

STATE OF OHIO DEPARTMENT OF HIGHWAYS

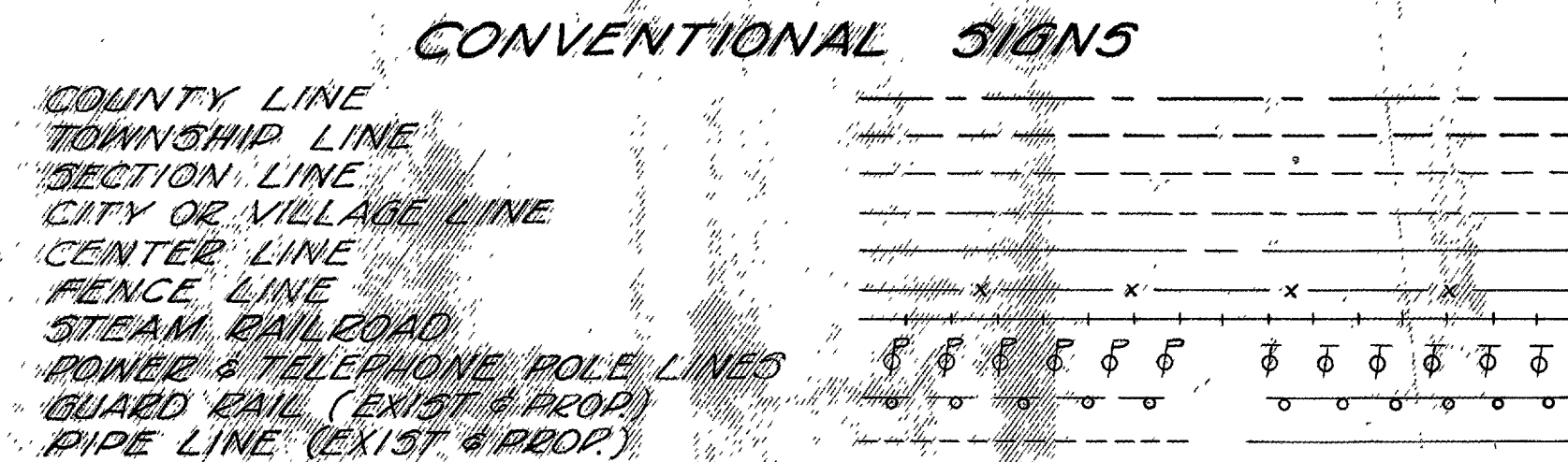
FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO	F-303 (6)	1950

F-303 (6)

WAY-30-17.03

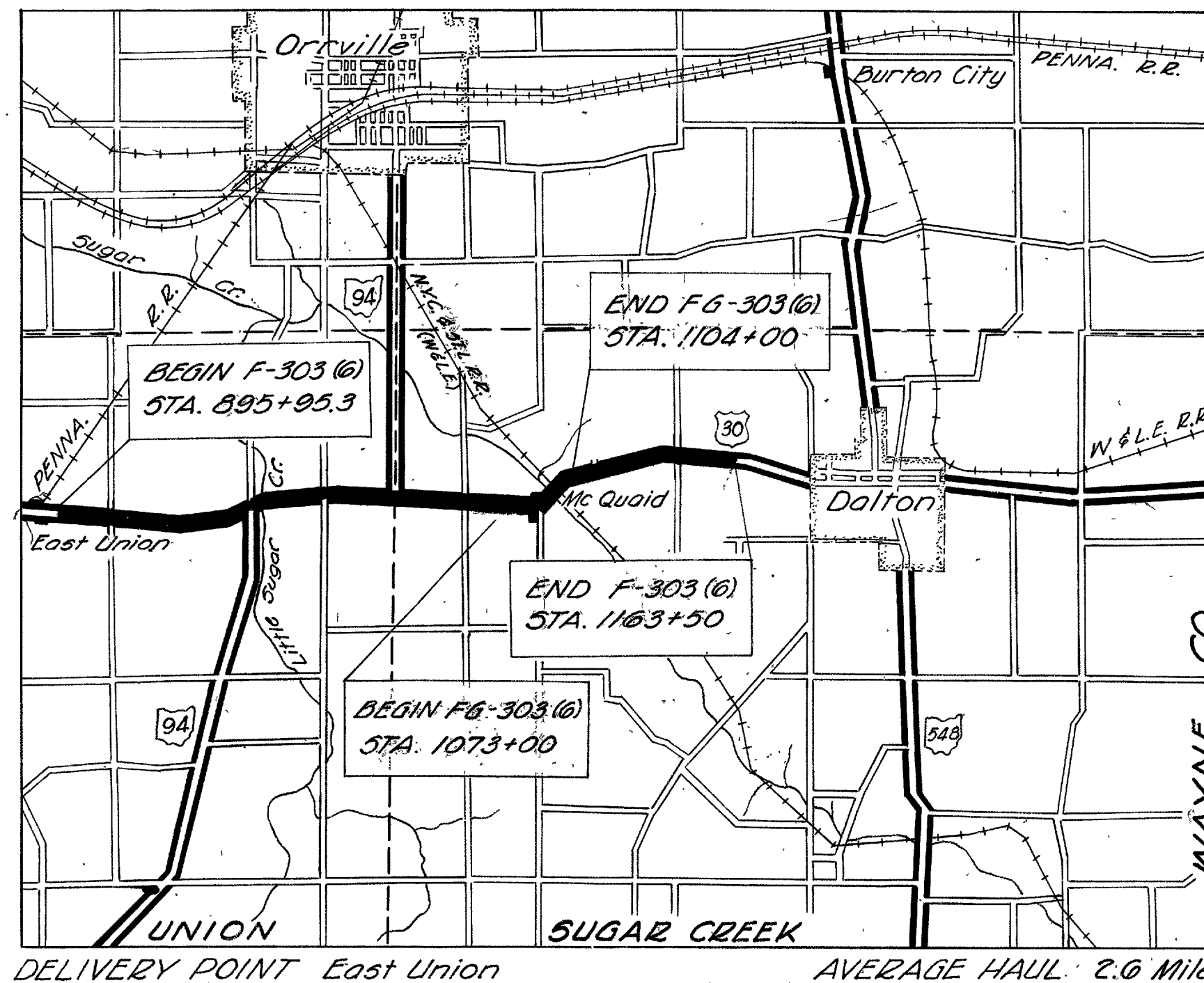
33

WAY - 30 - 17.03 & GRADE SEPARATION WITH N.Y.C. & ST. L. R.R. WAYNE COUNTY UNION & SUGAR CREEK TOWNSHIPS

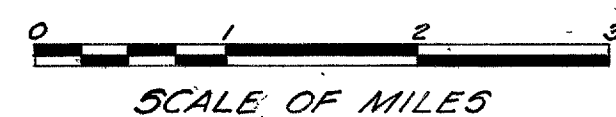


INDEX OF SHEETS

TITLE PAGE	1
TYPICAL SECTIONS	2
TYPICAL DETAIL	3
GENERAL NOTES	4
TRAFFIC CONTROL	5
CALCULATIONS	6
SUMMARY & ESTIMATED QUANTITIES	7-8
PLAN & PROFILE	9-35
INTERSECTION DETAIL	36-41
SURVEILLANCE TABLES	45-46
CROSS SECTIONS	51-141
CHANNEL CROSS SECTIONS	142-146
STRUCTURE DETAILS	147-163
FENCE DETAILS	164-165
RAILROAD FORCE ACCOUNT WORK	169
LINE DATA	169A



LOCATION PLAN



PORTION TO BE IMPROVED
STATE HIGHWAYS
OTHER ROADS

SCALES

PLAN 1" = 50'
PROFILE HORIZONTAL 1" = 50'
PROFILE VERTICAL 1" = 5'
CROSS SECTIONS 1" = 10'

Location of Drives Revised on Sta. 13+42 to 52+00.
Location of Fence Revised on Sta. 47+45 to 49+00 on 13-53 P.A.P.

NET LENGTH OF PROJECT & WORK F-303 (6)
STA. 1073+00 to STA. 1081+00 = 810.80 LIN. FT.
STA. 1083+89.20 to STA. 1104+00 = 2010.80 LIN. FT.
TOTAL = 2821.60 LIN. FT. = 0.534 MILES

NET LENGTH OF PROJECT F-303 (6)
STA. 895+95.3 to STA. 1073+00 = 1770.47 LIN. FT.
STA. 1081+080 to STA. 1083+89.20 = 278.4 LIN. FT.
STA. 1104+00 to STA. 1163+50 = 5950.0 LIN. FT.
DEDUCT FOR EQUALITY = 19.54 LIN. FT.
NET TOTAL = 23563.56 LIN. FT. = 4.523 MILES

NET LENGTH OF WORK F-303 (6)
SAME AS ABOVE EXCEPT END OF WORK STA. 1164+00
TOTAL = 23933.56 LIN. FT. = 4.532 MILES

COMBINED NET LENGTH OF PROJECTS = 26105.16 LIN. FT. = 5.037 MILES
COMBINED NET LENGTH OF WORK = 26735.16 LIN. FT. = 5.067 MILES

STANDARD CONSTRUCTION DRAWINGS

DRAWING NO.	DATE	DRAWING NO.	DATE
L-1	4-1-50	I-1, 2, 3, 4 & 5	2-20-45
L-3	4-1-50	I-8 C.B. E-2 A & B	12-15-41
L-3A	4-1-50	I-8 C.B. E-2 A & B	12-15-41
O-T-71-B	5-22-50	I-8 C.B. 1-3 & 7-4	12-15-41
T.J. No. 1	7-1-50	I-8 C.B. No. 16	5-1-47
T.J. No. 2	7-1-50	I-12	3-15-48
T.J. No. 3	7-1-50	I-15 No. 1	3-1-47
T.J. No. 1	7-1-50	I-15 No. 2	6-17-48
O-27 DC 2	2-28-46	O-3-07	2-7-50
O-27 DC 3	2-28-46	O-7-50-70-71 E	10-1-47
A-3-47	4-4-47	A-5-1-47	4-5-2-47
A-3-47-5	4-2-45	RB-1-47	9-27-49
C-2-1-47	2-25-49		

SUPPLEMENTAL SPECIFICATIONS

NUMBER	DATE
5	5-28-48
13	Rev. 1-20-50
31	6-18-49
M-110.23	Rev. 1-3-47
17-171.19	Rev. 7-31-50
L-109.12	Rev. 7-15-50
3-303	12-20-46

The Standard Specifications of the State of Ohio Department of Highways, including changes and Supplemental Specifications listed in the proposal shall govern this improvement.

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

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

APPROVED *J. A. Pomeroy*
DATE 5-2-50 DEPUTY DIRECTOR OF DIVISION

APPROVED _____
DATE _____ CHIEF ENGINEER, BUREAU OF MAINTENANCE

APPROVED *Richard P. ...*
DATE 10-22-50 CHIEF ENGINEER, BUREAU OF BRIDGES & R.R. CROSSINGS

APPROVED *K. H. ...*
DATE 11-6-50 CHIEF ENGINEER, BUREAU OF LOCATION & DESIGN

APPROVED *V. T. ...*
DATE 11-6-50 FIRST ASSISTANT DIRECTOR & CHIEF ENGINEER

APPROVED *...*
DATE 11-6-50 DIRECTOR OF HIGHWAYS

APPROVED *Sigma H. F. Whitmore* Chief Engineer
DATE Nov. 8, 1950 N.Y.C. & ST. L. R.R.

**DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS**

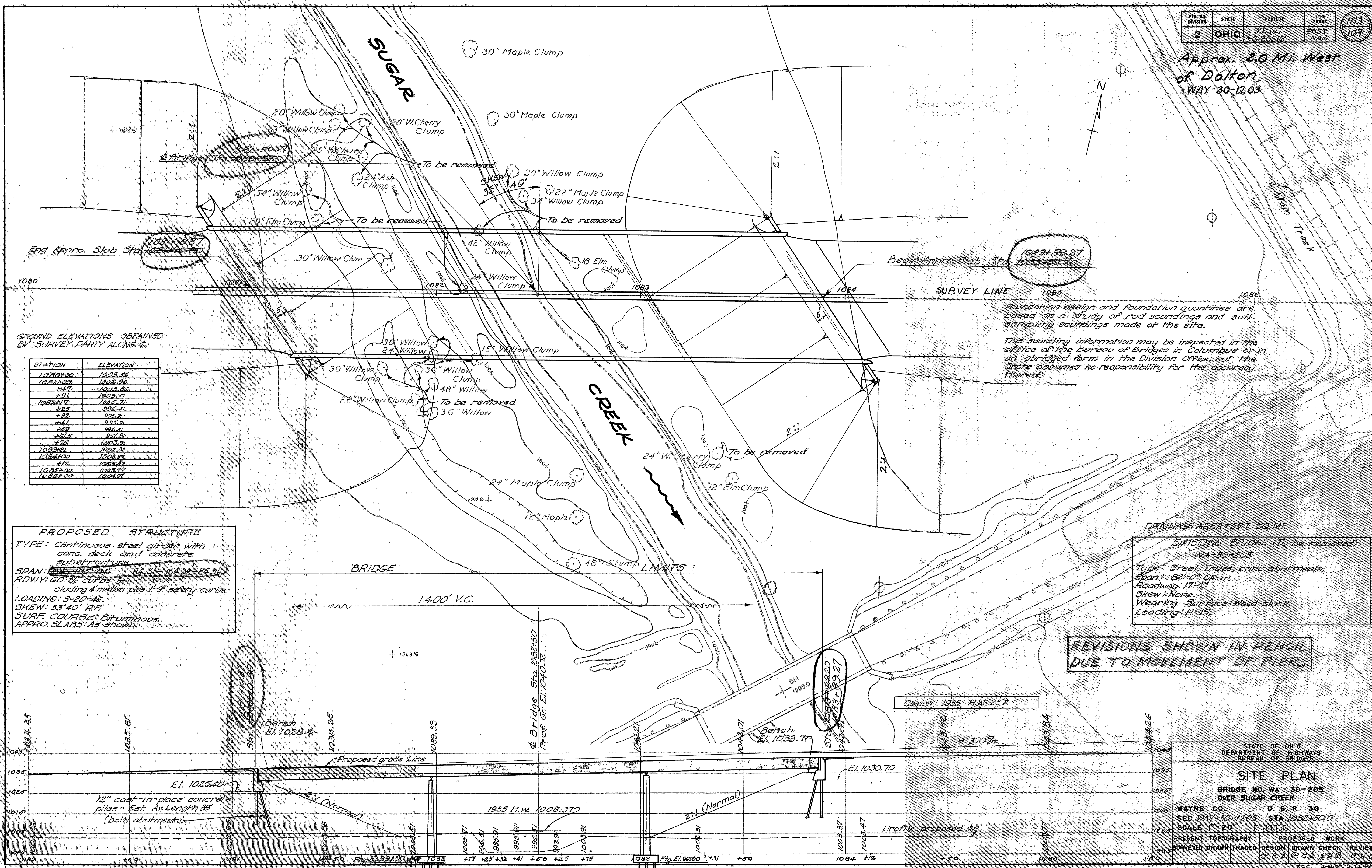
RECOMMENDED FOR APPROVAL:

CONSTRUCTION BUREAU
FEB 20 1951
GROUND PHOTOGRAPH

DISTRICT ENGINEER	DATE
APPROVED:	
DIVISION ENGINEER	DATE

FILE WAY 30-17.03
NO. DATE OF LETTING
CONTRACT NO.

Approx. 2.0 Mi. West
of Dalton
WAY-30-17.03



GROUND ELEVATIONS OBTAINED BY SURVEY PARTY ALONG G

STATION	ELEVATION
1080+00	1023.86
1081+00	1023.96
+47	1023.86
+91	1003.51
1082+17	1003.71
+25	996.51
+32	995.91
+41	995.91
+49	996.51
+65	997.91
+75	1003.91
1083+31	1004.31
1084+00	1003.87
+12	1003.87
1085+00	1003.77
1086+00	1024.97

Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site.
This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

PROPOSED STRUCTURE
TYPE: Continuous steel girder with conc. deck and concrete substructure
SPAN: 84.31 - 104.38 - 84.21
RDWY: 60' to curbs including 4' median plus 1'-9" safety curbs
LOADING: 5-20-46
SKEW: 33° 40' R/L
SURF. COURSE: Bituminous
APPRO. SLABS: As shown

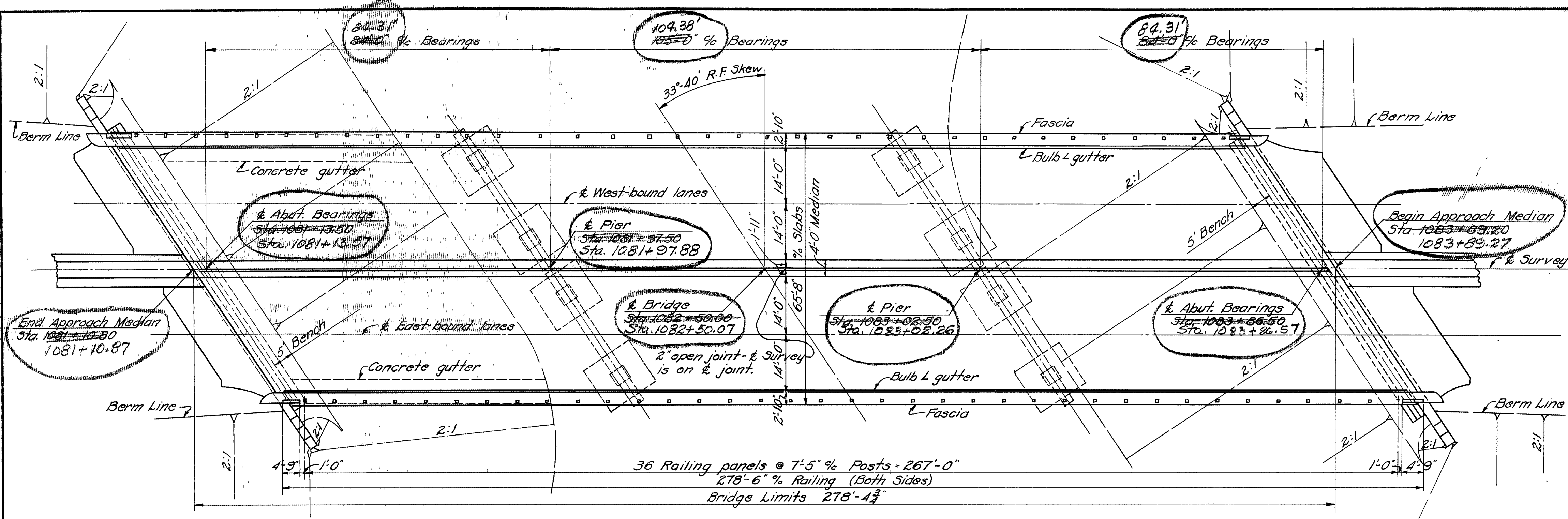
EXISTING BRIDGE (To be removed)
WA-30-205
Type: Steel Truss, conc. abutments
Span: 82'-0" Clear
Roadway: 17'-4"
Skew: None
Wearing Surface: Wood block
Loading: H-15

REVISIONS SHOWN IN PENCIL DUE TO MOVEMENT OF FIERS

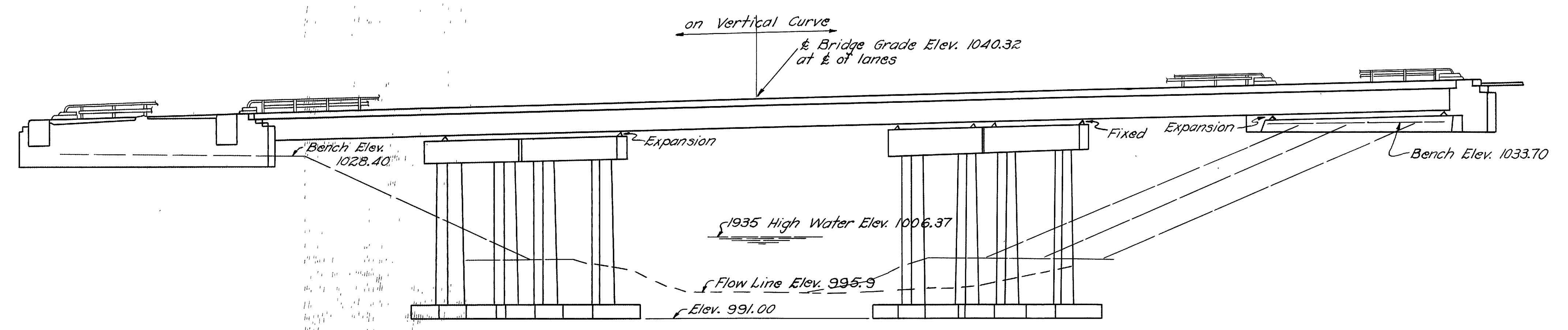
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN
BRIDGE NO. WA-30-205
OVER SUGAR CREEK
WAYNE CO. U. S. R. 30
SEC. WAY-30-17.03 STA. 1082+50.0
SCALE 1" = 20' F-303(G)
PRESENT TOPOGRAPHY PROPOSED WORK
SURVEYED DRAWN TRACED DESIGN DRAWN CHECK REVIEW
P.E.S. P.E.S. P.A.B. C.H.Z.
BFG WTR 9.14.50

WAY-30-17.03



GENERAL PLAN



GENERAL ELEVATION

12" cast-in-place concrete piling at abutments and piers not shown.

- GENERAL NOTES**
- REFERENCE shall be made to Std. Dwg. CSB-1-47, revised 8-25-49, and to Std. Dwg. RB-1-47, revised 7-27-49.
- REMOVAL OF EXISTING BRIDGE:- Existing superstructure shall be removed, when no longer needed to carry traffic, and become the property of the Contractor. Existing substructure shall be removed to existing ground line at face of abutment and sloped back on 2:1 slope. Suitable material may be used for bank protection where directed by the Engineer.
- EXCAVATION quantity includes the removal of fill material between top of earth bench and bottom of abutment crossbeam.
- PIILING shall be driven to a minimum bearing capacity of 30 tons at abutments and 35 tons at piers.
- WELDING shall be Class 'A' except as shown.
- SURFACE FINISH OF CONCRETE: Railing end posts, curb faces and fascias of deck shall receive a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item 5-1.
- CONCRETE GUTTERS shall be 6" wide and 6 in. thick, and shall be depressed 6 in. at the center. They shall extend from face of west abutment down to Elev. 1003.5 and shall be centered under scuppers. Reinforcing bars 2" x 1" x 6" centers, both directions, included in price per lin. ft.
- FIRST COPPER DRAIN TUBE (Item 5-23.07) shall be placed within 1'-0" of the end finish at west abutment.
- REMOVAL OF TREES as shown on Sheet 153 are included in Item E-9 Lump Sum Removal of Trees and Stumps of the roadway quantities.

ESTIMATED QUANTITIES										
Item	Total	Unit	Description	E. Abut.	W. Abut.	E. Pier	W. Pier	Superstr.	General	As Built
E-2	lump sum	lump sum	Cofferdams, cribs and sheeting						lump sum	
E-2	1022	cu. yds.	Unclassified excavation	76	76	420	450			
5-1	483	cu. yds.	Class 'C' concrete, superstructure					483	+ 8	491
5-1	238	cu. yds.	Class 'E' concrete, abutments	118	120				- 3.1	234.9
5-1	186	cu. yds.	Class 'E' concrete, pier footings			93	93			
5-1	275	cu. yds.	Class 'C' concrete, pier caps and columns			140	135			
5-3	1710	sq. yds.	Type 'C' waterproofing					1710		
5-4	205993	lbs.	Reinforcing steel	11377	11409	26345	25932	130734	196	- 175 205,818
5-7	787000	lbs.	Structural steel					787000	+ 3928	791,928
5-8	787000	lbs.	Field painting of structural steel					787000	+ 3928	791,928
5-14	557	lin. ft.	Railing (steel with concrete end posts)					557		
5-16	lump sum	lump sum	First test pile						lump sum	
5-18	5920	lin. ft.	12" cast-in-place reinforced concrete piling	840	840	2120	2120		+ 2816.24	8736.24
5-24	lump sum	lump sum	Removal of existing structure						lump sum	
5-29	549	lin. ft.	Subdrainage for wearing surface course					549		
I-14	140	lin. ft.	Concrete gutter						140	- 16 124
T-35	118	cu. yds.	Asphaltic concrete surface course, Type A or C (70-80) or (85-100)					118		

REVISIONS SHOWN IN PENCIL, DUE TO MOVEMENT OF PIERS

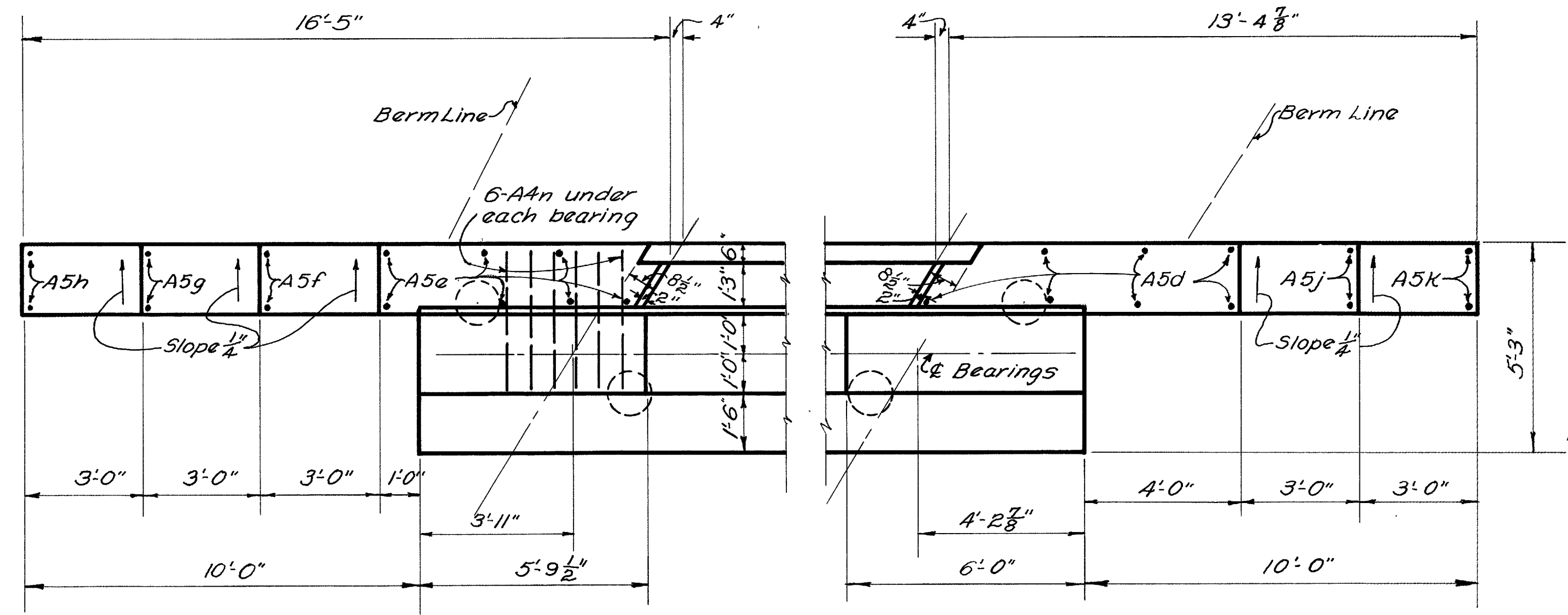
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

GENERAL PLAN & ELEVATION ~ NOTES
~ ESTIMATED QUANTITIES
BRIDGE No. WA-30-205

OVER SUGAR CREEK
WAYNE COUNTY WAY-30-17.03
Sta. 1082 + 50.00

DESIGNED	DRAWN	TRACES	CHECKED	REVIEWED	DATE	REVISED
WNR	WNR	C.W.	WNR	BFG	9-14-50	

Revised As-Built
12-19-55



NOTE:
 Details not shown are same as sheets 156 and 161 of the original Contract Drawing.

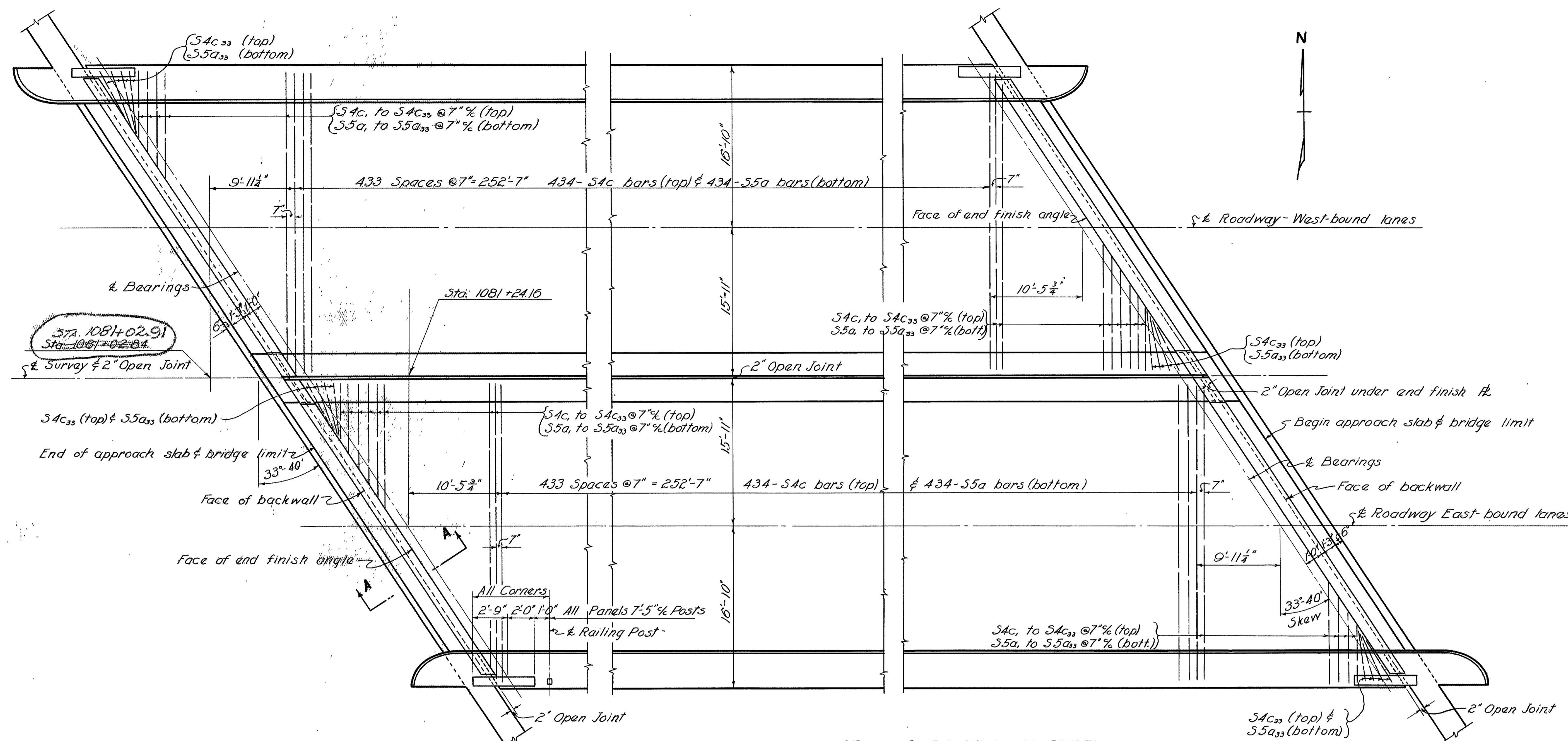
Omit from Reinforcing Steel List:
 1-A5d 17"
 1-A5e 19"
 7-A4d 51"
 1-A4j 46"
 4-A4k 42"
 175"
 Concrete deduction = 5.1 Cu yds.

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES AND RAILROAD CROSSINGS

**REVISION OF PLAN OF
 WEST ABUTMENT DETAILS
 BRIDGE NO. WA-30-205
 OVER SUGAR CREEK
 WAYNE COUNTY WAY 30-17-03
 STA. 1082+50.00 F-303(6)**

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
	DB	RM	MMH	21	7-28-51	

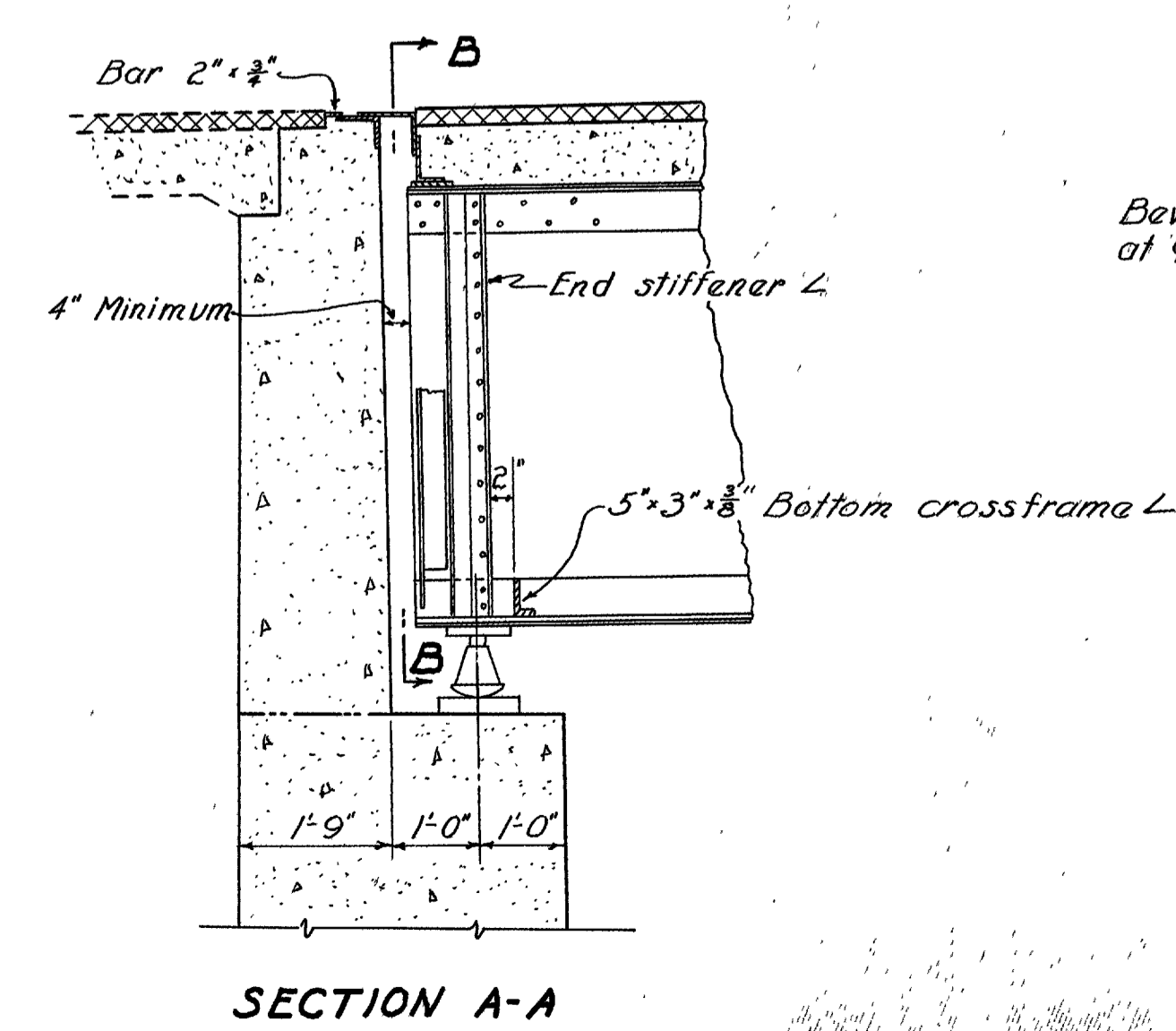
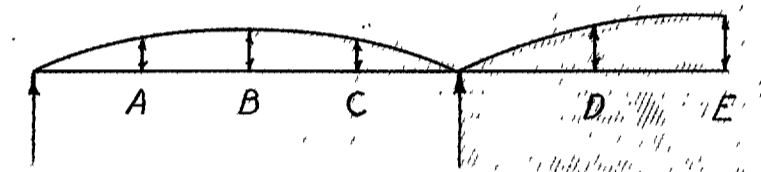
WAY-30-17-03



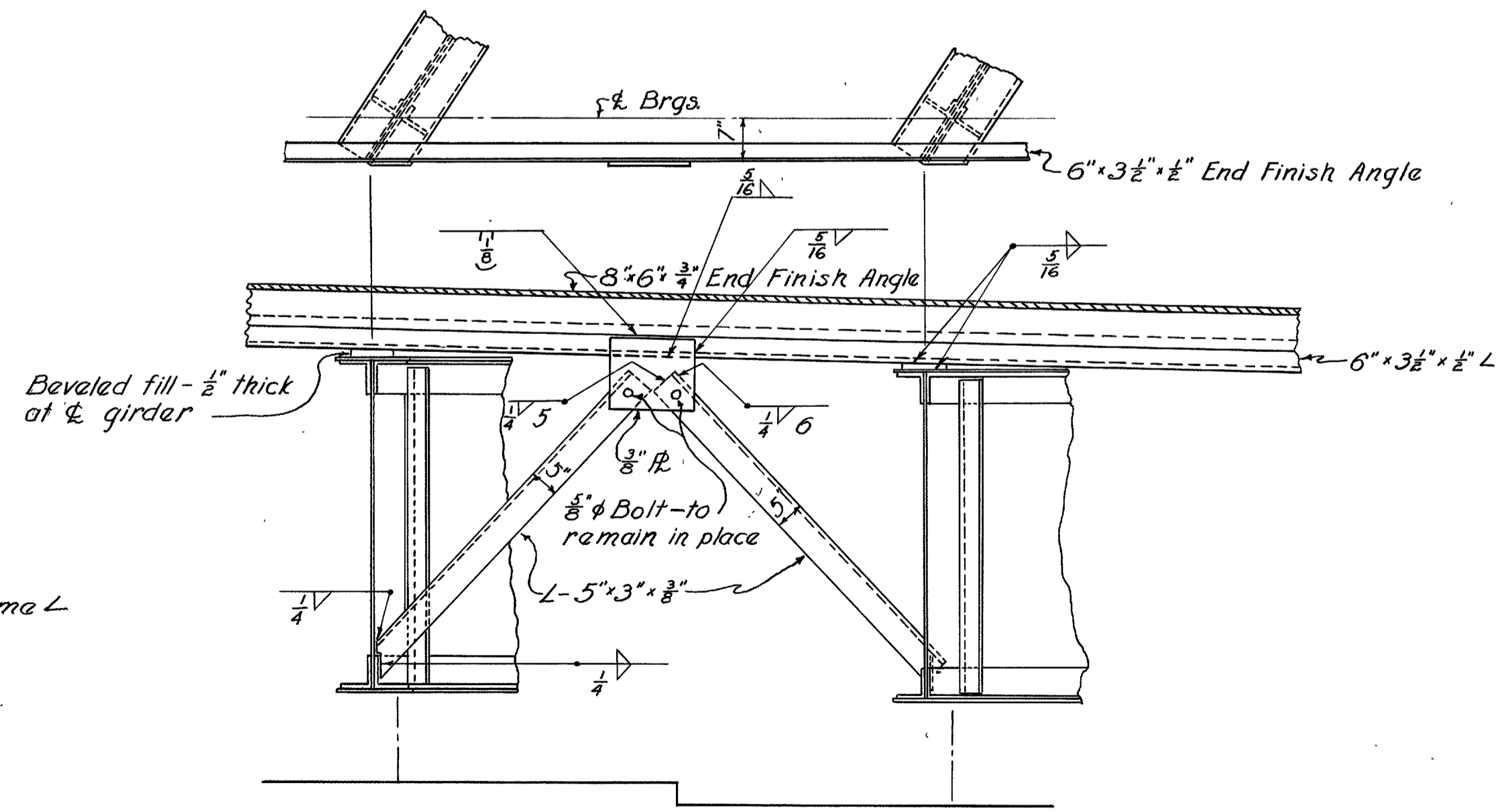
PLAN OF SLAB REINFORCING STEEL
NOT TO SCALE

	GIRDERS G1-G4				GIRDERS G5-G8				GIRDERS G9-G12			
Deflection due to D.L. of steel	1/16	1/8	1/16	1/16	1/16	1/8	1/16	1/16	1/16	1/8	1/16	1/16
Defl. due to other D.L.	3/8	2/16	3/16	5/16	5/16	3/8	3/16	3/16	3/16	3/8	1/4	1/4
Due to Vertical Curve	5/16	3/8	5/16	5/8	5/16	3/8	1/4	1/8	5/16	3/8	1/4	1/8
Total	3/4	15/16	2/16	3/8	1/16	1/8	1/4	1/8	1/16	1/8	1/4	1/8
Provide a total camber of at Quarter Points	3/4	1	1/2	1	1 1/4	3/4	1	1 1/4	1 1/2	3/4	1	1 1/4

DEFLECTION AND CAMBER



SECTION A-A



SECTION B-B

For details not shown see Std. Dwg. CSB-1-47. Median curb and finish shall be similar to roadway curb end finish as shown on Std. Dwg. CSB-1-47, except that 2" open joint is required at $\frac{1}{2}$ of median.

REVISIONS SHOWN IN PENCIL
DUE TO MOVEMENT OF PIERS

NOTE: For details of railing and posts, see Std. Dwg. CSB-1-47.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

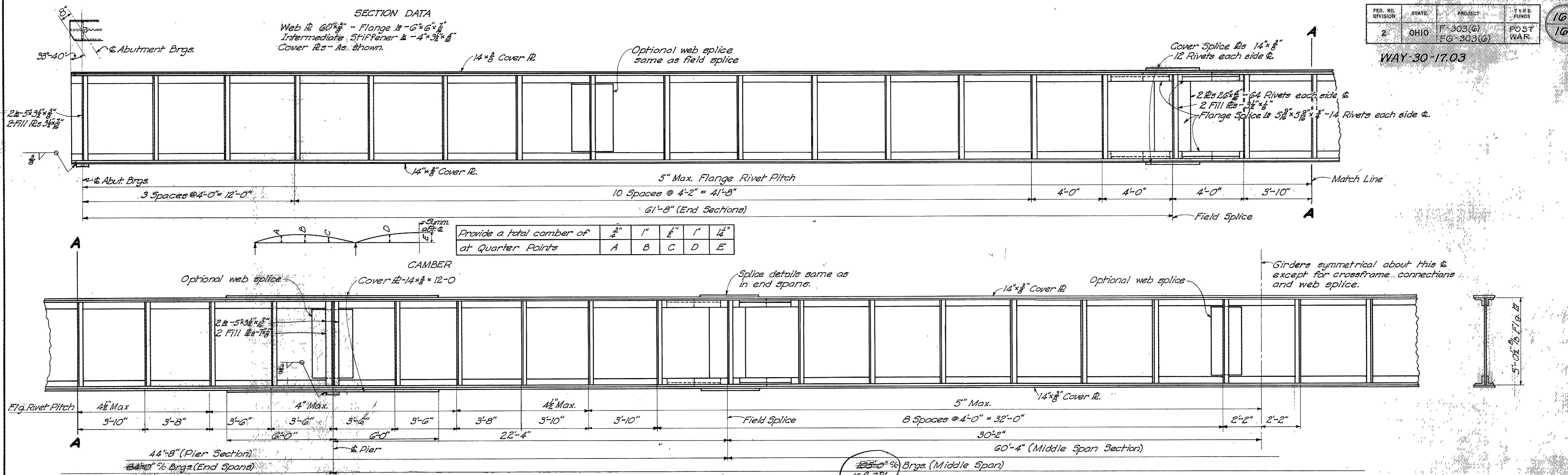
SUPERSTRUCTURE DETAILS
BRIDGE No. WA-30-205
OVER SUGAR CREEK

WAYNE COUNTY WAY-30-1703
STA. 1082+50.00 F-303(0)

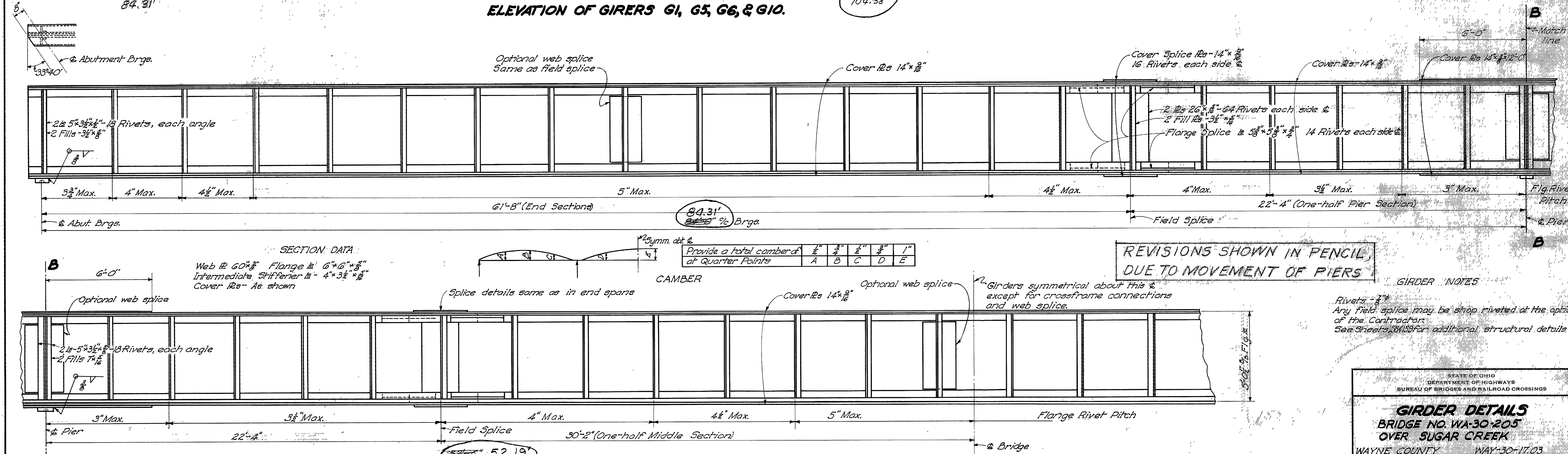
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
OWB	OWB	FLZ	ACM	BFG	WNC 9-14-50

WAY-30-17.03

160
169



ELEVATION OF GIRERS G1, G5, G6, & G10.



ELEVATION OF GIRERS G2, G3, G4, G7, G8, & G9.

REVISIONS SHOWN IN PENCIL,
DUE TO MOVEMENT OF PIERS

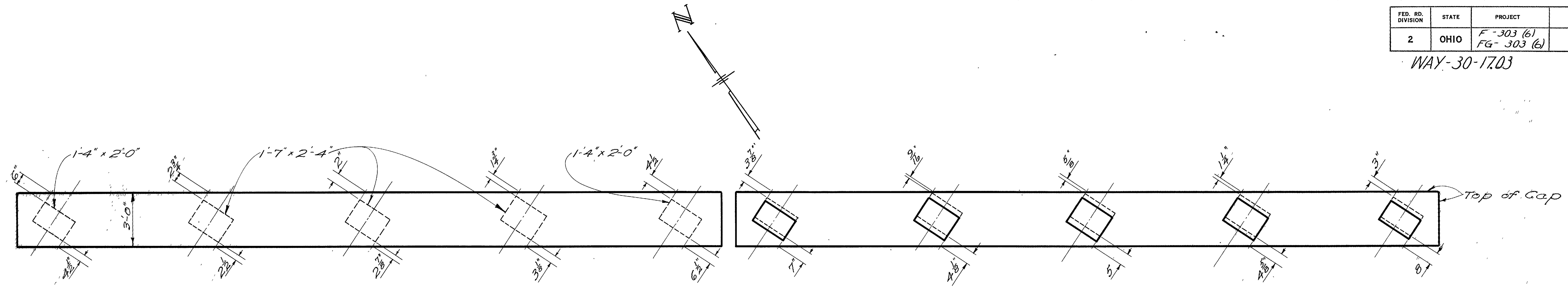
GIRDER NOTES

Rivets - 3/4"
Any field splice may be shop riveted at the option of the Contractor.
See Sheets 01033 for additional structural details

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

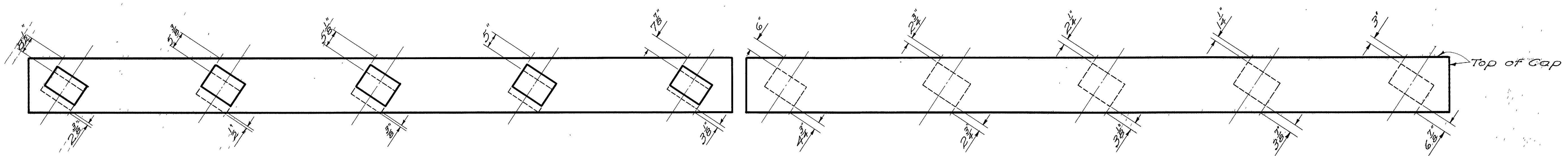
GIRDER DETAILS
BRIDGE NO. WA-30-205
OVER SUGAR CREEK
WAYNE COUNTY WAY-30-17.03
Sta. 1082+50.00
F-303(G)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
SWP	SWP	GPH	WJN	BFG	9-14-50	

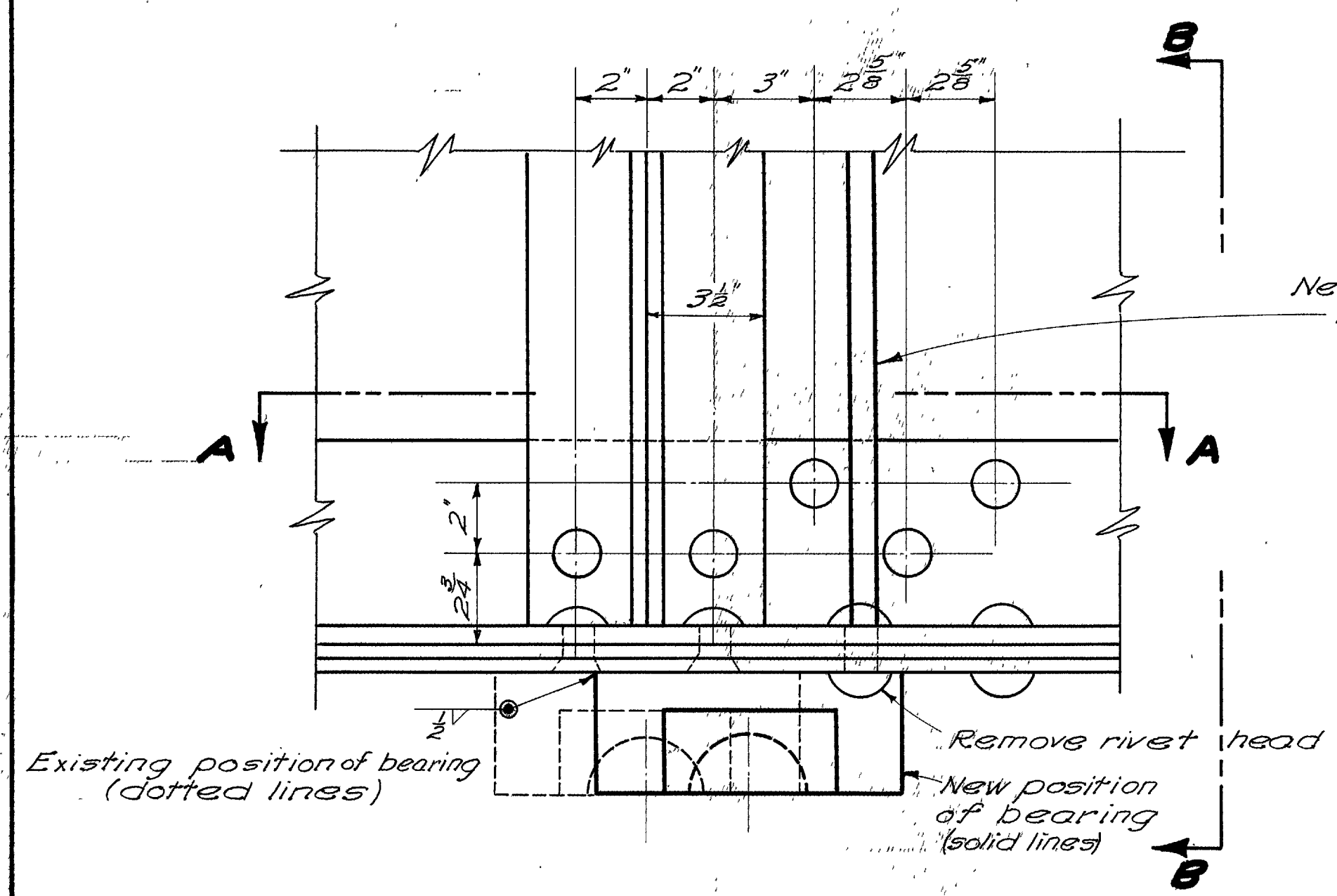


PLAN OF EAST PIER

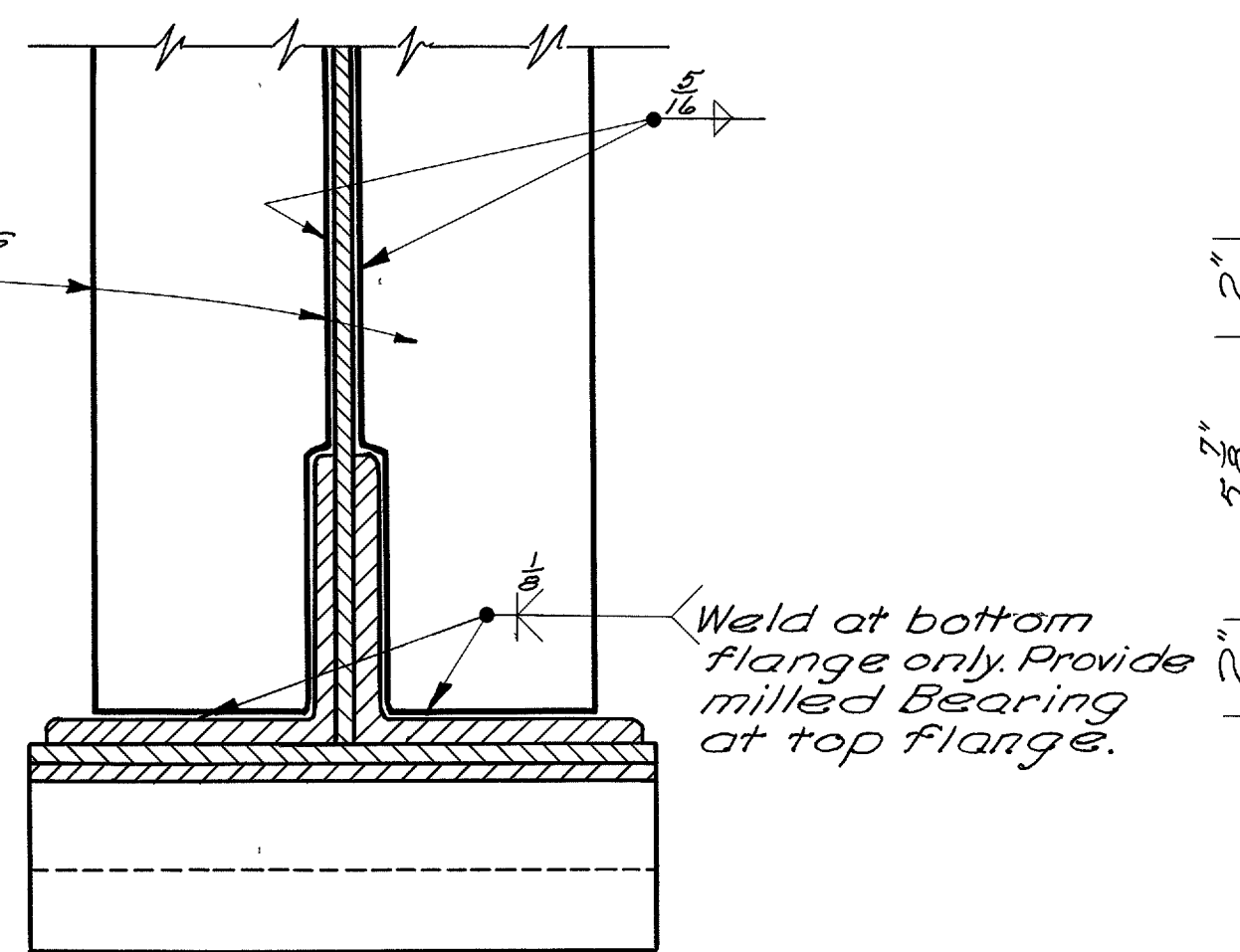
NOTES: Present position of bearing plates is shown by figures and dotted lines.
Move bearing plates, where indicated by solid lines, so that they are centered on pier cap.



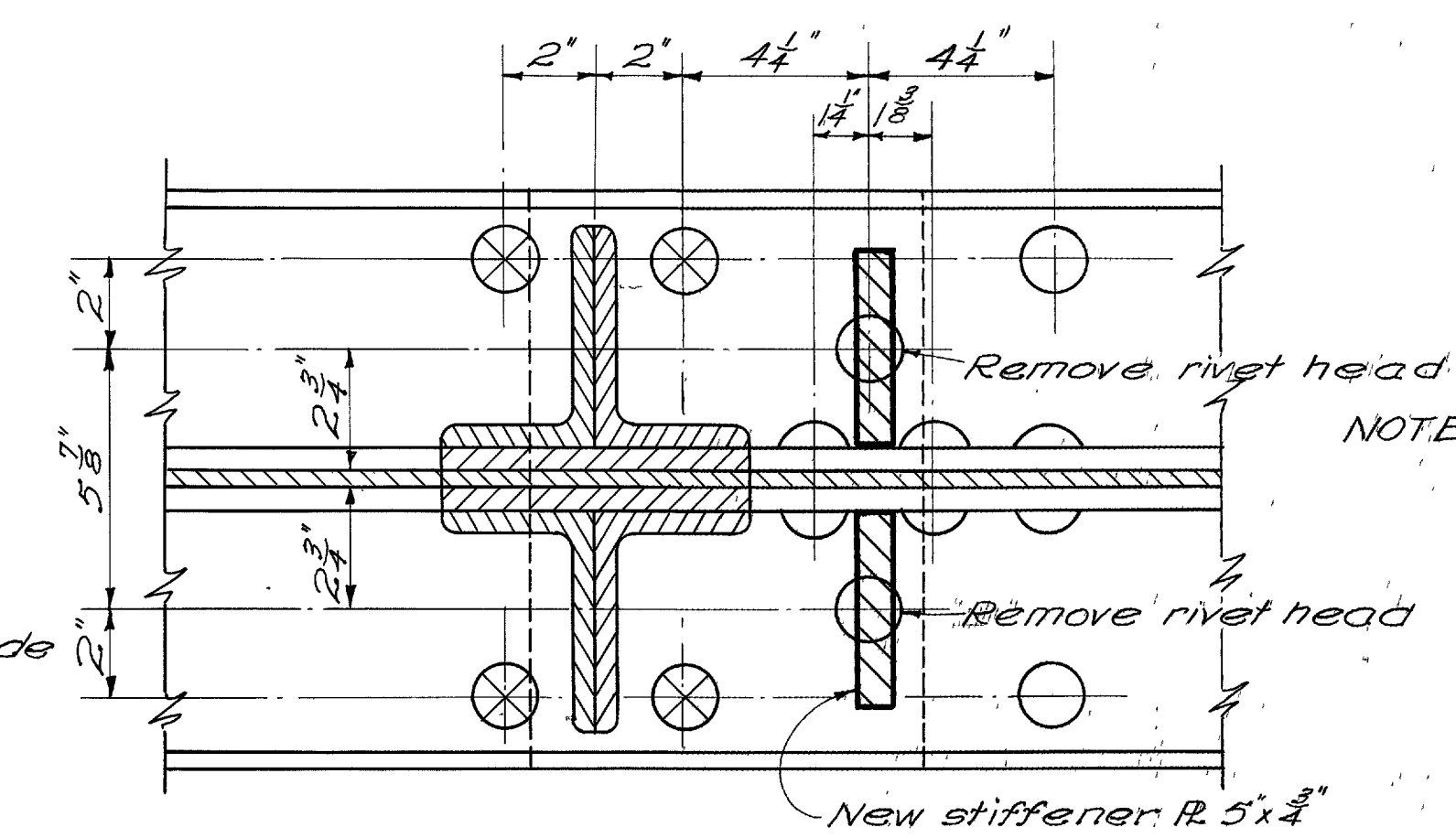
PLAN OF WEST PIER



PART ELEVATION OF GIRDER



SECTION B-B



SECTION A-A

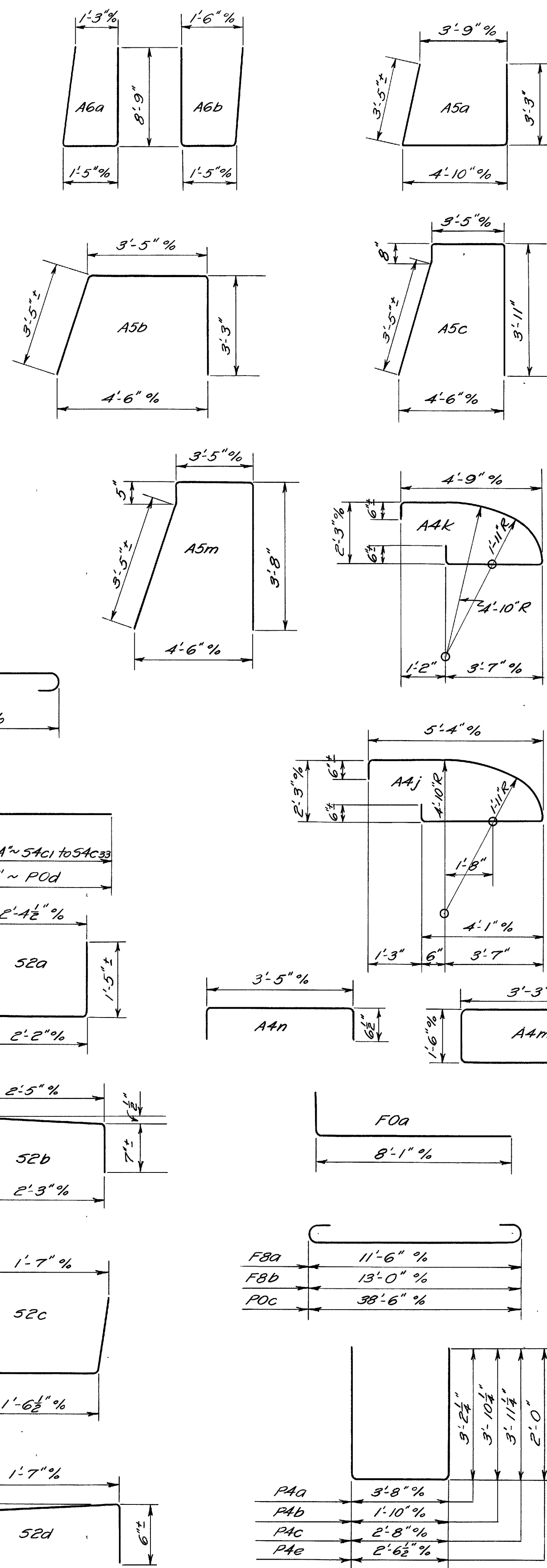
NOTE: After rivet head is removed and new stiffener is in place, cover rivet hole with weld metal to make watertight.

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
REVISED STIFFENER DETAIL AND BEARING LOCATIONS					
BRIDGE No. WA-30-205					
SUGAR CREEK					
WAYNE COUNTY			WAY-30-17.03		
STG. 1082+50.00			F-303 (6)		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
		RHD		WHR	6-11-52
					2-23-55

REINFORCING STEEL LIST

MARK	SIZE	NO.	LENGTH	WEIGHT	SHR
SUPERSTRUCTURE					
55a	3/8"	868	32'-1"	41,829	5T
55a1	3/8"	4	31'-5"	189	5T
55a2	3/8"	4	30'-7"	184	5T
55a3	3/8"	4	29'-8"	178	5T
55a4	3/8"	4	28'-10"	173	5T
55a5	3/8"	4	27'-11"	169	5T
55a6	3/8"	4	27'-1"	163	5T
55a7	3/8"	4	26'-2"	157	5T
55a8	3/8"	4	25'-4"	152	5T
55a9	3/8"	4	24'-5"	146	5T
55a10	3/8"	4	23'-7"	142	5T
55a11	3/8"	4	22'-8"	136	5T
55a12	3/8"	4	21'-10"	131	5T
55a13	3/8"	4	20'-11"	126	5T
55a14	3/8"	4	20'-1"	121	5T
55a15	3/8"	4	19'-2"	115	5T
55a16	3/8"	4	18'-4"	110	5T
55a17	3/8"	4	17'-5"	105	5T
55a18	3/8"	4	16'-7"	100	5T
55a19	3/8"	4	15'-8"	94	5T
55a20	3/8"	4	14'-10"	89	5T
55a21	3/8"	4	13'-11"	84	5T
55a22	3/8"	4	13'-1"	79	5T
55a23	3/8"	4	12'-2"	73	5T
55a24	3/8"	4	11'-4"	68	5T
55a25	3/8"	4	10'-5"	63	5T
55a26	3/8"	4	9'-7"	58	5T
55a27	3/8"	4	8'-8"	52	5T
55a28	3/8"	4	7'-10"	47	5T
55a29	3/8"	4	6'-11"	42	5T
55a30	3/8"	4	6'-1"	37	5T
55a31	3/8"	4	5'-2"	31	5T
55a32	3/8"	4	4'-4"	26	5T
55a33	20	3'-5"	103	5T	
55b	3/8"	140	29'-9"	62,57	5T
54a	3/8"	1260	29'-4"	38,549	5T
54b	3/8"	100	42'-0"	4,381	5T
54c	3/8"	868	33'-3"	30,102	BT
54c1	3/8"	4	32'-0"	134	BT
54c2	3/8"	4	31'-2"	130	BT
54c3	3/8"	4	30'-3"	126	BT
54c4	3/8"	4	29'-5"	123	BT
54c5	3/8"	4	28'-6"	119	BT
54c6	3/8"	4	27'-8"	115	BT
54c7	3/8"	4	26'-9"	112	BT
54c8	3/8"	4	25'-11"	108	BT
54c9	3/8"	4	25'-0"	104	BT
54c10	3/8"	4	24'-2"	101	BT
54c11	3/8"	4	23'-3"	97	BT
54c12	3/8"	4	22'-5"	94	BT
54c13	3/8"	4	21'-6"	90	BT
54c14	3/8"	4	20'-8"	86	BT
54c15	3/8"	4	19'-9"	82	BT
54c16	3/8"	4	18'-11"	79	BT
54c17	3/8"	4	18'-0"	75	BT
54c18	3/8"	4	17'-2"	72	BT
54c19	3/8"	4	16'-3"	68	BT
54c20	3/8"	4	15'-5"	64	BT
54c21	3/8"	4	14'-6"	60	BT
54c22	3/8"	4	13'-8"	57	BT
54c23	3/8"	4	12'-9"	53	BT
54c24	3/8"	4	11'-11"	50	BT
54c25	3/8"	4	11'-0"	46	BT
54c26	3/8"	4	10'-2"	42	BT
54c27	3/8"	4	9'-3"	39	BT
54c28	3/8"	4	8'-5"	35	BT
54c29	3/8"	4	7'-6"	31	BT
54c30	3/8"	4	6'-8"	27	BT
54c31	3/8"	4	5'-9"	24	BT
54c32	3/8"	4	4'-11"	21	BT
54c33	20	4'-0"	83	BT	
52a	1/2"	366	4'-10"	1182	BT
52b	1/2"	366	3'-6"	856	BT
52c	1/2"	366	3'-8"	897	BT
52d	1/2"	366	2'-5"	591	BT

BENDING DIAGRAMS



ABUTMENTS

MARK	SIZE	NO.	LENGTH	WEIGHT	SHR	E. Abut.	W. Abut.
A8a	1/4"	102	29'-6"	10230	5T	51	51
A8b	1/4"	6	13'-6"	275	5T	2	4
A8c	1/4"	2	12'-6"	85	5T	2	
A6a	3/8"	56	18'-7"	2128	BT		56
A6b	3/8"	56	18'-7"	2128	BT		56
A5a	3/8"	120	11'-2"	2013	BT	60	60
A5b	3/8"	52	9'-9"	762	BT	22	30
A5c	3/8"	30	11'-1"	500	BT		30
A5d	3/8"	16	11'-6"	276	5T	8	8
A5e	3/8"	8	12'-6"	130	5T		8
A5f	3/8"	2	11'-0"	33	5T		2
A5g	3/8"	4	9'-9"	59	5T	2	2
A5h	3/8"	4	8'-9"	52	5T	2	2
A5j	3/8"	2	10'-3"	31	5T		2
A5k	3/8"	4	9'-0"	54	5T	2	2
A5m	3/8"	38	10'-7"	604	BT	38	
A5n	3/8"	2	10'-9"	32	5T		2
A5p	3/8"	10	12'-3"	184	5T	10	
A4a	3/8"	30	35'-3"	1103	5T	14	16
A4b	3/8"	6	32'-6"	203	5T	4	2
A4c	3/8"	18	12'-3"	230	5T	6	12
A4d	3/8"	14	7'-0"	102	5T	7	7
A4e	3/8"	1	6'-2"	6	5T		1
A4f	3/8"	1	7'-4"	8	5T		1
A4g	3/8"	1	8'-3"	9	5T		1
A4h	3/8"	1	7'-2"	7	5T		1
A4j	3/8"	8	11'-0"	92	BT	4	4
A4k	3/8"	8	9'-11"	84	BT	4	4
A4m	3/8"	88	7'-9"	711	BT	44	44
A4n	3/8"	120	4'-3"	532	BT	60	60
A4p	3/8"	1	5'-10"	6	5T		1
A4q	3/8"	1	6'-8"	7	5T		1
A4r	3/8"	6	11'-3"	71	5T		6
A4s	3/8"	1	9'-10"	10	5T		1
A4t	3/8"	1	9'-0"	9	5T		1

PIERS

MARK	SIZE	NO.	LENGTH	WEIGHT	SHR
F0a	1/4"	96	9'-6"	4845	BT
F8a	1/4"	88	13'-8"	4089	BT
F8b	1/4"	88	15'-2"	4538	BT
P0a	1/4"	48	35'-0"	7229	5T
P0b	1/4"	48	37'-0"	7642	5T
P0c	1/4"	8	38'-6"	1636	5T
P0d	1/4"	40	28'-6"	6057	5T
P0e	1/4"	24	41'-4"	5270	5T
P0f	1/4"	16	16'-6"	1403	5T
P4a	3/8"	384	9'-9"	3905	BT
P4b	3/8"	288	9'-3"	2779	BT
P4c	3/8"	192	10'-3"	2052	BT
P4d	3/8"	32	20'-3"	676	5T
P4e	3/8"	24	6'-3"	156	5T

REPLACEMENT

MARK	SIZE	NO.	LENGTH	WEIGHT	SHR
RE0	1/4"	1	8'-2"	43	5T
RE9	1/4"	1	7'-9"	33	5T
RE8	1/4"	1	7'-4"	25	5T
RE6	3/8"	1	6'-11"	14	5T
RE5	3/8"	4	6'-6"	99	5T
RE4	3/8"	6	6'-1"	38	5T
RE2	1/2"	1	5'-8"	4	5T

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-303(G) FG-303(G)	POST WAR

161
169

WAY-30-17.03

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

REINFORCING STEEL LIST
BRIDGE NO. WA-30-205
OVER SUGAR CREEK

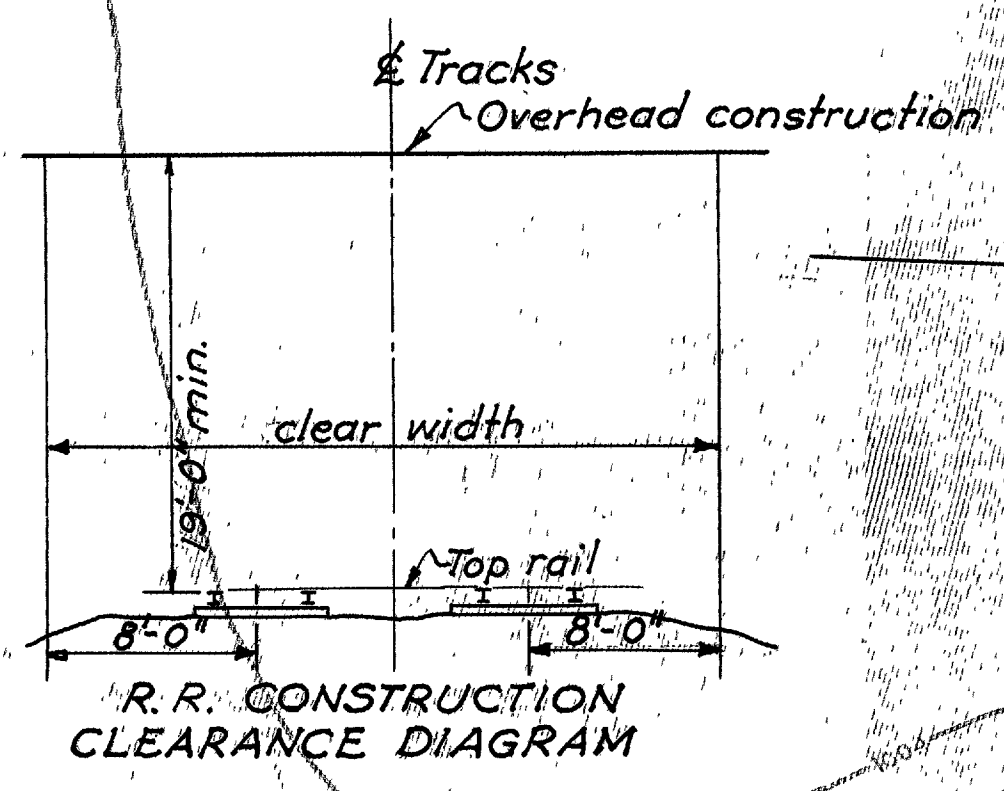
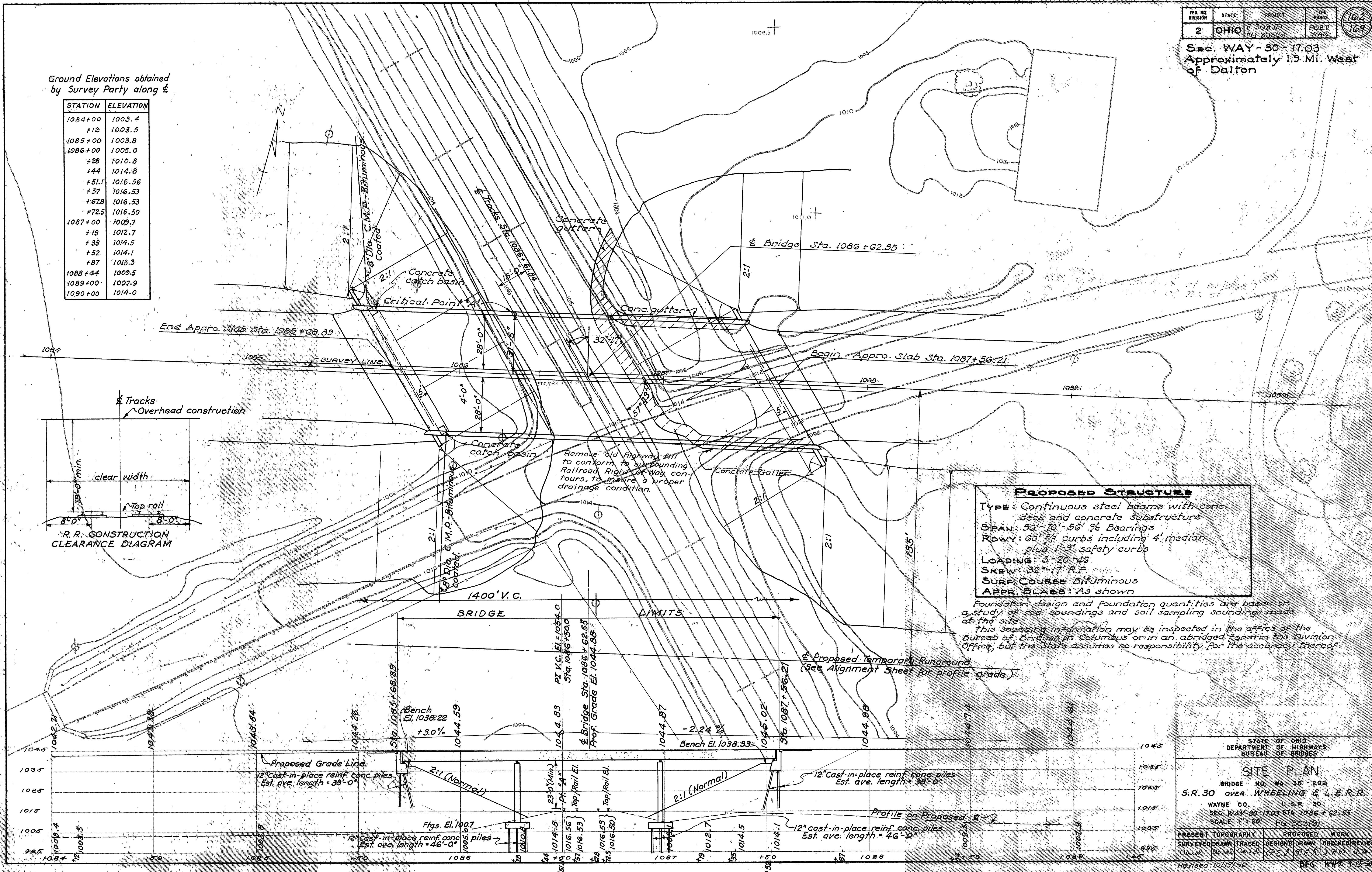
WAYNE COUNTY
SEC. MAY-30-17.03 STA. 1082 + 50.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	BY
DMW	ER	MUGA	BFG	KAC	9-14-50	

SEC. WAY-30-17.03
Approximately 1.9 Mi. West
of Dalton

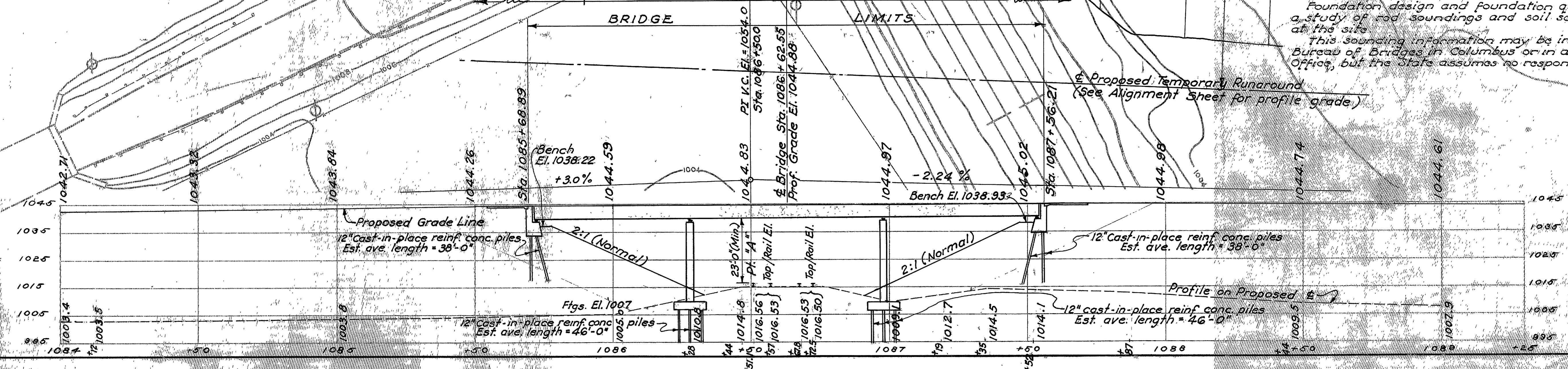
Ground Elevations obtained
by Survey Party along E

STATION	ELEVATION
1084+00	1003.4
+12	1003.5
1085+00	1003.8
1086+00	1005.0
+28	1010.8
+44	1014.8
+51.1	1016.56
+57	1016.53
+67.8	1016.53
+72.5	1016.50
1087+00	1009.7
+19	1012.7
+35	1014.5
+52	1014.1
+87	1013.3
1088+44	1009.5
1089+00	1007.9
1090+00	1014.0



PROPOSED STRUCTURE
 TYPE: Continuous steel beams with conc. deck and concrete substructure
 SPAN: 50'-70'-56' % Bearings
 RDWY: 60' % curbs including 4' median plus 1'-3" safety curbs
 LOADING: S-20-46
 SKEW: 32°-17' R.F.
 SURF COURSE Bituminous
 APPR. SLABS: As shown

Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site.
 This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.



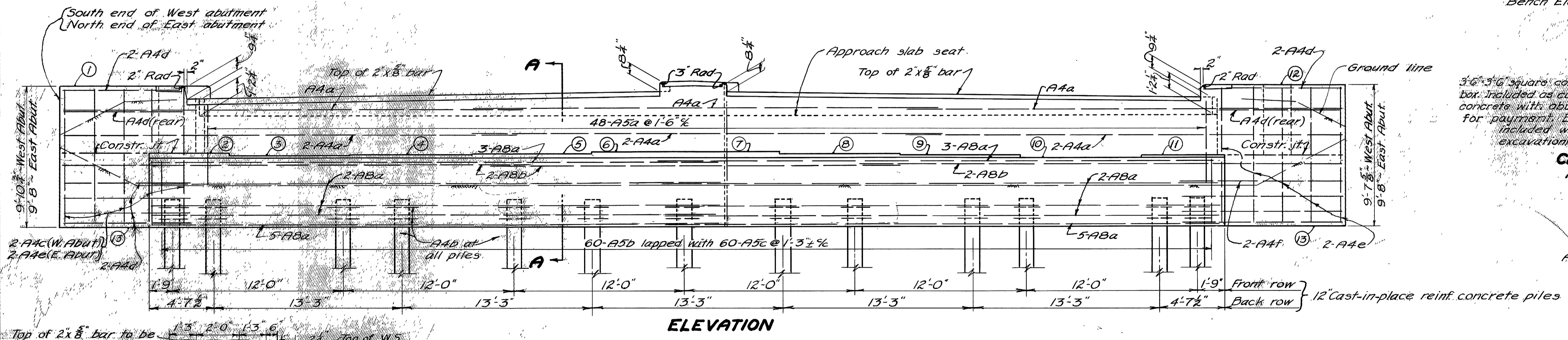
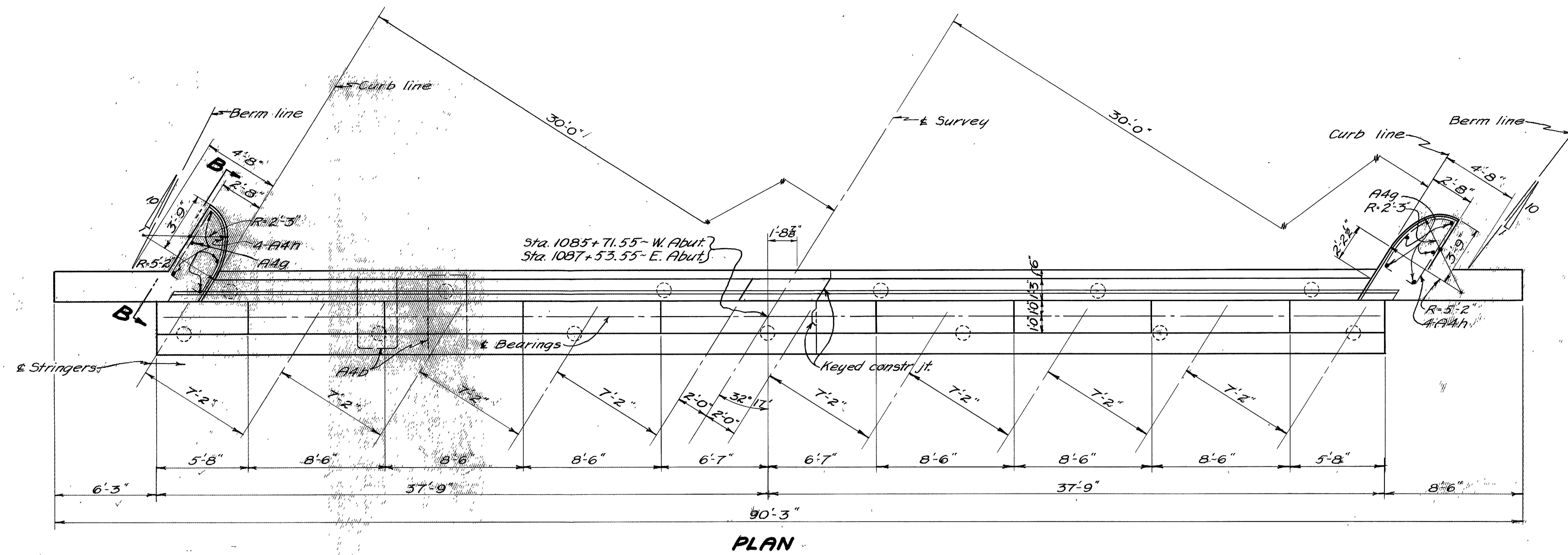
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN
 BRIDGE NO. WA 30-206
 S.R. 30 OVER WHEELING & L.E.R.R.
 WAYNE CO. U.S.R. 30
 SEC. WAY-30-1703 STA. 1086+62.55
 SCALE 1" = 20' FG-303(G)

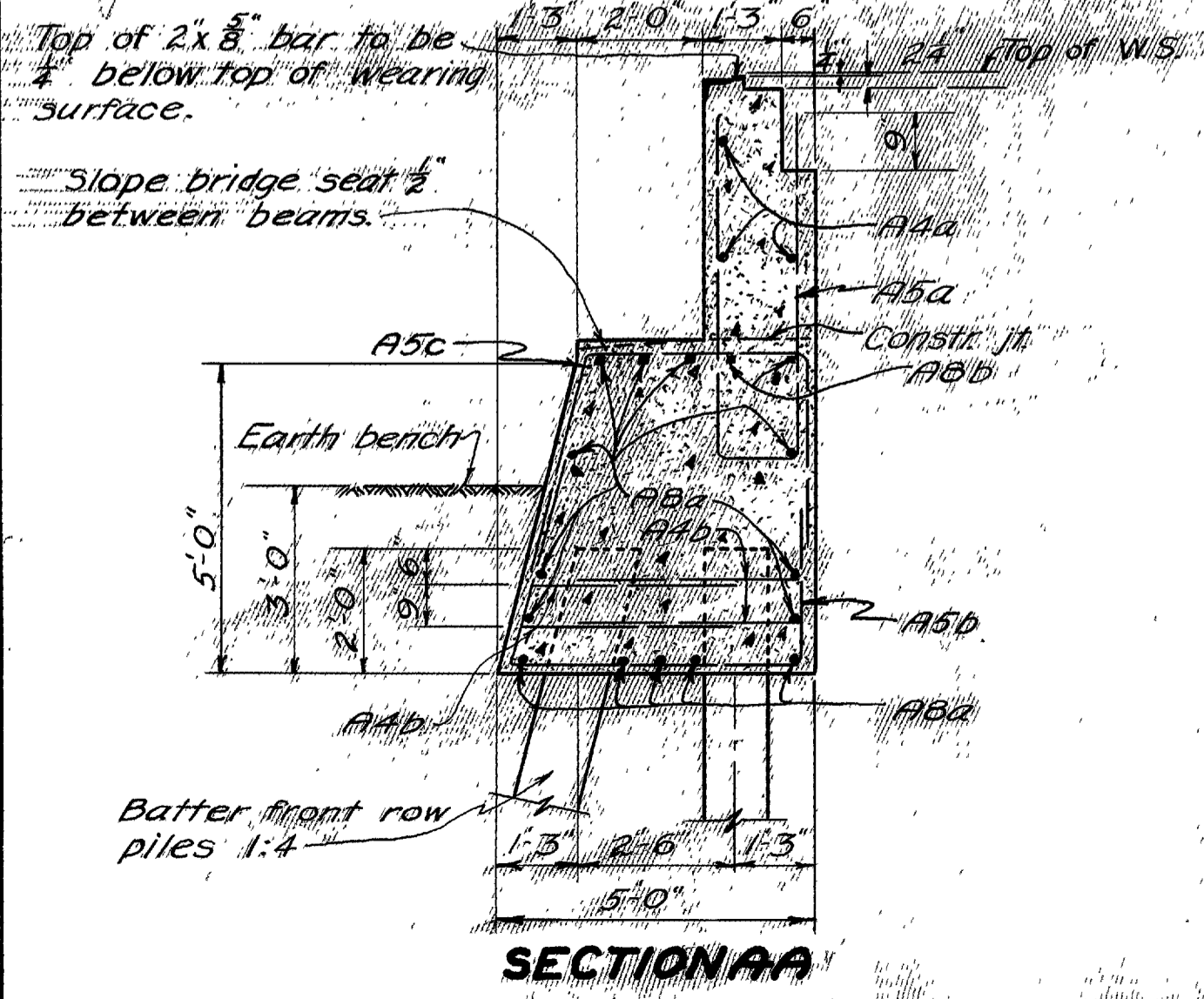
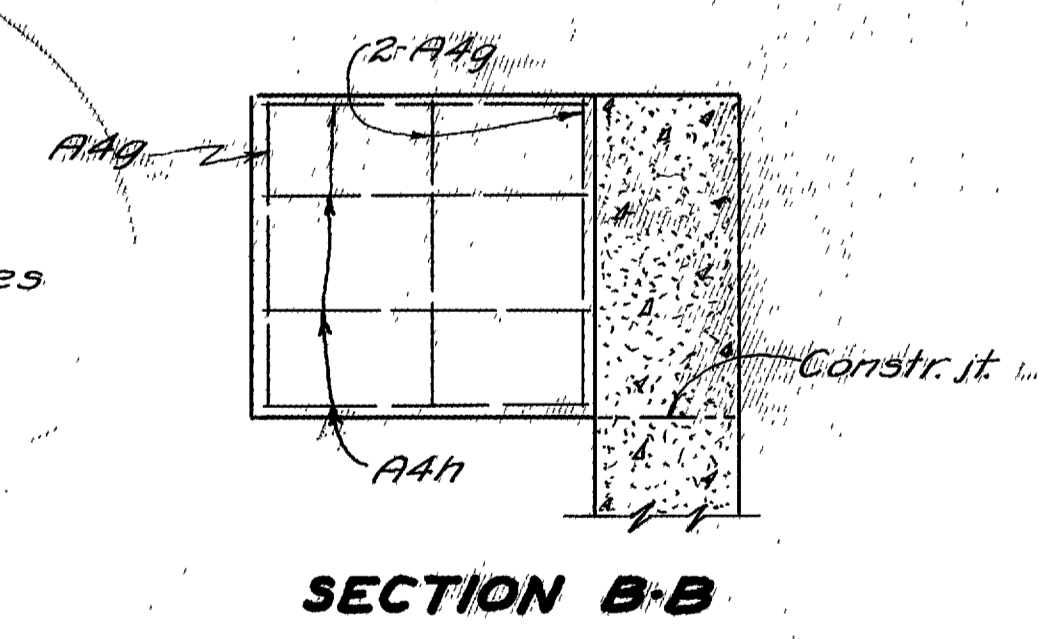
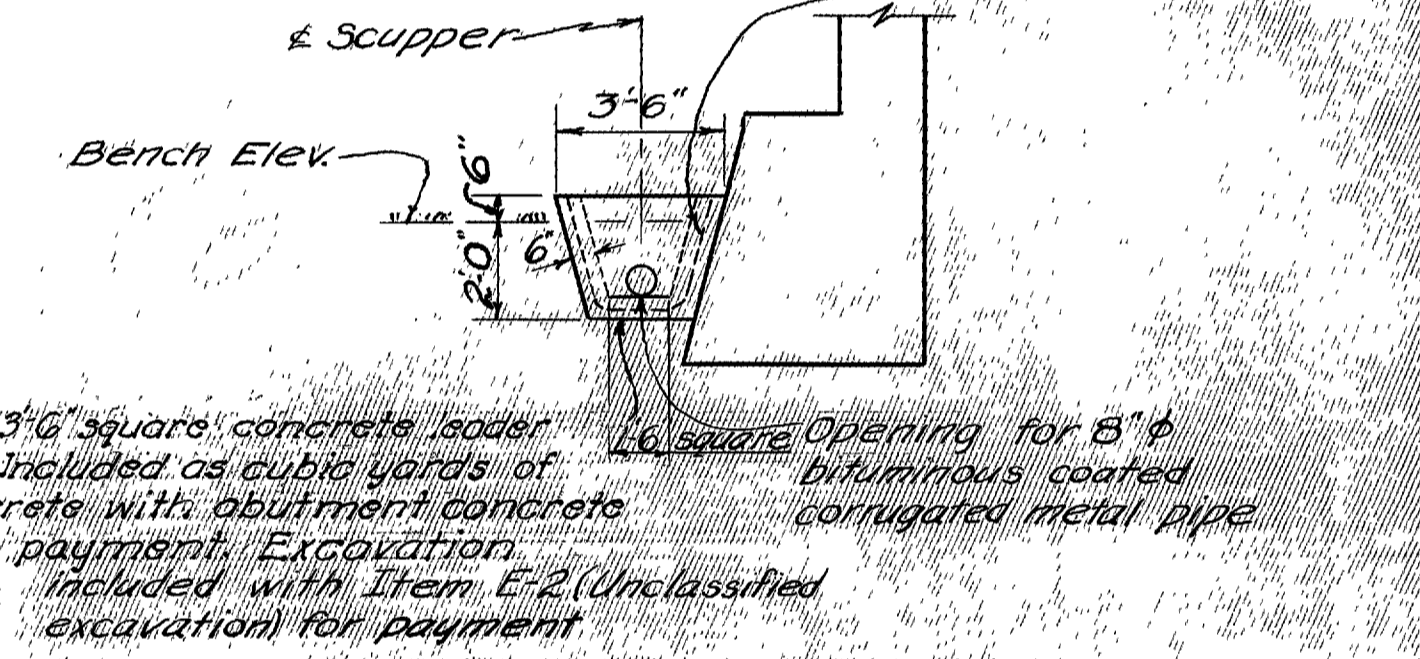
PRESENT TOPOGRAPHY	PROPOSED WORK
SURVEYED DRAWN TRACED	DESIGNED DRAWN CHECKED REVIEWED
Amel Amel Amel	DESIGNED 1703 1703 1703

Revised 10/17/50 BFG HMC 1-13-50

WAY-30-17.03



Wire mesh on sides & bottom (Sec M-7.15) or #3 bars on 2' ctrs. both ways, sides and bottom. Included with abutment concrete for payment.



ABUTMENT NOTES

All earth fill around abutments shall be made full height of earth bench. Excavation shall then be made for abutment cap, after which piling shall be driven. If bottom forms for abutment cap are used, they shall be left in place.

Concrete above bridge seat construction joint shall not be placed until after steelwork is erected. Steel end finish shall be used as a template for top of backwall.

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

ELEVATIONS

	West Abutment	East Abutment
①	1045.12	1045.59
②	1040.59	1041.06
③	1040.42	1040.93
④	1040.52	1041.05
⑤	1040.59	1041.16
⑥	1040.93	1041.52
⑦	1040.91	1041.52
⑧	1040.51	1041.16
⑨	1040.38	1041.05
⑩	1040.22	1040.93
⑪	1040.33	1041.08
⑫	1044.86	1045.61
⑬	1035.22	1035.93

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

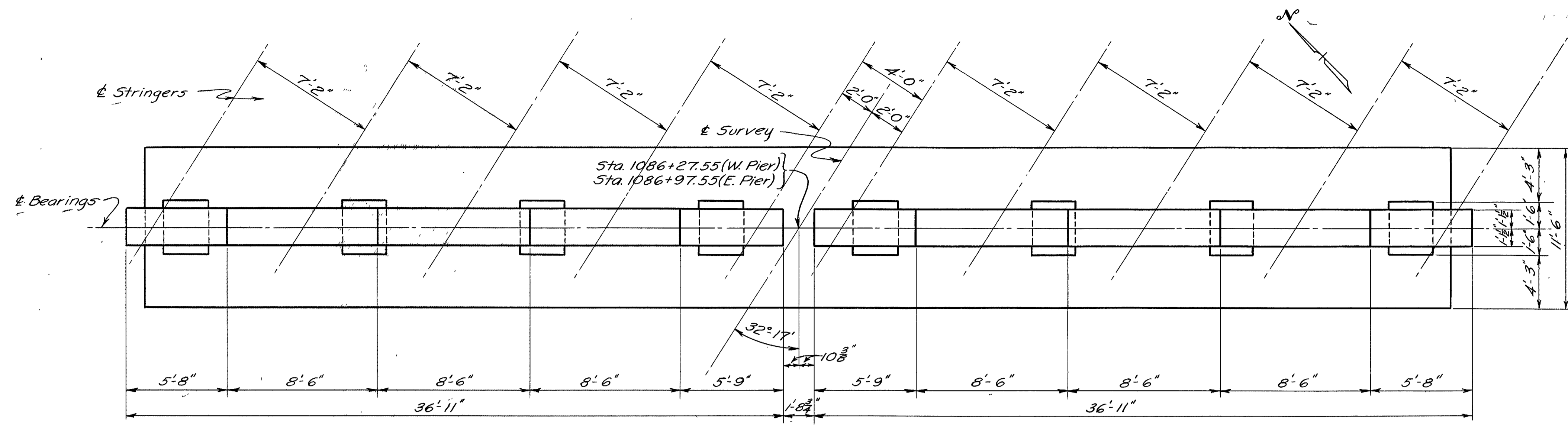
ABUTMENT DETAILS
BRIDGE NO. WA-30-206
OVER W & L. E. R.R.

WAYNE COUNTY
SEC. WAY-30-17.03 STA 1086+62.55

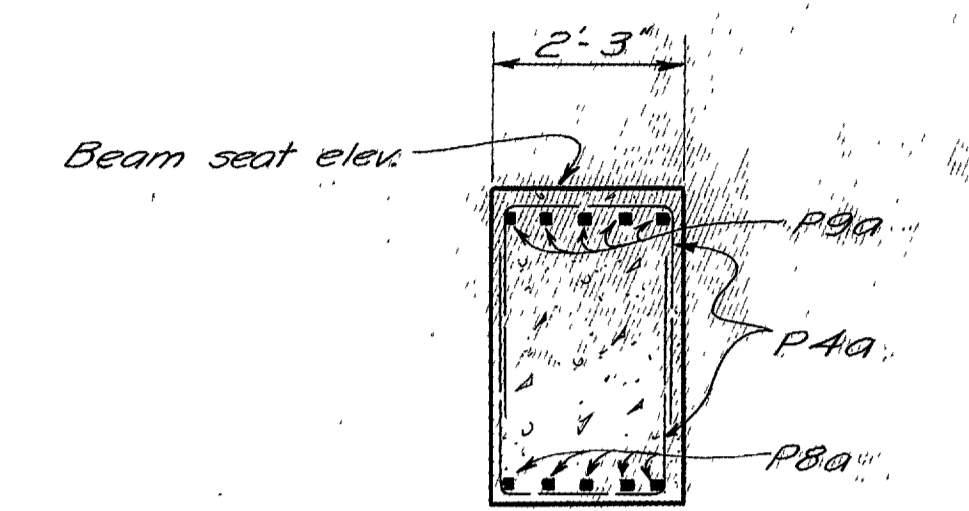
DESIGNED: Slm
DRAWN: Sims
CHECKED: R.P.C.
REVIEWED: W.R.
DATE: 9-13-50

WAY-30-17.03

105
169

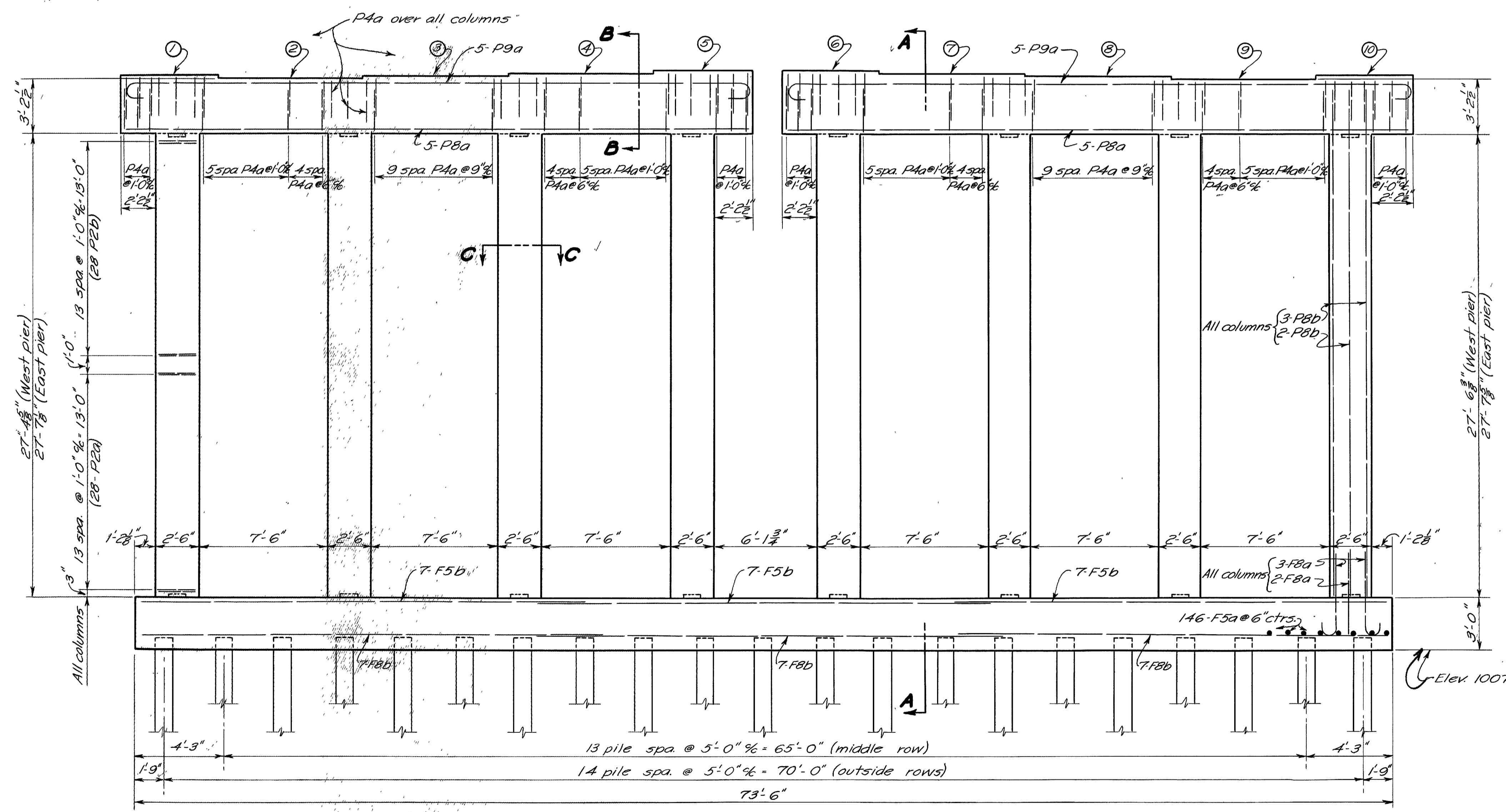


PLAN

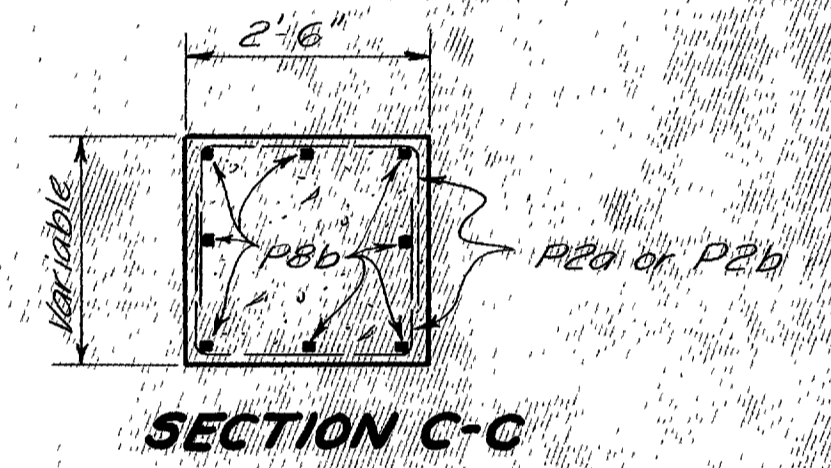
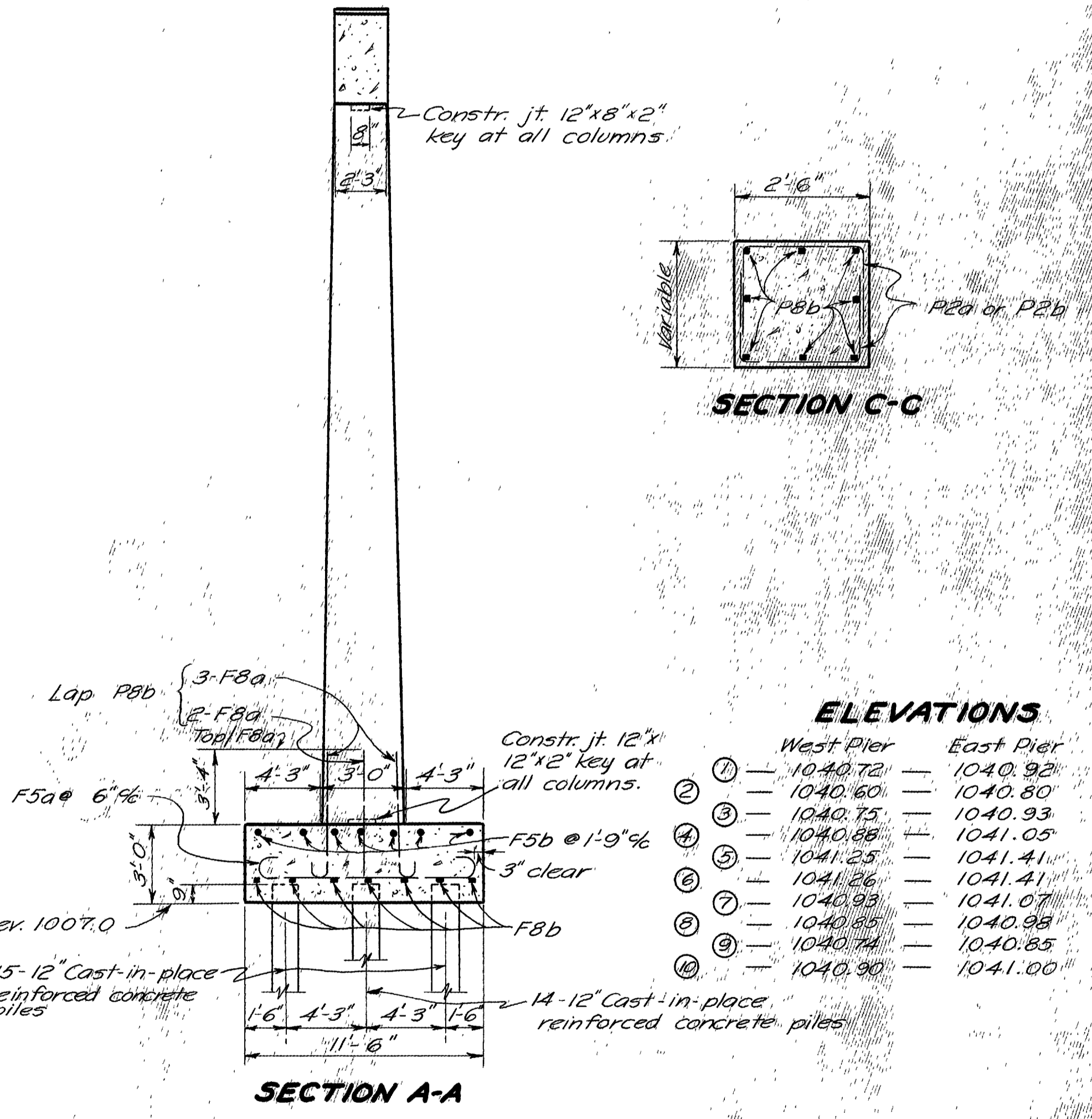


SECTION B-B

NOTE: All reinforcing shall be 2" clear from face of concrete except where otherwise shown.



ELEVATION



SECTION C-C

ELEVATIONS

	West Pier	East Pier
①	1040.72	1040.92
②	1040.60	1040.80
③	1040.75	1040.93
④	1040.85	1041.05
⑤	1041.25	1041.41
⑥	1041.26	1041.41
⑦	1040.93	1041.07
⑧	1040.85	1040.98
⑨	1040.74	1040.85
⑩	1040.90	1041.00

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

PIER DETAILS
BRIDGE NO WA-30-206
OVER W.F.L. R.R.

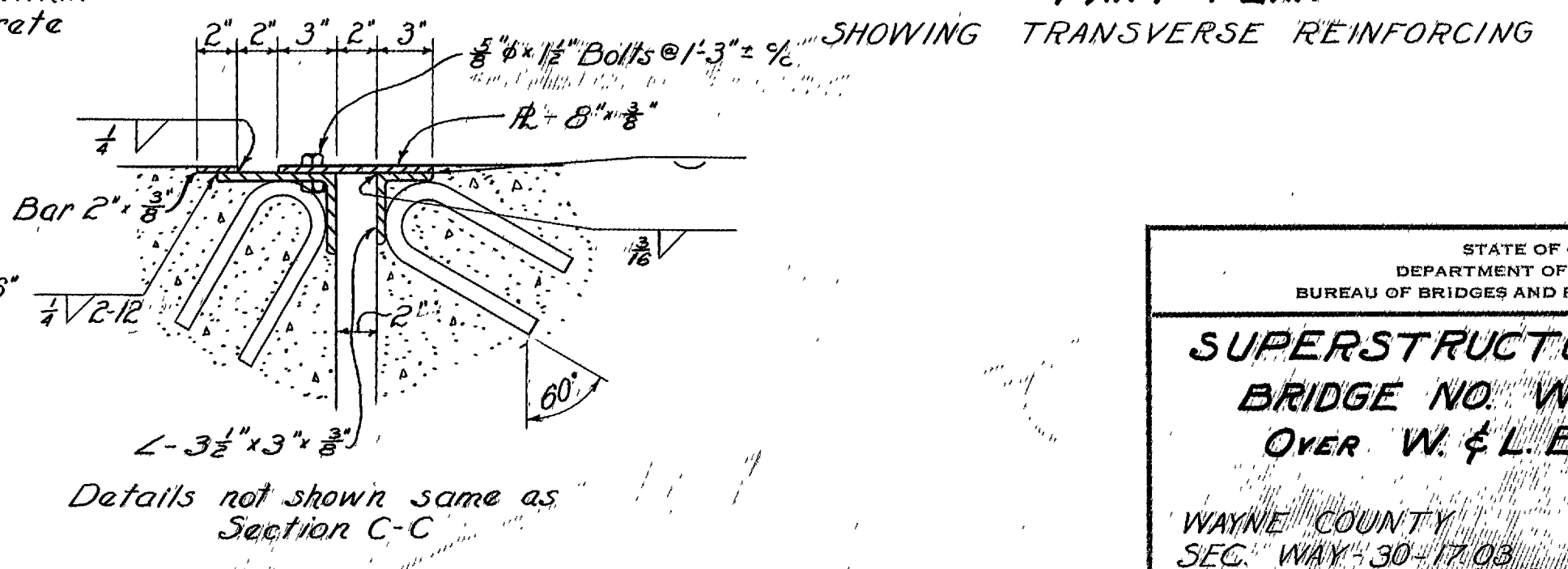
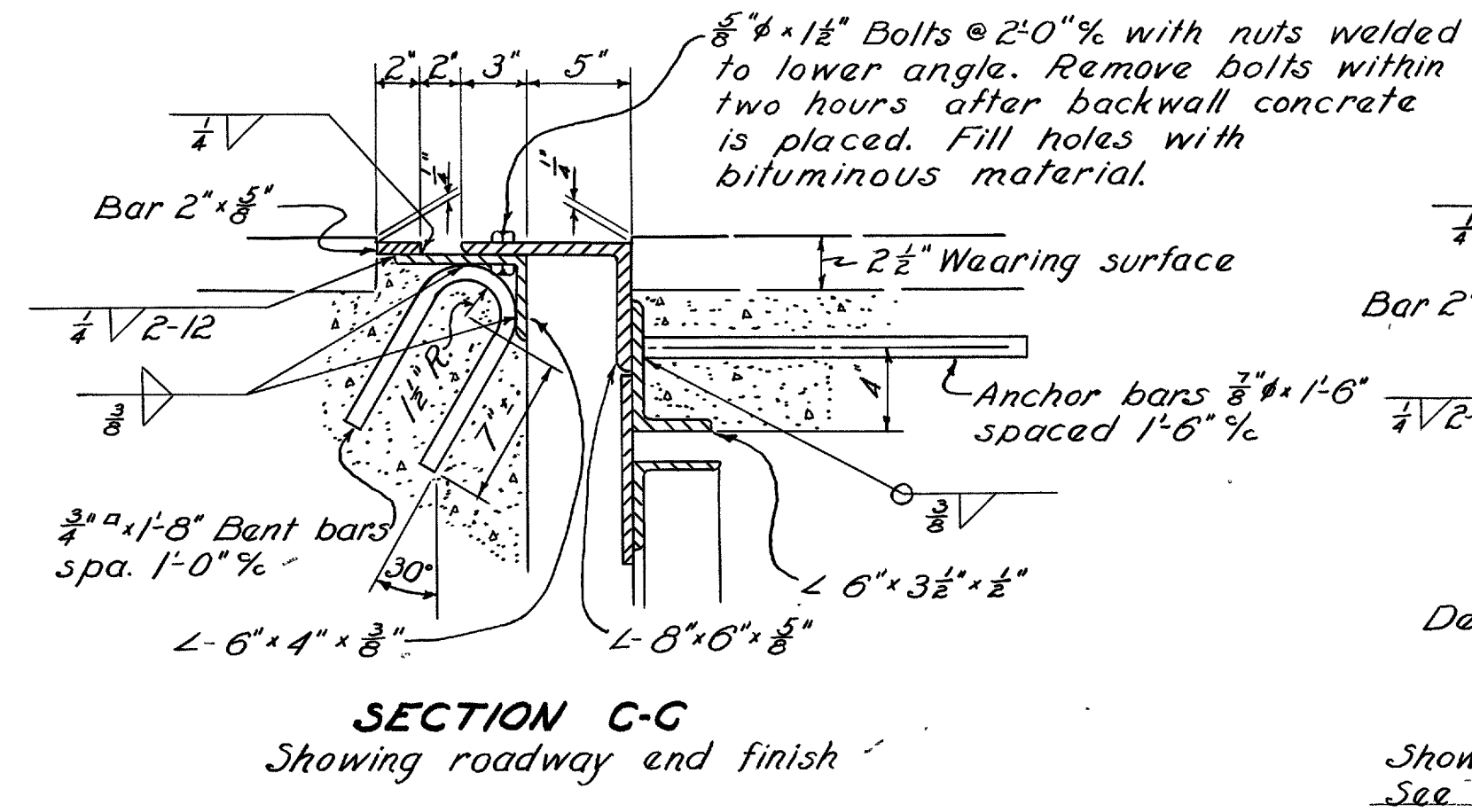
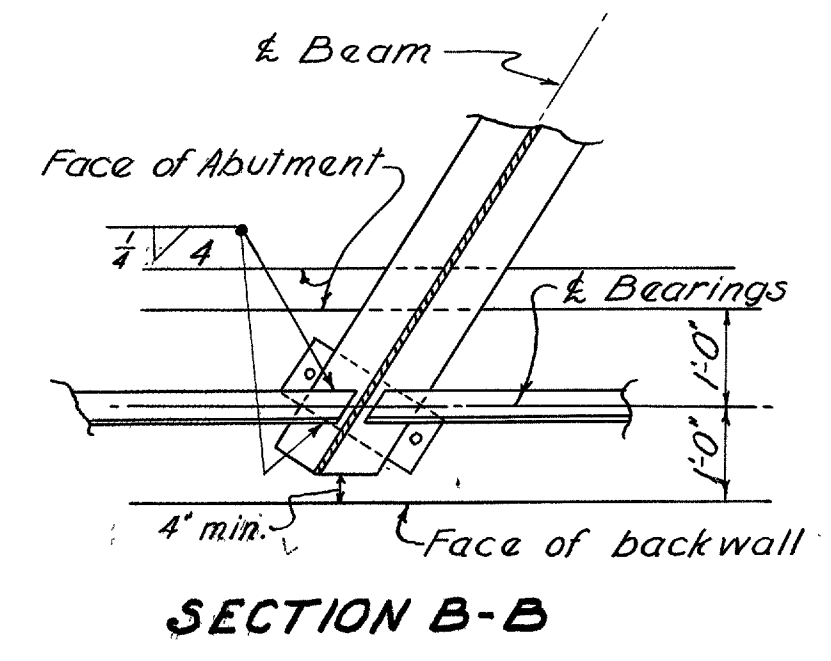
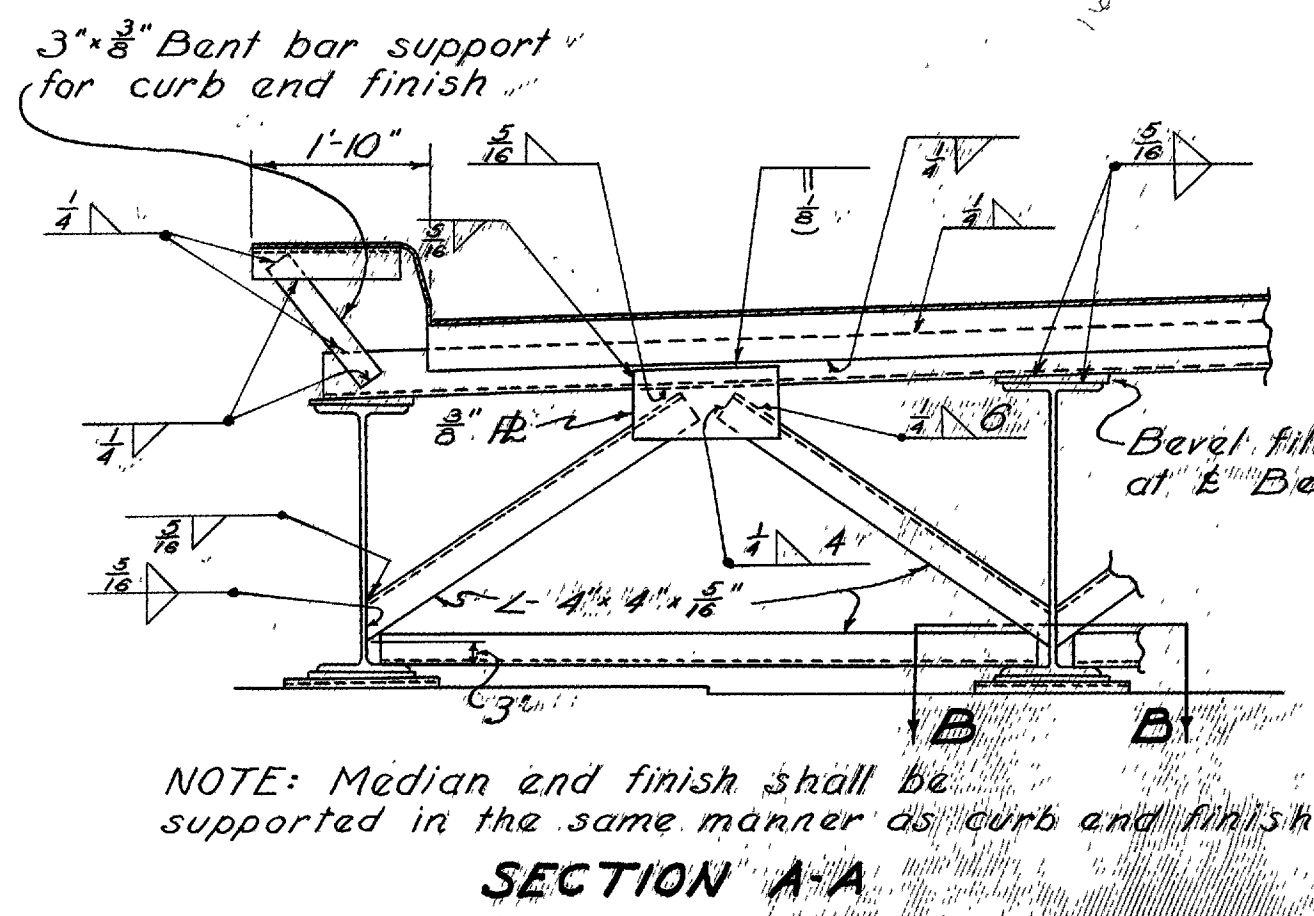
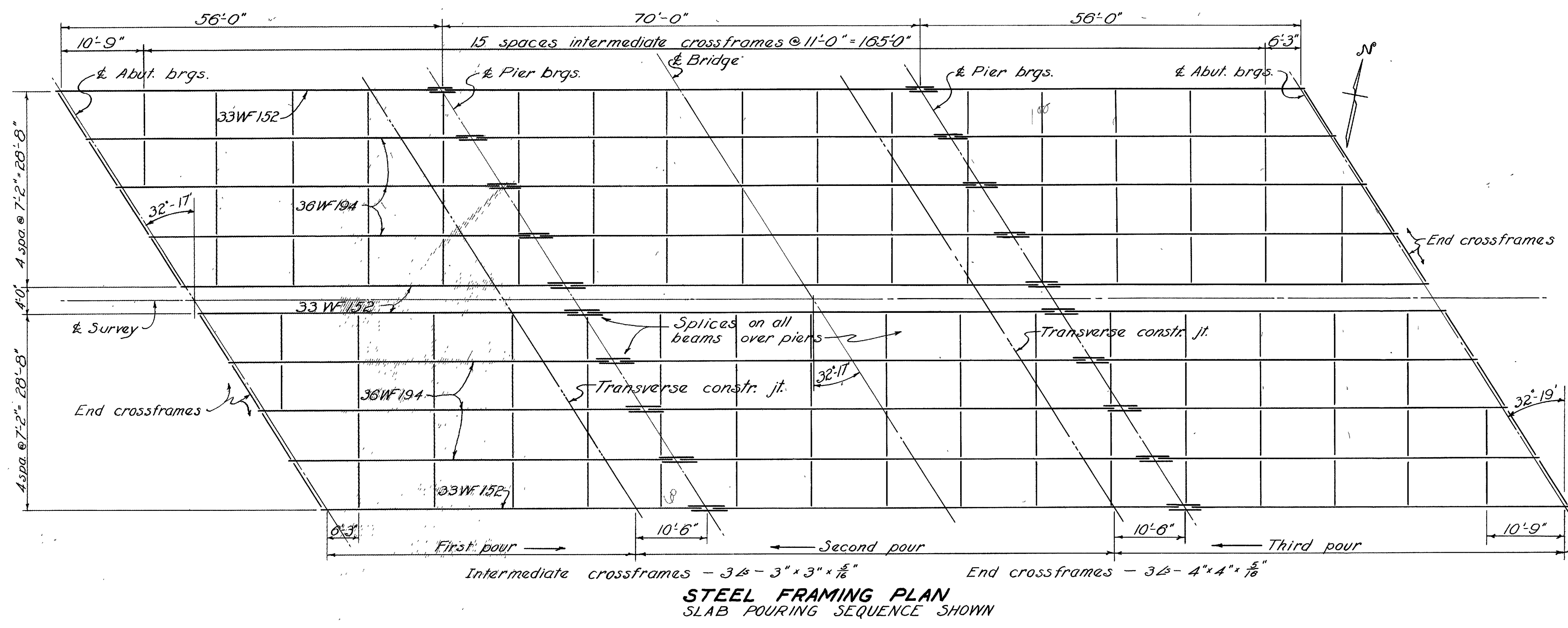
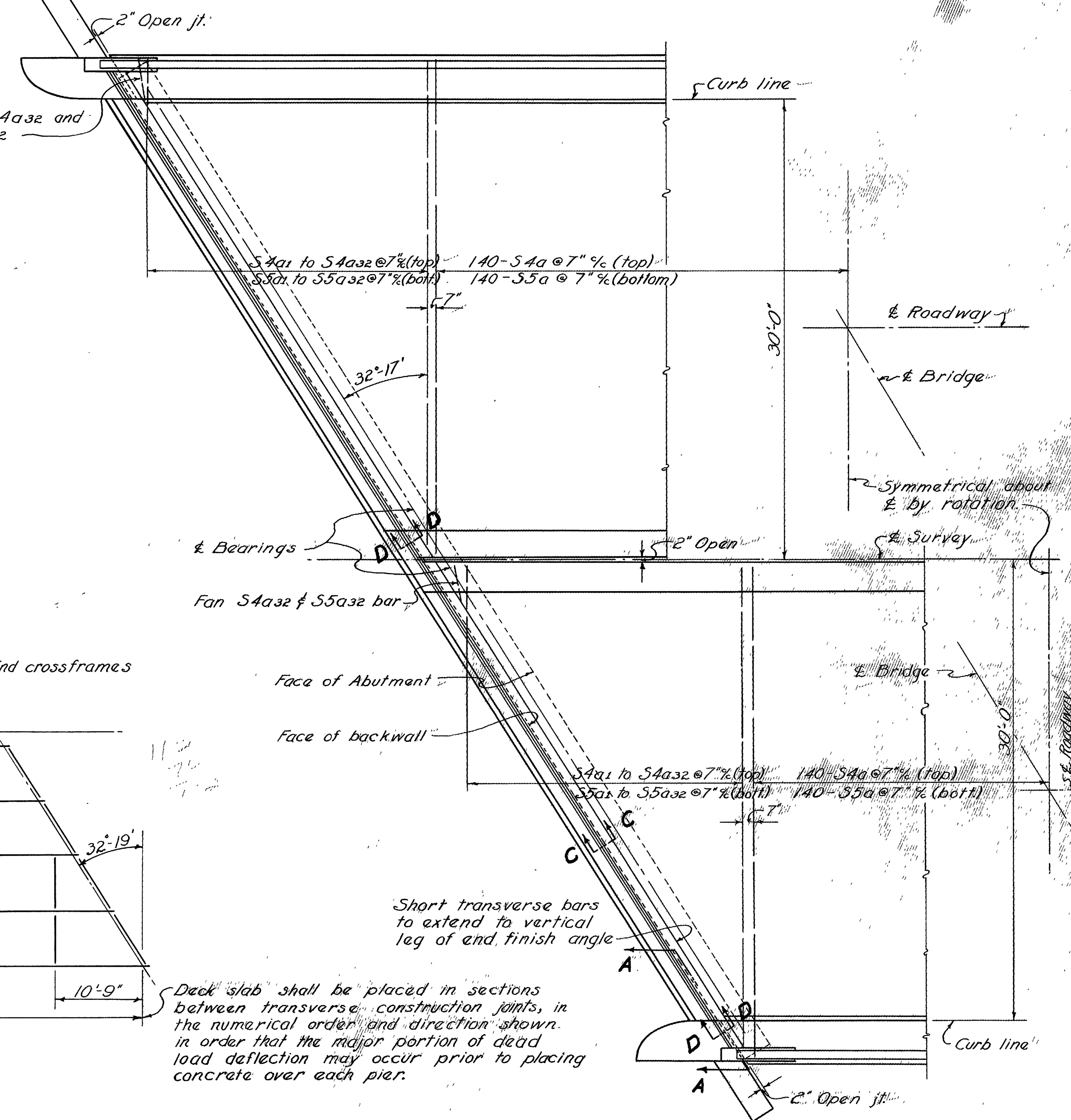
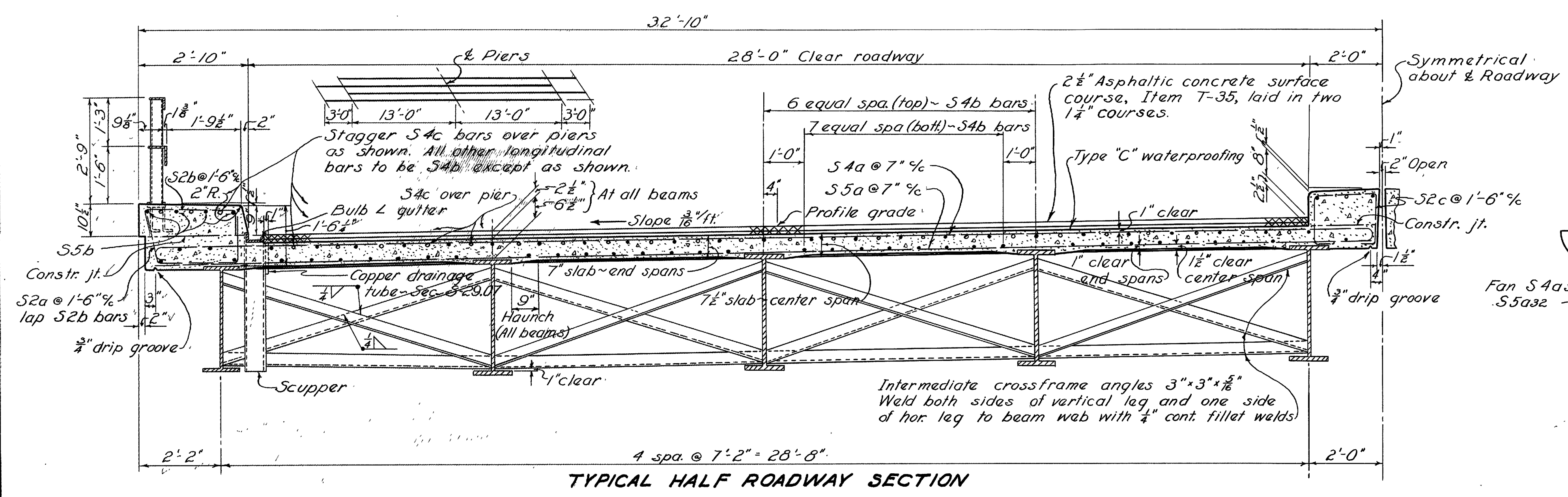
WAYNE COUNTY
SEC. WAY-30-17.03
Sta 1086+62.55
FG-303(G)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
Sims	Sims	ER	BFG	WJK	9-13-50	

WAY-30-17.03

TABLE OF DEFLECTIONS & CAMBERS

	36 WF 194		33 WF 152	
	End Span	Mid Span	End Span	Mid Span
Deflection due to wgt. of steel	$\frac{1}{16}$ "	$\frac{3}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{16}$ "
Deflection due to remaining D.L.	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{8}$ "	$\frac{1}{16}$ "
Camber reqd. for vert. curve	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{1}{16}$ "	$\frac{1}{4}$ "
Reqd. Shop Camber	0"	0"	$\frac{7}{8}$ "	1"



STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

SUPERSTRUCTURE DETAILS
BRIDGE NO. WA-30-206
OVER W. & L. E. R.R.

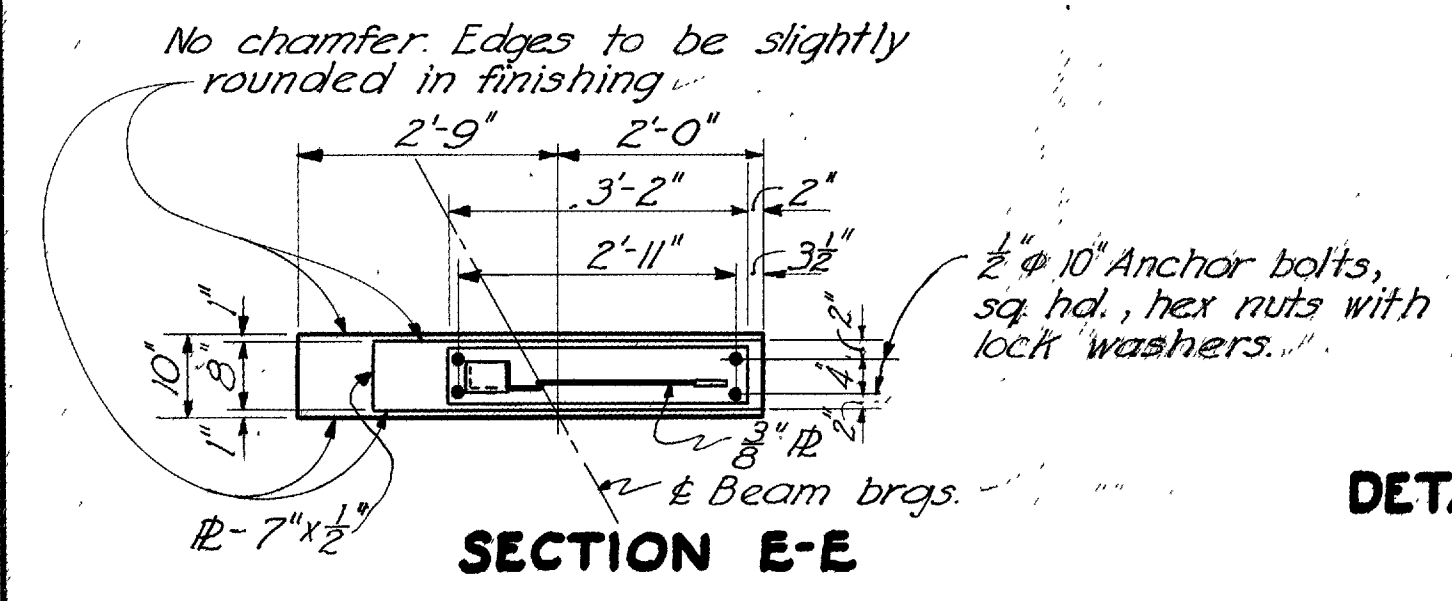
WAYNE COUNTY
SEC. WAY-30-17.03
Sta 1085+62.55
FG-303(G)

DESIGNED	DRAWN	TRACKED	CHECKED	REVIEWED	DATE	REVISION
5/1/35	5/1/35	FLL	HAK	BFG	9-13-50	

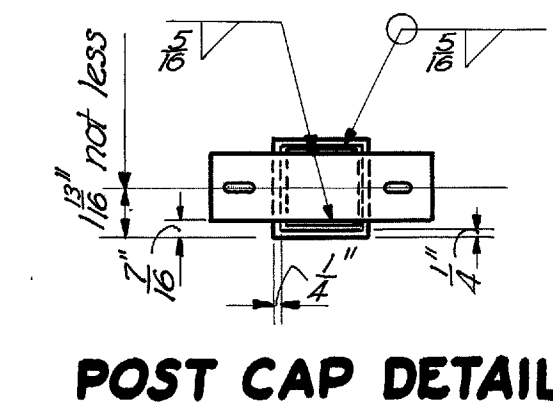
FED. RD. DIVISION	STATE	PROJECT	F. & F. FUNDS
2	OHIO	F-303(G) FG-303(O)	POST WAR

WAY 30-17.03

101
107

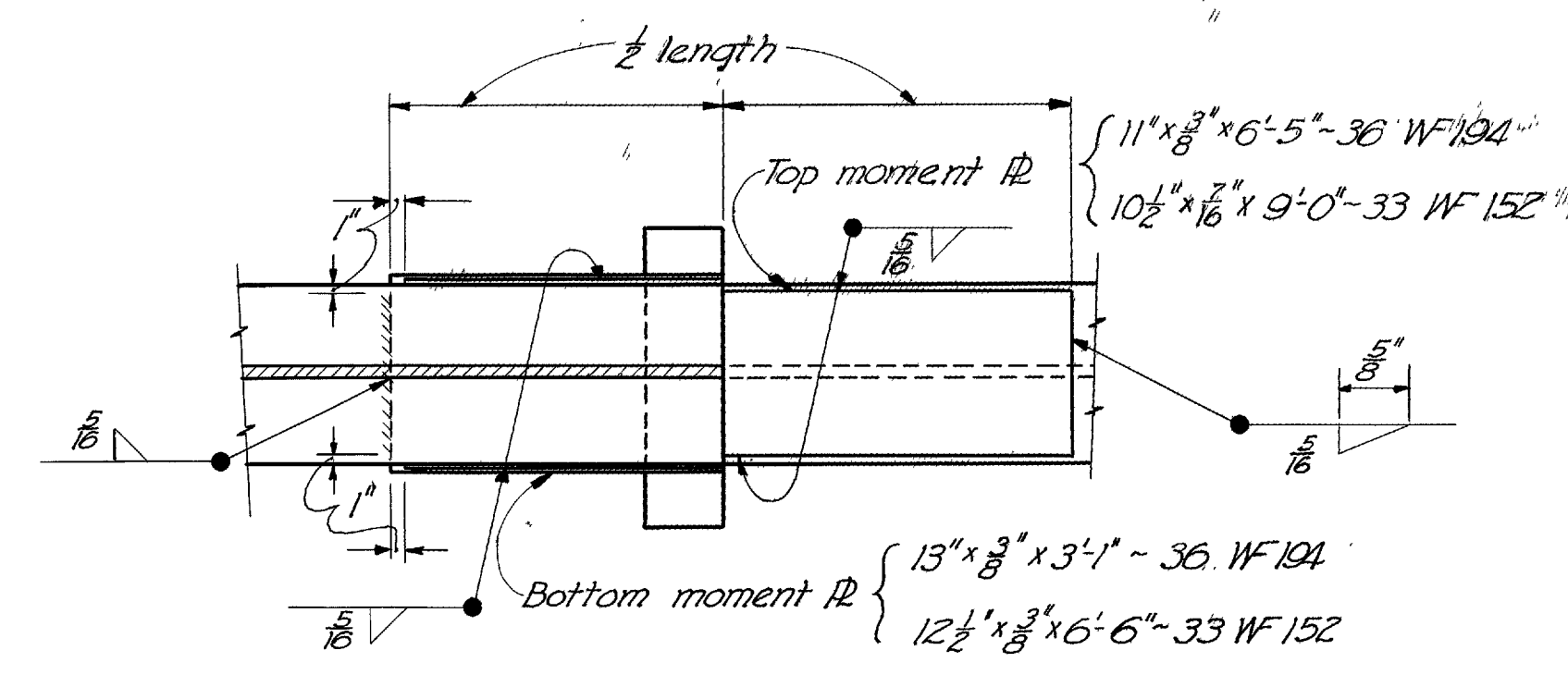


DETAIL OF CURVED CUT



POST CAP DETAIL

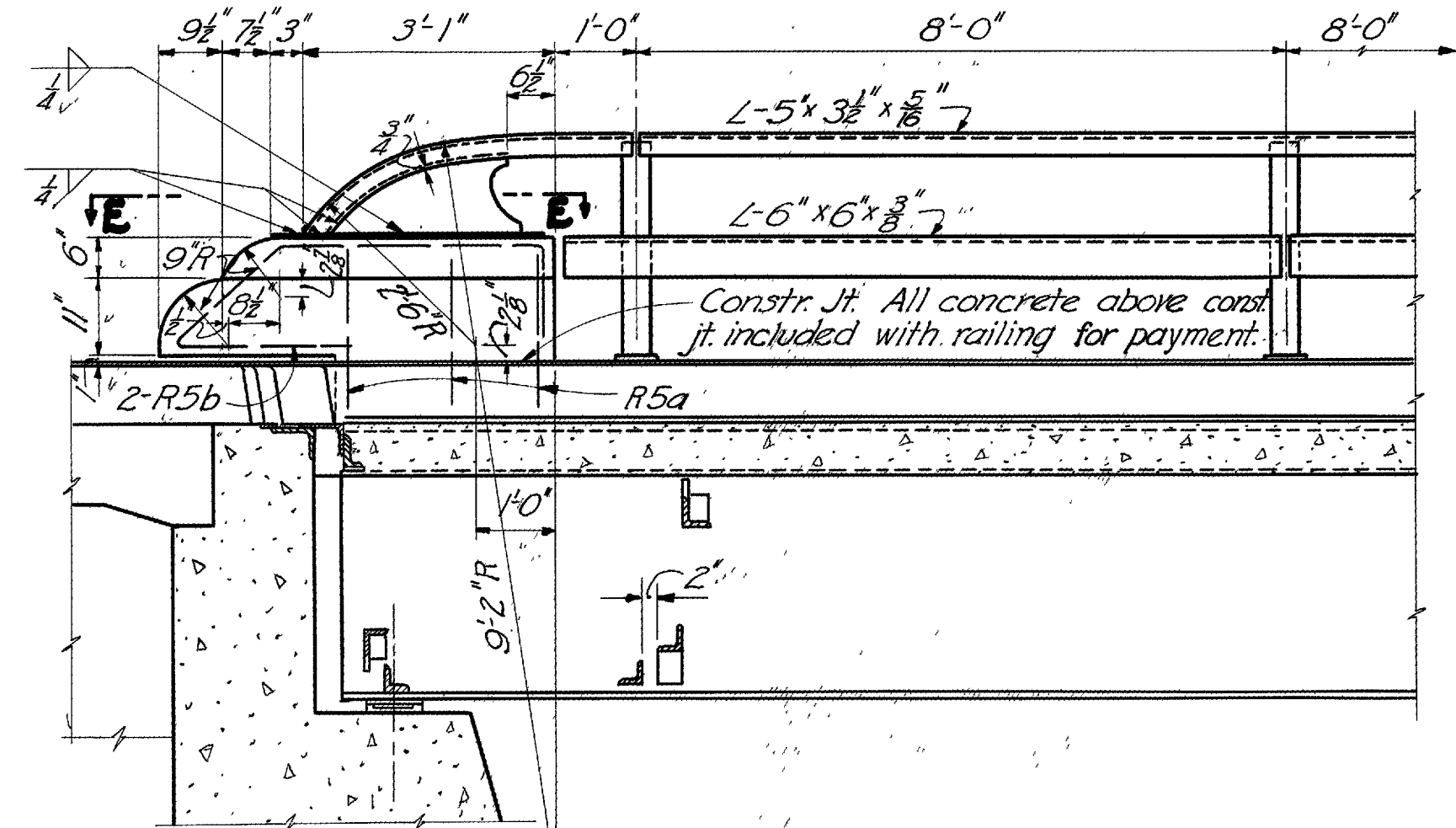
NOTE: Railing angles shall be continuous for two or three panel lengths; joints in upper and lower angles to be staggered.



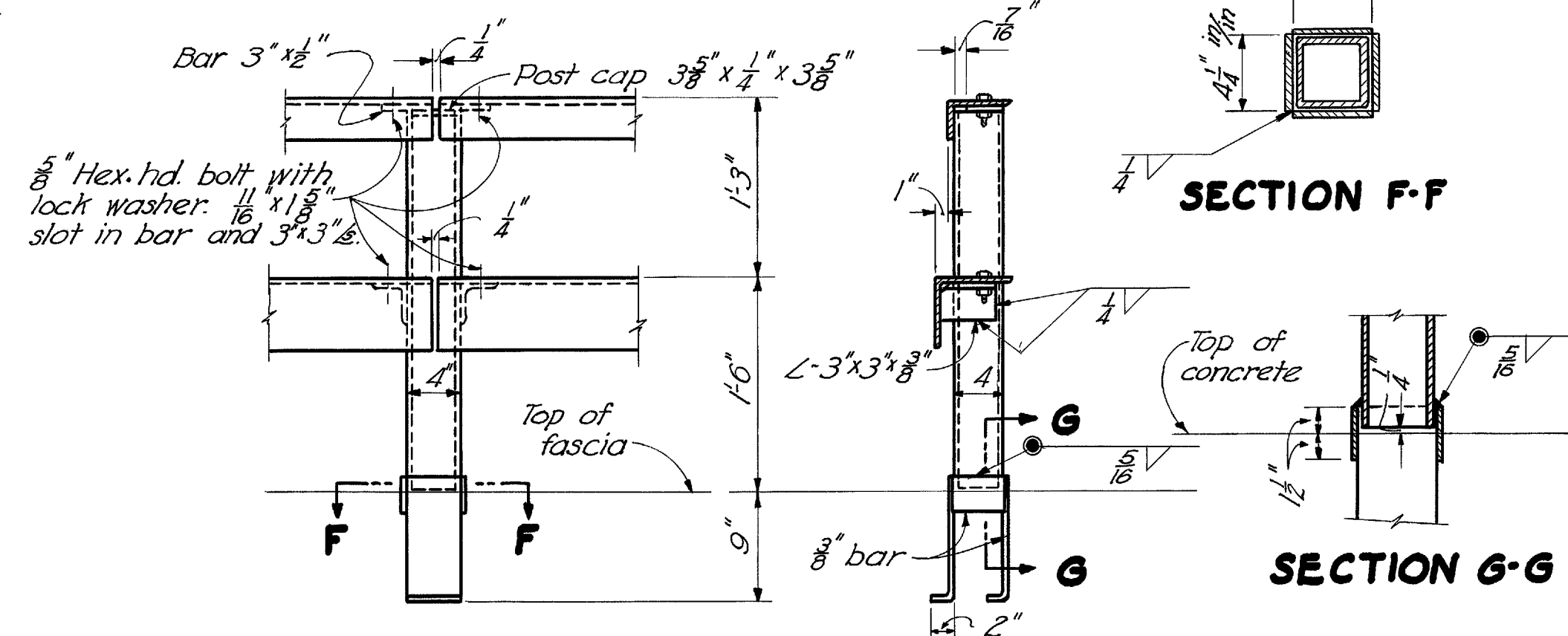
SECTION D-D

BEAM SPLICE DETAILS

NOTE: 'G' indicates a flush grind.

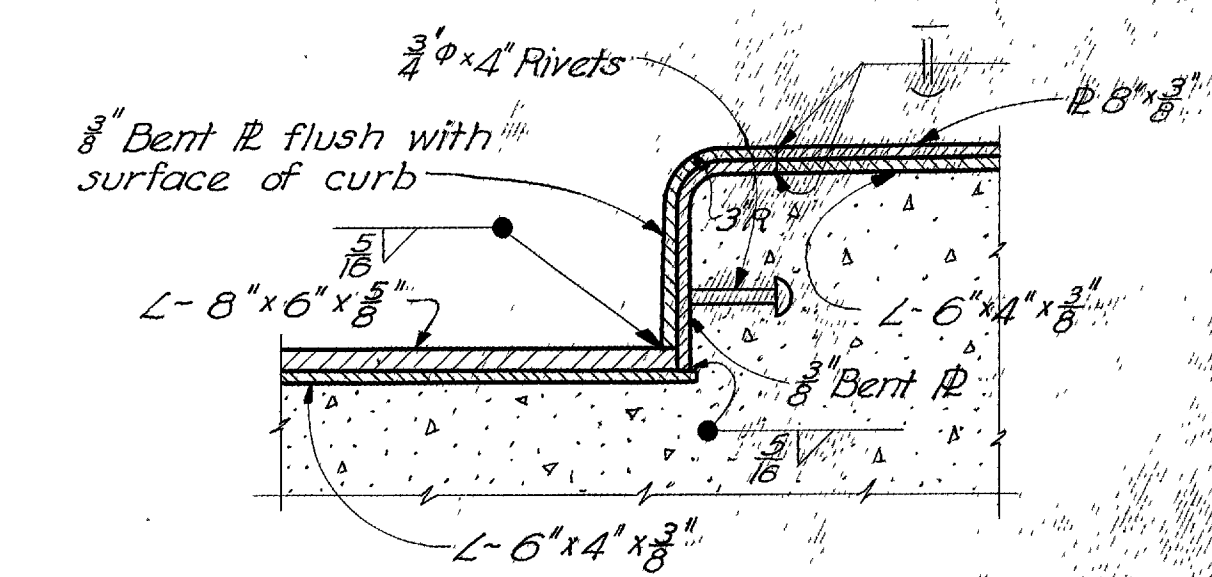


SECTION AT CORNER OF SUPERSTRUCTURE

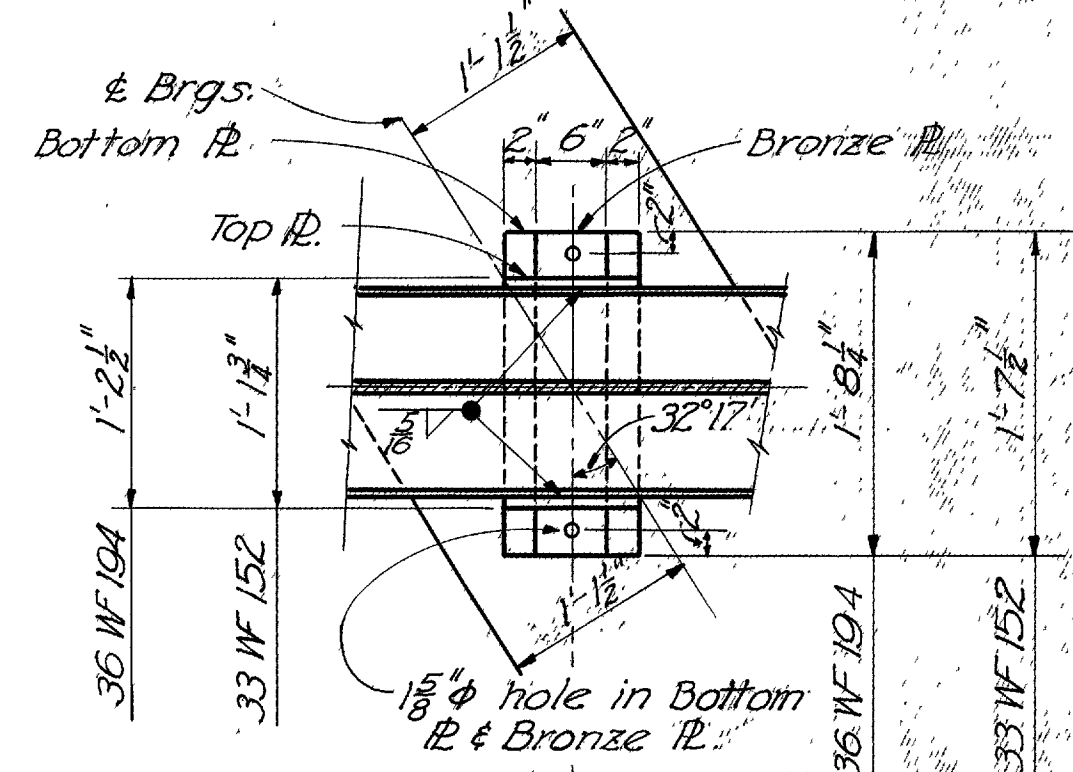


RAILING DETAILS

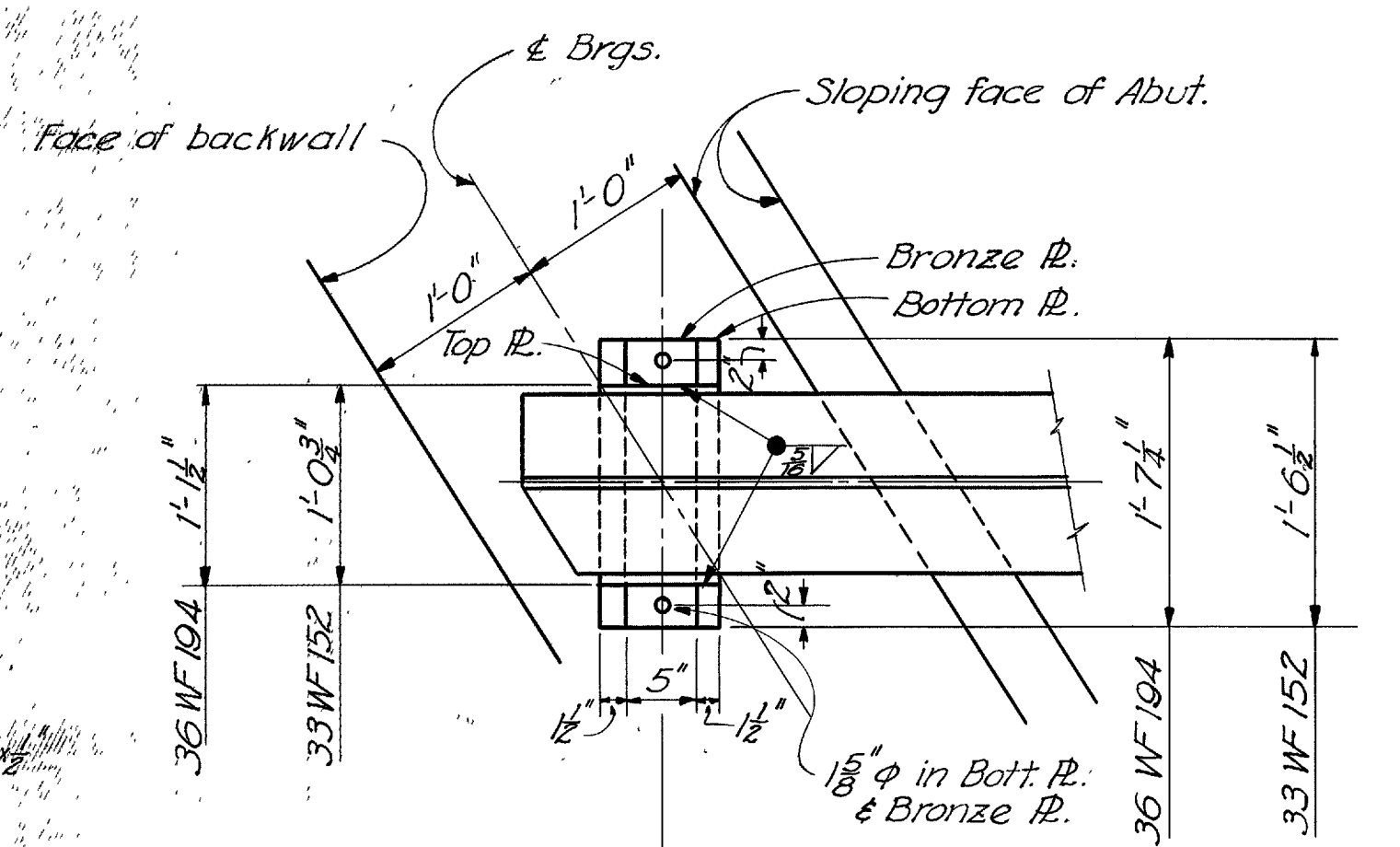
Post anchors included with railing for payment.



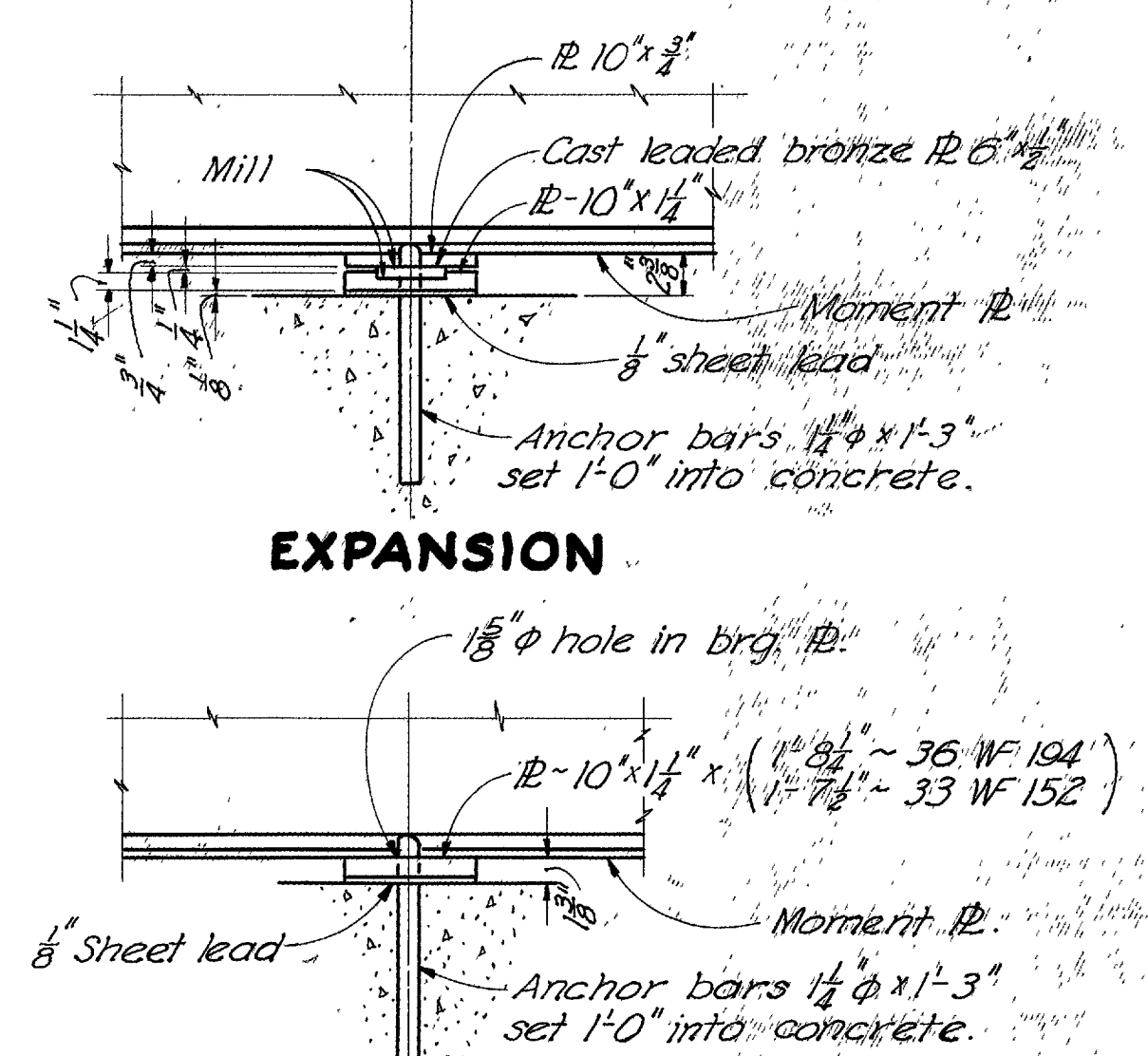
PART SECTION THRU END FINISH AT MEDIAN



EXPANSION

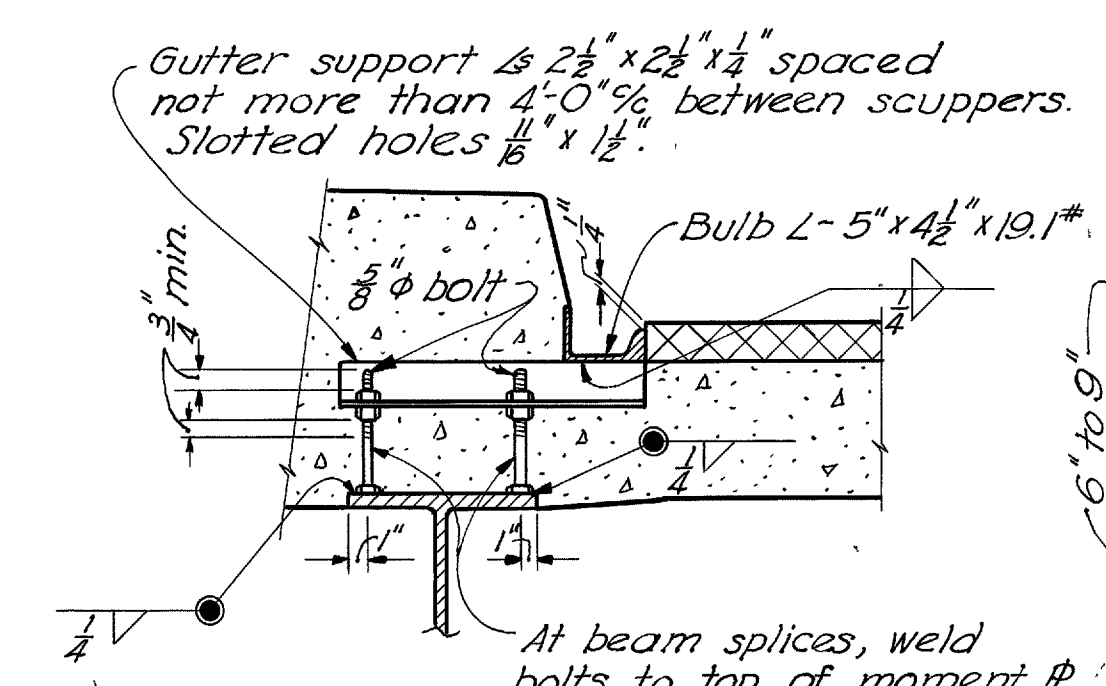


ABUTMENT BEARING DETAILS

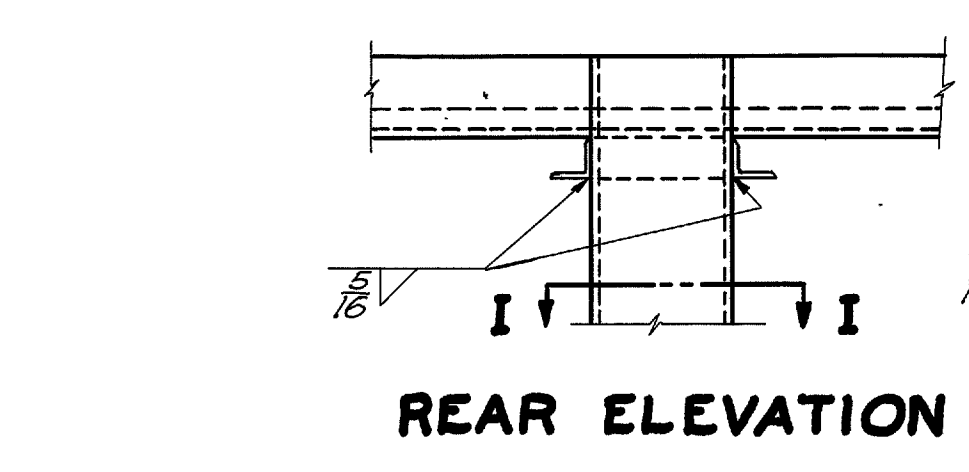


FIXED PIER BEARING DETAILS

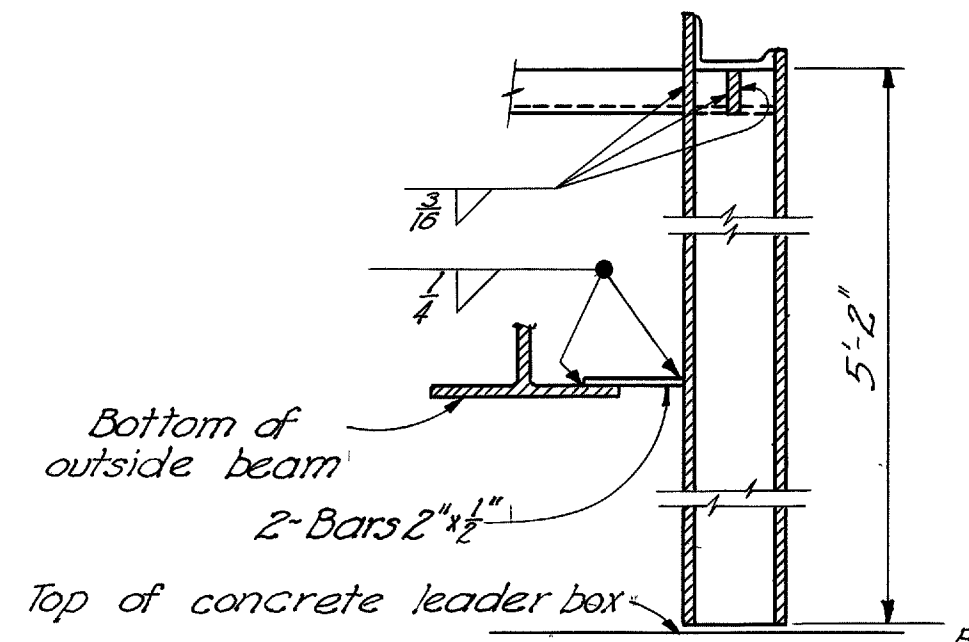
NOTE: Cast leaded bronze R and sheet lead are included with structural steel for payment.



GUTTER SUPPORT

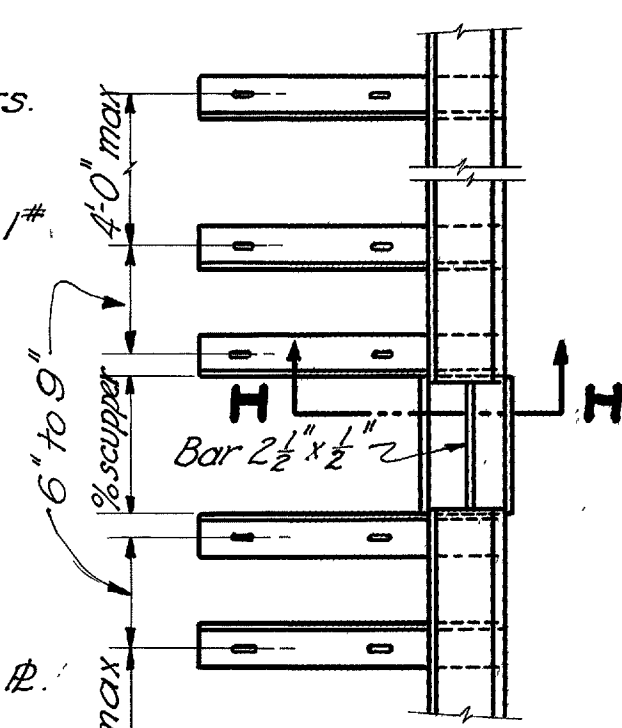


REAR ELEVATION



SECTION H-H EAST SPAN

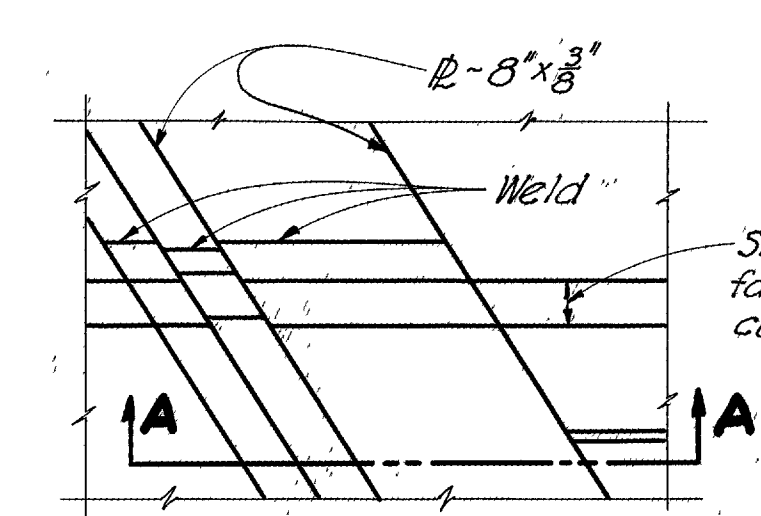
GUTTER AND SCUPPER DETAILS



PART PLAN

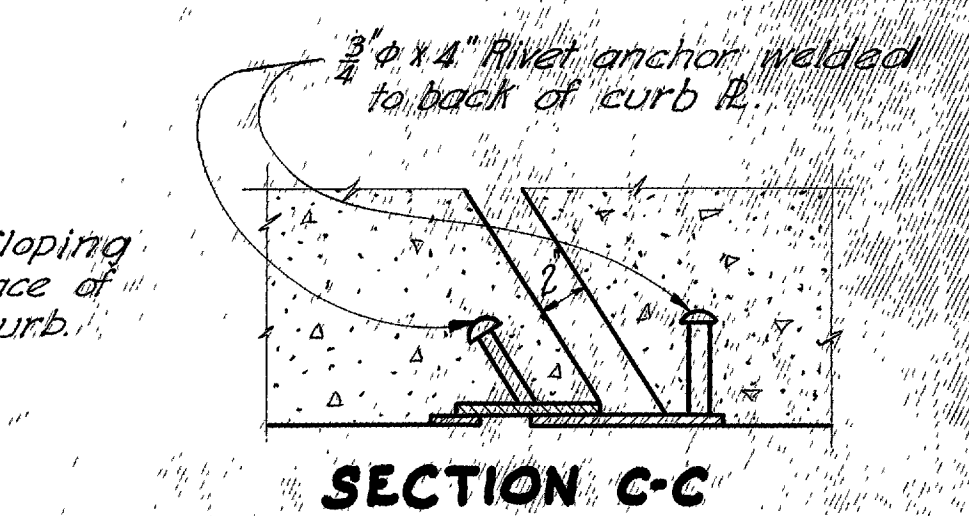
SECTION I-I WEST SPAN

SECTION I-I EAST SPAN

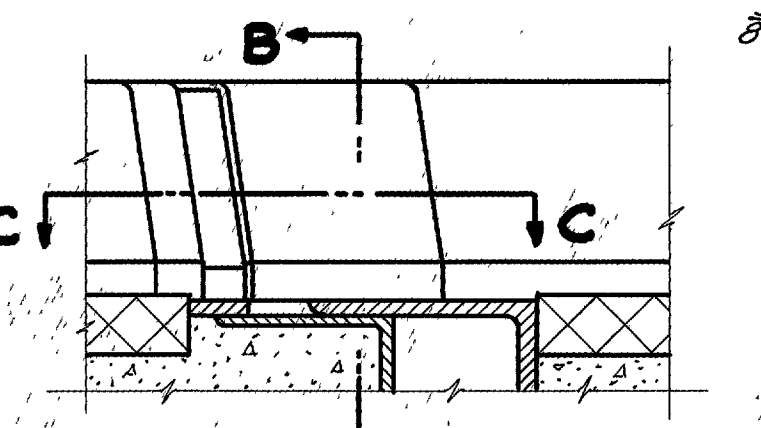


PART PLAN

SECTION A-A



SECTION C-C



SECTION B-B

CURB END FINISH DETAILS

GUTTER AND SCUPPER NOTES:

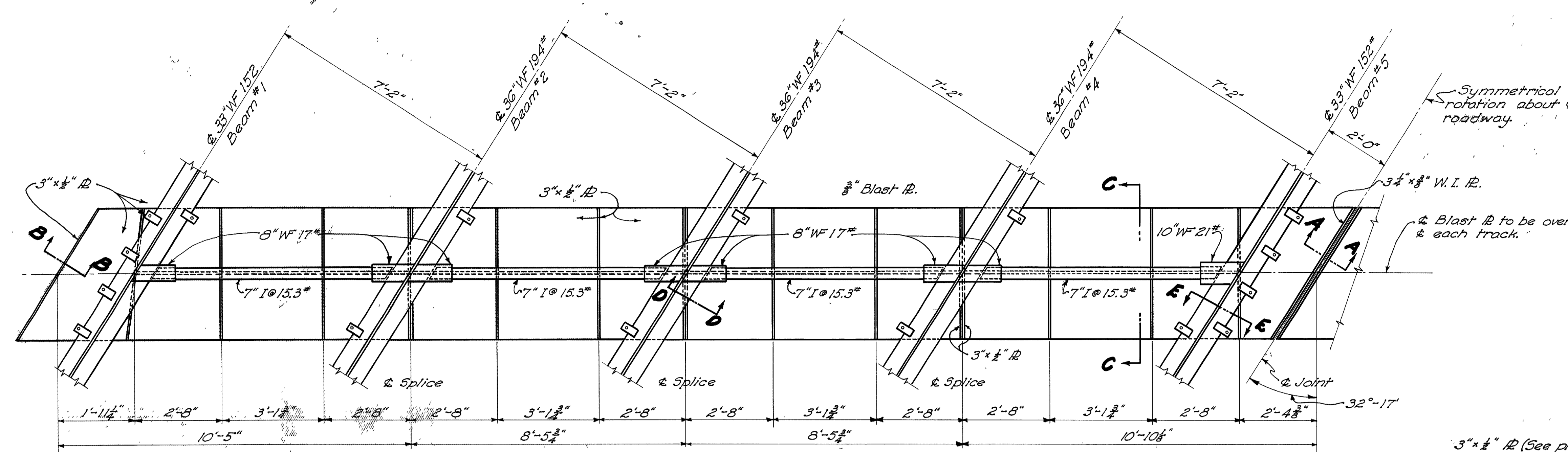
Steel gutters and scuppers shall be copper bearing steel.

Individual lengths of bulb angle shall be as long as practicable. Joints shall be milled. Supports shall be placed 6" to 9" on each side of joints.

Gutters shall be accurately adjusted to line and grade with allowance for dead load deflection, before concrete is placed.

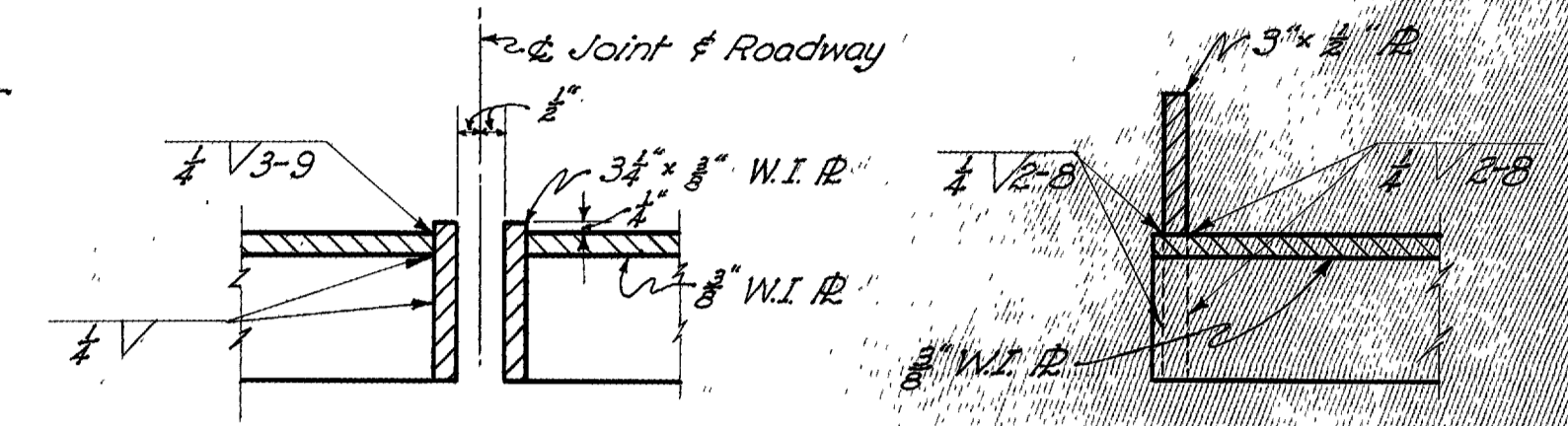
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS					
SUPERSTRUCTURE DETAILS					
BRIDGE NO. WA-30-206					
OVER W. & L. E. R.R.					
WAYNE COUNTY					
SEC. WAY-30-17.03			STA. 1086+62.55		
FG-303(O)					
DESIGNED	DRAWN	INCHES	CHECKED	REVIEWED	DATE
Sims	Sims	REN	BFG	BFG	9-15-50

WAY-30-17.03



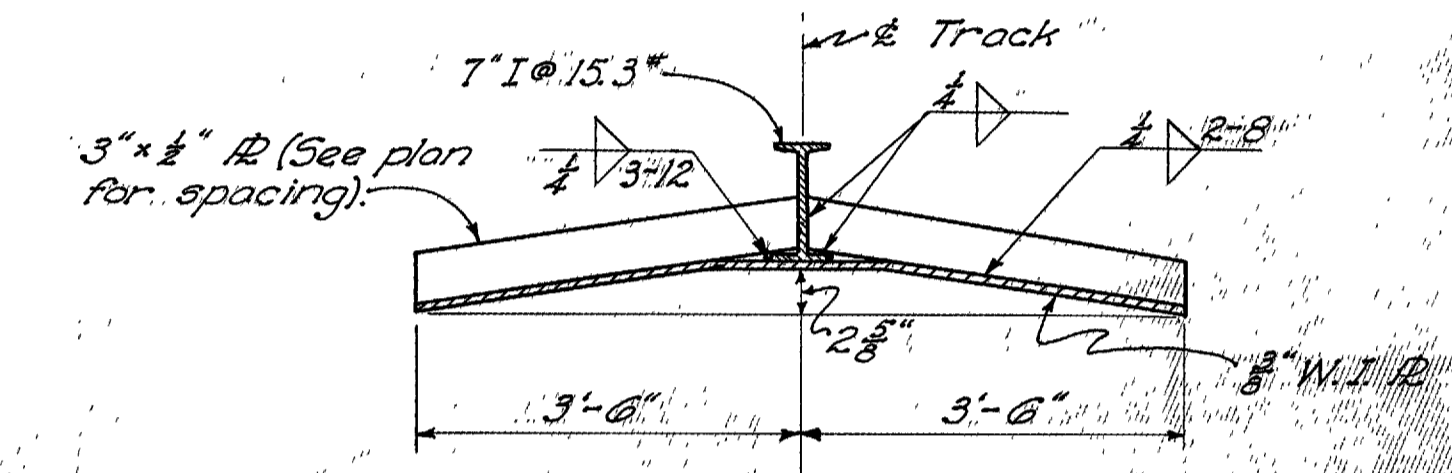
BLAST PLATE LAYOUT

Note: All blast plate details and connections to beams included with Wrought Iron Blast Plates (5-7) for payment.

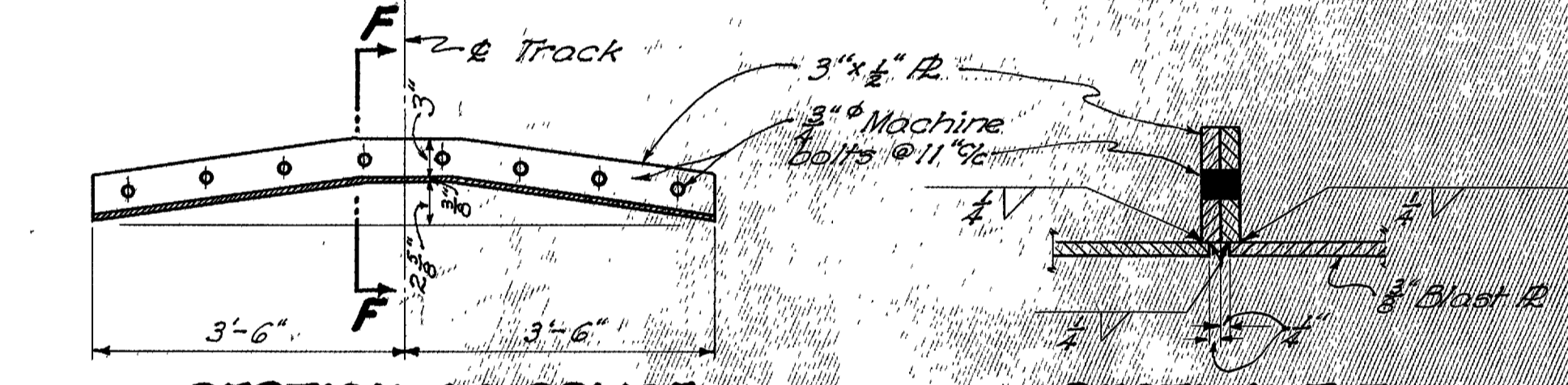


SECTION A-A

SECTION B-B



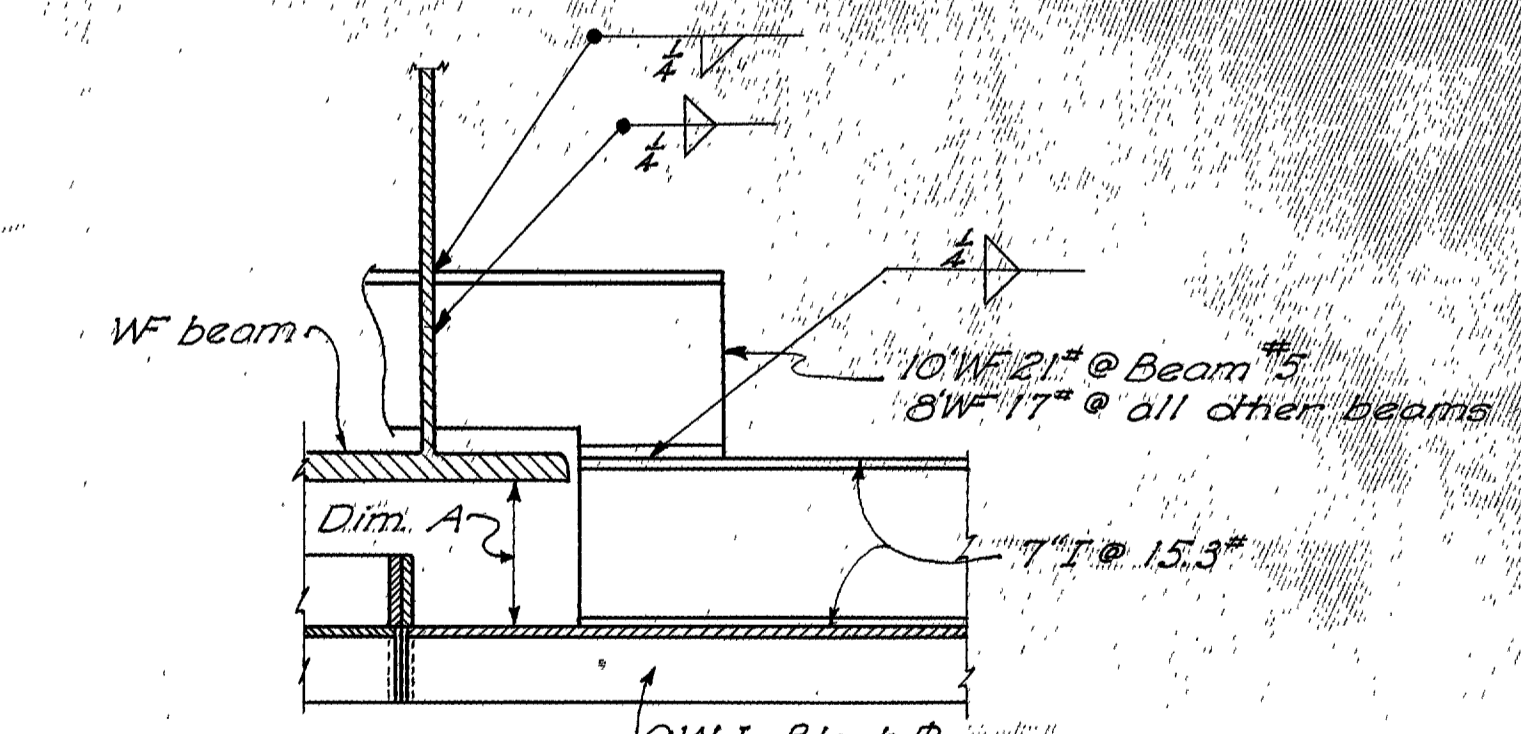
SECTION C-C



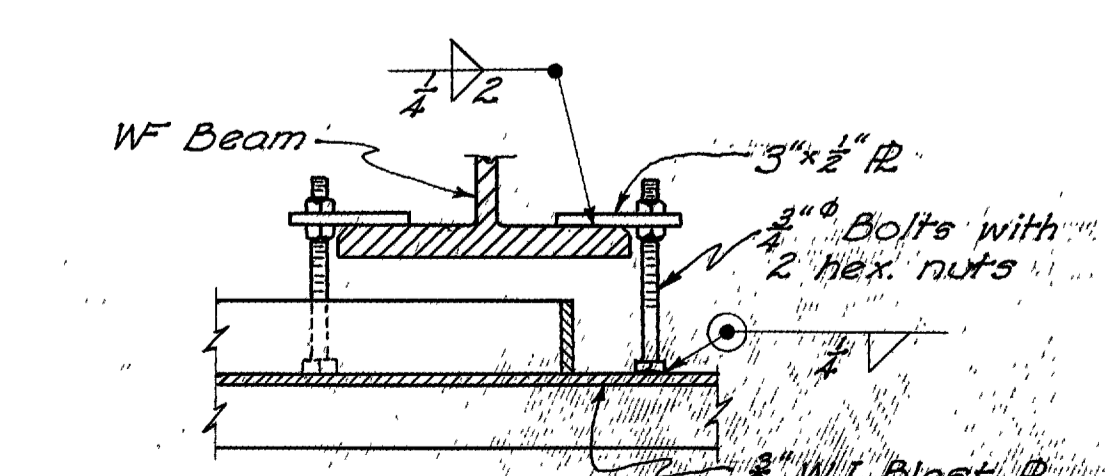
SECTION AT SPLICE

SECTION F-F

- "DIM A"
- Beam #1 58"
 - Beam #2 38"
 - Beam #3 58"
 - Beam #4 16 1/2"
 - Beam #5 10 1/2"



SECTION D-D
Typical detail of blast plate support



SECTION E-E
Typical detail of blast plate support

REINFORCING STEEL LIST					BENDING DIAGRAM					REINFORCING STEEL LIST							
MARK	SIZE	NO.	LENGTH	WEIGHT	SHR.	MARK	SIZE	NO.	LENGTH	WEIGHT	SHR.	MARK	SIZE	NO.	LENGTH	WEIGHT	SHR.
SUPERSTRUCTURE																	
55a	5/8"	558	32'-2"	26,963	5Tr	54a	5/8"	4	31'-10"	133	Bt	54a	5/8"	4	31'-10"	133	Bt
55a	5/8"	4	31'-3"	188	5Tr	54a	5/8"	4	30'-0"	125	Bt	54a	5/8"	4	30'-0"	125	Bt
55a	5/8"	4	30'-4"	182	5Tr	54a	5/8"	4	29'-1"	121	Bt	54a	5/8"	4	29'-1"	121	Bt
55a	5/8"	4	29'-5"	177	5Tr	54a	5/8"	4	28'-2"	117	Bt	54a	5/8"	4	28'-2"	117	Bt
55a	5/8"	4	28'-6"	171	5Tr	54a	5/8"	4	27'-3"	113	Bt	54a	5/8"	4	27'-3"	113	Bt
55a	5/8"	4	27'-7"	166	5Tr	54a	5/8"	4	26'-4"	110	Bt	54a	5/8"	4	26'-4"	110	Bt
55a	5/8"	4	26'-8"	160	5Tr	54a	5/8"	4	25'-5"	106	Bt	54a	5/8"	4	25'-5"	106	Bt
55a	5/8"	4	25'-9"	155	5Tr	54a	5/8"	4	24'-6"	102	Bt	54a	5/8"	4	24'-6"	102	Bt
55a	5/8"	4	24'-10"	149	5Tr	54a	5/8"	4	23'-7"	98	Bt	54a	5/8"	4	23'-7"	98	Bt
55a	5/8"	4	23'-11"	144	5Tr	54a	5/8"	4	22'-7"	94	Bt	54a	5/8"	4	22'-7"	94	Bt
55a	5/8"	4	23'-0"	138	5Tr	54a	5/8"	4	21'-8"	90	Bt	54a	5/8"	4	21'-8"	90	Bt
55a	5/8"	4	22'-0"	132	5Tr	54a	5/8"	4	20'-9"	87	Bt	54a	5/8"	4	20'-9"	87	Bt
55a	5/8"	4	21'-1"	127	5Tr	54a	5/8"	4	19'-10"	83	Bt	54a	5/8"	4	19'-10"	83	Bt
55a	5/8"	4	20'-2"	121	5Tr	54a	5/8"	4	18'-11"	79	Bt	54a	5/8"	4	18'-11"	79	Bt
55a	5/8"	4	19'-3"	116	5Tr	54a	5/8"	4	18'-0"	75	Bt	54a	5/8"	4	18'-0"	75	Bt
55a	5/8"	4	18'-4"	110	5Tr	54a	5/8"	4	17'-1"	71	Bt	54a	5/8"	4	17'-1"	71	Bt
55a	5/8"	4	17'-5"	105	5Tr	54a	5/8"	4	16'-2"	67	Bt	54a	5/8"	4	16'-2"	67	Bt
55a	5/8"	4	16'-6"	99	5Tr	54a	5/8"	4	15'-3"	64	Bt	54a	5/8"	4	15'-3"	64	Bt
55a	5/8"	4	15'-7"	94	5Tr	54a	5/8"	4	14'-4"	60	Bt	54a	5/8"	4	14'-4"	60	Bt
55a	5/8"	4	14'-8"	88	5Tr	54a	5/8"	4	13'-5"	56	Bt	54a	5/8"	4	13'-5"	56	Bt
55a	5/8"	4	13'-9"	83	5Tr	54a	5/8"	4	12'-6"	52	Bt	54a	5/8"	4	12'-6"	52	Bt
55a	5/8"	4	12'-10"	77	5Tr	54a	5/8"	4	11'-7"	48	Bt	54a	5/8"	4	11'-7"	48	Bt
55a	5/8"	4	11'-11"	72	5Tr	54a	5/8"	4	10'-7"	44	Bt	54a	5/8"	4	10'-7"	44	Bt
55a	5/8"	4	11'-0"	66	5Tr	54a	5/8"	4	9'-8"	40	Bt	54a	5/8"	4	9'-8"	40	Bt
55a	5/8"	4	10'-0"	60	5Tr	54a	5/8"	4	8'-9"	36	Bt	54a	5/8"	4	8'-9"	36	Bt
55a	5/8"	4	9'-1"	55	5Tr	54a	5/8"	4	7'-10"	33	Bt	54a	5/8"	4	7'-10"	33	Bt
55a	5/8"	4	8'-2"	49	5Tr	54a	5/8"	4	6'-11"	29	Bt	54a	5/8"	4	6'-11"	29	Bt
55a	5/8"	4	7'-3"	43	5Tr	54a	5/8"	4	6'-0"	25	Bt	54a	5/8"	4	6'-0"	25	Bt
55a	5/8"	4	6'-4"	38	5Tr	54a	5/8"	4	5'-1"	21	Bt	54a	5/8"	4	5'-1"	21	Bt
55a	5/8"	4	5'-5"	33	5Tr	54a	5/8"	4	4'-2"	17	Bt	54a	5/8"	4	4'-2"	17	Bt
55a	5/8"	4	4'-6"	27	5Tr	54a	5/8"	4	3'-3"	13	Bt	54a	5/8"	4	3'-3"	13	Bt
55a	5/8"	4	3'-7"	22	5Tr	54a	5/8"	4	3'-0"	10	Bt	54a	5/8"	4	3'-0"	10	Bt
55a	5/8"	4	2'-8"	32	5Tr	54a	5/8"	4	2'-0"	8	Bt	54a	5/8"	4	2'-0"	8	Bt
55b	5/8"	48	34'-3"	2470	5Tr	52a	5/8"	258	4'-0"	689	Bt	52a	5/8"	258	4'-0"	689	Bt
54a	5/8"	558	33'-4"	19,402	Bt	52b	5/8"	258	3'-6"	601	Bt	52b	5/8"	258	3'-6"	601	Bt
						52c	5/8"	258	4'-4"	748	Bt	52c	5/8"	258	4'-4"	748	Bt

* Included with railing for payment

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

BLAST PLATE DETAILS
REINFORCING STEEL LIST
BRIDGE NO. WA-30-206
OVER W.S.L.E. R.R.
WAYNE COUNTY
SEC. WAY-30-17.03

DESIGNED: S.ims
DRAWN: S.ims
CHECKED: G.P.H.
APPROVED: W.H.E.
DATE: 9-13-50