

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

F-FG-1042(5)

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(5)	

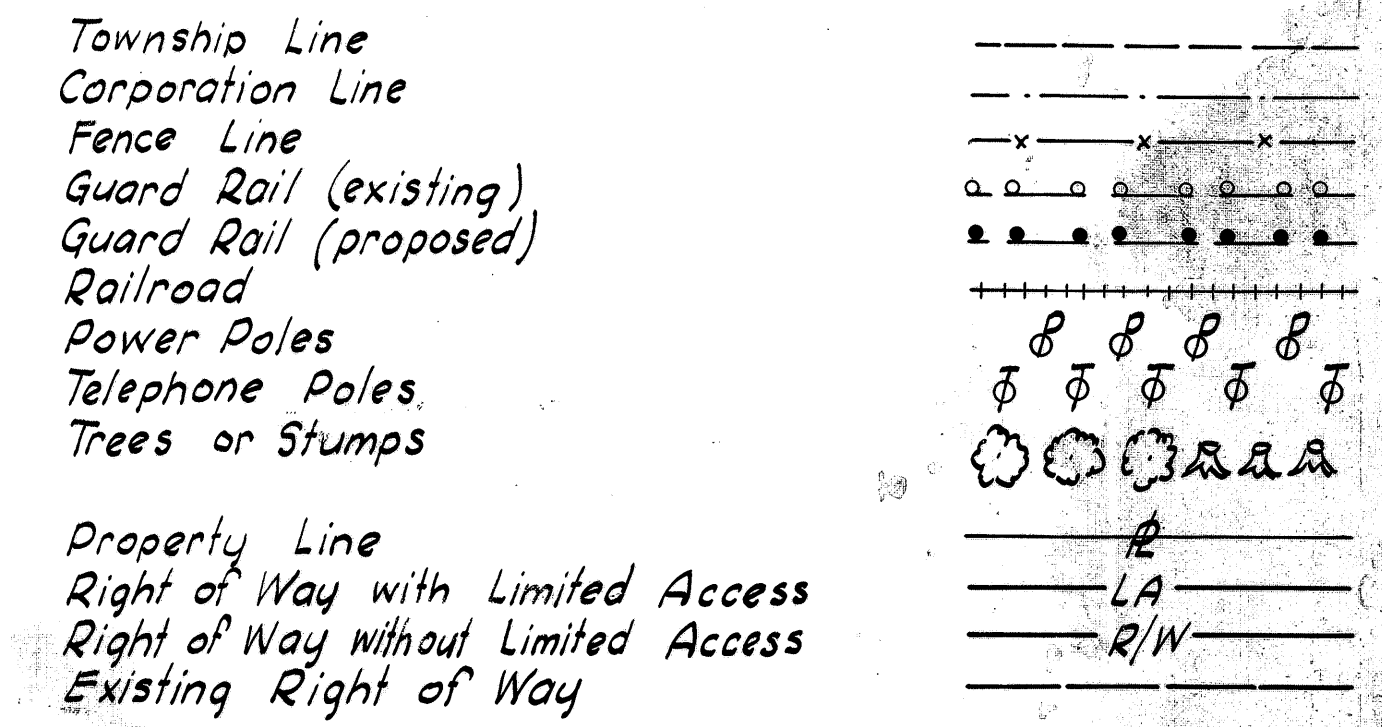
NOV 17 1965
GROUND PHOTOLAB

ERI 2-402; ERI 6-380

ERI. 2-402 & ERI. 6-380
ERIE COUNTY
MARGARETTA & PERKINS TOWNSHIPS

GRADE SEPARATIONS WITH NEW YORK, CHICAGO AND ST. LOUIS,
NEW YORK CENTRAL & PENNSYLVANIA RAILROAD CO'S.

CONVENTIONAL SIGNS

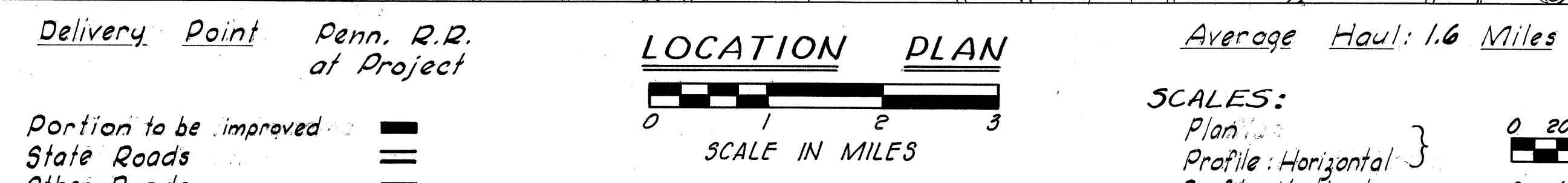
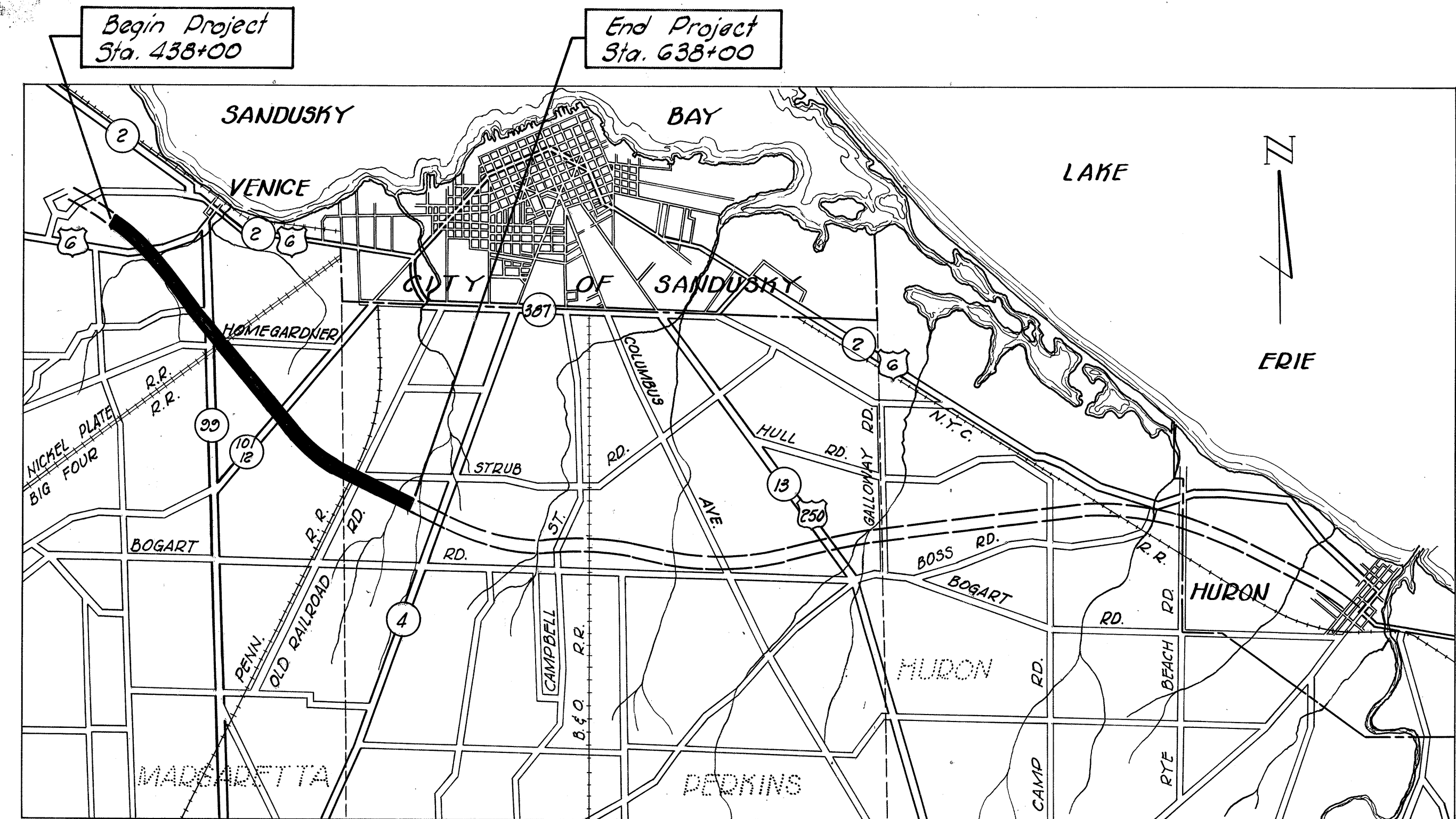


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LINE DATA

F-1042(5): Sta. 438+00 to 497+00	= 5900.00 Lin.Ft.
Sta. 498+97.40 to 501+02.60	= 205.20 Lin.Ft.
Sta. 511+44.30 to 512+09.30	= 65.00 Lin.Ft.
Sta. 522+00 to 594+50	= 7250.00 Lin.Ft.
Sta. 609+90.18 to 610+34.18	= 44.00 Lin.Ft.
Sta. 622+40.73 to 623+75.27	= 134.54 Lin.Ft.
Sta. 625+00 to 638+00	= 1300.00 Lin.Ft.
Total Length of Project F-1042(5)	= 14898.74 Lin.Ft. or 2.821 Miles
FG-1042(5): Sta. 497+00 to 498+97.40	= 197.40 Lin.Ft.
Sta. 501+02.60 to 511+44.30	= 1041.70 Lin.Ft.
Sta. 512+09.30 to 522+00	= 990.70 Lin.Ft.
Sta. 594+50 to 609+90.18	= 1540.18 Lin.Ft.
Sta. 610+34.18 to 622+40.73	= 1206.55 Lin.Ft.
Sta. 623+75.27 to 625+00	= 124.73 Lin.Ft.
Total Length of Project & Work FG-1042(5)	= 5101.26 Lin.Ft. or 0.966 Mile
Grand Total Length of Project F-FG-1042(5)	= 20000.00 Lin.Ft. or 3.787 Miles
Length of Work F-1042(5): Length of Project from above	= 14898.74 Lin.Ft.
Existing U.S.G. - Sta. 37+50 to 62+30	= 2480.00 Lin.Ft.
Homagardner Rd. - Sta. 9+59.5 to 23+50.00	= 1390.50 Lin.Ft.
S.R. 12 - Sta. 33+50.00 to 64+25	= 2575.00 Lin.Ft.
West Approach U.S.G. - Sta. 437+00 to 438+00	= 100.00 Lin.Ft.
East Approach U.S.G. - Sta. 638+00 to 639+00	= 100.00 Lin.Ft.
Total Length of Work F-1042(5)	= 21,544.24 Lin.Ft. or 4.080 Miles
Grand Total Length of Work F-FG-1042(5)	= 26,645.50 Lin.Ft. or 5.046 Miles



SURVEY AND PLANS BY
SANZENBACHER, MILLER AND BRIGHAM
TOLEDO, OHIO

SCALES:

Plan	0 20 40 60 80 100
Profile: Horizontal	0 4 8 12 16 20
Profile: Vertical	0 4 8 12 16 20
Cross Sections	0 4 8 12 16 20

STANDARD CONSTRUCTION DRAWINGS

AS-1-54	12-1-54	L-3	4-1-50	I-1	11-15-60	HW-A&B	7-15-57	G-7.07	G-1-56
RB-1-55	2-2-59	L-3-A	4-1-50	I-8.C.B. 2, 3 & 4	1-26-59	HW-C	7-15-57		
AR-1-57	12-12-60	RI-1	7-15-58	I-8.C.B. 2 & 4 & 8	3-2-59	HW-E	11-15-60		
CSB-256.5M's. 243	2-2-59	T-35	1-2-56	I-8.C.B. No. 4	7-1-58	I-12	7-1-54		
F-2	10-1-58	B-T-70-71	11-15-60	I-8.C.B. No. 6	1-26-59	I-15 No. 1	11-15-60		
F-3	9-1-59	B-T-71R	3-2-59	I-8.M.H. No. 1	1-26-59	I-15 No. 2A	8-17-60		
DR-1	1-3-55	L.J. No. 1	7-1-55	I-8.M.H. No. 4	2-1-61	I-8.C.B. No. 5	7-1-58		
L-1	4-1-50	TJ	9-12-60	I-8.I. No. 2	4-23-59	I-21-23	8-1-56		

SUPPLEMENTAL SPECIFICATIONS

S-307	8-23-60
I-124	Rev. 3-20-61
1B	Rev. 6-15-59
S-207.10	4-25-61
B-112	8-21-61

LIMITED ACCESS
This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

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

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

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

- Approved Date 9-21-61 E. J. Tolson Division Deputy Director
- Approved Date 10-9-61 Ray E. Neufuss Deputy Director of Planning and Programming
- Approved Date 9-29-61 W. A. Arman Engineer of Bridges
- Approved Date 10-4-61 W. J. Arman Engineer of Location and Design
- Approved Date 10-5-61 C. W. McCaughey Deputy Director of Design and Construction
- Approved Date 10-2-61 Wm J. Gross Deputy Director of Right-of-Way
- Approved Date 10-10-61 J. A. Berry First Assistant Director
- Approved Date 10-10-61 E. J. Rector Director of Highways

Revised sheets 16 & 17; 12, 8, 1961
Revised sheets 2, 17, 51, 52, 53 & 62; 12-11-1961
Sheet 193 revised 12-19-61
Sheet 143 revised 12-27-61

NOV 17 1965
GROUND PHOTOLAB

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

Approved _____ Date _____
Division Engineer

FILE NO. 109E
ERI. 2-402, ERI. 6-380
Date of Letting 196
Contract No.

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

2
220

ERI 2-4.02, ERI 6-3.80

No Federal Participation

Drives
High type surface beyond and of flares, except where existing drive is high type.

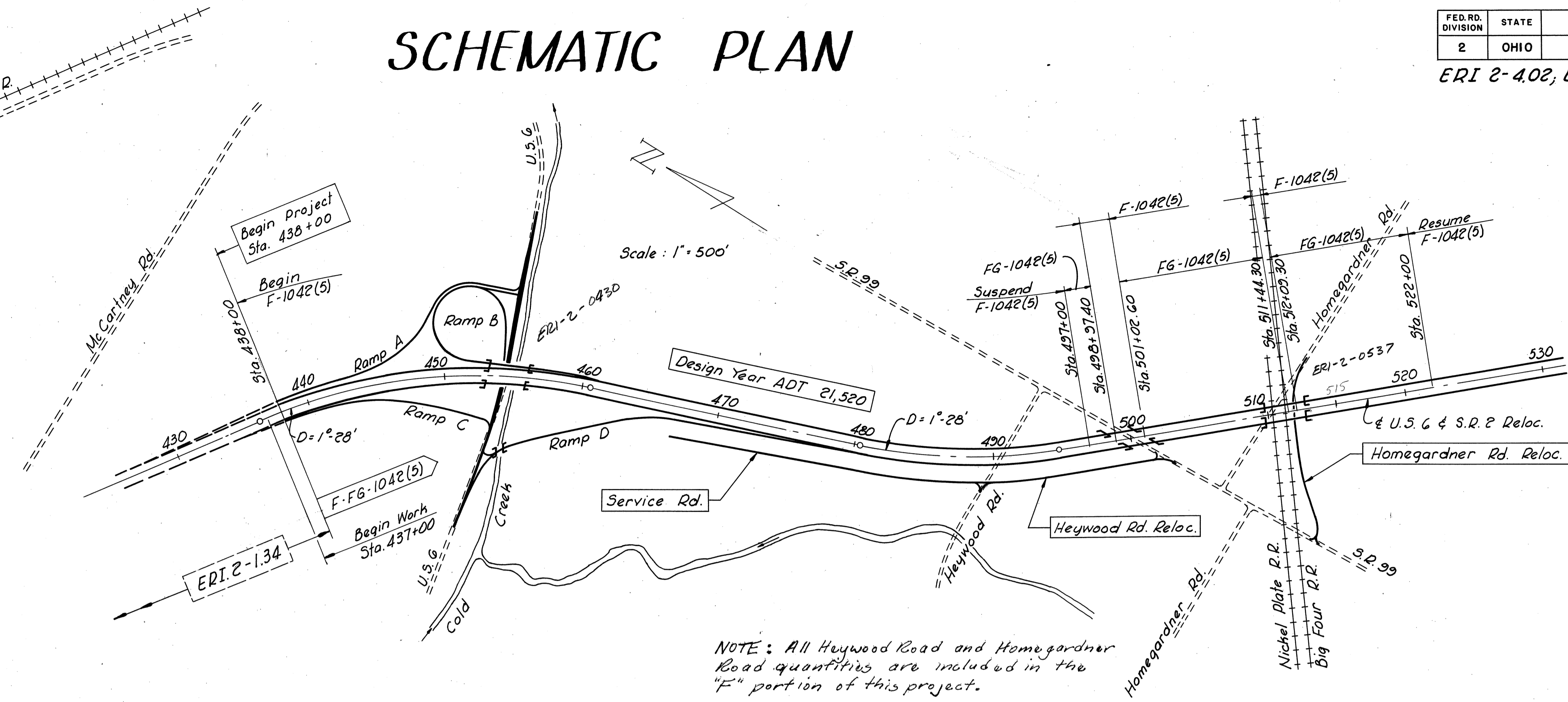
Guard Rail
Barrier rail at structures as shown on sheet 9.
Guard rail pier protection on right side of traveled lanes beyond and of pier or more than 20 feet in advance of pier. See sheet 8.

R/W Fence
R/W fence for entire project.

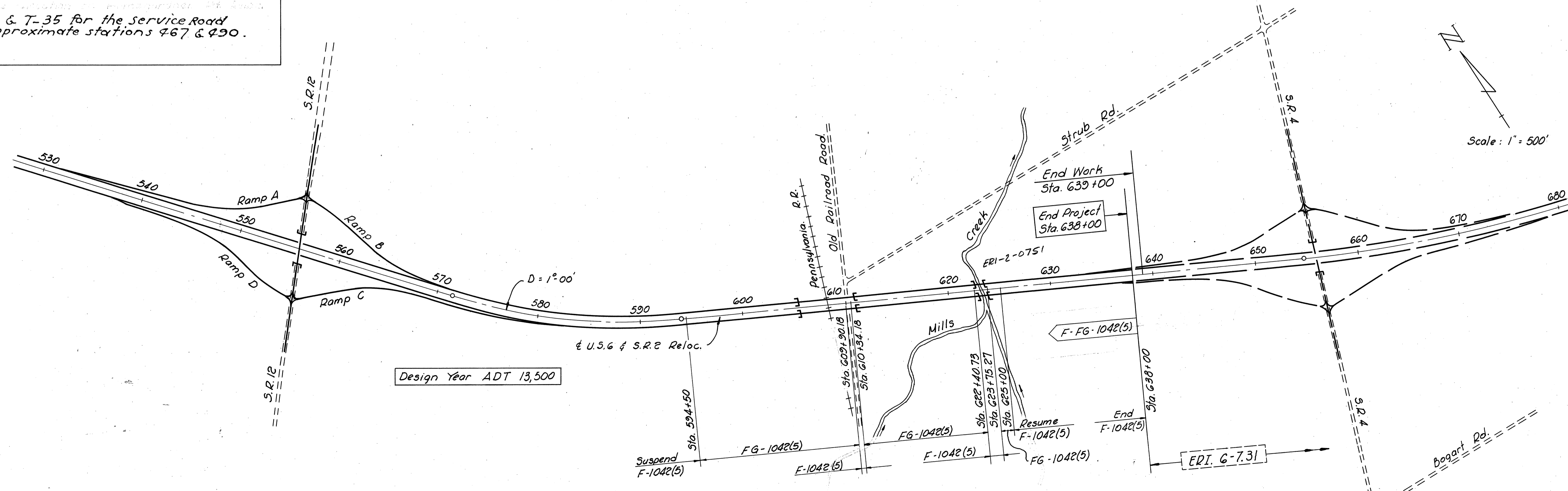
~~Conditions for Future Water and Sewer Lines~~
~~Conditions for future water line and sanitary system on S.R. 12~~

14" x 1034' of Water Line on S.R. 12.

Items T-30 & T-35 for the service Road between approximate stations 467 & 490.



MICROFILMED
SEP 11 1986



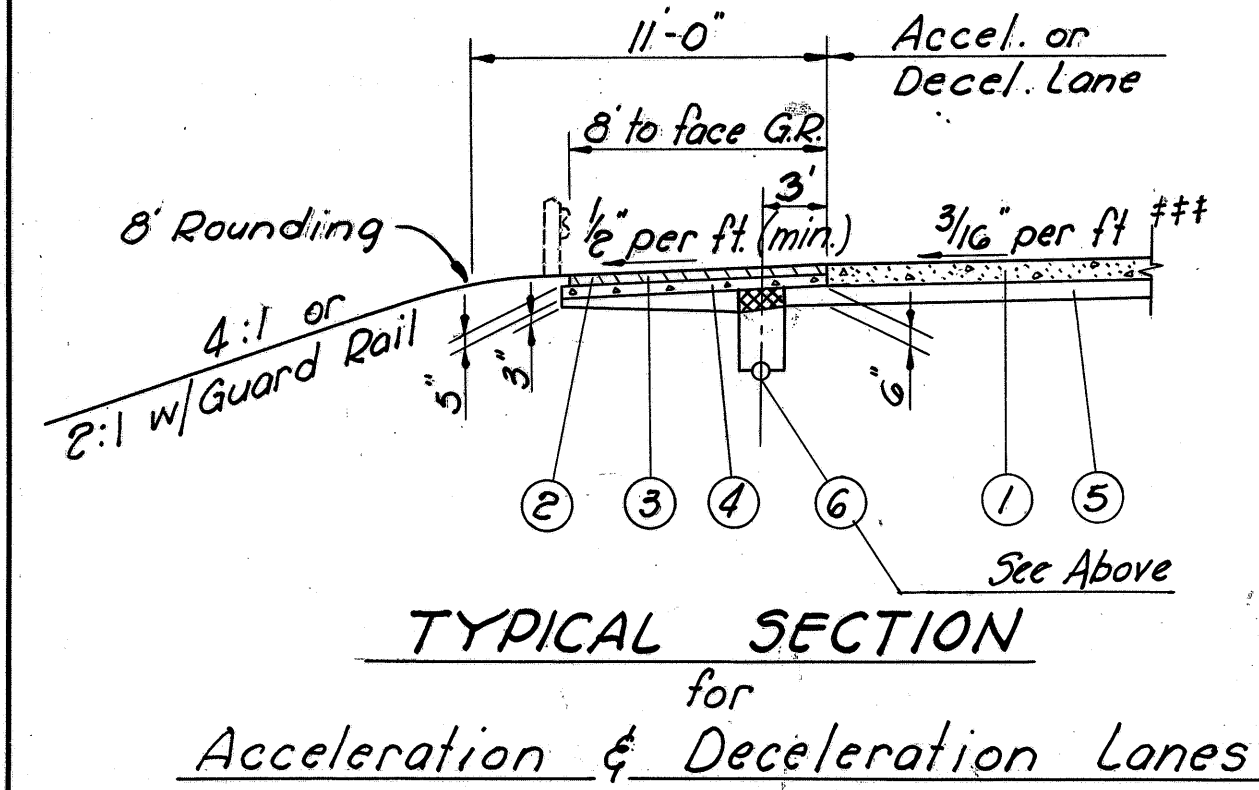
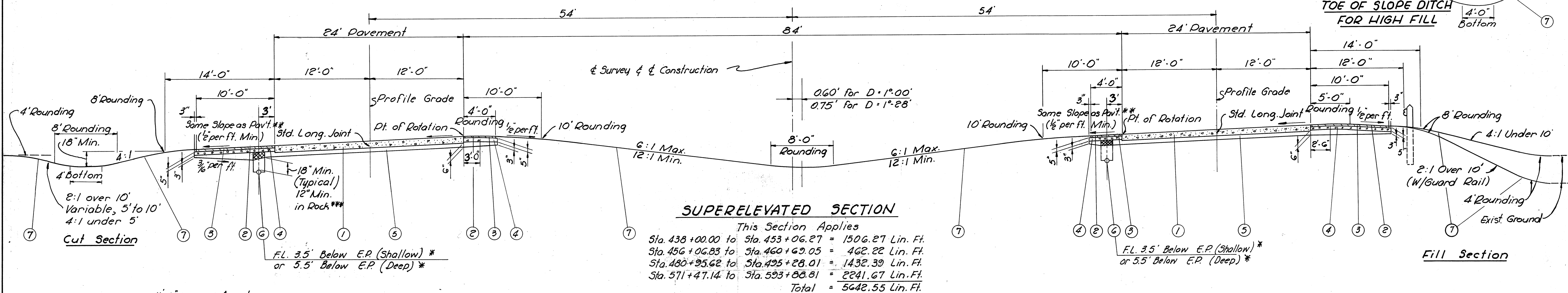
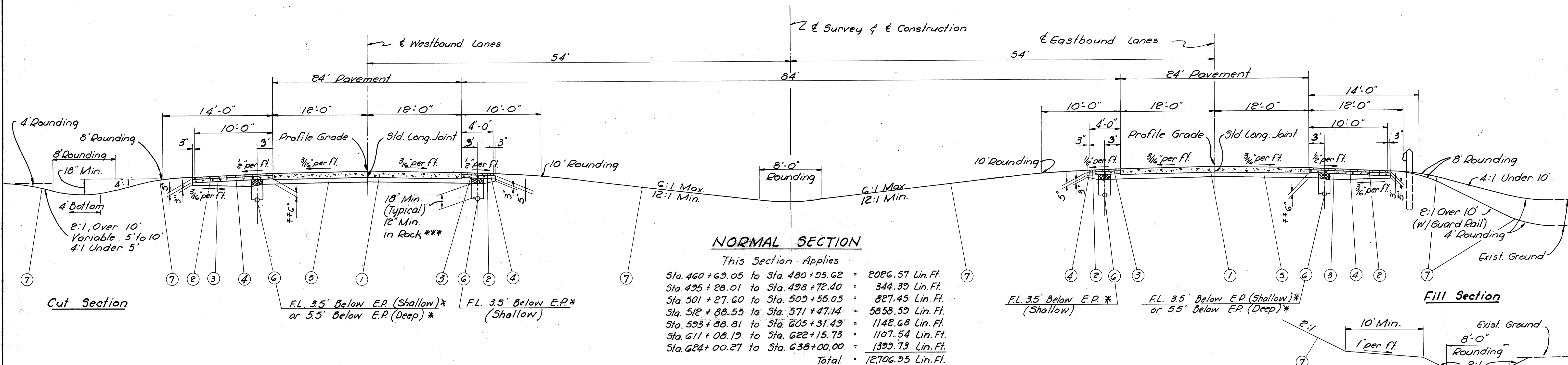
TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

3
220

ERI 2-402, ERI G-380



Legend

- ① T-71 9" Reinforced Portland Cement Concrete Pavement
- ② T-31 Bituminous Surface Treatment using 0.008 Cubic Yard No. 6 Aggregate and 0.25 Gallon Bituminous Material per Square Yard (See Note in Proposal)
- ③ † B-21 3" Waterproofed Aggregate Base Course (Type "A" T-35 Material may be used in construction of this course - See note in Proposal)
- ④ B-112 5" Porous Base Course
- ⑤ I-22 Subbase, Grading A or B, as per plan (Thickness as Shown)
- ⑥ I-1 6" Pipe Underdrains, Class I-3 (For treatment of cross-hatched area, see "Sequence of Construction Operations" note on Sheet 13)
- ⑦ L-9 Seeding and Protecting

- † Thickness shown is design thickness as indicated in Sec. B-21.01.
- †† Subbase thickness shall be 18" between Stations 629+00 & 638+00
- * Except as otherwise shown on cross sections by flowline elevations.
- ** For pavement elevations, see superelevation tables.
- *** Where underdrains are in Rock, M-G.4 (h)(c) pipe shall be used.

*** Except as otherwise shown in superelevation tables.

Scale: 1" = 6'-0" Except Design Speed = 70 MPH
Oct. 15, 1988

SANZENBACHER, MILLER & BRIGHAM, TOLEDO, OHIO

TYPICAL SECTIONS

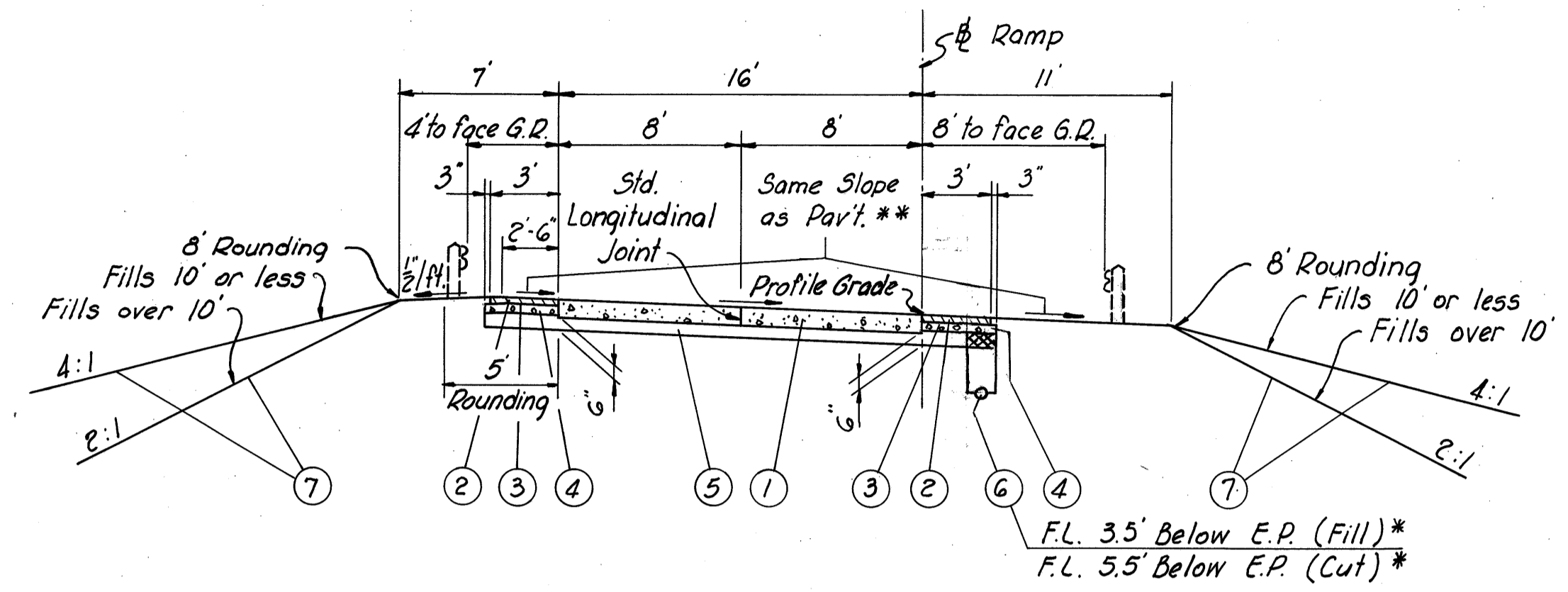
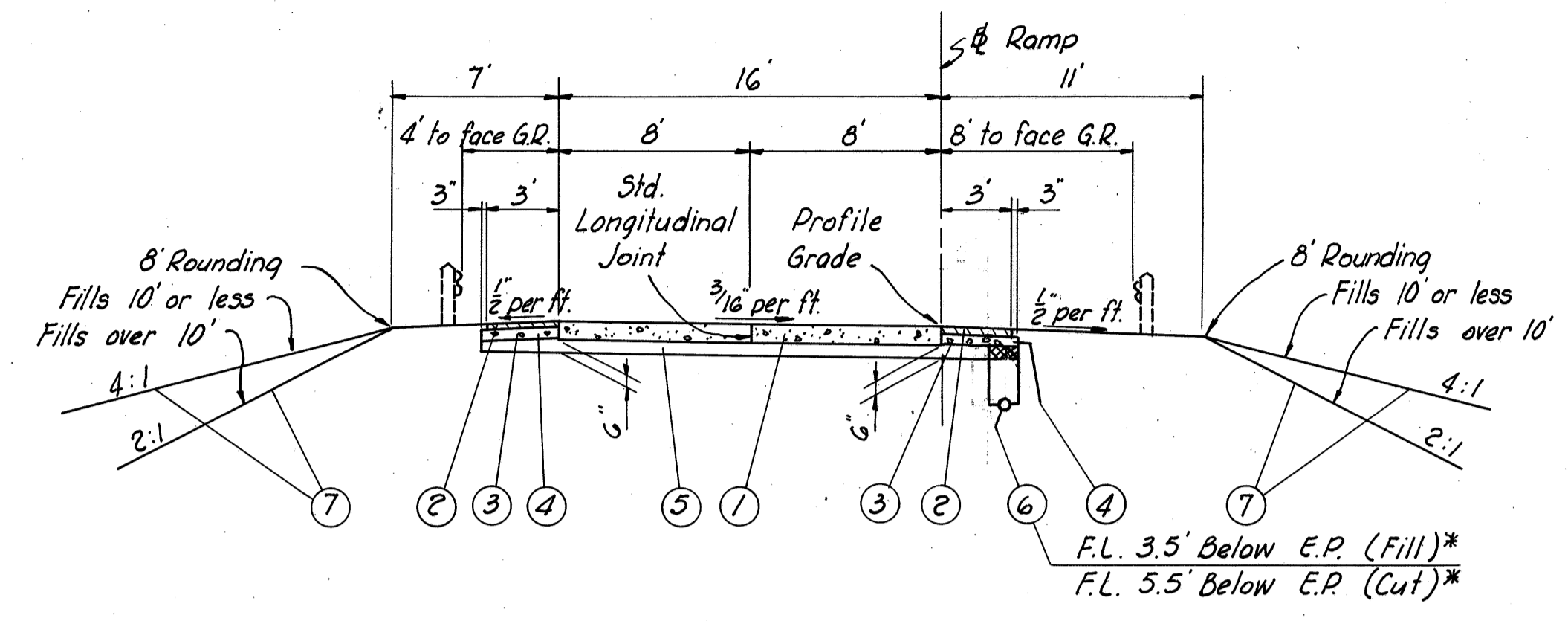
TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

4
220

ERI 2-402; ERI 6-380



This Section Applies

Exist. U.S.G Interchange :

Ramp A	Sta. 11+18.04	to	9+93.04	=	125.00	Lin. Ft.
Ramp B	Sta. 16+76.32	to	14+39.34	=	236.98	Lin. Ft.
Ramp C	Sta. 16+02.62	to	16+76.32	=	73.70	Lin. Ft.
Ramp D	Sta. 7+83.31	to	9+22.49	=	139.18	Lin. Ft.
Ramp D	Sta. 7+50.00	to	11+81.43	=	431.43	Lin. Ft.
			Total	=	1006.29	Lin. Ft.

S.R. 12 Interchange :

Ramp A	Sta. 13+77.92	to	9+84.54	=	393.38	Lin. Ft.
Ramp B	Sta. 0+75.00	to	0+59.22	=	15.78	Lin. Ft.
Ramp B	Sta. 6+65.50	to	4+69.58	=	195.92	Lin. Ft.
Ramp C	Sta. 0+73.50	to	4+65.56	=	392.06	Lin. Ft.
Ramp D	Sta. 5+55.02	to	7+49.56	=	194.54	Lin. Ft.
Ramp D	Sta. 11+44.14	to	11+59.92	=	15.78	Lin. Ft.
			Total	=	1207.46	Lin. Ft.

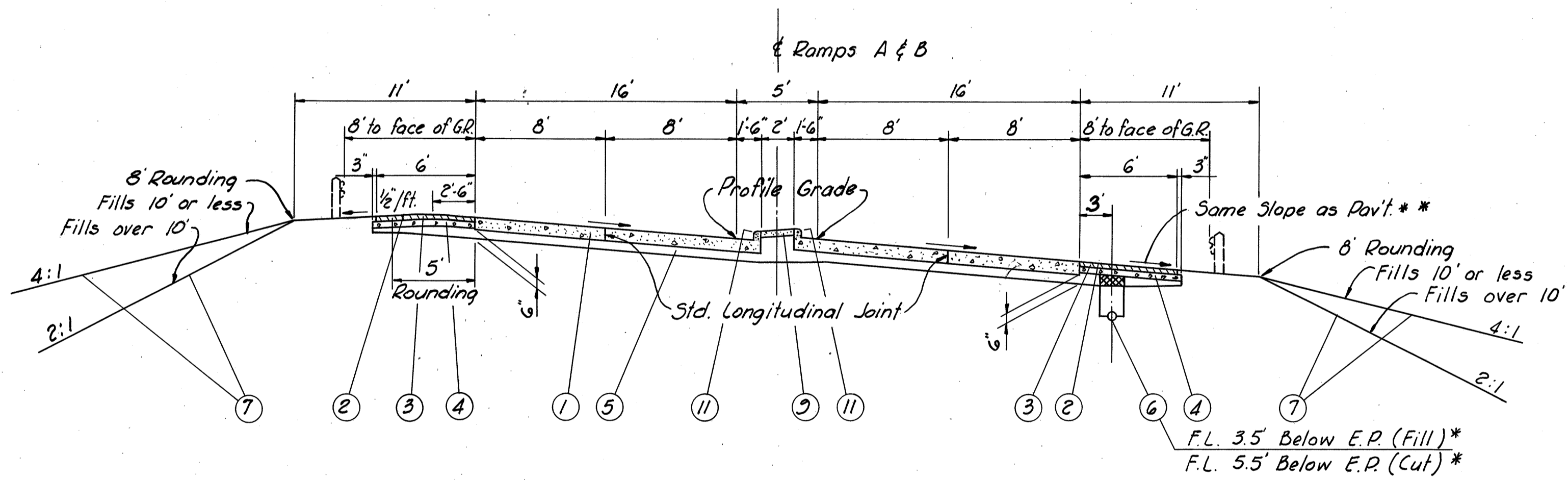
Exist. U.S.G Interchange :

Ramp A	Sta. 9+93.04	to	5+00.00	=	493.04	Lin. Ft.
Ramp B	Sta. 7+13.77	to	11+18.04	=	404.27	Lin. Ft.
Ramp B	Sta. 16+15.55	to	17+11.31	=	95.76	Lin. Ft.
Ramp C	Sta. 2+00.00	to	7+83.31	=	583.31	Lin. Ft.
Ramp D	Sta. 5+39	to	7+50.00	=	211.00	Lin. Ft.
Ramp D	Sta. 11+81.43	to	16+01.92	=	420.49	Lin. Ft.
			Total	=	2207.87	Lin. Ft.

This Section Applies

S.R. 12 Interchange :

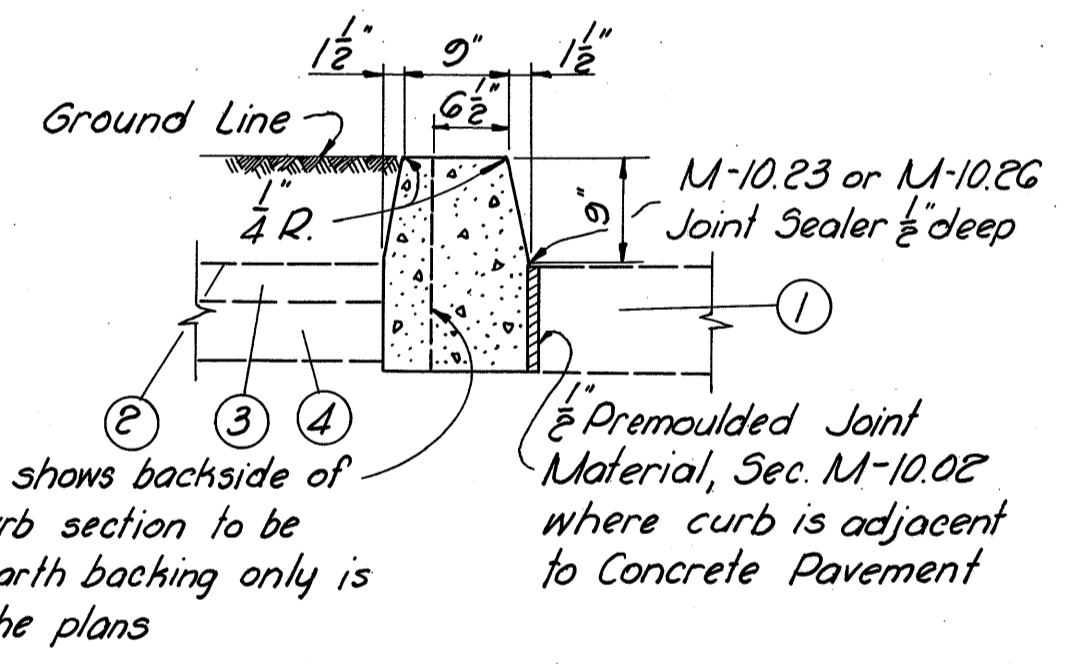
Ramp A	Sta. 9+84.54	to	5+50.00	=	434.54	Lin. Ft.
Ramp B	Sta. 4+69.58	to	0+75.00	=	394.58	Lin. Ft.
Ramp B	Sta. 10+70.52	to	6+65.50	=	405.02	Lin. Ft.
Ramp C	Sta. 4+65.56	to	9+00.00	=	434.44	Lin. Ft.
Ramp D	Sta. 1+50.00	to	5+55.02	=	405.02	Lin. Ft.
Ramp D	Sta. 7+49.56	to	11+44.14	=	394.58	Lin. Ft.
			Total	=	2468.18	Lin. Ft.



This Section Applies

Exist. U.S.G Interchange :

Ramps A & B	Sta. 11+18.04	to	14+39.34	=	321.30	Lin. Ft.
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SPECIAL PORTLAND CEMENT CONCRETE CURB
(To be used on entrance ramps.)
Scale: 3/4" = 1'-0"

Legend

- ① T-71 9" Reinforced Portland Cement Concrete Pavement
- ② T-31 Bituminous Surface Treatment using 0.008 Cubic Yard No. 6 Aggregate and 0.25 Gallon Bituminous Material per Square Yard (See Note in Proposal)
- ③ † B-21 3" Waterproofed Aggregate Base Course (Type "A" T-35 Material may be used in construction of this course - See note in Proposal)
- ④ B-112 5" Porous Base Course
- ⑤ I-22 Subbase, Grading A or B, as per plan (Thickness as shown)
- ⑥ I-1 6" Dipe Underdrains, Class 1-3 (For treatment of cross-hatched area, see "Sequence of Construction Operations" note on Sheet 13)
- ⑦ L-9 Seeding and Protecting
- ⑧ I-21 4" Portland Cement Concrete Median Pavement, Type 1.
- ⑨ I-12 Standard Type 2-A Curb

Roundings in accordance with RI-1, except as otherwise shown.

* Except as otherwise shown on cross sections, by flowline elevations

** For Pavement elevations see plan and profile sheets.

† Thickness shown is design thickness as indicated in B-21.01.

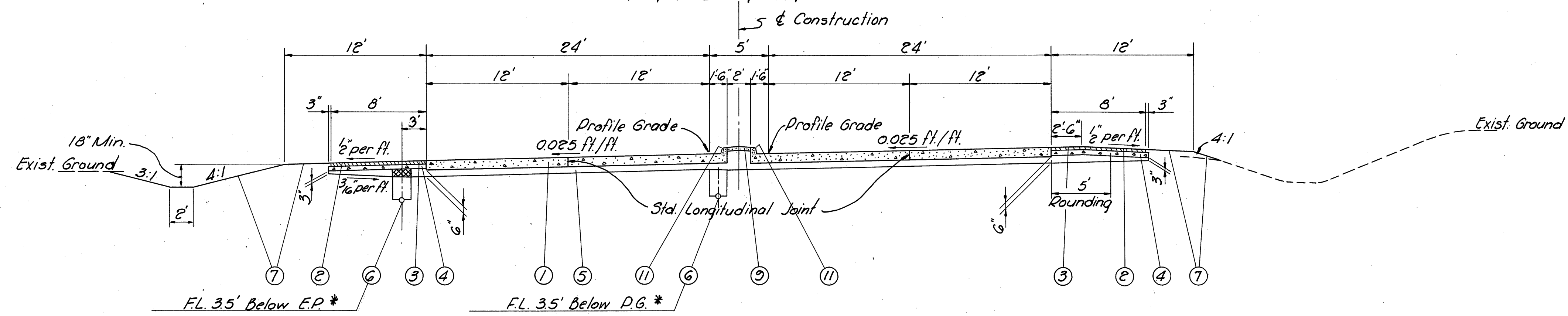
TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

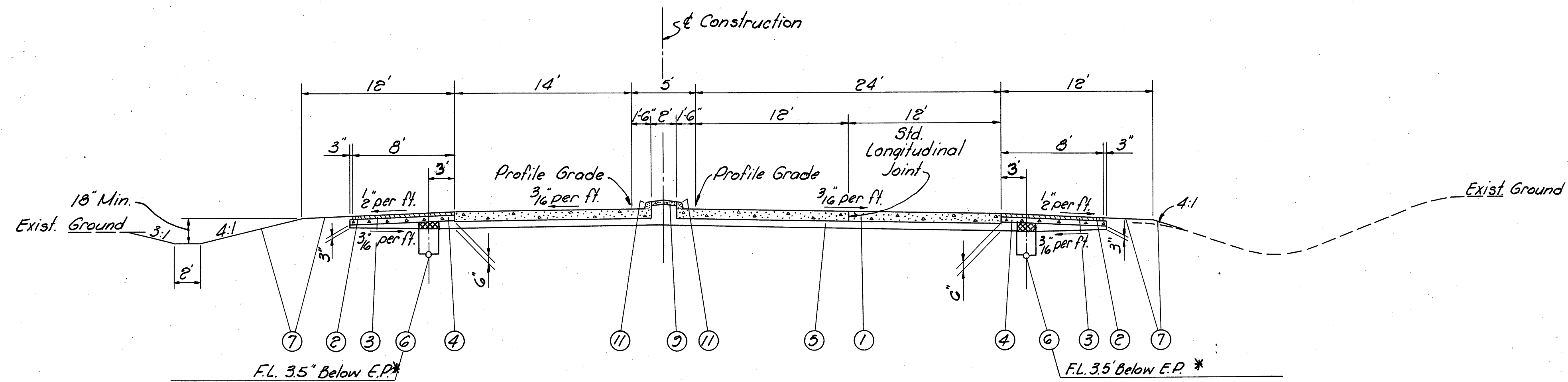
5
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ERI 2-4.02, ERI 6-3.80



SUPERELEVATED SECTION

This Section Applies
Existing U.S.G. Sta. 44+00.00 to 49+14.50 = 514.50 Lin.Ft.



NORMAL SECTION

This Section Applies
Existing U.S.G. Sta. 51+93.84 to 55+11.72 = 317.88 Lin.Ft.

Note: See sheet No. 63 for pavement and typical sections not tabulated hereon.

Legend

- | | |
|---|--|
| ① T-71 9" Reinforced Portland Cement Concrete Pavement | ⑨ I-21 4" Portland Cement Concrete Median Pavement, Type I |
| ② T-31 Bituminous Surface Treatment using 0.008 Cubic Yard No. 6 Aggregate and 0.25 Gallon Bituminous Material per Square Yard (See Note in Proposal) | ⑩ I-12 Standard Type 2-A Curb |
| ③ † B-21 3" Waterproofed Aggregate Base Course (Type A T-35 Material may be used in construction of this course - See note in Proposal) | |
| ④ B-112 5" Porous Base Course | |
| ⑤ I-22 Subbase, Grading A or B, as per plan (Thickness as shown) | |
| ⑥ I-1 6" Pipe Underdrains, Class I-3 (For treatment of cross-hatched area, see "Sequence of Construction Operations" note on Sheet 13) | |
| ⑦ L-9 Seeding and Protecting | |

Roundings in accordance with RI-1, except as otherwise shown.

† Thickness shown is design thickness as indicated in Sec. B-21.01.

* Except as otherwise shown on cross sections by flowline elevations.

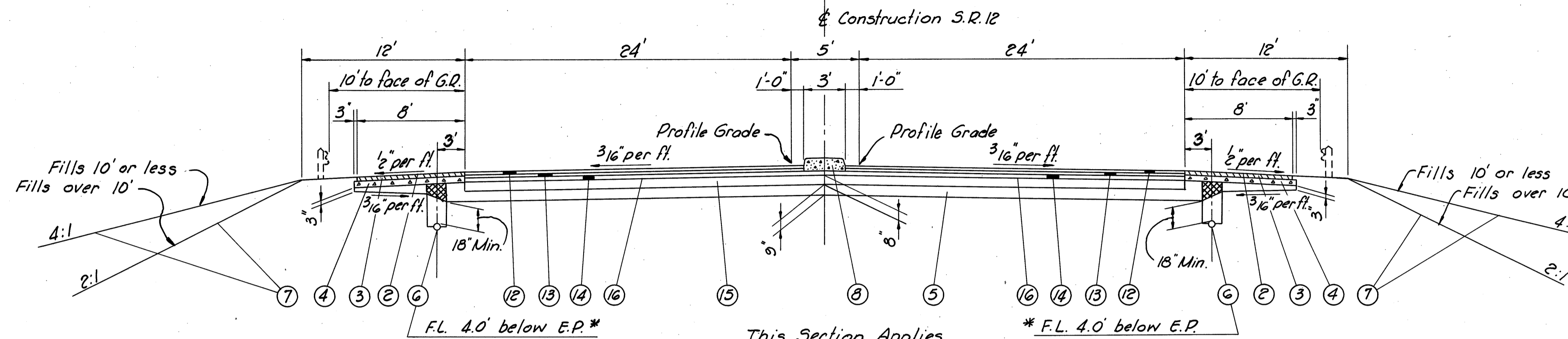
TYPICAL SECTIONS

TYPE T-35 on B-19

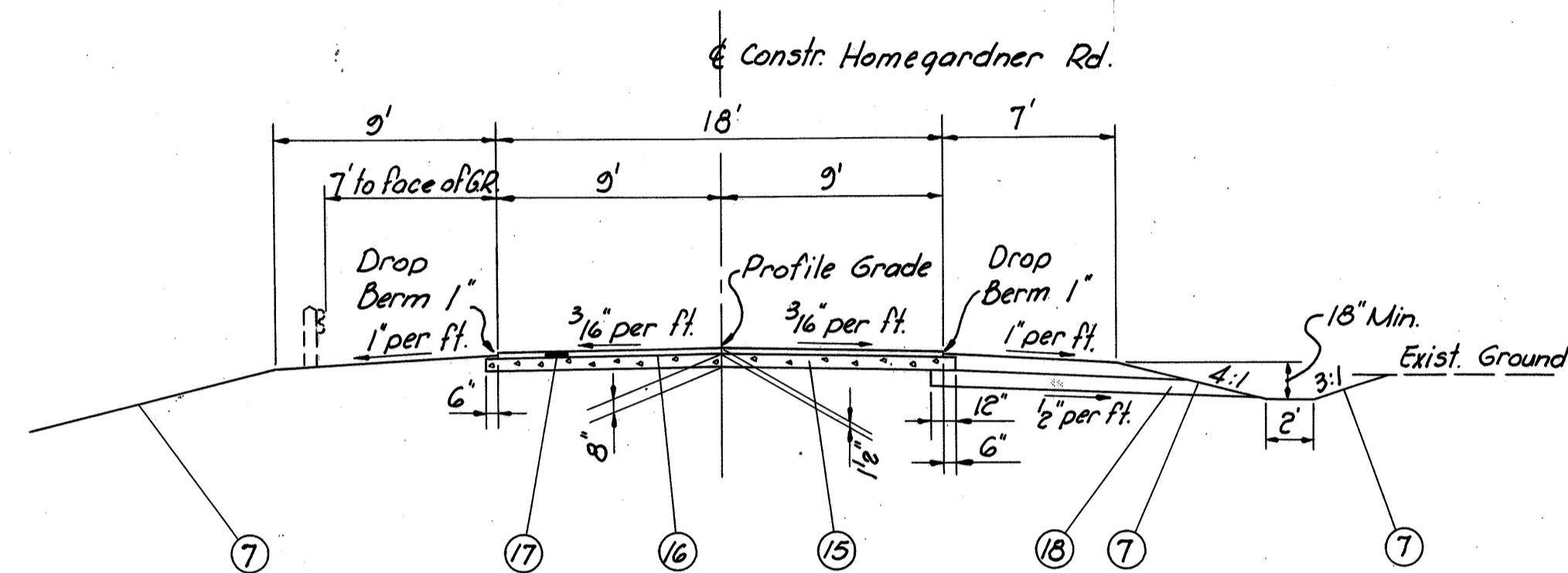
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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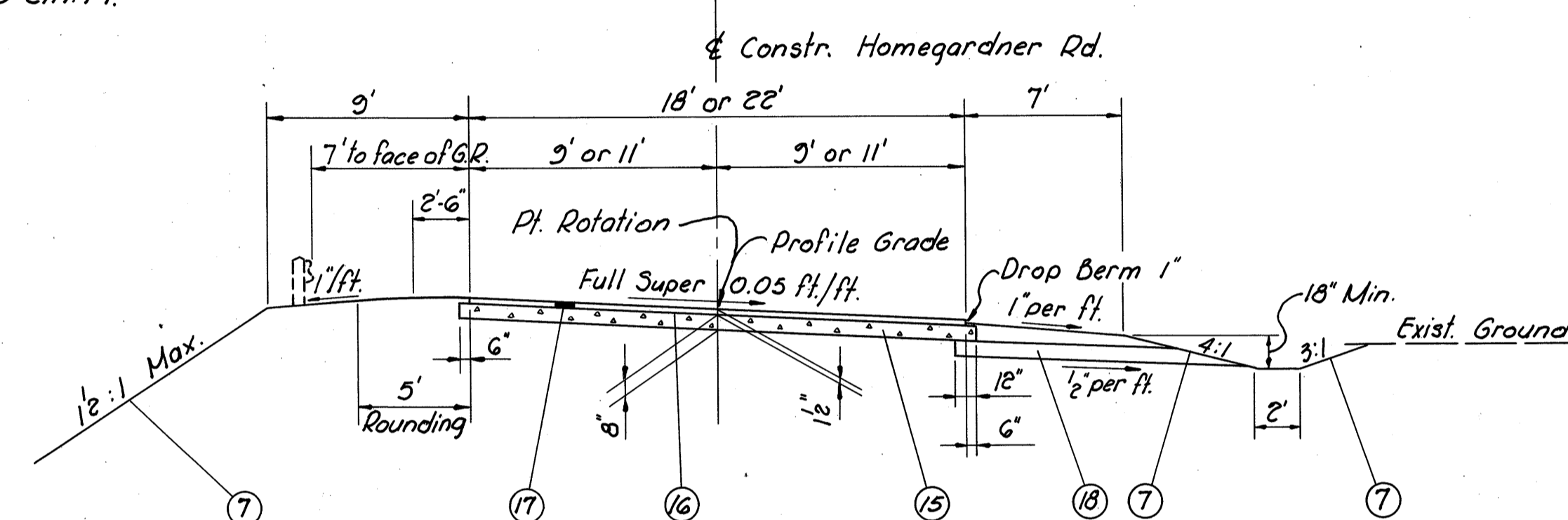
ERI 2-402, ERI 6-380



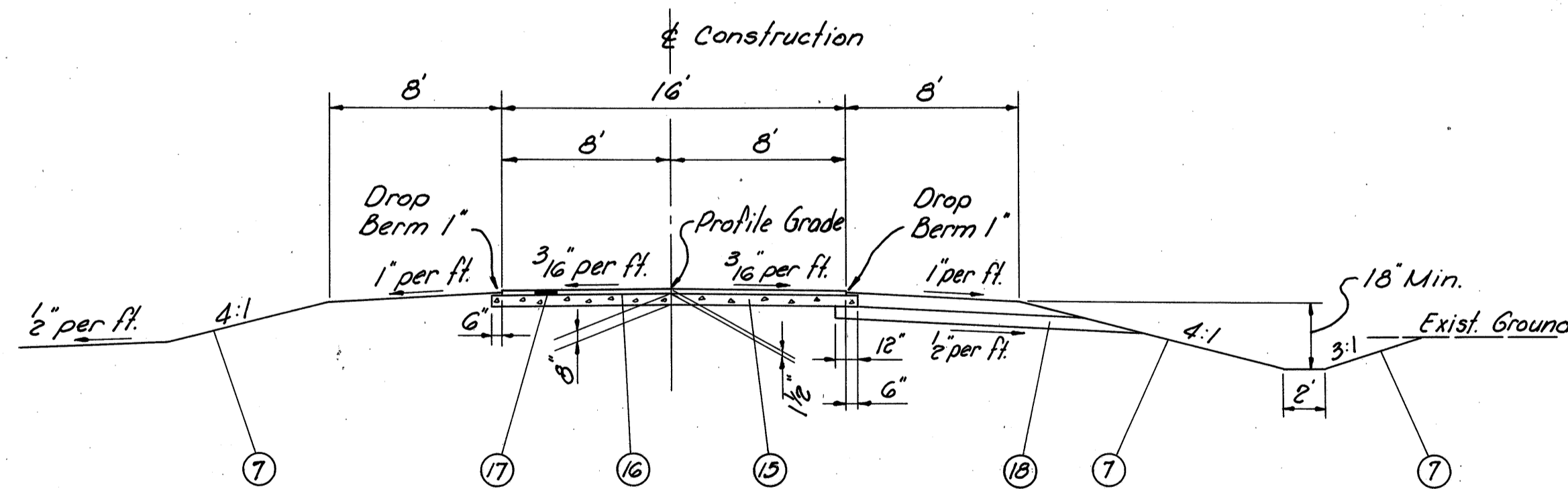
This Section Applies
 S.R. 12: Sta. 44+35 to 48+31.90 = 396.90 Lin. Ft.
 Sta. 51+67.46 to 62+35.11 = 1067.65 Lin. Ft.
 Total = 1464.55 Lin. Ft.



This Section Applies
 Sta. 11+03.85 to 13+70.44 = 266.59 Lin. Ft.
 Sta. 16+10.44 to 18+60.95 = 250.51 Lin. Ft.
 Total = 517.10 Lin. Ft.



This Section Applies
 18' Width: Sta. 10+22.14 to 11+03.85 = 81.71 Lin. Ft.
 Sta. 13+70.44 to 16+10.44 = 240.00 Lin. Ft.
 Total = 321.71 Lin. Ft.
 22' Width: Sta. 19+60.95 to 22+64.57 = 303.62 Lin. Ft.



This Section Applies
 Service Rd: Sta. 466+83 to 489+03.43 = 2220.43 Lin. Ft.
 Heywood Rd. Reloc: Sta. 490+90.69 to 500+53.37 = 1028.68 Lin. Ft. (Long. Sta. = 66.00 Lin. Ft.)
 Total = 3249.11 Lin. Ft.

Legend

- ② T-31 Bituminous Surface Treatment using 0.008 Cubic Yard No. 6 Aggregate and 0.25 Gallon Bituminous Material per Square Yard (See Note in Proposal)
- ③ † B-21 3" Waterproofed Aggregate Base Course (Type "A" T-35 Material may be used in construction of this course - See note in Proposal)
- ④ B-112 5" Porous Base Course
- ⑤ I-22 Subbase, Grading A or B, as per plan (Thickness as shown)
- ⑥ I-1 6" Pipe Underdrains, Class I-3 (For treatment of cross-hatched area, see "Sequence of Construction Operations" note on Sheet 13)
- ⑦ L-9 Seeding and Protecting

- ⑧ I-21 Portland Cement Concrete Median Pavement, Type 2.
- ⑩ † T-35 1/4" Asphaltic Concrete Surface Course, Type C (70-85)
- ⑬ † B-35 1/4" Asphaltic Concrete Leveling Course (70-85)
- ⑭ † B-35 3" Asphaltic Concrete Base Course (70-85)
- ⑮ B-19 Aggregate Base Course (Thickness as shown)
- ⑯ T-30 Bituminous Prime Sec. M-5.7, R.T.-2 or R.T.-3 applied at the rate of 0.4 gal. per sq. yd.
- ⑰ † T-35 1/2" Asphaltic Concrete Surface Course, Type A, (85-100)
- ⑱ I-9 Stone Underdrains, No. 2 (See general notes for spacing of this item)

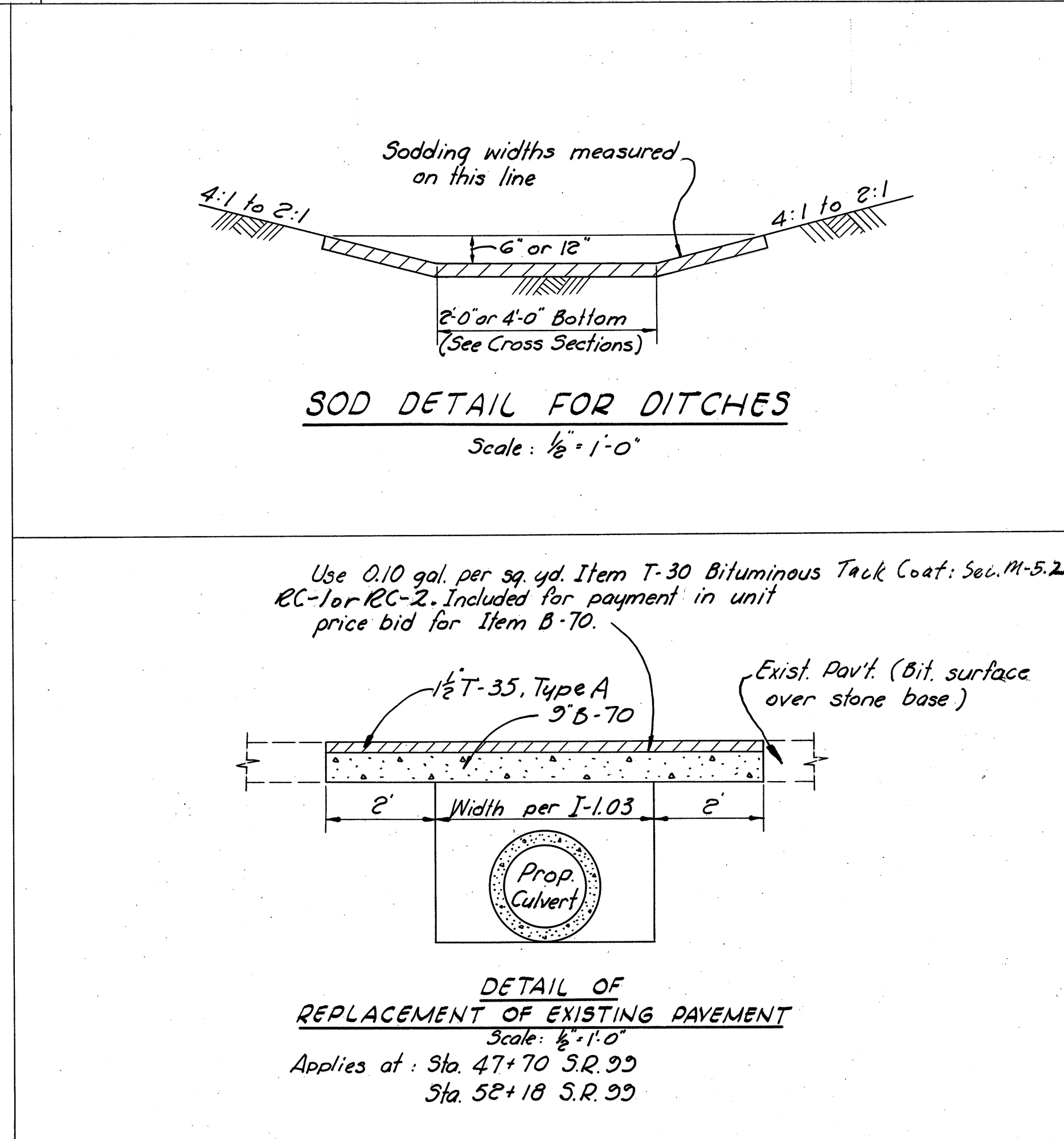
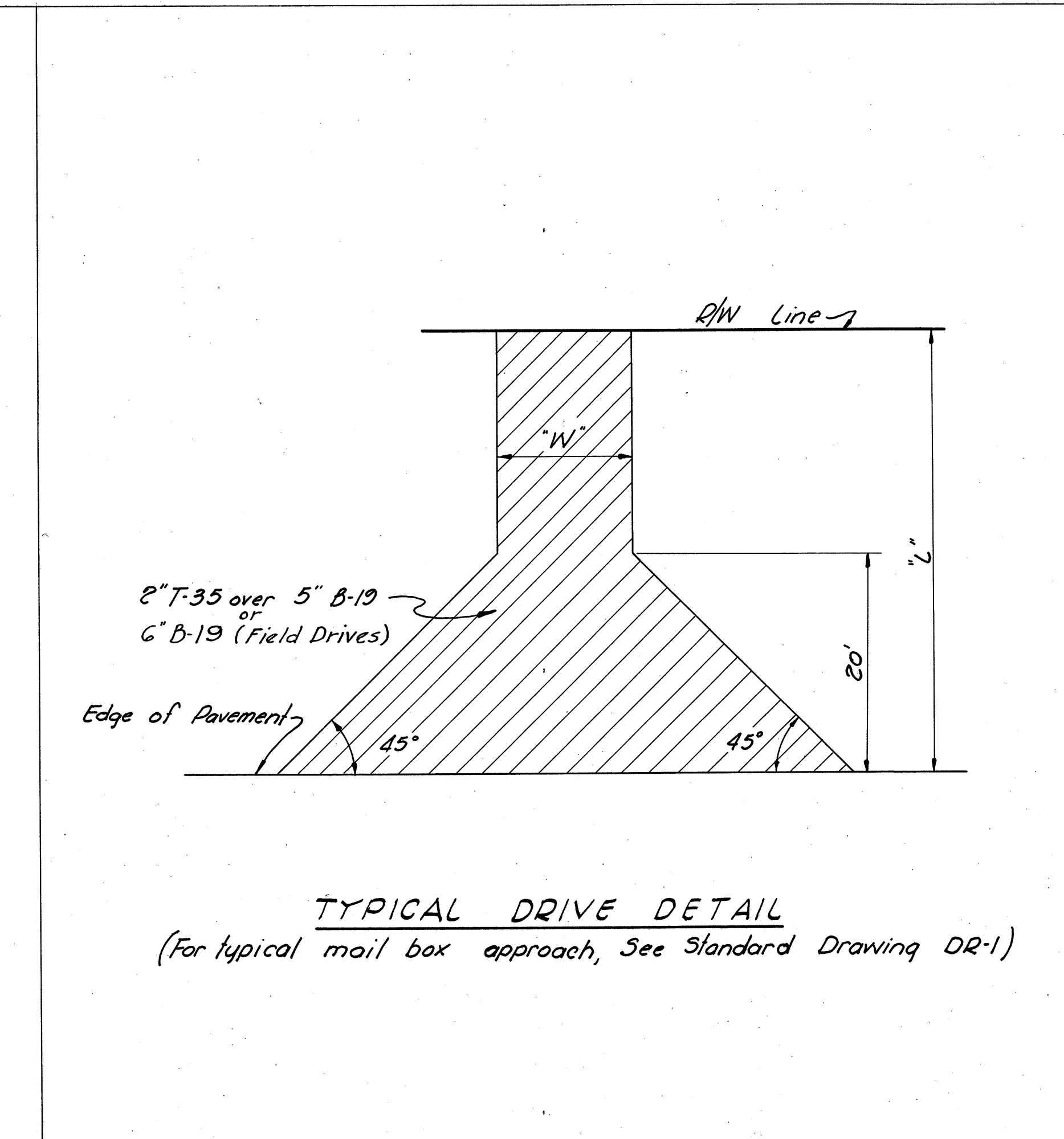
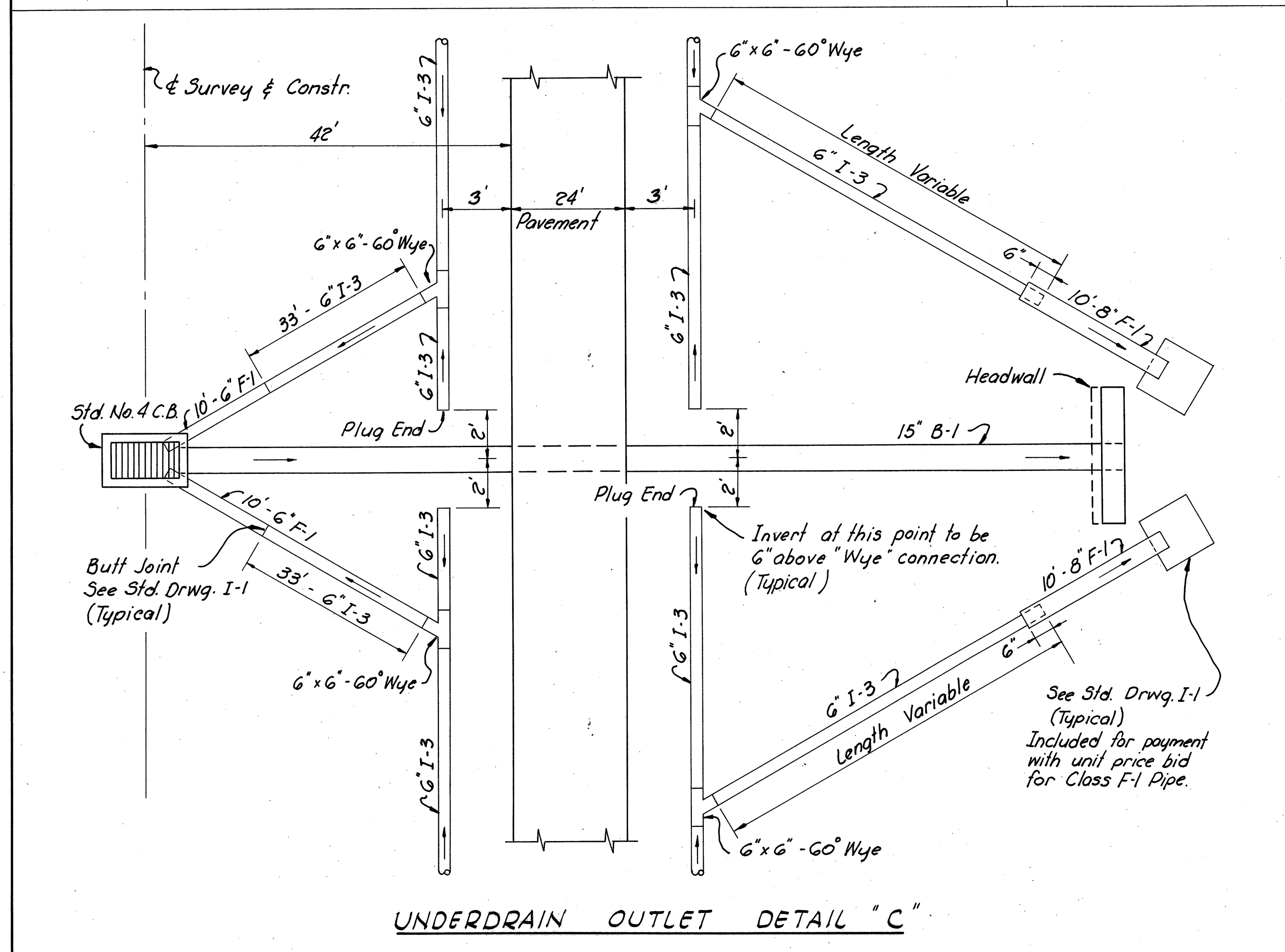
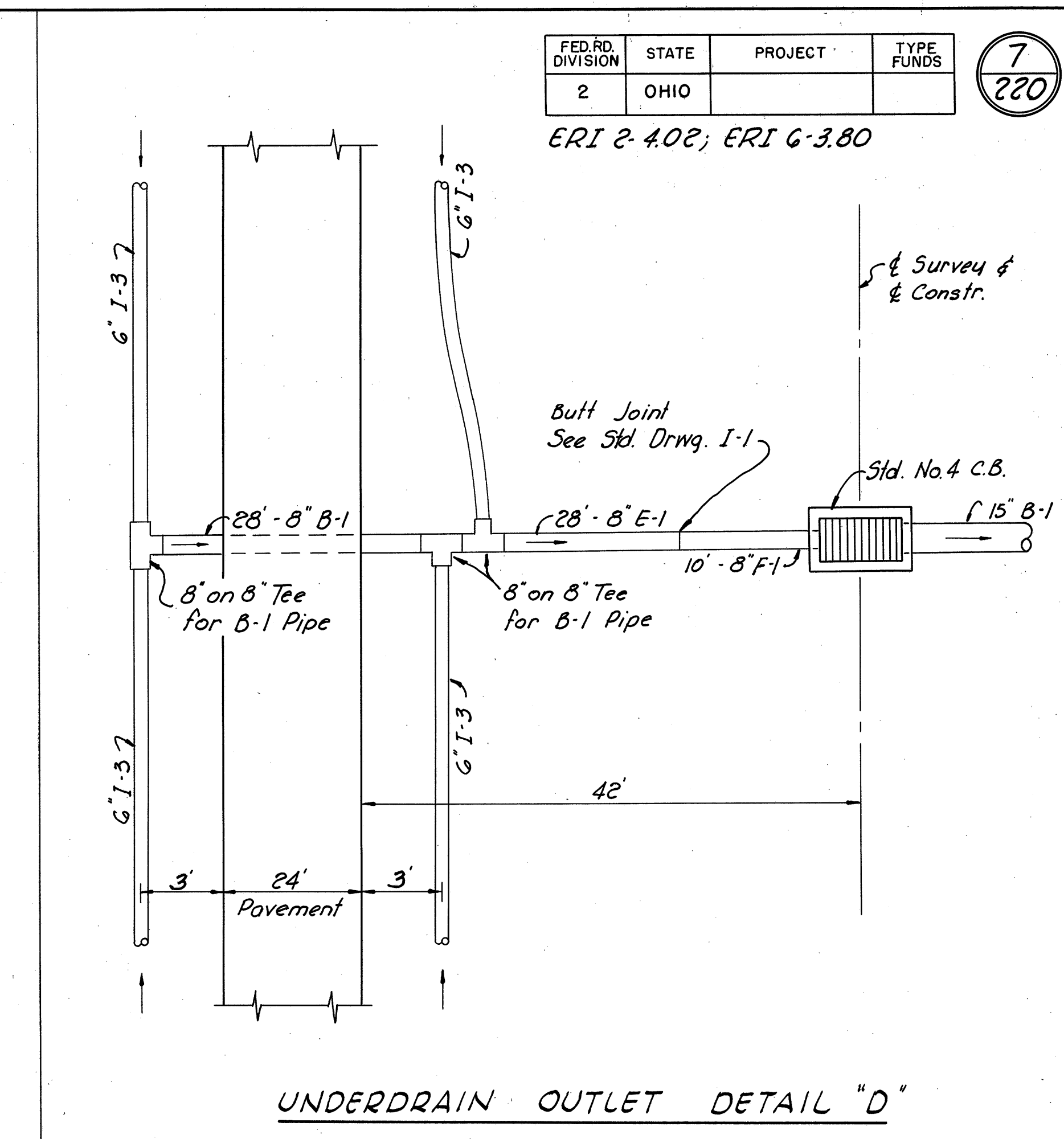
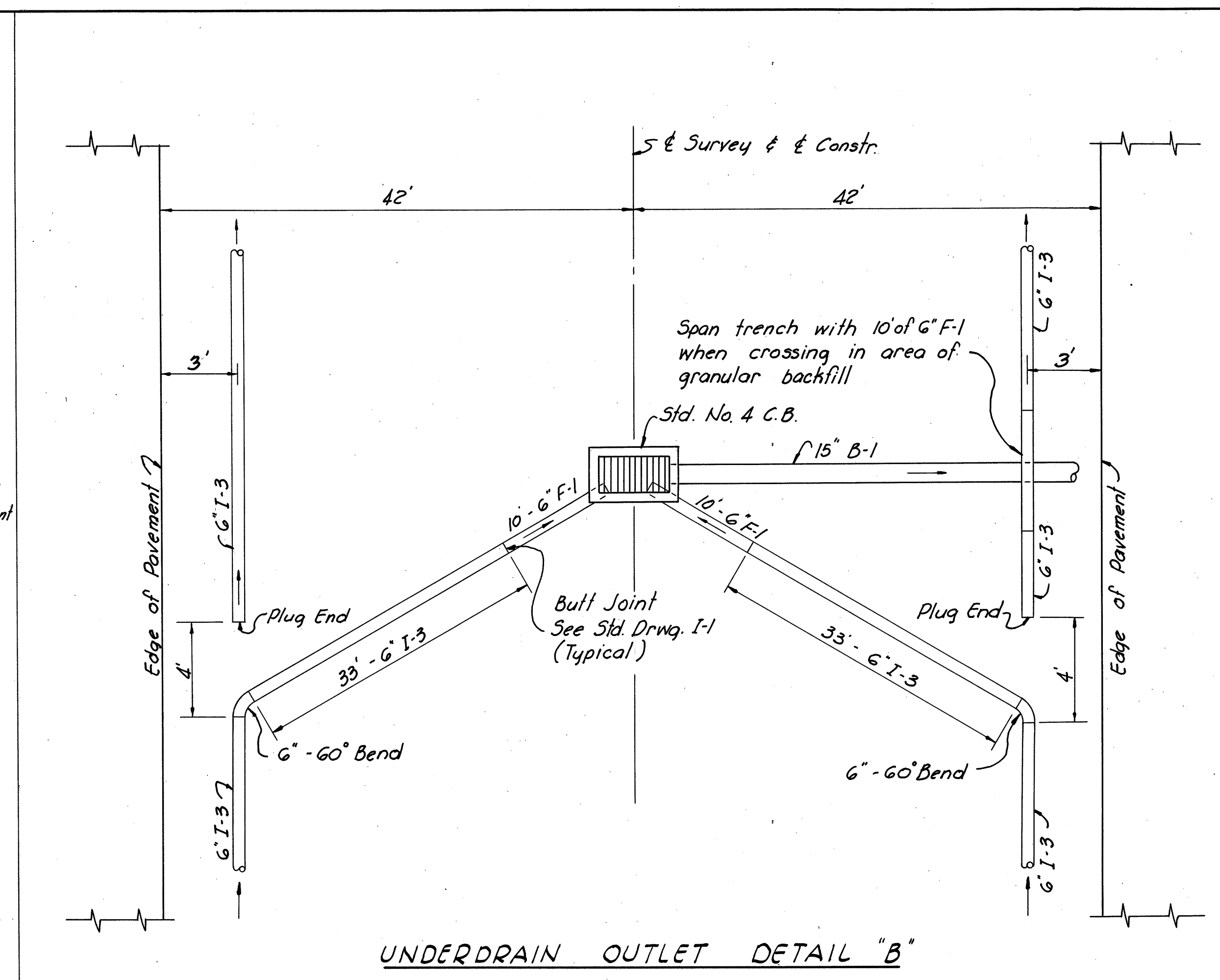
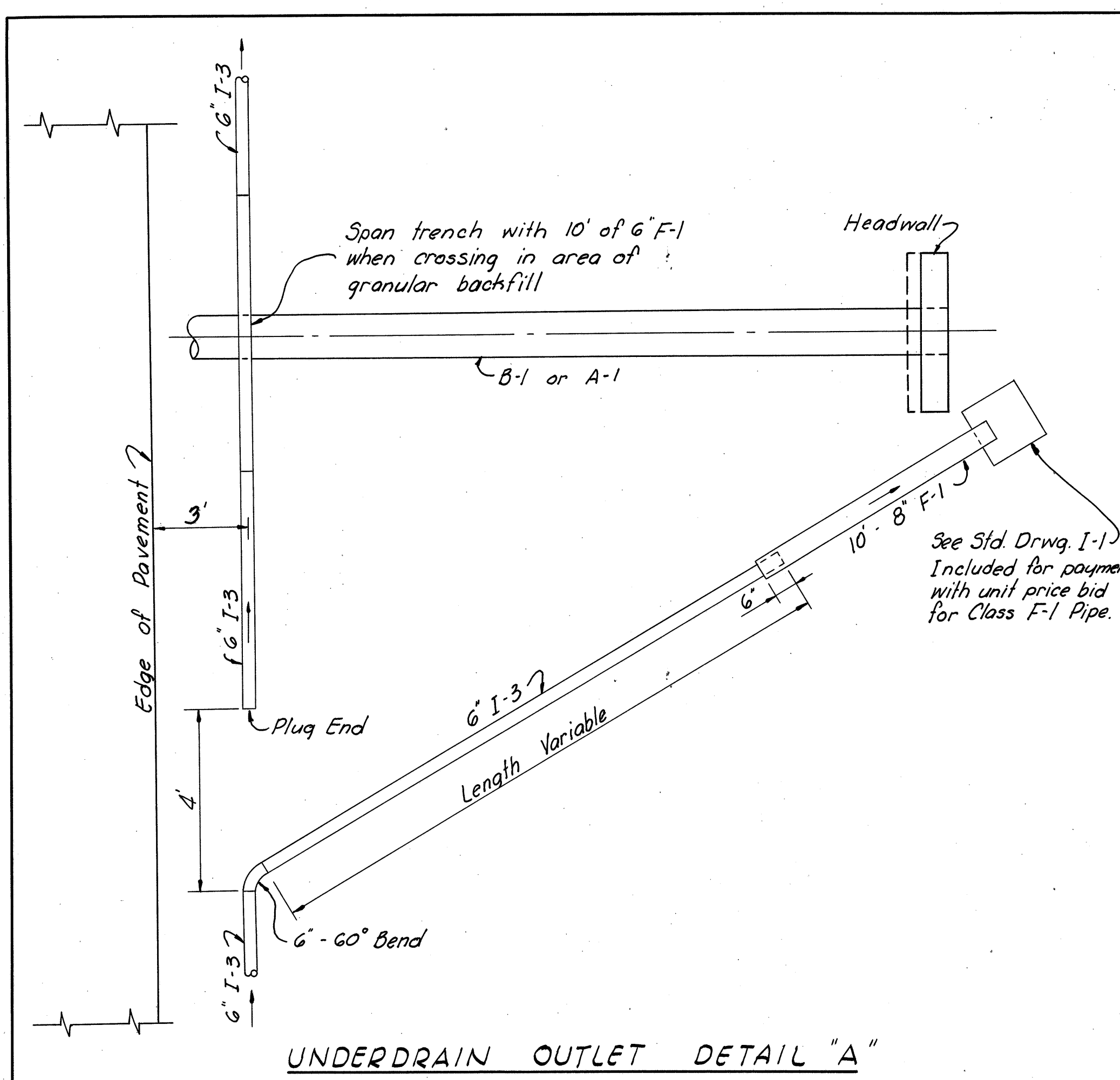
Roundings in accordance with RI-1 except as otherwise shown.

* Except as otherwise shown on cross sections by flowline elevations.

† Thickness shown is design thickness as indicated in Sec. B-21.01, Sec. B-35.01 and Sec. T-35.01

Scale: 1" = 6'

ERI 2-4.02; ERI 6-3.80



GUARD RAIL PROTECTION

FOUR LANE DIVIDED, 84' MEDIAN, AT PIERS

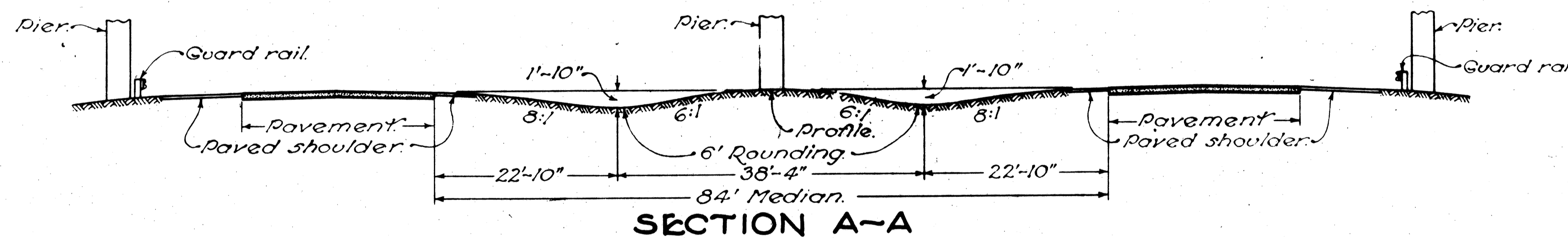
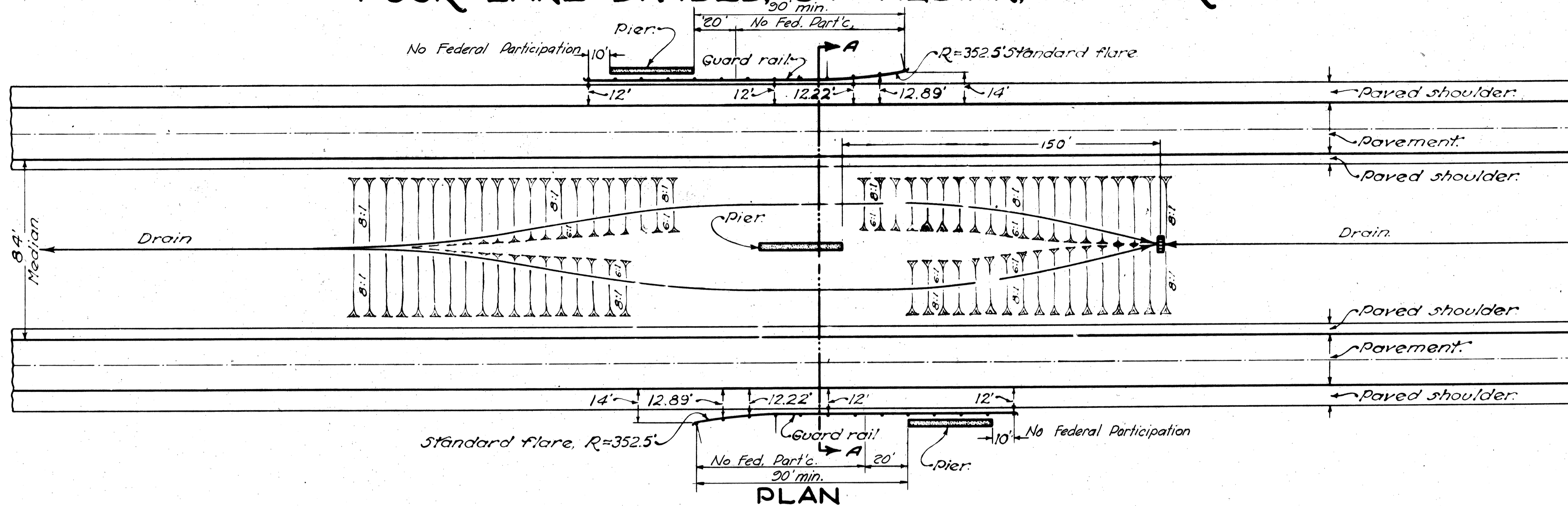
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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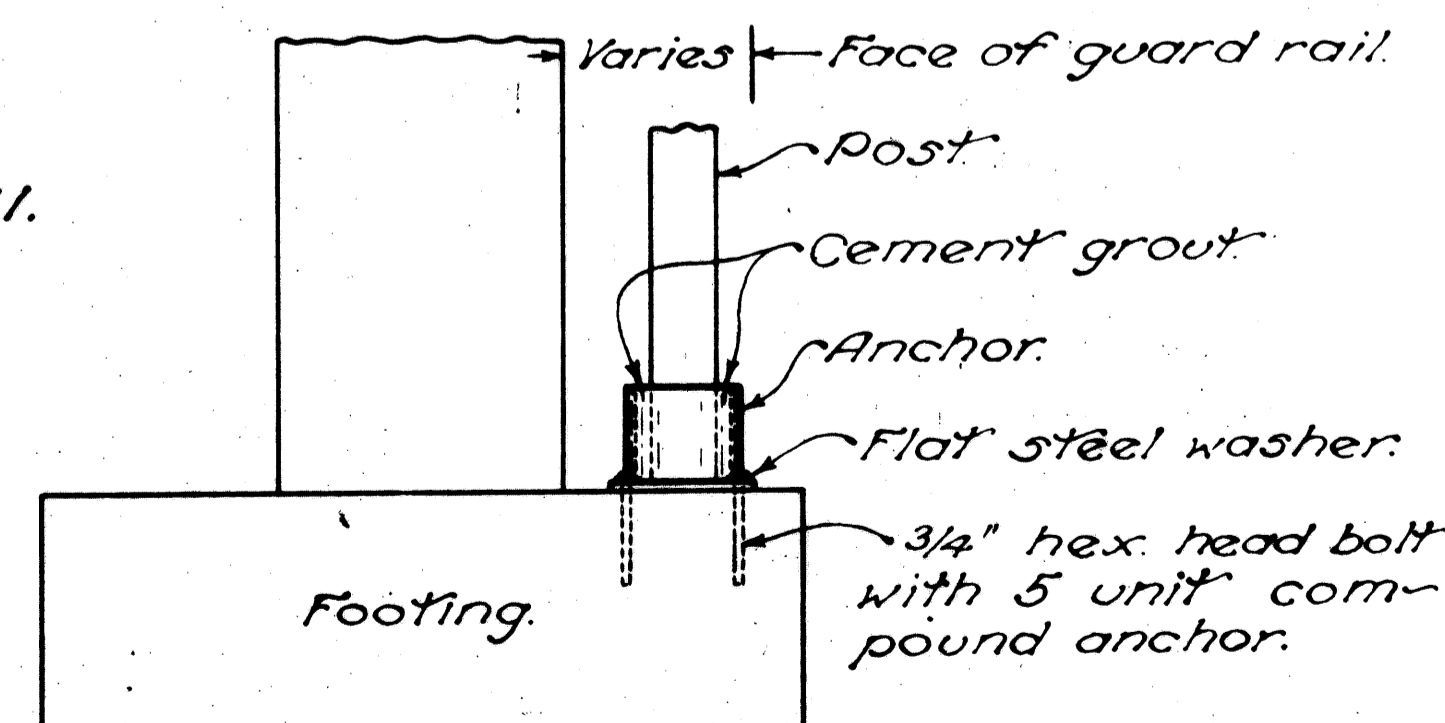
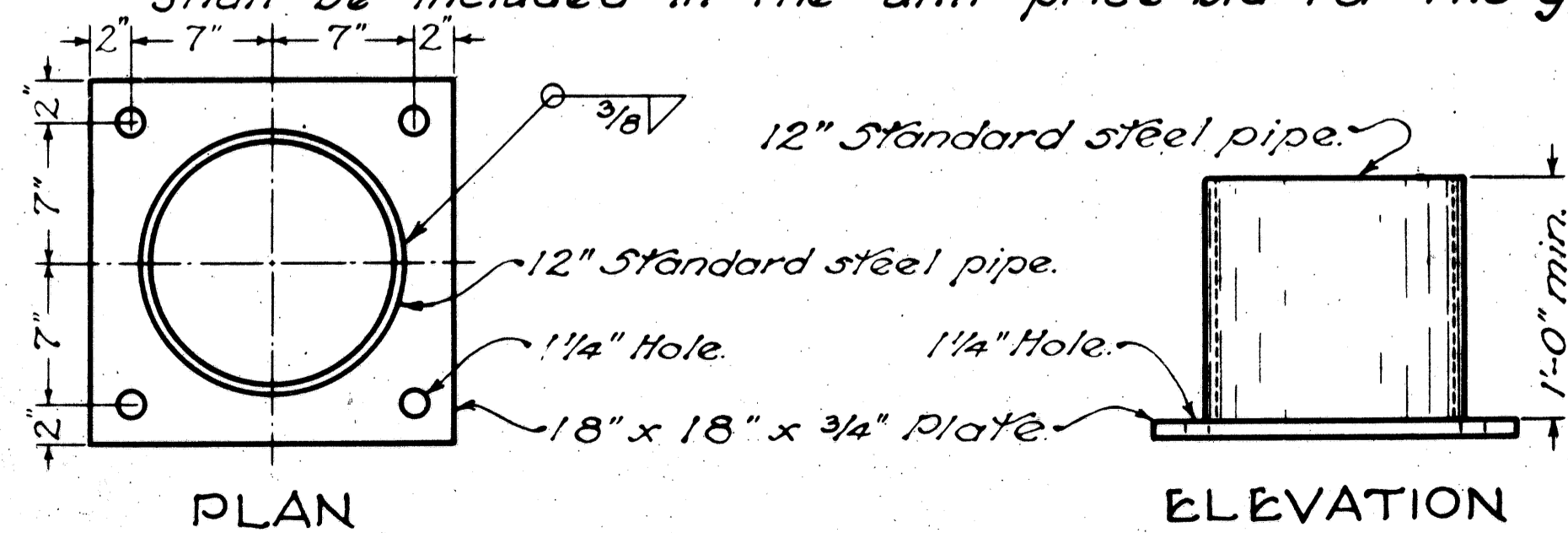
ERI 2-402; ERI 6-380

NOTES

GENERAL - Design details shown hereon shall govern the construction of guard rail at structures and piers unless otherwise shown on the plans.



Footing anchor to be used where posts are over footings and less than 3'-0" of earth is provided above the top of footing. Payment for the anchor shall be included in the unit price bid for the guard rail.



FOOTING ANCHOR

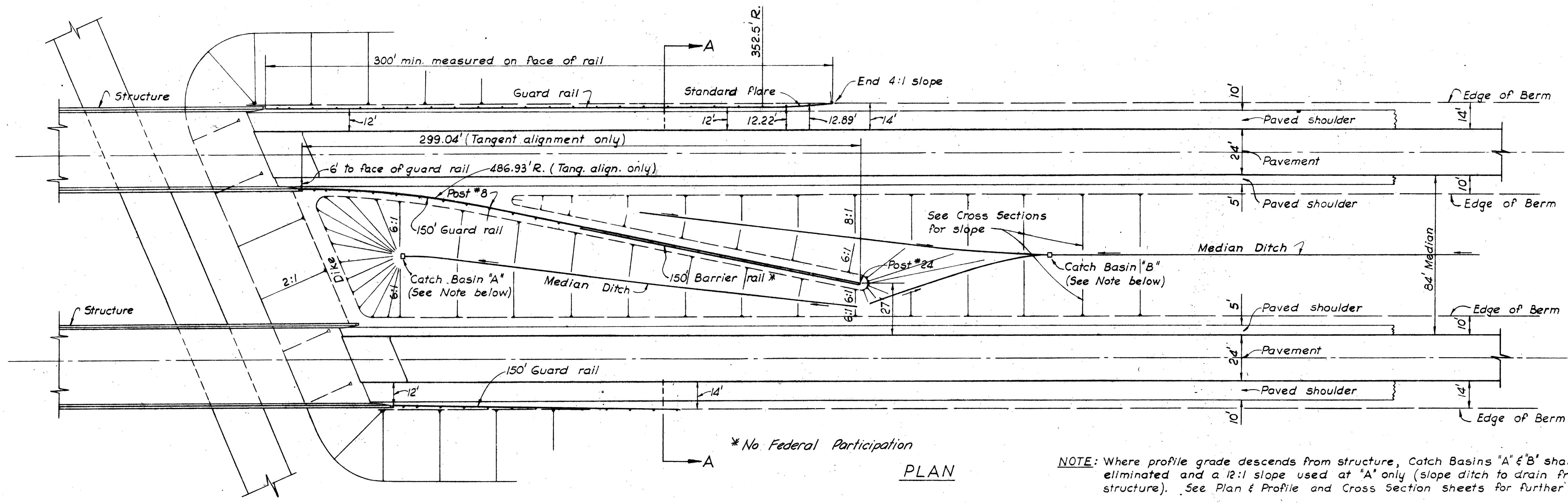
Rev. 7-27-60 K.E.C.

GUARD RAIL PROTECTION AT TWIN STRUCTURES

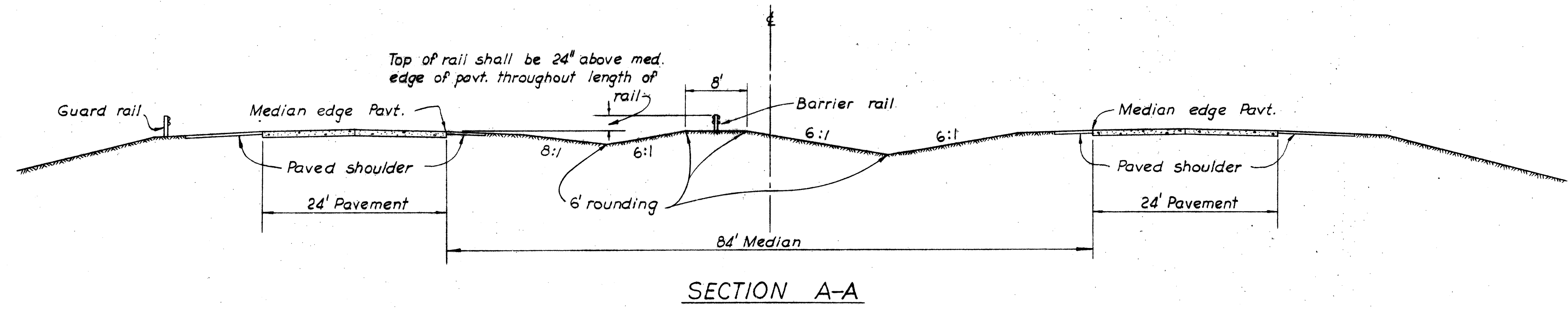
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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ERI 2-402, ERI 6-380

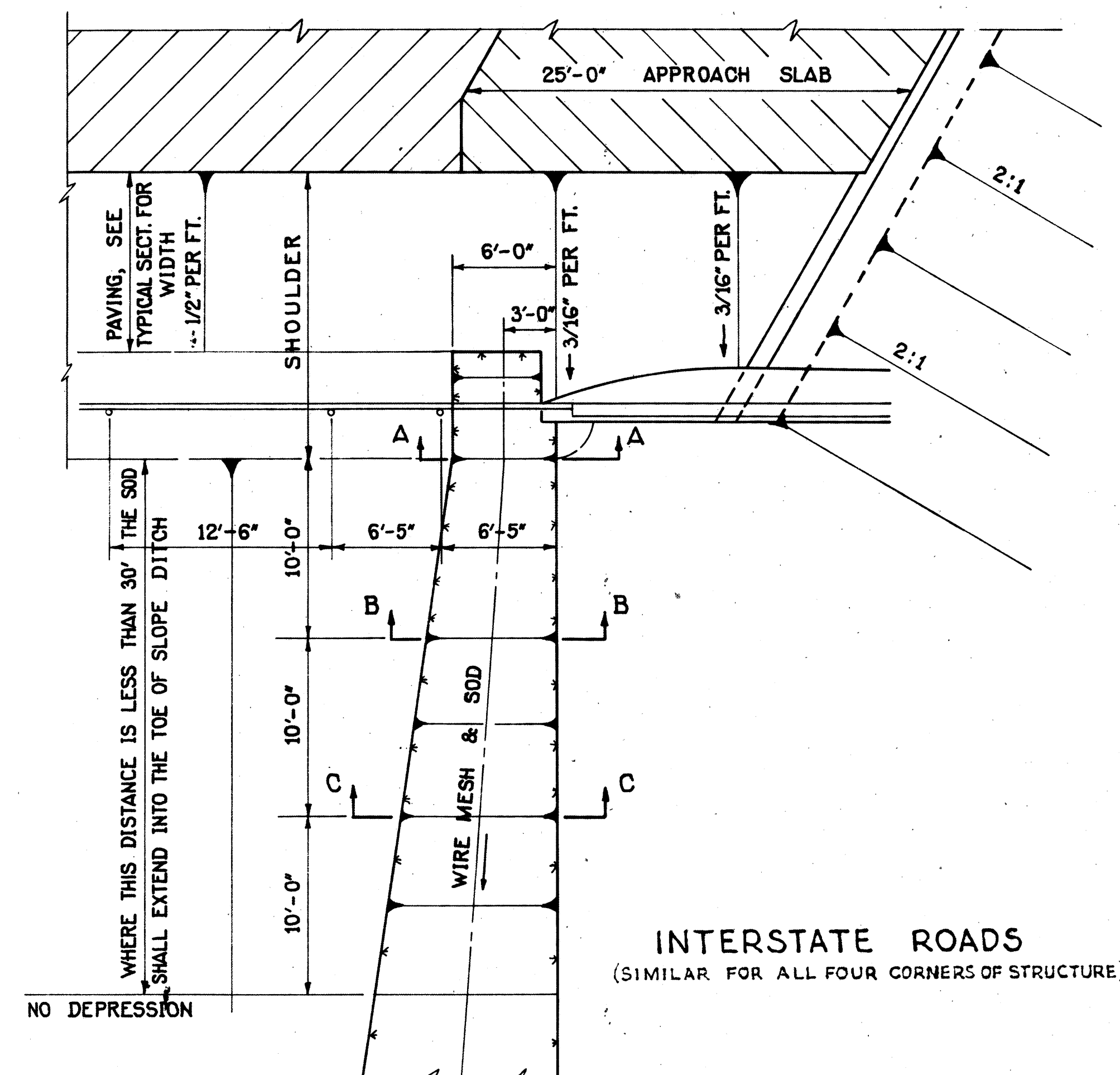


NOTE: Where profile grade descends from structure, Catch Basins "A" & "B" shall be eliminated and a 12:1 slope used at "A" only (slope ditch to drain from structure). See Plan & Profile and Cross Section sheets for further details.



DISTANCE BETWEEN EDGE OF PAVEMENT AND FACE OF GUARD RAIL			
POST	OFFSET	POST	OFFSET
1/2	6.04	13	28.97
1	6.16	14	31.52
2	6.64	15	34.07
3	7.44	16	36.62
4	8.57	17	39.16
5	10.01	18	41.71
6	11.77	19	44.26
7	13.84	20	46.81
8	16.23	21	49.36
9	18.78	22	51.90
10	21.33	23	54.45
11	23.87	24	57.00
12	26.42		

See Sheet No.	Station	Side	Location	L-10
				Sodding for Special Berm & Slope Protection
				Sq. Yd.
133	453+00	Rt.	U.S. 6 (Existing)	64
133	453+35	Lt.	U.S. 6 (Existing)	74
133	455+90	Rt.	U.S. 6 (Existing)	62
133	456+10	Lt.	U.S. 6 (Existing)	73
147	4+10	Rt.	Ramp D U.S. 6 (Exist)	9
156	497+80	Lt.	S.R. 99	58
156	499+75	Rt.	S.R. 99	58
* 166	512+77	Rt.	Nickel Plate # Big Four RR	86
* 166	512+85	Lt.	Nickel Plate # Big Four RR	88
174	48+35	Rt.	S.R. 12	46
174	48+44	Lt.	S.R. 12	47
174	51+55	Rt.	S.R. 12	48
174	51+65	Lt.	S.R. 12	49
* 182	605+23	Lt.	Penn. R.R. # Old Railroad Rd.	140
* 182	605+41	Rt.	Penn. R.R. # Old Railroad Rd.	135
* 182	610+98	Lt.	Penn. R.R. # Old Railroad Rd.	123
* 182	611+18	Rt.	Penn. R.R. # Old Railroad Rd.	125
195	623+80	Lt.	Mills Creek	28
195	624+02	Rt.	Mills Creek	36
* FG-1042(5) Total				697
F-1042(5) Total				652
Grand Total				1349



SPECIAL BERM AND SLOPE PROTECTION

PRIOR TO REPLACEMENT OF SOD IN THE BERM AND SLOPE, GALVANIZED POULTRY FENCE SHALL BE PLACED ON THE FINISHED GRADE IN STRANDS WHICH SHALL BE AT RIGHT ANGLES TO THE DIRECTIONS OF FLOW, EACH STRAND SHALL BE STAKED SECURELY ON TOP AND BOTTOM WITH STAKES PLACED AT FOUR FOOT INTERVALS AND ALTERNATED IN ROWS FOUR FEET APART.

STAKES SHALL BE 1" x 1" x 8" WOOD STAKES AND SHALL BE PERPENDICULAR TO THE GROUND AND FLUSH WITH THE FINISHED GRADE.

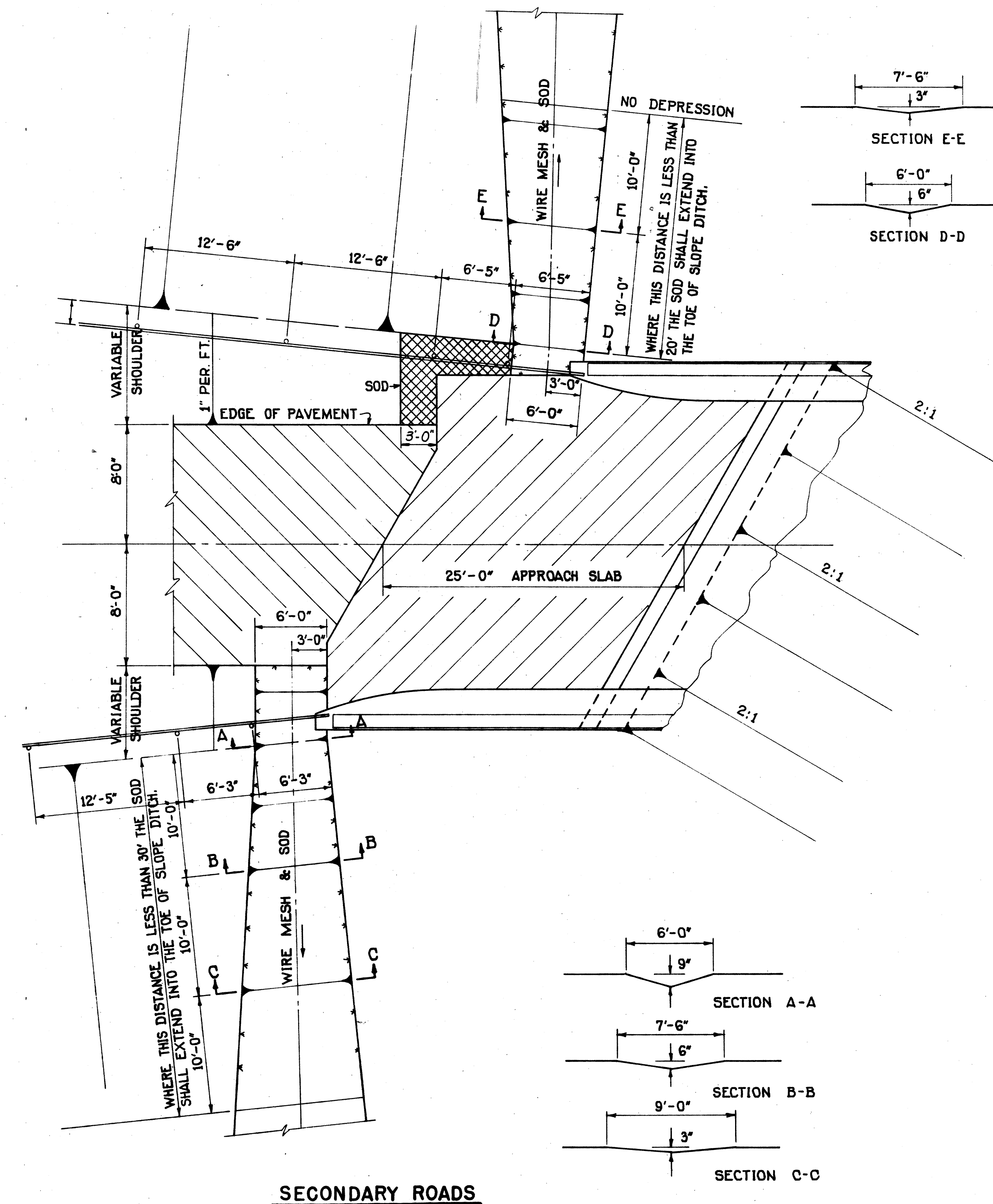
THE FENCE SHALL BE STRAIGHT LINE POULTRY FENCE OR EQUIVALENT WITH STRAND WIDTH OF FOUR FEET HAVING A TWO INCH MESH AND ALL WIRES NO. 20 GAUGE.

EACH STRAND OF FENCING SHALL BE FASTENED TOGETHER AT TWELVE INCH INTERVALS BY MEANS OF HOG RINGS.

THE FENCE SHALL BE SECURED TO THE WOOD STAKES BY METAL STAPLES.

SOD SHALL BE LAID IN ACCORDANCE WITH THE CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION L-1007.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM L-10 SODDING FOR SPECIAL BERM AND SLOPE PROTECTION.



GENERAL NOTES

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ERI. 2-4.02; ERI. 6-3.80

TRAFFIC MAINTENANCE

EXIST. U.S. 6 TWO-WAY TRAFFIC SHALL BE MAINTAINED BY USE OF THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT OR TEMPORARY TRAFFIC LANES AS FOLLOWS.

TEMPORARY TRAFFIC LANES SHALL BE CONSTRUCTED ON THE RIGHT FROM STA. 37 + 50 TO 47 + 00 (APPROXIMATE STATIONING) BY WIDENING THE EXISTING PAVEMENT AND ON THE LEFT FROM STA. 37 + 50 TO STA. 43+50 (APPROXIMATE STATIONING) AND STA. 51 + 94 TO STA. 55 + 22 (APPROXIMATE STATIONING) BY WIDENING THE PROPOSED PAVEMENT; ITEMS B-19 AND T-35, AS DESCRIBED BELOW, SHALL BE USED FOR WIDENING. *AN S-15*

TEMPORARY RUN-AROUND SHALL BE CONSTRUCTED FROM STA. 55 + 80 TO STA. 62 + 30 (APPROXIMATE STATIONING) ON THE LEFT USING 8" OF ITEM T-10 AND ITEM M-10, PAID FOR AS DESCRIBED BELOW.

DURING CONSTRUCTION OF WEST TRANSITION, STA. 37+50 TO STA. 39 + 00, ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME AS DIRECTED BY THE ENGINEER.

HEYWOOD ROAD RELOCATED AND HOMEGARDNER ROAD

RELOCATED THESE ROAD RELOCATIONS SHALL BE COMPLETED AND OPENED TO TRAFFIC PRIOR TO THE CLOSING OF THE RESPECTIVE EXISTING FACILITIES AT S. R. 99 AND U. S. 6, RELOCATED. PIERS 3, 4, 7 AND 8 ON BRIDGE NO. ERI 6 - 0490 SHALL BE COMPLETED BEFORE CONSTRUCTION OF HOMEGARDNER ROAD RELOCATED.

S. R. 99 AND OLD RAILROAD ROAD TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.

S. R. 12 TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EITHER THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT, OR ITEM S-15 TEMPORARY RUNAROUND ROADS AS DETAILED ON THE PLANS.

THE CONTRACTOR SHALL SAFEGUARD THE TRAVELING PUBLIC BY PROVIDING PLATFORMS, NETS, OR OTHER SUITABLE PROTECTION ABOVE THE TRAVELED LANES ON EXISTING U. S. 6, S. R. 99, HOMEGARDNER ROAD RELOCATED AND OLD RAILROAD ROAD. PAYMENT FOR THIS PROTECTION SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "MAINTAINING TRAFFIC". INCLUDED IN THE ITEM "MAINTAINING TRAFFIC" IS THE MAINTENANCE OF ALL TRAFFIC LANES REQUIRED. TEMPORARY TRAFFIC LANES SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER OF STABILIZED TRAFFIC COMPACTED SURFACE COURSE, EXCEPT AS OTHERWISE NOTED ON EXISTING U. S. 6; IN NO CASE SHALL A SINGLE LANE BE LESS THAN TEN (10) FEET WIDE. FURNISHING AND PLACING OF MATERIAL FOR TEMPORARY TRAFFIC LANES SHALL BE PAID FOR AS FOLLOWS:

ITEM T-10	TRAFFIC COMPACTED SURFACE COURSE FOR TEMPORARY TRAFFIC LANES
ITEM M-10	CALCIUM CHLORIDE FURNISHED AND APPLIED FOR TEMPORARY TRAFFIC LANES
ITEM B-19	AGGREGATE BASE COURSE FOR TEMPORARY TRAFFIC LANES
ITEM T-35	ASPHALTIC CONCRETE SURFACE COURSE OR AN APPROVED BITUMINOUS PREMIXED SURFACE COURSE FOR MAINTAINING TRAFFIC

THE CONTRACTOR SHALL SO PLAN HIS OPERATIONS THAT THE LIMITS AND DURATION OF USAGE OF TEMPORARY ROADWAYS SURFACED WITH AGGREGATE AND STABILIZED WITH CALCIUM CHLORIDE SHALL BE HELD TO AN ABSOLUTE MINIMUM, AND IN ALL CASES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

PAYMENT FOR CONSTRUCTION, MAINTENANCE, AND SUBSEQUENT REMOVAL, WHEREVER REQUIRED, OF TEMPORARY ROADWAYS NOT SEPARATELY ITEMIZED UNDER ITEM S-15, EXCEPT FOR FURNISHING AND PLACING OF ITEMS M-10, T-10, B-19 AND "T-35 FOR MAINTAINING TRAFFIC", SHALL BE INCLUDED IN THE LUMP SUM BID FOR "MAINTAINING TRAFFIC".

LIGHTS, SIGNS AND BARRICADES

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF SEC. G-7.07, ON THIS PROJECT PERFORM THE FOLLOWING:

PROVIDE, ERECT, AND MAINTAIN LIGHTS, SIGNS, AND BARRICADES AT THE WORK LIMITS ON ALL INTERSECTING ROADS WHICH REMAIN OPEN TO TRAFFIC.

LIGHTS, BARRICADES, AND DANGER AND WARNING SIGNS SHALL BE PROVIDED AT LOCATIONS SHOWN ABOVE IN ACCORDANCE WITH SEC. G-7.07. BARRICADES AND GATES SHALL BE AS DETAILED ON STANDARD CONSTRUCTION DRAWING NO. G-7.07. PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING BARRICADES, GATES, LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "MAINTAINING TRAFFIC".

DESIGN SPEED

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED OF 70 MILES PER HOUR.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U. S. G. S. DATUM.

UTILITIES

THE CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS BEFORE BREAKING GROUND ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE, POLES, PIPE, CONDUITS, MANHOLES OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

UTILITY OWNERSHIP:

OHIO EDISON COMPANY W. WASHINGTON ROW, SANDUSKY	POWER
OHIO BELL TELEPHONE COMPANY	TELEPHONE
NICKEL PLATE RAILROAD	TELEGRAPH & SIGNAL CONTROL
PENNSYLVANIA RAILROAD	TELEGRAPH & SIGNAL CONTROL
ERIE COUNTY COUNTY COURTHOUSE, SANDUSKY	WATER LINES

UTILITY ADJUSTMENT

ANY OR ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

FIELD OFFICE

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. S-0.01 (b), PROVIDE, FOR THE EXCLUSIVE USE OF THE STATE'S EMPLOYEES, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF FLOOR SPACE. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD OFFICE AND PROVIDE 110-VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE SUITABLE SANITARY FACILITIES IN THE VICINITY OF THE FIELD OFFICE.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

CONSTRUCTION LAYOUT STAKES

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

SUPERELEVATION

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

NON-RIGID PAVEMENT REMOVAL

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION.

REMOVAL OF DRIVE & APPROACH PAVEMENT

IN THE CONSTRUCTION OF NEW DRIVES AND APPROACHES, THE REMOVAL OF EXISTING PAVEMENT, WHETHER CONCRETE OR FLEXIBLE TYPE, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION. WHERE NECESSARY TO MEET EXISTING DRIVE AND APPROACH PAVEMENT GRADE, THE EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE.

ITEM I-22 SUBBASE, GRADING A OR B, AS PER PLAN

THE MATERIAL FURNISHED FOR THIS ITEM SHALL MEET THE REQUIREMENTS OF GRADING A OR B OF SECTION I-22.02 EXCEPT THAT, FOR EITHER GRADING, NO MORE THAN 10 PER CENT OF THE MATERIAL SHALL PASS A NO. 200 SIEVE.

EXISTING DIKES ALONG COLD CREEK

EXISTING DIKES ALONG COLD CREEK SHALL NOT BE DISTURBED UNLESS REQUIRED BY CONSTRUCTION. IF DISTURBED, TEMPORARY DIKES SHALL BE CONSTRUCTED IN ORDER TO MAINTAIN THE NORMAL WATER LEVEL IN COLD CREEK.

CURB ENDS

CURB ENDS AND CURB DROPS SHALL BE TAPERED FROM 6" HIGH TO 1-1/2" HIGH IN A DISTANCE OF 10 FEET AT CURB ENDS AND 18" AT CURB DROPS.

ROUNDING OF CORNERS ON CROSS SECTIONS

THE ROUNDED CORNERS, SHOWN ON TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN IN THESE PLANS.

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ITEM L-9 SEEDING & PROTECTING ROADWAY AREAS

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE UNSODDED SOIL AREAS BETWEEN LINES TEN (10) FEET OUTSIDE THE WORK LIMITS AS SHOWN ON THE PLANS AND CROSS SECTIONS OR TO THE RIGHT OF WAY, EASEMENT, OR WORK AGREEMENT LINE IF SUCH LINE IS LESS THAN TEN (10) FEET FROM THE WORK LIMITS. ALL AREAS OUTSIDE THESE LIMITS WHERE THE VEGETATIVE COVER HAS BEEN DISTURBED OR DESTROYED DURING THE CONSTRUCTION SHALL BE RESTORED AND SEEDED IN CONFORMANCE WITH THE PROVISIONS OF ITEM L-9 BY THE CONTRACTOR AT HIS OWN EXPENSE. ALL AREAS WITHIN INTERCHANGE RAMPS SHALL BE SEEDED. THE FOLLOWING SEED MIXTURE SHALL BE APPLIED AT THE RATE OF 3 LBS. PER 1000 SQ. FT.

CREEPING RED FESCUE	70%
KENTUCKY BLUEGRASS	25%
ALSIKE CLOVER	5%

THE ABOVE MIXTURE SHALL BE USED ON ALL AREAS INCLUDING AREAS IN FRONT OF RESIDENCES.

ITEM L-10 PREPARATION OF AREAS TO BE SODDED

THE SOD BED SHALL BE PREPARED IN SUCH A MANNER THAT A TWO (2) INCH LAYER OF LOOSE SOIL IS IN PLACE TO RECEIVE THE SOD. ADDITIONAL EXCAVATION SHALL BE MADE AND SOIL SHALL BE INCORPORATED, IF NECESSARY, TO BE INCLUDED IN THE UNIT PRICE BID FOR L-10 SODDING TO MEET THIS REQUIREMENT. COMMERCIAL FERTILIZER, 12-12-12, SHALL BE APPLIED AT A RATE OF 20 LBS. PER 1000 SQ. FT. OF AREA.

REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES AND STUMPS FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED IS SHOWN ON SHEET NO. 14. THIS ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

SCARIFICATION OF EXISTING FLEXIBLE PAVEMENT

WITHIN THE LIMITS OF CONSTRUCTION WHERE THE EXISTING FLEXIBLE PAVEMENT WILL HAVE LESS THAN SIX (6) INCHES OF FILL PLACED UPON IT, THE PAVEMENT SHALL BE THOROUGHLY SCARIFIED FOR ITS FULL DEPTH, MIXED WITH SUFFICIENT SOIL AND PROPERLY RECOMPACTED TO INSURE THE ELIMINATION OF ANY PLANES OF SEPARATION BETWEEN IT AND THE EMBANKMENT PLACED THEREON. PAYMENT FOR SCARIFICATION AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY OF BUILDING THIS PROJECT UNDER TRAFFIC AND CONSTRUCTING THE PAVEMENT PART AT A TIME, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT ON CENTERLINE IN THE B-19 AND I-22 COURSES. THIS SHALL BE ACCOMPLISHED BY BUILDING THE B-19 AND I-22 COURSES, PLACED WITH THE FIRST PORTION OF THE PAVEMENT BUILT, AT LEAST EIGHTEEN (18) INCHES BEYOND THE CENTERLINE AND BY SURFACING NO CLOSER THAN EIGHTEEN (18) INCHES TO THIS EDGE OF THE ABOVE COURSES. WHEN THE SECOND PORTION OF THE PAVEMENT IS BUILT, AT LEAST TWELVE (12) INCHES OF THESE PROJECTING COURSES SHALL BE BROKEN DOWN AND THOROUGHLY KEYED IN WITH THE NEWLY PLACED CORRESPONDING COURSES IN THE SECOND PORTION OF THE PAVEMENT BUILT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT PAVEMENT ITEMS.

CONTRACTION AND EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T. J.

JOINT LEGEND

TYPES OF PAVEMENT JOINTS TO BE USED ARE SPECIFIED BY THE FOLLOWING LEGEND:

LJ	=	STANDARD LONGITUDINAL JOINT
KJ	=	STANDARD KEY JOINT WITHOUT TIE BARS
CJX OR CJ	=	STANDARD CONTRACTION JOINT
EJ	=	EXPANSION JOINT WITHOUT DOWELS. (LOCATED ON RADIAL LINES; LENGTH OF JOINT=2 FT.)
E	=	STANDARD EXPANSION JOINT

FENCE LEGEND

THE ABBREVIATIONS SHOWN FOR FENCE ON THE RIGHT OF WAY DRAWINGS ARE TO DESIGNATE THE FOLLOWING DETAILS OF CONSTRUCTION:

IAPA	=	INTERMEDIATE ANCHOR POST ASSEMBLY
GPA	=	CORNER POST ASSEMBLY
EPA	=	END POST ASSEMBLY

ITEM I-9 STONE UNDERDRAINS, NO. 2

STONE UNDERDRAINS SHALL BE STAGGERED AT FIFTY (50) FOOT INTERVALS, ONE HUNDRED (100) FOOT ON EACH SIDE, OF NORMAL CROWNED SECTIONS AND AT FIFTY (50) FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS, EXCEPT WHERE CLASS I-3 UNDERDRAINS HAVE BEEN PROVIDED.

PIPE

WHEN BELL AND SPIGOT PIPE IS USED, ANY NECESSARY PIPE CUT-OFFS WILL BE MADE AT THE SPIGOT END OF THE LENGTH OF PIPE ADJACENT TO THE END LENGTH. WHEN TONGUE AND GROOVE PIPE IS USED, THE LENGTH OF PIPE NEXT TO THE END LENGTH SHALL BE CUT AND BUTT JOINT FORMED WITH CLASS "E" CONCRETE 6" MINIMUM THICKNESS COLLAR, 12" IN LENGTH. THE COST OF THE JOINT AND COLLAR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

SEALING OF PIPE JOINTS

WHERE CONNECTIONS ARE MADE BETWEEN RIGID AND FLEXIBLE PIPE SECTIONS OR BETWEEN PIPE SECTIONS OF DIFFERENT KIND OR TYPE OF END FABRICATION, WHETHER REQUIRED BY THE PLANS, ARISING FROM PERMISSIBLE USE OF OPTIONAL MATERIALS, OR ENCOUNTERED IN CONNECTION TO EXISTING FACILITIES, THE JOINT SHALL BE SEALED, IF SEALING IS REQUIRED BY THE SPECIFICATIONS, BY MEANS OF A CLASS "E" CONCRETE COLLAR HAVING A MINIMUM THICKNESS OF 6 INCHES AND A MINIMUM LENGTH OF 12 INCHES. PAYMENT FOR SEALING AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

PLUGGING PIPE

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE LENGTH IS ENCOUNTERED WHICH SHALL BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

REMOVAL OF EXISTING PIPE

THE REMOVAL OF ALL EXISTING PIPE DRAINS WITHIN THE LIMITS OF PROPOSED EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

CONNECTIONS TO EXISTING PIPE

AT PLACES WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE PIPE TO BE CONNECTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

REMOVAL OF EXISTING HOUSE DRAINS

THE REMOVAL OF ALL EXISTING HOUSE CONNECTIONS, WHICH INCLUDES SANITARY, YARD, ROOF, BASEMENT OR OTHER SIMILAR PIPE DRAINS WITHIN THE ROADWAY CONSTRUCTION LIMITS SHALL BE CLASSIFIED AND PAID FOR AS E-1 ROADWAY EXCAVATION, UNLESS OTHERWISE ITEMIZED FOR PAYMENT IN THE PLANS.

SANITARY

NO DRAINS, EITHER EXISTING OR PROPOSED, CARRYING DOMESTIC WASTE SHALL BE CONNECTED TO ANY PORTION OF THE PROPOSED DRAINAGE SYSTEM ON THIS PROJECT.

NO. 4 CATCH BASINS

THE ELEVATION SHOWN FOR THE TOP ON NO. 4 CATCH BASINS IS THE LOW POINT ON THE TOP OF THE GRATE.

GUARD RAIL FLARES

WHERE PROPOSED GUARD RAIL FLARES ARE CONSTRUCTED OF RAIL ELEMENTS WHICH HAVE NOT BEEN FABRICATED EXACTLY TO FIT THE CURVATURE SHOWN ON THE PLANS, THE TWO END POSTS OF EACH FLARED SECTION SHALL BE ENCASED IN A MINIMUM 4-INCH THICKNESS OF CLASS "E" CONCRETE FOR THE FULL DEPTH OF THE POST BELOW THE GROUND LINE. PAYMENT FOR ENCASEMENT, IF REQUIRED, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE GUARD RAIL.

REMOVAL OF EXISTING RIGID PAVEMENT

EXISTING RIGID TYPE PAVEMENTS SHALL BE REMOVED UNDER ITEM E-8 WHEN THEY ARE LOCATED LESS THAN 3 FEET BELOW THE PROPOSED PAVEMENT SUBGRADE IN PROPOSED PAVEMENT AREAS OR LESS THAN 3 FEET BELOW THE PROPOSED FINISHED SURFACE IN AREAS OUTSIDE THE PROPOSED PAVEMENT. WHEN EXISTING RIGID TYPE PAVEMENTS LIE BELOW THE ABOVE LIMITS, THEY SHALL NOT BE REMOVED. IN LIEU THEREOF, THEY SHALL BE BROKEN UP IN PLACE INTO PORTIONS NOT TO EXCEED ONE SQUARE FOOT IN AREA PRIOR TO PLACEMENT OF PROPOSED EMBANKMENT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION, ITEM E-1.

WATER LINES

FOR NOTES REGARDING CONSTRUCTION OF WATER LINES, SEE SHEET 62.

GENERAL NOTES CONT.

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ERI 2-4.02 ; ERI 6-3.80

ITEM SPECIAL - DRILLED WELL ABANDONED

THE EXISTING CONCRETE OR STONE SLAB WELL COVER SHALL BE REMOVED AND DISPOSED OF. THE PUMP AND ALL OTHER SALVAGEABLE PARTS SHALL BE CAREFULLY REMOVED AND STORED ON THE ABUTTING PROPERTY. THE CASING SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD THREADED PIPE CAP. THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

SODDING AT HEADWALLS

AN 18" WIDE STRIP OF SOD SHALL BE PLACED ALONG THE BACK AND BOTH ENDS OF ALL HEADWALLS.

EROSION CONTROL

ITEMS I-10, I-14, AND L-10 ARE PROVIDED IN THESE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

FIELD DRAINS

ALL FARM TILES WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER.

EXISTING COLLECTORS AND ISOLATED FARM TILES WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH.

THE LOCATION, TYPE, SIZE, AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS. ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE DRAINAGE SUMMARY FOR THE WORK NOTED ABOVE.

ITEM SPECIAL - SAND BLANKET

GENERAL - THE SAND BLANKET SHALL CONSIST OF A ONE FOOT LAYER OF CLEAN, FREE-DRAINING SAND, OR SAND AND GRAVEL, PLACED AS FILL BETWEEN THE STATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE EMBANKMENT FOUNDATION SHALL HAVE BEEN CLEARED, GRUBBED AND SCALPED IN COMPLIANCE WITH SECTIONS E-1.03 AND E-1.04 OF THE SPECIFICATIONS, BEFORE PLACING OF THE SAND BLANKET.

MATERIAL - MATERIAL FOR THE SAND BLANKET SHALL CONSIST OF COARSE SAND OR SAND AND PEA GRAVEL, SHALL BE GRADED UNIFORMLY FROM COARSE TO FINE, AND SHALL BE OF SUCH SIZE THAT, WHEN TESTED ON U. S. STANDARD SIEVES IN ACCORDANCE WITH A.A.S.H.O. SERIAL DESIGNATION T-27 AND WASHING THE SAMPLE IN ACCORDANCE WITH CURRENT A.S.T.M. SERIAL DESIGNATION C-117, IT SHALL CONFORM TO THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
3/8 INCH	80 - 100
NO. 10	35 - 100
NO. 40	10 - 50
NO. 100	0 - 5

CONSTRUCTION METHODS - BEFORE PLACING THE SAND BLANKET

ALL SURFACE IRREGULARITIES SHALL BE GRADED OFF TO PROVIDE A LEVEL WORKING AREA. THE SAND BLANKET SHALL BE PLACED BY THE METHOD OF END-DUMPING TO A UNIFORM COMPACTED DEPTH OF ONE (1) FOOT. AFTER PLACEMENT, CARE SHALL BE EXERCISED TO KEEP THE SAND BLANKET FREE FROM RUTTING OR CONTAMINATION BY THE CONSTRUCTION EQUIPMENT. EMBANKMENT ABOVE THIS LAYER SHALL BE CONSTRUCTED IN THE CONVENTIONAL MANNER USING SUITABLE EMBANKMENT MATERIAL.

MEASUREMENT AND PAYMENT - THE SAND BLANKET PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE MEASURED IN PLACE AND THE QUANTITY OF MATERIAL DETERMINED BY THE END-AREA METHOD. PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE PER CUBIC YARD OF SAND BLANKET ACTUALLY MEASURED COMPLETE IN PLACE, INCLUDING ALL MATERIALS, EQUIPMENT, TOOLS AND LABOR INCIDENTAL THERETO.

TO DETERMINE THE RATE AND AMOUNT OF FOUNDATION SETTLEMENT, SETTLEMENT PLATFORMS SHOULD BE PLACED ON THE ORIGINAL GROUND, PRIOR TO PLACING THE SAND BLANKET, AT THE STATIONS AND OFFSETS INDICATED ON SHEET 15.

EMBANKMENT NOTE

IN THE AREAS TABULATED FOR PLACEMENT OF A SAND BLANKET, A WAITING PERIOD OF SIX (6) MONTHS SHALL ELAPSE, AFTER THE EMBANKMENT HAS BEEN COMPLETED TO PLAN GRADE, BEFORE THE PERMANENT PAVEMENT IS PLACED.

SEQUENCE OF CONSTRUCTION OPERATIONS (See typical sections)

- SUBGRADE SHALL BE CONSTRUCTED FULL WIDTH OF PAVEMENT AND PAVED SHOULDERS
 - UNDERDRAINS SHALL BE INSTALLED AND BACK-FILLED TO SUBGRADE ELEVATION, IMMEDIATELY PRIOR TO CONSTRUCTION OF THE SUBBASE, EXCEPT THAT, WHERE SUB-SURFACE CONDITIONS ARE SUCH THAT IMPROVEMENT OF AN UNSTABLE SUBGRADE CAN BE ACCOMPLISHED THROUGH THE DRYING ACTION OF DEEP UNDERDRAINS, THE PROJECT ENGINEER MAY AUTHORIZE OR REQUIRE THE CONTRACTOR TO DELAY THE CONSTRUCTION OF THE SUBBASE AS NECESSARY.
 - THE SUBBASE SHALL BE CONSTRUCTED FULL WIDTH OF PAVEMENT AND PAVED SHOULDERS IN ONE OPERATION.
 - PAVEMENT SHALL BE CONSTRUCTED.
 - AFTER THE SURFACE OF THE SUBBASE IN THE SHOULDER AREA IS IN PLACE AND COMPACTED AS SPECIFIED, AND IMMEDIATELY PRIOR TO PLACING THE POROUS BASE COURSE, THE MATERIAL LOCATED ABOVE AND WITHIN THE UNDERDRAIN TRENCH SHALL BE REMOVED TO THE DEPTH NECESSARY TO EXPOSE CLEAN CLASS 3 BACKFILL. THE TRENCH SO EXCAVATED SHALL BE BACKFILLED WITH NEW CLASS 3 BACKFILL MATERIAL, OR IF THE CONTRACTOR SO ELECTS, HE MAY SUBSTITUTE MATERIAL MEETING THE REQUIREMENTS OF ITEM B-12, POROUS BASE COURSE.
 - POROUS BASE COURSE SHALL BE CONSTRUCTED AND CONSTRUCTION OF THE WATERPROOFED AGGREGATE COURSE SHALL FOLLOW IMMEDIATELY.
- PAYMENT FOR EXTRA OPERATIONS AND MATERIALS REQUIRED IN COMPLETION OF THE UNDERDRAIN BACKFILL UP TO THE BOTTOM OF THE B-12 COURSE, AS DESCRIBED ABOVE, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS I-3 PIPE.

LOCATION OF PIPE UNDERDRAINS, CLASS I-3

DUE TO REVISION OF TYPICAL SECTIONS ON THIS PROJECT SUBSEQUENT TO COMPLETION OF THE DETAILED PLANS, THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT LOCATIONS OF CLASS I-3 PIPE SHOWN ON THE CROSS SECTIONS AND TYPICAL SECTIONS ARE NOT NECESSARILY TO SCALE. HOWEVER, THE OFFSET DIMENSIONS SHOWN ON THE TYPICAL SECTIONS SHALL GOVERN AND LOCATIONS OF THE CLASS I-3 PIPE SHALL CONFORM THERETO, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

④ PAVED SHOULDERS

Location	Station	Side	Width	B-21		T-31		B-112		I-22	
				Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.
	438+00	453+30(Av)	Med.	2@4'	1360.0	1360.0	200.7	235.2			
	455+84(Av)	497+00			3658.6	3658.6	540.0	627.0			
	497+00	498+96(Av)			174.3	174.3	25.8	29.6			
	501+03(Av)	509+79(Av)			778.7	778.7	114.9	132.4			
	512+67(Av)	522+00			829.4	829.4	122.4	141.0			
	522+00	594+50			6444.4	6444.4	951.0	1098.8			
	594+50	605+55(Av)			982.2	982.2	145.0	167.0			
	610+84(Av)	622+40(Av)			1027.6	1027.6	151.6	174.7			
	623+77(Av)	625+00			109.3	109.3	16.2	18.6			
	625+00	638+00	Med.	2@4'	1155.6	1155.6	170.6	479.7			
	438+00	440+79.13	Left	8'	248.1	248.1	35.5	42.7			
	440+79.13	443+27		10'-20'	413.1	413.1	57.4	68.9			
	443+27	451+60.58		10'	226.2	226.2	31.9	38.9			
	452+63.18	453+37		8'	65.6	65.6	9.4	10.9			
	456+06	460+48		8'	392.9	392.9	56.3	67.6			
	460+48	497+00		10'	4057.8	4057.8	577.7	705.3			
	497+00	498+06		10'	117.8	117.8	16.8	20.1			
	500+14	509+83		10'	1076.7	1076.7	153.3	183.8			
	512+71	522+00		10'	1032.2	1032.2	146.9	176.2			
	522+00	530+50		10'	944.4	944.4	134.4	161.2			
	530+50	541+54.02		8'	281.4	281.4	40.6	48.8			
	541+54.02	545+56		10'-20'	670.0	670.0	93.1	111.7			
	545+56	565+67.91		10'	2235.5	2235.5	318.2	381.5			
	566+67.91	574+52		8'	627.0	627.0	89.8	108.4			
	574+52	594+50		10'	2220.0	2220.0	316.0	386.1			
	594+50	605+25		10'	1194.4	1194.4	170.0	203.9			
	610+94	622+32		10'	1264.4	1264.4	180.0	215.8			
	623+68	625+00		10'	146.7	146.7	20.9	25.0			
	625+00	630+38		10'	597.8	597.8	85.1	104.4			
	630+38	638+00	Left	8'	677.3	677.3	97.0	118.3			
	438+00	443+41.23	Right	8'	481.1	481.1	68.9	83.9			
	444+44.01	453+03		10'	954.4	954.4	135.9	170.5			
	455+87	465+72		10'	1094.4	1094.4	155.8	191.1			
	465+72	470+59.29		20'-10'	812.1	812.1	112.8	135.4			
	470+59.29	481+63		8'	381.1	381.1	54.5	66.5			
	481+63	497+00		10'	1707.8	1707.8	243.1	296.0			
	497+00	499+85		10'	316.7	316.7	45.1	54.0			
	501+93	509+75		10'	868.9	868.9	123.7	148.3			
	512+62	522+00		10'	1042.2	1042.2	148.4	177.9			
	522+00	537+36		10'	1706.7	1706.7	243.0	291.3			
	537+36	545+20.92		8'	627.7	627.7	89.9	108.8			
	546+20.92	561+30		10'	2232.3	2232.3	317.8	381.0			
	566+30	570+32.42		20'-10'	670.7	670.7	93.2	111.8			
	570+32.42	581+36		8'	381.0	381.0	54.5	66.5			
	581+36	594+50		10'	1460.0	1460.0	207.8	251.7			
	594+50	605+45		10'	1216.7	1216.7	173.2	207.6			
	611+14	622+48		10'	1260.0	1260.0	179.4	215.0			
	623+85	625+00		10'	127.8	127.8	18.2	21.8			
	625+00	637+17		10'	1352.2	1352.2	192.5	231.0			
	637+17	638+00	Right	8'	73.8	73.8	10.6	12.7			
Exist. U.S.G.	37+85	43+52.70	Left	4'			22.1				
	43+52.70	45+58.51		8'	182.9	182.9	25.8	31.0			
	46+30.53	51+33.84		8'	497.6	497.6	71.3	87.0			
	51+33.84	52+18.3		8'-16'	118.9	118.9	16.5	19.8			
	52+18.3	55+11.72		8'	203.3	203.3	29.1	35.3			
	56+08.72	60+85	Left	4'			29.4				
	37+85	39+85	Right	4'			12.3				
	44+00	56+08.72	Right	8'	1071.2	1071.2	153.4	187.1			
	56+08.72	60+85	Right	4'			29.4				

④ PAVED SHOULDERS

Location	Station	Side	Width	B-21		T-31		B-112		I-22	
				Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.
U.S.G Interchange	0+00	3+00	Left	8'	266.7	266.7	38.2	42.3			
Ramp A	3+00	5+00		8'-3'	122.2	122.2	17.7	20.7			
	5+00	10+00		3'	166.7	166.7	25.1	33.1			
	10+00	10+50		3'-6"	25.0	25.0	3.7	4.5			
	10+50	16+76.32	Left	6'	417.5	417.5	60.4	69.1			
	4+50	5+00	Right	2'-3"	13.9	13.9	1.9	2.7			
Ramp B	5+00	10+50	Right	3'	183.3	183.3	27.6	35.3			
	5+13.77	10+85	Left	3'	190.4	190.4	28.6	37.9			
	15+43.55	17+61.31	Left	3'	72.6	72.6	10.1	14.4			
	17+61.31	18+11.31	Left	3'-2"	13.9	13.9	1.9	2.7			
	5+13.77	7+13.77	Right	8'-3"	122.2	122.2	17.7	20.7			
	7+13.77	10+18.04		3'	101.4	101.4	15.3	20.2			
	10+18.04	11+18.04		3'-6"	50.0	50.0	7.3	9.0			
	11+18.04	14+39.34		6'	214.2	214.2	31.0	36.3			
	14+39.34	15+45.55	Right	6'-3"	53.1	53.1	7.8	9.5			
	15+45.55	17+11.31	Right	3'	55.3	55.3	8.3	11.0			
Ramps A+B	17+11.31	19+11.31	Right	3'-8"	122.2	122.2	17.7	20.7			
	15+58	16+76.32	Right	6'	78.9	78.9	11.4	11.5			
Ramp C	0+00	9+22.49	Left	3'	307.5	307.5	46.3	52.5			
	0+00	2+00	Right	8'-3"	122.2	122.2	17.7	21.3			
	2+00	9+22.49	Right	3'	240.8	240.8	36.2	47.9			
Ramp D	0+00	1+50	Right	8'-3"	91.7	91.7	13.3	15.6			
	1+50	4+23	Right	3'	91.0	91.0	13.7	18.1			
	5+23	16+01.92	Left	3'	359.6	359.6	54.1	64.1			
	16+01.92	16+50	Left	3'-2"	13.4	13.4	2.0	2.6			
	5+10	16+01.92	Right	3'	364.0	364.0	54.8	72.4			
	16+01.92	18+01.92	Right	3'-8"	122.2	122.2	17.7	20.7			
	18+01.92	21+01.92	Right	8'	266.7	266.7	38.2	42.3			
S.R. 12	Interchange										
S.R. 12	39+40	44+35	Left	4'			32.5	35.2			
	44+35	44+81.64		8'	41.5	41.5	5.9	6.6			
	45+139.24	48+48		8'	275.3	275.3	39.4	43.7			
	51+61	54+55.27		8'	261.6	261.6	37.5	41.5			
	55+25.36	62+35.11	Left	8'	630.9	630.9	90.4	100.2			
	39+40	44+35	Right	4'			32.5	35.2			
	44+35	44+74.64		8'	35.2	35.2	5.0	5.6			
	45+44.73	48+38		8'	260.7	260.7	37.3	41.4			
	51+51	54+61.76		8'	276.2	276.2	39.6	43.9			
	55+18.36	62+35.11	Right	8'	637.1	637.1	85.7	101.1			
Ramp A	0+00	3+00	Left	8'	266.7	266.7	38.2	42.3			
	3+00	5+50	Left	8'-3"	152.8	152.8	22.2	25.9			
	5+50	13+77.92	Left	3'	276.0	276.0	41.5	54.9			
	5+00	5+50	Right	2'-3"	13.9	13.9	2.1	2.7			
	5+50	13+77.92	Right	3'	276.0	276.0	41.5	50.4			
Ramp B	0+59.22	10+70.52	Left	3'	337.1	337.1	50.7	60.1			
	10+70.52	12+20.52	Left	3'-8"	91.7	91.7	13.3	15.6			
Ramp C	0+59.22	12+20.52	Right	3'	387.1	387.1	58.2	77.0			
	0+73.50	9+00	Left	3'	275.5	275.5	41.5	50.3			
	9+00	9+50	Left	3'-2"	13.9	13.9	2.1	2.7			
	0+73.50	9+00	Right								

ERI 2-4.02, ERI 6-380

LINE	CALCULATIONS	F-1042(5) 100% State Code 7221	FG- 1042(5)	Total Quantity	Unit
1	T-71 9" REINFORCED P.C. CONCRETE PAVEMENT				
2	U.S.G. & S.R. 2				
3	From Sheet No. 3 12,706.95 Lin. Ft.				
4	5,642.55				
5	18,349.50 x 24 x 2 ÷ 9 = 97,864.0 Sq.Yds.	75,463.7	22,400.3		
6					
7	U.S.G. (Existing)				
8	From Sheet No. 5 514.50 x 25.5 x 2 = 26,239.50 Sq. Ft.				
9	317.88 x 41.0 = 13,033.08				
10	49+14.50 to 51+23.84 275.81 x 41.0 = 11,308.21				
11	Add for Median openings 125.7 x 2 = 251.40				
12	50,832.19 ÷ 9 = 5,648.0 Sq.Yds.	5,648.0			
13					
14	U.S.G. Interchange				
15	From Sheet No. 4 3214.16 x 16 = 51,426.56 Sq. Ft.				
16	321.30 x 35 = 11,245.50				
17	Ramp A 300 x 15 + 150 x 17 + 50 x 16 = 7,850.00				
18	Add for Curvature 8/716.20 x 293.04 x 16 = 32.37				
19	Ramp B 26.23 x 17 + 103.77 x 16 + 200 x 15 = 6,296.23				
20	Add for Curvature 8/250 x 500.03 x 16 = 256.02				
21	Ramp C 100 x 17 + 100 x 16 = 3,300.00				
22	Add for Curvature 8/1909.86 x 783.31 x 16 = 52.50				
23	Ramp D 48.03 x 16 + 151.92 x 17 + 300 x 15 = 7,851.92				
24	Add for Curvature 8/254.93 x 220.49 x 16 = 29.55				
25	88,360.65 ÷ 9 = 9,817.9 Sq.Yds.	9,817.9			
26					
27	S.R. 12 Interchange				
28	From Sheet No. 4 3475.64 x 16 = 55,810.24 Sq. Ft.				
29	Ramp A 300 x 15 + 200 x 17 + 50 x 16 = 8,100.00				
30	Add for Curvature 8/1432.39 x 684.5 x 16 = 61.17				
31	Ramp B 54 x 16 + 26 x 17 = 2,496.00				
32	Ramp C 50 x 16 + 200.10 x 17 + 300 x 15 = 8,701.70				
33	Add for Curvature 8/1432.39 x 684.54 x 16 = 61.17				
34	Ramp D 27 x 17 + 53 x 16 = 2,497.00				
35	81,327.28 ÷ 9 = 9,036.4 Sq.Yds.	9,036.4			
36					
37	Add from Summary of Roadway Quantities Sub-Total = 122,366.3	16,690.0			
38	Total = 139,056.3 Sq.Yds.	116,656.0	22,400.3	139,056	Sq.Yds.
39					
40					
41	T-35 ASPHALTIC CONCRETE SURFACE COURSE - TYPE A				
42	Service Road				
43	From Sheet No. 6 2220.43 x 16 = 35,526.88 Sq. Ft.				
44	Heywood Road Relocated				
45	From Sheet No. 6 1028.68 x 16 = 16,458.88				
46	Homegardner Road Relocated				
47	From Sheet No. 6 838.81 x 18 = 15,098.58				
48	303.62 x 22 = 6,679.64				
49	73,763.28 ÷ 9 = 8,196.0 x 1/2 ÷ 36 = 341.5 Cu.Yds.	167.5	341.5		
50	Add from Summary of Roadway Quantities = 80.7				
51	Total = 422.2 Cu.Yds.	167.5	422.2	422	Cu.Yds.
52		257.7			
53					
54	T-35 ASPHALTIC CONCRETE SURFACE COURSE - TYPE C				
55	S.R. 12				
56	From Sheet No. 6 1464.55 x 25.0 x 2 = 73,227.50 Sq. Ft.				
57	Add for Median openings 180 x 3 = 540.00				
58	73,767.50 ÷ 9 = 8,196.4 x 1/4 ÷ 36 = 284.6 Cu.Yds.		284.6		
59	Add from Summary of Roadway Quantities = 195.9	1.3	194.6		
60	Total = 480.5 Cu.Yds.	1.3	479.2	480	Cu.Yds.
61					
62					
63	T-31 BITUMINOUS SURFACE TREATMENT				
64	From Paved Shoulder Calculations: = 68,858.6 Sq.Yds.				
65	From Summary of Roadway Quantities: = 479.3				
66	Sub-Total: = 69,337.9 Sq.Yds.				
67					
68	T-31 BITUMINOUS MATERIAL: Total = 69,337.9 x 0.25 = 17,334 Gals.	13,943	3391	17,334	Gals.
69	T-31 AGGREGATE: Total = 69,337.9 x 0.008 = 555 Cu.Yds.	446	109	555	Cu.Yds.
70					
71	T-30 BITUMINOUS PRIME COAT				
72	From Line 49 8196.0 x 0.4 = 3278.4 Gals.	1579	3278.4		
73	From Line 58 8196.4 x 0.4 = 3278.6		3278.6		
74	Add from Summary of Roadway Quantities = 2752.2		2752.2		
75	Total = 9309.2 Gals.	1579	9309.2	9,309	Gals.
76		7730.2			

LINE	CALCULATIONS	F-1042(5) 100% State Code 7221	FG- 1042(5)	Total Quantity	Unit
77	B-35 ASPHALTIC CONCRETE BASE COURSE				
78	S.R. 12				
79	From Sheet No. 6 1464.55 x 53 x 3 + 12 x 27 = 718.7 Cu.Yds.		718.7		
80	Add from Summary of Roadway Quantities = 410.6		410.6		
81	Total = 1129.3 Cu.Yds.		1129.3	1,129	Cu.Yds.
82					
83					
84	B-35 ASPHALTIC CONCRETE LEVELING COURSE				
85	S.R. 12				
86	From Line 58 8196.4 x 1/4 ÷ 36 = 284.6 Cu.Yds.		284.6		
87	Add from Summary of Roadway Quantities = 169.8		169.8		
88	Total = 454.4 Cu.Yds.		454.4	454	Cu.Yds.
89					
90					
91	B-21 3" WATERPROOFED AGGREGATE BASE COURSE				
92	From Paved Shoulder Calculations: = 68,858.6 Sq.Yds.				
93	From Summary of Roadway Quantities: = 479.3				
94	Total = 69,337.9 x 3 ÷ 36 = 5778.2 Cu.Yds.	4648	1130	5778	Cu.Yds.
95					
96					
97	B-19 AGGREGATE BASE COURSE				
98	From Sheet No. 6 1464.55 x 53 x 8 ÷ 12 x 27 = 1916.6 Cu.Yds.		1916.6		
99	From Sheet No. 6 (3249.11 x 17 + 838.81 x 19 + 303.62 x 23) x 8 ÷ 12 x 27 = 1929.8		1929.8		
100	Add from Summary of Roadway Quantities = 1740.5		1740.5		
101	Total = 5586.9 Cu.Yds.		5586.9	5587	Cu.Yds.
102					
103	I-22 SUBBASE				
104	From Line 36 122,366.3 x 6 ÷ 36 = 20,394.4 Cu.Yds.		16661.0	3733.4	
105	S.R. 12 - From Sheet No. 6 1464.55 x 53 x 9 ÷ 12 x 27 = 2156.1		2156.1		
106	Add from Paved Shoulder Calculations = 12,740.2		10427.5	2312.7	
107	Add from Summary of Roadway Quantities = 4,914.4		4736.8	177.6	
108	Add for Additional Depth, Sta. 629+00 to 638+00 300.00 x 24 x 2 ÷ 12 ÷ 12 x 27 = 1,600.0		1600.0		
109	Total = 41,805.1 Cu.Yds.		35581.4	6223.7	41,805
110					
111	B-112 POROUS BASE COURSE				
112	From Paved Shoulder Calculations = 10,075.0 Cu.Yds.		8,123.2	1,951.8	
113	From Summary of Roadway Quantities = 69.4		69.4		
114	Total = 10,144.4 Cu.Yds.		8,192.6	1,951.8	10,144
115					
116					
117	E-1 COMPACTED SUBGRADE				
118	From Line 36 (T-71) 122,366.3 Sq.Yds.		99,966.0	22,400.3	
119	From Line 49 (T-35, Type A) = 8,196.0		8,196.0		
120	From Line 58 (T-35, Type C) = 8,196.4		8,196.4		
121	From Line 64 (T-31) = 68,858.6		58,292.6	13,566.0	
122	From Summary of Roadway Quantities = 25,586.6		24,519.4	1,067.2	
123	Total = 233,203.9 Sq.Yds.		196,170.4	37,033.5	233,204
124					
125					
126	L-9 COMMERCIAL FERTILIZER				
127	From Earthwork and Seeding Summary = 618,026 Sq.Yds.				
128	From Sodding (L-10) Summary = 25,418				
129	Total = 643,444 x 9 ÷ 20 ÷ 1000 x 2000 = 57.91 Tons		45.07	12.84	57.91
130					
131					
132	E-11 WATER				
133	From E1 (Embankment) Summary = 1,342,645 Cu.Yds.				
134	From B-112, Line 114 = 10,144				
135	From B-19, Line 101 = 5,587				
136	From I-22, Line 109 = 41,805				
137	From Sand Blanket Summary = 29,428				
138	Total = 1,429,609 x 5 ÷ 1000 = 7148 MGals.		3039	4109	7148
139					
140					
141					
142					
143					
144					
145					
146					
147					
148					
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GENERAL

SUMMARY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

17
220

TYPE CODE 7221

TYPE CODE 7221

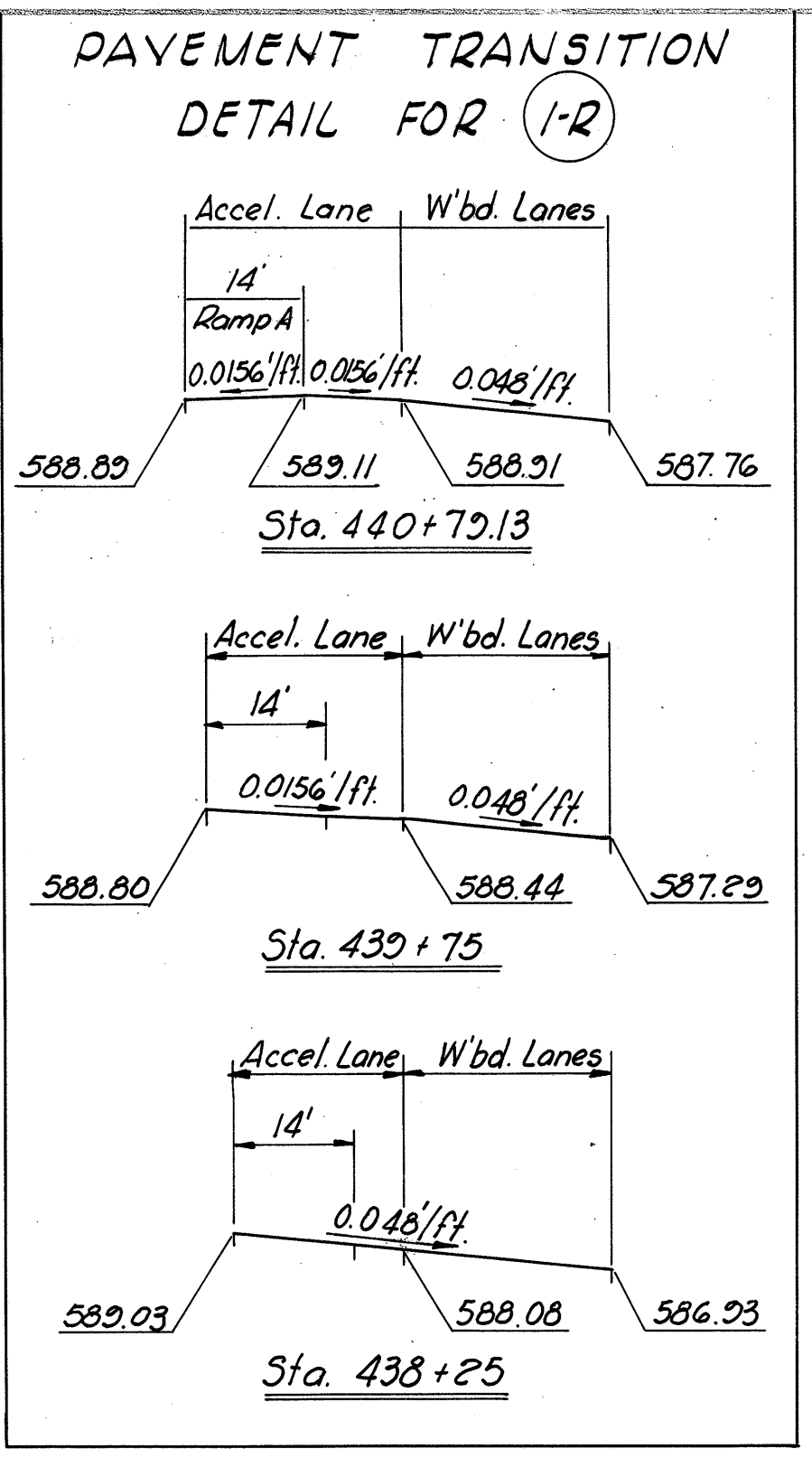
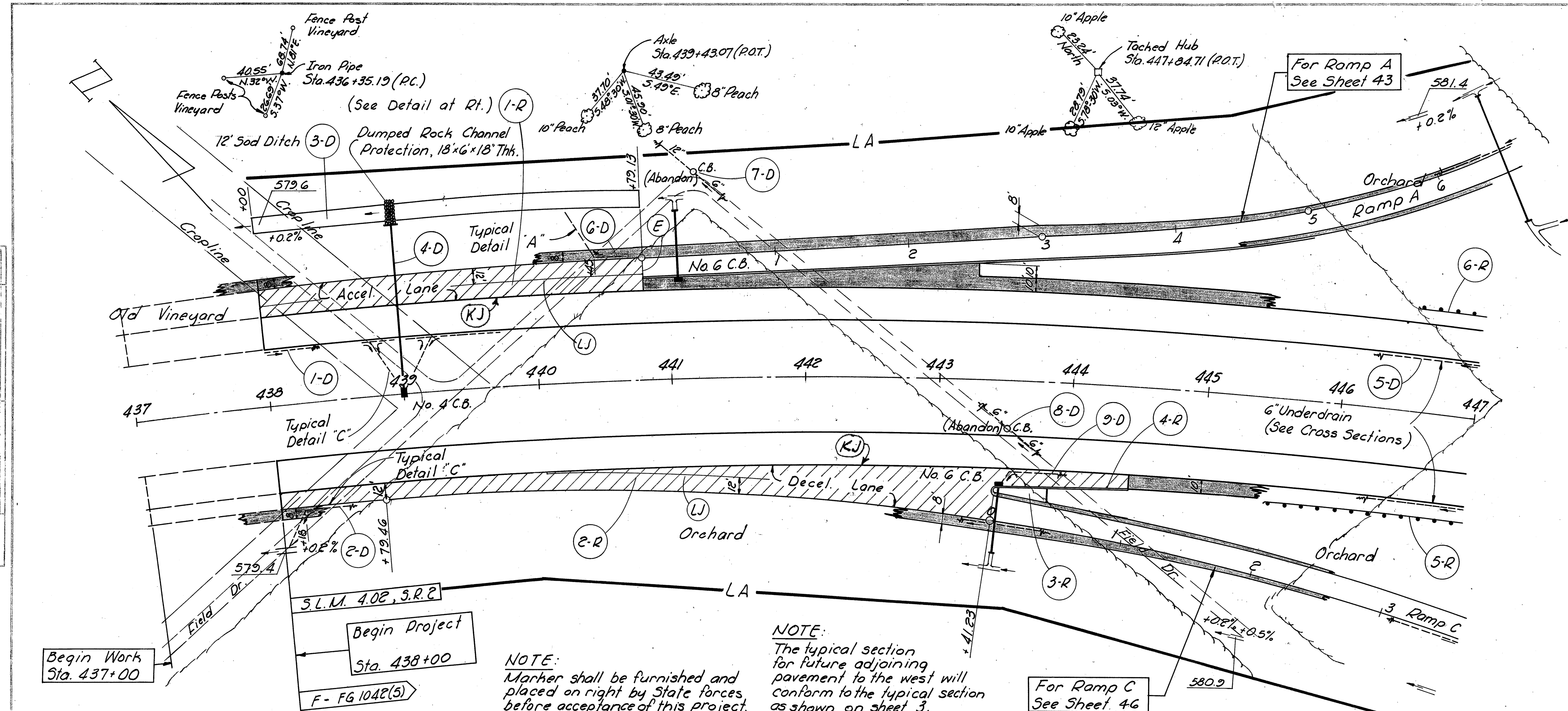
ERI 2-4.02, ERI 6-380

ITEM	TOTAL QUANTITY	UNIT	DESCRIPTION	100% STATE	FG-1042(S)	F-1042(S)	CARRIED FROM
ROADWAY							
E-1	158,079	Cu.Yds.	Roadway Excavation, Method B, as per plan		11,383	146,696	Table 3
E-1	233,204	Sq.Yds.	Compacted Subgrade		37,034	196,170	Sheet 16
E-4	1,385,962	Cu.Yds.	Borrow		905,265	480,697	Table 3
Spec.	29,428	Cu.Yds.	Sand Blanket		16,519	12,909	Sheet 14
E-8	5,987	Sq.Yds.	Removal and Disposal of Existing Rigid Pavement			5,987	Table 5
E-9	Lump	Lump	Removal of Trees and Stumps		Lump		Sheet 14
E-11	7,148	M.Gal.	Water		4,109	3,039	Sheet 16
I-8	23	Each	Centerline Reference Monuments, as per plan		5	18	Sheet 203
I-8	12	Each	Standard Monument Assemblies			12	Sheet 203
I-15	150	Lin.Ft.	Guard Rail Removed and Disposed of			150	Table 5
I-15	22,262.5	Lin.Ft.	Guard Rail, Steel Beam Standard Type (Deep)	164(F)	9,170.0	12,928.5	Table 5
I-15	1500	Lin.Ft.	Guard Rail, Steel Beam Barrier Type (Deep)	976(F) 525(F)			Table 5
L-9	618,026	Sq.Yds.	Seeding and Protecting, as per plan		137,994	480,032	Table 3
L-9	5791	Tons.	Commercial Fertilizer (12-12-12)		72.84	45.07	Sheet 16
L-10	24,069	Sq.Yds.	Sodding, as per plan		3,986	20,083	Table 1
L-10	1,349	Sq.Yds.	Sodding for Special Berm and Slope Protection, as per plan		697	652	Sheet 10
Spec.	1	Each	Drilled Well Abandoned			1	Sheet 31
Spec.	3	Each	Settlement Platforms		2	1	Sheet 15
S-18	40,285	Lin.Ft.	Fence, Type "D"	16,020 (F) 24,265 (F)			Table 2
S-15	Lump	Lump	Temporary Run-Around Road			Lump	Sheet 42
S-15	Lump	Lump	Temporary Run-Around Road, using Class "A" Pavement, as per plan			Lump	Sheet 50
T-10	600	Cu.Yds.	Traffic Compacted Surface Course for Temporary Traffic Lanes			600	Sheet 11, 42
M-10	13.0	Tons	Calcium Chloride Furnished and Applied			13.0	SH's 11, 42, 53
B-19	380	Cu.Yds.	Aggregate Base Course for Temporary Traffic Lanes			380	SH's 11, 42, 44
T-35	85	Cu.Yds.	Asphaltic Concrete Surface Course or an approved Bituminous Premixed Surface Course for Maintaining Traffic			85	SH's 11, 40, 41
Spec.	1,072	Sq.Yds.	Mixing Calcium Chloride and Aggregate			1,072	Table 5
DRAINAGE							
E-3	105	Cu.Yds.	Channel Excavation			105	Table 1
E-12	539	Lin.Ft.	Pipe Removed, 15" and under			539	Table 1
E-12	140	Lin.Ft.	Pipe Removed over 15"			140	Table 1
I-1	54	Lin.Ft.	30" Pipe Class A-1			54	Table 1
I-1	50	Lin.Ft.	15" Pipe Class A-1, Sec. M-G.6(a) or Sec. M-G.8(b)			50	Table 1
I-1	140	Lin.Ft.	18" Pipe Class A-1, Sec. M-G.6(a) or Sec. M-G.8(b)			140	Table 1
I-1	276	Lin.Ft.	24" Pipe Class A-1, Sec. M-G.6(a) or Sec. M-G.8(b)			276	Table 1
I-1	132	Lin.Ft.	30" Pipe Class A-1, Sec. M-G.6(a) or Sec. M-G.8(b)			132	Table 1
I-1	120	Lin.Ft.	48" Pipe Class A-1, Sec. M-G.6(a)			120	Table 1
I-1	396	Lin.Ft.	4" Pipe Class A-1, Sec. M-G.9 with Threaded Couplings			396	Table 1
I-1	56	Lin.Ft.	60" Pipe Class A-1, Sec. M-G.6(a)			56	Table 1
I-1	128	Lin.Ft.	24" Pipe Class A-1, Sec. M-G.6(c)			128	Table 1
I-1	116	Lin.Ft.	18" Pipe Class A-1, Sec. M-G.6(c)			116	Table 1
I-1	444	Lin.Ft.	60"x38" Pipe Class G-1, Sec. M-G.7(a)			444	Table 1
I-1	100	Lin.Ft.	24" Pipe Class A-1, Sec. M-G.6(b) or Sec. M-G.8(b)			100	Table 1
I-1	190	Lin.Ft.	8" Pipe Class B-1			190	Table 1
I-1	261	Lin.Ft.	12" Pipe Class B-1			261	Table 1
I-1	1,935	Lin.Ft.	15" Pipe Class B-1		363	1,572	Table 1
I-1	36	Lin.Ft.	36" Pipe Class B-1			36	Table 1
I-1	24	Lin.Ft.	12" Pipe Class C-1, Sec. M-G.4(e)			24	Table 1
I-1	36	Lin.Ft.	18" Pipe Class C-1, Sec. M-G.4(c)			36	Table 1
I-1	6	Lin.Ft.	12" Pipe Class D-1, Sec. M-G.5(o) or Sec. M-G.8(a)			6	Table 1
I-1	84	Lin.Ft.	8" Pipe Class E-1			84	Table 1
I-1	24	Lin.Ft.	12" Pipe Class E-1			24	Table 1
I-1	250	Lin.Ft.	18" Pipe Class E-1, Sec. M-G.6(a)			250	Table 1
I-1	283	Lin.Ft.	15" Pipe Class F-1		283		Table 1
I-1	940	Lin.Ft.	6" Pipe Class F-1		150	790	Table 1
I-1	840	Lin.Ft.	8" Pipe Class F-1		90	750	Table 1
I-1	130	Lin.Ft.	10" Pipe Class F-1			130	Table 1
I-1	78,945	Lin.Ft.	6" Pipe Class I-3, as per plan		17,646	61,299	Table 1
I-1	3,054	Lin.Ft.	6" Pipe Class I-3, Sec. M-G.4(h)(c), as per plan			3,054	Table 1
I-2	279.4	Cu.Yds.	Masonry (Headwalls)		17.3	262.1	Table 1
I-5	94	Each	6" Pipe Specials, Class I-3		18	76	Table 1
I-5	14	Each	8" Pipe Specials, Class B-1			14	Table 1
I-5	8	Each	15" Pipe Specials, Class F-1		8		Table 1

ITEM	TOTAL QUANTITY	UNIT	DESCRIPTION	100% STATE	FG-1042(S)	F-1042(S)	CARRIED FROM
I-8	1	Each	Standard No. 2-3 Catch Basin				1 Table 1
I-8	2	Each	Standard No. 2-2-A Catch Basins			2	Table 1
I-8	4	Each	Standard No. 2-2-B Catch Basins			4	Table 1
I-8	15	Each	Standard No. 4 Catch Basins			3	12 Table 1
I-8	6	Each	Standard No. 6 Catch Basins			6	Table 1
I-8	2	Each	Standard No. 2-G Inlets, Median			2	Table 1
I-8	1	Each	Standard No. 2-B Inlet, Median			1	Table 1
I-8	1	Each	Standard No. 1 Manhole			1	Table 1
I-9	2,436	Lin.Ft.	Stona Underdrains No. 2			2,436	Table 1
I-10	44	Sq.Yds.	Riprap			44	Table 1
I-10	118	Cu.Yds.	Dumped Rock Channel Protection		19	99	Table 1
I-16	7	Each	Catch Basins Abandoned			7	Table 1
S-24	Lump	Lump	Removal of Existing Structure			Lump	Table 1
PAVEMENT							
B-19	5,587	Cu.Yds.	Aggregate Base Course			5,587	Sheet 16
B-21	5,718	Cu.Yds.	Waterproofed Aggregate Base Course, as per plan		1,130	4,648	Sheet 16
B-35	454	Cu.Yds.	Asphaltic Concrete Leveling Course (70-85)			454	Sheet 16
B-35	1,129	Cu.Yds.	Asphaltic Concrete Base Course (70-85)			1,129	Sheet 16
B-70	15	Cu.Yds.	Portland Cement Concrete Base Course, as per plan			15	Table 5
B-112	10,144	Cu.Yds.	Porous Base Course		1,952	8,192	Sheet 16
I-7	1,852	Sq.Yds.	Reinforced Concrete Approach Slabs (T-13)			1,067	785 Table 5
I-12	3,694	Lin.Ft.	Standard Type E-A Curb, Concrete			3,694	Table 5
I-12	725	Lin.Ft.	Standard Type G Curb, Concrete			725	Table 5
I-12	1,631	Lin.Ft.	Special Concrete Curb, "Full Width", as per plan			1,631	Table 5
I-12	676	Lin.Ft.	Special Concrete Curb, "Part Width", as per plan			676	Table 5
I-18	179	Cu.Yds.	Stabilized Crushed Aggregate Shoulders and Approaches			179	Table 5
I-21	484	Sq.Yds.	4" Portland Cement Concrete Median Pavement, Type 1, Standard			484	Table 5
I-21	428	Sq.Yds.	Portland Cement Concrete Median Pavement, Type 2, Standard			428	Table 5
I-22	41,805	Cu.Yds.	Subbase, Grading A or B, as per plan		6,224	35,581	Sheet 16
I-23	120	Each	Precast White Portland Cement Concrete Traffic Dividers			120	Table 5
T-30	9,309	Gals.	Bituminous Prime Coat, Sec. M-5.7, R.T.-2 or R.T.-3		1579	7,730	Sheet 16
T-31	555	Cu.Yds.	Bituminous Surface Treatment, No. 6 Aggregate			109	446 Sheet 16
T-31	17,334	Gals.	Bituminous Surface Treatment, Bituminous Material, as per plan			3,391	13,943 Sheet 16
T-35	422	Cu.Yds.	Asphaltic Concrete Surface Course, Type A (85-100)		164	258 (422)	Sheet 16
T-35	480	Cu.Yds.	Asphaltic Concrete Surface Course, Type C (70-85)		1 (F)	479	Sheet 16
T-11	139,056	Sq.Yds.	9" Reinforced Portland Cement Concrete Pavement			22,400	116,656 Sheet 16
STRUCTURES OVER 20' SPAN							
			ERI 6-0384 L.&R.	See Sheet No. 135			
			Ramp D, U.S.G Interchange, over Cold Creek	See Sheet No. 149			
			ERI 6-0470 L.&R.	See Sheet No. 159			
			ERI 6-0490 L.&R.	See Sheet No. 168			
			ERI 6-0575	See Sheet No. 176			
			ERI 6-0674 L.&R.	See Sheet No. 185			
			ERI 6-0702 L.&R.	See Sheet No. 197			
FOR WATER LINES See Sheet No. 62							
SANITARY SEWERS							
I-1	762 (260)	Lin.Ft.	15" Class A-1 Pipe, M-G.6(b) (Sanitary), with compression joints			762 (260)	Sheet 53
I-1	332	Lin.Ft.	15" Class A-1 Pipe, M-G.6(c) (Sanitary), with compression joints			332 (F)	Sheet 53
BUILDING REMOVALS							
E-10	Lump	Lump	Removal of one 2-story frame residence; 2 barns; 1 corn crib; 1 chicken coop; 1 garage; 2 sheds; Parcel No. 120-LA.			Lump	
E-10	2	Each	Removal of 1 story frame residences; 1 frame shed; Parcel No. 121-LA.			2	
E-10	Lump	Lump	Removal of one 1 1/2 story frame residence; 2 sheds; 1 chicken house; out house; Parcel No. 122-LA.			Lump	
E-10	Lump	Lump	Removal of one 2 story residence; 9 sheds; 1 concrete pen; 1 corn crib; 1 frame barn with attached silo and shed; Parcel No. 126-LA.			Lump	
E-10	Lump	Lump	Removal of one 2 story frame residence; 1 frame barn; 1 shed; 1 concrete building; Parcel No. 148-LA.			Lump	
E-10	Lump	Lump	Removal of 1 concrete block building; 1 barn; Parcel No. 148-T.			Lump	
E-10	1	Each	Removal of 1 story frame residence; Parcel No. 150-LA.			1	
E-10	1	Each	Removal of 1 story frame residence; Parcel No. 151-LA.			1	
	Lump	Lump	Construction Layout Stakes			Lump	Lump

DATE: 1/26/67
 BY: S.M.B. E.D.S.
 CHECKED: G.T.S. E.D.S.
 SURVEYED: S.M.B. E.D.S.
 PLOTTED: G.T.S. E.D.S.
 NOTE BOOK: G.T.S. E.D.S.
 NO. OF PAGES: 8/8

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

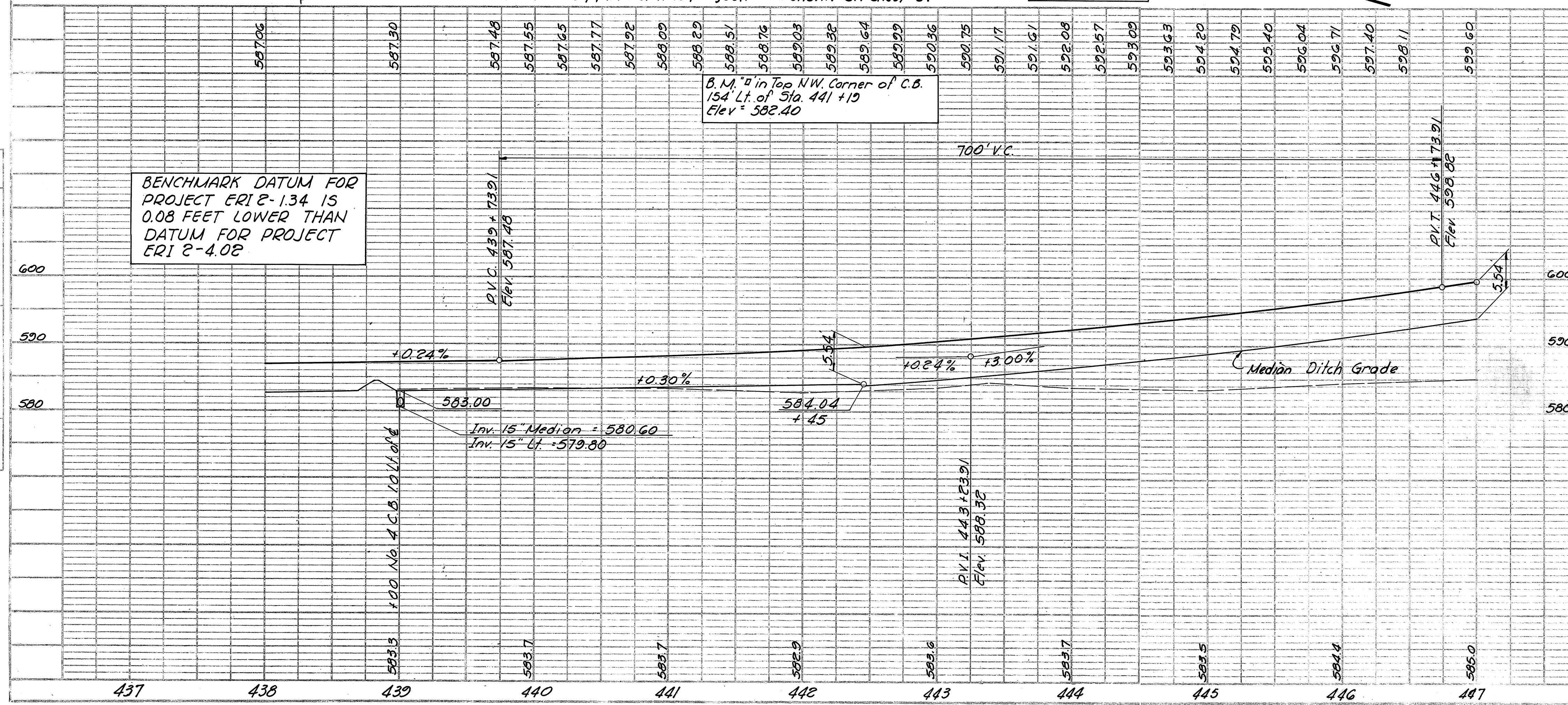
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270

ERI 2-4.02; ERI 6-3.80

NOTE:
 Marker shall be furnished and placed on right by State forces before acceptance of this project.

NOTE:
 The typical section for future adjoining pavement to the west will conform to the typical section as shown on sheet 3.

See Sheet No.	Station	Side	Quantities						
			Compacted Subgrade	9" Rein. P.C. Conc. Pav't.	Type 2-A Curb	Guard Rail (Std. Type)	4" P.C. Conc. Med. Pav't (Type 1)	Subbase	
	From	To	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Cu. Yd.	
1-R	438+00	440+79.13	Lt.	628.8	628.8			116.5	
2-R	438+00	444+44.01	Rt.	1297.6	1297.6			216.3	
3-R	443+42	443+84	Rt.					31.5	
4-R	443+42.01	444+44.01	Rt.			104			
5-R	445+50	447+00	Rt.				150		
6-R	446+55	447+00	Lt.				45		
Totals				1996.4	1996.4	104	195	31.5	332.8



See Sheet No.	Station	Side	Quantities											
			15" Pipe Class B-1	8" Pipe Class F-1	6" Pipe Class I-3 (Shallow)	Masonry (Headwalls)	6" x 60" Wye Top Sill	6" Pipe Class F-1	No. 4 C.B.	Dumped Rock Channel Protection	C.B. Abandoned Seal Pipe (Type 1)	Soil Sill	6" x 60" Band for Class I-3 Pipe	
	From	To	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Lin. Ft.	Ea.	Cu. Yd.	Ea.	Sq. Yd.	Ea.	
1-D	438+00	438+98	Lt.		132		1	10						
2-D	438+00	443+41	Rt.	10	560		1							
3-D	438+00	440+79	Lt.										364	
4-D	439+00		Lt.	123		3.3			1	6		2		
5-D	439+02	447+00	Lt.			832		1	10					
6-D	440+45	440+79	Lt.	10	68								1	
7-D	441+19		Lt.								1			
8-D	443+51		Rt.								1			
9-D	443+54	447+00	Rt.			346		10					1	
Totals				123	20	1938	3.3	3	30	1	6	2	366	2

ERI 2-402, ERI 6-380

ERI-2-0430 4/2

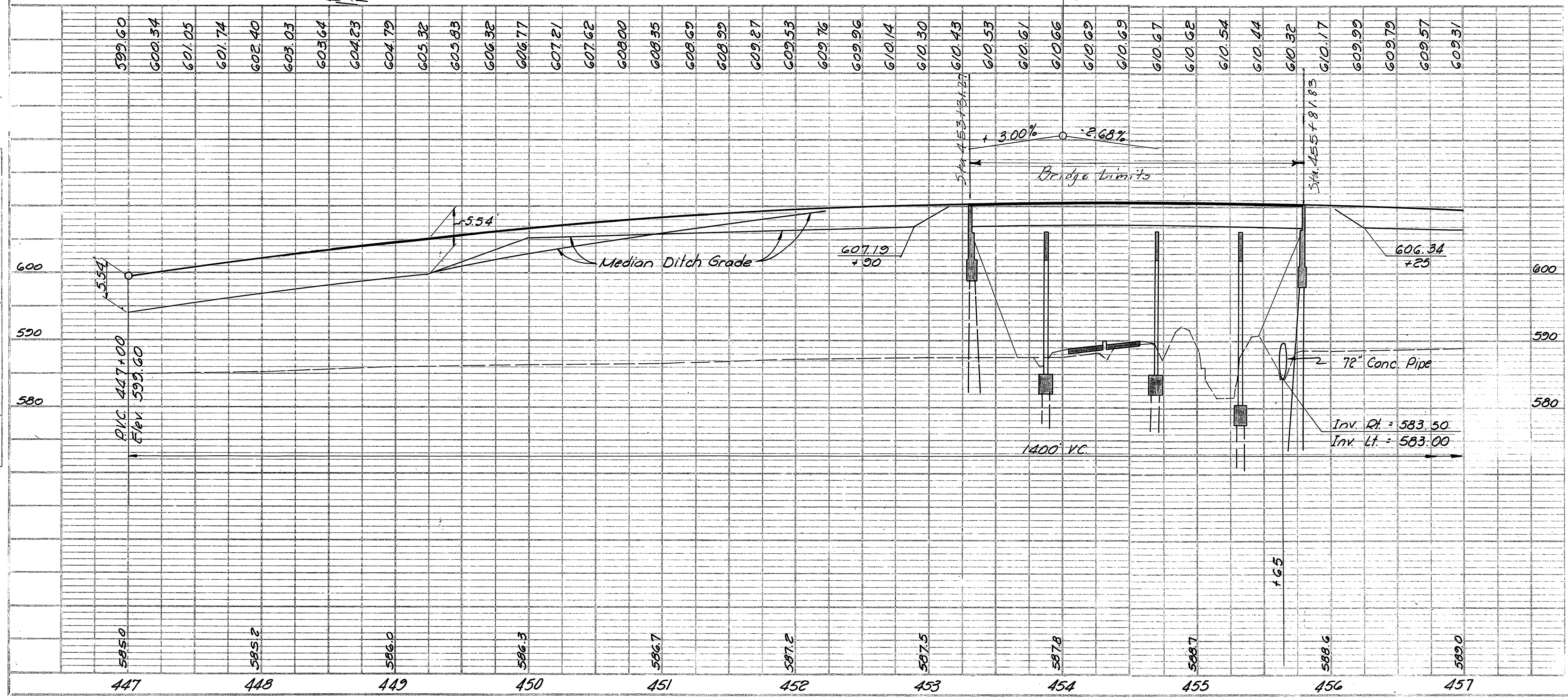
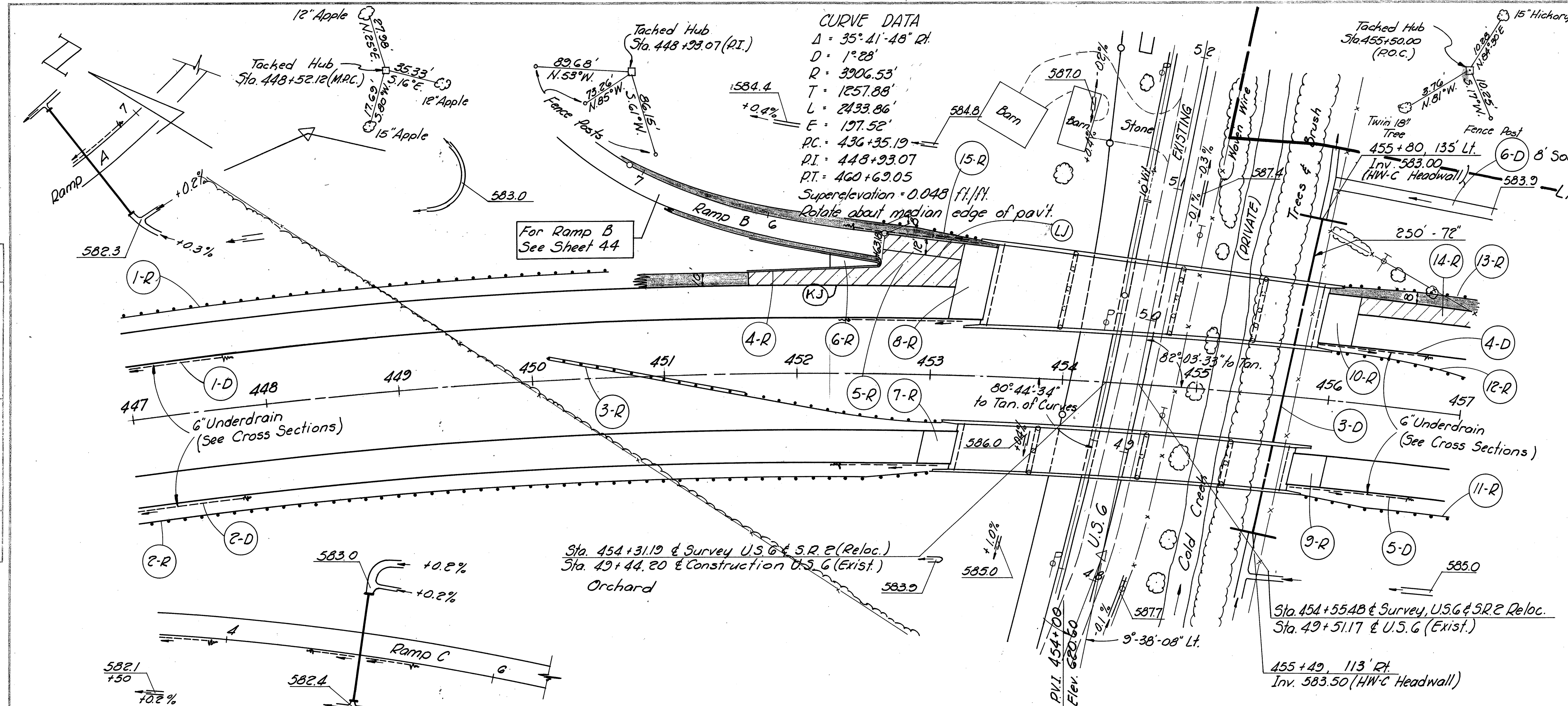
PROPOSED STRUCTURES

Type: Continuous steel beam with reinf. concrete deck, Reinf. Conc. pier bents and stub abutments.
 Spans: 56'-0", 80'-0", 65'-0", 45'-0" % Brgs.
 Left & Right Bridges
 Roadway: Variable - Left Bridge
 30'-0" flp of 2'-3" safety curbs
 Right Bridge
 Load Frequency: CF-400 (57)
 Skew: 8°-36'-11" L.F.
 Wearing Surface: 1" Monolithic Concrete
 Approach Slabs: AS-1-54 (25'-0" Long)
 Alignment: 1°-28' curve Right except North curb of Left Bridge which is parallel to Exit Ramp.

CURVE DATA
 $\Delta = 35^\circ 41' 48" \text{ RT}$
 $D = 1^\circ 28'$
 $R = 3906.53'$
 $T = 1257.88'$
 $L = 2433.86'$
 $E = 127.52'$
 $PC = 436+35.19$
 $PI = 448+23.07$
 $PT = 460+69.05$
 Superelevation = 0.048 ft./ft.
 Rotate about median edge of pavt.

DATE: 10/67
 BY: S.M.B. E.O.S.
 CHECKED: G.T.S.
 PLANNED: G.T.S.
 SURVEYED: G.T.S.
 NOTE BOOK: 823, 823, 823
 NO. OF SHEETS: 20
 THIS SHEET: 10

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 THIS SHEET: 10



F-1042(5)

See Sheet No.	Reference No. or Structure No.	Station	Side	ROADWAY QUANTITIES								
				E-1 Compacted Subgrade	T-7 9" Reinf. Conc. Pavt.	I-7 Reinf. Conc. Appl. 3" (I-15)	I-12 Type 2 A Curb	I-15 Guard Rail (Std. Type)	I-15 Guard Rail (Barrier Type)	I-21 4" D.C. Conc. Med. Pavt. (Type 1)	I-22 Subbase	
From	To			Sq.Yd.	Sq.Yd.	Sq.Yd.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Sq.Yd.	Cu.Yd.	
1-R	447+00	450+60	Lt.					367.5				
2-R	447+00	453+00	Rt.					587.5				
3-R	450+13	453+10	Med.					150	150			
4-R	451+60.58	452+62.58	Lt.									
5-R	451+60.58	453+22	Lt.	374.0	374.0		104					
6-R	452+22.58	452+62.58	Lt.								31.5	
7-R	See Site Plan	Rt.		66.7		66.7						11.1
8-R	See Site Plan	Lt.		156.4		156.4						26.1
9-R	See Site Plan	Rt.		66.7		66.7						11.1
10-R	See Site Plan	Lt.		105.5		105.5						17.6
11-R	455+85	457+00	Rt.						112.5			
12-R	456+00	457+00	Med.						100			
13-R	456+05	457+00	Lt.						28			
14-R	456+15	457+00	Lt.	123.5	123.5							20.6
15-R	452+63	453+36	Lt.						75			
Totals				892.8	497.5	395.3	104	1490.5	150	31.5	148.8	

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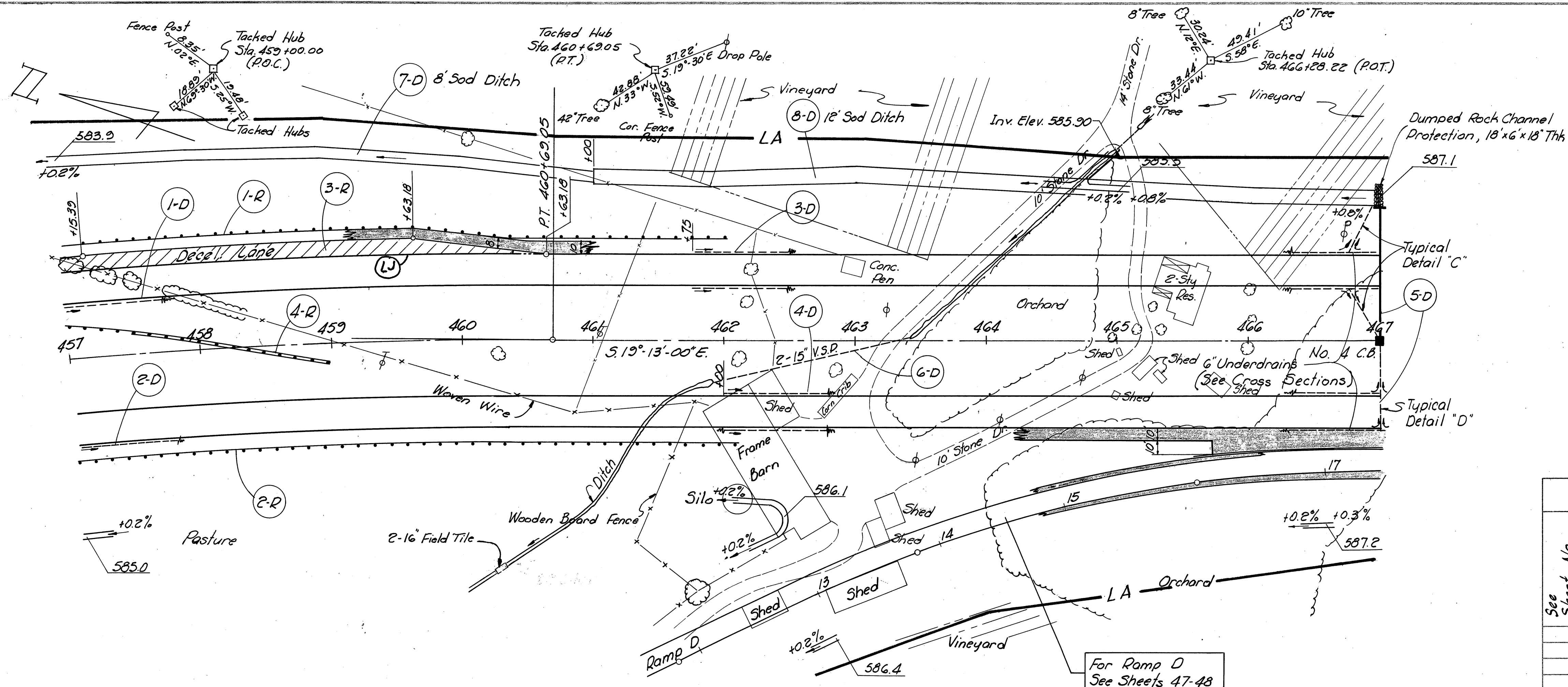
F-1042(5)

See Sheet No.	Ref. No. or Structure No.	Station	Side	DRAINAGE QUANTITIES			
				I-1 72" Pipe (a) (Class E-1)	I-1 6" Pipe (Class I-3 (Shallow))	I-2 Masonry (Headwalls)	L-10 Sodding
From	To						
1-D	447+00	453+30	Lt.		630		
2-D	447+00	453+10	Rt.		610		
3-D	455+66	Lt&Rt		250		56.0	14
4-D	456+05	457+00	Lt.		95		
5-D	455+90	457+00	Rt.		110		
6-D	455+90	457+00	Lt.				28
Totals				250	1445	56.0	112

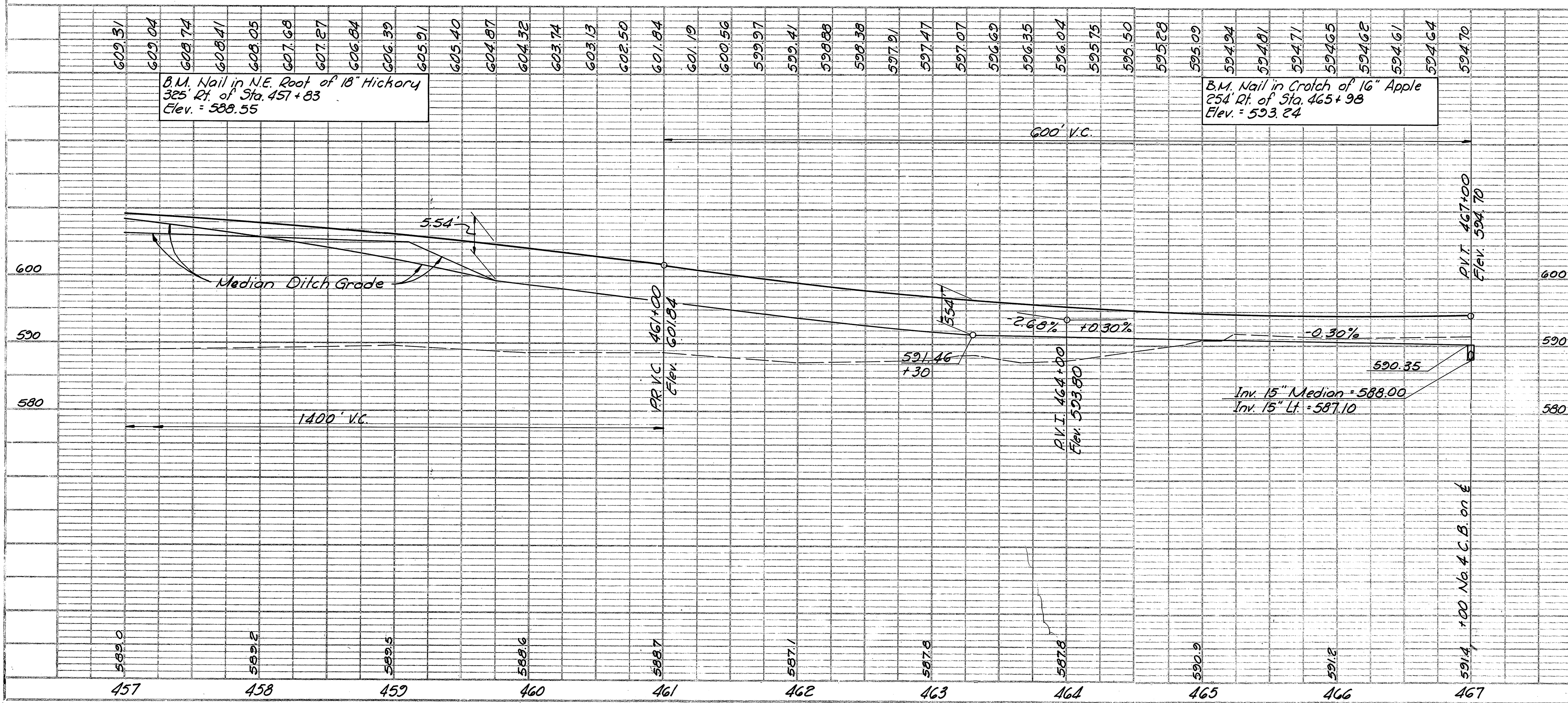
ERI 2-4.02, ERI G-3.80

DATE: 8-27-51
BY: S.M.B. E.D.S.
S.M.B. E.D.S.
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DATE: 8-27-51
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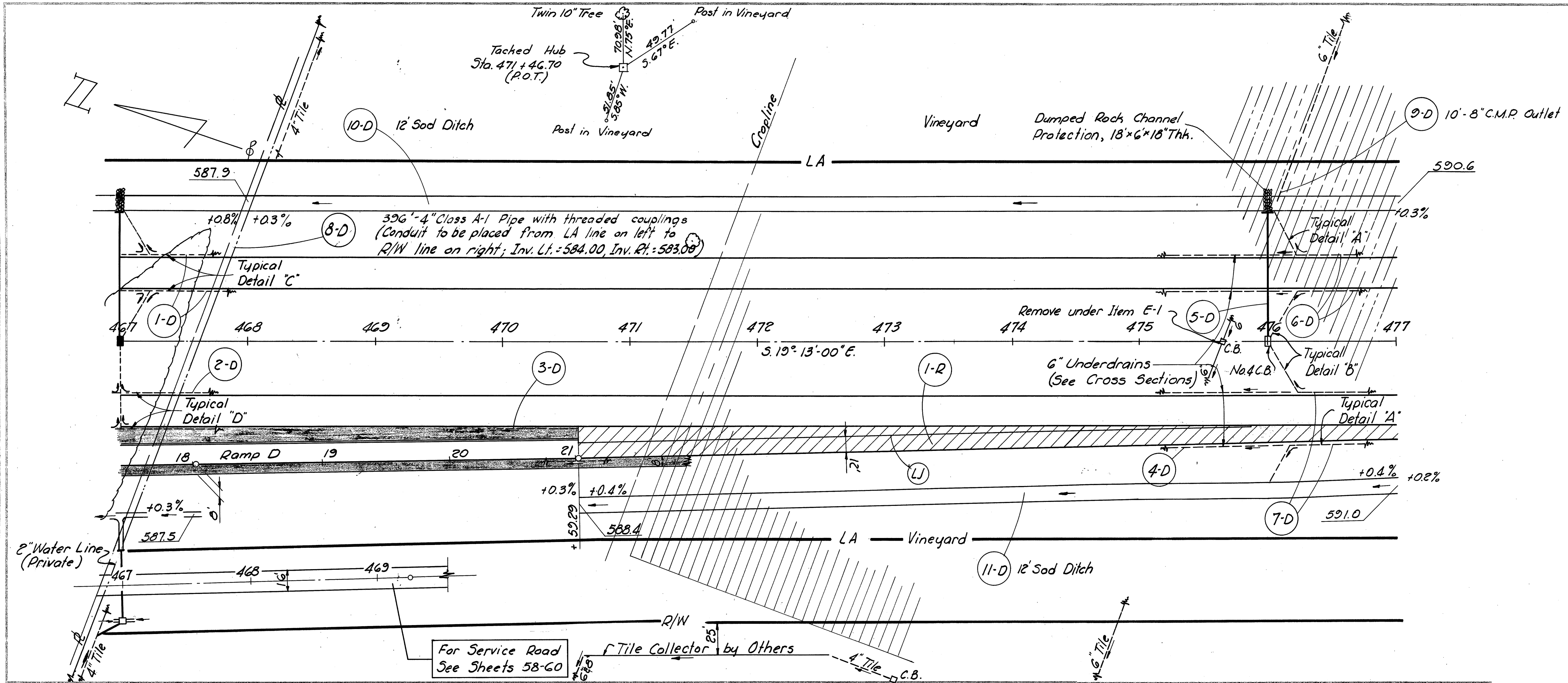
See Sheet No. Reference No. or Structure No.	Station		Side	Roadway Quantities				
	From	To		E-1 Compacted Subgrade	T-71 9" Reinf. Pl. Conc. Pavt.	I-15 Guard Rail (Std. Type)	I-15 Guard Rail (Barrier Type)	I-22 Subbase
				Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Cu. Yd.
1-R	457+00	462+05	Lt.			502		
2-R	457+00	462+10	Rt.			500		
3-R	457+00	460+63.18	Lt.	424.5	424.5			70.8
4-R	457+00	459+00	Med.			50	150	
Totals				424.5	424.5	1052	150	70.8



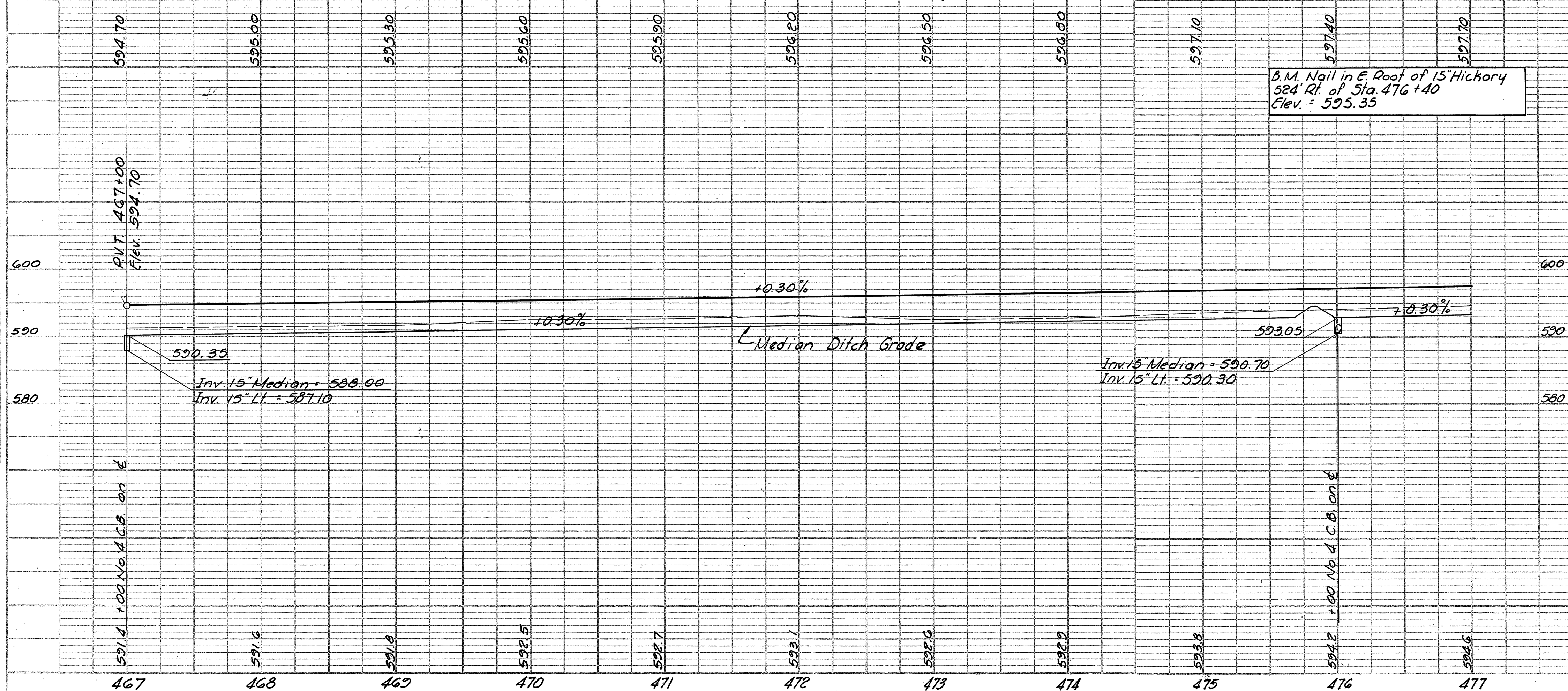
See Sheet No. Ref. No. or Structure No.	Station		Side	Drainage Quantities												
	From	To		I-1 15" Pipe Class B-1	I-1 8" Pipe Class B-1	I-1 8" Pipe Class E-1	I-1 8" Pipe Class F-1	I-1 6" Pipe Class F-1 (Shallow)	I-2 Masonry (Headwall)	I-5 18" Reg. for Class B-1	I-8 No. 4 C.B.	L-10 Sodding	I-10 Dumped Rock Protection	E-12 15" Pipe Removed	I-5 16" 10' Ave 15' Class I-3	I-1 6" Pipe Class F-1
				Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Ea.	Sq. Yd.	Cu. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.
1-D	457+00	466+98	Lt.				1032									10
2-D	457+00	467+00	Rt.				1000									
3-D	461+75	466+98	Lt.				10	548								1
4-D	462+00	467+00	Rt.				500									
5-D	467+00		Lt./Rt.	99	28	28	10		3.3	3	1	2	6			
6-D	461+92	463+42	Lt./Rt.											310		
7-D	457+00	461+00	Lt.									356				
8-D	461+00	467+00	Lt.									796				
Totals				99	28	28	20	3080	3.3	3	1	1154	6	310	2	10

DATE: 8-6-61
BY: S.M.B. E.O.S.
CHECKED: E.O.S.
NO. 8-6-61

DATE: 8-6-61
BY: S.M.B. G.T.S.
CHECKED: E.O.S.
NO. 8-6-61



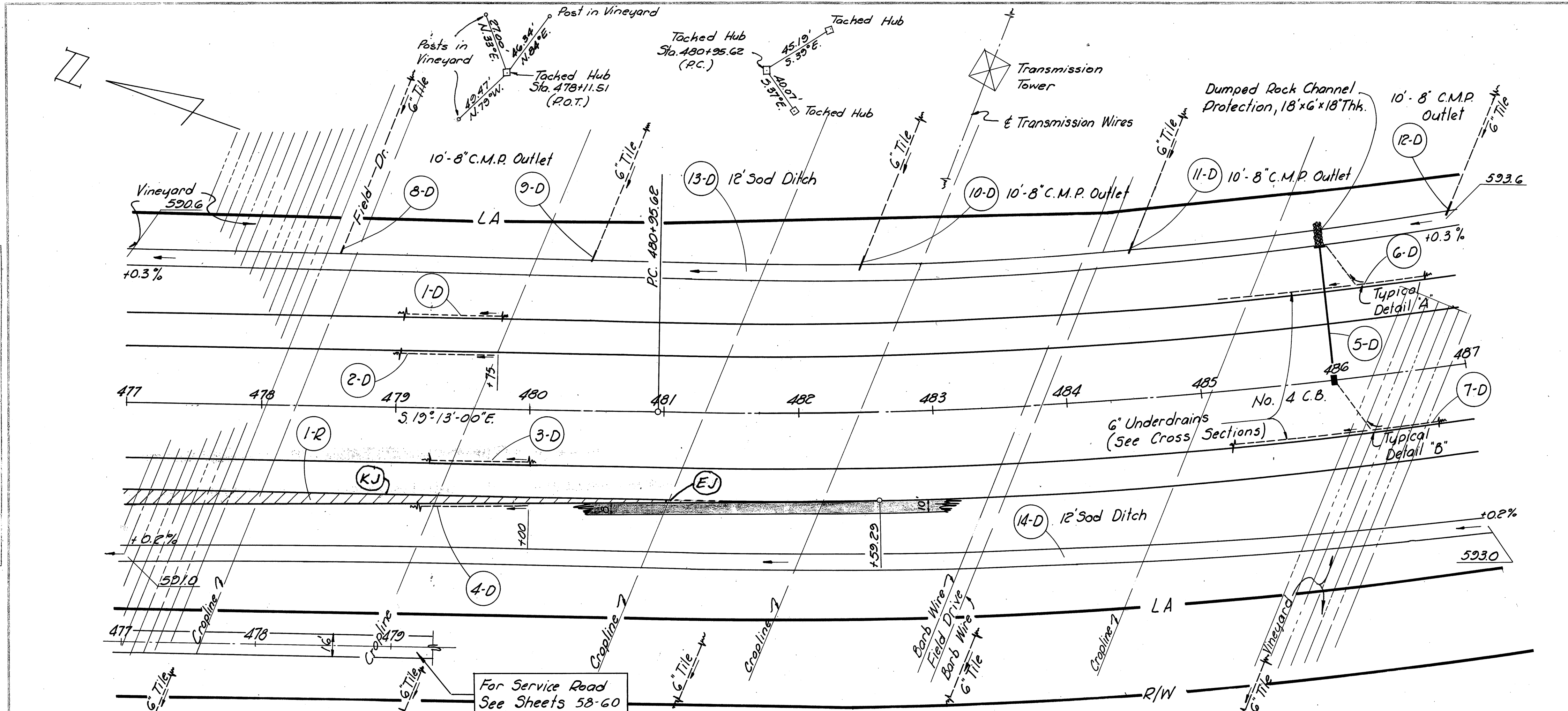
See Sheet No. Reference No. or Structure No.	Station	Side	E-1	T-71	I-22	
			Compacted Subgrade	9" Rein. P.C. Conc. Pavt.	Subbase	
From	To		Sq. Yd.	Sq. Yd.	Cu. Yd.	
1-R	470+59.29	477+00	Rt.	1304.6	1304.6	217.4
Totals				1304.6	1304.6	217.4



See Sheet No. Ref. No. or Structure No.	Station	Side	I-1	I-1	I-1	I-1	I-1	I-2	I-5	I-5	I-8	L-10	I-10	
			15" Pipe Class B-1	4" Pipe Class 4" with Threaded Couplings	8" Pipe Class F-1	6" Pipe Class I-3 (Shallow)	6" Pipe Class F-1	Masonry (Headwalls)	6" 60' Bend for Class I-5	6" 60' Bend for Class I-5	No. 4 C.B.	Sodding	Dumped Rock Channel Protection	
From	To		Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Ea.	Ea.	Sq. Yd.	Cu. Yd.	
1-D	467+02	476+19	Lt.		10	1875	30							
2-D	467+00	476+19	Rt.				919							
3-D	467+00	470+59	Rt.				359							
4-D	470+59	476+19	Rt.				560							
5-D	476+00		Lt. & Rt.	96				3.3			1	2	6	
6-D	476+23	477+00	Lt.		10	221	10			2				
7-D	476+23	477+00	Rt.		10	213	10			2				
8-D	467+63		Lt. & Rt.		396									
9-D	476+10		Lt.		10									
10-D	467+00	477+00	Lt.									1321		
11-D	470+59	477+00	Rt.									855		
Totals				96	396	40	4147	50	3.3	2	4	1	2178	6

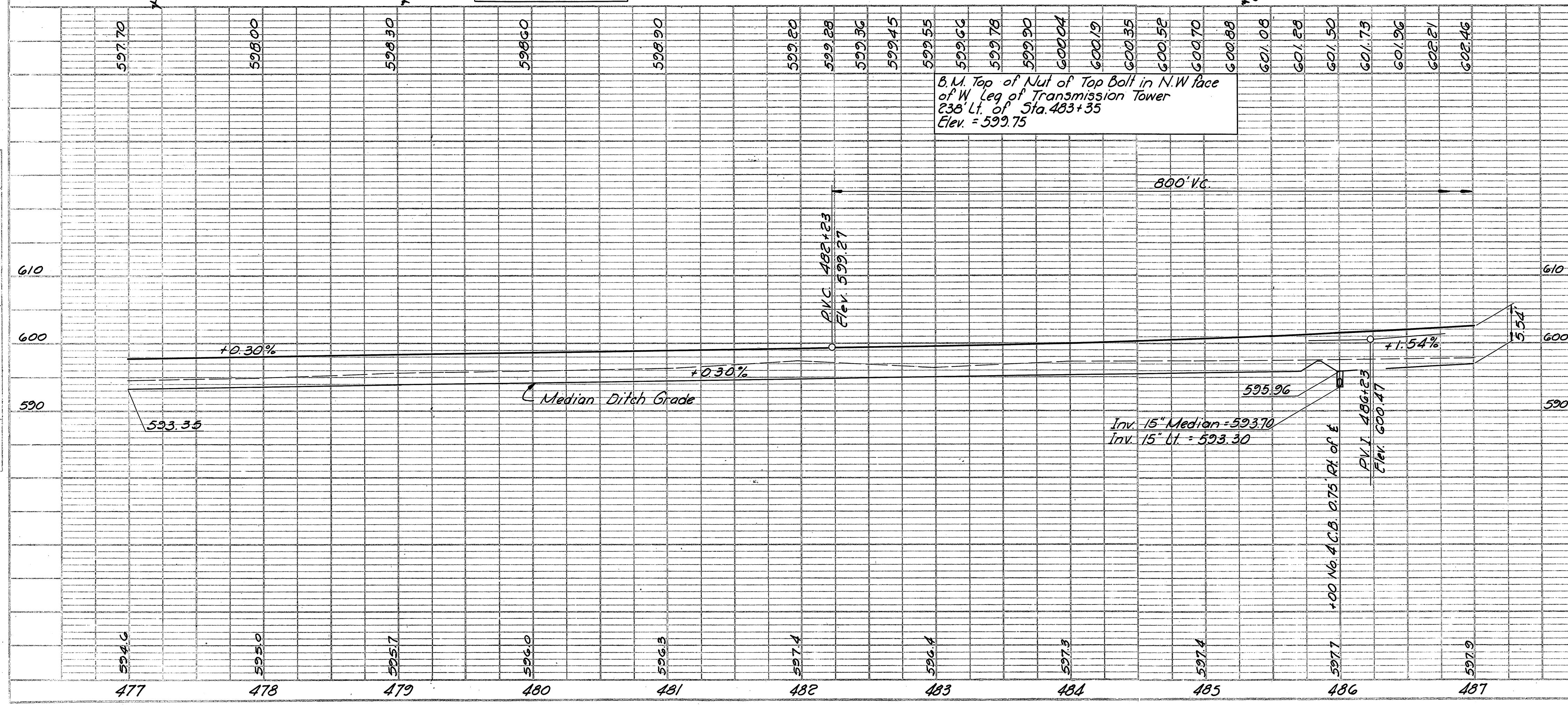
DATE 1/27/51
BY S.M.B. EDS.
PLANNED BY S.M.B. EDS.
CHECKED BY S.M.B. EDS.
NOTED BY S.M.B. EDS.
NO.

DATE 1/27/51
BY S.M.B. EDS.
PLANNED BY S.M.B. EDS.
CHECKED BY S.M.B. EDS.
NOTED BY S.M.B. EDS.
NO.



ROADWAY QUANTITIES F-1042(s)

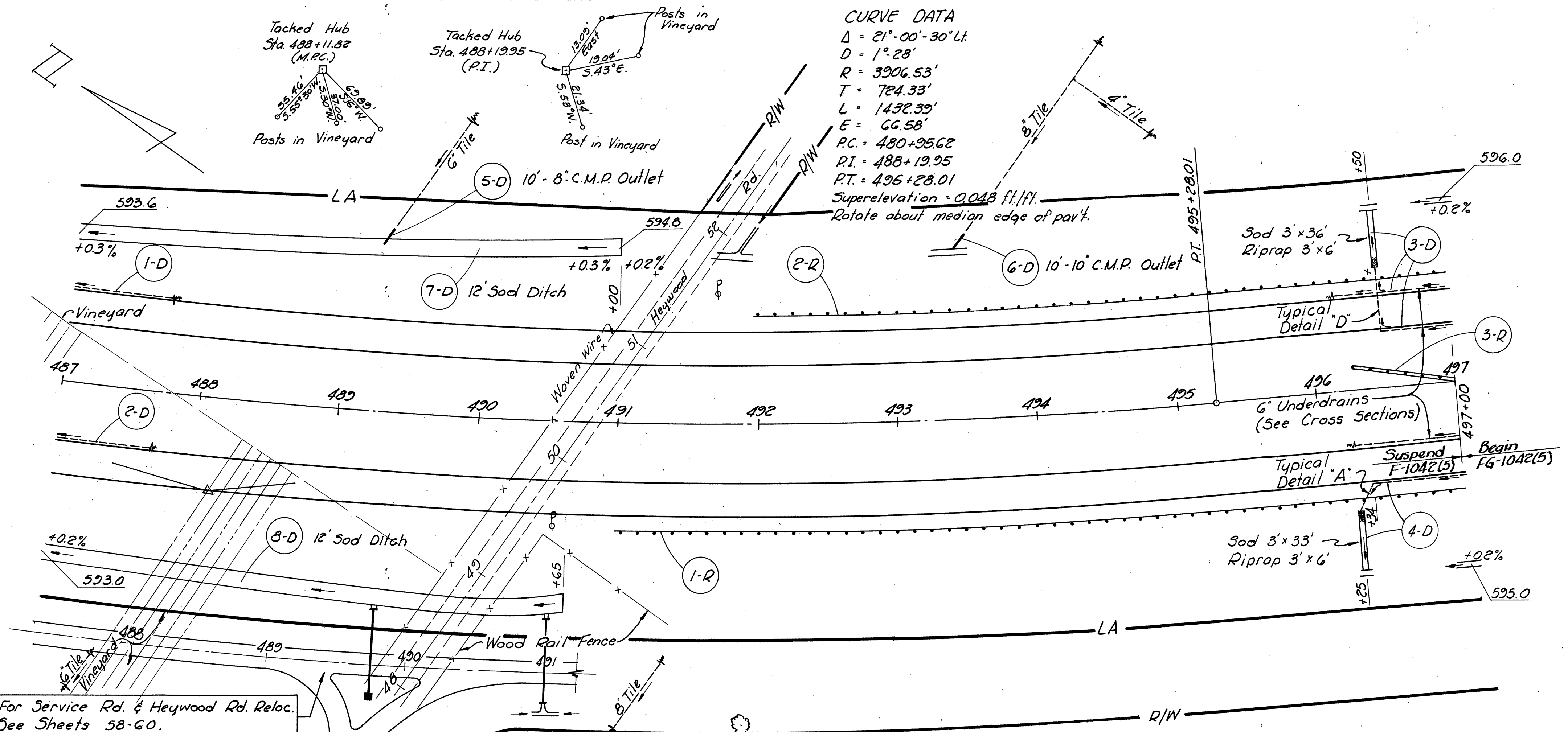
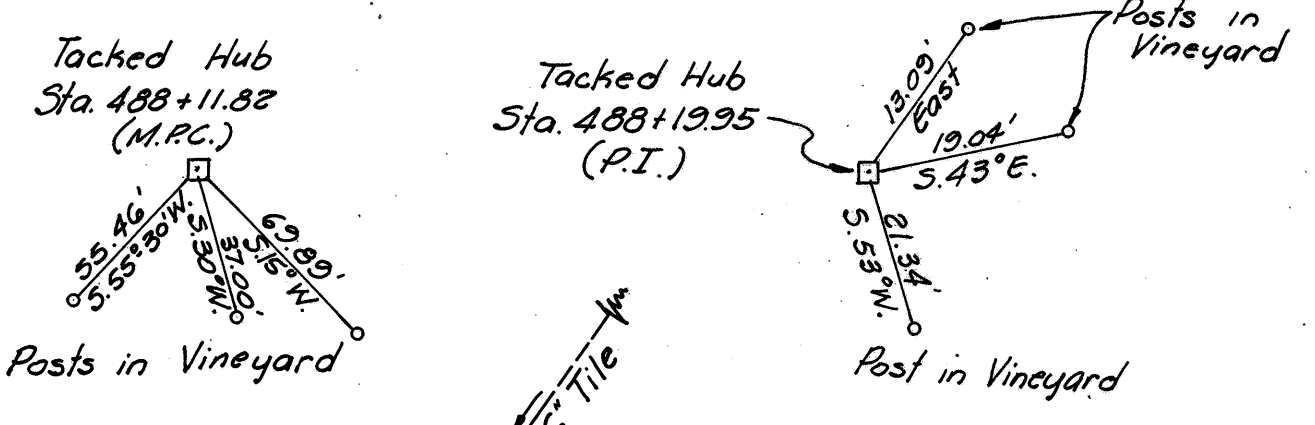
See Sheet No. Reference No. or Structure No.	Station		Side	E-1 Compacted Subgrade	T-71 9" Reinf. P.C. Conc. Pav't	I-22 Subbase
	From	To				
1-R	477+00	482+59.29	Rt.	362.0	362.0	60.3
Totals:				362.0	362.0	60.3



DRAINAGE QUANTITIES F-1042-(s)

See Sheet No. Ref. No. or Structure No.	Station		Side	I-1 15" Pipe Class B-1	I-1 6" Pipe Class F-1	I-1 8" Pipe Class F-1	I-1 6" Pipe Class T-3 (Shallow)	I-2 Masonry (Headwalls)	I-5 6" Bend for Class I-3 Pipe	I-10 Dumped Rock Channel Protection	I-8 No. 4 C.B.	I-10 Sodding
	From	To										
1-D	477+00	486+19	Lt.				209					
2-D	477+00	479+75	Lt.				275					
3-D	477+00	486+19	Rt.				919					
4-D	477+00	480+00	Rt.				300					
5-D	486+00	487+00	Lt.	96				3.3		6	1	2
6-D	486+23	487+00	Lt.		10	10	109					
7-D	486+23	487+00	Rt.		10		111					
8-D	478+60		Lt.			10						
9-D	480+50		Lt.			10						
10-D	482+50		Lt.			10						
11-D	484+55		Lt.			10						
12-D	487+00		Lt.			10						
13-D	477+00	487+00	Lt.									1321
14-D	477+00	487+00	Rt.									1333
Totals				96	20	60	2623	3.3	2	6	1	2656

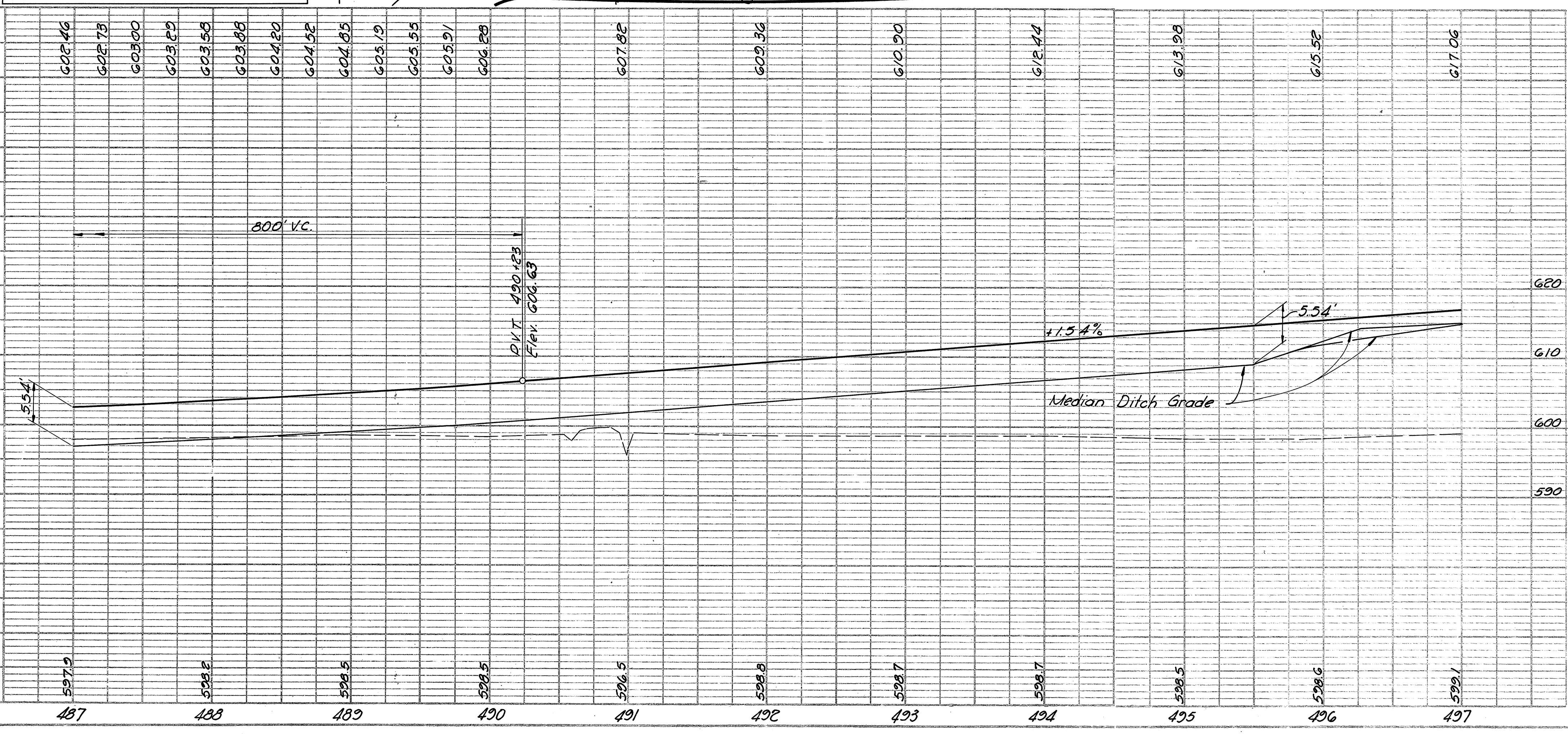
CURVE DATA
 $\Delta = 21^{\circ}-00'-30" \text{ L.A.}$
 $D = 1^{\circ}-28'$
 $R = 3906.53'$
 $T = 724.33'$
 $L = 1432.39'$
 $E = 66.58'$
 $P.C. = 480+95.62$
 $P.T. = 488+19.95$
 $P.T. = 495+28.01$
 $\text{Superelevation} = 0.048 \text{ Ft./Ft.}$
 $\text{Rate about median edge of pav't.}$



ROADWAY QUANTITIES F-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	I-15 Guard Rail (Std. Type) (Lin. Ft.)	I-15 Guard Rail (Barrier Type) (Lin. Ft.)
	From	To			
1-R	491+00	497+00	Rt.	612.5	
2-R	492+00	497+00	Lt.	495	
3-R	496+28	497+00	Med.		75
Totals				1107.5	75

For Service Rd. & Heywood Rd. Reloc. See Sheets 58-60.



DRAINAGE QUANTITIES F-1042(5)

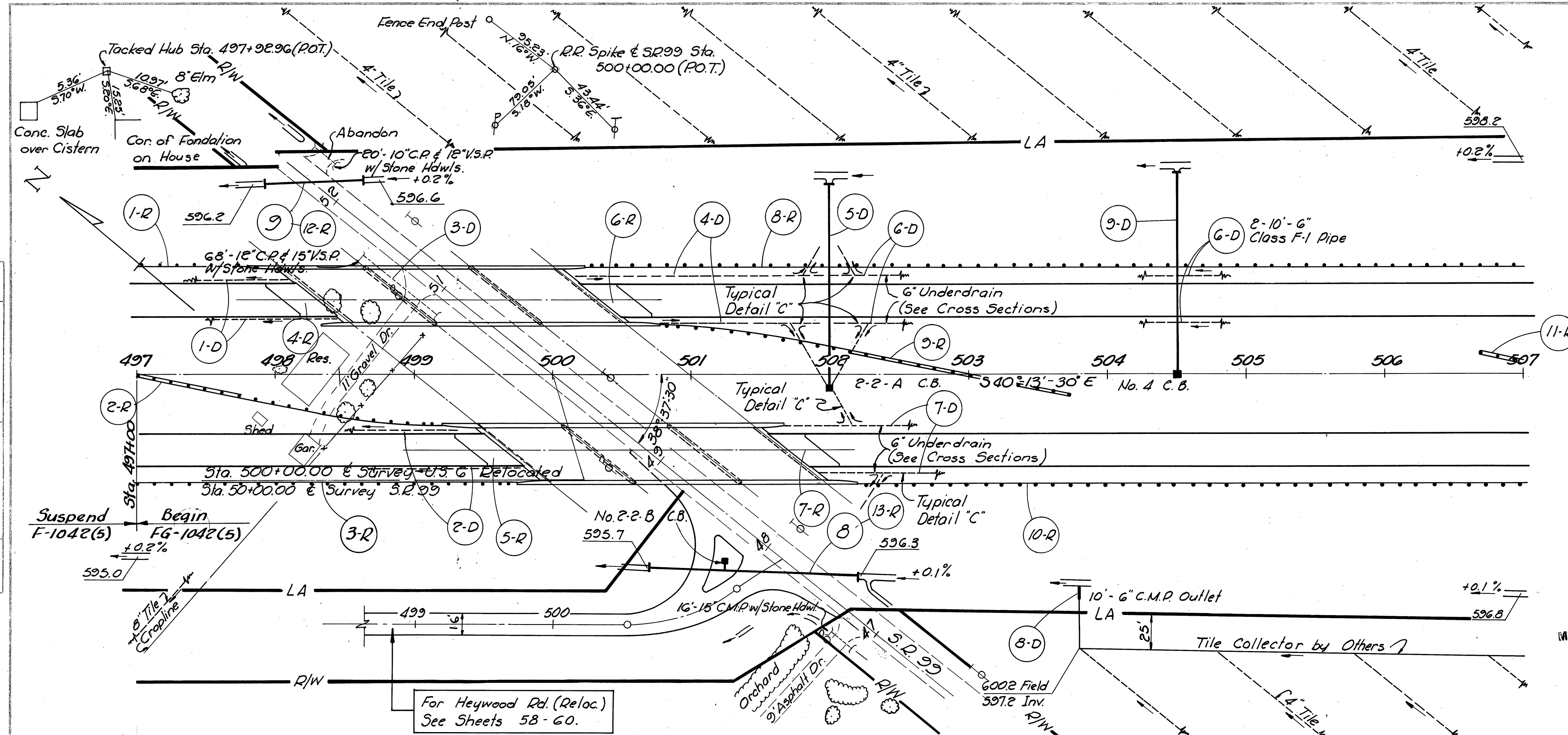
See Sheet No. Ref. No. or Structure No.	Station		Side	10" Pipe Class F-1 (Lin. Ft.)	8" Pipe Class B-1 (Lin. Ft.)	8" Pipe Class F-1 (Lin. Ft.)	6" Pipe Class I-3 (Shallow) (Lin. Ft.)	8" 90° Ell for Class B-1 (Lin. Ft.)	8" 90° Tee for Class B-1 (Lin. Ft.)	I-10 Riprap (Sq. Yd.)	L-10 Sanding (Sq. Yd.)	I-5 6" 60° Bend for Class I-3 (Lin. Ft.)
	From	To										
1-D	487+00	496+46	Lt.			246						
2-D	487+00	497+00	Rt.			1000						
3-D	496+50	497+00	Rt.	10	38	100	1	1	2	12		
4-D	496+25	497+00	Rt.			10	74		2	11	1	
5-D	489+30		Lt.			10						
6-D	493+50		Lt.	10								
7-D	487+00	497+00	Lt.								533	
8-D	487+00	490+65	Rt.								487	
Totals				20	38	20	2120	1	1	4	1043	1

DATE: 8/26/61
 SURVEYED BY: S.M.B.
 PLANNED BY: S.M.B.
 NOTE BOOK NO.: E03
 STRUCTURE NOTATION CHFD. NO.: E03

DATE: 8/26/61
 SURVEYED BY: S.A.
 PLANNED BY: G.T.S.
 NOTE BOOK NO.: E03
 STRUCTURE NOTATION CHFD. NO.: E03

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

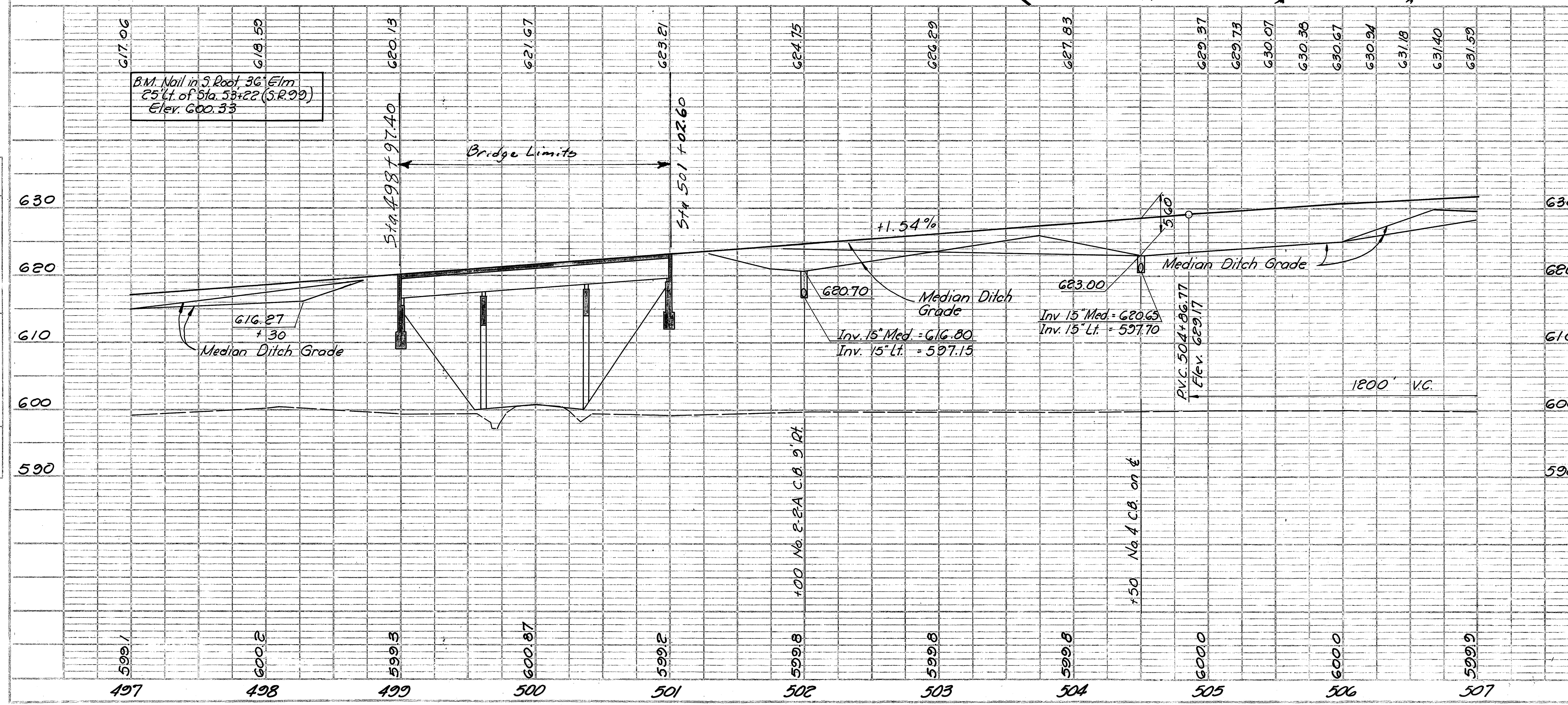
PROPOSED STRUCTURES
 Type: Continuous steel beam with reinf. concrete deck. Reinf. conc. Pier Bents and Stub Abutments.
 Spans: 61'-0", 76'-0", 61'-0" 4/8 Brgs.
 Roadway: 42'-0" R/W of Parapets.
 (Left & Right Bridges)
 Load Frequency: C.F. 400(57)
 Skew: 51°-20' R.F.
 Wearing Surface: 1" Monolithic Concrete
 Approach Slabs: AS-1-54 (25'-0" Long)
 Alignment: Tangent.



ROADWAY QUANTITIES F-FG-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	Quantities							
	From	To		E-1	I-7	I-15	I-15	I-22	B-70	T-35	
				Compacted Subgrade Sq.Yd.	Reinf. Conc. Slab Sq.Yd.	Appr. Slab (I-15) Sq.Yd.	Guard Rail (Std. Type) Lin.Ft.	Guard Rail (Barrier Type) Lin.Ft.	Subbase Cu.Yd.	P.C. Conc. Base Course Cu.Yd.	Asph. Conc. Surface Course (Type A) Cu.Yd.
1-R	497+00	497+75	Lt.				80				
2-R	497+00	497+20	Med.				150	75			
3-R	497+00	497+75	Rt.				275				
4-R	See Site Plan		Lt.	66.7	66.7				11.1		
5-R	See Site Plan		Rt.	66.7	66.7				11.1		
6-R	See Site Plan		Lt.	66.7	66.7				11.1		
7-R	See Site Plan		Rt.	66.7	66.7				11.1		
8-R	500+24	507+00	Lt.				676				
9-R	500+77	503+75	Med.				150	150			
10-R	502+20	507+00	Rt.				480				
11-R	506+70	507+00	Med.					30			
FG-1042(5) Totals:				266.8	266.8	1811	255	444	-	-	-
12-R	498+17	498+56	Lt.						7.3	1.2	
13-R	501+68	501+99	Rt.						7.3	1.2	
F-1042(5) Totals:				-	-	-	-	-	14.6	2.4	-

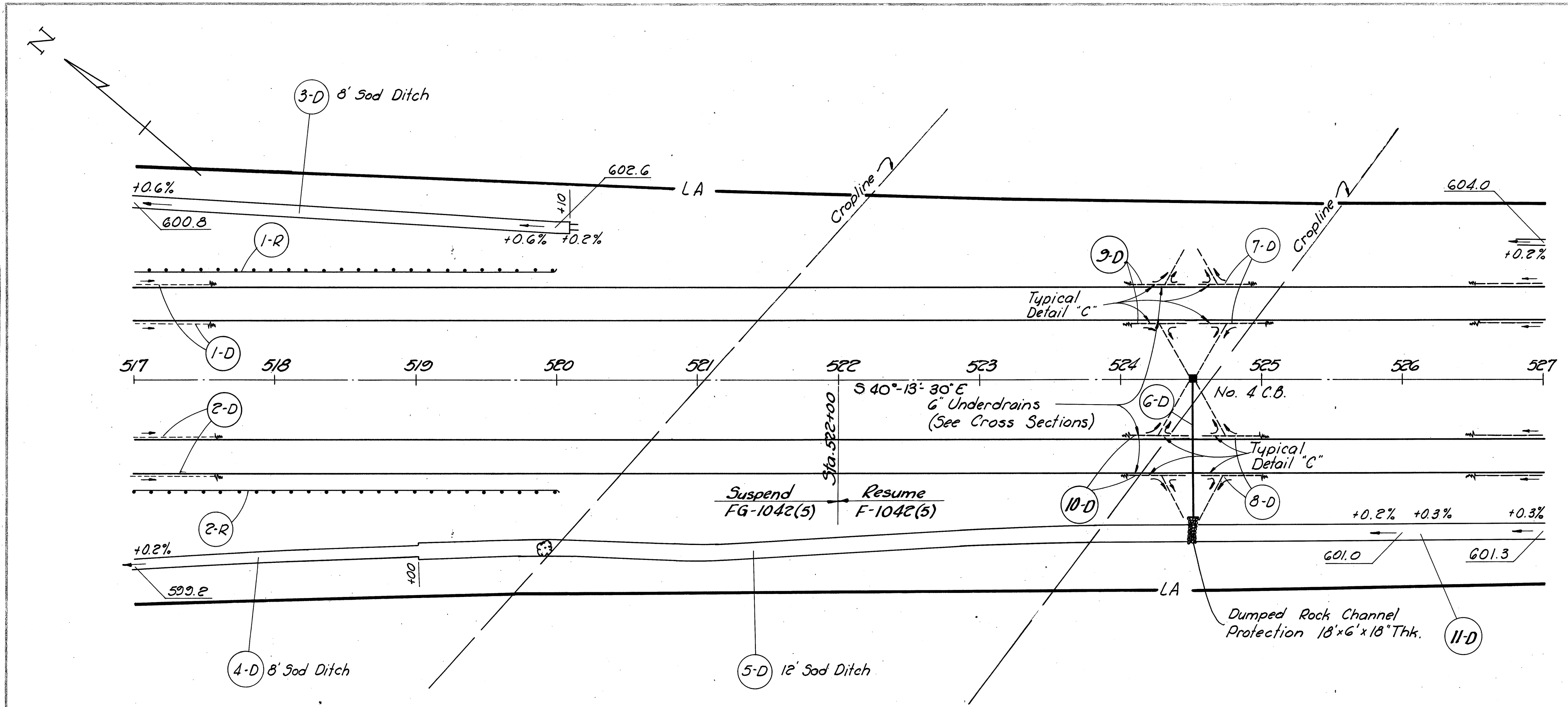
MICROFILM
SEP 11 1986



DRAINAGE QUANTITIES F-FG-1042(5)

See Sheet No. Ref. No. or Structure No.	Station		Side	Quantities											
	From	To		I-1	I-1	I-1	I-1	I-1	I-1	I-1	I-2	I-5	I-5		
				30" Pipe (40' Min. Depth) Class A-1 Lin.Ft.	24" Pipe (40' Min. Depth) Class A-1 Lin.Ft.	18" Pipe (40' Min. Depth) Class A-1 Lin.Ft.	15" Pipe Class B-1 Lin.Ft.	12" Pipe Class F-1 Lin.Ft.	12" Pipe (40' Min. Depth) Class D-1 Lin.Ft.	8" Pipe Class F-1 Lin.Ft.	6" Pipe Class I-3 (Shallow) Lin.Ft.	6" Pipe Class F-1 Lin.Ft.	Masonry (Headwalls) Cu.Yd.	15" 23" Ell. for Class F-1 Ea.	6" 60" Pipe for Class I-3 Ea.
1-D	497+00	498+25	Lt.								250				
2-D	497+00	499+50	Rt.								500				
4-D	500+35	501+98	Lt.							10	376	10			2
5-D	502+00		Lt.			96	57							3.56	2
6-D	502+02	507+00	Lt.							10	1026	30			2
7-D	501+80	507+00	Rt.							10	1084	10			2
8-D	503+80		Rt.									10			
9-D	504+50		Lt.			87	66							3.56	2
FG-1042(5) Totals				-	-	183	123	-	30	3236	60	712	4	6	
69 9	497+34	498+67	Lt.	72										1.02	
69 8	500+68	502+19	Rt.		152			6						0.90	
F-1042(5) Totals				72	152	-	-	6	-	-	-	-	-	1.92	-
3-D	498+63	499+16	Lt.												
69 8	500+68	502+19	Rt.												
F-1042(5) Totals				-	-	-	1	-	68	-	-	-	-	-	-
5-D	502+00		Lt.											2	
9-D	504+50		Lt.											2	
FG-1042(5) Totals				-	-	-	1	-	1	-	4	-	-	-	-

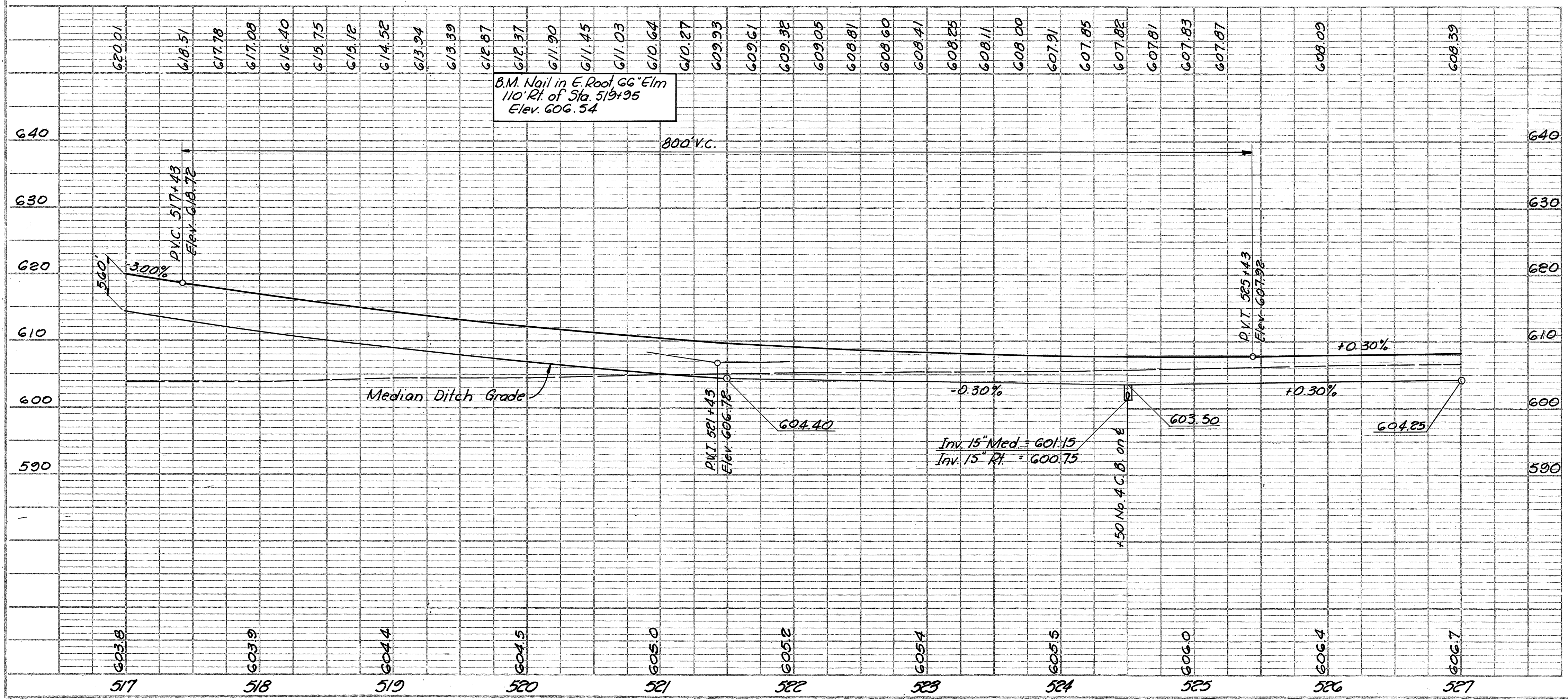
DATE: 8-23-58
BY: S.M.B. R.G.
EDS
EDS
NO. OF WAY CHECKED: 8-6-1



ROADWAY QUANTITIES FG-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	I-15 Guard Rail (Std. Type) Lin. Ft.	I-15		
	From	To					
1-R	517+00	519+98.5	Lt.	298.5			
2-R	517+00	520+02	Rt.	302			
FG-1042(5) Totals				600.5			

DATE: 8-23-58
BY: S.M.B. R.G.
EDS
EDS
NO. OF WAY CHECKED: 8-6-1



DRAINAGE QUANTITIES F-FG-1042(5)

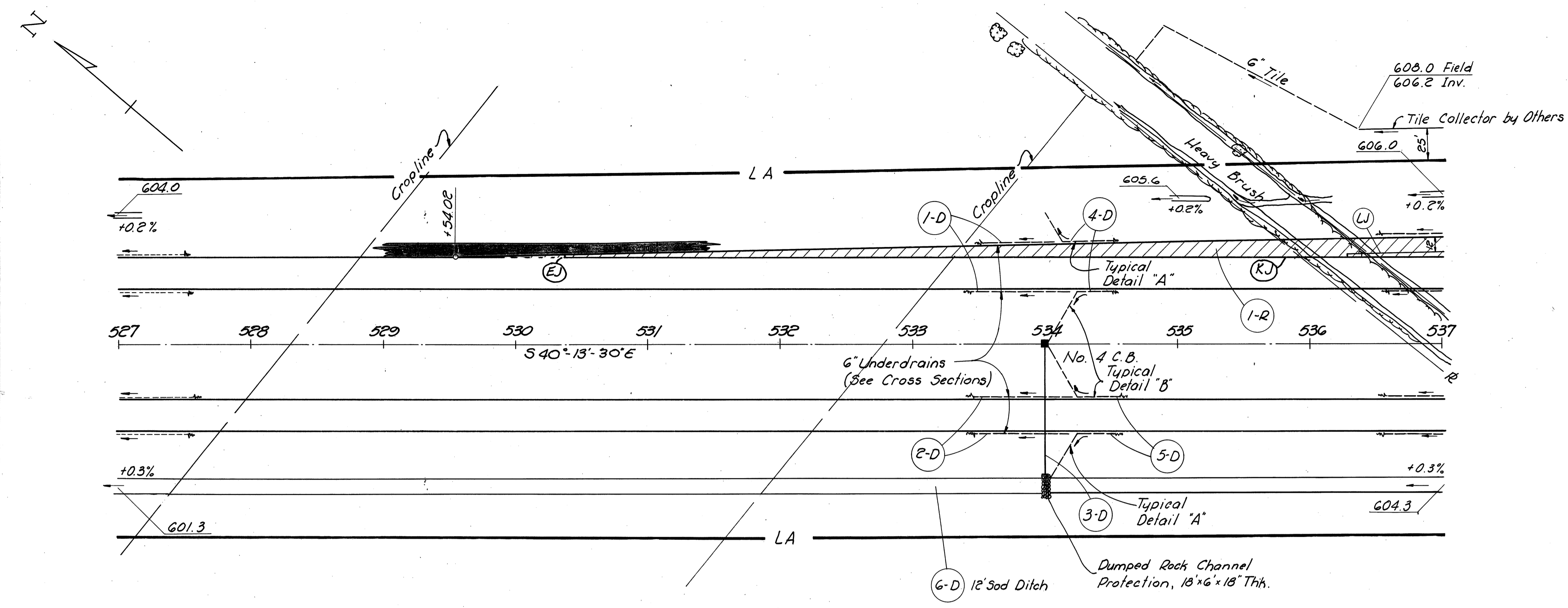
See Sheet No. Ref. No. or Structure No.	Station		Side	I-1	I-1	I-1	I-1	I-2	I-5	I-10	I-8	L-10
	From	To		15" Pipe Class B-1 Lin. Ft.	6" Pipe Class F-1 Lin. Ft.	8" Pipe Class F-1 Lin. Ft.	6" Pipe Class I-3 (Shallow) Lin. Ft.	Masonry (Headwalls) Cu. Yd.	6" x 10" Pipe for Class I-3 Ea.	Dumped Rock Channel Protection Cu. Yd.	No. 4 C.B. Ea.	Sodding Sq. Yd.
1-D	517+00	522+00	Lt.				1000					
2-D	517+00	522+00	Rt.				1000					
3-D	517+00	520+10	Lt.									276
4-D	517+00	519+00	Rt.									178
5-D	519+00	522+00	Rt.									400
FG-1042(5) Totals							2000					854
6-D	524+50	527+00	Lt.	96				33				
7-D	524+52	527+00	Lt.		10	10	549		2			
8-D	524+52	527+00	Rt.		10	10	563		2			
9-D	522+00	524+48	Lt.		10	10	549		2			
10-D	522+00	524+48	Rt.		10	10	563		2			
11-D	522+00	527+00	Rt.									659
F-1042(5) Totals				96	40	40	2224	33	8	6	1	661

DATE 1958
BY S.A.B. R.V.E.
SALB
G.D.
203
203

PLANNED SURVEYED
NOTE BOOK NO. 1071

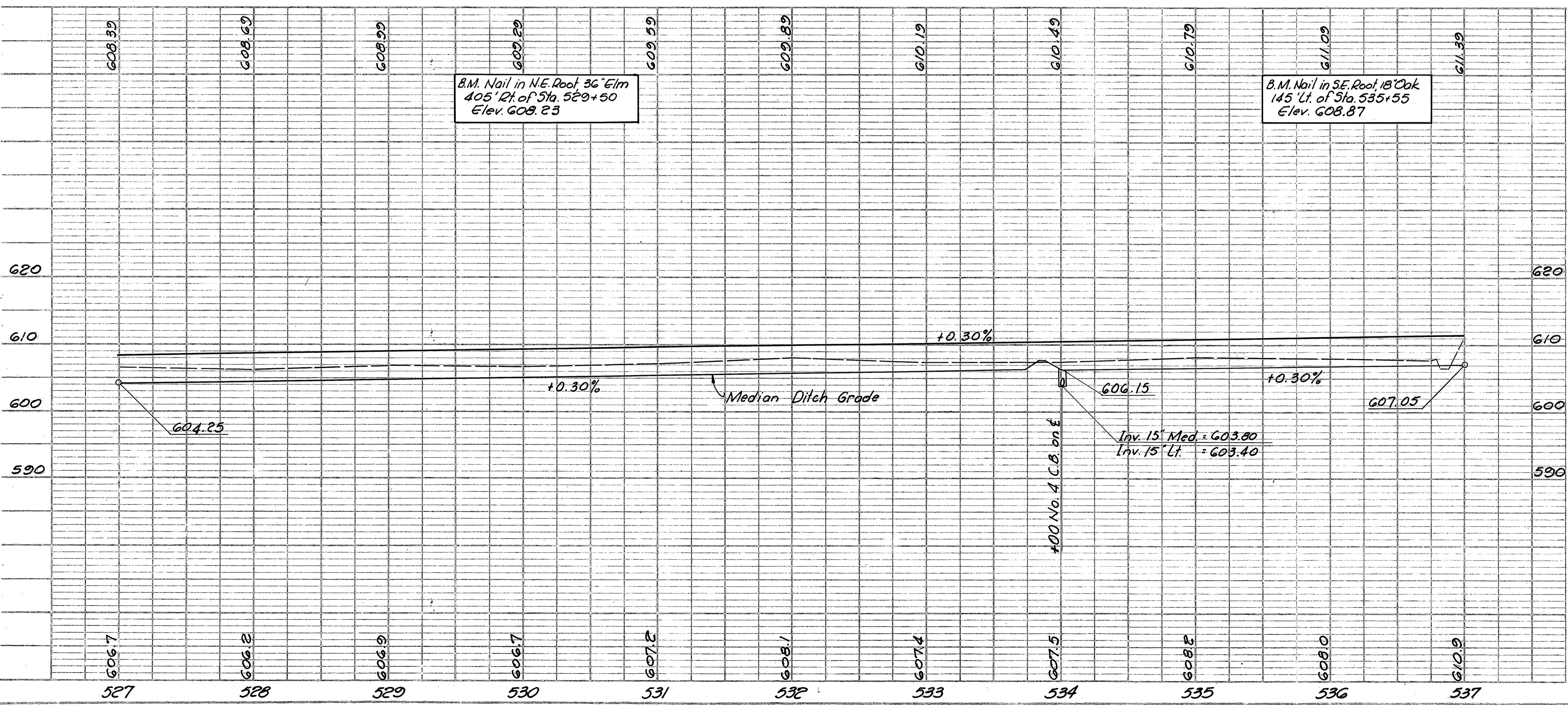
DATE 1958
BY S.A.B. G.R.S.
S.A.B.
G.R.S.
203
203

PROF. SURVEYED
NOTE BOOK NO. 1071



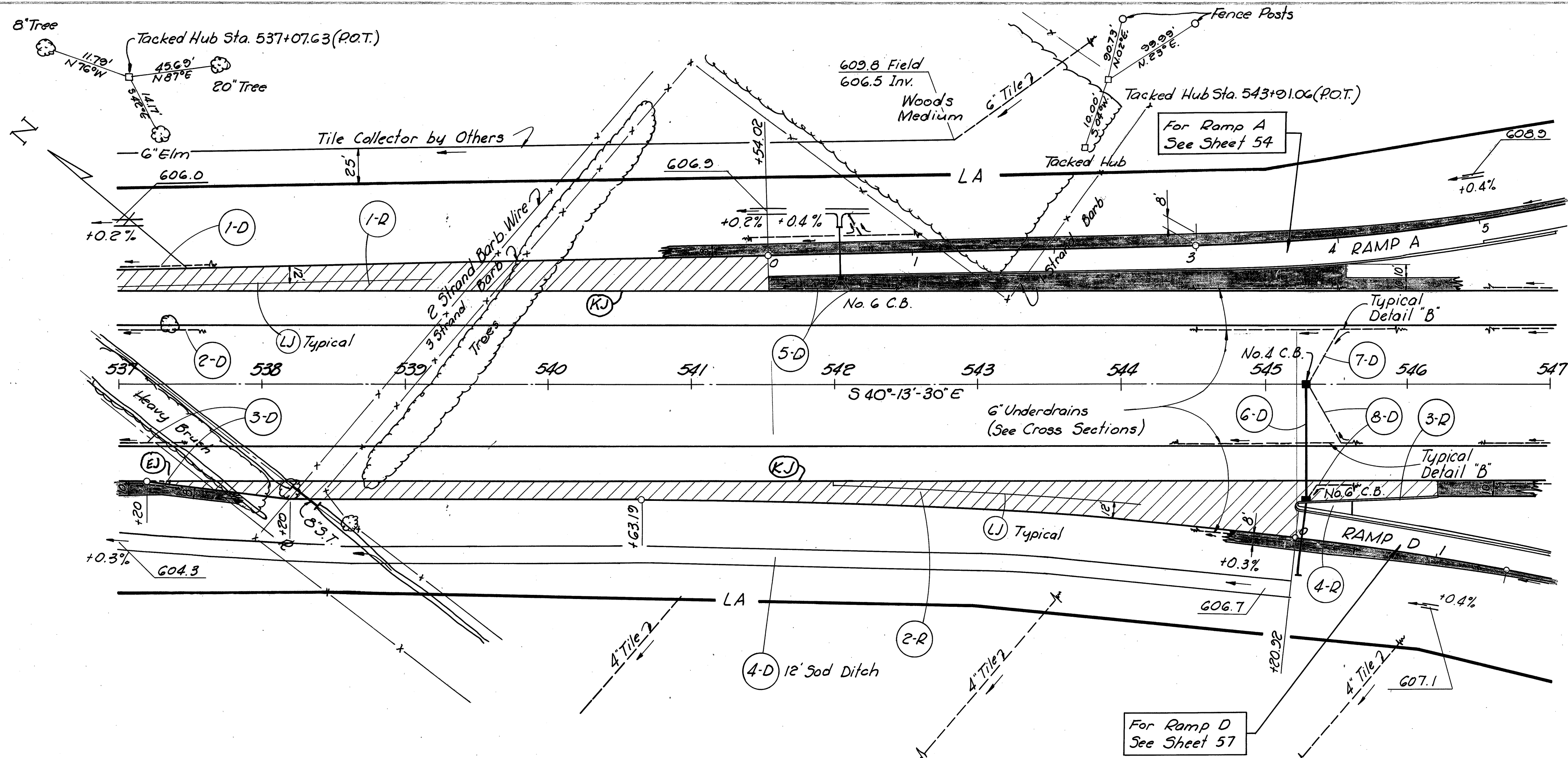
ROADWAY QUANTITIES F-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	E-1 Compacted Subgrade Sq. Yd.	T-7 5" Rein. P.C. Conc. Pavt. Sq. Yd.	I-22 Subbase Cu. Yd.
	From	To				
1-R	527+54.00	537+00	Lt.	644.0	644.0	107.3
Totals				644.0	644.0	107.3



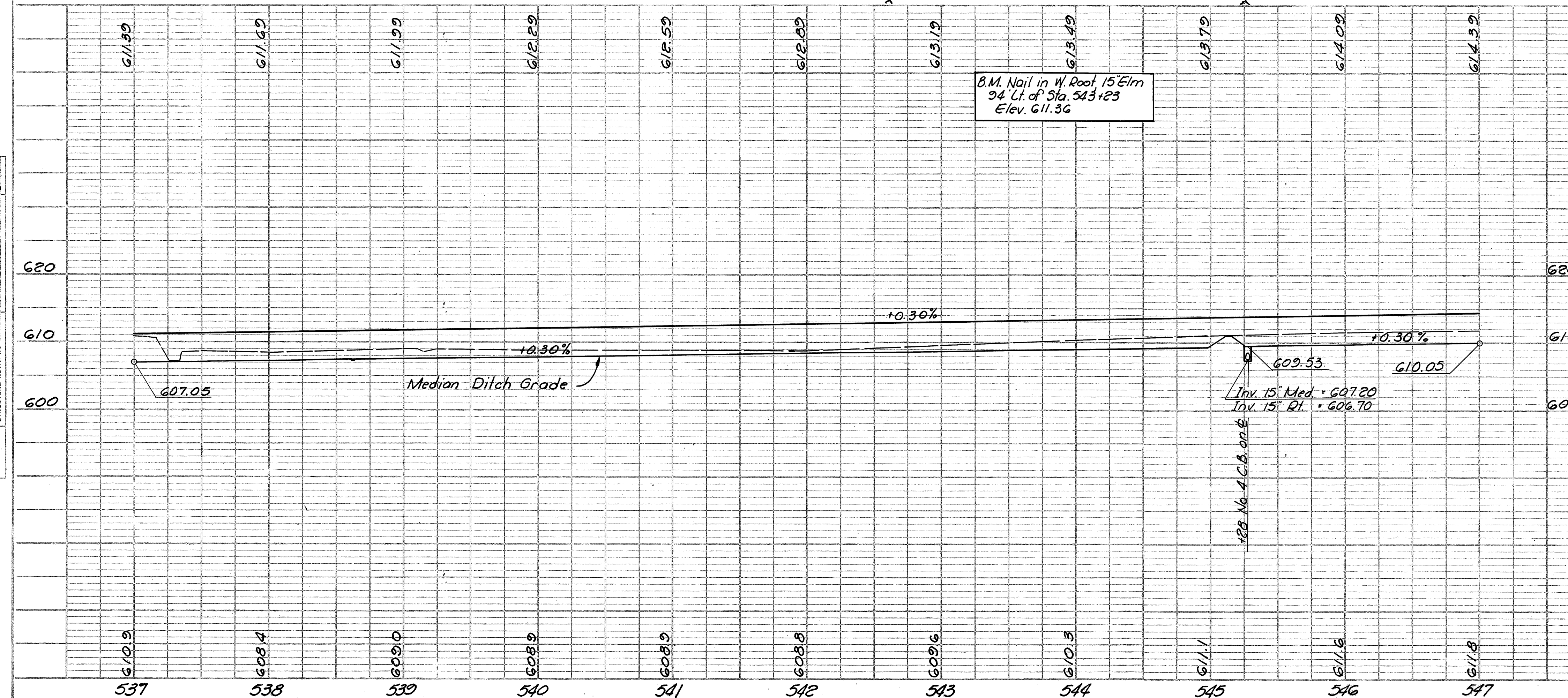
DRAINAGE QUANTITIES F-1042(5)

See Sheet No. Ref. No. or Structure No.	Station		Side	I-1 15" Pipe Class B-1 Lin. Ft.	I-1 6" Pipe Class F-1 Lin. Ft.	I-1 8" Pipe Class F-1 Lin. Ft.	I-1 6" Pipe Class I-3 (Shallow) Lin. Ft.	I-2 Masonry (Headwalls) Cu. Yd.	I-5 6" Bend for Class I-3 Pipe Ea.	I-10 Dumped Rock Channel Protection Cu. Yd.	I-8 No. 4 C.B. Ea.	L-10 Seeding Sq. Yd.
	From	To										
1-D	527+00	534+19	Lt.				1428					
2-D	527+00	534+19	Rt.		20		1408					
3-D	534+00		Lt. & Rt.	96				3.3		6	1	2
4-D	534+23	537+00	Lt.		10	10	614					
5-D	534+23	537+00	Rt.		10	10	620		2			
6-D	527+00	537+00	Rt.									1325
Totals				96	40	20	4070	3.3	4	6	1	1327



ROADWAY QUANTITIES F-1042(s)

See Sheet No. Reference No. or Structure No.	Station		Side	E-1		T-7/1		I-12		I-21		I-22	
	From	To		Compacted Subgrade	9\"/>								
	Sq. Yd.	Sq. Yd.		Sq. Yd.	Sq. Yd.	Lin. Ft.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.			
1-R	537+00	541+54.02	Lt.	1022.6	1022.6							170.4	
2-R	537+20	546+20.92	Rt.	1600.0	1600.0							266.7	
3-R	545+20.92	546+20.92	Rt.			104							
4-R	545+20.92	545+60.92	Rt.					29.2					
Totals				2622.6	2622.6	104	29.2	437.1					



DRAINAGE QUANTITIES F-1042(s)

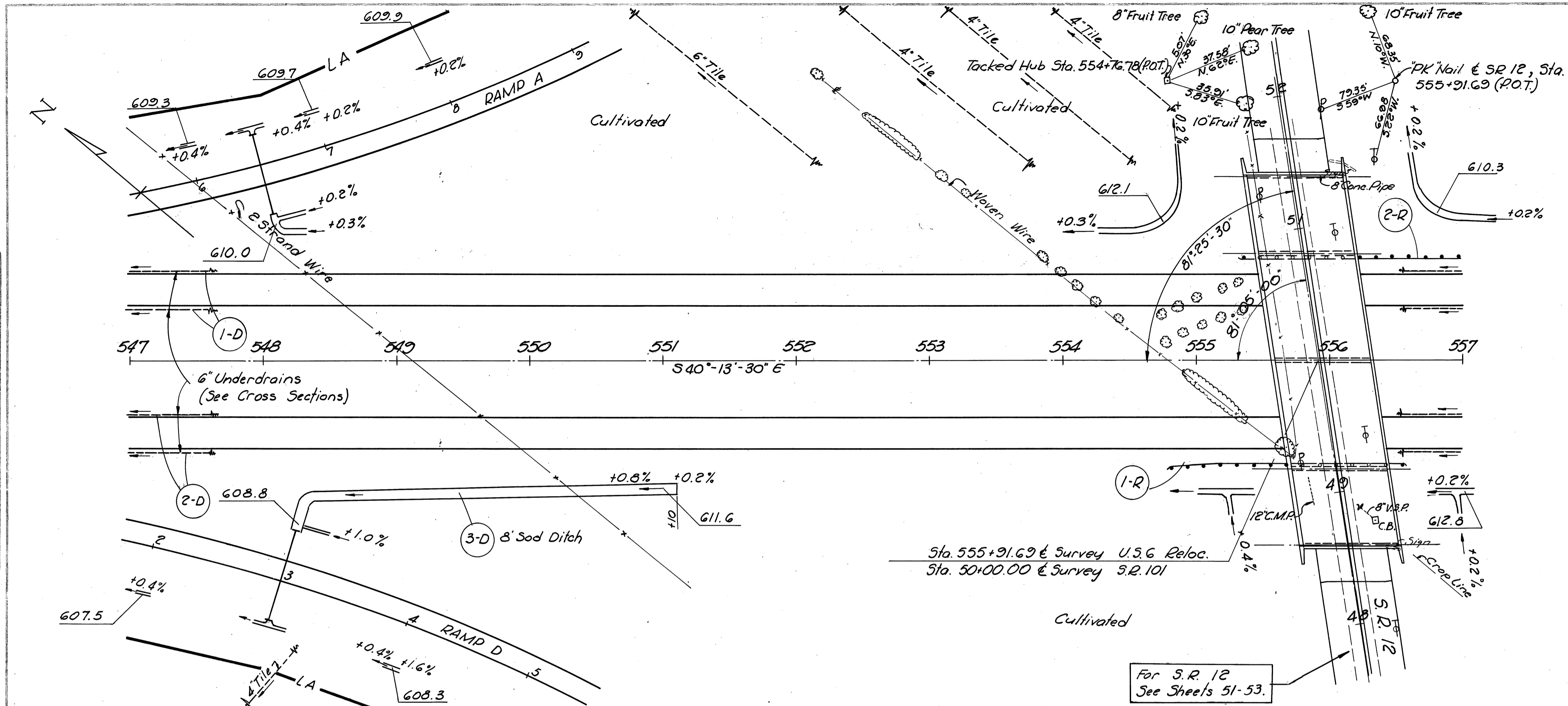
See Sheet No. Ref. No. or Structure No.	Station		Side	I-1		I-1		I-1		I-2		I-5		I-8		L-10	
	From	To		15\"/>													
	Lin. Ft.	Lin. Ft.		Lin. Ft.	Cu. Yd.	Eq.	Eq.	Sq. Yd.	Eq.	Sq. Yd.							
1-D	537+00	541+54	Lt.					454									
2-D	537+00	545+47	Lt.					847									
3-D	537+00	545+47	Rt.		10			1658									
4-D	537+00	545+16	Rt.													1088	
5-D	541+54	547+00	Lt.		20			536			2						
6-D	545+28		Lt.	75						3.3				1		2	
7-D	545+51	547+00	Lt.		10			183			1						
8-D	545+35	547+00	Rt.		20			347			2						
Totals:				75	60	4025	3.3	5	1	1090							

DATE 1958
SURVEYED BY S.M.B. E.R.E.
PLANNED BY E.J.D. E.D.S.
NOTED BY E.D.S.
CHECKED BY E.D.S.
STRUCTURE LOCATIONS CHD.

DATE 1958
SURVEYED BY S.M.B. G.T.S.
PLANNED BY E.J.D. E.D.S.
NOTED BY E.D.S.
CHECKED BY E.D.S.
STRUCTURE LOCATIONS CHD.

DATE: 1/25/58
 BY: E.D.S.
 CHECKED: E.D.S.
 SURVEYED: E.D.S.
 PLAN: 10

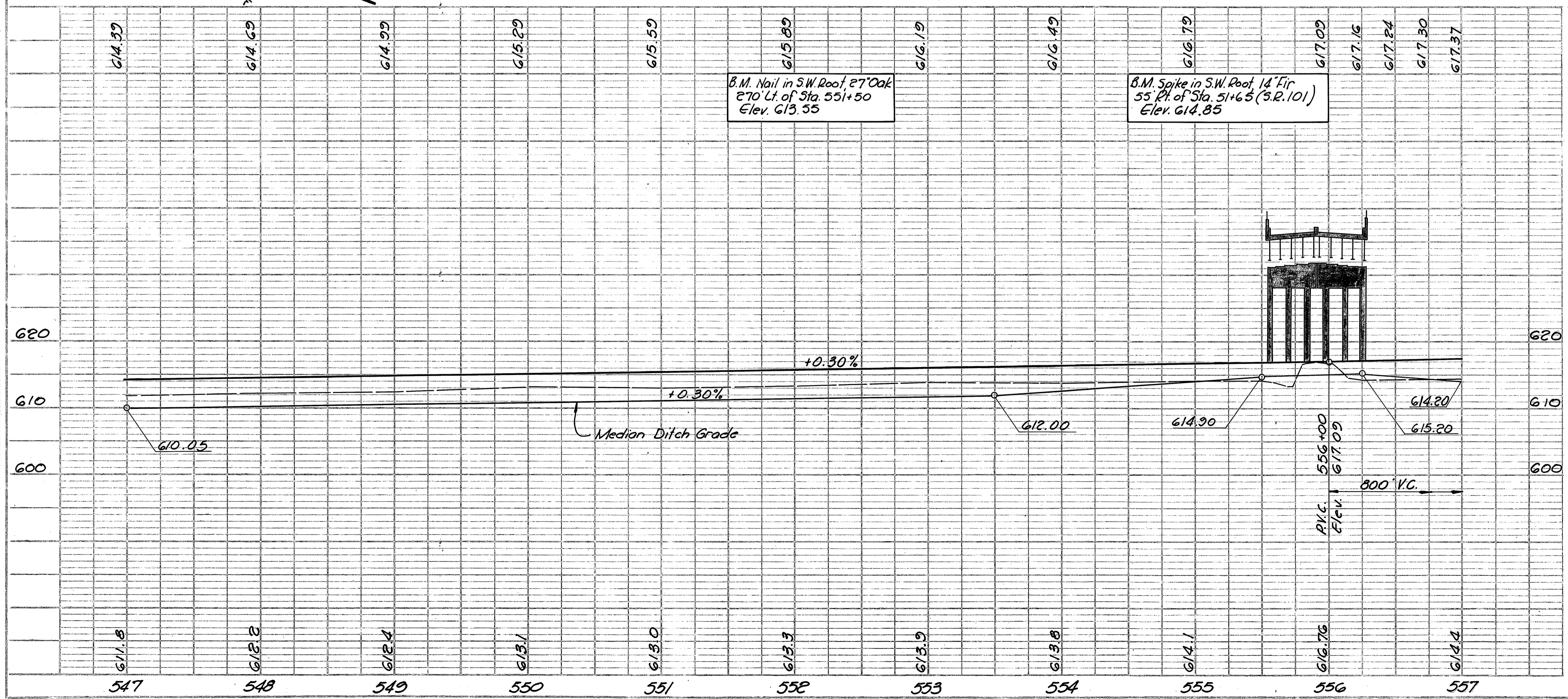
DATE: 1/25/58
 BY: E.D.S.
 CHECKED: E.D.S.
 SURVEYED: E.D.S.
 PLAN: 10



PROPOSED STRUCTURE
 Type: Continuous steel beam with reinf. conc. deck. Reinf. conc. pier bents and stub abutments.
 Spans: 58'-0", 82'-6", 82'-6", 58'-0" % Brgs.
 Roadway: 59'-0" flt of 2'-3" Safety curbs including 3'-0" raised conc. median.
 Load Frequency: CF 400 (57)
 Shew: 8°-34'-00" Left Forward
 Wearing Surface: 1" Monolithic concrete
 Approach Slabs: AS-1-54 (25' Long)
 Alignment: Tangent

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 2-402, ERI G-3.80

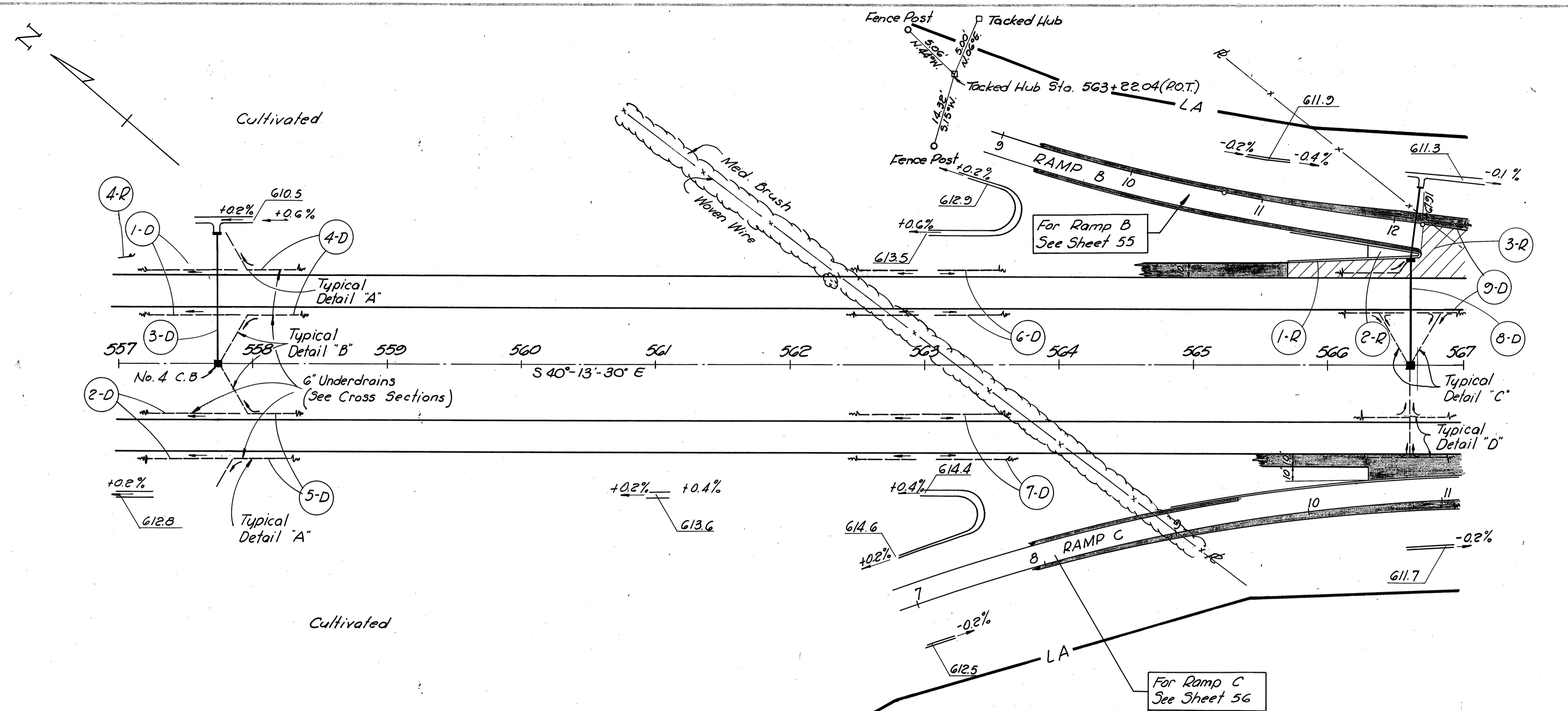


ROADWAY QUANTITIES F-1042(5)

See Sheet No. Reference No. or Structure No.	Station	Side	I-15	I-15
	From To	Guard Rail (Std. Type)		
1-R	554+78 556+53	Rt.	175	
2-R	555+35 557+00	Lt.	165	
Totals			340	

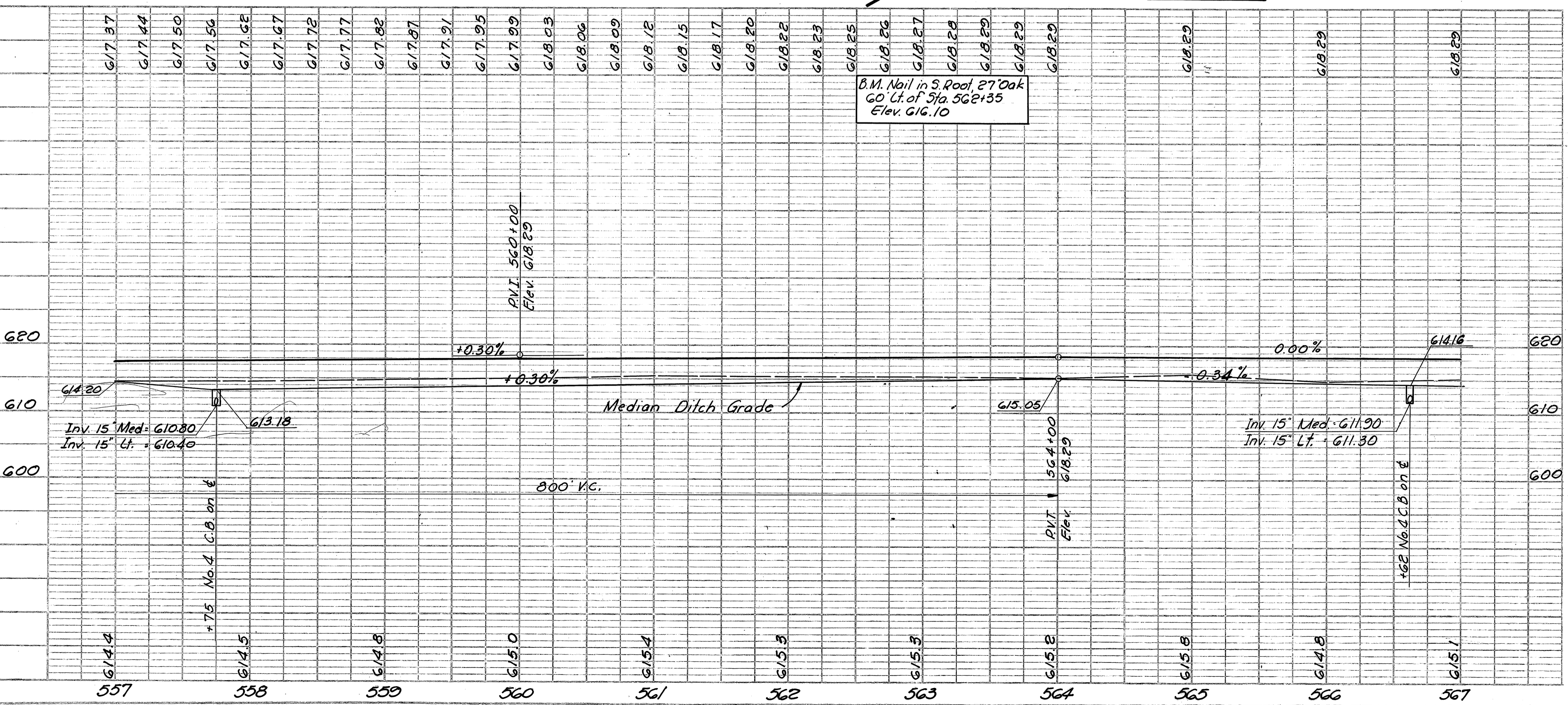
DRAINAGE QUANTITIES F-1042(5)

See Sheet No. Ref. No. or Structure No.	Station	Side	I-1	L-10
	From To	6" Pipe Class I-3 (Standard)		
		Soil		
1-D	547+00 557+00	Lt.	2000	
2-D	547+00 557+00	Rt.	2000	
3-D	548+20 551+10	Rt.		269
Totals			4000	269



ROADWAY QUANTITIES F-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	E-1	T-71	I-12	I-15	I-21	I-22
	From	To		Compacted Subgrade Sq.Yd.	9" Reinf. P.C. Conc. Pavt. Sq.Yd.	Type PA Curb Lin.Ft.	Guard Rail (Std. Type) Lin.Ft.	4" P.C. Conc. Med. Pavt. (Type I) Sq.Yd.	Subbase Cu.Yd.
1-R	565+67.91	566+67.91	Lt.			104			
2-R	566+27.91	566+67.91	Lt.					29.0	
3-R	565+67.91	567+00	Lt.	268.0	268.0				44.7
4-R	557+00	557+10	Lt.				10		
Totals				268.0	268.0	104	10	29.0	44.7



DRAINAGE QUANTITIES F-1042(5)

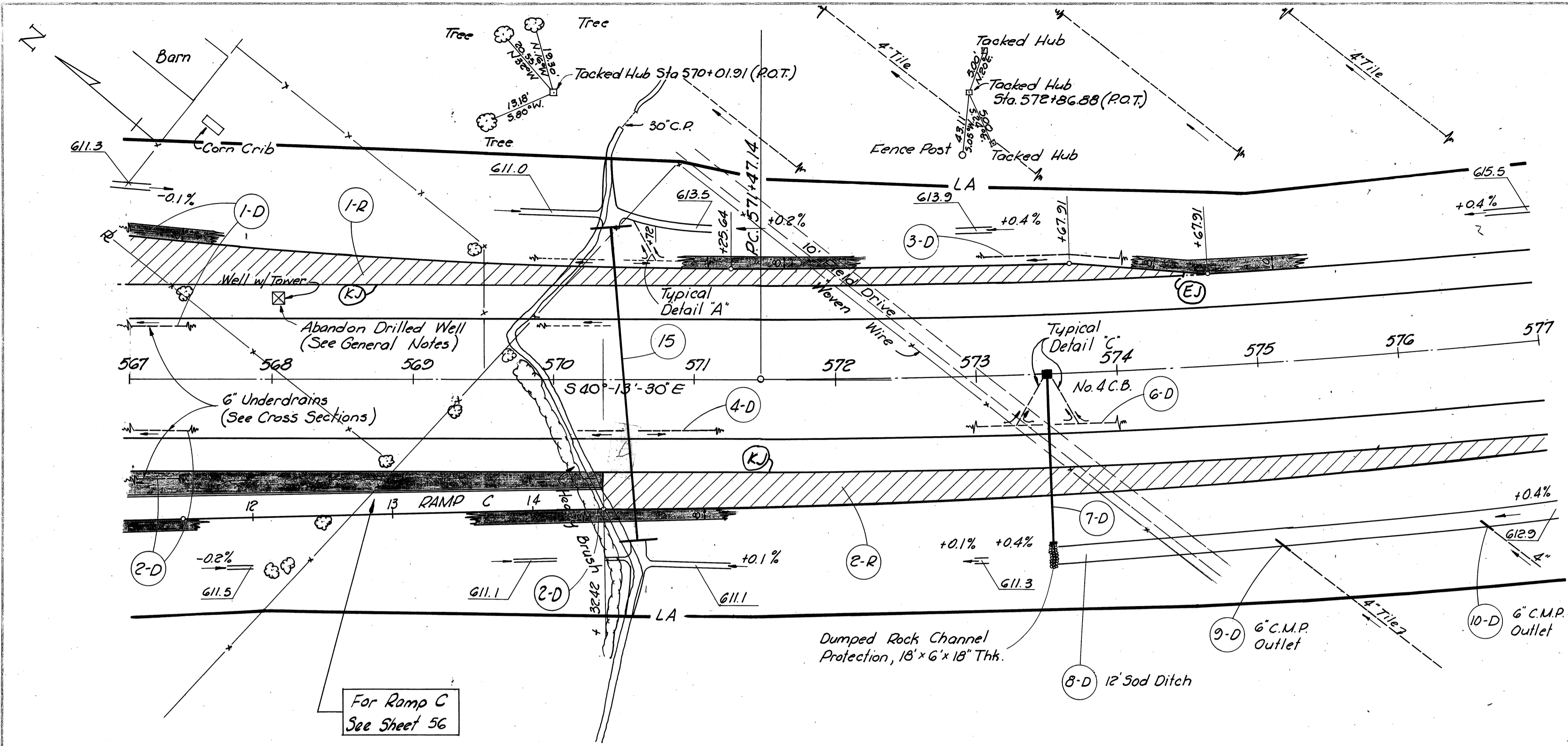
See Sheet No. Ref. No. or Structure No.	Station		Side	I-1	I-1	I-1	I-1	I-2	I-1	I-5	I-8	I-1	I-10	I-5	I-5
	From	To		15" Pipe Class B-1 Lin.Ft.	8" Pipe Class B-1 Lin.Ft.	6" Pipe Class F-1 Lin.Ft.	6" Pipe Class I-3 (Shallow) Masonry (Headwalls) Cu.Yd.	8" Pipe Class E-1 Lin.Ft.	8" on 12" Class B-1 Pipe Ea.	No. 4 C.B. Ea.	6" Pipe Class F-1 Lin.Ft.	Soading 6" x 100' x 15' 10' Class I-5 Ea.	6" on 12" Class I-5 Ea.	6" on 12" Class I-5 Ea.	6" on 12" Class I-5 Ea.
1-D	557+00	557+94	Lt.				168								
2-D	557+00	557+94	Rt.				176								
3-D	557+75		Lt. Rt.	99				33			1		2		
4-D	557+94	562+98	Lt.			10	1074				10				2
5-D	557+94	562+98	Rt.			10	1052				10				2
6-D	563+02	566+60	Lt.				743				20			1	1
7-D	563+02	567+00	Rt.		28	10	796		28	3					
8-D	566+62		Lt.	75				33			1		2		
9-D	566+64	567+00	Lt.				36								
Totals:				174	28	30	4045	6.6	28	3	2	60	4	1	5

DATE: 1958
BY: S.M.B. RVE
SURVEYED: E.D.S.
CHECKED: E.D.S.
PLANNED: E.D.S.
NOTED: E.D.S.

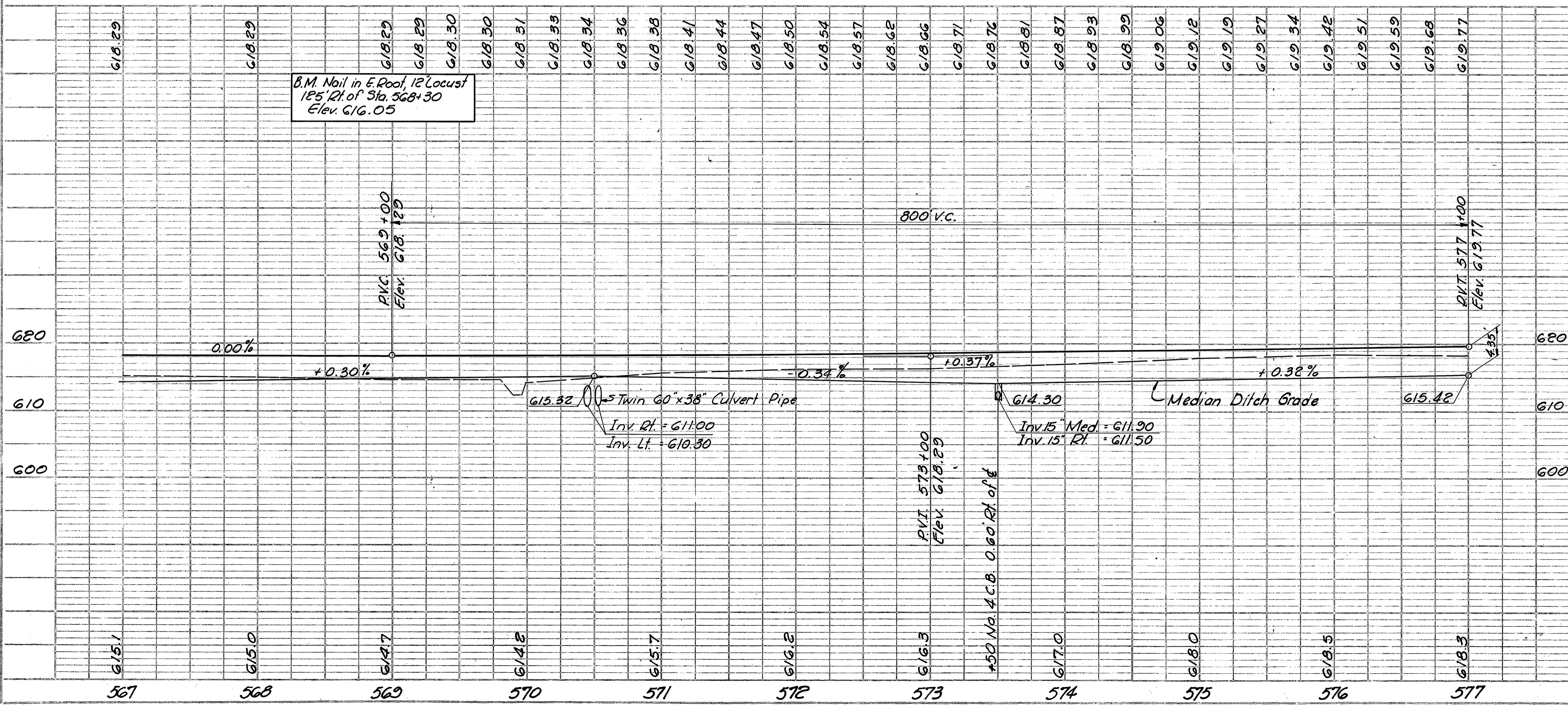
DATE: 1958
BY: S.M.B. GTS
SURVEYED: E.D.S.
CHECKED: E.D.S.
PLANNED: E.D.S.
NOTED: E.D.S.

DATE 10-58
SURVEYED BY S.W.B. F.N.E.
PLOTTED BY S.W.B. F.N.E.
NOTE BOOK NO. 603
STRUCTURE NO. 603

DATE 10-58
SURVEYED BY S.W.B. G.T.S.
PLOTTED BY S.W.B. G.T.S.
NOTE BOOK NO. 603
STRUCTURE NO. 603

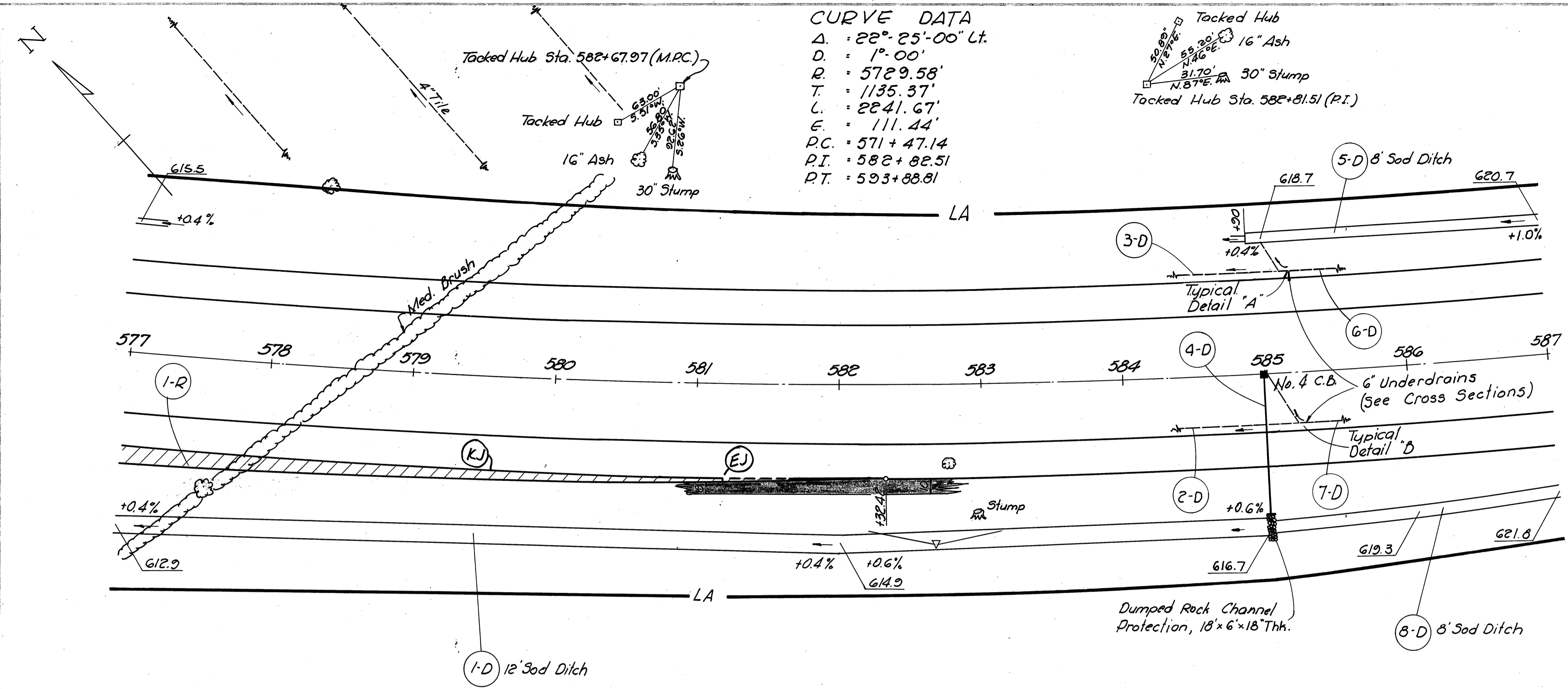
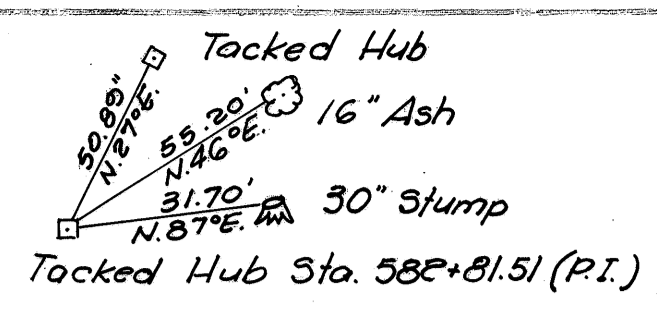


See Sheet No. or Reference No. or Structure No.	Station		Side	E-1			T-71			I-22		
	From	To		Compacted Subgrade	2" Reinf. P.C. Conc. Pav't.	Subbase	Sq. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Cu. Yd.
	1-R	567+00		574+67.91	Lt.	1330.7	1330.7	221.8				
2-R	570+32.42	577+00	Rt.	1356.7	1356.7	226.1						
Totals				2687.4	2687.4	447.9						



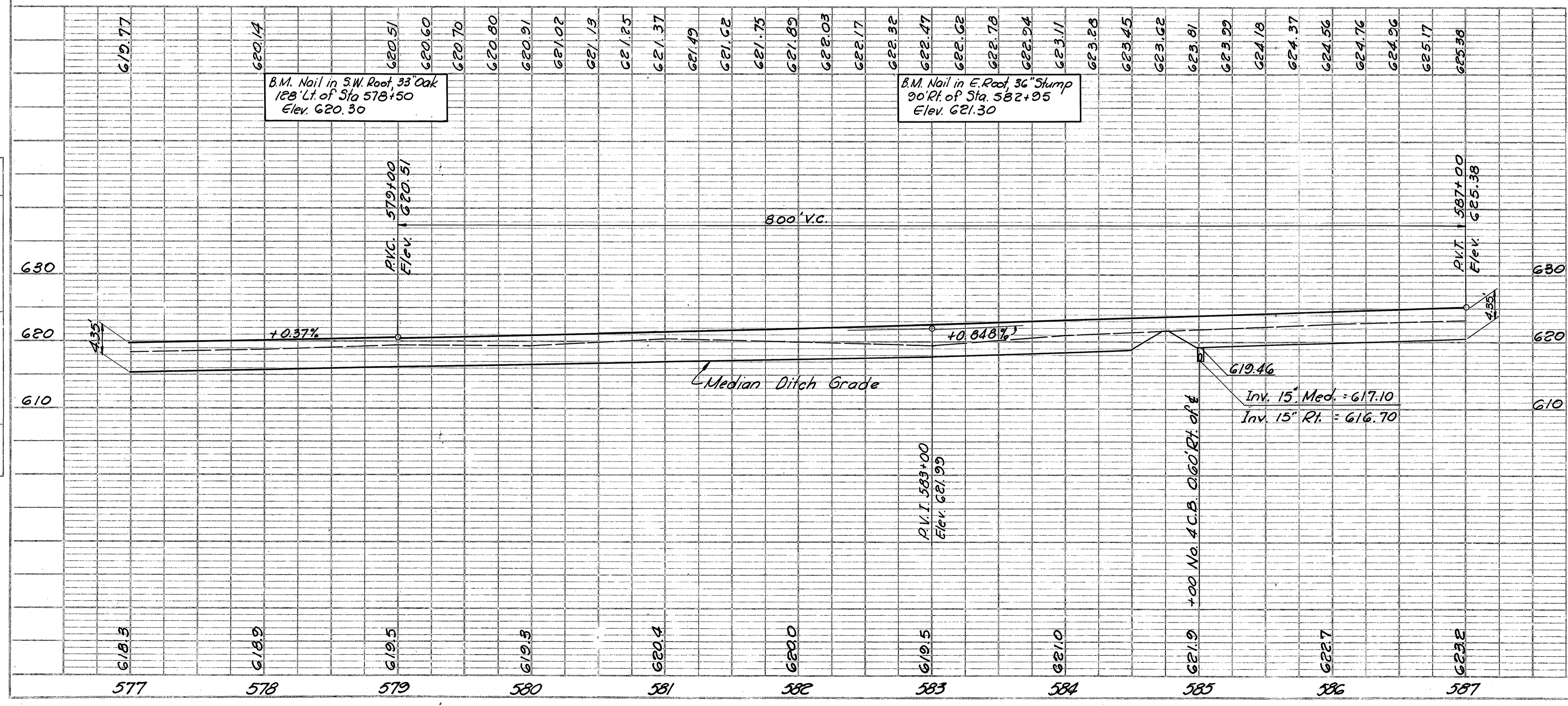
See Sheet No. or Reference No. or Structure No.	Station		Side	E-3		I-1		I-10		I-1		I-1		I-2		I-5		I-8		I-10	
	From	To		Channel Excavation	I-1	I-10	I-1	I-1	I-2	I-5	I-8	I-10	Channel Excavation	I-1	I-10	I-1	I-1	I-2	I-5	I-8	I-10
	1-D	567+00		570+35	Lt.																
2-D	567+00	570+50	Rt.																		
15	570+55	577+00	Lt.	105	444																
3-D	570+55	577+00	Lt.																		
4-D	570+65	573+48	Rt.																		
6-D	573+52	577+00	Rt.																		
7-D	573+50	577+00	Lt.																		
8-D	573+53	577+00	Rt.																		
9-D	575+00	576+50	Rt.																		
10-D	576+50	577+00	Rt.																		
Totals:				105	444	117	6	10	40	2736	32.3	3	1	476							

CURVE DATA
 $\Delta = 22^\circ 25' 00''$ Lt.
 $D = 1^\circ 00'$
 $R = 5729.58'$
 $T = 1135.37'$
 $L = 2241.67'$
 $E = 111.44'$
 $PC = 571 + 47.14$
 $PI = 582 + 82.51$
 $PT = 593 + 88.81$



ROADWAY QUANTITIES F-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	E-1 Compacted Subgrade Sq. Yd.	T-71 9" Reinf. PC Conc. Pavt. Sq. Yd.	I-22 Subbase Cu. Yd.
	From	To				
1-2	577+00	582+32.42	Rt.	331.8	331.8	55.3
Totals				331.8	331.8	55.3



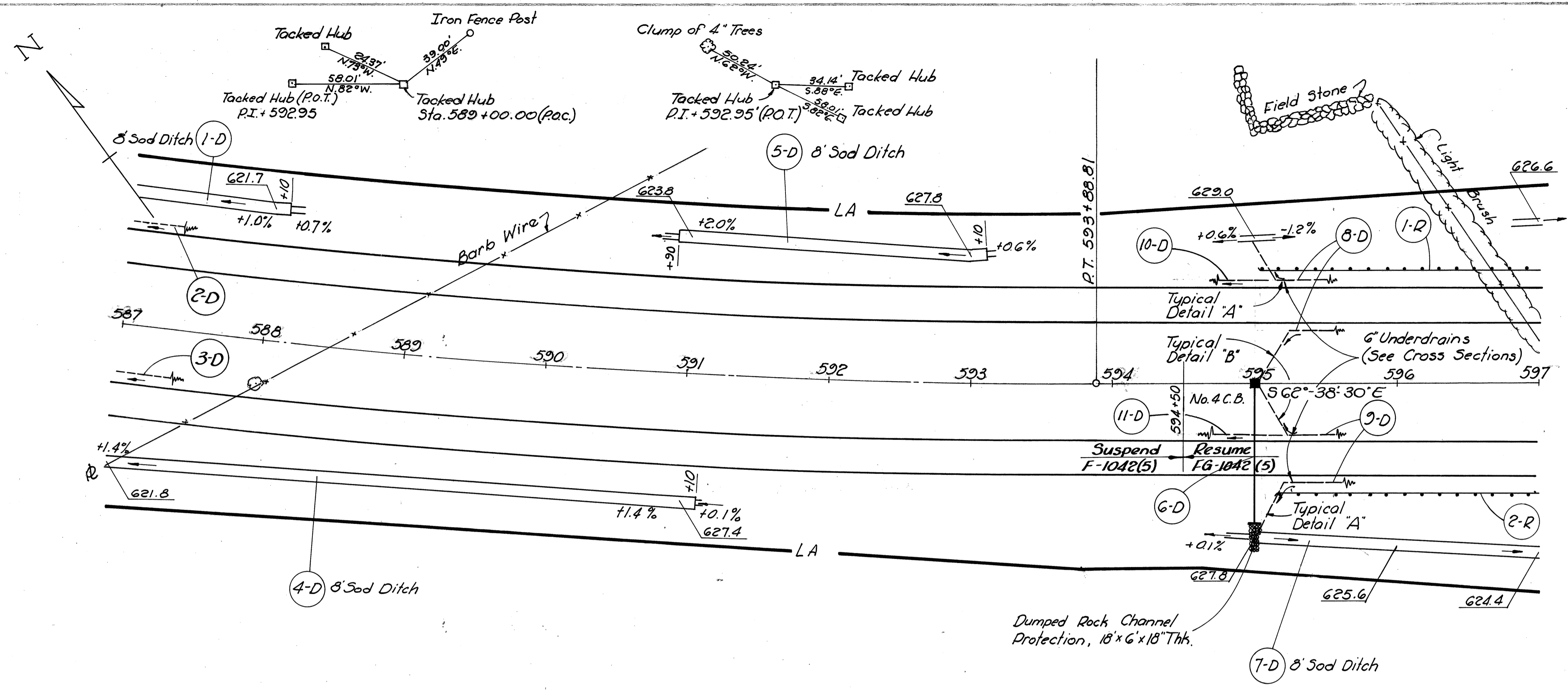
DRAINAGE QUANTITIES F-1042(5)

See Sheet No. Ref. No. or Structure No.	From	To	Side	Drainage Item												
				15" Pipe Class B-1 Lin. Ft.	6" Pipe Class F-1 Lin. Ft.	8" Pipe Class F-1 Lin. Ft.	6" Pipe Class I-3 (Shallow) Lin. Ft.	Masonry (Head Walls) Cu. Yd.	6" x 60" Bend for Class I-3 Ea.	No. 4 C.B. Ea.	Sodding Sq. Yd.	6" Pipe Class I-3 Class I-3 Sec. M.C. (1/4") Lin. Ft.	Dumped Rock Channel Protection Cu. Yd.			
1-D	577+00	584+97	Rt.													
2-D	577+00	585+19	Rt.		10		500									
3-D	577+00	585+09	Lt.				500									
4-D	585+00		Lt.	102				3.3		1	2					6
5-D	584+20	587+00	Lt.									187				
6-D	585+19	587+00	Lt.			10				1						205
7-D	585+23	587+00	Rt.		10					1						211
8-D	585+03	587+00	Rt.									175				
Totals:				102	20	10	1000	3.3	2	1	1427	1034	6			

DATE: 1958
 SURVEYED BY: S.M.B.
 PLOTTED BY: S.M.B.
 CHECKED BY: S.M.B.
 NOTE BOOK NO. 203

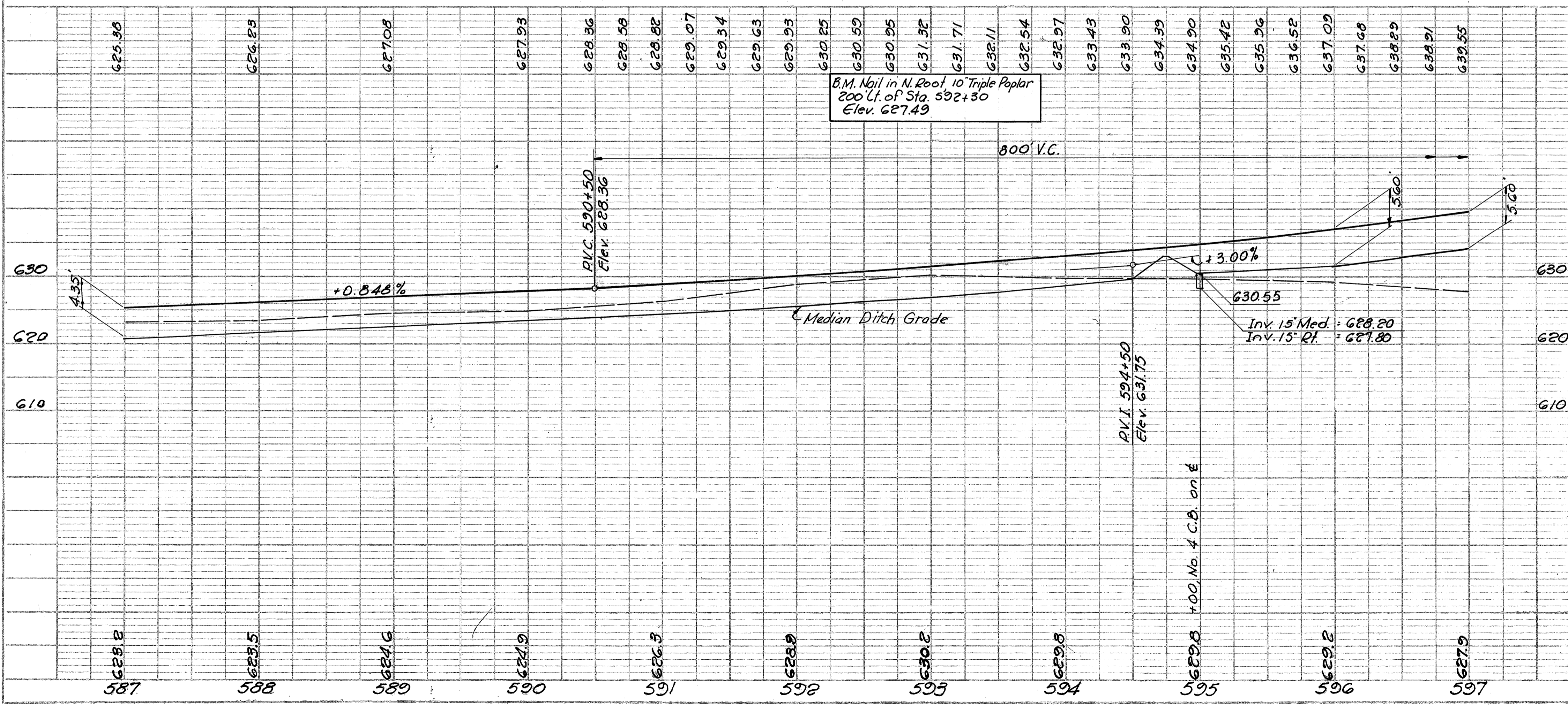
DATE: 1958
 SURVEYED BY: S.M.B.
 PLOTTED BY: S.M.B.
 CHECKED BY: S.M.B.
 NOTE BOOK NO. 203

DATE: 9-28-58
 DRAWN BY: S.H.B. GTS
 CHECKED BY: E.D.S.
 PLANNED BY: E.D.S.
 NOTE BOOK NO. 8-51



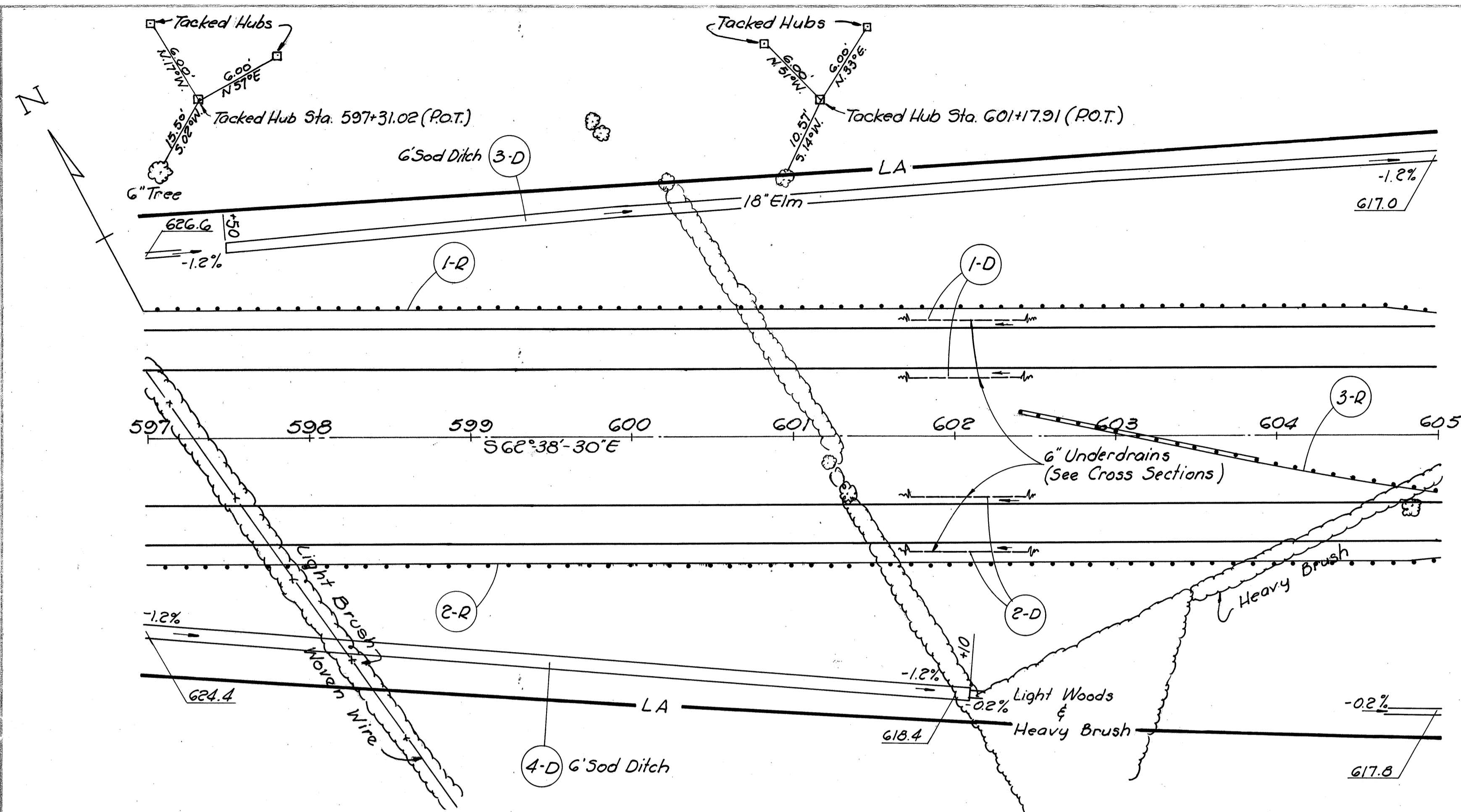
See Sheet No. Reference No. or Structure No.	Station		Side	Guard Rail (Std. Type)	Lin. Ft.
	From	To			
1-R	595+00	597+00	Lt.		200
2-R	595+18	597+00	Rt.		182
FG-1042(5) Totals					382

DATE: 9-28-58
 DRAWN BY: S.H.B. GTS
 CHECKED BY: E.D.S.
 PLANNED BY: E.D.S.
 NOTE BOOK NO. 8-51



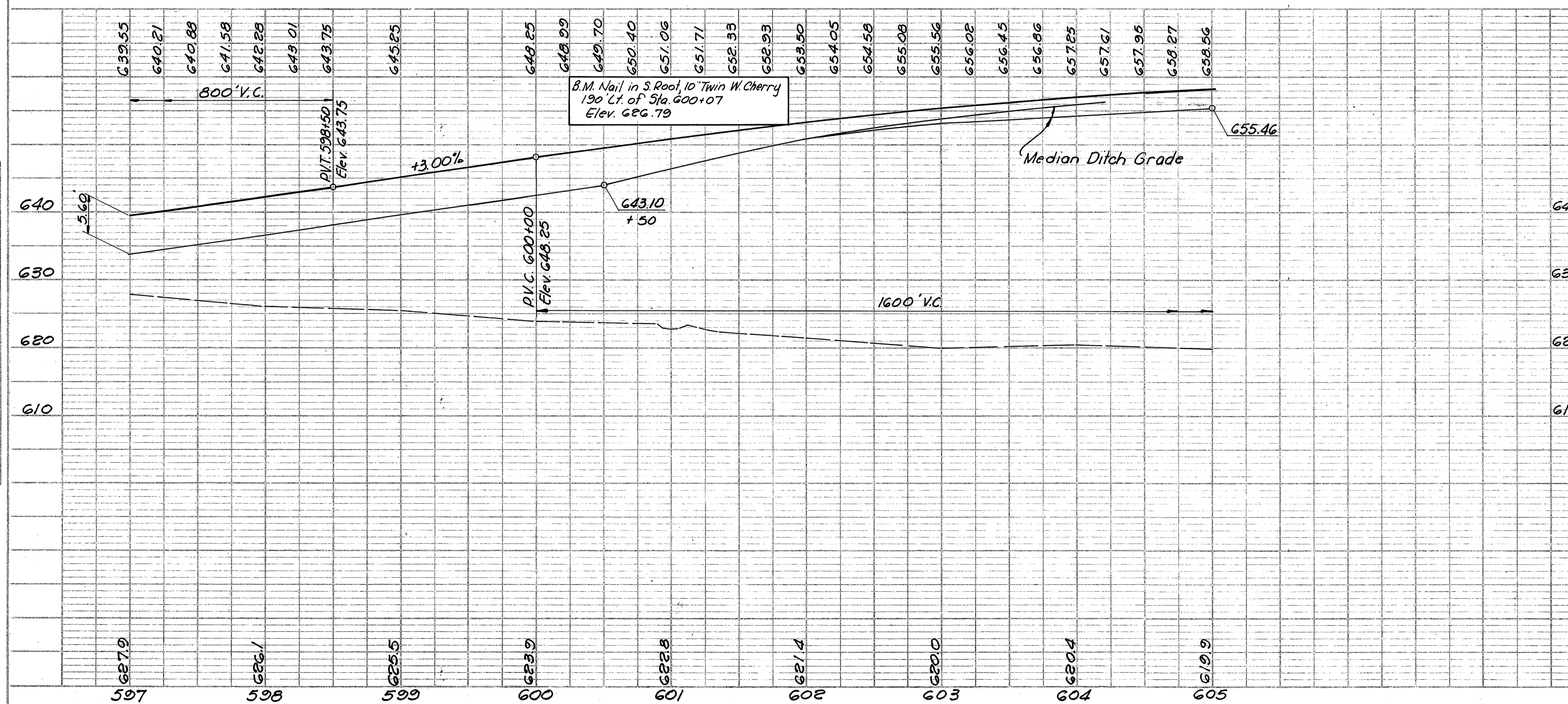
See Sheet No. Ref. No. or Structure No.	Station		Side	Drainage Item										
	From	To		15" Pipe Class B-1	6" Pipe Class F-1	8" Pipe Class F-1	6" Pipe Class I-3 (Shallow)	Masonry (Headwalls)	6" Berd for Class I-3	Dumped Rock Channel Protection	No. 4 C.B.	Sodding	6" Pipe Class I-3 Sec. 1-4(1)	
				Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Cu. Yd.	Ea.	Sq. Yd.	Lin. Ft.	
1-D	587+00	588+10	Lt.									98		
2-D	587+00	594+50	Lt.				150						600	
3-D	587+00	594+50	Rt.				150						600	
4-D	587+00	591+10	Rt.										371	
5-D	590+90	593+10	Lt.										196	
F-1042(5) Totals							300						665	1200
6-D	595+00		Rt.	96				33		6	1		2	
7-D	595+03	597+00	Rt.										175	
8-D	595+23	597+00	Lt.		10	10	418		2					
9-D	595+23	597+00	Rt.		10	10	416		2					
10-D	594+50	595+11	Lt.				61							
11-D	594+50	595+19	Rt.		10		59							
FG-1042(5) Totals				96	30	20	954	33	4	6	1	177	-	

ERI 2-4.02; ERI G-3.80



ROADWAY QUANTITIES FG-1042(5)

See Sheet No. Reference No. or Structure No.	Station		Side	I-15	
	From	To		Guard Rail (Std. Type) Lin. Ft.	Guard Rail (Barrier Type) Lin. Ft.
1-R	597+00	605+00	Lt.	800	
2-R	597+00	605+00	Rt.	800	
3-R	602+40	605+00	Med.	112.5	150
Totals				1712.5	150



DRAINAGE QUANTITIES FG-1042(5)

See Sheet No. Ref. No. or Structure No.	Station		Side	I-1 L-10	
	From	To		6\"/>	
1-D	597+00	605+00	Lt.	1600	
2-D	597+00	605+00	Rt.	1600	
3-D	597+50	605+00	Lt.		500
4-D	597+00	602+10	Rt.		340
Totals:				3200	840

DATE 1958
7-29
8-21
8-21

BY S.M.B. G.T.S.
E.D.S.
E.D.S.

PLAN SURVEYED, PLOTTED, CHECKED, REVISIONS CHECKED, REVISIONS CHECKED, REVISIONS CHECKED, REVISIONS CHECKED

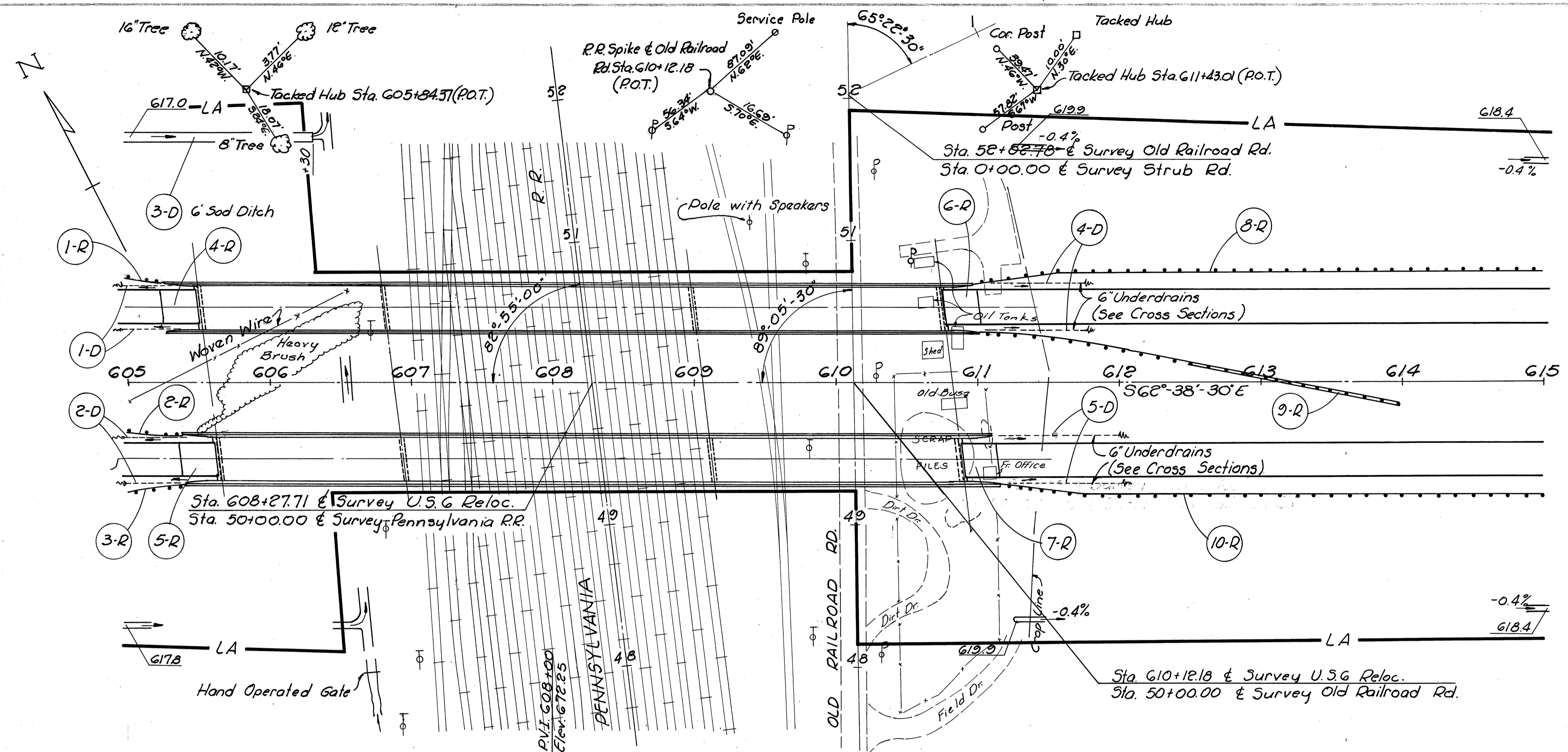
DATE 1958
7-29
8-21
8-21

BY S.M.B. G.T.S.
E.D.S.
E.D.S.

PROFILE SURVEYED, PLOTTED, CHECKED, REVISIONS CHECKED, REVISIONS CHECKED, REVISIONS CHECKED, REVISIONS CHECKED

DATE: 9-29-66
 BY: S.M.B. R/E
 CHECKED: E.D.S. E.D.S.
 SURVEYED: []
 PLOTTED: []
 ALIGNED: []
 REVISIONS: []
 NOTE: []
 NO. []

DATE: 9-29-66
 BY: S.M.B. G/S
 CHECKED: E.D.S. E.D.S.
 SURVEYED: []
 PLOTTED: []
 ALIGNED: []
 REVISIONS: []
 NOTE: []
 NO. []



PROPOSED STRUCTURE
 Type: Continuous welded steel girder with reinf. conc. deck. Reinf. conc. sub-structure. Stub abutments & T Type piers.
 Spans: 130'-0", 217'-0", 174'-0" c/c bearing
 Roadway: 30'-0" flr of 2'-3" Safety Curbs
 Left & Right Bridges
 Load Frequency: CF 400 (57)
 Skew: 7°-00' Right Forward
 Wearing Surface: 1" Mortar Concrete
 Approach Slabs: AS-1-54 (25'-0" Long)

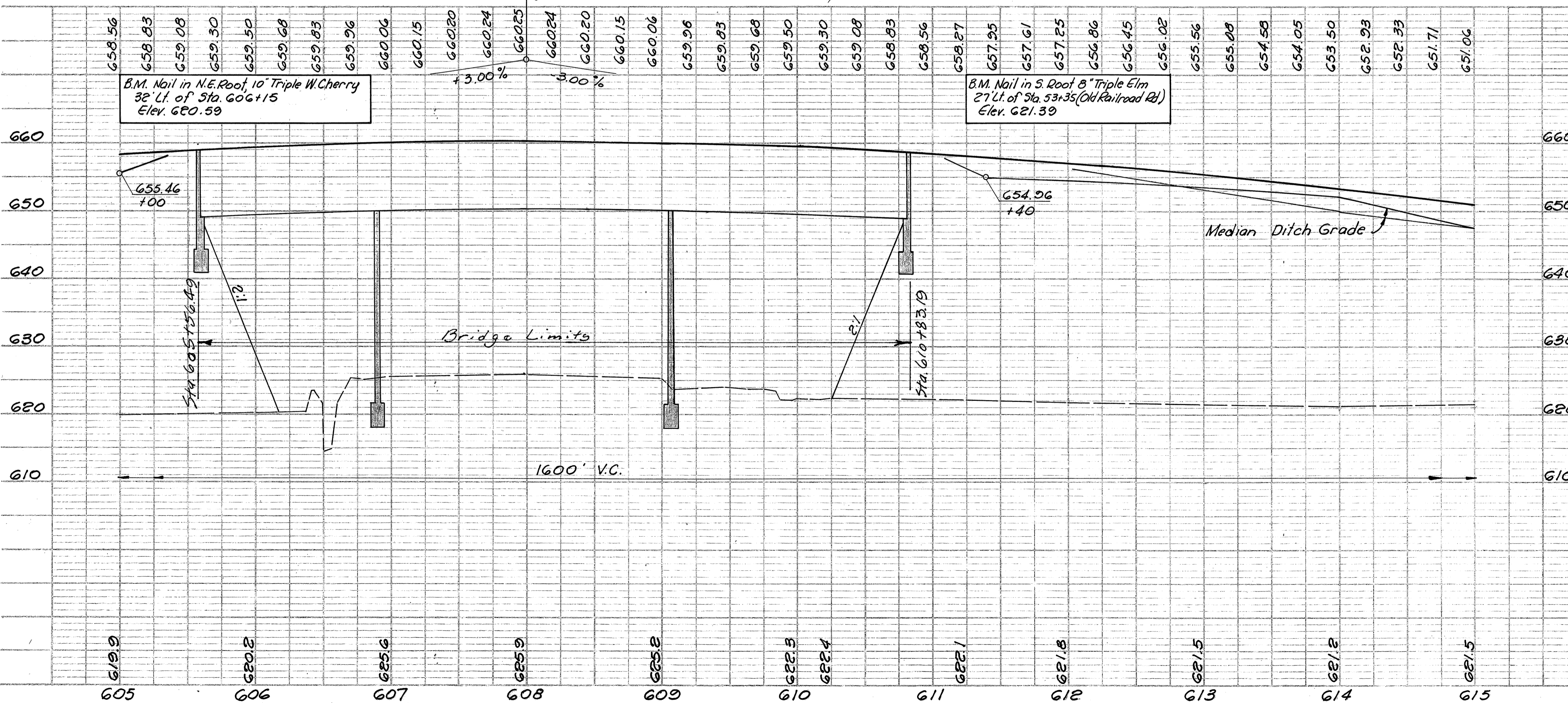
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

35
220

ERI 2-4.02; ERI G-3.80

ROADWAY QUANTITIES FG-1042(5)

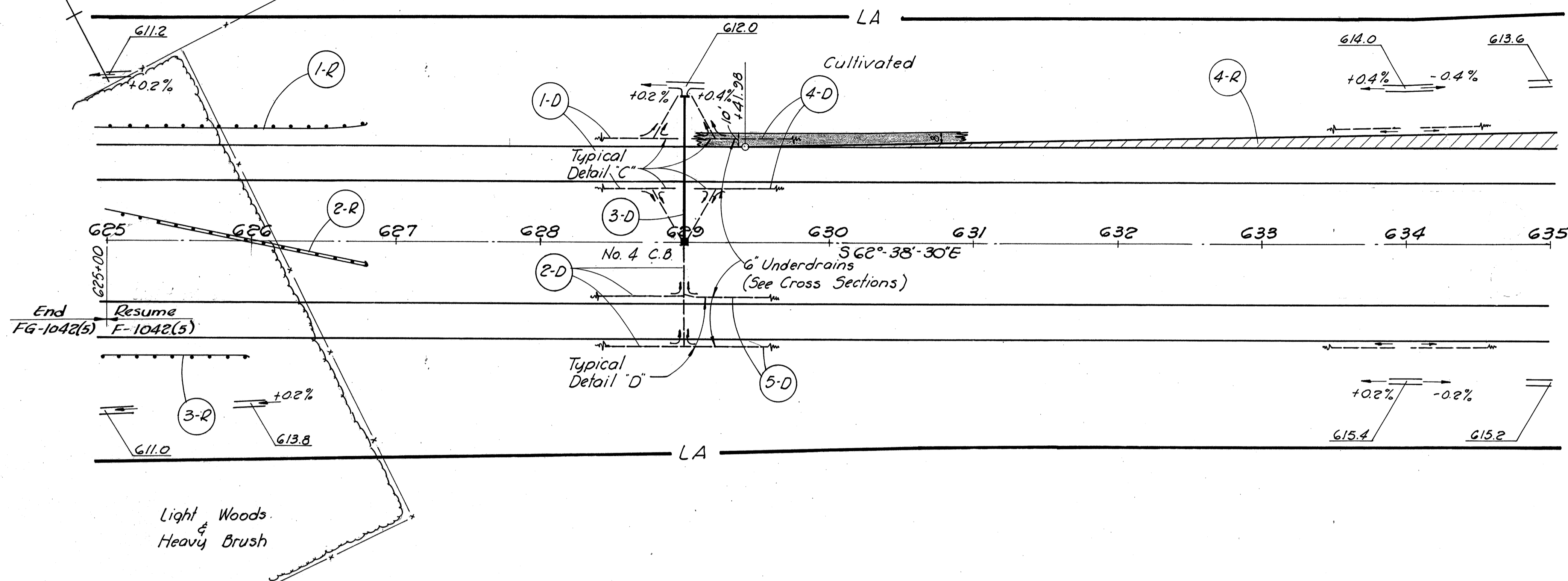
See Sheet No.	Reference No. or Structure No.	Station		Side	E-1 Compacted Subgrade Sq. Yd.	I-7 Reinf. PC Conc. Appro. Slab (7'-15") Sq. Yd.	I-15 Guard Rail (Std. Type) Lin. Ft.	I-15 Guard Rail (Barrier Type) Lin. Ft.	I-22 Subbase Cu. Yd.
		From	To						
1-R	605+00	605+25	Lt.				25		
2-R	605+00	605+37.5	Med.				37.5		
3-R	605+00	605+43	Rt.				43		
4-R	See Site Plan		Lt.	66.7	66.7				11.1
5-R	See Site Plan		Rt.	66.7	66.7				11.1
6-R	See Site Plan		Lt.	66.7	66.7				11.1
7-R	See Site Plan		Rt.	66.7	66.7				11.1
8-R	610+27	615+00	Lt.				407		
9-R	611+00	613+28	Med.				150	150	
10-R	611+15	615+00	Rt.				385		
Totals:					266.8	266.8	1047.5	150	44.4



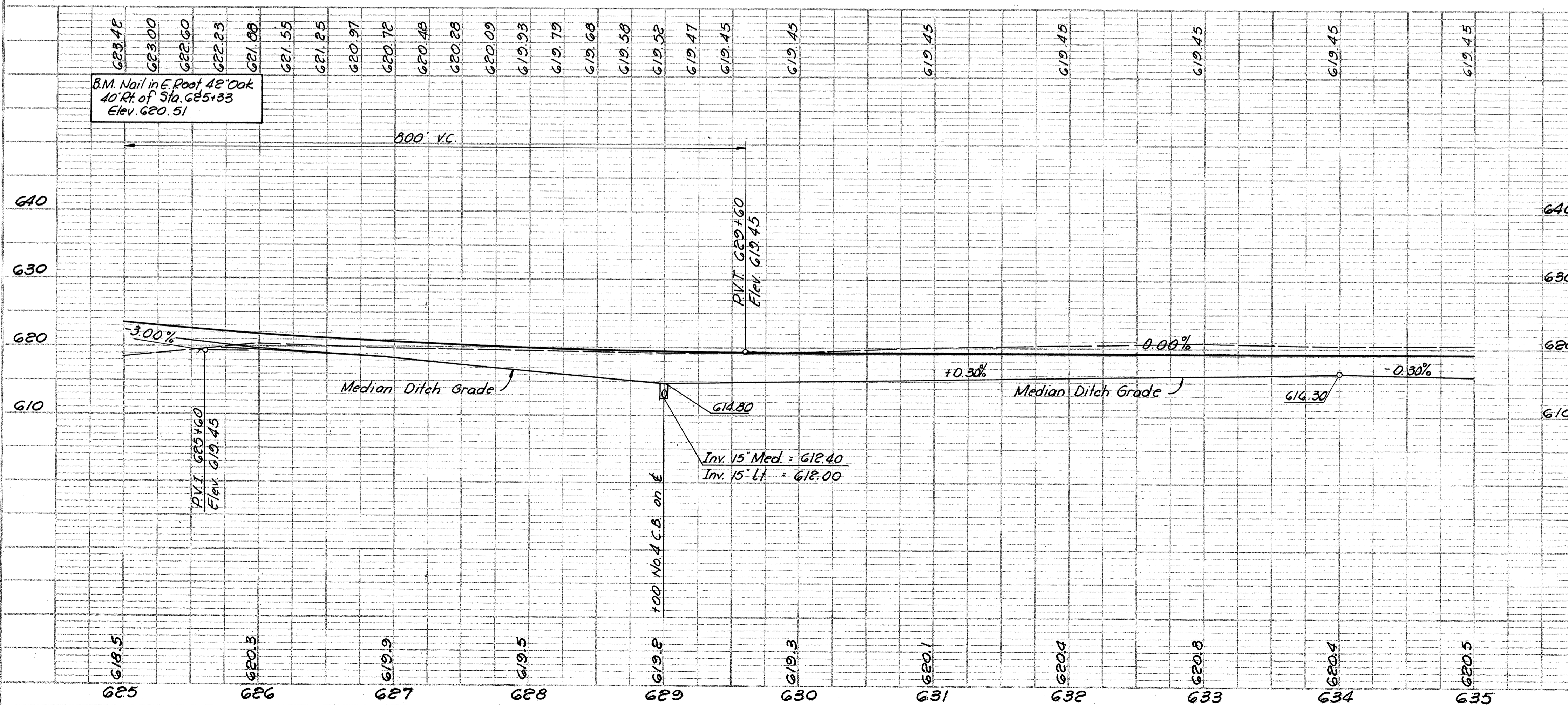
DRAINAGE QUANTITIES FG-1042(5)

See Sheet No.	Ref. No. or Structure No.	Station		Side	6" Pipe 1-3 (Shallow) Lin. Ft.	Sodding Sq. Yd.
		From	To			
1-D	605+00	605+45	Lt.	90		
2-D	605+00	605+55	Rt.	110		
3-D	605+00	606+30	Lt.		87	
4-D	610+30	615+00	Lt.	840		
5-D	610+25	615+00	Rt.	810		
Totals:					1850	87

MICROFILMED
 SEP 11 1986



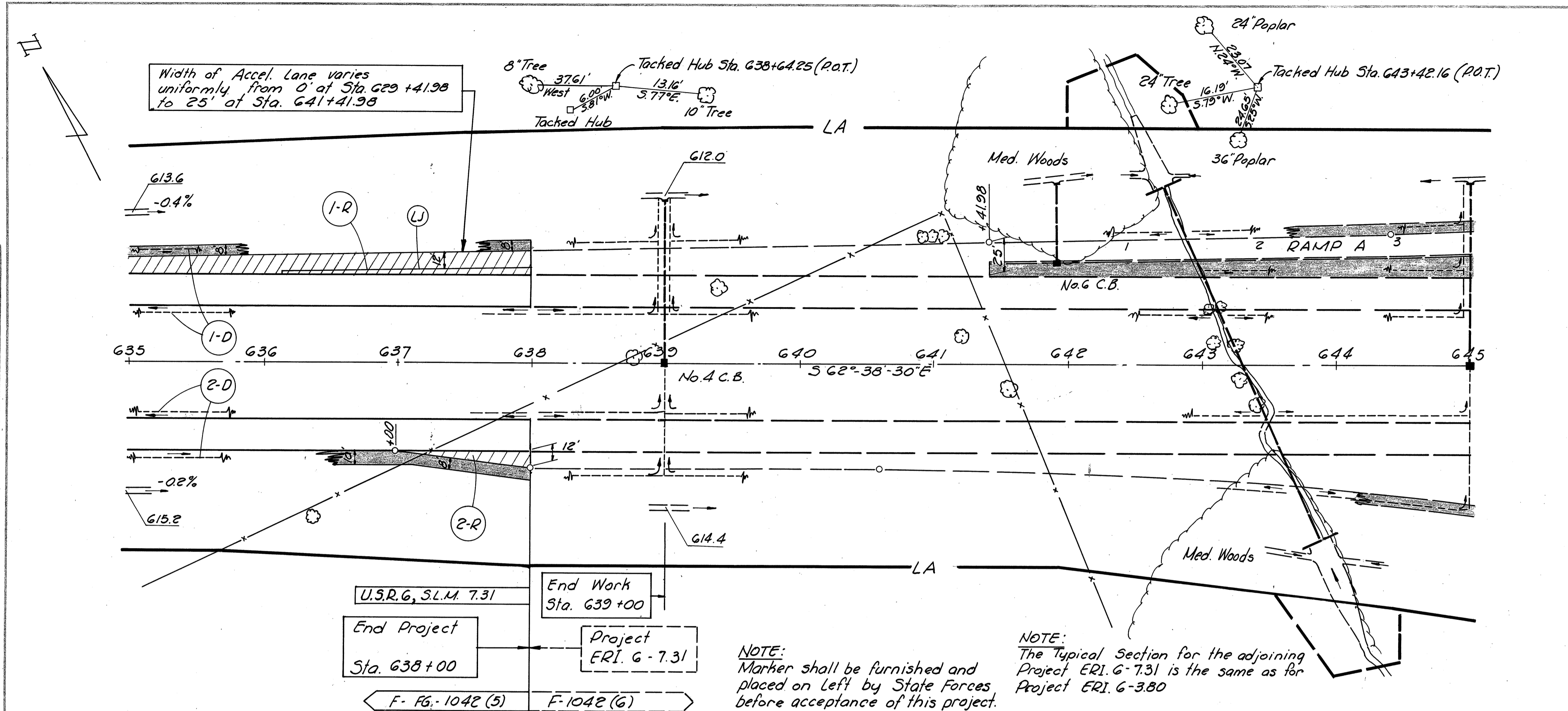
See Sheet No. or Ref. No. or Structure No.	Station	Side	Quantities					
			E-1	T-71	I-15	I-15	I-22	
From	To		Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Cu. Yd.	
1-R	625+00	626+78	Lt.			178		
2-R	625+00	626+84	Med.			35	150	
3-R	625+00	625+97	Rt.			97		
4-R	629+41.28	635+00	Lt.	360.5	360.5			60.1
F-1042(5) Totals				360.5	360.5	310	150	60.1



See Sheet No. or Ref. No. or Structure No.	Station	Side	Quantities													
			I-1	I-1	I-1	I-1	I-1	I-1	I-2	I-5	I-8	L-10	I-1	I-5		
From	To		Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Ea.	Sq. Yd.	Lin. Ft.	Ea.	
1-D	625+00	628+98	Lt.			10	432	425							10	2
2-D	625+00	628+98	Rt.		28	28	10	400	400		3					
3-D	629+00		Lt./Rt.	99											1	2
4-D	629+02	635+00	Lt.			10		1257								10
5-D	629+00	635+00	Rt.					1200								2
F-1042(5) Totals:				99	28	28	30	832	3282	3.3	3		1	2	20	4

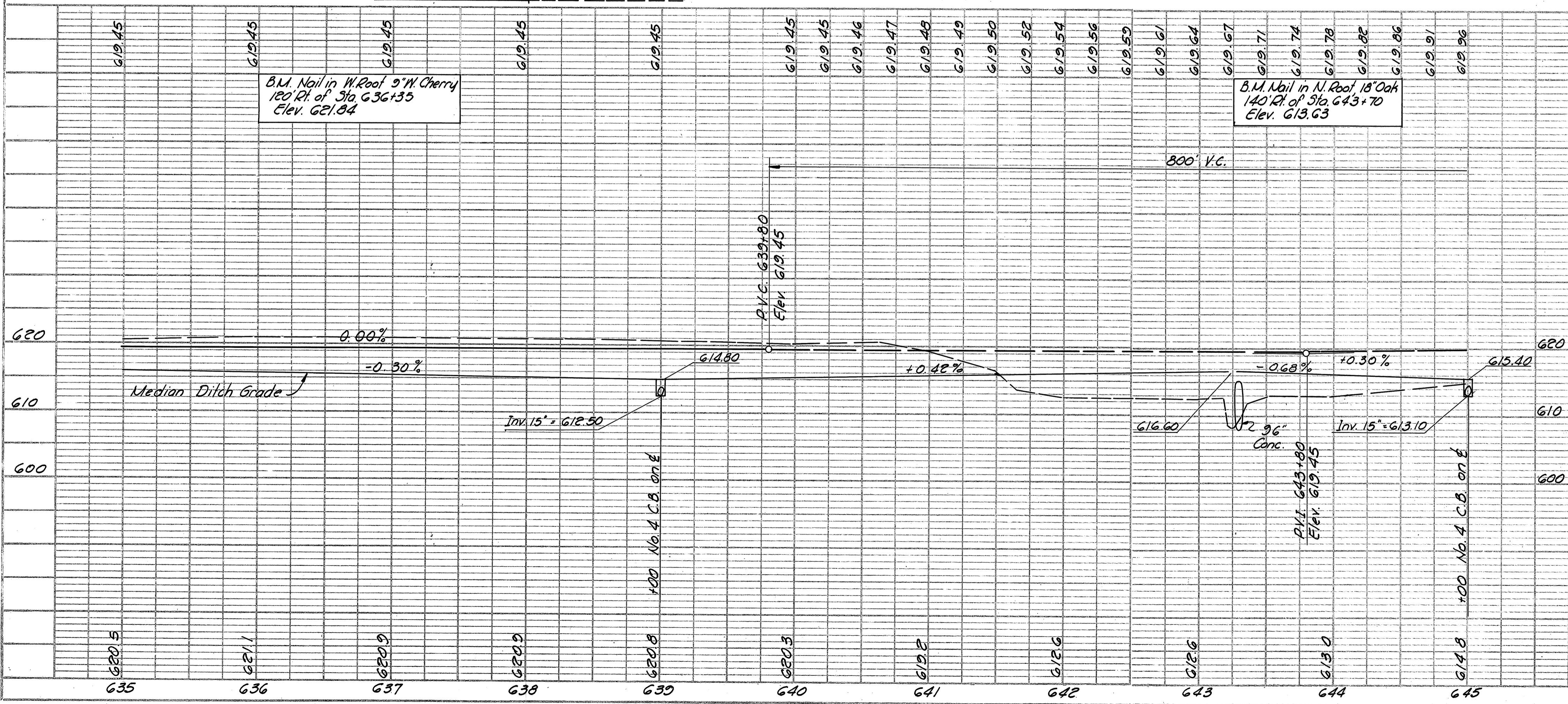
DATE: 1959
BY: E.D.S. RIE
SUB: E.D.S.
REVISED: 8-6
CHECKED: E.D.S.
DATE: 8-6
NO. 8-6

DATE: 1959
BY: E.D.S. GTS
SUB: E.D.S.
REVISED: 8-6
CHECKED: E.D.S.
DATE: 8-6
NO. 8-6

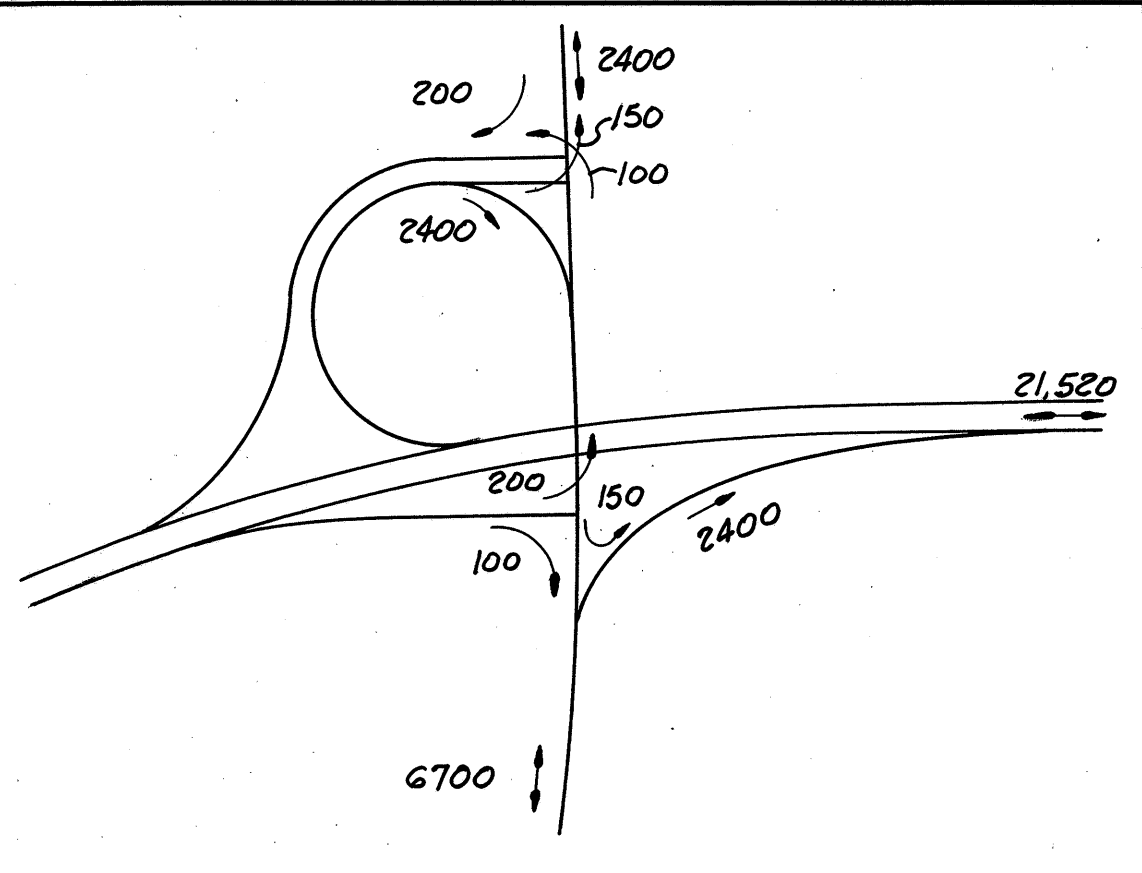


ROADWAY		QUANTITIES F-1042(5)				
See Sheet No. Reference No. or Structure No.	Station	Side	E-1 T-71 I-22			
			Compacted Subgrade	Reinf. AC Conc. Pavt.	Subbase	
From	To		Sq. Yd.	Sq. Yd.	Cu. Yd.	
1-R	635+00	638+00	Lt.	491.8	491.8	82.0
2-R	637+00	638+00	Rt.	66.7	66.7	11.1
Totals				558.5	558.5	93.1

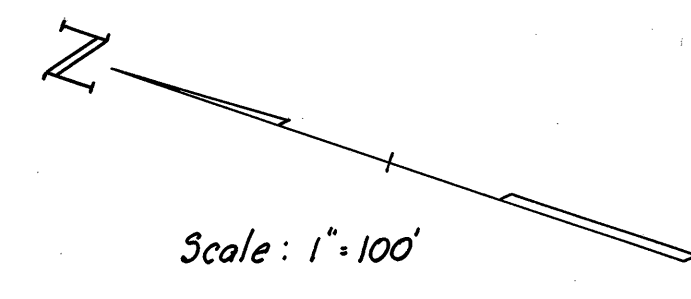
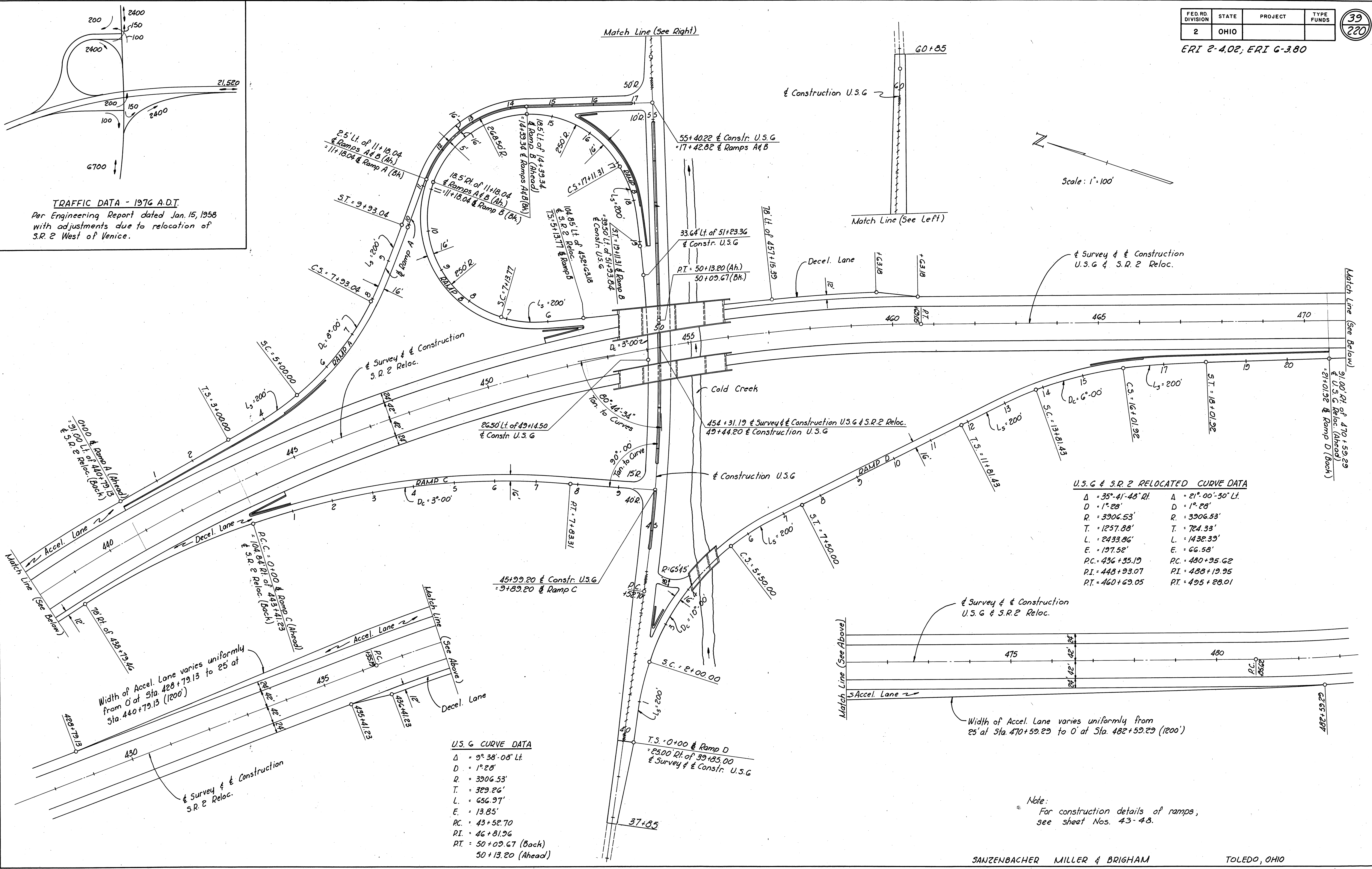
DRAINAGE		QUANTITIES F-1042(5)			
See Sheet No. Reference No. or Structure No.	Station	Side	I-1		
			6" Pipe Class I-3 (Shallow)	6" Pipe Class I-3 (Deep)	
From	To		Lin. Ft.	Lin. Ft.	
1-D	635+00	638+00	Lt.	600	
2-D	635+00	638+00	Rt.	600	
Totals				1200	



ERI 2-4.02; ERI 6-3.80



TRAFFIC DATA - 1976 A.D.T.
 Per Engineering Report dated Jan. 15, 1958
 with adjustments due to relocation of
 S.R. 2 West of Venice.



U.S.G & S.R. 2 RELOCATED CURVE DATA

$\Delta = 35^{\circ}41'48''$ Rt.	$\Delta = 21^{\circ}00'50''$ Lt.
D = 1 ^o 28'	D = 1 ^o 28'
R = 3906.53'	R = 3906.53'
T = 1257.88'	T = 724.33'
L = 2433.86'	L = 1432.33'
E = 197.52'	E = 66.58'
P.C. = 436 + 35.19	P.C. = 480 + 35.62
P.I. = 448 + 93.07	P.I. = 488 + 19.95
P.T. = 460 + 69.05	P.T. = 495 + 28.01

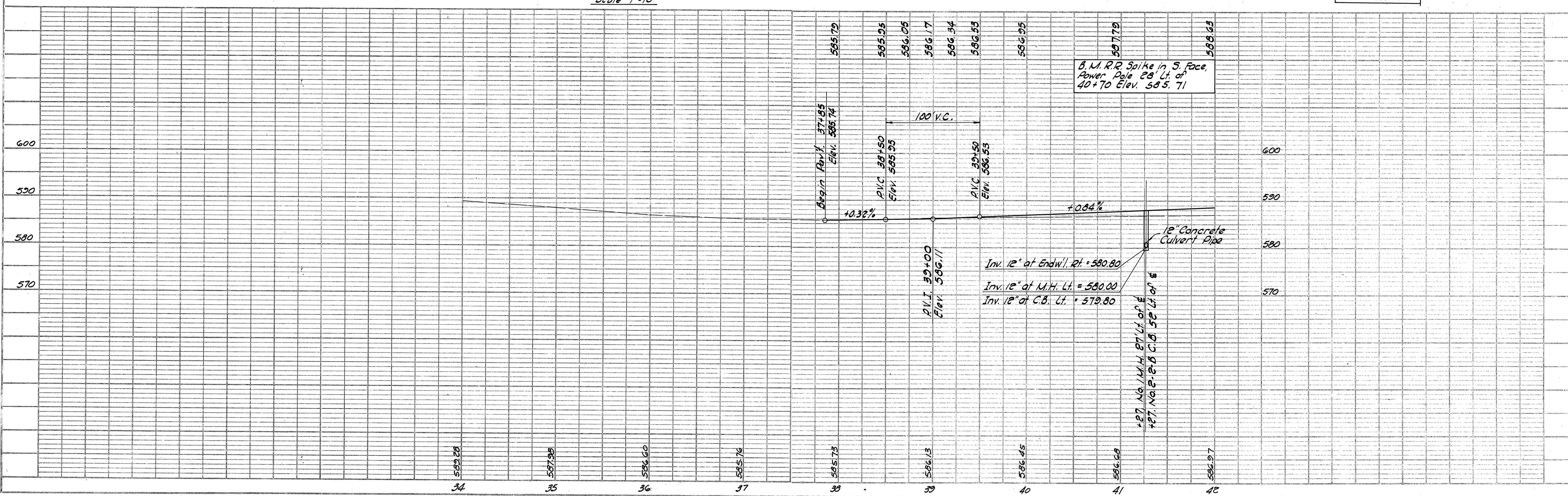
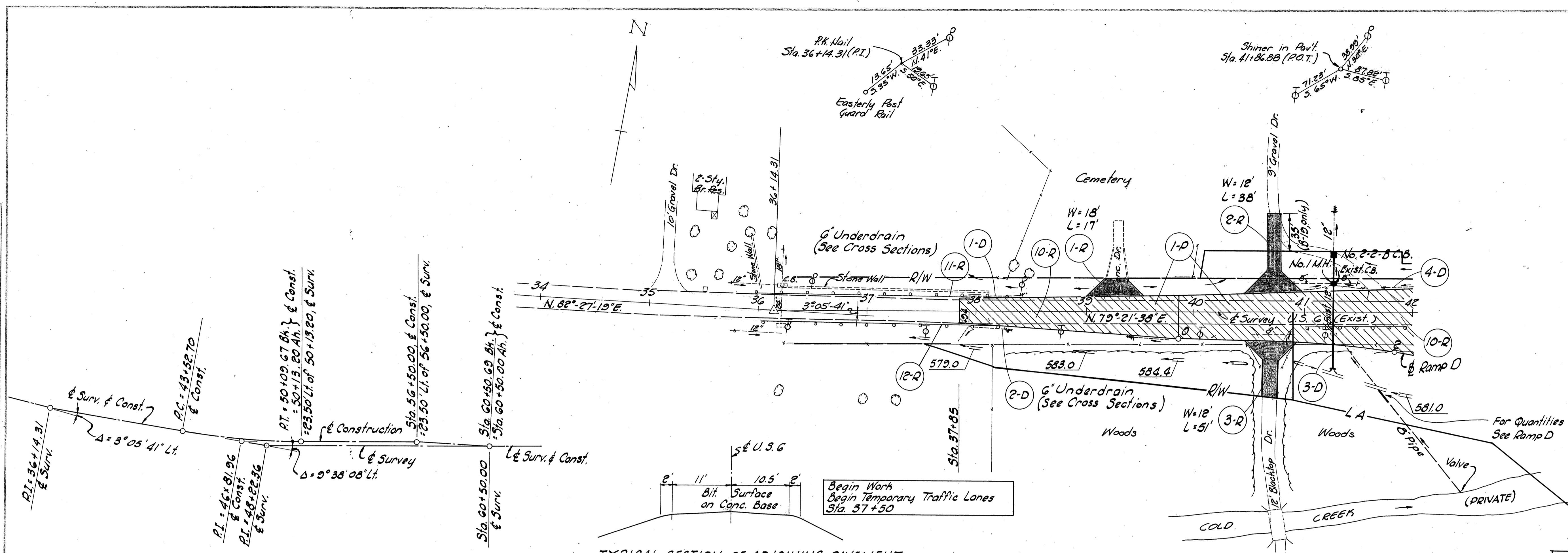
U.S.G CURVE DATA

$\Delta = 9^{\circ}38'08''$ Lt.
D = 1 ^o 28'
R = 3906.53'
T = 329.26'
L = 656.97'
E = 13.85'
P.C. = 43 + 52.70
P.I. = 46 + 81.96
P.T. = 50 + 09.67 (Back)
50 + 13.20 (Ahead)

Note:
 For construction details of ramps,
 see sheet Nos. 43-48.

DATE	BY
8/27	S.H.L.B.
8/27	E.D.S.
8/27	E.D.S.
8/27	E.D.S.

DATE	BY
8/27	S.H.L.B.
8/27	E.D.S.
8/27	E.D.S.
8/27	E.D.S.

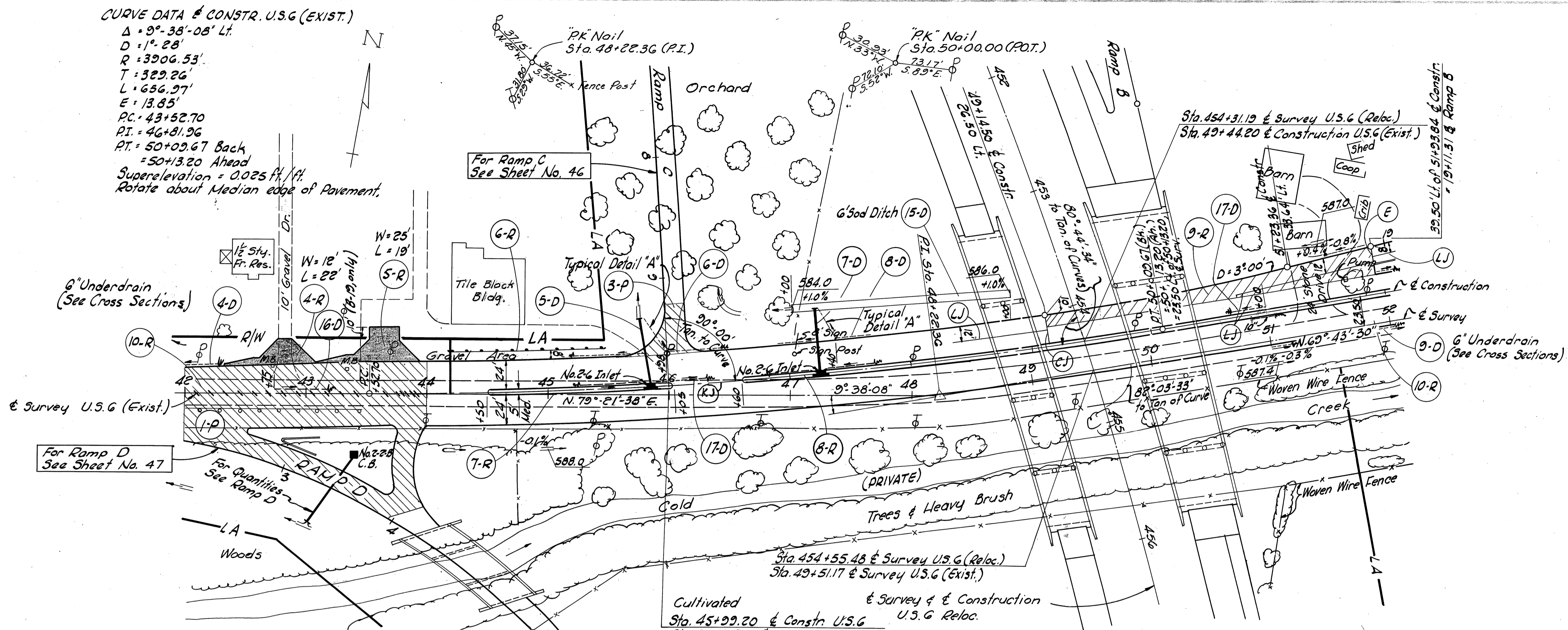


FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

41
220

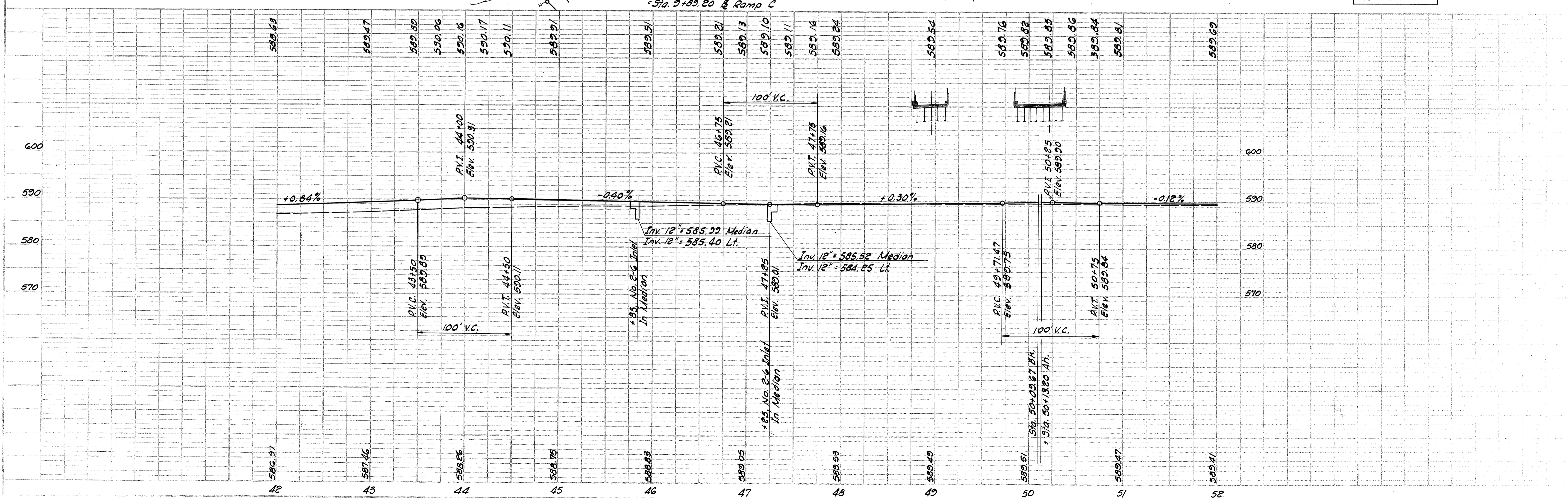
ERI 2-402; ERI 6-380

CURVE DATA & CONSTR. U.S.G (EXIST.)
 $\Delta = 9^\circ - 38' - 08''$ Lt.
 $D = 1^\circ - 28'$
 $R = 3906.53'$
 $T = 329.26'$
 $L = 656.97'$
 $E = 13.85'$
 $PC = 43+52.70$
 $PI = 46+81.96$
 $PT = 50+09.67$ Back
 $= 50+13.20$ Ahead
 Superelevation = 0.025 ft/ft
 Rotate about Median edge of Pavement.



PROJECT: 1958
 DRAWN BY: G.T.S.
 CHECKED BY: E.D.S.
 DATE: 8-21-58

PROJECT: 1958
 DRAWN BY: G.T.S.
 CHECKED BY: E.D.S.
 DATE: 8-21-58



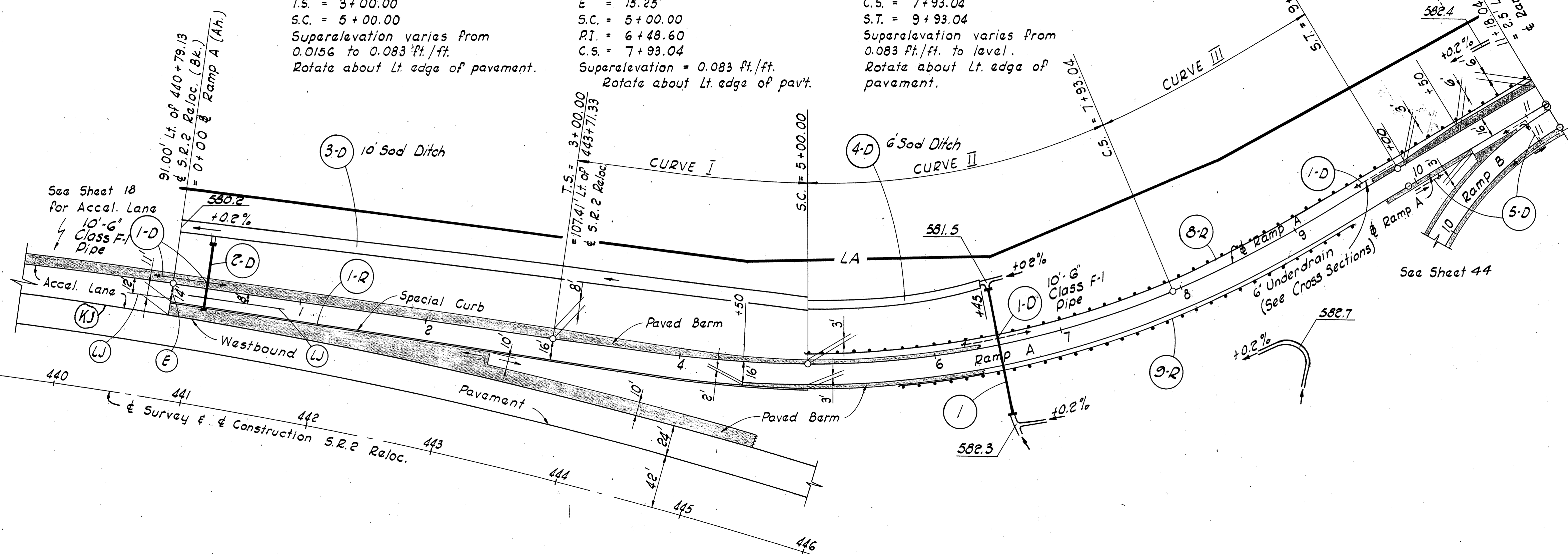
For Quantities See Sheet 42

ERI 2-4.02, ERI 6-3.80

CURVE I
 $L_s = 200'$
 $\theta_s = 8^\circ-00'-00''$ Lt.
 $L.T. = 133.47'$
 $S.T. = 66.79'$
 $L.C. = 199.83'$
 $T.S. = 3+00.00$
 $S.C. = 5+00.00$
 Superelevation varies from 0.0156 to 0.083 ft./ft.
 Rotate about Lt. edge of pavement.

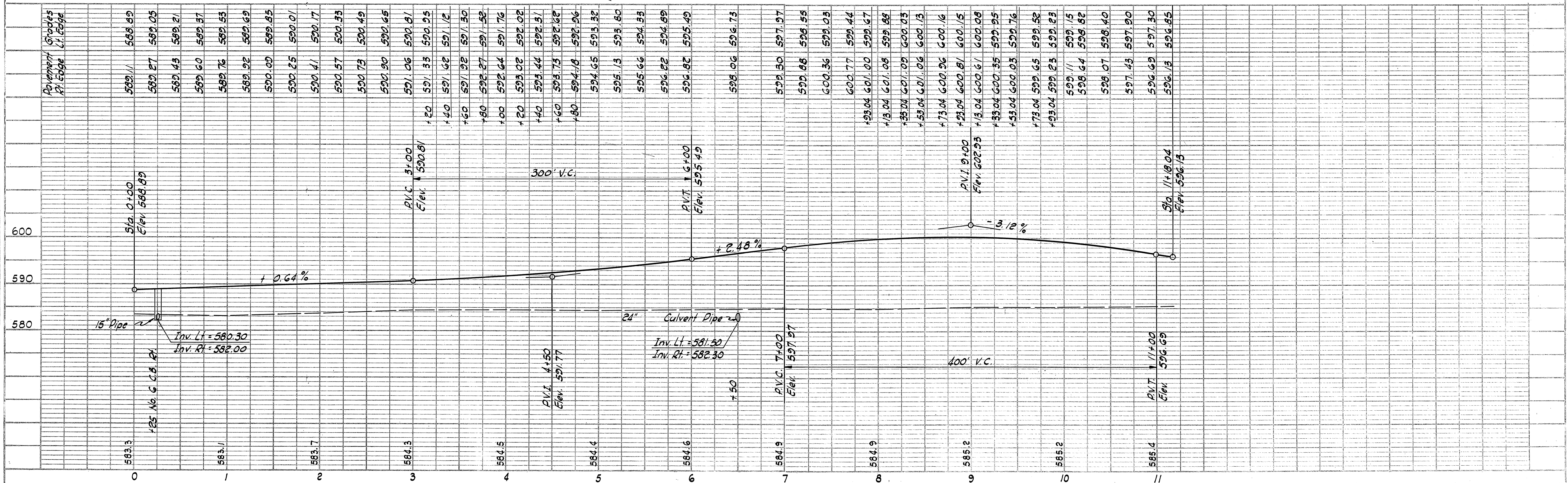
CURVE II
 $\Delta = 23^\circ-26'-36''$ Lt.
 $D = 8^\circ-00'-00''$
 $R = 716.20'$
 $T = 148.60'$
 $L = 293.04'$
 $E = 15.25'$
 $S.C. = 5+00.00$
 $P.I. = 6+48.60$
 $C.S. = 7+93.04$
 Superelevation = 0.083 ft./ft.
 Rotate about Lt. edge of pav't.

CURVE III
 $L_s = 200'$
 $\theta_s = 8^\circ-00'-00''$ Lt.
 $L.T. = 133.47'$
 $S.T. = 66.79'$
 $L.C. = 199.83'$
 $T.S. = 7+93.04$
 $S.C. = 9+93.04$
 Superelevation varies from 0.083 ft./ft. to level.
 Rotate about Lt. edge of pavement.



DATE: 1/26/60
 BY: S.M.B.
 SURVEYED: PFC EDS
 PLAN: NOTE BOOK NO. 205

DATE: 1/26/60
 BY: S.M.B.
 SURVEYED: PFC EDS
 PLAN: NOTE BOOK NO. 205



For Quantities See Sheet 45

ERI 2-4.02; ERI 6-3.80

CURVE IV
 $L_s = 200'$
 $\theta_s = 22^\circ-55'-06''$ Rt.
 $L.T. = 134.47'$
 $S.T. = 67.70'$
 $L.C. = 198.58'$
 $T.S. = 5+13.77$
 $S.C. = 7+13.77$
 Superelevation varies from 0.0156 to 0.083 Ft./Ft.
 Rotate about Rt. edge of pavement.

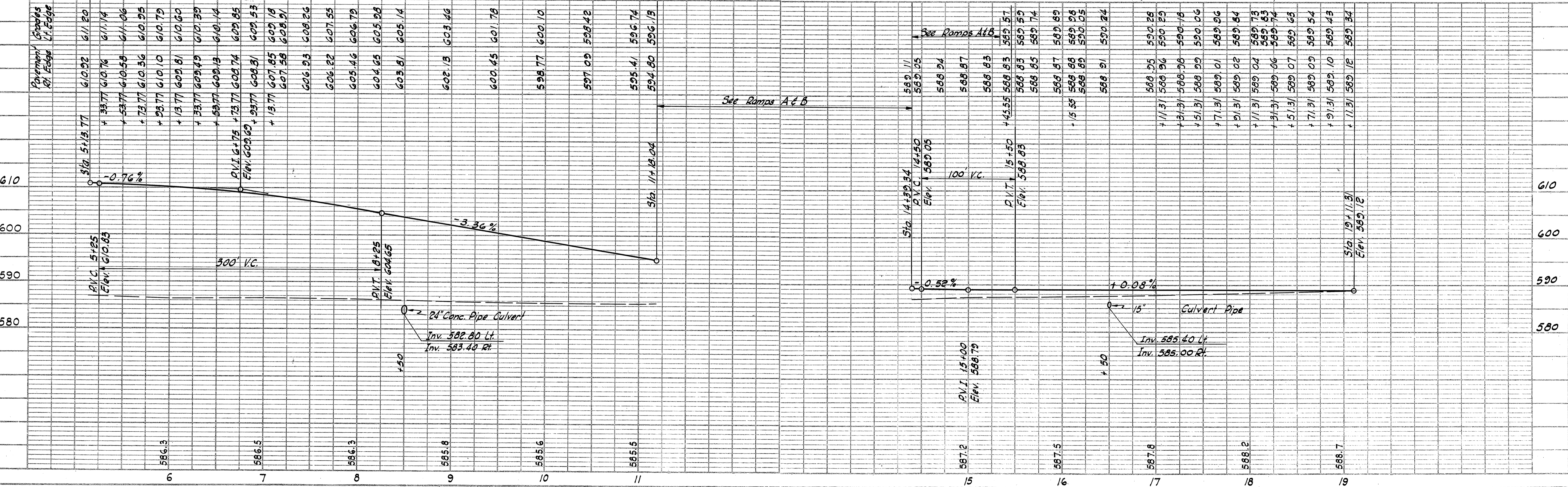
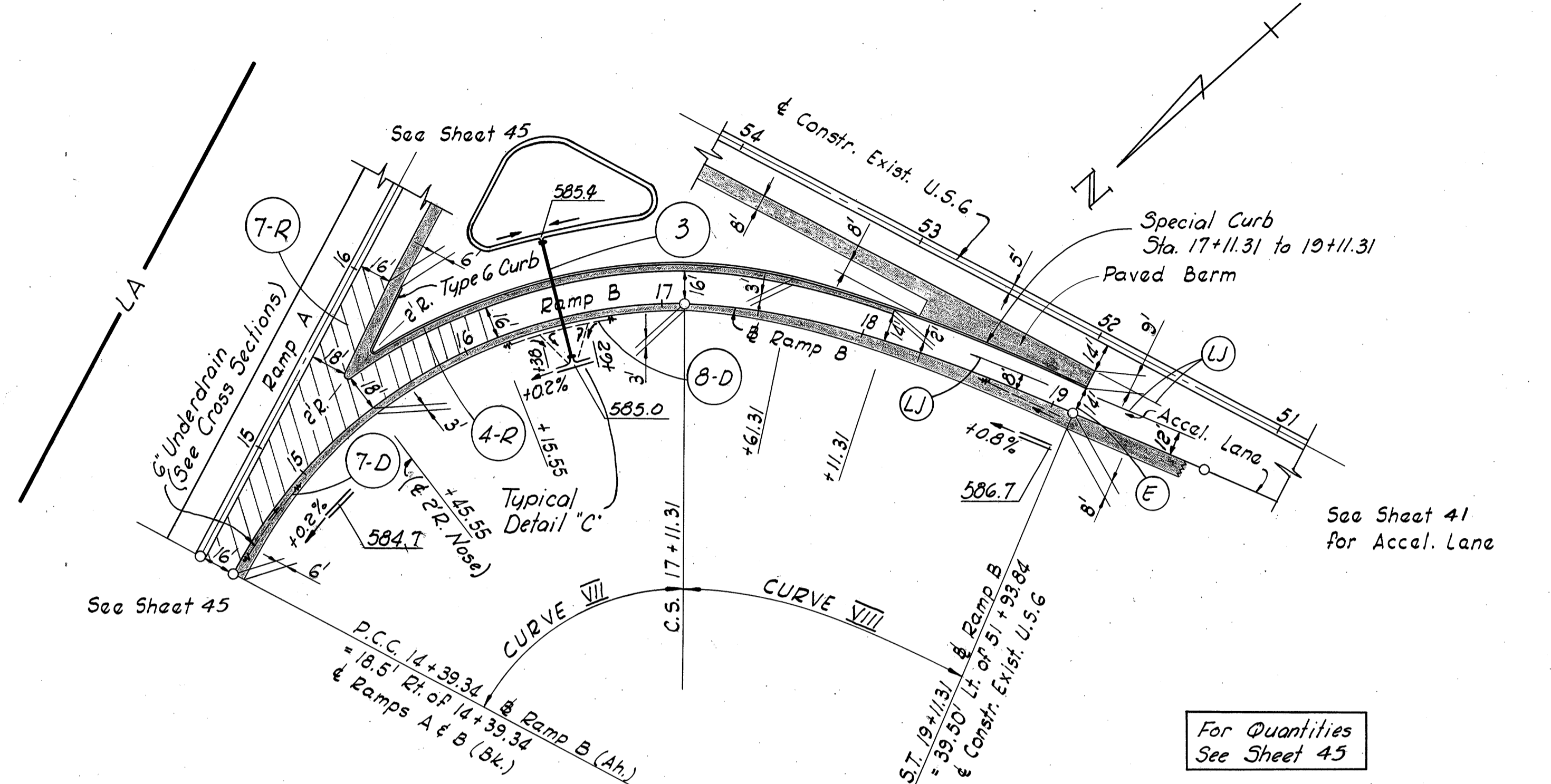
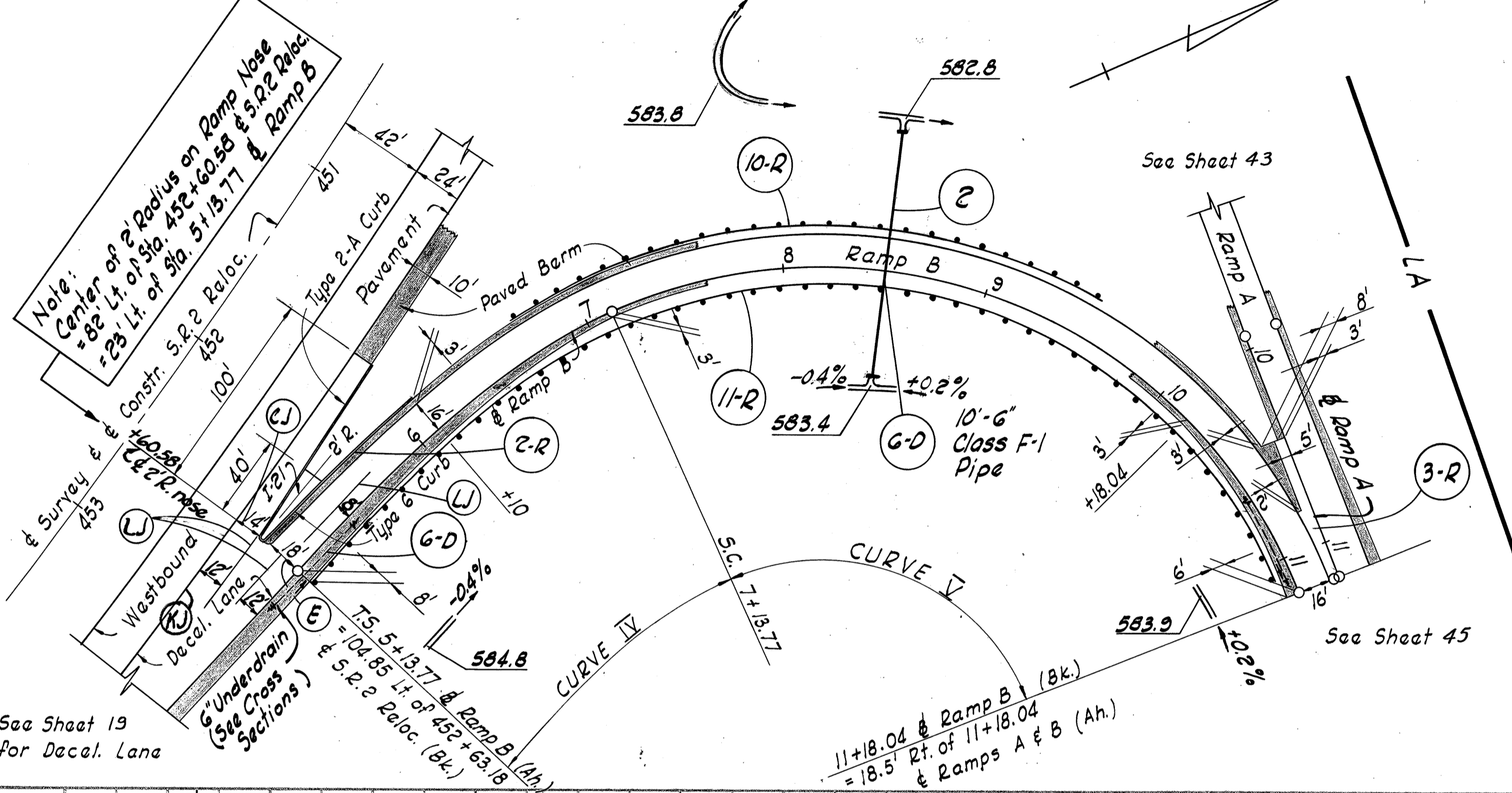
CURVE V
 $\Delta = 92^\circ-38'-52''$ Rt.
 $R = 250.00'$
 $T = 261.83'$
 $L = 404.27'$
 $E = 112.01'$
 $S.C. = 7+13.77$
 $PI = 9+75.60$
 $P.C.C. = 11+18.04$
 Superelevation = 0.083 Ft./Ft.
 Rotate about Rt. edge of pavement.

CURVE VII
 $\Delta = 62^\circ-19'-54''$ Rt.
 $R = 250.00'$
 $T = 151.20'$
 $L = 271.97'$
 $E = 42.17'$
 $R.C.C. = 14+39.34$
 $P.I. = 15+90.54$
 $C.S. = 17+11.31$
 Superelevation = 0.083 Ft./Ft.
 Rotate about Rt. edge of pavement

CURVE VIII
 $L_s = 200'$
 $\theta_s = 22^\circ-55'-06''$ Rt.
 $L.T. = 134.47'$
 $S.T. = 67.70'$
 $L.C. = 198.58'$
 $C.S. = 17+11.31$
 $S.T. = 19+11.31$
 Superelevation varies from 0.083 to 0.0156 Ft./Ft.
 Rotate about Rt. edge of pavement

PLAN	SURVEYED	DATE	BY
	PLOTTED	3-8-60	S.M.B.
	NOTED	8-6-60	EDS
	CHECKED	8-6-60	EDS
	BY	8-6-60	EDS

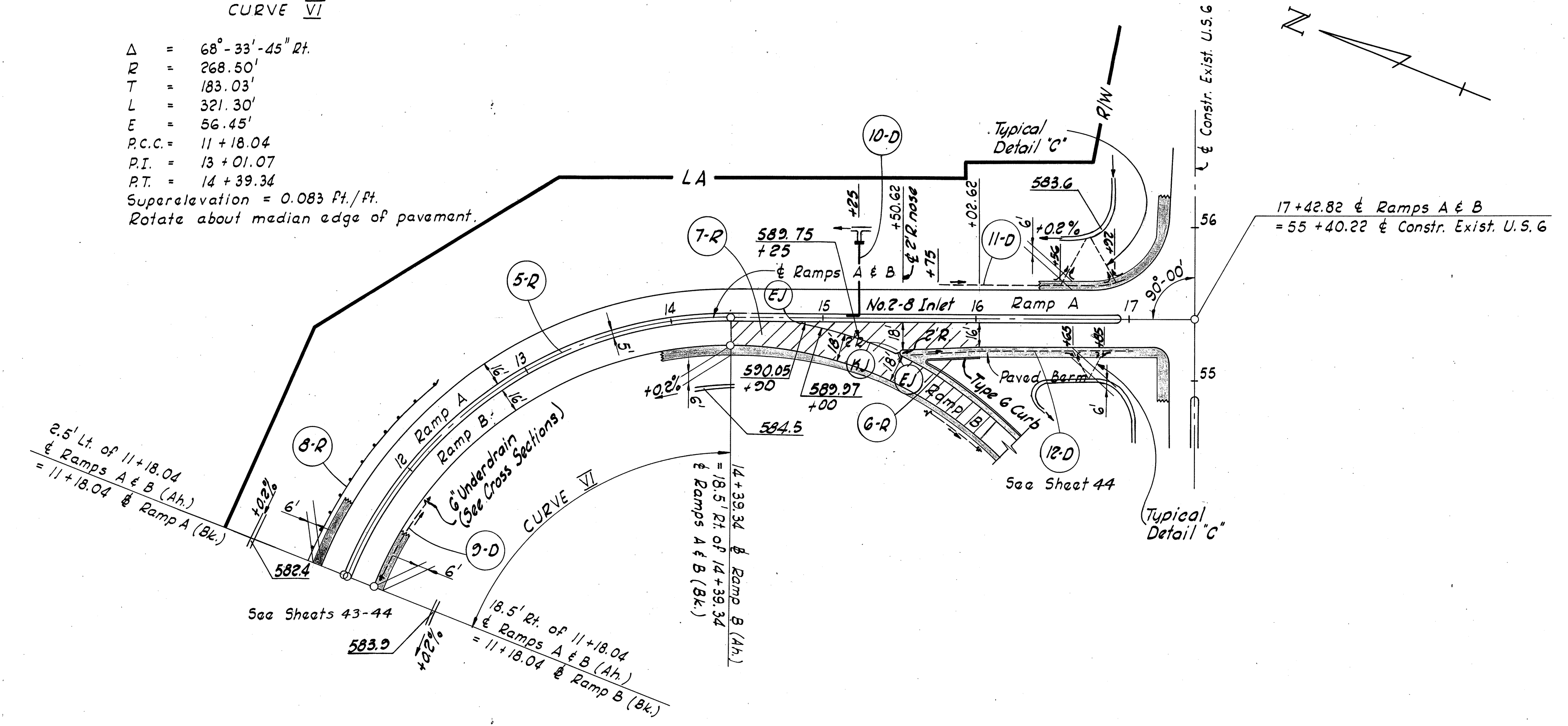
PRO. E	SURVEYED	DATE	BY
	PLOTTED	3-8-60	S.M.B.
	NOTED	8-6-60	EDS
	CHECKED	8-6-60	EDS
	BY	8-6-60	EDS



ERI 2-4.02; ERI 6-3.80

CURVE VI

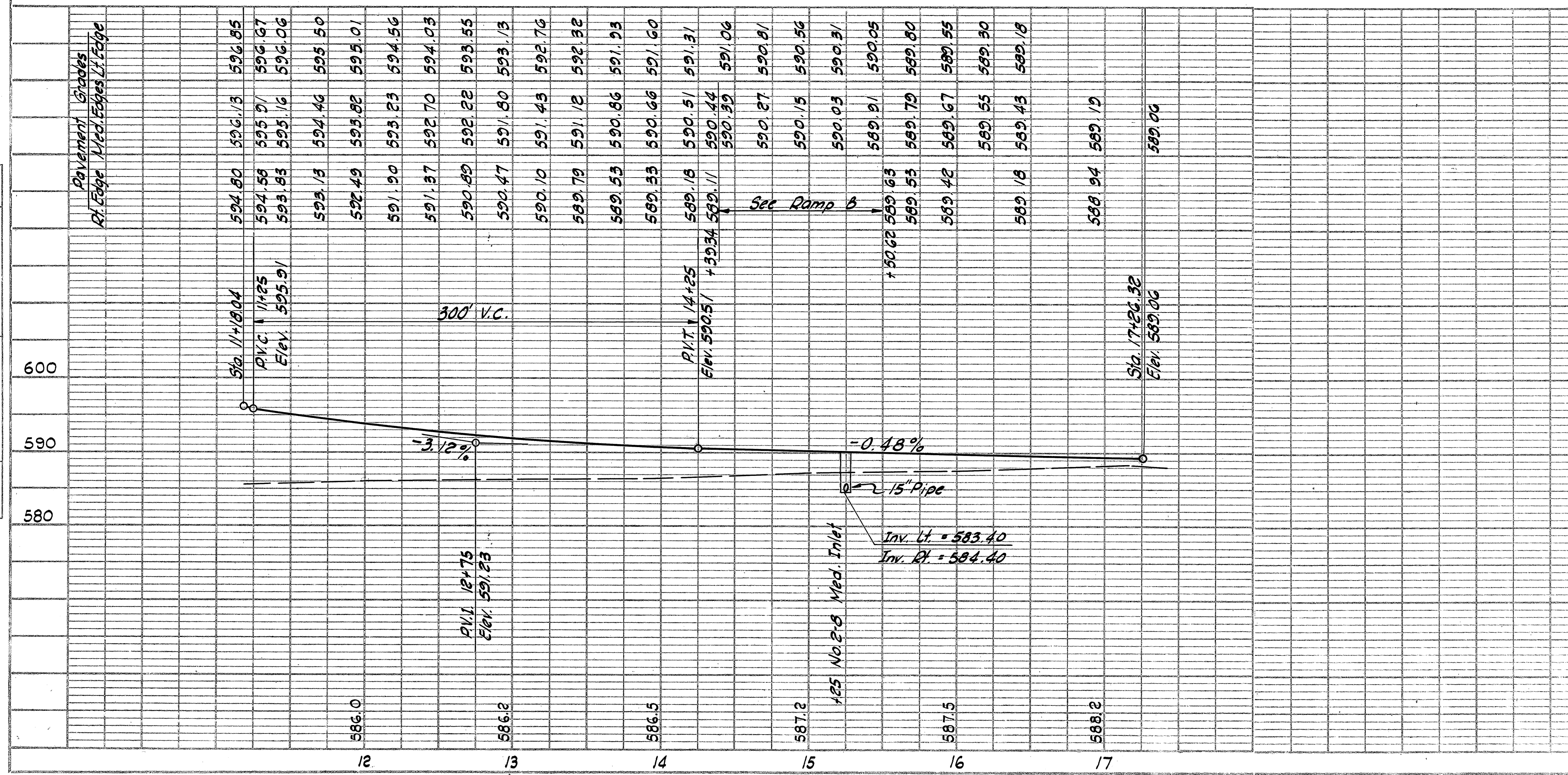
$\Delta = 68^{\circ}-33'-45''$ Rt.
 $R = 268.50'$
 $T = 183.03'$
 $L = 321.30'$
 $E = 56.45'$
 $P.C.C. = 11+18.04$
 $P.I. = 13+01.07$
 $P.T. = 14+39.34$
 Superelevation = 0.083 Ft./Ft.
 Rotate about median edge of pavement.



See Sheet No.	Ref. No. or Structure No.	Station	Ramp	Quantities																
				I-1	I-1	I-1	I-1	I-1	I-2	I-5	I-5	I-8	I-8	L-10	I-1	I-5	I-1			
From	To			24" Pipe	18" Pipe	15" Pipe	12" Pipe	8" Pipe	6" Pipe	4" Pipe	Masonry	6" Tee	4" Tee	No. 2-B	No. 6 C.B.	Sodding	6" Pipe	4" Pipe	24" Pipe	
Lin. Ft.	Lin. Ft.			Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Eq.	Eq.	Eq.	Eq.	Sq. Yd.	Lin. Ft.	Eq.	Lin. Ft.	
1-D	0+00	0+23	A								973							20		
2-D	0+25	5+00	A					51			33									
3-D	0+100	5+00	A														556			
4-D	5+00	6+45	A														97			
67 1	6+50		A								108						6			100
5-D	0+23	11+00	A								129		1	1						
6-D	5+14	11+18	B								524							10		
67 2	8+50		B	128													6			
7-D	14+39	16+48	B					10	215		108									
67 3	16+50		B		50						66						5			
8-D	16+52	19+11	B						10	265										
9-D	11+18	14+39	B							321										
10-D	15+25		A					48			33			1			2			
11-D	15+75	17+00	A						20	165										2
12-D	15+50	17+00	A						20	162										2
Totals					128	50	99	60	2824	34.8	1	1	1	1	1	672	30	6	100	

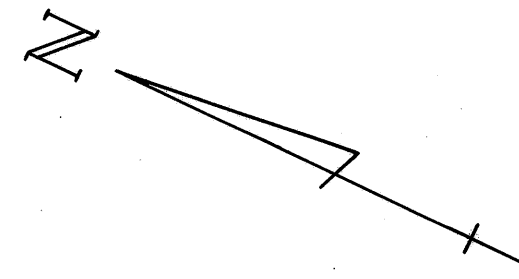
PLAN
 SURVEYED BY S.M.B.
 PLOTTED BY E.D.S.
 CHECKED BY E.D.S.
 DATE 8-67

P.P.D. E
 SURVEYED BY S.M.B.
 PLOTTED BY E.D.S.
 CHECKED BY E.D.S.
 DATE 8-67

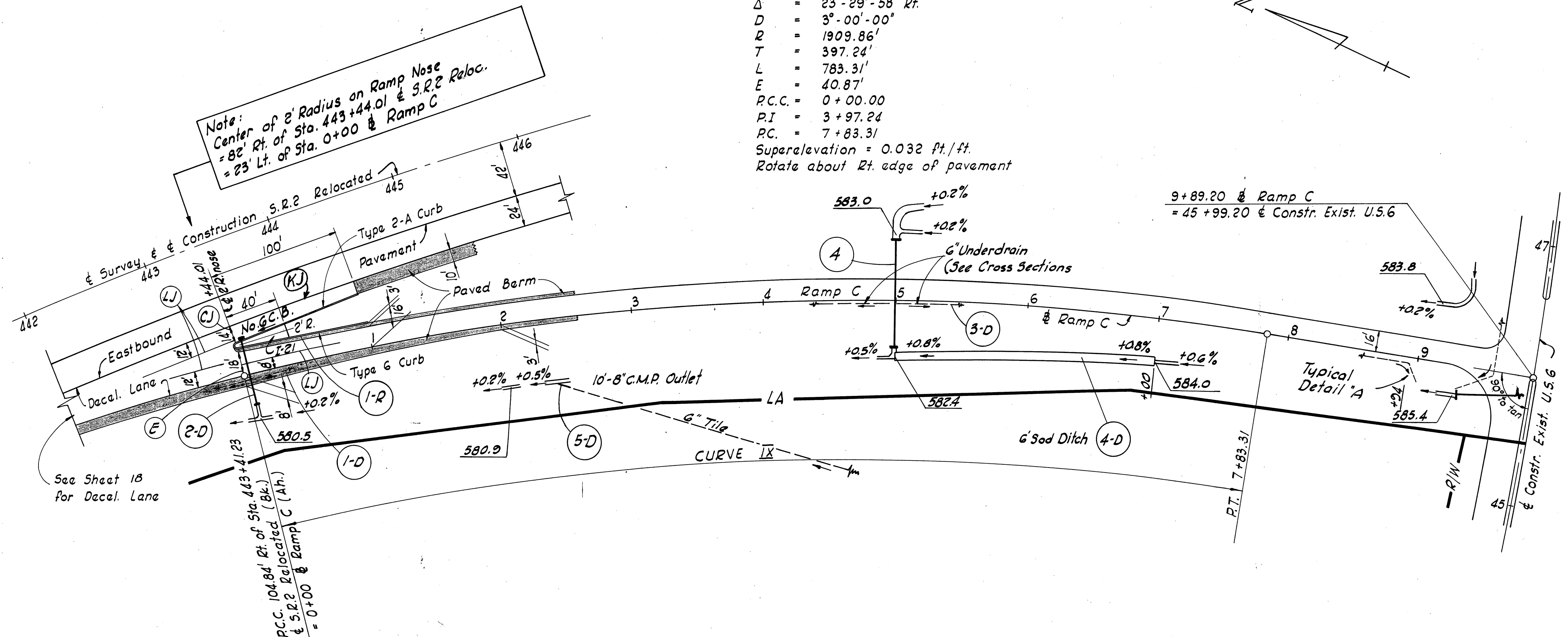


See Sheet No.	Reference No. or Structure No.	Station	Ramp	Quantities																
				E-1	T-71	I-12	I-12	I-12	I-15	I-21	I-22									
From	To			Compacted	Subgrade	9" Conc. Pavt.	Special P.C.	Special P.C.	Special P.C.	Full Width	Type G Curb	Type E-A Curb	Guard Rail	4" Conc. Med. Pavt.	Subbase					
Sq. Yd.	Sq. Yd.			Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Cu. Yd.					
1-R	0+00	5+00	A							250	252									
2-R	5+13.77	6+13.77	B								103									
3-R	10+52	11+18.04	B	28.0	28.0							144		16.0	12.3					
4-R	15+59	19+11.31	B					110	90	179					3.3					
5-R	11+18.04	16+76.32	A&B									1117		124.1	527.3					
6-R	15+66	16+05	A&B								37				0.3					
7-R	14+39.34	16+15.55	B	557.1	557.1										22.8					
8-R	5+00	12+50	A											750						
9-R	5+72.5	9+40	A											375						
10-R	6+70	9+52	B											300						
11-R	5+13.77	11+07.5	B											575						
Totals				585.1	585.1	360	342	319	1261	2000	140.1	6370								

CURVE IX
 $\Delta = 23^{\circ}-29'-58''$ Rt.
 $D = 3^{\circ}-00'-00''$
 $R = 1909.86'$
 $T = 397.24'$
 $L = 783.31'$
 $E = 40.87'$
 $P.C.C. = 0+00.00$
 $P.I. = 3+97.24$
 $P.C. = 7+83.31$
 Superelevation = 0.032 Ft./ft.
 Rotate about Rt. edge of pavement



Note:
 Center of 2' Radius on Ramp Nose
 = 82' Rt. of Sta. 443+44.01 & S.R.2 Reloc.
 = 23' Lt. of Sta. 0+00 & Ramp C



ROADWAY QUANTITIES F-1042(5)

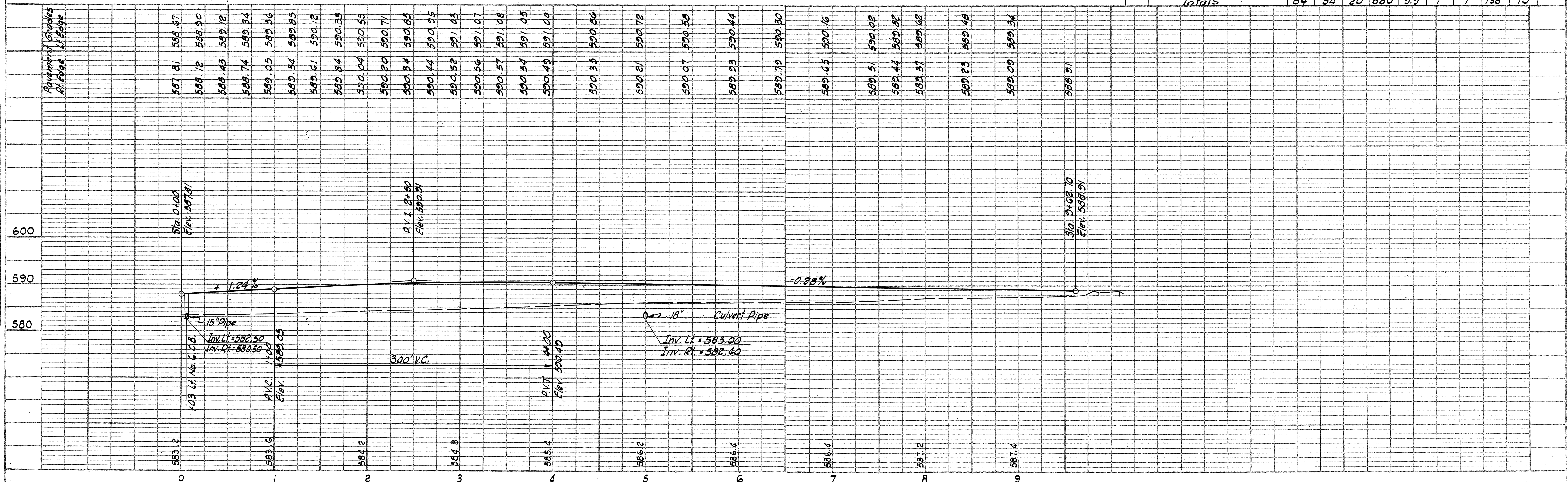
Station	Side	I-12 I-22			
		Type 6 Curb	Subbase		
From	To	Lin. Ft.	Cu. Yd.		
1-R	0+00	1+00	Lt.	103	1.0
Totals				103	1.0

DRAINAGE QUANTITIES F-1042(5)

Station	Side	I-1 I-1 I-1 I-1 I-2 I-5 I-8 L-10 I-1									
		18" Pipe Class A-1	15" Pipe Class B-1	8" Pipe Class F-1	6" Pipe Class I-3 (Shallow)	Masonry (Headwall)	6" 60' Bend for Class I-3 Pipe	No. 6 C.B.	Sodding	6" Pipe Class F-1	
From	To	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Ea.	Sq. Yd.	Lin. Ft.	
1-D	0+00	4+25	Rt.			485				10	
2-D	0+03	4+25	Lt./Rt.	84	54		3.3	1			
3-D	5+05	8+24	Rt.		10	395		1			
4-D	5+00	7+00	Rt.						133		
5-D	2+40		Rt.		10						
Totals				84	54	20	880	2.2	1	138	10

DATE: 8-67
 BY: S.M.B.
 CHECKED: E.D.S.
 NO. OF WAY DESIGNED: 203

DATE: 8-67
 BY: S.M.B.
 CHECKED: E.D.S.
 NO. OF WAY DESIGNED: 203



CURVE X
 L_s = 200'
 θ_s = 10°-00'-00" Rt.
 L.T. = 133.55'
 S.T. = 66.86'
 L.C. = 199.73'
 T.S. = 0+00.00
 S.C. = 2+00.00

PROPOSED STRUCTURE
 Type: Continuous steel beam with reinforced concrete deck, capped pile substructures.
 Span: 24'-0", 30'-0", 24'-0" % Brgs.
 Roadway: 28'-0" w/ parapets
 Load Frequency: CF 400(57)
 Skew: 35°00' Left Forward
 Wearing Surface: 1" monolithic concrete
 Approach Slabs: 25'-0" long AS-1-54
 Alignment: 10°00' curve to right.

CURVE XI
 Δ = 35°-00'-00" Rt.
 D = 10°-00'-00"
 R = 572.96'
 T = 180.65'
 L = 350.00'
 E = 27.81'
 S.C. = 2+00.00
 P.I. = 3+80.65
 C.S. = 5+50.00
 Superelevation = 0.06 ft./ft.
 Rotate about Rt. edge of pavement.

CURVE XII
 L_s = 200'
 θ_s = 10°-00'-00" Rt.
 L.T. = 133.55'
 S.T. = 66.86'
 L.C. = 199.73'
 C.S. = 5+50.00
 S.T. = 7+50.00
 Superelevation varies from 0.06 to 0.0156 ft./ft.
 Rotate about Rt. edge of pavement.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

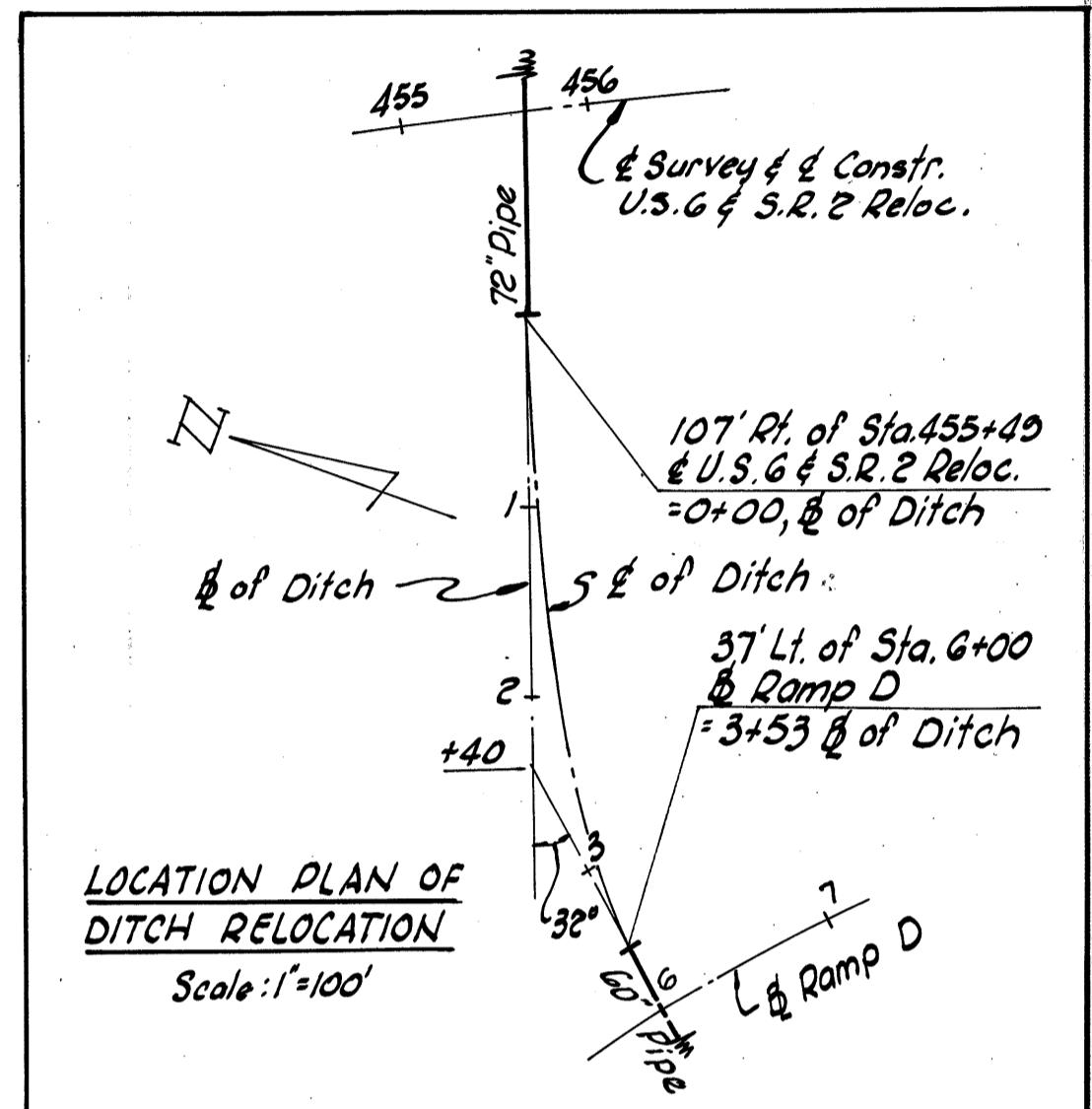
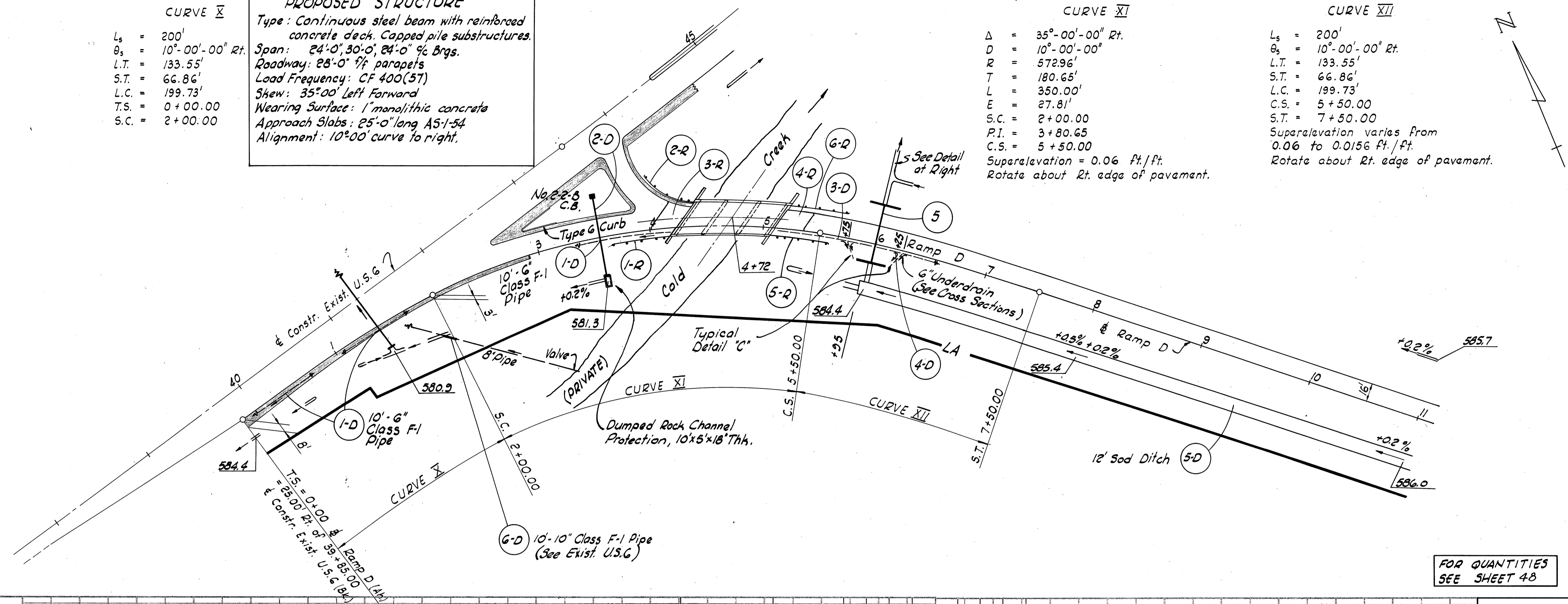
(47)
220

ERI 2-402; ERI 6-380

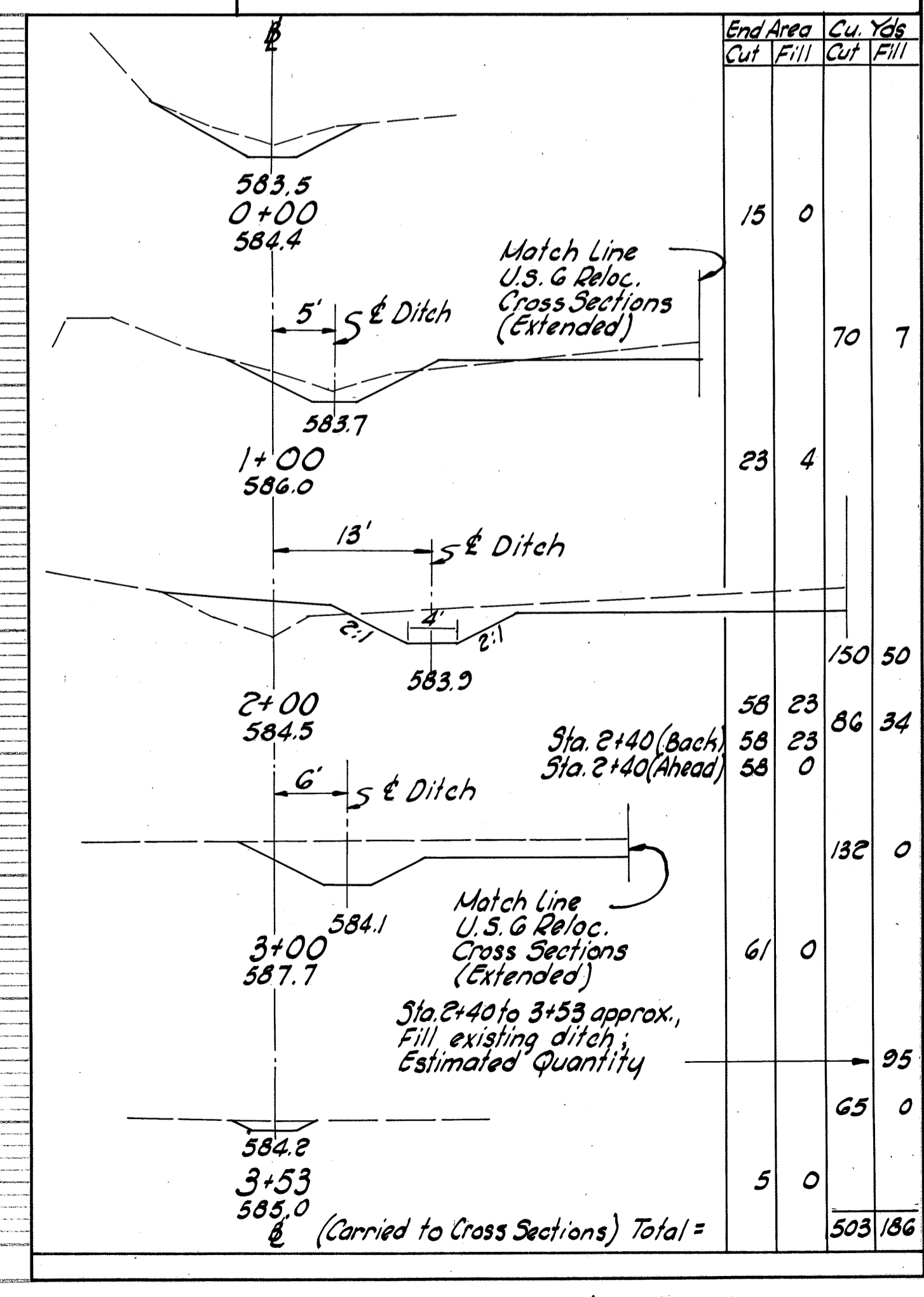
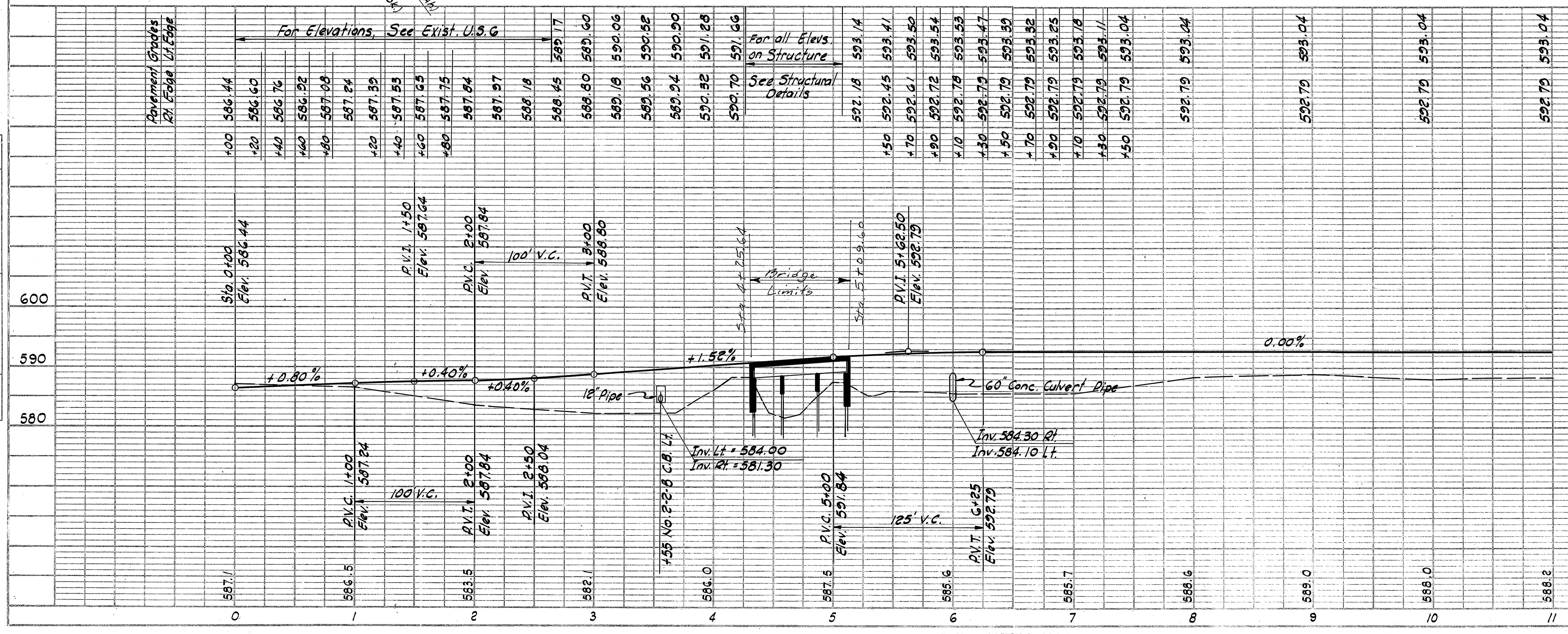
MICROFIL
 SEP 11 1986

DATE: 8-67
 SURVEYED BY: S.M.B.
 PLOTTED BY: E.D.S.
 CHECKED BY: E.D.S.
 NOTE: REV. OF WAY CHECKED BY: E.D.S.

DATE: 8-67
 SURVEYED BY: S.M.B.
 PLOTTED BY: E.D.S.
 CHECKED BY: E.D.S.
 NOTE: STRUCTURE NOTATION CHG. BY: E.D.S.



FOR QUANTITIES SEE SHEET 48



Station	End Area	Cu. Yds.
	Cut	Fill
0+00	15	0
1+00	23	4
2+00	58	23
3+00	61	0
3+53	5	0
Total	503	186

U.S.G Interchange Ramp D Sta. 0+00 to Sta. 11+00

CURVE XIII

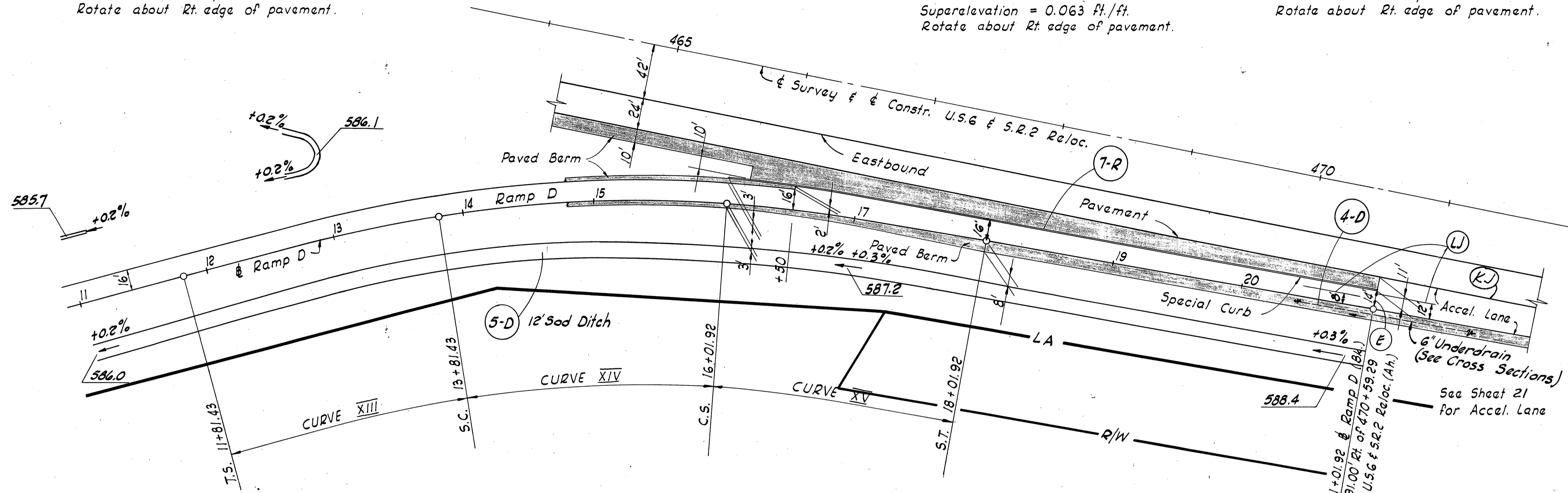
$L_s = 200'$
 $\theta_s = 6^\circ-00'-00''$ Rt.
 $L.T. = 133.41'$
 $S.T. = 66.74'$
 $L.C. = 199.90'$
 $T.S. = 11+81.43$
 $S.C. = 13+81.43$
 Superelevation varies from 0.0156 to 0.063 ft./ft.
 Rotate about Rt. edge of pavement.

CURVE XIV

$\Delta = 13^\circ-13'-45''$ Rt.
 $D = 6^\circ-00'-00''$
 $R = 954.93'$
 $T = 110.74'$
 $L = 220.49'$
 $E = 6.40'$
 $S.C. = 13+81.43$
 $P.I. = 14+92.17$
 $C.S. = 16+01.92$
 Superelevation = 0.063 ft./ft.
 Rotate about Rt. edge of pavement.

CURVE XV

$L_s = 200'$
 $\theta_s = 6^\circ-00'-00''$ Rt.
 $L.T. = 133.41'$
 $S.T. = 66.74'$
 $L.C. = 199.90'$
 $T.S. = 11+81.43$
 $S.C. = 13+81.43$
 Superelevation varies from 0.063 to 0.0156 ft./ft.
 Rotate about Rt. edge of pavement.



ROADWAY QUANTITIES F-1042(5)

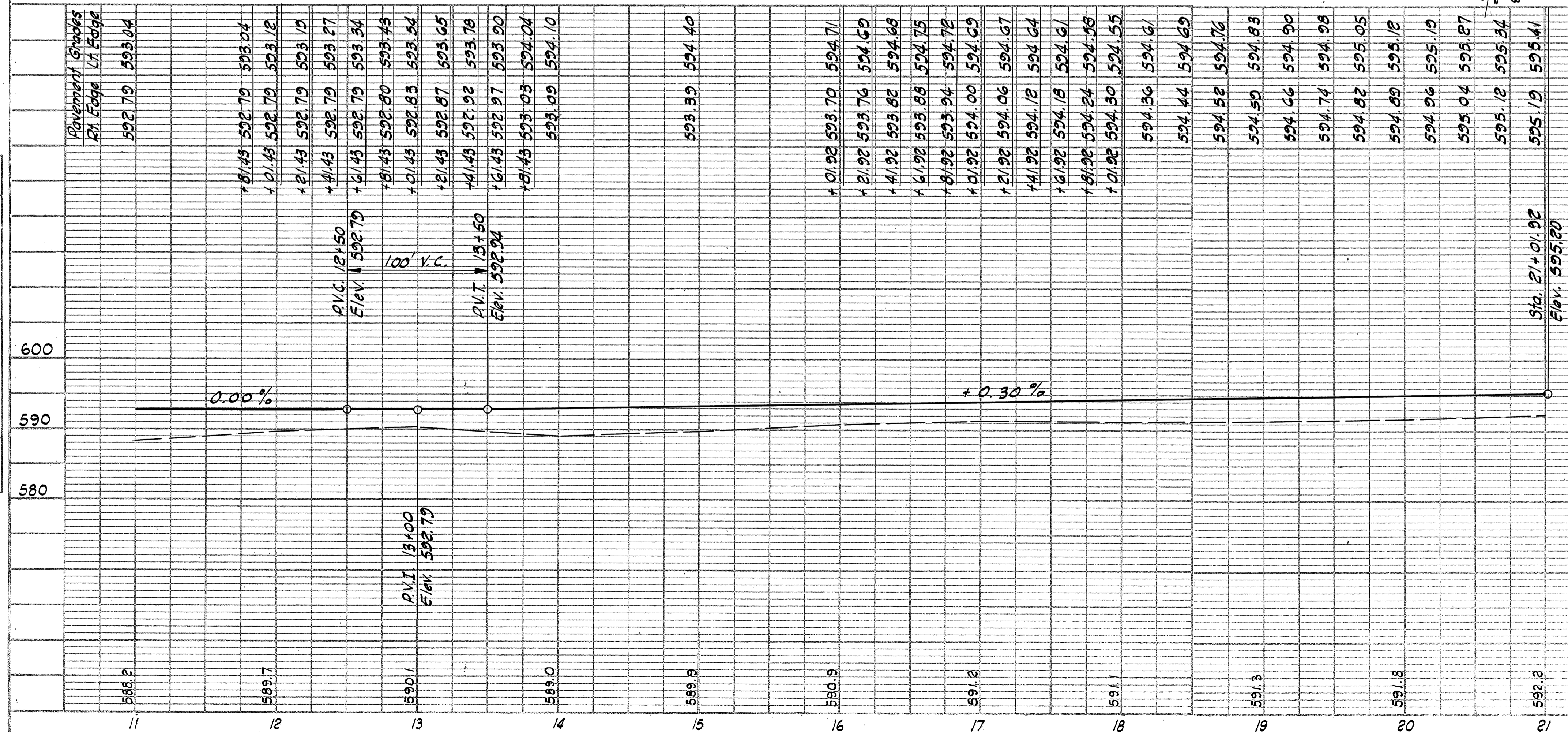
Station	Side	Quantities							
		E-1	I-7	I-12	I-12	I-15	I-22		
From	To	Compacted Subgrade	Reinf. P.C. Conc. Apror. Slab (T=15)	Special P.C. Conc. Curb	Special P.C. Conc. Curb Part Width	Guard Rail (Std. Type)	Subbase		
Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.			
1-R	3+65	4+16	Rt.						
2-R	4+00	4+38	Lt.			50			
3-R	See Site Plan		Lt.	50.4	50.4		8.4		
4-R	See Site Plan		Lt.	44.4	44.4		7.4		
5-R	5+06	5+58	Rt.			50			
6-R	5+21	5+69	Lt.			50			
7-R	16+01.92	21+01.92	Lt.		486	16	9.0		
Totals				94.8	94.8	486	16	200	24.8

DRAINAGE QUANTITIES F-1042(5)

Station	Side	Quantities												
		I-1	I-1	I-1	I-1	I-1	I-2	I-5	I-8	I-10	I-1	L-10		
From	To	6" Pipe Class A-1	6" Pipe Class B-1	10" Pipe Class F-1	8" Pipe Class F-1	6" Pipe Class F-1	6" Pipe Class F-1	Masonry (Normally 12" x 12" x 16" Class 1-5)	16" x 22" C.B.	Drummed Rock Retention	6" Pipe Class F-1	Soading		
Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Ea.	Cu. Yd.	Lin. Ft.	Sq. Yd.	
1-D	0+00	4+10	Rt.					390						
2-D	3+55	5+25	Lt. & Rt.					60		223	1	3		
3-D	5+15	5+25	Rt.			10	88			1				
68	5	6+00	Lt. & Rt.	56						440			12	
4-D	6+05	21+02	Rt.			10	1507			1				
5-D	5+25	21+02	Rt.										2000	
6-D	1+25		Rt.			10								
Totals				56	60	10	20	1085	4423	2	1	3	20	2021

PLAN
 SURVEYED BY S.M.B.
 PLOTTED BY D.F.C.
 CHECKED BY D.F.C.
 DATE 3-9-61
 NOTE BOOK NO. 253
 STRUCTURE NOTATIONS CHD. 25-61

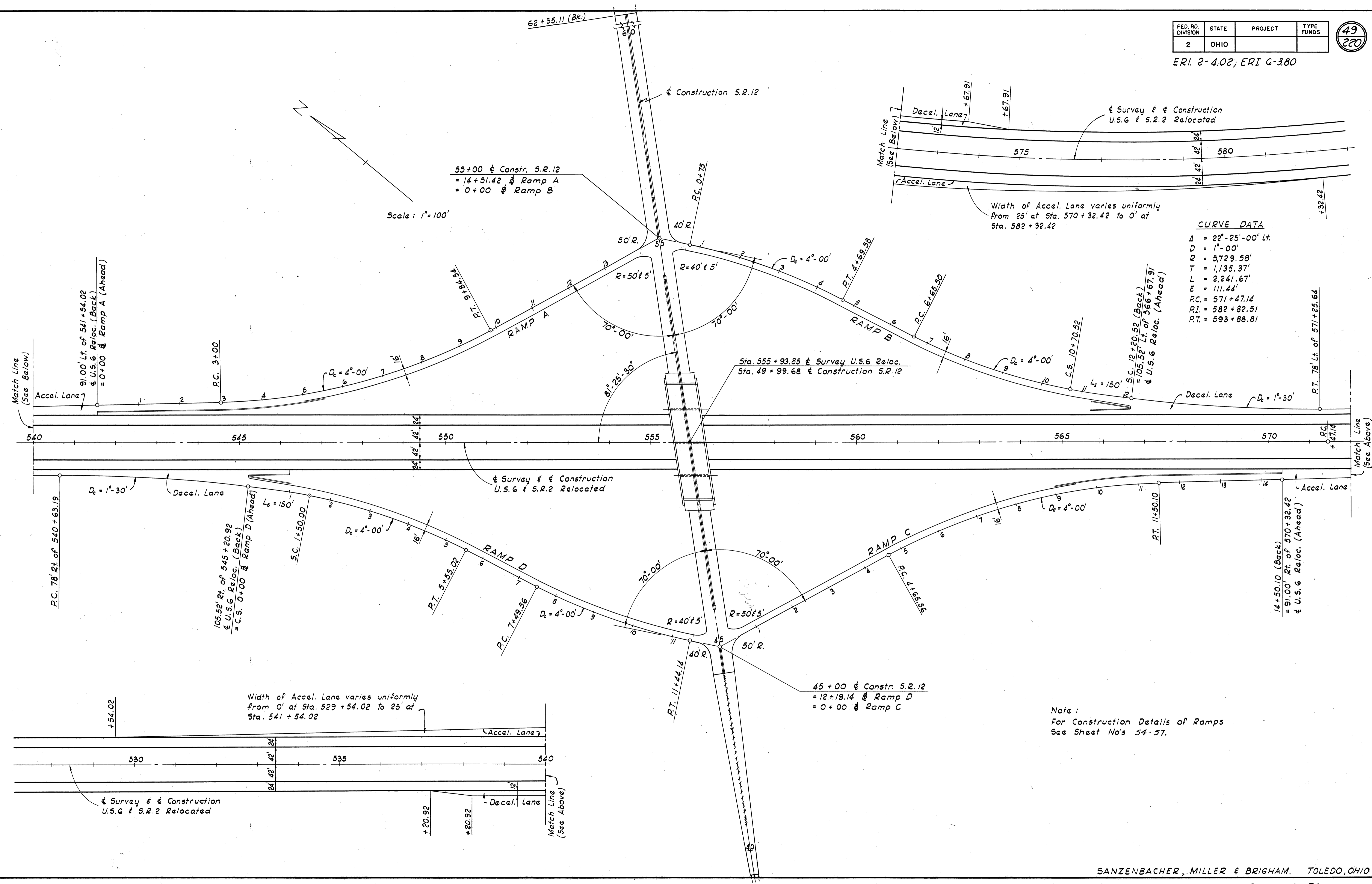
PROFILE
 SURVEYED BY S.M.B.
 PLOTTED BY E.D.S.
 CHECKED BY E.D.S.
 DATE 3-9-61
 NOTE BOOK NO. 253
 STRUCTURE NOTATIONS CHD. 25-61



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

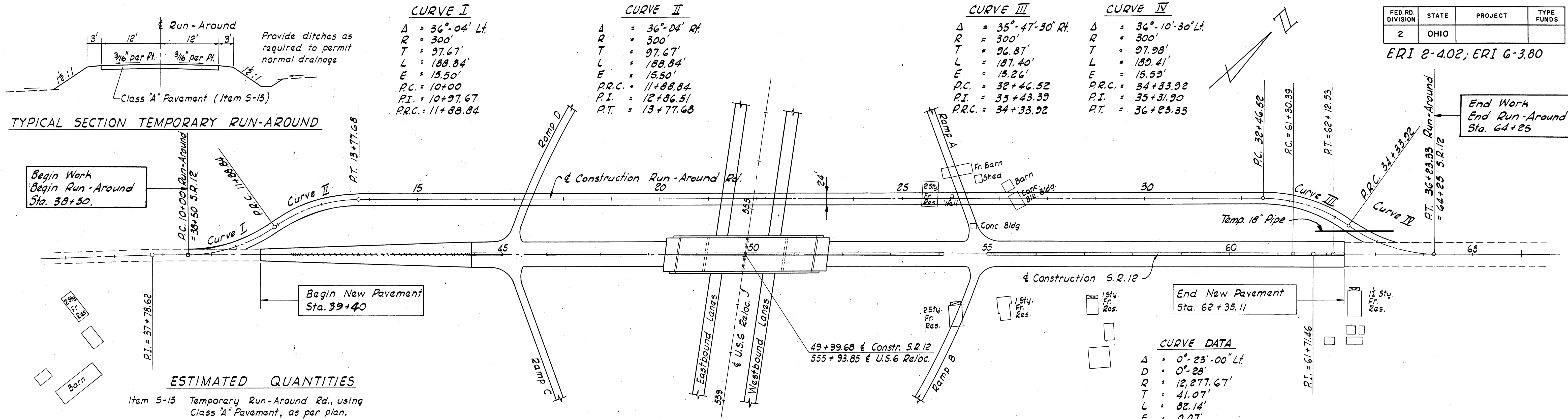
49
270

ERI 2-4.02; ERI G-380



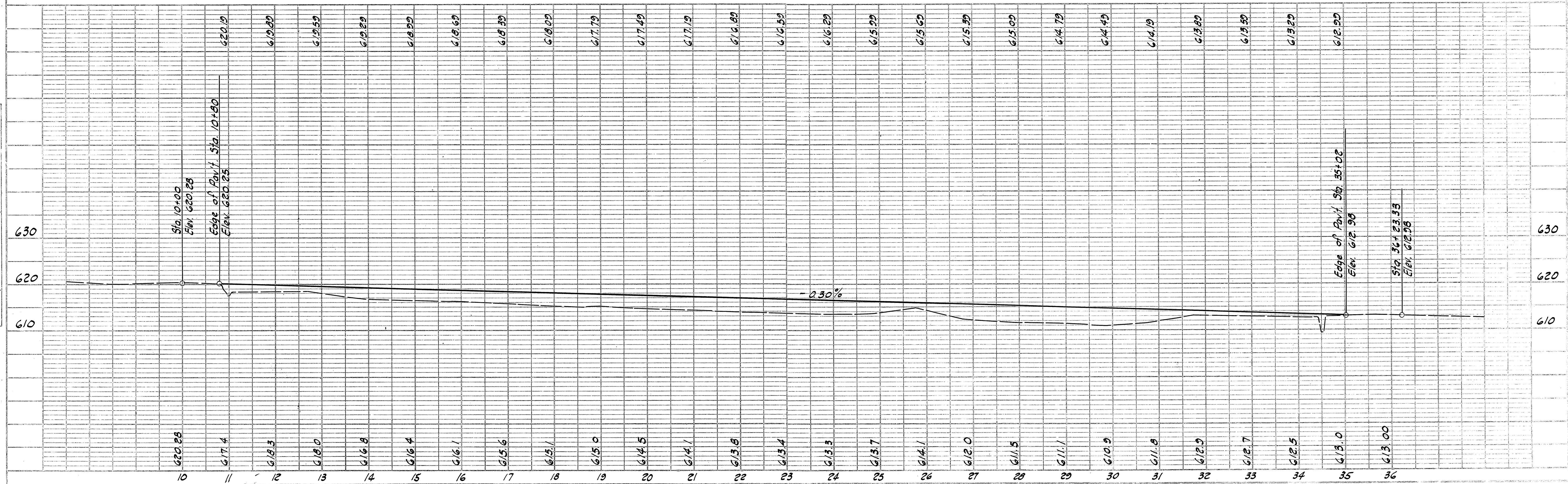
Note:
For Construction Details of Ramps
See Sheet No's 54-57.

ERI 2-4.02; ERI 6-3.80



Note: Item 5-15 Temporary run-around shall include the reshaping and restoring of ground to original contours through areas where the run-around is constructed on temporary right of way, in addition to other removal requirements of Item 5-15.09.

Note: Payment for construction, maintenance and subsequent removal of temporary pipe drainage structures shown is included in the Lump Sum bid for Item 5-15 Run-around.



DATE 1958
 SURVEYED BY SMB
 PLANNED BY PCC
 CHECKED BY EDS
 REVISIONS BY EDS

DATE 1958
 SURVEYED BY SMB
 PLANNED BY PCC
 CHECKED BY EDS
 REVISIONS BY EDS

ERI 2-402, ERI 6-380

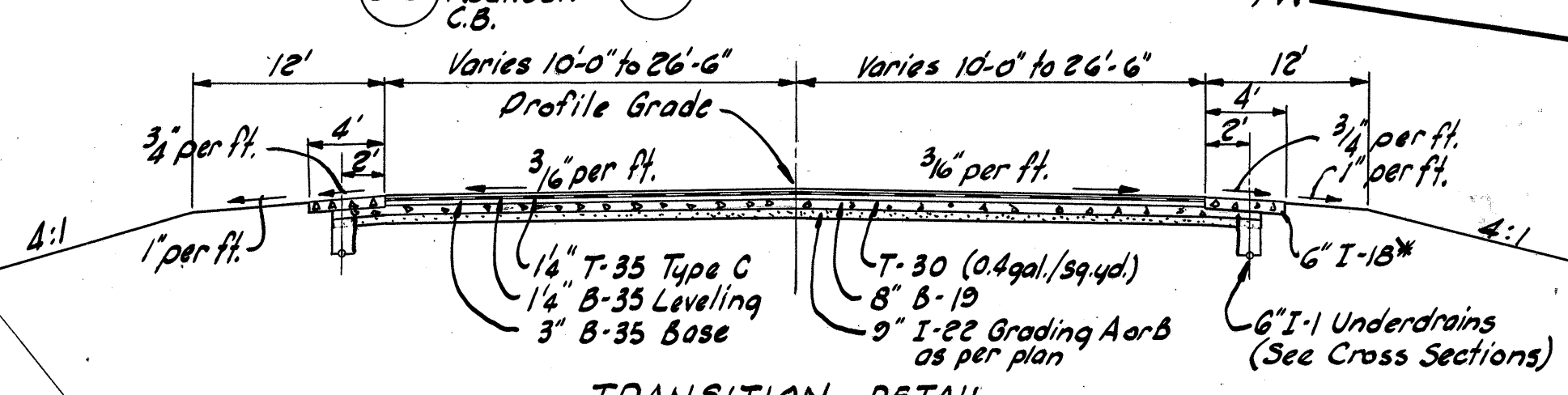
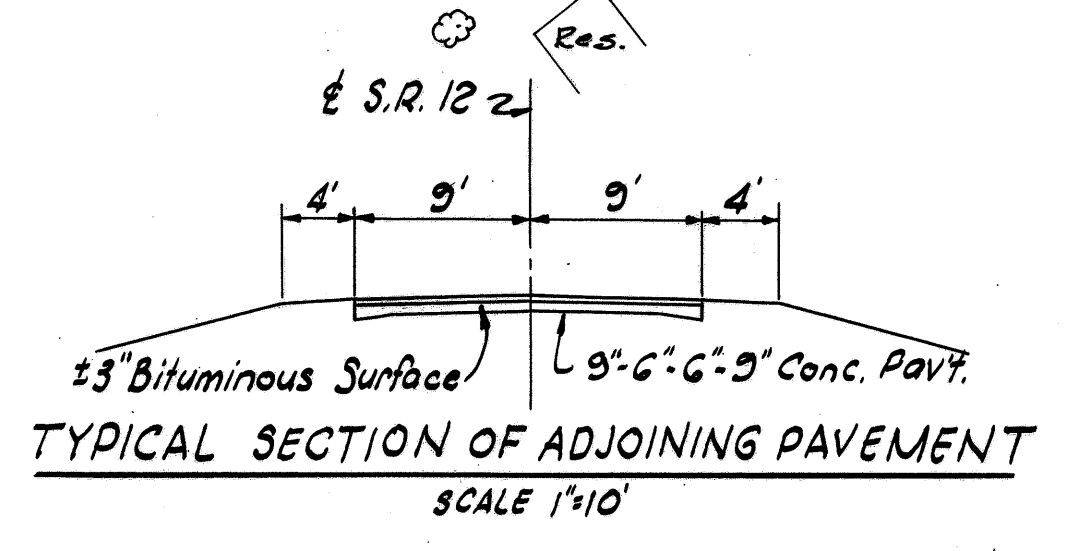
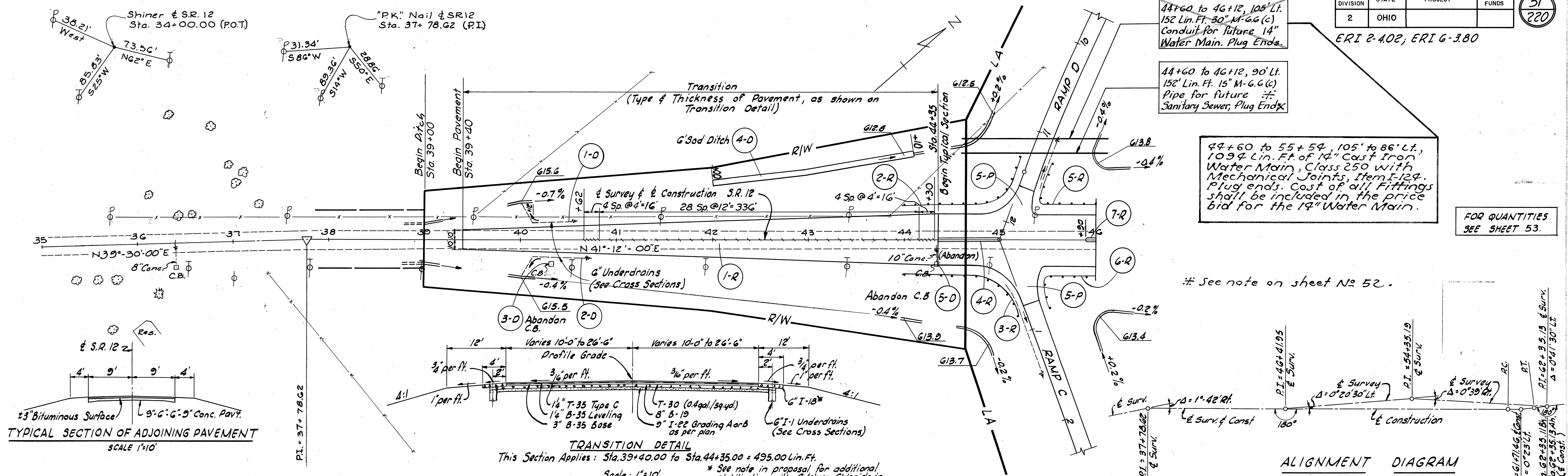
44+60 to 46+12, 105' Lt.
152 Lin. Ft. 30" M-G.C.
Conduit for future 14" Water Main. Plug Ends.

44+60 to 46+12, 90' Lt.
152 Lin. Ft. 15" M-G.C.
Pipe for future Sanitary Sewer. Plug Ends.

44+60 to 55+54, 105' to 86' Lt.,
1094 Lin. Ft. of 14" Cast Iron Water Main, Class 250 with Mechanical Joints, Item I-129. Plug ends. Cost of all Fittings shall be included in the price bid for the 14" Water Main.

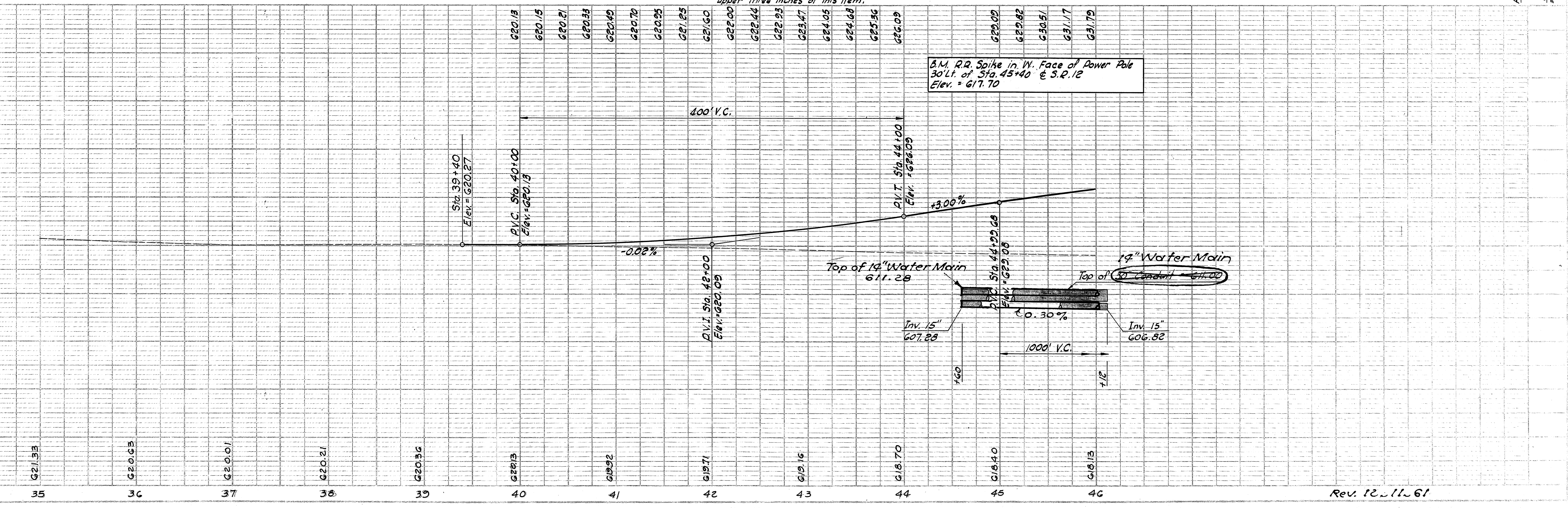
FOR QUANTITIES SEE SHEET 53.

See note on sheet No 52.



TRANSITION DETAIL
This Section Applies: Sta. 39+40.00 to Sta. 44+35.00 = 495.00 Lin. Ft.
Scale: 1"=10'

* See note in proposal for additional stabilization with Calcium Chloride in upper three inches of this item.



B.M. R.R. Spike in W. Face of Power Pole
30' Lt. of Sta. 45+40 & S.R. 12
Elev. = 617.70

ALIGNMENT DIAGRAM

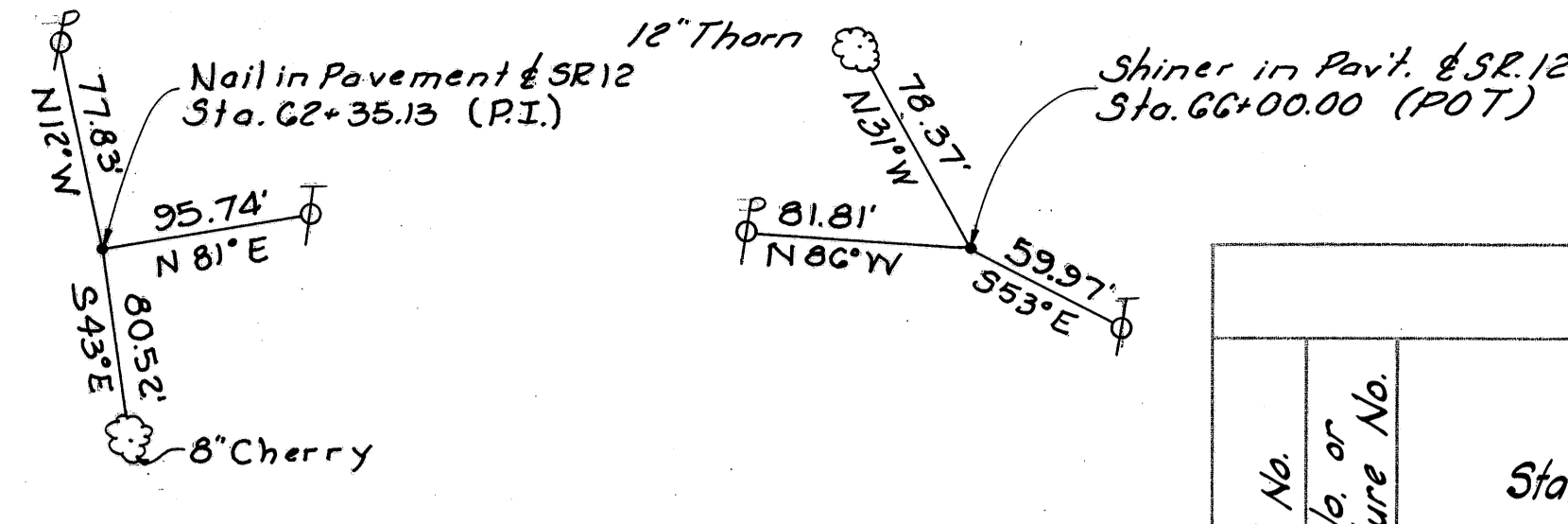
Rev. 12-11-61

Sta. 35+00 to Sta. 46+00 SR 12

DATE: 8-9-61
BY: S.M.B.
CHECKED: E.D.S.
DATE: 8-9-61
BY: S.M.B.
CHECKED: E.D.S.

DATE: 8-9-61
BY: S.M.B.
CHECKED: E.D.S.
DATE: 8-9-61
BY: S.M.B.
CHECKED: E.D.S.

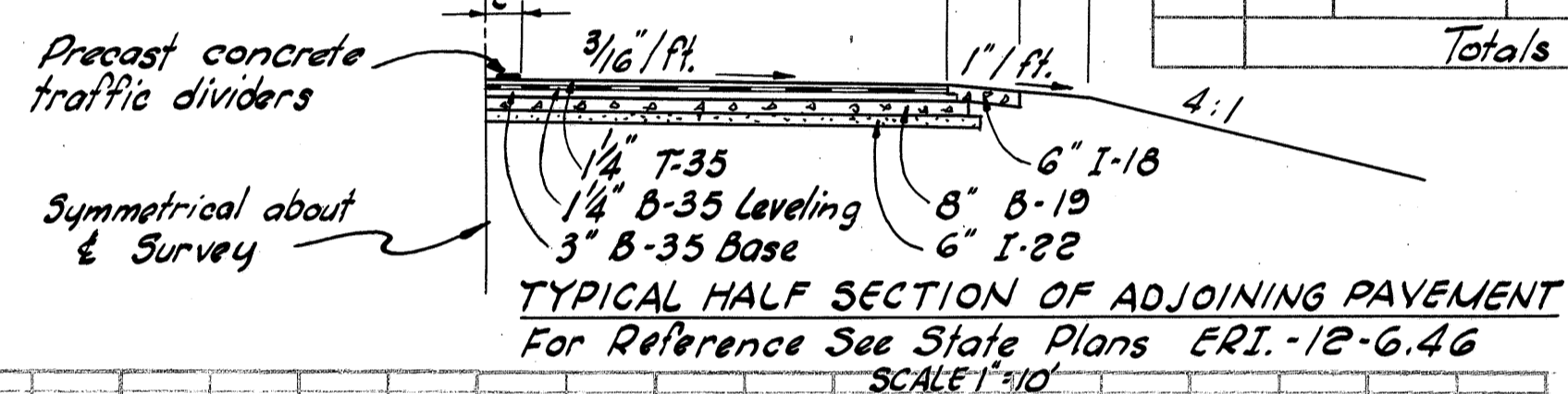
CURVE DATA
 $\Delta = 0^\circ 23' 00''$ Lt.
 $D = 0^\circ 28'$
 $R = 12,277.67'$
 $T = 41.07'$
 $L = 82.14'$
 $E = 0.07'$
 $PC = G1+30.39$
 $PI = G1+71.46$
 $PT = G2+12.53$



ROADWAY QUANTITIES F-1042(5)

See Sheet No.	Ref. No. or Structure No.	Station	Side	Quantities																		
				E-1	E-8	B-19	B-21	B-35	B-35	T-30	T-31	T-35	I-7	I-15	I-12	I-21	I-22	I-23	Spec.	I-18		
				Compacted Subgrade	Removal of Existing Pavement	Aggregate Base Course	3" Waterproofed Aggregate Base Course	Asphaltic Conc. Base Course	Asphaltic Conc. Leveling Course	Biluminous Prime Coat	Bit. Surface Treatment	Asphaltic Conc. Surface Course	Asphaltic Conc. Top Course	Asphaltic Conc. Inter. Course	Guard Rail	Precast Concrete Traffic Dividers	Subbase	Precast Concrete Traffic Dividers	Mixing G.C. in Place	Closed Aggr. Sub-base		
				Sq. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Lin. Ft.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Ea.	Sq. Yd.	Cu. Yd.		
1-R	39+40	44+35	Lt.	20078	627	510.9		167.3	69.7	8030												
2-R	44+00	45+22	Lt.											150								
3-R	44+00	45+18	Rt.											137.5								
4-R	44+35	45+00	Med.																		217	
64	5-P	45+00	Lt.	2667		42.8	74.4	16.0	6.7	77.0	74.4	6.7			11.0						613	
5-R	45+40	48+47	Lt.											350								
6-R	45+45	48+41	Rt.											325								
7-R	45+90	48+31.90	Med.																		80.6	
8-R	See Site Plan			Lt.	1472																24.5	
9-R	See Site Plan			Lt.	1472																	24.5
10-R	51+51	54+56	Rt.																			
11-R	51+60	54+53	Lt.																			
12-R	51+67.46	54+10	Med.																			
13-R	54+82	58+00	Lt.																			
14-R	54+80	58+00	Rt.																			
64	4-P	53+00	Lt.	2667		42.8	74.4	16.0	6.7	77.0	74.4	6.7			11.0						613	
15-R	55+00	62+35.11	Med.																			
16-R	59+36		Rt.																			
Totals				28353	627	616.9	1488	199.3	83.1	9570	148.8	83.1	234.4	2275	22.0	428.1	6735	37	2400	73.3		

*Use 0.4 Tons Item M-10, Calcium Chloride Furnished & Applied
 #End part removal Sta. 42+50 ±



Station	Side	WATER LINE CONDUIT		SANITARY SEWER		Item I-124 14" Cast Iron Water Main with Mechanical Joints Class 250
		30" Class A-1 Pipe M-G.G (b)	30" Class A-1 Pipe M-G.G (c)	15" Class A-1 Pipe, M-G.G (b) (Sanitary) as per plan	15" Class A-1 Pipe, M-G.G (c) (Sanitary) as per plan	
From	To	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.
44+60	46+12	Lt.				152
48+75	51+35	Lt.	260		260	260
53+66	55+46	Lt.		180		180
56+72	58+75	Lt.			263	263
51+35	53+66	Lt.			231	231
55+46	55+54	Lt.			8	8
Totals		260	332	260	332	1094

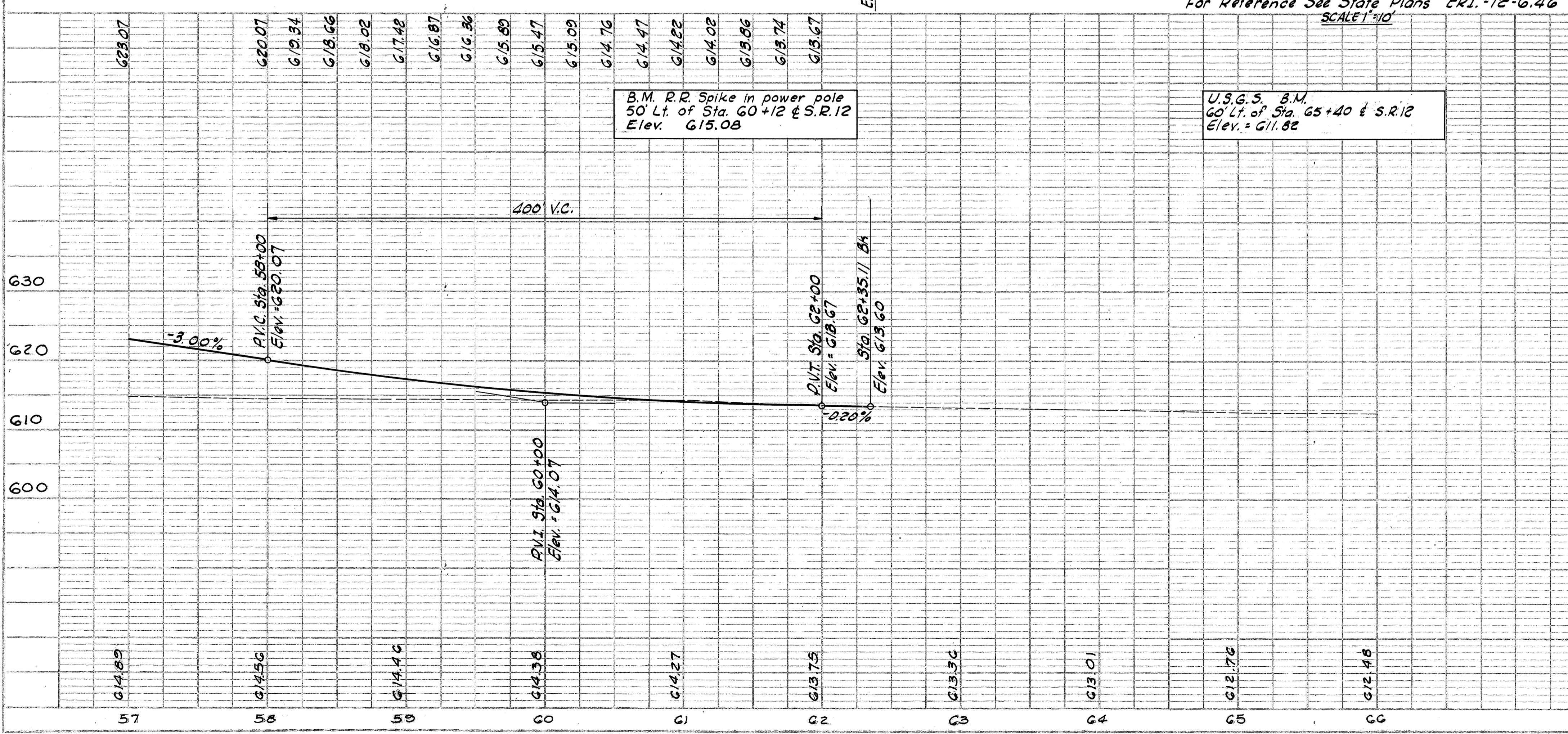
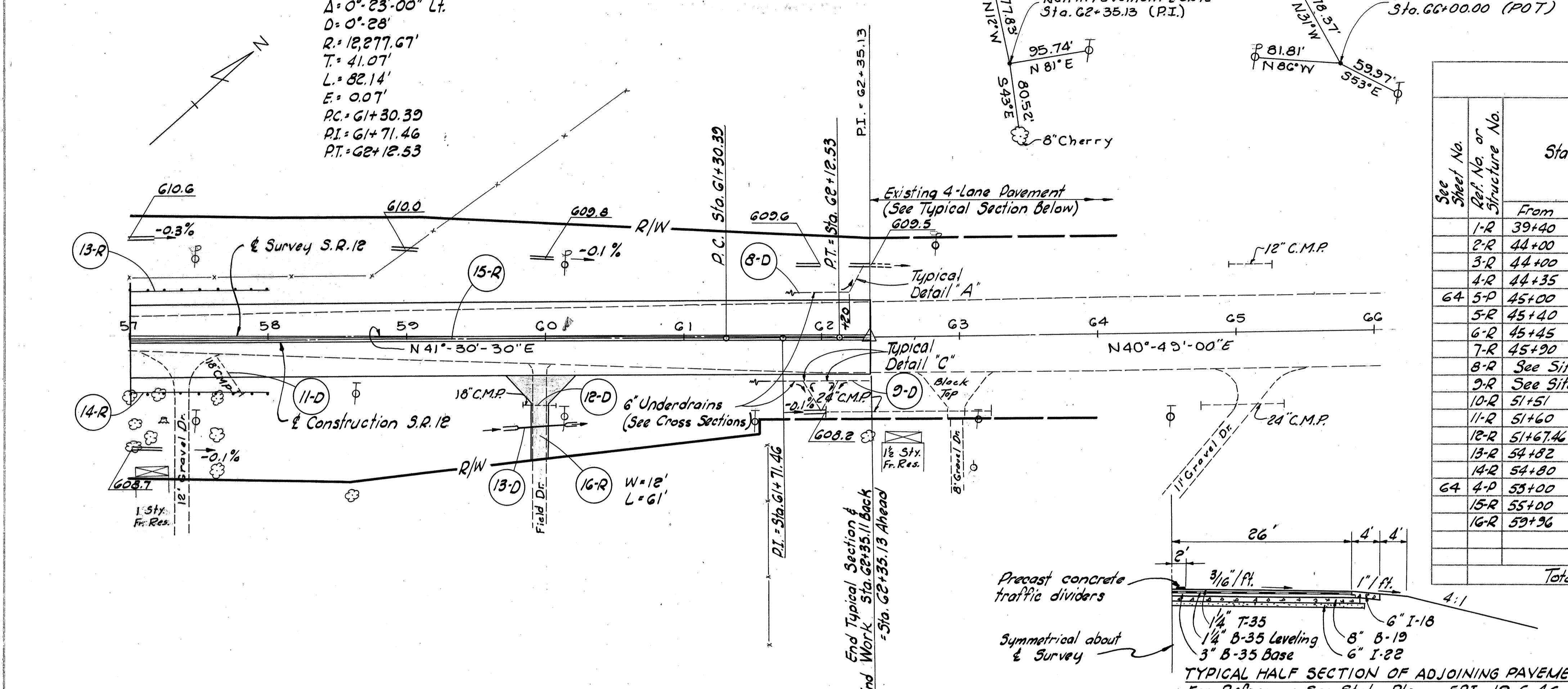
Carried to Sh't. G2 Carried to Sh't. I7

DRAINAGE QUANTITIES F-1042(5)

See Sheet No.	Ref. No. or Structure No.	Station	Side	Quantities								
				E-12	E-12	I-1	I-1	I-1	I-5	I-5	I-16	L-10
				12" Pipe Removed	18" Pipe Removed	18" Pipe Class C-1	8" Pipe Class F-1	6" Pipe Class I-3 (Shallow) Spacing for Class I-3	6" x 60" Wye for Class I-3	Catch Basins Abandoned	Sodding	
				Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Ea.	Ea.	Sq. Yd.	
1-D	40+12	48+55	Lt.				10	860	1			
2-D	40+12	48+50	Rt.				10	855	1			
3-D	40+52		Rt.									
4-D	42+00	44+10	Lt.								140	
5-D	44+33		Rt.									
6-D	48+76		Rt.	54								
7-D	48+93	49+13	Lt.	20								
8-D	51+50	62+20	Lt.				10	1084	1			
9-D	51+40	62+35	Rt.				20	1123	2			
10-D	53+99		Rt.	39								
11-D	57+60	57+81	Rt.		36							
12-D	59+83	60+07	Rt.		24							
13-D	59+80	60+15	Rt.			36						
Totals:				113	60	36	50	3922	3	2	4	140

PLANNED
 SURVEYED
 PLOTTED
 GRADES CHECKED
 E.D.S.
 E.D.S.
 E.D.S.
 E.D.S.

PROF.
 SURVEYED
 PLOTTED
 GRADES CHECKED
 E.D.S.
 E.D.S.
 E.D.S.
 E.D.S.

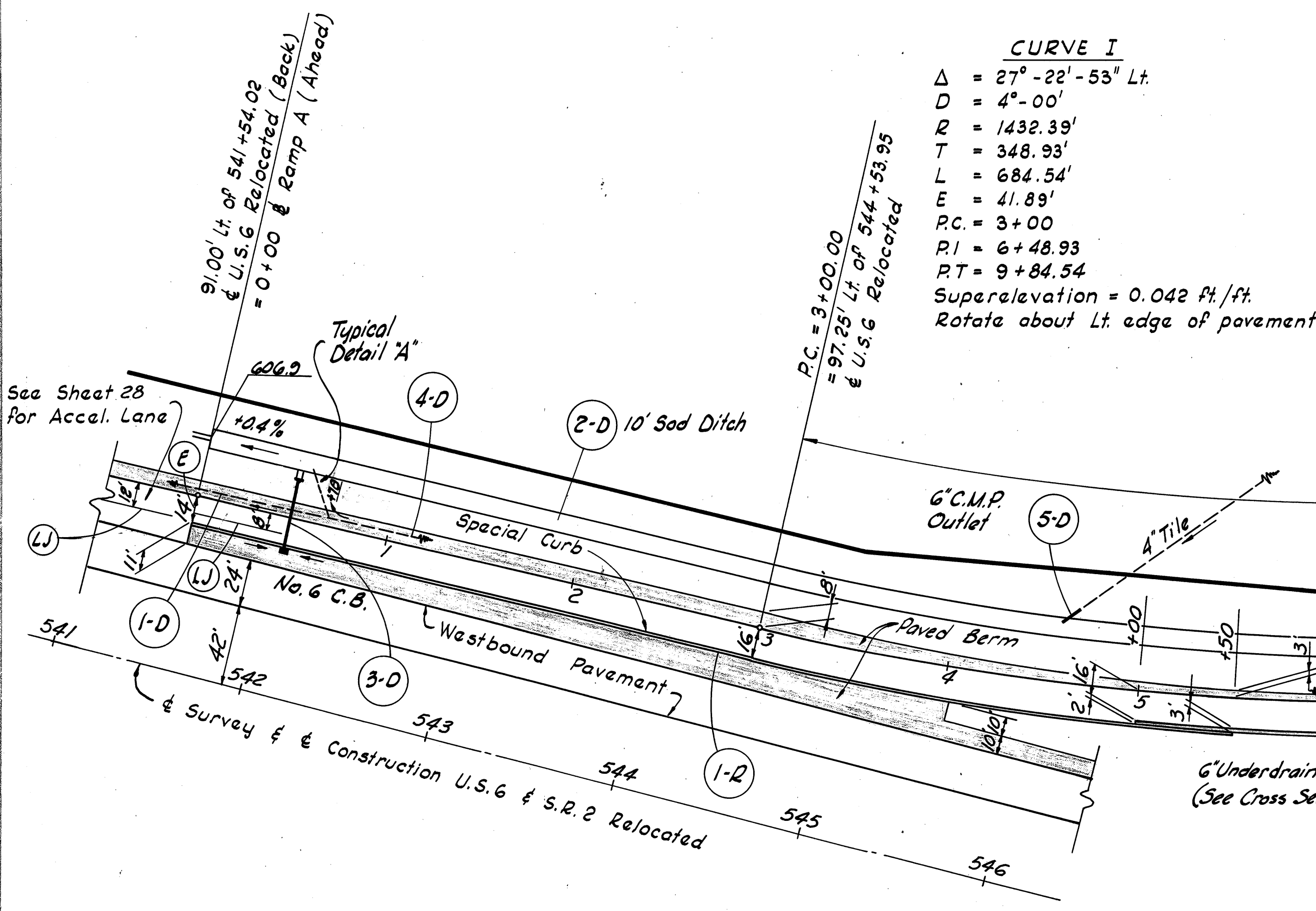


DATE: 1958
 BY: S.M.B.
 PFC: S.S.D.
 EDS: E.D.S.
 NO. 8-61

PLAN
 SURVEYED
 PLOTTED
 ALIGNED CHECKED
 RT. OF WAY CHECKED
 NO.

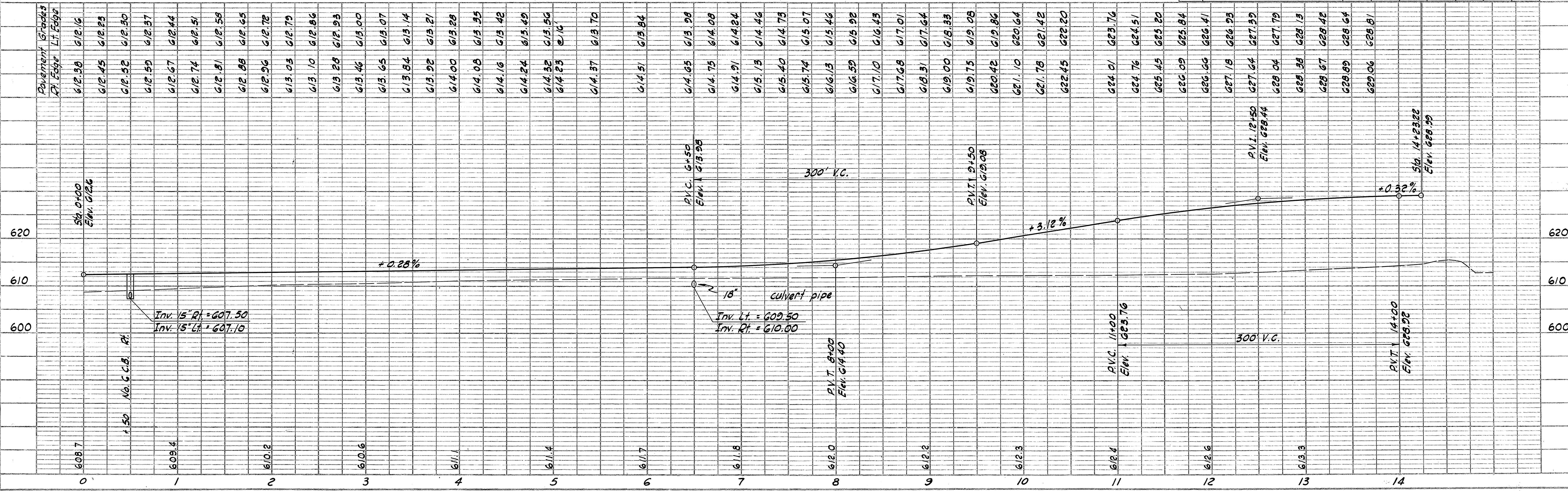
DATE: 1958
 BY: S.M.B.
 PFC: S.S.D.
 EDS: E.D.S.
 NO. 8-61

PROFILE
 SURVEYED
 PLOTTED
 GRADES CHECKED
 STRUCTURE NOTATIONS CHECKED
 NO.



See Sheet No. Ref. No. or Structure No.	Station	Side	Pipe									
			1-1	1-1	1-1	1-1	1-1	1-2	1-5	1-8	1-10	
	From	To	18" Pipe Class A-1	15" Pipe Class B-1	8" Pipe Class F-1	6" Pipe Class F-1	6" Pipe Class I-5 (Shallow)	Masonry (Headwalls)	6" Underdrain Class I-5	No. 6 C.B.	Soading	
	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Ea.	Ea.	Sq. Yd.	
1-D	0+00	0+66	Lt.									
2-D	0+00	6+45	Lt.								717	
3-D	0+50	6+66	Lt.	36							2	
4-D	0+70	6+66	Lt.		10	10	600	3.3				
5-D	4+60	6+66	Lt.									
6-D	6+70	13+85	Lt.	56							4	
Totals:				56	36	20	30	1383	9.9	2	723	

See Sheet No. Ref. No. or Structure No.	Station	Side	Roadway				
			I-12	I-12	I-15	I-22	
	From	To	Special P.C. Conc. Curb (Part. Width)	Special P.C. Conc. Curb (Full Width)	Guard Rail (Std. Type)	Subbase	
	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.		
1-R	0+00	5+50	Rt.	150	400	8.8	
2-R	9+00	13+75	Lt.			475	
3-R	9+03	13+65	Rt.			422.5	
Totals:				150	400	937.5	8.8

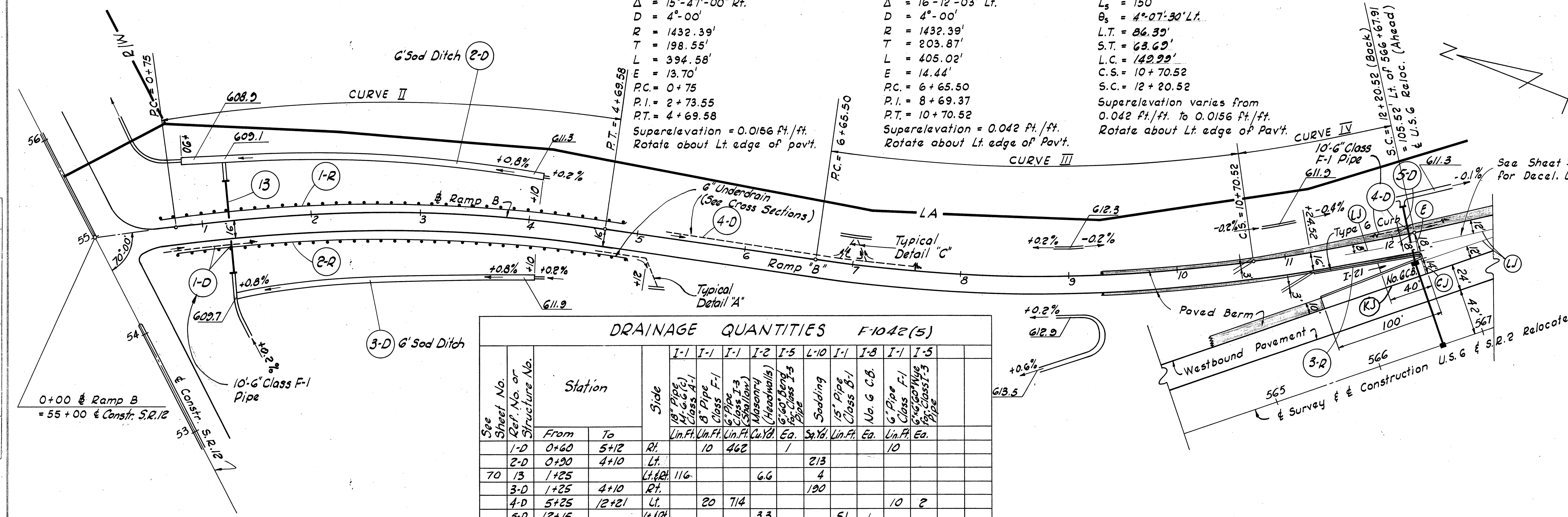


ERI 2-402; ERI 6-380

CURVE II
 $\Delta = 15^{\circ}47'00''$ Rt.
 $D = 4^{\circ}00'$
 $R = 1432.39'$
 $L = 198.55'$
 $T = 394.58'$
 $E = 13.70'$
 $PC = 0+75$
 $PI = 2+73.55$
 $PT = 4+69.58$
 Superelevation = 0.0156 ft./ft.
 Rotate about Lt. edge of pav't.

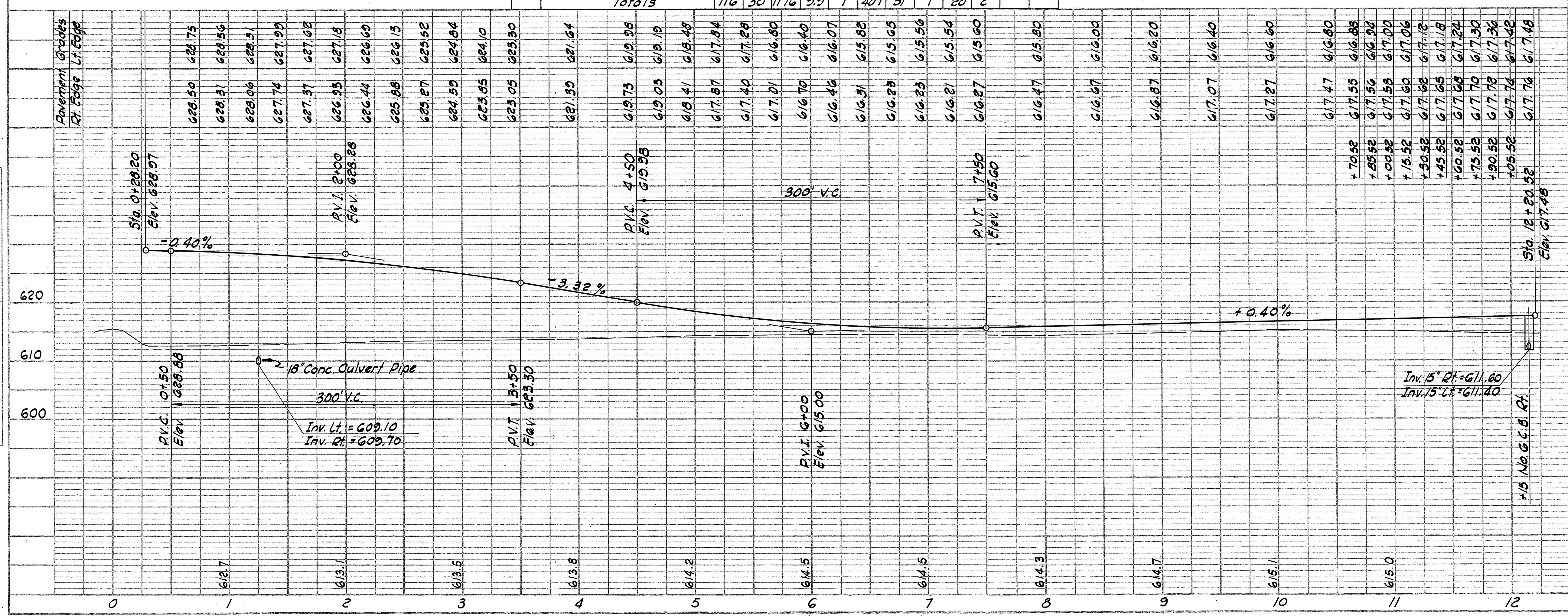
CURVE III
 $\Delta = 16^{\circ}12'03''$ Lt.
 $D = 4^{\circ}00'$
 $R = 1432.39'$
 $L = 203.87'$
 $T = 405.02'$
 $E = 14.44'$
 $PC = 6+65.50$
 $PI = 8+69.37$
 $PT = 10+70.52$
 Superelevation = 0.042 ft./ft.
 Rotate about Lt. edge of Pav't.

CURVE IV
 $L_s = 150'$
 $\theta_s = 4^{\circ}07'30''$ Lt.
 $L.T. = 86.33'$
 $S.T. = 63.69'$
 $L.C. = 149.99'$
 $C.S. = 10+70.52$
 $S.C. = 12+20.52$
 Superelevation varies from 0.042 ft./ft. to 0.0156 ft./ft.
 Rotate about Lt. edge of Pav't.



DRAINAGE QUANTITIES F-1042(5)

See Sheet No.	Station	Side	Structure No.									
			I-1	I-1	I-1	I-2	I-5	L-10	I-1	I-8	I-1	I-5
From	To		18" Pipe Class A-1	8" Pipe Class F-1	6" Pipe Class I-3 (Spall/Leak)	Masonry (Headwalls)	6" or 8" Bend Pipe Class I-3	Saddling	15" Pipe Class B-1	No. G.C.B.	6" Pipe Class F-1	6" or 8" Manhole for Class I-3
Lin. Ft.	Lin. Ft.		Lin. Ft.	Lin. Ft.	Cu. Yd.	Eq.	Sq. Yd.	Lin. Ft.	Eq.		Lin. Ft.	Eq.
1-D	0+60	Rt.		10	462						10	
2-D	0+90	Lt.						213				
70	1+25	Lt.	116			6.6		4				
3-D	1+25	Rt.		20	714			190				
4-D	5+25	Lt.								10	2	
5-D	12+15	Lt.				3.3			51	1		
Totals			116	30	1176	9.9	1	407	51	1	20	2



ROADWAY QUANTITIES F-1042(5)

See Sheet No.	Station	Side	Structure No.		
			Type G Curb	Guard Rail (5ft. Type)	Subbase
From	To		Lin. Ft.	Lin. Ft.	Cu. Yd.
1-R	0+60	Lt.		425	
2-R	0+75	Rt.		412.5	
3-R	11+24.52	Rt.	103		1.0
Totals			103	837.5	1.0

DATE: 1/25/59
 SURVEYED BY: SMB
 PLOTTED BY: EDS
 CHECKED BY: EDS
 DATE: 3-29-59
 STRUCTURE NO. AT WAY CHECKED: 203
 DATE: 8-61

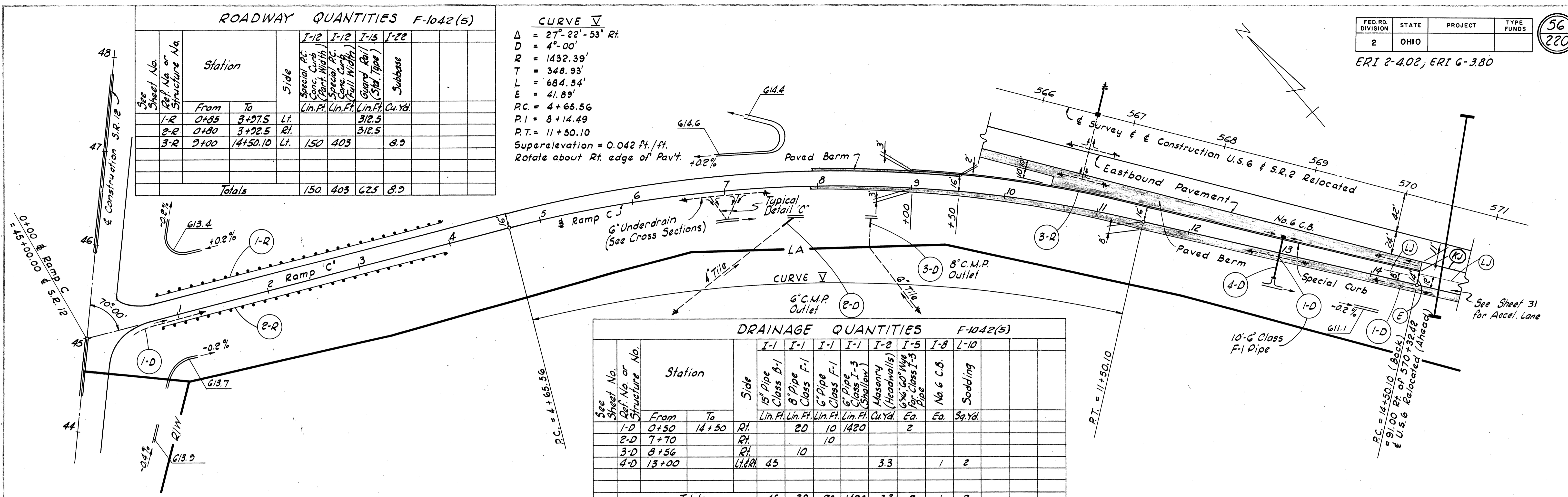
DATE: 1/25/59
 SURVEYED BY: SMB
 PLOTTED BY: EDS
 CHECKED BY: EDS
 DATE: 3-29-59
 STRUCTURE NO. AT WAY CHECKED: 203
 DATE: 8-61

ERI 2-402, ERI 6-380

ROADWAY QUANTITIES F-1042(5)

See Sheet No. of Structure No.	Station		Side	I-12	I-12	I-15	I-22
	From	To		Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.
1-R	0+85	3+27.5	Lt.				
2-R	0+80	3+22.5	Rt.				
3-R	2+00	14+50.10	Lt.	150	403		8.9
Totals				150	403	625	8.9

CURVE V
 $\Delta = 27^{\circ} 22' 53''$ Rt.
 $D = 4^{\circ} 00'$
 $R = 1432.39'$
 $T = 348.93'$
 $L = 684.54'$
 $E = 41.89'$
 $P.C. = 4+68.56$
 $P.I. = 8+14.49$
 $P.T. = 11+50.10$
 Superelevation = 0.042 Ft./ft.
 Rotate about Rt. edge of Pavt.

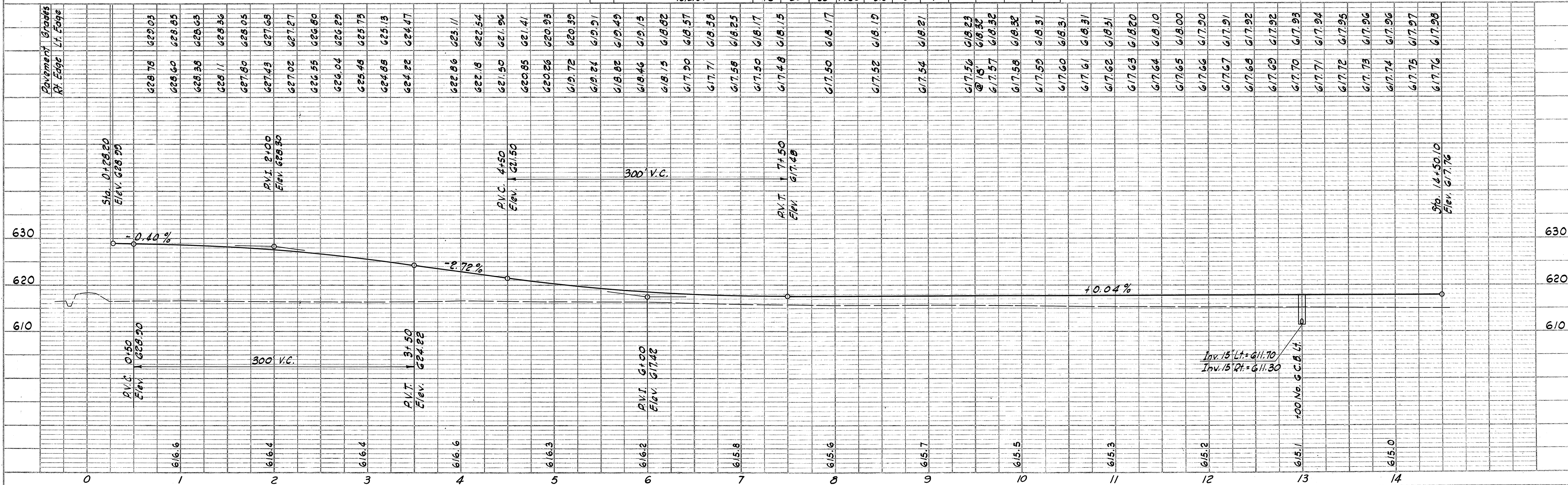


DRAINAGE QUANTITIES F-1042(5)

See Sheet No. of Structure No.	Station		Side	I-1	I-1	I-1	I-1	I-2	I-5	I-8	I-10
	From	To		15" Pipe Class B-1	8" Pipe Class F-1	6" Pipe Class F-1	6" Pipe Class I-3 (Shallow)	Masonry (Headwalls)	6" x 6" x 6" Pipe for Class I-3	No. 6 C.B.	Seeding
1-D	0+50	14+50	Rt.		20	10	1420		2		
2-D	7+70		Rt.		10	10					
3-D	8+56		Rt.								
4-D	13+00		Lt.	45				3.3		1	2
Totals:				45	30	20	1420	3.3	2	1	2

DATE: 5/18/58
 BY: S.H.B.
 CHECKED: E.D.S.
 NO. 225

DATE: 5/18/58
 BY: S.H.B.
 CHECKED: E.D.S.
 NO. 225



ERI 2-402; ERI 6-380

CURVE VI

$L_s = 150'$
 $\theta_s = 4^\circ-07'-30" \text{ Rt.}$
 $L.T. = 86.39'$
 $S.T. = 63.69'$
 $L.C. = 149.99'$
 $C.S. = 0+00$
 $S.C. = 1+50.00$
 Superelevation varies from 0.0156 to 0.042 Ft./ft.
 Rotate about Rt. edge of Pavt.

CURVE VII

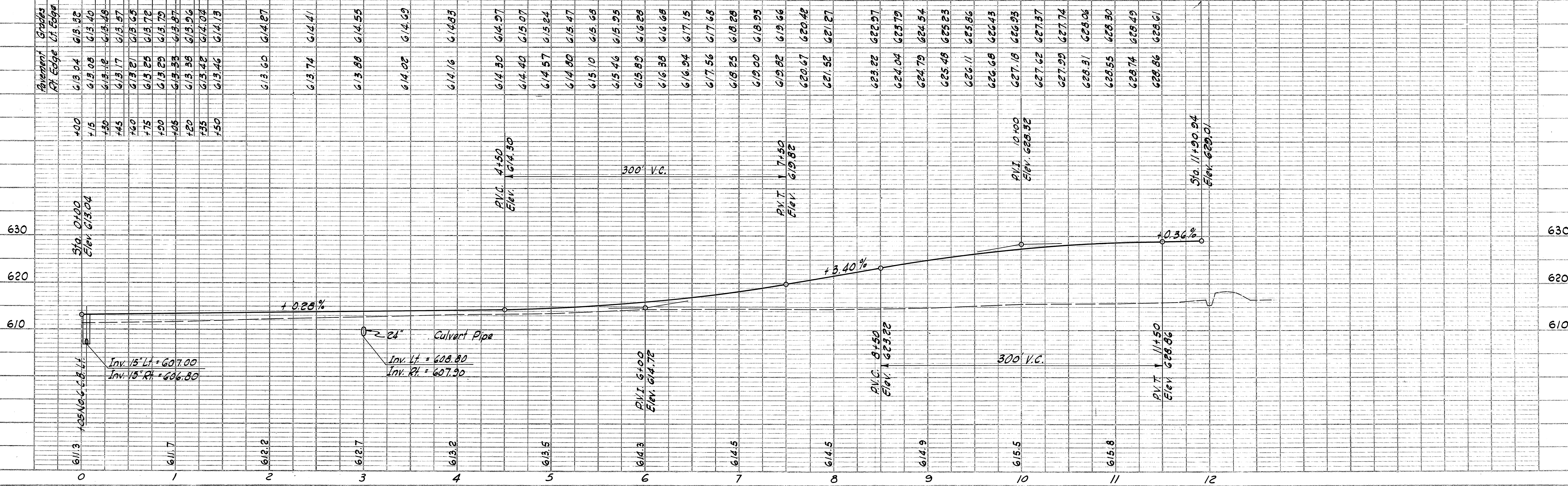
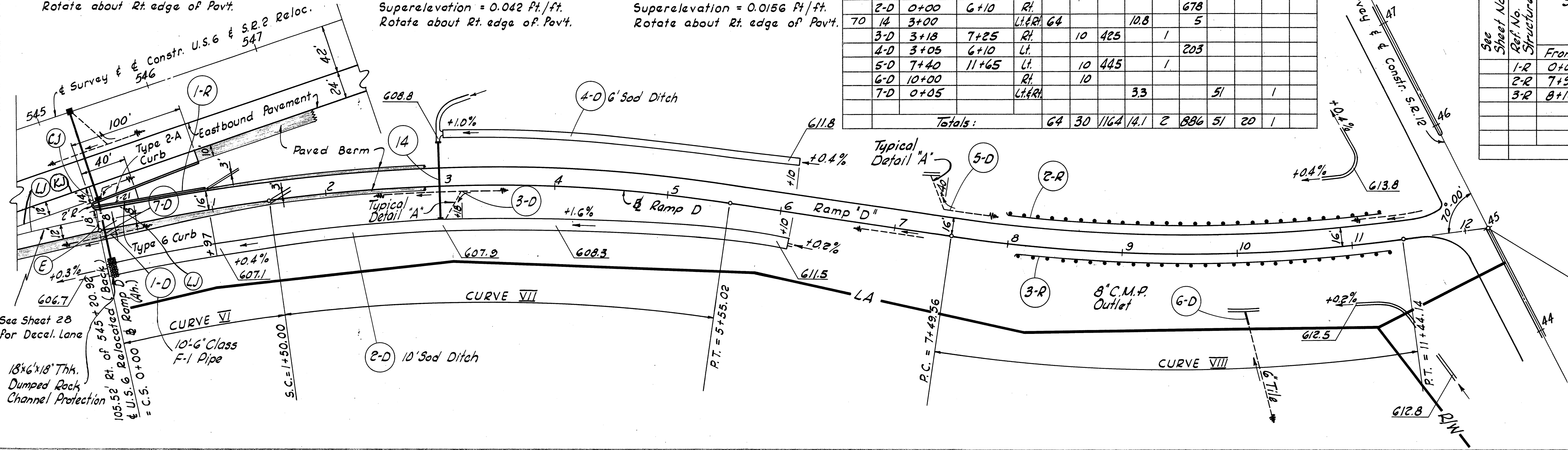
$\Delta = 16^\circ-12'-03" \text{ Rt.}$
 $D = 4^\circ-00'$
 $R = 1432.39'$
 $T = 203.87'$
 $L = 405.02'$
 $E = 14.44'$
 $S.C. = 1+50.00$
 $P.I. = 3+53.87$
 $P.T. = 5+55.02$
 Superelevation = 0.042 Ft./ft.
 Rotate about Rt. edge of Pavt.

CURVE VIII

$\Delta = 15^\circ-47'-00" \text{ Lt.}$
 $D = 4^\circ-00'$
 $R = 1432.39'$
 $T = 198.55'$
 $L = 394.58'$
 $E = 13.70'$
 $P.C. = 7+49.56$
 $P.T. = 9+48.11$
 $P.T. = 11+44.14$
 Superelevation = 0.0156 Ft./ft.
 Rotate about Rt. edge of Pavt.

See Sheet No. or Ref. No. or Structure No.	Station	Side	Drainage									
			I-1	I-1	I-1	I-2	I-5	L-10	I-1	I-1	I-8	
	From	To	24" Pipe Class A-1	18" Pipe Class F-1	15" Pipe Class F-1	Masonry (Headwalls)	16" Box for Class F-3 Pipe	Swaling	15" Pipe Class B-1	6" Pipe Class F-1	No. 6 C.C.S.	
	1-D 0+00	3+14	Rt.									
	2-D 0+00	6+10	Rt.				294		678	20		
70	14 3+00		Lt./Rt.	64			10.8		5			
	3-D 3+18	7+25	Rt.		10	425		1				
	4-D 3+05	6+10	Lt.						203			
	5-D 7+40	11+65	Lt.		10	445		1				
	6-D 10+00		Rt.		10							
	7-D 0+05		Lt./Rt.				3.3		51	1		
Totals:				64	30	1164	14.1	2	886	51	20	1

See Sheet No. or Ref. No. or Structure No.	Station	Side	Roadway			
			Type 6 Curb	Guard Rail (Std. Type)	Subbase	
	From	To	Lin. Ft.	Lin. Ft.	Cu. Yd.	
	1-R 0+00	0+27	Lt.	100	0.9	
	2-R 7+97	11+26	Lt.		325	
	3-R 8+10	11+33	Rt.		325	
Totals				100	650	0.9

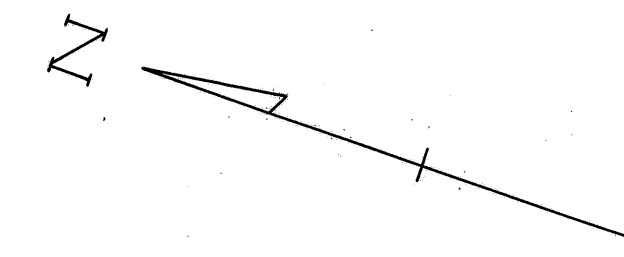


DATE: 5-18-59
 BY: S.R.B.
 SURVEYED: []
 PLOTTED: []
 CHECKED: []
 NOTE BOOK: []
 STRUCTURE NOTATIONS: []

DATE: 5-18-59
 BY: S.R.B.
 SURVEYED: []
 PLOTTED: []
 CHECKED: []
 NOTE BOOK: []
 STRUCTURE NOTATIONS: []

CURVE DATA - SERVICE ROAD

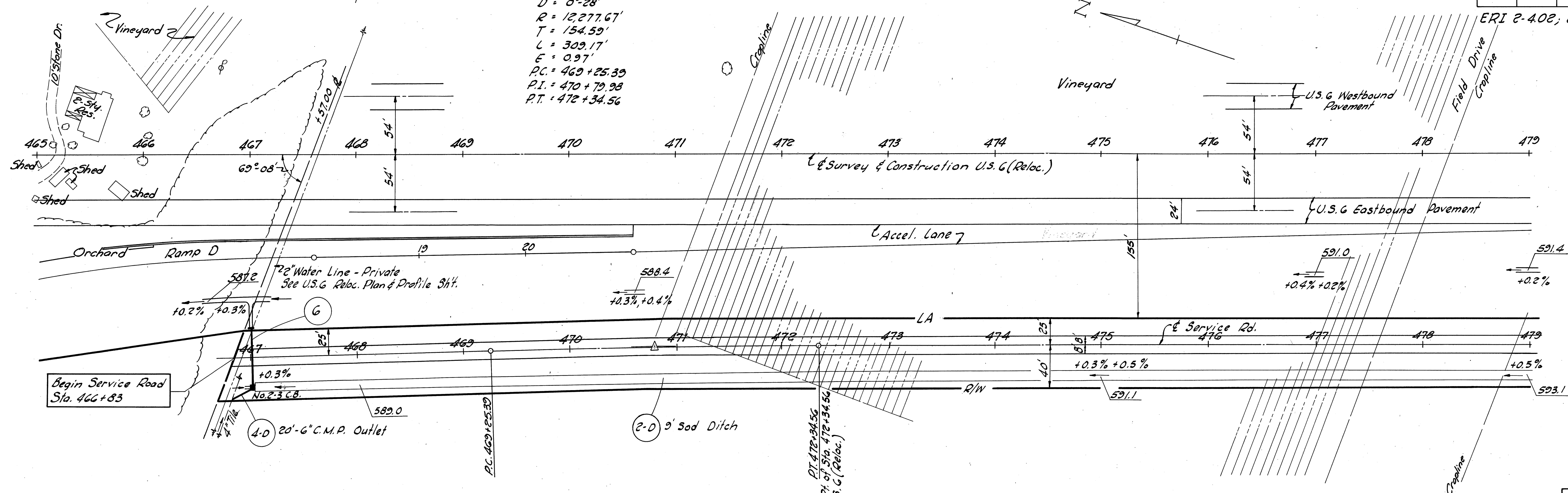
$A = 1^{\circ}26'34" \text{ Rt.}$
 $D = 0^{\circ}28'$
 $R = 12,277.67'$
 $T = 154.59'$
 $L = 309.17'$
 $E = 0.97'$
 $PC = 469 + 25.39$
 $PI = 470 + 79.98$
 $PT = 472 + 34.56$



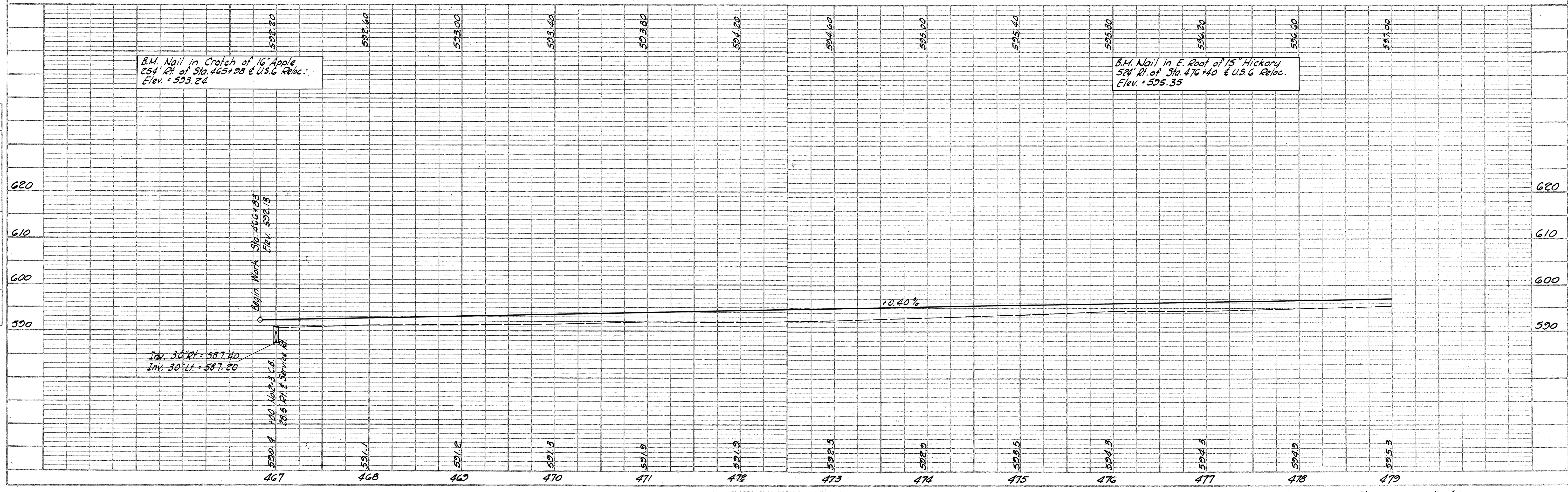
ERI 2-402, ERI 6-380

DATE	BY
1960	SMB
1961	E.D.S.
1962	E.D.S.
1963	E.D.S.
1964	E.D.S.
1965	E.D.S.

DATE	BY
1960	SMB
1961	E.D.S.
1962	E.D.S.
1963	E.D.S.
1964	E.D.S.
1965	E.D.S.



FOR QUANTITIES SEE SHEET 60



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

59
220

ERI 2-4.02, ERI G-3.80

CURVE DATA - SERVICE ROAD

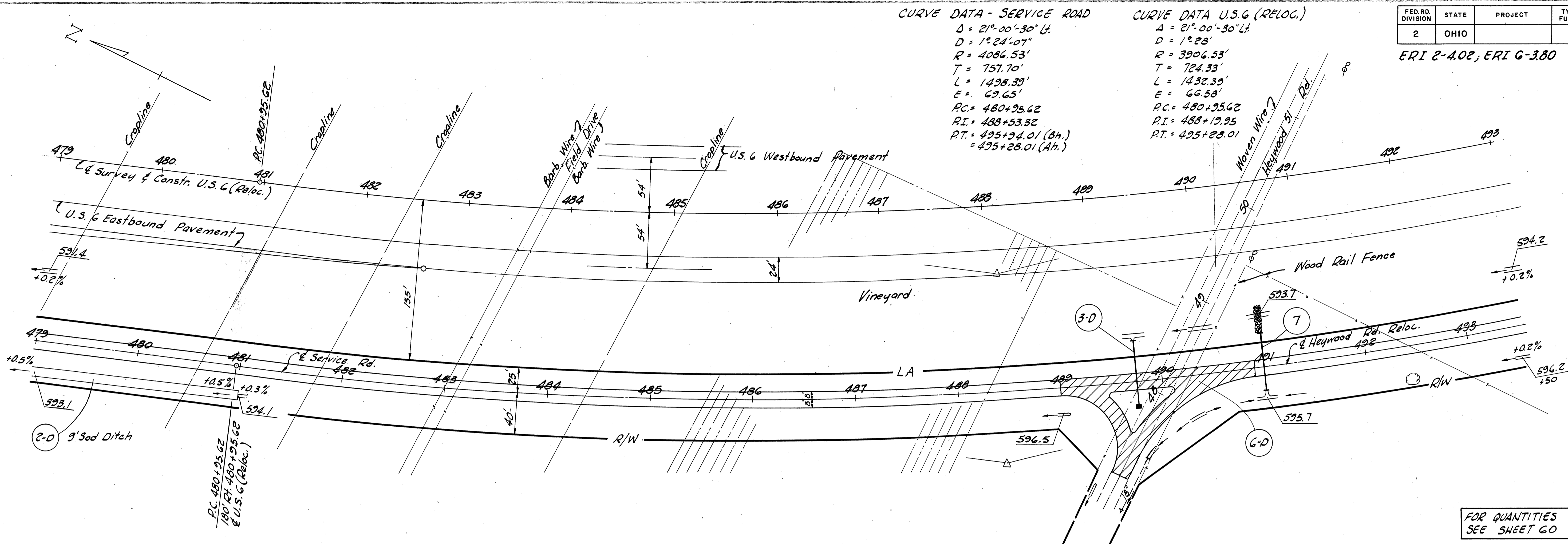
$\Delta = 21^{\circ}00'30''$ Lt.
 $D = 1^{\circ}24'07''$
 $R = 4086.53'$
 $T = 757.70'$
 $L = 1498.39'$
 $E = 69.65'$
 $PC = 480+95.62$
 $PI = 488+53.32$
 $PT = 495+94.01$ (Bk.)
 $= 495+28.01$ (Ah.)

CURVE DATA U.S.G (RELOC.)

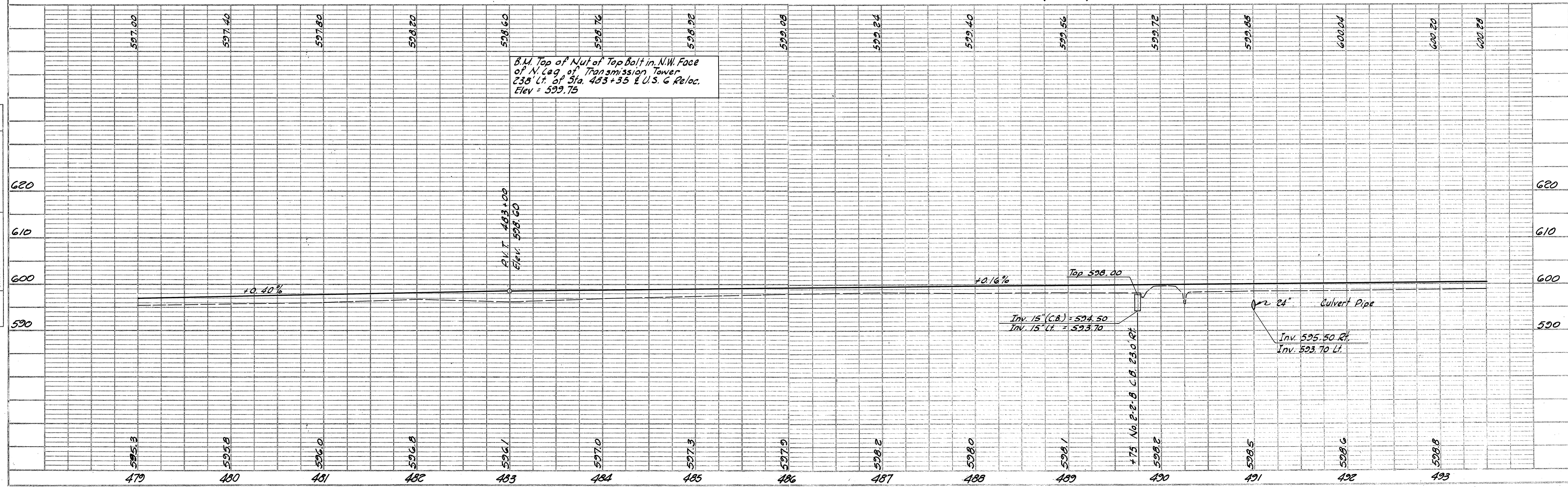
$\Delta = 21^{\circ}00'30''$ Lt.
 $D = 1^{\circ}28'$
 $R = 3906.53'$
 $T = 724.33'$
 $L = 1432.39'$
 $E = 66.58'$
 $PC = 480+95.62$
 $PI = 488+19.95$
 $PT = 495+28.01$

DATE	BY	REVISION
2-20-61	S.M.B.	2-20-61
2-21-61	G.T.S.	2-21-61
2-22-61	E.D.S.	2-22-61
2-23-61	E.D.S.	2-23-61

DATE	BY	REVISION
2-20-61	S.M.B.	2-20-61
2-21-61	G.T.S.	2-21-61
2-22-61	E.D.S.	2-22-61
2-23-61	E.D.S.	2-23-61



FOR QUANTITIES SEE SHEET 60



B.M. Top of Nut of Top Bolt in N.W. Face of N. Leg. of Transmission Tower 238' Lt. of Sta. 483+35 U.S. 6 Reloc. Elev = 599.75

P.I.T. 483+00
Elev. 598.60

SERVICE RD. & HEYWOOD RD. RELOC. Sta. 479 to Sta. 493

ROADWAY QUANTITIES F-1042(5)

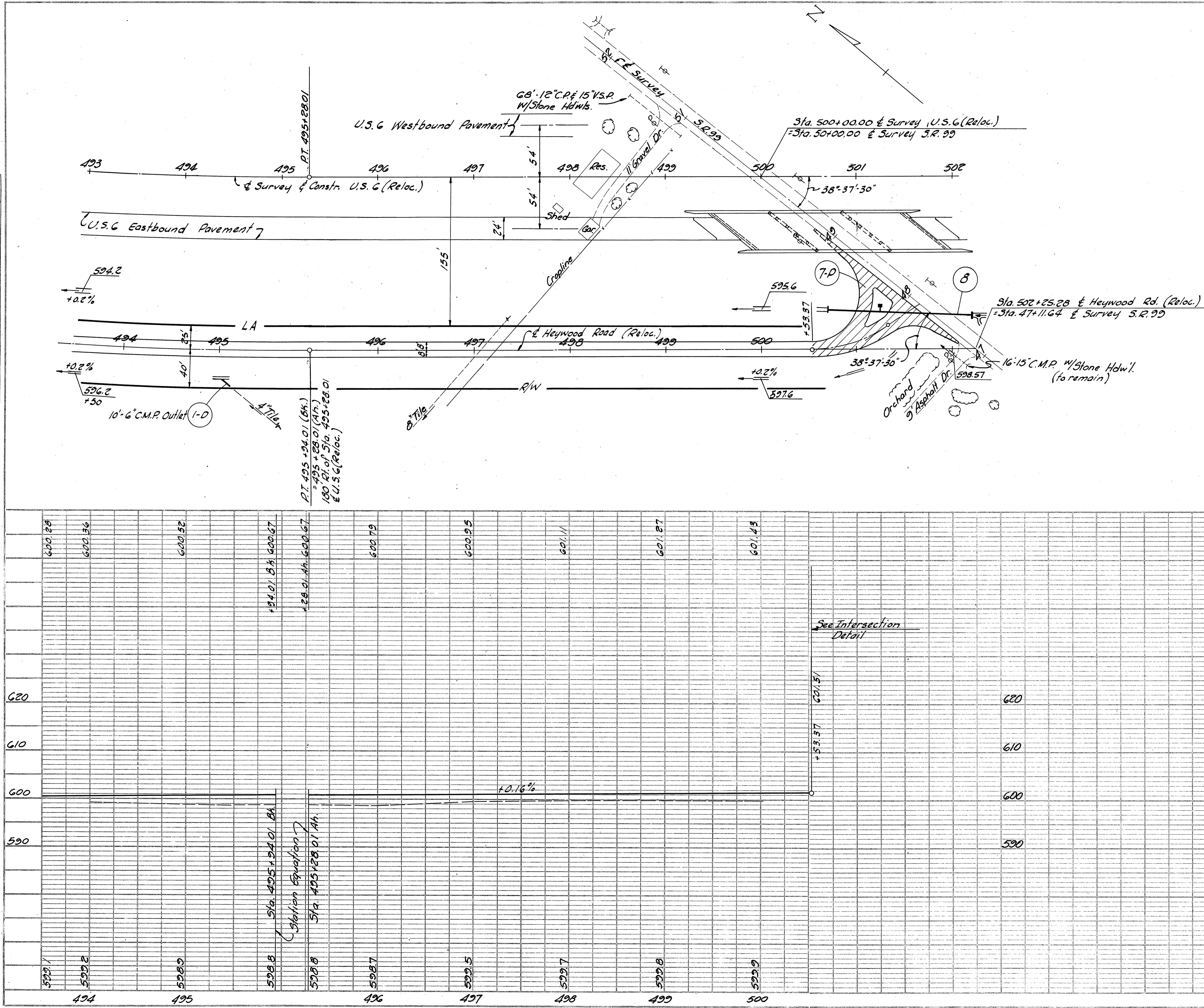
See Sheet No. Ref. No. or Structure No.	Station		Side	E-1	B-19	7-30	7-35
	From	To		Compacted Subgrade Sq.Yd.	Aggregate Base Course Cu.Yd.	Bituminous Prime Coat Gal.	Asphaltic Conc. Surface Course (Type A) Cu.Yd.
64 G-P	489+03.43	490+20.60	L.H.R.	622	159.4	286.9	28.8
64 7-P	500+53.37	501+78.23	L.H.R.	521	121.1	218.0	21.7
Totals				1213	280.5	504.9	50.5

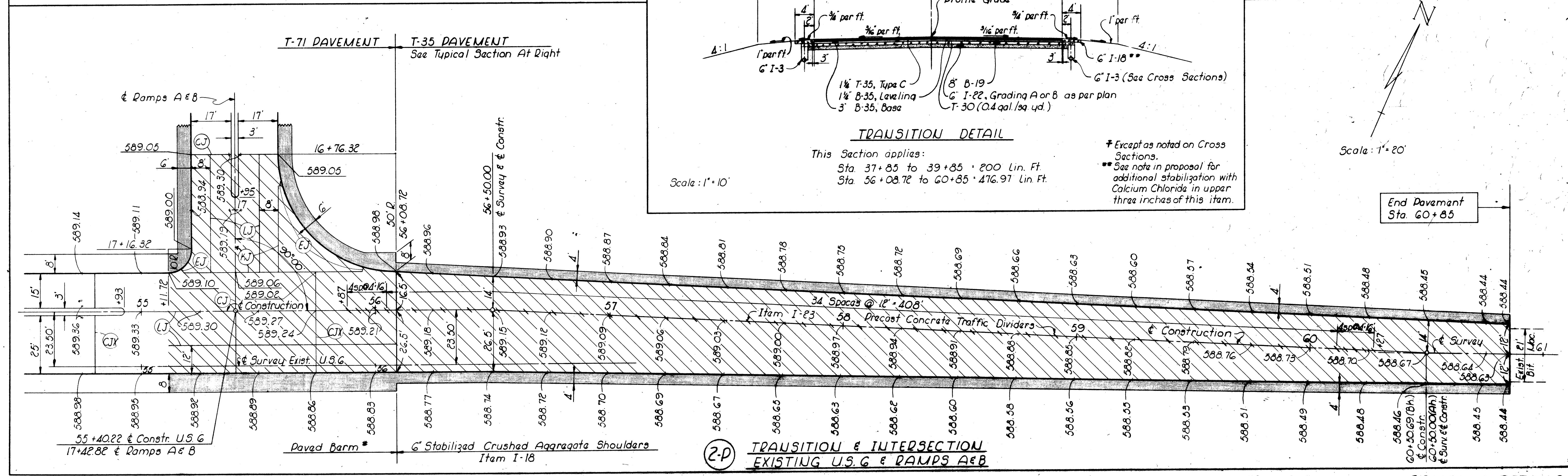
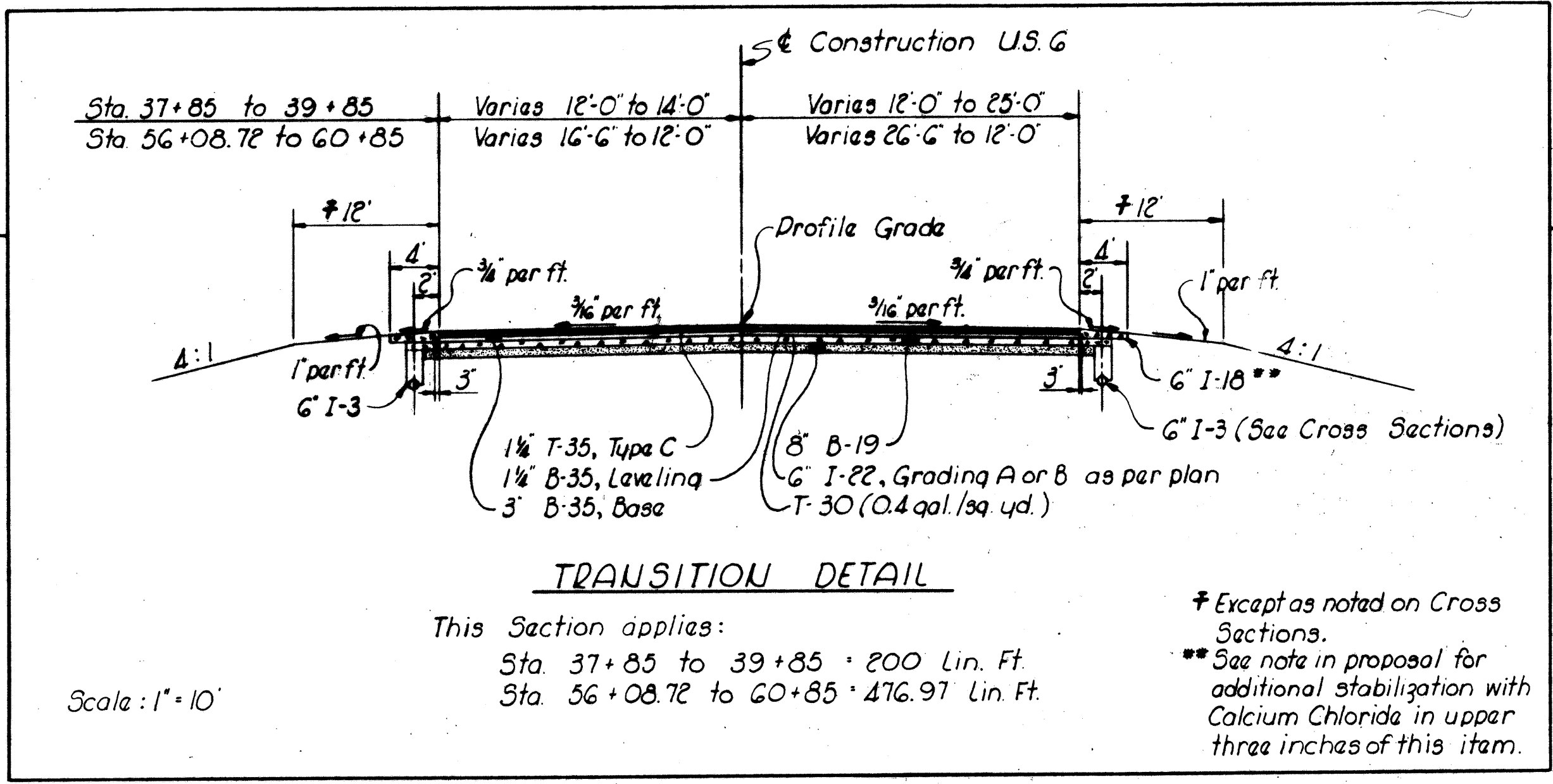
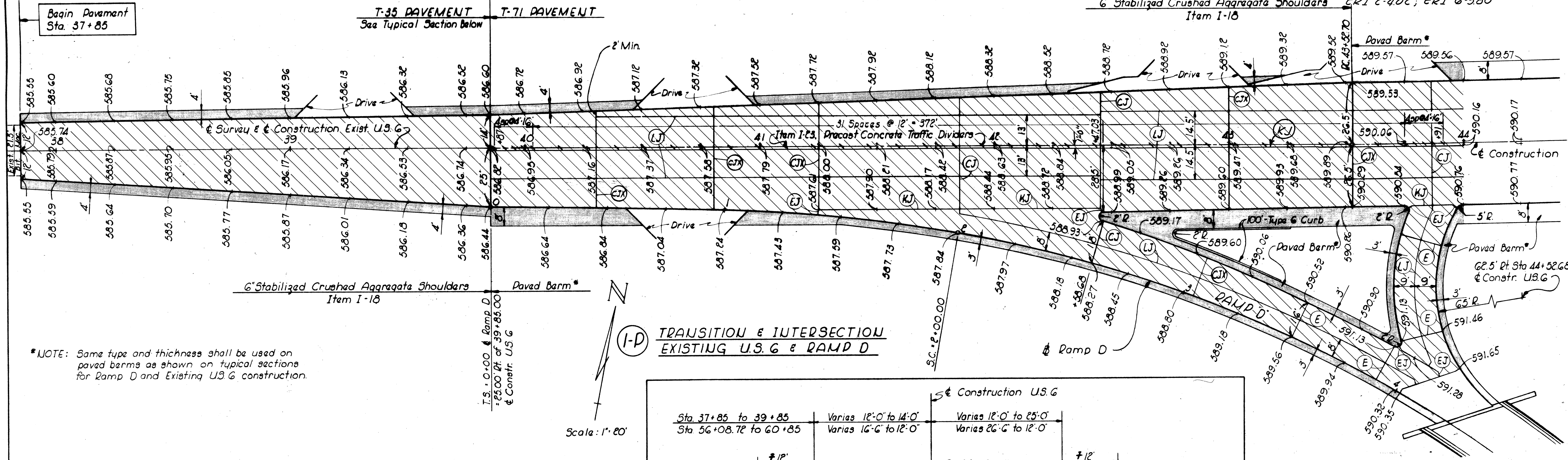
DRAINAGE QUANTITIES F-1042(5)

See Sheet No. Ref. No. or Structure No.	Station		Side	I-1	I-1	I-1	I-2	L-10	I-1	I-8	I-8	I-10	I-9
	From	To		30" Pipe Class A-1 Un.Ft.	18" Pipe Class A-1 Un.Ft.	6" Pipe Class F-1 Un.Ft.	Masonry (Headwalls) Cu.Yd.	Soedling Sq.Yd.	15" Pipe Class B-1 Un.Ft.	No. 2-2-B.C.B. Ea.	No. 2-3 C.B. Ea.	Dumped Rock Chertation Cu.Yd.	Stone Ungravelins No. 2 Un.Ft.
68 6	467+00		L.H.R.	54			0.51						
68 7	495+00		R.H.	60		10	0.82					8	
2-D	467+02	481+00	R.H.					1398					
3-D	489+75		L.H.R.				3.3		63	1			
4-D	466+90		R.H.			20							
5-D	467+00	500+50	L.H.R.										2100
Totals				54	60	30	4.63	1398	63	1	1	8	2100

DATE: 8-9-61
BY: G.F.S. E.D.S.
SURVEYED: G.F.S. E.D.S.
CHECKED: G.F.S. E.D.S.
NOTE BOOK NO. 503
RT. OF WAY CHECKED: E.D.S.

DATE: 8-9-61
BY: G.F.S. E.D.S.
SURVEYED: G.F.S. E.D.S.
CHECKED: G.F.S. E.D.S.
NOTE BOOK NO. 503
STRUCTURE NOTATIONS CHKD.:





ERI 2-4.02; ERI G-3.80

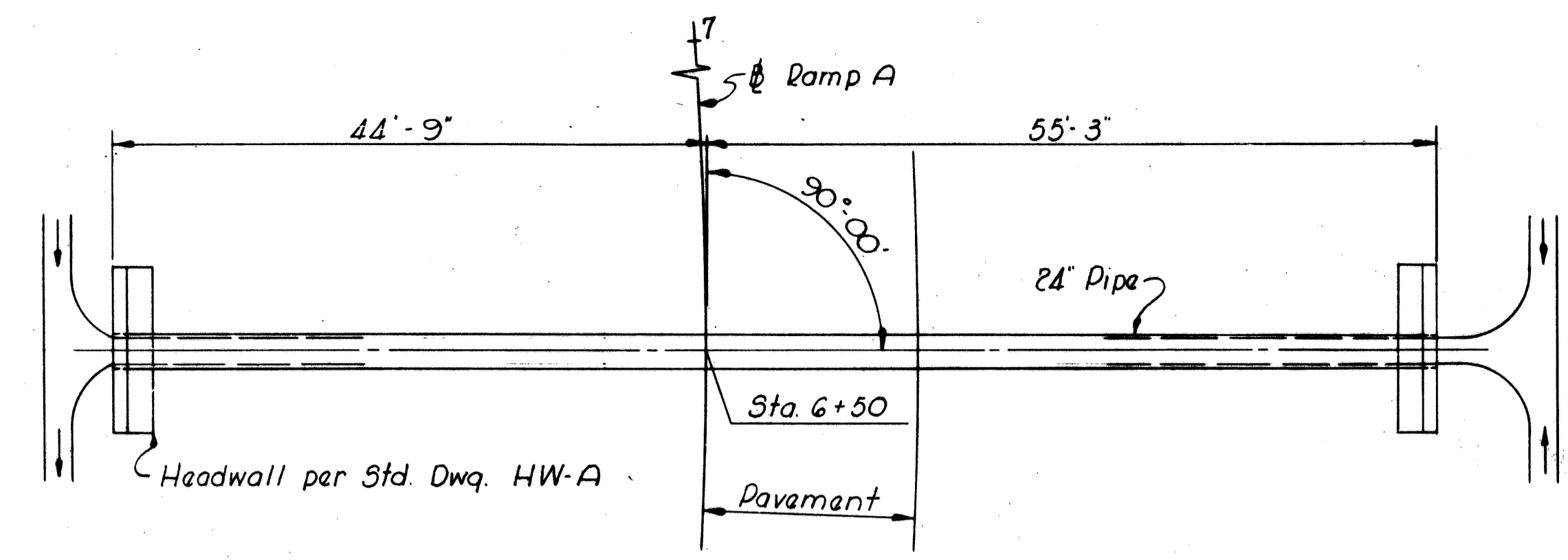
Westbound Lanes				Station	Profile Grade	Eastbound Lanes			
D=1'-28' Max. rate of Superlevation = 0.048 ft/ft.						D=1'-28' Max. rate of Superlevation = 0.048 ft/ft.			
Left	Median	Right	Edge of Pavement			Left	Median	Right	Edge of Pavement
Edge of Pavement	Add to Median E.P.	Edge of Pavement	Deduct from P.G.		Deduct from P.G.	Edge of Pavement	Deduct from Med. E.P.	Edge of Pavement	
588.02	1.15	586.87	0.19	438+00	587.06	0.19	586.87	1.15	585.72
588.08		586.93		+25	587.12		586.93		585.78
588.14		586.99		+50	587.18		586.99		585.84
588.20		587.05		+75	587.24		587.05		585.90
588.26		587.11		439+00	587.30		587.11		585.96
588.32		587.17		+25	587.36		587.17		586.02
588.38		587.23		+50	587.42		587.23		586.08
588.44		587.29		+75	587.48		587.29		586.14
588.51		587.36		440+00	587.55		587.36		586.21
588.61		587.46		+25	587.65		587.46		586.31
588.73		587.58		+50	587.77		587.58		586.43
588.88		587.73		+75	587.92		587.73		586.58
589.05		587.90		441+00	588.09		587.90		586.75
589.25		588.10		+25	588.29		588.10		586.95
589.47		588.32		+50	588.51		588.32		587.17
589.72		588.57		+75	588.76		588.57		587.42
589.99		588.84		442+00	589.03		588.84		587.69
590.28		589.13		+25	589.32		589.13		587.98
590.60		589.45		+50	589.64		589.45		588.30
590.95		589.80		+75	589.99		589.80		588.65
591.32		590.17		443+00	590.36		590.17		589.02
591.71		590.56		+25	590.75		590.56		589.41
592.13		590.98		+50	591.17		590.98		589.83
592.57		591.42		+75	591.61		591.42		589.27
593.04		591.89		444+00	592.08		591.89		590.74
593.53		592.38		+25	592.57		592.38		591.23
594.05		592.90		+50	593.09		592.90		591.75
594.59		593.44		+75	593.63		593.44		592.29
595.16		594.01		445+00	594.20		594.01		592.86
595.75		594.60		+25	594.79		594.60		593.45
596.36		595.21		+50	595.40		595.21		594.06
597.00		595.85		+75	596.04		595.85		594.70
597.67		596.52		446+00	596.71		596.52		595.37
598.36		597.21		+25	597.40		597.21		596.06
599.07		597.92		+50	598.11		597.92		596.77
599.81		598.66		+75	598.85		598.66		597.51
600.56		599.41		447+00	599.61		599.41		598.26
601.30		600.15		+25	600.34		600.15		599.00
602.01		600.86		+50	601.05		600.86		599.71
602.70		601.55		+75	601.74		601.55		600.40
603.36		602.21		448+00	602.41		602.21		601.06
603.99		602.84		+25	603.03		602.84		601.69
604.60		603.45		+50	603.64		603.45		602.30
605.19		604.04		+75	604.23		604.04		602.89
605.75		604.60		449+00	604.79		604.60		603.45
606.28		605.13		+25	605.32		605.13		603.98
606.79		605.64		+50	605.83		605.64		604.49
607.28		606.13		+75	606.32		606.13		604.98
607.73		606.58		450+00	606.77		606.58		605.43
608.17		607.02		+25	607.21		607.02		605.87
608.58		607.43		+50	607.62		607.43		606.28
609.06		607.81		+75	608.00		607.81		606.66
609.51		608.16		451+00	608.35		608.16		607.01
609.95		608.50		+25	608.69		608.50		607.35
610.35		608.80		+50	609.09		608.80		607.65
610.73		609.08		+75	609.37		609.08		607.93
611.09		609.34		452+00	609.63		609.34		608.19
611.43		609.57		+25	609.86		609.57		608.42
611.77		609.77		+50	609.96		609.77		608.62
612.10		609.95		+75	610.14		609.95		608.80
612.41		610.11		453+00	610.30		610.11		608.96
612.70		610.24		+25	610.43		610.24		609.09
612.99		610.34		+50	610.53		610.34		609.19
613.27		610.42		+75	610.61		610.42		609.27
613.54		610.47		454+00	610.66		610.47		609.32
613.79		610.50		+25	610.69		610.50		609.35
614.02		610.50		+50	610.69		610.50		609.35
614.23		610.48		+75	610.67		610.48		609.33
614.43		610.43		455+00	610.62		610.43		609.28
614.60		610.35		+25	610.54		610.35		609.20

Westbound Lanes				Station	Profile Grade	Eastbound Lanes			
D=1'-28' Max. rate of Superlevation = 0.048 ft/ft.						D=1'-28' Max. rate of Superlevation = 0.048 ft/ft.			
Left	Median	Right	Edge of Pavement			Left	Median	Right	Edge of Pavement
Edge of Pavement	Add to Median E.P.	Edge of Pavement	Deduct from P.G.		Deduct from P.G.	Edge of Pavement	Deduct from Med. E.P.	Edge of Pavement	
611.40	1.15	610.25	0.19	455+50	610.44	0.19	610.25	1.15	609.10
611.28		610.13		+75	610.32		610.13		608.98
611.13		609.98		456+00	610.17		609.98		608.83
610.95		609.80		+25	609.99		609.80		608.65
610.75		609.60		+50	609.79		609.60		608.45
610.53		609.38		+75	609.57		609.38		608.23
610.27		609.12		457+00	609.31		609.12		607.97
610.00		608.85		+25	609.04		608.85		607.70
609.70		608.55		+50	608.74		608.55		607.40
609.37		608.22		+75	608.41		608.22		607.07
609.01		607.86		458+00	608.05		607.86		606.71
608.64		607.49		+25	607.68		607.49		606.34
608.23		607.08		+50	607.27		607.08		605.93
607.80		606.65		+75	606.84		606.65		605.50
607.35		606.20		459+00	606.39		606.20		605.05
606.87		605.72		+25	605.91		605.72		604.57
606.36		605.21		+50	605.40		605.21		604.06
605.83	1.15	604.68		+75	604.87		604.68	1.15	603.64
605.16	1.03	604.13		460+00	604.32		604.13	0.92	603.21
604.46	0.91	603.55		+25	603.74		603.55	0.81	602.74
603.73	0.79	602.94		+50	603.13		602.94	0.69	602.25
603.16	0.70	602.46		PT:462.05	602.65		602.46	0.60	601.86
602.98	0.67	602.31		+75	602.50		602.31	0.58	601.73
602.20	0.55	601.65		461+00	601.84		601.65	0.46	601.19
601.43	0.43	601.00		+25	601.19		601.00	0.35	600.65
601.10	0.38	600.72		+50	600.91		600.72		600.37
600.68	0.31	600.37		+75	600.56		600.37	0.23	600.14
600.27	0.19	600.18		462+00	600.17		600.18	0.12	600.00
600.34	0.12	600.22		+25	600.41		600.22	0.00	599.82
599.75	0.06	599.63		+50	599.88		599.63	0.00	599.63
599.19	0.00	599.19		462+75	599.31	0.19	599.19	0.00	599.19

* Sta. 462+00 to 462+75 - Transition Eastbound Lanes from plane to crowned section.

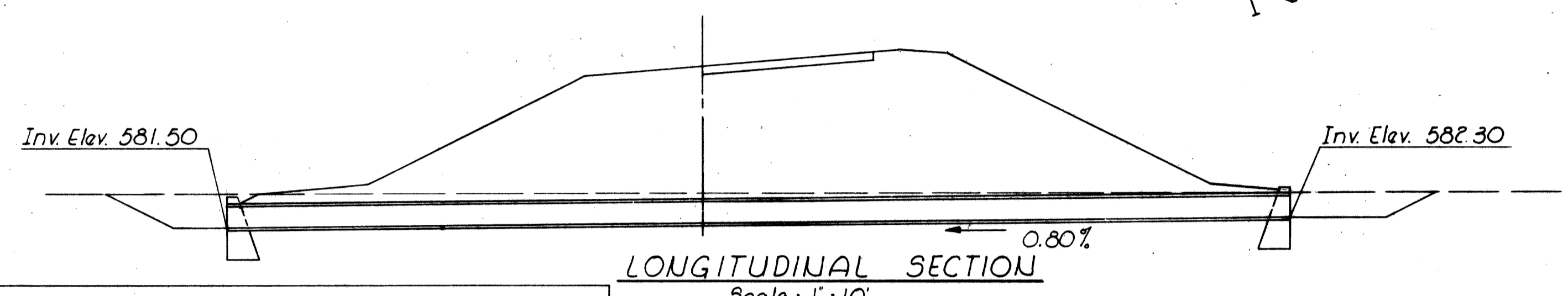
Edge of Pavement Elevations for ACCELERATION and DECELERATION LANES**							
Left	Station	Right	Left	Station	Right	Left	Right
Edge of Pavt. Elev.		Edge of Pavt. Elev.	Edge of Pavt. Elev.		Edge of Pavt. Elev.	Edge of Pavt. Elev.	Edge of Pavt. Elev.
588.94	438+00	585.14	610.92	452+63.18		479+25	597.08
589.03	+25	585.20	611.03	+75	+50	598.25	
589.39	+50	585.26	611.27	453+00	+75	598.42	
589.95	+75	585.32	611.49	+25	480+00	598.60	
589.92	439+00	585.38		STRUCTURE	+25	598.85	
589.88	+25	585.43			+50	599.07	
589.84	+50	585.47	611.34	456+00	+75	599.26	
589.80	+75	585.51	611.16	+25	481+00	599.47	
589.77	440+00	585.55	610.95	+50	+25	599.67	
589.77	+25	585.61	610.83	+75	+50	599.85	
589.79	+50	585.68	610.67	457+00	+75	600.03	
589.87	+75	585.77	610.56	+15.39	482+00	600.27	
589.89	+79.13		610.49	+25	+25	600.21	
	441+00	585.88	610.28	+50	+50	600.32	
	+25	586.01	609.95	+75	+52.29	600.33	
	+50						

ERI 2-4.02; ERI 6-3.80



Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

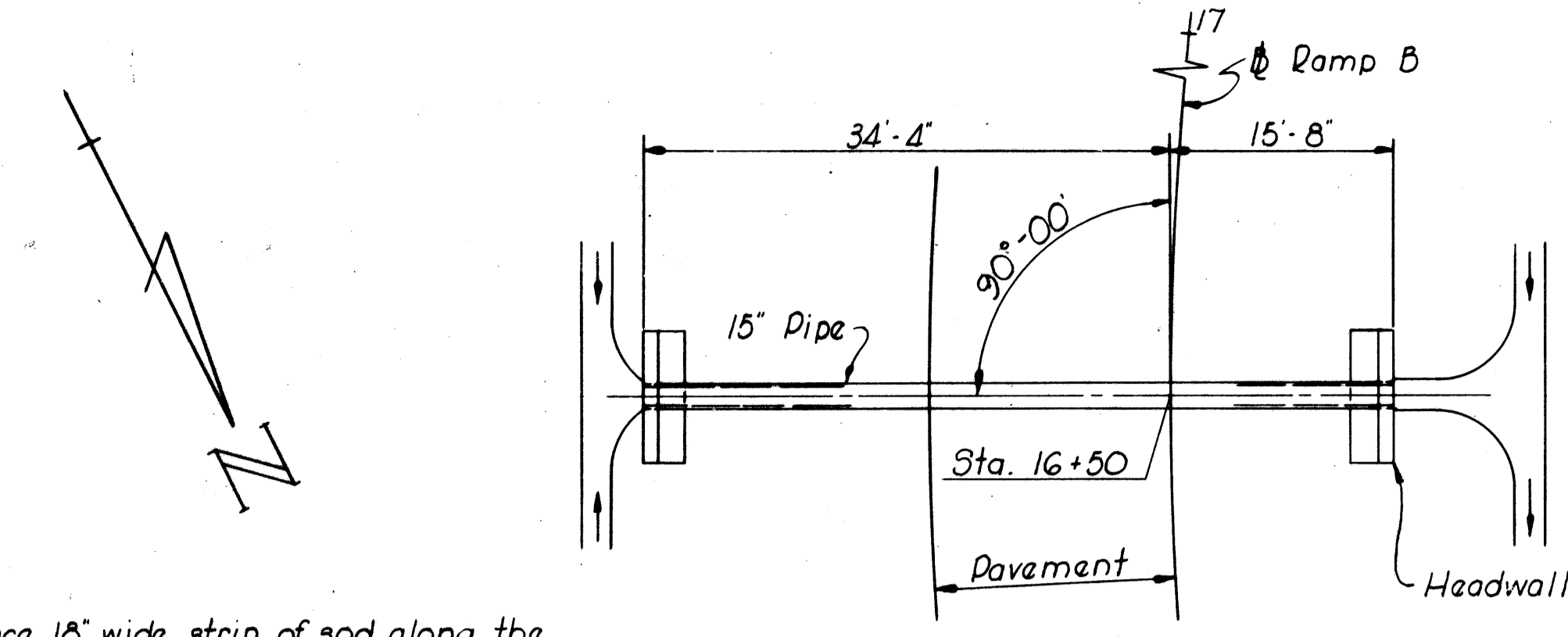


LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-1	100	Lin. Ft.	24" Reinforced Concrete Culvert Pipe, Sec. M-6.6(b), Class A-1, or M-6.8(b)
I-2	10.8	Cu. Yd.	Masonry
L-10	6	Sq. Yd.	Sodding

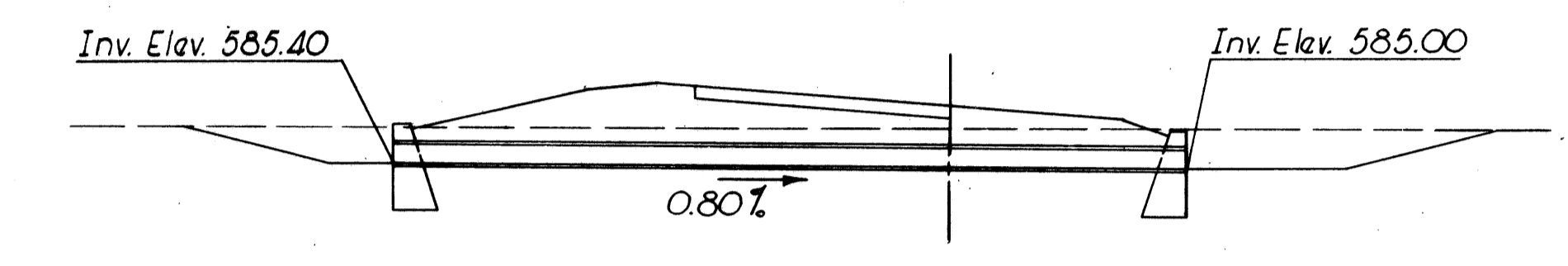
Drainage Area = 8.5 Ac.
Q₂₅ = 21 c.f.s.

1	Sta. 6+50 Ramp A, U.S.G.	P.C. 24" x 100'	ERI 2-4.02 ERI 6-3.80
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Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

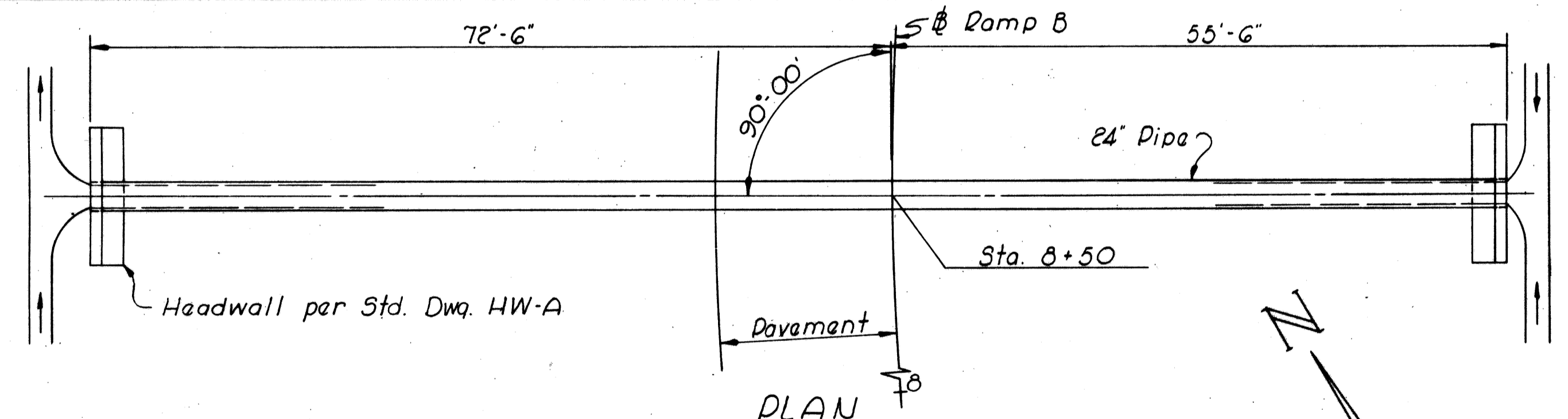


LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-1	50	Lin. Ft.	15" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1
I-2	6.6	Cu. Yd.	Masonry
L-10	5	Sq. Yd.	Sodding

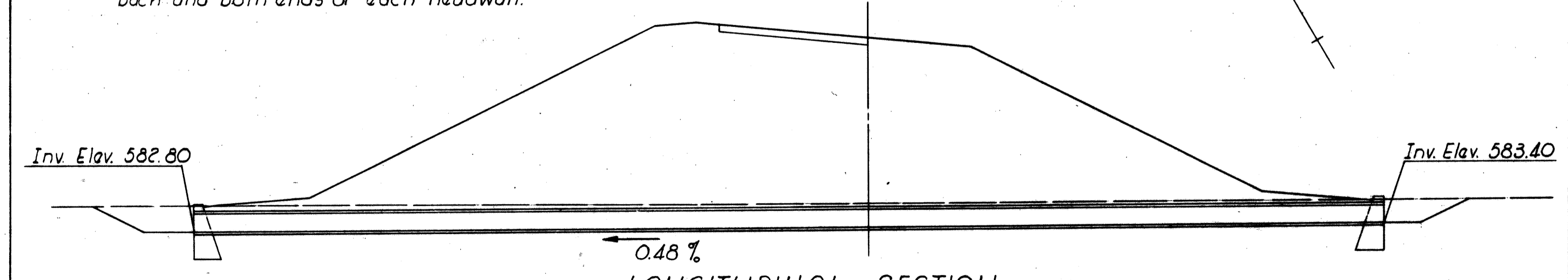
Drainage Area = 0.6 Ac.
Q₂₅ = 3 c.f.s.

3	Sta. 16+50 Ramp B, U.S.G.	P.C. 15" x 50'	ERI 2-4.02 ERI 6-3.80
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Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

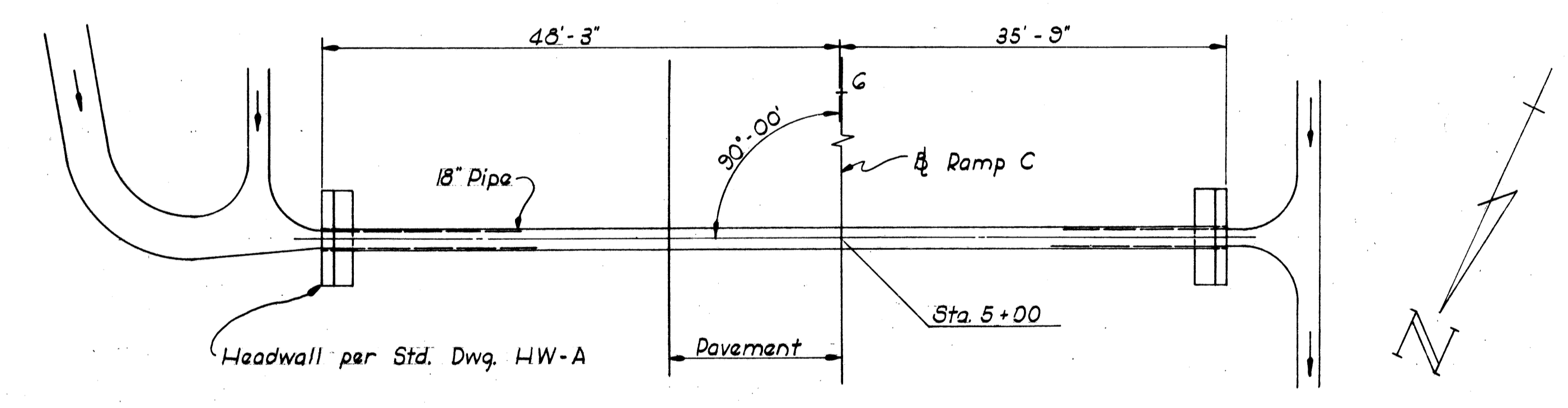


LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-1	128	Lin. Ft.	24" Reinforced Concrete Culvert Pipe, Sec. M-6.6(c), Class A-1
I-2	10.8	Cu. Yd.	Masonry
L-10	6	Sq. Yd.	Sodding

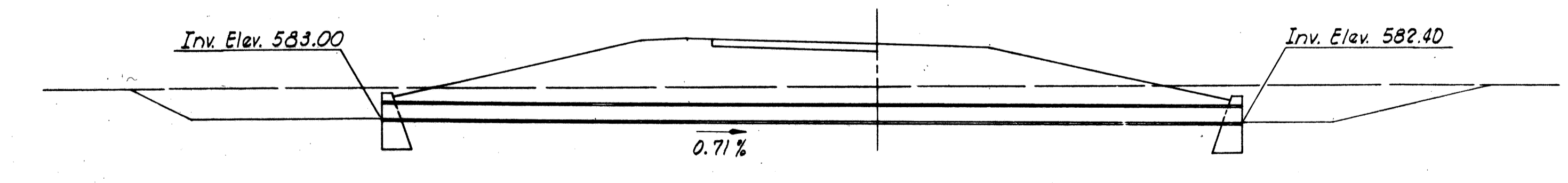
Drainage Area = 6.3 Ac.
Q₂₅ = 17 c.f.s.

2	Sta. 8+50 Ramp B, U.S.G.	P.C. 24" x 128'	ERI 2-4.02 ERI 6-3.80
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Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

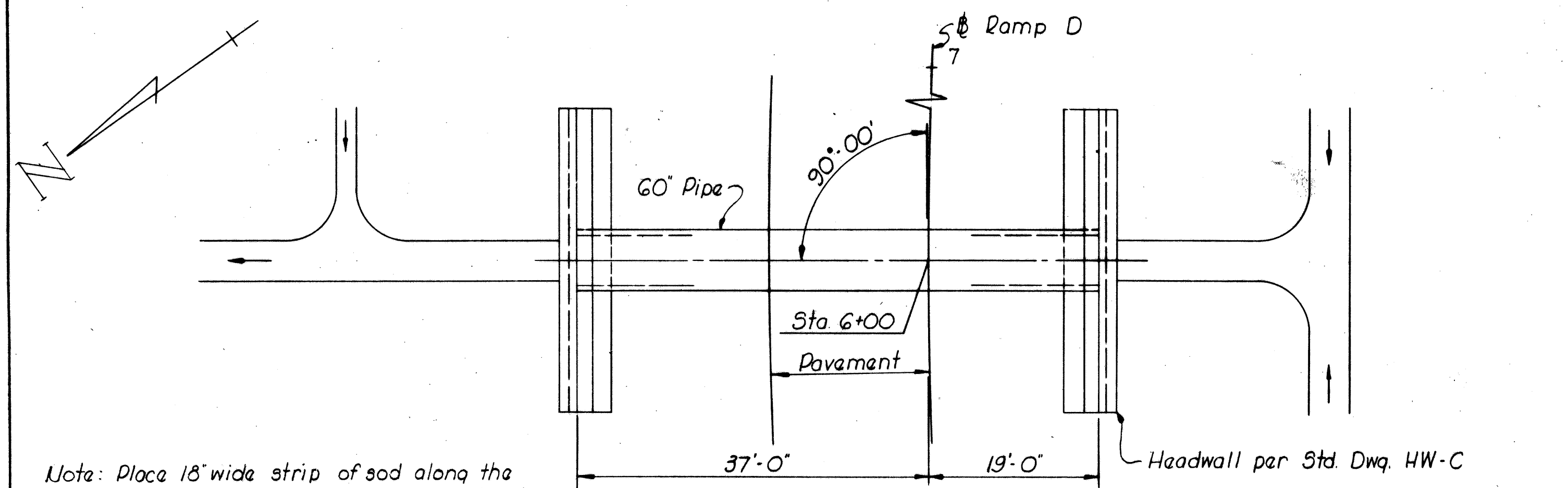


LONGITUDINAL SECTION
Scale: 1"=10'

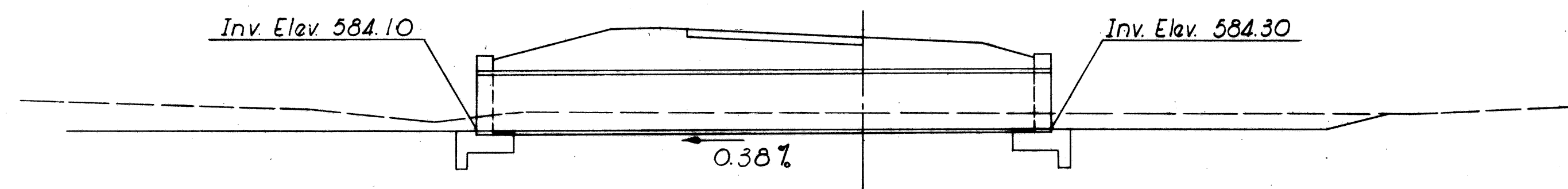
ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-1	84	Lin. Ft.	18" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1
I-2	6.6	Cu. Yd.	Masonry
L-10	5	Sq. Yd.	Sodding

Drainage Area = 4 Ac.
Q₂₅ = 12 c.f.s.

4	Sta. 5+00 Ramp C, U.S.G.	P.C. 18" x 84'	ERI 2-4.02 ERI 6-3.80
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PLAN
Scale: 1"=10'



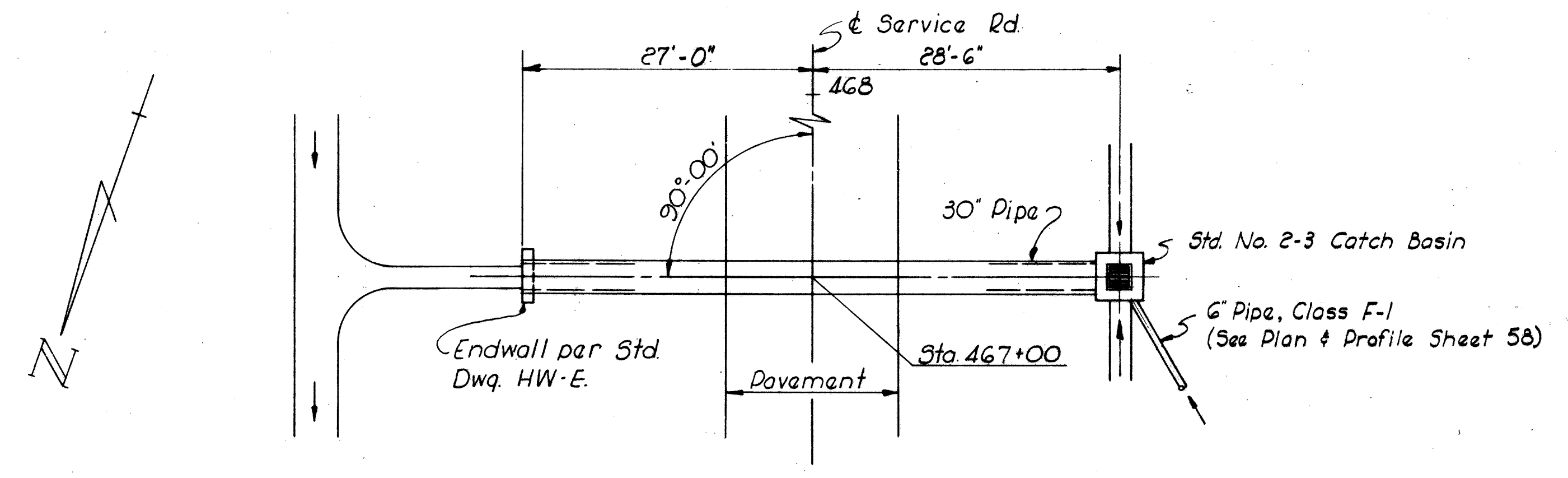
LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES

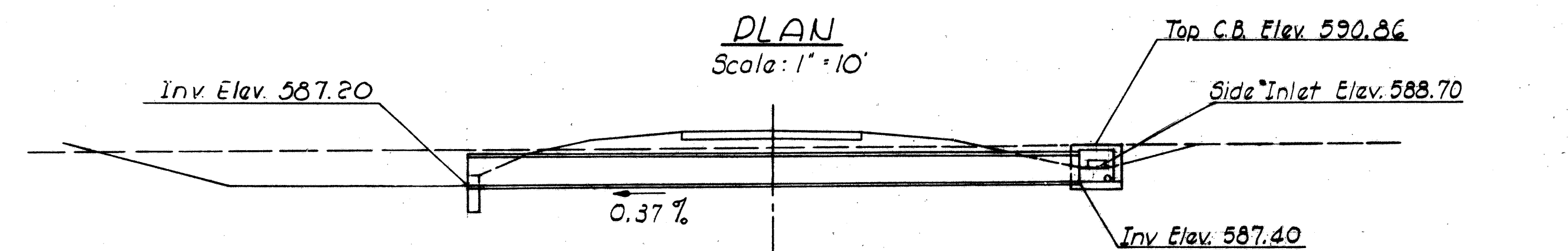
Item	Quantity	Unit	Description
I-2	44	Cu. Yd.	Masonry
I-1	56	Lin. Ft.	60" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a), Class A-1
I-10	12	Sq. Yd.	Sodding

Drainage Area = 65 Ac.
Q₂₅ = 78 c.f.s.

5	Sta. 6+00 Ramp D	DC. 60" x 56"	ERI. C-4.02 ERI. G-3.80
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PLAN
Scale: 1"=10'



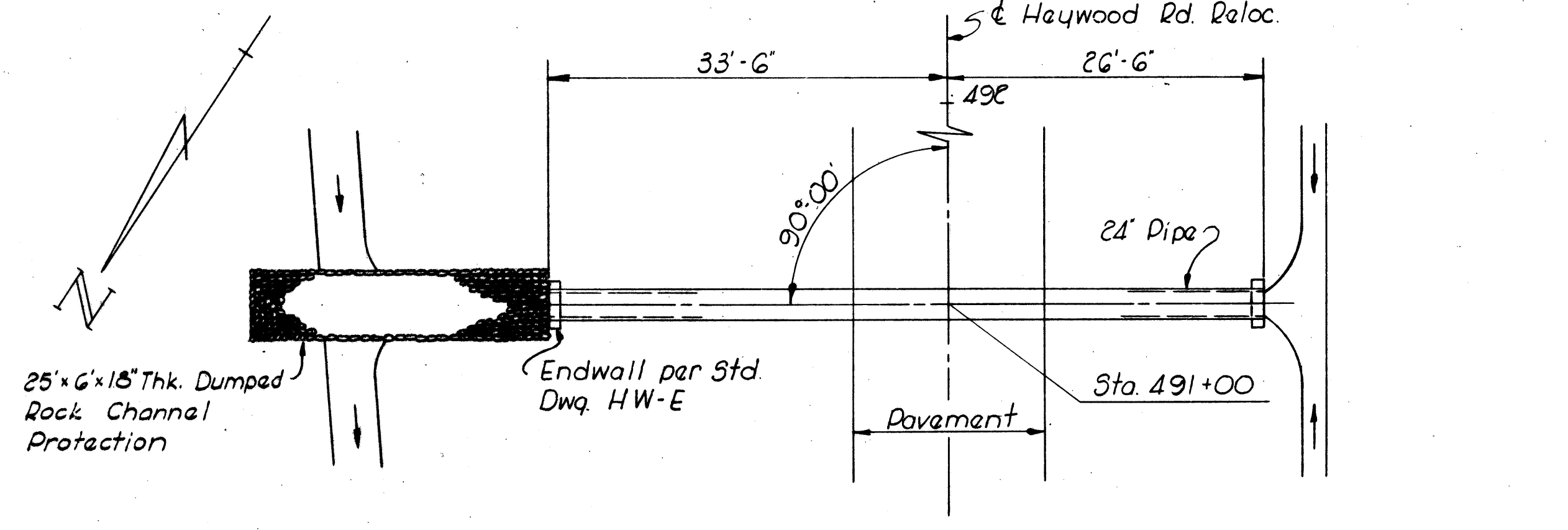
LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES

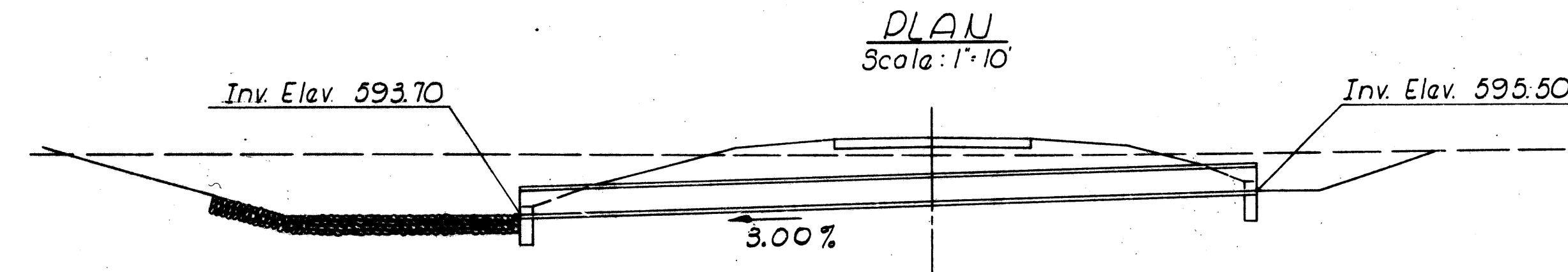
Item	Quantity	Unit	Description
I-2	0.51	Cu. Yd.	Masonry
I-1	54	Lin. Ft.	30" Culvert Pipe, Class A-1
I-8	1	Each	Standard No. 2-3 Catch Basin

Drainage Area = 10 Ac.
Q₂₅ = 23 c.f.s.

6	Sta. 467+00 Service Rd	DC. 30" x 54"	ERI. C-4.02 ERI. G-3.80
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PLAN
Scale: 1"=10'



LONGITUDINAL SECTION
Scale: 1"=10'

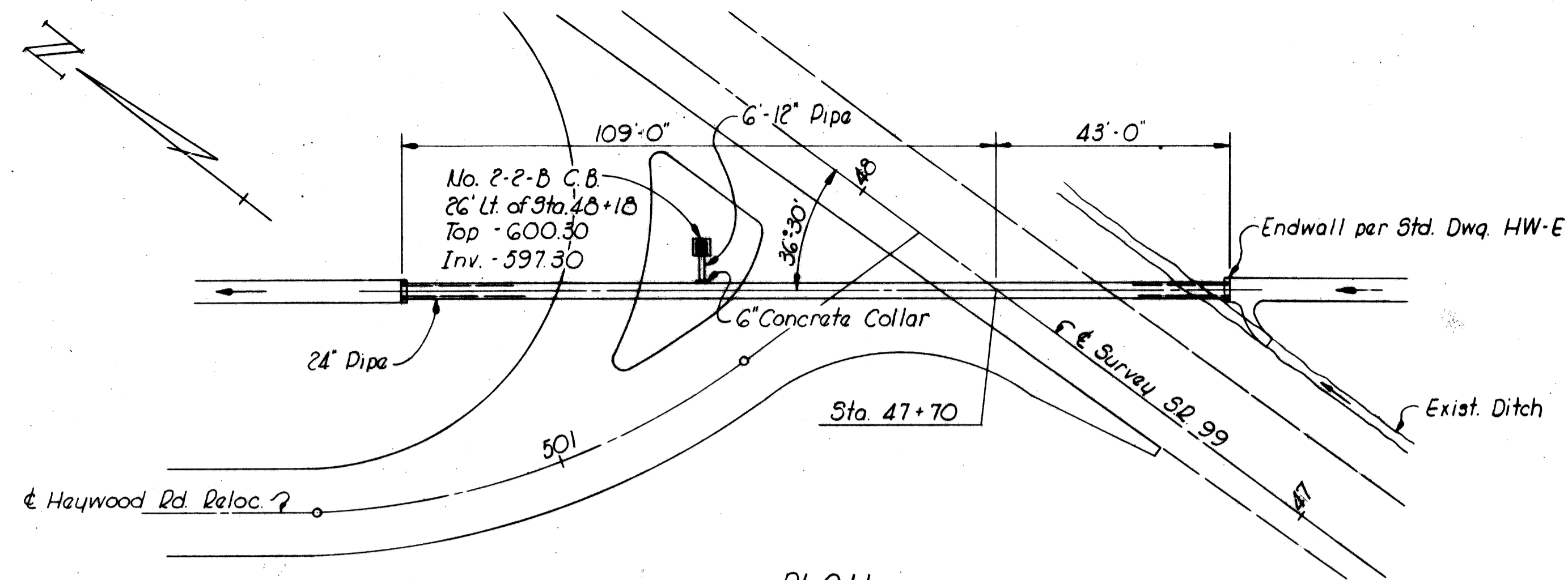
ESTIMATED QUANTITIES

Item	Quantity	Unit	Description
I-2	0.82	Cu. Yd.	Masonry
I-1	60	Lin. Ft.	24" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.6(b), Class A-1
I-10	3	Cu. Yd.	Dumped Rock Channel Protection

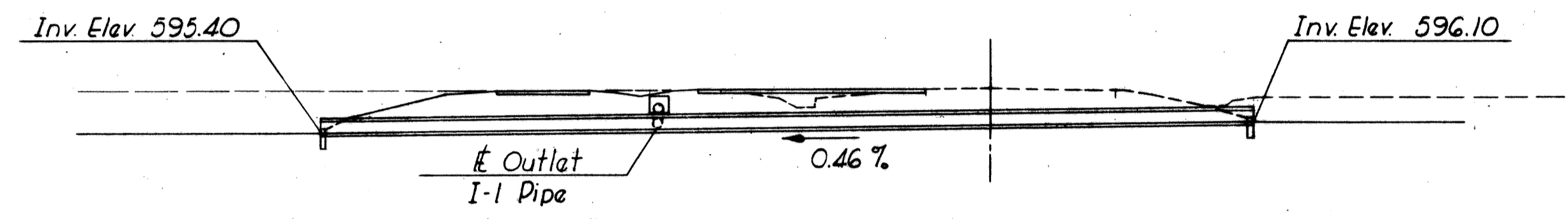
Drainage Area = 8 Ac.
Q₂₅ = 20 c.f.s.

7	Sta. 491+00 Haywood Rd. Reloc.	DC. 24" x 60"	ERI. C-4.02 ERI. G-3.80
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ERI 2-4.02; ERI 6-3.80



PLAN
Scale: 1"=20'

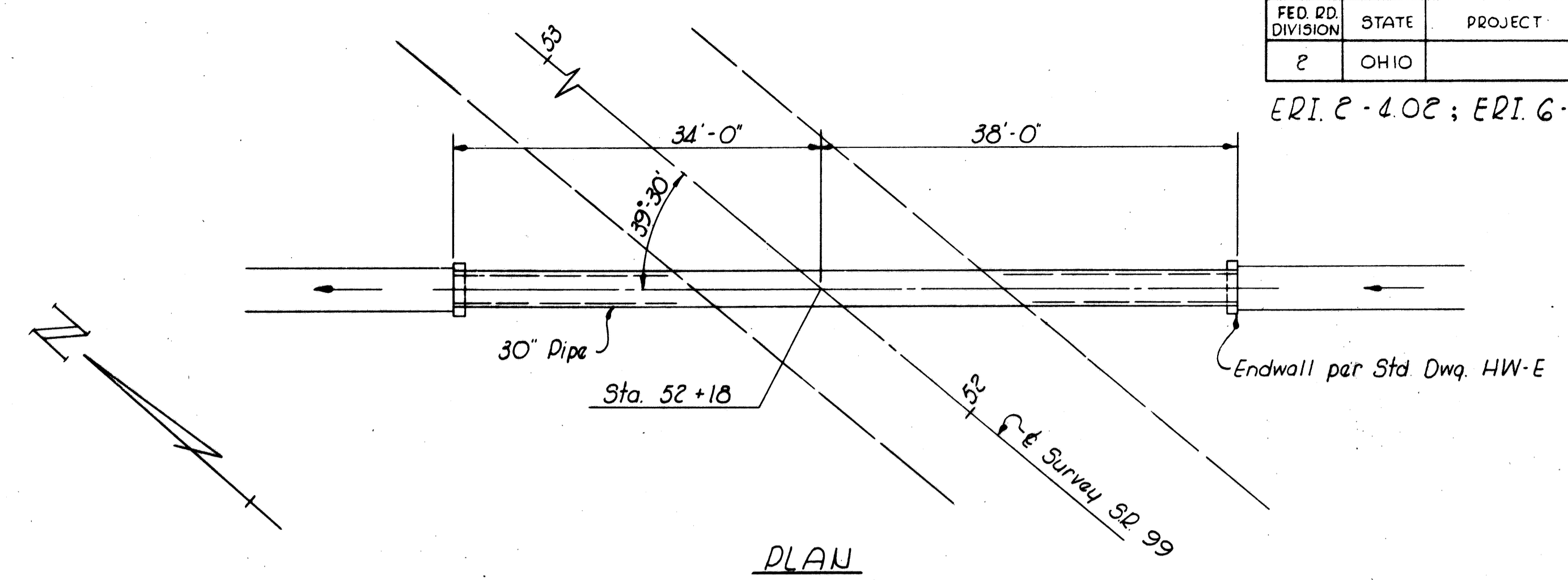


LONGITUDINAL SECTION
Scale: 1"=20'

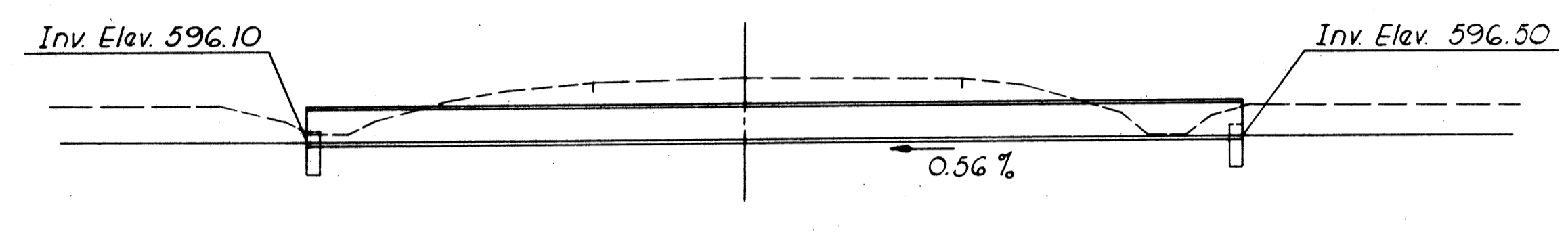
Item	Quantity	Unit	Description
I-2	0.9	Cu. Yd.	Masonry
I-1	152	Lin. Ft.	24" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1
I-1	6	Lin. Ft.	12" Storm Sewer, Sec. M-6.5(a) or Sec. M-6.8(a), Class D-1
I-8	1	Ea.	No. 2-2-B Catch Basin

Drainage Area = 8 Ac.
Q₂₅ = 22 cfs.

8	Sta. 47+70 SP 99	P.C. 24" x 152'	ERI 2-4.02 ERI 6-3.80
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PLAN
Scale: 1"=10'

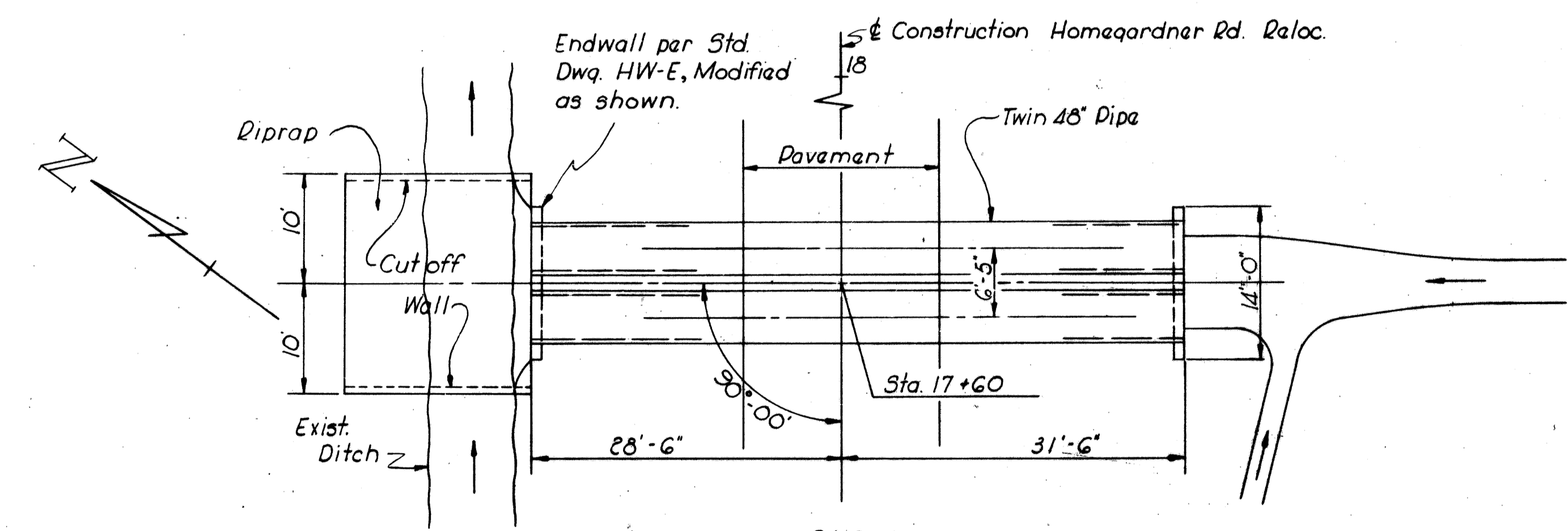


LONGITUDINAL SECTION
Scale: 1"=10'

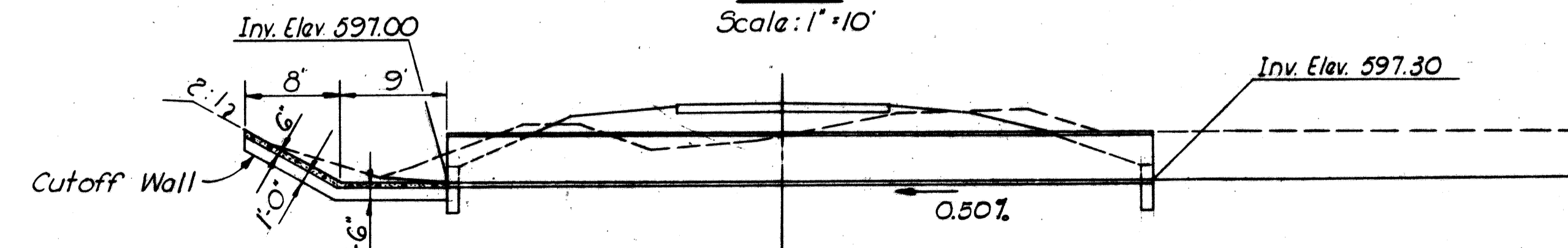
Item	Quantity	Unit	Description
I-2	1.02	Cu. Yd.	Masonry
I-1	72	Lin. Ft.	30" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1

Drainage Area = 6 Ac.
Q₂₅ = 19 cfs.

9	Sta. 52+18 SP 99	P.C. 30" x 72'	ERI 2-4.02 ERI 6-3.80
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PLAN
Scale: 1"=10'

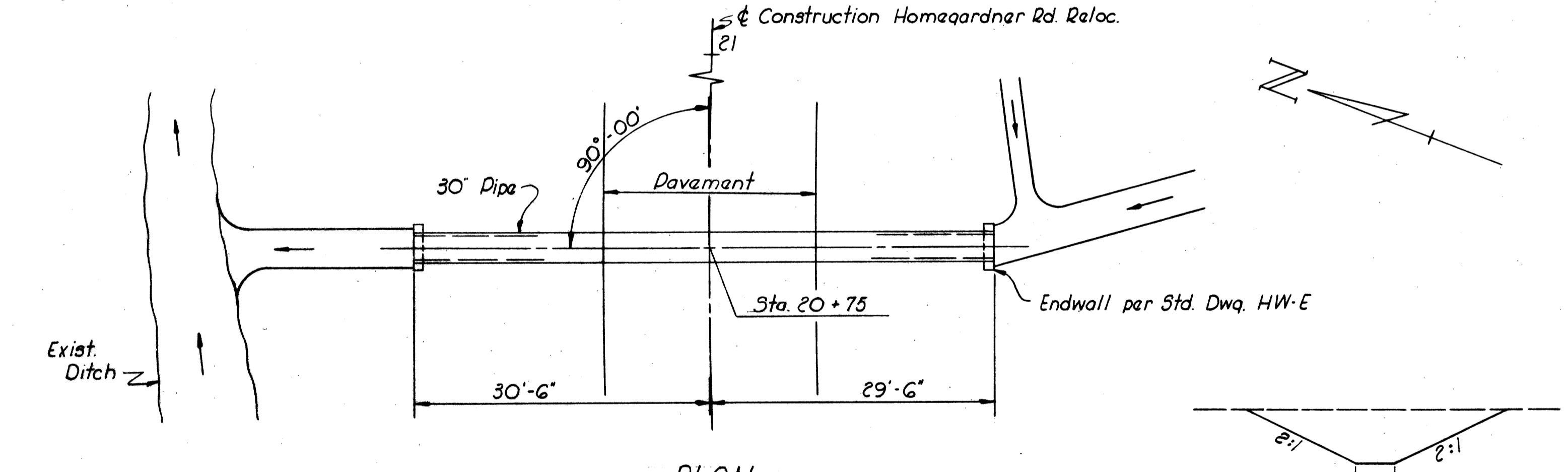


LONGITUDINAL SECTION
Scale: 1"=10'

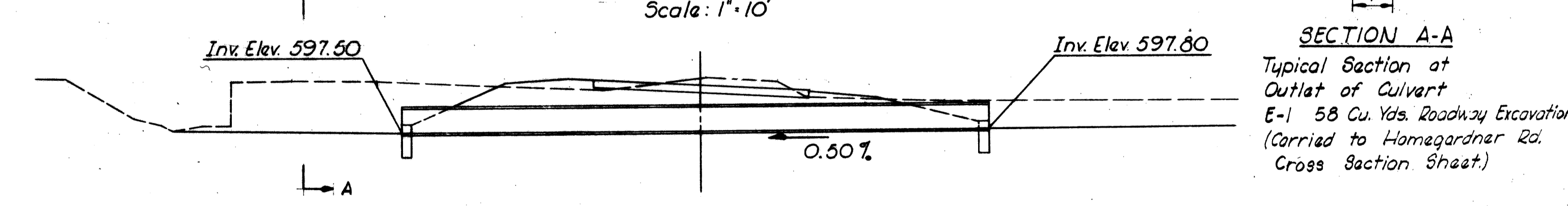
Item	Quantity	Unit	Description
I-2	3.1	Cu. Yd.	Masonry
I-1	120	Lin. Ft.	48" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1
I-10	40	Sq. Yd.	Riprap

Drainage Area = 350 Ac.
Q₂₅ = 211 cfs.

10	Sta. 17+60 Homegardner Rd. Reloc.	P.C. 2-48" x 60'	ERI 2-4.02 ERI 6-3.80
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PLAN
Scale: 1"=10'



LONGITUDINAL SECTION
Scale: 1"=10'

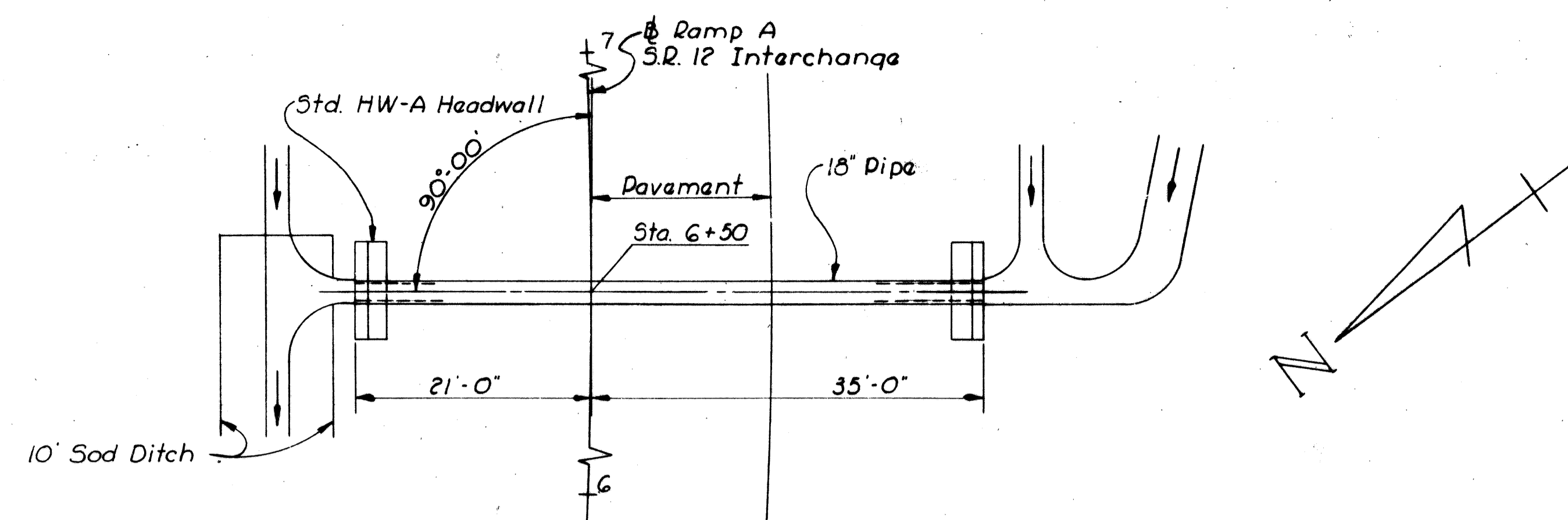
Item	Quantity	Unit	Description
I-2	1.02	Cu. Yd.	Masonry
I-1	60	Lin. Ft.	30" Reinforced Concrete Culvert Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1

Drainage Area = 10 Ac.
Q₂₅ = 20 cfs.

11	Sta. 20+75 Homegardner Rd. Reloc.	P.C. 30" x 60'	ERI 2-4.02 ERI 6-3.80
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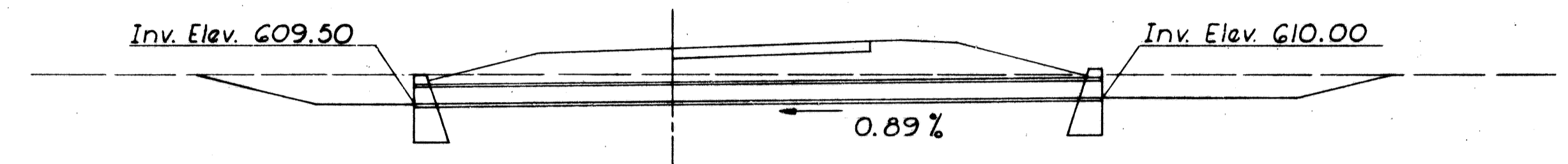
SECTION A-A
Typical Section at
Outlet of Culvert
E-1 58 Cu. Yds. Roadway Excavation
(Carried to Homegardner Rd.
Cross Section Sheet)

ERI. 2-4.02 ; ERI. 6-380



Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

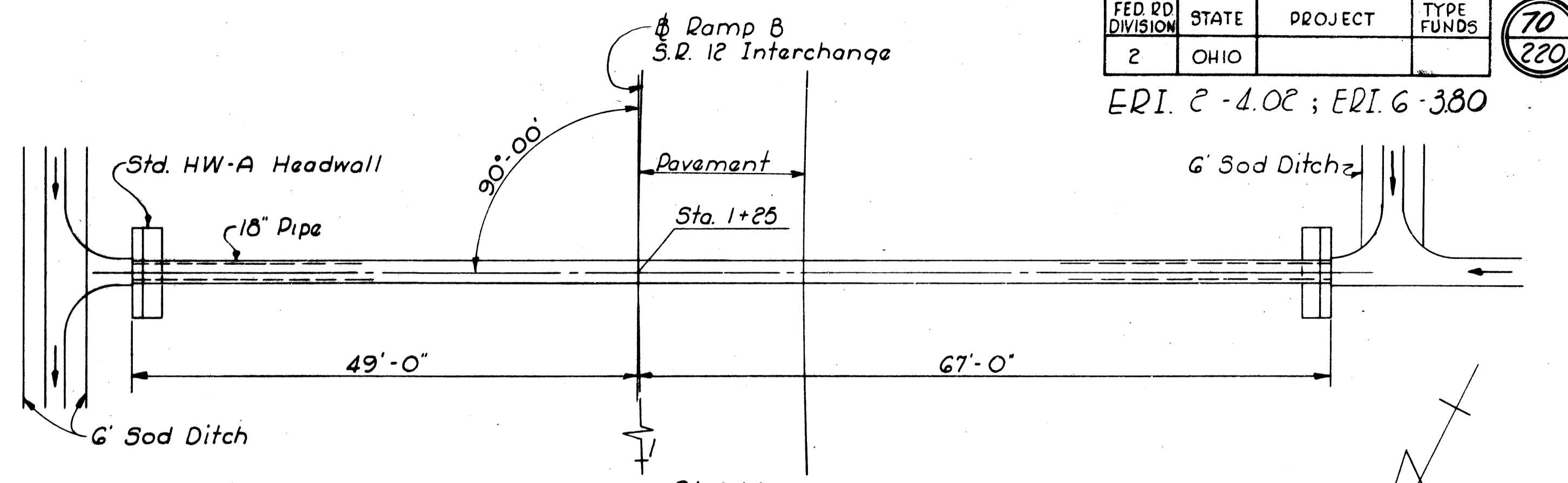


LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-2	6.6	Cu. Yd.	Masonry
I-1	56	Lin. Ft.	18" Reinforced Concrete Culvert
			Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1
L-10	4	Sq. Yd.	Sodding

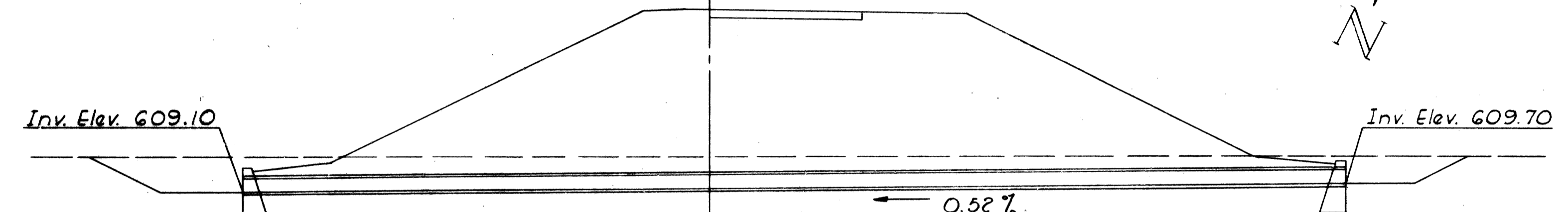
Drainage Area = 4.3 Ac.
Q₂₅ = 11 c.f.s.

12	Sta. 6+50 Ramp A, S.R. 12	P.C. 18" x 56'	ERI. 2-4.02 ERI. 6-380
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Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

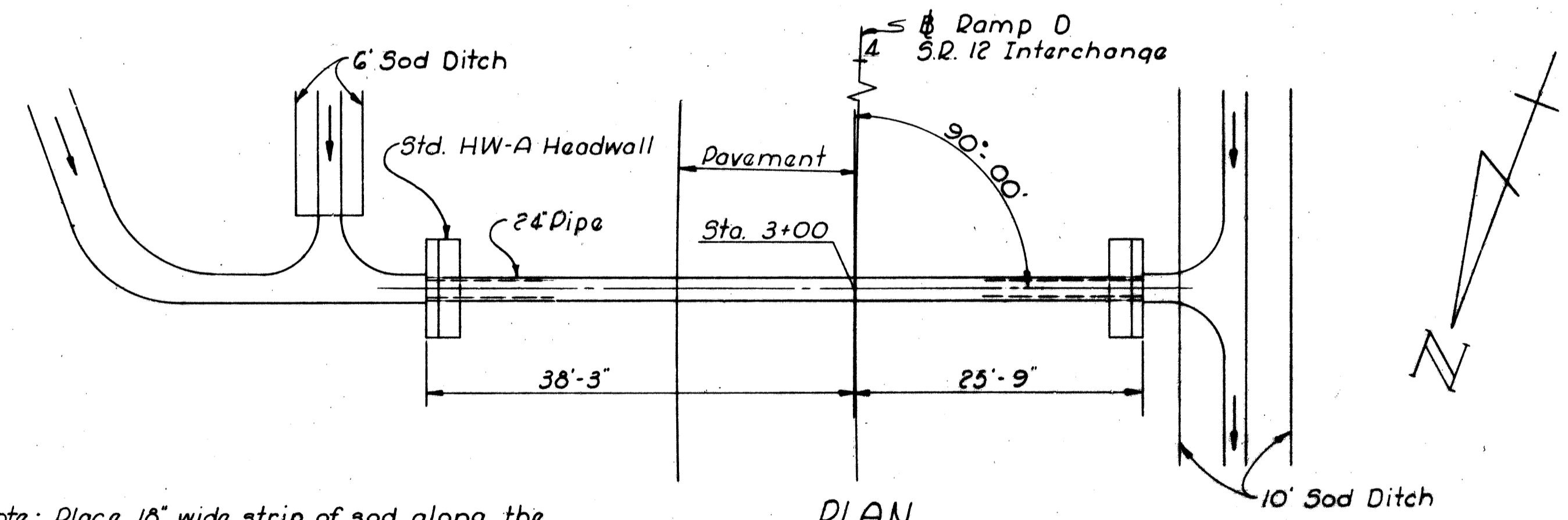


LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-2	6.6	Cu. Yd.	Masonry
I-1	116	Lin. Ft.	18" Reinforced Concrete Culvert
			Pipe, Sec. M-6.6(c), Class A-1
L-10	4	Sq. Yd.	Sodding

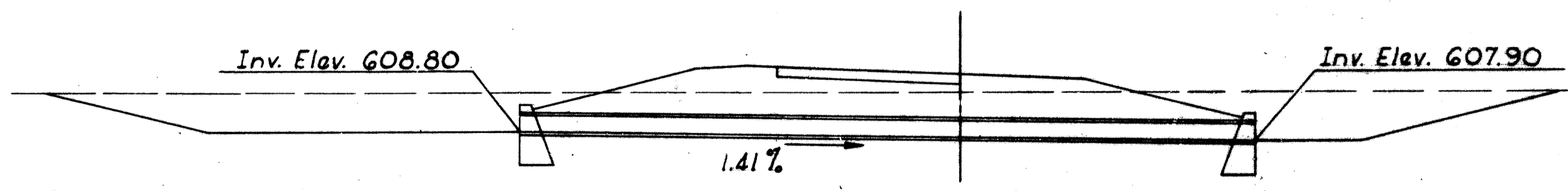
Drainage Area = 5.5 Ac.
Q₂₅ = 13 c.f.s.

13	Sta. 1+25 Ramp B, S.R. 12	P.C. 18" x 116'	ERI. 2-4.02 ERI. 6-380
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Note: Place 18" wide strip of sod along the back and both ends of each headwall.

PLAN
Scale: 1"=10'

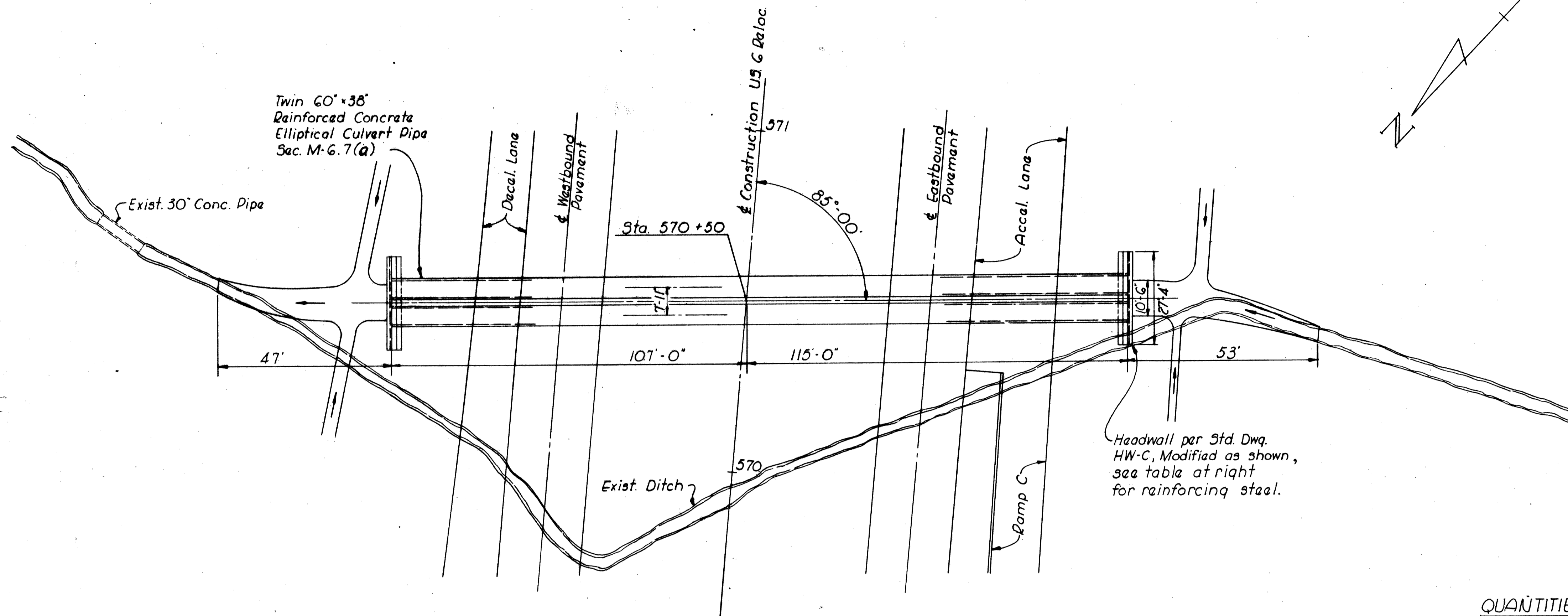
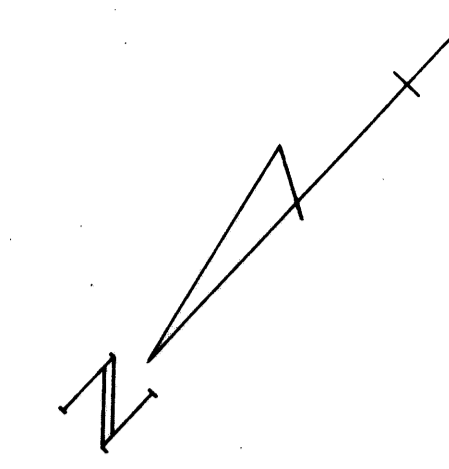


LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
I-2	10.8	Cu. Yd.	Masonry
I-1	64	Lin. Ft.	24" Reinforced Concrete Culvert
			Pipe, Sec. M-6.6(a) or Sec. M-6.8(b), Class A-1
L-10	5	Sq. Yd.	Sodding

Drainage Area = 10.3 Ac.
Q₂₅ = 20 c.f.s.

14	Sta. 3+00 Ramp D, S.R. 12	P.C. 24" x 64'	ERI. 2-4.02 ERI. 6-380
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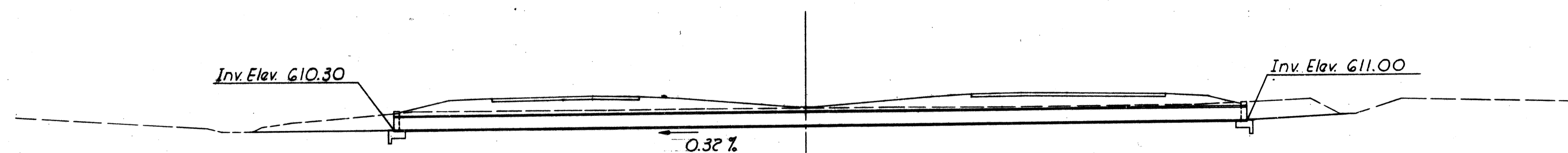
PLAN
Scale: 1"=20'

Note: Place 18" wide strip of sod along the back and both ends of each headwall.

QUANTITIES FOR ONE HDWL.

REINFORCING STEEL*		CONCRETE		
SYMBOL	NO.	LENGTH	WT. LBS.	CU. YDS.
a	11	27'-0"	310	
c	12	7'-6"	94	
d	8	6'-8"	56	
f	8	4'-1"	35	
h	12	8'-6"	107	
Total			602	14.5

*Note: 2-d bars and 2-h bars shall be placed between the pipes.



LONGITUDINAL SECTION
Scale: 1"=20'

Drainage Area = 275 Ac.
Q₂₅ = 173 c.f.s.

ESTIMATED QUANTITIES

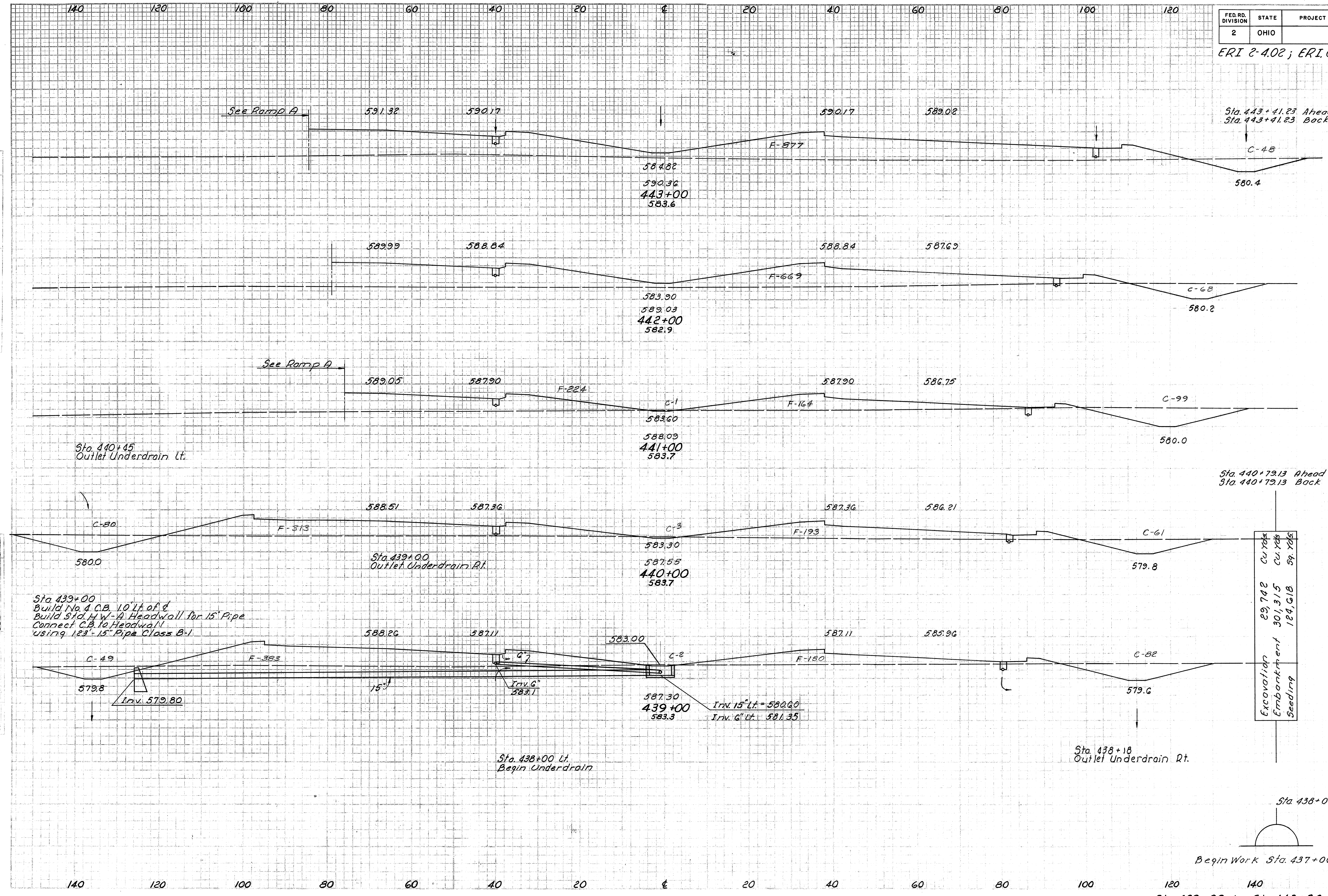
Item	Quantity	Unit	Description
E-3	105	Cu. Yd.	Channel Excavation
I-2	29	Cu. Yd.	Masonry
I-1	444	Lin. Ft.	60" x 38" Reinforced Concrete Elliptical Culvert Pipe, Sec. M-6.7(a), Class G-1
L-10	11	Sq. Yd.	Sodding

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

72
220

ERI 2-4.02; ERI G-3.80

Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
0	0	811		
41	41	967	68	1408
48	48	877		
215			215	2863
68	68	669		
311			311	1957
100	100	388		
80			80	295
107	107	376		
133	133	540		
406			406	1533
144	144	506		
513			513	1924
133	133	533		
470			470	1974
121	121	533		
448			448	987
121	121	0		



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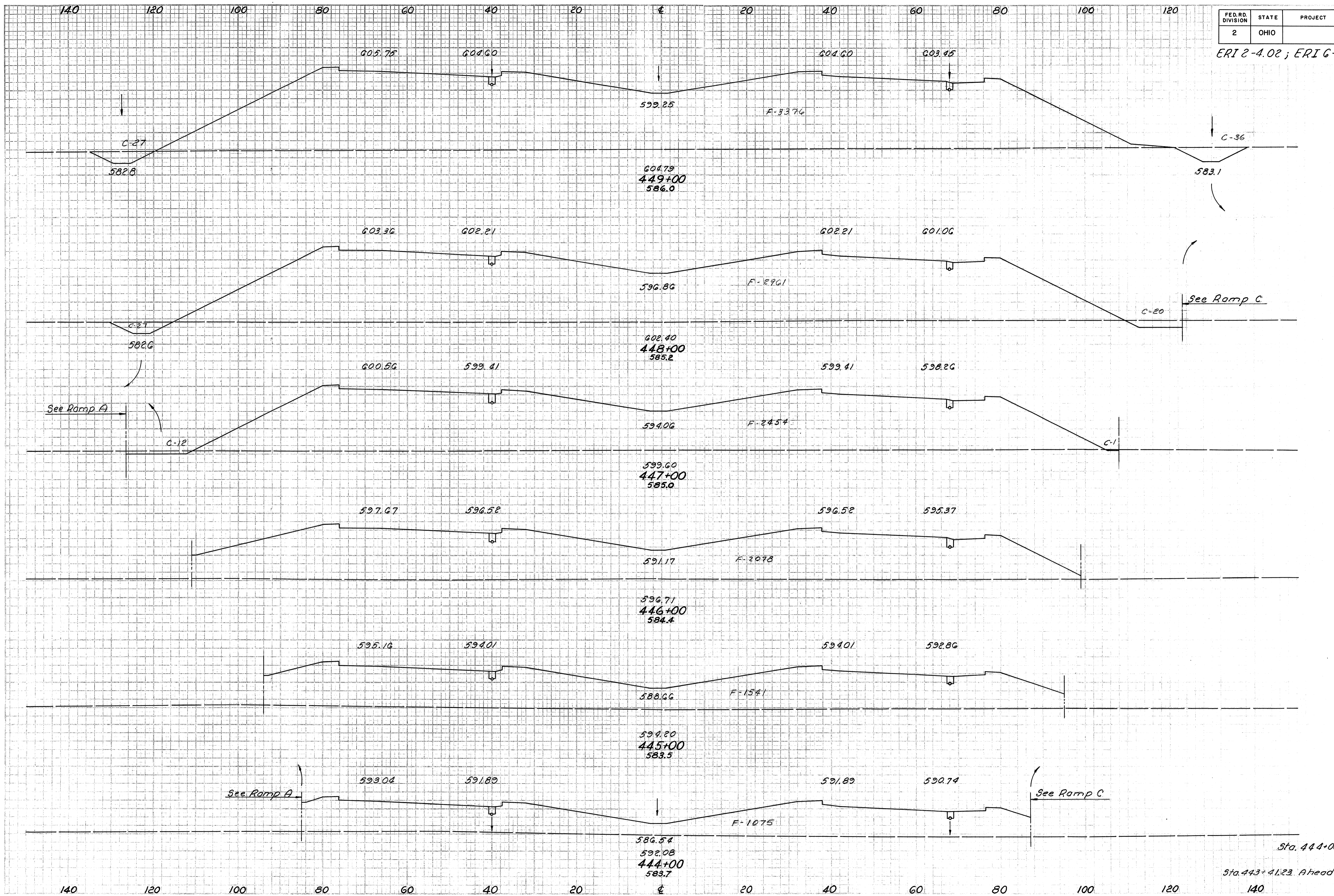
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Sta. 439+00 to Sta. 443+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

73
220

ERI 2-4.02; ERI G-380



Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
449+00	0	3376	0	3376
448+00	0	2961	0	2961
447+00	0	2454	0	2454
446+00	0	2078	0	2078
445+00	0	1541	0	1541
444+00	0	811	0	811
443+41.23 Ahead	0	811	0	811
444+00 to 449+00	0	11,735	0	11,735

DATE: _____
BY: _____
CHECKED: _____
APPROVED: _____
SCALE: _____

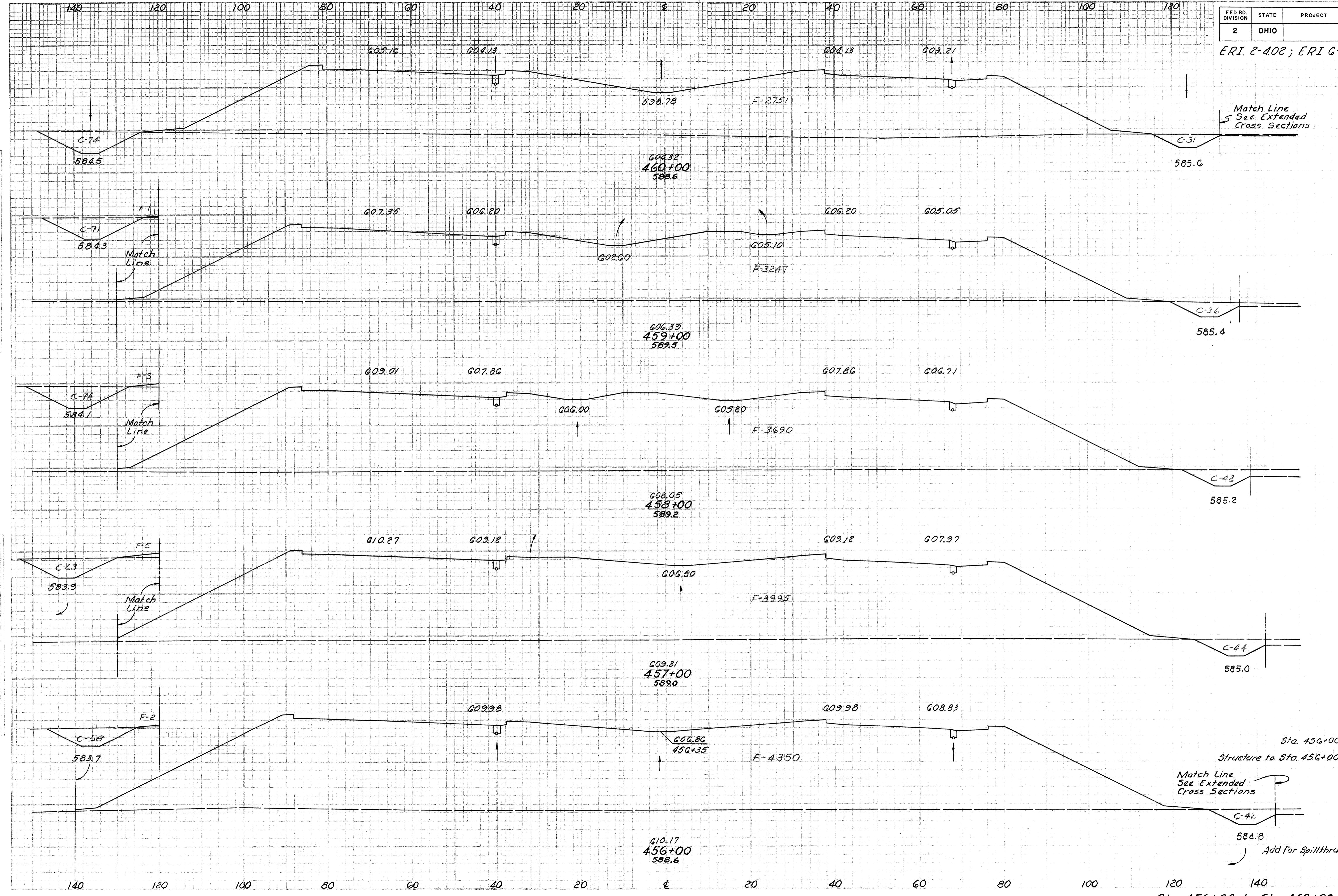
DATE: 10/1/51
BY: SMB
CHECKED: DFS
APPROVED: GCS
SCALE: 1"=40'

Sta. 444+00 to Sta. 449+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

75
220

ERI 2-402; ERI G-380



Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
105	2751			
107	3248		393	11,109
116	3693		413	12,854
117	4000		413	14,246
100	4352		383	15,467
30	2650			
200	2670			

DATE
BY
CHECKED
APPROVED

1961
SMB
DLS
GCS
GCS
GCS

Sta. 456+00 to Sta. 460+00

Match Line See Extended Cross Sections

Structure to Sta. 456+00

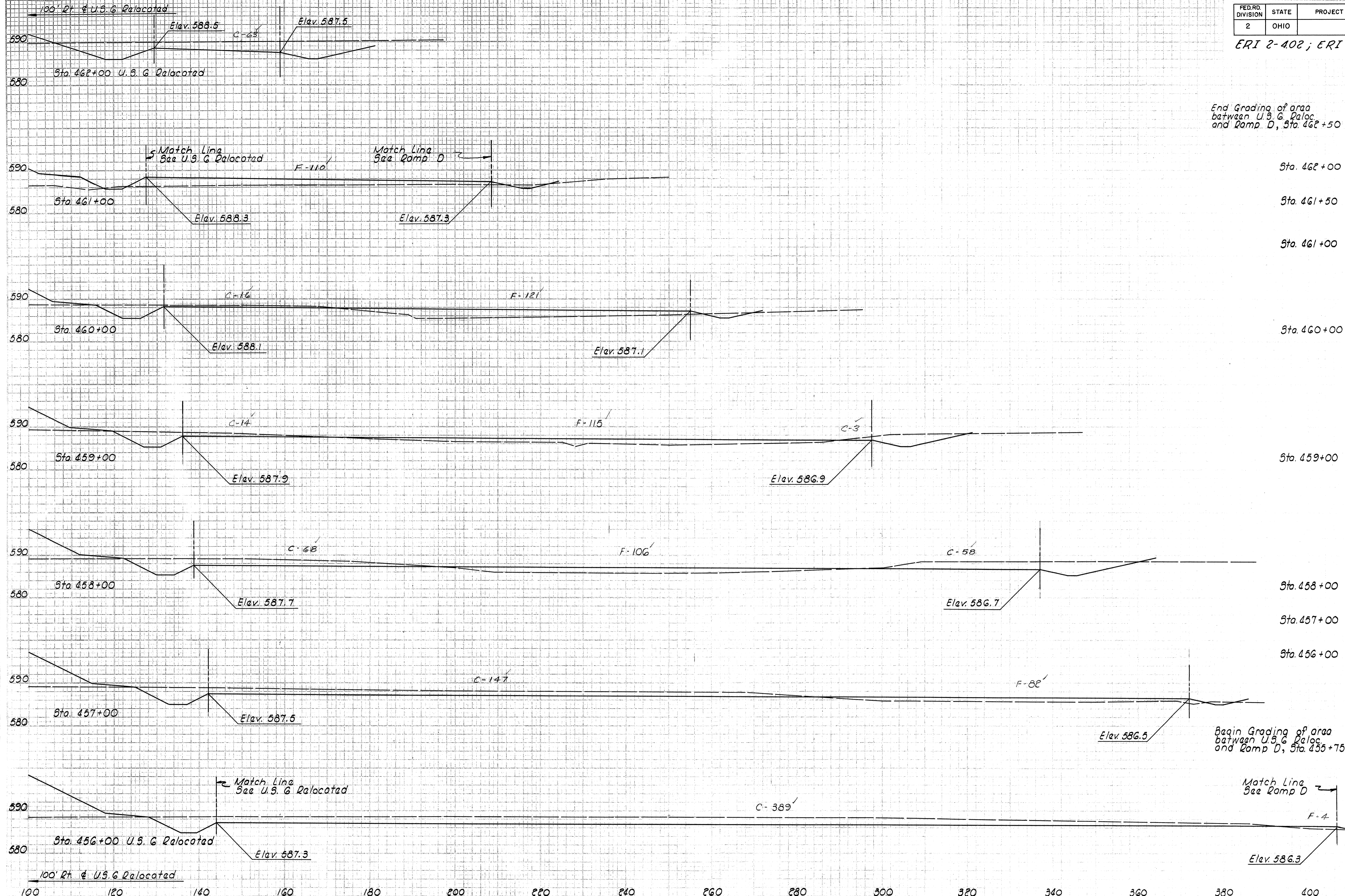
Add for Spillthru

100 120 140 160 180 200 220 240 260 280 300 320 340 360 380

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

76
220

ERI 2-402; ERI 6-380



Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
End Grading of area between U.S.G. Reloc. and Ramp D, Sta. 462+50	0	0		
Sta. 462+00	63	0	58	0
Sta. 461+50	0	0	58	0
Sta. 461+00	0	110	0	102
Sta. 460+00	16	121	30	428
Sta. 459+00	17	115	61	406
Sta. 458+00	126	106	265	409
Sta. 457+00	147	82	506	348
Sta. 456+00	389	4	993	159
Sta. 455+75	389	4	360	4

Sta. 456+00 to Sta. 462+00 Extended to Right

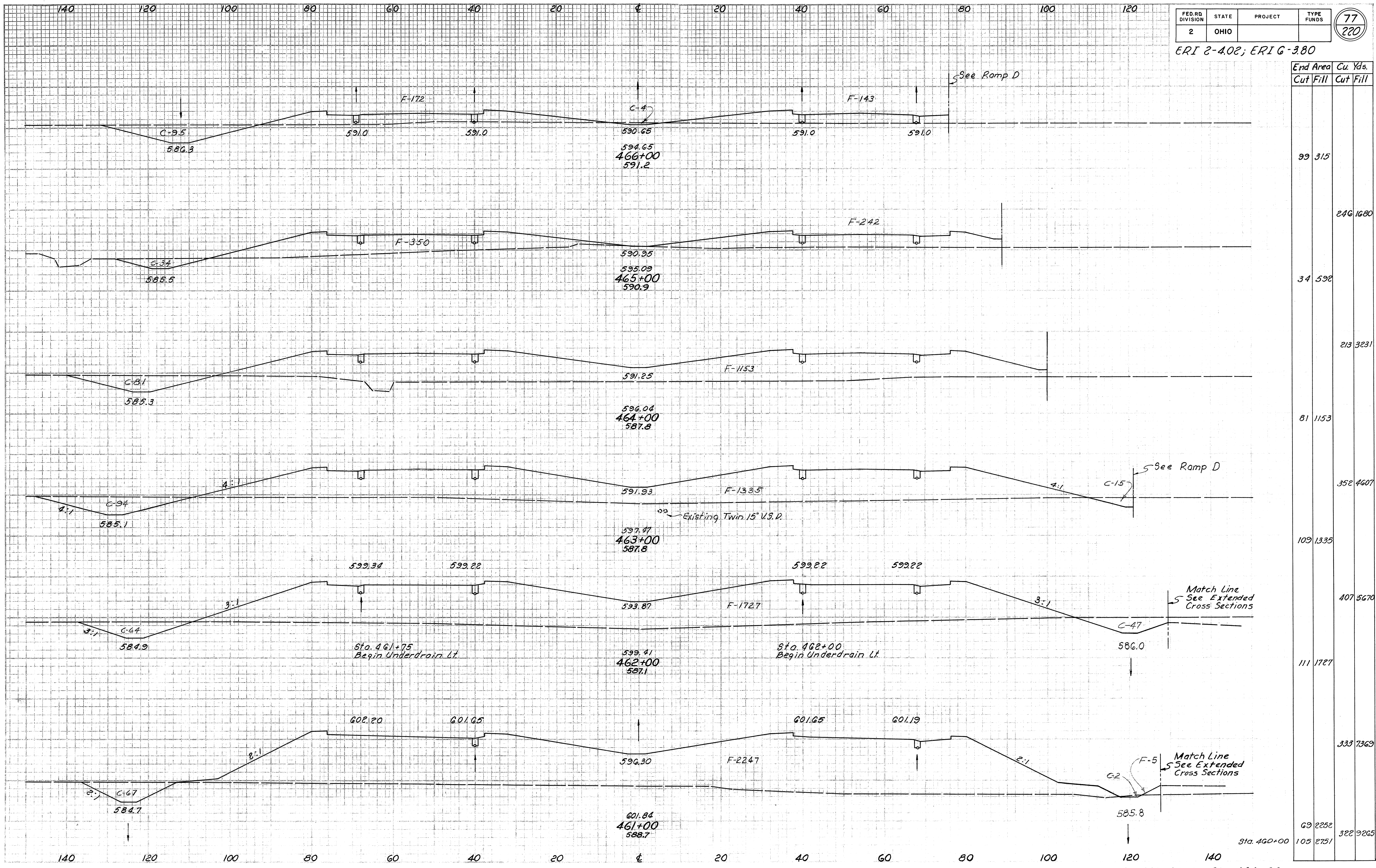
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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

77
220

ERI 2-4.02; ERI G-3.80



Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
99	315			
34	592		246	1680
81	1153		213	3231
109	1335		352	4607
407	5670		111	1727
333	7369		69	2252
105	2751		322	9265

DATE: 10/1/61
 DRAWN BY: [illegible]
 CHECKED BY: [illegible]
 APPROVED BY: [illegible]

DATE: 10/1/61
 DRAWN BY: [illegible]
 CHECKED BY: [illegible]
 APPROVED BY: [illegible]

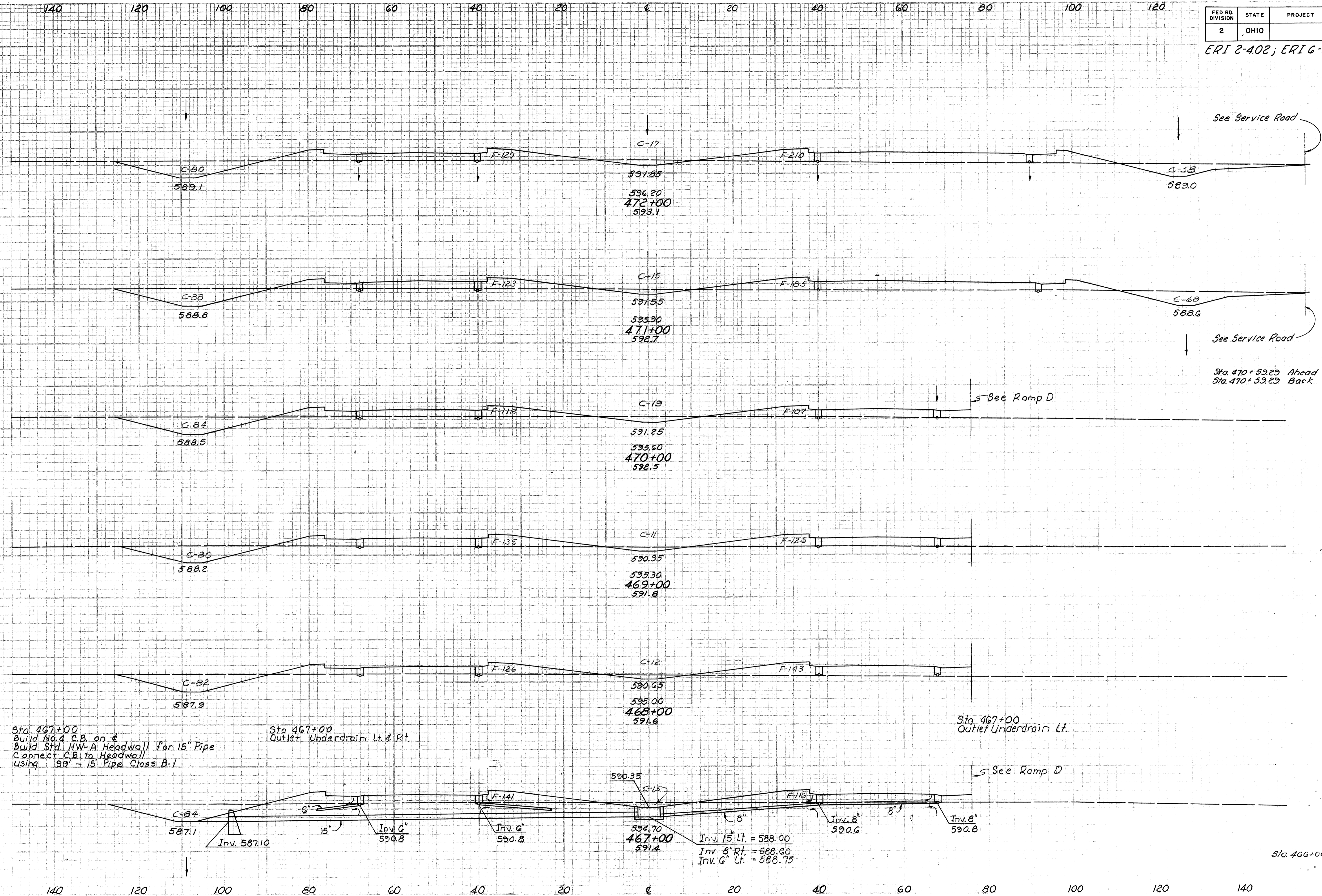
Sta. 461+00 to Sta. 466+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

78
220

ERI 2-402; ERI 6-380

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
155	339		
		604	1198
171	308		
		253	461
165	304		
		113	231
		237	501
103	225		
		359	894
91	258		
		343	976
94	269		
		357	974
99	257		
		367	1059
99	315		



DATE: 3-6-61
 DESIGNED BY: JCS
 CHECKED BY: JCS
 APPROVED BY: JCS
 DRAWN BY: JCS

DATE: 3-6-61
 DESIGNED BY: JCS
 CHECKED BY: JCS
 APPROVED BY: JCS
 DRAWN BY: JCS

Sta. 467+00
 Build No. 4 C.B. on &
 Build Std. HW-A Headwall for 15" Pipe
 Connect C.B. to Headwall
 Using 99' - 15 Pipe Class B-1

Sta. 467+00
 Outlet Underdrain Lt. & Rt.

Sta. 467+00
 Outlet Underdrain Lt.

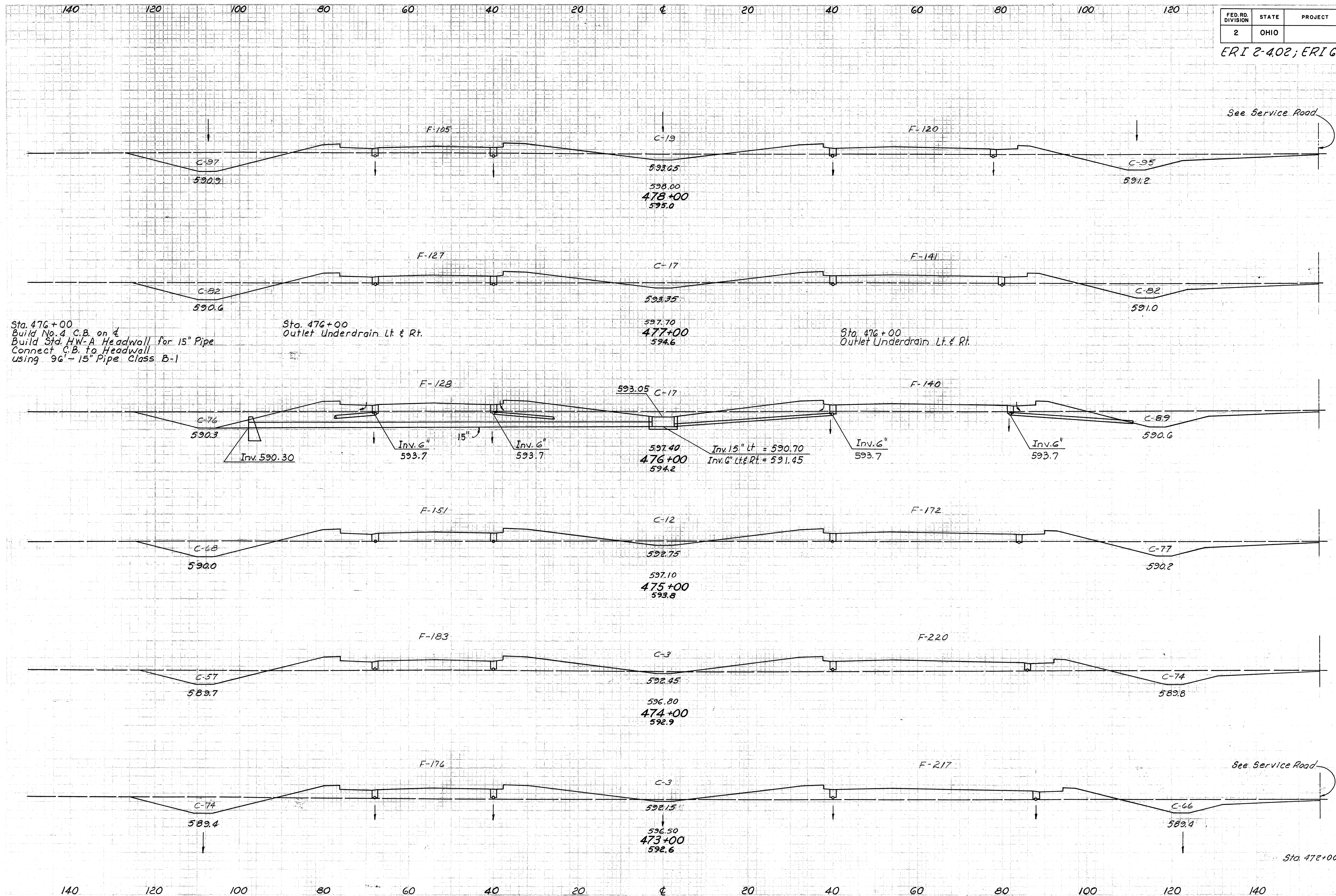
Inv. 15" Lt. = 588.00
 Inv. 8" Rt. = 588.60
 Inv. 6" Lt. = 588.75

Sta. 467+00 to Sta. 472+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

79
220

ERI 2-4.02; ERI G-3.80



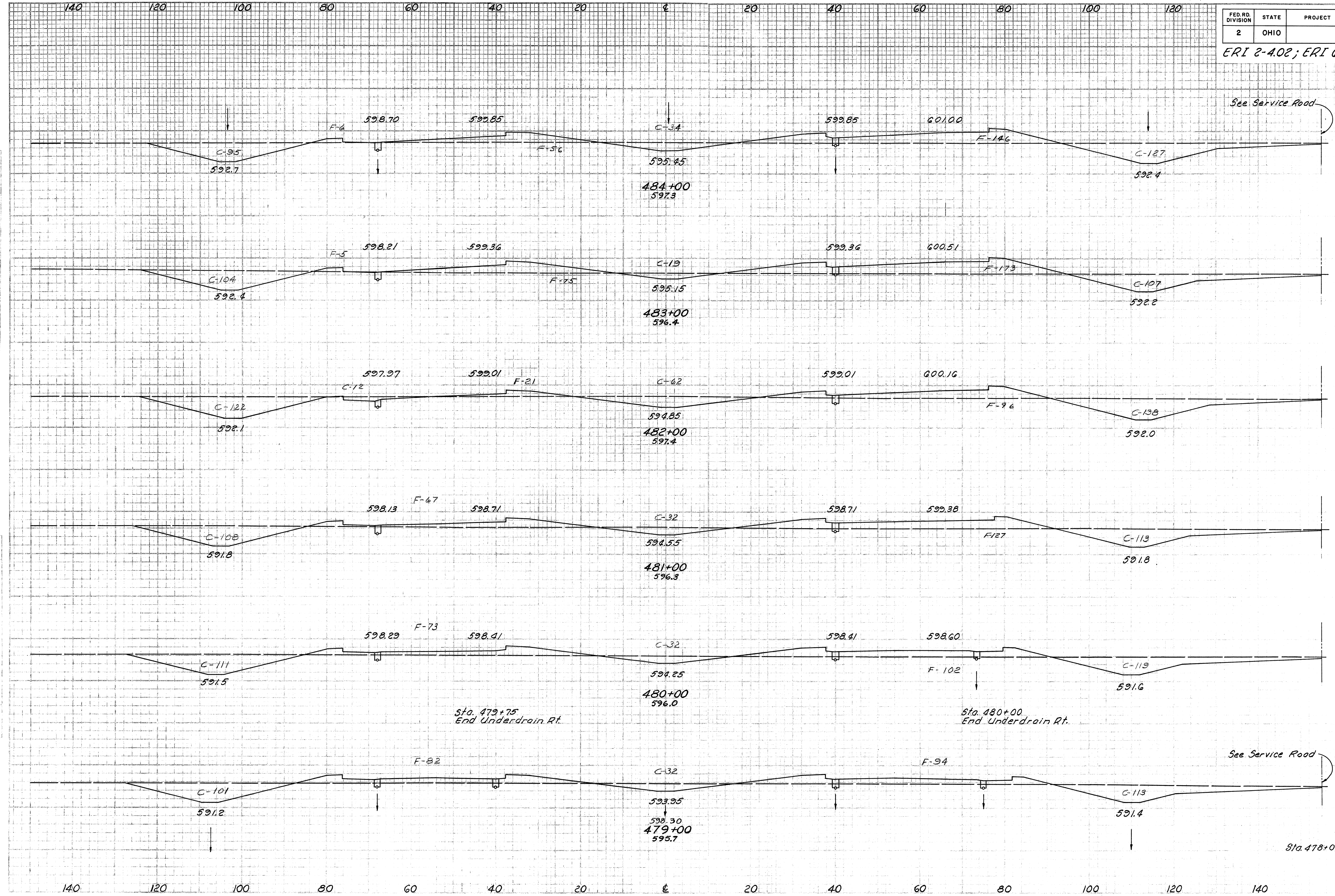
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
211	225		
		726	913
181	268		
		672	993
182	268		
		628	1094
157	323		
		539	1344
134	403		
		513	1474
143	393		
		552	1356
155	332		

MB 873
 DES JCS
 DES 4-21

Sta. 472+00 to Sta. 478+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		(80) (220)

ERI 2-4.02; ERI 6-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
256	208		
230	253	900	854
334	117	1044	685
253	194	1087	576
262	175	954	683
246	176	941	650
211	225	846	743

DATE: 1961
 TIME: 8:30
 BY: JCS
 CHECKED: JCS

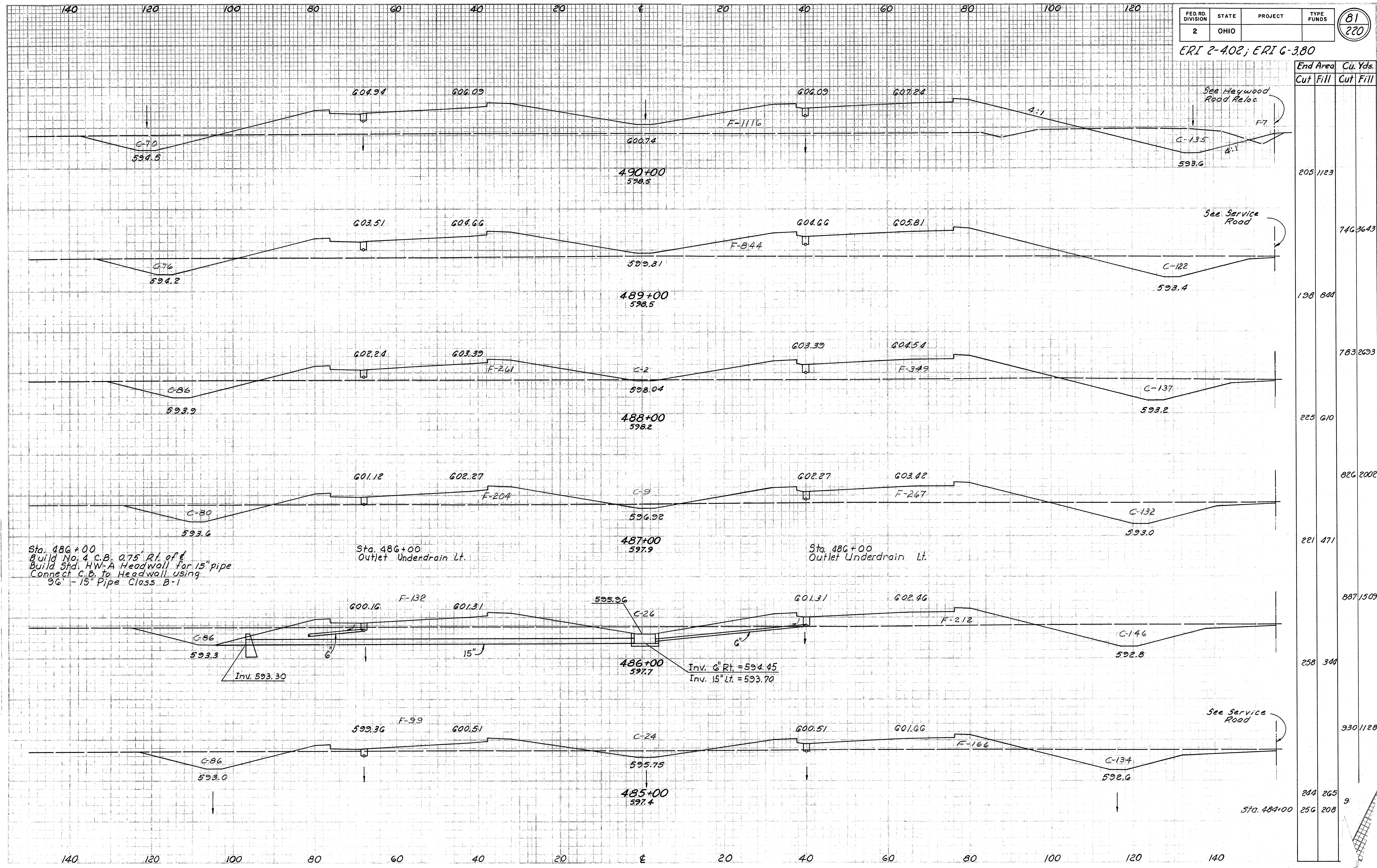
DATE: 1961
 TIME: 8:30
 BY: JCS
 CHECKED: JCS

Sta. 479+00 to Sta. 484+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

81
220

ERI 2-4.02; ERI 6-3.80



Sta.	End Area		Cu. Yds.
	Cut	Fill	
490+00	205	1123	
489+00	198	844	7463643
488+00	225	610	7832633
487+00	221	471	8262002
486+00	258	344	8871509
485+00	244	265	9301128
Sta. 484+00	256	208	

DATE
BY
CHECKED
APPROVED

DESIGNED BY
CHECKED BY
APPROVED BY

Sta. 486+00
Build No. 4 C.B. 0.75' Rt. of ϵ
Build Std. HW-A Headwall for 15" pipe
Connect C.B. to Headwall using
36" - 15" Pipe Class B-1

Sta. 486+00
Outlet Underdrain Lt.

Sta. 486+00
Outlet Underdrain Lt.

See Service Road

Sta. 484+00

Sta. 485+00 to Sta. 490+00

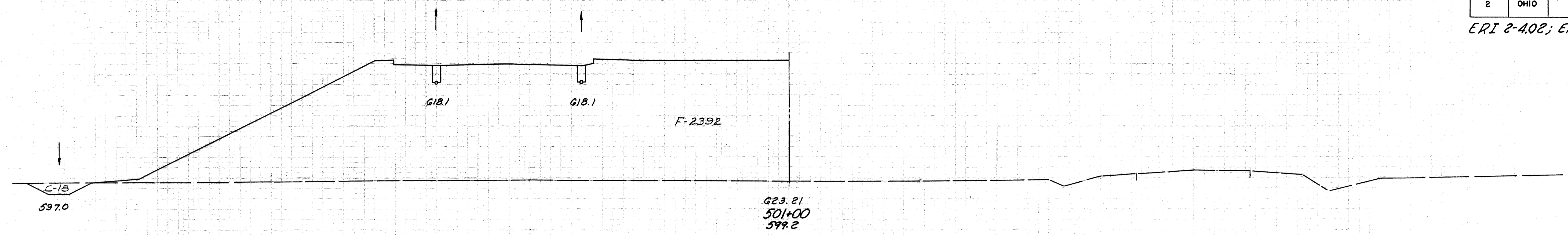
140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

83
220

ERI 2-402; ERI G-380

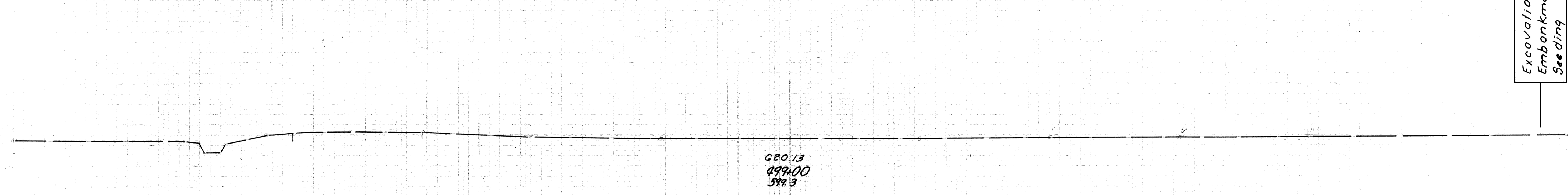
End Area Cu. Yds.
Cut Fill Cut Fill



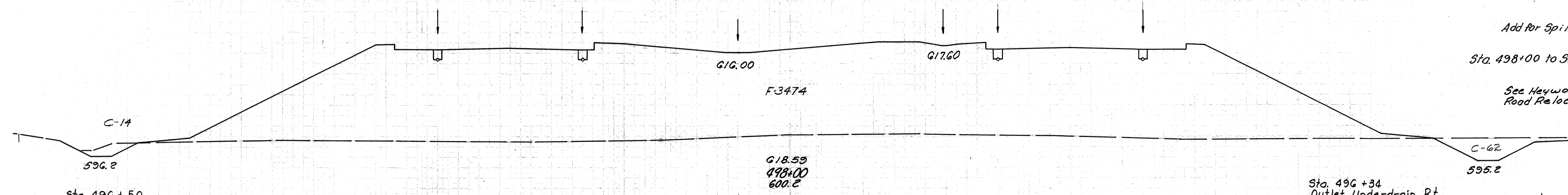
623.21
501+00
599.2



621.67
500+00
600.87



620.13
498+00
599.3



617.06
497+00
599.1

Excavation 6,171 Cu. Yds.
Embankment 338,790 Cu. Yds.
See Ding 62,811 Sq. Yds.

Add for Spillthru
Sta. 498+00 to Structure
See Heywood Road Reloc.

Sta. 496+34
Outlet Underdrain Rt.
See Heywood Road Reloc.

184	2740		
418	12,633		
76	3474		
306	12,648		
89	3337		
79	3014		

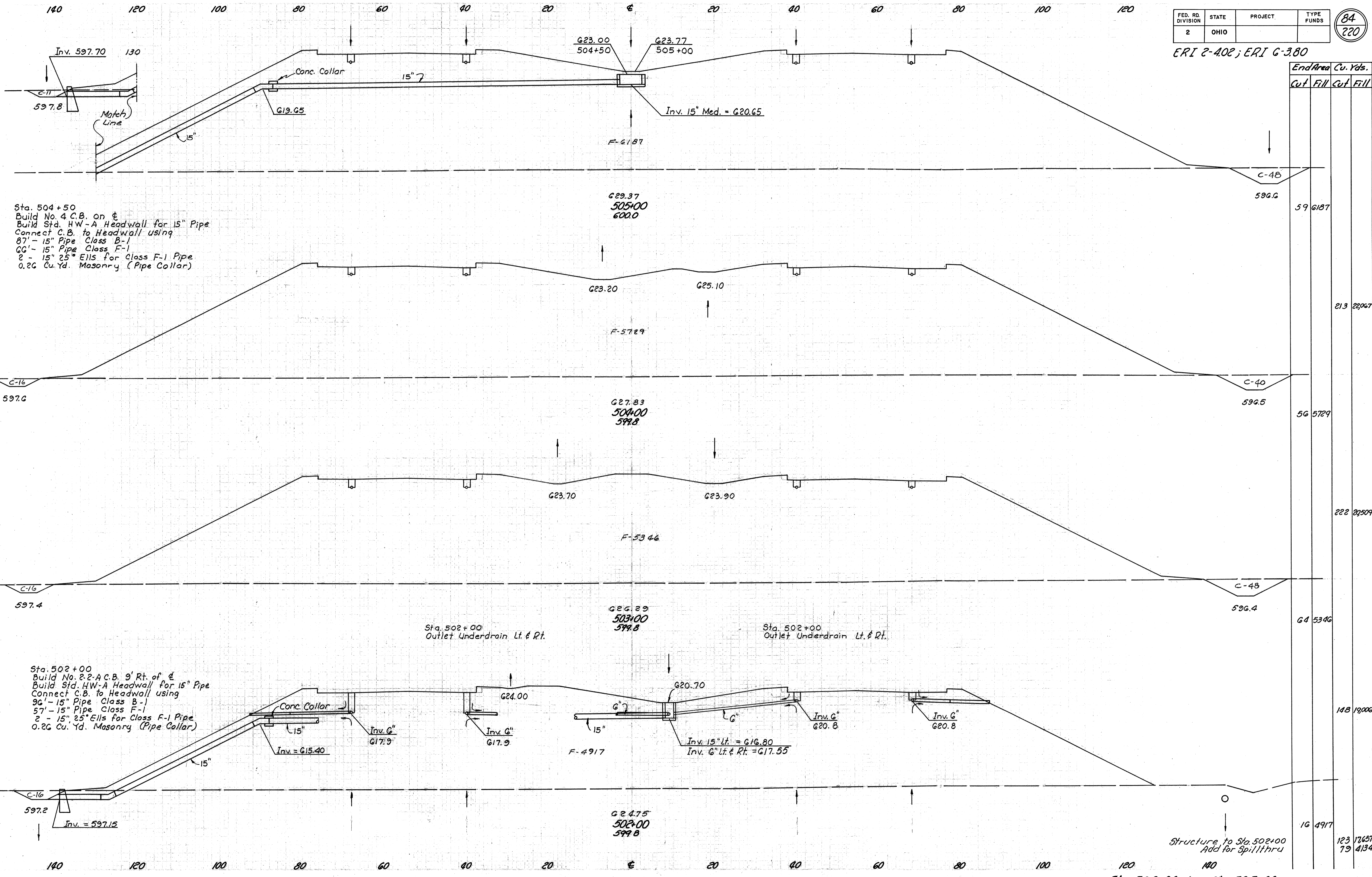
Sta. 497+00 to Sta. 501+00

1958
 7/14
 11/15
 1/15
 3-20
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 7/20
 9/20
 11/20
 1/21
 3/21
 5/21
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 11/21

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

84
220

ERI 2-402; ERI G-380



Sta. 504+50
Build No. 4 C.B. on CL
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
87' - 15" Pipe Class B-1
66' - 15" Pipe Class F-1
2 - 15" 25° Ells for Class F-1 Pipe
0.26 Cu. Yd. Masonry (Pipe Collar)

Sta. 502+00
Build No. 2-2-A.C.B. 9' Rt. of CL
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
96' - 15" Pipe Class B-1
57' - 15" Pipe Class F-1
2 - 15" 25° Ells for Class F-1 Pipe
0.26 Cu. Yd. Masonry (Pipe Collar)

Station	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
504+50	59	6187		
505+00			213	22067
504+00	56	5729		
504+00			222	23509
503+00	64	5346		
502+00			148	19006
502+00	16	4917		
502+00			123	17657
502+00			79	4134

5/15/51 150 145
 GTS 9-60 1200 8-60
 WDP 11-3-60
 GTS 11-60

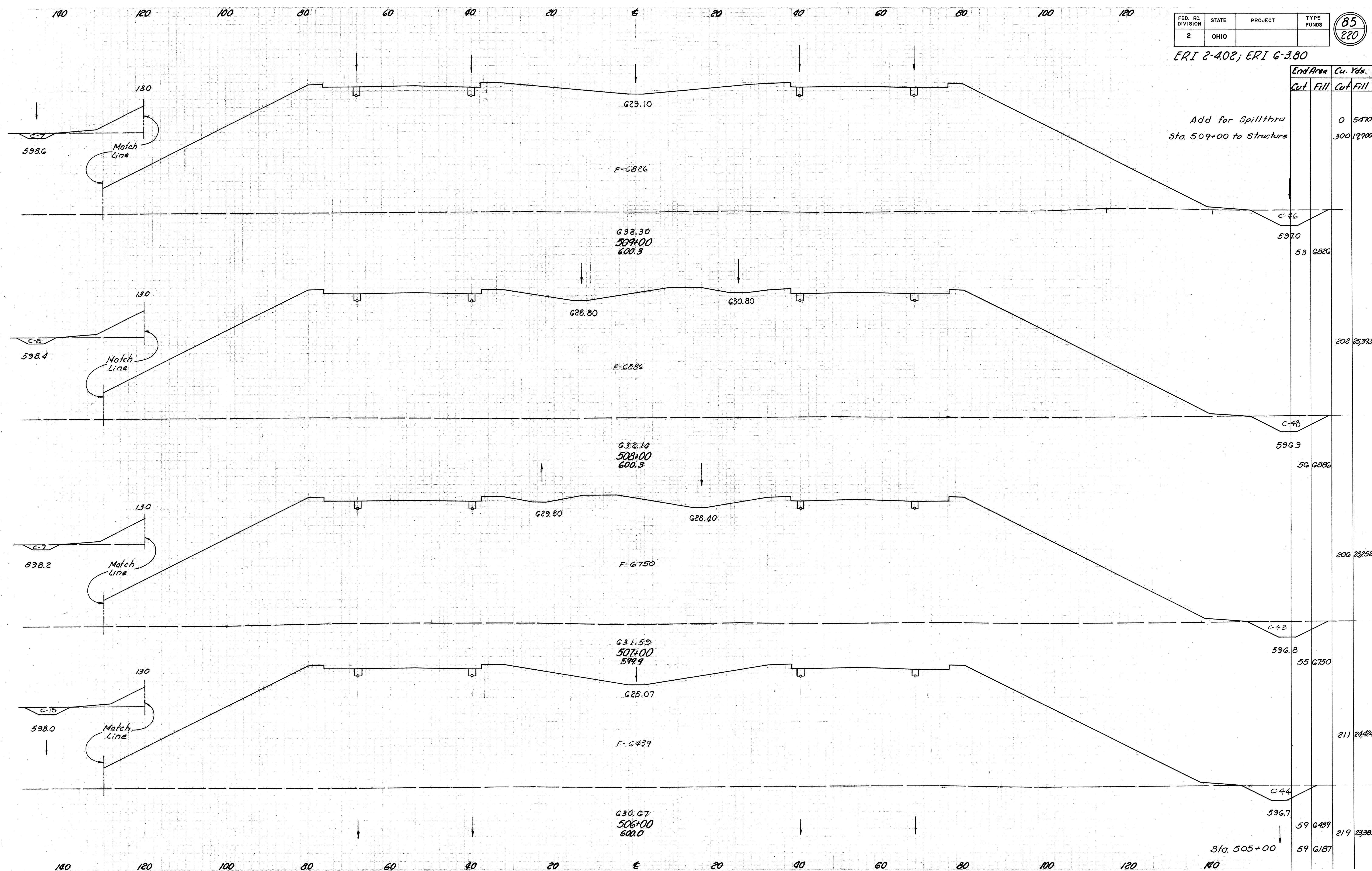
Structure to Sta. 502+00
Add for Spillthru

Sta. 502+00 to Sta. 505+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

85
220

ERI 2-402; ERI 6-380



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
		0	5470
		300	19900
		202	25393
		206	25252
		211	24424
		219	23381

Add for Spillthru
Sta. 509+00 to Structure

Sta. 505+00

Sta. 506+00 to Sta. 509+00

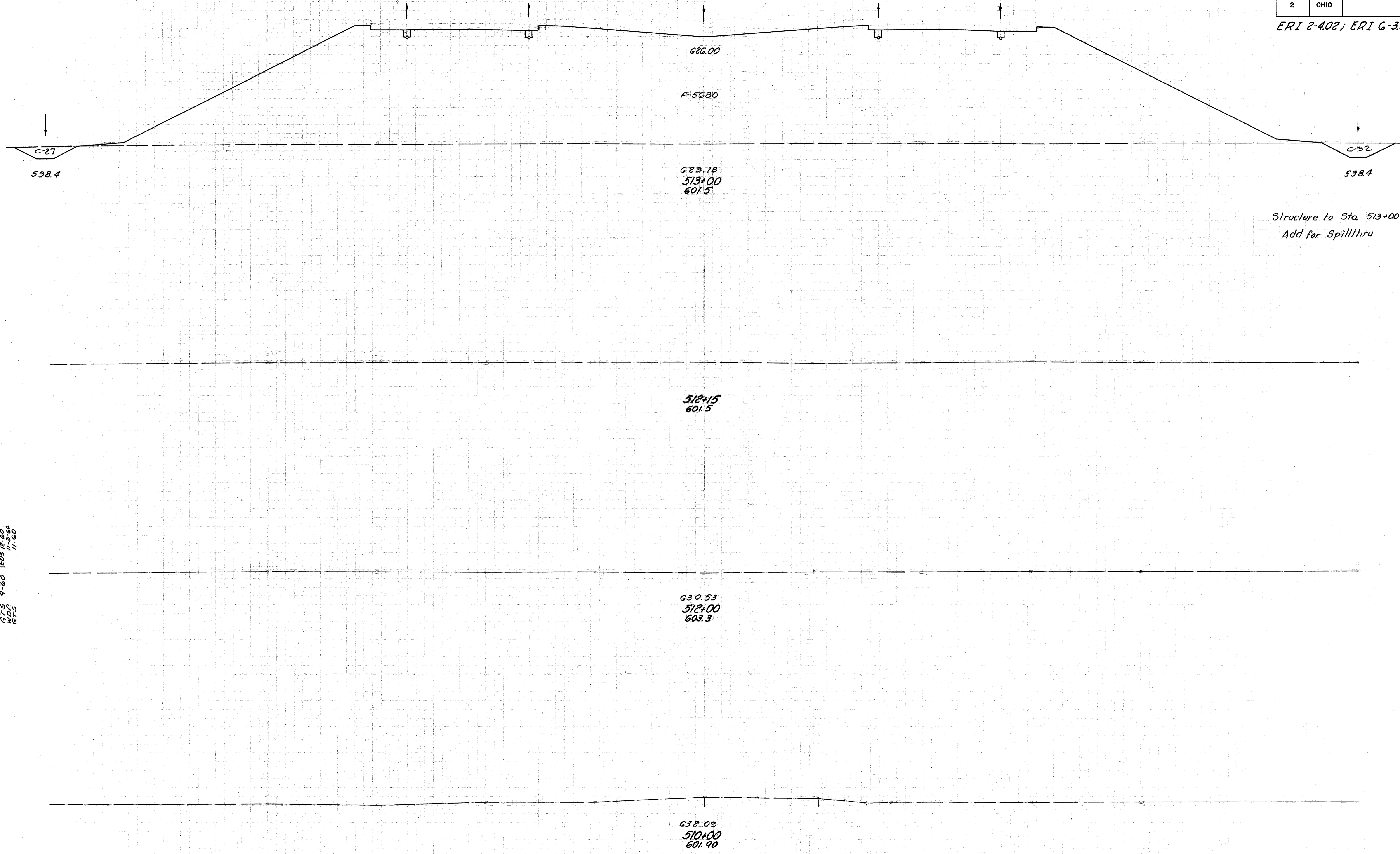
SWS
 GTS
 WDP
 GTS
 11-60

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

86
220

ERI 2-402; ERI G-3.80



End Area		Cu. Yds	
Cut	Fill	Cut	Fill
59	5680		
154	6750		
0	4890		

Structure to Sta. 513+00
Add for Spillthru

626.00
F-5680

629.18
513+00
601.5

512+15
601.5

630.53
512+00
603.3

632.09
510+00
601.90

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

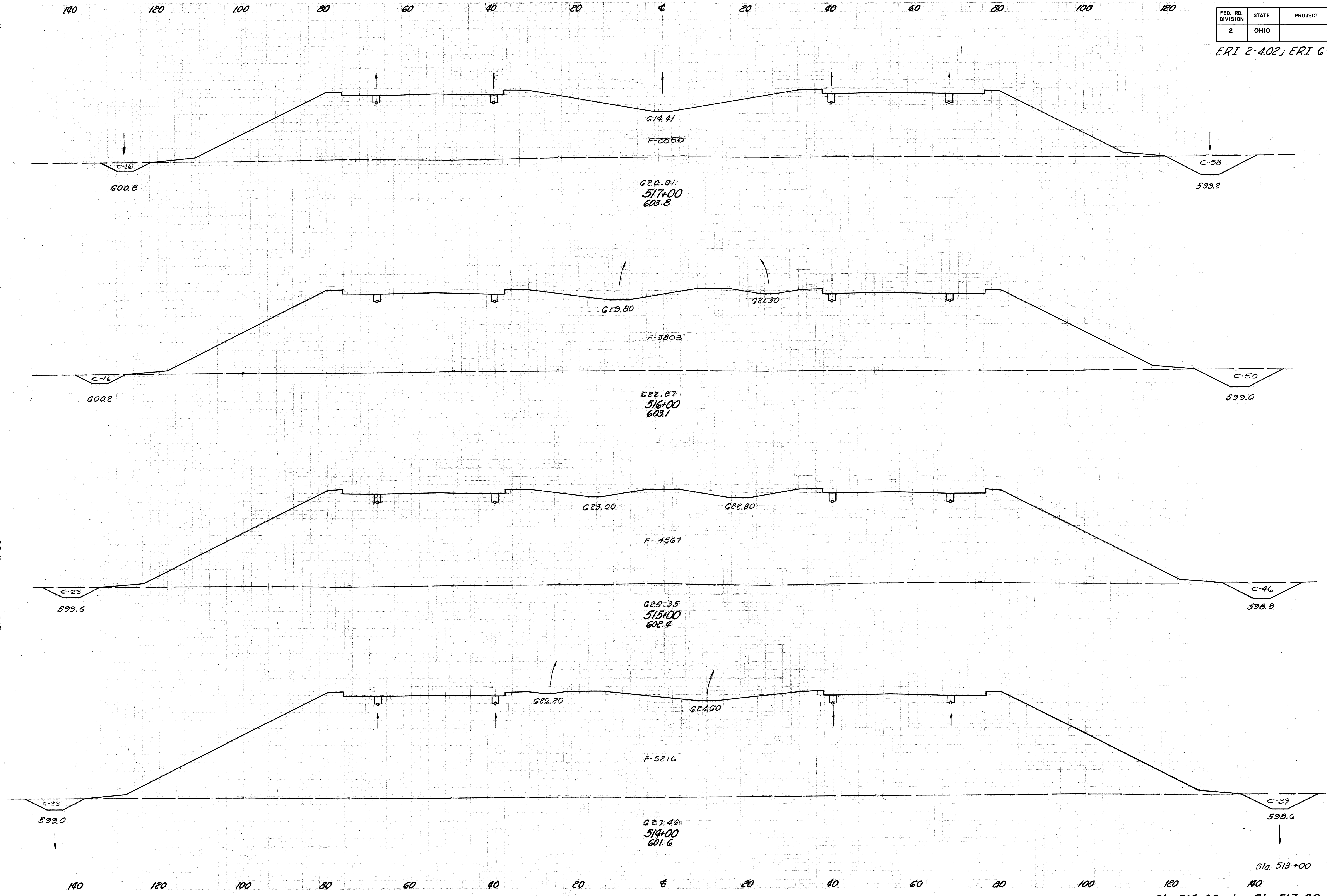
Sta. 510+00 to Sta. 513+00

JMB 1/25/58
 TFA 1/25/58
 402
 675

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

87
220

ERI 2-4.02; ERI 6-3.80



End Area	Cu. Yds	
	Cut	Fill
74 2850		
	259	12,320
66 3803		
	250	15,500
69 4567		
	243	18,117
62 5216		
	224	20,178
59 5680		

SMB 01/15/59
TFL 01/15/59
GTS 9-60
GTS 10-60
GTS 11-60

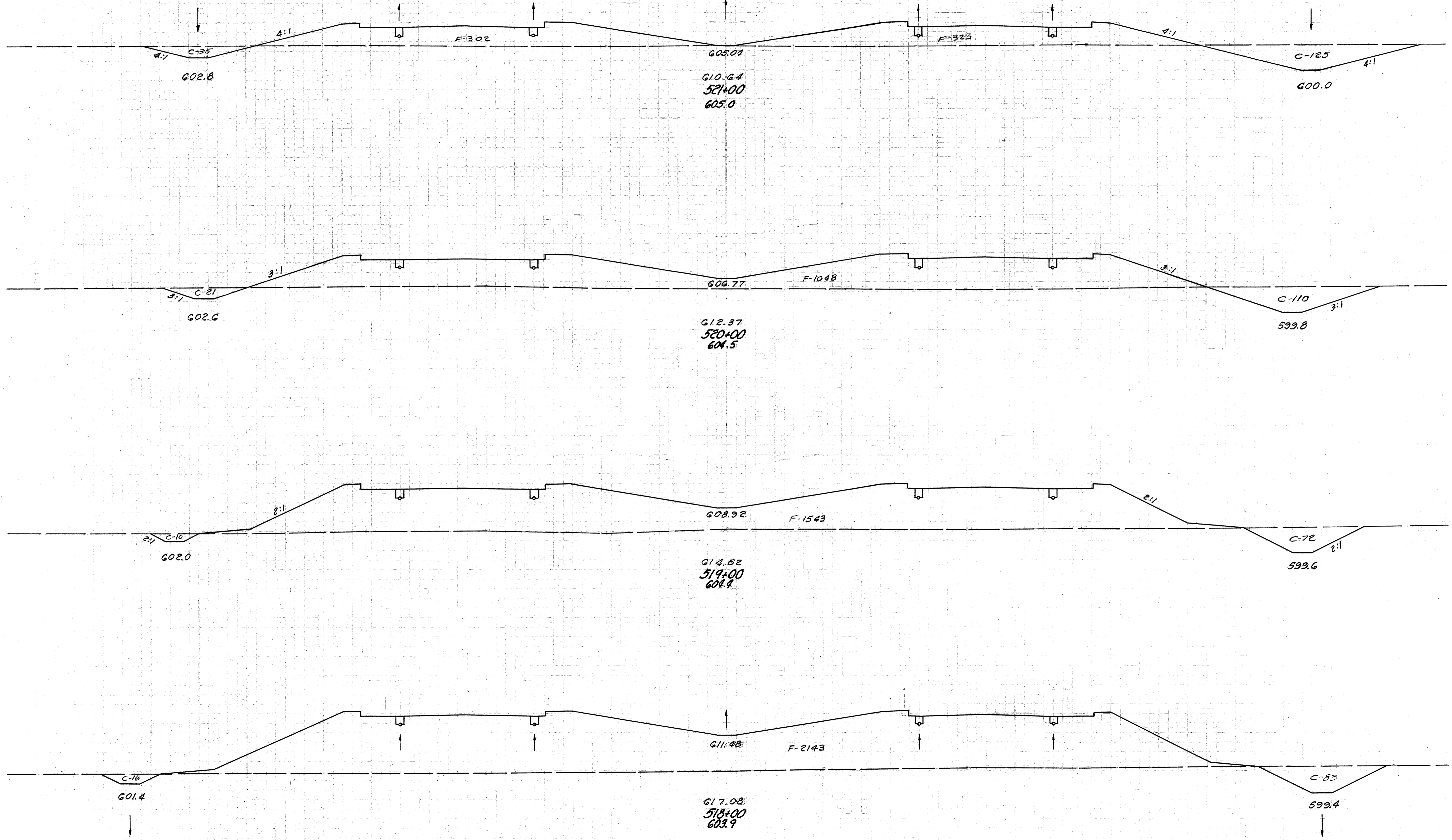
Sta. 514+00 to Sta. 517+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

88
220

ERI 2-4.02; ERI 6-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
160	625		
		539	3,098
131	1,048		
		394	4,798
82	1,543		
		335	6,826
99	2,143		
		320	9,246
74	2,850		

Sta. 517+00

Sta. 518+00 to 521+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

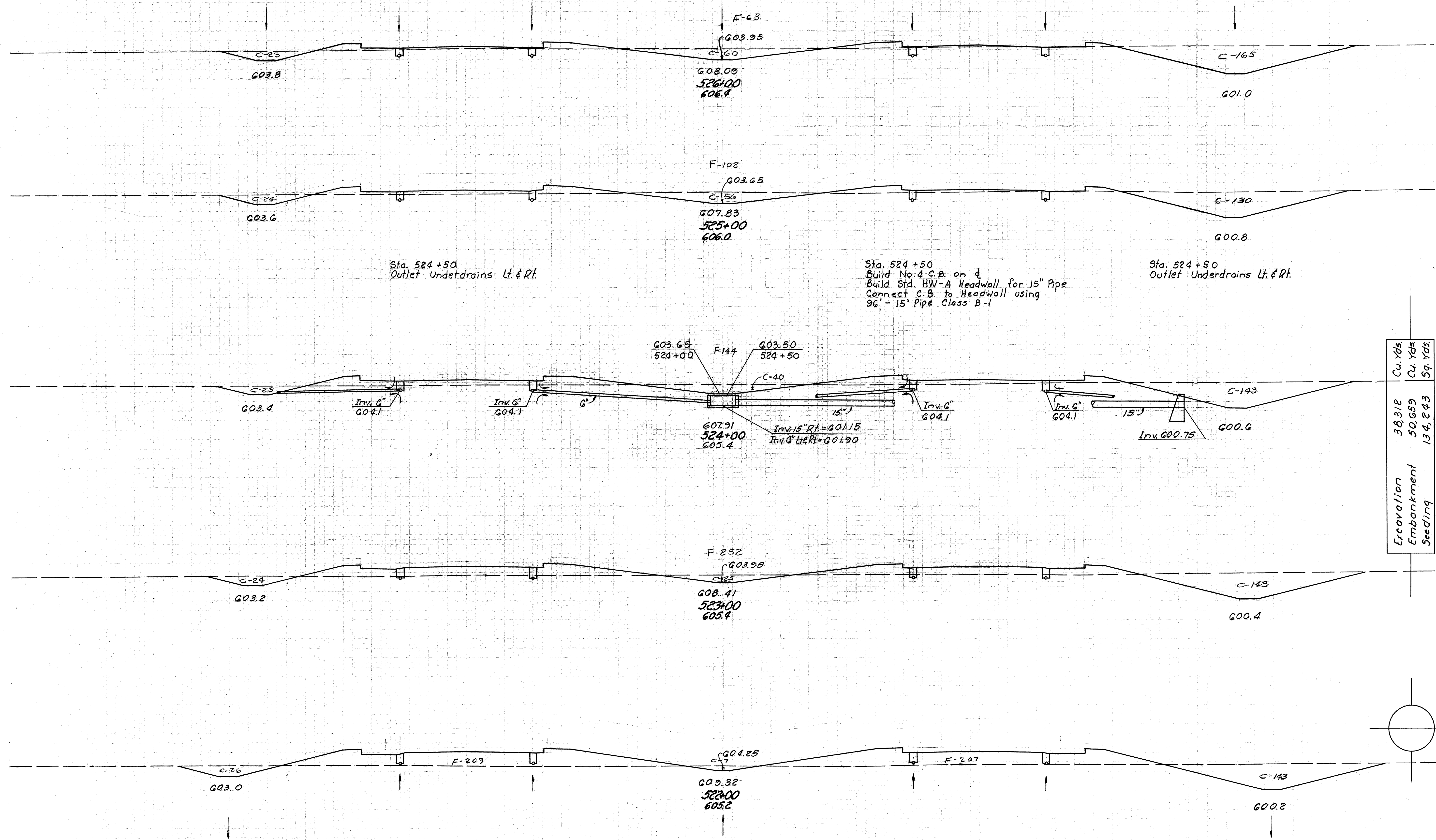
11-58
 12-58
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 2-59
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 9-59
 10-59
 11-59

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

89
220

ERI 2-4.02; ERI G-3.80



Sta. 524+50
Outlet Underdrains Lt. & Rt.

Sta. 524+50
Build No. 4 C.B. on d
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
96' - 15" Pipe Class B-1

Sta. 524+50
Outlet Underdrains Lt. & Rt.

	Cu. Yds.	Cu. Yds.	Sq. Yds.
Excavation	38,312		
Embankment		50,689	
Seeding			134,243

Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
248	G8			
210	102		848	315
206	144		770	456
192	252		737	733
176	416		681	1,237
160	G25		622	1,928

SMB 8/15/58 1958
 TFM 8/15/58 1958
 GNS 9-10 1958
 875 11-60

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

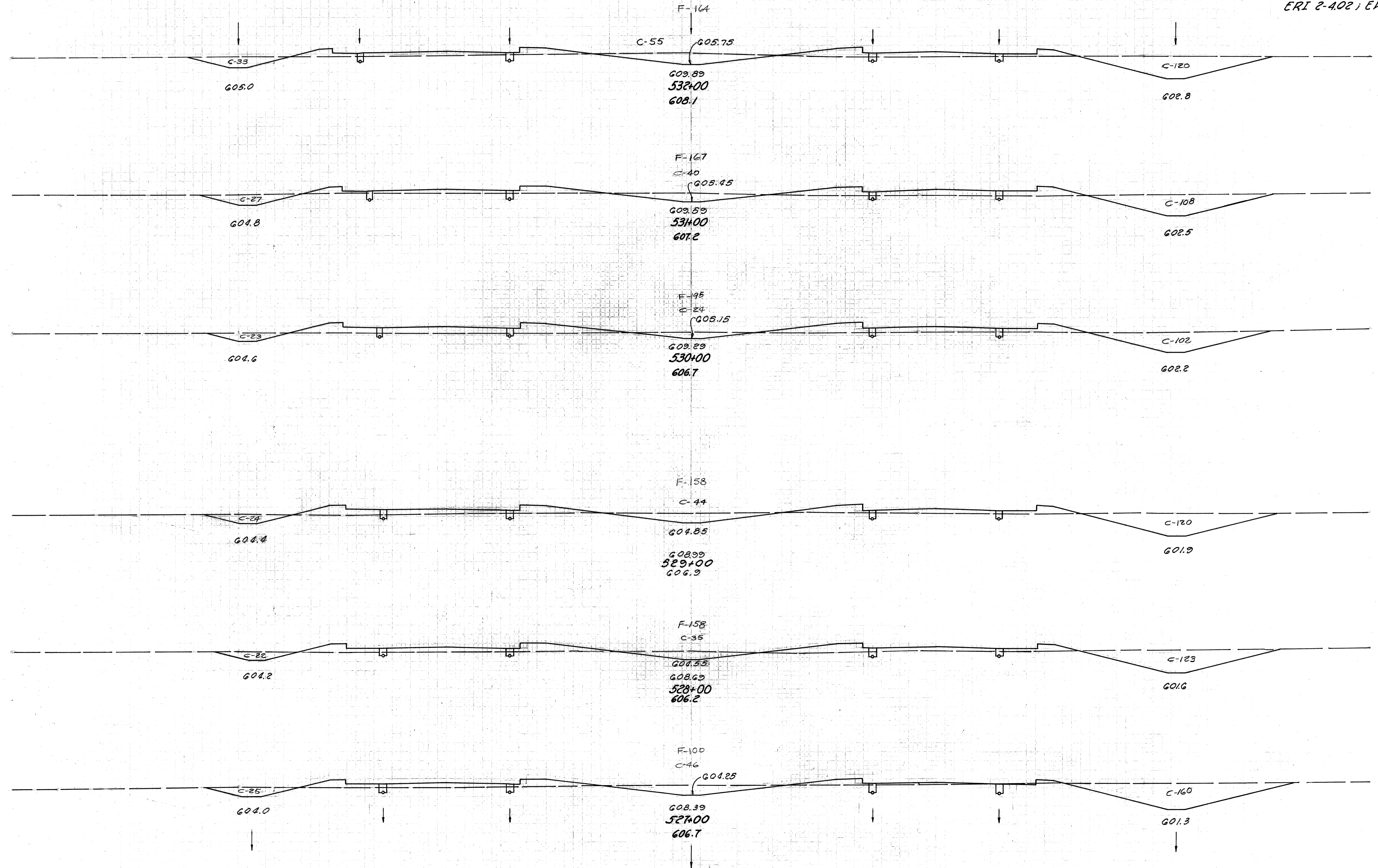
Sta. 521+00
Sta. 522+00 to Sta. 526+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

90
220

ERI 2-4.02; ERI G-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
208	164		
		709	613
175	167		
		600	670
149	195		
		624	654
188	158		
		681	585
180	158		
		761	478
231	100		
		887	311
248	68		

S.M.A. 1/25/53
 T.P.H. 1/25/53
 G.T.S. 1/25/53
 W.D.P. 1/25/53

140 120 100 80 60 40 20 0 20 40 60 80 100 120

Sta. 526+00
Sta. 527+00 to 532+00

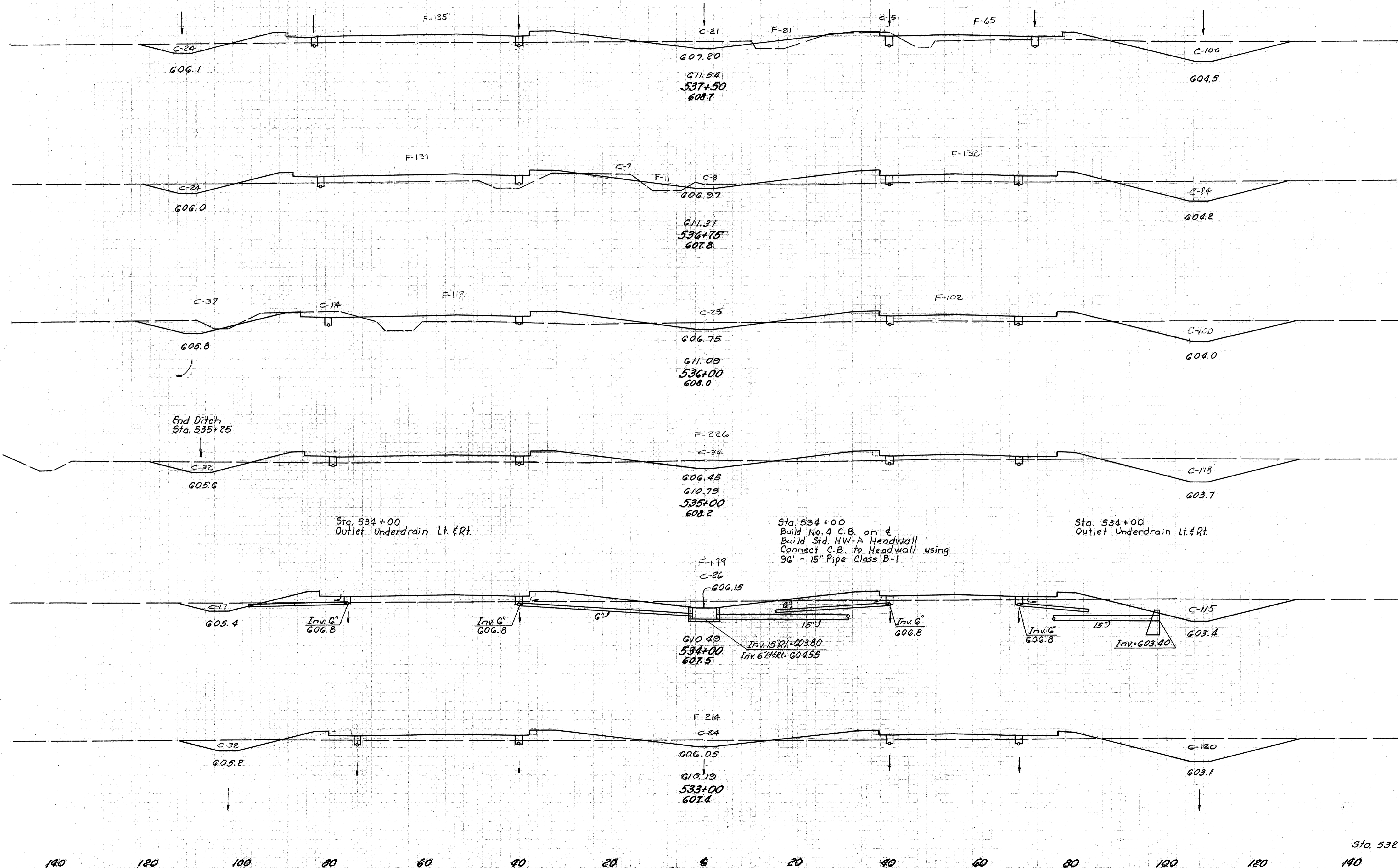
140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

91
220

ERI 2-402; ERI G-380

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
150	221		
		379	687
123	274		
		412	678
174	214		
		603	815
184	226		
		633	750
158	179		
		619	728
176	214		
		711	700
208	164		



RAR 8-6-58 TFH 8/15/58
 GWS 4-6-60 LEO 10-20
 GTS 11-60

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

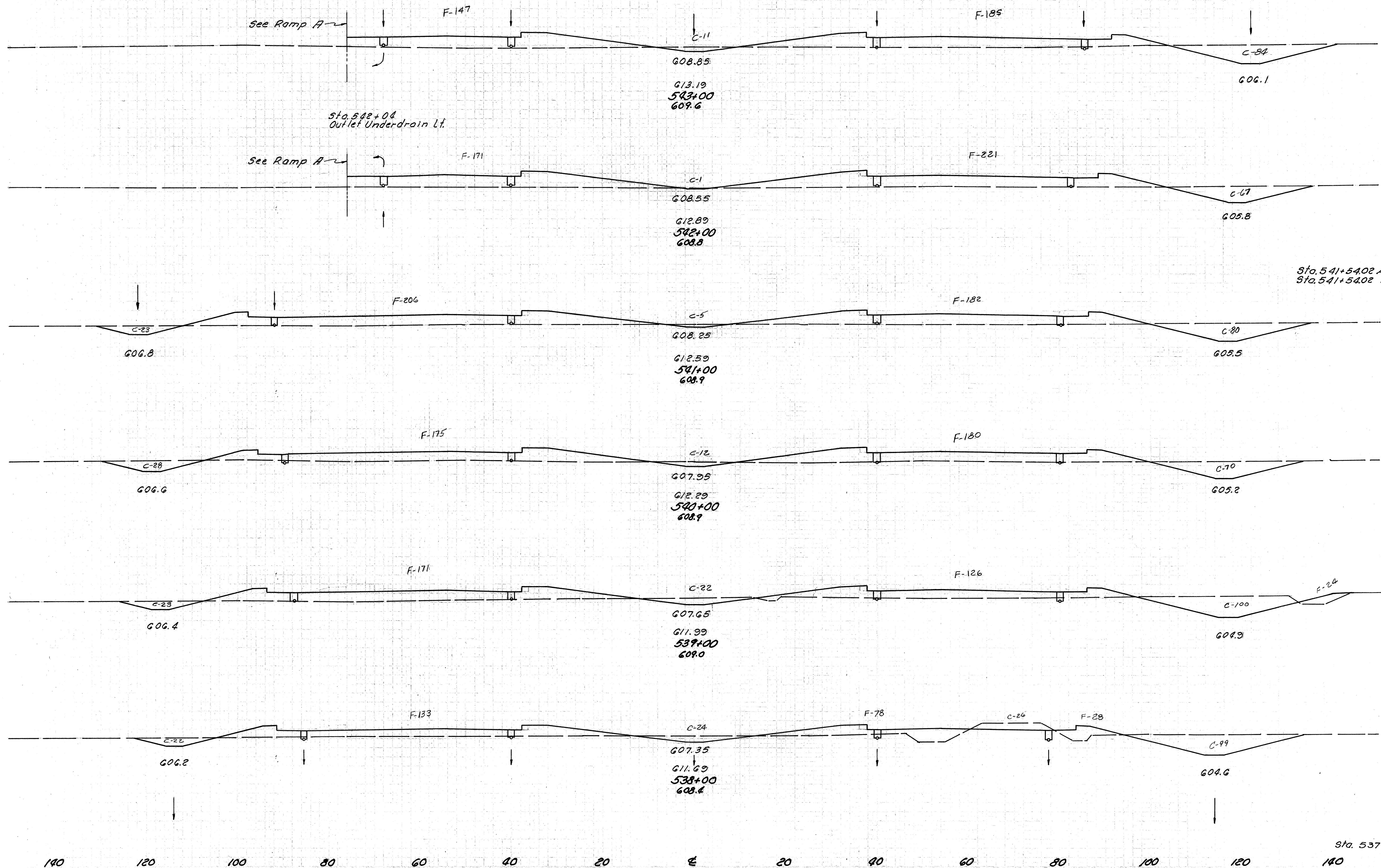
Sta. 532+00
Sta. 533+00 to Sta. 537+50

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

92
220

ERI 2-402; ERI G-380



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
95	332		
		302	1341
68	392	126	631
80	349		
95	431		
		203	819
108	388		
		404	1376
110	355		
		472	1252
145	321		
		585	1037
171	239		
		297	426
150	221		

1858
 6-1-58
 4-1-60
 6-1-60
 11-60
 6-1-60
 4-1-60
 6-1-60
 11-60

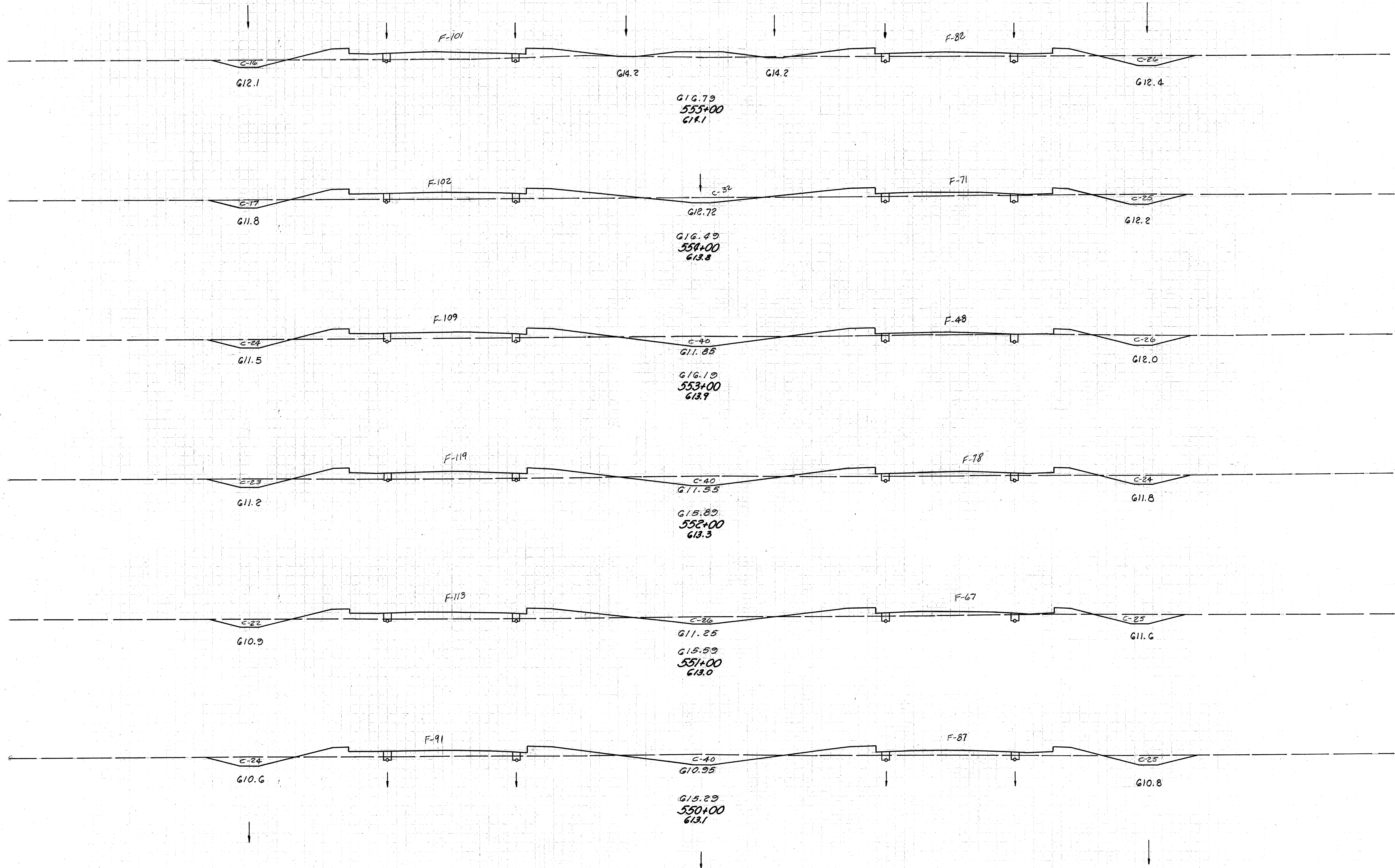
140 120 100 80 60 40 20 0 20 40 60 80 100 120
 Sta. 537+50
 Sta. 538+00 to 543+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

94
220

ERI 2-4.02; ERI G-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
42	183		
		215	659
74	173		
		304	611
90	157		
		328	656
87	197		
		296	698
73	180		
		300	663
89	178		
		344	624
97	159		

S.M.B. 1958
 R.A.C. 8-6-58 T.F.H. 8/15/58
 W.D.P. 4-6-60 L.E.O.S. 10-9-60
 G.T.S. 11-60

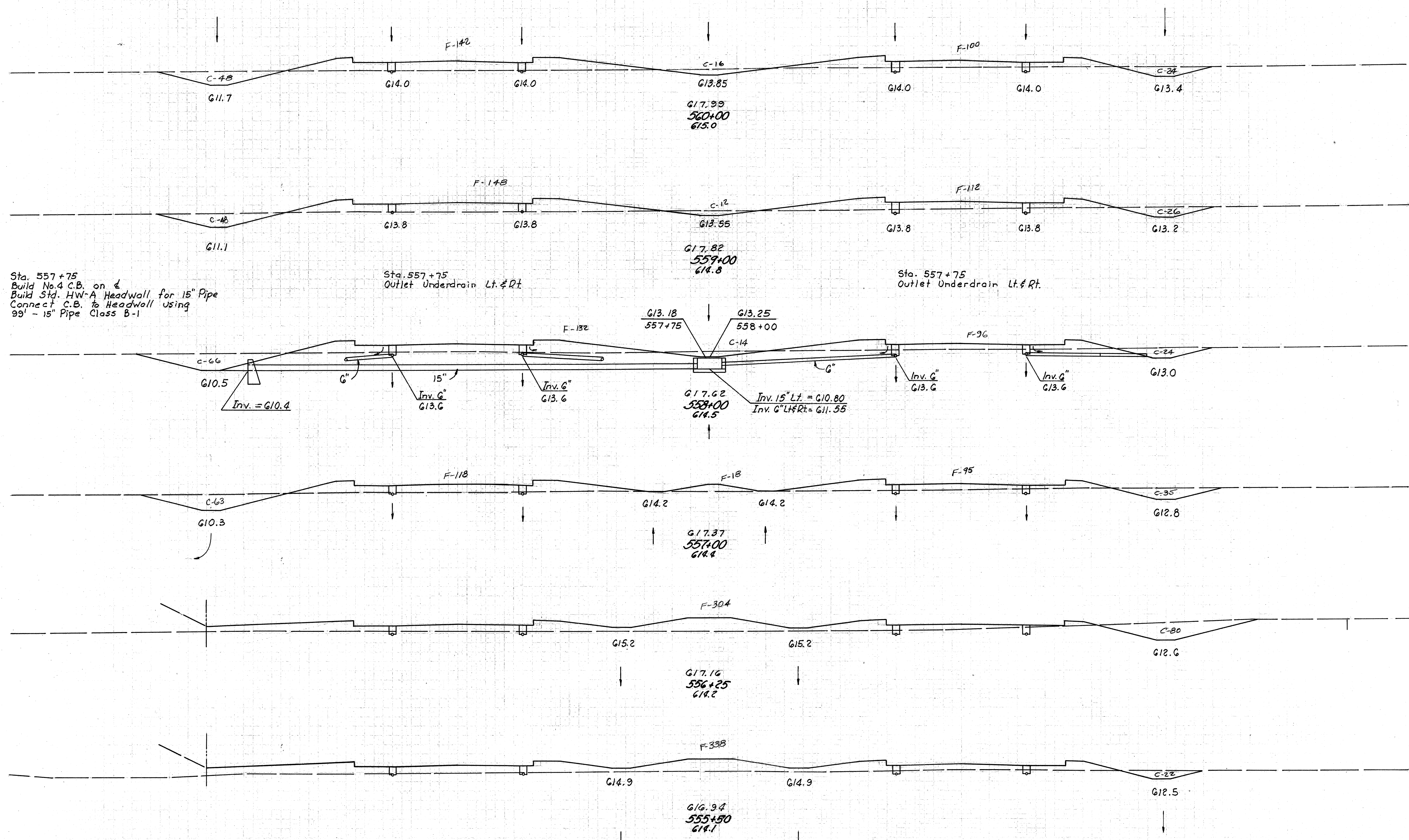
140 120 100 80 60 40 20 0 20 40 60 80 100 120
 Sta. 549+00 97 159
 Sta. 550+00 to 555+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

95
220

ERI 2-402; ERI G-380



Sta. 557+75
Build No. 4 C.B. on &
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
99' - 15" Pipe Class B-1

Sta. 557+75
Outlet Underdrain Lt. & Rt.

Sta. 557+75
Outlet Underdrain Lt. & Rt.

G13.18
557+75
G13.25
558+00
C-14
G17.62
558+00
G14.5
Inv. 15" Lt. = G10.80
Inv. G" Lt. & Rt. = G11.55

JMB
 1958
 RAC 8-6-58 TFF B1018
 GTS 9-6-60 1205 11-20
 1075

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
88	242		
		322	930
86	260		
		352	904
104	228		
		374	850
98	231		
		247	743
80	304		
		142	892
22	338		
		59	482
42	183		

140 120 100 80 60 40 20 0 20 40 60 80 100 120

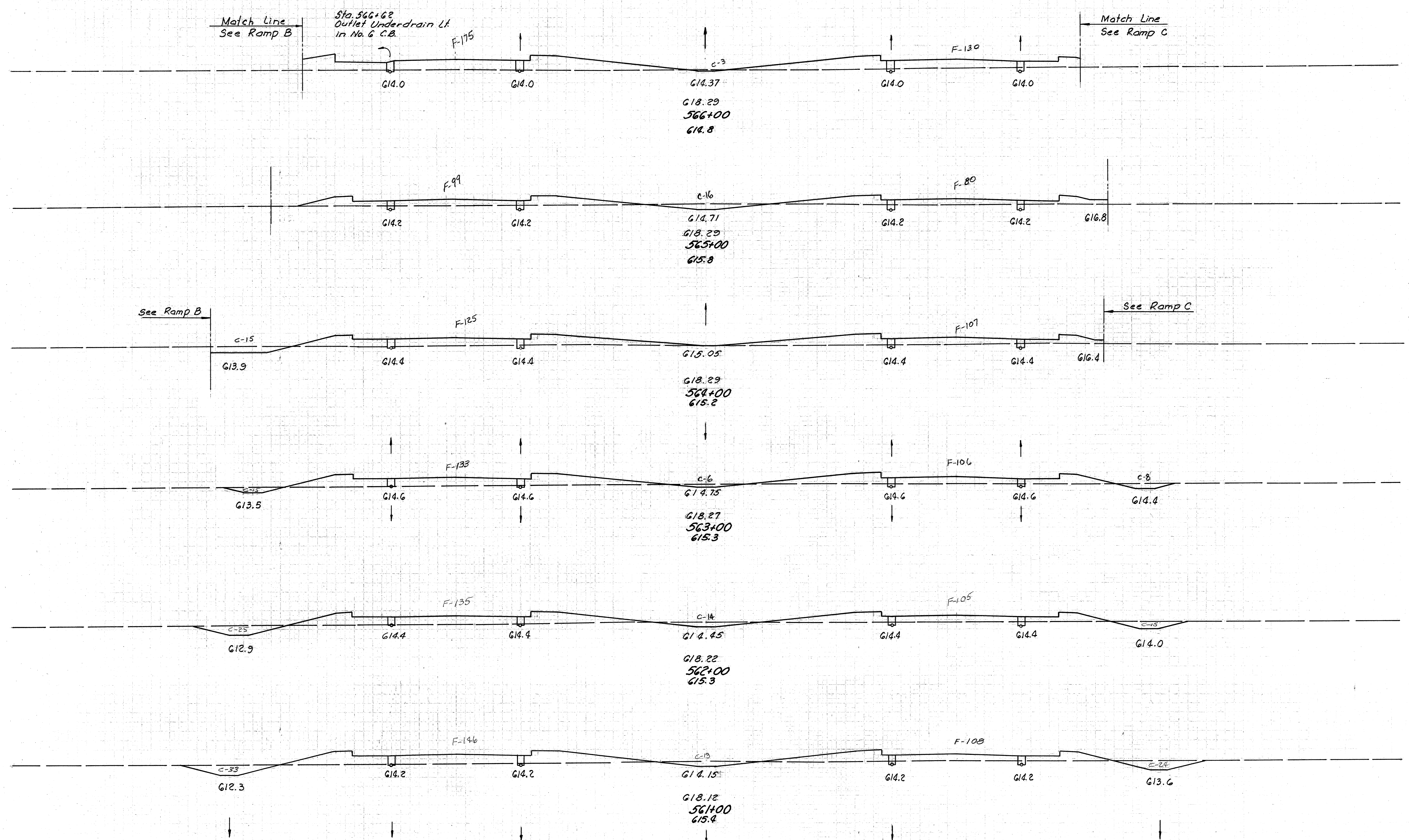
Sta. 555+00 to Sta. 560+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

96
220

ERI 2-4.02; ERI G-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
3	305		
		35	896
16	179		
		57	761
15	232		
		81	872
29	239		
		154	887
54	240		
		230	915
70	254		
		293	919
88	242		

1958
RAR 8-6-58 TFF 8/11/58
G15 9-6-60 12-6-60
G15 9-6-60 11-6-60
G15 8-75

140 120 100 80 60 40 20 0 20 40 60 80 100 120

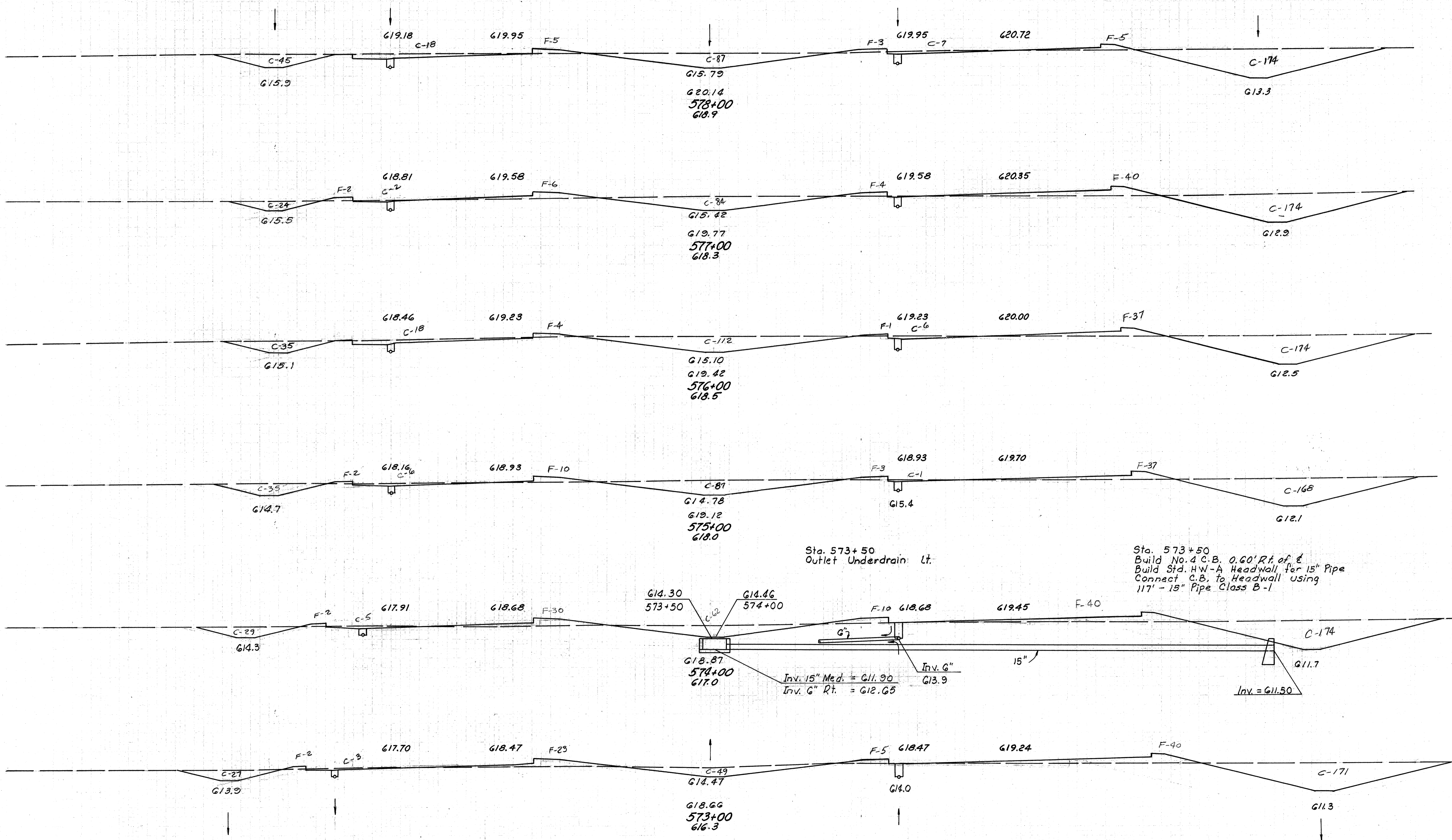
Sta. 560+00
Sta. 561+00 to Sta. 566+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

98
220

ERI 2-402; ERI G-380



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
331	13		
		1,139	120
284	52		
		1,165	174
345	42		
		1,189	174
297	52		
		1,050	248
270	82		
		963	281
250	70		
		876	467
223	182		

Sta. 573+50
Outlet Underdrain Lt.

Sta. 573+50
Build No. 4 C.B. 0.60' Rt. of ϵ
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
117' - 15" Pipe Class B-1

Inv. 15" Med. = G11.90
Inv. 6" Rt. = G12.65

1958
RAB 8-7-58
GTS 10-60
WDP
GTS
1959
TEH 8-19-59
EDS 12-20
10-60
11-60

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

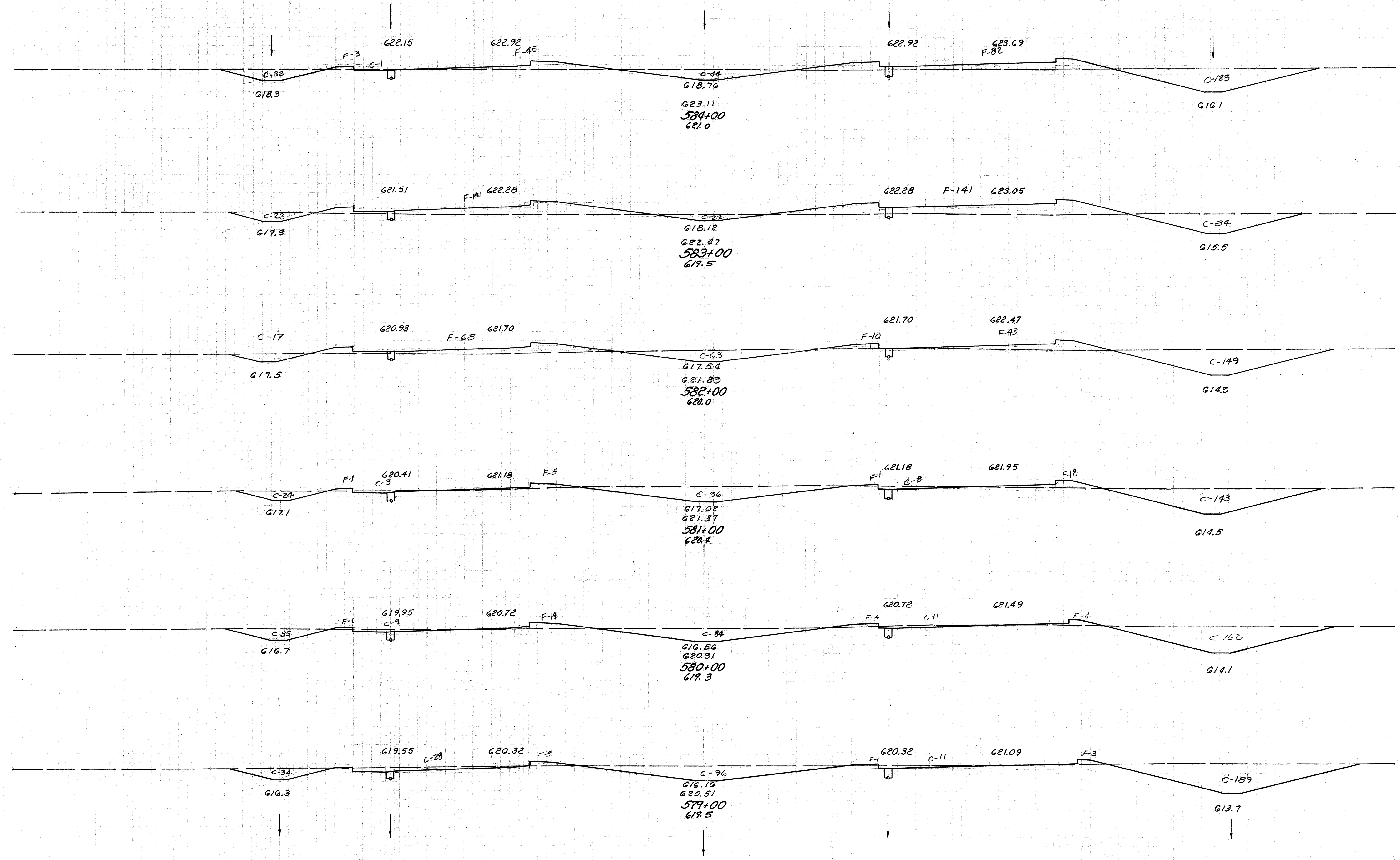
Sta. 572+00 to Sta. 578+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

99
220

ERI 2-4.02; ERI 6-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
200	130		
		609	689
129	242		
		663	672
229	121		
		931	270
274	25		
		1065	98
301	28		
		1220	69
358	9		
		1276	41
331	13		

Sta. 578+00

Sta. 579+00 to Sta. 584+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

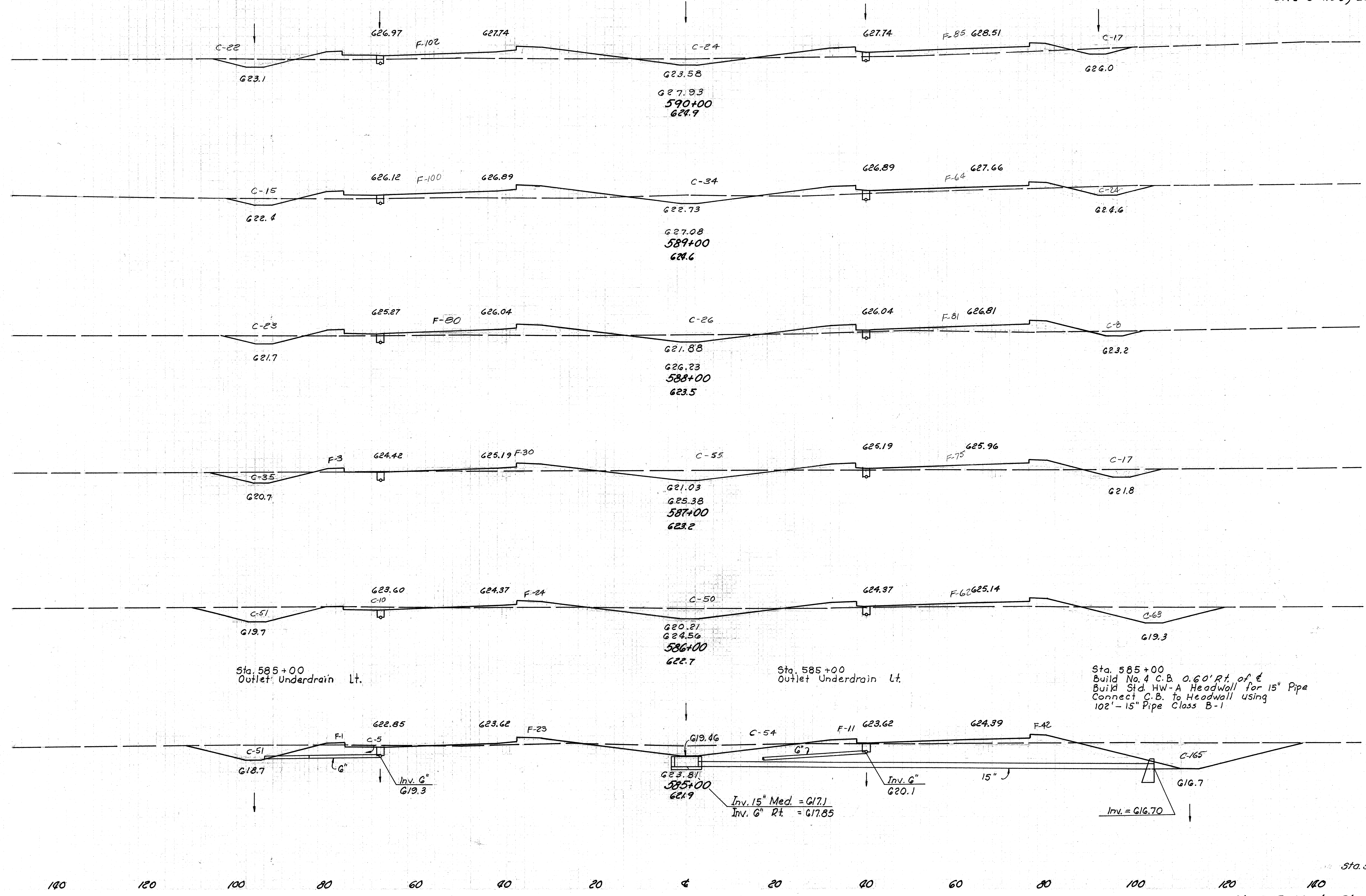
EMB 1958
 2/12/60 T-38 TFF 2/25/60
 GTS 10-60 EDS 12-60
 WDP 10-60
 B75

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

100
220

ERI 2-402, ERI G-380



Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
590+00	63	187		
589+00			252	650
589+00	73	164		
588+00			241	602
588+00	57	161		
587+00			304	498
587+00	107	108		
586+00			520	359
586+00	174	86		
585+00			831	302
585+00	275	77		
584+00			880	383
584+00	200	130		

RAE 5-1-58
 GTS 10-20
 MDS
 875
 1958
 5-1-58
 TFM
 12-20
 11-20

Sta. 585+00
Outlet Underdrain Lt.

Sta. 585+00
Outlet Underdrain Lt.

Sta. 585+00
Build No. 4 C.B. 0.60' Rt. of &
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
102'-15" Pipe Class B-1

Inv. 15" Med. = G17.1
 Inv. 6" Rt. = G17.85

Inv. = G16.70

140 120 100 80 60 40 20 0 20 40 60 80 100 120

Sta. 584+00 to Sta. 590+00

140 120 100 80 60 40 20 E 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

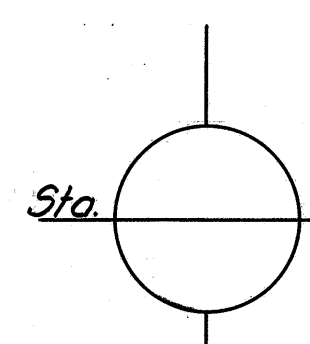
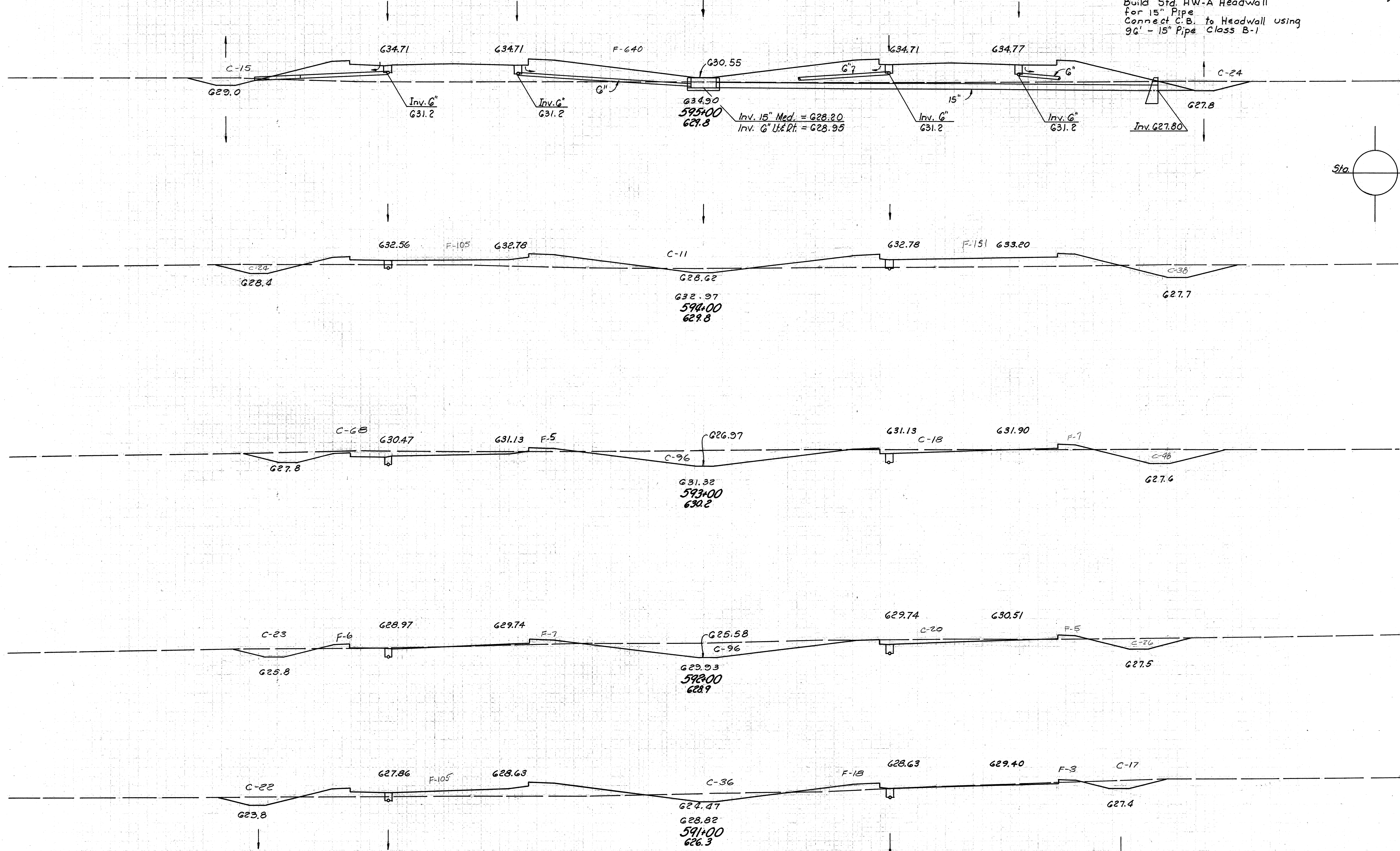
101
220

ERI 2-4.02; ERI G-3.80

Sta. 595+00
Outlet Underdrains Lt. & Rt.

Sta. 595+00
Outlet Underdrains Lt. & Rt.

Sta. 595+00
Build No. 4 C.B. on E
Build Std. HW-A Headwall
for 15" Pipe
Connect C.B. to Headwall using
90' - 15" Pipe Class B-1



End Area	Cu. Yds.	
	Cut	Fill
39	640	
		88 1007
56	448	
		119 652
73	256	
		561 496
230	12	
		731 56
165	18	
		444 267
75	126	
		256 580
63	187	

SMB
 TFF
 6/25/10-00
 12:00
 11:00
 6/25

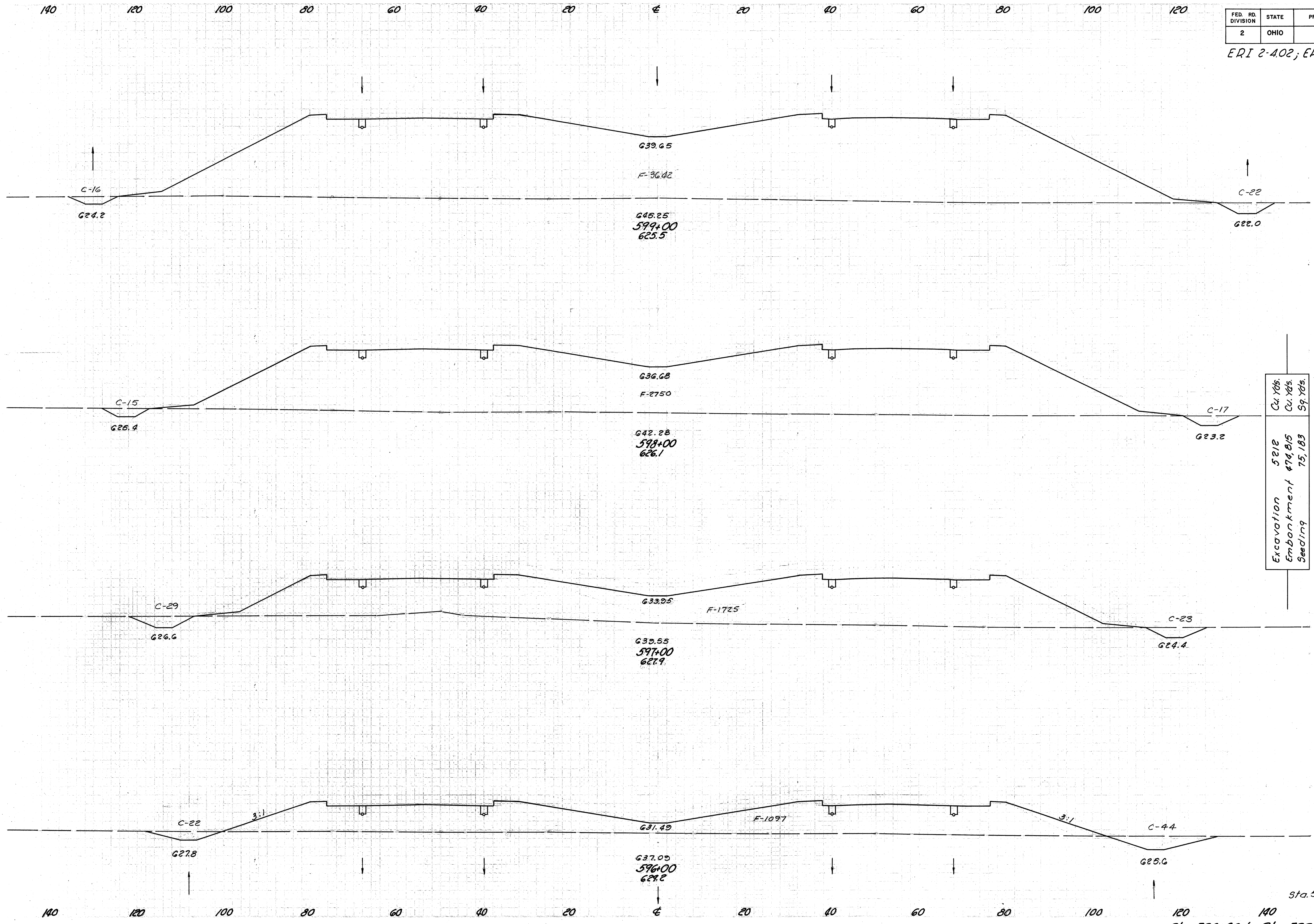
140 120 100 80 60 40 20 E 20 40 60 80 100 120 140

Sta. 590+00
Sta. 591+00 to Sta. 595+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

102
220

ERI 2-402; ERI G-3.80



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
38	3642		
		130	11,837
32	2750		
		156	8,287
52	1725		
		219	5,220
66	1097		
39	640	194	3217

Excavation 5212
Embankment 474,815
Seeding 75,183

5/18/58
GTS
WOP
GTS

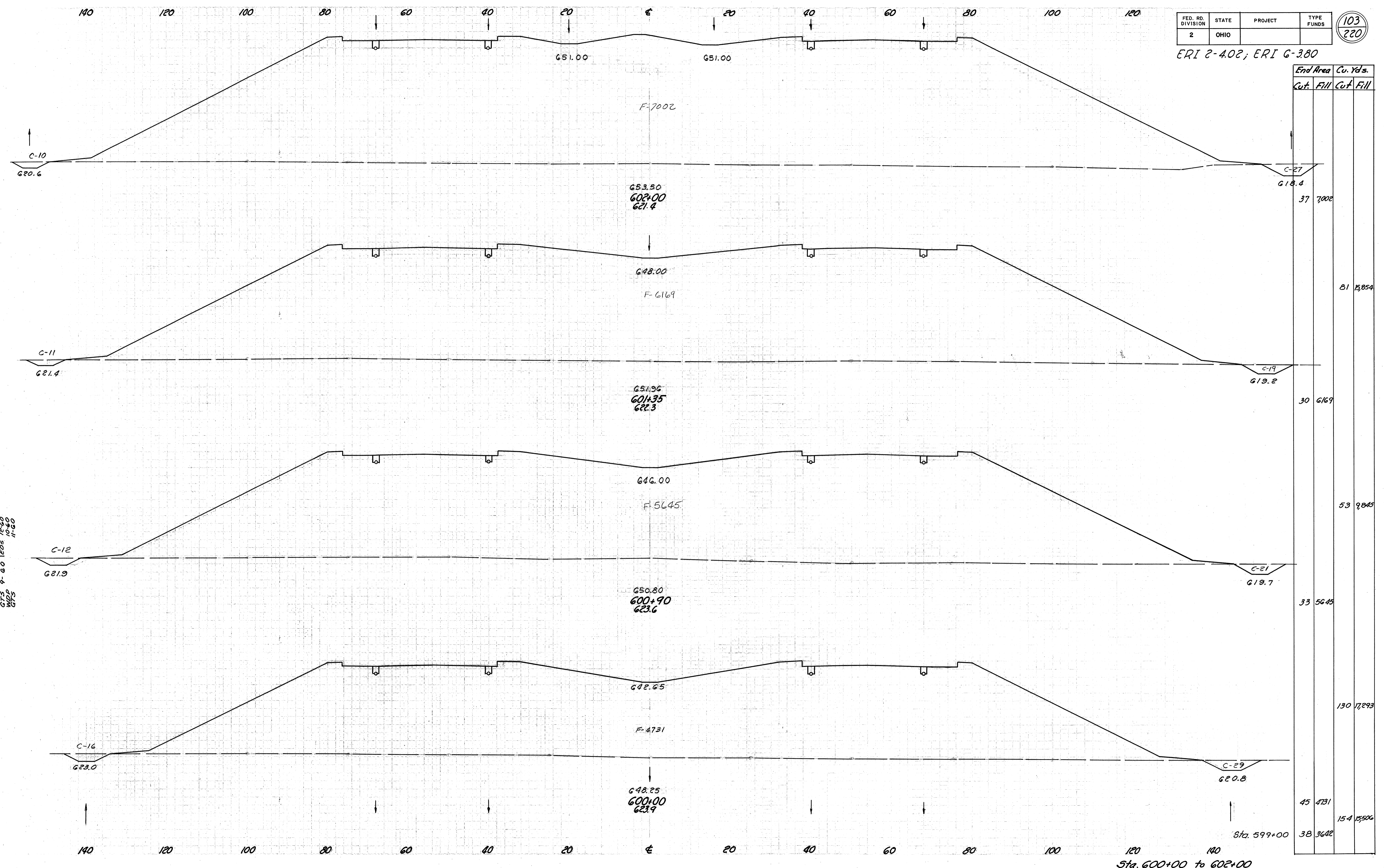
Sta. 595+00

Sta. 596+00 to Sta. 599+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

103
220

ERI 2-402; ERI G-380



SMP 5/18/58 1958
 TFM 5/18/58 1958
 GTS 9-60 1958
 WVS 11-60

Sta. 599+00
Sta. 600+00 to 602+00

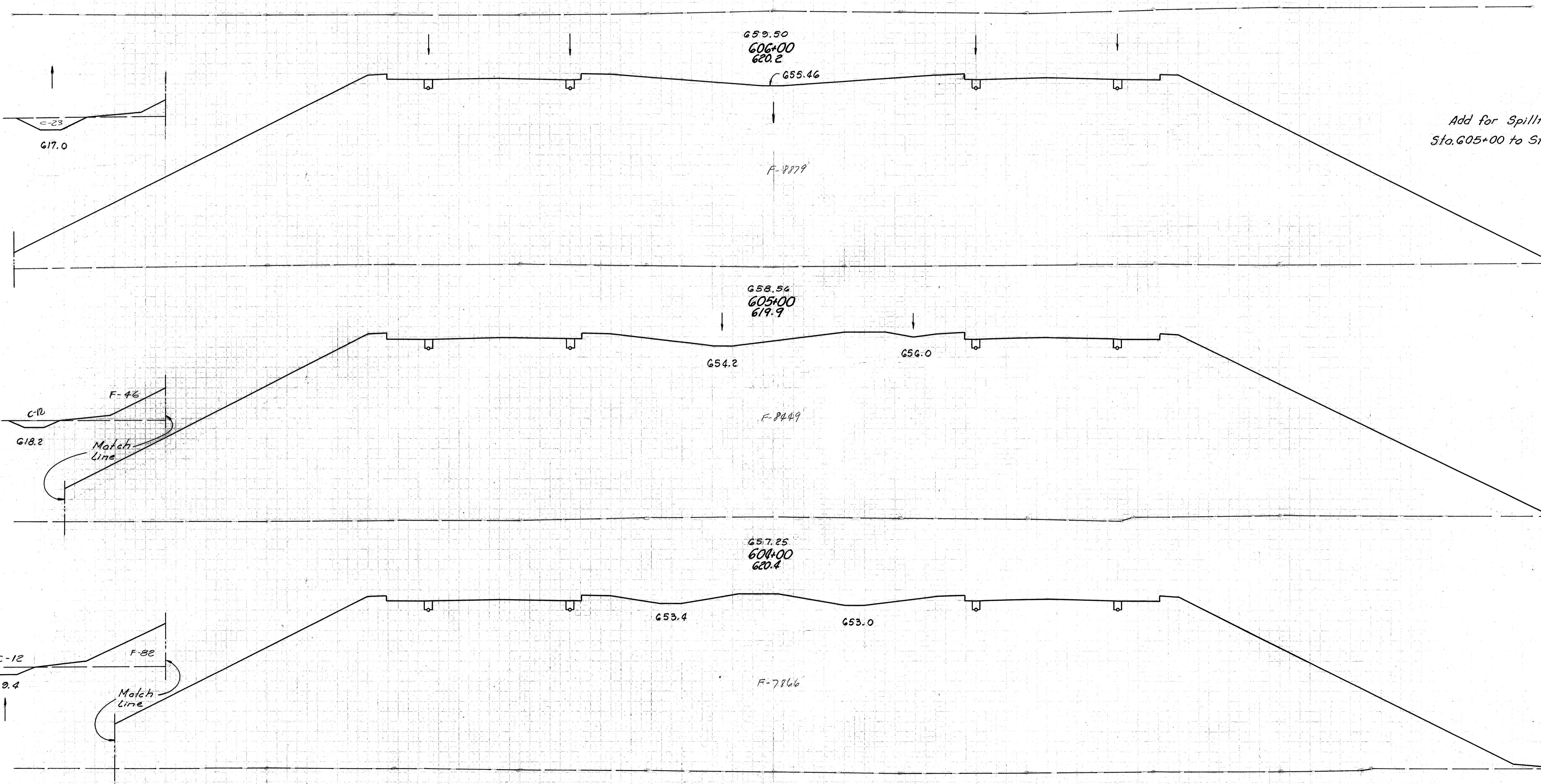
140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

104
220

ERI 2-402; ERI G-380

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
		0	8300
		271	17,205
51	8879	159	32,174
35	8495	126	30,420
33	7948	130	27,625
37	7002		



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140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

105
220

ERI 2-4.02; ERI G-3.80

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill

609+75
623.8

608+00
625.9

607+00
625.6

606+55
620.6

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 606+55 to Sta. 609+75

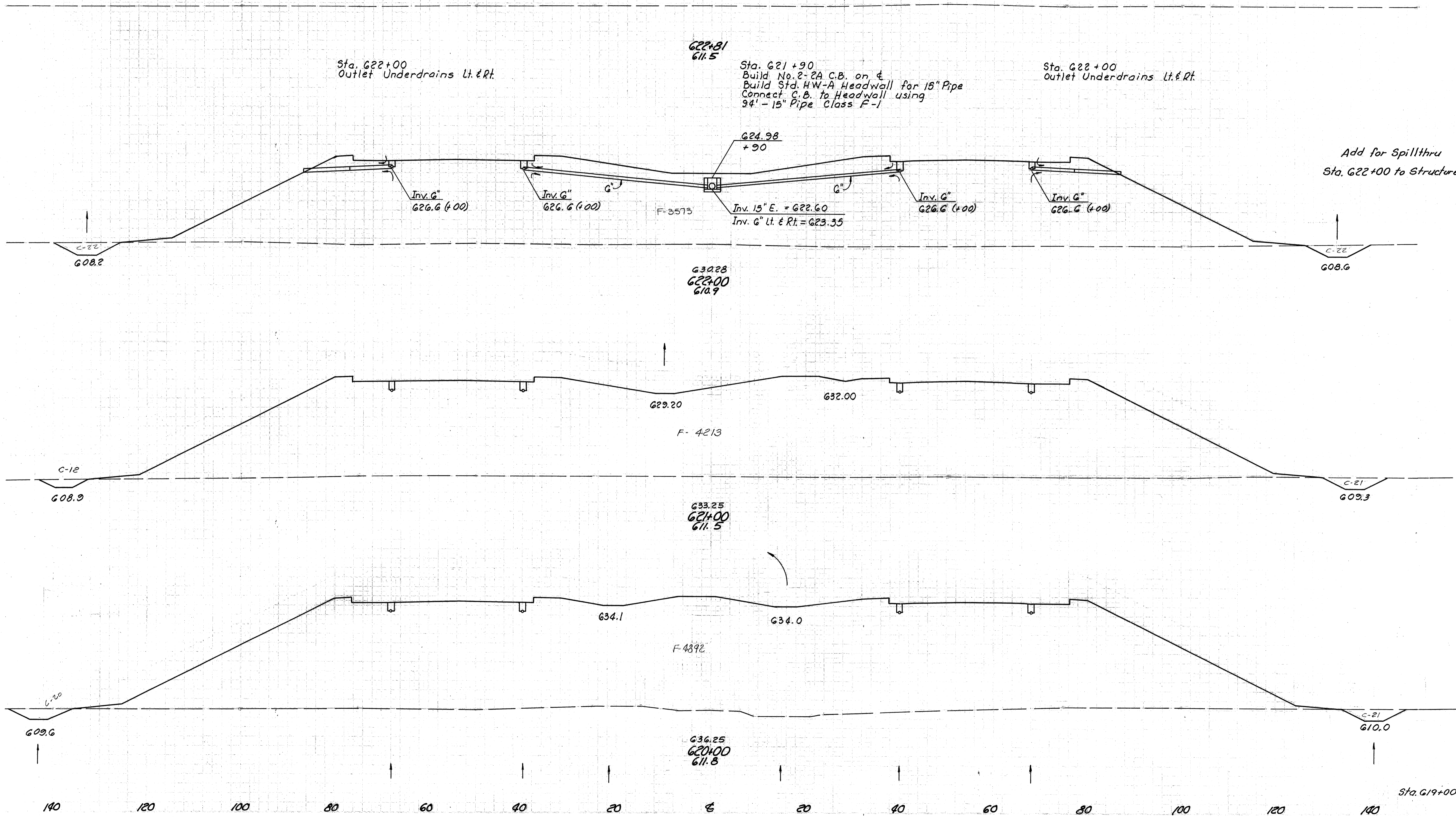
SMB 1/15/58 1753
744 1/15/58 EAR 585

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

109
220

ERI 2-4.02; ERI G-3.80



9/18/58 PAR RFB
9/20/58 GTS
9/20/58 HAG
9/25/58 HLP

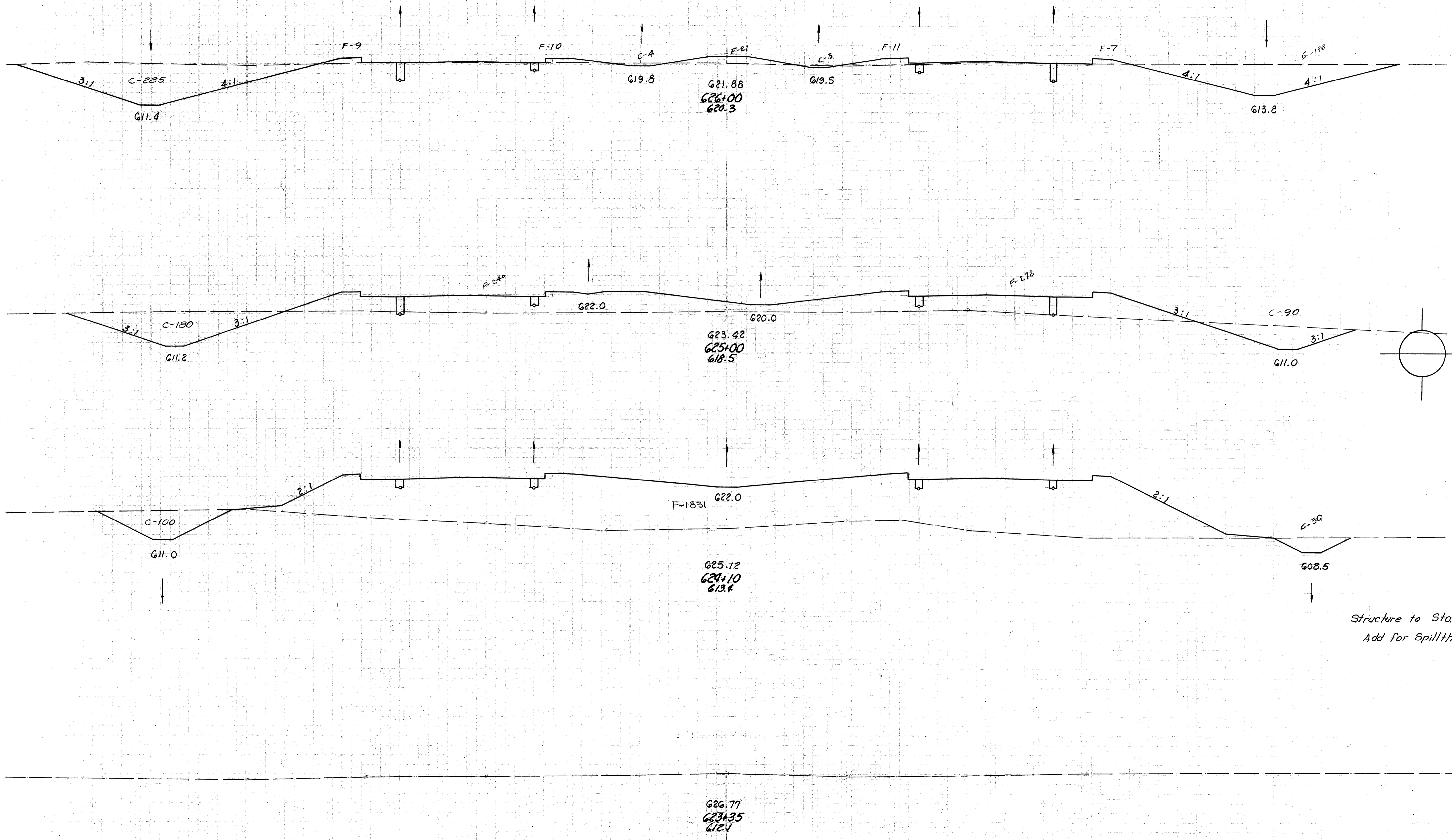
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
		0	1880
		139	5150
44	3573		
		143	14,419
33	923		
		137	16,861
41	4892		
		157	19,009
44	5373		

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

110
220

ERI 2-4.02, ERI 6-380



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
490	58		
		1407	1067
		270	518
		667	3915
		130	1831
		472	2433
		0	762

Structure to Sta. 624+10
Add for Spillthru

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140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

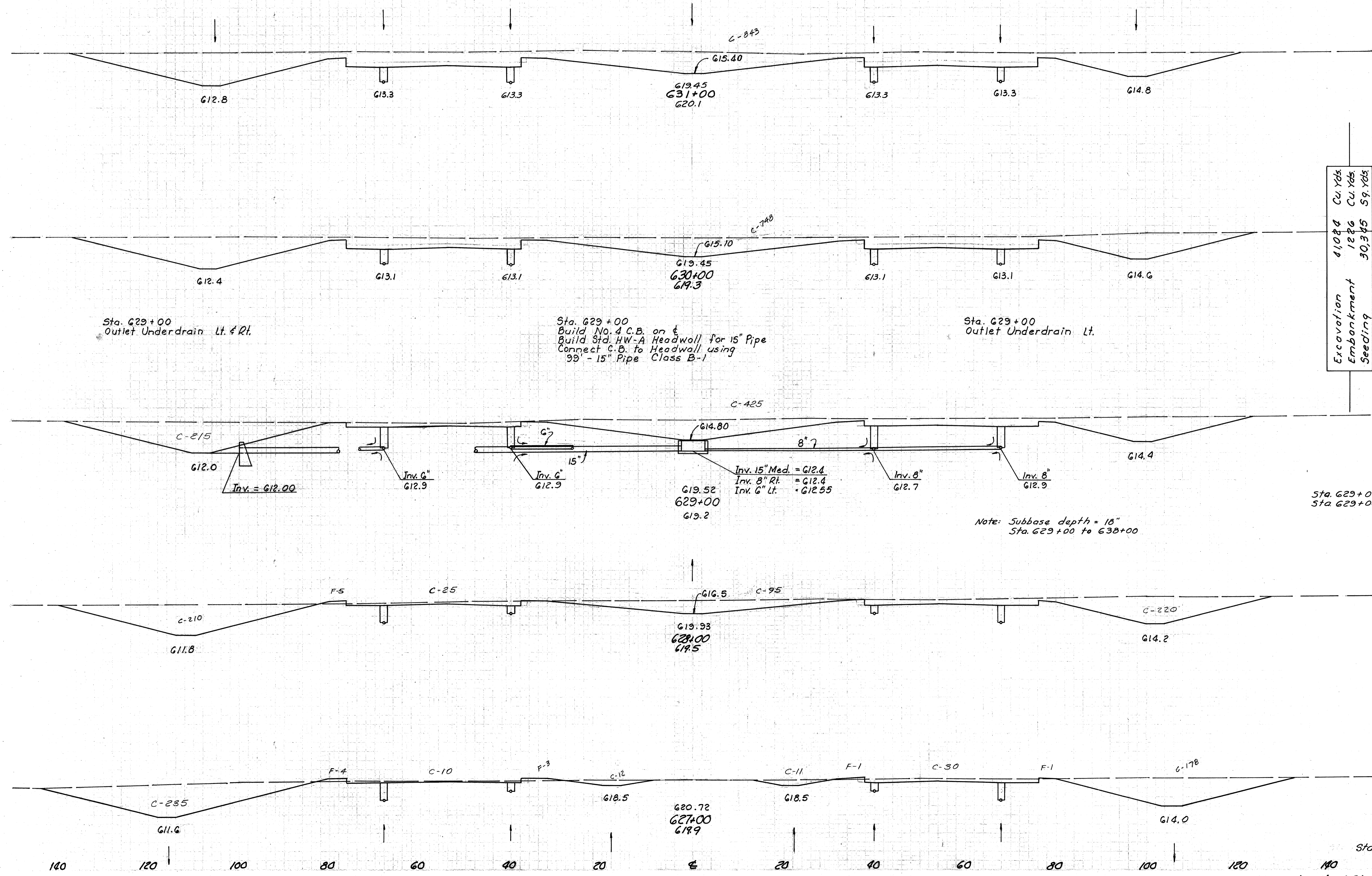
Sta. 623+35 to Sta 626+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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220

ERI 2-4.02; ERI G-3.80



Sta. 629+00
Outlet Underdrain Lt. & Rt.

Sta. 629+00
Build No. 4 C.B. on E
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall using
99 - 15" Pipe Class B-1

Sta. 629+00
Outlet Underdrain Lt.

Excavation 4,024 Cu. Yds
Embankment 1286 Cu. Yds
Seeding 30,345 Sq. Yds

Sta. 629+00 Ahead 718 0
Sta. 629+00 Back 640 0

Note: Subbase depth = 18"
Sta. 629+00 to 638+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
843	0		
		2946	0
748	0		
		2715	0
		2204	9
		550	5
		1900	26
476	9	1789	124
		490	58

Sta. 627+00 to Sta. 631+00

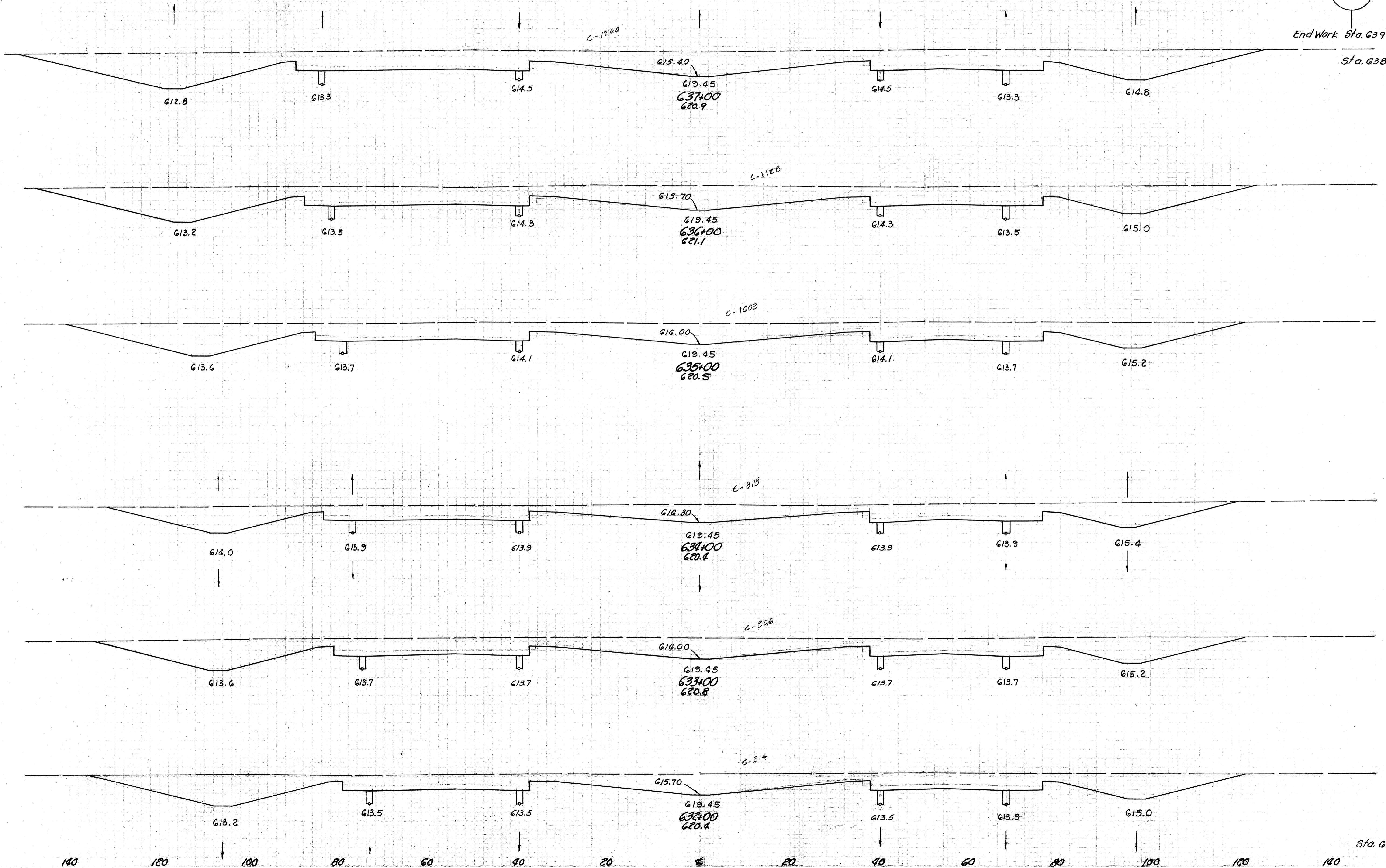
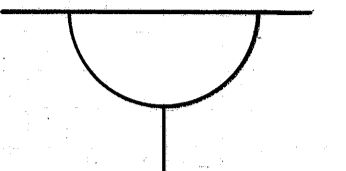
S.M.P. 6/1/58 K.M.E. P.S. 58
 G.T.S. 9-60 L.E.O.S. 12-60
 G.A.G. 11-60
 G.T.S.

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

112
220

ERI 2-402, ERI G-380



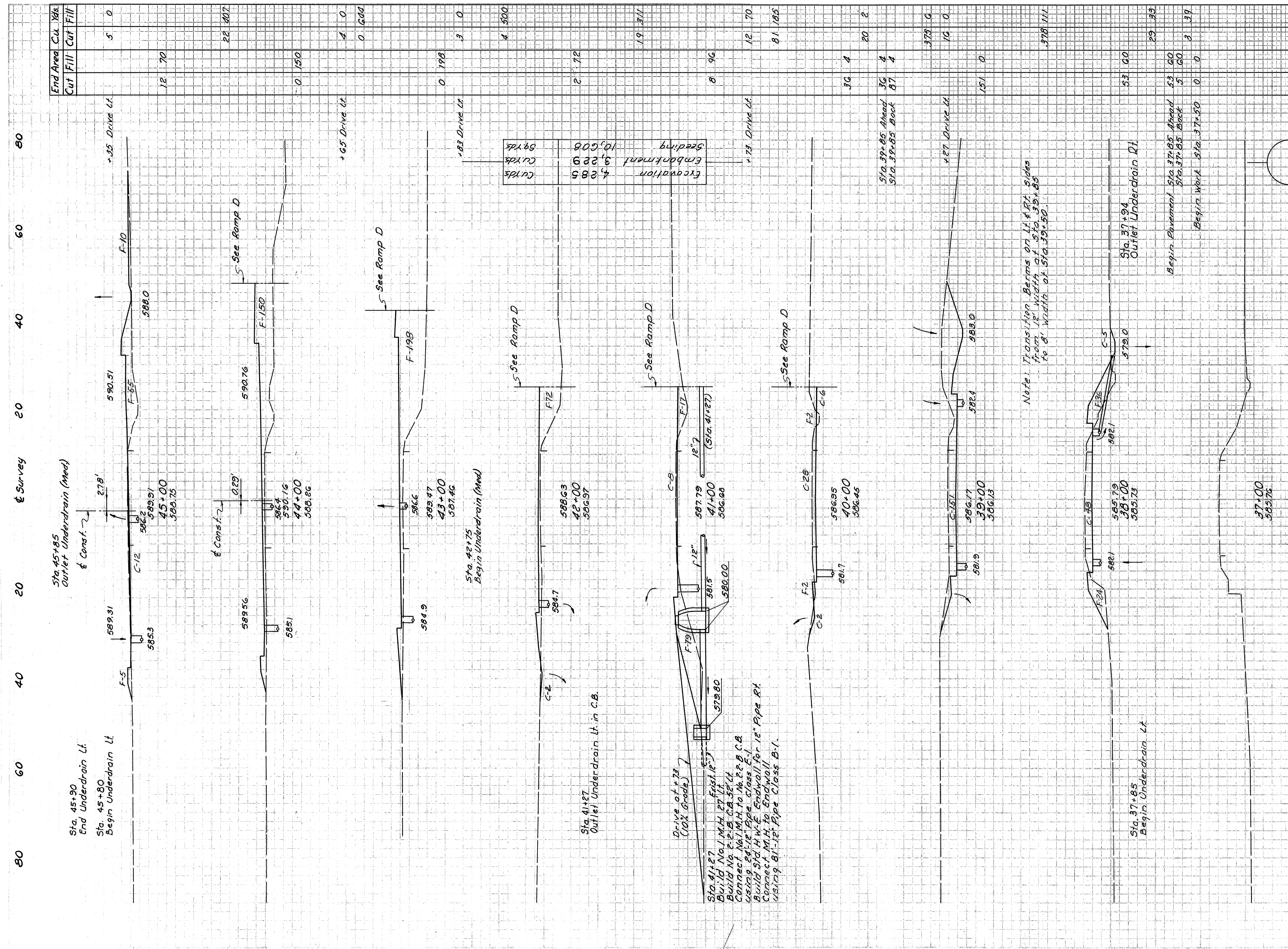
End Area	Cu. Yds	
	Cut	Fill
0	0	2185
1180	0	4407
1200	0	4311
1128	0	3957
1009	0	3385
819	0	3194
906	0	3370
914	0	3254
843	0	

Sta. 632+00 to Sta. 637+00

S.M.C. 1/16/58 RAC
 G.T.M. 1-10-1955
 H.A.G. 5-16-60
 G.T.S. 11-60

DATE	
PROJECT	
NO. 400	
DATE	

S.M.B. 1/26/61
 JCS 1-21
 JCS 4-61
 DCS 5-61



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 2-402; ERI G-380

113
220

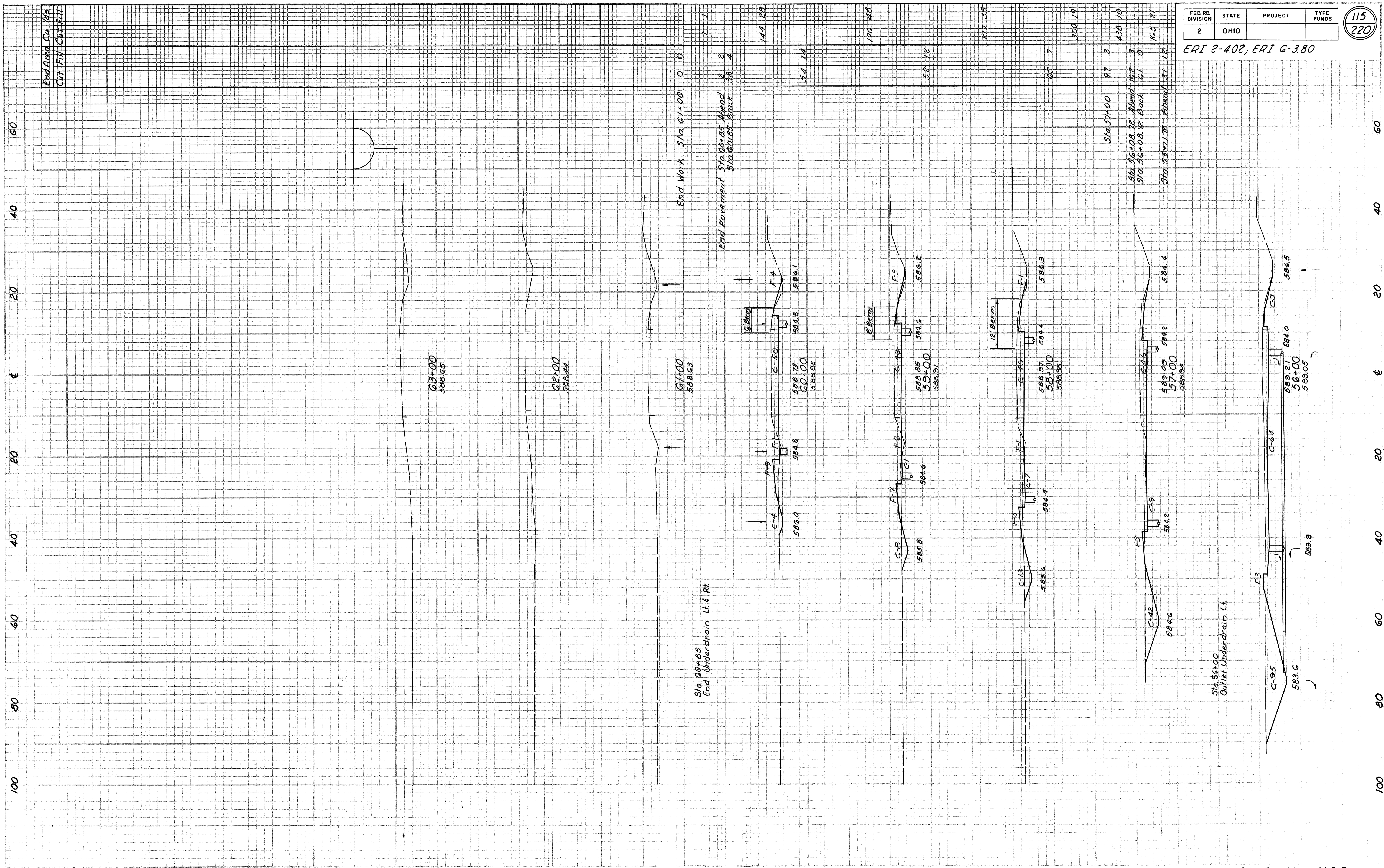
FINAL SURVEY DRAWING
 DATE: _____ BY: _____
 CHECKED: _____
 APPROVED: _____
 TITLE: _____
 SHEET NO.: _____

DATE: 10/1/87
 DRAWN BY: M.B. GWS
 CHECKED BY: J.S. GWS
 APPROVED BY: J.S. GWS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

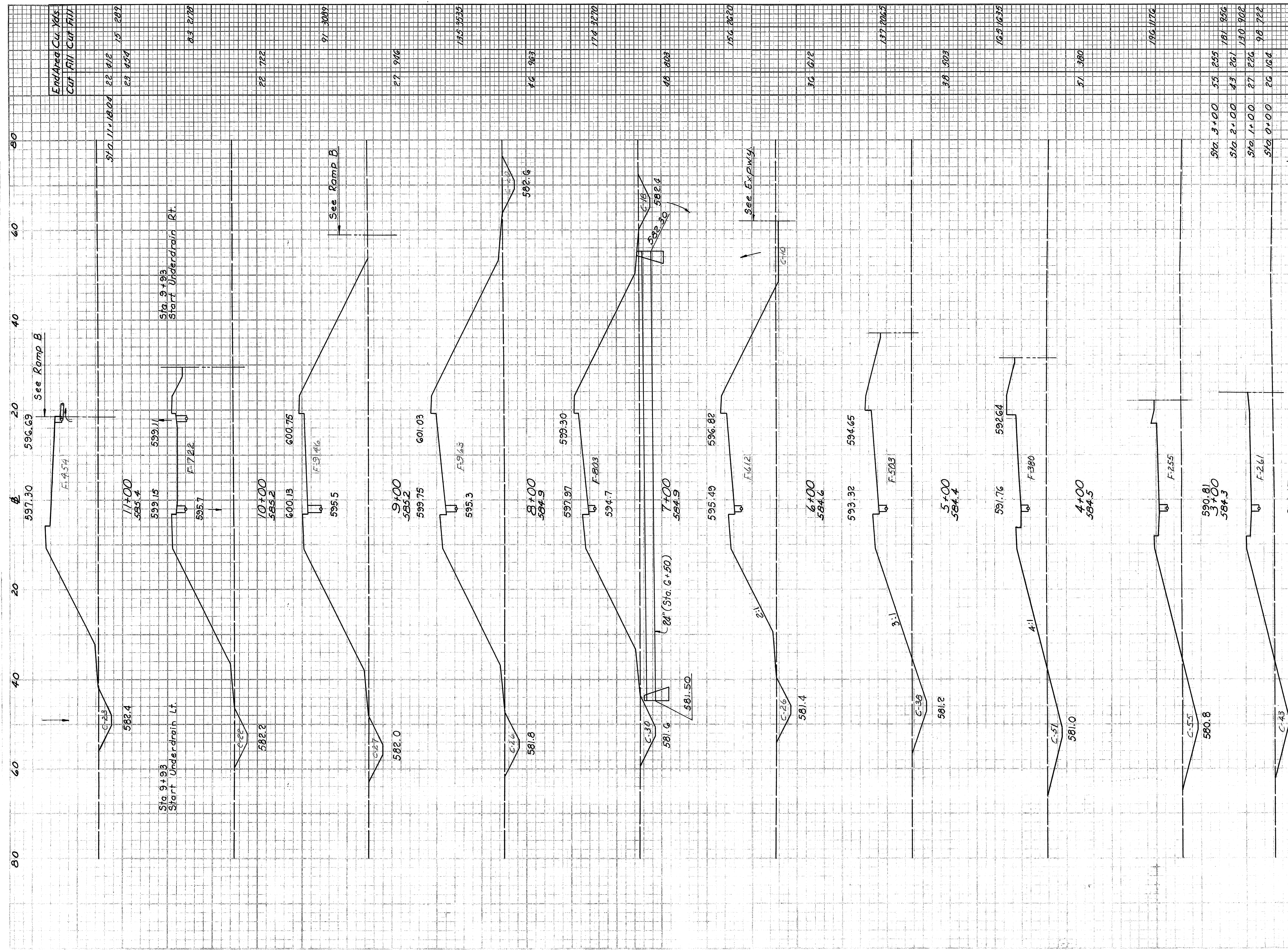
115
220

ERI 2-402, ERI G-380



DATE	ST
DATE	ST
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DATE	1960
DATE	3-21
DATE	5-21
DATE	5-21
DATE	5-21



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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220

ERI 2-402; ERI G-380

Sta. 0+25
Build No. 6 C.B. 16' R.I.
Build Std. HW-A Headwall for 15" Pipe
Connect C.B. to Headwall
Using 51" - 15" Pipe Class B-1.

see EXPR.
Top = 588.90

Inv. 15" = 582.00

Existing U.S.6 Interchange Ramp A Sta. 0+00 to 11+00

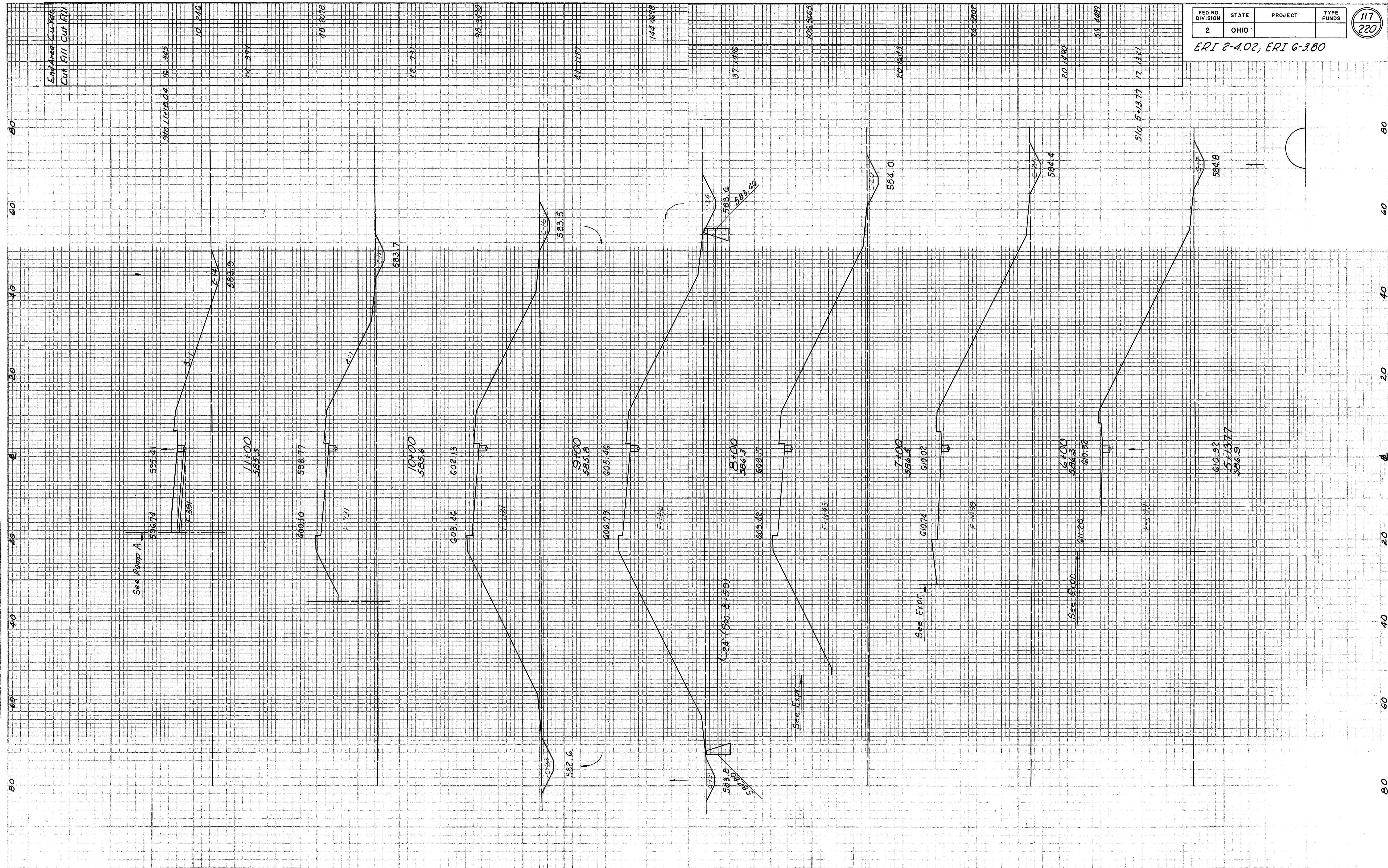
DATE	3-6-61
BY	SMB
SURVEYED	JCS
PLOTTED	JCS
NOTE BOOK	JCS
AREAS CHECKED	JCS
NO.	5-61

FINAL SURVEY	NO.
SURVEYED	NO.
TEMPLATE	NO.
AREAS CHECKED	NO.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

117
220

ERI 2-402; ERI 6-380



Existing U.S.6 Interchange Ramp B Sta. 5+3.77 to 11+00

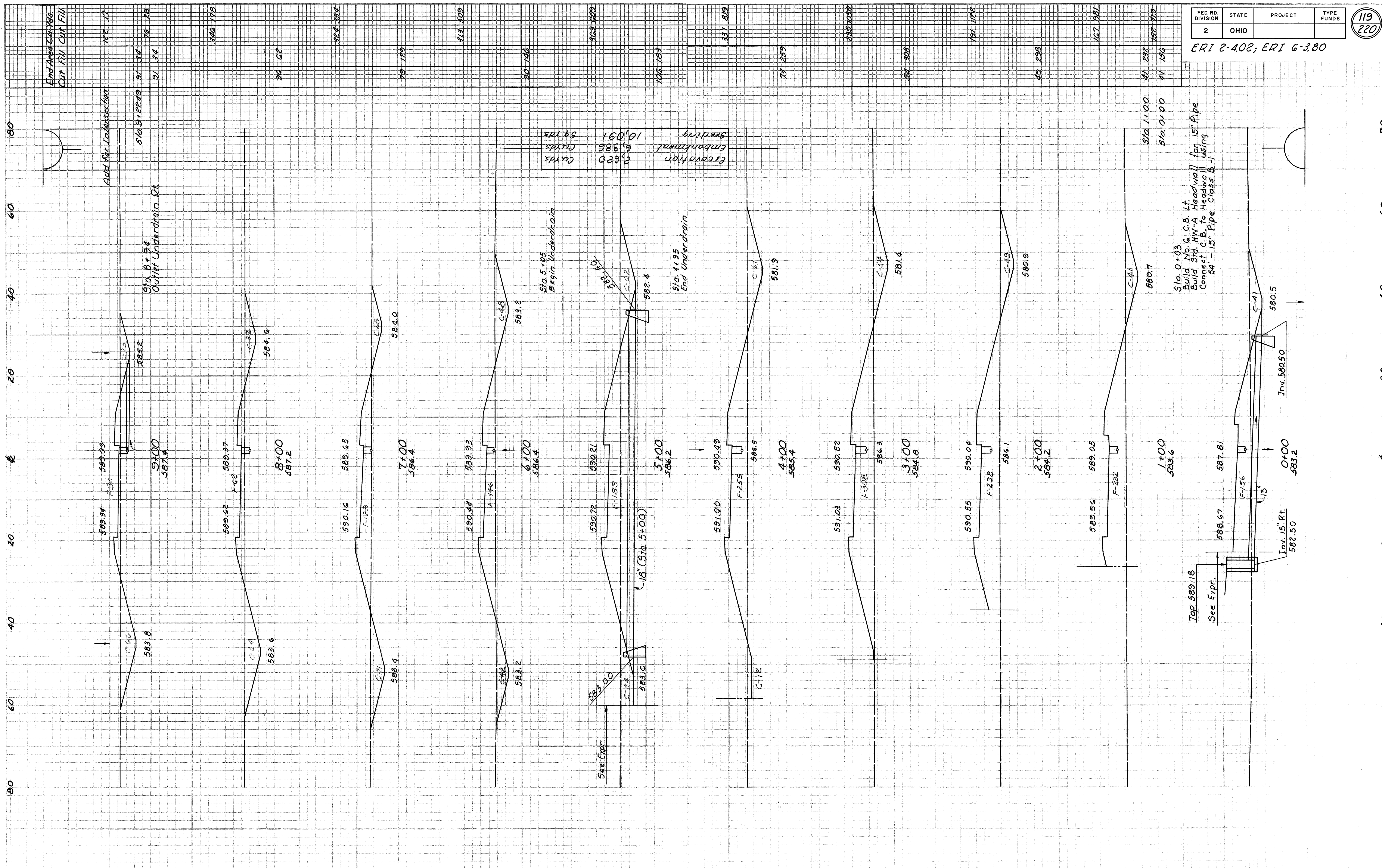
DATE	
BY	
CHKD	
APP'D	
SCALE	
PROJECT	
SHEET NO.	
TOTAL SHEETS	

NO.	DATE	BY	CHKD	APP'D
1	3-6-61	JCS	JCS	
2	3-6-61	PC	PC	
3	3-6-61	RMG	RMG	
4	3-6-61	CS	CS	
5	3-6-61	CS	CS	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

119
220

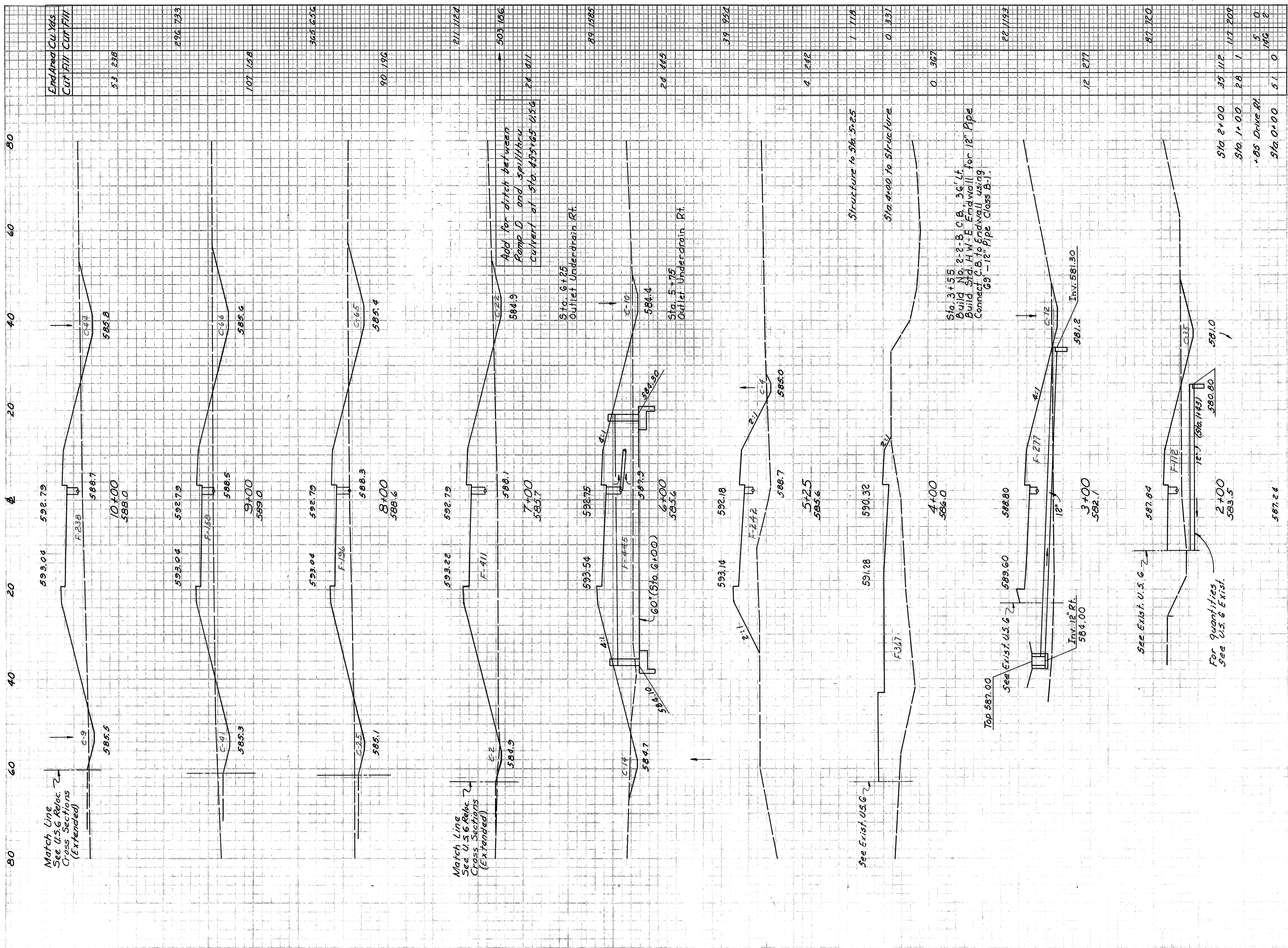
ERI 2-402; ERI 6-380



Existing U.S.6 Interchange Ramp C Sta. 0+00 to 9+00

FINAL SURVEY
 SURVEY NO. 100
 DATE 10/1/60
 BY [Signature]

1960
 S.M.B. E.P.S.
 J.C.S. D.C.S.
 100 100
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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 2-402; ERI 6-380

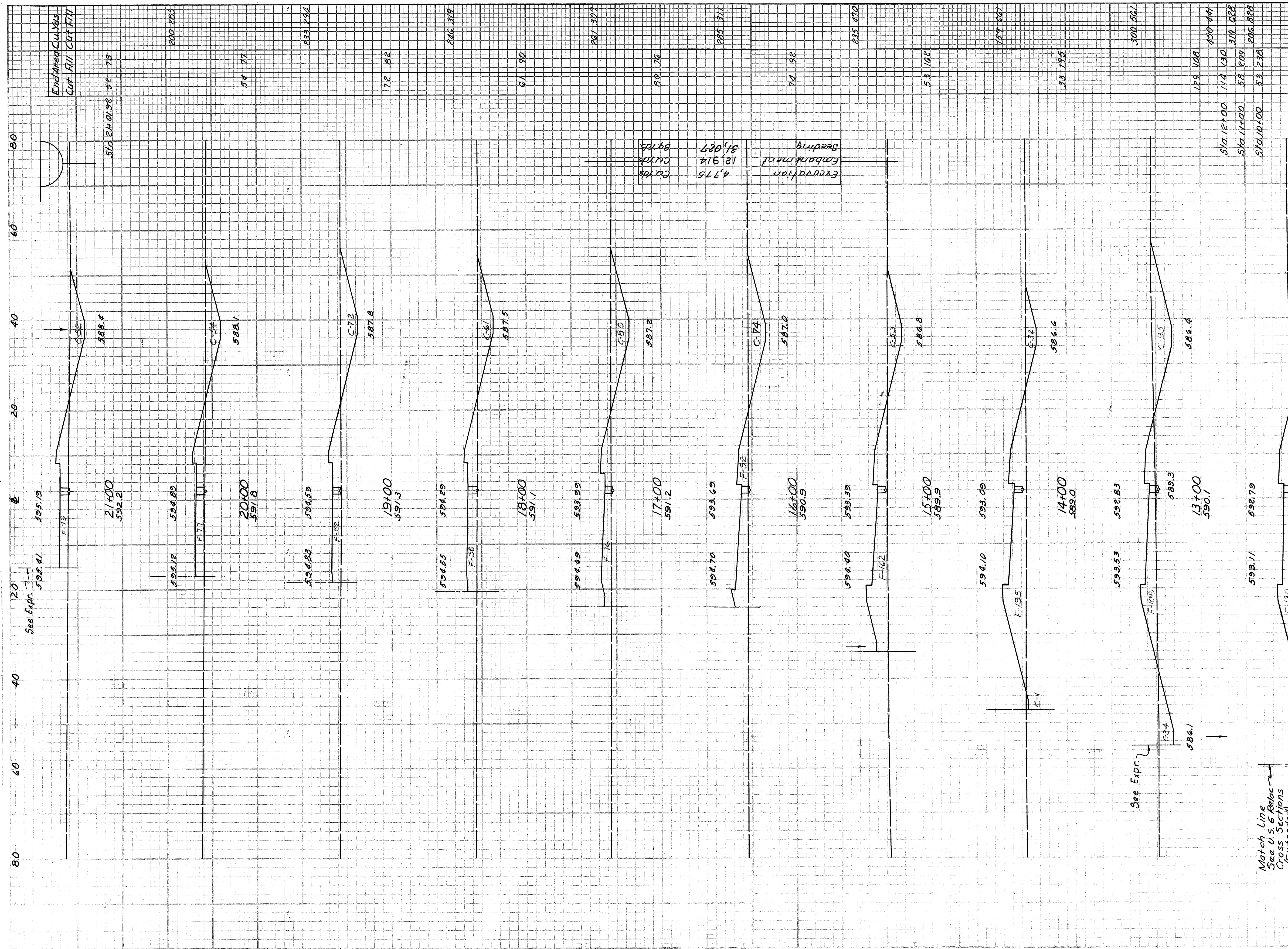
120
220

Sta.	End Area Cu. Yds.	Cut	Fill	Cut/Fill
5+00	53	238		
6+00	107	158		
7+00	90	196		
8+00	24	118		
9+00	4	242		
10+00	0	327		
11+00	12	277		
12+00	87	120		
13+00	35	112		
14+00	28	1		
15+00	5	0		
16+00	146	2		
17+00	51	0		

Existing U.S. 6 Interchange Ramp D Sta. 0+00 to 10+00

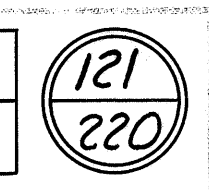
DATE	BY	DATE
1960	SMB	1960
1961	EPS	1961
1962	PC	1962
1963	DF	1963
1964	DF	1964
1965	DF	1965
1966	DF	1966
1967	DF	1967
1968	DF	1968
1969	DF	1969
1970	DF	1970
1971	DF	1971
1972	DF	1972
1973	DF	1973
1974	DF	1974
1975	DF	1975
1976	DF	1976
1977	DF	1977
1978	DF	1978
1979	DF	1979
1980	DF	1980

DATE	BY	DATE
1960	SMB	1960
1961	EPS	1961
1962	PC	1962
1963	DF	1963
1964	DF	1964
1965	DF	1965
1966	DF	1966
1967	DF	1967
1968	DF	1968
1969	DF	1969
1970	DF	1970
1971	DF	1971
1972	DF	1972
1973	DF	1973
1974	DF	1974
1975	DF	1975
1976	DF	1976
1977	DF	1977
1978	DF	1978
1979	DF	1979
1980	DF	1980



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

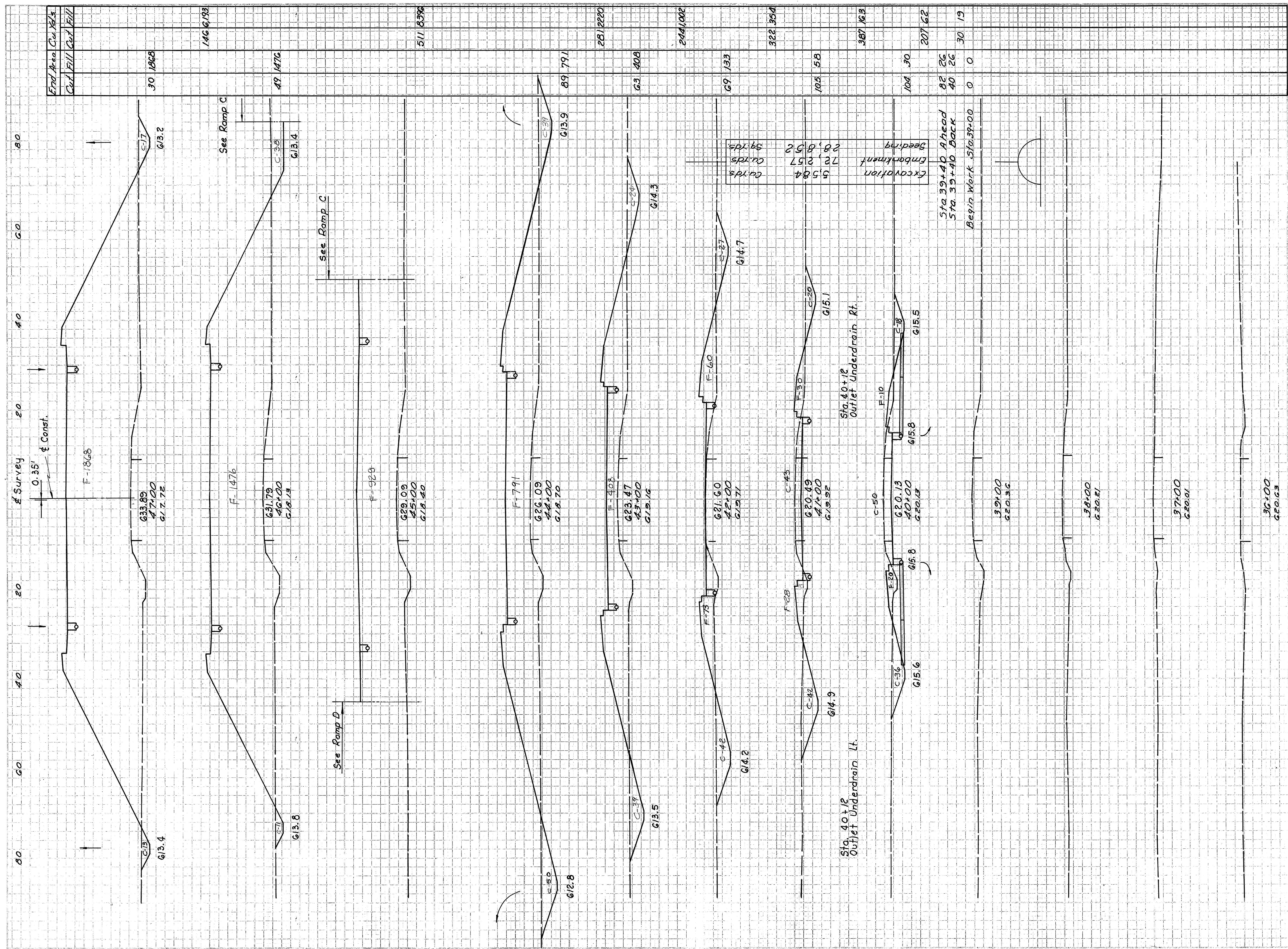
ERI 2-4.02; ERI 6-380



Existing U.S. 6 Interchange Ramp D Sta. 11+00 to 21+00

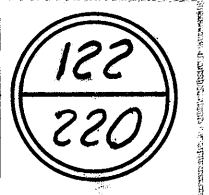
DATE	BY
REVISED	SURVEYED
NOV. BOOK	TEMP. PLANT
AREAS	AREAS
AREAS	AREAS

DATE	BY
REVISED	SURVEYED
NOV. BOOK	TEMP. PLANT
AREAS	AREAS
AREAS	AREAS



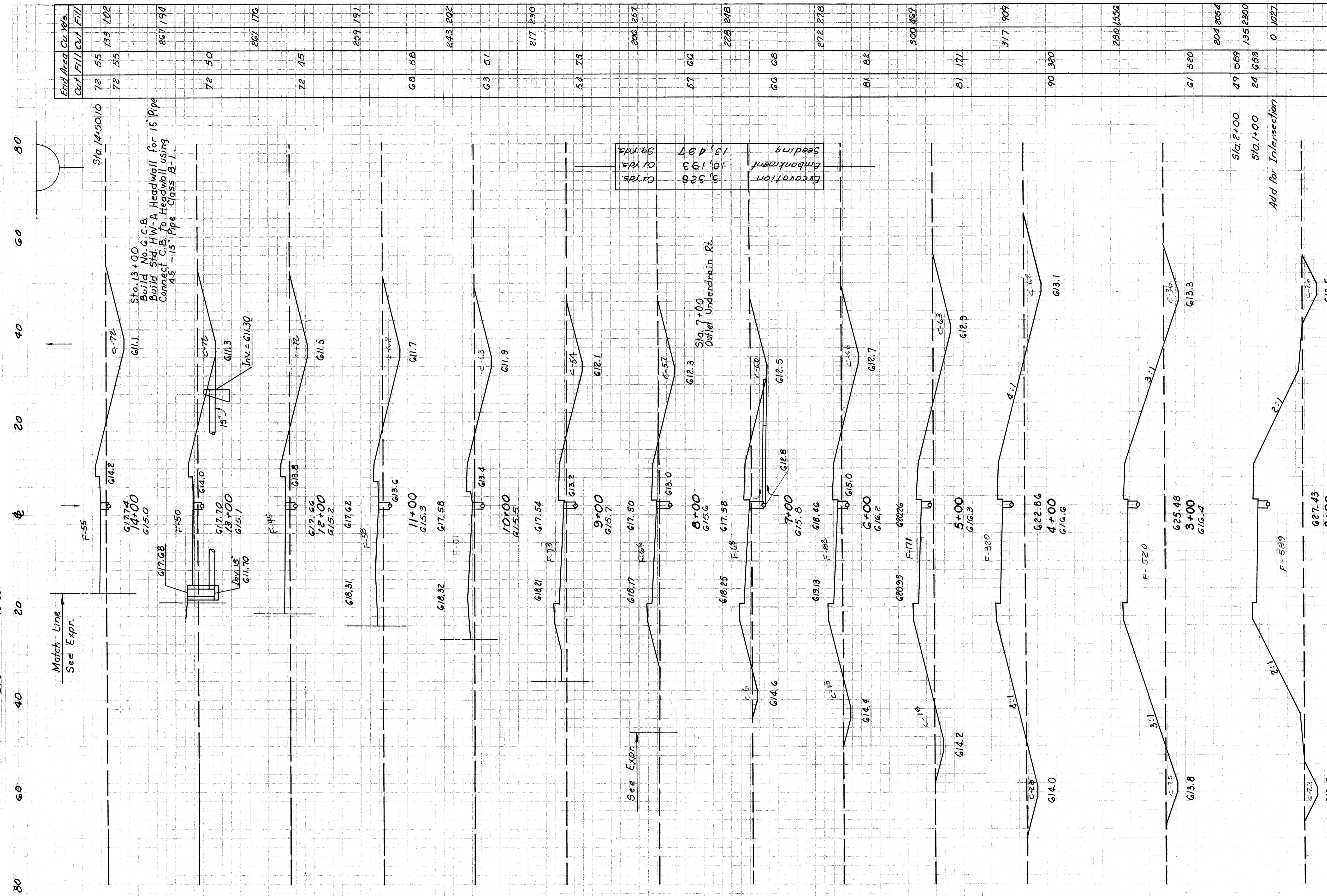
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 2-4.02; ERI 6-3.80



DATE: 1958
 HLP: J.B. EDG
 PFC: J.C. EDG
 DFP: J.P. EDG
 DATE: 12-60
 DATE: 12-60
 DATE: 12-60

MATCH LINE
 SEE EXPR.



Sta.	End Area	Cut	Fill	Cut	Fill
0+00	72	55	133	102	
1+00	72	55			267 194
2+00	72	50			267 170
3+00	72	45			
4+00	68	58			259 191
5+00	63	51			243 202
6+00	54	73			217 230
7+00	57	66			206 257
8+00	66	68			223 248
9+00	66	68			
10+00	81	82			272 228
11+00	81	171			300 489
12+00	90	360			
13+00	90	360			280 1556
14+00	61	520			204 2054
15+00	49	589			135 2300
16+00	24	653			0 1027

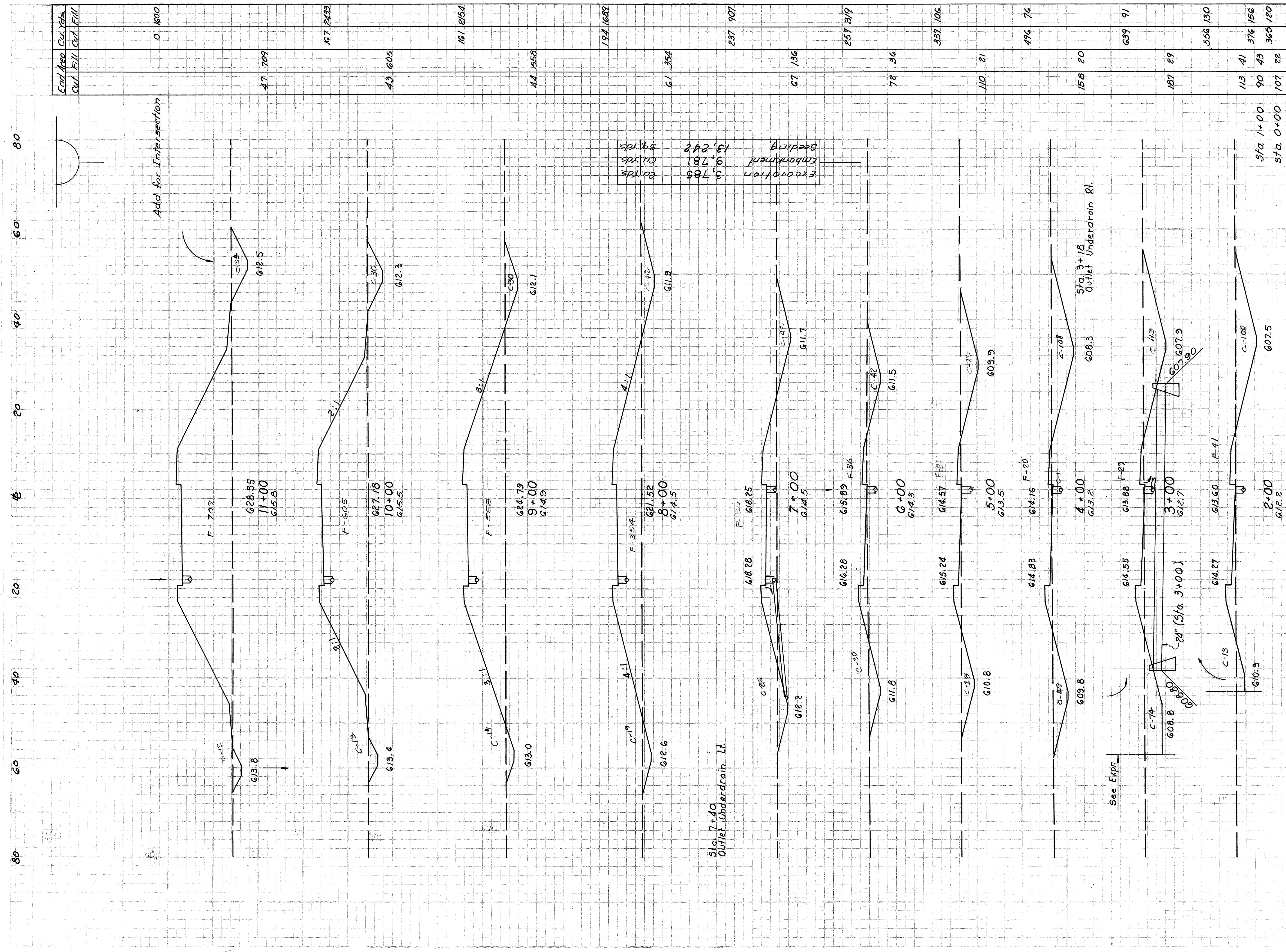
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

127
220

ERI 2-402; ERI G-380

FINAL SURVEY PLANNING
 SURVEY PLANNING
 11/18/60
 11/18/60
 11/18/60
 11/18/60

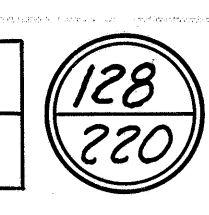
SMB 1958
 HLP 7-60 EDS
 WOG 10-60 EDS
 DVS 12-60

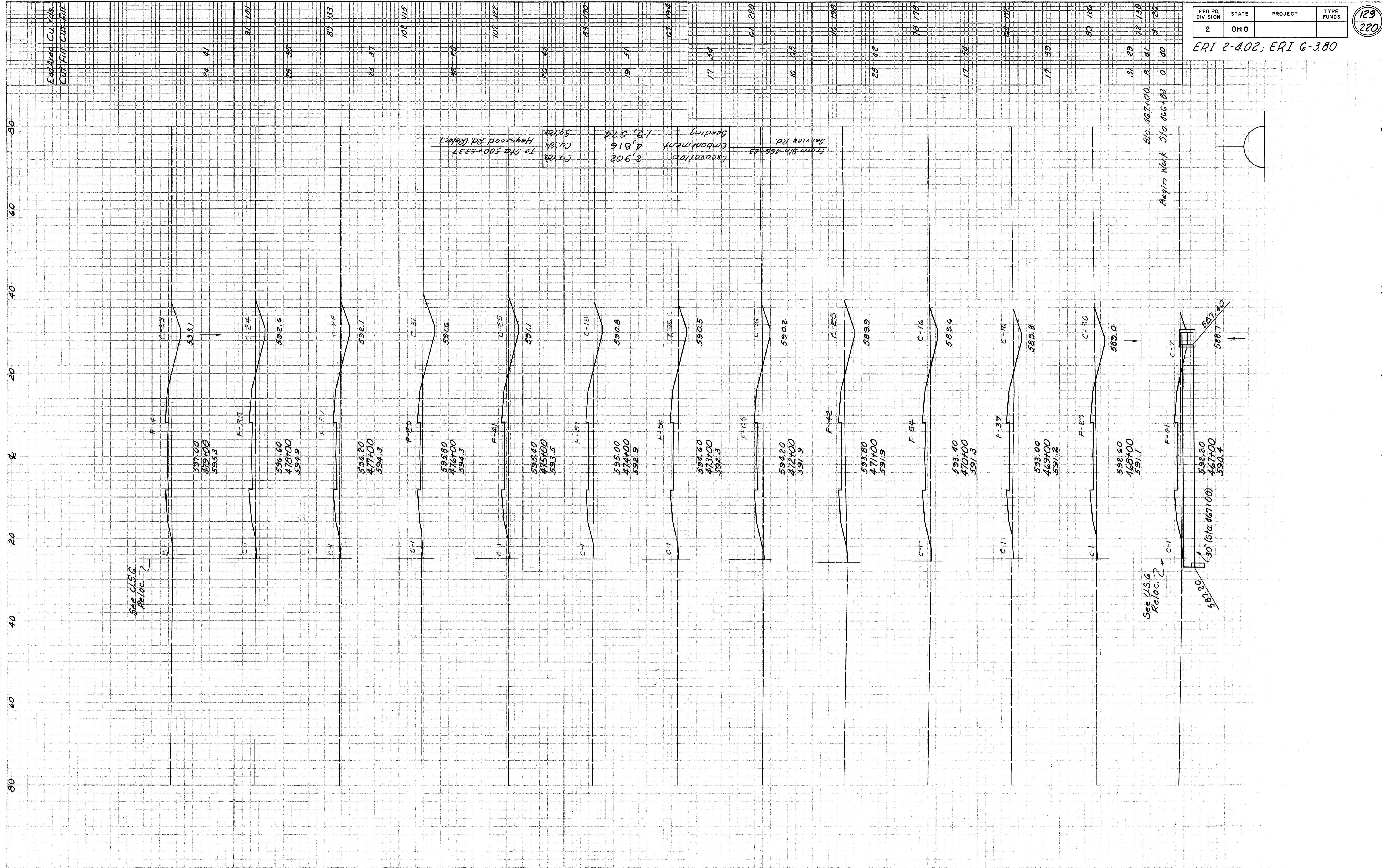


End Area	Cu. Yds.	Cut	Fill	Cut	Fill
	0	1600			
47	709				
43	605				
				161	2154
				194	1689
				61	354
				237	907
				67	136
				72	36
				110	21
				337	106
				496	76
				158	20
				639	91
				187	29
				566	130
				113	41
				90	43
				365	120

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 2-402; ERI C-380





See U.S.G. Re loc.

See U.S.G. Re loc.

Begin Work Sta 466+83

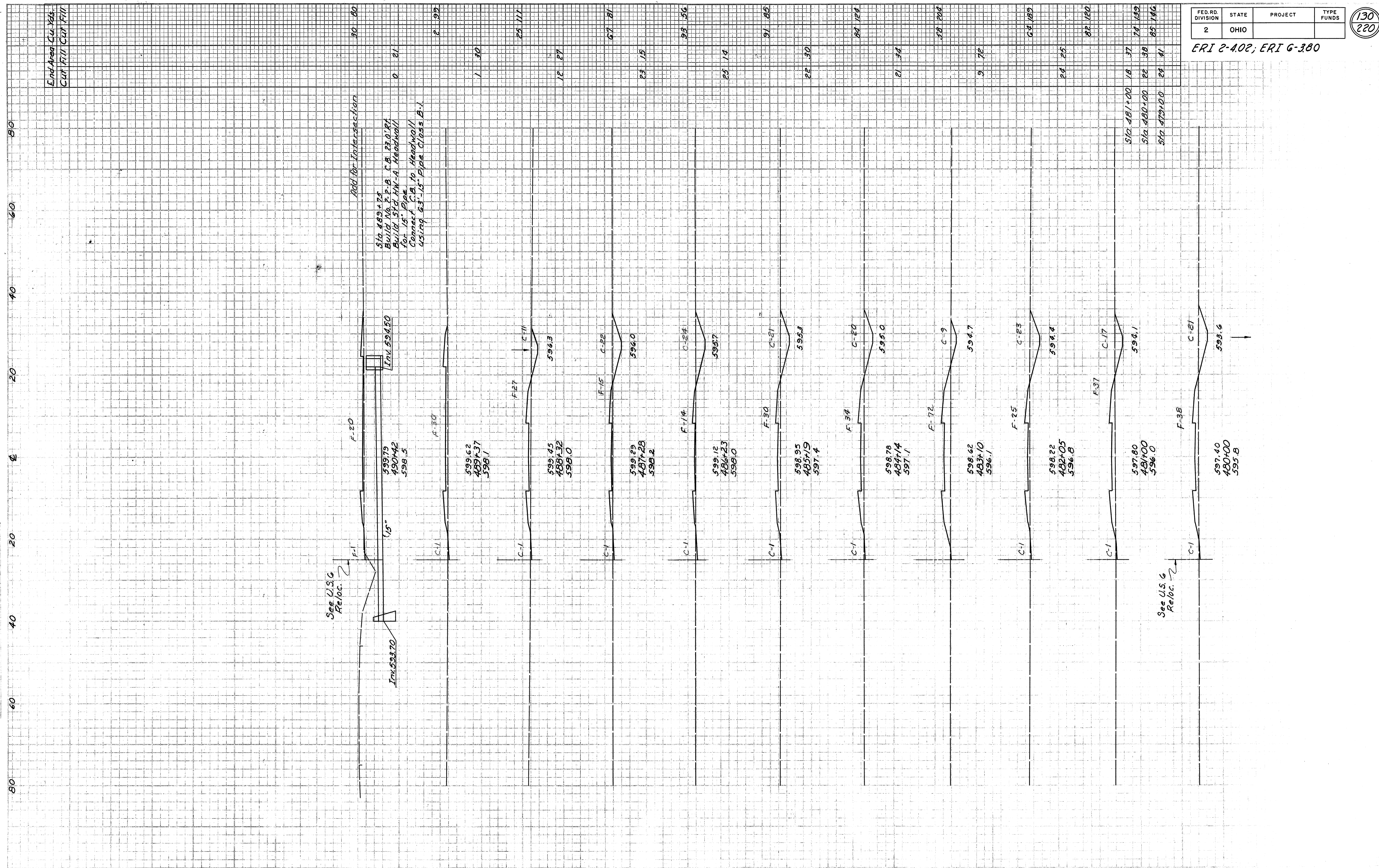
FINAL SURVEY
 DATE: 10/1/84
 DRAWN BY: JCS
 CHECKED BY: JCS
 PROJECT: 8504
 SHEET: 10

DATE: 10/1/84
 DRAWN BY: JCS
 CHECKED BY: JCS
 PROJECT: 8504
 SHEET: 10

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

130
220

ERI 2-402; ERI 6-380



End Area Cut Fill
 Cut Fill Cut Fill

Add for Intersection
 Sta 489+25
 Build No. P.P. B. C.B. 23.0' RT
 Build 57" HW-A Headwall
 for 15" Pipe
 Connect C.B. to Headwall
 using 63" 15" Pipe Class B-1

See U.S.G. Reloc.

See U.S.G. Reloc.

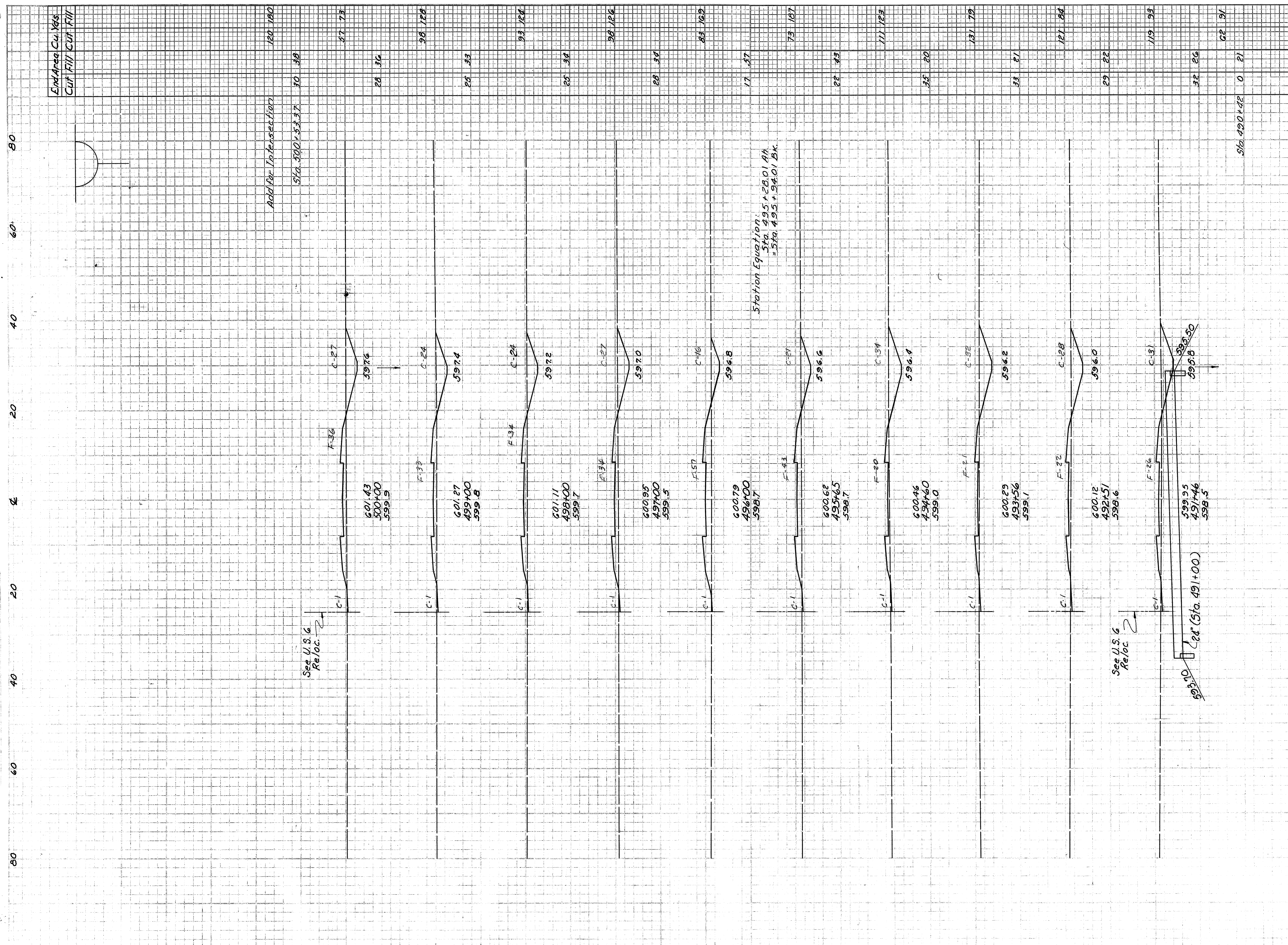
FINAL SURVEY SHEET
 DATE: 10/1/81
 BY: JCS
 CHECKED: JCS
 APPROVED: JCS
 TITLE: Heywood Road Reloc. Sta. 491+46 to 500+00

DATE: 10/1/81
 BY: JCS
 CHECKED: JCS
 APPROVED: JCS
 TITLE: Heywood Road Reloc. Sta. 491+46 to 500+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 2-402; ERI 6-380

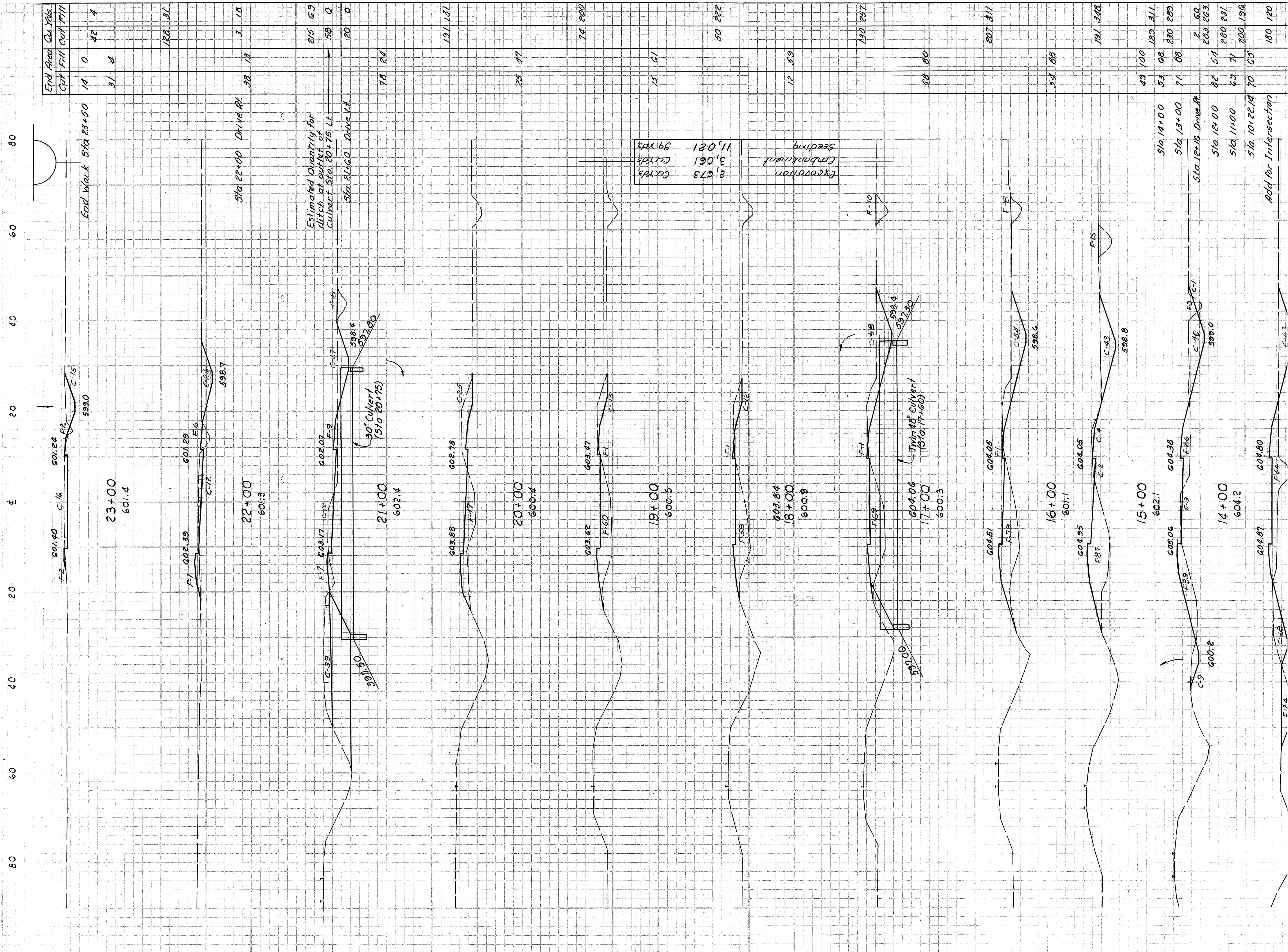
131
220



163-E

Heywood Road Reloc. Sta. 491+46 to 500+00

1958
SMB
EDS
EDS
EDS
EDS
EDS



FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

132
222

ERI 2-402; ERI G-380

End Area	Cu Yds	End Area	Cu Yds	End Area	Cu Yds	End Area	Cu Yds
Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
14	0	42	4	128	37	215	69
31	4					58	0
						20	0
						78	24
						25	47
						74	200
						15	61
						12	59
						130	257
						207	311
						54	88
						191	348
						49	100
						189	311
						53	68
						230	282
						71	88
						2	60
						283	283
						82	54
						280	237
						63	71
						500	196
						70	65
						180	120

CURVE DATA & CONSTR. U.S.G (EXIST.)

Δ = 9°-38'-08" Lt.
 D = 1°-28'
 R = 3906.53'
 T = 329.26'
 L = 656.97'
 E = 13.85'
 PC = 43+52.70
 PI = 46+81.96
 PT = 50+09.67 Back
 = 50+13.20 Ahead

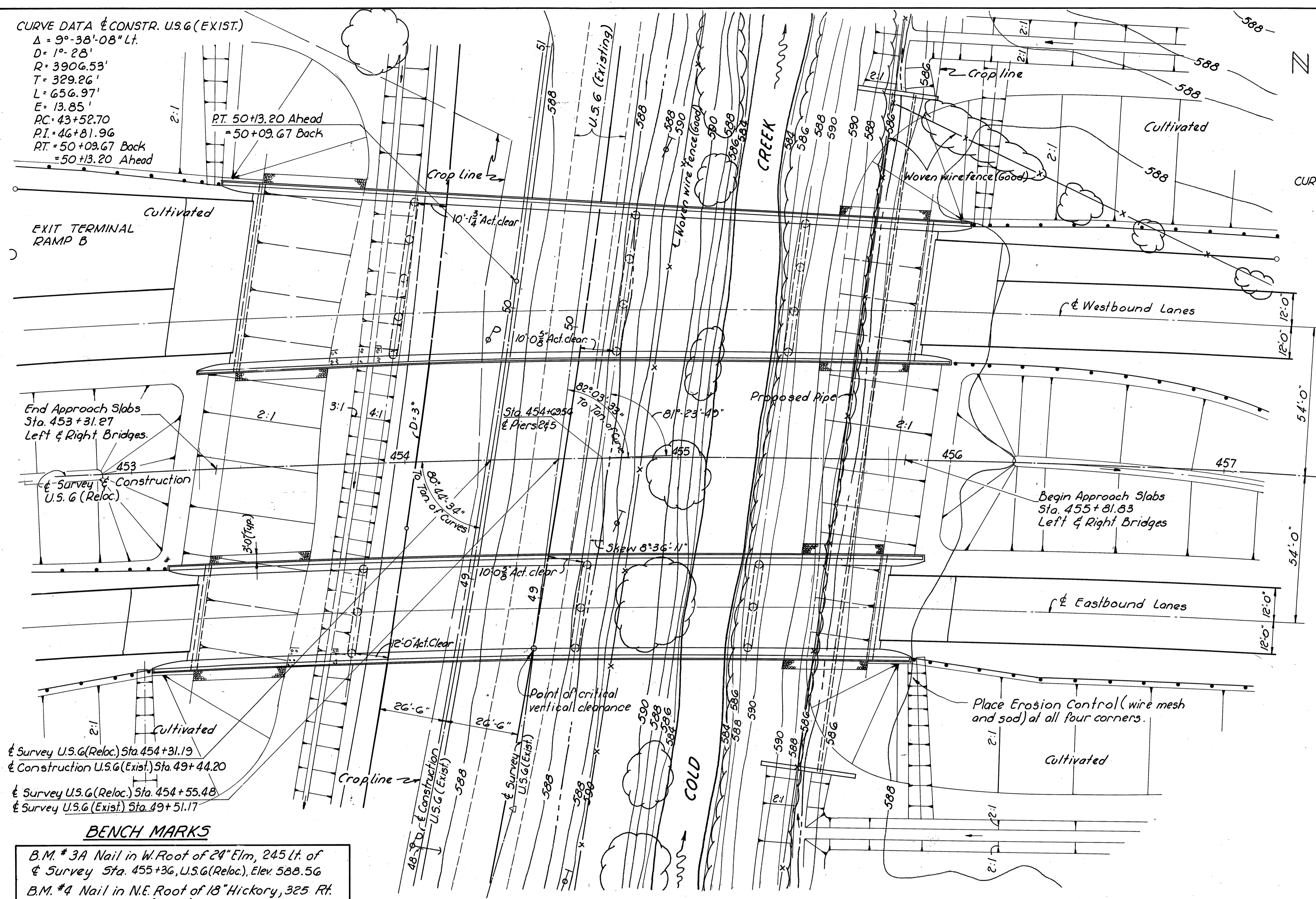
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	FFG-1042(5)	

133
220

ERI. 6-380; ERI. 2-4.02
 ERIE COUNTY

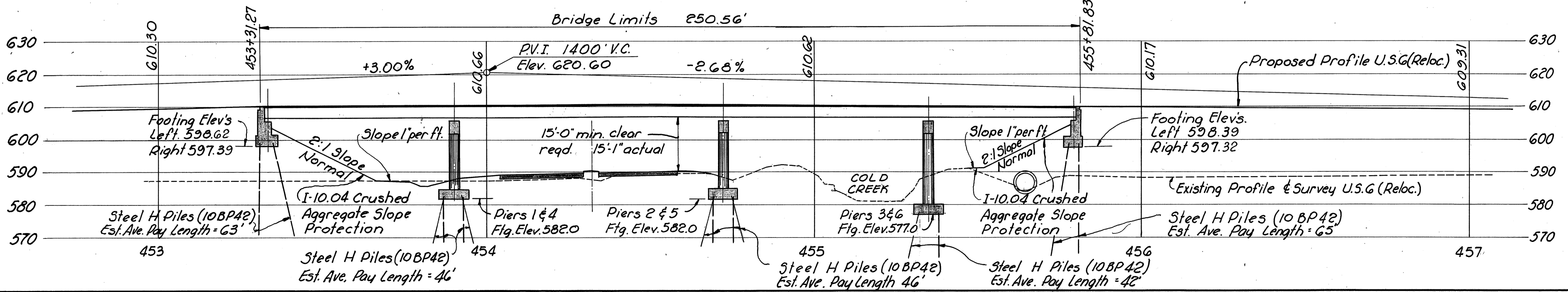
CURVE DATA & SURVEY U.S.G (RELOC.)

Δ = 35°-41'-48" Rt.
 D = 1°-28'
 R = 3906.53'
 T = 1257.88'
 L = 2433.86'
 E = 197.52'
 PC = 436+35.19
 PI = 448+93.07
 PT = 460+69.05
 Superelevation = 0.048 ft/ft.
 Rotate about median edge of pavement.



BENCH MARKS
 B.M. #3A Nail in W. Root of 24" Elm, 245 Lt. of
 & Survey Sta. 455+36, U.S.G (Reloc.), Elev. 588.56
 B.M. #4 Nail in N.E. Root of 18" Hickory, 325 Ft.
 Sta. 457+83, U.S.G (Reloc.) Elevation 588.55

PROPOSED STRUCTURES
 Type: Continuous steel beam with reinf. concrete deck, Reinf. Conc. pier bents and slab abutments
 Spans: 56'-0", 80'-0", 65'-0", 45'-0" % Brgs.
 Left & Right Bridges
 Roadway: Variable - Left Bridge
 30'-0" % of 2'-3" Safety Curbs - Right Bridge
 Load Frequency: CF-400(57)
 Skew: 8°-36'-11" L.F.
 Wearing Surface: 1" Monolithic Concrete
 Approach Slabs: AS-1-54 (25'-0" Long)
 Alignment: 1°-28' curve Right, except North curb of Left Bridge which is parallel to Exit Ramp



SANZENBACHER MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO, OHIO

SITE PLAN
 BRIDGE NO. ERI. 6-0384, LEFT & RIGHT
 OVER U.S.G (EXIST.) & COLD CREEK

ERI COUNTY
 STA. 453+31.27 To
 STA. 455+81.83

Scale: 1" = 20'

PRESENT TOPOGRAPHY		PROPOSED WORK		
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED
S.M.B.	HDR:TFH	T.W.D.	T.W.D.	B.J.H.

ERI-2-0430

MICROFILMED
 SEP 11 1986

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-54 "Reinforced Concrete Approach Slabs", revised 12-1-54, CSB-2-56 "Continuous Steel Beam Bridge" (Sheets 2 and 3 of 6 sheets), revised 2-2-59, RB-1-55 "Rockers and Bolsters", revised 2-2-59, and AR-1-57 "Aluminum Railing with Concrete Parapet", revised 12-12-60.

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.

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of fill material between the surface of the proposed embankment and the bottom of the abutment footings. Backfill behind the abutments shall be compacted in accordance with the requirements for embankment compaction.

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

For the abutment piles:
65 tons per pile using an 11,000 ft. lb. hammer
55 tons per pile using a 15,000 ft. lb. or greater hammer

For the pier piles:
70 tons per pile using an 11,000 ft. lb. hammer
60 tons per pile using a 15,000 ft. lb. or greater hammer
If the energy rating is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 35 tons per pile for the abutment piles and 35 tons per pile for the pier piles.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments. The piers may then be constructed. A waiting period of six (6) months after the completion of the embankment is required before abutments are constructed.

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

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the contractor be made in the shop. Class "B" welds are shown thus: B →

MACHINE FINISH: At the Contractor's option, the top of the bridge deck slabs may be machine finished. (Sec. S-1.23)

ESTIMATED QUANTITIES - TWO BRIDGES

Item	Total	Unit	Description	Abutments				Piers						Superstructure		General	
				Lt. Rear	Lt. Fw'd.	Rt. Rear	Rt. Fw'd.	1	2	3	4	5	6	Left	Right		
E-2	1398	Cu.Yds.	Unclassified excavation	186	151	119	118	127	136	227	78	92	164				
E-2	Lump	Sum	Cofferdams, Cribs and Sheeting													Lump	
S-1	713	Cu.Yds.	Class "C" concrete, superstructures											422	291		
S-1	240	Cu.Yds.	Class "C" concrete, pier caps and columns					54	46	49	29	29	33				
S-1	203	Cu.Yds.	Class "E" concrete, pier footings					44	40	38	27	27	27				
S-1	397	Cu.Yds.	Class "E" concrete, abutments	132	104	81	80										
S-3	20	Lin. Ft.	Waterproofing, premolded sealing strip	10	10												
S-4	331,087	Lbs.	Reinforcing steel	9238	7911	6101	6087	20,758	21,675	23,045	10,851	10,874	11,609	126,693	76,245		
S-7	750,100	Lbs.	Structural steel											458,100	292,000		
S-8	750,100	Lbs.	Field painting of structural steel											458,100	292,000		
S-14	1097	Lin. Ft.	Railing (aluminum rail and supports, concrete parapet)											547	550		
S-16	Lump	Sum	First test pile													Lump	
S-18	9660	Lin. Ft.	Steel piles 10 BP 42	1390	1040	820	850	1200	1200	1010	740	740	670				
S-29	71	Cu.Yds.	Porous backfill	26	19	13	13										
S-29	18	Each	Scuppers											9	9		
I-10	1035	Sq.Yds.	Crushed aggregate slope protection													1035	
Special	713	Each	Water-reducing, set-retarding admixture *											422	291		

MICROFIL...
SEP 11 1986

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE No. ERI. 6-0384 LEFT & RIGHT
OVER U.S.G (EXIST.) & COLD CREEK
STA. 453+31.27 TO
STA. 455+81.83
ERIE COUNTY

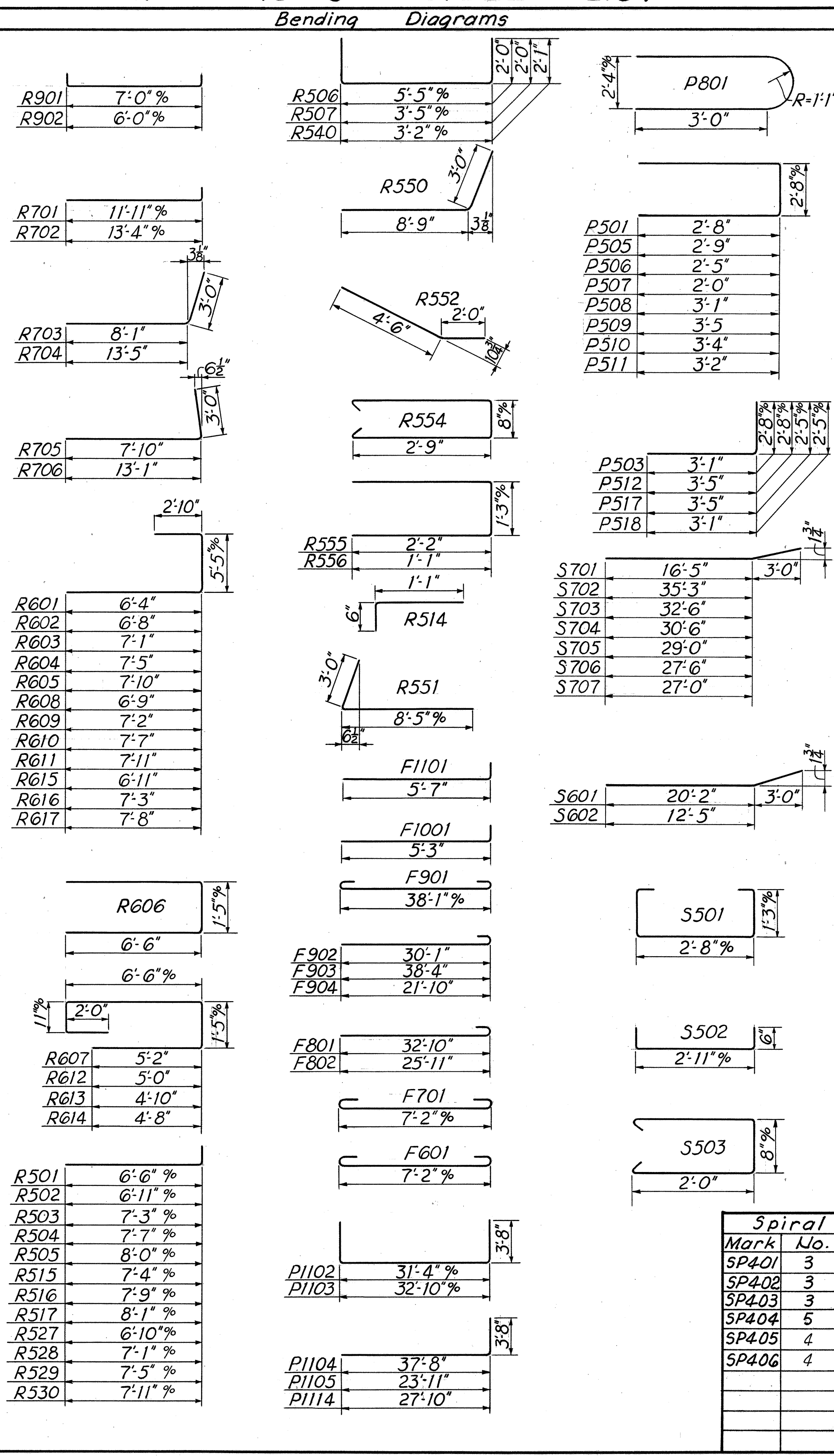
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDP	HDP		BJH	FCM	9-5-61	

* See Proposal note

ERI.G-3.80; ERI.2-4.02

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape	Mark	No.	Length	Weight	Shape
Abutments									
R901	28	9'-0"	857	B	R540	160	7'-1"	1182	B
R902	28	8'-0"	762	B	R541	28	11'-11"	348	S
R801	28	20'-6"	1533	S	R542	28	13'-4"	389	S
R802	14	35'-3"	1318	S	R543	16	7'-2"	120	S
R803	14	27'-6"	1028	S	R544	44	8'-8"	398	S
R701	28	12'-9"	730	B	R545	4	8'-7"	36	S
R702	28	14'-2"	811	B	R546	8	13'-8"	114	S
R703	4	10'-11"	89	B	R547	16	4'-3"	71	S
R704	4	16'-3"	266	B	R548	48	3'-5"	171	S
R705	8	10'-8"	87	B	R549	16	13'-2"		S
R706	8	15'-11"	260	B	R550	16	11'-8"	195	B
R601	27	14'-3"	578	B	R551	16	11'-3"	188	B
R602	15	14'-7"	329	B	R552	16	6'-6"	108	B
R603	10	15'-0"	225	B	R553	16	15'-5"	257	S
R604	12	15'-4"	276	B	R554	80	6'-9"	563	B
R605	17	15'-9"	402	B	R555	56	5'-4"	312	B
R606	47	14'-1"	994	B	R556	24	3'-2"	79	B
R607	48	15'-5"	1111	B	R557	8	13'-4"	111	S
R608	7	14'-8"	154	B	R558	16	13'-2"	220	S
R609	6	15'-1"	136	B					
R610	11	15'-6"	256	B					
R611	19	15'-10"	452	B					
R612	55	15'-3"	1260	B					
R613	16	15'-1"	362	B					
R614	23	14'-11"	515	B					
R615	5	14'-10"	111	B					
R616	6	15'-2"	137	B					
R617	5	15'-7"	117	B					
R501	29	7'-0"	212	B					
R502	17	7'-5"	132	B					
R503	10	7'-9"	81	B					
R504	12	8'-1"	101	B					
R505	17	8'-6"	151	B					
R506	141	9'-2"	1348	B					
R507	293	7'-2"	2190	B					
R508	40	19'-0"	793	S					
R509	10	11'-3"	117	S					
R510	30	9'-4"	292	S					
R511	44	3'-10"	176	S					
R512	2	28'-6"	59	S					
R513	8	5'-8"	47	S					
R514	80	1'-6"	125	B					
R515	6	7'-10"	49	B					
R516	11	8'-3"	95	B					
R517	18	8'-7"	161	B					
R518	12	33'-11"	425	S					
R519	12	31'-6"	394	S					
R520	3	12'-1"	38	S					
R521	15	10'-5"	163	S					
R522	5	6'-4"	33	S	Piers				
R523	16	13'-4"		S	F1101	126	6'-9"	4519	B
R524	5	21'-2"	110	S	F1001	146	6'-4"	3979	B
R525	1	30'-6"	32	S					
R526	1	27'-9"	29	S	F901	72	40'-7"	9935	B
R527	5	7'-4"	38	B	F902	52	31'-4"	5540	B
R528	5	7'-7"	40	B	F903	32	39'-7"	4307	B
R529	6	7'-11"	50	B	F904	32	23'-1"	2511	B
R530	5	8'-5"	44	B					
R531	12	26'-0"	325	S	F801	22	33'-11"	1992	B
R532	12	23'-6"	294	S	F802	28	27'-0"	2019	B
R533	25	8'-2"	213	S	F803	14	16'-4"	611	S
R534	5	4'-9"	25	S					
R535	5	3'-0"	16	S	F701	292	8'-10"	5272	B
R536	11	10'-11"	116	S					
R537	1	22'-4"	23	S	F601	195	8'-6"	2490	B
R538	1	19'-7"	20	S					
R539	64	11'-5"	762	S	P1101	12	16'-0"	1020	S



Mark	No.	Length	Weight	Shape	Mark	No.	Length	Weight	Shape
Piers (continued)									
P1102	6	37'-11"	1209	B	Superstructures				
P1103	6	39'-5"	1257	B	S701	660	19'-5"	26194	B
P1104	4	41'-0"	871	B	S702	69	38'-3"	5395	B
P1105	4	27'-3"	579	B	S703	69	35'-6"	5007	B
P1106	3	41'-3"	657	S	S704	53	33'-6"	3629	B
P1107	12	30'-9"	1960	S	S705	53	32'-0"	3467	B
P1108	42	20'-6"	4574	S	S706	54	30'-6"	3366	B
P1109	42	20'-7"	4593	S	S707	54	30'-0"	3311	B
P1110	42	25'-7"	5709	S	S708	69	30'-3"	4266	S
P1111	14	36'-3"	2696	S	S709	69	29'-3"	4125	S
P1112	14	19'-8"	1463	S	S710	53	28'-0"	3033	S
P1113	10	34'-0"	1806	S	S711	53	26'-9"	2898	S
P1114	16	31'-2"	2649	B	S712	54	25'-9"	2842	S
P1001	6	31'-4"	809	S	S713	54	24'-6"	2704	S
P1002	6	32'-0"	826	S	S601	330	23'-2"	11483	B
P1003	6	32'-0"	839	S	S602	330	15'-5"	7641	B
P1004	6	32'-0"	848	S	S603	203	32'-0"	9757	S
P1005	30	19'-4"	2496	S	S604	1389	29'-3"	61024	S
P1006	30	19'-6"	2517	S	S605	138	34'-0"	7047	S
P1007	30	24'-6"	3163	S	S606	69	31'-6"	3265	S
P1008	24	20'-6"	2117	S	S607	53	29'-9"	2368	S
P1009	16	20'-7"	1417	S	S608	53	28'-0"	2229	S
P1010	16	25'-7"	1761	S	S609	54	27'-0"	2190	S
P801	24	9'-6"	609	B	S610	54	26'-6"	2149	S
P501	350	7'-9"	2829	B	S611	69	32'-9"	3394	S
P502	6	30'-6"	191	S	S612	53	31'-6"	2508	S
P503	3	5'-8"	18	B	S613	53	30'-3"	2408	S
P504	27	9'-0"	253	S	S614	54	29'-0"	2352	S
P505	24	7'-11"	198	B	S615	54	27'-9"	2251	S
P506	24	7'-3"	181	B	S501	663	5'-11"	4091	B
P507	24	6'-5"	161	B	S502	663	3'-8"	2536	B
P508	26	8'-7"	233	B	S503	732	5'-3"	4008	B
P509	2	9'-3"	19	B	S504	16	12'-11"		S
P510	16	9'-1"	152	B	S505	56	15'-11"		S
P511	4	8'-9"	37	B	S506	12	4'-9"		S
P512	3	6'-0"	19	B	S507	168	16'-0"		S
P513	18	9'-6"	178	S	S508	4	4'-8"		S
P514	4	28'-6"	119	S					
P515	36	8'-9"	329	S					
P516	8	25'-8"	214	S					
P517	6	5'-9"	36	B					
P518	6	5'-5"	34	B					

Mark	No.	Length	Pitch	No. of Turns	Weight	REPLACEMENT BARS
SP401	3	32'	15'-5"	4 1/2	44	290
SP402	3	32'	15'-8"	4 1/2	45	293
SP403	3	32'	20'-8"	4 1/2	58	382
SP404	5	32'	16'-8"	4 1/2	48	311
SP405	4	32'	16'-9 3/8"	4 1/2	48	314
SP406	4	32'	21'-9 3/8"	4 1/2	61	401

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, a P501 is a No. 5 size bar, and a P1101 is a No. 11 size.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-402 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils) expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 5-4. 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lbs. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

MICROFIL...
SEP 11 1986

* Included with Item 5-14 for payment.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

REINFORCING STEEL
BRIDGE NO. ERI.G-0384, LEFT & RIGHT
OVER U.S.G (EXIST) & COLD CREEK

STA. 453+31.27 TO
ERIA COUNTY STA. 455+81.83

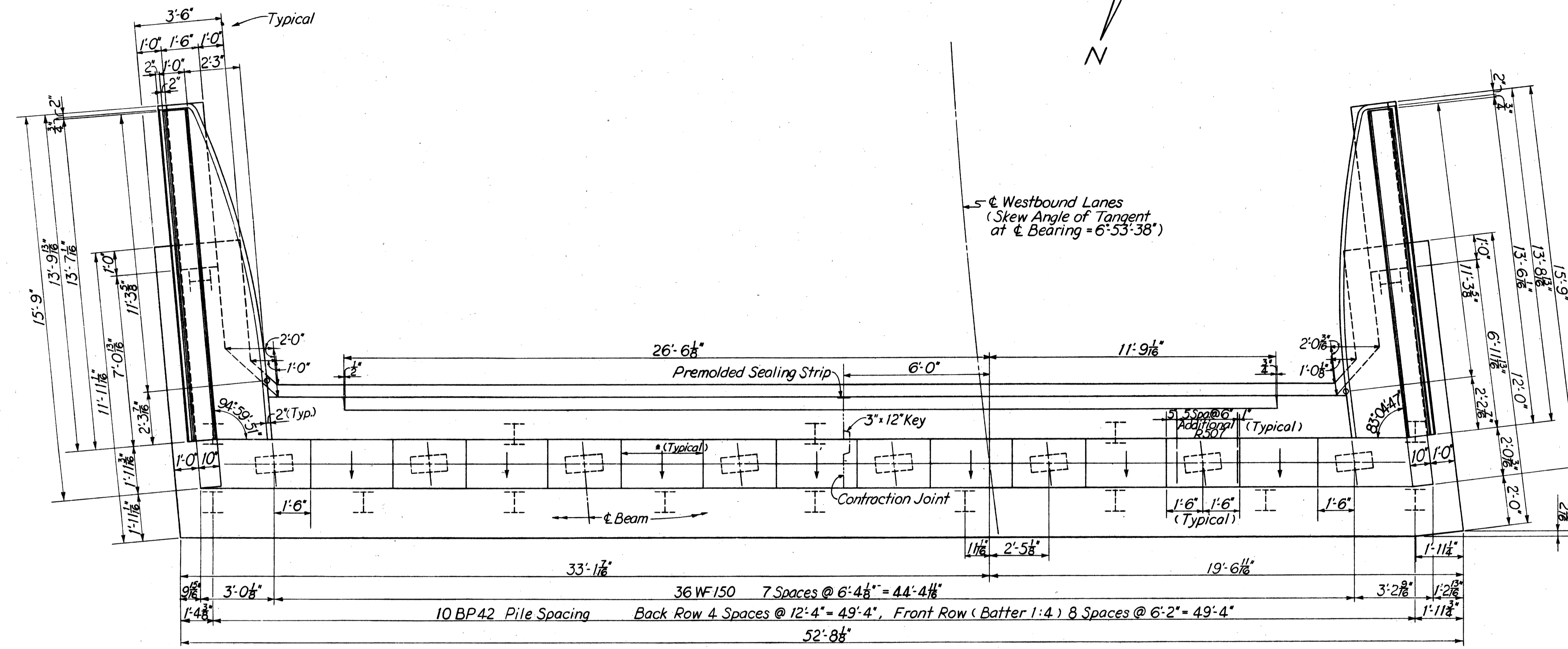
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDP	HDP	JHY	BJH	FCM	9-5-61	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(5)	

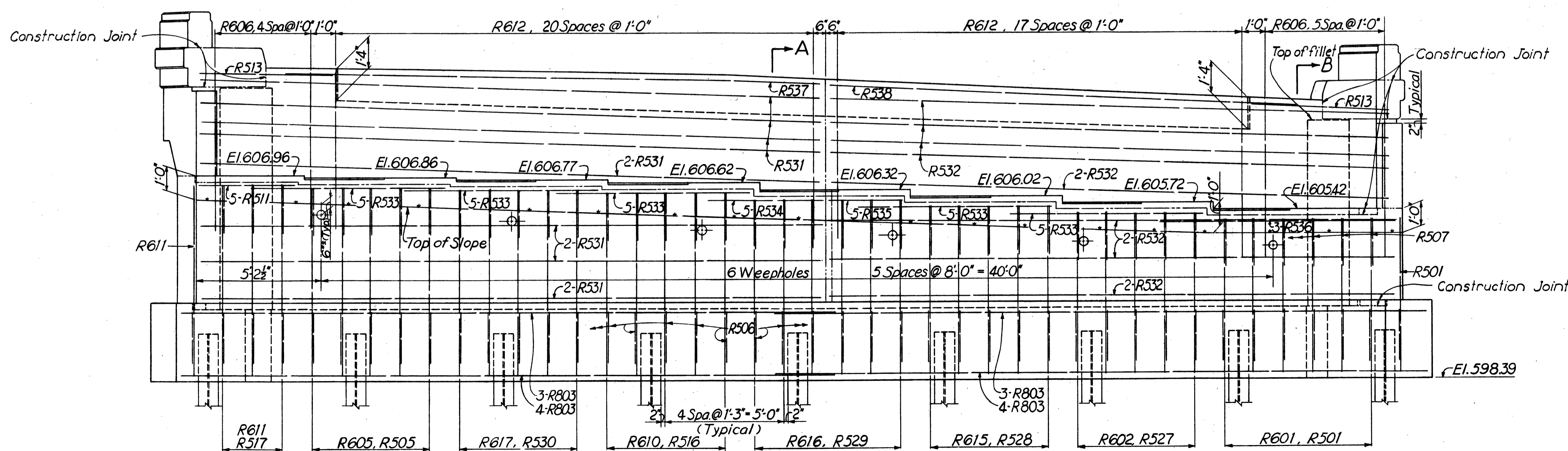
138
220

ERI.6-380 ; ERI.2-4.02

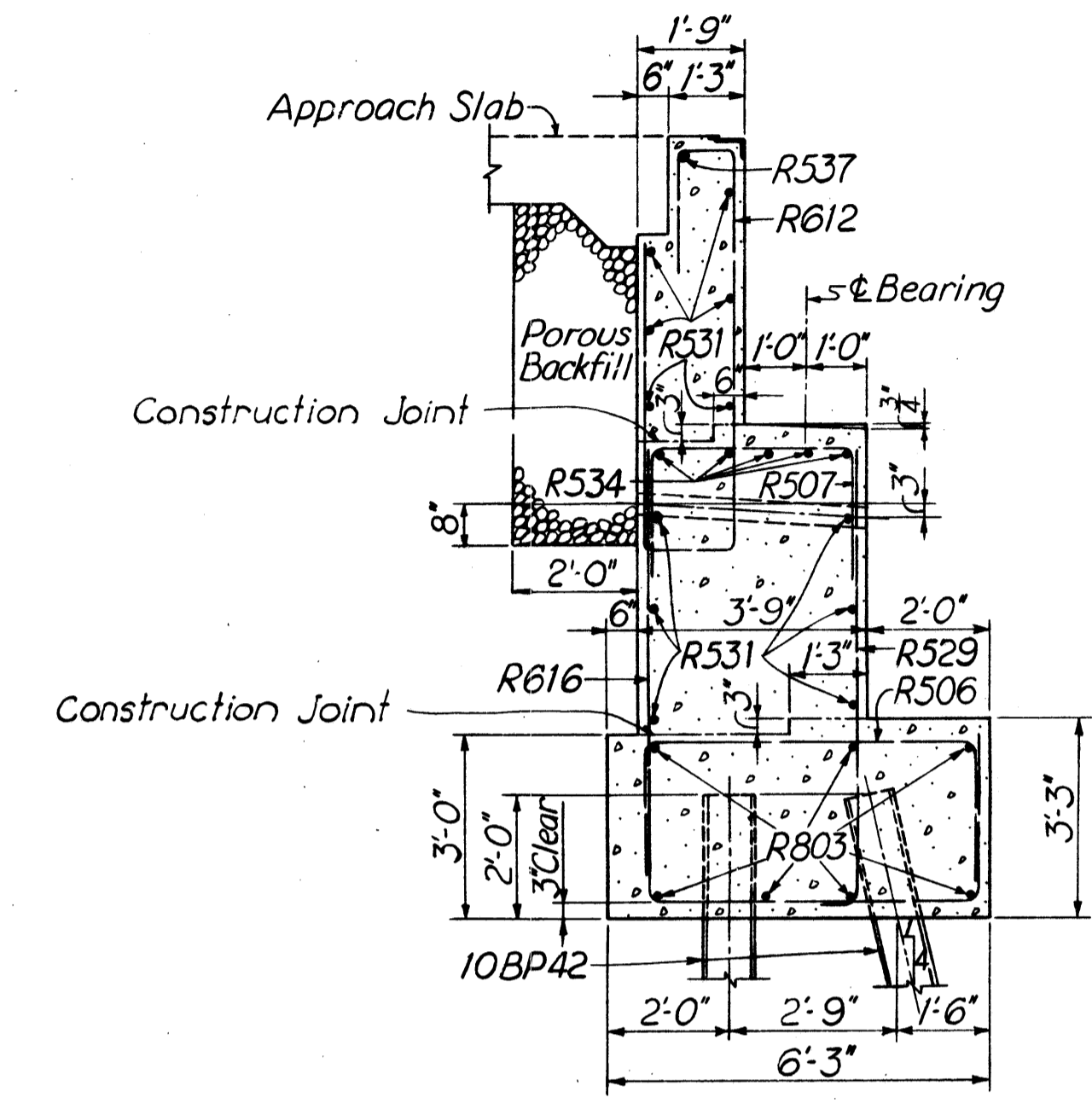
MICROFILM
SEP 11 1986



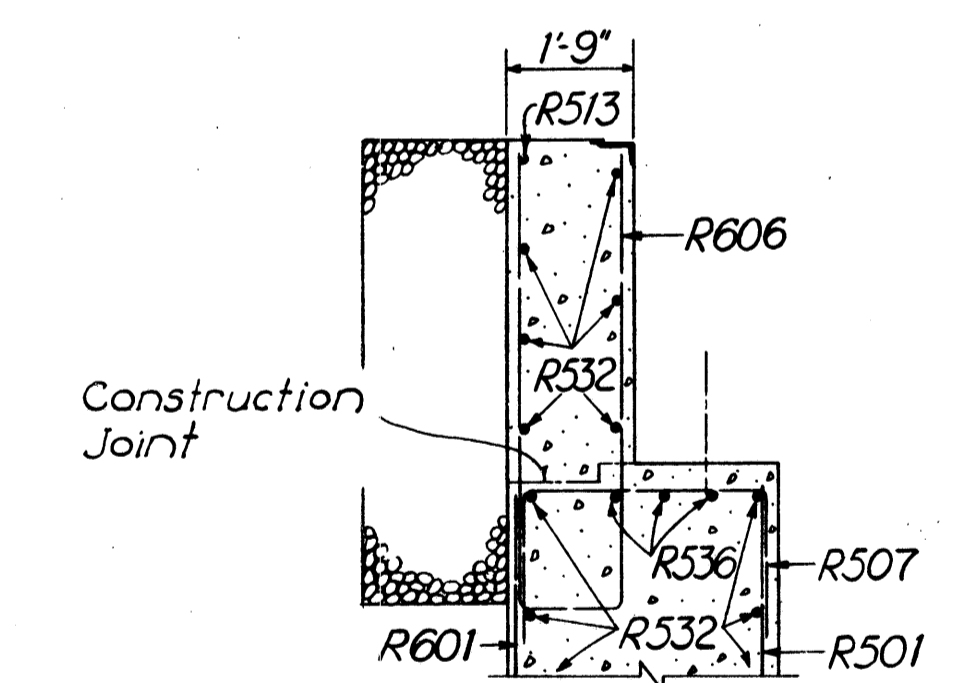
PLAN



ELEVATION



SECTION A-A



SECTION B-B

(Details not shown are similar to SECTION A-A.)

NOTES:
* Slope top to 3/4" at edge within this portion
Curb layout is similar to that shown in Right Bridge Abutments

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TOLEDO, OHIO

FORWARD ABUTMENT
BRIDGE NO. ERI 6-0384 LEFT
OVER US 6 EXIST. & COLD CREEK
ERIE COUNTY

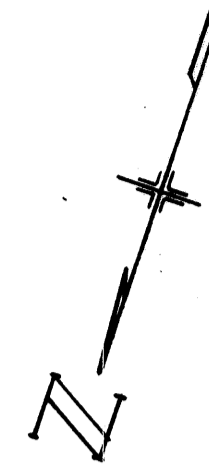
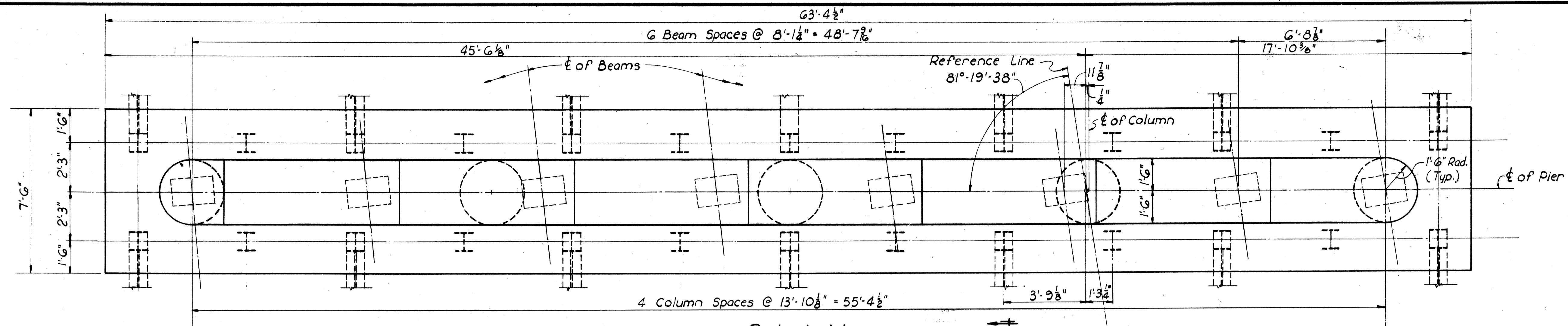
STA. 453 + 31.27 To
STA. 455 + 81.83

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JHY	JHY		TFH	BJH FCM	9-5-61	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUND
2	OHIO	F-FG-1042(5)	

141
220

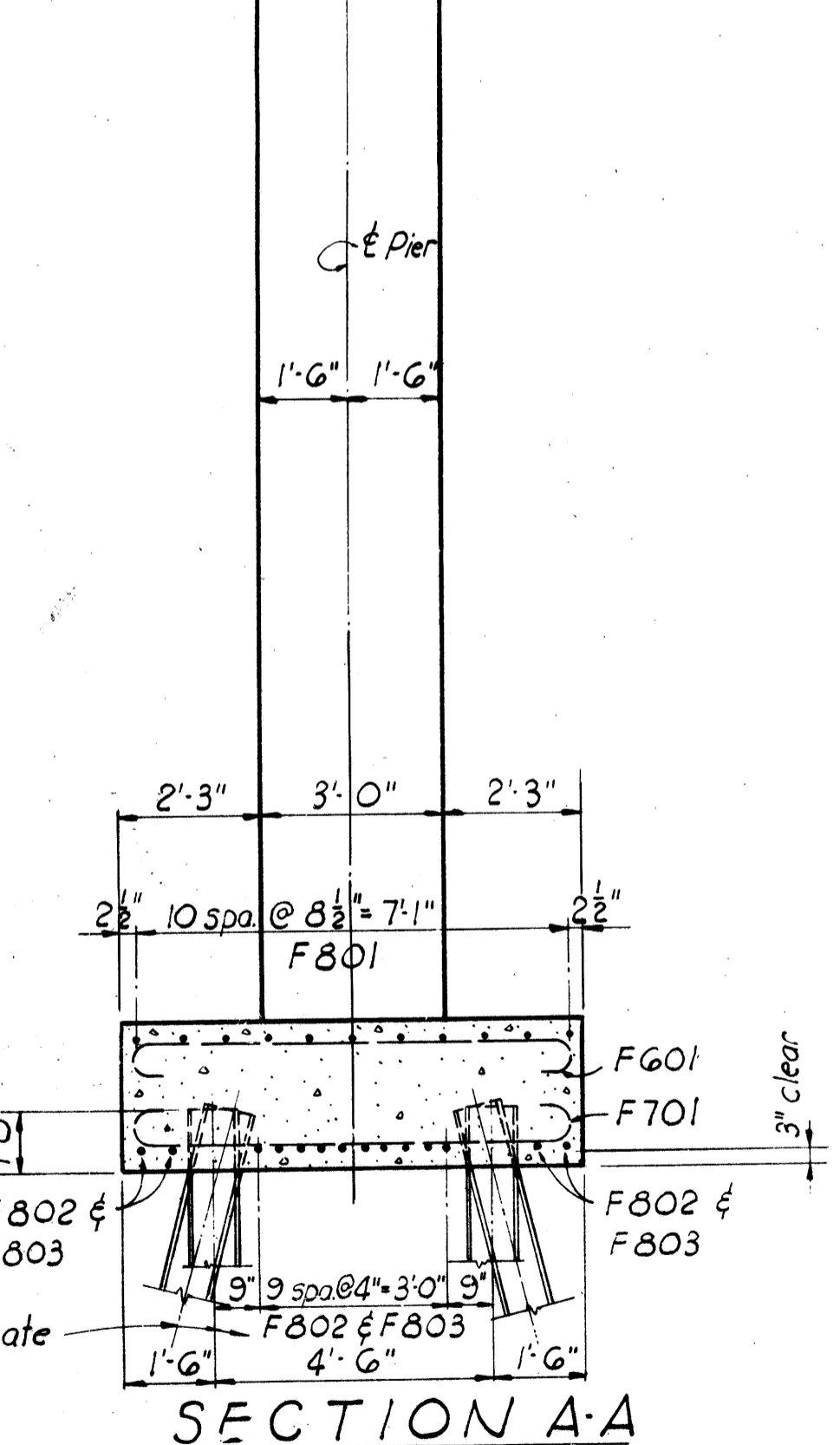
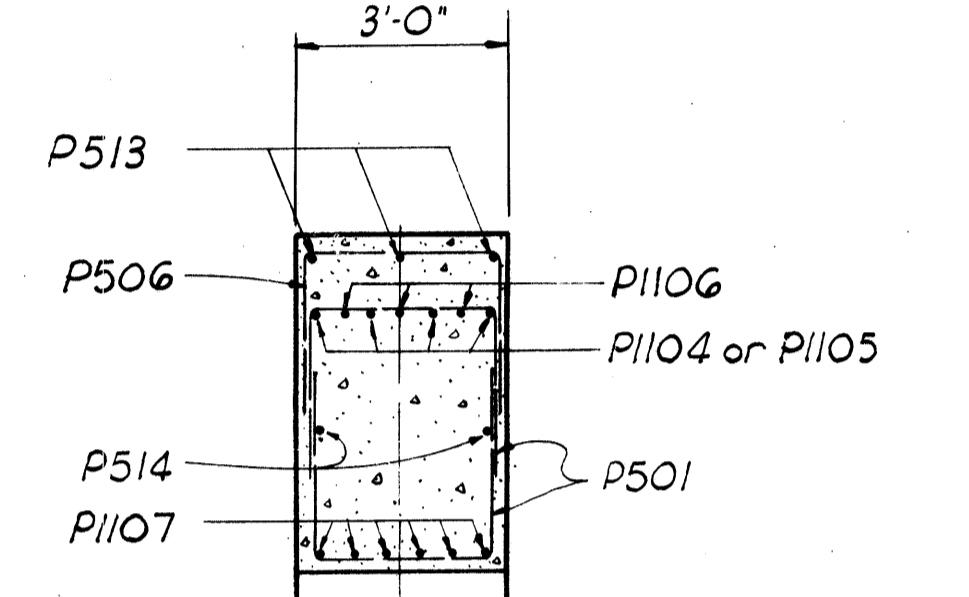
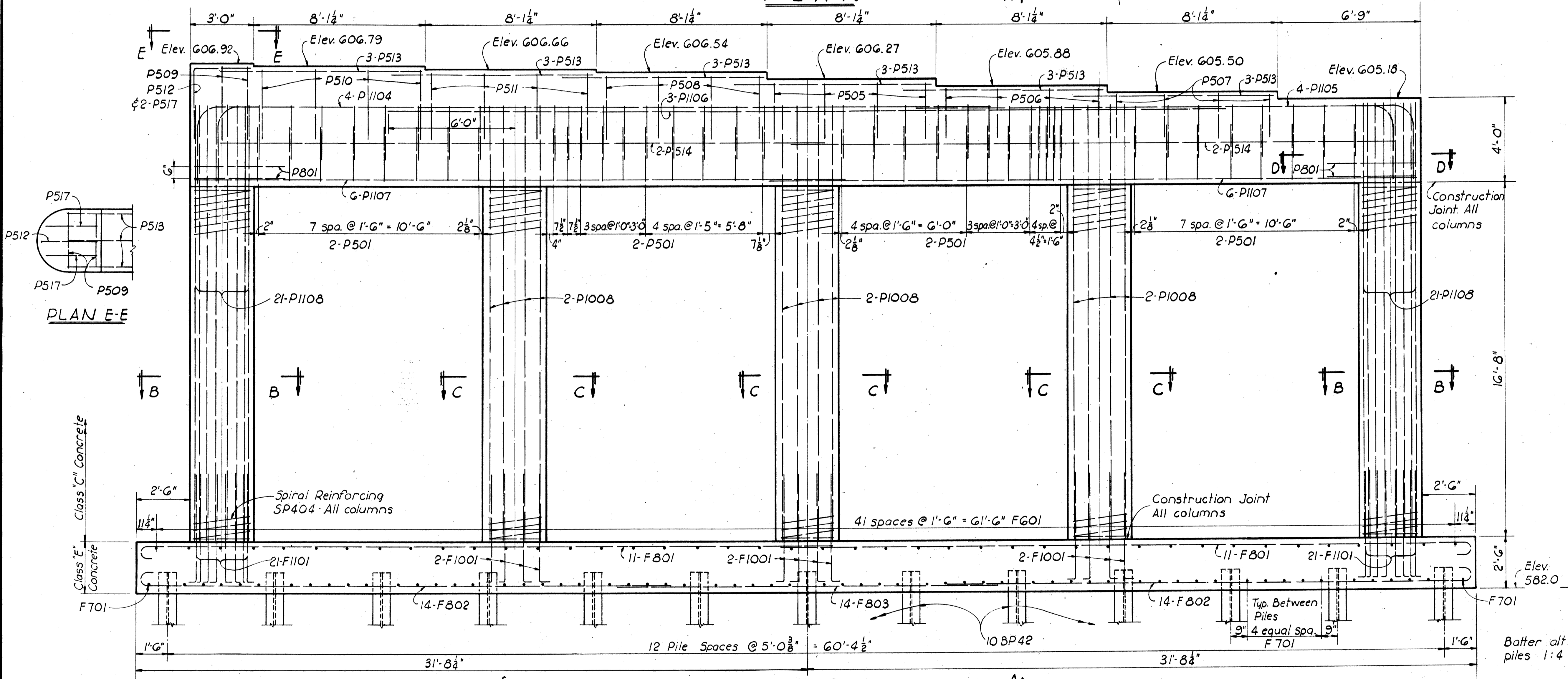
ERI G-3.80, ERI 2-4.02



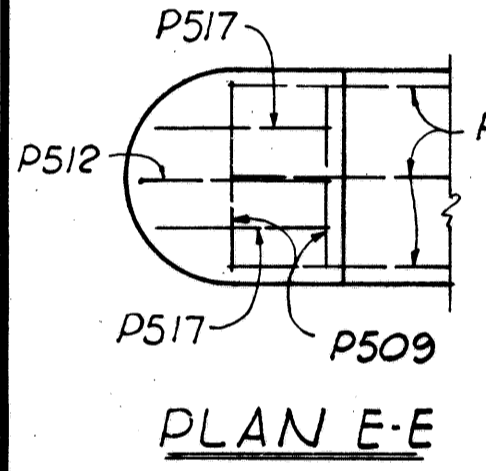
MICROFIL
SEP 11 1986

PLAN

A1



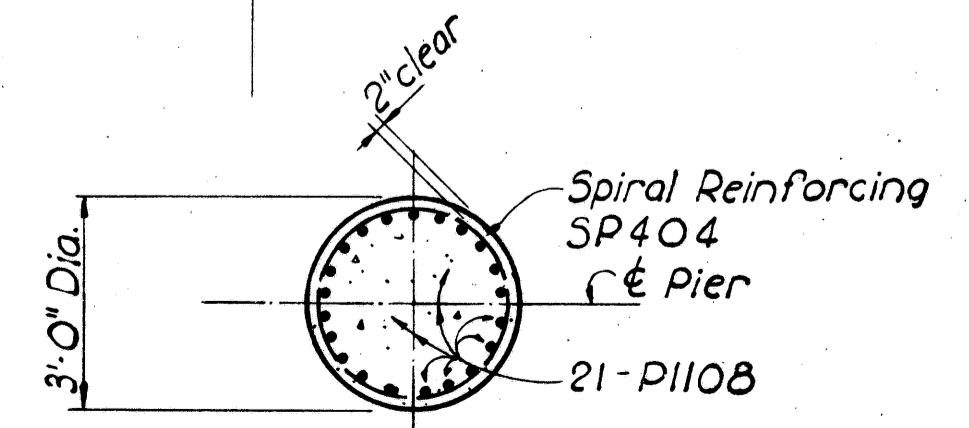
SECTION A-A



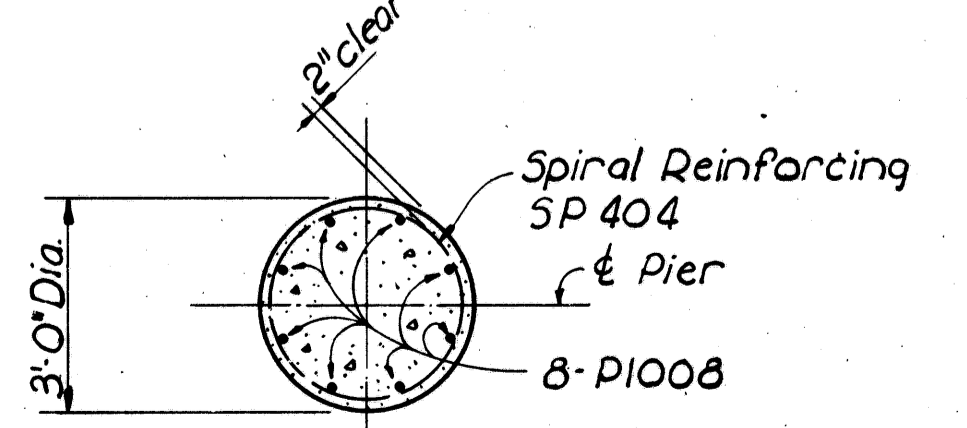
PLAN E-E

ELEVATION

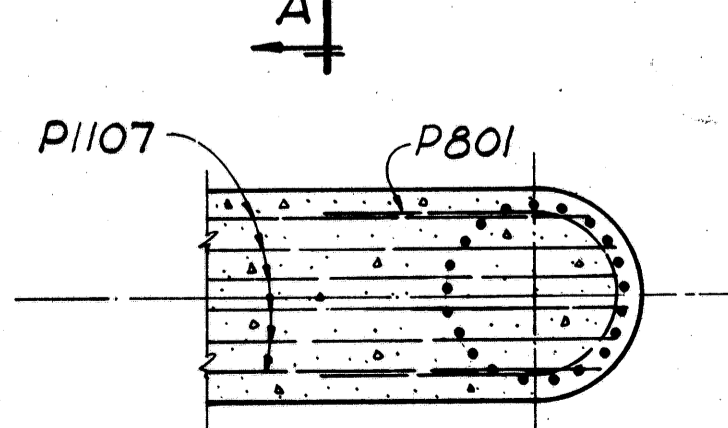
A1



SECTION B-B



SECTION C-C



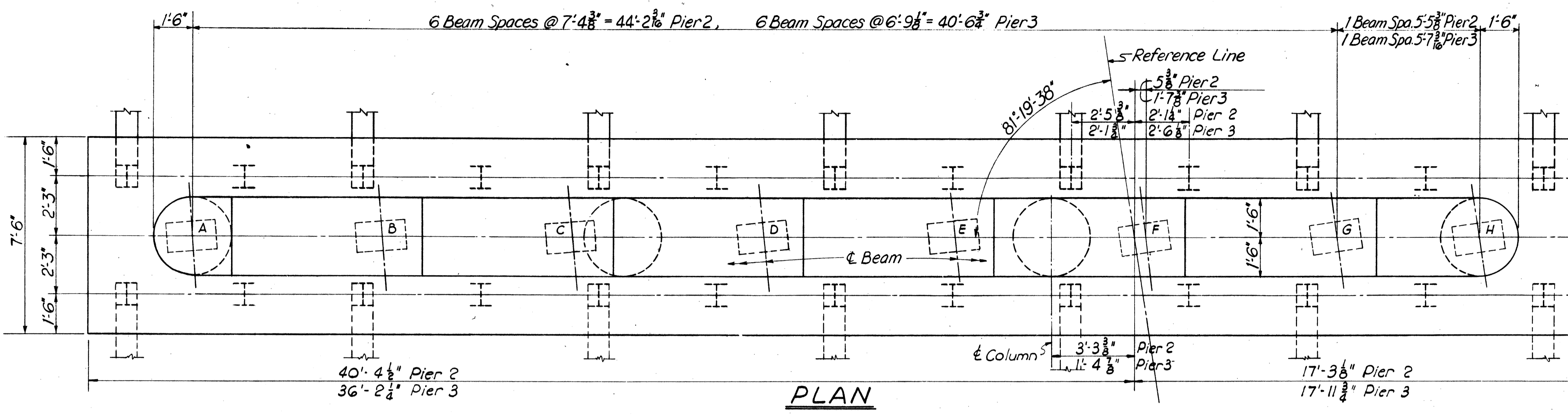
SECTION D-D

SANZENBACHER, MILLER & BRIGHAM
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TOLEDO, OHIO

PIER #1
BRIDGE NO. ERI G-0384 LEFT
OVER U.S.G (EXIST.) & COLD CREEK
ERIE COUNTY STA. 453+31.27 To
STA. 455+81.83

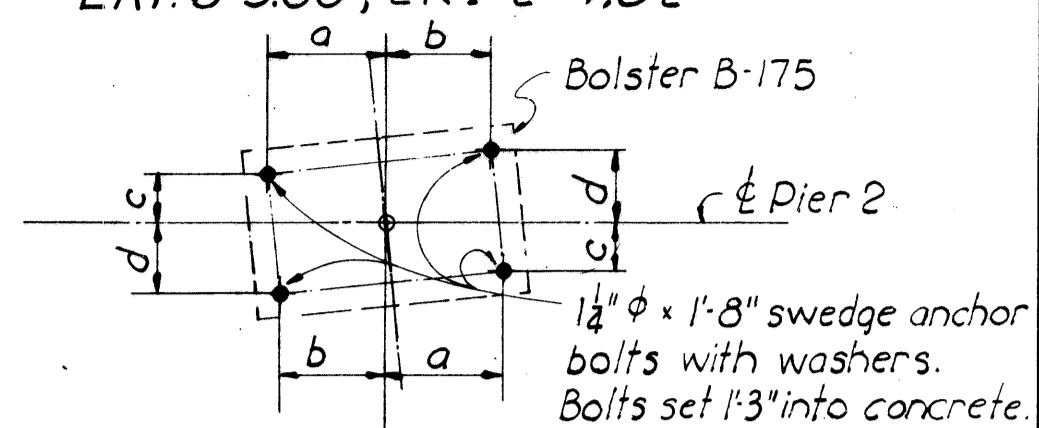
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD		HDP	BJH FCM	9-5-61	

ERI. 6-380; ERI 2-4.02



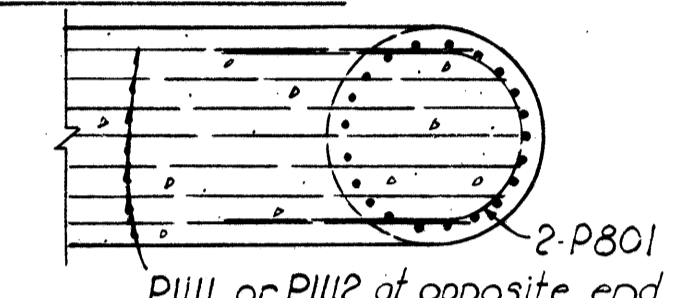
Pier 2, Piles battered as shown. Pier 3, All piles are vertical. See General Plan & Elevation.

Pier 2, Piles battered as shown. Pier 3, All piles are battered. See General Plan & Elevation.



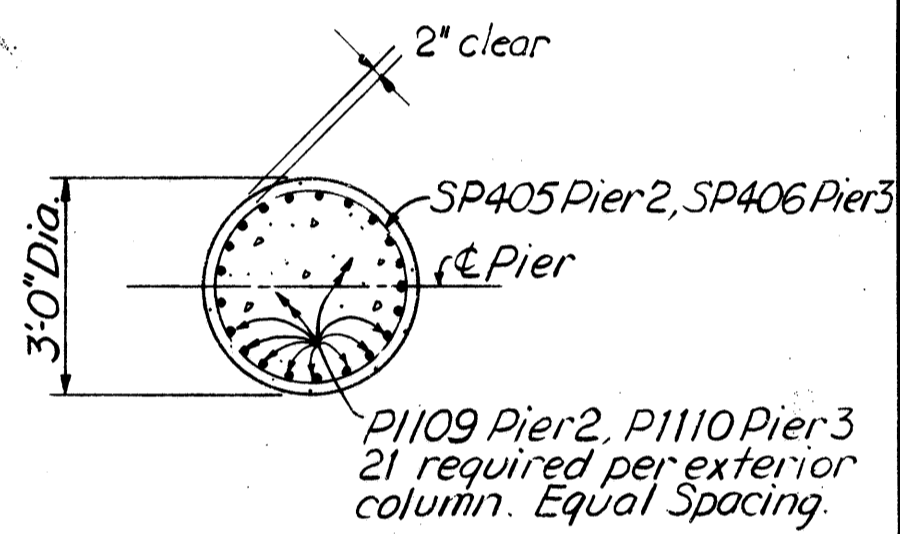
Dimension	A	B	C	D	E	F	G	H
a	9 1/8"	9 3/8"	10"	10"	10 1/8"	10 1/8"	10 3/8"	10 3/8"
b	9"	9"	8 3/8"	8 3/8"	8 3/8"	8 3/8"	8 3/8"	8 3/8"
c	4 1/8"	4 1/8"	3 3/8"	3 3/8"	3 3/8"	3 3/8"	3 3/8"	3 3/8"
d	5 3/8"	5 3/8"	6"	6"	6 1/8"	6 1/8"	6 3/8"	6 3/8"

ANCHOR BOLT LOCATIONS FOR PIER #2

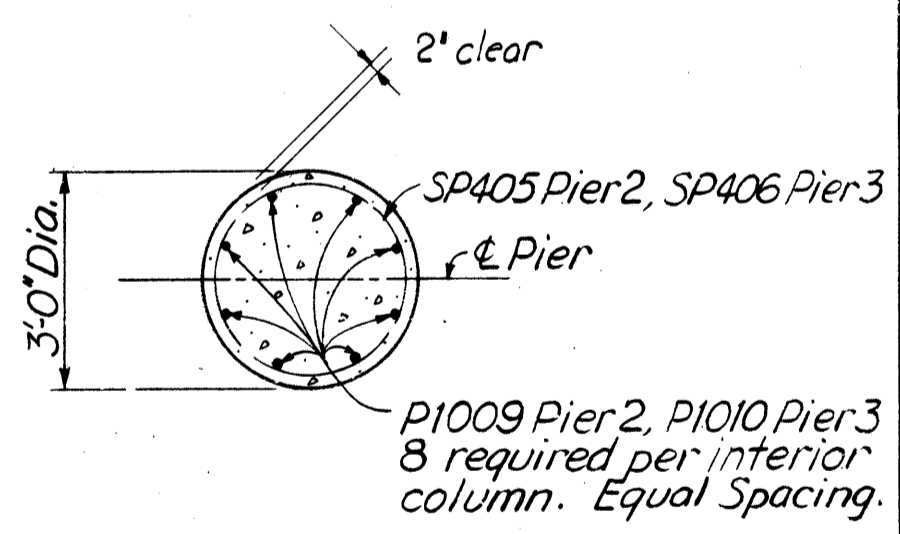


MICROFIL
SEP 11 1986

SECTION D-D

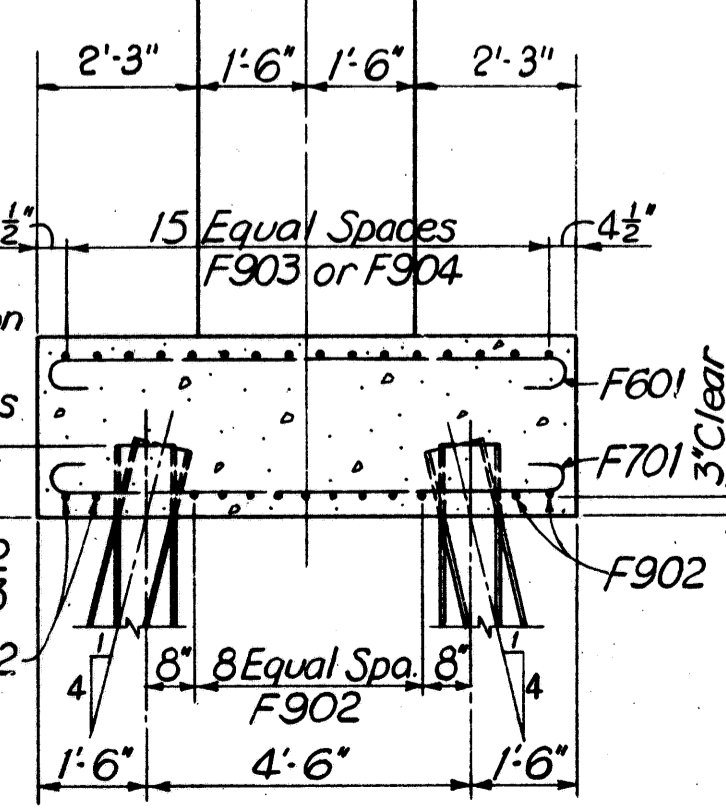
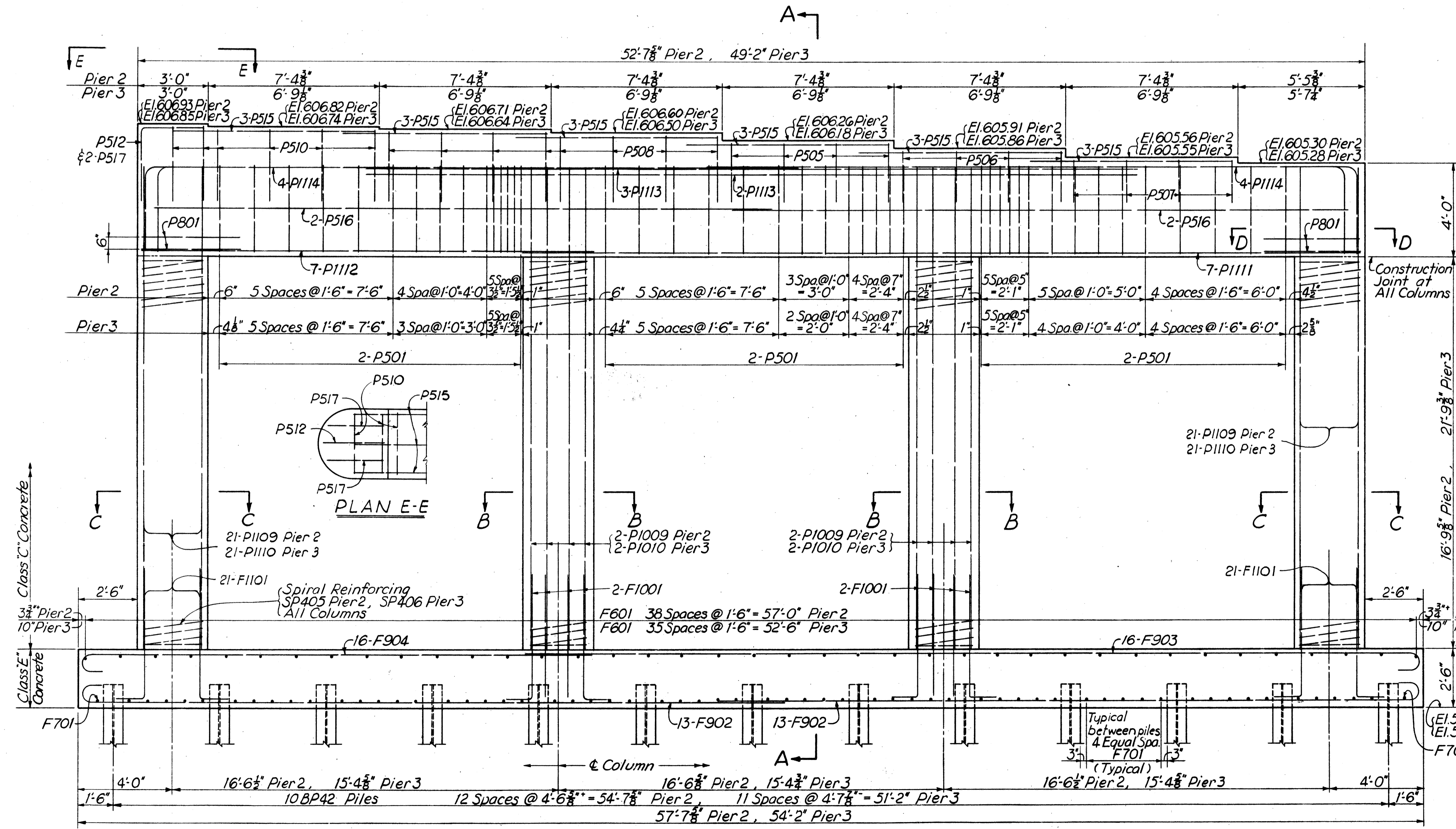


SECTION C-C



SECTION B-B

Special care shall be taken in placing reinforcing steel in Pier 2 cap so that it will not interfere with the Bolster anchor bolts.



SECTION A-A

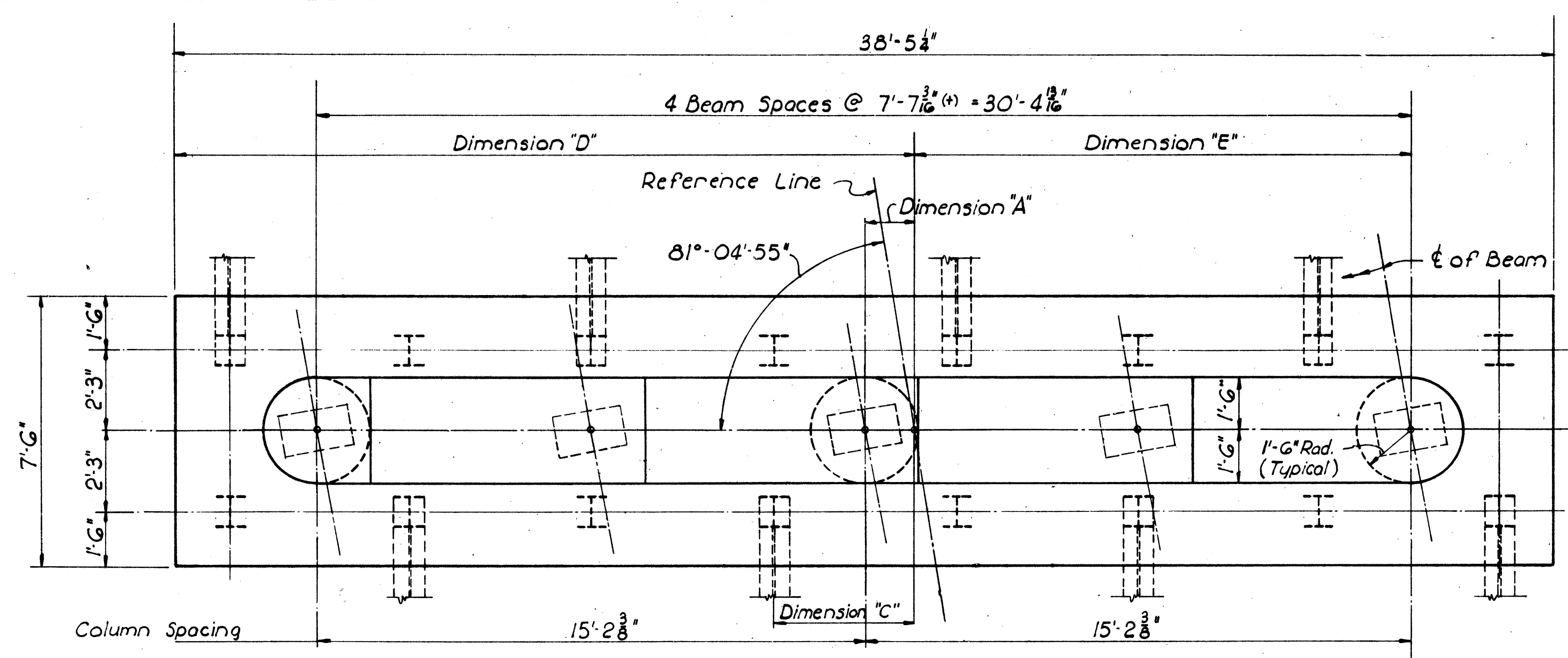
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CONSULTING ENGINEERS
TOLEDO, OHIO

PIERS 2 & 3
BRIDGE NO. ERI 6-0384 LEFT
OVER US 6 EXIST. & COLD CREEK
ERIE COUNTY

STA. 453 + 31.27 To
STA. 455 + 81.83

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	JHY		HDP	BJH FGM	9-5-61	

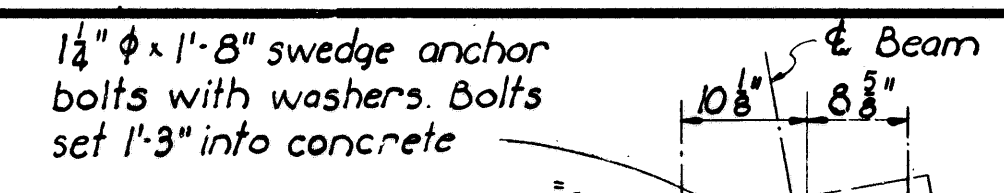
ERI G-3.80; ERI. 2-4.02



Battered and vertical piling as shown is for Piers 4 & 5 only.

For Pier 6, all piles in this row are vertical. See General Plan & Elevation.

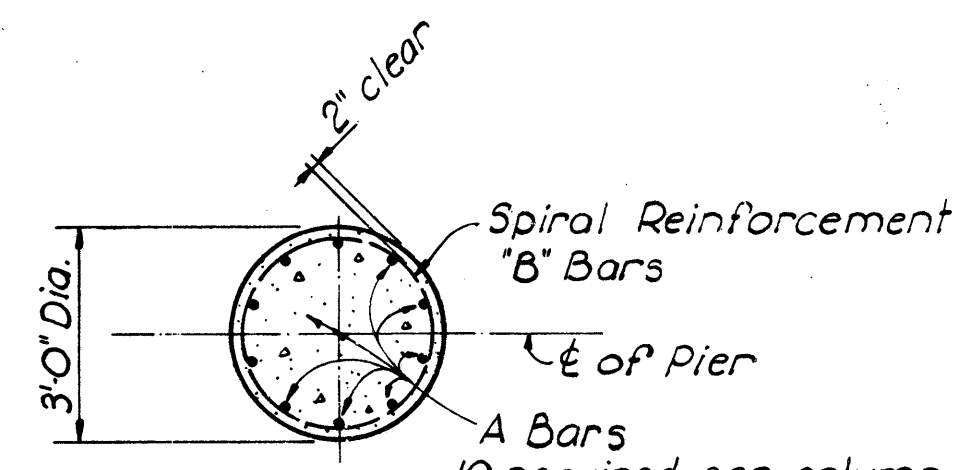
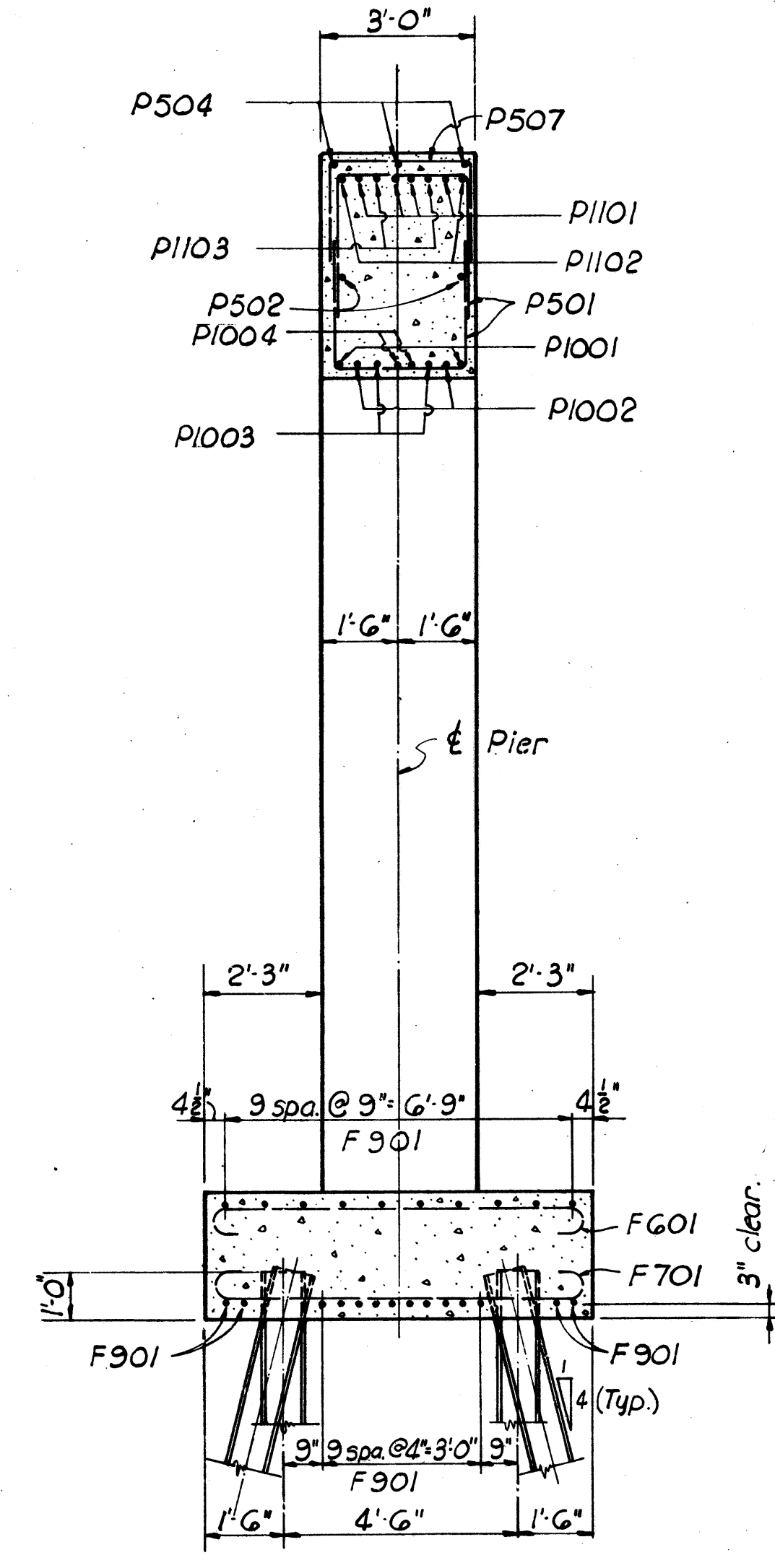
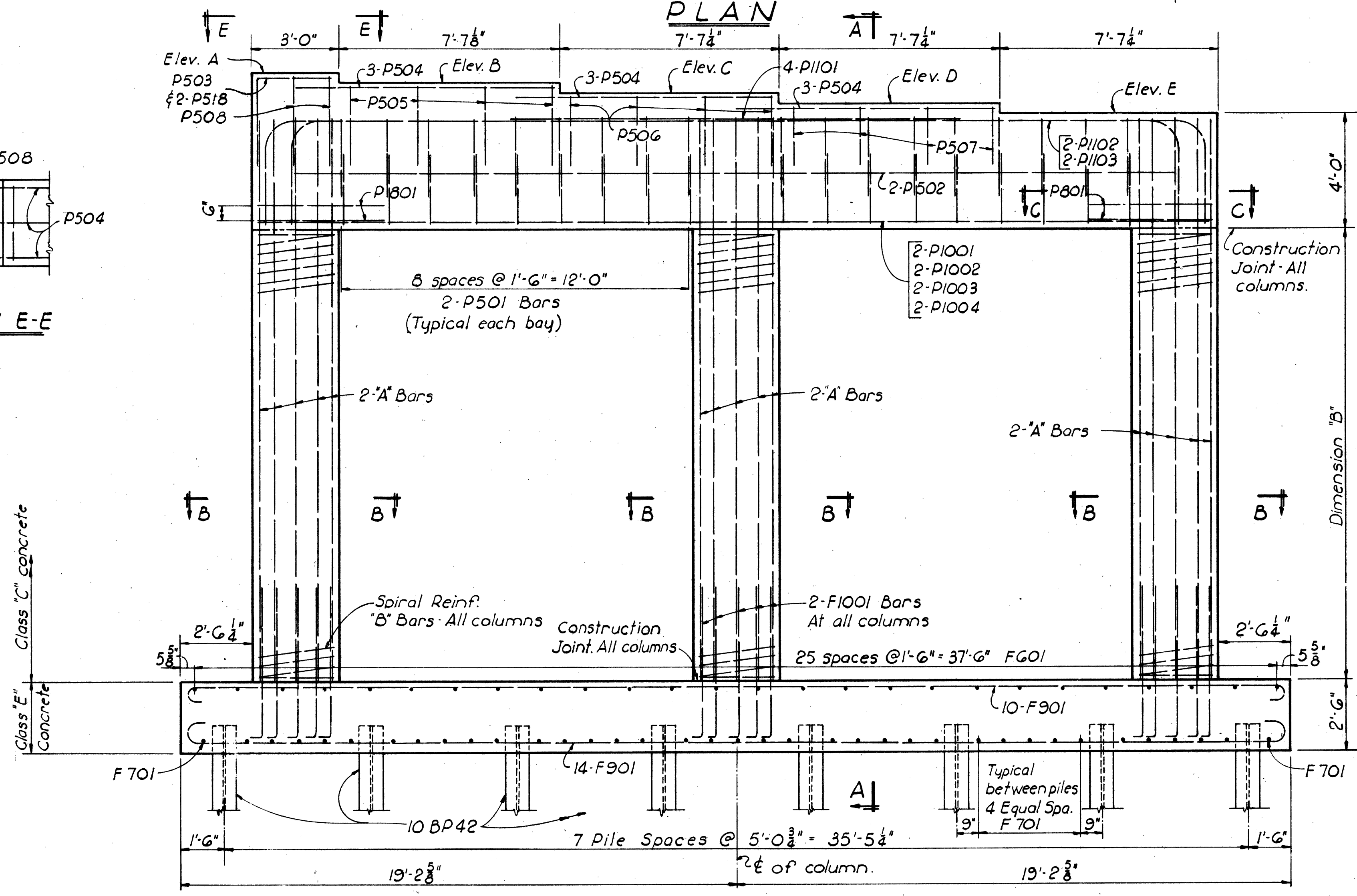
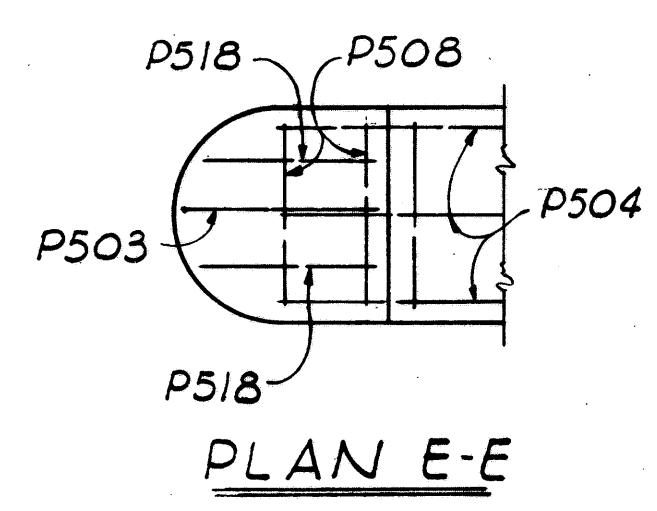
For Pier 6 all piles in this row are battered. See General Plan & Elevation.



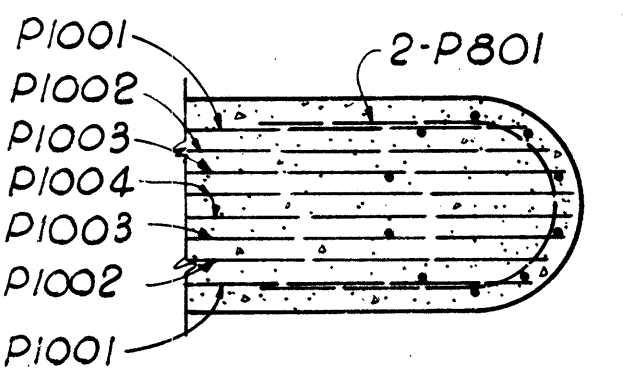
ANCHOR BOLT LOCATION AT PIER 5

Pier	Dimensions					Elevations					
	A	B	C	D	E	A	B	C	D	E	F
Pier 4	1'-4 3/8"	15'-5 1/2"	3'-11 1/2"	24'-7 1/2"	13'-9 3/8"	605.43	605.08	604.71	604.35	603.99	582.0
Pier 5	1'-11 1/8"	15'-8"	4'-6"	25'-2 1/2"	13'-2 1/2"	605.60	605.25	604.89	604.53	604.17	582.0
Pier 6	1'-2 1/2"	20'-8 1/2"	3'-8 1/2"	24'-5 1/2"	14'-0 1/2"	605.61	605.26	604.90	604.54	604.18	577.0

Pier	Reinforcing Bars	
	A	B
Pier 4	P1005	5D401
Pier 5	P1006	5D402
Pier 6	P1007	5D403



SECTION B-B



SECTION C-C

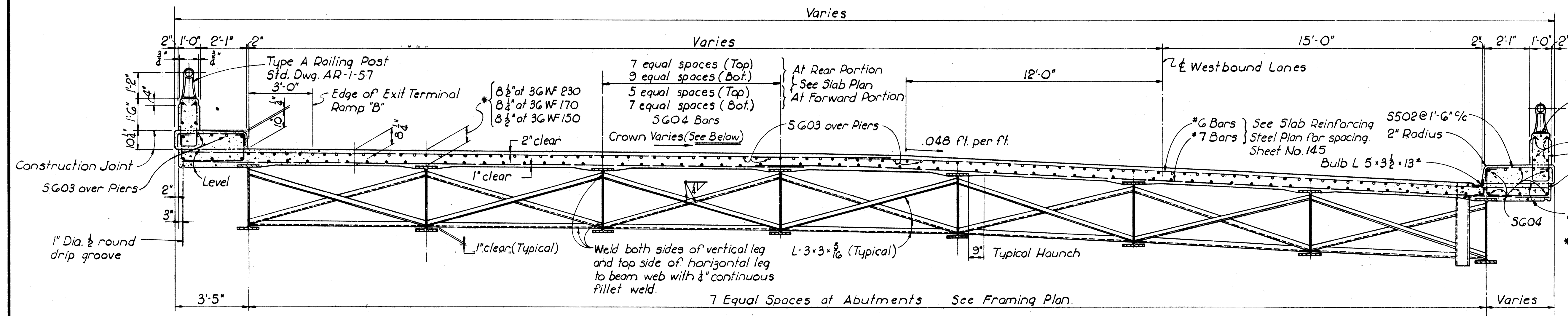
Special care shall be taken in placing reinforcing steel in Pier #5 cap so that it will not interfere with the Bolster anchor bolts.

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CONSULTING ENGINEERS
TOLEDO, OHIO

PIERS #4, 5 & 6
BRIDGE No. ERI. G-0384 RIGHT
OVER U.S.G (EXIST.) & COLD CREEK
ERIE COUNTY STA. 453 + 31.27 To
STA. 455 + 81.83

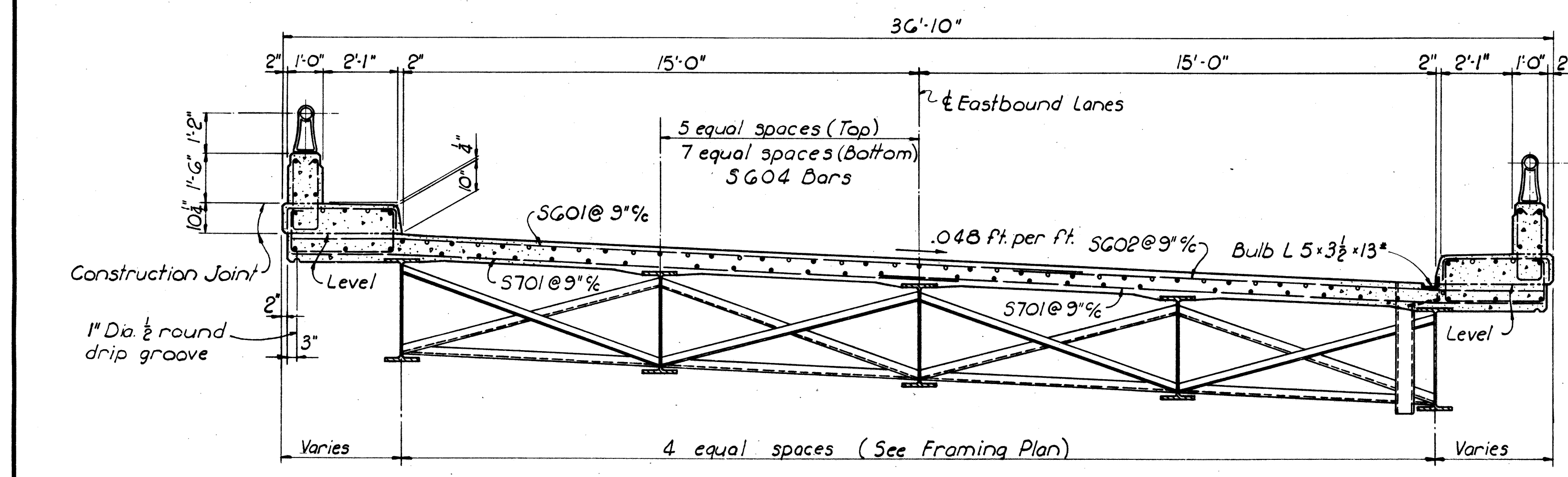
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
BJH	TWD		HDP	BJH FCM	9-5-61	12-27-61

ERI. G-3.80 ; ERI. 2-4.02



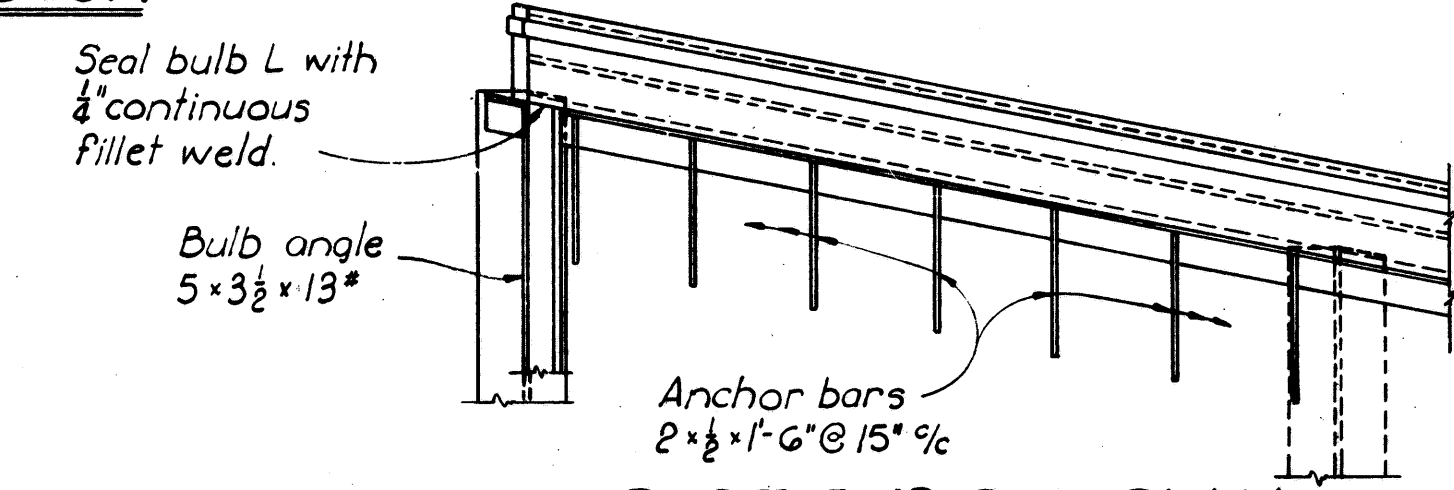
LEFT BRIDGE TRANSVERSE SECTION OF DECK

* This 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 beams may not have the exact camber or conformation required to place it parallel to the finished grade. The distances shown from top of roadway to top of steel is true only at centerline of abutment and pier bearings.
DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.
 Slab thickness includes 1" for Monolithic Wearing Surface.

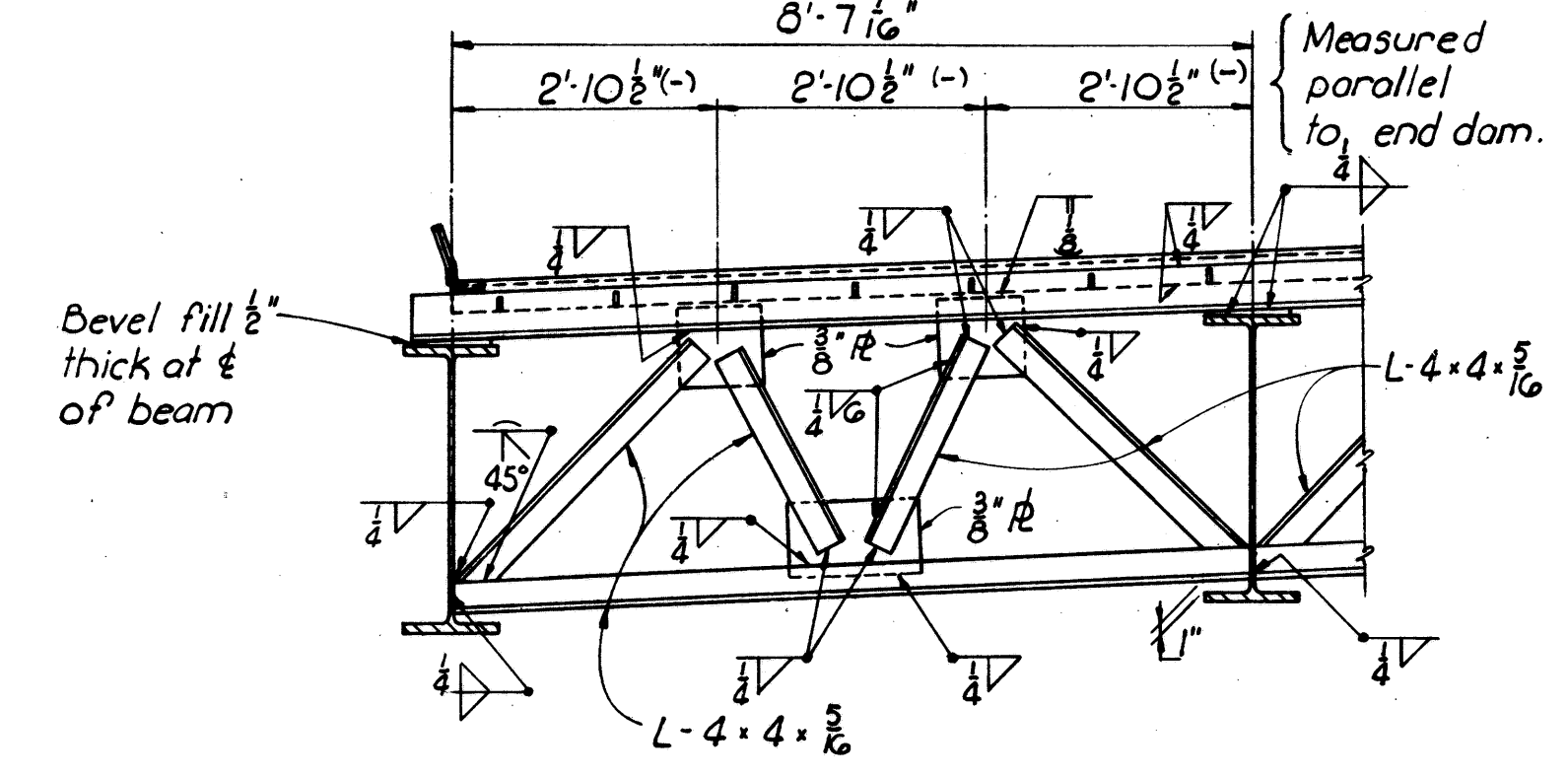


RIGHT BRIDGE TRANSVERSE SECTION OF DECK

Details not shown are similar to Left Bridge

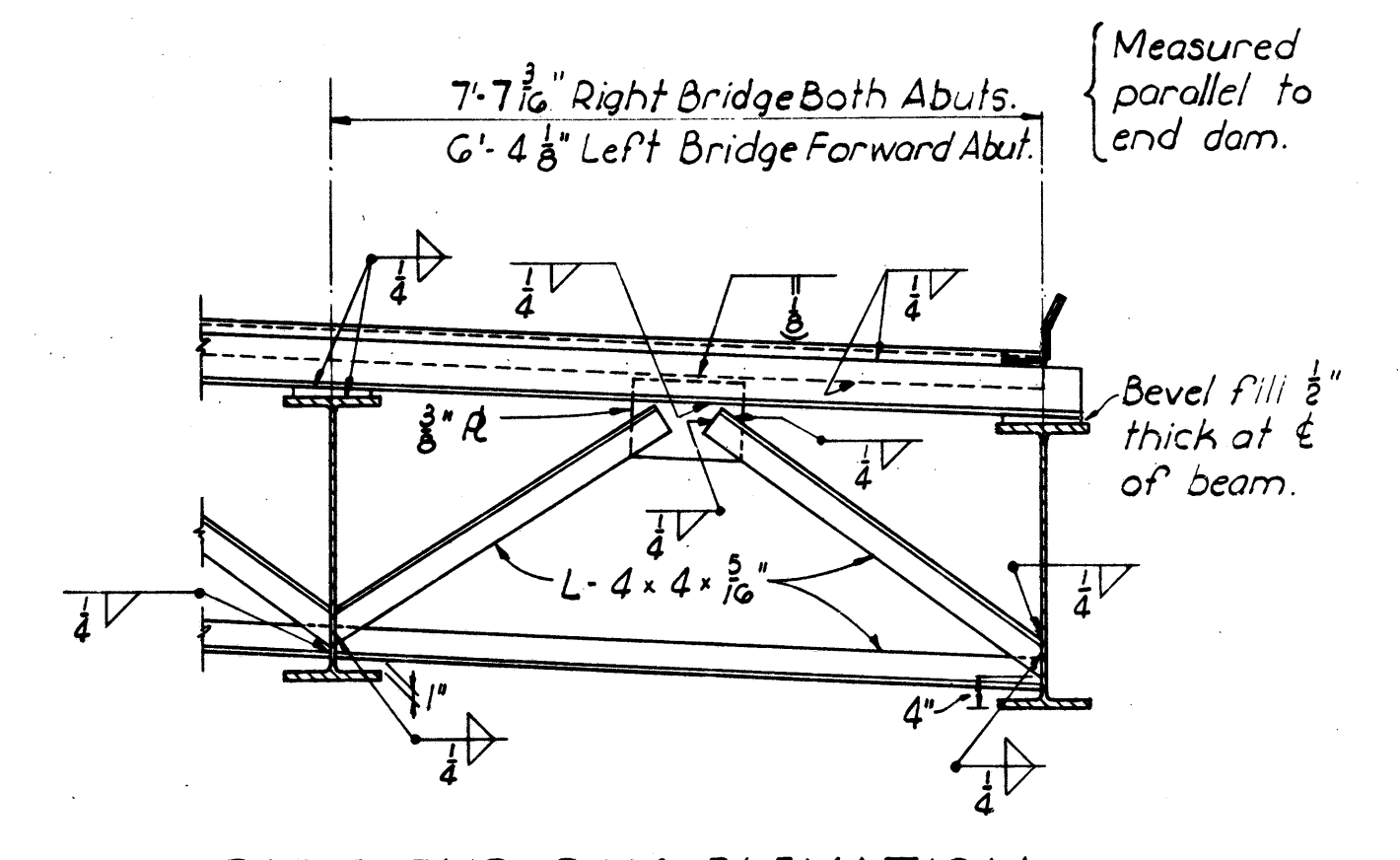


PART END DAM PLAN

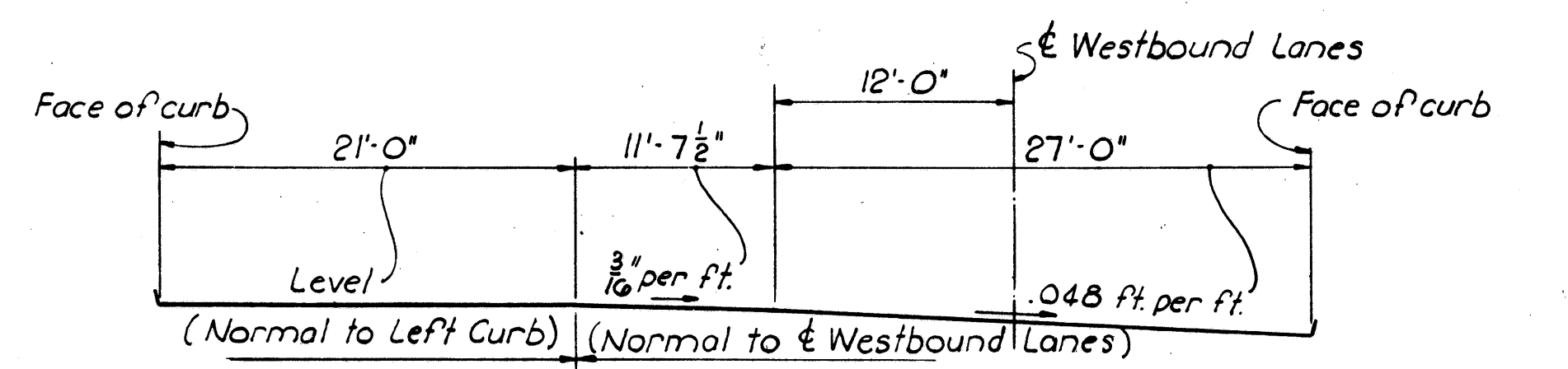


PART END DAM ELEVATION

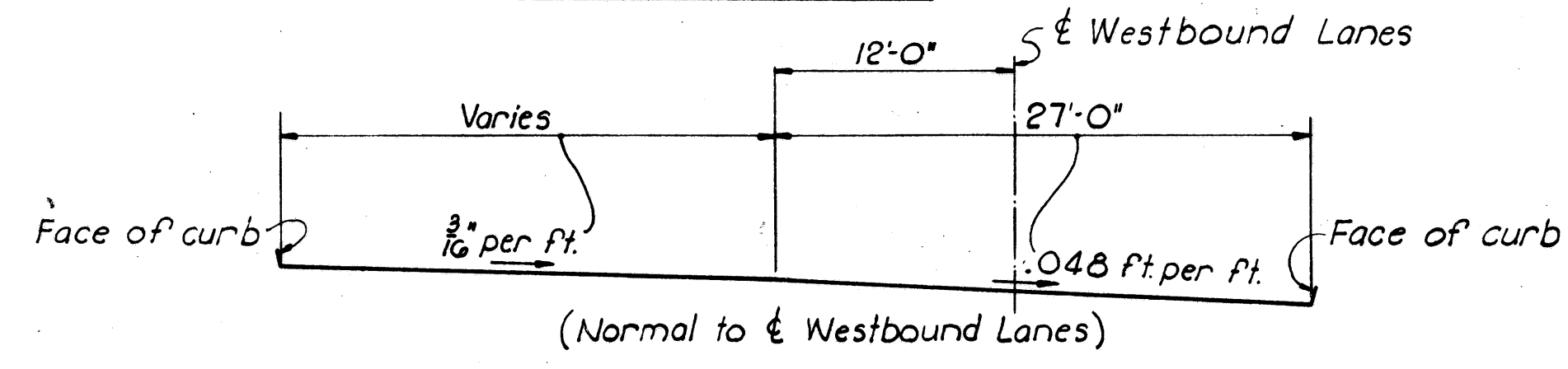
For Left Bridge at Rear Abutment only



PART END DAM ELEVATION



AT STA. 453 + 47.80



AT STA. 454 + 01.87 and ahead.

BRIDGE ROADWAY CROWN FOR LEFT BRIDGE

Station	Face of Left Curb	21'-0" from Left Curb	Left Edge of Westbd Lanes	Profile Grade *	Face of Right Curb
453+50	G11.69	G11.67	G11.49	G10.53	G10.20
453+75	G11.88	G11.72	G11.57	G10.61	G10.28
454+00	G12.05	G11.73	G11.62	G10.66	G10.33
454+25	G12.06	—	G11.65	G10.69	G10.36
454+50	G12.03	—	G11.65	G10.69	G10.36
454+75	G11.99	—	G11.63	G10.67	G10.34
455+00	G11.91	—	G11.58	G10.62	G10.29
455+25	G11.81	—	G11.50	G10.54	G10.21
455+50	G11.70	—	G11.40	G10.44	G10.11
455+75	G11.56	—	G11.28	G10.32	G09.99

* Profile Grade = Median edge of pavement grade + 19'.
 Pavement rotated about median edge of pavement.
 (See Superelevation Tables).

NOTE:
 Make provision for contraction in the end dam backwall angle (G₄ × 1/8) and bar (2 × 1/8) at the contraction joint in the abutment walls.

- Refer to Standard CSB-2-5G sheets 2 & 3 of G for the following details:
 1. Roadway End Dam (additional details)
 2. Welded Butt Joint in Superstructure End Dam Angles (Left Bridge)
 3. Scupper Details.
 4. Gutter Supports
 5. Curb Plate Details.

Refer to Standard Drawing RB-1-55 for Rockers and Bolsters.

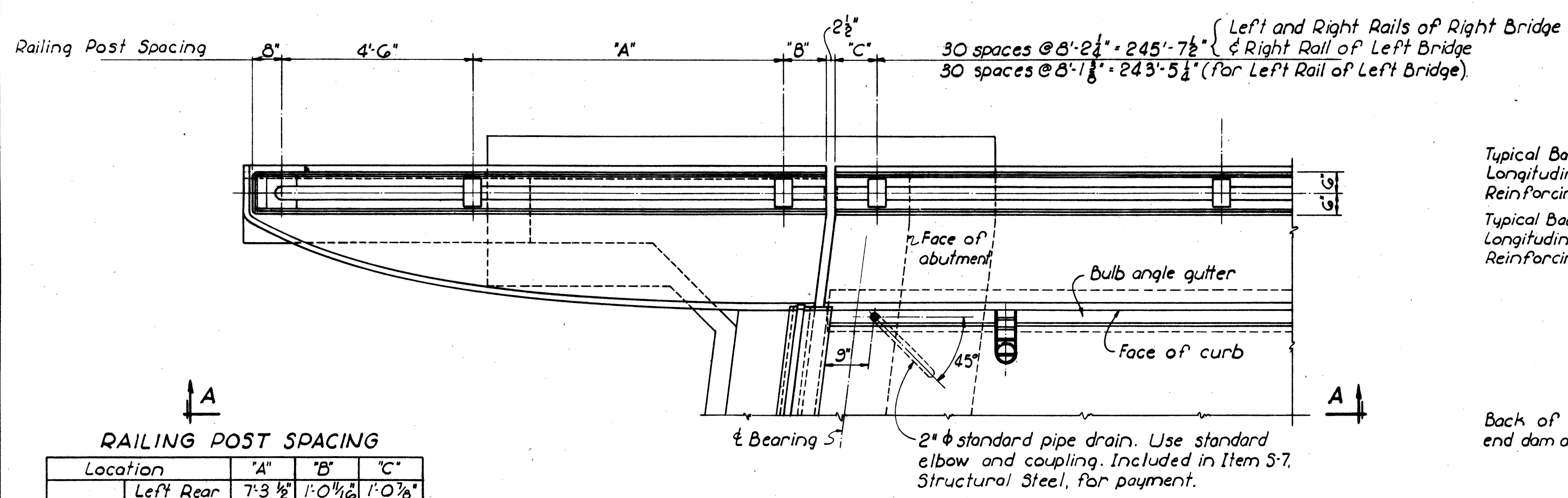
MICROFIL
 SEP 11 1986

SANZENBACHER, MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
 BRIDGE NO. ERI G-0384 LEFT & RIGHT
 OVER U.S.G (EXIST.) & COLD CREEK
 ERIE COUNTY STA. 453+31.27 TO
 STA. 455+81.83

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD		TFH	B.J.H.	9-5-61	

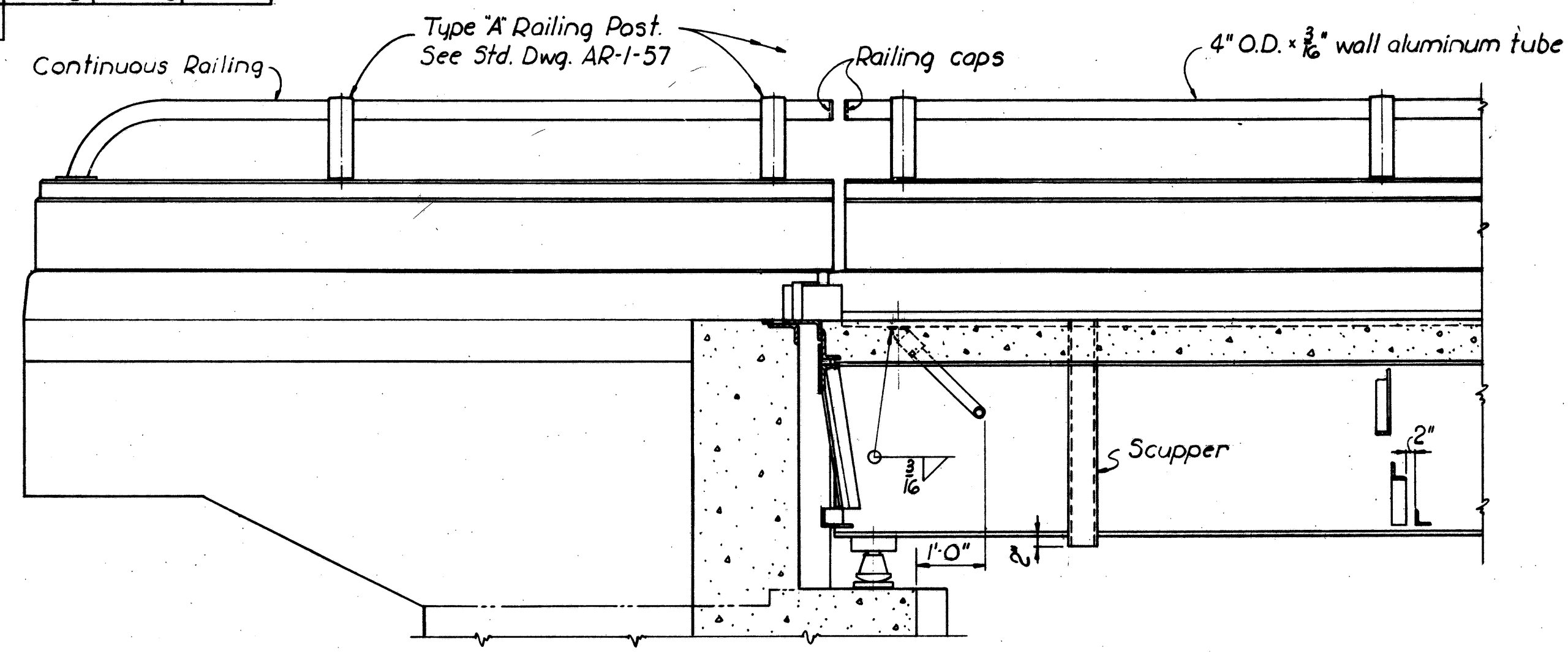
ERI G-3.80 ; ERI 2-4.02



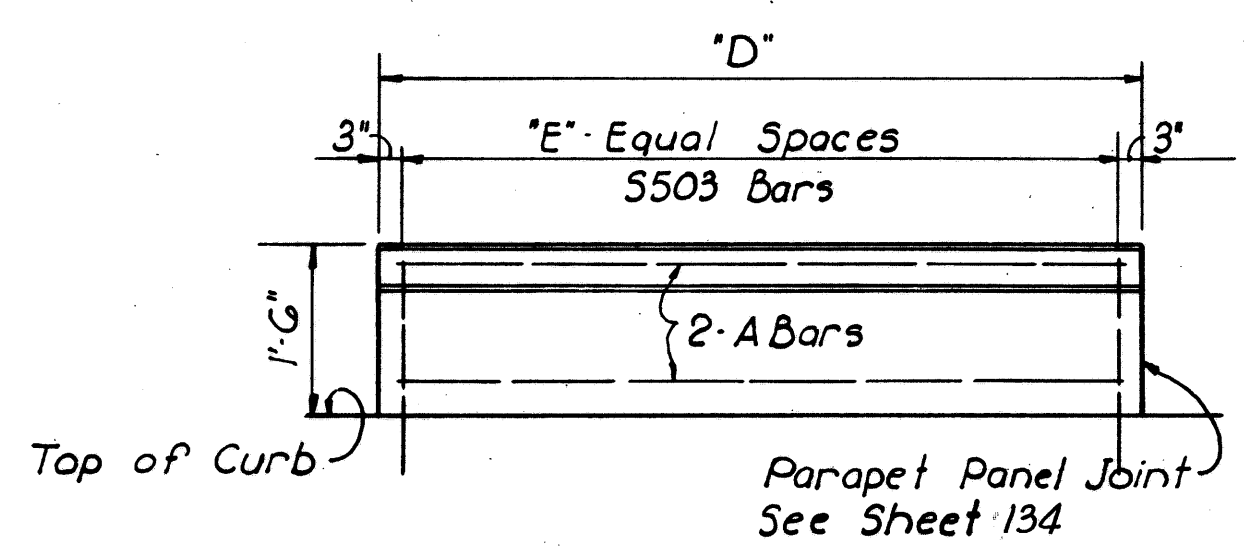
RAILING POST SPACING

Location	"A"	"B"	"C"
Left Bridge	Left Rear	7'-3 1/2"	1'-0 1/16"
	Left Fwd.	7'-4 1/8"	1'-0 1/16"
	Right Rear	7'-6 1/8"	0'-11 9/16"
Right Bridge	Left Rear	7'-3 3/4"	1'-0 1/8"
	Left Fwd.	7'-5 3/4"	1'-0 9/16"
	Right Rear	7'-5 1/8"	1'-0 9/16"
Bridge Wingwall			

PLAN AT ABUTMENT



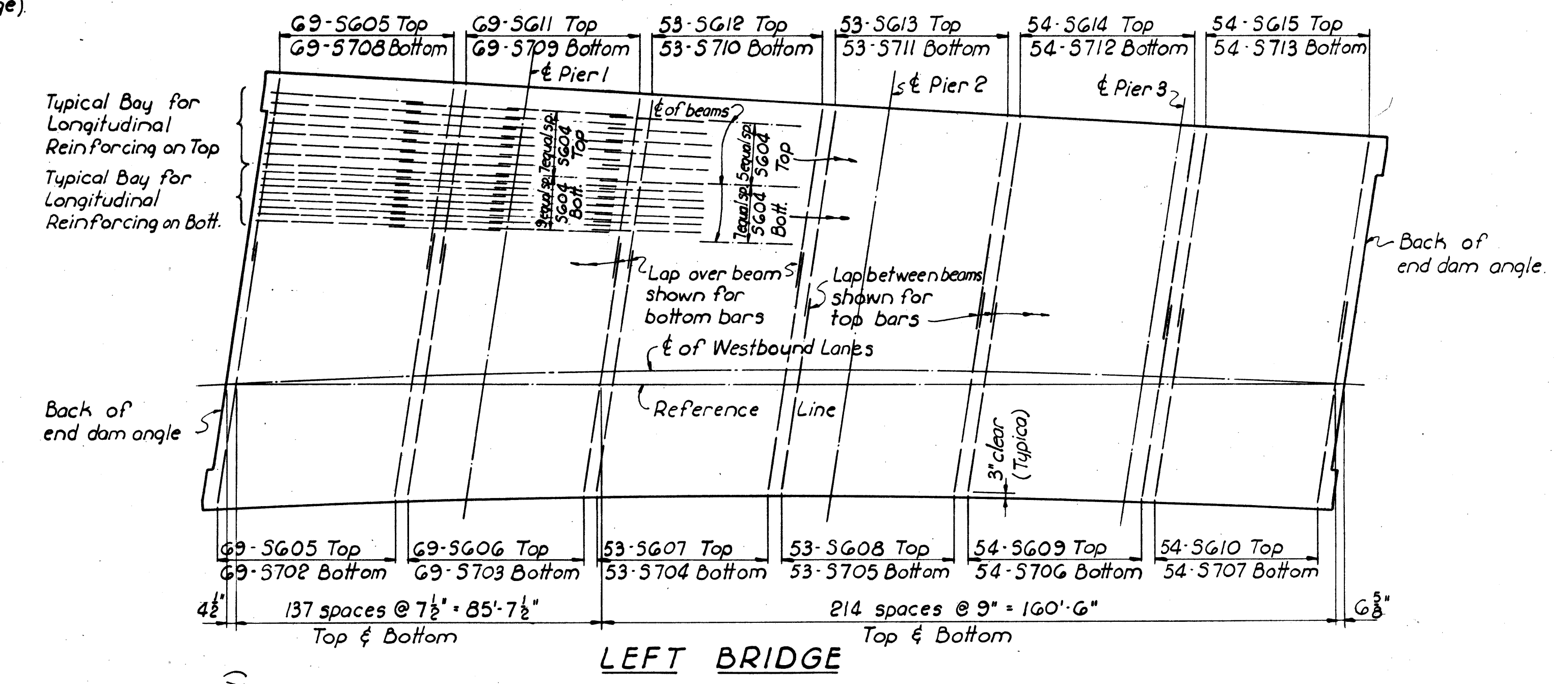
SECTION A-A



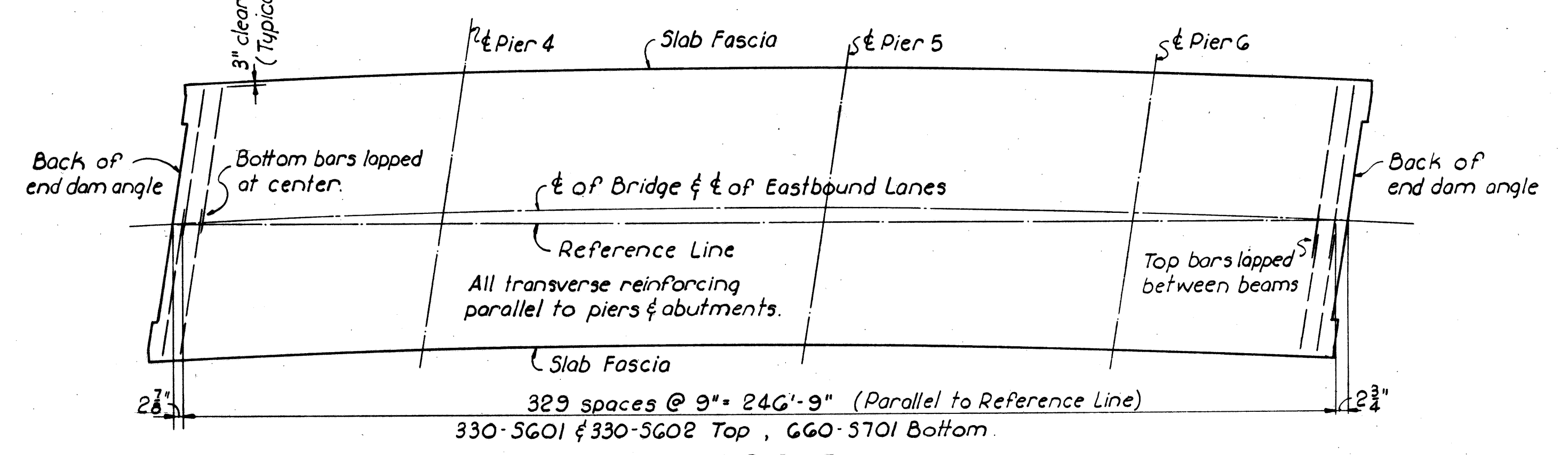
TYPICAL PANEL

PARAPET DETAILS

Panel Location See Sheet 134	D	E	A Bars	No. of Panels
Left Bridge	Left Rear	13'-2 1/2"	9	S504 1
	Left Intermed.	16'-2 3/4"	11	S505 14
	Left Forward	5'-1 1/2"	4	S506 1
	Right Rear	13'-2 1/2"	9	S504 1
	Right Intermed.	16'-4 1/2"	11	S507 14
Right Bridge	Left Forward	5'-0 1/2"	4	S508 1
	Left Rear	13'-3 1/2"	9	S504 1
	Left Intermed.	16'-4 1/2"	11	S507 14
	Right Rear	13'-3 1/2"	9	S504 1
	Right Forward	5'-1 1/2"	4	S506 1
Bridge Parapet				



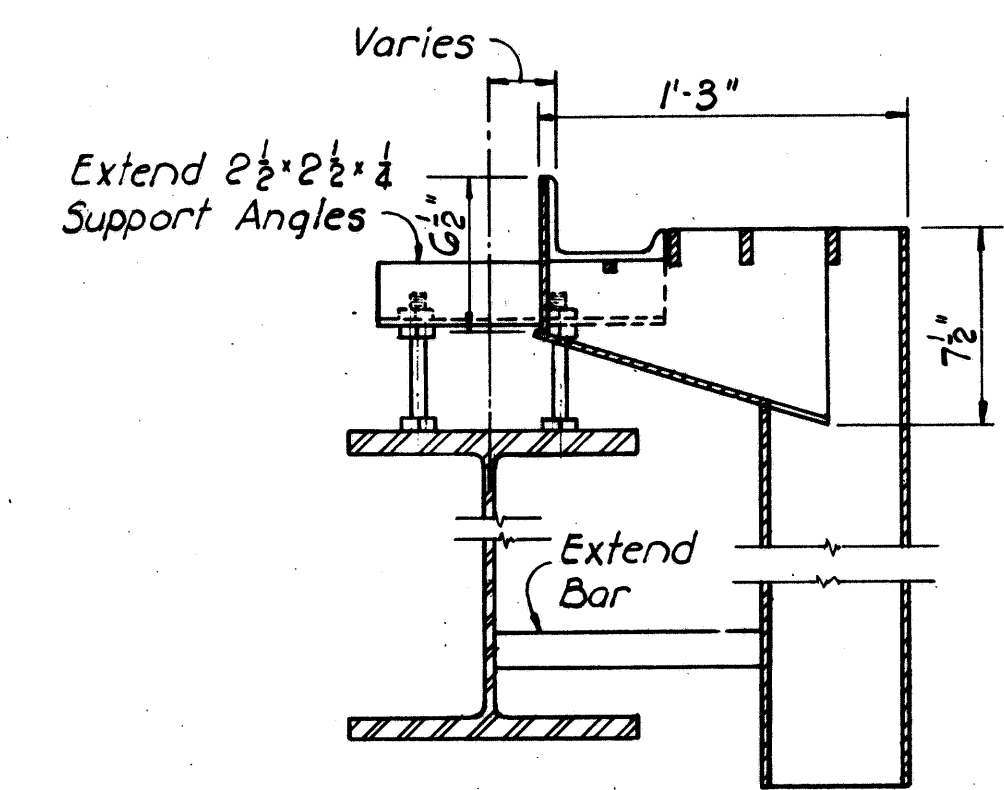
LEFT BRIDGE



RIGHT BRIDGE

SLAB REINFORCING STEEL PLAN
For longitudinal steel not shown see Transverse Sections

MICROFIL
SEP 11 1986



SCUPPER DETAILS

For details not shown see CSB-2-56 sheet 3 of 6

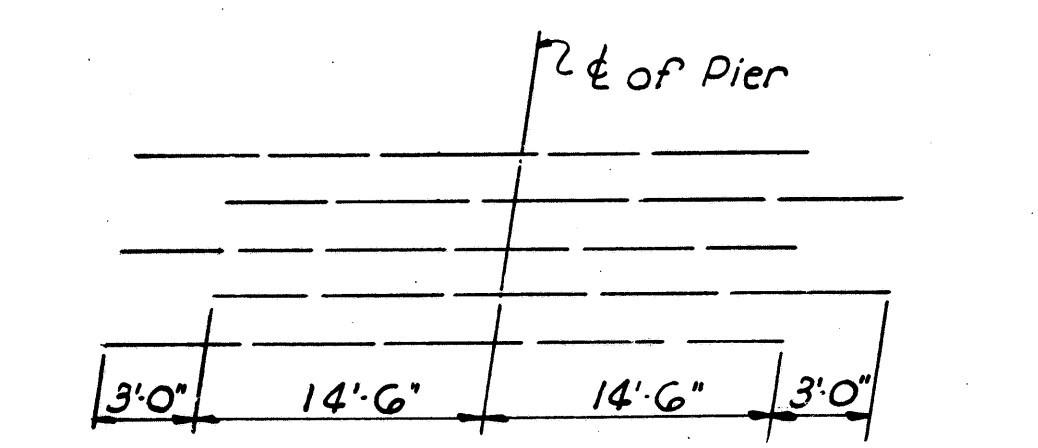


DIAGRAM SHOWING STAGGER OF SG03 BARS OVER PIERS

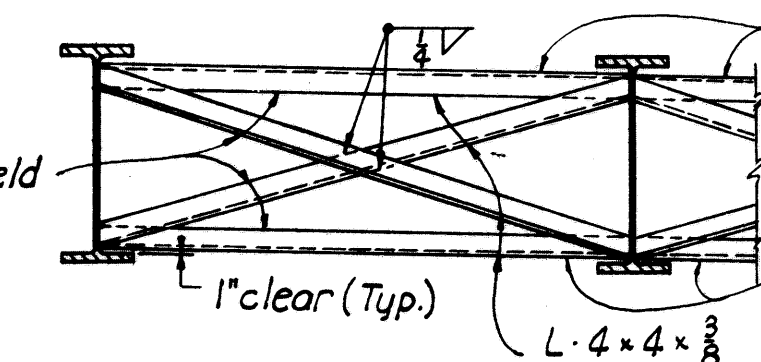
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CONSULTING ENGINEERS
TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI G-0384 LEFT & RIGHT
OVER U.S.G. (EXIST.) & COLD CREEK
ERIE COUNTY STA. 453+31.27 TO
STA. 455+81.83

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD		TFF HDP	BJH FCM	9-5-61	

ERI. G-3.80; ERI. 2-4.02

Weld both sides of vertical leg to beam webs with $\frac{1}{4}$ " continuous fillet weld

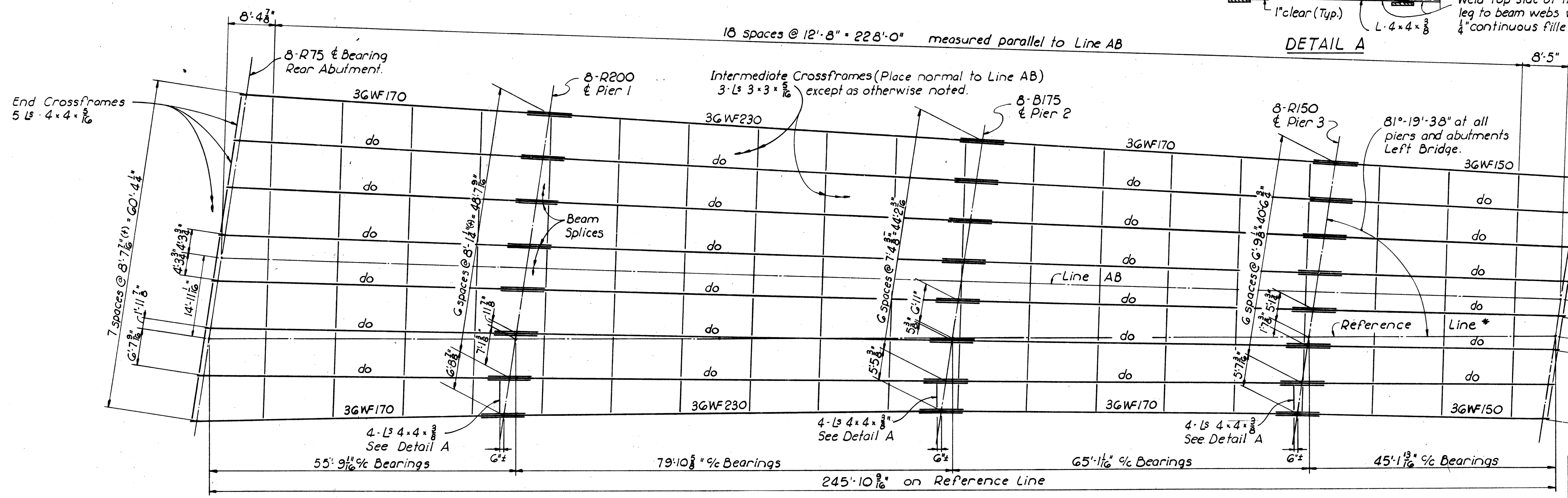


Weld bottom side of horizontal leg to beam webs with $\frac{1}{4}$ " continuous fillet weld.

Weld top side of horizontal leg to beam webs with $\frac{1}{4}$ " continuous fillet weld

DETAIL A

MICROFIL
SEP 11 1986

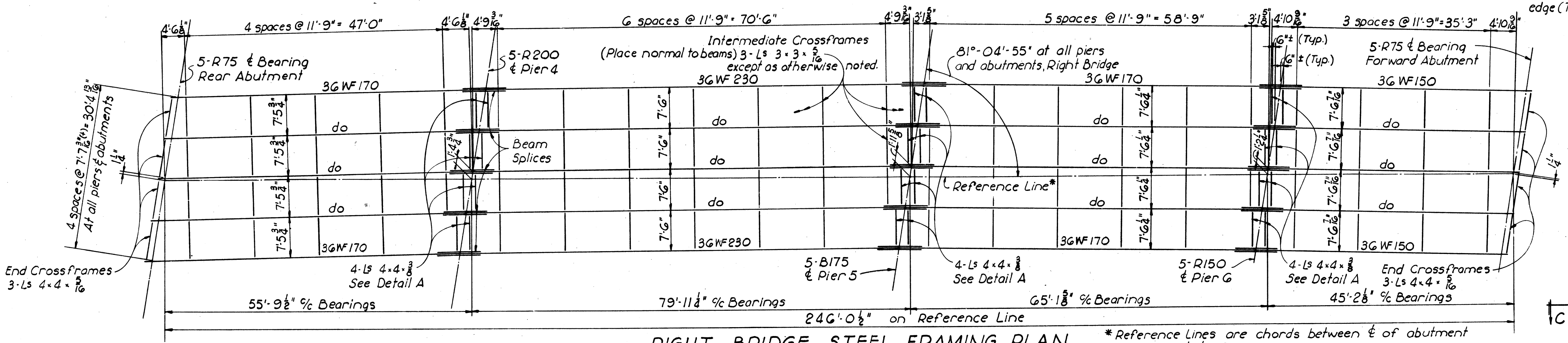


LEFT BRIDGE STEEL FRAMING PLAN

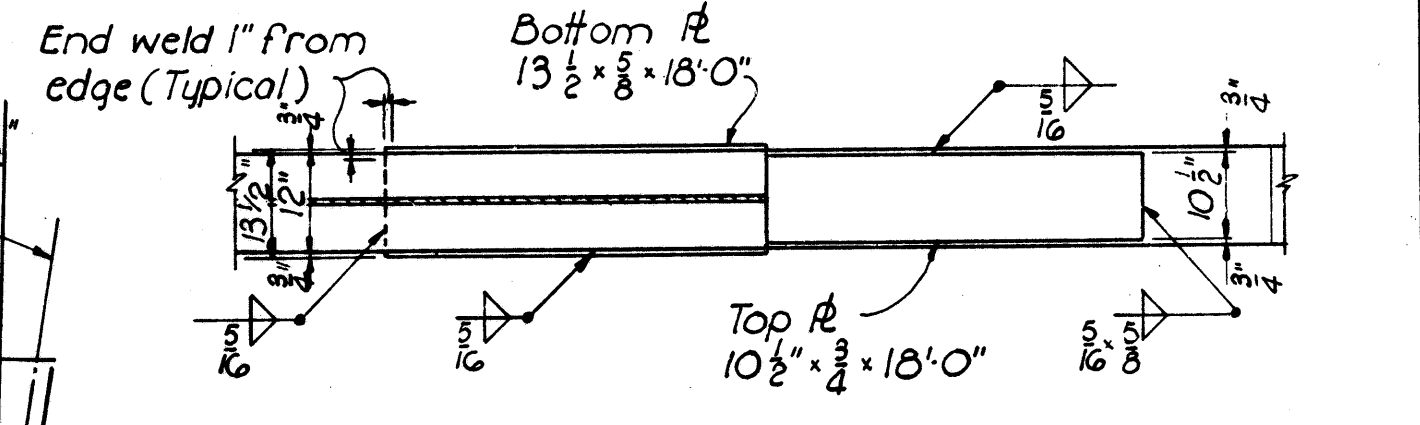
- BEAM SPlice WELDING PROCEDURE:**
1. Raise end of beam at Pier 2 (or Pier 5) $\frac{1}{2}$ "
 2. Butt weld flanges and web at Pier 1 (or Pier 4) using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
 3. Weld top and bottom flange moment plates at Pier 1 (or Pier 4)
 4. Lower end of beam at Pier 2 (or Pier 5)
 5. Make splice at Pier 2 (or Pier 5) and Pier 3 (or Pier 6) in the same manner, raising the end of the beams $\frac{1}{2}$ " at Pier 3 (or Pier 6) and $\frac{3}{8}$ " at the Forward Abutments.

DEFLECTION & CAMBER - INTERIOR & EXTERIOR BEAMS

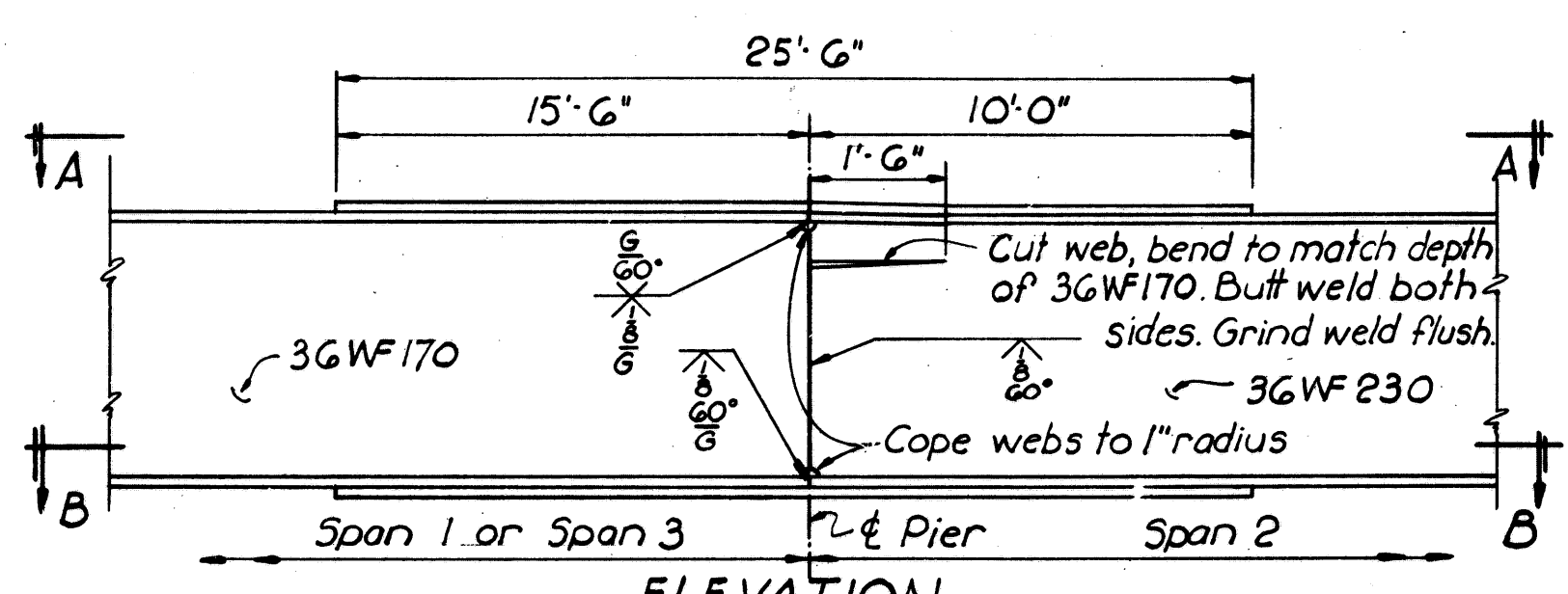
Location	Span 1	Span 2	Span 3	Span 4
Deflection due to weight of steel	0	$\frac{1}{8}$ "	0	0
Deflection due to remaining D.L.	$\frac{1}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{8}$ "	$\frac{1}{8}$ "
Convexity required for vertical curve	$\frac{3}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$\frac{1}{8}$ "
Sum of deflection & convexity	$\frac{5}{16}$ "	$\frac{7}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{4}$ "
Required Camber	0	1"	0	0



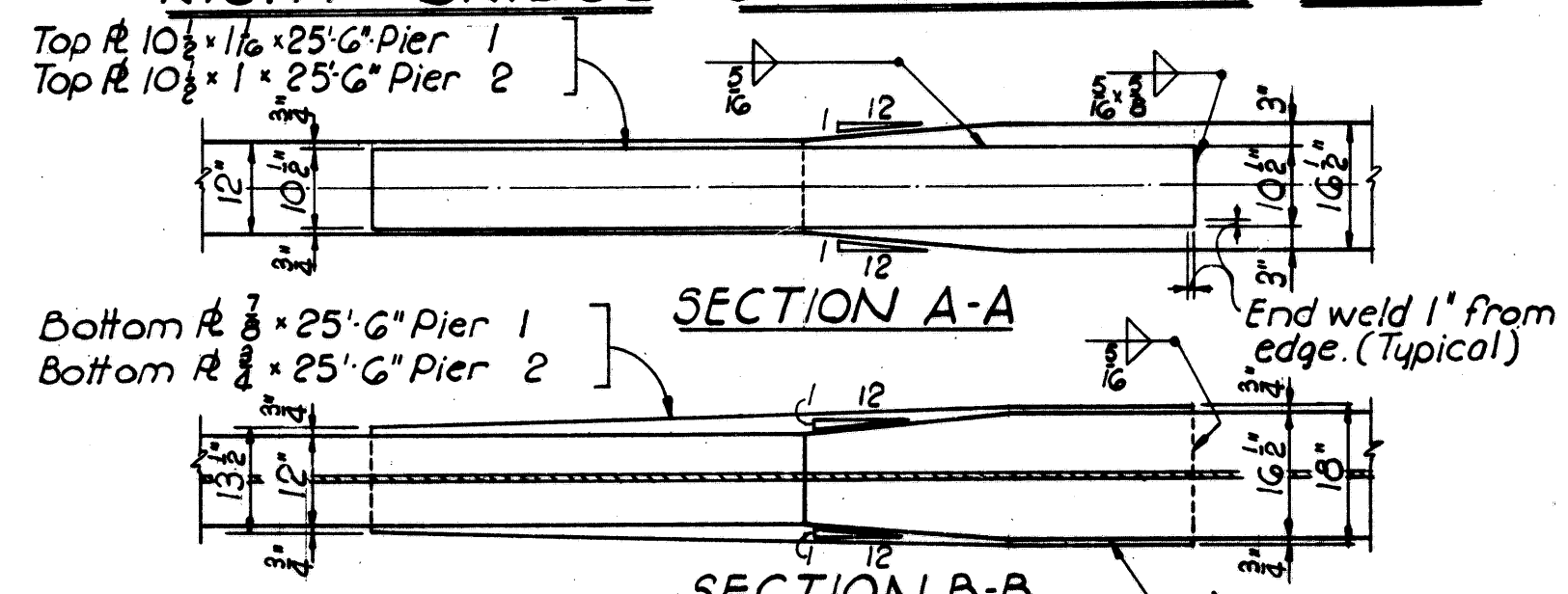
RIGHT BRIDGE STEEL FRAMING PLAN



SECTION C-C

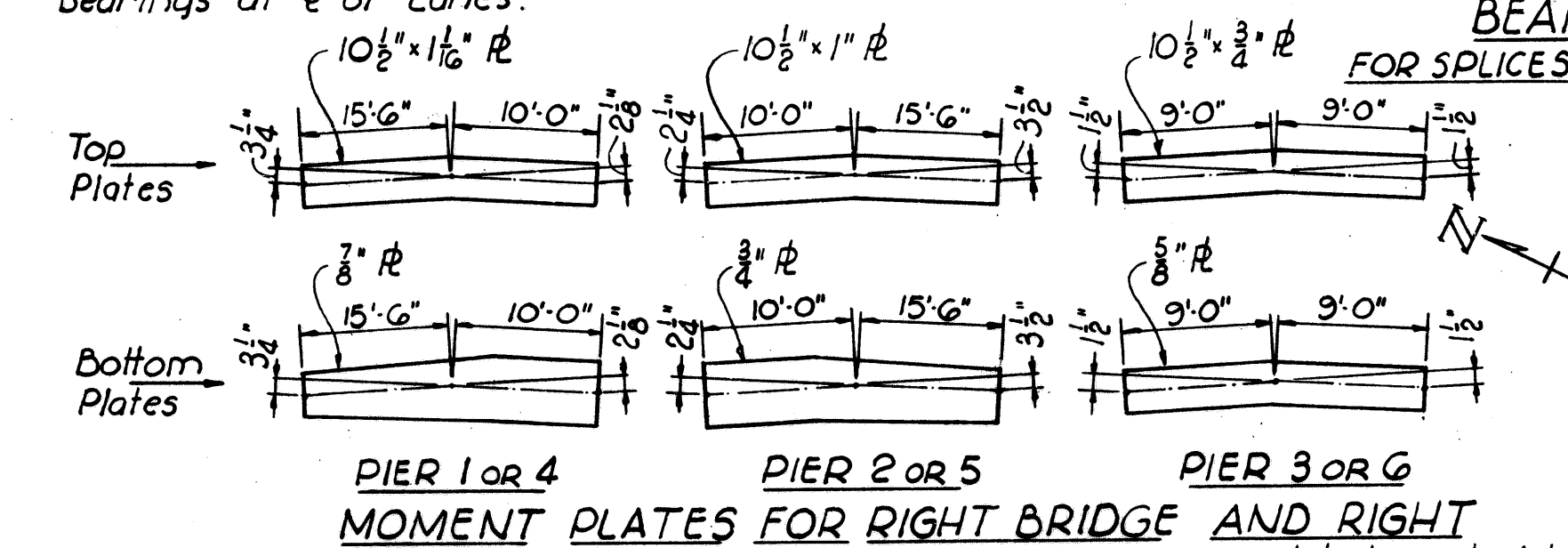


ELEVATION



SECTION A-A

BEAM SPlice DETAILS (LEFT BRIDGE) SECTION B-B FOR SPlices AT PIERS 1 & 2 (ALL BEAMS EXCEPT RIGHT FASCIA)



PIER 1 OR 4 PIER 2 OR 5 PIER 3 OR 6 MOMENT PLATES FOR RIGHT BRIDGE AND RIGHT FASCIA BEAM OF LEFT BRIDGE: Beam splice details and plate dimensions not shown are similar to details at Left Bridge.

BEAM SPlice DETAILS (LEFT BRIDGE) FOR SPlices AT PIER 3 (ALL BEAMS EXCEPT RIGHT FASCIA)

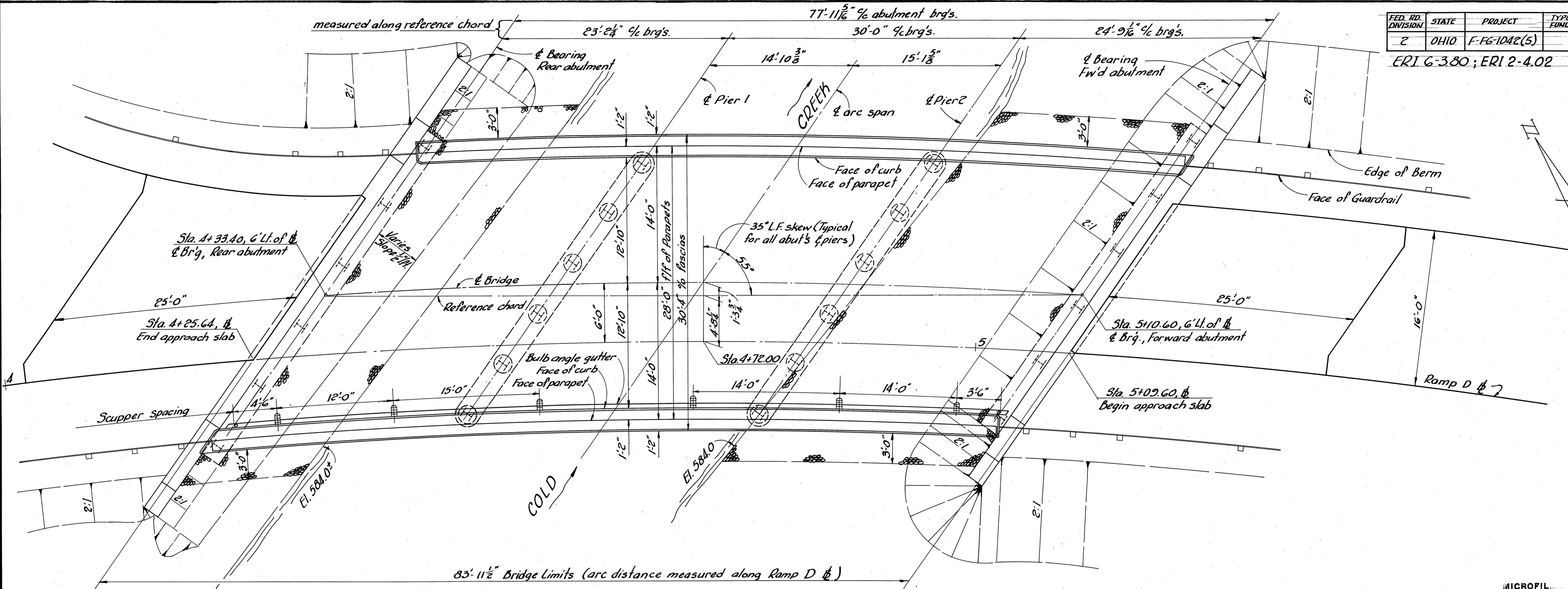
SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI. G-0384, LEFT & RIGHT
OVER U.S.G. (EXIST.) & COLD CREEK

ERIE COUNTY STA. 453+31.27 To
STA. 455+81.83

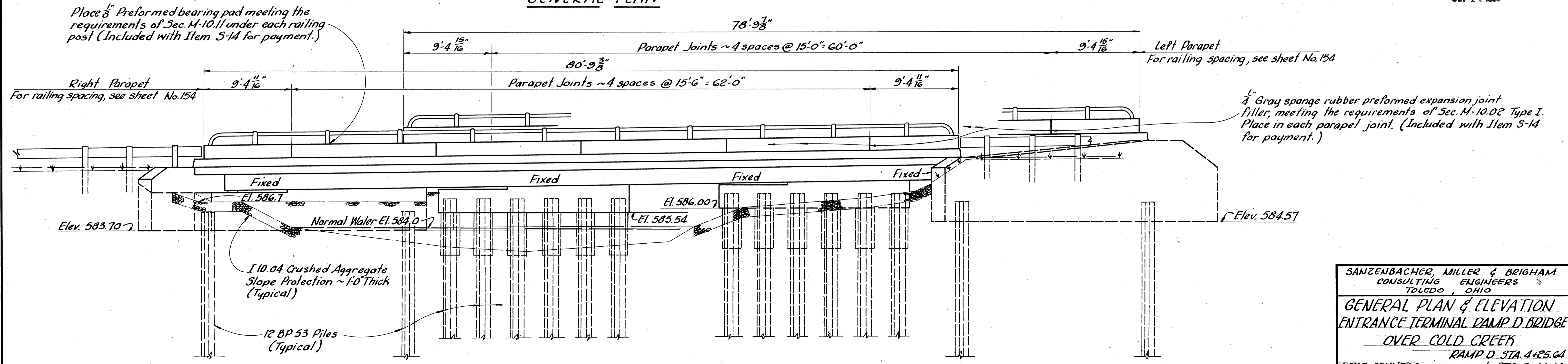
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD		TFH	B.J.H. FCM	9-5-61	

ERI 6-380; ERI 2-4.02



GENERAL PLAN

MICROFIL
SEP 11 1986



GENERAL ELEVATION

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL PLAN & ELEVATION
ENTRANCE TERMINAL RAMP D BRIDGE
OVER COLD CREEK
RAMP D STA. 4+25.64
to STA. 5+09.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JHY	TFH	88	BJH	FCM	9-5-61	

ESTIMATED QUANTITIES										
Item	Total	Unit	Description	Abutments		Piers		Super-structure	General	
				Rear	Forward	Pier 1	Pier 2			
E-2	91	Cu.Yds.	Unclassified excavation	46	45					
S-1	74	Cu.Yds.	Class "C" concrete, superstructure					74		
S-1	20	Cu.Yds.	Class "C" concrete, pier caps			10	10			
S-1	79	Cu.Yds.	Class "E" concrete, abutments	40	39					
S-4	33,759	Lbs.	Reinforcing steel	4201	3768	1740	1741	22309		
S-7	41,500	Lbs.	Structural steel					41,500		
S-8	41,500	Lbs.	Field painting of structural steel					41,500		
S-14	160	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)					160		
S-16	Lump	Sum	First test pile						Lump	
S-18	1140	Lin.Ft.	Steel piles, 12 BP 53, as per plan	280	280	290	290			
S-29	34	Cu.Yds.	Porous backfill	20	14					
S-29	6	Each	Scuppers					6		
I-10	121	Sq.Yds.	Crushed aggregate slope protection						121	
Special	74	Each	Water-reducing, set-retarding admixture*					74		

* See Proposal Note

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-54 Reinforced Concrete Approach Slabs; revised 12-1-54, CSB-2-56 Continuous Steel Beam Bridge (sheets 2#3 of 6 sheets), revised 2-2-59, and AR-1-57 Aluminum Railing with Concrete Parapet; revised 12-12-60,

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.

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of fill material between the surface of the proposed embankment and the bottom of the footings. Backfill behind the abutments shall be compacted in accordance with the requirements for embankment compaction.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutment, after which excavation shall be made for the abutment, and the piles driven. Pier piles shall be driven after the embankment is in place.

PILES shall be driven with a hammer of not less than 11,000 ft-lbs per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating.

For the abutment piles:

60 tons per pile using an 11,000 ft. lb. hammer

45 tons per pile using a 15,000 ft. lb. or greater hammer

For the pier piles:

52 tons per pile using an 11,000 ft. lb. hammer

40 tons per pile using a 15,000 ft. lb. or greater hammer

If the energy rating is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 28 tons per pile for the abutment piles and 24 tons per pile for the pier piles.

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

WELDING of structural steel shall be class "A" except as otherwise shown. Welds shown as field welds may, at the option of the contractor, be made in the shop. Class "B" welds are shown thus: B

MACHINE FINISH: The top of the bridge deck slab shall be machine finished (Sec. 5-1.23).

MICROFIL
SEP 11 1986

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO					
ESTIMATED QUANTITIES & GENERAL NOTES					
ENTRANCE TERMINAL RAMP D BRIDGE OVER COLD CREEK					
RAMP D STA. 4+25.64 TO STA. 5+09.60					
ERIE CO.					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
TFH	HDP	B.B.	BJH	FCM	9-5-61

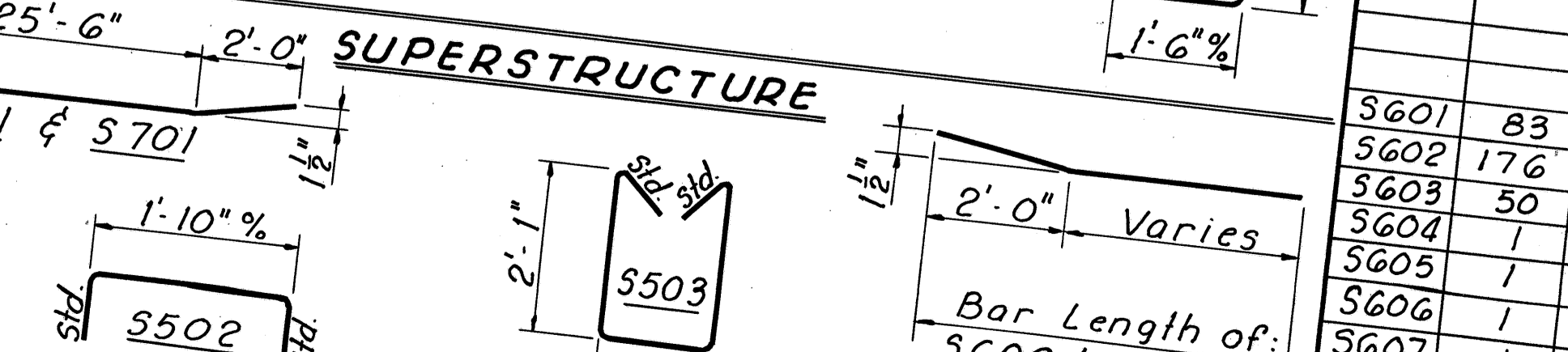
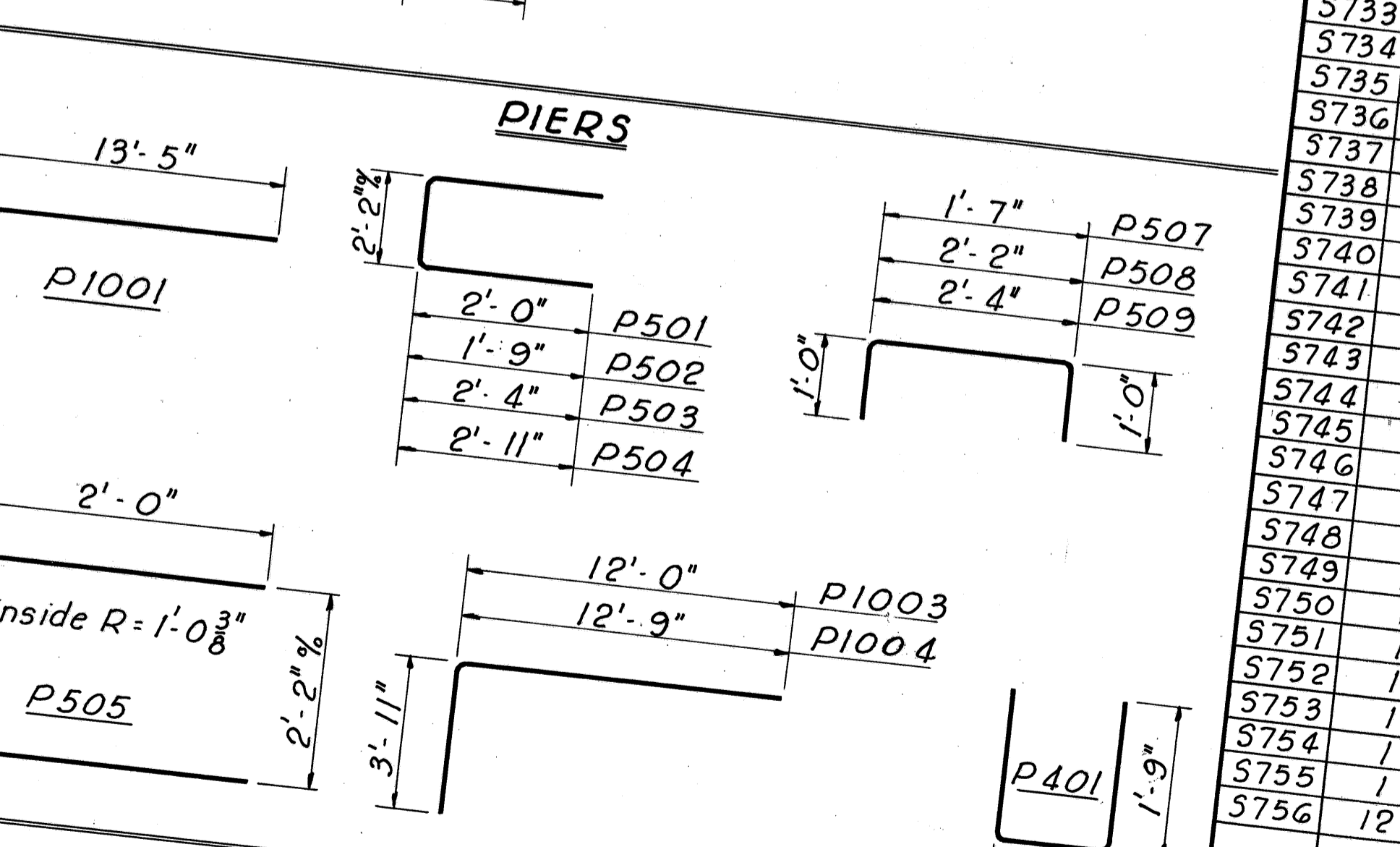
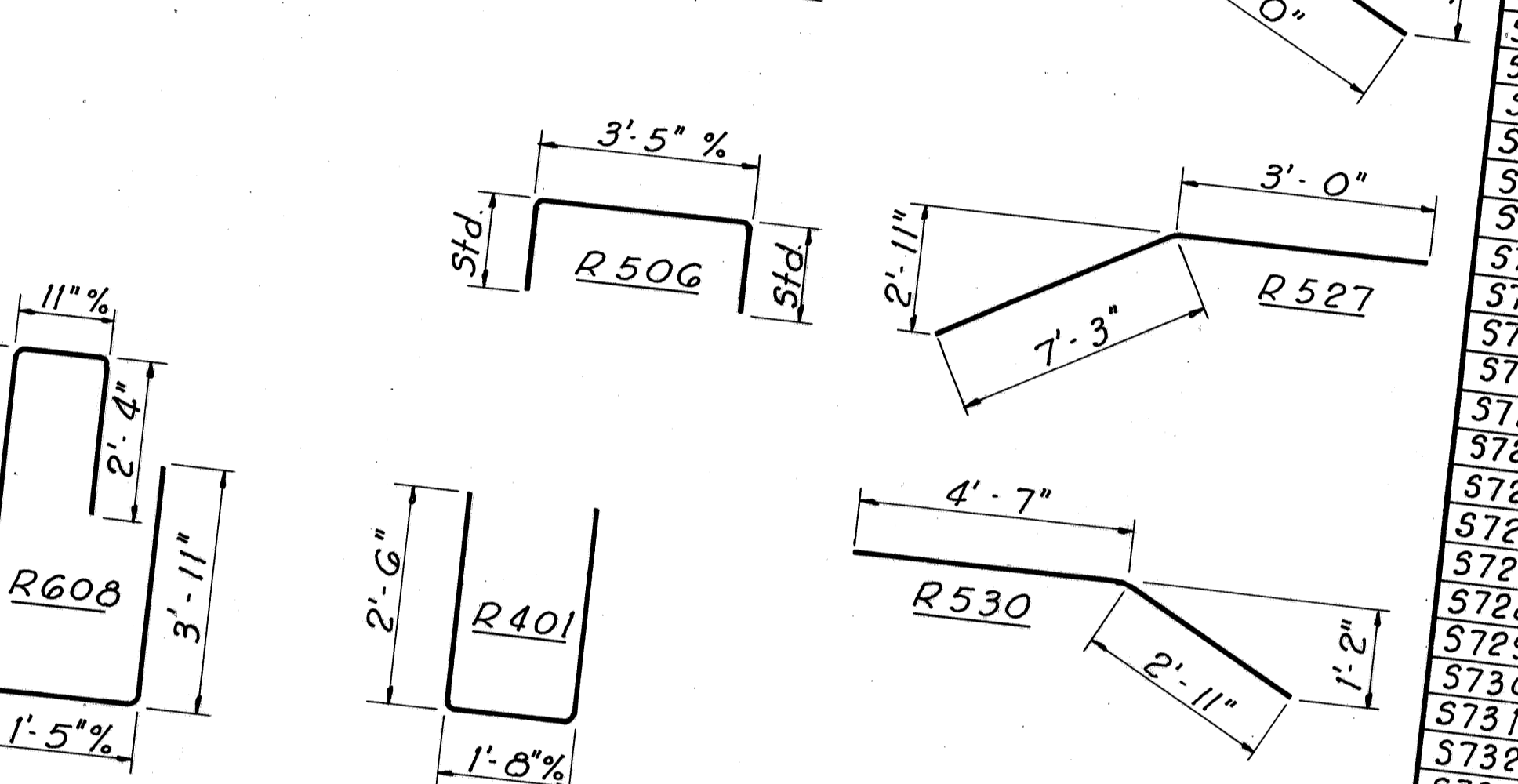
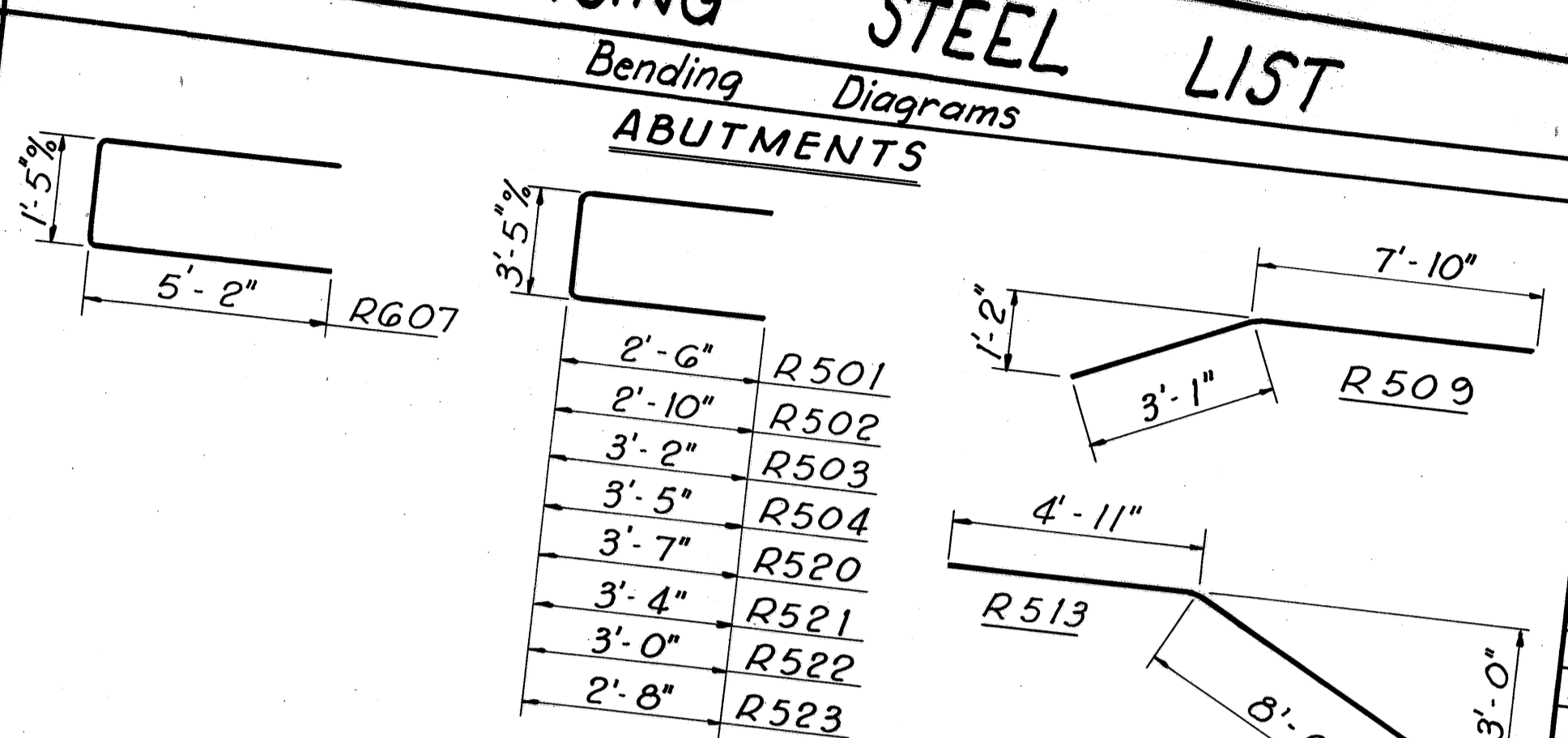
REINFORCING STEEL LIST

Mark No. Length Weight Shape

Mark No. Length Weight Shape

Mark No. Length Weight Shape

Abutments				Piers			
R801	12	40'-2"	1287				
R802	3	17'-0"	136	P1001	8	15'-3"	525
R803	15	12'-11"	517	P1002	8	13'-8"	470
R804	5	4'-7"	61	P1003	4	15'-7"	268
R805	12	37'-5"	1199	P1004	4	16'-4"	281
R806	5	7'-0"	93				
R807	5	11'-4"	151				
R808	3	13'-5"	107				
				P901	4	31'-9"	432
				P902	4	33'-3"	452
R701	12	10'-6"	258				
R702	4	7'-6"	61	P501	48	5'-11"	296
				P502	12	5'-5"	68
R601	4	5'-0"	30	P503	16	6'-7"	110
R602	4	5'-7"	34	P504	20	7'-9"	162
R603	10	6'-1"	91	P505	12	7'-4"	92
R604	2	6'-8"	20	P506	4	31'-5"	131
R605	2	7'-3"	22	P507	4	3'-4"	14
R606	2	8'-0"	24	P508	4	3'-11"	16
R607	39	11'-5"	669	P509	2	4'-1"	9
R608	39	13'-2"	771				
R609	4	5'-5"	33				
R610	4	6'-0"	36				
R611	2	6'-8"	20	P401	48	4'-10"	155
R612	2	7'-4"	22				
R613	2	8'-0"	24				
R614	2	8'-3"	25				
R615	4	6'-6"	39				



Superstructure			
S701	83	29'-6"	5005
S702	1	1'-11"	4
S703	1	2'-10"	6
S704	1	3'-10"	8
S705	1	4'-9"	10
S706	1	5'-8"	12
S707	1	6'-8"	14
S708	1	7'-7"	16
S709	1	8'-7"	18
S710	1	9'-6"	19
S711	1	10'-6"	21
S712	1	11'-5"	23
S713	1	12'-5"	25
S714	1	13'-4"	27
S715	1	14'-4"	29
S716	1	15'-3"	31
S717	1	16'-3"	33
S718	1	17'-2"	35
S719	1	18'-1"	37
S720	1	19'-1"	39
S721	1	20'-0"	41
S722	1	21'-0"	43
S723	1	21'-11"	45
S724	1	22'-11"	47
S725	1	23'-10"	49
S726	1	24'-10"	51
S727	1	25'-9"	53
S728	1	26'-9"	55
S729	1	27'-8"	57
S730	2	28'-8"	117
S731	1	27'-7"	56
S732	1	26'-6"	54
S733	1	25'-5"	52
S734	1	24'-5"	50
S735	1	23'-4"	48
S736	1	22'-3"	45
S737	1	21'-2"	43
S738	1	20'-1"	41
S739	1	19'-1"	39
S740	1	18'-0"	37
S741	1	16'-11"	35
S742	1	15'-10"	32
S743	1	14'-9"	30
S744	1	13'-9"	28
S745	1	12'-8"	26
S746	1	11'-8"	24
S747	1	10'-6"	21
S748	1	9'-5"	19
S749	1	8'-5"	17
S750	1	7'-4"	15
S751	1	6'-3"	13
S752	1	5'-2"	11
S753	1	4'-2"	9
S754	1	3'-1"	6
S755	1	2'-0"	4
S756	12	20'-3"	497

REP. RD. DIVISION 2 STATE OHIO PROJECT FRG-1042(5) TYPE FUNDS 150 220
 ERI. 6-3.80; ERI. 2-4.02

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, a P501 is a No. 5 size bar, and a P1101 is a No. 11 size.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-402 need not be furnished and replacement bars will not be required.

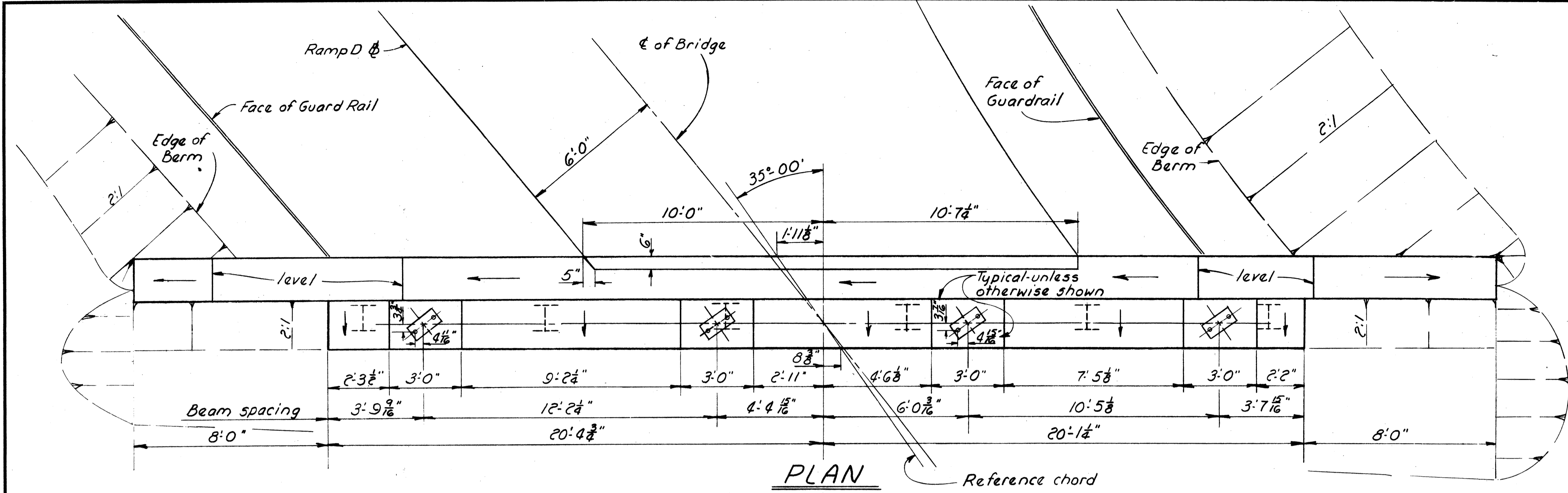
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* Included with Item S-14 for payment.

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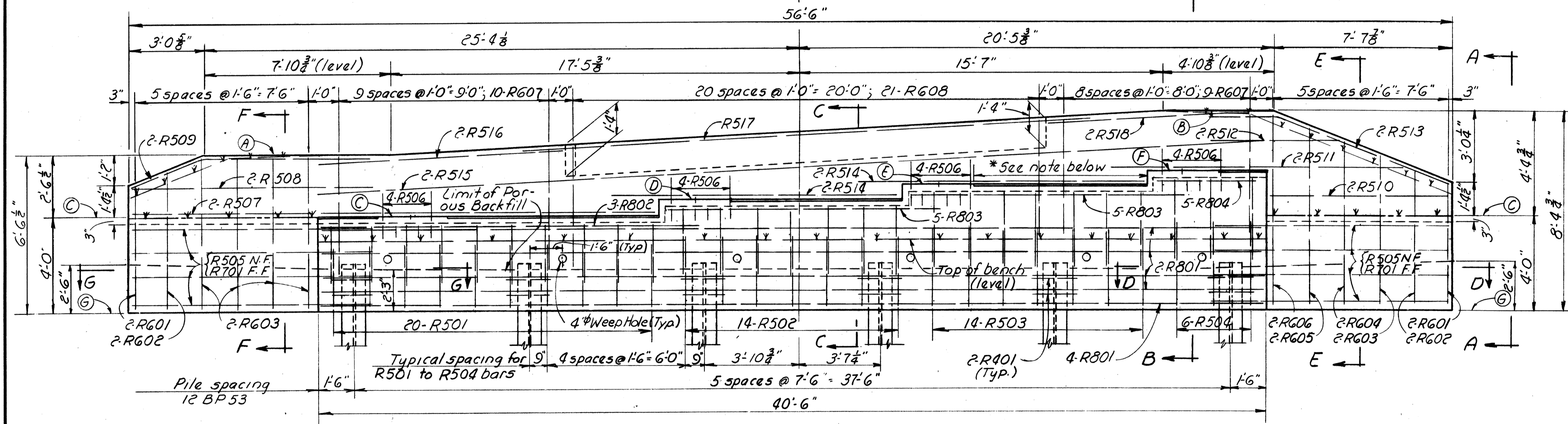
ERI. 6-3.80; ERI. 2-4.02

MICROFILM
SEP 11 1986

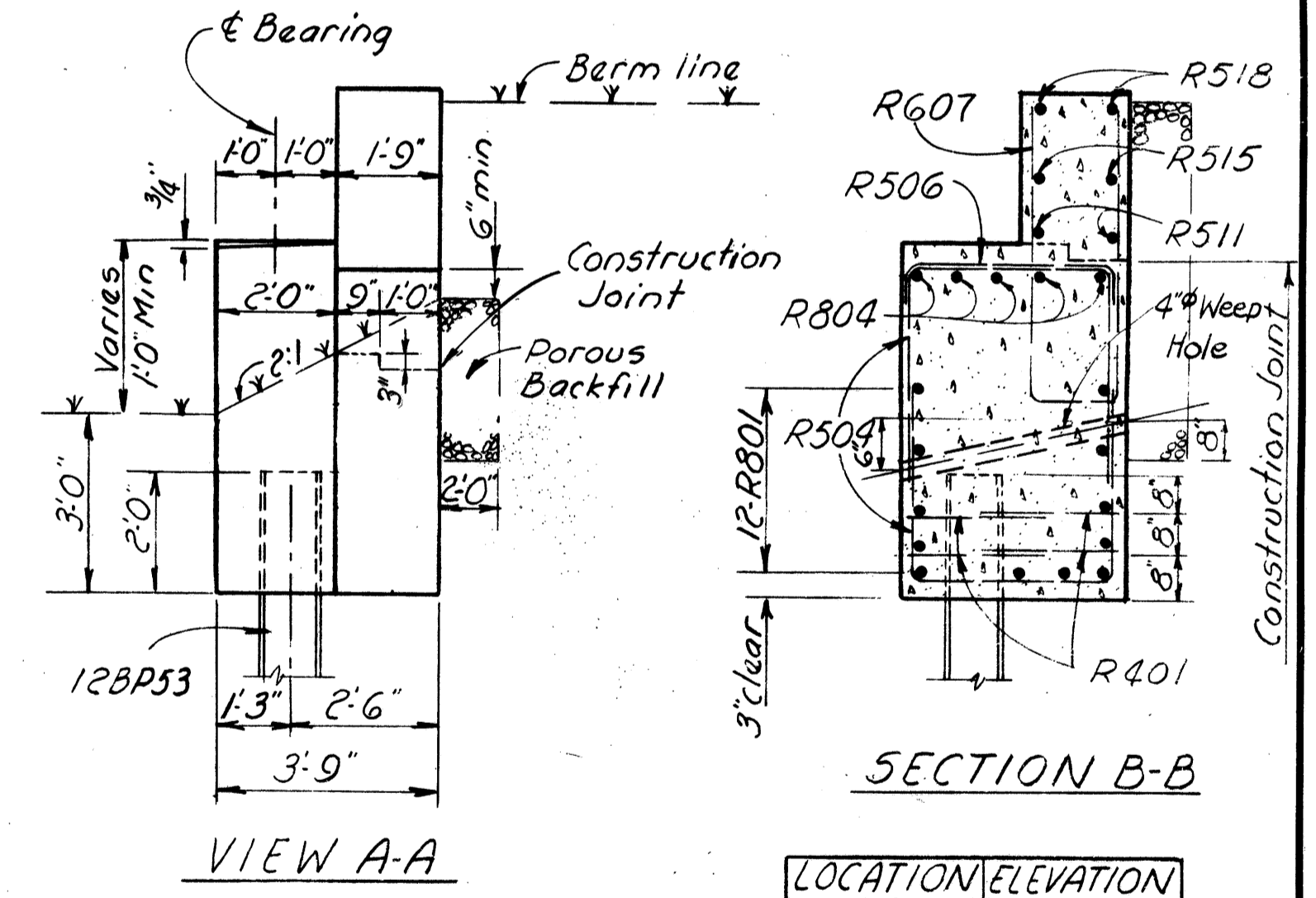


PLAN

Note: Special care shall be taken in placing reinforcing steel in the abutment seat so that it will not interfere with the bearing plate anchor bars.



ELEVATION

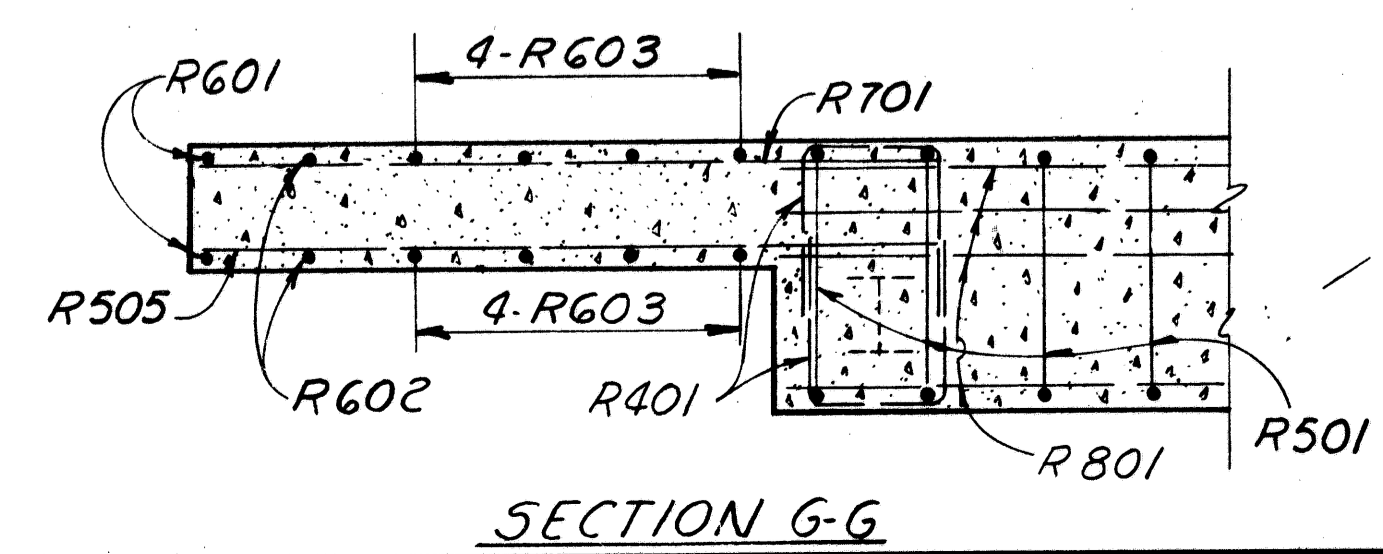


LOCATION	ELEVATION
A	590.24
B	592.09
C	587.70
D	588.38
E	588.96
F	589.55
G	583.70

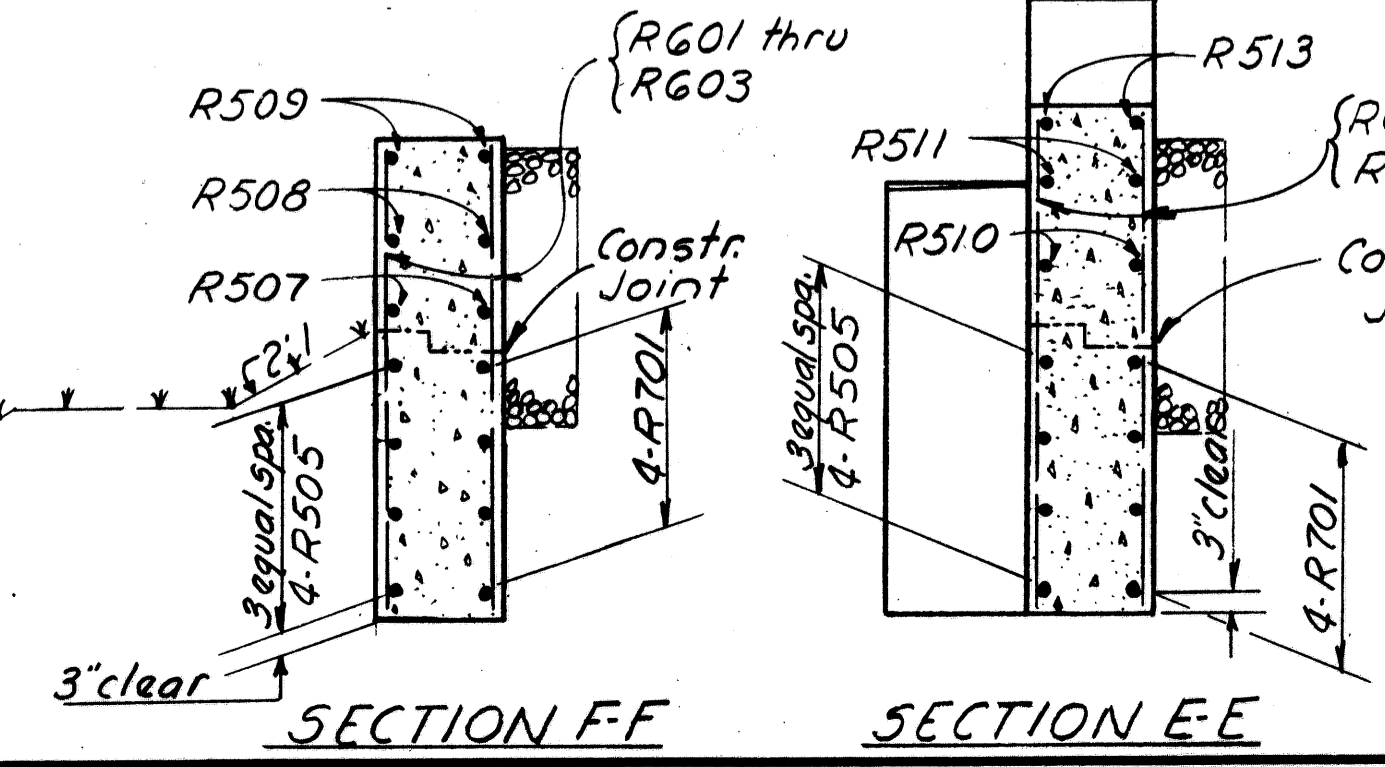
N.F. = Near Face
F.F. = Far face

* Slope bridge seat 3/4" to face of breast wall, as shown (Typical)

POROUS BACKFILL shall extend upward to the approach slab and to the surface of the embankment slopes. Excavation therefor in excess of that required for construction of the abutment shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.

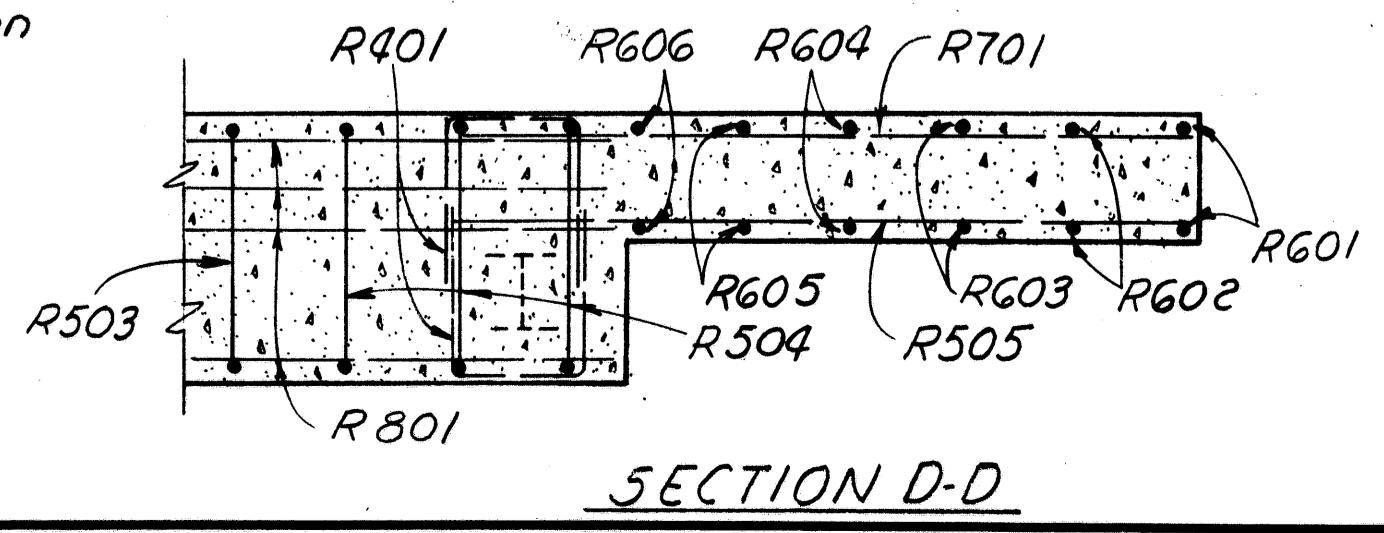


SECTION G-G

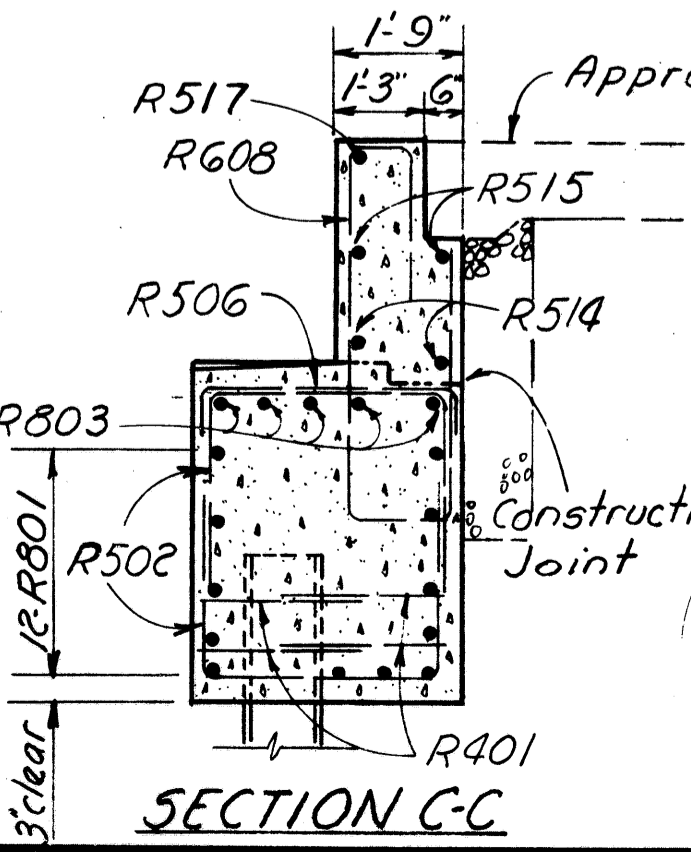


SECTION F-F

SECTION E-E



SECTION D-D



SECTION C-C

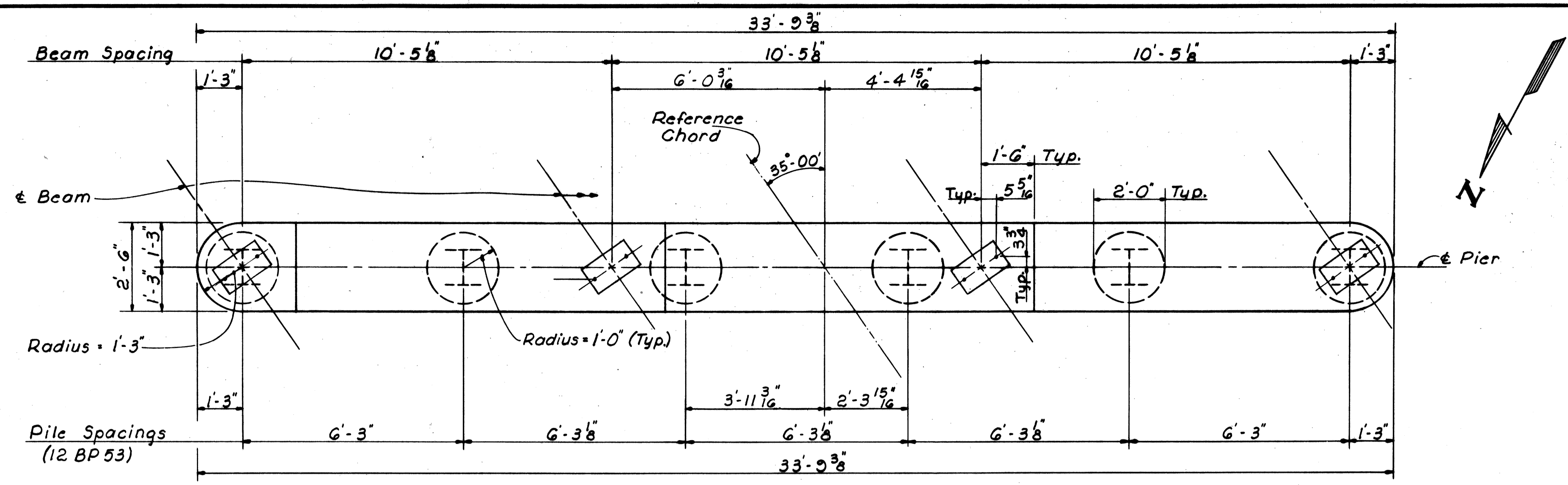
SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

**REAR ABUTMENT
ENTRANCE TERMINAL RAMP D BRIDGE
OVER COLD CREEK**

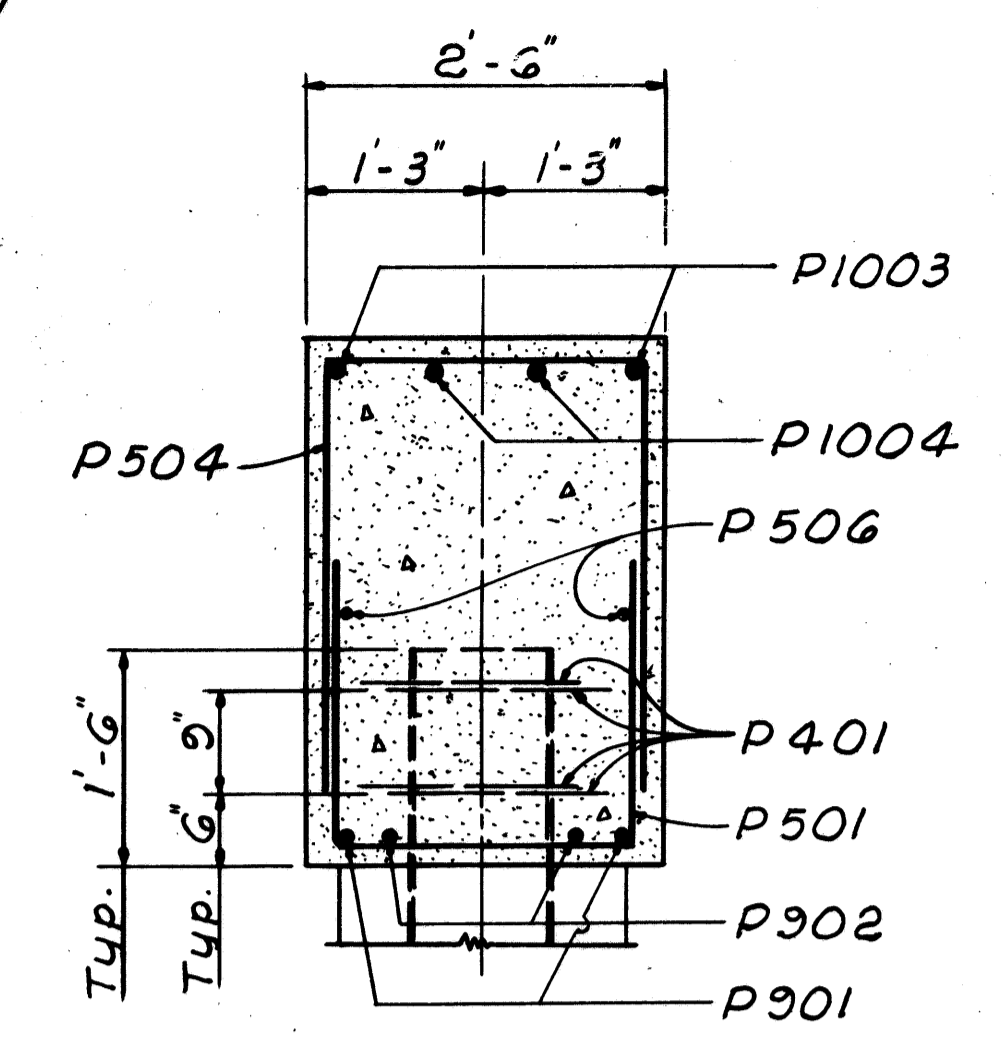
RAMP D STA. 4+25.64
to STA 5+09.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH		BJH	FCM	9-5-61	

ERI. 6-3.80; ERI. 2-4.02



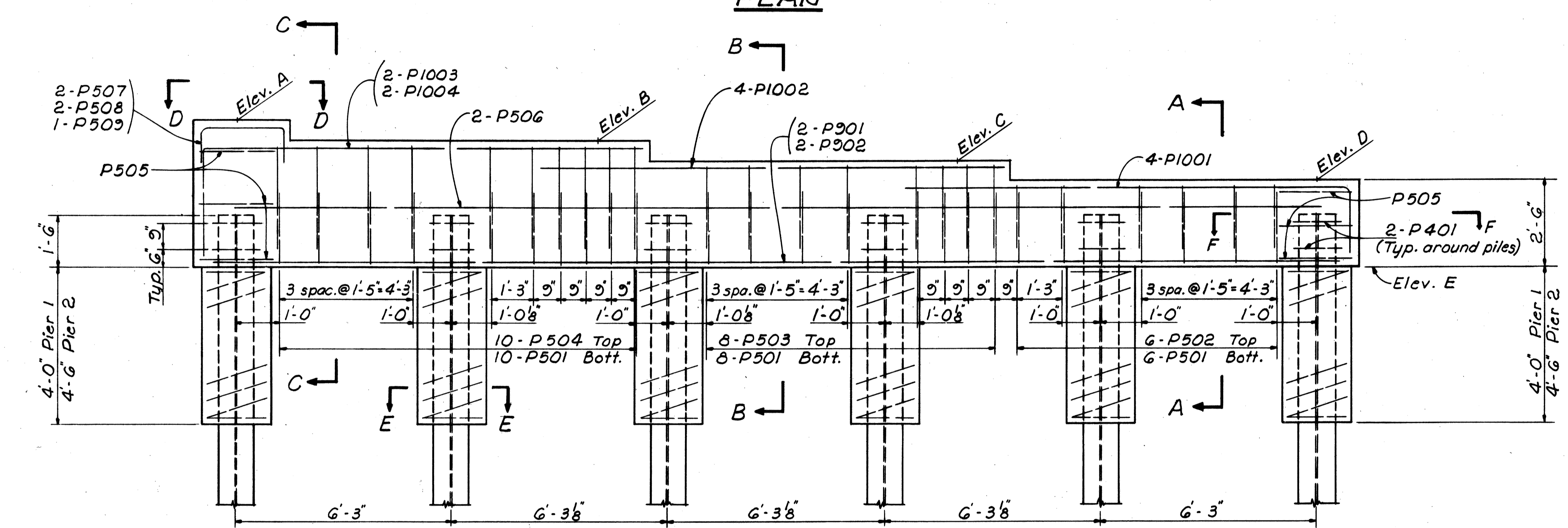
PLAN



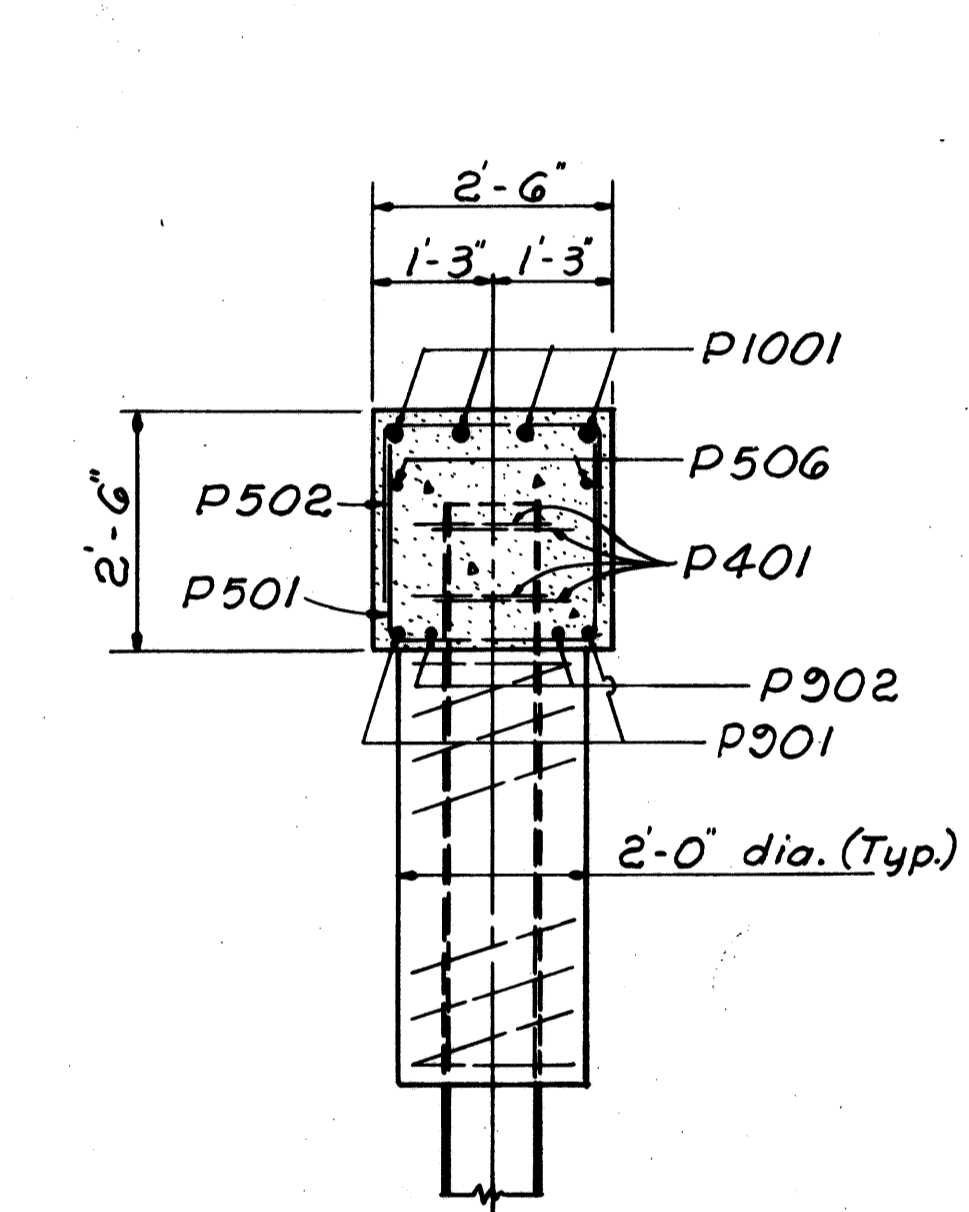
SECTION C-C

ELEVATIONS	Pier 1	Pier 2
	A	589.82
B	589.22	589.68
C	588.62	589.07
D	588.04	588.50
E	585.54	586.00

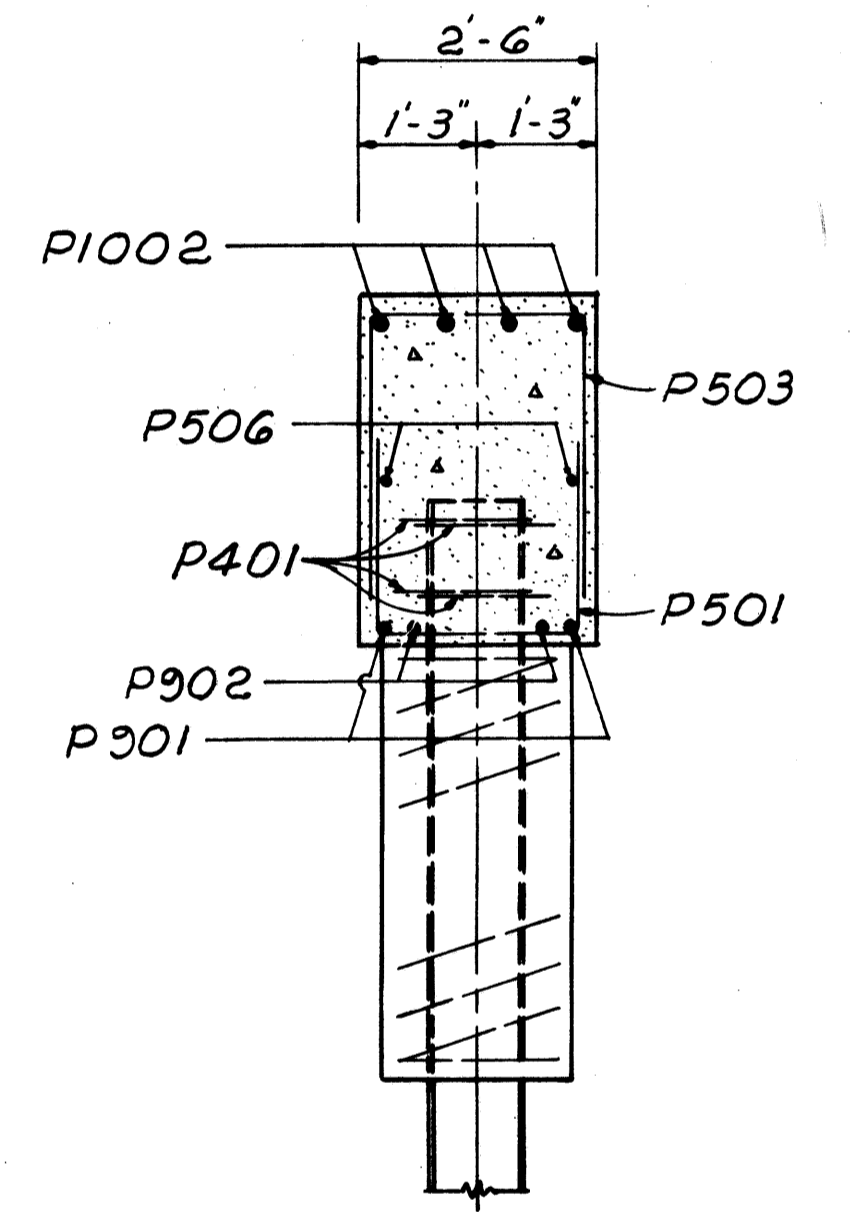
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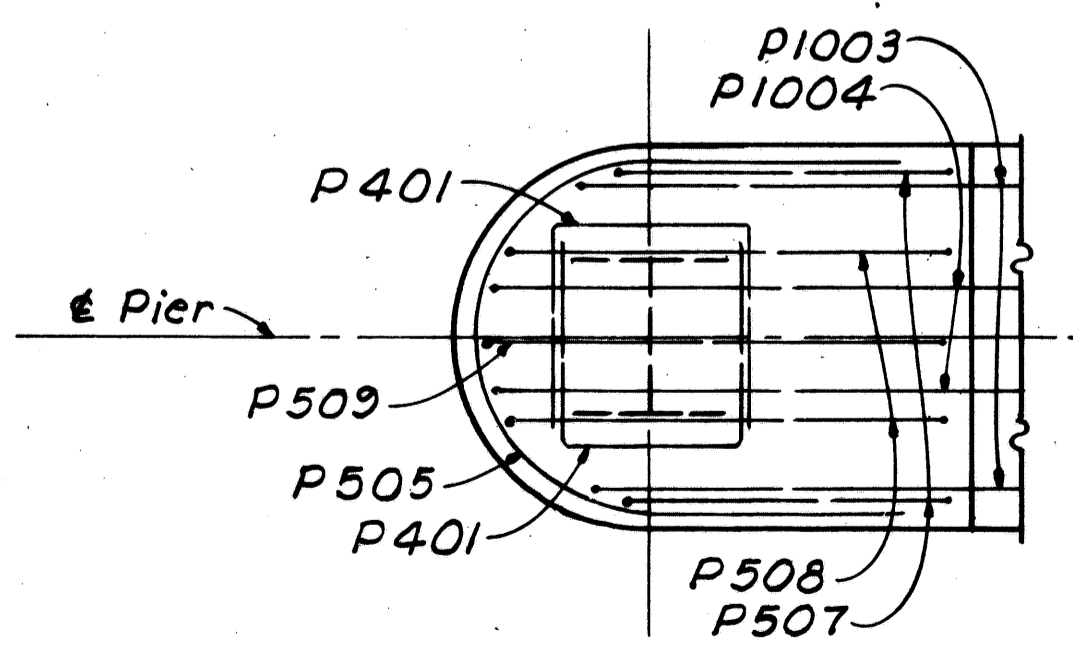
ELEVATION



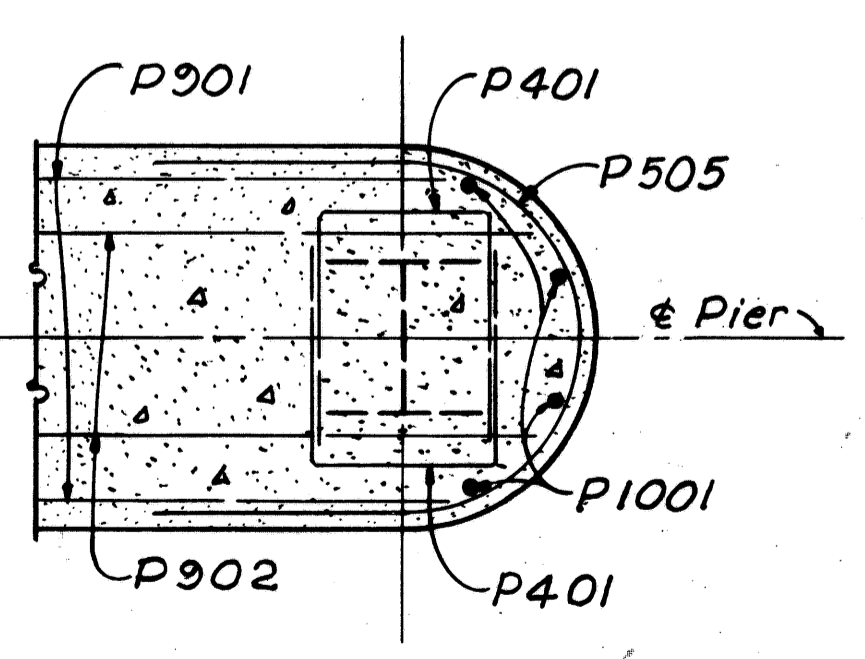
SECTION A-A



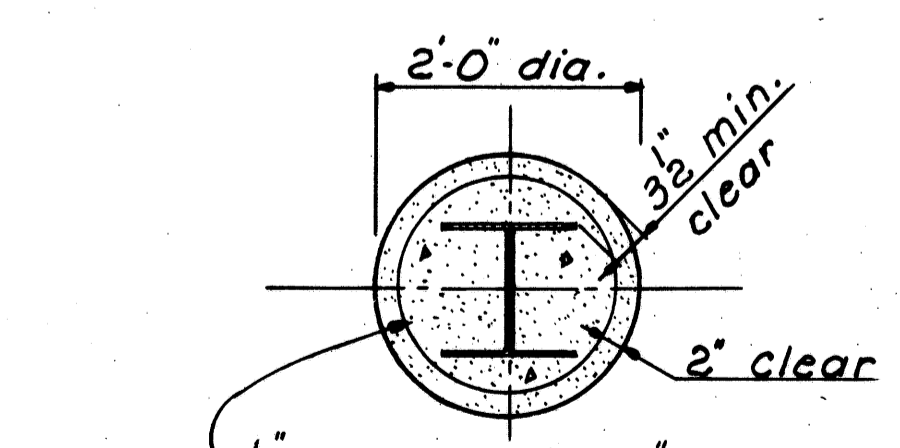
SECTION B-B



VIEW D-D



SECTION F-F



SECTION E-E

PILE ENCASEMENT, as shown hereon, shall be provided for each pier pile. It shall consist of Class "C" or "E" concrete and may be placed in water as per Sec. 5-1.18, care being taken to remove all dirt between the piles and the forms. Metal forms, if used, may be left in place if the exposed portion is painted or galvanized. Corrugated metal may be used. Metal forms with irregular deformations, such as oil drums, will not be permitted. If metal forms meeting the requirements of Sec. M-6.4 (a) are left in place, no spiral reinforcement in the concrete will be required. Painting of metal forms left in place shall be in accordance with Item 5-8, applying two coats as per Secs. M-9.9, M-9.20 or M-9.21, and two coats as per Sec. M-9.12.

PAYMENT FOR PILES, per lin. ft., includes payment for the encasement (concrete, reinforcement, forms, painting, galvanizing and excavating). The elevation of cut-off, as per Sec. 5-18.13, shall be considered as 1'-6" above the bottom of the concrete cap.

Note: Special care shall be taken in placing reinforcing steel in the pier caps so that it will not interfere with the bearing plate anchor bolts.

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TOLEDO, OHIO

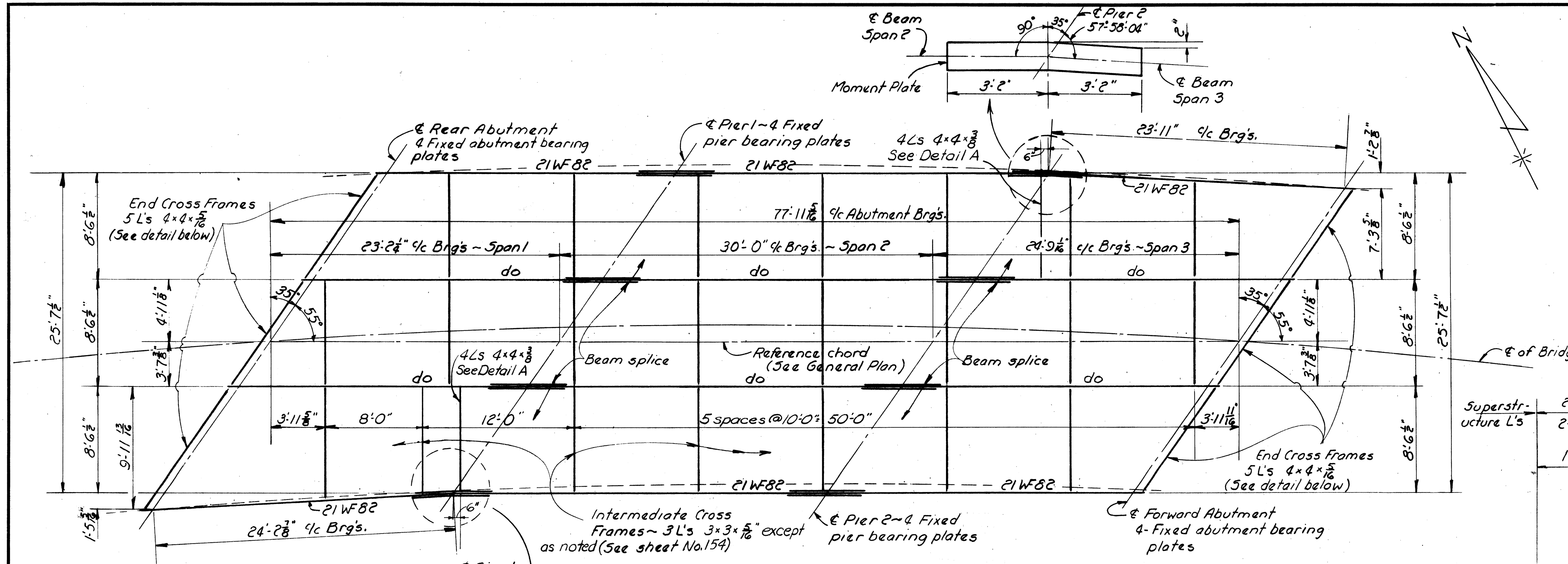
PIERS 1 & 2
ENTRANCE TERMINAL RAMP D BRIDGE
OVER COLD CREEK
RAMP D STA. 4+25.64
To STA. 5+09.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	HDP		T.F.H.	FCM	9-5-61	

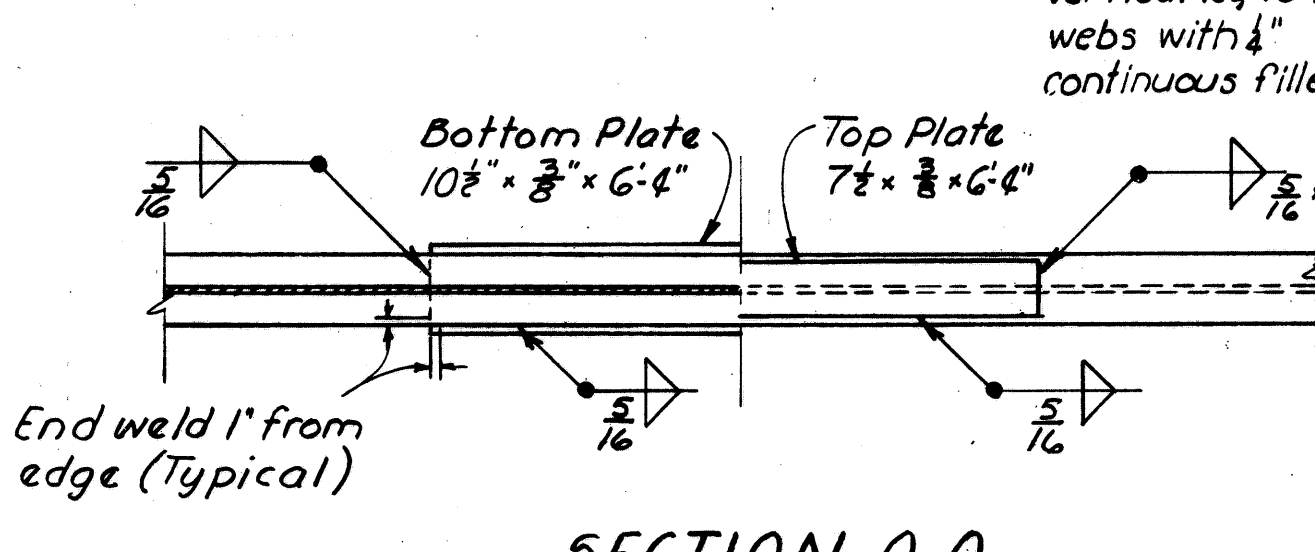
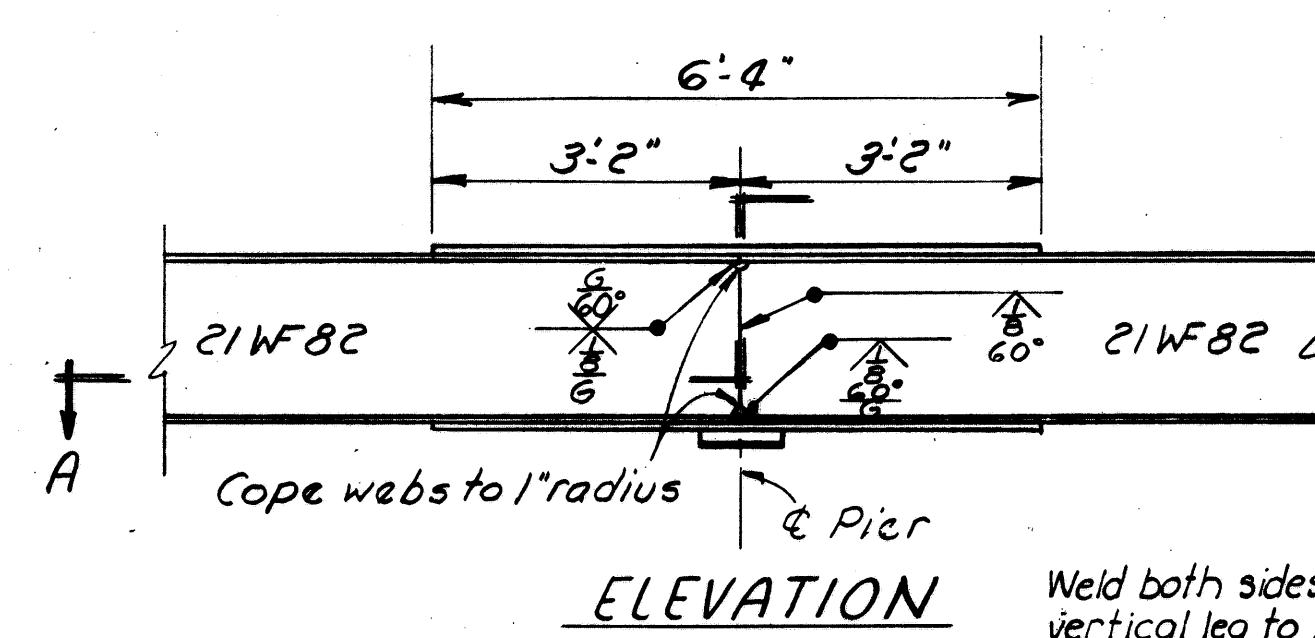
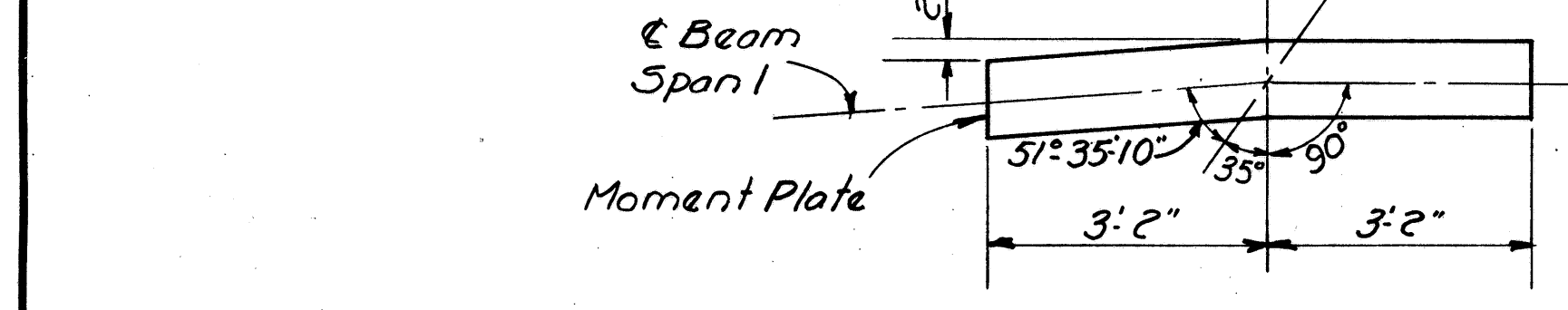
CAMBERING: No camber is required. Fabricate beams with convex flange up. The dead load deflection is $\frac{1}{8}$ " in all spans.

NOTE: Refer to Standard Drawing C5B-2-56 sheets 2 & 3 of 6 for the following details:
 Roadway End Dam
 Scupper Details
 Gutter Supports

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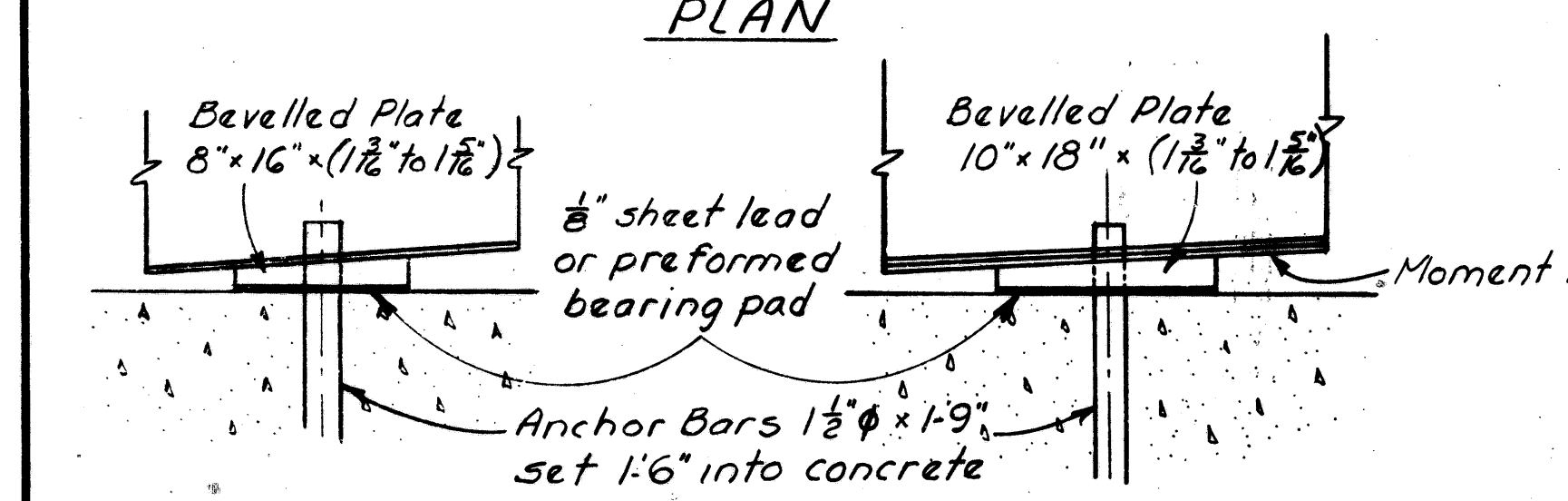
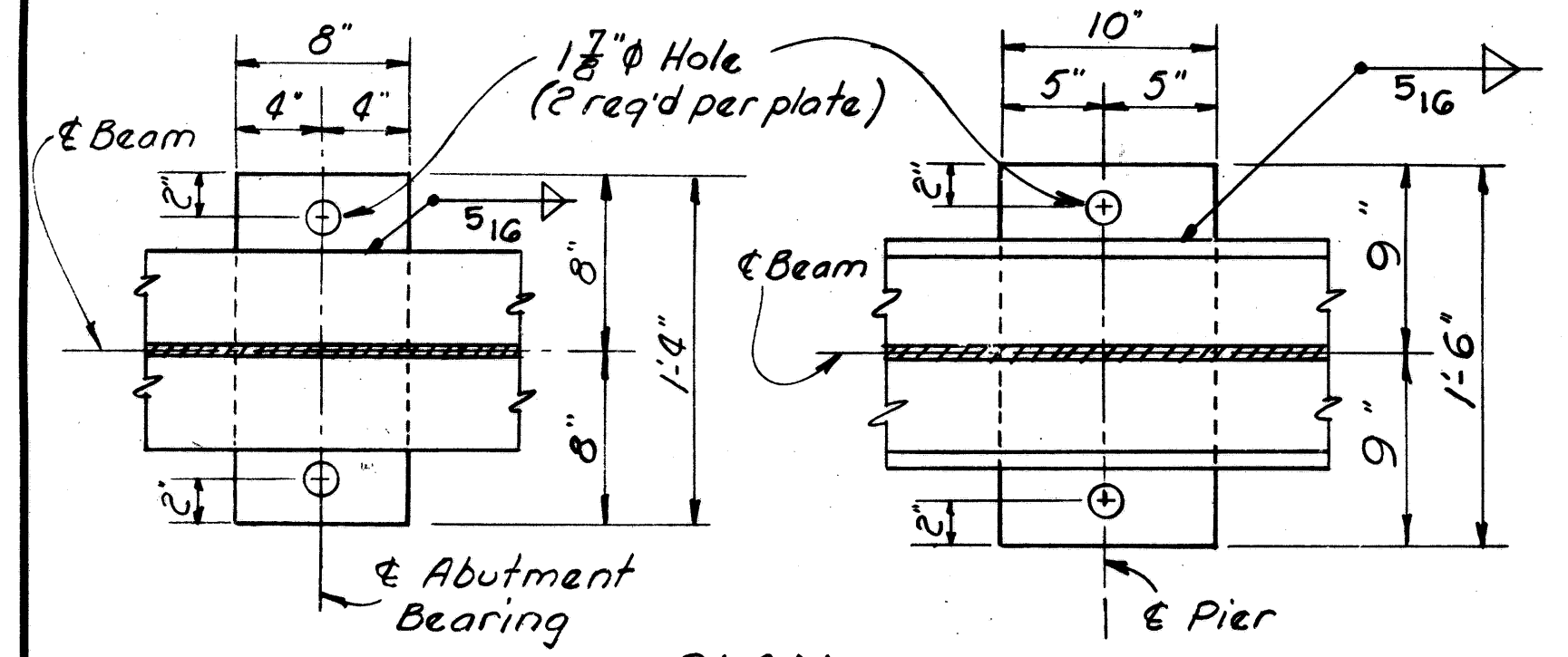


STEEL FRAMING PLAN

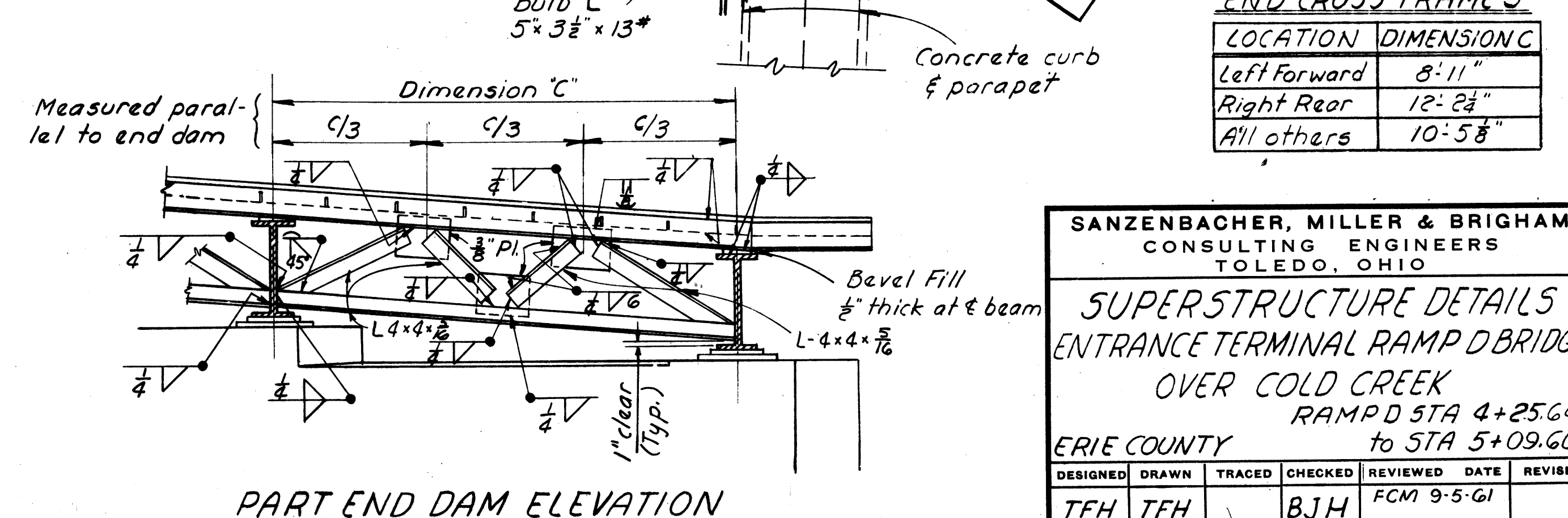
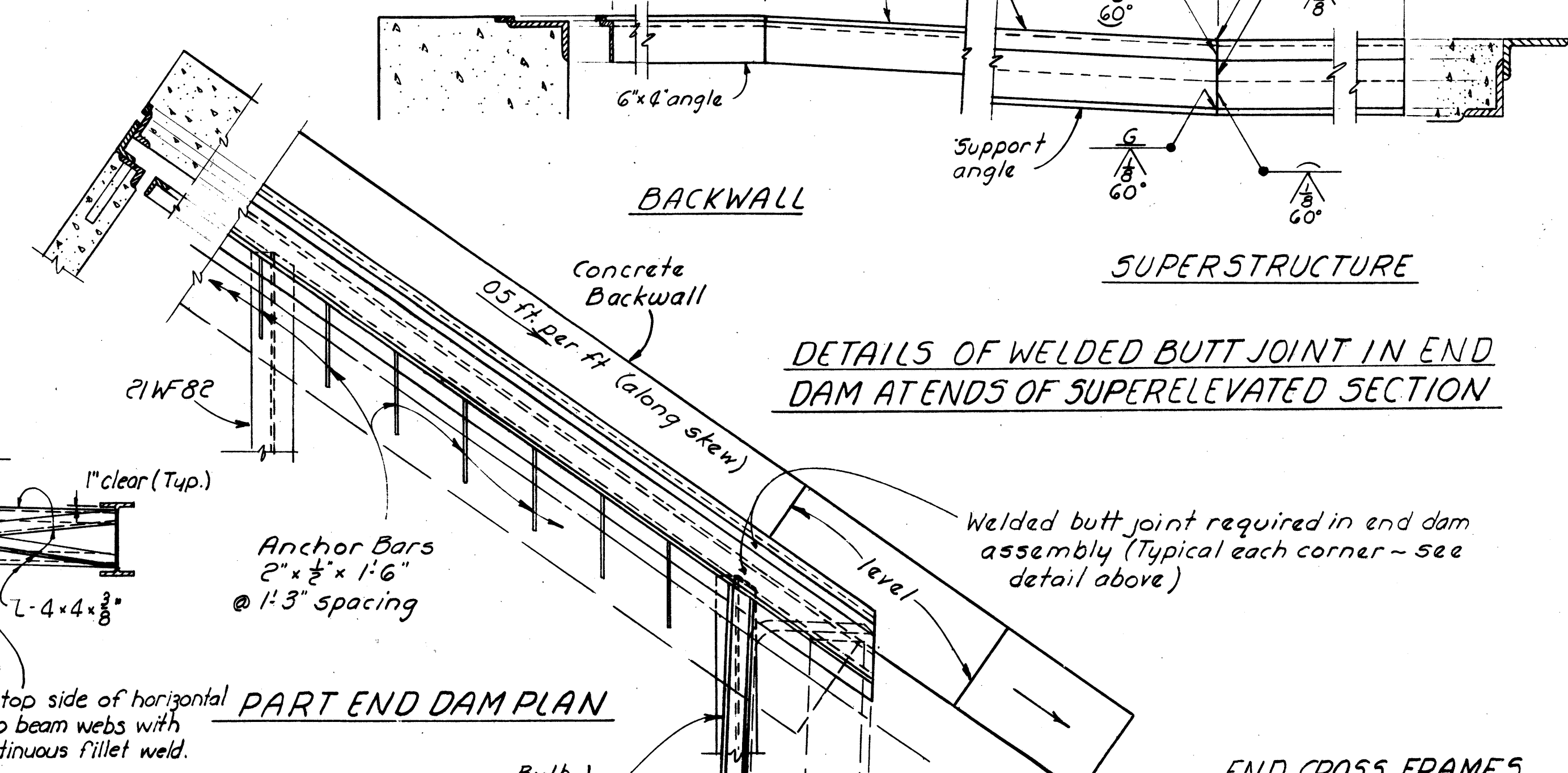


BEAM SPLICE DETAILS

BEAM SPLICE WELDING PROCEDURE
 1. Butt-weld beam flanges and web at the piers, using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
 2. Weld top and bottom flange moment plates.
 (Raising of beams is not required.)



FIXED BEARING PLATE DETAILS



DETAILS OF WELDED BUTT JOINT IN END DAM AT ENDS OF SUPERELEVATED SECTION

END CROSS FRAMES

LOCATION	DIMENSION 'C'
Left Forward	8'-11"
Right Rear	12'-2 1/2"
All others	10'-5 3/8"

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 CONSULTING ENGINEERS
 TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
 ENTRANCE TERMINAL RAMP DBRIDGE
 OVER COLD CREEK
 RAMP D STA 4+25.64
 to STA 5+09.60

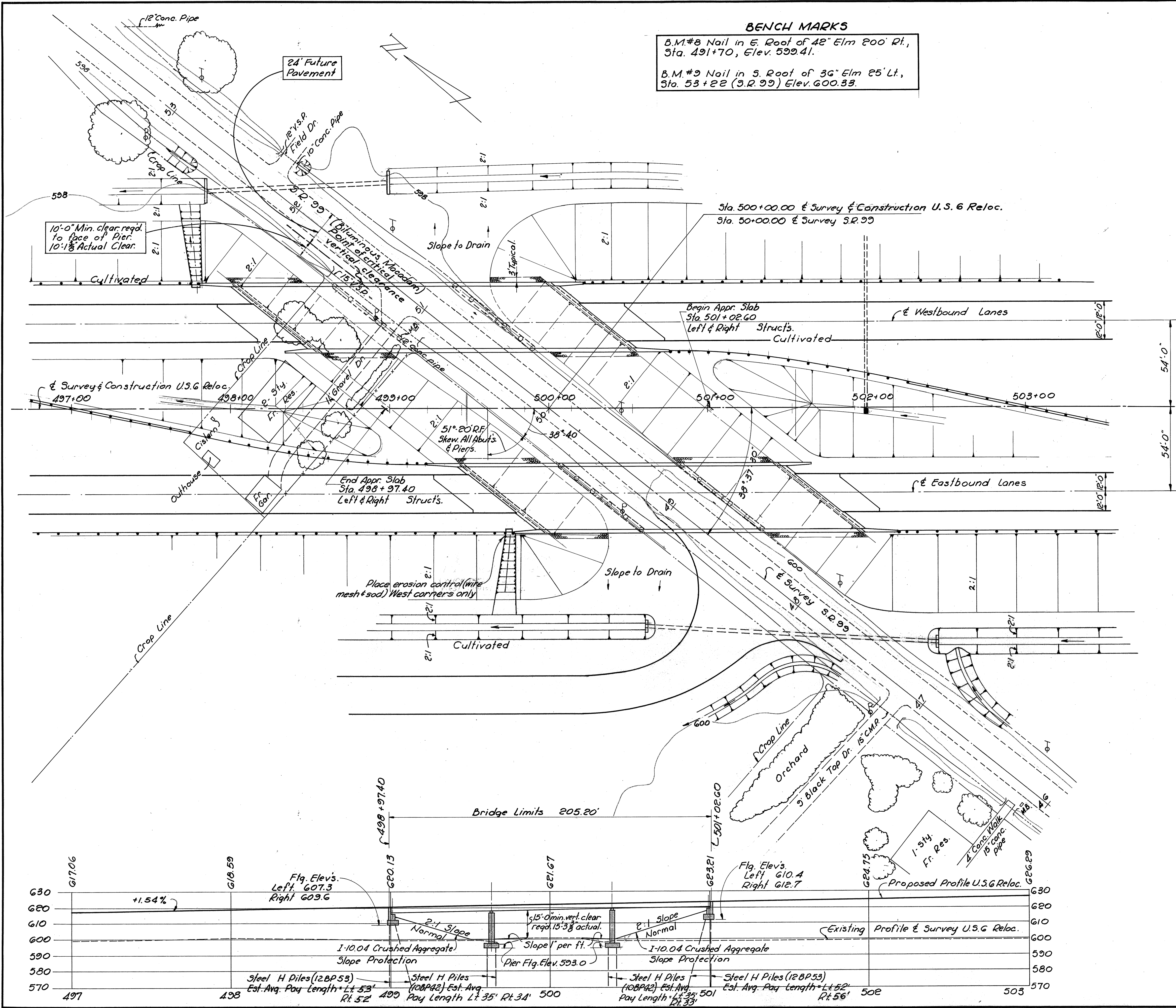
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH		BJH	FCM	9-5-61	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F.F.G-1042(5)	156 220

ERIE COUNTY
 ERI. G-3.80; ERI. 2-4.02
 10.2 MILES WEST OF HURON

BENCH MARKS

B.M.#8 Nail in E. Roof of 42" Elm 200 Rt.,
 Sta. 491+70, Elev. 599.41.
 B.M.#9 Nail in S. Roof of 36" Elm 25' Lt.,
 Sta. 53+22 (S.R. 99) Elev. 600.33.



MICROFIL
 SEP 11 1986

SR99 Design Year Traffic
 ADT (1979) = 1900

FOUNDATION SOUNDINGS:
 Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division Office, but the State does not guarantee the accuracy thereof.

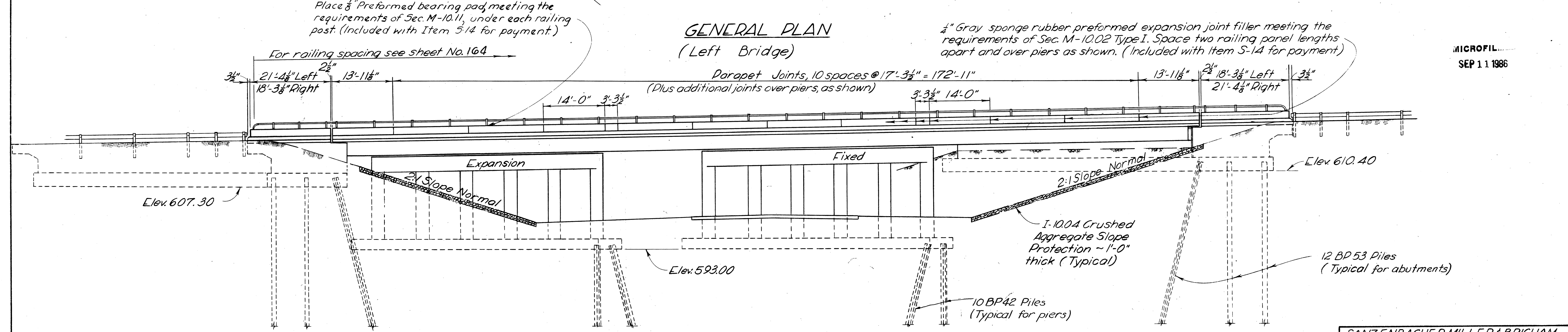
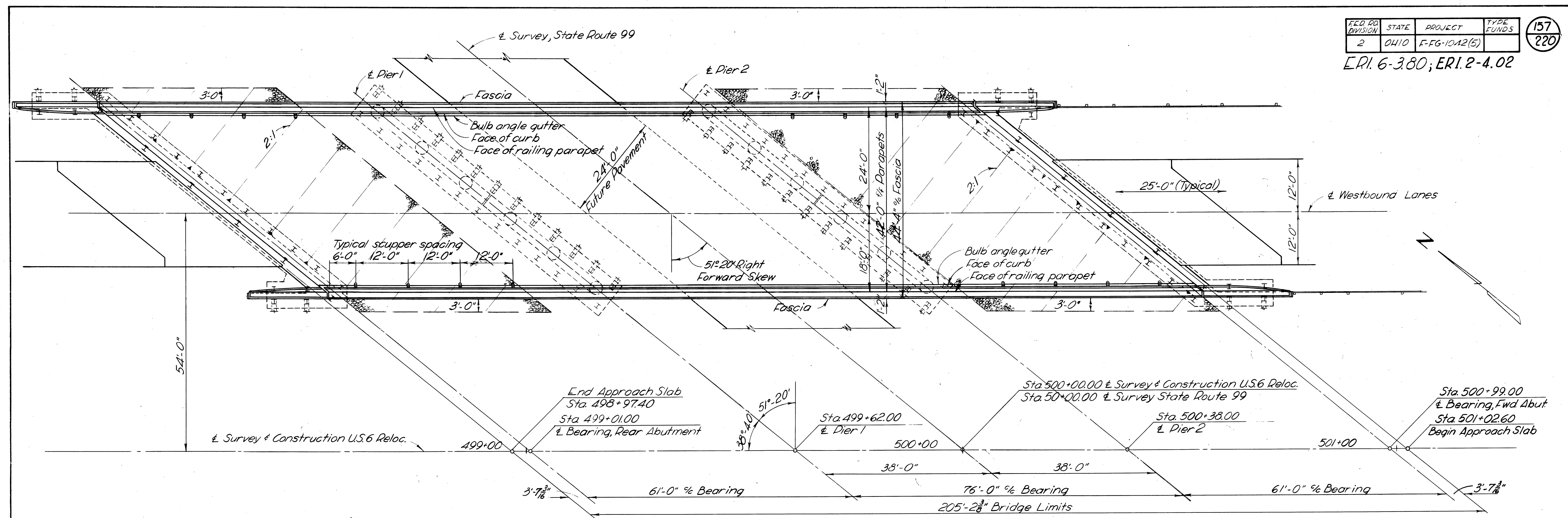
PROPOSED STRUCTURE
 Type: Continuous steel beam with reinf. concrete deck. Reinf. Conc. Pier Bents and Stub Abutments.
 Spans: 61'-0", 76'-0", 61'-0" c/c Brgs.
 Roadway 48'-0" flt. of parapets (Left & Right Bridges)
 Load Frequency: CF-400 (ST)
 Skew: 51°-20' R.F.
 Wearing Surface: 1" Monolithic Concrete.
 Approach Slabs: AS-1.54 (25'-0" Long)
 Alignment: Tangent.

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SITE PLAN
BRIDGE No. ERI. G-0470
 LEFT & RIGHT
 OVER S.R. 99
 ERIE COUNTY STA. 498+97.40
 SCALE: 1"=30' to STA. 501+02.60

PRESENT TOPOGRAPHY		PROPOSED WORK	
SURVEYED S.M.B.	DRAWN E.J.D.-B.B.	DESIGNED T.W.D.	CHECKED T.W.D.
			REVIEWED B.J.H. FCM 9-5-61

ERI. 6-3.80; ERI. 2-4.02



Place 3/8" Preformed bearing pad meeting the requirements of Sec. M-10.11, under each railing post. (Included with Item 5-14 for payment.)

1/4" Gray sponge rubber preformed expansion joint filler meeting the requirements of Sec. M-10.02 Type I. Space two railing panel lengths apart and over piers as shown. (Included with Item 5-14 for payment.)

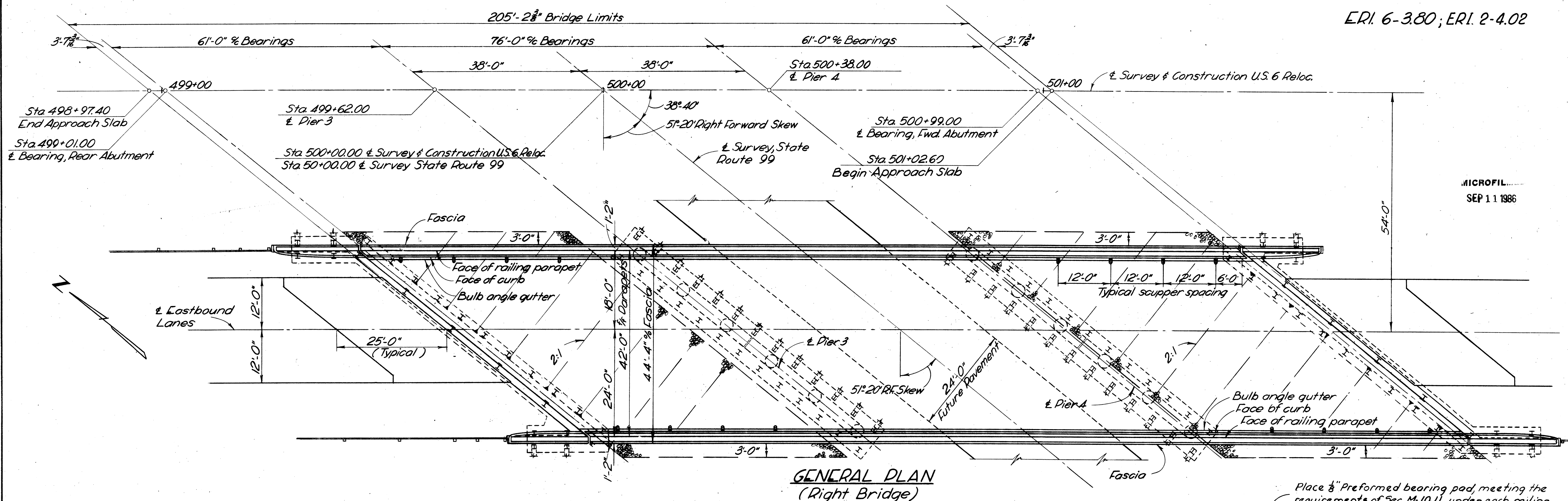
MICROFIL
SEP 11 1986

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL PLAN & ELEVATION
BRIDGE No. ERI. 6-0470 LEFT
OVER
STATE ROUTE 99
Sta. 498+97.40
Sta. 501+02.60

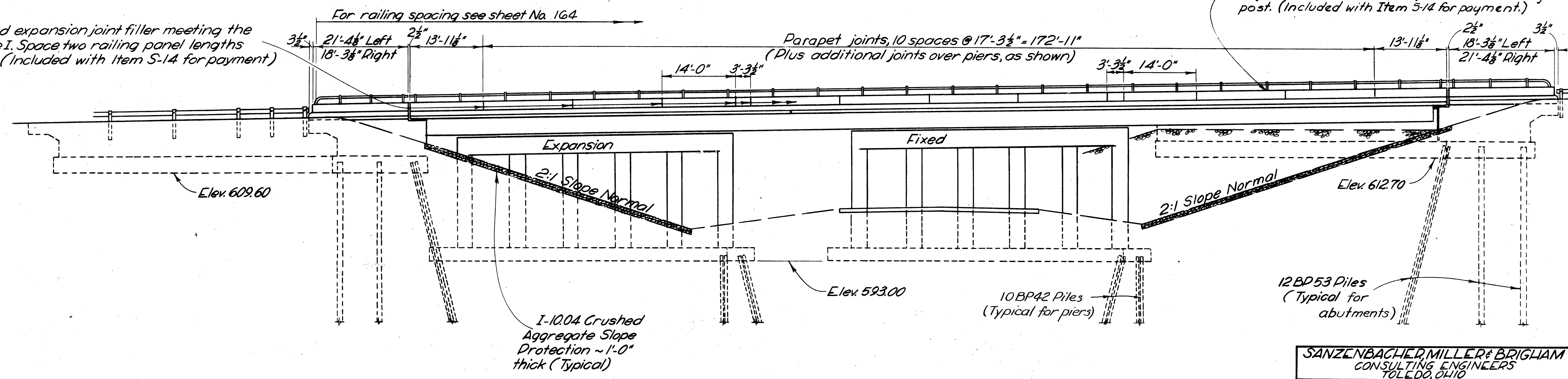
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	JEC		TEH	B3H	FCM 9-5-61	

ERI. 6-3.80; ERI. 2-4.02



3/4" Gray sponge rubber preformed expansion joint filler meeting the requirements of Sec. M-10.02 Type I. Space two railing panel lengths apart and over piers as shown. (Included with Item S-14 for payment)

Place 3/8" Preformed bearing pad, meeting the requirements of Sec. M-10.11, under each railing post. (Included with Item S-14 for payment.)



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TOLEDO, OHIO

GENERAL PLAN & ELEVATION
BRIDGE No. ERI. 6-0470 RIGHT
OVER
STATE ROUTE No. 99

Sta. 498+97.40 to
Sta. 501+02.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
RJH	JEC		TFW	BJH	FCM 9-5-61	

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-54 "Reinforced Concrete Approach Slabs," revised 12-1-54, CSB-2-56 "Continuous Steel Beam Bridge" (sheets 2 & 3 of 6 sheets), revised 2-2-59, AP-1-57, Aluminum Railing with Concrete Parapet, revised 12-12-60.

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.

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of fill material between the surface of the proposed embankment and the bottom of the footings. Backfill behind the abutments shall be compacted in accordance with the requirements for embankment compaction.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutment, after which excavation shall be made for the abutment, and the piles driven. The piers shall not be constructed until after the embankment has been made.

PILES shall be driven with a hammer of not less than 11,000 ft lbs. per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-13.05 is not less than the following value for a pile hammer of the indicated energy rating.

For the abutment piles:

- 70 tons per pile using an 11,000 ft-lb. hammer
- 65 tons per pile using a 15,000 ft-lb. or greater hammer

For the pier piles:

- 70 tons per pile using an 11,000 ft-lb. hammer
- 65 tons per pile using a 15,000 ft-lb. or greater hammer

If the energy rating is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 40 tons per pile for the abutment piles and 34 tons per pile for the pier piles.

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

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

MACHINE FINISH: The top of the bridge deck slab shall be machine finished (Sec. 5-1.23).

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ESTIMATED QUANTITIES - TWO BRIDGES

Item	Total	Unit	Description	Abutments				Piers				Superstructure		General	
				Lt.Rear	Lt.Fw'd	Rt.Rear	Rt.Fw'd	1	2	3	4	Left	Right		
E-2	1532	Cu.Yds.	Unclassified excavation	268	268	268	268	115	115	115	115				
S-1	520	Cu.Yds.	Class "C" concrete, superstructures									260	260		
S-1	222	Cu.Yds.	Class "C" concrete, pier caps & columns					53	55	56	58				
S-1	586	Cu.Yds.	Class "E" concrete, abutments	146	147	146	147								
S-1	228	Cu.Yds.	Class "E" concrete, pier footings					57	57	57	57				
S-3	36	Lin. Ft.	Waterproofing, premolded sealing strip	9	9	9	9								
S-4	270,607	Lbs.	Reinforcing steel	10,263	10,263	10,263	10,263	19,678	20,144	20,557	21,022	74,077	74,077		
S-7	558,000	Lbs.	Structural steel									279,000	279,000		
S-8	558,000	Lbs.	Field painting of structural steel									279,000	279,000		
S-14	962	Lin. Ft.	Railing (aluminum rail and supports, concrete parapet)									481	481		
S-16	Lump	Sum	First test pile												Lump
S-18	5330	Lin. Ft.	Steel piles 12 BP 53	1,330	1300	1300	1400								
S-18	3560	Lin. Ft.	Steel piles 10 BP 42					910	910	880	860				
S-29	100	Cu.Yds.	Porous backfill	25	25	25	25								
S-29	32	Each	Scuppers									16	16		
I-10	1,287	Sq.Yds.	Crushed aggregate slope protection												1,287
Special	520	Each	Water-reducing, set-retarding admixture *									260	260		

* See Proposal Note

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ESTIMATED QUANTITIES
& GENERAL NOTES
BRIDGE No. ERI. 6-0470 LEFT & RIGHT
OVER
STATE ROUTE No. 99

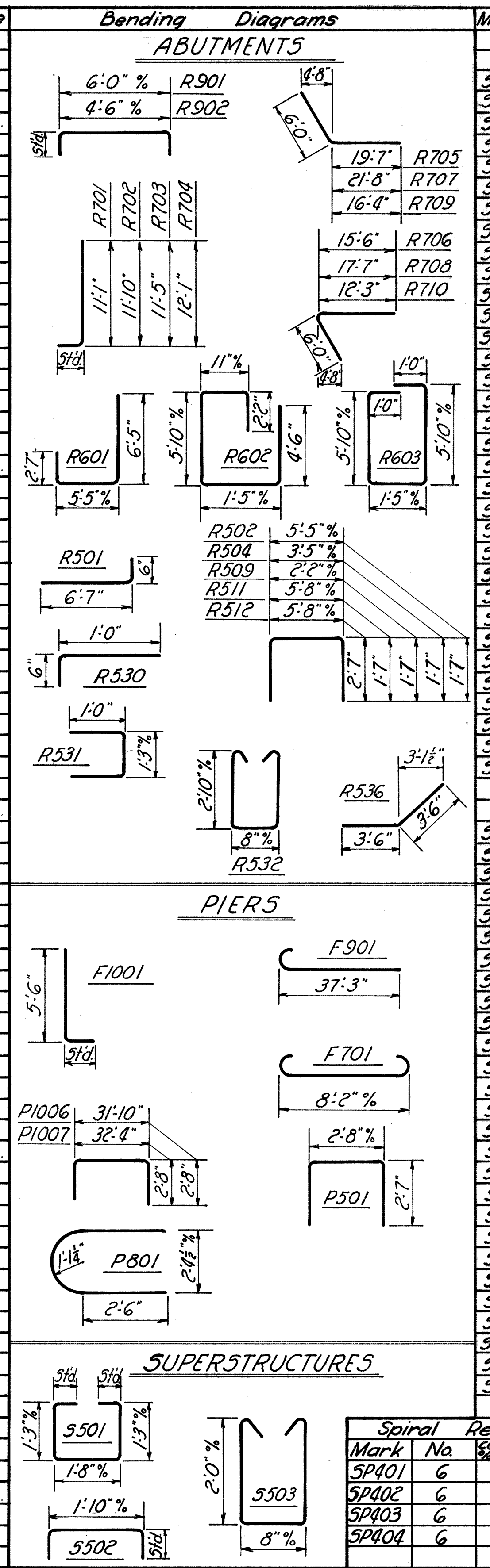
Sta. 493+97.40 to
Sta. 501+02.60
ERI. CO.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	JEC	JEC	TWD	B.JH FCM	9-5-61	

ERI 6-3.80; ERI 2-4.02

REINFORCING STEEL LIST

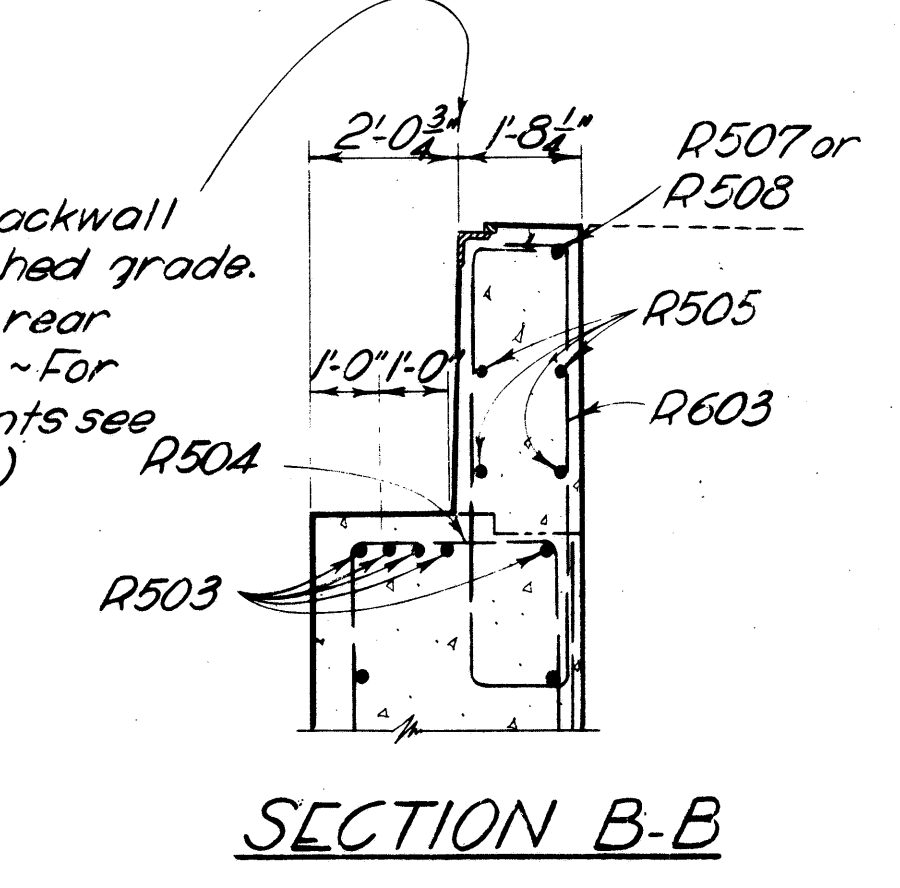
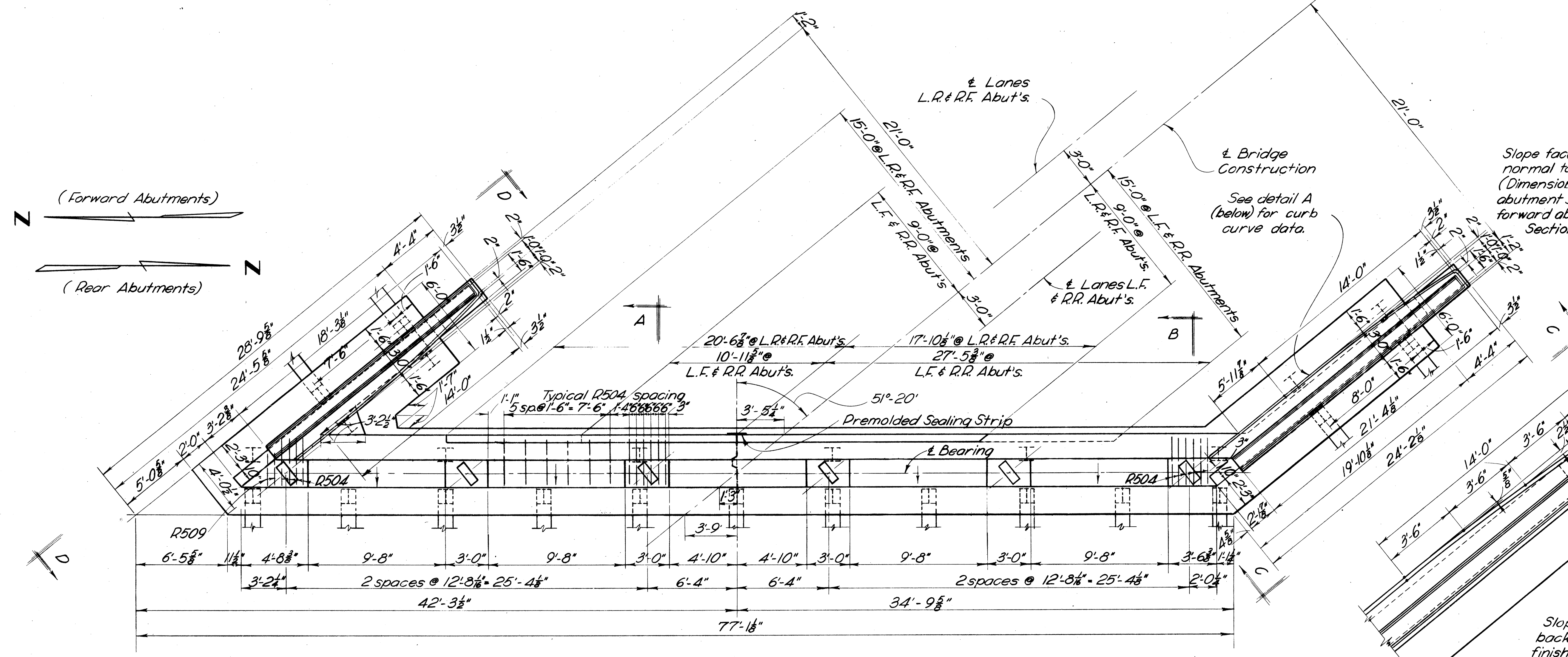
Mark	No.	Length	Weight	Shape	Mark	No.	Length	Weight	Shape
ABUTMENTS					PIERS				
R901	28	8'-0"	762	B	F1001	256	6'-7"	7252	B
R902	28	6'-6"	619	B	F901	160	38'-6"	20,944	B
R801	36	36'-5"	3445	S	F701	296	9'-10"	5,949	B
R802	24	19'-6"	1250	S	F601	192	8'-2"	2,355	S
R803	20	19'-1"	1,019	S					
R804	4	17'-4"	185	S					
R701	22	11'-11"	536	B	P1001	64	19'-5"	5347	S
R702	18	12'-8"	466	B	P1002	64	20'-8"	5,691	S
R703	18	12'-3"	451	B	P1003	64	21'-9"	5,990	S
R704	22	12'-11"	581	B	P1004	64	23'-0"	6,334	S
R705	16	25'-5"	831	B	P1005	16	31'-10"	2,192	S
R706	16	21'-4"	698	B	P1006	16	36'-6"	2,513	B
R707	16	27'-6"	899	B	P1007	16	37'-0"	2,547	B
R708	16	23'-5"	766	B	P1008	16	32'-4"	2,226	S
R709	4	22'-2"	181	B	P1009	8	32'-6"	1,119	S
R710	4	18'-1"	148	B	P801	16	8'-7"	367	B
R601	196	14'-1"	4,146	B					
R602	156	14'-2"	3,319	B	P501	240	7'-7"	1,898	B
R603	116	14'-5"	2,512	B	P502	16	31'-5"	324	S
R501	200	7'-1"	1,478	B					
R502	200	8'-4"	1,738	B					
R503	144	19'-10"	2,979	S					
R504	256	6'-4"	1,691	B					
R505	64	19'-6"	1,302	S					
R506	2	22'-2"	46	S					
SUPERSTRUCTURES									
R507	4	10'-4"	43	S	5701	394	43'-8"	35,166	S
R508	4	20'-0"	83	S	5702	24	36'-1"	1,170	S
R509	8	5'-1"	42	B	5703	4	1'-11"	16	S
R510	2	12'-7"	26	S	5704	4	2'-7"	21	S
R511	96	8'-7"	859	B	5705	4	3'-2"	26	S
R512	96	10'-7"	1,060	B	5706	4	3'-9"	31	S
R513	22	11'-1"	254	S	5707	4	4'-4"	35	S
R514	18	11'-10"	222	S	5708	4	4'-11"	40	S
R515	18	11'-5"	214	S	5709	4	5'-7"	46	S
R516	22	12'-1"	277	S	5710	4	6'-2"	50	S
R517	20	18'-1"	371	S	5711	4	6'-9"	55	S
R518	20	16'-1"	336	S	5712	4	7'-4"	60	S
R519	20	6'-9"	141	S	5713	4	7'-11"	65	S
R520	20	7'-5"	154	S	5714	4	8'-7"	70	S
R521	8	23'-5"	195	S	5715	4	9'-2"	75	S
R522	8	21'-5"	179	S	5716	4	9'-9"	80	S
R523	24	4'-8"	117	S	5717	4	10'-4"	84	S
R524	2	19'-5"	41	S	5718	4	10'-11"	89	S
R525	64	3'-6"	234	S	5719	4	11'-7"	95	S
R526	8	18'-0"	150	S	5720	4	12'-2"	99	S
R527	8	21'-1"	176	S	5721	4	12'-9"	104	S
R528	8	16'-8"	139	S	5722	4	13'-4"	109	S
R529	8	22'-5"	187	S	5723	4	13'-11"	114	S
R530	112	1'-5"	166	B	5724	4	14'-7"	119	S
R531	112	3'-0"	350	B	5725	4	15'-2"	124	S
R532	112	6'-11"	808	B	5726	4	15'-9"	129	S
R533	16	2'-0"	*	S	5727	4	16'-4"	134	S
R534	16	17'-11"	*	S	5728	4	16'-11"	138	S
R535	2	29'-0"	60	S	5729	4	17'-7"	144	S
R536	16	6'-10"	114	B	5730	4	18'-2"	149	S
					5731	4	18'-9"	153	S
					5732	4	19'-4"	158	S
					5733	4	19'-11"	163	S
					5734	4	20'-7"	168	S
					5735	4	21'-2"	173	S
					5736	4	21'-9"	178	S
					5737	4	22'-4"	183	S



Mark	No.	Length	Weight	Shape	Mark	No.	Length	Weight	Shape
SUPERSTRUCTURES 5 (Cont'd)									
5738	4	22'-11"	187	S	5628	4	15'-9"	95	S
5739	4	23'-7"	193	S	5629	4	16'-4"	98	S
5740	4	24'-2"	198	S	5630	4	16'-11"	102	S
5741	4	24'-9"	202	S	5631	4	17'-7"	106	S
5742	4	25'-4"	207	S	5632	4	18'-2"	109	S
5743	4	25'-11"	212	S	5633	4	18'-9"	113	S
5744	4	26'-7"	217	S	5634	4	19'-4"	116	S
5745	4	27'-2"	222	S	5635	4	19'-11"	120	S
5746	4	27'-9"	227	S	5636	4	20'-7"	124	S
5747	4	28'-4"	232	S	5637	4	21'-2"	127	S
5748	4	28'-11"	236	S	5638	4	21'-9"	131	S
5749	4	29'-7"	242	S	5639	4	22'-4"	134	S
5750	4	30'-2"	247	S	5640	4	22'-11"	138	S
5751	4	30'-9"	251	S	5641	4	23'-7"	142	S
5752	4	31'-4"	256	S	5642	4	24'-2"	145	S
5753	4	31'-11"	261	S	5643	4	24'-9"	149	S
5754	4	32'-7"	266	S	5644	4	25'-4"	152	S
5755	4	33'-2"	271	S	5645	4	25'-11"	156	S
5756	4	33'-9"	276	S	5646	4	26'-7"	160	S
5757	4	34'-4"	281	S	5647	4	27'-2"	163	S
5758	4	34'-11"	285	S	5648	4	27'-9"	167	S
5759	4	35'-7"	291	S	5649	4	28'-4"	170	S
5760	4	36'-2"	296	S	5650	4	28'-11"	174	S
5761	4	36'-9"	300	S	5651	4	29'-7"	178	S
5762	4	37'-4"	305	S	5652	4	30'-2"	181	S
5763	4	37'-11"	310	S	5653	4	30'-9"	185	S
5764	4	38'-7"	315	S	5654	4	31'-4"	188	S
5765	4	39'-2"	320	S	5655	4	31'-11"	192	S
5766	4	39'-9"	325	S	5656	4	32'-7"	196	S
5767	4	40'-4"	330	S	5657	4	33'-2"	199	S
5768	4	40'-11"	335	S	5658	4	33'-9"	203	S
5769	4	41'-7"	340	S	5659	4	34'-4"	206	S
5770	4	42'-2"	345	S	5660	4	34'-11"	210	S
					5661	4	35'-7"	214	S
					5662	4	36'-2"	217	S
5601	394	43'-8"	25,841	S	5663	4	36'-9"	221	S
5602	936	34'-11"	49,088	S	5664	4	37'-4"	224	S
5603	136	30'-0"	6,128	S	5665	4	37'-11"	228	S
5604	24	35'-11"	1,295	S	5666	4	38'-7"	232	S
5605	4	1'-11"	12	S	5667	4	39'-2"	235	S
5606	4	2'-7"	16	S	5668	4	39'-9"	239	S
5607	4	3'-2"	19	S	5669	4	40'-4"	242	S
5608	4	3'-9"	23	S	5670	4	40'-11"	246	S
5609	4	4'-4"	26	S	5671	4	41'-7"	250	S
5610	4	4'-11"	30	S	5672	4	42'-2"	253	S
5611	4	5'-7"	34	S					
5612	4	6'-2"	37	S					
5613	4	6'-9"	41	S	5501	536	4'-11"	2,149	B
5614	4	7'-4"	44	S	5502	536	2'-10"	1,584	B
5615	4	7'-11"	48	S	5503	568	5'-6"	3,258	B
5616	4	8'-7"	52	S	5504	128	16'-11"	*	S
5617	4	9'-2"	55	S	5505	64	13'-7"	*	S
5618	4	9'-9"	59	S	5506	32	2'-11"	*	S
5619	4	10'-4"	62	S					
5620	4	10'-11"	66	S					
5621	4	11'-7"	70	S					
5622	4	12'-2"	73	S					
5623	4	12'-9"	77	S					
5624	4	13'-4"	80	S					
5625	4	13'-11"	84	S					
5626	4	14'-7"	88	S					
5627	4	15'-2"	91	S					
REPLACEMENT BARS									
					RE1001	3	7'-3"		S
					RE901	2	6'-10"		S
					RE801	1	6'-6"		S
					RE701	4	6'-3"		S
					RE601	6	5'-11"		S
					RE501	2	5'-7"		S
					RE401	1	5'-3"		S

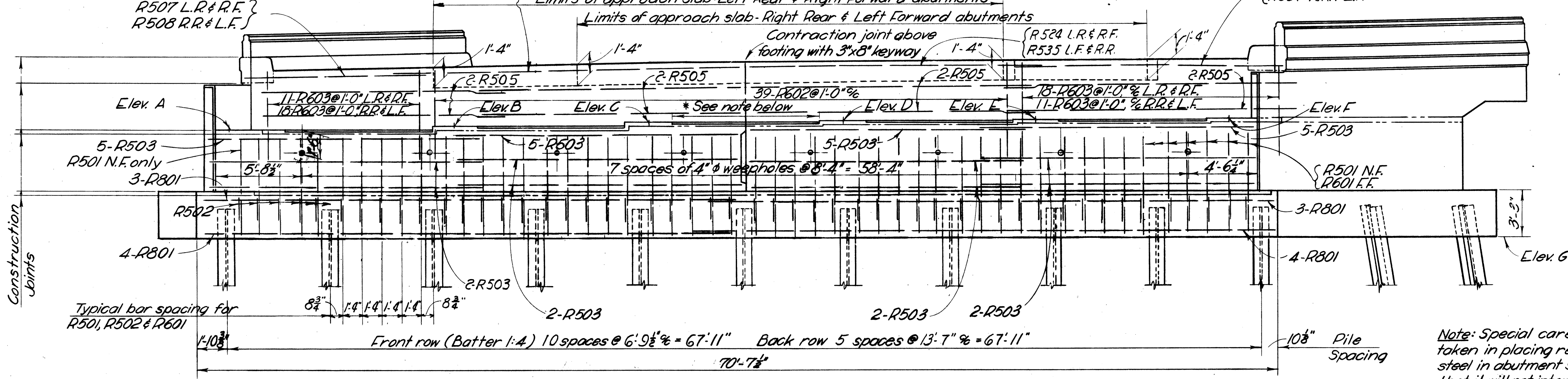
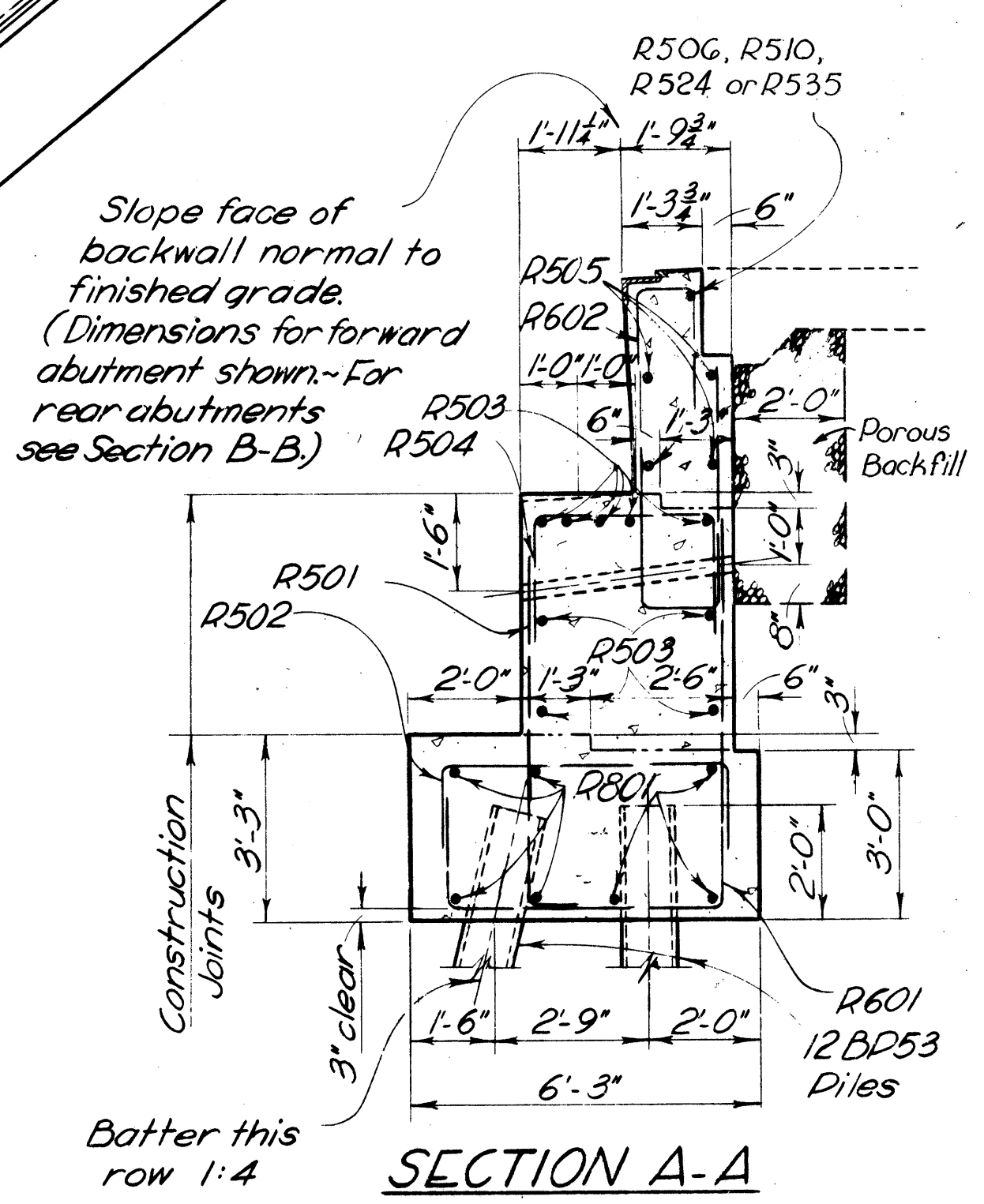
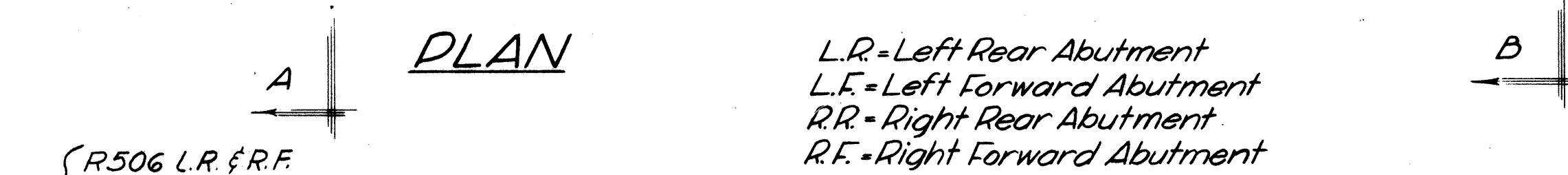
Mark	No.	Length	Pitch	No. of Turns	Weight
5P401	6	32"	16'-9"	4 1/2"	1860
5P402	6	32"	18'-0 1/2"	4 1/2"	1931
5P403	6	32"	19'-0 1/2"	4 1/2"	

ERI. 6-380; ERI. 2-4.02



MICROFIL
SEP 11 1986

ELEVATION	A	B	C	D	E	F	G
Left Rear Abutment	615.26	615.23	615.21	614.96	614.68	614.41	607.30
Left Fwd Abutment	617.46	617.73	618.01	618.26	618.28	618.31	610.40
Right Rear Abutment	617.36	617.34	617.31	617.25	616.97	616.70	609.60
Right Fwd Abutment	619.75	620.02	620.30	620.36	620.38	620.41	612.70



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CONSULTING ENGINEERS
TOLEDO, OHIO

ABUTMENTS
BRIDGE No. ERI. 6-0470 LEFT & RIGHT
OVER
STATE ROUTE No. 99

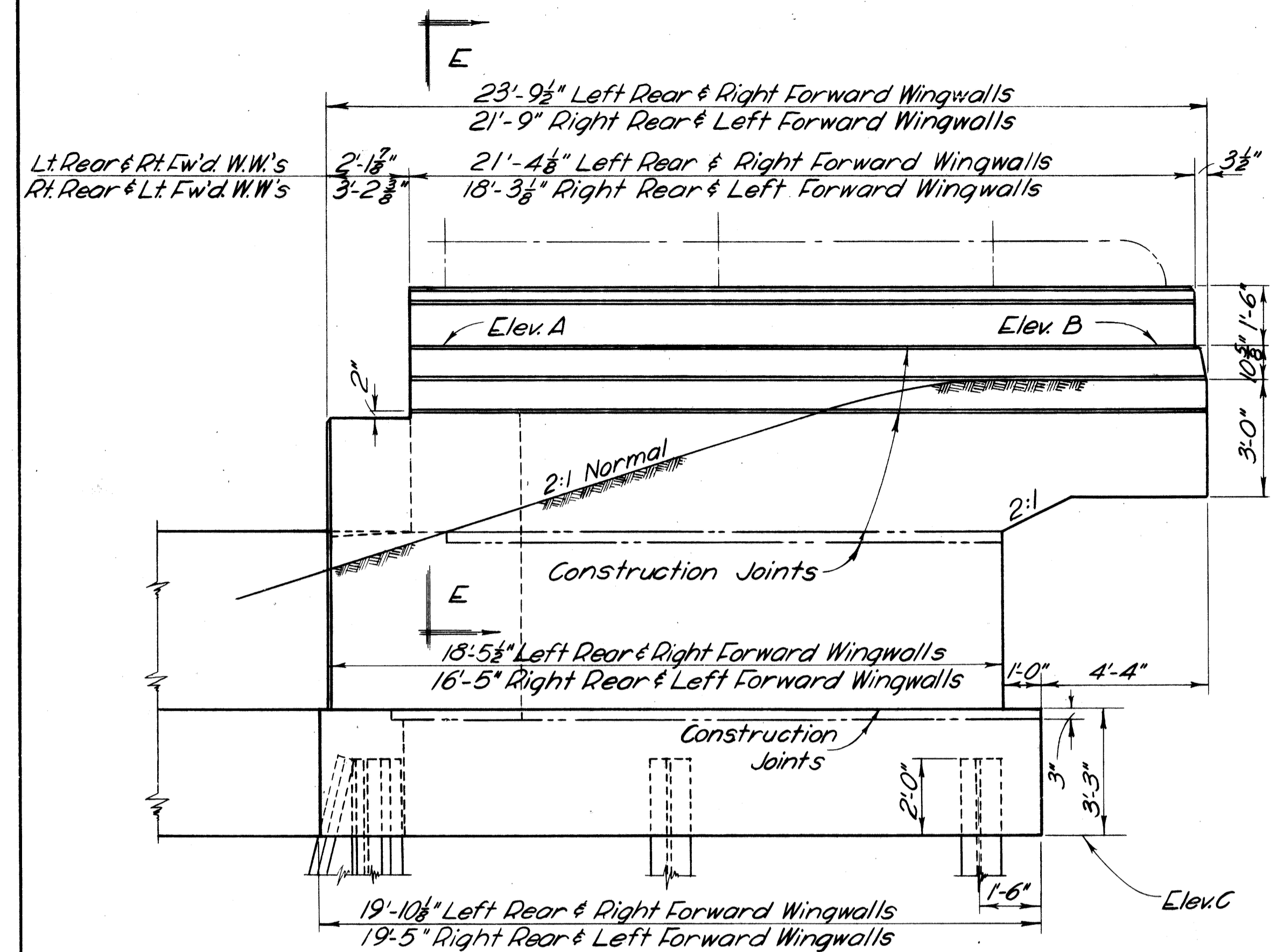
Sta. 493+97.40 to
Sta. 501+02.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	JEC		TFH	BJH	9-5-61	
TFH			TWD	PCM		

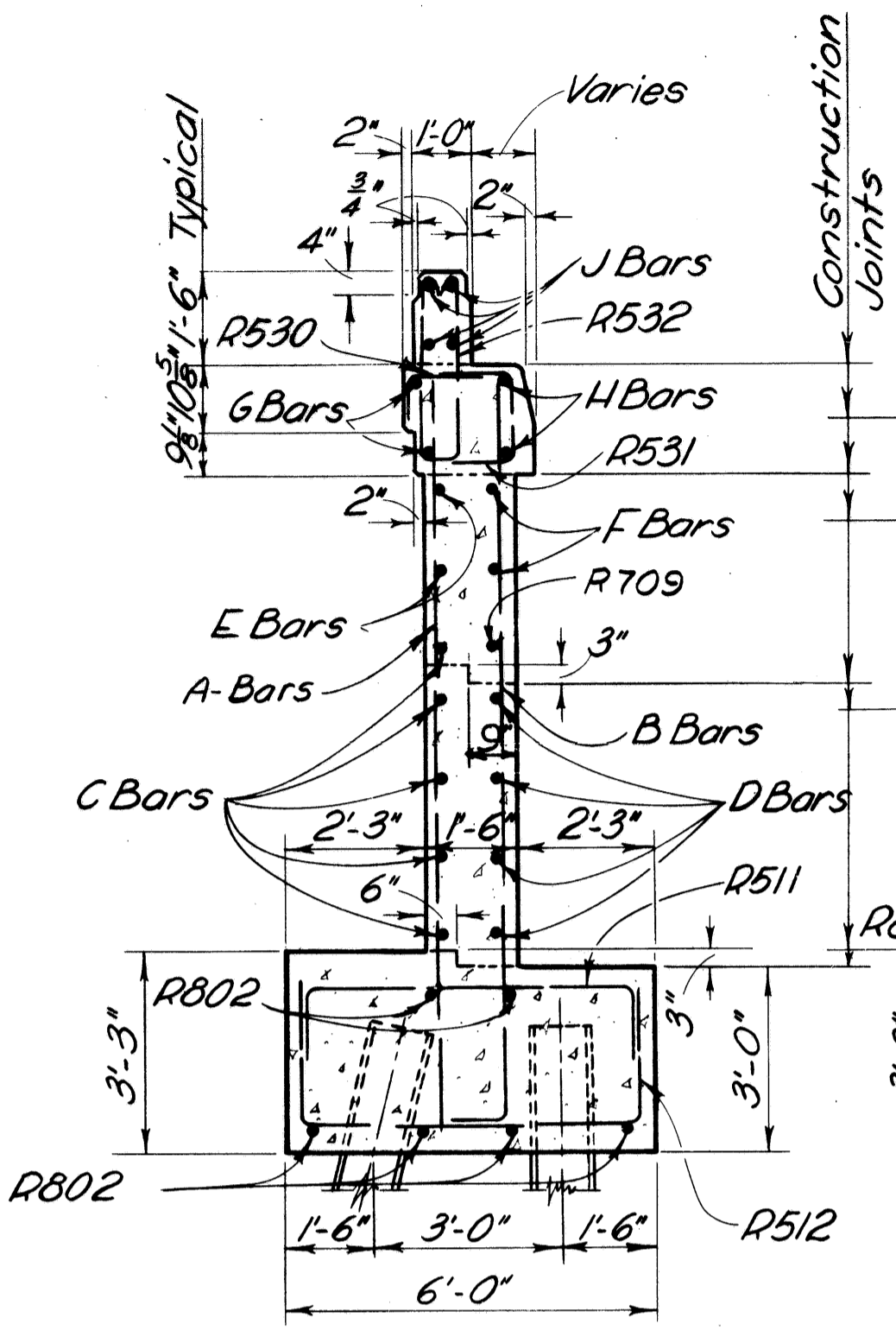
Note: Special care shall be taken in placing reinforcing steel in abutment seat - so that it will not interfere with bearing plate anchor bars.

ERI. 6-3.80; ERI. 2-4.02

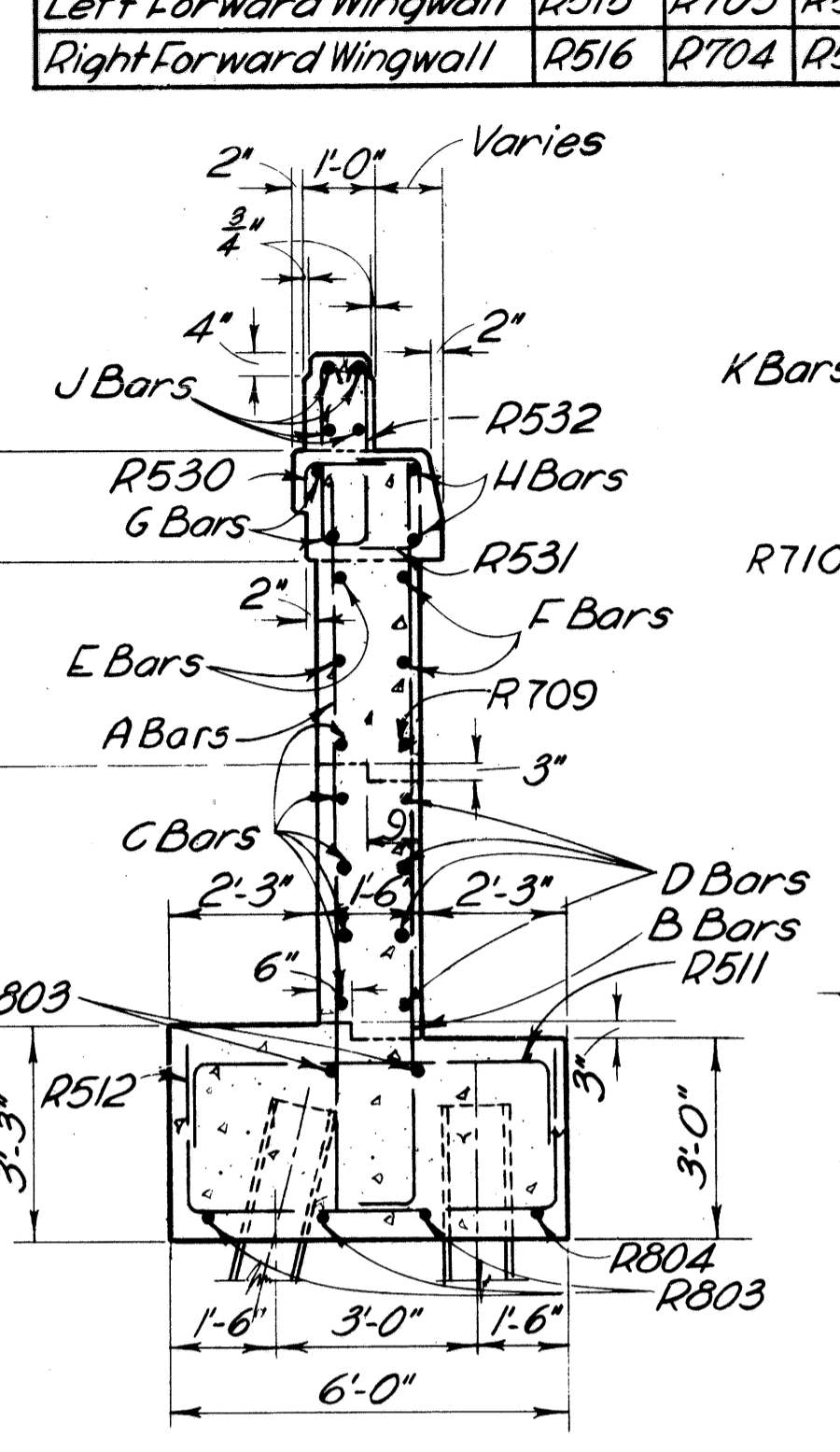
LOCATION	REINFORCING BARS									
	A	B	C	D	E	F	G	H	J	K
Left Rear Wingwall	R513	R701	R517	R705	R521	R707	R527	R529	R533	R519
Right Rear Wingwall	R514	R702	R518	R706	R522	R708	R526	R528	R534	R520
Left Forward Wingwall	R515	R703	R518	R706	R522	R708	R526	R528	R534	R519
Right Forward Wingwall	R516	R704	R517	R705	R521	R707	R527	R529	R533	R520



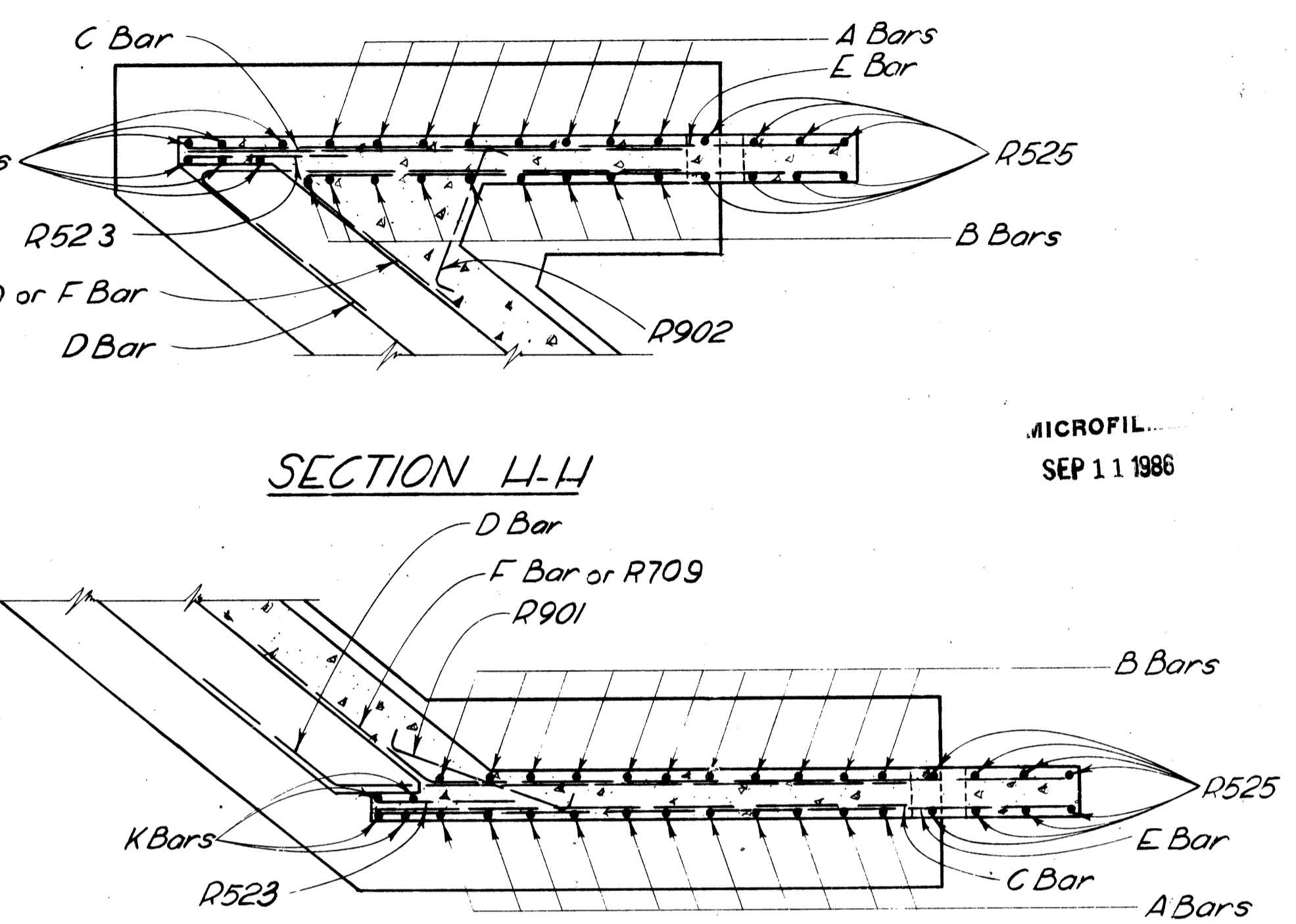
WINGWALL ELEVATION (CONSTRUCTION DETAILS)



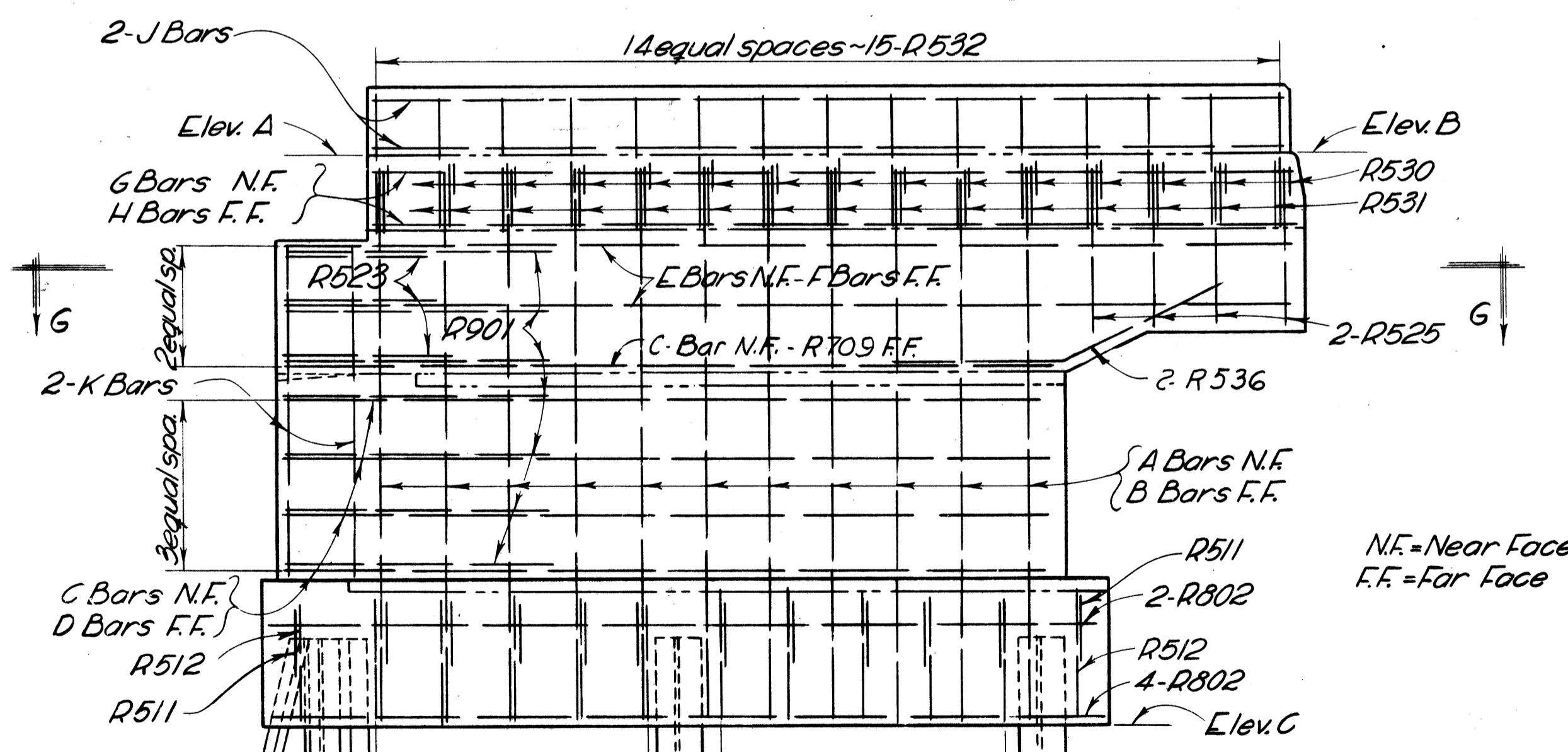
SECTION F-F



SECTION J-J

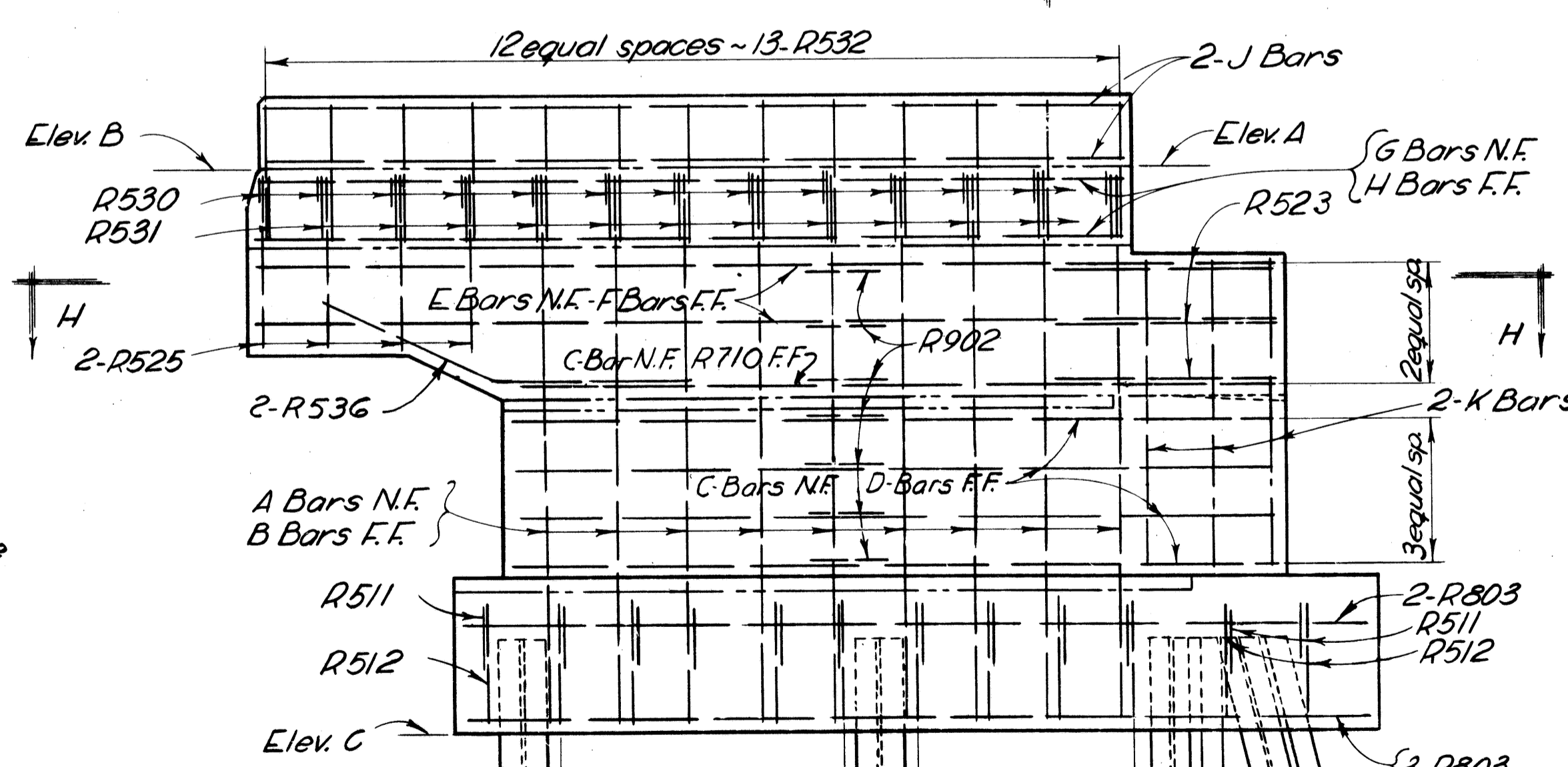


SECTION G-G

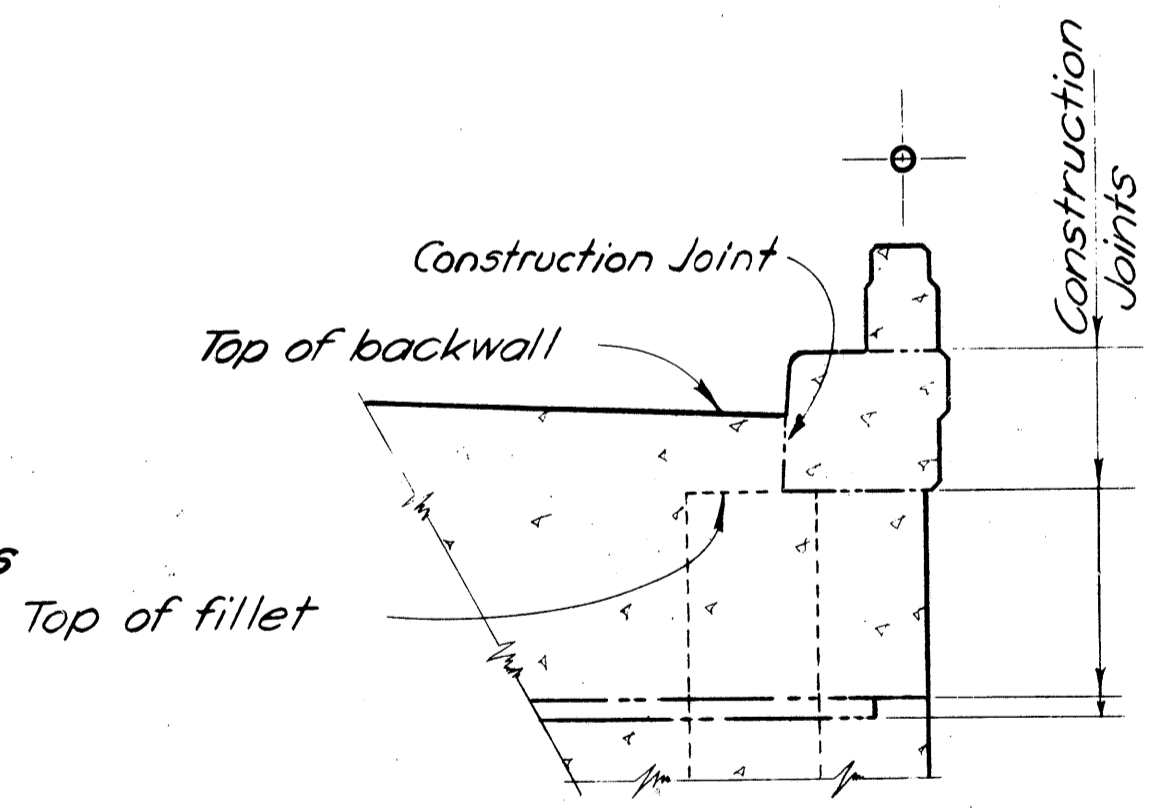


WINGWALL ELEVATION (REINFORCING BAR DETAILS)
VIEW C-C (See Sheet 161)

LOCATION	ELEVATIONS			
	A	B	C	
LEFT BRIDGE	Lt. Rear Wingwall	619.12	618.80	607.30
	Rt. Rear Wingwall	620.02	619.74	607.30
	Lt. Forward Wingwall	622.22	622.50	610.40
	Rt. Forward Wingwall	623.12	623.43	610.40
RIGHT BRIDGE	Lt. Rear Wingwall	622.12	621.84	609.60
	Lt. Forward Wingwall	624.50	624.78	612.70
	Rt. Forward Wingwall	625.22	625.53	612.70



WINGWALL ELEVATION (REINFORCING BAR DETAILS)
VIEW D-D (See Sheet 161)



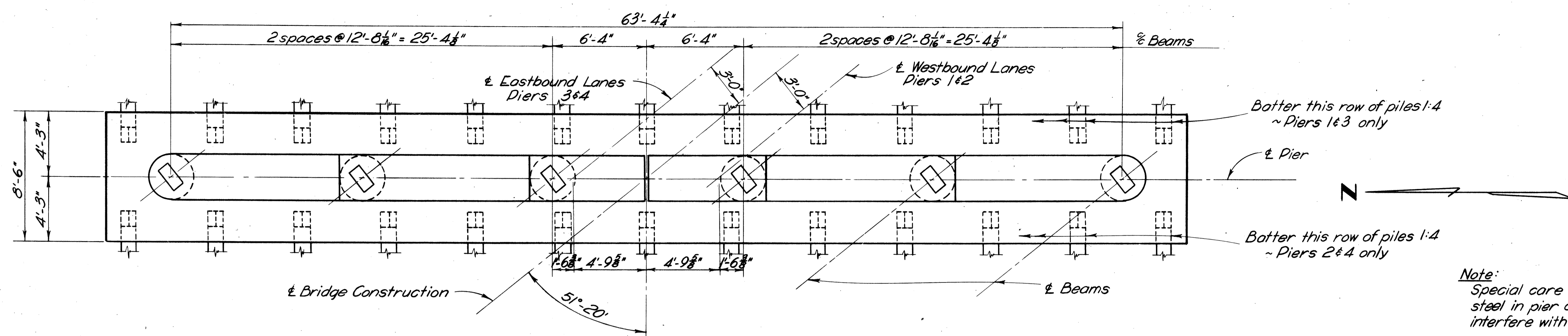
SECTION E-E

SANZENBACHER, MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO, OHIO

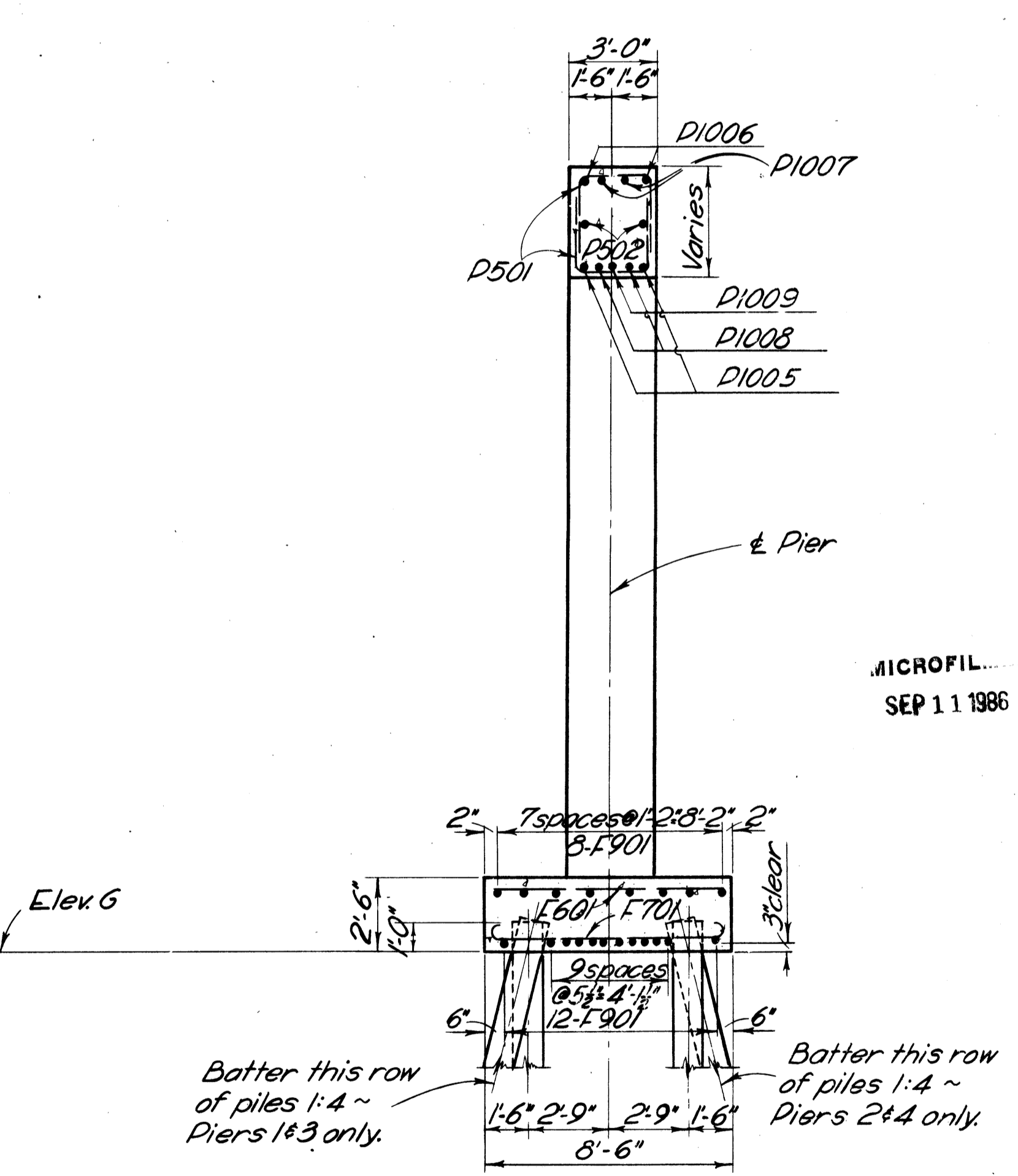
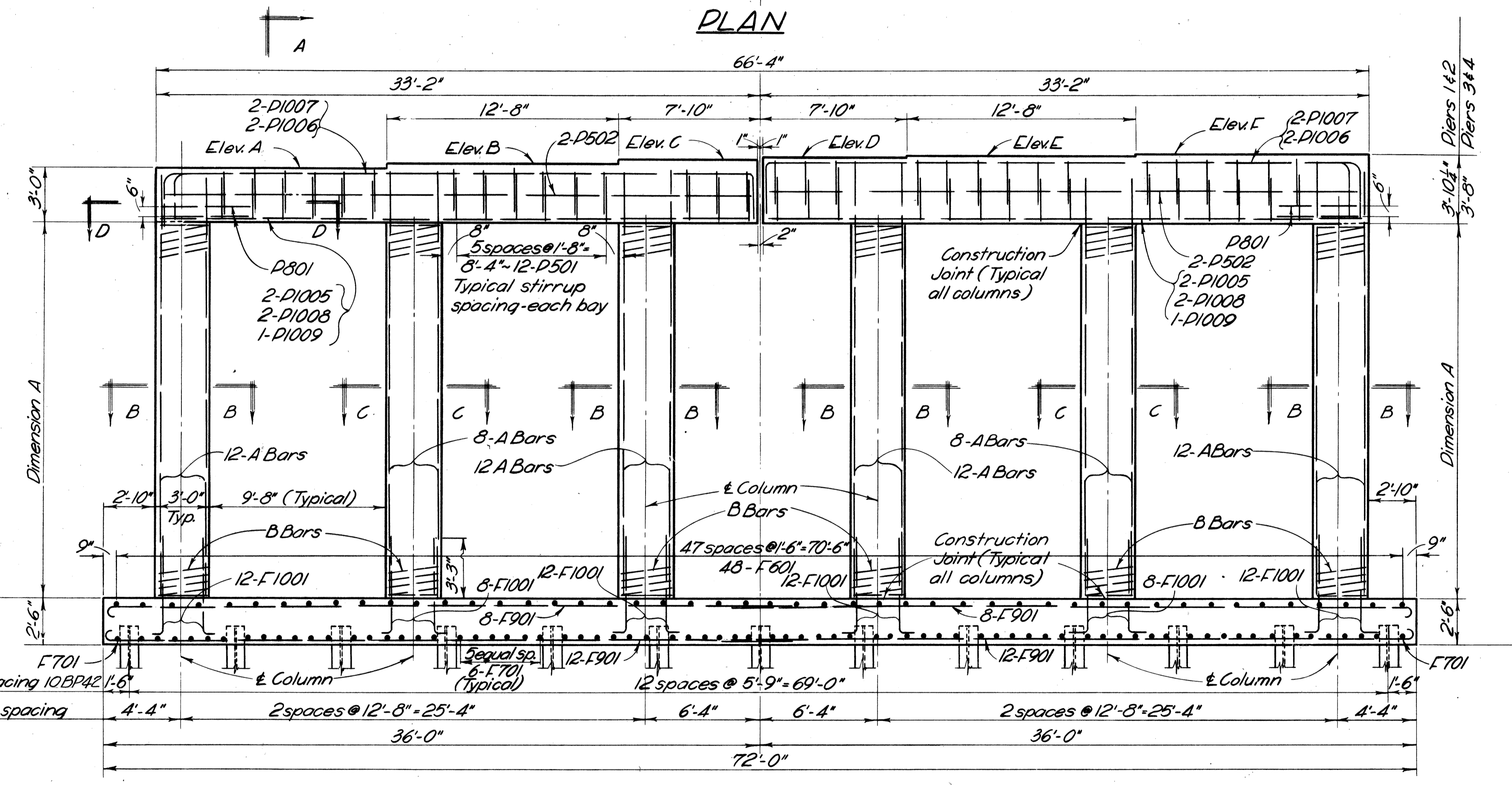
ABUTMENTS
 BRIDGE No. ERI. 6-0470 LEFT & RIGHT
 OVER
 STATE ROUTE No. 99
 Sta. 498+97.40 to
 Sta. 501+02.60

ERIC CO.
 DESIGNED: RJH, TFW
 DRAWN: JEC
 TRACED: TFW
 CHECKED: TFW
 REVIEWED: BJH, FCM
 DATE: 9-5-61

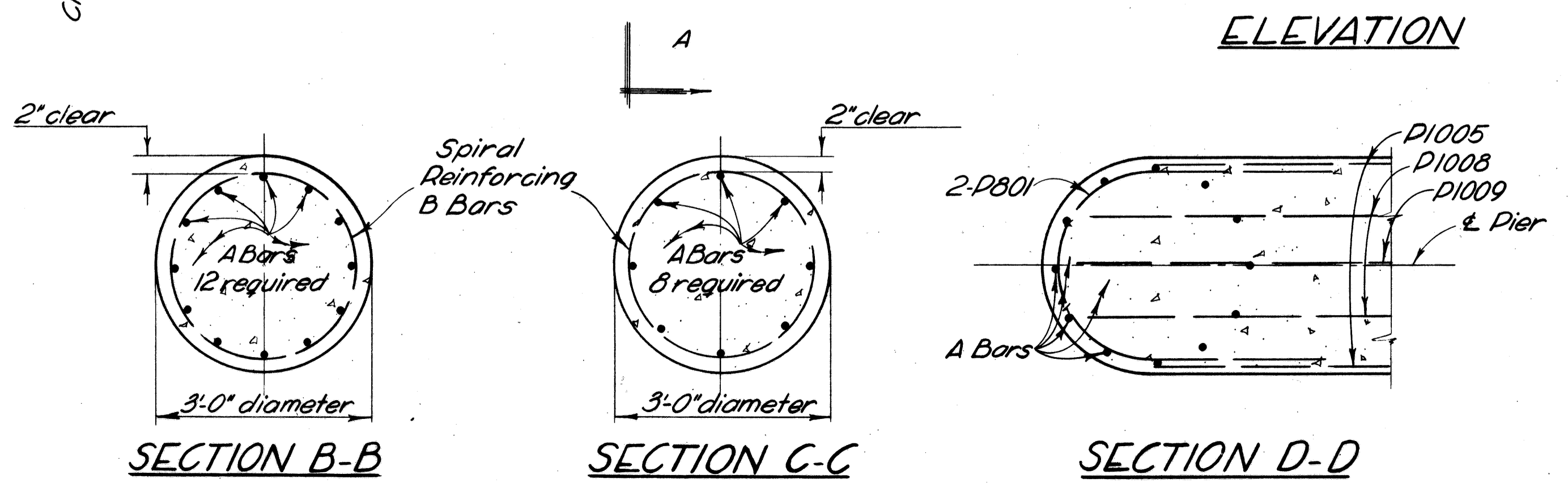
ERI 6-3.80; ERI 2-4.02



Note:
Special care shall be taken in placing reinforcing steel in pier caps so that it will not interfere with the bearing plate anchor bars.



MICROFIL
SEP 11 1986



PIER NUMBER	ELEVATIONS							DIMENSION A	BARS	
	A	B	C	D	E	F	G		A	B
Pier #1	615.28	615.56	615.84	616.08	616.11	616.14	593.00	16'-2 3/8"	P1001	SP401
Pier #2	616.54	616.81	617.09	617.34	617.36	617.39	593.00	18'-0 1/2"	P1002	SP402
Pier #3	617.57	617.85	618.12	618.18	618.21	618.24	593.00	19'-0 3/8"	P1003	SP403
Pier #4	618.82	619.10	619.38	619.44	619.46	619.49	593.00	20'-3 3/8"	P1004	SP404

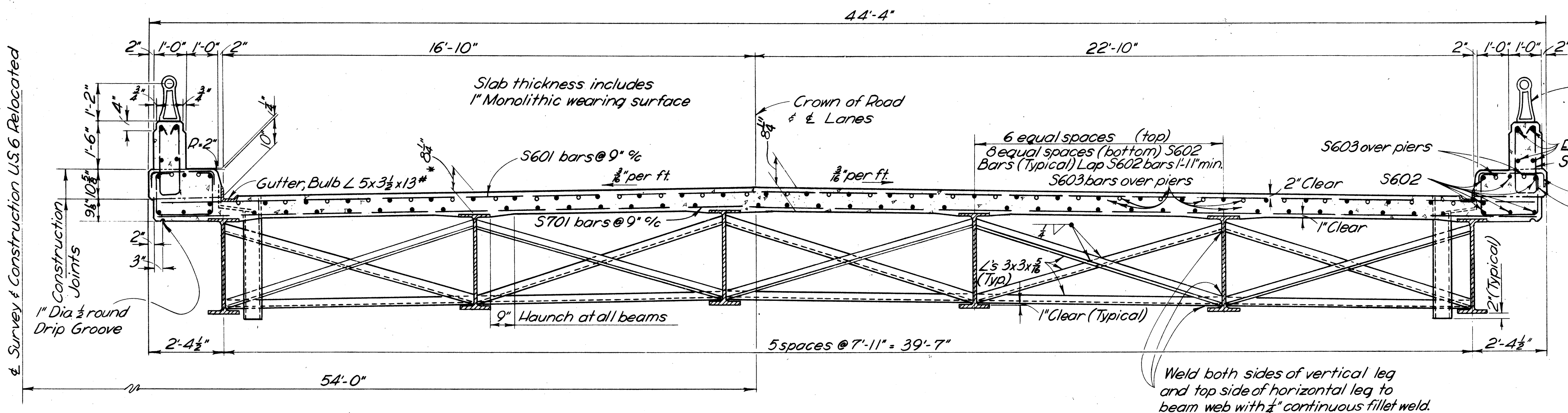
SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

PIERS 1, 2, 3 & 4
BRIDGE No. ERI 6-0470 LEFT & RIGHT
OVER
STATE ROUTE No. 99

ERIC CO. Sta 498+97.40
Sta 501+02.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	JEC		TFH	BJM	9-5-61	
TFH			TWD	FCM		

ERI. 6-3.80; ERI. 2-4.02

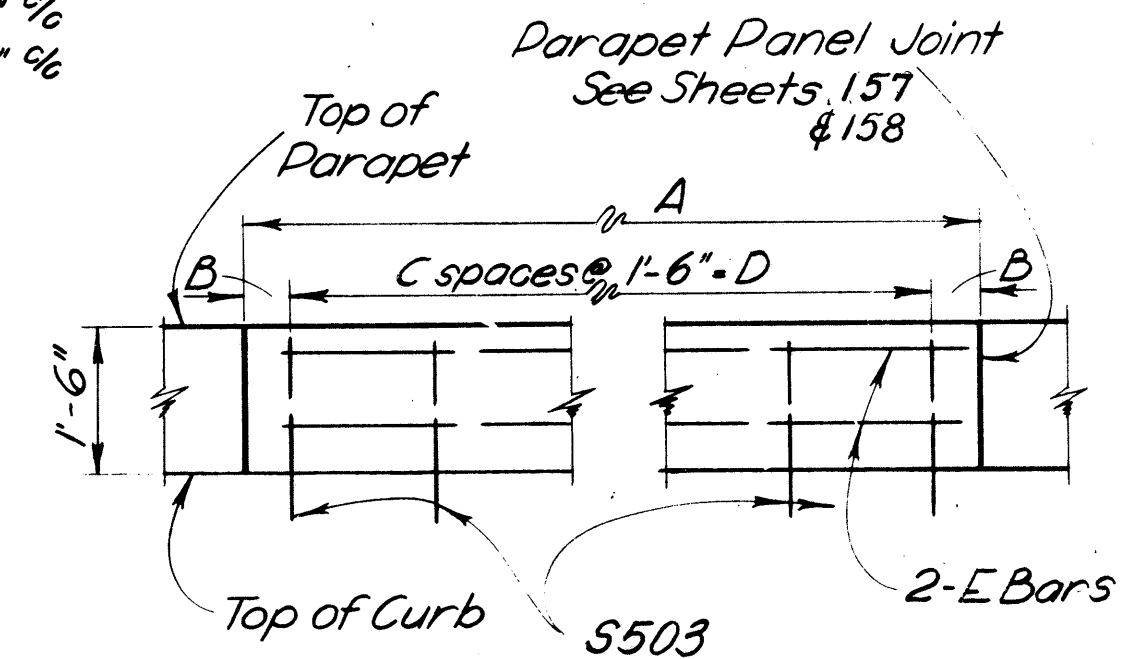


Survey & Construction U.S. 6 Relocated

Type "A" Railing Post
Standard Drawing
AR-1-57

E Bars } See Parapet
S503 } Wall Detail

S502 @ 1'-6" %
S501 @ 1'-6" %



PARAPET WALL DETAILS

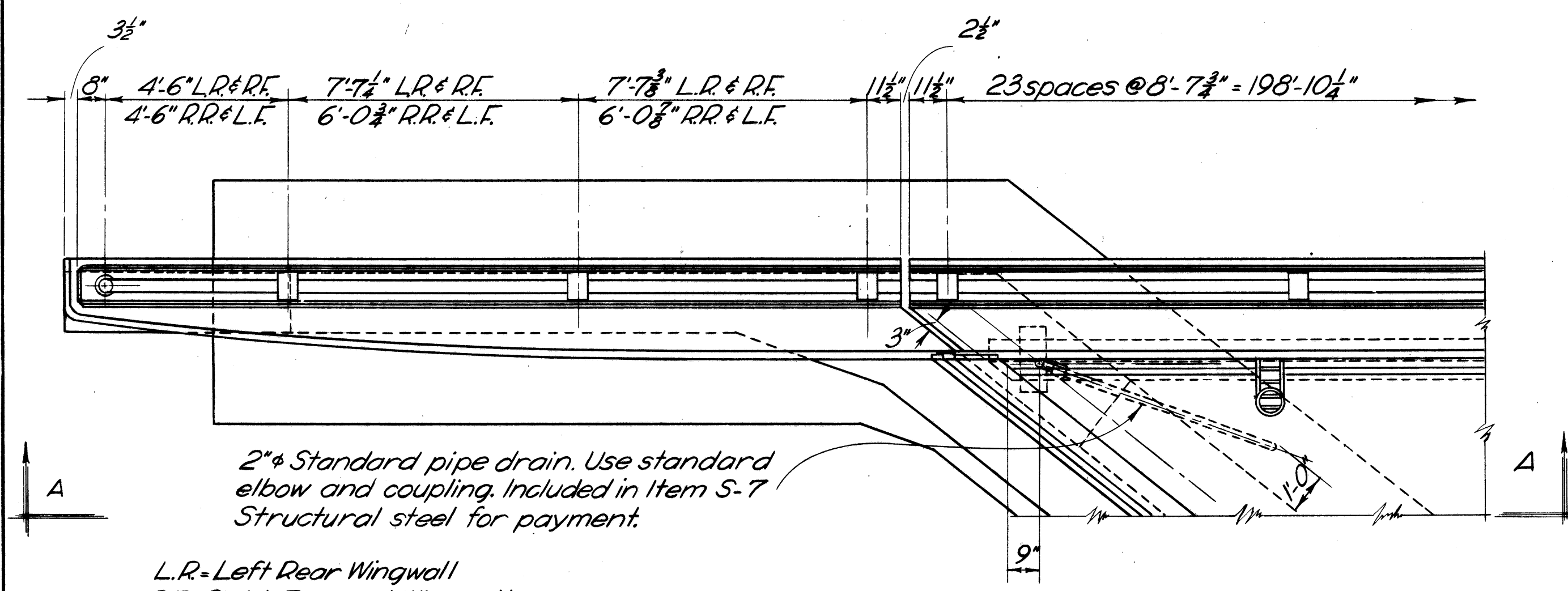
*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

TRANSVERSE SECTION OF DECK
(LOOKING IN THE DIRECTION OF TRAFFIC)

NOTE: For roadway end dam details, gutter and scupper details, curb plate details, welded butt joint in superstructure end dam angles and bearing plate details see Standard "Continuous Steel Beam Bridge", Drawing No. CSB-2-56 revised 2-2-59. (Sheets 2&3 of 6)

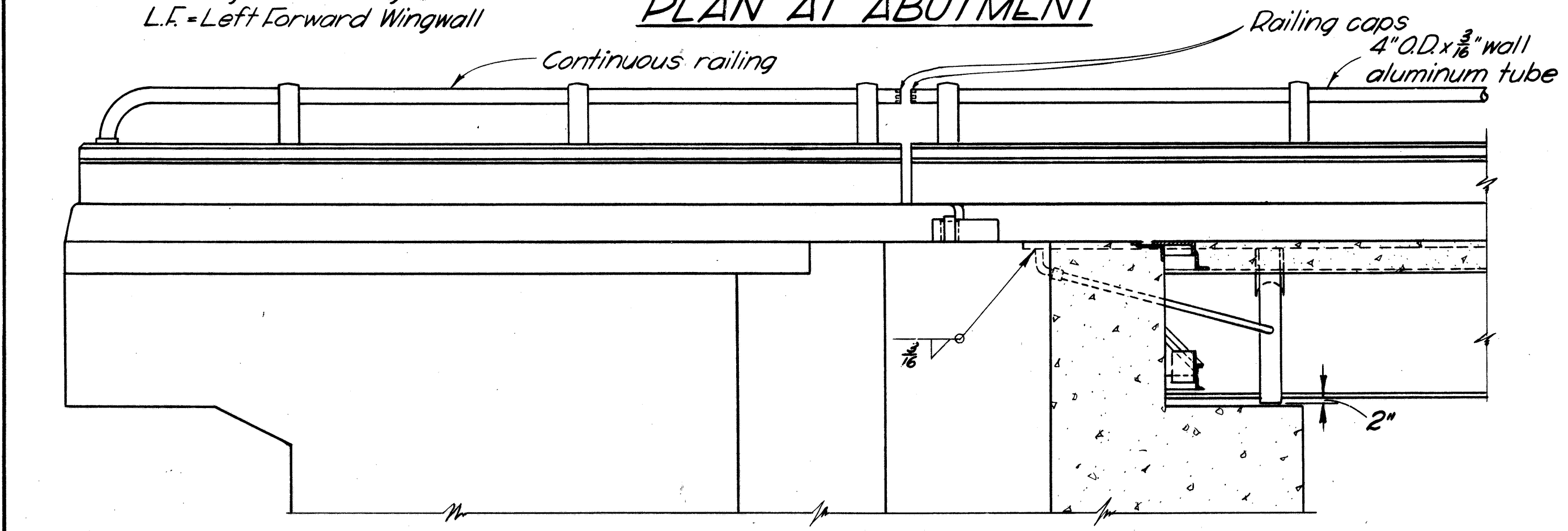
MICROFIL
SEP 11 1986



2" Standard pipe drain. Use standard elbow and coupling. Included in Item S-7 Structural steel for payment.

L.R.-Left Rear Wingwall
R.F.-Right Forward Wingwall
R.R.-Right Rear Wingwall
L.F.-Left Forward Wingwall

PLAN AT ABUTMENT



SECTION A-A

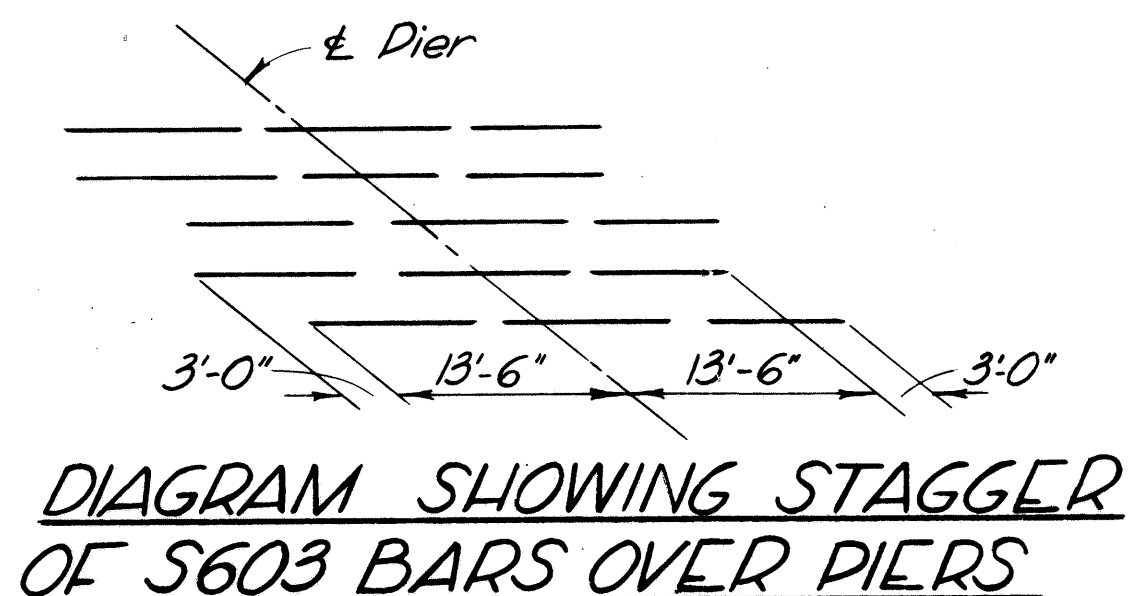
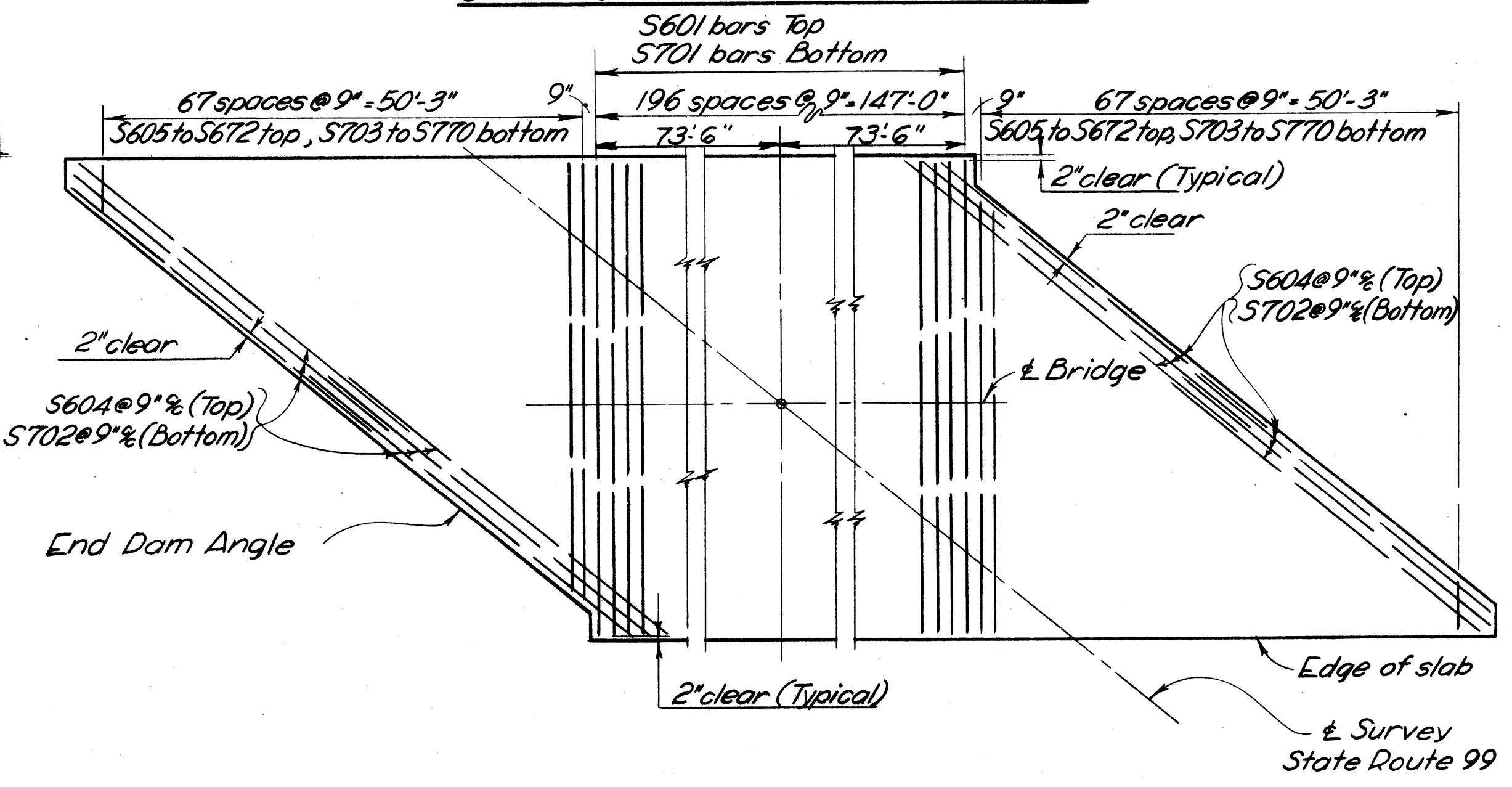


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

Panel - See Sheets 2&3	A	B	C	D	No of S503	E Bars
Intermediate	17'-3 1/2"	4 3/4"	11	16'-6"	12	S504
Pier	14'-0"	3"	9	13'-6"	10	S505
Pier	3'-3 1/2"	1 3/4"	2	3'-0"	3	S506
End	13'-11 1/2"	2 1/2"	9	13'-6"	10	S505



SLAB TRANSVERSE REINFORCING STEEL

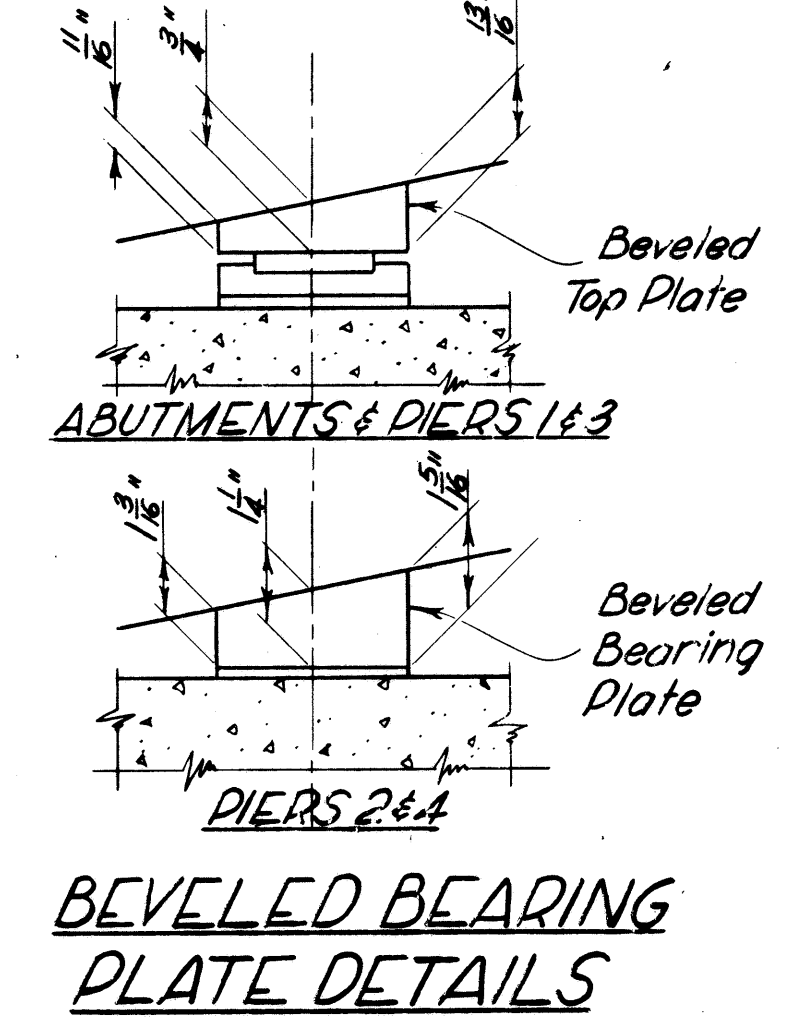
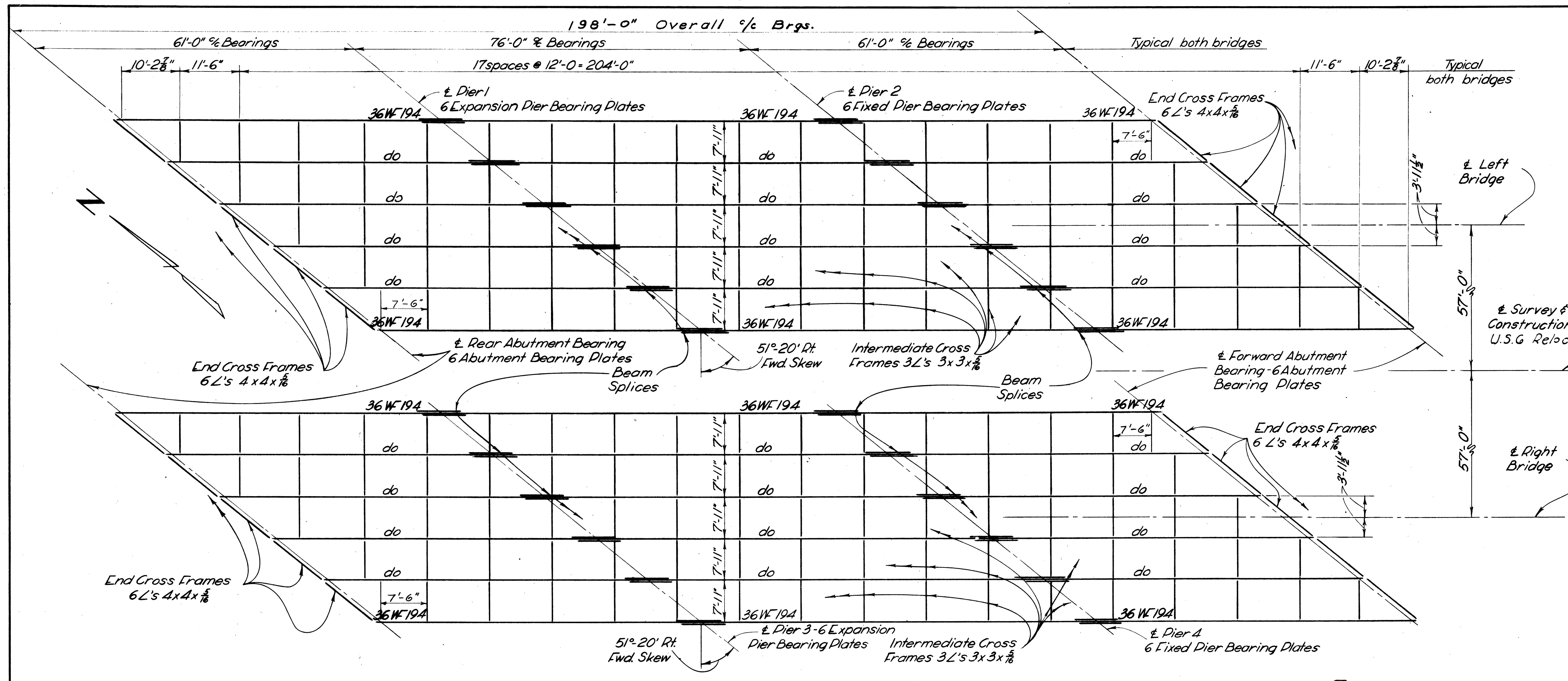
SANZENBACHER, MILLED & BRIGLIAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. ERI. 6-0470 LEFT & RIGHT
OVER
STATE ROUTE No. 99

Sta. 498+97.40
Sta. 501+02.60

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISED
RJH	JEC	TFW	BJH	9-5-61	

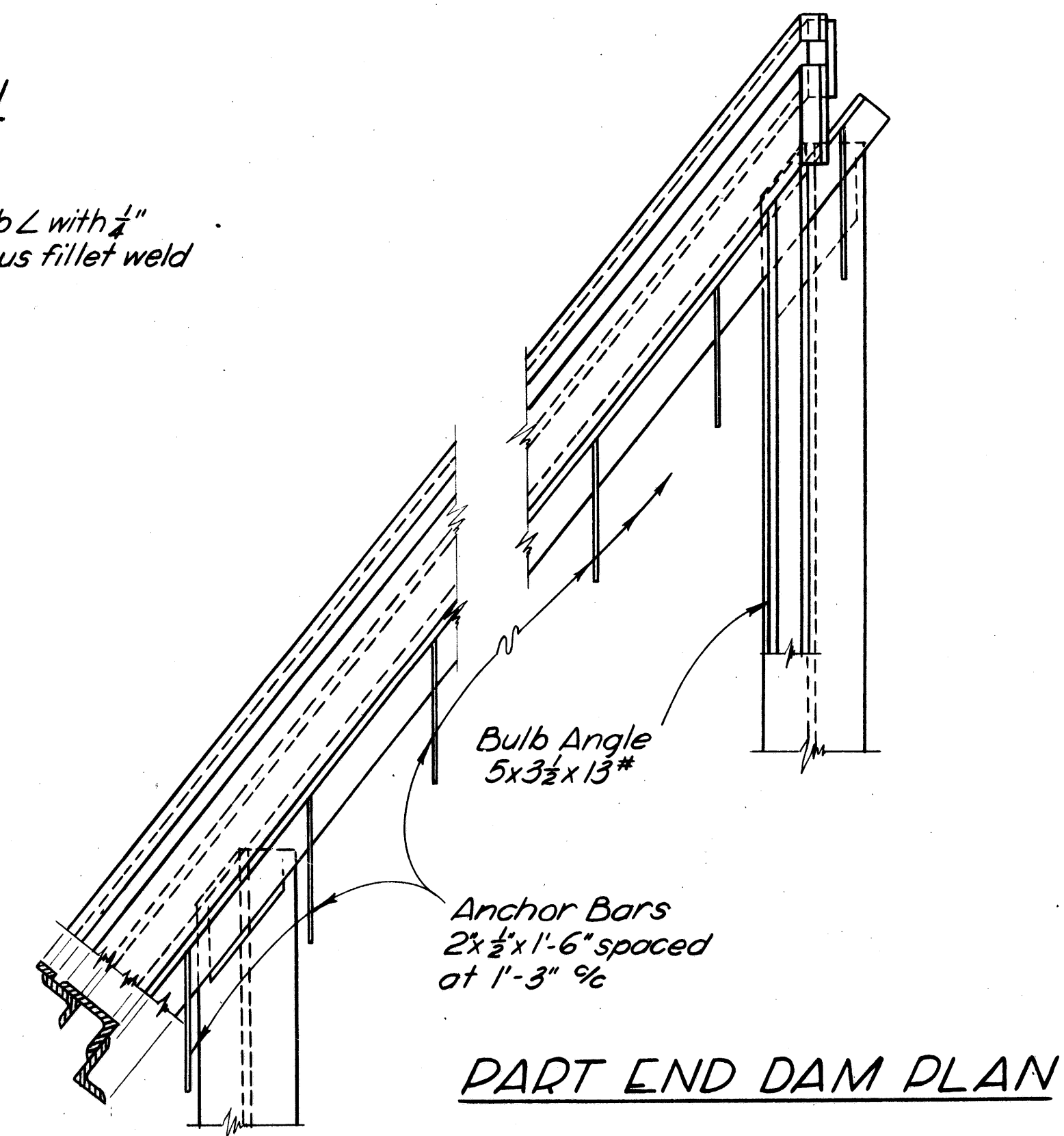
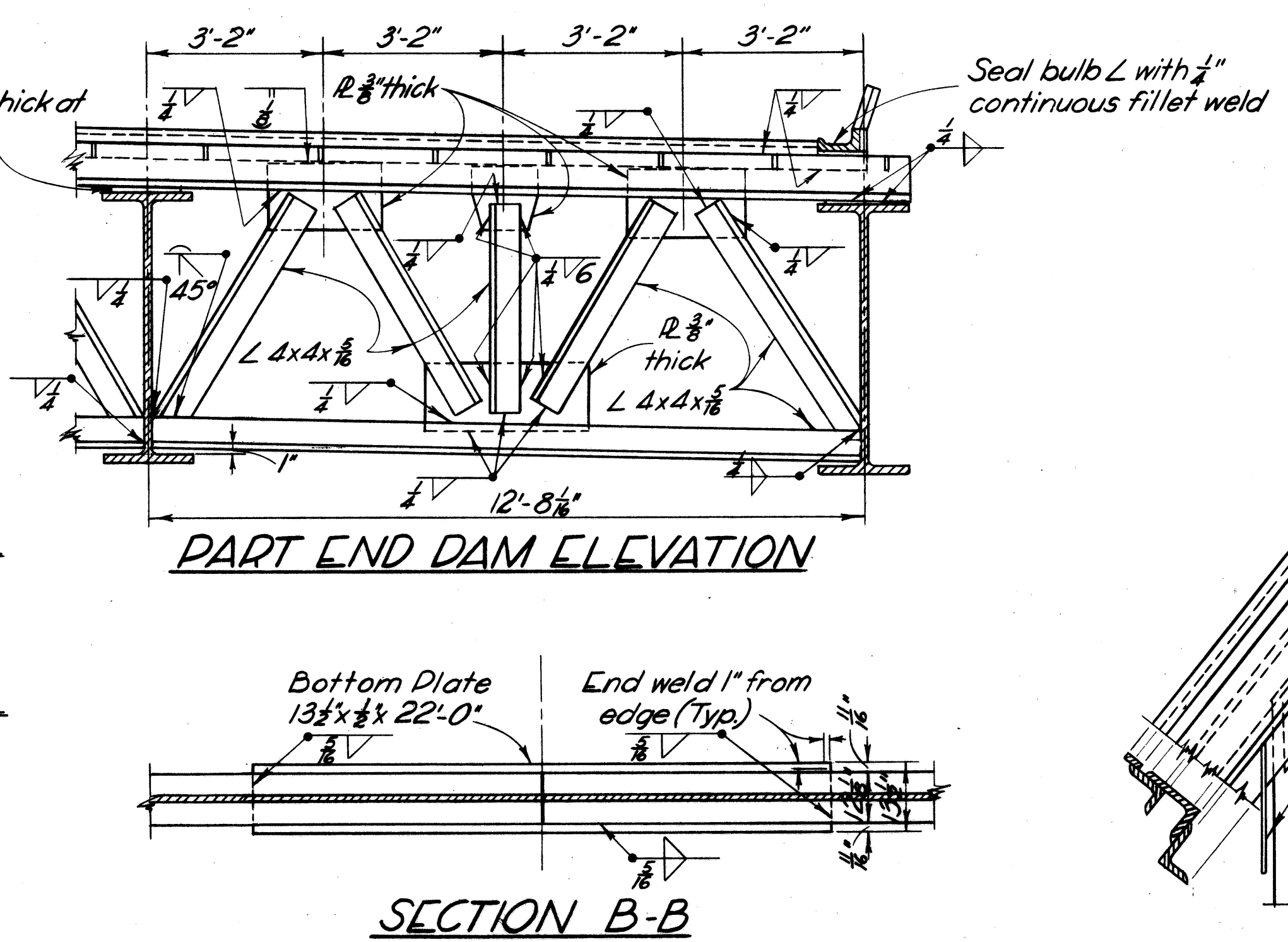
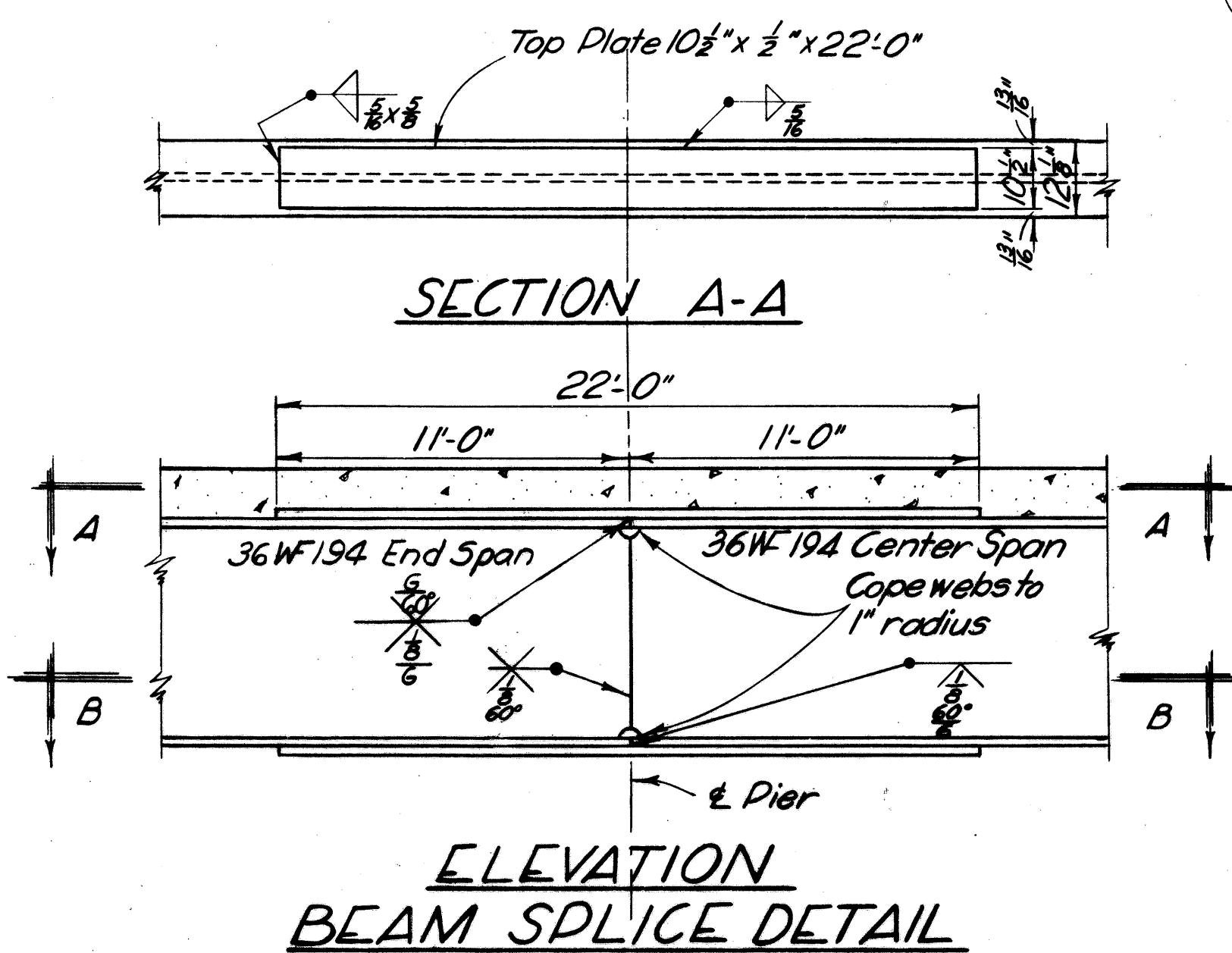
ERI 6-3.80; ERI 2-4.02



CAMBERING: No camber is required. Fabricate beams with convex flange up. The dead load deflection is 3/8" in the end spans and 1/16" in the center spans.

- BEAM SPLICE WELDING PROCEDURE**
1. Raise the abutment ends of the beams 1 3/4".
 2. Butt-weld the beam flanges and web, using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
 3. Weld the bottom and top moment plates.
 4. Lower the beam ends to final position.

STEEL FRAMING PLAN



MICROFIL
SEP 11 1986

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO			
SUPERSTRUCTURE DETAILS			
BRIDGE No. ERI 6-0470 LEFT & RIGHT OVER STATE ROUTE No. 99			
Sta. 498+97.40 Sta. 501+02.60			
ERIC CO.			
DESIGNED	DRAWN	CHECKED	DATE REVISION
RJH	JEC	TFH	B.J.H. FCM 9-5-61

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(3)	

166
220

ERIE COUNTY
ERI. G-3.80; ERI. 2-4.02
10.0 Miles West of Huron

FORCE ACCOUNT WORK

- by
The New York, Chicago and St. Louis Railroad
1. Wire Line Changes
 2. Track Work
 3. Essential Engineering Services
- The New York Central Railroad
1. Preliminary Engineering
 2. Construction Engineering Services
 3. Track Work
 4. Protection of Railroad Traffic
 5. Accounting and Insurance

Note: Plans for Railroad Force Account Work may be seen at the Division office in Ashland, at the Bureau of Bridges, Construction Bureau, or Office of Contract Sales in Columbus, or at the representative office of each railroad.

FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division Office, but the State does not guarantee the accuracy thereof.

MICROFILM
SEP 11 1986

PROPOSED STRUCTURES

Type: Continuous Steel beam with reinf. conc. deck. Reinf. conc. substructure, stub abutts. & T-type piers on steel H piling. Spans: 42'-0", 60'-0", 60'-0", 65'-0", 52'-0"

Roadway: 42'-0" w/ Parapets. (Left & Right Bridges)
Load Frequency: CF 400 (57)
Skew: 3° 32' L.F.
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: AS-1-54 (25'-0" Long)
Alignment: Tangent

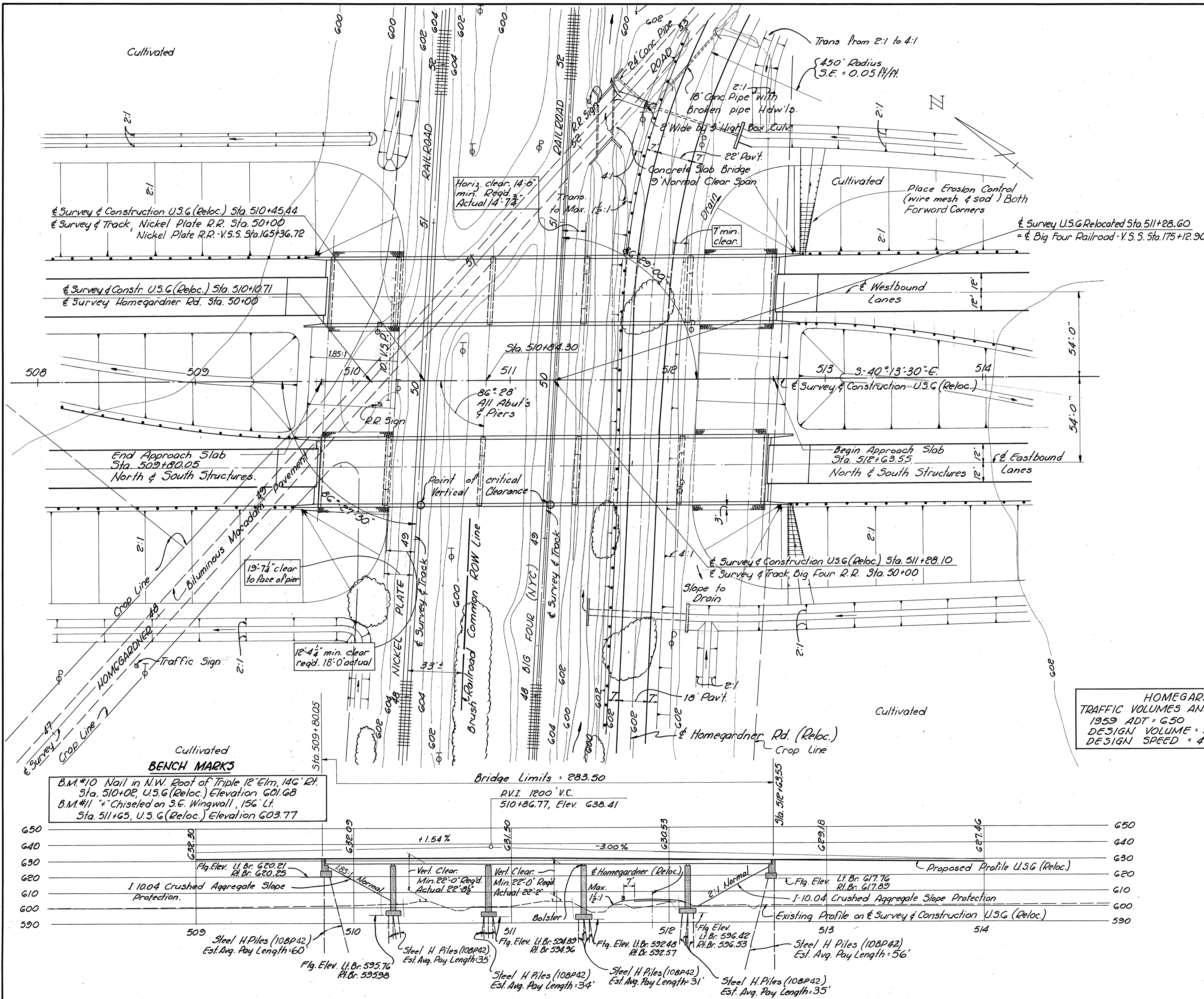
HOMEGARDNER ROAD
TRAFFIC VOLUMES AND DESIGN SPEED
1959 ADT - 650
DESIGN VOLUME - 930 VPD
DESIGN SPEED - 40 MPH

SANTZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SITE PLAN
BRIDGE No. ERI G-0490
LEFT AND RIGHT
OVER

NICKEL PLATE R.R. AND BIG FOUR R.R.
ERIE CO. STA. 509+80.05
SCALE: 1"=30' to STA. 512+63.55

PRESENT TOPOGRAPHY		PROPOSED WORK	
SURVEYED	DRAWN	DESIGNED	DRAWN
S.M.B.	R.J.H. B.B.	A.J.B.	T.W.D.
		CHECKED	REVIEWED
		B.J.H.	FCM 9-5-61



Survey & Construction U.S.G. (Reloc.) Sta. 510+45.44
Survey & Track, Nickel Plate R.R. Sta. 50+00
Nickel Plate R.R. V.S.S. Sta. 165+36.72

Survey & Constr. U.S.G. (Reloc.) Sta. 510+10.71
Survey Homegardner Rd. Sta. 50+00

Survey U.S.G. Relocated Sta. 511+28.60
Big Four Railroad-V.S.S. Sta. 175+12.70

Sta. 510+84.30

Survey & Construction-U.S.G. (Reloc.)

End Approach Slab
Sta. 509+80.05
North & South Structures.

Begin Approach Slab
Sta. 512+63.55
North & South Structures

Survey & Construction U.S.G. (Reloc.) Sta. 511+28.10
Survey & Track, Big Four R.R. Sta. 50+00

BENCH MARKS
B.M.#10 Nail in N.W. Roof of Triple 12" Elm, 146' Rt.
Sta. 510+02, U.S.G. (Reloc.) Elevation 601.68
B.M.#11 "x" Chiseled on S.E. Wingwall, 156' Lt.
Sta. 511+65, U.S.G. (Reloc.) Elevation 603.77

Bridge Limits - 283.50

R.V.I. 1200' V.C.
510+86.77, Elev. 638.41

Homegardner (Reloc.)
Flg. Elev. Lt. Br. 617.76
Rt. Br. 617.89

509 Steel H Piles (108P42)
Est. Avg. Pile Length=60'

510 Steel H Piles (108P42)
Est. Avg. Pile Length=35'

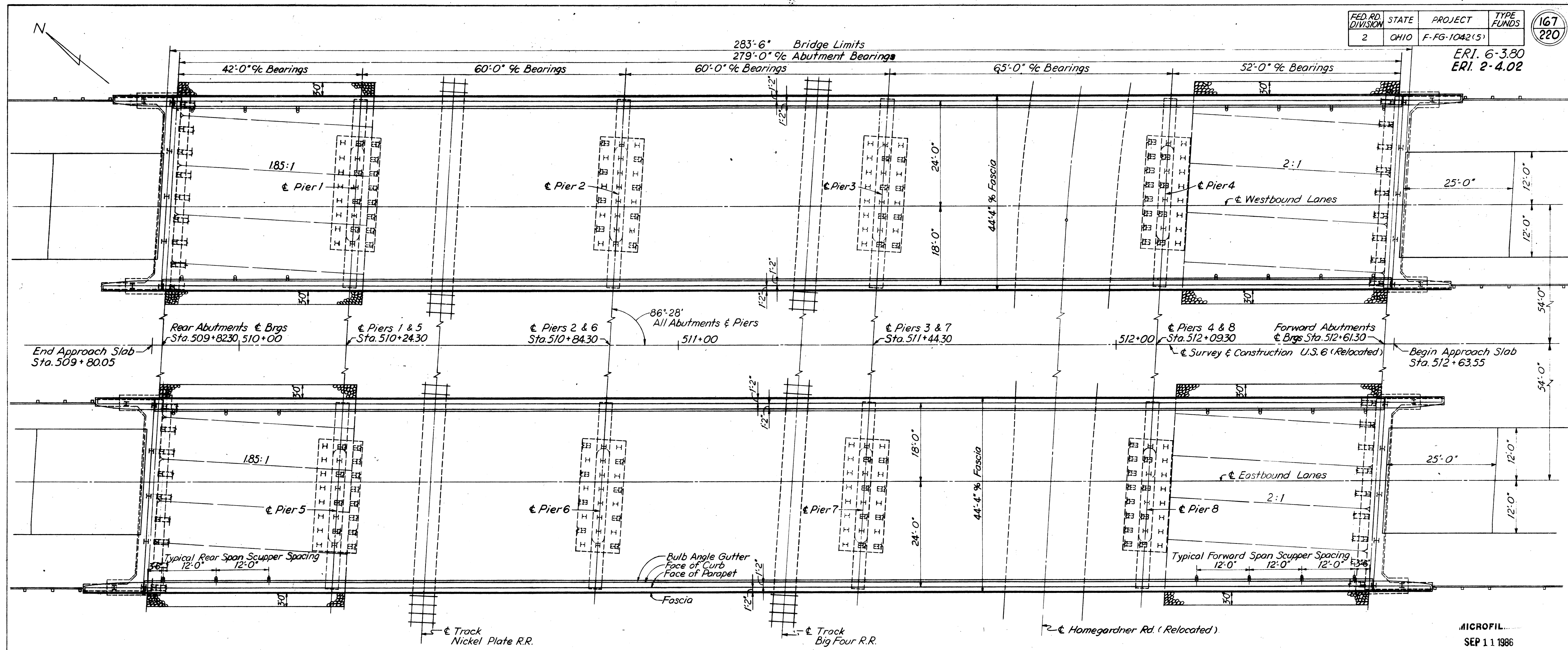
511 Steel H Piles (108P42)
Est. Avg. Pile Length=34'

512 Steel H Piles (108P42)
Est. Avg. Pile Length=31'

513 Steel H Piles (108P42)
Est. Avg. Pile Length=56'

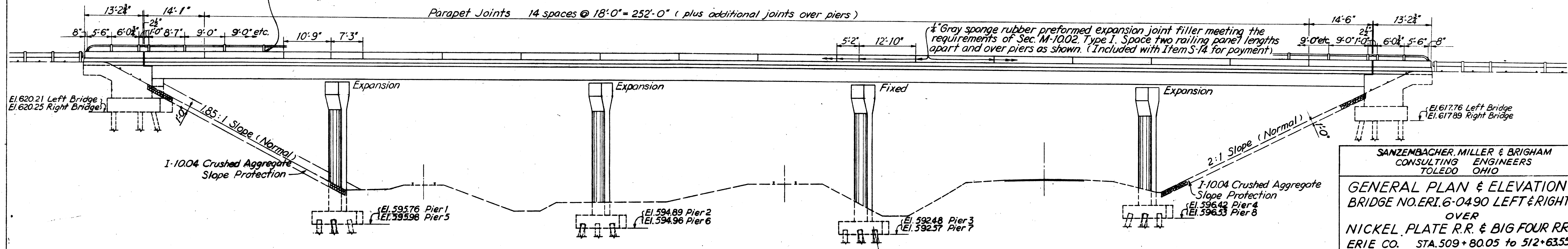
514 Steel H Piles (108P42)
Est. Avg. Pile Length=35'

ERI-2-0537



PLAN

Place 8" Preformed Bearing Pad, Sec. M-10.11 under each railing post. (Included with Item S-14 for payment)



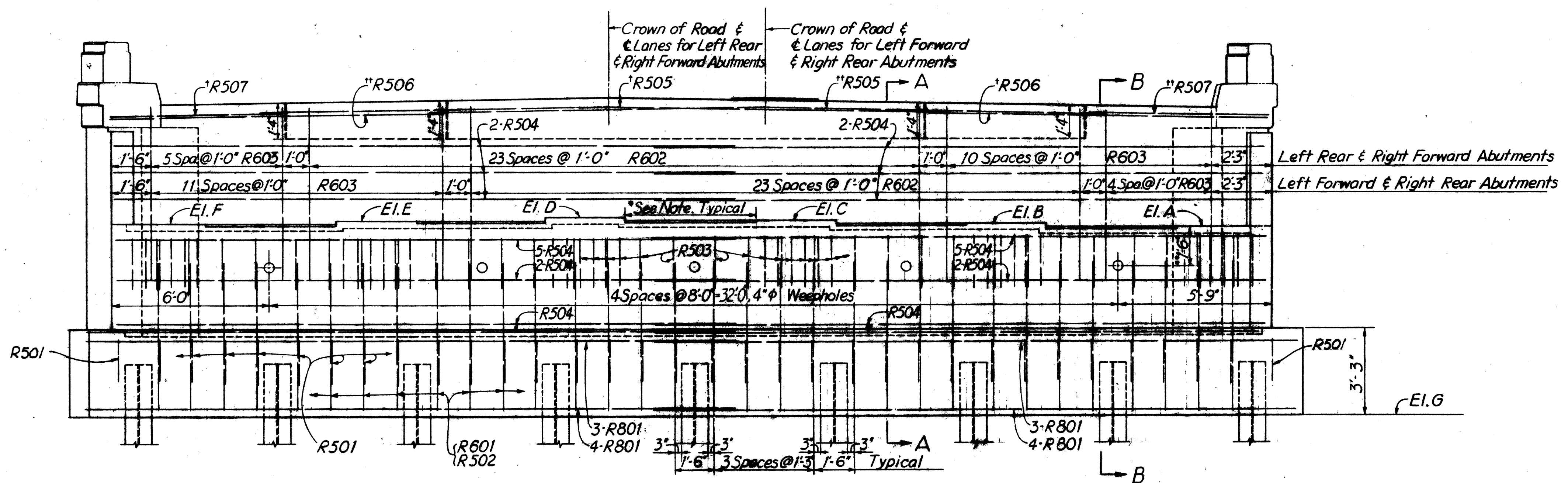
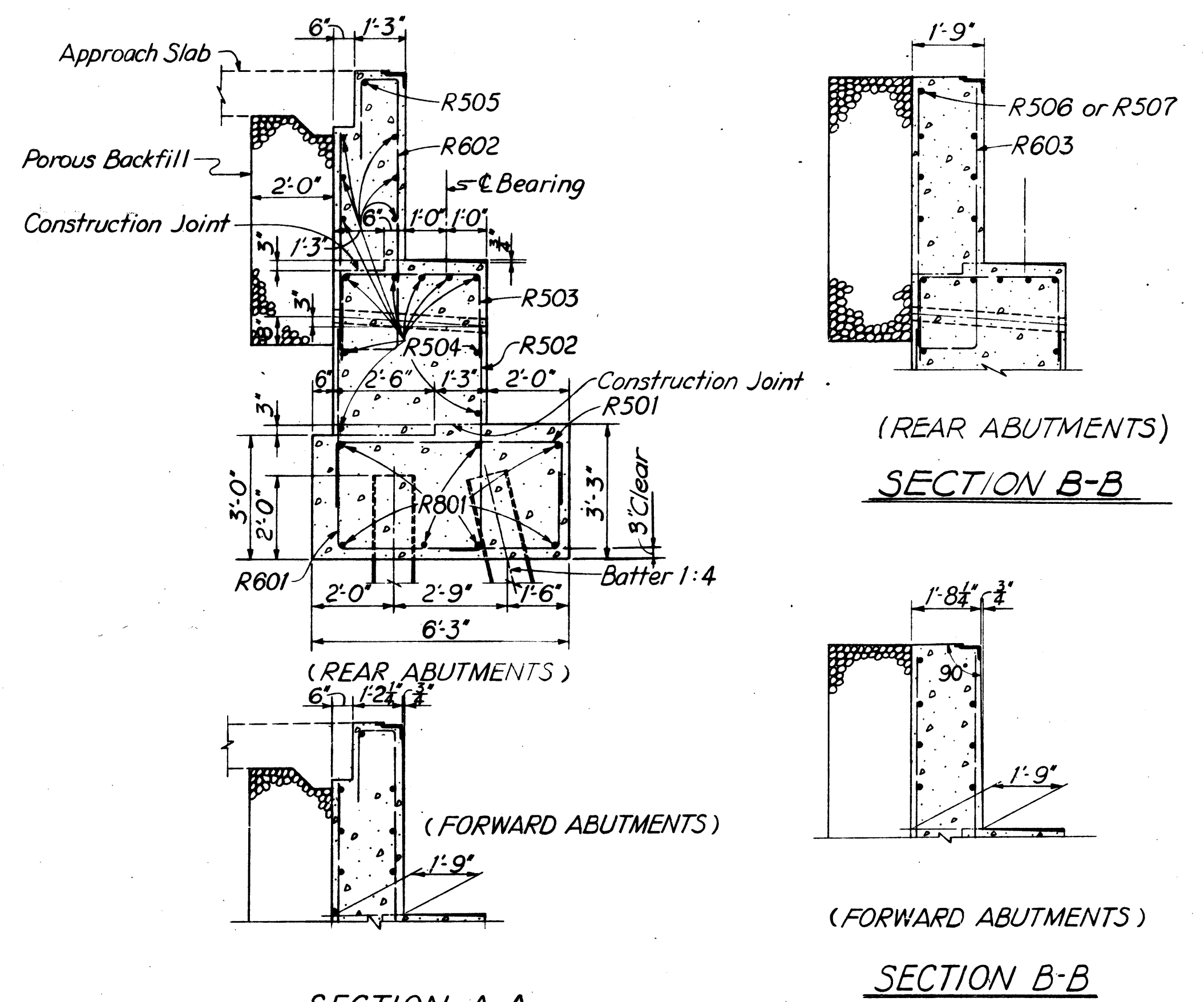
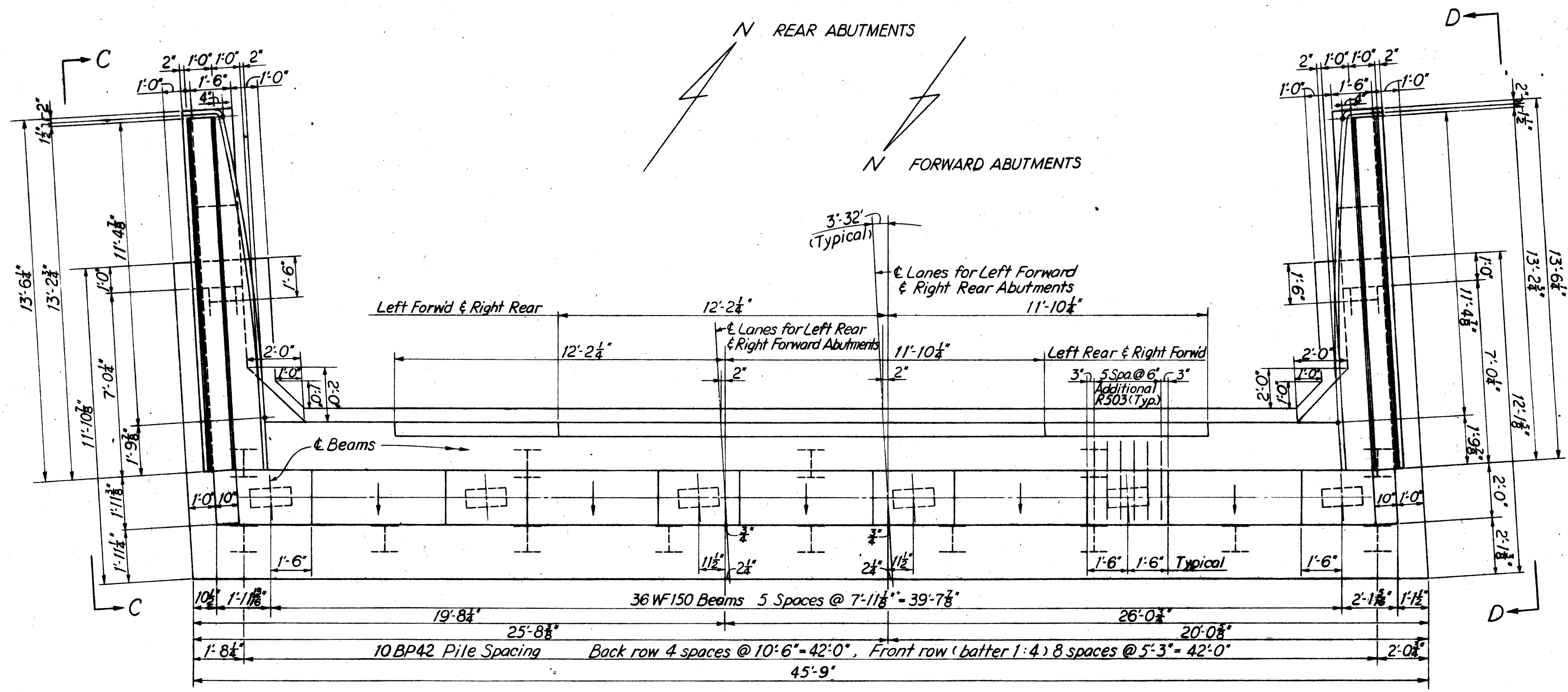
ELEVATION

SANZEMBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL PLAN & ELEVATION
BRIDGE NO. ERI. 6-0490 LEFT & RIGHT
OVER
NICKEL PLATE R.R. & BIG FOUR R.R.
ERIE CO. STA. 509+80.05 to 512+63.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JHY	JHY		TFH	B.J.H.	9-5-61	

MICROFIL
SEP 11 1986



Elevation	Left Rear	Left Forward	Right Rear	Right Forward
A	627.30	624.97	627.42	624.97
B	627.42	625.09	627.54	625.09
C	627.55	625.20	627.67	625.21
D	627.64	625.10	627.57	625.29
E	627.52	624.97	627.45	625.16
F	627.40	624.84	627.33	625.03
G	620.21	617.76	620.25	617.89

* Slope seat $\frac{3}{4}$ " to face of abutment within this area.
 ** 1'-6" to E.I.A. for Left Rear and Right Forward Abutments.
 † 1'-6" to E.I.F for Left Forward and Right Rear Abutments.
 ‡ For Left Rear and Right Forward Abutments Only.
 †† For Left Forward and Right Rear Abutments Only.

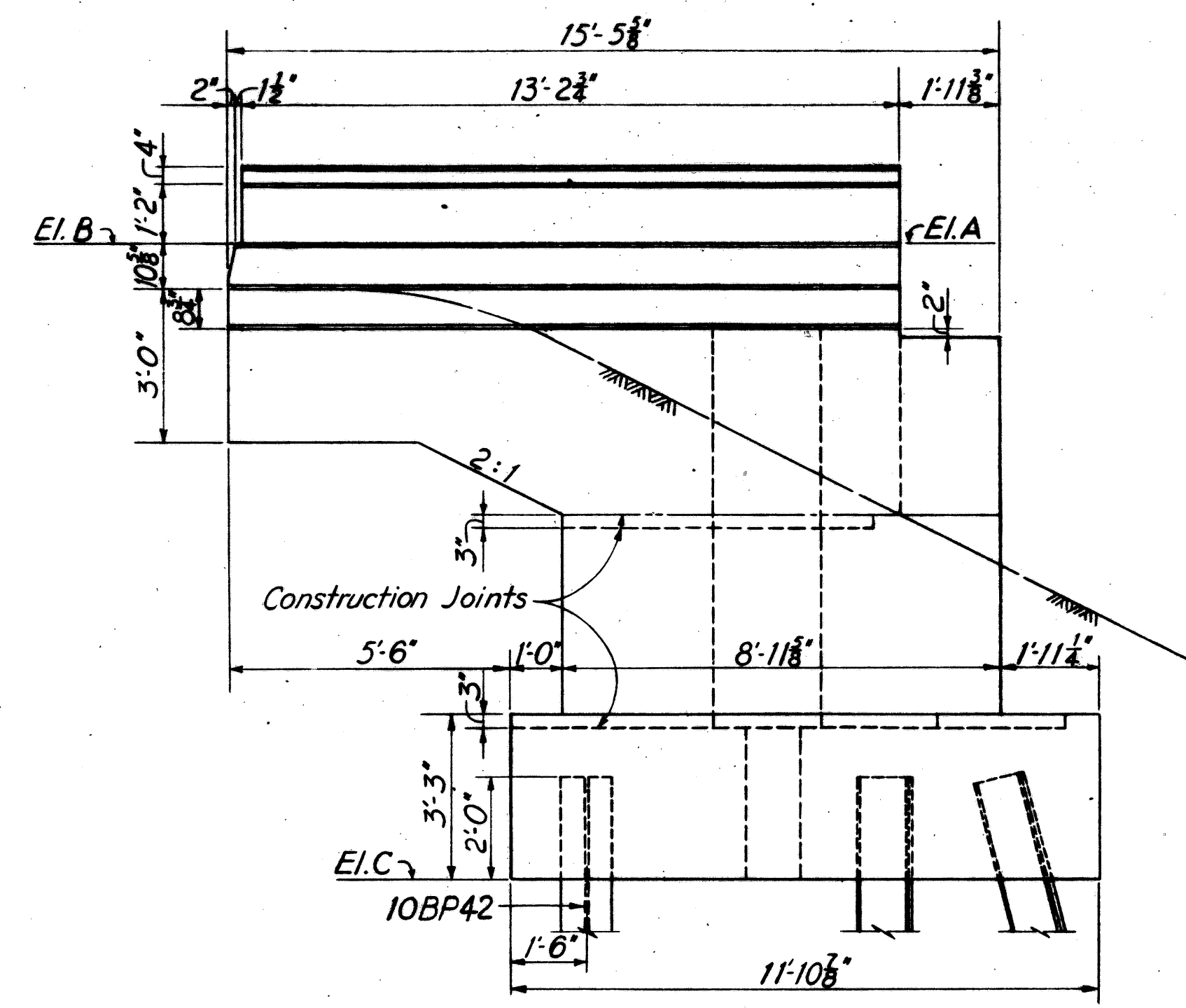
SANZENBACHER, MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO, OHIO

ABUTMENTS
 BRIDGE NO. ERI.6-0490 LEFT & RIGHT
 OVER
 NICKEL PLATE R.R. & BIG FOUR R.R.
 ERIE CO. STA. 509+80.05 to 512+63.55

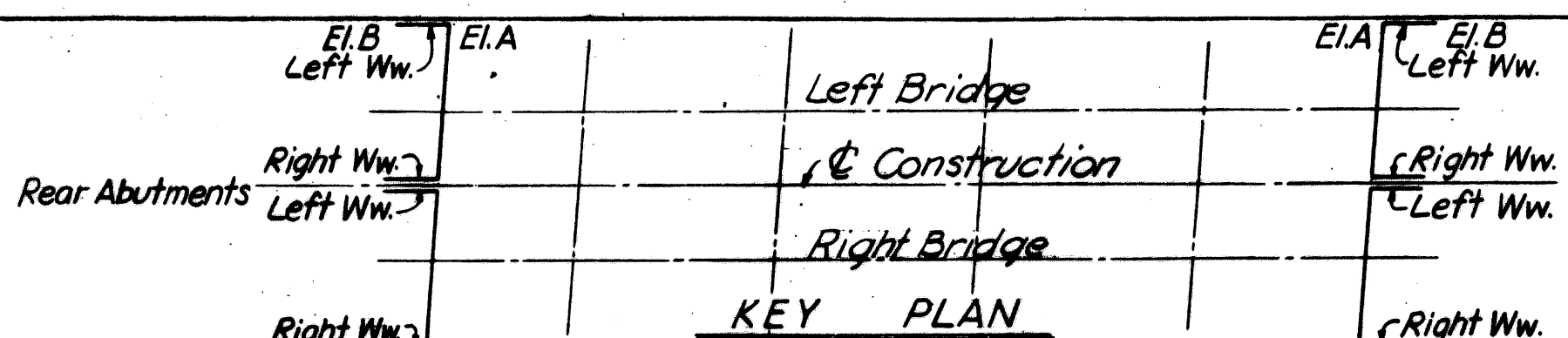
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JHY	JHY		TFH	BJH FCM	9-5-61	

MICROFIL
 SEP 11 1986

ERI. 6-380; ERI. 2-4.02

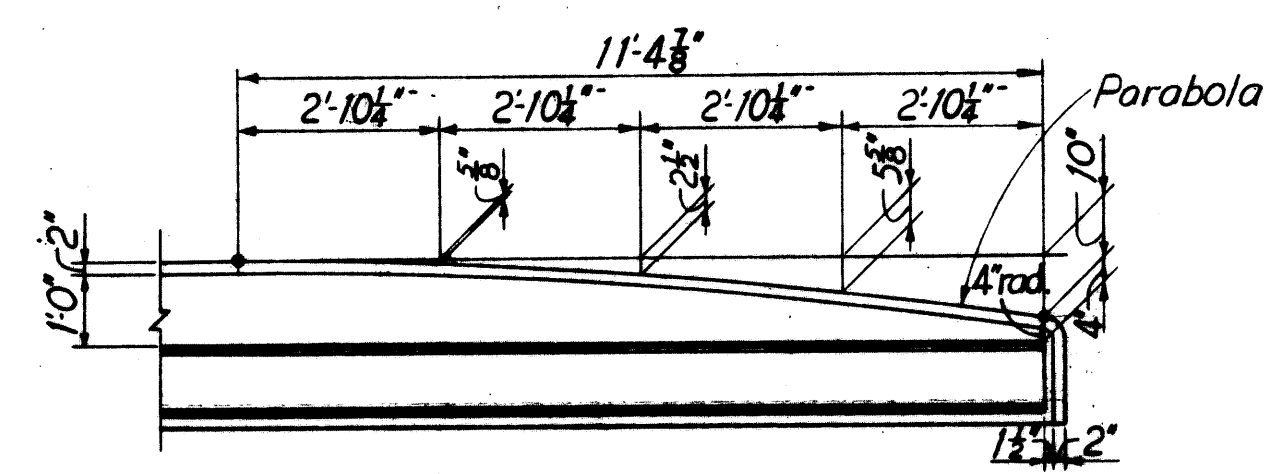


ELEVATION C-C (CONSTRUCTION DETAILS)

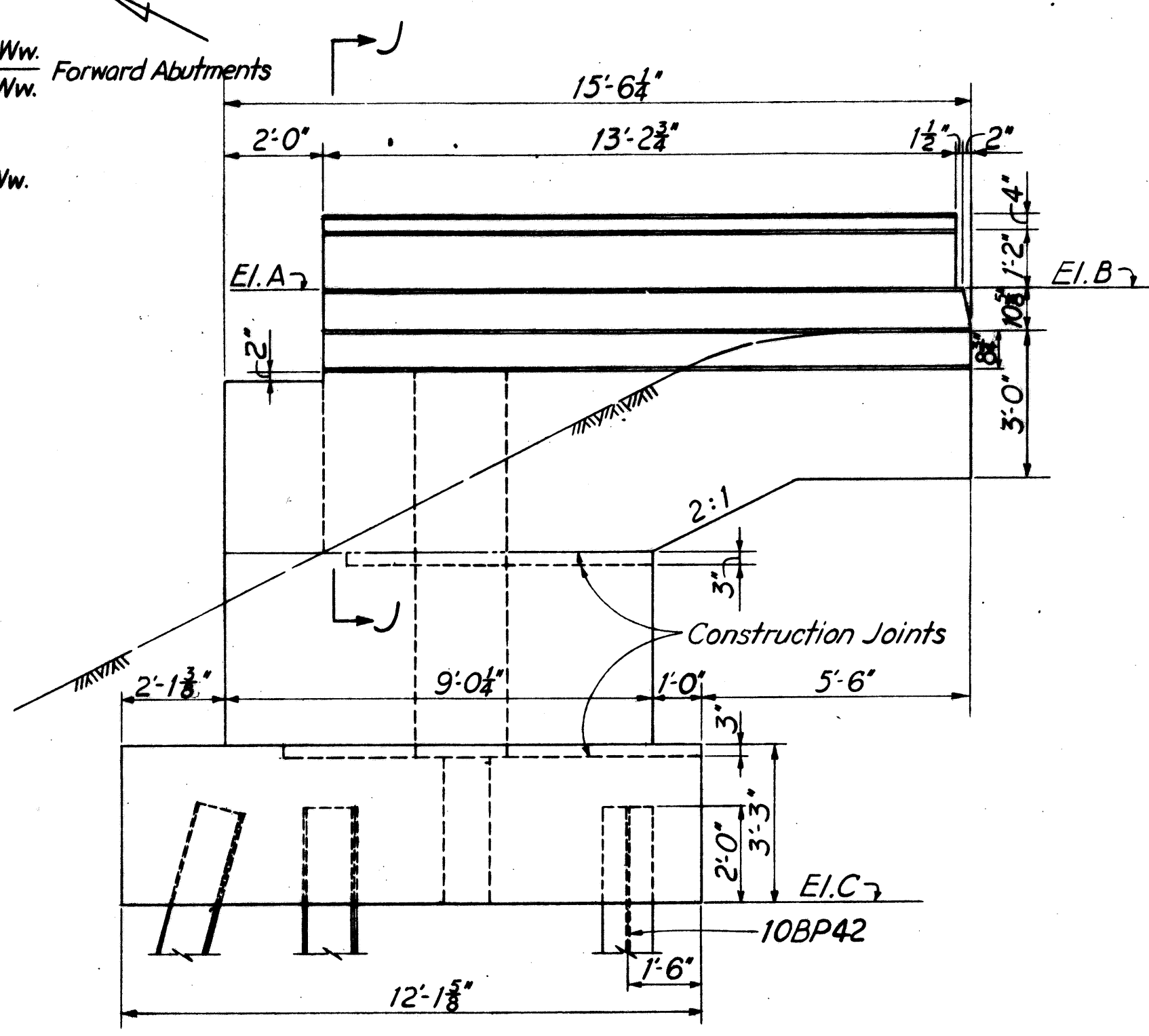


Elevation	LEFT BRIDGE				RIGHT BRIDGE			
	Rear Abutment		Forward Abutment		Rear Abutment		Forward Abutment	
	Left Ww.	Right Ww.	Left Ww.	Right Ww.	Left Ww.	Right Ww.	Left Ww.	Right Ww.
A	632.64	632.74	630.17	630.30	632.76	632.68	630.36	630.30
B	632.69	632.78	629.98	630.11	632.80	632.71	630.17	630.12
C	620.21	620.21	617.76	617.76	620.25	620.25	617.89	617.89

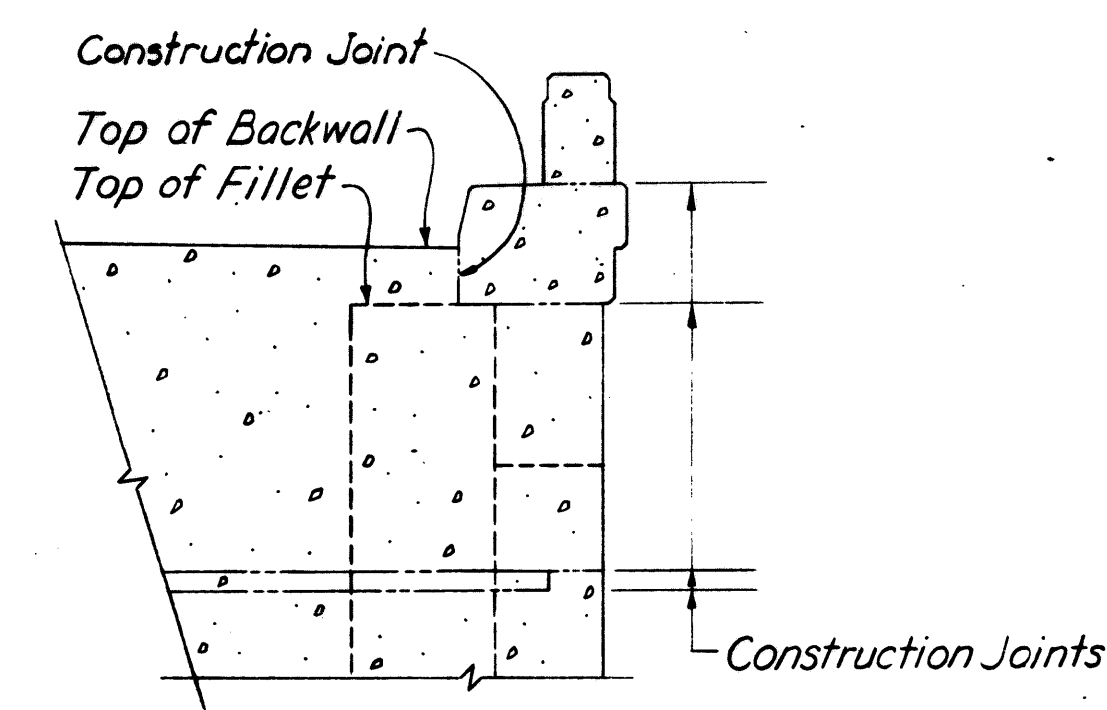
Ww. = Wingwall



CURB LAYOUT (TYPICAL)

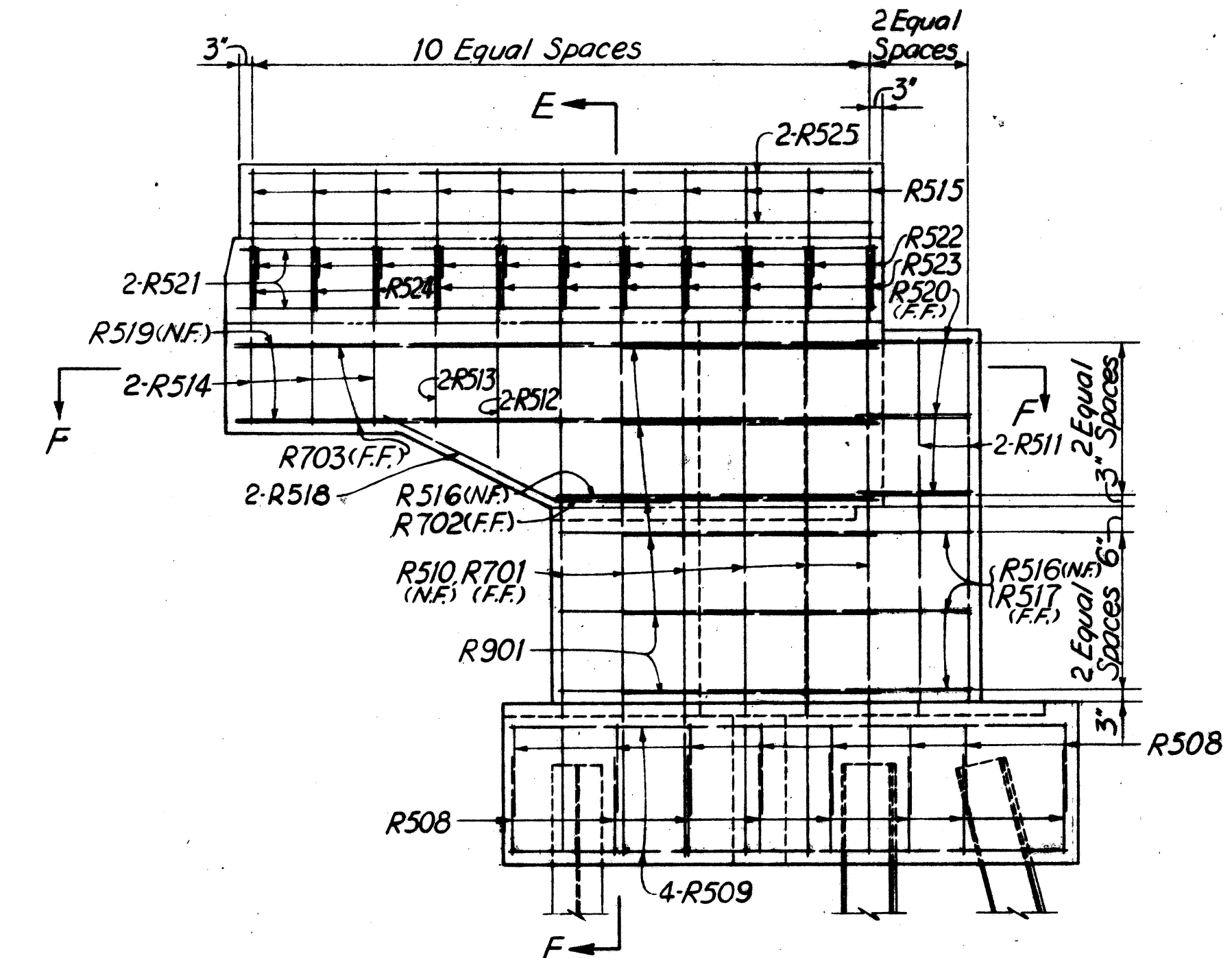


ELEVATION D-D (CONSTRUCTION DETAILS)

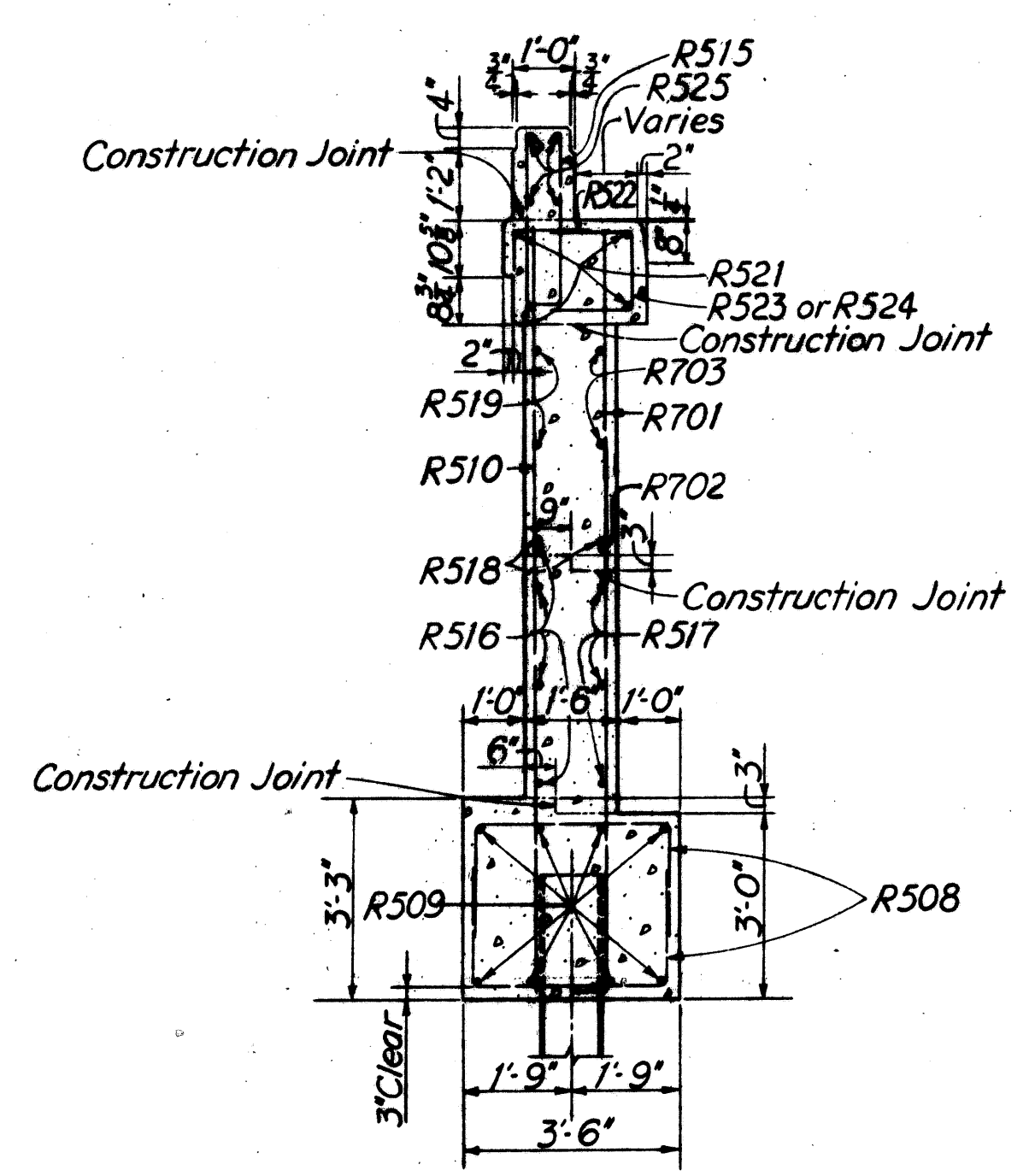


SECTION J-J

MICROFIL
SEP 11 1986

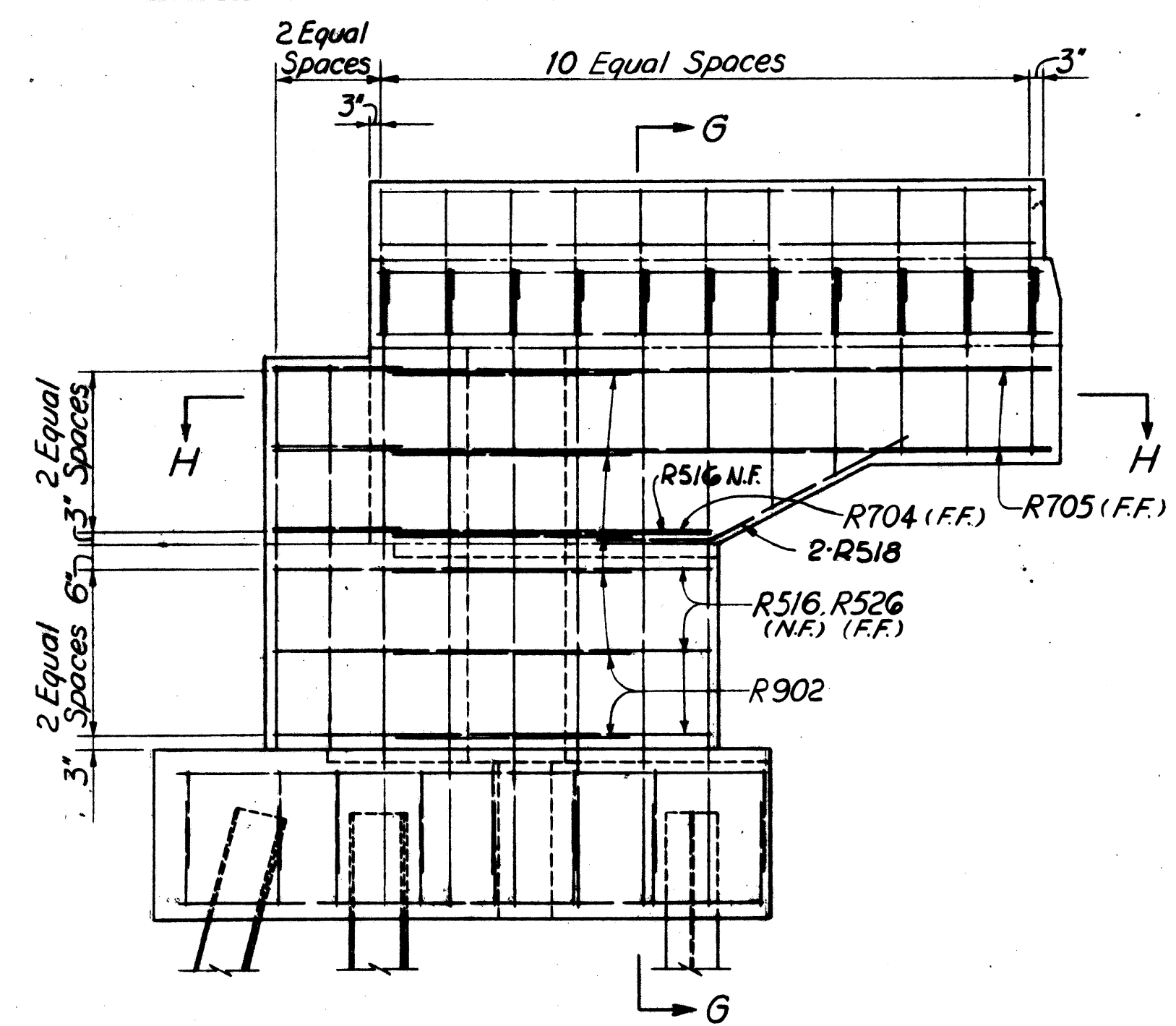


ELEVATION C-C (REINFORCING DETAILS)



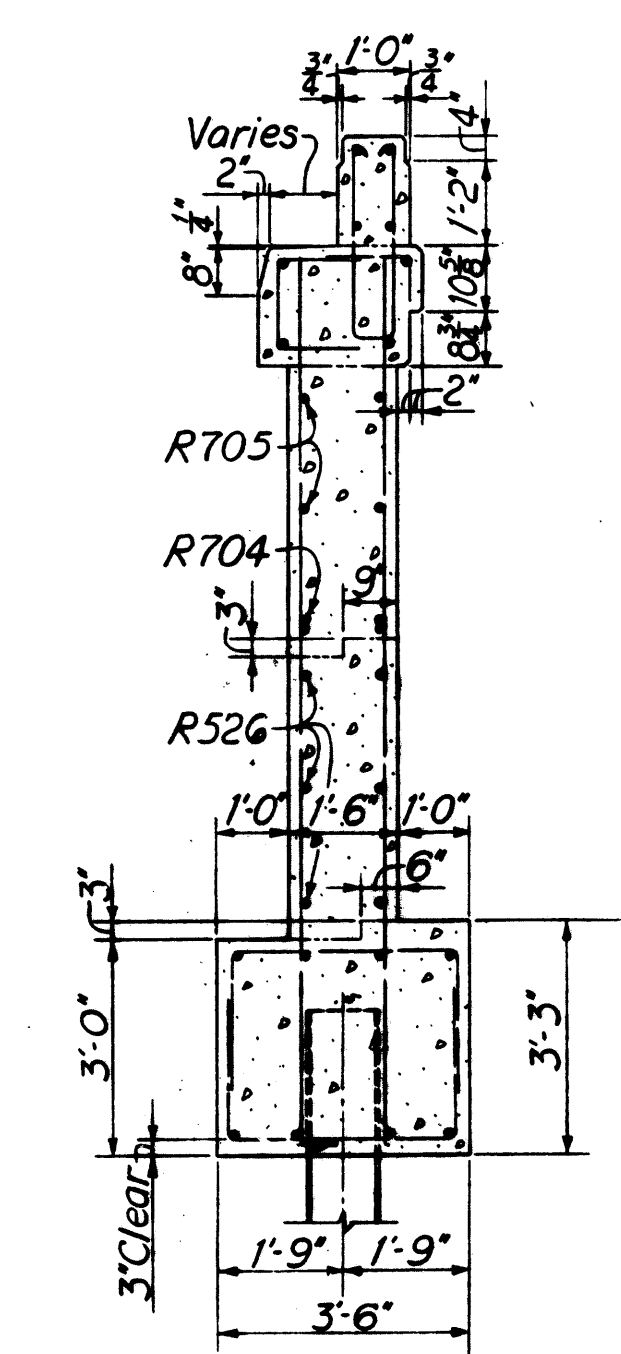
SECTION E-E

N.F. = Near Face
F.F. = Far Face

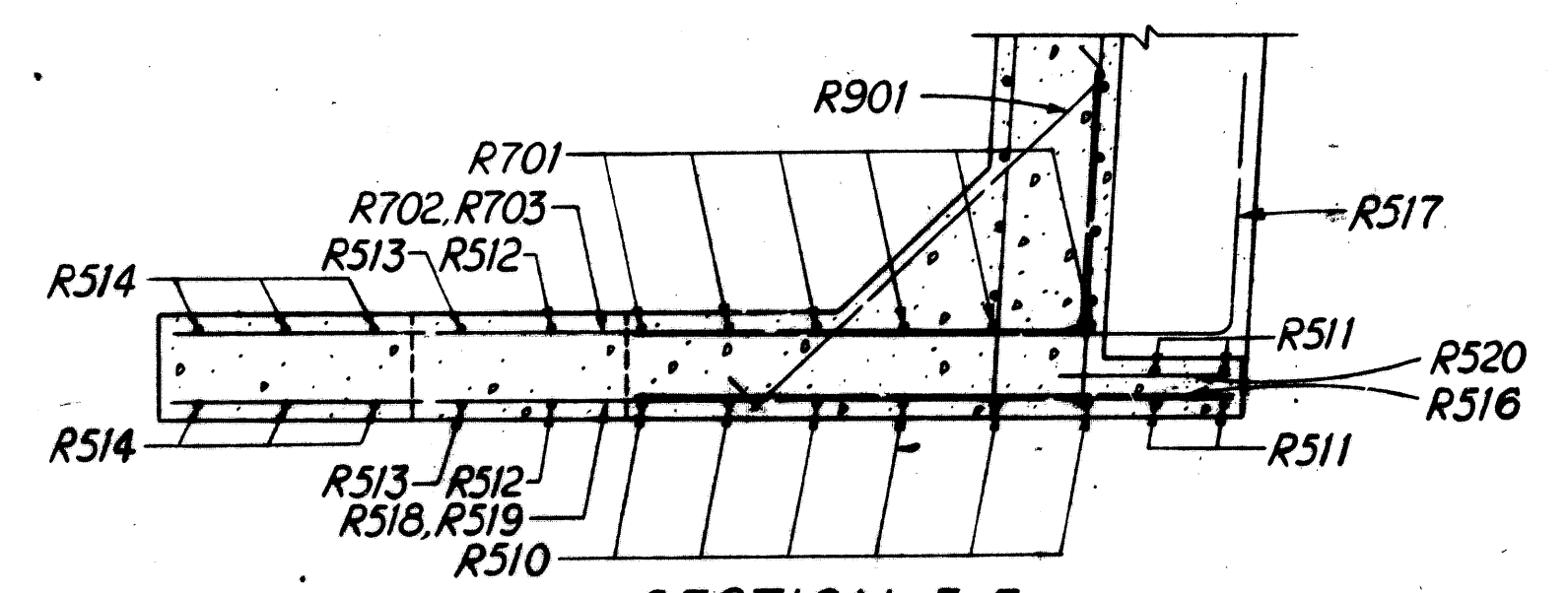


ELEVATION D-D (REINFORCING DETAILS)

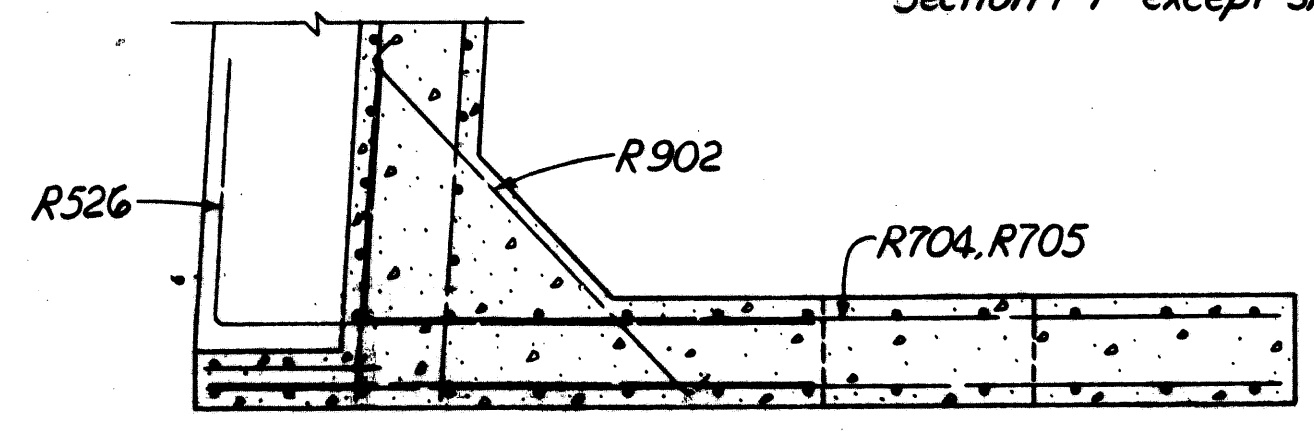
Reinforcing bars are similar to those in Elevation C-C, Section E-E, and Section F-F except shown.



SECTION G-G

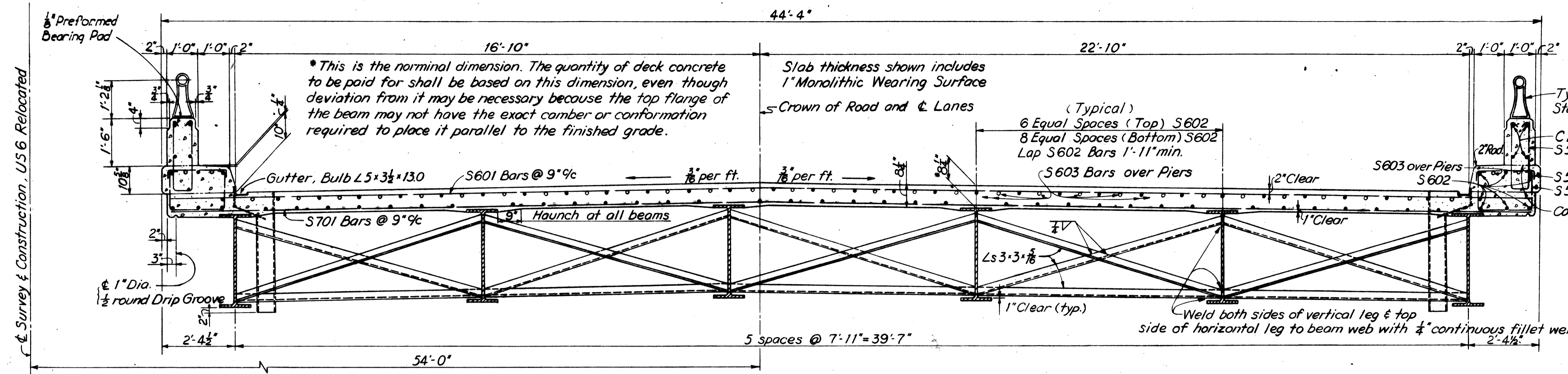


SECTION E-E



SECTION H-H

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO OHIO					
ABUTMENT WINGWALLS BRIDGE NO. ERI. 6-0490 LEFT & RIGHT OVER NICKEL PLATE R.R. & BIG FOUR R.R. ERIE CO. STA. 509+80.05 to 512+63.55					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
JHY	JHY		TFH	B.J.H. FCM	9-5-61



TRANSVERSE SECTION OF DECK
(LOOKING IN THE DIRECTION OF TRAFFIC)

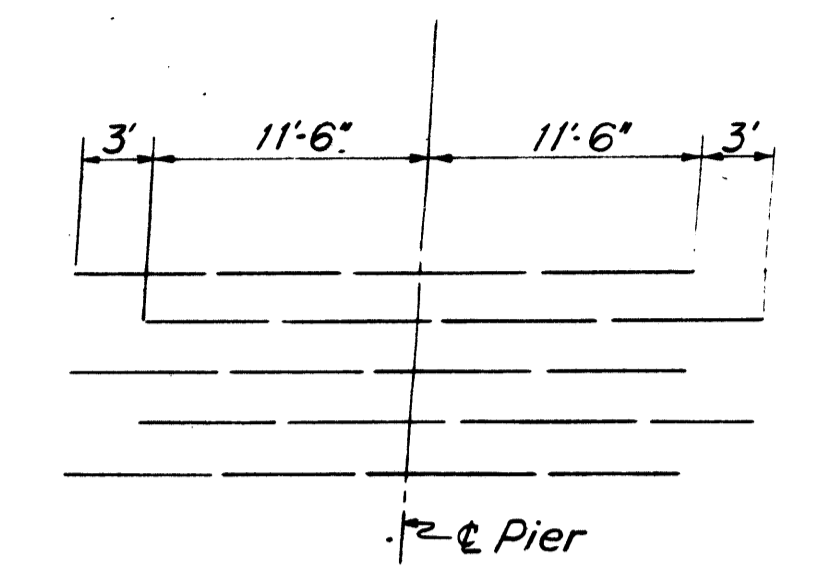
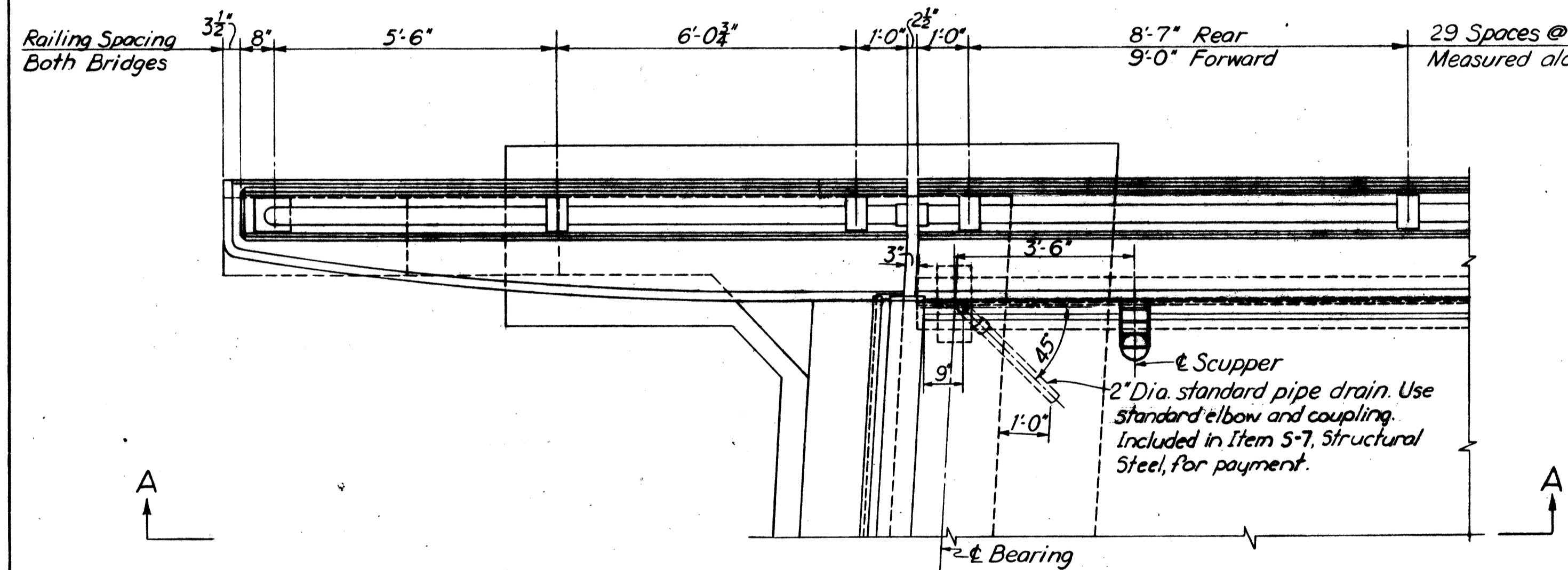
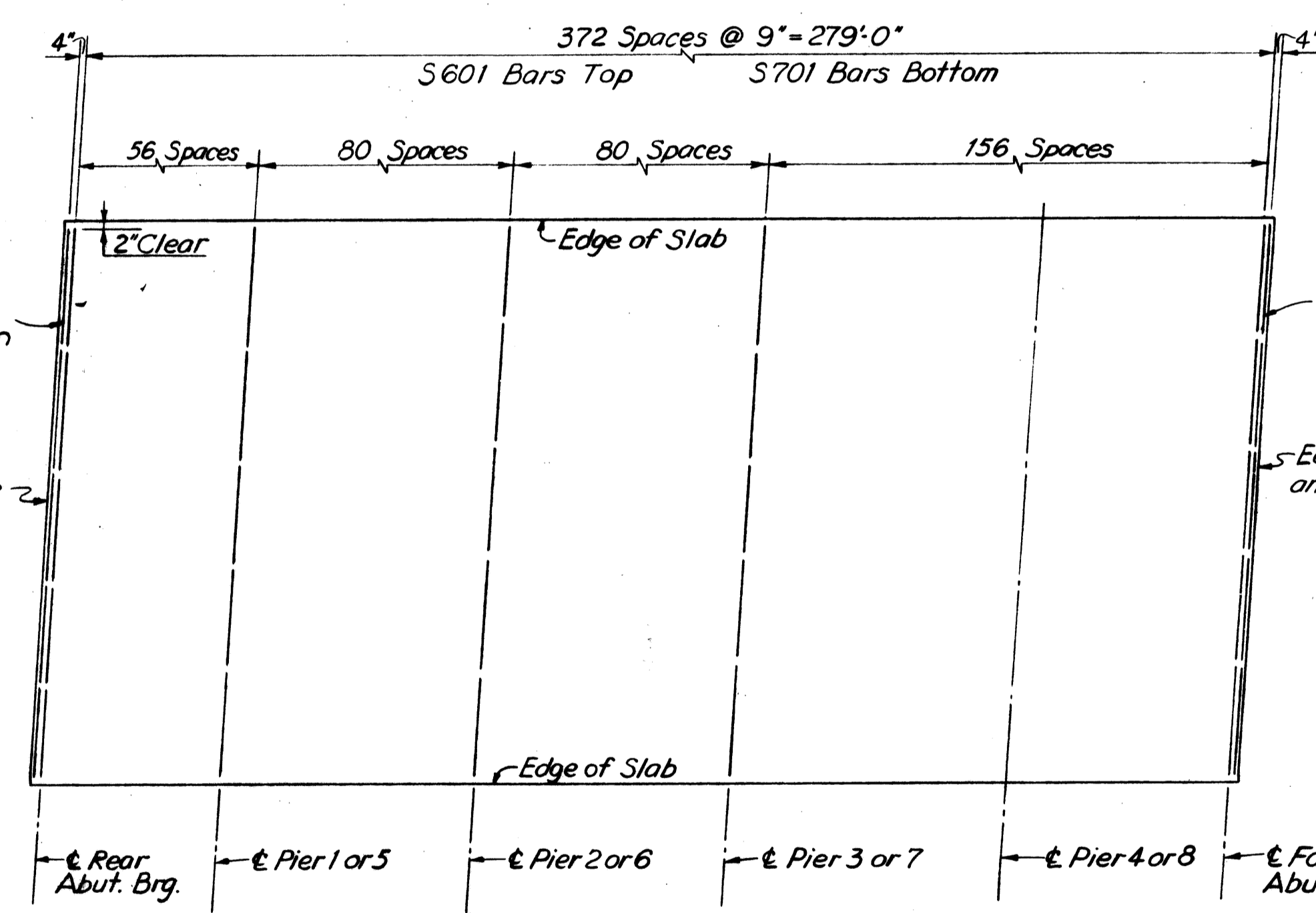


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



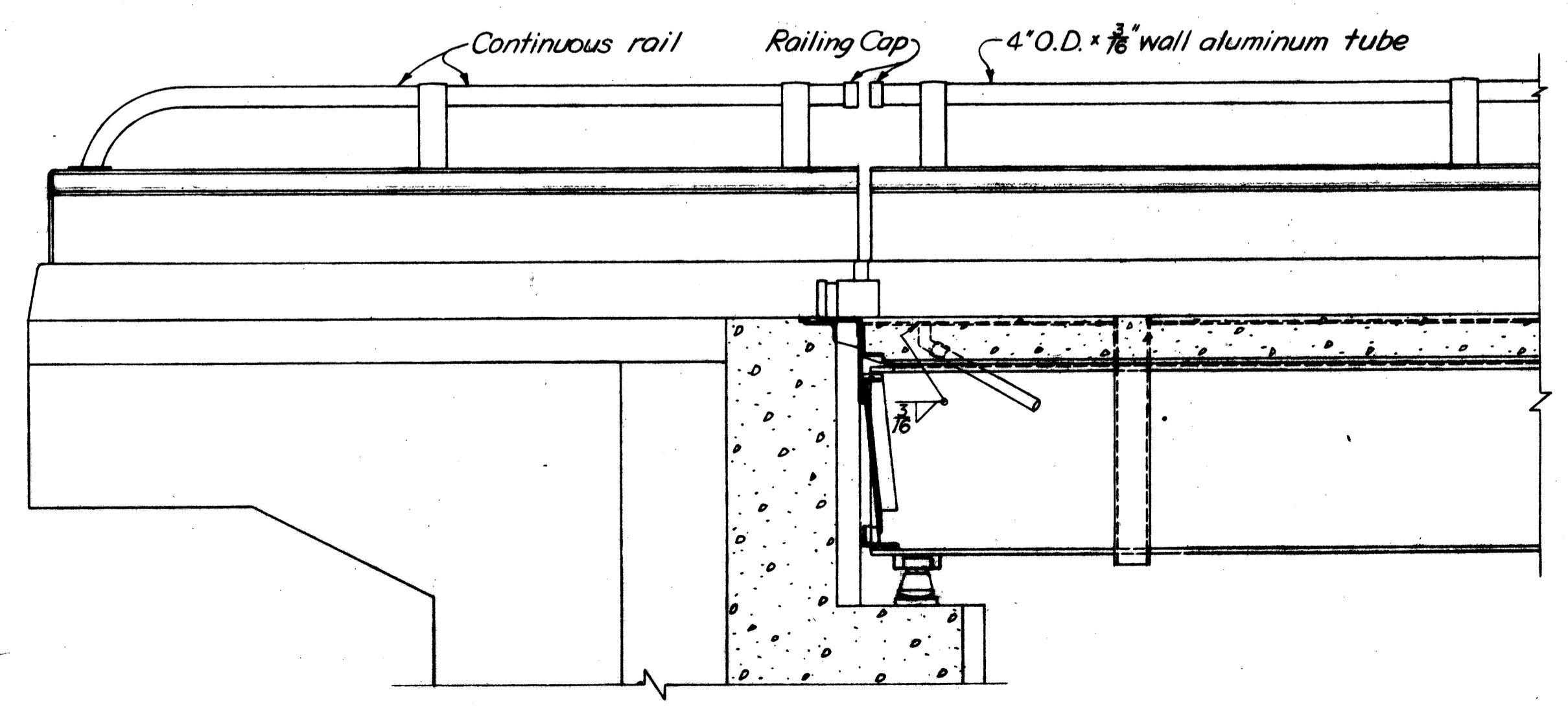
PLAN AT ABUTMENT



SLAB TRANSVERSE REINFORCING STEEL

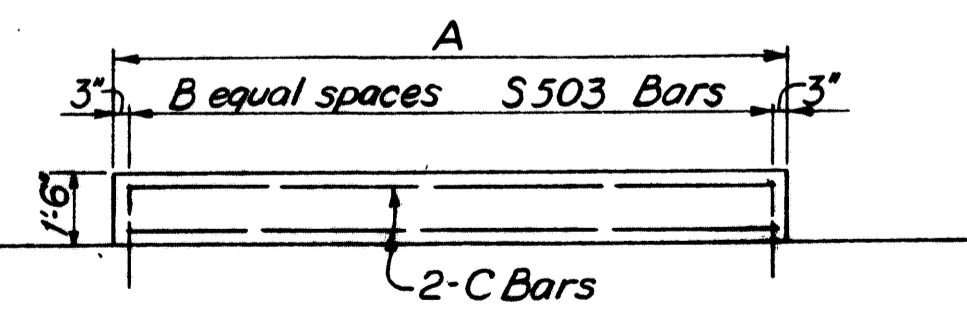
DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

MICROFIL...
SEP 11 1986



SECTION A-A

NOTE:
Refer to Standard Drawing CSB-2-56 sheet 2 or 3 of 6 for the following details:
"Roadway End Dam"
"Welded Butt Joint in Superstructure End Dam Angles at \pm of Lanes"
"Scupper Details"
"Gutter Supports"
"Curb Plate Details"



Panel (See Sheet 167)	Dimension A	No. Spaces B	Reinforcing C Bars
Intermediate	18'-0"	12	S 504
Rear End	14'-1"	9	S 505
Pier 1 & 5	10'-9"	7	S 506
Pier 1 & 5	7'-3"	5	S 507
Pier 3 & 7	5'-2"	4	S 508
Pier 3 & 7	12'-7"	9	S 509
Forward End	14'-6"	10	S 510

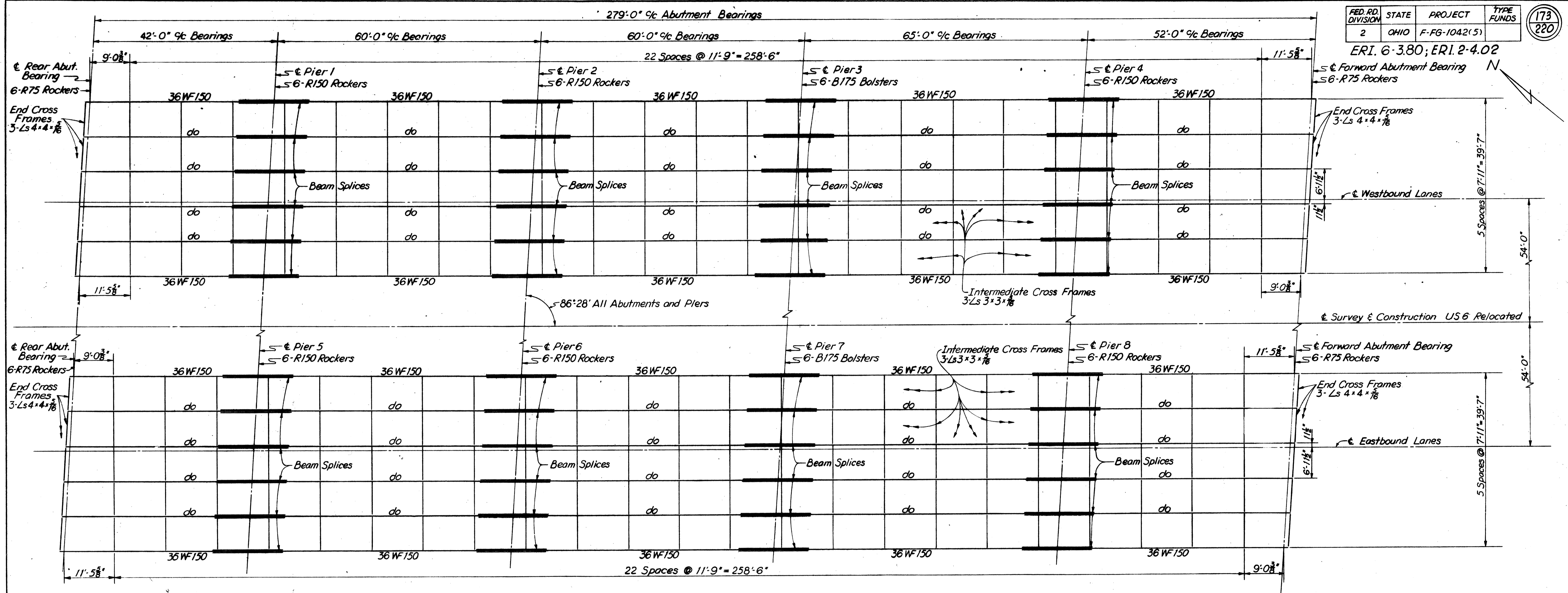
PARAPET WALL PANEL DETAILS

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

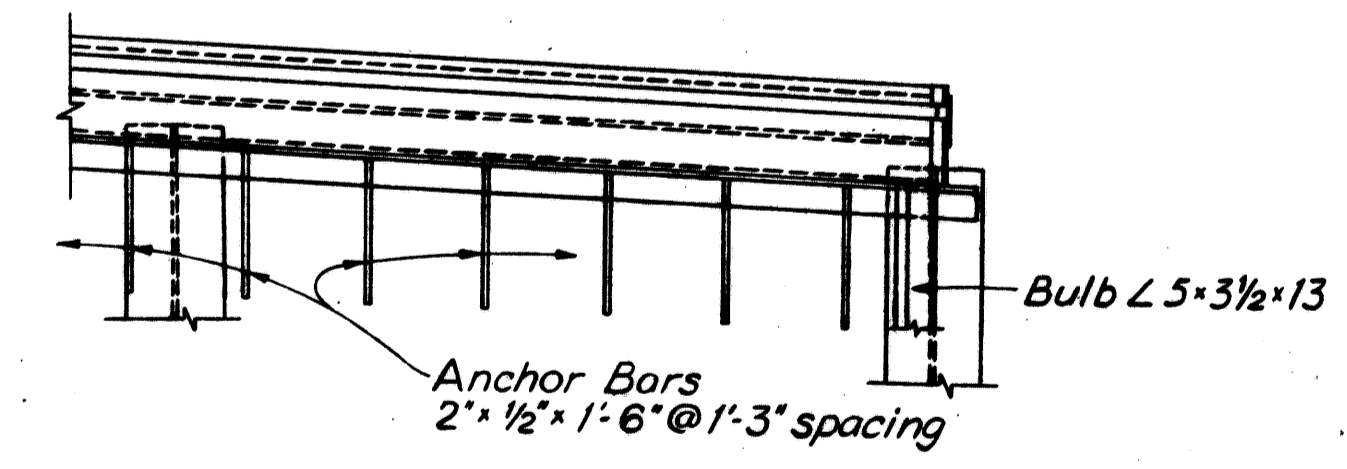
SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI. 6-0490 LEFT & RIGHT
OVER
NICKEL PLATE R.R. & BIG FOUR R.R.
ERIE CO. STA. 509+80.05 to 512+63.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JHY	JHY		TFH	B.J.H. FCM	9-5-61	

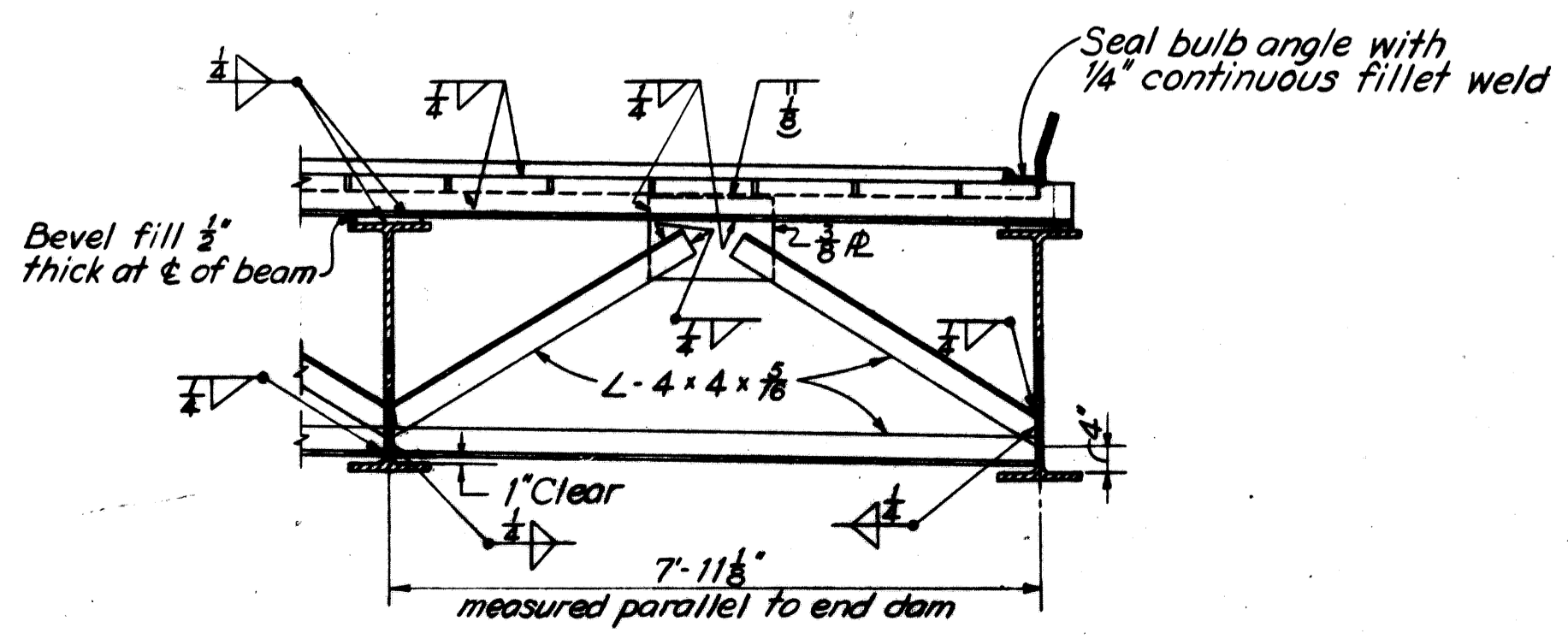
ERI. 6-3.80; ERI. 2-4.02



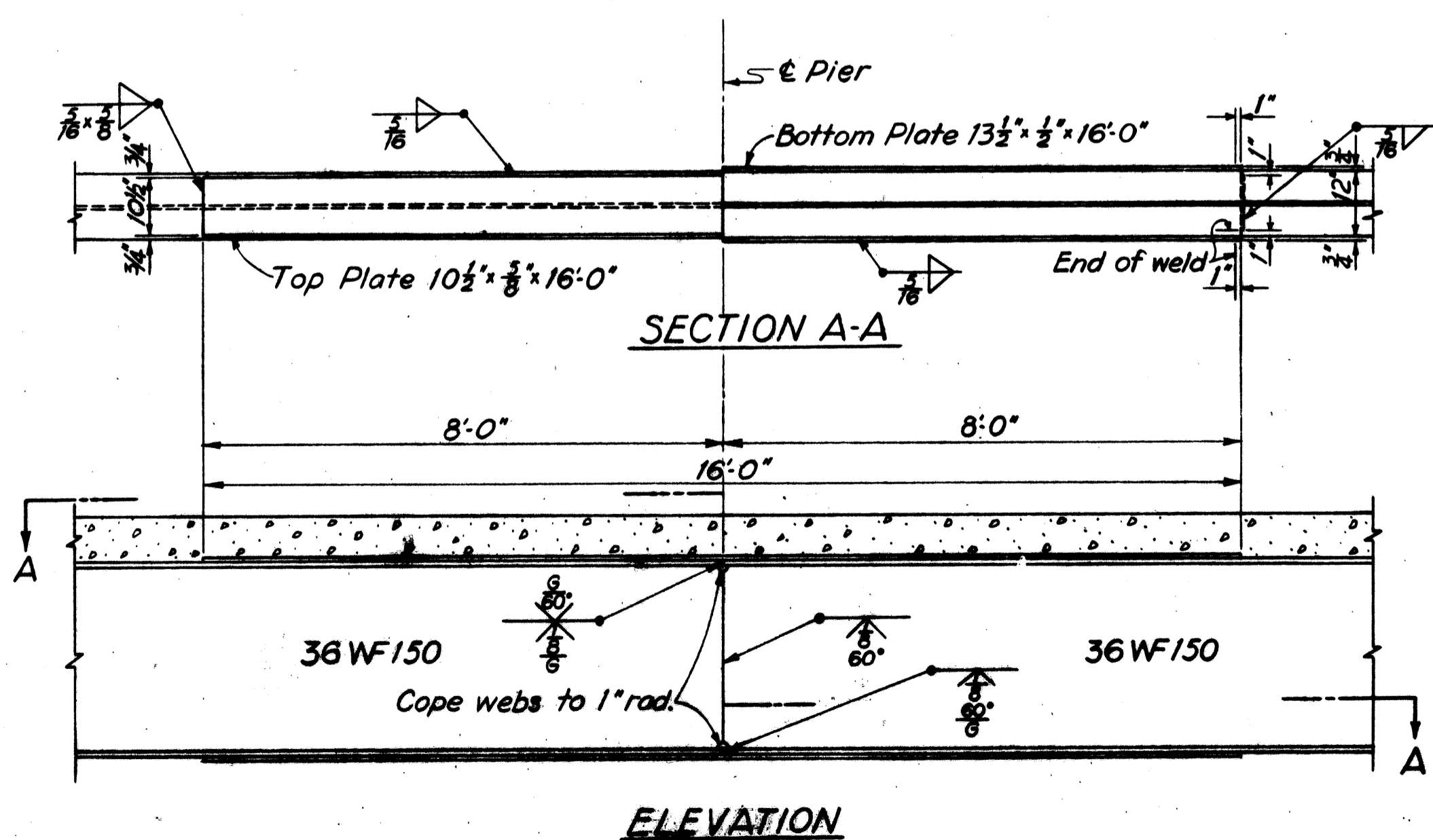
STEEL FRAMING PLAN



PART END DAM PLAN



PART END DAM ELEVATION



BEAM SPLICE DETAILS

BEAM SPLICE WELDING PROCEDURE:

1. Raise end of beams at Pier 2 or 6, 3/8".
2. Butt-weld beam flanges and web at Pier 1 or 5 using the following sequence: make two passes on each flange, then two on the web, repeat, using one pass at each location, until welds are completed.
3. Weld top and bottom flange moment plates at Pier 1 or 5.
4. Lower end of beam at Pier 2 or 6.
5. Make splices at other piers in the same manner raising the end of beams 7/8" at Pier 3 or 7, 1/8" at Pier 4 or 8 and 3/8" at Forward Abutments.

MICROFIL
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CAMBERING

No camber is required. Fabricate beams with convex flange up. The dead load deflection is 1/16", 1/4", 1/8", 3/16", 1/4" in the 42', 60', 60', 65', 52' span respectively.

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO OHIO					
SUPERSTRUCTURE DETAILS BRIDGE NO. ERI. 6-0490 LEFT & RIGHT OVER NICKEL PLATE R.R. & BIG FOUR R.R. ERIE CO. STA. 509+8005 to 512+6355					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
TWD	JHY		TFH	B.J.H. FCM	9-5-61

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-66-1042(5)	

ERIE COUNTY
 ERI 6-3.80; ERI 2-4.02
 2.1 Miles West of Huron

MICROFIL
 SEP 11 1986

Estimated Design Year Traffic
 ADT (1979) = 6360

FOUNDATION SOUNDINGS:
 Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division Office, but the State does not guarantee the accuracy thereof.

PROPOSED STRUCTURE

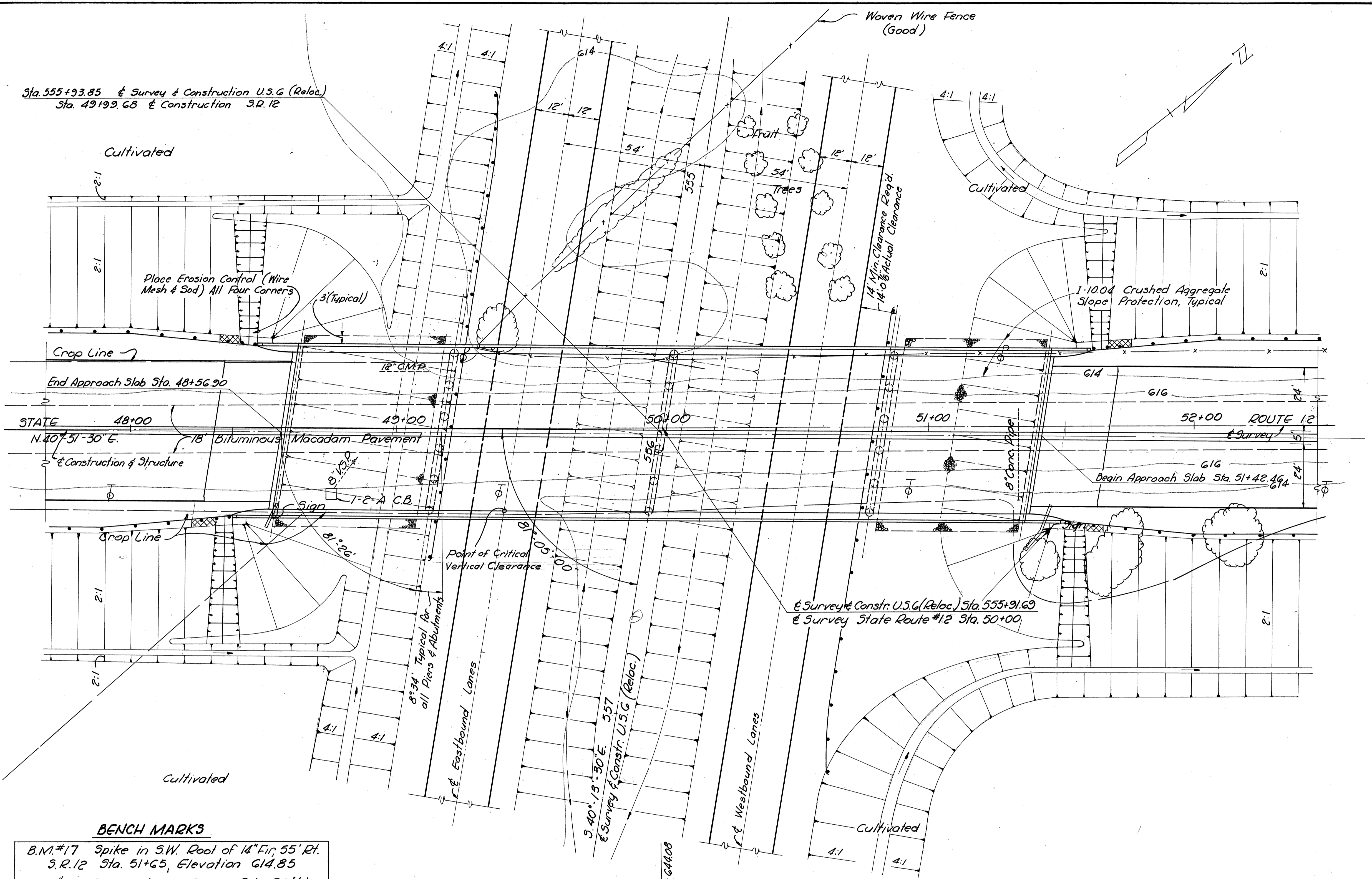
Type: Continuous steel beam with reinf. conc. deck. Reinf. conc. pier bents and slab abutments.
 Spans: 58'-0", 82'-6", 82'-6", 58'-0" & Brgs.
 Roadway: 59'-0" w/ 2'-3" safety curbs including 3'-0" raised conc. median.
 Load Frequency: CF 400 (57)
 Skew: 8° 34' 00" Left Forward
 Wearing Surface: 1" Monolithic Concrete
 Approach Slabs: AS-1-54 (25' Long)
 Alignment: Tangent

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 CONSULTING ENGINEERS
 TOLEDO, OHIO

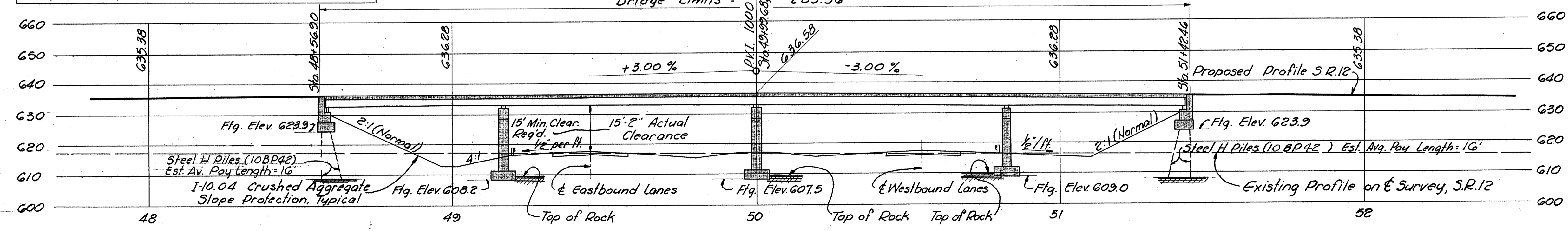
SITE PLAN

BRIDGE NO. ERI 6-0575
 UNDER STATE ROUTE NO. 12
 ERIE COUNTY
 STA. 48+56.90 to
 STA. 51+42.46

PRESENT PROGRAM		PROPOSED WORK			
SURVEYED SMB	DRAWN B.B.	DESIGNED N.D. C.E.S.	DRAWN T.F.H.	CHECKED B.J.H.	REVIEWED FCM 9-5-61



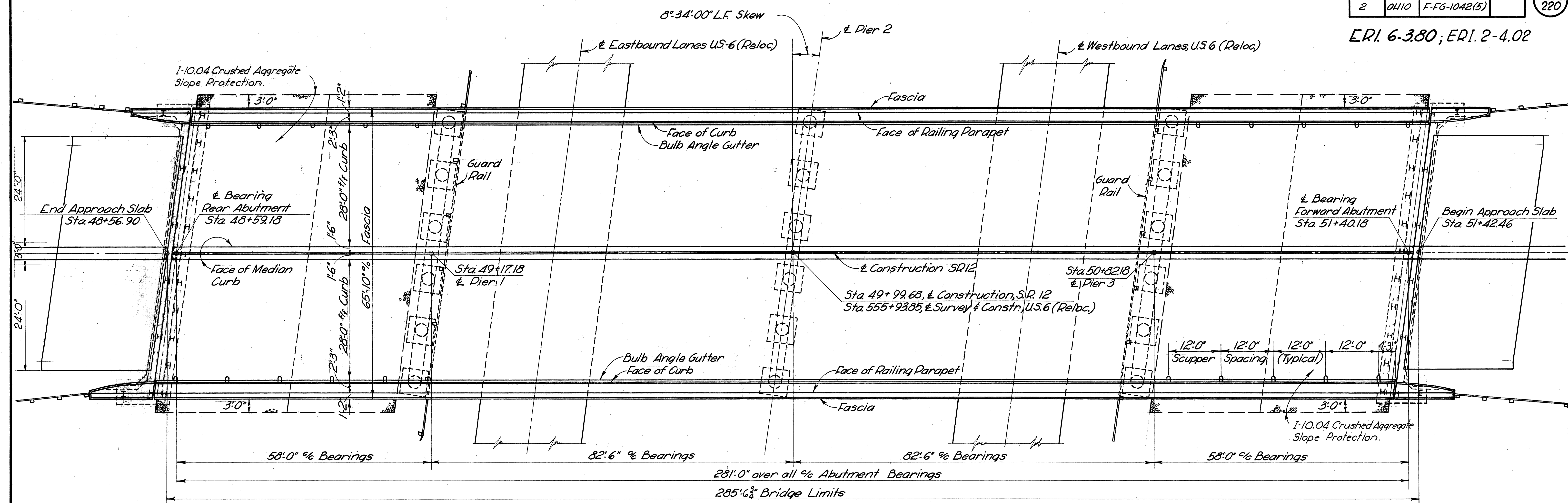
BENCH MARKS
 B.M.#17 Spike in S.W. Root of 14" Fir, 55' Rt.
 S.R.12 Sta. 51+65, Elevation 614.85
 B.M.#18 R.D. Spike in Power Pole, 50' Lt.
 S.R.12 Sta. 60+12 Elevation 615.08



Bridge Limits = 285.56'

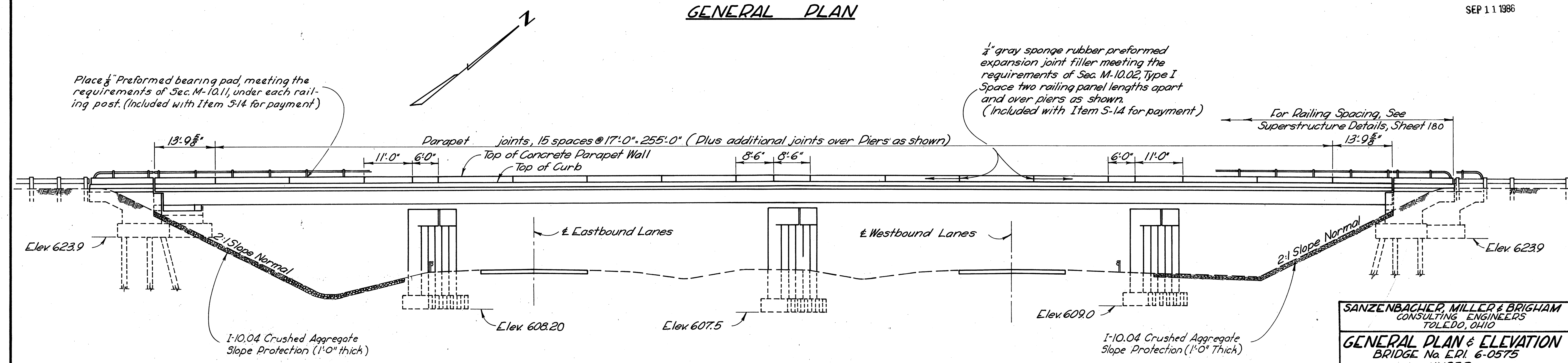
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	175
2	OHIO	F-FG-1042(5)		220

ERI. 6-380; ERI. 2-4.02



GENERAL PLAN

MICROFIL
SEP 11 1986



GENERAL ELEVATION

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TOLEDO, OHIO

GENERAL PLAN & ELEVATION
BRIDGE No. ERI. 6-0575
UNDER
STATE ROUTE No. 12
Sta. 48+56.90 to
Sta. 51+42.46

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH	JEC	RJH	BJH	9-5-61	
			TWD	FCM		

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape	Bending Diagrams	Mark	No.	Length	Weight	Shape	
ABUTMENTS											
R901	12	8'-0"	326	B		P1001	16	19'-6"	1,343	5	
R902	12	9'-0"	367	B		P1002	16	20'-3"	1,394	5	
R801	28	35'-1"	2,623	S		P1003	16	18'-8"	1,285	5	
R701	24	12'-10"	630	B		P801	12	8'-7"	275	B	
R702	2	9'-9"	40	B		P501	312	7'-7"	2,468	B	
R703	4	16'-5"	134	B		P502	12	29'-7"	370	5	
R704	6	11'-9"	144	B		PIERS (Cont'd.)					
R705	2	9'-11"	41	B		P1101	48	19'-4"	4,930	5	
R706	4	16'-7"	136	B		P1102	48	20'-2"	5,143	5	
R707	6	11'-9"	144	B		P1103	48	18'-6"	4,718	5	
R601	106	15'-6"	2,468	B	P1104	12	30'-0"	1,913	5		
R602	14	14'-1"	296	B	P1105	12	30'-7"	1,950	5		
R603	10	15'-9"	237	B	P1106	12	30'-10"	1,966	5		
R604	96	14'-4"	2,067	B	P1107	12	32'-10"	2,023	B		
R501	194	7'-2"	1,450	B	P1108	12	33'-5"	2,131	B		
R502	96	7'-1"	709	B	P1109	24	24'-2"	3,082	5		
R503	104	8'-4"	204	B	REPLACEMENT BARS						
R504	104	17'-4"	1,880	S	RE1101	2	7'-7"	5			
R505	4	28'-10"	120	5	RE1001	1	7'-3"	5			
R506	4	5'-0"	21	5	RE901	1	6'-10"	5			
R507	32	7'-1"	236	B	RE801	1	6'-6"	5			
R508	32	3'-7"	120	5	RE701	3	6'-3"	5			
R509	8	12'-11"	* 5	5	RE601	5	5'-11"	5			
R510	8	13'-0"	* 5	5	RE501	2	5'-7"	5			
R511	8	13'-1"	109	5	RE401	1	5'-3"	5			
R512	32	11'-3"	375	5	PIERS						
R513	40	1'-5"	59	B	F101	144	7'-8"	3,866	B		
R514	24	12'-0"	300	5	F1001	48	7'-3"	1,497	B		
R515	16	7'-1"	118	5	F501	468	6'-10"	3,336	B		
R516	16	8'-6"	142	5	REPLACEMENT BARS						
R517	4	13'-5"	56	5	RE1101	2	7'-7"	5			
R518	8	7'-4"	61	B	RE1001	1	7'-3"	5			
R519	12	3'-5"	43	5	RE901	1	6'-10"	5			
R520	8	15'-2"	127	5	RE801	1	6'-6"	5			
R521	40	6'-11"	229	B	RE701	3	6'-3"	5			
R522	8	13'-0"	108	5	RE601	5	5'-11"	5			
R523	4	12'-8"	53	5	RE501	2	5'-7"	5			
R524	8	2'-10"	24	B	RE401	1	5'-3"	5			
R525	24	5'-8"	142	B	PIERS						
R526	8	4'-8"	39	B	F101	144	7'-8"	3,866	B		
PIERS					F1001	48	7'-3"	1,497	B		
F101	144	7'-8"	3,866	B	F501	468	6'-10"	3,336	B		
SUPERSTRUCTURE					SUPERSTRUCTURE						
F1001	48	7'-3"	1,497	B	5506	6	32"	16'-2 1/2"	4 1/2"	46	1784
F501	468	6'-10"	3,336	B	5507	6	32"	17'-0 1/2"	4 1/2"	48	1864
P1101	48	19'-4"	4,930	5	5508	6	32"	15'-4 1/2"	4 1/2"	44	1705
P1102	48	20'-2"	5,143	5	Spiral Reinforcing List						
P1103	48	18'-6"	4,718	5	Mark	No.	Length	Ditch	Walt	Turns	Weight
P1104	12	30'-0"	1,913	5	5P401	6	32"	16'-2 1/2"	4 1/2"	46	1784
P1105	12	30'-7"	1,950	5	5P402	6	32"	17'-0 1/2"	4 1/2"	48	1864
P1106	12	30'-10"	1,966	5	5P403	6	32"	15'-4 1/2"	4 1/2"	44	1705
P1107	12	32'-10"	2,023	B	REPLACEMENT BARS						
P1108	12	33'-5"	2,131	B	RE1101	2	7'-7"	5			
P1109	24	24'-2"	3,082	5	RE1001	1	7'-3"	5			
PIERS					RE901	1	6'-10"	5			
P1101	48	19'-4"	4,930	5	RE801	1	6'-6"	5			
P1102	48	20'-2"	5,143	5	RE701	3	6'-3"	5			
P1103	48	18'-6"	4,718	5	RE601	5	5'-11"	5			
P1104	12	30'-0"	1,913	5	RE501	2	5'-7"	5			
P1105	12	30'-7"	1,950	5	RE401	1	5'-3"	5			
P1106	12	30'-10"	1,966	5	PIERS						
P1107	12	32'-10"	2,023	B	F101	144	7'-8"	3,866	B		
P1108	12	33'-5"	2,131	B	F1001	48	7'-3"	1,497	B		
P1109	24	24'-2"	3,082	5	F501	468	6'-10"	3,336	B		

* Included with Item 5-14 for payment.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abutments		Piers			Super.	General
				Rear	Forward	1	2	3		
E-2	668	Cu.Yds.	Unclassified excavation	184	184	107	100	93		
E-2	33	Cu.Yds.	Rock Excavation			11	16	6		
S-1	153	Cu.Yds.	Class "C" concrete, pier caps and columns			51	52	50		
S-1	548	Cu.Yds.	Class "C" concrete, superstructure						548	
S-1	72	Cu.Yds.	Class "E" concrete, pier footers			24	24	24		
S-1	252	Cu.Yds.	Class "E" concrete, abutments.	126	126					
S-3	20	Lin.Ft.	Waterproofing, premolded sealing strip	10	10					
S-4	220,534	Lbs.	Reinforcing steel	8569	8569	17,040	17,383	166,90	152,283	
S-7	624,000	Lbs.	Structural steel						624,000	
S-8	624,000	Lbs.	Field painting of structural steel						624,000	
S-14	619	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)						619	
S-16	Lump	Sum	First test pile							Lump
S-18	600	Lin.Ft.	Steel piles, 10 BP42	300	300					
S-29	20	Each	Scuppers						20	
S-29	48	Cu.Yds.	Porous backfill	24	24					
I-10	950	Sq.Yds.	Crushed aggregate slope protection							950
Special	548	Each	Water-reducing, set-retarding admixture *						548	

* See Proposal Note

GENERAL NOTES

BAR SIZE is indicated in the bar mark. The first digit where three digits are used and the first two digits where four are used, indicate the bar size number. For example, a P501 is a No. 5 size bar, and a P1101 is a No. 11 size.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-4.02 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils) expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 5-4. 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

REFERENCE shall be made to Standard Drawings AS-1-54 "Reinforced Concrete Approach Slabs," revised 12-1-54; RB-1-55 "Rockers and Bolsters," revised 2-2-59; AR-1-57, "Aluminum Railing with Concrete Parapet," revised 12-12-60 and CSB-2-56 "Continuous Steel Beam Bridges (Sheets 2 & 3 of 6)" revised 2-2-59.

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.

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of the footings. Backfill behind the abutments shall be compacted in accordance with the requirements for embankment compaction.

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating.

55 tons per pile using an 11,000 ft. lb. hammer
 45 tons per pile using a 15,000 ft. lb. or greater hammer

If the energy rating is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 35 tons per pile.

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

PIER FOOTINGS shall extend a minimum of 3' into solid rock or to the elevation shown, whichever is lower.

MACHINE FINISH: The top of the bridge deck slab shall be machine finished (Sec. 5-1.2.3).

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 7.9 tons per sq. ft.

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

MICROFIL
SEP 11 1986

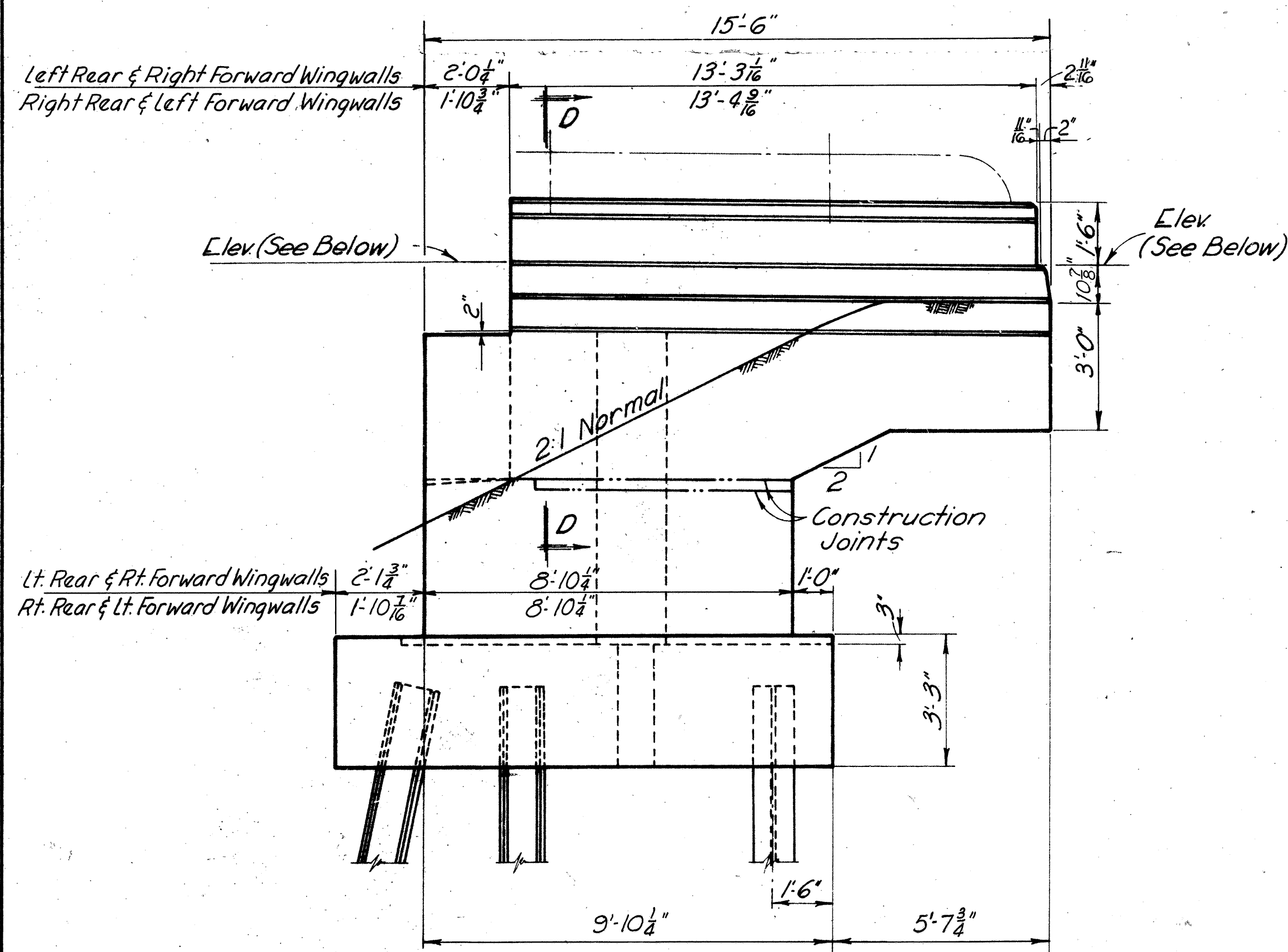
SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL NOTES REINFORCING STEEL & ESTIMATED QUANTITIES
BRIDGE No. ERI 6-0575
UNDER
STATE ROUTE No. 12
Sta. 48+56.90 to
Sta. 51+42.46

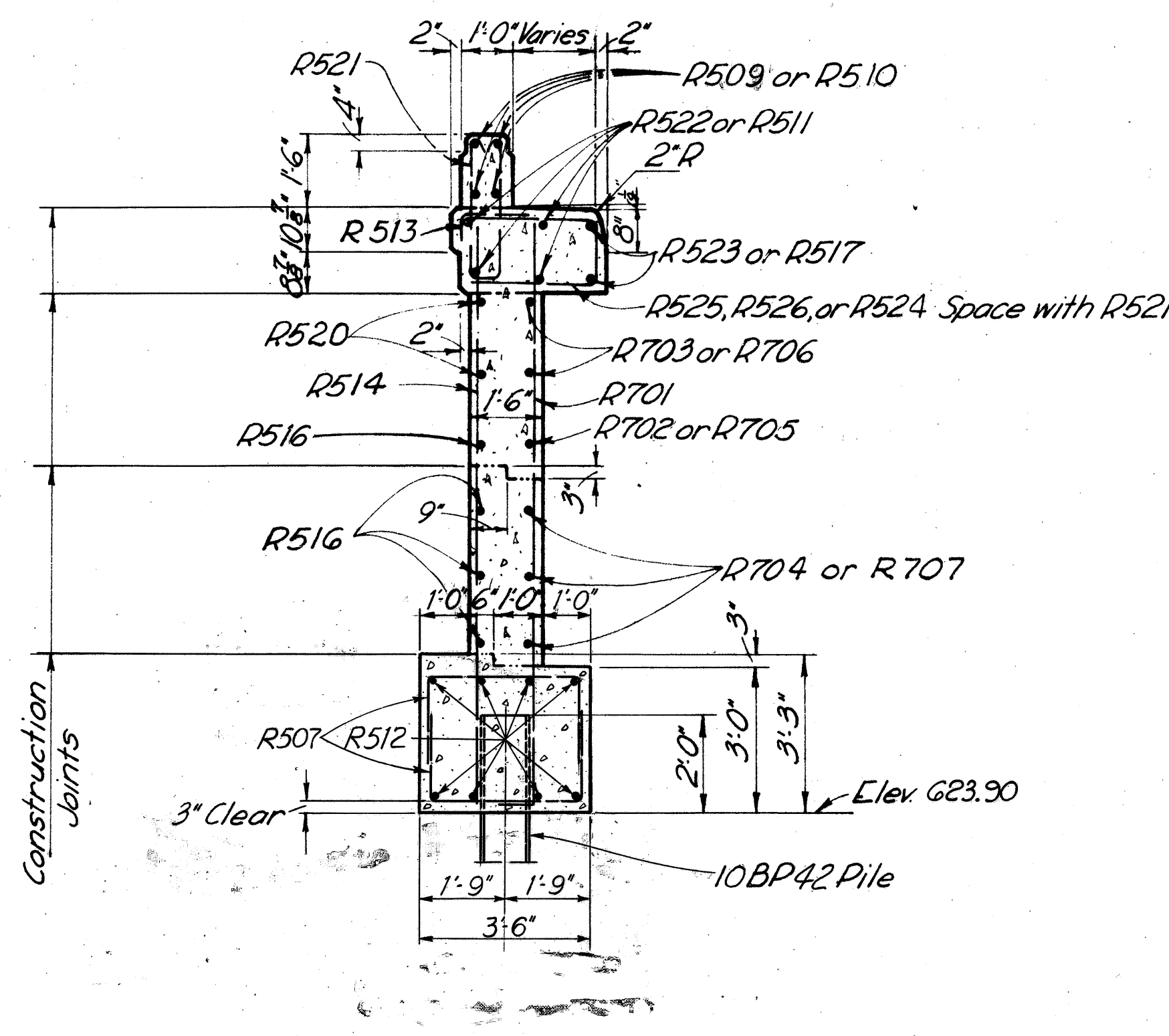
ERIE CO.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH	JEC	RJH	BJH	TWD	FCM 9-5-61

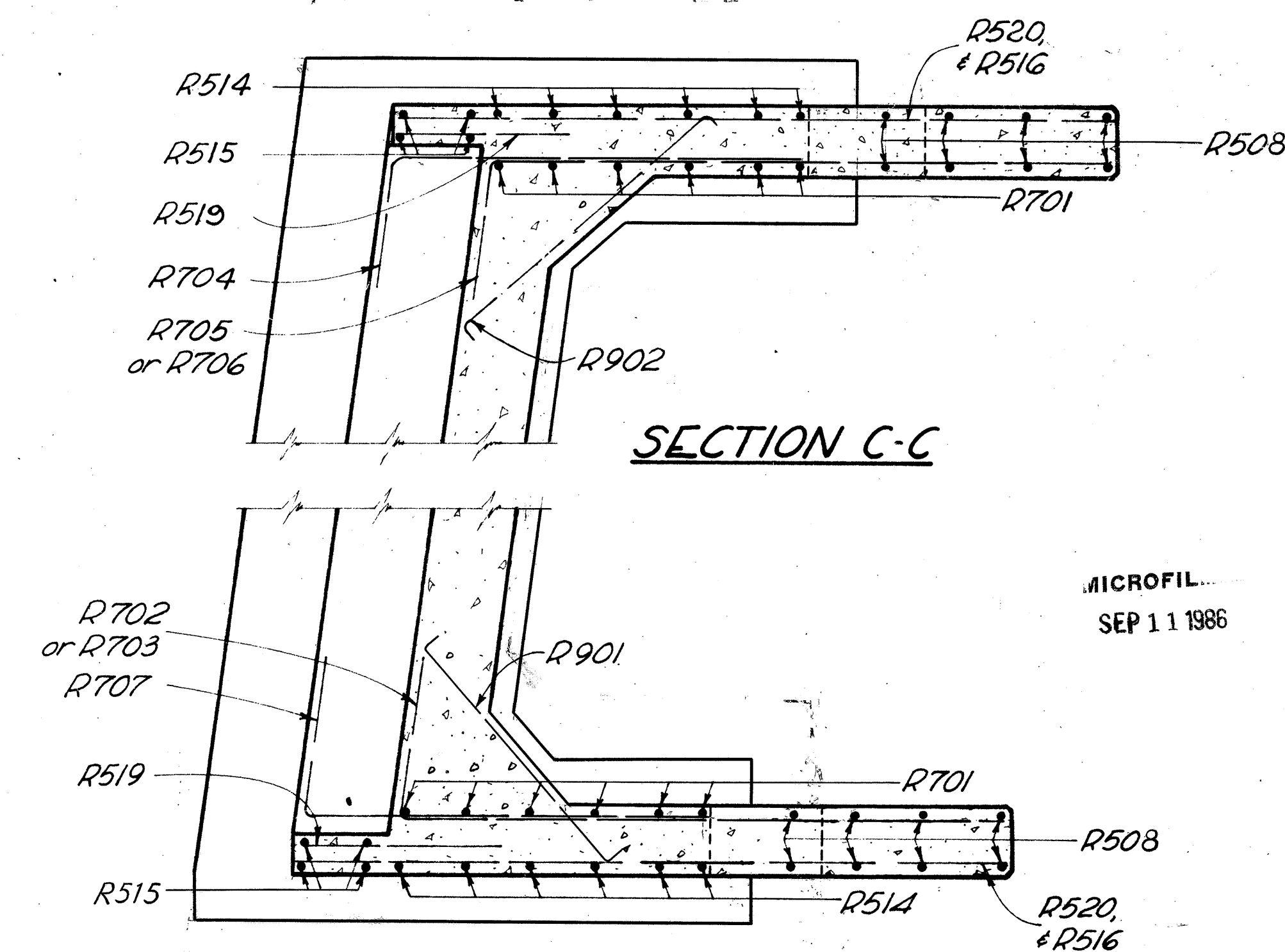
ERI. 6-3.80; ERI. 2-4.02



WINGWALL ELEVATION (CONSTRUCTION DETAILS)

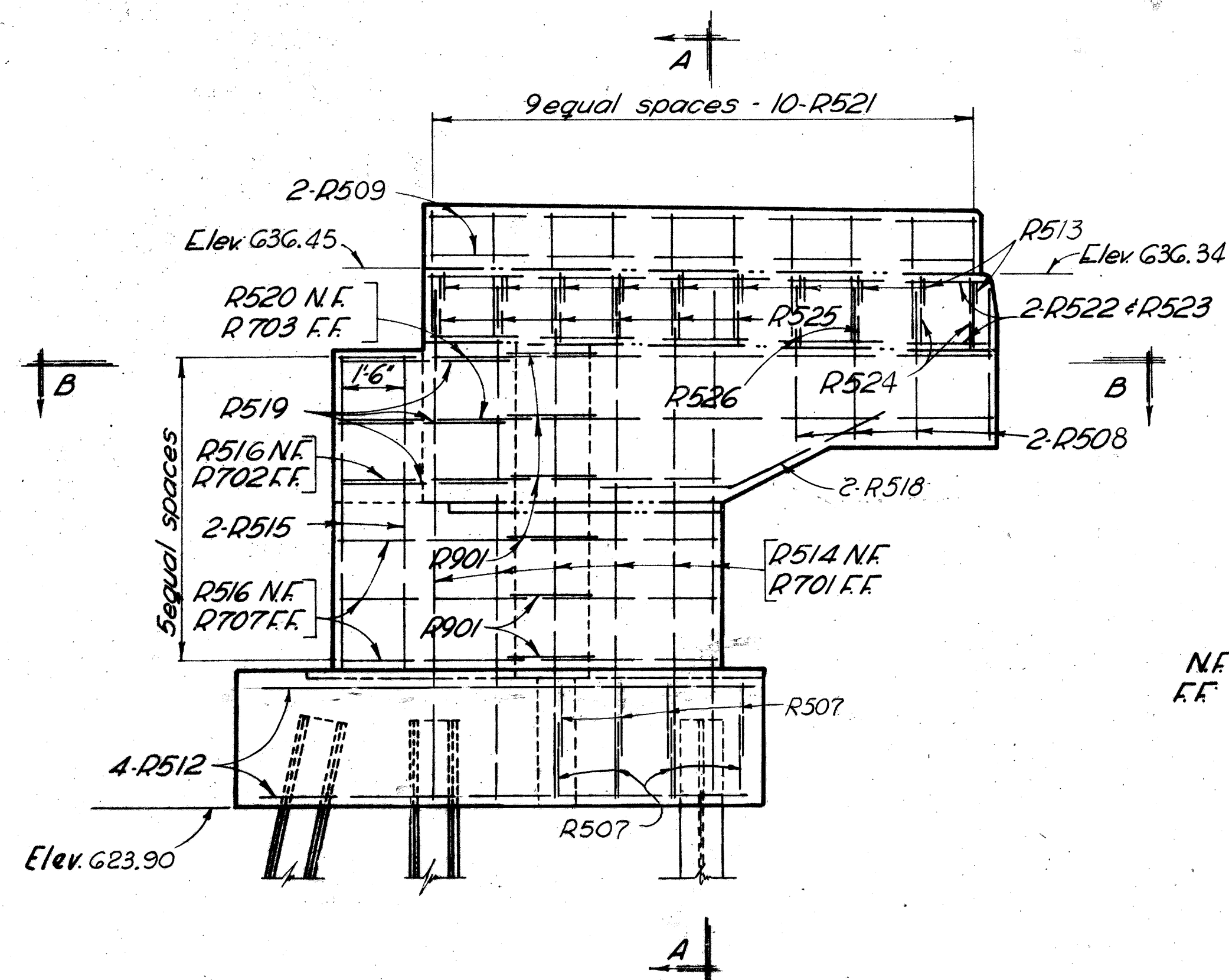


SECTION A-A



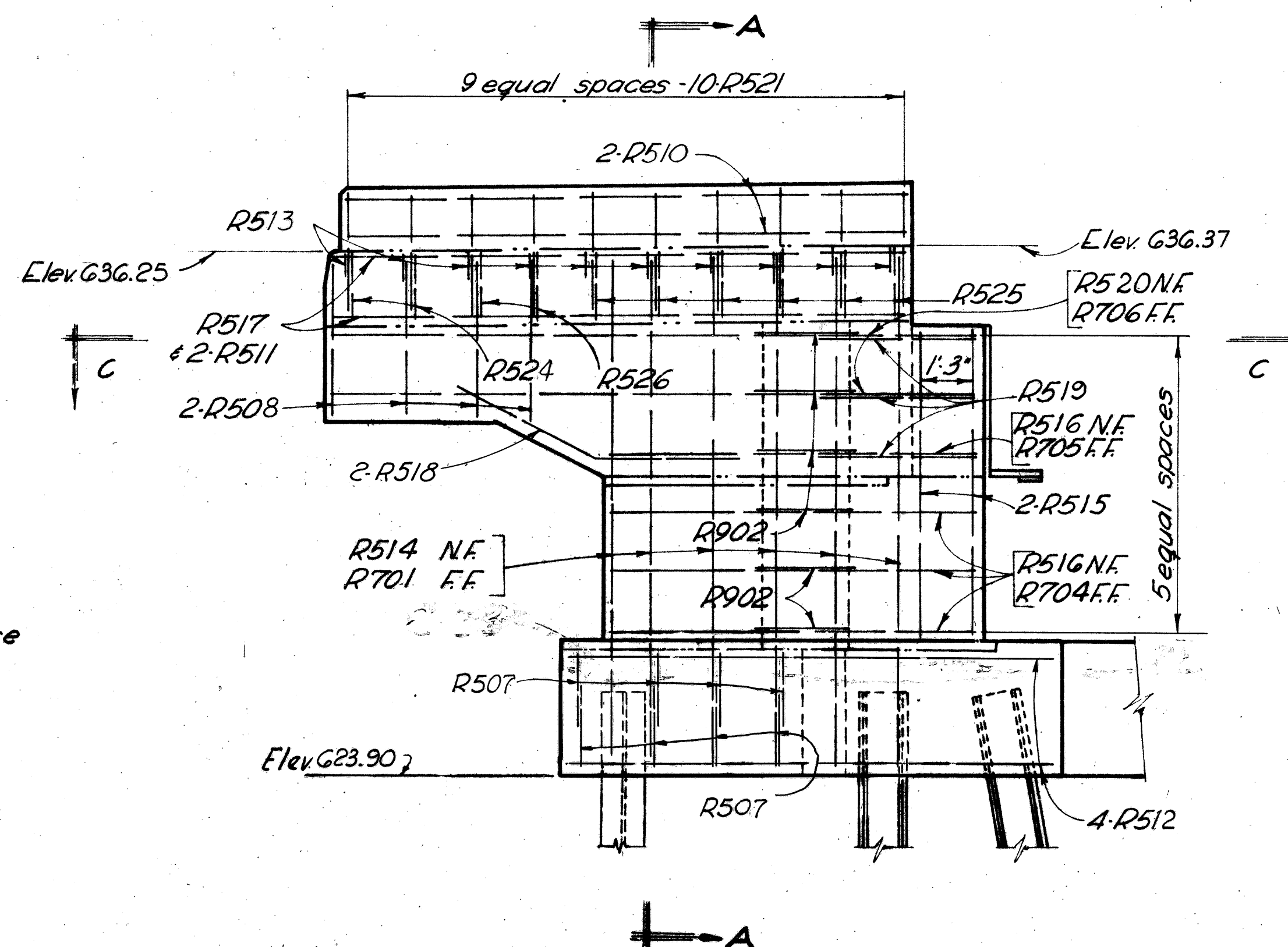
SECTION B-B

MICROFIL
SEP 11 1986

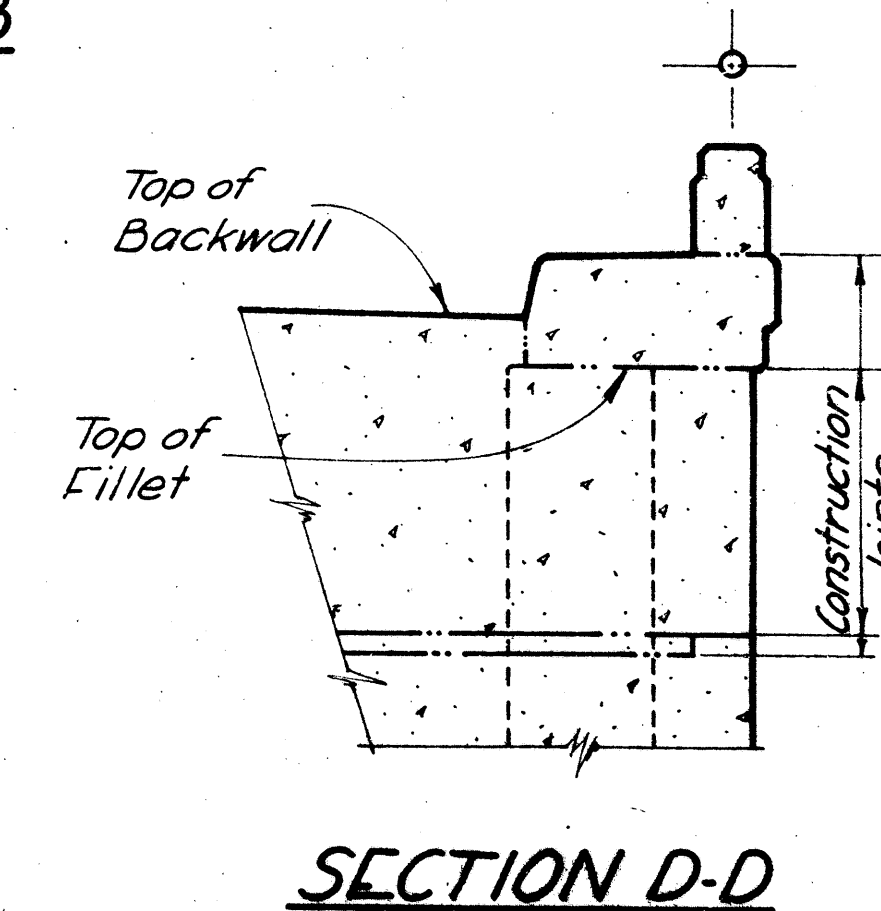


WINGWALL ELEVATION (REINFORCING BAR DETAILS)
VIEW D-D (See Sheet 177)

N.F. = Near Face
F.F. = Far Face



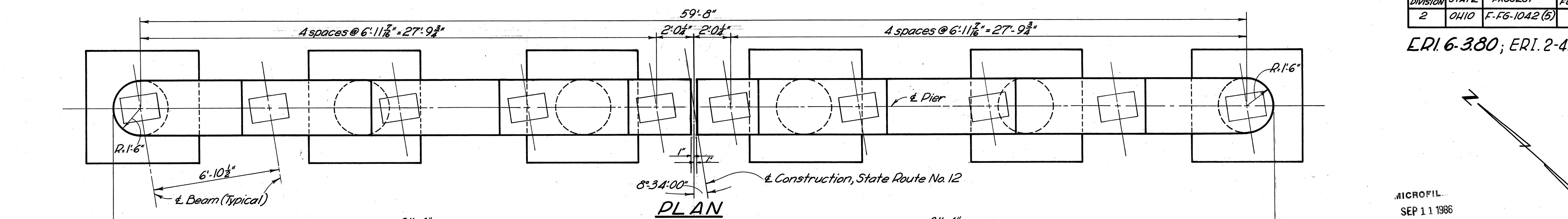
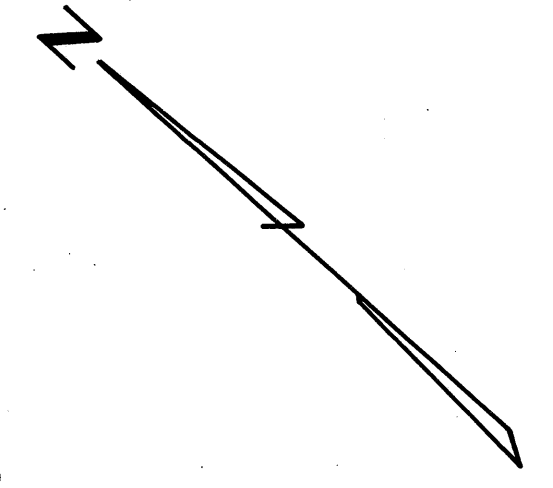
WINGWALL ELEVATION (REINFORCING BAR DETAILS)
VIEW C-C (See Sheet 177)



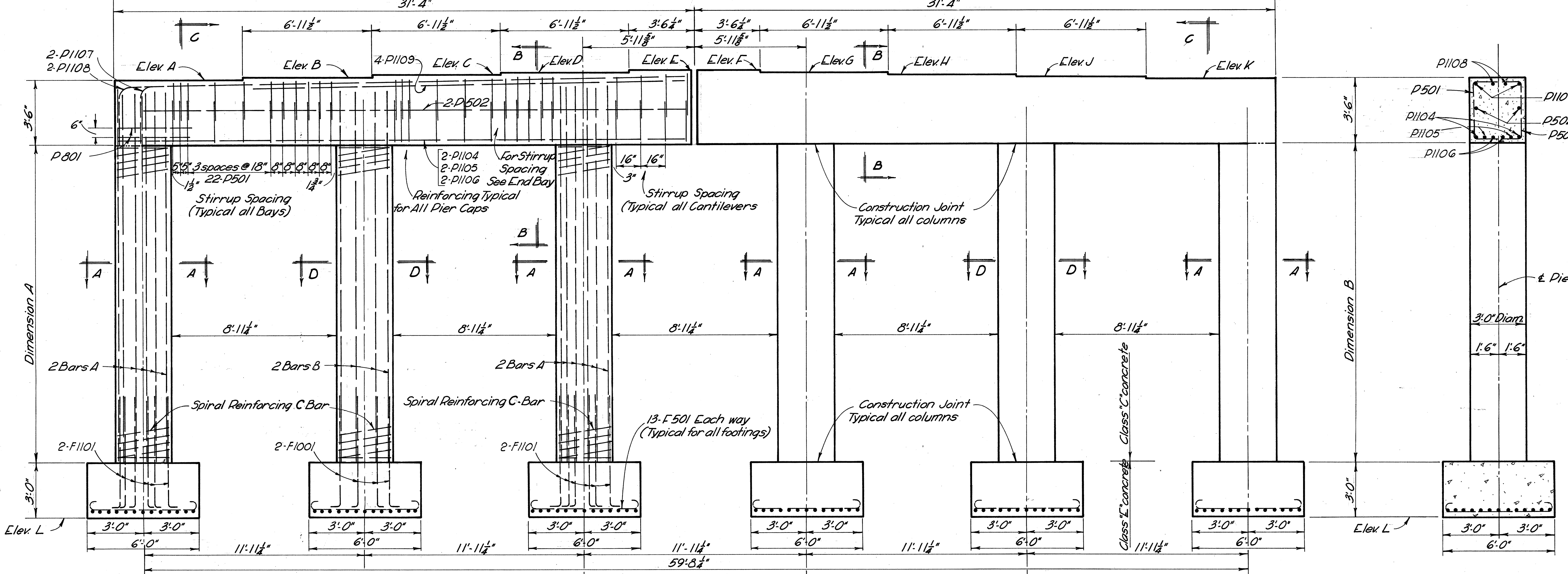
SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO				
ABUTMENTS BRIDGE No. ERI. 6-0575 UNDER STATE ROUTE No. 12				
ERIC CO. Sta. 48+56.90 to Sta. 51+42.46				
DESIGNED	DRAWN	TYPED	CHECKED	APPROVED
RJH	RJH	JCC	TFH TWD	BJH FCM 9-5-61

ERI. 6-380; ERI. 2-4.02

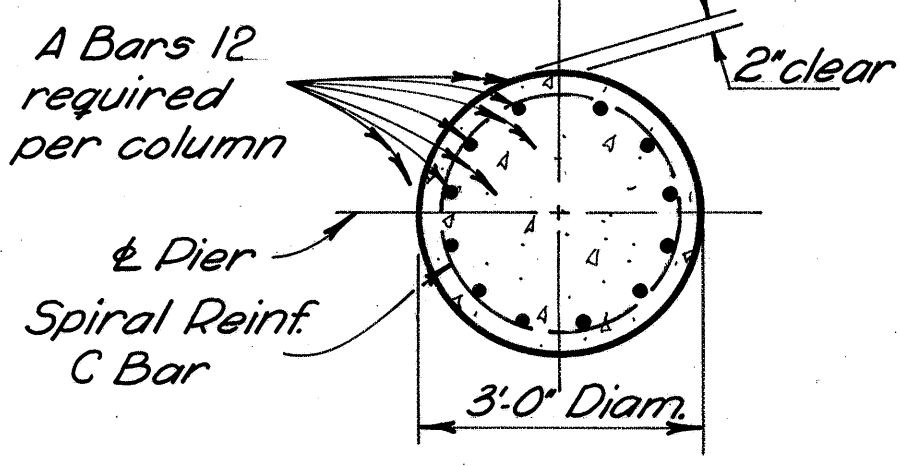
MICROFIL
SEP 11 1986



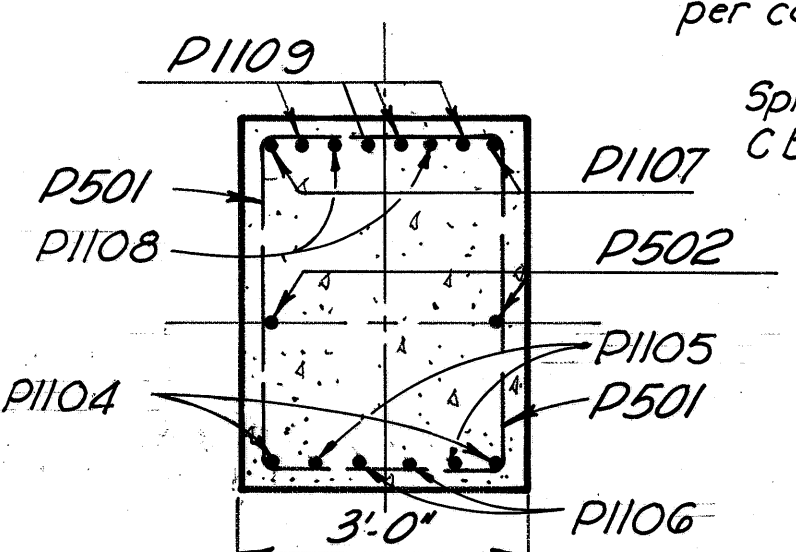
PLAN



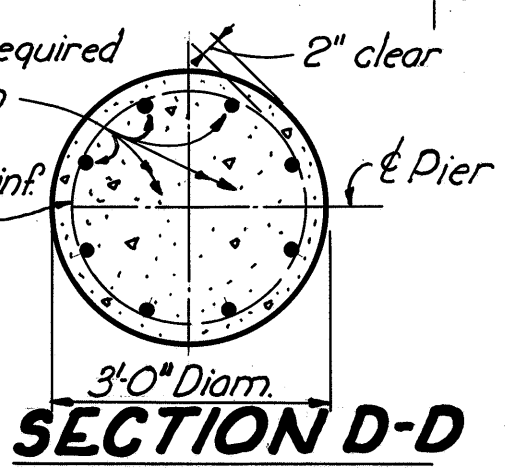
ELEVATION



SECTION A-A



SECTION B-B



SECTION D-D

All pier details and reinforcement are symmetrical about the centerline of construction, unless otherwise noted.
Special care shall be taken in placing reinforcing steel in the pier cap so that it will not interfere with the bolster anchor bolts in pier 2

PIER NUMBER	ELEVATIONS											DIMENSIONS		BARS		
	A	B	C	D	E	F	G	H	J	K	L	A	B	A	B	C
Pier #1	630.94	631.04	631.14	631.24	631.34	631.34	631.23	631.12	631.01	630.89	608.20	16'-2 1/8"	16'-2 1/4"	P1101	P1001	SP401
Pier #2	631.01	631.12	631.23	631.34	631.44	631.44	631.34	631.23	631.12	631.01	607.50	17'-0 1/8"	17'-0 1/8"	P1102	P1002	SP402
Pier #3	630.89	631.01	631.12	631.23	631.34	631.34	631.24	631.14	631.04	630.94	609.00	15'-4 3/8"	15'-5 1/4"	P1103	P1003	SP403

SECTION C-C

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

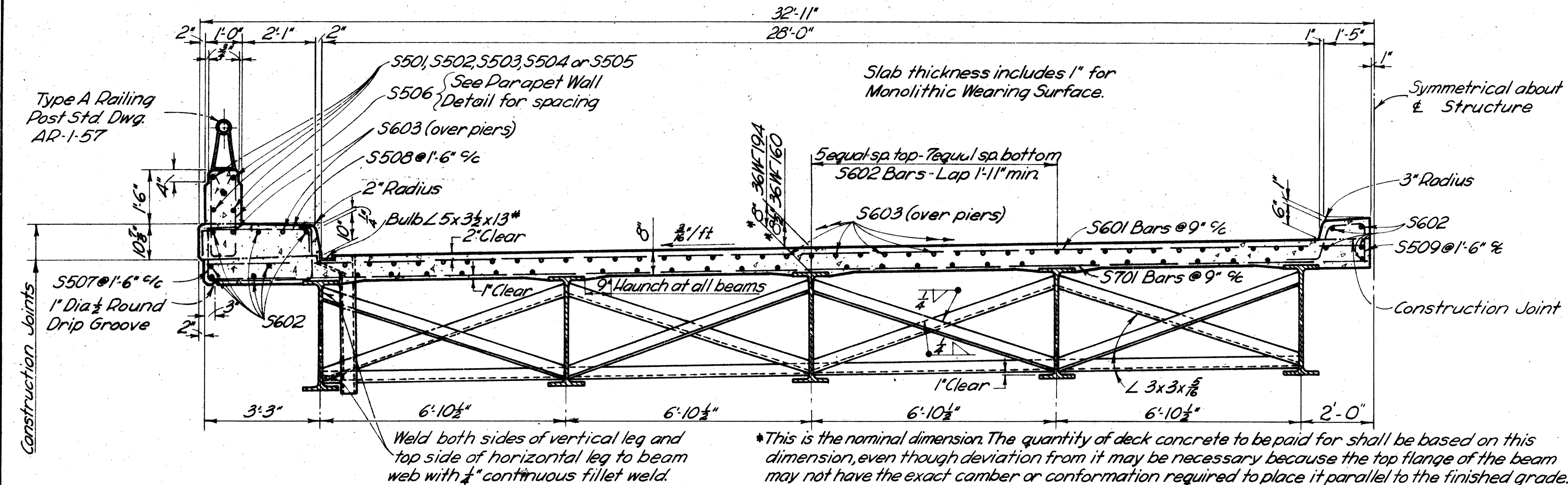
PIERS 1, 2 & 3
BRIDGE No. ERI. 6-0575
UNDER
STATE ROUTE No. 12
Sta 48+56.90 to
Sta 51+42.46

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED

TFH	TFH	JEC	RJH	BJH
			TWD	FCM

9-5-61

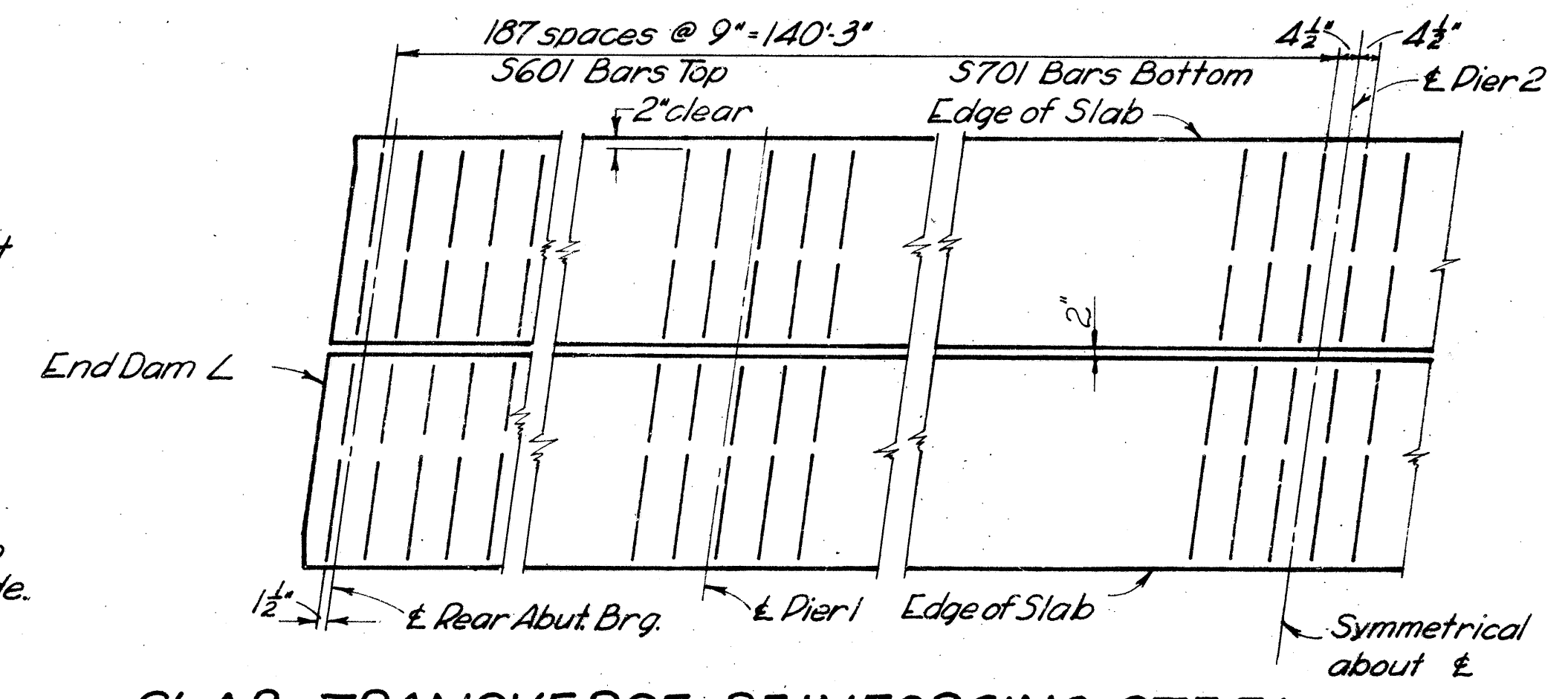
ERI 6-3.80; ERI 2-4.02



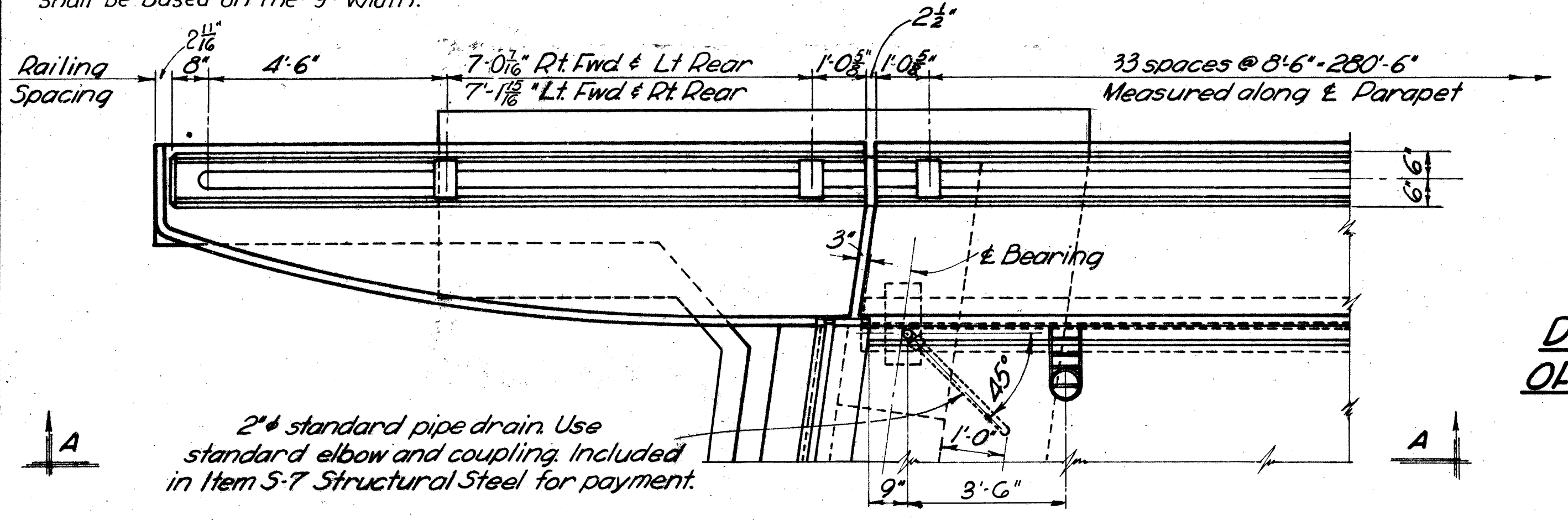
TRANSVERSE SECTION OF DECK

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

*This 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 beam may not have the exact camber or conformation required to place it parallel to the finished grade.



SLAB TRANSVERSE REINFORCING STEEL



PLAN AT ABUTMENT

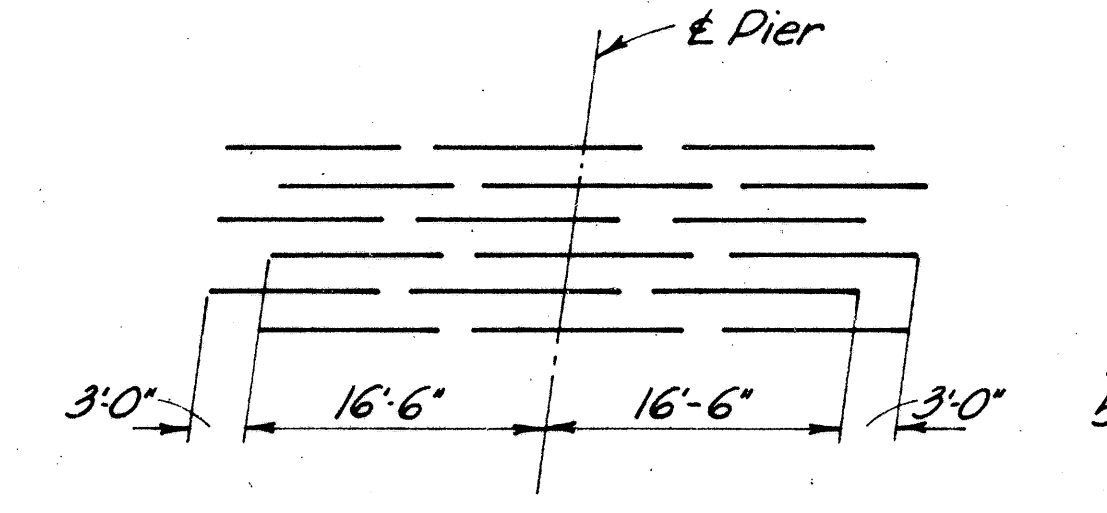
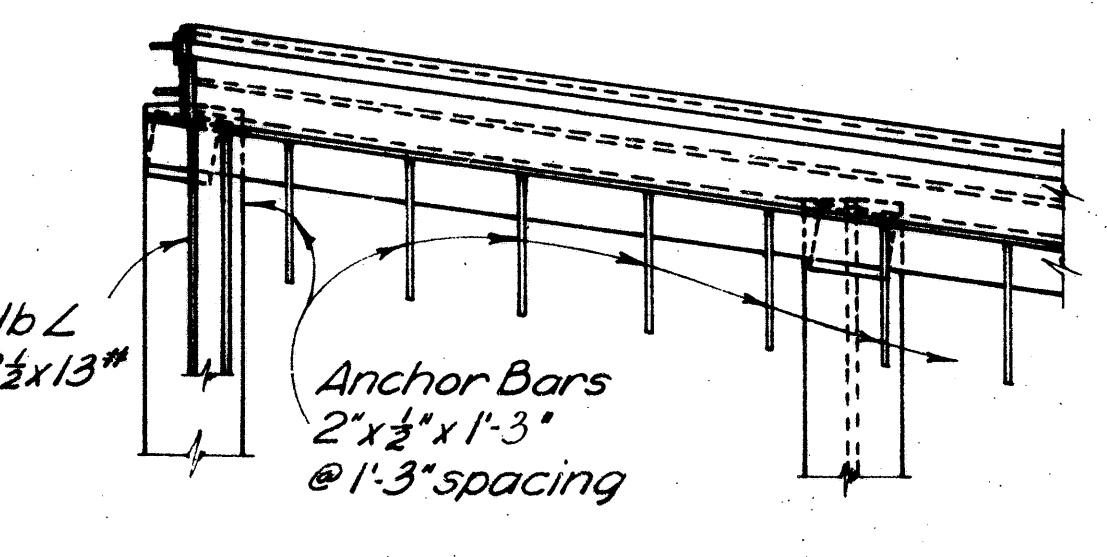
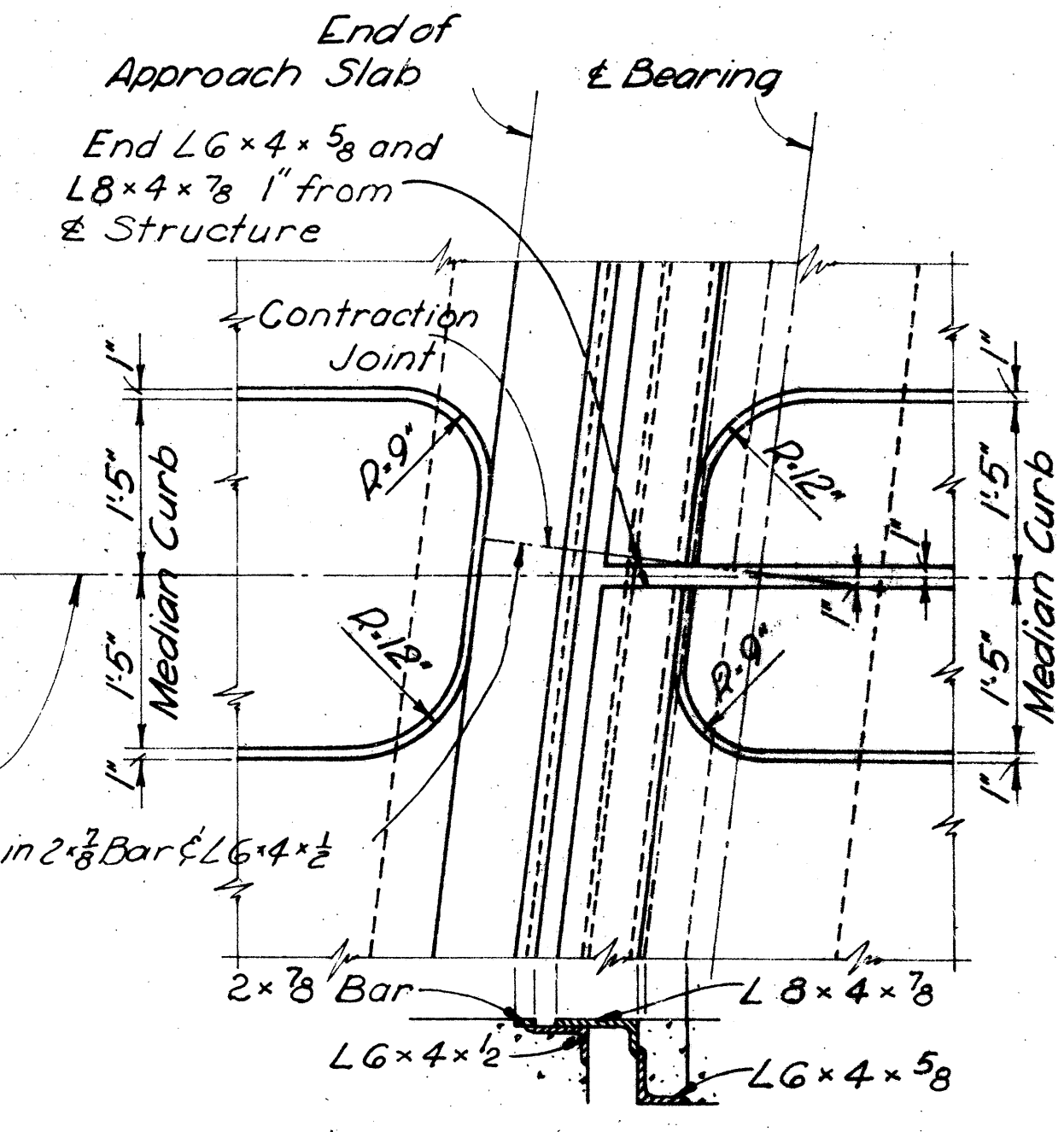


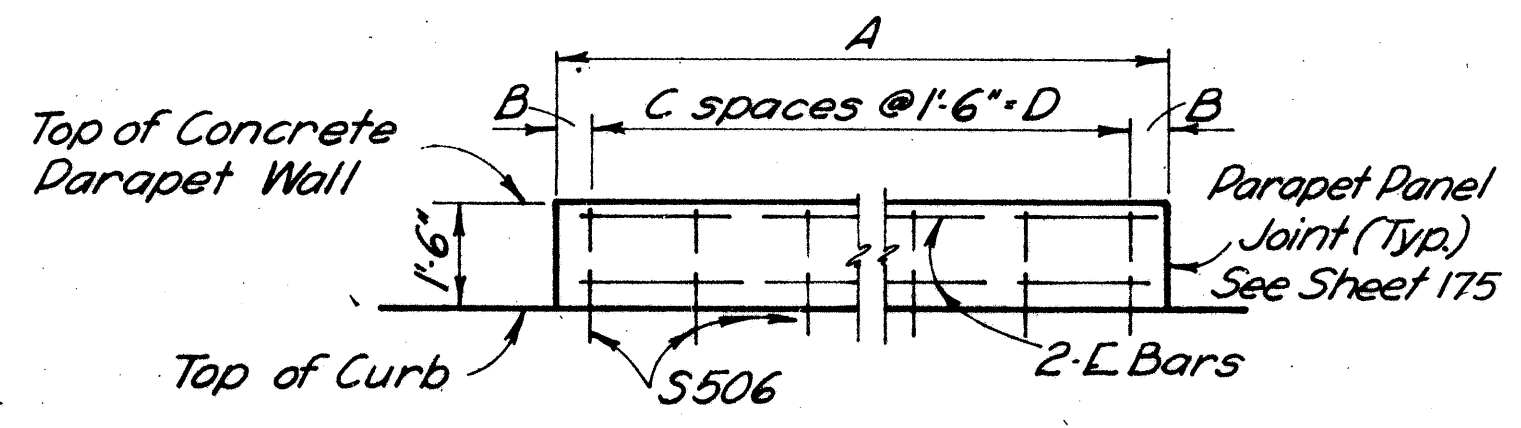
DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



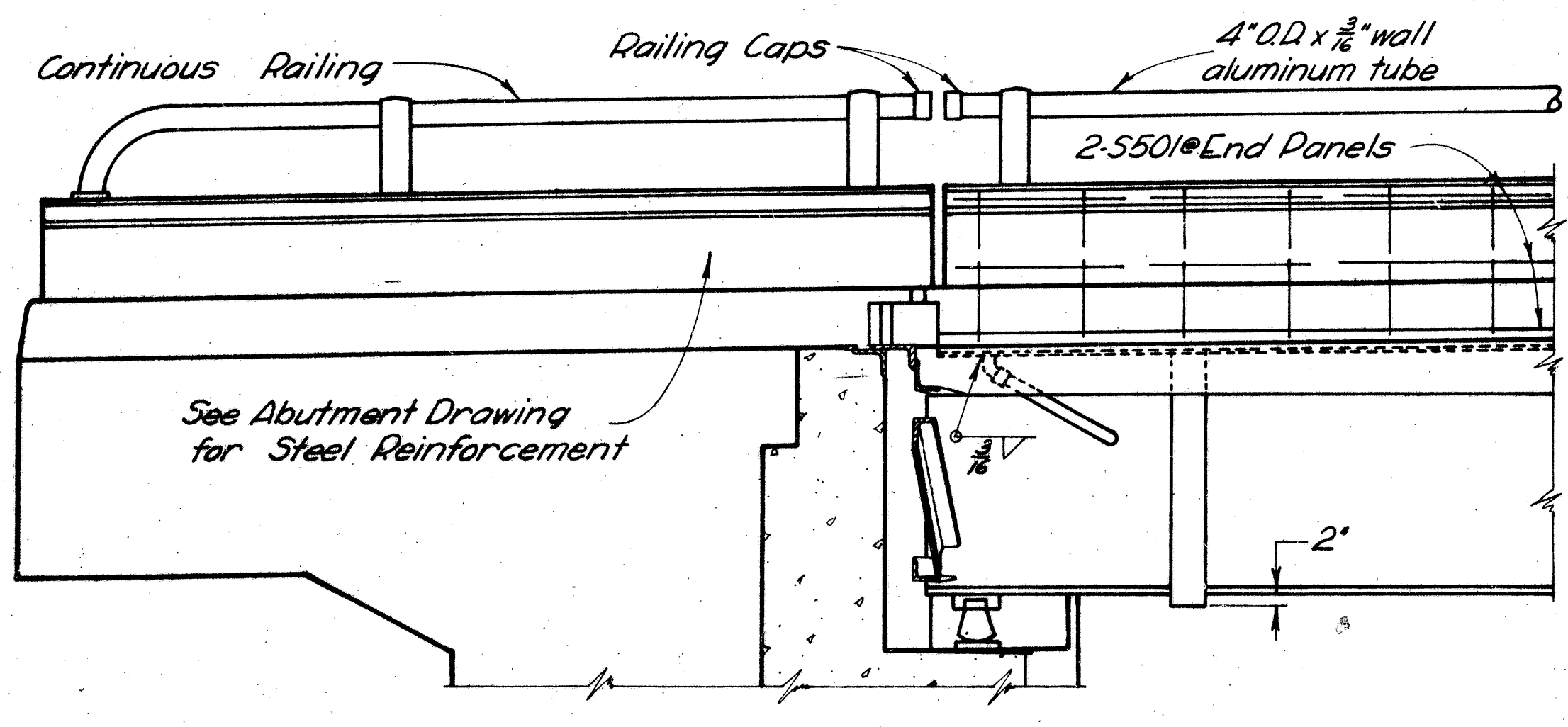
PART END DAM PLAN



PLAN OF END DAM AT MEDIAN CURB

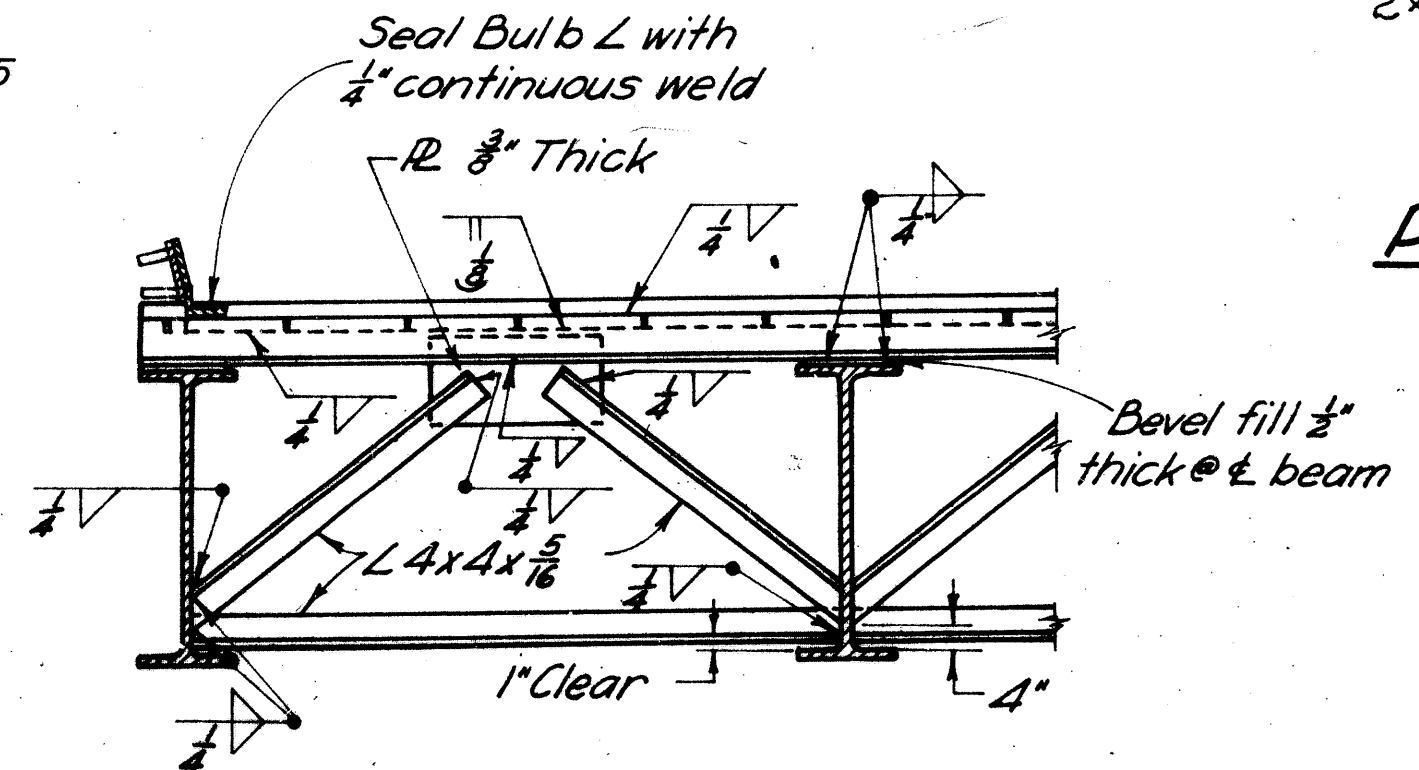


PARAPET WALL DETAILS



SECTION A-A

Panel See Sheet 175	A	B	C	D	No of S506	E Bars
End	13'-9 3/8"	1 1/2"	9"	13'-6"	10	S501
Piers 1&3	11'-0"	3"	7"	10'-6"	8	S502
Pier 2	6'-0"	9"	3"	4'-6"	4	S503
Intermediate	17'-0"	3"	11"	16'-6"	12	S505



PART END DAM ELEVATION

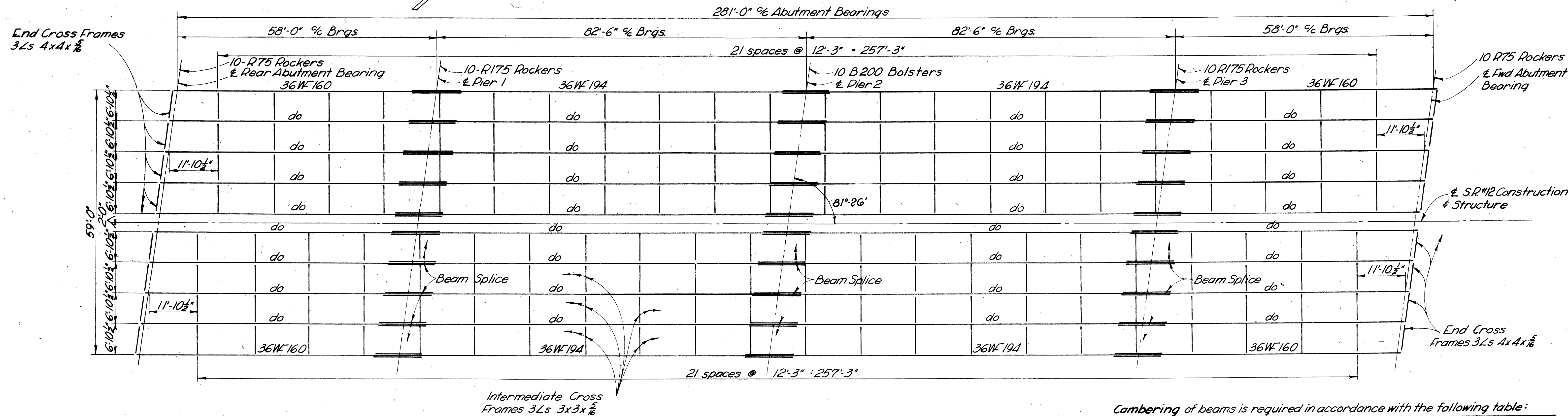
MICROFIL SEP 11 1986

SANZENBACHER, MILLED & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

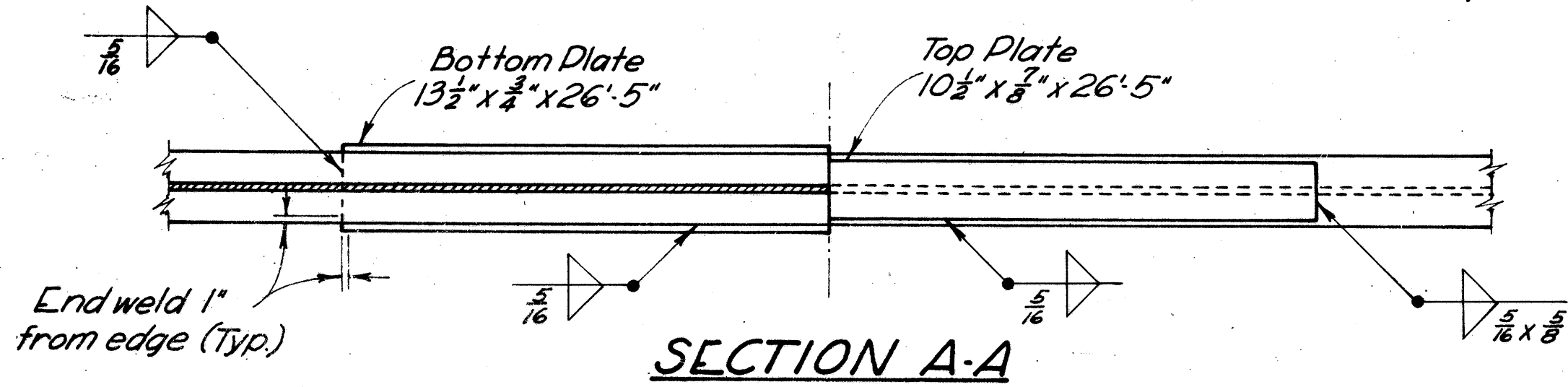
SUPERSTRUCTURE DETAILS
BRIDGE No. ERI 6-0575
UNDER
STATE ROUTE No. 12
Sta 48+56.90 to
Sta 51+42.46

ERI CO

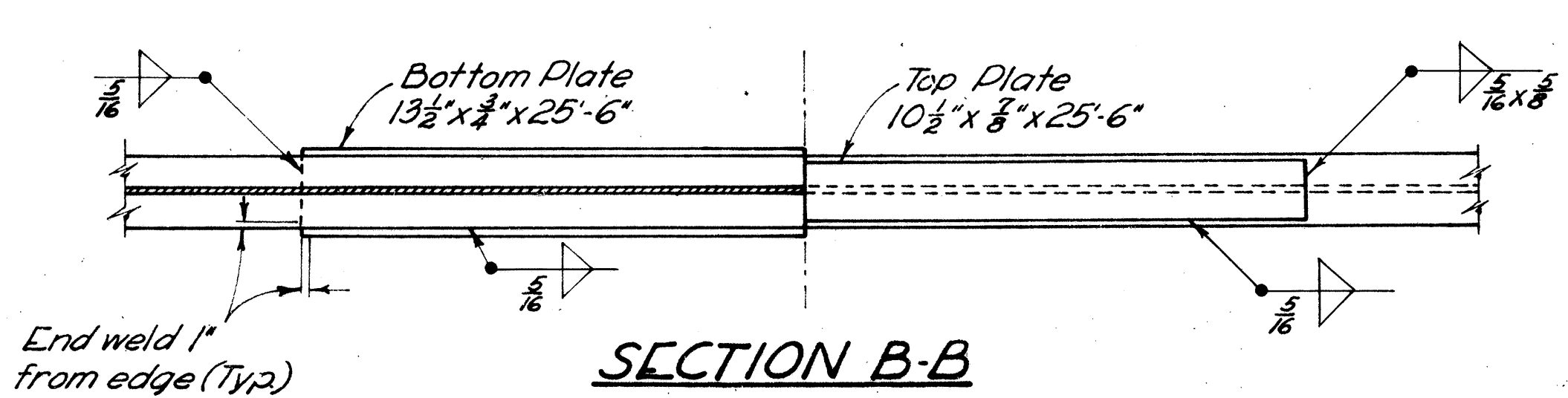
DESIGNED	DRAWN	TYPED	CHECKED	APPROVED	DATE
RJH	RJH	JEC	TFH	B.JH	9-5-61
			TWD	FCM	



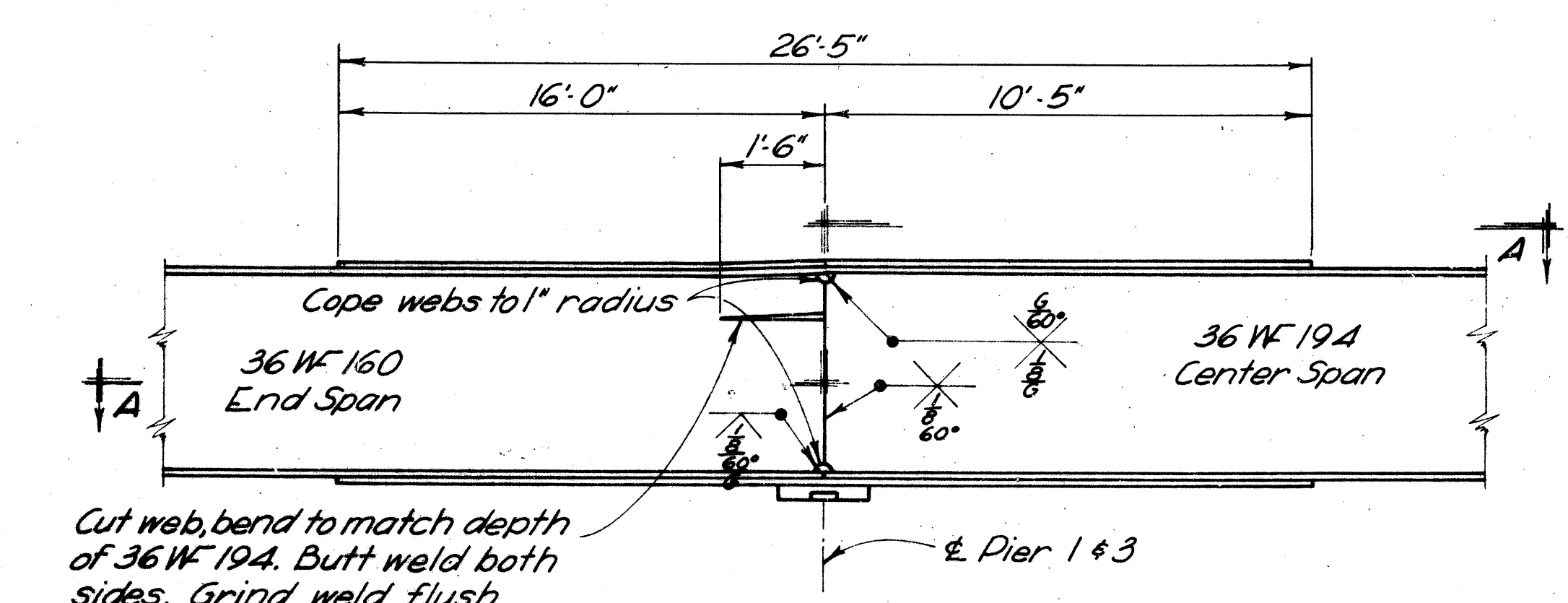
STEEL FRAMING PLAN



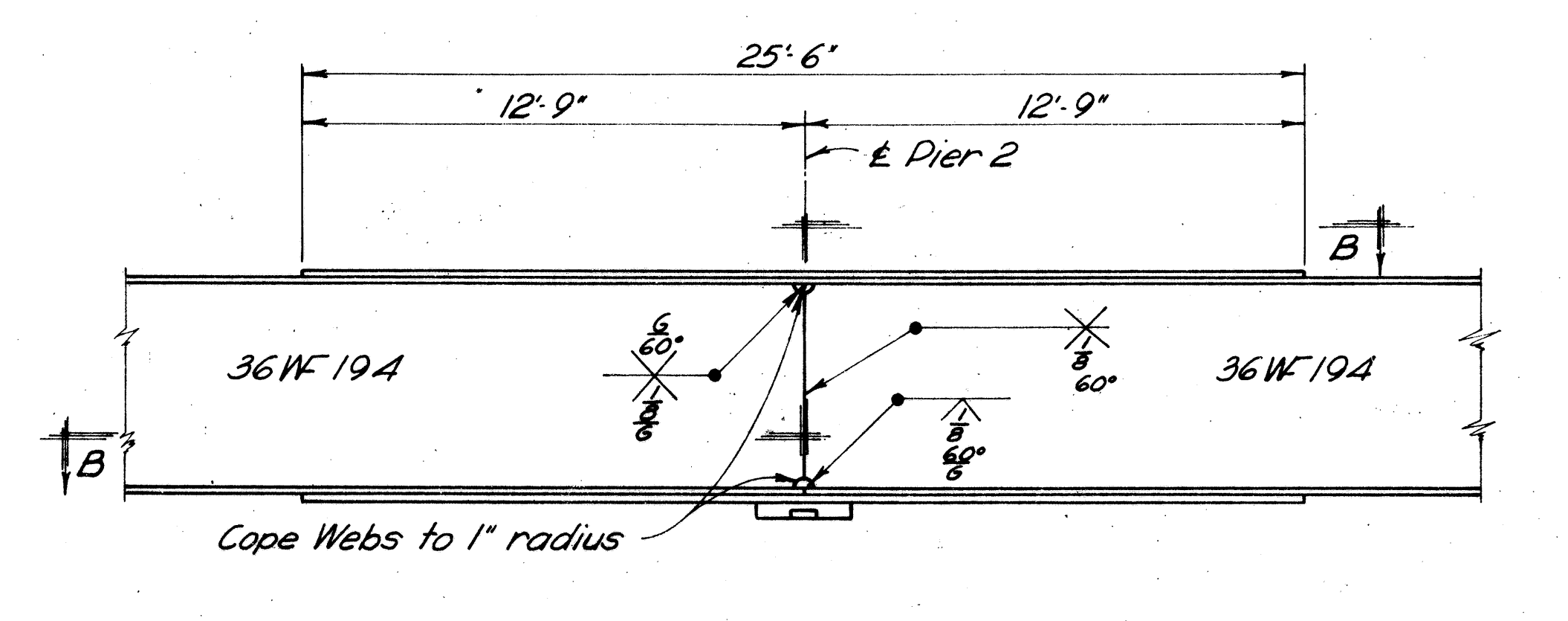
SECTION A-A



SECTION B-B



ELEVATION BEAM SPLICE DETAIL (Piers 1 & 3)



ELEVATION BEAM SPLICE DETAIL (Pier 2)

Cambering of beams is required in accordance with the following table:

LOCATION	Interior Beams				Exterior Beams			
	Span 1	Span 2	Span 3	Span 4	Span 1	Span 2	Span 3	Span 4
Deflection due to weight of steel	1/8"	3/8"	3/8"	1/8"	1/8"	3/8"	3/8"	1/8"
Remaining dead load deflection	1/8"	3/8"	3/8"	1/8"	1/8"	3/8"	3/8"	1/8"
Camber due to Vertical Curve	1/4"	3/8"	3/8"	1/4"	1/4"	3/8"	3/8"	1/4"
Total Camber	1/2"	1 1/8"	1 1/8"	1/2"	1/2"	1 1/8"	1 1/8"	1/2"
Required Shop Camber	None	1/4"	1/4"	None	None	1/4"	1/4"	None

NOTE: Refer to Standard CSB-2-56 sheet 2 or 3 of 6 for the following details:
 Roadway End Dam
 Welded Butt Joint in Superstructure End Dam Angles
 Scupper Details
 Gutter Supports
 Curb Plate Details

BEAM SPLICE WELDING PROCEDURE

1. Raise end of beam at Pier 2, 2"
2. Butt-weld beam flanges and web at Pier 1 using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
3. Weld top and bottom flange moment plates at Pier 1
4. Lower end of beam at Pier 2.
5. Make splice at Pier 2 and Pier 3 in the same manner raising the end of beams 3" at Pier 3 and 2" at the forward Abutment.

SANZENBACHER MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
 BRIDGE No. ERI 6-0575
 UNDER
 STATE ROUTE No. 12
 Sta. 48+56.90 to
 Sta. 51+42.46

ERIC CO.
 DESIGNED DRAWN TRACED CHECKED PREPARED DATE REVISIONS
 RJH RJH JEC TFH TWD BJH FCM 9-5-61

ERIE COUNTY
 ERI 6-3.80; ERI 2-4.02
 0.2 Miles West of Huron

FORCE ACCOUNT WORK
 by
THE PENNSYLVANIA RAILROAD

1. Engineering and Inspection.
2. Communication and signal work.

NOTE: Plans for Railroad Force Account Work may be seen at the Division Office in Ashland, at the Bureau of Bridges, Construction Bureau or Office of Contract Sales in Columbus, or at the Railroad Office.

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FOUNDATION SOUNDINGS:
 Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division Office, but the State does not guarantee the accuracy thereof.

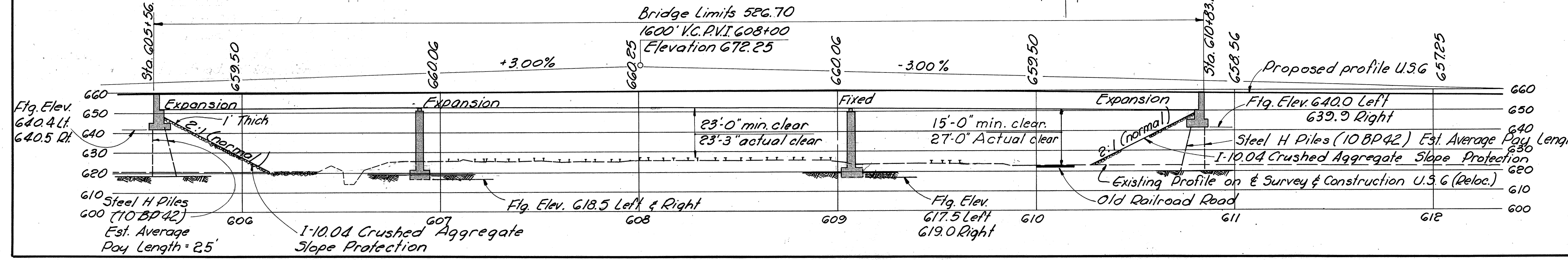
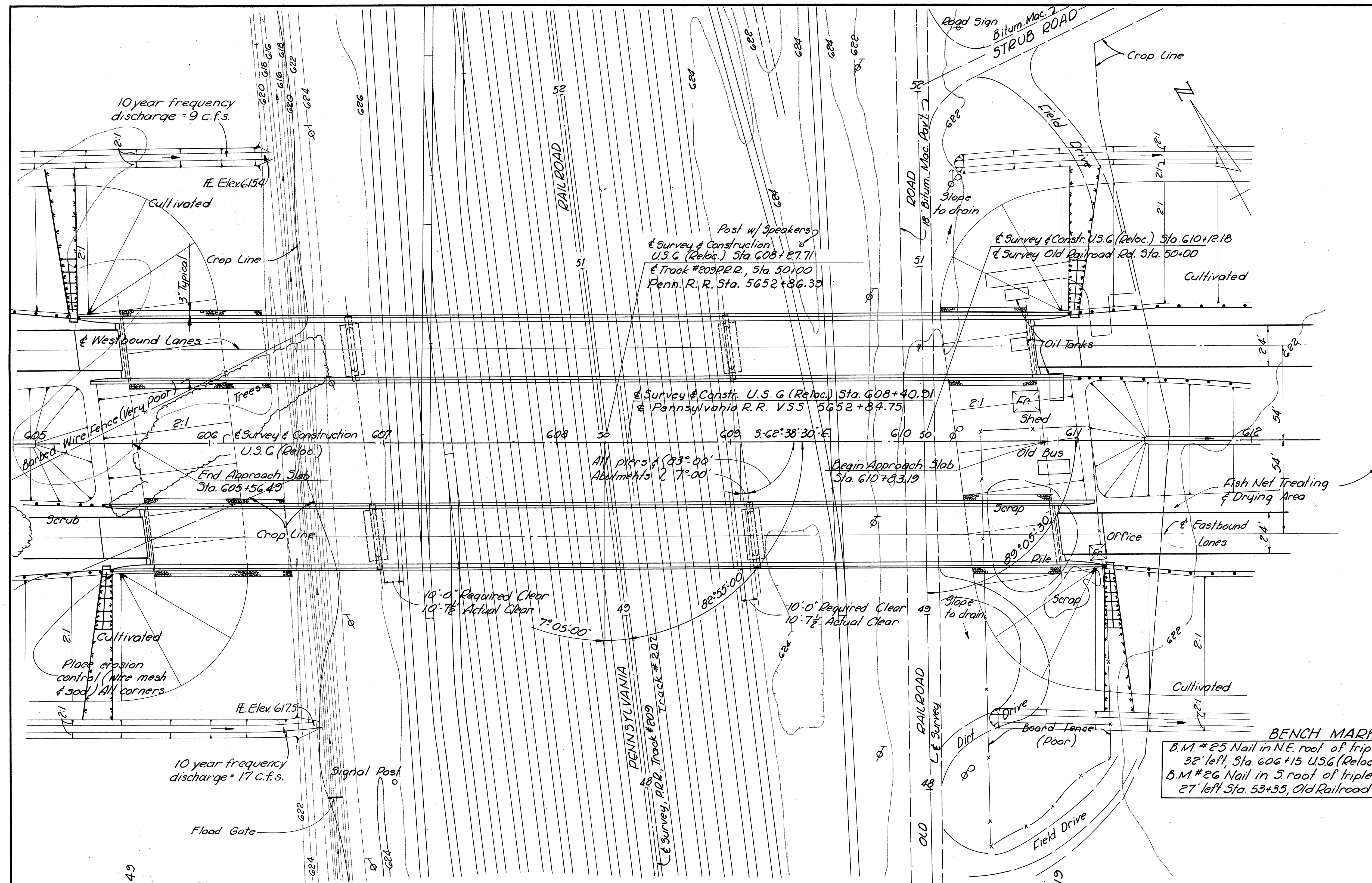
OLD RAILROAD RD.
 A.D.T. = 950
 Design Volume = 1570 V.R.D.
 Design Speed = 60 M.P.H.

PROPOSED STRUCTURES

Type: Continuous welded steel girder with reinf. conc. deck, reinf. conc. sub-structure. Stub abuts. & T type piers. Spans: 130'-0", 217'-0", 174'-0" % bearing
 Roadway: 30'-0" w/ of 2'3" Safety Curbs Left & Right Bridges
 Load Frequency: CF 400 (57)
 Skew: 7° 00' Right forward
 Wearing Surface: 1" Monolithic concrete
 Approach Slabs: A5-1-54 (25'-0" long)
 Alignment: Tangent

BENCH MARKS

B.M. #25 Nail in N.E. roof of triple 10" wild cherry, 32' left Sta. 606+15 U.S.G. (Reloc.) Elevation 620.59
 B.M. #26 Nail in S. roof of triple 8" Elm, 27' left Sta. 53+35, Old Railroad Rd. Elevation 621.39

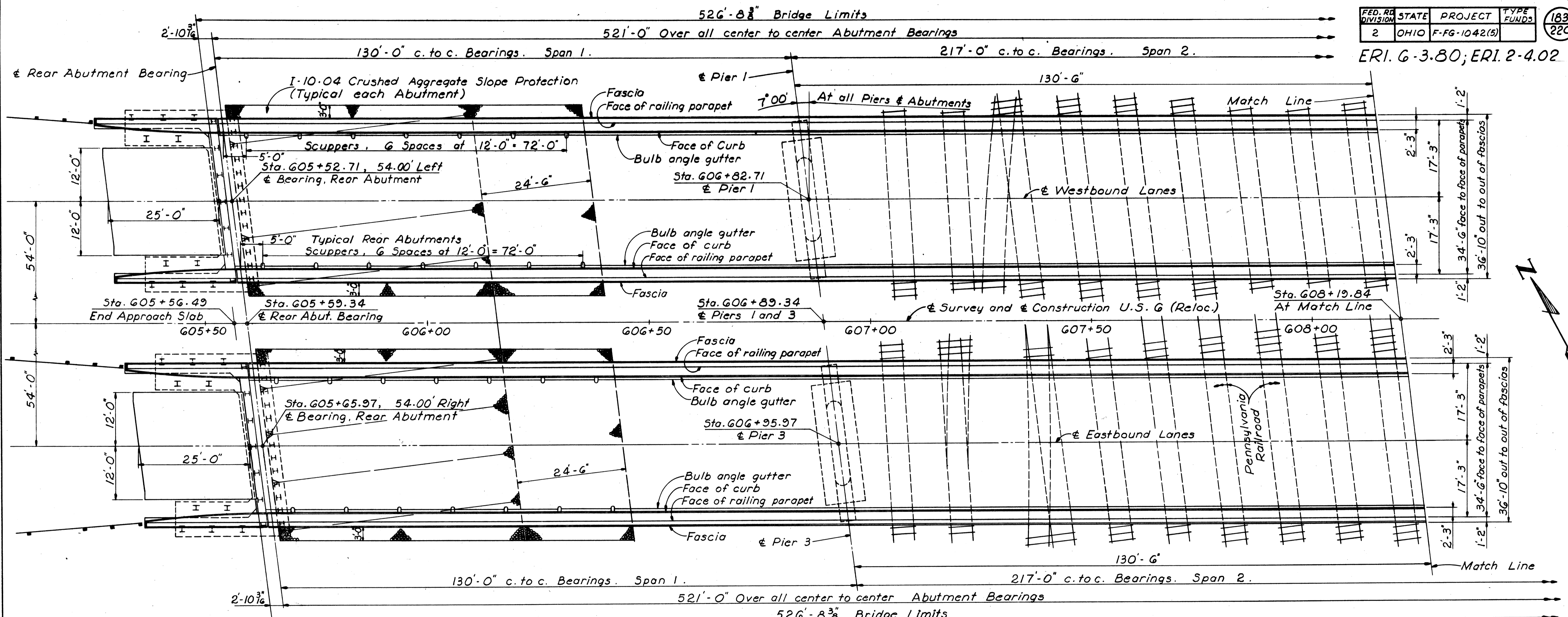


SANZENBACHER, MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO OHIO

SITE PLAN
 BRIDGE NO. ERI 6-0674
 Left and Right over
 Pennsylvania Railroad and Old Railroad Road

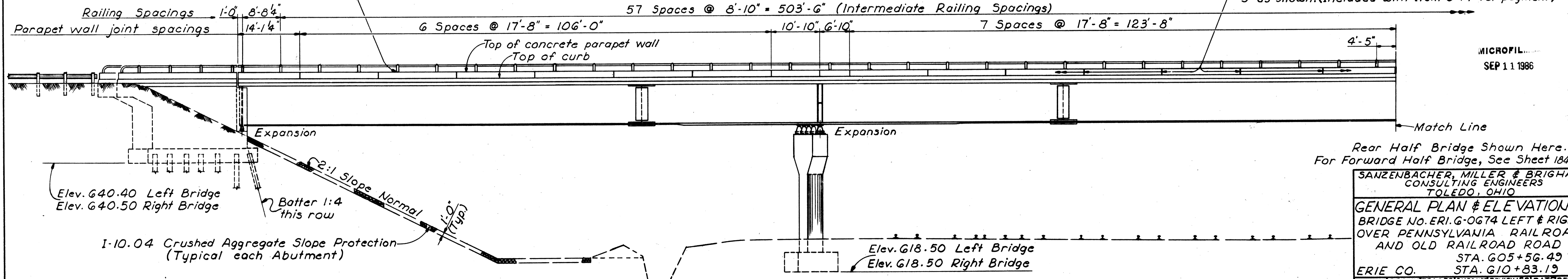
ERIE CO.		STA. 605+56.49 to 610+83.19	
SCALE: 1"=30'			
PRESENT TOPOGRAPHY	PROPOSED WORK		
SURVEYED	DRAWN	DESIGNED	DRAWN
S.M.B.	T.F.H.-B.B.	H.D.P.-B.J.H.	J.E.C.
			B.J.H.
			FCM 9-5-61

ERI. G-3.80; ERI. 2-4.02



Note B: Provide 1/8" Preformed bearing pad, meeting the requirements of Sec. M-10-11, under each railing post. (Included with Item 5-14 for payment)

Note A: 1/4" Gray sponge rubber preformed expansion joint filler meeting the requirements of Sect. M-10-02 Type I. Space two railing panel lengths apart and over piers 1 & 3 as shown. (Included with Item 5-14 for payment)



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Rear Half Bridge Shown Here.
 For Forward Half Bridge, See Sheet 184

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO				
GENERAL PLAN & ELEVATION (1)				
BRIDGE No. ERI. G-0674 LEFT & RIGHT OVER PENNSYLVANIA RAILROAD AND OLD PENNSYLVANIA ROAD				
STA. 605+56.49 TO			STA. 610+83.19	
ERIE CO.				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
HDP	HDP		BJH	FCM 9-5-61

ESTIMATED QUANTITIES-TWO BRIDGES

F-1042(5) Total	FG-1042(5) Total	Item	Total	Unit	Description	Abutments				Piers				Superstructures		General
						Lt. Rear	Lt. Fwd	Rt. Rear	Rt. Fwd	Pier 1	Pier 2	Pier 3	Pier 4	Left	Right	
	1370	E-2	1370	Cu. Yds.	Unclassified excavation	277	277	277	277	71	54	83	54			
	Lump	E-2	Lump	Sum	Cofferdams, cribs and sheeting											Lump
	33	E-2	33	Cu. Yds.	Rock excavation					5	18	5	5			
110	1242	S-1	1352	Cu. Yds.	Class "C" concrete, superstructures									676*	676*	
	298	S-1	298	Cu. Yds.	Class "C" concrete, pier walls					74	77	74	73			
	164	S-1	164	Cu. Yds.	Class "E" concrete, pier footings					41	41	41	41			
	731	S-1	731	Cu. Yds.	Class "E" concrete, abutments	182	183	183	183							
25240	376859	S-4	402,099	Lbs.	Reinforcing steel	14,300	14,301	14,300	14,301	9456	9477	9456	9455	153,526*	153,527*	
220,000	2,688,000	S-7	2,208,000	Lbs.	Structural steel									1,454,000	1,454,000	
220,000	2,688,000	S-8	2,208,000	Lbs.	Field painting of structural steel									1,454,000	1,454,000	
176	2134	S-14	2310	Lin. Ft.	Railing (aluminum rail and supports, concrete parapet)									1155*	1155*	
	Lump	S-16	Lump	Sum	First test pile											Lump
	2880	S-18	2880	Lin. Ft.	Steel piles, 10 BD 42	750	690	750	690							
	108	S-29	108	Cu. Yds.	Dorous backfill	27	27	27	27							
	48	S-29	48	Each	Scuppers									24	24	
	1302	I-10	1302	Sq. Yds.	Crushed aggregate slope protection											1302
110	1242	Special	1352	Each	Water-reducing, set retarding admixture †									676*	676*	

† See Proposal Note

* F-1042(5) quantity included

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-54 "Reinforced Concrete Approach Slabs", revised 12-1-54; RB-1-55 "Rockers and Bolsters", revised 2-2-59 and AP-1-57 "Aluminum Railing with Concrete Parapet", revised 12-12-60 and to Supplemental Specification 5307 "Radiographic Examination of Welds" dated 8-23-60 and to Supplemental Specification 5207-10 dated 4-25-61

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.

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings. Backfill behind the abutments shall be compacted in accordance with the requirements for embankment compaction.

SHEETING AND BRACING: Before construction is started, eight sets of prints showing details of the sheeting and bracing to be used for excavation adjacent to the railroad tracks shall be submitted to the Director for approval by the Department of Highways and by the Railroad Company.

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. energy per blow to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

42 tons per pile using an 11,000 ft. lb. hammer

48 tons per pile using a 15,000 ft. lb. or greater hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 35 tons per pile for the abutment piles.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 11.4 tons per sq. ft.

PIER FOOTINGS shall extend a minimum of 3" into solid rock or to the elevation shown, whichever is lower.

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

WORK SCHEDULE: Erection of structural steel over the tracks or any other work that will interrupt operation of trains shall be performed only between November 1 and March 31 inclusive.

ALIGNING RAILROAD TRACKS: After the Contractor has completed all excavation and backfill adjacent to the railroad tracks in compliance with Sec. E-204 and E-208 of the Construction and Material Specifications, subject to the supervision and approval of the Railroad Company, nothing in Sec. E-204, E-208 or G-8.07 of the Specifications shall be construed to hold the Contractor liable for aligning and re-surfacing the railroad tracks.

RAILROAD AERIAL LINES shall 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.

MACHINE FINISH: The top of the bridge deck slab shall be machine finished (Sec. 5-1.23).

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

CONSTRUCTION CLEARANCE of 20' vertically above the top of the railroad rails and 8' horizontally from the center of the tracks shall be maintained at all times.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

ESTIMATED QUANTITIES
& GENERAL NOTES
BRIDGE No. ERI. 6-0674 LEFT & RIGHT
OVER
PENNSYLVANIA RAILROAD &
OLD RAILROAD ROAD
ERIE CO. Sta. 605+56.49 to Sta. 610+83.19

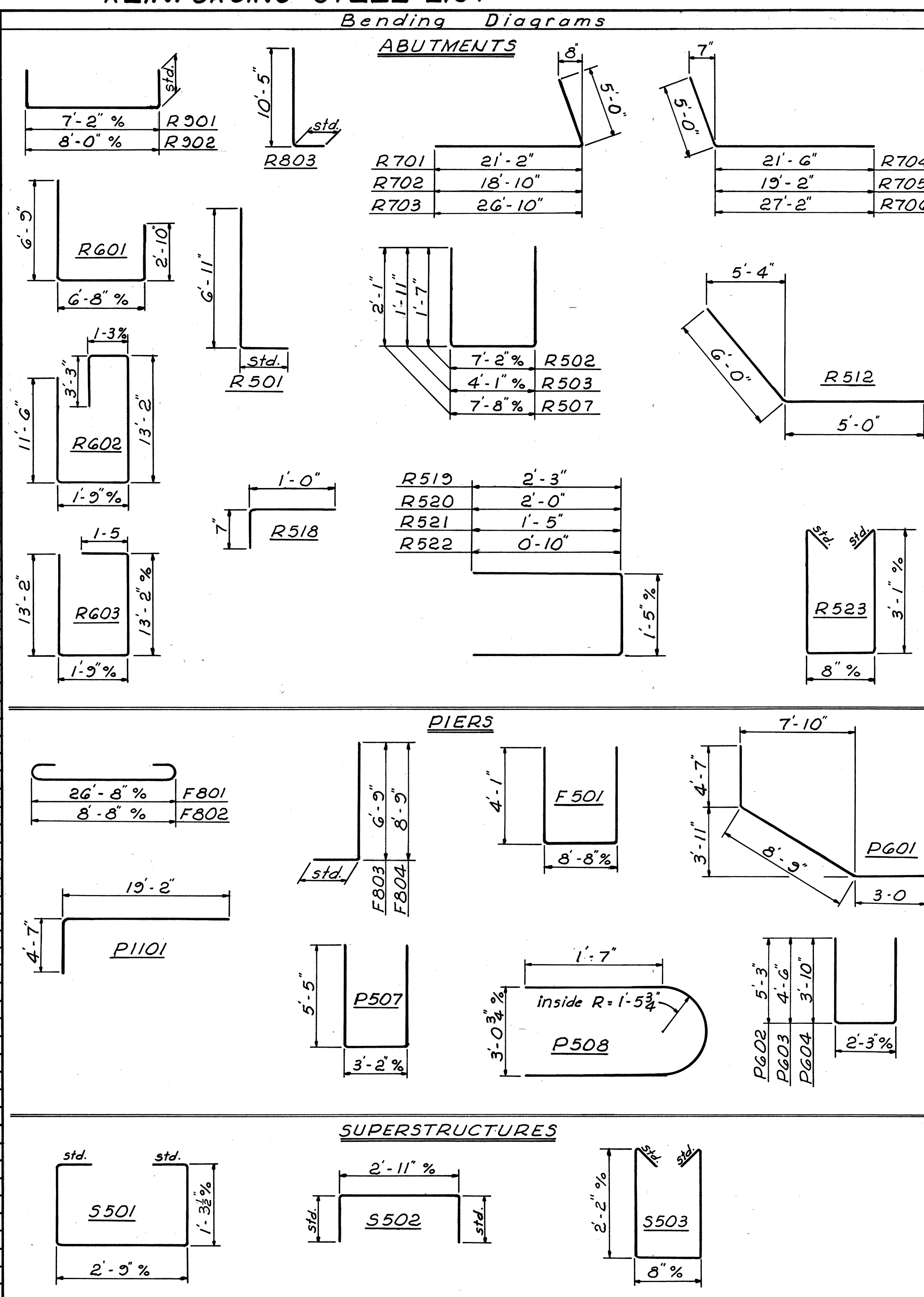
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDP	JEC HDP		B. J. H. T. F. H.	FCM 95-61		

MICROFIL
SEP 11 1986

ERI. 6-3.80; ERI. 2-4.02

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape	Mark	No.	Length	Weight	Shape
ABUTMENTS					PIERS				
R901	36	9'-2"	1122	B	F801	36	28'-10"	2771	B
R902	36	10'-0"	1224	B	F802	216	10'-10"	6248	B
					F803	80	7'-8"	1638	B
					F804	80	9'-8"	2065	B
R801	64	21'-7"	3688	S					
R802	80	24'-4"	5138	S					
R803	200	11'-4"	6052	B					
R804	104	11'-8"	3240	S	F501	16	16'-7"	277	B
R701	12	26'-0"	638	B	P1101	32	23'-5"	3981	B
R702	16	23'-8"	774	B	P1102	48	34'-8"	8841	S
R703	8	31'-8"	518	B					
R704	12	26'-4"	646	B					
R705	16	24'-0"	785	B	P601	24	16'-2"	583	B
R706	8	32'-0"	523	B	P602	96	12'-5"	1790	B
					P603	128	10'-11"	2099	B
					P604	128	9'-7"	1842	B
R601	192	15'-11"	4590	B					
R602	132	30'-3"	5997	B	P501	72	15'-6"	1164	S
R603	48	29'-0"	2091	B	P502	66	17'-3"	1187	S
					P503	22	18'-2"	417	S
R501	192	7'-5"	1485	B	P504	8	18'-8"	156	S
R502	192	10'-1"	2019	B	P505	8	28'-0"	234	S
R503	176	7'-8"	1407	B	P506	16	34'-8"	579	S
R504	184	18'-11"	3630	S	P507	96	13'-9"	1377	B
R505	4	27'-9"	116	S	P508	72	7'-11"	595	B
R506	8	5'-6"	46	S					
R507	224	11'-7"	2706	B					
R508	104	9'-6"	1030	S					
R509	104	11'-7"	1256	S					
R510	56	21'-2"	1236	S					
R511	48	3'-9"	188	S					
R512	16	10'-11"	182	B					
R513	16	5'-0"	83	S					
R514	16	4'-3"	71	S					
R515	48	3'-7"	179	S					
R516	16	29'-2"	487	S					
R517	8	26'-7"	222	S					
R518	152	1'-6"	238	B					
R519	80	5'-8"	473	B					
R520	24	5'-2"	129	B					
R521	24	4'-0"	100	B					
R522	24	2'-10"	71	B					
R523	152	7'-5"	1176	B					
R524	16	27'-0"	451	S					
R525	8	27'-4"	228	S					
R526	32	13'-10"	462	S					
R527	16	26'-8"	445	S					
R528	16	26'-11"	*	S					
R529	16	26'-9"	*	S					



Mark	No.	Length	Weight	Shape
SUPERSTRUCTURES				
S701	1394	36'-3"	103,288	S
S601	1394	36'-3"	75,900	S
S602	1482	42'-0"	93,490	S
S603	88	40'-0"	5287	S
S604	176	20'-0"	5287	S
S605	88	7'-0"	925	S
S501	1396	6'-1"	8858	B
S502	1396	3'-11"	5702	B
S503	1428	5'-7"	8316	B
S504	32	13'-9"	*	S
S505	16	10'-6"	*	S
S506	16	6'-6"	*	S
S507	432	17'-4"	*	S
REPLACEMENT BARS				
RE1101	1	7'-7"		S
RE901	1	6'-10"		S
RE801	2	6'-6"		S
RE701	6	6'-3"		S
RE601	10	5'-11"		S
RE501	3	5'-7"		S

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used indicate the bar size number. For example, a P501 is a number 5 size bar, and a P1101 is a number 11 size bar.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-402 need not be furnished and replacement bars will not be required.

MICROFIL.
SEP 11 1986

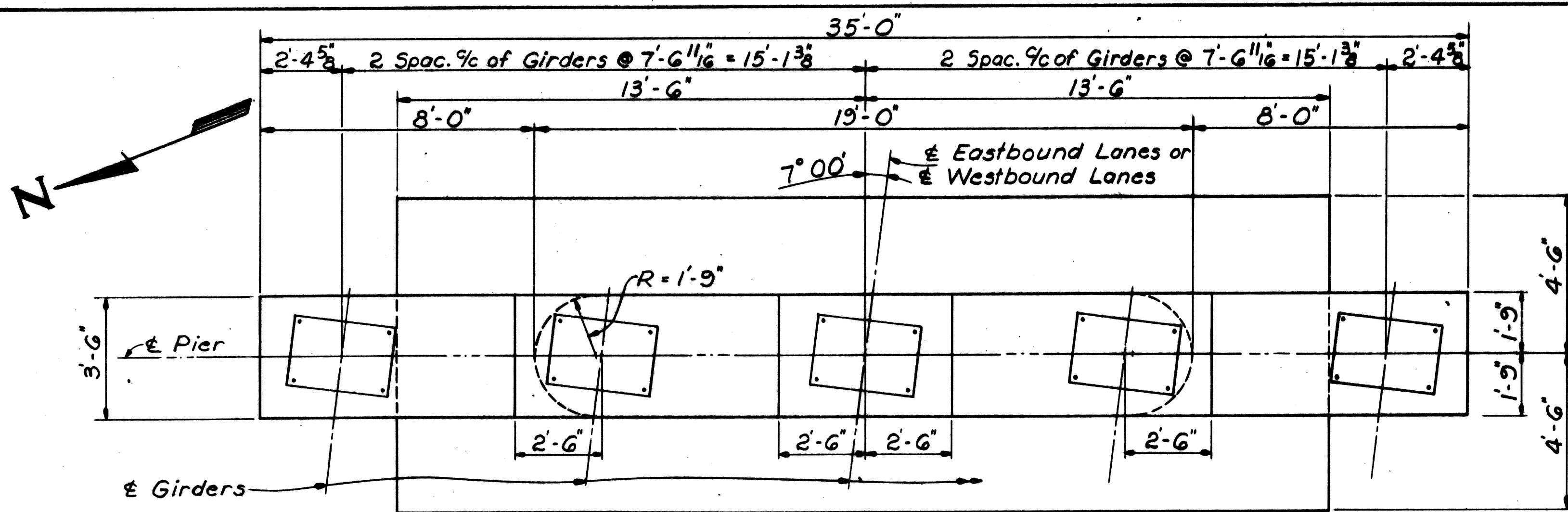
* Included with Item 5-14 for payment

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

REINFORCING STEEL
BRIDGE No. ERI. 6-067A LEFT & RIGHT
OVER
PENNSYLVANIA RAILROAD &
OLD RAILROAD ROAD
Sta. 605+56.49 to
Sta. 610+83.19

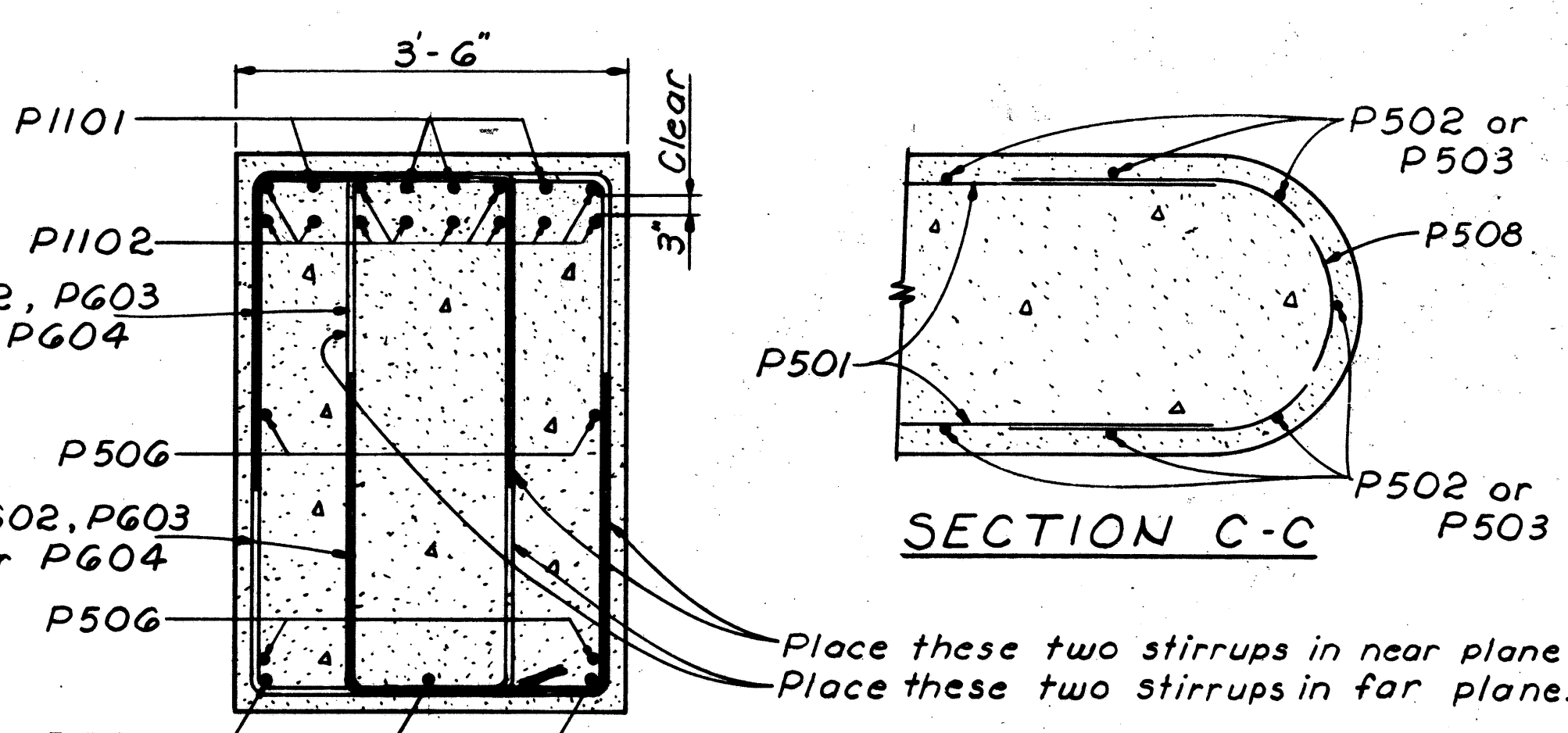
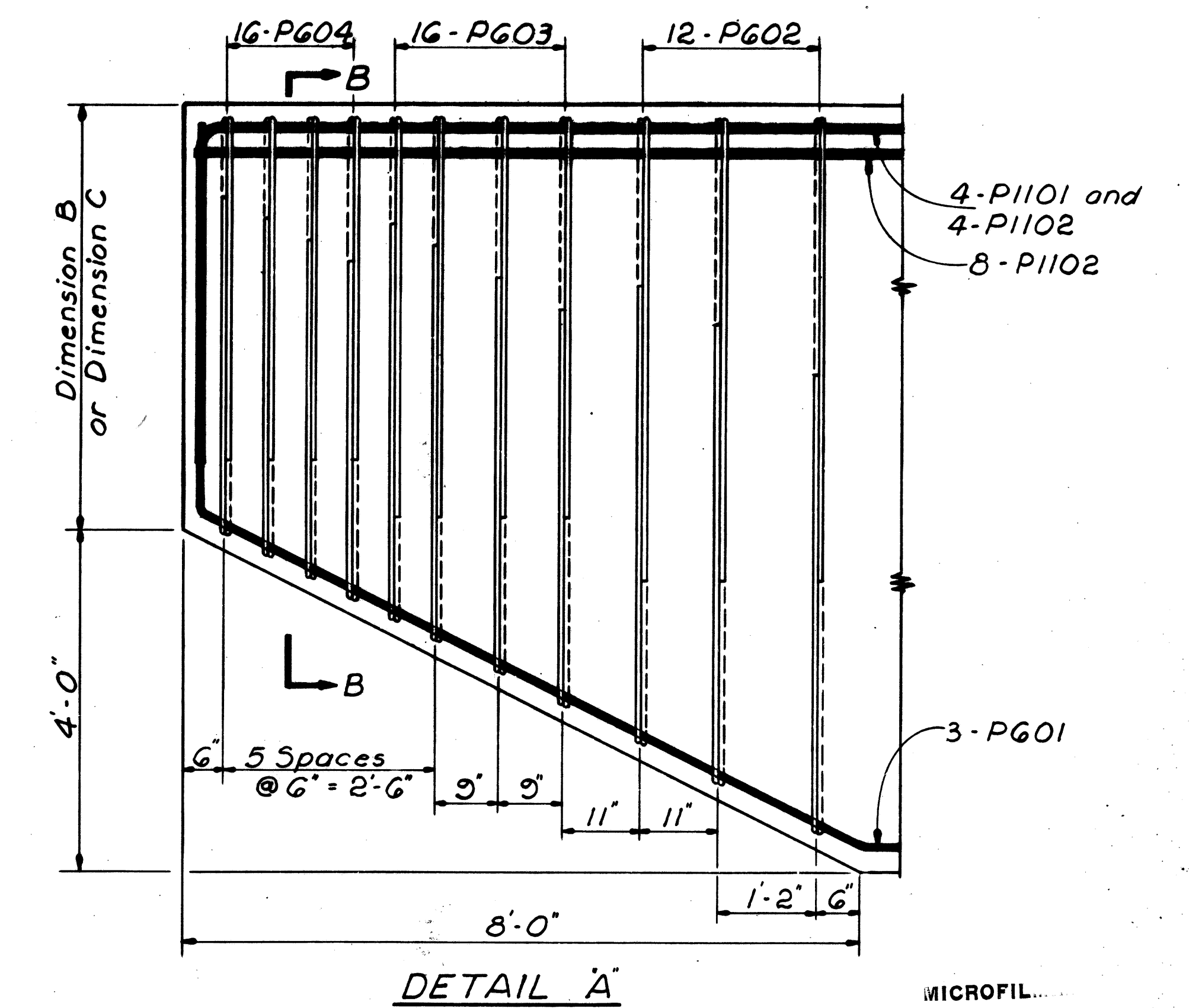
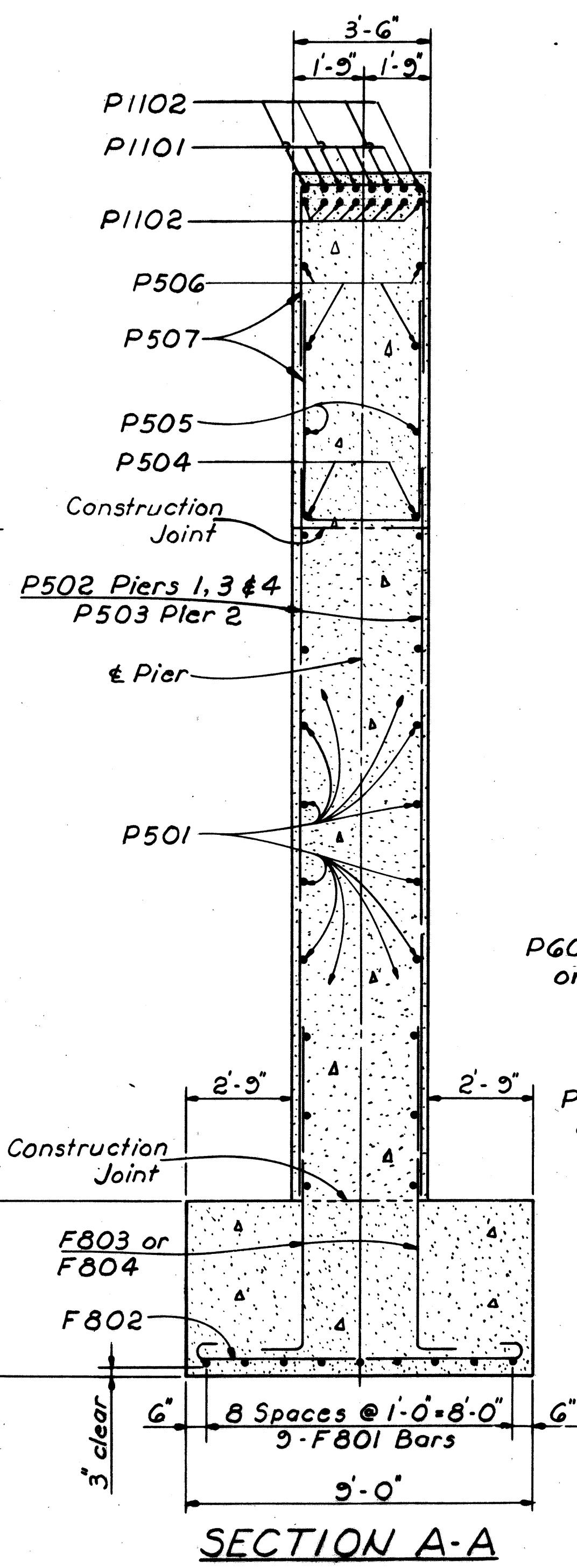
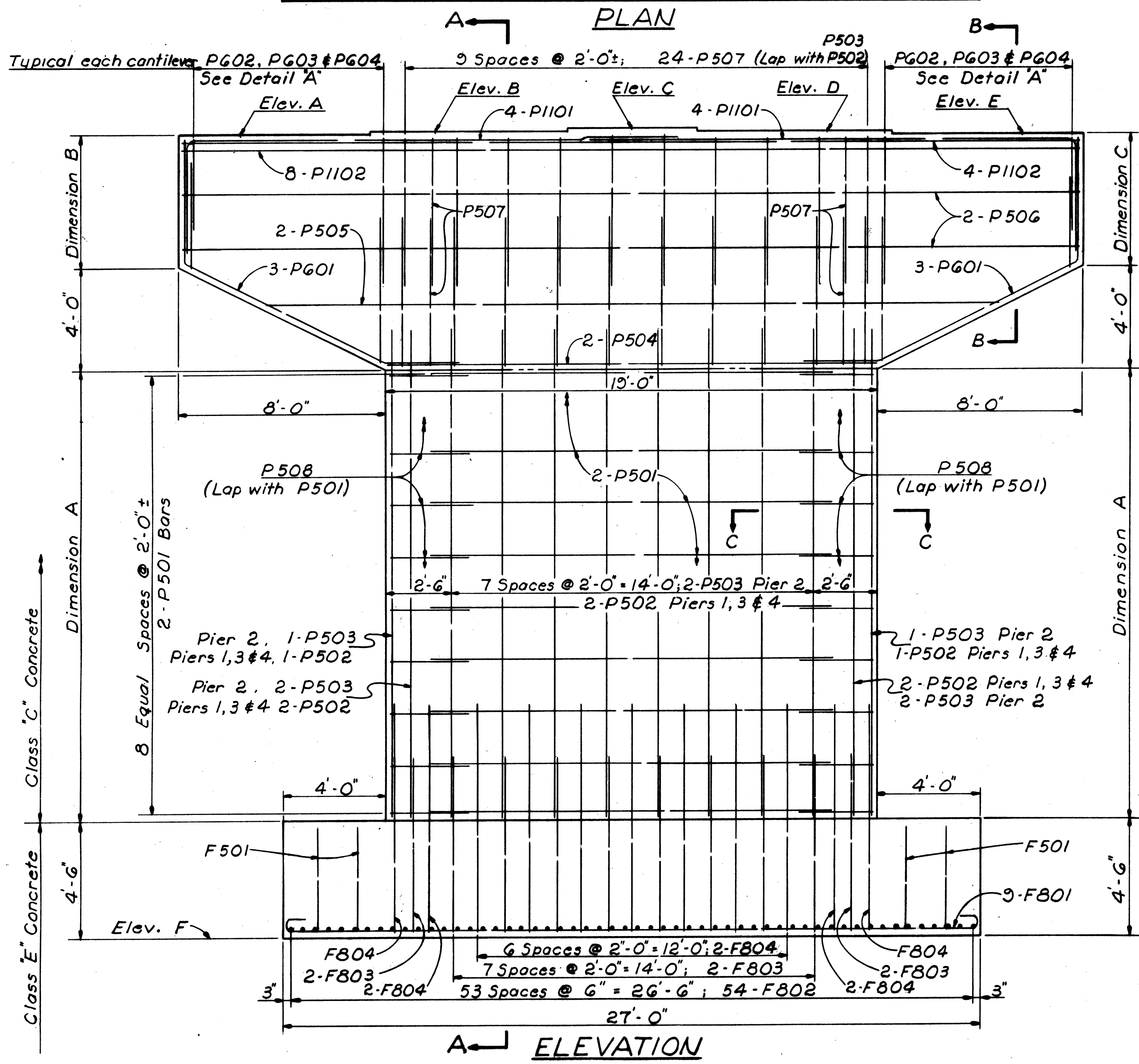
ERIC CO.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDP	HDP		B. J. H.	FCM	9-5-61	
			T. F. H.			



Location	Elevations						Dimensions			
	A	B	C	D	E	F	A	B	C	
Left Bridge	Pier 1	G47.56	G47.68	G47.80	G47.69	G47.58	G18.50	15'-6 3/4"	5'-0"	5'-0 1/4"
	Pier 2	G47.59	G47.70	G47.81	G47.69	G47.57	G17.50	16'-6 7/8"	5'-0 1/4"	5'-0"
Right Bridge	Pier 3	G47.62	G47.74	G47.86	G47.75	G47.63	G18.50	15'-7 1/2"	5'-0"	5'-0 3/8"
	Pier 4	G47.53	G47.65	G47.76	G47.64	G47.52	G19.00	15'-0 1/4"	5'-0 1/8"	5'-0"

FED. RD. DIVISION 2 STATE OHIO PROJECT F-FG-1042(5) TYPE FUNDS 189 220
 ERI. G-3.80; ERI. 2-4.02

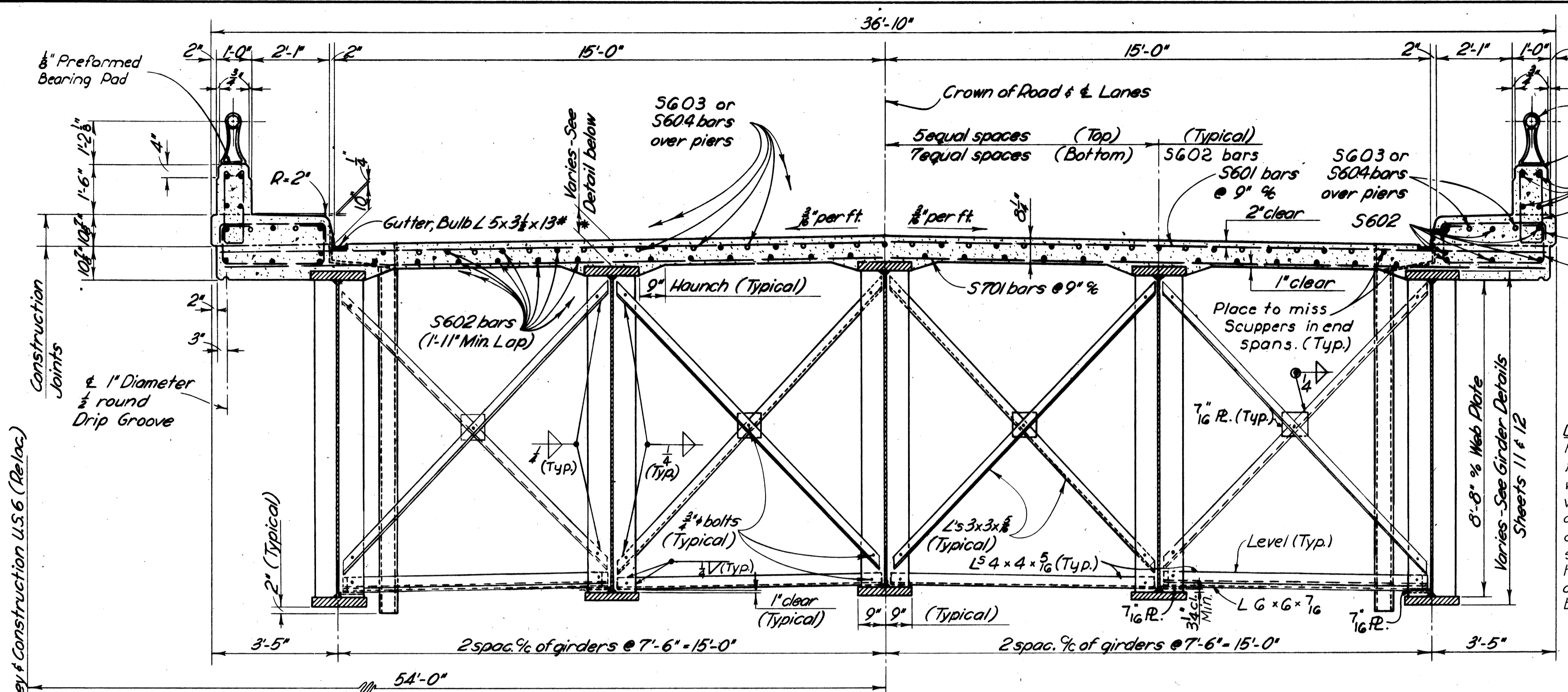


Note: Special core shall be taken in placing reinforcing steel in the pier cap so that it will not interfere with the anchor bolts of rockers and bolsters

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO
 PIERS 1, 2, 3 & 4
 BRIDGE NO. ERI. G-OG74 LEFT & RIGHT OVER PENNSYLVANIA RAILROAD AND OLD RAILROAD ROAD
 STA. 605 + 56.49 TO STA. 610 + 83.19
 ERIE CO.
 DESIGNER: HDP DRAWN: HDP TRACED: BJH CHECKED: BJH REVIEWED: DATE: FCM 9-5-61

MICROFIL SEP 11 1986

ERI. 6-380; ERI. 2-4.02



Type 'A' Railing Post
Standard Drawing
AR-1-57

8 Brg. pad. See Note B' sh. 183

E Bars See Parapet
S503 Wall Detail

S502 @ 1'-6\"/>

S501 @ 1'-6\"/>

Gutter support L 2 1/2 x 2 1/2 x 1/2
Spaced @ 4'-0\"/>

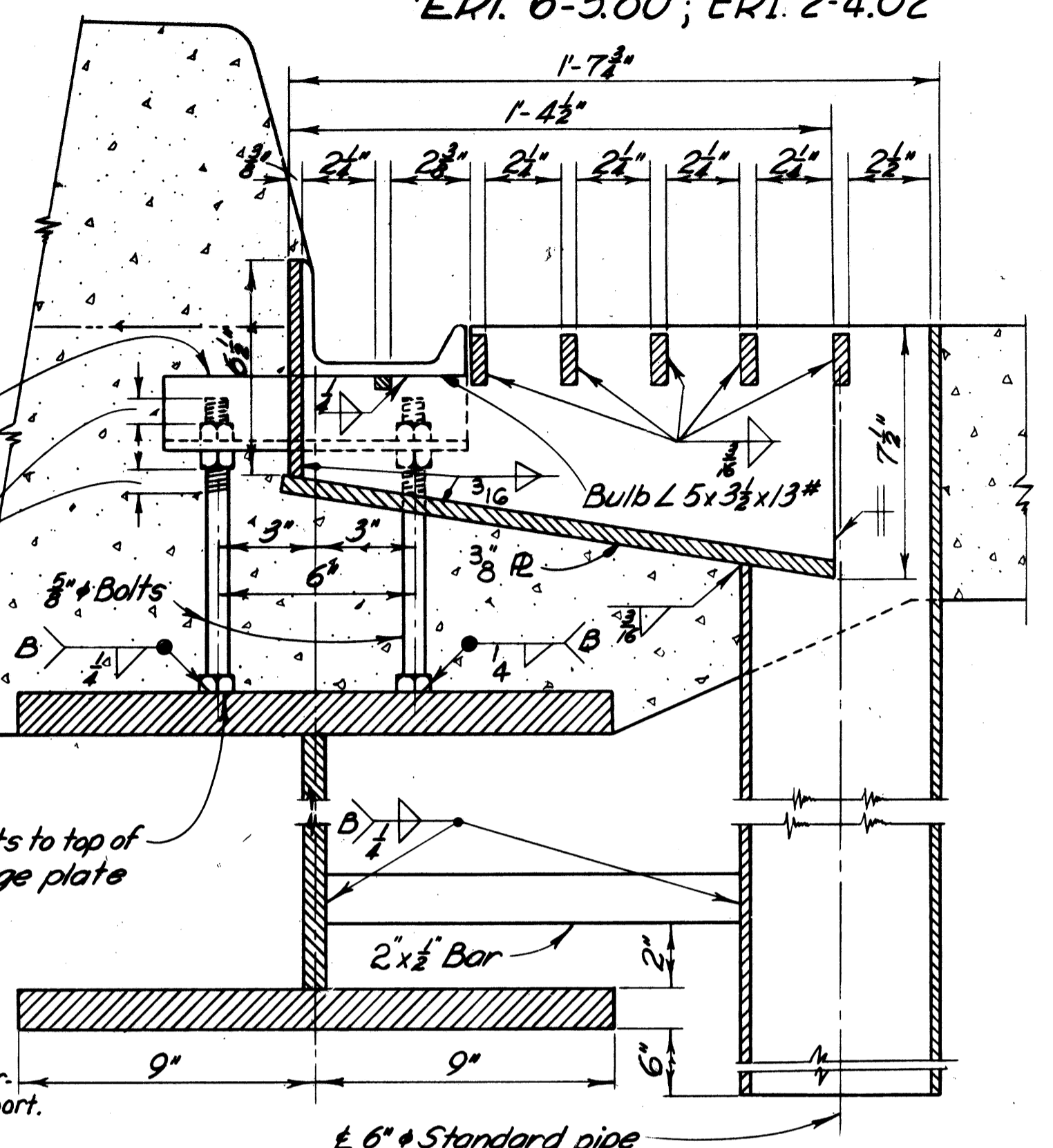
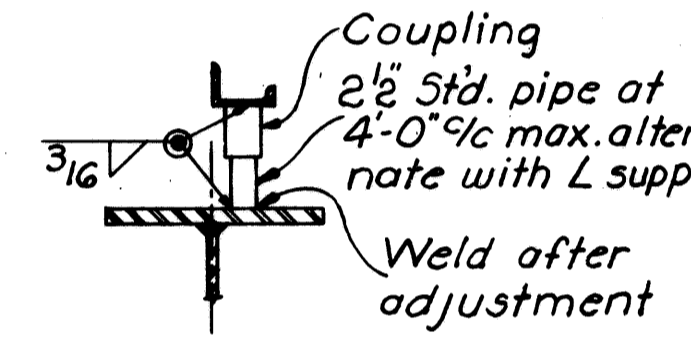
3\"/>

3\"/>

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9\"/>

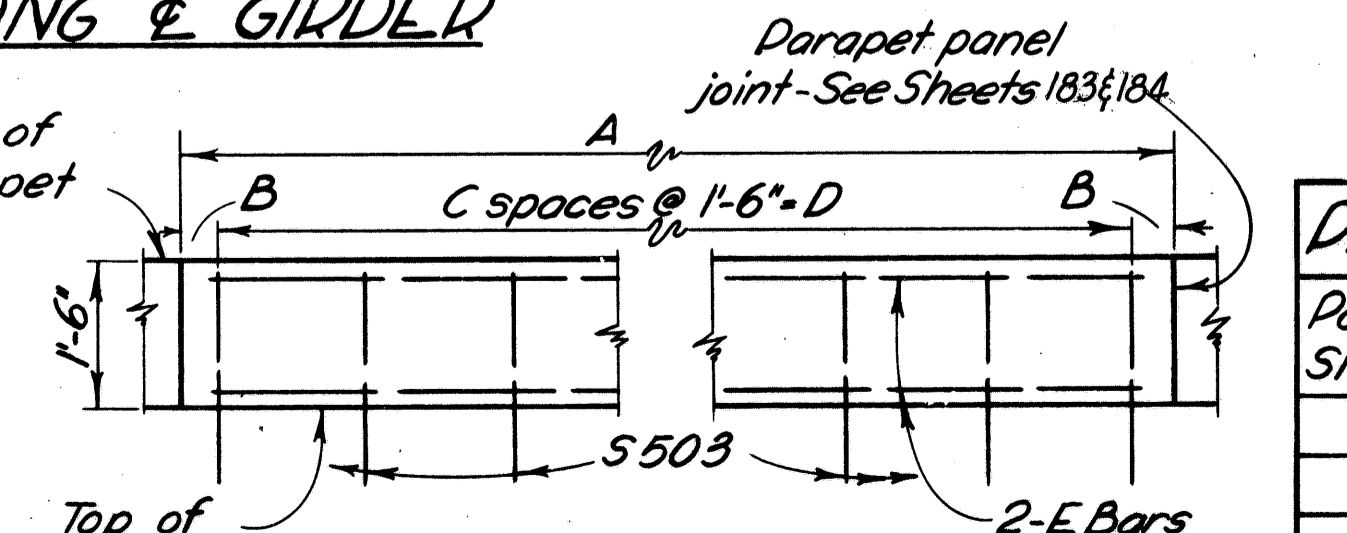
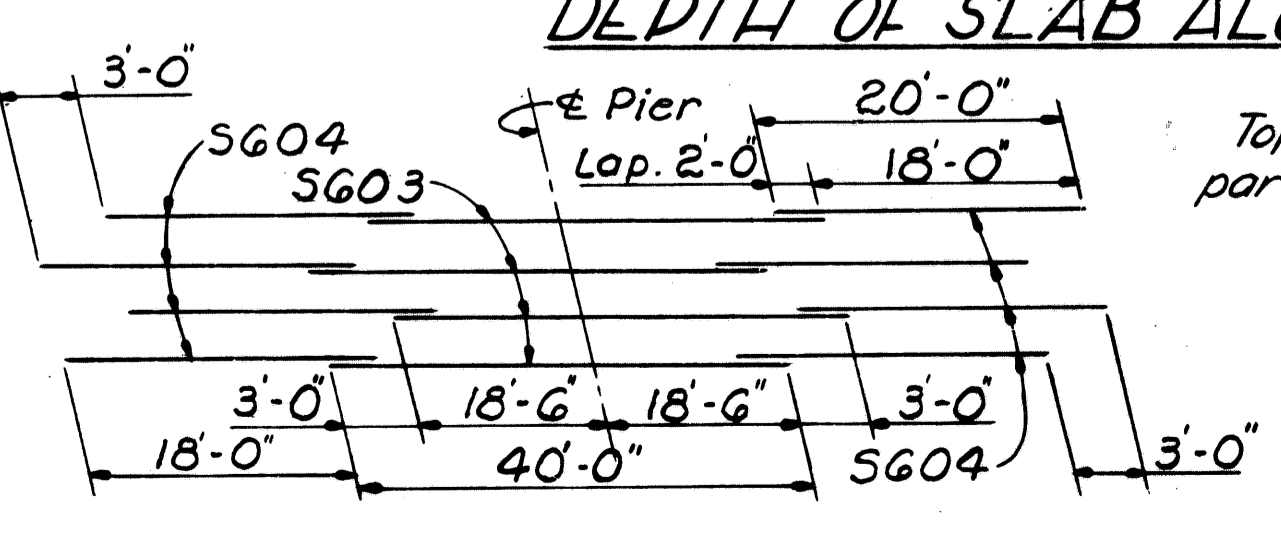
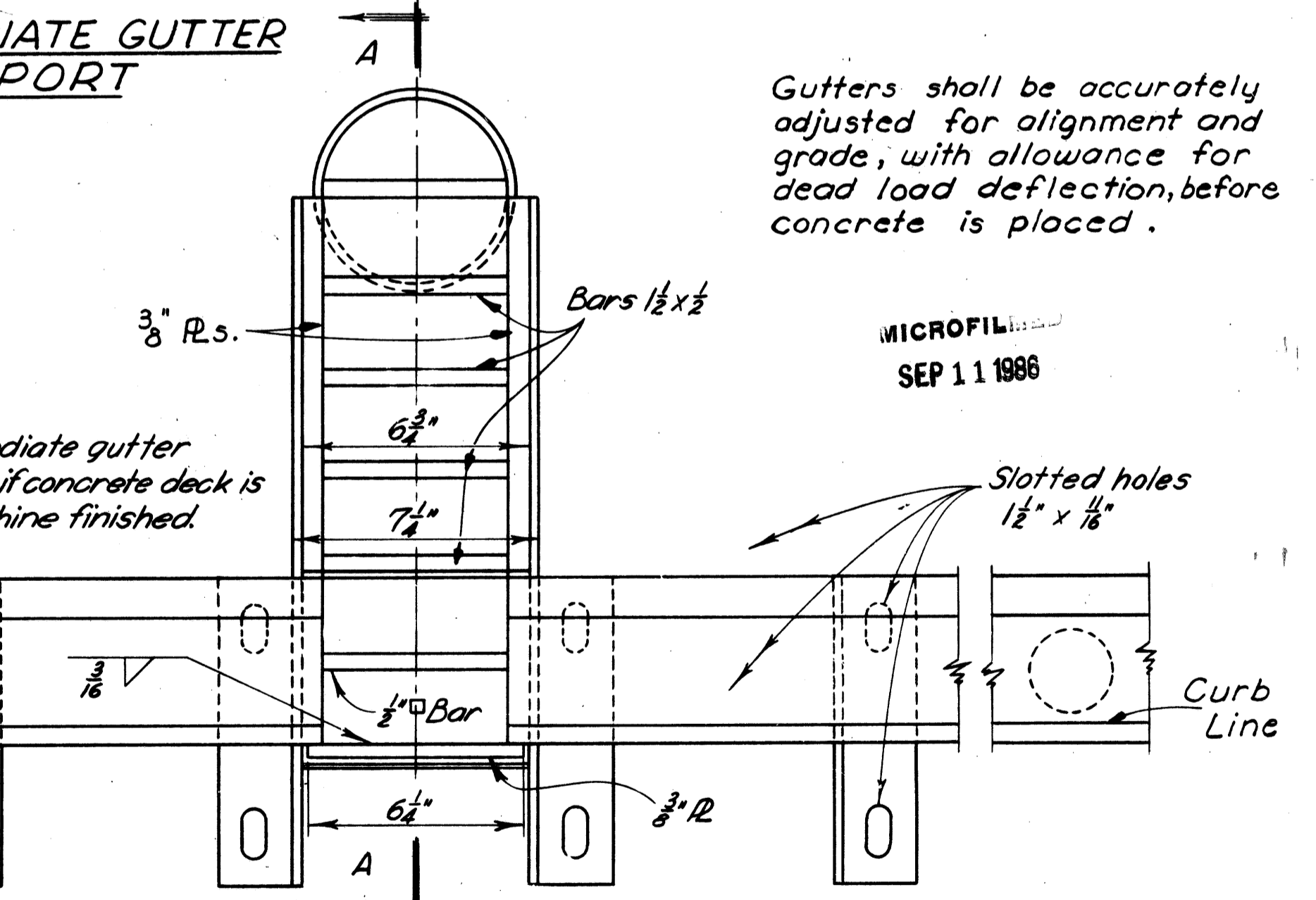
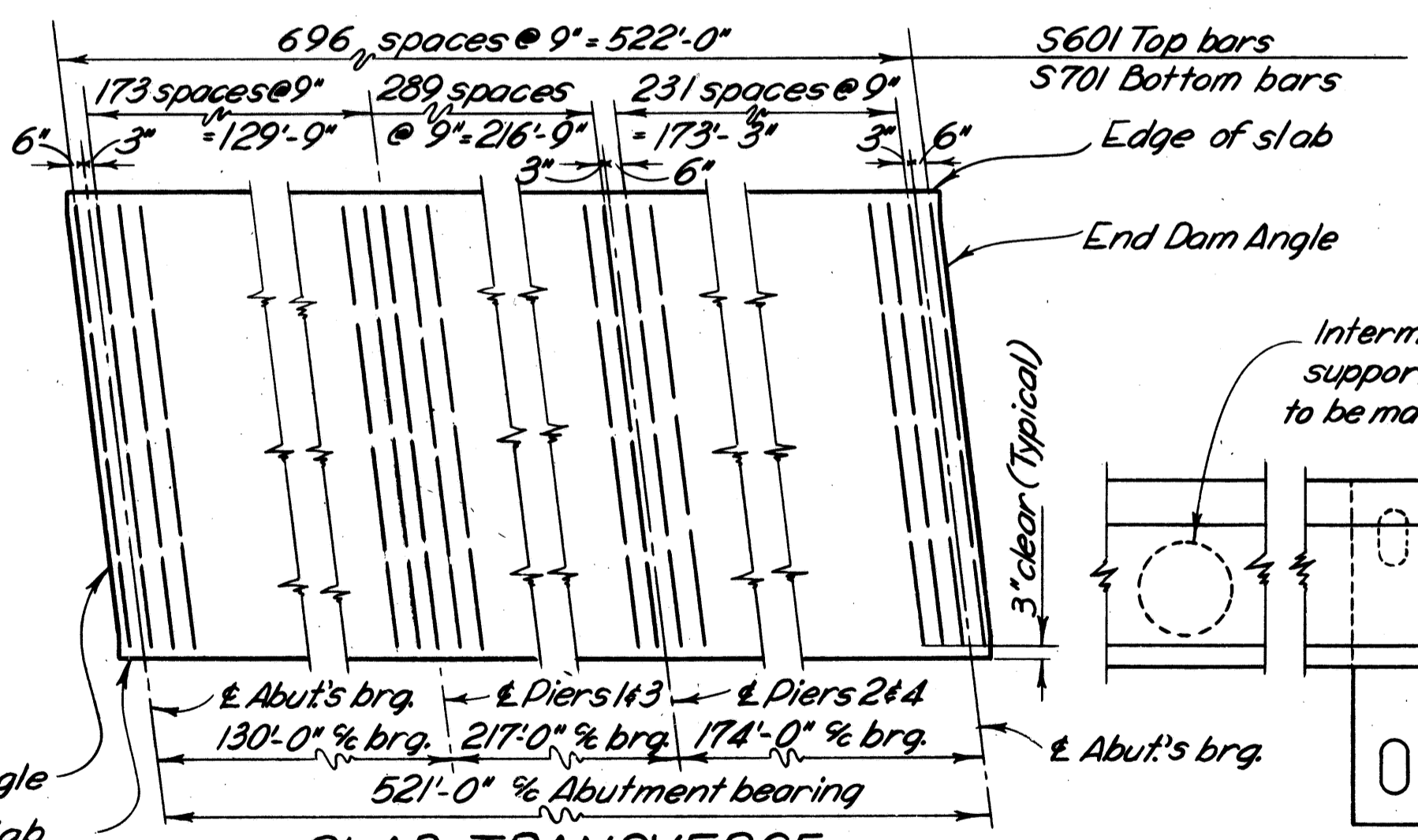
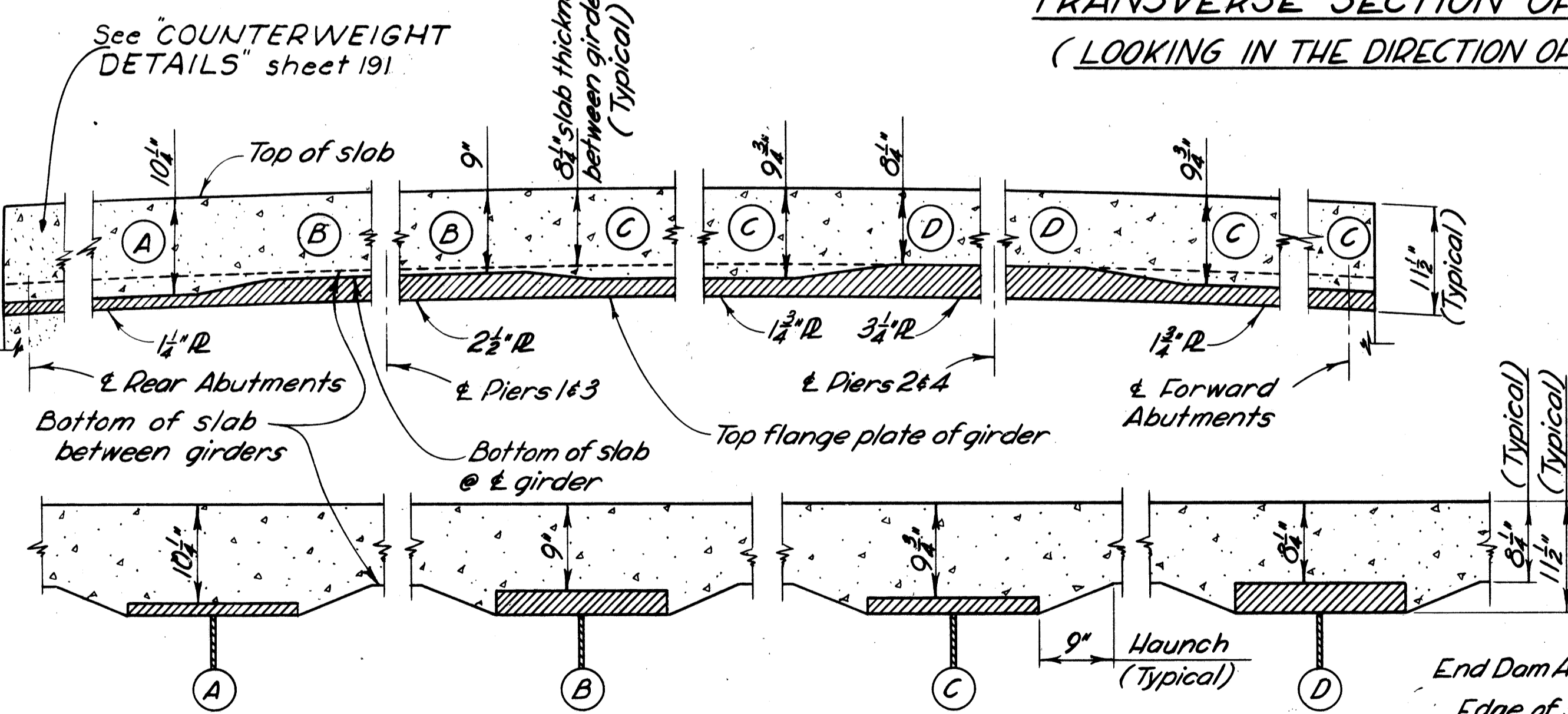
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3\"/>

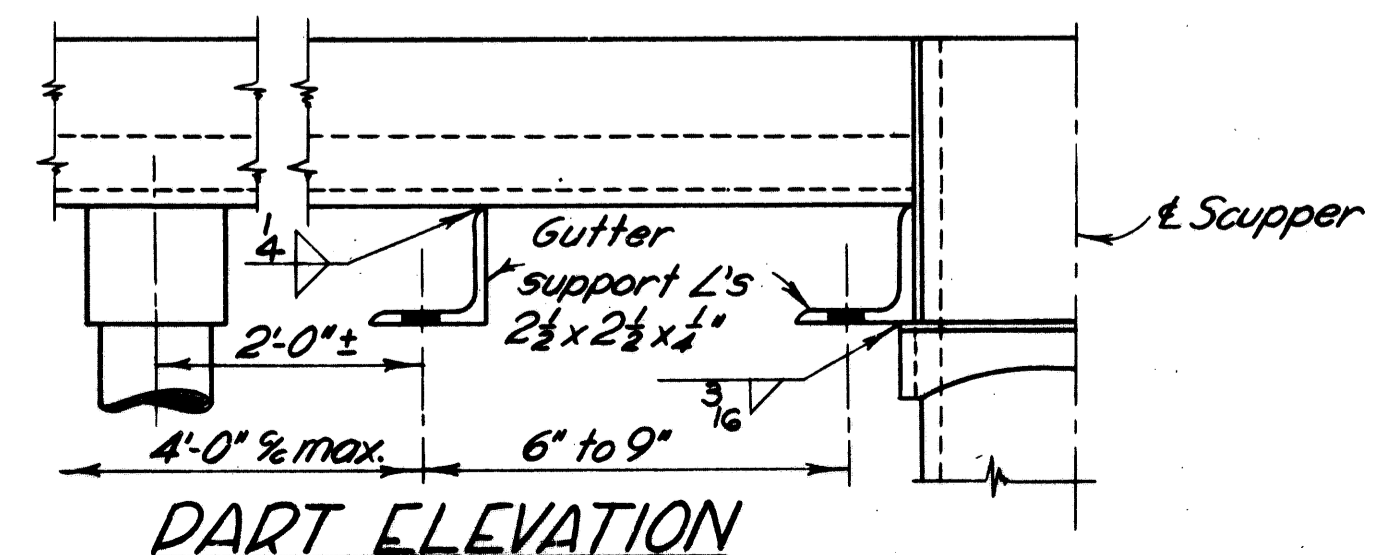


*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

TRANSVERSE SECTION OF DECK
(LOOKING IN THE DIRECTION OF TRAFFIC)



Panel - See Sheets 183 & 184	A	B	C	D	No. of S503 Bars	E
End	14'-1 1/4"	3 3/8"	9	13'-6"	10	S504
Pier	10'-10"	2"	7	10'-6"	8	S505
Pier	6'-10"	5"	4	6'-0"	5	S506
Intermediate	17'-8"	7"	11	16'-6"	12	S507



SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. ERI. 6-0674 LEFT & RIGHT
OVER
PENNSYLVANIA RAILROAD &
OLD RAILROAD ROAD

Sta 605+56.49 to
Sta 610+83.19

ERIC CO

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDP	JEC		BJH	FCM	9-5-61	

Survey & Construction U.S. 6 (Reloc.)

Construction Joints

See "COUNTERWEIGHT DETAILS" sheet 191

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10 1/2\"/>

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3'-0\"/>

18'-0\"/>

3'-0\"/>

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3'-0\"/>

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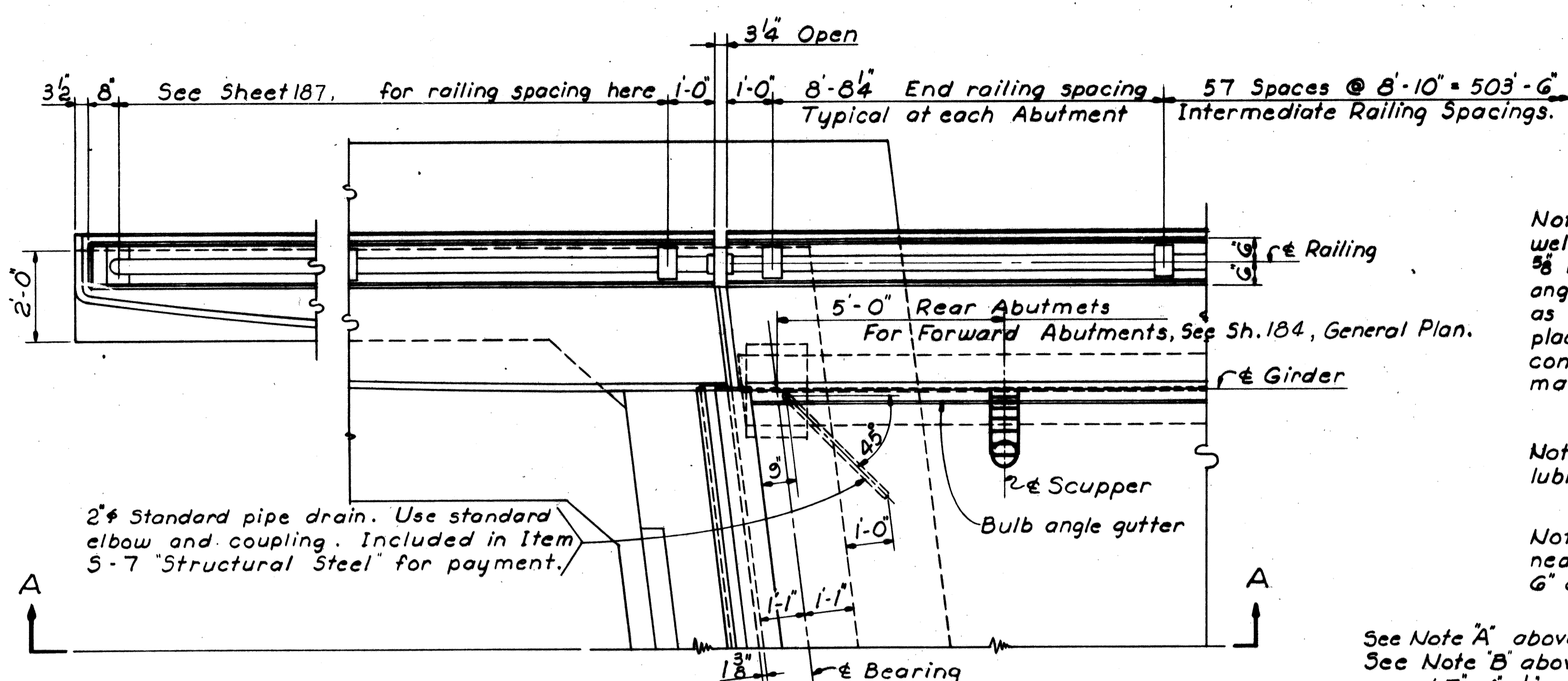
Omit shop coat on all portions of end dam. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.

Note A: 5/8" x 2" bolts at not more than 2'-0" c/c with nuts tack-welded to underside of lower angle. 1 1/16" holes in upper angle. Center 3/8" bolts in 1 1/16" holes. Apply flake graphite between washers and angle. Turn bolt tight and release one-half turn. Remove bolts as soon as concrete has set, preferably within two hours after placing, to avoid damage due to temperature expansion or contraction of superstructure. Fill holes with bituminous material.

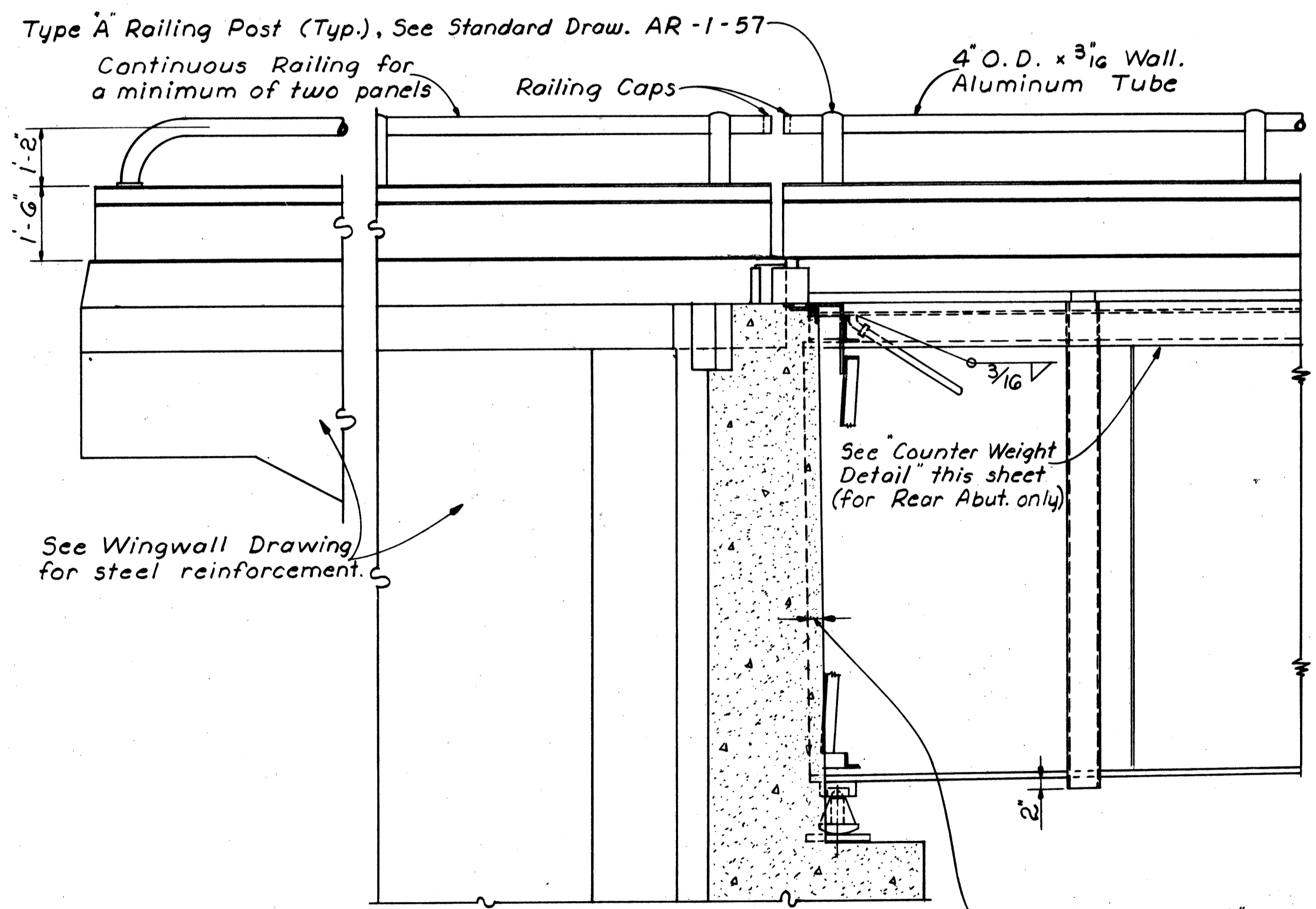
Note B: This contact surface shall not be painted and shall be lubricated with flake graphite prior to placing of backwall concrete.

Note C: 6" x 2" x 1'-0" plates spaced at approximately 15" c/c except near joints in the angle, where the plates shall be placed within 6" of each side of the joint. The holes may be burned in the plates.

A welded butt joint in the end dam, along the centerline of roadway, will be required for that portion of the end dam attached to the superstructure. The portion attached to the backwall shall be placed in segments not less than 6'-0" in length, with one of the joints at the apex of the crown. These shall be closely butted but shall not be welded.

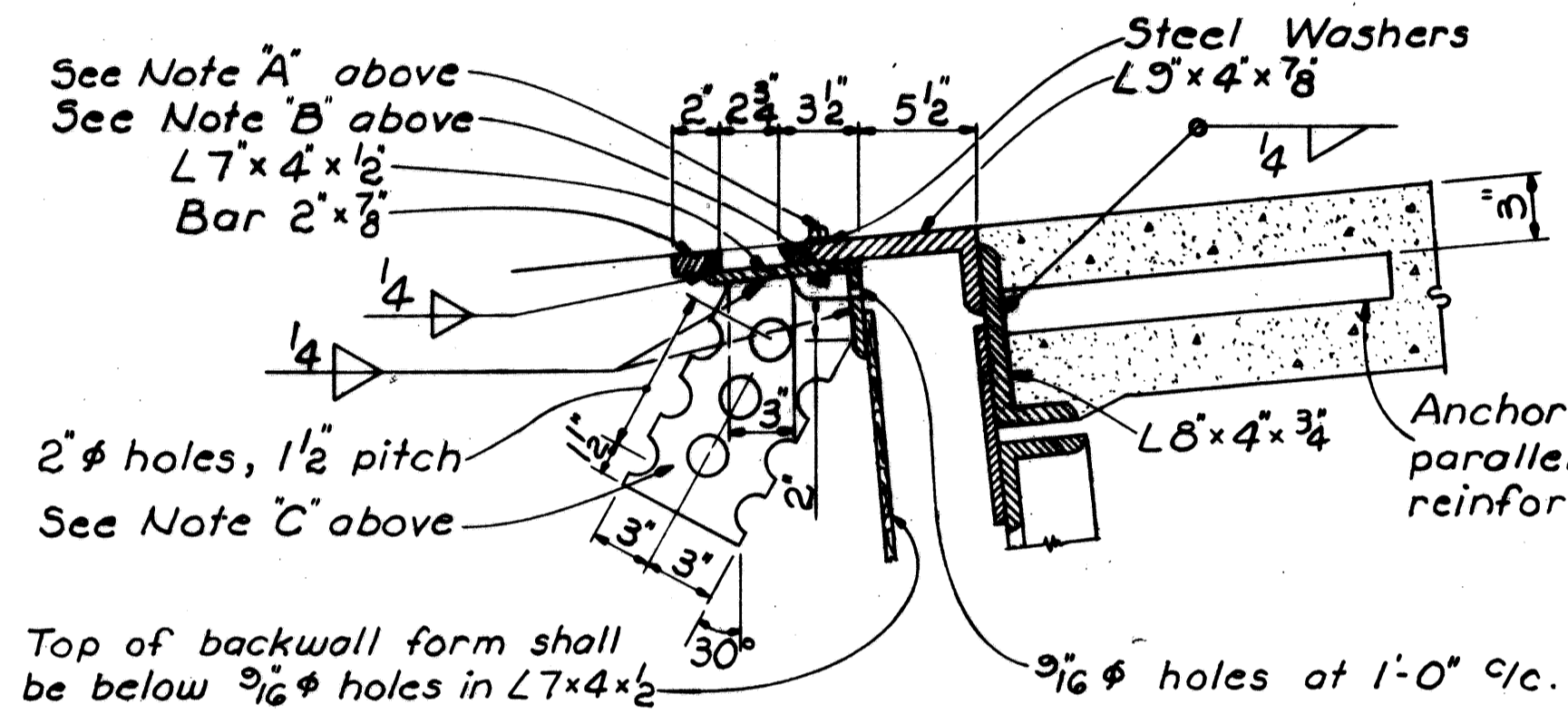


PART PLAN AT ABUTMENT

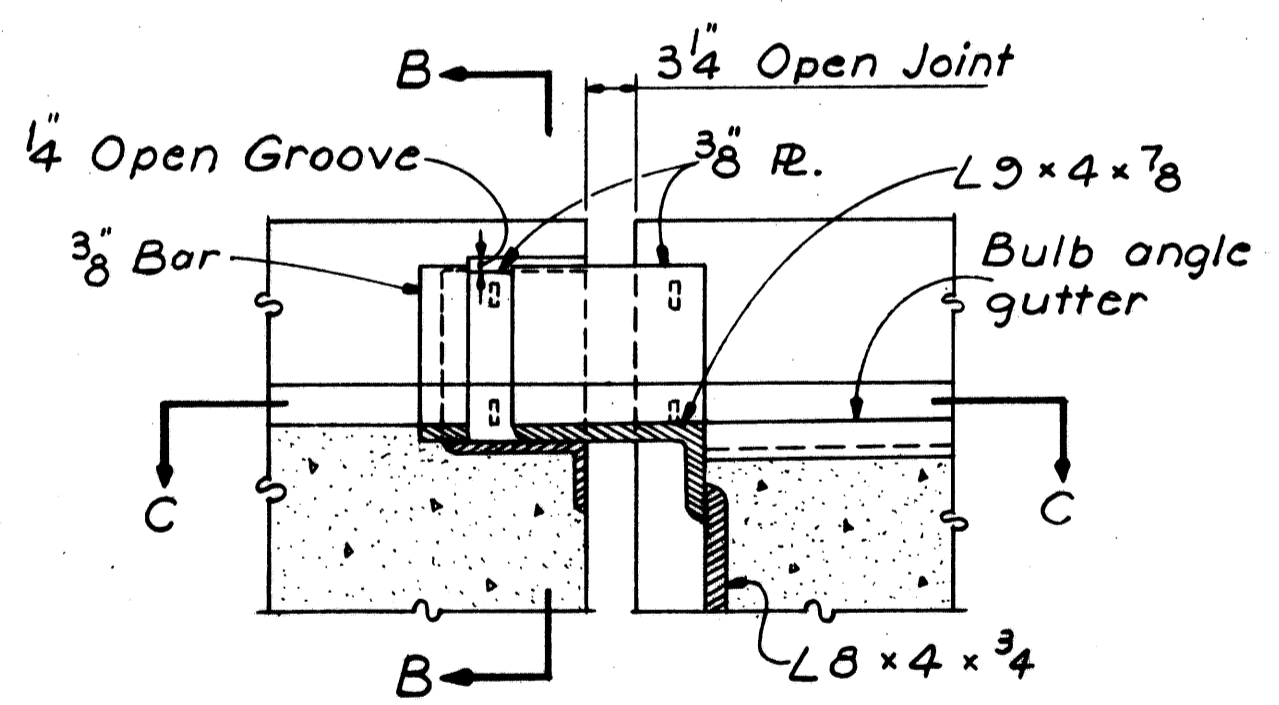


SECTION A-A

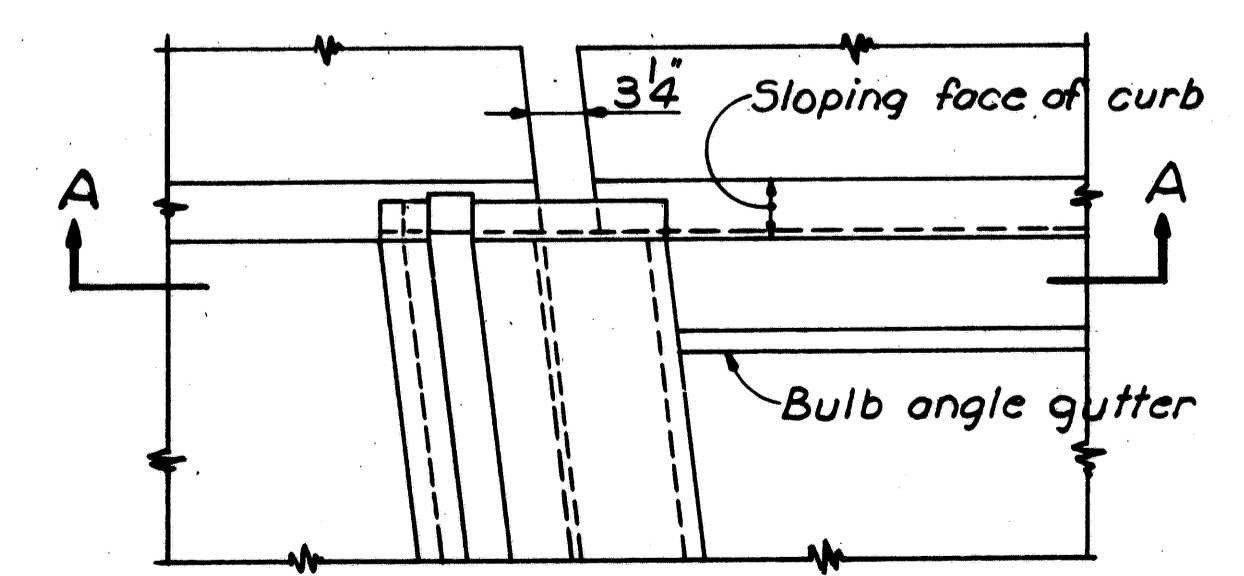
End of girder 3 1/2" clear from face of backwall.



ROADWAY END DAM

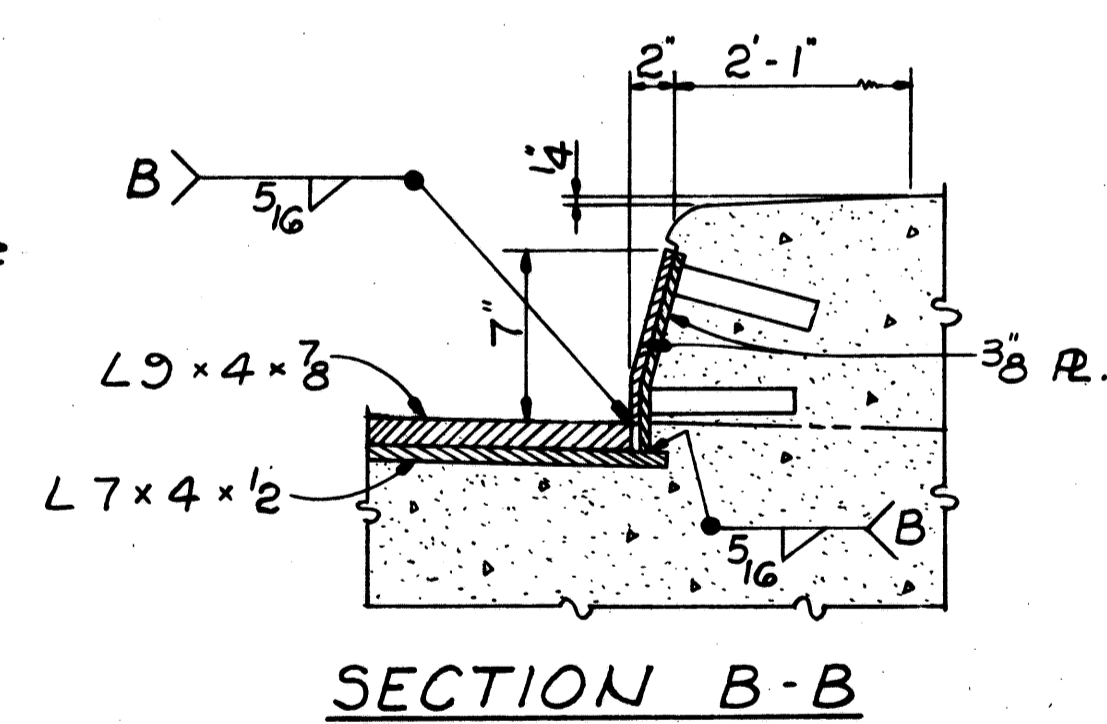


SECTION A-A

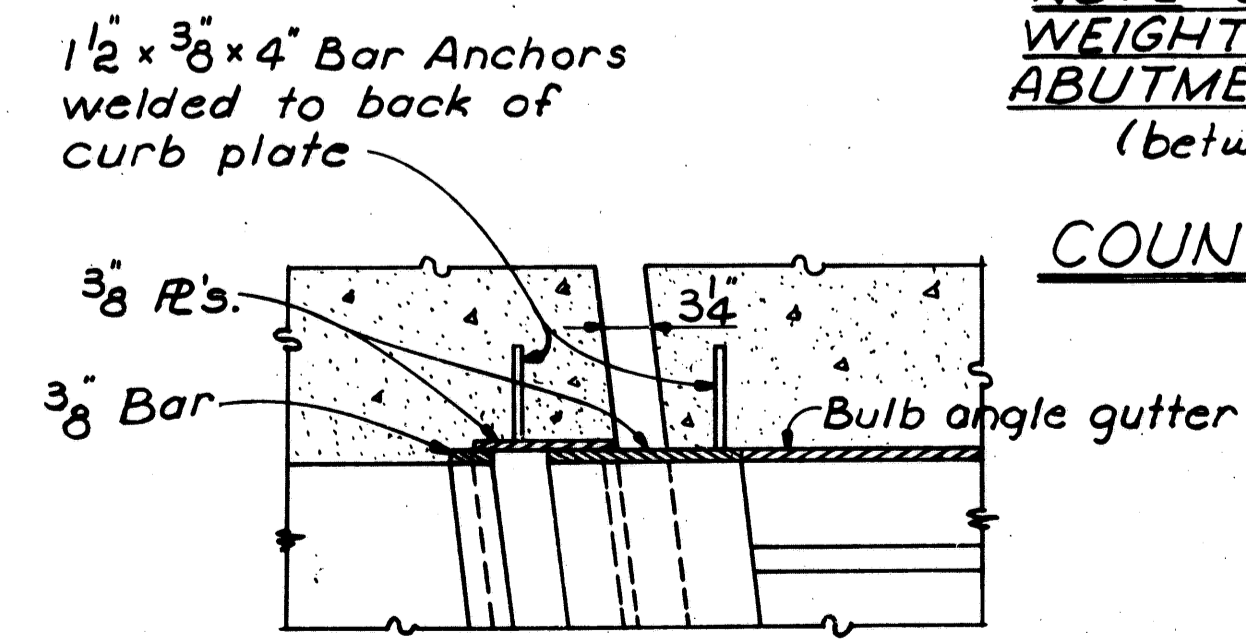


PART PLAN

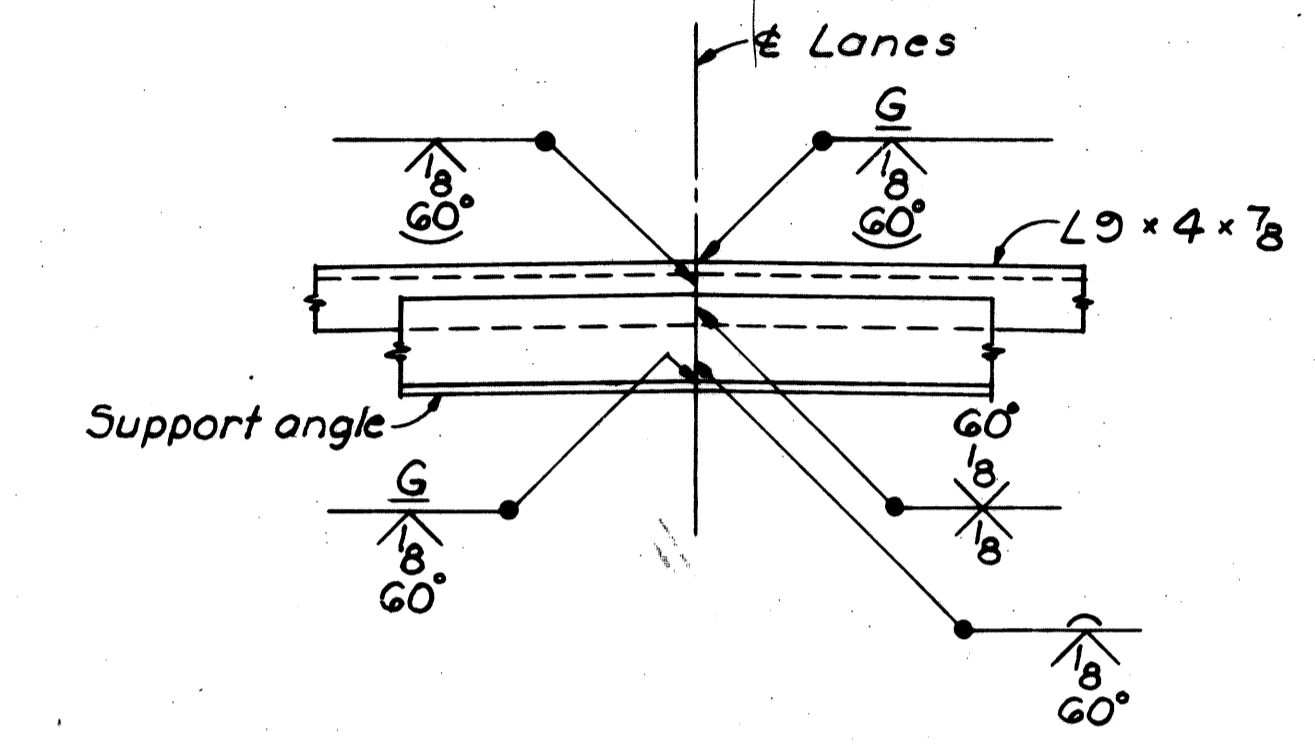
CURB PLATE DETAILS



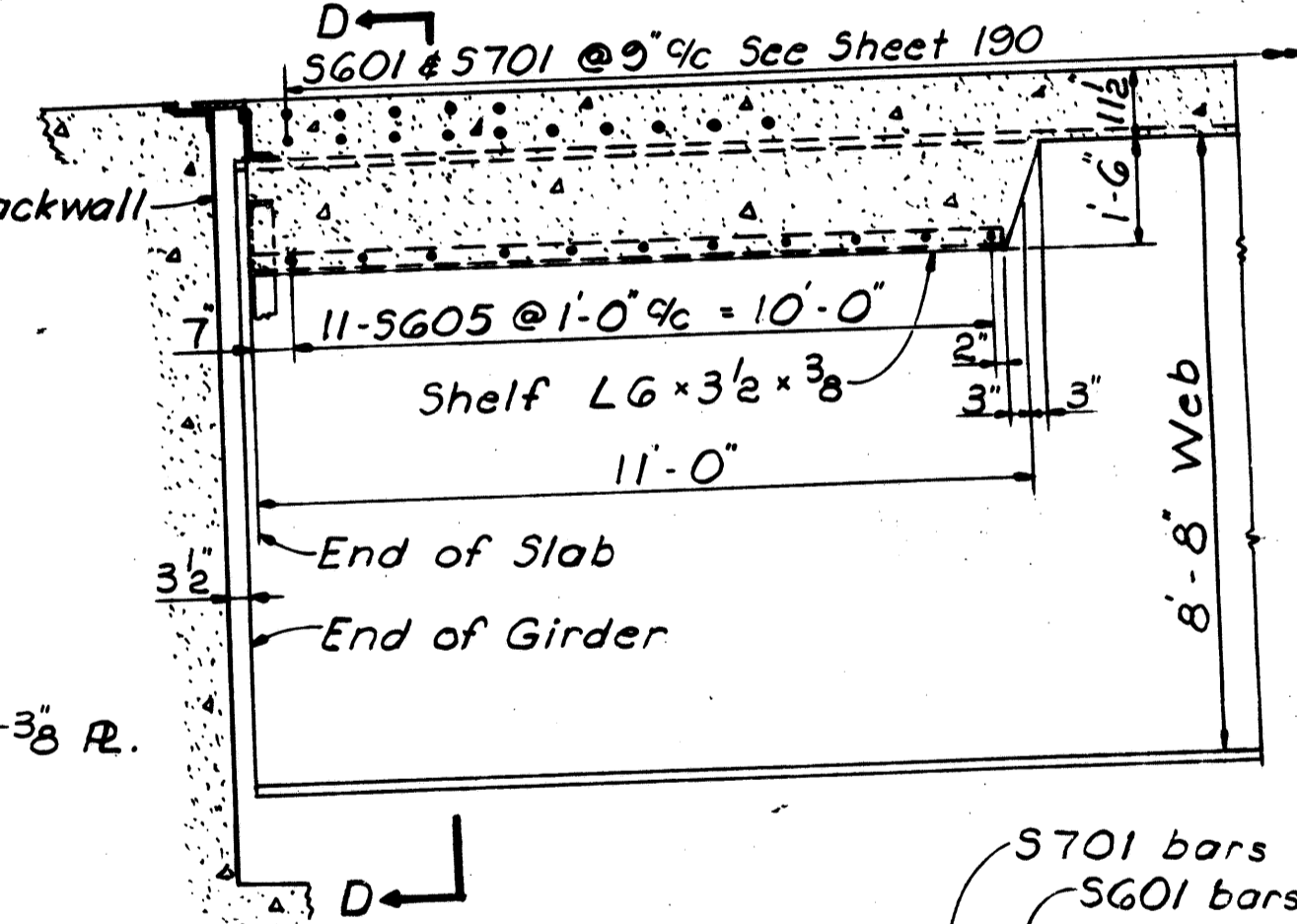
SECTION B-B



SECTION C-C



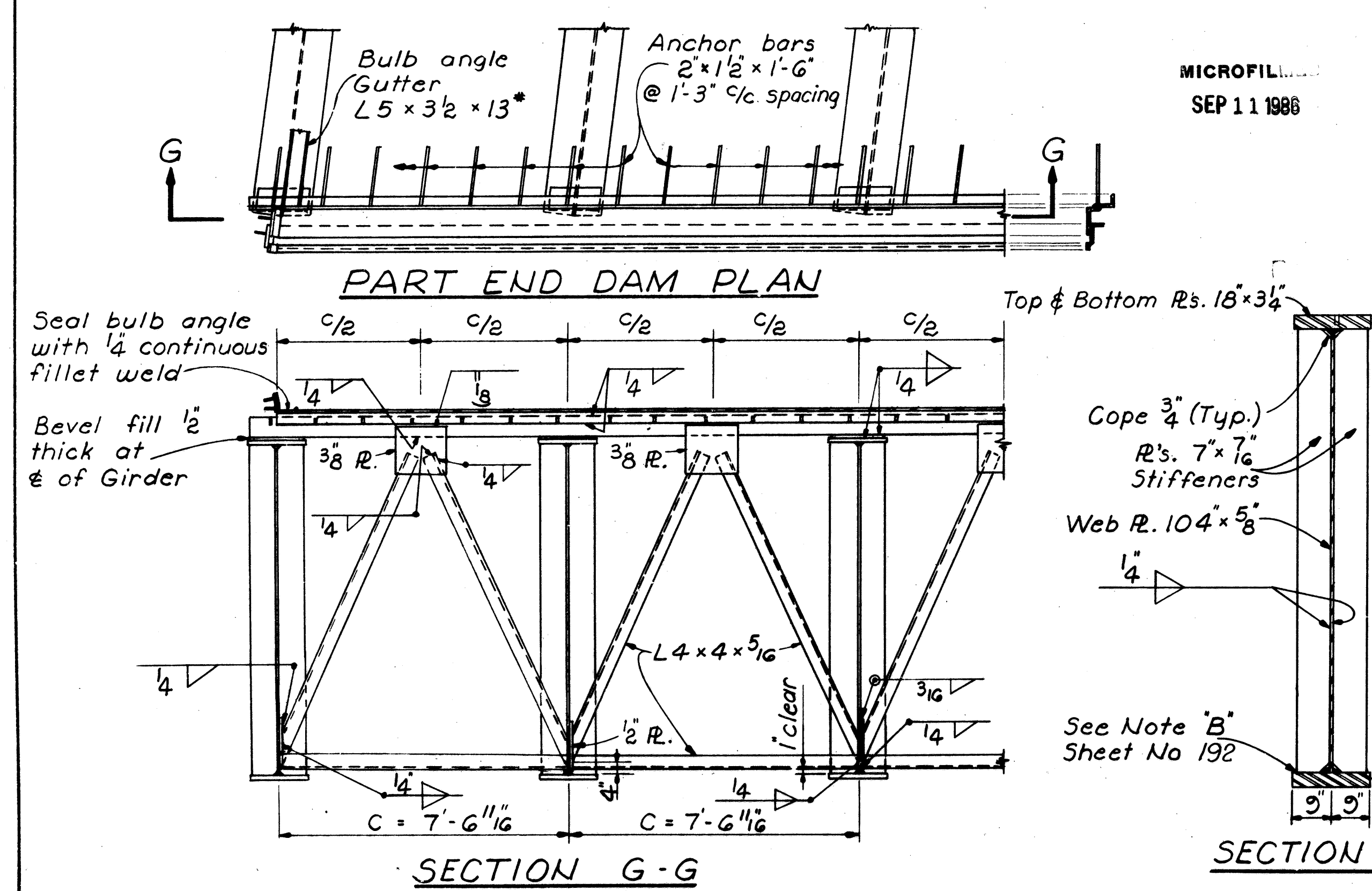
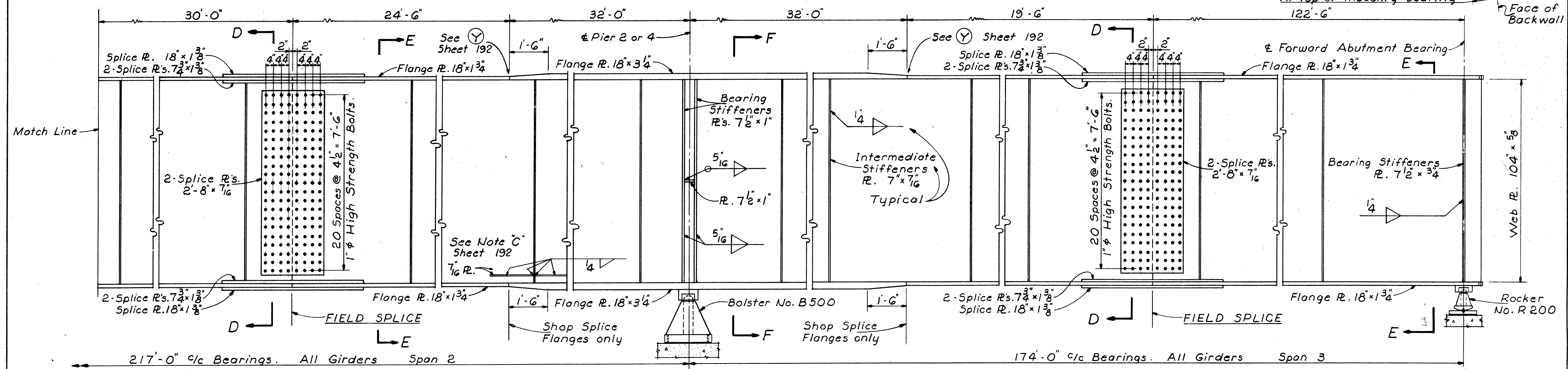
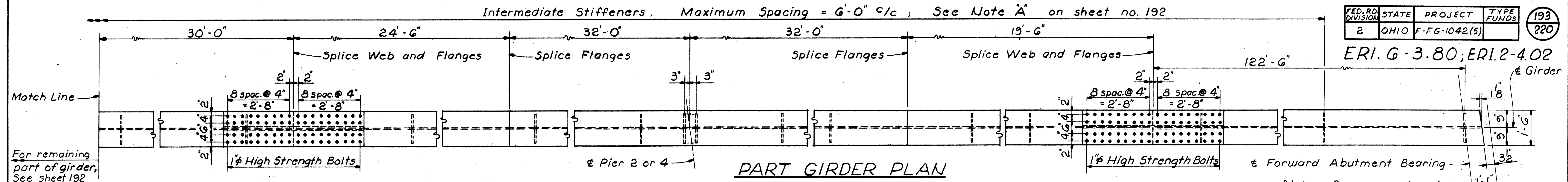
WELDED BUTT JOINT IN SUPERSTRUCTURE END DAM ANGLES AT 60° OF ROADWAY



NOTE: COUNTER-WEIGHTS AT REAR ABUTMENTS ONLY (between girders only)

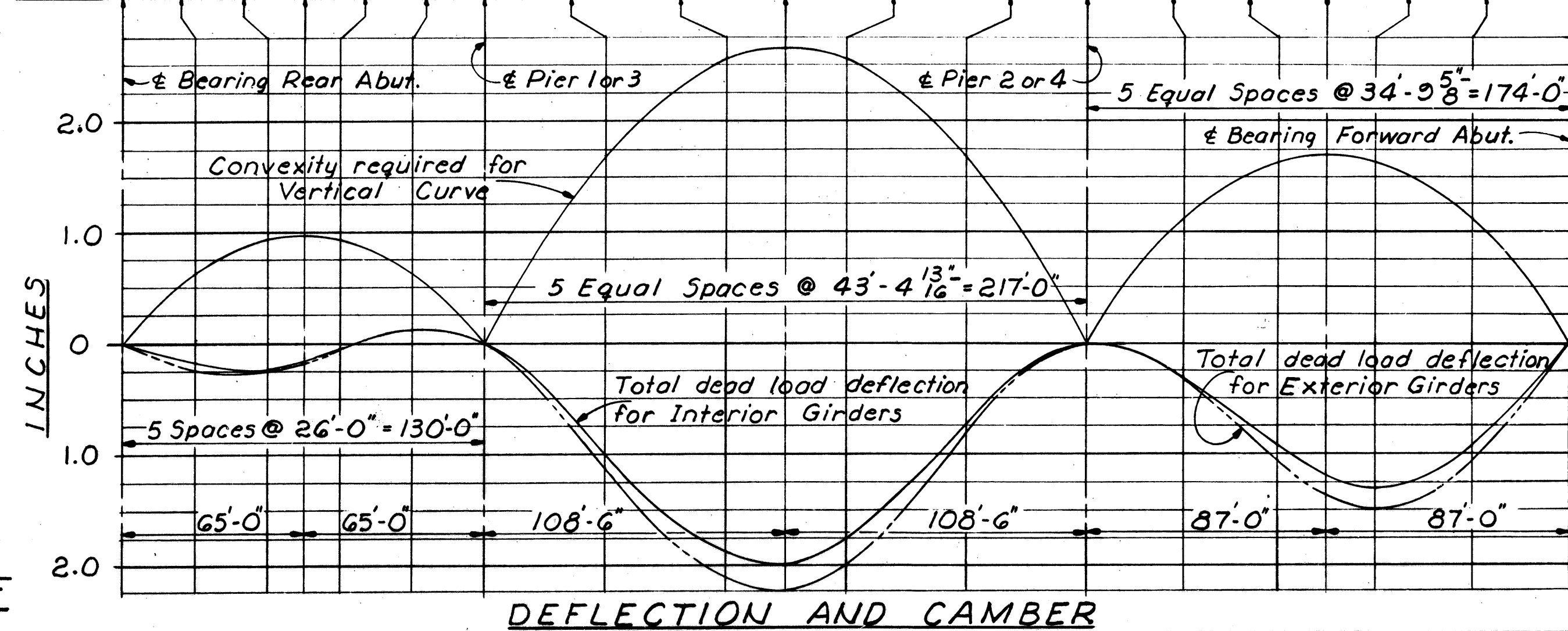
SECTION D-D COUNTERWEIGHT DETAILS

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO				
SUPERSTRUCTURE DETAILS				
BRIDGE No. ERI. G-0G74 LEFT & RIGHT OVER PENNSYLVANIA RAILROAD AND OLD RAILROAD ROAD				
ERIE CO.			STA. 605+56.49 TO STA. 610+83.19	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
HDP	HDP		BJH	FCM 9-5-61



PART GIRDER ELEVATION

	0	1/16"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/8"	1 1/4"	1 1/2"	1 5/8"	2"	2 1/8"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"	5 3/4"	6"	6 1/4"	6 1/2"	6 3/4"	7"	7 1/4"	7 1/2"	7 3/4"	8"	8 1/4"	8 1/2"	8 3/4"	9"	9 1/4"	9 1/2"	9 3/4"	10"
Interior Girder	0	1/16"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/8"	1 1/4"	1 1/2"	1 5/8"	2"	2 1/8"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"	5 3/4"	6"	6 1/4"	6 1/2"	6 3/4"	7"	7 1/4"	7 1/2"	7 3/4"	8"	8 1/4"	8 1/2"	8 3/4"	9"	9 1/4"	9 1/2"	9 3/4"	10"
Exterior Girder	0	1/16"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/8"	1 1/4"	1 1/2"	1 5/8"	2"	2 1/8"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"	5 3/4"	6"	6 1/4"	6 1/2"	6 3/4"	7"	7 1/4"	7 1/2"	7 3/4"	8"	8 1/4"	8 1/2"	8 3/4"	9"	9 1/4"	9 1/2"	9 3/4"	10"



Work sheets 192, 193 & 194 together.

For Sections D-D and E-E, See Sheet No. 192

Chord of Profile between centerline of bearings. (Typ. each span)

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

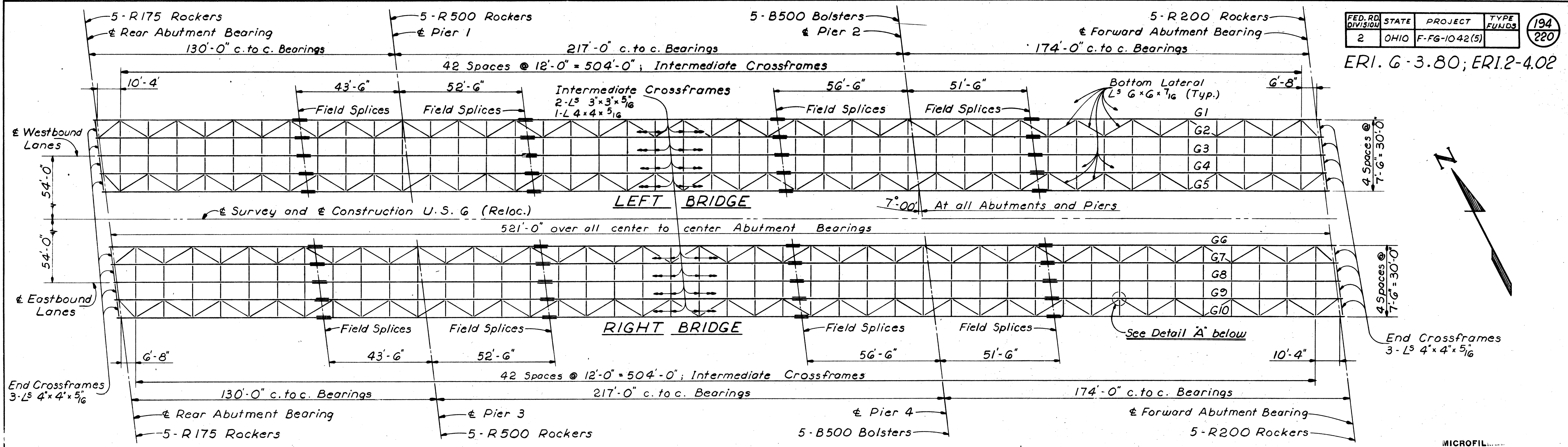
BRIDGE NO. ERI. G-0674 LEFT & RIGHT OVER PENNSYLVANIA RAILROAD AND OLD RAILROAD ROAD

STA. 605+56.49 TO STA. 610+83.19

ERIC CO.

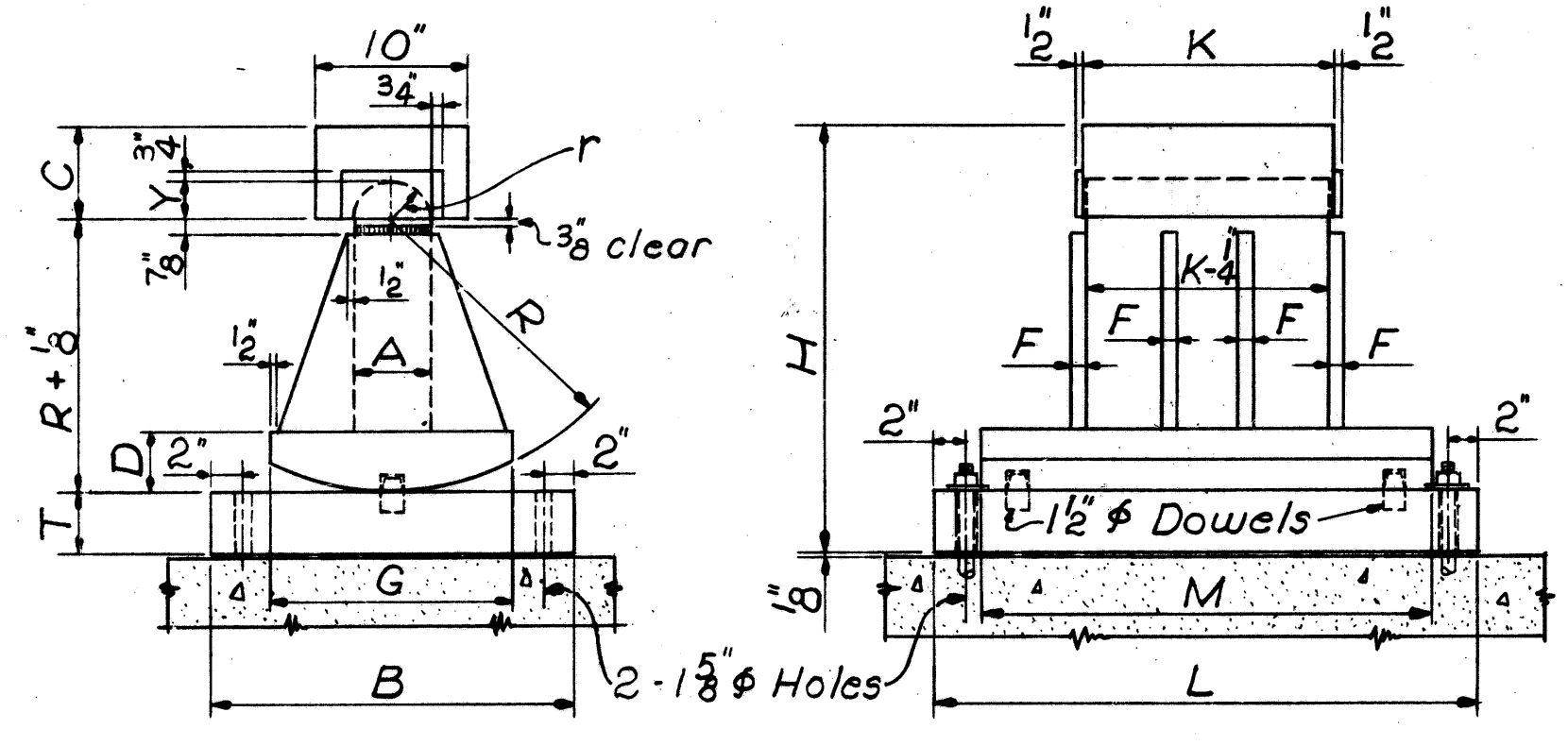
DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISION

HDP HDP BJH FCM 9-5-61 12-17-61

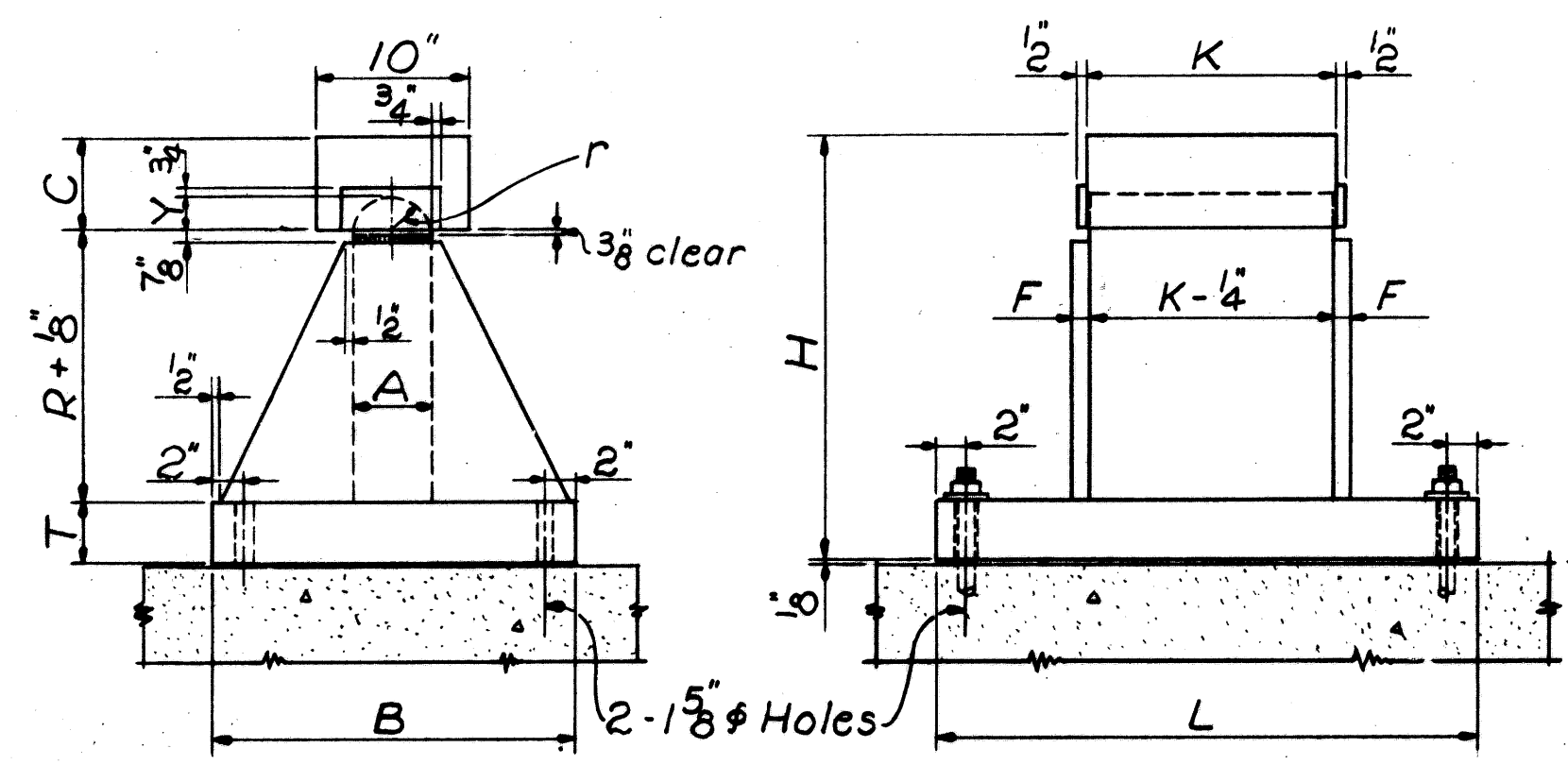


STEEL FRAMING PLAN

MICROFIL...
SEP 11 1986



STRUCTURAL STEEL ROCKER - R500
(See table for additional dimensions)

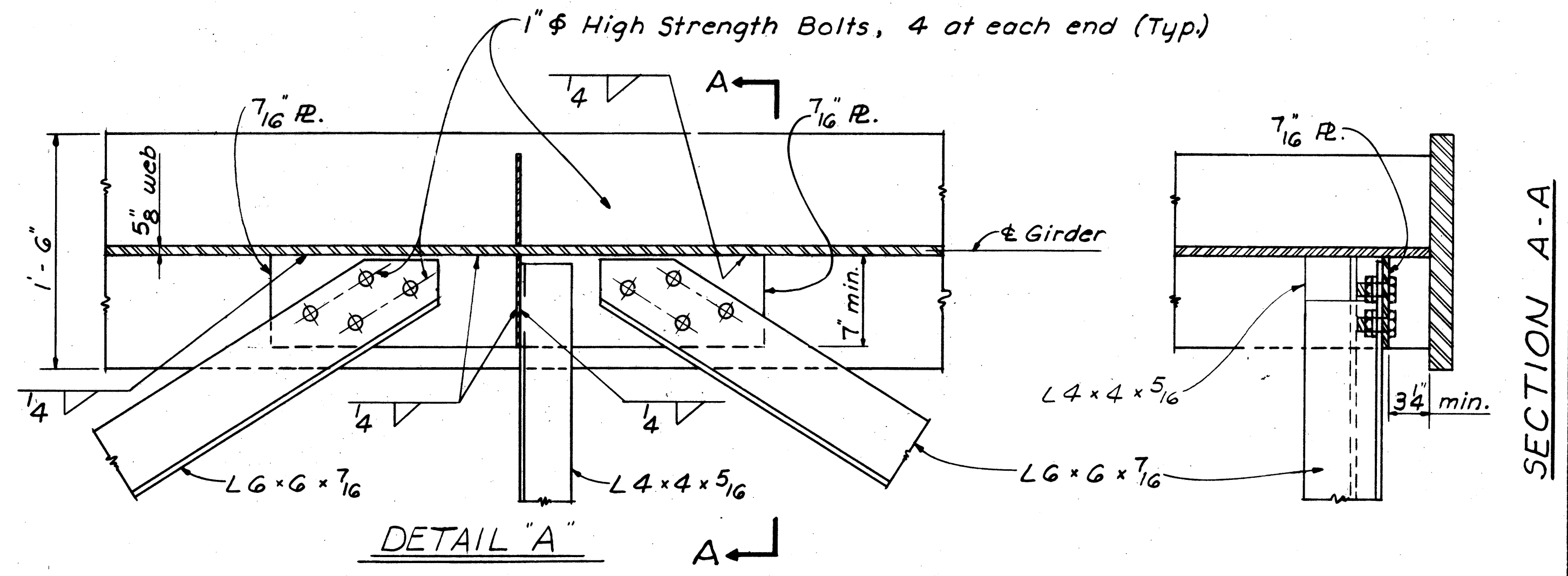


STRUCTURAL STEEL BOLSTER - B500
(See table for additional dimensions)

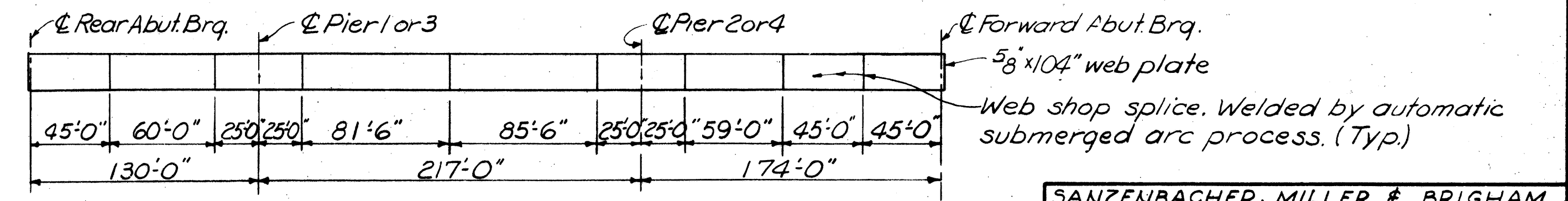
ROCKER SETTING DATA				
Location	Rear Abutts.	Pier 1 or 3	Pier 2 or 4	Forwrd. Abutts.
	R 175	R 500	B 500	R 200
Temperature at time of setting				
+ 115° F	+ 1 5/16"	+ 1 3/16"	-	+ 1 1/16"
+ 90° F	+ 9/16"	+ 3/8"	-	+ 5/16"
+ 70° F	0"	0"	-	0"
+ 40° F	- 7/8"	- 9/16"	-	- 7/16"
- 15° F	- 2 1/2"	- 1 1/2"	-	- 1 1/4"

+ Indicates rockers tilted away from Pier 2 or 4.

Note: For size and location of welds, Sheet Lead or Preformed bearing pad, Steel finish, Anchor Bolt Details, Top Bearing Detail and Dowel Details, see Standard Drawing Number RB-1-55 "Rockers and Bolsters for steel Beams and Girder Bridges", Revised 2-2-59.



DETAIL 'A'



WEB SHOP SPLICE LOCATIONS

Bolster No.	Rocker No.	Dimensions in inches												Weight each (lb)		Maximum Load (lb)	
		A	B	C	D	F	G	H	K	L	M	R	T	Y	Bolster		Rocker
B500	R500	5	24	6	4	1	16	28 3/8	16 1/4	36	30	18	4	2 7/16	1,890	2,280	500,000

Optional shop splices will be permitted in the webs and flanges of girders but their location shall be submitted to the Director for approval.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. ERI. G-0674 LEFT & RIGHT
OVER PENNSYLVANIA RAILROAD
AND OLD RAILROAD ROAD
STA. 605+56.49 TO
STA. 610+83.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDP	HDP		BJH	FCM	9-5-61	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(5)	195 220

ERI G-3.80; ERI 2-4.02
7.9 Miles West of Huron

EXISTING BRIDGE DATA

Upstream Bridges:
 At Old Railroad Rd. 0.4 miles upstream
 Type: Welded Truss
 Span: Single Span. 46.6' clear (normal)
 Skew: 10°±
 Length: 53.8' fl/ Guard Rail
 Condition: Good
 Clear Opening: 365 sq. ft.
 Waterway Opening: 272 sq. ft.
 At Bogart Rd. 0.8 miles upstream (branch)
 Type: Concrete Slab
 Span: Single Span. 24.6' clear
 Skew: None
 Length: 28.7'
 Roadway: 24' fl/ curbs
 Condition: Excellent
 Clear Opening: 160 sq. ft.

Downstream Bridge:
 At Strub Rd. 0.2 miles downstream
 Type: Concrete Slab. Concrete encased girders.
 Span: Single Span, 30.6' clear (normal)
 Skew: 30° ± L.F.
 Length: 44.3'
 Roadway: 14.9' fl/ curbs.
 Condition: Fair
 Clear Opening: 153 sq. ft. (normal)
 Waterway Opening: 153 sq. ft. (normal)
 Built in 1911

MICROFILMED
SEP 11 1986

FOUNDATION SOUNDINGS:
 Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division Office, but the State does not guarantee the accuracy thereof.

PROPOSED STRUCTURES

Type: Continuous steel beam with reinf. concrete deck. Reinforced concrete substructure. "C" Type Abut. on piles. "T" Type Piers.
 Spans: 40'-0", 50'-0", 40'-0" 1/2 Bearings.

Roadway: 42'-0" fl/ of Parapets
 Load Frequency: CF 400 (57)
 Skew: 7°-00' R.F.
 Wearing Surface: 1" monolithic concrete
 Approach Slabs: A5-1-54 (25'-0" Long)
 Alignment: Tangent.

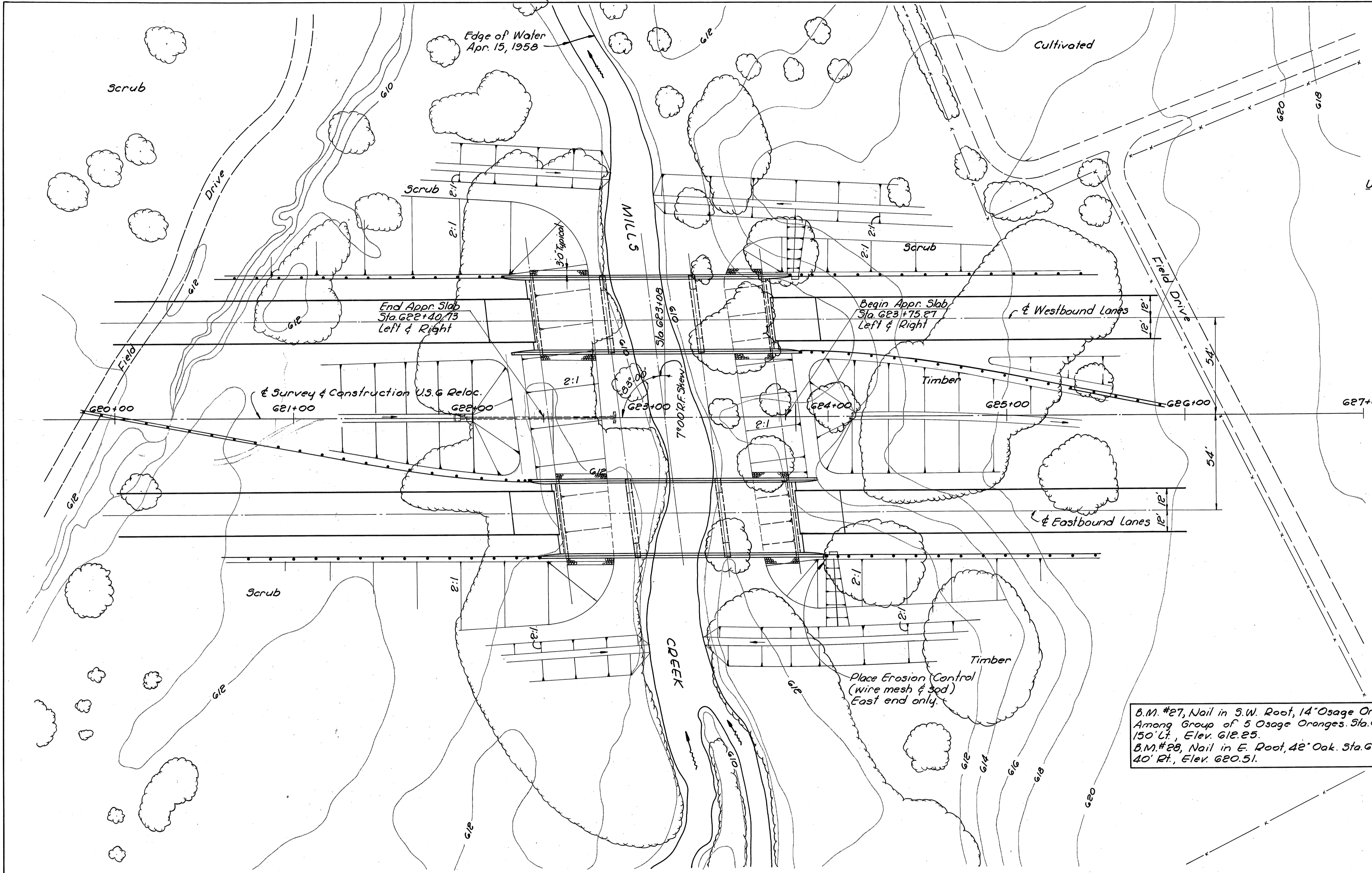
DRAINAGE AREA: 25 Sq. Mi.

Net Waterway Opening
 Below 25 year H.W.: 355 Sq. Ft.

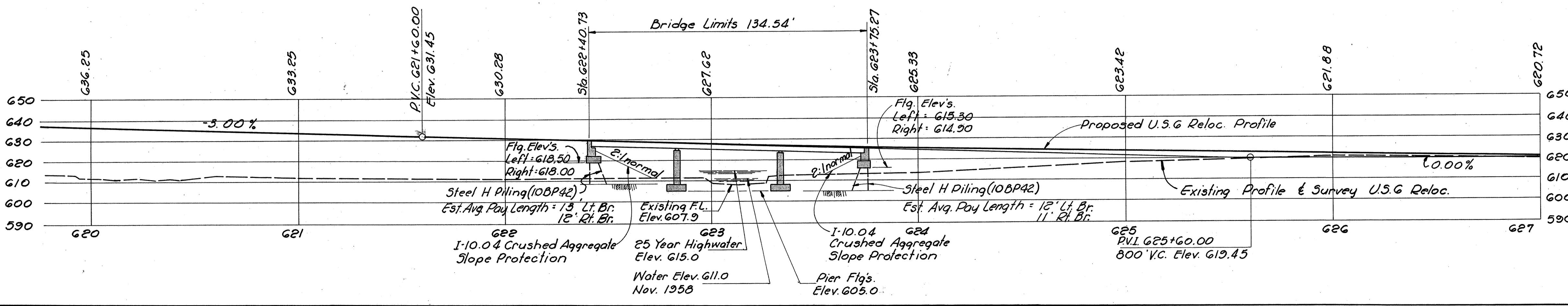
SANZENBACHER, MILLER & BRIGHAM
 CONSULTING ENGINEERS
 TOLEDO, OHIO

SITE PLAN
BRIDGE No. ERI G-0702
 Left and Right over
 Mills Creek
 ERIE CO. STA. G22+40.73 To
 STA. G23+75.27

PRESENT TOPOGRAPHY		PROPOSED WORK	
SURVEYED	DRAWN	DESIGNED	DRAWN
S.M.B.	E.J.D.-B.B.	T.W.D.	T.W.D.
		CHECKED	REVIEWED
		B.J.H.	FCM 9-5-61



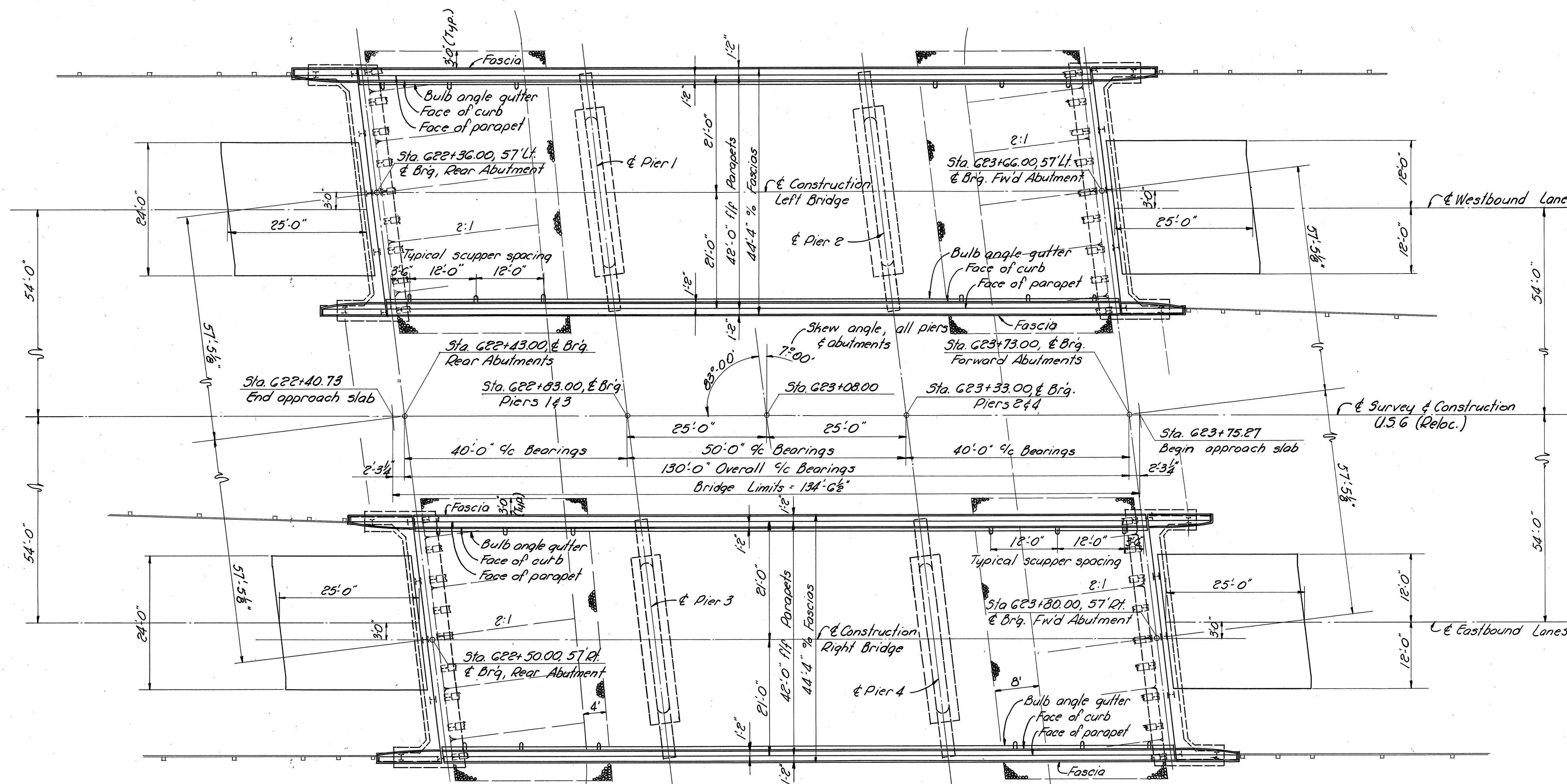
B.M. #27, Nail in S.W. Root, 14' Osage Orange Among Group of 5 Osage Oranges. Sta. G19+15 150' Lt., Elev. 612.25.
 B.M. #28, Nail in E. Root, 42' Oak. Sta. G25+33, 40' Rt., Elev. 620.51.



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (5)	

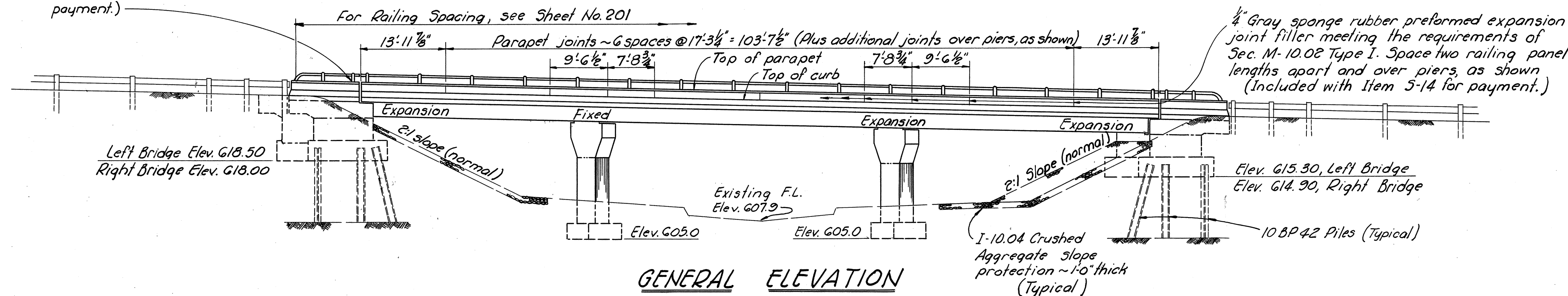
196
220

ERI. G-3.80; ERI. 2-4.02



GENERAL PLAN

Place $\frac{1}{8}$ " Preformed Bearing Pad, Sec. M-10.11 under each railing post. (Included with Item 5-14 for payment.)



GENERAL ELEVATION

MICROFILM
SEP 11 1986

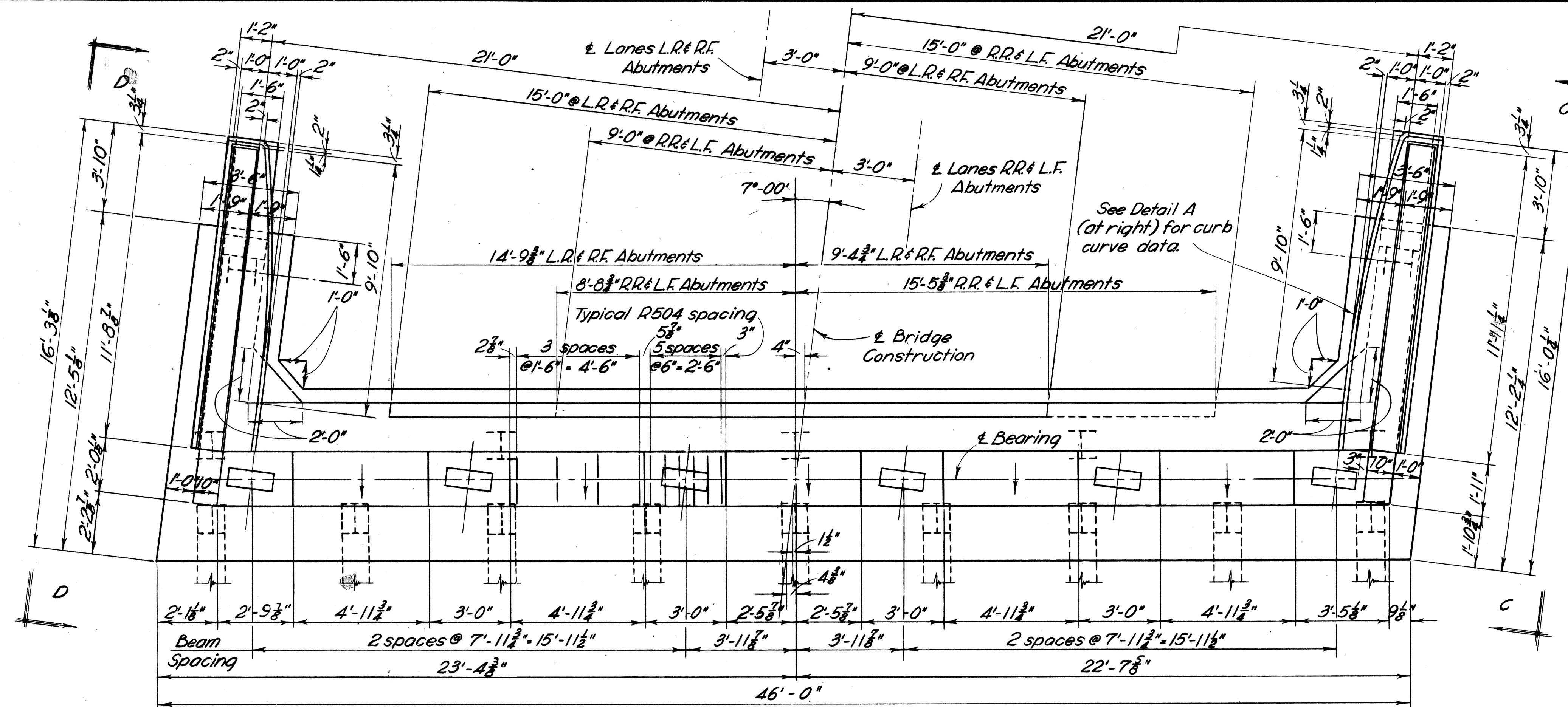
SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO				
GENERAL PLAN & ELEVATION BRIDGE No. ERI. G-0702, LEFT & RIGHT OVER MILLS CREEK				
ERIE COUNTY			STA. 622+40.73 to STA. 623+75.27	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
TFH	TFH	BB	HDP	BJH FCM 9-5-61

ERI. 6-3.80; ERI. 2-4.02

REINFORCING STEEL LIST

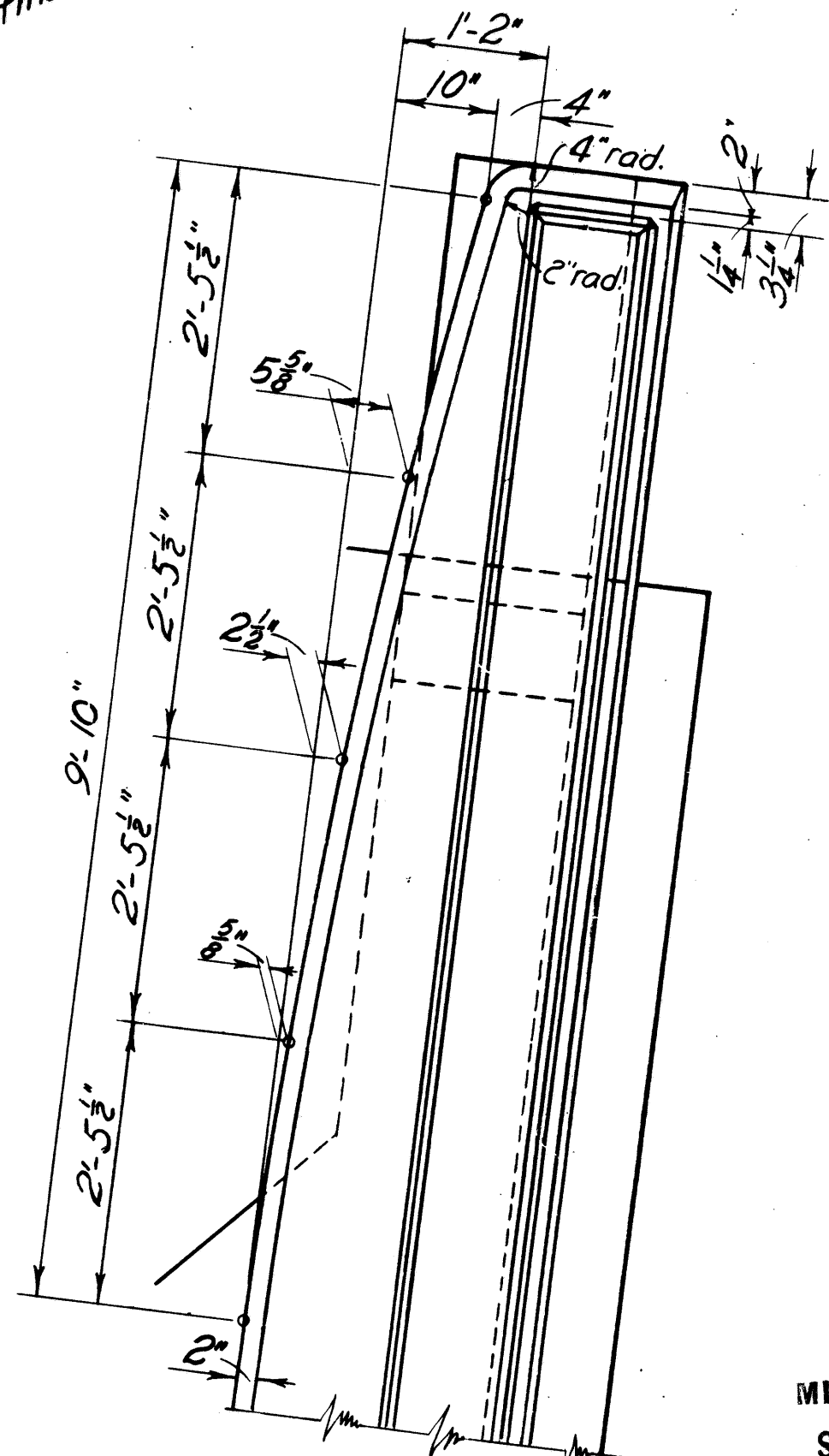
Mark	No.	Length	Weight	Shape	Bending Diagrams		Mark	No.	Length	Weight	Shape
ABUTMENTS											
R901	24	8'-9"	714	B	6'-9" %		R901		10'-11"		R701
R902	24	8'-1"	660	B	6'-1" %		R902		10'-7"		R702
R801	56	24'-1"	3,601	S	8'-10"		R704		9'-0"		R703
R802	32	11'-10"	1,011	S	11'-8"		R706		11'-10"		R705
R803	32	12'-1"	1,032	S	6'-10"		R708		7'-0"		R707
R701	24	11'-9"	576	B							
R702	24	11'-5"	560	B							
R703	12	12'-10"	315	B							
R704	12	12'-8"	311	B							
R705	8	15'-8"	256	B							
R706	8	15'-6"	253	B							
R707	4	10'-10"	89	B							
R708	4	10'-8"	87	B							
R601	128	14'-4"	2,756	B							
R602	96	12'-8"	1,826	B							
R603	64	11'-8"	1,073	B							
R501	128	7'-1"	946	B							
R502	128	8'-4"	1,113	B							
R503	72	22'-8"	1,702	S							
R504	224	7'-0"	1,635	B							
R505	32	22'-8"	757	S							
R506	4	27'-8"	115	S							
R507	4	6'-8"	28	S							
R508	4	12'-8"	53	S							
R509	144	7'-0"	1,051	B							
R510	24	10'-11"	273	S							
R511	24	10'-8"	267	S							
R512	24	8'-10"	221	S							
R513	24	6'-2"	154	S							
R514	24	6'-1"	152	S							
R515	16	13'-8"	228	S							
R516	24	3'-5"	86	S							
R517	48	3'-6"	175	S							
R518	8	11'-8"	97	S							
R519	8	11'-6"	96	S							
R520	8	11'-9"	98	S							
R521	8	11'-5"	95	S							
R522	72	1'-5"	106	B							
R523	48	4'-2"	209	B							
R524	72	6'-11"	519	B							
R525	16	11'-7"	*	S							
R526	16	11'-5"	*	S							
R527	24	2'-8"	67	B							
R528	16	5'-11"	99	B							
PIERS (Cont'd.)											
P501	48	24'-0"	1,202	S							
P502	32	13'-7"	453	S							
P503	32	11'-10"	395	S							
P504	32	12'-9"	426	S							
P505	32	11'-5"	381	S							
P506	48	5'-11"	296	B							
P507	8	27'-0"	225	S							
P508	8	35'-8"	298	S							
P509	16	22'-2"	370	S							
P510	136	8'-8"	1,229	B							
P511	32	7'-6"	250	B							
P512	64	6'-8"	445	B							
SUPERSTRUCTURE											
S701	350	44'-0"	31,478	S							
S601	350	44'-0"	23,131	S							
S602	224	34'-3"	32,101	S							
S603	136	20'-0"	4,085	S							
S501	356	4'-11"	1,826	B							
S502	356	2'-10"	1,052	B							
S503	376	5'-5"	2,124	B							
S504	64	16'-11"	*	S							
S505	32	9'-2"	*	S							
S506	32	7'-5"	*	S							
S507	32	13'-8"	*	S							
REPLACEMENT											
RE1101	1	7'-7"		S							
RE901	1	6'-10"		S							
RE801	1	6'-6"		S							
RE701	2	6'-3"		S							
RE601	4	5'-11"		S							
RE501	2	5'-7"		S							
DIERS											
D510					1'-11"						
D511					3'-0"						
D512					2'-10"						
D601					7'-10"						
D602					2'-2"						
D603					3'-0"						
D604					8'-4"						
D605					2'-10"						
D606					3'-0"						
D607					2'-10"						
D608					3'-0"						
D609					2'-10"						
D610					3'-0"						
D611					2'-10"						
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D617					2'-10"						
D618					3'-0"						
D619					2'-10"						
D620					3'-0"						
D621					2'-10"						
D622					3'-0"						
D623					2'-10"						
D624					3'-0"						
D625					2'-10"						
D626					3'-0"						
D627					2'-10"						
D628					3'-0"						
D629					2'-10"						
D630					3'-0"						
D631					2'-10"						
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D669					2'-10"						
D670					3'-0"						
D671					2'-10"						
D672					3'-0"						
D673					2'-10"						
D674					3'-0"						
D675					2'-10"						
D676					3'-0"			</			

ERI. 6-3.80; ERI. 2-4.02



PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments and the piles driven.

Note: Special care shall be taken in placing reinforcing steel in abutment seat - so that it will not interfere with bearing plate anchor bars.



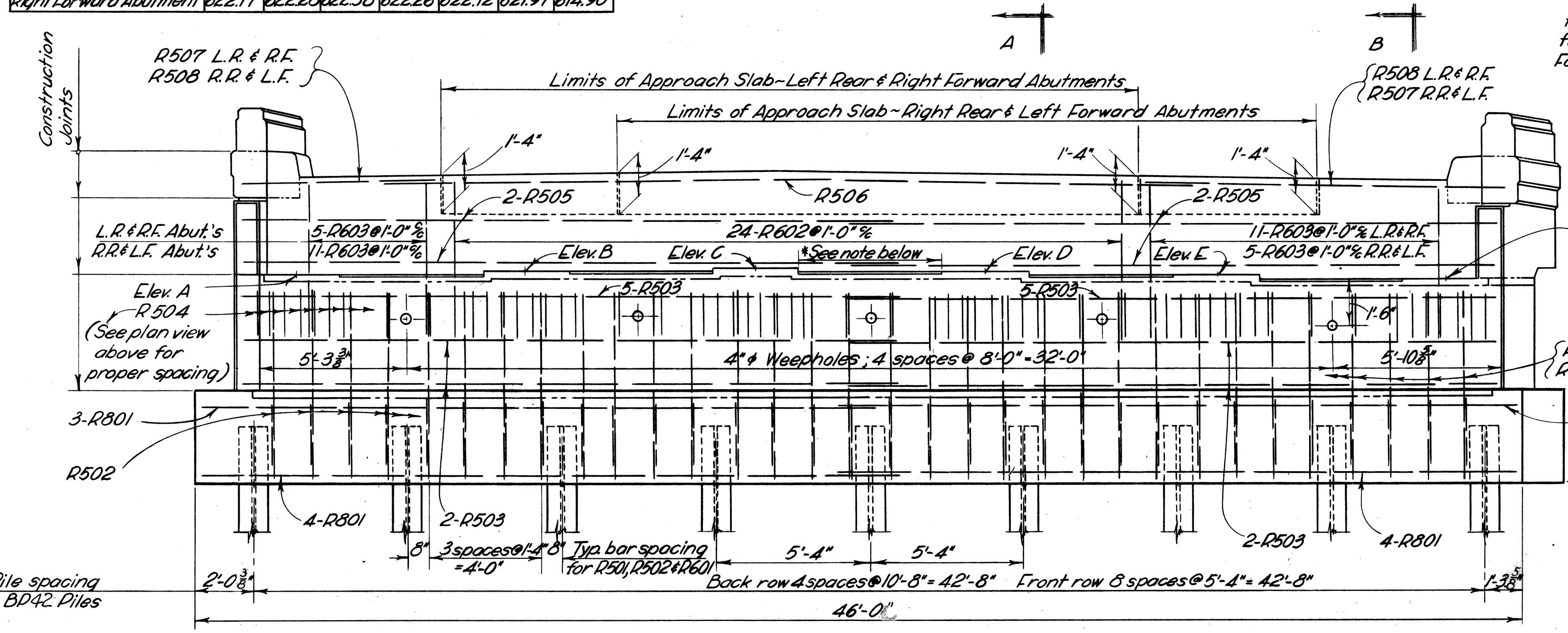
MICROFILM
SEP 11 1986

ELEVATION	A	B	C	D	E	F	G
Left Rear Abutment	625.58	625.72	625.88	625.81	625.71	625.61	618.50
Left Forward Abutment	622.39	622.49	622.59	622.66	622.52	622.38	615.30
Right Rear Abutment	625.11	625.26	625.40	625.52	625.43	625.33	618.00
Right Forward Abutment	622.17	622.28	622.38	622.26	622.12	621.97	614.90

PLAN

L.R. = Left Rear Abutment
L.F. = Left Forward Abutment
R.R. = Right Rear Abutment
R.F. = Right Forward Abutment

For Views C-C & D-D, see Sheet 199
Work Sheets 198 & 199 together.



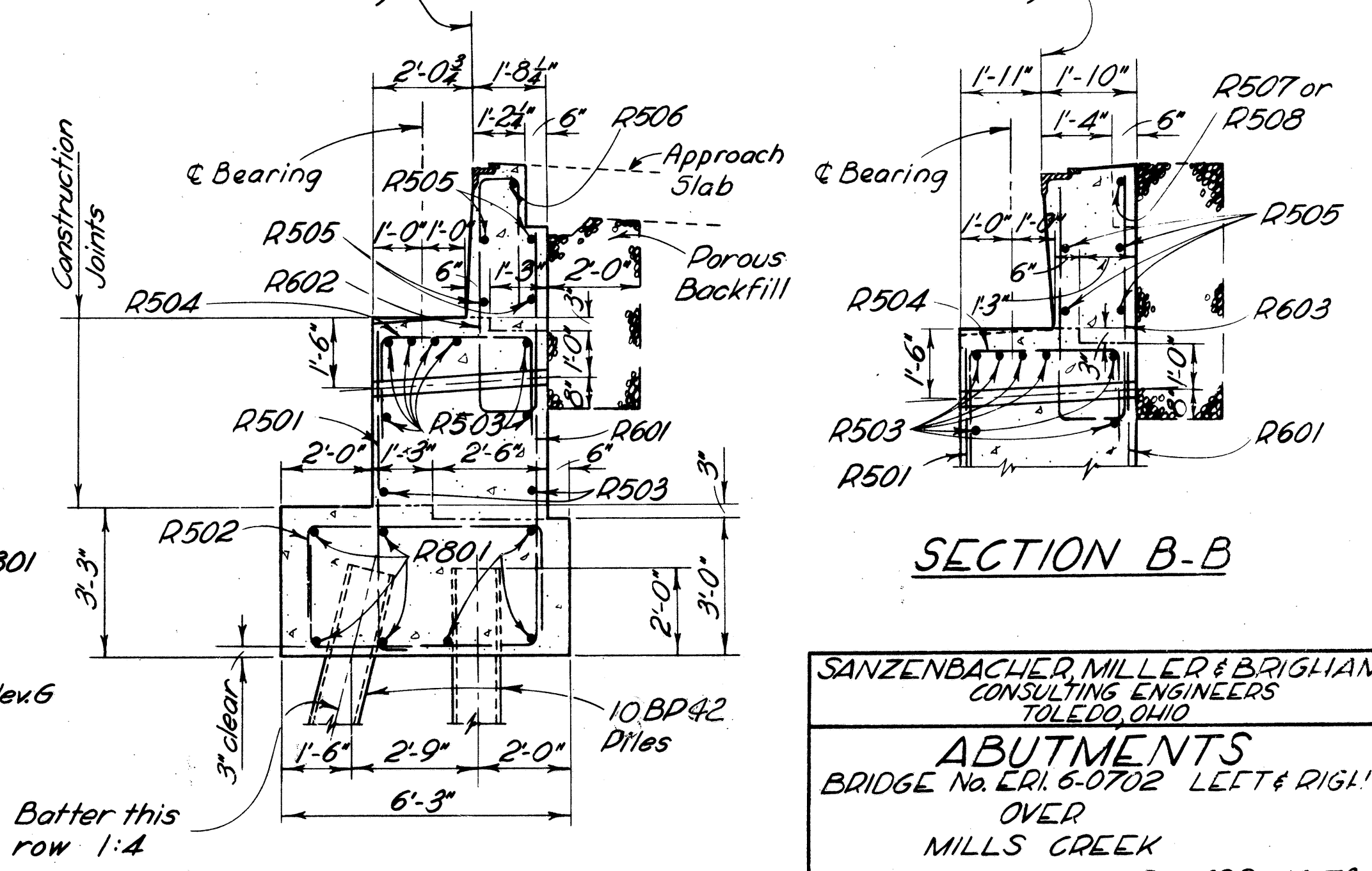
ELEVATION

A | N.F. = Near Face | B | F.F. = Far Face

* Slope bridge seat 1/2" to face of abutment between beam seats as shown (Typical)

Slope face of backwall, between curb faces, normal to finished grade (Dimensions for forward abutment shown. ~ For rear abutments see Section B-B)

Slope face of backwall, between curb faces, normal to finished grade. (Dimensions for rear abutment shown. ~ For forward abutments see Section A-A)



SECTION B-B

SECTION A-A

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

ABUTMENTS
BRIDGE No. ERI. 6-0702 LEFT & RIGHT
OVER
MILLS CREEK

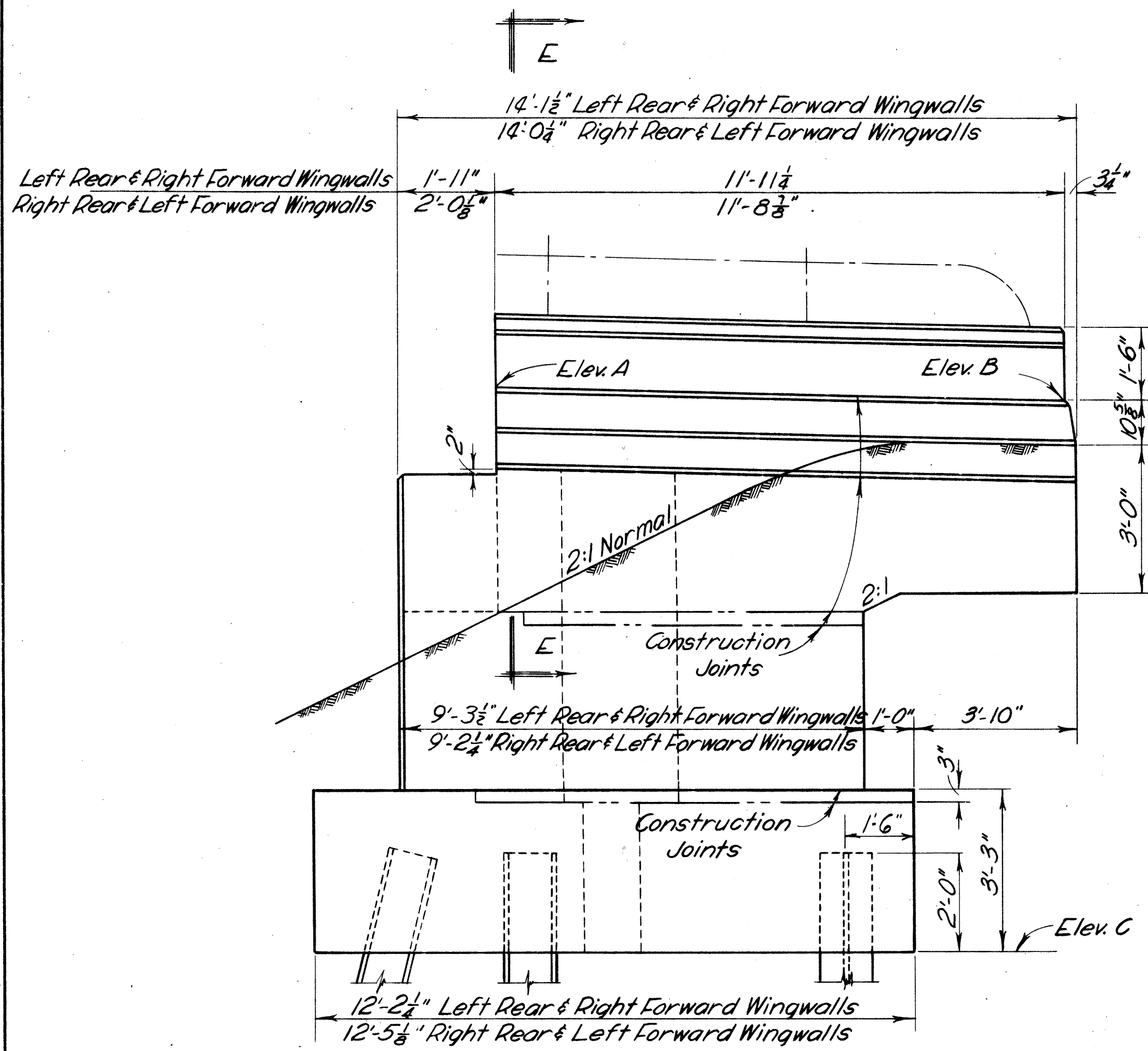
Sta. 622+40.73 to
Sta. 623+75.27

ERIC CO.
DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISION

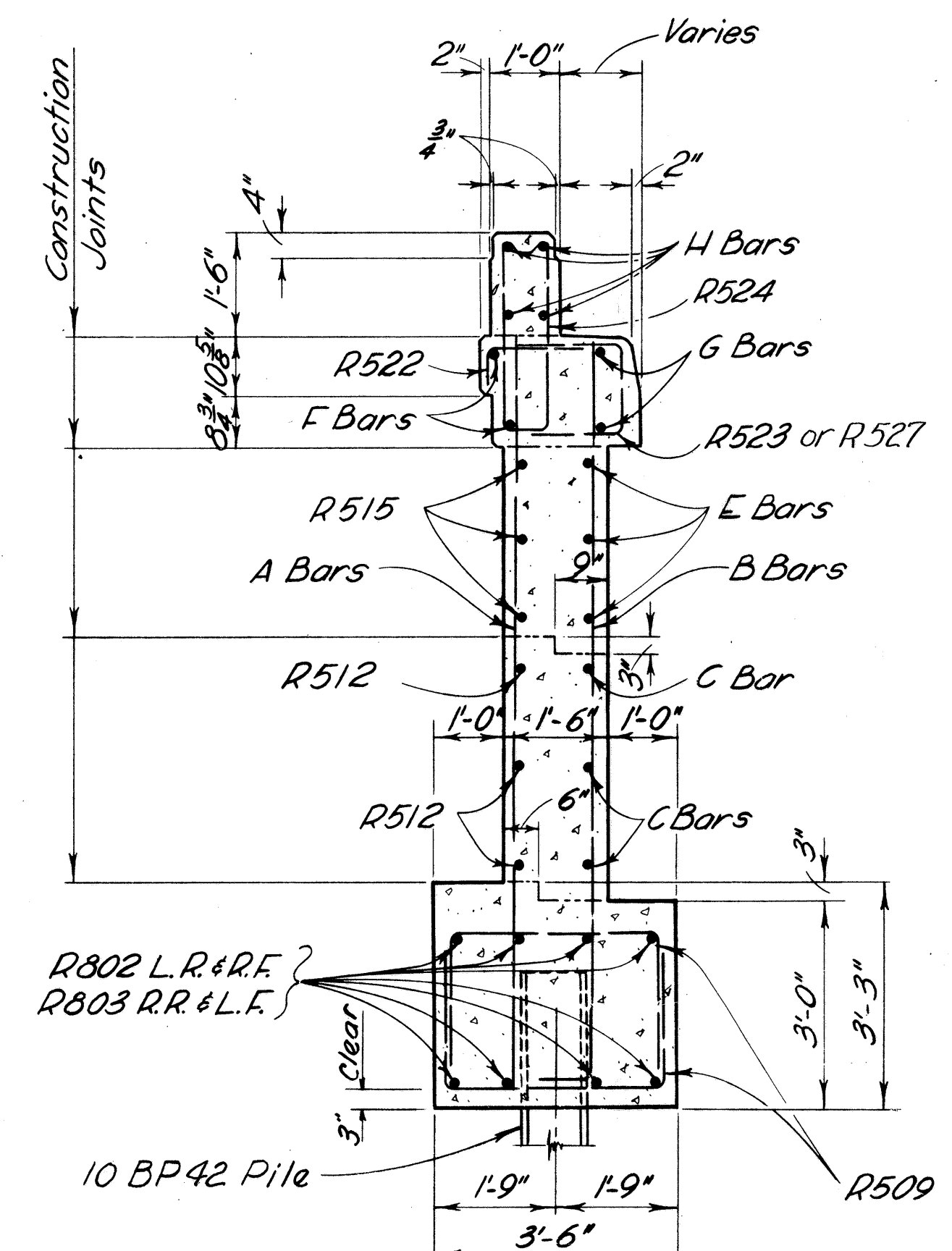
TFH	JEC	HDP	9-5-61
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ERI. 6-3.80; ERI. 2-4.02

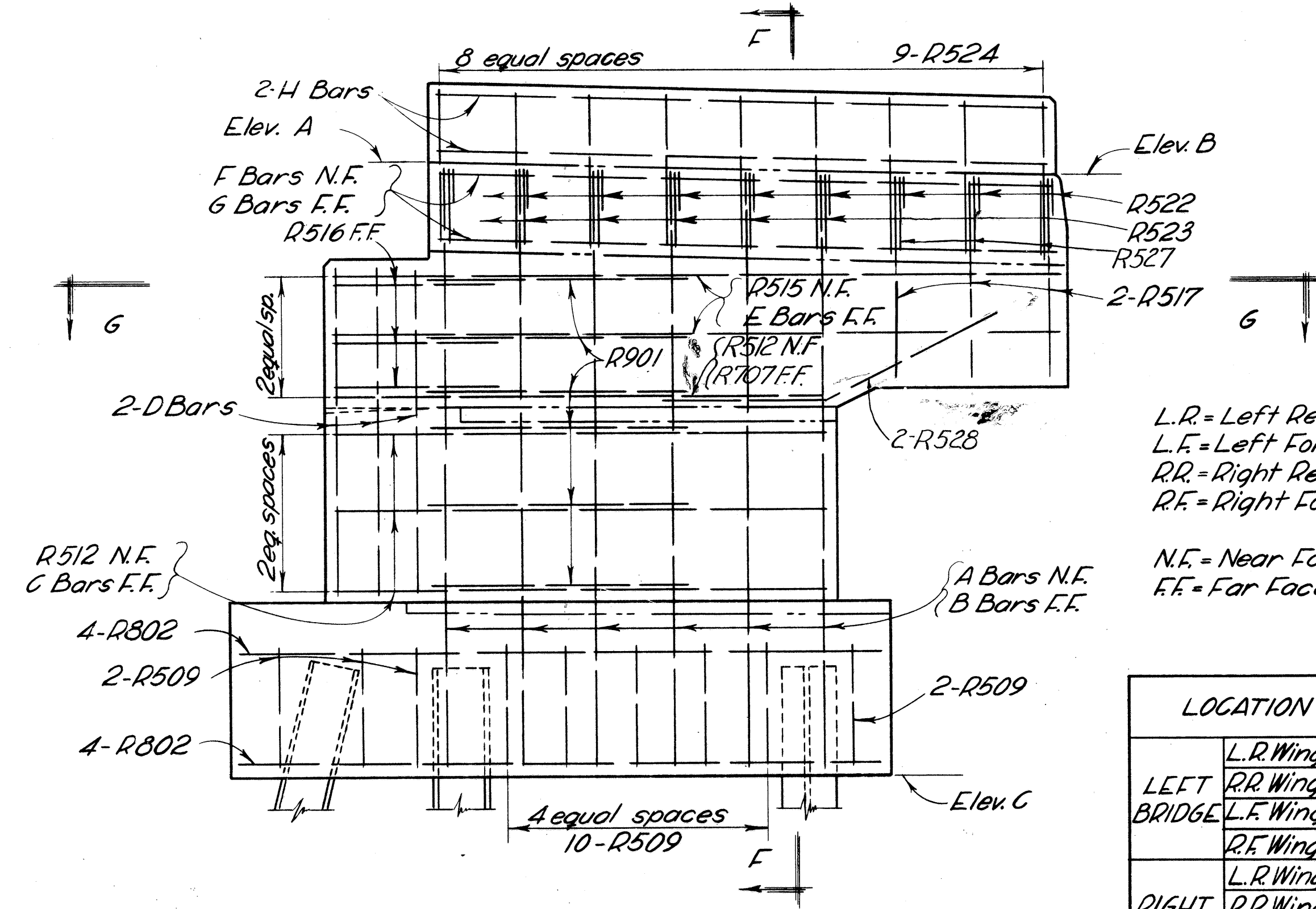
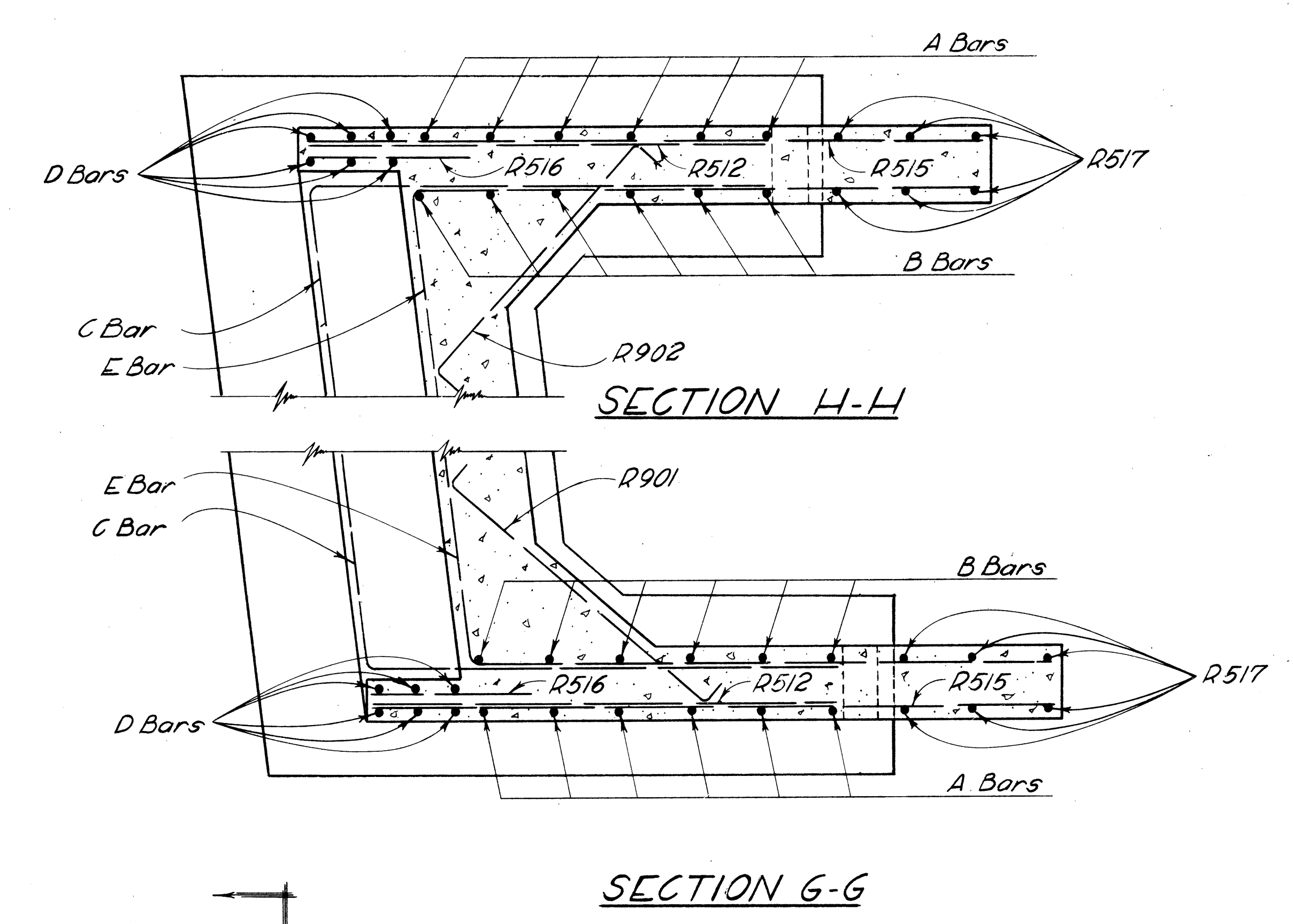
LOCATION	REINFORCING BARS							
	A	B	C	D	E	F	G	H
Left Rear Wingwall	R510	R701	R703	R513	R705	R518	R520	R525
Right Rear Wingwall	R510	R701	R704	R513	R706	R519	R521	R526
Left Forward Wingwall	R511	R702	R704	R514	R706	R519	R521	R526
Right Forward Wingwall	R511	R702	R703	R514	R705	R518	R520	R525



WINGWALL ELEVATION (CONSTRUCTION DETAILS)



SECTION F-F



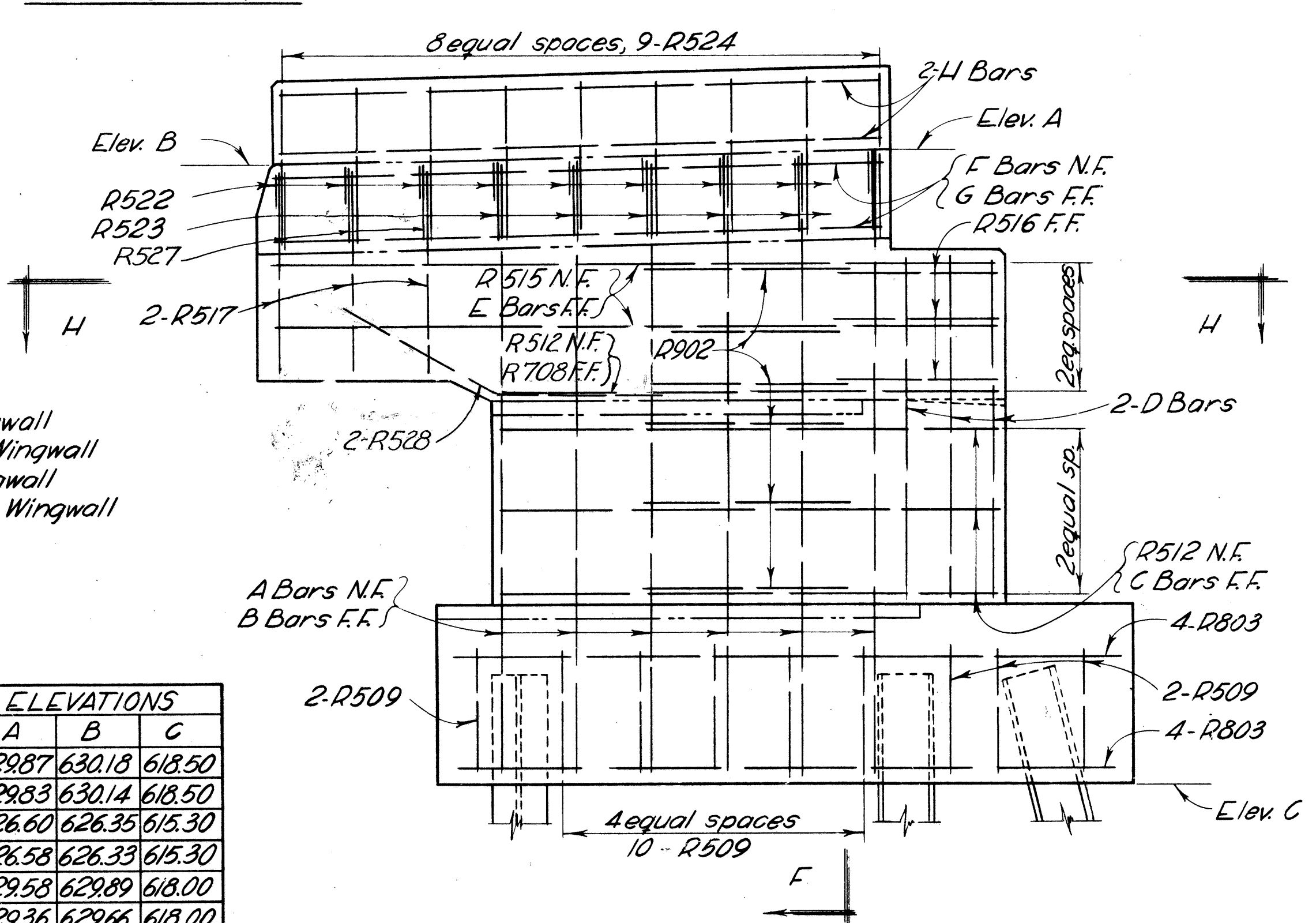
WINGWALL ELEVATION (REINFORCING BAR DETAILS)

VIEW C-C (See Sheet 198)

L.R.= Left Rear Wingwall
L.F.= Left Forward Wingwall
R.R.= Right Rear Wingwall
R.F.= Right Forward Wingwall

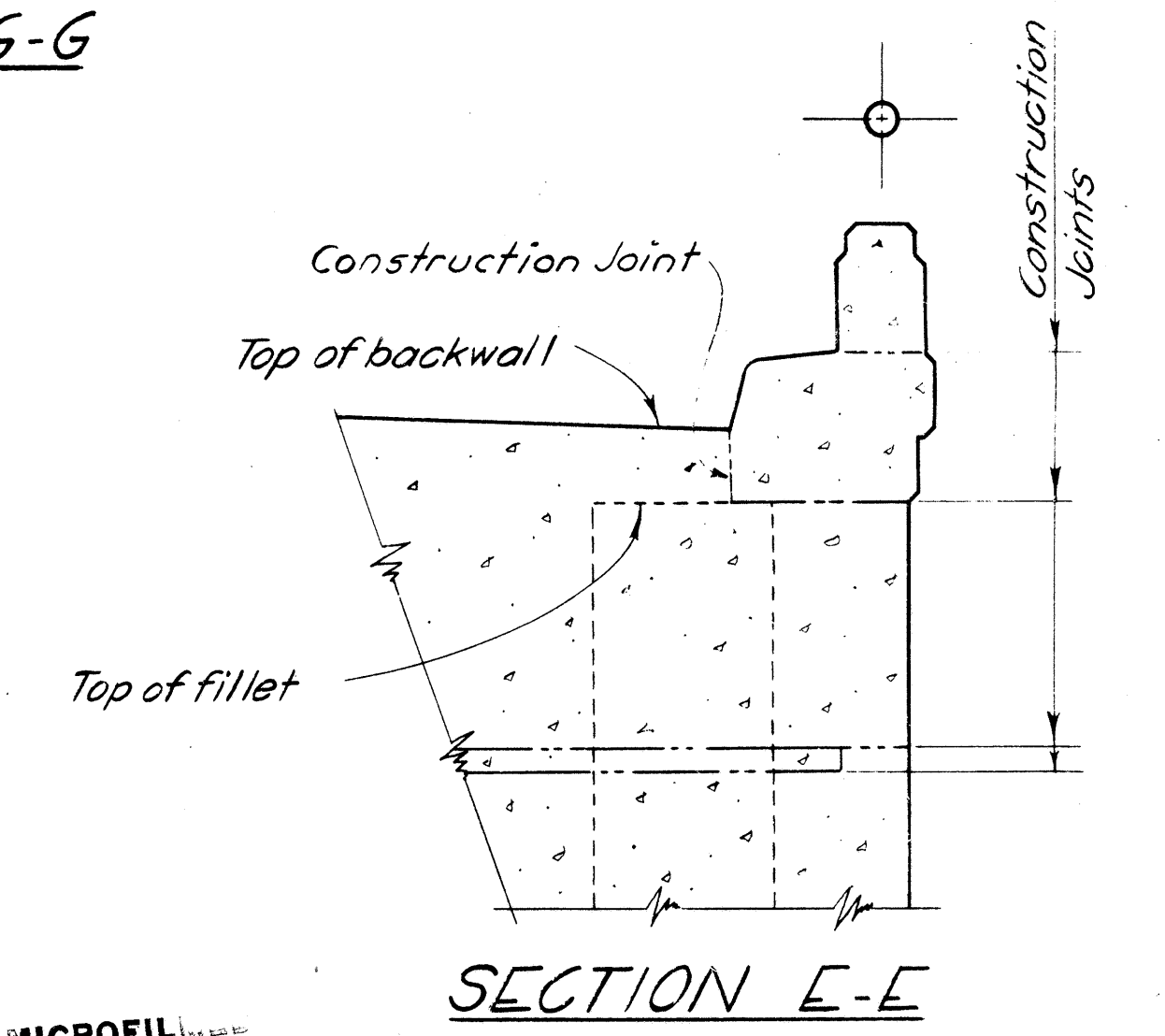
N.F.= Near Face
F.F.= Far Face

LOCATION	ELEVATIONS		
	A	B	C
LEFT BRIDGE			
L.R. Wingwall	629.87	630.18	618.50
R.R. Wingwall	629.83	630.14	618.50
L.F. Wingwall	626.60	626.35	615.30
R.F. Wingwall	626.58	626.33	615.30
RIGHT BRIDGE			
L.R. Wingwall	629.58	629.89	618.00
R.R. Wingwall	629.36	629.66	618.00
L.F. Wingwall	626.38	626.13	614.90
R.F. Wingwall	626.18	625.94	614.90



WINGWALL ELEVATION (REINFORCING BAR DETAILS)

VIEW D-D (See Sheet 198)



MICROFIL
SEP 11 1986

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

ABUTMENTS
BRIDGE No. ERI. 6-0702 LEFT & RIGHT
OVER
MILLS CREEK

Sta. 622+40.73 to
Sta. 623+75.27

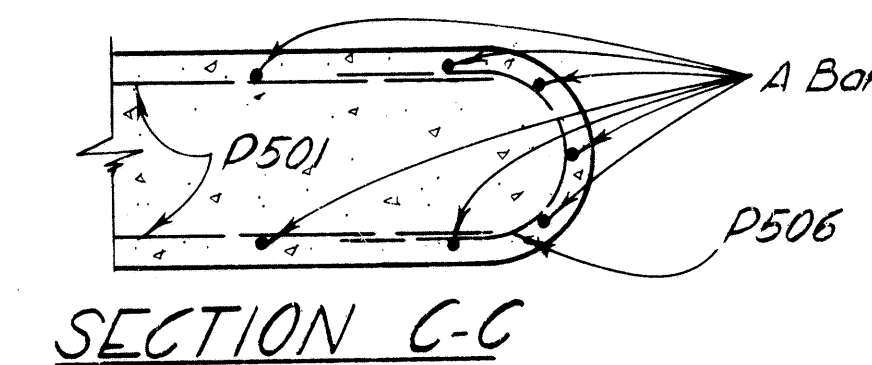
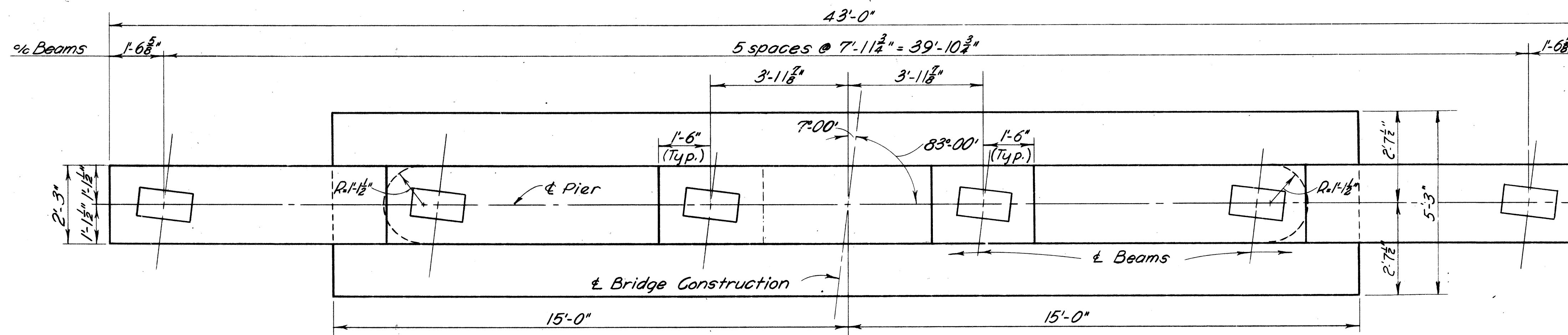
ERIC CO.

DESIGNER	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	JEC		HDP	BJH	FCM 9-5-61	

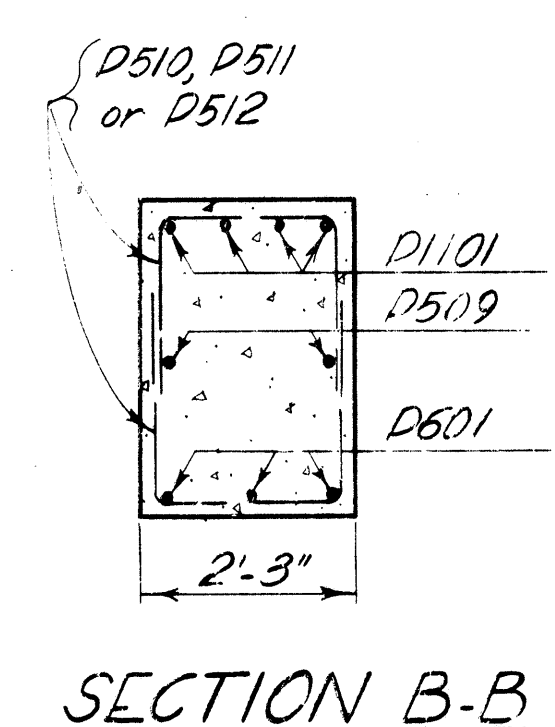
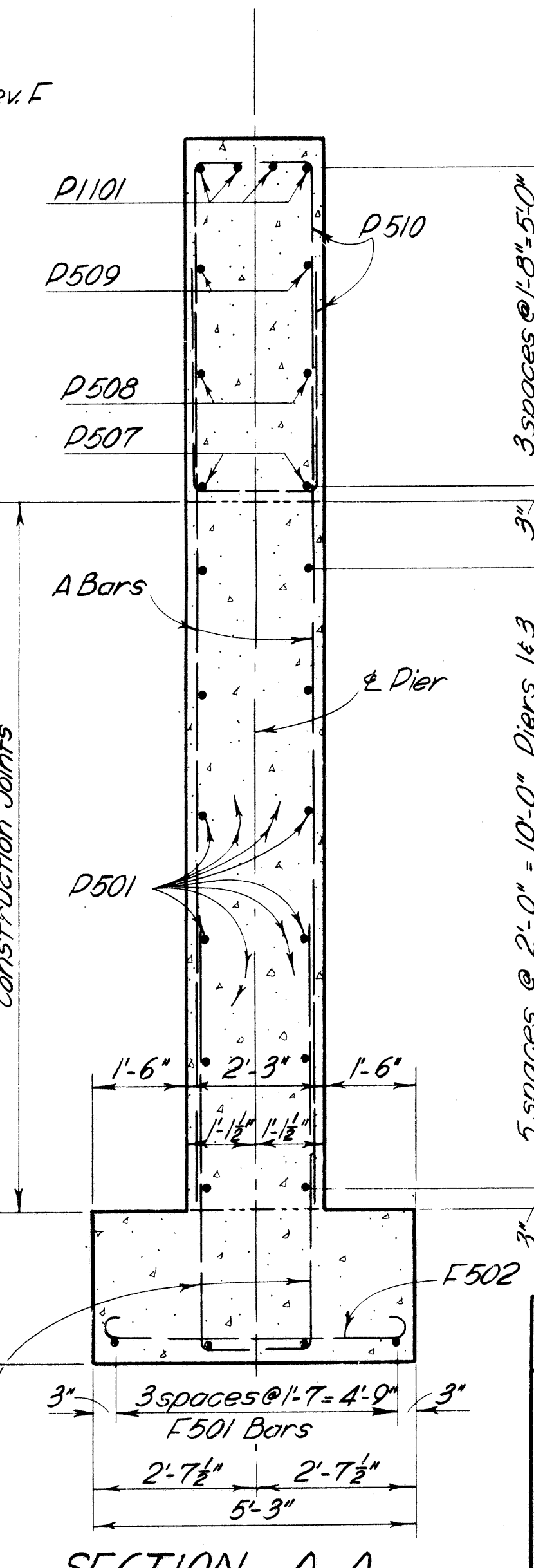
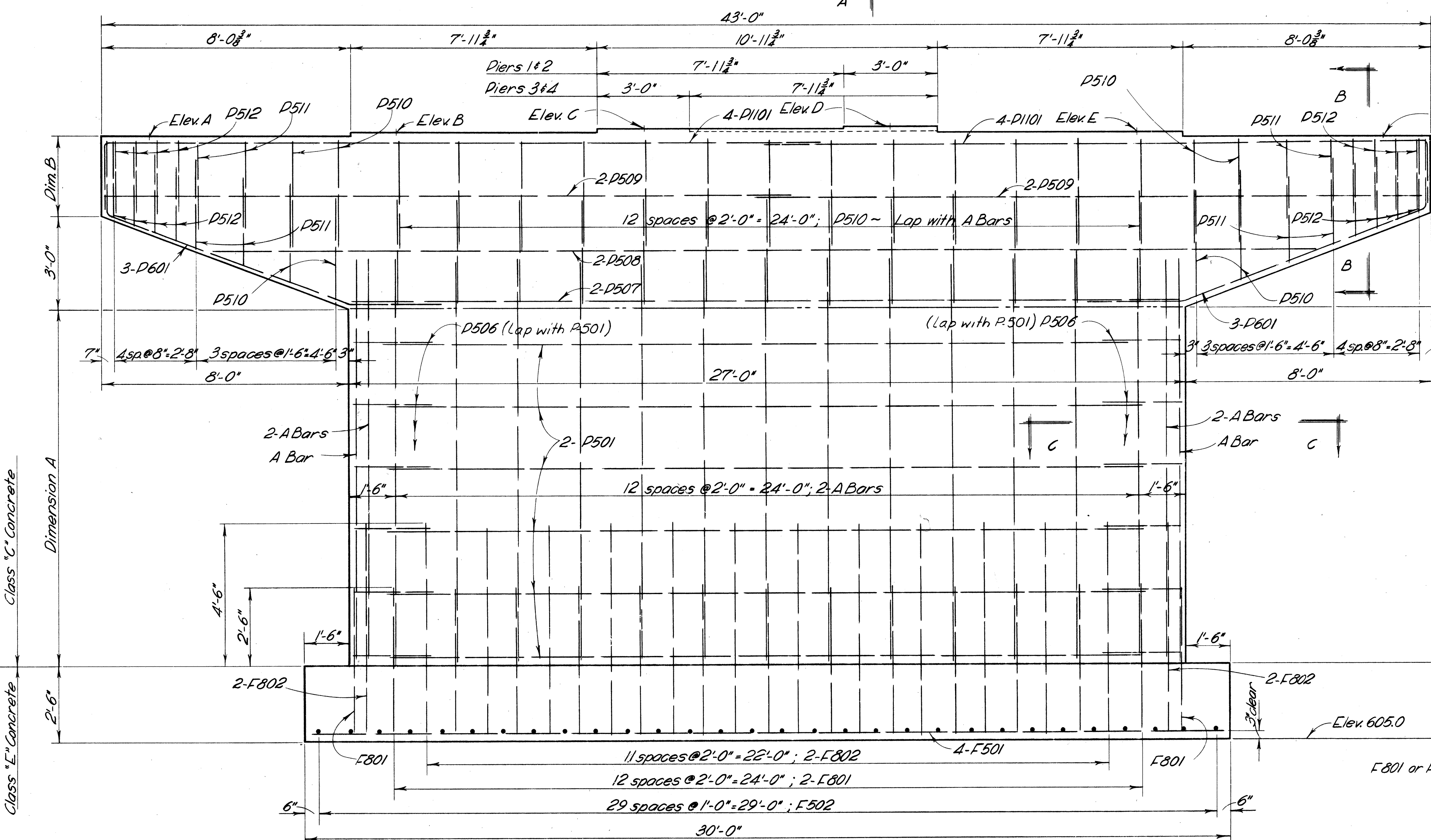
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(5)	

200
220

ERI.6-3.80; ERI.2-4.02



LOCATION	ELEVATIONS						DIMENSIONS			REBARS
	A	B	C	D	E	F	A	B	A	
LEFT BRIDGE Pier No.1	624.58	624.68	624.78	624.85	624.70	624.55	11'-6 3/4"	2'-6 3/4"	P502	
BRIDGE Pier No.2	623.26	623.36	623.46	623.53	623.38	623.24	10'-2 3/4"	2'-6 1/4"	P503	
RIGHT BRIDGE Pier No.3	624.32	624.42	624.52	624.40	624.25	624.10	11'-1 1/2"	2'-8 3/8"	P504	
BRIDGE Pier No.4	623.02	623.12	623.22	623.10	622.96	622.81	9'-9 3/8"	2'-8 1/2"	P505	



MICROFILM
SEP 11 1986

Note: Special care shall be taken in placing reinforcing steel under beam seats so that it will not interfere with bearing plate anchor bars.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

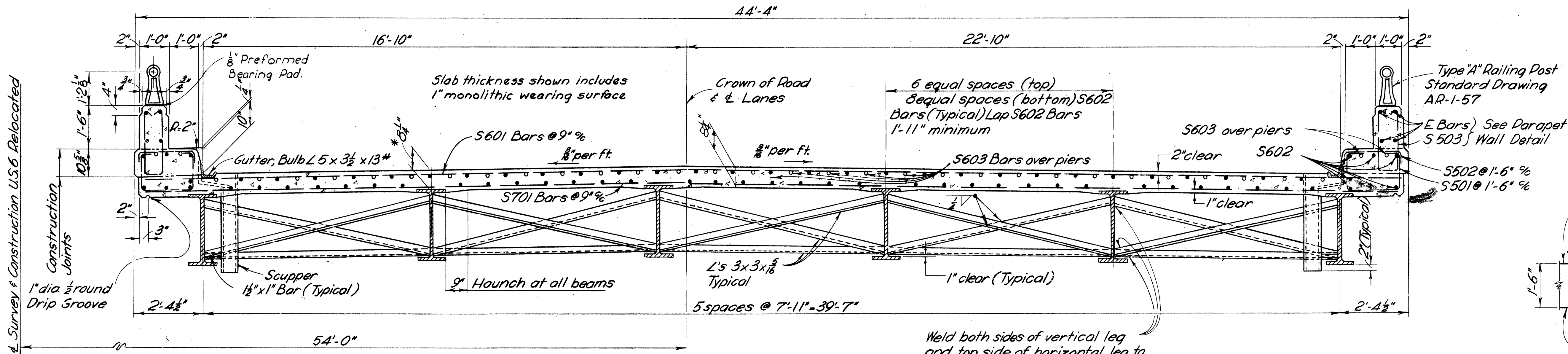
PIERS 1, 2, 3 & 4
BRIDGE No. ERI.6-0702 LEFT & RIGHT
OVER
MILLS CREEK

Sta. 622+40.73 to
Sta. 623+75.27

ERIE CO.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	JEC		HDP	BJH	FCM	9-5-61

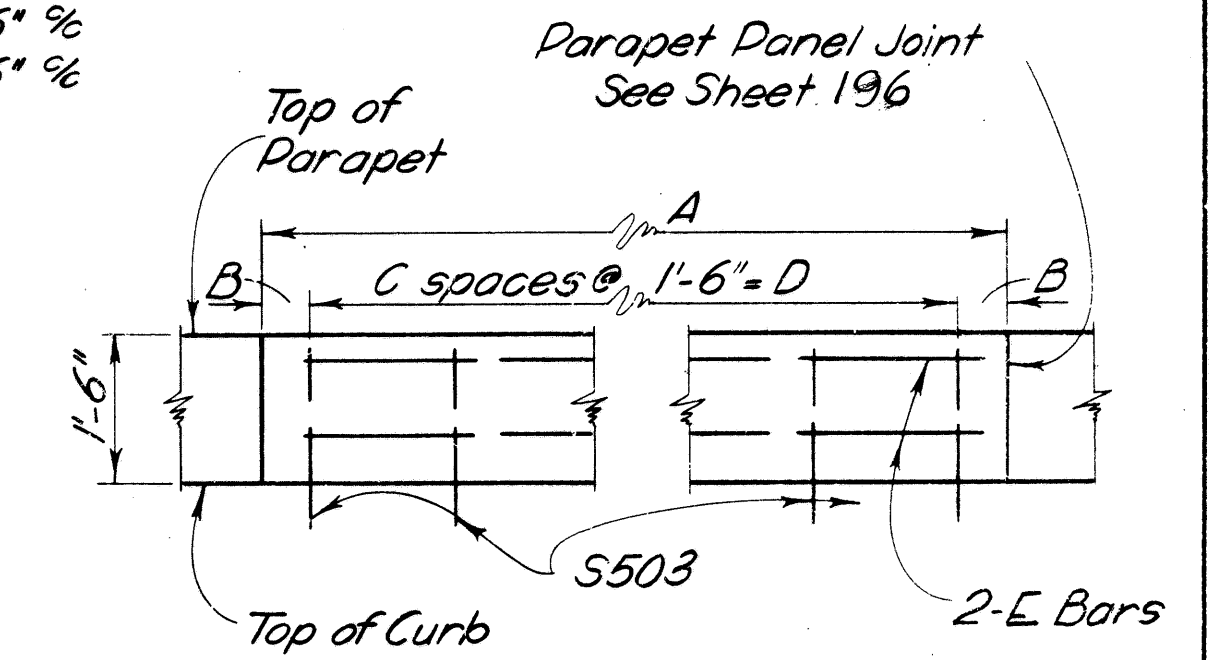
ERI. 6-3.80 ; ERI. 2-4.02



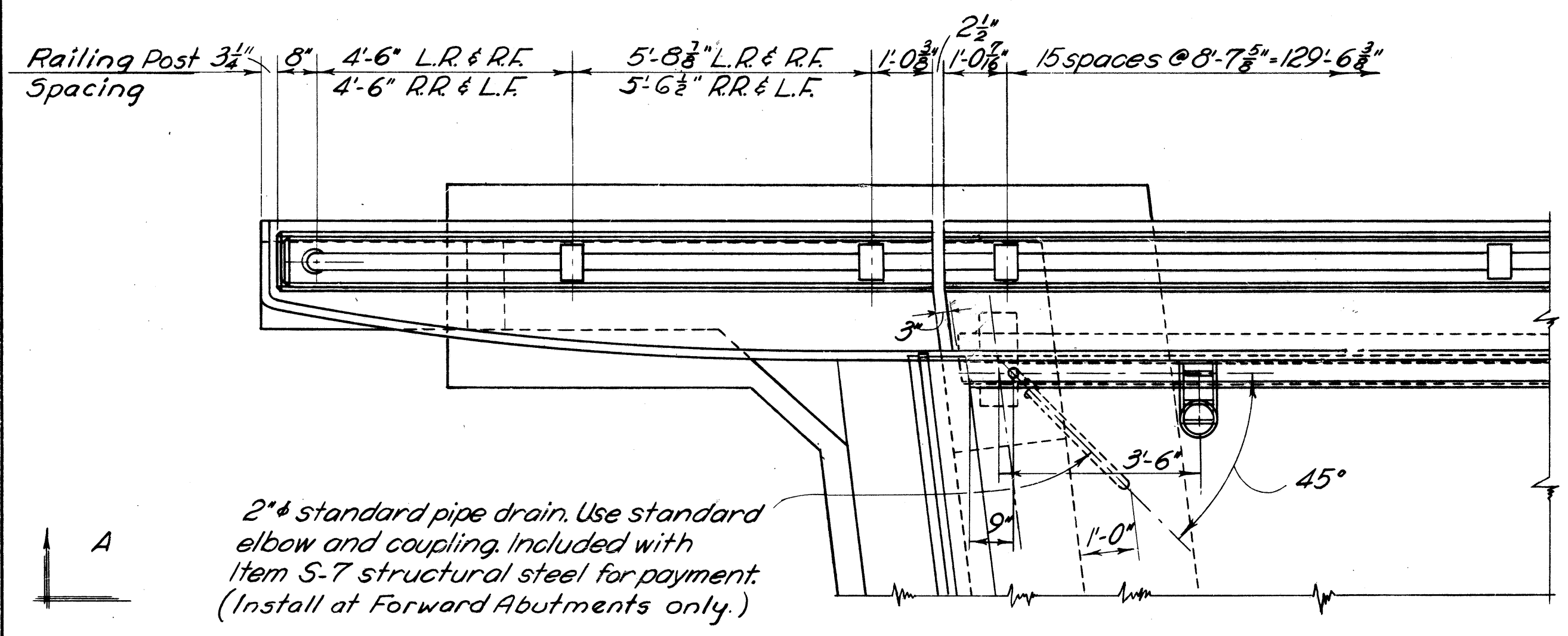
* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

**TRANSVERSE SECTION OF DECK
(LOOKING IN THE DIRECTION OF TRAFFIC)**

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.



PARAPET WALL DETAILS



PLAN AT ABUTMENT

L.R. = Left Rear Wingwall
R.F. = Right Forward Wingwall
R.R. = Right Rear Wingwall
L.F. = Left Forward Wingwall

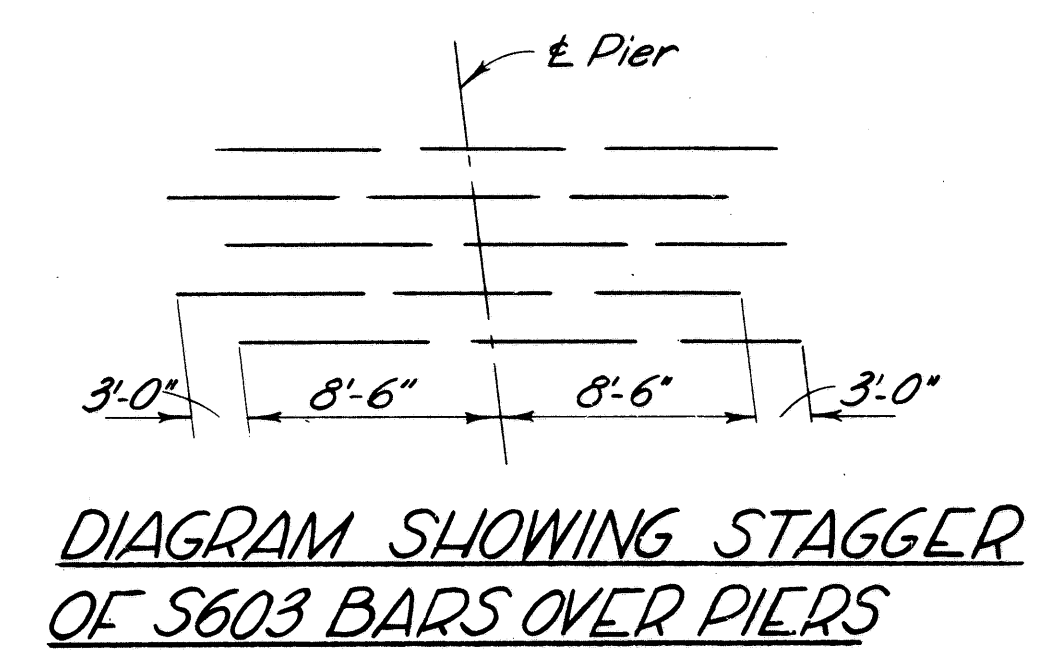
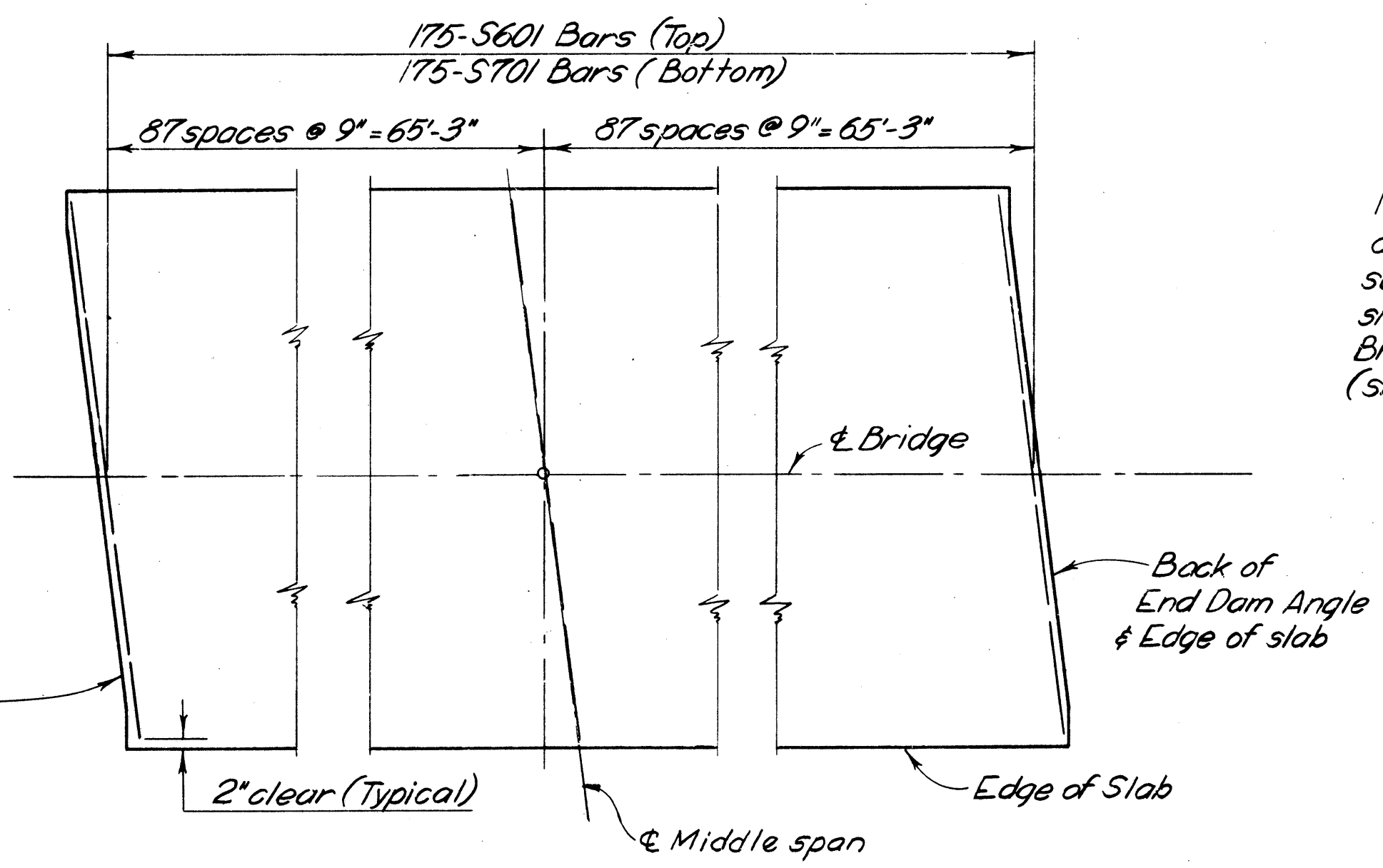


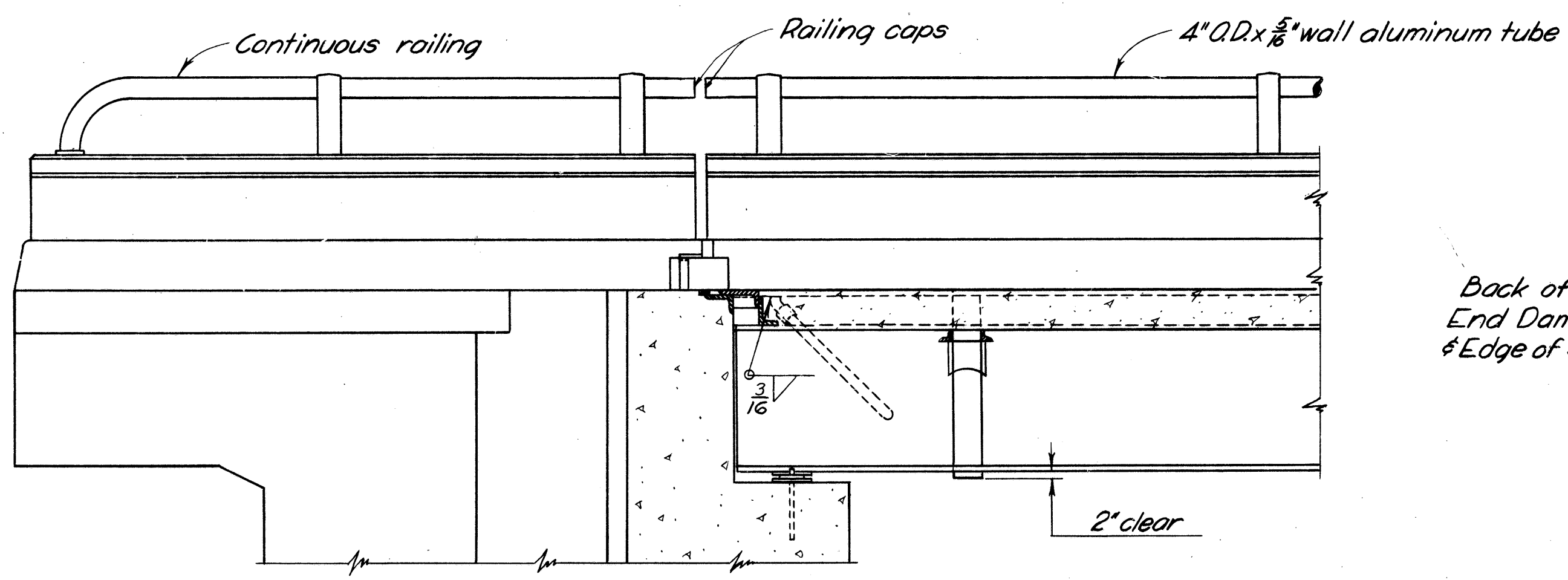
DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

Panel - See Sheet 196	A	B	C	D	No of S503	E Bars
Intermediate	17'-3 1/4"	4 5/8"	11	16'-6"	12	S504
Pier	9'-6 1/2"	3 3/4"	6	9'-0"	7	S505
Pier	7'-8 3/4"	1 3/8"	5	7'-6"	6	S506
End	13'-11 1/8"	3"	9	13'-6"	10	S507

NOTE: For bearing plate details, welded butt joint and other roadway end dam details, gutter and scupper details, and curb plate details see sheet 8 and "Standard Continuous Steel Beam Bridge", Drawing No. GSB-2-56 Revised 2-2-59. (sheets 2 of 6 sheets)



SLAB TRANSVERSE REINFORCING STEEL



SECTION A-A

MICROFIL...
SEP 11 1986

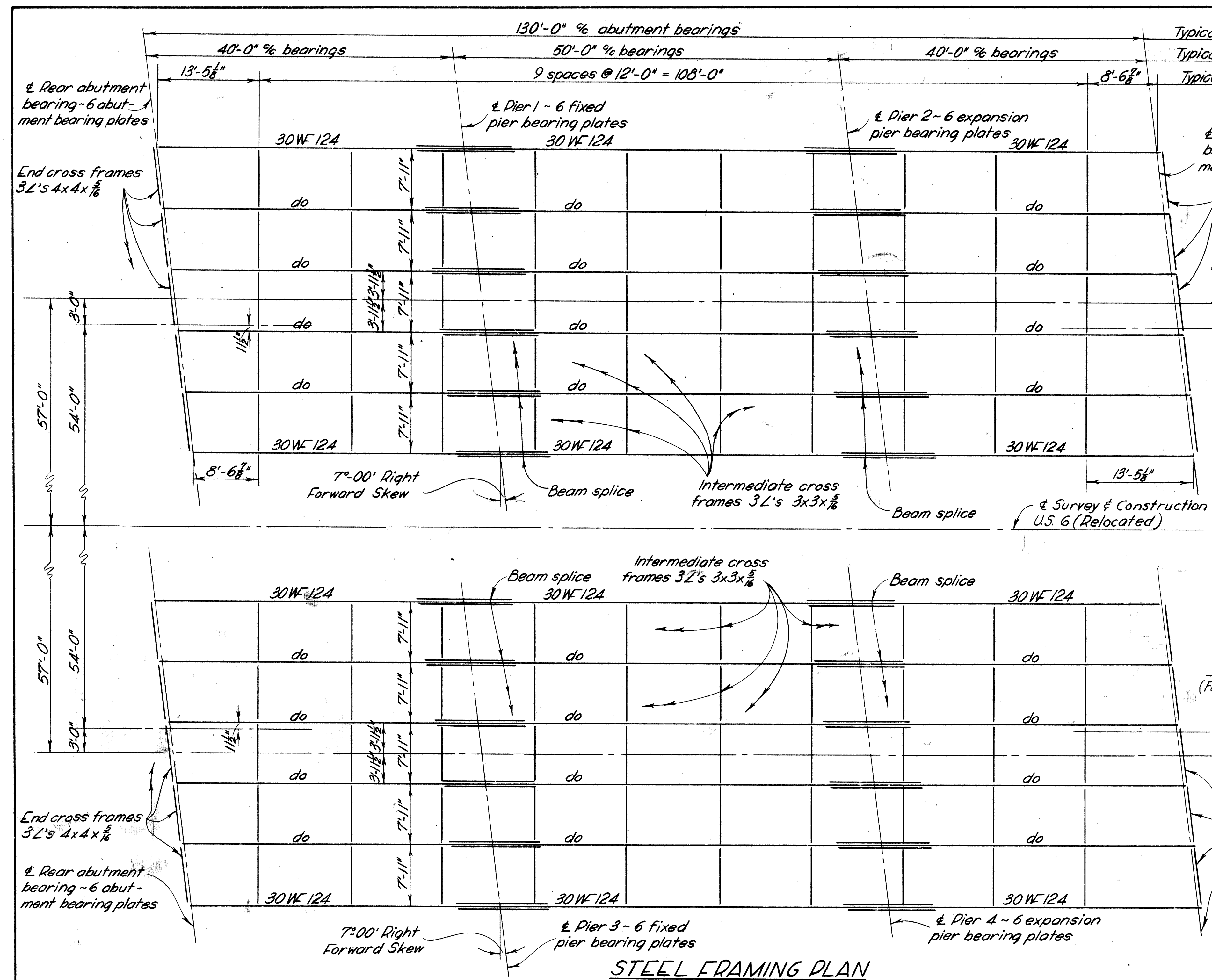
SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SUBSTRUCTURE DETAILS
BRIDGE No. ERI. 6-0702 LEFT & RIGHT
OVER
MILLS CREEK
Sta 622+40.73 to
Sta 623+75.27

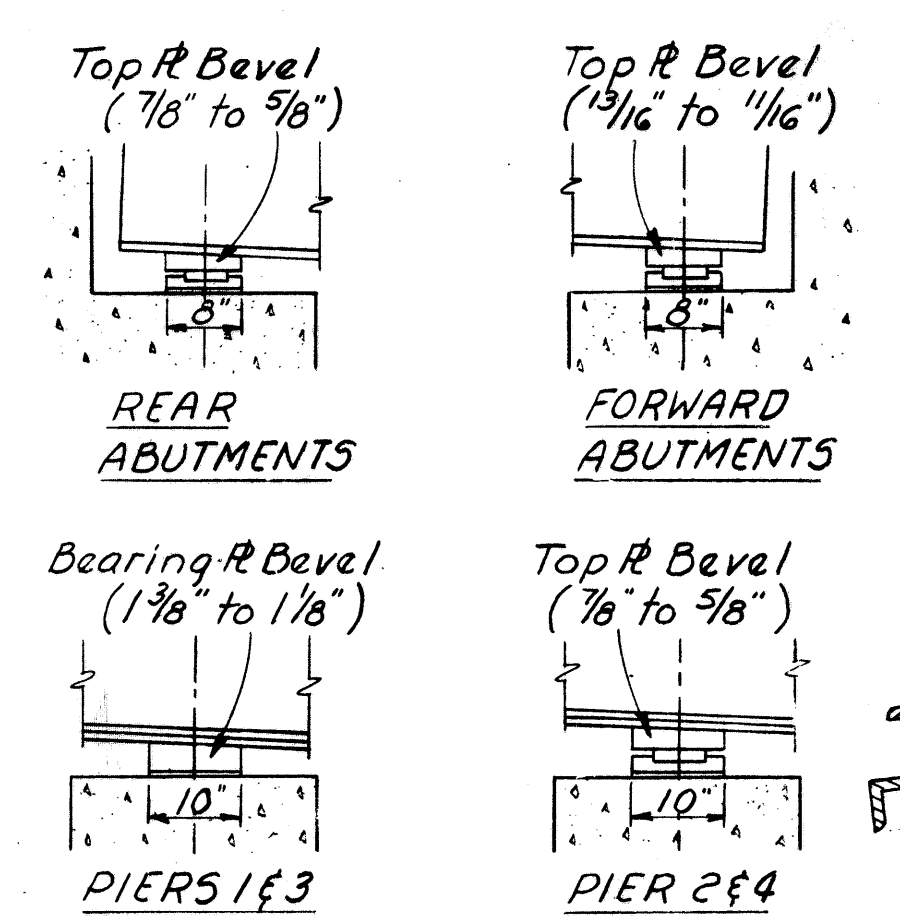
ERIC CO.
DESIGNED DRAWN TRACED CHECKED REVISION DATE REVISION

TFH	JEC	HOP	FCM	9-5-61
-----	-----	-----	-----	--------

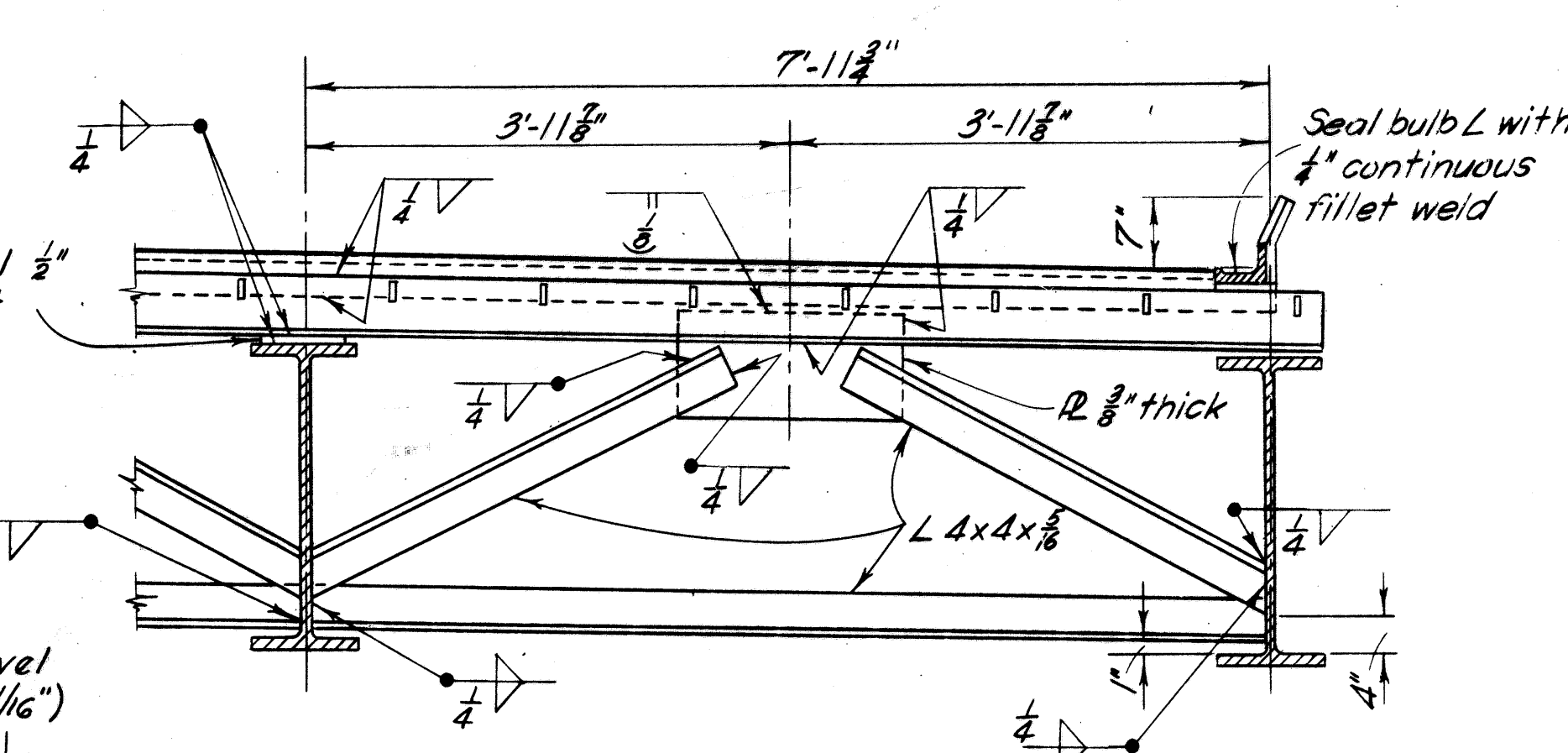
ERI. 6-380; ERI. 2-402



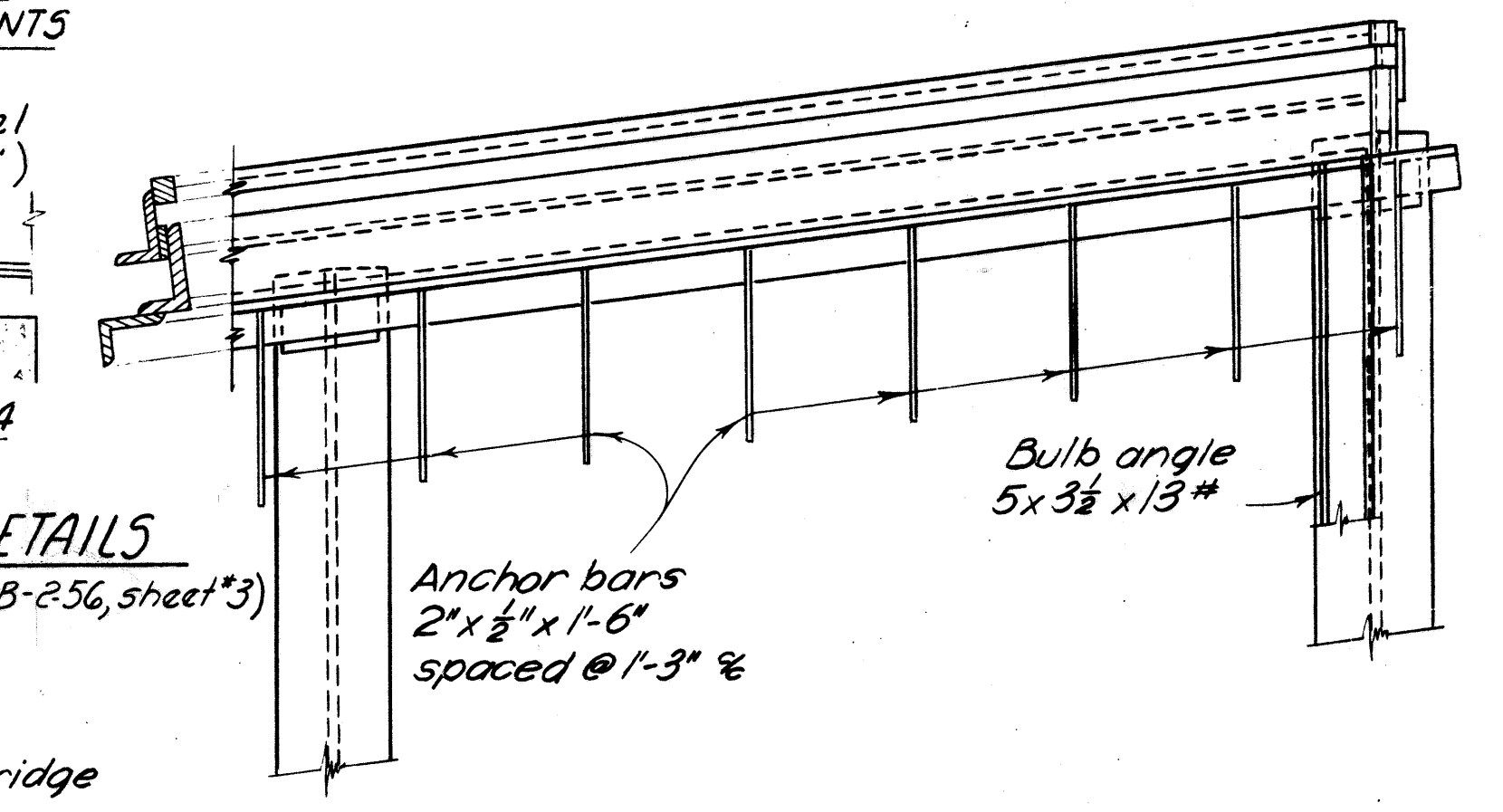
STEEL FRAMING PLAN



BEVELED BEARING PLATE DETAILS
(For additional details see Std. Plan C5B-256, sheet*3)



PART END DAM ELEVATION

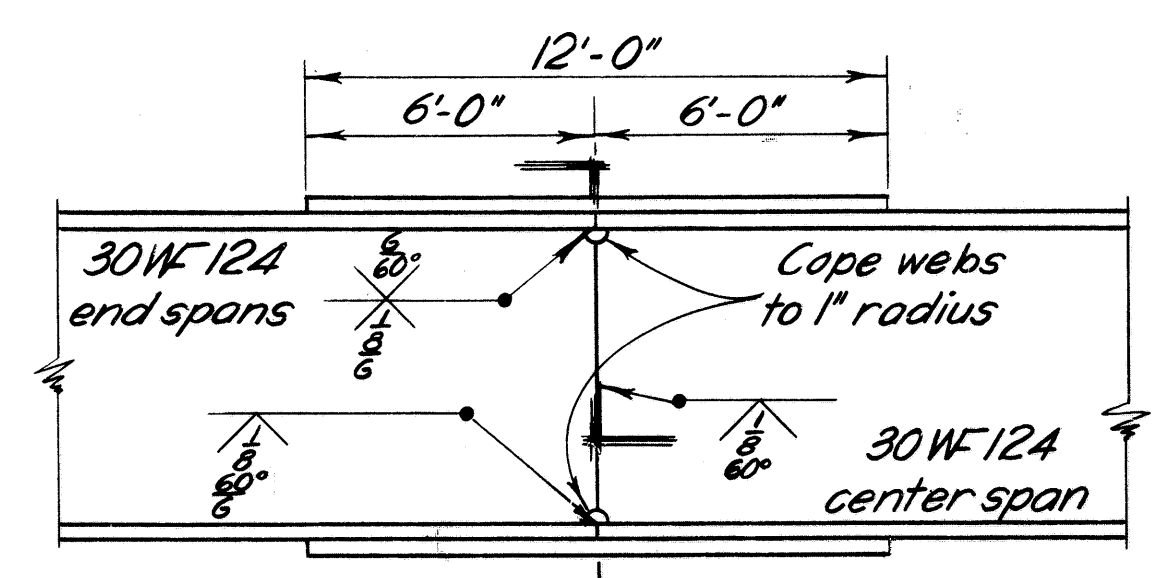


PART END DAM PLAN

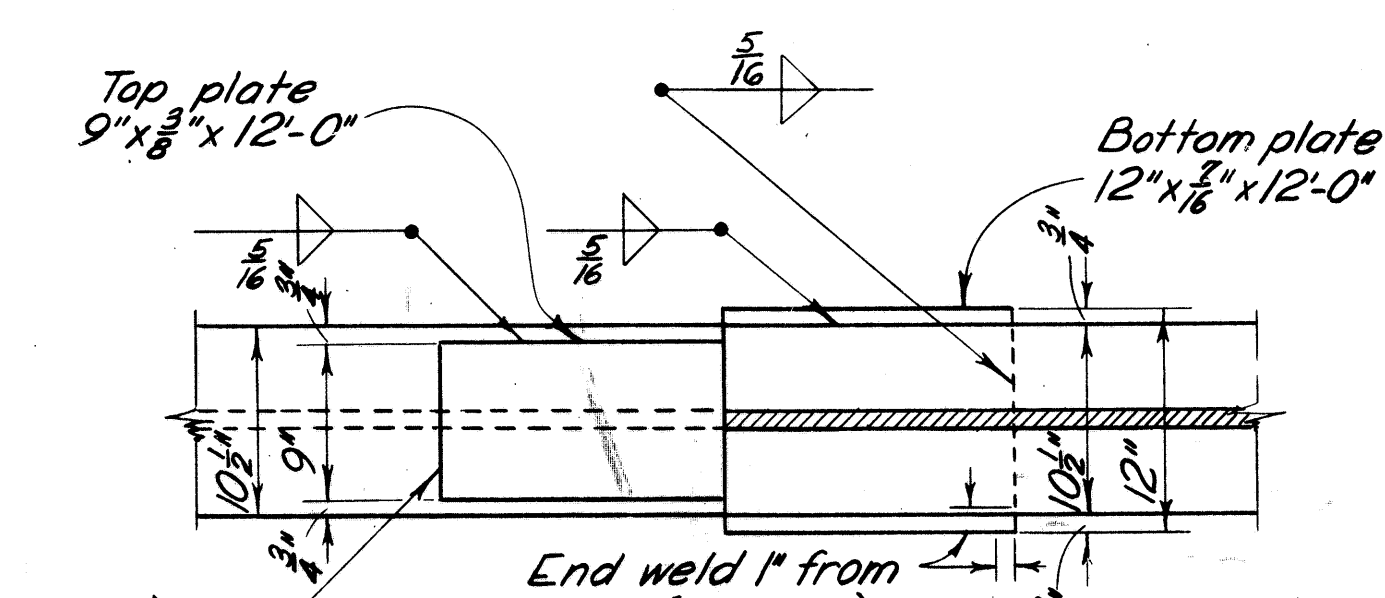
CAMBERING: No camber is required. Fabricate beams with convex flange up. The dead load deflection is $\frac{1}{8}$ " in the end spans and $\frac{1}{16}$ " in the center spans.

MICROFILMED
SEP 11 1986

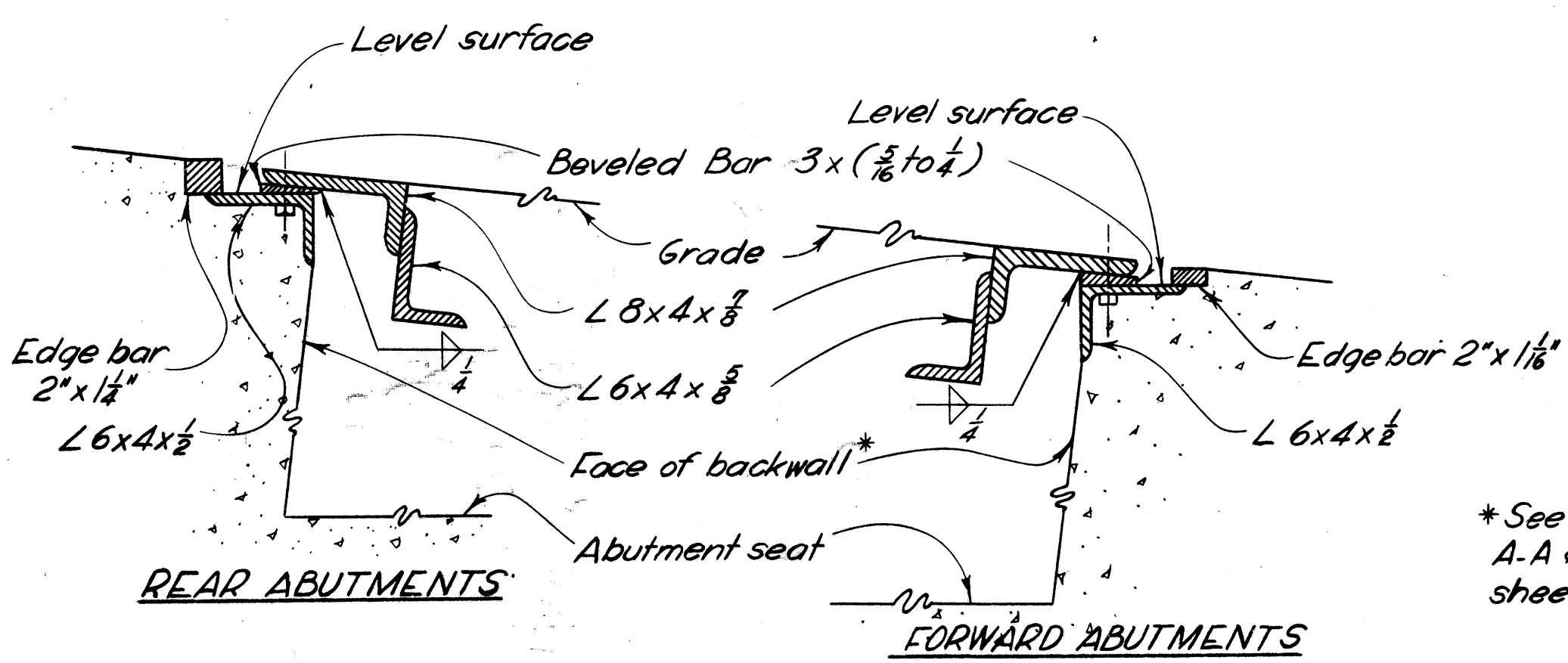
BEAM SPLICE WELDING PROCEDURE
1. Raise the abutment ends of beams $\frac{1}{8}$ "
2. Butt-weld the beam flanges and web, using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
3. Weld the bottom and top moment plates.
4. Lower the beam ends to final position.



ELEVATION BEAM SPLICE DETAIL



SECTION A-A



END DAM DETAILS

SANZENBACHER, MILLER & BRIGHAM CONSULTING ENGINEERS TOLEDO, OHIO					
SUPERSTRUCTURE DETAILS					
BRIDGE No. ERI. 6-0702 LEFT & RIGHT OVER MILLS CREEK					
* See Sections A-A & B-B on sheet 198					
ERIE CO.	Sta. 622+40.73 to Sta. 623+75.27				
DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE
TFH	JEC	HDP	BJH	FCM	9-5-61

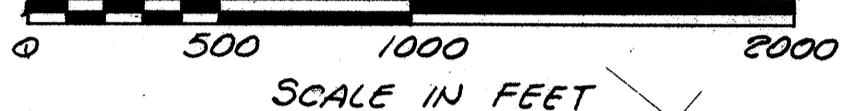
LOCATION PLAN DEPARTMENT OF HIGHWAYS ERI 2-4.02 ERI 6-3.80

FED. RD. DIVISION	STATE	PROJECT	203 220
2	OHIO		

LIMITED ACCESS
Sheet 1 of 2
176513
ERI-2-402 ; ERI-6-3.80

This improvement has been declared a limited access highway by action of the Director of Highways and recorded in Volume 43, Page 1122 and Volume 45, Pages 80 and 1348 of the Director's Journal.

MARGARETTA ANNEX MARGARETTA & PERKINS TOWNSHIPS ERIE COUNTY

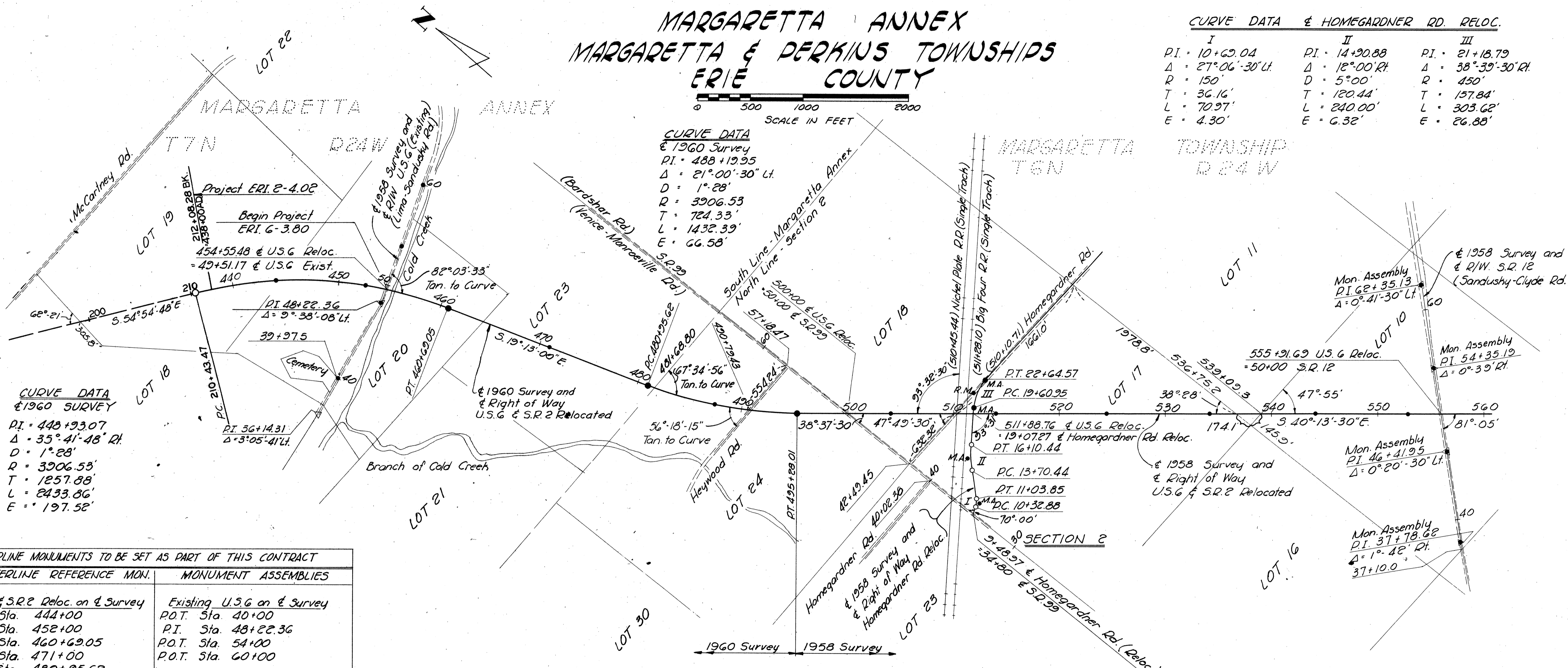


CURVE DATA & HOMEGARDNER RD. RELOC.

I	II	III
PI. 10+62.04	PI. 14+20.88	PI. 21+18.79
Δ = 27°06'-30" Lt.	Δ = 18°00' Rt.	Δ = 38°39'-30" Rt.
R = 150'	D = 5°00'	R = 450'
T = 36.16'	T = 120.44'	T = 157.84'
L = 70.97'	L = 240.00'	L = 303.62'
E = 4.30'	E = 6.32'	E = 26.88'

CURVE DATA

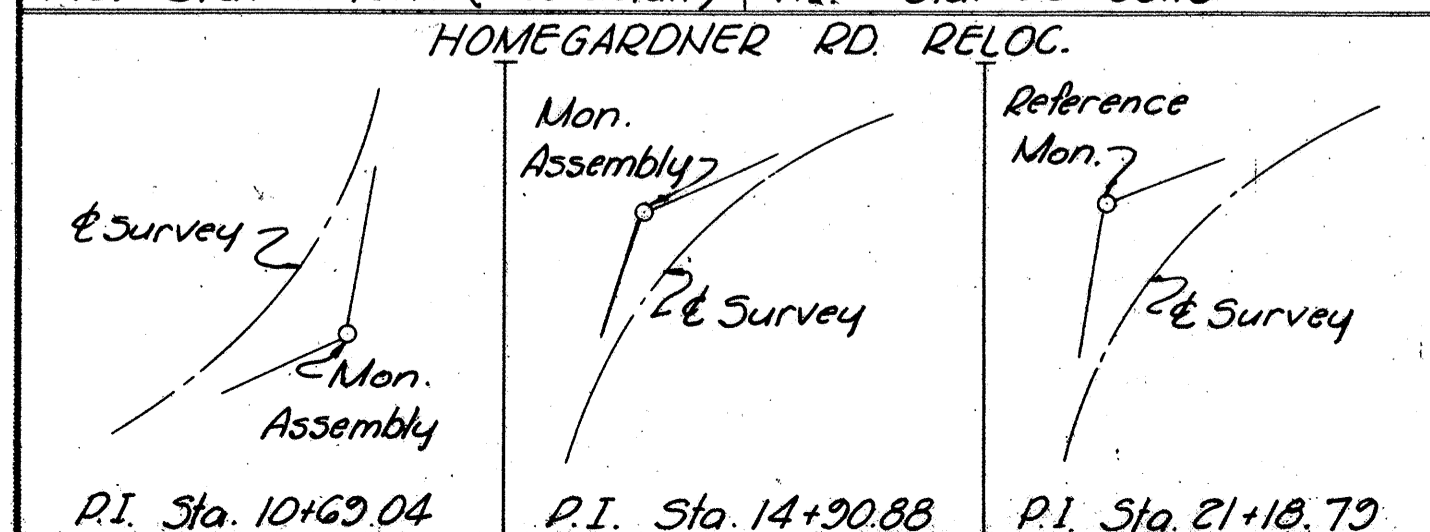
& 1960 Survey
 PI. 488+19.95
 Δ = 21°00'-30" Lt.
 D = 1°28'
 R = 3906.53
 T = 724.33'
 L = 1432.39'
 E = 66.58'



CURVE DATA
& 1960 SURVEY
 PI. 448+23.07
 Δ = 35°41'-48" Rt.
 D = 1°28'
 R = 3906.53'
 T = 1257.88'
 L = 2433.86'
 E = 197.52'

CENTERLINE MONUMENTS TO BE SET AS PART OF THIS CONTRACT

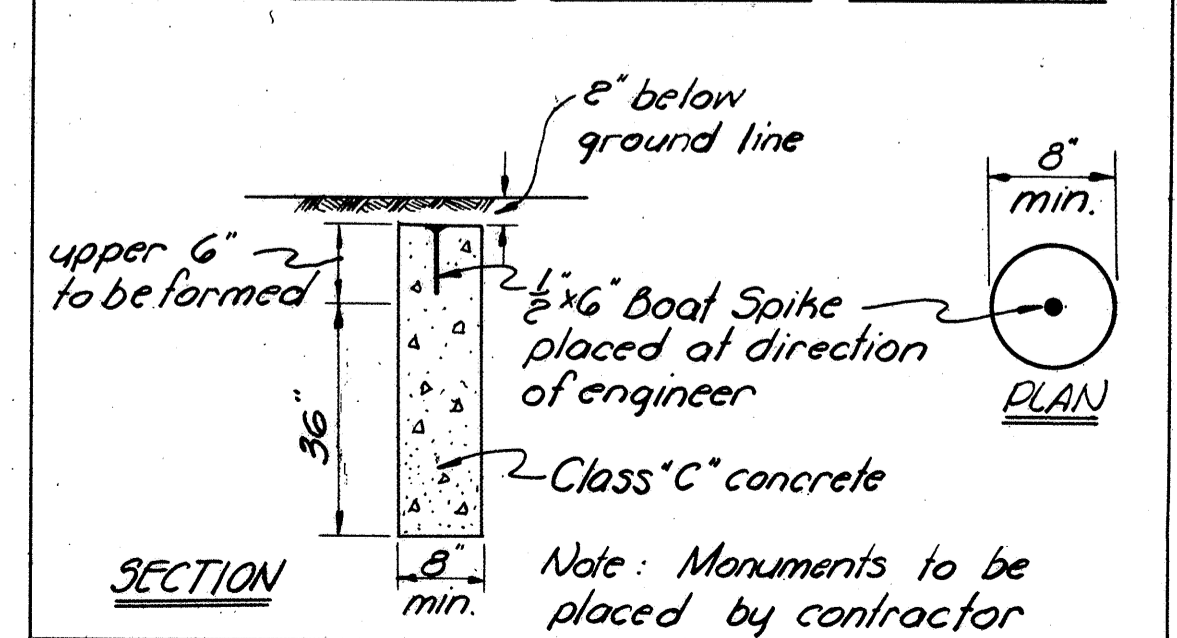
CENTERLINE REFERENCE MON.	MONUMENT ASSEMBLIES
U.S.G. & S.R.2 Reloc. on & Survey P.O.C. Sta. 444+00 P.O.C. Sta. 452+00 P.T. Sta. 460+69.05 P.O.T. Sta. 471+00 P.C. Sta. 480+95.62 P.O.C. Sta. 487+00 P.T. Sta. 495+28.01 P.O.T. Sta. 504+00 P.O.T. Sta. 514+00 P.O.T. Sta. 525+00 P.O.T. Sta. 535+00 P.O.T. Sta. 544+00 P.O.T. Sta. 553+00 Homegardner Rd. Reloc. P.I. Sta. 21+18.79 (See detail)	Existing U.S.G. on & Survey P.O.T. Sta. 40+00 P.I. Sta. 48+22.36 P.O.T. Sta. 54+00 P.O.T. Sta. 60+00 Homegardner Rd. Reloc. P.I. Sta. 10+62.04 (See detail) P.I. Sta. 14+20.88 (See detail) P.C. Sta. 19+60.95 & Survey P.T. Sta. 22+64.57 & Survey S.R. 12 on & Survey P.I. Sta. 37+78.62 P.I. Sta. 46+41.95 P.I. Sta. 54+35.19 P.I. Sta. 62+35.13



TOTAL REQUIRED (Sheets 142)
 Reference Monuments (as per plan) - 23
 Monument Assembly (Standard Const. Drawing RI-1) - 12

File # 177710
 REVISED JULY 18, 1961
 RECEIVED Aug 4 1961 AT 1:16 P.M.
 RECORDED Aug 4 1961
 PLAT BOOK 14 PAGE 70-71
 FEE 400 Paid
 SIGNED _____
 ERIE COUNTY RECORDER

DETAIL OF CENTERLINE REFERENCE MONUMENTS



I hereby certify this plat to be a true delineation of a survey made by Sanzenbacher, Miller & Brigham of Toledo, Ohio.
 Date: April 20, 1961 Signed _____
 Registered Surveyor No. 1892

Approved: _____ Date: May 12, 1961
 Signed: _____
 Division Deputy Director
 Professional Engineer No. 6311
 File # 176513 - 176514
 RECEIVED May 22 1961 AT 9:57 am
 RECORDED May 22 1961
 PLAT BOOK Vol 14 PAGE 68-69
 FEE 400 Paid
 SIGNED _____
 ERIE COUNTY RECORDER

LOCATION PLAN

DEPARTMENT OF HIGHWAYS

ERI 2-4.02 ERI 6-3.80

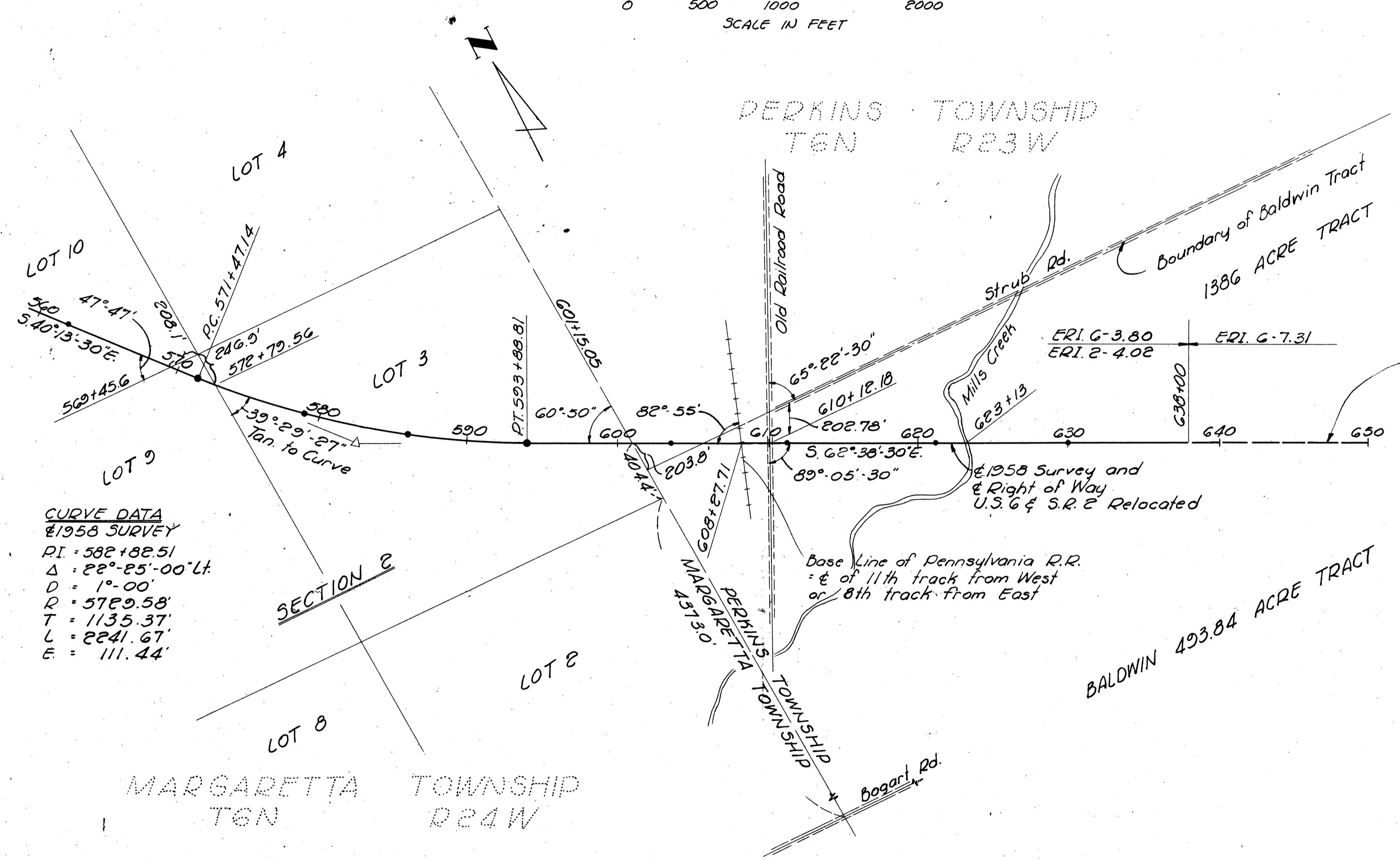
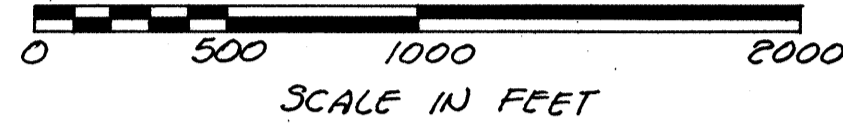
MARGARETTA ANNEX

MARGARETTA & PERKINS TOWNSHIPS

ERIE COUNTY

LIMITED ACCESS
 Sheet 2 of 2
 ERI-2-4.02; ERI-6-3.80

This improvement has been declared a limited access highway by action of the Director of Highways and recorded in Volume 43, Page 1120 and Volume 45, Pages 80 and 1348 of the Director's Journal.



CURVE DATA
 1958 SURVEY
 P.I. = 582+82.51
 $\Delta = 22^\circ 25' 00''$ Lt.
 D = 1'-00"
 R = 5729.58'
 T = 1135.37'
 L = 2241.67'
 E = 111.44'

CENTERLINE MONUMENTS TO BE SET AS PART OF THIS CONTRACT

CENTERLINE REFERENCE MONUMENTS	
<u>U.S.G. & S.R.E. Reloc. on E Survey</u>	
P.O.T. Sta.	562+00
P.C. Sta.	571+47.14
P.O.C. Sta.	579+00
P.O.C. Sta.	586+00
P.T. Sta.	593+88.81
P.O.T. Sta.	604+00
P.O.T. Sta.	611+20
P.O.T. Sta.	621+00
P.O.T. Sta.	630+00

SUMMARY OF ADDITIONAL R./W. REQUIRED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

205
220

ERI 6-3.80
ERI 2-4.02
R/W PLAN
LIMITED ACCESS

1
16

Total No. of Owners 36

PARCEL NO.	OWNER	DEED RECORD		DEED AREA (ACRES)	TO BE ACQUIRED		RESIDUE (ACRES)		SHEET NO.	REMARKS
		BOOK	PAGE		LAND(AC)	BLDG'S.	LEFT	RIGHT		
115	Russell L. & Catherine V. Meyers	283	232	1.50	0.015			1.44	3	
118	Karl E. & Ruth M. Steuh	194	32	0.646	0.05			0.50	3	See also ERI 2-1.34 Parcel 15-LA
119	William K. & Margaret L. Steuh	282 286 290	388 455 504	45.85	0.10			17.7	3	
119 A	William K. & Margaret L. Steuh				0.03				3	
119 LA	William K. & Margaret L. Steuh				10.96				2-4	
119 WA	William K. & Margaret L. Steuh								3	
119 WA-1	William K. & Margaret L. Steuh								3	
120 LA	William J. Quinn	121 246	370 244	38.84	12.03	Yes		26.23	2-4	
121 LA	Andrew A. & Verna V. Black	173 243	388 283, 285	0.30	0.28	Yes		0	4	
* 122	Viola Shepherd	285	295	0.25	0.09	Yes		0.15	4	
* 123	Amelia Koons, Frank Shepherd	159	312	3.0	0.17			2.7	4	
* 124	Norma O. Clarke	123 24	404 241	20.787	0.05			20.6	4	
125	Rowland H. & Grace B. Zimmerman	209	37, 40, 42		0.22				3	
125 LA	Rowland H. & Grace B. Zimmerman			29.85	2.44			4.0	3, 4	
126 LA	J. Richard & Randolph J. Dorn	165	412	71.78	13.49	Yes		42.2	3-5	
127	George P. Young	166	544		0.58				5	
127 LA	George P. Young			20.10	2.70			9.6	5	
128	Lauretta Mantey	146	549		1.01				5	
128 LA	Lauretta Mantey			31.29	4.58			14.4	5	
129	Not Assigned									
130	Mary C. Young	139 306	64 122		1.86				5, 6	
130 LA	Mary C. Young			38.06	8.46			16.9	5, 6	
131	J. Preston Levis	159	586		0.40				6	
131 LA	J. Preston Levis			8.519	0.15			7.8	6	
132	Alvah C. & Mabel Wiedenheft	242	563		0.77				6	See Parcel 144 LA
132 LA	Alvah C. & Mabel Wiedenheft			7.82	4.79			1.1	(L) 1.0	6
134 LA	Harriett L. Abele	261	168	0.25	0.21	Yes		0	6	
135	Alvina Schmitt	153 244 265	586 599 7, 3		0.74				6	
135 LA	Alvina Schmitt			10.0	0.84				6	
136 LA	Elmer A. & Bernice A. Miller	261	173	36.64	7.19			26.8	6	
137 LA	Mary Jane Neuscheler, et al	248 271	38 218	3.422	0.22			3.10	6	See Parcel 142 LA
138	New York, Chicago & St. Louis Railroad Co.	x	x		0.008				14	
138 A	New York, Chicago & St. Louis Railroad Co.				0.008				14	
138 Aerial	New York, Chicago & St. Louis Railroad Co.				0.083				14	
138 Aerial-1	New York, Chicago & St. Louis Railroad Co.				0.083				14	
138 SL	New York, Chicago & St. Louis Railroad Co.			x	0.163		x	x	14	X Not Required
139	Cleveland, Cincinnati, Chicago & St. Louis Railway	x	x		0.008				14	
139 A	Cleveland, Cincinnati, Chicago & St. Louis Railway				0.008				14	
139 B	Cleveland, Cincinnati, Chicago & St. Louis Railway				0.008				14	
139 C	Cleveland, Cincinnati, Chicago & St. Louis Railway				0.008				14	
139 D	Cleveland, Cincinnati, Chicago & St. Louis Railway				0.45				14	
139 Aerial	Cleveland, Cincinnati, Chicago & St. Louis Railway				0.125				14	
139 Aerial-1	Cleveland, Cincinnati, Chicago & St. Louis Railway			x	0.125		x	x	14	X Not Required

(L) Indicates residual lands that are landlocked.

PARCEL NO.	OWNER	DEED RECORD		DEED AREA (ACRES)	TO BE ACQUIRED		RESIDUE (ACRES)		SHEET NO.	REMARKS
		BOOK	PAGE		LAND(AC)	BLDG'S.	LEFT	RIGHT		
140	The Ohio Edison Company				1.19				13	
140 A	The Ohio Edison Company				0.08				13	
140 LA	The Ohio Edison Company				0.62				13	
141	Dorothea Louise Neuscheler	105	235		0.64				13	
141 A	Dorothea Louise Neuscheler				0.09				13	
141 LA	Dorothea Louise Neuscheler			33.64	5.99		20.4	6.4	6, 7	
142	Mary Jane Neuscheler, et al	248 271	38 218		0.014				13	
142 LA	Mary Jane Neuscheler, et al			14.15	2.30		(L) 4.3	7.5	7	See Parcel 137 LA
143 LA	Mary Jane Neuscheler, et al	271	218	13.50	2.25		(L) 3.0	8.25	7	
144 LA	Alvah & Mabel Wiedenheft	316	164	42.10	5.46		(L) 1.7	34.9	7	See Parcel 132
145	Walter R.J. Payne	167 174 178	311 474 523		0.65				8	See Parcels 151, 153
145 LA	Walter R.J. Payne				18.72				7-9	
145 T	Walter R.J. Payne				0.54				8	
146	Walter R.J. Payne				0.62				8	
146 LA	Walter R.J. Payne			131.2	1.41		78.4	29.5	8	
147 LA	Floyd G. & Lucille L. West	170	123	13.87	9.62		(L) 3.89		8-10	
148	Mary Murra	173	371		0.29				9	
148 LA	Mary Murra				3.17	Yes	9.71		8, 9	
148 T	Mary Murra			13.93	0.50	Yes			9	
149 LA	John & Eleanor M. Rider	287	26	0.44	0.39	Yes	0	0	9	
150 LA	Russell S. & Caroline L. Camp	281	298	0.43	0.26	Yes	(L) 0.12		9	
151	Walter R.J. Payne	273	499		0.39	Yes			9	See Parcels 145, 146, 153
151 LA	Walter R.J. Payne			10.815	5.37				9, 10	
152	Arthur J. Schoewe	213	45		0.20				9	
152 LA	Arthur J. Schoewe			12.52	1.28				10	
153	Walter R.J. Payne	(Included with Parcels 145, 146)			0.12				9	See Parcels 145, 146, 151
153 T	Walter R.J. Payne				0.39				9	
156 LA	Ford Motor Company	272 277	218 389	355.059	3.68		351.15	(L) 0.23	10	
156 Aerial	Ford Motor Company	309	525		0.027				16	
156 Aerial-1	Ford Motor Company				0.027				16	
156 A-X	Ford Motor Company				0.016				16	
156 A-Y	Ford Motor Company			1.35	0.016				16	
157 LA	The Wagner Quarries Company	135	149		2.57				10	
158 LA	The Wagner Quarries Company	87 137	534 525	125.4	9.11		(L) 8.9	104.8	10, 11	
159 LA	Manor Real Estate Company	259	441	23.5	8.11		(L) 9.7	(L) 5.7	11, 12 or 15	
160	The Connecting Railway Co.	x	x		0.007					
160 A	The Connecting Railway Co.				0.007				16	
160 B	The Connecting Railway Co.				0.007				16	
160 C	The Connecting Railway Co.				0.007				16	
160 LA	The Connecting Railway Co.				1.09				11, 16	
160 Aerial	The Connecting Railway Co.				0.38				16	
160 Aerial-1	The Connecting Railway Co.			x	0.37				16	
161 LA	Perry E. Keller, Jr. Elsie E. Keller, L.E.	207	495, 498	94.60	12.17		64.6	17.6	12	
122 T	Viola Shepherd				0.04	Yes			4	See Parcel 122
123 T	Amelia Koons, Frank Shepherd				0.19				4	See Parcel 123
124 T	Norma O. Clarke				0.25				4	See Parcel 124

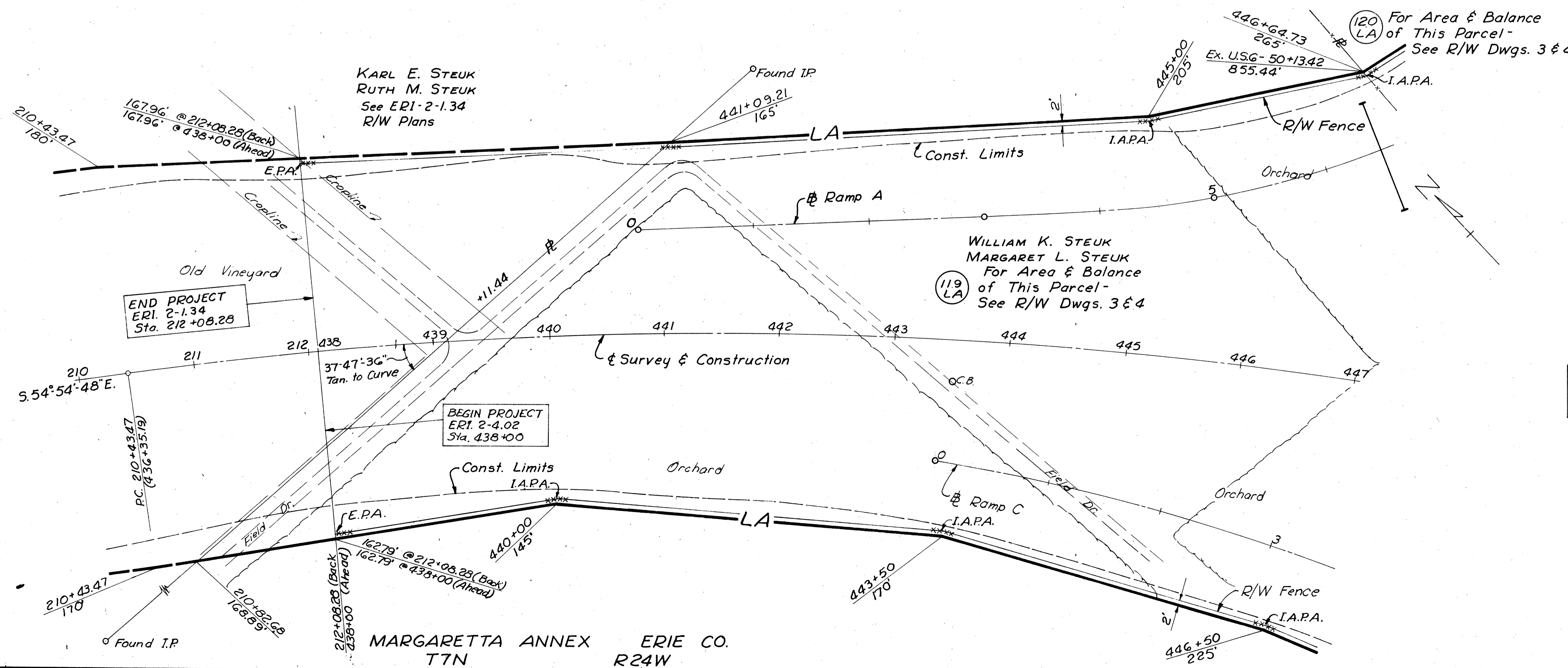
SANZENBACHER, MILLER & BRIGHAM TOLEDO - OHIO August 30, 1961

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

206
220

2
16

ERI 6-3.80
ERI 2-4.02
R/W PLAN
LIMITED ACCESS



CURVE DATA
& SURVEY
 $\Delta = 35^{\circ}41'48''$ Rt.
 $D = 1^{\circ}28'$
 $R = 3906.53'$
 $T = 1257.88'$
 $L = 2433.86'$
 $E = 197.52'$
 $PC = 436+35.19$
 $PI = 448+93.07$
 $PT = 460+69.05$

Total This Sheet
 SS-18 Type D Fence
 1830 Lin. Ft.

August 30, 1961
 ERI 6/2-3.80/3.20 R/W 2/16

R/W 425 to 447

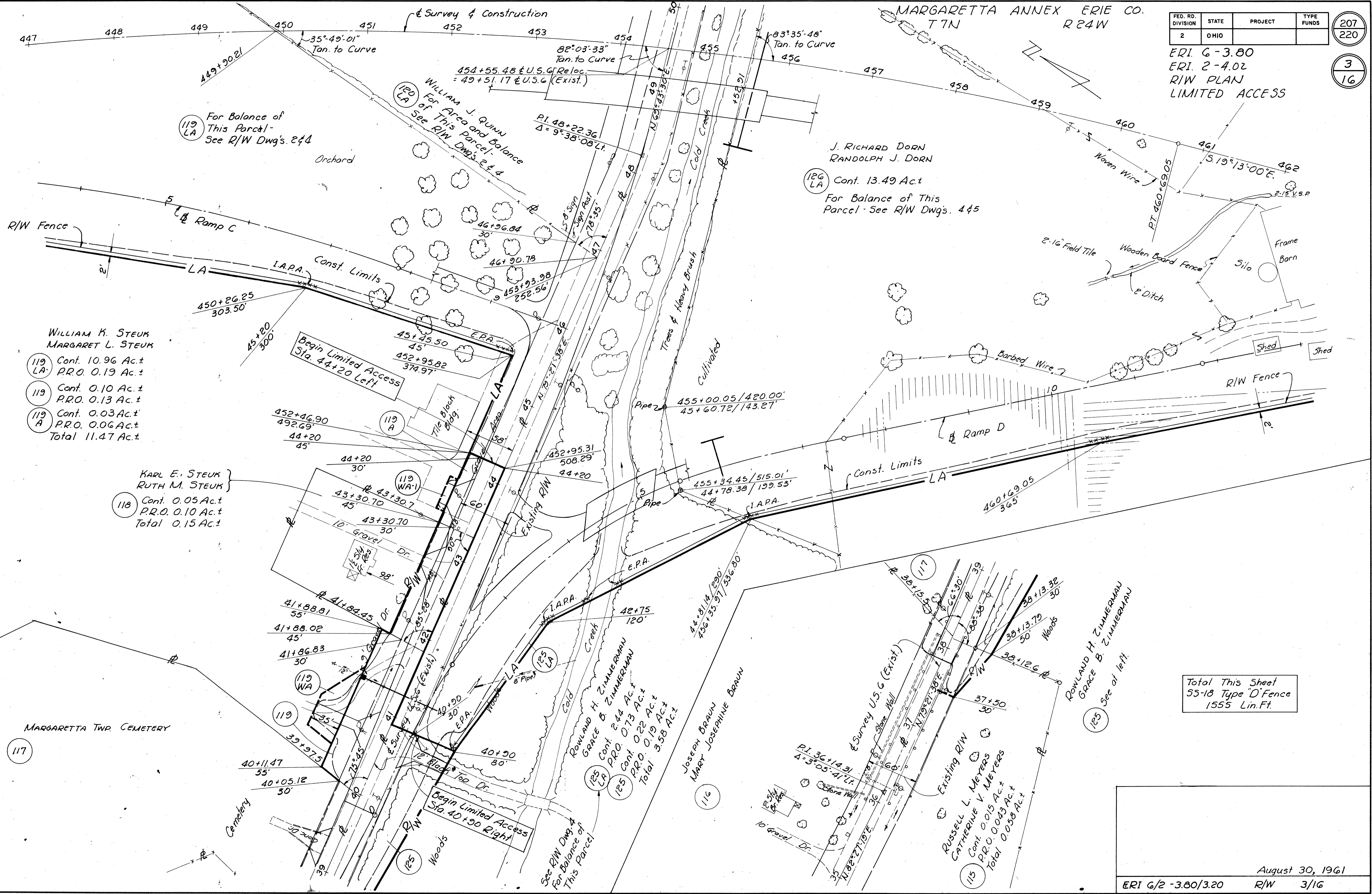
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

207
220

3
16

ERI 6-3.80
ERI 2-4.02
R/W PLAN
LIMITED ACCESS

MARGARETTA ANNEX ERIE CO.
T7N R24W



WILLIAM K. STEUK
MARGARET L. STEUK

119 LA Cont. 10.96 Ac.±
P.R.O. 0.19 Ac.±

119 Cont. 0.10 Ac.±
P.R.O. 0.13 Ac.±

119 A Cont. 0.03 Ac.±
P.R.O. 0.06 Ac.±
Total 11.47 Ac.±

KARL E. STEUK
RUTH M. STEUK

118 Cont. 0.05 Ac.±
P.R.O. 0.10 Ac.±
Total 0.15 Ac.±

ROWLAND H. ZIMMERMAN
GRACE B. ZIMMERMAN

125 LA Cont. 2.44 Ac.±
P.R.O. 0.73 Ac.±

125 Cont. 0.22 Ac.±
P.R.O. 0.19 Ac.±
Total 3.58 Ac.±

RUSSELL L. MEYERS
CATHERINE V. MEYERS

115 Cont. 0.015 Ac.±
P.R.O. 0.043 Ac.±
Total 0.058 Ac.±

ROWLAND H. ZIMMERMAN
GRACE B. ZIMMERMAN

125 See at left

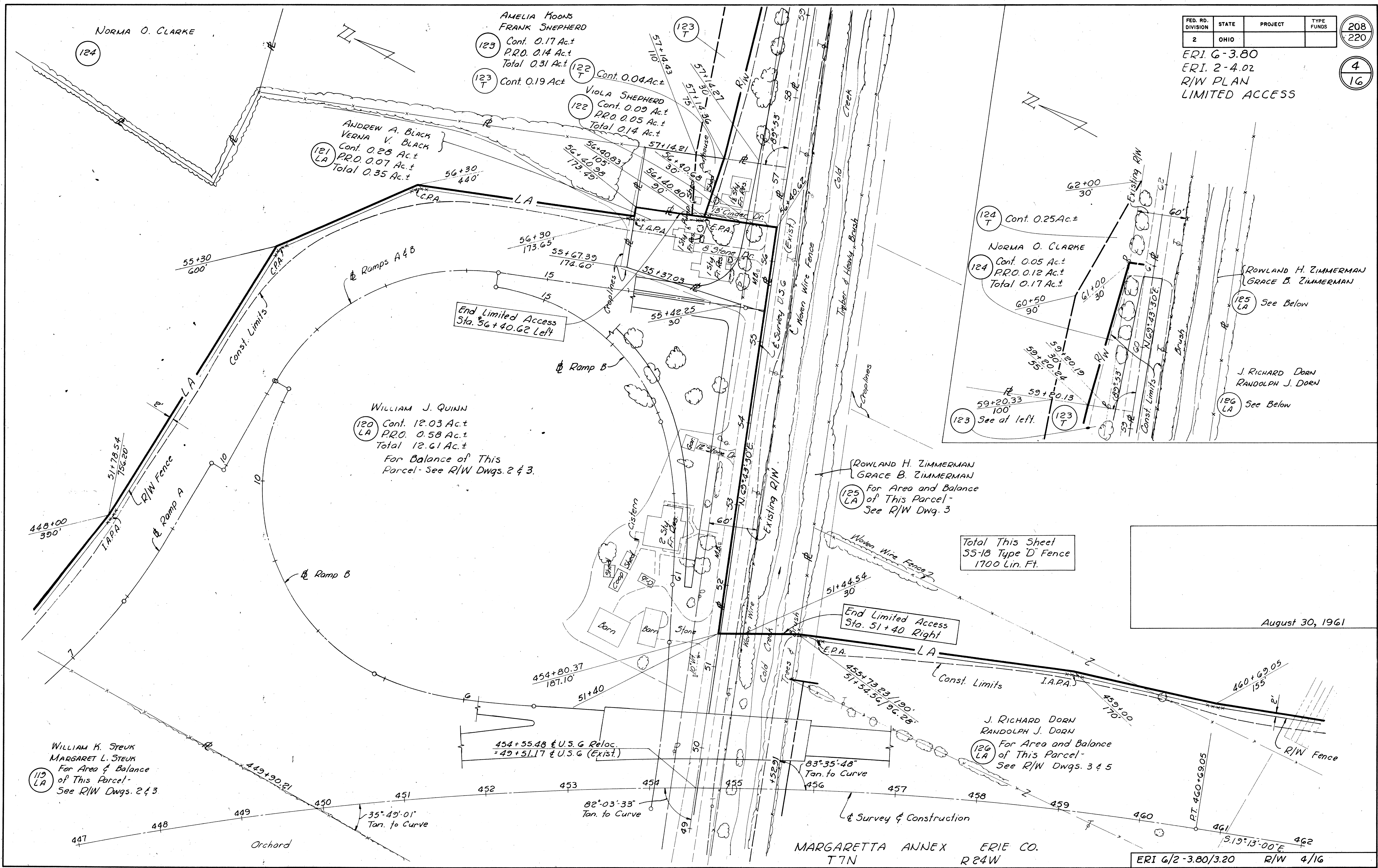
Total This Sheet
55-18 Type 'D' Fence
1555 Lin. Ft.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

208
220

4
16

ERI G-3.80
ERI 2-4.02
R/W PLAN
LIMITED ACCESS

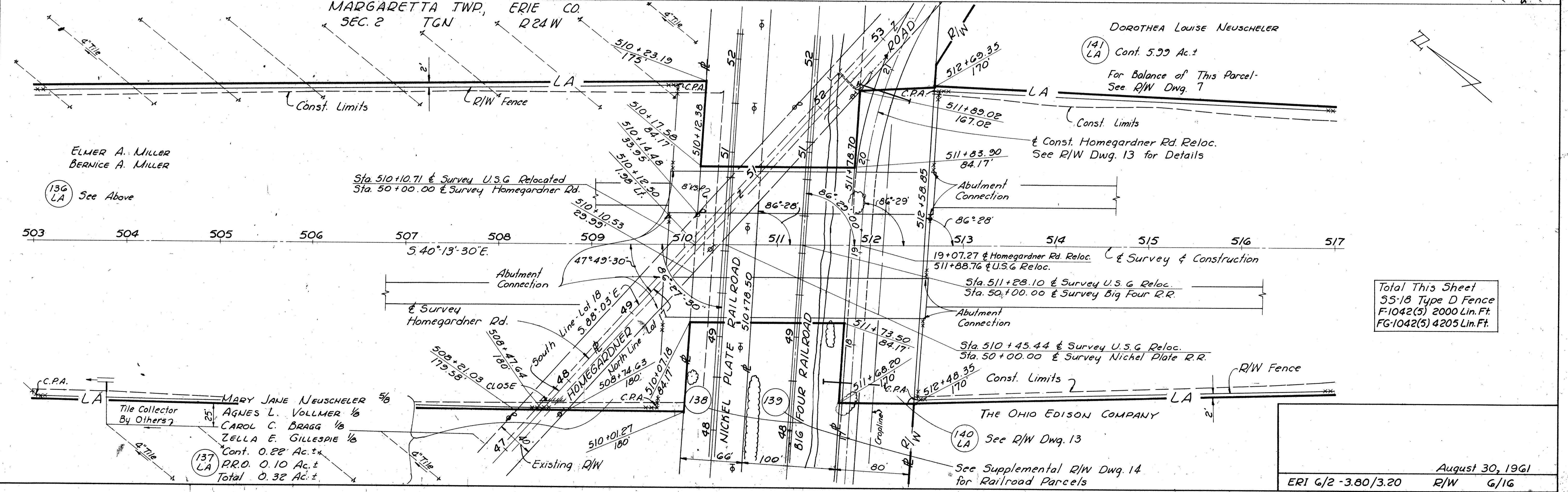
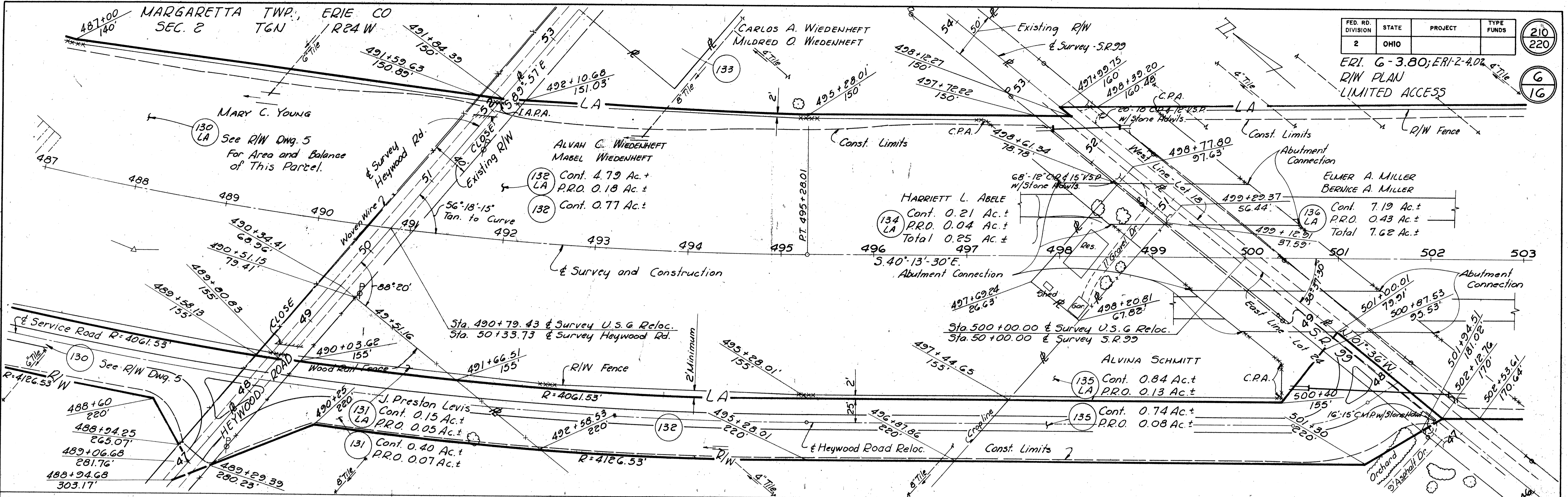


Total This Sheet
55-18 Type 'D' Fence
1700 Lin. Ft.

August 30, 1961

ERI G/2-3.80/3.20 R/W 4/16
R/W 447 to 462 East

MARGARETTA ANNEX ERIE CO.
T7N R24W



Total This Sheet
55-18 Type D Fence
F:1042(5) 2000 Lin. Ft.
FG:1042(5) 4205 Lin. Ft.

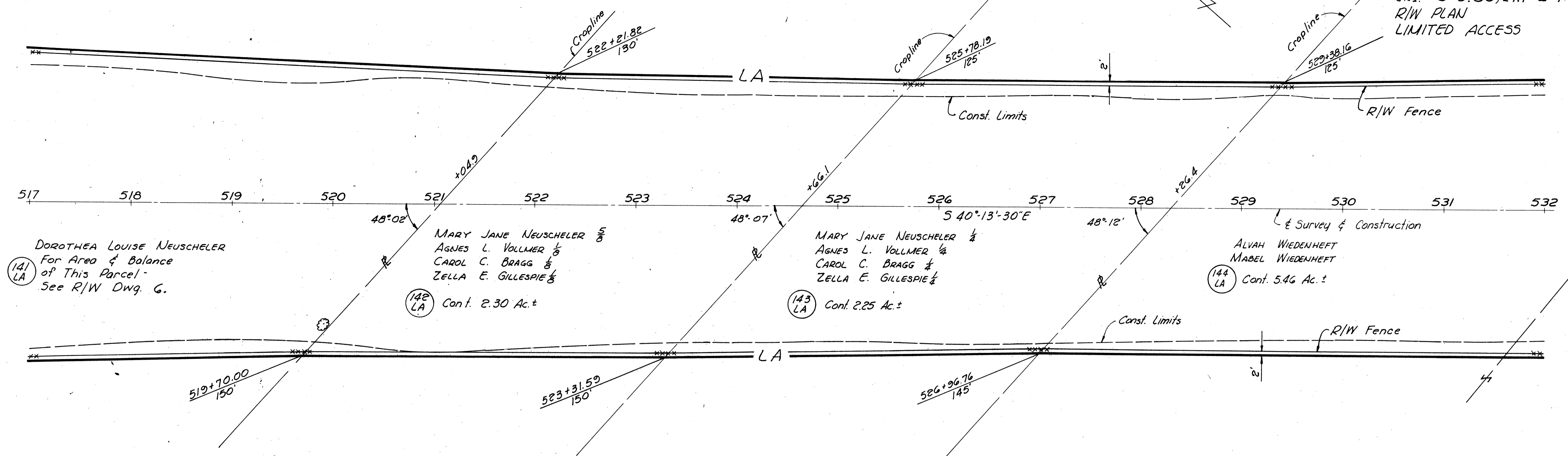
140 LA See R/W Dwg. 13
See Supplemental R/W Dwg. 14
for Railroad Parcels

MARGARETTA TWR, ERIE CO.
SEC. 2 T6N R24W

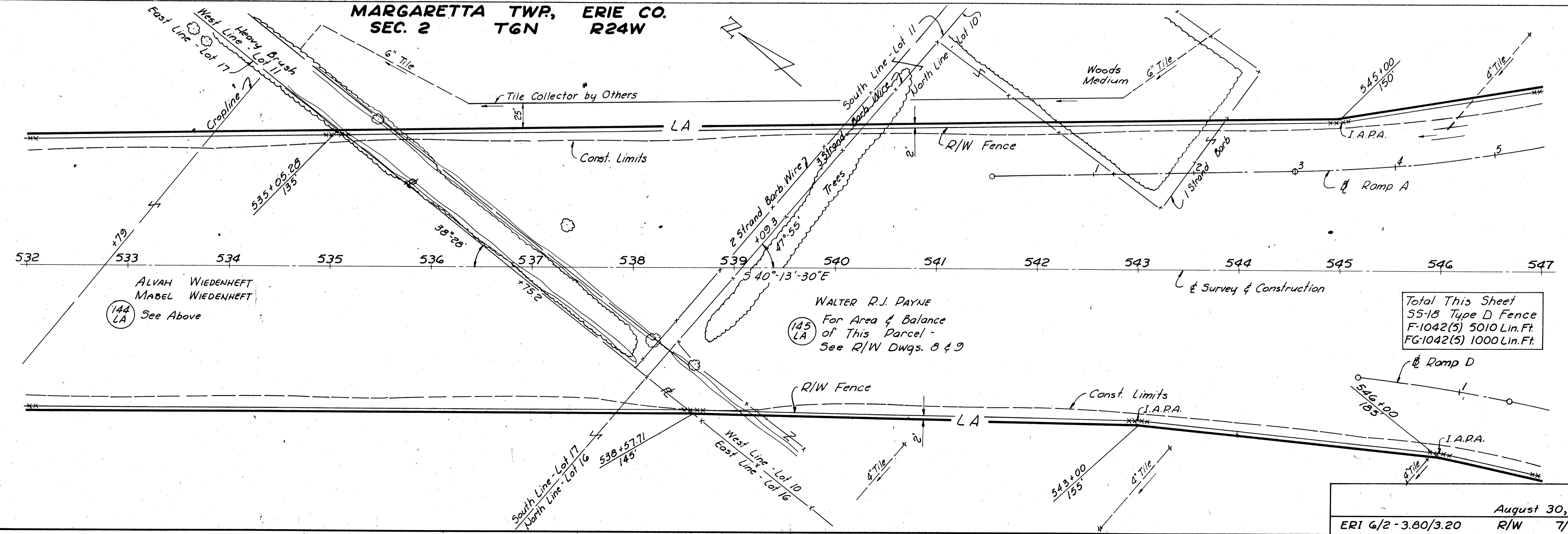
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

211
220
7
16

ERI G-3.80; ERI-2-4.02
R/W PLAN
LIMITED ACCESS



MARGARETTA TWR, ERIE CO.
SEC. 2 T6N R24W



Total This Sheet
55-18 Type D Fence
F-1042(5) 5010 Lin. Ft.
FG-1042(5) 1000 Lin. Ft.

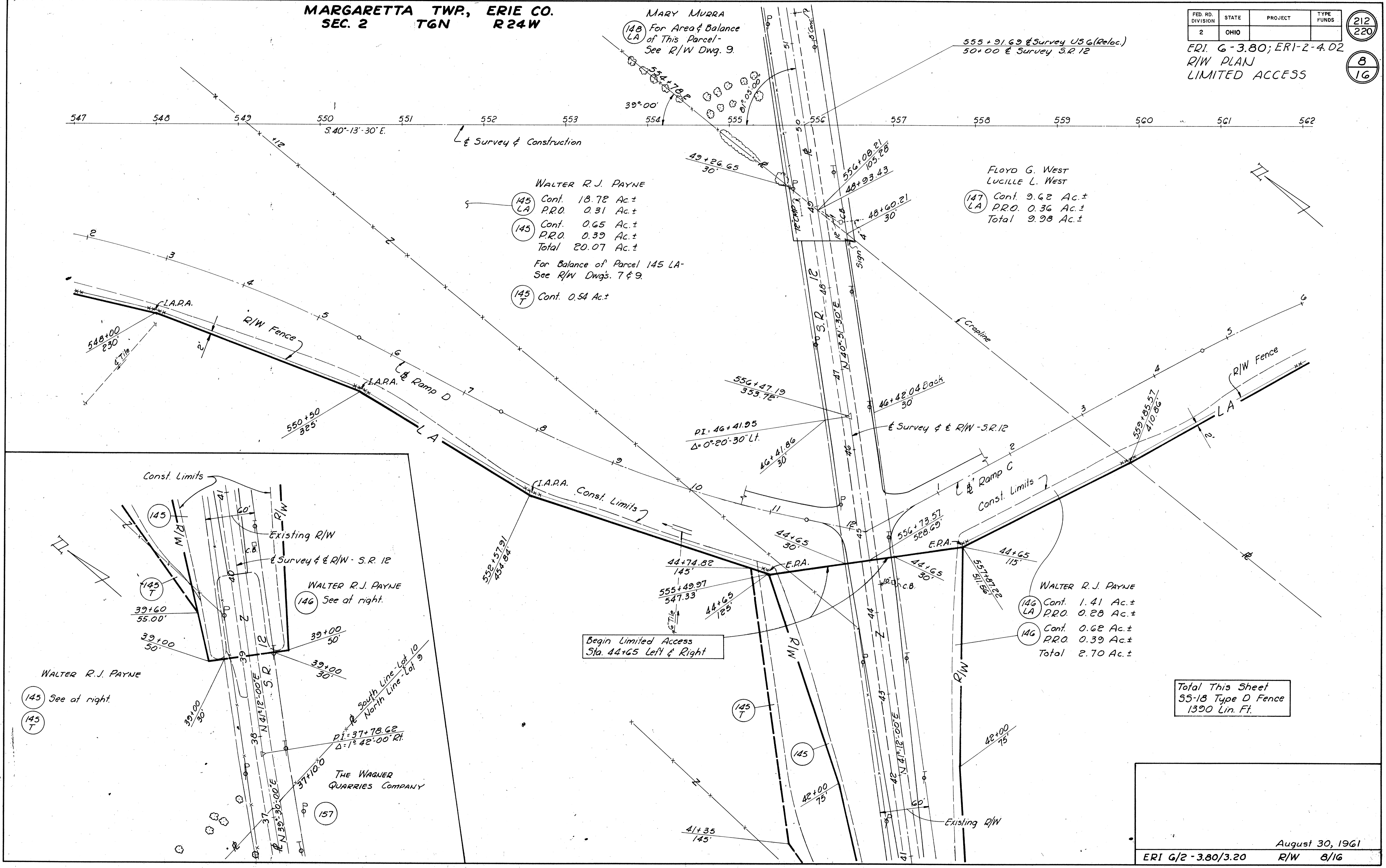
MARGARETTA TWP., ERIE CO.
SEC. 2 T6N R24W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI G-3.80; ERI-2-4.02
R/W PLAN
LIMITED ACCESS

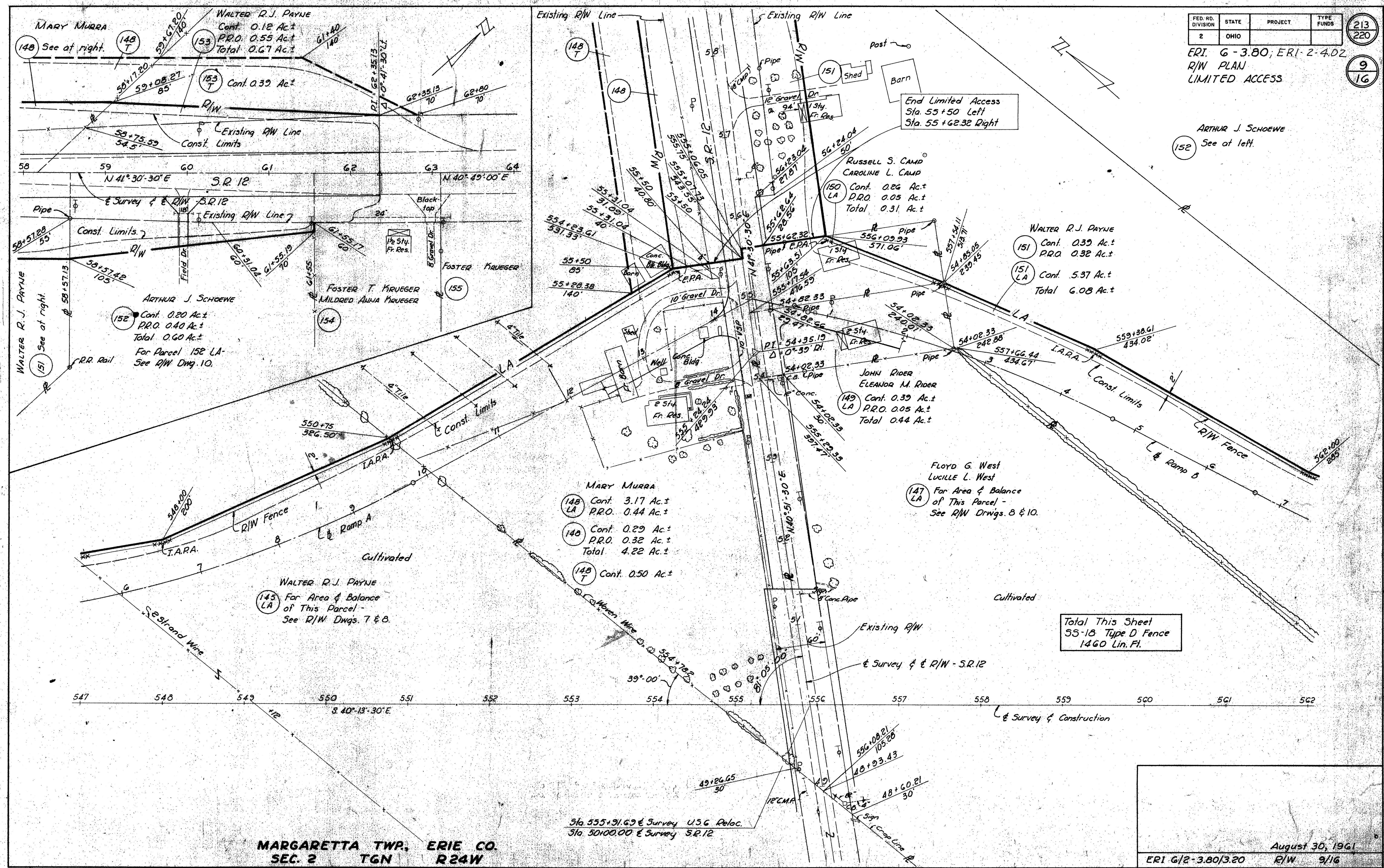
212
220

8
16



Begin Limited Access
Sta. 44+65 Left & Right

Total This Sheet
55-18 Type D Fence
1390 Lin. Ft.



End Limited Access
Sta. 55+50 Left
Sta. 55+62.32 Right

Total This Sheet
55-18 Type D Fence
1460 Lin. Ft.

Sta. 555+91.69 & Survey USG Reloc.
Sta. 50+00.00 & Survey S.R.12

MARGARETTA TWP., ERIE CO.
SEC. 2 TGN R24W

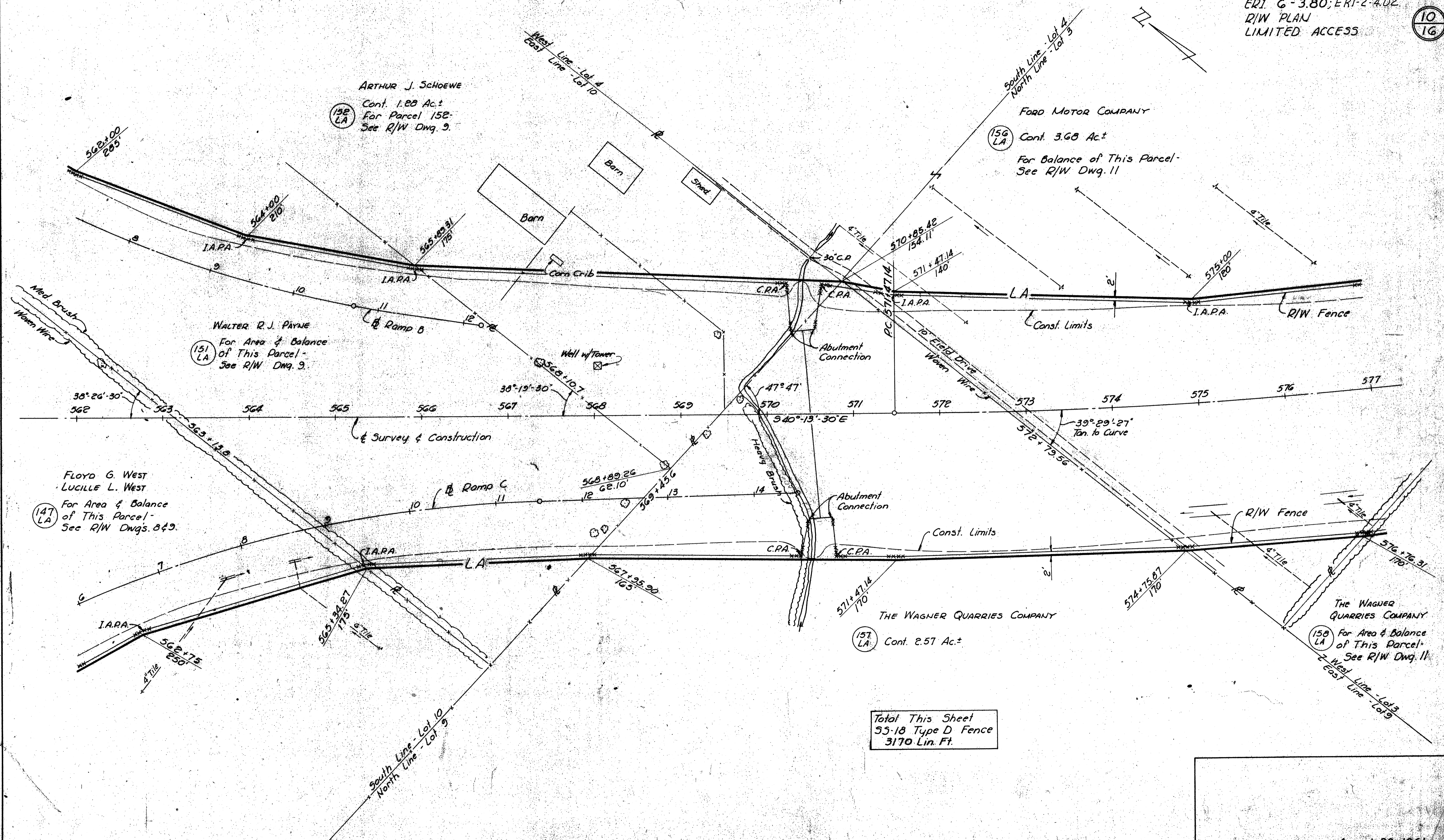
MARGARETTA TWP, ERIE CO.
SEC. 2 TGN R24W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

214
220

ERI G-3.80; ERI-2-4.02.
R/W PLAN
LIMITED ACCESS

10
16



ARTHUR J. SCHOEWE
Cont. 1.28 Ac±
For Parcel 152-
See R/W Dwg. 9.

FORD MOTOR COMPANY
156 LA
Cont. 3.68 Ac±
For Balance of This Parcel-
See R/W Dwg. 11

WALTER R. J. PAYNE
151 LA
For Area & Balance
of This Parcel-
See R/W Dwg. 9.

FLOYD G. WEST
LUCILLE L. WEST
147 LA
For Area & Balance
of This Parcel-
See R/W Dwg. 8 & 9.

THE WAGNER QUARRIES COMPANY
150 LA
For Area & Balance
of This Parcel-
See R/W Dwg. 11

THE WAGNER QUARRIES COMPANY
151 LA
Cont. 2.57 Ac±

Total This Sheet
55-18 Type D Fence
3170 Lin. Ft.

MARGARETTA TWP, ERIE CO.
SEC. 2 T6N R24W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

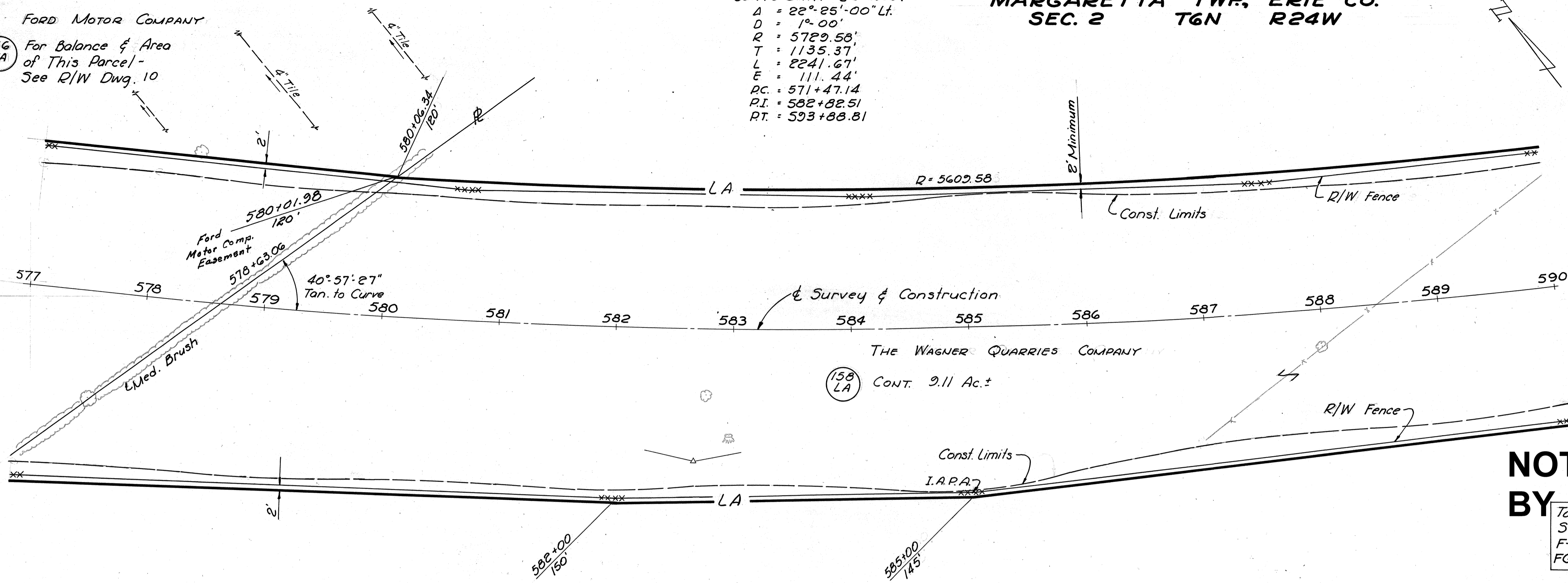
215
220

11
16

ERI G-3.80
R/W PLAN
LIMITED ACCESS

CURVE DATA - & SURVEY
 $\Delta = 22^\circ 25' 00''$ Lt.
 $D = 1^\circ 00'$
 $R = 5729.58'$
 $T = 1135.37'$
 $L = 2241.67'$
 $E = 111.44'$
 $PC = 571+47.14$
 $PI = 582+82.51$
 $PT = 593+88.81$

FORD MOTOR COMPANY
 (156 LA) For Balance & Area of This Parcel - See R/W Dwg. 10

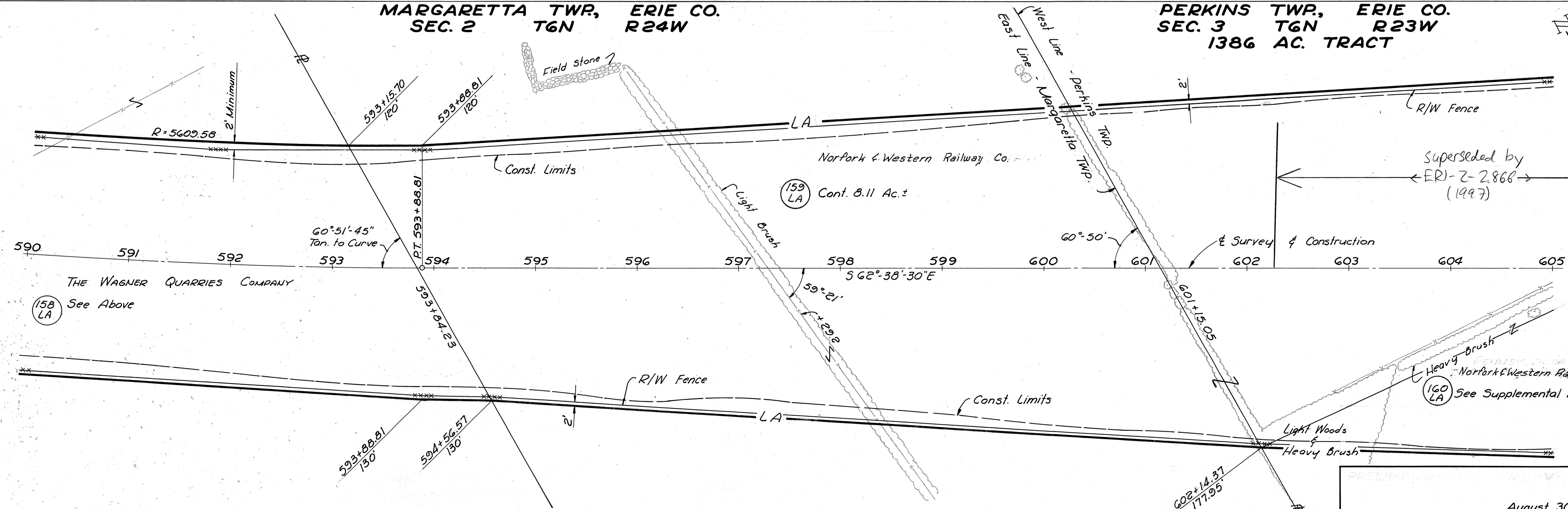


NOTE SUPERSEDED BY

Total This Sheet
 55-18 Type D Fence
 F-1042(5) 3520 Lin. Ft.
 FG-1042(5) 2100 Lin. Ft.

MARGARETTA TWP, ERIE CO.
SEC. 2 T6N R24W

PERKINS TWP, ERIE CO.
SEC. 3 T6N R23W
1386 AC. TRACT



Superseded by
 ERI-Z-2866
 (1997)

August 30, 1961
 ERI G/2-3.80/3.20 R/W 11/16
 R/W 577 to 605

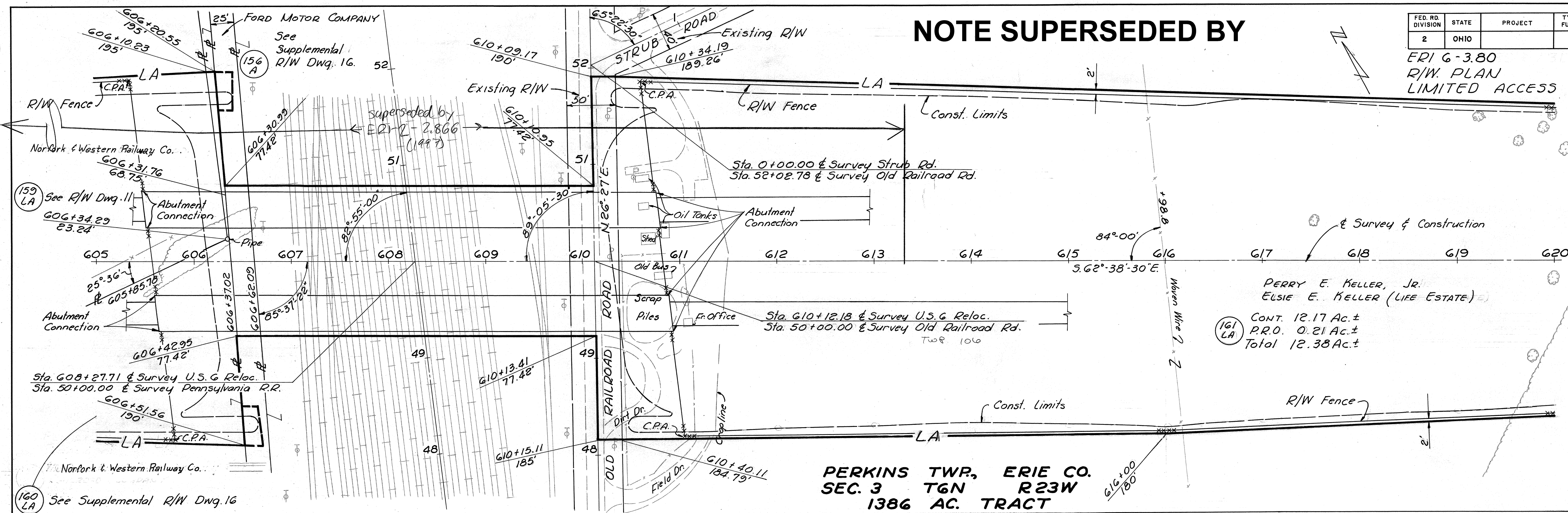
NOTE SUPERSEDED BY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

216
220

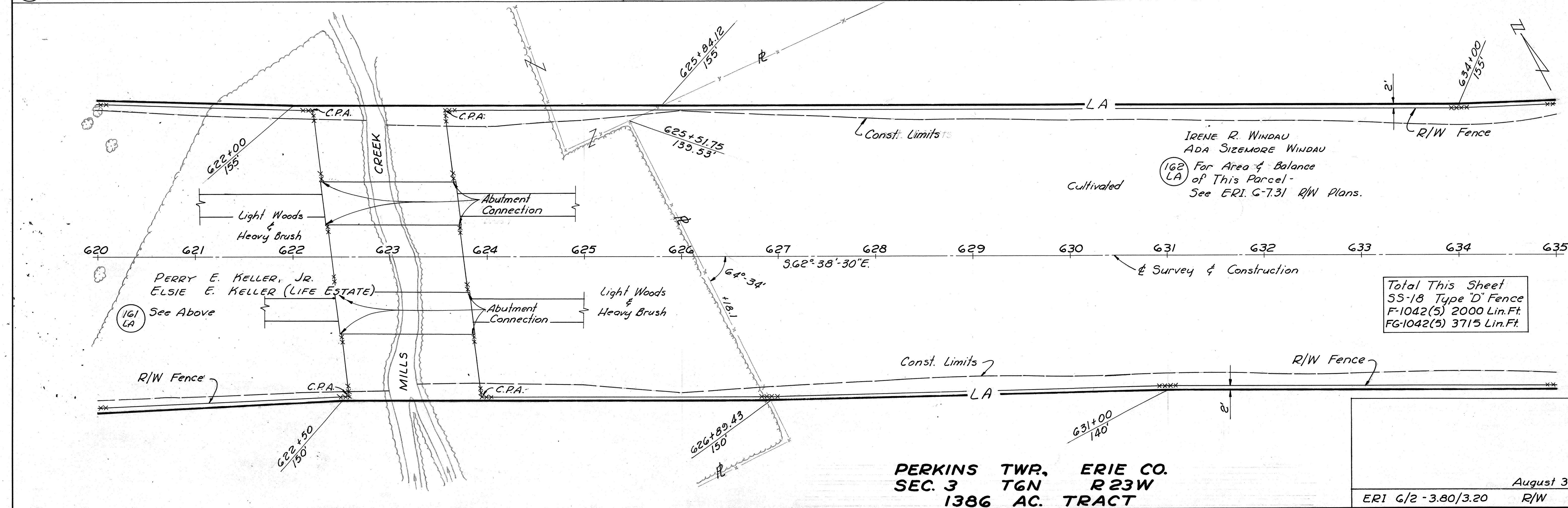
12
16

ERI G-3.80
R/W PLAN
LIMITED ACCESS

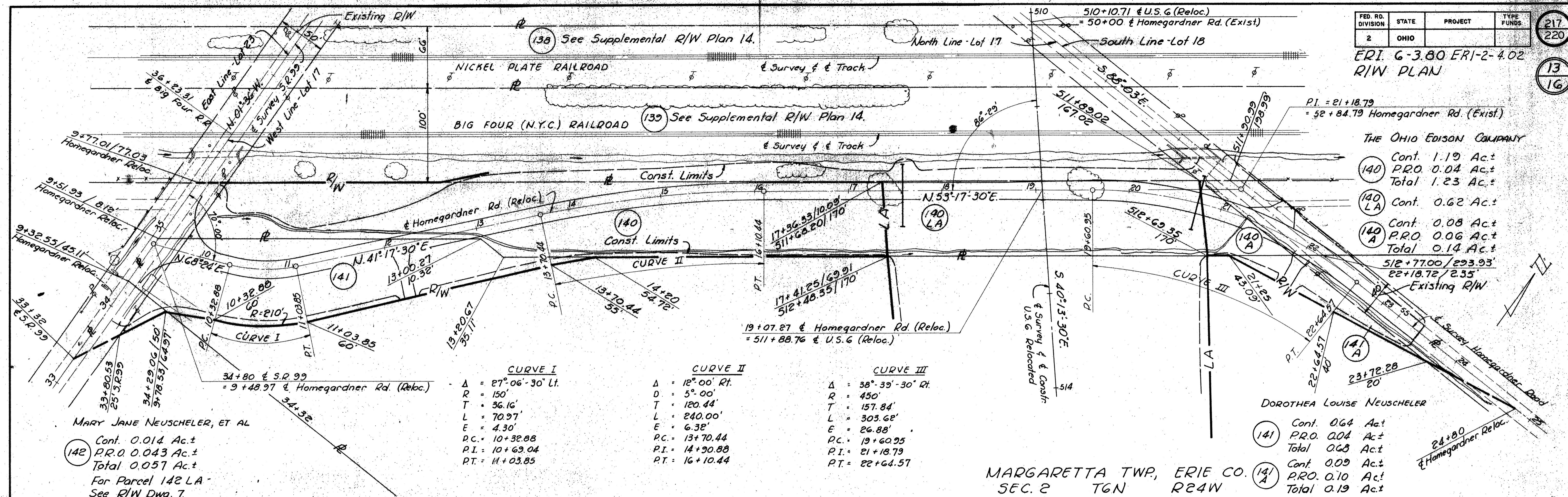


PERRY E. KELLER, JR.
ELSIE E. KELLER (LIFE ESTATE)

161 LA
CONT. 12.17 Ac.±
P.R.O. 0.21 Ac.±
Total 12.38 Ac.±



ERI G-3.80 ERI-2-4.02
R/W PLAN



THE OHIO EDISON COMPANY

(140) Cont. 1.19 Ac.±
P.R.O. 0.04 Ac.±
Total 1.23 Ac.±

(140 LA) Cont. 0.62 Ac.±
P.R.O. 0.06 Ac.±
Total 0.68 Ac.±

(140 A) Cont. 0.08 Ac.±
P.R.O. 0.06 Ac.±
Total 0.14 Ac.±

(141) Cont. 0.64 Ac.±
P.R.O. 0.04 Ac.±
Total 0.68 Ac.±

(141 A) Cont. 0.09 Ac.±
P.R.O. 0.10 Ac.±
Total 0.19 Ac.±

(142) Cont. 0.014 Ac.±
P.R.O. 0.043 Ac.±
Total 0.057 Ac.±
For Parcel 142 LA -
See R/W Dwg. 7.

CURVE I
Δ = 27° 06' 30" Lt.
R = 150'
T = 36.16'
L = 70.97'
E = 4.30'
P.C. = 10+32.88
P.I. = 10+69.04
P.T. = 11+03.85

CURVE II
Δ = 12° 00' Rt.
D = 5° 00'
T = 120.44'
L = 240.00'
E = 6.38'
P.C. = 13+70.44
P.I. = 14+90.88
P.T. = 16+10.44

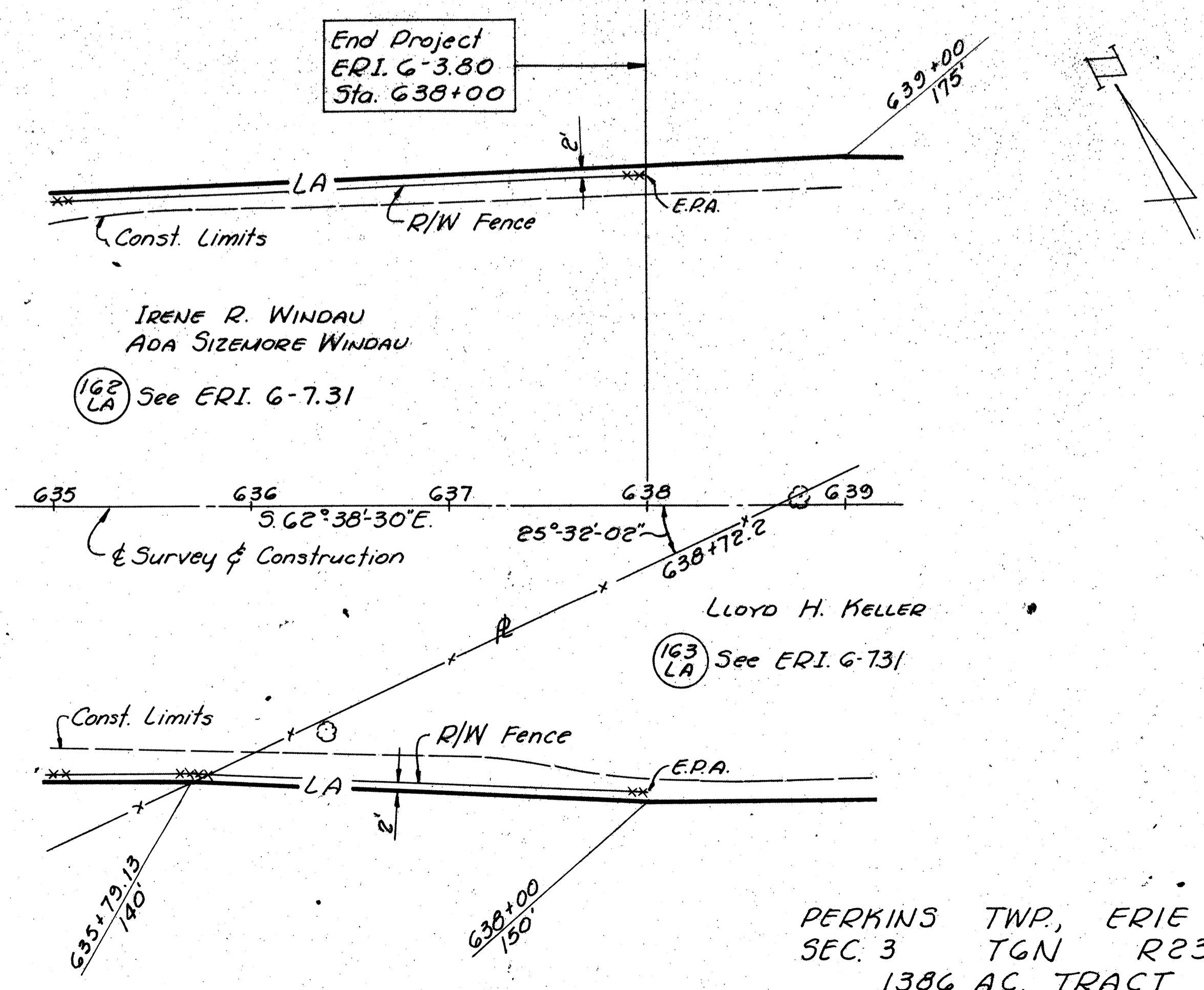
CURVE III
Δ = 38° 39' 30" Rt.
R = 450'
T = 157.84'
L = 303.68'
E = 26.88'
P.C. = 19+60.95
P.I. = 21+18.79
P.T. = 22+64.57

MARGARETTA TWP., ERIE CO.
SEC. 2 T6N R24W

DOROTHEA LOUISE NEUSCHELER

(141) Cont. 0.64 Ac.±
P.R.O. 0.04 Ac.±
Total 0.68 Ac.±

(141 A) Cont. 0.09 Ac.±
P.R.O. 0.10 Ac.±
Total 0.19 Ac.±
For Parcel 141 LA -
See R/W Dwg. 6 & 7.



End Project
ERI G-3.80
Sta. 638+00

IRENE R. WINDAU
ADA SIZEMORE WINDAU

(162 LA) See ERI G-7.31

LLOYD H. KELLER

(163 LA) See ERI G-7.31

PERKINS TWP., ERIE CO.
SEC. 3 T6N R23W
1386 AC. TRACT

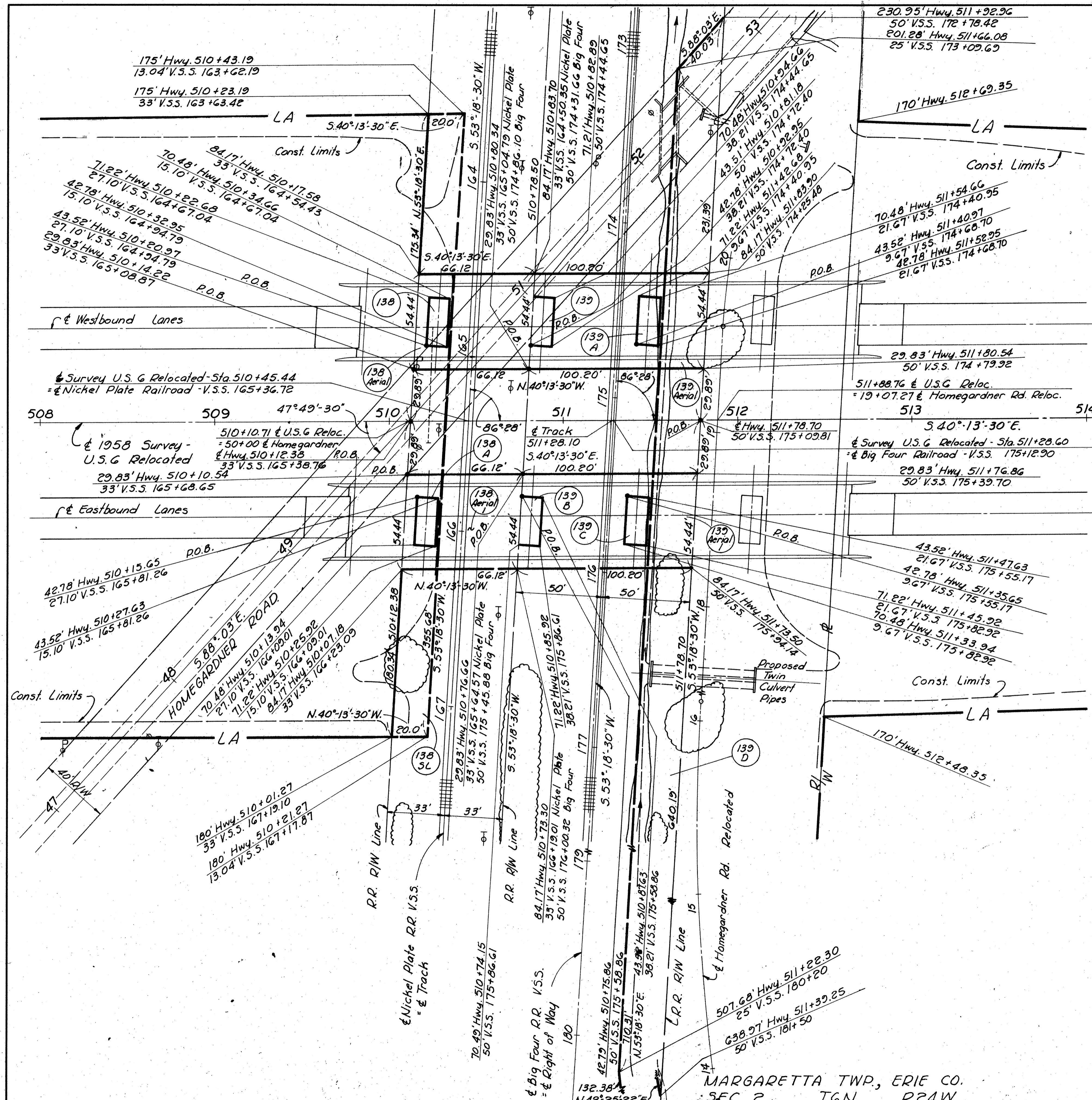
Total This Sheet
SS-18 Type D Fence
600 Lin. Ft.

SANZENBACHER, MILLER & BRIGHAM
TOLEDO OHIO

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

218
220
14
16

ERI G-3.80 ERI-2-4.02
R/W PLAN
SUPPLEMENTAL SHEET

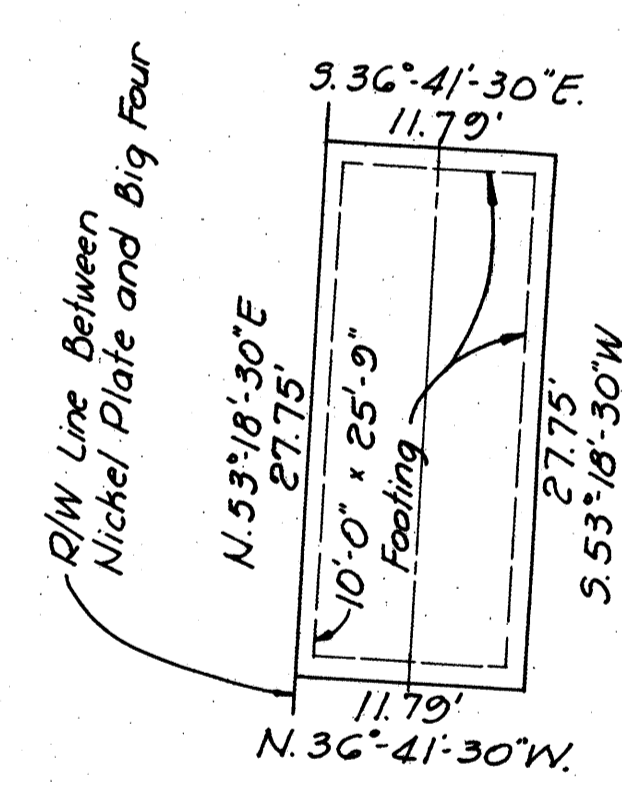
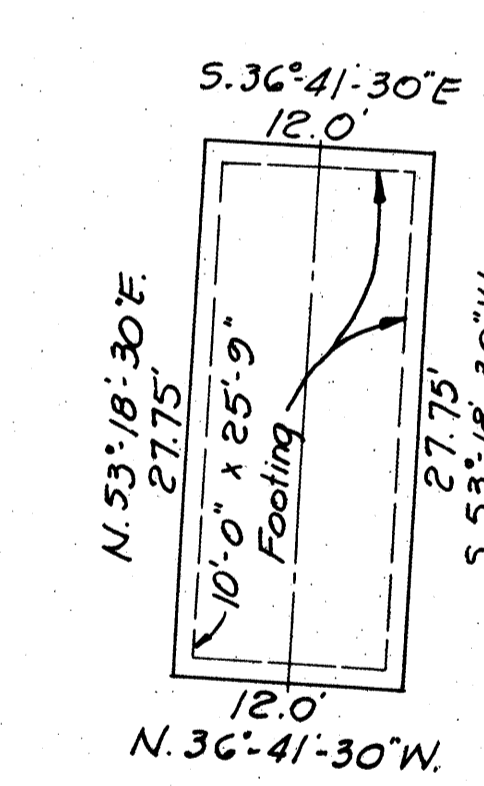


The New York, Chicago and St. Louis Railroad Company (Nickel Plate Road)

Cleveland, Cincinnati, Chicago and St. Louis Railway (Big Four)
The New York Central Railroad Co., Lessee

- 138 Cont. 0.008 Ac.±
- 138 A Cont. 0.008 Ac.±
- 138 Aerial Cont. 0.083 Ac.±
- 138 Aerial Cont. 0.083 Ac.±
- 138 SL Cont. 0.163 Ac.±

- 139 Cont. 0.008 Ac.±
- 139 A Cont. 0.008 Ac.±
- 139 B Cont. 0.008 Ac.±
- 139 C Cont. 0.008 Ac.±
- 139 D Cont. 0.45 Ac.±
- 139 Aerial Cont. 0.125 Ac.±
- 139 Aerial Cont. 0.125 Ac.±



PARCEL NOS. 138 138 A 139 A 139 C

PARCEL NOS. 139 139 B

NOTE:
Valuation Survey Stations shown hereon are referred to those shown on N.Y., Chicago & St. Louis R.R. R/W and Track Map V-9 Ohio, Sheet 3; C.C.C. & St. Louis Ry. R/W and Track Map V-42, Sheet 1.

PLAN SHOWING
HIGHWAY RIGHT OF WAY EASEMENTS
REQUIRED FROM
NICKEL PLATE RAILROAD
AND
BIG FOUR RAILROAD
Date: August 30, 1961
Scale: 1" = 30'

SANZENBACHER MILLER & BRIGHAM
TOLEDO, OHIO

MARGARETTA TWP., ERIE CO.
SEC. 2 T6N R24W

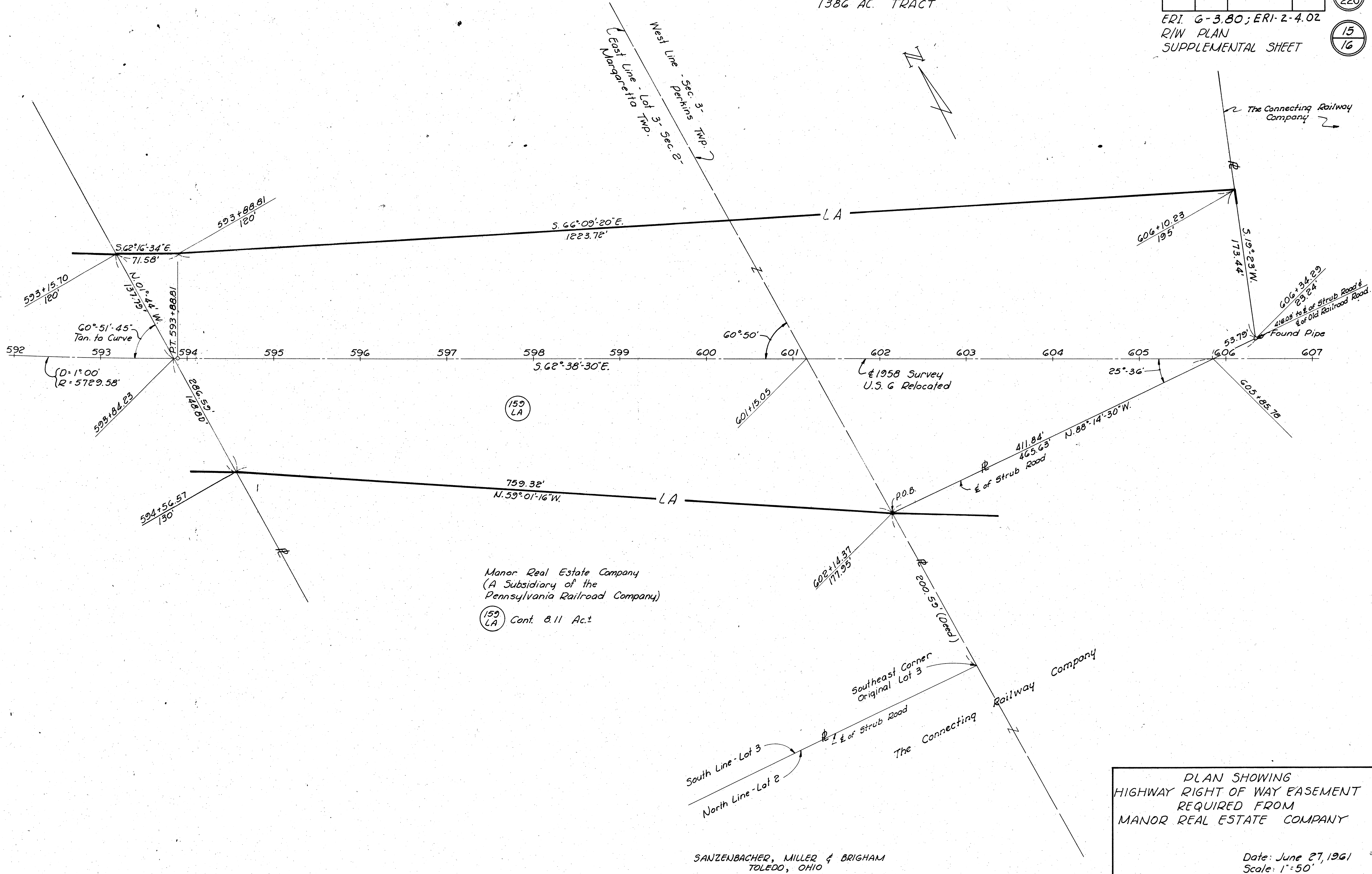
MARGARETTA TWP., ERIE CO.
LOT 3 SEC. 2 T6N R24W

PERKINS TWP., ERIE CO.
SEC. 3 T6N R23W
1386 AC. TRACT

ERI. 6-3.80; ERI. 2-4.02
R/W PLAN
SUPPLEMENTAL SHEET

219
220

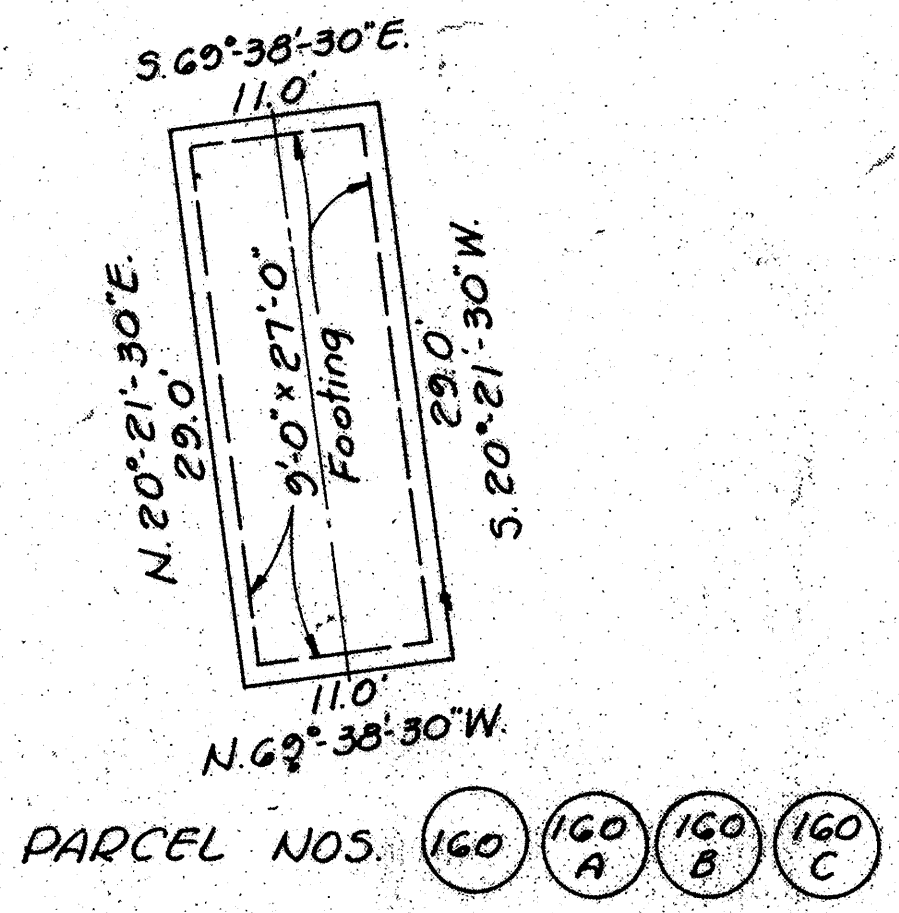
15
16



Manor Real Estate Company
(A Subsidiary of the
Pennsylvania Railroad Company)
159 LA Cont. 8.11 Ac.±

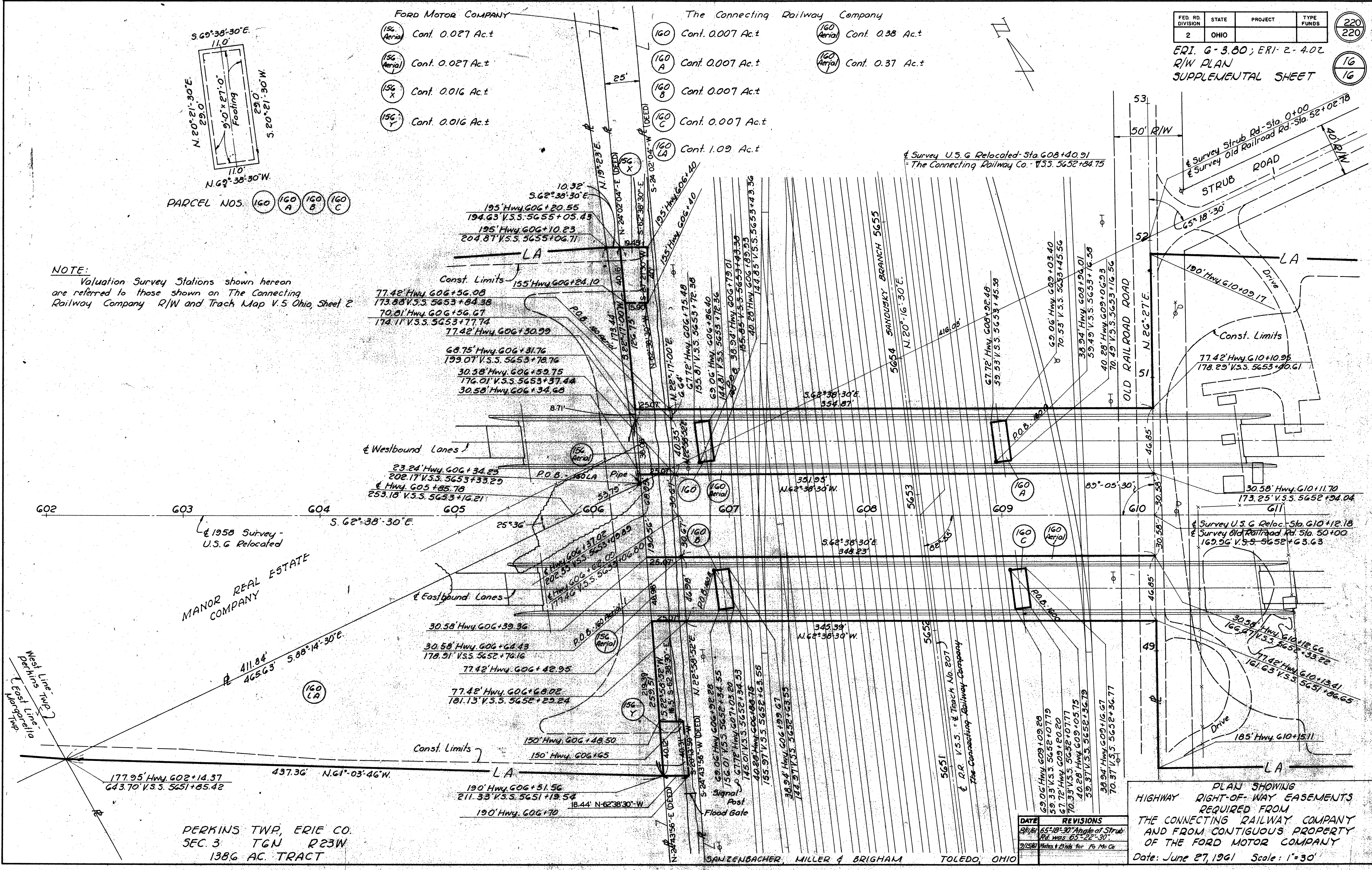
SANZENBACHER, MILLER & BRIGHAM
TOLEDO, OHIO

PLAN SHOWING
HIGHWAY RIGHT OF WAY EASEMENT
REQUIRED FROM
MANOR REAL ESTATE COMPANY
Date: June 27, 1961
Scale: 1"=50'



- FORD MOTOR COMPANY
- 156 Aerial Cont. 0.027 Ac.±
 - 156 Aerial Cont. 0.027 Ac.±
 - 156 X Cont. 0.016 Ac.±
 - 156 Y Cont. 0.016 Ac.±
- The Connecting Railway Company
- 160 Cont. 0.007 Ac.±
 - 160 A Cont. 0.007 Ac.±
 - 160 B Cont. 0.007 Ac.±
 - 160 C Cont. 0.007 Ac.±
 - 160 LA Cont. 1.09 Ac.±
 - 160 Cont. 0.38 Ac.±
 - 160 Cont. 0.37 Ac.±










NOTE: Valuation Survey Stations shown hereon are referred to those shown on The Connecting Railway Company R/W and Trach Map V.5 Ohio, Sheet 2.















DATE	REVISIONS
8/1/61	65° 18' 30" Angle of Strub Rd was 65° 22' 30"
9/15/61	Notes & Prints for Fd Mo Co

PLAN SHOWING
HIGHWAY RIGHT-OF-WAY EASEMENTS
REQUIRED FROM
THE CONNECTING RAILWAY COMPANY
AND FROM CONTIGUOUS PROPERTY
OF THE FORD MOTOR COMPANY
Date: June 27, 1961 Scale: 1"=30'

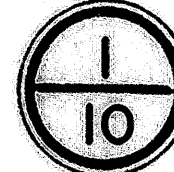
LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 11# SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
 Gravel with sand	A-1-b(0)	A-1-b	10	25	13	11	11	11	11	11	1
 Coarse and fine sand	---	A-2a	10	10	15	15	11	11	11	12	3
 Stone fragments with sand and silt	A-2-3(10)	A-2-3	21	11	31	19	15	11	11	11	1
 Sandy silt	A-1(5)	A-1a	13	10	17	20	31	25	0	15	3
 Silt	A-1(0)	A-1b	0	0	2	60	35	16	5	26	31
 Silt and clay	A-1(0)	A-1a	2	2	1	17	15	31	13	23	25
 Silty clay	A-1(12)	A-1b	2	1	5	11	11	30	19	25	27
 Plastic clay	A-7-5(10)	A-7-5	0	1	3	31	60	15	13	22	1
 Clay	A-7-6(15)	A-7-6	0	1	3	30	50	17	20	25	19

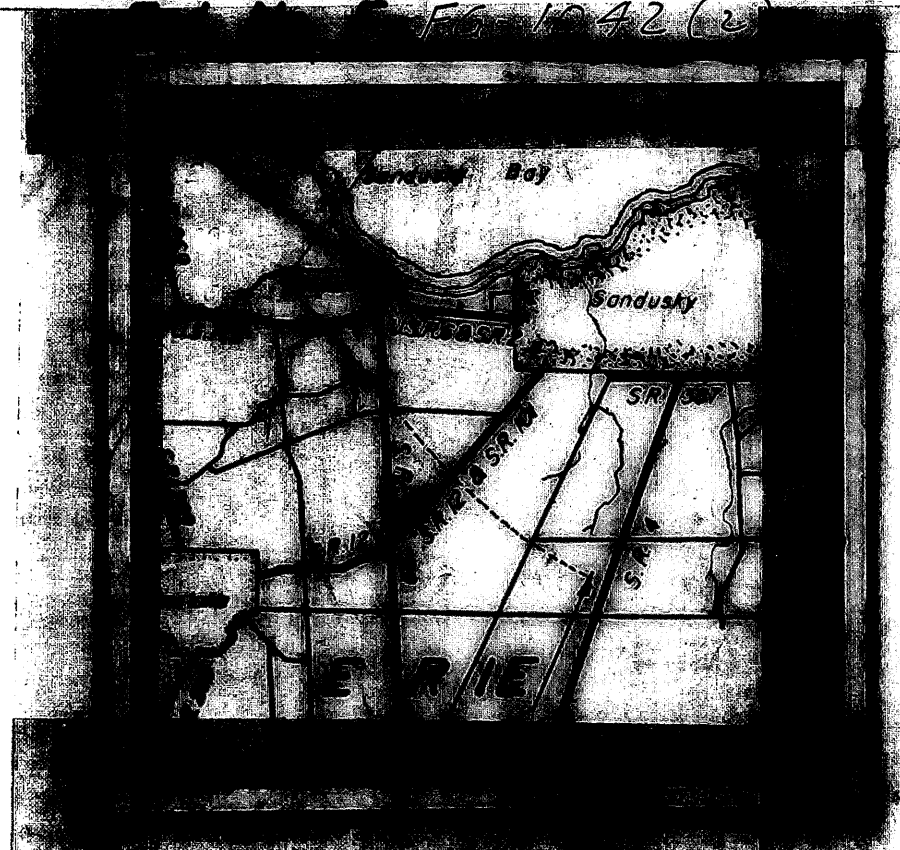
-  Limestone
 -  Various other materials
 -  Rod and/or Topsoil - Approximate dept.
 -  Perm material
 -  Auger boring - plan view.
 -  Drive sample and/or core boring - plan view.
 -  Auger boring plotted to vertical scale only.
 -  Drive sample and or core boring. Plotted to vertical scale only.
- Visual Classification
- Visual Classification
-  Number of blows for "Standard Penetration" test.
 x = number of blows for the first f inches.
 y = number of blows for the second f inches.
 -  Water Content nearly equal to or greater than liquid limit.
 -  Indicates a non-plastic material with high water content.
 -  Free Water
- Note: Figures beside borings indicate water content in percent, e.g. /5

Revised 7/12/61

SOIL PROFILE
 ERIE COUNTY
 ERI-2-4.02;
 ERI-6-3.80
 OHIO STATE HIGHWAY
 TESTING LABORATORY
 COLUMBUS, OHIO



NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.



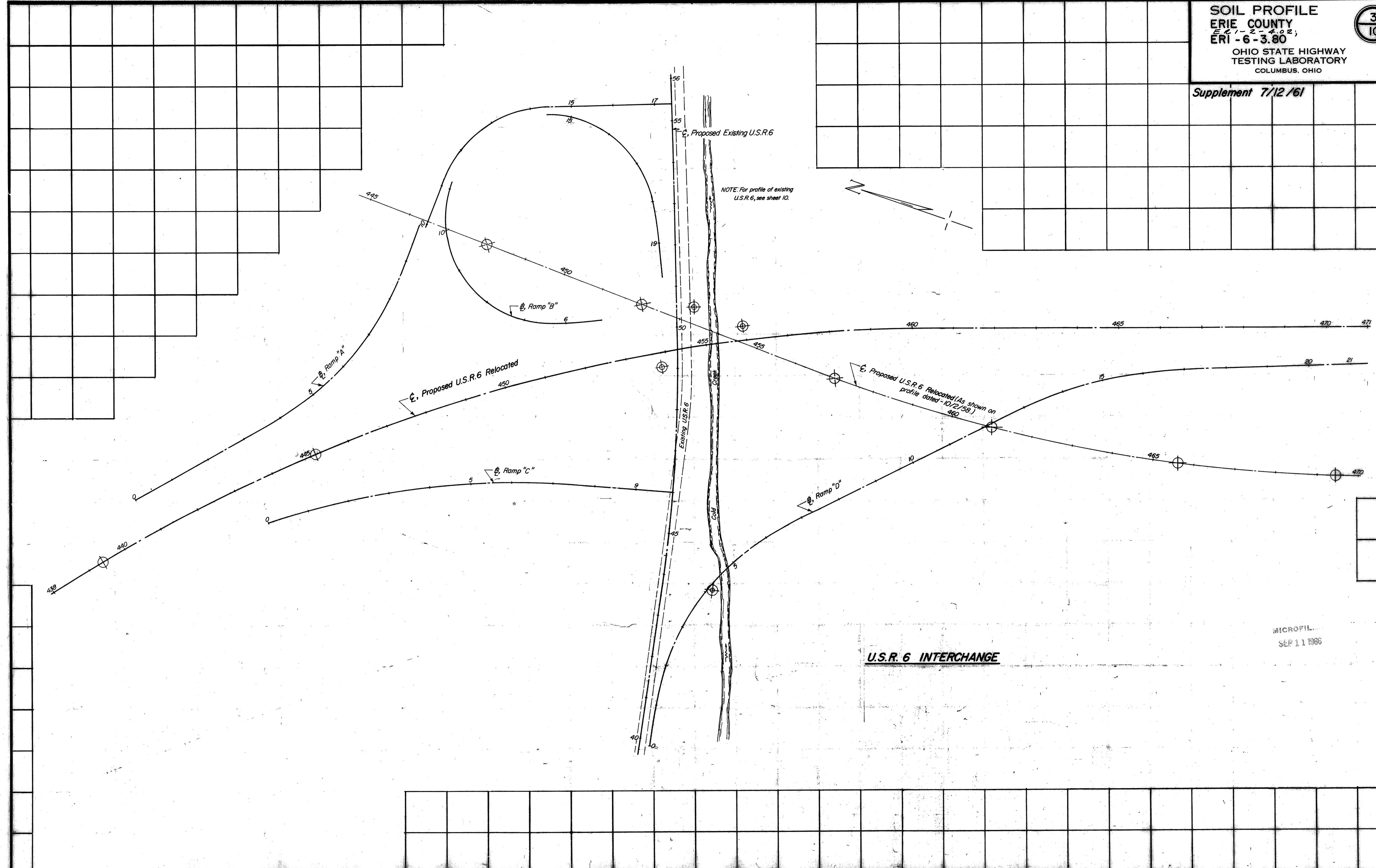
LOCATION MAP

Recon. - J.S.M. - 9/9/58
 Drilling - Auger - C.A.S., C.E.G. - 10/10/58
 Core - T.S.G., J.S.S. - 11/7/58
 Drafting - W.L.T. - 1/20/59

REVISED
 Drafting - R.C.B. - 7/12/61

MICROFIL
 SEP 11 1986

Supplement 7/12/61

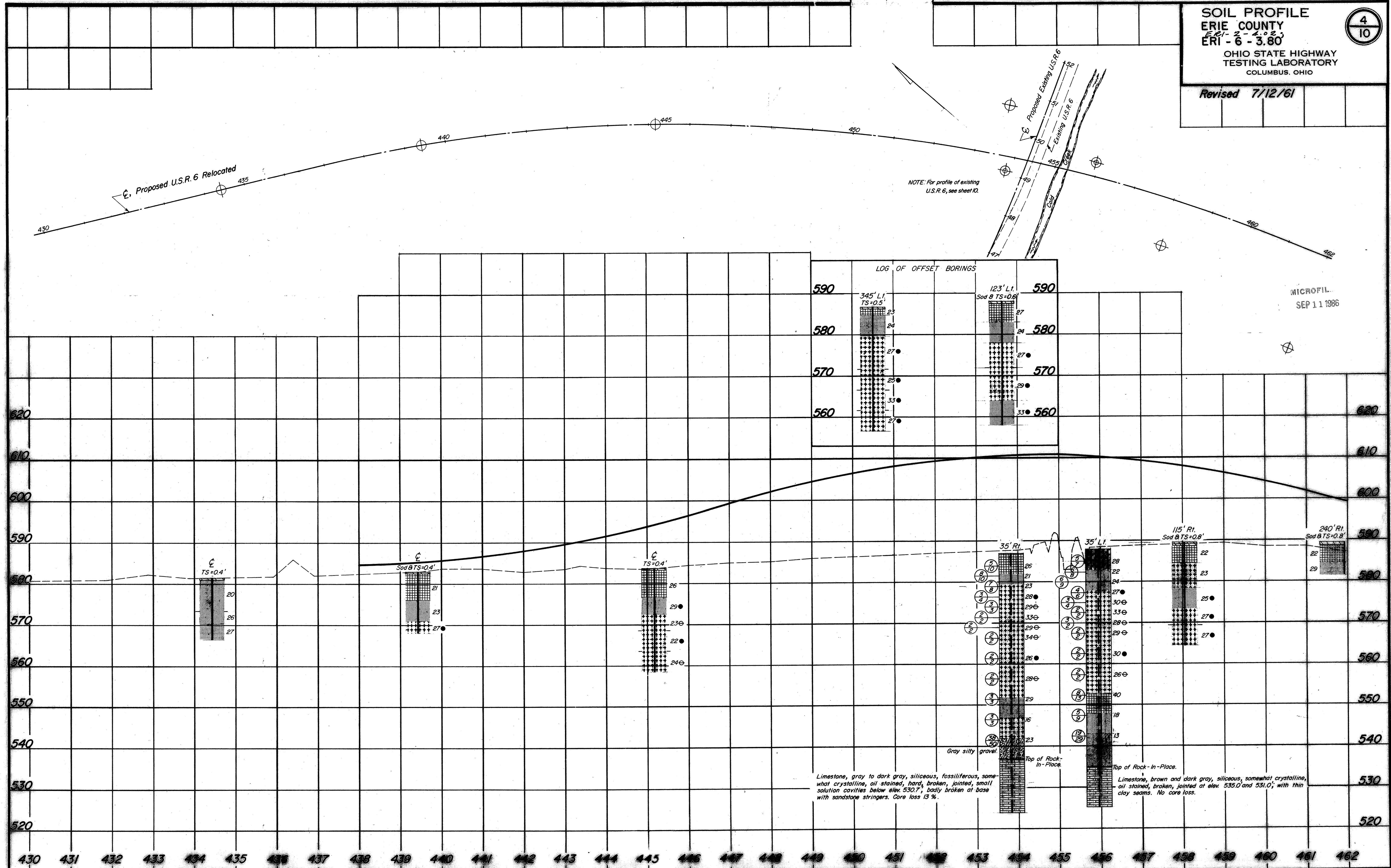


NOTE: For profile of existing U.S.R. 6, see sheet 10.

U.S.R. 6 INTERCHANGE

MICROFIL.
SEP 11 1966

Revised 7/12/61



NOTE: For profile of existing U.S.R. 6, see sheet 10.

MICROFIL.
SEP 11 1986

LOG OF OFFSET BORINGS

590	345' Lt. TS=0.5'	123' Lt. Sod & TS=0.6'	590
580	23	27	580
570	24	24	570
560	27	27	560
	25	29	
	33	33	
	27	27	

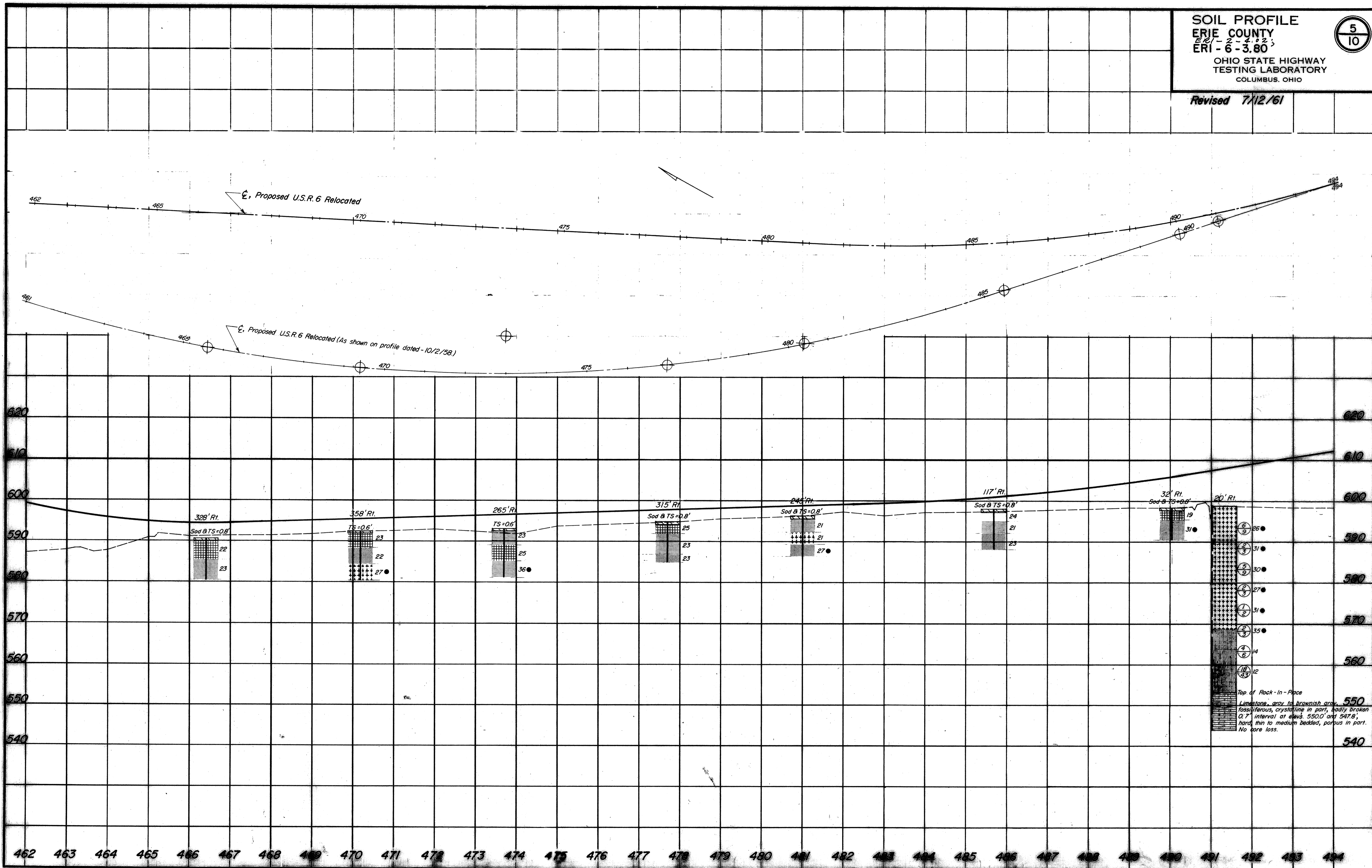
Limestone, gray to dark gray, siliceous, fossiliferous, somewhat crystalline, oil stained, hard, broken, jointed, small solution cavities below elev. 530.7, badly broken at base with sandstone stringers. Core loss 13%.

Limestone, brown and dark gray, siliceous, somewhat crystalline, oil stained, broken, jointed at elev. 535.0 and 531.0, with thin clay seams. No core loss.

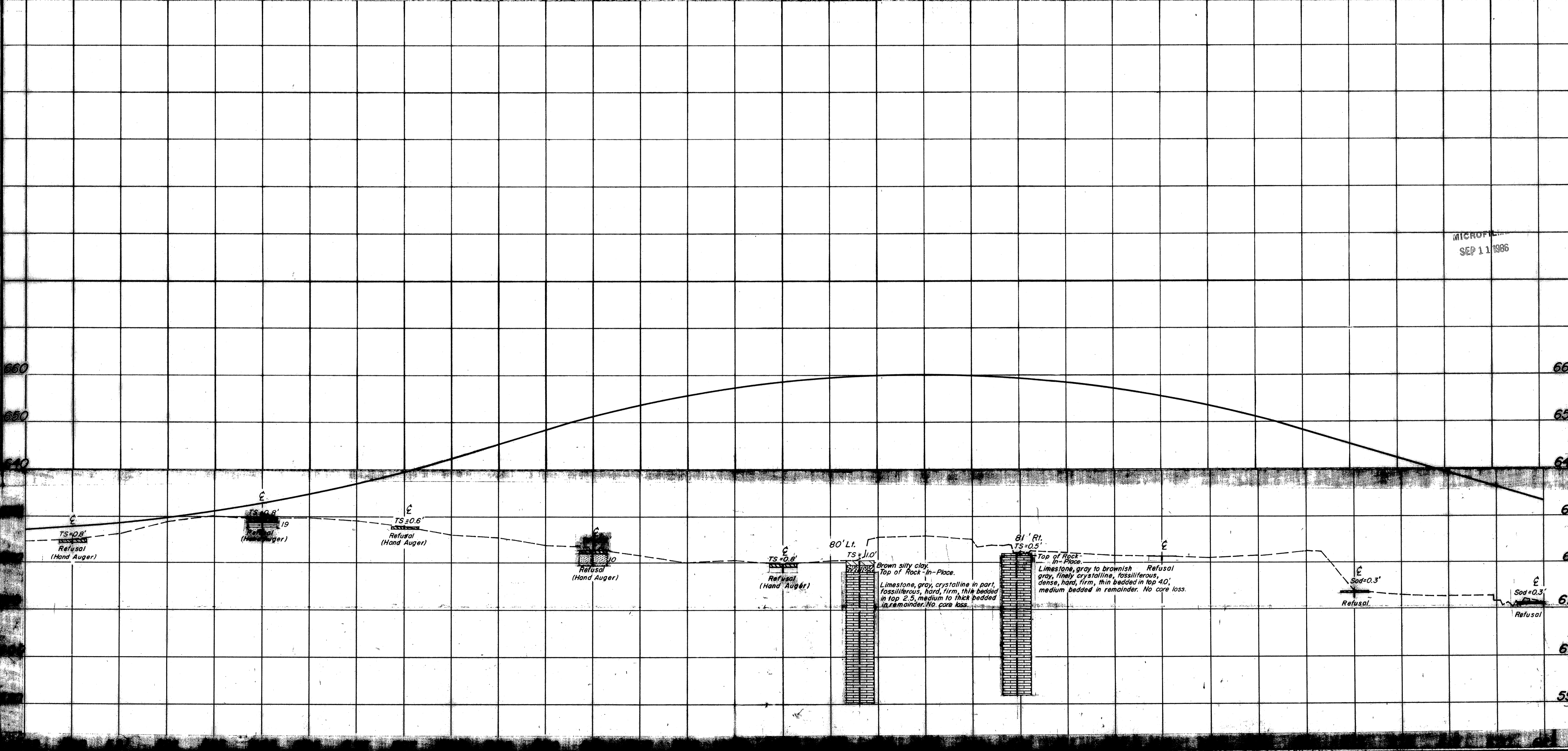
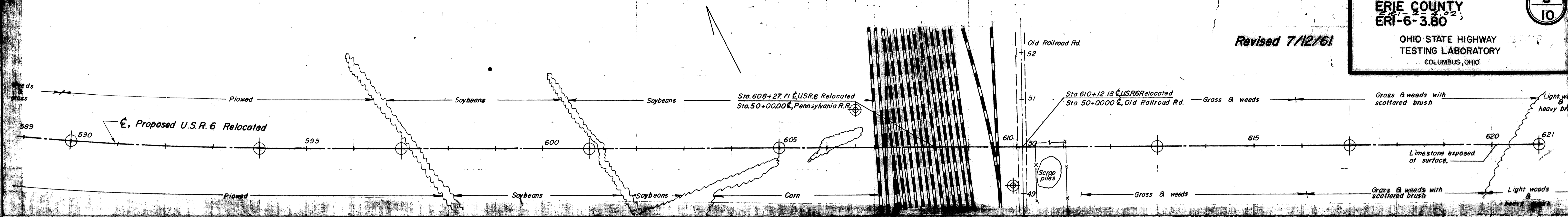
SOIL PROFILE
ERIE COUNTY
ERI-2-4.02;
ERI-6-3.80
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

5
10

Revised 7/12/61



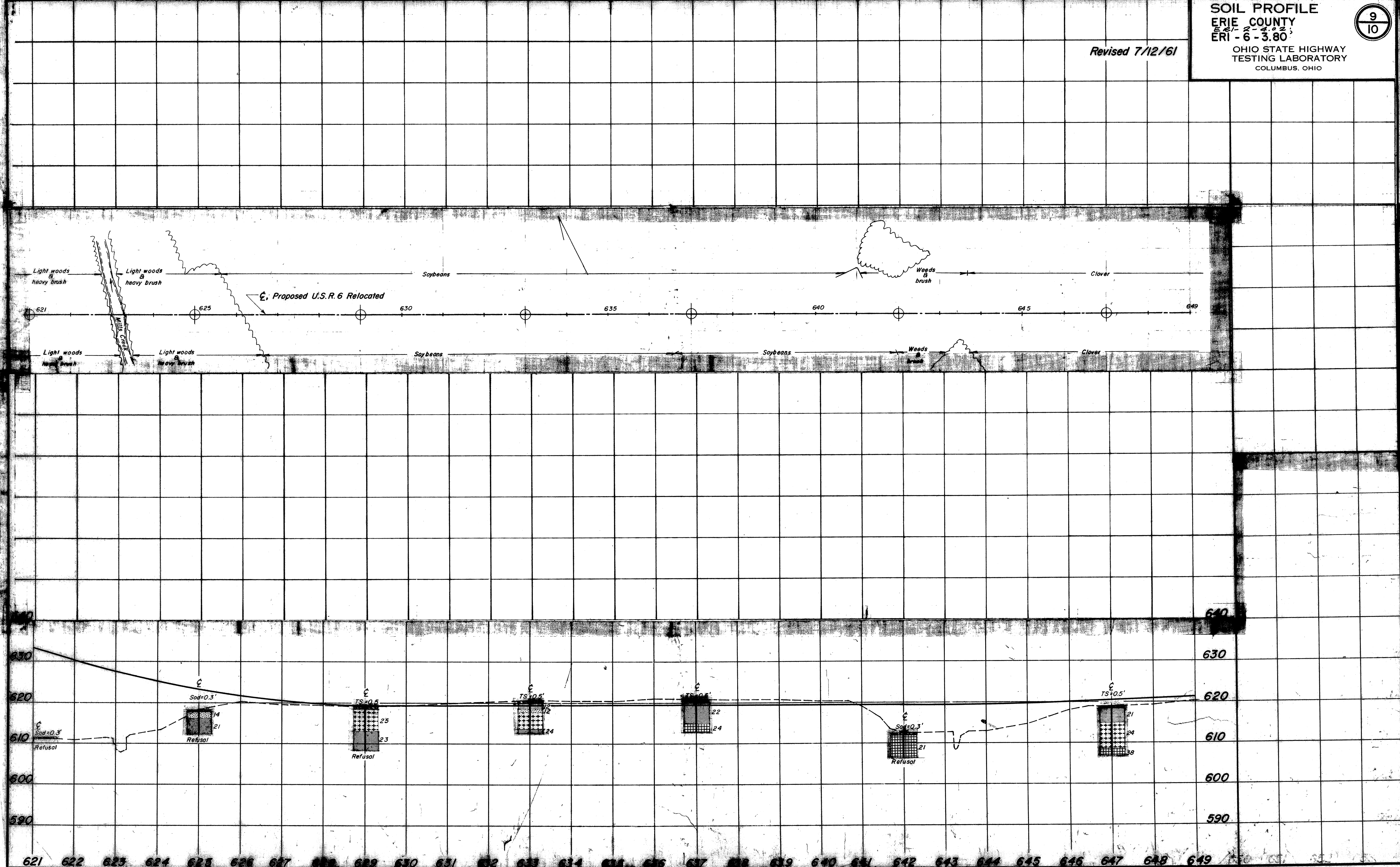
462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494



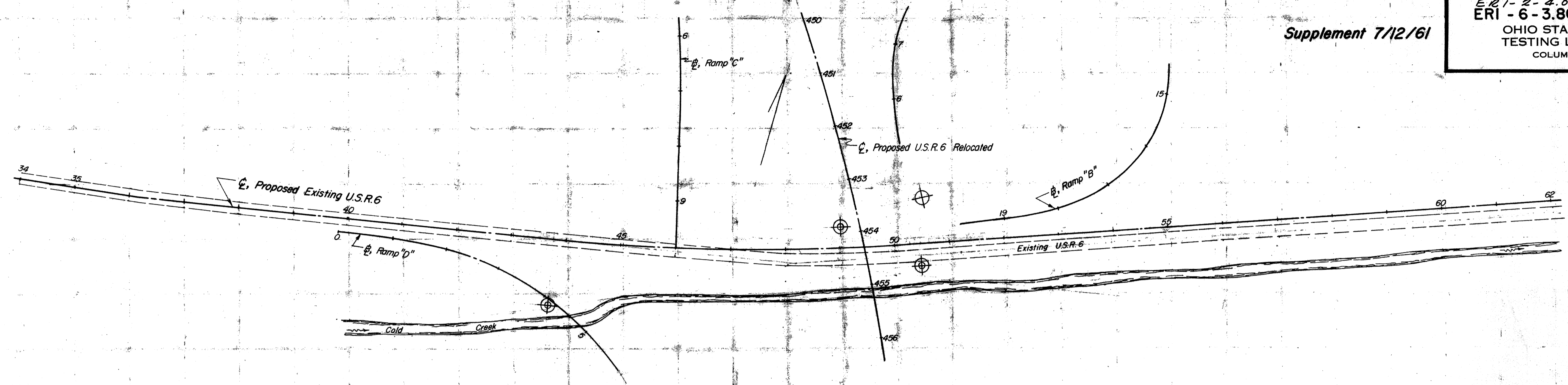
MICROFILM
SEP 11 1986

Revised 7/12/61

OHIO STATE HIGHWAY
 TESTING LABORATORY
 COLUMBUS, OHIO



Supplement 7/12/61

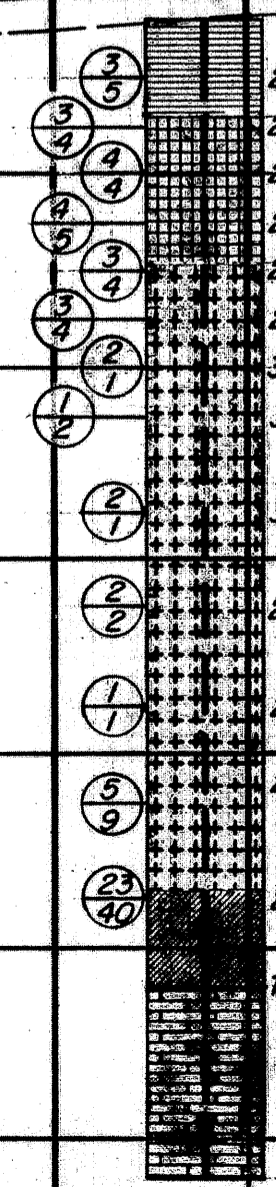


Existing U.S.R. 6

620
610
600
590
580
570
560
550
540
530

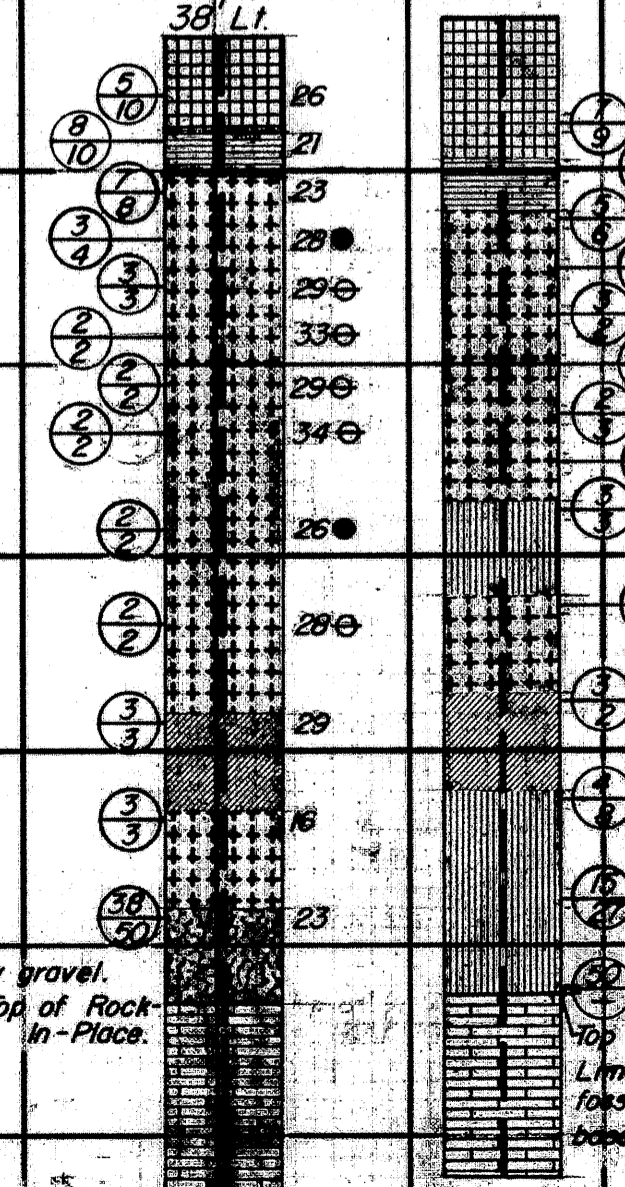
620
610
600
590
580
570
560
550
540
530

(Sta. 4+15 - 10' Rl.
Ramp "D")
122' Rl.



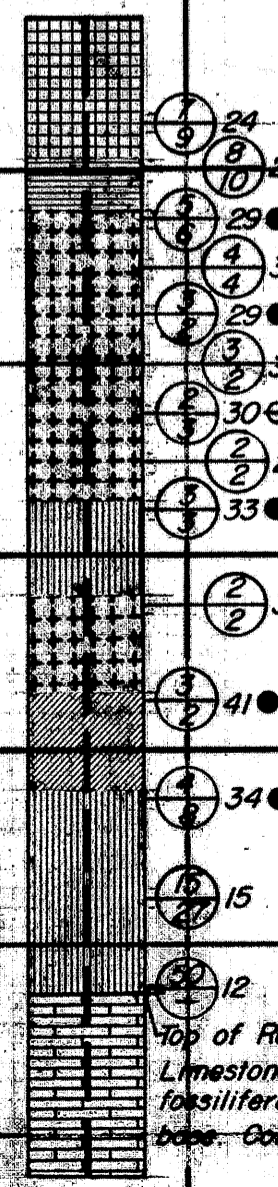
Top of Rock - In-Place.
Limestone, gray, dolomitic, siliceous, oil stained,
heavy, dense, vertical joints in top 10'; soft gray
clay seam at elev. 536.0'. Core loss 2%.

(Sta. 453+83 - 35' Rl.
Proposed U.S.R. 6 Relocated)
42' Rl.



Gray silty gravel.
Top of Rock - In-Place.

(Sta. 454+86 - 95' Lt.
Proposed U.S.R. 6 Relocated)
42' Rl.



Top of Rock - In-Place.
Limestone, dark gray, dolomitic, siliceous, oil stained,
fossiliferous, broken, jointed and badly broken at
base. Core loss 15%.

For description of core
interval see sheet 4.

34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62