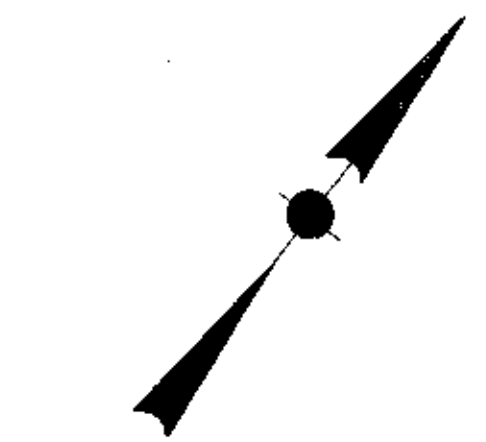


PLAN



1986.D.D.H.V.  
8160  
1986.A.D.T.  
82,000

ALL PILES ARE HP 12 x 53  
The Estimated Average Pile Lengths Are:  
ABUTMENTS — 30'  
PIERS 1-6 — 25'  
PIERS 7 & 8 — 30'

PROPOSED HORIZONTAL CURVE DATA ROAD C	ROAD AC
CURVE NO. 3	CURVE NO. 2
PI Sta. 507+22.18	PI Sta. 504+17.67
Dc = 1°00'00"	Dc = 12°
Δ = 2°24'50"	Rc = 477.465
Tc = 120.708	ΔT = 61°56'46"
Rc = 5729.578	Δc = 37°56'46"
Lc = 241.38	Lc = 316.218
	Tc = 164.153
	Ls = 200'
	Os = 12°
	LT = 133.642
	ST = 66.946
	Ts = 388.531

Drainage Area: 1,615 sq. mi.  
Q (50yr. frequency): 46,000 cfs.  
1959 Flood Q  
(100yr. frequency): 68,200 cfs.

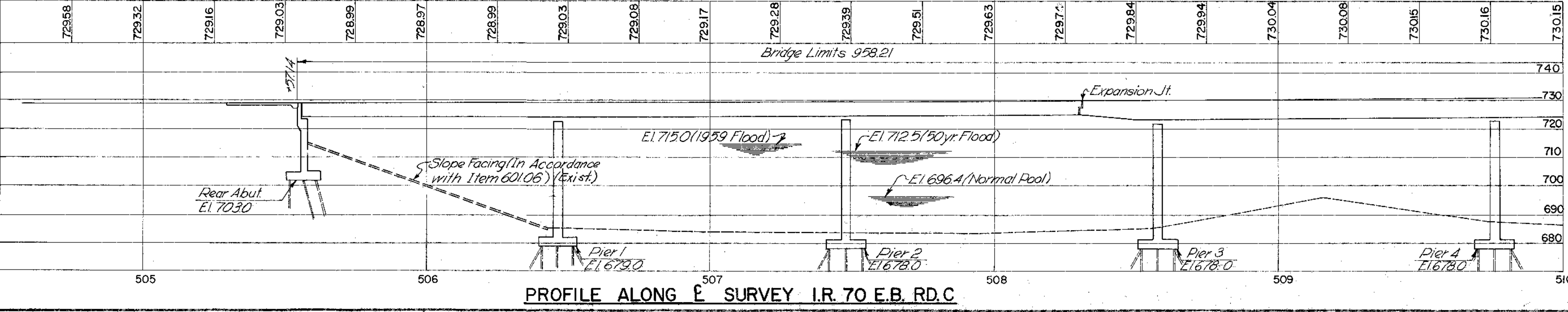
PROPOSED STRUCTURE  
TYPE: Continuous Steel Girder with Reinforced Concrete Substructure  
SPANS: 85', 100', 109', 128', 119', 111', 102', 90' c/c brgs. along Tangent and Ref. Line  
ROADWAY: Varies, Barrier Parapets Both Sides  
LIVE LOAD: HS-20-44 & Interstate Alternate  
SKEW: Varies  
WEARING SURFACE: Variable Thickness Blt.urf.  
APPROACH SLABS: (25' Long) A.S.-1-67  
ALIGNMENT: Tan., 1°-00' Curve Rt., Tan., 1°-00' Curve Rt.  
SUPERELEVATION: .024'/FT. Max.

EXISTING STRUCTURE (to be widened)  
TYPE: Continuous Steel Girder with Reinforced Deck and Substructure  
SPANS: 84.35', 99.28', 108.20', 119', 128', 119', 111', 102', 90', c/c brgs. measure on reference tangent and its extension  
ROADWAY: Varies, Parapet Right 2' Curb, Parapet Lt.  
LIVE LOAD: CF 2000 Ohio 1951 Specs.  
SKEW: Varies  
WEARING SURFACE: 2-1/2" Bituminous  
APPROACH SLAB: 25' Long  
ALIGNMENT: Tangent and 1°-00' Curve Right  
SUPERELEVATION: 0.017'/FT.

E. S. PRESTON & ASSOCIATES, LIMITED  
ENGINEERS  
COLUMBUS, OHIO

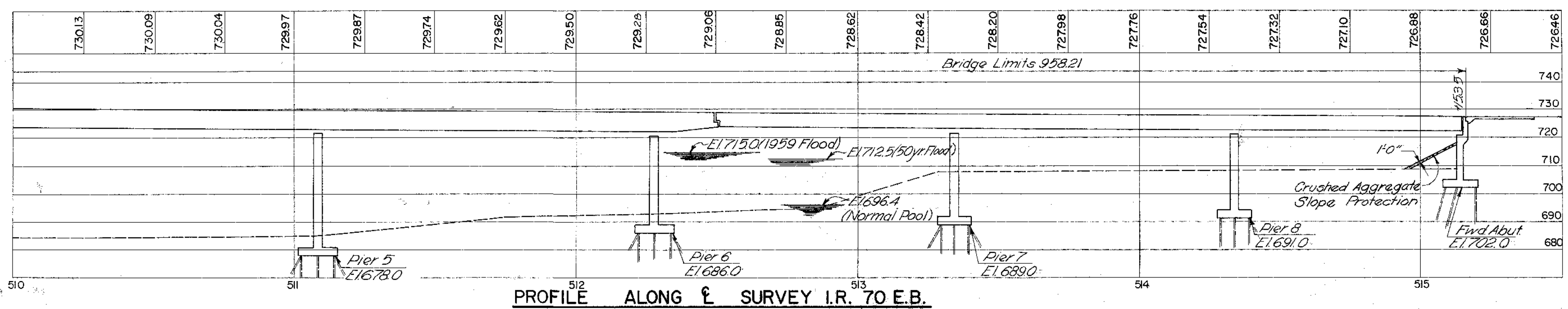
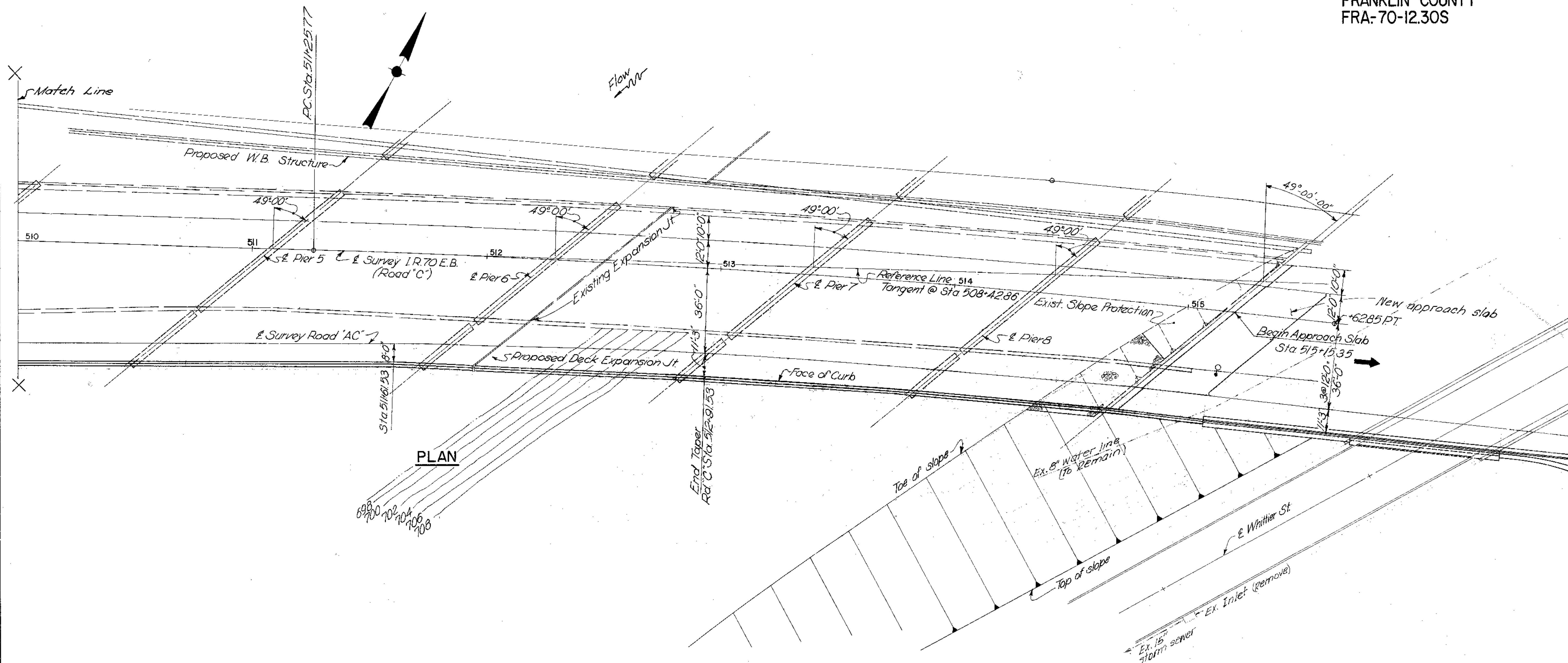
**SITE PLAN**  
BRIDGE NO. FRA-70-1328S-E.B.  
ADDITION TO BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER  
FRANKLIN COUNTY STA. 505+57.14  
STA. 515+15.35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
A.S.B.	R.V.B.	J.N.L.	A.J.M.	KEN 9-8-70	



PROFILE ALONG E SURVEY I.R. 70 E.B. RD. C

FRANKLIN COUNTY  
FRA-70-12.30S



NOTE: Earthwork shown is schematic. For actual slopes, see roadway plan cross-sections.

E. S. PRESTON & ASSOCIATES, LIMITED 243  
ENGINEERS  
COLUMBUS, OHIO

**SITE PLAN**  
BRIDGE NO. FRA-70-1328S-E.B.  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230  
OVER SCIOTO RIVER

FRANKLIN COUNTY STA. 505+57.4  
STA. 515+15.35

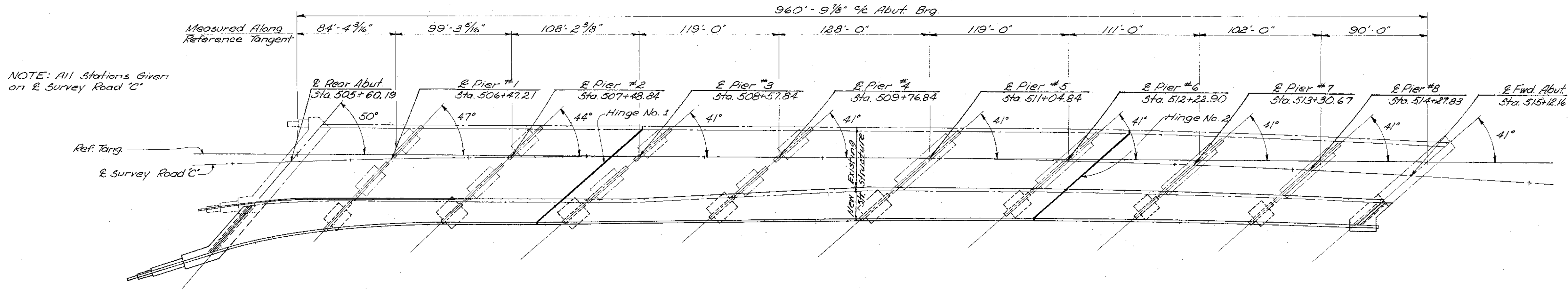
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
A.S.B.	R.J.B.	J.M.L.	A.J.M.	NEN 9-8-70



FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

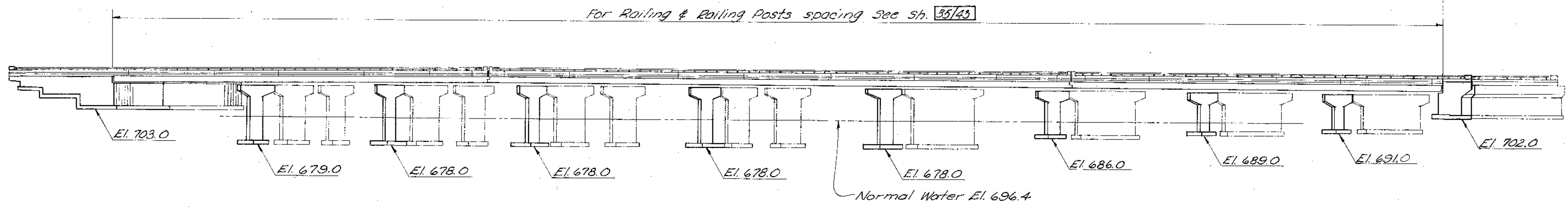
FRANKLIN COUNTY  
FRA-70-1231S

1787



NOTE: All Stations Given on & Survey Road 'C'

GENERAL PLAN



ELEVATION  
(PILES NOT SHOWN)

E. S. PRESTON & ASSOCIATES, LIMITED ENGINEERS COLUMBUS, OHIO				
<b>GENERAL PLAN</b>				
BRIDGE NO. FRA-70-1328S-EB				
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER				
STA. 505+57.14				
STA. 515+15.35				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
A.S.B.	R.J.B.	J.N.L.	A.J.M.	NEN 9-8-90

# GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS AS 1-67 REVISED 6-12-69, RB 155 REVISED 2-2-59, SD-1-69 SHEETS 1 THRU 4 DATED 6-12-69, AND TO SUPPLEMENTAL SPECIFICATIONS 808, DATED 1-1-71, 836 DATED 1-1-71, 837 DATED 12-31-70, AND 944 DATED 4-5-72.

DESIGN SPECIFICATION: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1969, INCLUDING THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING -	HS20-44 AND THE INTERSTATE ALTERNATE LOADING
CONCRETE, CLASS "C" -	UNIT STRESS 1200 P.S.I. FOR SUPERSTRUCTURE. UNIT STRESS 1333 P.S.I. FOR SUBSTRUCTURE.
STRUCTURAL STEEL -	A.S.T.M. A36 UNIT STRESS 20,000 P.S.I.
REINFORCING STEEL -	A.S.T.M. A615, A616 OR A617 UNIT STRESS 20,000 P.S.I. IF BARS IN ACCORDANCE WITH ASTM A616 ARE PROVIDED THEY SHALL BE SUBJECT TO BEND TESTS AS PER AASHTO DESIGNATION M42-70.

REMOVAL OF EXISTING STRUCTURE: WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, PORTIONS OF THE EXISTING STRUCTURE SHALL BE REMOVED AND/OR MODIFIED AS PER PLAN SHEETS.

PILES SHALL BE DRIVEN TO FIRM CONTACT DEPTH TO BEDROCK. IF THE LENGTH OF PENETRATION IS APPROXIMATELY EQUAL TO THE DEPTH TO 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 ABUTMENT PILES:

53 TONS PER PILE USING 15,000 FT. LBS. HAMMER.

FOR THE PIER PILES:

60 TONS PER PILE USING 11,000 FT. LBS. 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 40 TONS PER PILE FOR THE ABUTMENT AND THE PIER PILES.

EMBANKMENT CONSTRUCTION BEFORE THE BACKWALL IS CONSTRUCTED THE EMBANKMENT SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE WITH A 1:1 SLOPE FROM THE BRIDGE SEAT TO THE SUBGRADE FOR A MINIMUM DISTANCE OF 200 FEET BACK OF THE ABUTMENT.

**ITEM SPECIAL - BRIDGE DECK WATERPROOFING** - (See Proposal)

A. DESCRIPTION. THIS WORK SHALL CONSIST OF THE PREPARATION AND WATERPROOFING OF ALL SURFACES OF CONCRETE, STEEL OR OTHER MATERIALS WHICH ARE TO BE IN CONTACT WITH THE SURFACE COURSE, BY CLEANING THE SURFACE AND APPLYING TWO COATS OF SEALING COMPOUND IN ACCORDANCE WITH THIS SPECIFICATION.

B. MATERIALS. THE MATERIALS SHALL BE:

1. SEALING COMPOUND - FIRESTONE TIRE AND RUBBER COMPANY NO. 526, OR AS SPECIFIED IN SECTION E BELOW.
2. SOLVENT - FIRESTONE TIRE AND RUBBER COMPANY NO. 607, OR APPROVED AS SPECIFIED IN SECTION E BELOW.

C. PREPARATION OF EXISTING SURFACE. PRIOR TO PLACING THE SEALING COMPOUND, THE BRIDGE DECK SURFACE SHALL BE CLEANED OF FOREIGN MATERIAL AND LOOSE CONCRETE AND ETCHED BY APPLYING ACID OR BY SAND BLASTING.

WHERE ACID IS USED, THE APPLICATION SHALL BE PRECEDED BY FURTHER CLEANING USING WATER AND A DETERGENT DESIGNED FOR REMOVING OIL DEPOSITS FROM CONCRETE SURFACES TOGETHER WITH POWER OR PUSH BROOM SCRUBBING. THE RESIDUE AND DETERGENT SHALL BE THOROUGHLY FLUSHED FROM THE SURFACE WHILE THE SURFACE IS WET. COMMERCIAL HYDROCHLORIC ACID SHALL BE APPLIED UNIFORMLY AT THE RATE OF ONE GALLON PER 100 SQUARE FEET. IMMEDIATELY AFTER THE ACID STOPS FOAMING, THE RESIDUE SHALL BE REMOVED BY THOROUGH BROOMING AND FLUSHING WITH WATER.

WHERE SAND BLASTING IS USED, THE DECK SURFACE SHALL BE TREATED UNIFORMLY IN SUCH A MANNER THAT THE SURFACE GLAZE AND LAITANCE IS REMOVED.

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATING AND/OR INSTALLING THE EFFECTED UTILITIES SHALL BE BORNE BY OWNERS. THE CONTRACTOR AND OWNERS. THE CONTRACTOR AND OWNERS ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WOULD BE HELD TO A MINIMUM.

FOOTINGS: MINIMUM COVER FOR ALL REINFORCING STEEL IN ALL FOOTINGS SHALL BE 3" PAINT FOR EXISTING STRUCTURE SHALL CONFORM TO 708

D. APPLICATION OF SEALING COMPOUND. THE BRIDGE DECK SURFACES SHALL BE DRY AND FREE OF DUST AT THE TIME OF APPLICATION OF THE SEALING COMPOUND AND, THE AIR TEMPERATURE SHALL NOT BE LESS THAN 50 DEGREES FAHRENHEIT. THE SEALING COMPOUND SHALL NOT BE HEATED AND PRECAUTIONS SHALL BE TAKEN TO AVOID FIRE HAZARDS. THE SEALING COMPOUND SHALL BE APPLIED IN TWO COATS AS FOLLOWS:

- a. FIRST COAT. FOR THE FIRST COAT, THE SEALING COMPOUND SHALL BE MIXED WITH EQUAL PARTS OF SOLVENT. THIS MIXTURE SHALL BE APPLIED TO THE PREPARED SURFACES AND SPREAD, USING SUITABLE BRUSHES, AT THE RATE OF 0.10 GALLON PER SQUARE YARD. THIS COAT SHALL BE PERMITTED TO CURE FOR A PERIOD OF TWO HOURS OR UNTIL THERE IS NO TENDENCY TO ADHERE TO WORKMAN'S SHOES BEFORE THE APPLICATION OF THE SECOND COAT.
- b. SECOND COAT. FOR THE SECOND COAT THE SEALING COMPOUND SHALL BE APPLIED UNDILUTED AND SPREAD, USING SUITABLE BRUSHES, AT THE RATE OF 0.15 GALLON PER SQUARE YARD. NO FURTHER WORK OR TRAFFIC SHALL BE PERMITTED ON THE SURFACE UNTIL THE SECOND COAT HAS CURED OVERNIGHT.

E. ALTERNATE MATERIALS IN LIEU OF THE ABOVE, UNITED STATES STEEL NEXUS SYSTEM OR TRUKOL CHEMICAL CORP 411-M OR 411-H MAY BE USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

F. METHOD OF MEASUREMENT THE QUANTITY OF WATERPROOFING SHALL BE THE NUMBER OF SQUARE YARDS OF SURFACE COVERED.

G. BASIS OF PAYMENT. PAYMENT FOR THE ACCEPTED QUANTITY WILL BE MADE AT THE CONTRACT PRICE FOR:

ITEM SPECIAL	UNIT SQUARE YARD	DESCRIPTION WATERPROOFING BRIDGE DECK
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- ① FOR DETAILED DESCRIPTION OF ITEMS AND LIMITS OF REMOVAL SEE SHEET 5/43
- ② THIS ITEM ALSO INCLUDES RESURFACING OF THE EXISTING BRIDGE DECK.
- ③ THIS ITEM IS MODIFIED IN THAT THE SINGLE PIPE RAIL FROM THE EXISTING SOUTH PARAPET WILL BE REUSED ATOP THE NEW PARAPET. RAILING DAMAGED IN REMOVAL AND/OR ADDITIONAL RAILING REQUIRED SHALL CONFORM TO DETAILS ON SHEET 37/43
- ④ NO PAYMENT WILL BE MADE FOR THE REMOVAL OF THE EXISTING CONCRETE SLOPE, THAT PORTION REMOVED SHALL BE CUT ALONG NEAT LINES ON EXTERIOR SIDES OF THE ABUTMENT. REPLACEMENT SHALL CONFORM TO ORIGINAL GRADE.

## ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ESTIMATED QUANTITIES			
				SUPER.	ABUTS.	PIERS	GEN.
① 202	LUMP	SUM	PORTIONS OF EXISTING STRUCTURE REMOVED				
② 403	223	CU.YDS.	ASPHALT CONCRETE (60-70 OR AC-20)	223			LUMP
404	223	CU.YDS.	ASPHALT CONCRETE (60-70 OR AC-20)	223			
503	1771	CU.YDS.	UNCLASSIFIED EXCAVATION		1006	765	
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				
505	LUMP	SUM	TEST PILE				LUMP
507	7760	LIN. FT.	STEEL PILES, HP 12 X 53 *				LUMP
509	389,195	LBS.	REINFORCING STEEL		2850	4910	
511	694	CU. YDS.	CLASS "C" CONCRETE - SUPERSTRUCTURE	694	52561	123,203	
511	430	CU. YDS.	CLASS "C" CONCRETE - PIERS ABOVE FOOTING			430	
511	272	CU. YDS.	CLASS "C" CONCRETE - PIER FOOTINGS			272	
511	443	CU. YDS.	CLASS "C" CONCRETE - ABUTMENTS		443		
512	76	LIN. FT.	PREMOLDED SEALING STRIP		76		
513	784,138	LBS.	STRUCTURAL STEEL	784,138			
514	784,138	LBS.	FIELD PAINTING OF STRUCTURAL STEEL	784,138			
516	19	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER		19		
③ 517	LUMP	SUM	RAILING (CONCRETE PARAPET WITH SINGLE PIPE RAIL)				LUMP
518	60	LIN. FT.	6" STD. PIPE DOWNSPOUT, ALLOY STEEL (707.II) OR HOT-DIP GALV. STEEL	60			
518	1124	LIN. FT.	SUBDRAINAGE FOR WEARING SURFACE COURSE, (AS PER PLAN)				
518	138	CU. YDS.	POROUS BACKFILL		138		1124
518	22	LIN. FT.	6" PERFORATED, HELICAL C.M.P. INCL. SPECIAL, 707.01		22		
518	31	LIN. FT.	6" NON - PERFORATED, HELICAL C.M.P. 707.01		31		
518	51	EACH	SCUPPERS, INCLUDING SUPPORTS	51			
SPECIAL 8025	SQ. YDS.		BRIDGE DECK WATERPROOFING INCLUDING SAND-ASPHALT COVER (See Proposal)				8025
601	III	SQ. YDS.	6" CONCRETE SLOPE PROTECTION (REPLACEMENT ONLY)		LUMP		
625			CRUSHED AGGREGATE SLOPE PROTECTION		III		
625			SEE SHEET 327 FOR LIGHTING SUMMARY				
808	659	UNITS	CHEMICAL ADMIXTURES FOR CONCRETE TYPE A, B, OR D	659			
837	LUMP	SUM	FIELD PAINTING OF EXISTING STRUCTURAL STEEL				LUMP
SPECIAL 900	SQ. FT.		PATCHING CONCRETE STRUCTURES, TYPE A (See Proposal note)				900

ESTIMATED QUANTITIES CONTINUED

ITEM	TOTAL	UNIT	DESCRIPTION
SPECIAL 900		SQ. FT.	PATCHING CONCRETE STRUCTURES, TYPE B (SEE PROPOSAL NOTE)

384,559

\* - HP 12 X 53 FORMERLY DESIGNATED AS 12 BP 53

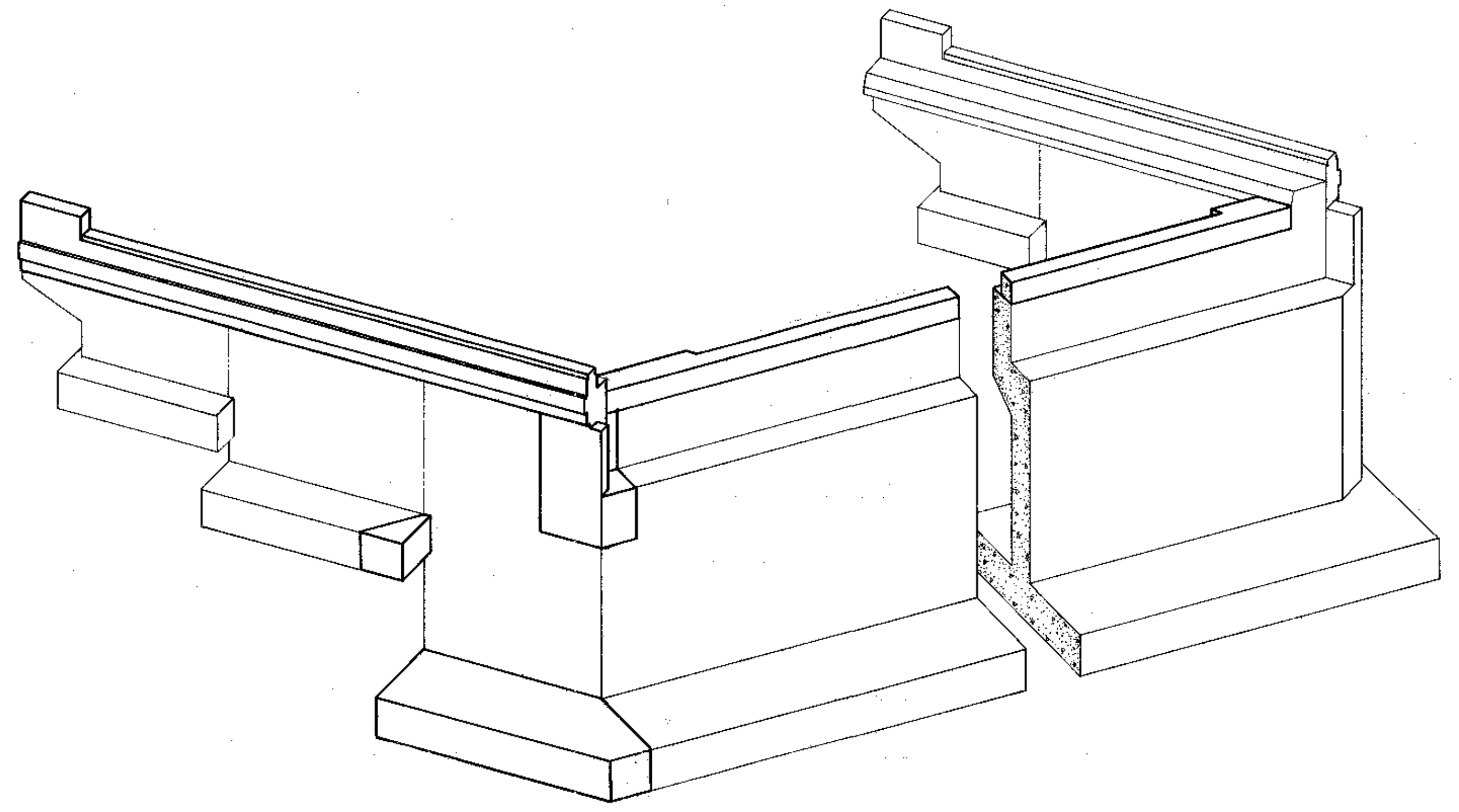
E. S. PRESTON & ASSOCIATES, LIMITED 4/43					
ENGINEERS COLUMBUS, OHIO					
<b>GENERAL NOTES &amp; QUANTITIES</b>					
BRIDGE NO. FRA-70-1328S-EB					
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230					
OVER SCIOTO RIVER					
FRANKLIN COUNTY				STA. 505+57.14	
				STA. 515+15.35	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.S.B.	R.V.B.	J.N.L.	A.J.M.	NOV. 9-8-70	6-28-73



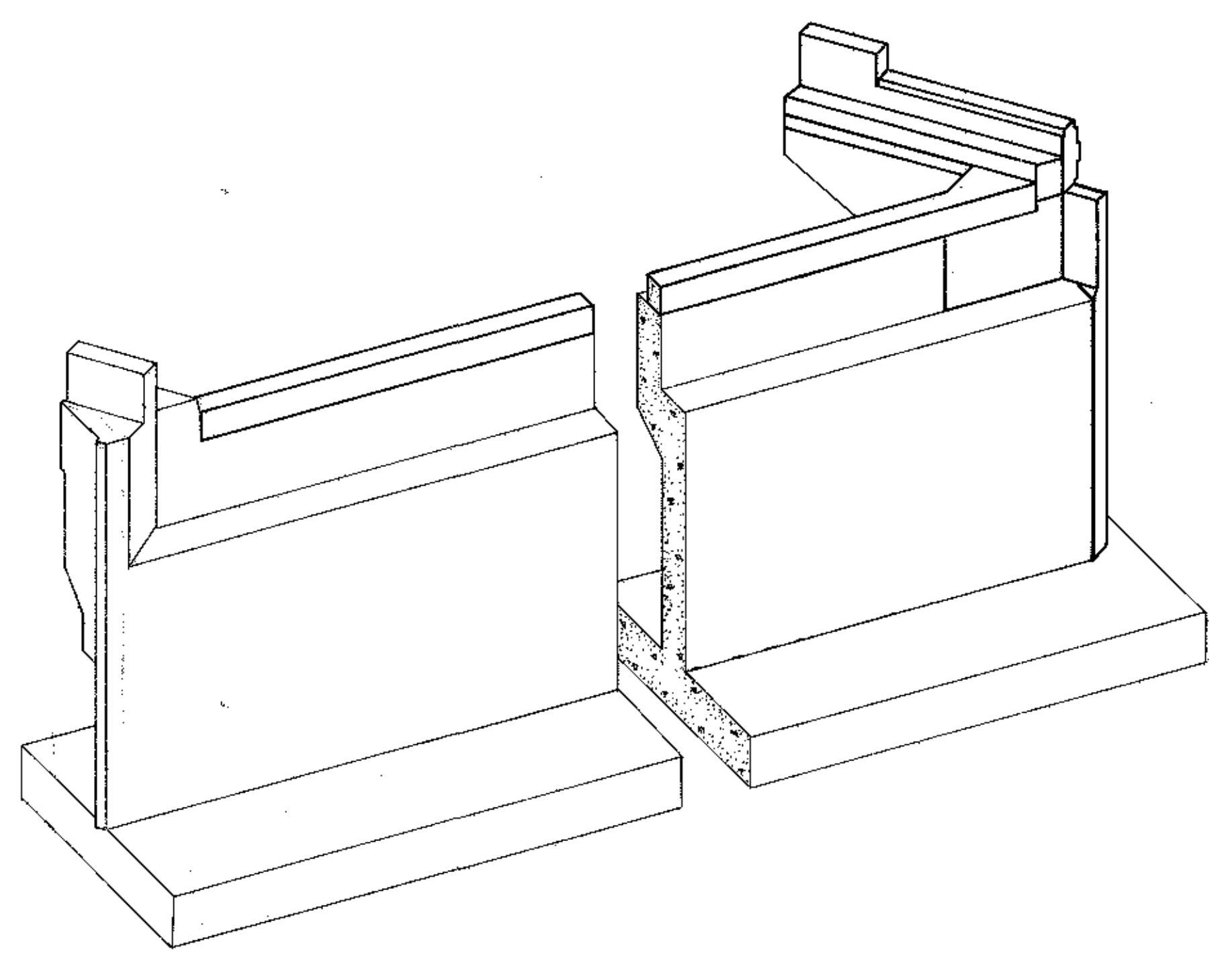
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

789

FRANKLIN COUNTY  
FRA-70-12.31S



REAR ABUTMENT



FORWARD ABUTMENT

PORTIONS OF EXISTING STRUCTURE REMOVED

**REAR ABUTMENT:**

- (a) Aluminum Railing And Posts From South Parapet. Store For Reuse On New Addition.
- (b) South Parapet And Curbing Down To The Level Of The Last Offset. (Top Of 2 Ft. Wall).
- (c) Backwall From Face Of North Curb To Face Of South Curb And Down To The Level Of The Approach Slab Seat.
- (d) That Portion Of Backwall, Wingwall And Abutment Stem Shown, Down To A Minimum Of 3.5 Ft. Below Bridge Seat (Base Of Haunch.) See Sheet 7/43.
- (e) Main Footing At South End, As Indicated On The Plans.
- (f) The Corner Of South Wingwall Footing, Second Level, As Needed To Allow Safe Construction Of New Footing.

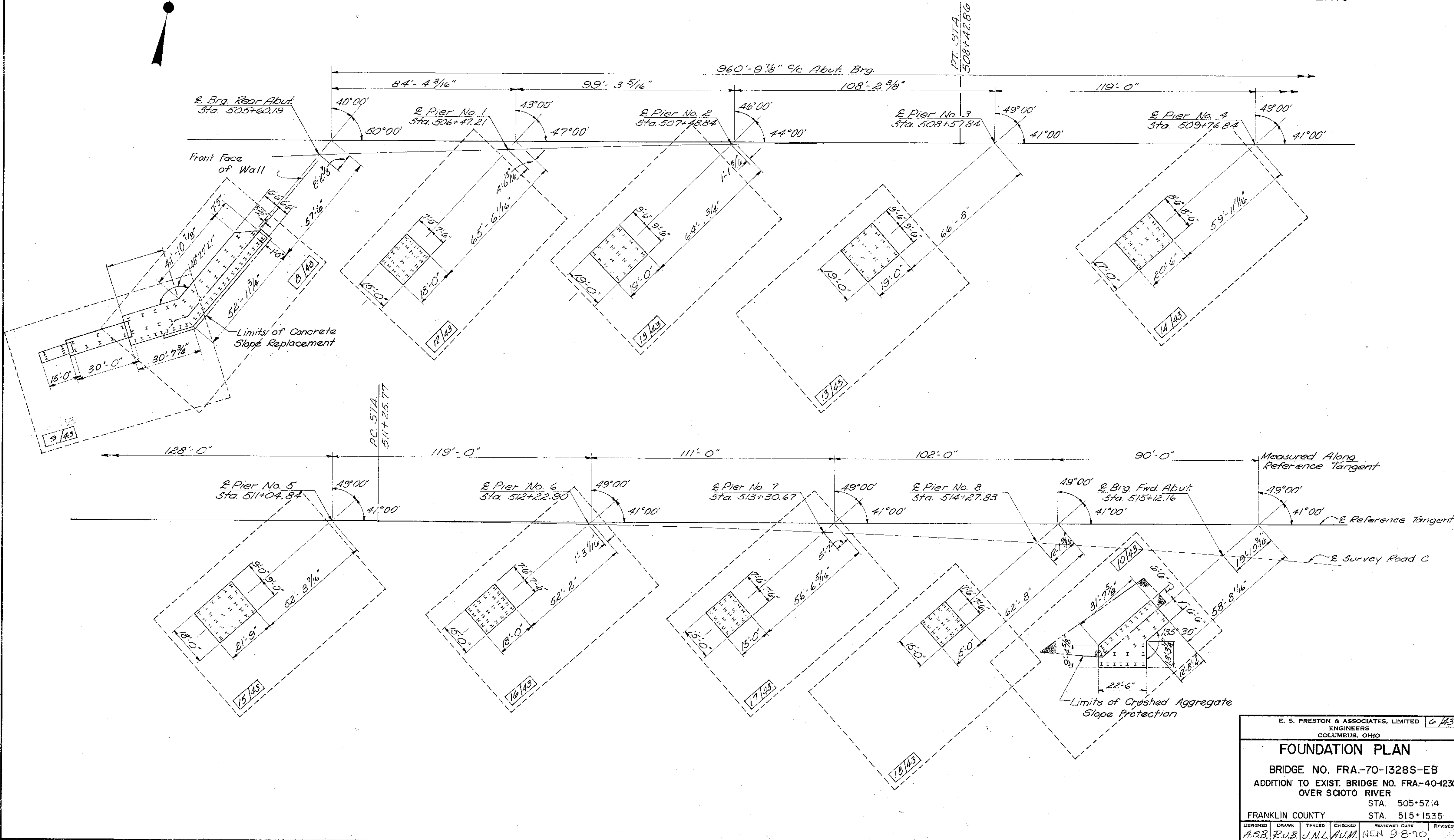
**FORWARD ABUTMENT:**

- (a) Aluminum Railing And Posts From South Parapet. Store For Reuse On New Addition.
- (b) South Parapet And Curbing Down To The Level Of The Last Offset. (Top Of 2 Ft. Wall).
- (c) Backwall From Face Of North Curb To Face Of South Curb And Down To The Level Of The Approach Slab Seat.
- (d) Backwall And Curtain Wall Down To The Level Of The Bridge Seat And A Portion Of The Abutment Stem Down To The Level Of The Top Of Footing. See Sheet 10/43.

**SUPERSTRUCTURE:**

- (a) Asphaltic Concrete Surface Down To Top Of Concrete Deck.
- (b) End Dams At Abutments (See Sheet 28/43) And End Dams At Hinges (See Sheet 27/43).
- (c) Aluminum Railing And Post From South Parapet. Store For Reuse On New Addition.
- (d) The Slab Shall Be Cut Along A Line 1'-6" In From The South Curb (See Sheet 30/43). Slab Concrete Outside Of The Cut Line Together With The Parapet, Scuppers, Bulb Angle, And Subdrainage Items Are To Be Removed.

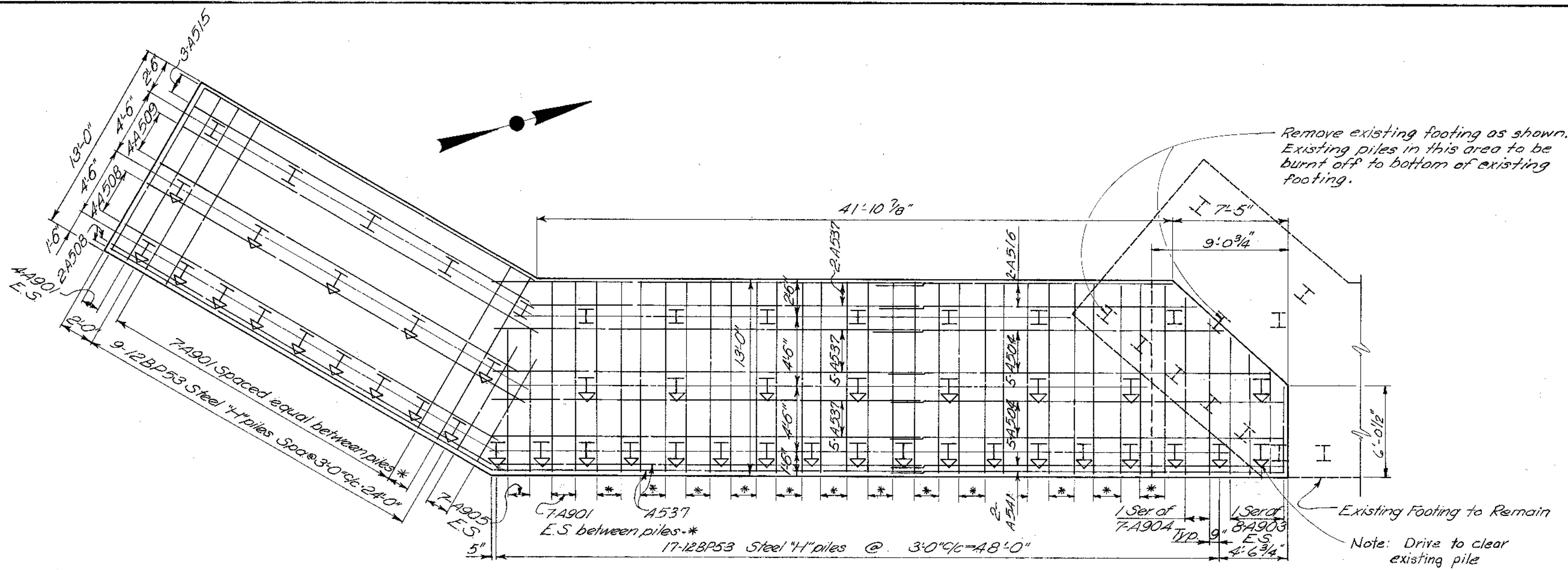
E. S. PRESTON ASSOCIATES, INC. 5/43 ENGINEERS COLUMBUS, OHIO					
<b>MISCELLANEOUS DETAILS</b>					
BRIDGE NO. FRA-70-1328S-E.B.					
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER					
					STA. 505+57.14
					FRANKLIN COUNTY STA. 515+15.35
Designed	Drawn	Traced	Checked	Reviewed Date	Revised
ASB	AJM	MLS	EE	MEN 8-31-71	



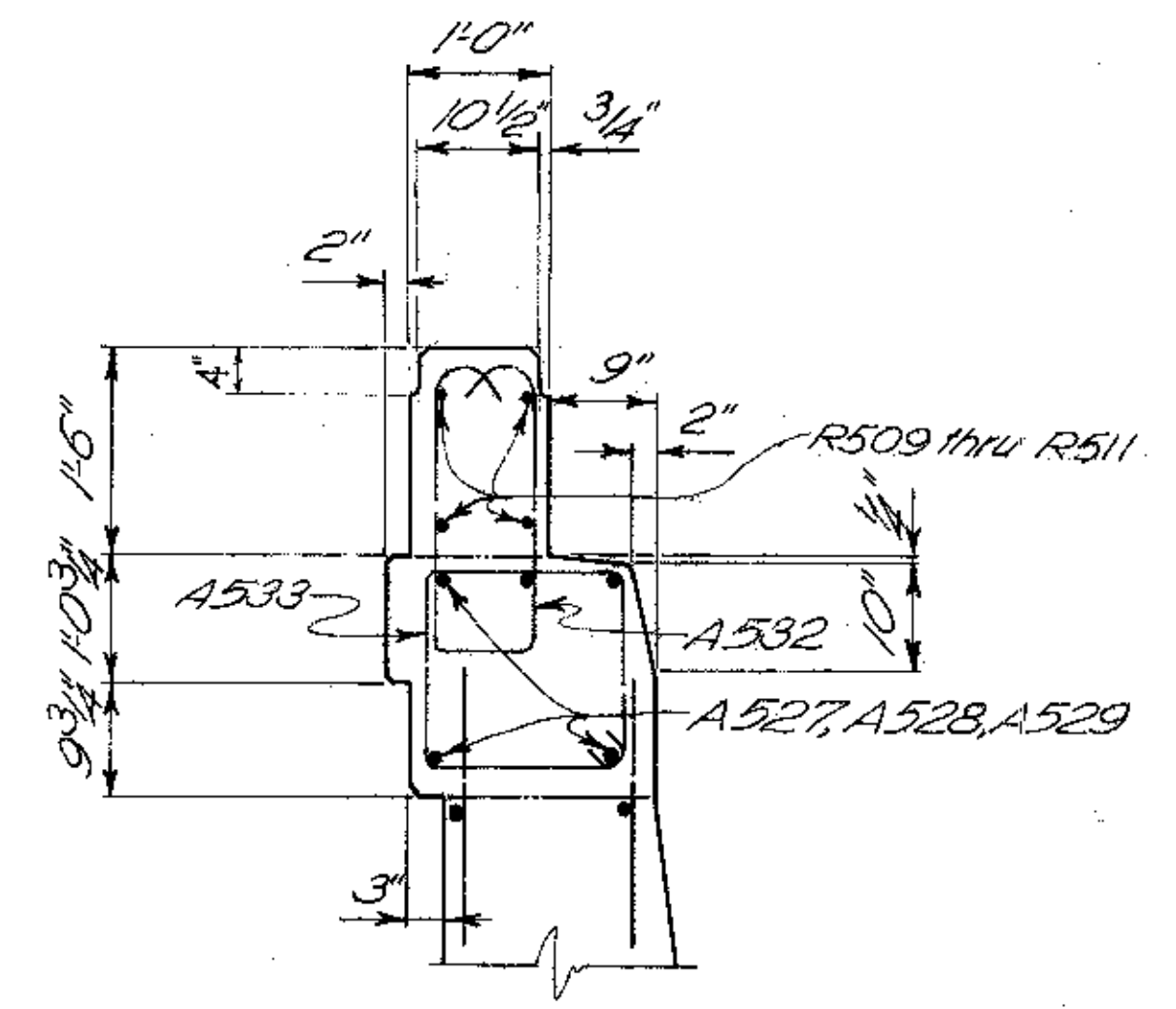
E. S. PRESTON & ASSOCIATES, LIMITED					6/43
ENGINEERS					
COLUMBUS, OHIO					
<b>FOUNDATION PLAN</b>					
BRIDGE NO. FRA.-70-1328S-EB					
ADDITION TO EXIST. BRIDGE NO. FRA.-40-1230					
OVER SCIOTO RIVER					
STA. 505+57.14					
FRANKLIN COUNTY STA. 515+1535					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.S.B.	R.J.B.	J.N.L.	A.U.M.	MEN 9-8-70	



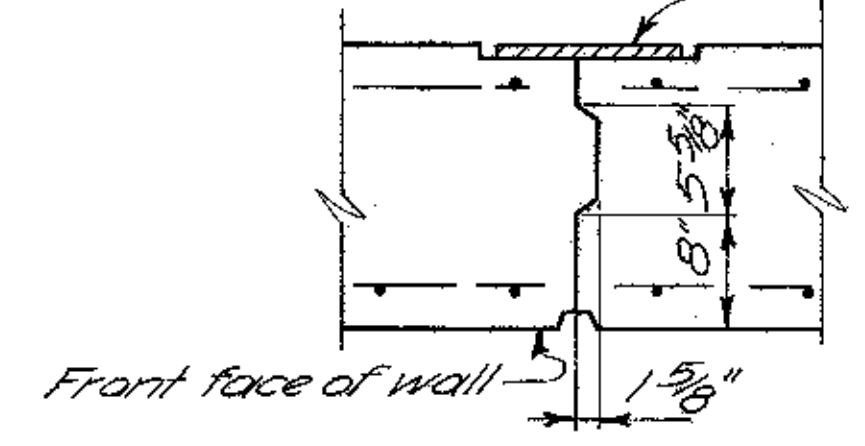




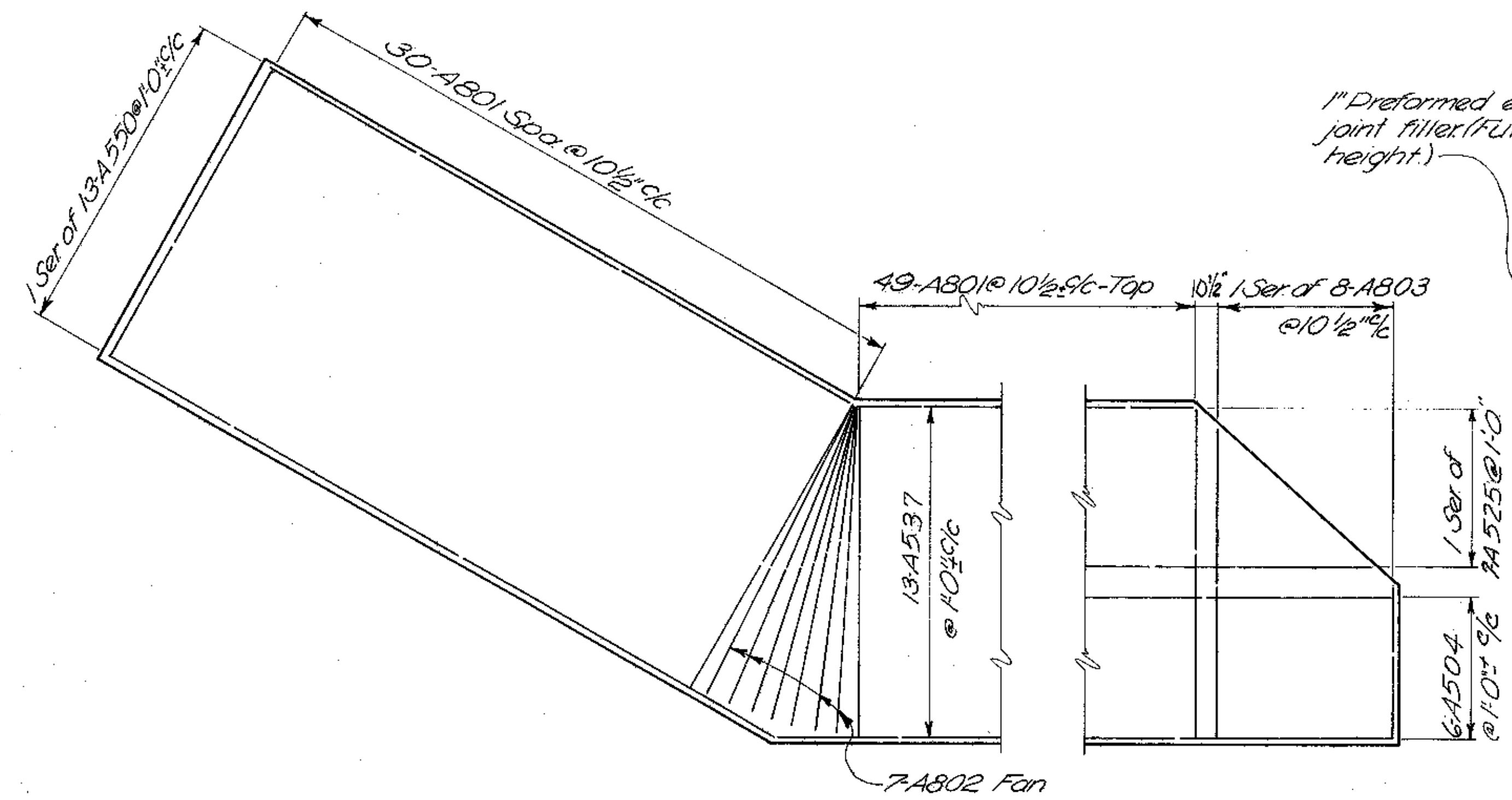
**FOOTING REINFORCING STEEL-BOTTOM**



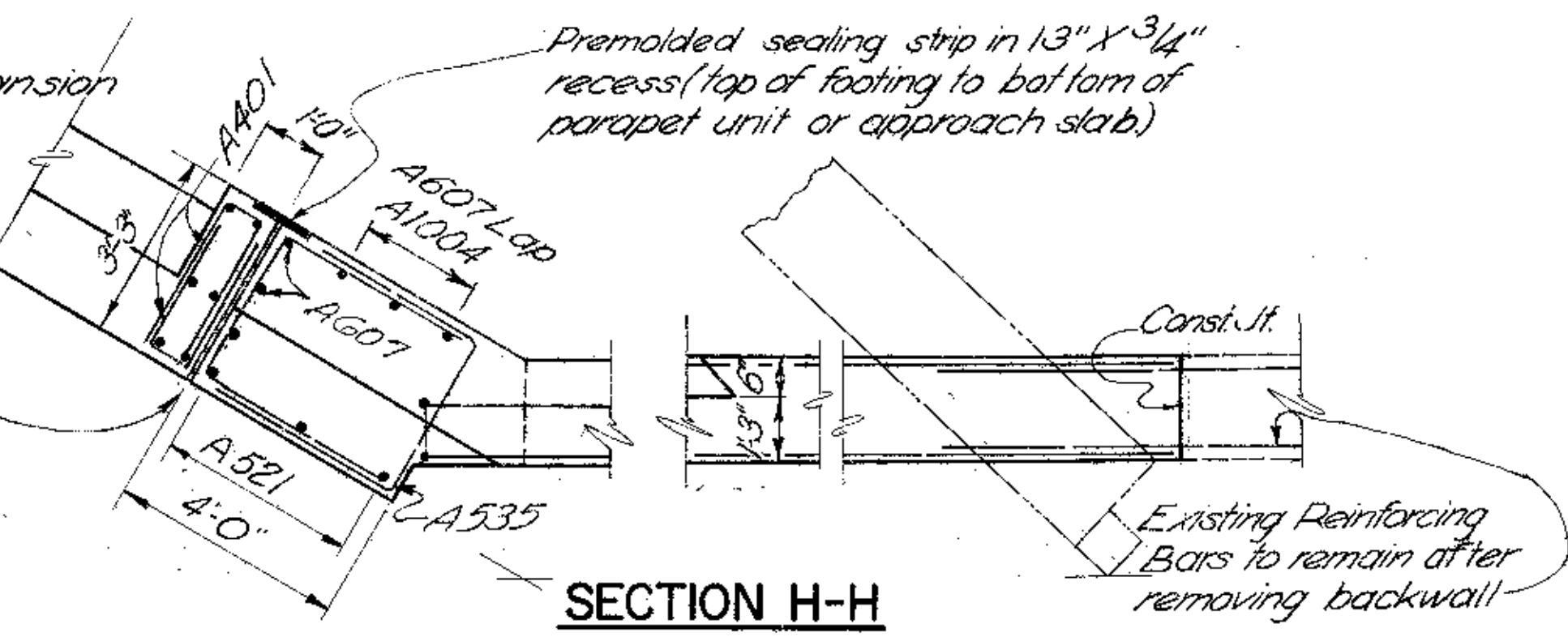
Premolded sealing strip in 13" x 3 1/4" recess (top of footing to bottom of parapet unit or approach slab)



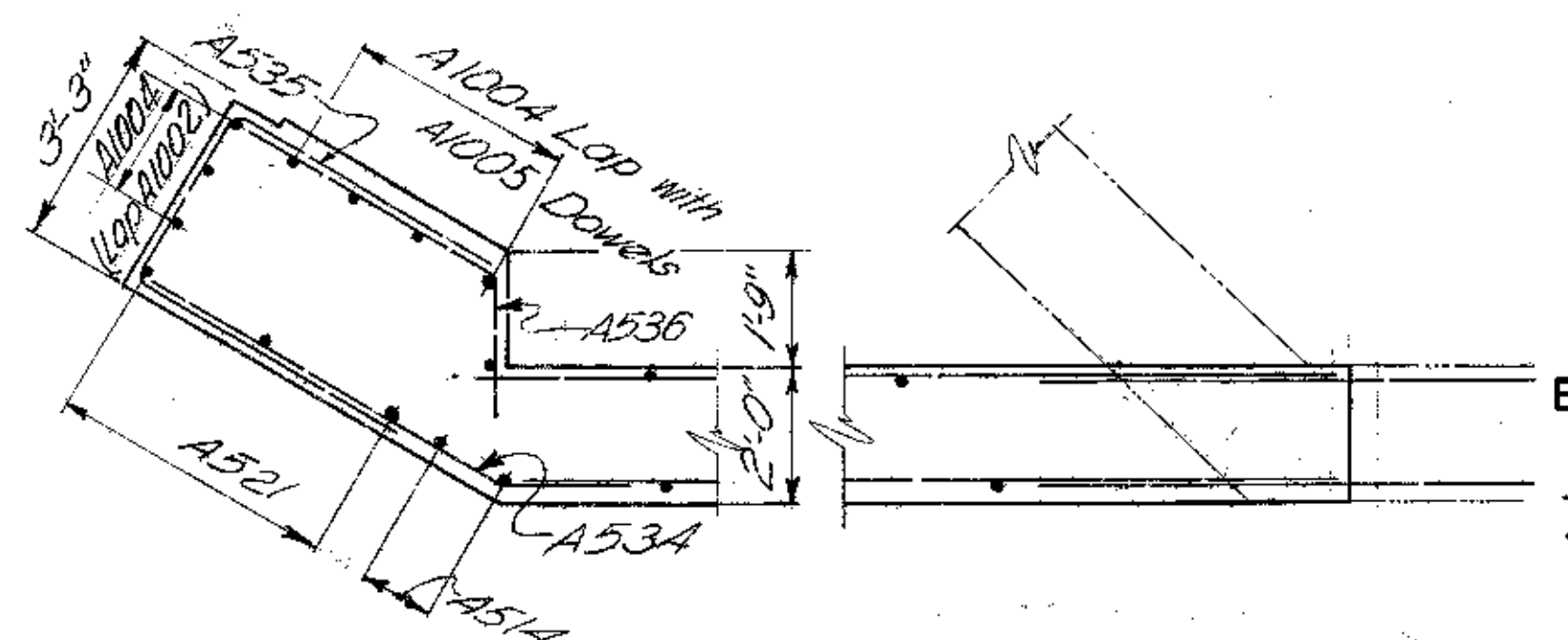
**CONTRACTION JOINT DETAIL**



**FOOTING REINFORCING STEEL-TOP**



**SECTION H-H**

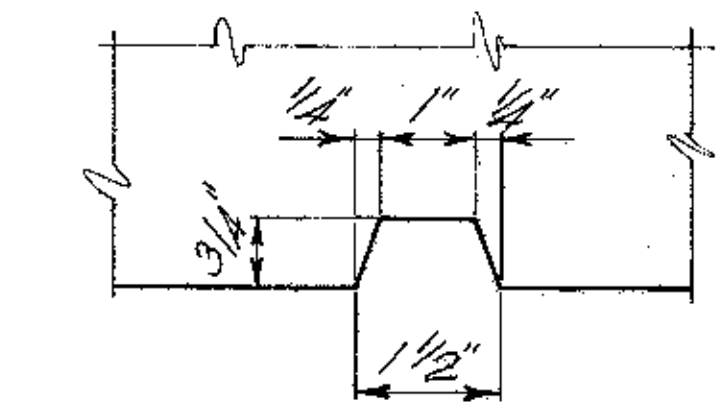


**SECTION G-G**

**LEGEND**

- E.S. = EQUALLY SPACED, OR EQUAL SPACING
- ▽ = BATTER PILES 1:4 (and direction of batter)

NOTE: For Additional Details See Sheets 7-143 & 9-143

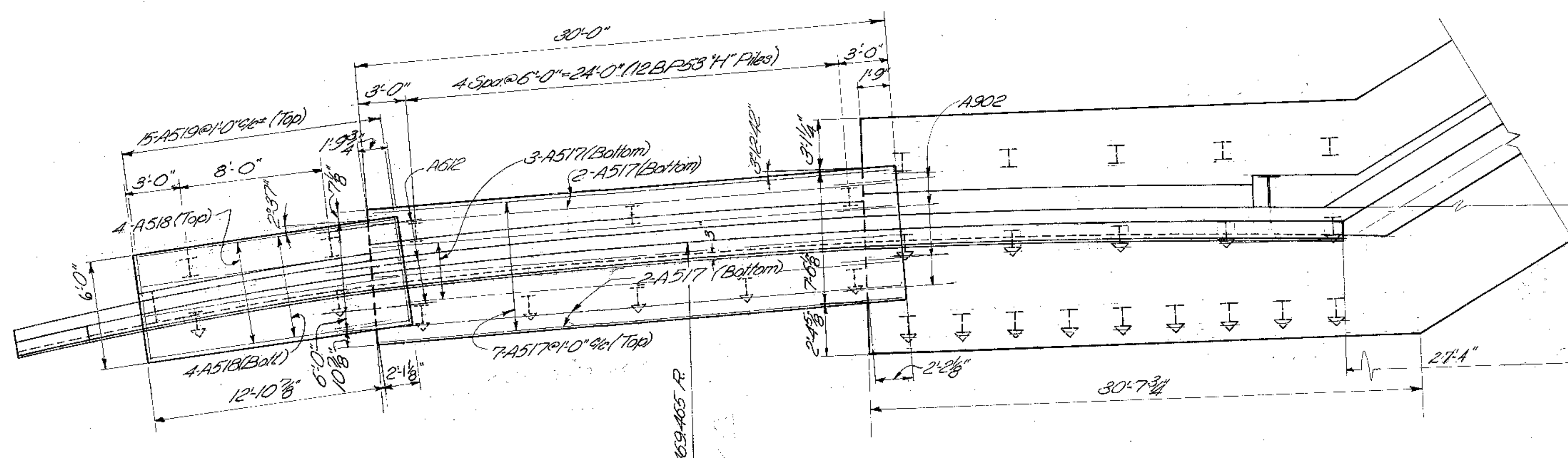


**REAR ABUTMENT**  
BRIDGE NO. FRA-70-1328S-EB  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER  
FRANKLIN COUNTY STA. 505+57.14  
STA. 515+15.35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
A.S.B.	E.K.	J.N.L.	A.U.M.	NEN 9-8-70	



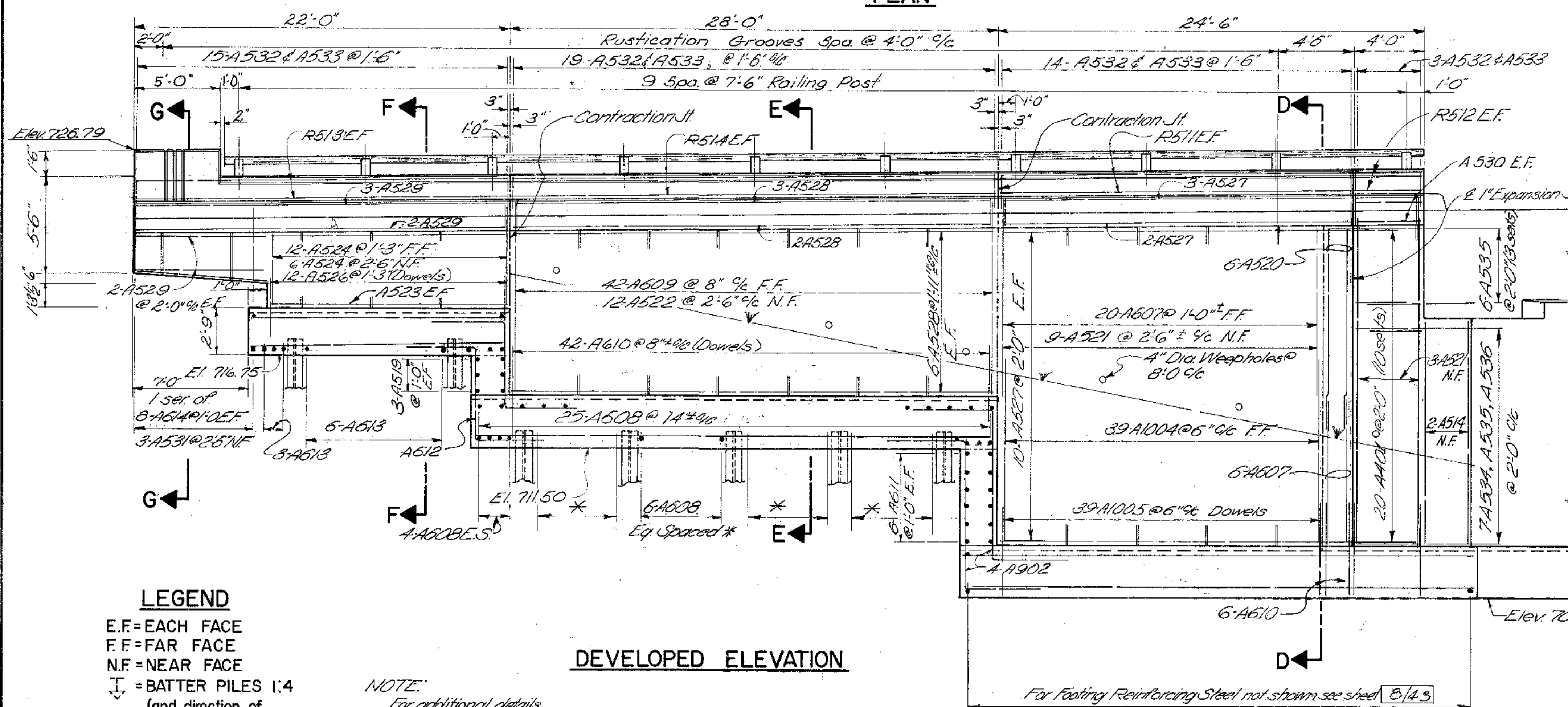
C.S. Road "AC" Sta. 505 + 45.36



PLAN

SECTION G-G

SECTION F-F

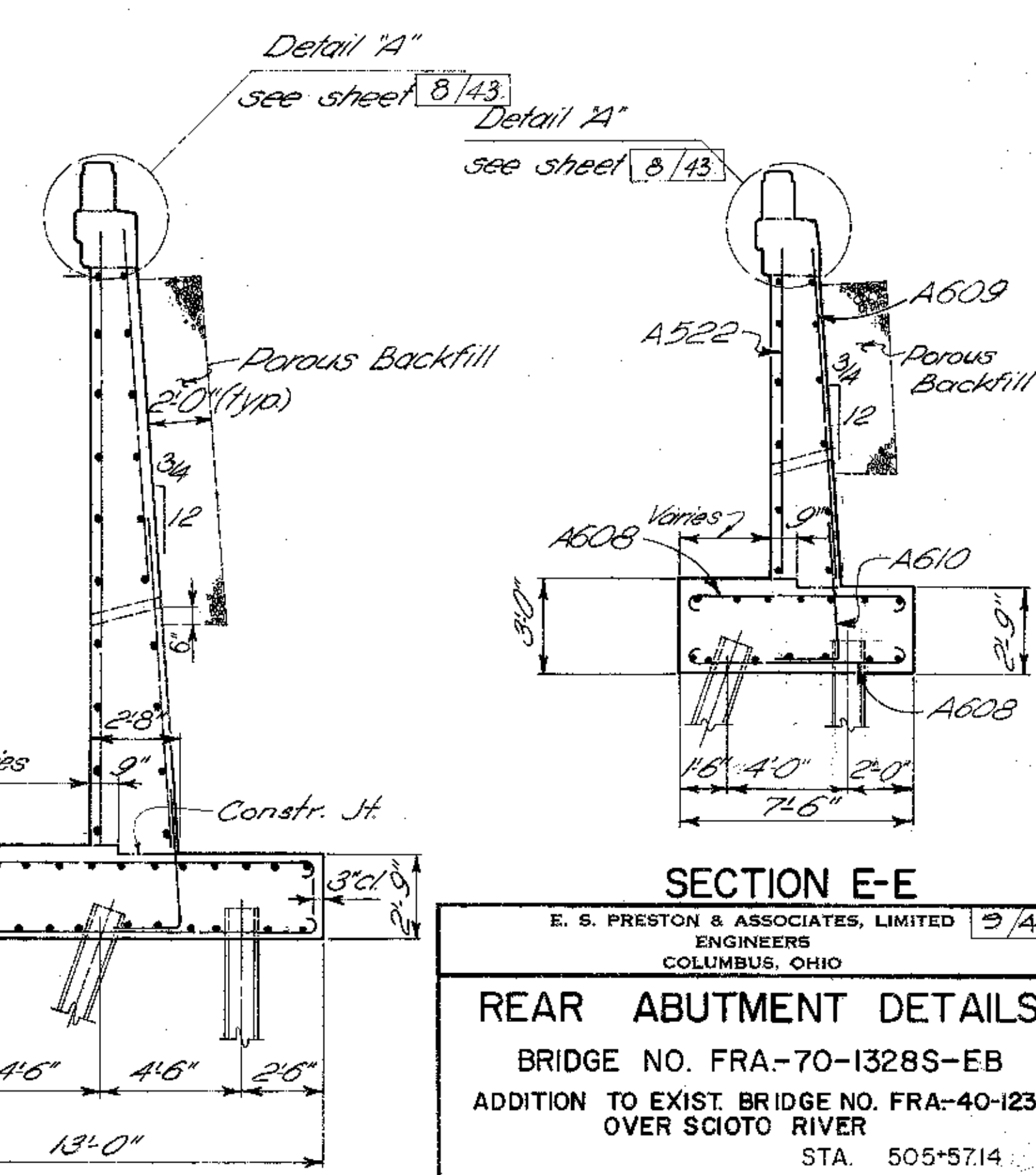


DEVELOPED ELEVATION

**LEGEND**

- E.F.=EACH FACE
- F.F.=FAR FACE
- N.F.=NEAR FACE
- ⊥ = BATTER PILES 1:4 (and direction of batter)

NOTE:  
For additional details see sheets 7/43 & 8/43



SECTION D-D

SECTION E-E

E. S. PRESTON & ASSOCIATES, LIMITED  
ENGINEERS  
COLUMBUS, OHIO

**REAR ABUTMENT DETAILS**

BRIDGE NO. FRA-70-1328S-EB  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230  
OVER SCIOTO RIVER

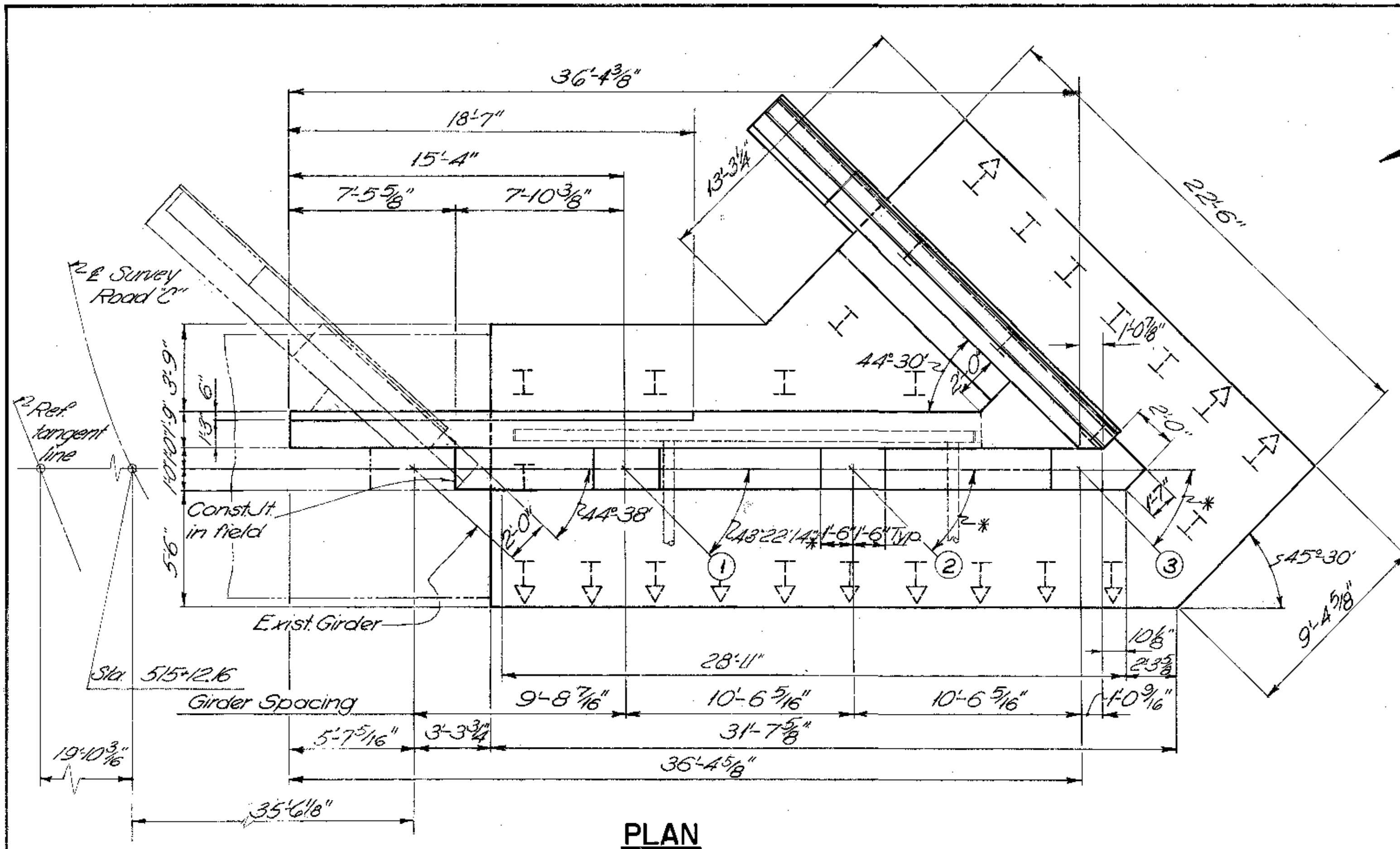
FRANKLIN COUNTY STA. 505+57.14  
STA. 515+15.35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
ASB	REG	RJB	AJM	NOV 9-87	0

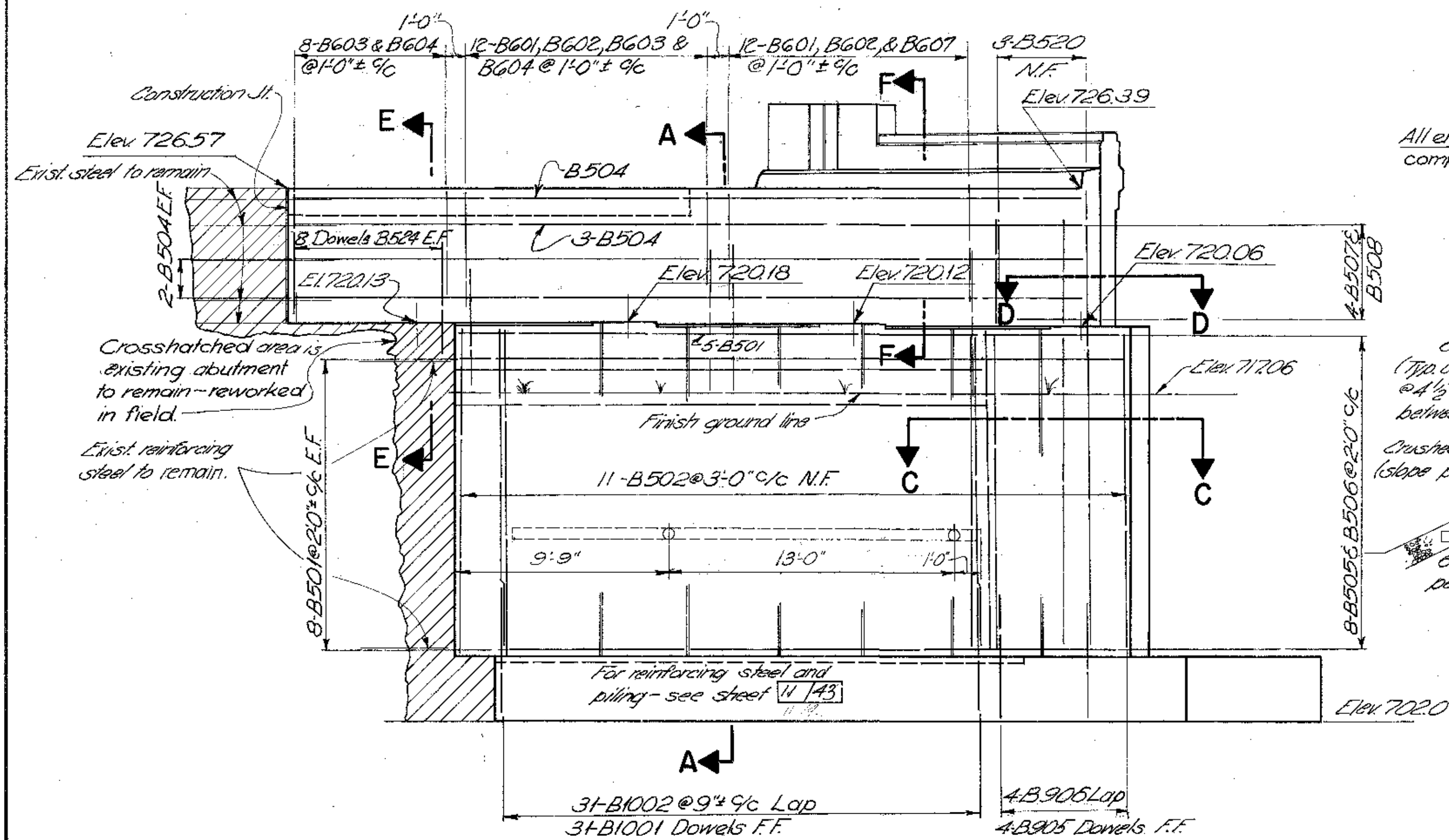
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

194

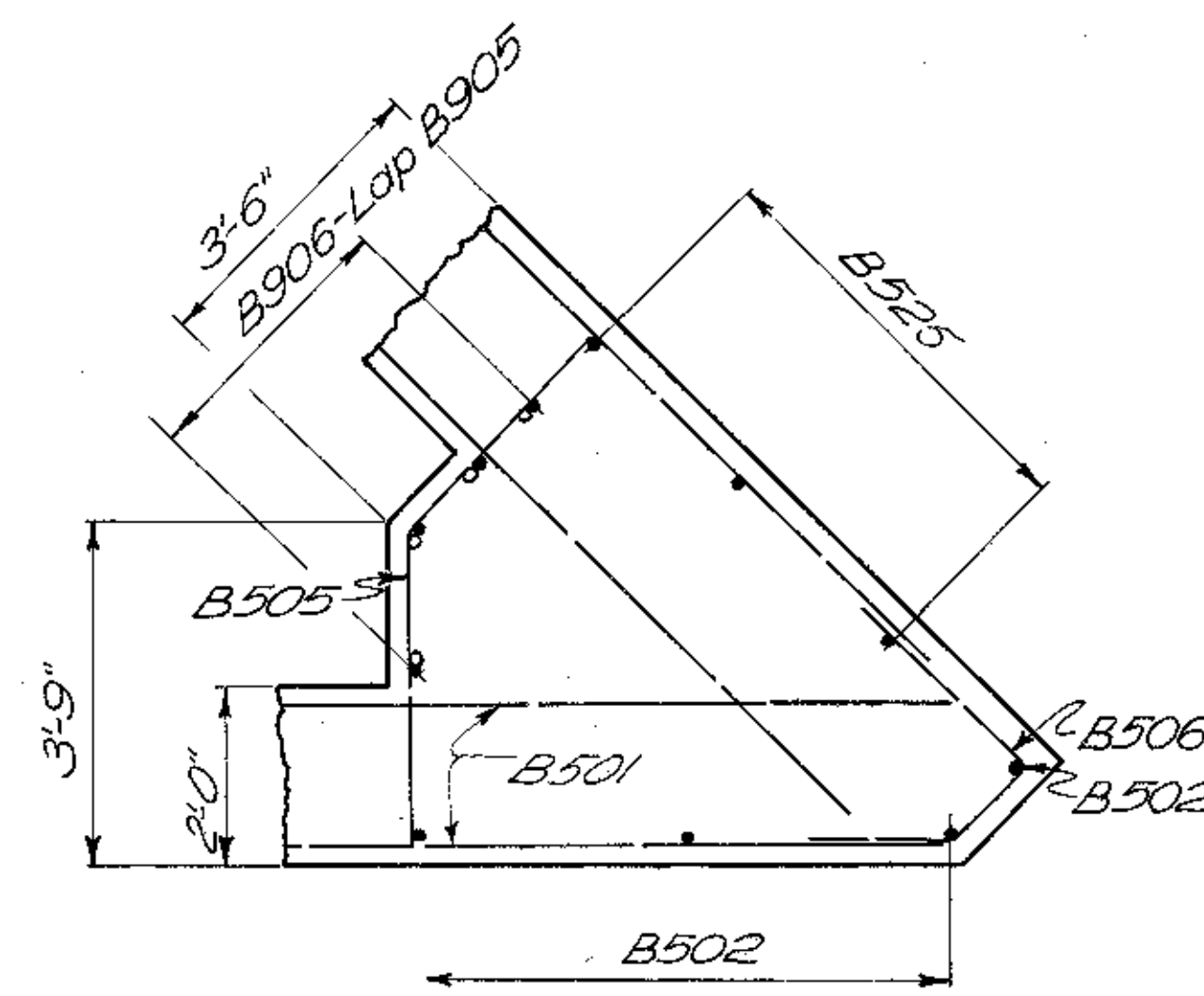
FRANKLIN COUNTY  
FRA-70-12.31S



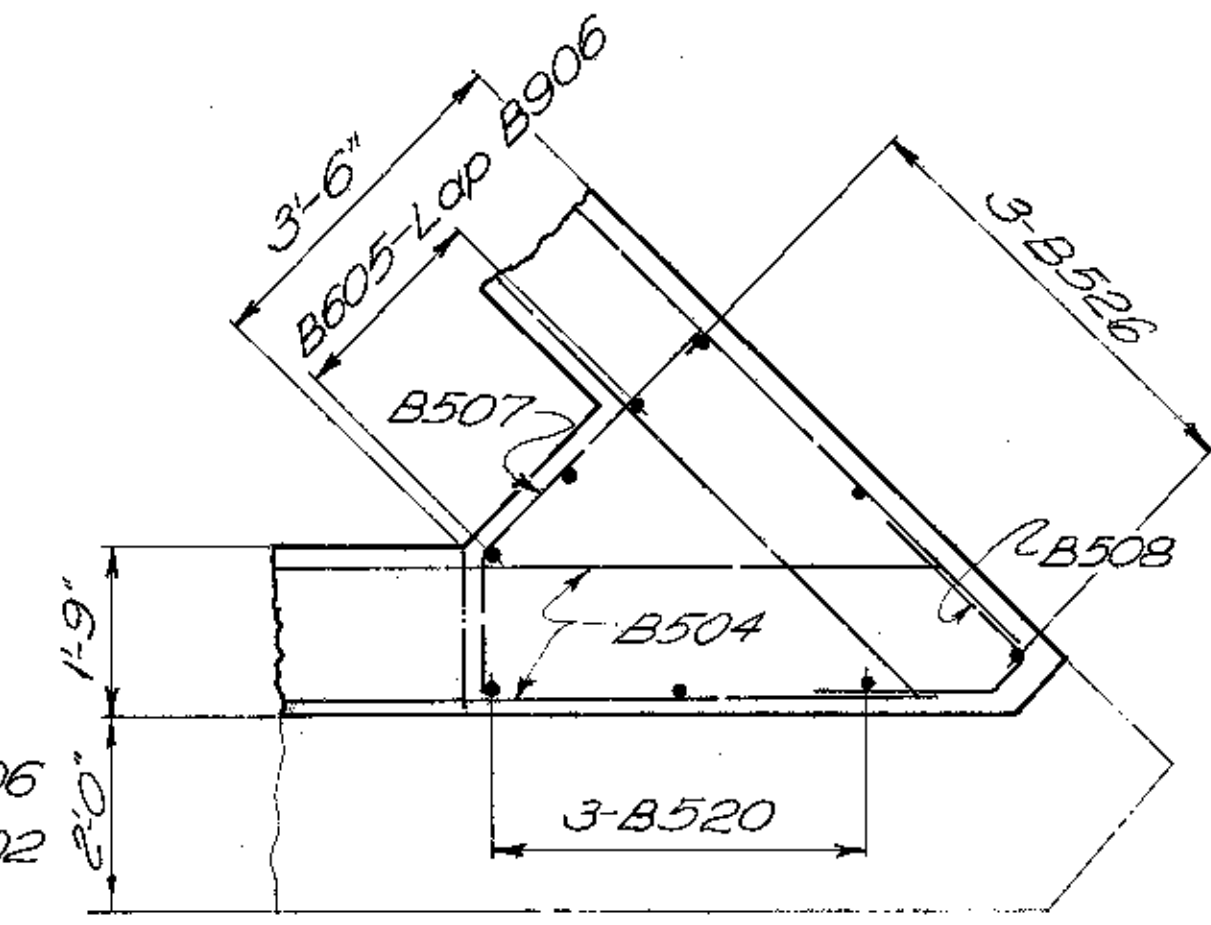
PLAN



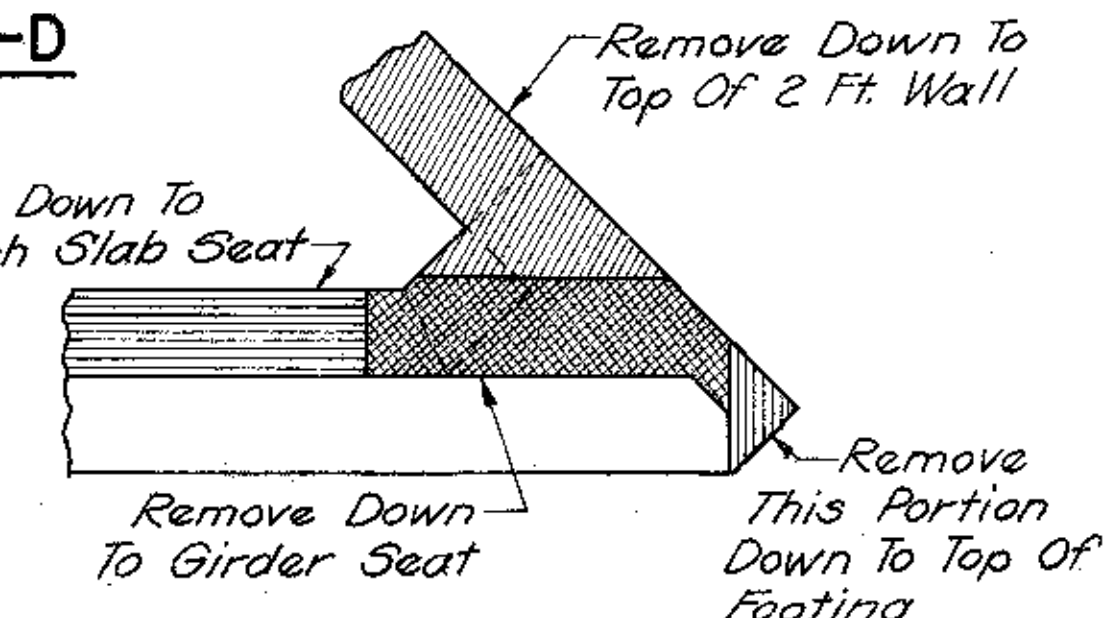
ELEVATION



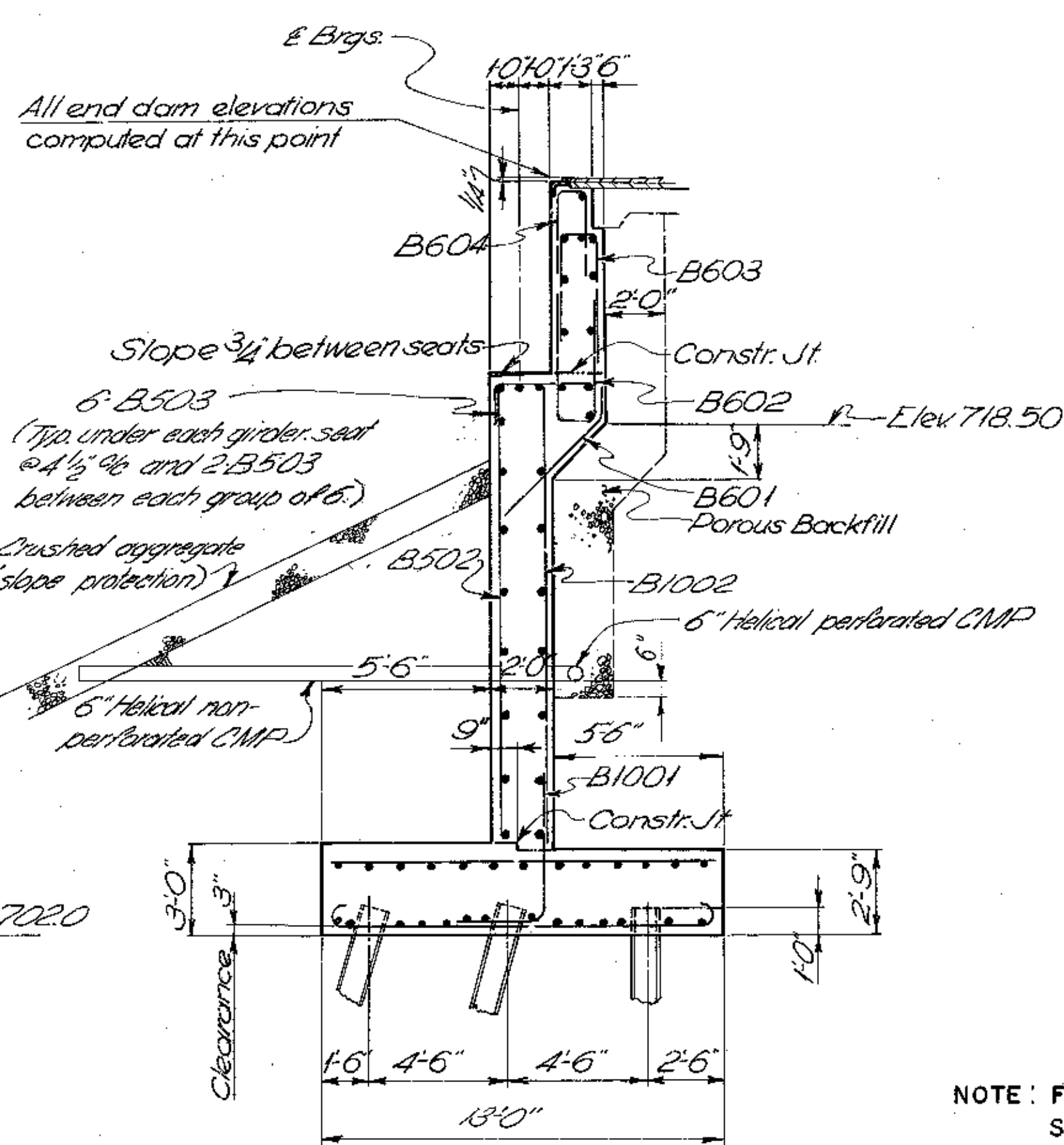
SECTION C-C



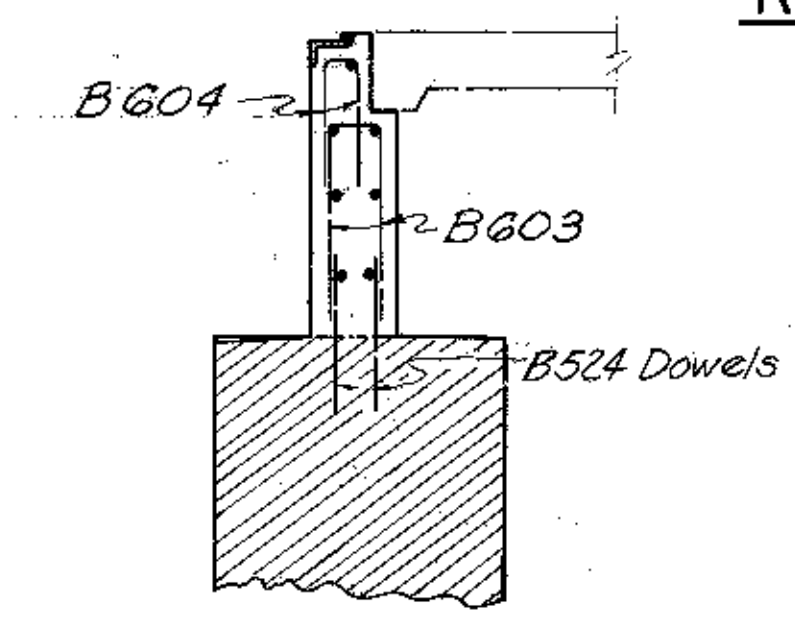
SECTION D-D



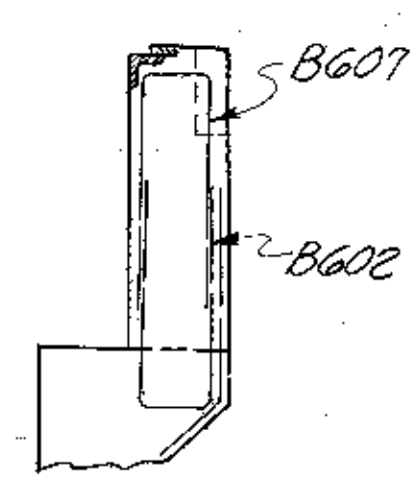
PORTION OF EXISTING ABUTMENT  
REMOVED



SECTION A-A



SECTION E-E



SECTION F-F

- LEGEND**
- N.F. = NEAR FACE
  - F.F. = FAR FACE
  - E.F. = EACH FACE
  - ▽ = BATTER PILES 1:4 (and direction of batter)

NOTE: FOR ADDITIONAL DETAILS  
SEE SHEET 11/43

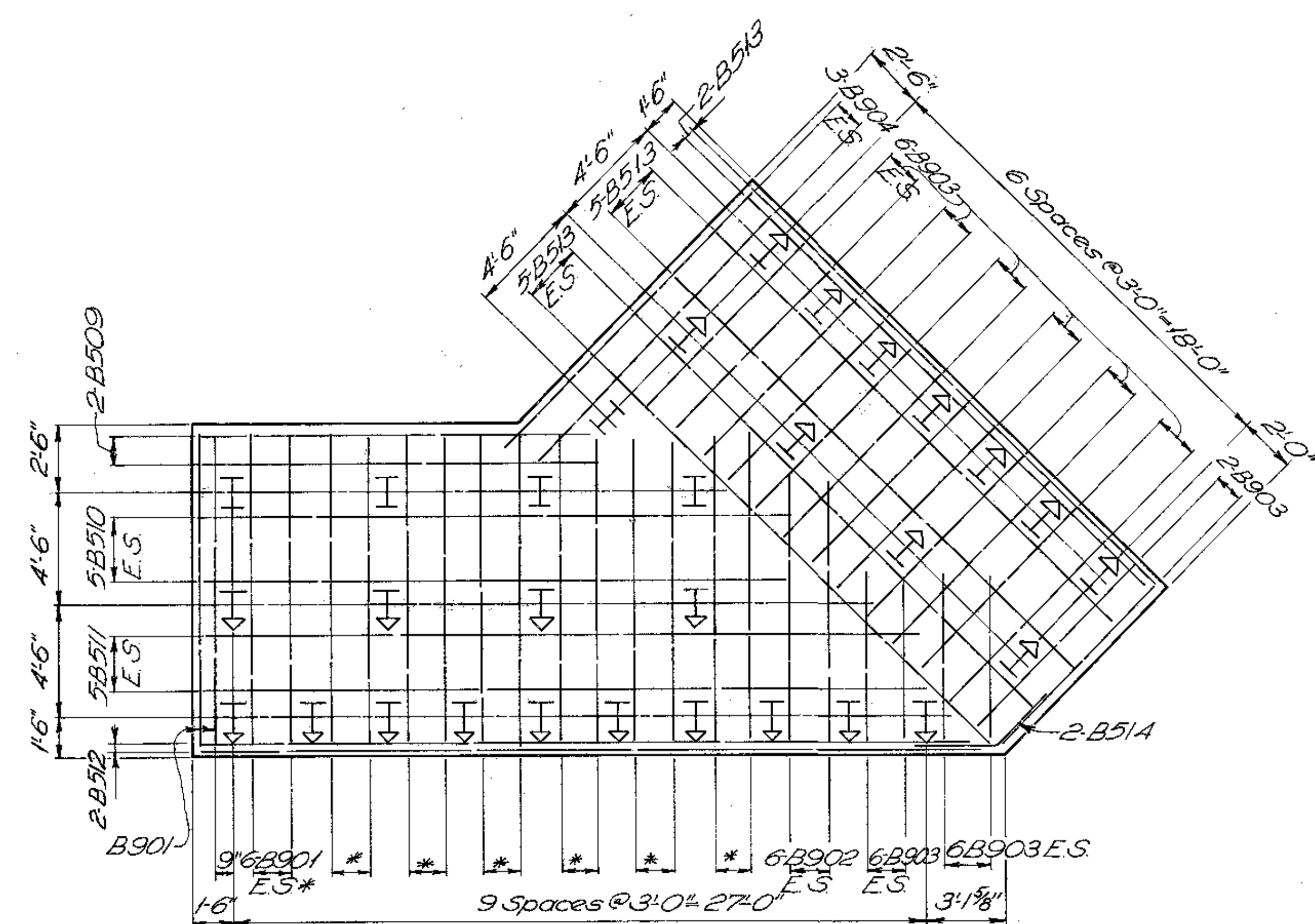
E. S. PRESTON & ASSOCIATES, LIMITED ENGINEERS COLUMBUS, OHIO		10/43
<b>FORWARD ABUTMENT</b>		
BRIDGE NO. FRA-70-1328S-E.B.		
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER		
FRANKLIN COUNTY	STA. 505+57.14	
	STA. 515+15.35	
DESIGNED A.S.B.	DRAWN R.E.L.	TRACED J.N.L.
CHECKED A.J.M.	REVIEWED DATE NEN 9-8-78	REVISIONS



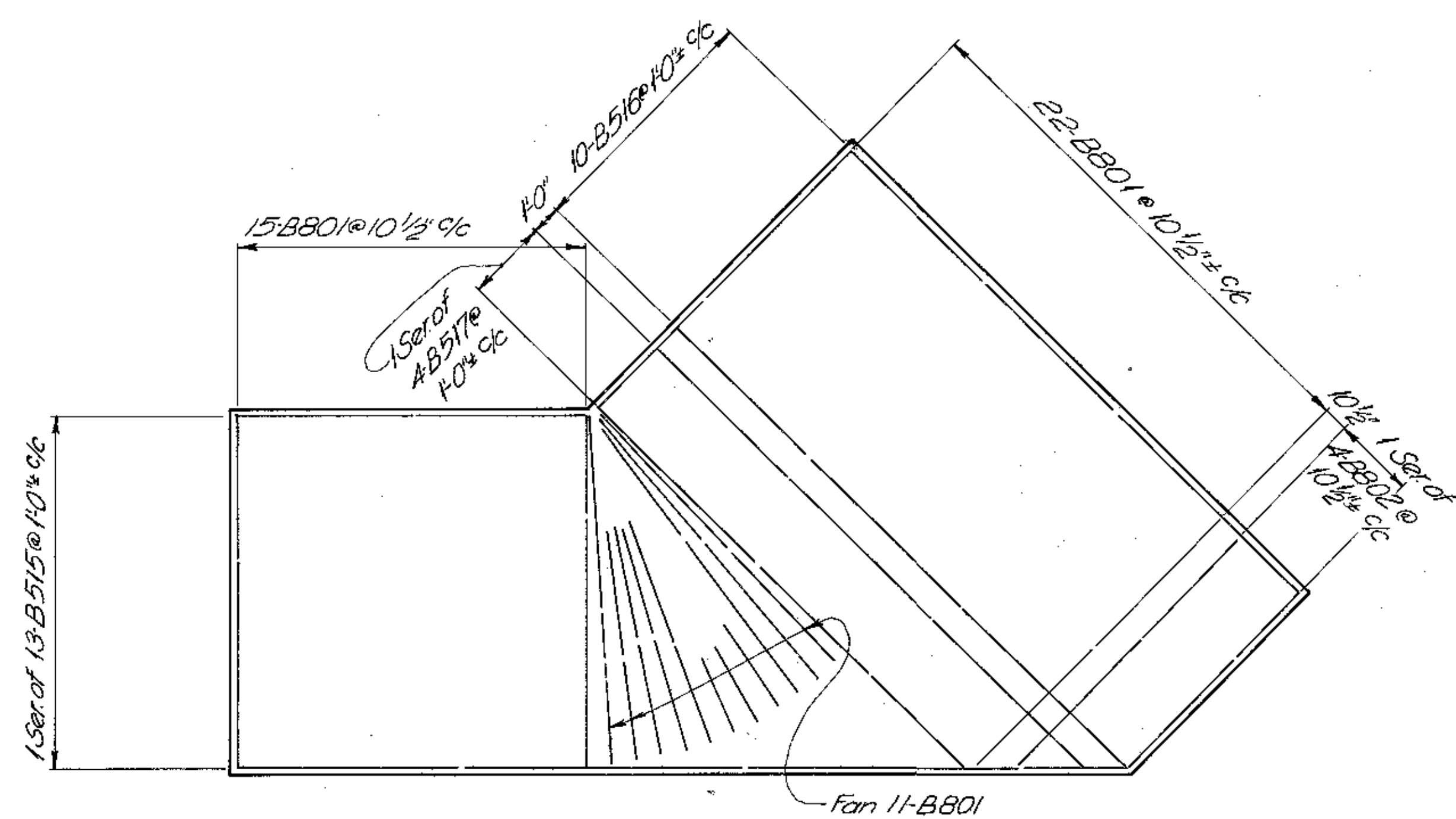
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

795

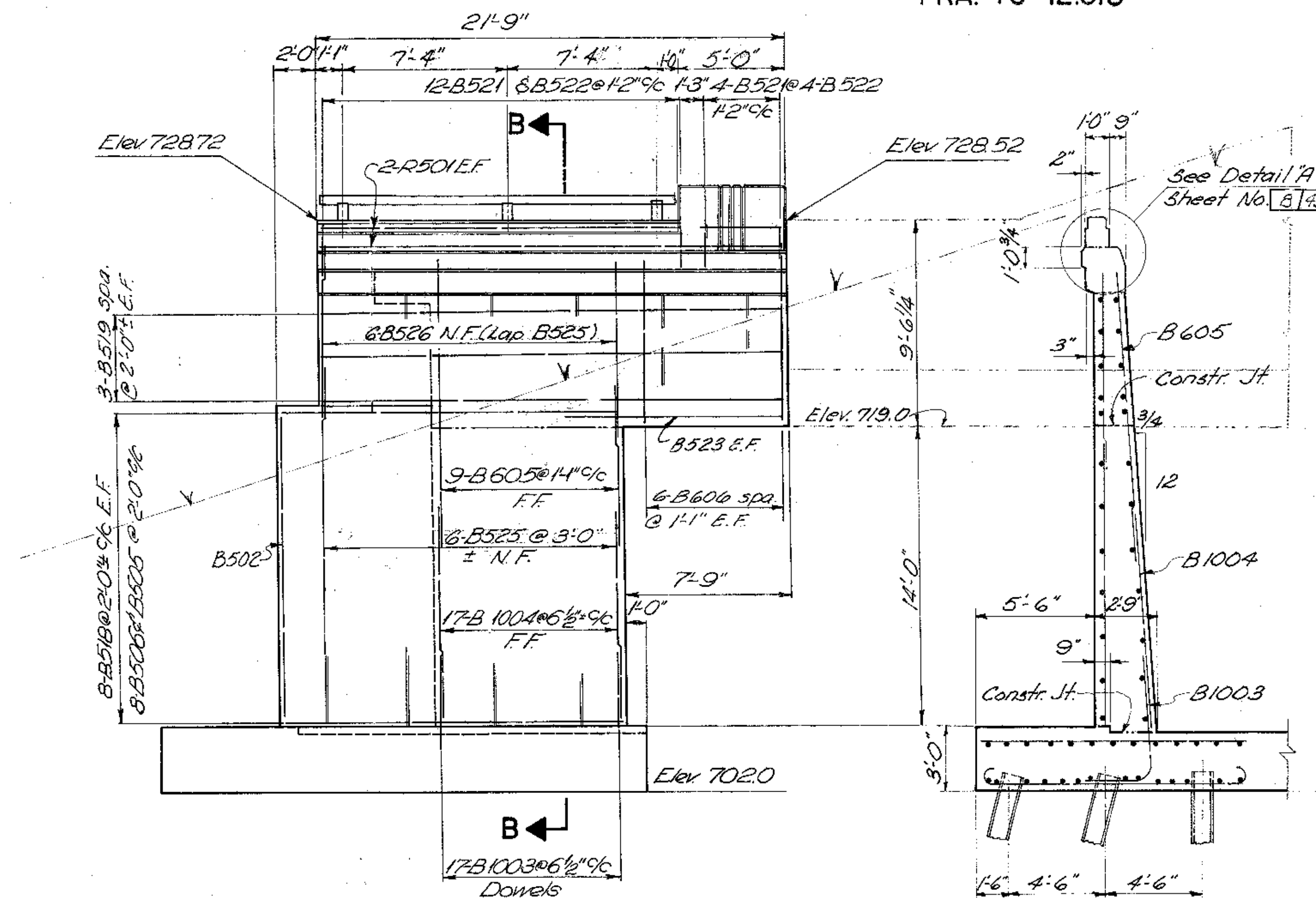
FRANKLIN COUNTY  
FRA-70-12.31S



**FOOTING REINFORCING STEEL-BOTTOM**

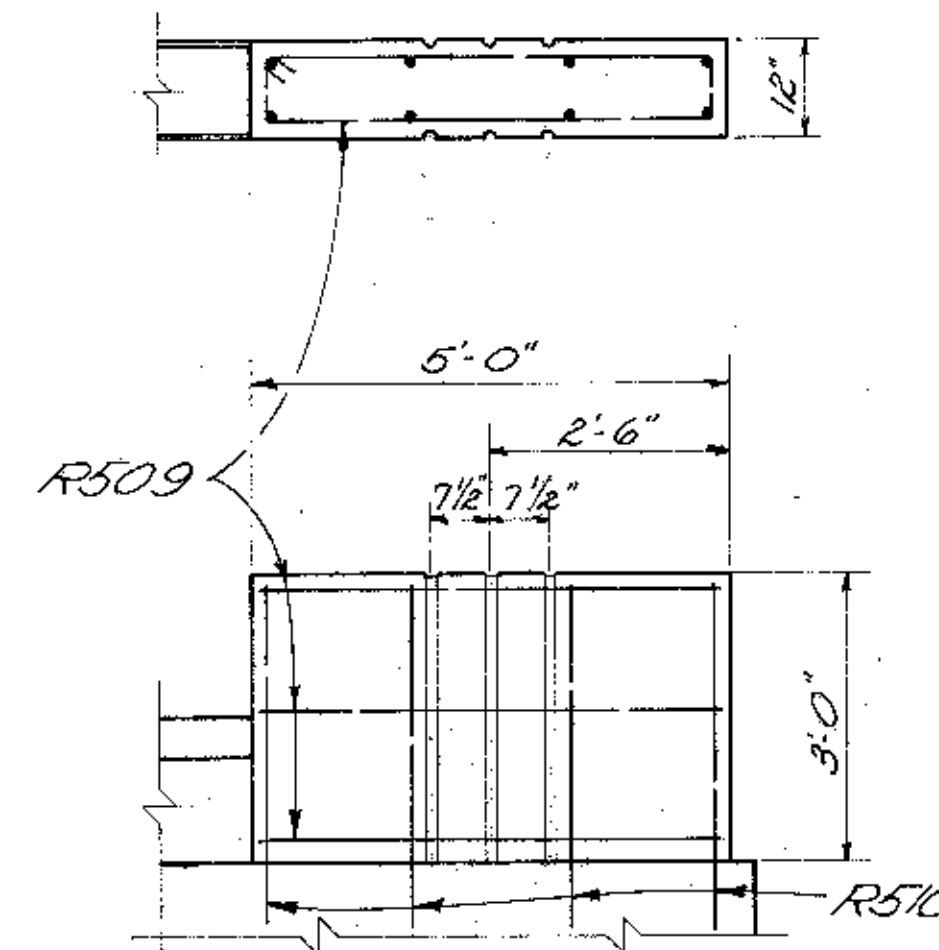


**FOOTING REINFORCING STEEL-TOP**



**ELEVATION**

**SECTION B-B**



**ABUTMENT END POST DETAIL**

**LEGEND**

- E.F. = EACH FACE
- N.F. = NEAR FACE
- F.F. = FAR FACE
- E.S. = EQUALLY SPACED, OR EQUAL SPACES
- ↓ = BATTER PILES 1:4 (and direction of batter)

**NOTE:**  
For additional Details see sheet 10/43

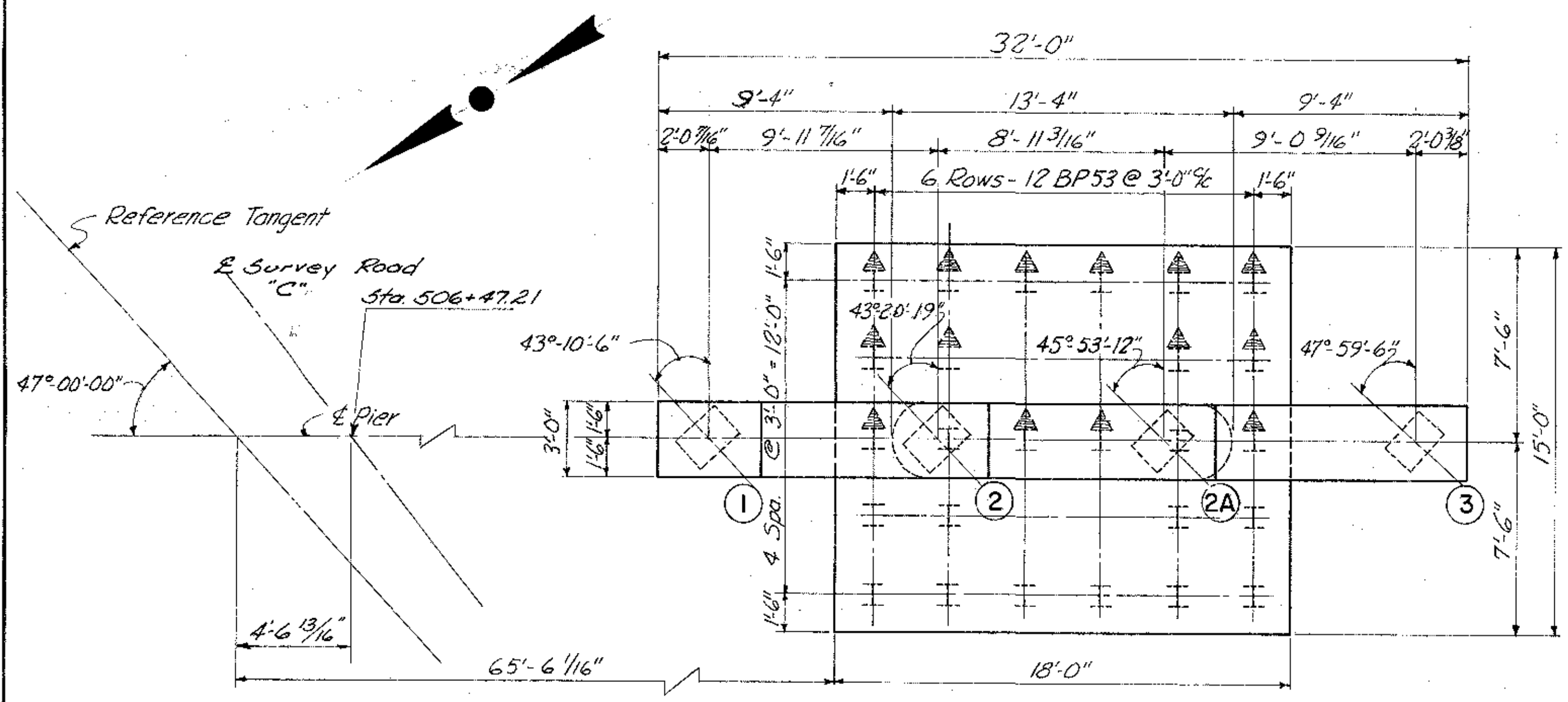
E. S. PRESTON & ASSOCIATES, LIMITED  
ENGINEERS  
COLUMBUS, OHIO

**FORWARD ABUTMENT**

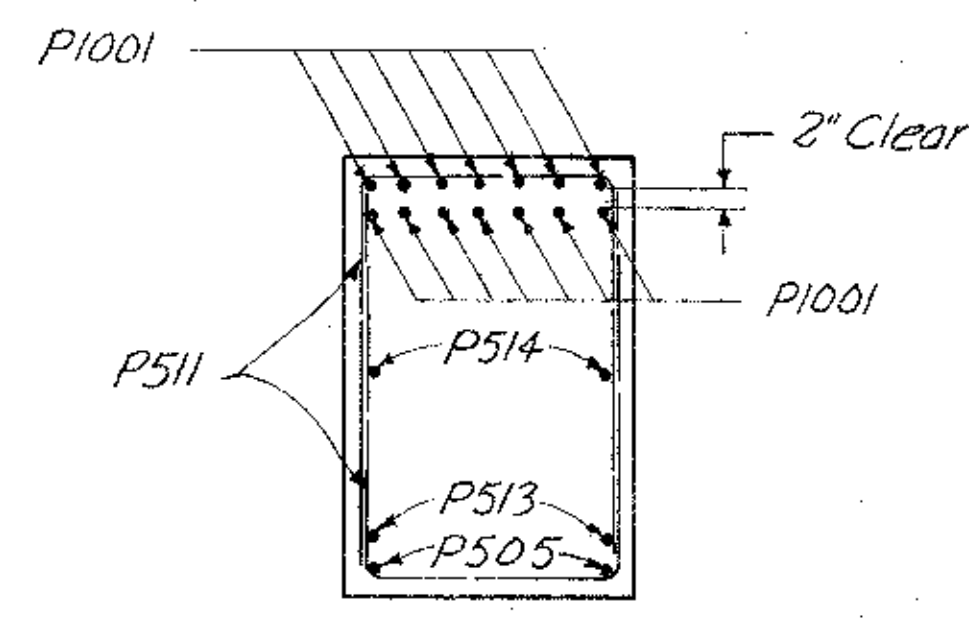
BRIDGE NO. FRA-70-1328S-EB  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230  
OVER SCIOTO RIVER  
STA. 505+5714  
FRANKLIN COUNTY STA. 515+1535

DESIGNED	DRAWN	TRACED	CHECKED	DATE	REVIEWED
A.S.B.	R.E.L.	J.M.L.	A.V.M.	9-8-70	

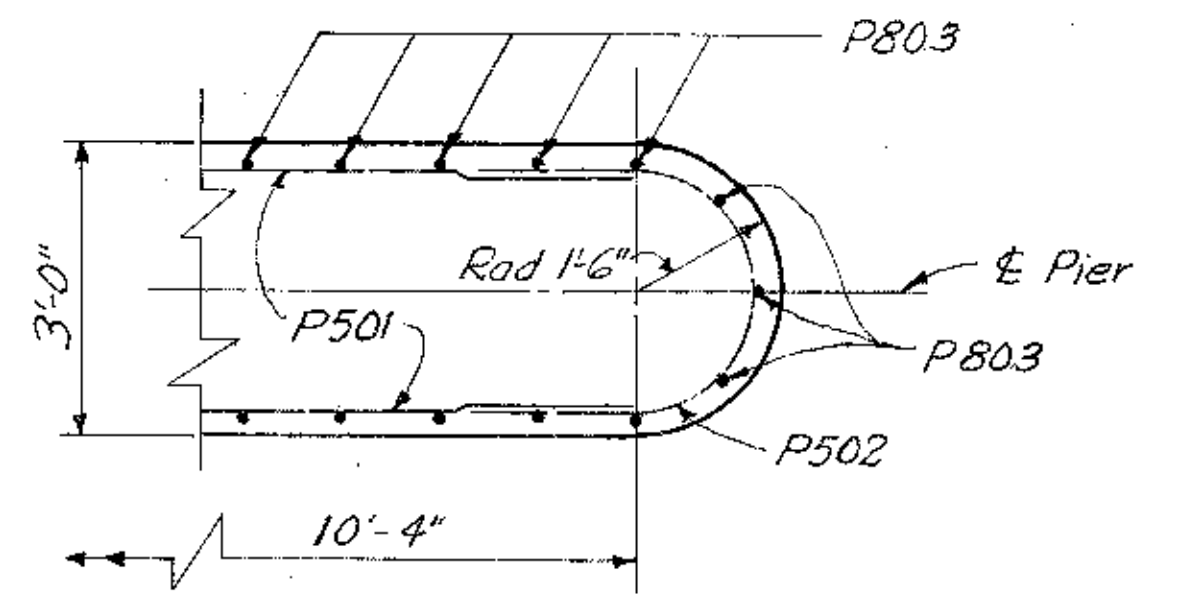
FRANKLIN COUNTY  
FRA-70-12.31S



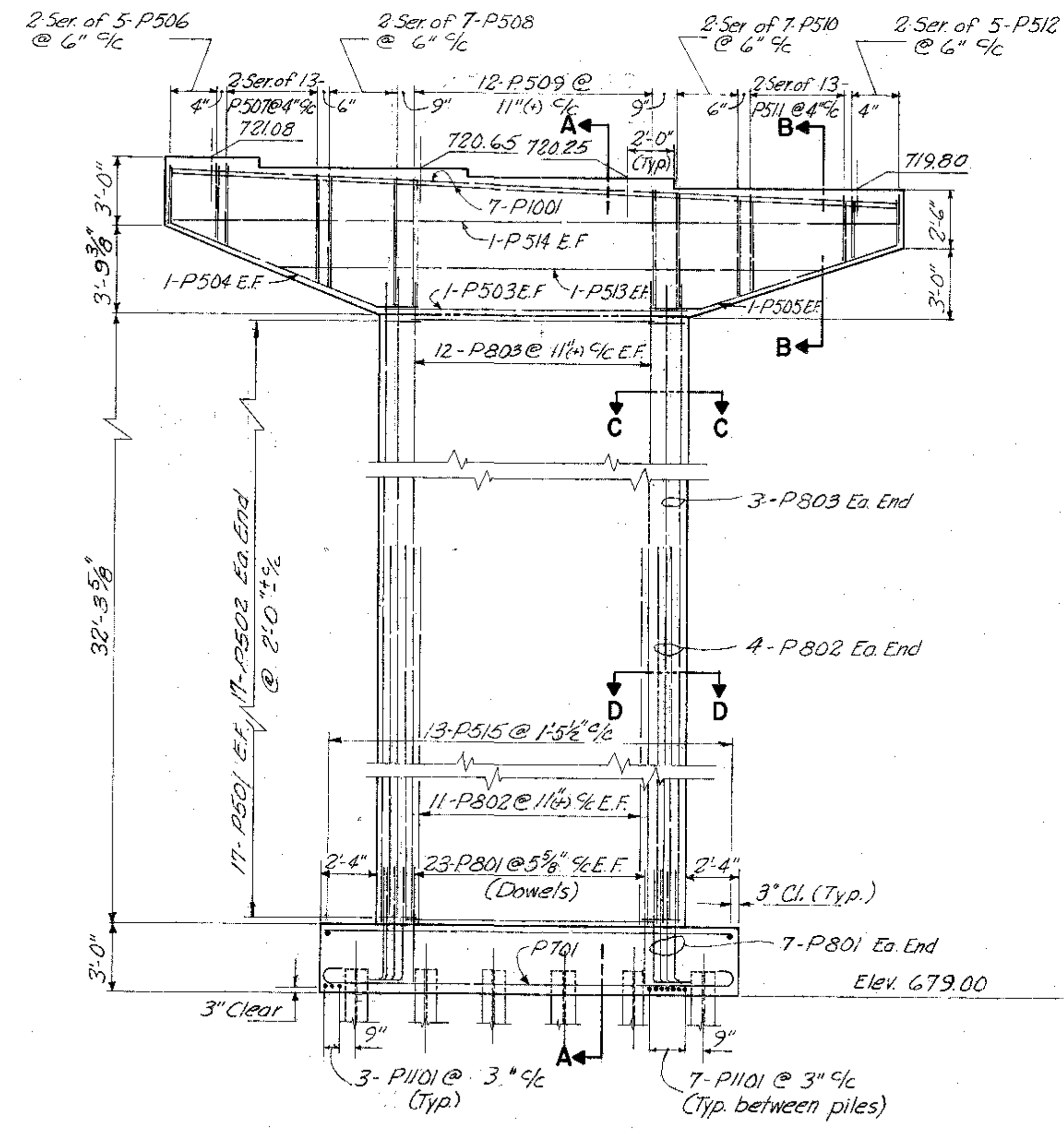
PLAN (PIER NO. 1)



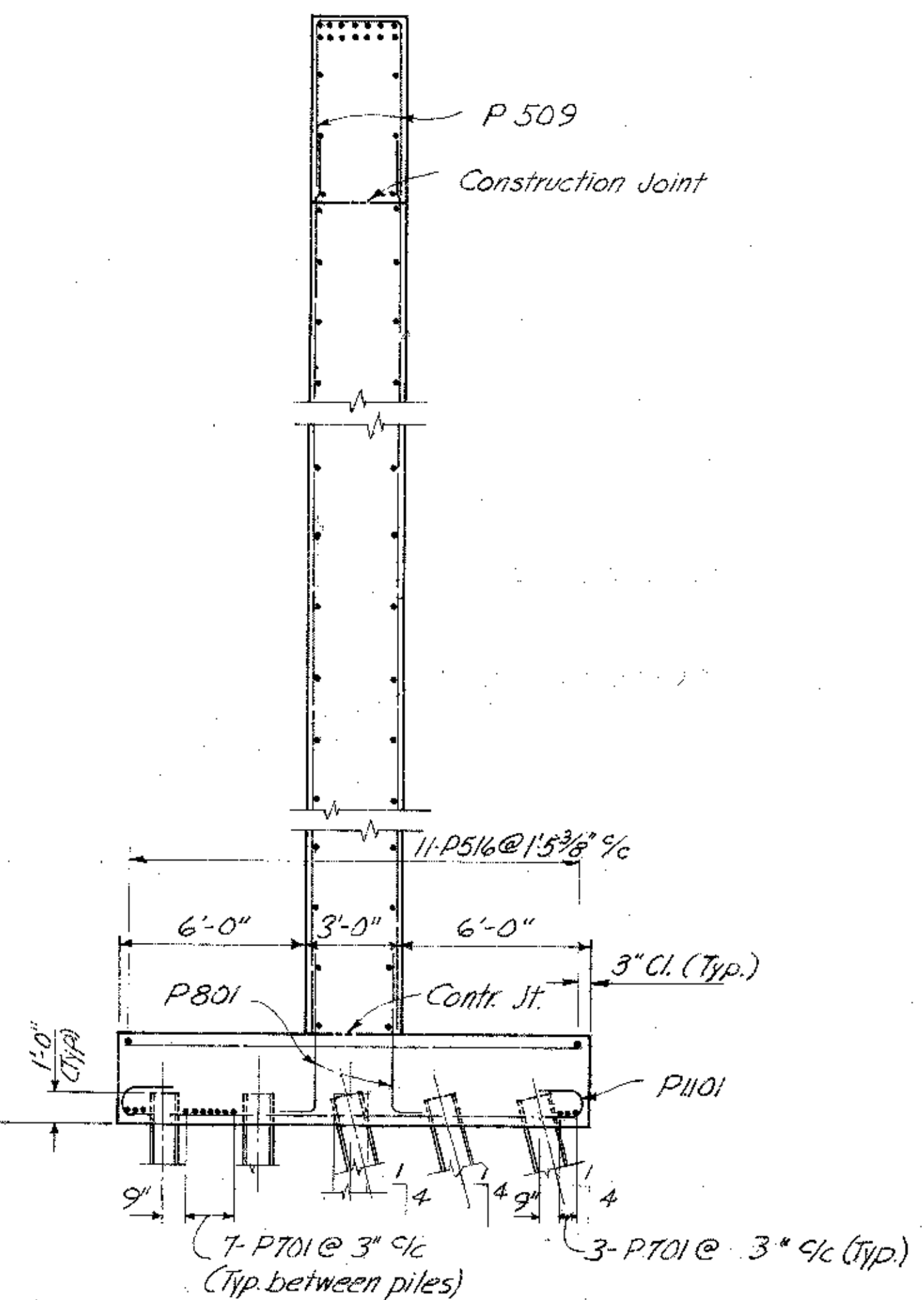
SECTION B-B



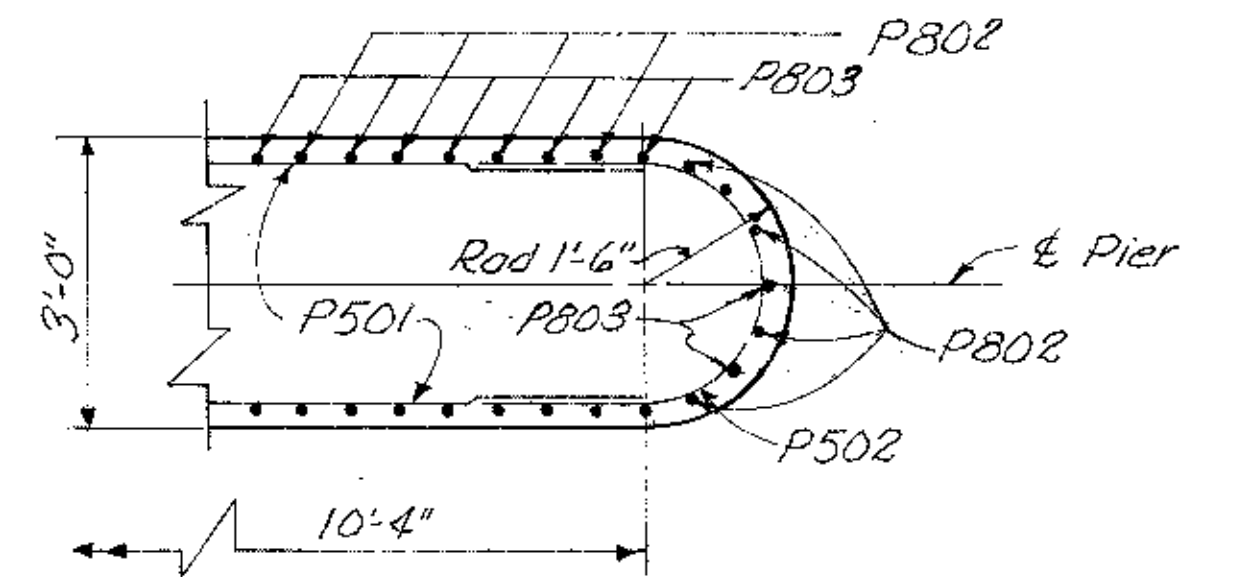
SECTION C-C



ELEVATION (PIER NO. 1)



SECTION A-A



SECTION D-D

**LEGEND: (TYPICAL ALL PIERS)**

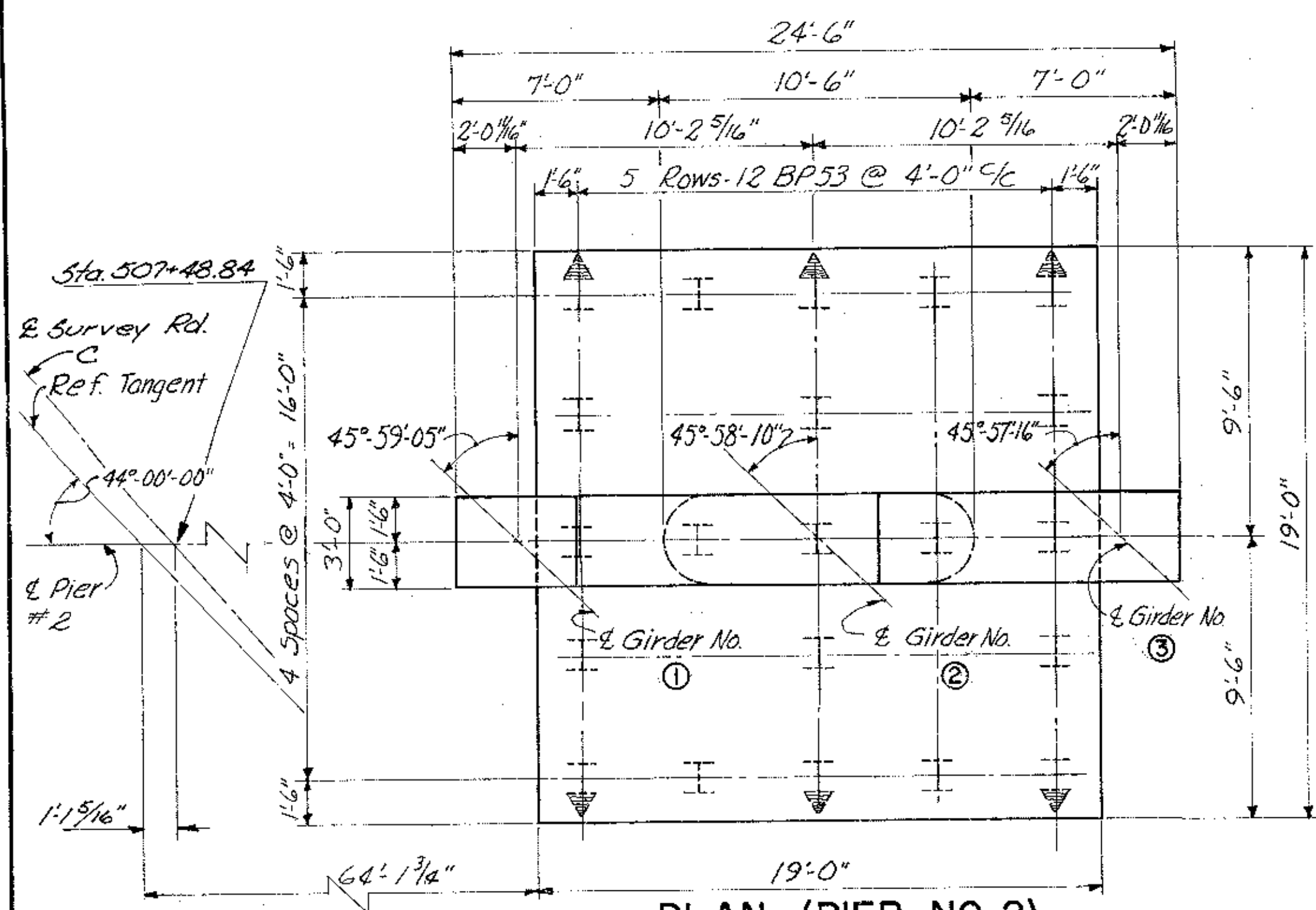
- E.F. = EACH FACE
- = BATTER PILES 1:4 (and direction of batter)

E. S. PRESTON & ASSOCIATES, LIMITED ENGINEERS COLUMBUS, OHIO						12/13
<b>PIER NO. 1 DETAILS</b>						
BRIDGE NO. FRA-70-1328 S-E.B.						
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER						
FRANKLIN COUNTY				STA. 505 + 57.14 STA. 515 + 15.35		
DESIGNED	DRAWN	TRACED	CHECKED	REVISION DATE	REVISED	
A.S.B.	R.E.L.	J.N.L.	A.U.M.	NEN 9.8.90		



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

FRANKLIN COUNTY  
FRA-70-12.31S

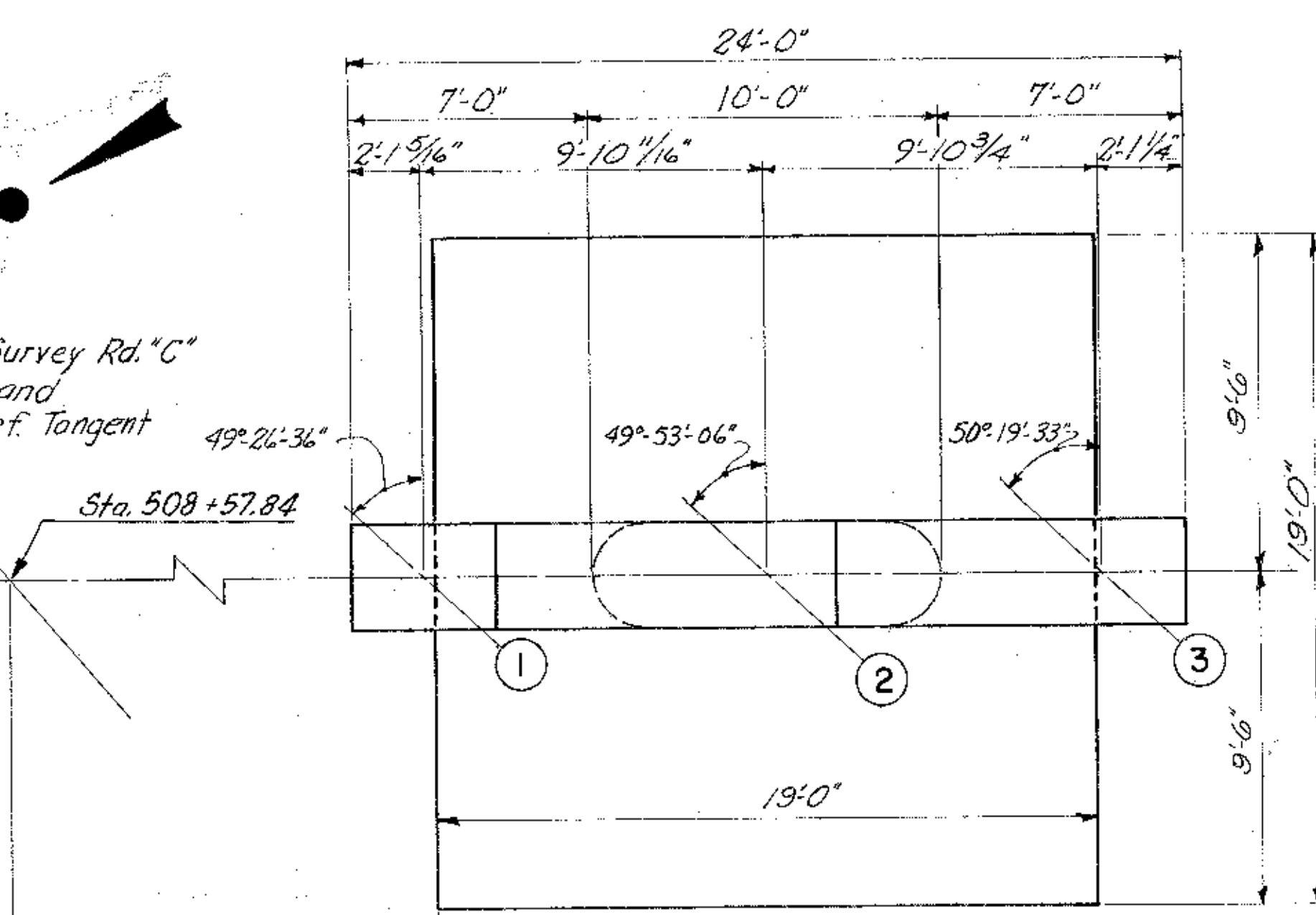


PLAN (PIER NO. 2)

GIRDER	dim a	dim b	φ
①	13"	21"	44°-08'-55"
②	13"	21"	44°-01'-50"
③	10"	19"	44°-02'-44"

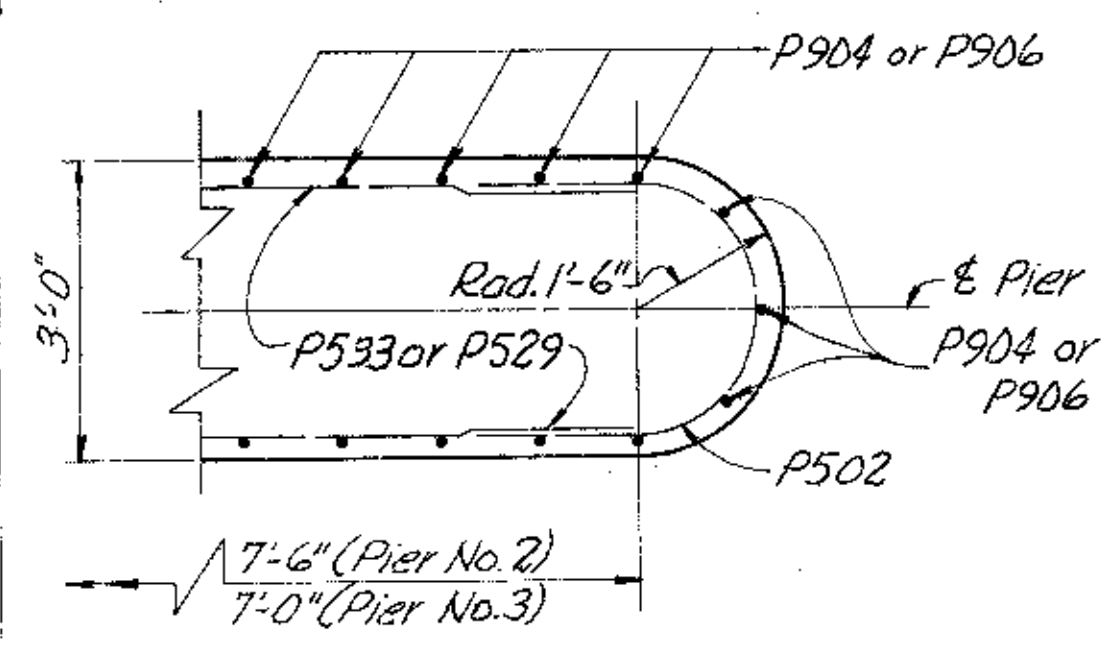
ANCHOR BOLT DETAIL  
(PIER NO. 2)

Note: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.

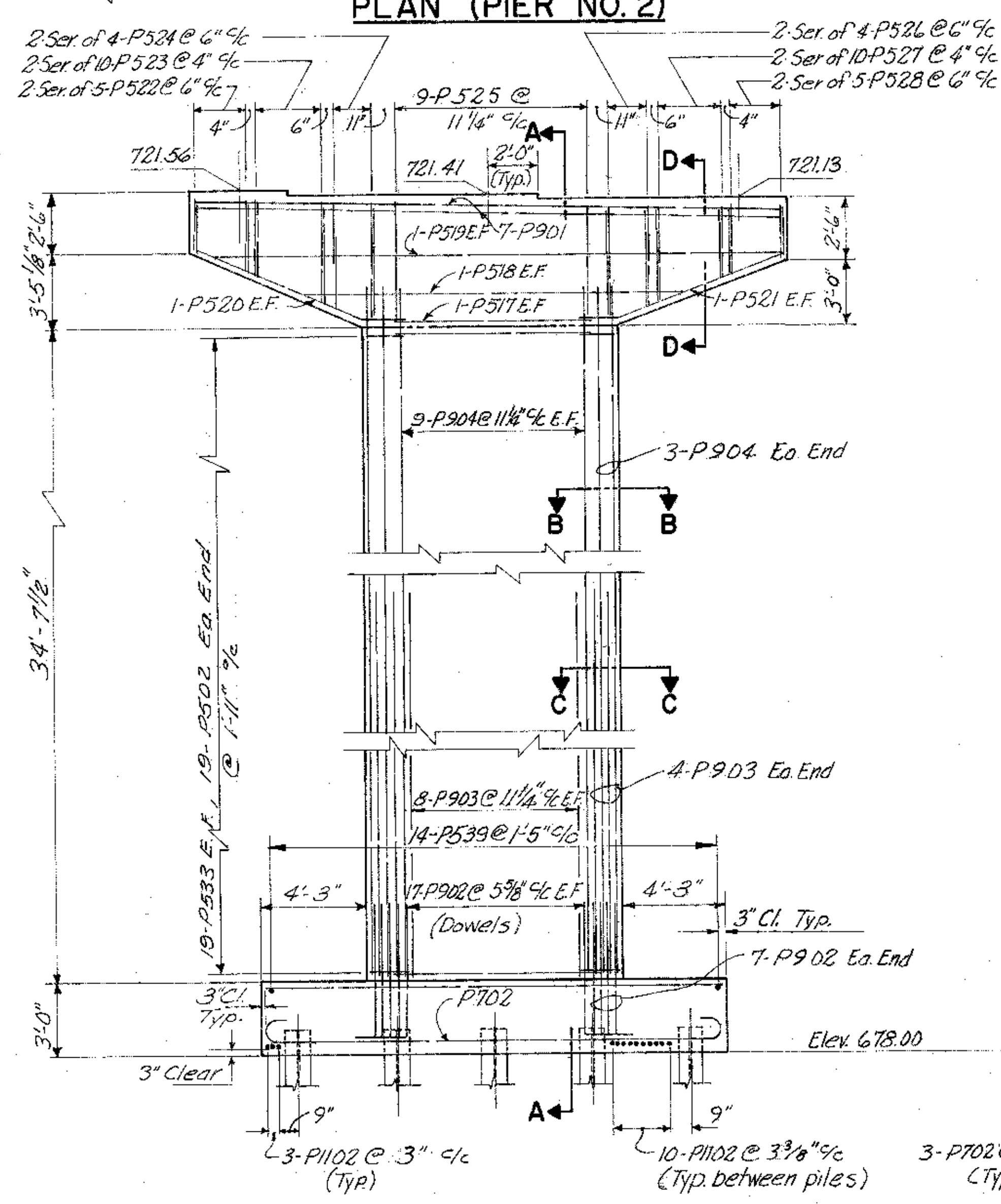


PLAN (PIER NO. 3)

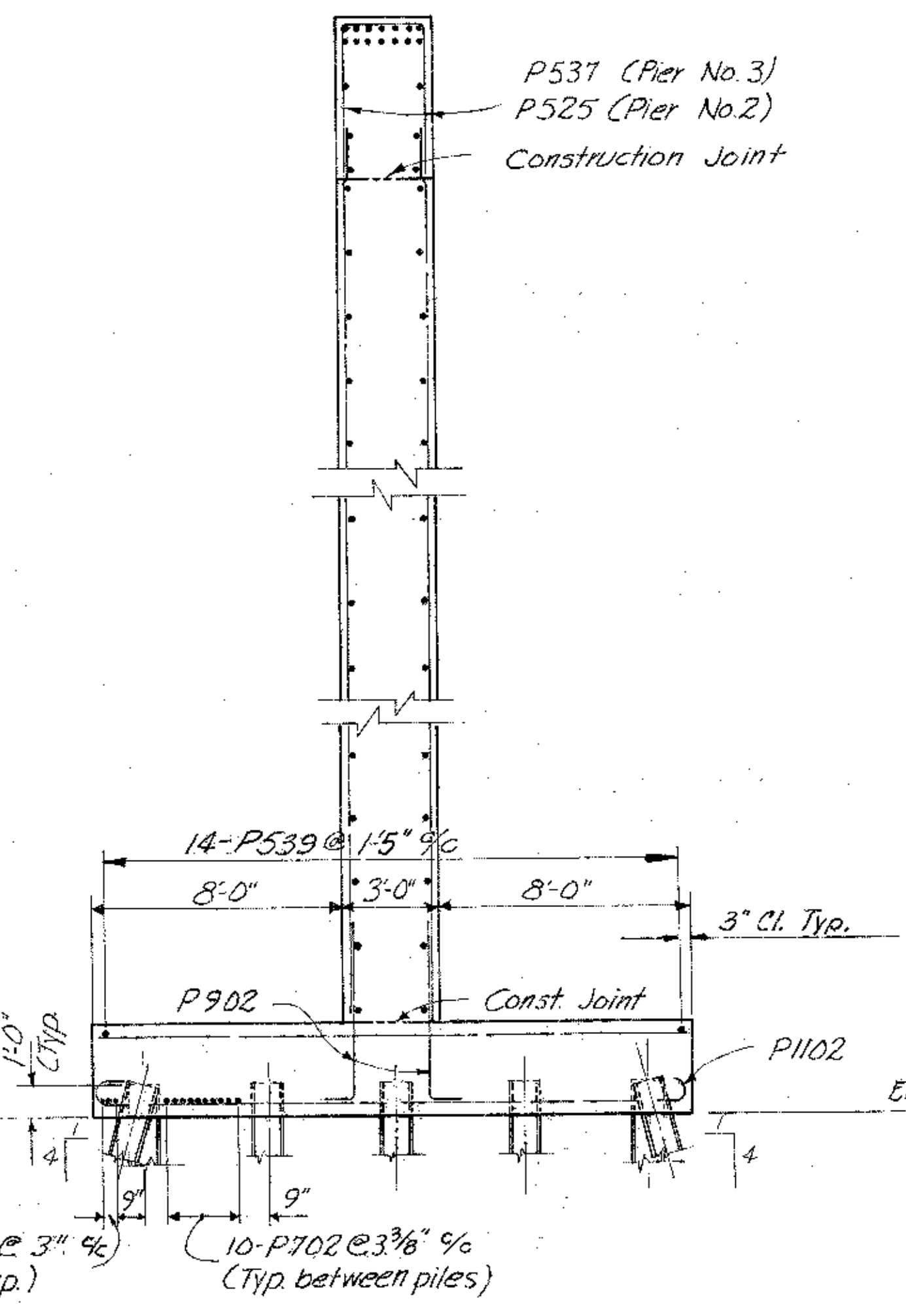
Note: For Pile spacing & Footing reinforcing see Pier No. 2.



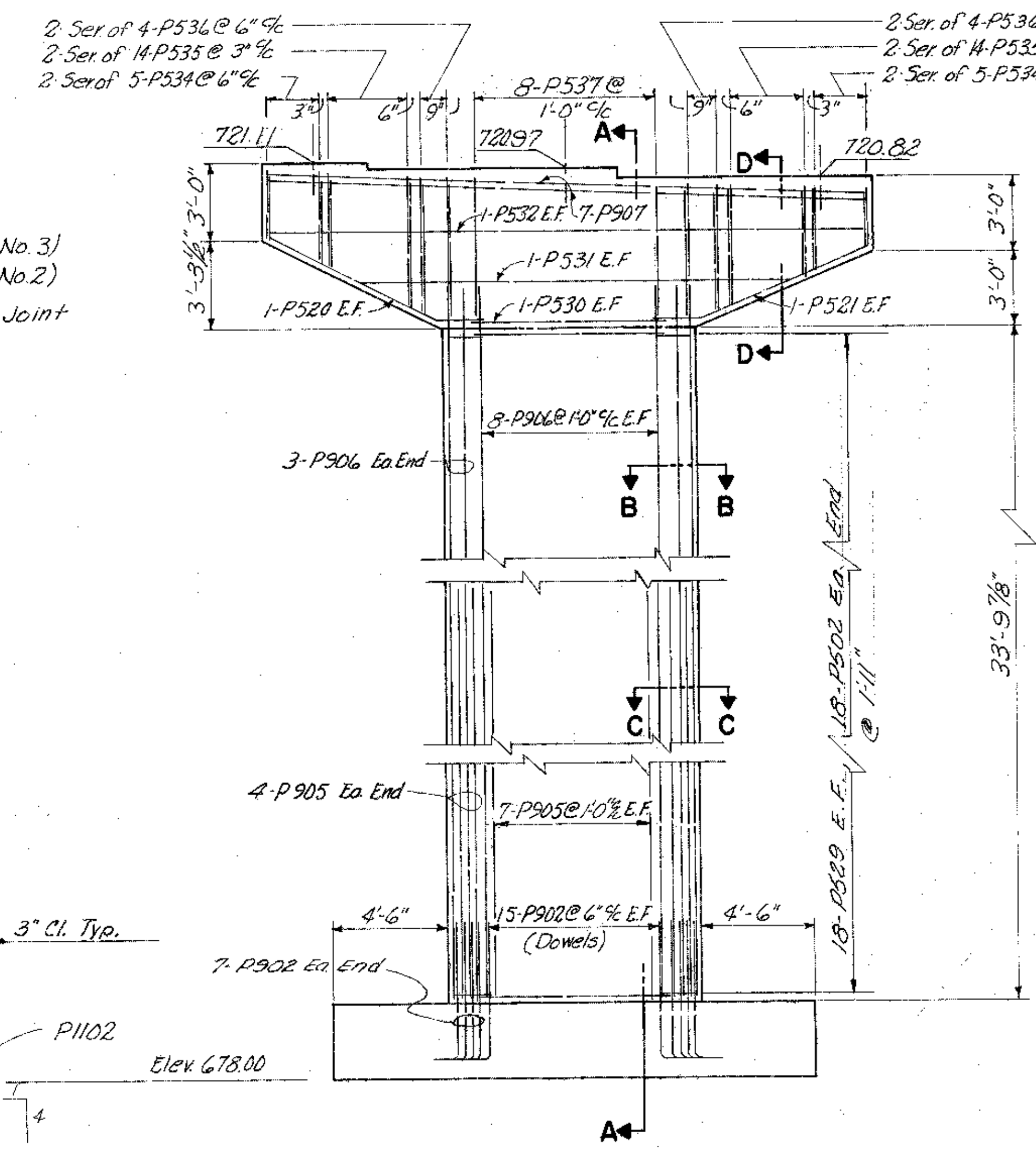
SECTION B-B



ELEVATION (PIER NO. 2)

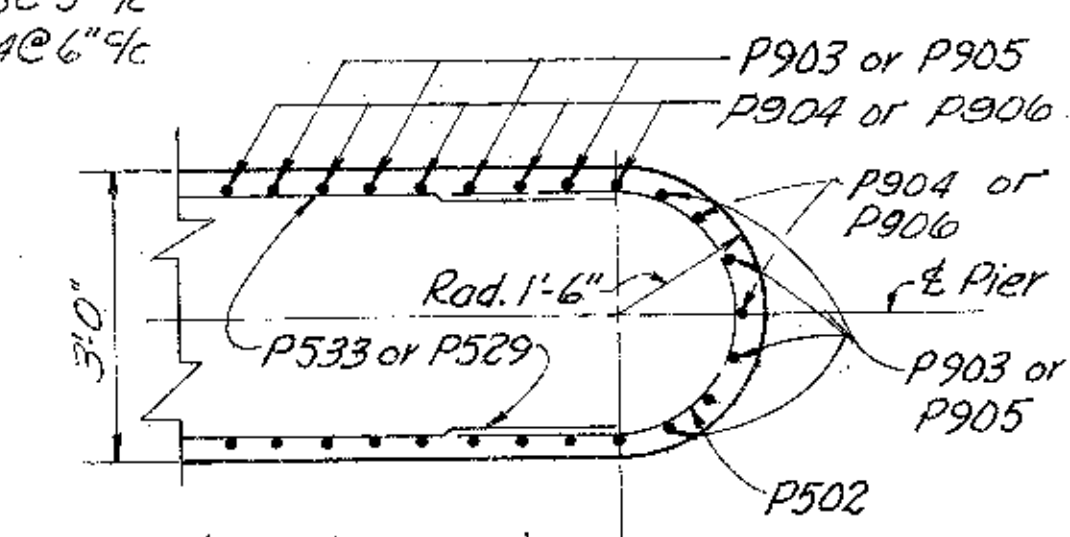


SECTION A-A

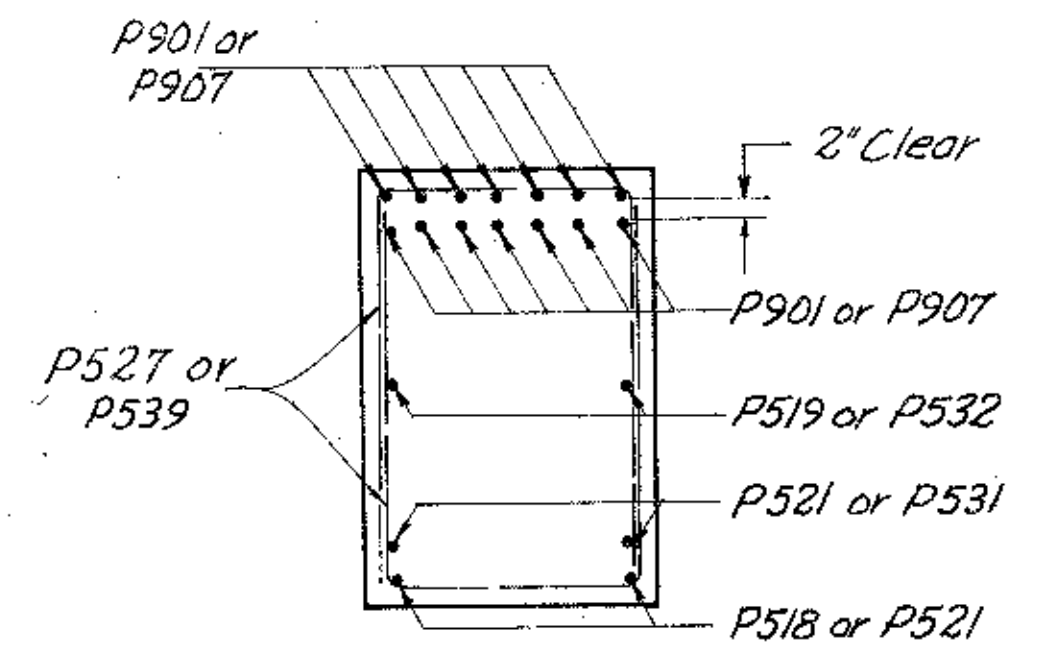


ELEVATION  
(PIER NO. 3)

NOTE: For additional notes see 5h.  
8/43



SECTION C-C



SECTION D-D

E. S. PRESTON & ASSOCIATES, LIMITED 1/3/43  
ENGINEERS  
COLUMBUS, OHIO

**PIER NOS. 2 & 3 DETAILS**

BRIDGE NO. FRA-70-1328S-EB  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230  
OVER SCIOTO RIVER

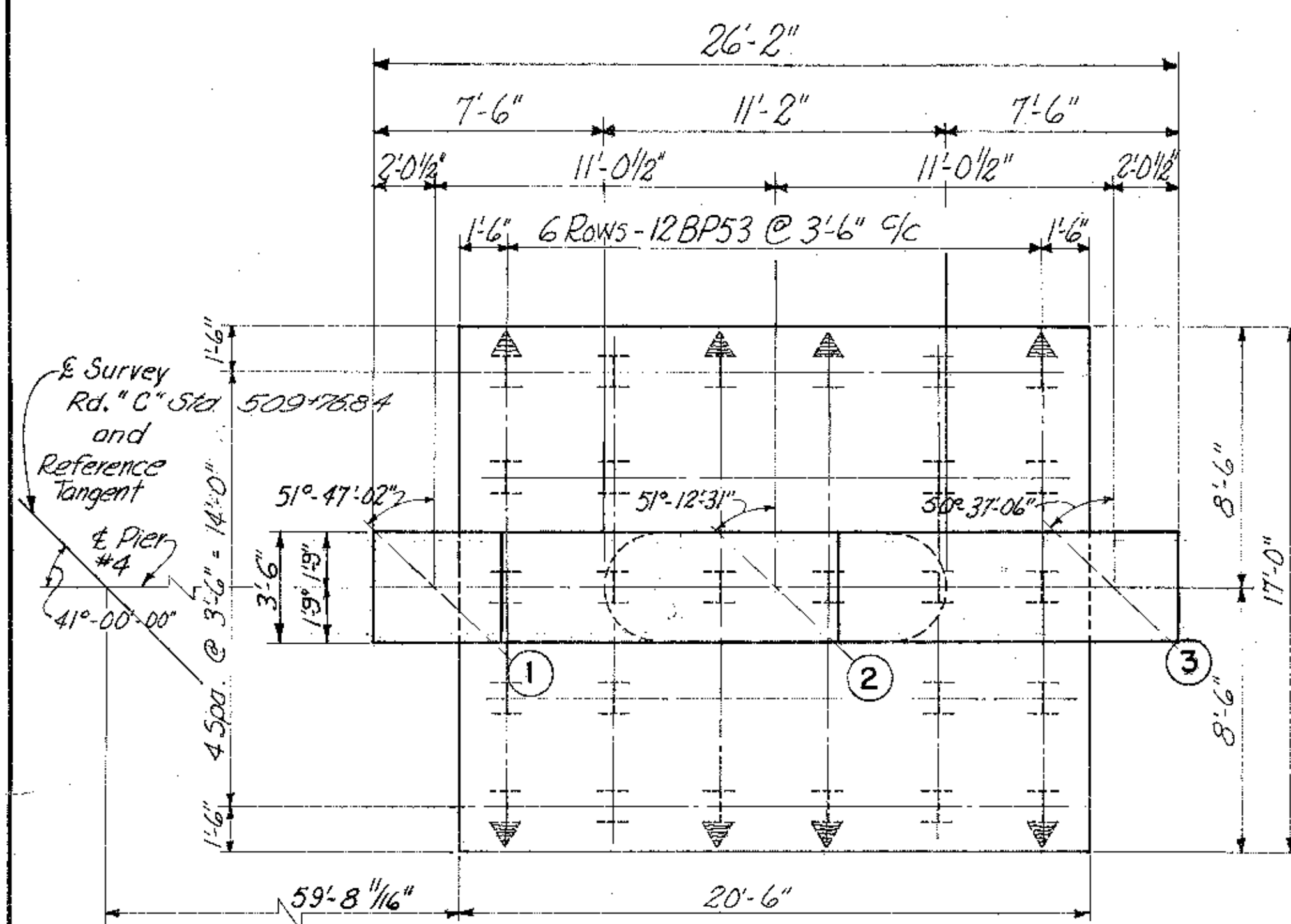
FRANKLIN COUNTY STA. 505+57.14  
STA. 515+15.35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.S.B.	R.E.L.	R.V.B.	A.J.M.	NEN 9-8-90	

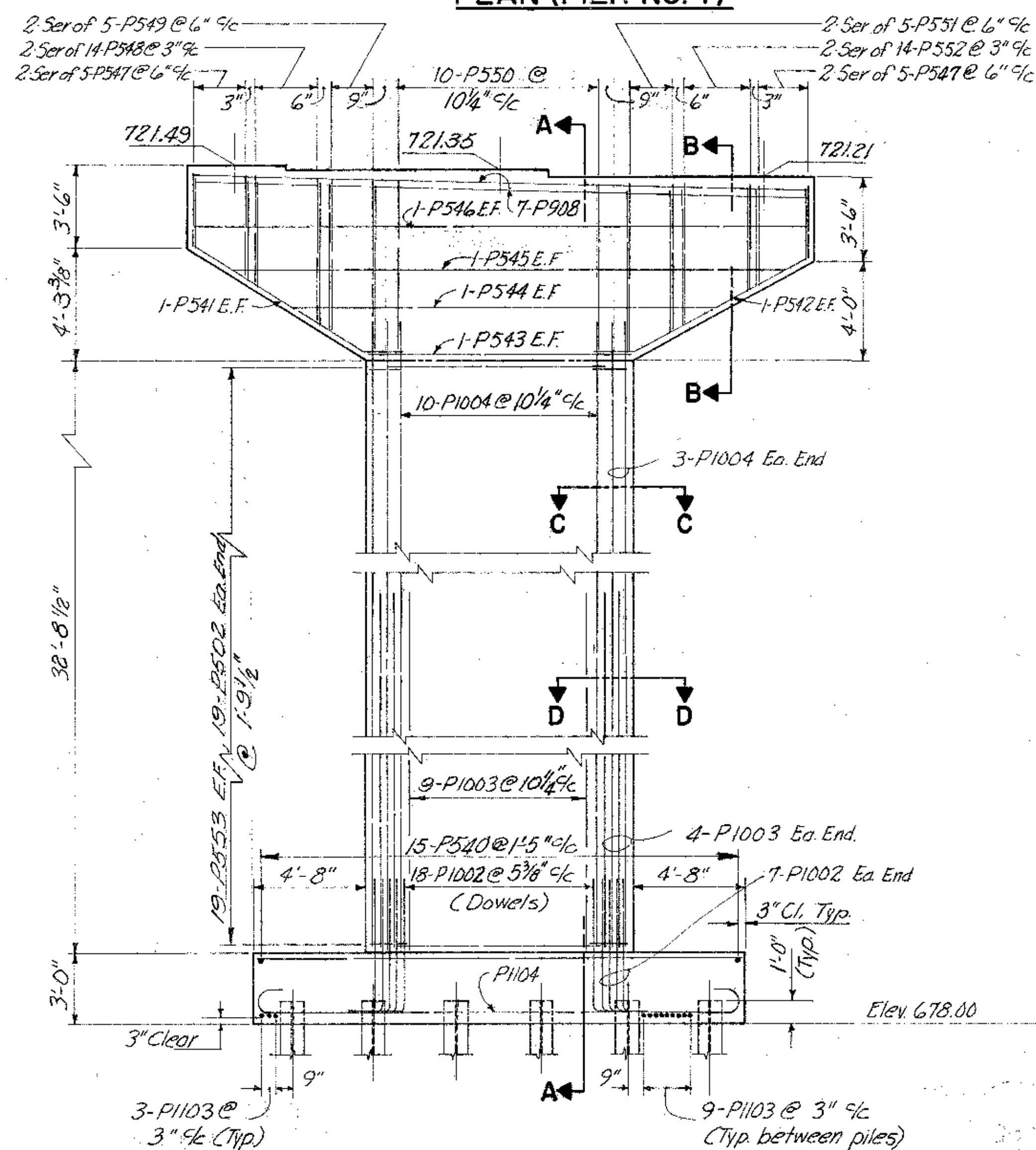
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

798

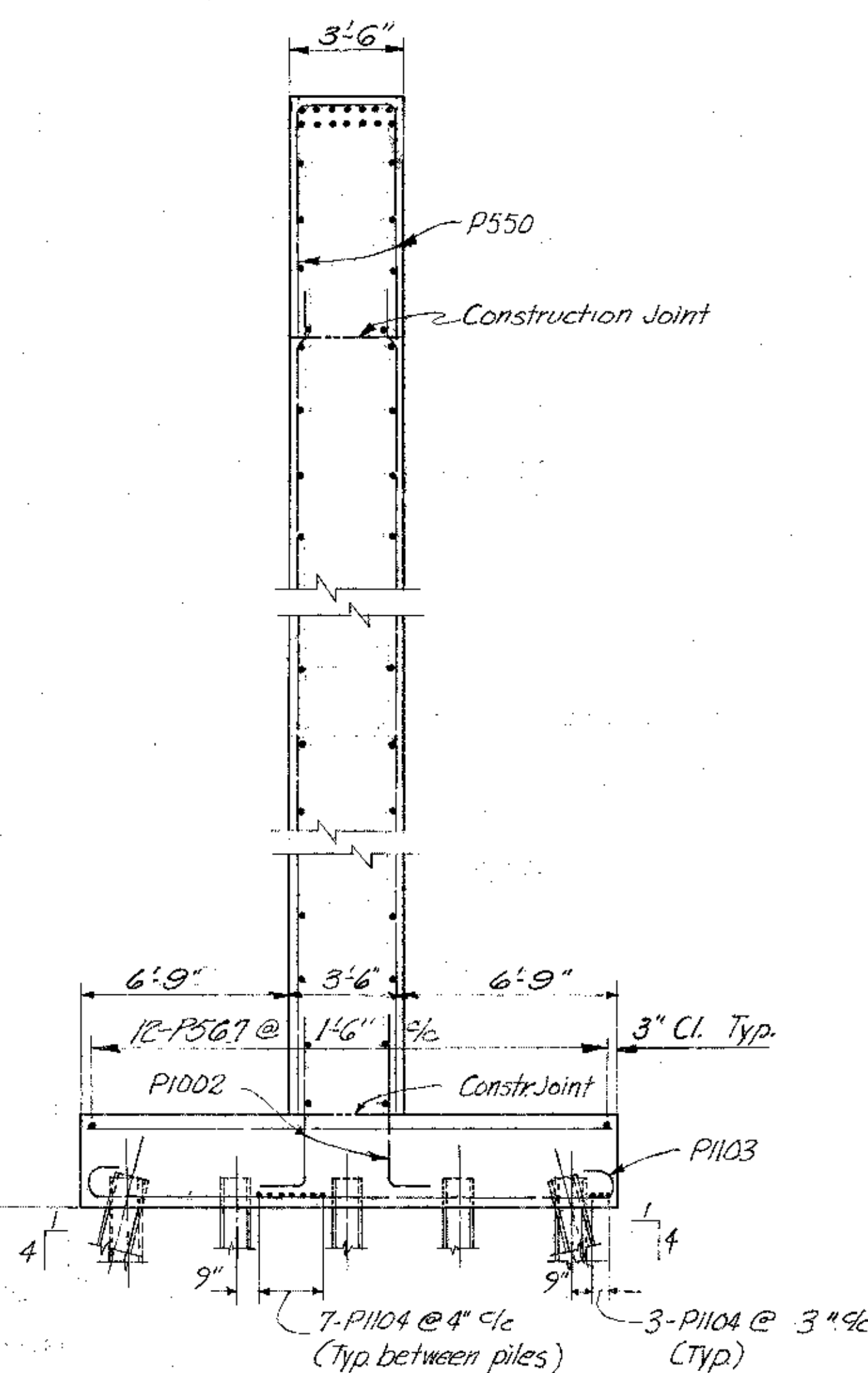
FRANKLIN COUNTY  
FRA-70-12.31 S



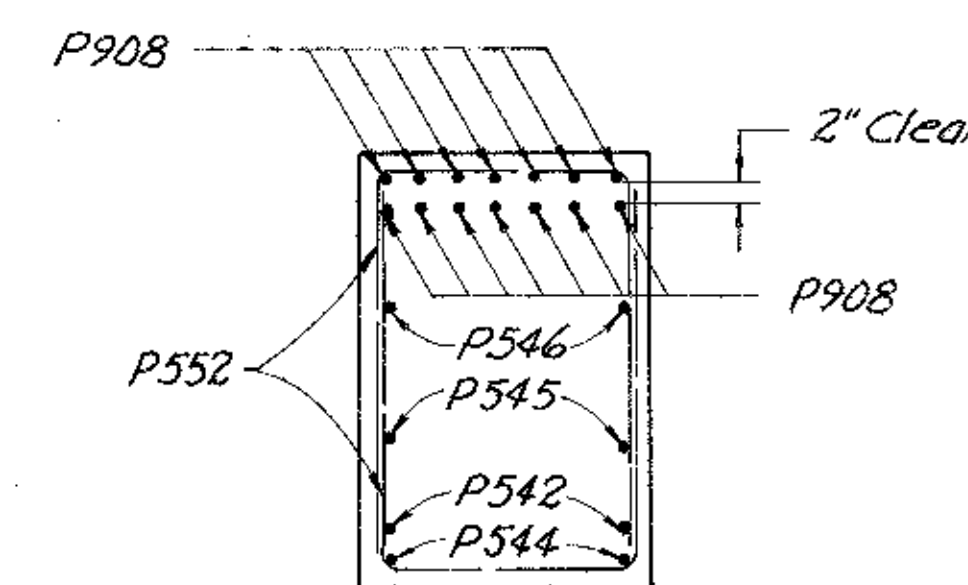
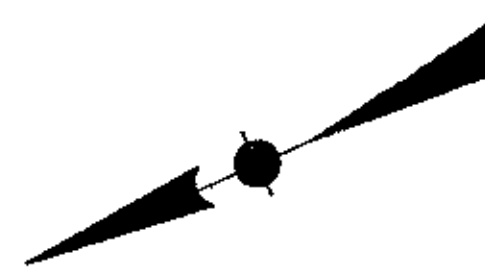
PLAN (PIER NO. 4)



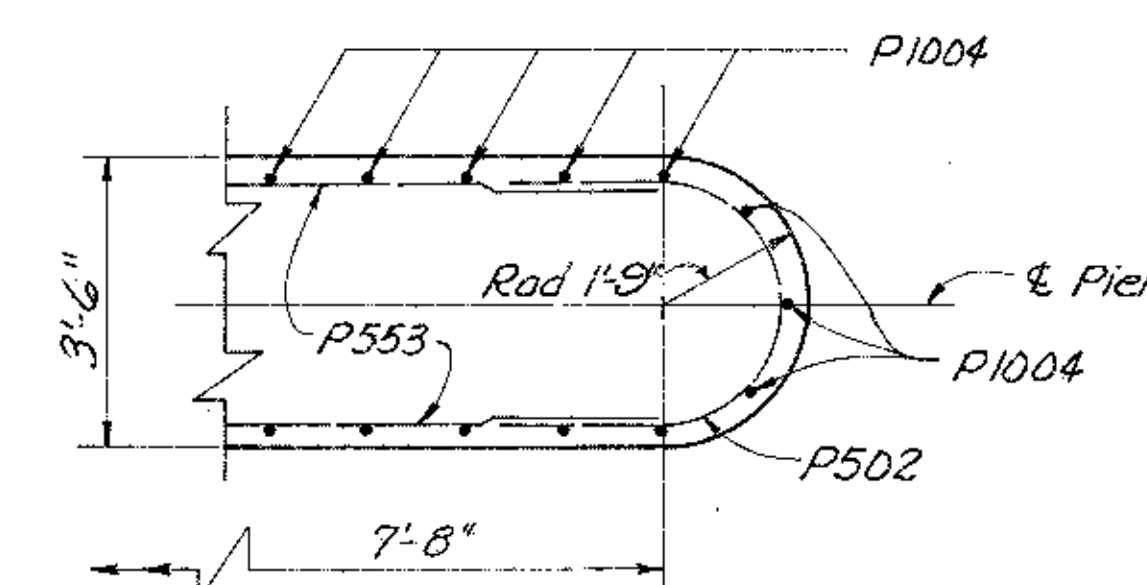
ELEVATION (PIER NO. 4)



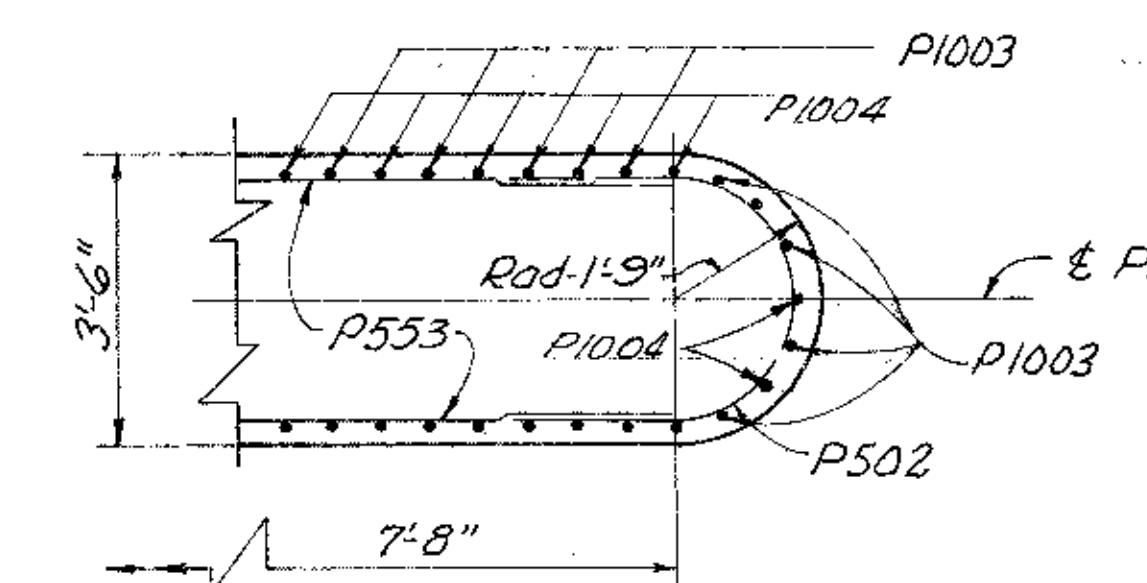
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:  
For additional notes  
see sheet no. 12/43

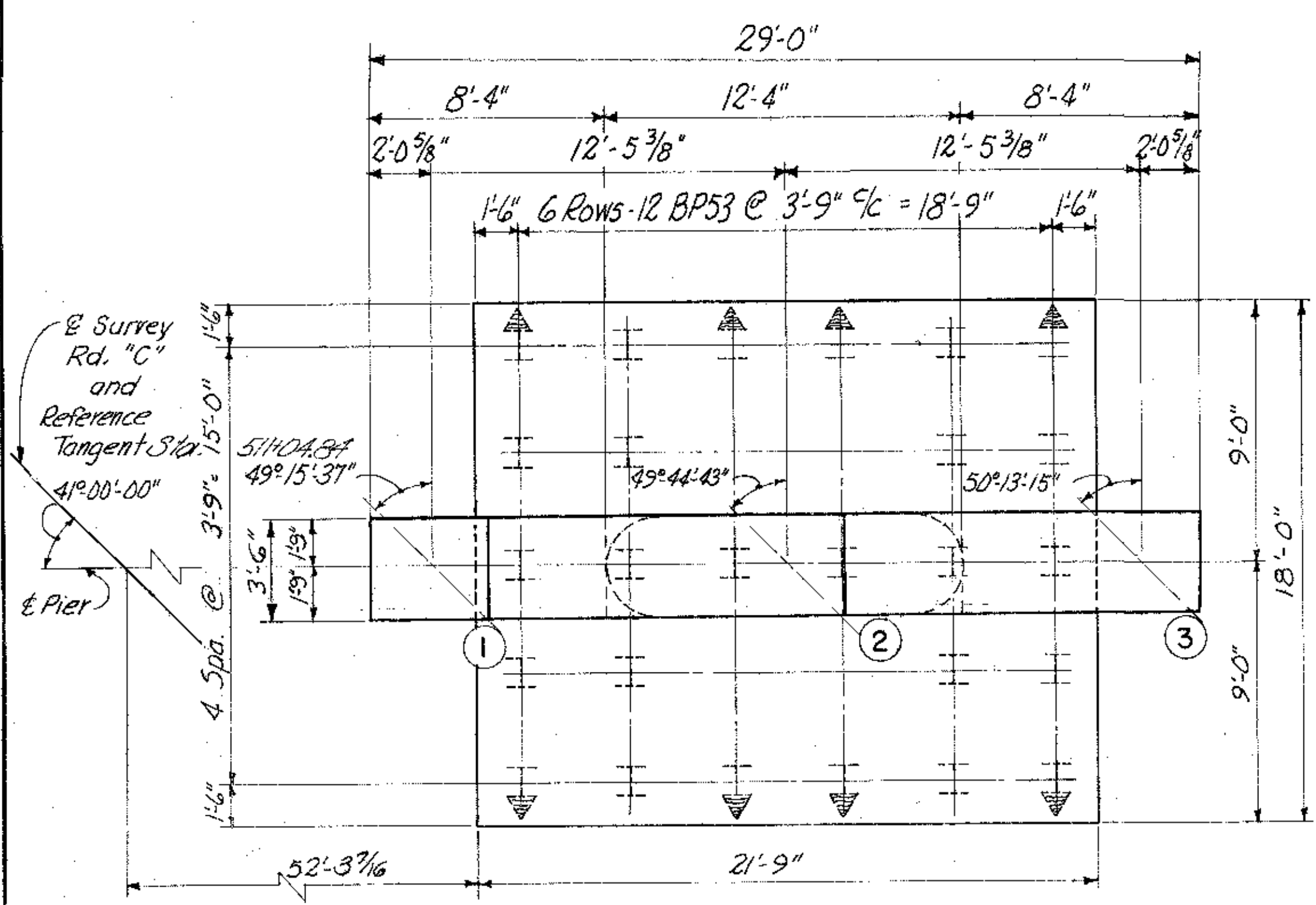
E. S. PRESTON & ASSOCIATES, LIMITED 1/4/43  
ENGINEERS  
COLUMBUS, OHIO

**PIER NO. 4 DETAILS**  
BRIDGE NO. FRA-70-1328S-E.B.  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230  
OVER SCIOTO RIVER  
FRANKLIN COUNTY STA. 505+57.14  
STA. 515+15.35

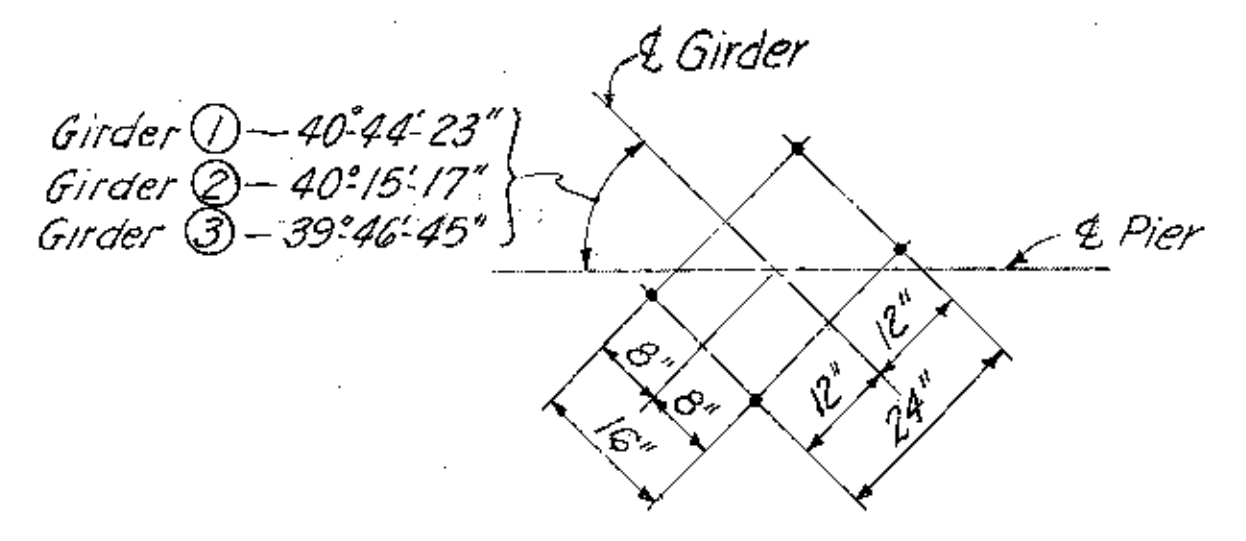
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
A.S.B.	R.E.L.	J.M.L.	A.J.M.	NEN 9-8-70	



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

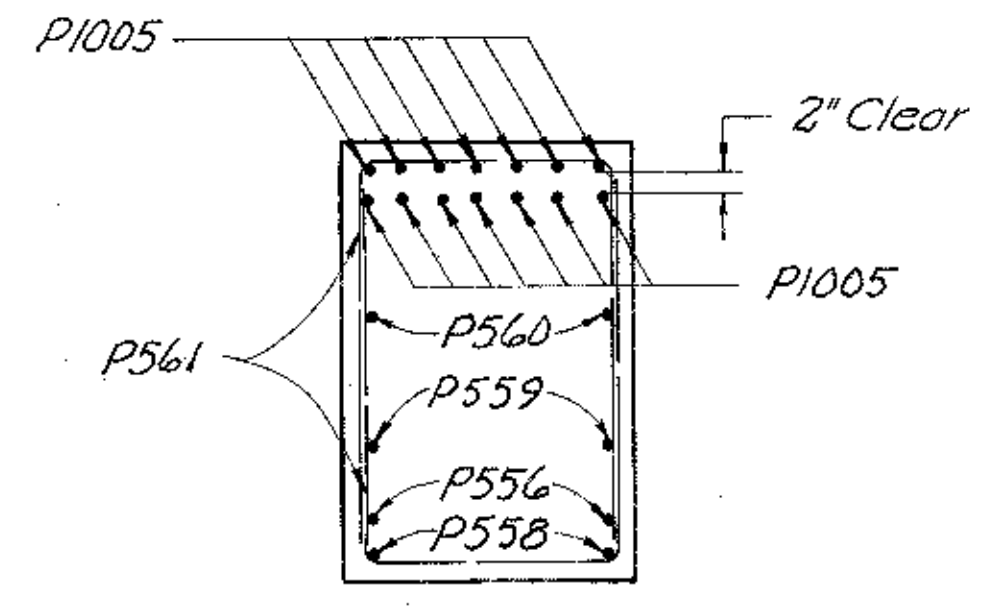


PLAN (PIER NO. 5)

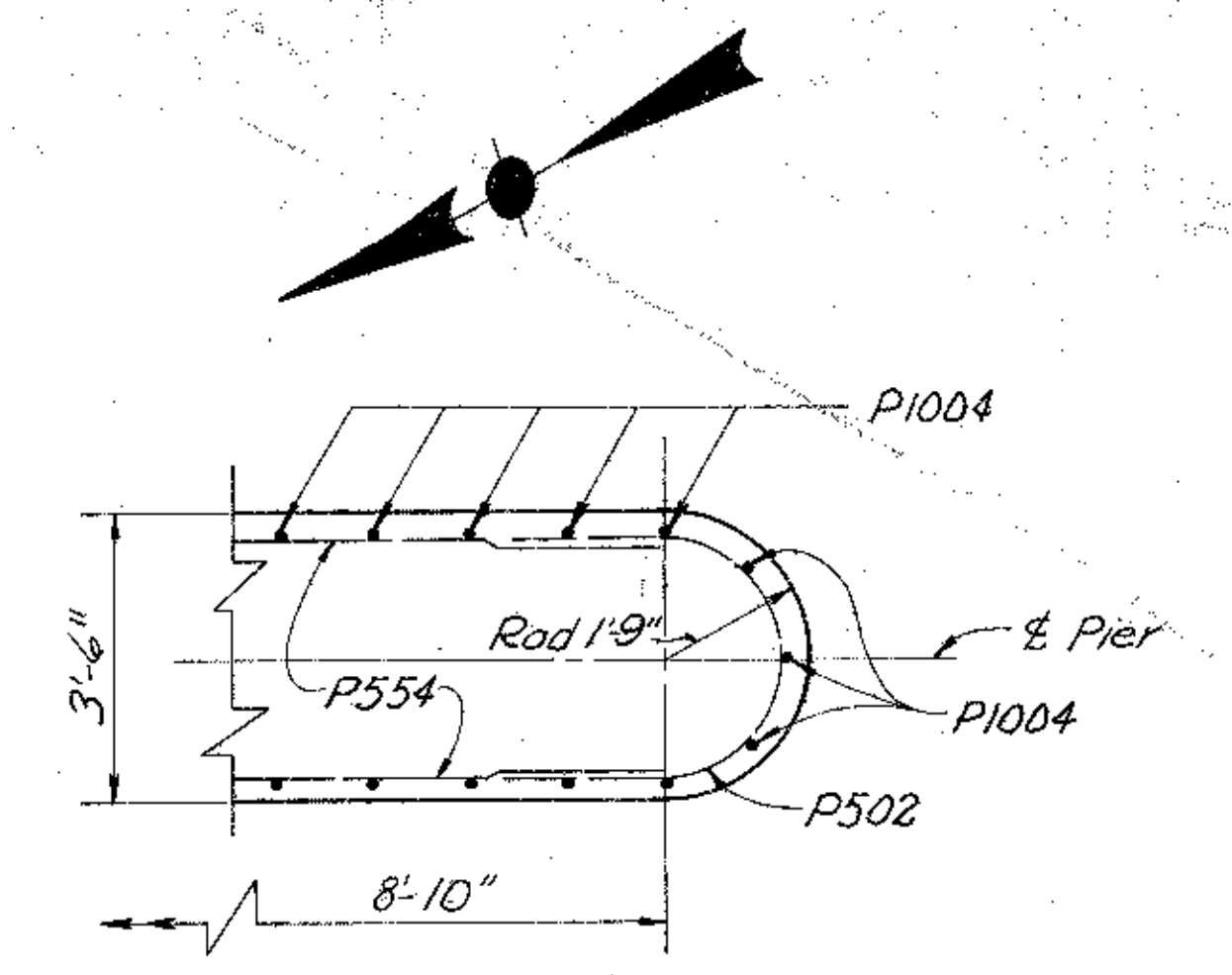


ANCHOR BOLT DETAIL

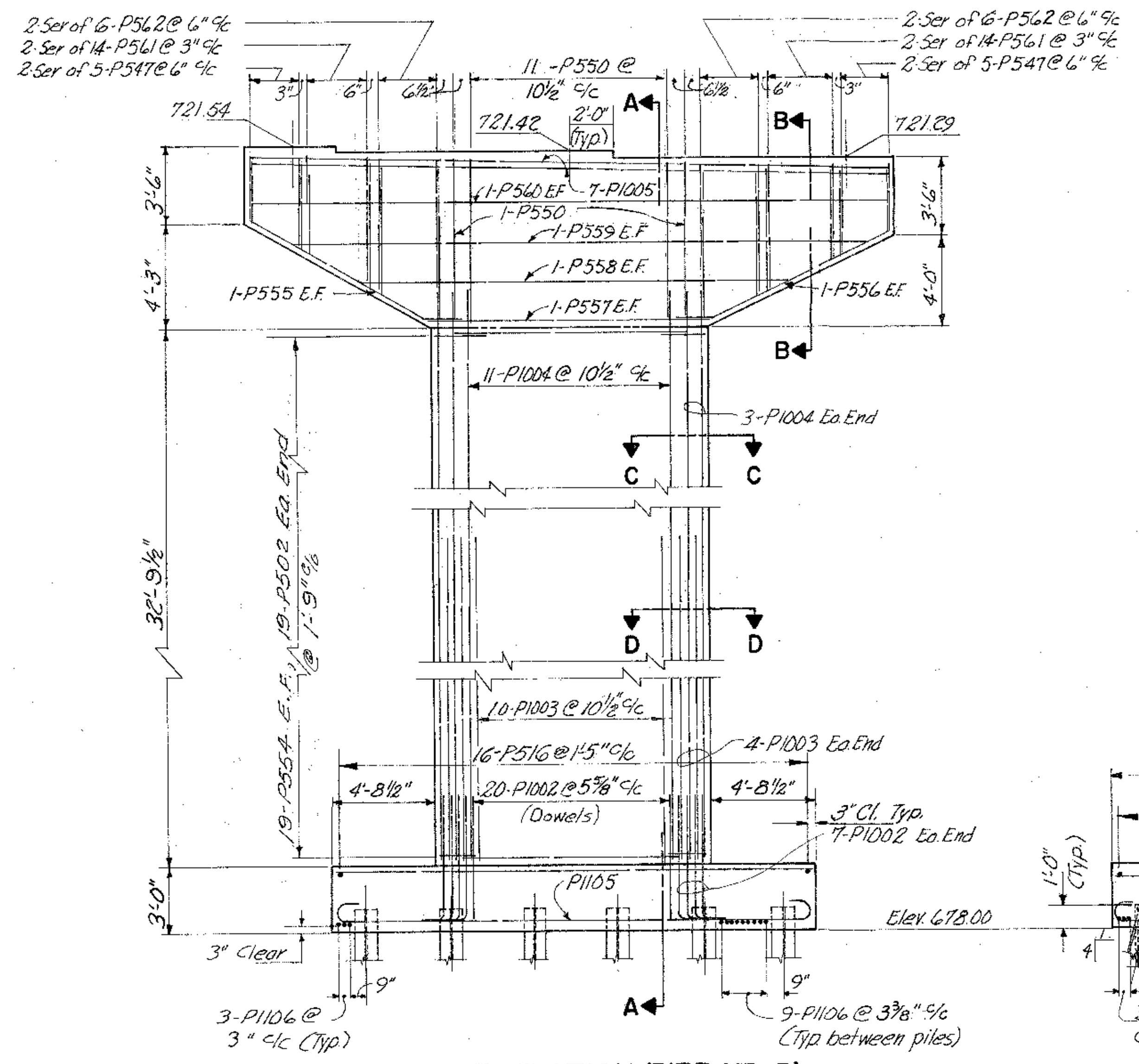
Note: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.



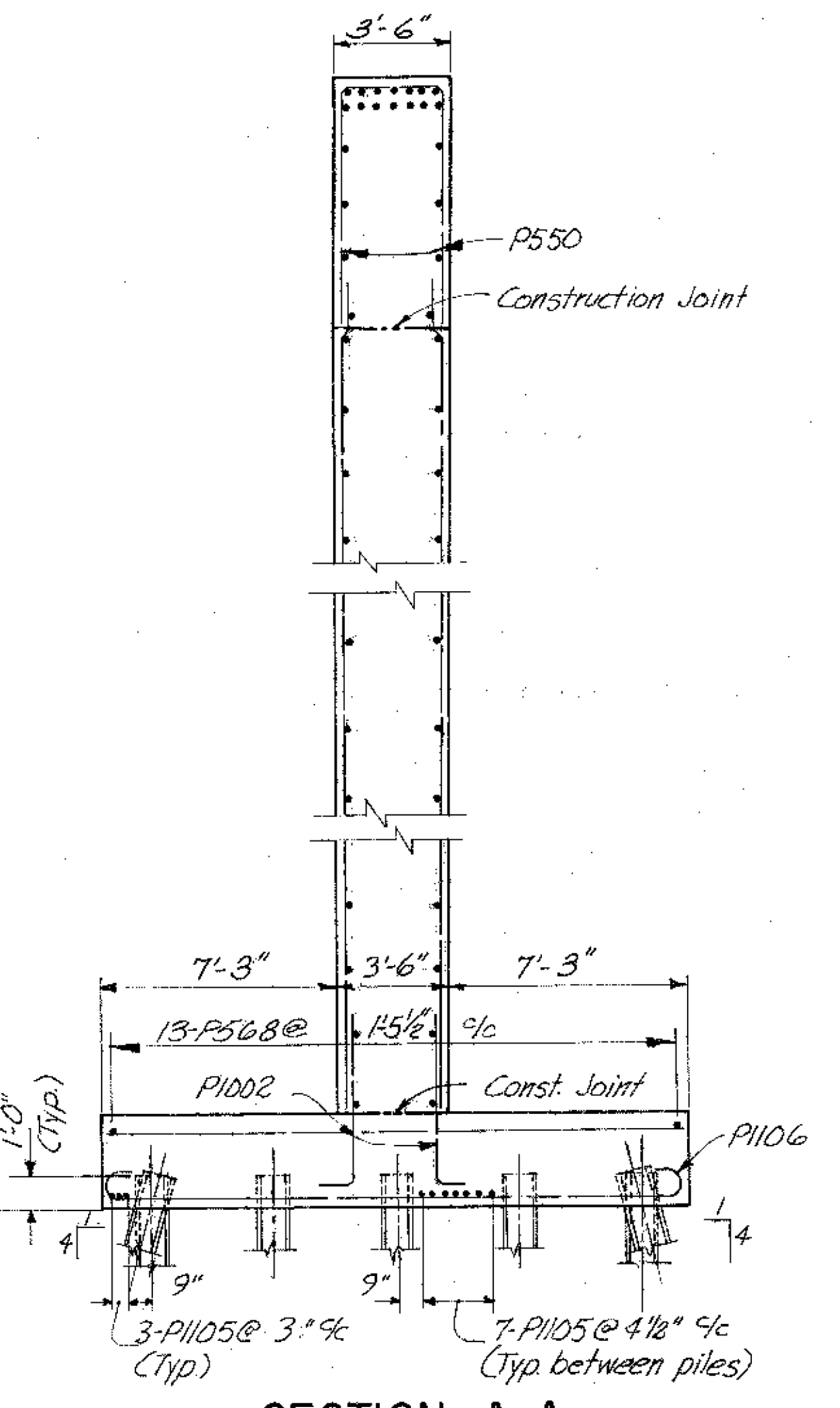
SECTION B-B



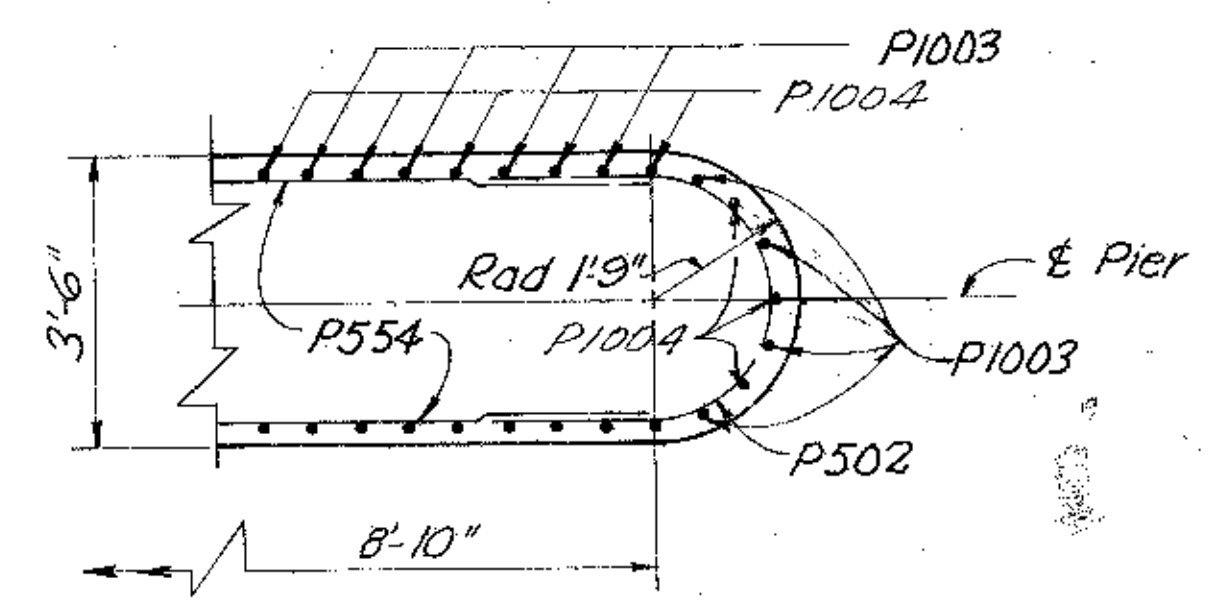
SECTION C-C



ELEVATION (PIER NO. 5)



SECTION A-A



SECTION D-D

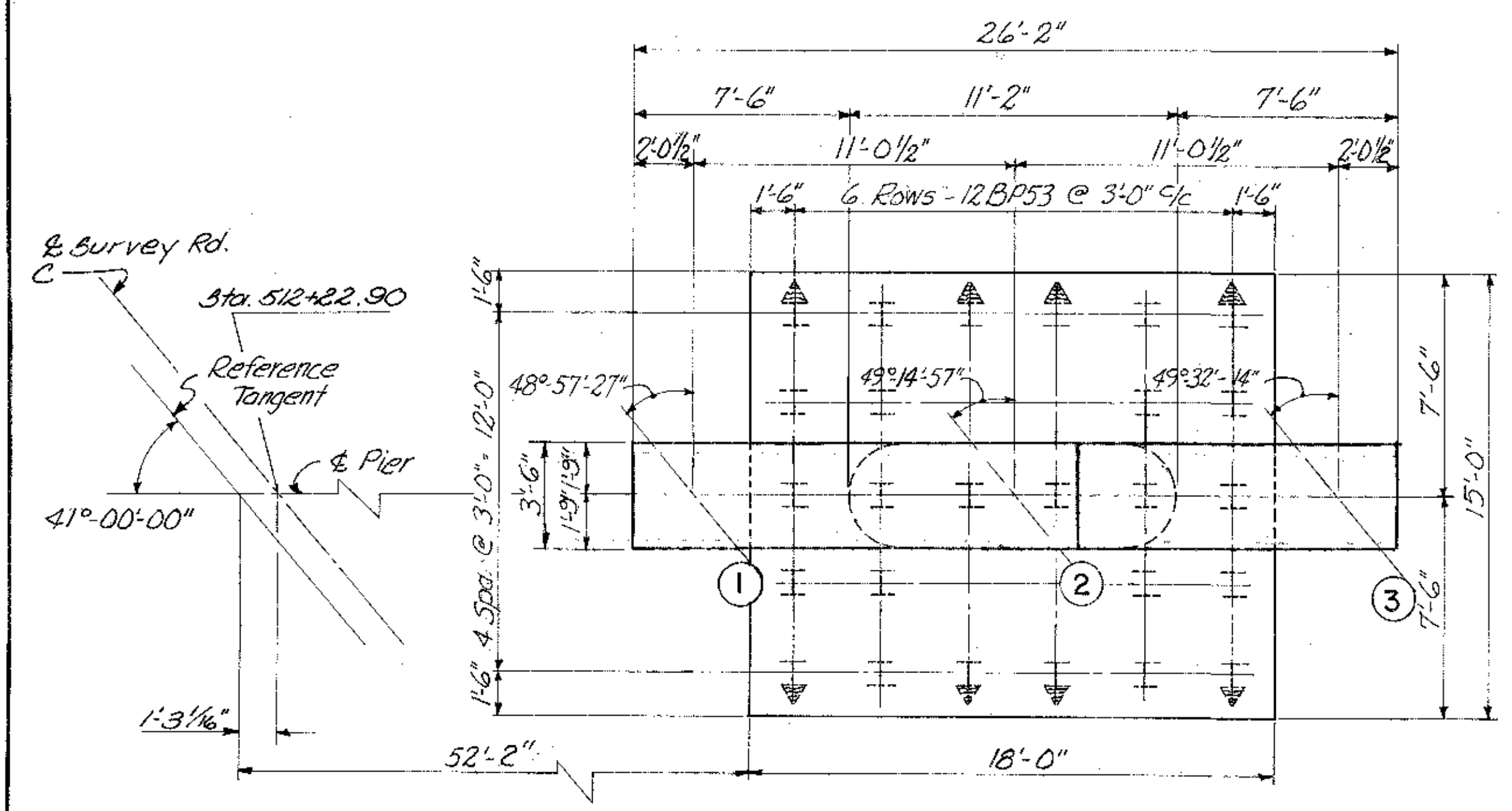
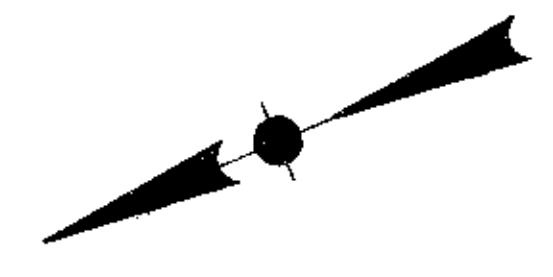
NOTES:  
For additional notes see sheet no. 12/43

E. S. PRESTON & ASSOCIATES, LIMITED ENGINEERS COLUMBUS, OHIO					
PIER NO. 5 DETAILS					
BRIDGE NO. FRA-70-1328S-EB					
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER					
FRANKLIN COUNTY				STA. 505+57.14	
				STA. 515+15.35	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVIEWED
A.S.B.	R.E.L.	J.N.L.	A.J.M.	NOV. 9-8-00	

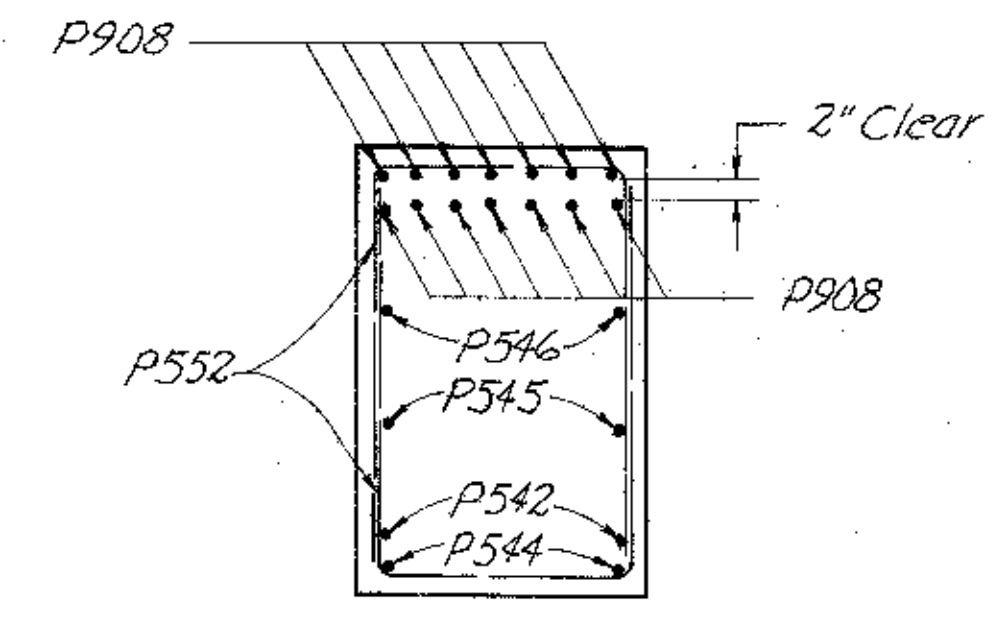
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



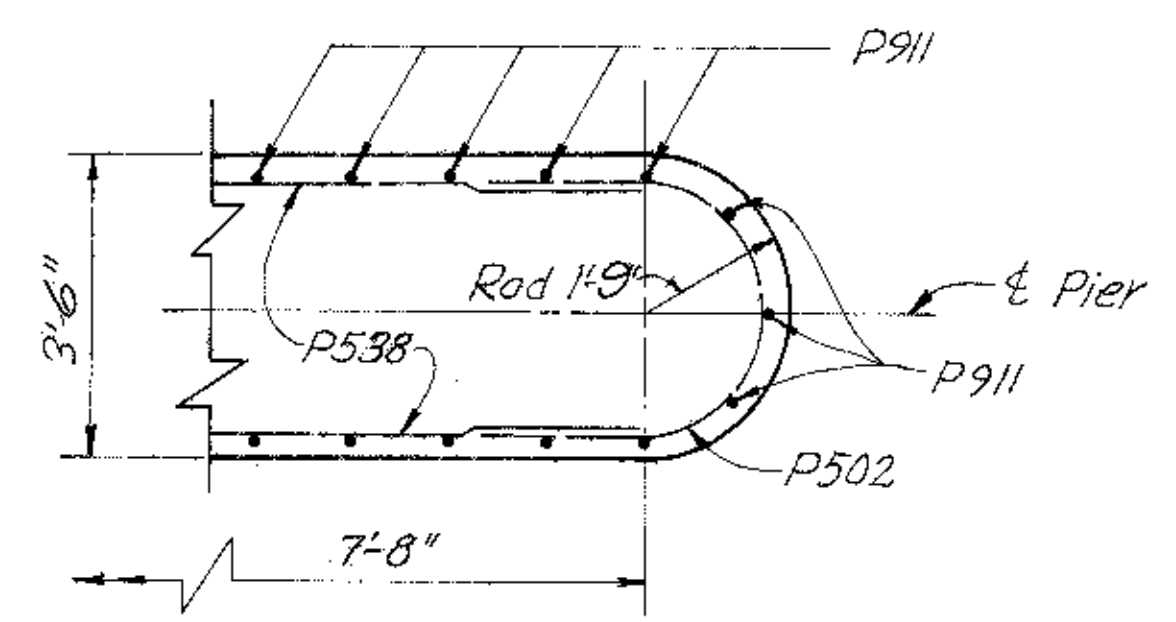
FRANKLIN COUNTY  
FRA-70-12.31 S



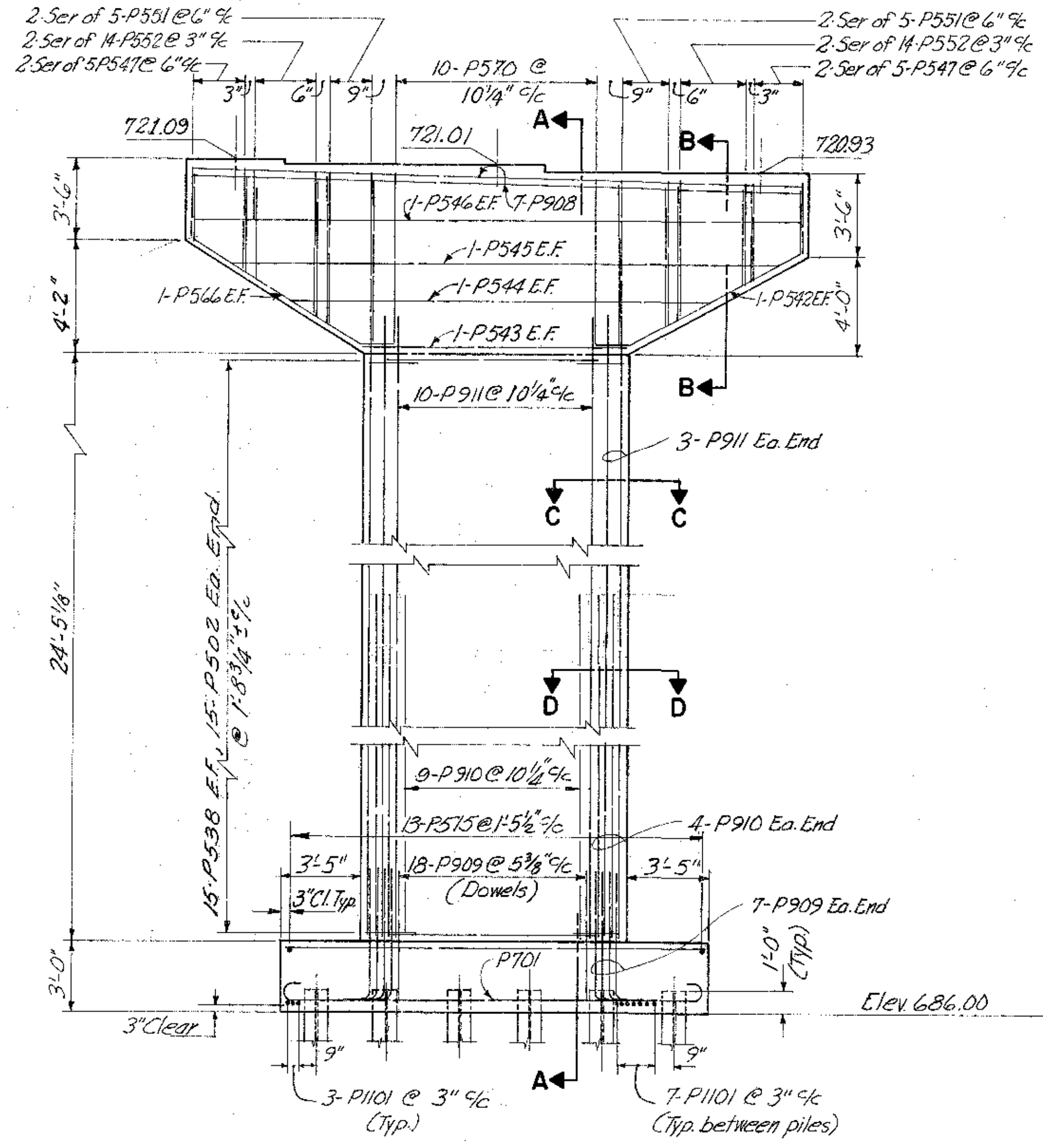
PLAN (PIER NO.6)



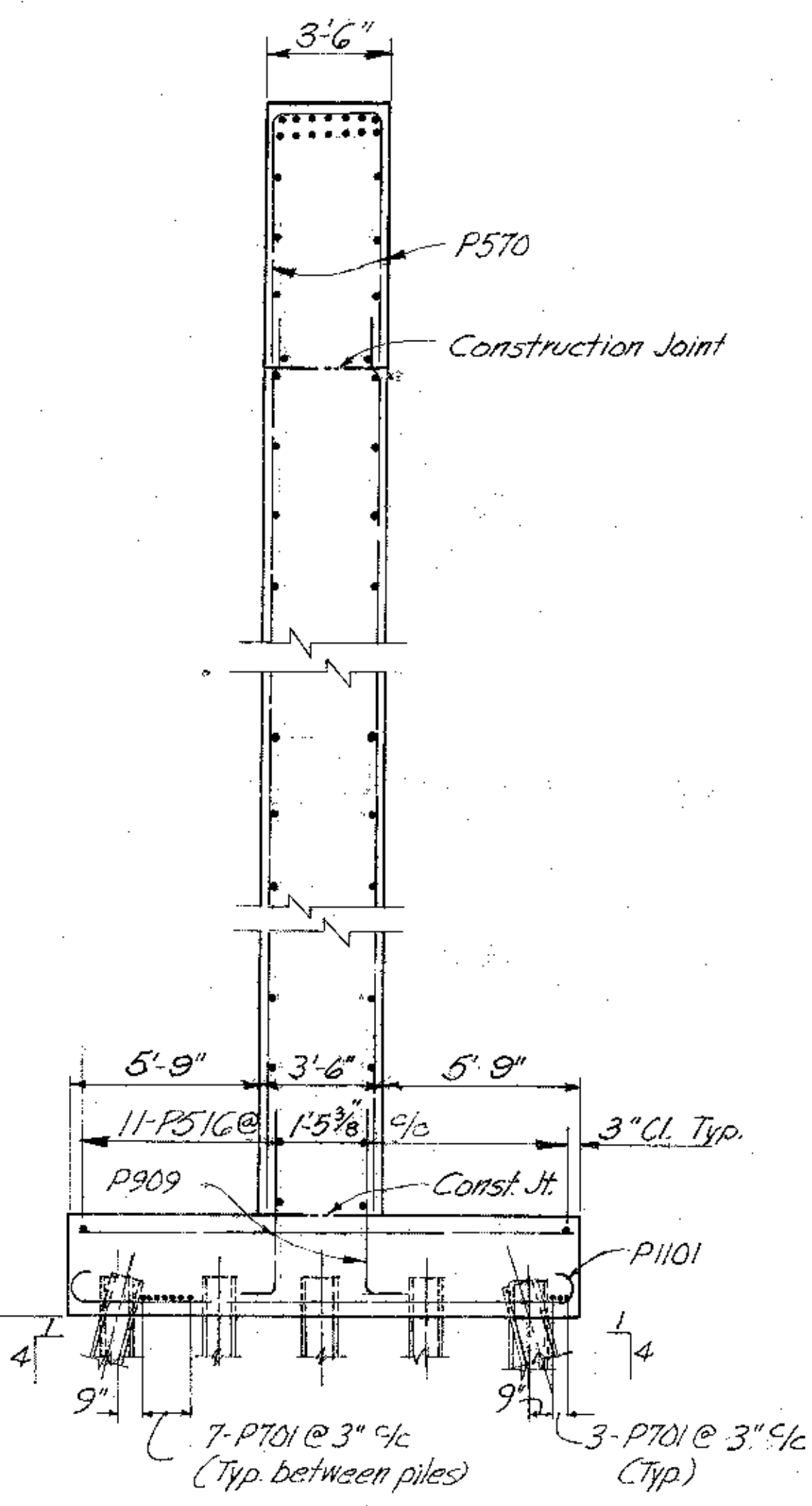
SECTION B-B



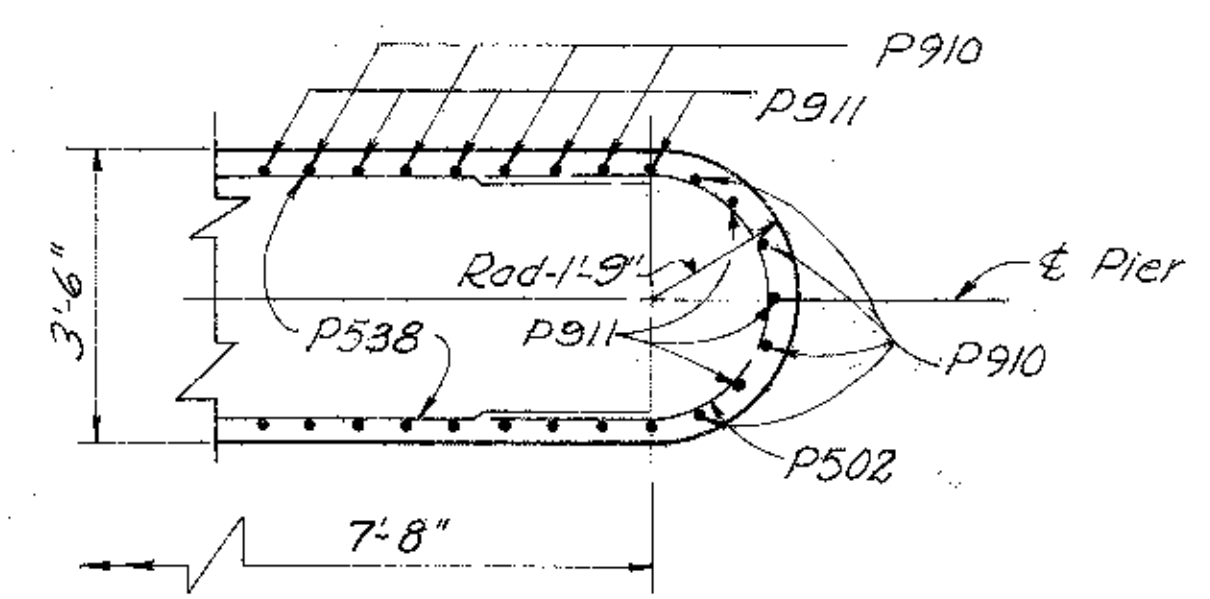
SECTION C-C



ELEVATION (PIER NO.6)



SECTION A-A

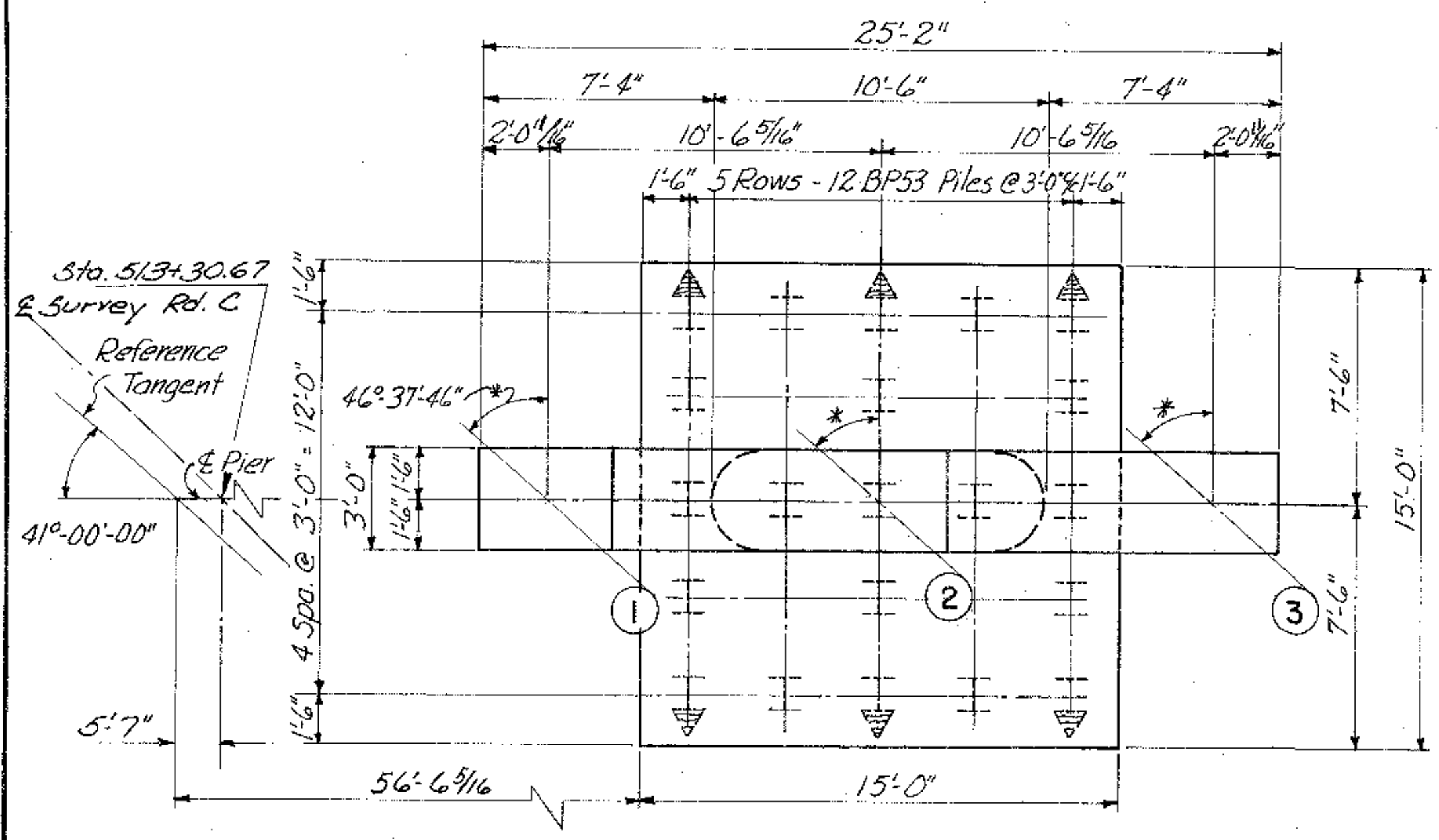
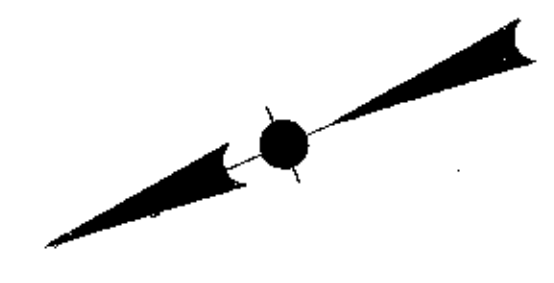


SECTION D-D

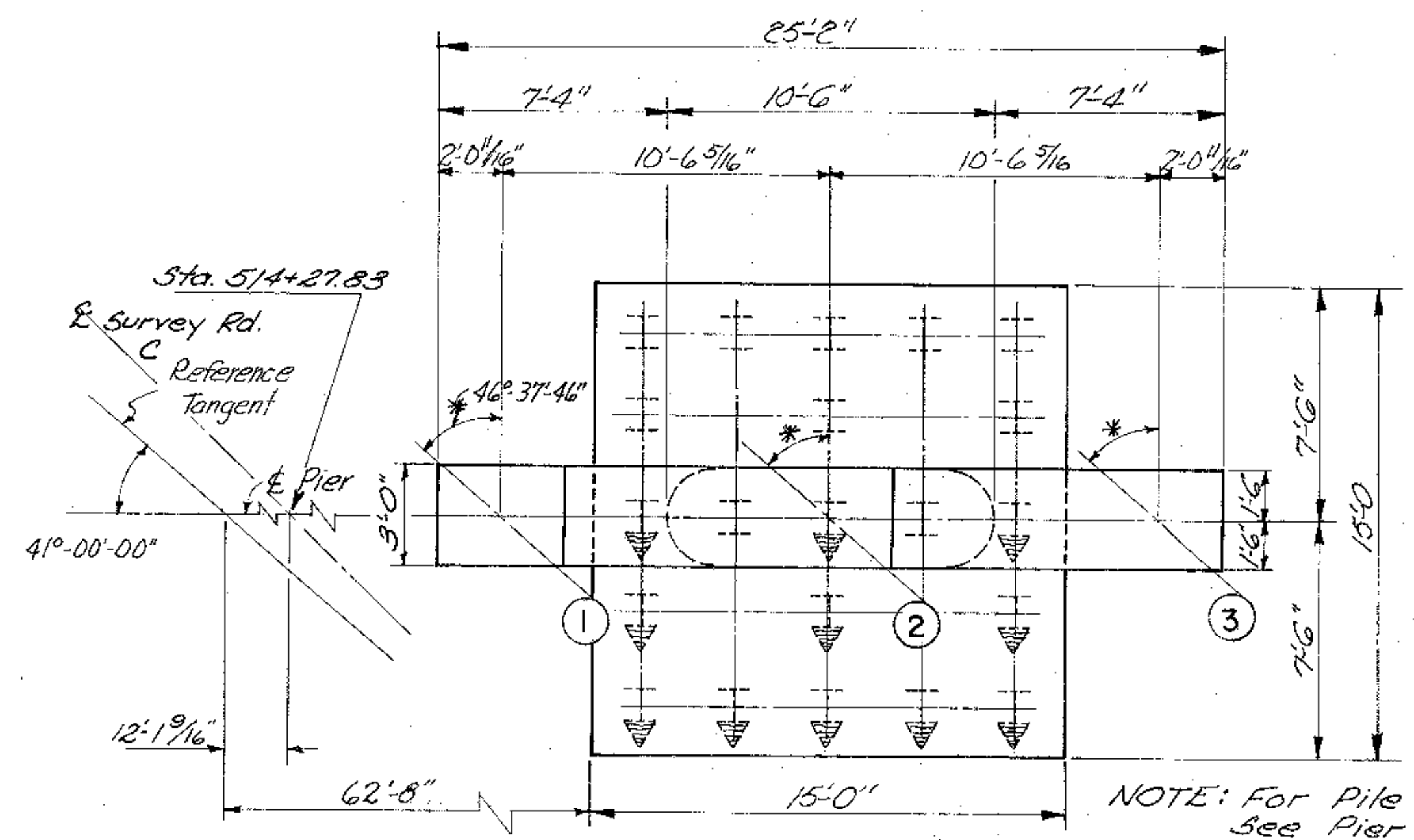
NOTES:  
For additional notes  
see sheet no. 12/43

E. S. PRESTON & ASSOCIATES, LIMITED ENGINEERS COLUMBUS, OHIO					
PIER NO. 6 DETAILS					
BRIDGE NO. FRA-70-1328S-EB					
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230 OVER SCIOTO RIVER					
				STA. 505+57.14	
				STA. 515+15.35	
FRANKLIN COUNTY					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
A.S.B.	R.E.L.	R.V.B.	A.J.M.	NOV 9-8-70	



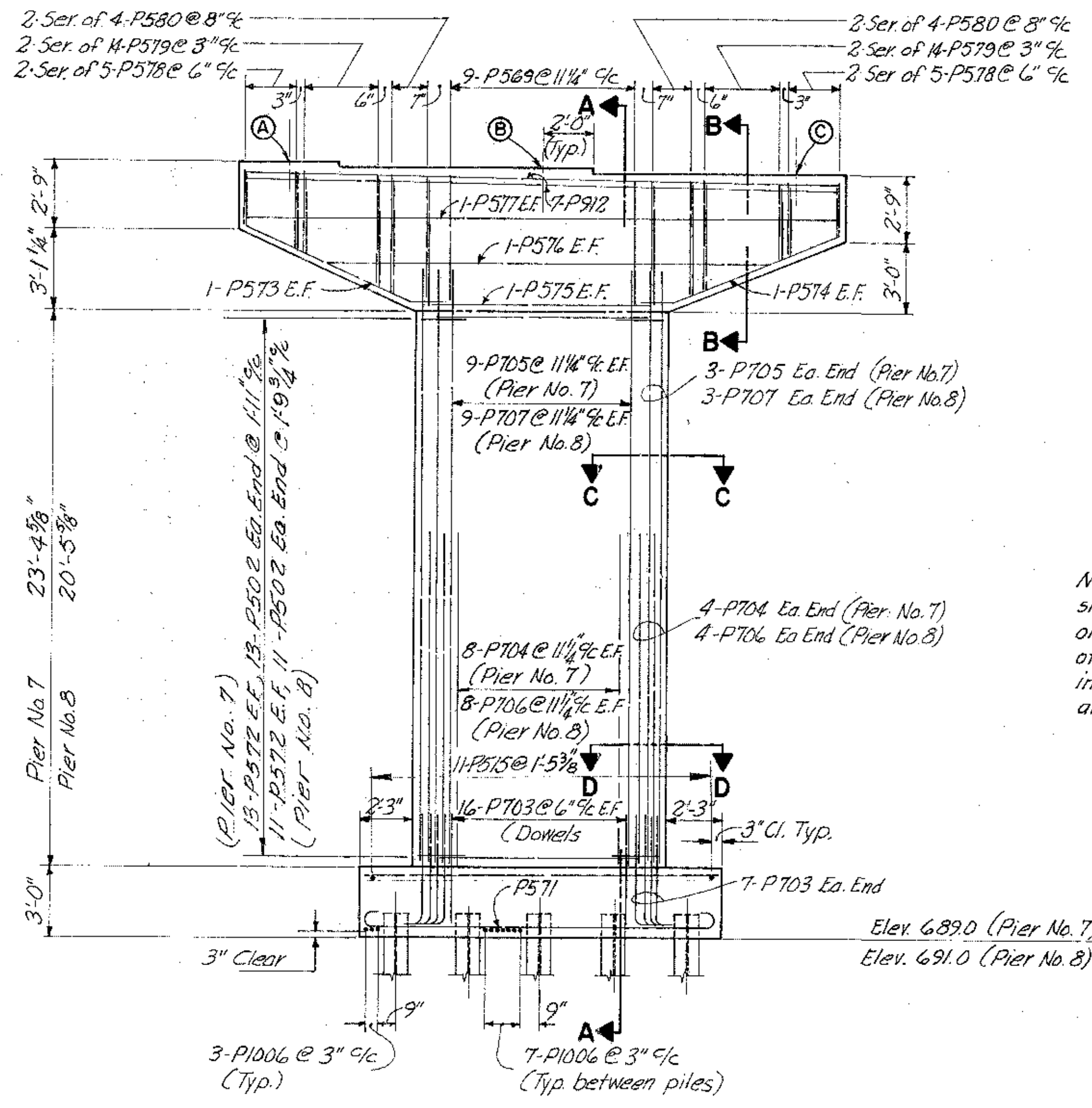


PLAN (PIER NO. 7)

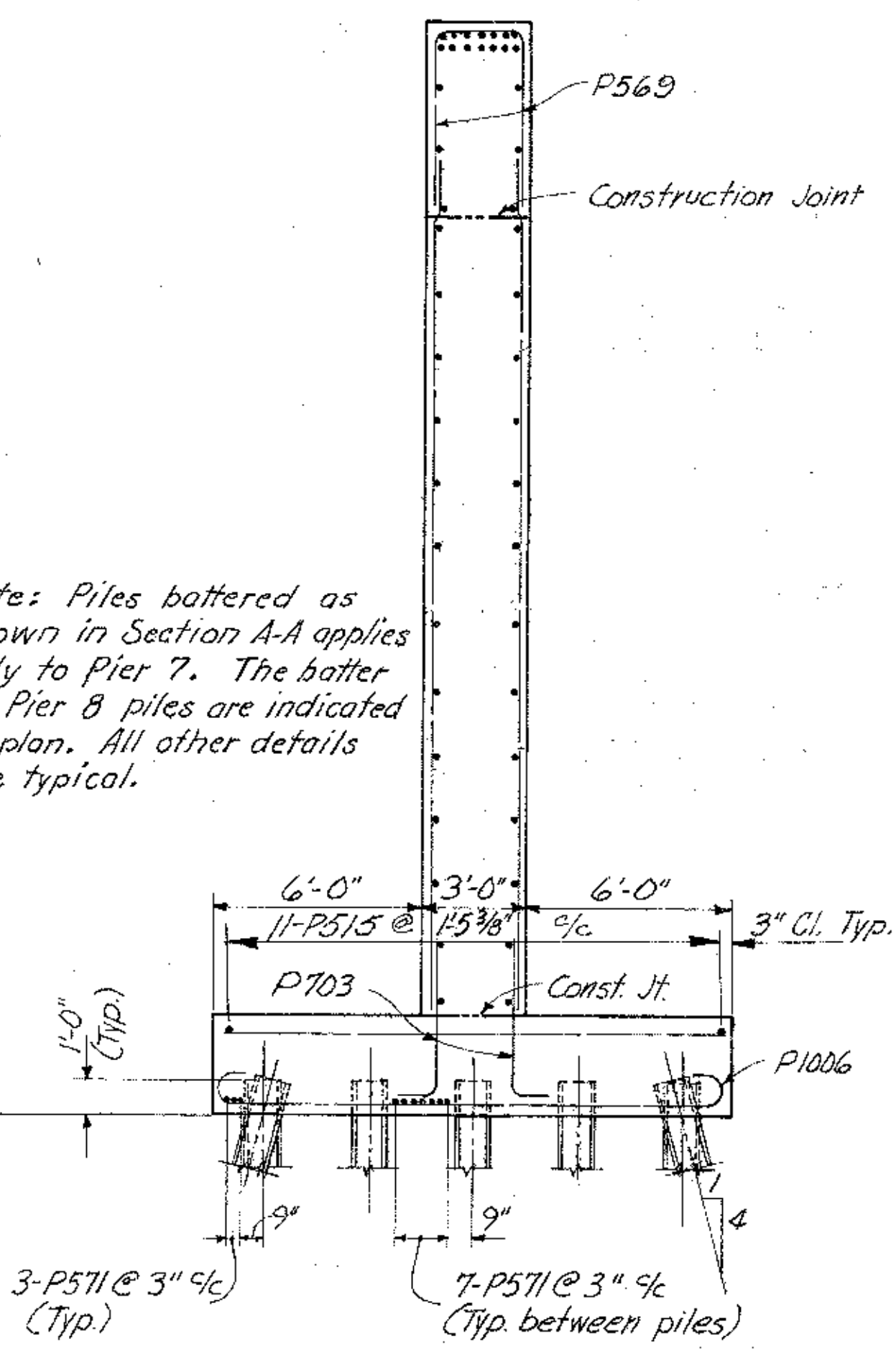


PLAN (PIER NO. 8)

NOTE: For Pile Spacing See Pier No. 7  
Piles drawn  $\nabla$  battered 4:1.

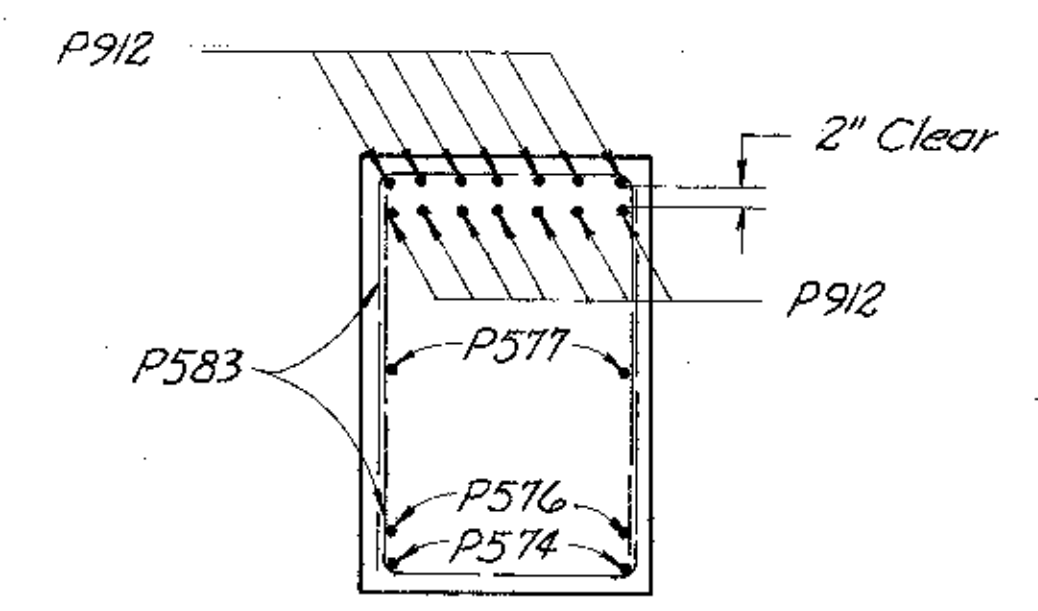


ELEVATION (PIERS 7 & 8)

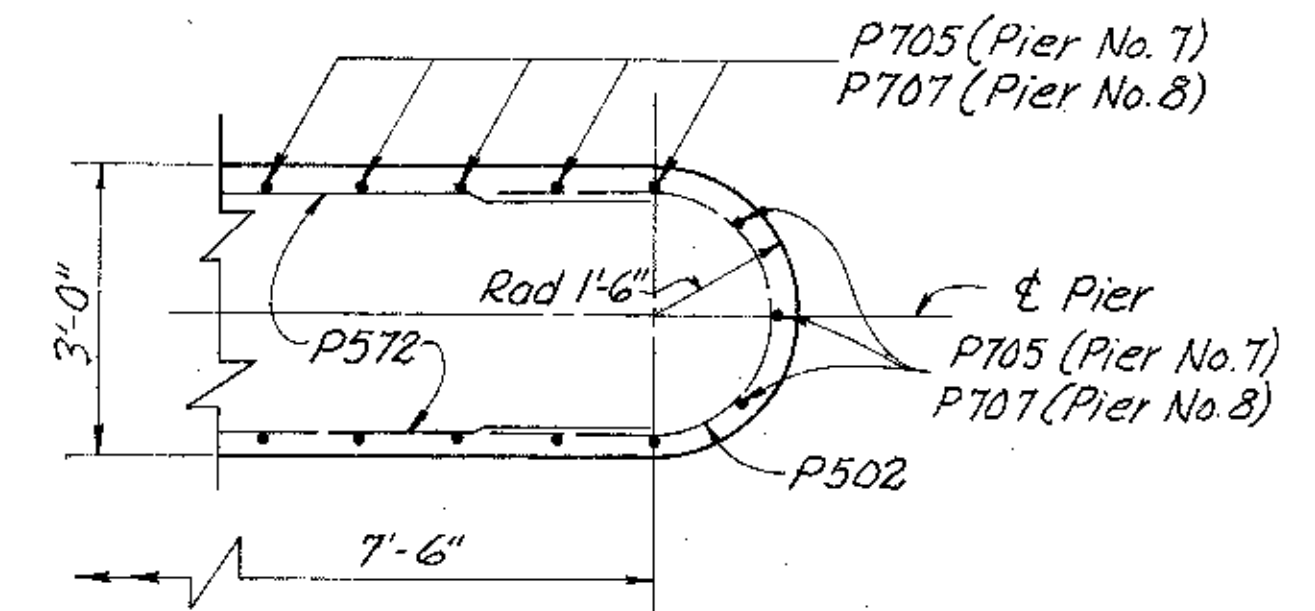


SECTION A-A

Note: Piles battered as shown in Section A-A applies only to Pier 7. The batter of Pier 8 piles are indicated in plan. All other details are typical.

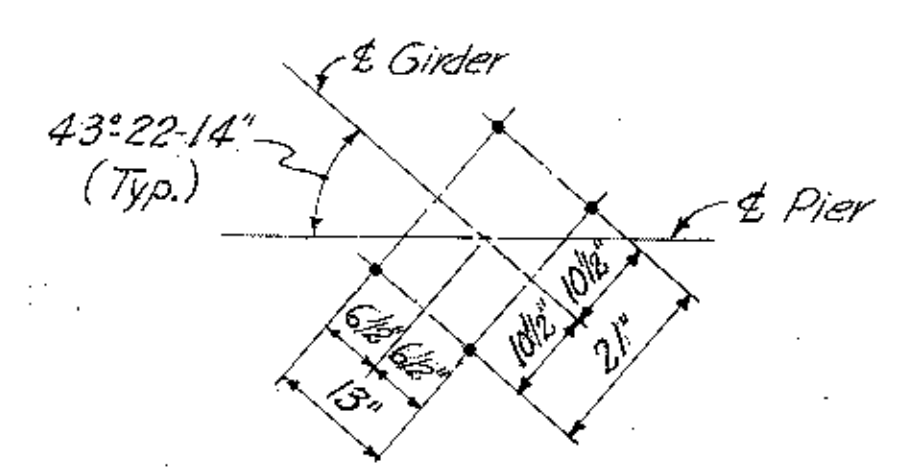


SECTION B-B

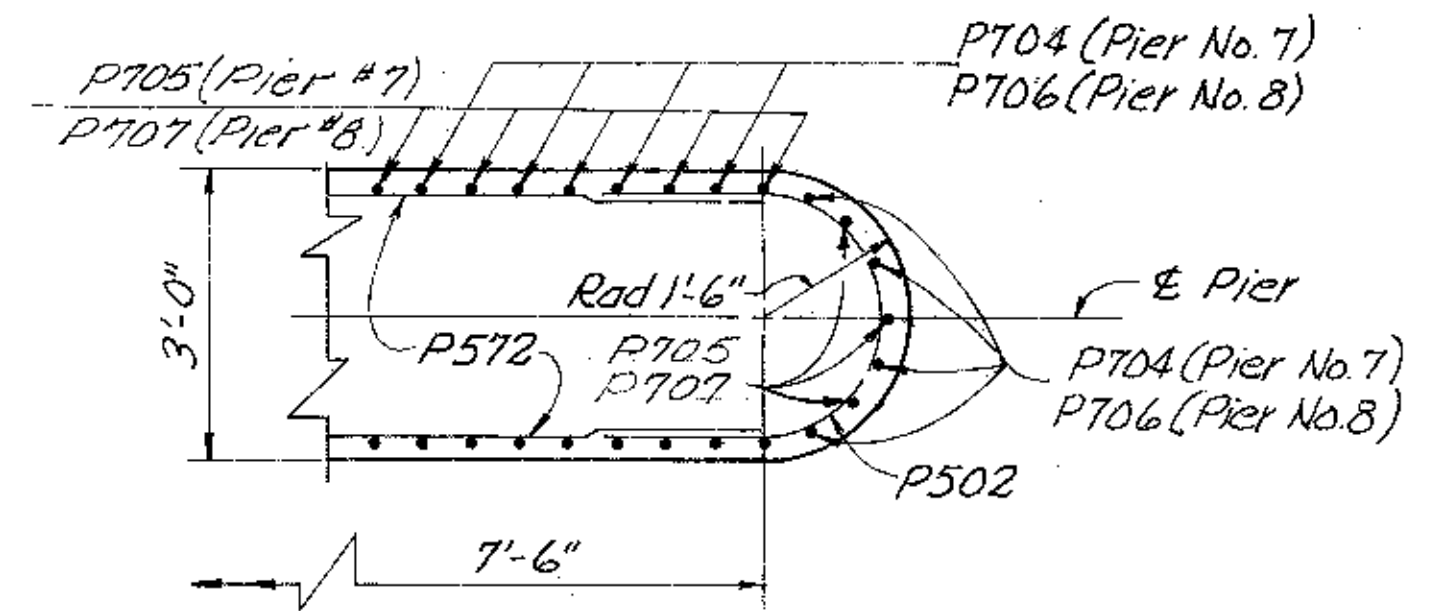


SECTION C-C

Note: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat (Pier No. 7) so as to avoid interference with the drilling of anchor bolt holes.



ANCHOR BOLT DETAIL  
(PIER NO. 7)



SECTION D-D

ELEVATION TABLE			
PIER	A	B	C
NO. 7	721.24	721.19	721.14
NO. 8	720.32	720.27	720.22

Notes:  
For additional notes see sheet no. 72/43

E. S. PRESTON & ASSOCIATES, LIMITED  
ENGINEERS  
COLUMBUS, OHIO

**PIER NOS. 7 & 8 DETAILS**  
BRIDGE NO. FRA-70-1328S-EB  
ADDITION TO EXIST. BRIDGE NO. FRA-40-1230  
OVER SCIOTO RIVER

FRANKLIN COUNTY STA. 505+57.14  
STA. 515+15.35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.S.B.	P.E.C.	R.U.B.	A.U.M.	NEN 9-8-70	