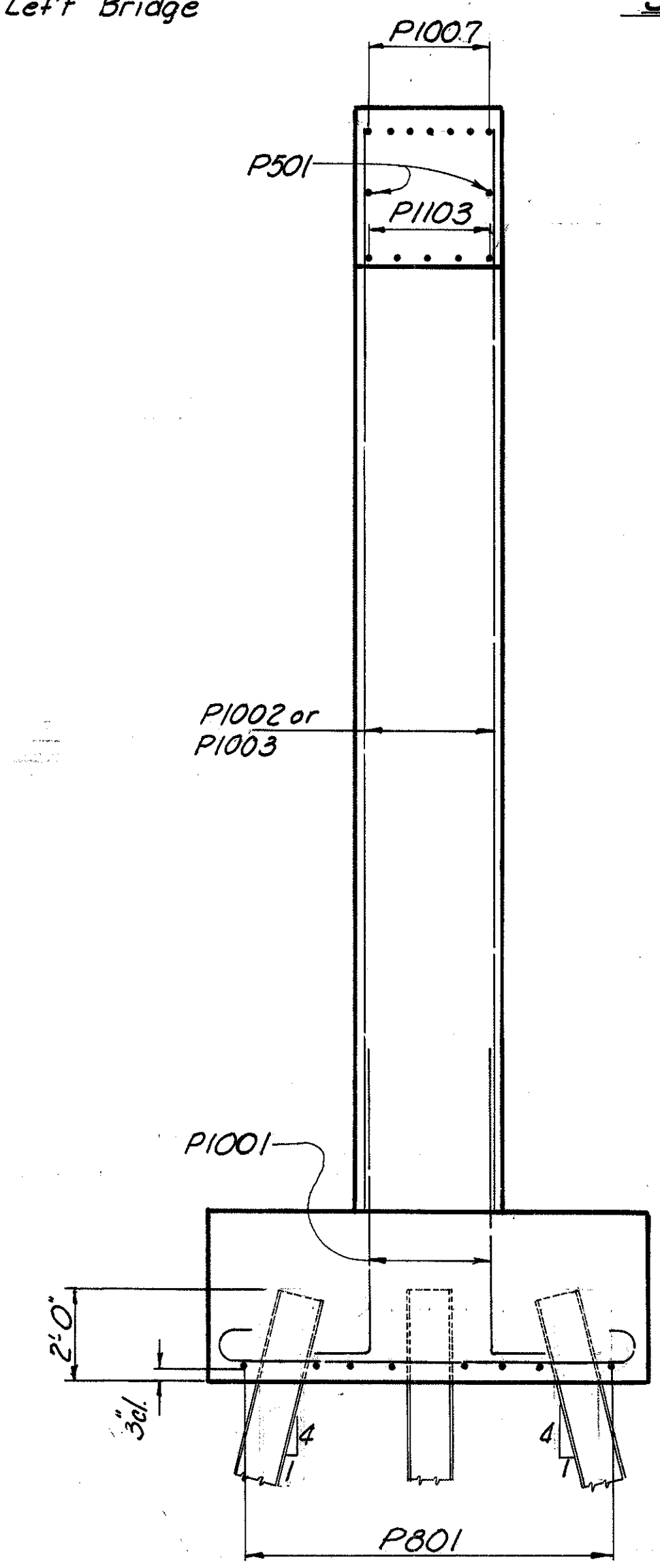
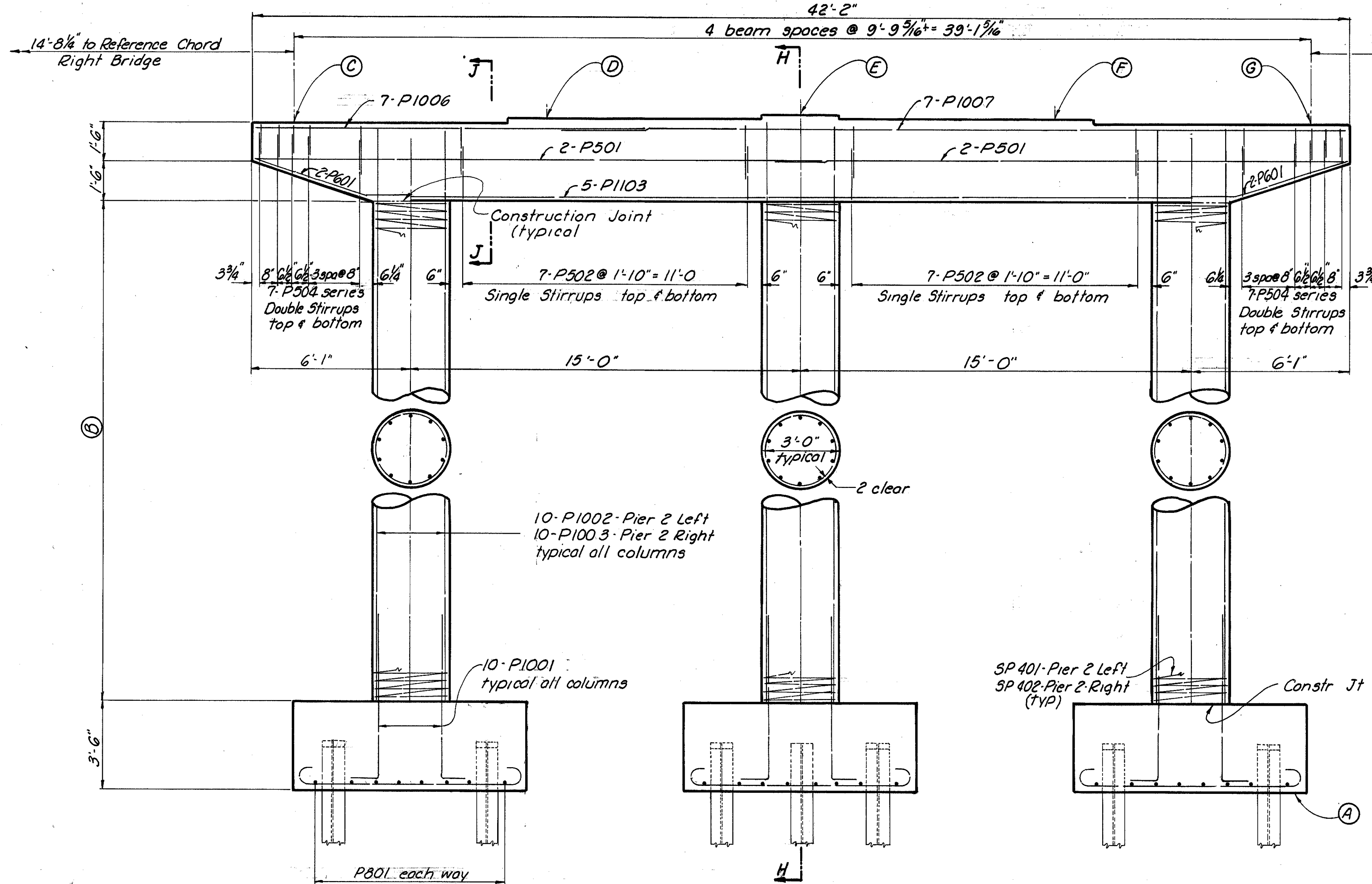
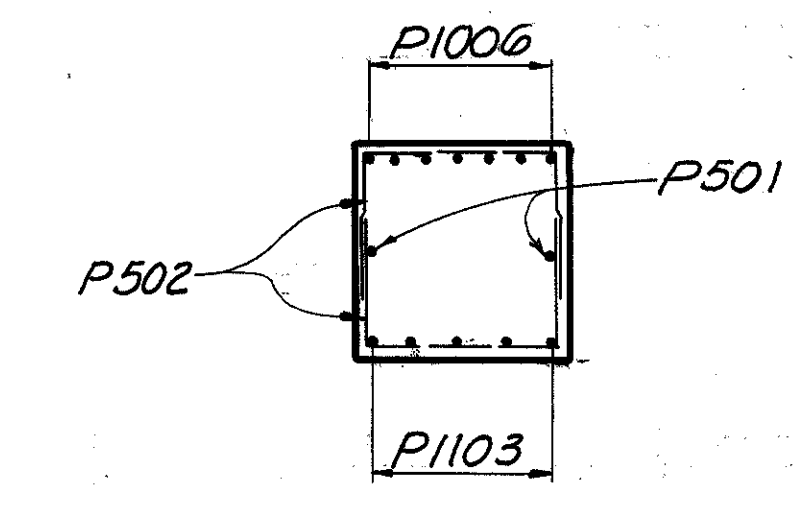
8/12

JAC-124-10.21



Bridge Seat Reinforcing: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat to avoid interference with the drilling of anchor bar holes.

	A	B	C	D	E	F	G
Pier 2 Left	664.50	13'-11 1/8"	684.99	685.18	685.36	685.30	685.18
Pier 2 Right	664.50	14'-3 1/2"	685.29	685.47	685.58	685.47	685.35



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PIER 2 DETAILS  
BRIDGE N° JAC-124-1175 L & R  
OVER  
SR-35

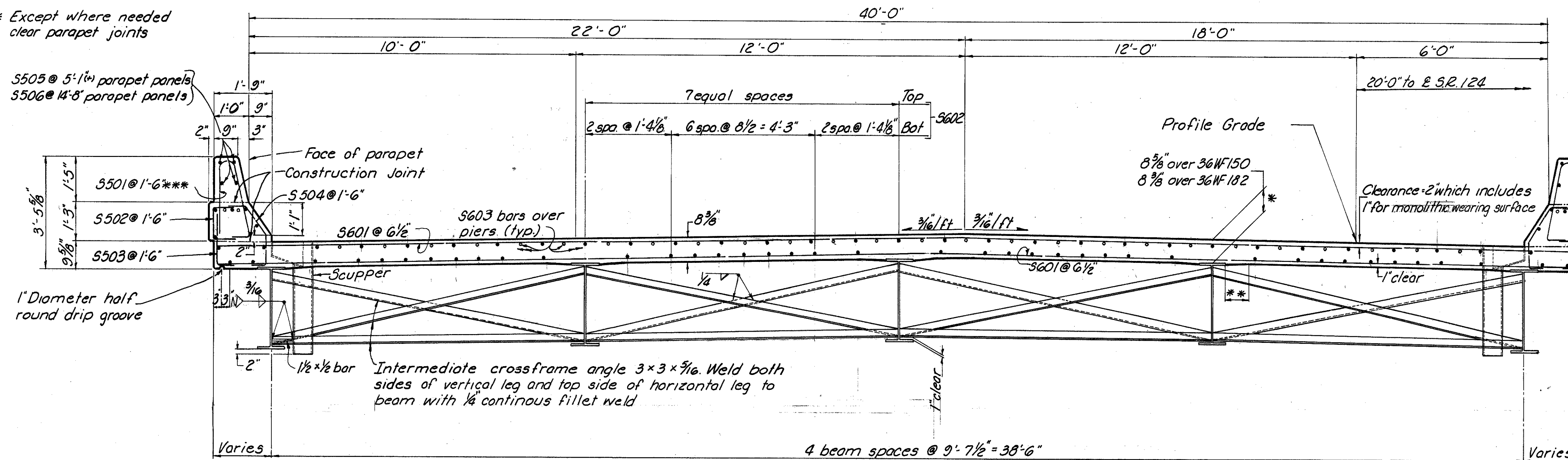
JACKSON COUNTY SR 124

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HM	J		S.Y.	JF	12/17-58	

\*\*\* Except where needed clear parapet joints

FED. RD. DIVISION	STATE	PROJECT	416 430
2	OHIO		

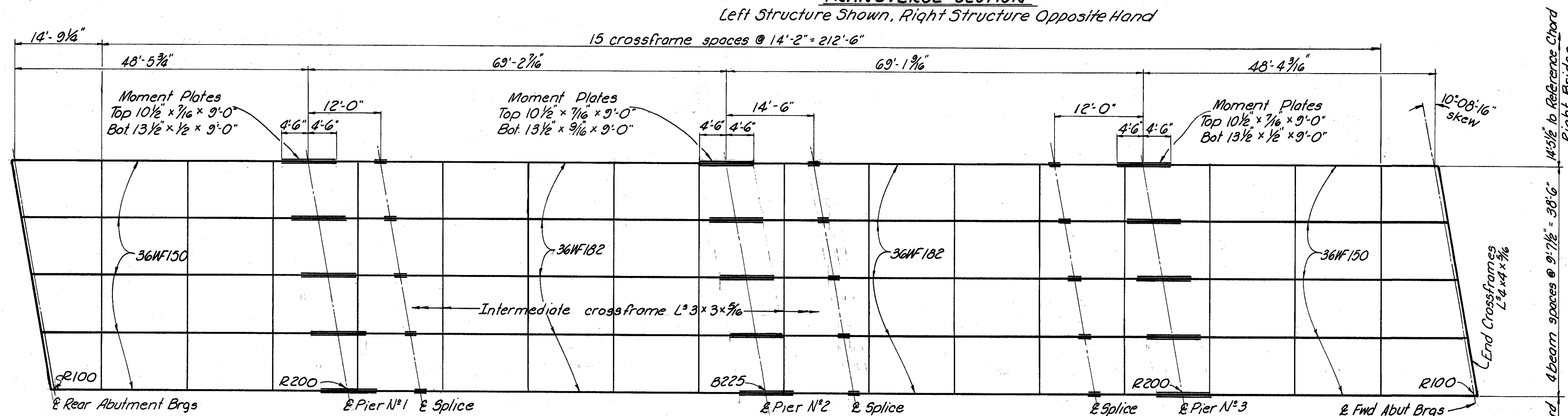
JAC-124-10.21



\* This is a nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of enclosed steel plates as per sec. 511.19 of the construction and Material Specifications

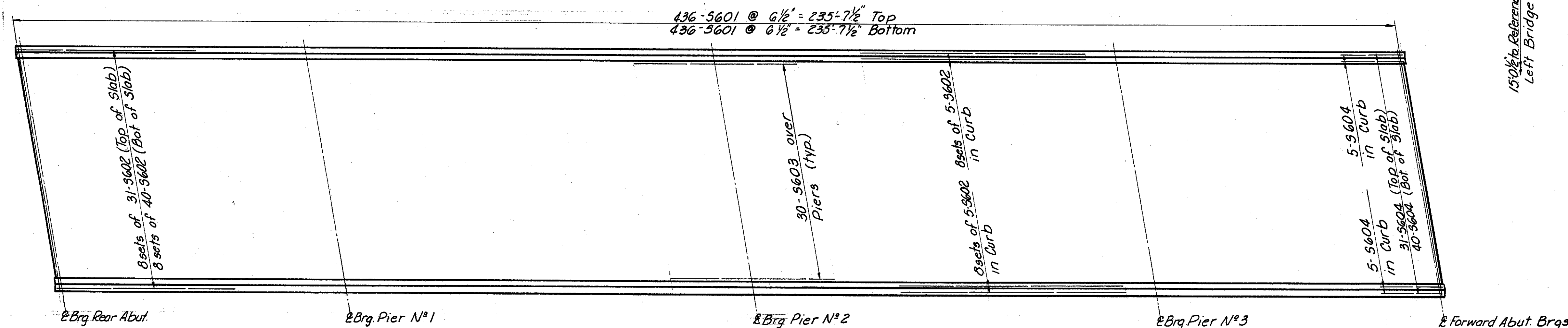
\*\* A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" & 12" provided that the slope be not more than 1:4 for a haunch less than 9" in width.

**TRANSVERSE SECTION**  
Left Structure Shown, Right Structure Opposite Hand

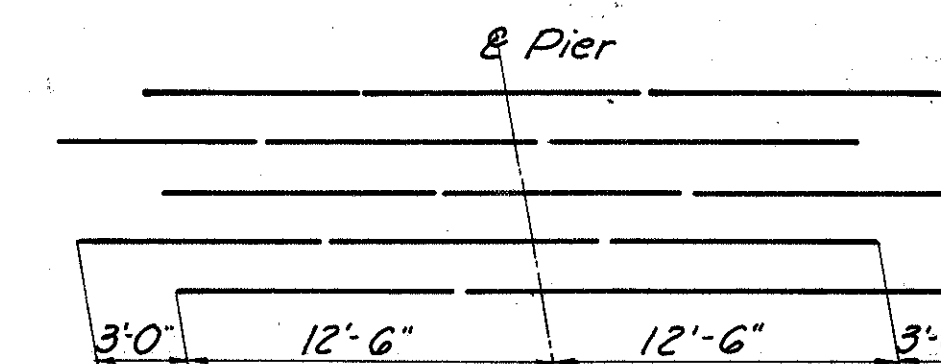


JOINT SEALER: Item 828 joint sealer including bond breaker, shown in Section A-A of Std. Drg. 30-1-63, Sheet N° 1, shall be omitted

**FRAMING PLAN**



**SLAB PLAN**

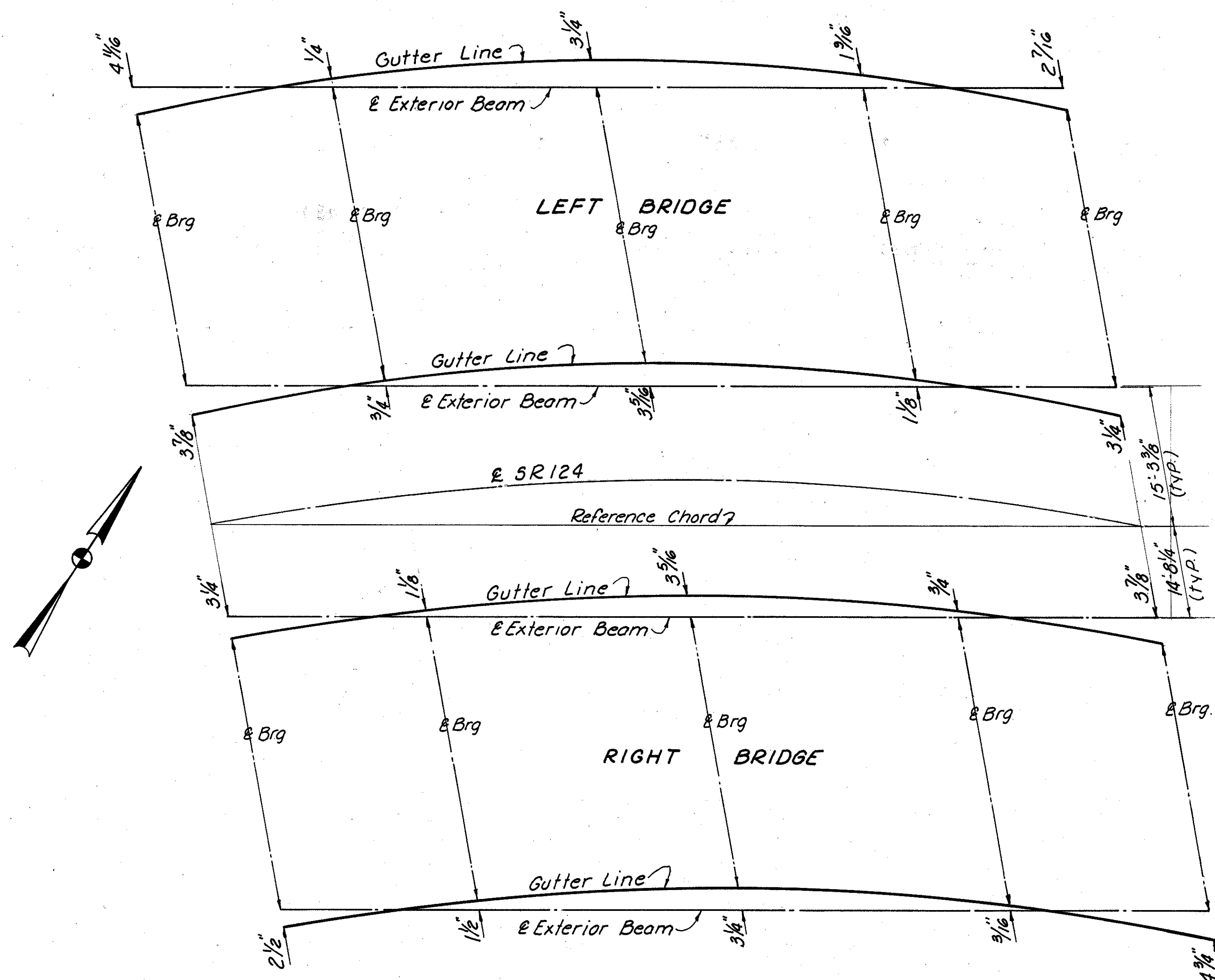


**DIAGRAM SHOWING STAGGER OF 5603 BARS OVER PIERS**

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AUG 18 1966

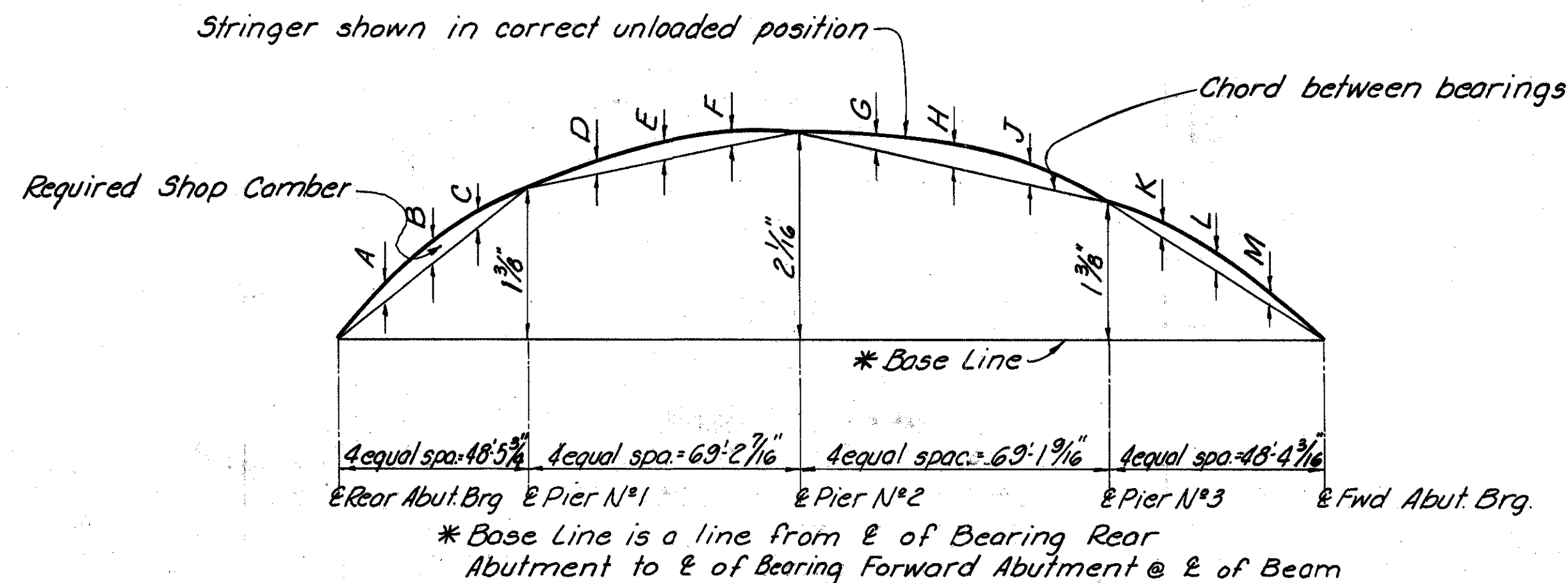
FRANKLIN ENGINEERING ASSOCIATES LIMITED Consulting Engineers					
COLUMBUS,					OHIO
<b>SUPERSTRUCTURE DETAILS</b>					
BRIDGE N° JAC-124-1175 L & R					
OVER					
S.R. 35					
JACKSON COUNTY SR 124					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
HM	J		S.Y.	JF	12/17/68

NOTE: All offset are measured along  $\angle$  Bearings and all beams are parallel to Reference Chord.  
to Reference Chord.



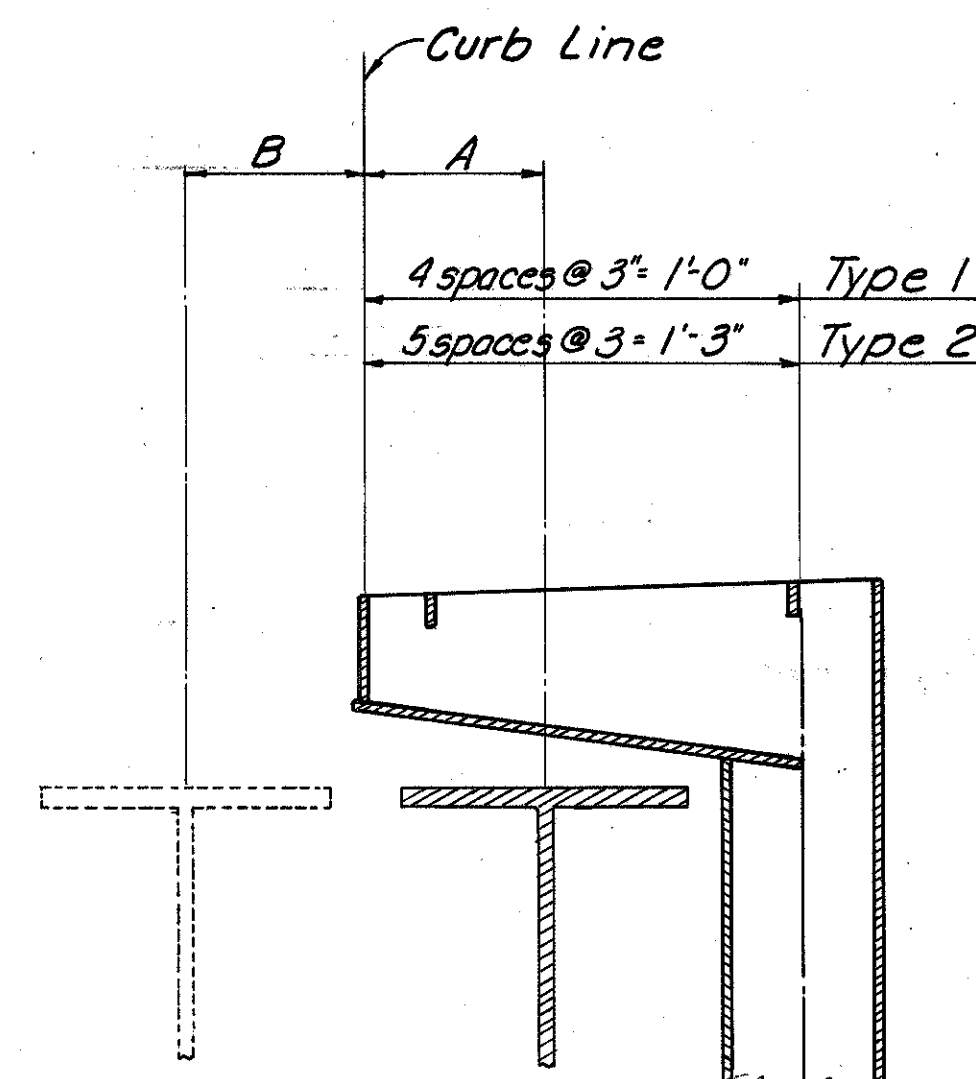
GUTTER LINE OFFSETS

For SPLICE: In addition to splice for 36WF150 shown on standard drawing SD-1-65 sheet 3 of 3, use 11x1/2 x 1'-2" outside flange fill Rs and 6 1/2 x 1/2 x 2'-7" web fill Rs at 36WF150



LAYOUT DIAGRAM

DEFLECTION AND CAMBER TABLE												
LOCATION	SPAN 1			SPAN 2			SPAN 3			SPAN 4		
	1/4 PT A	1/2 PT B	3/4 PT C	Splice D	1/2 PT E	3/4 PT F	Splice G	1/2 PT H	Splice J	1/4 PT K	1/2 PT L	3/4 PT M
Deflection due to weight of steel	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0
Deflection due to remaining dead load	1/8	1/8	0	3/16	3/8	3/16	3/16	3/8	3/16	0	1/8	1/8
Adjustment required for vertical curve	1/16	1/16	1/16	1/8	3/16	1/8	1/8	3/16	1/8	1/16	1/16	1/16
Required shop camber	3/16	3/16	1/16	3/8	5/8	3/8	3/8	5/8	3/8	1/16	3/16	3/16



SCUPPER DETAIL

SCUPPER N°	SCUPPER TYPE	DIMENSION	
		A	B
1	1		4 3/16"
2	1		3 1/4"
3	1		2 7/8"
4	1		1 9/16"
5	1		1 1/8"
6	2	3 7/16"	
7	2	2 1/2"	
8	1	1 11/16"	
9	1	1 1/8"	
10	1	1 1/4"	
11	1		2 13/16"
12	1		2"
13	1		1 3/16"
14	1		1 1/2"
15	1	1/8"	
16	2	2 1/8"	
17	1	1 7/16"	
18	1	5/8"	
19	1		1 1/16"
20	1		1 1/16"

For Location of Scuppers Numbered 1 thru 20 See General Plans

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Consulting Engineers  
COLUMBUS, OHIO

**SUPERSTRUCTURE DETAILS**  
BRIDGE N° JAC-124-1175 L & R  
OVER  
SR - 35

JACKSON COUNTY SR 124  
DESIGNED: HM DRAWN: JF TRACED: S.Y. CHECKED: S.Y. REVIEWED: S.Y. DATE: 12/17-88 REVISED:

