FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

300
435

STARK COUNTY
STA-30-12.47
In Canton

CURVE DATA U.S.R. 30
EAST BOUND LANES
WEST BOUND LANES
Δ = 29°54'05" Lt.
D = 1° 28'
T = 1043.15'
L = 2038.73'
E = 136.88'
R = 3906.53'

P.I.	871 + 60.73	℄ Survey U.S.R. 30
P.C.	861 + 17.58	
P.T.	881 + 56.31	
P.I.	871 + 96.85	℄ Survey W.B. Lanes
P.C.	861 + 53.70	
P.T.	881 + 92.43	
P.I.	871 + 24.61	℄ Survey E.B. Lanes
P.C.	860+ 81.46	
P.T.	881 + 20.19	

B.M. #32, Mine spike in ϕ pole at N.W. corner of 17th Street & Ivydale Avenue S.W. Elev. 1076.32

U.S.R.30 1985 A.D.T. = 43,722
17TH ST. 1985 A.D.T. = 3,401
Aver. Daily R.P.R. Traffic = 3 Trains

PROPOSED STRUCTURE

TYPE: *Continuous steel girders with reinforced concrete deck and substructure.*
SPANS: Vary: 83'-104'-83' to 83'-148.5'-118'
ROADWAY: Varies: 108'-0 to 111'± c/c parapet with 9" safety curbs and 3'-0 barrier median.
LOAD FREQUENCY: CF 2000(57)
SKEW: 54° 36' 55" R.F.
SURFACE COURSE: 1½" Asphalt Concrete
APPROACH SLABS: AS-1-72 (modified), 30' long
ALIGNMENT: Tangent & Curve
SUPERELEVATION: Varies

Piles:
All piles 12" cast-in-place reinforced concrete. Estimated average pay lengths: Rear Abutment, 65'; Piers, 50'; Fwd. Stub Abut., 65' Fwd. Wall Abut., and Retaining Wall 45'
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

W.E.Q. BRIDGE 3
SHEET NO. 1 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

SITE PLAN
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17TH ST., & P.R.R.
STARK COUNTY
STA. 881 + 27.26
884 + 05.94

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Kucera	D.D.M.	wda	wda	D.L.M	D.L.M

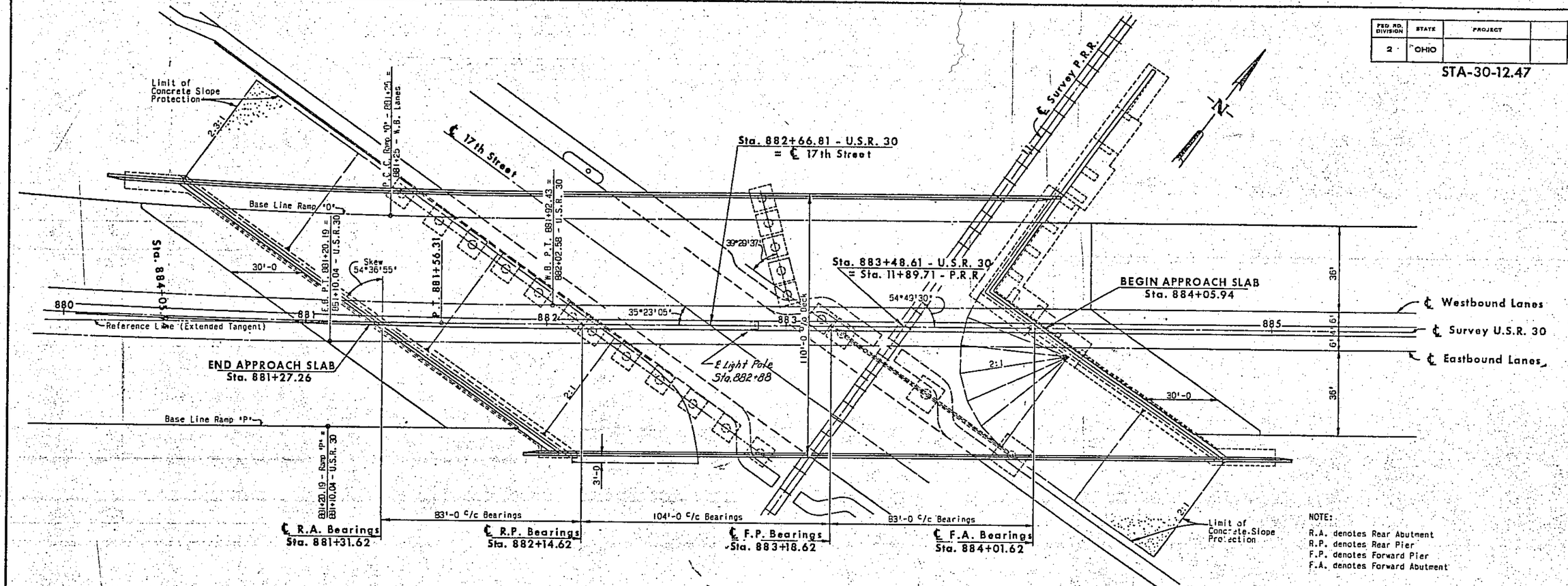
REV. 7-15-75

STA-30-1340

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

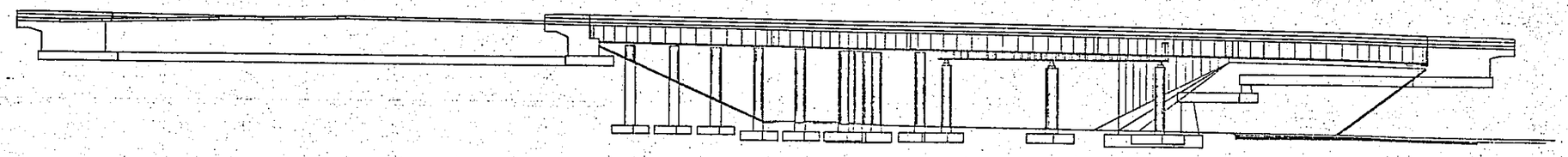
301
435

STA-30-12.47



PLAN

NOTE:
R.A. denotes Rear Abutment
R.P. denotes Forward Pier
F.P. denotes Forward Abutment
F.A. denotes Forward Abutment



ELEVATION

NOTE:
12" Cast-in-place Reinforced Concrete Piles not shown.

W.E.Q. BRIDGE 3
SHEET NO. 2 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

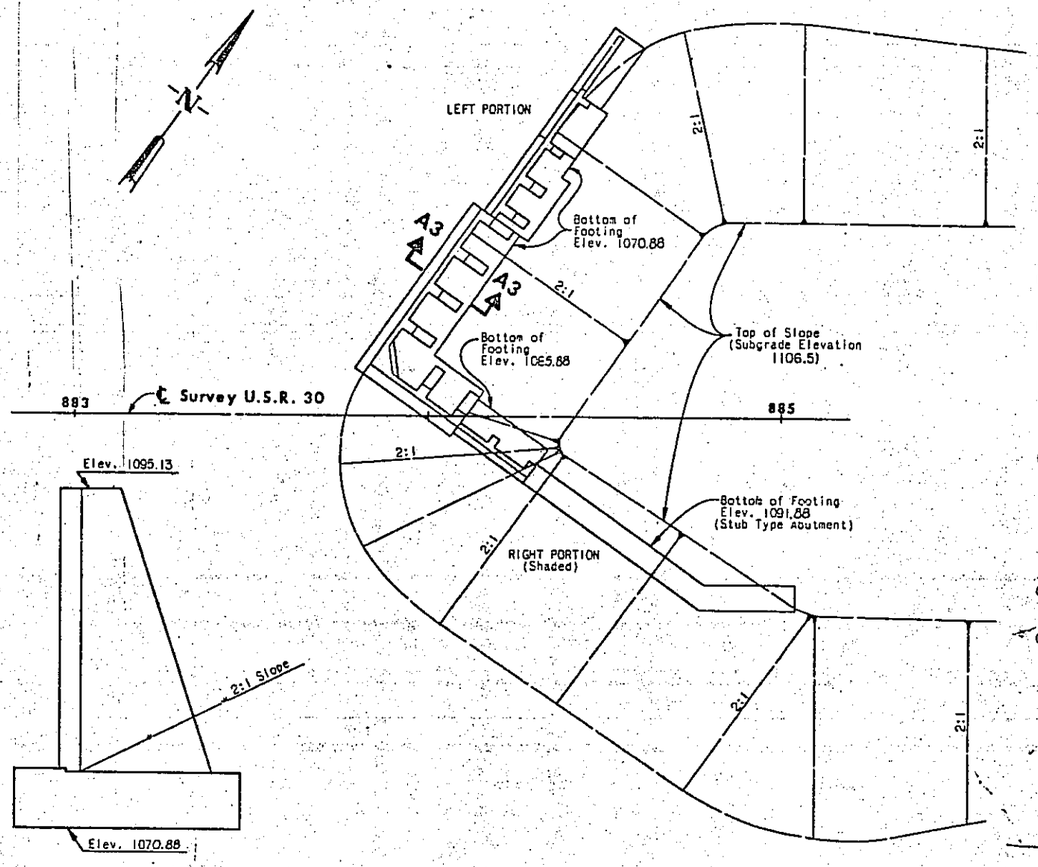
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PG		wda	WAH	6/68	7-5-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

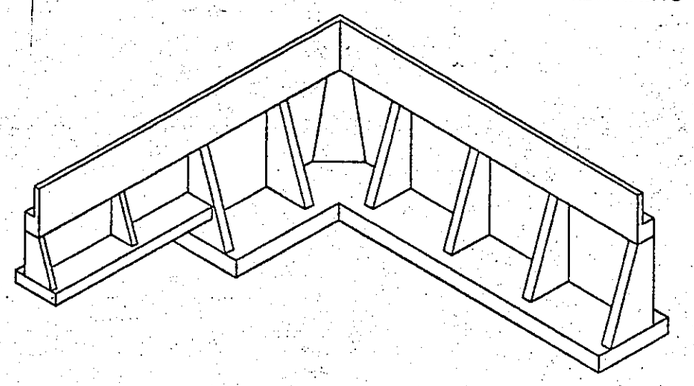
302
135

STA-30-12.47



SECTION A3-A3

PLAN OF CONSTRUCTION PROCEDURE FOR FORWARD ABUTMENT AND RETAINING WALL



BACK ISOMETRIC VIEW OF FORWARD ABUTMENT PARTS 1 AND 2

GENERAL NOTES

REFERENCE shall be made to:

Standard Drawings:

BR-1-67, revised 10-15-71
RB-1-55, revised 2-2-59
SD-1-69, dated 6-12-69

Supplemental Specifications:
808, dated 1-1-71
836 dated 3-12-75

Std Const. Dwg. HL4, HL5, HL7 revised 9-6-73, HL-17A, HL-17B revised 4-6-73

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 INFORMATION:

Design loading	-	CF2000 (57)
Concrete Class "C"	-	Unit stress, 1,333 p.s.i. for superstructure
Concrete Class "C"	-	Unit stress, 1,133 p.s.i. for substructure
Structural Steel	-	ASTM A36 - Basic unit stress, 20000 p.s.i.
Reinforcing Steel	-	ASTM A615, A616, A617 Basic unit stress 20000 p.s.i.

Spiral Reinforcement shall be plain bars ASTM A82 or A615.

CONSTRUCTION PROCEDURE, PIERS:

(1) In order to prevent disturbing the new water line, sanitary and storm sewers near pier footings "L" and "M" these footings must be constructed prior to installing the new lines.

(2) The new water line, sanitary and storm sewers near pier footings "L" and "M" must be constructed prior to constructing the embankment at the rear abutment.

(3) Excavation for all pier footings located under embankment fill slopes shall be made after the embankment is in place.

CONSTRUCTION PROCEDURE, REAR ABUTMENT: The embankment at the rear abutment shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutment before excavation may be made for the abutment and piles driven.

CONSTRUCTION PROCEDURE, FORWARD ABUTMENT AND RETAINING WALL:

(1) Excavate for the left portion of the abutment and retaining wall footings at elevation 1070.88, as shown on the plans, and drive piles.

(2) Construct left portion of abutment to the construction joint at elevation 1095.13 and retaining wall to the construction joint at elevation 1089.00

(3) Remove forms and fill around footings as per item 503.10.

(4) Place and compact embankment on 2:1 slope behind abutment and retaining wall, (refer to details this sheet), up to the proposed subgrade behind the stub abutment to at least station 886+75.

(5) Refer to the Pier Procedure note for the sequence of construction for Pier "M" at the toe of embankment slope.

(6) Excavate for the right portion of the abutment footings to elevation 1065.88 and 1091.88, as shown on the plans, and drive piles.

(7) Construct all portions of the retaining wall and the abutment up to and including the beam seats.

(8) Backfill behind all portions of the abutment to elevation 1099.00.

(9) Erect structural steel and pour deck slab before completing backwall and finishing backfill.

SIDEWALK REMOVAL: Removal of the sidewalk around and between pier footings "J", "K", "L" and "M" shall be included in the price paid for unclassified excavation for these footings.

PILES shall be driven to a minimum bearing capacity of 40 tons per pile at the rear abutment and 45 tons per pile at the forward abutment, piers and retaining wall.

MAINTENANCE AND PROTECTION OF TRAFFIC: Two lanes of traffic with a minimum horizontal width of 26'-0" shall be maintained on 17th Street at all times. A minimum vertical clearance of 12'-9" shall be provided at all times.

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 would be held to a minimum.

CONSTRUCTION CLEARANCE of 8ft. horizontally from the center of tracks and 20 ft. vertically from a point level with the top of the higher rail, and 4 feet from the center of tracks, shall be maintained at all times.

RAILROAD AERIAL LINES will be relocated by the Railroad. The Contractor shall use all precautions necessary to see that the lines are not disturbed during the construction stage and shall cooperate with the Railroad in the relocation of these lines. The cost of the relocation shall be included in the railroad force account work.

SHEETING AND BRACING plans shall be prepared by a registered professional engineer and shall bear his signature or professional engineering seal. One copy of his tension computations shall accompany the plans submitted for approval.

INTERMEDIATE STIFFENERS shall have a tight fit with the tension flange and may have either a tight fit or be welded to the compression flange with ¼" fillet weld.

SHOULDER AREAS of the bridge deck shall be delineated by means of a bituminous seal coat using 0.0075 cubic yard of No. 9 aggregate per square yard and 0.25 gallon per square yard of bituminous material.

STEEL ERECTION: During the erection of end dams and cross-frames care shall be taken to insure that stringers, bearing ports and bridge seats remain in bearing contact.

W.E.Q. BRIDGE 3
SHEET NO. 3 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

GENERAL NOTES
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TG		wda	DLM 6/21		7-15-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

303
135

STA-30-12.47

TOP OF REINFORCING CONCRETE SLAB ELEVATIONS

LEFT HALF

	STATION	PROFILE GRADE MINUS .12'	MEDIAN CURB LINE	CURB LINE
℄ WESTBOUND LANES	880+39.76	1113.12	--	1111.02
	880+50	1113.00	--	1110.92
	880+75	1112.71	--	1110.69
	881+00	1112.41	--	1110.47
	881+18.60	1112.15	1111.88	--
	881+25	1112.06	1111 80	1110.31
	881+28.01	1112.02	--	1110.28
	881+50	1111.72	1111.49	1110.24
	881+75	1111.35	1111 11	1110.19
℄ U.S.R. 30	882+00	1111.13	1110.86	1110.15
	882+12.51	1110.95	1110 68	--
	882+25	1110.77	1110.51	1110.04
	882+50	1110.40	1110.17	1109.83
	882+75	1110.02	1109.79	1109.55
	882+89.44	1109.80	--	1109.35
	883+00	1109.63	1109.38	1109.23
	883+16.51	1109.37	1109.10	--
	883+25	1109.23	1108.97	1108.93
	883+50	1108.81	1108.58	1108.59
	883+75	1108.39	1108.16	1108.15
	883+99.51	1107.96	1107.68	--
	884+00	1107.95	--	1107.64
	884+07.24	1107.82	--	1107.49

RIGHT HALF

℄ U.S.R. 30	881+32.97	1112.01	1111.74	--
	881+50	1111.81	1111.57	--
	881+75	1111.48	1111.25	--
	882+00	1111.12	1110.87	--
	882+06.70	1111.03	--	1110.71
	882+16.73	1110.89	1110.62	--
	882+25	1110.77	1110.51	1110.47
	882+50	1110.40	1110.16	1110.11
	882+75	1110.02	1109.80	1109 71
	882+89.59	1109.80	--	1109.47
	883+00	1109.63	1109.38	1109.31
	883+20.73	1109.30	1109.03	--
	883+25	1109.23	1108.96	1108.93
	883+50	1108.81	1108.57	1108.53
	883+75	1108.39	1108.16	1108.07
	883+93.59	1108.06	--	1107.73
	884+00	1107.95	1107.68	1107.62
	884+03.73	1107.88	1107.61	--
	884+25	1107.49	--	1107.20
	884+50	1107.03	--	1106.74
	884+76.59	1106.52	--	1106.19

NOTE:

Elevations shown are at the intersection of the abutment & pier ℄ of bearings and the face of railing curb & face of median curb, and at even 25' stations.

Elevations are those required before deck concrete is placed to allow for dead load deflection caused by the weight of the concrete.

For top of asphalt slab elevations refer to Roadway Plans, "Superelevation Detail - Sta. 874+00 to Sta. 883+50", Sheet No. 175

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS.	RETAINING WALL	PIERS	SUPER.	GENERAL
404	138-(92)	Cu Yds.	Asphalt concrete AC-20				(92) 138	
503	1,773	Cu. Yds.	Unclassified Excavation	1,223	229	321		
503	Lump	Sum	Cofferdams, cribs and sheeting					Lump
505	Lump	Sum	test pile					Lump
507	18,700	Lin. Ft.	Piles: 12" Cast-in-place Reinforced Concrete	9,625	2,025	7,050		
509	524,567	Lbs.	Reinforcing Steel	130799	23,232	77,040	293,496	
511	752	Cu. Yds.	Class 'C' concrete, footings	469	107	176		
511	665	Cu. Yds.	Class 'C' concrete, abutments above footings	665				
511	105	Cu. Yds.	Class 'C' concrete, retaining wall above footings		105			
511	199	Cu. Yds.	Class 'C' concrete, pier columns			199		
511	1102	Cu. Yds.	Class 'C' concrete, superstructure (See Proposal Note)				1102	
512	23	Lin. Ft.	Premolded sealing strip	23				
512	11	Sq. Yds.	Type 'B' waterproofing		11			
513	1,052,600	Lbs.	Structural Steel				1,052,600	
514	1,052,600	Lbs.	Field Painting of structural steel				1,052,600	
516	118	Sq. Ft.	1" Preformed expansion joint filler	69	49			
518	426	Cu. Yds.	Porous Backfill	334	92			
518	30	Each	Scuppers, including supports				30	
518	170	Lin. Ft.	8" perforated helical C.M.P. including specials, 707.01, bituminous coated as per 707.04	134	36			
518	79	Each	Subdrainage for wearing course as per plan				79	
518	309	Lin. Ft.	6" Perforated helical C.M.P., 707.01	309				
518	161	Lin. Ft.	6" Non-perforated helical C.M.P. including specials, 707.01	161				
518	480	Lin. Ft.	6" Standard collector pipe, including specials & Hangers				480	
518	30	Lin. Ft.	6" Non-perforated helical C.M.P. including specials, 707.01	20	10			
518	24	Lin. Ft.	6" Std. pipe downspout, incl. specials, galvanized steel			24		
518	62	Lin. Ft.	4" Galvanized steel pipe, including specials	62				
601	2,194	Sq. Yds.	Concrete Slope Protection	2,194				
808	1102	Units	Chemical admixture for concrete, Type A, B or D				1102	
S625			See Sheet No. 226B for Lighting Summary					
~~SPECIAL~~	~~3350~~	~~Sq. Yds.~~	~~Membrane Waterproofing, (sheet type) (See Proposal Note) hot applied liquid~~				~~3350~~	
SPECIAL	3350	Sq. Yds.	Membrane Waterproofing, (sheet type) (See Proposal Note) hot applied liquid				3350	
516	7	Lin. Ft.	Elastomeric Compression seals, incl. specials				7	
409	7	Cu. Yds	Seal coat cover aggregate, No. 9				7	
409	236	Gallons	Seal coat bituminous material: 702.02 MC-800 or MC-3000, 702.03, CBAE 800, 702.04, RS-1, RS-2 or CRS-2; or 702.09, RT-9 or RT-10				236	

W.E.Q. BRIDGE 3
SHEET NO. 4 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

ESTIMATED QUANTITIES & DECK SLAB ELEVATIONS

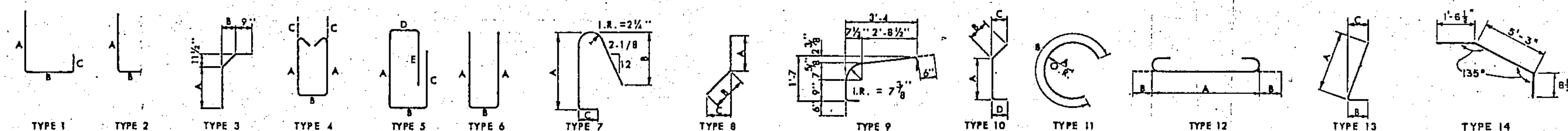
BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STA. 881+27.26
STA. 884+03.94

STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	R		WQR WQR 5-27-68	DLM	6/68	9-2975



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

304/435

STA-30-12.47

REAR ABUTMENT

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
A801	Str.						42	35'-4	3962
A802	Str.						7	31'-0	579
A803	Str.						4	14'-10	158
A804	Str.						4	7'-0	75
A701	Str.						16	9'-5	308
A702	Str.						24	5'-7	274
A703	6	5'-2	1'-2				20	11'-2	457
A704	3	3'-2	2¼" to 9"	Length varies by increments of 1"			2 Set of 4	4'-9 to 5'-0	80
A705	Str.						2	3'-3	13
A706	5	10'-0	1'-5	8'-6	11"	3'-0	158	23'-2	7482
A707	6	10'-0	1'-5				33	21'-1	1422
A601	3	4'-2	9"				8	6'-0	72
A602	3	8'-0	9"				12	9'-10	177
A603	1	7'-10	5'-11	2'-6			15	15'-11	359
A604	1	7'-8	5'-11	2'-6			31	15'-9	733
A605	1	7'-6	5'-11	2'-6			12	15'-7	261
A606	1	7'-4	5'-11	2'-6			12	15'-5	278
A607	1	7'-0	5'-11	2'-6			12	15'-1	272
A608	1	6'-9	5'-11	2'-6			12	14'-10	257
A609	1	6'-6	5'-11	2'-6			24	14'-7	526
A610	1	6'-3	5'-11	2'-6			16	14'-4	344
A611	6	8'-6	1'-2				5	17'-10	134
A612	2	8'-4	10"				1	9'-0	14
A613	6	2'-6	6'-8				20	11'-4	340
A614	3	4'-6	9"				1	6'-4	10
A615	3	7'-4	9"				5	9'-2	69
A616	3	3'-8	9"				1	5'-6	8
A501	6	1'-7	5'-11				134	8'-10	1234
A502	6	1'-7	3'-11				134	6'-10	955
A503	2	7'-10	7½"				15	8'-4	130
A504	2	7'-8	7½"				31	8'-2	264
A505	2	7'-6	7½"				12	8'-0	100
A506	2	7'-4	7½"				12	7'-10	98
A507	2	7'-0	7½"				12	7'-6	94
A508	2	6'-9	7½"				12	7'-3	91
A509	2	6'-6	7½"				26	7'-0	190
A510	2	6'-3	7½"				16	6'-9	113
A511	Str.						2	39'-8	81
A512	Str.						10	36'-6	381
D801	14						62	7'-4"	1214

REAR ABUTMENT

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
A513	Str.	Vary by increments of 1'-6½					1 Set of 5	32'-6 to 38'-8	186
A514	Str.						14	34'-3	500
A515	Str.						2	32'-6	68
A516	Str.						19	32'-3	639
A517	Str.						19	31'-3	619
A518	Str.	Vary by increments of 1'-5					1 Set of 5	24'-10 to 30'-6	144
A519	Str.						2	30'-6	64
A520	Str.						19	29'-6	585
A521	Str.						15	26'-6	415
A522	Str.						6	24'-10	155
A523	Str.						9	9'-6	89
A524	Str.						10	15'-6	162
A525	Str.						4	14'-9	62
A526	Str.						5	11'-10	62
A527	Str.						1	9'-0	9
A528	Str.						8	5'-0	42
A529	Str.						2	6'-0	13
A530	1	5'-6	5"	3'-0			3	8'-10	28
A531	2	5'-6	2'-0				8	7'-4	54
A532	Str.						1	4'-8	5
A533	6	7½"	1'-0				38	2'-0	79
A534	Str.						10	3'-3	34
A535	Str.						20	3'-0	63
A536	7	3'-4	2'-5	7½"			28	6'-6	190
A537	Str.						6	7'-8	49
A538	Str.						1	3'-3	3
A539	Str.						4	14'-9	62
A540	Str.						14	33'-0	482
A541	8	4'-5	3'-0	2'-3			6	7'-5	38
A542	6	1'-7	6'-8				20	9'-7	200
A543	Str.						1	4'-0	4
A544	Str.						8	4'-6	39
A545	Str.						12	8' 3	103
A546	15						4	3'-11"	16
A547	16						2	5'-1"	10

FORWARD ABUTMENT

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
B1101	Str.						50	30'-3	[illegible]
B1102	Str.						192	15'-6	15811
B1103	2	8'-3	1'-5½				72	9'-5	3602
B1104	Str.						72	9'-9	3730
B1105	Str.						25	33'-0	4383
B1106	Str.						45	11'-0	2630
B1107	13	7'-3	1'-5½	6"			17	8'-5	760
B1108	Str.						20	7'-0	744
B1109	13	7'-6	1'-5½	2'-4			66	8'-8	3039
B1110	2	5'-6	1'-5½				60	6'-8	2125
B1111	Str.						36	14'-6	2773
B1112	Str.						12	13'-6	861
B1113	Str.						12	8'-8	553
B1114	Str.						24	12'-2	1551
B1115	12	15'-6	1'-7				58	17'-1	5263
B1116	12	11'-6	1'-7				14	13'-1	973
B1117	Str.						25	11'-6	1527
B1001	Str.						9	14'-2	540
B1002	Str.						5	11'-10	255
B1003	10	2'-9	8'-11	1'-1	1'-4½		10	12'-9	549
B901	Str.						10	28'-5	966
B902	Str.						10	28'-8	975
B903	Str.						36	12'-0	1469
B801	Str.						24	33'-10	2168
B802	Str.						5	22'-7	301
B803	Str.						17	24'-0	1089
B804	Str.						7	25'-3	491
B805	Str.						5	23'-1	308
B701	Str.						102	29'-1	5855
B702	6	10'-0	1'-5				29	21'-1	1250
B703	5	10'-0	1'-5	8'-6	11"	3'-0	140	23'-2	6629
B704	Str.						51	29'-11	3119
B705	Str.						6	24'-2	296
B706	6	5'-2	1'-2				15	11'-2	342
B707	Str.						16	6'-3	204
B708	Str.						14	9'-7	246
B709	3	3'-2	2¼" to 9"	Length varies by increments of 1"			1 Set of 4	4'-9 to 5'-0	40
B710	Str.						1	3'-3	7

NOTES

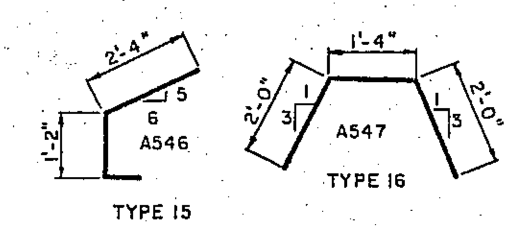
(TYPICAL for all reinforcing steel list sheets.)

All dimensions are out-to-out.

Str. in the "TYPE" column indicates straight bars.

Type identification number and sketch apply only to this sheet.

Refer to CMS Sections 106.03, 700, 709.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by the additional steel, spliced in accordance with 509.08.



W.E.Q. BRIDGE 3
SHEET NO. 5 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

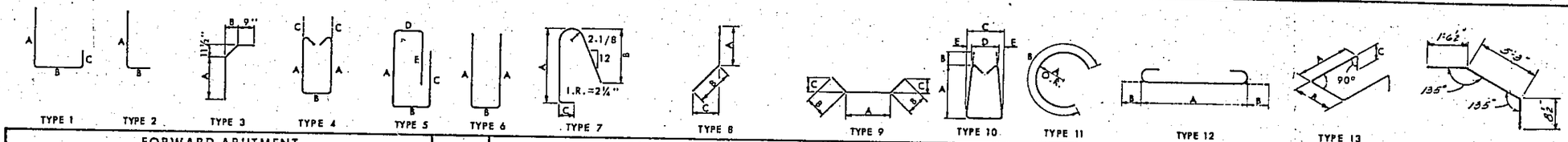
REINFORCING BAR SCHEDULE

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	RG		WCR	DLM	6/68	7-15-75

W.E. QUICKSALL & ASSOCIATES INC. Consulting Engineers



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

305/135

STA-30-12.47

FORWARD ABUTMENT

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
B601	6	4'-7	1'-2				10	10'-0	150
B602	Str.						6	24'-2	218
B603	2	3'-0	3'-0				23	5'-10	202
B604	9	11'-10 to 13'-2	1'-7	1'-1½	Length varies by increments of 1¼"		1 Set of 14	15'-0 to 16'-4	329
B605	9	11'-8 to 10'-7	1'-7	1'-1½	Length varies by increments of 1⅝"		1 Set of 9	14'-10 to 13'-9	193
B606	13	9'-3 to 10'-3	2'-8	10°	Length varies by increments of 6"		6 Sets of 5	22'-2 to 24'-2	1044
B607	13	6'-5 to 9'-0	2'-8	10°	Length varies by increments of 3¾"		6 Sets of 9	16'-6 to 21'-8	1549
B608	13	4'-0 to 5'-11	2'-8	10°	Length varies by increments of 1½"		6 Sets of 5	11'-8 to 15'-6	612
B609	1	8'-0	5'-11	2'-6			9	16'-1	217
B610	1	7'-6	5'-11	2'-6			12	15'-7	281
B611	1	7'-1	5'-11	2'-6			11	15'-2	251
B612	1	6'-8	5'-11	2'-6			12	14'-9	266
B613	6	2'-6	6'-6				15	11'-2	252
B614	3	7'-1	9°				8	8'-11	107
B615	3	4'-7	9°				7	6'-5	67
B616	3	4'-1	9°				1	5'-11	9
B501	2	3'-10	7½°				84	4'-4	360
B502	Str.						84	12'-4	1081
B503	Str.						84	10'-6	920
B504	Str.						72	10'-4	776
B505	Str.						4	27'-9	116
B506	Str.						20	26'-6	553
B507	4	3'-5	8°	5°			2	8'-1	17
B508	6	3'-6	3'-11				106	10'-8	1179
B509	Str.						20	7'-6	156
B510	Str.						8	28'-0	234
B511	Str.						20	26'-9	558
B512	6	10'-3	1'-7				4	21'-10	91
B513	13	3'-11 to 4'-7	1'-8	7½°	Length varies by increments of 5/4"		2 Sets of 4	10'-3 to 11'-7	91
B514	6	1'-7	5'-11				44	8'-10	405
B515	6	1'-7	3'-11				44	6'-10	314
B516	2	8'-0	7½°				9	8'-6	80
B517	2	7'-6	7½°				12	8'-0	100
B518	2	7'-1	7½°				11	7'-7	97
B519	2	6'-8	7½°				12	7'-2	90
B520	Str.						19	32'-8	647

FORWARD ABUTMENT

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
B521	Str.						10	35'-6	370
B522	Str.						9	7'-1	59
B523	Str.						7	4'-7	33
B524	7	3'-4	2'-5	7½°			16	6'-6	108
B525	6	7½°	1'-0				21	2'-0	44
B526	Str.						1	4'-0	4
B527	Str.						5	3'-3	17
B528	Str.						10	3'-0	31
B529	8	4'-5	3'-0	2'-5			6	7'-5	38
B530	Str.						1	3'-8	4
B531	Str.						12	28'-8	359
B532	Str.						6	23'-11	150
B533	Str.						2	11'-5	24
B534	Str.						2	8'-8	18
B535	6	1'-7	6'-6				15	9'-5	147
B536	Str.						1 Set of 5	31'-9 to 37'-0	179
B537	Str.						2	31'-9	66
B538	Str.						2	37'-0	77
B546	15	See sheet 5 of 40 for bending					4	3'-11"	16
B547	16	See sheet 5 of 40 for bending					2	5'-1"	10
D801	14						56	7'-4"	1096

SPIRAL REINFORCING (PIERS)

MARK	CORE. DIA.	PITCH	NO. TURNS	NO.	LENGTH	WEIGHT
SP501	38"	4½"		2	27'-4	1770
SP502	38"	4½"		2	27'-0	1749
SP503	38"	4½"		1	26'-10	869
SP504	38"	4½"		1	26'-7	861
SP505	38"	4½"		2	26'-4	1707
SP506	38"	4½"		1	26'-3	851
SP507	38"	4½"		2	26'-2	1697
SP508	38"	4½"		1	26'-1	846
SP509	38"	4½"		2	25'-11	1681
SP510	38"	4½"		1	25'-9	835
SP511	38"	4½"		1	25'-1	815
SP512	39"	4½"		1	24'-4	791
SP513	38"	4½"		1	24'-1	783
SP514	38"	4½"		2	23'-2	1509
SP515	50"	4½"		1	21'-3	690

Other details in accordance with CRSI Standard practice.

PIERS

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
P1101	12	11'-6	1'-7				48	14'-8	3741
P1102	12	9'-0	1'-7				24	12'-2	1552
P1103	2	5'-9	1'-5½				22	6'-11	808
P1104	Str.						22	23'-2	2709
P1501	12	10'-6	1'-5				16	13'-4	918
P1502	12	9'-0	1'-5				24	11'-10	1222
P1503	12	8'-6	1'-5				72	11'-4	3511
P1004	2	5'-5	1'-4½				233	6'-6	6517
P1005	2	5'-11	1'-4½				18	7'-0	542
P1006	Str.						22	27'-4	2568
P1007	Str.						22	27'-0	2556
P1508	Str.						15	26'-10	1732
P1009	Str.						11	26'-7	1258
P1010	Str.						22	26'-4	2493
P1011	Str.						11	26'-3	1242
P1012	Str.						22	26'-2	2477
P1013	Str.						11	26'-1	1235
P1014	Str.						28	25'-11	3123
P1015	Str.						11	25'-9	1219
P1016	Str.						11	25'-1	1187
P1017	Str.						11	24'-4	1152
P1018	Str.						16	24'-1	1658
P1019	Str.						20	23'-2	1994
P1020	Str.						18	21'-3	1646
P901	12	9'-0	1'-3				36	11'-6	1408
P902	12	8'-6	1'-3				108	11'-0	4039
P801	12	9'-0	1'-1				56	11'-2	1670
P802	12	8'-6	1'-1				112	10'-8	3190

W.E.O. BRIDGE 3
SHEET NO. 6 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REINFORCING BAR SCHEDULE

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY.

STA. 881+27.26
STA. 884+05.94

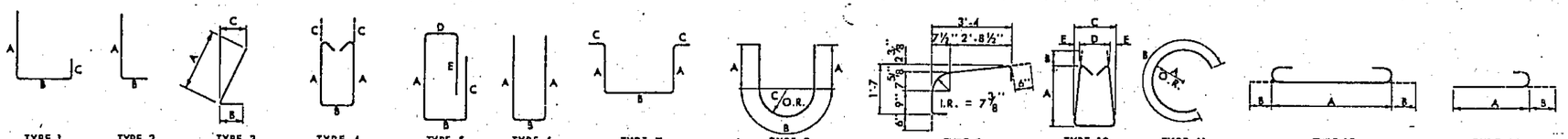
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	RP		WER	DLAN	6/68	7-15-68

W.E. QUICKSALL & ASSOCIATES INC. Consulting Engineers

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

306/135

STA-30-12.47



RETAINING WALL

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
R1101	Str.						42	14'-6	3236
R1102	2	8'-9	1'-5½				22	9'-11	1159
R1103	3	7'-5	1'-5½	1'-11¾			14	8'-7	638
R1104	Str.						6	7'-0	223
R1105	Str.						8	15'-8	666
R1001	Str.						12	33'-10	1747
R1002	Str.						9	23'-1	894
R1003	Str.						4	20'-6	353
R1004	3	7'-1	1'-4½	1'-11			7	8'-2	246
R1005	Str.						3	6'-0	77
R1005	Str.						4	15'-5	265
R									
R901	Str.						9	23'-10	729
R902	2	8'-9	1'-3				22	9'-9	729
R903	3	6'-2	1'-3	1'-4⅛			5	7'-2	122
R904	13	15'-3	1'-3				5	16'-6	281
R801	12	14'-6	1'-1				27	15'-8	1202
R802	12	11'-6	1'-1				25	13'-8	912
R803	3	4'-5	1'-1	2½"			6	5'-4	85
R804	6	4'-0	2'-8				6	10'-4	166
R805	Str.						45	11'-6	1382
R701	12	9'-6	10"				18	11'-2	419
R702	Str.						22	29'-6	1327
R703	Str.						22	19'-6	677
R704	13	18'-4	10"				4	19'-2	157
R705	13	14'-3	10"				4	15'-1	123

RETAINING WALL

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
R601	Str.						9	27'-0	365
R602	Str.						2	20'-6	62
R603	Str.						9	17'-11	242
R604	Str.						21	9'-6	300
R605	3	4'-5	10"	2½"			11	5'-1	84
R606	Str.						14	14'-7	307
R607	Str.	Vary by increments of $10\frac{1}{8}$"					1 Set of 8	20'-11 to 15'-0	216
R608	Str.	Vary by increments of $10\frac{1}{8}$"					1 Set of 11	15'-0 to 6'-8	180
R609	Str.						6	7'-0	63
R610	Str.						6	14'-11	134
R611	Str.						2	11'-9	35
R612	Str.						2	13'-4	40
R613	Str.						2	6'-0	18
R614	Str.						2	14'-6	44
R615	Str.						2	8'-10	27
R616	Str.						2	7'-3	22
R617	13	8'-8	8"				4	9'-4	56
R618	Str.						2	16'-4	49
R619	Str.						2	11'-0	33
R620	Str.						4	5'-8	34
R621	Str.						2	10'-1	30
R622	6	3'-11	11'-7				3	9'-1	41

RETAINING WALL

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
R501	Str.						14	28'-11	422
R502	Str.						4	19'-6	81
R503	Str.						2	20'-2	42
R504	Str.						6	18'-5	115
R505	Str.	Vary by increments of 4'-9					2 Sets of 5	6'-6 to 25'-5	167
R506	Str.	Vary by increments of 4'-9					2 Sets of 3	7'-8 to 17'-2	78
R507	Str.	Vary by increments of 4'-9					2 Sets of 3	6'-4 to 15'-10	69
R508	Str.						6	24'-3	152
R509	Str.						14	14'-4	209
R510	Str.	Vary by increments of $10\frac{1}{8}$"					2 Sets of 14	19'-4 to 8'-4	404
R511	Str.	Vary by increments of $10\frac{1}{8}$"					1 Set of 8	20'-8 to 14'-9	148
R512	Str.	Vary by increments of $10\frac{1}{8}$"					1 Set of 11	14'-10 to 6'-5	122
R513	7	5'-8 to 9'-0	2'-8	$7\frac{1}{2}$"	Length varies by increments of $5\frac{5}{8}$"		1 Set of 13	14'-9 to 21'-5	245
R514	7	5'-5 to 2'-1	2'-8	$7\frac{1}{2}$"	Length varies by increments of $11'-1\frac{1}{4}$"		1 Set of 7	14'-3 to 7'-7	80
R515	7	4'-6 to 7'-10	2'-8	$7\frac{1}{2}$"	Length varies by increments of $6\frac{5}{8}$"		1 Set of 13	12'-5 to 19'-1	214
R516	7	4'-2 to 2'-6	2'-8	$7\frac{1}{2}$"	Length varies by increments of $11'-1\frac{1}{4}$"		1 Set of 4	11'-9 to 8'-5	42
R517	7	2'-2 to 6'-3	1'-8	$7\frac{1}{2}$"	Length varies by increments of $6\frac{1}{2}$"		1 Set of 16	6'-9 to 14'-11	181
R518	7	4'-1 to 2'-4	1'-8	$7\frac{1}{2}$"	Length varies by increments of $10\frac{1}{2}$"		1 Set of 5	10'-7 to 7'-1	46
R519	6	3'-7	1'-7				2	8'-6	18

W.E.Q. BRIDGE 3
SHEET NO. 7 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REINFORCING BAR SCHEDULE

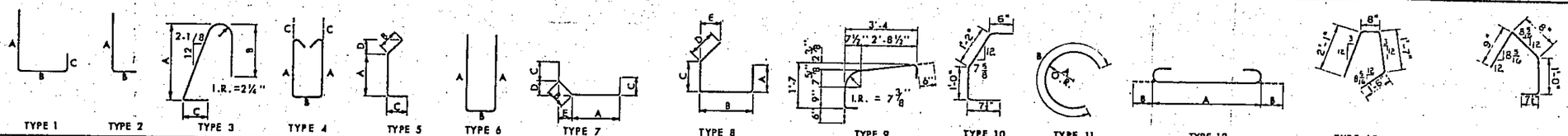
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
	RG		WER	DLM	6/68	

W.E. QUICKSALL & ASSOCIATES INC. Consulting Engineers



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

307
135

STA-30-12.47

SUPERSTRUCTURE

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
S701	Str.						393	23'-6	18877
S702	Str.						382	33'-0	25767
S703	Str.						47	23'-11	2298
S704	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 47	10'-4 to 31'-3	1997
S705	Str.	Vary by increments of $5\frac{3}{8}$"					1 Set of 58	6'-3 to 31'-7	2243
S706	Str.	Vary by increments of $11\frac{3}{8}$"					1 Set of 28	4'-7 to 29'-3	940
S707	Str.	Vary by increments of $11\frac{3}{8}$"					1 Set of 11	8'-5 to 17'-11	296
S708	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 21	4'-10 to 14'-4	411
S709	Str.						4	6'-3"	50
S710	Str.						2	5'-1"	21
S711	Str.						2	6'-4	26
S712	Str.						1	6'-10	14
S713	Str.						1	7'-2	15
S714	Str.						2	7'-6	31
S715	Str.						1	7'-8	16
S716	Str.						3	3'-6	21
S717	Str.						1	3'-11	8
S718	Str.						336	33'-0	22664
S719	Str.						338	24'-1	16638
S720	Str.	Vary by increments of $5\frac{3}{4}$"					1 Set of 67	4'-1 to 35'-4	2699
S721	Str.	Vary by increments of $5\frac{5}{8}$"					2 Sets of 59	6'-2 to 33'-4	4764
S722	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 43	12'-0 to 31'-8	1919
S723	Str.	Vary by increments of $5\frac{3}{4}$"					1 Set of 41	5'-0 to 23'-11½	1213
S724	Str.						2	5'-8	23
S725	Str.						4	6'-9	55
S726	Str.						2	7'-9	32
S727	Str.						2	7'-1	29
S728	Str.						2	10'-3	42
S729	Str.						1	3'-3	7
S730	Str.						1	3'-7	7
S731	Str.						1	4'-3	9
S732	Str.						7	4'-4	62

SUPERSTRUCTURE

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
S601	Str.						775	28'-2	32787
S602	Str.						2	6'-4	19
S603	Str.						47	23'-7	2018
S604	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 47	5'-6 to 26'-4	1124
S605	Str.	Vary by increments of $5\frac{3}{8}$"					1 Set of 58	6'-3 to 31'-7	1648
S606	Str.	Vary by increments of $11\frac{3}{8}$"					1 Set of 26	4'-7 to 28'-3	641
S607	Str.	Vary by increments of $11\frac{3}{8}$"					1 Set of 11	3'-6 to 13'-0	136
S608	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 21	4'-10 to 14'-4	302
S609	Str.						1	3'-3	5
S610	Str.						1	3'-7	5
S611	Str.						7	4'-4	46
S612	Str.						1	6'-10	10
S613	Str.						1	7'-2	11
S614	Str.						2	7'-6	23
S615	Str.						1	7'-8	12
S616	Str.						3	3'-6	16
S617	Str.	Vary by increments of $1'-11\frac{3}{4}$"					3 Sets of 9	3'-7 to 19'-5	466
S618	Str.						1875	30'-0	84488
S619	Str.						4	23'-0	138
S620	Str.						16	23'-1	555
S621	Str.						141	19'-8	4165
S622	Str.						17	8'-10	226
S623	Str.	Vary by increments of $1'-10\frac{1}{2}$"					1 Set of 8	2'-4 to 15'-6	107
S624	Str.	Vary by increments of $2'-7\frac{3}{4}$"					2 Sets of 8	3'-7 to 22'-1	308
S625	Str.	Vary by increments of $2'-7\frac{3}{4}$"					2 Sets of 7	2'-4 to 19'-2	216
S626	Str.						176	42'-0	10574
S627	Str.						88	21'-11	2897
S628	Str.						336	27'-11	14089
S629	Str.						338	29'-0	14723
S630	Str.	Vary by increments of $5\frac{3}{4}$"					1 Set of 67	4'-1 to 35'-4	1983
S631	Str.						5	17'-0	139

SUPERSTRUCTURE

MARK	TYPE	A	B	C	D	E	NO.	LENGTH	WEIGHT
S632	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 43	6'-10 to 26'-6	1076
S633	Str.	Vary by increments of $5\frac{5}{8}$"					1 Set of 41	9'-10 to 28'-9¾	1190
S634	Str.						1	4'-3	7
S635	Str.						1	3'-11	6
S636	Str.						7	24'-4	256
S501	B	1'-10	1'-5	10°	11'-2	8°	420	5'-0	2190
S502	5	9"	7½"	7½"	4"		420	1'-9	767
S503	3	2'-5	2'-2	7½"			439	5'-4	2442
S507	St.						32	15'-1"	503
S508	St.						104	6'-8"	723
S509	St.						8	18'-6"	154
S510	St.						72	30'-0"	2257
S511	St.						420	2'-3"	976
S515	2	2'-10"	7½"				420	3'-4"	1460
S516	10						358	3'-0"	1120
S518	Str.						2	10'-1	21
S519	Str.						116	15'-8	1895
S520	Str.						4	14'-4	60
S521	Str.						16	10'-4	172
S522	Str.						8	8'-6	71
S523	Str.						80	5'-0	417
S524	Str.						2	9'-4	19
S525	6	7½"	1'-0				6	2'-0	13
S526	Str.						12	2'-2	27
S527	7	10°	11½"	9°	0°		2	3'-0	6
S528	7	10°	1'-0	9°	2¼"		1	3'-1	3
S529	7	10°	1'-0½"	9°	4°		1	3'-1	3
S530	7	10°	1'-1½"	9°	6°		1	3'-2	3
S531	7	10°	1'-2½"	9°	9°		1	3'-3	3
S532	St.						32	12'-7"	420
S533	St.						32	15'-4"	512
S534	15	2'-2"	8⅝"	12"			3	3'-7"	11
S535	St.						5	1'-3"	9
S536	14						3	2'-9"	9
S537	2	1'-6"	7½"				3	2'-0"	6
S538	15	9"	13	9			3	2'-2"	7
S539	13						3	5'-6"	17

W.E.Q. BRIDGE 3
SHEET NO. 8 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REINFORCING BAR SCHEDULE

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

STA. 881+27.26
STA. 884+05.94

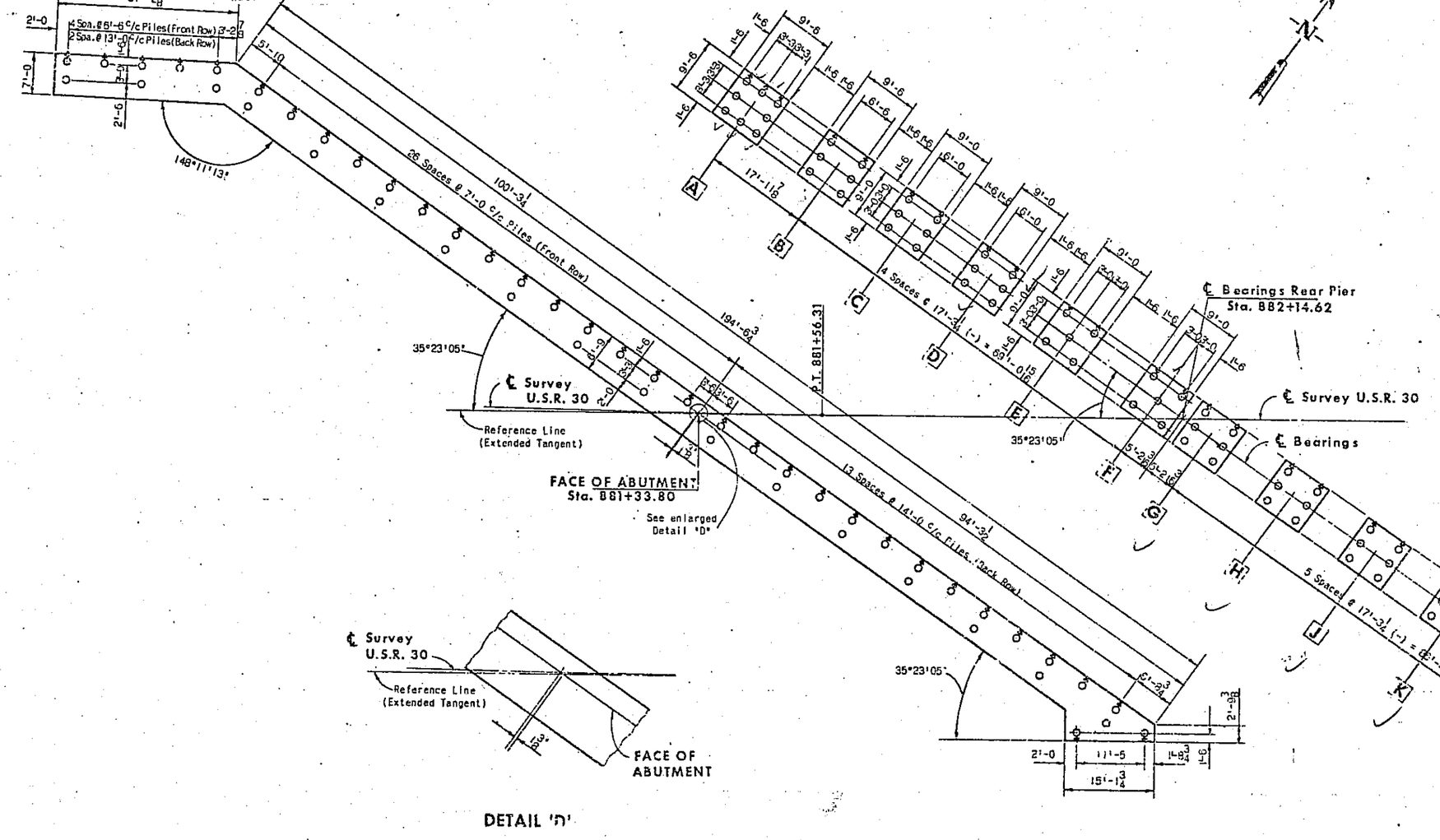
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	RG		WEQ	DLM	6/68	7-15-72

W.E. QUICKSALL & ASSOCIATES INC. Consulting Engineers

FAD RD DIVISION	STATE	PROJECT	
2	OHIO		

STA-30-12.47

308
135



Footings G thru M identical to footings C and D

DETAIL 'D'

NOTE: All piles 12" cast-in-place reinforced concrete.

8 Indicates a 4:1 battered pile and direction of batter.

W.E.Q. BRIDGE 3
SHEET NO. 9 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

FOOTING PLAN & PILE LAYOUT

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

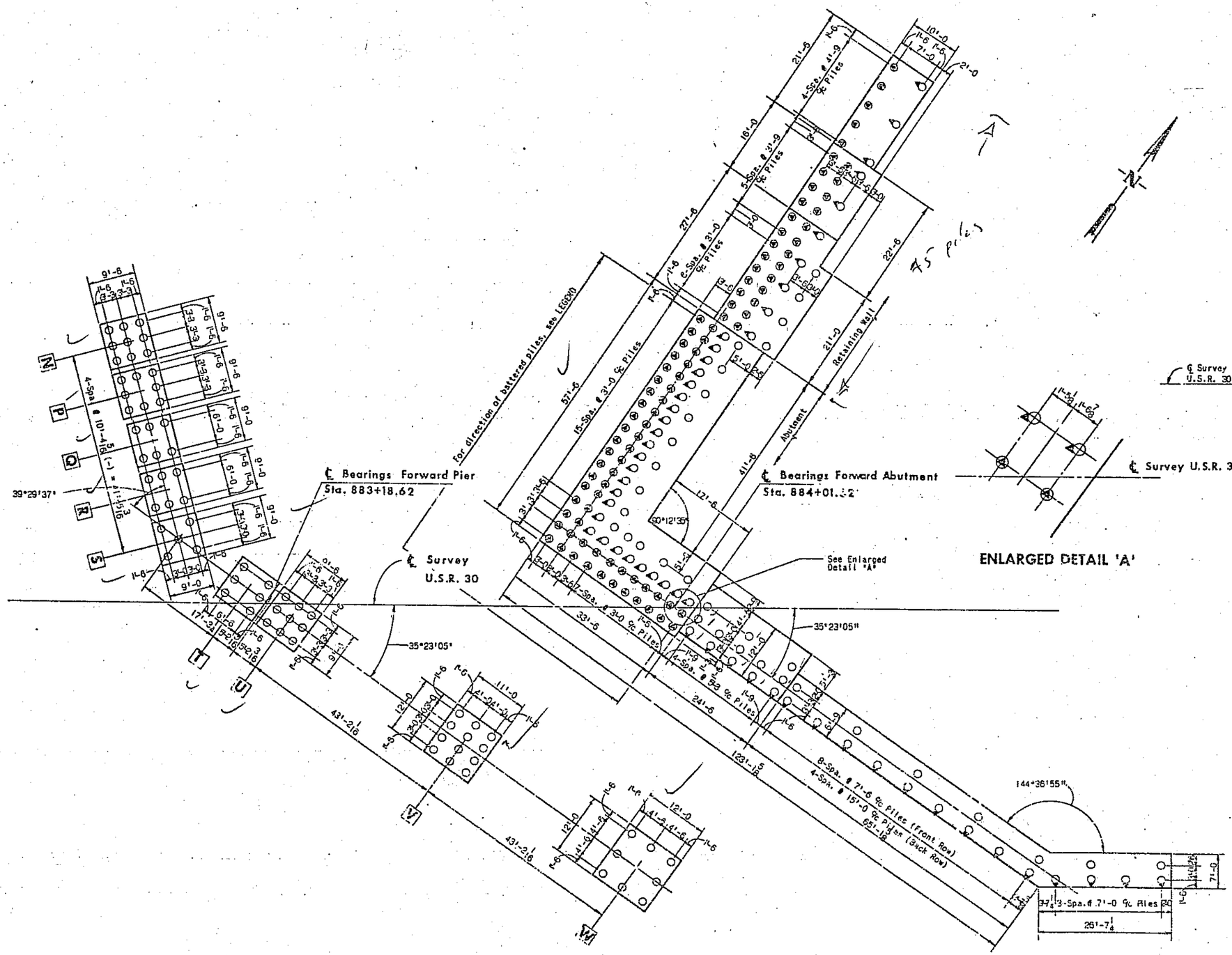
STA. 881+27.26
STA. 884+07.04

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	APPROVED
	PMZ		WEQ	DLM	6/68	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

309
435

STA-30-12.47



ENLARGED DETAIL 'A'

LEGEND

℄ Survey U.S.R. 30 — 10 — Direction of battered piles within area specified. Remaining piles battered normal to face of footing.

⊛ = 3:1 Batter

⊙ = 4:1 Batter

Note:
All piles 12" cast-in-place reinforced concrete.

W.E.Q. BRIDGE 3
SHEET NO. 10 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

FOOTING PLAN & PILE LAYOUT

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

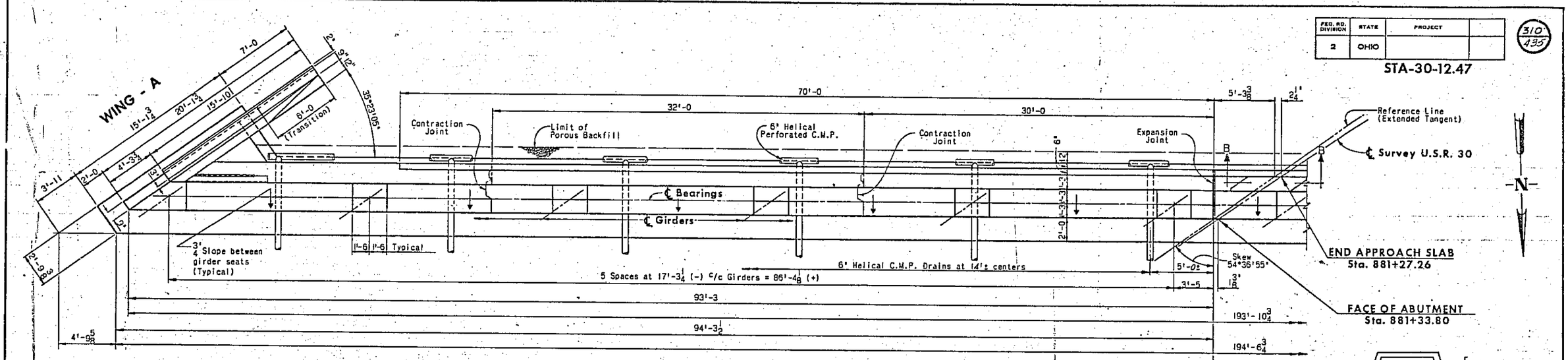
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
	PMZ		wdy	DLM	6/69	

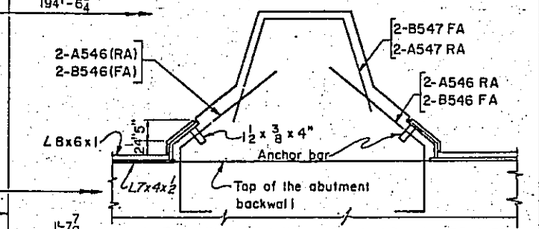
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

310/435

STA-30-12.47

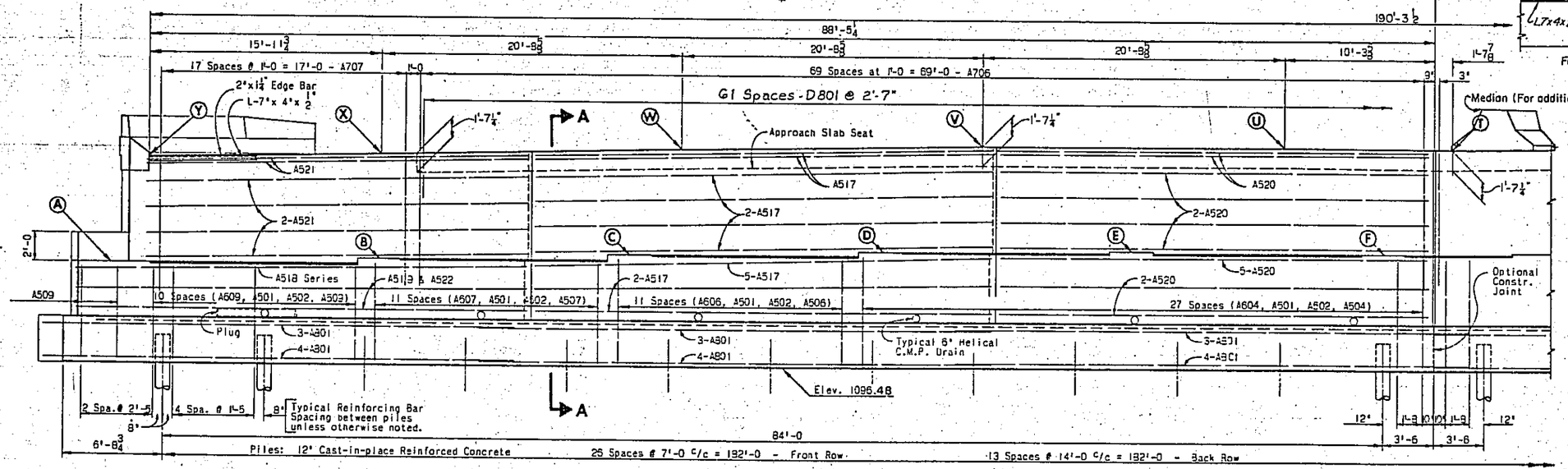


PLAN - RIGHT HALF



SECTION B-B

Median (For additional details see sheet 339/435)



ELEVATION - RIGHT HALF

BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.

ELEVATIONS											
A	B	C	D	E	F	T	U	V	W	X	Y
1103.51	1103.89	1104.28	1104.58	1104.68	1104.55	1111.86	1112.03	1112.00	1111.69	1111.21	1110.86

NOTES:

See sheet 13 for contraction and expansion joint details.

For additional details see sheets 9, 12, 13 & 14.

See sheet 13 for Section A-A.

W.E.Q. BRIDGE 3
SHEET NO. 11 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REAR ABUTMENT - RIGHT

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STA. 881+27.26
STA. 884+05.94

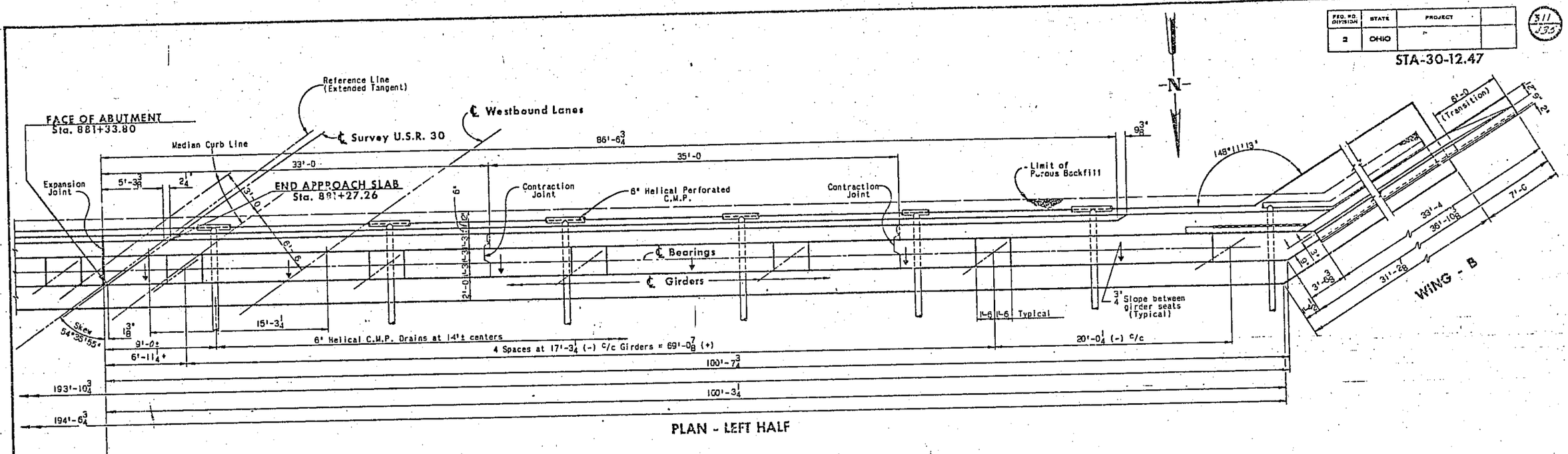
STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	RJ		wde	DLH	6/68	7-15-75

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

311 / 135

STA-30-12.47



ELEVATIONS											
G	H	J	K	L	M	N	O	P	Q	R	S	T
1104.71	1104.96	1104.45	1103.67	1103.44	1103.16	1111.39	1111.42	1111.74	1112.09	1112.42	1112.05	1111.86

NOTES:

See Sheet 13 for contraction and expansion joint details.
For additional details see sheets 9, 11, 13 & 14.
See Sheet 13 for Section B-B.

W.S.O. BRIDGE 3
SHEET NO. 12 OF 40

W. E. QUICKSALE AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REAR ABUTMENT - LEFT

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

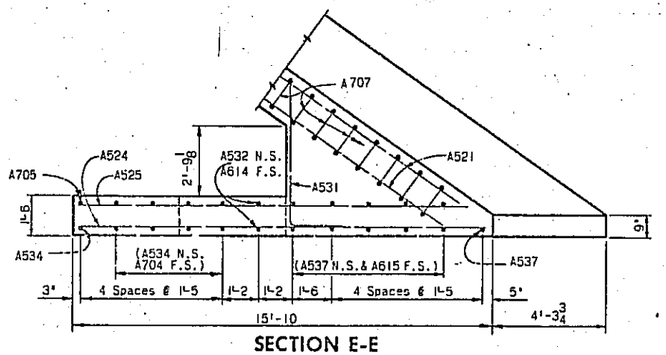
STARK COUNTY

STA. 881+27.26
STA. 884+03.94

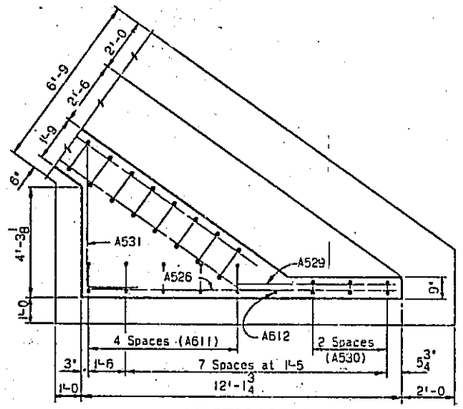
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

512
133

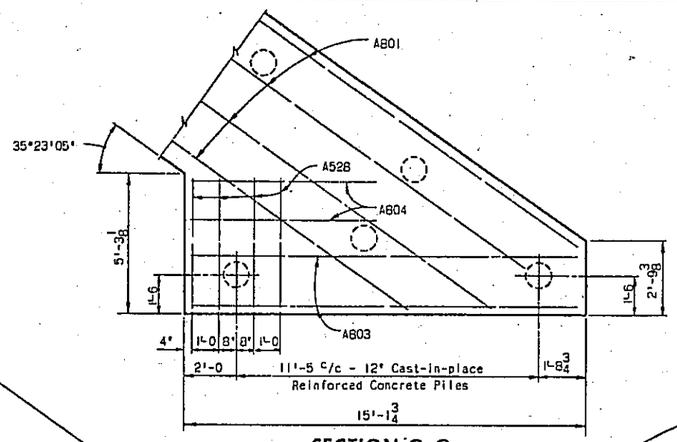
STA-30-12.47



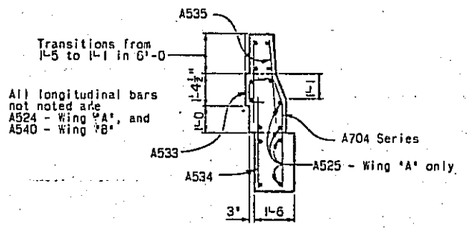
SECTION E-E



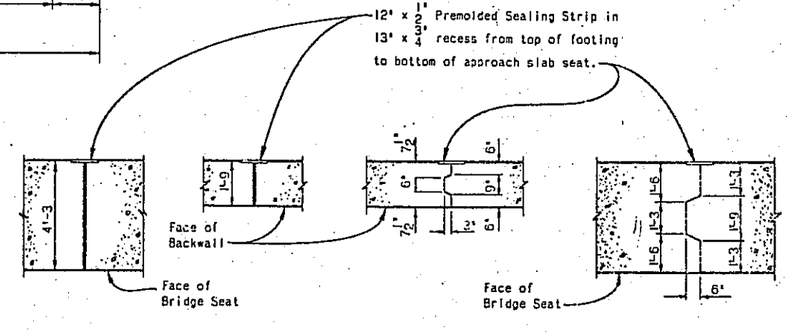
SECTION F-F



SECTION G-G

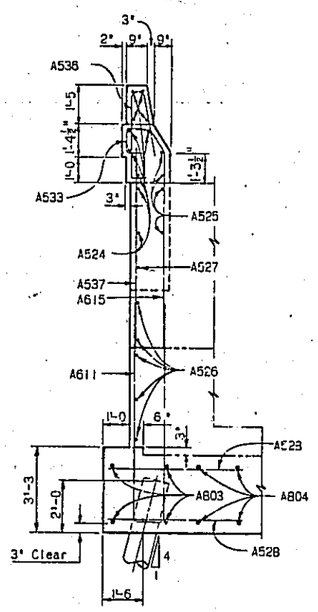


SECTION D-D

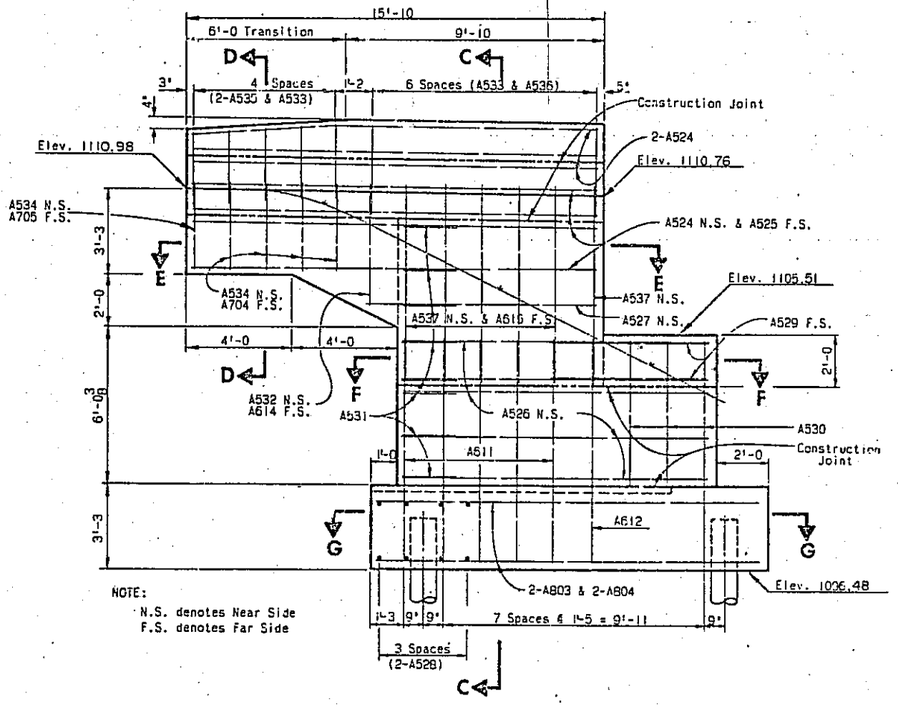


EXPANSION JOINT DETAILS

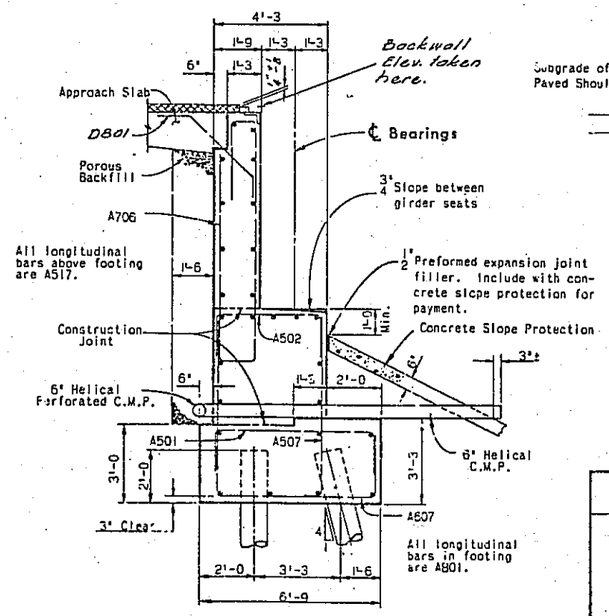
CONTRACTION JOINT DETAILS



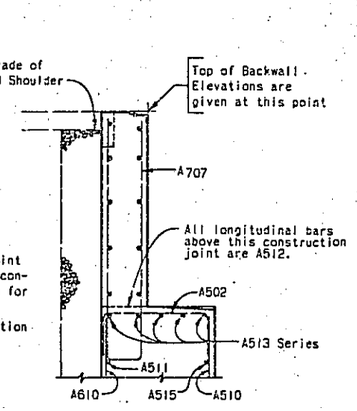
SECTION C-C



ELEVATION - WING A



SECTION A-A



SECTION B-B

W.E.Q. BRIDGE 3
SHEET NO. 13 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REAR ABUTMENT DETAILS

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

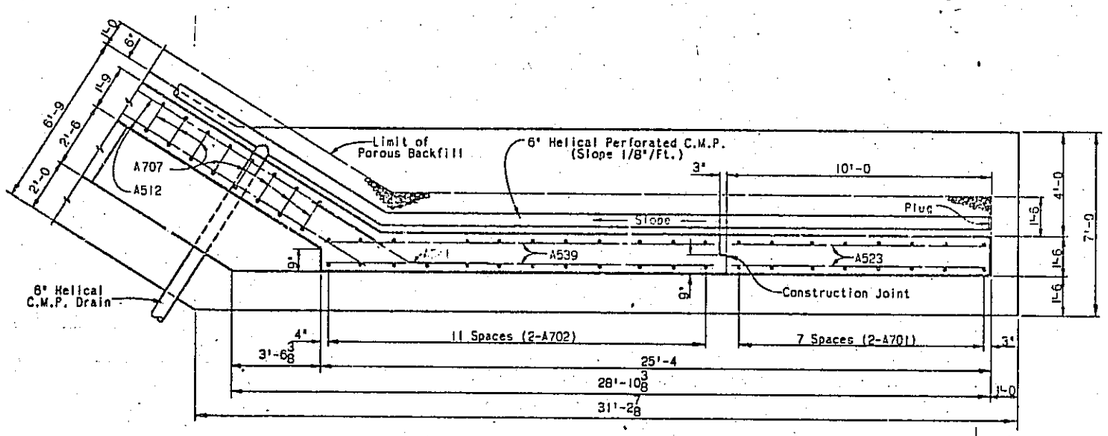
STA. 851+27.26
STA. 854+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TG		wda	DLM	6/81	

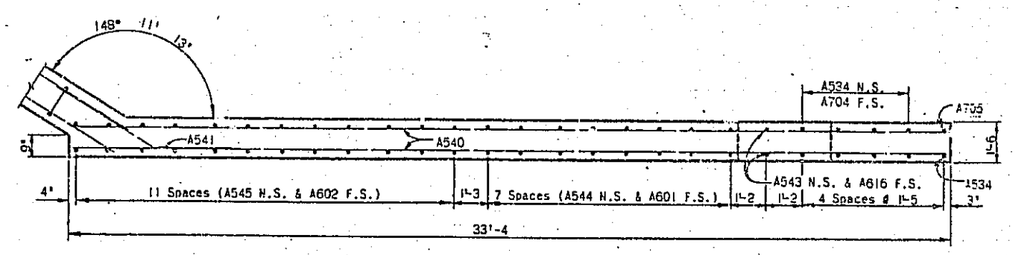
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

315
155

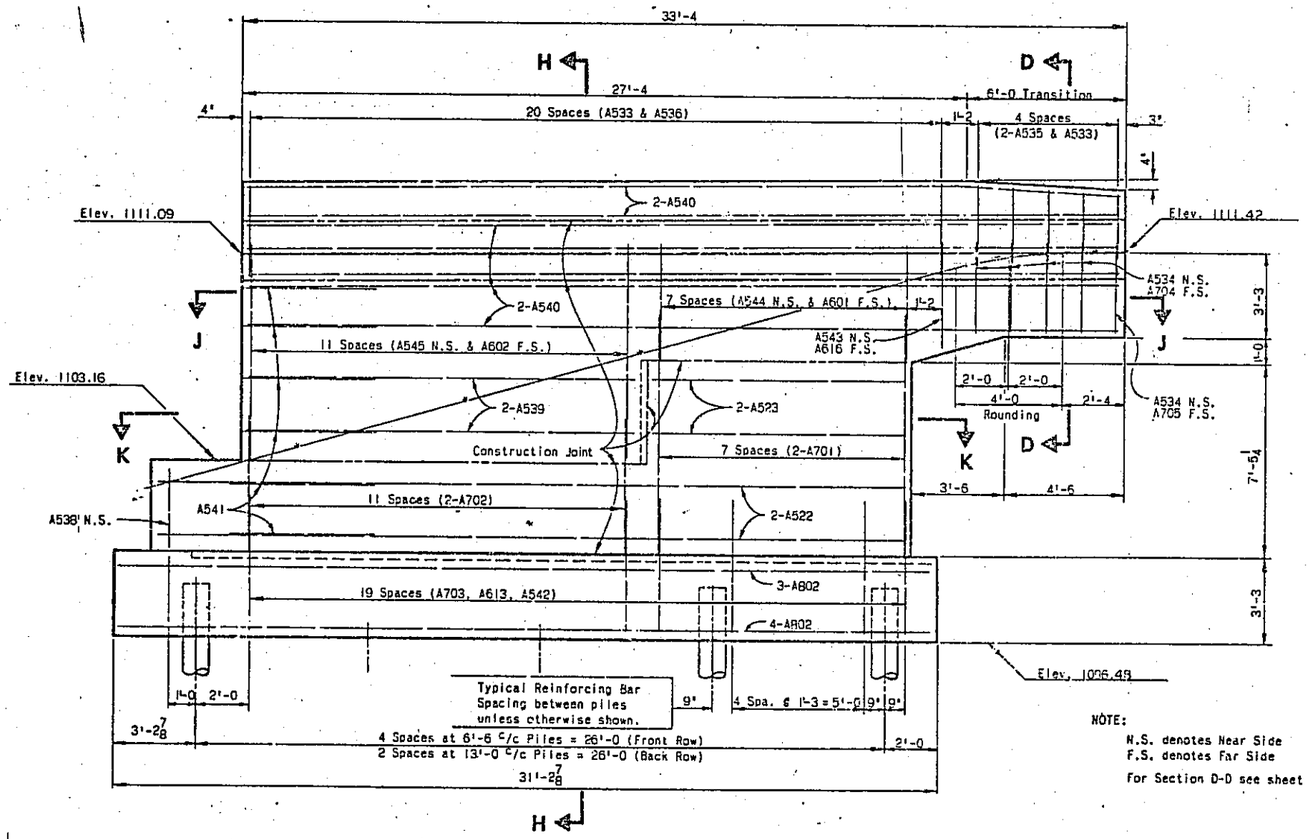
STA-30-12.47



SECTION K-K



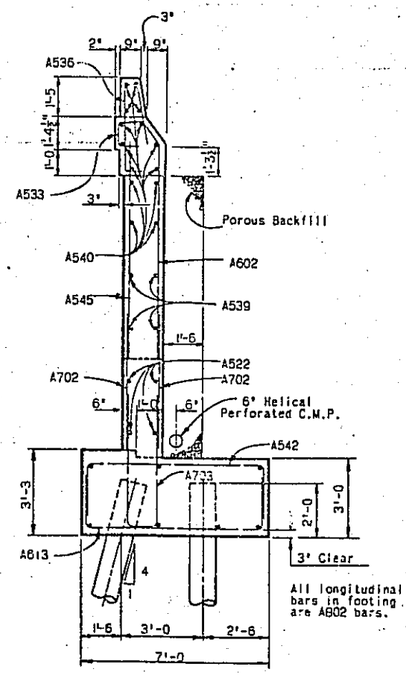
SECTION J-J



Typical Reinforcing Bar Spacing between piles unless otherwise shown.

NOTE:
N.S. denotes Near Side
F.S. denotes Far Side
For Section D-D see sheet 13.

ELEVATION-WING B



All longitudinal bars in footing are A802 bars.

SECTION H-H

W.E.Q. BRIDGE 3
SHEET NO. 14 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

REAR ABUTMENT DETAILS

BRIDGE NO. STA-30-1240

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

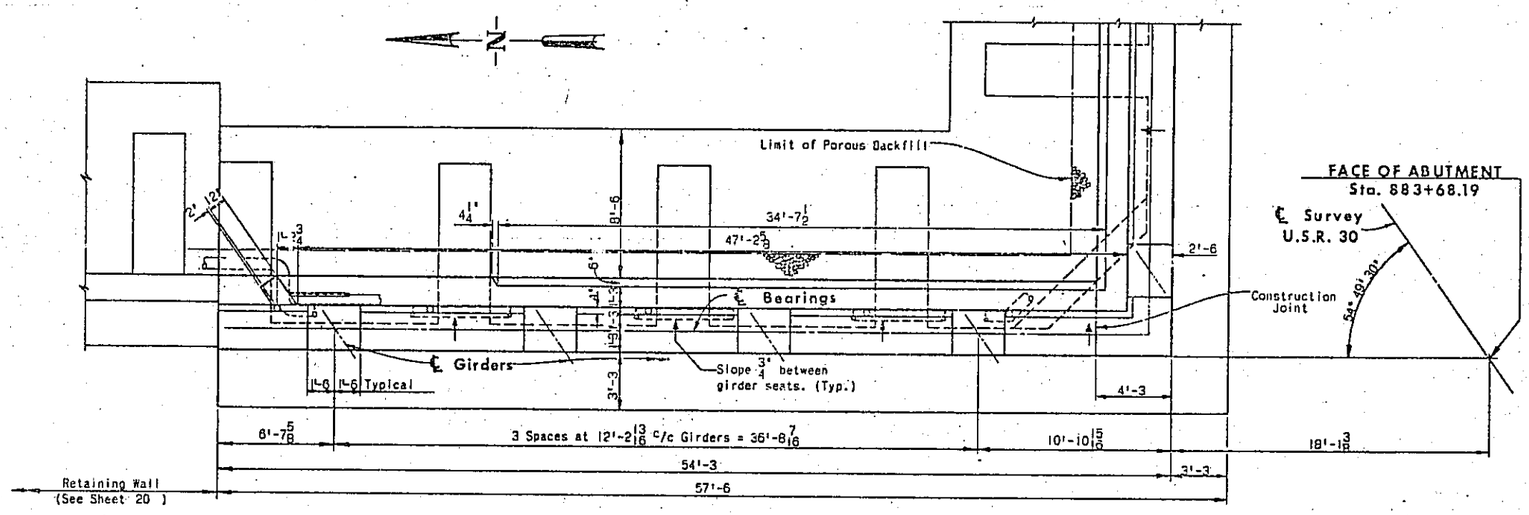
STA. 831+27.26
STA. 834+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TF		wde	DLM	6/81	

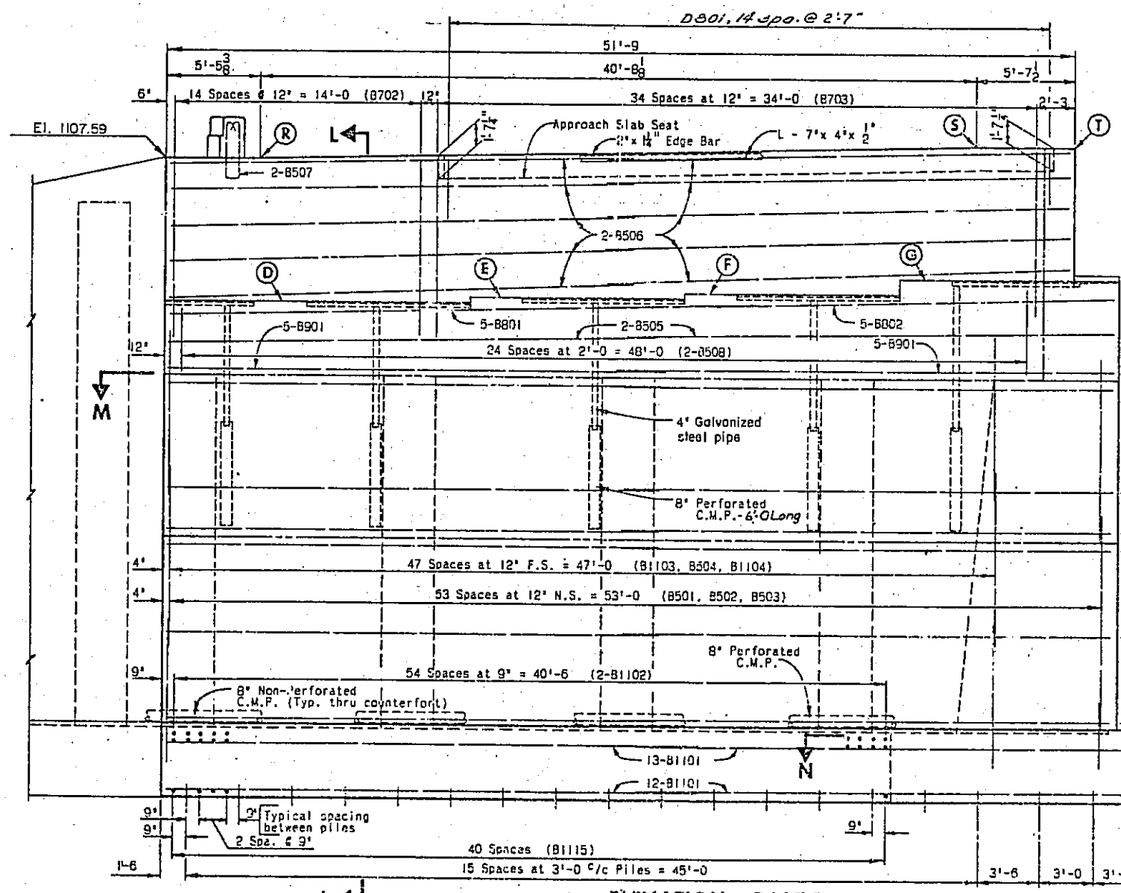
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

314
135

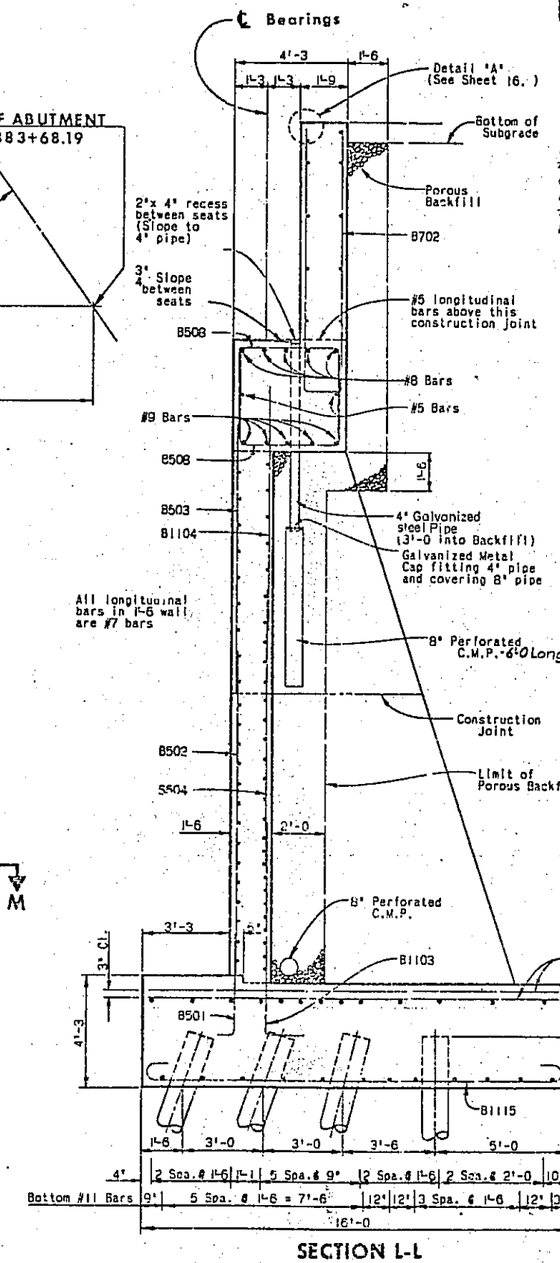
STA-30-12.47



PLAN - PART 1



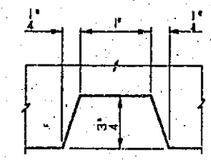
ELEVATION - PART 1



SECTION L-L

For bar marks not noted refer to Elevation Views, Parts 1 & 2.

BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.



TYPICAL RUSTICATION GROOVE DETAIL

NOTES:

For additional details and sections see sheets 16 & 17.

Vertical Rustication Grooves shall be provided at 4'-0" centers on the face of the abutment wall. (See Detail)

For additional pile spacing and batters see sheet 10.

N.S. denotes Near Side
F.S. denotes Far Side

ELEVATIONS							
A	D	E	F	G	R	S	T
1070.69	1099.32	1099.62	1099.92	1100.86	1107.57	1108.49	1109.48

W.E.Q. BRIDGE 3
SHEET NO. 15 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

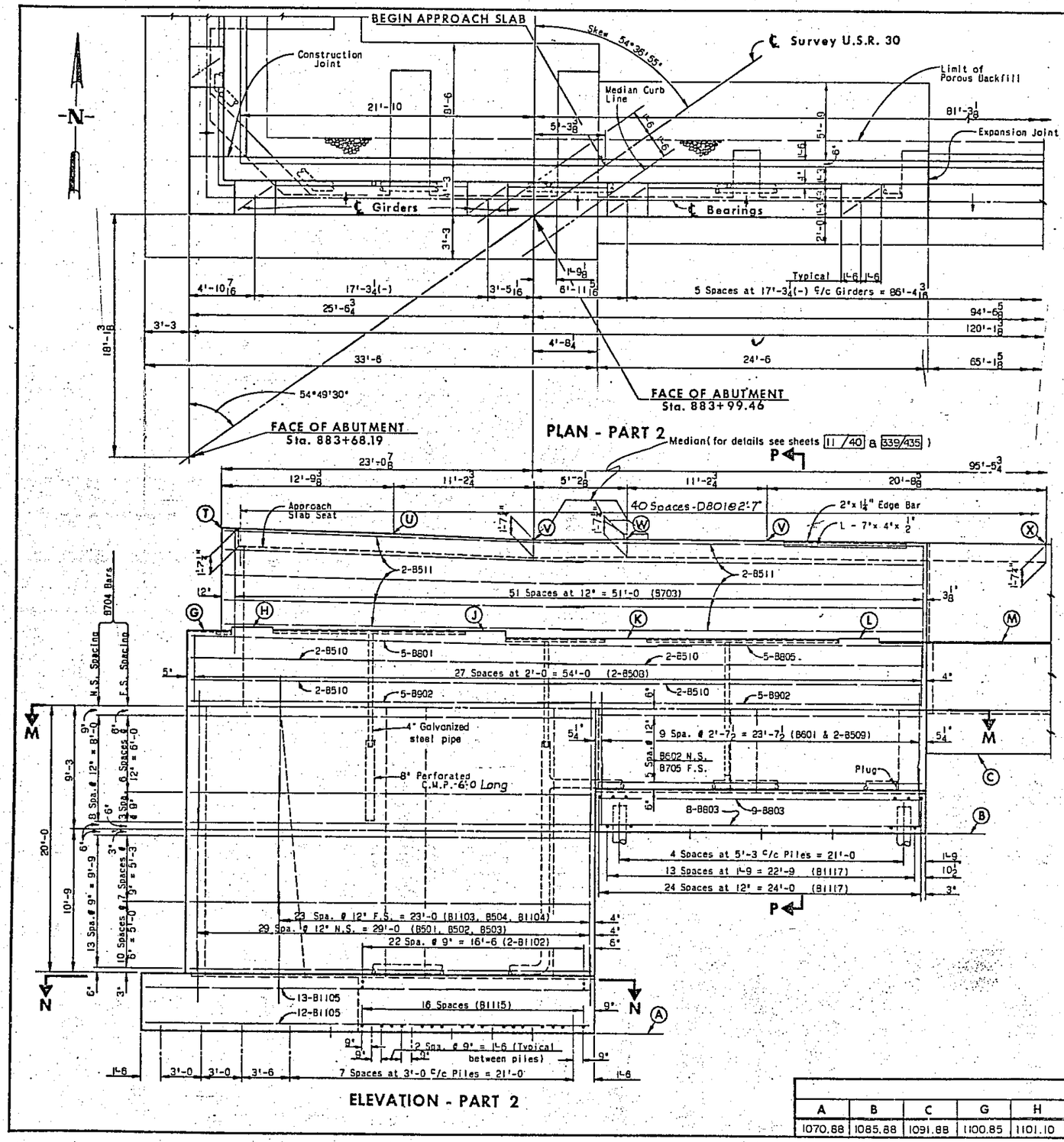
FORWARD ABUTMENT - PART 1
BRIDGE NO. STA-30-13.40
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY
STA. 881+27.26
STA. 884+05.94

DES'GNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
			WDQ	DLM	6/65	

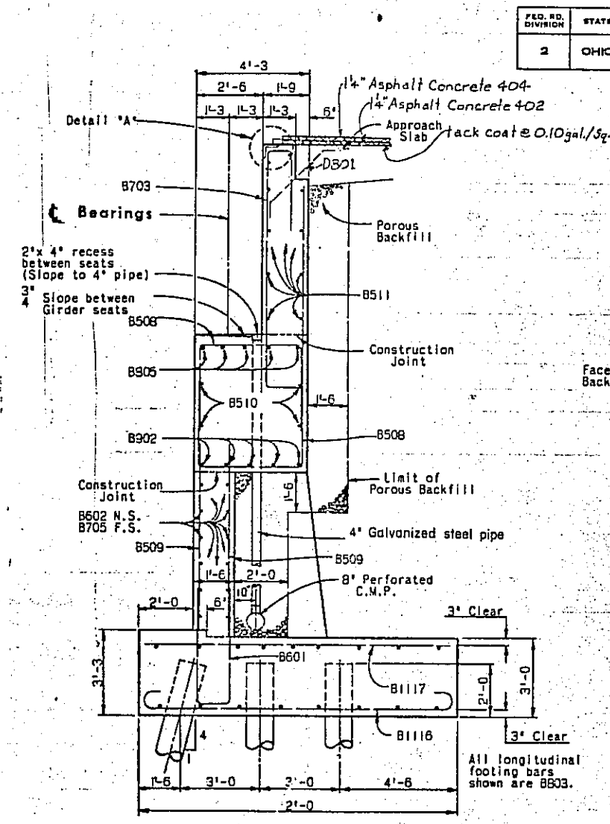
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

315/435

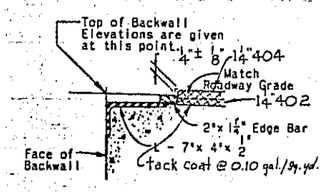
STA-30-12.47



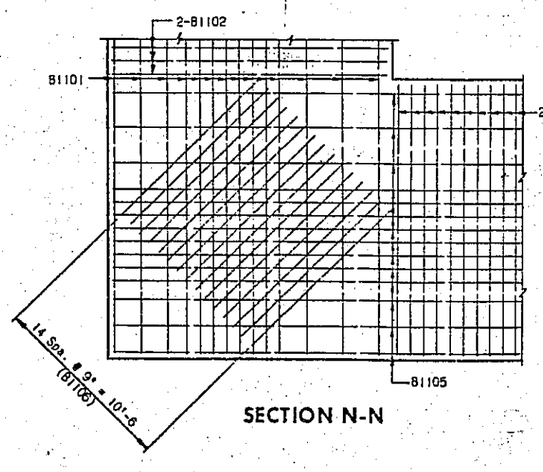
ELEVATION - PART 2



SECTION P-P



DETAIL 'A'



SECTION N-N

NOTES:

For additional details and sections, see sheets 15 & 17.

Refer to sheet 13 for Expansion Joint Details.

Vertical Rustication Grooves shall be provided at 4'-0± centers on the face of the abutment wall. (See Sheet 15 for detail.)

For additional pile spacing and batters, see sheet 10.

N.S. denotes Near Side
F.S. denotes Far Side

Use 8" non-perforated C.M.P. thru counterforts.

ELEVATIONS													
A	B	C	G	H	J	K	L	M	T	U	V	W	X
1070.88	1085.88	1091.88	1100.85	1101.10	1100.57	1100.41	1100.45	1100.25	1108.48	1108.18	1107.78	1107.68	1107.65

W.E.Q. BRIDGE 3
SHEET NO. 16 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

FORWARD ABUTMENT - PART 2

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

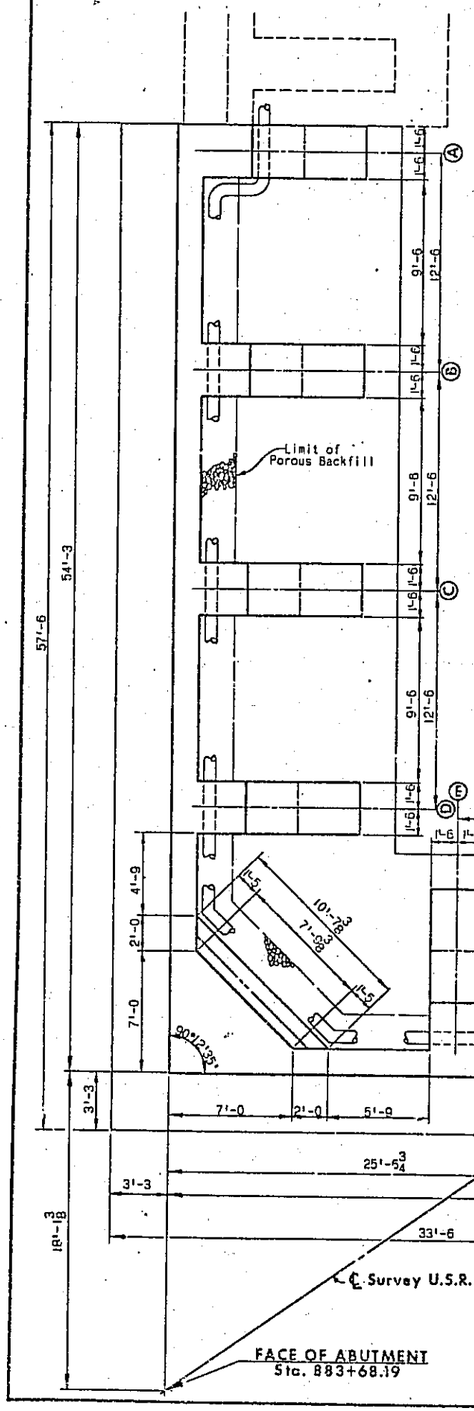
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TG		wda	DLM	6/73	7-15-75

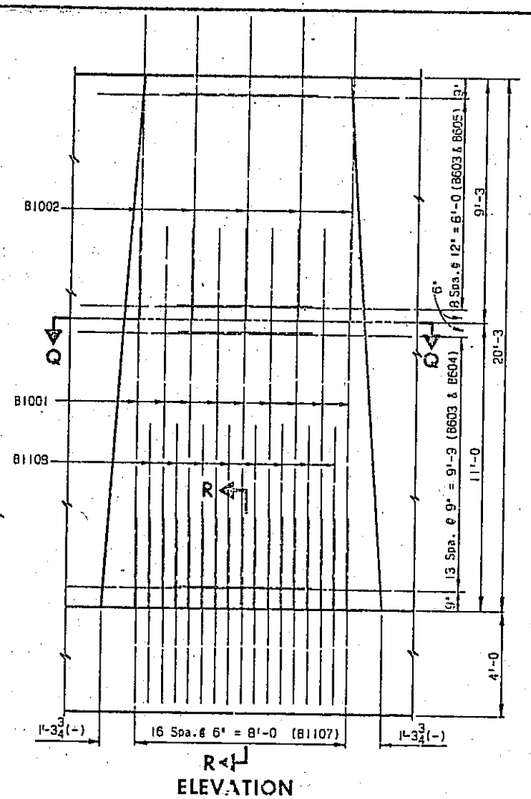
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

STA-30-12.47

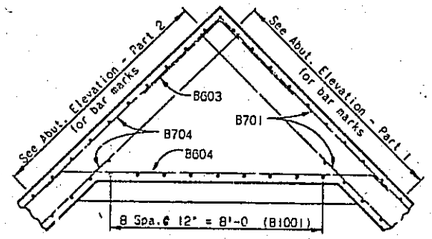
316
135



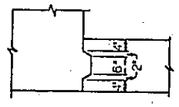
SECTION M-M



ELEVATION

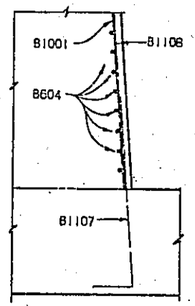


SECTION Q-Q

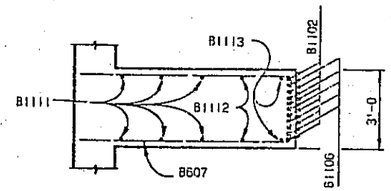


DETAIL 'B'

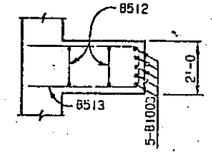
ELEVATION 'Z' (FLOW LINE 8" C.M.P.)						
COUNTERFORT						
A	B	C	D	E	F	G
1075.32	1075.38	1075.44	1075.51	1075.62	1089.13	1089.19



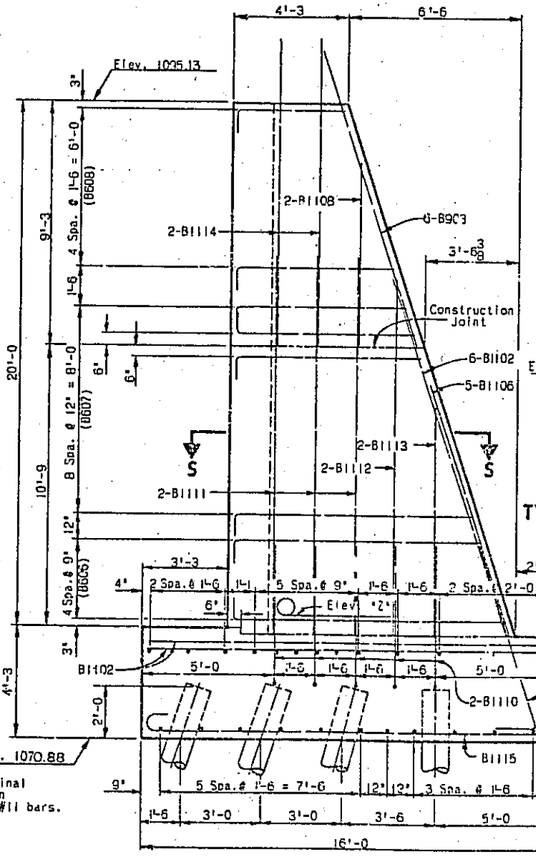
PART SECTION R-R



SECTION S-S

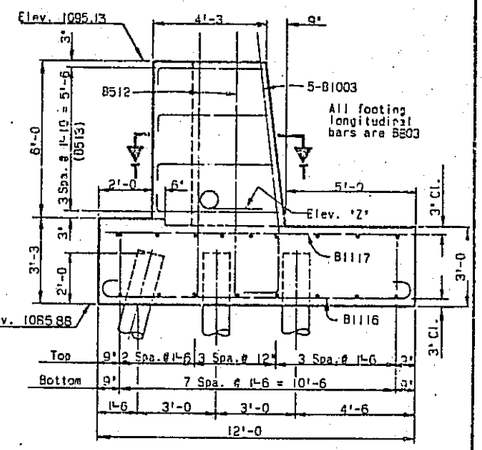


SECTION T-T



All longitudinal bars shown in footing are #11 bars.

TYPICAL SECTION THRU COUNTERFORTS 'A' - 'F'



TYPICAL SECTION THRU COUNTERFORTS 'G"&'H'

W.E.Q. BRIDGE 3
SHEET NO. 17 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

FORWARD ABUTMENT DETAILS FOR PARTS 1 & 2

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STA. 881+27.26
STA. 884+05.92

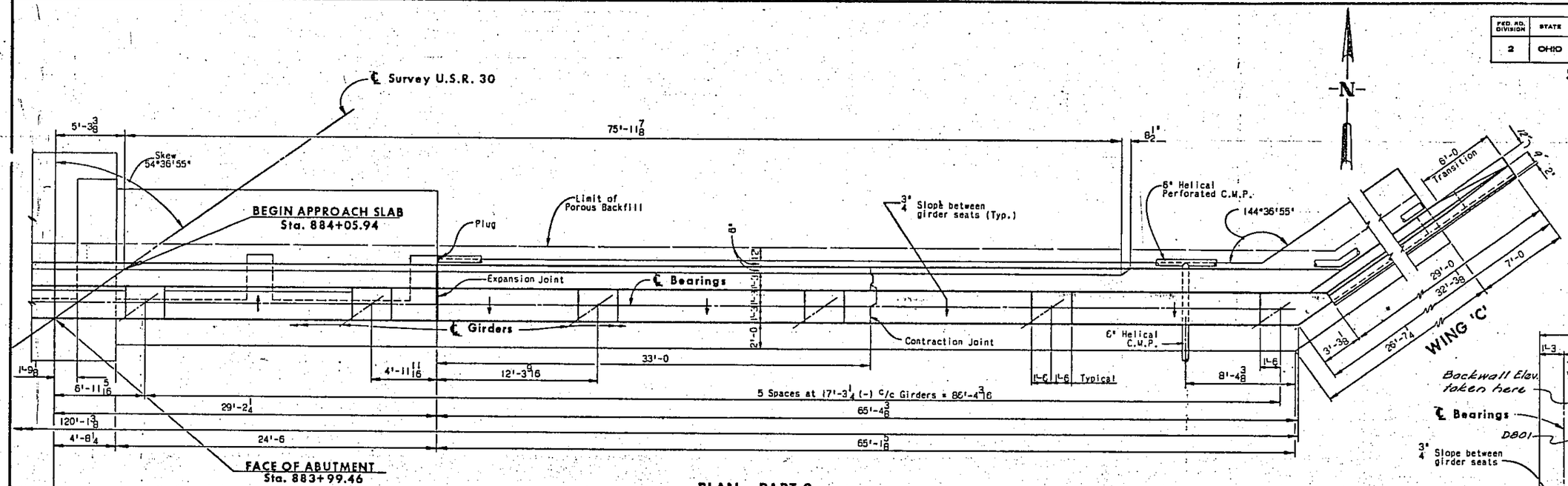
STARK COUNTY

UNDERWD	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	R		JLE	JLM	6/68	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

317
435

STA-30-12.47



PLAN - PART 3

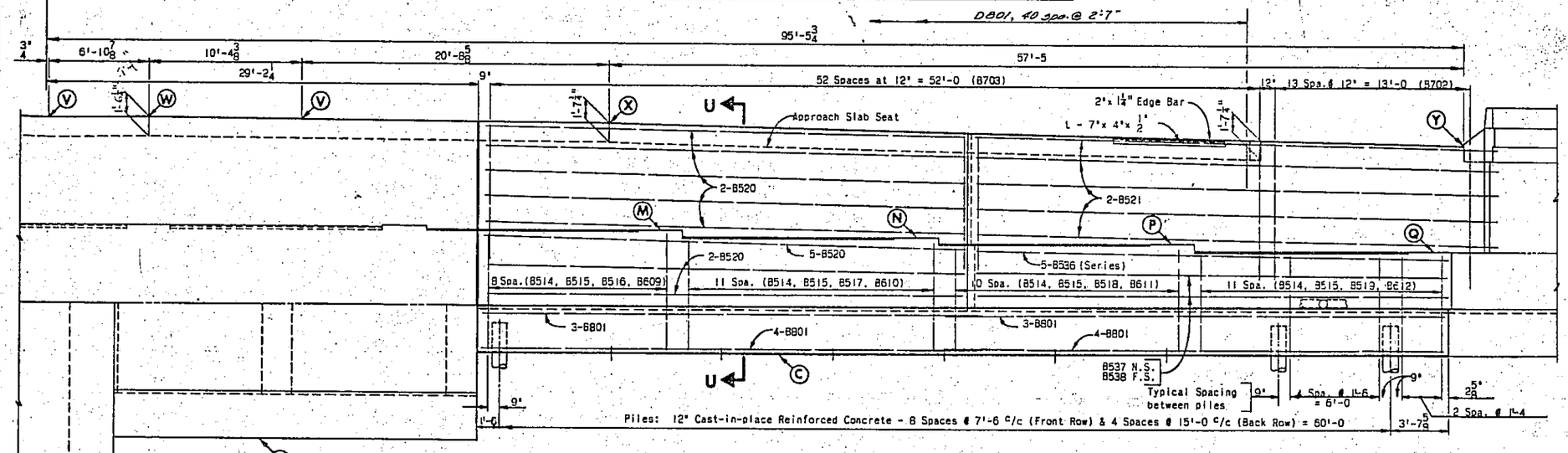
NOTES:

For additional details, see sheets 15, 16, 17 & 19.

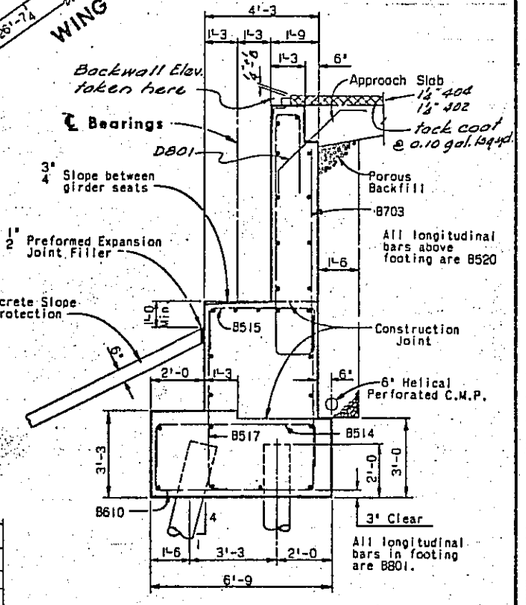
Refer to sheet 13 for Contraction & Expansion Joint Details.

For additional abutment drainage details at 6" Helical C.M.P. see sheet 27.

ELEVATIONS									
B	C	M	N	P	Q	V	W	X	Y
1085.88	1091.88	1100.25	1099.83	1099.41	1098.98	1107.78	1107.68	1107.65	1106.25



ELEVATION - PART 3



SECTION U-U

W.E.Q. BRIDGE 3
SHEET NO. 18 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

FORWARD ABUTMENT - PART 3

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

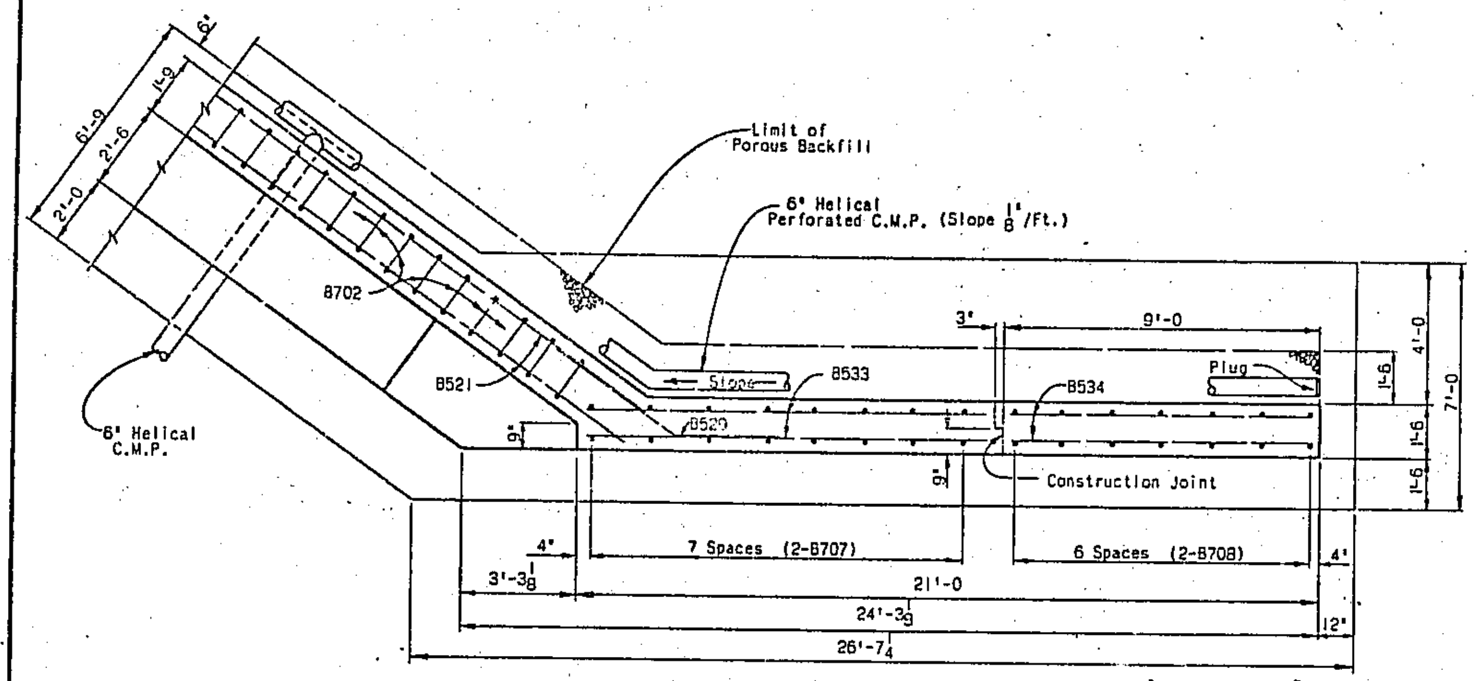
STARK COUNTY

STA. 881+27.26
STA. 884+05.94

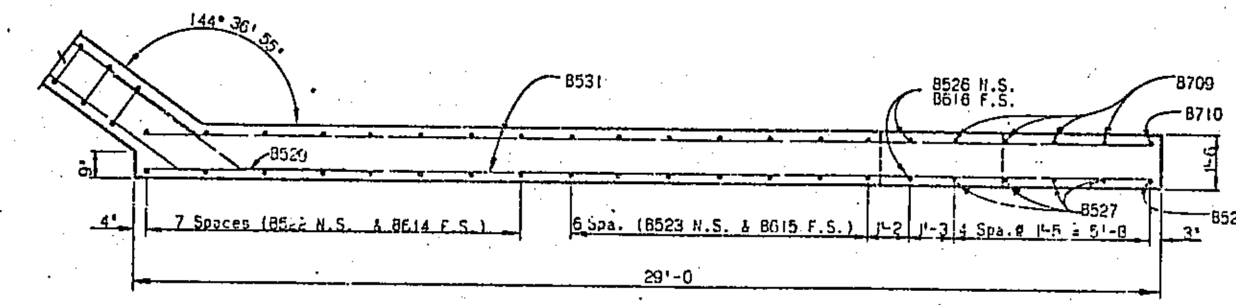
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	RP		wda	DLM	6/23	7-15-75

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

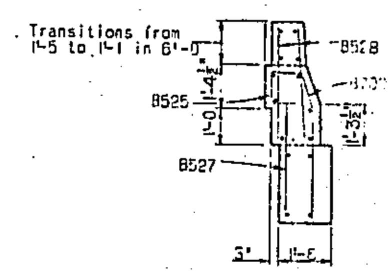
STA-30-12.47



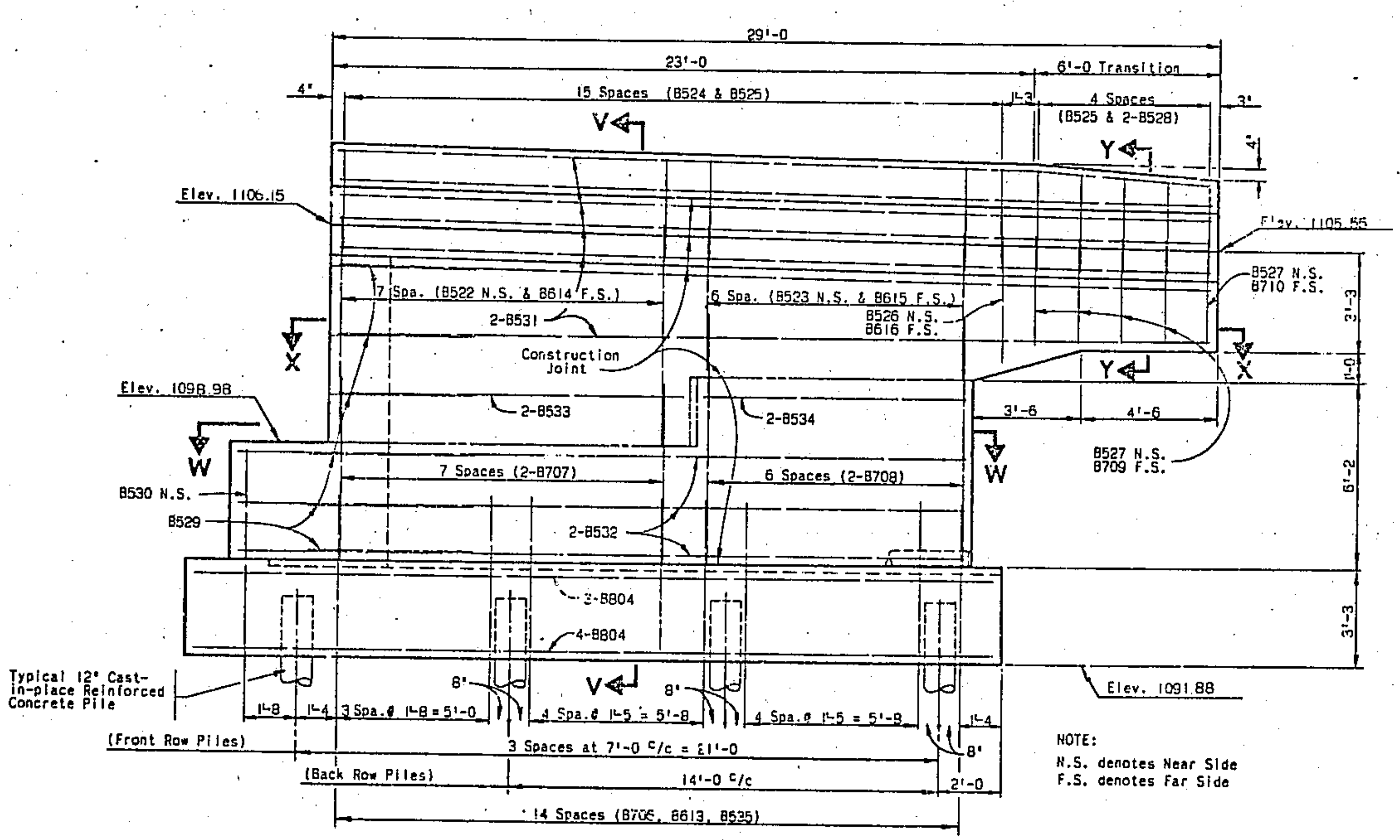
SECTION W-W.



SECTION X-X

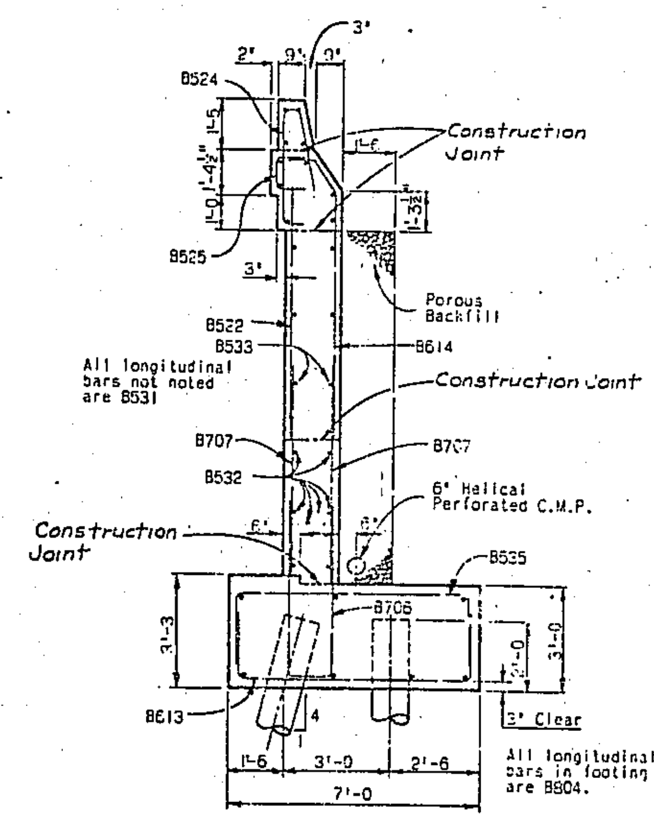


SECTION Y-Y



ELEVATION - WING 'C'

NOTE:
N.S. denotes Near Side
F.S. denotes Far Side



SECTION V-V

W.E.Q. BRIDGE 3
SHEET NO. 19 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

FORWARD ABUTMENT DETAILS
FOR PART 3
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P. R.R.

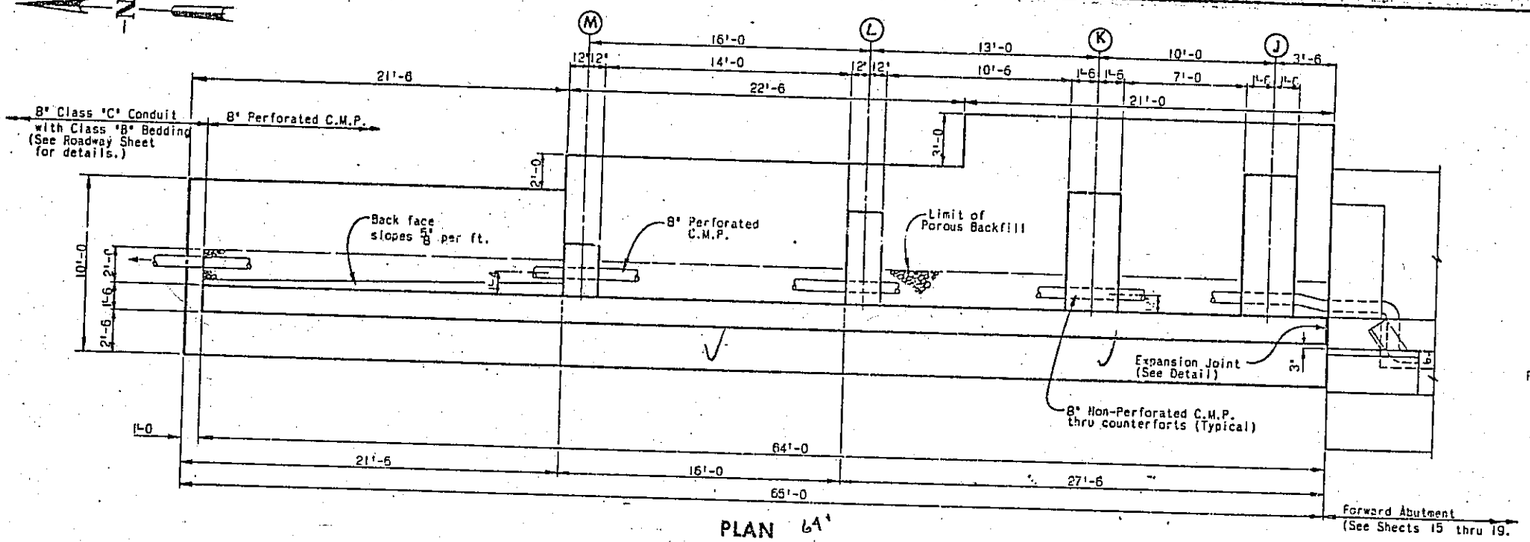
STARK COUNTY
STA. 851+27.26
STA. 854+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				DLM	6/65	

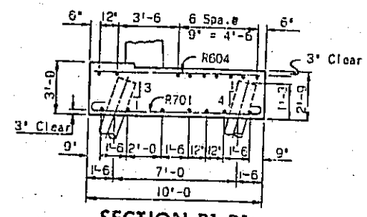
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3/9
135

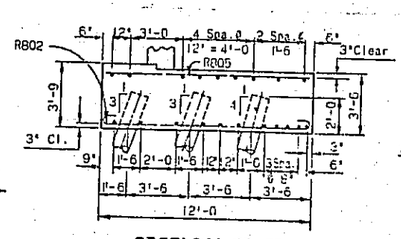
STA-30-12.47



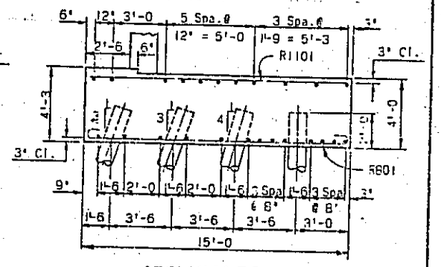
PLAN



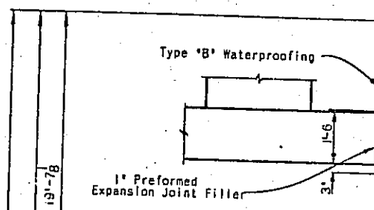
SECTION B1-B1



SECTION C1-C1

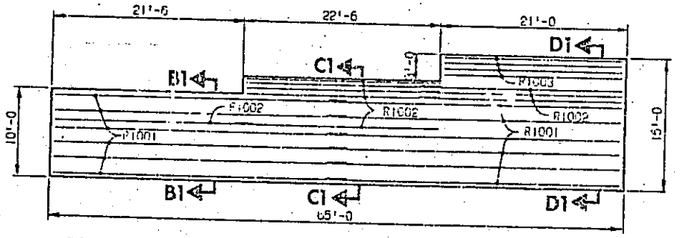


SECTION D1-D1

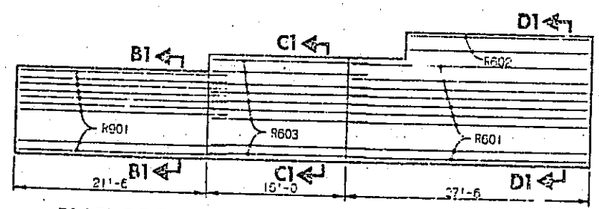


EXPANSION JOINT DETAILS

ELEVATION



PLAN OF BOTTOM LONGITUDINAL FOOTING BARS
(SEE SECTIONS FOR SPACING)



PLAN OF TOP LONGITUDINAL FOOTING BARS
(SEE SECTIONS FOR SPACING)

NOTES:

N.S. denotes Near Side
F.S. denotes Far Side

For additional details see sheet 21.

For additional pile spacing see sheet 10.

W.S.Q. BRIDGE 3
SHEET NO. 20 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

RETAINING WALL DETAILS
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

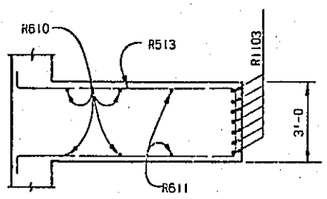
STA. 881+27.26
STA 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	REVISED	REVISED
	TB		wdb	DLM 6/68		

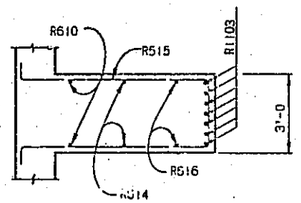
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

320
435

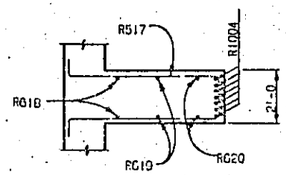
STA-30-12.47



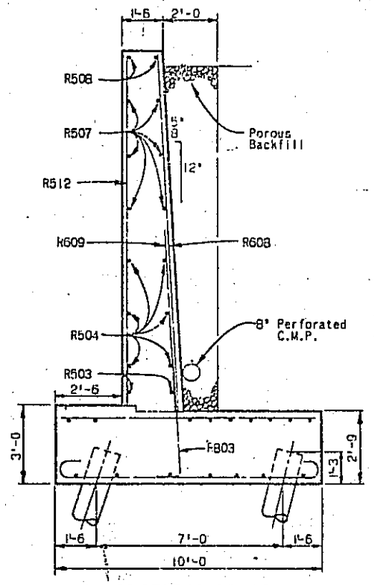
SECTION E1-E1



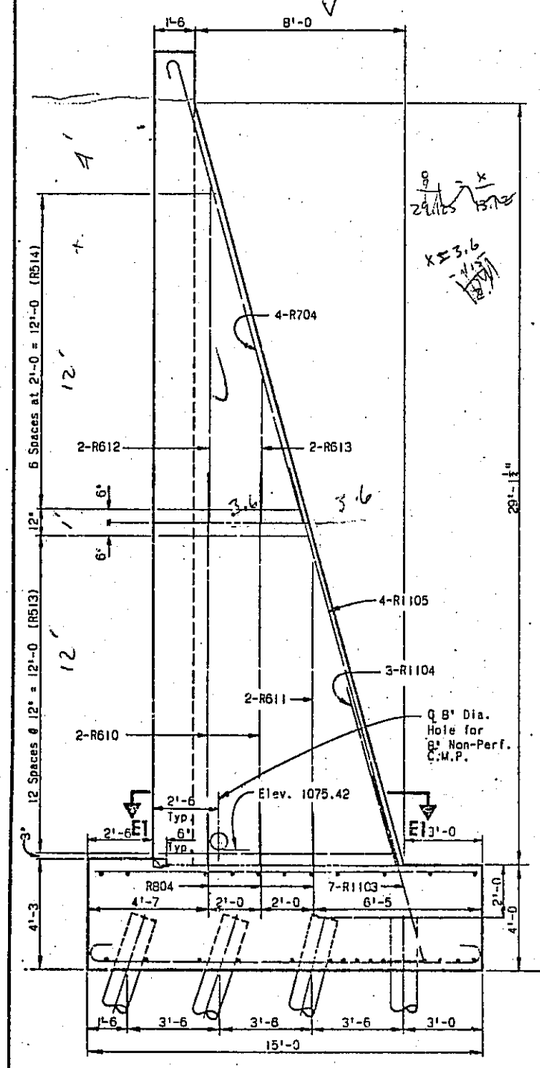
SECTION F1-F1



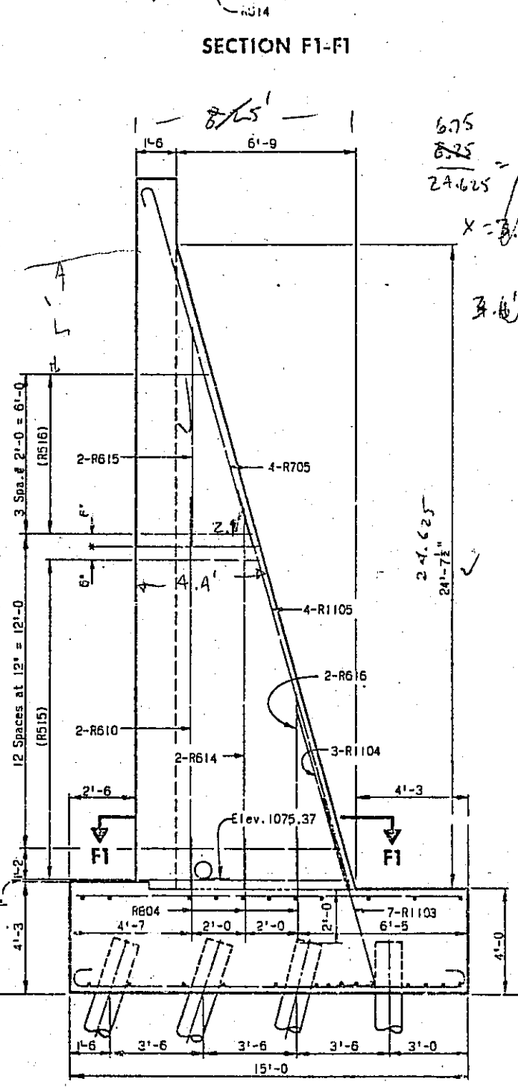
SECTION G1-G1



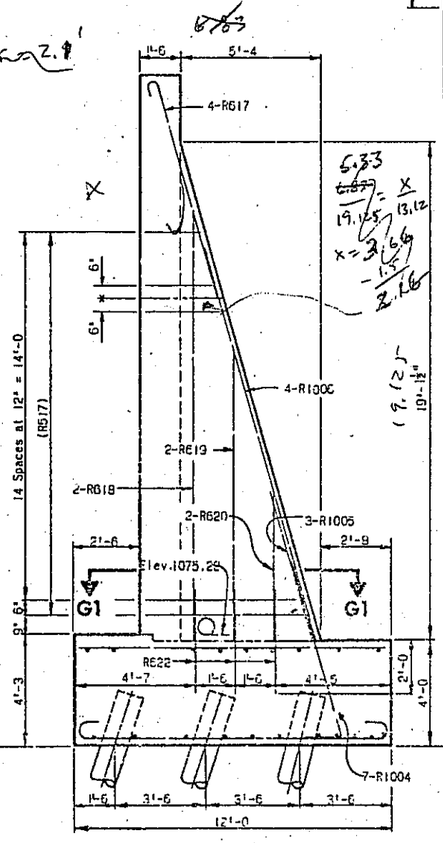
SECTION A1-A1



SECTION THRU COUNTERFORT 'J'

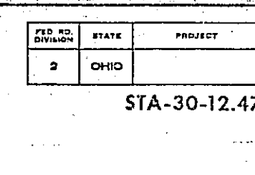


SECTION THRU COUNTERFORT 'K'



SECTION THRU COUNTERFORT 'L'

SECTION THRU COUNTERFORT 'M'



SECTION H1-H1

W.E.Q. BRIDGE 3
SHEET NO. 21 OF 40

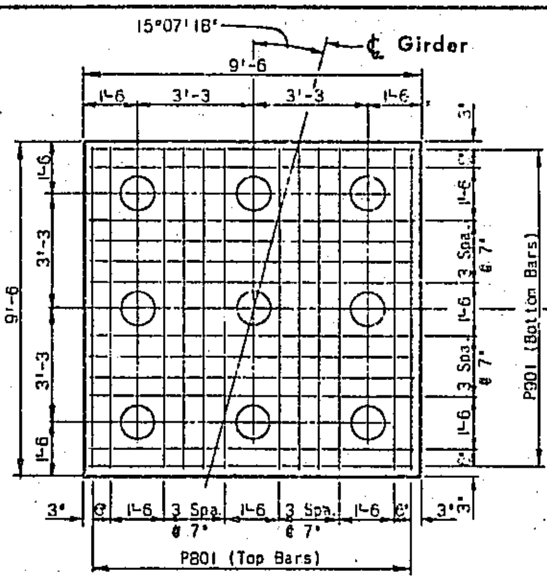
W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

RETAINING WALL DETAILS
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

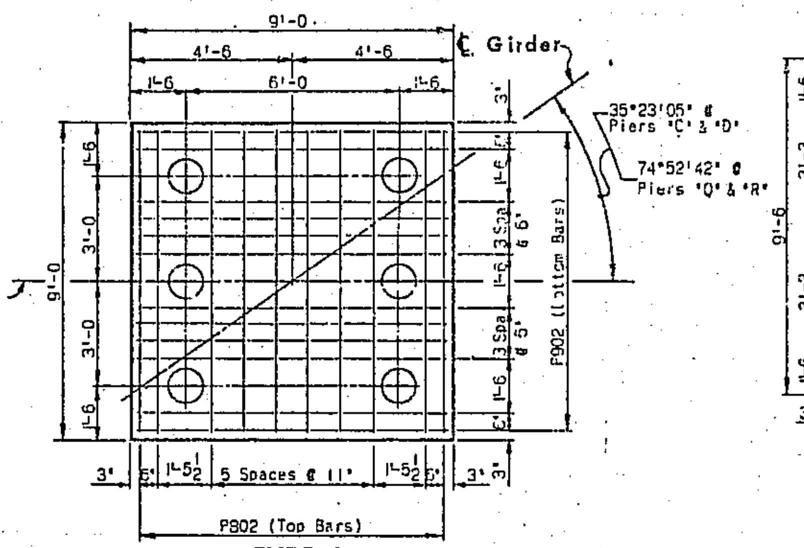
STA 821+27.26
STA. 824+05.94

STARK COUNTY

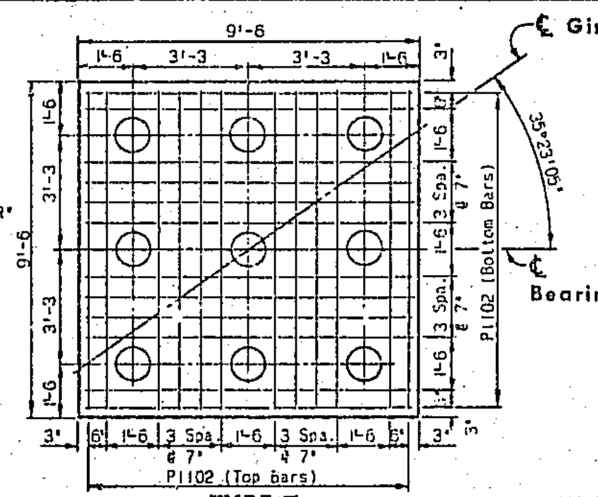
REMARKS	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TG		WEQ	DLM	6/85	



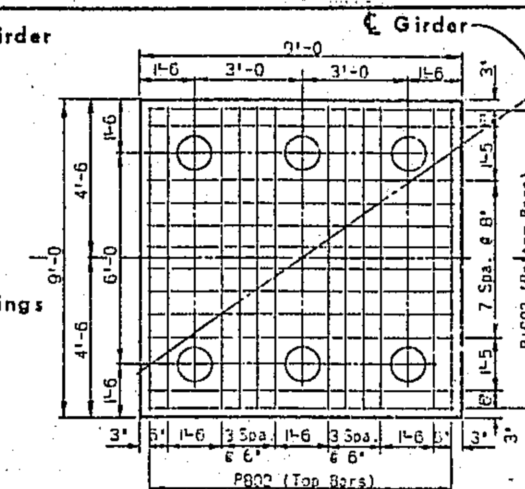
TYPE 1



TYPE 4



TYPE 7



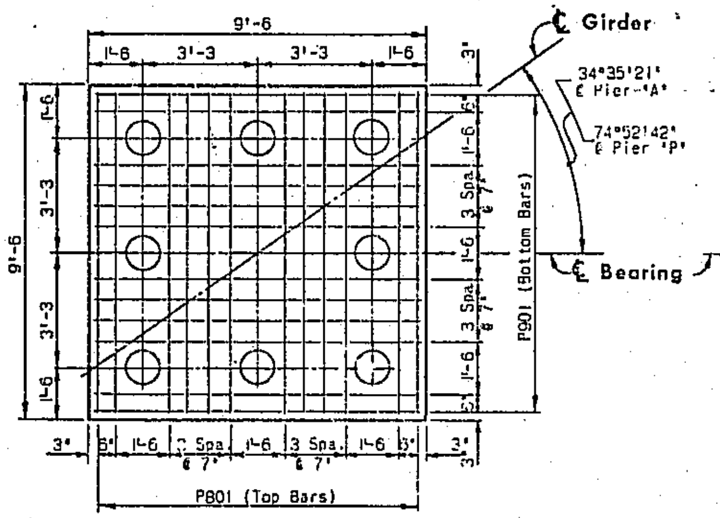
TYPE 8

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

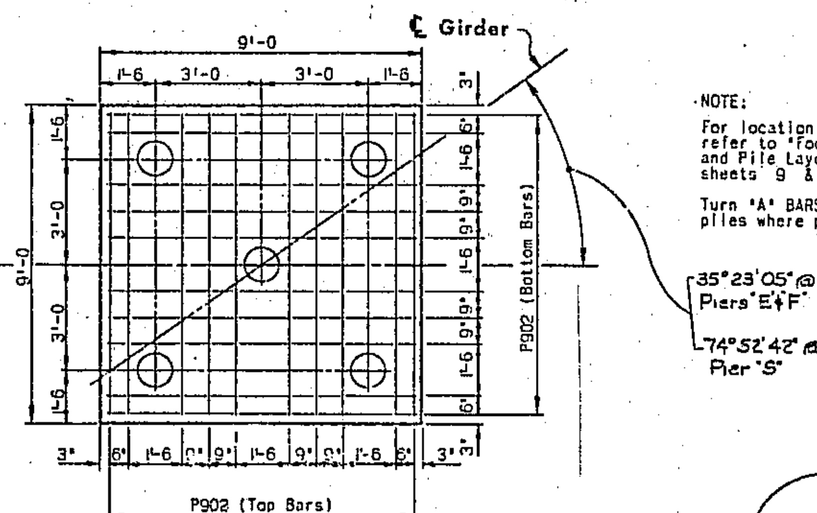
321/435

STA-30-12.47

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.



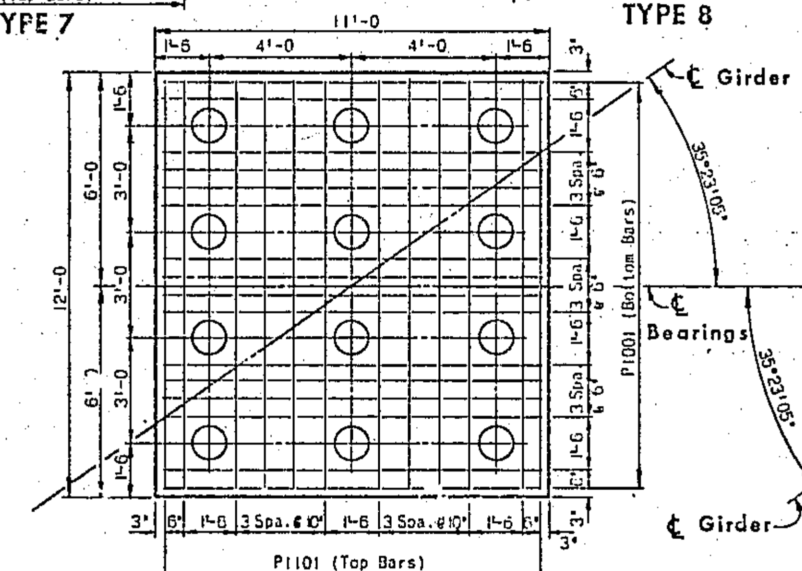
TYPE 2



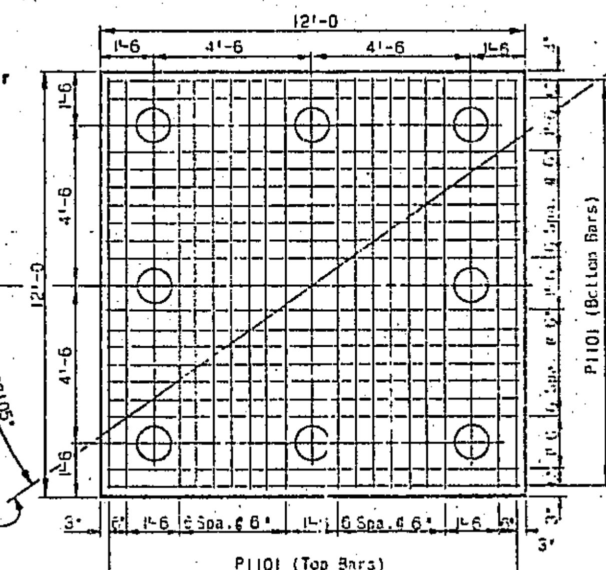
TYPE 5

NOTE:
For location of Piers refer to "Footing Plan and Pile Layout", sheets 9 & 10.

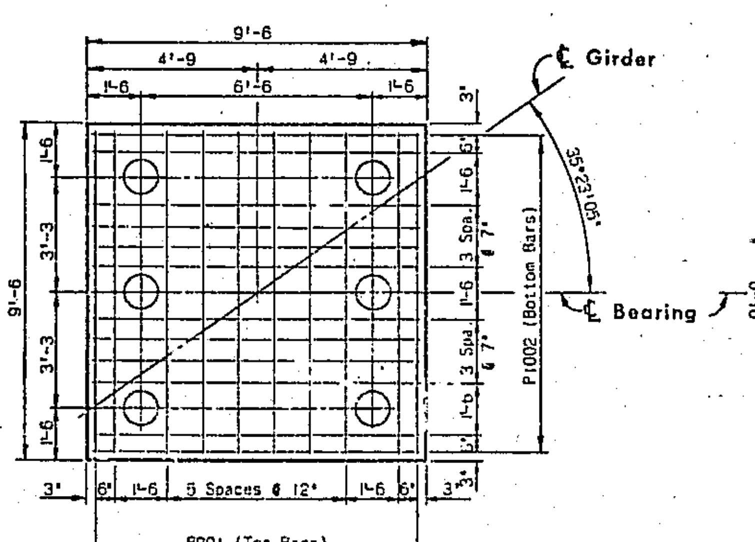
Turn "A" BARS to miss piles where piles occur.



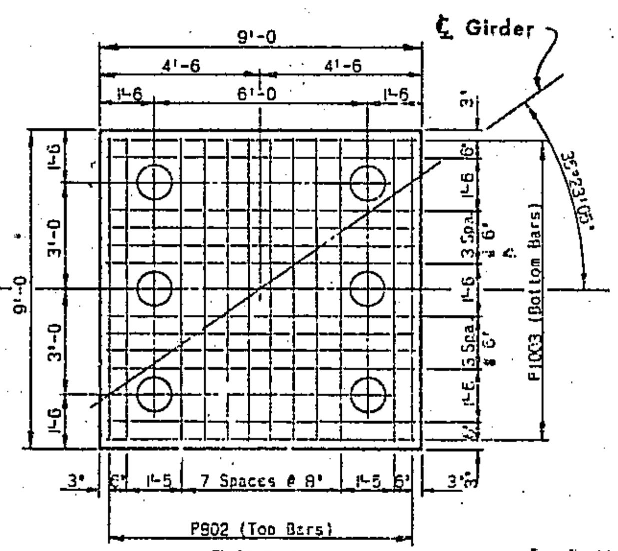
TYPE 9



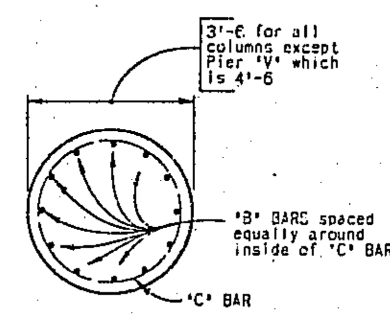
TYPE 10



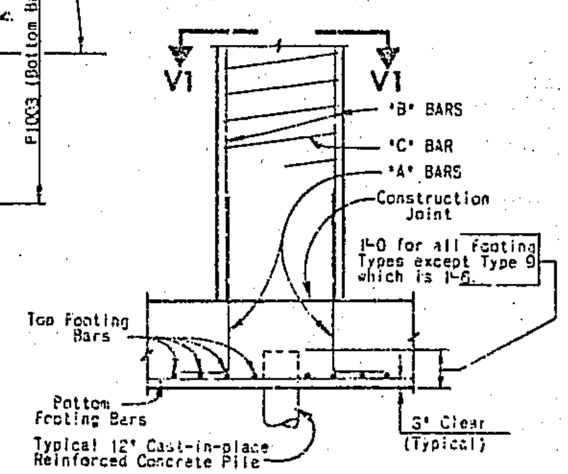
TYPE 3



TYPE 6

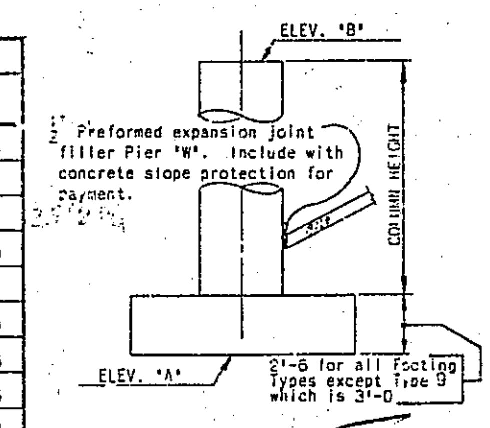


VIEW V1-V1



TYPICAL SECTION THRU PIERS

	PIER SCHEDULE							
	PIER	ELEV. 'A'	ELEV. 'B'	FOOTING TYPE	COLUMN HEIGHT	'A' BARS	'B' BARS	'C' BAR
Left Rear Piers	A	1074.88	1101.61	2	24'-2 3/4 ✓	16-P1004	16-P1018	SP513
	B	1074.88	1101.87	3	24'-5 7/8 ✓	11-P1004	11-P1017	SP512
	C	1074.38	1102.10	4	25'-3 1/8	11-P1004	11-P1016	SP511
	D	1074.38	1102.81	4	25'-11 5/8	11-P1004	11-P1015	SP510
	E	1074.38	1103.22	5	26'-4 1/2	11-P1004	11-P1012	SP507
	F	1074.38	1102.93	5	26'-1 1/8	11-P1004	11-P1014	SP509
Right Rear Piers	G	1073.88	1102.81	6	26'-5 5/8	11-P1004	11-P1011	SP506
	H	1073.88	1102.89	6	26'-6 5/8	11-P1004	11-P1010	SP505
	J	1073.88	1102.75	6	26'-4 7/8	11-P1004	11-P1012	SP507
	K	1072.38	1102.38	6	27'-6 1/2	11-P1004	11-P1006	SP501
	L	1072.38	1102.01	6	27'-2	11-P1004	11-P1007	SP502
	M	1072.38	1101.63	8	26'-9 1/2	11-P1004	11-P1009	SP504
Left Forward Piers	N	1071.88	1100.51	1	26'-1 1/2	17-P1004	17-P1014	SP509
	P	1071.88	1100.63	2	26'-3 5/8 ✓	11-P1004	11-P1013	SP508
	Q	1071.88	1100.93	4	26'-6 5/8 ✓	11-P1004	11-P1010	SP505
	R	1071.88	1101.57	4	27'-2 1/4	11-P1004	11-P1007	SP502
	S	1071.88	1101.83	5	27'-5 7/8	11-P1004	11-P1006	SP501
	T	1071.88	1101.35	3	27'-0 1/8	15-P1004	15-P1008	SP503
Rt. Fwd. Piers	U	1071.88	1097.75	7	23'-4 1/2 ✓	20-P1004	20-P1019	SP514
	V	1071.88	1096.29	9	21'-4 1/2	18-P1005	18-P1020	SP515
	W	1071.88	1097.75	10	23'-4 1/2 ✓	22-P1103	22-P1104	SP514



TYPICAL ELEVATION

W.E.Q. BRIDGE 3
SHEET NO. 22 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

PIER DETAILS

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

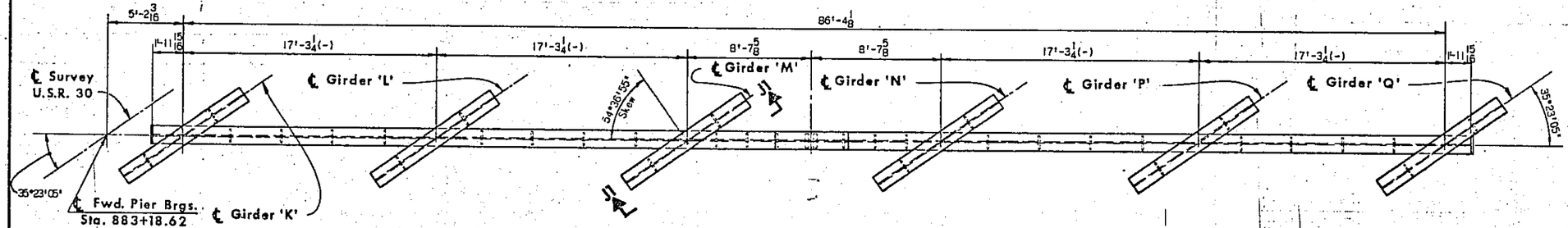
STA. 881+27.26
STA. 884+05.74

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	[illegible]		[illegible]	DLM	4/[illegible]	

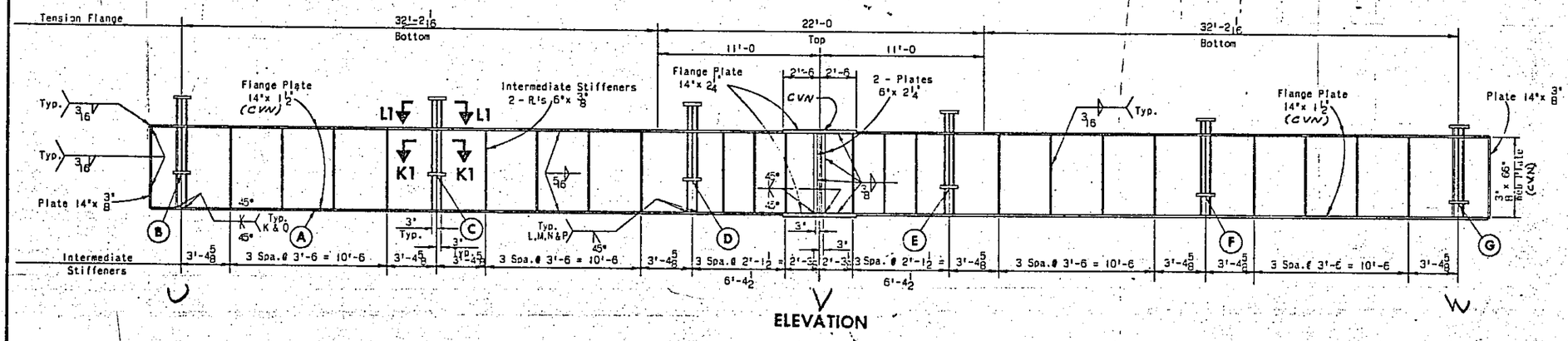
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

322
435

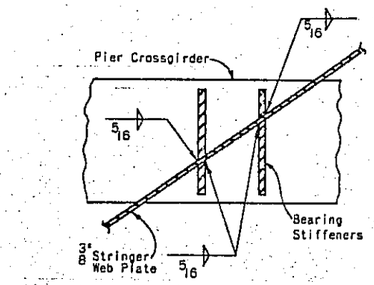
STA-30-12.47



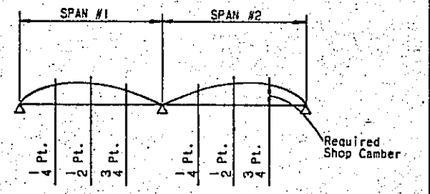
PLAN



ELEVATION

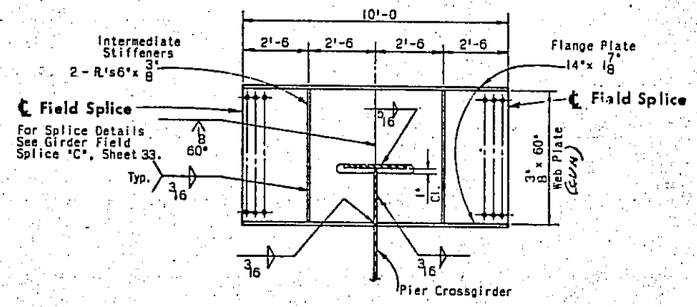


SECTION L1-L1

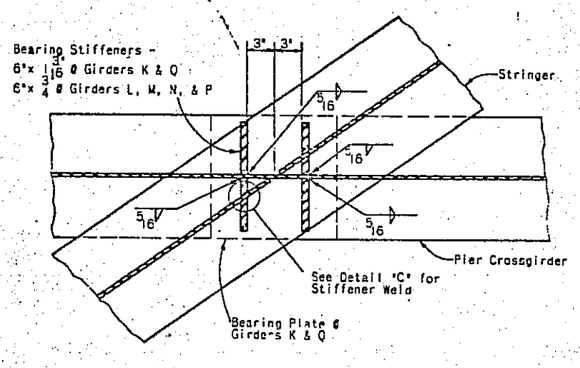


CAMBER AND DEFLECTION DIAGRAM

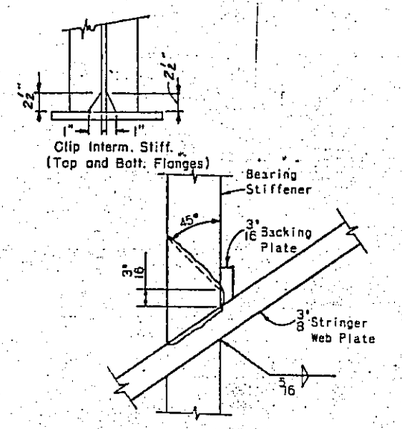
CAMBER AND DEFLECTION						
LOCATION	SPAN #1			SPAN #2		
	1/4 Pt.	1/2 Pt.	3/4 Pt.	1/4 Pt.	1/2 Pt.	3/4 Pt.
Deflection due to weight of steel	0	0	0	0	0	0
Deflection due to remaining dead load	1/8	3/16	1/8	1/16	3/16	1/8
Required Shop Camber	1/8	3/16	1/16	1/16	3/16	1/8



SECTION J1-J1



SECTION K1-K1



DETAIL 'C'

For additional details see Girder Elevation Details, sheet 31.

ELEVATIONS - PIER CROSSGIRDER						
A	B	C	D	E	F	G
1100.61	1102.90	1102.95	1102.78	1102.38	1101.99	1101.58

All web splices to be made at a minimum of 5'-0" from Flange splices.

W.E.Q. BRIDGE 3
SHEET NO. 23 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

PIER CROSSGIRDER DETAILS

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

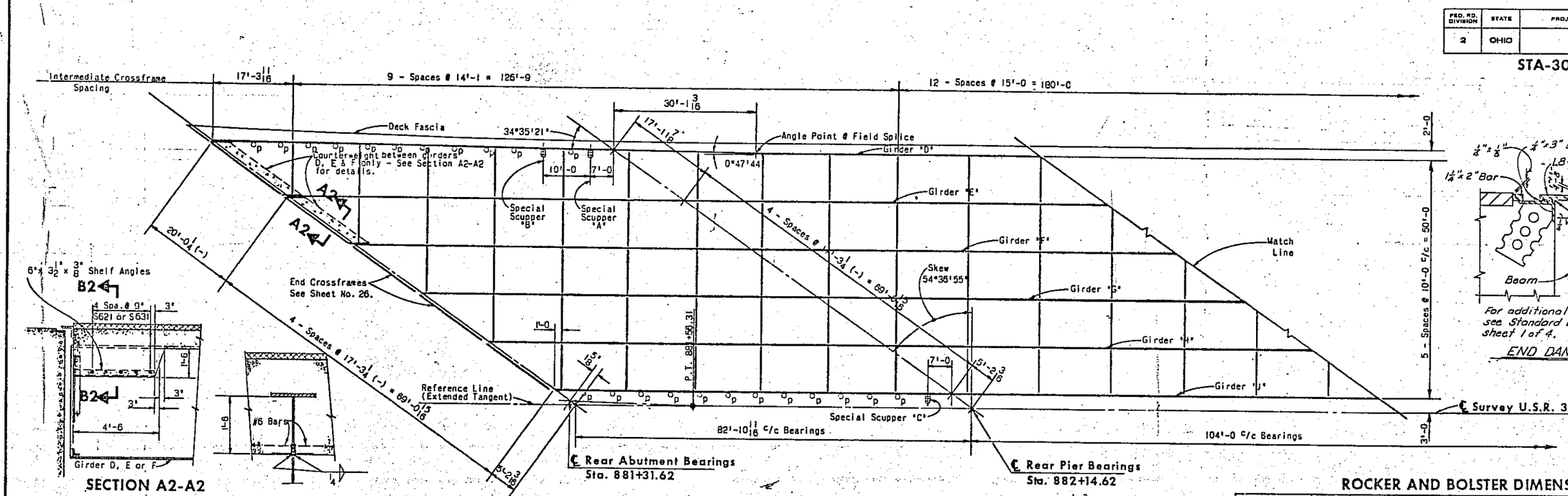
STA. 881+27.26
STA. 884+05.94

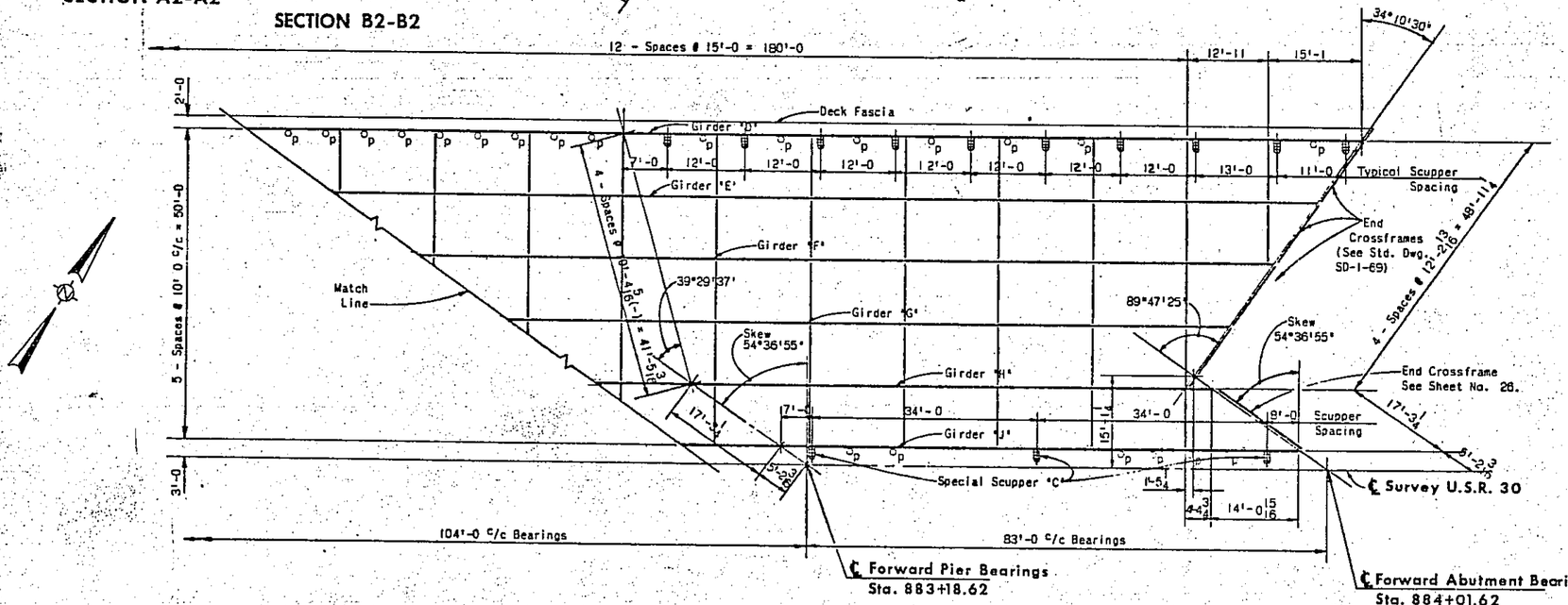
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PMZ		wda	DLM	6/68	7-15-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

323/435

STA-30-12.47





STRUCTURAL STEEL FRAMING PLAN
(LEFT HALF)

ROCKER AND BOLSTER DIMENSIONS

NO. REQ'D.		BOLSTER	ROCKER	ROCKER & BOLSTER DIMENSIONS IN INCHES													WEIGHT EACH	
BOLSTER	ROCKER	NO.	NO.	A	B	C	D	F	G	H	K	L	M	R	T	Y	BOLSTER	ROCKER
-	21	--	R-150	3	12	3	2 1/4	1/2	8 1/2	13 3/8	11 1/2	22	19	8 1/2	3/4	1 7/16	-	400
-	3	--	R-175	3	14	3 1/2	2 1/2	2	9	15/8	12	23	20	9 1/2	2	1 7/16	-	505
8	2	B-325	R-325	3 1/2	16	4	3 1/4	3/4	12	20 1/8	13	23	20	13	3	1 11/16	720	820
-	2	--	R-350	3 1/2	17	4	3 1/2	3/4	12	20 5/8	13	23	20	13 1/2	3	1 11/16	-	855
2	2	B-375	R-375	3 1/2	18	4	3 1/2	3/4	12	20 5/8	14	24	21	13 1/2	3	1 11/16	810	925
2	-	B-425	--	4	19	4	3 3/4	3/4	13	21 5/16	14	25	23	14	3 1/2	1 15/16	965	-

See Std. Drawing RB-1-55 for additional Rocker and Bolster Dimensions

BEARINGS

GIRDER	REAR ABUTMENT	REAR PIER	FORWARD PIER	FORWARD ABUTMENT
D	R-150	R-375	B-425	R-175
E	R-150	R-375	B-425	R-175
F	R-150	R-350	B-375	R-175
G	R-150	R-350	B-375	R-150
H	R-150	R-325	B-325	R-150
J	R-150	R-325	B-325	R-150

For Vertical location of scuppers with respect to the top of the asphalt, see sht. (374A/435)

Subdrainage pipe locations are indicated °p, see sht. (374A/435) for additional details.

NOTE:
For Girder Field Splice Locations see Girder Elevations Sheets 28, 29 & 30.

For Special Scupper Details See Sheet No. 26.

Refer to Std. Dwg. SD-1-69 for additional details.

W.E.Q. BRIDGE 3
SHEET NO. 24 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL FRAMING PLAN (LEFT HALF)

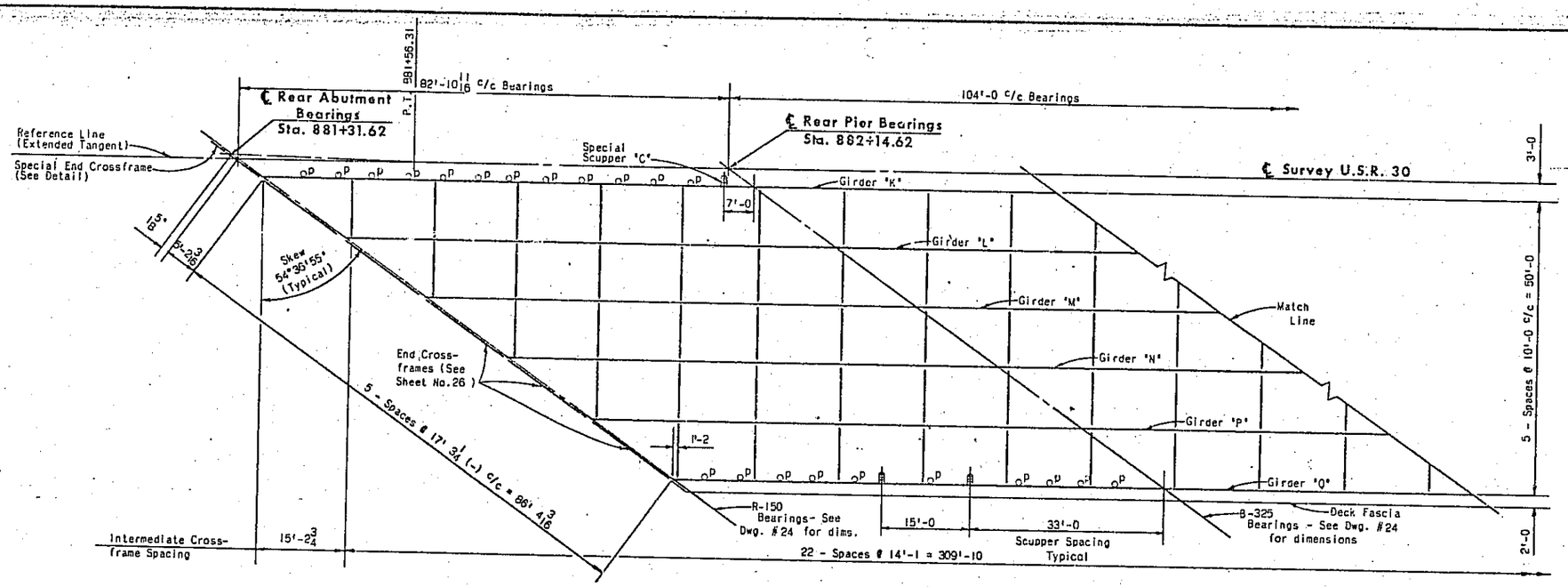
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY
STA. 881+27.26
STA. 884+05.94

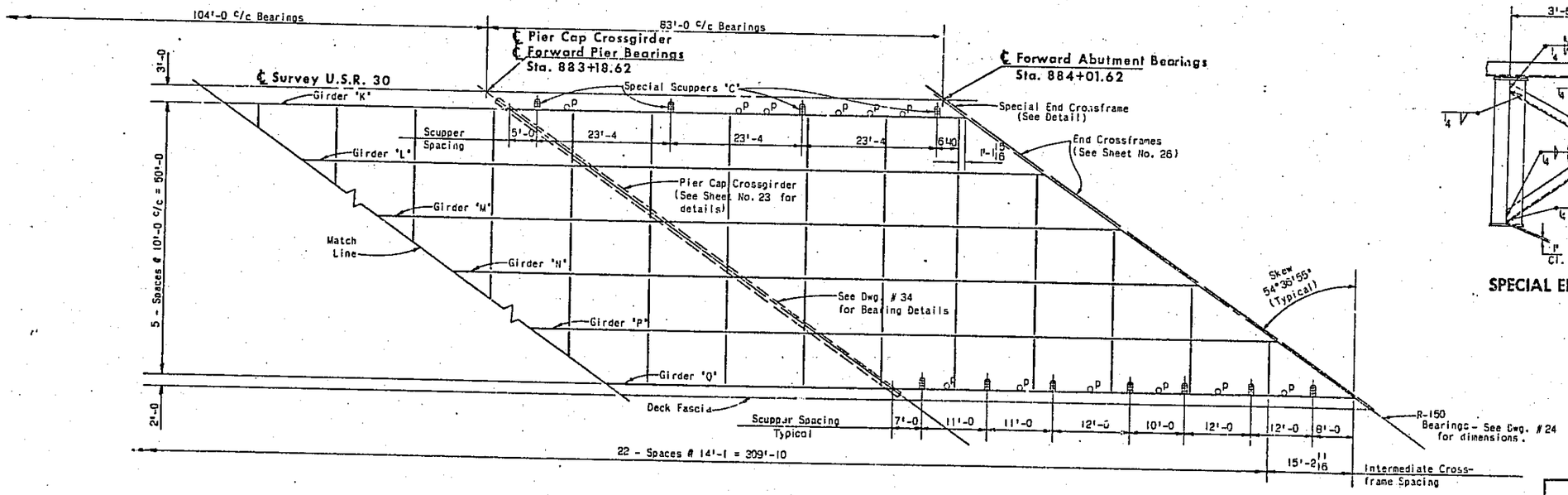
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PMZ		wed TB	DLM	6/23	7-15-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

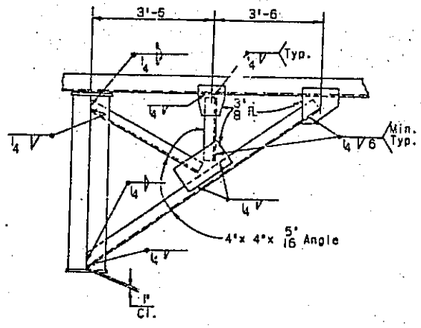
(324 433)

STA-30-12.47





STRUCTURAL STEEL FRAMING PLAN (RIGHT HALF)



SPECIAL END CROSSFRAME

NOTE:

For Girder Field Splice Locations see Girder Elevation Sheet No. 31.

For Special Scupper Details see Sheet No. 26.

Refer to Std. Dwg. SD-1-69 for additional details.

W.E.Q. BRIDGE 3
SHEET NO. 25 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

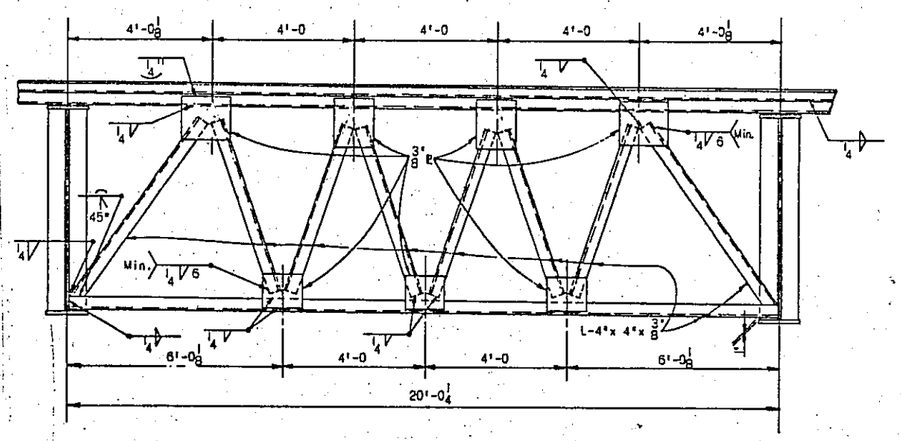
STRUCTURAL STEEL FRAMING PLAN (RIGHT HALF)
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY
STA. 881+27.26
STA. 884+05.94

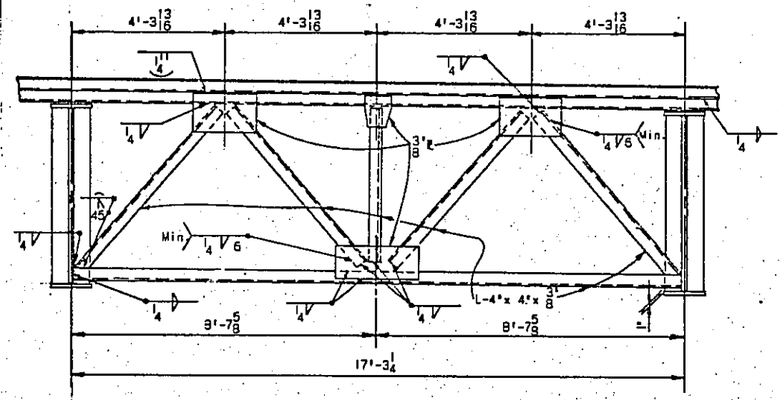
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PMZ		WQS	PLM 6/68		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

STA-30-12.47

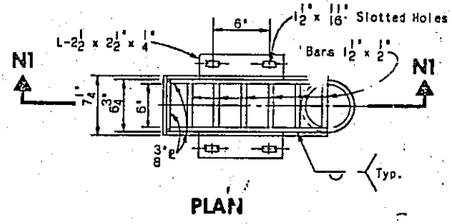
325
435



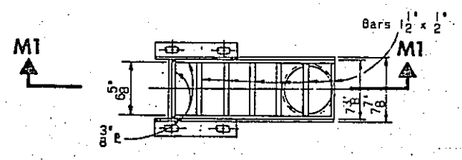


END CROSSFRAME DETAILS

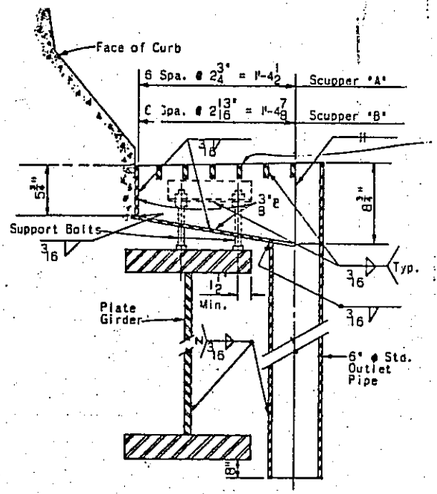
(SEE STD. DWG. SD-1-69 FOR ADDITIONAL DETAILS)



PLAN

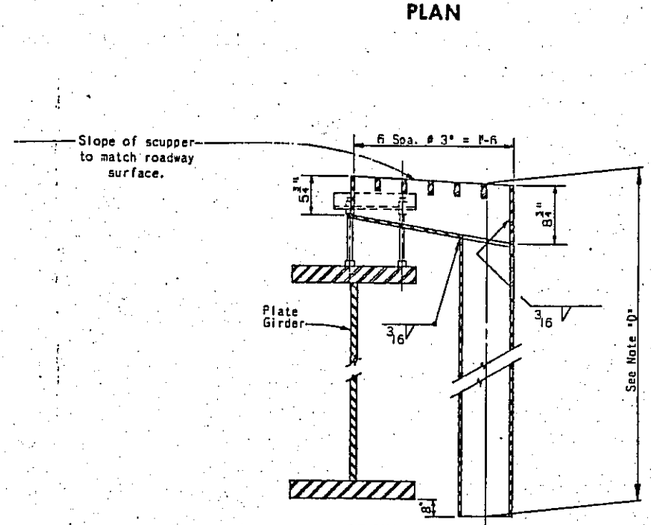


PLAN



SECTION N1-N1

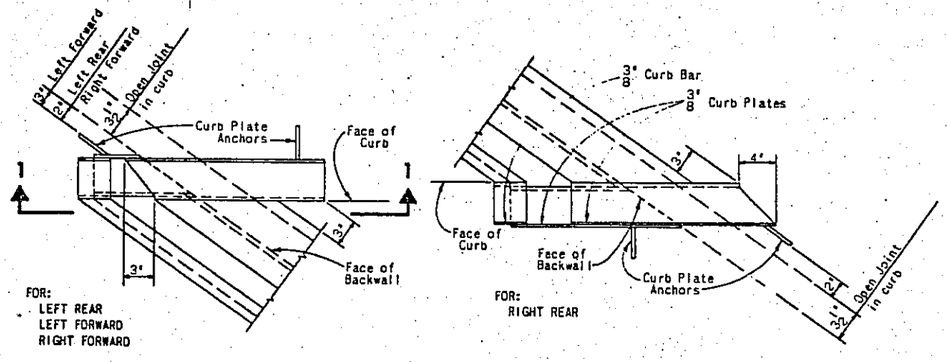
SPECIAL SCUPPERS 'A' & 'B'



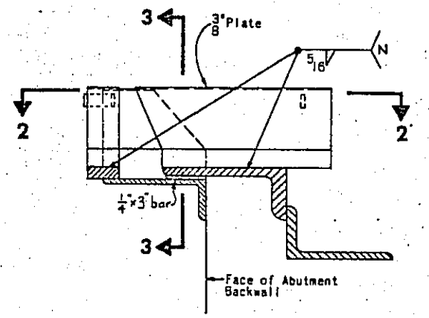
SECTION M1-M1

SPECIAL SCUPPER 'C'

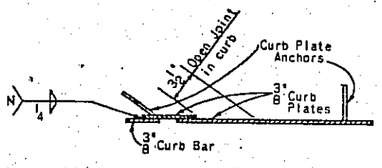
(SEE SCUPPERS 'A' & 'B' FOR ADDITIONAL DETAILS)



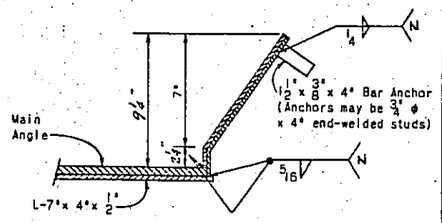
PARTIAL DECK PLAN SHOWING CURB PLATE DETAILS



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTE:

Refer to Std. Dwg. SD-1-69 for additional details:

Note "D" - All Special Scuppers "C" and Typical Scuppers located in the forward end span shown on Sheets 24 & 25 shall be modified by having a downspout length of 3'-1½" as shown in Section P1-P1, Sheet No. 27.

W.E.Q. BRIDGE 3
SHEET NO. 26 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

END CROSSFRAME & SCUPPER DETAILS

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

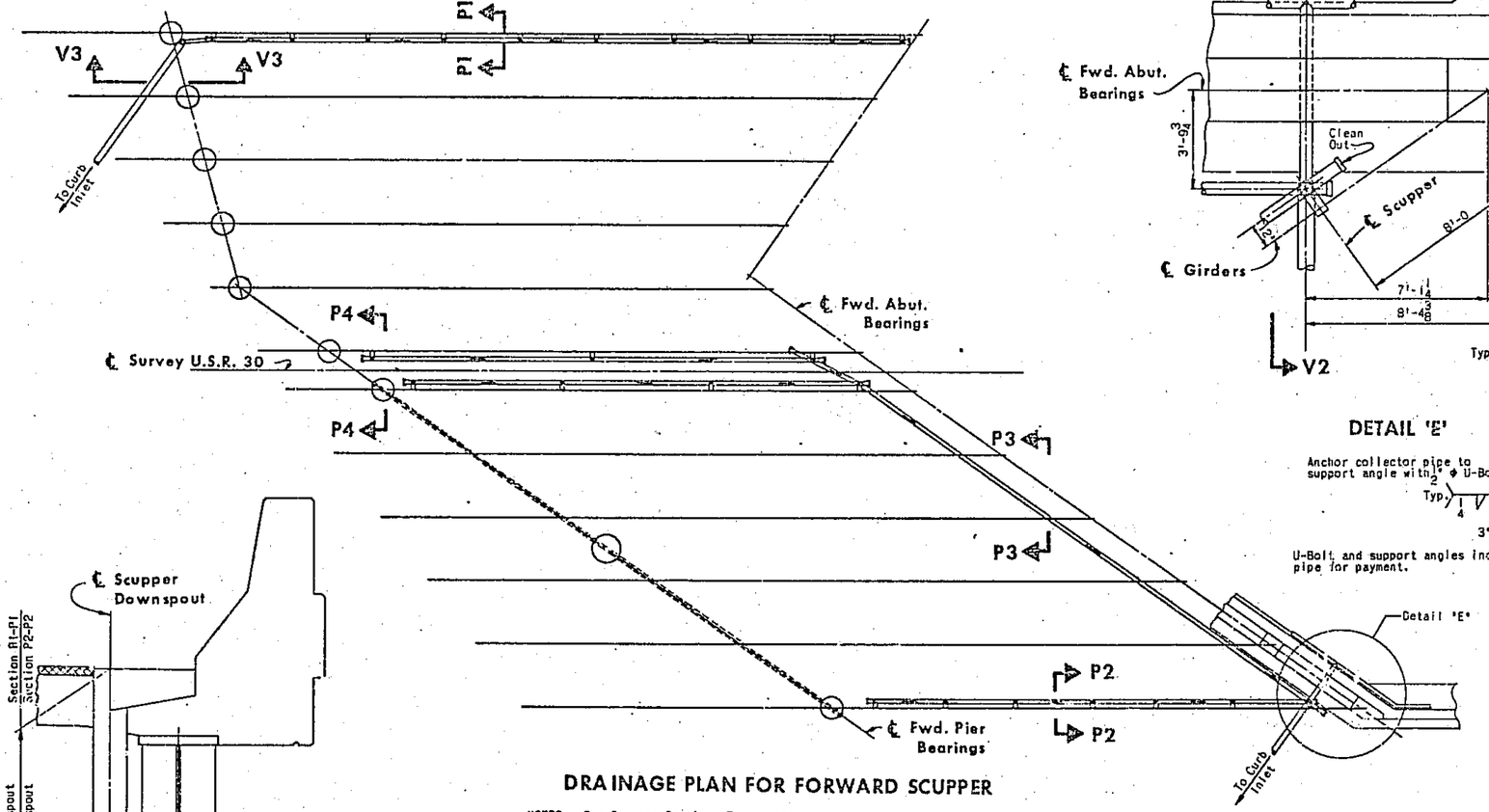
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PMZ		TG	DLM C/GL	7-15-75	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

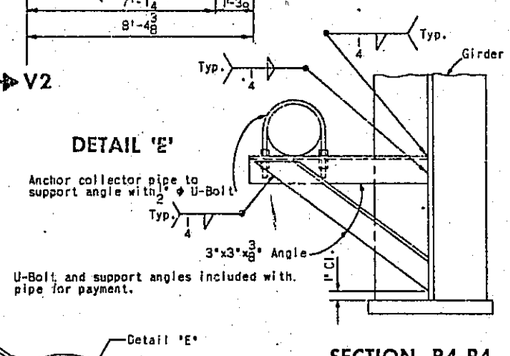
326
135

STA-30-12.47



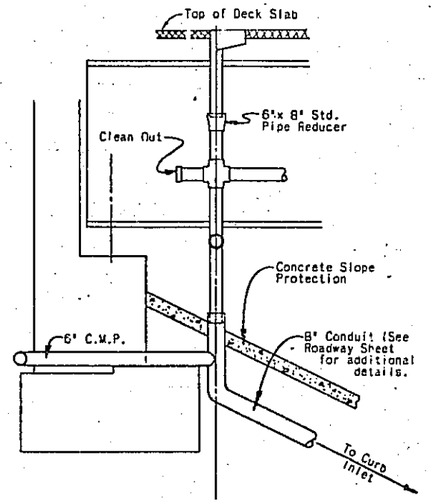
DRAINAGE PLAN FOR FORWARD SCUPPER

NOTES: For Scupper Spacing, Types, and additional details refer to sheets 24, 25 & 26.

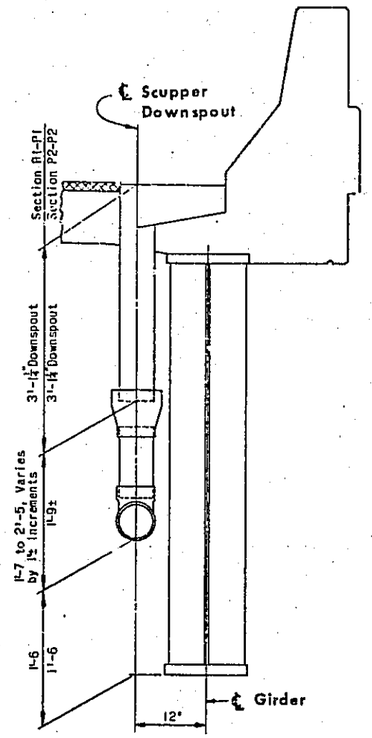


DETAIL 'E'

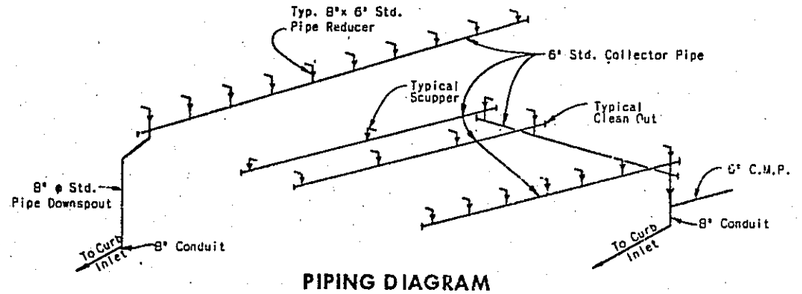
SECTION P4-P4



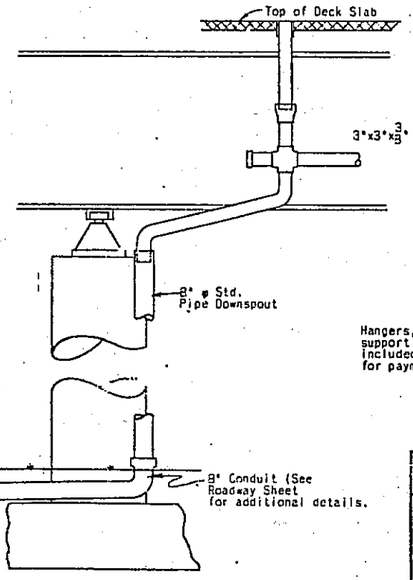
VIEW V2-V2



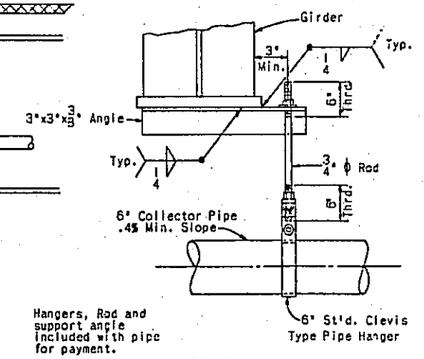
SECTION P1-P1
SECTION P2-P2



PIPING DIAGRAM



VIEW V3-V3



SECTION P3-P3

W.E.Q. BRIDGE 3
SHEET NO. 27 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

SCUPPER DRAINAGE DETAILS

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

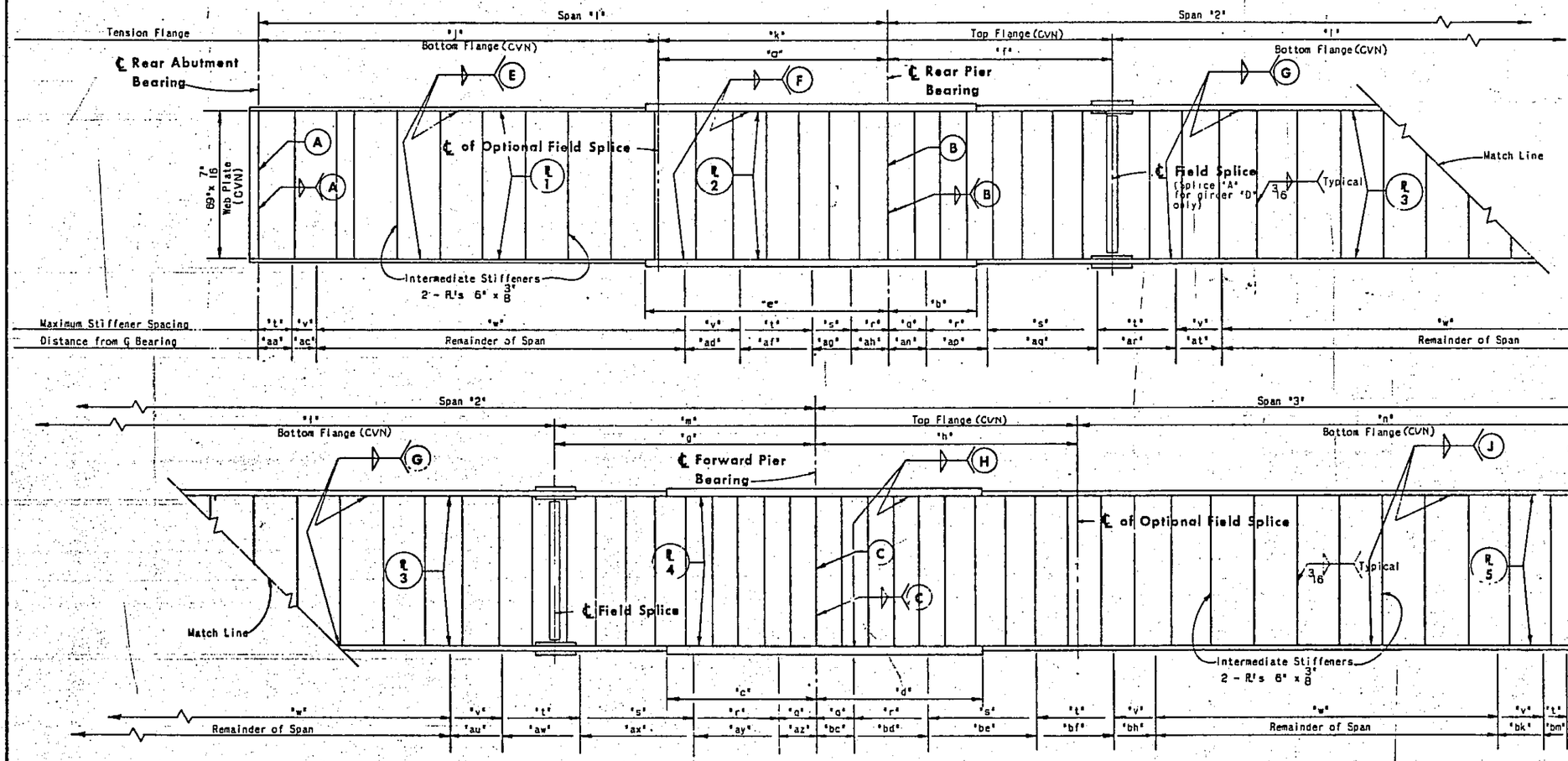
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
	TG		wda	DLM	6/68	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(327/435)

STA-30-12.47



Adjust the intermediate stiffener spacing to coincide with the crossframes shown in the Framing Plan and to the maximum stiffener spacing shown at left.

See Sheet No. 3 of 40 for General Notes.

Where "(CVN)" follows a shape or plate size designation, the material shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.

GIRDER ELEVATIONS
(GIRDERS "D","E" & "F")

NOTES:

For Field Splice Details, See Sheet No. 33

DISTANCE FROM ℄ BEARING (STIFFENERS)																							
Girder	"aa"	"ac"	"ad"	"af"	"ag"	"ah"	"an"	"ap"	"aq"	"ar"	"at"	"au"	"aw"	"ax"	"ay"	"az"	"bc"	"bd"	"be"	"bf"	"bh"	"bk"	"bm"	"bn"	"bp"
"D"	4'-6	7'-9	30'-6	27'-6	20'-0	10'-3	13'-3	28'-0	38'-6	46'-9	49'-9	53'-3	50'-0	42'-0	31'-9	16'-6	15'-0	29'-6	40'-0	48'-0	51'-0	24'-6	21'-3	13'-6	~
"E"	6'-3	9'-0	29'-6	26'-6	19'-3	9'-6	9'-3	24'-0	34'-6	42'-6	45'-6	48'-0	45'-0	37'-0	26'-3	11'-6	10'-6	24'-6	34'-6	42'-3	45'-0	22'-9	19'-9	11'-9	2'-3
"F"	7'-0	9'-9	28'-3	25'-6	18'-3	8'-6	4'-0	18'-9	29'-0	37'-0	40'-0	42'-6	39'-3	31'-0	21'-0	6'-3	3'-6	17'-3	27'-3	35'-0	38'-0	19'-0	16'-0	8'-0	~

BEARING STIFFENER ℄ -6"x				
Girder	"A"	"B"	"C"	"D"
"D"	9/16"	11/16"	2"	13/16"
"E"	5/8"	11/16"	15/16"	3/4"
"F"	5/8"	5/8"	1 3/4"	3/4"

BEARING STIFFENER WELD				
Girder	"A"	"B"	"C"	"D"
"D"	1/4"	3/8"	3/8"	5/16"
"E"	1/4"	3/8"	3/8"	1/4"
"F"	1/4"	3/8"	3/8"	1/4"

MAX. STIFFENER SPACING						
"q"	"r"	"s"	"t"	"v"	"w"
42"	48"	54"	60"	66"	69"

For Treatment of Flange Plate at end of girders, See Sheet No. 29 & 31.

SPANS			
Girder	"1"	"2"	"3"
"D"	84'-6 5/8	150'-1 3/16	117'-6 11/16
"E"	82'-10 11/16	138'-1 9/16	107'-9 11/16
"F"	82'-10 11/16	126'-9 1/16	99'-0 11/16

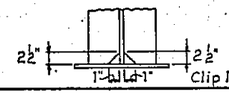
LOCATION OF FIELD SPLICE				
Girder	"e"	"f"	"g"	"h"
"D"	37'-0	30'-1 3/16	35'-0	35'-0
"E"	33'-0	26'-0	31'-0	32'-0
"F"	30'-0	24'-0	29'-0	29'-0

FLANGE PLATE DIMENSIONS				
Girder	"a"	"b"	"c"	"d"
"D"	32'-6	11'-9	20'-0	22'-3
"E"	28'-6	12'-0	18'-6	20'-0
"F"	21'-6	12'-0	16'-3	18'-0

FLANGE PLATES 14"x					
Girder	"1"	"2"	"3"	"4"	"5"
"D"	1"	2 7/16"	1 5/16"	3 5/16"	1 13/16"
"E"	1"	2 3/16"	1 1/16"	2 13/16"	1 5/8"
"F"	1"	1 15/16"	1 1/16"	2 5/16"	1 3/8"

FLANGE PLATE TO WEB WELD					
Girder	"E"	"F"	"G"	"H"	"J"
"D"	5/16"	1/2"	3/8"	1/2"	3/8"
"E"	5/16"	3/8"	3/8"	1/2"	3/8"
"F"	5/16"	3/8"	5/16"	1/2"	5/16"

LOCATION OF TENSION FLANGE					
Girder	"j"	"k"	"l"	"m"	"n"
"D"	47'-6 5/8	67'-1 3/16	85'-0	70'-0	82'-6 11/16
"E"	49'-10 11/16	59'-0	81'-1 9/16	63'-0	75'-9 11/16
"F"	52'-10 11/16	54'-0	73'-9 1/16	58'-0	69'-0 11/16



Clip Intermediate stiffener (top & bottom) flange (typ) all girders.

W.E.O. BRIDGE 3
SHEET NO. 28 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL
GIRDER ELEVATIONS "D","E" & "F"
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.

STA. 881+27.26
STA. 884+05.94

STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PMZ		TG	DLM C/GT	7-15-75	

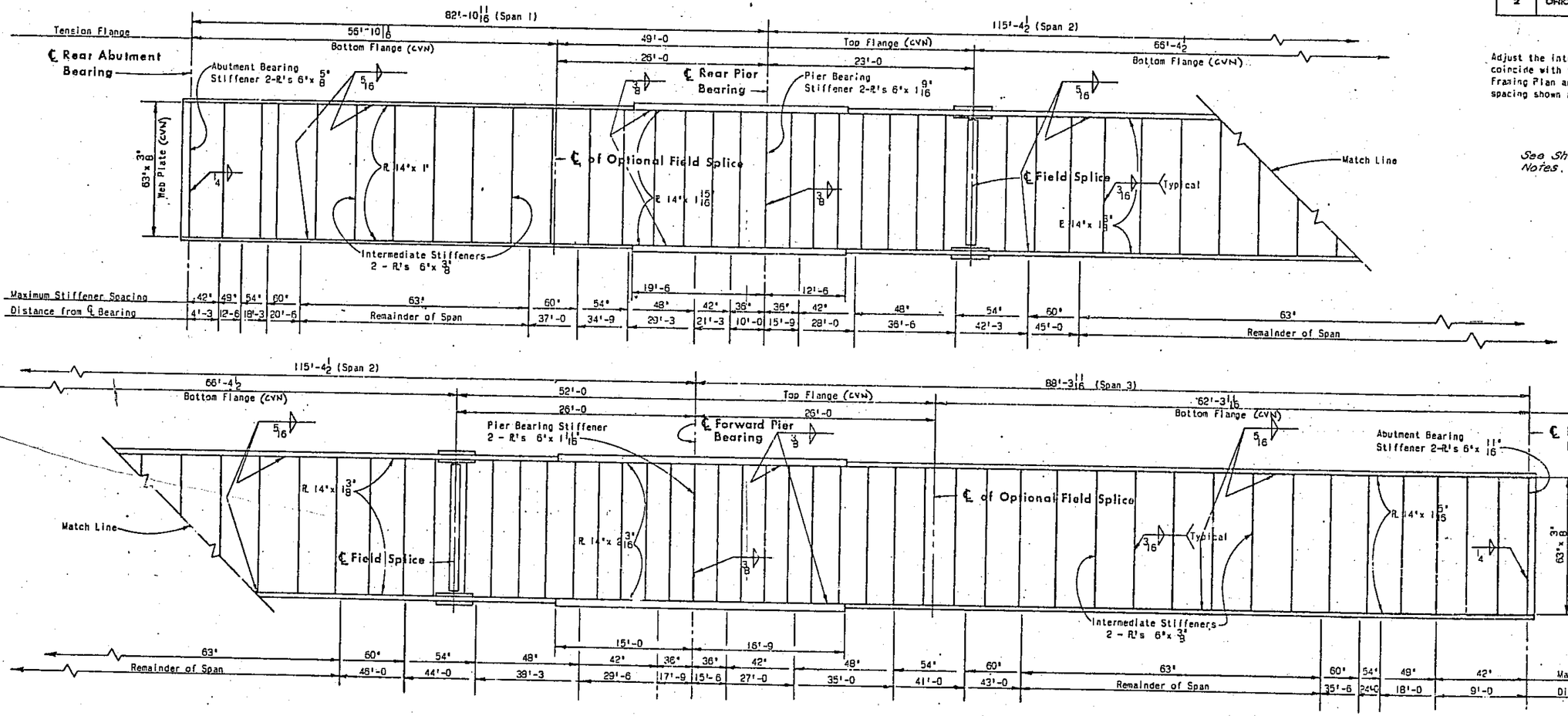
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

328
135

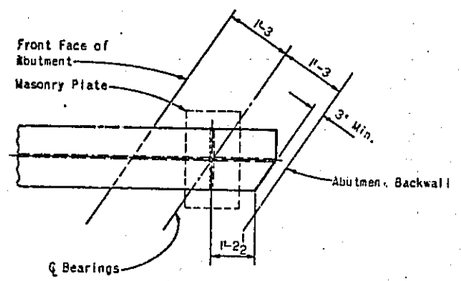
STA-30-12.47

Adjust the intermediate stiffener spacing to coincide with the crossframes shown in the Framing Plan and to the maximum stiffener spacing shown at left.

See Sheet No. 3 of 40 for General Notes.



GIRDER ELEVATIONS
(GIRDER "G")



END OF GIRDER AT ABUTMENT

Notes:

For Field Splice Details, See Sheet No. 33.

For Treatment of Flange Plate at Rear Abut. end of Girders, See Sheet No. 31.

W.E.Q. BRIDGE 3
SHEET NO. 29 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL
GIRDER ELEVATION "G"
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STA. 881+27.26
STA. 884+05.94
STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	REVISED
	PMZ		TB	DLAH 6/63		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

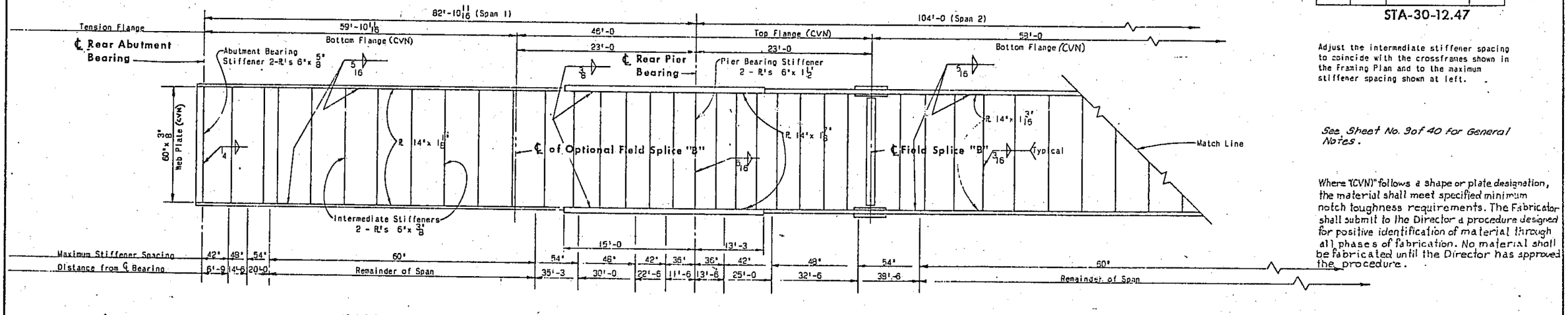
329
436

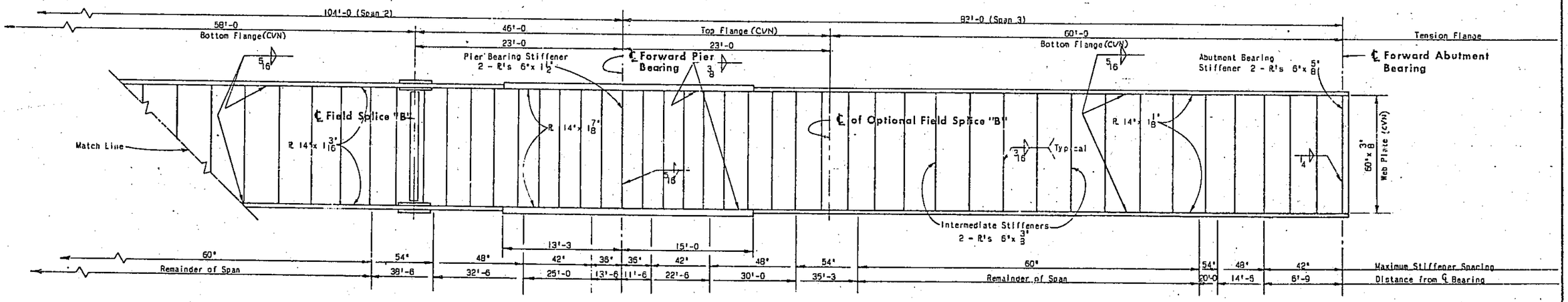
STA-30-12.47

Adjust the intermediate stiffener spacing to coincide with the crossframes shown in the Framing Plan and to the maximum stiffener spacing shown at left.

See Sheet No. 3 of 40 for General Notes.

Where "(CVN)" follows a shape or plate designation, the material shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.





GIRDER ELEVATIONS
(GIRDERS "H" & "J")

NOTES:

For Field Splice Details, See Sheet No. 33.

For Treatment of Flange Plate at end of Girders, See Sheet No. 31.

W.S.Q. BRIDGE 3
SHEET NO. 30 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL
GIRDER ELEVATIONS "H" & "J"
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STA. 881+27.26
STA. 884+05.94
STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
	PMZ			DLM 6/68	

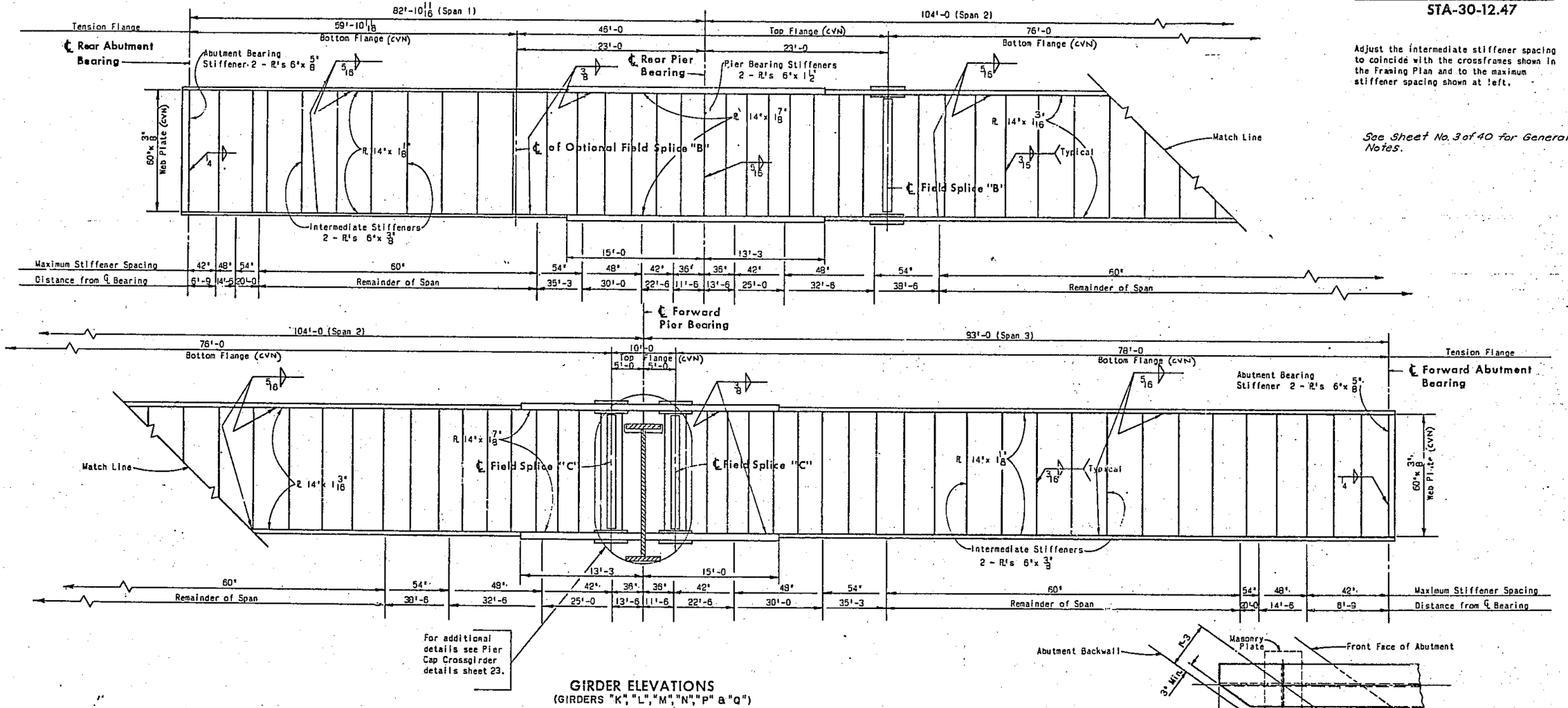
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

330
135

STA-30-12.47

Adjust the intermediate stiffener spacing to coincide with the crossframes shown in the Framing Plan and to the maximum stiffener spacing shown at left.

See Sheet No. 3 of 40 for General Notes.



GIRDER ELEVATIONS
(GIRDERS "K","L","M","N","P" & "Q")

END OF GIRDER AT ABUTMENT

NOTE:
For Field Splice Details See Sheet No. 33.

W.E.Q. BRIDGE 3
SHEET NO. 31 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL
GIRDER ELEVATIONS "K" THRU "Q"
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STA. 881+27.26
STARK COUNTY STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	ACCEPTED	DATE	REVISED
	PMZ		TG	DLM	6/63	

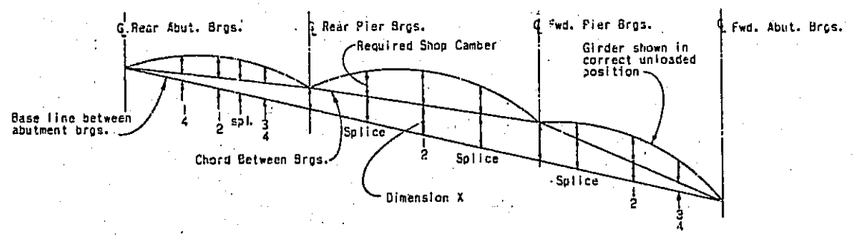
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

331
435

STA-30-1247

DEFLECTION AND CAMBER

LOCATION	GIRDER	SPAN 1					SPAN 2					SPAN 3				
		℄ Brg.	¼ Pt.	½ Pt.	Splice	¾ Pt.	℄ Brg.	Splice	½ Pt.	Splice	℄ Brg.	Splice	½ Pt.	¾ Pt.	℄ Brg.
Dimension "X" (Difference in elevation between chord and base line.)	D	0	1/8	—	5/16	7/16	9/16	2	4 1/16	6 5/8	7 3/4	5 1/2	3 7/8	1 15/16	0
	E	0	1/8	5/16	3/8	7/16	5/8	1 11/16	3 3/8	5	6 3/16	4 3/8	3 1/16	1 9/16	0
	F	0	1/4	7/16	9/16	11/16	15/16	1 11/16	2 15/16	4	4 15/16	3 5/16	2 1/2	1 1/4	0
	G	0	3/16	7/16	9/16	5/8	13/16	1 3/8	2 3/16	2 7/8	3 1/2	2 1/2	1 3/4	7/8	0
	H	0	3/16	7/16	9/16	—	13/16	1 1/16	1 7/16	1 3/4	2	1 7/16	1	1/2	0
	J	0	5/16	11/16	1	—	1 3/8	1 3/8	1 1/2	1 9/16	1 5/8	1 3/16	13/16	3/8	0
	K	0	7/16	7/8	1 1/4	—	1 3/4	1 3/4	1 3/4	1 13/16	1 13/16	1 5/16	7/8	7/16	0
	L	0	7/15	13/16	1 3/16	—	1 5/8	1 5/8	1 11/16	1 11/16	1 3/4	1 1/4	7/8	7/16	0
	M	0	3/8	11/16	1	—	1 3/8	1 7/16	1 1/2	1 9/16	1 5/8	1 3/16	13/16	7/16	0
	N	0	1/4	9/16	3/4	—	1 1/16	1 3/16	1 1/4	1 3/8	1 1/2	1 1/16	3/4	3/8	0
	P	0	3/8	11/16	1	—	1 7/16	1 7/16	1 1/2	1 9/16	1 5/8	1 3/16	13/16	7/16	0
	Q	0	7/16	13/16	1 3/16	—	1 5/8	1 11/16	1 11/16	1 11/16	1 3/4	1 1/4	7/8	7/16	0
Deflection due to weight of steel	D	0	0	—	0	0	0	1/4	1/2	1/4	0	3/16	5/16	5/16	0
	E	0	1/16	1/16	0	0	0	1/8	1/4	1/8	0	1/16	3/16	3/16	0
		0	1/16	1/16	0	0	0	1/16	3/16	1/16	0	1/16	1/8	1/8	0
	G	0	1/16	1/16	1/16	0	0	1/16	1/8	1/16	0	1/16	1/8	1/8	0
	H-Q	0	1/16	1/16	1/16	—	0	1/16	1/8	1/16	0	1/16	1/16	1/16	0
Deflection due to remaining dead load	D	0	1/8	—	0	1/8	0	1	2	1 15/16	0	5/8	1 5/16	1/8	0
		0	1/8	1/8	1/8	0	0	9/16	1/8	1/2	0	7/16	13/16	11/16	0
	F	0	3/16	3/16	1/8	1/16	0	7/16	15/16	7/16	0	3/8	11/16	5/8	0
	G	0	3/8	7/16	3/16	3/16	0	5/16	13/16	3/8	0	5/16	5/8	1/2	0
	H-Q	0	1/2	9/16	1/4	—	0	1/4	5/8	1/4	0	1/4	9/16	1/2	0
Adjustment required for vertical crest curve.	D	0	1/8	—	3/16	1/8	0	7/16	5/8	1/2	0	5/16	3/8	5/16	0
	E	0	1/8	3/16	3/16	1/8	0	5/16	9/16	3/8	0	5/16	5/16	1/4	0
	F	0	1/8	3/16	3/16	1/8	0	5/16	1/2	5/16	0	1/4	1/4	3/16	0
	G	0	1/8	3/16	3/16	1/8	0	1/4	3/8	1/4	0	3/16	1/4	3/16	0
	H-Q	0	1/8	3/16	3/16	—	0	3/16	5/16	3/16	0	3/16	3/16	1/8	0
Required shop camber	D	0	1/4	—	3/16	0	0	11/16	3 1/8	1 11/16	0	1/8	2	1 3/4	0
	E	0	5/16	3/8	5/16	1/8	0	1	1 15/16	1	0	13/16	1 5/16	1/8	0
	F	0	3/8	7/16	5/16	3/16	0	13/16	5/8	13/16	0	11/16	1 1/16	15/16	0
	G	0	9/16	11/16	7/16	5/16	0	5/8	1 5/16	11/16	0	9/16	1	13/16	0
	H-Q	0	11/16	13/16	1/2	—	0	1/2	1 1/16	1/2	0	1/2	13/16	11/16	0



DEFLECTION AND CAMBER DIAGRAM

W.E.Q. BRIDGE 3
SHEET NO. 32 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

GIRDER DEFLECTION AND CAMBER

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

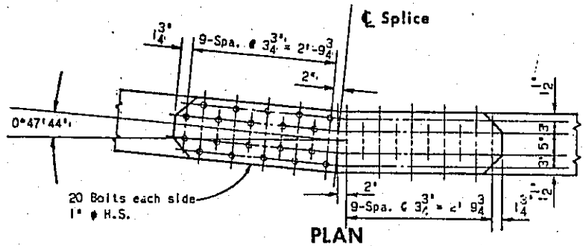
STA 881+27.25
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
	wda		TG	DLM	6/08	

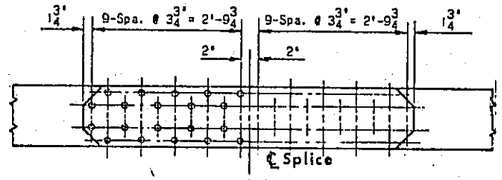
FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

332
135

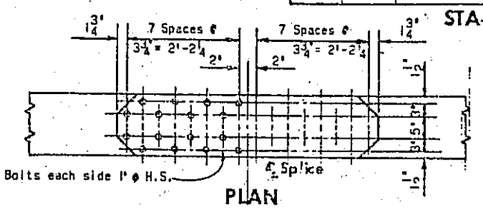
STA-30-12.47



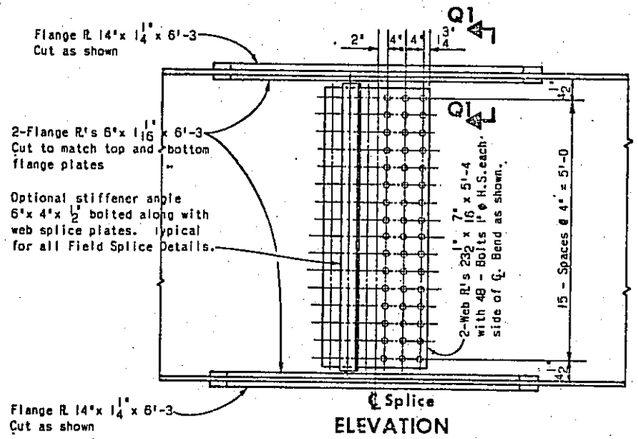
PLAN



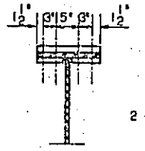
PLAN



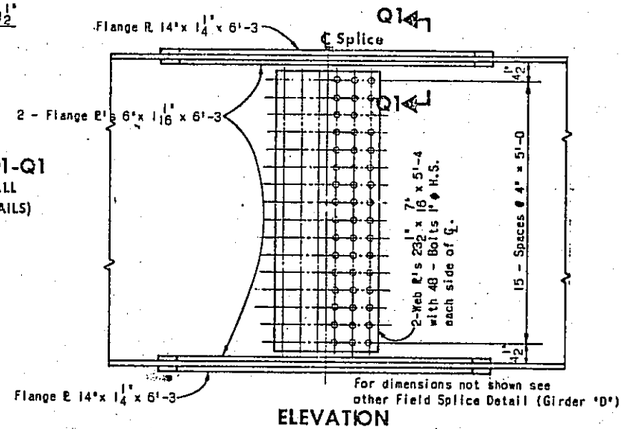
PLAN



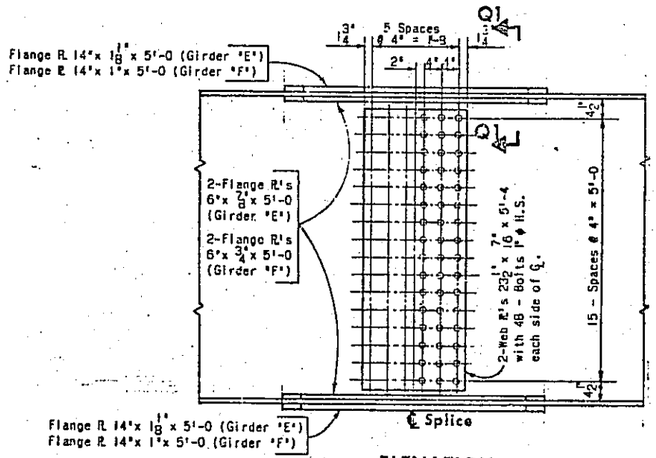
ELEVATION
GIRDER FIELD SPLICE "A"
(GIRDER "D" AT ANGLE POINT)



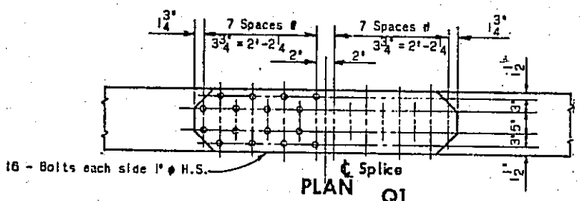
SECTION Q1-Q1
(TYPICAL FOR ALL FIELD SPLICE DETAILS)



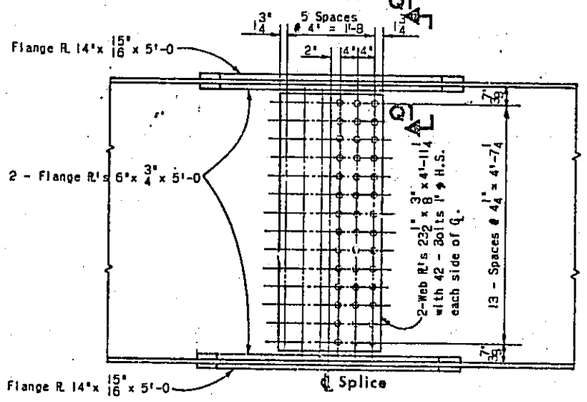
ELEVATION
GIRDER FIELD SPLICE (GIRDER "D")



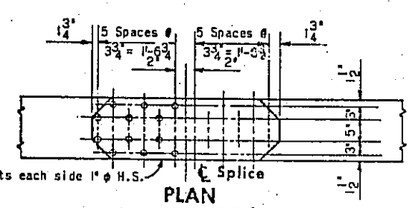
ELEVATION
GIRDER FIELD SPLICE (GIRDERS "E" & "F")



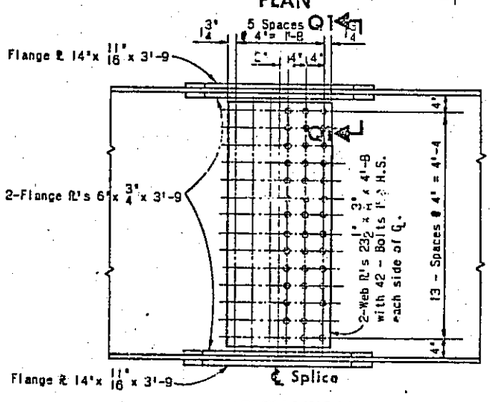
PLAN



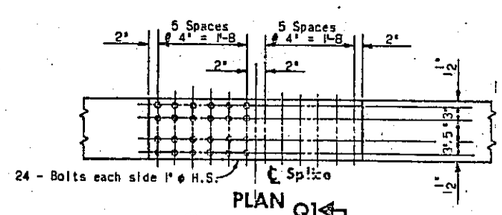
ELEVATION
GIRDER FIELD SPLICE (GIRDER "G")



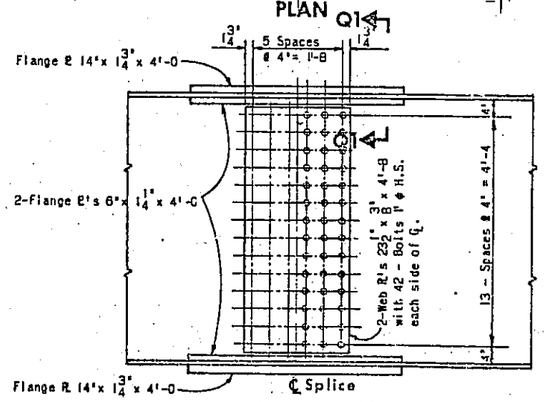
PLAN



ELEVATION
GIRDER FIELD SPLICE "B"
(GIRDERS "H" & "J" & "K", "L", "M", "N", "P" & "Q")



PLAN



ELEVATION
GIRDER FIELD SPLICE "C"
(GIRDERS "K", "L", "M", "N", "P" & "Q")

Note:
All field splice material shall be "CVN" steel.

W.E.Q. BRIDGE 3
SHEET NO. 33 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL FIELD SPLICE DETAILS

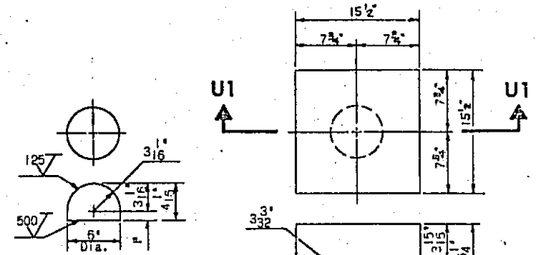
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY
STA. 831+27.26
STA. 864+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	APPROVED
	FMZ		TS	DLM 6/63		

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

333
455

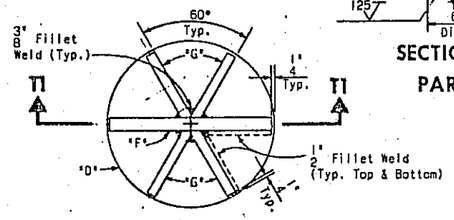
STA-30-12.47



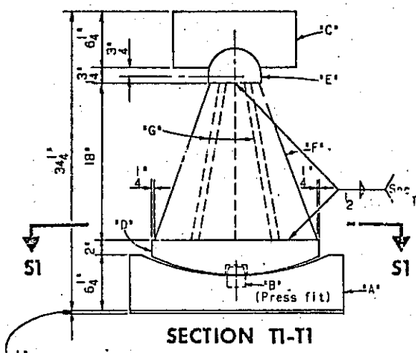
PART 'E'

SECTION U1-U1

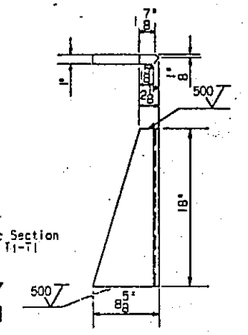
PART 'C'



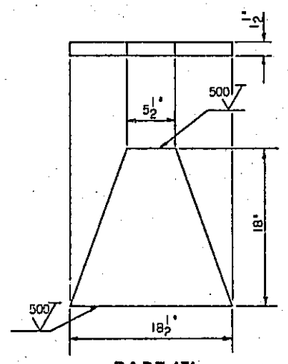
SECTION S1-S1



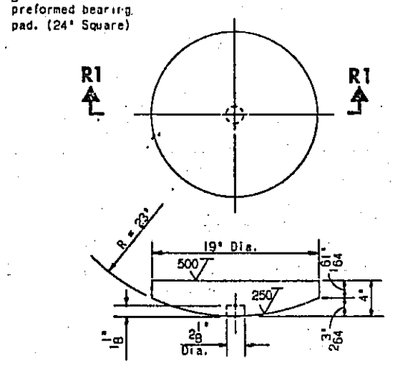
SECTION T1-T1



PART 'G'



PART 'F'

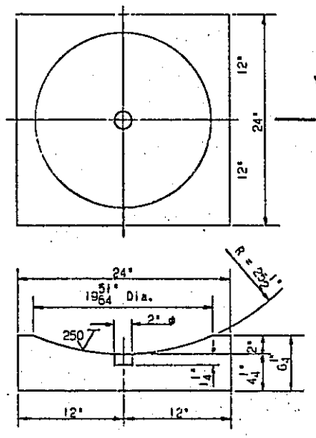


SECTION R1-R1

PART 'D'

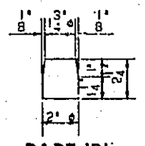
SPECIAL ROCKER

RIGHT FORWARD PIER - EXTERIOR COLUMNS

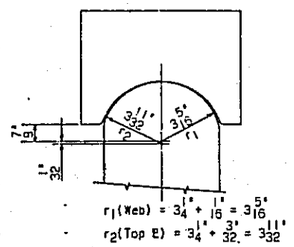


SECTION W1-W1

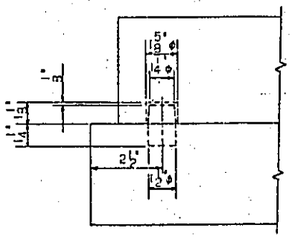
PART 'A'



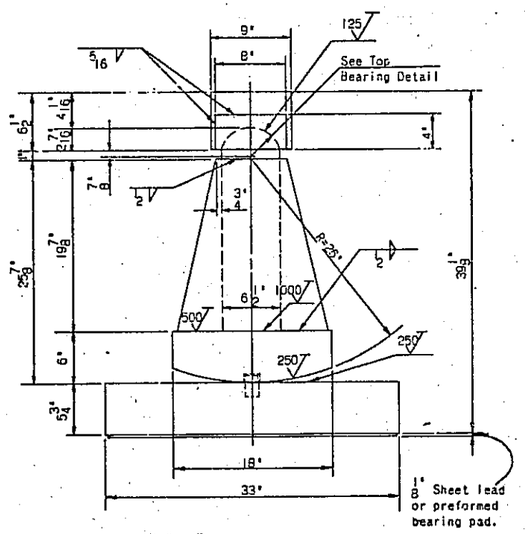
PART 'B'



TOP BEARING DETAIL

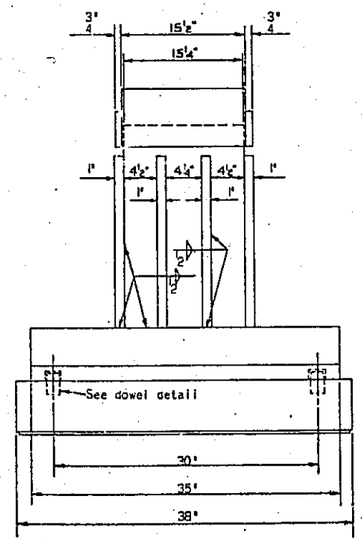


DOWEL DETAIL



SPECIAL ROCKER

RIGHT FORWARD PIER - CENTER COLUMN



W.E.Q. BRIDGE 3
SHEET NO. 34 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS · NEW PHILADELPHIA, OHIO

STRUCTURAL STEEL
SPECIAL ROCKER DETAILS

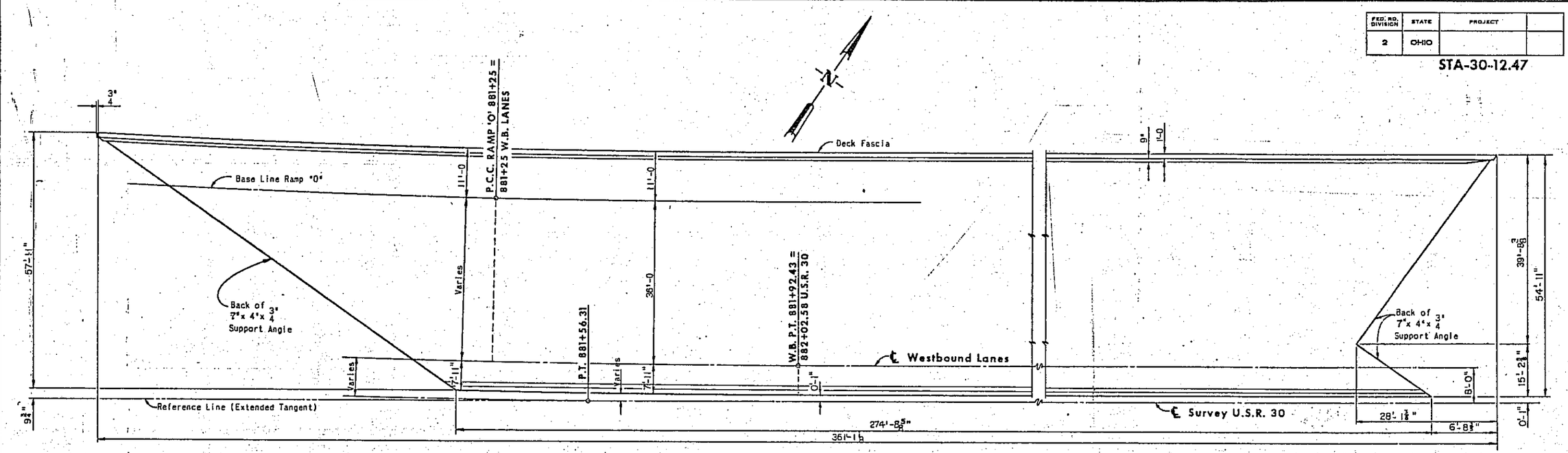
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STA. 881+27.26
STA. 884+05.94
STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	PMZ		WJB	DLM	6/62	

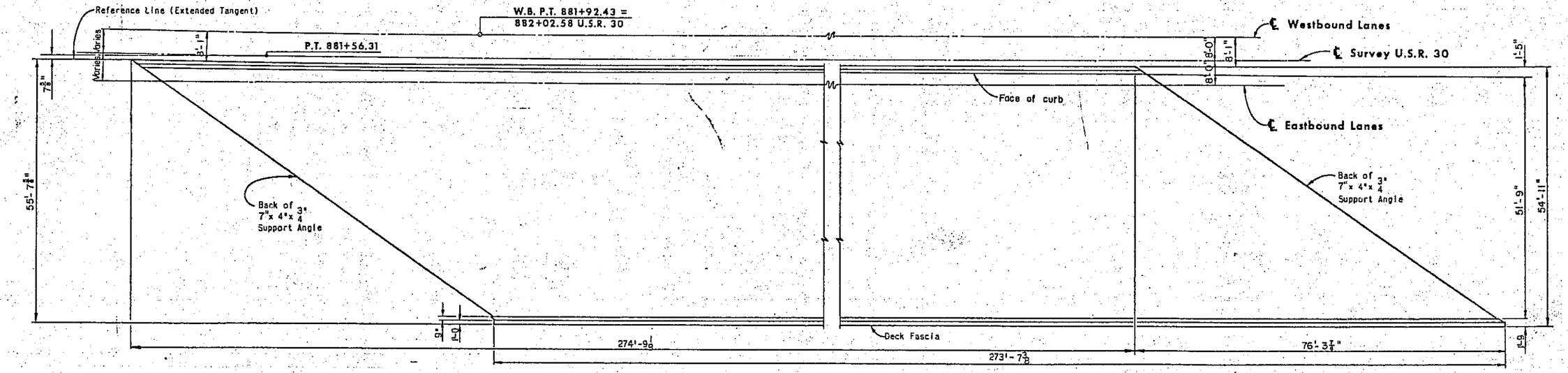
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

334
435

STA-30-12.47



DECK PLAN - LEFT BRIDGE



DECK PLAN - RIGHT BRIDGE

W.E.Q. BRIDGE 3
SHEET NO. 35 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. STA-30-1340-

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

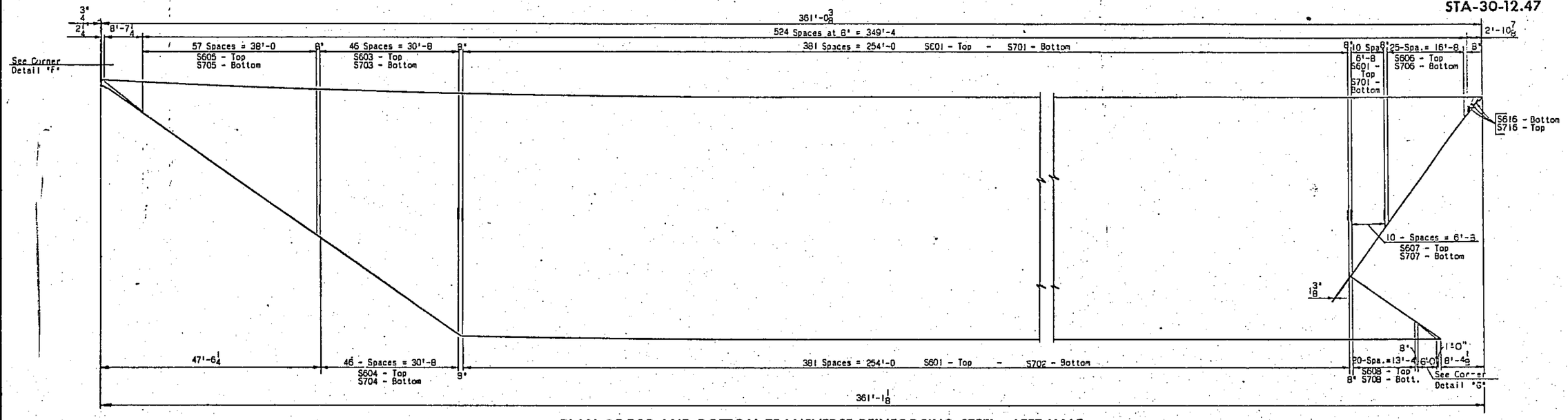
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	RP		wdq	PLM	6/28	7-15-75

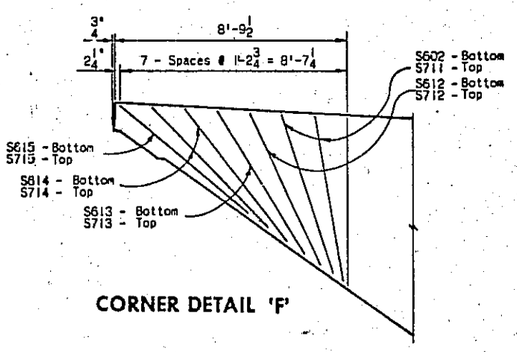
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

335
433

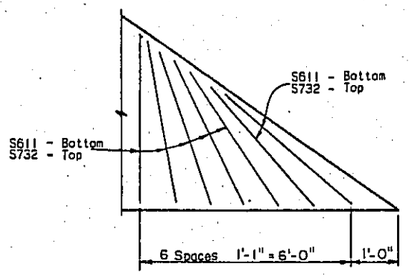
STA-30-12.47



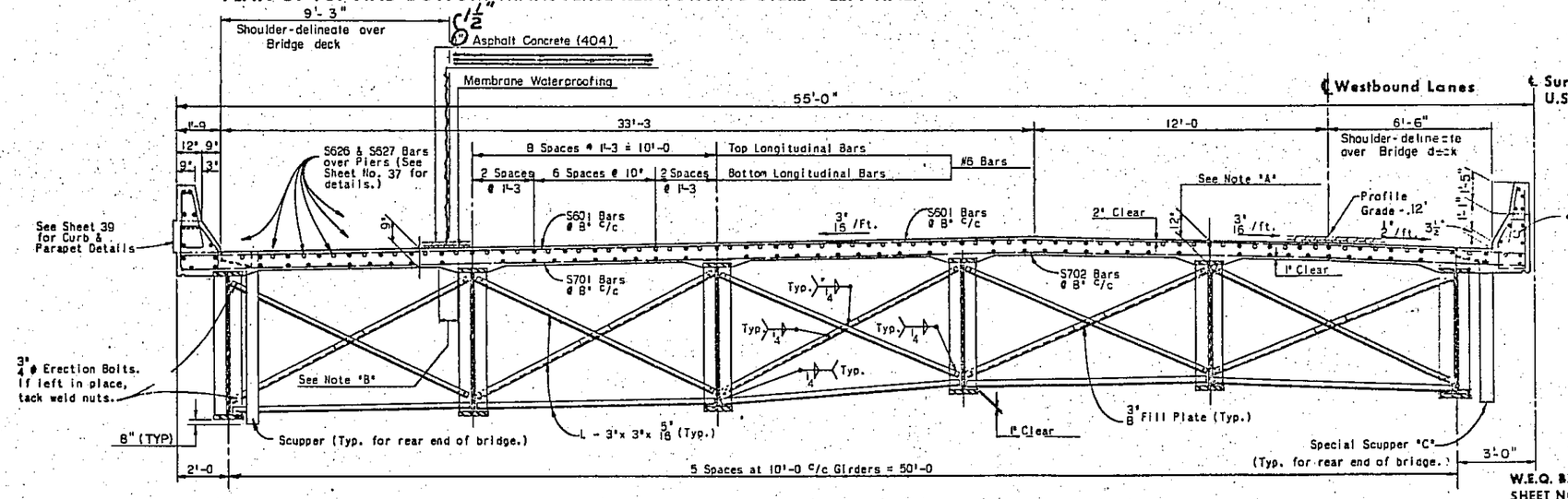
PLAN OF TOP AND BOTTOM TRANSVERSE REINFORCING STEEL - LEFT HALF



CORNER DETAIL 'F'



CORNER DETAIL 'G'



TRANSVERSE SECTION - LEFT HALF

NOTE 'A': This dimension is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.18.

NOTE 'B': A typical haunch width of 9" shall be used for computing quantities of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not greater than 1:4 for a haunch less than 9" wide.

NOTE: Pavement slopes vary from Sta. 883+50, on U.S.R. 30 stationing, back. Deck width varies from Sta. 881+25, on W. B. Lanes stationing, back. (Refer to Deck Plan, Sheet 35.)

W.E.Q. BRIDGE 3
SHEET NO. 36 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. STA-30-1340

U.S.R. 30 over 17th ST. & P.R.R.

STARK COUNTY

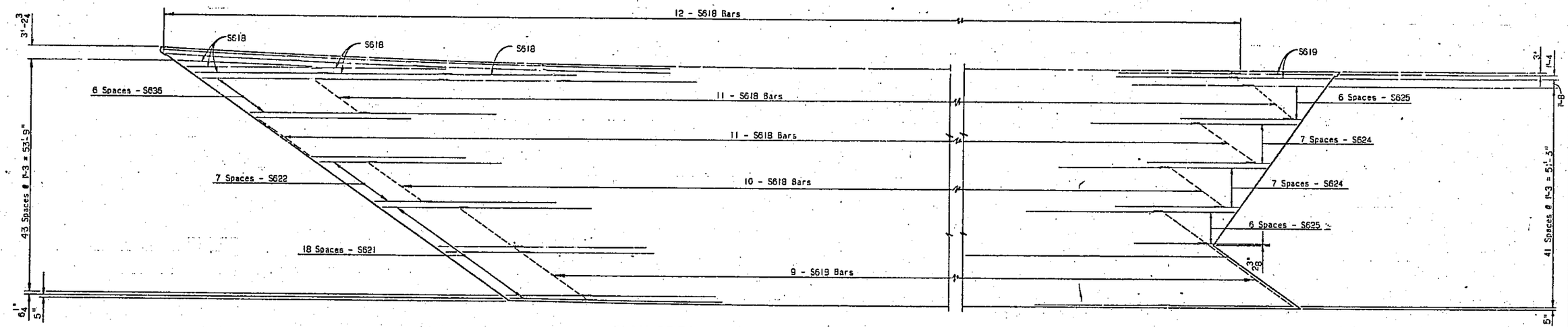
STA. 881+27.26
STA. 884+65.94

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	PROJECT
	TG		wda	DLM · 6/28		9-29-75

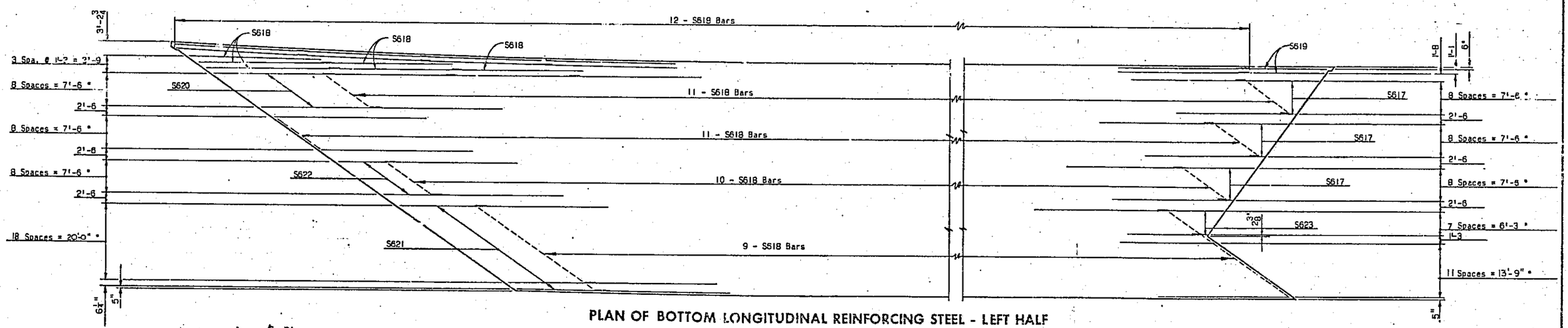
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

336
435

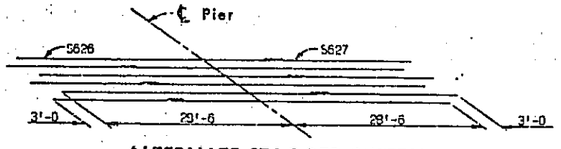
STA-30-12.47



PLAN OF TOP LONGITUDINAL REINFORCING STEEL - LEFT HALF



PLAN OF BOTTOM LONGITUDINAL REINFORCING STEEL - LEFT HALF



ALTERNATE STAGGER SYSTEM OF
S626 AND S627 BARS OVER PIERS

NOTE:
* denotes that reference shall be made to sheet 36 , Transverse Section, for specific spacing of bars. Cut reinforcing bars in field where scuppers occur to allow for scuppers. Refer to Deck Plan, sheet 35 for deck dimensions.

W.E.Q. BRIDGE 3
SHEET NO. 37 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

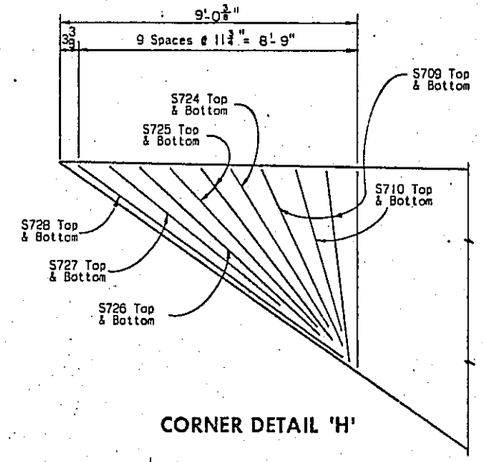
SUPERSTRUCTURE DETAILS
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY.
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TR		WJQ	DLM	6/67	

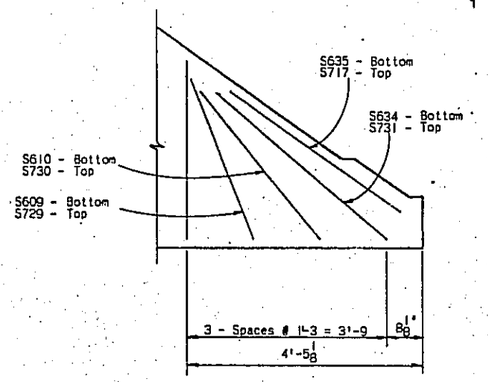
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

337
435

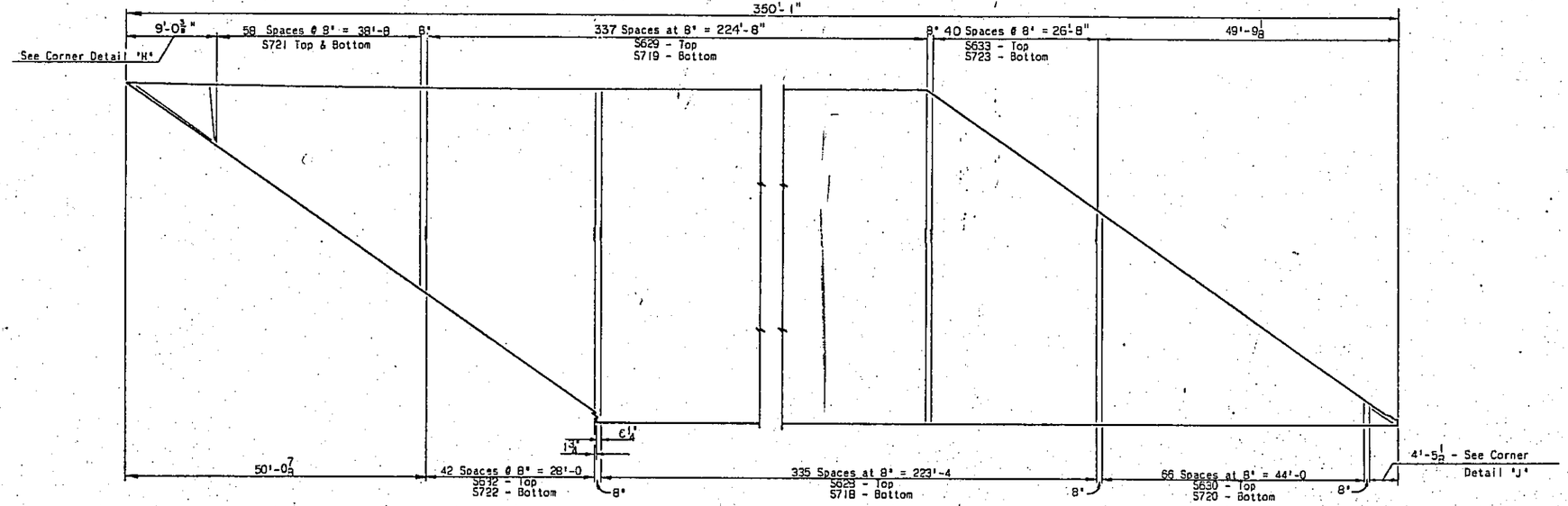
STA-30-12.47



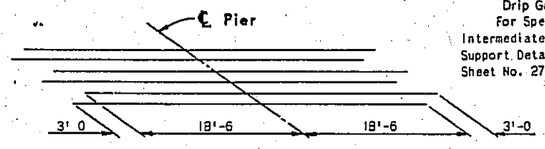
CORNER DETAIL 'H'



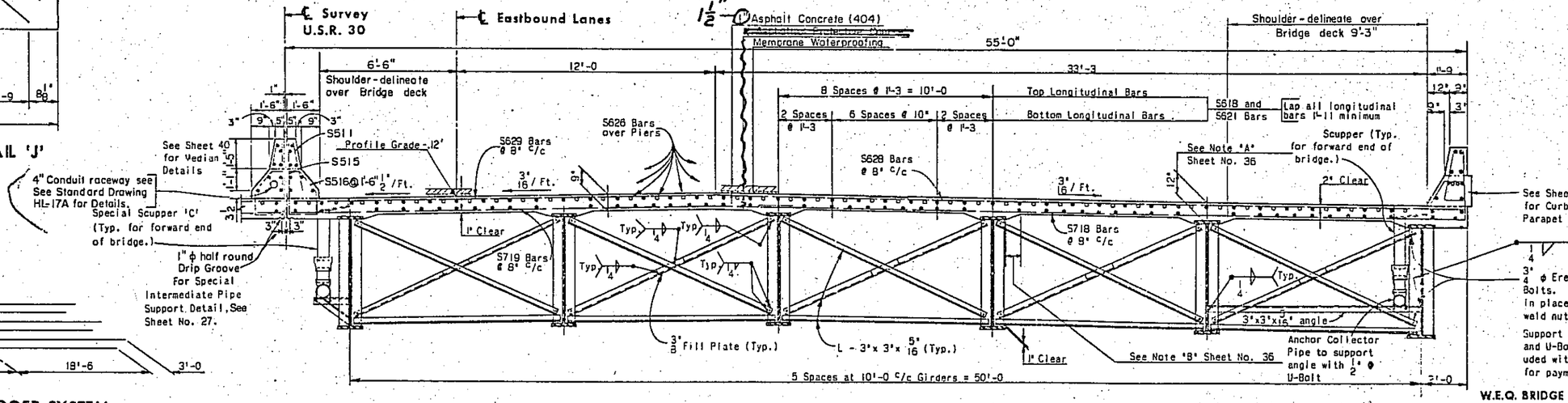
CORNER DETAIL 'J'



PLAN OF TOP AND BOTTOM TRANSVERSE REINFORCING STEEL - RIGHT HALF



ALTERNATE STAGGER SYSTEM OF S626 BARS OVER PIERS



TRANSVERSE SECTION - RIGHT HALF

S511 and S515 spaced as follows:

10 spa. @ 1'-6" for 15'-5⅝" parapet panels
5 spa. @ 1'-4" for 7'-0" parapet panels
9 spa. @ 1'-4⅜" for 12'-11¼" parapet panels
11 spa. @ 1'-4⅜ for 15'-8⅜" parapet panels

LONGITUDINAL MEDIAN BARS

(1.) In Curb,
9 sets of 8-S510 } Cut curb bars to clear the Expansion
1 set of 8-S509 } joint by 2" at the light pole locations.
(2) In Parapet
*S507 for 15'-6⅝", S508 for 7'-0", S532 for 12'-11¼" and *S533 for 15'-8⅜" parapet panels.

*Lap S523 to each S507 & S533 in the end panels only.

NOTE:
Pavement slopes vary from Sta. 882+25, on U.S.R. 30 stationing, back. Deck width varies from Sta. 882+02.58, on U.S.R. 30 stationing, back. (Refer to Def. Plan, Sheet No. 35.)

Revised 9-29-75

W.E.Q. BRIDGE 3
SHEET NO. 38 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

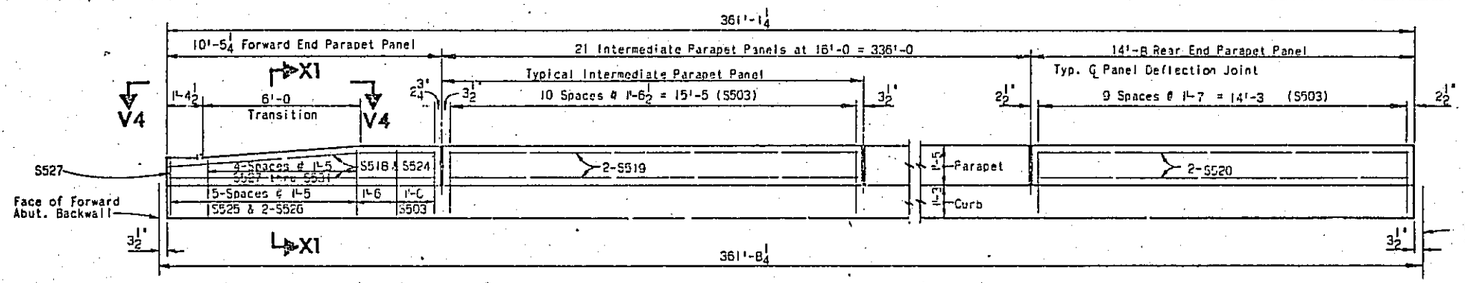
SUPERSTRUCTURE DETAILS
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STARK COUNTY
STA. 881+27.26
STA. 884+05.94

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TG		wdk	DLM	6/68	7-15-75

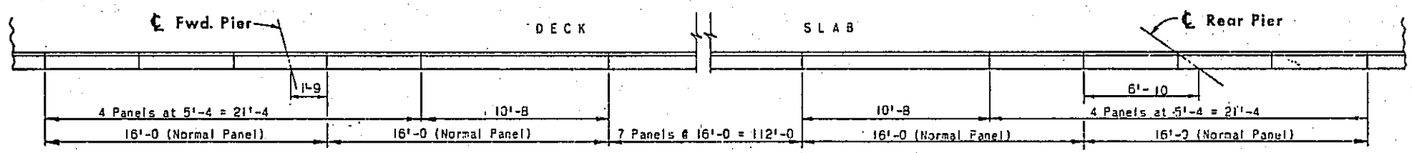
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

338
435

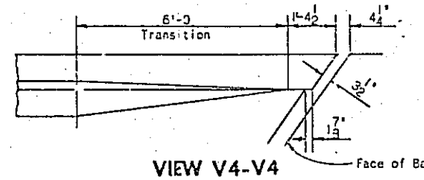
STA-30-12.47



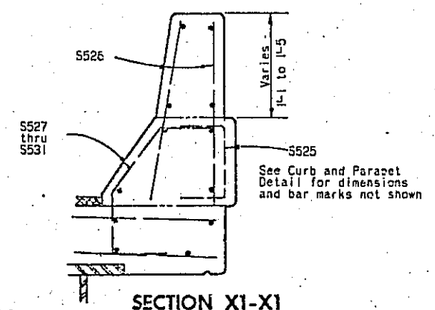
CURB AND PARAPET ELEVATIONS - LEFT HALF



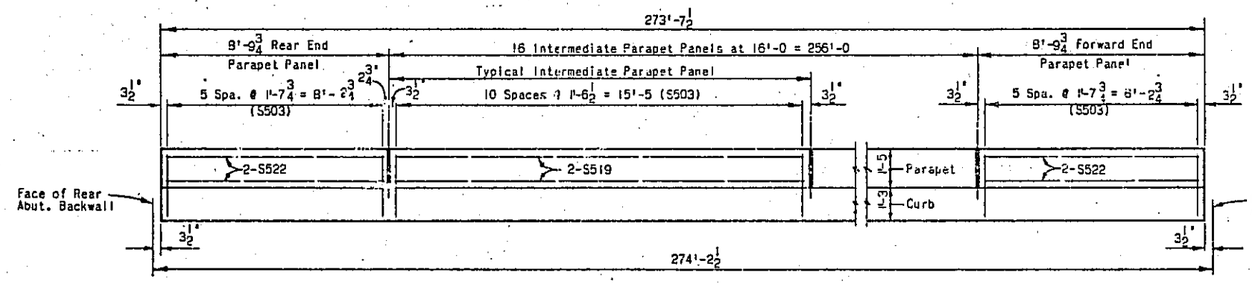
PLAN OF PARAPET PANEL DEFLECTION JOINTS OVER PIERS - LEFT HALF



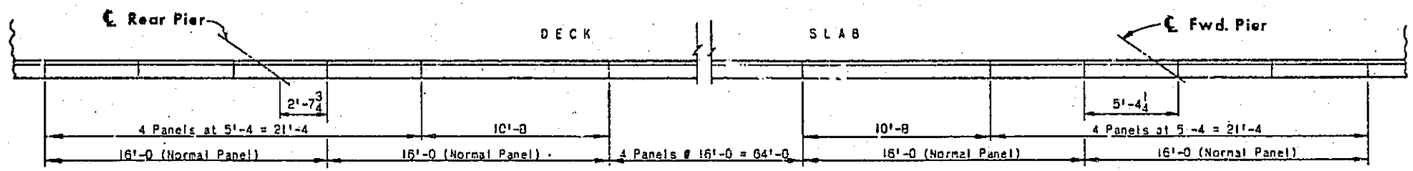
VIEW V4-V4



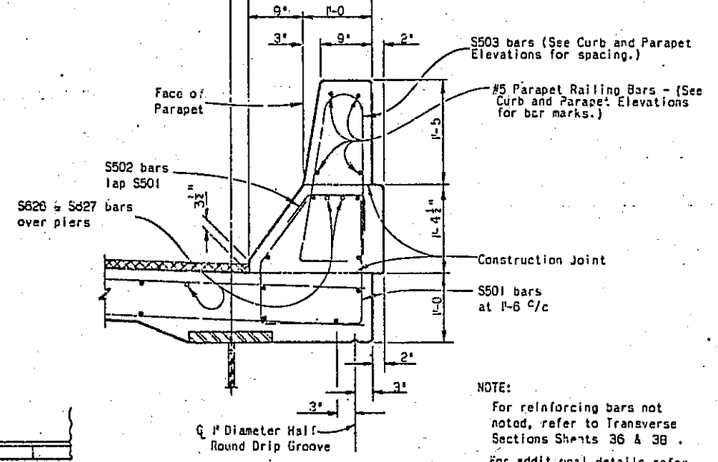
SECTION X1-X1



CURB AND PARAPET ELEVATIONS - RIGHT HALF

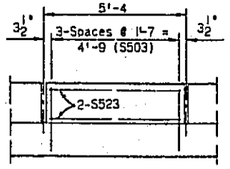


PLAN OF PARAPET PANEL DEFLECTION JOINTS OVER PIERS - RIGHT HALF

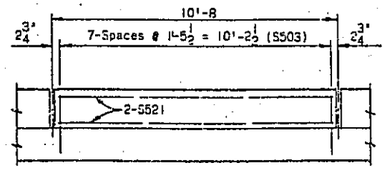


CURB AND PARAPET DETAIL

NOTE:
For reinforcing bars not noted, refer to Transverse Sections Sheets 36 & 38.
For additional details refer to Std. Dwg. BR-1-67.



TYPICAL 5'-4 PARAPET PANEL



TYPICAL 10'-8 PARAPET PANEL

W.E.Q. BRIDGE 3
SHEET NO. 39 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STA. 581+27.26
STARK COUNTY STA. 584+05.94

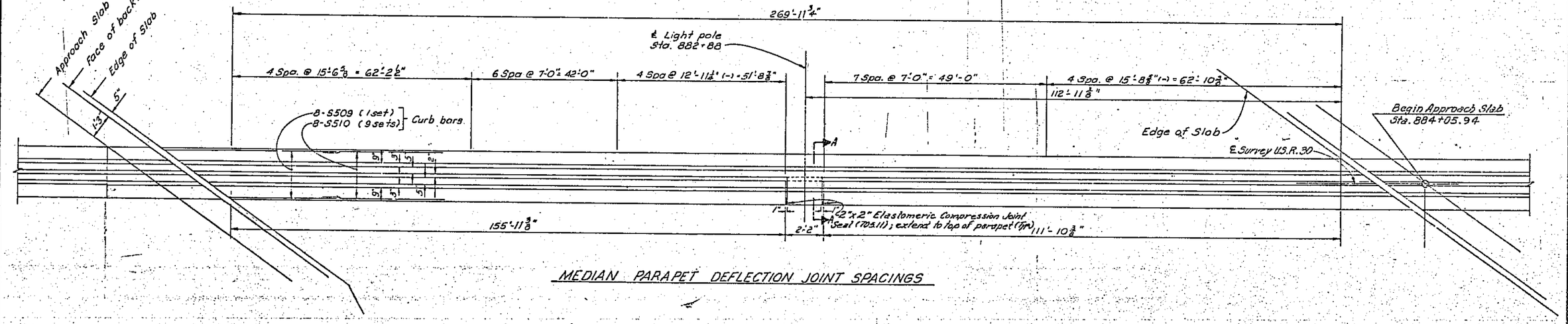
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TB		wda	DLM	6/62	

Bill Ashton

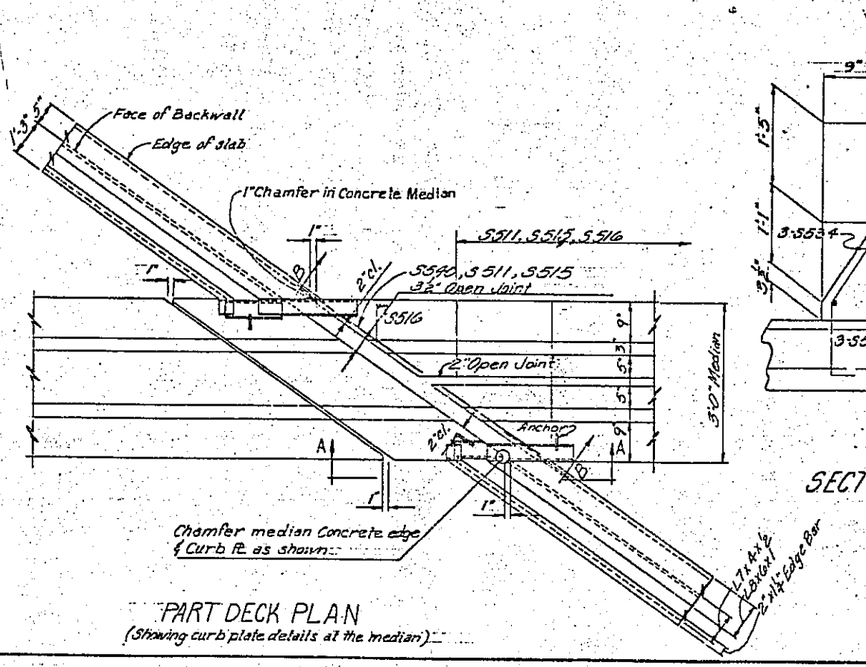
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

339
135

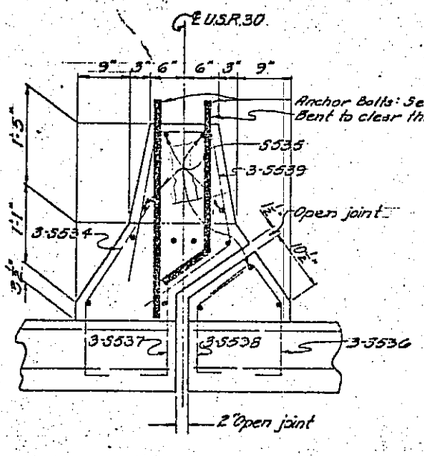
STA-30-12.47



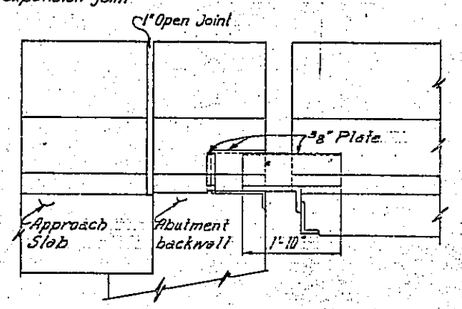
MEDIAN PARAPET DEFLECTION JOINT SPACINGS



PART DECK PLAN
(Showing curb plate details at the median)

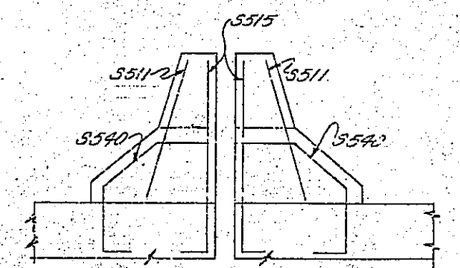


SECTION A-A



VIEW A-A

For additional details, see Standard Drawing SD-1-69



SECTION B-B

See sheet No. 261 for details of guard rail at opening of concrete barrier median endings.

S.R. C. BRIDGE 3
SHEET NO. 40 OF 40

W. E. QUICKSALL AND ASSOCIATES, INC.
CONSULTING ENGINEERS • NEW PHILADELPHIA, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. STA-30-1340
U.S.R. 30 over 17th ST. & P.R.R.
STA. 881+27.26
STA. 884+05.94
STARK COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	TG		wda	DLM	6/28	7-15-75