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DEPARTMENT OF HIGHWAYS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-75-6(8)194

WOOD COUNTY
WOO-75-26.84

256

STATE OF OHIO DEPARTMENT OF HIGHWAYS WOO-75-26.84

8064

I-75-6(8)194 1963 SPECIFICATIONS LIMITED ACCESS

CONVENTIONAL SIGNS

County Line	-----
Township Line	-----
Corporation Line	-----
Fence Line	-----x-----
Guard Rail (Existing)	-----o-----
Guard Rail (Proposed)	-----o-----
Railroad	-----+-----
Pole Lines	Power φ Telephone φ
Property Line	-----#-----
Trees Existing	⊗ To be removed
Stumps Existing	⊗ To be removed
Limited Access and Right of Way	-----L.A.&R.W.-----
Limited Access Only	-----L.A.-----
Right Of Way Only	-----R.W.-----
Existing Right Of Way	-----Existing R.W.-----

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio. The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

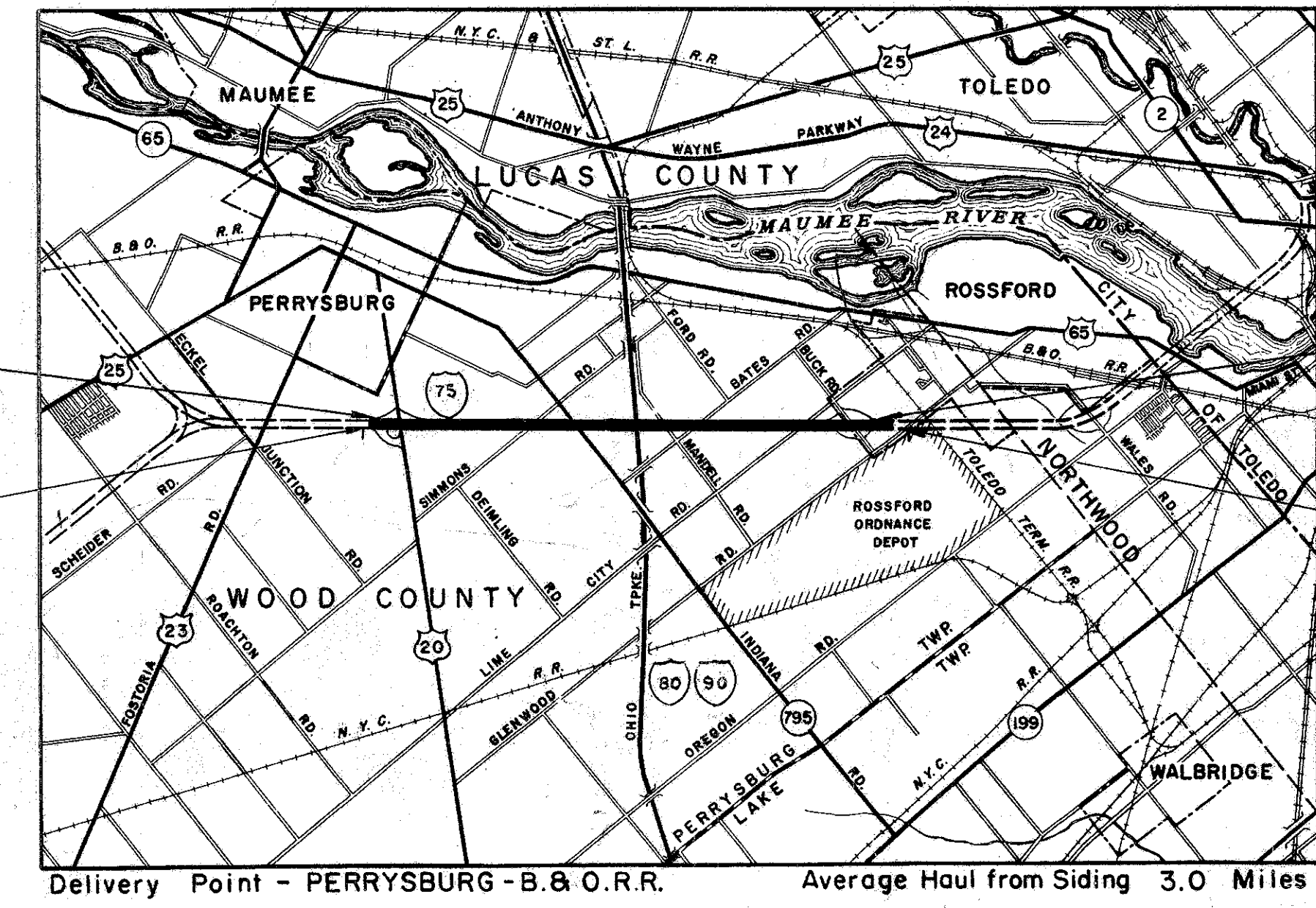
I hereby approve these plans and declare the making of this improvement will not require the closing of the highway to traffic and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

VILLAGE OF ROSSFORD PERRYSBURG TOWNSHIP WOOD COUNTY SOUTHWEST EXPRESSWAY

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REVISED SHEETS NO. 2, 3, & 202 7-8-65 C.E.H.



BEGIN PROJECT
I-75-6(8)194
STA. 152+26.75

END PROJECT
I-75-6(8)194
STA. 351+07.73

BEGIN WORK
STA. 141+25

END WORK
STA. 359+83.00

LOCATION MAP

SCALE IN MILES
0 1/4 1/2 3/4 1 2 3 4

Construction under this Contract	=====
Construction under other Contracts	=====
State and Federal Roads	-----
Other Roads	-----
County Line	-----
Township Line	-----
Corporation Line	-----

SCALE
Plan 1" = 50'
Profile Horiz. 1" = 50' - Vert. 1" = 5'
Cross Sections 1" = 10'

LINE DATA

Net length of Project 19,880.98 Lin. Ft. or 3.765 Miles
Net Length of Work 31,059.00 Lin. Ft. or 5.882 Miles

For Calculations of Line Data See Sheet No. 2

Prepared and Recommended by:
BARSTOW & MULLIGAN
CONSULTING ENGINEERS
NEW YORK

Robert D. Mulligan
Robert D. Mulligan

STANDARD DRAWINGS				SUPPLEMENTAL SPECIFICATIONS			
Number	Date	Number	Date	Number	Date	Number	Date
B-T-70-71	11-15-60	I-8 C.B. 2-2A & B	2-1-63	L-1	4-1-50	S-101	7-12-62
B-T-71R	3-2-53	I-8 C.B. No. 4	2-1-63	L-3	4-1-50		
DR-1	1-3-55	I-8 C.B. No. 6	2-1-63	L-3-A	4-1-50	L-120	Rev. 1-2-62
F-2	2-1-63	I-8 C.B. No. 8	2-1-63	SP-53	6-30-61		
F-3	2-1-63	I-12	2-1-63	RB-1-55	2-2-59	I-212	Rev. 6-23-61
FAI-1	2-25-64	I-15 No. 1	11-15-60	AR-1-57	4-2-62	S-307	Rev. 10-1-64
FAI-2	2-25-64	I-15 No. 2-A	8-17-60	AS-1-54	7-5-62	CE-101.04	5-22-56
G-7.07	4-1-64	I-15 No. 3-B	2-1-63	FSB-1-62	1-15-63	T-335	10-28-63
HW-A & B	7-15-57	I-15 No. 6	2-1-63	SD-1-63 (22.11)	11-12-63		
HW-C	7-15-57	T-35	1-2-56	I-21-23	3-10-64	M-106.11	1-26-61
HW-E	2-1-63	L.J. No. 1	7-1-55	R-1	9-1-64		
J-1	11-15-60	T.J.	9-12-60	HW 101	8-1-63		
				SD-2-64	11-25-64		

- Approved *Thomas M. Major*
Date April 15, 1965 Division Deputy Director
- Approved *C. H. Albratan*
Date 5-12-65 Engineer of Bridges
- Approved *R. N. Pickett*
Date 5-14-65 Engineer of Location & Design
- Approved *P. E. Shultz*
Date 5-14-65 Deputy Director of Design & Construction
- Approved *T. H. Borne*
Date 5-19-65 Deputy Director of Right of Way
- Approved *J. W. Wilson*
Date 5-19-65 Deputy Director of Planning & Programming
- Approved _____
Date _____ First Assistant Director
- Approved *P. E. Macklin*
Date 5/19/65 Director of Highways

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____
DIVISION ENGINEER DATE

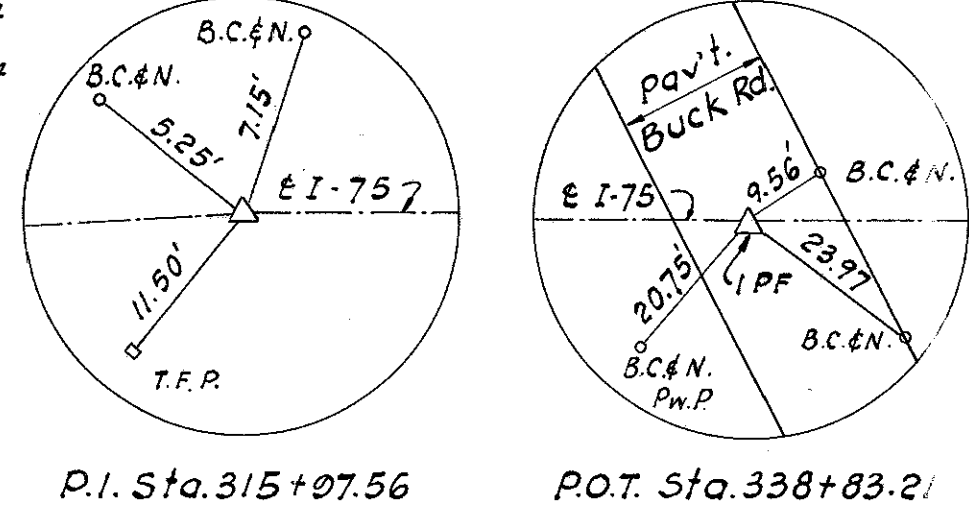
File No.	WOOD COUNTY	WOO-75-26.84
Date of Letting		196
Contract No.		

X 75

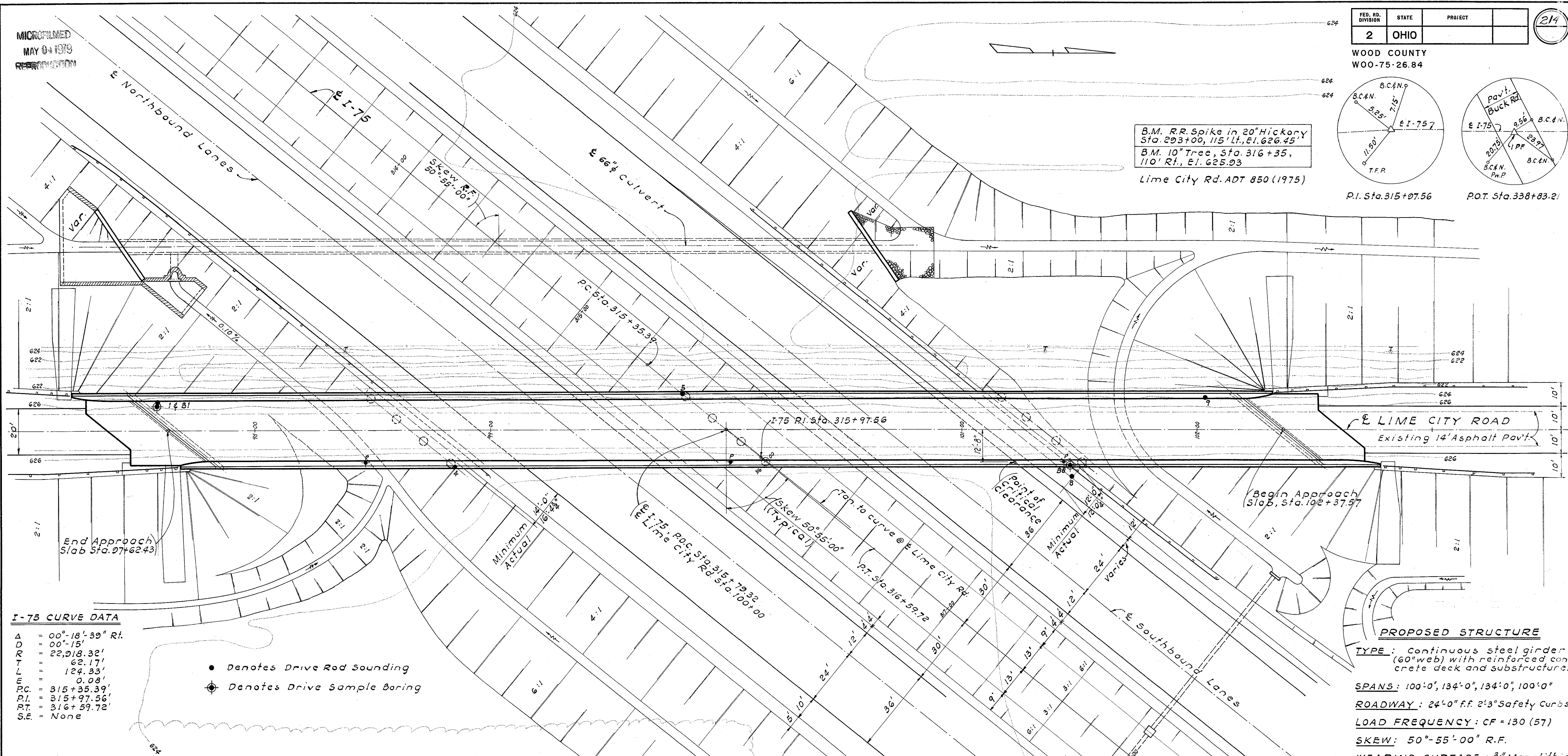
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FED. NO. DIVISION	STATE	PROJECT	214
2	OHIO		

WOOD COUNTY
WOO-75-26.84



B.M. R.R. Spike in 20" Hickory
Sta. 293+00, 115' Lt., El. 626.45'
B.M. 10" Tree, Sta. 316+35,
110' Rt., El. 625.03
Lime City Rd. ADT 850 (1975)

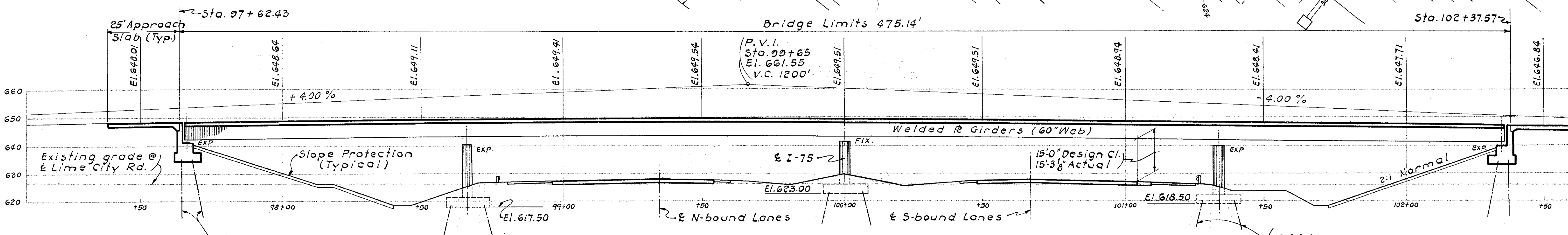


I-75 CURVE DATA

Δ	= 00°-18'-39" Rt.
D	= 00'-15"
R	= 22,218.32'
T	= 62.17'
L	= 124.33'
E	= 0.08'
P.C.	= 315+35.39'
P.I.	= 315+97.56'
P.T.	= 316+59.72'
S.E.	= None

- Denotes Drive Rod Sounding
- ⊙ Denotes Drive Sample Boring

PROPOSED STRUCTURE
TYPE: Continuous steel girder (60" web) with reinforced concrete deck and substructure.
SPANS: 100'-0", 134'-0", 134'-0", 100'-0"
ROADWAY: 24'-0" f.f. 2'-3" Safety Curbs
LOAD FREQUENCY: CF = 130 (57)
SKIEW: 50°-55'-00" R.F.
WEARING SURFACE: 3/4" Monolithic
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent



PROFILE ALONG E LIME CITY ROAD

BARSTOW & MULLIGAN
ENGINEERS
NEW YORK, N.Y.

SITE PLAN

BRIDGE NO. WOO. 75-2993
LIME CITY ROAD OVER I-75
WOOD COUNTY
SEC. WOO-75-26.84
STA. 315+79.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.P.	J.P. K.K.	TAB	L.K.	L.K.	5-64	

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MAY 04 1979
REPRODUCTION

475.14' Bridge Limits
468'-0" c/c Bearings

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		215

WOOD COUNTY
WOO-75-26.84

GENERAL NOTES

REFERENCE shall be made to Standard Drawings RB-1-55 revised 2-2-59, AR-1-57 revised 4-2-62, SD-1-63 (Sheets 2, 3 & 4) dated 11-12-63, AS-1-54 revised 7-5-62 and to supplemental Specification S-101 dated 7-12-62 & S-307 revised 10-1-64.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with current revisions thereof.

Design Loading CF = 130(57)
Concrete Class C - basic unit stress 1333 p.s.i.
Concrete Class E - basic unit stress 1133 p.s.i.
Structural Steel - ASTM A36 basic unit stress 20,000 p.s.i. (except Piling) (ASTM A7 & A373 Steel not permitted)
Reinforcing Steel - ASTM A15, A16, A160, Deformed Intermediate or Hard Grade, basic unit stress 20,000 p.s.i. except spiral reinforcement may be plain, structural grade, with basic unit stress 18,000 p.s.i.

EMBANKMENT PROCEDURE: The approach embankment shall be placed and compacted up to the finished spill - thru slope and to the level of the subgrade for a distance of 200 ft. back of the abutments. The approach embankment shall be in place prior to excavating and driving piles for the abutments.

EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments.
PILES shall be driven to firm contact with rock with a hammer of not less than 11,000 ft. lbs. per blow. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating.

Abutment piles: 43 tons per pile using an 11,000 ft. lb. hammer;
35 tons per pile using a 15,000 ft. lb. hammer;
Pier piles: 61 tons per pile using an 11,000 ft. lb. hammer;
55 tons per pile using a 15,000 ft. lb. 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 35 tons per pile for the abutment piles and 45 tons per pile for the pier piles.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

ERECTION PROCEDURE: The Contractor shall be required to submit to the Director, for approval, 3 prints showing his proposed erection procedure for the plate girders.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

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

UTILITY LINES: All expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

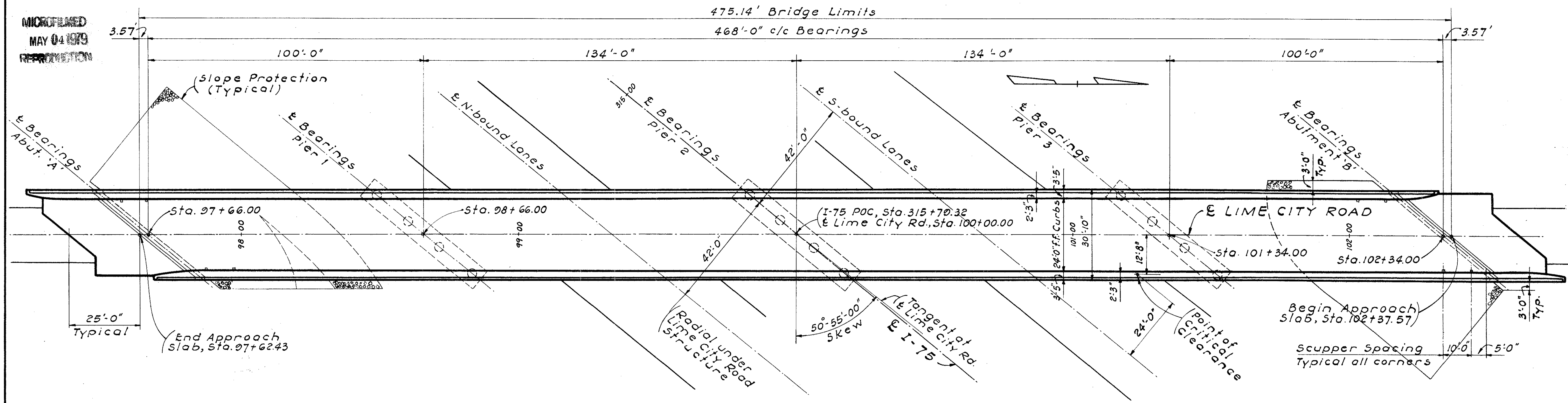
HIGH STRENGTH STEEL BOLTS - In the final assembly of the parts to be bolted, drift pins shall be placed in a sufficient number of holes (not less than 25 percent for field erection) to provide and maintain accurate alignment of holes and parts, and sufficient bolts shall be installed and brought to a snug tight condition to bring the parts into complete contact. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit, after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner.

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NEW YORK, N.Y.

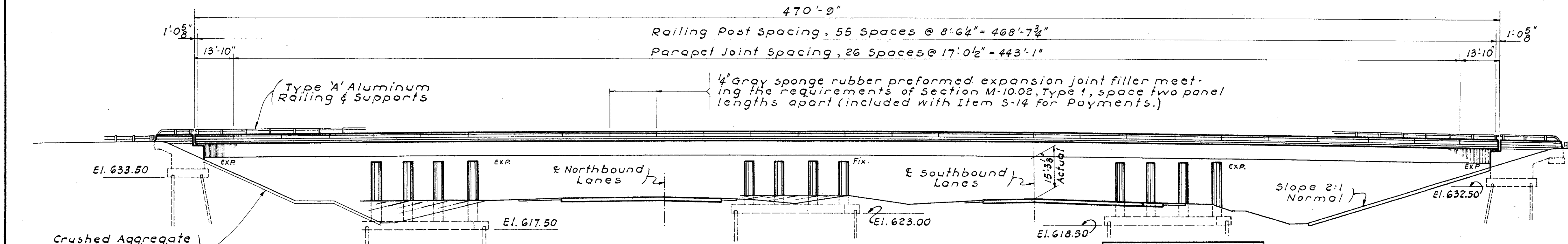
GENERAL PLAN AND ELEVATION

BRIDGE NO. WOO. 75-2993
LIME CITY ROAD OVER I-75
WOOD COUNTY
SEC. WOO. 75-26.84 STA. 315+79.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
J.R.	E.F.V.	T.A.B.	L.K.	LK	5-64	



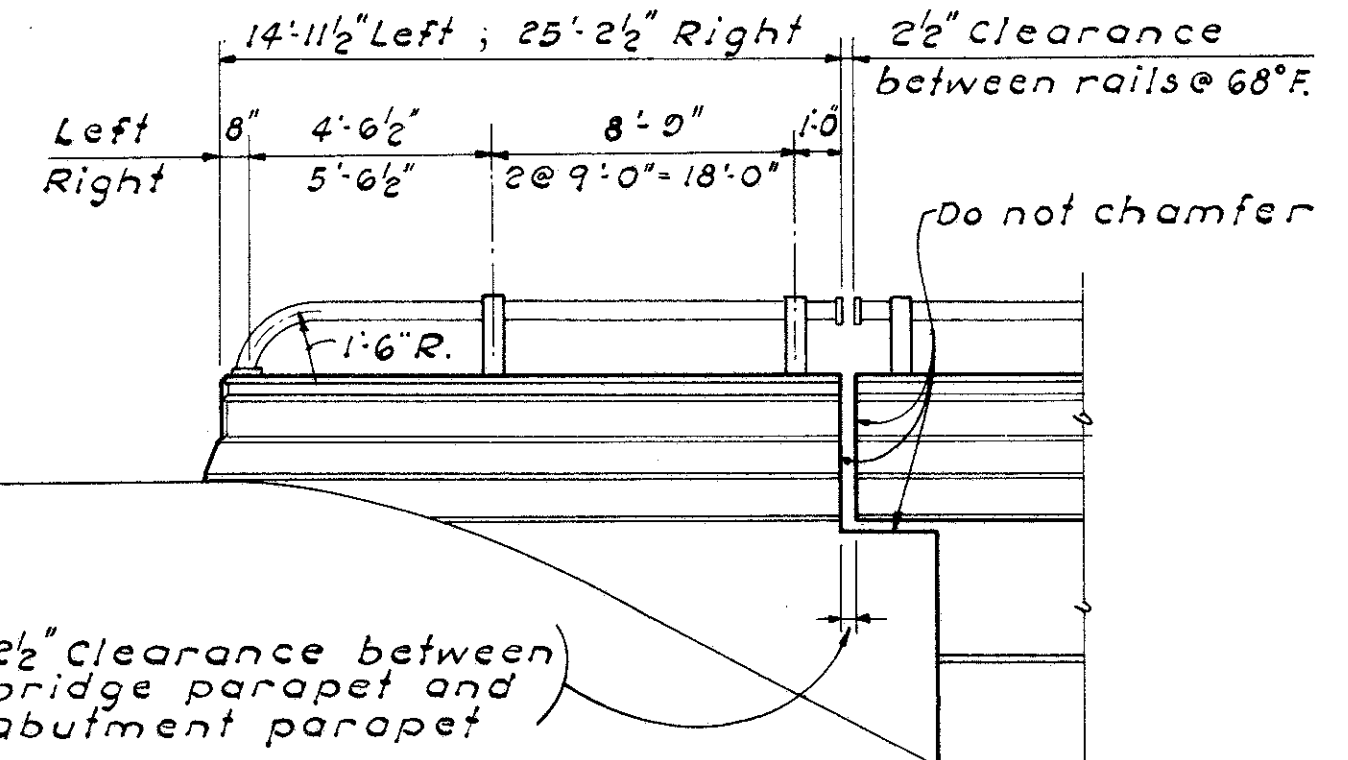
GENERAL PLAN



ELEVATION

ESTIMATED AVERAGE PAY LENGTH OF PILES	
Abutment A	75.0'
Pier 1	55.0'
Pier 2	55.0'
Pier 3	55.0'
Abutment B	70.0'

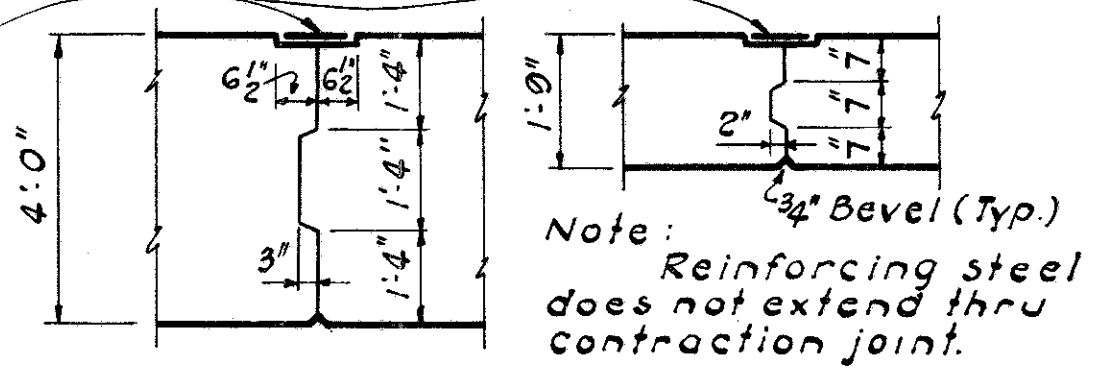
ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	SUPER-STRUCTURE	ABUTMENTS	PIERS
E-2	765	Cu.Yds.	Unclassified Excavation		363	402
S-1	463	Cu.Yds.	Class 'C' Concrete, Superstructure	463		
S-1	80	Cu.Yds.	Class 'C' Concrete, Pier Columns			80
S-1	252	Cu.Yds.	Class 'E' Concrete, Abutments		252	
S-1	122	Cu.Yds.	Class 'E' Concrete, Footings (Piers)			122
S-4	170395	Lbs.	Reinforcing Steel	107458	19530	43407
S-7	571,400	Lbs.	Structural Steel	571400		
S-8	571,400	Lbs.	Field Painting of Structural Steel	571400		
S-14	1021.84	Lin.Ft.	Railing, Type A, Aluminum Rail & Support & Parapet	941.50	80.34	
S-3	21	Lin.Ft.	Waterproofing Premoulded Sealing Strip		21	
S-16	Lump Sum	L.S.	First Test Pile			
S-18	2900	Lin.Ft.	Steel Bearing Piles 10 BP42		2900	
S-18	3960	Lin.Ft.	Steel Bearing Piles 12 BP53			3960
S-29	8	Each	Scuppers including supports	8		
S-29	46	Cu.Yds.	Porous Backfill		46	
I-10	875	Sq.Yds.	Crushed aggregate slope protection			
S-101	463	Cu.Yds.	Water Reducing Set Retarding Admixture	463		



TYPICAL
ABUTMENT RAILING ELEVATION

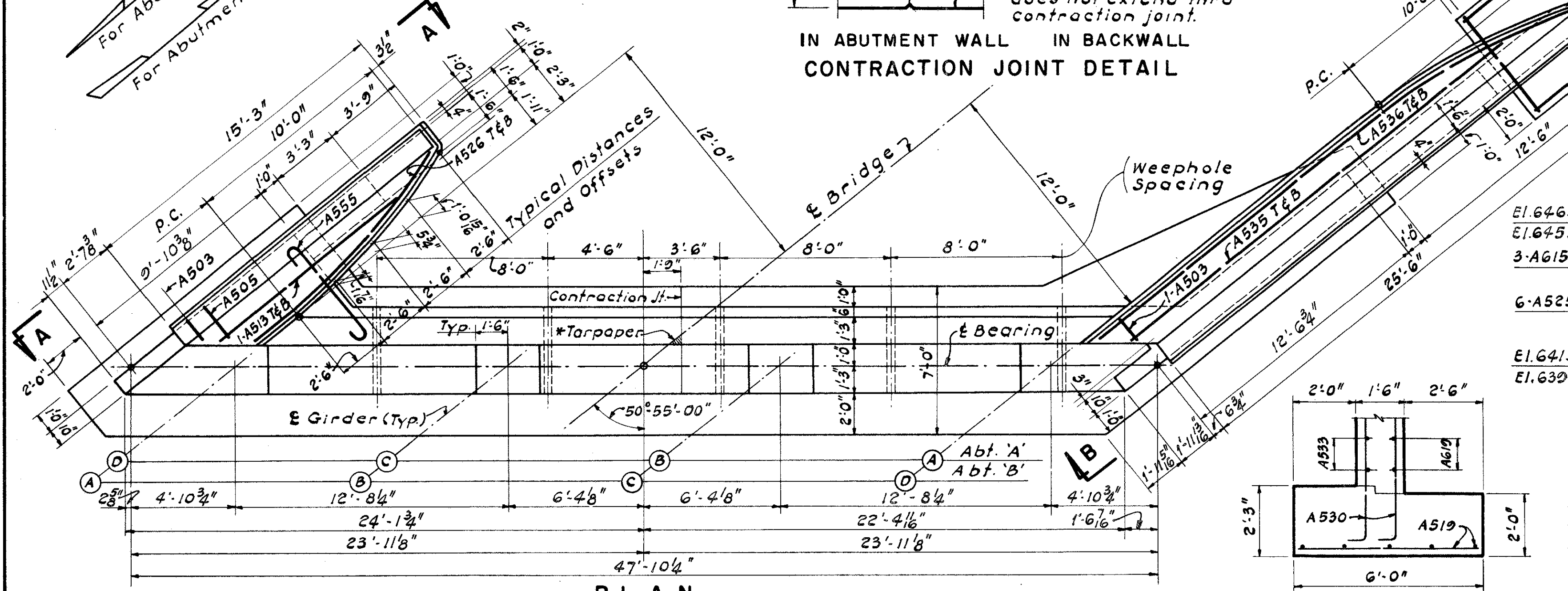
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Premoulded sealing strip
in 13"x3/4" recess as per Item 5-3
extending from top of footing
to bottom of approach slab

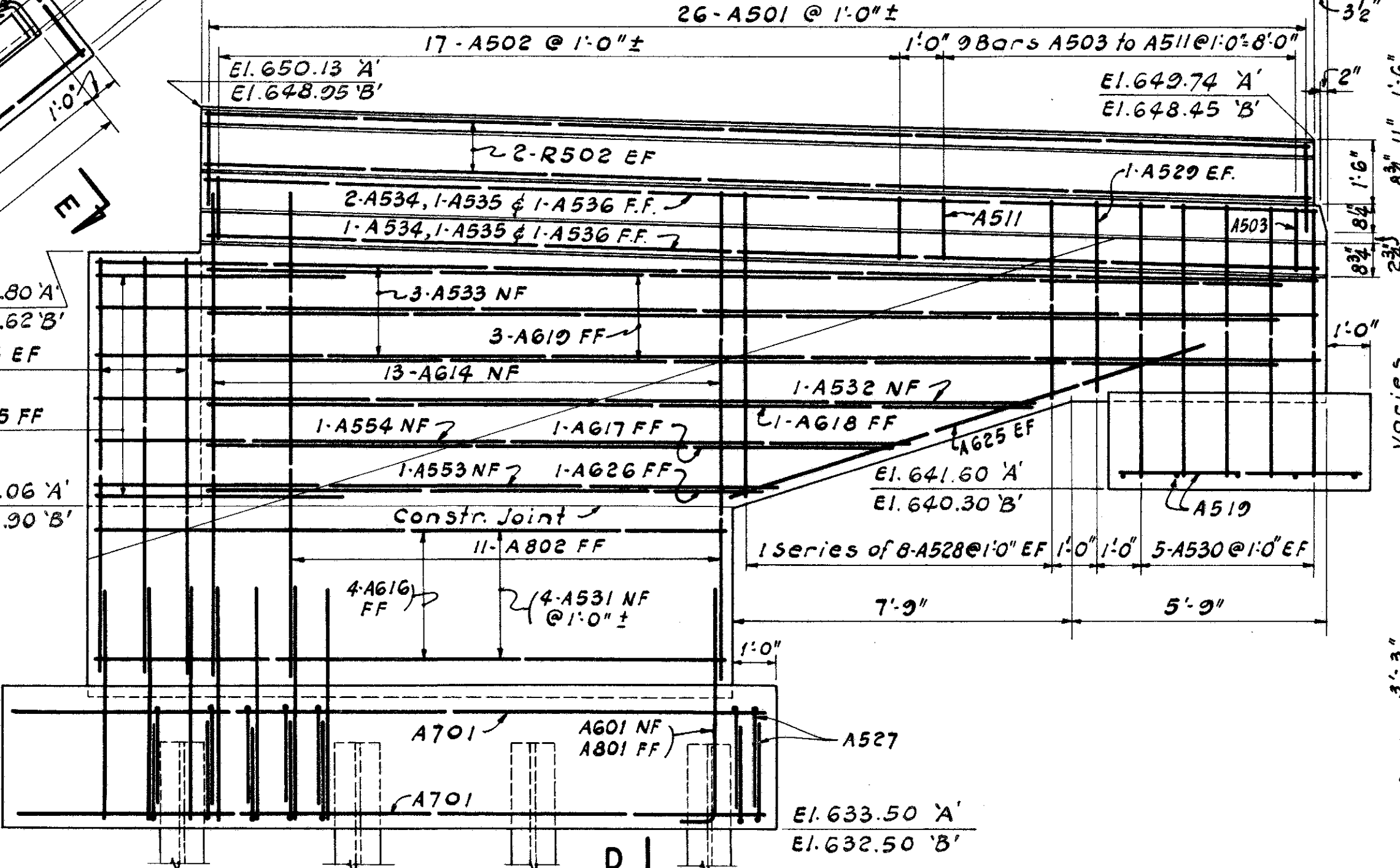


FED. NO. DIVISION	STATE	PROJECT	216
2	OHIO		

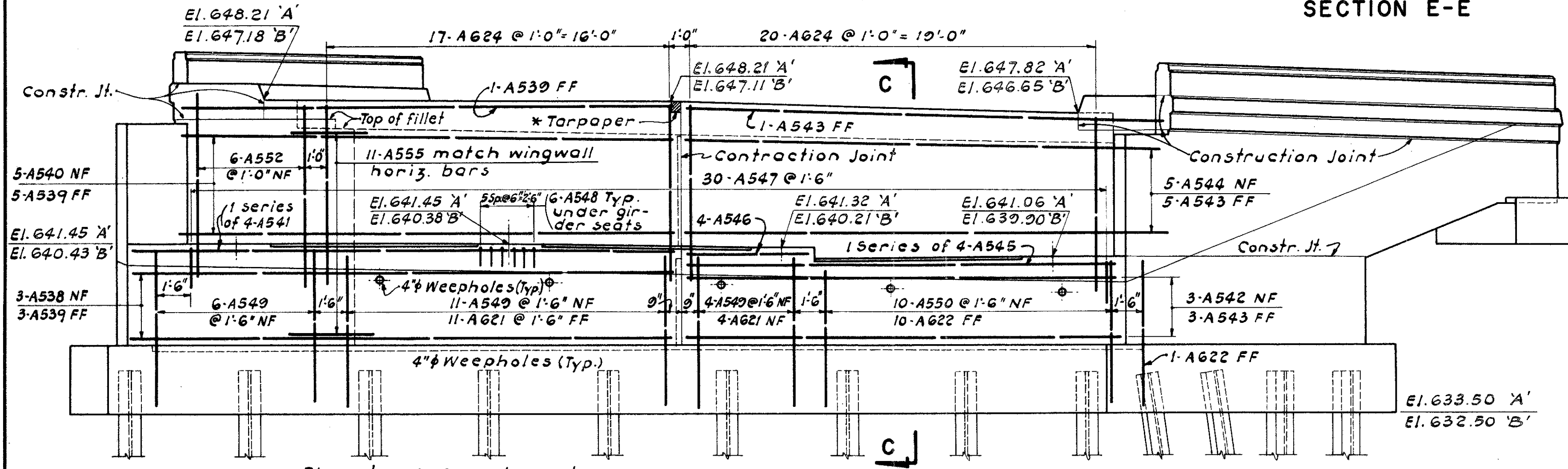
WOOD COUNTY
WOO-75-26.84



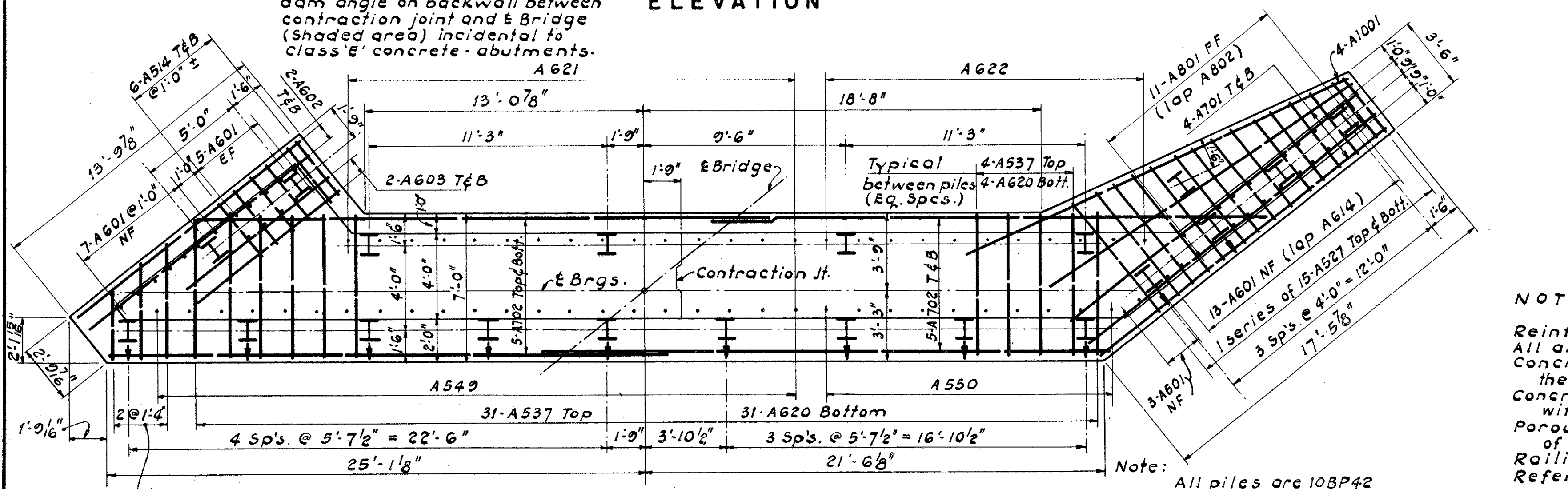
PLAN



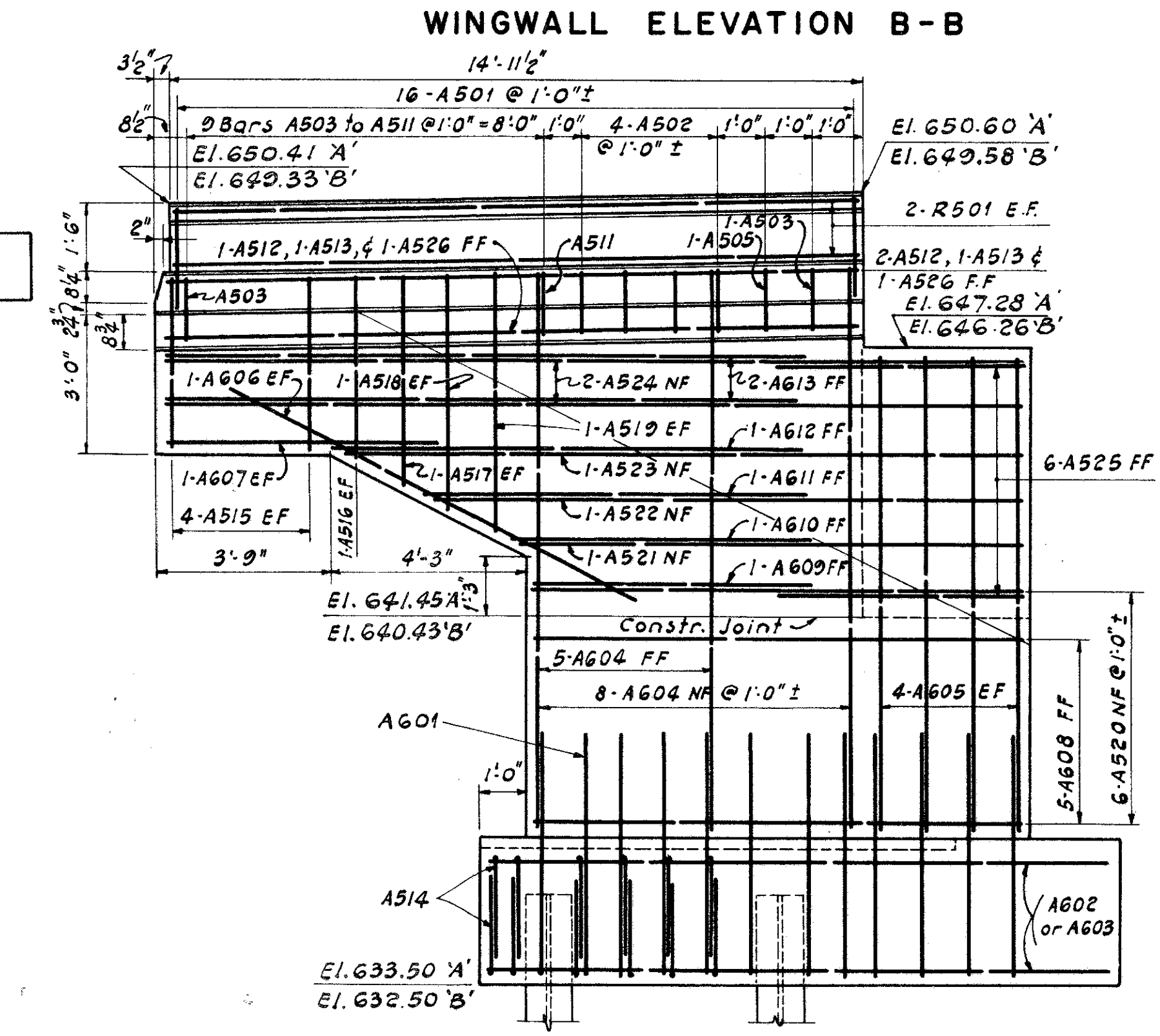
SECTION E-E



ELEVATION

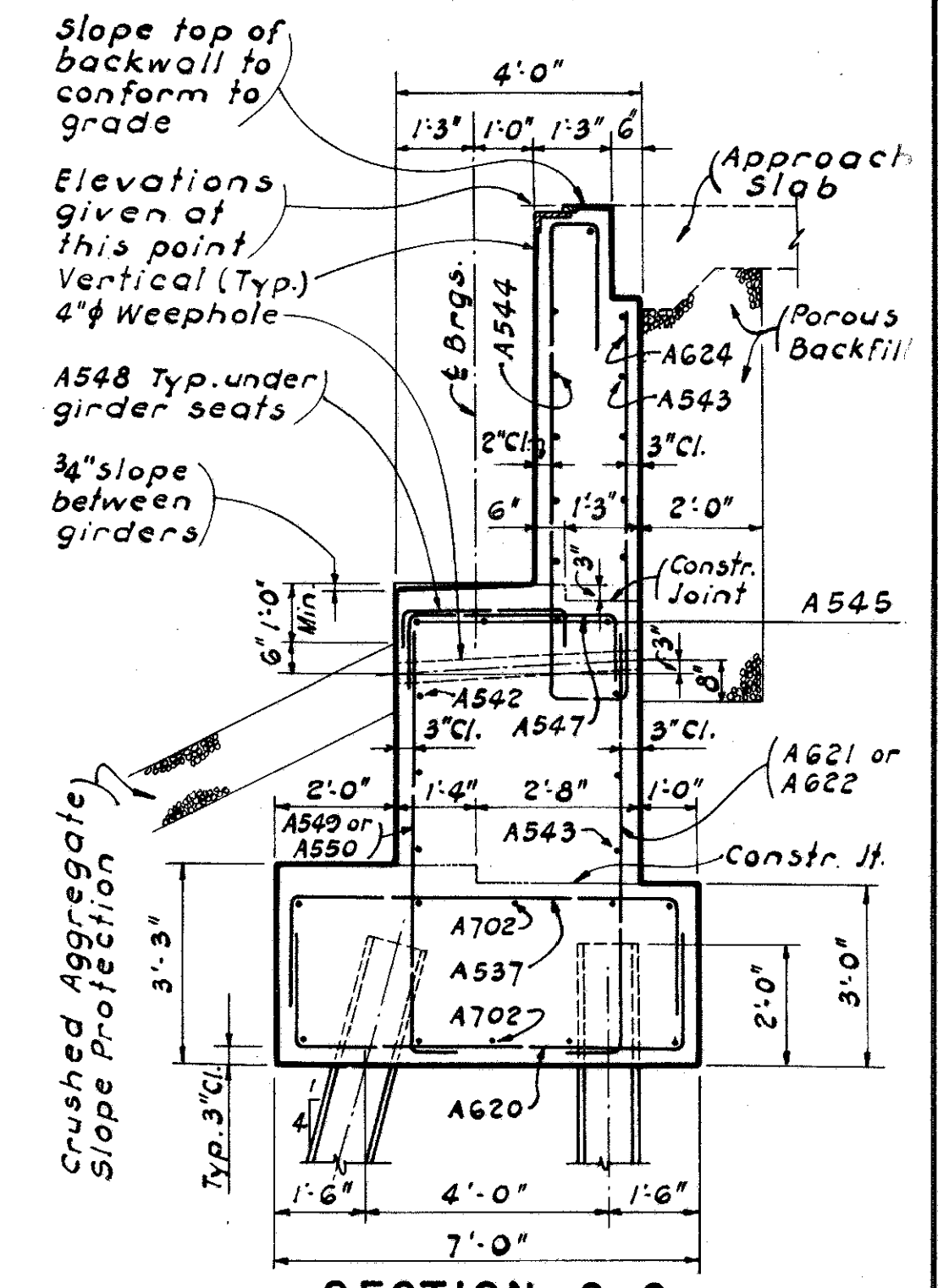


FOOTING PLAN



WINGWALL ELEVATION B-B

WINGWALL ELEVATION A-A



SECTION D-D

NOTES:

Reinforcing steel shall be 2" clear from face of concrete unless otherwise shown.

All abutment concrete shall be Class 'E'.

Concrete above bridge seat construction joints shall not be placed until after the steel work is erected, but shall be placed before pouring the deck slab.

Concrete and reinforcing steel above parapet construction joints are included with railing for payment.

Porous backfill 2 ft. thick full length of abutment shall extend up to the underside of the approach slab.

Railing not shown, see 'General Plan and Elevation' for railing post spacing.

Refer to Std. Dwg. SD-1-63 Sheets 2 & 4 dated 11-12-63 for Details of End Dam.

BARSTOW & MULLIGAN
ENGINEERS
NEW YORK, N.Y.

ABUTMENTS

BRIDGE NO. WOO. 75 - 2993
LIME CITY ROAD OVER I-75

WOOD COUNTY
SEC. WOO-75-26.84 STA. 315 + 79.32

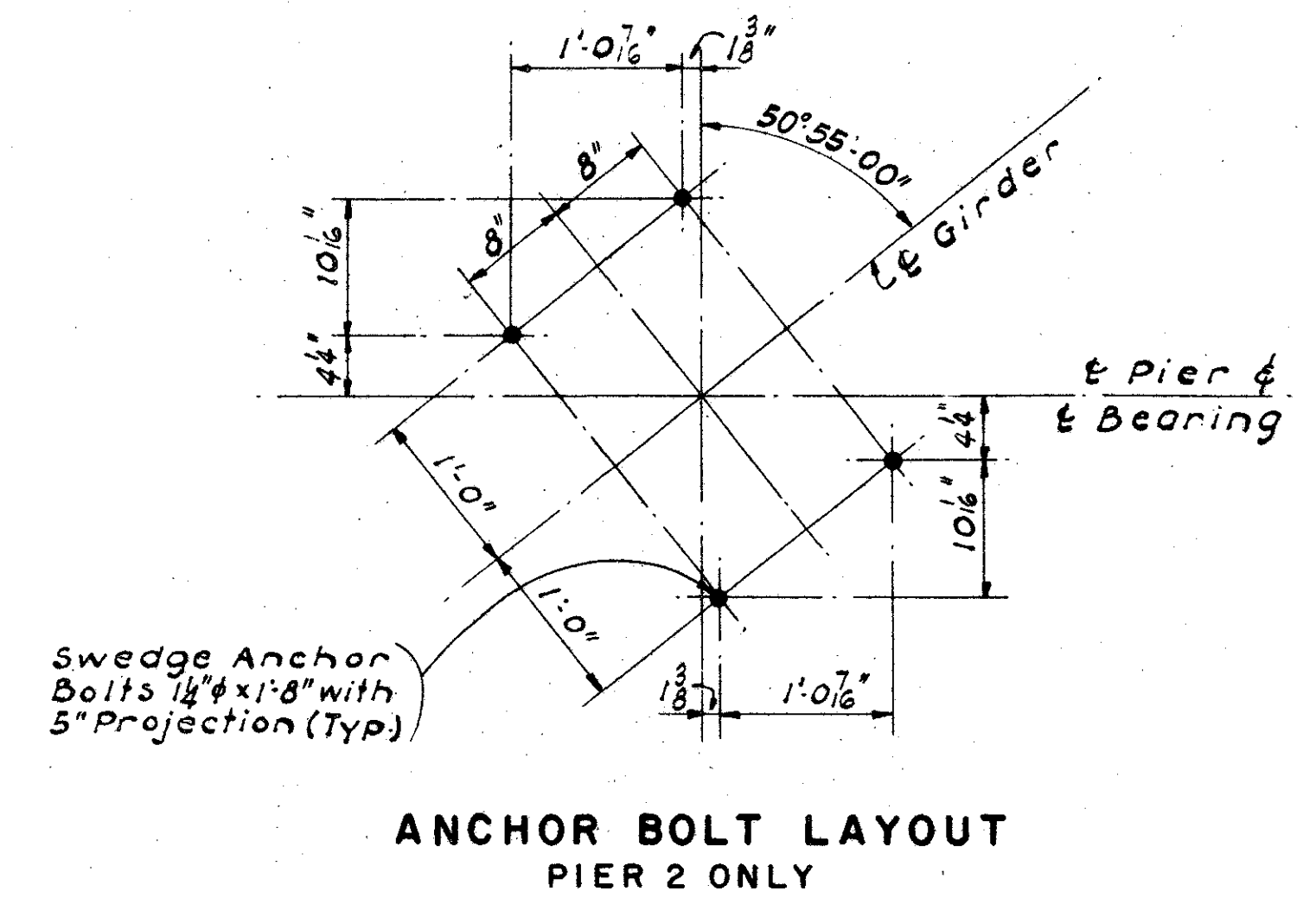
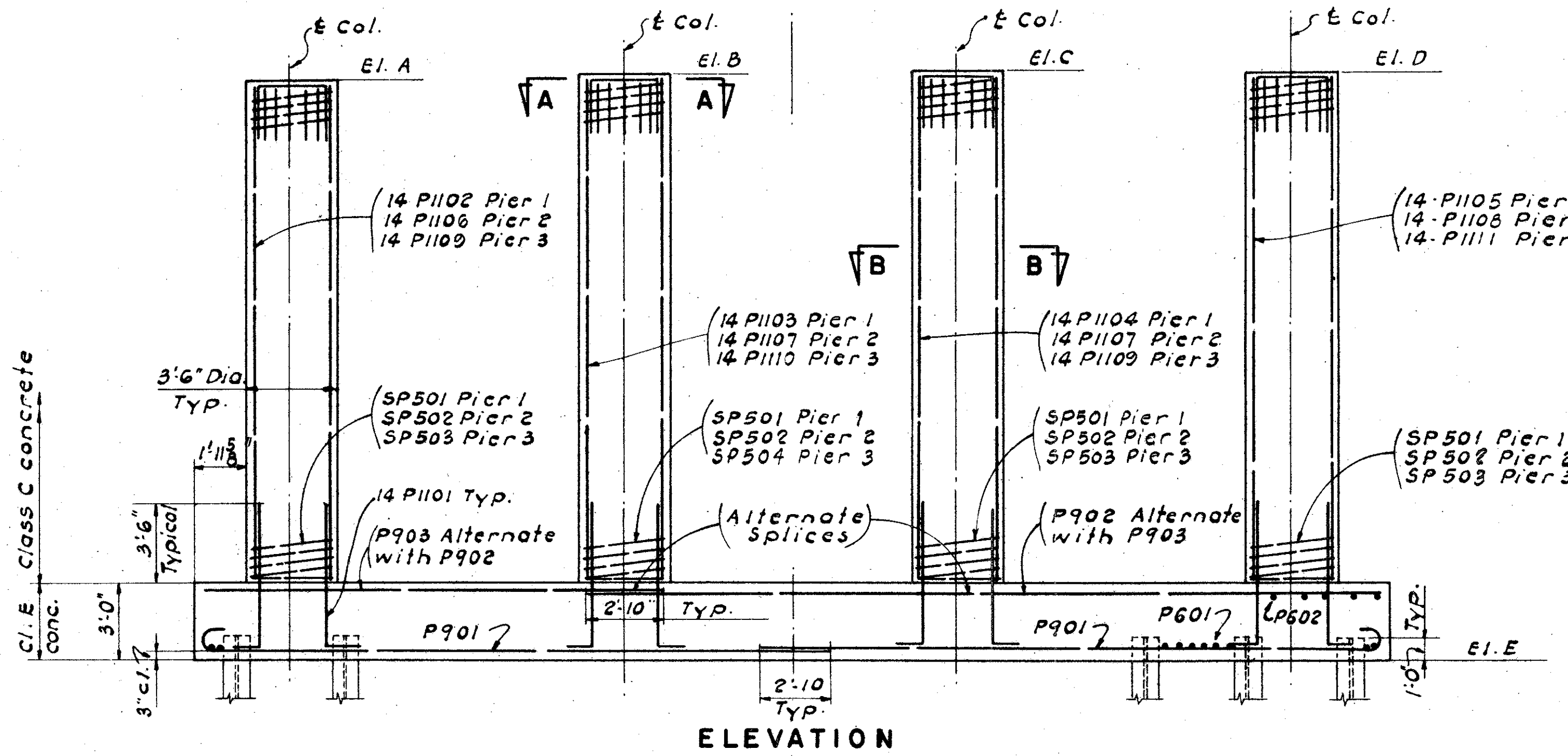
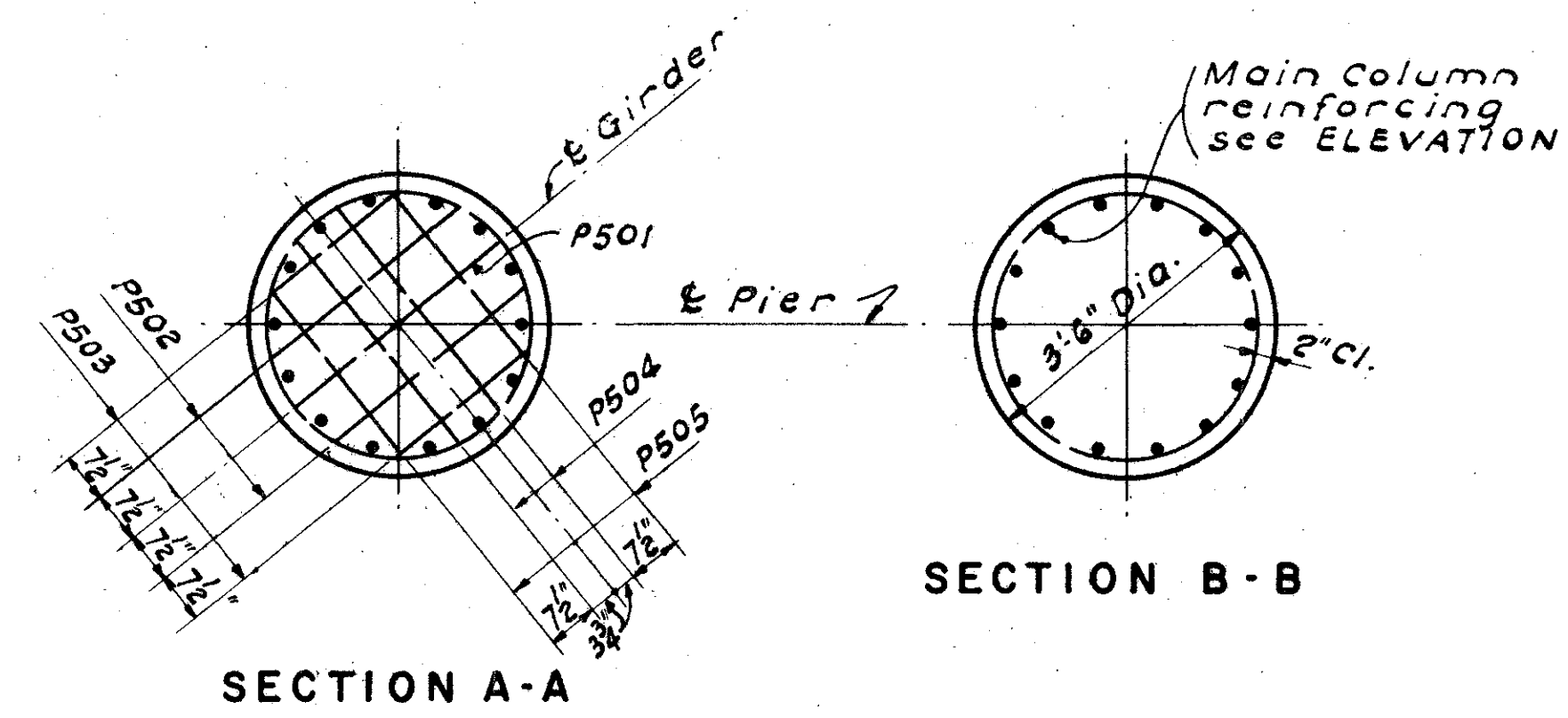
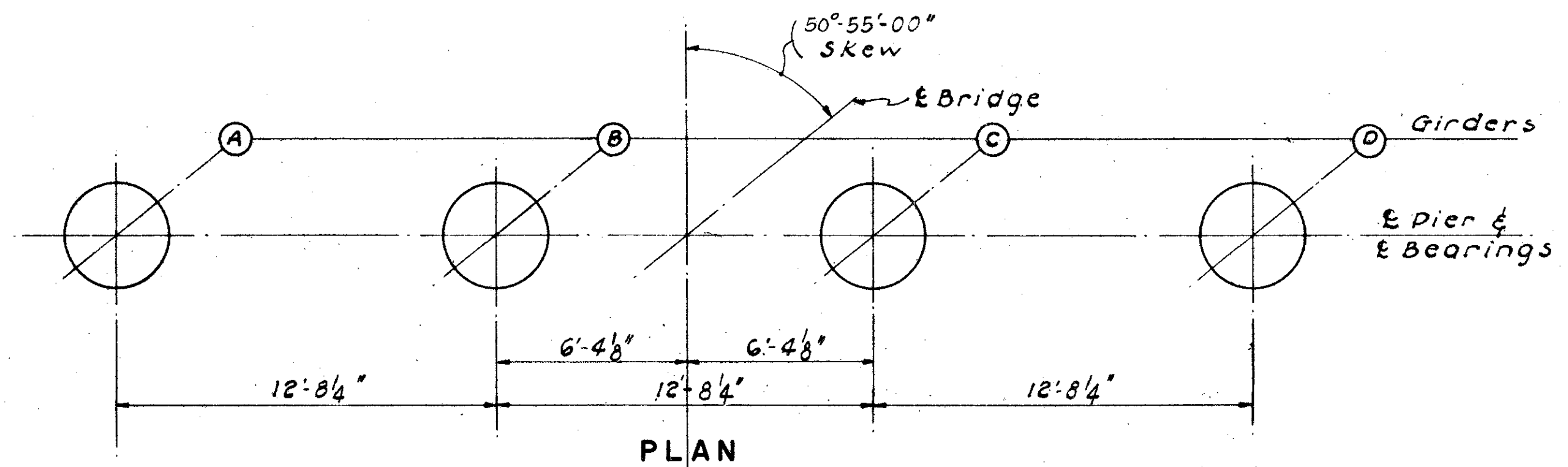
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LK	AMP	TAB	LK	LK	5-64	

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MAY 04 1970

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

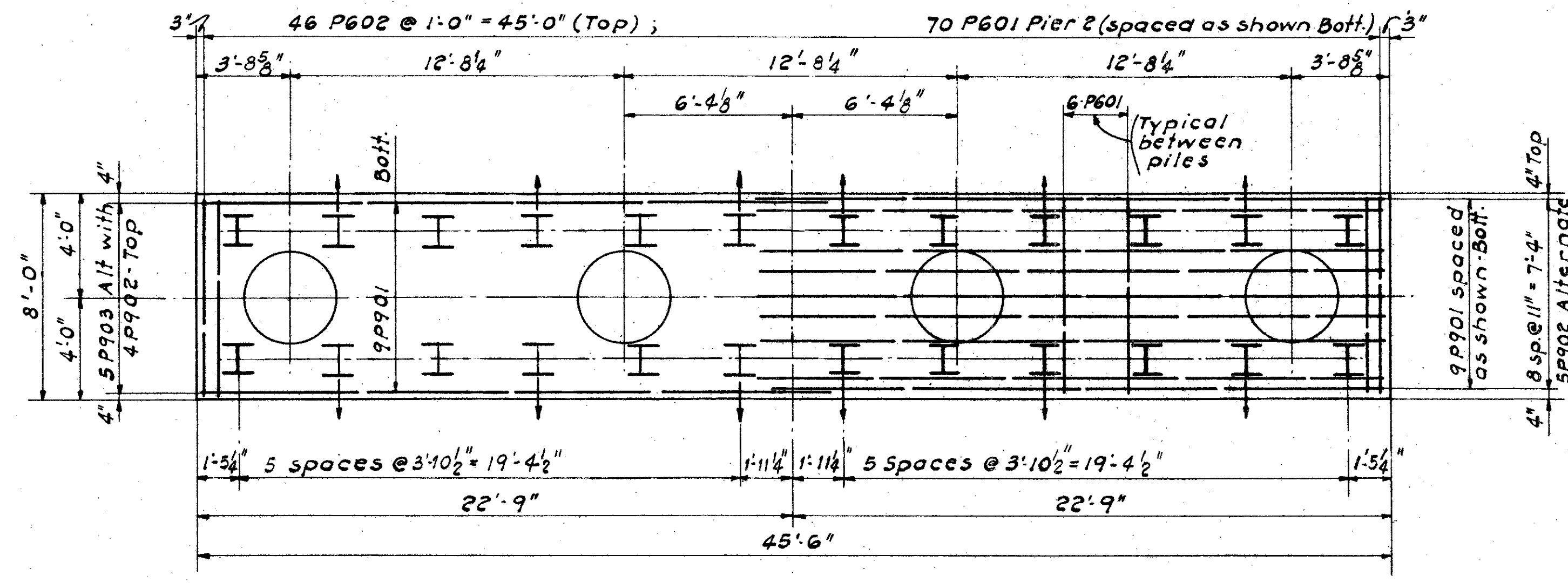
WOOD COUNTY
WOO-75-26.84

217
10



NOTES:

- All battered piles are battered 1:4.
- All piles are 12BPS3.
- Pile spacings are measured along bottom of footings.
- Special care shall be taken in placing reinforcing steel in the bridge seats at Pier 2 so that it will not interfere with the drilling of anchor bolt holes.
- Piers 1, 2 & 3 are similar except as noted.



LOCATION	A	B	C	D	E
Pier 1	641.35	641.57	641.63	641.54	617.50
Pier 2	641.77	641.87	641.85	641.70	623.00
Pier 3	640.99	641.03	640.92	640.65	618.50

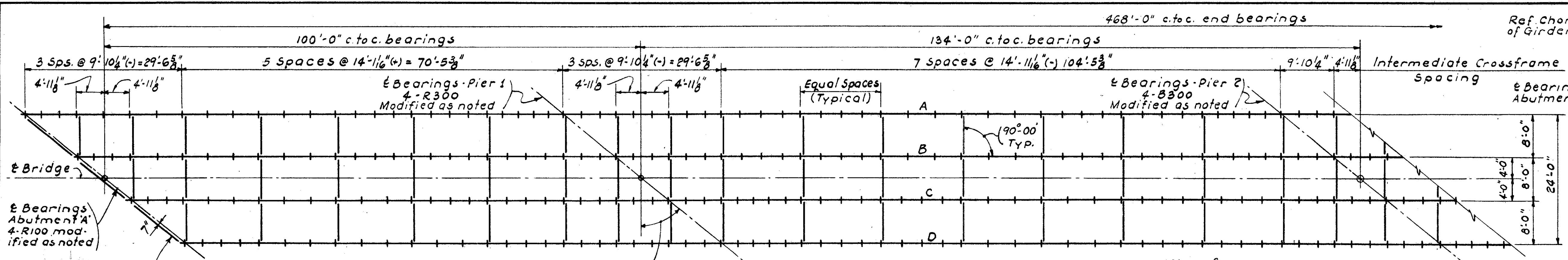
Note: Column dowels not shown in Footing Plan to be placed to match main column reinforcing in the same circle.

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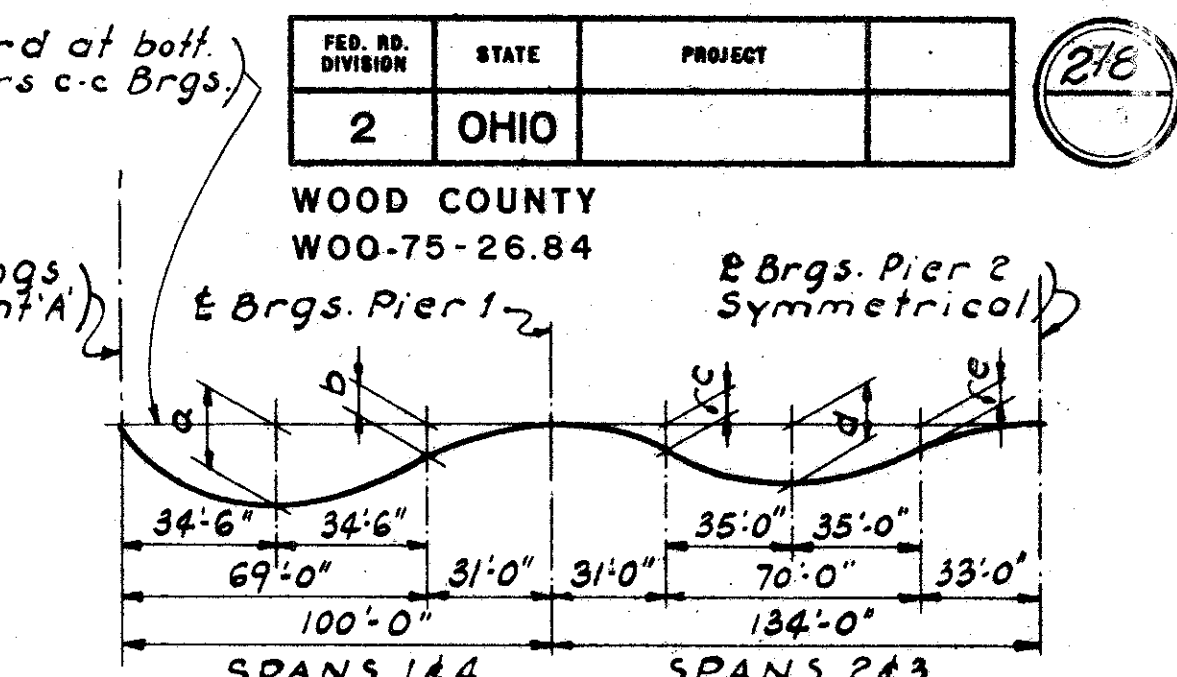
PIERS

BRIDGE NO. WOO. 5-2993
LIME CITY ROAD OVER I-75
WOOD COUNTY
SEC. WOO-75-26.84 STA. 315+79.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
LK	MDR	EFV	LK	LK	5-64	

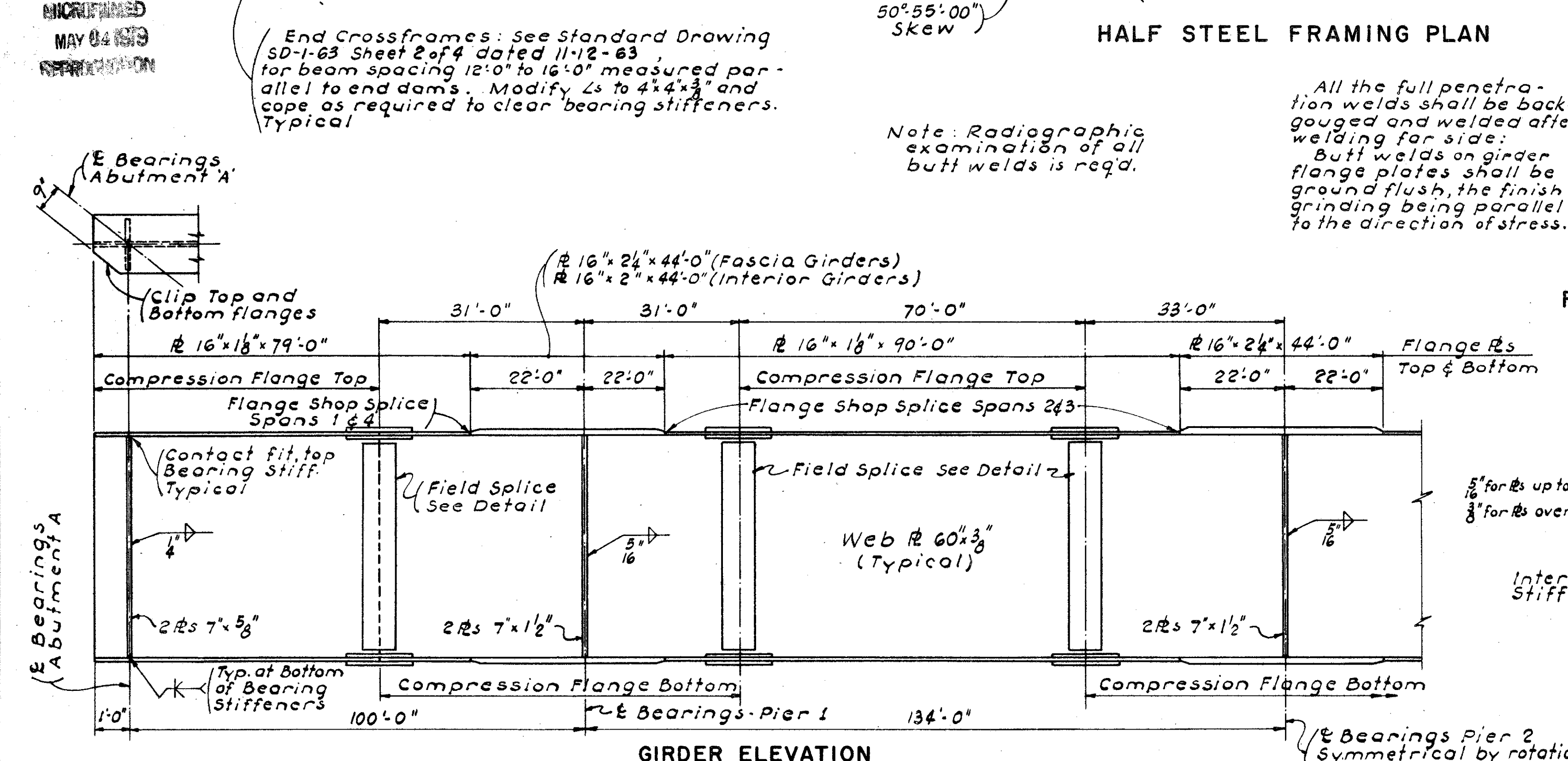


HALF STEEL FRAMING PLAN



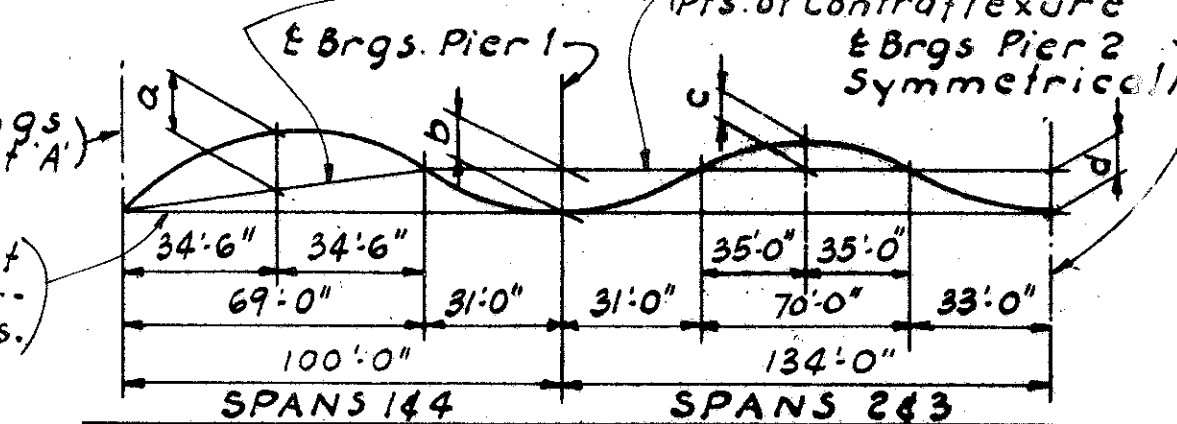
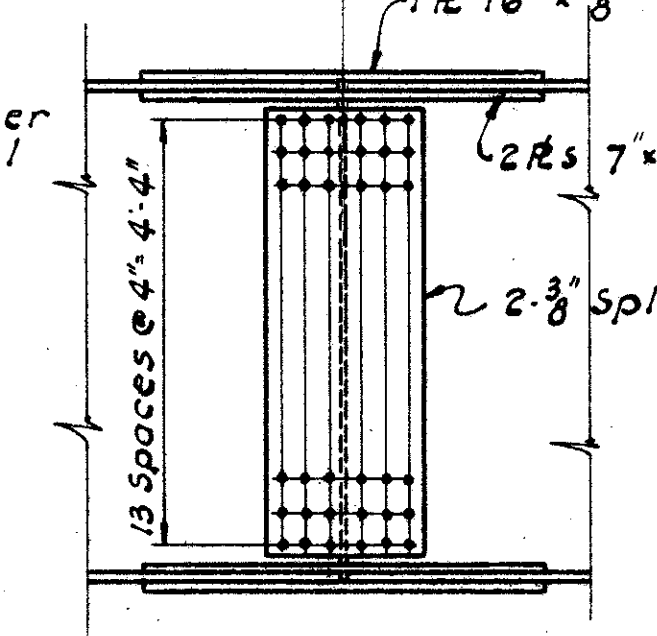
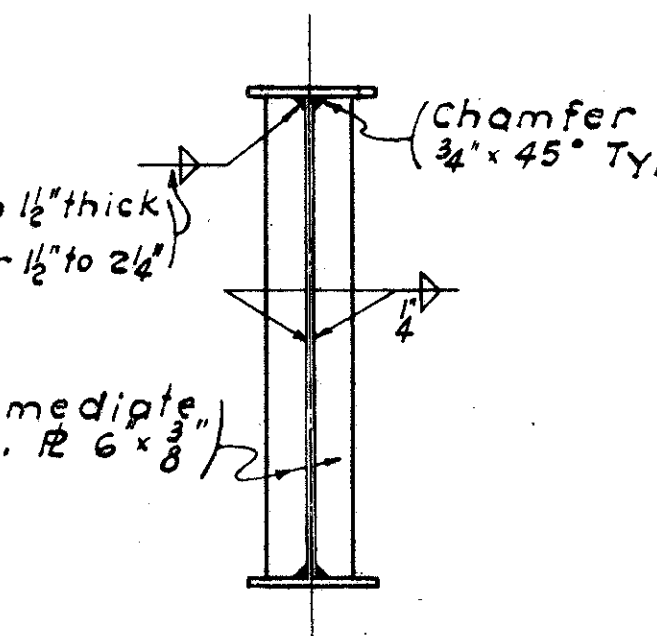
DEFLECTIONS										
GIRDER SPAN POINT	FASCIA			INTERIOR						
	1 & 4	2 & 3	1 & 4	2 & 3	1 & 4	2 & 3				
Due to weight of steel	.17	.09	.14	.27	.13	.18	.10	.16	.29	.14
Due to remaining Dead Load	.78	.41	.65	1.27	.62	.82	.29	.46	.86	.42
TOTAL	.95	.50	.79	1.54	.75	.99	.39	.62	1.15	.56

Note: All deflections are given in decimals of an inch



GIRDER ELEVATION

DETAIL FLANGE SHOP SPLICE



CAMBERS				
POINT	FASCIA		INTERIOR	
	a	b	c	d
Due to Deflection	3/4"	5/8"	3/4"	3/4"
Due to Vertical Curve	1/2"	3/8"	1/2"	1/2"
TOTAL	1 1/4"	1 1/8"	1 1/4"	1 1/4"
Due to Deflection	1/2"	1/2"	1/2"	1/2"
Due to Vertical Curve	1/2"	3/8"	1/2"	1/2"
TOTAL	1"	5/8"	1"	0"

NOTES:

Refer to Standard Drawing SD-1-63. Sheets 2 & 4 dated 11-12-63 for details of end dam.

Refer to Standard Drawing SD-1-63 Shs. 3 & 4 dated 11-12-63 for gutter, scupper and curb plate details.

Refer to Standard Drawing RB-1-55 revised 2-2-59 for details of rockers and bolsters with modification of the 'K' dimension to 14" for bearings at abutments & piers.

Interm. Stiffs. shall not be welded to the flanges but shall have contact bearing with the compression flange, and may have a clearance of not more than 1/8" from the tension flange. In shop painting care shall be taken to make certain that paint is forced through from one side to the other of the 1/8" opening.

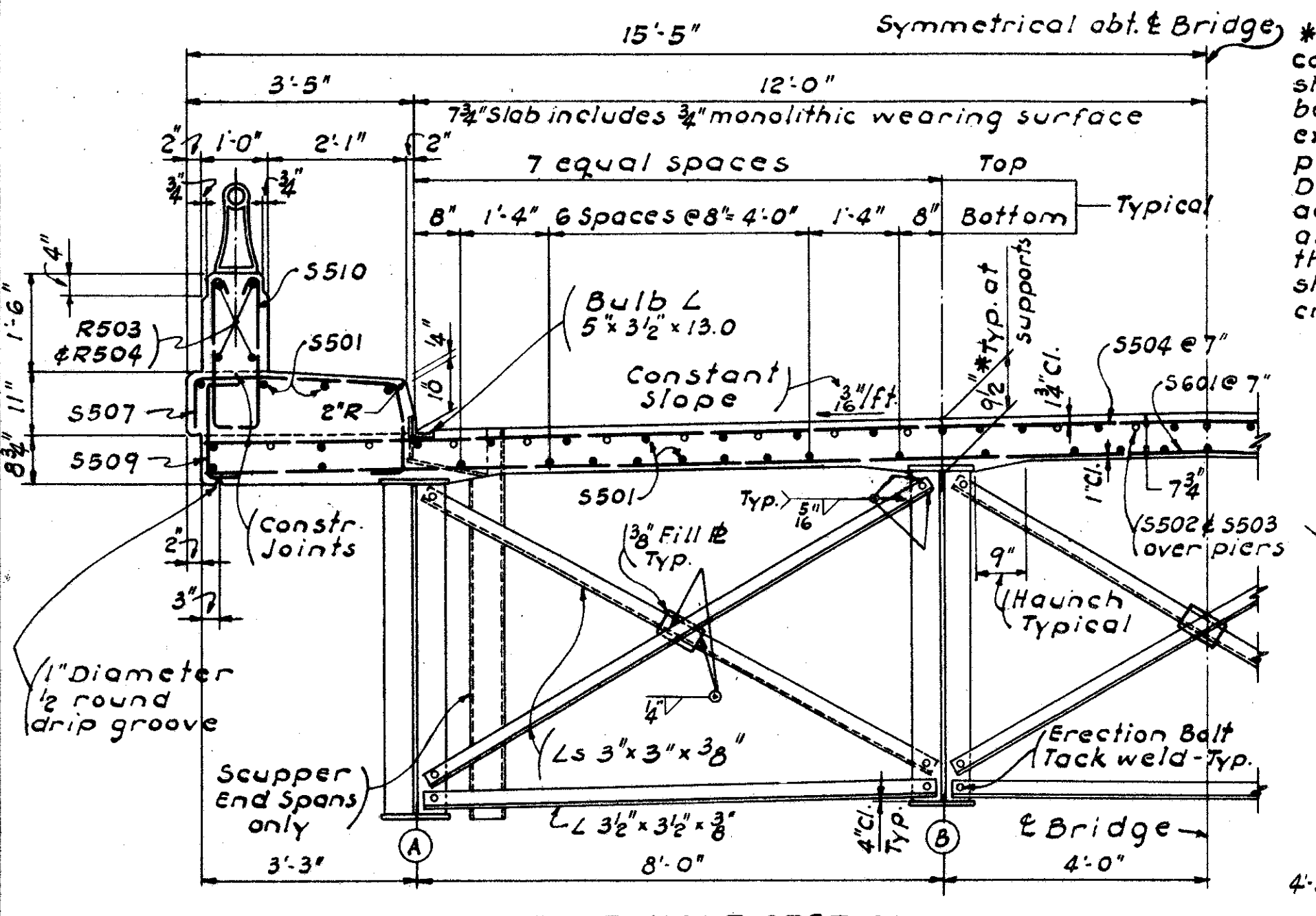
If additional shop splices are necessary, their location and details shall be submitted to the Director for approval prior to ordering material.

* Camber ordinates due to vertical curve subtract from ordinates due to deflection at points b & d.

Concrete and horizontal reinforcing steel above parapet construction joints included with Bridge Railing for payment.

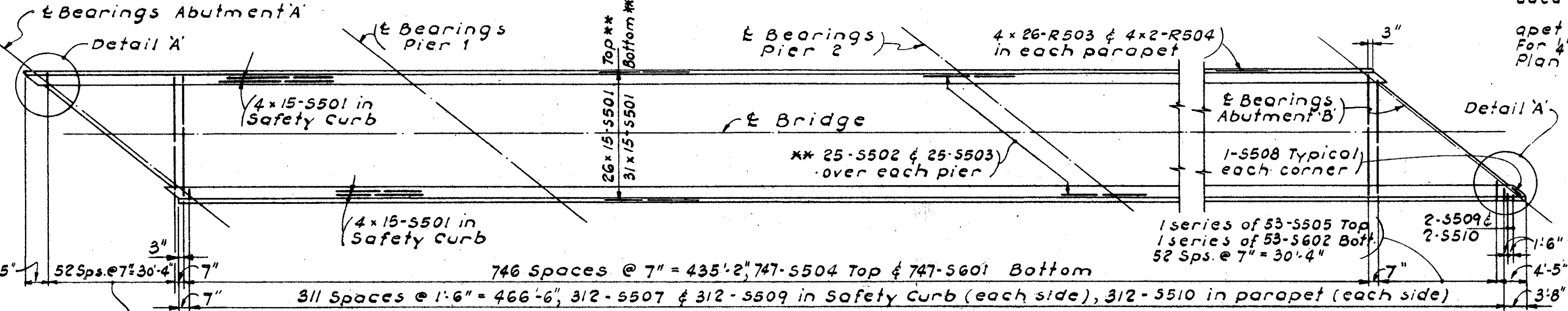
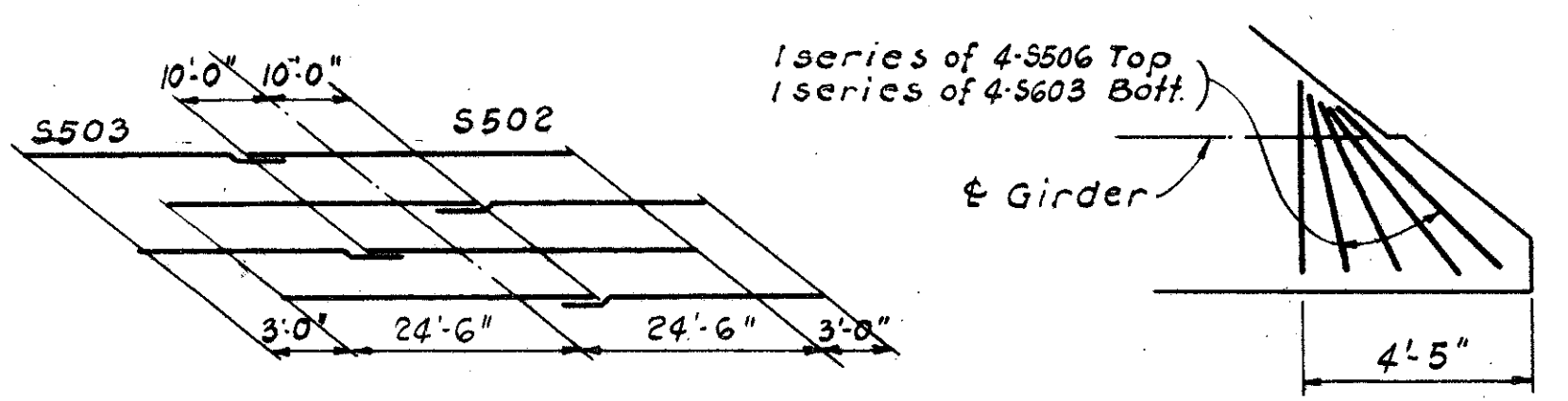
Vertical stirrups (S510 bars) in parapet to be placed to clear 4" expansion joints. For 4" expansion joint spacing see General Plan & Elevation.

Concrete shall be Class C.



TRANSVERSE HALF SECTION

DIAGRAM SHOWING STAGGER OF S502 & S503 BARS OVER PIERS



DECK PLAN

Note A: Deduct volume of encased steel plates as per Section S-1.25 Construction & Material Specs.

** Bars spaced as shown in Transverse Half Section

BARSTOW & MULLIGAN ENGINEERS NEW YORK, N.Y.

SUPERSTRUCTURE

BRIDGE NO. WOO 75-2993
LIME CITY ROAD OVER I-75

WOOD COUNTY SEC. WOO-75-26.84 STA. 315+19.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
LK	NP	FM	LK	LK	5-64	

FED. DIVISION	STATE	PROJECT
2	OHIO	

ABUTMENTS †

MARK	TOTAL NUMBER	LENGTH	TYPE	DIMENSION						WEIGHT POUNDS	
				A	B	C	D	E	F		
A 1001	4	20'-0"	STR.								344
A 801	11	6'-5"	1	5'-6"	1'-1"						188
A 802	11	11'-6"	STR.								338
A 701	8	17'-2"	STR.								281
A 702	20	26'-8"	STR.								1021
A 601	33	5'-11"	1	5'-3"	9"						293
A 602	4	13'-4"	STR.								80
A 603	4	8'-6"	STR.								51
A 604	13	11'-11"	STR.								233
A 605	8	10'-2"	STR.								122
A 606	2	9'-2"	STR.								29
A 607	2	7'-0"	STR.								21
A 608	5	9'-6"	STR.								71
A 609	1	6'-0"	STR.								9
A 610	1	6'-6"	STR.								10
A 611	1	8'-3"	STR.								12
A 612	1	10'-0"	STR.								15
A 613	2	13'-2"	STR.								41
A 614	13	11'-3"	STR.								220
A 615	6	9'-7"	STR.								86
A 616	4	14'-2"	STR.								85
A 617	1	15'-8"	STR.								24
A 618	1	18'-10"	STR.								28
A 619	3	24'-3"	STR.								109
A 620	31	10'-4"	3	6'-6"	2'-0"	2'-0"					481
A 621	15	7'-8"	1	7'-0"	9"						173
A 622	11	7'-4"	1	6'-8"	9"						121
A 623	3	7'-1" to 9'-1"	3	3'-3"	2'-0"	2'-0"	1 series of 3, vary by 1'-0"				36
A 624	37	20'-4"	2	7'-2"	1'-4"	8'-6"	11"	2'-2"			1130
A 625	2	11'-6"	STR.								35
A 626	1	12'-6"	STR.								19
A 501	42	5'-8"	4	3"	2'-2"	5"					248
A 502	21	8'-4"	5	6"	2'-11"	6"	0"	2'-11"	1'-1"		183
A 503	4	5'-0"	5	6"	1'-3"	6"	0"	1'-3"	1'-1"		21
A 504	2	5'-8"	5	6"	1'-7"	6"	0"	1'-7"	1'-1"		12
A 505	3	6'-3"	5	6"	1'-10 1/2"	6"	0"	1'-10 1/2"	1'-1"		20
A 506	2	6'-2"	5	6"	2'-1 1/2"	6"	0"	2'-1 1/2"	1'-1"		14
A 507	2	7'-2"	5	6"	2'-4"	6"	0"	2'-4"	1'-1"		15
A 508	2	7'-7"	5	6"	2'-6 1/2"	6"	0"	2'-6 1/2"	1'-1"		16
A 509	2	7'-10"	5	6"	2'-8"	6"	0"	2'-8"	1'-1"		16
A 510	2	8'-1"	5	6"	2'-9 1/2"	6"	0"	2'-9 1/2"	1'-1"		17
A 511	2	8'-3"	5	6"	2'-10 1/2"	6"	0"	2'-10 1/2"	1'-1"		17
A 512	3	14'-2"	STR.								46
A 513	2	11'-2"	STR.								23
A 514	12	6'-10"	3	3'-0"	2'-0"	2'-0"					86
A 515	8	3'-6"	STR.								29
A 516	2	4'-0"	STR.								8
A 517	2	4'-6"	STR.								9
A 518	2	5'-0"	STR.								10
A 519	12	5'-6"	STR.								69
A 520	6	10'-6"	STR.								66
A 521	1	11'-0"	STR.								11
A 522	1	12'-2"	STR.								13
A 523	1	14'-6"	STR.								15
A 524	2	18'-6"	STR.								39
A 525	12	5'-3"	STR.								66
A 526	2	12'-5"	7	2'-2"	12'-2"	1'-11"	28'-0"				26
A 527	30	6'-10" to 10'-4"	3	3'-0"	2'-0"	2'-0"	2 series of 15, vary by 3"				269
A 528	16	4'-4" to 6'-8"	STR.				2 series of 8, vary by 4"				92
A 529	2	4'-3"	STR.								9
A 530	10	6'-7"	1	6'-1"	7"						69

SPIRAL NOTES

The length shown in the steel list for the spiral bars is approximately the distance from the top of the footing to the bottom of the pier cap.
 The "No. of Turns" shown in the steel list for the spiral bars is the length divided by the Pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number.
 Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S4.
 1/2 closed coils shall be provided at ends of each spiral unit.
 Four steel channel, tee or angle spacers, weighing approximately 0.68 lbs. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lbs. per lin. ft. will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

ABUTMENTS (CONT.)

MARK	TOTAL NUMBER	LENGTH	TYPE	DIMENSION						WEIGHT POUNDS	
				A	B	C	D	E	F		
A 531	4	14'-2"	STR.								59
A 532	1	21'-4"	STR.								22
A 533	3	27'-8"	STR.								87
A 534	3	25'-0"	STR.								78
A 535	2	22'-2"	STR.								47
A 536	2	27'-5"	7	17'-2"	27'-2"	1'-11"	28'-0"				57
A 537	31	10'-4"	3	6'-6"	2'-0"	2'-0"					334
A 538	3	25'-6"	STR.								80
A 539	9	21'-3"	STR.								199
A 540	5	22'-8"	STR.								118
A 541	4	21'-3" to 25'-6"	STR.				1 series of 4, vary by 1'-5"				98
A 542	3	20'-4"	STR.								64
A 543	9	24'-4"	STR.								228
A 544	5	23'-0"	STR.								120
A 545	4	20'-4" to 24'-4"	STR.				1 series of 4, vary by 1'-4"				93
A 546	4	5'-9"	STR.								24
A 547	30	7'-4"	3	3'-6"	2'-0"	2'-0"					229
A 548	24	3'-7"	3	2'-5"	8"	8"					90
A 549	21	7'-6"	1	7'-0"	7"						164
A 550	10	7'-2"	1	6'-8"	7"						75
A 551	3	7'-1" to 9'-1"	3	3'-3"	2'-0"	2'-0"	1 series of 3, vary by 1'-0"				25
A 552	6	8'-6"	STR.								53
A 553	1	15'-0"	STR.								16
A 554	1	18'-2"	STR.								19
A 555	11	6'-8"	8	5'-6"	7"	5 1/4"					76
* R 501	4	14'-7"	STR.								
* R 502	4	24'-10"	STR.								
TOTAL WEIGHT OF ABUTMENT A = 2765											
TOTAL WEIGHT OF ABUTMENT B = 2765											
GRAND TOTAL = 19530											

PIERS

MARK	TOTAL NUMBER	LENGTH	TYPE	DIMENSIONS			NO. REQUIRED EACH PIER			WEIGHT POUNDS
				A	B	C	1	2	3	
P 1101	168	7'-3"	1	6'-3"	1'-3"		56	56	56	6471
P 1102	14	19'-6"	STR.				14			1450
P 1103	14	19'-9"	STR.				14			1469
P 1104	14	19'-10"	STR.				14			1475
P 1105	14	19'-10"	STR.				14			1463
P 1106	14	15'-5"	STR.					14		1147
P 1107	28	15'-7"	STR.					28		2318
P 1108	14	15'-4"	STR.					14		1141
P 1109	28	19'-1"	STR.						28	2839
P 1110	14	19'-3"	STR.						14	1432
P 1111	14	18'-10"	STR.						14	1401
P 201	54	25'-2"	17	23'-11"	1'-3"	11 1/4"	18	18	18	4621
P 202	27	17'-7"	STR.				9	9	9	1614
P 203	27	30'-3"	STR.				9	9	9	2777
P 601	210	8'-10"	8	7'-6"	8"	6"	70	70	70	2786
P 602	138	7'-6"	STR.				46	46	46	1555
P 501	12	5'-4"	3	3'-0"	1'-3"	1'-3"	4	4	4	67
P 502	24	5'-0"	3	2'-8"	1'-3"	1'-3"	8	8	8	125
P 503	24	4'-0"	3	1'-8"	1'-3"	1'-3"	8	8	8	100
P 504	24	5'-3"	3	2'-11"	1'-3"	1'-3"	8	8	8	131
P 505	24	4'-8"	3	2'-4"	1'-3"	1'-3"	8	8	8	117
TOTAL WEIGHT OF PIERS INCLUDING SPIRALS = 43407										

SPIRAL BARS 5/8"

MARK	TOTAL NUMBER	LENGTH	PITCH	NO. OF TURNS	CORE DIA.	WEIGHT POUNDS
SP 501	4	19'-6"	4 1/2"	55	3'-2"	2496
SP 502	4	15'-4 1/2"	4 1/2"	44	3'-2"	1995
SP 503	3	18'-9"	4 1/2"	53	3'-2"	1804
SP 504	1	19'-1 1/2"	4 1/2"	54		613

DECK

MARK	TOTAL NUMBER	LENGTH	TYPE	DIMENSION						WEIGHT POUNDS	
				A	B	C	D	E	F		
S 501	975	32'-10"	STR.								33389
S 502	75	34'-6"	STR.								2699
S 503	75	19'-1"	STR.								1493
S 504	747	30'-0"	STR.								23374
S 505	106	28'-5" to 3'-9"	STR.	(2 series of 53 vary by 5 1/6")						1778	
S 506	8	3'-9" to 5'-6"	STR.	(2 series of 4 vary by 7")						39	
S 507	624	5'-0"	12	7"	2'-11"	6"	10"	6"			3254
S 508	4	5'-10"	12	7"							