FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

1/235

ERI-G-11.30

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
ERI-6-11.30
ERIE COUNTY
VILLAGE OF HURON
PERKINS & HURON TOWNSHIPS
GRADE SEPARATION WITH THE NEW YORK CENTRAL RAILROAD COMPANY

F-FG-1042(7)

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 5-6-60 — C. L. Tobias — Division Deputy Director

Approved — Date 9-22-60 — Guy E. Keeper — Deputy Director of Planning and Programming

Approved — Date 9-2-60 — H. A. Brennan — Engineer of Bridges

Approved — Date 9-15-60 — [illegible] — Engineer of Location and Design

Approved — Date 9-16-60 — C. W. McCaughey — Deputy Director of Design and Construction

Approved — Date 9-22-60 — E. A. Berry — First Assistant Director

Approved — Date 9-22-60 — C. P. Poston — Director of Highways

CONVENTIONAL SIGNS

Township Line
Corporation Line
Fence Line
Guard Rail (existing)
Guard Rail (proposed)
Railroad
Power Poles
Telephone Poles
Trees or Stumps

Property Line
Right of Way with Limited Access — LA
Right of Way without Limited Access — R/W
Existing Right of Way

INDEX OF SHEETS

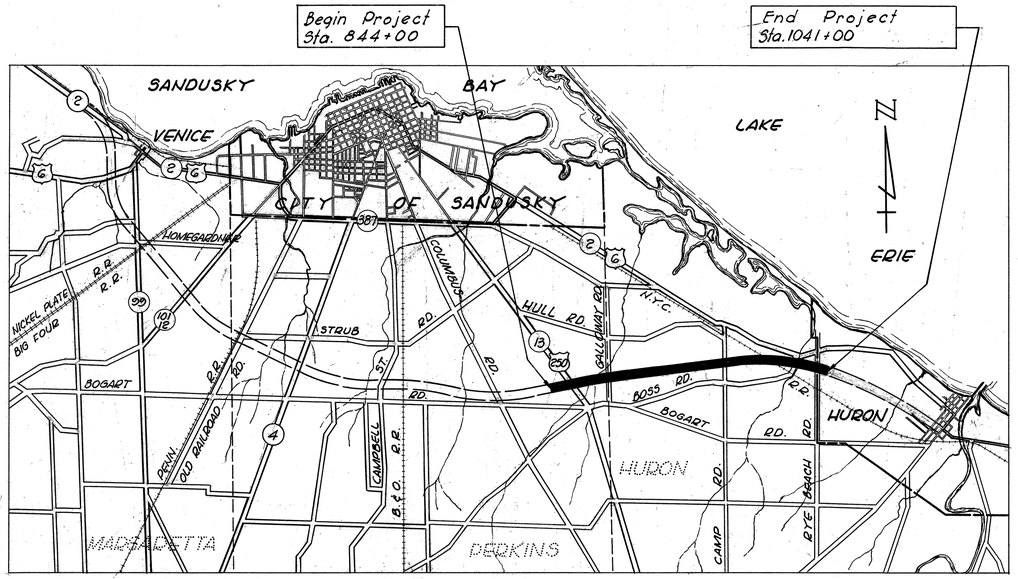
LINE DATA

F-1042(7): Sta. 844+00 to 990+00 = 14,600.00 Lin.Ft.
Sta. 1020+00 to 1041+00 = 2,100.00 Lin.Ft.
Long Sta. (884+30.48)-(882+70.51) = 159.97 Lin.Ft.
Total Length of Project F-1042(7) = 16,859.97 Lin.Ft. or 3.193 Miles

FG-1042(7): Sta. 990+00 to 1020+00 = 3,000.00 Lin.Ft.
Total Length of Project & Work FG-1042(7) = 3,000.00 Lin.Ft. or 0.568 Mile
Grand Total Length of Project (F & FG) = 19,859.97 Lin.Ft. or 3.761 Miles

Length of Work F-1042(7):
Length of Project from above = 16,859.97 Lin.Ft.
Boss Road Relocation Sta. 8+00 to 36+21.78 = 2821.78 Lin.Ft.
U.S. 250 - Sta. 35+25 to 62+00 = 2675.00 Lin.Ft.
Galloway Rd. - Sta. 42+00 to 57+00 = 1500.00 Lin.Ft.
Camp Rd. - Sta. 41+25 to 61+80 = 2055.00 Lin.Ft.
Rye Beach Rd. - Sta. 39+90 to 59+92 = 2002.00 Lin.Ft.
East Approach U.S.R.G. - Sta. 1041+00 to 1041+50 = 50.00 Lin.Ft.
West Approach, U.S.R.G. - Sta. 843+00 to 844+00 = 100.00 Lin.Ft.
Total Length of Work F-1042(7) = 28,063.75 Lin.Ft. or 5.315 Miles
Grand Total Length of Work (F & FG) = (28,063.75+3000.00) = 31,063.75 Lin.Ft. or 5.883 Miles

FILE NO.	ERI-6-11.30
127-E	Date of Letting _____ 196_____
	Contract No. _____



Delivery Point: Huron

LOCATION PLAN

Average Haul: 4 Miles

SCALE IN MILES 0 1 2 3

Portion to be improved....
State Roads.....
Other Roads.....

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

11-28-60 Revised Sheets No. 2, 14, 15, 16 & 85
6-19-61 Revised Sheet No. 85

SURVEY AND PLANS BY
SANZENBACHER MILLER AND BRIGHAM
TOLEDO, OHIO

STANDARD CONSTRUCTION DRAWINGS

AS-1-54	12-1-54	L-3-A	4-1-50	S-27 P.C. 3	2-20-45	I-8 M.H. No.1	1-26-59	I-8 C.B. No.4	7-1-58
RB-1-55	2-2-59	RI-1	7-15-58	S-27 P.C.4	1-4-54	HW-C	7-15-57	I-8 M.H. No.1-A	1-26-59
AR-1-57	2-2-59	T-35	1-2-56	SP-53	11-25-58	I-12	7-1-54	DR-1	1-3-55
CS-1, 54 (29 sheets)	7-16-56	B-T-50-10-11E No.1	10-1-47	I-1, 2, 3, 4 & 5	4-24-58	I-14 G	1-22-58	C5B-2-56 (6 Sheets)	2-2-59
F-1	9-1-59	B-T-71R	3-2-53	I-8 C.B. 2-A & B	3-2-59	I-15 No.1	5-21-59	I-8 C.B. No. 5	7-1-58
F-3	9-1-59	LJ No.1	7-1-55	I-8 C.B. 2-3 & 4	1-26-59	I-15 No. 2-A	8-17-60		
L-1	4-1-50	TJ	5-1-56			I-21-23	8-1-56		
L-3	4-1-50	S-27 P.C.1	5-1-52	I-8 C.B. No.6	1-26-59	G-7.07	6-1-56		

SUPPLEMENTAL SPECIFICATIONS

S-207	4-28-55
B-219	Rev. 3-12-59
M-206.6(b)	5-25-56
18	Rev. 6-15-59
I-124	1-11-56
S-101	12-2-59

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

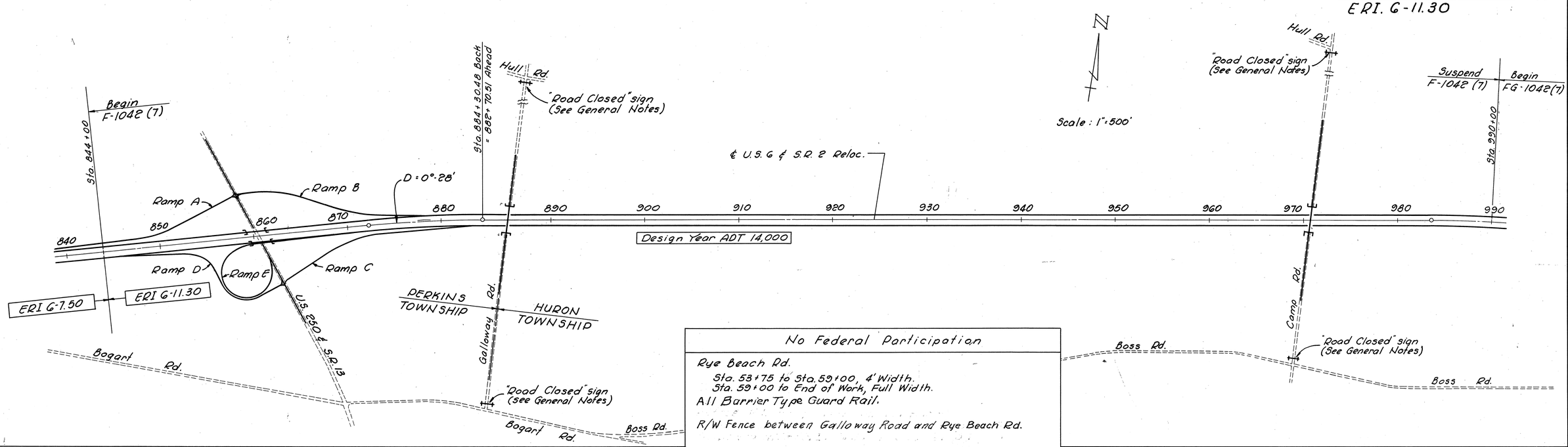
Approved _____ Division Engineer _____ Date

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

2/235

ERI. G-11.30



No Federal Participation

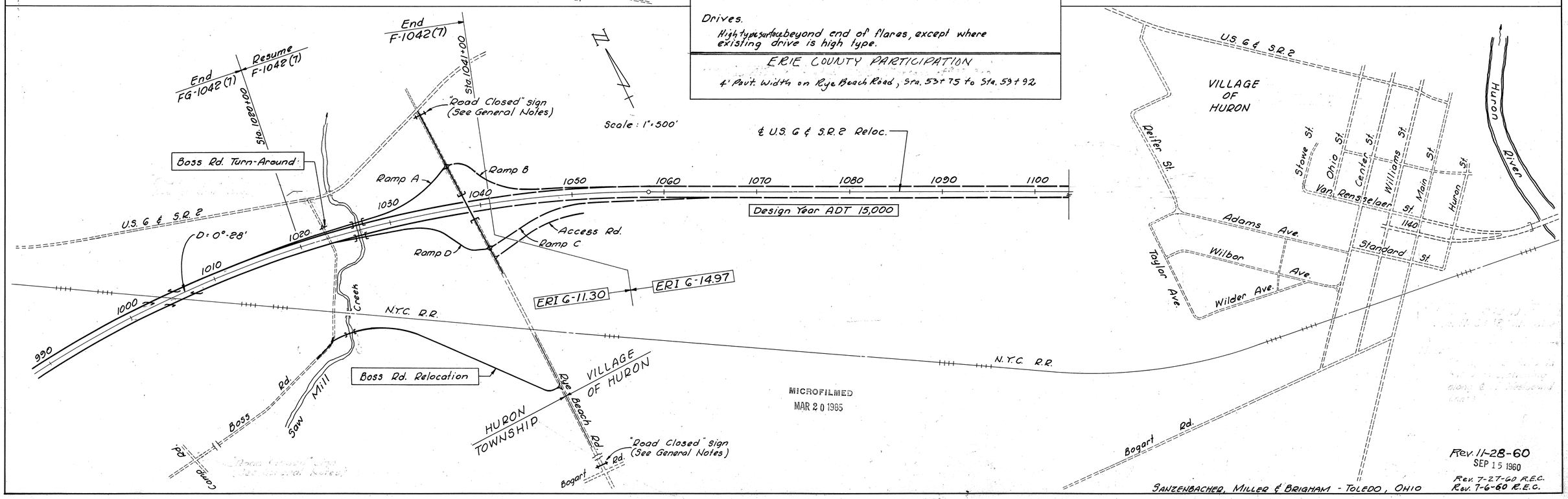
Rye Beach Rd.
Sta. 53+75 to Sta. 59+00, 4' Width.
Sta. 59+00 to End of Work, Full Width.
All Barrier Type Guard Rail.

R/W Fence between Galloway Road and Rye Beach Rd.

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

ERIE COUNTY PARTICIPATION

4' Pavt. Width on Rye Beach Road, Sta. 53+75 to Sta. 59+92



Rev. 11-28-60
SEP 15 1960
Rev. 7-27-60 R.E.C.
Rev. 7-6-60 R.E.C.

SANZENBACHER, MILLER & BRIGHAM - TOLEDO, OHIO

SCHEMATIC PLAN

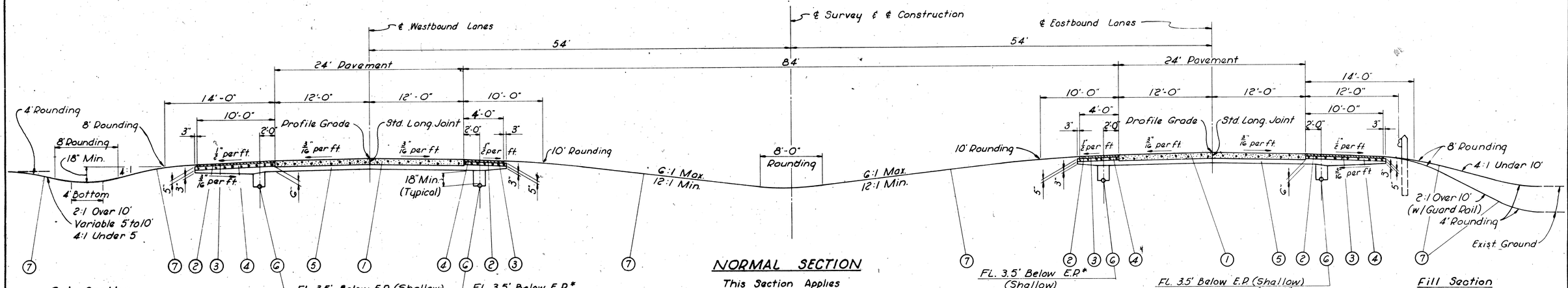
TYPICAL SECTIONS

TYPE T-71

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

3/235

ERI. G-11.30



Cut Section

FL. 3.5' Below E.P. (Shallow) or 5.5' Below E.P. (Deep)*

FL. 3.5' Below E.P.* (Shallow)

NORMAL SECTION

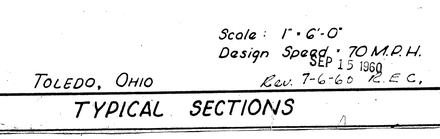
This Section Applies

FL. 3.5' Below E.P.* (Shallow)

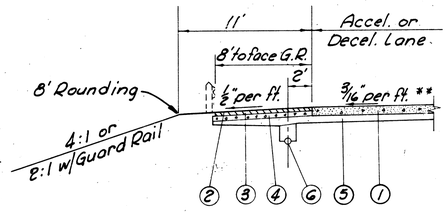
FL. 3.5' Below E.P. (Shallow) or 5.5' Below E.P. (Deep)*

Fill Section

Eastbound Lanes		Westbound Lanes	
Sta. 844+00 to Sta. 1041+00	= 19,700.00 Lin.Ft.	Sta. 844+00 to Sta. 1041+00	= 19,700.00 Lin.Ft.
Addition for Long Station	= 159.97 Lin.Ft.	Addition for Long Station	= 159.97 Lin.Ft.
Deduction at US 250	= 234.90 Lin.Ft.	Deduction at US 250	= 234.90 Lin.Ft.
Deduction at N.Y.C. R.R.	= 329.15 Lin.Ft.	Deduction at N.Y.C. R.R.	= 336.61 Lin.Ft.
Deduction at Saw Mill Creek	= 149.00 Lin.Ft.	Deduction at Saw Mill Creek	= 149.00 Lin.Ft.
Net Total	= 19,146.92 Lin.Ft.	Net Total	= 19,139.46 Lin.Ft.



TOE OF SLOPE DITCH FOR HIGH FILL



TYPICAL SECTION for Acceleration & Deceleration Lanes

** Except deceleration lane for Ramp D of Rye Beach Rd. Interchange. See Ramp D plan & profile sheet.

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-219 3" Waterproofed Aggregate Base Course
④ I-18 5" Stabilized Crushed Aggregate Shoulders and Approaches
⑤ I-22 Subbase, Grading A or B, as per plan (Thickness as shown)
⑥ I-4 6" Pipe Underdrains
⑦ L-9 Seeding and Protecting

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

Scale: 1" = 6'-0"
Design Speed: 70 M.P.H.

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM, TOLEDO, OHIO

Rev. 7-6-60 R.E.C.

TYPICAL SECTIONS

FED.RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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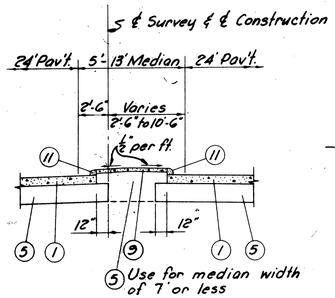
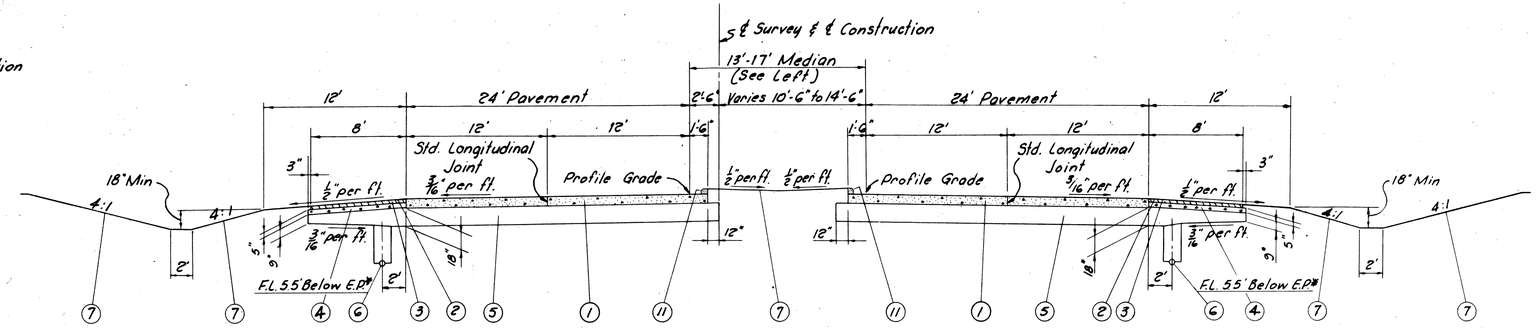
ERI. G-11.30

TYPICAL SECTIONS

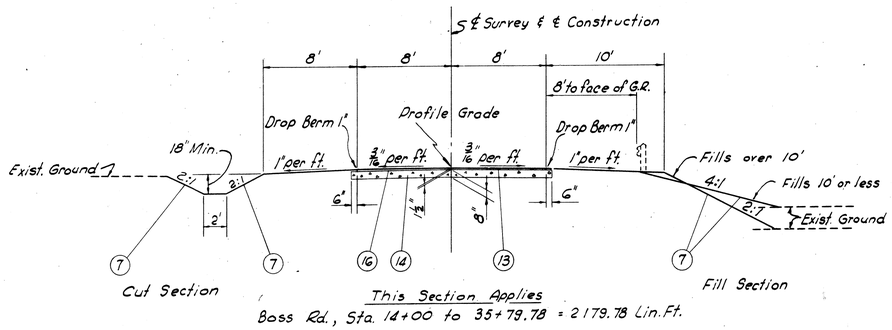
TYPE T-71 AND T-35 ON B-19



Detail of 5'-13' Median U.S. 250
(See Right)



This Section Applies
U.S. 250, Sta. 41+85.00 to 55+40.00 = 1355.00 Lin. Ft.
For Typical Section of U.S. 250 Transitions, See Sht. 52



Cut Section

This Section Applies
Boss Rd., Sta. 14+00 to 35+79.78 = 2179.78 Lin. Ft.

Fill Section

NOTE : Item I-9 Stone Underdrains, No. 2, shall be provided on Boss Road, as directed by the Engineer, where an outlet is available. For typical spacing of stone underdrains, see general note on Sheet 12. For typical details of stone underdrains, see Sheet 5.

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-219	3" Waterproofed Aggregate Base Course
(4)	I-18	5" Stabilized Crushed Aggregate Shoulders and Approaches
(5)	I-22	Subbase, Grading A or B, as per plan (Thickness as shown)
(6)	I-4	6" Pipe Underdrains
(7)	L-9	Seeding and Protecting
(9)	I-21	4" Portland Cement Concrete Median Pavement, Type I
(11)	I-12	Standard Type 2-A Curb
(13)	T-35	1½" Asphaltic Concrete Surface Course, Type A, (70-85)
(14)	B-19	Aggregate Base Course (Thickness as shown)
(16)	T-30	Bituminous Prime Coat, Sec. M-5.7, RT-2 or RT-3, applied at the rate of 0.4 gal. per sq. yd.

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

* Except as otherwise shown on cross sections by flowline elevations

Scale 1" = 6'-0"

SEP 15 1960

SANZENBACHER MILLER & BRIGHAM, TOLEDO, OHIO

Rev. 7-6-60 R.E.C.

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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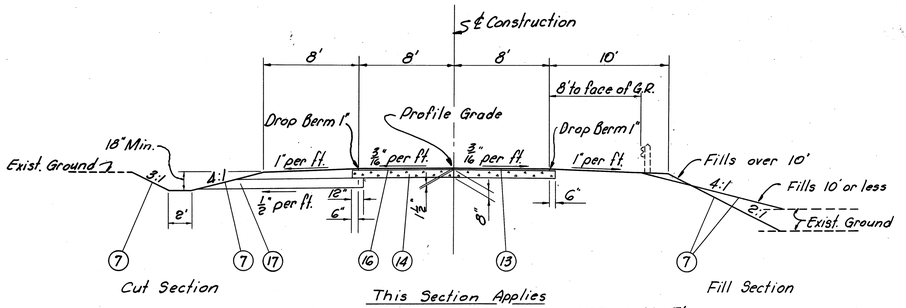
ERI G-11.30

TYPICAL SECTIONS

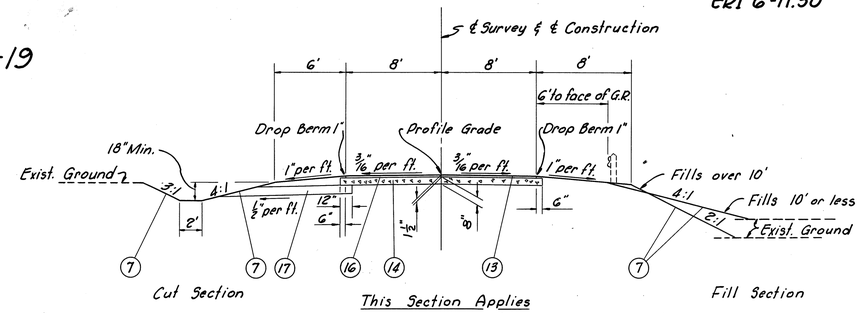
TYPE T-71
TYPE T-35 on B-19



Cut Section — Fill Section

This Section Applies

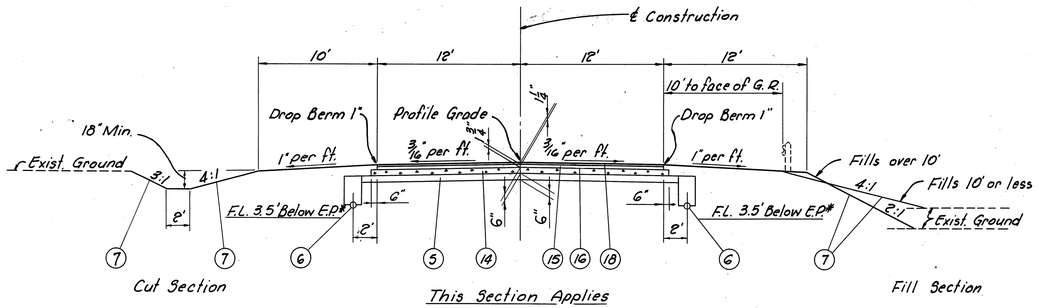
Galloway Rd., Sta. 42+00 to 48+32.24 = 632.24 Lin. Ft.
Sta. 51+67.76 to 57+00 = 532.24 Lin. Ft.
Total = 1164.48 Lin. Ft.



Cut Section — Fill Section

This Section Applies

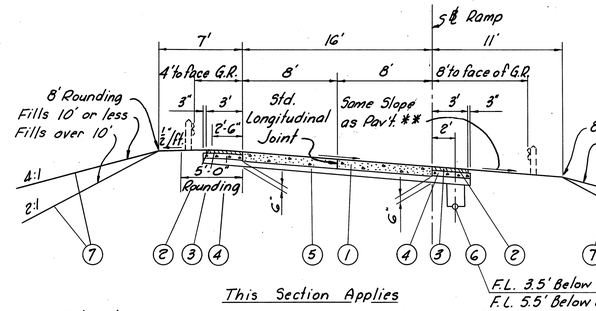
Camp Rd., Sta. 41+25 to 48+32.23 = 707.23 Lin. Ft.
Sta. 51+67.77 to 60+75 = 907.23 Lin. Ft.
Total = 1614.46 Lin. Ft.



Cut Section — Fill Section

This Section Applies

Rye Beach Rd., Sta. 42+60 to 46+50.45 = 390.45 Lin. Ft.
Sta. 49+97.19 to 59+22 = 924.81 Lin. Ft.
Total = 1315.26 Lin. Ft.



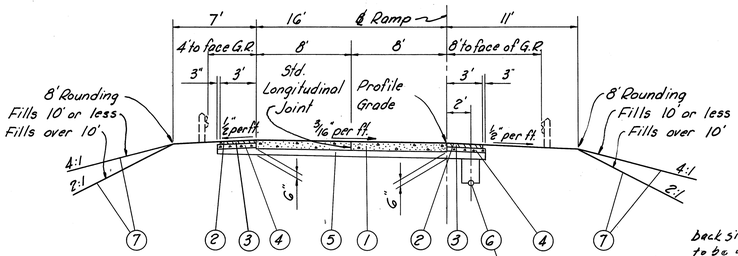
This Section Applies

F.L. 3.5' Below E.P. (Fill)*
F.L. 5.5' Below E.P. (Cut)*

U.S. 250 Interchange:
Ramp A, Sta. 8+50.16 to 5+50 = 300.16 Lin. Ft.
Ramp B, Sta. 13+84.54 to 0+68.27 = 1316.27 Lin. Ft.
Ramp C, Sta. 5+11.23 to 8+53.16 = 341.93 Lin. Ft.
Ramp D, Sta. 1+70.00 to 5+55.67 (Bk) = 385.67 Lin. Ft.
Ramp E, Sta. 8+78.72 to 4+89.00 = 398.72 Lin. Ft.
Ramp E, Sta. 15+20 to 13+00.48 = 219.52 Lin. Ft.
Total = 2,962.27 Lin. Ft.

Rye Beach Rd. Interchange:
Ramp A, Sta. 9+45.48 to 5+50.00 = 395.48 Lin. Ft.

Ramp D, Sta. 2+50.00 to 8+93.64 = 643.64 Lin. Ft.
Total = 1039.12 Lin. Ft.

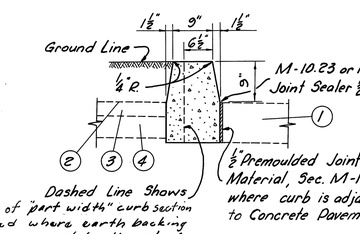


This Section Applies

F.L. 3.5' Below E.P. (Fill)*
F.L. 3.5' Below E.P. (Cut)*

U.S. 250 Interchange:
Ramp A, Sta. 14+03.28 to 8+50.16 = 553.12 Lin. Ft.
Ramp C, Sta. 0+72.76 to 5+11.23 = 438.47 Lin. Ft.
Ramp D, Sta. 13+00.48 to 15+22.48 = 222.00 Lin. Ft.
Total = 1,213.59 Lin. Ft.

Rye Beach Rd. Interchange:
Ramp A, Sta. 11+57.48 to 9+45.48 = 212.00 Lin. Ft.



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-219	3" Waterproofed Aggregate Base Course
(4)	I-18	5" Stabilized Crushed Aggregate Shoulders and Approaches
(5)	I-22	Subbase, Grading A or B, as per plan (Thickness as shown)
(6)	I-4	6" Pipe Underdrains
(7)	L-9	Seeding and Protecting
(9)	I-21	4' Portland Cement Concrete Median Pavement, Type I
(11)	I-12	Standard Type 2-A Curb
(13)	T-35	1 1/2" Asphaltic Concrete Surface Course, Type A, (70-85)
(14)	B-19	Aggregate Base Course (Thickness as shown)
(15)	B-35	1 3/4" Asphaltic Concrete Leveling Course (70-85)
(16)	T-30	Bituminous Prime Coat, Sec. M-5.7, RT-2 or RT-3 applied at the rate of 0.4 gal. per sq. yd.
(17)	I-9	Stone Underdrains, No. 2 (See general notes for spacing of this item.)
(18)	T-35	1 1/4" Asphaltic Concrete Surface Course, Type C, (70-85)

* Except as otherwise shown on cross sections by flow line elevations

** For pavement elevations see plan and profile sheets

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

SANZENBACHER MILLER & BRIGHAM, TOLEDO, OHIO.

SEP 15 1960

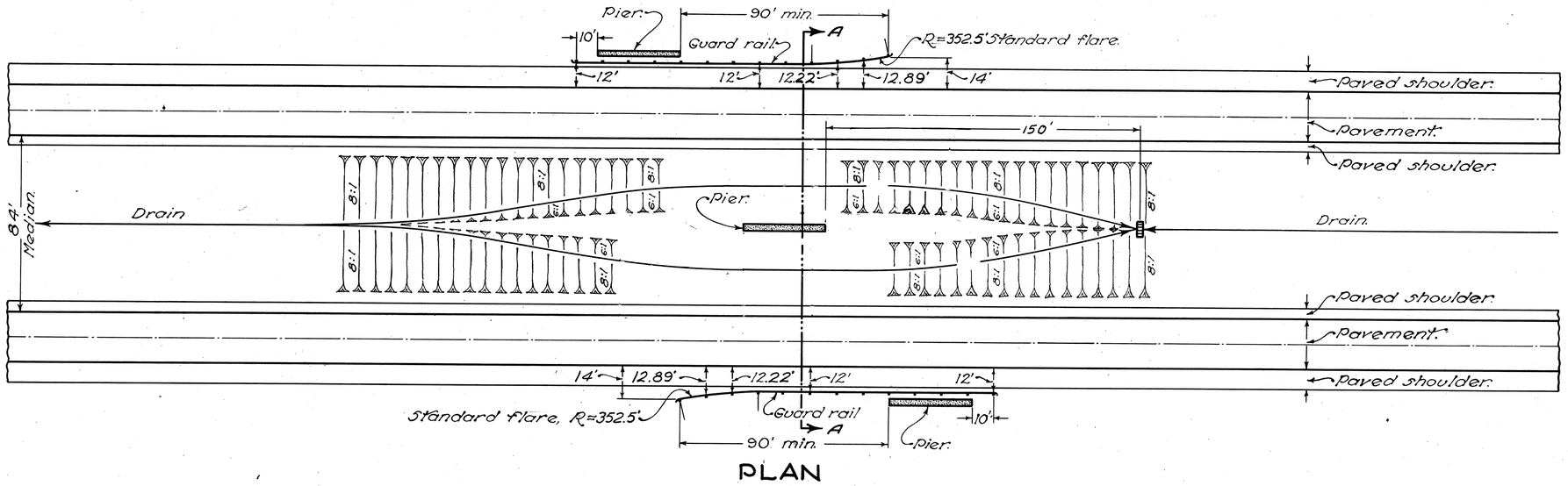
GUARD RAIL PROTECTION

FOUR LANE DIVIDED, 84' MEDIAN, AT PIERS

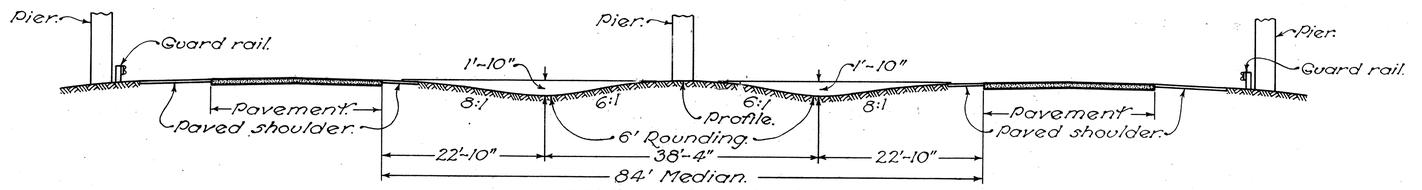
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

6/235

ERI. 6-

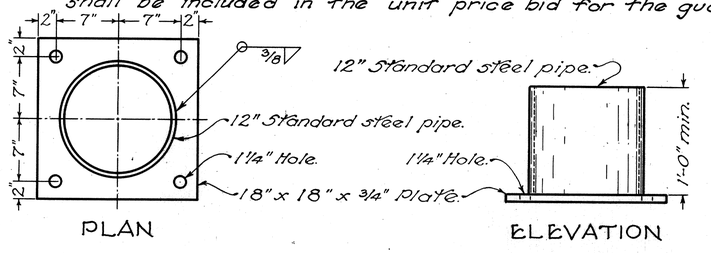


PLAN

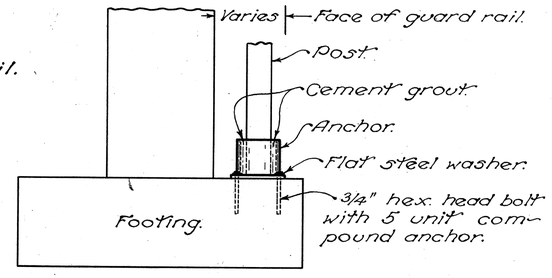


SECTION A-A

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.



PLAN ELEVATION



FOOTING END VIEW

FOOTING ANCHOR

NOTES

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

SEP 15 1960

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

GUARD RAIL DETAIL AT STRUCTURE

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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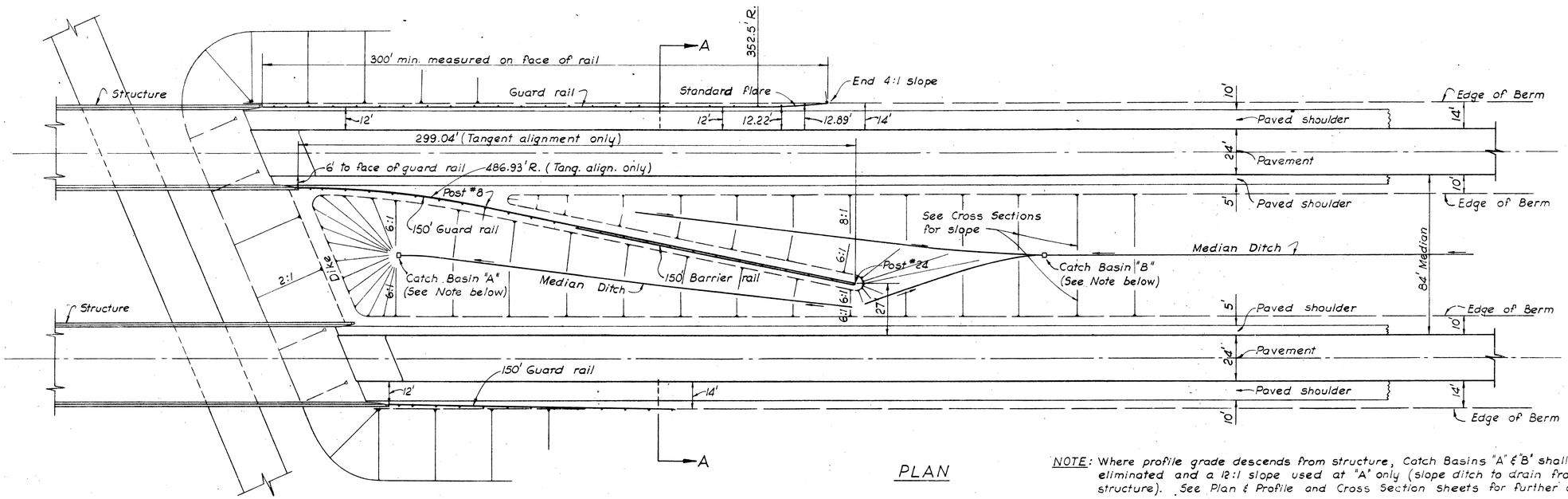
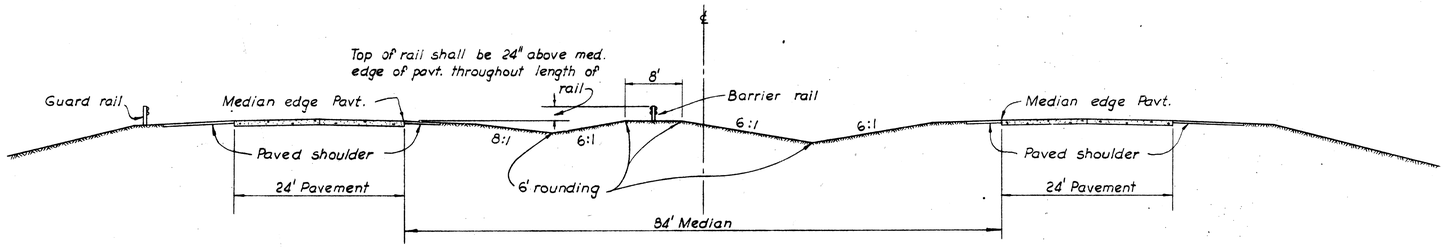
ERI.-6-11.30

GUARD RAIL PROTECTION AT TWIN STRUCTURES



PLAN

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.



SECTION A-A

DISTANCE BETWEEN EDGE OF PAVEMENT AND FACE OF GUARD RAIL			
POST	OFFSET	POST	OFFSET
½	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		

SEP 15 1960

GUARD RAIL DETAIL AT STRUCTURES

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

8
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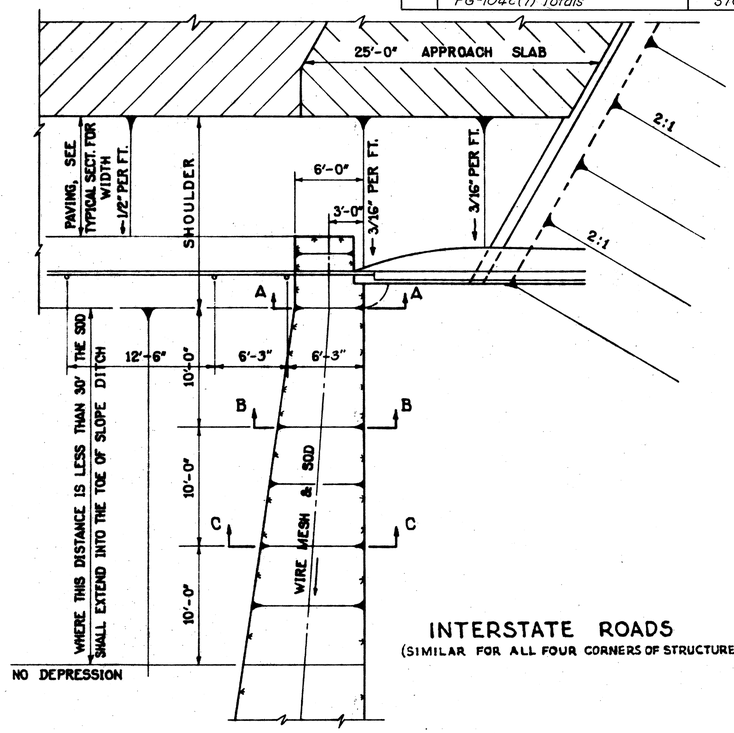
ERI. G-11.30

See Sheet No.	Station	Side	Location	L-10 Sodding for Special Berm & Slope Protection
				Sq. Yds.
147	859+01	Lt.	U.S. 6	64
147	859+81	Rt.	U.S. 6	59
147	861+15	Lt.	U.S. 6	69
147	861+93	Rt.	U.S. 6	78
160	48+41	Lt.	Galloway Rd.	56
160	48+45	Rt.	Galloway Rd.	56
160	51+55	Lt.	Galloway Rd.	53
160	51+59	Rt.	Galloway Rd.	59
167	48+41	Lt.	Camp Rd.	60
167	48+45	Rt.	Camp Rd.	63
167	51+56	Lt.	Camp Rd.	67
167	51+60	Rt.	Camp Rd.	67
174	1001+91	Lt.	*U.S. 6	88
174	1004+55	Rt.	*U.S. 6	95
174	1005+24	Lt.	*U.S. 6	103
174	1008+00	Rt.	*U.S. 6	84
190	1027+14	Lt.	U.S. 6	42
190	1027+14	Rt.	U.S. 6	39
202	46+52	Rt.	Rye Beach Rd.	56
202	46+65	Lt.	Rye Beach Rd.	56
202	49+82	Rt.	Rye Beach Rd.	64
202	49+95	Lt.	Rye Beach Rd.	64
	F-1042(7) Totals			1072
	*FG-1042(7) Totals			370



INTERSTATE ROADS
(SIMILAR FOR ALL FOUR CORNERS OF STRUCTURE)

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

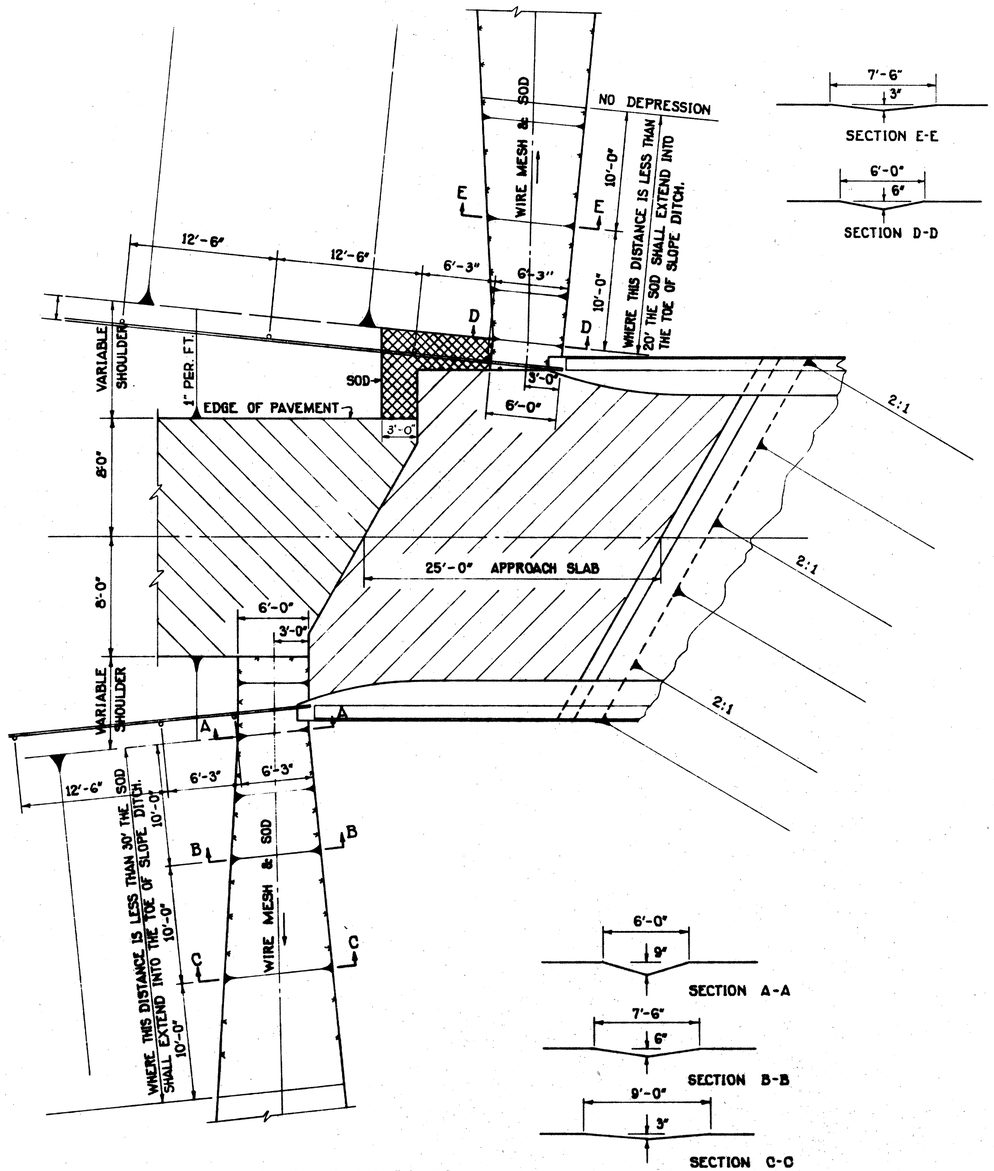
THE FENCE SHALL BE STRAIGHT LINE POULTRY FENCE OR EQUIVALENT WITH STRAND WIDTH OF FOUR FEET HAVING A TWO INCH MESH AND ALL WIRES NO. 20 GAUGE.

THE STRANDS 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.



SECONDARY ROADS

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APPROACH SLAB EROSION CONTROL

TYPICAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
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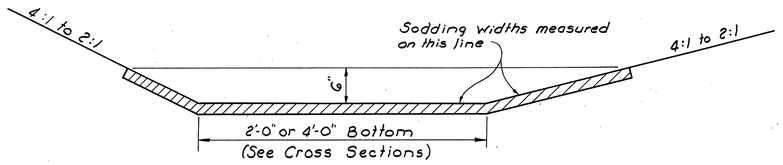
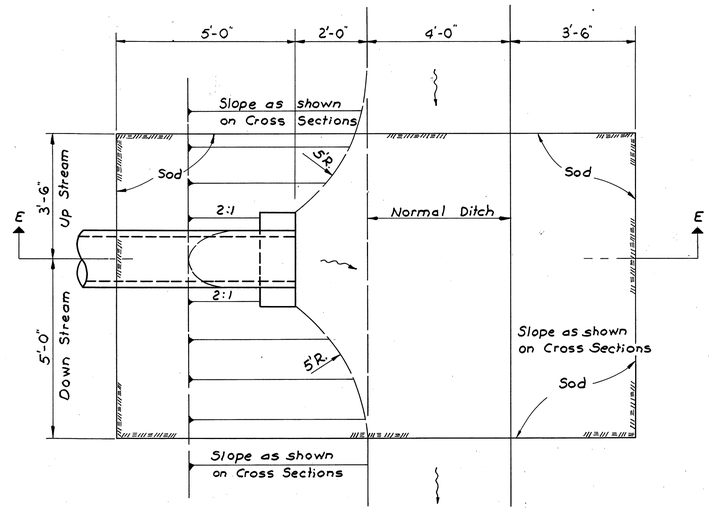
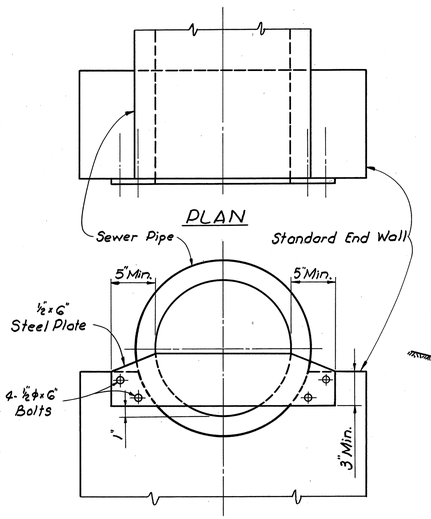


SOD DETAIL FOR DITCHES

Scale: 1"=1'-0"

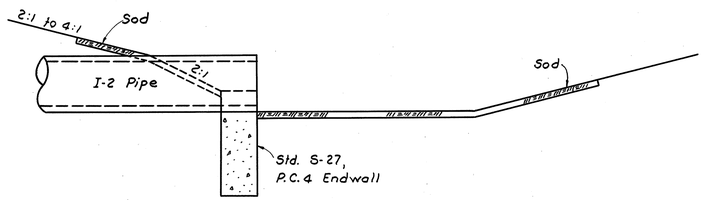


PLAN



SPLASH PLATE DETAILS

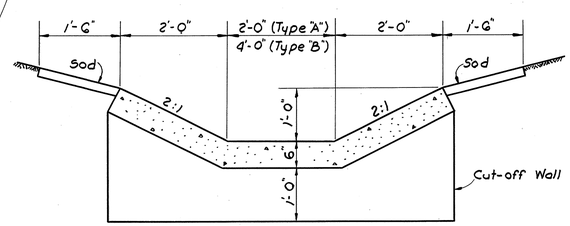
Scale: 1½"=1'-0"



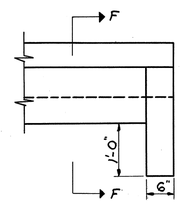
SECTION E-E

DETAIL OF SOD AROUND STD. S-27, P.C.4 ENDWALL

Scale: ½"=1'



SECTION F-F



SIDE VIEW

SPECIAL PAVED GUTTER – TYPE "A" & "B"

Scale: ¾"=1'

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GENERAL NOTES

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TRAFFIC MAINTENANCE

U. S. 250: TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. OUTSIDE THE LIMITS OF THE TEMPORARY RUN-AROUND, THIS SHALL BE ACCOMPLISHED BY USE OF EITHER THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT, OR TEMPORARY TRAFFIC LANES SURFACED WITH T-10 AGGREGATE AND STABILIZED WITH M-10 CALCIUM CHLORIDE. SEE RUN-AROUND DETAIL SHEET FOR QUANTITIES.

GALLOWAY ROAD, CAMP ROAD, RYE BEACH ROAD: THE CONTRACTOR SHALL ARRANGE HIS CONSTRUCTION OPERATIONS SO AS TO KEEP AT LEAST ONE OF THESE ROADS OPEN TO TWO-WAY TRAFFIC AT ALL TIMES.

BOSS ROAD: BOSS ROAD RELOCATED AND RYE BEACH ROAD SHALL BE COMPLETED AND OPENED TO TRAFFIC PRIOR TO THE CLOSING OF EXISTING BOSS ROAD AT THE LIMITS OF U. S. 6 RELOCATED.

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; 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

TRAFFIC MAINTENANCE NOTES CONTINUED ON SHEET 13.

LIGHTS, SIGNS, AND BARRICADES

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

(a) PROVIDE, ERECT, AND MAINTAIN MOVABLE GATES ON INTERSECTING ROADS CLOSED TO TRAFFIC AT ALL POINTS WHERE LOCAL TRAFFIC MOVEMENT TERMINATES.

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

(c) PROVIDE, ERECT, AND MAINTAIN STANDARD 40" x 24" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE LOCATIONS SHOWN ON THE SCHEMATIC PLAN DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED 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. SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
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
OHIO NORTHERN TELEPHONE COMPANY	TELEPHONE
OHIO FUEL GAS COMPANY SANDUSKY, OHIO	LOCAL GAS LINES
OHIO FUEL GAS COMPANY BOX 173, GALION, OHIO	16" GAS LINE STA. 896+85±
NEW YORK CENTRAL RAILROAD LASALLE STREET STATION CHICAGO 5, ILLINOIS	TELEGRAPH LINES
ERIE COUNTY COUNTY COURTHOUSE, SANDUSKY	WATER LINES
NATIONAL AERONAUTICS & SPACE ADMINISTRATION, LEWIS RESEARCH CENTER, PLUM BROOK TAYLOR ROAD & COLUMBUS AVE., SANDUSKY, OHIO	34" RAW WATER LINE STA. 944+15± and STA. 59+30± CAMP ROAD

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.

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.

ROAD NAME SIGNS

ALL COUNTY, TOWNSHIP, CITY OR VILLAGE ROAD OR STREET NAME SIGNS THAT WILL BE DISTURBED BY THE CONSTRUCTION SHALL BE CAREFULLY REMOVED AND STORED BY THE CONTRACTOR FOR DISPOSAL BY THEIR RESPECTIVE OWNERS. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION.

GUARD RAIL REMOVAL

THE REMOVAL OF ANY GUARD RAIL OR GUARD RAIL POSTS LYING WITHIN THE LIMITS OF ROADWAY EXCAVATION OR EMBANKMENT AND NOT SPECIFICALLY PAID FOR UNDER A SEPARATE ITEM IS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ROADWAY EXCAVATION. ALL RESULTING MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM AT NO EXTRA COST TO THE STATE, EXCEPT THAT THE STEEL RAIL ON ALL EXISTING STEEL BEAM TYPE OR STEEL CABLE ON STEEL CABLE TYPE GUARD RAILS SHALL BE STORED ON THE RIGHT-OF-WAY FOR DISPOSAL BY THE OWNER.

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.

FILLING BASEMENTS OUTSIDE NORMAL WORK LIMITS

IN ADDITION TO THE GENERAL REMOVAL REQUIREMENTS OF SEC. E-1.03(c), ALL BASEMENTS OR PORTIONS THEREOF WITHIN THE RIGHT-OF-WAY ON THIS PROJECT BUT BEYOND THE NORMAL SLOPE LINES SHALL BE FILLED TO SURROUNDING GROUND ELEVATION AS DIRECTED BY THE ENGINEER. PRIOR TO FILLING WITHIN THIS AREA, THE BASEMENT FLOORS AND WALLS SHALL BE BROKEN UP OR REMOVED AS PROVIDED UNDER SEC. E-1.03(c) AND ALL HOUSE DRAINS NOT REMOVED SHALL BE PLUGGED AS PROVIDED ELSEWHERE IN THESE NOTES.
WHERE BASEMENTS EXTEND BEYOND THE RIGHT-OF-WAY LINE, BUT ARE WITHIN SLOPE EASEMENT OR WORK AGREEMENT LINES, THEY SHALL BE FILLED TO THE ELEVATION OF THE SURROUNDING GROUND AS DIRECTED BY THE ENGINEER BUT THE REQUIREMENTS OF SEC. E-1.03(c) FOR REMOVALS BELOW THE PROPOSED FINISHED SURFACE SHALL BE WAIVED FOR THE PORTIONS EXTENDING BEYOND THE RIGHT-OF-WAY LINE.
PAYMENT FOR ALL OF THE ABOVE EXCEPT PLUGGING, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION, ITEM E-1.

HEAVY EQUIPMENT

THE CONTRACTOR SHALL EXERCISE CARE IN THE USE OF HEAVY EQUIPMENT OVER FINISHED WORK AND WILL BE REQUIRED TO REMOVE AND REPLACE ANY COMPLETED WORK DESTROYED THEREBY. CULVERTS SHALL BE BACKFILLED TO A HEIGHT OF FOUR FEET BEFORE LOADED EARTH-MOVING EQUIPMENT IS PERMITTED TO CROSS THE TRENCH.
ANY ADDITIONAL FILL AND SUBSEQUENT EXCAVATION REQUIRED TO PROVIDE THIS MINIMUM COVER SHALL BE MADE AT NO ADDITIONAL COST TO THE STATE. HEAVY EQUIPMENT SHALL NOT BE OPERATED OVER ANY COMPLETED LAYER OF EMBANKMENT, COMPACTED SUBGRADE, OR SUBBASE IF SUCH OPERATION TENDS TO DESTROY THE SOIL STRUCTURE OR PIPE UNDERDRAINS; HOWEVER, IF SUCH OPERATION CANNOT BE AVOIDED, THE CONTRACTOR WILL BE REQUIRED TO REDUCE THE SIZE OF LOADS TO AN EXTENT THAT DAMAGE DOES NOT OCCUR.

CURBS ON APPROACH SLABS

THE HEIGHT AND FACE OF CURBS ON APPROACH SLABS SHALL BE TRANSITIONED FROM THE STANDARD SECTION USED ON THE APPROACH PAVEMENT TO THE SECTION USED ON THE BRIDGE CURBING WITHIN THE LIMITS OF THE APPROACH SLAB.

ROCK SUBGRADE

THE CONTRACTOR SHALL BE PAID FOR THE THICKNESS OF I-22 MATERIAL SHOWN ON THE TYPICAL SECTIONS IN ROCK EXCAVATION AREAS. ANY POCKETS IN THE ROCK BELOW THE PLAN SUBGRADE ELEVATION SHALL DRAIN EITHER LONGITUDINALLY OR LATERALLY AND ALL IRREGULARITIES IN THE ROCK BELOW THIS ELEVATION SHALL BE FILLED WITH I-22 MATERIAL AT NO ADDITIONAL COST TO THE STATE.

CURB ENDS

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

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GENERAL NOTES (CONT.)

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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.

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. 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.

GRADING TOLERANCES

FOR AREAS BETWEEN CURB AND SIDEWALK AND FOR AREAS IN FRONT OF RESIDENCES AND SIMILAR AREAS SPECIFICALLY INDICATED BELOW, THE SEED BED SHALL BE PREPARED TO PROVIDE A SMOOTH SURFACE. ALL STONES LARGER THAN ONE INCH IN DIAMETER SHALL BE REMOVED FROM THE SURFACE OF THE SEED BED. HAND RAKING WILL BE REQUIRED IN AREAS INACCESSIBLE TO MACHINES AND HAND RAKING MAY BE REQUIRED, IF DIRECTED BY THE ENGINEER, IN ALL THE AFOREMENTIONED AREAS IF MACHINES USED DO NOT PROVIDE RESULTS EQUIVALENT TO RESULTS OBTAINED BY HAND RAKING. COST OF THIS ADDITIONAL WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION, ITEM E-1.
THE ABOVE NOTE SHALL BE CONSIDERED TO BE PARTICULARLY APPLICABLE IN THE AREAS TABULATED ON SHEET NO. 14.

PLACING SOD IN DITCHES

ALL SOD PLACED IN DITCHES SHALL BE LAID WITH THE LONG EDGES OF THE STRIPS PERPENDICULAR TO THE FLOW LINE OF THE DITCH. SUCCESSIVE STRIPS SHALL BE NEATLY MATCHED AND ALL JOINTS STAGGERED OR BROKEN. THE SOD SHALL BE STAKED SECURELY WITH STAKES PLACED ON MAXIMUM TWO (2) FT. CENTERS IN ROWS NOT MORE THAN TWO (2) FEET APART. STAKES IN ADJACENT ROWS SHALL BE STAGGERED. THE STAKES SHALL BE WOOD FROM 1/2" x 3/4" x 12" TO 1" x 1" x 24", AS REQUIRED TO HOLD THE SOD, AND SHALL BE DRIVEN FLUSH WITH THE TOP OF THE SOD.

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.

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.

SUBGRADE COMPACTION

THE SUBGRADE FOR DRIVES PAVED WITH B-19 OR T-70 MATERIAL SHALL BE COMPACTED FOR A DEPTH OF SIX (6) INCHES TO THE DENSITY REQUIREMENTS SHOWN IN TABLE III, ITEM E-1. PAYMENT FOR SUBGRADE COMPACTION, AS SPECIFIED ABOVE, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

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.

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.

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
- 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
- CPA = CORNER POST ASSEMBLY
- EPA = END POST ASSEMBLY

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. 13.
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.

DRAINAGE OF BASE MATERIAL

WHERE THE BASE MATERIAL IS DRAINED BY I-9 STONE UNDERDRAINS OR BY EXTENSIONS OF THE SUBBASE THROUGH THE SHOULDERS TO THE FILL SLOPE OR THE DITCH LINE, THE CONTRACTOR SHALL FINISH, SEED, AND MULCH THE SLOPES SO AS NOT TO IMPEDE DRAINAGE OF THE BASE MATERIAL. THE ACTUAL AREA OF THE OUTCROP OF THE SUBBASE MATERIAL OR THE I-9 UNDERDRAINS SHALL NOT BE SEEDED.

RIPRAP, USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN

IN ADDITION TO MEETING THE GENERAL REQUIREMENTS OF SECTION I-10.03 AND I-10.05, THE RIPRAP FURNISHED FOR THIS ITEM SHALL BE A 6-INCH REINFORCED CONCRETE SLAB, REINFORCED WITH BARS OR FABRICATED REINFORCEMENT EQUIVALENT TO 3/8-INCH ROUND BARS SPACED AT TWO-FOOT CENTERS, TWO DIRECTIONS, AND PLACED APPROXIMATELY MIDWAY BETWEEN THE TOP AND BOTTOM OF THE SLAB. FORMED CONSTRUCTION JOINTS MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER. REINFORCEMENT SHALL EXTEND THROUGH ALL CONSTRUCTION JOINTS.
THE REQUIREMENTS OF SEC. I-10.05 FOR DEPRESSED GROOVES AND THICKENED BOTTOM EDGES IN THIS ITEM SHALL BE WAIVED.
IN LIEU THEREOF, CUT-OFF WALLS AS DETAILED ON THE PLANS SHALL BE PROVIDED AND PAYMENT THEREFOR SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

DISPOSAL OF CATCH BASIN & INLET CASTINGS

CASTINGS OF EXISTING CATCH BASINS, INLETS AND OTHER DRAINAGE STRUCTURES, WHICH ARE TO BE REMOVED OR REPLACED, SHALL BE REMOVED AND HANDLED IN SUCH A MANNER AS TO PREVENT THEIR BEING DAMAGED. AFTER REMOVAL THE CASTINGS SHALL BE STORED WITHIN THE RIGHT OF WAY AT LOCATIONS DETERMINED BY THE ENGINEER FOR DISPOSAL BY STATE FORCES.

PIPE FOR SUBGRADE DRAINAGE

TEN (10) LIN. FT. OF 8" CORRUGATED METAL PIPE, SEC. M 6.4 (C) SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR, IN MANHOLES, CATCH BASINS AND INLETS WHERE INDICATED ON THE PLANS. PAYMENT SHALL BE MADE AT THE PRICE BID PER LINEAL FOOT FOR PIPE UNDERDRAIN OUTLETS.

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.

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GENERAL NOTES (CONT.)

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.

EXISTING HOUSE DRAIN CONNECTIONS

ALL EXISTING HOUSE DRAINS, WHICH INCLUDE SANITARY, YARD, ROOF, BASEMENT, OR OTHER SIMILAR HOUSE DRAINS NOW IN USE WHICH ARE DISTURBED BECAUSE OF THE HIGHWAY IMPROVEMENT, SHALL BE REPLACED BY THE CONTRACTOR AT THE UNIT PRICE BID FOR EACH PIPE ITEM FURNISHED AND PLACED. IF THE EXISTING SEWER IS TO BE ABANDONED, THEN A SATISFACTORY HOUSE CONNECTION SHALL BE PROVIDED TO THE NEW SEWER. WHERE AN EXISTING HOUSE IS TO BE REMOVED, THE UPGRADE END OF THE EXISTING HOUSE CONNECTION SHALL BE PLUGGED WITH A PRECAST VITRIFIED OR CONCRETE STOPPER, AND ACCURATELY REFERENCED IF THE EXISTING HOUSE CONNECTION REMAINS SATISFACTORY FOR FUTURE USE.

PAYMENT FOR PLUGGING SPECIFIED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION, ITEM E-1.

THE FOLLOWING ESTIMATED QUANTITIES OF PIPE, FOR REPLACEMENTS DESCRIBED ABOVE, HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM I-2 4" CLASS "B" STORM SEWERS - LIN. FT.
6" CLASS "B" STORM SEWERS - LIN. FT.

PROPOSED HOUSE DRAIN CONNECTIONS

THE ENGINEER WILL NOTIFY PROPERTY OWNERS IN ADVANCE OF CONSTRUCTION THAT IF THEY CONTEMPLATE NEW HOUSE CONNECTIONS TO THE PROPOSED SEWER THE PROPERTY OWNER MUST FURNISH, AT HIS SOLE COST, TEES OR WYES OF THE PROPER SIZE AND MATERIAL TO THE CONTRACTOR. THE CONTRACTOR WILL THEN INSTALL THE TEES OR WYES AS HE PROCEEDS WITH LAYING THE SEWER, AND PAYMENT FOR THE WORK INVOLVED WILL BE AT THE SAME RATE AS THOUGH HE WERE FURNISHING AND LAYING STRAIGHT PIPE.

TO OBTAIN A HOUSE CONNECTION TO EITHER AN EXISTING SEWER THAT IS TO REMAIN OR TO A PROPOSED SEWER, THE PROPERTY OWNER OR HIS AGENT, AT HIS SOLE COST, SHALL FURNISH ALL MATERIAL AND LABOR REQUIRED TO INSTALL THE HOUSE CONNECTION FROM THE CARRIER SEWER TO A POINT BEYOND THE LIMITS OF ROADWAY CONSTRUCTION.

THE CONTRACTOR MUST COOPERATE WITH THE PROPERTY OWNER OR HIS AGENT TO GIVE SAID PROPERTY OWNER OR HIS AGENT AMPLE OPPORTUNITY FOR EXTENDING SAID SEWER CONNECTION FROM THE TEE OR WYE TO A POINT BEYOND ROADWAY CONSTRUCTION LIMITS. THE NECESSARY HOUSE CONNECTIONS SHALL BE INSTALLED BY THE PROPERTY OWNER OR HIS AGENT AT NO COST TO THE CONTRACTOR, OTHER THAN THE COST OF COOPERATION IN SCHEDULING HIS WORK WHICH SAID COST SHALL BE ASSUMED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE UNIT PRICES BID FOR VARIOUS SEWER ITEMS.

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 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 I-4 UNDERDRAINS HAVE BEEN PROVIDED.

WATER LINES

FOR NOTES REGARDING CONSTRUCTION OF WATER LINES, SEE SHEET 84.

TRAFFIC MAINTENANCE (CONTINUED)

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.

SHOULD THE CONSTRUCTION SEQUENCE INVOLVE BRIDGE CONSTRUCTION OVER TRAVELED LANES ON U.S.R. 250, THE CONTRACTOR SHALL SAFEGUARD THE TRAVELING PUBLIC BY PROVIDING PLATFORMS, NETS, OR OTHER SUITABLE PROTECTION ABOVE THE TRAVELED LANES. PAYMENT FOR THIS PROTECTION SHALL BE INCLUDED IN THE LUMP SUM BID FOR "MAINTAINING TRAFFIC"

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

CHANGES IN TYPICAL SECTIONS

SUBSEQUENT TO COMPLETION OF DETAILED PLANS FOR THIS PROJECT, THE WIDTH OF THE PAVED SHOULDER ON THE MEDIAN SIDE OF THE PROPOSED PAVEMENT WAS REDUCED FROM 5 TO 4 FEET. THE CROSS SECTIONS, AS DRAWN, DO NOT REFLECT THIS DECREASE IN WIDTH OF THE PROPOSED PAVEMENT TRENCH.

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TYPICAL SECTIONS AND NECESSARY ADJUSTMENTS IN EARTHWORK QUANTITIES WILL BE MADE AT THE TIME OF FINAL MEASUREMENT.

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GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
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① SUMMARY OF DRAINAGE QUANTITIES

Carried from Sheet No.	E-2	E-3	S-1	S-1	S-4		S-27 Pipe for Roadway Culverts (Lin. Ft.)															I-1
	Excavation for Structures	Channel Excavation	Conc. for Structures Class "C"	Conc. for Structures Class "E"	Reinforcing Steel		M-6.6(c)	M-6.6(b) or M-6.8(b)				M-6.6(b)				M-6.6(c)	M-6.6(d) under Railroad	M-206.6(b)				12" Pipe for Driveways
	Cu.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.	Lbs.		24"	15"	18"	21"	24"	48	60"	96"	108"	72"	42"		76"×48"	83"×53"		Lin.Ft.
18	461			1.98								244										
19																						
20				0.26																		
21	563	2339		32.00										240	588							
22				0.86																		
23																						
24	95	295		5.26																204		
25				0.26																		
26				0.26																		
27	65	512		4.66									204									
28				0.26																		
29				0.26																		
30				0.26																		
31				2.80																		
32				0.26																		
33																						
* 33				0.26																		
* 34	1008		27.4	8.00	1152											258	120					
* 35				0.26																		
* 36																						
36				0.26																		
37				0.26																		
38				1.46																		
43	429			6.50			232												114			
44	46			0.82							68											
45	76			1.05							92											
46	50			0.82							76											
47	90			1.35				60	132													
53																						
56				0.46																		
60	64			0.60					116													48
61	33			0.72						64												
62	62			0.95						88												
66																						66
F-1042(7) Totals	2034	3146		64.63			232	60	248	152	236	244	204	240	588				114	204		114
* FG-1042(7) Totals	1008		27.4	8.52	1152											258	120					
Grand Totals	3042	3146	27.4	73.15	1152		232	60	248	152	236	244	204	240	588	258	120		114	204		114

Carried from Sheet No.	I-2															I-4						
	8" Class A Storm Sewer Under Pav't	Storm Sewer (Lin. Ft.) M-6.5(a) or M-6.8(a)				M-6.5(b) or M-6.8(b)				M-6.6(a)		M-6.6(a) or M-6.8(b)		M-6.4(c)		6" Underdrain (Shallow)	6" Underdrain (Deep)	C.M.P. Outlet (Lin. Ft.)				
	Lin.Ft.	12"	15"	18"	24"	12"	15"			48"		36"		12"	15"	Lin.Ft.	Lin.Ft.	6"	8"	10"	12"	21"
18	141						141									3982			10			40
19																3166						
20	143						111									3977			10			
21	162		9			12										2360	1640					
22	126			92			99									2632		38				
23																3200		34				
24	126						105									4000						
25	126						102									3992						
26	126						102									4000		26				
27	126						105									3992					36	
28	126						105									4000			40			
29	126						99									3992		26	26			
30	126						111									3992			36			
31	126				128		111			120						3992						
32	126						105									4000						
33																1200						
* 33	126						114									2792						
* 34																2910						
* 35	132						87								36	3950						
* 36																1192						
36	162						120							110		2380					50	
37	231						138							48		4102						
38	126			216			99									1592						
43		99				66						92					4472	20	228			
44																1410			46			
45						75										1481			112			
46																1358			10			
47						69										2126	726	40	20			
53																						
56		12		280		66													60			
60																3240		20	100			
61																1106			20			
62						69										913			20			
																		Ŧ200	Ŧ200	Ŧ80	Ŧ80	
66																						
F-1042(7) Totals	2225	111	9	588	128	357	1653			120		92		158		76,185	6,838	404	938	80	166	40
* FG-1042(7) Totals	258						201								36	10,844						
Grand Totals	2483	111	9	588	128	357	1854			120		92		158	36	87,029	6,838	404	938	80	166	40

Carried from Sheet No.	I-5								I-8										I-10			I-14		I-9	I-16	L-10	Spec.	Carried from Sheet No.
	Pipe Specials (Ea.) 6", 90° Ell for Underdrain	8", 90° Ell for Class A St. Sew.	8", 90° C.M.P. Ell	6" on 6" Tee for Underdrain	8" on 8" Tee for Class A St. Sew.	8" on 8" C.M.P. Tee	12", 25° C.M.P. Ell	15", 25° C.M.P. Ell	No. 2-2-A C.B.	No. 2-2-B C.B.	No. 2-4 C.B.		No. 4 C.B.	No. 6 C.B.				No. 1 MH.	Dumped Rock Channel Protection	Dumped Rock Fill	Riprap (6" Conc.)	Paved Gutter Type "A"	Type "B"	Stone Underdrains No. 2	Abandon C.B. (Seal Pipe Ends)	Sodding	Splash Plate, as per plan	
									Ea.	Ea.	Ea.		Ea.	Ea.				Ea.	Cu.Yd.	Cu.Yd.	Sq.Yd.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Ea.	Sq.Yd.	Ea.	
18		1			6								1						28							236		18
19																												19
20		3			2								1										15			19		20
21		1			6								1	1					154	273	81		565			195		21
22		3			2								1													577		22
23																										89		23
24		1			6								1													14		24
25		3			2								1													14		25
26		1			6								1													14		26
27		3			2								1													14		27
28		1			6								1													14		28
29		3			2								1													14		29
30		3			2								1						30							14		30
31		3			2								1						19							103		31
32		1			6								1						15							369		32
33																												33
* 33		3			2								1													248		33 *
* 34																			53		79					592		34 *
* 35		3			2			2					1						5							233	1	35 *
* 36																										229		36 *
36					6		4		1				1						334							65		36
37		2			8				1				1													14		37
38		3			2								1													14		38
43	4		2	3		2			1	1	2															15		43
44	1																									357		44
45	1			1										1					5									45
46				1															28							147		46
47	3			2										1								50				516		47
53																								312		576		53
56									1									2						374				56
60				4															6						2	332		60
61	2																		17			125				424		61
62	1													1					6									62
66																			78					Ŧ450		178		66
F-1042(7) Totals	12	32	2	11	66	2	4		4	1	2		16	4				2	720	273	81	175	580	1136	2	4324		F-1042(7) Totals
* FG-1042(7) Totals		6			4			2					2						58		79					1302	1	FG-1042(7) Totals *
Grand Totals	12	38	2	11	70	2	4	2	4	1	2		18	4				2	778	273	160	175	580	1136	2	5626	1	Grand Totals

Ŧ Estimated quantities to be used as directed by the Engineer. See General Notes.

② FENCE

Sheet No.	SS-18 Type "A" Lin. Ft.		
218	2040		
219	1820		
220	1470		
222	5360		
224	5960		
225	5960		
226	5570		
228	600		
* 228	5150		
* 230	600		
230	2650		
231	865		
232	500		
F-1042(7) 100% State	24,249		
F-1042(7)	8,546		
* FG-1042(7) 100% State	5,750		
Grand Totals	38,545		

③ EARTHWORK & SEEDING

Sheet No.	E-1 Excavation Cu. Yd.	Embankment Cu. Yd.	Emb. + 15% Cu. Yd.	E-4 Borrow Cu. Yd.	L-9 Seeding Sq. Yd.
49	54,200	0	0		25,700
50	66,400	0	0		27,100
63	12,600	2,380	2,737		12,700
64	53	275	316		405
86	134,605	285,133	327,903		303,808
* 111	10,551	372,944	428,886		75,213
119	35,853	34,664	39,864		39,134
123	53,038	558	642		13,981
127	15,768	1,612	1,854		11,233
128	47,004	0	0		17,999
130	14,345	7,809	8,980		17,610
132	26,616	13,047	15,004		19,388
135	1,723	21,893	25,177		14,044
138	2,057	39,563	45,497		20,581
141	4,150	46,772	53,788		19,431
142	9,035	14,566	16,751		12,069
143	12,249	4,242	4,878		10,650
145	5671	5,858	6,737		17,566
F-1042(7) Totals	495,367	478,372	550,128	54,761	583,399
* FG-1042(7) Totals	10,551	372,944	428,886	418,335	75,213
Grand Totals	505,918	851,316	979,014	473,096	658,612

TREE REMOVAL SUMMARY

Sizes	12"-18"	18"-24"	24"-30"	30"-36"	36"-42"		
No. of Trees	643	104	30	9	6		

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Sub-Summaries

FED.RD. DIVISION	STATE	PROJECT	TYPE FUNDS
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E R I. C-11.30

(4) PAVED SHOULDERS

Location	Station From	Station To	Side	Width	B-219 3" Waterproofed Aggregate Base Course Sq.Yd.	T-31 Bit. Surface Treatment Sq.Yd.	I-18 Crushed Aggregate Shoulders Cu.Yd.	I-22 Subbase Cu.Yd.
U.S. 6	844+00	859+49 Av.	Med.	2@4'	1,376.9	1,376.9	205.7	201.6
‡	861+36 Av.	990+00			11,576.9	11,576.9	1,724.8	1694.8
*	990+00	1003+47 Av.			1,197.4	1,197.4	178.4	175.3
*	1006+30 Av.	1020+00			1,217.8	1,217.8	181.4	178.4
	1020+00	1025+97			530.6	530.6	79.1	77.7
	1027+00	1041+00	Med.	2@8'	1,244.4	1,244.4	183.6	180.5
	844+00	844+25.10	Lt.	8'	22.3	22.3	3.3	3.5
	844+25.10	848+46		10'-20'	641.3	641.3	89.1	106.9
	848+46	859+18		10'	1,191.1	1,191.1	171.0	199.2
	861+05	872+11		10'	1,228.9	1,228.9	176.4	205.4
	873+10.18	880+93		8'	696.1	696.1	100.5	108.2
‡	880+93	990+00		10'	12,296.6	12,296.6	1,765.0	2,053.6
*	990+00	1002+31		10'	1,367.8	1,367.8	196.3	228.4
*	1005+06	1014+96		10'	1,100.0	1,100.0	157.8	183.8
*	1014+96	1020+00		8'	448.0	448.0	64.6	69.9
	1020+00	1025+97		8'	530.7	530.7	76.5	82.8
	1027+00	1029+96		10'-20'	402.2	402.2	55.7	67.0
	1029+26	1041+00	Lt.	10'	1,304.4	1,304.4	185.7	217.8
	844+00	844+67	Rt.	10'	74.4	74.4	10.7	12.4
	844+67	852+47.36		8'	693.7	693.7	100.5	108.3
	853+47	858+56		10'	565.5	565.5	81.2	94.4
	858+56	859+75		20'-10'	211.7	211.7	29.6	35.3
	861+67	862+57.92		11'-10'	106.1	106.1	14.7	17.7
	862+57.92	872+26		8'	860.5	860.5	124.5	134.2
	872+26	875+72		18'-10'	505.8	505.8	70.3	84.3
‡	875+72	884+24		8'	899.6	899.6	129.9	140.5
	884+24	990+00		10'	11,751.1	11,751.1	1,684.7	1,960.6
*	990+00	1004+67		10'	1,630.0	1,630.0	233.7	272.0
*	1007+56	1020+00		10'	1,382.2	1,382.2	198.7	230.4
	1020+00	1023+67		10'	408.9	408.9	58.8	68.2
	1023+67	1025+97		8'	204.4	204.4	29.5	31.8
	1027+00	1031+56.31		8'	405.8	405.8	58.6	62.9
	1032+58	1041+00	Rt.	10'	935.6	935.6	133.2	136.2
U.S. 250 Interchange								
U.S. 250	37+50	42+09.69	Lt.	4'-8'	21.9	21.9	36.0	26.8
	42+71.05	44+34	Lt.	8'	144.8	144.8	24.9	22.4
	45+17.74	52+76.43	Lt.	8'	674.4	674.4	115.9	104.7
	53+50	59+75	Lt.	8'-4'	555.6	555.6	61.2	49.0
	37+50	42+05.62	Rt.	4'-8'	18.3	18.3	63.7	26.1
	42+66	52+61.41	Rt.	8'	884.8	884.8	152.1	136.8
	53+12.24	59+75	Rt.	8'-4'	202.5	202.5	67.0	54.7
Ramp A	0+00	3+00	Lt.	8'	266.7	266.7	38.4	41.6
	3+00	5+50	Lt.	8'-3'	152.6	152.6	22.4	24.5
	5+50	14+03.28	Lt.	3'	284.4	284.4	43.2	49.3
	5+00	5+50	Rt.	2'-3'	13.9	13.9	1.9	2.3
	5+50	14+03.28	Rt.	3'	284.4	284.4	43.2	57.6

‡ Add 159.97' for Long Station

PAVED SHOULDERS

Location	Station From	Station To	Side	Width	B-219 3" Waterproofed Aggregate Base Course Sq.Yd.	T-31 Bit. Surface Treatment Sq.Yd.	I-18 Stabilized Crushed Aggregate Shoulders Cu.Yd.	I-22 Subbase Cu.Yd.
Ramp B	0+68.27	13+84.54	Lt.	3'	438.7	438.7	66.4	83.7
	13+84.54	15+34.54	Lt.	3'-8'	91.6	91.6	13.4	14.7
	0+68.27	15+34.54	Rt.	3'	488.7	488.7	74.2	91.2
Ramp C	0+72.76	8+53.16	Lt.	3'	260.1	260.1	39.5	52.6
	8+53.16	9+03.16	Lt.	3'-2'	13.9	13.9	1.9	2.3
	0+72.76	8+53.16	Rt.	3'	260.1	260.1	39.5	45.1
	8+53.16	11+03.16	Rt.	3'-8'	152.8	152.8	22.4	24.5
	11+03.16	14+03.16	Rt.	8'	266.7	266.7	38.6	41.6
Ramp D	0+00	5+00	Lt.	3'	166.7	166.7	25.3	28.9
	5+00	5+55.67	Lt.	11'-5'	49.5	49.5	6.9	8.3
	13+30	13+70	Lt.	2'-9'	24.5	24.5	3.4	4.0
	13+70	15+22.48	Lt.	3'	50.8	50.8	7.7	10.0
	0+00	1+70	Rt.	8'-3'	104.0	104.0	15.2	16.7
	1+70	4+55.67		3'	95.2	95.2	14.4	16.5
	4+55.67	5+55.67		3'-6'	50.0	50.0	7.4	9.9
	8+78.72	13+00.48		6'	281.2	281.2	41.0	48.8
	13+00.48	14+00.48		6'-3'	50.0	50.0	7.4	9.9
	14+00.48	15+22.48	Rt.	3'	40.7	40.7	6.1	7.0
Ramp E	0+00	0+86	Lt.	8'	76.2	76.2	11.1	11.9
	2+71	3+00		8'	26.0	26.0	3.7	4.0
	3+00	4+80		8'-3'	110.0	110.0	16.1	17.7
	4+80	7+78.72		3'	99.6	99.6	15.1	17.3
	7+78.72	8+78.72		3'-6'	50.0	50.0	7.4	9.9
	8+78.72	13+65		6'	324.2	324.2	47.4	56.3
	13+65	14+65		6'-3'	50.0	50.0	7.4	9.9
	14+65	16+20		3'	51.7	51.7	7.8	9.0
	16+20	16+74.20	Lt.	3'-6'	27.1	27.1	3.1	5.4
	4+30	4+80	Rt.	2'-3'	13.9	13.9	1.9	2.3
	4+80	8+26	Rt.	3'	115.3	115.3	17.4	23.3
	13+65	15+97	Rt.	3'	77.3	77.3	10.8	15.6
	15+97	16+20	Rt.	Varies	18.3	18.3	2.5	3.1
Rye Beach Interchange								
Ramp A	1+01	3+00	Lt.	8'	176.8	176.8	25.5	27.6
	3+00	5+50	Lt.	8'-3'	152.8	152.8	22.4	24.5
	5+50	11+57.48	Lt	3'	202.5	202.5	30.7	35.1
	5+00	5+50	Rt.	2'-3'	13.9	13.9	1.9	2.3
	5+50	11+57.48	Rt.	3'	202.5	202.5	30.7	41.0
Ramp D	0+00	8+93.64	Lt.	3'	897.9	897.9	45.2	60.2
	0+00	2+50	Rt.	8'-3'	152.8	152.8	22.4	24.5
	2+50	8+93.64	Rt.	3'	214.5	214.5	32.4	37.2
	* Totals, FG-1042(7)				8,343.2	8,343.2	1,210.9	1,338.2
	Totals, F-1042(7)				59,508.3	59,508.3	8,806.1	9,655.4

(5) SUMMARY OF ROADWAY QUANTITIES

	Carried from Sheet No.	E-8 Removal & Disposal of Existing Pavt. Sq.Yd.	B-13 Aggregate Base Course Cu.Yd.	B-35 Asphaltic Conc. Base Course Cu.Yd.	B-35 Asphaltic Conc. Leveling Course Cu.Yd.	B-219 3" Waterproof Aggr. Base Course Sq.Yd.	T-30 Bit. Prime Coat Gal.	T-31 Bit. Surface Treatment Sq.Yd.	T-71 8" Reinf. P.C. Conc. Pavt. Sq.Yd.	I-7 Reinf. P.C. Conc. Appr. Slab (T=13") Sq.Yd.	I-12 Type G Curb Lin.Ft.	I-12 Type 2-ACurb Lin.Ft.	I-12 Special P.C. Conc. Curb Full Width Lin.Ft.	I-15 Guard Rail (Std Type) Lin.Ft.	I-15 Guard Rail (Barrier Type) Lin.Ft.	I-18 Stabilized Aggr. Shoulders Cu.Yd.	I-21 4" P.C. Conc. Median Pavt. Sq.Yd.	I-22 Subbase Cu.Yd.	I-23 Precast P.C. Conc. Traffic Dividers Ea.	E-1 Compacted Subgrade Sq.Yd.	I-12 Special P.C. Conc. Curb Part Width Lin.Ft.	T-35 Asph. Conc. Surf. Course Type A Cu.Yd.	Type C Cu.Yd.	No. 1 & 2 Part. Type A Cu.Yd.	No. 1 & 2 Part. Type C Cu.Yd.	Carried from Sheet No.	
	18								1,692.0			104		259.5	*		29.0	282.1			1,692.0						18	
	19								372.2	266.8				1,232.0	269.0			106.4			639.0						19	
	20								1,780.2			104		904.0	31.0		29.0	296.7			1,780.2						20	
	21								2,581.8					534.3				430.3			2,581.8						21	
	22								93.6					275.0				15.6			93.6						22	
	31													275.0													31	
	33													605.0													33	
*	34									200.1				1,674.0	150.0			33.3			200.1						34	*
*	35								104.1	66.7				1,948.0	150.0			28.5			170.8						35	*
*	36								312.5					500.0				52.1			312.5						36	*
	36								1,416.7	235.5				1,160.5	150.0			275.4			1,652.2						36	
	37								1,139.2	166.7		104		312.5	150.0		29.0	217.7			1,305.9						37	
	38													275.0													38	
	43	5,933.3	914.5	310.2	129.2	164.8	1,488.0	164.8	672.3		30	2,464				23.9	451.5	2,616.9	58	4,756.3		441.8		14.2		43	
	44											418						10.2				132					44	
	45										98							0.9									45	
	46											360		503.2				10.2				190					46	
	47									100.6	255	973	205	354.5			108.1	75.7			100.6	107					47	
	53									158.6				1,200.0				25.4			158.6						53	
	56		12.4							152.6				1,800.0				25.4			158.6						56	
	60		285.4		77.5	50.9	645.0	50.9		179.2				1,991.0		7.1		313.9			1,880.7			43.7		11.6	60	
	61									53.0			204	969.0				16.7			53.0	222					61	
	62										100							0.9									62	
	64		72.1				130.0																	13.0			64	
	66		89.8				139.6			111.2				353.0				18.6			470.1			16.8		1.1	66	
F-1042(7) Totals		5,933.3	1,374.2	310.2	206.7	215.7	2,403.2	215.7		9,748.6	1,418.2	483	3,749	1,187				12,398.5	600.0	31.0	646.6	47390	58		17,311.2	651	29.8	108.5	1.1	25.8	F-1042(7) Totals
FG-1042(7) Totals		—	—	—	—	—	—	—		416.6	266.8	—	—	—				4,727.0	300.0	—	—	113.9	—		683.4	—	—	—	—	—	FG-1042(7) Totals *
Grand Totals		5,933.3	1,374.2	310.2	206.7	215.7	2,403.2	215.7		10,165.2	1,685.0	483	3,749	1,187				17,125.5	900.0	31.0	646.6	48529	58		17,994.6	651	29.8	108.5	1.1	25.8	Grand Totals

* 100% STATE PARTICIPATION

SEEDING AREAS REQUIRING SPECIAL GRADING**

Location	Station From	Station To	Side
U.S. 250	37 + 50	41 + 25	Lt.
U.S. 250	39 + 00	41 + 00	Rt.
U.S. 250	54 + 20	55 + 00	Rt.
U.S. 250	56 + 30	57 + 00	Lt.
Boss Rd. Reloc.	8 + 40	10 + 00	Lt.

** See "Grading Tolerances" note in General Notes.

REV. 11-28-60 REC
SEP 15 1960
Rev. 7-27-60 R.E.C.
Rev. 7-6-60 R.E.C.

Sub-Summaries.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

15
235

ERI. G-11.30

LINE	CALCULATIONS			F-1042(7) 100% County	F-1042(7) 100% State	F-1042(7) Code 7221	F G-1042(7)	Total Quantity	Unit
1	T-71 3" REINFORCED P.C. CONCRETE PAVEMENT								
2	U.S.G	Eastbound	Westbound						
3	From Sheet No. 3	19,146.92 Lin. Ft.	19,139.46 Lin. Ft.						
4		19,139.46							
5		38,286.38 x 24 ÷ 9 = 102,097 Sq. Yds.				87,872	14,225		
6									
7									
8									
9									
10									
11	U.S. 250								
12	From Sheet No. 4	1355.0 x 25.5 x 2	= 69,105.00 Sq. Ft.						
13	43+58 to 44+58 Lt.	100 x 2 ÷ 2	= 100.00						
14	42+56.4 to 43+50 Rt.	31.6 x 2 + 60 x 2 ÷ 2	= 123.20						
15	49+10 to 53+50 Rt.	120 x 12 ÷ 2 + 270 x 12 + 50 x 12 ÷ 2	= 4,260.00						
16	Add for Median openings	130 x 2	= 260.00						
17			73,848.20 ÷ 9 = 8,205 Sq. Yds.			8,205			
18									
19	U.S. 250 Interchange								
20	From Sheet No. 5	4,175.86 x 16	= 66,813.76 Sq. Ft.						
21		421.76 x 17.5 x 2	= 14,761.60						
22	Ramp A	300 x 15 + 200 x 17 + 50 x 16	= 8,700.00						
23	Ramp B	51.46 x 16 + 98.54 x 17	= 2,498.54						
24	Ramp C	50 x 16 + 200 x 17 + 300 x 15	= 8,700.00						
25	Ramp D	95 x 17 + 75 x 16	= 2,815.00						
26		30 x 2.5 + 35 x 1.5 (Med. area)	= 127.50						
27	Ramp E	67 x 14.5 + 130 x 17 + 50 x 16	= 3,981.50						
28		100 x 17 + 65 x 1.5 (Med. area)	= 1,797.50						
29	Add for Curvature	8/250 x 889.12 x 16 (Ramps D&E)	= 455.23						
30			110,650.63 ÷ 9 = 12,295 Sq. Yds.			12,295			
31									
32	Rye Beach Interchange								
33	From Sheet No. 5	1251.12 x 16	= 20,017.92 Sq. Ft.						
34	Ramp A	175.50 x 14.8 + 200 x 17 + 50 x 16	= 6,797.40						
35									
36									
37	Ramp D	100 x 17 + 150 x 16	= 4,100.00						
38	Add for Curvature	8/572.96 x 212.02 x 16 (Ramp D)	= 47.37						
39			30,962.69						
40	Deduct for Curvature	8/266.00 x 176.30 x 16 (Ramp D)	= - 84.84						
41									
42			30,877.85 ÷ 9 = 3,431 Sq. Yds.			3,431			
43			Sub-total 126,028						
44	Add from Summary of Roadway Quantities		= 10,165			9,748	417		
45			Total: 136,193			121,551	14,642	136,193	Sq. Yd.
46									
47									
48	T-35 ASPHALTIC CONCRETE SURFACE COURSE - TYPE A								
49	From Sheet No. 5 Galloway Road	1164.48 x 16 ÷ 9 = 2,070.19 Sq. Yds.	x 1½ ÷ 36 = 86.3 Cu. Yds.			86.3			
50	Camp Road	1614.46 x 16 ÷ 9 = 2,870.15	x 1½ ÷ 36 = 119.6			119.6			
51									
52									
53	Boss Road	100.00 x 18 = 1,800.00							
54		238.97 x 20 = 4,779.40							
55		24.97 x 20 = 499.40							
56		100.00 x 18 = 1,800.00							
57	From Sheet No. 4	2,179.78 x 16 = 34,876.48							
58	Totals =	2,643.72 43,755.28 ÷ 9 = 4,861.70	x 1½ ÷ 36 = 202.6			202.6			
59		9,802.04 Sq. Yds.							
60	Add from Summary of Roadway Quantities		= 30.9		1.1	29.8			
61			Total: 439.4 Cu. Yds.		1.1	438.3		439	Cu. Yd.
62									
63									
64	T-35 ASPHALTIC CONCRETE SURFACE COURSE - TYPE C								
65	From Sheet No. 5 Rye Beach Road	1315.26 x 24 ÷ 9 = 3,507.36 Sq. Yds.	x 1¼ ÷ 36 = 121.8 Cu. Yds.	8.4	1.6	111.8			
66	Add from Summary of Roadway Quantities		= 214.3	1.1	24.7	188.5			
67			Total: 336.1	9.5	26.3	300.3		336	Cu. Yd.
68									
69									
70	T-31 BITUMINOUS SURFACE TREATMENT								
71	From Paved Shoulder Calculations (Table 4)		= 67,851.5 Sq. Yds.						
72	Add from Summary of Roadway Quantities		= 215.7						
73		T-31 Sub-total	68,067.2 Sq. Yds.						
74									
75	T-31 BITUMINOUS MATERIAL:	Total = 68,067.2 x 0.25 = 17,016.8 Gals.				14,931	2,086	17,017	Gal.
76	T-31 AGGREGATE:	Total = 68,067.2 x 0.008 = 544.5 Cu. Yds.				478	67	545	Cu. Yd.

LINE	CALCULATIONS			F-1042(7) 100% County	F-1042(7) 100% State	F-1042(7) Code 7221	F G-1042(7)	Total Quantity	Unit
77	B-219 3" WATERPROOFED AGGREGATE BASE COURSE								
78	From Paved Shoulder Calculations (Table 4)		= 67,851.5 Sq. Yds.						
79	Add from Summary of Roadway Quantities		= 215.7						
80		Total: 68,067.2	x 3 ÷ 36 = 5,672.3 Cu. Yds.			4,977	695	5,672	Cu. Yd.
81									
82									
83	B-35 ASPHALTIC CONCRETE LEVELING COURSE								
84	From Sheet No. 5 Rye Beach Road	1315.26 x 24 x 1¾ ÷ 12 x 27	= 170.5	11.8	2.1	156.6			
85	Add from Summary of Roadway Quantities		= 206.7	1.5	14.8	190.4			
86			Total: 377.2 Cu. Yds.	13.3	16.9	347.0		377	Cu. Yd.
87									
88									
89	B-35 ASPHALTIC CONCRETE BASE COURSE								
90	From Summary of Roadway Quantities		= 310.2 Cu. Yd.			310		310	Cu. Yd.
91									
92									
93	B-19 AGGREGATE BASE COURSE								
94	From Sheet No. 5 Galloway Road	1164.48 x 17 x 8 ÷ 12 x 27	= 488.8 Cu. Yds.			488.8			
95	Camp Road	1614.46 x 17 x 8 ÷ 12 x 27	= 677.7			677.7			
96	Rye Beach Road	1315.26 x 25 x 6 ÷ 12 x 27	= 608.9	40.6	7.6	560.7			
97									
98									
99									
100									
101	From Line 58 Boss Road	43,755.28 Sq. Ft.							
102	From Line 58	2643.72 x 0.5 x 2 = 2,643.72							
103		46,399.00 x 8 ÷ 12 x 27	= 1,145.7			1,145.7			
104	Add from Summary of Roadway Quantities		= 1,374.2	5.2	50.6	1,318.4			
105			Total: 4,295.3	45.8	58.2	4,191.3		4,295	Cu. Yd.
106									
107									
108	T-30 BITUMINOUS PRIME COAT								
109	Galloway Road	1164.68 x 17	= 19,799.56 Sq. Ft.						
110	Camp Road	1614.46 x 17	= 27,445.82						
111	Rye Beach Road	1475.26 x 25	= 36,881.50						
112									
113									
114	From Line 103 Boss Road		= 46,399.00						
115		130,525.88 ÷ 9	x 0.4 = 5,801.1 Gals.	97.2	17.4	5,686.5			
116	Add from Summary of Roadway Quantities		= 2,403.2	12.4	121.6	2,269.2			
117			Total: 8,204.3	109.6	139.0	7,955.7		8,204	Gal.
118									
119									
120	I-22 SUBBASE								
121	From Line 43	126,028 x 6 ÷ 36	= 21,004.7 Cu. Yd.			18,633.9	2,370.8		
122	From Sheet 5 Rye Beach Road	1315.26 x 26.67 x 0.5 ÷ 27	= 649.6	40.6	8.1	600.9			
123	Add from Summary of Roadway Quantities		= 4,852.9	5.2	51.9	4,681.9	113.9		
124	Add from Paved Shoulder Calculations (Table 4)		= 10,993.6			9,655.4	1,338.2		
125			Total: 37,500.8	45.8	60.0	33,572.1	3,822.9	37,501	Cu. Yd.
126									
127									
128	I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS								
129	From Paved Shoulder Calculations (Table 4)		= 10,017.0 Cu. Yd.			8,806.1	1,210.9		
130	Add from Summary of Roadway Quantities		= 31.0			31.0			
131			Total: 10,048.0			8,837.1	1,210.9	10,048	Cu. Yd.
132									
133									
134	E-1 COMPACTED SUBGRADE								
135	From Line 43 Area of T-71		= 126,028 Sq. Yd.			111,803	14,225		
136	From Lines 59 & 65, Area of T-35		= 13,309		16282	13,309			
137	From Summary of Roadway Quantities		= 17,995	266	762	~~17,311~~	684		
138			157,332	266	762	~~142,423~~ 141,395	14,909	157,332	Sq. Yd.
139									
140									
141	L-9 COMMERCIAL FERTILIZER								
142	From Earthwork and Seeding Summary	658,612 x 9 x 20 ÷ 1000 x 2000	= 59.3 Tons			52.5	6.8		
143	From Sodding (L-10) Summary	5,626 x 9 x 20 ÷ 1000 x 2000	= 0.5			0.4	0.1		
144			Total: 59.8			52.9	6.9	59.8	Ton
145									
146									
147	E-11 WATER								
148	From E-1 (Embankment) Summary	851,316.0 Cu. Yds.				2392	1865		
149	From I-18, Line 131	10,048.0				44	6		
150	From B-19, Line 105	4,295.3			1	21			
151	From I-22, Line 125	37,500.8			1	167	19		
152	Total:	903,160.1 x 5 ÷ 1000 = 4,516 M. Gal.			2	2624	1890	4,516	M. Gal.

REV. 11-28-60 REC. SEP 15 1960 Rev. 7-6-60 R.E.C.

CALCULATIONS

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

16/235

ERI-6-11.30

ITEM	TOTAL QUANTITY	UNIT	DESCRIPTION	FG-1042(7) 100% State	F-1042(7) 100% County	F-1042(7) 100% STATE	F-1042(7) CODE 7221	F-1042(7) SUB-TOTAL	FG-1042(7) CODE 7221	CARRIED FROM
			ROADWAY							
E-1	505,918	Cu.Yds.	Roadway Excavation, Method B, as per plan			~~42,396~~	495,367	495,367	10,551	Table 3
E-1	157,332	Sq.Yds.	Compacted Subgrade		266	762	~~142,423~~	142,423	14,909	Sheet 15
E-4	473,096	Cu.Yds.	Borrow				54,761	54,761	418,335	Table 3
E-8	5,933	Sq.Yds.	Removal and Disposal of Existing Rigid Pavement				5,933	5,933		Table 5
E-9	Lump	Lump	Removal of Trees and Stumps				Lump	Lump	Lump	Sheet 13
E-11	4,516	M.Gal.	Water			2	2624	2626	1890	Sheet 15
I-8	22	Each	Centerline Reference Monuments, as per plan				18	18	4	Sheet 214
I-15	17,125.5	Lin.Ft.	Guard Rail, Steel Beam Standard Type (Deep)				12,398.5	12,398.5	4727	Table 5
I-15	* 900	Lin.Ft.	Guard Rail, Steel Beam Barrier Type (Deep)			600	~~600~~	* 600	* 300	Table 5
L-9	658,612	Sq.Yds.	Seeding and Protecting, as per plan				583,399	583,399	75,213	Table 3
L-9	59.8	Ton	Commercial Fertilizer (12-12-12)				52.9	52.9	6.9	Sheet 15
L-10	5,626	Sq.Yds.	Sodding, as per plan				4,324	4,324	1,302	Table 1
L-10	1,442	Sq.Yds.	Sodding for Special Berm and Slope Protection				1,072	1,072	370	Sheet 8
SS-18	38,545	Lin.Ft.	Fence, Type "A"	5750		24,249	8546	32,795		Table 2
S-15	Lump	Lump	Temporary Run-Around Road, using Class "A" Pavement, as per plan				Lump	Lump		Sheet 40
T-10	750	Cu.Yds.	Traffic Compacted Surface Course for Temporary Traffic Lanes				750	750		Shts. 10 & 40
M-10	15.8	Tons	Calcium Chloride Furnished and Applied				15.8	15.8		Shts. 10, 40, 43
Spec.	774	Sq.Yds.	Mixing Calcium Chloride and Crushed Aggregate				774	774		Sheet 43
			DRAINAGE							
E-2	3,042	Cu.Yds.	Excavation for Structures				2,034	2,034	1,008	Table 1
E-3	3,146	Cu.Yds.	Channel Excavation				3,146	3,146		Table 1
I-1	114	Lin.Ft.	12" Pipe for Driveways, Sec. M-6.4 (a)				114	114		Table 1
I-2	111	Lin.Ft.	12" Storm Sewers Sec. M-6.5(a) or Sec. M-6.8 (a)				111	111		Table 1
I-2	9	Lin.Ft.	15" Storm Sewers Sec. M-6.5(a) or Sec. M-6.8 (a)				9	9		Table 1
I-2	588	Lin.Ft.	18" Storm Sewers Sec. M-6.5(a) or Sec. M-6.8 (a)				588	588		Table 1
I-2	128	Lin.Ft.	24" Storm Sewers Sec. M-6.5(a) or Sec. M-6.8 (a)				128	128		Table 1
I-2	120	Lin.Ft.	48" Storm Sewers Sec. M-6.6 (a)				120	120		Table 1

* 100% STATE PARTICIPATION

ITEM	TOTAL QUANTITY	UNIT	DESCRIPTION	F-1042(7) 100% STATE	F-1042(7) CODE 7221	F-1042(7) SUB-TOTAL	FG-1042(7) CODE 7221	CARRIED FROM
			DRAINAGE (CONT.)					
I-2	2,483	Lin.Ft.	8" Class A Storm Sewers under Pavt. or Aprs. Sec. M-6.5(b) or M-6.8(b)		2,225	2,225	258	Table 1
I-2	357	Lin.Ft.	12" Storm Sewers under Pavement or Approaches, Sec. M-6.5(b) or Sec. M-6.8(b)		357	357		Table 1
I-2	1,854	Lin.Ft.	15" Storm Sewers under Pavement or Approaches, Sec. M-6.5(b) or Sec. M-6.8(b)		1,653	1,653	201	Table 1
								Table 1
I-2	92	Lin.Ft.	36" Storm Sewers under Pavement or Approaches, Sec. M-6.6(a) or Sec. M-6.8(b)		92	92		Table 1
I-2	158	Lin.Ft.	12" Storm Sewers, Sec. M-6.4 (c)		158	158		Table 1
I-2	36	Lin.Ft.	15" Storm Sewers, Sec. M-6.4 (c)				36	Table 1
I-4	93,867	Lin.Ft.	6" Underdrains		83,023	83,023	10,844	Table 1
I-4	404	Lin.Ft.	6" Pipe Outlets for Underdrains, Sec. M-6.4 (h) without perforations		404	404		Tobla 1
I-4	938	Lin.Ft.	8" Pipe Outlets for Underdrains, Sec. M-6.4 (c)		938	938		Table 1
I-4	80	Lin.Ft.	10" Pipe Outlets for Underdrains, Sec. M-6.4 (c)		80	80		Table 1
I-4	166	Lin.Ft.	12" Pipe Outlets for Underdrains, Sec. M-6.4 (c)		166	166		Table 1
I-4	40	Lin.Ft.	21" Pipe Outlets for Underdrains, Sec. M-6.4 (c)		40	40		Table 1
I-5	23	Each	6" Pipe Specials for Underdrains		23	23		Table 1
I-5	108	Each	8" Pipe Specials for Class A Storm Sewers U Por A, Sec. M-6.5(b) or M-6.8(b)		98	98	10	Table 1
I-5	4	Each	8" Pipe Specials for Outlets for Underdrains, Sec. M-6.4 (c)		4	4		Table 1
I-5	4	Each	12" Pipe Specials for Storm Sewers, Sec. M-6.4 (c)		4	4		Table 1
I-5	2	Each	15" Pipe Specials for Storm Sewers, Sec. M-6.4 (c)				2	Table 1
I-8	2	Each	Standard No. 1 Manholes		2	2		Table 1
I-8	4	Each	Standard No. 2-2-A Catch Basins		4	4		Table 1
I-8	1	Each	Standard No. 2-2-B Catch Basins		1	1		Table 1
I-8	2	Each	Standard No. 2-4 Catch Basins		2	2		Table 1
I-8	18	Each	Standard No. 4 Catch Basins		16	16	2	Table 1
I-8	4	Each	Standard No. 6 Catch Basins		4	4		Table 1
I-9	1136	Lin.Ft.	Stone Underdrains, No. 2		1,136	1,136		Table 1
I-10	160	Sq.Yds.	Riprap, using 6" reinforced concrete slab, as per plan		81	81	79	Table 1
I-10	778	Cu.Yds.	Dumped Rock Channel Protection		720	720	58	Table 1
I-10	273	Cu.Yds.	Dumped Rock Fill		273	273		Table 1
I-14	175	Lin.Ft.	Paved Gutter, Special Type "A" as per plan		175	175		Table 1
I-14	580	Lin.Ft.	Paved Gutter, Special Type "B", as per plan		580	580		Table 1
I-16	2	Each	Catch Basins Abandoned		2	2		Table 1
S-1	27.4	Cu.Yds.	Concrete for Structures, Class "C"				27.4	Table 1
S-1	73.1	Cu.Yds.	Concrete for Structures, Class "E"		64.6	64.6	8.5	Table 1

REV. 11-28-60 R.E.C. SEP 15 1960 REV. 7-27-60 R.E.C. REV. 7-6-60 R.E.C.

GENERAL SUMMARY (CONT.)

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

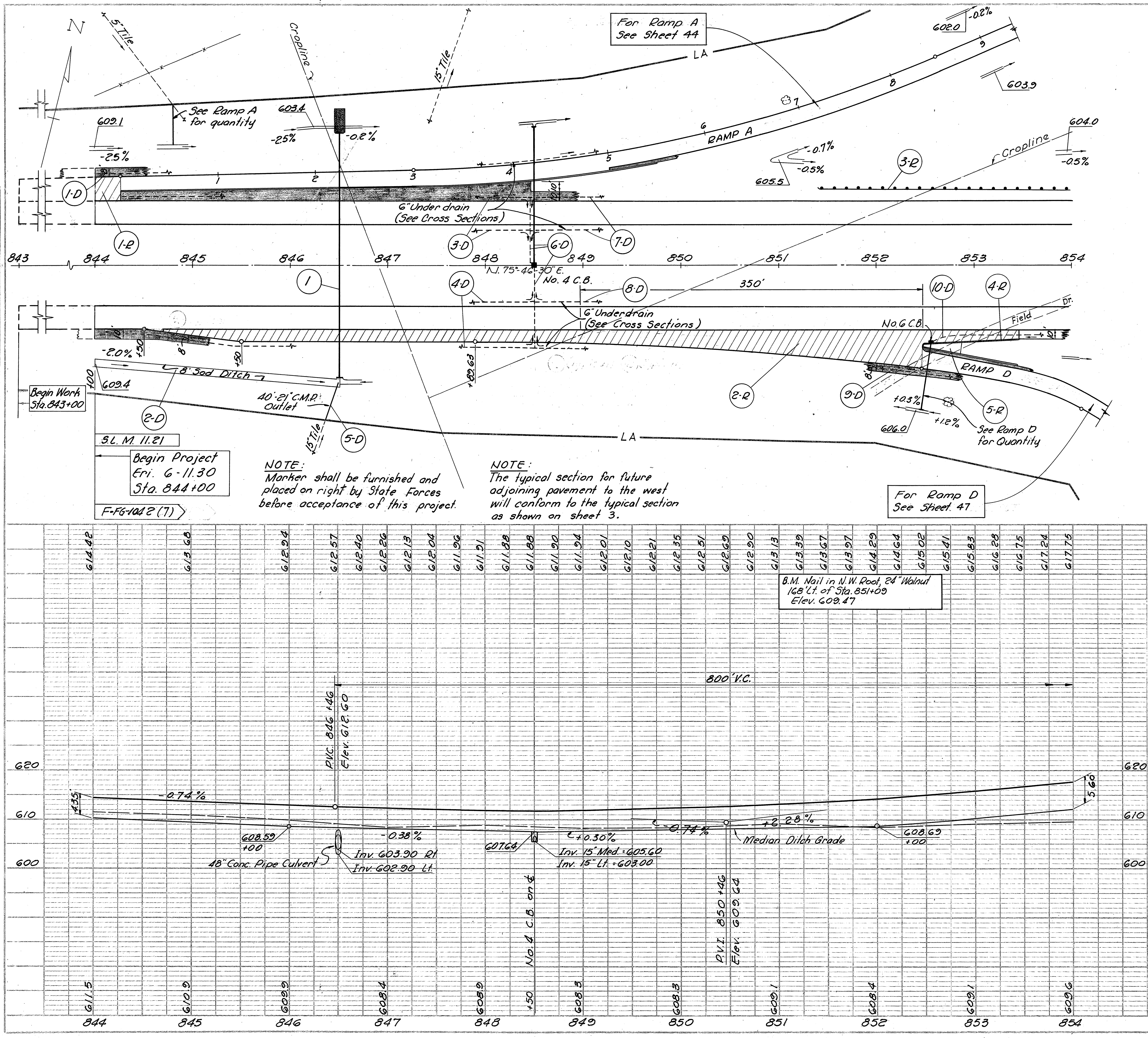
ERI. 6-11.30

17/235

ITEM	TOTAL QUANTITY	UNIT	DESCRIPTION	F-1042(7) 100% County	F-1042(7) 100% STATE	F-1042(7) CODE 7221	F-1042(7) SUB-TOTAL	FG-1042(7) CODE 7221	CARRIED FROM
			DRAINAGE (CONT.)						
S-4	1,152	Lbs.	Reinforcing Steel					1,152	Table 1
S-27	60	Lin.Ft.	15" Pipe for Roadway Culverts, Sec. M-6.6 (b) or M-6.8 (b)			60	60		Table 1
S-27	248	Lin.Ft.	18" Pipe for Roadway Culverts, Sec. M-6.6 (b) or M-6.8 (b)			248	248		Table 1
S-27	152	Lin.Ft.	21" Pipe for Roadway Culverts, Sec. M-6.6 (b) or M-6.8 (b)			152	152		Table 1
S-27	236	Lin.Ft.	24" Pipe for Roadway Culverts, Sec. M-6.6 (b) or M-6.8 (b)			236	236		Table 1
S-27	232	Lin.Ft.	24" Pipe for Roadway Culverts, Sec. M-6.6 (c)			232	232		Table 1
S-27	120	Lin.Ft.	42" Pipe for Roadway Culverts, Sec. M-6.6 (d), under Railroad					120	Table 1
S-27	244	Lin.Ft.	48" Pipe for Roadway Culverts, Sec. M-6.6 (b)			244	244		Table 1
S-27	204	Lin.Ft.	60" Pipe for Roadway Culverts, Sec. M-6.6 (b)			204	204		Table 1
S-27	258	Lin.Ft.	72" Pipe for Roadway Culverts, Sec. M-6.6 (c)					258	Table 1
S-27	240	Lin.Ft.	96" Pipe for Roadway Culverts, Sec. M-6.6 (b)			240	240		Table 1
S-27	588	Lin.Ft.	108" Pipe for Roadway Culverts, Sec. M-6.6 (b)			588	588		Table 1
S-27	114	Lin.Ft.	76" x 48" Pipe for Roadway Culverts, Sec. M-206.6 (b)			114	114		Table 1
S-27	204	Lin.Ft.	83" x 53" Pipe for Roadway Culverts, Sec. M-206.6 (b)			204	204		Table 1
SPEC.	1	Each	Splash Plates, as per plan					1	Table 1
			PAVEMENT						
B-19	4,295	Cu.Yds.	Aggregate Base Course	46	58	4,191	4,295		Sheet 15
B-35	377	Cu.Yds.	Asphaltic Concrete Leveling Course (70-85)	13	17	347	377		Sheet 15
B-35	310	Cu.Yds.	Asphaltic Concrete Base Course (70-85)			310	310		Sheet 15
B-219	5,672	Cu.Yds.	Waterproofed Aggregate Base Course			4,977	4,977	695	Sheet 15
I-7	1,685	Sq.Yds.	Reinforced Concrete Approach Slabs (T-13")			1,418	1,418	267	Table 5
I-12	3,749	Lin.Ft.	Standard Type 2-A Curb, Concrete			3,749	3,749		Table 5
I-12	483	Lin.Ft.	Standard Type G Curb, Concrete			483	483		Table 5
I-12	1,187	Lin.Ft.	Special Conc. Curb, "Full Width", as per plan			1,187	1,187		Table 5
I-12	651	Lin.Ft.	Special Conc. Curb, "Part Width", as per plan			651	651		Table 5
I-18	10,048	Cu.Yds.	Stabilized Crushed Aggregate Shoulders and Approaches			8,837	8,837	1,211	Sheet 15
I-21	647	Sq.Yds.	4" Portland Cement Concrete Median Pavement, Standard Type 1			647	647		Table 5
I-22	37,501	Cu.Yds.	Subbase, Grading A or B, as per plan	46	60	33,572	33,678	3,823	Sheet 15
I-23	58	Each	Precast White Portland Cement Concrete Traffic Dividers			58	58		Table 5
T-30	8,204	Gals.	Bituminous Prime Coat, Sec. M-5.7, RT-2 or RT-3	110	139	7,955	8,204		Sheet 15
T-31	545	Cu.Yds.	Bituminous Surface Treatment, No. 6 Aggregate			478	478	67	Sheet 15
T-31	17,017	Gals.	Bituminous Surface Treatment, Bituminous Material, as per plan			14,931	14,931	2,086	Sheet 15
T-35	439	Cu.Yds.	Asphaltic Concrete Surface Course, Type A (70-85)		1	438	439		Sheet 15
T-35	336	Cu.Yds.	Asphaltic Concrete Surface Course, Type C (70-85)	10	26	300	336		Sheet 15
T-71	136,193	Sq.Yds.	9" Reinforced Portland Cement Concrete Pavement			121,551	121,551	14,642	Sheet 15

ITEM	TOTAL QUANTITY	UNIT	DESCRIPTION	F-1042(7) 100% STATE	F-1042(7) CODE 7221	F-1042(7) SUB-TOTAL	FG-1042(7) CODE 7221	CARRIED FROM
			STRUCTURES OVER 20' SPAN					
			ERI. G-1152 See Sheet No. 149					
			ERI G-1199 See Sheet No. 162					
			ERI G-1361 See Sheet No. 169					
			ERI G-1427 See Sheet No. 176					
			ERI G-1466 See Sheet No. 193					
			Boss Rd. over Saw Mill Creek See Sheet No. 211					
			ERI G-1489 See Sheet No. 204					
			WATER LINES					
			See Sheet No. 85		X			
			BUILDING REMOVALS					
S-24	Lump Sum	Lump	Removal of one 1½-story frame residence, four frame sheds, and one frame barn, Parcel No. 203-LA		Lump	Lump		
S-24	Lump Sum	Lump	Removal of one 2-story frame residence and one frame garage, Parcel No. 268-LA		Lump	Lump		
	Lump	Lump	Construction Layout Stakes	Lump	Lump	Lump	Lump	

SEP 15 1960 Rev. 7-6-60 R.E.C. Rev. 5-27-60 R.E.C.



ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-15 Guard Rail (Std. Type) Lin.Ft.	I-22 Subbase Cu.Yd.	T-71 9" Reinf. P.C. Conc. Pav't. Sq.Yd.	I-12 Type 2-A Curb Lin.Ft.	I-21 4" P.C. Conc. Med. Pav't. Sq.Yd.	E-1 Compacted Subgrade Sq.Yd.
	1-R	844+00	844+25.10	Lt.		11.5	69.0			69.0
	2-R	844+50	853+47.36	Rt.		270.6	1623.6			1623.6
	3-R	851+40.5	854+00	Lt.	259.5					
	4-R	852+47.36	853+47.36	Rt.				104		
	5-R	852+47.36	852+87.36	Rt.					29.0	
Totals					259.5	282.1	1692.6	104	29.0	1692.6

DRAINAGE QUANTITIES F-1042(7)

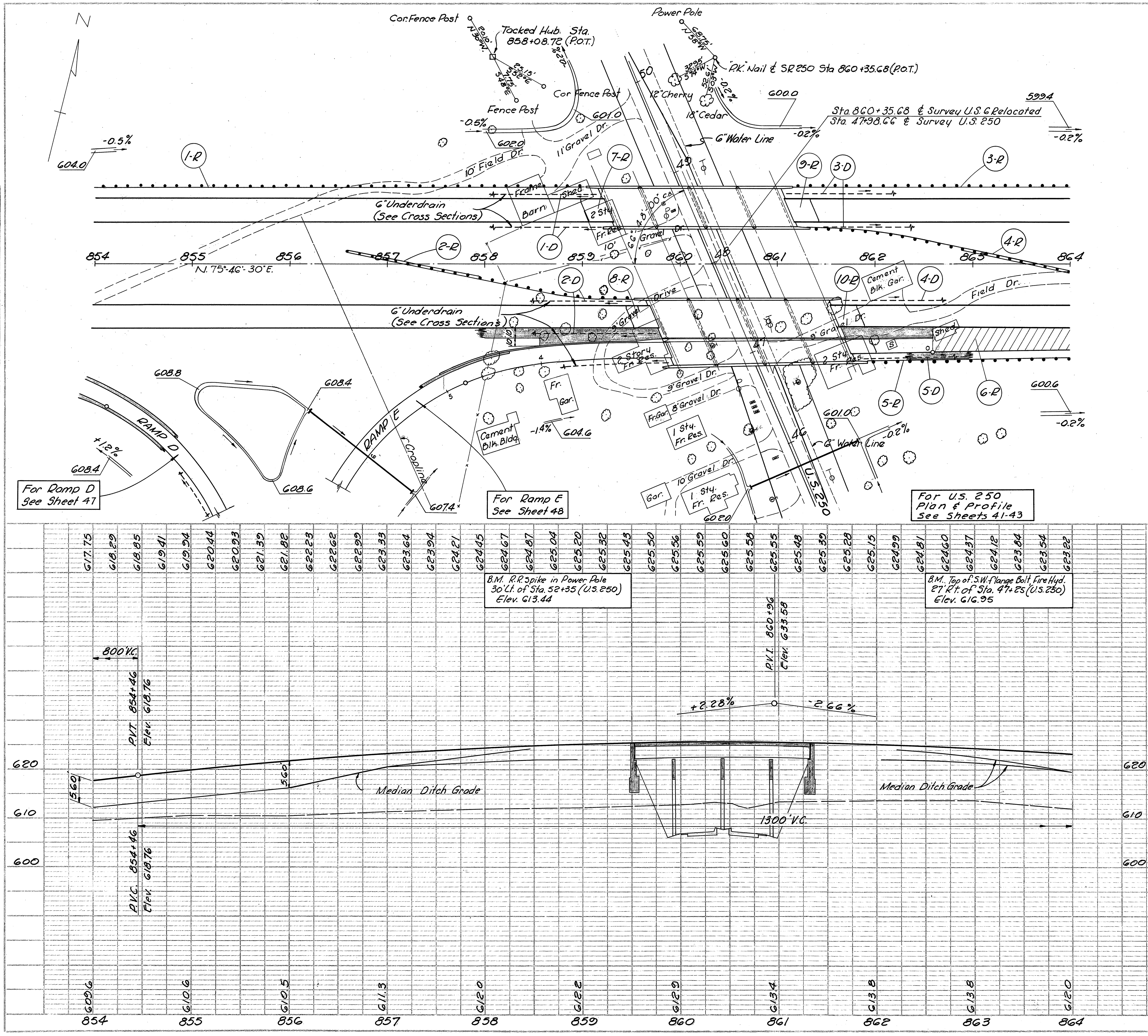
See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu.Yd.	S-1 Concrete for Structure, Class "E" Cu.Yd.	S-27 48" Reinf. Conc. Culv. Pipe M-6.6 (b) Lin.Ft.	I-2 8" Class A Storm Sewer Under Pav't. Lin.Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 8" Outlet Pipe Lin.Ft.	I-4 21" C.M.P. Outlet Lin.Ft.	I-10 Dumped Rock Channel Protect. Cu.Yd.		I-5 8" 90° Ell for Class A Storm Sewer Ea.
	1-D	844+00	844+25	Lt.						25					
	2-D	844+00	846+50	Rt.											
	3-D	844+00	848+50	Lt.						875					
	4-D	844+00	848+50	Rt.						900					
	5-D	846+36		Rt.								40			
69	1	846+50		Lt.&Rt.	461	1.72	244						28		
	6-D	848+50		Lt.&Rt.		0.26		141	141						1
	7-D	848+50	854+00	Lt.						1100					
	8-D	848+50	854+00	Rt.						550					
	9-D	848+50	852+45	Rt.						395					
	10-D	852+53	854+00	Rt.						137	10				
Totals					461	1.98	244	141	141	3982	10	40	28		1

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.		L-10 Sodding Sq.Yd.
	2-D	844+00	846+50	Rt.				222
	6-D	848+50		Lt.&Rt.	6	1		14
Totals					6	1		236

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30



ROADWAY QUANTITIES F-1042(7)												
					I-15	I-15	I-22	T-71	I-7	E-1		
See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	Guard Rail (Std. Type)	Guard Rail (Barrier Type)	Subbase	9" Reinf. P.C. Conc. Pav't.	Reinf. Conc. Appr. Slab (T=13")	Compacted Subgrade		
					Lin.Ft.	Lin.Ft.	Cu.Yd.	Sq.Yd.	Sq.Yd.	Sq.Yd.		
	1-R	854+00	859+03	Lt.	503							
	2-R	856+53	859+52	Med.	150	150						
	3-R	861+13	864+00	Lt.	287							
	4-R	861+32	864+00	Med.	150	119						
	5-R	862+57.92	864+00	Rt.	142							
	6-R	862+57.92	864+00	Rt.			62.0	372.2		372.2		
	7-R	859+01.62	859+26.62	Lt.			11.1		66.7	66.7		
	8-R	859+47.90	859+72.90	Rt.			11.1		66.7	66.7		
	9-R	861+11.52	861+36.52	Lt.			11.1		66.7	66.7		
	10-R	861+57.80	861+82.80	Rt.			11.1		66.7	66.7		
Totals					1232	269	106.4	372.2	266.8	639.0		

DRAINAGE QUANTITIES F-1042(7)									
					I-4				
See Sheet No.	Reference No. or Structure No	Station From	Station To	Side	6" Underdrain (Shallow)				
					Lin.Ft.				
	1-D	854+00	859+27 (Ave.)	Lt.	1054				
	2-D	854+00	859+73 (Ave.)	Rt.	1146				
	3-D	861+12 (Ave.)	864+00	Lt.	576				
	4-D	861+52	864+00	Rt.	248				
	5-D	862+58	864+00	Rt.	142				
Totals					3166				

PROPOSED STRUCTURE

Type: Continuous Steel Beam with Reinf. concrete deck. Reinf. concrete pier Bents and Stub Abutments.
Spans: 40'-0", 50'-0", 50'-0", 40'-0" c/c Bearings
Roadway: 39'-8" b/t of 1'-2" curbs on Left Bridge. Variable on Right Bridge
Load Frequency: CF 400 (57)
Skew: 23°-12' R.F.
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: AS-1-54 (25'-0" Long)
Alignment: Tangent

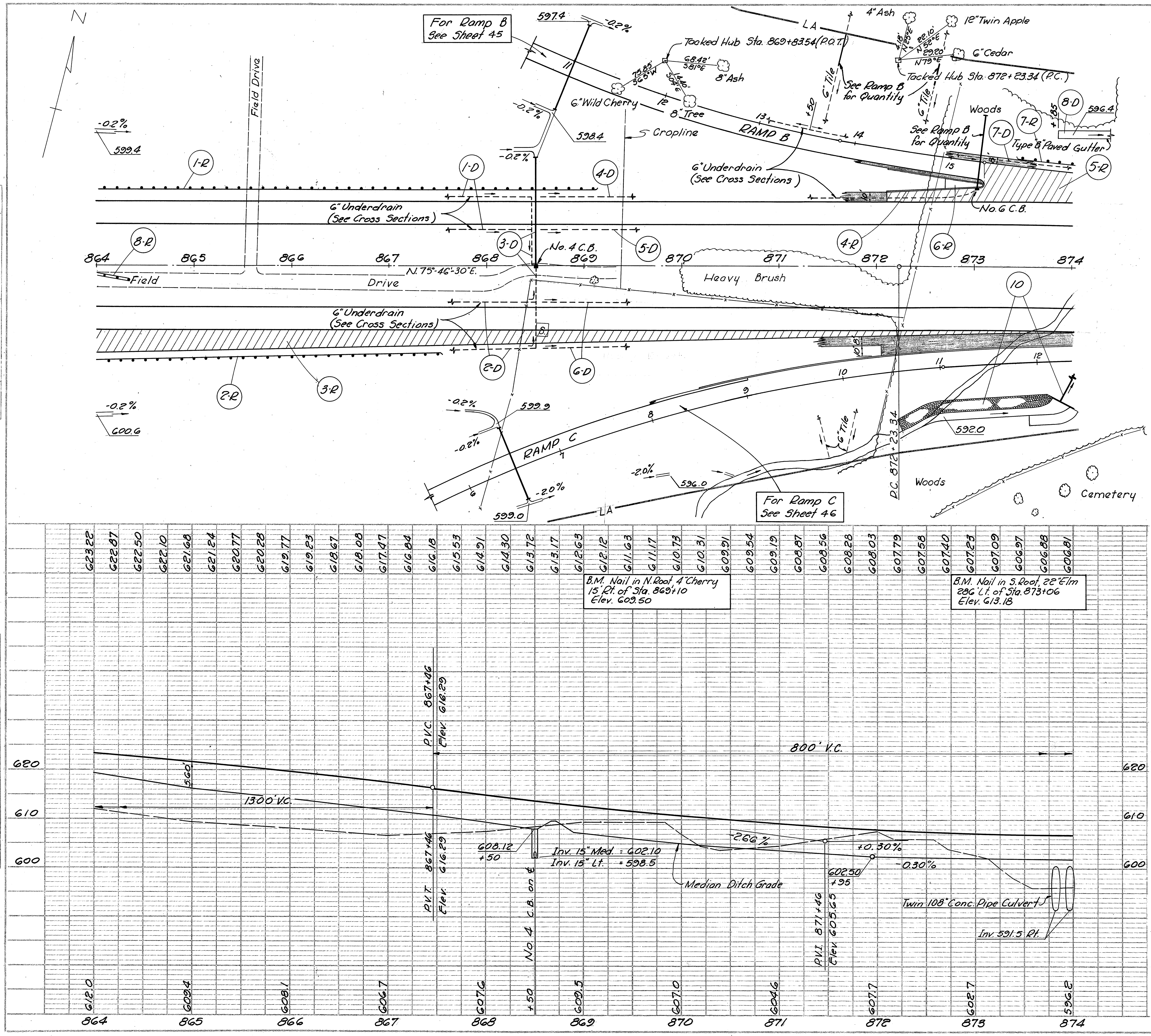
SEP 15 1960

854 to 864

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

20/235

ERI. 6-11.30



ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-12 No. 2-A Curb (Lin.Ft.)	I-15 Guard. Rail (Std. Type) (Lin.Ft.)	I-15 Guard Rail (Barrier Type) (Lin.Ft.)	I-21 4" P.C. Conc. Med. Pavt. (Sq.Yd.)	I-22 Subbase (Cu.Yd.)	T-71 9" Reinf. P.C. Conc. Pav't. (Sq.Yd.)	E-1 Compacted Subgrade (Sq.Yd.)
	1-R	864+00	869+13	Lt.		513					
	2-R	864+00	867+41	Rt.		341					
	3-R	864+00	874+00	Rt.					215.3	1291.7	1291.7
	4-R	872+10.12	873+10.12	Lt.	104						
	5-R	872+10.12	874+00	Lt.					81.4	488.5	488.5
	6-R	872+70.12	873+10.12	Lt.				29.0			
	7-R	873+50	874+00	Lt.		50					
	8-R	864+00	864+31	Lt.			31				
	Totals				104	904	31	29.0	296.7	1780.2	1780.2

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-5 8" on 8" Tee for Class A Storm Sewer (Ea.)	I-8 No. 4 C.B. (Ea.)	S-1 Concrete for Structure, Class "E" (Cu.Yd.)	I-14 Paved Gutter Type B (Lin.Ft.)	I-2 8" Class A Storm Sewer Under Pav't. (Lin.Ft.)	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) (Lin.Ft.)	I-4 6" Underdrain (Shallow) (Lin.Ft.)	I-4 8" Outlet Pipe (Lin.Ft.)	L-10 Sodding (Sq.Yds.)		I-5 8", 90° Ell for Class A Storm Sewer (Ea.)
	1-D	864+00	868+50	Lt.							900				
	2-D	864+00	868+50	Rt.							900				
	3-D	868+50		Lt.&Rt.	2	1	0.26		143	111			14		3
	4-D	868+52	873+05	Lt.							443	10			
	5-D	868+52	874+00	Lt.							548				
	6-D	868+52	874+00	Rt.							1096				
	7-D	873+10	874+00	Lt.							90				
	8-D	873+85	874+00	Lt.				15					5		
	Totals				2	1	0.26	15	143	111	3977	10	19		3

PLAN	BY	DATE
SURVEYED	3.M.B.	1958
PLOTTED	G.T.S. R.D.	9-58
ALIGNMENT CHECKED	EOS	4-60
RT. OF WAY CHECKED	EOS	4-60
NOTE BOOK / NO.		

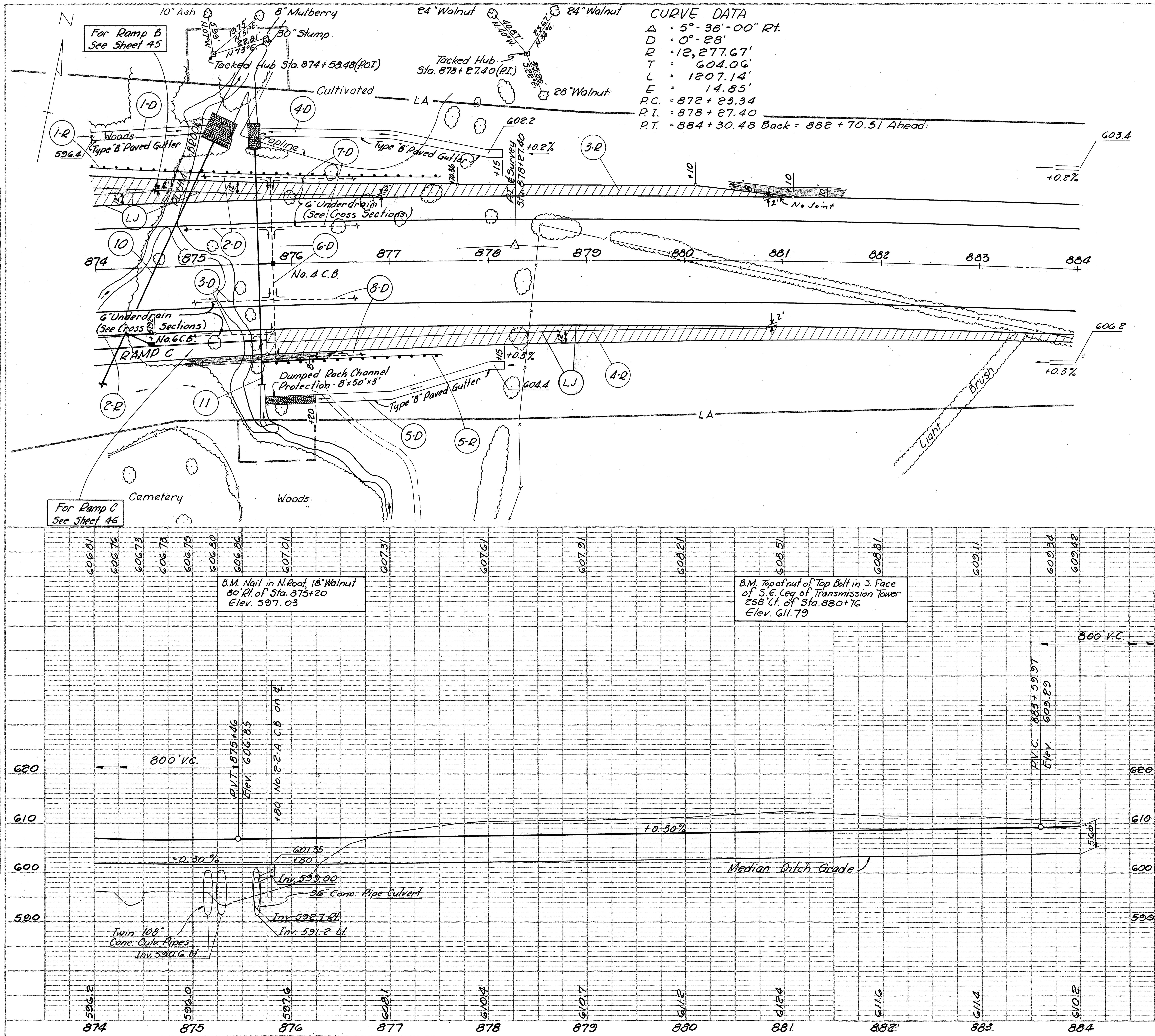
PROFILE	BY	DATE
SURVEYED	3.M.B.	1958
PLOTTED	ERM / RNE	7-58
GRADES CHECKED	EOS	4-60
B.M.'S NOTED	EOS	4-60
STRUCTURE NOTATIONS CHKD.	EOS	4-60
NOTE BOOK / NO.		

SEP 15 1960

864 to 874

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	
2	OHIO			21 / 235

ERI. 6-11.30



ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-15 Guard Rail (Std. Type) Lin.Ft.	I-22 Subbase Cu.Yd.	T-71 9" Reinf. P.C. Conc. Pav't. Sq.Yd.	E-1 Compacted Subgrade Sq.Yd.		
	1-R	874+00	877+50	Lt.	350					
	2-R	874+00	874+57.92	Rt.		0.7	3.9	3.9		
	3-R	874+00	881+10	Lt.		190.5	1143.1	1143.1		
	4-R	875+72	884+00	Rt.		239.1	1434.8	1434.8		
	5-R	875+72	877+56.3	Rt.	184.3					
Totals					534.3	430.3	2581.8	2581.8		

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu.Yd.	E-3 Channel Excavation Cu.Yd.	S-1 Concrete for Structure, Class "E" Cu.Yd.	S-27 96" Reinf. Conc. Culv. Pipe M-6.6(b) Lin.Ft.	I-2 8" Class A Storm Sewer Under Pav't. Lin.Ft.	I-2 15" Storm Sewer, M-6.5(a) or M-6.8(a) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-5 8", 90° Ell for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.	I-10 Dumped Rock Channel Protection Cu.Yd.
	1-D	874+00	875+15	Lt.											
	2-D	874+00	875+80	Lt.							360				
	3-D	874+00	875+80	Rt.							360				
73	11	875+65		Lt.&Rt.	149	478	10.0	240		9				1	33
	4-D	875+71	878+15	Lt.											
	5-D	875+71	878+15	Rt.											45
	6-D	875+80		Lt.&Rt.					162			1	6		
	7-D	875+80	884+00	Lt.							820				
	8-D	875+80	884+00	Rt.							820				
72	10	874+60		Lt.&Rt.	414	1861	22.0								76
Totals					563	2339	32.0	240	162	9	2360	1	6	1	154

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-14 Paved Gutter Type B Lin.Ft.	S-27 108" Reinf. Conc. Culv. Pipe M-6.6(b) Lin.Ft.	L-10 Sodding Sq.Yd.	I-8 No. 6 C.B. Ea.	I-10 Dumped Rock Fill Cu.Yds.	I-10 Riprap (6" Conc.) Sq.Yds.	I-2 12" Storm Sewer, M-6.5(b) or M-6.8(b) Lin.Ft.	I-4 6" Underdrain (Deep) Lin.Ft.			
	1-D	874+00	875+15	Lt.	115		38								
72	10	874+60				588	9	1	273	81	12				
	4-D	875+71	878+15	Lt.	250		81								
	5-D	875+71	878+15	Rt.	200		67								
	7-D	875+80	884+00	Lt.								820			
	8-D	875+80	884+00	Rt.								820			
Totals					565	588	195	1	273	81	12	1640			

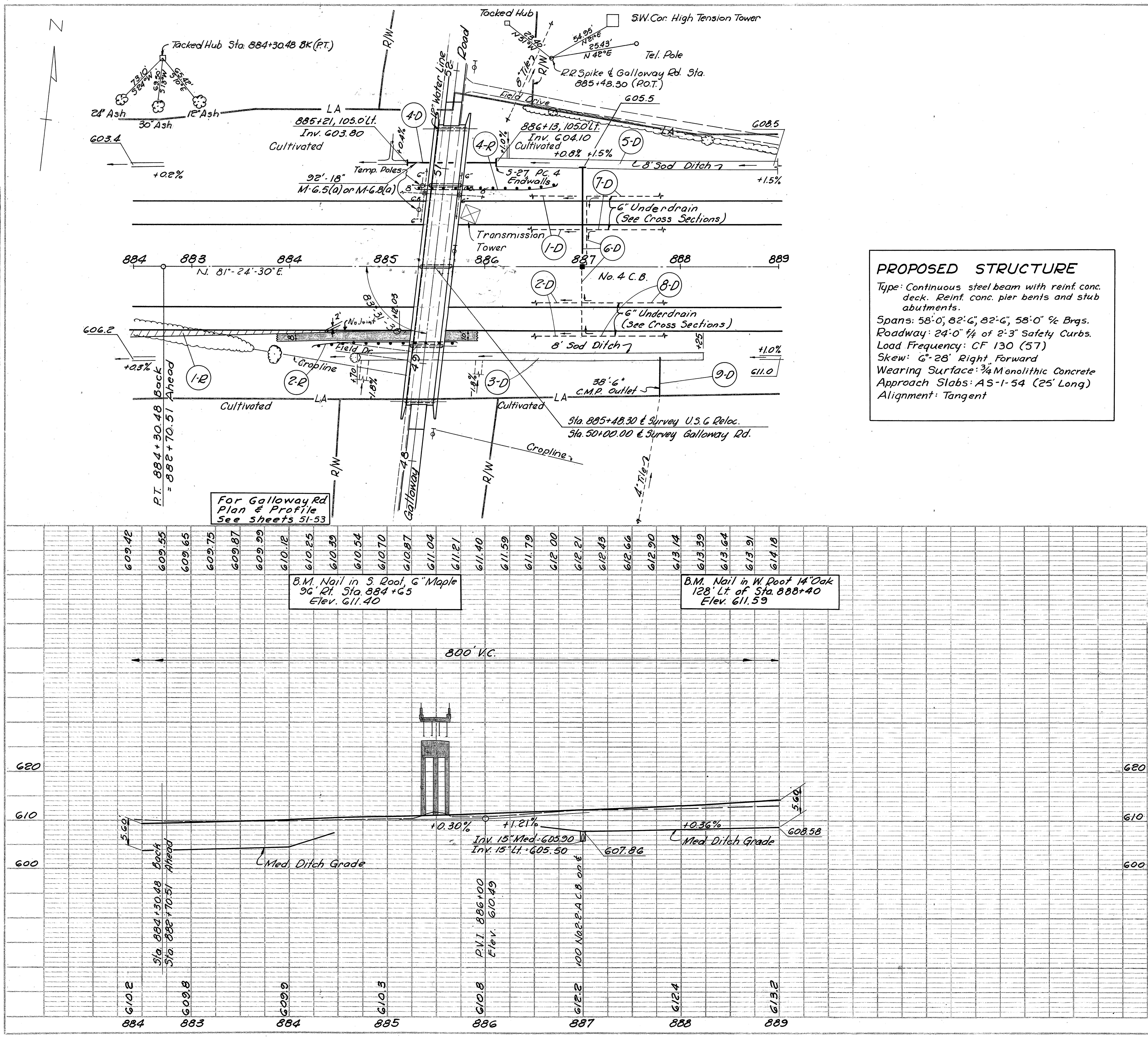
SEP 15 1960

874 to 884

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

22 / 235

ERI. G-11.30



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" c/c Brgs.

Roadway: 24'-0" f/f of 2'-3" Safety Curbs.

Load Frequency: CF 130 (57)

Skew: 6°-28' Right Forward

Wearing Surface: 3/4 Monolithic Concrete

Approach Slabs: AS-1-54 (25' Long)

Alignment: Tangent

ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-15 Guard Rail (Std. Type) Lin. Ft.		I-22 Subbase Cu. Yd.	T-71 9" Reinf. P.C. Conc. Pavt. Sq. Yd.	E-1 Compacted Subgrade Sq. Yd.		
	1-R	884+00	885+12.03	Rt.			15.6	93.6	93.6		
	2-R	884+27.5	885+65	Rt.	137.5						
	4-R	885+33	886+70.5	Lt.	137.5						
	Totals				275.0		15.6	93.6	93.6		

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure, Class "E" Cu. Yd.	I-2 8" Class A Storm Sewer Under Pavt. Lin. Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin. Ft.	I-2 18" Storm Sewer M-6.5(a) or M-6.8(a) Lin. Ft.	I-4 6" Underdrain (Shallow) Lin. Ft.	I-4 6" C.M.P. Outlet Lin. Ft.	I-5 8", 90° Ell for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.		L-10 Sodding Sq. Yd.
	1-D	884+00 Bk	886+98	Lt.					916						
	2-D	884+00 Bk	886+98	Rt.					916						
	3-D	884+70	888+25	Rt.											316
	4-D	885+21	886+13	Lt.	0.60			92							
	5-D	886+13	889+00	Lt.											255
	6-D	887+00		Lt. & Rt.	0.26	126	99				3	2	1		6
	7-D	887+00	889+00	Lt.					400						
	8-D	887+00	889+00	Rt.					400						
	9-D	887+80		Rt.						38					
	Totals				0.86	126	99	92	2632	38	3	2	1		577

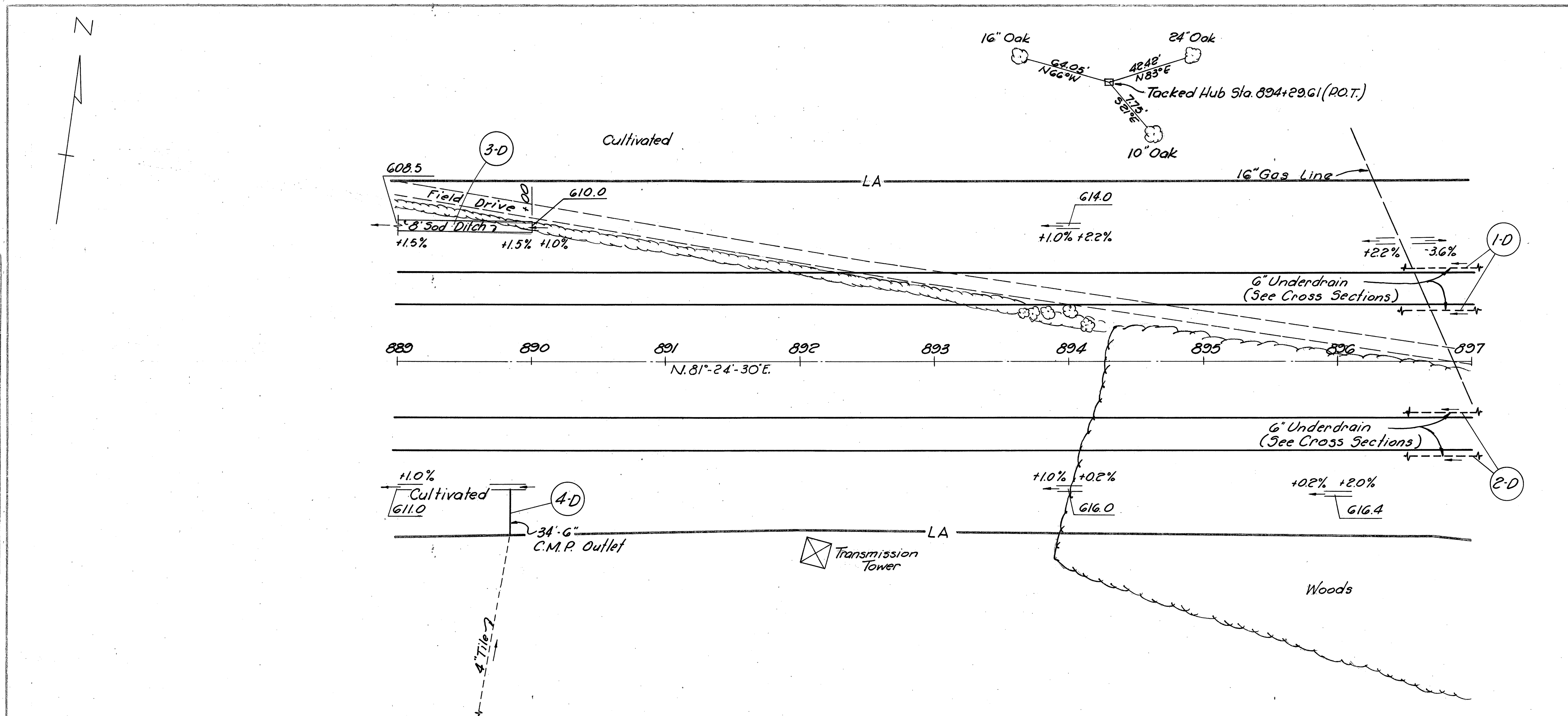
SEP 15 1960

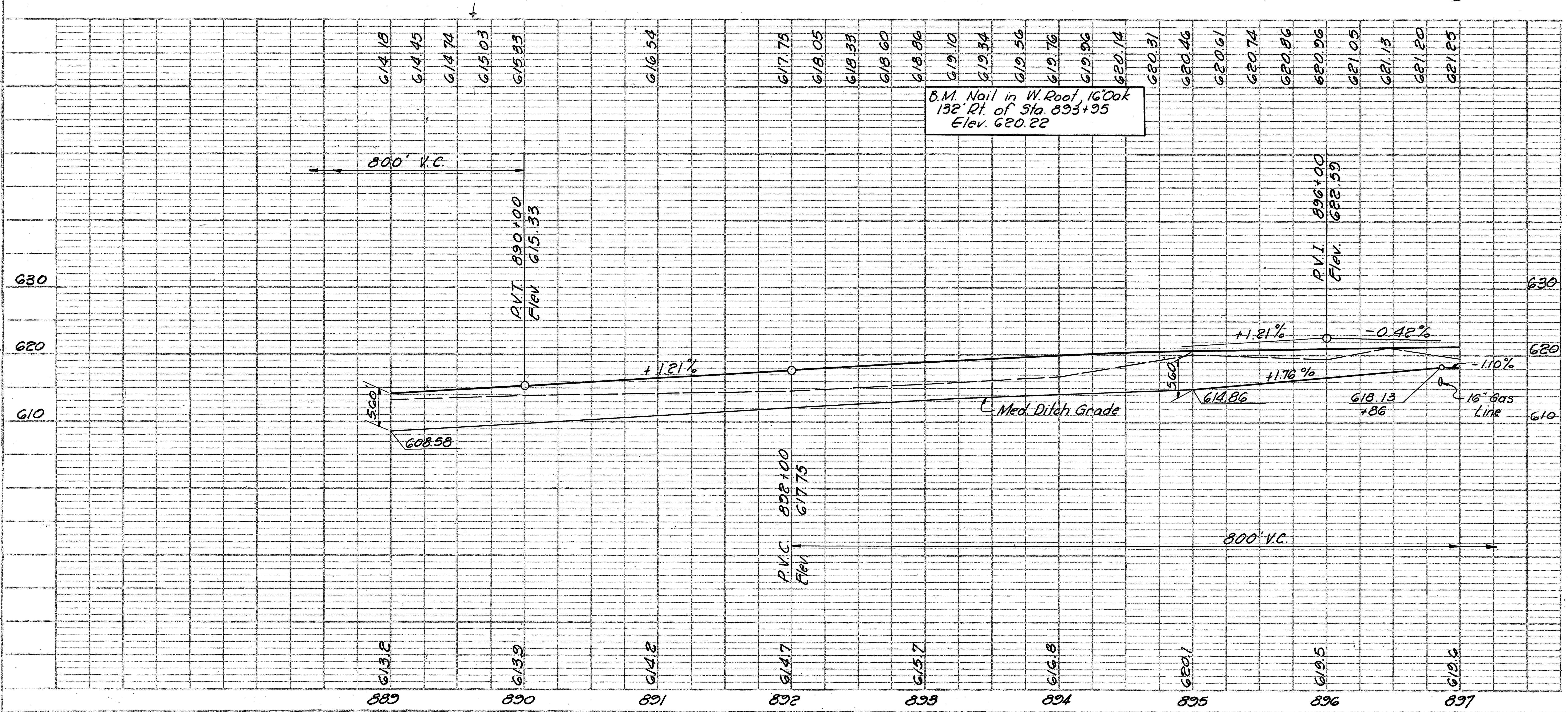
Rev. 7-27-60 R.E.C.

884 to 889

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30





DRAINAGE QUANTITIES F-1042(7)

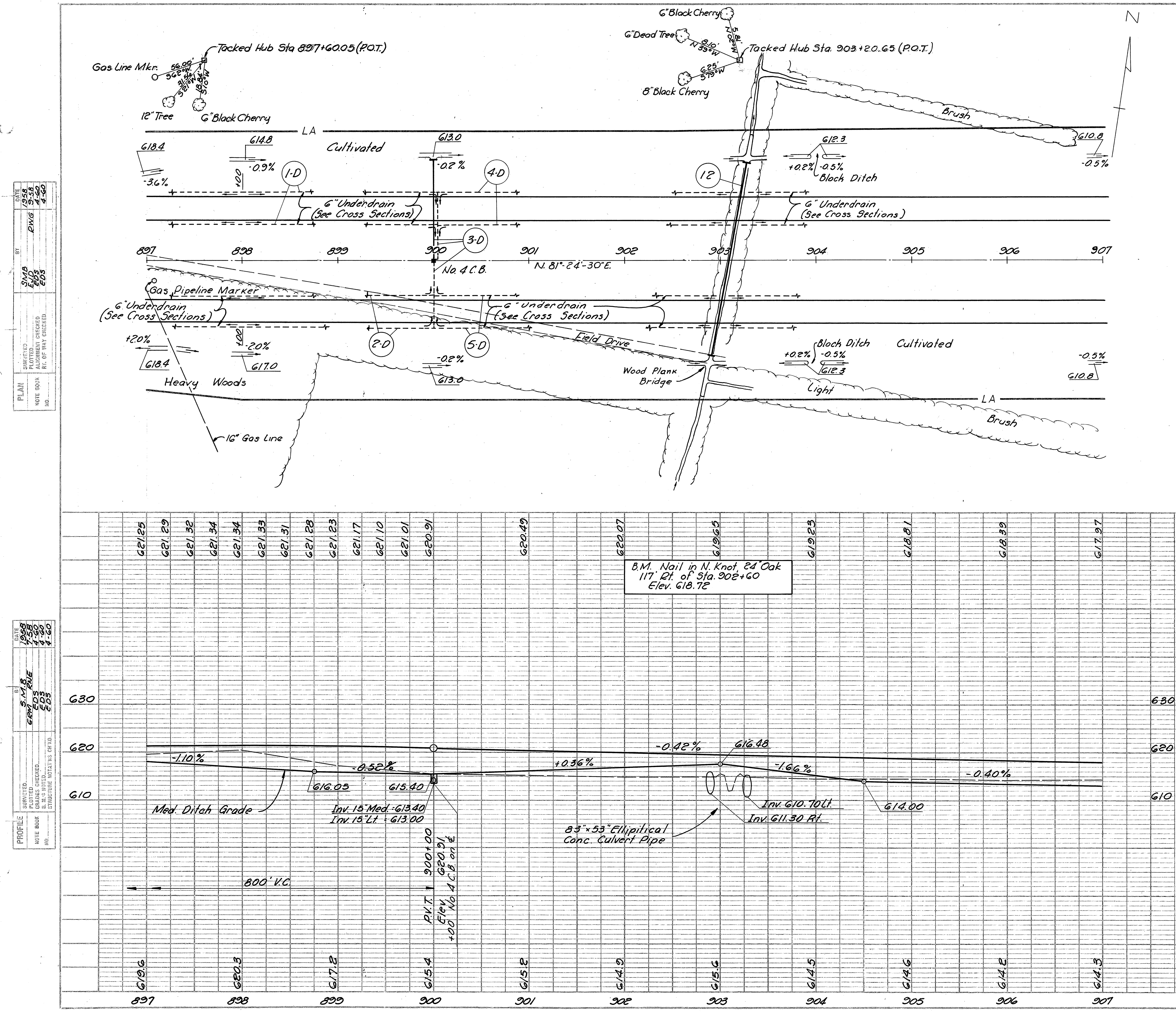
See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 6" C.M.P. Outlet Lin.Ft.	L-10 Sodding Sq.Yd.			
	1-D	889+00	897+00	Lt.	1600					
	2-D	889+00	897+00	Rt.	1600					
	3-D	889+00	890+00	Lt.			89			
	4-D	889+85		Rt.		34				
	Totals				3200	34	89			

SEP 15 1960

889 to 897

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	
2	OHIO			24/235

ERI. 6-11.30



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure (Cu.Yd.)	E-3 Channel Excavation (Cu.Yd.)	S-1 Conc. for Structure, Class "E" (Cu.Yd.)	S-27 83"×53" Reinf. Ellip. Conc. Culv. Pipe M-206.6(b) (Lin.Ft.)	I-2 8" Class A Storm Sewer Under Pav't. (Lin.Ft.)	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) (Lin.Ft.)	I-4 6" Underdrain (Shallow) (Lin.Ft.)	I-5 8" 90° Ell for Class A Storm Sewer (Ea.)	I-5 8" on 8" Tee for Class A Storm Sewer (Ea.)	I-8 No. 4 C.B. (Ea.)	L-10 Sodding (Sq.Yd.)
	1-D	897+00	900+00	Lt.							600				
	2-D	897+00	900+00	Rt.							600				
	3-D	900+00		Lt.&Rt.			0.26		126	105		1	6	1	14
	4-D	900+00	907+00	Lt.							1400				
	5-D	900+00	907+00	Rt.							1400				
74	12	903+10		Lt.&Rt.	95	295	5.0	204							
	Totals				95	295	5.26	204	126	105	4000	1	6	1	14

SEP 15 1960

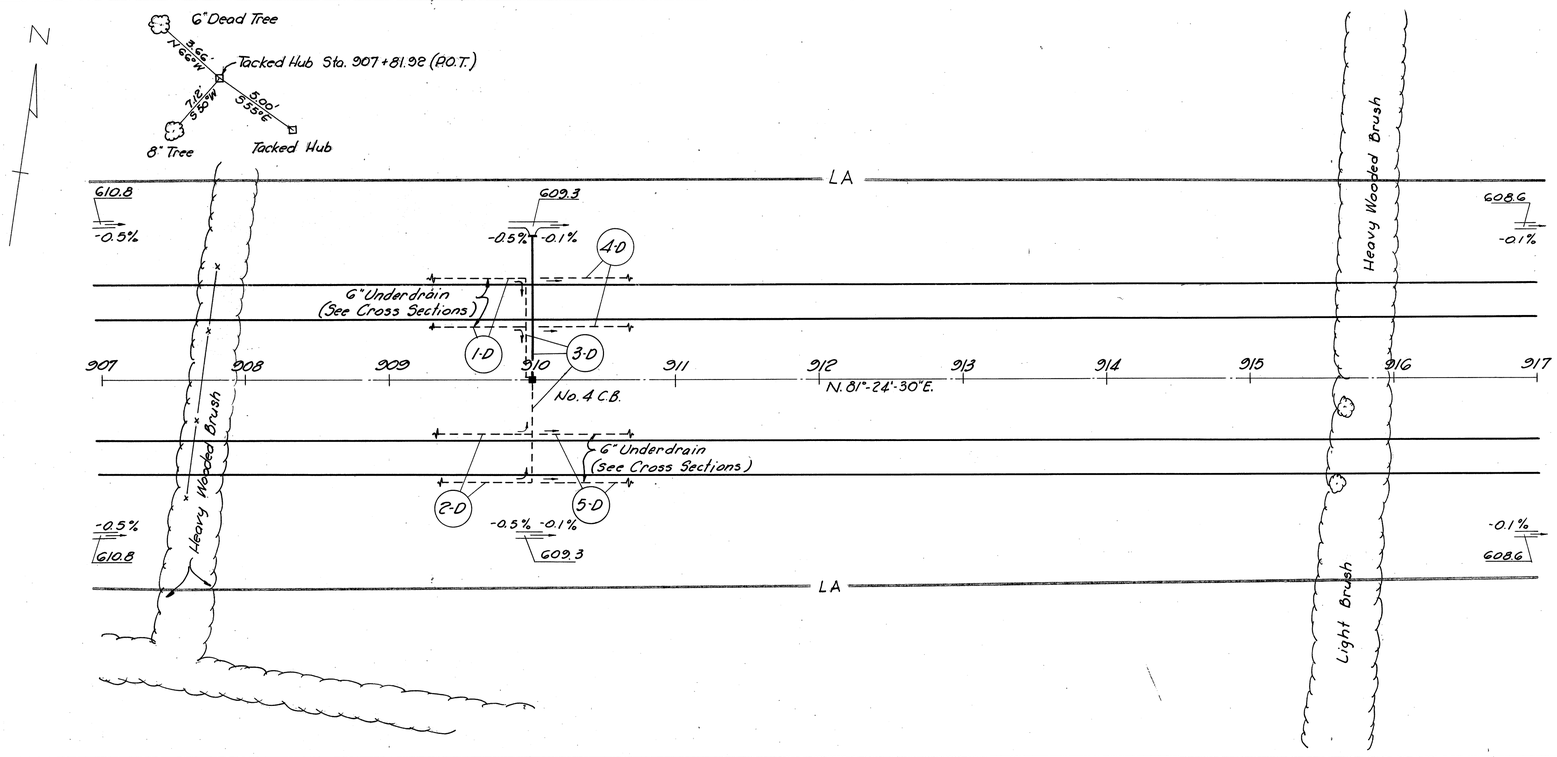
PLATE 1—PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO. Chicago

897 to 907

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

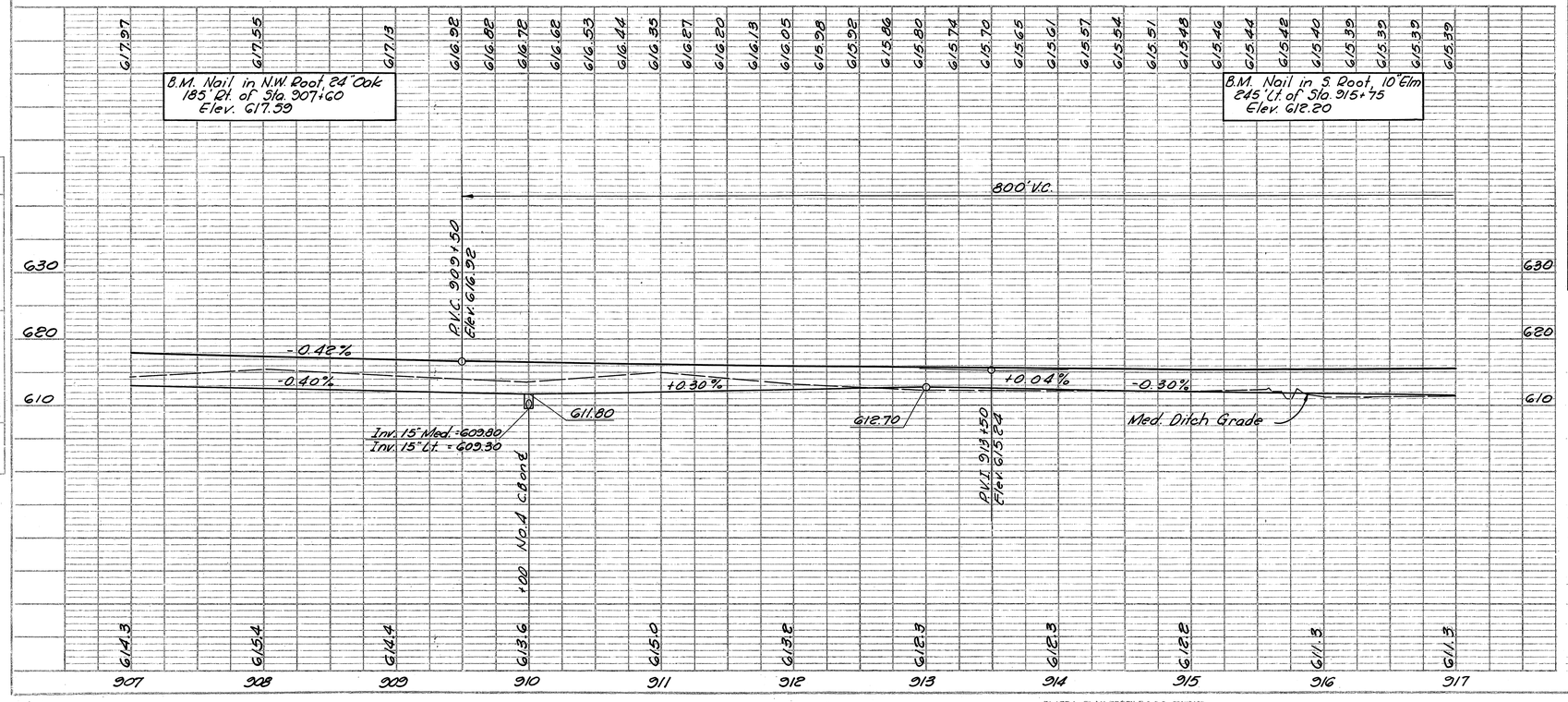
25
235

ERI. 6-11.30



PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DRAWN CHECKED
RT. OF WAY CHECKED

DATE	BY
1958	SMB
3-60	EDS
4-60	EDS
4-60	EDS



PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
DRAWN CHECKED
B. M.'S NOTED
STRUCTURE NUMBER AS SHOWN

DATE	BY
1958	SMB
3-60	EDS
4-60	EDS
4-60	EDS

DRAINAGE QUANTITIES

F-1042(7)

Sec Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	5-1 Conc. for Structures, Class "E" Cu. Yd.	I-2 8" Class A Storm Sewer Under Pav't Lin. Ft.	I-2 15" Storm Sewer M-42.1(b) Lin. Ft.	I-4 6" Underdrain (Shallow) Lin. Ft.	I-5 8" 90° Ell for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.	L-10 Sodding Sq. Yd.
	1-D	907+00	910+00	Lt.				600				
	2-D	907+00	910+00	Rt.				600				
	3-D	910+00		Lt. & Rt.	0.26	126	102		3	2	1	14
	4-D	910+02	917+00	Lt.				1396				
	5-D	910+02	917+00	Rt.				1396				
	Totals				0.26	126	102	3992	3	2	1	14

SEP 15 1960

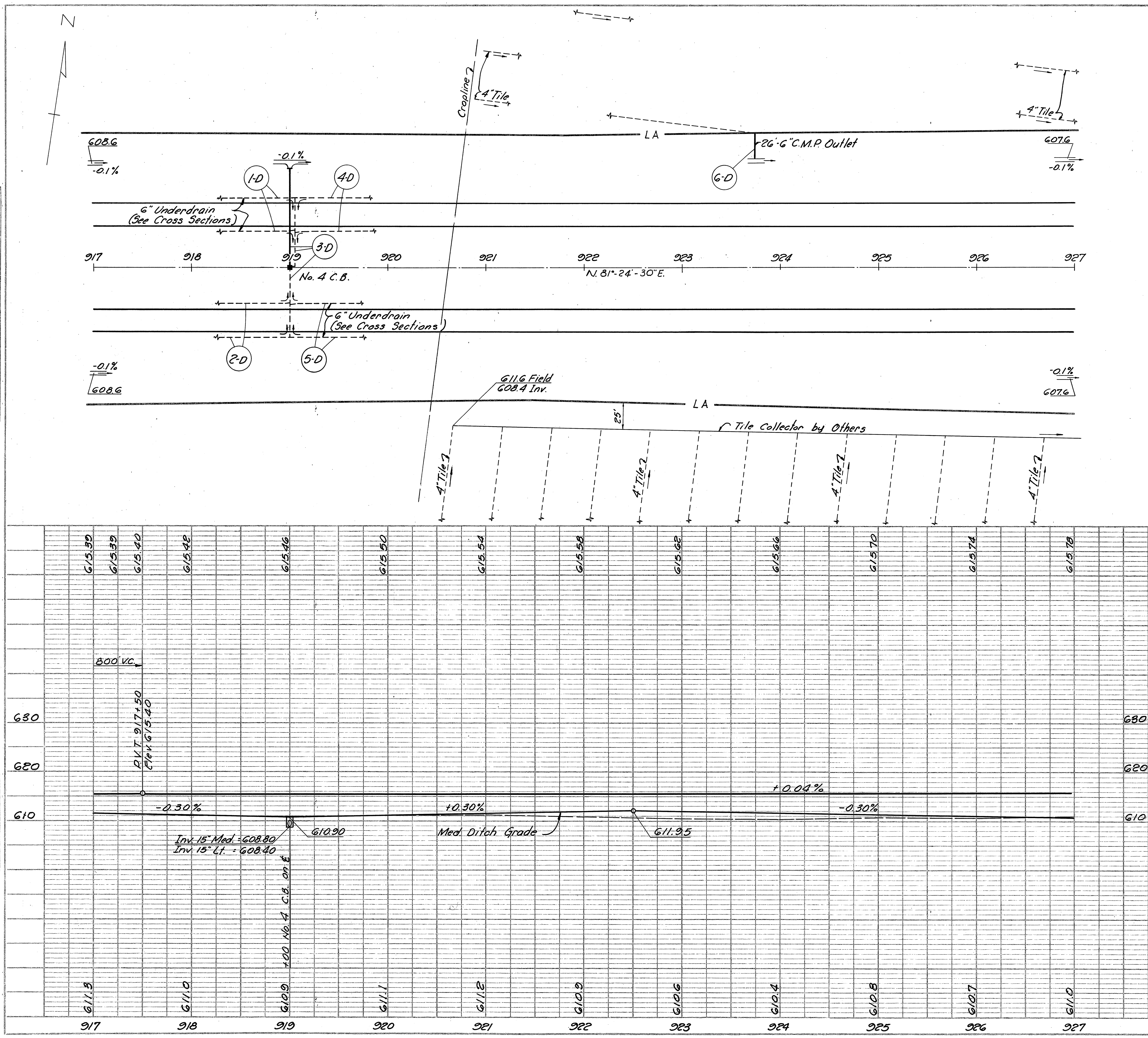
907 to 917

PLATE I—PLAN-PROFILE & P. P. STANDARD
THE FREDERICK POST CO. Chicago 28-1

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

26
235

ERI. 6-11.30



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure, Class "E" (Cu. Yd.)	I-2 8" Class A Storm Sewer Under Pav't. (Lin. Ft.)	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) (Lin. Ft.)	I-4 6" Underdrain (Shallow) (Lin. Ft.)	I-4 6" C.M.P. Outlet (Lin. Ft.)	I-5 8", 90° Ell for Class A Storm Sewer (Ea.)	I-5 8" on 8" Tee for Class A Storm Sewer (Ea.)	I-8 No. 4 C.B. (Ea.)		L-10 Sodding (Sq. Yd.)
	1-D	917+00	919+00	Lt.				400						
	2-D	917+00	919+00	Rt.				400						
	3-D	919+00		Lt.&Rt.	0.26	126	102			1	6	1		14
	4-D	919+00	927+00	Lt.				1600						
	5-D	919+00	927+00	Rt.				1600						
	6-D	923+80		Lt.					26					
	Totals				0.26	126	102	4000	26	1	6	1		14

SEP 15 1960

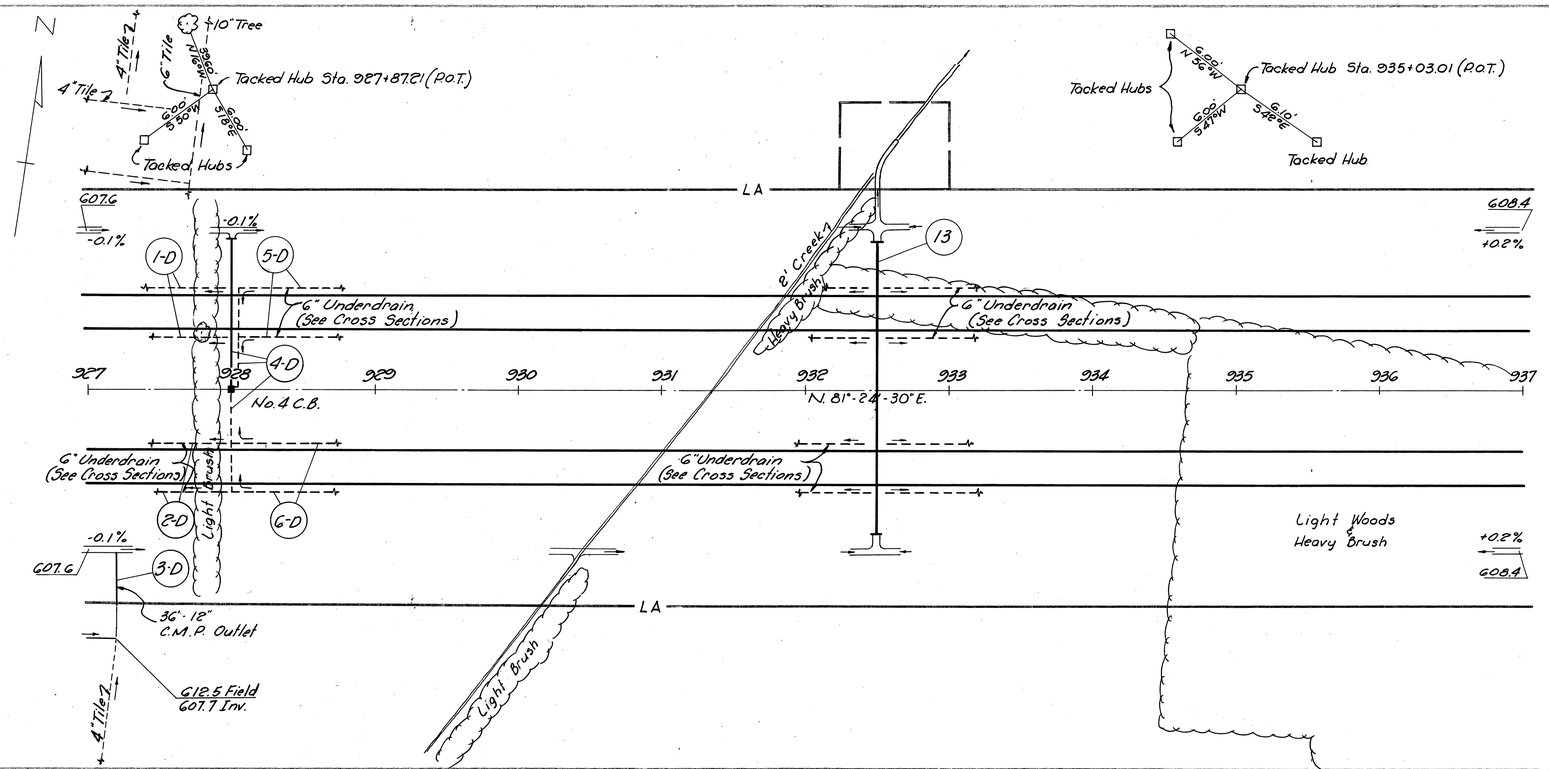
PLATE 1—PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO. Chicago

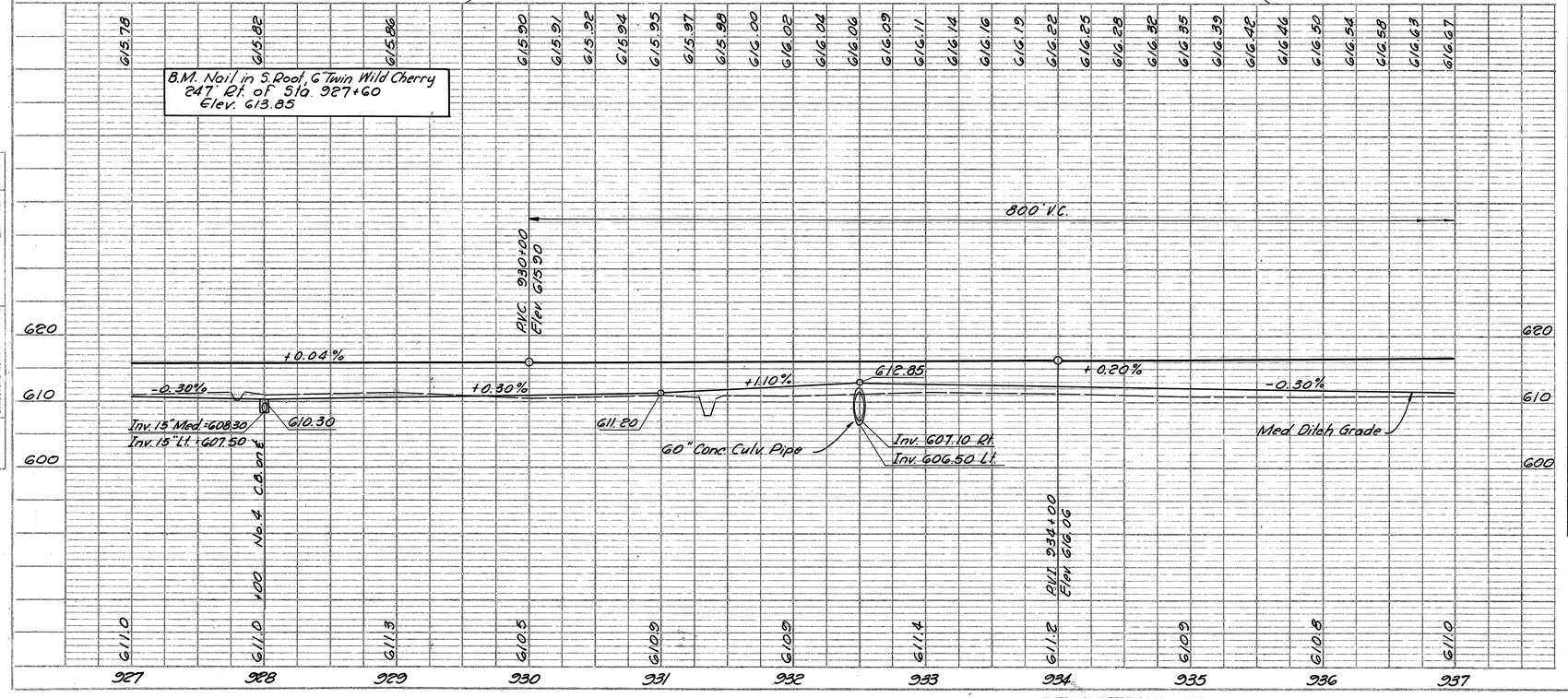
917 to 927

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

27/235

ERI. 6-11.30





DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu. Yd.	E-3 Channel Excavation Cu. Yd.	S-1 Conc. for Structure, Class "E" Cu. Yd.	S-27 60" Reinf. Conc. Culv. Pipe M-6.6 (3) Lin. Ft.	I-2 8" Class A Storm Sewer Under Pav't. Lin. Ft.	I-2 15" Storm Sewer M-6.6(6) Lin. Ft.	I-4 6" Underdrain (Shallow) Lin. Ft.	I-4 12" C.M.P. Outlet Lin. Ft.	I-5 8" 90° Ell for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.
	1-D	927+00	927+38	Lt.							196				
	2-D	927+00	927+38	Rt.							196				
	3-D	927+20		Rt.								36			
	4-D	928+00		Lt. & Rt.			0.26		126	105			3	2	1
	5-D	928+00	937+00	Lt.							1800				
	6-D	928+00	937+00	Rt.							1800				
75	13	932+50		Lt. & Rt.	65	512	4.4	204							
	Totals				65	512	4.66	204	126	105	3992	36	3	2	1
						L-10									
						Sodding									
						34 Yd.									
	1-D	928+00		Lt. & Rt.		14									
	Totals					14									

SEP 15 1960

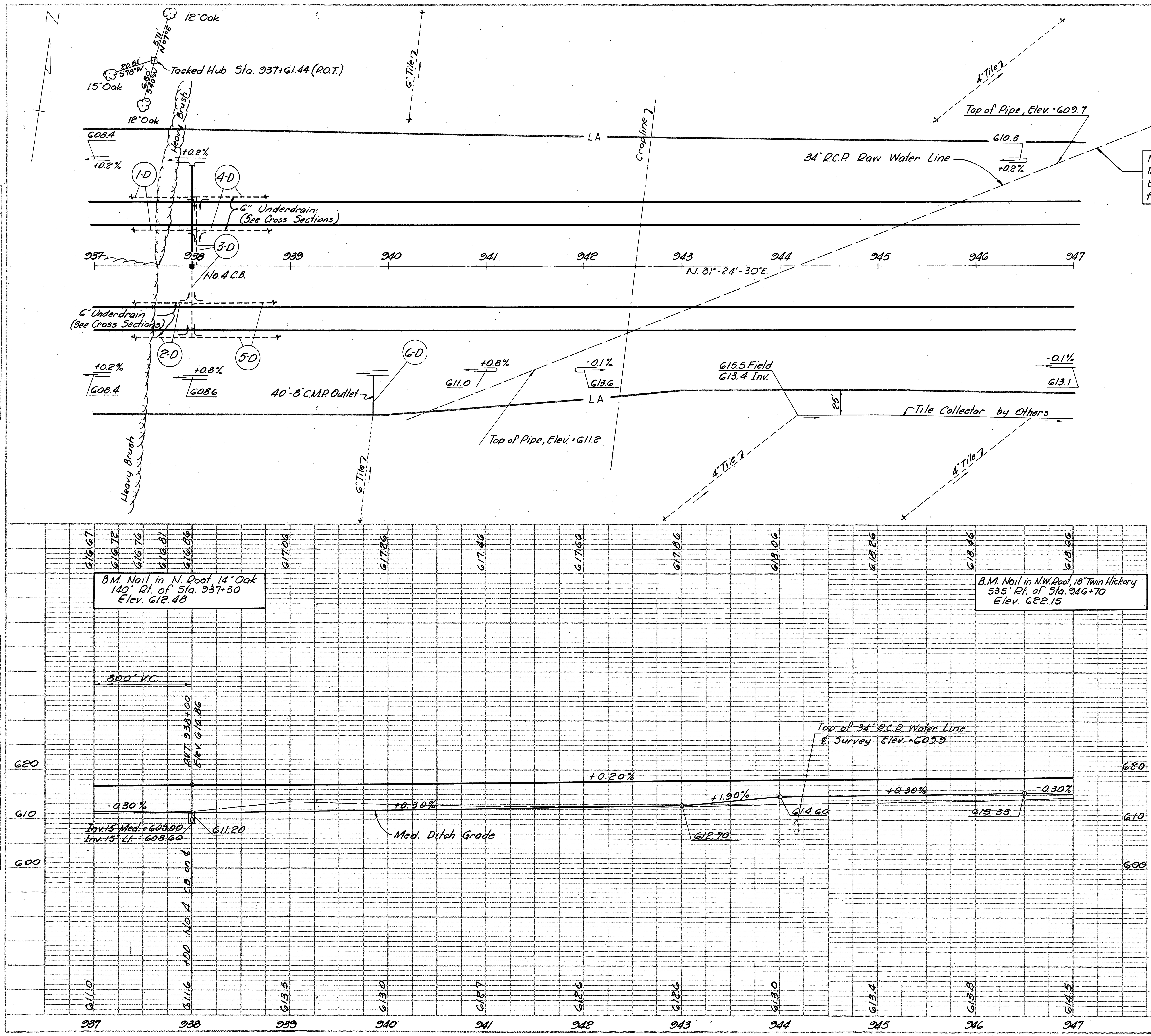
927 to 937

PLATE I—PLAN-PROFILE B. P. R. STANDARD
THE FREEDMAN POST CO. Chicago 28-1

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

28 / 235

ERI. 6-11.30



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure, Class "E" Cu.Yd.	I-2 8" Class A Storm Sewer Under Pav't. Lin.Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 8" C.M.P. Outlet Lin.Ft.	I-5 8", 90° Ell for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.		L-10 Sodding Sq.Yd.
	1-D	937+00	938+00	Lt.				200						
	2-D	937+00	938+00	Rt.				200						
	3-D	938+00		Lt.&Rt.	0.26	126	105			1	6	1		14
	4-D	938+00	947+00	Lt.				1800						
	5-D	938+00	947+00	Rt.				1800						
	6-D	939+85		Rt.					40					
	Totals				0.26	126	105	4000	40	1	6	1		14

SEP 15 1960

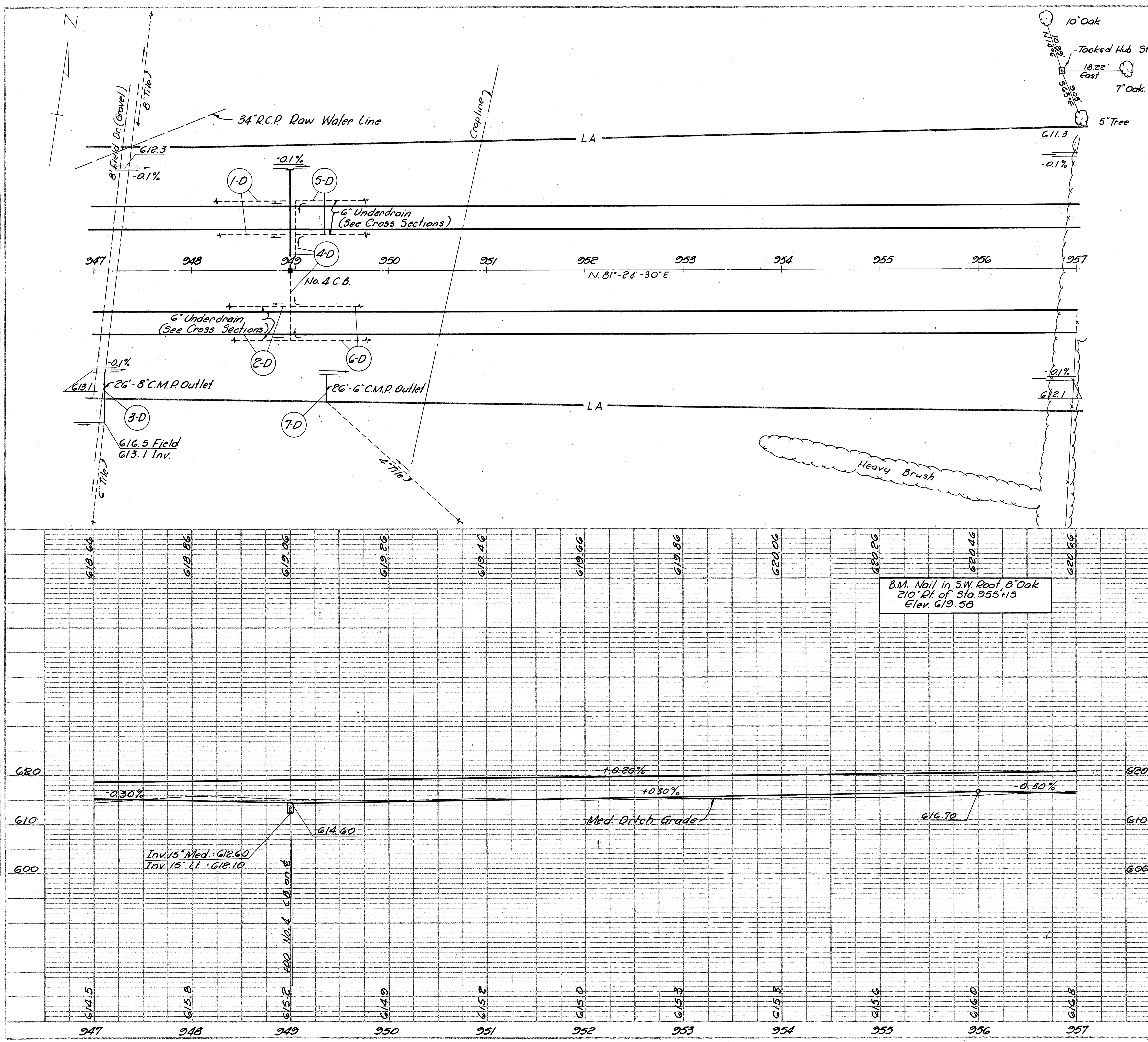
PLATE I—PLAN-PROFILE B.P.R. STANDARD

937 to 947

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

29 / 235

ERI. 6-11.30



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure, Class "E" (Cu.Yd.)	I-2 8" Class A Storm Sewer Under Pav't. (Lin.Ft.)	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) (Lin.Ft.)	I-4 6" Underdrain (Shallow) (Lin.Ft.)	I-4 6" C.M.P. Outlet (Lin.Ft.)	I-4 8" C.M.P. Outlet (Lin.Ft.)	I-5 8", 90° Ell for Class A Storm Sewer (Ea.)	I-5 8" on 8" Tee for Class A Storm Sewer (Ea.)	I-8 No. 4 C.B. (Ea.)		L-10 Sodding (Sq.Yd.)
	1-D	947+00	948+98	Lt.				396							
	2-D	947+00	948+98	Rt.				396							
	3-D	947+10		Rt.						26					
	4-D	949+00		Lt.&Rt.	0.26	126	99				3	2	1		14
	5-D	949+00	957+00	Lt.				1600							
	6-D	949+00	957+00	Rt.				1600							
	7-D	949+35		Rt.					26						
	Totals				0.26	126	99	3992	26	26	3	2	1		14

PLAN		BY	DATE
NOTE BOOK	SURVEYED	R.M.B.	1958
NO.	PLOTTED	E.J.D.	3-59
	ALIGNMENT CHECKED	E.D.S.	4-60
	RT. OF WAY CHECKED	E.D.S.	4-60

PROFILE		BY	DATE
NOTE BOOK	SURVEYED	S.M.B.	1958
NO.	PLOTTED	E.B.M.	7-58
	GRADES CHECKED	P.N.E.	
	B. M.'S NOTED	E.D.S.	4-60
	STRUCTURE NOTATIONS CHKD.	E.D.S.	4-60

SEP 15 1960

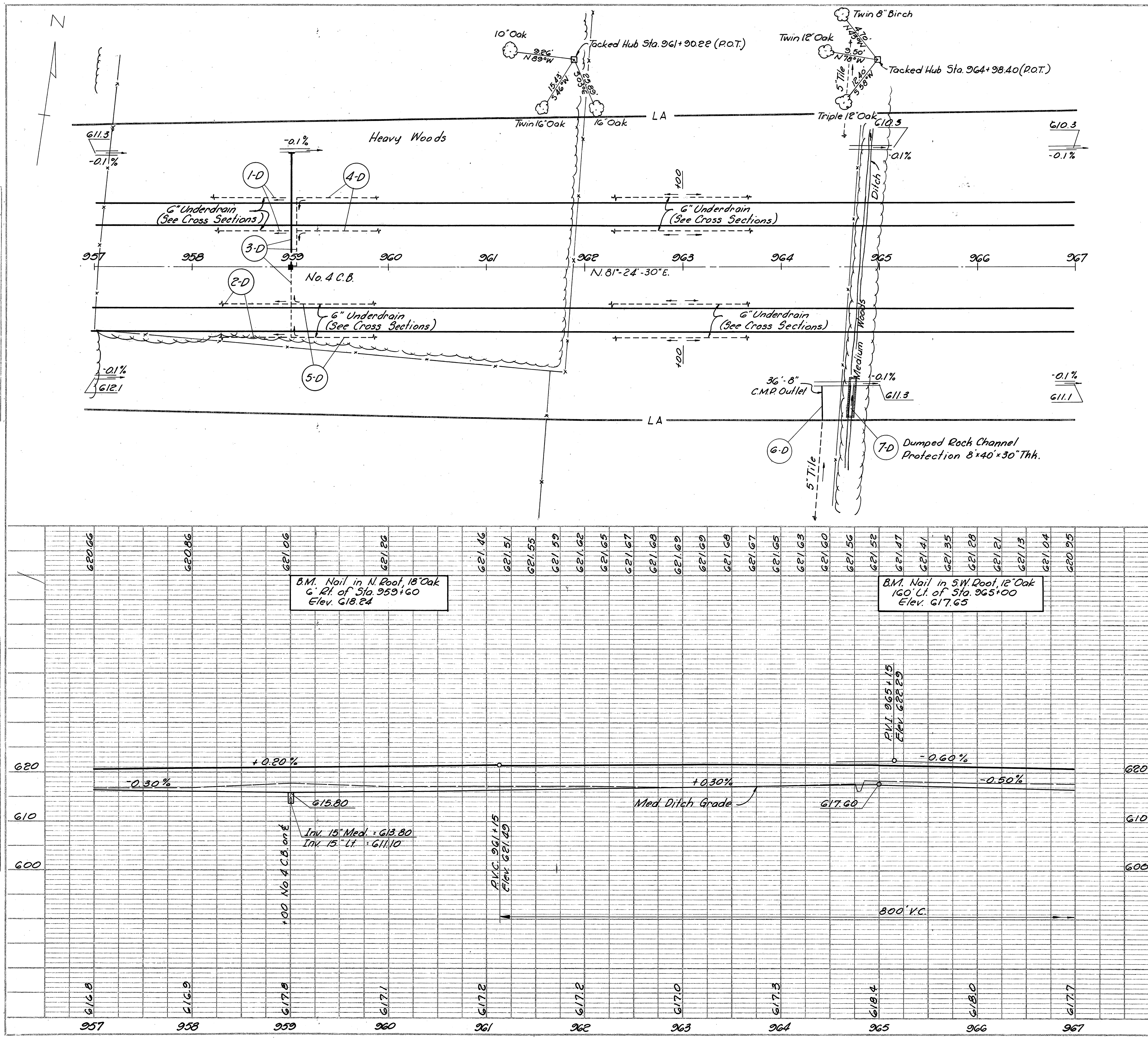
PLATE — PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO. Chicago

947 to 957

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

30 / 235

ERI. 6-11.30



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure Class "E" (Cu.Yd.)	I-2 8" Class A Storm Sewer Under Pav't. (Lin.Ft.)	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) (Lin.Ft.)	I-4 6" Underdrain (Shallow) (Lin.Ft.)	I-4 8" C.M.P. Outlet (Lin.Ft.)	I-5 8", 90° Ell for Class A Storm Sewer (Ea.)	I-5 8" on 8" Tee for Class A Storm Sewer (Ea.)	I-8 No. 4 C.B. (Ea.)	I-10 Dumped Rock Channel Protection (Cu.Yds.)	L-10 Sodding (Sq.Yd.)
	1-D	957+00	958+98	Lt.				396						
	2-D	957+00	958+98	Rt.				396						
	3-D	959+00		Lt.&Rt.	0.26	126	111			3	2	1		14
	4-D	959+00	967+00	Lt.				1600						
	5-D	959+00	967+00	Rt.				1600						
	6-D	964+40		Rt.					36					
	7-D	964+75		Rt.									30	
	Totals				0.26	126	111	3992	36	3	2	1	30	14

SEP 15 1960

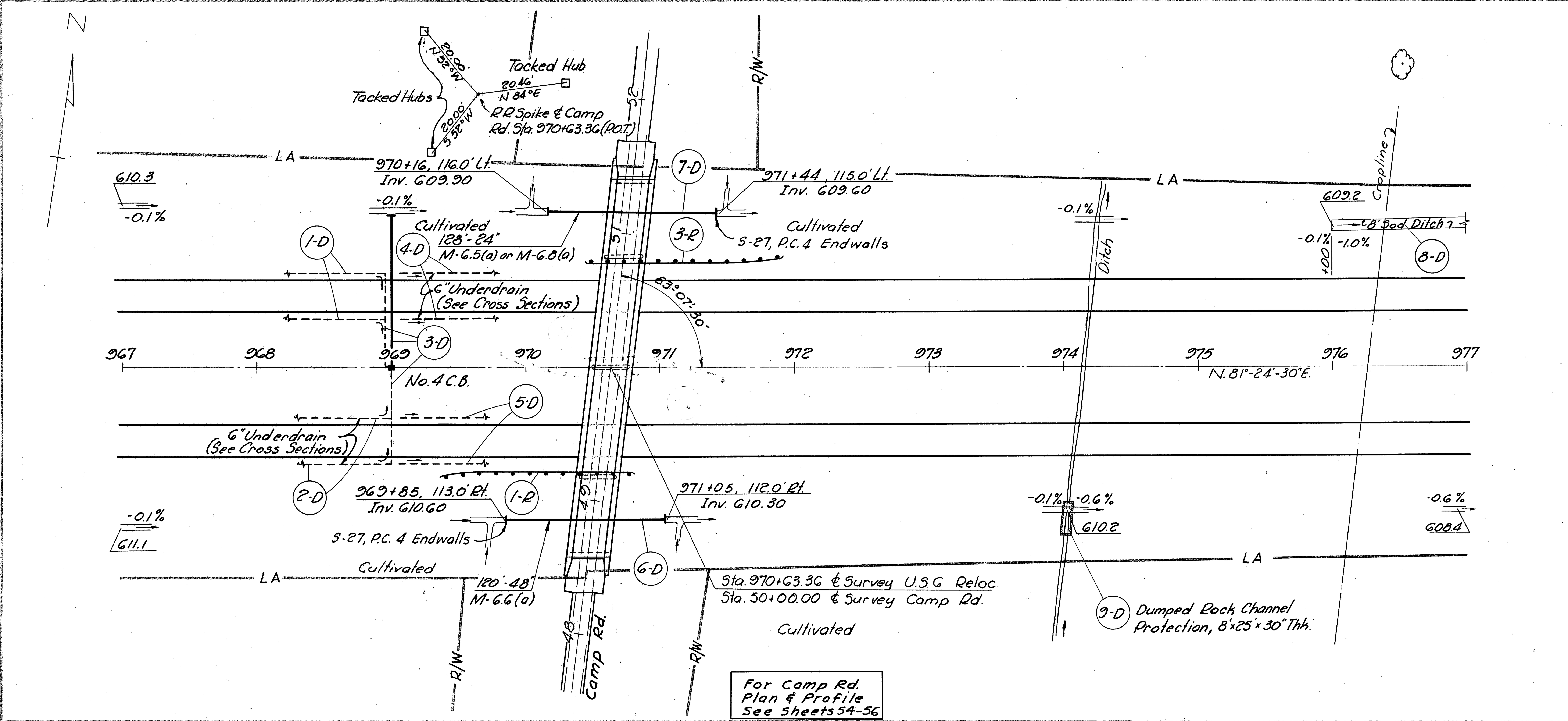
PLATE I - PLAN-PROFILE B.P.R. STANDARD

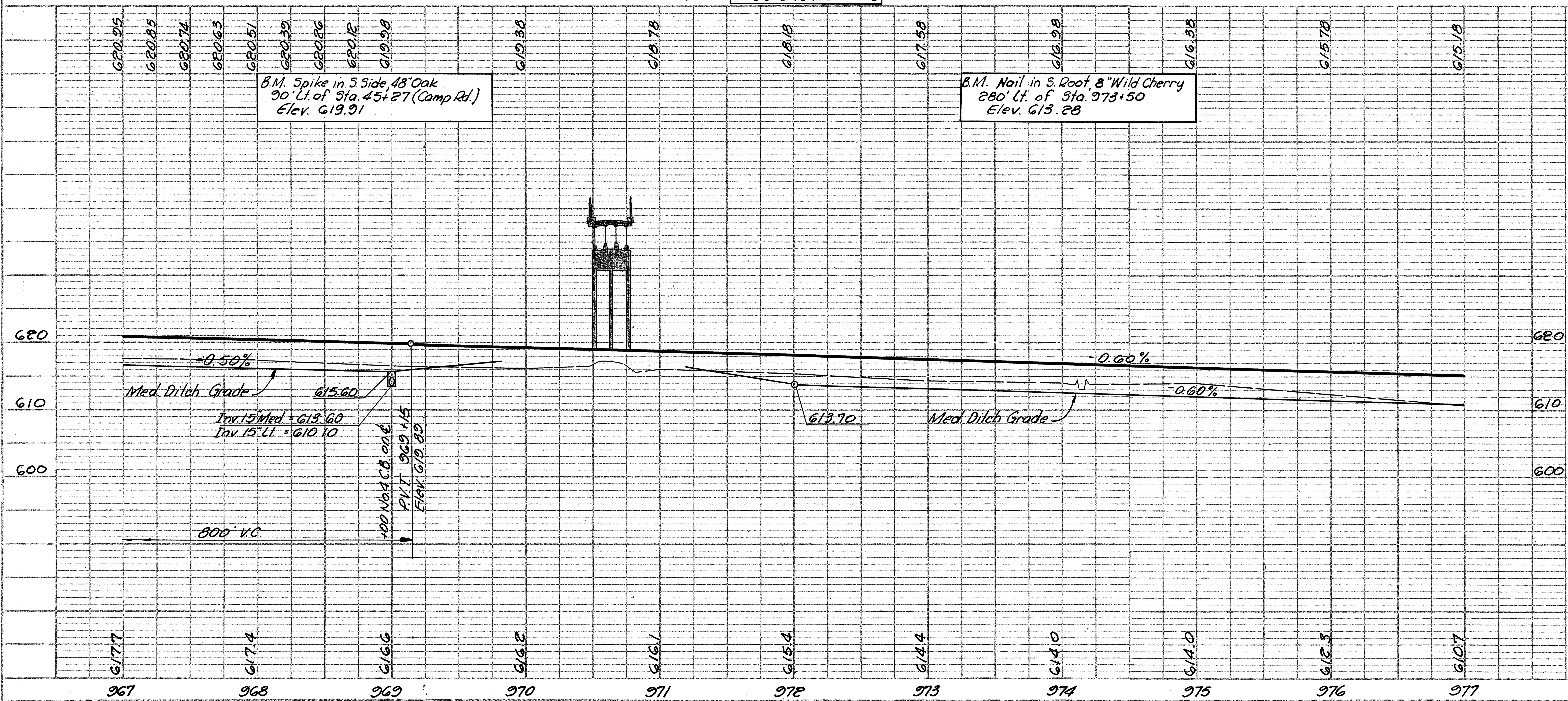
957 to 967

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

31
235

ERI. 6-11.30





ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-15 Guard Rail (Std. Type) Lin.Ft.			
	1-R	969+40.5	970+78	Rt.	137.5			
	3-R	970+50	971+87.5	Lt.	137.5			
	Totals				275.0			

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure, Class "E" Cu.Yd.	I-2 8" Class A Storm Sewer Under Pav't. Lin.Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin.Ft.	I-2 24" Storm Sewer M-6.5(a) or M-6.8(a) Lin.Ft.	I-2 48" Storm Sewer M-6.6(a) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-5 8", 90° Ell for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.	I-10 Dumped Rock Channel Protection Cu.Yds.	L-10 Sodding Sq.Yd.
	1-D	967+00	969+00	Lt.						400					
	2-D	967+00	969+00	Rt.						400					
	3-D	969+00		Lt.&Rt.	0.26	126	111				3	2	1		14
	4-D	969+02	977+00	Lt.						1596					
	5-D	969+02	977+00	Rt.						1596					
	6-D	969+85	971+05	Rt.	1.72				120						
	7-D	970+16	971+44	Lt.	0.82			128							
	8-D	976+00	977+00	Lt.											89
	9-D	974+00		Rt.										19	
	Totals				2.80	126	111	128	120	3992	3	2	1	19	103

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: 24'-0" f/f 2'-3" Safety Curbs.

Load Frequency: CF 130 (57)
Skew: 6°-53' Right Forward
Wearing Surface: 3/4" Monolithic Concrete
Approach Slabs: AS-1-54 (25' long)
Alignment: Tangent

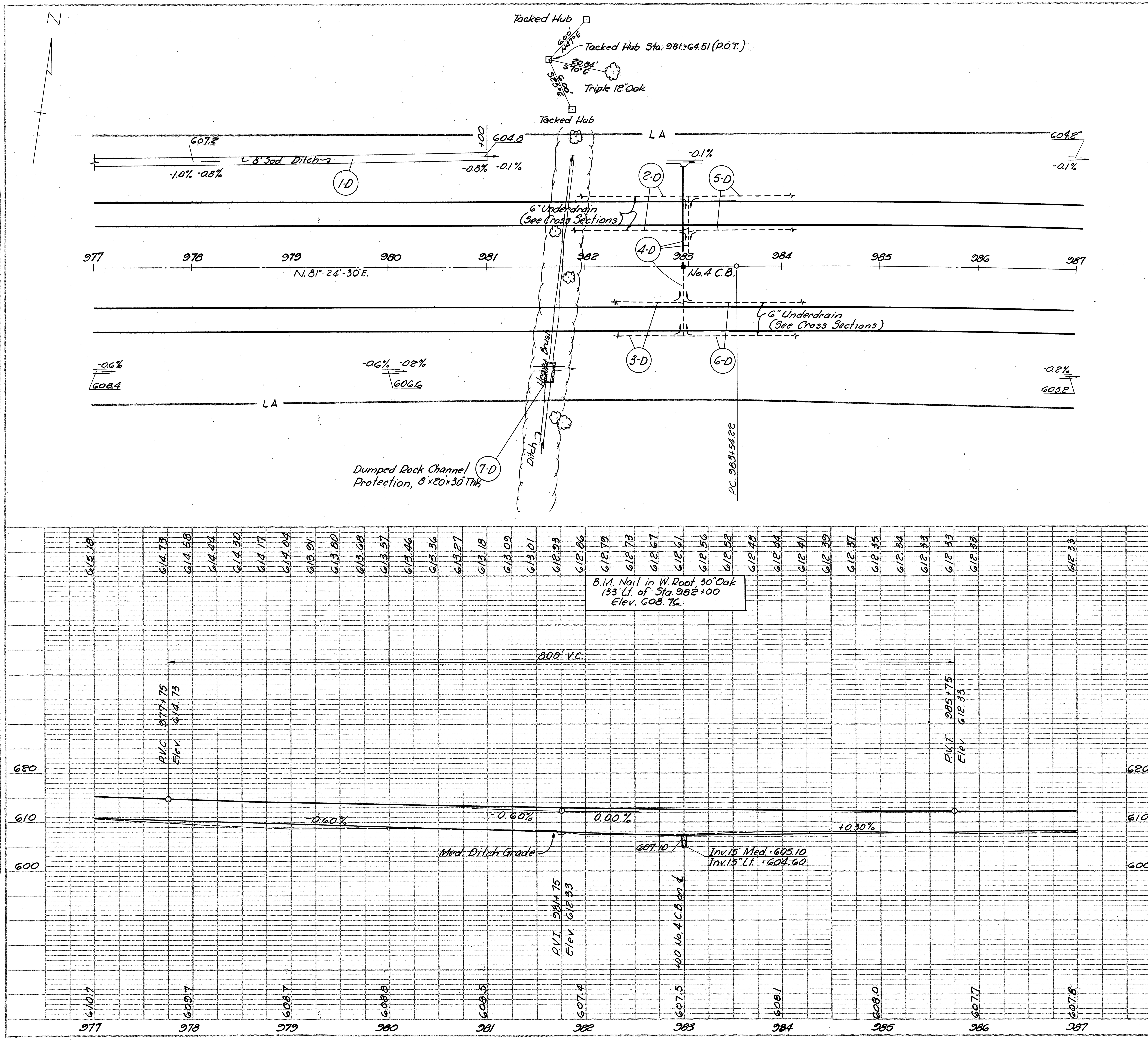
SEP 15 1960

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

967 to 977

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30



PLAN — NOTE BOOK NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED — BY / DATE

PROFILE — NOTE BOOK NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M.'S NOTED / STRUCTURE NOTATIONS CH'KD — BY / DATE

DRAINAGE QUANTITIES F-1042(7)

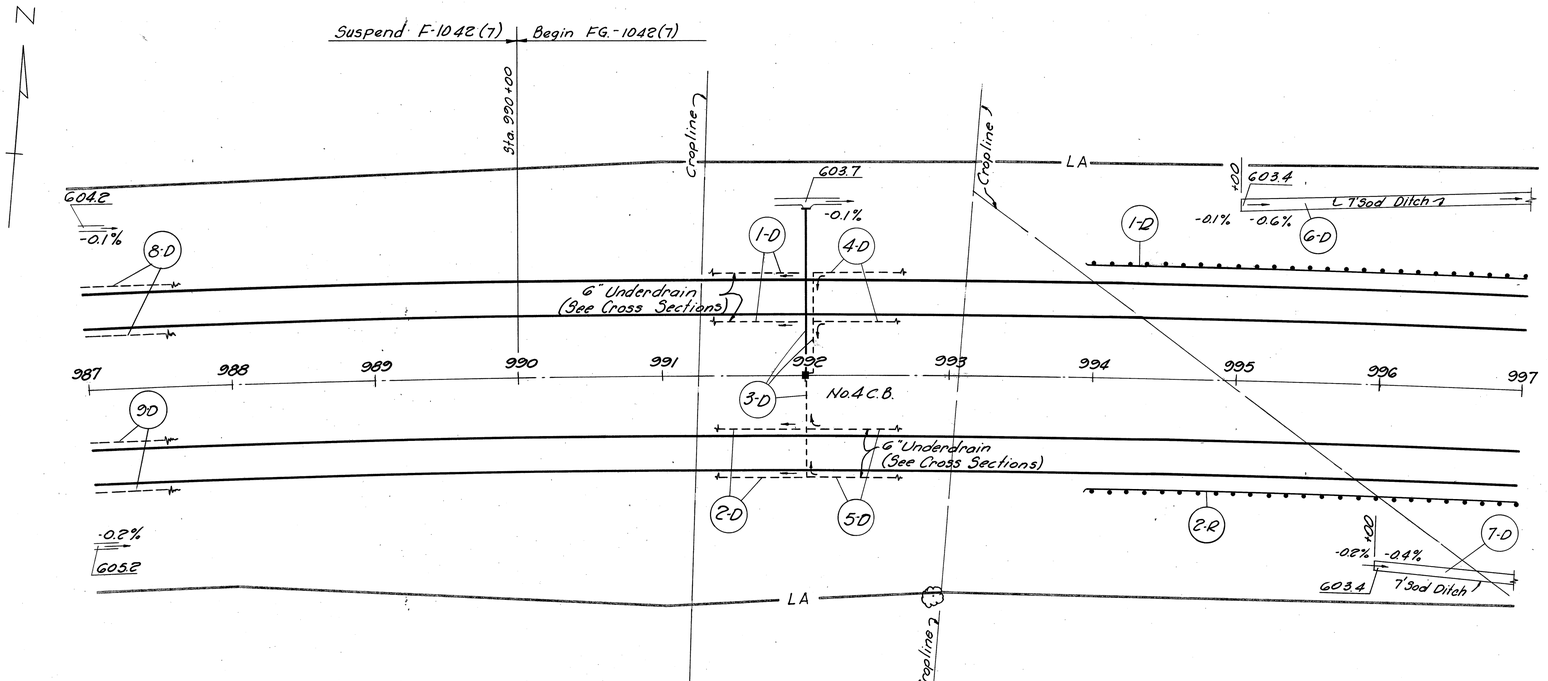
See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure Class "E" (Cu.Yd.)	I-2 8" Class A Storm Sewer Under Pav't. (Lin.Ft.)	I-2 15" Storm Sewer M-6.5(b) or M 6.8(b) (Lin.Ft.)	I-4 6" Underdrain (Shallow) (Lin.Ft.)	I-5 8", 90° Ell for Class A Storm Sewer (Ea.)	I-5 8" on 8" Tee for Class A Storm Sewer (Ea.)	I-8 No. 4 C.B. (Ea.)	I-10 Dumped Rock Channel Protection (Cu.Yds.)	L-10 Sodding (Sq.Yd.)
	1-D	977+00	981+00	Lt.									355
	2-D	977+00	983+00	Lt.				1200					
	3-D	977+00	983+00	Rt.				1200					
	4-D	983+00		Lt.&Rt.	0.26	126	105		1	6	1		14
	5-D	983+00	987+00	Lt.				800					
	6-D	983+00	987+00	Rt.				800					
	7-D	981+60		Rt.								15	
Totals					0.26	126	105	4000	1	6	1	15	369

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

33
235

ERI. G-11.30

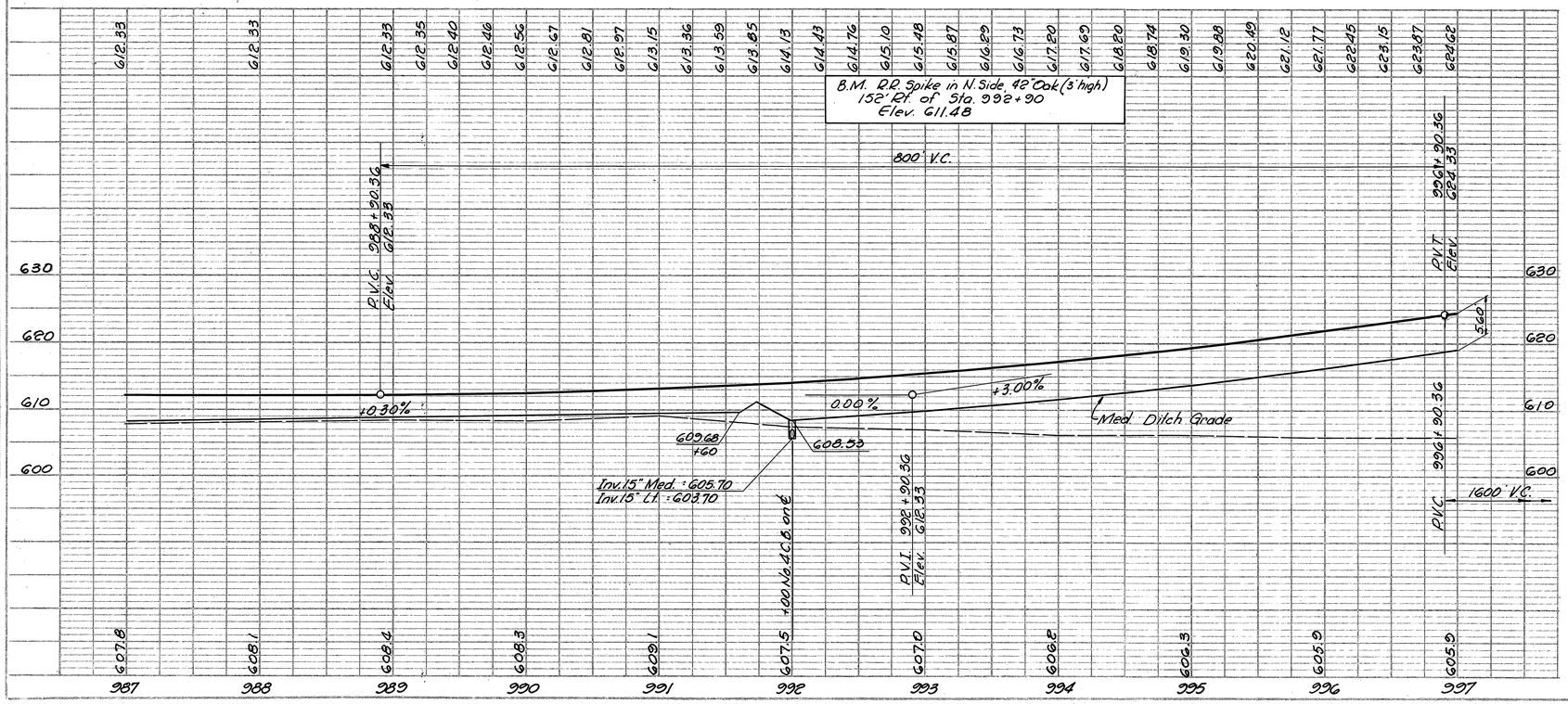


ROADWAY QUANTITIES FG.-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-15 Guard Rail (Std Type) Lin. Ft.
	1-R	993+30	997+00	Lt.	310.0
	2-R	994+05	997+00	Rt.	295.0
	Totals				605.0

DRAINAGE QUANTITIES F-1042(7) & FG-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure-Class E Cu. Yd.	I-2 8" Class A Storm Sewer Under Pav't. Lin. Ft.	I-2 15" Storm Sewer M-6.16(b) or M-6.18(b) Lin. Ft.	I-4 6" Underdrain (Shallow) Lin. Ft.	I-5 8', 90° Fil. for Class A Storm Sewer Ea.	I-5 8" on 8" Tee for Class A Storm Sewer Ea.	I-8 No. 4 C.B. Ea.		L-10 Sodding Sq. Yd.	
	1-D	990+00	991+98	Lt.				396						
	2-D	990+00	991+98	Rt.				396						
	3-D	992+00		Lt&Rt	0.26	126	114		3	2	1		14	
	4-D	992+00	997+00	Lt.				1000						
	5-D	992+00	997+00	Rt.				1000						
	6-D	995+00	997+00	Lt.									156	
	7-D	996+00	997+00	Rt.									78	
	FG-1042(7) Totals				0.26	126	114	2792	3	2	1		248	
	8-D	987+00	990+00	Lt.				600						
	9-D	987+00	990+00	Rt.				600						
	F-1042(7) Totals				—	—	—	1200	—	—	—		—	



PLAN: SURVEYED — REVISED — ALIGNMENT CHECKED — RT. OF WAY CHECKED — NOTE BOOK — NO. — BY SMB EJD EDS EDS — DATE 1958 4-30 4-30

PROFILE: SURVEYED — REVISED — GRADES CHECKED — B. M. IS NOTED — STRUCTURE NOTATIONS CHECKED — NOTE BOOK — NO. — BY S.M.B. PNE EDS EDS — DATE 9-58 4-30 4-30

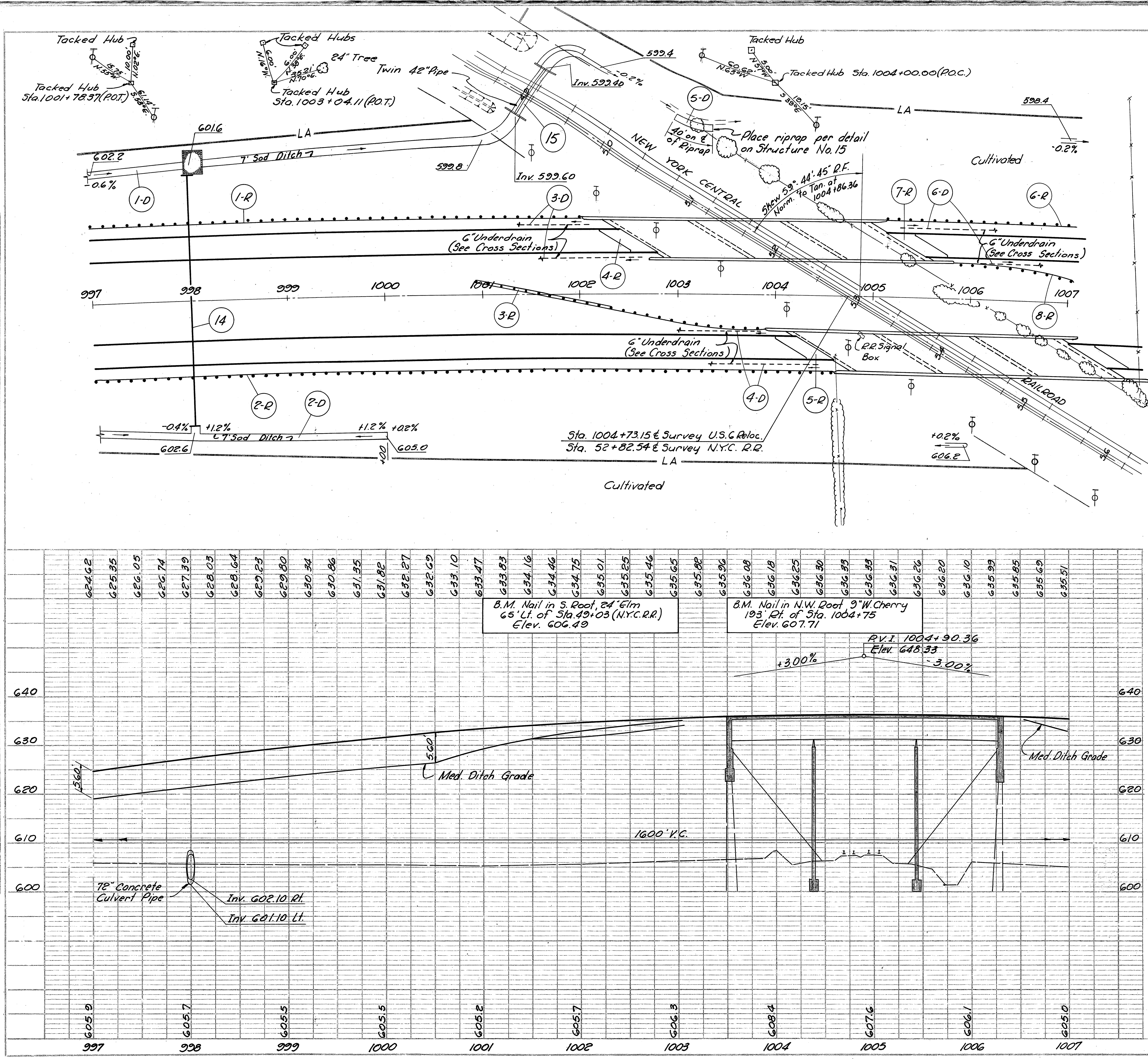
SEP 15 1960

PLATE I — PLAN-PROFILE U. P. R. STANDARD
THE FREDERICK POST CO. Chicago 2241

987 to 997

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30



See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-7 Reinf. Conc. Appr. Slab (T = 13") Sq.Yd.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-15 Guard Rail (Barrier Type) Lin.Ft.	I-22 Subbase Cu.Yd.	E-1 Compacted Subgrade Sq.Yd.
	1-R	997+00	1001+90	Lt.		490.0			
	2-R	997+00	1004+55	Rt.		755.0			
	3-R	1000+80	1003+79	Med.		150.0	150.0		
	4-R	1002+34.57	1002+59.57	Lt.	66.7			11.1	66.7
	5-R	1004+19.73	1004+44.73	Rt.	66.7			11.1	66.7
	6-R	1005+23	1007+00	Lt.		177.0			
	7-R	1005+42.51	1005+67.51	Lt.	66.7			11.1	66.7
	8-R	1005+98	1007+00	Med.		102.0			
	Totals				200.1	1674.0	150.0	33.3	200.1

ROADWAY QUANTITIES FG-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu.Yd.	S-1 Conc. for Structure Class "E" Cu.Yd	S-1 Conc. for Structure Class "C" Cu.Yd.	S-4 Reinforcing Steel Lb.	S-27 42" Reinf. Conc. Culv. Pipe M6.6(d) Lin.Ft.	S-27 72" Reinf. Conc. Culv. Pipe M6.6(c) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-10 Rip Rap (6" conc.) Sq.Yd.	L-10 Sodding Sq.Yd.	I-10 Dumped Rock Channel Protection Cu.Yds.
	1-D	997+00	1001+35	Lt.									342	
	2-D	997+00	1000+00	Rt.									233	
	3-D	997+00	1002+55 (Ave.)	Lt.							1110			
	4-D	997+00	1004+35 (Ave.)	Rt.							1470			
76	14	998+00		Lt.&Rt.	707	8.0				258				53
77	15	49+00	(N.Y.C. R.R.)	Lt.&Rt.	301		27.4	1152	120			38	9	
	5-D	1003+00	1003+35	Lt.								41	8	
	6-D	1005+35 (Ave.)	1007+00	Lt.							330			
	Totals				1008	8.0	27.4	1152	120	258	2910	79	592	53

DRAINAGE QUANTITIES FG-1042(7)

PROPOSED STRUCTURES

Type: Continuous welded steel plate girder with reinf. concrete deck, Reinf. conc. substructure. Stub abutments and "T" type piers.
Spans: 84', 105', 84' c/c Brg's. (Left and Right Bridges)
Roadway: 39'-8" f/f of 1'-2" curbs. (Left and Right Bridges)
Load Frequency: C.F. = 400 (57)
Skew: 59°-44'-45" R.F. at U.S. 6 ℄ Survey & ℄ of Tracks
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: AS-1-54 (25' Long)
Alignment: 0°-28' Curve Right

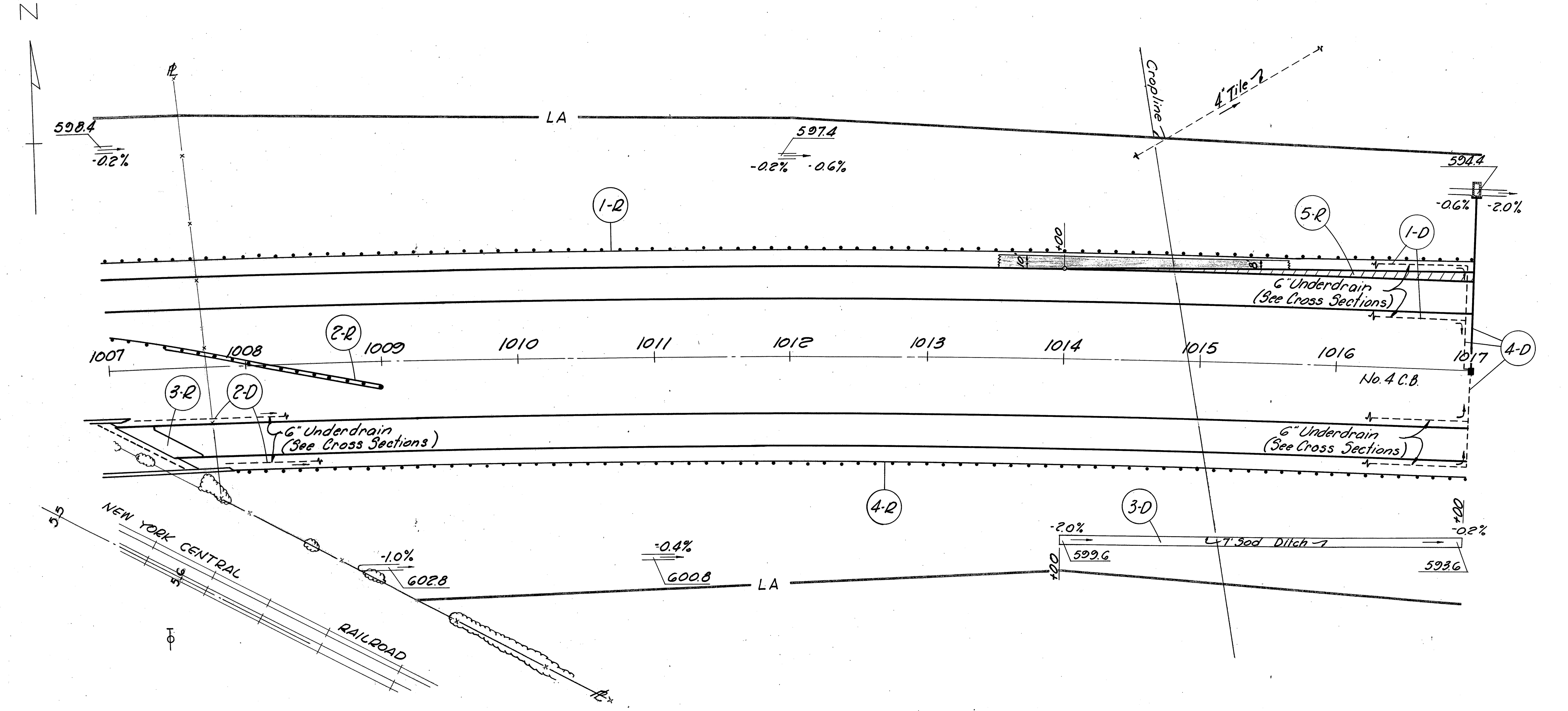
SEP 15 1960

997 to 1007

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

35/235

ERI. 6-11.30



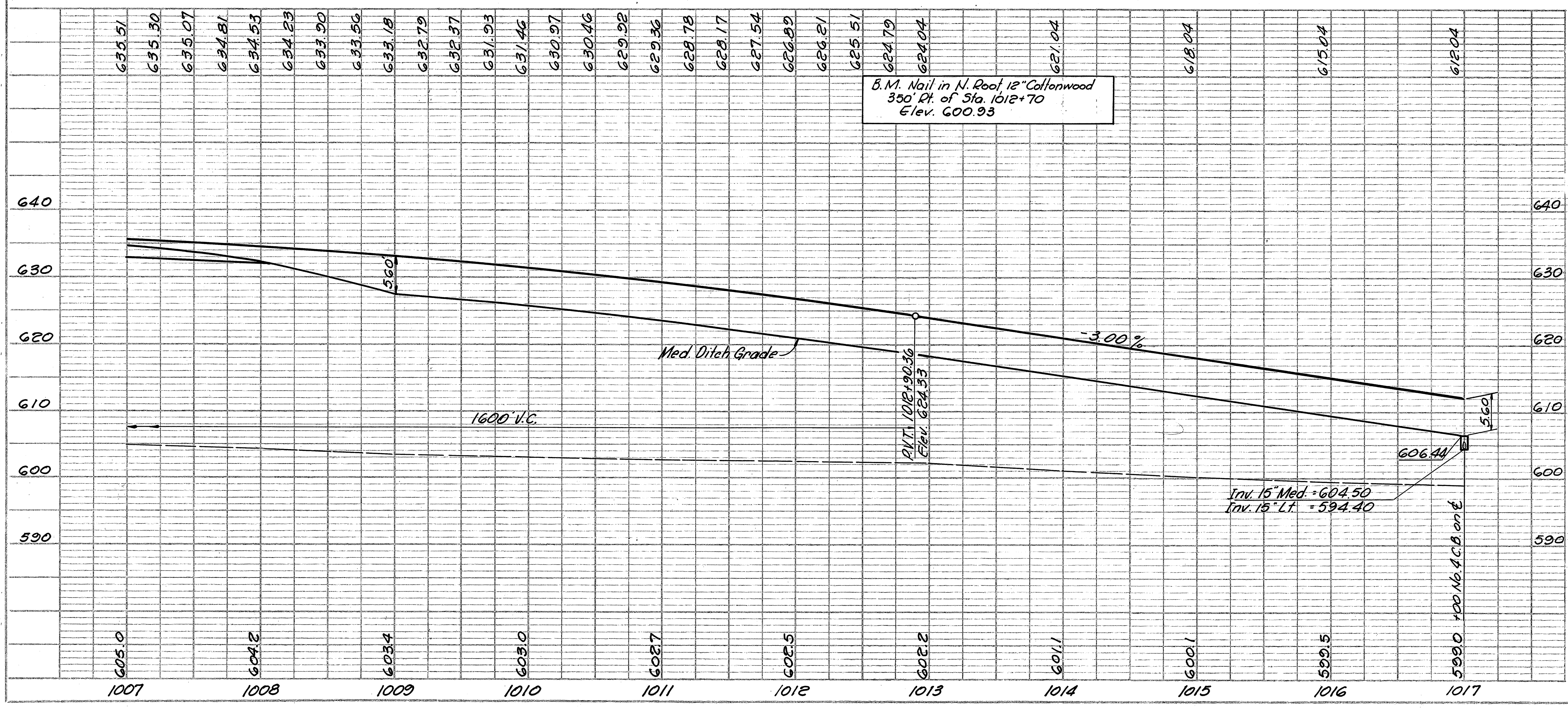
ROADWAY QUANTITIES FG-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-7 Reinf. Conc. Appr. Slab (T=13") Sq.Yd.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-15 Guard Rail (Barrier Type) Lin.Ft.	I-22 Subbase Cu.Yd.	T-71 9" Reinf. P.C. Conc. Pav't. Sq.Yd.	E-1 Compacted Subgrade Sq.Yd.		
	1-R	1007+00	1017+00	Lt.		1000.0						
	2-R	1007+00	1008+97	Med.		48.0	150.0					
	3-R	1007+28.67	1007+53.67	Rt.	66.7			11.1		66.7		
	4-R	1008+00	1017+00	Rt.		900.0						
	5-R	1014+00	1017+00	Lt.				17.4	104.1	104.1		
	Totals				66.7	1948.0	150.0	28.5	104.1	170.8		

DRAINAGE QUANTITIES FG-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure Class "E" Cu.Yd.	I-2 8" Class "A" Storm Sewer Under Pav't. Lin.Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin.Ft.	I-2 15" Storm Sewer M-6.4(c) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-5 8" 90° Ell. for Class "A" Storm Sewer Ea.	I-5 8" on 8" Tee for Class "A" Storm Sewer Ea.	I-5 15" 25° C.M.P. Ell M-6.4(c) Ea.	I-8 No. 4 C.B. Ea.	I-10 Dumped Rock Channel Protection Cu.Yds.
	1-D	1007+00	1017+00	Lt.					2000					
	2-D	1007+25(Ave.)	1017+00	Rt.					1950					
	3-D	1014+00	1017+00	Rt.										
	4-D	1017+00		Lt.&Rt.	0.26	132	87	36		3	2	2	1	5
	Totals				0.26	132	87	36	3950	3	2	2	1	5

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	L-10 Sodding Sq.Yd.	Spec. Splash Plate as per plan Ea.
	3-D	1014+00	1017+00	Rt.	233	
	4-D	1017+00		Lt.&Rt.		1
	Totals				233	1



PLAN — NOTE BOOK NO. — SURVEYED — PLOTTED — ALIGNMENT CHECKED — RT. OF WAY CHECKED

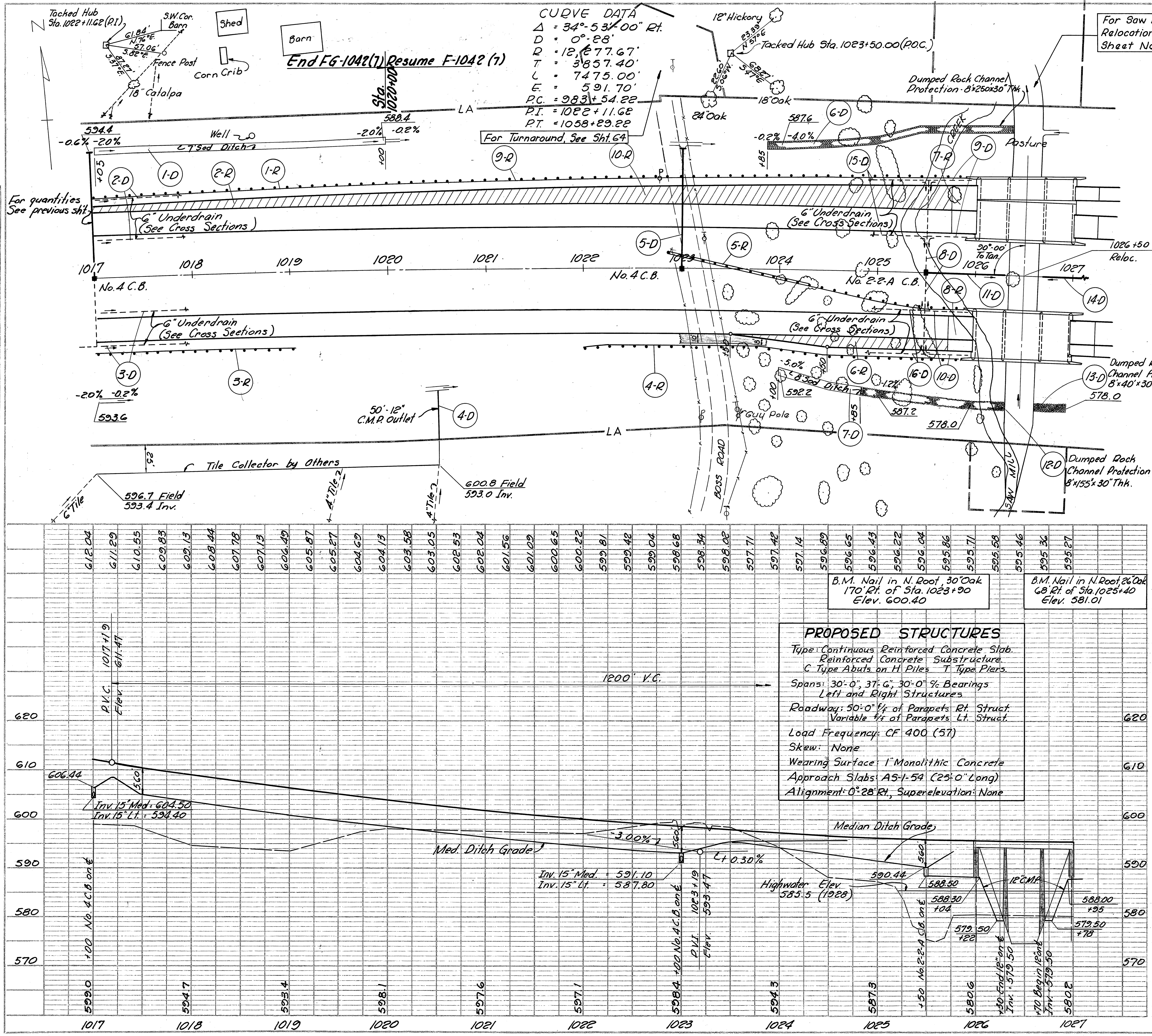
PROFILE — NOTE BOOK NO. — SURVEYED — PLOTTED — GRADES CHECKED — B.M.'S NOTED — STRUCTURE NOTES CHKD.

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30

For Saw Mill Creek Relocation, see Sheet No. 78.



ROADWAY QUANTITIES

FG-1042(7)
F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-7 Reinf. Conc. Appr. Slab (T=13") Sq.Yd.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-15 Guard Rail (Barrier Type) Lin.Ft.	I-22 Subbase Cu.Yd.	T-71 9" Reinf. P.C. Conc. Pav't. Sq.Yd.	E-1 Compacted Subgrade Sq.Yd.		
	1-R	1017+00	1020+00	Lt.		300.0						
	2-R	1017+00	1020+00	Lt.				52.1	312.5	312.5		
	3-R	1017+00	1019+00	Rt.		200.0						
	FG-1042(7) Totals				—	500.0	—	52.1	312.5	312.5		
	4-R	1021+90	1025+90	Rt.		400.0						
	5-R	1022+91	1025+90	Med.		150.0	150.0					
	6-R	1023+50	1025+75.50	Rt.				39.0	234.0	234.0		
	7-R	1025+75.50	1026+00.50	Lt.	135.5			22.6		135.5		
	8-R	1025+75.50	1026+00.50	Rt.	100.0			16.7		100.0		
	9-R	1020+00	1025+90	Lt.		610.5						
	10-R	1020+00	1025+75.50	Lt.				197.1	1182.7	1182.7		
	F-1042(7) Totals				235.5	1160.5	150.0	275.4	1416.7	1652.2		

DRAINAGE QUANTITIES

FG-1042(7)
F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure Class "E" Cu.Yd.	I-5 12", 25" C.M.P. Ell M-6.4(c) Ea.	I-8 No. 4 C.B. Ea.	I-10 Dumped Rock Channel Protection Cu.Yd.	L-10 Sodding Sq.Yd.	I-2 12" Storm Sewer M-6.4(c) Lin.Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin.Ft.	I-2 8" Class "A" Storm Sewer Under Pav't. Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 12" C.M.P. Outlet Lin.Ft.	I-5 8" on 8" Tee for Class "A" Storm Sewer Ea.
	1-D	1017+05	1020+00	Lt.					229						
	2-D	1017+02	1020+00	Lt.									596		
	3-D	1017+02	1020+00	Rt.									596		
	F.G-1042(7) Totals				—	—	—	—	229	—	—	—	1192	—	—
	4-D	1020+50		Rt.										50	
	5-D	1023+00		Lt.	0.26		1		14		120				
	6-D	1023+85	1026+36	Lt.				185							
	7-D	1024+00	1024+85	Rt.					51						
	8-D	1025+50		Lt.&Rt.								162			6
	9-D	1025+50	1025+95	Lt.									90		
	10-D	1025+50	1025+95	Rt.									90		
	11-D	1025+50	1026+30	℄		2		2		80					
	12-D	1024+85	1026+31	Rt.				115							
	13-D	1026+66	1027+00	Rt.				30							
	14-D	1026+70	1027+00	℄		2		2		30					
	15-D	1020+00	1025+50	Lt.									1100		
	16-D	1020+00	1025+50	Rt.									1100		
	F-1042(7) Totals				0.26	4	1	334	65	110	120	162	2380	50	6

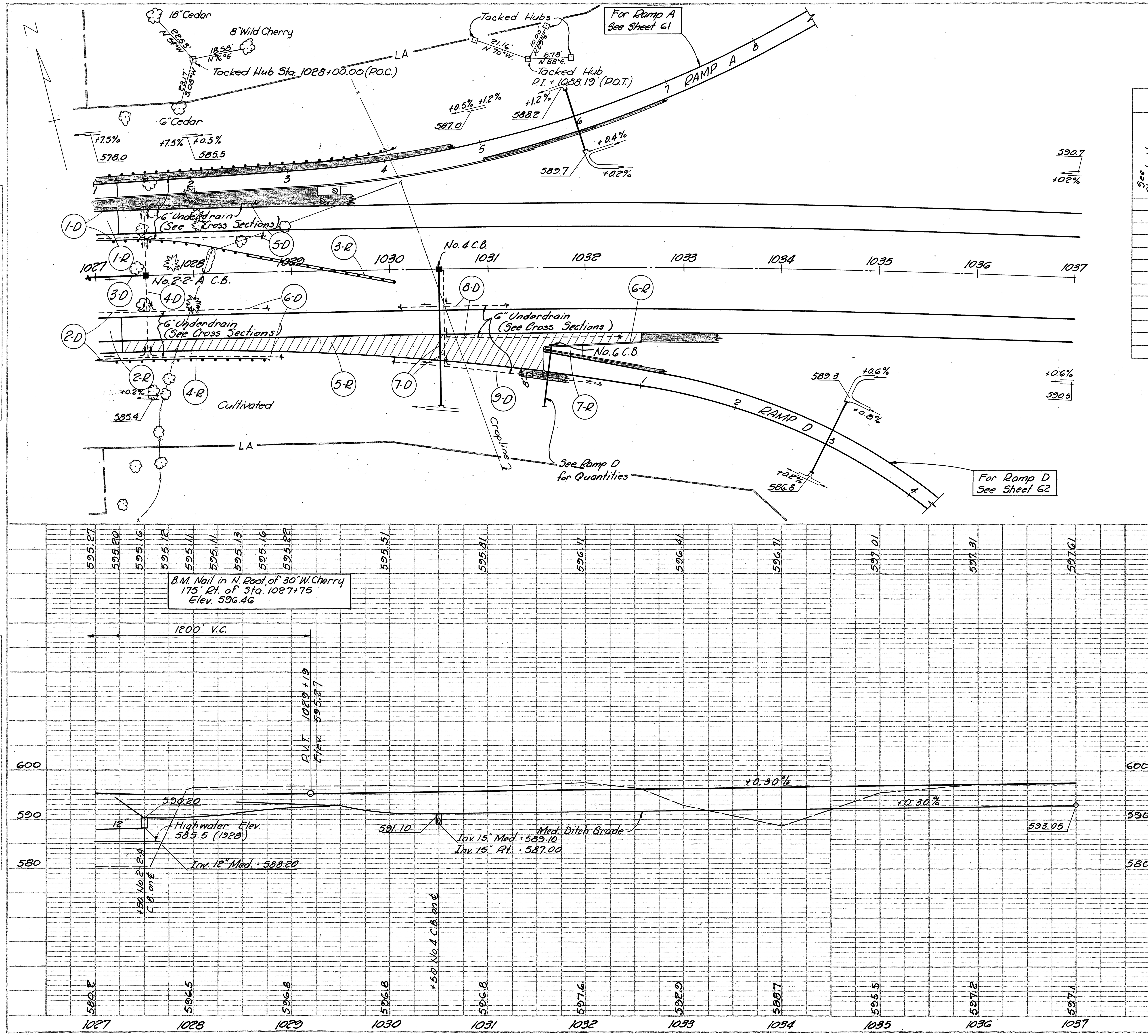
					I-8 No. 2-2A C.B. Ea.
	11-D	1025+50	1026+30	℄	1
	F-1042(7) Totals				1

SEP 15 1960

1017 to 1027

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30



ROADWAY QUANTITIES

F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-7 Reinf. Conc. Appr. Slab (T=13")	I-12 Type 2-A Curb	I-15 Guard Rail (Std. Type)	I-15 Guard Rail (Barrier Type)	I-21 4" P.C. Conc. Med. Pav't.	I-22 Subbase	T-71 9" Reinf. P.C. Conc. Pav't.	E-1 Compacted Subgrade		
					Sq.Yd.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Sq.Yd.	Cu.Yd.	Sq.Yd.	Sq.Yd.		
	1-R	1026+99.50	1027+24.50	Lt.	66.7					11.1		66.7		
	2-R	1026+99.50	1027+24.50	Rt.	100.0					16.7		100.0		
	3-R	1027+10	1030+09	Med.			150.0	150.0						
	4-R	1027+10	1028+72.5	Rt.			162.5							
	5-R	1027+24.50	1032+56.31	Rt.						189.9	1139.2	1139.2		
	6-R	1031+56.31	1032+56.31	Rt.		104								
	7-R	1031+56.31	1031+96.31	Rt.					29.0					
	Totals				166.7	104	312.5	150.0	29.0	217.7	1139.2	1305.9		

DRAINAGE QUANTITIES

F-1042(7)

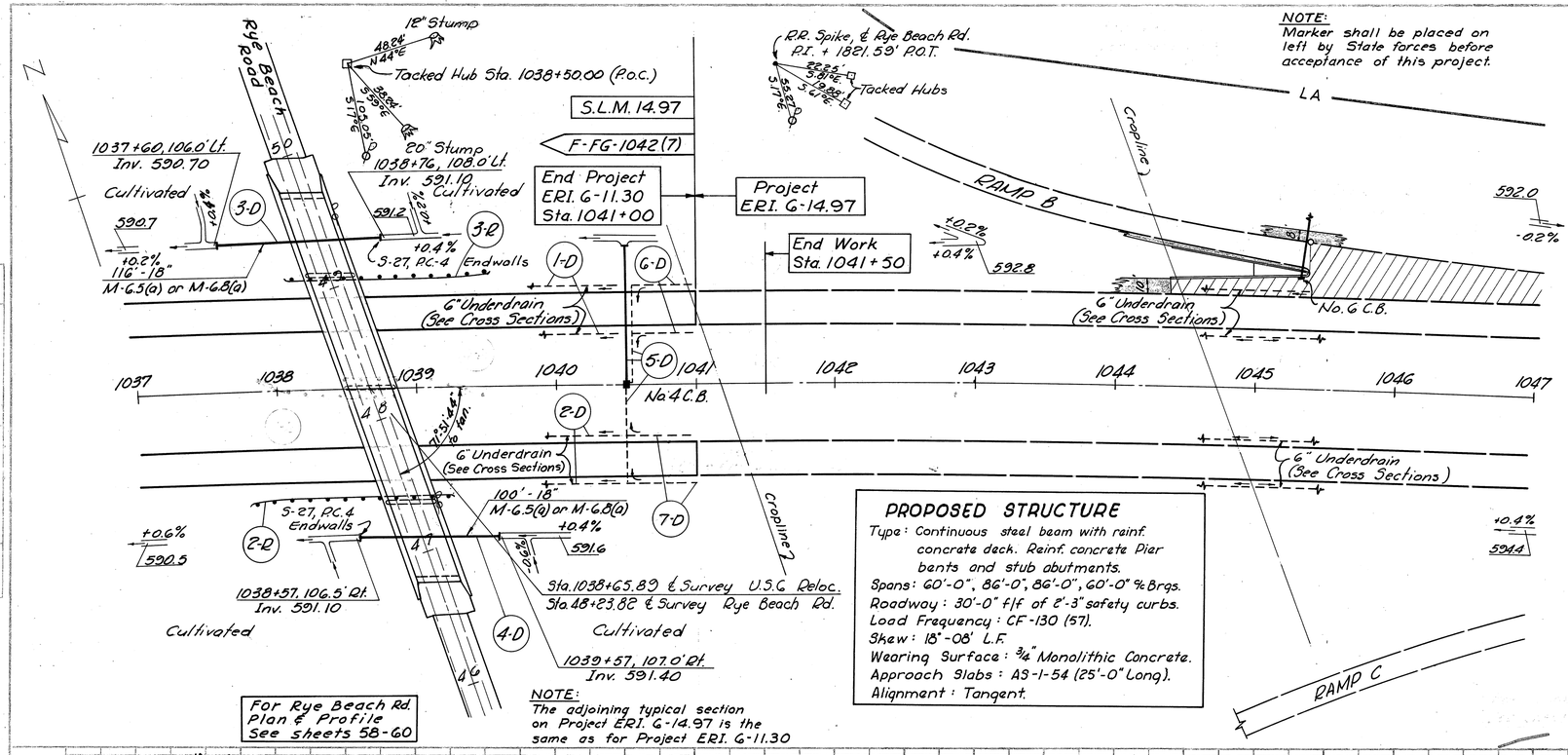
See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure Class "E"	I-2 8" Class "A" Storm Sewer Under Pav't.	I-2 12" Storm Sewer M-6.4(c)	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b)	I-4 6" Underdrain (Shallow)	I-5 8" 90° Ell for Class "A" Storm Sewer	I-5 8" on 8" Tee for Class "A" Storm Sewer	I-8 No. 2-2-A C.B.	I-8 No. 4 C.B.	L-10 Sodding	
					Cu.Yd.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Ea.	Ea.	Ea.	Ea.	Sq.Yd.	
	1-D	1027+00	1027+50	Lt.					100						
	2-D	1027+00	1027+50	Rt.					100						
	3-D	1027+00	1027+50	℄			48					1			
	4-D	1027+50		Lt.&Rt.		144					6				
	5-D	1027+50	1037+00	Lt.					1900						
	6-D	1027+50	1030+48	Rt.					596						
	7-D	1030+50		Rt.	0.26	87		138		2	2		1	14	
	8-D	1030+50	1037+00	Rt.					1300						
	9-D	1030+50	1031+56	Rt.					106						
	Totals				0.26	231	48	138	4102	2	8	1	1	14	

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

38
235

ERI. G-11.30



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

NOTE:
The adjoining typical section on Project ERI. G-14.97 is the same as for Project ERI. G-11.30

For Rye Beach Rd. Plan & Profile See sheets 58-60

PROPOSED STRUCTURE

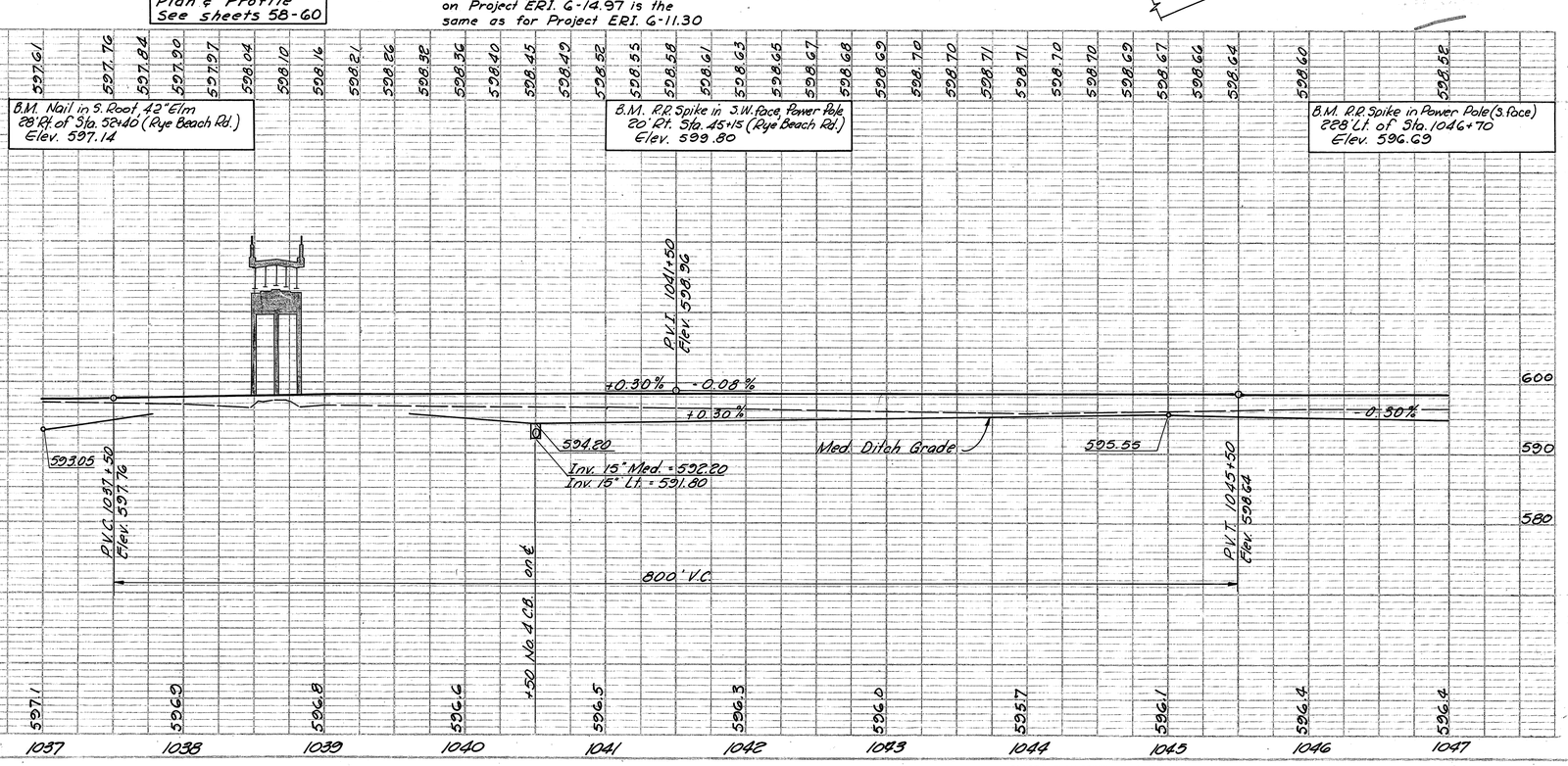
Type: Continuous steel beam with rainf. concrete deck. Reinf. concrete Pier bents and stub abutments.
Spans: 60'-0", 86'-0", 86'-0", 60'-0" ℄ Brgs.
Roadway: 30'-0" f/f of 2'-3" safety curbs.
Load Frequency: CF-130 (57).
Skew: 18°-08' L.F.
Wearing Surface: ¾" Monolithic Concrete.
Approach Slabs: AS-1-54 (25'-0" Long).
Alignment: Tangent.

ROADWAY QUANTITIES F-1042(7)

See Sheet No. / Reference No. or Structure No.	Station From	Station To	Side	I-15 Guard Rail (Std Type) Lin.Ft.
2-R	1037+84.5	1039+22	Rt.	137.5
3-R	1038+11	1039+48.5	Lt.	137.5
Totals				275.0

DRAINAGE QUANTITIES F-1042(7)

See Sheet No. / Reference No. or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure "E" Cu.Yd.	I-2 8" Class "A" Storm Sewer Lin.Ft.	I-2 15" Storm Sewer M-6.5(b) or M-6.8(b) Lin.Ft.	I-2 18" Storm Sewer M-6.5(a) or M-6.8(a) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-5 8", 90° Ell for Class "A" Storm Sewer Ea.	I-5 8" Tee for Class "A" Storm Sewer Ea.	I-8 No. 4 C.B. Ea.	L-10 Sodding Sq.Yd.
1-D	1037+00	1040+48	Lt.					696				
2-D	1037+00	1040+48	Rt.					696				
3-D	1037+60	1038+76	Lt.	0.60			116					
4-D	1038+57	1039+57	Rt.	0.60			100					
5-D	1040+50		Lt. & Rt.	0.26	126	99			3	2	1	14
6-D	1040+50	1041+00	Lt.					100				
7-D	1040+50	1041+00	Rt.					100				
Totals				1.46	126	99	216	1592	3	2	1	14



MICROFILMED
MAR 20 1965

SEP 15 1960
Rev. 7-27-60 R.E.C.

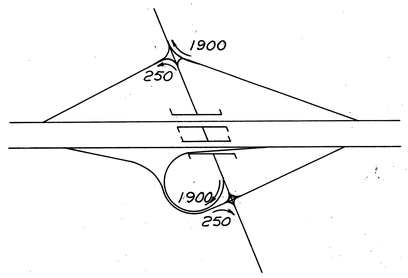
1037 to 1047

PLANET — PLAN-PROFILE 8 P.R. STANDARD
THE FREDERICK POST CO., Chicago 2814

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

39
235

ERI-G-11.30



TRAFFIC DATA - A.D.T.

Current traffic, 1958, shown above;
Those movements not shown
considered to be negligible.
(Data by Planning and Survey, Oct. 31, 1958)

N

Scale: 1" = 100'

℄ Survey & ℄ Construction
U.S. 250

877+70.36
Decel. Lane
880+10
881+10
℄ Survey & ℄ Construction
U.S. G & S.R. 2 (Reloc.)
880
885
Match Line
(See Below)
Accel. Lane
Width of Accel. Lane varies
uniformly from 25' at Sta. 875+72.00
to 0' at Sta. 885+12.03 (1100')
P.T. 884+30.48 Bk.
= 882+70.51 Ah.
885+12.03

53+00, ℄ Survey U.S. 250
= 14+79.78, ℄ Ramp "A"
= 0+00.00, ℄ Ramp "B"
P.C. = 1+00.00
40'R.
50'R.
R=40'℄5'
R=50'℄5'
70°-00'
90°-00'
D_c = 4°-00'
RAMP "A"
RAMP "B"
P.T. 8+19.13
P.C. 10+19.13
C.S. 13+84.54
S.C. 15+34.54 (Back)
= 103.52' Lt. of 873+10.12
℄ U.S.G Reloc. (Ahead)
L_s = 150'
D_c = 1°-00'
Decel. Lane
P.T. 78' Lt. of 877+70.36

91.00' Lt. of 844+25.10
℄ U.S.G Reloc. (Back)
= 0+00 ℄ Ramp "A" (Ahead)
P.C. = 3+00.00
P.T. = 8+50.16
D_c = 4°-00'

℄ Survey & ℄ Construction
U.S.G & S.R.2 (Reloc.)
Sta. 860+35.68 ℄ Survey U.S.G Reloc.
Sta. 47+98.66 ℄ Survey U.S. 250
66°-48'-00"
50

845
850
855
860
865
870
875
24' 42' 24'

Match Line
(See Below)
844+50
845+50
12'
D_c = 1°-30'
Decel. Lane
78' Rt. of 847+89.63
105.52' Rt. of 852+47.36
℄ U.S. G Reloc. (Back)
= C.S. 0+00 ℄ Ramp "D" (Ahead)
L_s = 170'
S.C. = 1+70.00
250 R.
P.T. = 3+40.88
RAMP "D"
RAMP "E"
L_s = 180'
T.S. = 3+00.00
S.C. = 4+80.00
250 R.
P.T., 16+74.20
℄ Ramp "E"
= 39.22' Lt. of 45+17.74
℄ Survey U.S. 250
8+78.72 ℄ Ramp "E" (Bk.)
= 18.5' Lt. of 8+78.72
℄ Ramps "D" & "E" (Ah.)
13+00.48
℄ Ramp "E" (Ah.)
= 18.5' Lt. of 13+00.48
℄ Ramps "D" & "E" (Bk.)
5+55.67 ℄ Ramp "D" (Bk.)
= 18.5' Rt. of 8+78.72
℄ Ramps "D" & "E" (Ahead)
0+00 ℄ Ramp "E" (Bk.)
= 91.00' Lt. of 862+51.92
℄ U.S.G Reloc. (Ahead)
85°-27'-06"
R=40'℄5'
50'R.
40'R.
42+49.69 ℄ Survey U.S. 250
= 0+00 ℄ Ramp "C"
= 15+88.98 ℄ Ramp "D"
90°-00'
13+00.48
18.5' Rt. of 13+00.48
℄ Ramps "D" & "E" (Ah.)
= 0+00.48 ℄ Ramp "D"
PLUM BROOK
RAMP "C"
P.C. 5+11.23
P.C.C. 11+03.16
D_c = 4°-00'
D_c = 1°-30'
P.C. +23.34
+57.92 G.R.21.
Accel. Lane
P.C.C. 14+03.16 (Back)
= 91.00' Rt. of 875+72.00
℄ U.S.G Reloc. (Ahead)
Match Line
(See Above)

832+25.10
P.T. 833+65.53
Width of Accel. Lane varies
uniformly from 0' at Sta. 832+25.10
to 25' at Sta. 844+25.10
844+25.10
Accel. Lane
835
840
24' 42' 24'
℄ Survey & ℄ Construction
U.S.G & S.R.2 (Reloc.)
Match Line
(See Above)

CURVE DATA

Δ	= 5°-38'-00" Rt.
D	= 0°-28'
R	= 12,277.67'
T	= 604.06'
L	= 1207.14'
E	= 14.85'
P.C.	= 872 + 23.34
P.I.	= 878 + 27.40
P.T.	= 884 + 30.48 Back
	= 882 + 70.51 Ahead

Note: For Construction Details of Ramps
See Sheet No's. 44 to 48.

SEP 15 1960

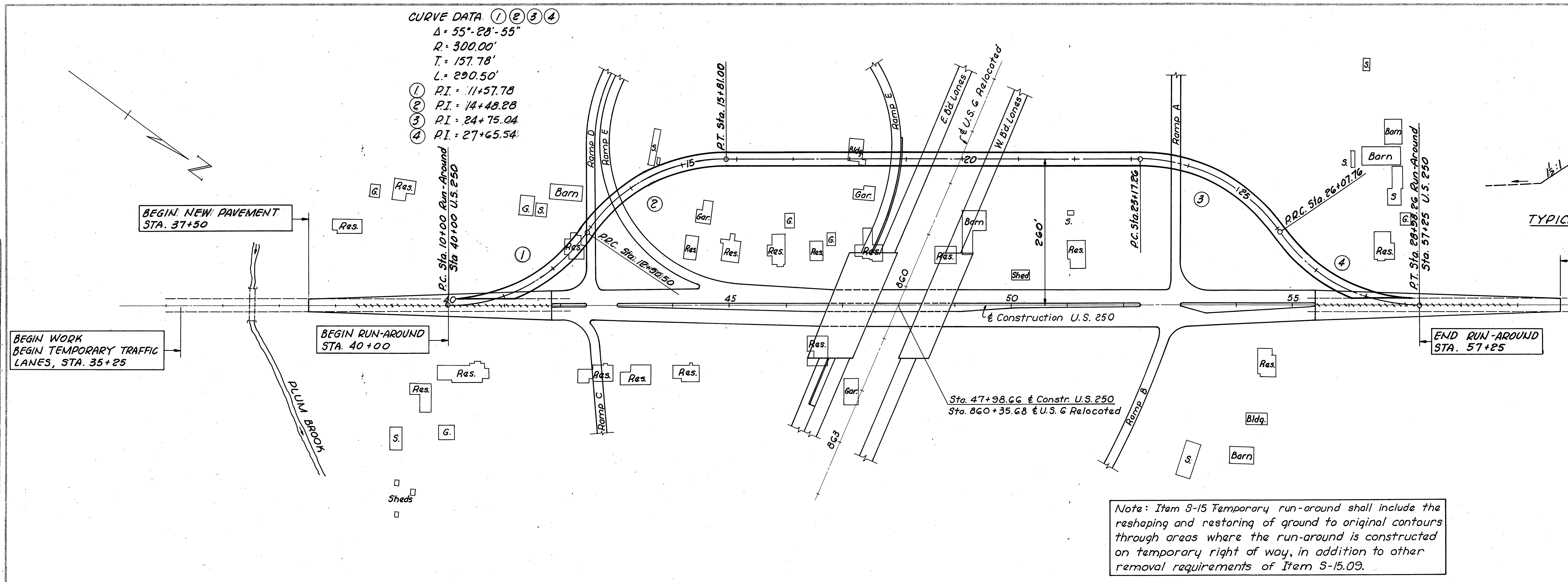
SANZENBACHER, MILLER & BRIGHAM TOLEDO, OHIO

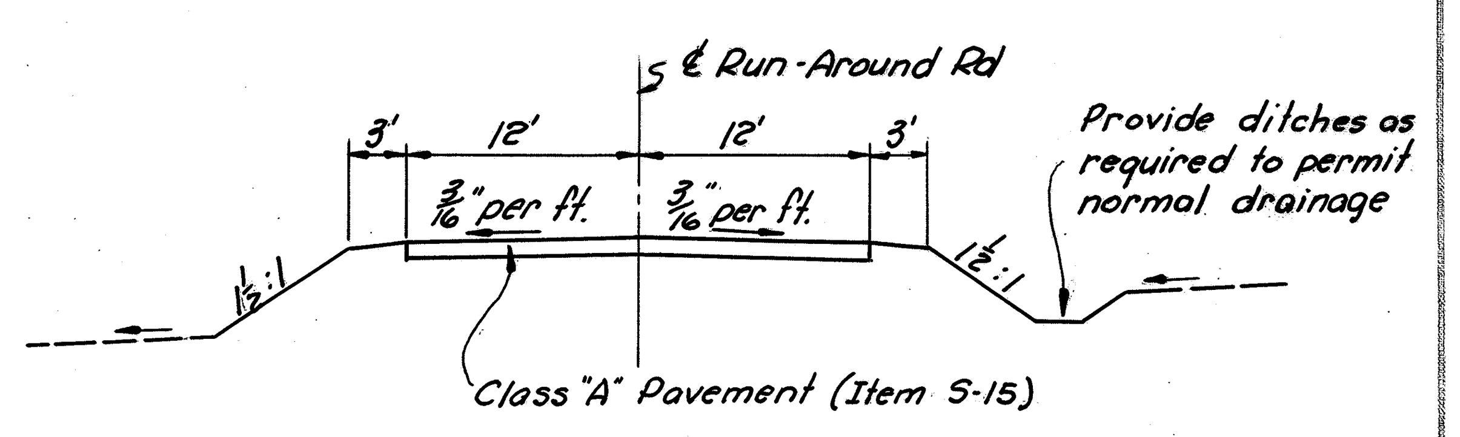
U.S. 250 Interchange General Plan

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

40
235

ERI. 6-11.30





TYPICAL SECTION TEMPORARY RUN-AROUND

ESTIMATED QUANTITIES

Item S-15 Temporary Run-Around Road, using Class "A" Pavement, as per plan. — Lump Sum

Item T-10 Traffic compacted surface course for Temporary Traffic Lanes — 450 Cu. Yds.

Item M-10 Calcium chloride furnished and applied for Temporary Traffic Lanes — 9 Tons

Note: Item S-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 S-15.09.

PLAN		BY	DATE
NOTE BOOK	SURVEYED	SMB	1958
NO.	PLOTTED	RNG	4-60
	ALIGNMENT CHECKED	EDS	4-60
	RT. OF WAY CHECKED	EDS	4-60

PROFILE		BY	DATE
NOTE BOOK	SURVEYED	SMB	1958
NO.	PLOTTED	RNG	4-60
	GRADES CHECKED	EDS	4-60
	B. M.'s NOTED		
	STRUCTURE NOTATIONS CH'KD.		

SEP 15 1960

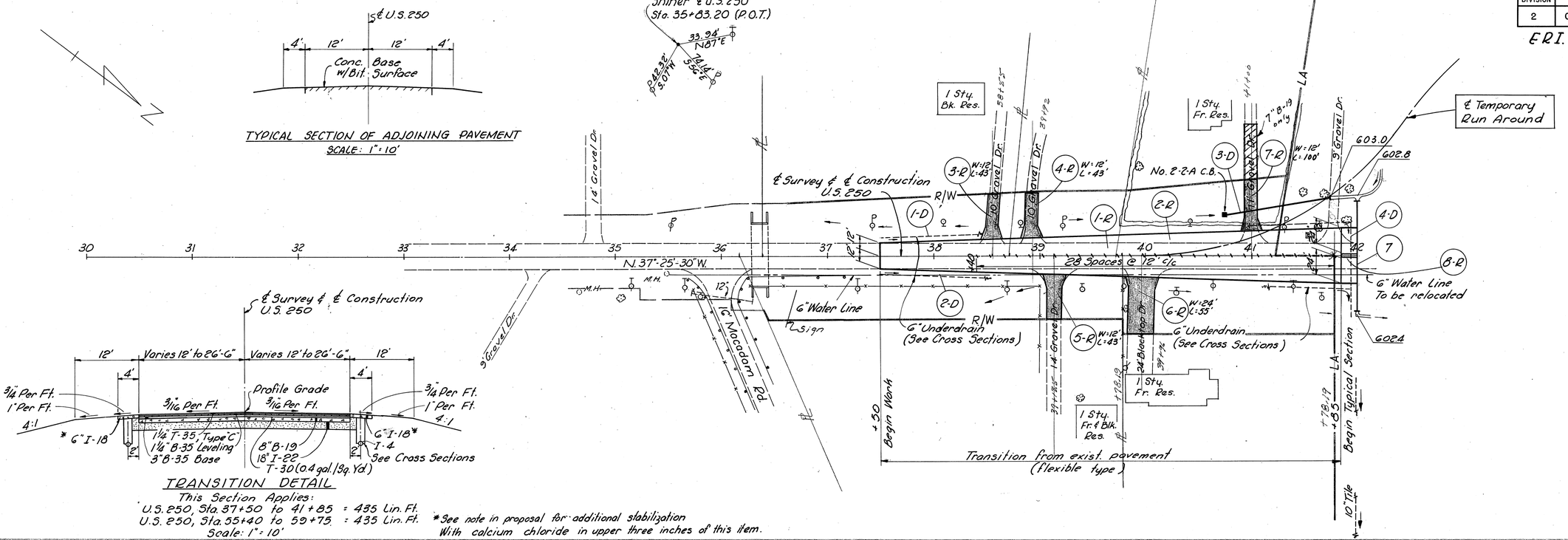
PLATE I—PLAN-PROFILE B. P. R. STANDARD

U.S. 250 RUN-AROUND

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

41
235

ERI. G-11.30.



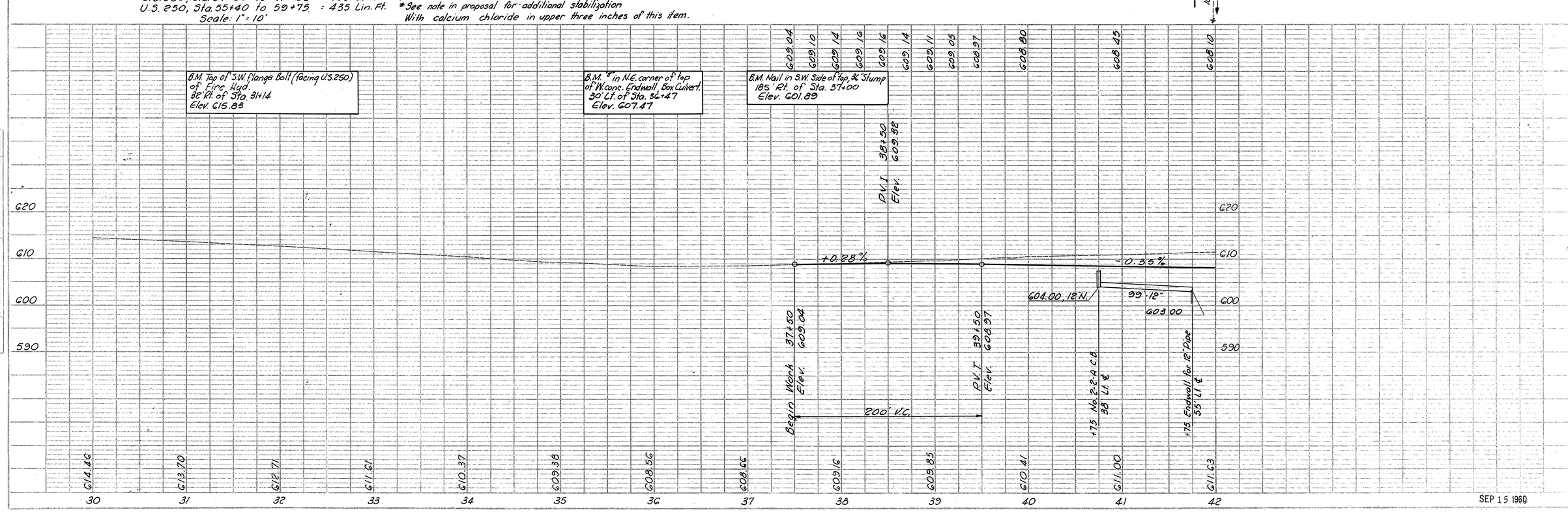


PLATE I—PLANS PREPARED IN B.P.R. STANDARD
THE FREDERICK POST CO., CHICAGO 1954

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

42
235

ERI. G-11.30

DATE	10-58	9-59	4-60	4-60
BY				
ENG.	9-60	4-60		
3MG	203			
2MG	205			

PLAN
SURVEYED:
PLOTTED:
SLOPES CHECKED:
ALIGNMENT CHECKED:
NOTE BOOK: RT. OF WAY CHECKED:
NO.:

℄ Temporary Run Around
604.6
"PK" Nail ℄ U.S. 250 Sta. 47+98.66 (P.O.T.)
S 58.75 W 32.95
S 5°14' W
12" Cherry
S 52.6° S 05°W
18" Cedar
6032
"PK" Nail ℄ U.S. 250 Sta. 50+00.00 (P.O.T.)
N 51.7° W 49.29
N 05°W
S.E. Post of Fruit Stand
37.68
S 52°W
S.E. Cor. Gas Pump Base
602.9
-0.3%
RAMP D
RAMP E
604.2
Gravel
602.8
R/W
603.1
See Ramp E for Quantities
Fr. Gar.
2 sty. Fr. Res.
9' Gravel Dr.
10' Gravel Dr.
1 sty. Fr. Res.
11' Gravel Dr.
1½ sty. Fr. Res.
Fr. Barn
Shed
Fr. Shed
602.0
8-D
9-D
10-D
11-D
9-P
1-P
2-P
5-D
6-D
7-D
8-P
7
8
9
10
11
12
42
43
44
45
46
47
48
49
50
51
52
53
54
N 37°-25'-30" W.
1:2.1
30:1 Taper (42+90 to 46+50)
6" Underdrain (See Cross Sections)
-0.2%
601.0
12" Asphalt Dr.
1 sty. Fr. Res.
-0.4%
602.4
RAMP C 2
LA
Abandon
Remove Under E-1
N 6 22-8 C.B.
6" Water Line
℄ Survey ℄ Construction U.S. 250
+0.2%
To be relocated
600.0
Sta. 47+98.66 ℄ U.S. 250
Sta. 860+35.68 ℄ U.S. 6 Relocated
Shed
Cement Blk. Gar.
6" Tile (exist.) (Abandon)
600.8
See Pavement details on Sheet 48.
-0.7%
-0.5%
600.4
RAMP A
℄ Temporary Run Around
600.1
599.7
599.3
599.4
+0.2%
RAMP B
Edge of 10' Gravel Dr.

PROFILE
SURVEYED:
PLOTTED:
SLOPES CHECKED:
ALIGNMENT CHECKED:
NOTE BOOK: STRUCTURE NOTES GIVEN:
NO.:

B.M. R.R. Spike in W. face, Power Pole 40' Rt. of Sta. 42+16 Elev. 612.49
B.M. Top of S.W. Flange Bolt, Fire Hyd. 27' Rt. of Sta. 47+25 Elev. 616.95
B.M. R.R. Spike in, Power Pole 30' Lt. of Sta. 52+35 Elev. 613.44
608.10
607.75
607.40
607.05
606.70
606.35
606.18
606.11
606.07
606.06
606.05
606.18
606.36
606.54
606.72
606.90
607.08
620
610
600
590
100' V.C.
-0.35%
+0.18%
24" Concrete Culvert Pipe
Inv. 602.80 Lt.
Inv. 602.40 Rt.
24" Concrete Culvert Pipe
Inv. 602.00 Lt.
Inv. 601.00 Rt.
PVI 48+00
Elev. 606.00
76" x 48" Elliptical Conc. culv. pipe
Inv. 599.70 Lt.
Inv. 599.30 Rt.
611.63
612.12
612.52
612.76
613.01
613.19
613.43
613.62
613.87
613.87
613.27
612.31
611.29
42
43
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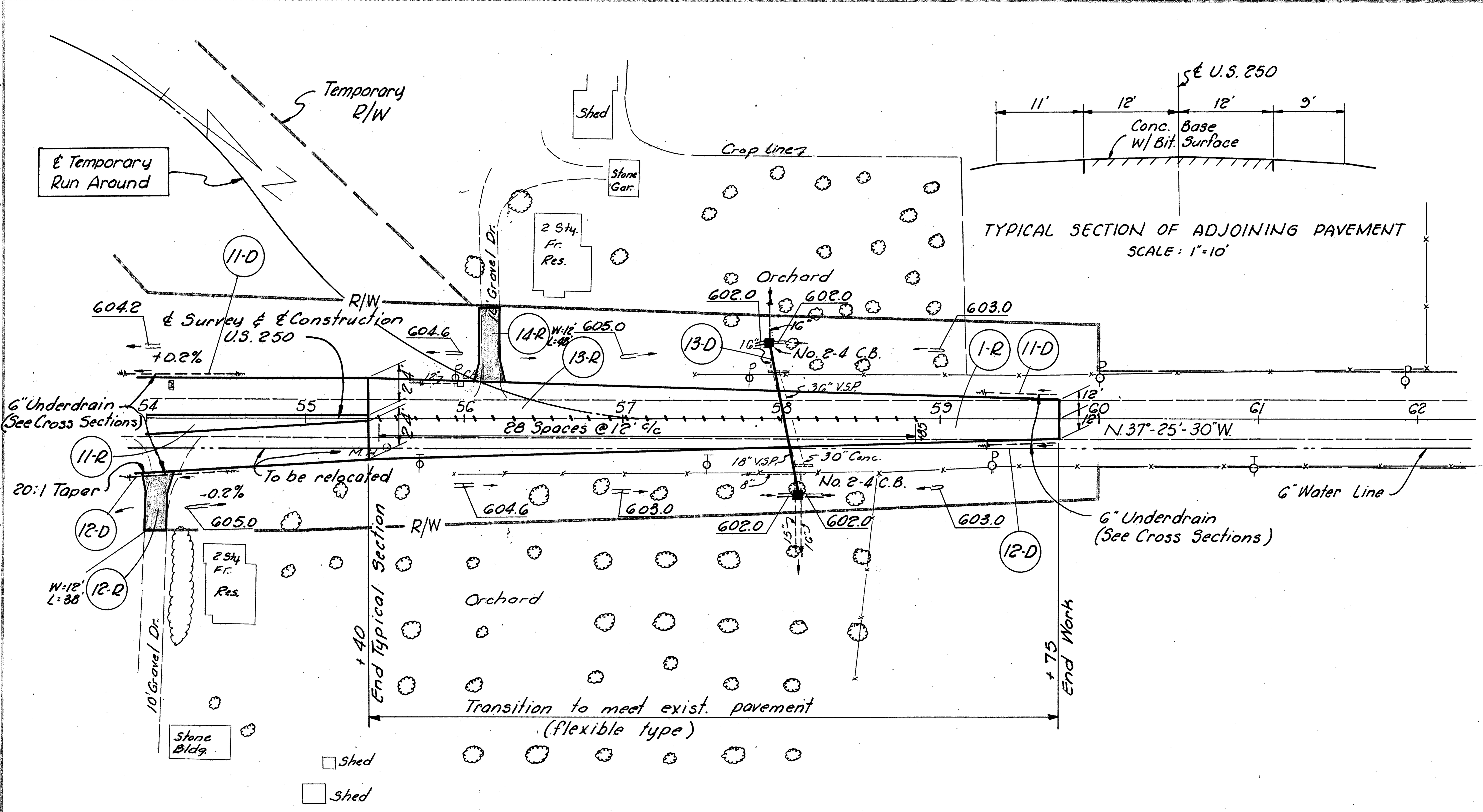
SEP 15 1960

PLATE 1—PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO., Chicago 2014

42+00 - 54+00 U.S. 250

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30

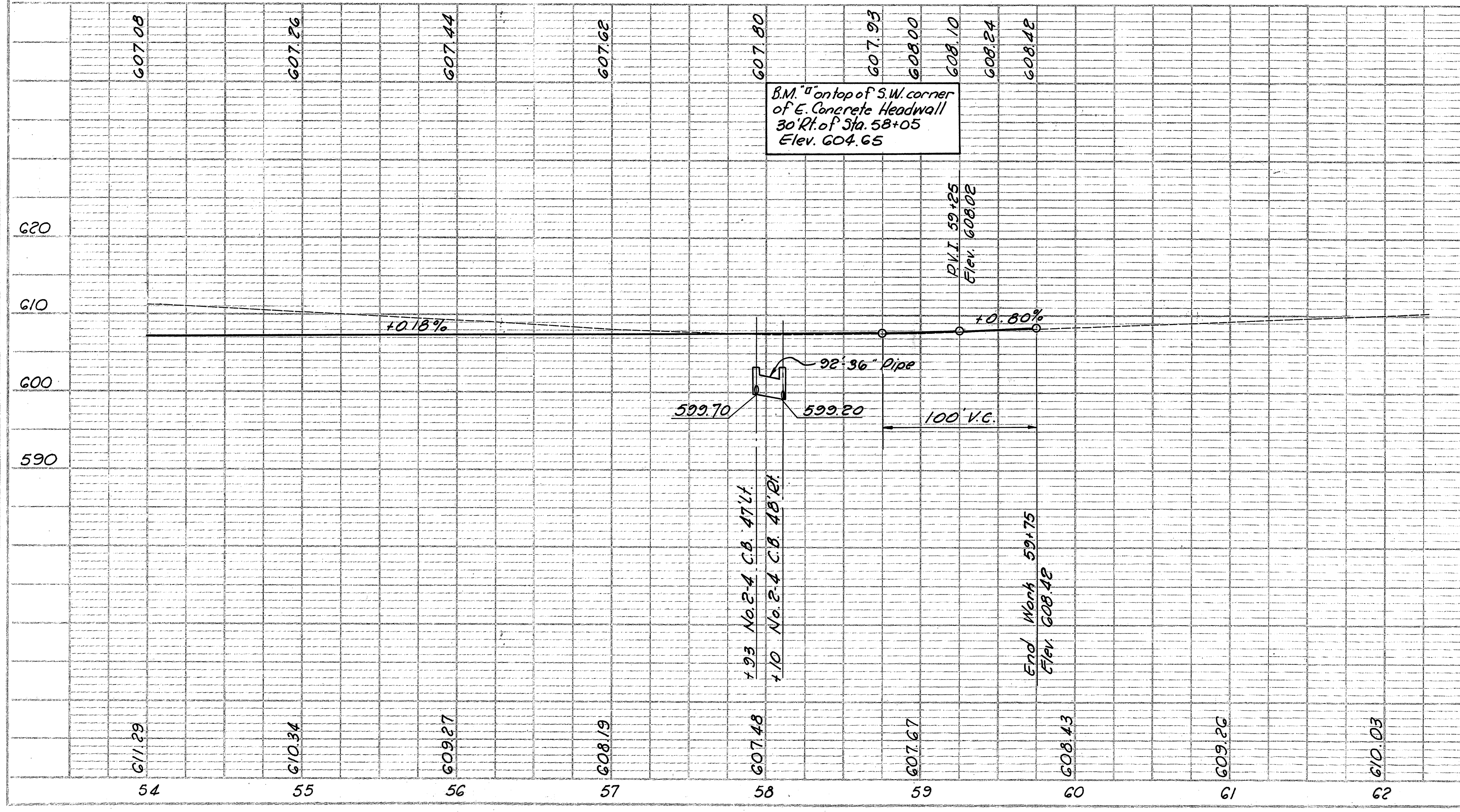


ROADWAY QUANTITIES

F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-8 Removal & Disposal of Exist. Pav't.	B-19 Aggregate Base Course	B-35 Asphaltic Conc. Base Course	B-35 Asphaltic Conc. Leveling Course	B-219 3" Waterproof Agg. Base Course	T-30 Bit. Prime Coat	T-31 Bit. Surface Treatment	T-35 Asphaltic Conc. Surface Course, Type C	T-71 9" Reinf. P.C. Conc. Pav't.	I-12 Type B-A Curb	I-12 Type G Curb	I-18 Stabilized Crushed Aggr. Shoulders	I-21 4" P.C. Conc. Med. Pavt.	I-22 Subbase	I-23 Precast Conc. Traffic Dividers	E-1 Compacted Subgrade	Spec. Mixing CaCl. and Crushed Aggregate	No. Fed. Partic. T-35 Asphaltic Conc. Surface Course, Type C
					Sq.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.	Sq.Yd.	Gal.	Sq.Yd.	Cu.Yd.	Sq.Yd.	Lin.Ft.	Lin.Ft.	Cu.Yd.	Sq.Yd.	Cu.Yd.	Ea.	Sq.Yd.	Sq.Yd.	Cu.Yd.
	1-R	37+50	59+75	Lt.&Rt.	5933.3																	
41	2-R	37+50	41+85	Lt.&Rt.		413.5	155.1	64.6		744.3		64.6						930.3	29	2005.8	387	
68	3-R	38+55		Lt.		8.7						1.2										2.3
68	4-R	38+92		Lt.		8.7						1.2										2.3
68	5-R	39+13.5		Rt.		8.7						1.2										2.3
68	6-R	39+96		Rt.		21.1						8.4										
68	7-R	41+00		Lt.		22.9						1.2										2.7
	8-R	41+85	42+40	Lt.&Rt.										114			12.2	17.4				
67	2-P			Lt.&Rt.					88.9		88.9		226.0		30	12.9	3.9	146.4		264.0		
	9-R	43+00	52+30	Lt.&Rt.										1865			255.4	94.2				
	10-R	44+58	46+85	Lt.									232.7					116.4		232.7		
67	1-P			Lt.&Rt.					75.9		75.9		213.6			11.0		126.9		248.0		
	11-R	53+00	55+40	Lt.&Rt.										485			180.0	255.0				
68	12-R	54+06		Rt.		7.8						1.2										1.9
41	13-R	55+40	59+75	Lt.&Rt.		413.5	155.1	64.6		744.3		64.6						930.3	29	2005.8	387	
68	14-R	56+15		Lt.		9.6						1.2										2.7
	Totals				5933.3	914.5	310.2	129.2	164.8	1488.6	164.8	144.8	672.3	2464	30	23.9	451.5	2616.9	58	4756.3	*774	14.2

* Use 0.8 Tons Item M-10 Calcium Chloride Furnished and Applied.



DRAINAGE QUANTITIES

F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure	S-1 Conc. for Structure Class "E"	S-27 24" Pipe for Roadway Culv. M-6.6(c)	S-27 76"x48" Reinf. Ellip. Conc. Culv. Pipe M-206.6(b)	I-2 12" Storm Sewer M-6.5(a) or M-6.8(a)	I-2 36" Storm Sewer M-6.6(a) or M-6.8(b)	I-2 12" Storm Sewer M-6.5(b) or M-6.8(b)	I-4 6" Underdrain (Deep)		I-4 6" C.M.P. X-over Outlet	I-4 8" C.M.P. Outlet	I-5 6" 90° Ell for Underdrain	I-5 6" on 6" Tee for Underdrain	I-5 8" 90° C.M.P. Ell.	I-5 8" on 8" C.M.P. Tee	I-8 No. 2-2B C.B.	I-8 No. 2-4 C.B.	L-10 Sodding	I-8 No. 2-2A C.B.
					Cu.Yd.	Cu.Yd.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.		Lin.Ft.	Lin.Ft.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Sq.Yd.	Ea.
	1-D	37+50	41+95	Lt.								445											
	2-D	37+50	41+95	Rt.								445											
	3-D	40+75	41+75	Lt.		0.23			99														1
	4-D	41+95		Lt.&Rt.											82			1	1				
71	7	42+00		Lt.&Rt.	70	0.82	108																
	5-D	42+02	45+70	Rt.								368											
	6-D	42+02	45+70	Lt.								366		20		1	1						
	7-D	45+70		Lt.&Rt.											96			1	1				
71	8	45+75		Lt.&Rt.	81	0.82	124																
	8-D	45+77	53+45	Lt.								786			10		1						
	9-D	45+80	53+45	Rt.								802			20	1	1						
	10-D	49+10		Rt.		0.23					66									1		15	
71	9	53+50		Lt.&Rt.	278	4.4		114															
	11-D	53+55	59+75	Lt.								630			10	1							
	12-D	53+55	59+75	Rt.								630			10	1							
	13-D	57+93	58+10	Lt.&Rt.						92											2		
	Totals				429	6.50	232	114	99	92	66	4472		20	228	4	3	2	2	1	2	15	1

SEP 15 1960

Rev. 7-6-60 R.E.C.

54+00 - 59+75 U.S. 250

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-12 Special P.C. Conc. Curb Full Width (Lin. Ft.)	I-22 Subbase (Cu. Yd.)	I-12 Special P.C. Conc. Curb Part Width (Lin. Ft.)
	1-R	0+00	5+50	Rt.	418	10.2	132
	Totals				418	10.2	132

ROADWAY QUANTITIES F-1042(7)

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure (Cu. Yd.)	S-1 Conc. for Structure Class "E" (Cu. Yd.)	S-27 24" Pipe for Roadway Culvert M6.6(b) or M6.8(b) (Lin. Ft.)	I-4 6" Underdrain (Shallow) (Lin. Ft.)	I-4 8" C.M.P. Outlet (Lin. Ft.)	I-5 6", 90° Ell for Underdrain (Ea.)	L-10 Sodding (Sq. Yd.)
	1-D	0+00	13+95	Lt.				1410	10	1	
	2-D	0+00	2+00	Lt.							133
	3-D	11+00	14+28	Lt.							224
70	2	14+00		Lt.&Rt.	46	0.82	68				
	4-D	0+57		Lt.					36		
	Totals				46	0.82	68	1410	46	1	357

SEP 15 1960

U.S 250 Interchange Ramp A

FED., R.D. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

45/235

ERI. G-11.30

Curve II
Δ = 28°-45'-55" Rt.
D = 4°-00'
R = 1432.39'
T = 367.31'
L = 719.13'
E = 46.35'
P.C. = 1+00.00
P.I. = 4+67.31
P.T. = 8+19.13
Superelevation = 0.015G ft./ft.
Rotate about Lt. edge of pavement

Curve III
Δ = 14°-36'-59" Lt.
D = 4°-00'
R = 1432.39'
T = 183.70'
L = 365.41'
E = 11.73'
P.C. = 10+19.13
P.I. = 12+02.83
C.S. = 13+84.54
Superelevation = 0.042 ft./ft.
Rotate about Lt. edge of pavement

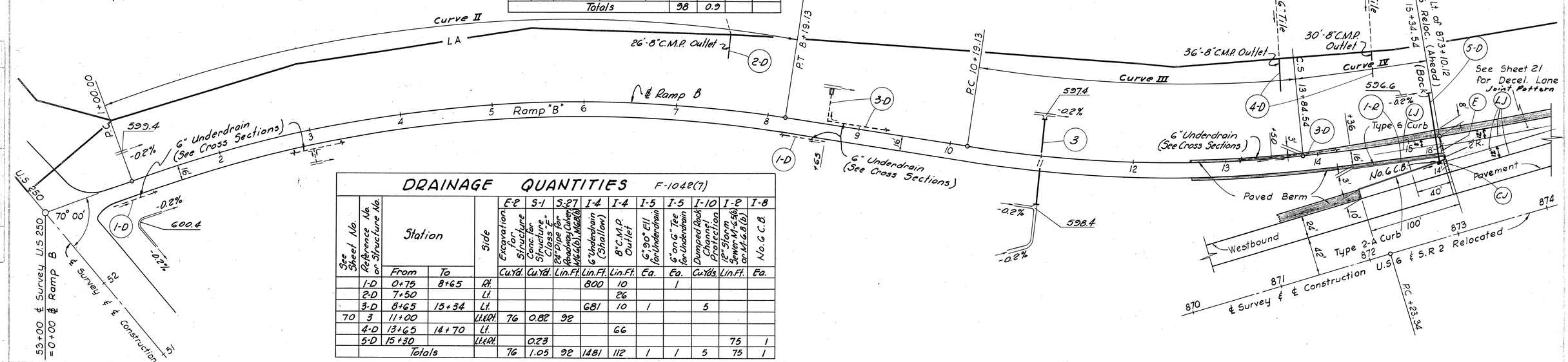
Curve IV
L_s = 150'
θ = 3°-45'-00" Lt.
L.T. = 90.03'
S.T. = 60.02'
L.C. = 149.98'
C.S. = 13+84.54
S.C. = 15+34.54
Superelevation varies from 0.042 to 0.0156 ft./ft.
Rotate about Lt. edge of pavement

ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-12 Type 6 Curb Lin.Ft.	I-22 Subbase Cu.Yd.		
	1-R	14+36	15+34	Rt.	98	0.9		
Totals					98	0.9		

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu.Yd.	S-1 Conc. for Structure Class "E" Cu.Yd.	S-27 24" Pipe for Roadway Culvert M.6.6(b), M.6.8(b) Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 8" C.M.P. Outlet Lin.Ft.	I-5 6"-90° Ell for Underdrain Ea.	I-5 6"-on-6" Tee for Underdrain Ea.	I-10 Dumped Rock Channel Protection Cu.Yds.	I-2 12" Storm Sewer M.6.2(b) or M.6.8(b) Lin.Ft.	I-8 No. G C.B. Ea.
	1-D	0+75	8+65	Rt.				800	10		1			
	2-D	7+50		Lt.					26					
	3-D	8+65	15+34	Lt.				681	10	1		5		
70	3	11+00		Lt.&Rt.	76	0.82	92							
	4-D	13+65	14+70	Lt.					66					
	5-D	15+30		Lt.&Rt.		0.23							75	1
Totals					76	1.05	92	1481	112	1	1	5	75	1



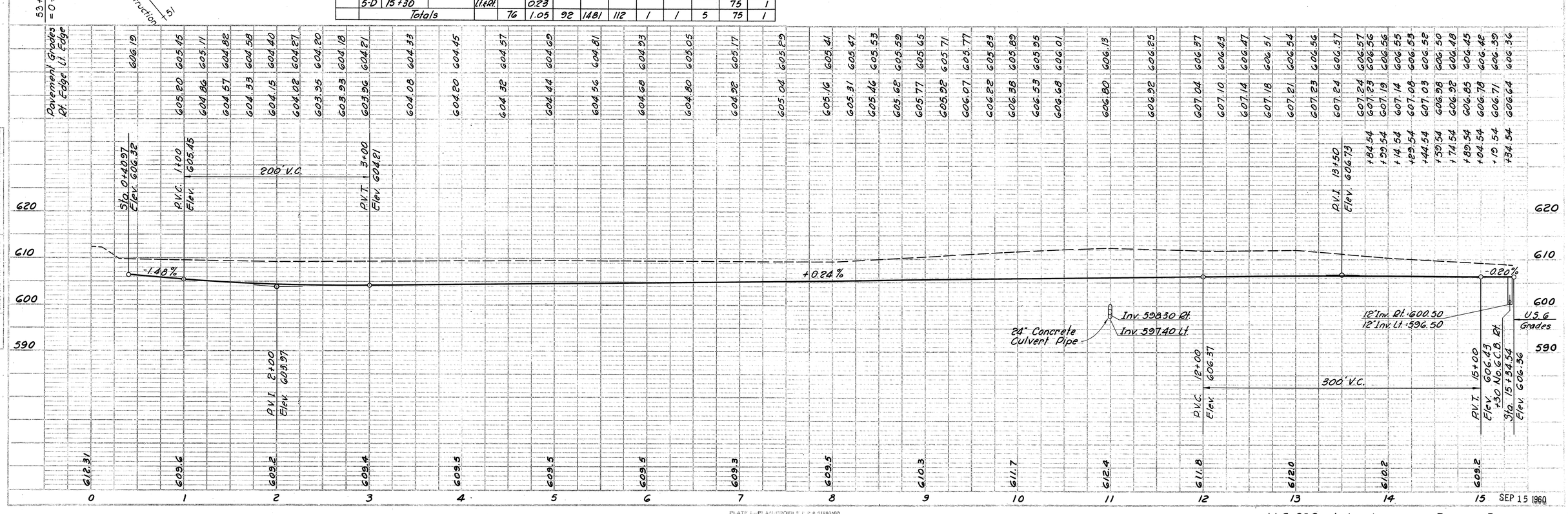
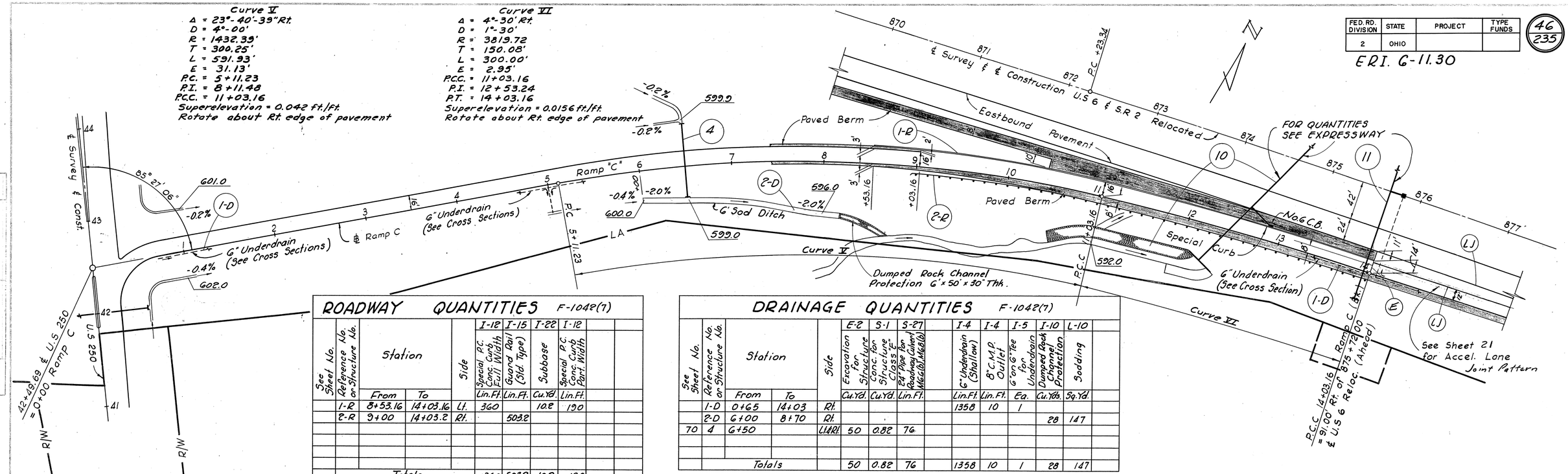


PLATE I—PLAN-PROFILE F.P.R. STANDARD
THE FREDERICK POST CO., CHICAGO

SEP 15 1960

U.S 250 Interchange Ramp B



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30

Curve V
Δ = 23°-40'-39" Rt.
D = 4°-00'
R = 1432.39'
T = 300.25'
L = 591.93'
E = 31.13'
P.C. = 5+11.23
P.I. = 8+11.48
P.C.C. = 11+03.16
Superelevation = 0.042 ft./ft.
Rotate about Rt. edge of pavement

Curve VI
Δ = 4°-30' Rt.
D = 1°-30'
R = 3819.72
T = 150.08'
L = 300.00'
E = 2.95'
P.C.C. = 11+03.16
P.I. = 12+53.24
P.T. = 14+03.16
Superelevation = 0.0156 ft./ft.
Rotate about Rt. edge of pavement

ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-12 Special P.C. Conc. Curb Full Width Lin.Ft.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-22 Subbase Cu.Yd.	I-12 Special P.C. Conc. Curb Part. Width Lin.Ft.		
	1-R	8+53.16	14+03.16	Lt.	360		10.2	190		
	2-R	9+00	14+03.2	Rt.		503.2				
	Totals				360	503.2	10.2	190		

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu.Yd.	S-1 Conc. for Structure Class "E" Cu.Yd.	S-27 24" Pipe for Roadway Culvert M6.6(b), M6.8(b) Lin.Ft.		I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 8" C.M.P. Outlet Lin.Ft.	I-5 6" on 6" Tee for Underdrain Ea.	I-10 Dumped Rock Channel Protection Cu.Yds.	L-10 Sodding Sq.Yd.	
	1-D	0+65	14+03	Rt.					1358	10	1			
	2-D	6+00	8+70	Rt.								28	147	
70	4	6+50		Lt.&Rt.	50	0.82	76							
	Totals				50	0.82	76		1358	10	1	28	147	

SEP 15 1960

U.S 250 Interchange Ramp C

See Sheet 21 for typical continuation of deceleration lane joint pattern

Curve VII
L_s = 170'
θ = 20°-45'-20" Rt.
L.T. = 110.95'
S.T. = 60.93'
L.C. = 169.31'
C.S. = 0+00.00
S.C. = 1+70.00
Superelevation varies from 0.0156 to 0.083 ft./ft.
Rotate about Rt. edge of pavement

Curve VIII
Δ = 39°-09'-43" Rt.
R = 250.00'
T = 88.93'
L = 170.88'
E = 15.35'
P.C. = 1+70.00
P.I. = 2+58.93
P.T. = 3+40.88
Superelevation = 0.083 ft./ft.
Rotate about Rt. edge of pavement

Curve XI
Δ = 90°-00'-00" Lt.
R = 268.50'
T = 268.50'
L = 421.76'
E = 111.22'
P.C. = 8+78.72, ℄ Ramps D & E
P.I. = 11+47.22, ℄ Ramps D & E
P.T. = 13+00.48, ℄ Ramps D & E
Superelevation = 0.083 ft./ft.
Rotate about median edge of pavement

ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Ramp	I-12 Type 6 Curb (Lin. Ft.)	I-21 4" P.C. Conc. Med. Pav't. (Sq. Yd.)	I-22 Subbase (Cu. Yd.)	I-12 Type 2-A Curb (Lin. Ft.)	I-15 Guard Rail (Std. Type) (Lin. Ft.)	I-7 Reinf. Conc. Appr. Slab (T = 13") (Sq. Yd.)	I-12 Special P.C. Conc. Curb Full Width (Lin. Ft.)	E-1 Compacted Subgrade (Sq. Yd.)	I-12 Special P.C. Conc. Curb Part Width (Lin. Ft.)
	1-R	0+00	0+95	D	95		0.9						
	2-R	8+78.72	13+65	D&E		108.1	51.5	973					
	3-R	0+00	0+67	E					67.0				
	4-R			E			7.1			42.5		42.5	
	5-R			E			9.7			58.1		58.1	
	6-R	2+75	5+62.5	E					287.5				
	7-R	2+83	5+00	E			4.0				110		107
	8-R	15+20	16+00	E	160		0.7						
	9-R	0+00	0+95	E			1.8				95		
Totals					255	108.1	75.7	973	354.5	100.6	205	100.6	107

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Ramp	E-2 Excavation for Structure (Cu. Yd.)	S-1 Conc. for Structure Class "E" (Cu. Yd.)	S-27 15" Pipe for Roadway Culvert M6.6(b), M6.8(b) (Lin. Ft.)	S-27 18" Pipe for Roadway Culvert M6.6(b), M6.8(b) (Lin. Ft.)	I-4 6" Underdrain (Shallow) (Lin. Ft.)	I-4 6" Underdrain (Deep) (Lin. Ft.)	I-4 6" C.M.P. (Outlet) (Lin. Ft.)	I-4 8" C.M.P. Outlet (Lin. Ft.)	I-2 12" Storm Sewer M6.5(b), M6.8(b) (Lin. Ft.)	I-5 6", 90° Ell for Underdrain (Ea.)	I-5 6" on 6" Tee for Underdrain (Ea.)	I-8 No. 6 C.B. (Ea.)	I-14 Type A Paved Gutter (Lin. Ft.)	L-10 Sodding (Sq. Yd.)
	1-D	0+00	5+56	D					556									
	2-D	8+79	14+95	D						726	20	10		2	1			
	3-D	2+75	8+79	D&E					744		20	10		1	1			
	4-D	8+79	16+20	E					741									
	5-D	12+00	15+37	D													50	214
	6-D	13+70	14+55	D&E														77
70	5	15+00		D	22	0.52	60											
	7-D	0+00	0+85	E					85									
	8-D	1+90	6+05	E														225
71	6	6+00		E	68	0.60		132										
	9-D	0+05		D		0.23							69			1		
Totals					90	1.35	60	132	2126	726	40	20	69	3	2	1	50	516

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

48
235

ERI. G-11.30

Curve IX
L_s = 180'
θ_s = 20°-37'-35" Lt.
X_c = 177.68'
Y_c = 21.40'
L.C = 178.97'
T.S = 3+00.00
S.C = 4+80.00
Superelevation varies from 0.0156 to 0.083 ft./ft. Rotate about Lt. edge of pavement.

Curve X
Δ = 91°-22'-48" Lt.
R = 250.00'
T = 256.10'
L = 398.72'
E = 107.89'
P.C = 4+80
P.I = 7+36.10
P.T = 8+78.72
Superelevation = 0.083 ft./ft.
Rotate about Lt. edge of pavement.

Curve XI
Δ = 85°-39'-04" Lt.
R = 250.00'
T = 231.71'
L = 373.72'
E = 90.87'
P.C = 13+00.48
P.I = 15+32.19
P.T = 16+74.20
Superelevation = 0.083 ft./ft.
Rotate about Lt. edge of pavement.

SEE U.S. 250 FOR QUANTITIES

See Sheet 19 for Accel. Lane
See Sheet 21 for typical cross section of acceleration lane & joint pattern.

9.00' Rt. of 862+57.92 ℄ U.S 6 Reloc. = 0+00 ℄ Ramp E

601.0 +0.2% 602.0 +70

6" Underdrain (See Cross Sections)

℄ Survey & Construction U.S 250

18.50' Lt. 8+78.72 ℄ Ramps D & E (Ah.) = 8+78.72 ℄ Ramp E (Bk.)

608.0 +0.2% +26 +78.72

Paved Berm

Ramp D

See Sheet 47

Curve IX

5' Sod Ditch

T.S 3+00 +1.4%

S.C 4+80 +1.4%

℄ Ramp E

607.4 +0.2% +0.5

6" Underdrain (See Cross Sections)

Special Curb

608.6 +0.2%

608.4 -0.2%

Paved Berm

Eastbound Pavement

℄ Survey & Construction

Sta. 860+35.68 U.S 6 Reloc.
Sta. 47+98.66 U.S 250

U.S 6 & S.R 2 Reloc.

R/W

L A

L A

R/W

See Sheet 47

603.2 +0.3%

18.50' Lt. 13+00.48 ℄ Ramps D & E (Bk.) = 13+00.48 ℄ Ramp E (Ah.)

P.T 16+74.20 = 39.22' Lt. 45+17.74 ℄

Curve XII

602.0

Paved Berm

6" Underdrain (See Cross Sections)

℄ Ramp E

602.1 -0.3%

Ramp D

603.2

See Sheet 47

Type 6 Curb

Paved berm

602.2

Const. U.S 250

SEE U.S. 250 FOR QUANTITIES

℄ Survey

100'

Sta. 0+00 Ramp E
U.S. 6 Grades
P.V.C. Elev. 624.16
P.V.I. 1+50 Elev. 625.36
P.V.T. 3+00 Elev. 624.79
P.V.I. 5+00 Elev. 624.03
P.V.T. 7+00 Elev. 617.99
Sta. 8+78.78 (Ah.)
Ramps D & E
P.V.C. Elev. 603.59
P.V.I. 14+00.48 Elev. 604.95
P.V.T. 15+24.20 Elev. 605.99
P.V.I. 15+99.20 Elev. 606.62
P.V.T. 16+74.20 Elev. 606.44
Sta. 16+74.20 Ramp E
U.S. 250 Grades

+0.80% -0.38% -0.38% -3.02% -0.64% +0.84% -0.24%

300' V.C. 400' V.C. 200' V.C. 150' V.C.

18" Concrete Culvert Pipe
Inv. 608.40 Rt.
Inv. 607.40 Lt.

SEE SHEET 47 FOR DRAINAGE AND ROADWAY QUANTITIES

Pavement Grades
Rt. Edge Lt. Edge

FOR ALL ELEVATIONS ON STRUCTURE SEE STRUCTURAL DETAILS

	Pavement Grades Rt. Edge	Pavement Grades Lt. Edge
0	624.16	624.38
1	624.35	624.57
2	624.51	624.73
3	624.65	624.88
+75	624.87	625.12
+00	624.79	625.04
+18	624.71	625.09
+36	624.61	625.11
+54	624.49	625.18
+72	624.34	625.09
+90	624.18	625.06
+08	624.00	625.01
+26	623.79	624.92
(@18) +30	623.74	624.90
+44	623.56	624.67
+62	623.31	624.53
+80	623.04	624.37
4	622.71	624.04
	622.26	623.59
	621.78	623.11
	621.25	622.58
	620.68	622.01
	620.07	621.40
	619.42	620.75
	618.72	620.05
	617.99	619.32
	617.23	618.56
	616.48	617.81
	615.72	617.05
	614.97	616.30
	614.21	615.54
	613.46	614.79
	612.70	614.03
	612.55	613.92
	605.59	606.32
	605.46	606.19
	605.36	606.09
	605.32	606.05
	605.32	606.05
	605.37	606.10
	605.46	606.19
	605.60	606.33
	605.79	606.52
	605.85	606.87
	606.00	606.87
	606.18	606.90
	606.32	606.90
	606.42	606.85
	606.47	606.79
	606.48	606.48
	606.44	606.48

U.S 250 Interchange Ramp E

SEP 15 1960

PLOTTED - PLAN-PROFILE IN PLAN STANDARDS
THE PRESTRESS CO. Clifton

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

49
235

ERI 6-11.30

53+00 ℄ SURVEY U.S. 250
= 14+79.78 ℄ RAMP A

N

Match Line
See Ramp Cross Sections

RAMP "A"

℄ SURVEY ℄ CONSTRUCTION U.S.6 & S.R.2 RELOC.

WESTBOUND LANES

EASTBOUND LANES

℄ SURVEY ℄ CONST. U.S. 250

Sta. 860+35.68 U.S.6 Reloc.
Sta. 47+38.66 U.S. 250

42+49.69 ℄ SURVEY U.S.250
= 15+88.98 ℄ RAMP D

RAMP "E"

RAMP "D"

Cut

Match Line
See Ramp Cross Sections
Scale : 1" = 50'

TOTAL THIS SHEET:

Excavation	=	54,200 Cu. Yds.
Embankment	=	0 Cu. Yds.
Seeding	=	25,700 Sq. Yds.

SEP 15 1960

CONTOUR GRADING FOR N.W. & S.W. QUADRANTS OF U.S. 250 INTERCHANGE

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

50
235

ERI 6-11.30

53+00 ℄ Survey U.S. 250
= 0+00 ℄ Ramp B

℄ SURVEY ℄ CONSTR. U.S. 250

602.6 | 602.2 (Prop.) | 602.0 | 601.8 | 601.6 | 601.4 | 601.2 | 601.0 | 600.8 | 600.6 (Prop.) | 600.4

610 | 612 | 608 | 609

Cut

Match Line
See Ramp Cross Sections

RAMP "B"

602.0 (Prop.) | 601.8 | 601.6 | 601.4 | 601.2 | 601.0 | 600.8 (Prop.) | 600.6

WESTBOUND LANES

859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874

Sta. 860+35.68 U.S.6 Reloc.
Sta. 47+98.66 U.S.250

℄ SURVEY ℄ CONSTRUCTION U.S.6 & S.R.2 RELOC.

EASTBOUND LANES

RAMP "E"

603.0 | 602.8 | 602.6 | 602.4 (Prop.) | 602.2 | 602.0 | 601.7

610 | 603

Cut

603.2 | 603.4 | 603.6 | 602.8 (Prop.) | 602.6 | 602.4 | 602.2 | 602.0 (Prop.)

RAMP "C"

Match Line
See Ramp Cross Sections

42+49.69 ℄ SURVEY U.S.250
= 0+00 RAMP C

TOTAL THIS SHEET:

Excavation	= 66,400 Cu. Yds.
Embankment	= 0 Cu. Yds.
Seeding	= 27,100 Sq. Yds.

Scale: 1"= 50'

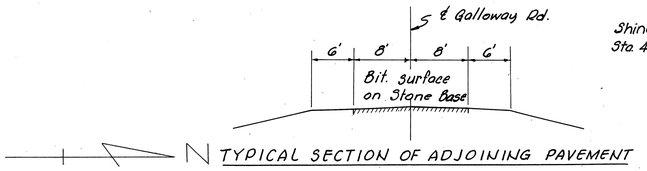
SEP 15 1960

CONTOUR GRADING FOR N.E. & S.E. QUADRANTS OF U.S. 250 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

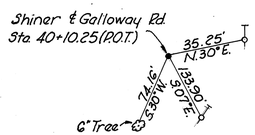
51
235

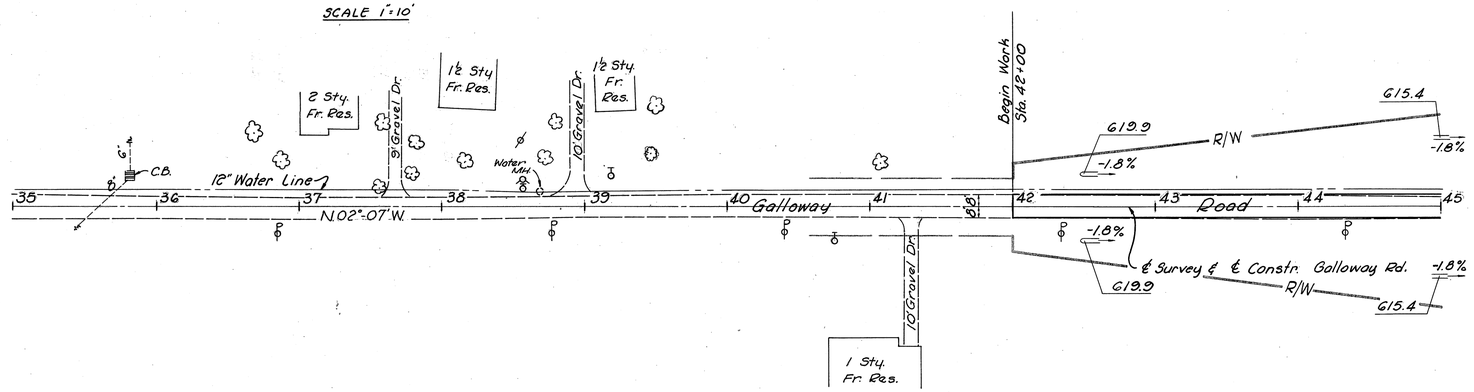
ERI. G-11.30

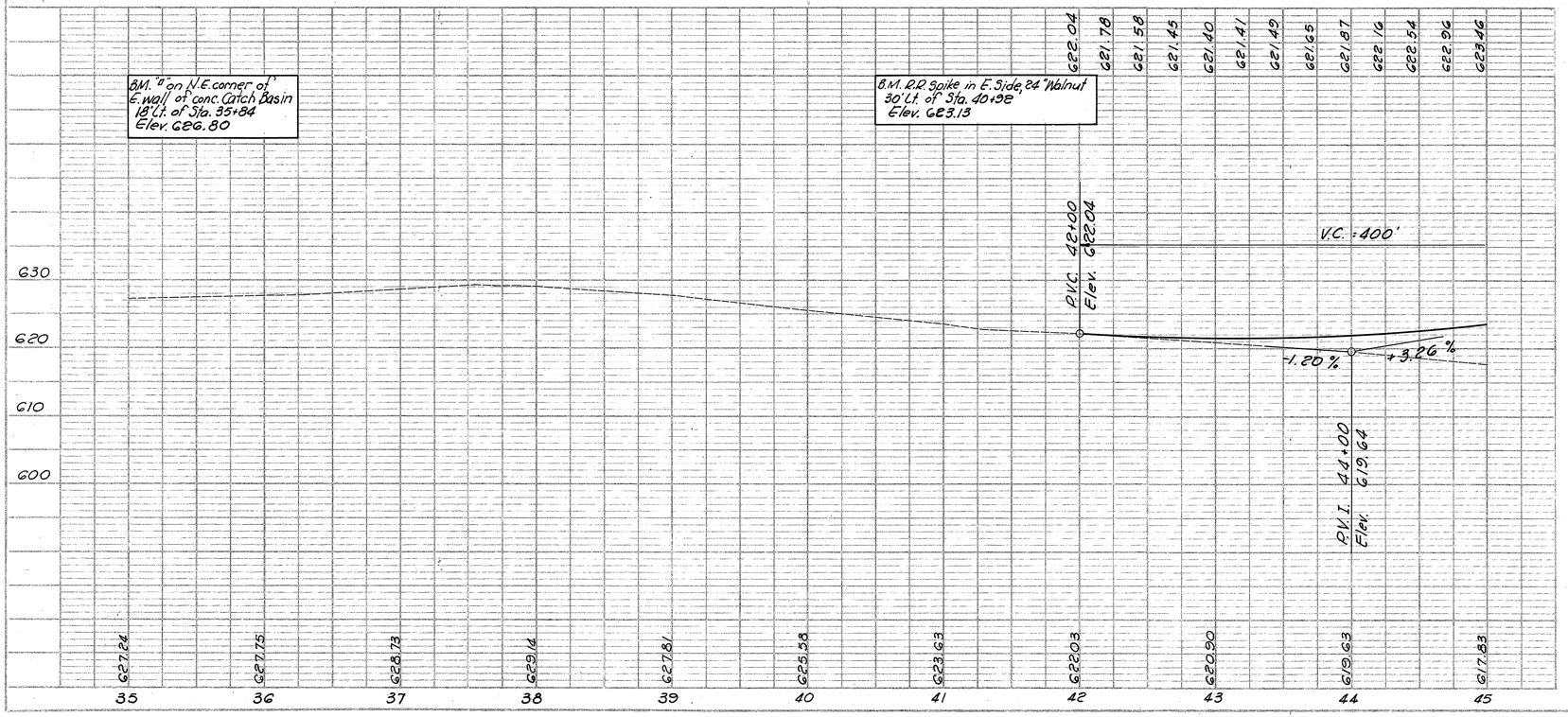


TYPICAL SECTION OF ADJOINING PAVEMENT

SCALE 1"=10'







SEP 15 1960

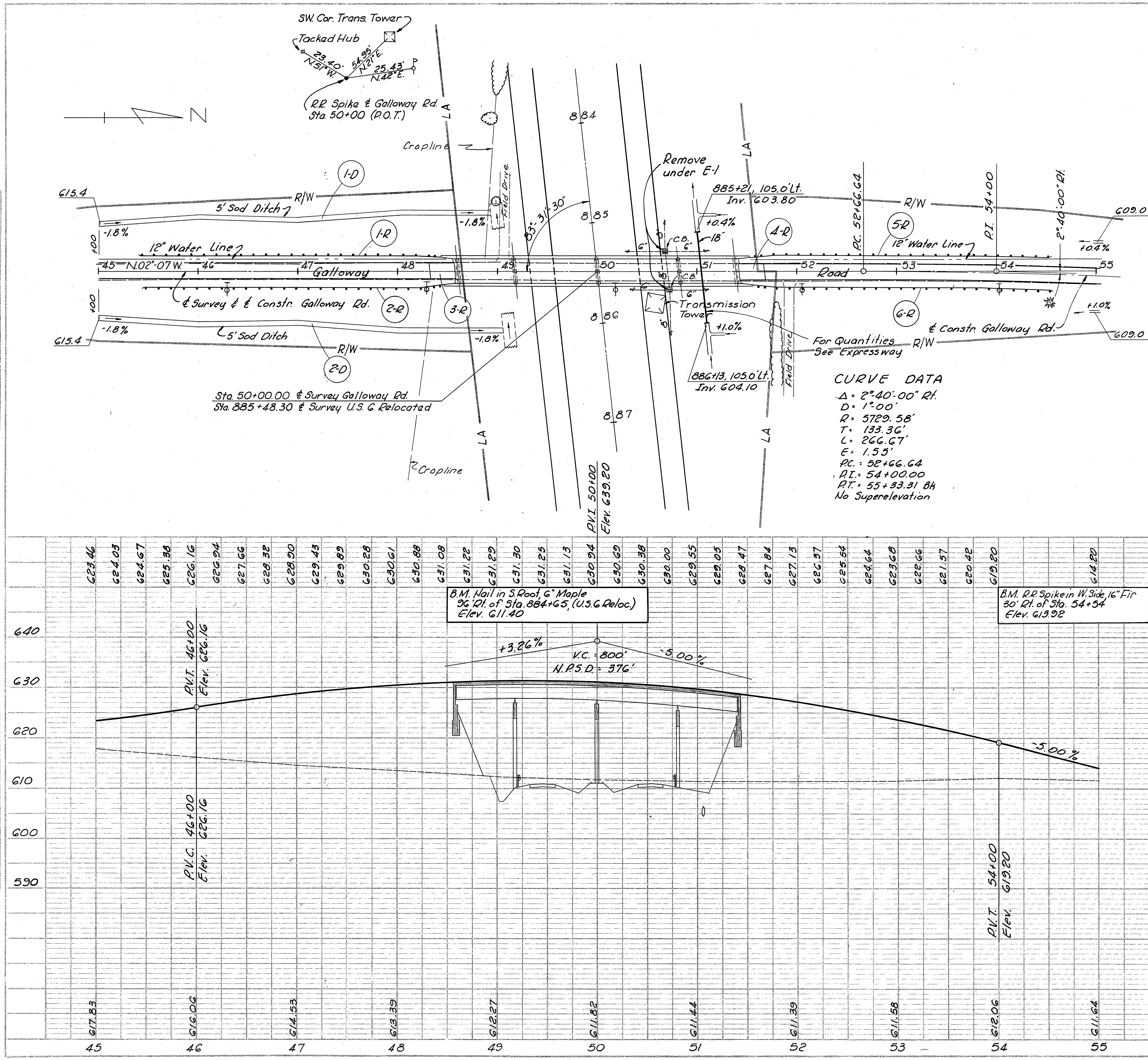
PLATE I—PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO. Chicago 1964

35+00 - 45+00 GALLOWAY RD.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

52
235

ERI. 6-11.30



SW. Cor. Trans. Tower
Tacked Hub
23.40' N.51°W.
54.95' N.21°E.
25.43' N.42°E.
R.R. Spike ℄ Galloway Rd. Sta. 50+00 (P.O.T.)
N
Cropline
LA
884
1-D
615.4
R/W
5' Sod Ditch
-1.8%
1-R
12" Water Line
Field Drive
53°-31'-30"
885
Remove under E-1
885+21, 105.0' Lt. Inv. 603.80
+0.4%
18"
C.B.
6"
4-R
P.C. 52+66.64
5-R
P.I. 54+00
2°-40'-00" Rt.
609.0
+0.4%
45 N.02°-07 W 46 47 Galloway 48 49 50 51 52 Road 53 54 55
℄ Survey & ℄ Constr. Galloway Rd.
2-R
3-R
Transmission Tower
886
+1.0%
For Quantities See Expressway
6-R
℄ Constr. Galloway Rd.
+1.0%
609.0
5' Sod Ditch
2-D
Sta. 50+00.00 ℄ Survey Galloway Rd.
Sta. 885+48.30 ℄ Survey U.S. 6 Relocated
886+13, 105.0' Lt. Inv. 604.10
887
CURVE DATA
Δ = 2°-40'-00" Rt.
D = 1°-00'
R = 5729.58'
T = 133.36'
L = 266.67'
E = 1.55'
P.C. = 52+66.64
P.I. = 54+00.00
P.T. = 55+33.31 Bk
No Superelevation
Cropline
P.V.I. 50+00 Elev. 639.20
623.46 624.03 624.67 625.38 626.16 626.94 627.66 628.32 628.90 629.43 629.89 630.28 630.61 630.88 631.08 631.22 631.29 631.30 631.25 631.13 630.94 630.69 630.38 630.00 629.55 629.05 628.47 627.84 627.13 626.37 625.54 624.64 623.68 622.66 621.57 620.42 619.20 614.80
B.M. Nail in S. Root, 6" Maple 96' Rt. of Sta. 884+65, (U.S. 6 Reloc.) Elev. 611.40
B.M. R.R. Spike in W. Side, 16" Fir 50' Rt. of Sta. 54+54 Elev. 613.92
+3.26%
V.C. = 800'
N.P.S.D. = 376'
-5.00%
640
630
620
610
600
590
P.V.T. 46+00 Elev. 626.16
P.V.C. 46+00 Elev. 626.16
-5.00%
P.V.T. 54+00 Elev. 619.20
617.83 616.06 614.53 613.39 612.27 611.82 611.44 611.39 611.58 612.06 611.64
45 46 47 48 49 50 51 52 53 54 55

PLAN	NOTE BOOK NO.	SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED	BY: SMB / RWS / EDS / EDS, G.T.S	DATE: 1958, 3-58, 4-60, 4-60

PROFILE	NOTE BOOK NO.	SURVEYED / PLOTTED / GRADES CHECKED / E.W. PLOTTED / STRUCTURE NOTATIONS CHKD.	BY: SMB / RNE / EDS / EDS, G.T.S	DATE: 1958, 7-58, 4-60, 4-60

PLATE 1 - PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO. Chicago

MICROFILMED
MAR 20 1965

SEP 15 1960

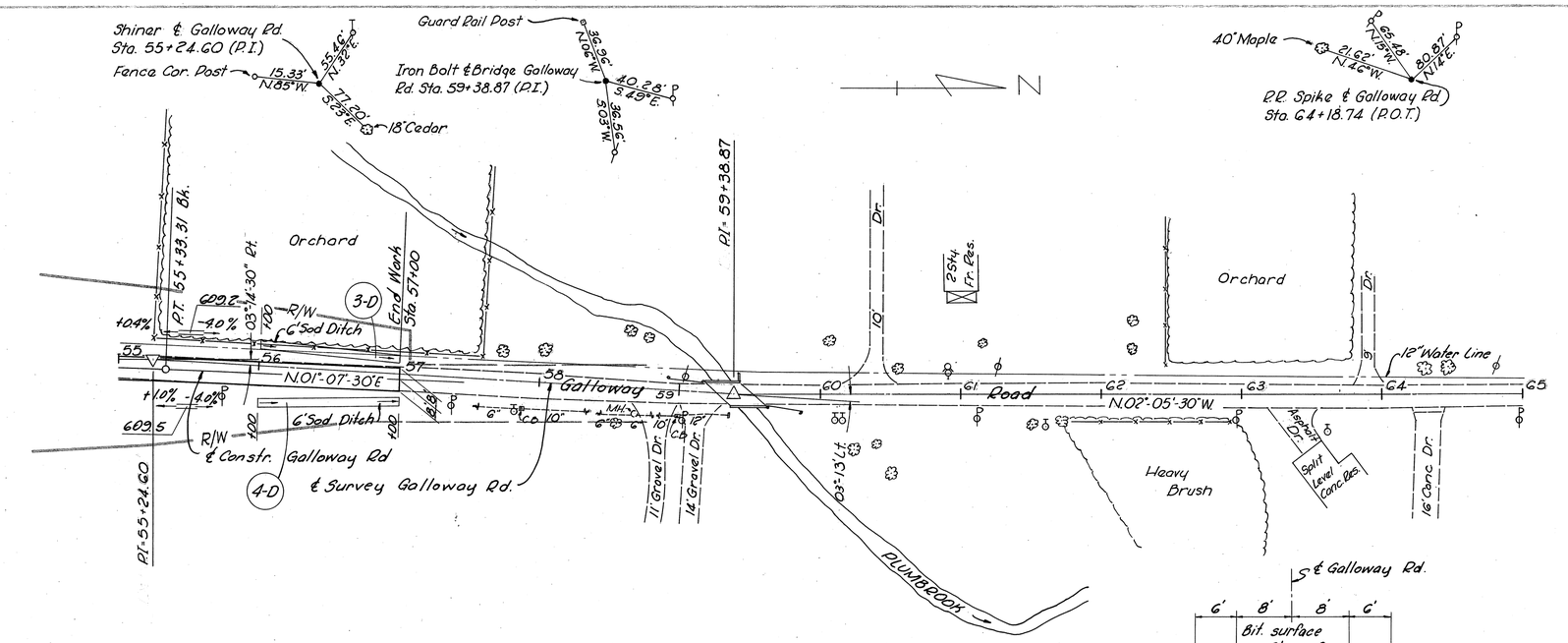
Rev. 7-27-60 R.E.C.

45+00 - 55+00 GALLOWAY RD.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

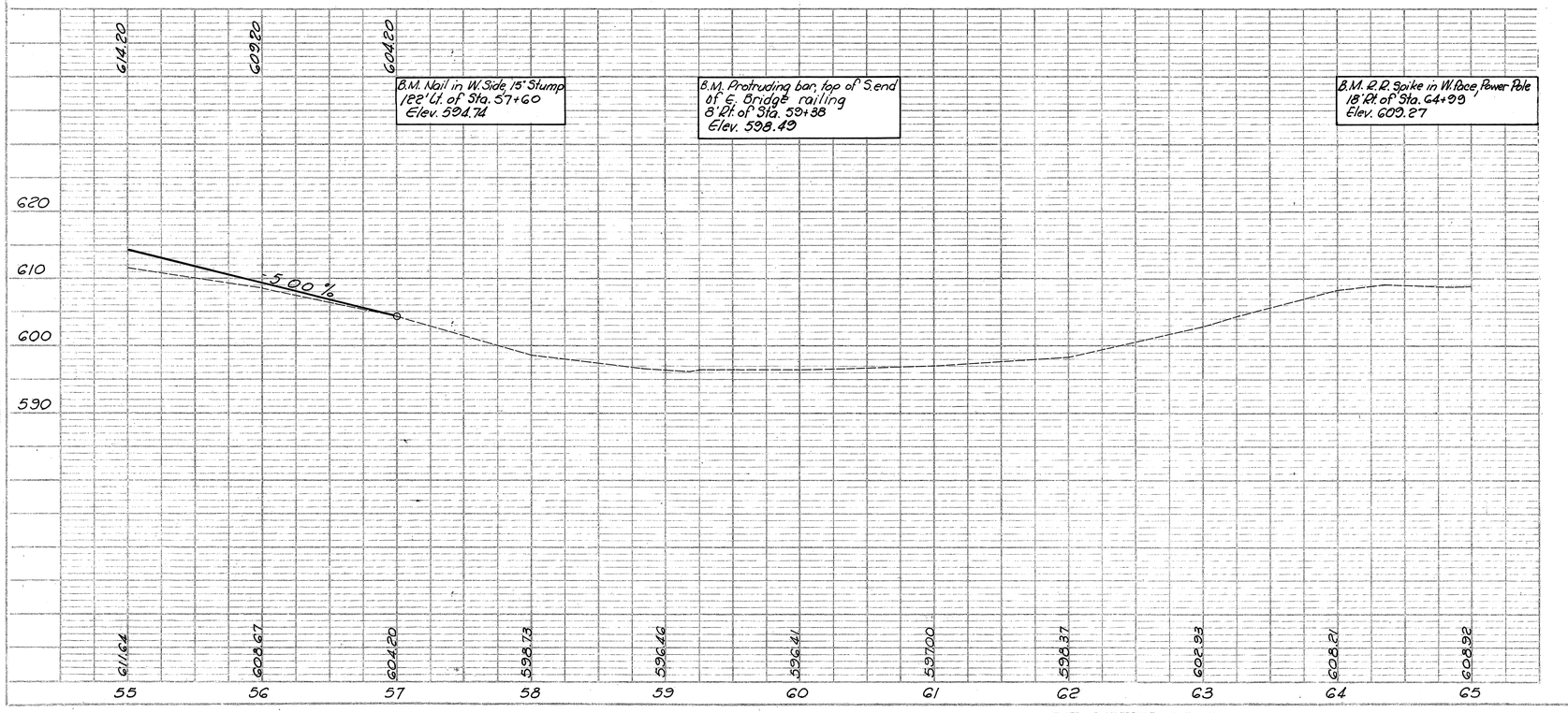
53
235

ERI. G-11.30



TYPICAL SECTION OF ADJOINING PAVEMENT

SCALE 1"=10'



ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-7 Reinf. Conc. Appr. Slab (7"-13") Sq.Yd.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-22 Subbase Cu.Yd.	E-1 Compacted Subgrade Sq.Yd.
	1-R	45+43	48+43	Lt.		300		
	2-R	45+47	48+47	Rt.		300		
	3-R	48+32.24	48+57.24	Lt.&Rt.	76.3		12.7	76.3
	4-R	51+42.76	51+67.76	Lt.&Rt.	76.3		12.7	76.3
	5-R	51+54	54+54	Lt.		300		
	6-R	51+57	54+57	Rt.		300		
		Totals			152.6	1200	25.4	152.6

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	L-10 Sodding Sq.Yd.	I-9 Storm Underdrains No.2 Lin.Ft.
	1-D	45+00	48+90	Lt.	217	
	2-D	45+00	49+05	Rt.	225	
	3-D	56+00	57+00	Lt.	67	
	4-D	56+00	57+00	Rt.	67	
	5-D	42+00	57+00	Lt.&Rt.		312
		Totals			576	312

SEP 15 1960

PLATE 1 — PLAN-PROFILE 8 1/2 X 11 STANDARD
THE FREDERICK POST CO., CHICAGO 28, ILL.

55+00 - 65+00 GALLOWAY RD

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

54
235

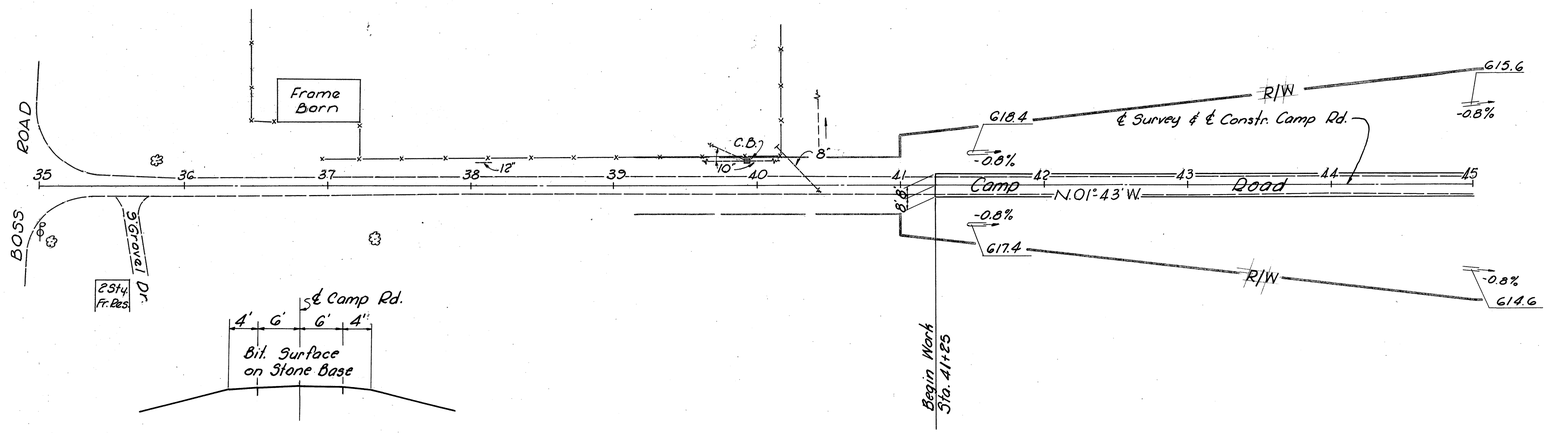
ERI.-6-11.30

RR Spike Intersection Boss & Camp Rds. Sta. 34+87.04 (P.O.T.)

35.95' N 69° E.
47.69' to Site
P 27.91' S 56° W
20" Oak

N

4" Tile



TYPICAL SECTION OF ADJOINING PAVEMENT
SCALE 1"=10'

PLAN	
SURVEYED	
PLOTTED	
PROFILE CHECKED	
ALIGNMENT CHECKED	
NOTE BOOK	
NO.	
ST. DIF. WAY CHECKED	

DATE	BY
9-5-58	GTS
9-30-58	
2-19-60	
4-4-60	

PROFILE	
SURVEYED	
PLOTTED	
PROFILE CHECKED	
C. M.'S SPIED	
NOTE BOOK	
NO.	

DATE	BY
9-5-58	GTS
9-30-58	
2-19-60	
4-4-60	

B.M. Nail in S. Root, 16" Cherry
40' Rt. of Sta. 35+10
Elev. 637.68

B.M. Nail in N. Root, 16" Apple
240' Rt. of Sta. 40+25
Elev. 624.23

621.54 621.30 621.14 621.06 621.06 621.14 621.30 621.54 621.86 622.26 622.74 623.90 623.94 624.66 625.46 626.34

640
630
620
610

P.V.C. 41+25
Elev. 621.54

400' V.C.

-1.12%

+4.00%

P.V.T. 45+25
Elev. 619.30

637.41 634.87 632.88 629.86 625.77 623.45 621.77 620.84 620.41 619.47 618.93

35 36 37 38 39 40 41 42 43 44 45

SEP 15 1960

PLATE 1—PLAN-PROFILE 2" = 1" STANDARD
THE PRECEDING PLAT OR IMAGE

35+00 - 45+00 CAMP ROAD

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

55
235

ERI.-6-11.30

PLAN		BY		DATE
NOTE BOOK	SURVEYED	SMB		1958
NO.	PLOTTED	RWG	GTS	9-58
	ALIGNMENT CHECKED	EDS		4-60
	RT. OF WAY CHECKED	EDS		4-60

PROFILE		BY		DATE
NOTE BOOK	SURVEYED	SMB		1958
NO.	PLOTTED	RWG	GTS	9-58
	GRADES CHECKED	EDS		4-60
	B.M.'S NOTED	EDS		4-60
	STRUCTURE NOTATIONS CHKD.	EDS		4-60

SEP 15 1960 Rev. 7-27-60 R.E.C.

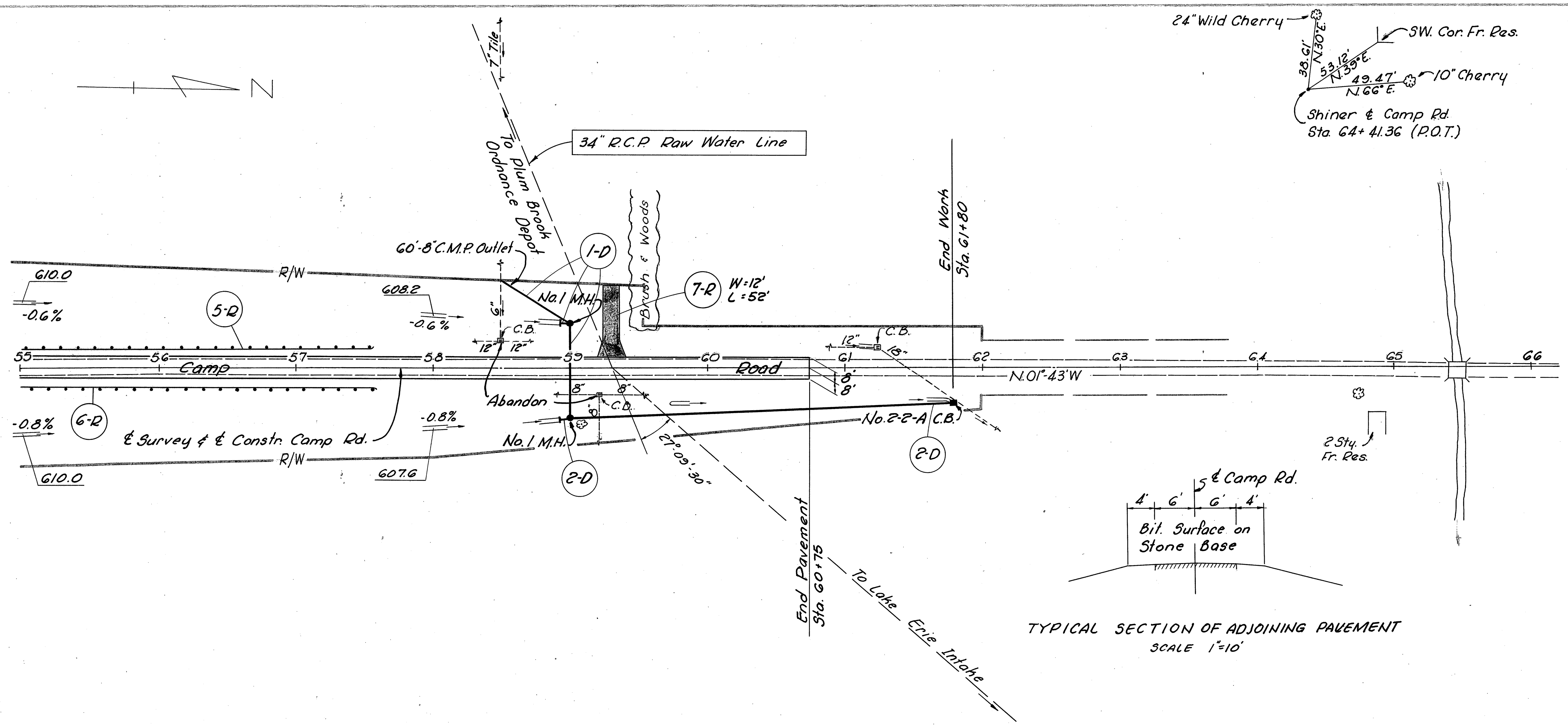
PLATE 1—PLAN-PROFILE B.P.R. STANDARD
THE FREDERICK POST CO. Chicago 2041

45+00 - 55+00 CAMP ROAD

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

56 / 235

ERI. 6-11.30



ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-7 Reinf. Conc. Appr. Slab (T=13") Sq.Yd.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-22 Subbase Cu.Yd.	E-1 Compacted Subgrade Sq.Yd.	B-19 Aggregate Base Course Cu.Yd.
	1-R	45+43	48+43	Lt.		300			
	2-R	45+46	48+46	Rt.		300			
	3-R	48+32.23	48+57.23	Lt.&Rt.	76.3		12.7	76.3	
	4-R	51+42.77	51+67.77	Lt.&Rt.	76.3		12.7	76.3	
	5-R	51+55	57+55	Lt.		600			
	6-R	51+58	57+58	Rt.		600			
68	7-R	59+30		Lt.					12.4
	Totals				152.6	1800	25.4	152.6	12.4

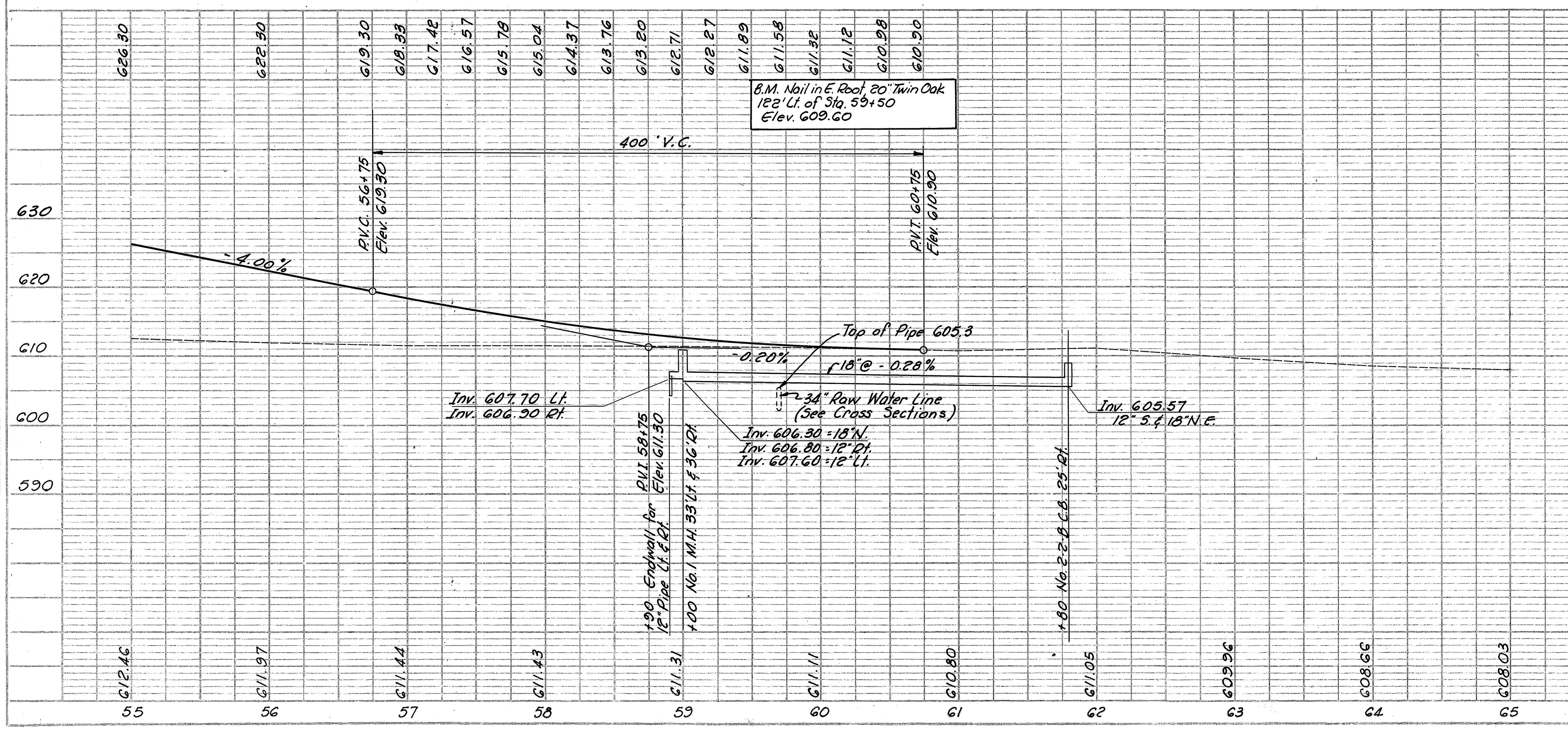
WATER LINES F-1042(7)

See Sheet No.	Reference No.	Station From	Station To	Side	I-2 18" Storm Sewer M-6.6(b) Lin.Ft.
	1-W	48+32	51+44	Lt.	312
85	Totals				312

The above quantities are to provide encasement for future installation of water lines

DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference or Structure No.	Station From	Station To	Side	S-1 Conc. for Structure, Class "E" Cu.Yd.	I-2 12" Storm Sewer M-6.5(a) or 6.8(a) Lin.Ft.	I-2 12" Storm Sewer M-6.5(b) or 6.8(b) Lin.Ft.	I-2 18" Storm Sewer M-6.5(a) or 6.8(a) Lin.Ft.	I-8 No. 1 M.H. Ea.	I-8 No.2-2-A C.B. Ea.	I-4 8" C.M.P. Outlet Lin.Ft.	I-9 Stone Underdrains No. 2 Lin.Ft.
	1-D	59+00		Lt.&Rt.	0.23	6	66		1		60	
	2-D	58+92	61+80	Rt.	0.23	6		280	1	1		
	3-D	41+25	60+75	Lt.&Rt.								374
	Totals				0.46	12	66	280	2	1	60	374



SEP 15 1960

55+00 - 65+00 CAMP ROAD

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30

Scale : 1" = 100'
CURVE DATA
Δ = 34°-53'-00" Rt.
D = 0°-28'
R = 12,277.67'
T = 3857.40'
L = 7475.00'
E = 591.70'
P.C. = 983+54.22
P.I. = 1022+11.62
P.T. = 1058+29.22
No Superelevation
℄ Construction Rye Beach Rd.
End Project ERI. 6-11.30 Sta. 0+61.89 Ramp "B"
℄ Construction 53+25.00 RYE BEACH RD.
= 12+32.15 ℄ Ramp "A"
= 0+00 ℄ Ramp "B"
P.C. = 0+75
P.T. = 2+66.60
P.C. = 4+16.60
P.T. = 9+45.48
R = 40' & 5'
R = 266'
R = 50' & 5'
50' R.
40' R.
70°-00'
70°-55'-35"
Dc = 4°-40'
Dc = 7°-30'
RAMP "A"
RAMP "B"
P.C. = 3+00
91.00' Lt. of 1026+00 ℄ U.S. 6 Reloc. (Back) = 0+00 ℄ Ramp A (Ahead)
C.S. = 7+46.00
Ls = 200'
S.C. = 9+46.00 ℄ Ramp B (Back) = 105.52' Lt. of 1045+37.54 ℄ U.S. 6 Reloc. (Ahead)
78' Lt. of 1049+97.79
Dc = 1°-00'
Decel. Lane
1052+35
1053+35
End Project ERI. 6-11.30 Sta. 1041+00
Project ERI. 6-14.97
71°-51'-44" to tan.
Accel. Lane
Match Line (See Below)
1025
1030
1035
1040
1045
1050
1055
Match Line (See Above)
℄ Survey & ℄ Construction U.S. 6 & S.R. 2 (Reloc.)
Decel. Lane
Dc = 2°-00'
1023+50
1024+50
1026+50
78.00 Rt. of 1027+00
105.52 Rt. of 1031+56.31 ℄ U.S. 6 Reloc. (Back) = C.S. 0+00 ℄ Ramp D (Ahead)
Ls = 250'
S.C. = 2+50
Dc = 10°-00'
P.T. = 4+62.02
RAMP "D"
P.C. = 6+79.57
R = 266'
R = 40' & 5'
R = 50' & 5'
70°-00'
83°-46'-15"
50' R.
40' R.
P.T. = 8+55.87
Sta. 1038+65.89 ℄ Survey U.S. 6 (Reloc.)
Sta. 48+23.82 ℄ Constr. Rye Beach Rd.
RAMP "C"
Dc = 4°-00'
P.C. 4+52.87
P.C.C. 11+82.68
R = 12,211.67'
P.T. = 14+82.68 (Back) = 91.00' Rt. of 1054+60.00 ℄ U.S. 6 Reloc. (Ahead)
Accel. Lane
℄ Construction 43+25.00 RYE BEACH RD.
= 9+55.53 ℄ Ramp "D"
= 0+00 ℄ Ramp "C"
End Project ERI. 6-11.30 Sta. 0+56.91 Ramp "C"
℄ Survey & ℄ Construction U.S. 6 & S.R. 2 (Reloc.)
1055
P.T. +29.22
1060
1065
Match Line (See Below)
Accel. Lane
Width of Accel. Lane varies uniformly from 25' at Sta. 1054+60.00 to 0' at Sta. 1066+60.00
1066+60.00
24' 42' 24'
Width of Accel. Lane varies uniformly from 0' at Sta. 1014+00 to 25' at Sta. 1026+00
1014+00
Accel. Lane
1015
1020
Match Line (See above)
℄ Survey & ℄ Construction U.S. 6 & S.R. 2 (Reloc.)

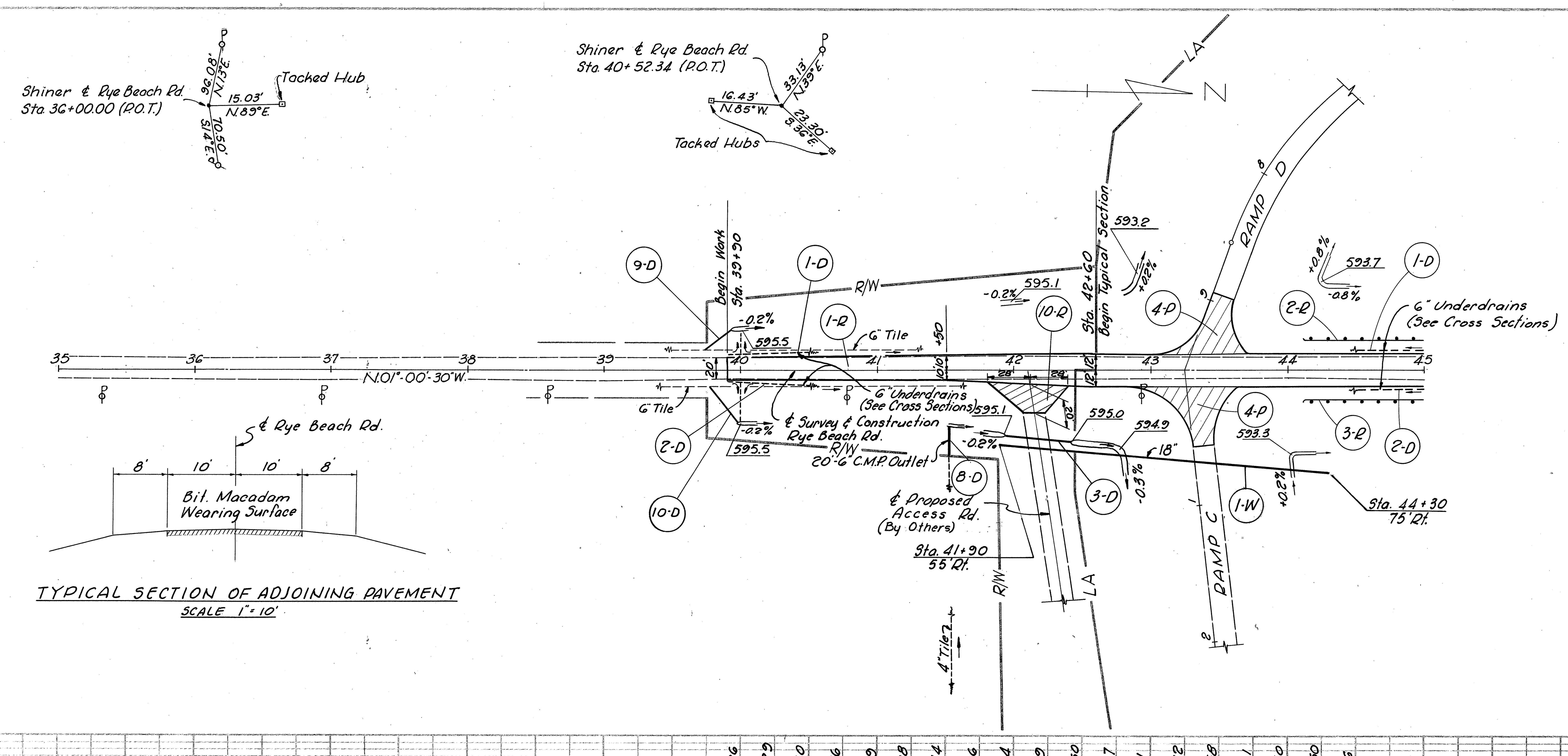
NOTE:
For construction details of Ramps, See Sheet Nos. 61 & 62.

SANZENBACHER, MILLER & BRIGHAM — TOLEDO, OHIO — SEP 15 1960

Rye Beach Interchange — General Plan

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	58/235
2	OHIO			

ERI.-6-11.30



Shiner & Rye Beach Rd.
Sta. 36+00.00 (P.O.T.)
Tacked Hub
Shiner & Rye Beach Rd.
Sta. 40+52.34 (P.O.T.)
Tacked Hubs
Begin Work Sta. 39+90
Begin Typical Section Sta. 42+60
N.01°-00'-30"W.
6" Tile
6" Underdrains (See Cross Sections)
℄ Survey & Construction Rye Beach Rd.
20"-6" C.M.P. Outlet
℄ Proposed Access Rd. (By Others)
Sta. 41+90 55' Rt.
Sta. 44+30 75' Rt.
RAMP C
RAMP D
R/W
LA
4" Tile
℄ Rye Beach Rd.
Bit. Macadam Wearing Surface
TYPICAL SECTION OF ADJOINING PAVEMENT
SCALE 1" = 10'

SEP 15 1960

35+00-45+00 RYE BEACH ROAD

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

59 / 235

ERI. -6-11.30

R.R. Spike & Rye Beach Rd.
Sta. 50+00.00 (P.O.T.)

22.25' S.81°E.
18.88' S.6°E.
55.27' S.17°E.
Tacked Hubs

36" Elm
17.34' N.85°W.
27.59' N.70°E.
Shiner & Rye Beach Rd.
Sta. 52+25.22 (Point on Back Tangent Extended)

℄ Survey
P.I. 52+24.16
Δ = 0°-47' Lt.

RAMP A
RAMP B
LA
P.C. 54+34.97
R/W

71°-51'-44" to tan. at 1038+65.89

1038+57, 106.5' Rt.
Inv. 591.10
-0.8%
+2.6%
591.8

1037+60, 106.0' Lt.
Inv. 590.70
+0.2%
590.8
+0.4%

2 Sta. Fr. Res.
Gar.
-0.3%
-0.3%
580.5
591.9
+0.4%
+0.4%

6" Underdrain (See Cross Sections)
6" Underdrains (See Cross Sections)
℄ Survey
℄ Construction
℄ Survey & Construction
6" Tile
C.B.
18"
RYE BEACH ROAD
N.01°-00'-30"W.
N.01°-47'-30"W. 54
235

1039+57, 107.0' Rt.
Inv. 591.40
591.6
-0.6%
591.2
1038+76, 108.0' Lt.
Inv. 591.10
+0.2%
+0.2%
591.8
5' Sod Ditch
583.0
+0.2%
+0.2%
+0.2%

Sta. 46+49 30' Rt.
Sta. 48+23.82 ℄ Constr. Rye Beach Rd.
Sta. 1038+65.89 ℄ Survey U.S.6 Relocated
Sta. 42+29 90' Rt.
See Expr. for Quantities
Sta. 52+00 30' Rt.
Sta. 53+80 75' Rt.

1-D 2-R 2-D 3-R 4-R 2-W 3-W 4-D 5-R 5-D 6-R 7-R 8-R 9-R 11-D 12-D 3-P 6-D

10+37 10+38 10+39 10+40

	45	46	47	48	49	50	51	52	53	54	55
G.E.	612.21	613.70	614.35	614.95	615.47	615.94	616.34	616.69	616.96	617.18	617.33
G.T.	612.99	613.70	614.35	614.95	615.47	615.94	616.34	616.69	616.96	617.18	617.33
	617.42	617.45	617.42	617.32	617.16	616.94	616.65	616.31	615.90	615.43	614.89
	614.30	613.63	612.92	612.13	611.28	610.37	609.40	602.40	598.40		

B.M. R.R. Spike in S.W. face, Power Pole
20' Rt. of Sta. 45+15
Elev. 599.80

B.M. Nail in S. Root 48" Elm
28' Rt. of Sta. 56+40
Elev. 597.14

P.V.I. 48+23.82
Elev. 605.45
+4.00%
-4.00%
52+23.82
609.45
P.V.T. Elev.

Inv. 587.00
18"
800' V.C.
N.P.S.D. = 382'
Inv. 586.30
Inv. 586.30
18" Sec. M-66(e)
Inv. 585.80

	45	46	47	48	49	50	51	52	53	54	55
	598.99	598.50	598.16	597.61	597.18	596.80	596.62	596.00	592.56	587.71	585.19

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MAR 30 1965

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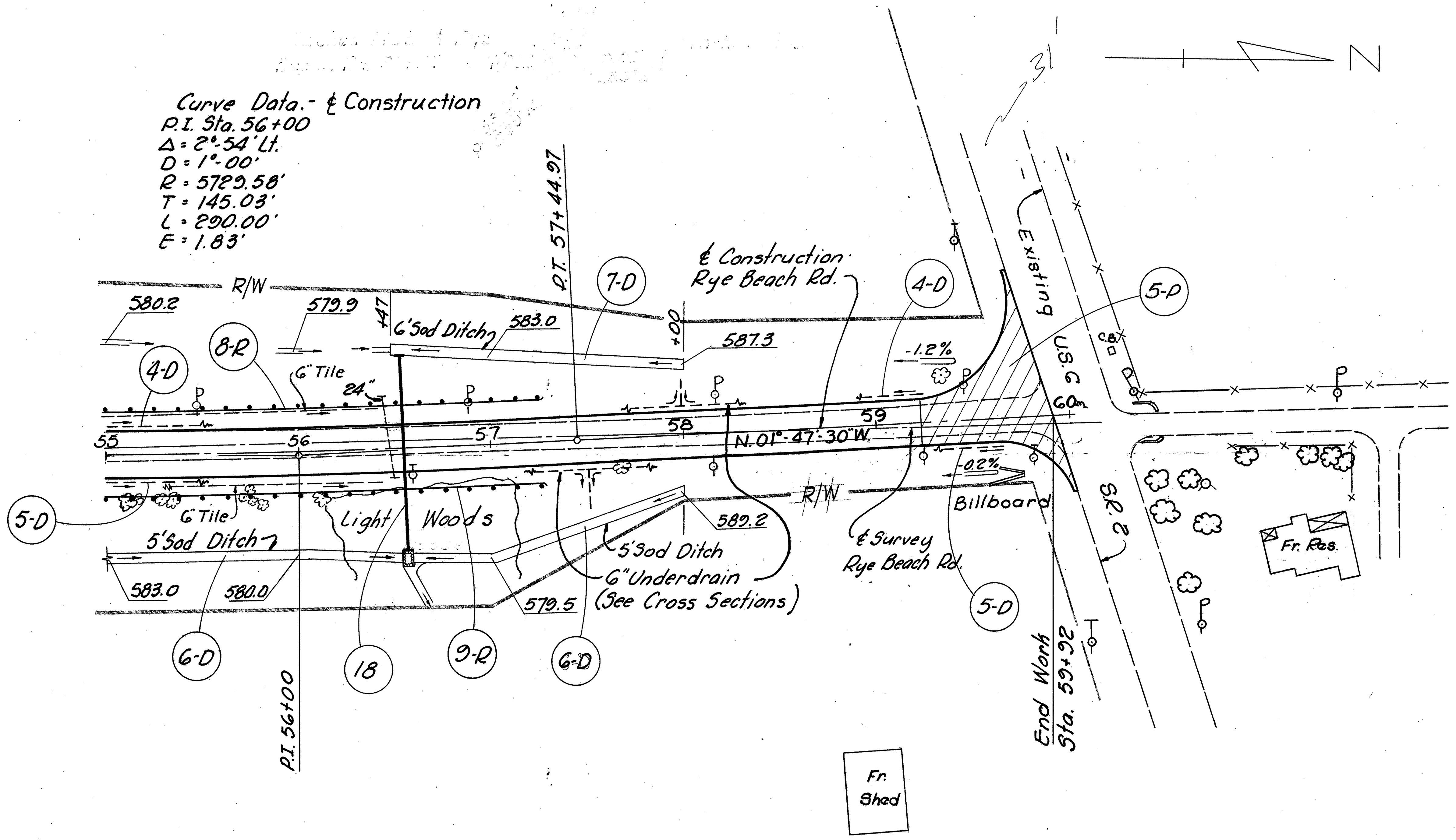
45+00 - 55+00 RYE BEACH ROAD



WATER LINES F-1042(7)

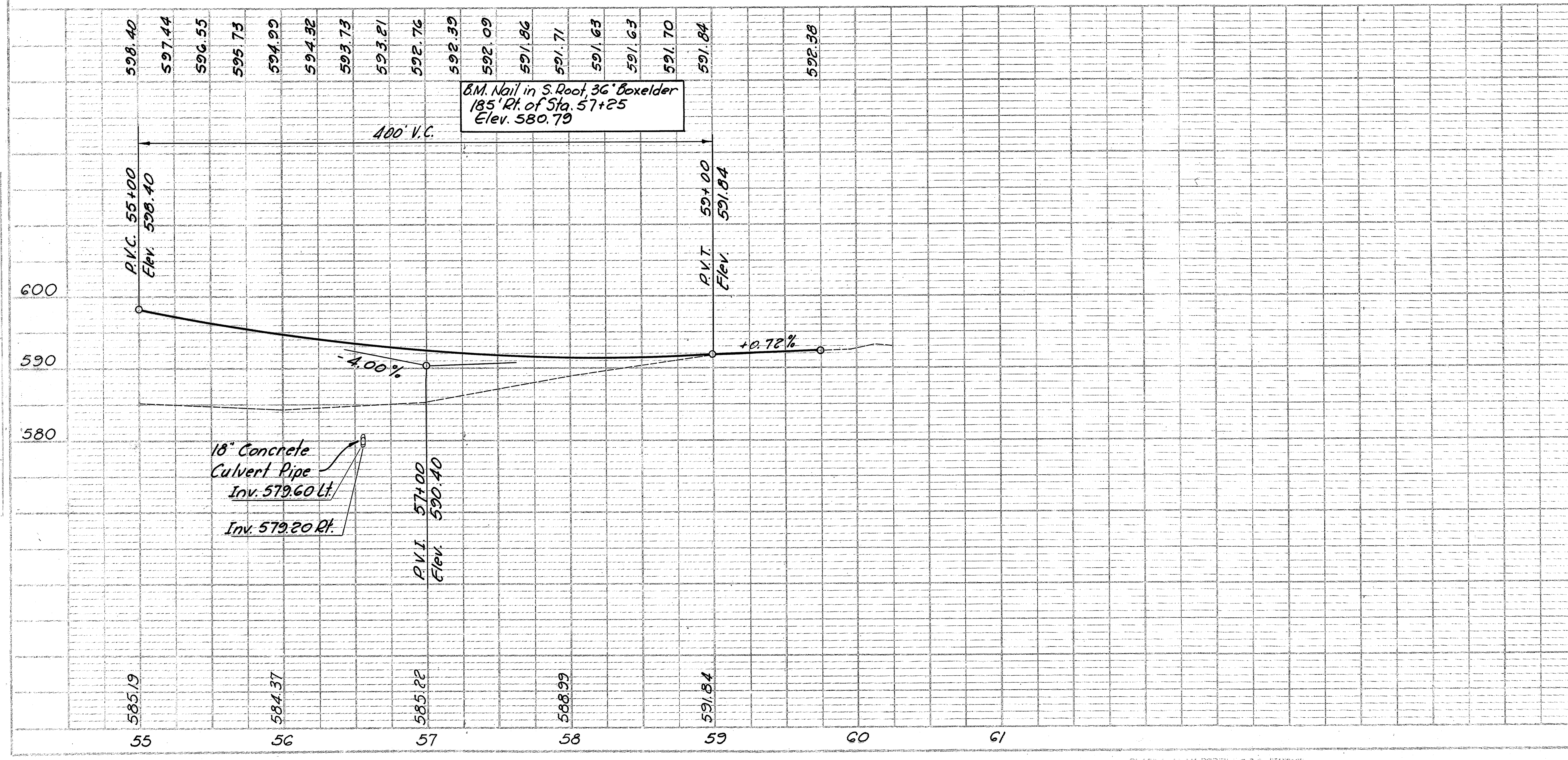
See Sheet No.	Reference No.	Station From	Station To	Side	I-8 18" Storm Sewer M-6.G(b) Lin.Ft.	I-2 18" Storm Sewer M-6.G(c)
	1-W	41+90	44+30	Rt.	240	
	2-W	46+49	49+29	Rt.	280	
	3-W	52+00	53+80	Rt.		180
85	Totals				520	180

The above quantities are to provide encasement for future installation of water lines

ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	B-19 Aggregate Base Course Cu.Yd.	B-35 Asphaltic Conc. Leveling Course Cu.Yd.	B-219 3" Waterproof Aggr. Base Course Sq.Yd.	T-31 Bit. Surface Treatment Sq.Yd.	T-35 Asphaltic Conc. Surface Course, Type C Cu.Yd.	T-30 Bituminous Prime Coat Gal.	I-7 Reinf. Conc. Appr. Slab (T=13") Sq.Yd.	I-15 Guard Rail (Std. Type) Lin.Ft.	I-18 Stabilized Crushed Aggr. Shoulders Cu.Yd.	I-22 Subbase Cu.Yd.	E-1 Compacted Subgrade Sq.Yd.
	1-R	39+90	42+60	Lt.&Rt.	109.1	30.4			21.6	249				114.1	624.6
67	4-P			Lt.&Rt.	50.2	14.2	21.2	21.2	10.2	121			3.0	51.6	332.3
	2-R	44+16	46+66	Lt.								250.0			
	3-R	44+19.5	46+57	Rt.								237.5			
	4-R	46+50.45	46+75.45	Lt.&Rt.							89.6			14.9	89.6
	5-R	49+72.19	49+97.19	Lt.&Rt.							89.6			14.9	89.6
	6-R	49+90	52+83	Lt.								331.0			
	7-R	49+77	52+83	Rt.								337.5			
67	3-P			Lt.&Rt.	57.0	16.6	29.7	29.7	11.9	141			4.1	61.3	380.6
	8-R	53+10	57+25	Lt.								450.0			
	9-R	53+10	57+25	Rt.								385.0			
68	5-P			Lt.&Rt.	*55.8	*16.3			*11.6	*134				*57.1	364.0
	10-R	42+10		Rt.	13.3										
	Totals				285.4	77.5	50.9	50.9	55.3	645	179.2	1991.0	7.1	313.9	1880.7

* No Federal Participation



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu.Yd.	S-1 Concrete for Structure Class "E" Cu.Yd.	S-27 18" Pipe for Roadway Culv. M6.6(b) or M6.8(b) Lin.Ft.	I-1 12" Pipe for Driveways Lin.Ft.	I-4 6" Underdrain (Shallow) Lin.Ft.	I-4 8" C.M.P. Outlet Lin.Ft.	I-4 6" C.M.P. Outlet Lin.Ft.	I-5 6" on 6" Tee for Underdrain Ea.	L-10 Sodding Sq.Yd.	I-10 Dumped Rock Channel Protection Cu.Yd.	I-16 Abandon C.B. (Seal Pipe Ends) Ea.
	1-D	39+90	46+50	Lt.					665	10		1			
	2-D	39+90	46+45	Rt.					660	10		1			
	3-D	41+94	42+42	Rt.				48							
	4-D	50+05	59+25	Lt.					925	10		1			
	5-D	49+95	59+65	Rt.					990	10		1			
	6-D	53+80	58+00	Rt.									230		
	7-D	56+47	58+00	Lt.									102		
77	18	56+55		Lt.&Rt.	64	0.60	116							6	
	8-D	41+50		Rt.							20				
	9-D	39+75	40+00	Lt.						30					
	10-D	39+75	40+00	Rt.						30					
	11-D	50+65		Lt.											1
	12-D	52+16		Lt.											1
	Totals				64	0.60	116	48	3240	100	20	4	332	6	2

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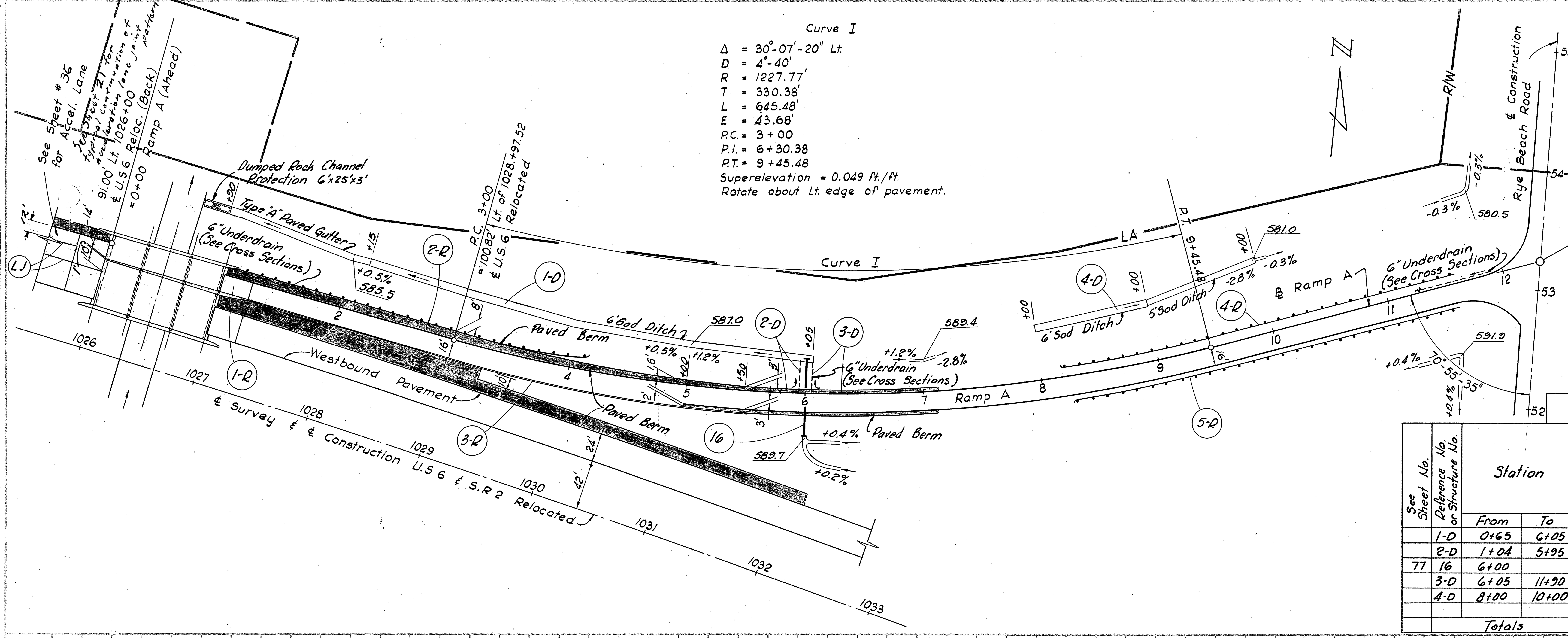
55+00 - 61+00 RYE BEACH ROAD

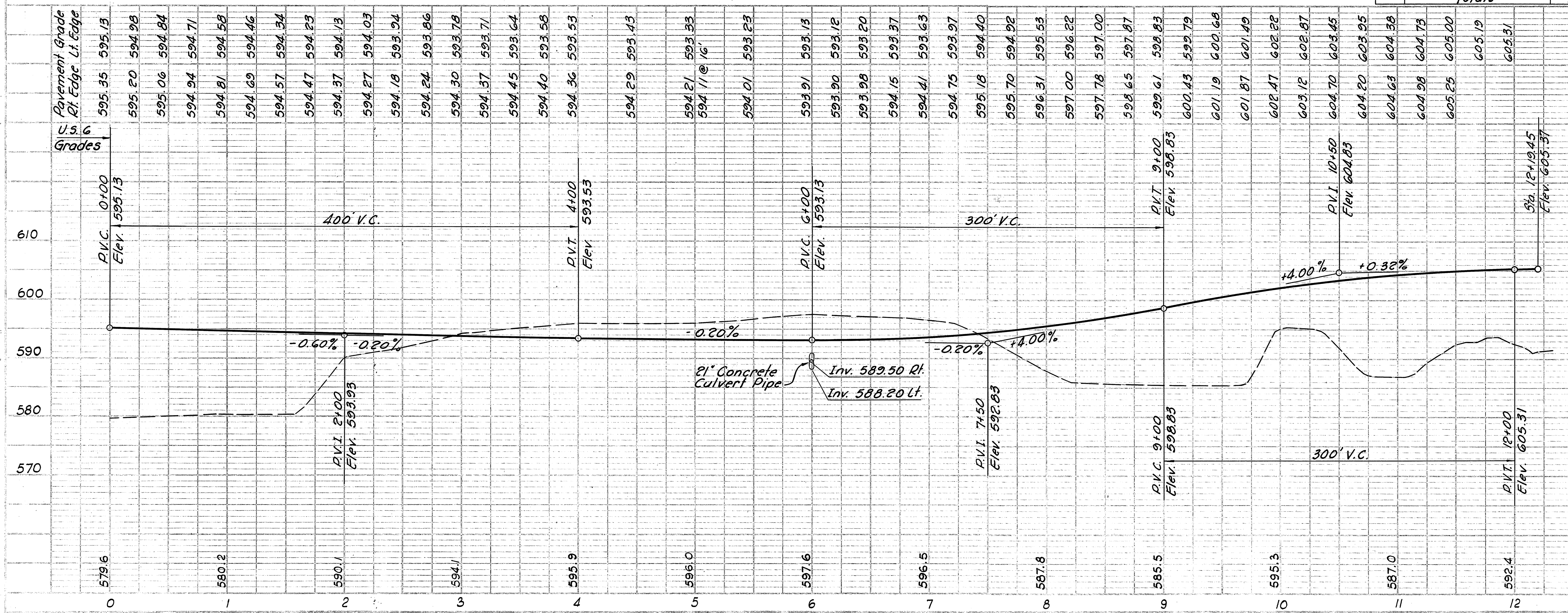
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30



DRAINAGE QUANTITIES F-1042(7)

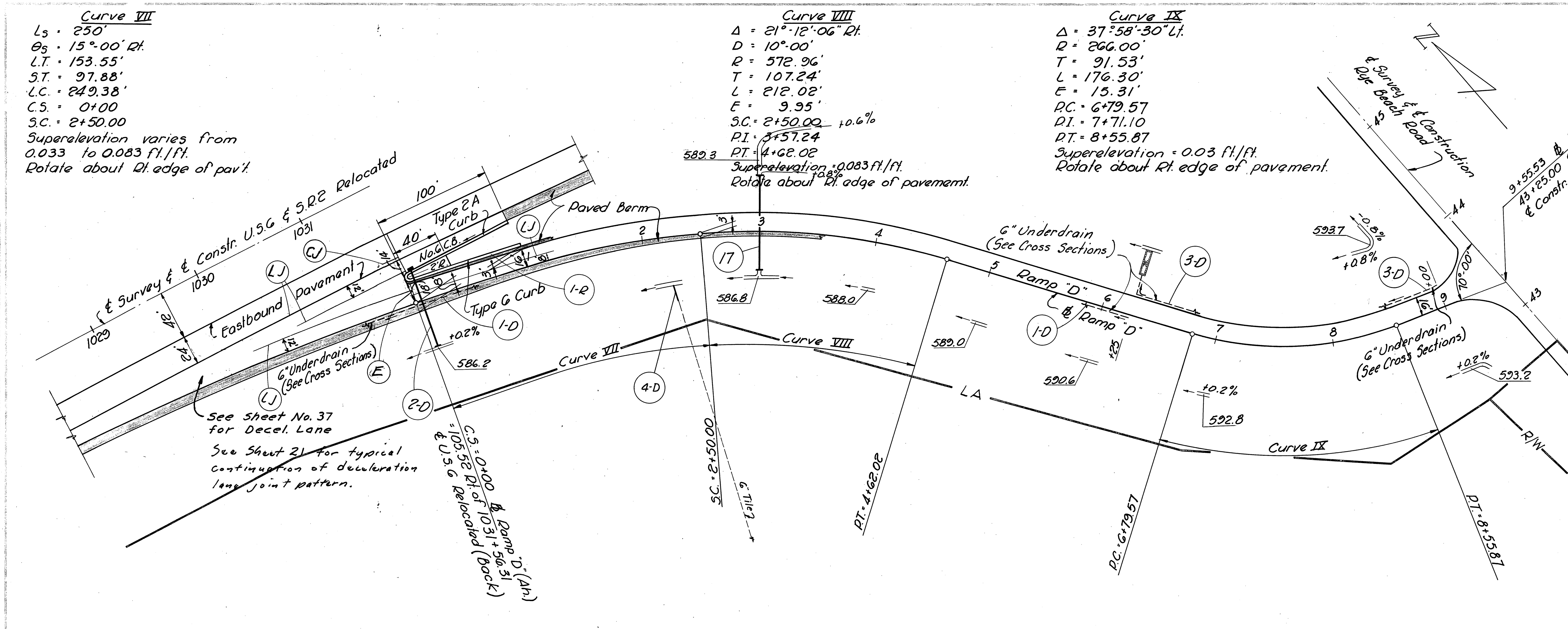
See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure (Cu.Yd.)	S-1 Concrete for Structure Class "E" (Cu.Yd.)	S-27 21" Pipe for Roadway Culv. M.6.6(b) or 6.8(b) (Lin.Ft.)	I-4 6" Underdrain (Shallow) (Lin.Ft.)	I-4 8" C.M.P. Outlet (Lin.Ft.)	I-5 6", 90° Ell. for Underdrain (Ea.)	I-10 Dumped Rock Channel Protection (Cu.Yd.)	I-14 Type A Paved Gutter (Lin.Ft.)	L-10 Sodding (Sq.Yd.)
	1-D	0+65	6+05	Lt.							17	125	302
	2-D	1+04	5+95	Lt.				506	10	1			
77	16	6+00		Lt.&Rt.	33	0.72	64						
	3-D	6+05	11+90	Lt.				600	10	1			
	4-D	8+00	10+00	Lt.									122
	Totals				33	0.72	64	1106	20	2	17	125	424



ROADWAY QUANTITIES F-1042(7)

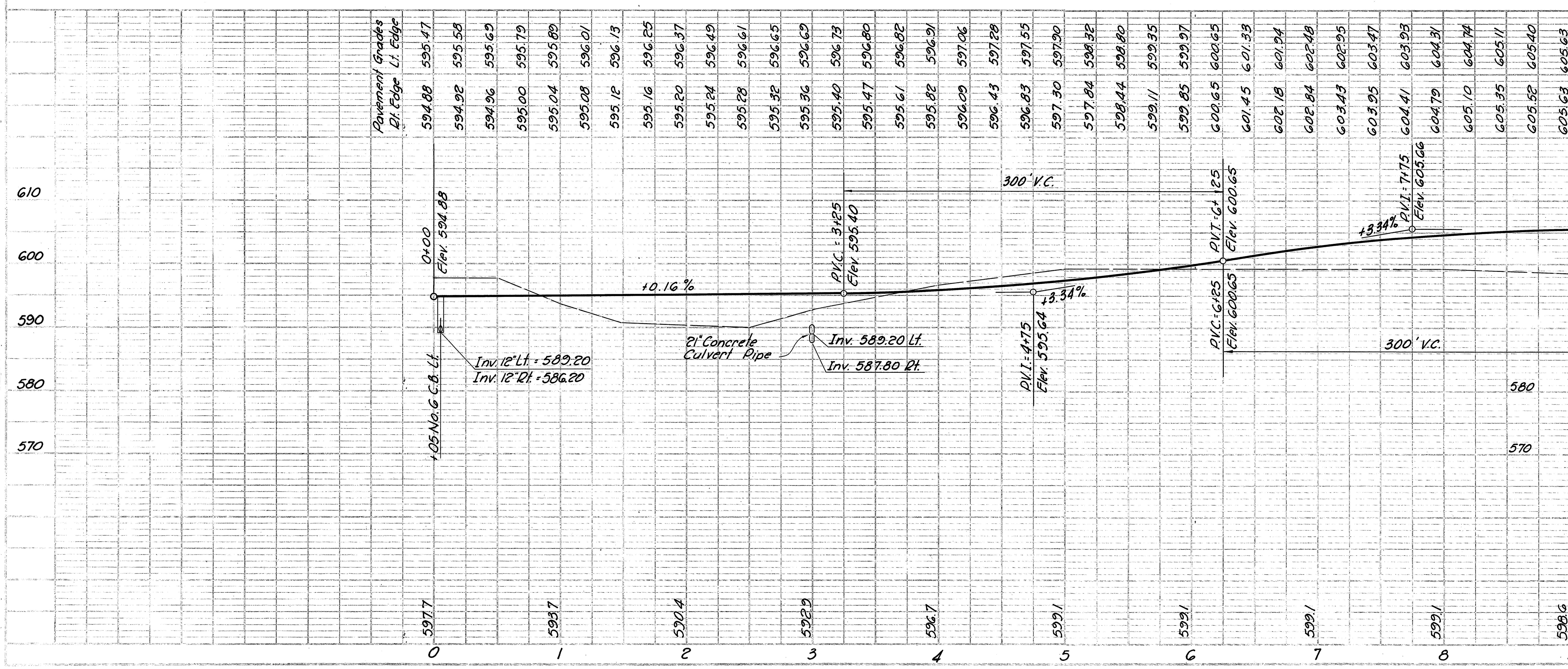
See Sheet No.	Reference No. or Structure No.	Station From	Station To	I-12 Special P.C. Conc. Curb Full Width (Lin.Ft.)	I-7 Reinf. Conc. Appr. Slab (T=13") (Sq.Yd.)	I-12 Special P.C. Conc. Curb Part. Width (Lin.Ft.)	I-15 Guard Rail (Std. Type) (Lin.Ft.)	I-22 Subbase (Cu.Yd.)	E-1 Compacted Subgrade (Sq.Yd.)
	1-R	0+99.50	1+24.50		53.0			8.8	53.0
	2-R	1+09	4+09				300		
	3-R	1+24.50	5+50	204		222		7.9	
	4-R	8+20	11+57.5				337.5		
	5-R	8+26	11+57.5				331.5		
	Totals			204	53.0	222	969.0	16.7	53.0

SEP 15 1960



ROADWAY QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	I-12 Type 6 Curb Lin. Ft.	I-22 Subbase Cu. Yd.
	1-R	0+00	1+00	Lt.	100	0.9
	Totals				100	0.9



DRAINAGE QUANTITIES F-1042(7)

See Sheet No.	Reference No. or Structure No.	Station From	Station To	Side	E-2 Excavation for Structure Cu. Yd.	S-1 Concrete for Structure Class "E" Cu. Yd.	S-27 21" Pipe for Roadway Culv. M6.6(b) or M6.8(b) Lin. Ft.	I-4 6" Underdrain (Shallow) Lin. Ft.	I-2 12" Storm Sewer M-6.5(b) or M-6.8(b) Lin. Ft.	I-5 6", 90° Ell. for Underdrain Ea.	I-10 Dumped Rock Channel Protection Cu. Yds.	I-4 8" Outlet Pipe Lin. Ft.	I-8 No. 6 C.B. Ea.
	1-D	0+00	6+25	Rt.				625					
77	17	3+00		Rt.&Lt.	62	0.72	88						
	2-D	0+50		Rt.&Lt.		0.23			69				1
	3-D	6+25	9+00	Lt.				288		1	6	10	
	4-D	2+25		Rt.								10	
	Totals				62	0.95	88	913	69	1	6	20	1

SEP 15 1960

Rye Beach Rd. Interchange Ramp D

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

63
235

ERI G-11.30

℄ CONSTRUCTION
53+25.00 RYE BEACH RD.
12+32.15 ℄ RAMP "A"

N

Match Line
See Ramp Cross Sections

RAMP "A"

℄ CONSTR. RYE BEACH RD.

Cut

Fill

WESTBOUND LANES

℄ SURVEY & ℄ CONSTRUCTION U.S.6 & S.R.2 RELOC.

EASTBOUND LANES

Sta. 1038+65.89 ℄ SURVEY U.S.6 RELOC.
Sta. 48+23.82 ℄ CONST. RYE BEACH RD.

Match Line
See Ramp Cross Sections

RAMP "D"

TOTAL THIS SHEET:

Excavation	= 12,600 Cu. Yds.
Embankment	= 2,380 Cu. Yds.
Seeding	= 12,700 Sq. Yds.

Scale : 1" = 50'

9+55.53 ℄ RAMP "D"
43+25.00 ℄ SURVEY & CONSTR. RYE BEACH RD.

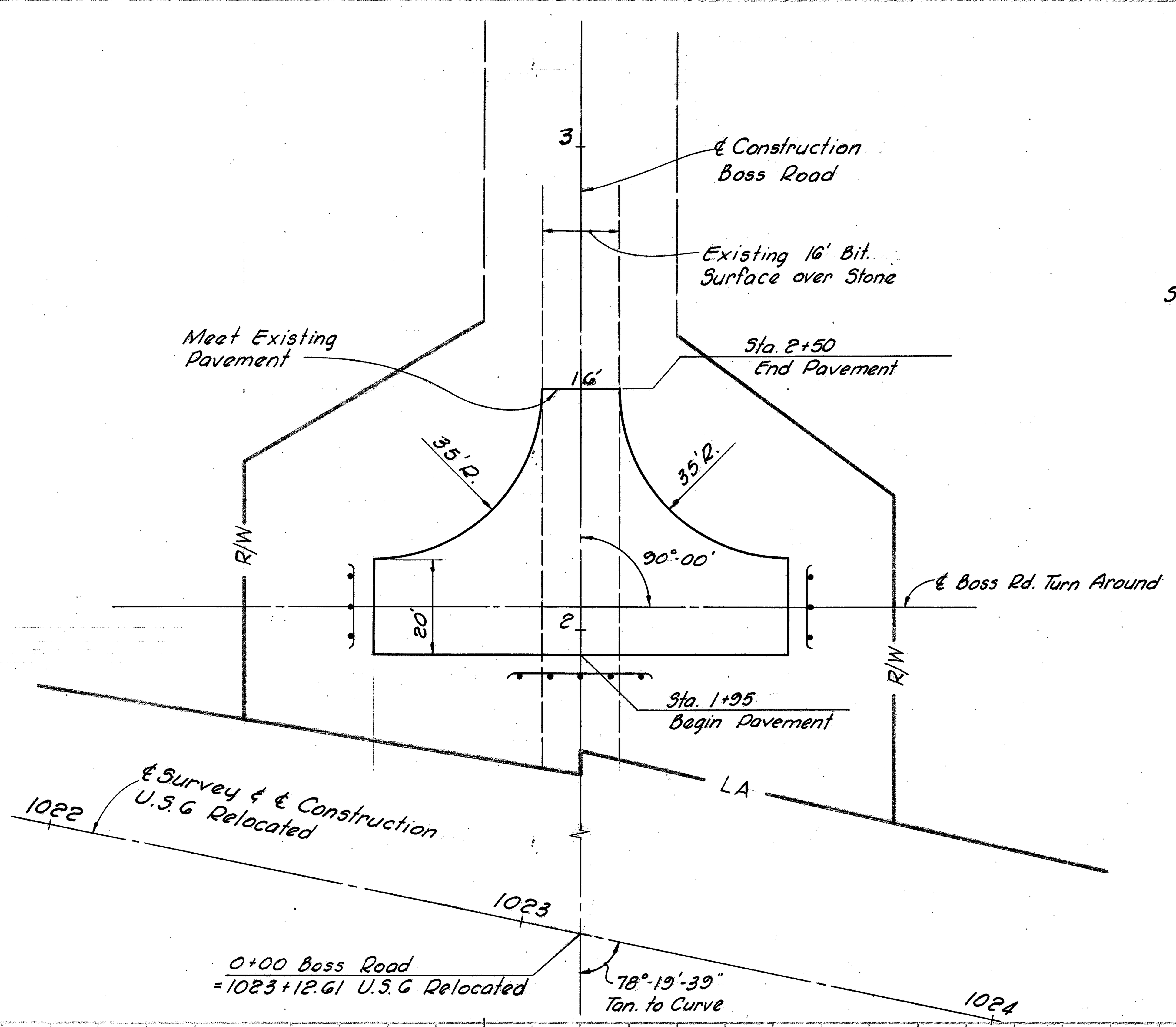
SEP 15 1960

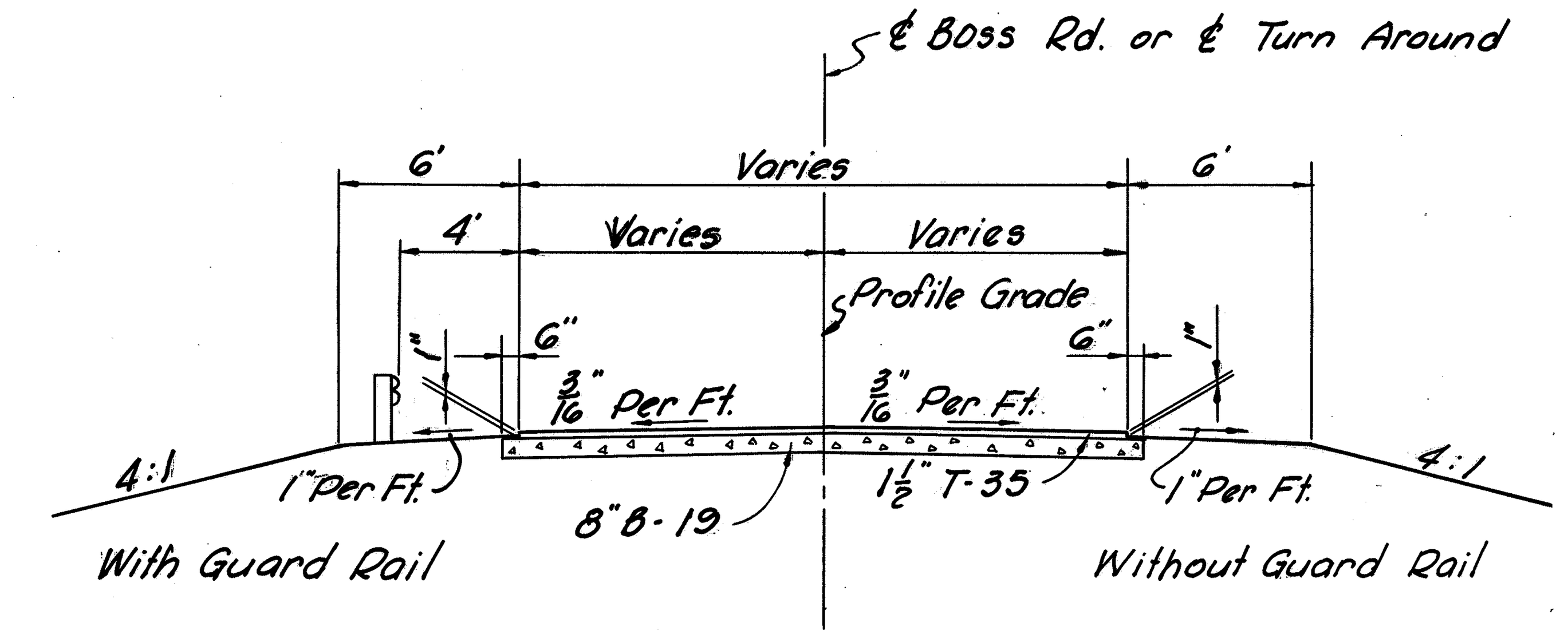
CONTOUR GRADING N.W. & S.W. QUADRANT RYE BEACH RD. INTERCHANGE

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

64
235

ERI. 6-11.30

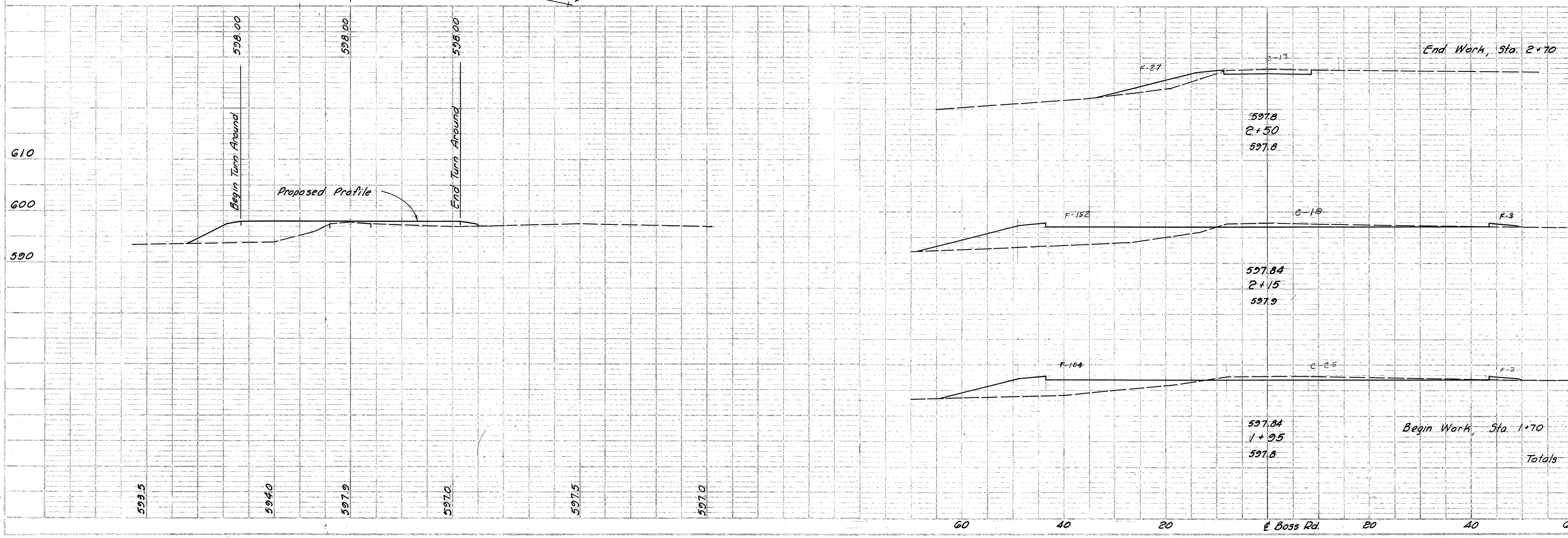




PROPOSED TYPICAL SECTION

ESTIMATED QUANTITIES

T-35	Asphaltic Concrete Surface Course, Type A	13.0 Cu. Yds.
B-19	Aggregate Base Course	72.1 Cu. Yds.
T-30	Bituminous Prime Coat	130 Gals.



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
End Work, Sta. 2+70	0	0		
			5	10
	13	27		
			20	118
	18	155		
			16	97
	25	107		
			12	50
Begin Work, Sta. 1+70	0	0		
Totals			53	275

SEP 15 1960

BOSS ROAD TURN AROUND

FED.RD DIVISION 2
STATE OHIO
PROJECT
TYPE FUNDS
65
235
ERI. 6-11.30
P.O.T 4+00 Boss Rd. Reloc.
P.I Sta. 10+00 Boss Rd. Reloc.
P.I Sta. 10+74.80
P.O.T Sta. 13+32.56
P.I Sta. 16+63.90
NEW YORK CENTRAL RAILROAD
℄ Westbound Track
Eastbound Track
Gauge E.Bd. Track
Light Woods & Brush
Medium Woods & Brush
SAW MILL CREEK
Dumped Rock Channel Protection 4'x70'x30" Thk.
℄ Survey & ℄ Construction Boss Rd. Relocated
Sta. 12+07.00 ℄ Boss Rd. Reloc.
Begin Work Sta. 8+00
4' Sod Ditch
Foot Bridge
Hangar
Frame Barn
Frame Shed
Gar.
2 Sty. Fr. Res.
1½ Sty. Fr. Res.
Cistern
Well
Whistle Sign
Control Box
Telephone Booth
Electric Panels
R.R. Signal
TYPICAL SECTION OF ADJOINING PAVEMENT
SCALE: 1"=10'
℄ BOSS RD.
Bit. Surface over Stone Base
CURVE DATA
Δ = 28°-00' Rt.
R = 300.00'
T = 74.80'
L = 146.61'
E = 9.18
P.C. = 10+00
P.I. = 10+74.80
P.T. = 11+46.61
Superelevation = 0.05 ft./ft.
Rotate about ℄ of Pav't.
CURVE DATA
Δ = 40°-13'-40" Rt.
D = 5°-20'
R = 1074.30'
T = 393.43'
L = 754.27'
E = 69.78'
P.C. = 12+70.47
P.I. = 16+63.90
P.T. = 20+24.74
Superelevation = 0.05 ft./ft.
Rotate about ℄ of Pav't.
B.M. R.R. Spike in N. side of Power Pole, 17' Rt. Sta. 5+48 Elev. 601.43
B.M. Nail in N.E. Root of 34" Oak, E. side of Saw Mill Creek 157' Rt. Sta. 12+71 Elev. 597.88
B.M. S.E. Anchor Bolt, Base of Signal Tower S. of Railroad. 102' Lt. Sta. 19+50 Elev. 606.01
P.V.C. 8+00 Elev. 601.92
P.V.I. 9+00 Elev. 601.84
P.V.T. 10+00 Elev. 598.44
P.V.C. 10+00 Elev. 598.44
P.V.I. 12+00 Elev. 591.64
P.V.T. 14+00 Elev. 596.84
P.V.C. 14+00 Elev. 596.84
P.V.I. 16+00 Elev. 602.04
P.V.T. 18+00 Elev. 603.08
P.V.C. 20+00 Elev. 604.12
P.V.I. 21+00 Elev. 604.64
-0.08%
-3.40%
+2.60%
+0.52%
200' V.C.
400' V.C.
PROPOSED STRUCTURE
Type: Continuous Reinforced Concrete Slab. Reinforced Concrete Substructure Abutments on pedestals. Solid Wall piers.
Spans: 26'-0", 32'-6", 26'-0"
Roadway: 32'-0" f/f of Guard Rail and out to out of slab
Load Frequency: CF 130 (57)
Skew: 15° Left Forward
Wearing Surface: ¾ Monolithic Concrete
Approach Slabs: AS-1-54 (25'-0" Long)
Alignment: Tangent
SEP 15 1960
8+00 - 21+00 BOSS RD. RELOCATION

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI. 6-11.30

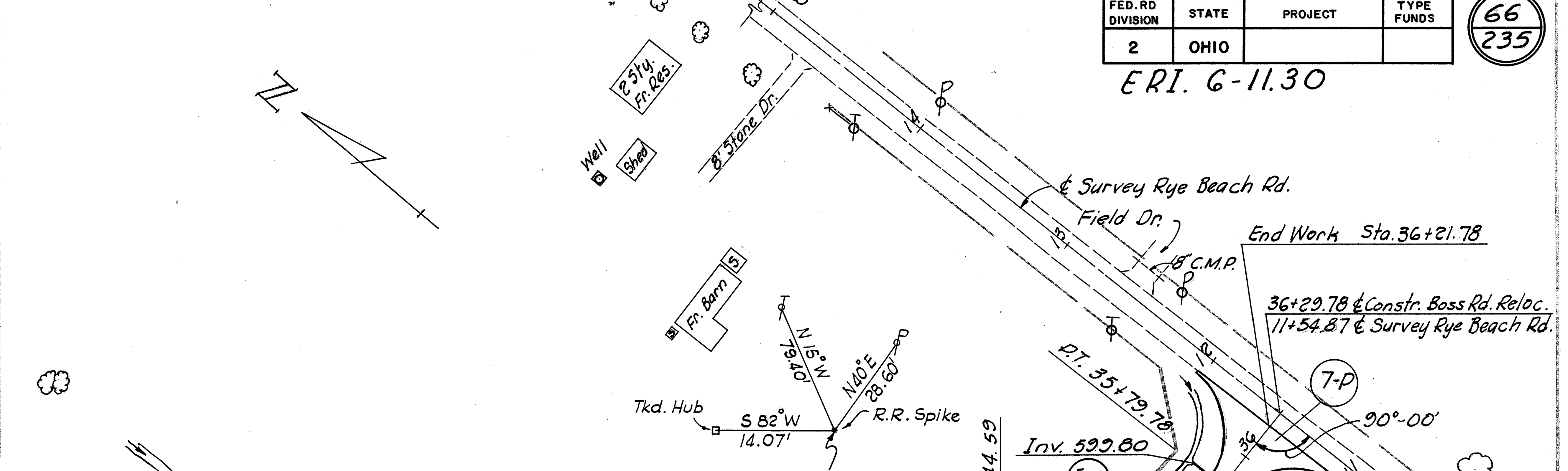
ROADWAY QUANTITIES

See Sheet No.	Ref. No. or Structure No.	Station From	Station To	Side	E-1 Compacted Subgrade	B-19 Aggregate Base Course	T-30 Bituminous Prime Coat	T-35 Asphaltic Conc. Surface Course Type A	I-7 Reinf. P.C. Conc. App. Slab T=13"	I-22 Subbase	I-15 Guard Rail (Std. Type)	
					Sq.Yd.	Cu.Yd.	Gal.	Cu.Yd.	Sq.Yd.	Cu.Yd.	Lin.Ft.	
68	1-R	8+25		Lt.		2.8		1.1				
68	6-P			Lt.	190.0	42.2	72.1	7.5				
	2-R	11+38.97	11+63.97	Lt.&Rt.	55.6				55.6	9.3		
	3-R	12+50.03	12+75.03	Lt.&Rt.	55.6				55.6	9.3		
68	4-R	As directed by Engr.		Rt.		5.7		*2.3				
68	7-P				168.9	39.1	67.5	7.0				
	5-R	10+55	11+69	Lt.							126.5	
	6-R	10+83.5	11+60	Rt.							76.5	
	7-R	12+46	13+21	Rt.							75.0	
	8-R	12+55	13+30	Lt.							75.0	
	Totals				470.1	89.8	139.6	17.9	111.2	18.6	353.0	

* Includes 1.1 cu.yds., no Fed. Part.

DRAINAGE QUANTITIES

See Sheet No.	Ref. No. or Structure No.	Station From	Station To	Side	I-1 12" Pipe for Driveways	I-10 Dumped Rock Channel Protection	L-10 Sodding		
					Lin.Ft.	Cu.Yd.	Sq.Yd.		
	1-D	9+90	11+60	Rt.		26	44		
	2-D	12+80	15+00	Lt.		26	67		
	3-D	12+80	15+00	Rt.		26	67		
	4-D			Rt.	24				
	5-D	35+80		Lt.&Rt.	42				
	Totals				66	78	178		



CURVE DATA
Δ = 51°-38'-20" Lt.
R = 150.00'
T. = 72.58'
L. = 135.19'
E. = 16.64'
P.C. = 34+44.59
P.I. = 35+17.17
P.T. = 35+79.78
Superelevation = 0.03 ft./ft.
Rotate about ¢ of Pav't.

10+00 ¢ Survey Rye Beach Rd.
37+14.68 ¢ Boss Rd. Extended

SEP 15 1960

PLAN

SURVEYED	BY	DATE
PLOTTED		1960
ALIGNMENT CHECKED	ERM / S.M.B.	4-60
RT. OF WAY CHECKED	EDS / DFS	4-60
NOTE BOOK NO.	EDS	4-60

PROFILE

SURVEYED	BY	DATE
PLOTTED	S.M.B.	1960
GRADES CHECKED	ERM / DFS	4-60
B. M.'s NOTED	RNE	4-60
STRUCTURE NOTATIONS CH'KD	EDS	4-60
NOTE BOOK NO.		

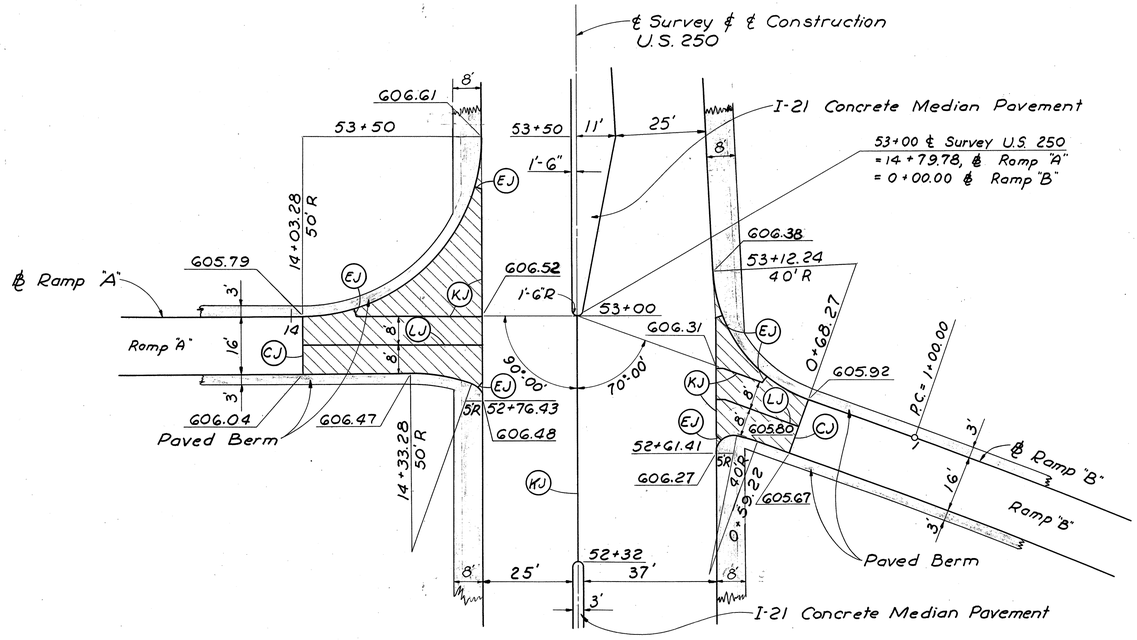
PLATE — PLAN-PROFILE ... STANDARD

21+00 - 36+21.78 BOSS RD. RELOCATION

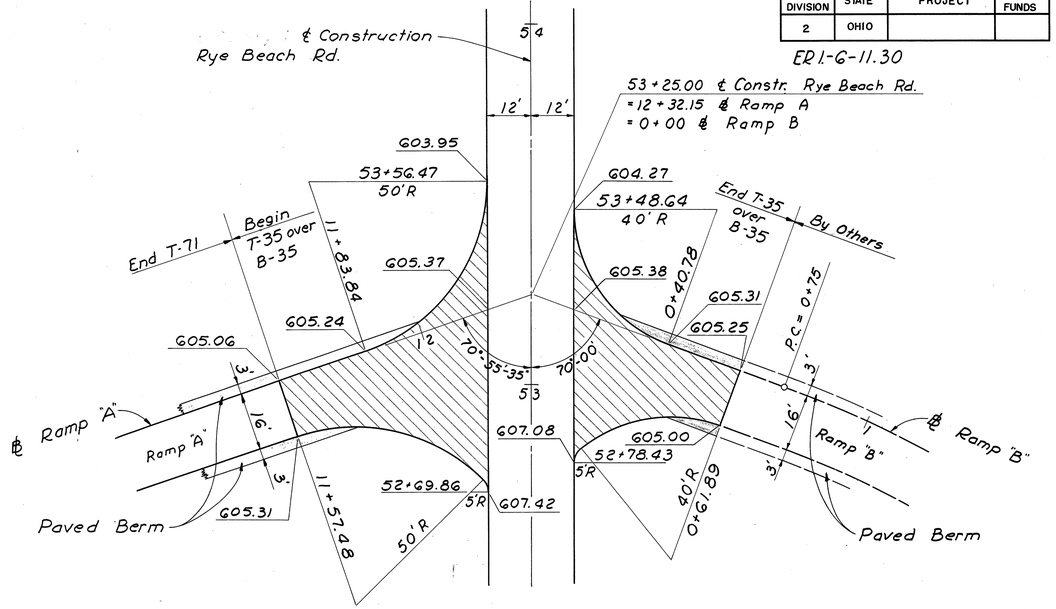
FED.RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

67
235

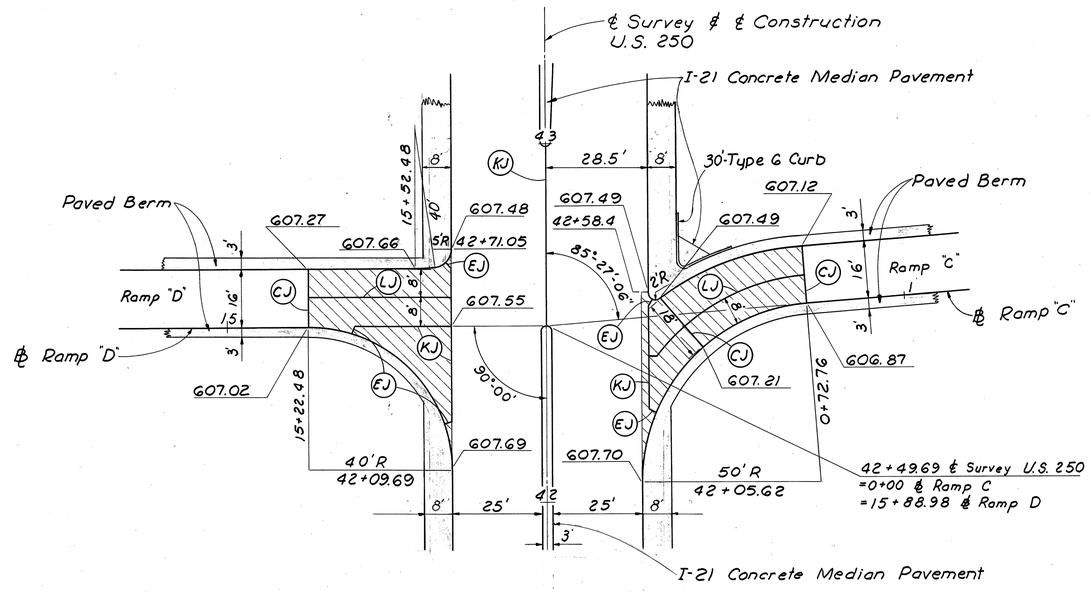
ER 1-6-11.30



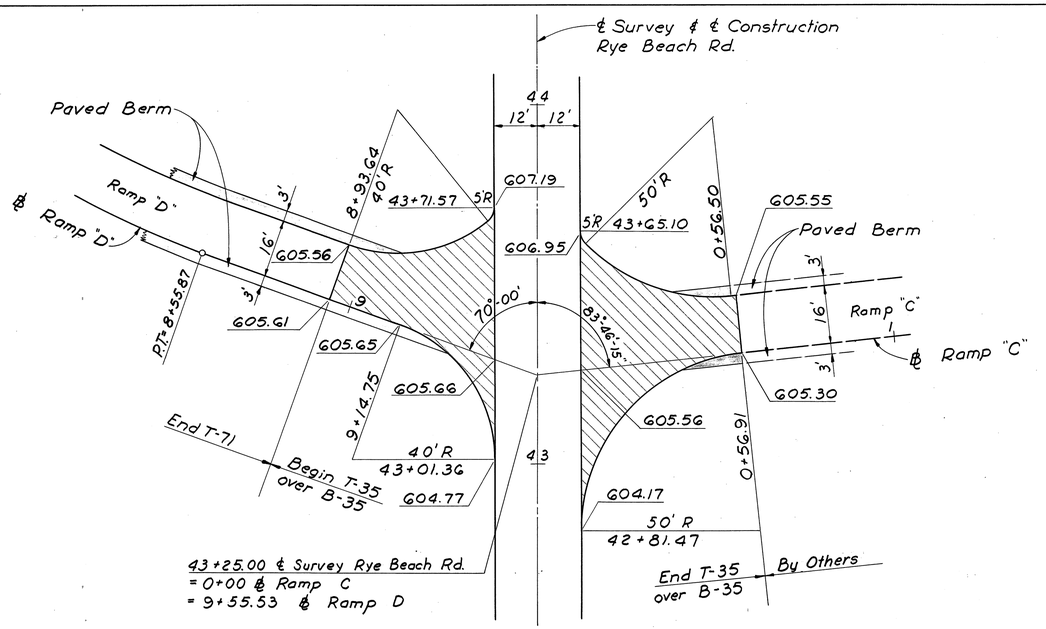
1-P RAMPS "A" ℄ "B" - U.S. 250



3-P RAMPS "A" ℄ "B" - RYE BEACH ROAD



2-P RAMPS "C" ℄ "D" - U.S. 250



4-P RAMPS "C" ℄ "D" - RYE BEACH ROAD

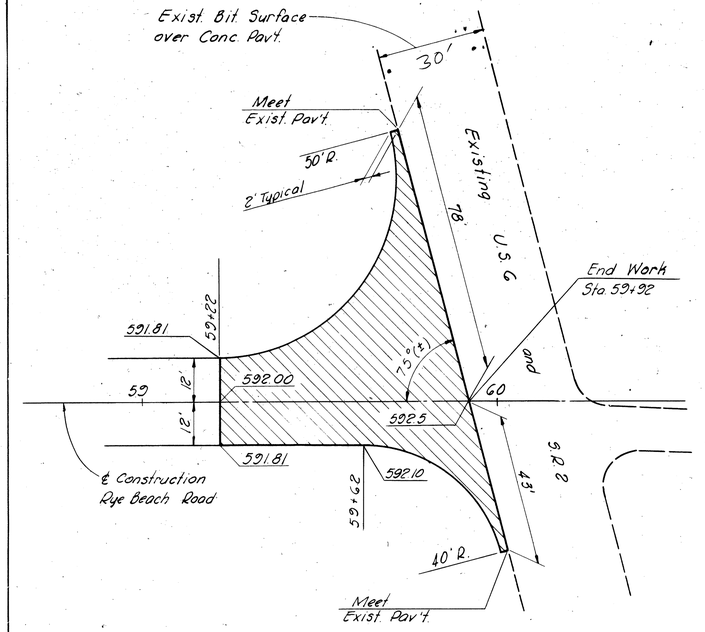
SEP 15 1960

INTERSECTION DETAILS

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

68
235

ERI. 6-11.30



5-P **EXISTING U.S. 6 & RYE BEACH ROAD**

BOSS RD. RELOC. 300' R. & D: 5°-20' Curves
Maximum Superelevation Rate = 0.05 ft./ft.

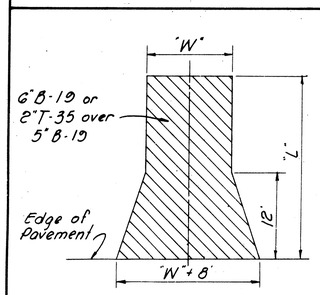
LEFT		CENTER		RIGHT	
Edge of Pavement	Add to Pr. Grd.	Station	Profile Grade	Deduct from Pr. Grd.	Edge of Pavement
601.84	-0.15	8+75	601.39	0.15	601.24
600.91	-0.10	9+00	601.01	0.16	600.85
600.47	-0.05	+25	600.58	0.16	600.36
599.93	0.00	+50	599.93	0.16	599.77
599.37	0.13	+75	599.24	0.16	599.08
599.15	0.16	+82	598.99	0.16	598.83
598.69	0.25	P.C. 10+00.00	598.44	0.25	598.19
598.02	0.38	+25	597.64	0.38	597.26
597.43	0.50	+50	596.93	0.50	596.43
596.81		+75	596.31		595.81
596.29		11+00	595.79		595.29
595.86		+25	595.36		594.86
595.57		P.T. +46.61	595.07		594.57
595.53	0.50	+50	595.03	0.50	594.53
℄ For elevations, See Bridge Detail Sheets →					
595.13	0.50	+50	594.63	0.50	594.13
595.24	0.50	P.C. +70.47	594.74	0.50	594.24
595.26	0.50	+75	594.76	0.50	594.26
595.49	0.50	13+00	594.99	0.50	594.49
595.79	0.48	+25	595.31	0.48	594.83
596.18	0.45	+50	595.73	0.45	595.28
596.67	0.43	+75	596.24	0.43	595.81
597.24	0.40	14+00	596.84	0.40	596.44
597.87		+25	597.47		597.07
598.48		+50	598.08		597.68
599.04		+75	598.64		598.24
599.58		15+00	599.18		598.78
600.08		+25	599.68		599.28
600.56		+50	600.16		599.76
600.99		+75	600.59		600.19
601.40		16+00	601.00		600.60
601.77		+25	601.37		600.97
602.12		+50	601.72		601.32
602.42		+75	602.02		601.62
602.70		17+00	602.30		601.90
602.94		+25	602.54		602.14
603.16		+50	602.76		602.36
603.33		+75	602.93		602.53
603.48		18+00	603.08		602.68
603.61		+25	603.21		602.81
603.74		+50	603.34		602.94
603.87		+75	603.47		603.07
604.00		19+00	603.60		603.20
604.13		+25	603.73		603.33
604.26		+50	603.86		603.46
604.39	0.40	+75	603.99	0.40	603.59

BOSS RD. RELOC. 300' R. & D: 5°-20' Curves
Maximum Superelevation Rate = 0.05 ft./ft.

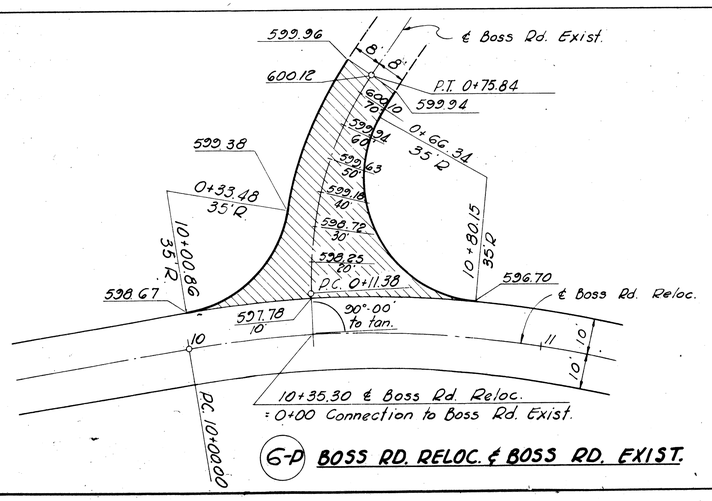
LEFT		CENTER		RIGHT	
Edge of Pavement	Add to Pr. Grd.	Station	Profile Grade	Deduct from Pr. Grd.	Edge of Pavement
604.42	0.30	20+00	604.12	0.30	603.82
604.44	0.20	+24.74	604.24	0.20	604.04
604.44	0.20	+25	604.24	0.20	604.04
604.45	0.13	+43	604.32	0.13	604.19
604.45	0.10	+50	604.35	0.13	604.22
604.44	0.00	+75	604.44	0.13	604.31
604.44	-0.07	21+00	604.51	0.13	604.38
604.44	-0.13	+25	604.57	0.13	604.44

BOSS ROAD RELOCATED 150' R.
Maximum Superelevation Rate: 0.03 ft./ft.

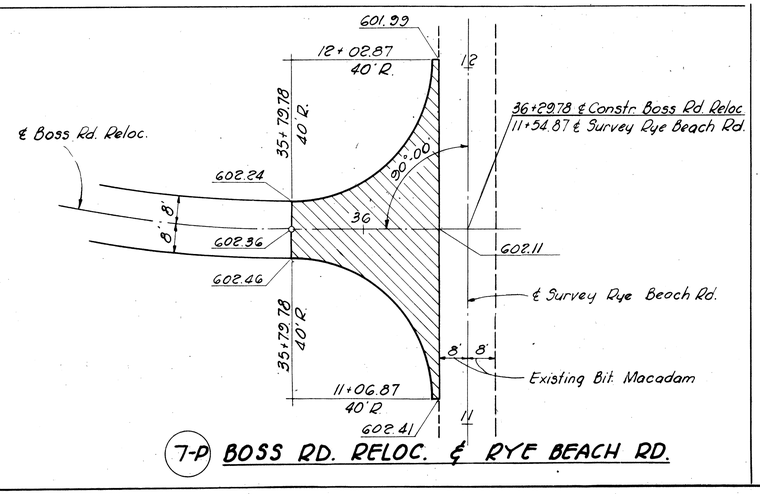
LEFT		CENTER		RIGHT	
Edge of Pavement	Deduct from Pr. Grd.	Station	Profile Grade	Add to Pr. Grd.	Edge of Pavement
603.46	0.13	33+75	603.59	-0.13	603.46
603.31	0.13	34+00	603.44	-0.06	603.38
603.16	0.13	+25	603.29	0.00	603.29
603.04	0.13	P.C. +44.59	603.17	0.09	603.26
603.01	0.13	+50	603.14	0.18	603.26
602.75	0.24	+75	602.99	0.24	603.23
602.60	0.24	35+00	602.84	0.24	603.08
602.45	0.24	+25	602.69	0.24	602.93
602.30	0.24	+50	602.54	0.24	602.78
602.27	0.12	+75	602.39	0.12	602.51
See Intersection Details					



DRIVE DETAIL
(Without Sidewalk)



6-P **BOSS RD. RELOC. & BOSS RD. EXIST.**



7-P **BOSS RD. RELOC. & RYE BEACH RD.**

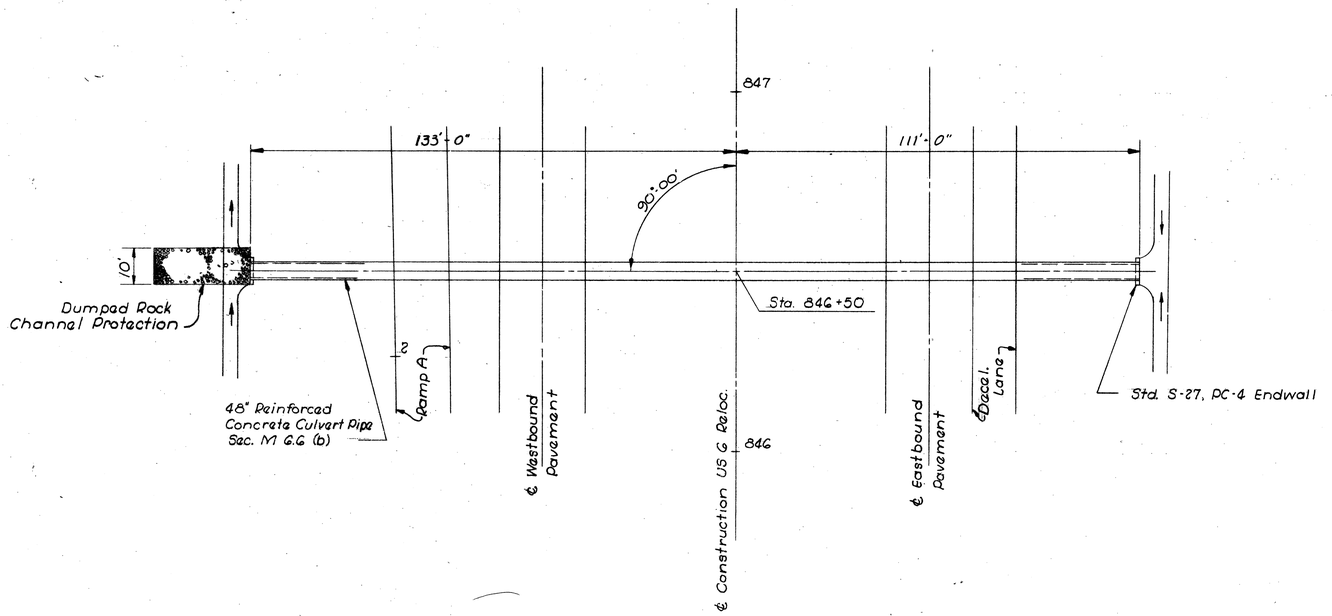
SEP 15 1960

DRIVE DETAILS AND SUPERELEVATION TABLES

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

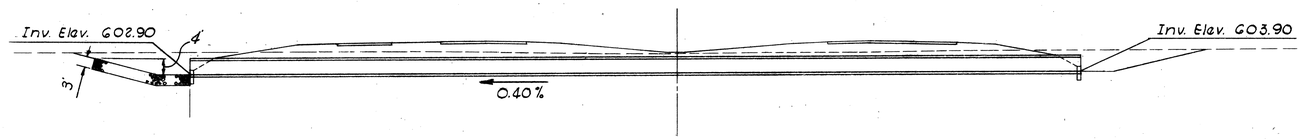
69
235

ERI. G-11.30

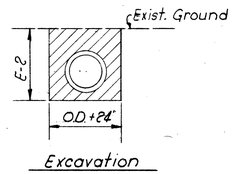


PLAN
Scale: 1" = 20'

Drainage Area = 110 Ac.
Q_{25} = 96 C.F.S.



LONGITUDINAL SECTION
Scale: 1" = 20'



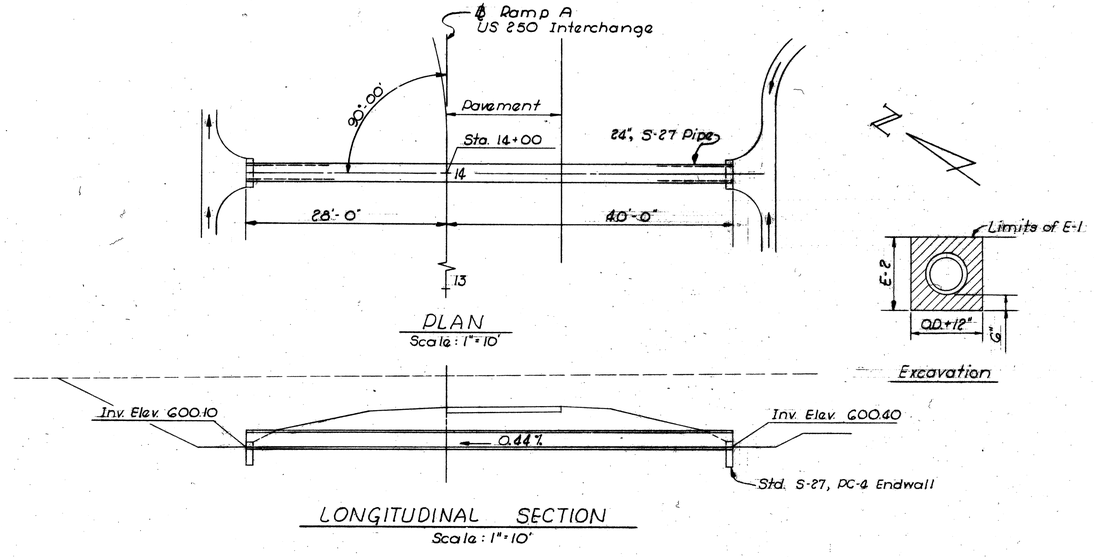
Excavation

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	461	Cu. Yd.	Excavation for Structure
S-1	1.78	Cu. Yd.	Concrete for Structure, Class E
S-27	244	Lin. Ft.	48" Reinforced Concrete Culvert Pipe, Sec. M-6.6 (b)
I-10	28	Cu. Yd.	Dumpad Rock Channel Protection

SEP 15 1960

1	Sta. 846+50	RC. 48" × 244'	ERI. G-11.30

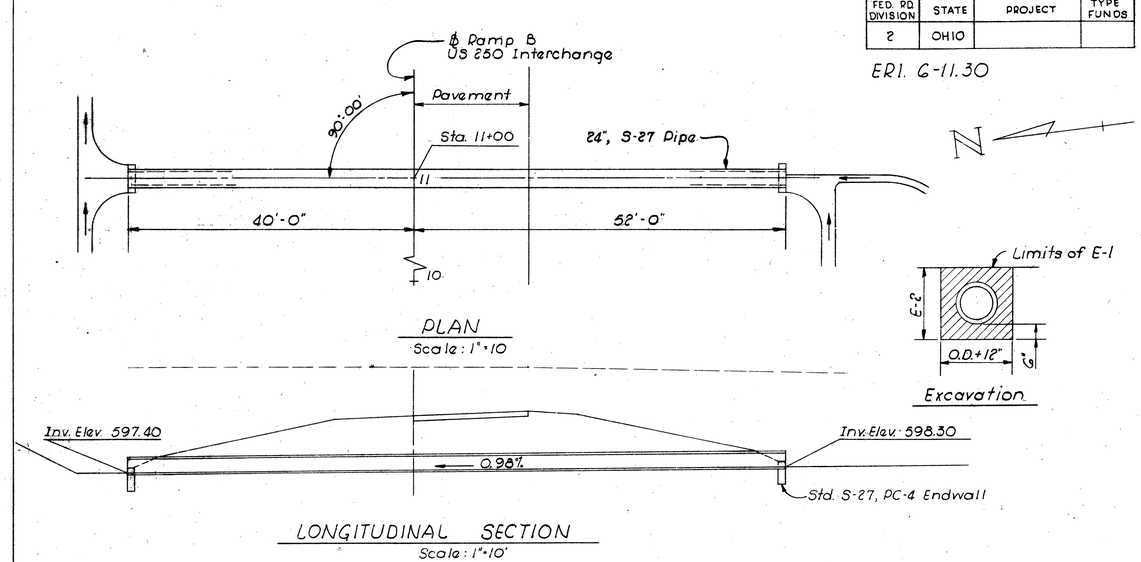
CULVERT DETAILS



ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	4C	Cu. Yd.	Excavation for Structure
S-1	0.82	Cu. Yd.	Concrete for Structure, Class E
S-27	68	Lin. Ft.	24" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec. M-6.8 (b).

Drainage Area = 6 Ac.
Q_{25} = 11.6 C.F.S.

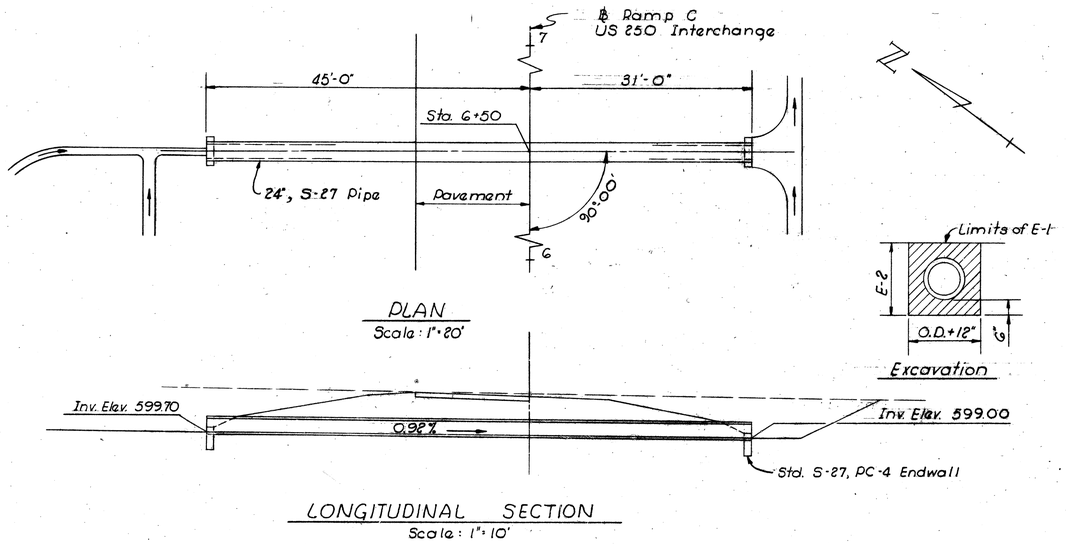
2	Sta. 14+00 Ramp A, US 250	P.C. 24" x 68'	ER1. 6-11.30



ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	7C	Cu. Yd.	Excavation for Structure
S-1	0.82	Cu. Yd.	Concrete for Structure, Class E
S-27	92	Lin. Ft.	24" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec. M-6.8 (b).

Drainage Area = 7 Ac.
Q_{25} = 12.8 C.F.S.

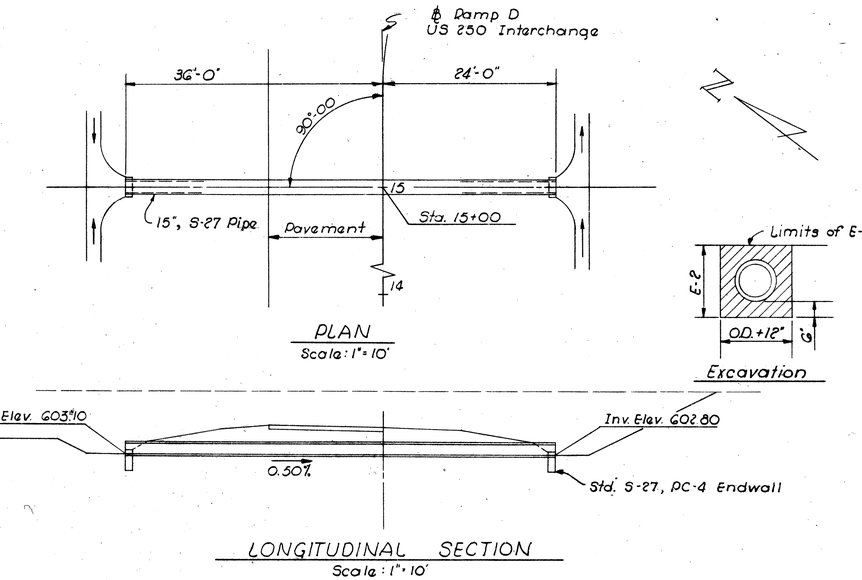
3	Sta. 11+00 Ramp B, US 250	P.C. 24" x 92'	ER1. 6-11.30



ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	50	Cu. Yd.	Excavation for Structure
S-1	0.82	Cu. Yd.	Concrete for Structure, Class E
S-27	76	Lin. Ft.	24" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec. M-6.8 (b)

Drainage Area = 12.8 Ac.
Q_{25} = 19.6 C.F.S.

4	Sta. 6+50 Ramp C, US 250	P.C. 24" x 76'	ER1. 6-11.30



ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	22	Cu. Yd.	Excavation for Structure
S-1	0.52	Cu. Yd.	Concrete for Structure, Class E
S-27	60	Lin. Ft.	15" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec. M-6.8 (b)

Drainage Area = 0.4 Ac.
Q_{25} = 1.6 C.F.S.

5	Sta. 15+00 Ramp D, US 250	P.C. 15" x 60'	ER1. 6-11.30

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

70
235

ER1. 6-11.30

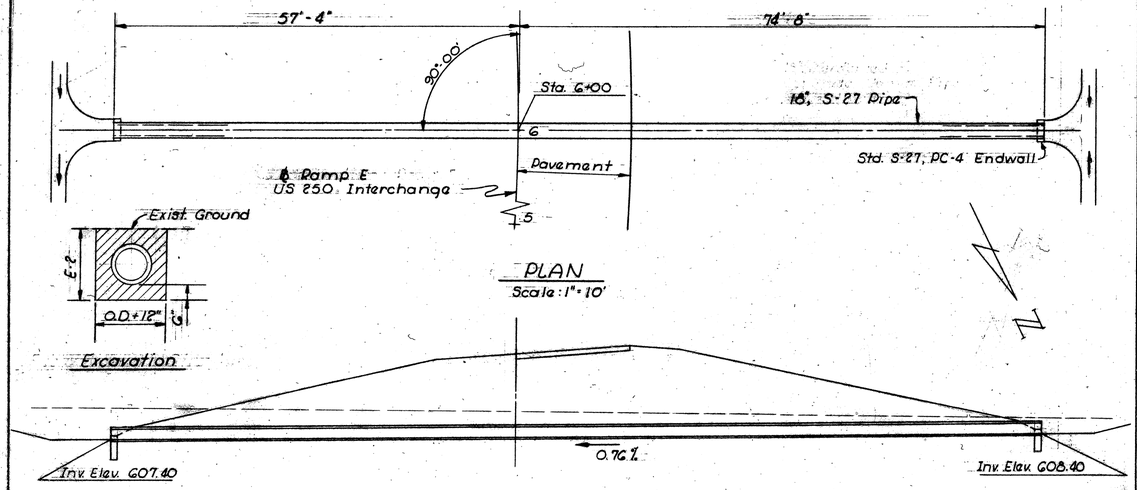
SEP 15 1960

CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

71/235

ERI. G-11.30



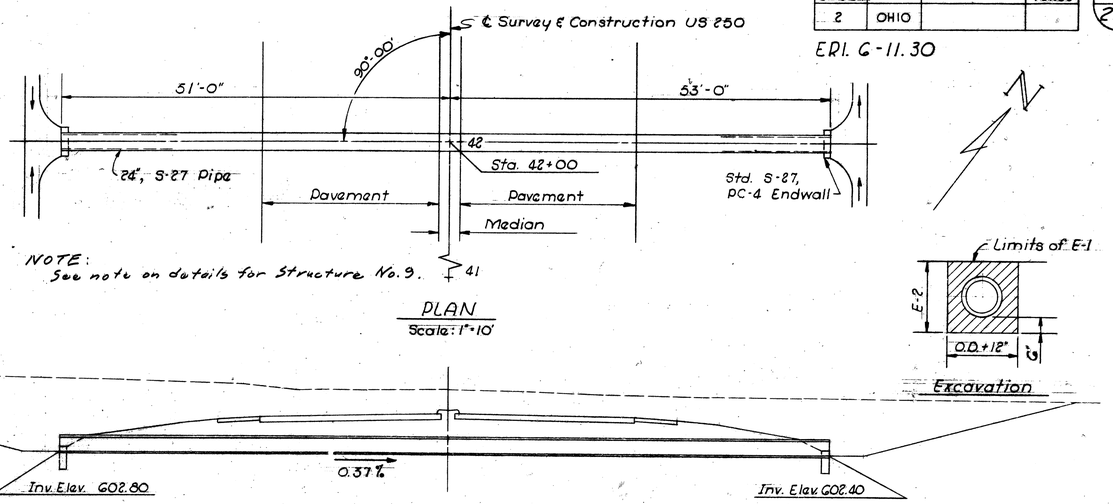
PLAN
Scale: 1"=10'

LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	68	Cu. Yd.	Excavation for Structure
S-1	0.60	Cu. Yd.	Concrete for Structure, Class E
S-27	132	Lin. Ft.	18" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec. M-6.8 (b)

Drainage Area = 1.9 Ac.
Q_{25} = 4.6 C.F.S.

6	Sta. 6+00 Ramp E, US 250	P.C. 18" x 132'	ERI. G-11.30



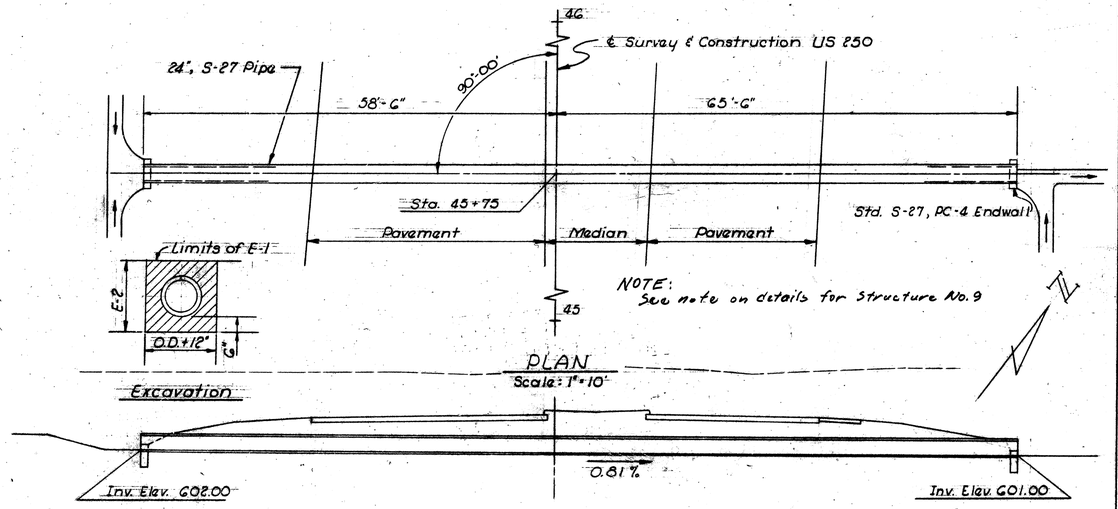
PLAN
Scale: 1"=10'

LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	70	Cu. Yd.	Excavation for Structure
S-1	0.82	Cu. Yd.	Concrete for Structure, Class E
S-27	108	Lin. Ft.	24" Pipe for Roadway Culvert Sec. M-6.6 (c)

Drainage Area = 5.4 Ac.
Q_{25} = 13.0 C.F.S.

7	Sta. 42+00 US 250	P.C. 24" x 108'	ERI. G-11.30



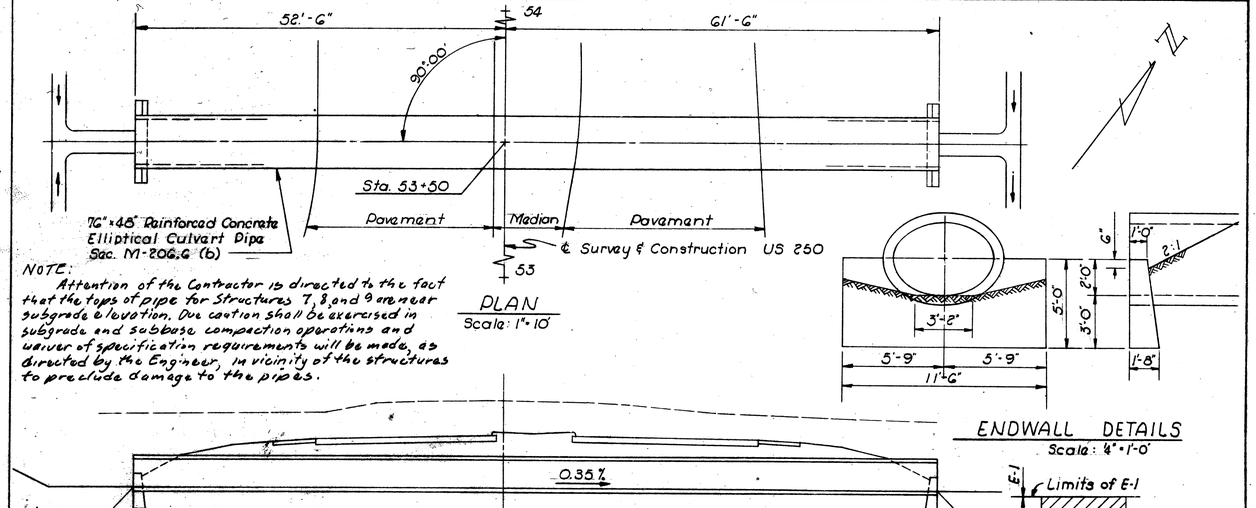
PLAN
Scale: 1"=10'

LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	81	Cu. Yd.	Excavation for Structure
S-1	0.82	Cu. Yd.	Concrete for Structure, Class E
S-27	124	Lin. Ft.	24" Pipe for Roadway Culvert Sec. M-6.6 (c)

Drainage Area = 7.2 Ac.
Q_{25} = 13.2 C.F.S.

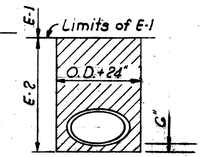
8	Sta. 45+75 US 250	P.C. 24" x 114'	ERI. G-11.30



PLAN
Scale: 1"=10'

LONGITUDINAL SECTION
Scale: 1"=10'

ENDWALL DETAILS
Scale: 1/4"=1'-0"



Excavation

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	270	Cu. Yd.	Excavation for Structure
S-1	4.4	Cu. Yd.	Concrete for Structure, Class E
S-27	114	Lin. Ft.	76"x48" Reinforced Concrete Elliptical Culvert Pipe, Sec. M-206.6 (b)

Drainage Area = 12.8 Ac.
Q_{25} = 106 C.F.S.

SEP 15 1960

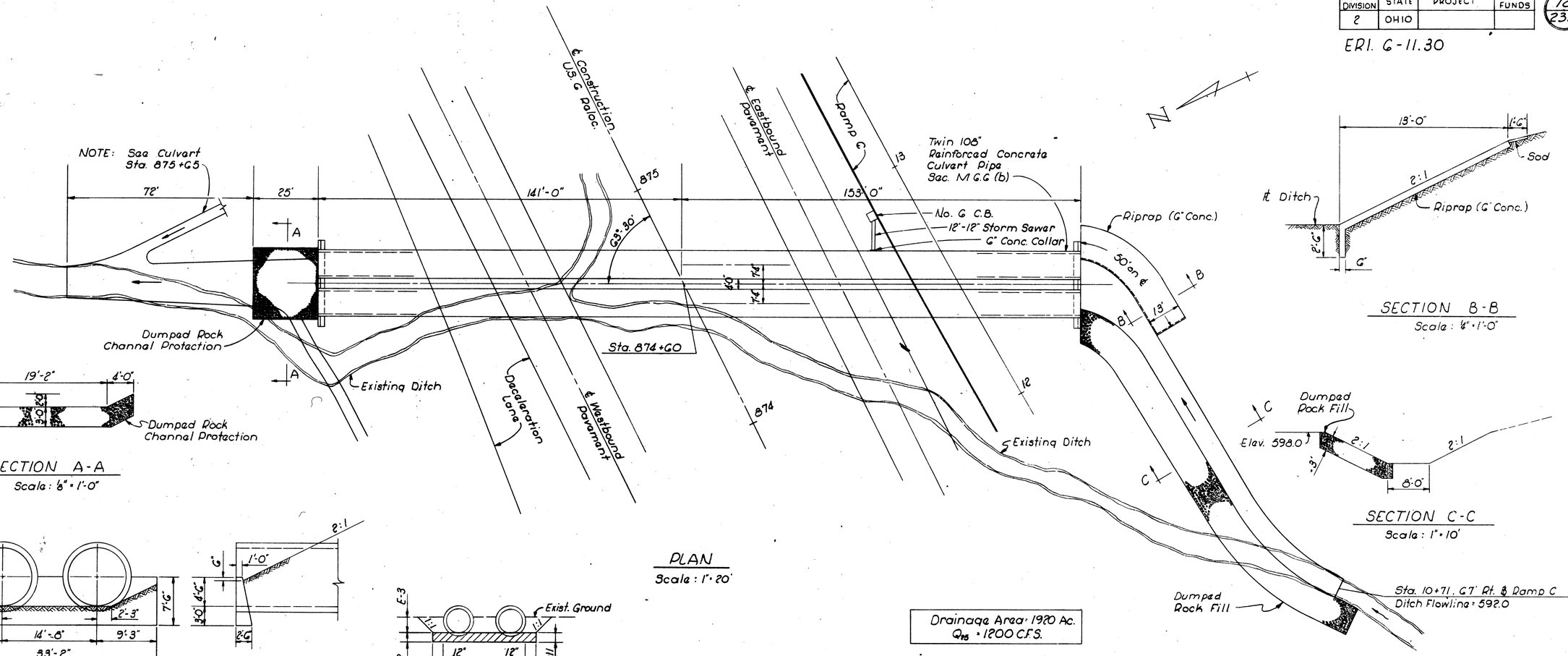
9	Sta. 53+50 US 250	P.C. 76"x48"x114'	ERI.-G-11.30

CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

72
235

ERI. G-11.30



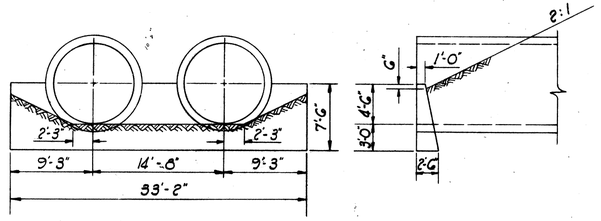
SECTION A-A
Scale: 6" = 1'-0"

SECTION B-B
Scale: 4" = 1'-0"

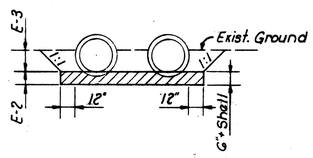
SECTION C-C
Scale: 1" = 10'

PLAN
Scale: 1" = 20'

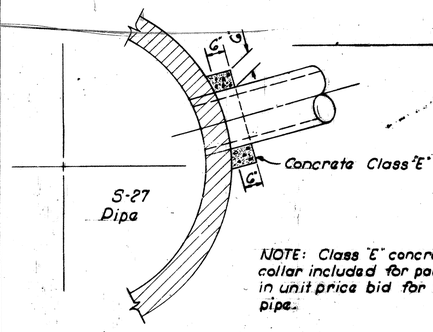
Drainage Area = 1920 Ac.
Q_{25} = 1200 C.F.S.



ENDWALL DETAILS
Scale: 6" = 1'-0"

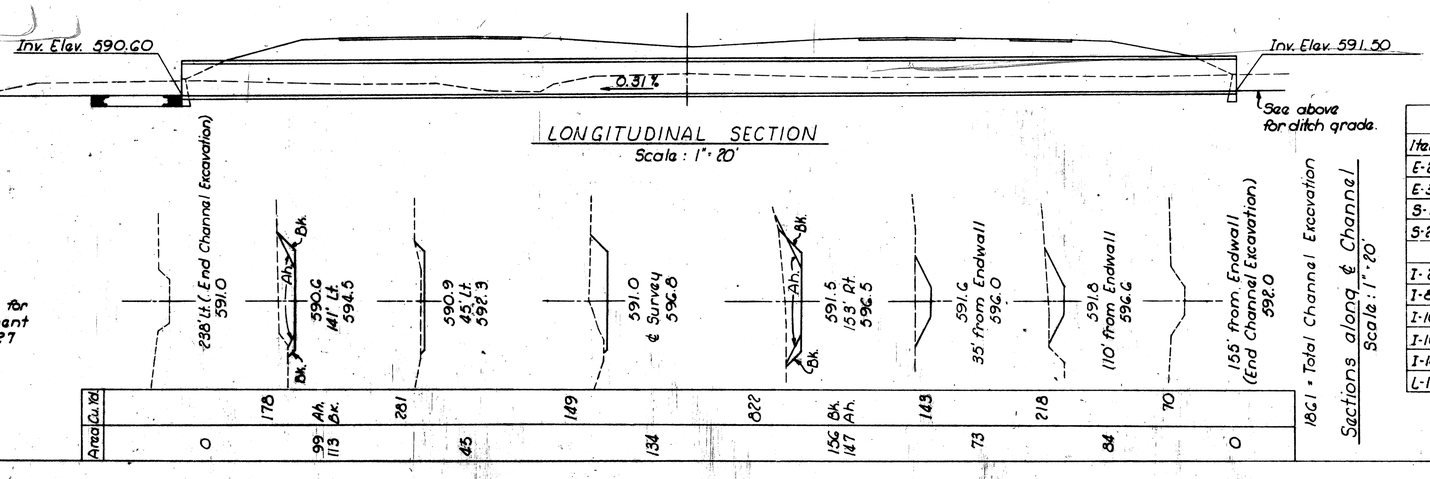


EXCAVATION



NOTE: Class "E" concrete for collar included for payment in unit price bid for S-27 pipe.

DETAIL OF CONCRETE COLLAR
1-2 Pipe to S-27 Pipe



LONGITUDINAL SECTION
Scale: 1" = 20'

1861 = Total Channel Excavation

Sections along ℄ Channel
Scale: 1" = 20'

MICROFILMED
MAR 20 1985

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	414	Cu. Yds.	Excavation for Structure
E-3	1861	Cu. Yds.	Channel Excavation
S-1	22.0	Cu. Yds.	Concrete for Structure, Class E
S-27	588	Lin. Ft.	108" Reinforced Concrete Culvert Pipe, Sec. M C.6 (b)
I-2	12	Lin. Ft.	12" Storm Sewer. Sec. M C.5 (b), M C.8 (b)
I-8	1	Ea.	No. G Catch Basin
I-10	76	Cu. Yds.	Dumped Rock Channel Protection
I-10	273	Cu. Yds.	Dumped Rock Fill.
I-10	81	Sq. Yds.	Riprap (6" Conc.)
L-10	9	Sq. Yds.	Sodding

SEP 15 1960

10	Sta. 874+60	P.C. 2-108" = 294'	ERI. G-11.30

CULVERT DETAILS

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

73/235

ERI. 6-11.30

Area	Cu. Yd.
17	
	53
26 Ah. 41 Bk.	
	201
51	
	197
30 Bk. 23 Ah.	
	27
0	

591.0
185' Lt. (End Channel Excavation)
593.5

Ah. Bk. Bk.
591.2
118' Lt.
594.0

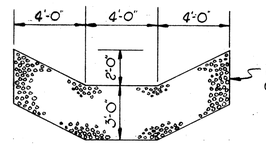
591.9
℄ Survey
595.3

Ah. Bk. Bk.
592.7
122' Rt.
595.2

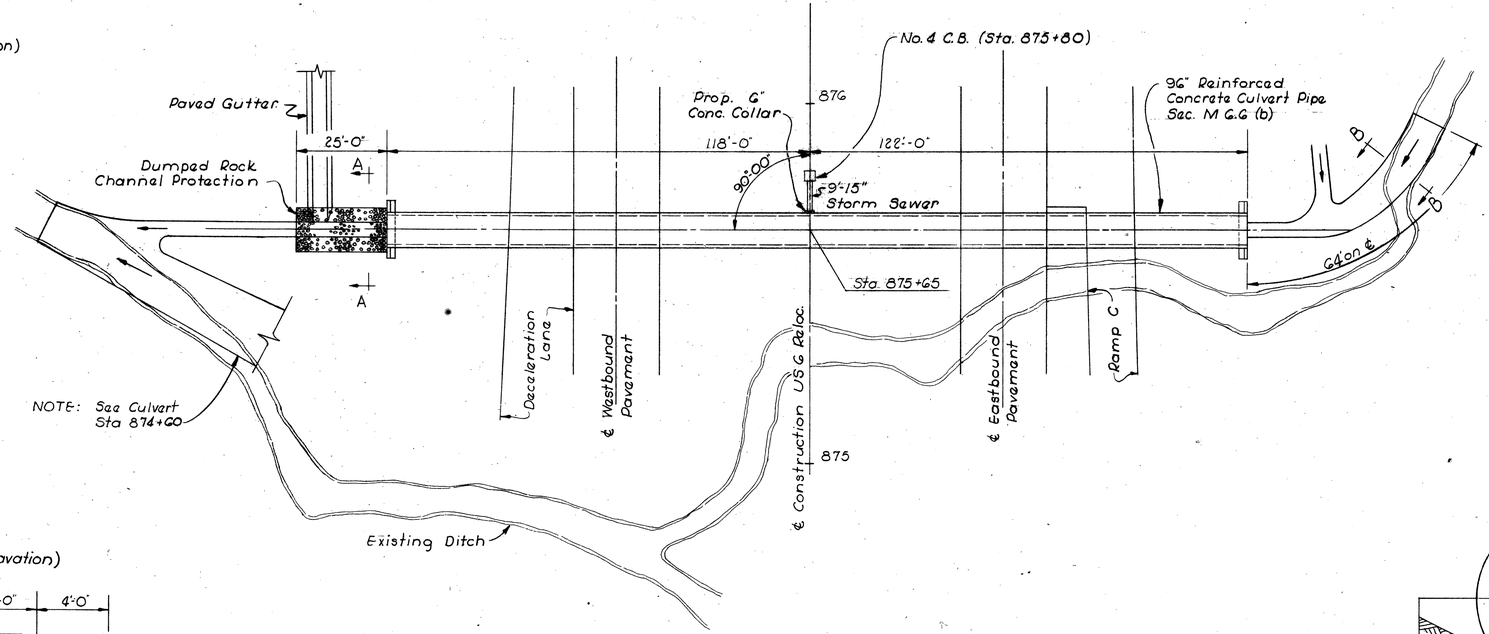
64' from Endwall (End Channel Excavation)
592.8

478 = Total Channel Excavation

Sections along ℄ Channel
Scale: 1" = 20'

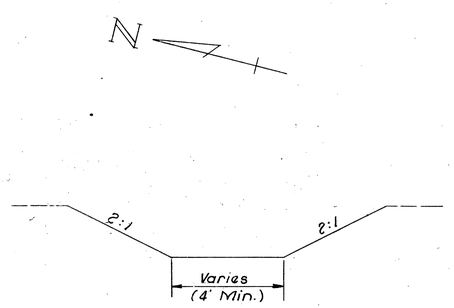


SECTION A-A
Scale: 1/4" = 1'-0"

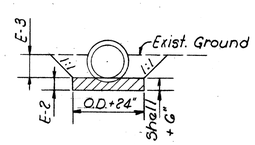


PLAN
Scale: 1" = 20'

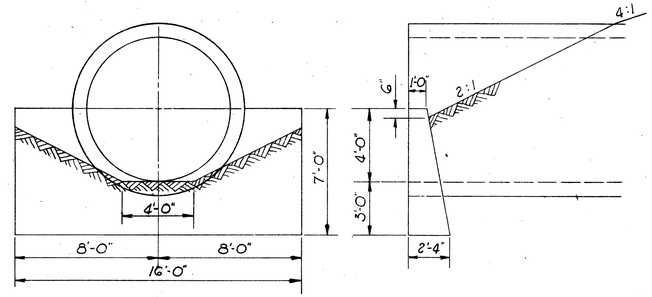
Drainage Area = 850 Ac.
Q_{25} = 431 C.F.S.



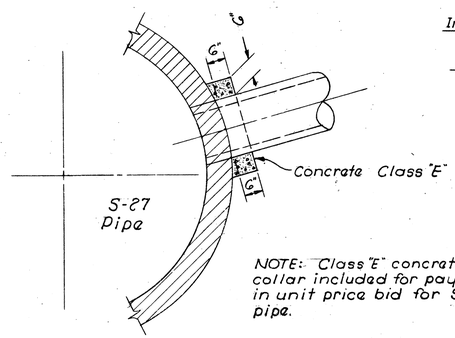
SECTION B-B



Excavation

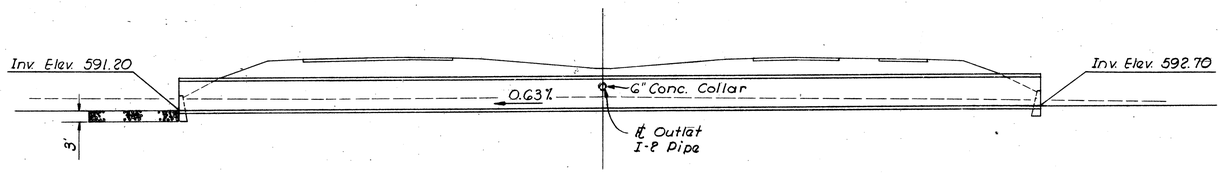


ENDWALL DETAILS
Scale: 1/4" = 1'-0"



NOTE: "Class "E" concrete for collar included for payment in unit price bid for S-27 pipe.

DETAIL OF CONCRETE COLLAR
I-2 Pipe to S-27 Pipe



LONGITUDINAL SECTION
Scale: 1" = 20'

ESTIMATED QUANTITIES

Item	Quantity	Unit	Description
E-2	149	Cu. Yd.	Excavation for Structure.
S-1	10.0	Cu. Yd	Concrete for Structure, Class E.
S-27	240	Lin. Ft.	96" Reinforced Concrete Culvert Pipe, Sec. M-6.6 (b).
I-10	33	Cu. Yd.	Dumped Rock Channel Protection.
E-3	478	Cu. Yd.	Channel Excavation
I-2	9	Lin. Ft.	15" Storm Sewer, M6.5(a) or M-6.8(a)
I-8	1	Ea.	No. 4 Catch Basin

SEP 15 1960	11	Sta. 875+65	RC. 96" × 240'	ERI. 6-11.30

CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

74/235

ERI. G-11.30

Area	Cu. Yd.
0	
	15
28 Ah.	
37 Bk.	
	134
	33
	183
33 Bk.	
28 Ah.	
	23
0	

132' Lt. (End Channel Excavation)
G11.8

Ah. Bk. Bk.

G10.7
103' Lt
G11.8

G11.0
℄ Survey
G12.0

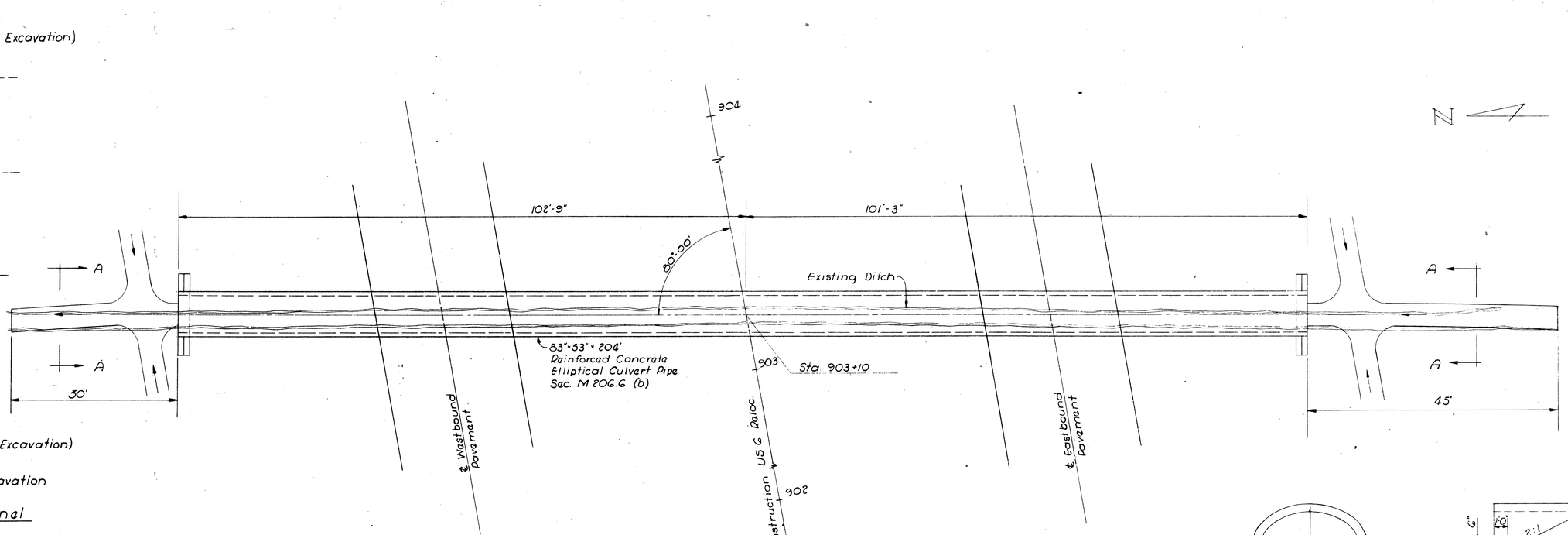
Ah. Bk. Bk.

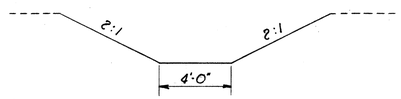
G11.3
101' Rt.
G13.0

146' Rt. (End Channel Excavation)
G12.3

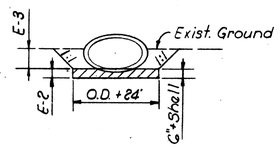
295 = Total Channel Excavation

Sections along ℄ Channel
Scale: 1"=10'



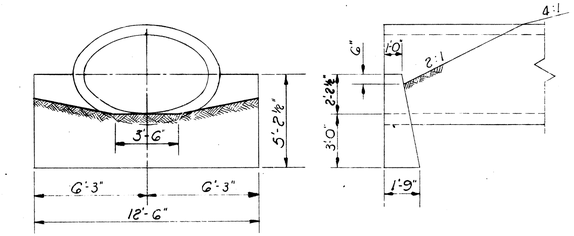


SECTION A-A
Scale: 4"=1'-0"

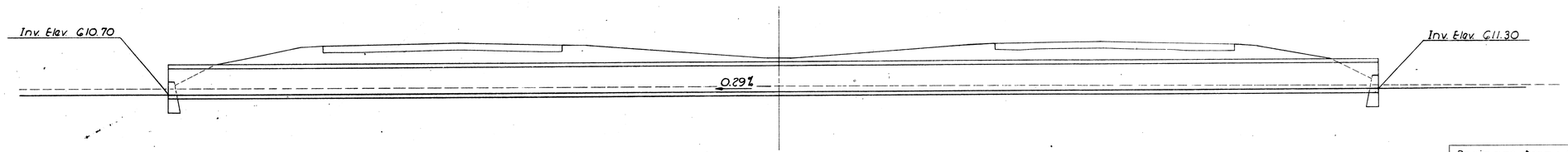


Excavation

PLAN
Scale: 1"=10'



ENDWALL DETAILS
Scale: 4"=1'-0"



LONGITUDINAL SECTION
Scale: 1"=10'

Drainage Area = 180 Ac.
Q_{25} = 170 C.F.S.

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	95	Cu. Yd.	Excavation for Structure.
S-1	5.0	Cu. Yd.	Concrete for Structure, Class E.
S-27	204	Lin. Ft.	83"x53" Reinforced Elliptical Concrete Culvert Pipe, Sec. M-206.6(b)
E-3	295	Cu. Yd.	Channel Excavation.

SEP 15 1960

12	Sta. 903+10	P.C. 83"x53"x204'	ERI G-11.30

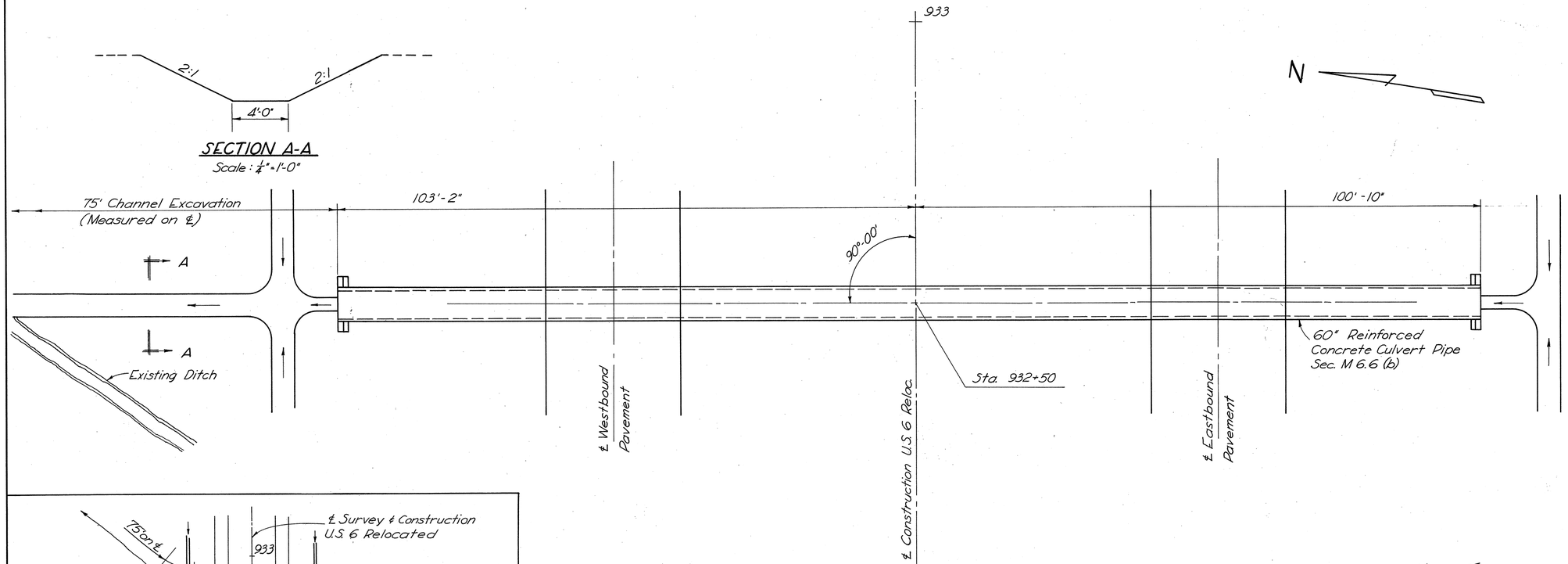
CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

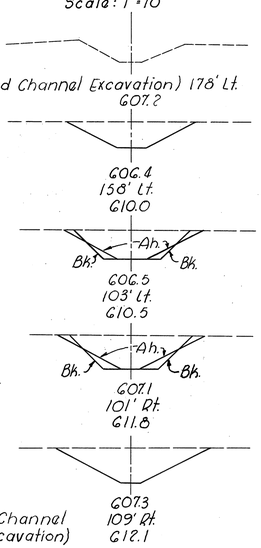
75
235

E.R.I. 6-11.30

SECTION A-A
Scale: 1/4"=1'-0"



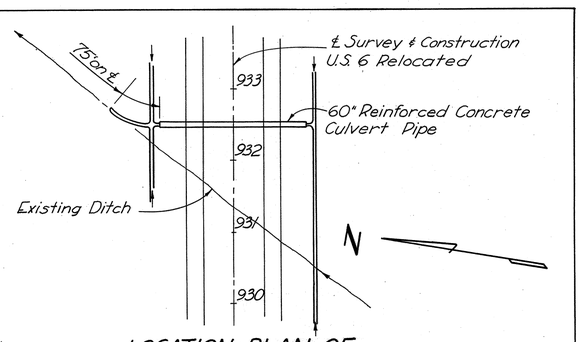
Sections along ℄ Channel
Scale: 1"=10'



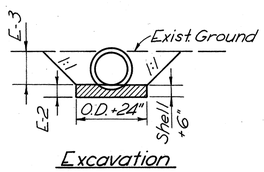
	Area	Cu. Yd.
	0	
		15
	40	
		88
Ah.	46	
Bk.	47	
		393
Bk.	57	
Ah.	51	
		16
	57	
		512

(End Channel Excavation)

Total Channel Excavation =

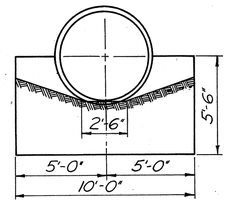


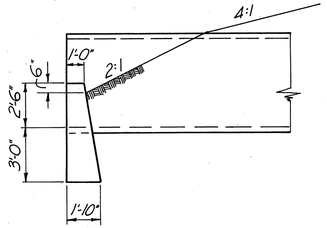
LOCATION PLAN OF PROPOSED CULVERT LOCATION
Scale: 1"=100'



Excavation

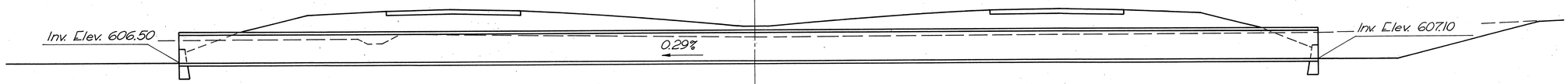
PLAN
Scale: 1"=10"





Drainage Area = 140 Ac.
Q25 = 150 C.F.S.

ENDWALL DETAILS
Scale: 1/4"=1'-0"



LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES

Item	Quantity	Unit	Description
E-2	65	Cu. Yd.	Excavation for Structure
S-1	4.4	Cu. Yd.	Concrete for Structure, Class E.
S-27	204	Lin. Ft.	60" Reinforced Concrete Culvert Pipe, Sec. M-66(b)
E-3	512	Cu. Yd.	Channel Excavation

SEP 15 1960

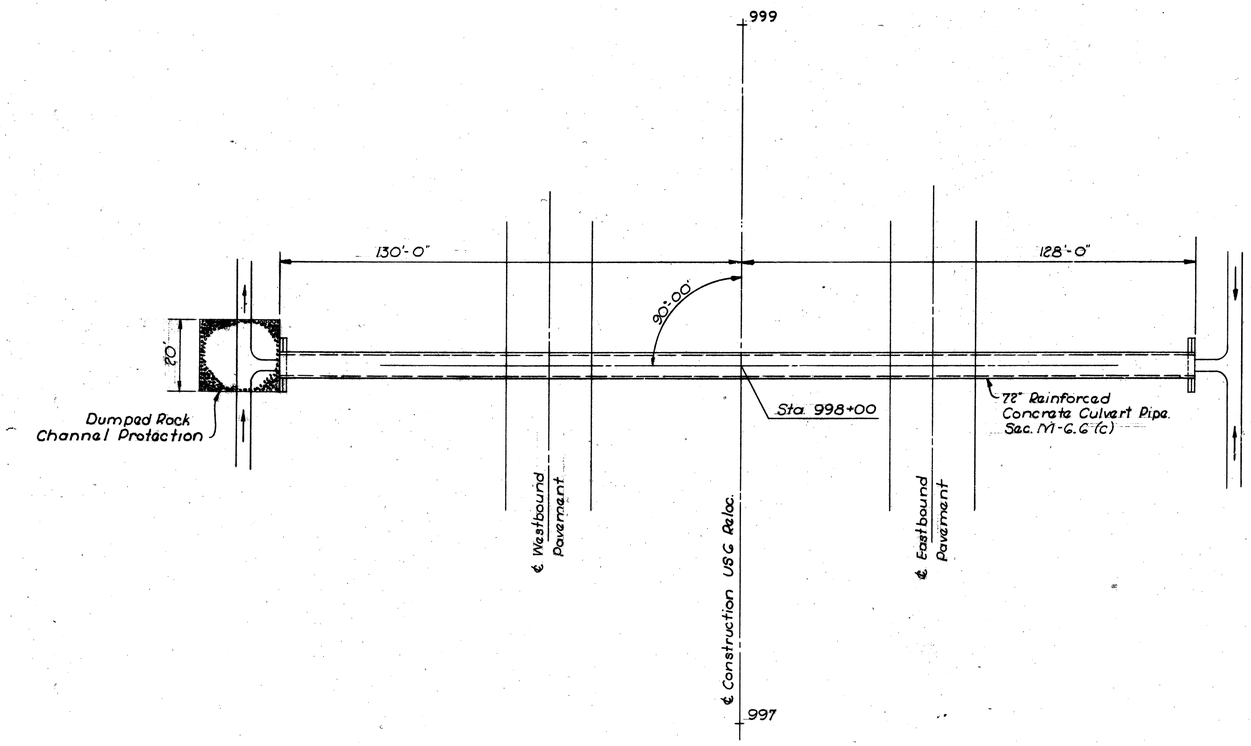
13	Sta. 932+50	P.C. 60"x 204'	E.R.I. 6-11.30

CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

76
235

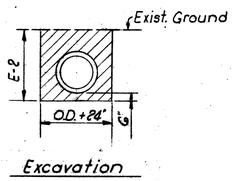
ERI. G-11.30



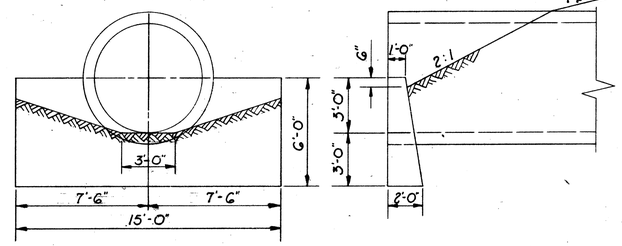
PLAN
Scale: 1" = 20'

N

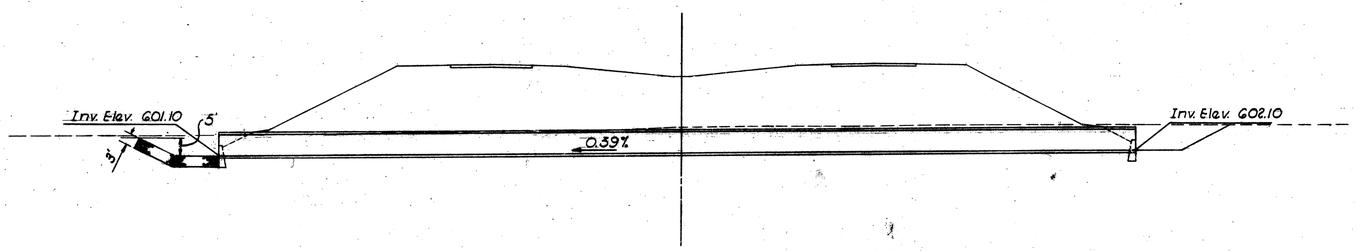
Drainage Area 140 Ac.
Q_{25} = 147 C.F.S.



Excavation



ENDWALL DETAILS
Scale: 1/4" = 1'-0"



LONGITUDINAL SECTION
Scale: 1" = 20'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	707	Cu. Yd.	Excavation for Structure.
S-1	8.0	Cu. Yd.	Concrete for Structure, Class E.
S-27	258	Lin. Ft.	72" Reinforced Concrete Culvert Pipe, Sec. M1-6.6 (c).
I-10	53	Cu. Yd.	Dumped Rock Channel Protection

SEP 15 1960

14	Sta. 998+00	P.C. 72" × 258'	ERI.G-11.30

CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

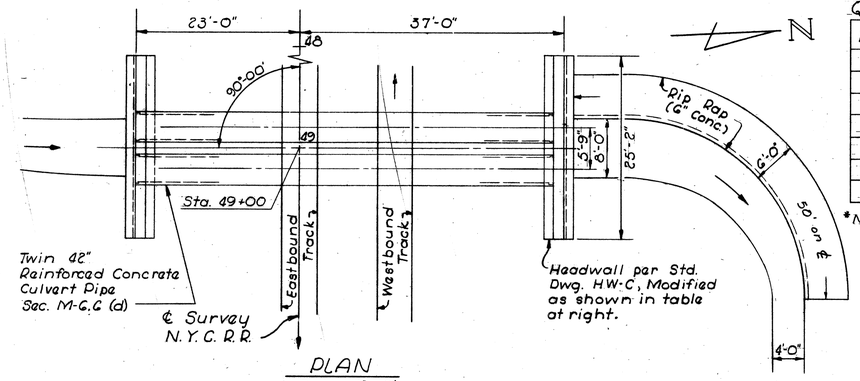
77
235

ERI G-11.30

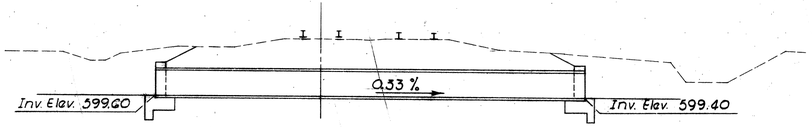
QUANTITIES FOR ONE HDWL:

REINFORCING STEEL				CONCRETE
SYMBOL	NO.	LENGTH	WGT. LBS.	CU. YDS.
a	11	24'-10"	284	
c	12	7'-6"	94	
d	8 *	6'-8"	56	
f	8	4'-1"	35	
h	12 *	8'-6"	107	
Total			576	13.7

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



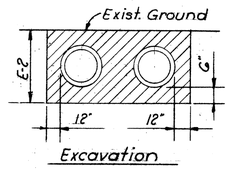
PLAN
Scale: 1"=10'



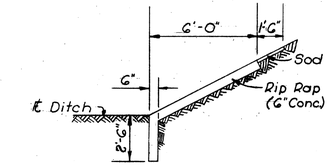
LONGITUDINAL SECTION
Scale: 1"=10'

Drainage Area = 180 Ac.
Q_{25} = 179 C.F.S.

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	301	Cu. Yds.	Excavation for Structure
I-10	38	Sq. Yds.	Rip Rap (6" Conc.)
L-10	9	Sq. Yds.	Sodding
S-1	27.4	Cu. Yds.	Concrete for Structure, Class C
S-27	180	Lin. Ft.	42" Reinf. Conc. Culvert Pipe Sec M-6.6 (d), under Railroad
S-4	1152	Lbs.	Reinforcing Steel

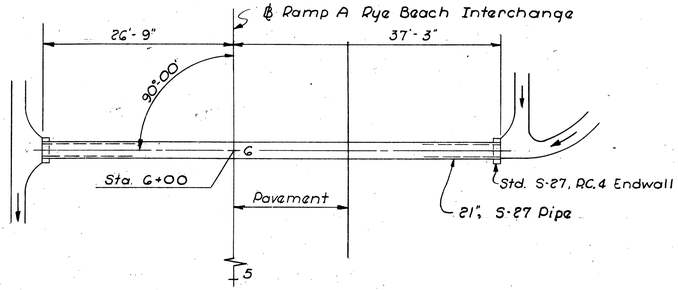


Excavation

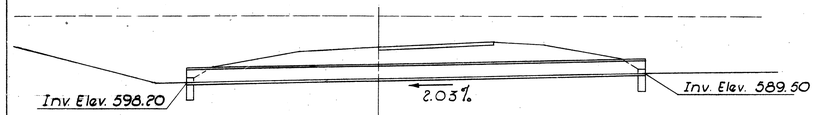


CHANNEL PROTECTION
Scale: 4"=1'-0"

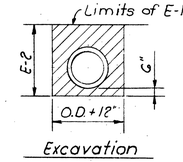
15	Sta. 49+00 N.Y.C.R.R.	P.C. 2-42"×60'	ERI G-11.30



PLAN
Scale: 1"=10'



LONGITUDINAL SECTION
Scale: 1"=10'

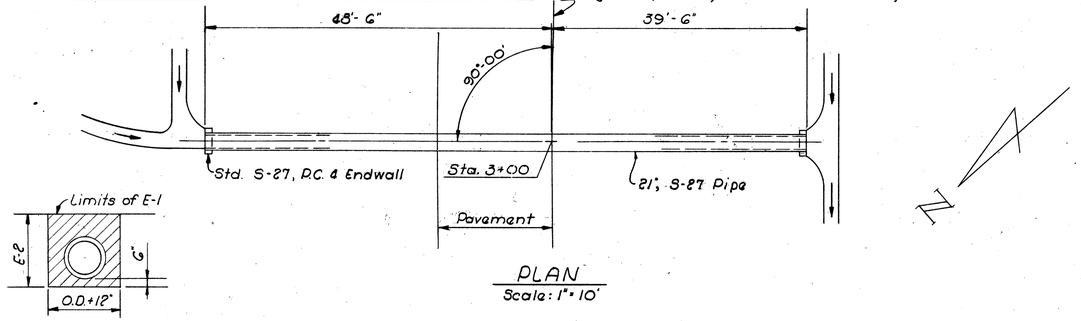


Excavation

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	33	Cu. Yds.	Excavation for Structure
S-1	0.72	Cu. Yds.	Concrete for Structure, Class E
S-27	64	Lin. Ft.	21" Pipe for Roadway Culverts Sec. M-6.6 (b) or Sec. M-6.8 (b)

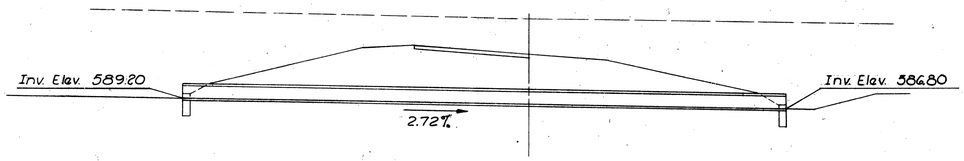
Drainage Area = 8.9 Ac.
Q_{25} = 15.2 C.F.S.

16	Sta. 6+00 Ramp A, Rye Beach	P.C. 21"×64'	ERI G-11.30



Excavation

PLAN
Scale: 1"=10'

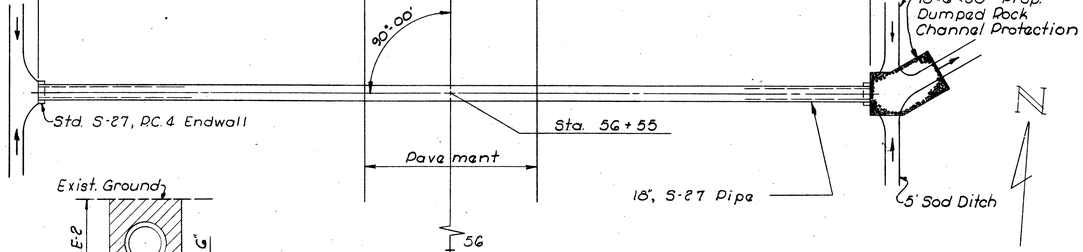


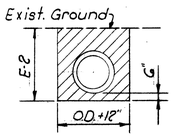
LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	62	Cu. Yds.	Excavation for Structure
S-1	0.72	Cu. Yds.	Concrete for Structure, Class E
S-27	88	Lin. Ft.	21" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec M-6.8 (b).

Drainage Area = 8.9 Ac.
Q_{25} = 15.2 C.F.S.

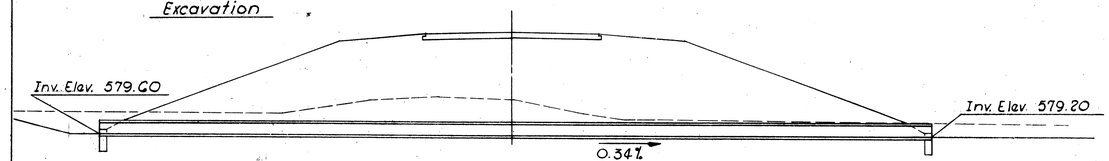
17	Sta. 3+00 Ramp D, Rye Beach	P.C. 21"×84'	ERI G-11.30





Excavation

PLAN
Scale: 1"=10'



LONGITUDINAL SECTION
Scale: 1"=10'

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	64	Cu Yds	Excavation for Structure
S-1	0.60	Cu. Yds.	Concrete for Structure, Class E
S-27	116.	Lin. Ft.	18" Pipe for Roadway Culvert Sec. M-6.6 (b) or Sec. M-6.8 (b).
I-10	6	Cu. Yd.	Dumped Rock Channel Protection

Drainage Area = 4.5 Ac.
Q_{25} = 14.7 C.F.S.

SEP 15 1960

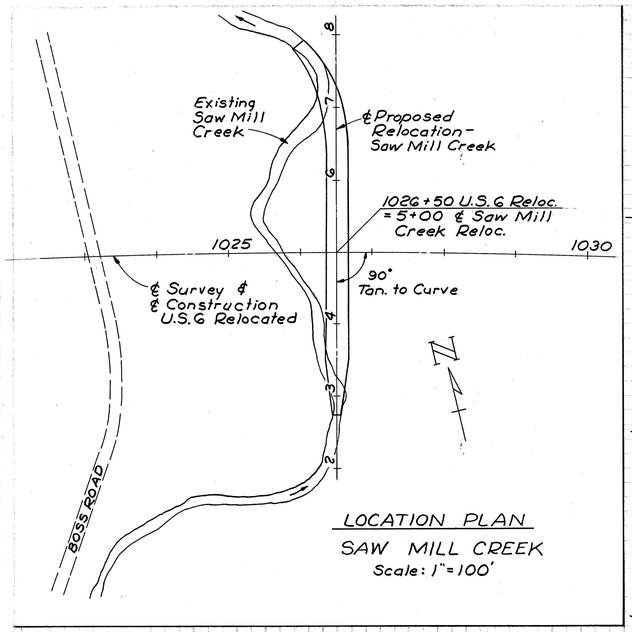
18	Sta. 56+55 Rye Beach Rd.	P.C. 18"×116'	ERI G-11.30

CULVERT DETAILS

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

78
235

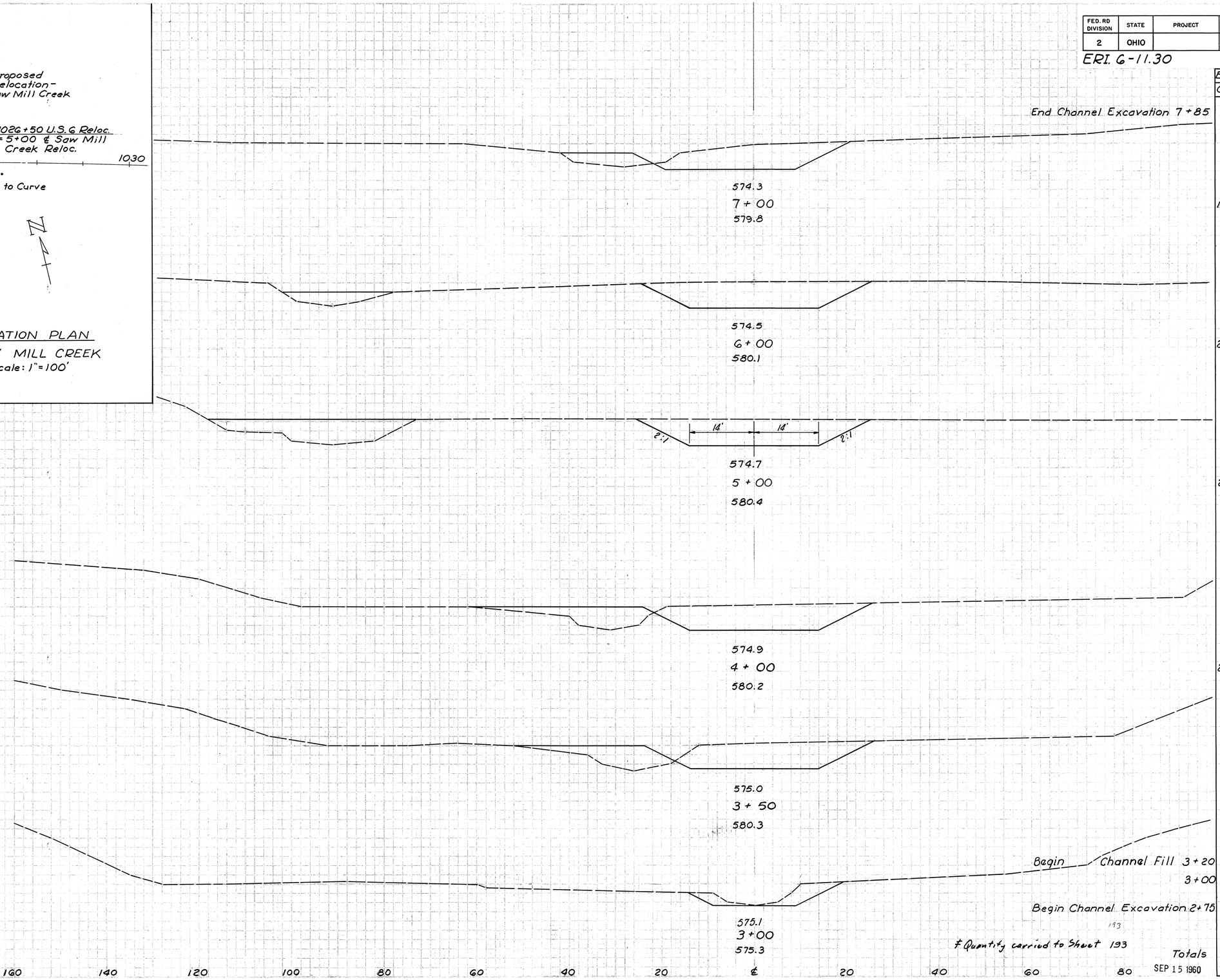
ERI. 6-11.30



LOCATION PLAN

SAW MILL CREEK

Scale: 1"=100'



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
End Channel Excavation 7+85	0	0		
			266	63
	169	40		
			728	159
	224	46		
			843	381
	231	160		
			809	469
	206	93		
			371	169
	194	89	227	50
Begin Channel Fill 3+20		0		
3+00	51		24	
Begin Channel Excavation 2+75	0			
			3268	1291
Totals			≠	

193

≠ Quantity carried to Sheet 193

SEP 15 1960

SAW MILL CREEK RELOCATION

1959
1960
1960
1960

SMB
ERM
ERM
RVE

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

79
235

ERI. G-11.30

Shiner ℄ U.S. 250
Sta. 35+83.20 (P.O.T.)
33.94' N87°E
P.I. Sta. 36+14.35
P.C. Sta. 35+42.32
50°W

1 Sty. Bk. Res.

1 Sty. Fr. Res.

Existing Meter & Valve removed & reset to position shown. (Typical) See SERVICE BRANCH NOTE

℄ Survey ℄ Construction U.S. 250

R/W

10' Gravel Dr.

10' Gravel Dr.

11' Gravel Dr.

3' Gravel Dr.

LA

603.0

602.8

14' Gravel Dr.

30 31 32 33 34 35 36 37 38 39 40 41 42

N. 37°-25'-30" W

12"

M.H.

M.H.

12"

16' Macadam Rd.

9' Gravel Dr.

6" Existing Water Line

Sign

6" 90° Bend

R/W

6" Existing Water Line to be abandoned.

602.4

14' Gravel Dr.

24' Blacktop Dr.

1 Sty. Fr. Res.

1 Sty. Fr. & Blk. Res.

LA

Proposed 6" C.I.P. Water Line to be installed 10' outside edge of proposed pavement. W.L. #1. See sheet 81 for quantities.

New tapping sleeve and valve to be installed on existing 6" water line in new manhole- This to be done by local water authority prior to construction under this contract.

Sta. 39+50, Rt.
Install hydrant, valve and valve box, 6"x6" tee, (2) 6"x 2'-0" nipples, concrete backing & stone fill. (Local Water Authority to furnish valve, valve box and "Darling B-50-B" Fire hydrant.)

PLAN
DATE 1958 8-58
BY SMB AWG
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED

B.M. Top of S.W. Flange Bolt (facing U.S.250) of Fire Hyd. 32' Rt. of Sta. 31+14 Elev. 615.83

B.M. "B" in N.E. corner of top of W. conc. Endwall Box Culvert 30' Lt. of Sta. 36+47 Elev. 607.47

B.M. Nail in S.W. Side of top 36" Stump 185' Rt. of Sta. 37+00 Elev. 601.89

609.04 609.14 609.11 608.80 608.45 608.10

P.V.I. 38+59 Elev. 609.32

+0.28% -0.35%

620 610 600 590

604.00, 12"N.

12"

603.00

Existing 6" Water Line

New manhole & valve by others

Begin Work Elev. 609.04 37+50

P.V.T. 39+50 Elev. 608.97

200' V.C.

+75 No. 22-A C.B. 38' Lt. ℄

+75 Endwall for 12" Pipe 35' Lt. ℄

Proposed 6" C.I.P. Water Line #1

614.46 613.70 612.71 611.61 610.37 609.38 608.56 608.66 609.46 609.85 610.41 611.00 611.63

30 31 32 33 34 35 36 37 38 39 40 41 42

PROFILE
DATE 1958 8-58
BY SMB AWG GTS
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
R. W. S. NOTED
STRUCTURE

SEP 15 1960

PLATE I—PLAN-PROFILE E. P. R. STANDARD
THE FREDERICK POST CO., CHICAGO

WATER LINE NO. 1 - U.S. 250

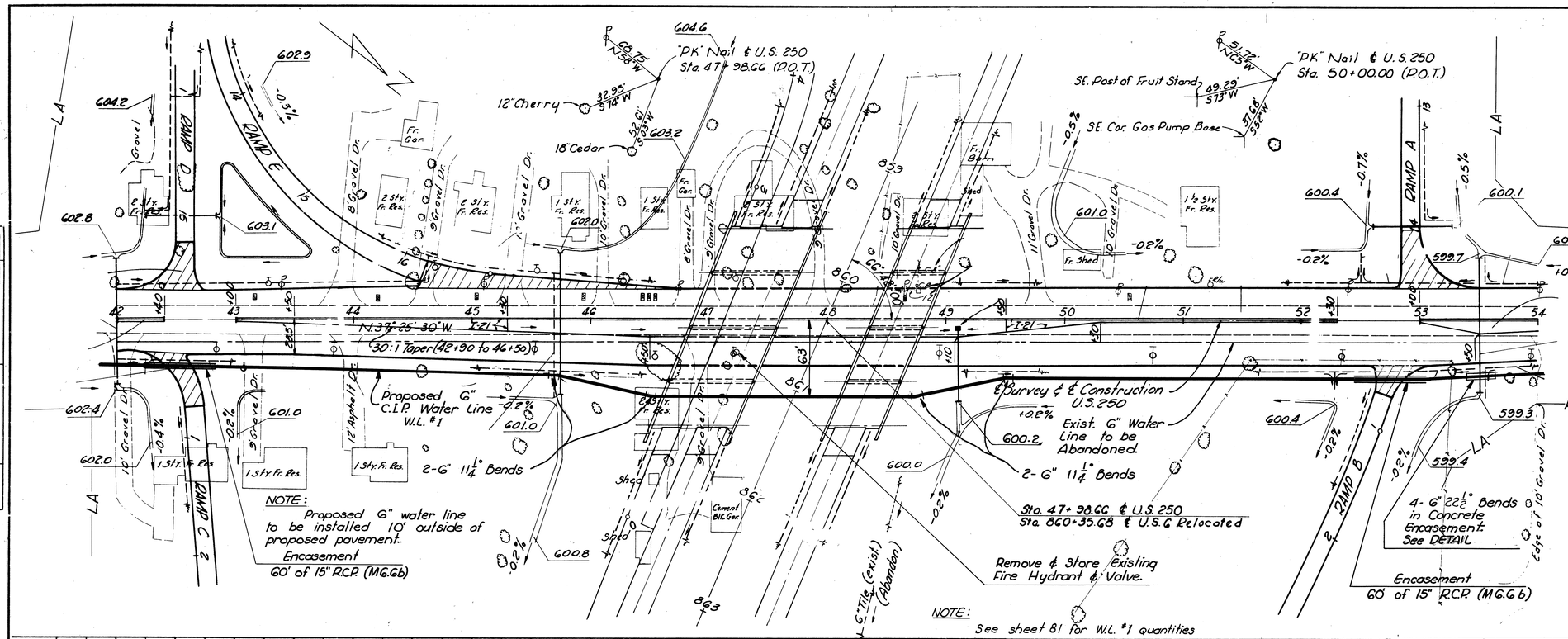
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

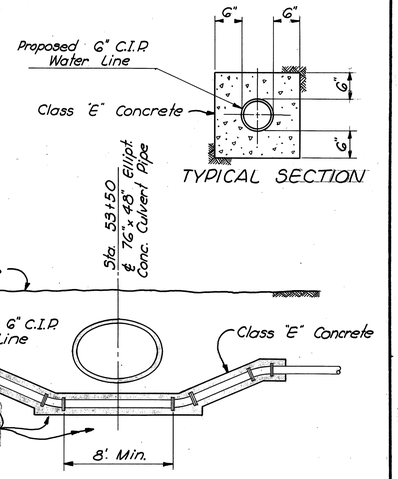
80
235

ERI. G-11.30

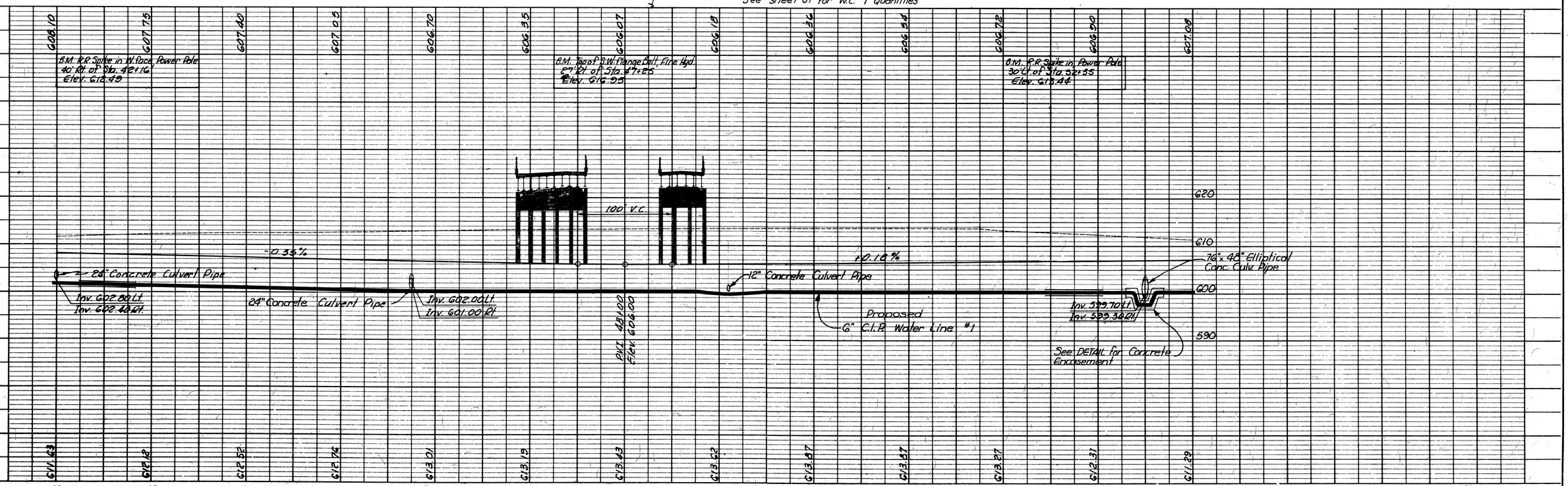
PLAN	SURVEYED	BY	DATE
	PLOTTED	SMD	12-30
	NOTE BOOK	DTS	9-58
	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED	SMD	12-30
	GRADES CHECKED	DTS	9-58
	NOTE BOOK		
	B. M.'S NOTED		
	NO.	STRUCTURE NOTATIONS CHKD.	





ENCASEMENT DETAILS @ Sta. 53+50



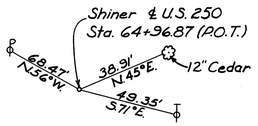
SEP 15 1960

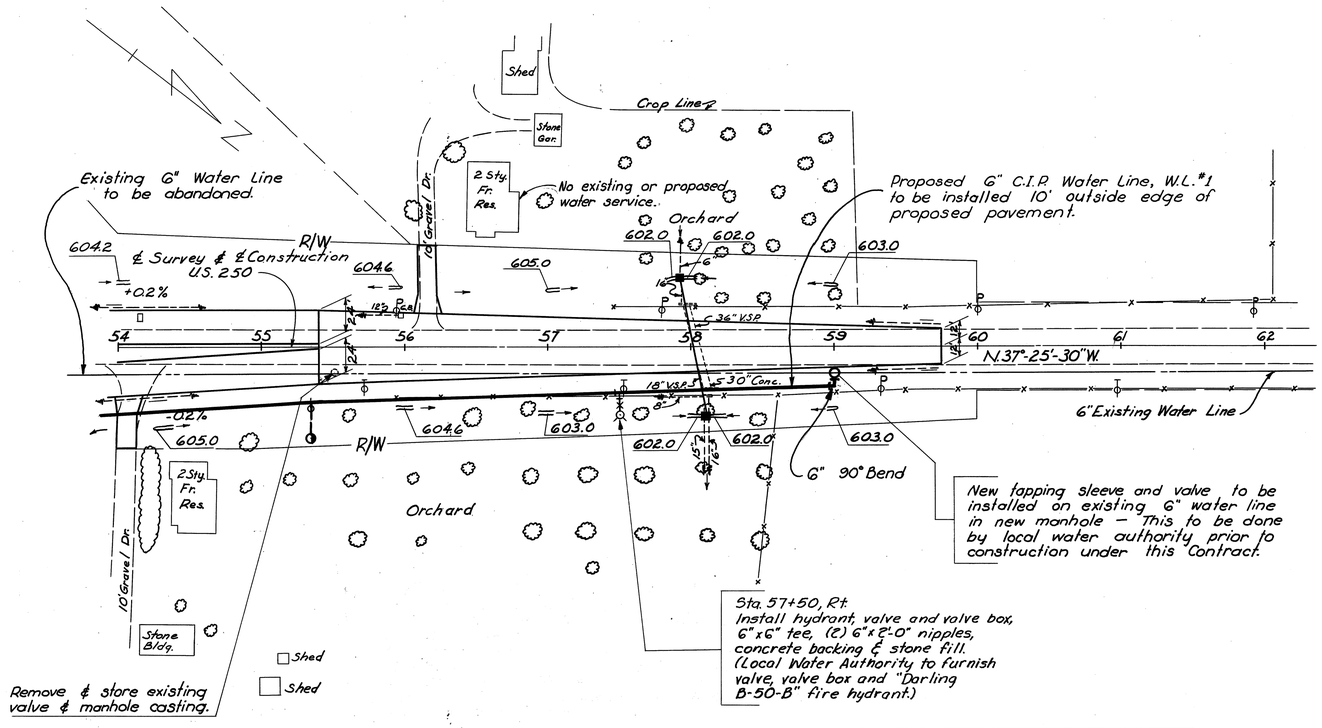
WATER LINE NO. 1 – U.S. 250

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

81
235

E.R.I. G-11.30





ESTIMATED QUANTITIES

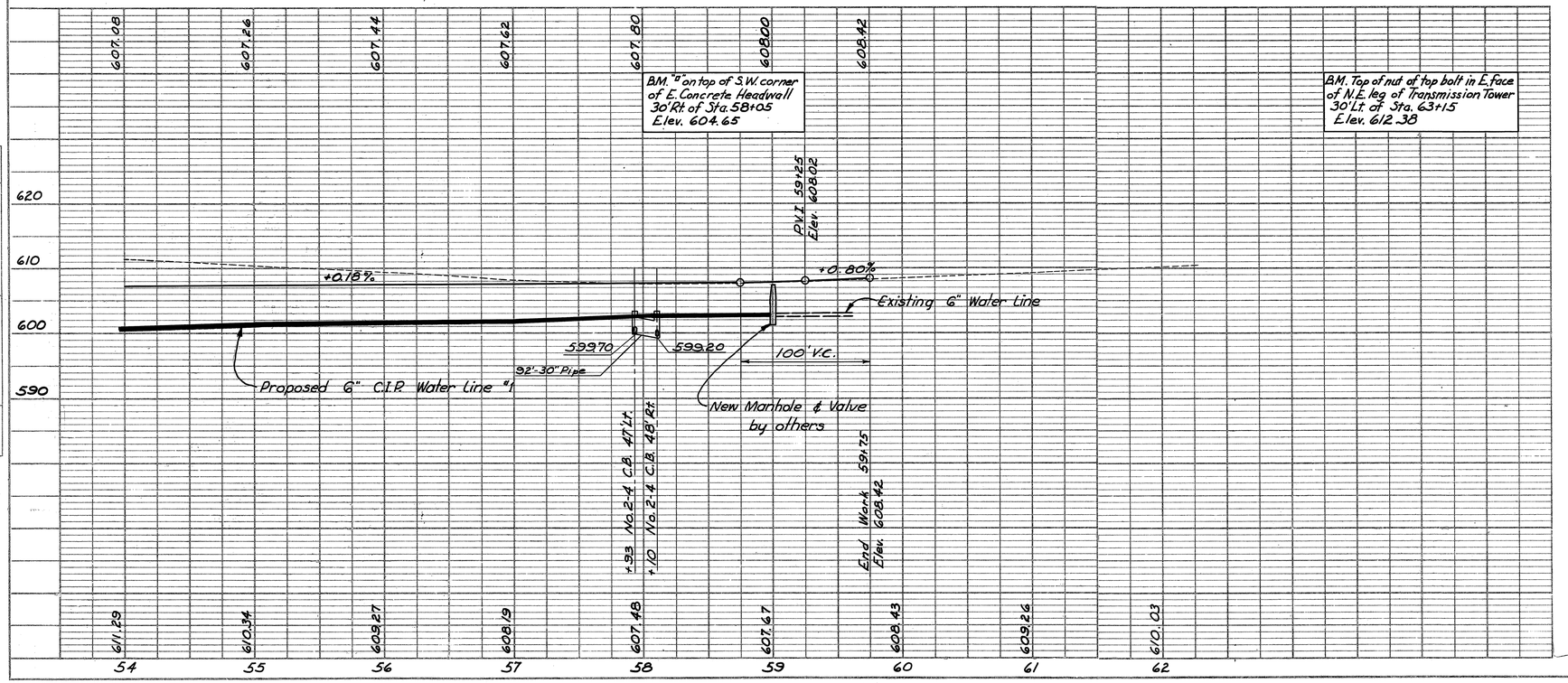
Water Line #1 (Sheets 79-81)

ITEM	DESCRIPTION	UNIT	QUAN.
I-124.03	6" C.I.P. New Water Line	lin. ft.	2188
I-124.03	6" Fittings (6"x6" Tees)	each	2
I-124.03	6" Fittings (90° Bends)	each	2
I-124.03	6" Fittings (22½° Bends)	each	4
I-124.03	6" Fittings (11¼° Bends)	each	4
I-124.03	6" Fittings (Sleeves)	each	1
I-124.03	Install Fire Hydrant, Valve & Box as Furnished	each	2
I-124.07	New ¾" Service Branches	lin. ft.	320
I-124.07	New 1" Service Branches	lin. ft.	25
I-124.11	Water Meters & Boxes Removed & Reset	each	5
I-2	15" R.C.P. Encasement, Sec. M-6.6 (b)	lin. ft.	120
S-1	Concrete Class "E"	cu. yds.	3
I-2	New 1½" W.I.P. Service Branch Conduit	lin. ft.	160

For Water Line Notes, see Sheet 84

PLAN
SURVEYED
PLOTTED
PROFILE CHECKED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY SMB GTS RMC
DATE 9/26 9/30

PROFILE
SURVEYED
PLOTTED
PROFILE CHECKED
NOTE BOOK
NO.
B. M.'S NOTED
STRUCTURE NOTATNS CH'KD.
BY SMB GTS RMC
DATE 9/26 9/30



SEP 15 1960

PLATE I—PLAN-PROFILE B. P. R. STANDARD
THE FREDERICK POST CO., Chicago

WATER LINE NO. 1 - U.S. 250

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

82
235

ERI. 6-11.30

Shiner ¢ Galloway Rd. Sta. 40+10.25 (P.O.T.)
35.25' N30°E.
74.16' S30°W.
133.90' S07°E.
6" Tree
N
2 Sty. Fr. Res.
1½ Sty. Fr. Res.
1½ Sty. Fr. Res.
9' Gravel Dr.
10' Gravel Dr.
Water MH.
C.B.
12" Water Line
Existing 12" Water Line
12" 11¼° Bend
Proposed 12" C.I.P. Water Line #2
619.9
-1.8%
R/W
615.4
-1.8%
50'
40'
30'
N02°-07'W.
Galloway
Road
¢ Survey ¢ ¢ Constr. Galloway Rd.
10' Gravel Dr.
1 Sty. Fr. Res.
Existing 12" Water Line to be abandoned.
New line valve to be cut-in to existing 12" water line in new manhole — This to be done by local water authority prior to construction under this Contract.
NOTE: See sheet 84 for Water Line #2 quantities.
B.M. "a" on N.E. corner of E. wall of conc. Catch Basin 18' Lt. of Sta. 35+84 Elev. 626.80
B.M. R.R. Spike in E. Side, 24" Walnut 30' Lt. of Sta. 40+92 Elev. 623.13
PVC 42+00 Elev. 622.04
V.C. = 400'
-1.20%
+3.26%
P.V.I. 44+00 Elev. 619.64
Existing 12" Water Line
New Manhole ¢ Valve by others
Proposed 12" C.I.P. Water Line #2
630
620
610
600
622.04
621.40
621.87
623.46
627.24
627.75
628.73
629.14
627.81
625.58
623.63
622.03
620.90
619.63
617.83
35
36
37
38
39
40
41
42
43
44
45
PLAN
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
SMB RNE GTS
1958 7-58
SEP 15 1960

WATER LINE NO. 2 - GALLOWAY RD.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

85/235

ERI.-6-11.30

GENERAL SUMMARY - WATER LINES

ITEM	DESCRIPTION	UNIT	F-1042(7) US 250 W.L. #1	F-1042(7) Galloway Road W.L. #2	F-1042(7) Camp Road	F-1042(7) Rye Beach Road				FG 1042(7)		F-1042(7) CODE 7221 TOTAL QUAN.
I-124.03	6" C.I.P. New Water Main (Class 150), with M/J, as per plan	Lin. Ft.	2188									2188 †
I-124.03	6" Fittings - 6"x6" Tees	Each	2									2 †
I-124.03	6" Fittings - 90° Bends	Each	2									2 †
I-124.03	6" Fittings - 22½° Bends	Each	4									4 †
I-124.03	6" Fittings - 11¼° Bends	Each	4									4 †
I-124.03	6" Fittings - Sleeves	Each	1									1 †
I-124.03	12" C.I.P. New Water Main (Class 150) with M/J, as per plan	Lin. Ft.		1530						E		1530 †
I-124.03	12" Fittings - 11¼° Bends	Each		2								2 †
I-124.03	12" Fittings - Sleeve	Each		1								1 †
I-124.03	Install Fire Hydrant, Valve & Box, as Furnished	Each	2							N		2 †
I-124.07	New ¾" Service Branches	Lin. Ft.	320							O		320 †
I-124.07	New 1" Service Branches	Lin. Ft.	25									25 †
I-124.11	Water Meters and Boxes Removed & Reset	Each	5							N		5 †
S-1	Class E Concrete	Cu. Yds.	3									3 †
I-2	15" S. Sewers (Encasement), Sec. M-6.6(b)	Lin. Ft.	120									120 †
I-2	18" S. Sewers (Encasement), Sec. M-6.6(b)	Lin. Ft.			312	520						832 *
I-2	24" S. Sewers (Encasement), Sec. M-6.6(b)	Lin. Ft.		220								220 †
I-2	18" S. Sewers (Encasement), Sec. M-6.6(c)					180						180 *
I-2	1½" Wrought-Iron Pipe, Sec. M-6.10, for Service Branch Conduit	Lin. Ft.	160									160 †

* 100% STATE PARTICIPATION
† No Federal Participation (Revision of 6-19-61)

SEP 15 1960

REV. 11-28-60 REC. REV. 6-19-61 R.E.O.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

83
235

ERI. G-11.30

SW. Car. Trans. Tower
Tacked Hub
23.40' N51°W
54.95' N2°11'E.
25.43' N42°E.
RR Spike & Galloway Rd
Sta. 50+00 (P.O.T.)

N

Proposed 12" C.I.P. Water Line #2

Cropline

Encasement
220' of 24" R.C.P. (MG.6b)

885+21, 105.0' Lt.
Inv. 603.80

2-12" 11¼° Bends (See Profile)

Transmission Tower

886+13, 105.0' Lt.
Inv. 604.10

Field Drive

Galloway Road

℄ Survey & ℄ Constr. Galloway Rd.

℄ Constr. Galloway Rd.

Existing 12" Water Line to be abandoned.

Sta. 50+00.00 ℄ Survey Galloway Rd.
Sta. 885+48.30 ℄ Survey U.S. 6 Relocated

R/W
LA
Cropline

884
885
886
887

615.4
609.0
-1.8%
+0.4%
+1.0%
N02°-07W

CURVE DATA
Δ = 2°-40'-00" Rt.
D = 1°-00'
R = 5729.58'
T = 133.36'
L = 266.67'
E = 1.55'
PC. = 52+66.64
P.I. = 54+00.00
P.T. = 55+33.31 Bk
No Superelevation

NOTE:
See sheet 84 for Water Line #2 quantities.

DVI. 50+00
Elev. 639.20

B.M. Nail in S. Root 6" Maple 36' Rt. of Sta. 884+65, (U.S.6 Reloc.) Elev. 611.40

B.M. RR Spike in W. Side 16" Elm 30' Rt. of Sta. 54+54 Elev. 615.02

+3.86%
V.C. = 800'
-5.00%
M.R.S.O. = 376'

A.V.T. 46+00 Elev. 626.16
P.V.C. 46+00 Elev. 622.16
P.V.T. 54+00 Elev. 619.20
A.V.T. 54+00 Elev. 619.20

Proposed 12" C.I.P. Water Line #2

626.16 628.50 630.61 631.22 630.94 629.55 627.13 623.62 619.20 614.20
622.46 616.06 614.53 613.39 612.27 611.82 611.44 611.39 611.58 612.06 611.64

640 630 620 610 600 590

45 46 47 48 49 50 51 52 53 54 55

PLAN: SURVEYED 2-12 '59; PLOTTED 2-13 '59; BY GTS; NOTE BOOK; NO.; ALIGNMENT CHECKED; RT. OF WAY CHECKED

PROFILE: SURVEYED; PLOTTED 2-13 '59; BY GTS; GRADES CHECKED; NOTE BOOK; NO.; B. M.'S NOTED; STRUCTURE NOTATNS CHK'D.

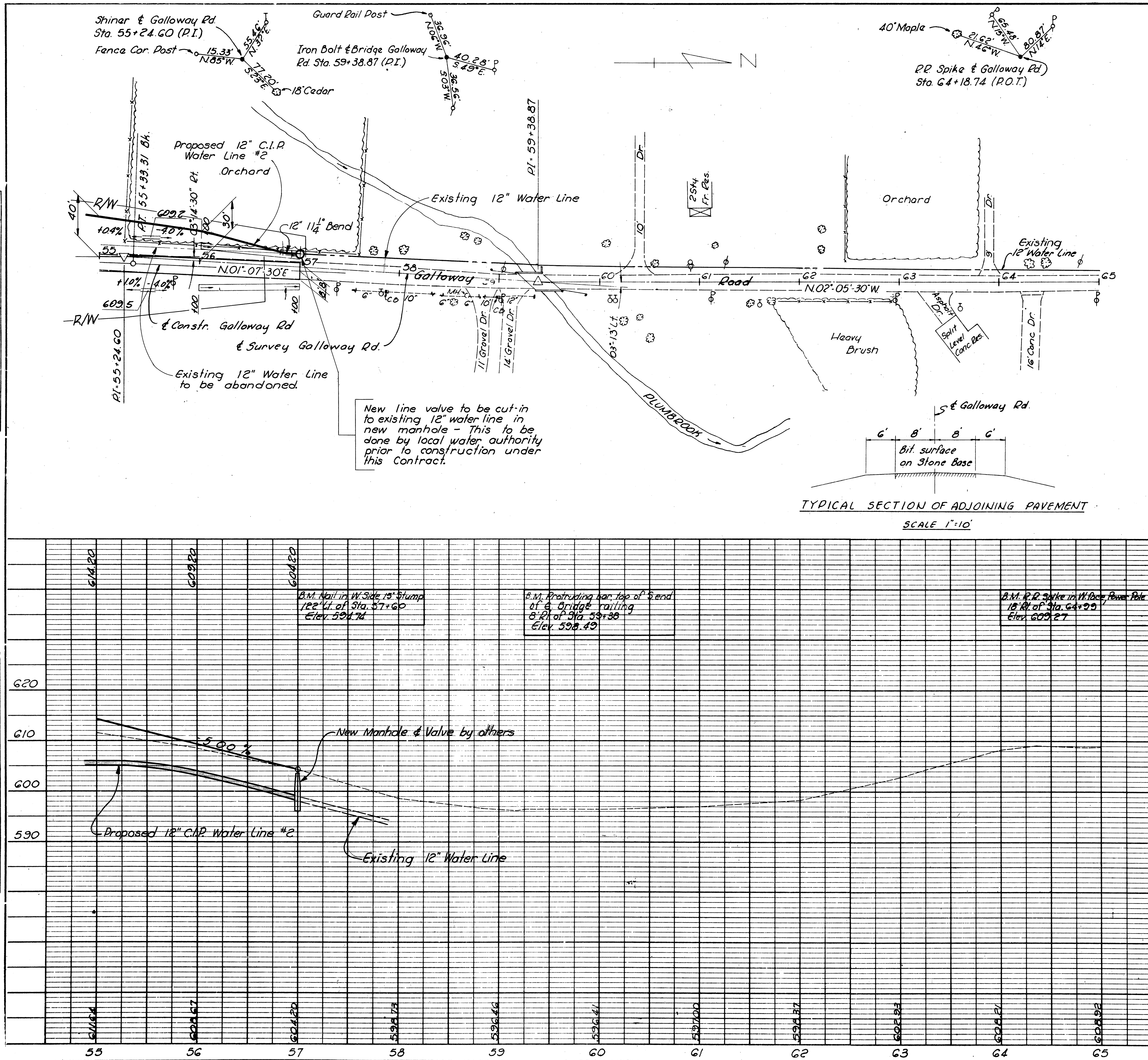
SEP 15 1960
Rev. 7-27-60 R.E.C.

WATER LINE NO. 2 - GALLOWAY RD.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

84
235

ERI. 6-11.30



ESTIMATED QUANTITIES

Water Line W.L. #2 (Sheets 82-84)			
ITEM	DESCRIPTION	UNIT	QUAN.
I-124.03	12" C.I.P. New Water Line	lin. ft.	1530
I-124.03	12" Fittings (11¼° Bends)	each	2
I-2	24" R.C.P. Encasement, Sec. M-6.6(b)	lin. ft.	220
I-124.03	12" Fittings (Sleeves)	each	1

WATER LINE NOTES FOR US 250 & GALLOWAY RD.

Water line work shall be scheduled so that the lines on US 250 and Galloway Rd. shall not be out of service at the same time.

All new cast iron pipe shall be Class 150 pipe and have mechanical joints.

EXISTING 12" LINE - GALLOWAY RD.

Existing line from Sta. 42+00 to 57+00 Galloway Rd. to be abandoned and ends plugged after new 12" water line is in operation. The existing line from Sta. 48+75 to 51+25 is to be removed and disposed of and remaining ends plugged. Payment for the above is included in the unit price bid for Item I-124.03, 12" C.I.P. New Water Line.

EXISTING 6" LINE - US 250

Existing line from Sta. 37+50 to 59+00 to be abandoned and ends plugged after new 6" water line is in operation. The existing line is to be removed and disposed of between points where the cover will be less than 3'-0", and remaining ends plugged. All fittings, valves, hydrants and castings are to be stored on the site for disposal by others. Payment for the above is included in the unit price bid for Item I-124.03, 6" C.I.P. New Water Line.

SERVICE BRANCHES

New service branches include brass or bronze corporation stop with Mueller thread inlet, and an outlet to receive copper service tubing. Service lines shall be Type "K" copper. Existing service branches between Sta. 38+00 and 40+50, US 250, are to be replaced with ¾" lines. Existing service branch at Sta. 55+35, US 250, to be replaced with 1" line. Payment for the above shall be at the contract unit price per linear foot for Item I-124.07, New Service Branches.

Existing meters and meter boxes (30" length of 18" tile with cover casting, meter and valve are to be removed and reset 5' inside the proposed R/W line and over the existing house connection. Payment shall be at the contract unit price each for Item I-124.11, Water Meters and Boxes Removed and Reset.

New Service Branches under US 250 are to be installed in 1½" wrought iron pipe conduits; conduits to extend 8' beyond edge of proposed pavement. Payment shall be at the contract unit price per linear foot for Service Branch Conduit.

Existing service lines between Sta. 42+00 and 52+00, US 250, to be abandoned as homes are vacated and all valves, meters and castings are to be removed by the local water authority.

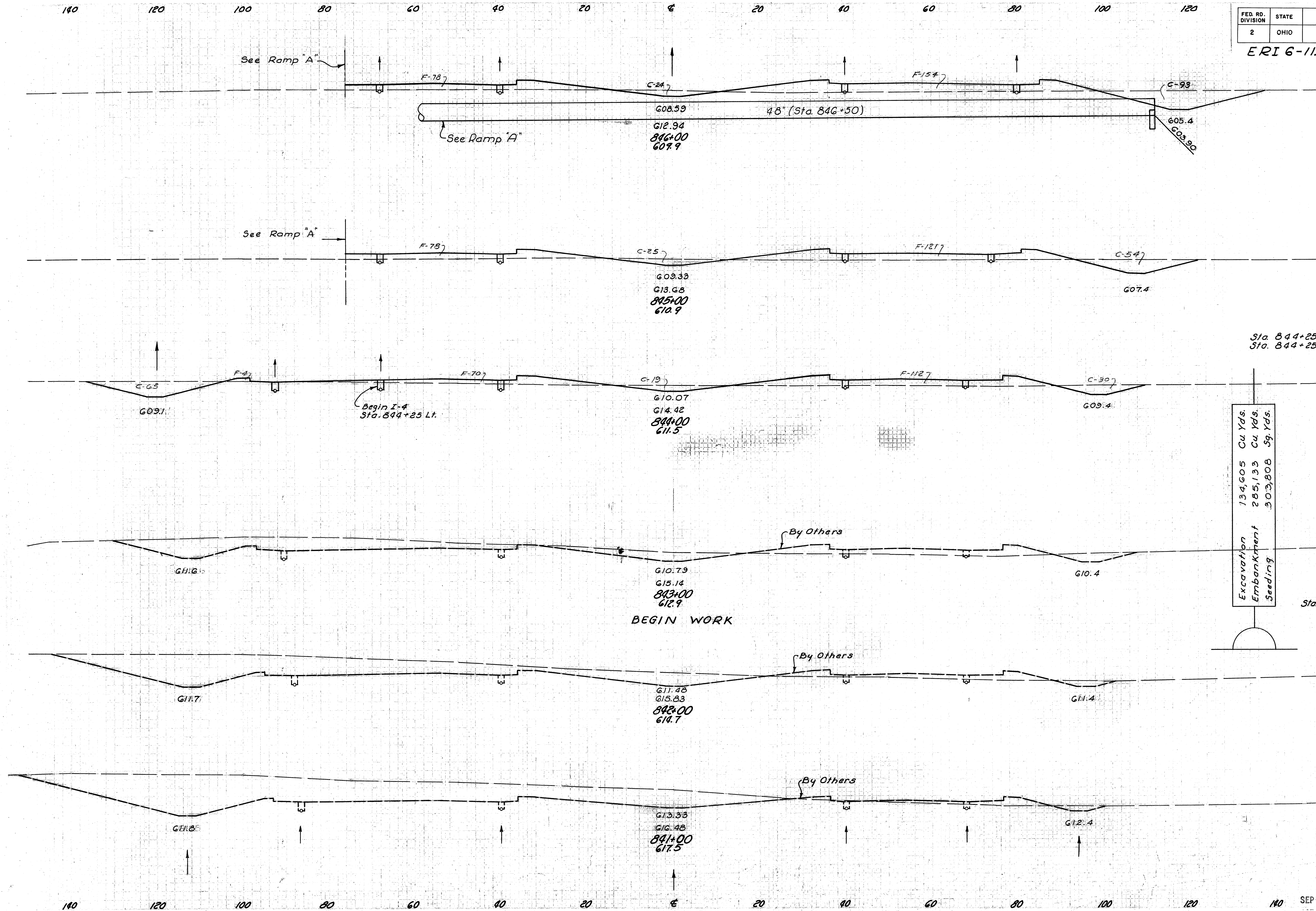
SEP 15 1960

WATER LINE NO. 2 - GALLOWAY RD.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

86
235

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
See Ramp "A"
F-78
C-24
F-154
C-93
608.59
48" (Sta. 846+50)
612.94
846+00
609.9
See Ramp "A"
605.4
603.90
See Ramp "A"
F-78
C-25
F-121
C-54
609.33
613.68
845+00
610.9
607.4
C-65
F-4
F-70
C-19
F-112
C-30
609.1
Begin I-4
Sta. 844+25 Lt.
610.07
614.42
844+00
611.5
609.4
By Others
611.6
610.79
615.14
843+00
612.9
610.4
BEGIN WORK
By Others
611.7
611.48
615.83
842+00
614.7
611.4
By Others
611.8
613.33
616.48
841+00
617.5
612.4
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Excavation 134,605 Cu. Yds.
Embankment 285,133 Cu. Yds.
Seeding 303,808 Sq. Yds.

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	117	232		
			363	798
	79	199		
			189	533
Sta. 844+25.10 (Ah.)	57	185		
Sta. 844+25.10 (BK.)	39	221		
			99	189
	114	186		
			211	344
Sta. 843+00	0	0		

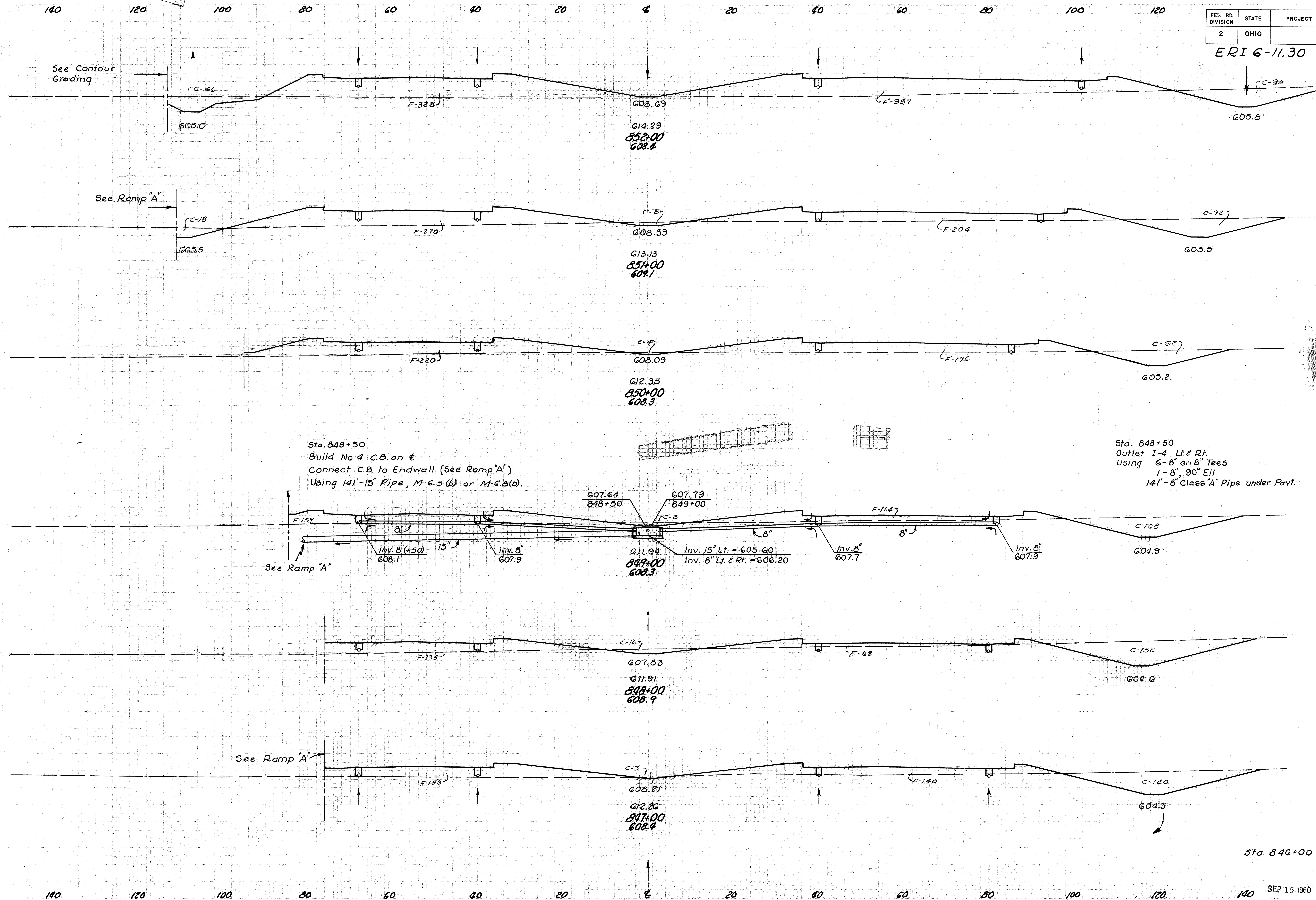
SEP 15 1960

Sta. 841+00 to Sta. 846+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30


140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
See Contour Grading
C-46
605.0
F-328
608.69
614.29
852+00
608.4
F-387
C-90
605.8
See Ramp "A"
C-18
605.5
F-270
C-8
608.39
613.13
851+00
609.1
F-204
C-92
605.5
F-220
C-4
608.09
612.35
850+00
608.3
F-195
C-62
605.2
Sta. 848+50
Build No. 4 C.B. on ℄
Connect C.B. to Endwall (See Ramp "A")
Using 141'-15" Pipe, M-6.5(b) or M-6.8(b).
Sta. 848+50
Outlet I-4 Lt. & Rt.
Using 6-8" on 8" Tees
1-8", 90° Ell
141'-8" Class "A" Pipe under Pavt.
607.64
848+50
607.79
849+00
C-8
F-159
F-114
8"
15"
Inv. 8" (+50)
608.1
Inv. 8"
607.9
611.94
849+00
608.3
Inv. 15" Lt. = 605.60
Inv. 8" Lt. & Rt. = 606.20
Inv. 8"
607.7
Inv. 8"
607.9
C-108
604.9
See Ramp "A"
F-135
C-16
607.83
611.91
848+00
608.9
F-68
C-152
604.6
See Ramp "A"
F-150
C-3
608.21
612.26
847+00
608.4
F-140
C-140
604.3
Sta. 846+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
136	715		
		470	2202
118	474		
		341	1646
66	415		
		337	1274
116	273		
		526	881
168	203		
		576	913
143	290		
		481	367
117	232		

SEP 15 1960

Sta. 847+00 to Sta. 852+00 SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

88
235

ERI 6-11.30

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120

See Contour Grading

C-312

F-1947

G02.0

G24.45
858+00
612.0

See Ramp "E"

C-180

F-2078

G02.5

G23.33
857+00
611.3

616.0

C-122

F-1785

G03.0

G16.22

G21.82
856+00
610.5

See Contour Grading

C-43

608.6

C-90

F-1336

G03.5

G14.34

G19.94
855+00
610.6

See Contour Grading

C-22

608.8

C-108

F-1058

G04.0

G12.15

G17.75
854+00
609.6

See Ramp "D"

See Contour Grading

C-83

F-774

G04.5

G10.23

G15.83
853+00
609.1

Sta. 852+53 Rt.
Outlet 1-4 in No.6 C.B.
using 10'-8" Outlet Pipe.

Sta. 852+47.36 (Rh.)
Sta. 852+47.36 (Bk.)

Sta. 852+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Sta. 853+00 to Sta. 858+00

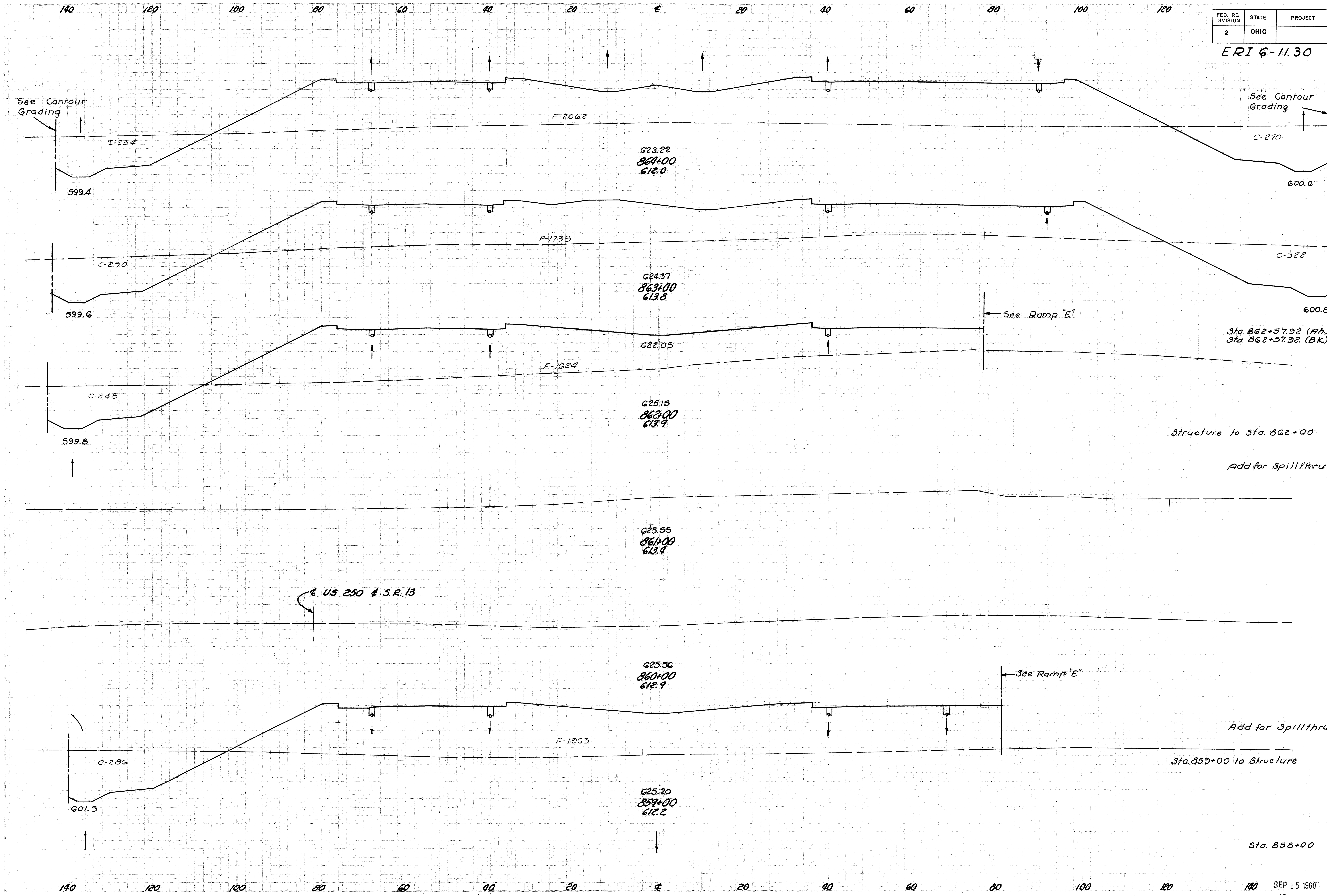
End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
312	1947		
		311	7454
180	2078		
		639	7154
165	1785		
		513	5780
112	1336		
		407	4433
108	1058		
		354	3393
83	774		
		143	1425
64	688		
140	861		
		247	1382
136	715		

SEP 15 1960

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30



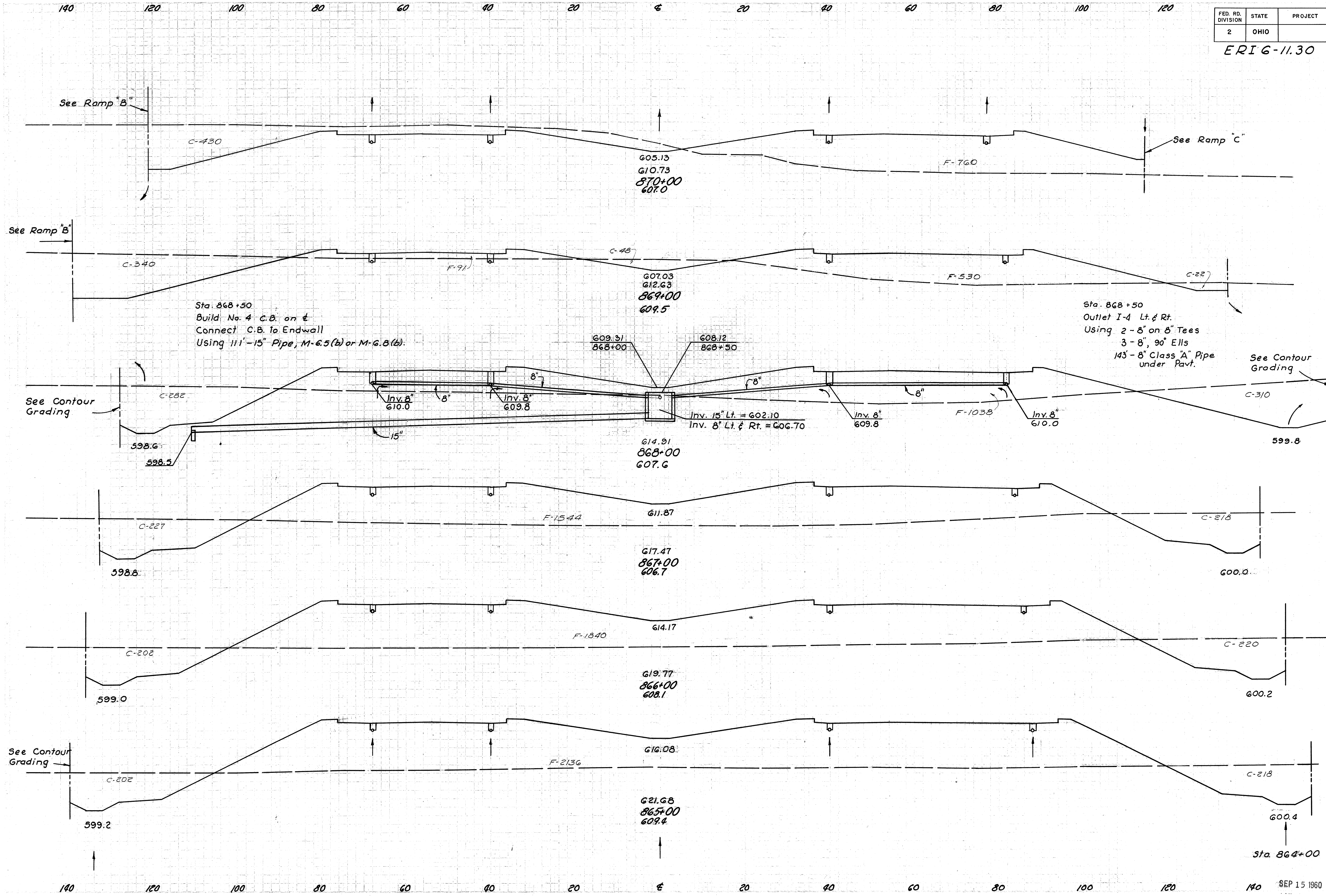
	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	504	2062		
			2030	7139
	592	1793		
			945	2813
Sta. 862+57.92 (Ah.)	621	1817		
Sta. 862+57.92 (Bk.)	261	1569		
			546	3425
	248	1624		
Structure to Sta. 862+00			1210	4410
Add for Spillthru			600	772
Add for Spillthru			500	772
Sta. 859+00 to Structure			180	3600
	286	1963		
			1107	7241
Sta. 858+00	312	1947		

SEP 15 1960

Sta. 859+00 to Sta. 864+00 SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30


See Ramp "B"
C-430
605.13
610.73
870+00
607.0
F-760
See Ramp "C"
See Ramp "B"
C-340
F-91
C-48
607.03
612.63
869+00
609.5
F-530
C-22
Sta. 868+50
Build No. 4 C.B. on ℄
Connect C.B. to Endwall
Using 111' - 15" Pipe, M-6.5(b) or M-6.8(b).
609.31
868+00
608.12
868+50
Sta. 868+50
Outlet I-4 Lt. & Rt.
Using 2 - 8" on 8" Tees
3 - 8", 90° Ells
143' - 8" Class "A" Pipe under Pavt.
See Contour Grading
See Contour Grading
C-282
Inv. 8" 610.0
Inv. 8" 609.8
Inv. 15" Lt. = 602.10
Inv. 8" Lt. & Rt. = 606.70
Inv. 8" 609.8
Inv. 8" 610.0
F-1038
C-310
598.6
598.5
15"
614.91
868+00
607.6
599.8
C-227
F-1544
611.87
C-218
598.8
617.47
867+00
606.7
600.0
F-1840
614.17
C-202
C-220
599.0
619.77
866+00
608.1
600.2
See Contour Grading
616.08
F-2136
C-202
C-218
621.68
865+00
609.4
599.2
600.4
Sta. 864+00
140
120
100
80
60
40
20
℄

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
430	760		
		1556	2557
410	621		
		1856	3072
592	1038		
		1920	4781
445	1544		
		1606	6267
422	1840		
		1559	7363
420	2136		
		1711	7774
504	2062		

Sta. 865+00 to Sta. 870+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30


Sta. 875+80
Build No. 4 C.B. on ℄
Connect to Culvert
Using 9'-15" Pipe, M-6.5(a) or M-6.8(a).
F-1893
601.35
875+80
601.41
876+00
Inv. 8"
601.2
Inv. 8"
601.0
Inv. 8"
600.8
Inv. 8"
601.0
Inv. 8"
601.2
C-32
C-46
96" (Sta. 875+65)
Inv. 15" = 599.00
Inv. 8" Lt. & Rt. = 600.0
Sta. 875+80
Outlet I-4 Lt. & Rt.
Using 1-8" 90° Ell
6-8" on 8" Tees
162'-8" Class "A" Pipe Under Pav't.
591.4
591.2
592.7
593.0
607.01
876+00
597.6
See Ramp "C"
C-39
602.7
602.9
601.59
602.9
602.9
F-1931
591.0
606.75
875+00
596.0
F-1530
C-224
602.9
603.1
601.89
603.1
603.1
596.4
590.6
Twin 108" (Sta. 873+95)
606.81
874+00
596.2
Sta. 873+05 Lt.
Outlet I-4 in No. 6 C.B.
Using 10'-8" Outlet Pipe.
See Ramp "B"
C-42
C-10
F-16
F-585
602.19
607.23
873+00
602.7
C-324
F-506
602.49
608.03
872+00
607.7
See Ramp "B"
C-410
See Ramp "C"
F-606
603.59
609.19
871+00
604.6
Sta. 875+72.00 (Ah.)
Sta. 875+72.00 (BK.)
Sta. 873+10.12 (Ah.)
Sta. 873+10.12 (BK.)
Sta. 870+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
78	1893		
		58	2051
34	2063		
34	1656		
		97	4783
39	1931		
		487	6409
224	1530		
		1600	3685
737	684		
47	684		
		19	241
52	601		
		696	2050
324	506		
		1359	2059
410	606		
		1556	2530
430	760		

SEP 15 1960

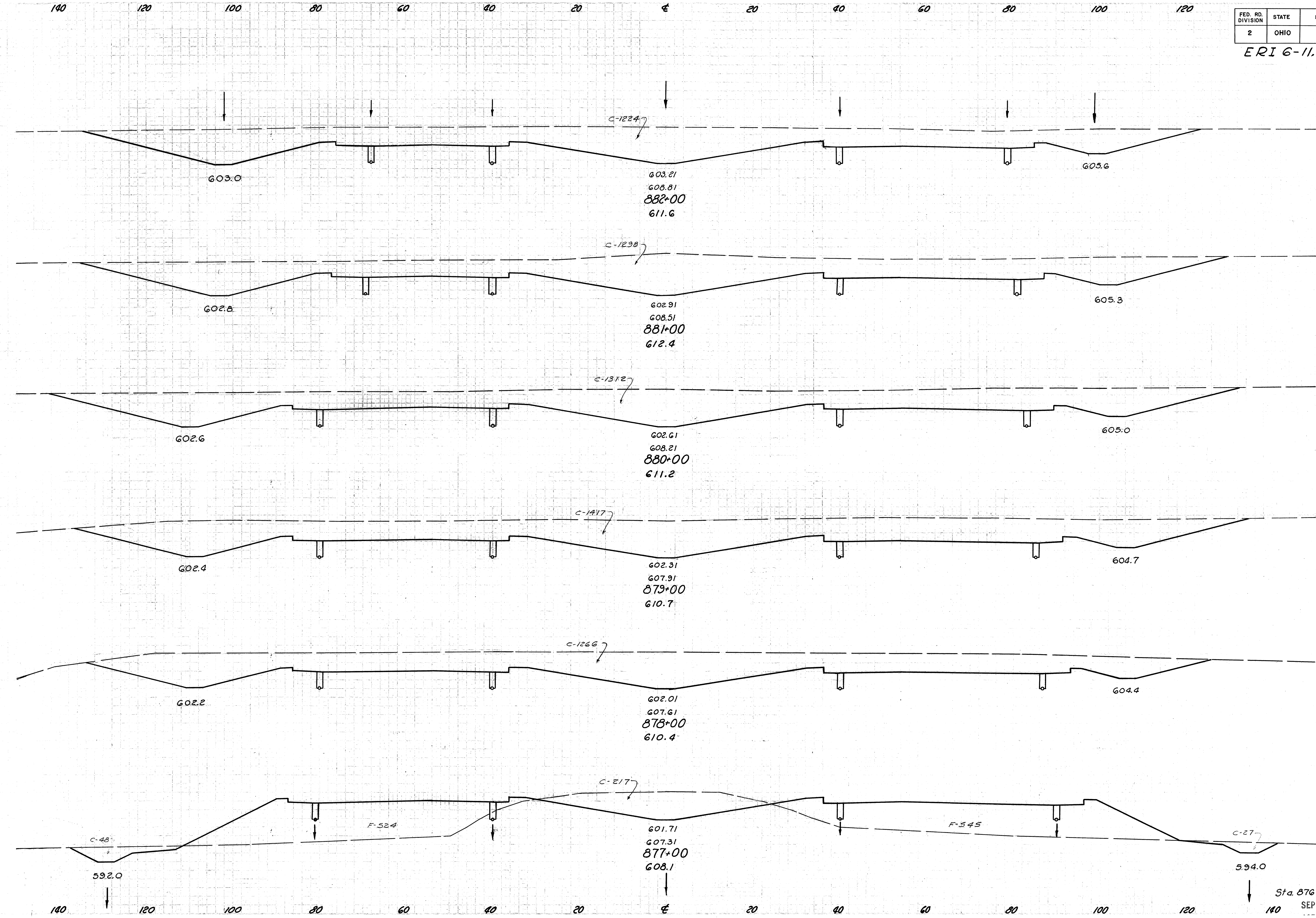
Sta. 871+00 to Sta. 876+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

92
235

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
1224	0		
		4670	0
1298	0		
		4833	0
1312	0		
		5054	0
1417	0		
		4969	0
1266	0		
		2885	1980
292	1069		
		685	5485
78	1893		

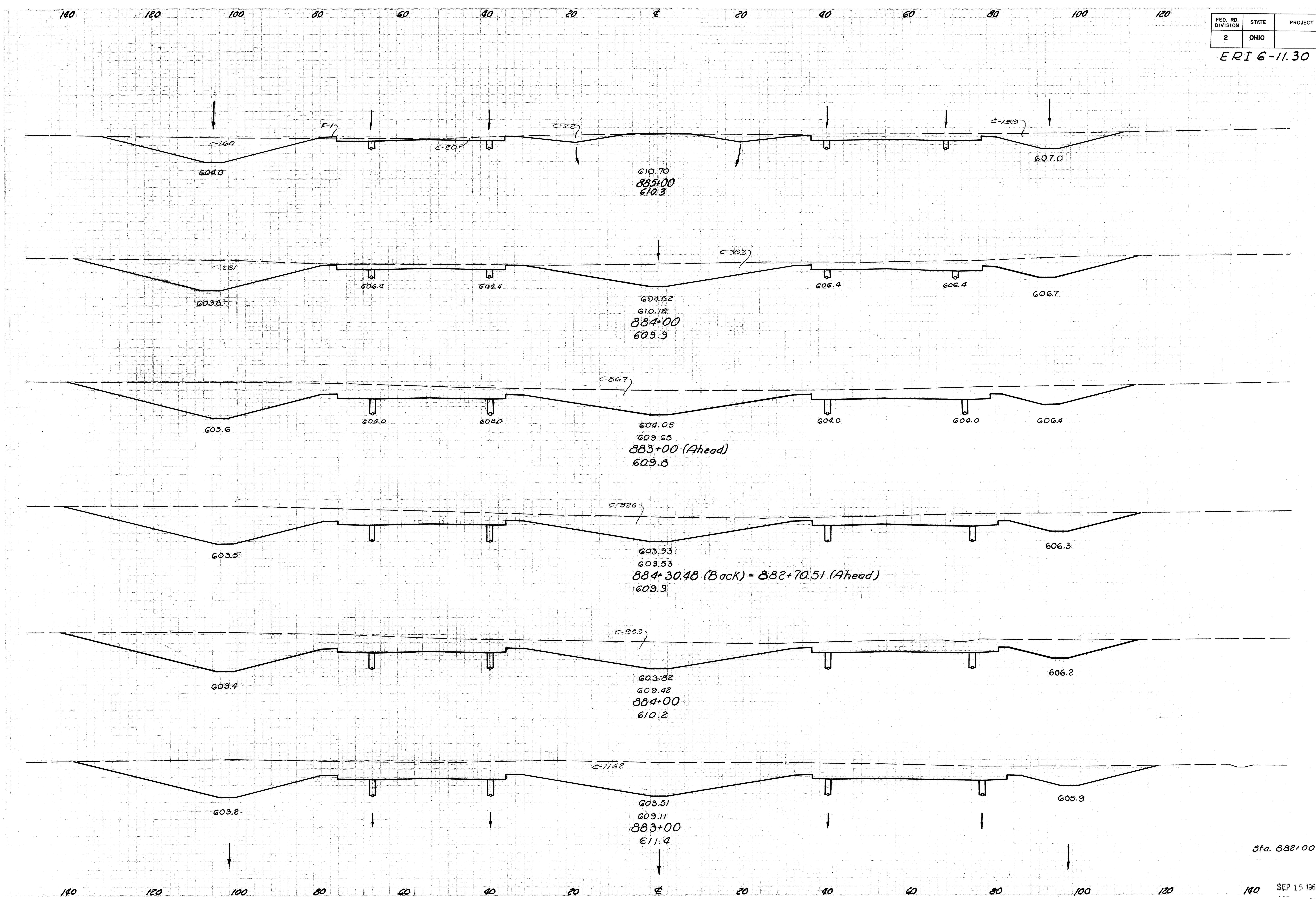
Sta. 876+00

SEP 15 1960

Sta. 877+00 to Sta. 882+00

SEP 15 1960

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
361	1		
		1917	2
674	0		
		2854	0
867	0		
		976	0
920	0		
		1078	0
989	0		
		3983	0
1162	0		
		4419	0
1224	0		

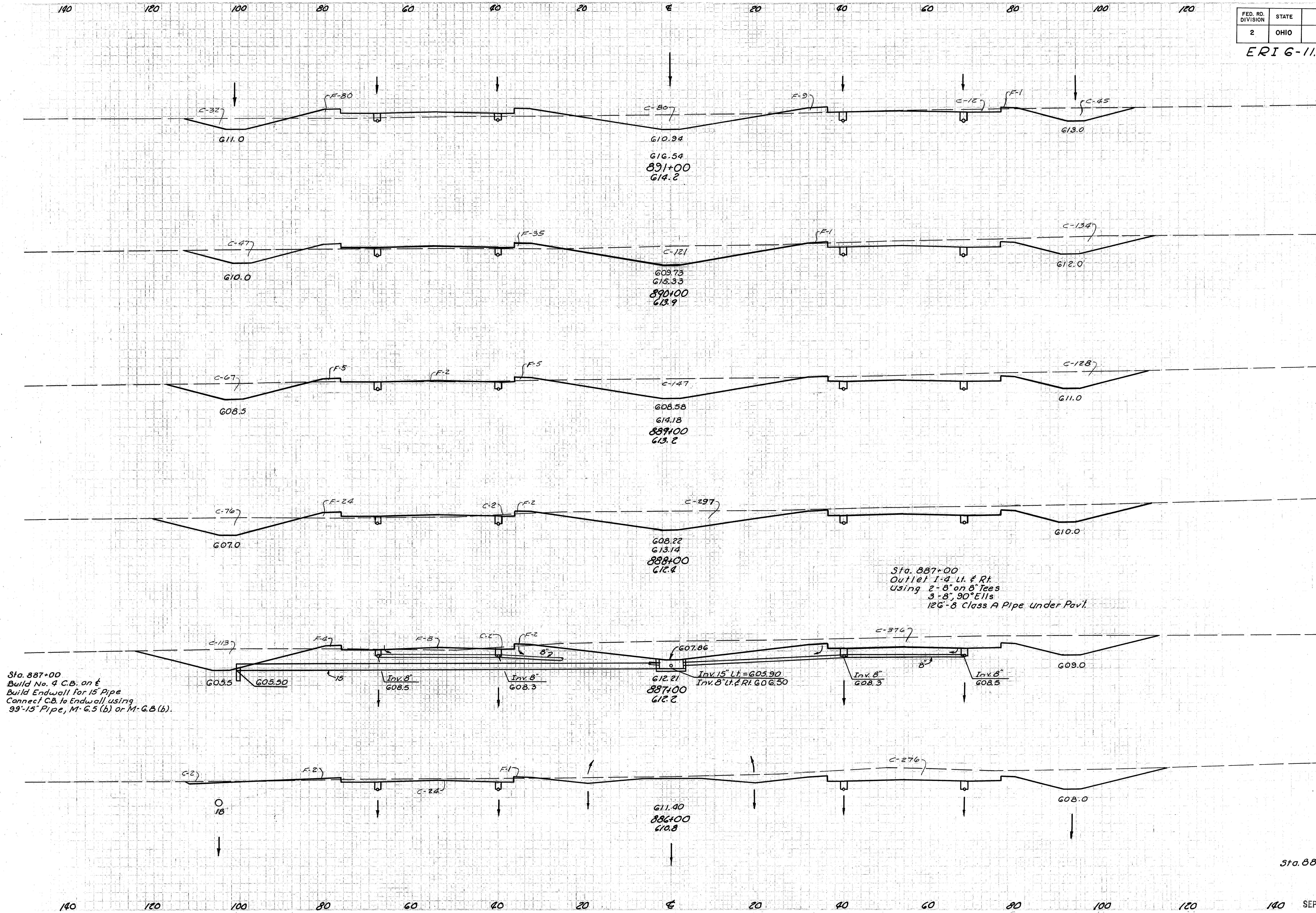
SEP 15 1960

Sta. 883+00 to 885+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30


140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-32
F-80
C-80
F-9
C-12
F-1
C-45
611.0
610.94
613.0
616.54
891+00
614.2
C-47
F-35
C-121
F-1
C-134
610.0
609.73
615.33
890+00
613.9
612.0
C-67
F-5
F-2
F-5
C-147
C-128
608.5
608.58
614.18
889+00
613.2
611.0
C-76
F-24
C-2
F-2
C-297
607.0
608.22
613.14
888+00
612.4
610.0
Sta. 887+00
Outlet I-4 Lt. & Rt.
Using 2-8" on 8" Tees
3-8", 90° Ells
126'-8 Class A Pipe Under Pav't.
C-113
F-4
F-8
C-2
F-2
C-376
607.86
603.5
605.50
15
Inv. 8"
608.5
Inv. 8"
608.3
612.21
887+00
612.2
Inv. 15" Lt. = 605.90
Inv. 8" Lt. & Rt. 606.50
Inv. 8"
608.3
Inv. 8"
608.5
609.0
Sta. 887+00
Build No. 4 C.B. on ℄
Build Endwall for 15 Pipe
Connect C.B. to Endwall using
99'-15" Pipe, M-6.5 (b) or M-6.8 (b).
C-2
F-2
F-1
C-24
C-276
18
611.40
886+00
610.8
608.0
Sta. 885+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
169	90		
		872	233
302	36		
		1193	89
342	12		
		1328	70
375	26		
		1604	74
491	14		
		1469	31
302	3		
		1228	7
361	1		

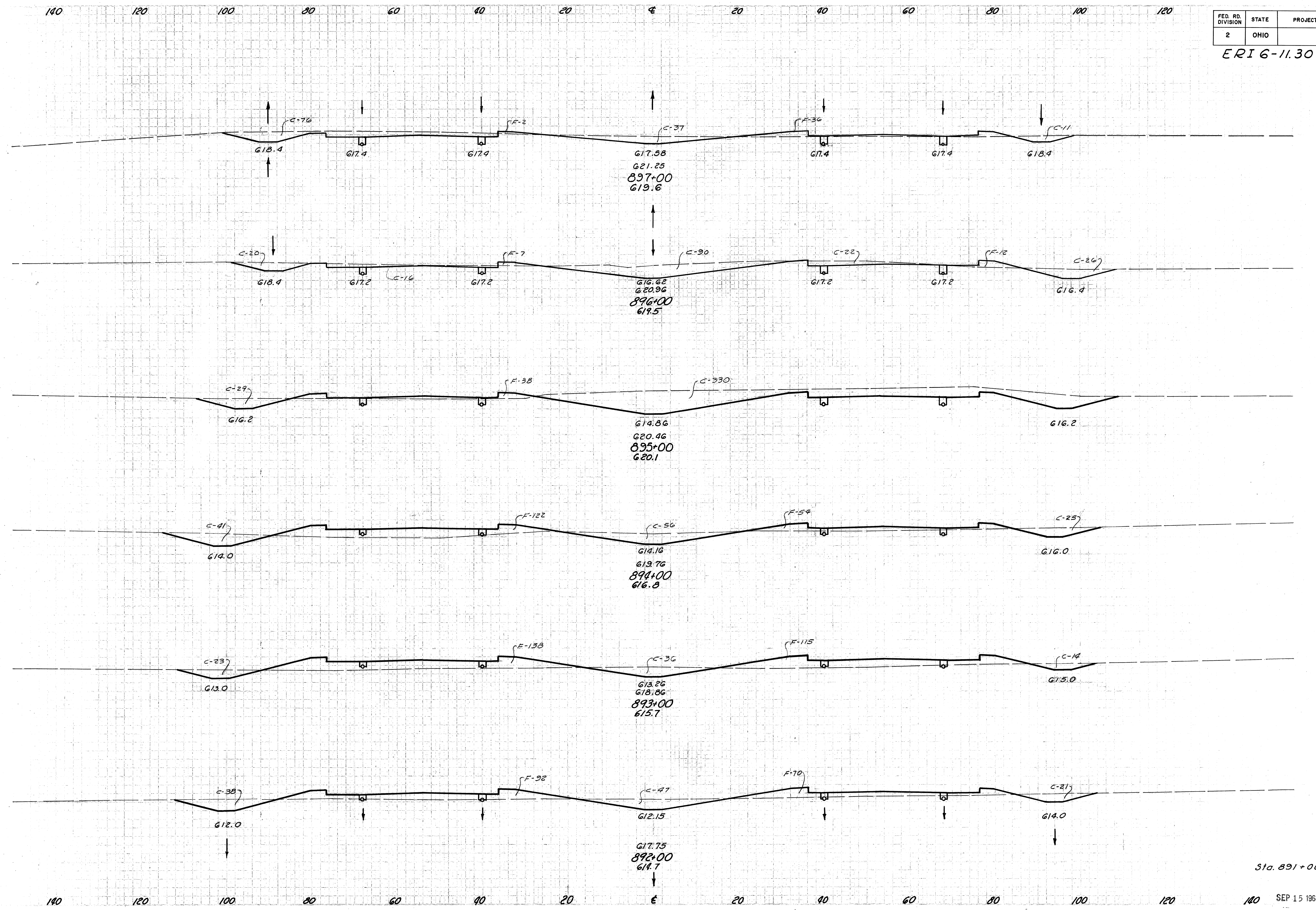
SEP 15 1960

Sta. 886+00 to Sta. 891+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30


140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-76
F-2
C-37
F-36
C-11
618.4 617.4 617.4 617.58 617.4 617.4 618.4
621.25
897+00
619.6
C-20
F-7
C-90
C-22
F-12
C-26
C-16
618.4 617.2 617.2 616.62 617.2 617.2 616.4
620.96
896+00
619.5
C-29
F-38
C-330
616.2 614.86 616.2
620.46
895+00
620.1
C-41
F-122
C-56
F-54
C-25
614.0 614.16 616.0
619.76
894+00
616.8
C-23
F-138
C-36
F-115
C-14
613.0 613.26 615.0
618.86
893+00
615.7
C-38
F-92
C-47
F-70
C-21
612.0 612.15 614.0
617.75
892+00
614.7
Sta. 891+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
124	38		
		552	106
174	19		
		987	106
359	38		
		891	396
122	176		
		361	794
73	253		
		331	769
106	162		
		509	467
169	90		

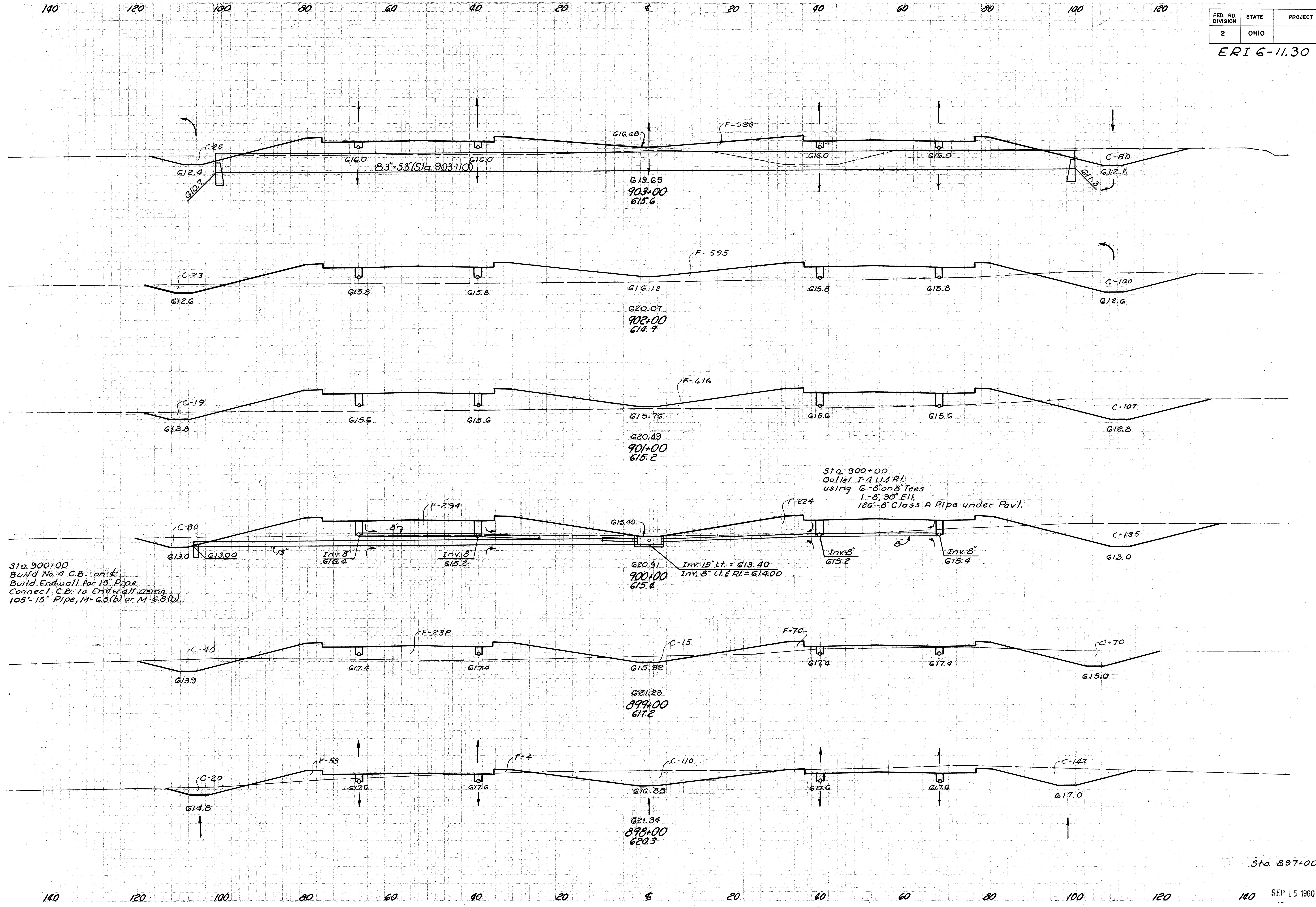
SEP 15 1960

Sta. 892+00 to Sta. 897+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	96 / 235
2	OHIO			

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
83"×53" (Sta. 903+10)
G19.65
903+00
615.6
F-580
C-25
C-80
G20.07
902+00
614.9
F-595
C-23
C-100
G20.49
901+00
615.2
F-616
C-19
C-107
Sta. 900+00
Outlet: I-4 Lt. & Rt.
using 6-8" on 8" Tees
1-8", 90° Ell
126'-8" Class A Pipe under Pav't.
F-294
F-224
C-30
C-135
Inv. 15" Lt. = 613.40
Inv. 8" Lt. & Rt. = 614.00
G20.91
900+00
615.4
Sta. 900+00
Build No. 4 C.B. on ℄
Build Endwall for 15" Pipe
Connect C.B. to Endwall using
105'-15" Pipe, M-6.5(b) or M-6.8(b).
F-238
F-70
C-40
C-15
C-70
G21.23
899+00
617.2
F-53
F-4
C-20
C-110
C-142
G21.34
898+00
620.3
Sta. 897+00

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
105	580		
		422	2176
123	595		
		461	2243
126	616		
		539	2100
165	518		
		537	1530
125	308		
		735	676
272	57		
		733	176
124	38		

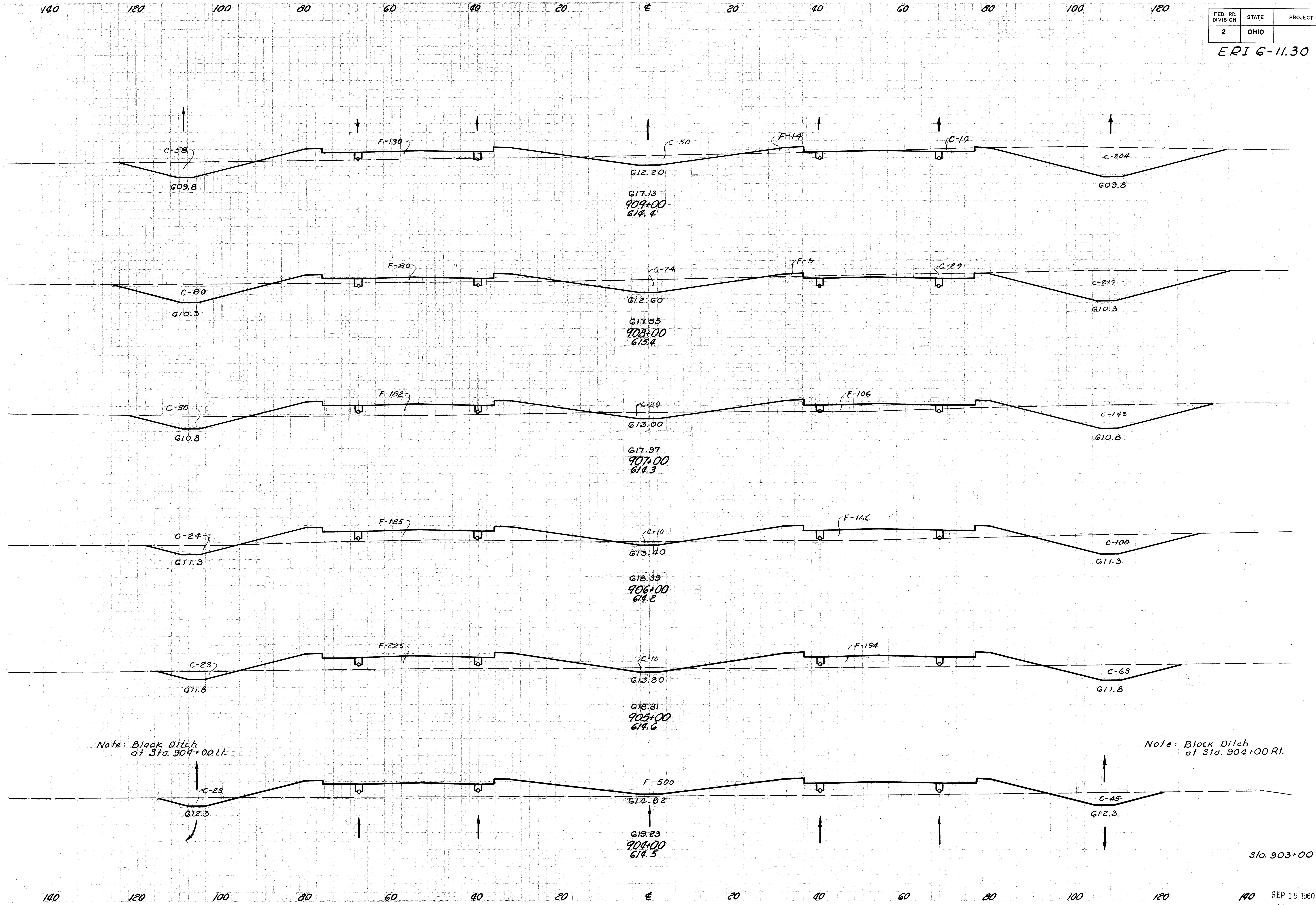
SEP 15 1960

Sta. 898+00 to Sta. 903+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30


140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-58
F-130
C-50
F-14
C-10
C-204
609.8
612.20
617.13
909+00
614.4
F-80
C-74
F-5
C-29
C-80
C-217
610.3
612.60
617.55
908+00
615.4
F-182
C-20
F-106
C-50
C-143
610.8
613.00
617.97
907+00
614.3
F-185
C-10
F-166
C-24
C-100
611.3
613.40
618.39
906+00
614.2
F-225
C-10
F-194
C-23
C-63
611.8
613.80
618.81
905+00
614.6
Note: Block Ditch at Sta. 904+00 Lt.
Note: Block Ditch at Sta. 904+00 Rt.
F-500
C-23
C-45
612.3
614.82
619.23
904+00
614.5
Sta. 903+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
322	144		
		1337	424
400	85		
		1135	691
213	288		
		643	1183
134	351		
		426	1426
96	419		
		304	1702
68	500		
		320	2000
105	580		

RAR SMB 7/20/58
RHE 12-58 RJH 8/4/58
HHG EDS 11-59
GTS 1-60

SEP 15 1960

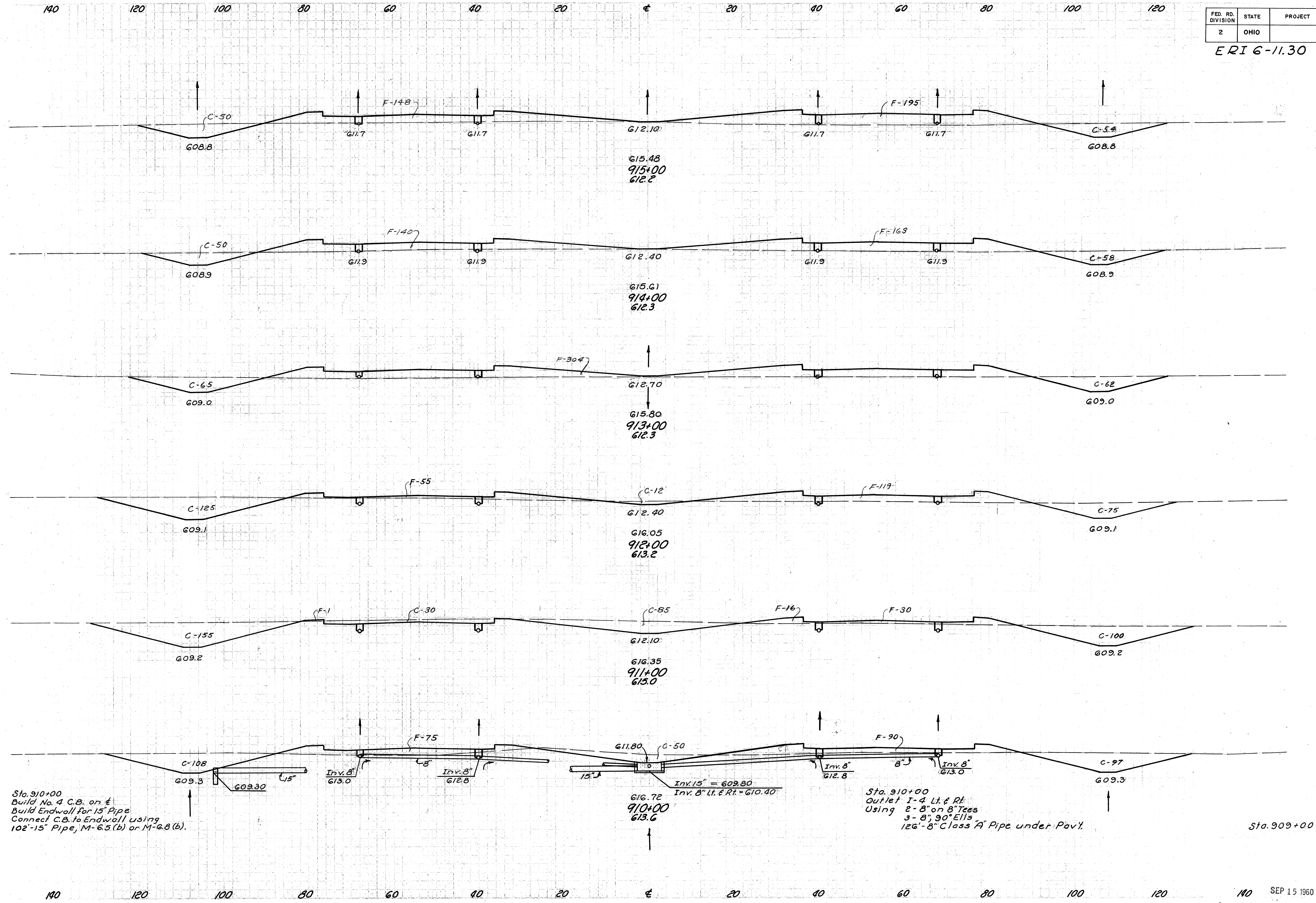
Sta. 904+00 to Sta. 909+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

98/235

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
104	343		
		393	1196
108	303		
		435	1124
127	304		
		628	885
212	174		
		1078	409
370	47		
		1157	393
255	165		
		1069	572
322	144		

SMB RAR 11/20/58 RJH 8/4/58 RNE 12-58 EDS 12-59 HAG 1-59 GTS 1-60 1958

SEP 15 1960

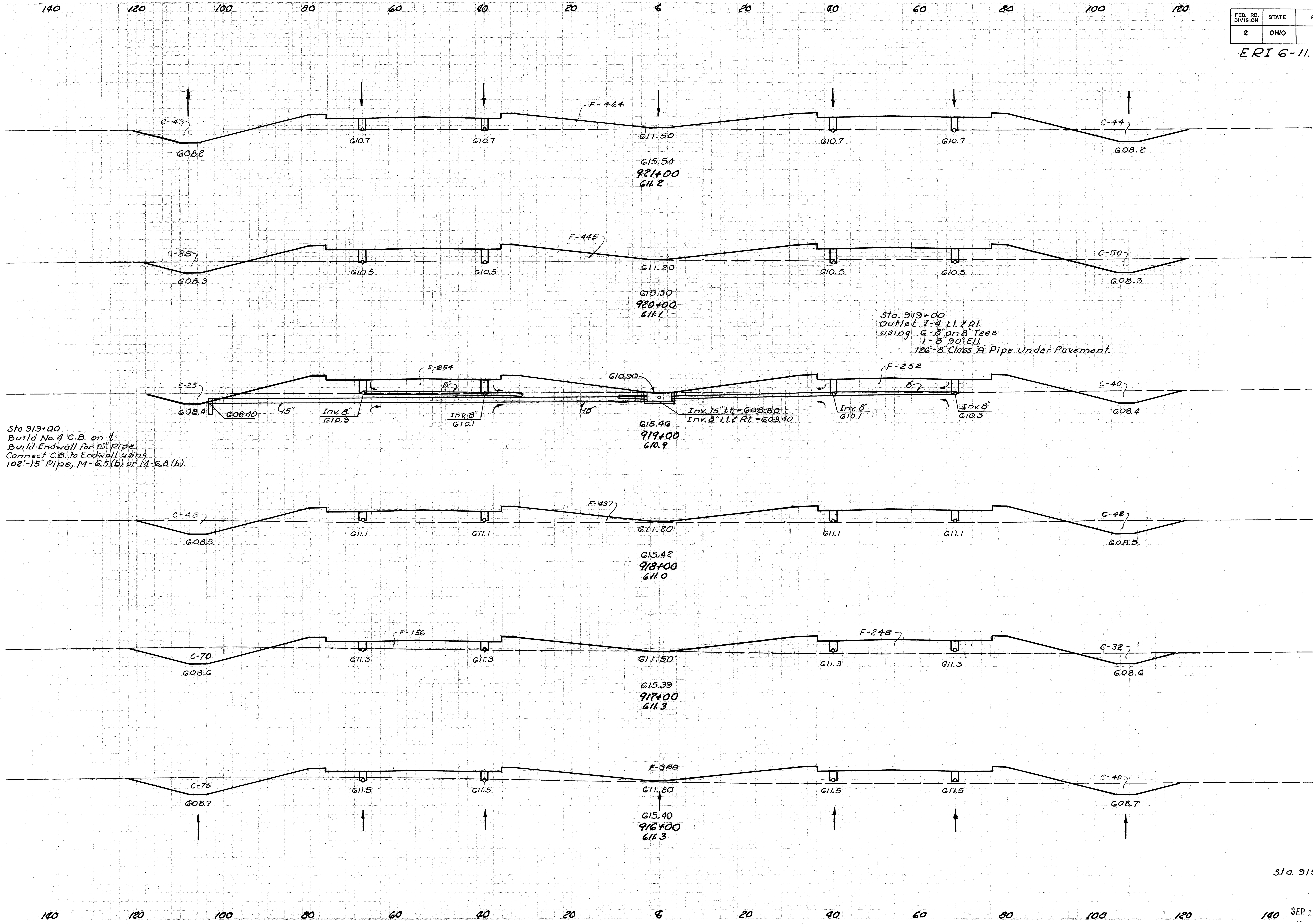
Sta. 910+00 to Sta. 915+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

99 / 235

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-43
F-464
C-44
608.2
610.7
610.7
611.50
610.7
610.7
608.2
615.54
921+00
611.2
C-38
F-445
C-50
608.3
610.5
610.5
611.20
610.5
610.5
608.3
615.50
920+00
611.1
C-25
F-254
8"
610.90
F-252
8"
C-40
608.4
608.40
15"
Inv. 8" 610.3
Inv. 8" 610.1
15"
Inv. 15" Lt. = 608.80
Inv. 8" Lt. & Rt. = 609.40
Inv. 8" 610.1
Inv. 8" 610.3
608.4
615.46
919+00
610.9
C-48
F-437
C-48
608.5
611.1
611.1
611.20
611.1
611.1
608.5
615.42
918+00
611.0
C-70
F-156
F-248
C-32
608.6
611.3
611.3
611.50
611.3
611.3
608.6
615.39
917+00
611.3
C-75
F-388
C-40
608.7
611.5
611.5
611.80
611.5
611.5
608.7
615.40
916+00
611.3
Sta. 915+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Sta. 919+00
Outlet I-4 Lt. & Rt.
using 6-8" on 8" Tees
1-8" 90° Ell.
126'-8" Class "A" Pipe Under Pavement.

Sta. 919+00
Build No. 4 C.B. on ℄
Build Endwall for 15" Pipe.
Connect C.B. to Endwall using
102'-15" Pipe, M-6.5(b) or M-6.8(b).

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
87	464		
		324	1683
88	445		
		283	1761
65	506		
		298	1746
96	437		
		367	1557
102	404		
		402	1467
115	388		
		406	1354
104	343		

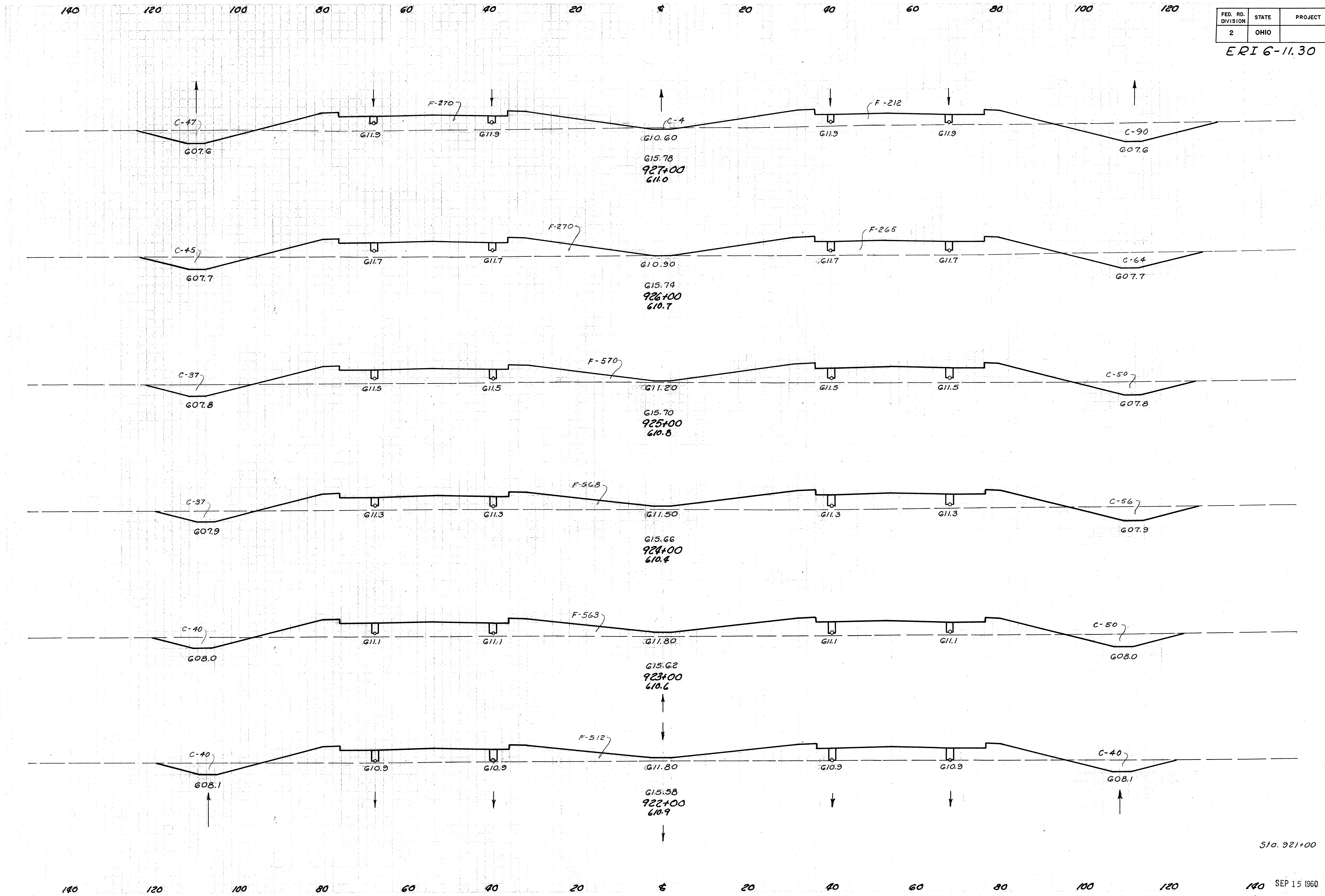
SEP 15 1960

Sta. 916+00 to Sta. 921+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-47
607.6
F-270
611.9
611.9
C-4
610.60
615.78
927+00
611.0
F-212
611.9
611.9
C-90
607.6
C-45
607.7
611.7
611.7
F-270
610.90
615.74
926+00
610.7
F-265
611.7
611.7
C-64
607.7
C-37
607.8
611.5
611.5
F-570
611.20
615.70
925+00
610.8
611.5
611.5
C-50
607.8
C-37
607.9
611.3
611.3
F-568
611.50
615.66
924+00
610.4
611.3
611.3
C-56
607.9
C-40
608.0
611.1
611.1
F-563
611.80
615.62
923+00
610.6
611.1
611.1
C-50
608.0
C-40
608.1
610.9
610.9
F-512
611.80
615.58
922+00
610.9
610.9
610.9
C-40
608.1
Sta. 921+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

SEP 15 1960

Sta. 922+00 to 927+00

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
141	482		
		463	1883
109	535		
		363	2046
87	570		
		333	2107
93	568		
		339	2094
90	563		
		315	1991
80	512		
		309	1807
87	464		

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

101/235

ERI 6-11.30

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
131	485		
		506	2026
142	609		
		550	2257
155	610		
		606	2124
172	537		
		670	1843
190	458		
		741	1637
210	426		
		650	1681
141	482		

SEP 15 1960

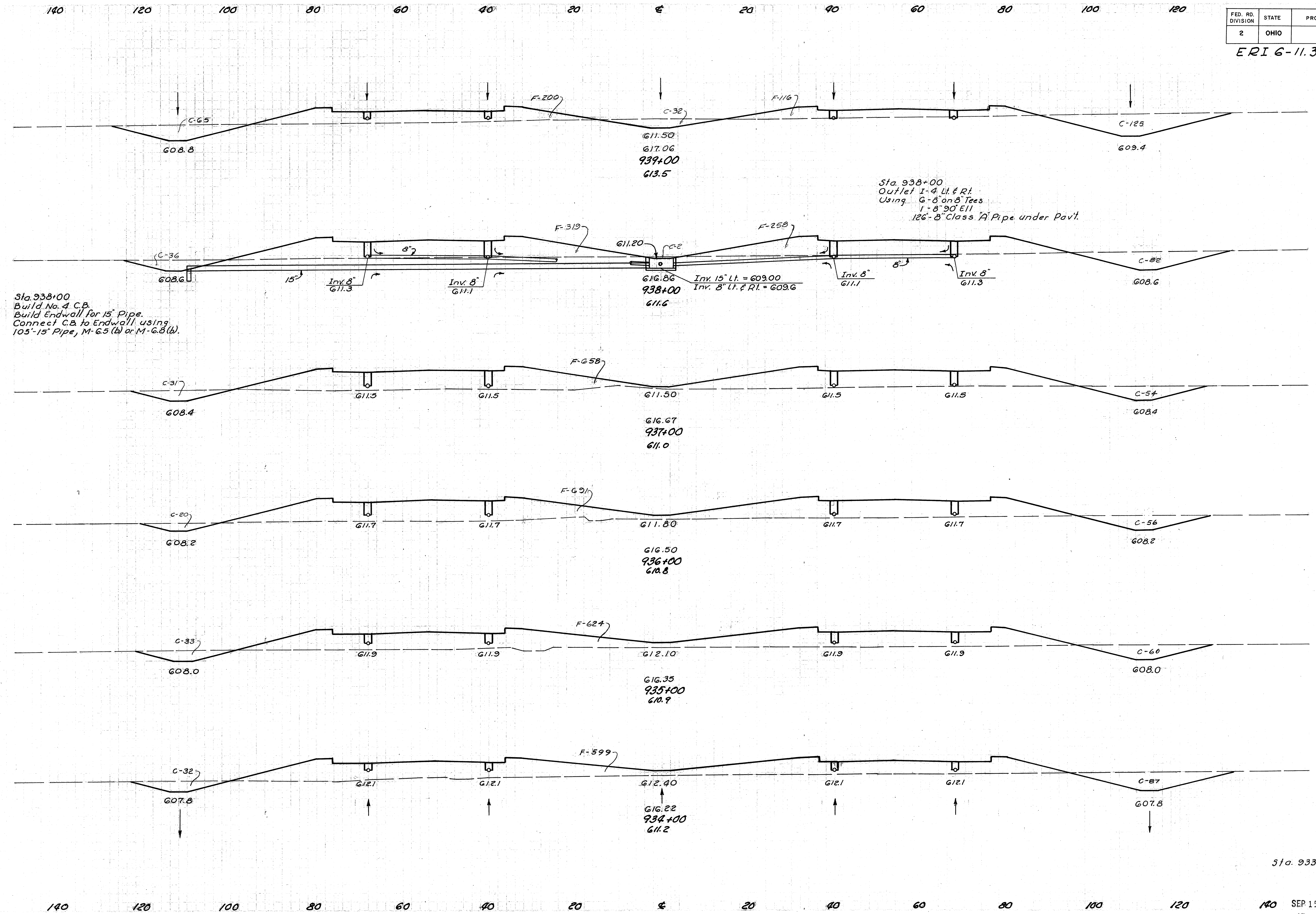
Sta. 928+00 to Sta. 933+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

102/235

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
222	316		
		633	1654
120	577		
		380	2287
85	658		
		298	2498
76	691		
		313	2435
93	624		
		393	2265
119	599		
		463	2007
131	485		

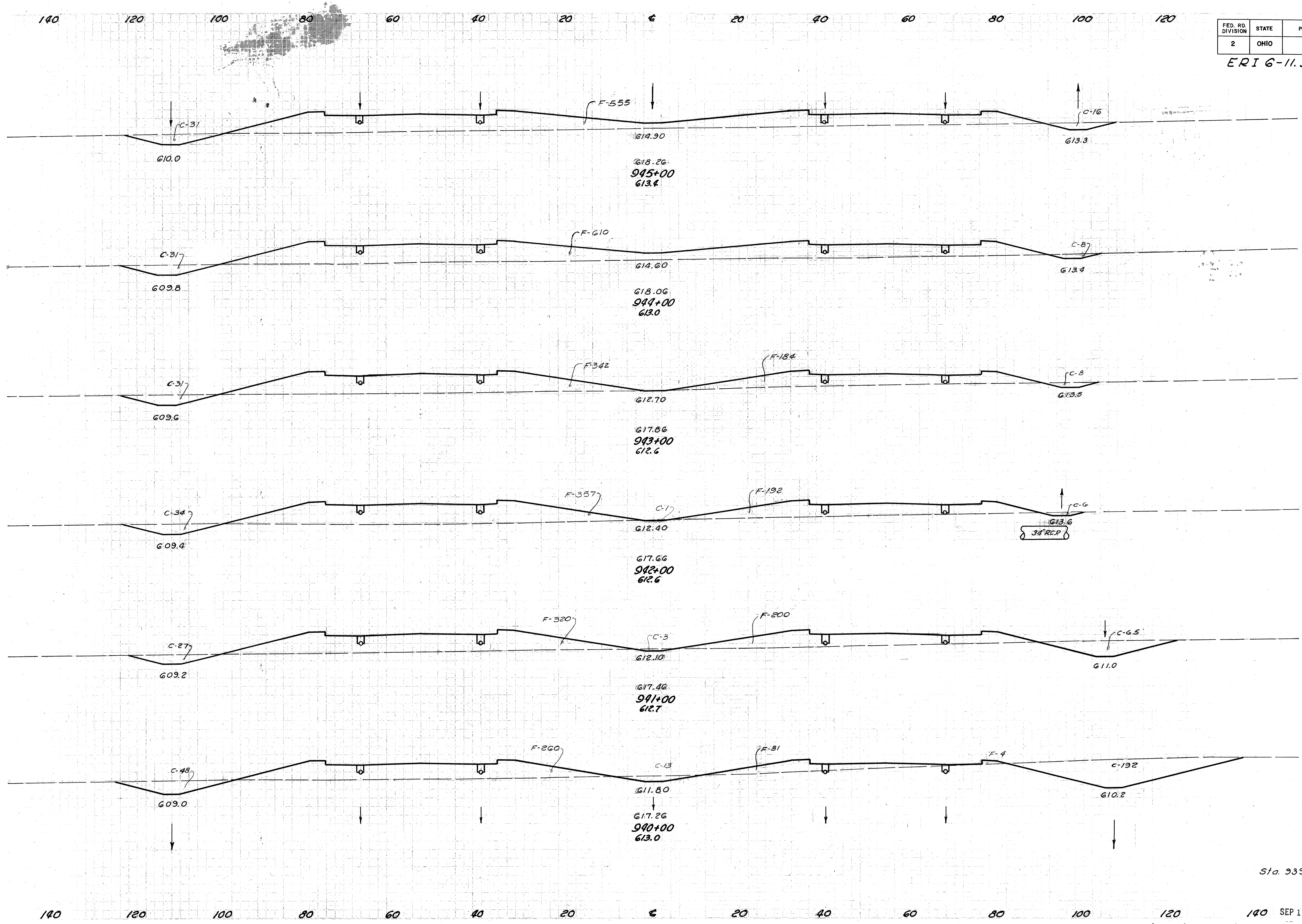
SEP 15 1960

Sta. 934+00 to Sta 939+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
47	555		
		159	2157
39	610		
		144	2104
39	526		
		148	1991
41	549		
		252	1980
95	520		
		644	1602
253	345		
		880	1224
222	316		

RAR 8-5-58 SMB
RNE 12-58
GTS
DFS

TFH 1958
EDS 8/8/58
12-59
1-60
2-60

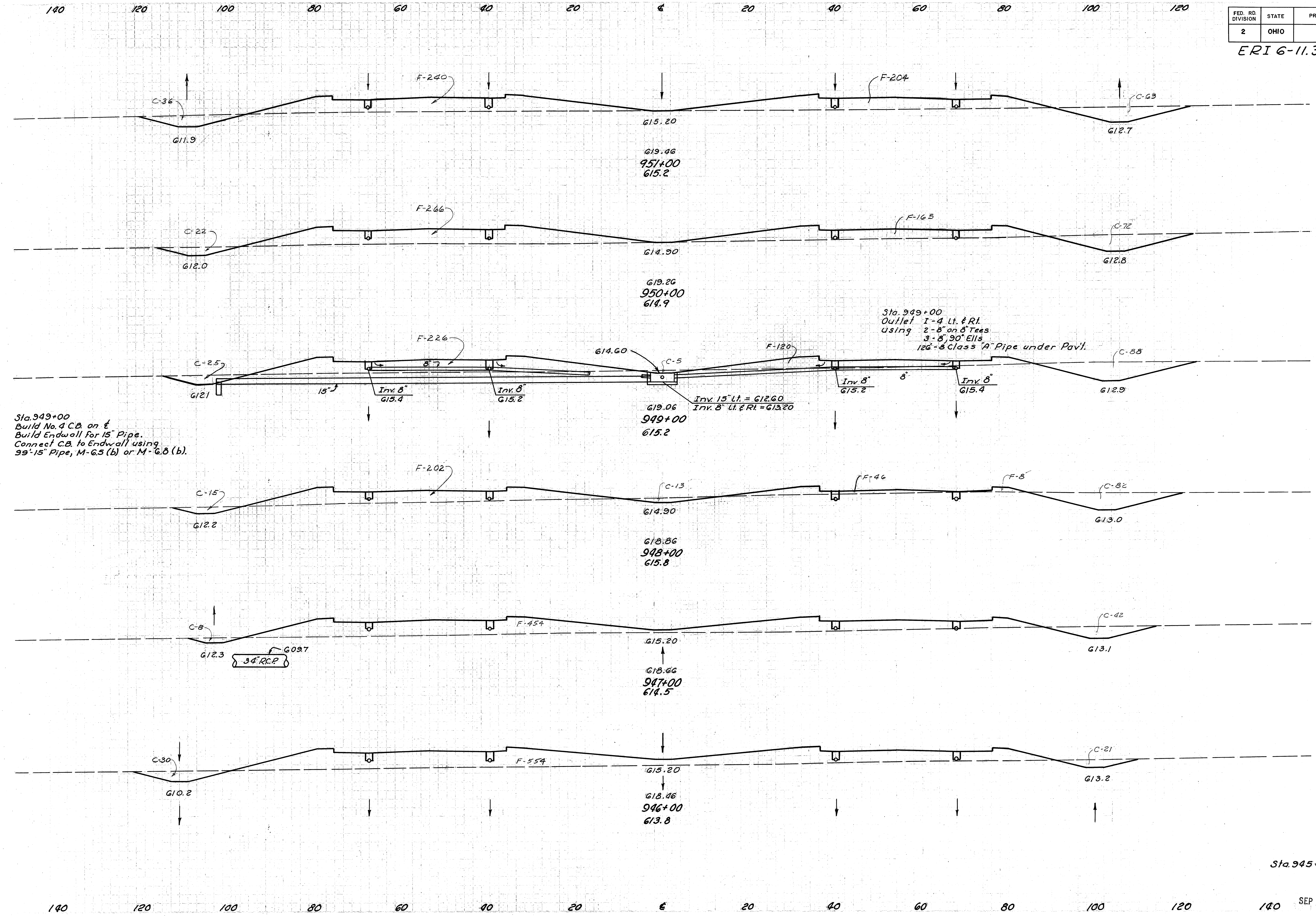
SEP 15 1960

Sta. 940+00 to Sta. 945+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-36
F-240
F-204
C-63
611.9
615.20
612.7
619.46
951+00
615.2
C-22
F-266
F-165
C-72
612.0
614.90
612.8
619.26
950+00
614.9
Sta. 949+00
Outlet I-4 Lt. & Rt.
using 2-8" on 8" Tees
3-8", 90° Ells
126'-8" Class "A" Pipe under Pav't.
F-226
614.60
C-5
F-120
C-25
C-88
8"
15"
612.1
Inv. 8" 615.4
Inv. 8" 615.2
Inv. 15" Lt. = 612.60
Inv. 8" Lt. & Rt. = 613.20
Inv. 8" 615.2
Inv. 8" 615.4
612.9
619.06
949+00
615.2
Sta. 949+00
Build No. 4 C.B. on ℄
Build Endwall for 15" Pipe.
Connect C.B. to Endwall using
99'-15" Pipe, M-6.5 (b) or M-6.8 (b).
F-202
C-15
C-13
F-46
F-8
C-82
612.2
614.90
613.0
618.86
948+00
615.8
C-8
F-454
C-42
612.3
609.7
34" R.C.P.
615.20
613.1
618.66
947+00
614.5
C-30
F-554
C-21
610.2
615.20
613.2
618.46
946+00
613.8
Sta. 945+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
99	444		
		357	1620
94	431		
		393	1439
118	346		
		422	1115
110	256		
		296	1315
50	454		
		187	1867
51	554		
		181	2054
47	555		

SEP 15 1960

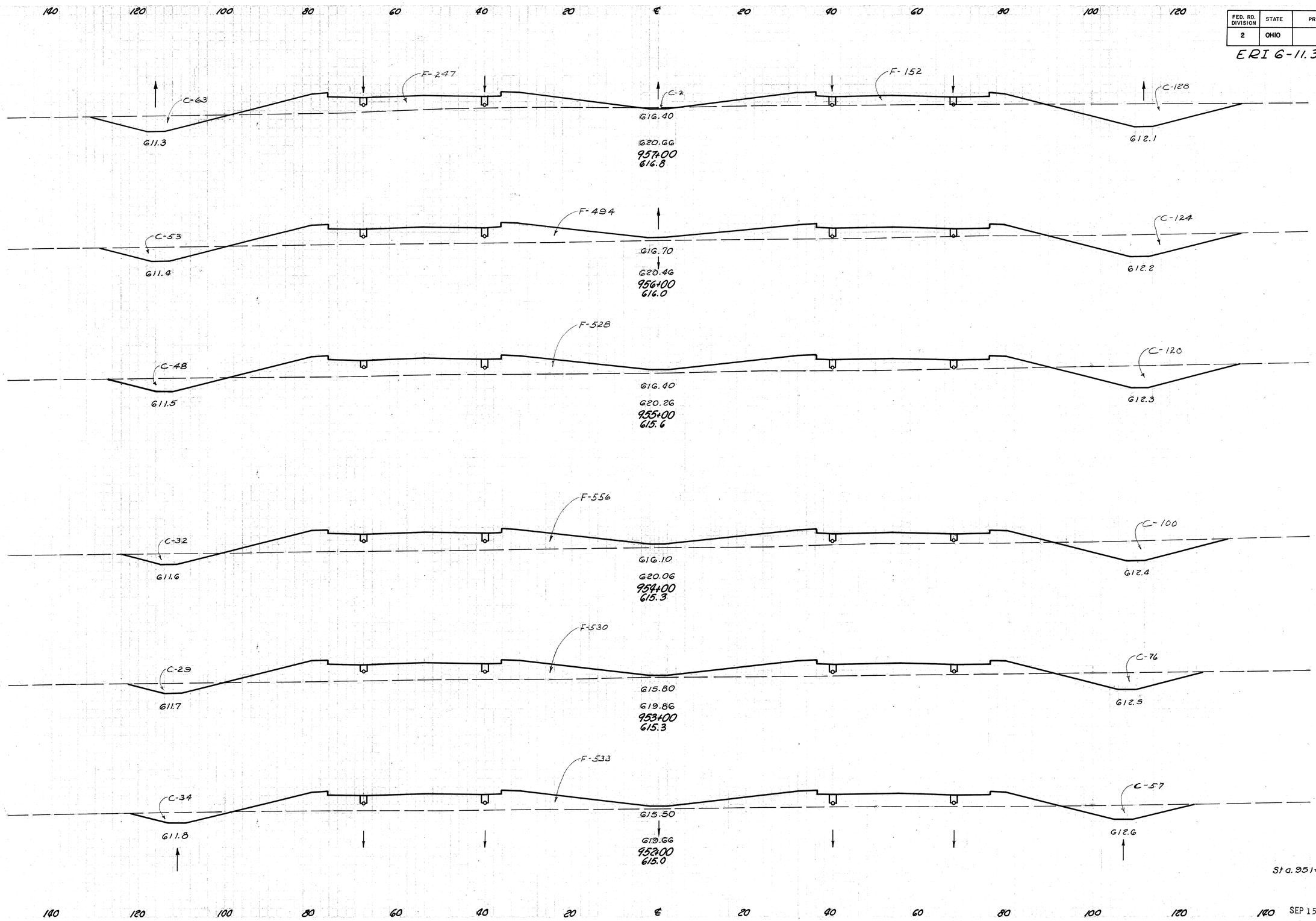
Sta. 946+00 to Sta. 951+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

105
235

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
193	399		
		685	1654
177	494		
		639	1893
168	528		
		556	2007
132	556		
		439	2011
105	530		
		363	1969
91	533		
99	444	352	1809

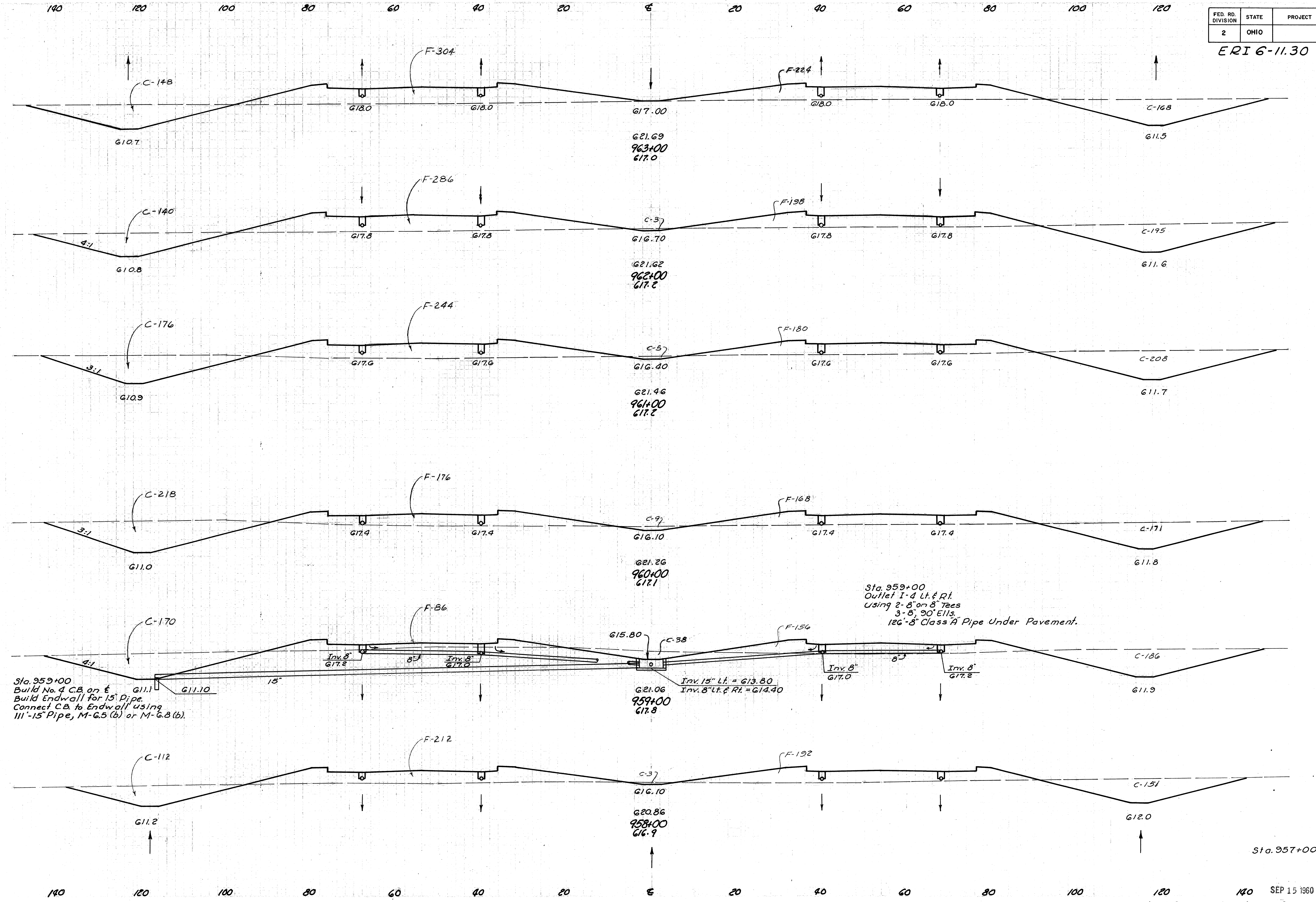
SEP 15 1960

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

106/235

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
316	528		
		1211	1874
338	484		
		1346	1681
389	424		
		1457	1422
398	344		
		1467	1085
394	242		
		1222	1196
266	404		
		850	1487
193	399		

SEP 15 1960

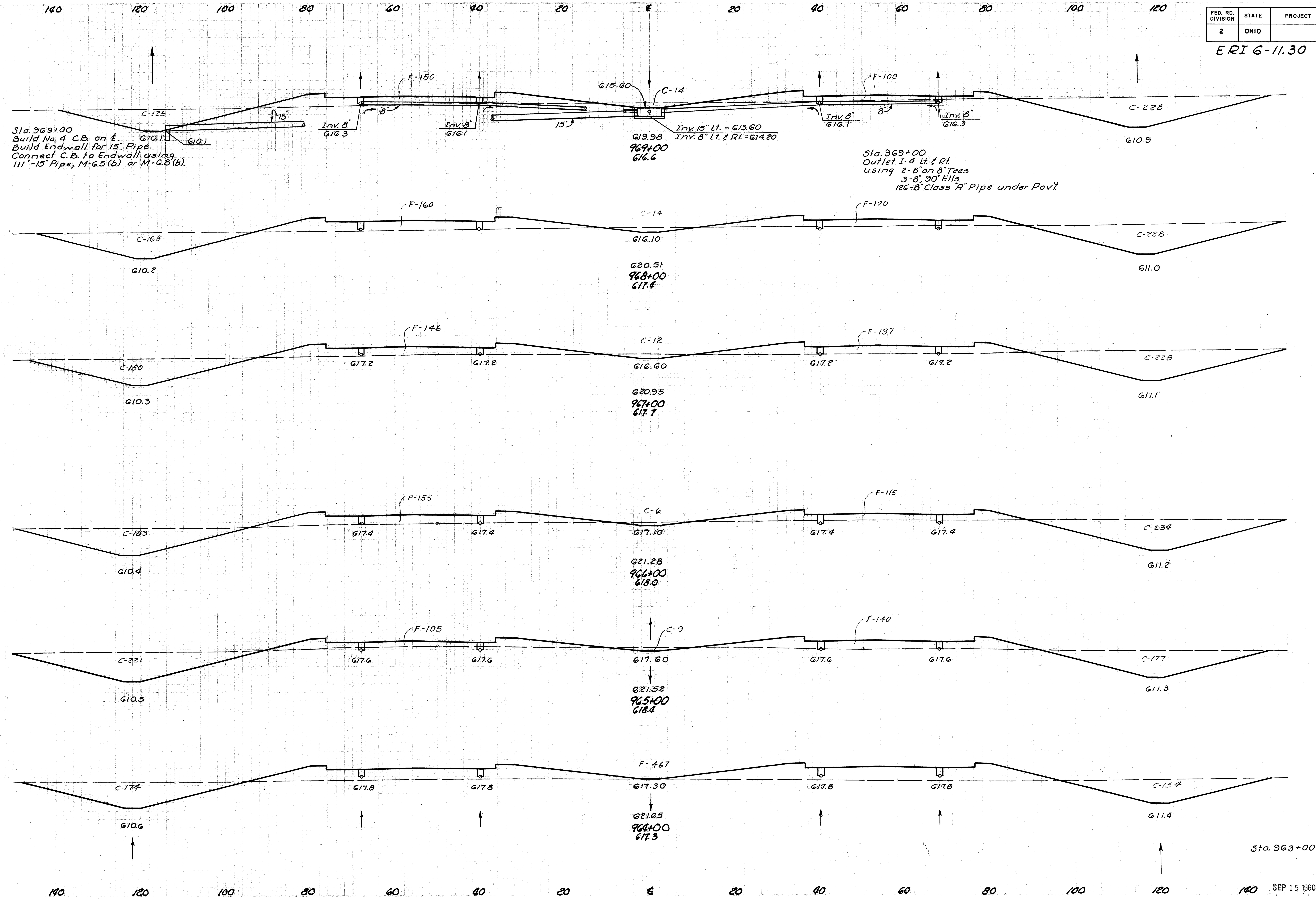
Sta. 958+00 to Sta. 963+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

107 / 235

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
F-150
F-100
615.60
C-14
C-125
C-228
15"
8"
Inv. 8" 616.3
Inv. 8" 616.1
Inv. 15" Lt. = 613.60
Inv. 8" Lt. & Rt. = 614.20
Inv. 8" 616.1
Inv. 8" 616.3
Sta. 969+00
Build No. 4 C.B. on ℄.
Build Endwall for 15" Pipe.
Connect C.B. to Endwall using
111'-15" Pipe, M-6.5 (b) or M-6.8 (b).
610.1
610.1
619.98
969+00
616.6
610.9
Sta. 969+00
Outlet I-4 Lt. & Rt.
using 2-8" on 8" Tees
3-8", 90° Ells
126'-8" Class "A" Pipe under Pav't.
F-160
F-120
C-14
C-168
C-228
616.10
610.2
611.0
620.51
968+00
617.4
F-146
F-137
C-12
C-150
C-228
617.2
617.2
616.60
617.2
617.2
610.3
611.1
620.95
967+00
617.7
F-155
F-115
C-6
C-183
C-234
617.4
617.4
617.10
617.4
617.4
610.4
611.2
621.28
966+00
618.0
F-105
C-9
F-140
C-221
C-177
617.6
617.6
617.60
617.6
617.6
610.5
611.3
621.52
965+00
618.4
F-467
C-174
C-154
617.8
617.8
617.30
617.8
617.8
610.6
611.4
621.65
964+00
617.3
Sta. 963+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Areas Cut	End Areas Fill	Cu. Yds. Cut	Cu. Yds. Fill
367	250		
		1439	981
410	280		
		1482	1043
390	283		
		1508	1024
423	270		
		1537	954
407	245		
		1361	1319
328	467		
		1193	1843
316	528		

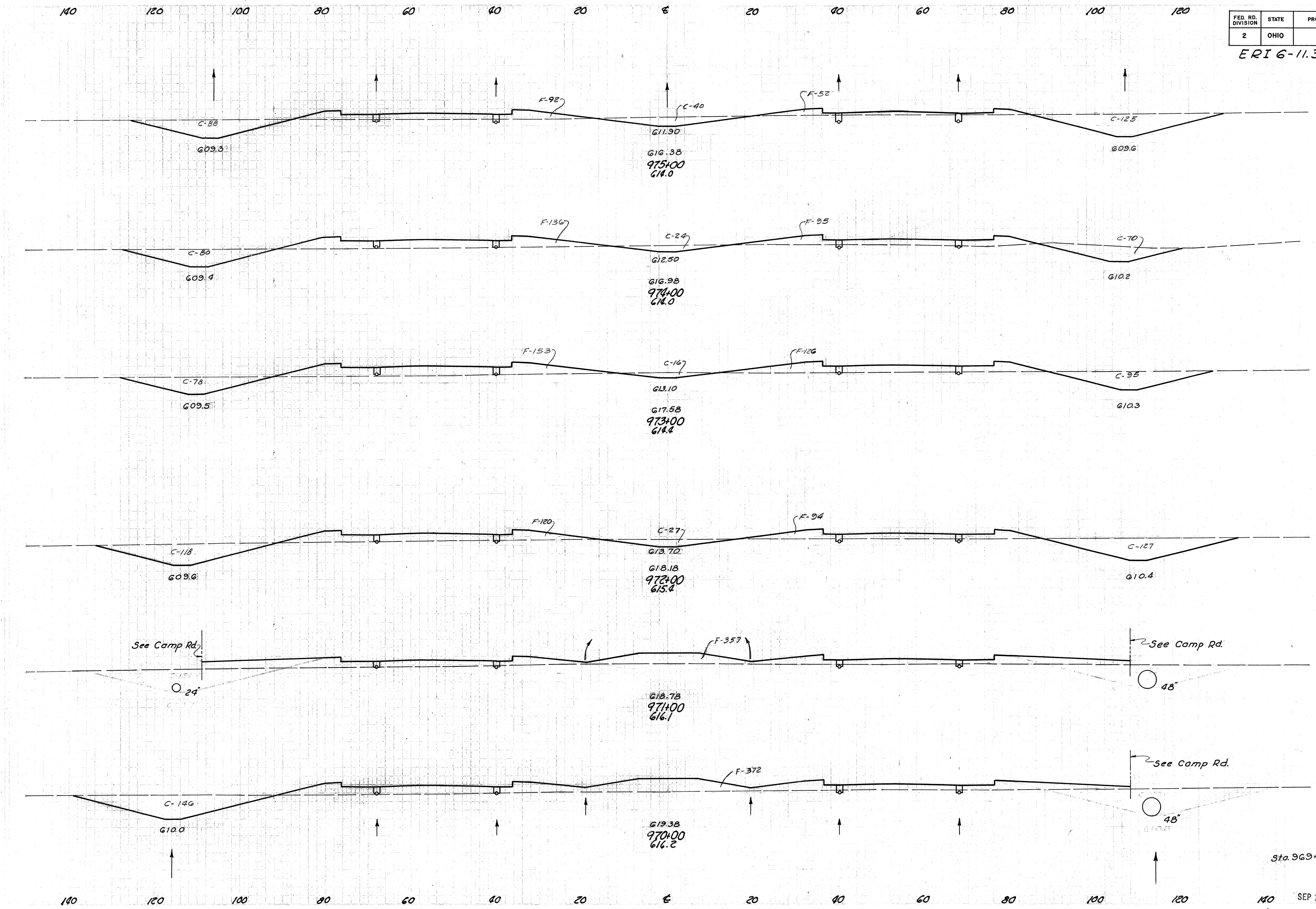
SEP 15 1960

Sta. 964+00 to Sta. 969+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
253	144		
		791	694
174	231		
		672	944
189	279		
		854	913
272	214		
		504	1057
0	357		
		270	1350
146	372		
		950	1152
367	250		

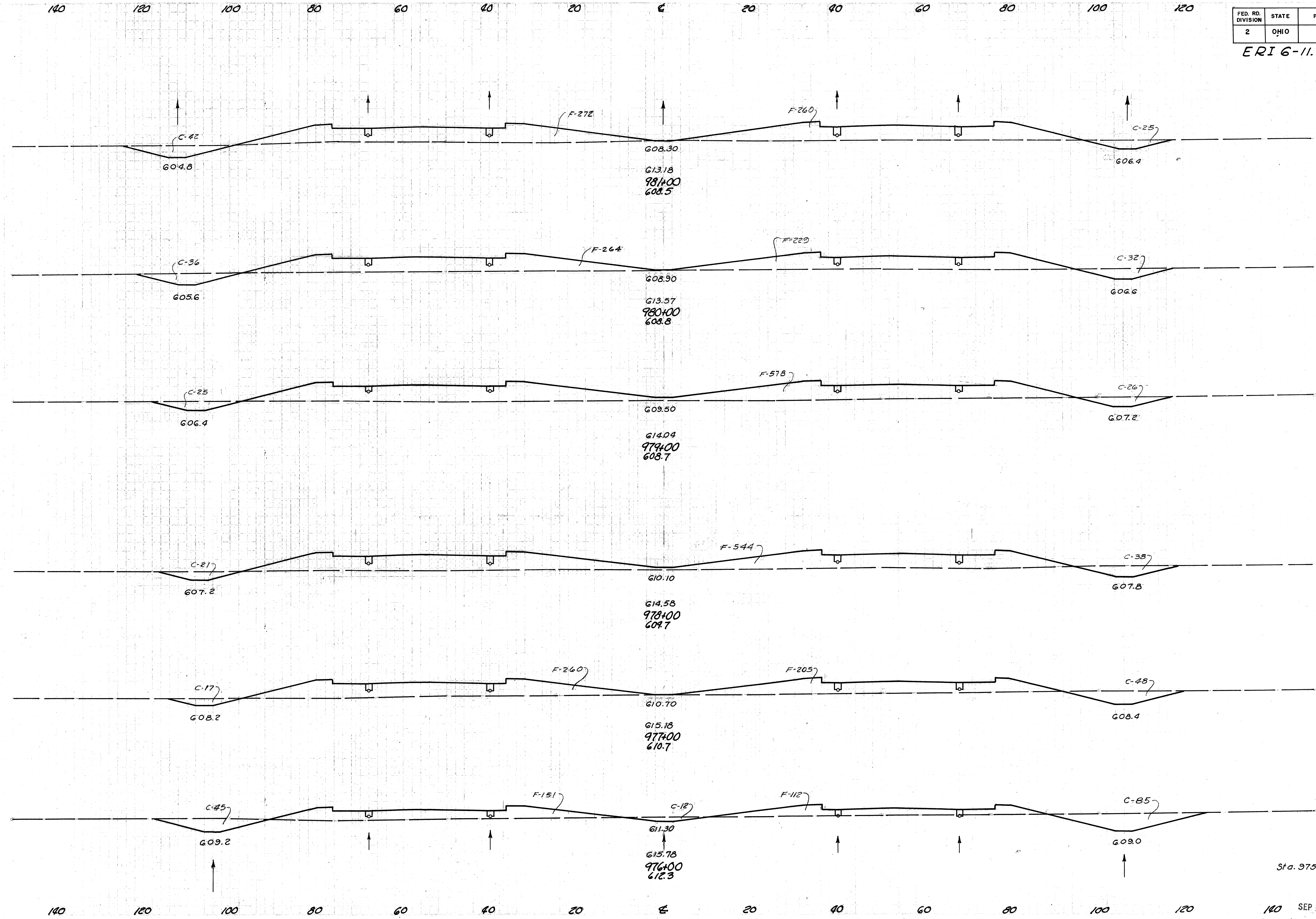
SEP 15 1960

Sta. 970+00 to Sta. 975+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	
2	OHIO			109 / 235

ERI 6-11.30



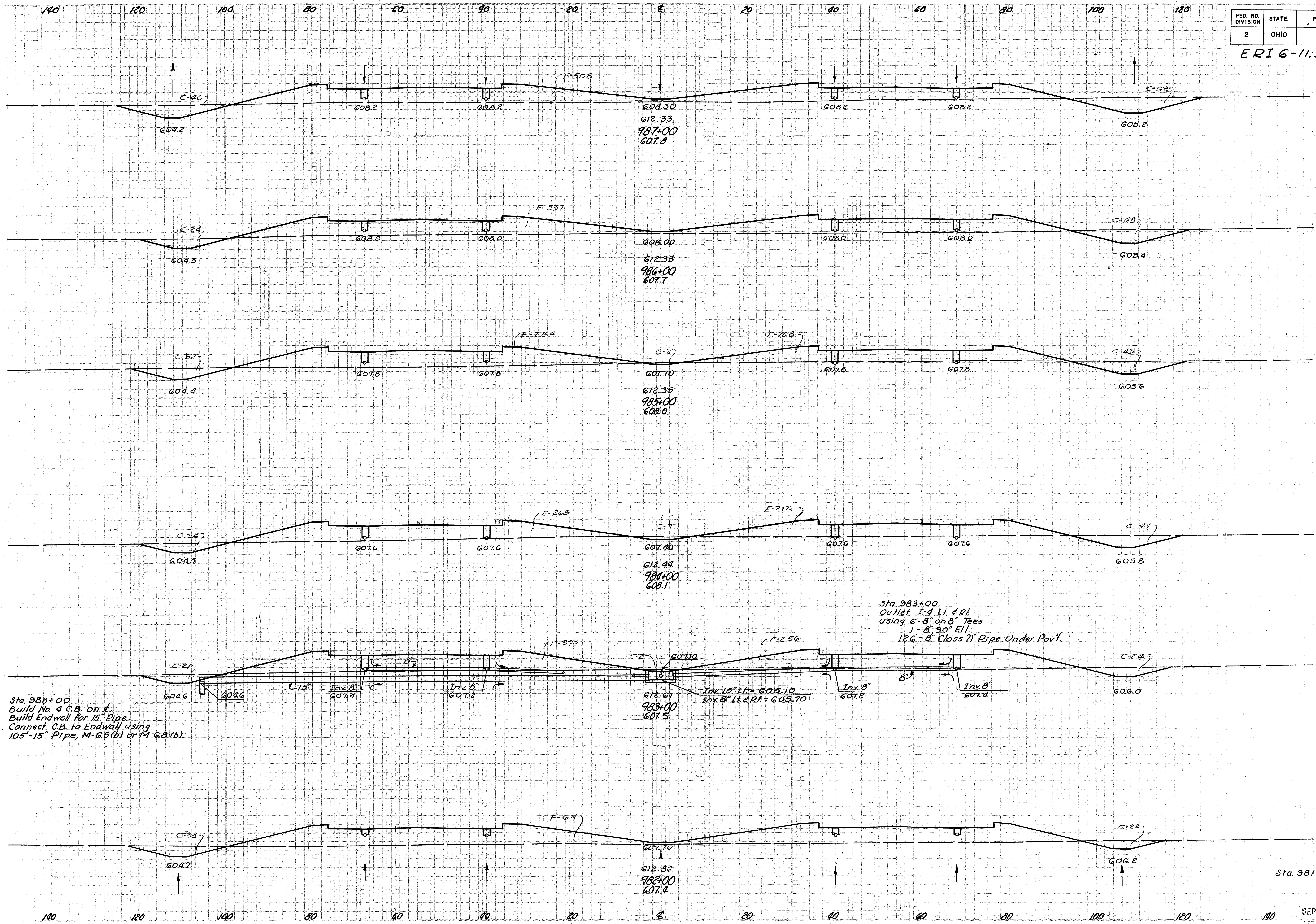
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-42
F-272
F-260
C-25
604.8
608.30
606.4
613.18
981+00
608.5
C-36
F-264
F-229
C-32
605.6
608.90
606.6
613.57
980+00
608.8
C-25
F-578
C-26
606.4
609.50
607.2
614.04
979+00
608.7
C-21
F-544
C-38
607.2
610.10
607.8
614.58
978+00
609.7
C-17
F-260
F-205
C-48
608.2
610.70
608.4
615.18
977+00
610.7
C-45
F-151
C-12
F-112
C-85
609.2
611.30
609.0
615.78
976+00
612.3
Sta. 975+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
67	532		
		250	1898
68	493		
		220	1983
51	578		
		204	2078
59	544		
		230	1869
65	465		
		383	1348
142	263		
		731	754
253	144		

SEP 15 1960

Sta. 976+00 to Sta. 981+00

SEP 15 1960

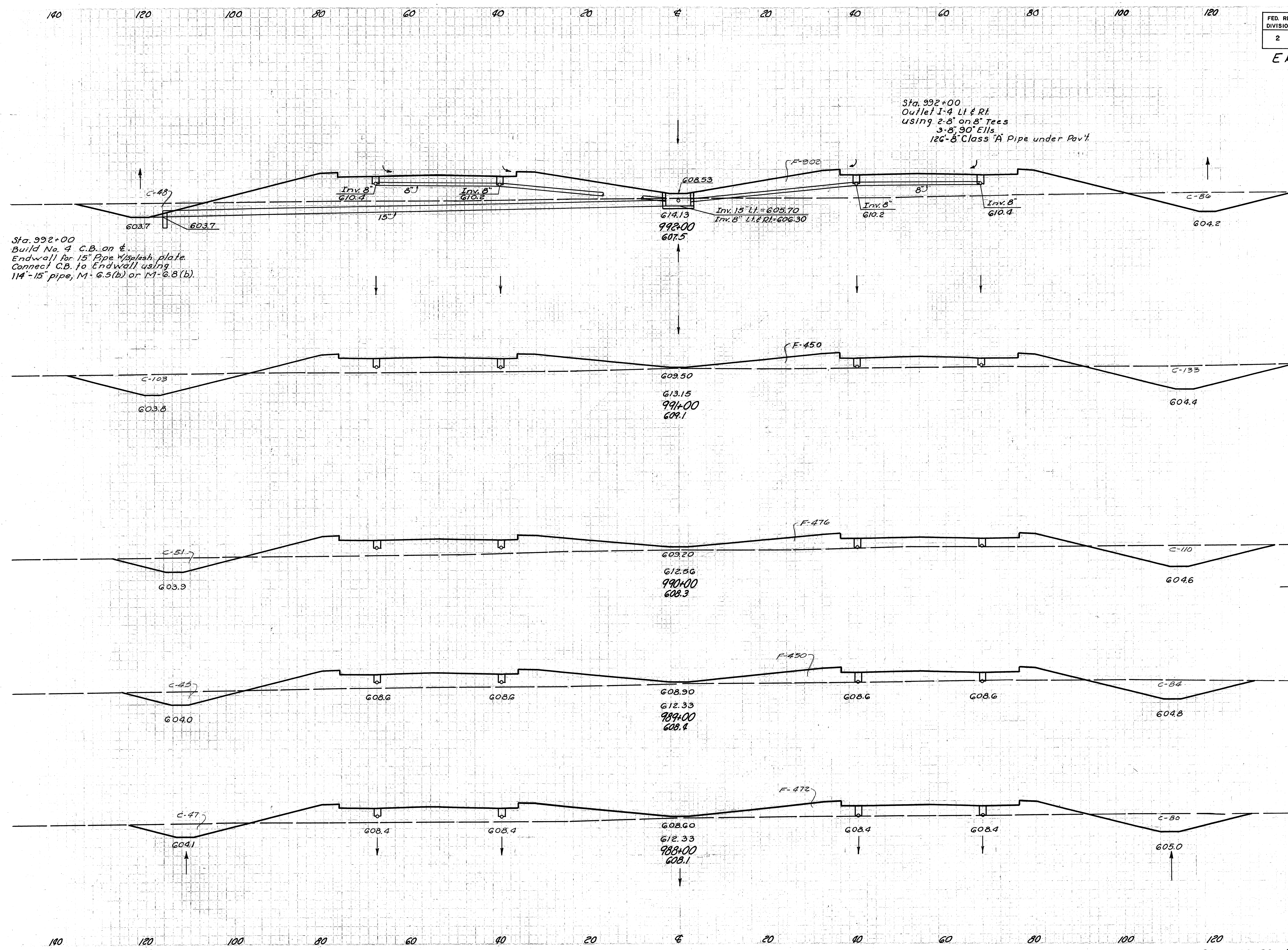


140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
F-508
C-46
C-63
608.2
608.30
612.33
987+00
607.8
604.2
605.2
F-537
C-24
C-48
608.0
608.00
612.33
986+00
607.7
604.3
605.4
F-284
F-208
C-32
C-2
C-43
607.8
607.70
612.35
985+00
608.0
604.4
605.6
F-268
F-212
C-24
C-7
C-41
607.6
607.40
612.44
984+00
608.1
604.5
605.8
Sta. 983+00
Outlet I-4 Lt. & Rt.
Using 6-8" on 8" Tees
1-8" 90° Ell.
126'-8" Class "A" Pipe Under Pav't.
F-303
F-256
C-21
C-2
C-24
607.10
8"
15"
Inv. 8" 607.4
Inv. 8" 607.2
Inv. 15" Lt. = 605.10
Inv. 8" Lt. & Rt. = 605.70
Inv. 8" 607.2
Inv. 8" 607.4
604.6
604.6
612.61
983+00
607.5
606.0
Sta. 983+00
Build No. 4 C.B. on ℄.
Build Endwall for 15" Pipe.
Connect C.B. to Endwall using
105'-15" Pipe, M-6.5(b) or M 6.8 (b).
F-611
C-32
C-22
607.70
612.86
982+00
607.4
604.7
606.2
Sta. 981+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
109	508		
		335	1935
72	537		
		276	1906
77	492		
		276	1800
72	480		
		220	1924
47	559		
		187	2167
54	611		
		224	2117
67	532		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30



Excavation	10,551	Cu. Yds.
Embankment	372,944	Cu. Yds.
Seeding	75,213	Sq. Yds.

Sta. 987+00

End Area Cut	End Area Fill	Cu. Yds Cut	Cu. Yds Fill
134	902		
		685	2504
236	450		
		735	1715
161	476		
		537	1715
129	450		
		474	1707
127	472		
		437	1815
109	508		

SEP 15 1960

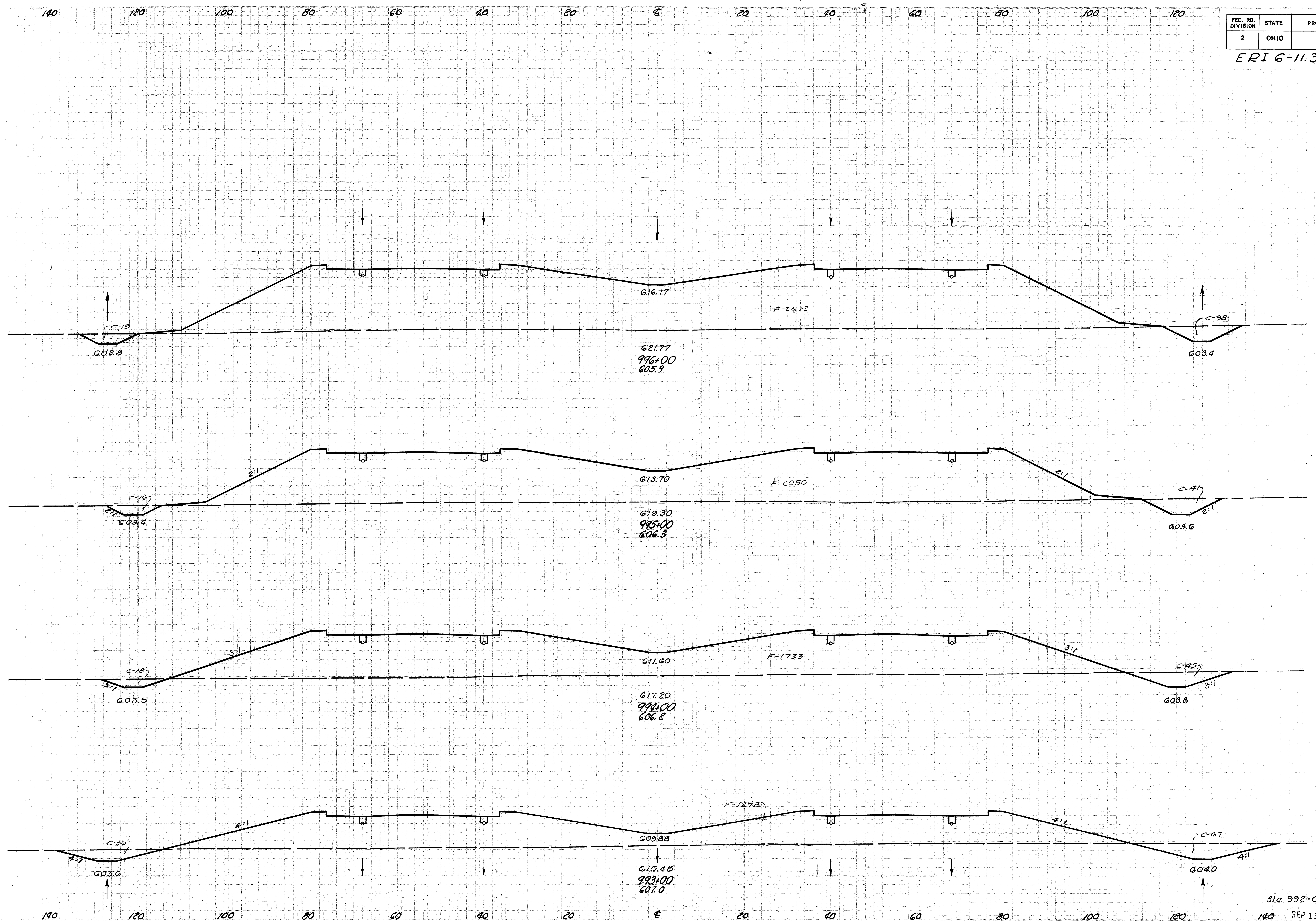
Sta. 988+00 to Sta. 992+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

112/235

ERI 6-11.30



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
57	2672		
		211	8744
57	2050		
		222	7006
63	1733		
		307	5576
103	1278		
		439	4037
134	902		

SMB TFH 7/28/58 12-58 | RJH EDS 1958 7/29/58 12-59 2-60 2-60
RNE GTS DFS

SEP 15 1960

Sta. 993+00 to Sta. 996+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

113
235

ERI 6-11.30

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
76	5219		
		300	18,274
86	4649		
		328	16,074
91	4031		
		302	13,685
72	3359		
		239	11,169
57	2672		

SEP 15 1960

Sta. 997+00 to Sta. 1000+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

SMB TFH 7/28/58 1-59 RNE DFS GTS | RJH 1958 7/29/58 12-59 1-60 1-60

Add for Spillthru

Sta.1002+00 to Structure

End Area		Cu Yds.	
Cut	Fill	Cut	Fill
		0	7510
		120	29,200
8	5990		
		202	21,517
101	5629		
		328	20,089
76	5219		

SEP 15 1960

Sta. 1001+00 to Sta. 1004+00

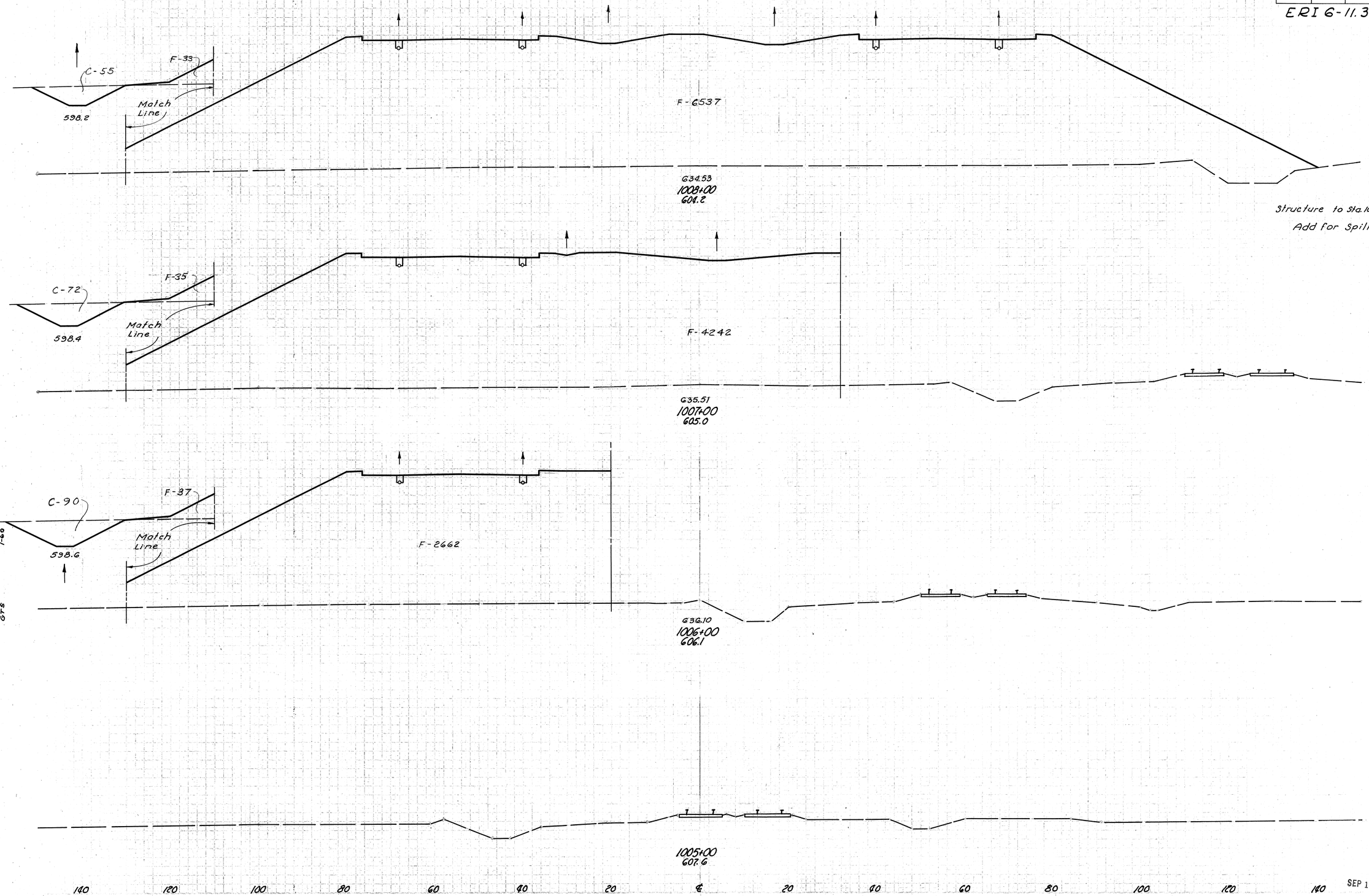
SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

115
235

ERI 6-11.30

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
55	6570		
Structure to Sta. 1008+00		1710	29200
Add for Spillthru		0	7340

SEP 15 1960

Sta. 1005+00 to Sta. 1008+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

116/235

ERI 6-11.30

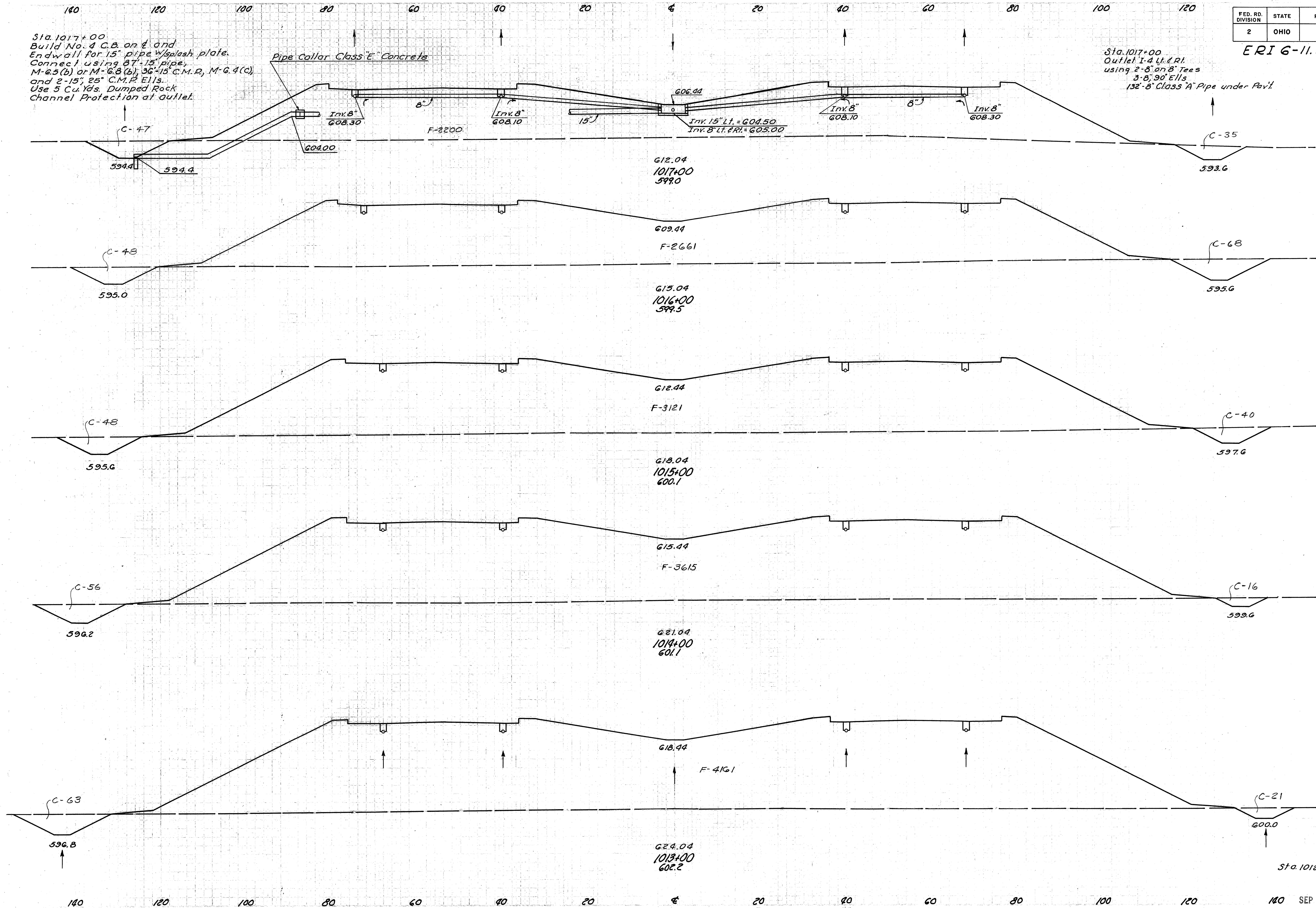
End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
62	4852		
		246	18,950
71	5381		
		261	20,826
70	5865		
		274	22,109
78	6074		
		246	23,415
55	6570		

SEP 15 1960

Sta. 1009+00 to Sta. 1012+00

SEP 15 1960

ERI 6-11.30



Sta. 1017+00
Build No. 4 C.B. on ℄ and
Endwall for 15" pipe w/splash plate.
Connect using 87'-15" pipe,
M-6.5(b) or M-6.8(b), 36'-15" C.M.P., M-6.4(C),
and 2-15", 25° C.M.P. Ells.
Use 5 Cu. Yds. Dumped Rock
Channel Protection at outlet.
Pipe Collar Class "E" Concrete
Sta. 1017+00
Outlet I-4 Lt. & Rt.
using 2-8" on 8" Tees
3-8", 90° Ells
132'-8" Class "A" Pipe under Pav't.
Inv. 8" 608.30
Inv. 8" 608.10
606.44
Inv. 15" Lt. = 604.50
Inv. 8" Lt. & Rt. = 605.00
Inv. 8" 608.10
Inv. 8" 608.30
604.00
F-2200
C-47
C-35
594.4
594.4
593.6
612.04
1017+00
599.0
609.44
F-2661
C-48
C-68
595.0
595.6
615.04
1016+00
599.5
612.44
F-3121
C-48
C-40
595.6
597.6
618.04
1015+00
600.1
615.44
F-3615
C-56
C-16
596.2
599.6
621.04
1014+00
601.1
618.44
F-4161
C-63
C-21
596.8
600.0
624.04
1013+00
602.2
Sta. 1012+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
82	2200		
		367	9002
116	2661		
		378	10,707
88	3121		
		296	12,474
72	3615		
		283	14,400
84	4161		
		270	16,691
62	4852		

SEP 15 1960

Sta. 1013+00 to Sta. 1017+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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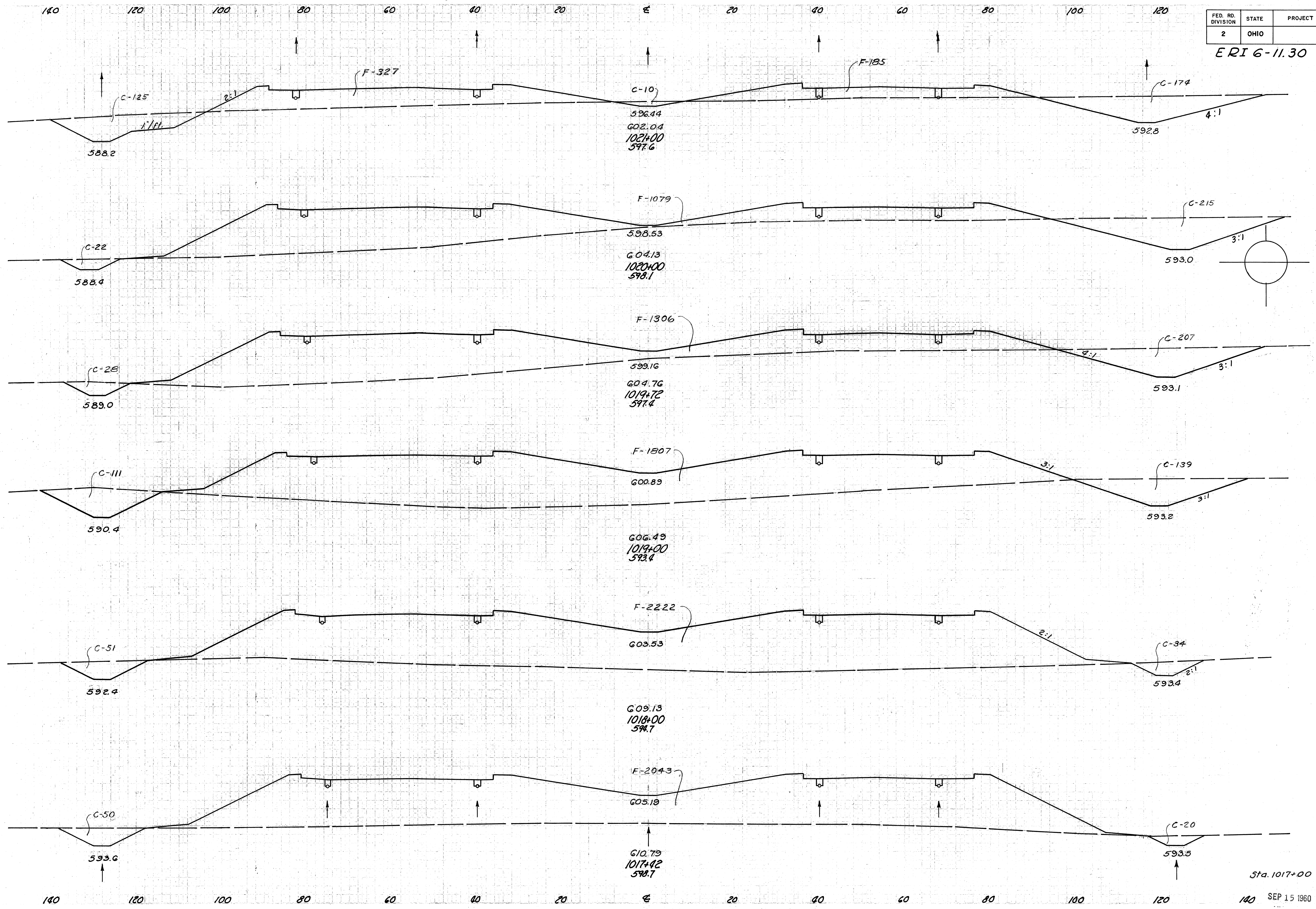
ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
F-327
C-125
2:1
1'/ft.
588.2
C-10
596.44
602.04
1021+00
597.6
F-185
C-174
4:1
592.8
F-1079
C-22
588.4
598.53
604.13
1020+00
598.1
C-215
3:1
593.0
F-1306
C-28
589.0
599.16
604.76
1019+72
597.4
C-207
4:1
3:1
593.1
F-1807
C-111
590.4
600.89
606.49
1019+00
593.4
3:1
C-139
3:1
593.2
F-2222
C-51
592.4
603.53
609.13
1018+00
594.7
2:1
C-34
2:1
593.4
F-2043
C-50
593.6
605.19
610.79
1017+42
598.7
C-20
593.5
Sta. 1017+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
309	512		
		1011	2946
237	1079		
		245	1237
235	1306		
		647	4151
250	1807		
		620	7461
85	2222		
		166	4581
70	2043		
		118	3300
82	2200		

SEP 15 1960

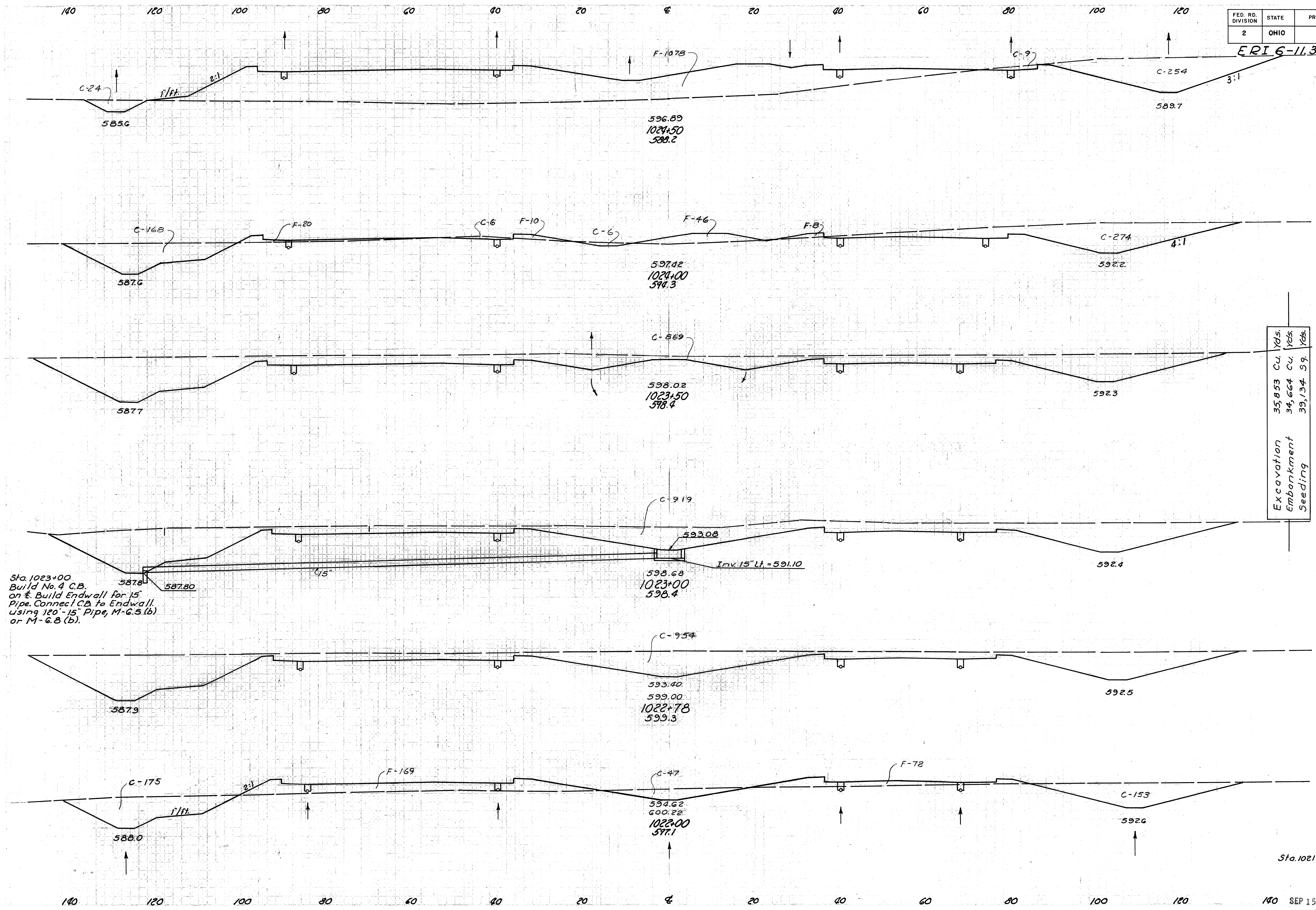
Sta. 1017+42 to Sta. 1021+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

119
235

ERI 6-11.30



140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120
C-24
1/ft.
2:1
F-1078
C-9
C-254
3:1
585.6
589.7
596.89
1024+50
588.2
C-168
F-20
C-6
F-10
C-6
F-46
F-8
C-274
4:1
587.6
597.42
1024+00
594.3
592.2
C-869
598.02
1023+50
598.4
587.7
592.3
C-919
593.08
Inv. 15" Lt. = 591.10
15"
587.8
587.80
598.68
1023+00
598.4
592.4
Sta. 1023+00
Build No. 4 C.B.
on ℄. Build Endwall for 15"
Pipe. Connect C.B. to Endwall
using 120'-15" Pipe, M-6.5 (b)
or M-6.8 (b).
C-954
593.40
599.00
1022+78
599.3
587.9
592.5
C-175
2:1
1/ft.
F-169
C-47
F-72
C-153
594.62
600.22
1022+00
597.1
588.0
592.6
Sta. 1021+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Excavation	35,853	Cu. Yds.
Embankment	34,664	Cu. Yds.
Seeding	39,134	Sq. Yds.

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
287	1078		
		686	1076
454	84		
		1225	78
869	0		
		1656	0
919	0		
		763	0
954	0		
		1920	348
375	241		
		1267	1394
309	512		

SEP 15 1960

Sta. 1022+00 to Sta. 1024+50

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

120 / 235

ERI 6-11.30

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120

Match Line See Ramp A

C-967

591.3 591.3 595.11 1028+00 596.5 581.3 590.3 585.5

Sta. 1027+50
Outlet I-4 Lt. & Rt.
using 6-8" on 8" Tees
144'-8" Class 'A' pipe
under Pav't.

F-1954

590.20

Inv. 8" 591.2 Inv. 8" 591.0 Inv. 12" W/= 588.20 Inv. 8" Lt. & Rt. = 588.80 Inv. 8" 590.0 Inv. 8" 590.2

C-110 585.4

Sta. 1027+50
Build No. 2-2-A C.B. on ℄.
Outlet to Sta. 1026+72 on ℄
using 78'-12" C.M.P., M-6.4(C)
2-12", 25° C.M.P. Ells
2 Cu. Yds. Dumped Rock
Channel Protection.

Match Line See Ramp A

595.15 1027+56 580.2

591.6 591.6 Inv. 12" @ 1026+95 = 588.00 591.6 591.6

F-2465

C-31 2:1 578.0

595.27 1027+00 580.2

Add for Spillthru

F-3420

591.6 592.0 Inv. 12" @ +04 = 588.30 592.0 591.8

C-14 1"/ft. 2:1 577.0

C-111 2:1 578.0

595.71 1026+00 580.6

Sta. 1025+50
Outlet I-4 Lt. & Rt. (From E. & W.)
using 6-8" on 8" Tees
162'-8" Class 'A' Pipe under Pav't.
(See Ramp A)

F-3464

Elev. @ +40 = 590.51 Elev. @ +50 = 590.44

Sta. 1025+50
Build No. 2-2-A C.B. on ℄.
Outlet to Sta. 1026+30 on ℄
using 80'-12" C.M.P., M-6.4(C)
2-12", 25° C.M.P. Ells
2-Cu. Yds. Dumped Rock
Channel Protection

Inv. 8" (+50) 591.4 Inv. 8" (+50) 591.2 Inv. 12" East = 588.50 Inv. 8" Lt. & Rt. = 589.00 Inv. 8" (+50) 591.4 Inv. 8" (+50) 591.6

C-22 3:1 582.6

C-23 578.0

596.11 1025+40 577.8

F-1570

C-66 4:1 3:1 587.2

C-28 1"/ft. 2:1 583.6

596.43 1025+00 587.3

Sta. 1024+50

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Sta. 1025+00 to Sta. 1028+00

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
967	0		
		878	1592
110	1954		
		146	4582
31	2465		
		0	1061
		0	1061
25	3420		
		78	7649
45	3464		
		103	3729
94	1570		
		353	2452
287	1078		

SEP 15 1960

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

121
235

ERI 6-11.30

Sta. 1030+50
Outlet I-4 Rt.
Using 2-8", 90° Ells
2-8" on 8" Tees
87'-8" Class "A" Pipe under Pav't.

Sta. 1030+50
Build No. 4 C.B. on ℄.
Build Endwall for 15" Pipe.
Connect C.B. to Endwall
Using 138'-15" Pipe, M-6.5(b) or M-6.8(b)

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	0	1200		
			424	2826
	223	326		
			1757	604
	720	0		
			1098	0
Sta. 1031+56.31 (Ah.)	637	0		
Sta. 1031+56.31 (BK.)	1251	0		
			2383	0
	1034	0		
			3807	0
	1022	0		
			3683	0
	967	0		
			3581	0
Sta. 1028+00	967	0		

SMB		1958
TFH 7/28/58	RJH	7/30/58
GTS 1-59	EDS	12-59
DFS		1-60
GTS		1-60

SEP 15 1960

Sta. 1029+00 to Sta. 1034+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

122
235

ERI 6-11.30

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

Sta. 1040+50
Outlet I-4 Lt. & Rt.
Using 2-8" on 8" Tees
3-8" 90° Ells
126'-8" Class "A" Pipe under Pav't.

C-88 591.6 — 15" — 591.80

Sta. 1040+50
Build No. 4 C.B. on ℄.
Build Endwall for 15" Pipe.
Connect C.B. to Endwall using
99'-15" pipe, M-6.5(b) or M-6.8(b).

F-36 — 8" — Inv. 8" 594.0 — Inv. 8" 593.8

C-69 — 594.20 +50 — 15" — 598.36 — 1040+00 596.6

Inv. 15" Lt. = 592.20
Inv. 8" Lt. & Rt. = 592.80

F-10 — 8" — Inv. 8" 593.8 — C-8 — F-3 — Inv. 8" 594.0

C-158 591.6

End Work Sta. 1041+50
Sta. 1041+00

℄ Rye Beach Rd.

C-97 591.2 — F-51 — F-36 — 598.16 — 1039+00 596.8 — C-1 — F-25 — C-2 — F-2 — C-19 — 18"

C-8 — 18" — F-5 — C-6 — C-6 — F-5 — C-5 — F-21 — 597.90 — 1038+00 596.9 — C-13 — C-210 — See Contour Grading — 591.1

See Contour Grading — C-558 — 590.7 — 593.05 — 597.61 — 1037+00 597.1 — 590.5

See Contour Grading — C-710 — 590.5 — 592.75 — 597.31 — 1036+00 597.2 — 589.9

See Contour Grading — C-66 — 590.3 — F-8 — C-6 — F-3 — C-88 — 592.45 — 597.01 — 1035+00 595.5 — F-8 — C-1 — C-12 — F-5 — C-148 — 589.3 — See Contour Grading

Sta. 1034+00

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
Sta. 1041+50	0	0	222	79
Sta. 1041+00	240	85	1026	248
	314	49		
			802	302
	119	114		
			680	269
	248	31		
			1493	57
	558	0		
			2348	0
	710	0		
			1889	44
	310	24		
			574	2267
Sta. 1034+00	0	1200		

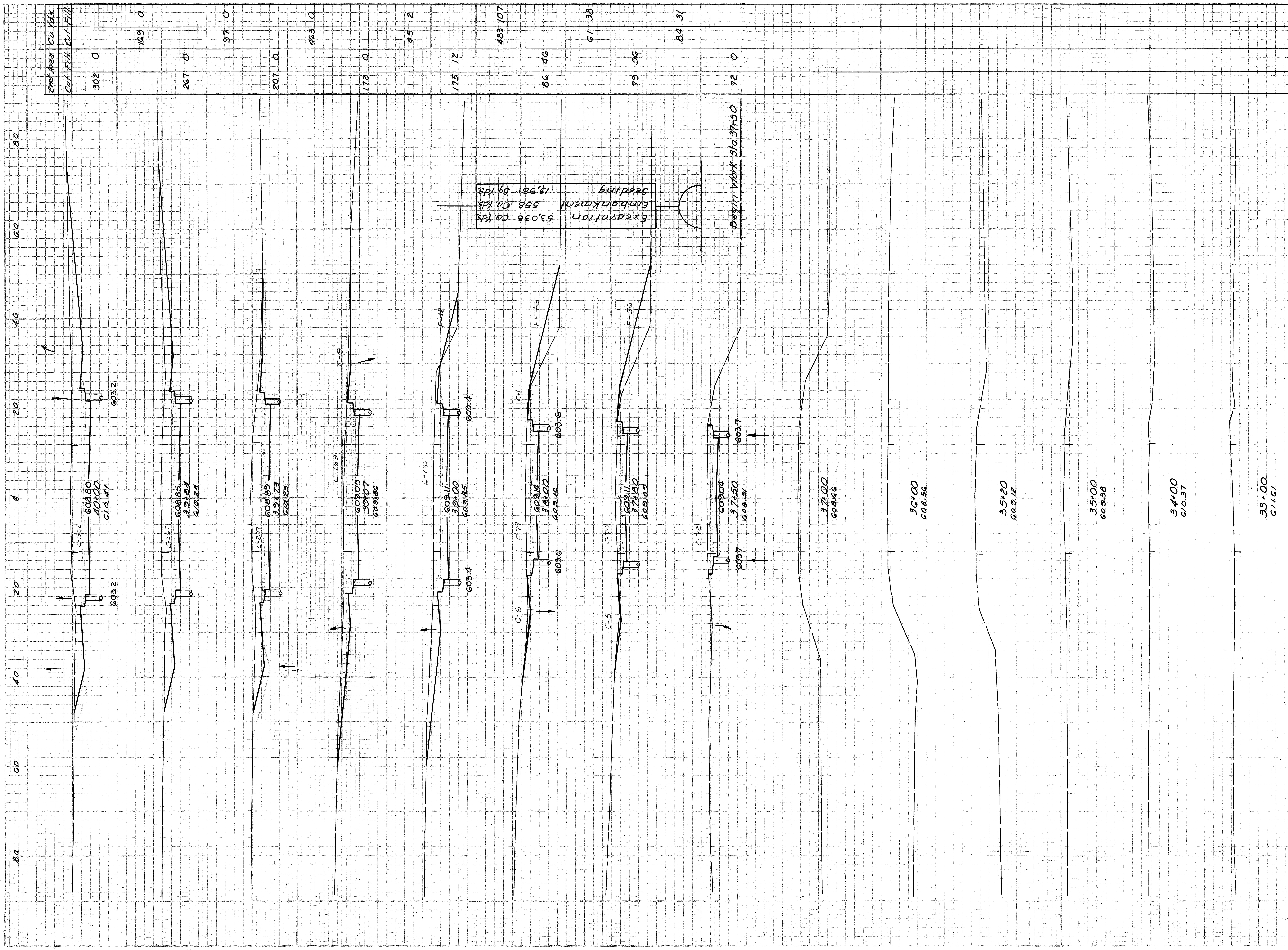
SEP 15 1960

Sta. 1035+00 to Sta. 1040+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	
2	OHIO			123 / 235

ERI 6-11.30



170-E (B)

SEP 15 1960

U.S. 250 Sta 33+00 to Sta 40+00 SEP 15 1960

ORIG. SURVEY			DATE
NOTE BOOK NO.	SURVEYED	J.B.	1958
	PLOTTED	DLO	9-58
	TEMPLATE	GTS	9-58
	AREAS	RNE	7-59
	AREAS CHECKED	DFS	8-60
		GTS	8-60

FINAL SURVEY		BY	DATE
NOTE BOOK NO.	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

80 60 40 20 ℄ 20 40 60 80

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill

Sta. 49+10
Build No. 2-2-B C.B. in Median.
Build Endwall for 12" Pipe.
Connect C.B. to Endwall
using 68'-12" Pipe, M-6.5 (b).
or M-6.8 (b).

See U.S.G. X-Sects.

C-939

G01.2 — G06.18 49+00 G13.62 — G00.60 — ℄ 12" — G01.6 — G00.20

See U.S.G. X-Sects.

939 0

3393 0

C-893

G01.4 — G06.07 48+00 G13.43 — G01.5

893 0

3539 0

C-1018

G01.6 — G06.35 47+00 G13.19 — G01.4

1018 0

840 0

See U.S.G. X-Sects.

C-1043

G01.8 — G06.43 46+78 G13.16 — G01.3

1043 0

Sta. 45+80
Outlet I-4 from North
using 1-6", 90° Ell
10'-8" C.M.P. Outlet

3242 0

See Contour Grading

See U.S.G. X-Sects.

C-1201

G02.00 — 24 (Sta. 45+75) — Inv. 8" G01.3 — G06.70 46+00 G13.01 — 8" — 18" — 8" — Inv. 8" G01.1 — Inv. 28'-8" = G01.00

1201 0

3485 0

Sta. 45+70
Outlet I-4 from South
using 1-8" 90° C.M.P. Ell
1-8" on 8" C.M.P. Tee
96-8" C.M.P. Outlet

Sta. 45+17.74 (Ah) 1087 0
Sta. 45+17.74 (BK) 679 0

See Ramp "E"

See Contour Grading

C-679

G07.05 45+00 G12.76 — G01.5 — G01.2

679 0

446 0

2743 0

See Ramp "E"

C-802

G05.4 — G01.7 — G07.40 44+00 G12.52 — G01.7 — G01.4

802 0

2283 0

Sta. 43+25

842 0

See Contour Grading

Add for Intersection

2730 0

See Contour Grading

C-842

G03.4 — G01.9 — G07.75 43+00 G12.12 — G01.9 — G01.2

Sta. 41+60 1040 0

1634 0

Sta. 41+00 431 0

1357 0

Sta. 40+00 302 0

Sta. 41+35
Outlet I-4
using 1-8" 90° C.M.P. Ell
1-8" on 8" C.M.P. Tee
82-8" C.M.P.

G02.80 — G02.8 — 24 (Sta. 42+00) — Inv. 8" G02.8 — C-1040 — G08.10 42+00 G11.63 — 8" — Inv. 8" G02.6 — G02.40 — Inv. 8" G02.4

Drive Grade

C-431

G03.0 — G08.45 41+00 G11.00 — G03.0

80 60 40 20 ℄ 20 40 60 80

U.S. 250 Sta. 41+00 to Sta. 49+00 SEP 15 1960

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

FRI 6-11.30

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ORIGINAL SURVEY			DATE
	SURVEYED	SMB	12-58
	PLOTTED	QUO / GTS	3-59
NOTE BOOK	TEMPLATE	RNE GTS	7-59
	AREAS	DFS	2-60
NO.	AREAS CHECKED	GTS	2-60

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

80 60 40 20 ℄ 20 40 60 80

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
149	18		
			793 35
279	1		
		1394	2
474	0		
		2037	0
626	0		
Add for Intersection		4560	0
1237	0		
		1111	0
1262	0		
		98	0
		0	
1379			
		1563	0
Sta. 51+46		1636	0
		2814	0
Sta. 51+00		1667	0
		6094	0
Sta. 50+00		1624	0
		4746	0
Sta. 49+00		939	0

C-8 F-12 C-129 F-16 C-12
605.0 602.1 607.62 57+00 608.19 602.1 603.0

Note: End 18" Subbase & Begin 6" Subbase at Sta. 57+00

C-267 F-1 C-12
604.6 601.9 607.44 56+00 609.27 601.9 604.6

C-474
604.4 601.7 607.28 55+00 610.34 601.7 604.8

C-626
604.2 601.2 607.08 54+00 611.29 601.2
Inv. 8" = 601.4
599.70 8" 76" x 48" (Sta. 53+50) Inv. 8" 601.4 8" 599.30

See Ramp "A" See Ramp "B"
C-386
606.90 53+00 612.31

See Contour Grading
See Contour Grading
C-1237
606.72 52+00 613.27
600.6 600.8 600.8 600.6

C-1262
606.68 51+76 613.49
600.6 600.6

C-1379
606.67 51+74 613.46
600.7 600.5

C-1436
606.62 51+46 613.72
600.7 600.5

C-1667
606.54 51+00 613.87
600.8 600.9 601.0 600.4

See Contour Grading
C-1624
606.36 50+00 613.87
601.0 601.0 601.2 600.2

80 60 40 20 ℄ 20 40 60 80

U.S 250 Sta 50+00 to Sta 57+00 SEP 15 1960

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

125 235

ORIGINAL SURVEY			DATE
NOTE BOOK	SURVEYED	JAB	1958
NO.	PLOTTED	DLO / GTS	2-59
	TEMPLATE	RNE GTS	7-59
	AREAS	DFS	2-60
	AREAS CHECKED	GTS	2-60

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

80 60 40 20 ℄ 20 40 60 80

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill

C3+00
G11.02

C2+00
G10.03

C1+00
G09.26

C0+00
G08.43

End Work Sta. 59+75 45 0

142 39

C-20 F-14 C=29 F-14 C-8

603.0 602.7 G08.00 602.7 603.0

57 28

211 161

Sta. 58+00 57 59

381 143

Sta. 57+00 149 18

C-13 602.0 F-35 C-35 F-24 C-9 602.0

Existing 16" Pipe 36" 602.5 G07.80 58+00 G07.48 602.5 36" Existing 15" & 16" Pipes.

599.70 599.20

Sta. 57+93 Lt.
Build No. 2-4 C.B.
Sta. 58+10 Rt.
Build No. 2-4 C.B.
Connect C.B.'s using
92'-36" Pipe, M-6.6(a) or M-6.8(b).

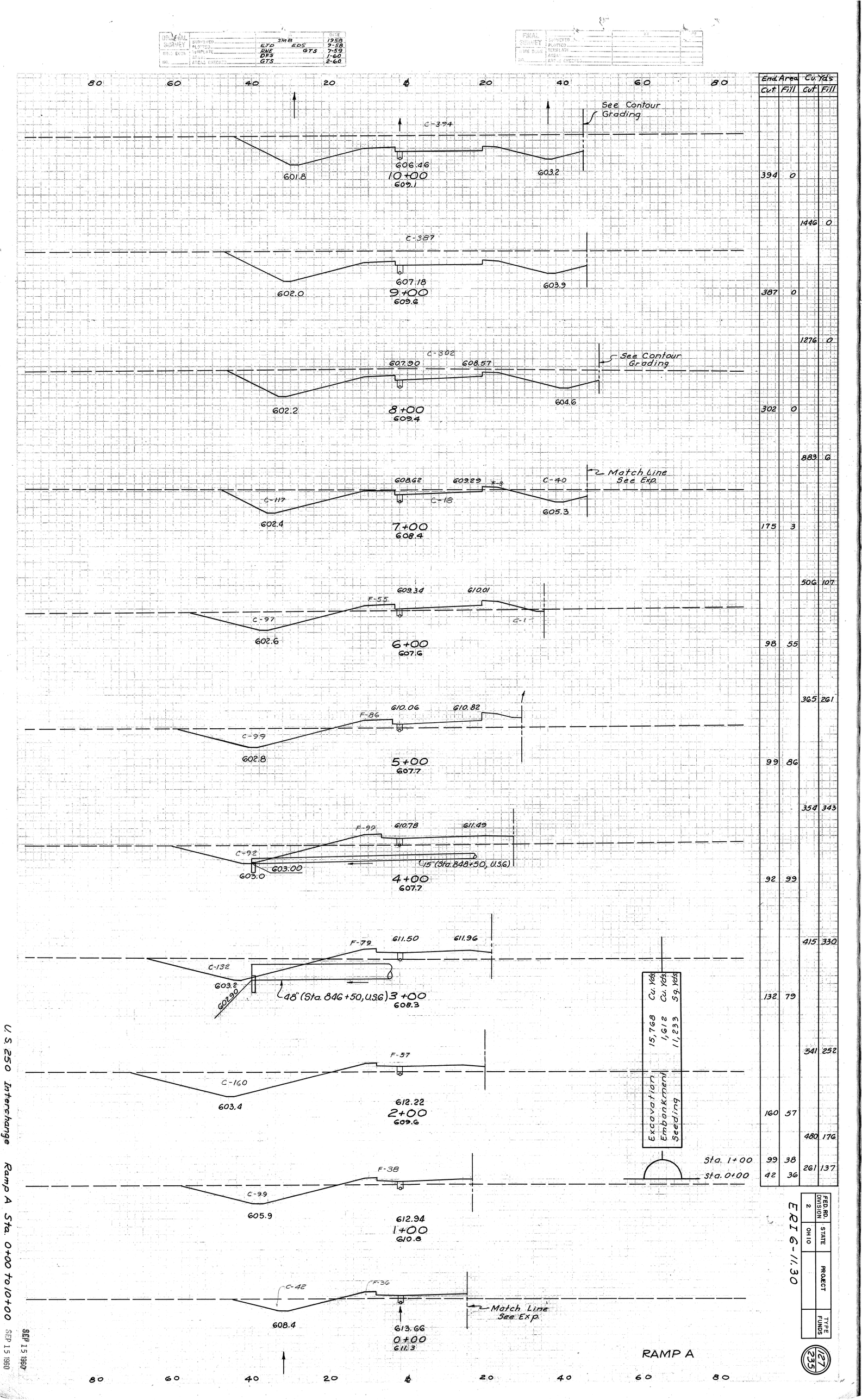
Rev. 7-60 E.E.C.

SEP 15 1960

U.S. 250 Sta. 58+00 to Sta. 63+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	EDI 6-11.30	

126
235



End Area		Cu Yds	
Cut	Fill	Cut	Fill
394	0		
		1446	0
387	0		
		1276	0
302	0		
		883	0
175	3		
		506	107
98	55		
		365	261
99	86		
		354	343
92	99		
		415	330
132	79		
		541	252
160	57		
		480	176
99	38	261	137
42	36		

	Cu. Yds
Excavation	15,768
Embankment	1,612
Seeding	11,233 Sq. Yds

Sta. 1+00
Sta. 0+00

U. S. 250 Interchange Ramp A Sta. 0+00 to 10+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

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ORIGINAL SURVEY	SURVEYED	SMB	1958
	PLOTTED	EJD	EDS 9-58
NOTE BOOK	TOPOGRAPHY	RNE	GTS 7-59
NO.	AREAS	DFS	2-60
	AREAS CHECKED	GTS	2-60

FINAL SURVEY	SURVEYED	
	PLOTTED	
NOTE BOOK	TOPOGRAPHY	
NO.	AREAS	
	AREAS CHECKED	

80 60 40 20 ℄ 20 40 60 80

End Area		Cu. Yds	
Cut	Fill	Cut	Fill
758	0		
		2728	0
715	0		
		2574	0
675	0		
		2437	0
641	0		
		2439	0
676	0	1500	0
		1800	0
698	0		
		2404	0
600	0		
		2013	0
Sta. 12+00 487	0		
		1598	0
Sta. 11+00 376	0		
		1426	0
Sta. 10+00 324	0		

C-758

See Contour Grading

604.63 604.44

5+00
602.5

598.6 599.6

C-715

604.45 604.20

4+00
609.5

598.8 599.8

C-675

604.21 603.96

3+00
609.4

599.0 600.0

Sta. 3+00
Outlet I-4 Rt.
using 1-6" on 6" Tee
10'-8" Outlet Pipe.

Excavation	47,004	Cu. Yds.
Embankment	0	Cu. Yds.
Seeding	17999	Sq. Yds.

C-641

604.40 604.15

2+00
609.2

599.2 600.2

C-676

605.45 605.20

1+00
609.6

599.4 600.4

See Contour Grading

Add for Intersection

RAMP B

RAMP A

See Contour Grading

Add for Intersection

C-698

13+95.7

605.74

14+00
610.3

24" (Sta. 14+00)

600.1 600.1 600.4 600.4

Sta. 13+95
Outlet I-4 to Lt. Ditch
using 1-6" 90° Ell
10'-8" Outlet Pipe

C-600

604.84

13+00
609.3

600.6 601.1

C-487

605.02

12+00
609.3

601.1 601.8

See Contour Grading

C-376

605.74

11+00
608.6

601.6 602.5

80 60 40 20 ℄ 20 40 60 80

U.S. 250 Interchange
Ramp A Sta. 11+00 to 14+00
Ramp B Sta. 1+00 to 5+00

SEP 15 1960

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

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ORIGINAL SURVEY		BY	DATE
	INVESTIGATED	SMB	1958
	PLOTTED	EJD EDS	9-58
	DESIGNED	RNE GTS	7-59
	QUANTITIES	DRS	5-60
	AREAS COMPUTED	GTS	2-60

FINAL SURVEY		BY	DATE
	INVESTIGATED		
	PLOTTED		
	DESIGNED		
	QUANTITIES		
	AREAS COMPUTED		

80 60 40 20 ℄ 20 40 60 80

Sta. 15+30
Build No. 6 C.B.
Build Endwall for 12" Pipe
Connect C.B. to Endwall
using 75'-12" Storm Sewer,
M-6.5(b) or M-6.8(b).

(See Expwy.)

Match Line
See Expressway

Sta. 15+34.54

606.43 606.81

C-690

602.8

15+00

609.2

12"

600.50

596.6 596.50

606.56 607.19

C-797

603.0

14+00

610.2

596.8

±50

606.54 607.21

C-997

603.0

13+00

612.0

597.0

606.37 607.04

C-1033

602.8

12+00

611.8

597.2

606.13 606.80

C-1233

602.6

11+00

612.4

597.4

597.40

24" (Sta. 11+00)

598.4

598.30

Match Line
See Expressway

605.89 606.38

C-1212

10+00

611.7

597.6

598.6

See Contour
Grading

C-975

605.65 605.77

9+00

610.3

597.8

598.8

Sta. 8+65
Outlet I-4 Lt.
using 1-6" 90° Ell
10'-8" Outlet Pipe
5 Cu. Yds. Dumped Rock
Channel Protection

End I-4
Sta. 8+65 Rt.

C-819

605.41 605.16

8+00

609.5

598.0

599.0

C-751

605.17 604.92

7+00

609.3

598.2

599.2

C-759

604.93 604.68

6+00

609.5

598.4

599.4

See Contour
Grading

RAMP B

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
690	0		
		883	0
690	0		
		2754	0
797	0		
		3322	0
997	0		
		3759	0
1033	0		
		4196	0
1233	0		
		4528	0
1212	0		
		4050	0
975	0		
		3322	0
819	0		
		2907	0
Sta. 7+00 751	0		
		2796	0
Sta. 6+00 759	0		
Sta. 5+00 758	0	2809	0

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

U.S. 250 Interchange Ramp B Sta. 6+00 to 15+00

SEP 15 1960

SEP 15 1960

ORIGINAL SURVEY		SMB	DATE
	SURVEYED		1958
	PLOTTED	EJD EDS	9-58
	TEMPLATE	RNE GTS	7-59
	DATA	DFS	2-60
	CROSS CHECKED	GTS	2-60

FINAL SURVEY	
	SURVEYED
	PLOTTED
NOTE BOOK	TEMPLATES
	DATA
	CROSS CHECKED

80 60 40 20 ℄ 20 40 60 80

Match Line See Expressway

606.55 605.84 F-323 602.2 2:1

605.84
10+00
597.4

606.41 605.74 F-309 602.0 3:1

9+00
599.0

606.31 605.64 F-354 601.8 4:1

Note: See Ramp C Plan & Profile Sht for ditch alignment

C-71

596.0

8+00
598.8

Match Line See Expressway

C-44 606.21 605.54 F-101 C-46

601.6

599.7 24"(Sta. C+50) 599.8 599.0

7+00
602.5

See Contour Grading

606.11 605.44 C-512 601.4

600.0 600.0

6+00
608.0

605.80 605.34 C-643 601.2

600.2 600.4

5+00
610.2

Sta. 5+00
Outlet I-4 Rt.
using 1-6" on 6" Tee
10'-8" Outlet Pipe.

	Cu. Yds.	Cu. Yds.
Excavation	14,345	
Embankment	7,809	59
Seeding	1.7	610

C-548 605.24 601.4

600.4 600.8

4+00
609.6

C-525 605.14 601.6

600.6 601.2

3+00
608.6

Sta. 2+00
Sta. 1+00

C-567 605.42

600.8 601.6

2+00
610.0

Add for Intersection

See Contour Grading

C-615 606.48

601.0 602.0

1+00
610.6

RAMP C

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
0	323		
		0	1170
0	309		
		131	1228
71	354		
		298	843
90	101		
		1115	187
512	0		
		2139	0
643	0		
		2206	0
548	0		
		1987	0
525	0		
		2022	0
567	0		
615	0	2189	0
		1740	0

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

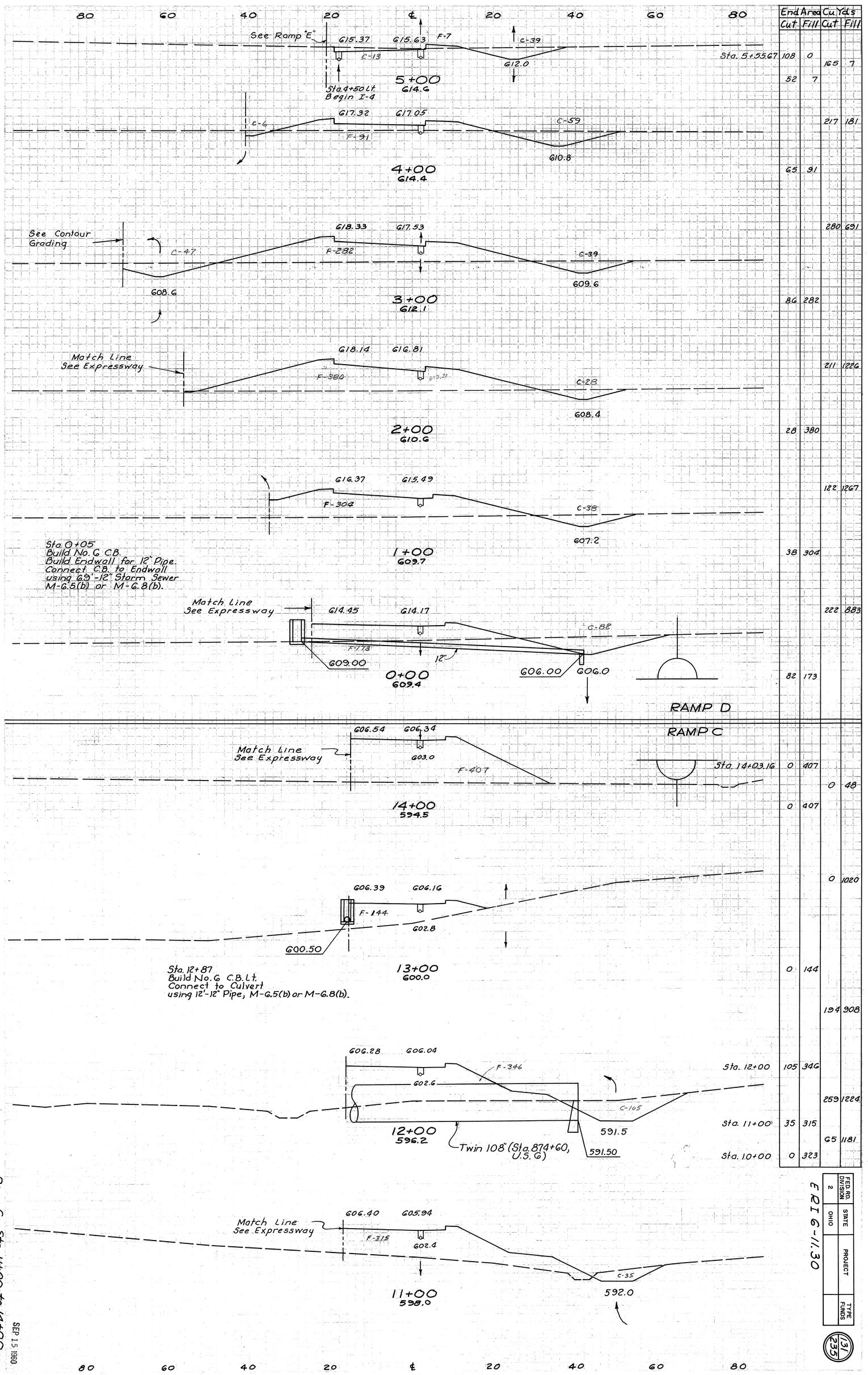
130
233

U.S. 250 Interchange Ramp C Sta. 1+00 to 10+00

SEP 15 1960

80 60 40 20 ℄ 20 40 60 80

SMB 1958
EJD EDS 9-58
RME GTS 7-59
DFS 2-60
GTS 2-60



	End Area		Cu. Yds	
	Cut	Fill	Cut	Fill
Sta. 5+55.67	108	0		
			165	7
	52	7		
			217	181
	65	91		
			280	691
	86	282		
			211	1226
	28	380		
			122	1267
	38	304		
			222	883
	82	173		
Sta. 14+03.16	0	407		
			0	48
	0	407		
			0	1020
	0	144		
			194	908
Sta. 12+00	105	346		
			259	1224
Sta. 11+00	35	315		
			65	1181
Sta. 10+00	0	323		

U.S. 250 Interchange
Ramp C Sta. 11+00 to 14+00
Ramp D Sta. 0+00 to 5+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	FRI 6-11.30	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

132 / 235

ERI 6-11.30

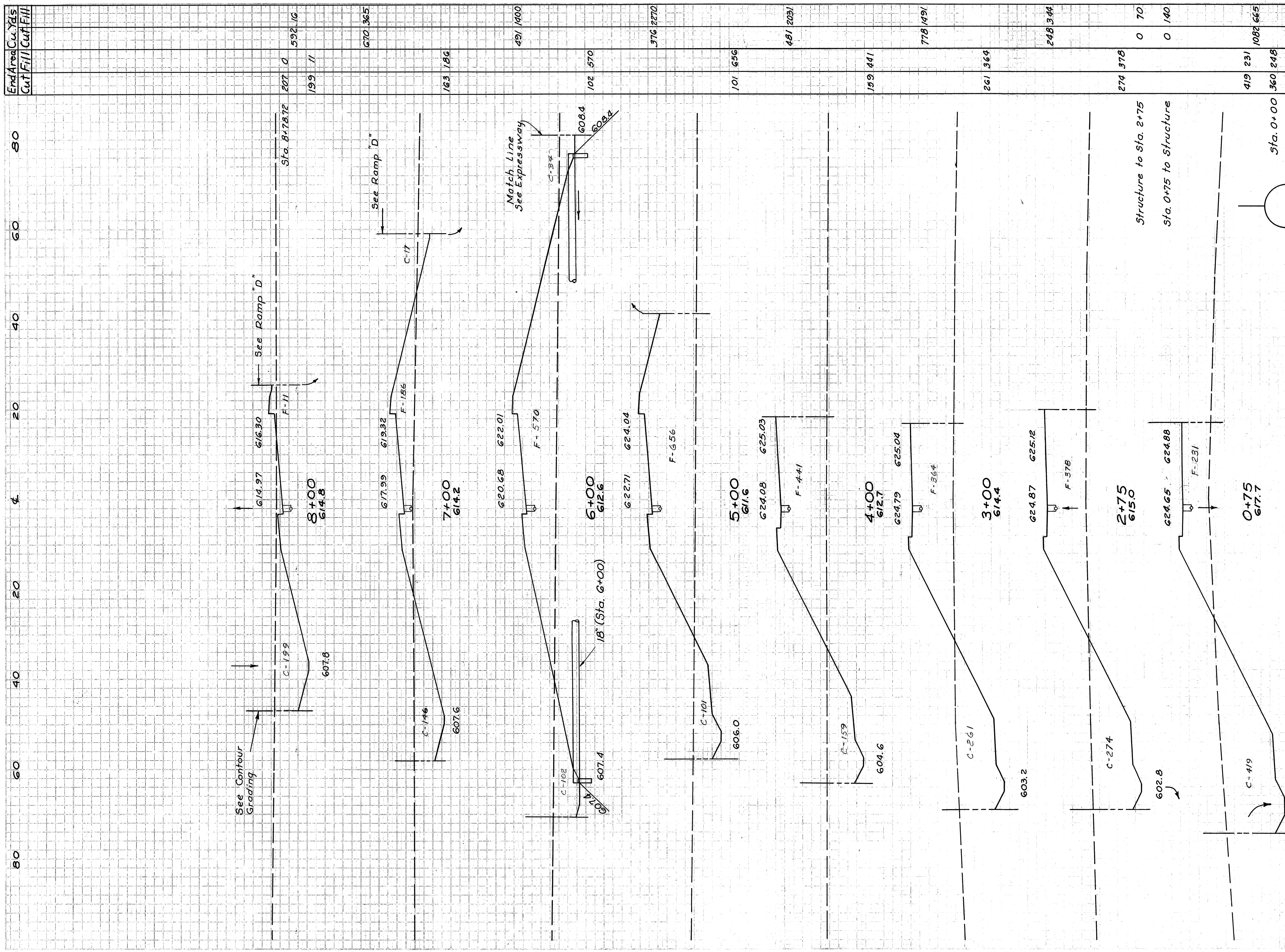
U.S. 250 Interchange Ramps D & E Sta. 8+78.72 to 13+00.48

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

133
235

ERI 6-11.30



SEP 15 1960

U.S. 250 Interchange Ramp E Sta. 0+00 to 8+00

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED: SMB 1958 — PLOTTED: EJD EDS 3-58 — TEMPLATES: RNE GTS 1-59 — CHECKED: DFS 2-60 — AREAS COMPUTED: GTS 2-60

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATES — CHECKED — AREAS COMPUTED

80 60 40 20 ℄ 20 40 60 80

End Area		Cu. Yds	
Cut	Fill	Cut	Fill

See Contour Grading

See U.S. 250 Sections

C-266

606.42 606.85

602.3

601.6

16+00
612.5

Sta. 16+74.20 408 0

1201 0

466 0

1785 0

See Contour Grading

C-498

605.79 606.81

602.6

601.8

604.0

15+00
611.5

498 0

1663 0

See Ramp "D"

C-400

605.32 606.65

602.9

602.0

14+00
611.4

400 0

1345 0

Sta. 13+00.48 330 0

RAMP E

RAMP D

Add for Intersection 2640 0

Sta. 14+70 624 0

1336 0

See Contour Grading

Sta. 14+00 407 0

1259 0

Sta. 13+00.48 276 0

607.07 606.82 C-717

603.1

603.1

15"(Sta. 15+00)

Inv. 6" 602.9

602.8 602.8

Sta. 14+95
Outlet I-4 Rt.
using 1-6" 90° Ell
10'-8" Outlet Pipe.

15+00
612.2

See Ramp "E"

606.44 606.44 C-407

Inv. 6" 603.0

Inv. 6" 603.1

604.2

Sta. 14+00
Connect I-4 from Lt. to Rt.
using 1-6" 90° Ell
1-6" on 6" Tee
20'-8" Outlet Pipe.

14+00
611.6

Sta. 13+00 Lt.
Begin I-4

80 60 40 20 ℄ 20 40 60 80

U.S. 250 Interchange
Ramp D Sta. 14+00 to 15+00
Ramp E Sta. 14+00 to 16+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

134
235

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	
2	OHIO			135 / 235

ERI 6-11.30

SEP 15 1960

GALLOWAY Rd. Sta. 35+00 to Sta. 47+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

136 / 235

ERI 6-11.30

SEP 15 1960

GALLOWAY Rd. Sta. 48+00 to Sta. 60+00

ORIGINAL SURVEY		BY	DATE
	SURVEYED	S.A.S.	12-58
	PLOTTED	GLO / GTS	2-59
NOTE BOOK	TEMPLATE	BNE EDS	2-60
	AREAS	EJD	2-60
NO.	AREAS CHECKED	GTS	2-60

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

80 60 40 20 ℄ 20 40 60 80

	End Area Cut	End Area Fill	Cu Yds. Cut	Cu Yds. Fill
Add for Spillthru			0	710
Sta. 48+57.23	90	1480		
			168	3013
	69	1363		
			211	4500
	45	1067		
			156	3398
	39	876		
			181	2467
	59	456		
			209	1169
	54	175		
			187	400
	47	41		
			152	91
	35	8		
			68	11
Begin Work Sta. 41+25	14	0		

F-1363 C-45 G13.2 G36.30 48+00 G17.31 C-24 G12.2

F-1067 2:1 2:1 C-24 G14.0 G33.80 47+00 G17.72 C-21 G13.0

F-876 3:1 3:1 C-20 G14.8 G30.30 46+00 G18.09 C-19 G13.8

F-456 4:1 4:1 C-25 G15.6 G26.34 45+00 G18.93 C-34 G14.6

F-175 C-19 G16.4 G23.30 44+00 G19.47 C-35 G15.4

F-41 C-19 G17.2 G21.54 43+00 G20.41 C-28 G16.2

C-12 G18.0 F-5 C-12 G21.06 42+00 G20.84 F-3 C-11 G17.0

41+00 G21.77

40+00 G23.45

39+00 G25.77

38+00 G29.86

37+00 G32.88

36+00 G34.87

35+40 G36.52

CAMP Rd. Sta. 35+40 to Sta. 48+00

SEP 15 1960

ERI 6-11.30

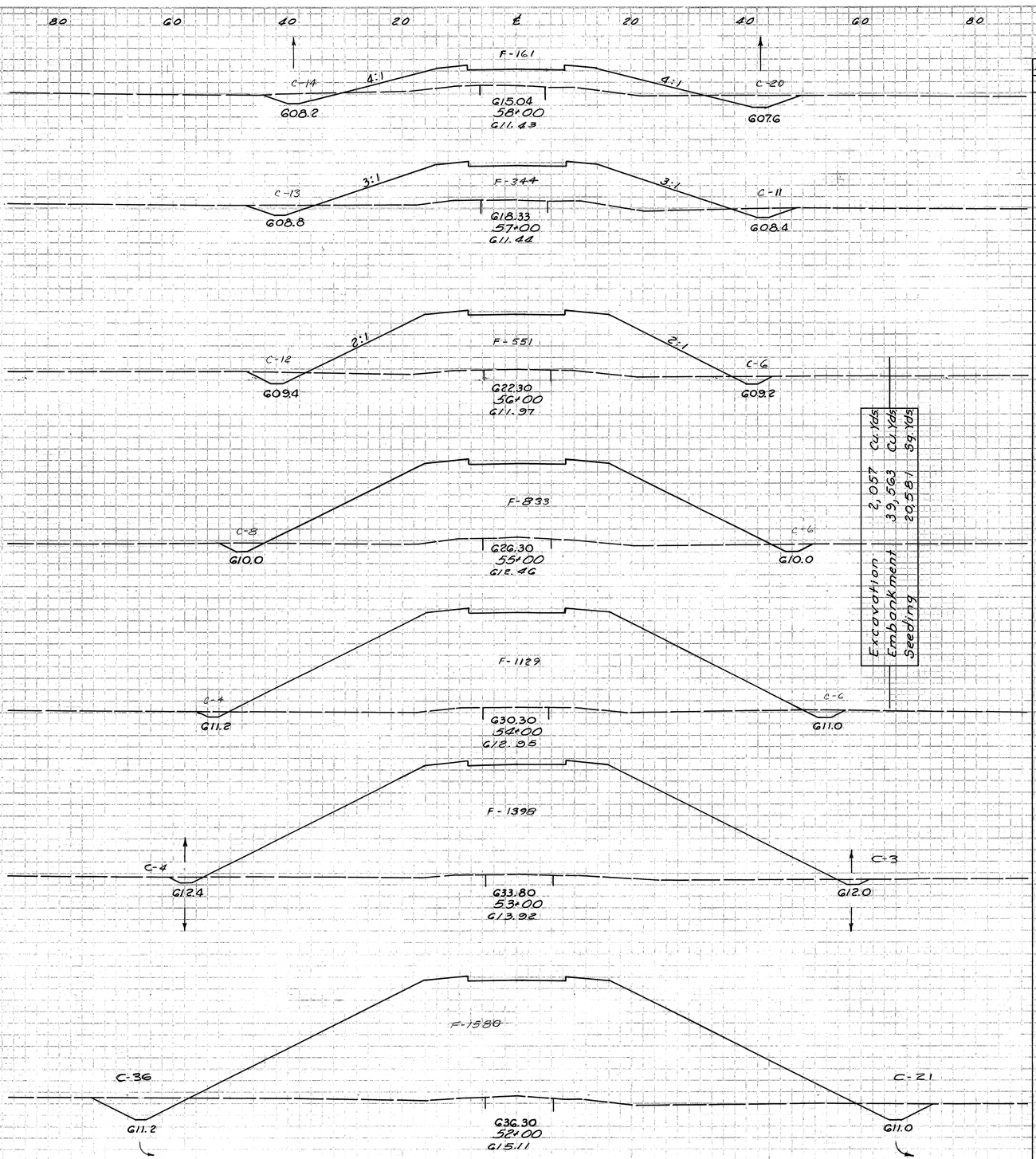
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

137 235

80 60 40 20 ℄ 20 40 60 80

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	SMB	12-58
NO.	PLOTTED	OLD CTS	2-59
	TEMPLATE	RNE EDS	7-59
	AREAS	DFS	2-60
	AREAS CHECKED	JCS	2-60

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



	End Area		Cu Yds	
	Cut	Fill	Cut	Fill
	34	161		
			107	935
	24	344		
			78	1657
	18	551		
			59	2563
	14	833		
			44	3633
	10	1129		
			31	4680
	7	1398		
			113	5515
	57	1580		
			178	3371
Sta. 51+42.77	111	1601		
Add for Spill thru			0	770

	Excavation	Embankment	Seeding
	2,057 cu. yds	39,563 cu. yds	20,581 sq. yds

CAMP Rd Sta. 49+00 to Sta. 58+00

SEP 15 1980

FED. ROAD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

EDI 6-1.30

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	Sta.	1958
NO.	PLOTTED	DLO / RTS	3-59
	TEMPLATE	RNE EDS	7-59
	AREAS	DFS	2-60
	AREAS CHECKED	JCS	2-60

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

80 60 40 20 E 20 40 60 80

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill

C5+00
608.03

C4+00
608.66

C3+00
609.96

Sta. 61+80
Build No. 2-2-A C.B. Rt.
Connect to exist. 18" Pipe
using 8'-18" Pipe, M-6.5 (a) or M-6.8 (a).

C2+00
611.05

18"
608
605.52
18" S.

End Work Sta. 60+75 14 0

31 13

Exist. C.B.
Sta. 61+24
605.65
18" N.E.

C1+00
610.80

18"

Sta. 60+00 8 9

15 93

Sta. 59+00 0 41

63 374

Sta. 58+00 34 161

F-3 C-2 F-6

C11.32

Sta. 59+00
Build No. 1 M.H. Lt. & Rt.
Connect using 66'-12" Pipe,
M-6.5 (b) or M-6.8 (b).

C0+00
611.11

18"

F-41

12"
612.71
12"

34" R.C.P. (Raw Water Line)

59+00
611.31

607.60
12" E

606.80
12" W.

606.30
18" N.

Sta. 58+92
Build Endwalls for 12" Pipe Lt. & Rt.
Connect to M.H.'s at 59+00
using 6'-12" Pipe, M-6.5 (a) or
M-6.8 (a), each side.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

EDI 6-11.30

139
235

CAMP Rd Sta. 59+00 to Sta. 65+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

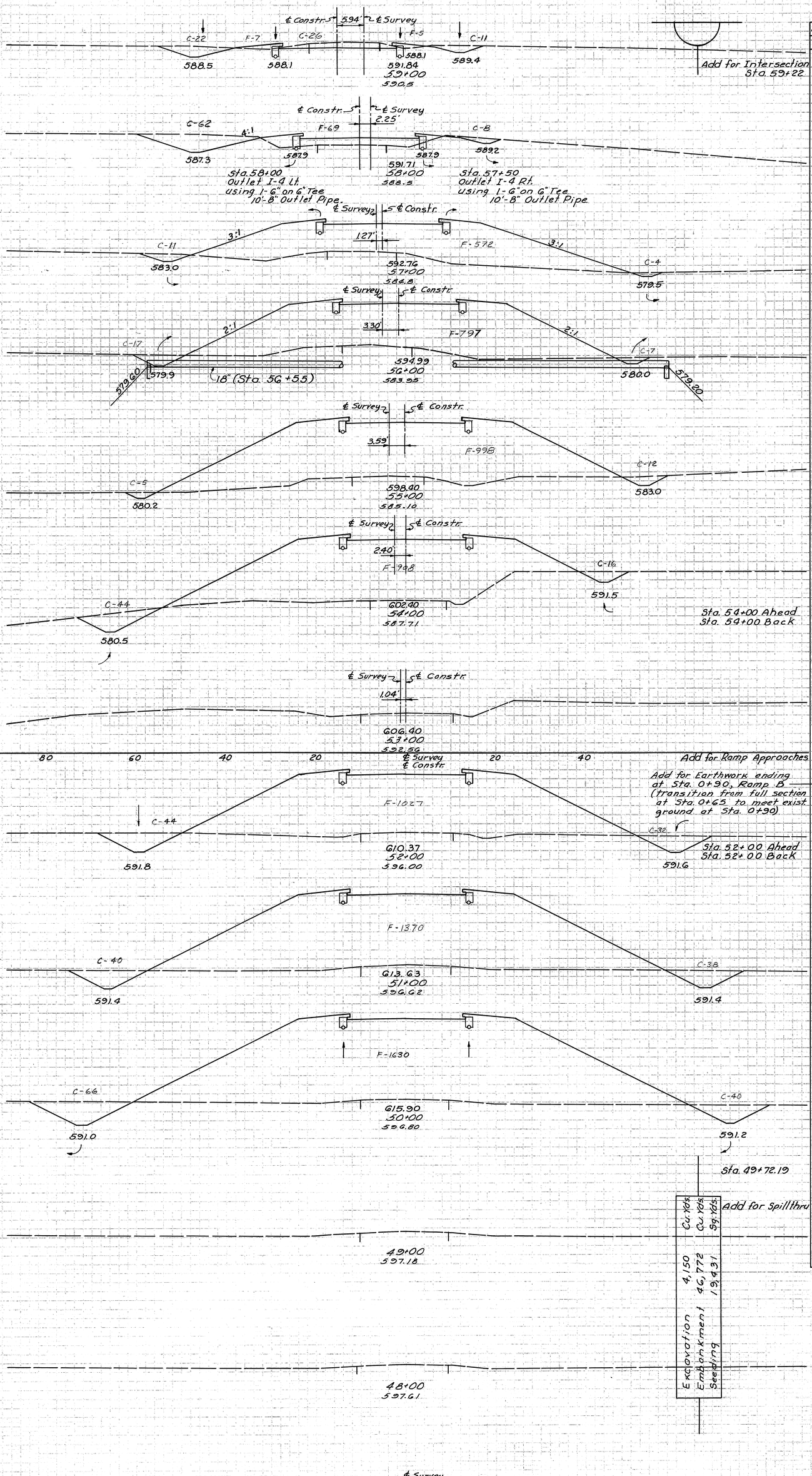
End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
		0	750
160	1450		
		416	3800
138	1270		
		494	4078
129	932		
		239	1606
129	803		
1	803		
		2	1368
1	674		
		100	300
		2	1761
		0	250
0	277		
		211	720
114	112		
		471	235
140	15		
		530	28
146	0		
		33	0
32	0		


Add for Spillthru
Sta. 46+75.45
Sta. 44+50 Ahead
Sta. 44+50 Back
See Ramp C
Add for Earthwork ending at Sta. 0+75, Ramp C (transition from full section at Sta. 0+60 to meet exist. ground at Sta. 0+75)
Add for Ramp Approaches
See Ramp C
See Ramp D
Sta. 40+00 Outlet I-4 Lt. & Rt. using 2-6" on 6" Tees 20'-8" Outlet Pipe.
Sta. 39+90 Begin I-4 Lt. & Rt.
Begin Work Sta. 39+90
See Contour Grading for Interchange
F-1270
F-932
F-674
F-277
F-112
C-18
C-22
F-9
F-6
C-72
C-67
C-1
C-50
C-53
C-58
C-64
C-62
C-66
C-69
C-64
47+00
46+00
45+00
44+00
43+00
42+00
41+00
40+00
39+00
38+00
37+00
36+00
35+00
34+00
592.0
592.6
592.8
595.1
595.3
595.5

SEP 15 1960

ORIGINAL SURVEY		BY	DATE
	SURVEYED	SMB	1958
	PLOTTED	DLO / GTS	9-59
NOTE BOOK	TEMPLATE	RNE EDS	7-59
	AREAS	DFS	2-60
NO.	AREAS CHECKED	GTS	2-60

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
		160	30
		48	10
		239	150
		157	1187
		72	2535
		76	3324
		143	3530
		0	7170
		0	730
		20	700
		285	4439
		311	5556
		111	1715
		0	800

Cu. Yds.	Cu. Yds.	Sq. Yds.
Excavation	4,150	
Embankment	46,772	
Seeding	19,431	

PYE BEACH RD Sta. 48+00 to Sta. 59+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

141
235

ORIGINAL SURVEY		BY	DATE
	SURVEYED	S.M.B.	1958
	PLOTTED	P.F.C	10-59
NOTE BOOK	TECH LATE	G.T.S	10-59
	AREAS	E.D.S	12-59
	AREAS CHECKED	O.E.S	2-60
		G.T.S	2-60

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TECH LATE		
	AREAS		
	AREAS CHECKED		

80 60 40 20 ℄ 20 40 60 80

End Area		Cu. Yds	
Cut	Fill	Cut	Fill
		210	3350
53	1066		
		128	3193
16	658		
		48	2913
10	915		
		163	2687
78	536		
		913	993
415	0		
		1946	0
636	0		
		2041	0
466	0		
		1617	0
407	0		
		1241	0
263	0		
		585	176
53	95		
24	582	143	1254

Sta. 2+00
Sta. 1+00

	Cu. Yds.	Cu. Yds.	Sq. Yds.
Excavation	9,035	14,566	12,069
Embankment			
Seeding			

C-24 580.7 — F-1066 — C-29 591.7 — See Contour Grading — Add for Intersection
604.38
11+00
587.0

C-13 581.0 — F-658 — C-3 591.3 — See Contour Grading
602.22
10+00
595.3

C-10 583.8 — 598.83 — 599.61 — F-915 — 590.9 — See Contour Grading
9+00
585.5

C-78 586.6 — 595.53 — 596.31 — F-536 — 590.5 — See Contour Grading
8+00
587.8

C-415 — 594.41 — 593.63 — 589.4 — 590.1 — See Contour Grading
Sta. 6+05
Outlet I-4 Lt.
using 1-6" 90° Ell
10'-8" Outlet Pipe.
7+00
596.5

C-636 — 593.91 — 593.13 — 588.2 — 588.8 — 21' (Sta. 6+00) — 589.7 — 589.30 — See Contour Grading
Sta. 5+95
Outlet I-4 Lt.
using 1-6" 90° Ell
10'-8" Outlet Pipe.
6+00
597.6

C-466 — 594.21 — 593.33 — 587.0 — Match Line See Expressway
5+00
596.0

C-407 — 594.36 — 593.53 — 586.5 — Match Line See Expressway
4+00
595.9

C-263 — 593.78 — 594.30 — 586.0 — Match Line See Expressway
3+00
594.1

C-53 — F-95 — 585.5 — Match Line See Expressway
2+00
590.1

C-24 — 578.0 — F-582 — Match Line See Expressway
1+00
580.2

Rye Beach Interchange Ramp A Sta. 1+00 to 11+00

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

142
235

ORIGINAL SURVEY — BY S.M.B. DATE 1958; REC. EDS 10-59; GFS EDS 12-59; DFS 5-60; GFS 2-60

FINAL SURVEY — BY ____ DATE ____

80 60 40 20 ℄ 20 40 60 80

	End Area Cut	End Area Fill	Cu. Yds Cut	Cu. Yds Fill
Add for Intersection Sta. 8+55.87 →	235	332	420	760
			527	626
	274	273		
			1083	761
	311	138		
			1489	265
	493	5		
			2178	9
	683	0		
			2230	0
	521	0		
			1389	189
	229	102		
			269	363
	61	290		
			135	519
	85	270		
			194	450
	124	216		
			384	250
Sta. 1+00	291	54		
			826	50
Sta. 0+50	601	0		
			1125	0
Sta. 0+00	614	0		

Cu. Yds. Cut 13249 — Cu. Yds. Fill 4242 — Sq. Yds. Embankment 10,650 — Excavation — Embankment — Seeding

See Rye Beach Rd. Cross Sections

605.63 — 605.63 — F-378 — C-152 — 593.2

Sta. 9+00 End I-4 Lt.

9+00 — 598.6

See Contour Grading

604.31 — 604.79 — F-273 — C-99 — 593.3 — C-175 — 593.0

8+00 — 599.1

602.48 — 602.84 — F-138 — C-131 — 592.5 — C-180 — 592.8

Sta. 6+25 Outlet I-4 Lt. using 10'-8" Outlet Pipe 1-6" 90° Ell 6 Cu Yds Dumped Rock Channel Protection. 599.97

Sta. 6+25 End I-4 Rt.

7+00 — 599.1

599.85 — F-5 — C-9 — C-170 — 591.7 — C-314 — 590.6

6+00 — 599.1

597.90 — 597.30 — C-683 — 590.9 — 589.0

5+00 — 599.1

596.91 — 595.82 — C-151 — 590.1 — C-370 — 588.0

4+00 — 596.7

See Contour Grading

596.69 — 595.36 — F-102 — C-103 — 589.3 — 589.20 — 591.6 — C-126 — 586.80 — 586.8

21' (Sta. 3+00)

3+00 — 592.9

Match Line See Expressway

596.61 — 595.28 — C-7 — F-290 — 591.5 — C-54 — 586.7

2+50 — 590.0

596.37 — 595.20 — F-270 — 591.4 — C-85 — 586.6

2+00 — 590.4

596.13 — 595.12 — F-216 — 591.3 — C-124 — 586.5

1+50 — 590.9

595.89 — 595.04 — F-5 — F-49 — 591.2 — C-291 — 586.4

1+00 — 593.7

595.69 — 594.96 — C-601 — 591.1 — 586.3

Sta. 0+05
Build No. 6 C.B.
Build Endwall for 12" Pipe.
Connect C.B. to Endwall using 66'-12" Storm Sewer M-6.5(b) or M-6.8(b).

0+50 — 597.7

Match Line See Expressway

595.47 — 594.88 — C-614 — 591.0 — 589.20 — 12" — 586.20 — 586.2

0+00 — 597.7

80 60 40 20 ℄ 20 40 60 80

Rye Beach Interchange Ramp D Sta. 0+00 to 9+00

SEP 15 1960

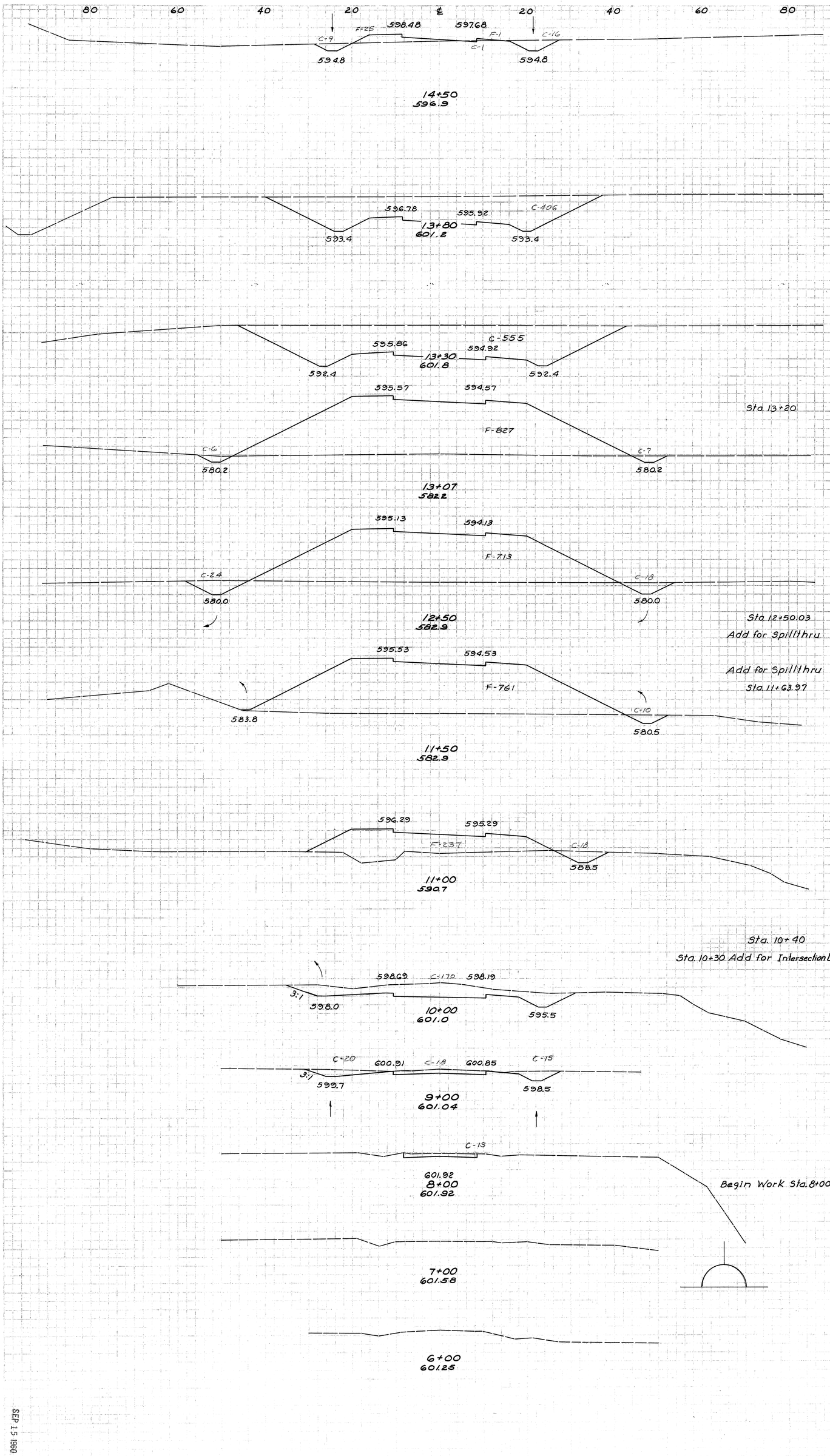
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

ERI 6-11.30

143 / 235

ORIGINAL SURVEY — SURVEYED: S M B — PLOTTED: JCS — TRACED: VJS — CHECKED: DRS — LINES: GTS — DATE: 1960, 4-6-60, 4-7-60, 4-8-60, 4-60

FINAL SURVEY — SURVEYED — PLOTTED — TRACED — CHECKED — LINES — BY — DATE



	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
		26		26
			560	34
	406	0		
			890	0
	555	0		
			110	0
Sta. 13+20	40	0		
			13	139
	13	827		
			58	1625
Sta. 12+50.03	42	713		
Add for Spillthru			0	220
Add for Spillthru			0	200
Sta. 11+63.97	10	761		
			5	394
	10	761		
			26	924
	18	237		
			71	263
Sta. 10+40	46	0		
Sta. 10+30 Add for Intersection lt →			150	80
			160	0
	170	0		
			413	0
	53	0		
			122	0
Begin Work Sta. 8+00	13	0		

Sta. 6+00 to 14+50

BOSS ROAD RELOCATION

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	ERI 6-11.30	

144
235

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

145
235

ERI 6-11.30

	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 16+40	80	0	404	0
Sta. 15+40	138	0	273	43
Sta. 14+50	26	26	146	13
	51	12	163	81
	37	32	150	115
	44	30	156	113
	40	31	139	126
	34	37	137	126
	41	31	148	89
	39	17	163	52
	49	11	170	48
	43	15		

Excavation	5671	Cu.Yds.
Embankment	5858	Cu.Yds.
Seeding	17,566	Sq.Yds.

SEP 15 1960

Sta. 15+40 to 25+00 BOSS ROAD RELOCATION

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	CROSS SECTIONED		

DRAWN SURVEY	JOB	BY	DATE
	PLOTTED	SMB	1960
NOTE BOOK	TEMPLATE	GTS	4-60
NO.	AREAS	JCS	4-60
	CROSS SECTIONED	DPS	4-60
		GTS	

80 60 40 20 ℄ 20 40 60 80

End Work Sta. 36+21.78
Add for Intersection
Sta. 35+79.78

C-9 F-1 602.60 603.08 C-14
C-8 F-5
600.0 600.0
35+00
602.2

C-8 603.31 F-4 603.38 C-10
600.4 600.4
34+00
602.4

C-9 F-17 C-6
600.8 600.8
604.04
33+00
603.1

C-3 F-48 C-5
601.2 601.2
604.49
32+00
602.4

C-5 F-45 C-7
601.1 601.1
604.64
31+00
602.7

C-6 F-42 C-10
601.0 601.0
604.64
30+00
602.9

C-8 F-39 C-12
600.9 600.9
604.64
29+00
602.9

C-11 F-34 C-14
600.8 600.8
604.64
28+00
603.0

C-15 F-29 C-19
600.7 600.7
604.64
27+00
603.1

C-21 F-5 C-7 F-1 C-33
600.6 600.6
604.64
26+00
604.2

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
			40	20
	31	9		
			92	27
	31	9		
			91	46
	18	16		
			61	61
	15	17		
			43	120
	8	48		
			37	172
	12	45		
			52	161
	16	42		
			67	150
	20	39		
			83	135
	25	34		
			109	117
	34	29		
			176	65
Sta. 26+00	61	6	193	39
Sta. 25+00	43	15		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	ERI 6-11.30	

(146) 233

Sta. 26+00 to 35+00 BOSS ROAD RELOCATION

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

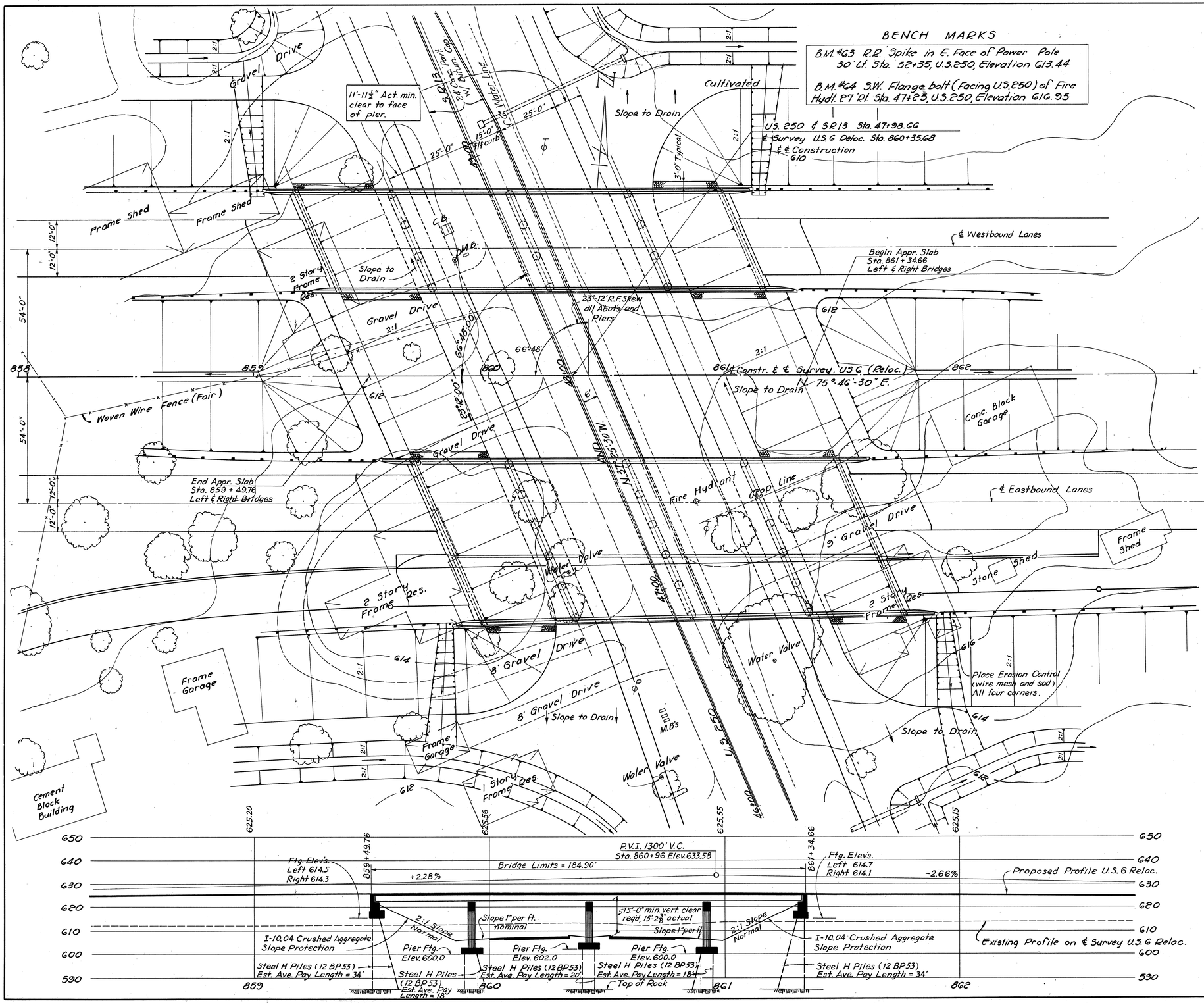
147
235

ERIE COUNTY
ERI 6-11.30
3.4 MILES WEST OF HURON

BENCH MARKS

B.M. #G3 R.R. Spike in E. Face of Power Pole 30' Lt. Sta. 52+35, U.S.250, Elevation G13.44

B.M. #G4 S.W. Flange bolt (Facing U.S.250) of Fire Hydt. 27 Rt. Sta. 47+25, U.S.250, Elevation G16.95



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. concrete Pier Bents and Stub Abutments.

Spans: 40'-0", 50'-0", 50'-0", 40'-0" ℅ Bearings

Roadway: 39'-8"f/f of 1'-2" curbs on Left Bridge Variable on Right Bridge.

Load Frequency: CF 400 (57)

Skew: 23°-12' R.F.

Wearing Surface: 1" Monolithic Concrete

Approach Slabs: AS-1-54 (25'-0" Long)

Alignment: Tangent

MAR 20 1960

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SITE PLAN

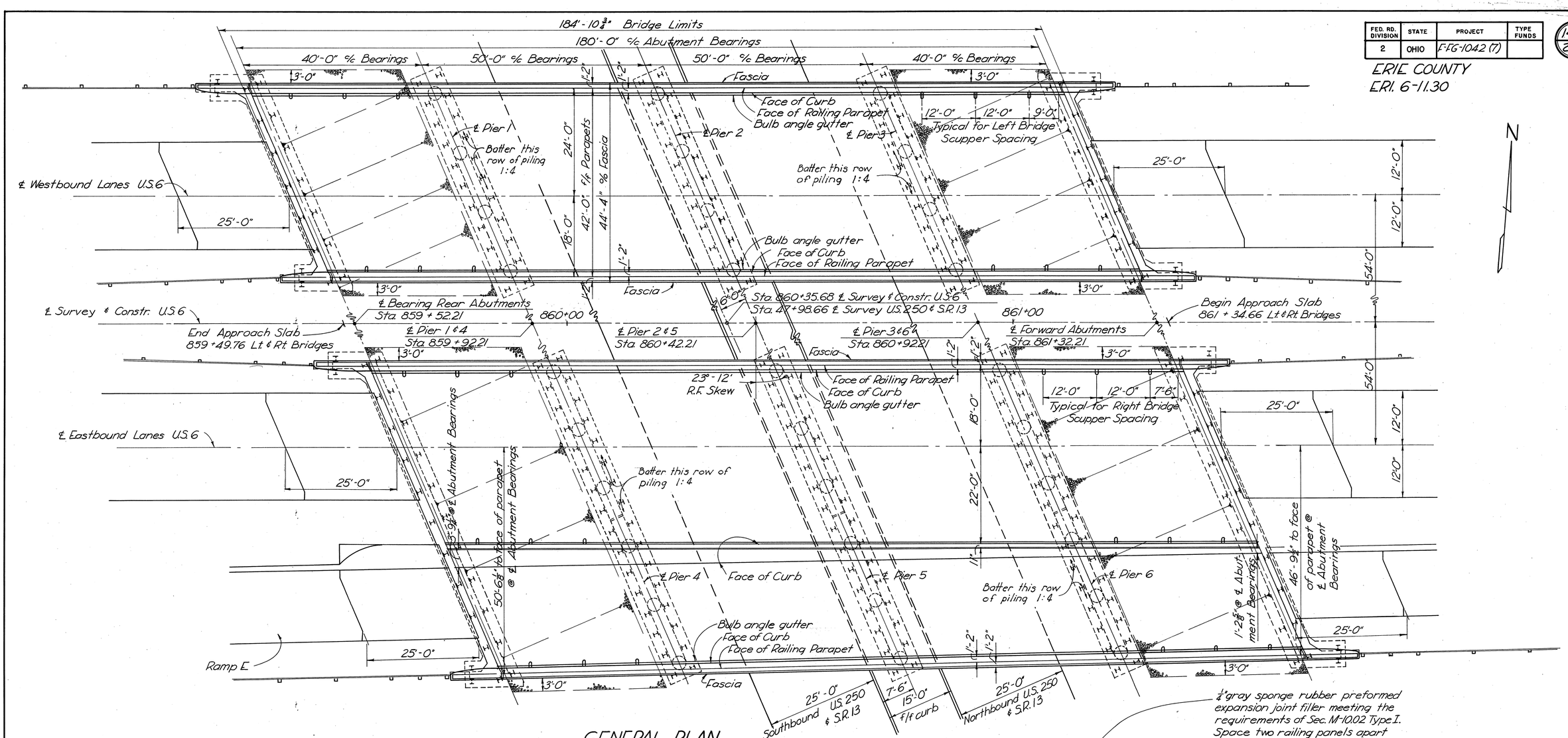
BRIDGE NO. ERI-6-1152 LEFT & RIGHT
OVER U.S. 250 & S.R. 13
STA. 859+49.76
To 861+34.66
ERIE CO.
SCALE: 1"=20'

PRESENT TOPOGRAPHY		PROPOSED WORK				
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
S.M.B.	T.F.H. B.B.	T.W.D.	T.W.D. J.H.Y.	B.J.H.	FCM 5-2-60

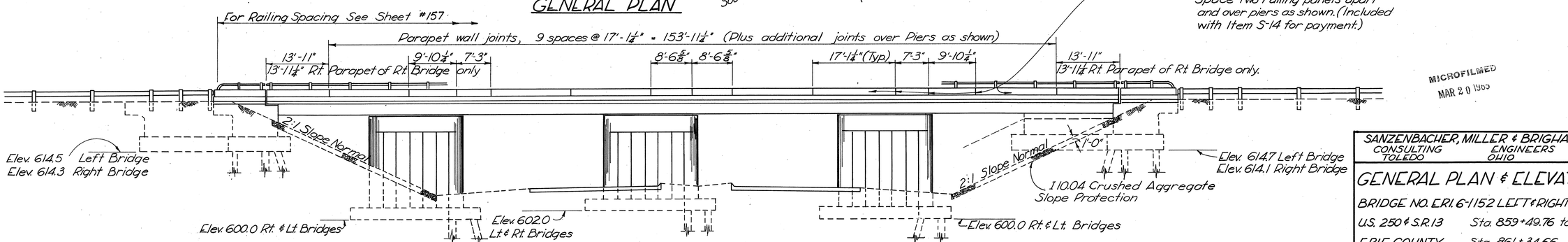
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

148
235

ERIE COUNTY
ERI. 6-11.30



GENERAL PLAN



GENERAL ELEVATION

Left Bridge Shown

SEP 15 1960

MICROFILMED
MAR 20 1963

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. ERI. 6-1152 LEFT & RIGHT OVER
U.S. 250 & S.R.13 Sta. 859+49.76 to
ERIE COUNTY Sta. 861+34.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	RJH	JEC	TFH BJH	FCM 5-2-60		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(17)	

149
235

ERIE COUNTY
ERI. 6-11.30

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" (sheet Nº 3 of 6 sheets), revised 2-2-59, AR-1-57, "Aluminum Railing with Concrete Parapet, revised 2-2-59, and to Supplemental Specification S-101 dated 12-2-59.

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. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

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

For the pier piles:
45 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 of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 30 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 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 concrete bridge deck shall be finished as specified in the proposed note, "Machine Finishing of Bridge Deck Slabs".

STEEL: See Proposal regarding A-373 Steel.

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	1299	Cu. Yds.	Unclassified excavation	150	150	200	190	83	68	97	121	99	141					
S-1	607	Cu Yds.	Class "C" concrete, superstructures											232	375			
S-1	283	Cu Yds.	Class "C" concrete, pier caps & columns					37	35	37	59	56	59					
S-1	428	Cu Yds.	Class "E" concrete, abutments	90	90	128	120											
S-1	273	Cu Yds.	Class "E" concrete, pier footings					37	37	37	54	54	54					
S-3	16	Lin. Ft.	Premolded sealing strip			8	8											
S-4	313,109	Lbs.	Reinforcing steel	4,940	4,982	7,063	6,719	15,948	15,248	16,005	24,971	23,770	24,777	65,350	103,336			
S-7	449,000	Lbs.	Structural steel											170,000	279,000			
S-8	449,000	Lbs.	Field painting of structural steel, as per plan											170,000	279,000			
S-14	819	Lin. Ft.	Railing (aluminum rail and supports, concrete parapet)											409	410			
S-16	Lump	Sum	First test pile													Lump		
S-18	5960	Lin. Ft.	Steel piles, 12 BP 53	610	610	880	820	400	440	400	580	640	580					
S-29	30	Each	Scuppers											12	18			
S-29	77	Cu. Yds.	Porous backfill	15	15	24	23											
T-10	1060	Sq. Yds.	Crushed aggregate slope protection													1060		

MICROFILMED
MAR 20 1961

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. ERI. 6-1152, LEFT & RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76
ERIE COUNTY to 861+34.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH	JEC	RJH BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

150/235

ERIE COUNTY
ERI. 6-11.30

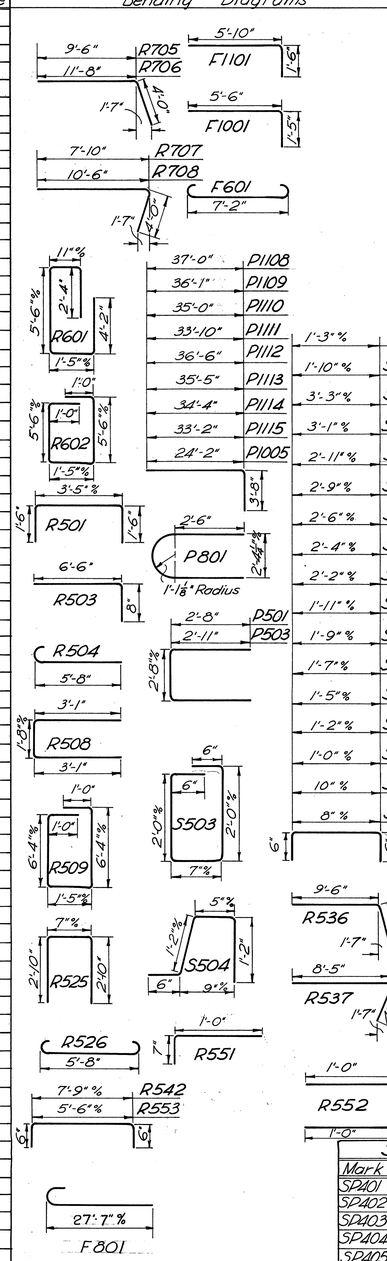
REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape
ABUTMENTS				
R701	26	11'-0"	585	S
R702	13	11'-1"	294	S
R703	7	11'-5"	163	S
R704	6	11'-7"	142	S
R705	4	13'-4"	109	B
R706	8	15'-8"	256	B
R707	4	13'-6"	110	B
R708	8	14'-4"	234	B
R601	144	13'8"	2956	B
R602	81	13'-9"	1673	B
R501	318	6'-2"	2045	B
R502	186	6'-9"	1309	S
R503	186	7'-0"	1358	B
R504	200	6'-3"	1304	B
R505	24	26'-10"	672	S
R506	48	24'-5"	1222	S
R507	16	11'-4"	*	S
R508	172	7'-7"	1360	B
R509	8	15'-7"	130	B
R510	56	2'-8"	156	S
R511	2	29'-3"	61	S
R512	2	13'-10"	29	S
R513	2	7'-3"	15	S
R514	16	10'-8"	*	S
R515	18	26'-8"	501	S
R516	84	25'-1"	628	S
R517	2	7'-3"	15	S
R518	2	29'-3"	61	S
R519	2	7'-0"	15	S
R520	1	21'-6"	22	S
R521	2	9'-5"	20	S
R522	18	28'-0"	526	S
R523	24	26'-5"	661	S
R524	1	25'-5"	26	S
R525	76	6'-0"	476	B
R526	52	6'-10"	371	B
R527	16	11'-5"	191	S
R528	16	10'-10"	181	S
R529	26	11'-0"	298	S
R530	13	11'-1"	150	S
R531	7	11'-5"	83	S
R532	6	11'-7"	72	S
R533	16	8'-0"	134	S
R534	12	9'-0"	113	S
R535	12	8'-10"	111	S
R536	12	13'-5"	168	B
R537	12	12'-3"	153	B
R538	16	6'-1"	102	S
R539	8	6'-2"	51	S
R540	4	6'-6"	27	S
R541	4	6'-8"	28	S
R542	24	8'-6"	213	B
R543	48	3'-6"	175	S
R544	8	10'-6"	88	S
R545	16	11'-1"	185	S
R546	48	3'-6"	175	S
R547	8	11'-4"	95	S
R548	8	10'-8"	89	S
R549	8	11'-10"	99	S
R550	8	10'-4"	87	S
R551	76	1'-5"	112	B
R552	68	3'-0"	213	B
R553	24	6'-3"	156	B
R554	2	2'-6"	5	S
R555	12	11'-3"	141	S
R556	12	15'-3"	191	S
R557	12	15'-6"	194	S
R558	12	9'-6"	119	S

Mark	No.	Length	Weight	Shape
PIERS				
F1101	384	7'-0"	14,281	B
F1001	96	6'-7"	2719	B
F801	216	28'-8"	16,533	B
F802	54	27'-7"	3,977	S
F601	399	8'-6"	5094	B
F602	267	7'-2"	2874	S
P1101	48	19'-0"	4845	S
P1102	48	17'-2"	4379	S
P1103	48	19'-1"	4866	S
P1104	80	18'-8"	7935	S
P1105	80	16'-9"	7119	S
P1106	80	18'-7"	7897	S
P1107	12	14'-6"	924	S
P1108	9	40'-3"	1923	B
P1109	3	39'-5"	628	B
P1110	3	38'-4"	611	B
P1111	3	37'-2"	592	B
P1112	6	39'-10"	1270	B
P1113	2	38'-9"	412	B
P1114	2	37'-8"	400	B
P1115	2	36'-6"	388	B
P1001	16	19'-0"	1308	S
P1002	16	17'-2"	1182	S
P1003	16	19'-2"	1320	S
P1004	12	17'-2"	886	S
P1005	24	27'-6"	2840	B
P1006	6	28'-6"	736	S
P1007	16	18'-7"	1279	S
P1008	16	16'-8"	1147	S
P1009	16	18'-6"	1274	S
P1010	15	36'-1"	2329	S
P1011	5	35'-2"	757	S
P1012	5	34'-1"	733	S
P1013	5	32'-11"	708	S
P1014	12	31'-7"	1631	S
P801	24	9'-1"	582	B
P501	144	7'-9"	1164	B
P502	12	22'-10"	286	S
P503	282	8'-3"	2427	B
P504	6	36'-4"	227	S
P505	2	35'-5"	74	S
P506	2	34'-4"	72	S
P507	2	33'-2"	69	S

Mark	No.	Length	Weight	Shape
SUPERSTRUCTURE				
S701	217	43'-8"	19370	S
S702	218	41'-7"	18528	S
S703	2	42'-1"	172	S
S704	2	40'-4"	165	S
S705	2	38'-7"	158	S
S706	2	36'-10"	151	S
S707	2	35'-1"	143	S
S708	2	33'-4"	136	S
S709	2	31'-7"	129	S
S710	2	29'-10"	122	S
S711	2	28'-1"	115	S
S712	2	26'-4"	108	S
S713	2	24'-7"	100	S
S714	2	22'-10"	93	S
S715	2	21'-1"	86	S
S716	2	19'-4"	79	S
S717	2	17'-7"	72	S
S718	2	15'-10"	65	S
S719	2	14'-1"	58	S
S720	2	12'-4"	50	S
S721	2	10'-7"	43	S
S722	2	8'-10"	36	S
S723	2	7'-1"	29	S
S724	2	5'-4"	22	S
S725	2	3'-7"	15	S
S726	2	1'-10"	7	S
S727	2	40'-2"	164	S
S728	2	38'-5"	157	S
S729	2	36'-8"	150	S
S730	2	34'-11"	143	S
S731	2	33'-2"	136	S
S732	2	31'-5"	128	S
S733	2	29'-8"	121	S
S734	2	27'-11"	114	S
S735	2	26'-2"	107	S
S736	2	24'-5"	100	S
S737	2	22'-8"	93	S
S738	2	20'-11"	86	S
S739	2	19'-2"	78	S
S740	2	17'-5"	71	S
S741	2	15'-8"	64	S
S742	2	13'-11"	57	S
S743	2	12'-2"	50	S
S744	2	10'-5"	43	S
S745	2	8'-8"	35	S
S746	2	6'-11"	28	S
S747	2	5'-2"	21	S
S748	2	3'-5"	14	S
S749	2	1'-8"	7	S
S750	9	28'-0"	515	S
S751	9	27'-10"	512	S
S752	9	27'-8"	509	S
S753	9	27'-6"	506	S
S754	9	27'-5"	504	S
S755	9	27'-3"	501	S
S756	9	27'-1"	498	S
S757	9	27'-0"	497	S
S758	9	26'-10"	494	S
S759	9	26'-8"	491	S
S760	9	26'-7"	489	S
S761	9	26'-5"	486	S
S762	9	26'-3"	483	S
S763	9	26'-2"	481	S
S764	9	26'-0"	478	S
S765	9	25'-10"	475	S
S766	9	25'-9"	474	S
S767	9	25'-7"	471	S
S768	9	25'-5"	468	S
S769	9	25'-3"	464	S
S770	9	25'-2"	463	S

Bending Diagrams



Mark	No.	Length	Weight	Shape
SUPERSTRUCTURE (Continued)				
S771	9	25'-0"	460	S
S772	9	24'-11"	458	S
S773	9	24'-9"	455	S
S774	9	24'-7"	452	S
S775	1	27'-1"	55	S
S776	1	25'-4"	52	S
S777	1	23'-7"	48	S
S778	1	21'-10"	45	S
S779	1	20'-1"	41	S
S780	1	18'-4"	37	S
S781	1	16'-7"	34	S
S782	1	14'-10"	30	S
S783	1	13'-1"	27	S
S784	1	11'-4"	23	S
S785	1	9'-7"	20	S
S786	1	7'-10"	16	S
S787	1	6'-1"	12	S
S788	1	4'-4"	9	S
S789	1	2'-7"	5	S
S791	1	24'-1"	49	S
S792	1	22'-3"	45	S
S793	1	20'-6"	42	S
S794	1	18'-9"	38	S
S795	1	17'-0"	35	S
S796	1	15'-2"	31	S
S797	1	13'-5"	27	S
S798	1	11'-7"	24	S
S799	1	9'-10"	20	S
SA701	1	8'-1"	17	S
SA702	1	6'-4"	13	S
SA703	1	4'-6"	9	S
SA704	1	2'-9"	6	S
S601	217	43'-8"	14233	S
S602	1035	37'-9"	58685	S
S603	261	20'-0"	7840	S
S604	218	41'-7"	13616	S
S605	2	42'-1"	126	S
S606	2	40'-4"	121	S
S607	2	38'-7"	116	S
S608	2	36'-10"	111	S
S609	2	35'-1"	105	S
S610	2	33'-4"	100	S
S611	2	31'-7"	95	S
S612	2	29'-10"	90	S
S613	2	28'-1"	84	S
S614	2	26'-4"	79	S
S615	2	24'-7"	74	S
S616	2	22'-10"	69	S
S617	2	21'-1"	63	S
S618	2	19'-4"	58	S
S619	2	17'-7"	53	S
S620	2	15'-10"	48	S
S621	2	14'-1"	42	S
S622	2	12'-4"	37	S
S623	2	10'-7"	32	S
S624	2	8'-10"	27	S
S625	2	7'-1"	21	S
S626	2	5'-4"	16	S

Mark	No.	Length	Weight	Shape
SUPERSTRUCTURE (Continued)				
S627	2	3'-7"	11	S
S628	2	1'-10"	6	S
S629	2	40-2	121	S
S630	2	38'-5"	115	S
S631	2	36'-8"	110	S
S632	2	34'-11"	105	S
S633	2	33'-2"	100	S
S634	2	31'-5"	94	S
S635	2	29'-8"	89	S
S636	2	27'-11"	84	S
S637	2	26'-2"	79	S
S638	2	24'-5"	73	S
S639	2	22'-8"	68	S
S640	2	20'-11"	63	S
S641	2	19'-2"	58	S
S642	2	17'-5"	52	S
S643	2	15'-8"	47	S
S644	2	13'-11"	42	S
S645	2	12'-2"	37	S
S646	2	10'-5"	31	S
S647	2	8'-8"	26	S
S648	2	6'-11"	21	S
S649	2	5'-2"	16	S
S650	2	3'-5"	10	S
S651	2	1'-8"	5	S
S652	9	28'-0"	379	S
S653	9	27'-10"	376	S
S654	9	27'-8"	374	S
S655	9	27'-6"	372	S
S656	9	27'-5"	371	S
S657	9	27'-3"	368	S
S658	9	27'-1"	366	S
S659	9	27'-0"	365	S
S660	9	26'-10"	363	S
S661	9	26'-8"	360	S
S662	9	26'-7"	359	S
S663	9	26'-5"	357	S
S664	9	26'-3"	355	S
S665	9	26'-2"	354	S
S666	9	26'-0"	351	S
S667	9	25'-10"	349	S
S668	9	25'-9"	348	S
S669	9	25'-7"	346	S
S670	9	25'-5"	344	S
S671	9	25'-3"	341	S
S672	9	25'-2"	340	S
S673	9	25'-0"	338	S
S674	9	24'-11"	337	S
S675	9	24'-9"	335	S
S676	9	24'-7"	332	S
S677	1	27'-1"	41	S
S678	1	25'-4"	38	S
S679	1	23'-7"	35	S
S680	1	21'-10"	33	S
S681	1	20'-1"	30	S
S682	1	18'-4"	28	S
S683	1	16'-7"	25	S
S684	1	14'-10"	22	S
S685	1	13'-1"	20	S
S686	1	11'-4"	17	S
S687	1	9'-7"	14	S
S688	1	7'-10"	12	S
S689	1	6'-1"	9	S
S690	1	4'-4"	7	S
S691	1	2'-7"	4	S
S693	1	24'-1"	36	S
S694	1	22'-3"	33	S
S695	1	20'-6"	31	S
S696	1	18'-9"	28	S

Mark	No.	Length	Weight	Shape
SUPERSTRUCTURE (Continued)				
S697	1	17'-0	26	S
S698	1	15'-2"	23	S
S699	1	13'-5"	20	S
SA601	1	11'-7	17	S
SA602	1	9'-10"	15	S
SA603	1	8'-1"	12	S
SA604	1	6'-4"	10	S
SA605	1	4'-6"	7	S
SA606	1	2'-9"	4	S
REPLACEMENT BARS				
S501	1220	2'-0"	2545	B
S502	488	2'-7"	1315	B
S503	512	4'-4"	2314	B
S504	122	2'-11"	371	B
S505	32	13'-7"	*	S
S506	32	9'-6"	*	S
S507	32	6'-11"	*	S
S508	32	8'-3"	*	S
S509	96	16'-9"	*	S
S510	9	4'-0"	38	B
S511	9	3'-10"	36	B
S512	8	3'-8"	31	B
S513	8	3'-6"	29	B
S514	8	3'-3"	27	B
S515	8	3'-1"	26	B
S516	8	2'-11"	24	B
S517	8	2'-8"	22	B
S518	8	2'-6"	21	B
S519	8	2'-4"	19	B
S520	8	2'-2"	18	B
S521	8	1'-11"	16	B
S522	8	1'-9"	15	B
S523	8	1'-7"	13	B
S524	8	1'-5"	12	B

Mark	No.	Length	Weight	Shape
RE1101	3	7'7"		S
RE1001	1	7'3"		S
RE801	2	6'6"		S
RE701	4	6'3"		S
RE601	6	5'11"		S
RE501	2	5'7"		S
RE401	1	5'3"		S

SPIRAL REINFORCING LIST

Mark	No.	Spacing % Spiral	Length	Pitch	No. of Turns	Weight
SP401	4	32"	15'-2"	4½	43	1113
SP402	4	32"	13'-4½"	4½	39	1005
SP403	4	32"	15'-3⅜"	4½	44	1137
SP404	6	32"	14'-10⅞"	4½	43	1666
SP405	6	32"	12'-11⅜"	4½	38	1469
SP406	6	32"	14'-9½"	4½	42	1631

*Included with Item S-14 for payment

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. S-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 S-4. 1½ closed coils shall be provided at the ends of each spiral unit.
Four (or three) 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.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

REINFORCING STEEL

BRIDGE NO. ERI. 6-1152, LEFT & RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76
ERIE COUNTY to 861+34.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH	JEC	RJH BJH	FCM	5-2-60	

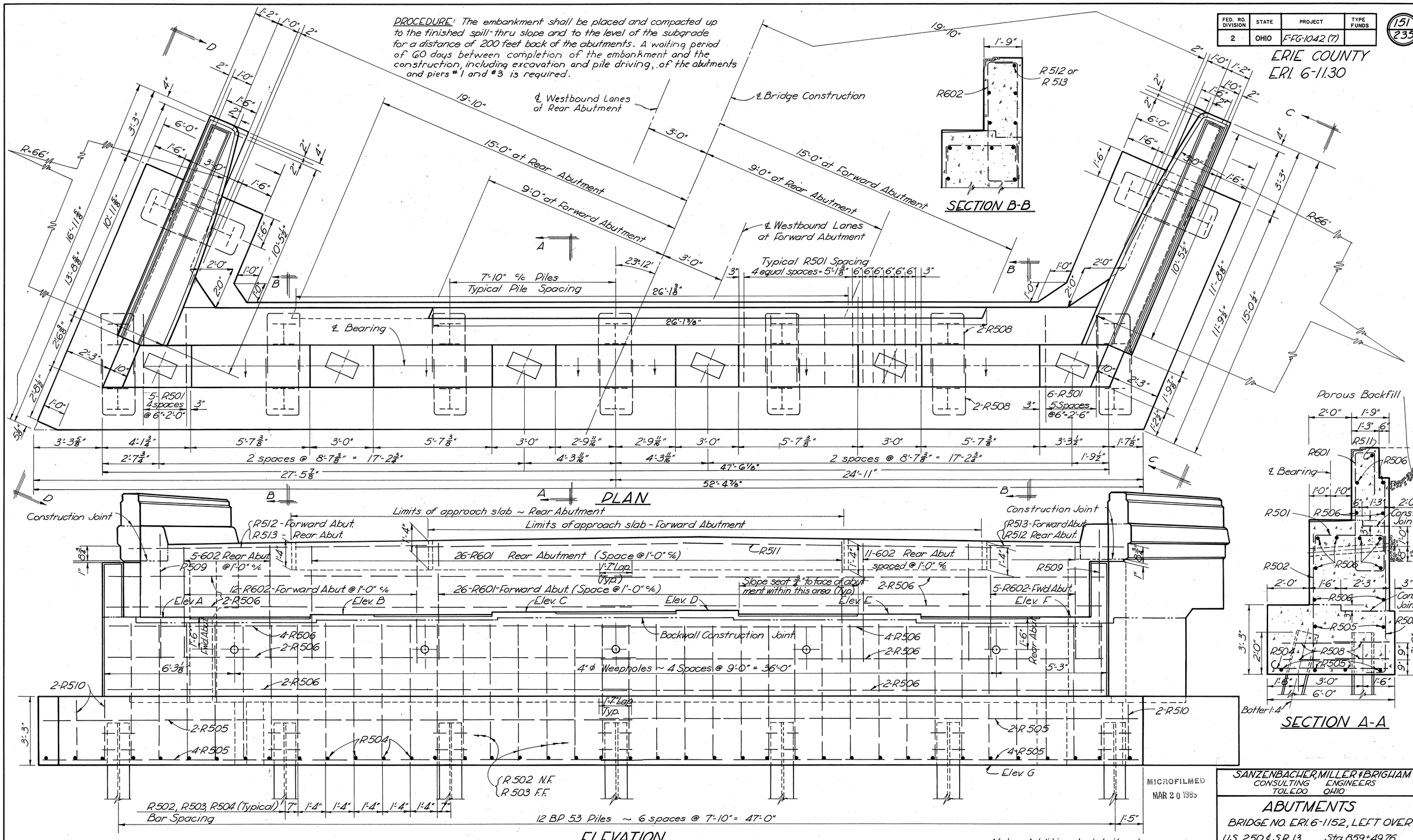
SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	FFG-1042 (7)	

151/235

ERIE COUNTY
ERI. 6-11.30

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. A waiting period of 60 days between completion of the embankment and the construction, including excavation and pile driving, of the abutments and piers #1 and #3 is required.



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

ELEVATION

ELEVATION	A	B	C	D	E	F	G
Rear Abutment	621.73	621.84	621.95	621.84	621.70	621.56	614.50
Fwd. Abutment	621.81	621.93	622.04	622.13	622.00	621.87	614.70

Note: Additional details shown on Sheet No. 154

MICROFILMED
MAR 20 1985

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ABUTMENTS

BRIDGE NO. ERI. 6-1152, LEFT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76
ERIE COUNTY to 861+34.66

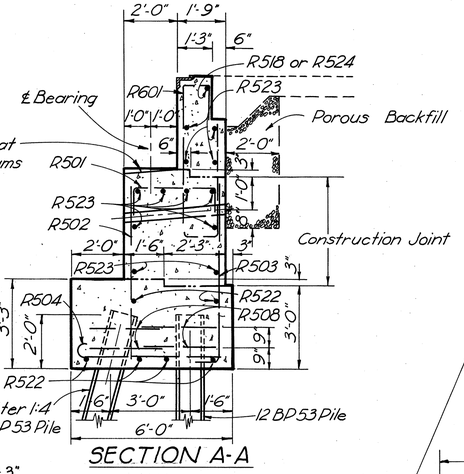
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	TFH	JEC	RJH BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

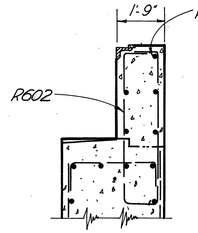
152
235

ERIE COUNTY
ERI. 6-11.30

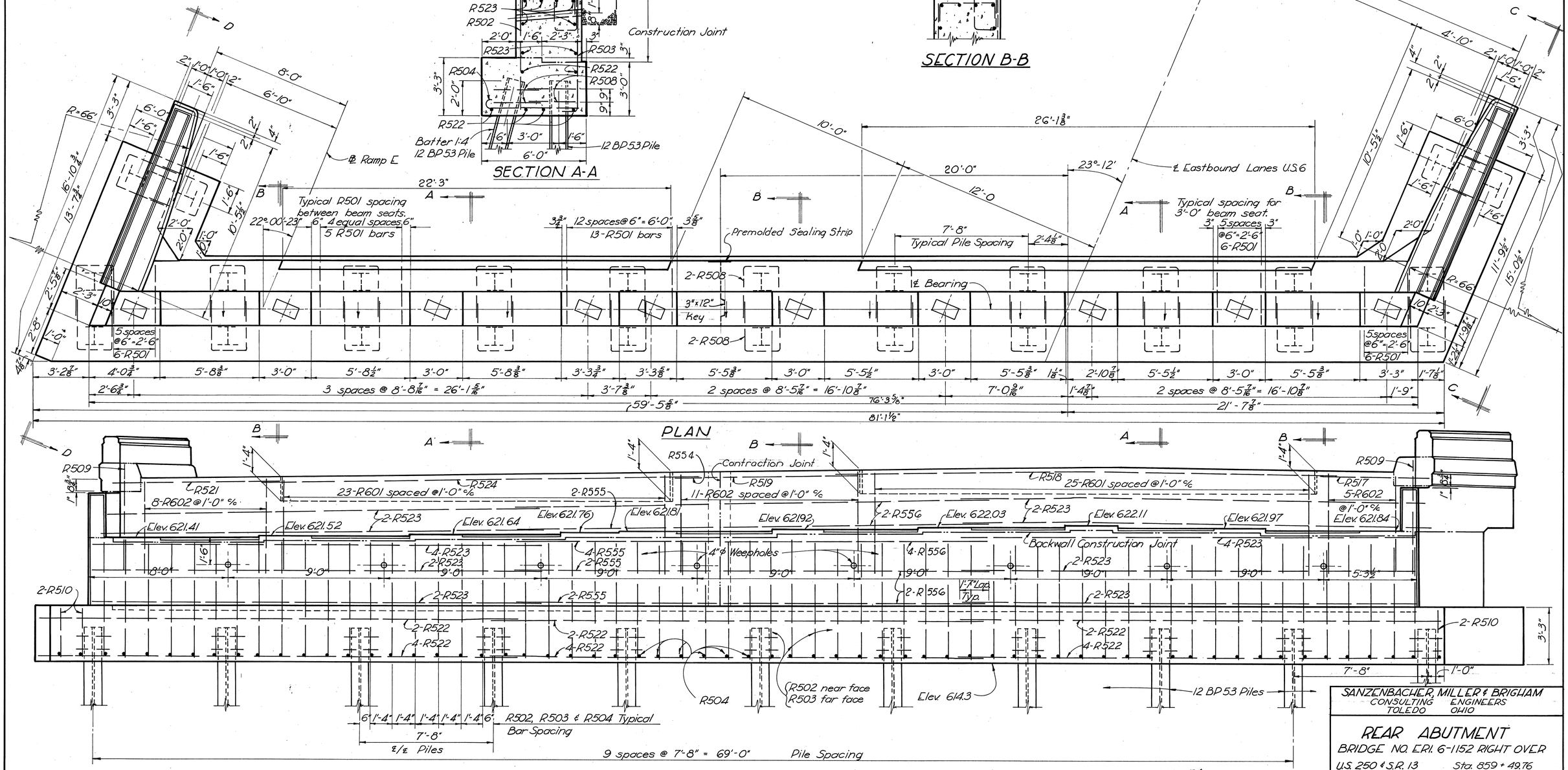
PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutment. A waiting period of 60 days between completion of the embankment and the construction, including excavation and pile driving, of the abutment and pier #4 is required.



SECTION A-A



SECTION B-B



PLAN

ELEVATION

Additional details on sheet No. 154

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

REAR ABUTMENT

BRIDGE NO. ERI. 6-1152 RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76
ERIE COUNTY to 861+34.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	RJH	JEC	TFH BJH	FCM 5-2-60		

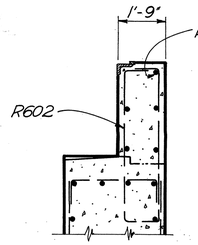
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(17)	

153
235

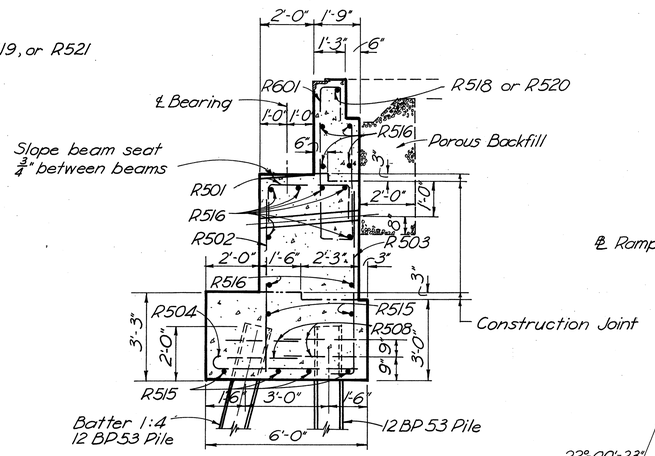
ERIE COUNTY
ERI. 6-11.30

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. A waiting period of 60 days between completion of the embankment and the construction, including excavation and pile driving, of the abutment and pier #6 is required.

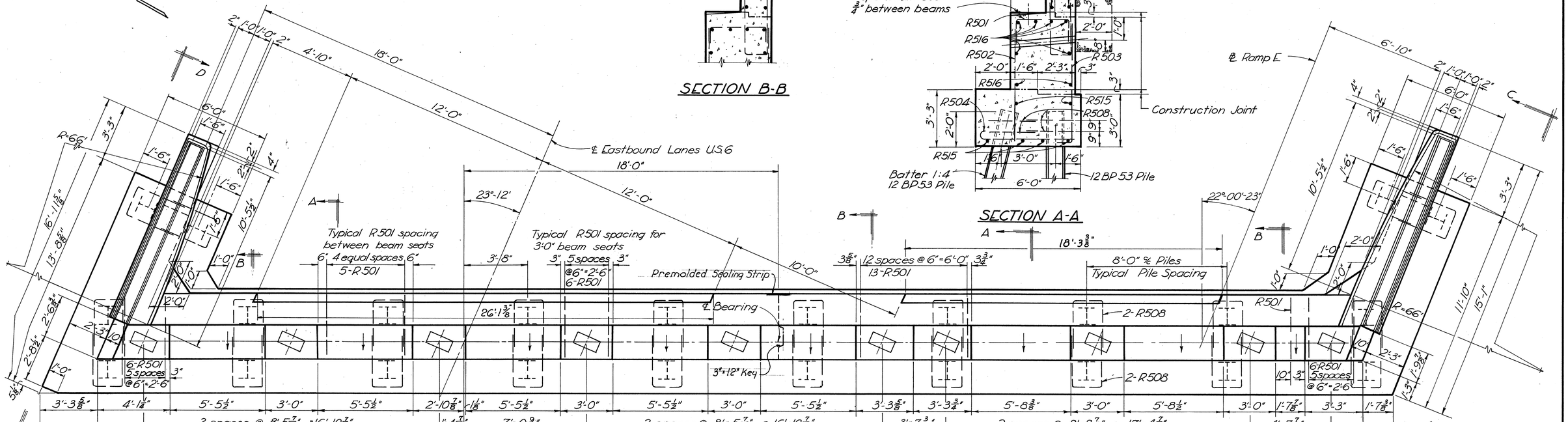
N



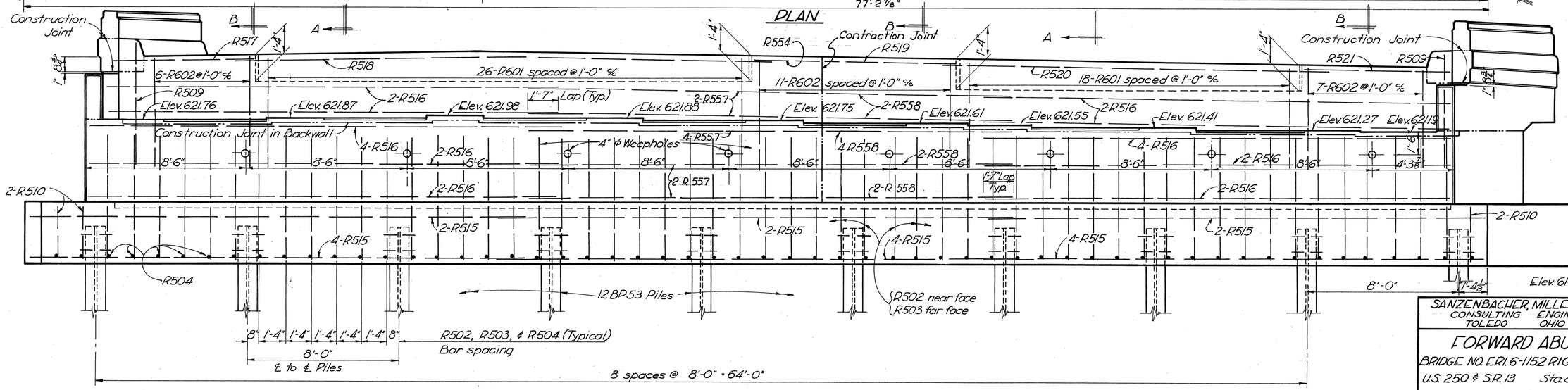
SECTION B-B



SECTION A-A



PLAN



ELEVATION

Additional details on sheet No. 154

MICROFILMED
MAR 20 1961
SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

FORWARD ABUTMENT

BRIDGE NO. ERI. 6-1152 RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76 to
ERIE COUNTY Sta. 861+34.66

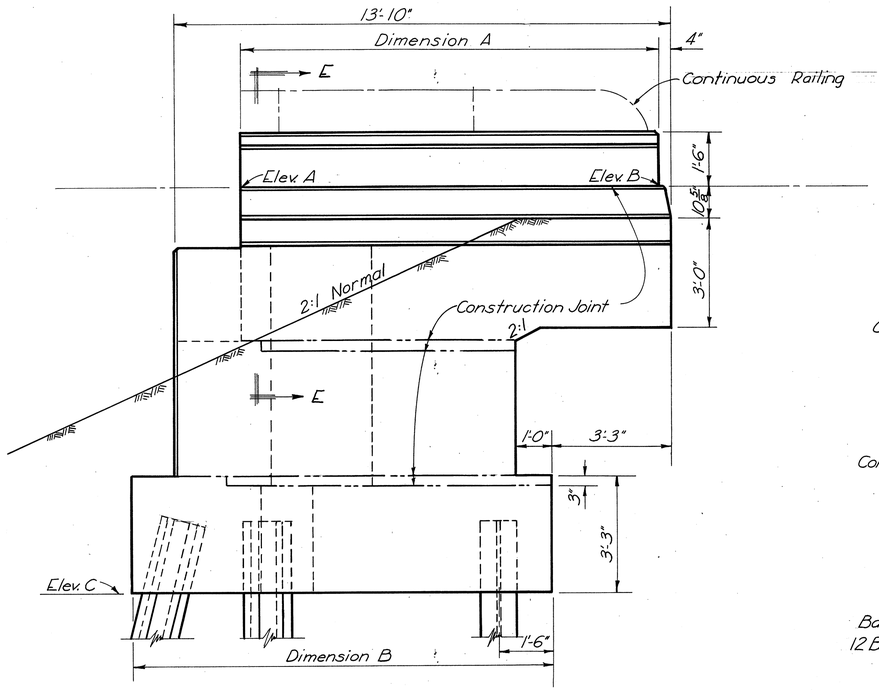
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	RJH	JEC	TFH BJH	FCM	5-2-60	

LOCATION		REINFORCING BARS								
		A	B	C	D	E	F	G	H	J
LT. BRIDGE	Lt. Rear Wingwall	R527	R529	R701	R534	R536	R538	R547	R549	R507
	Rt. Rear Wingwall	R528	R530	R702	R535	R537	R539	R548	R550	R514
	Lt. Fwd. Wingwall	R528	R529	R701	R535	R537	R538	R548	R550	R514
	Rt. Fwd. Wingwall	R527	R530	R702	R534	R536	R539	R547	R549	R507
RT. BRIDGE	Lt. Rear Wingwall	R527	R531	R703	R534	R536	R540	R547	R549	R507
	Rt. Rear Wingwall	R528	R529	R701	R535	R537	R538	R548	R550	R514
	Lt. Fwd. Wingwall	R528	R532	R704	R535	R537	R541	R548	R550	R514
	Rt. Fwd. Wingwall	R527	R529	R701	R534	R536	R538	R547	R549	R507

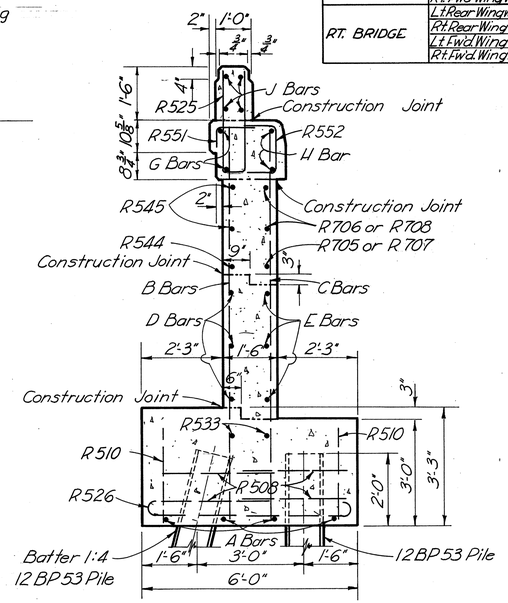
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

154
235

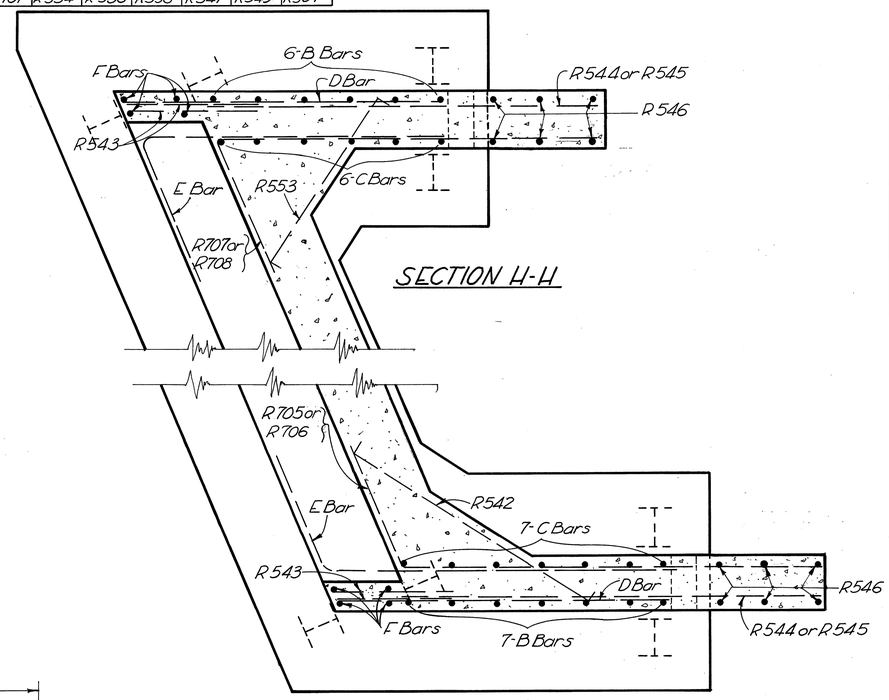
ERIE COUNTY
ERI. 6-11.30



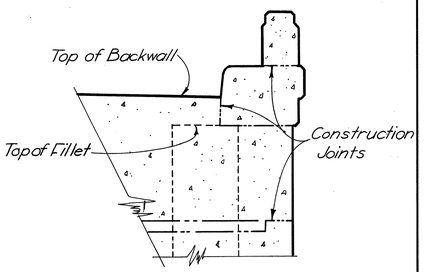
WING WALL ELEVATION (CONSTRUCTION DETAILS)



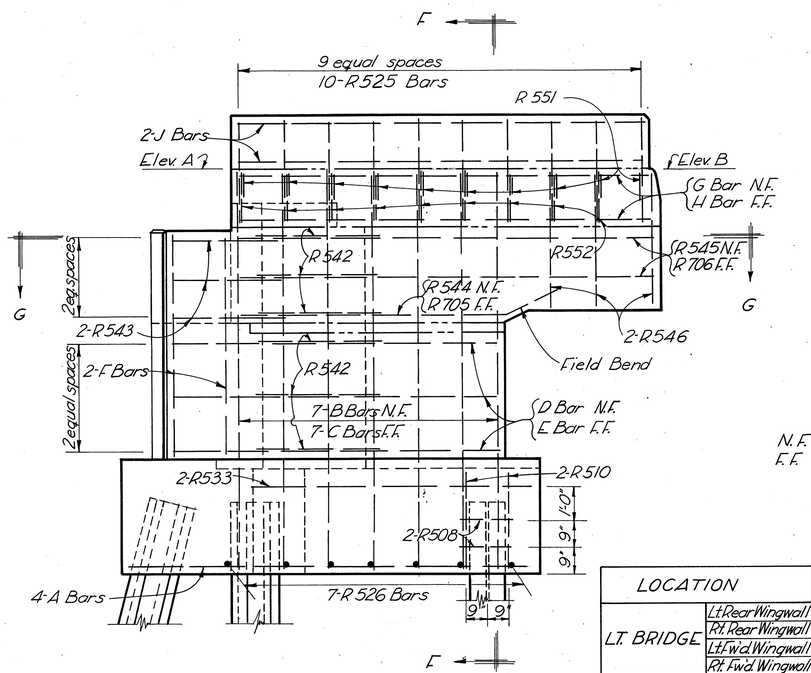
SECTION E-E



SECTION G-G



SECTION E-E

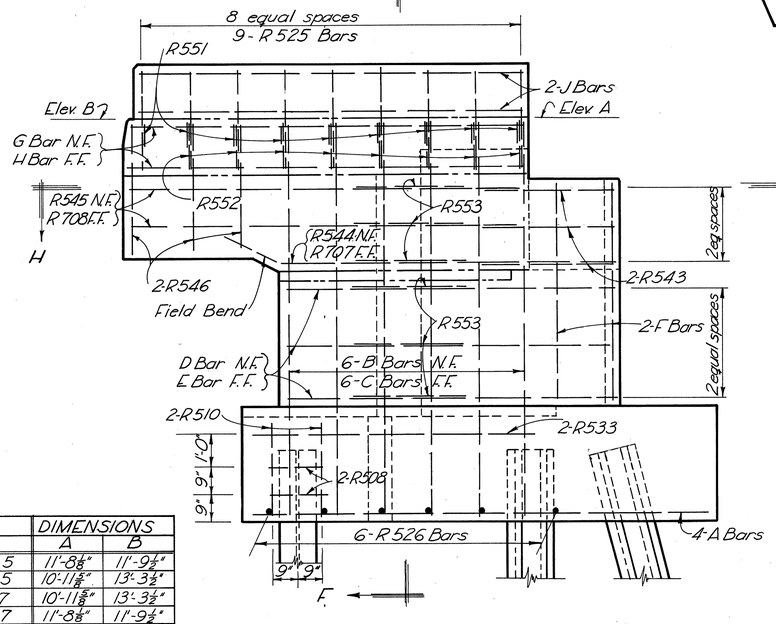


WINGWALL ELEVATION (REINFORCING BAR DETAILS)

VIEW C-C (See Sheet No's. 151, 152 & 153)

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

LOCATION		ELEVATIONS			DIMENSIONS	
		A	B	C	A	B
LT. BRIDGE	Lt. Rear Wingwall	625.78	625.72	614.5	11'-8⅛"	11'-9½"
	Rt. Rear Wingwall	625.96	625.91	614.5	10'-11⅝"	13'-3½"
	Lt. Fwd. Wingwall	626.04	626.02	614.7	10'-11⅝"	13'-3½"
	Rt. Fwd. Wingwall	626.09	626.06	614.7	11'-8⅛"	11'-9½"
RT. BRIDGE	Lt. Rear Wingwall	626.07	626.03	614.3	11'-8⅛"	11'-9½"
	Rt. Rear Wingwall	625.63	625.61	614.3	11'-0⅜"	13'-2⅞"
	Lt. Fwd. Wingwall	625.99	625.94	614.1	10'-11⅝"	13'-3½"
	Rt. Fwd. Wingwall	625.40	625.34	614.1	11'-8⅛"	11'-10"



WINGWALL ELEVATION (REINFORCING BAR DETAILS)

VIEW D-D (See Sheet No's. 151, 152 & 153)

MICROFILMED
MAR 20 1985

SEP. 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ABUTMENTS

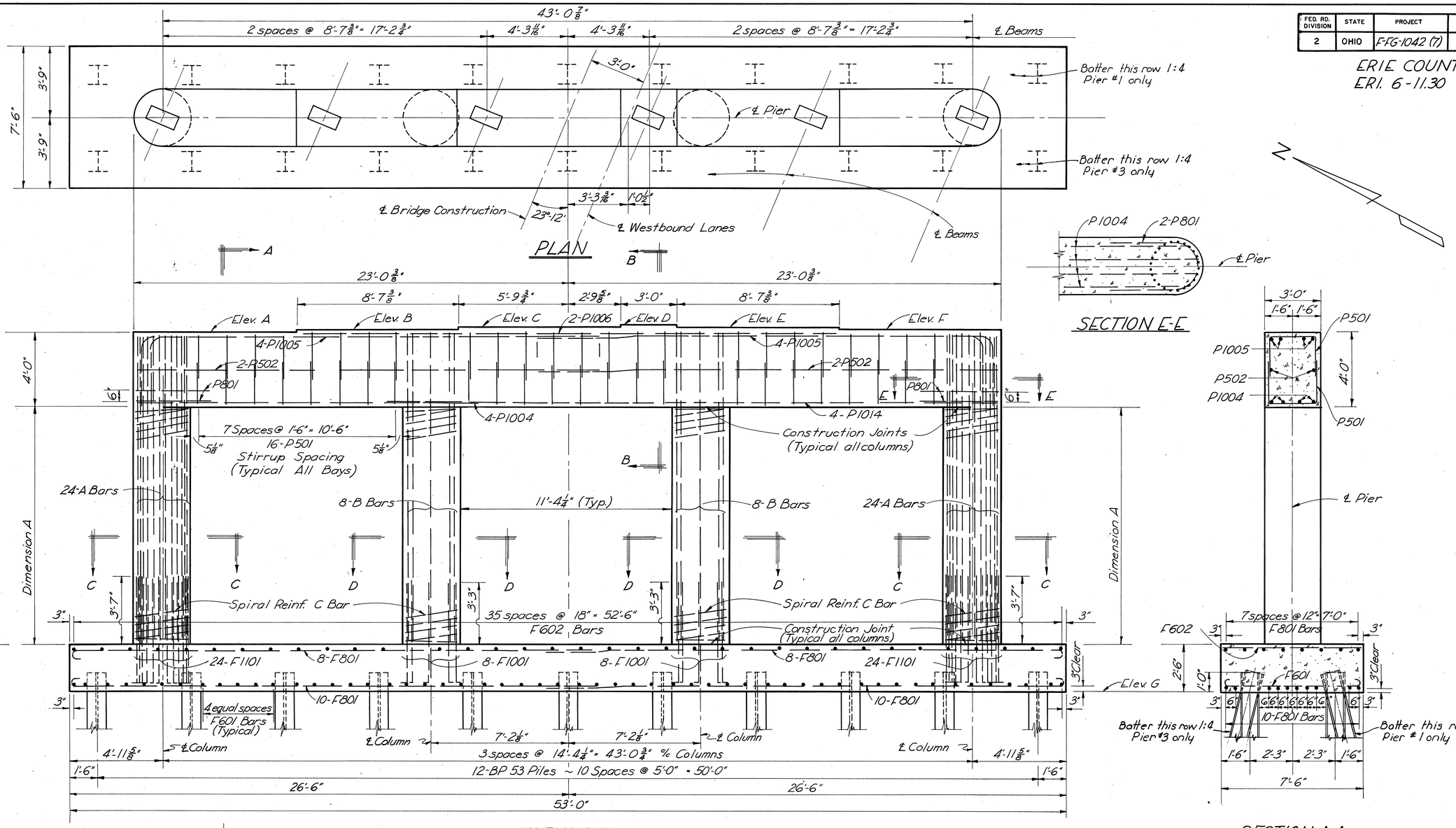
BRIDGE NO. ERI-6-1152, LEFT & RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76
ERIE COUNTY to 861+34.66

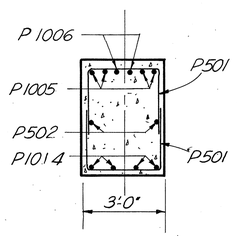
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	TFH	JEC	RJH BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

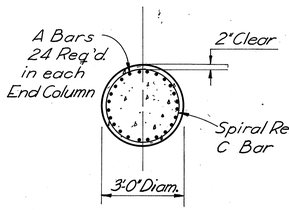
155
235

ERIE COUNTY
ERI. 6-11.30

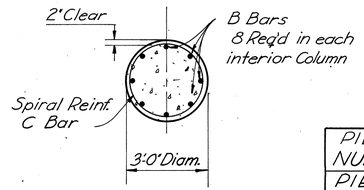




SECTION B-B



SECTION C-C



SECTION D-D

Note:
Special care shall be taken in placing reinforcing steel in pier #2 #5 caps so that it will not interfere with the bearing plate anchor bolts.

PIER NUMBER	ELEVATIONS							DIMENSIONS	BARS		
	A	B	C	D	E	F	G	A	A	B	C
PIER #1	621.67	621.80	621.94	622.04	621.92	621.81	600.00	15'-2"	P1101	P1001	SP401
PIER #2	621.87	622.00	622.12	622.22	622.10	621.98	602.00	13'-4 1/2"	P1102	P1002	SP402
PIER #3	621.81	621.93	622.05	622.14	622.01	621.89	600.00	15'-3 3/4"	P1103	P1003	SP403

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

PIERS 1, 2 & 3

BRIDGE NO. ERI. 6-1152, LEFT OVER
U.S. 250 & S.R. 13 Sta 859+49.76 to
ERIE CO. 861+34.66

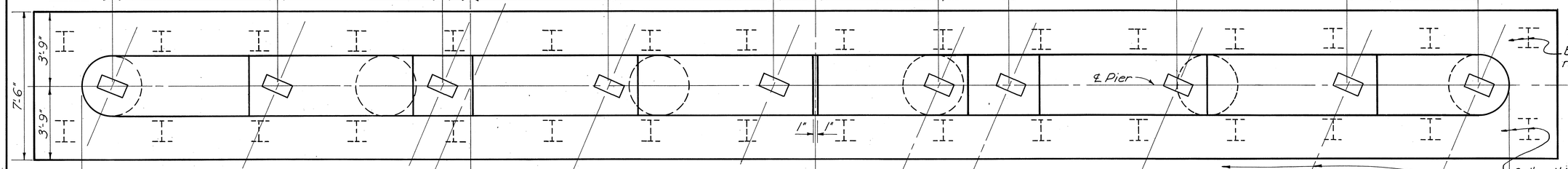
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CES BJH	TFH	JEC	RJH BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

156
235

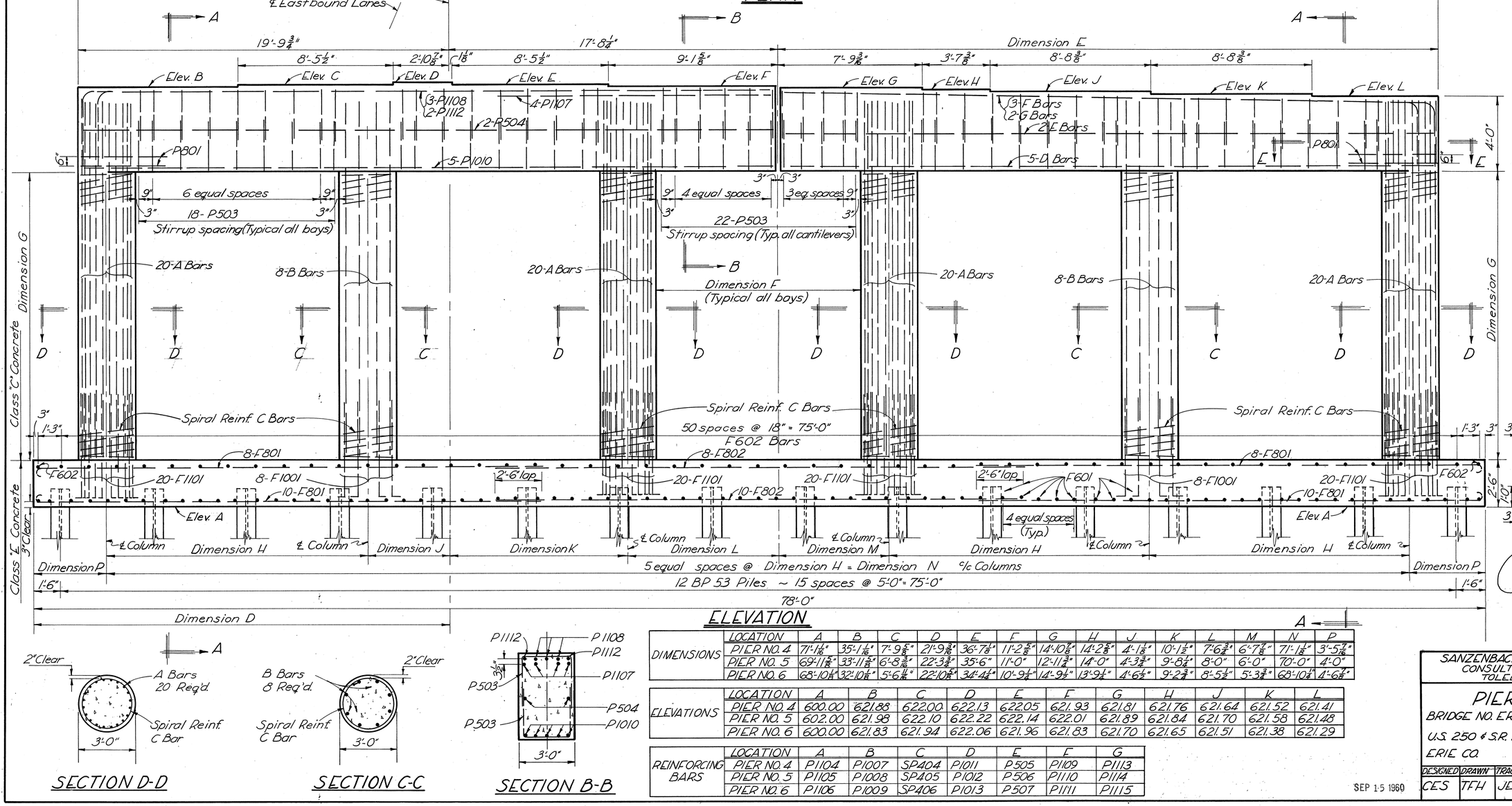
ERIE COUNTY
ERI. 6-11.30

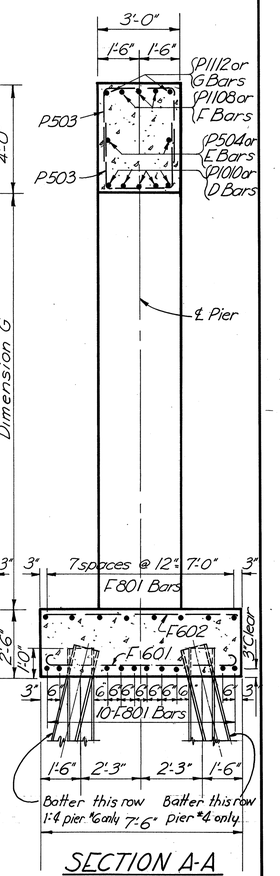
Batter this row, pier #4 only



PLAN

SECTION E-E





SECTION A-A

SECTION D-D

SECTION C-C

SECTION B-B

ELEVATION

	LOCATION	A	B	C	D	E	F	G	H	J	K	L	M	N	P
DIMENSIONS	PIER NO. 4	71'-1 1/16"	35'-1 1/16"	7'-9 5/8"	21'-9 3/16"	36'-7 1/8"	11'-2 5/8"	14'-10 7/8"	14'-2 5/8"	4'-1 1/8"	10'-1 1/2"	7'-6 3/4"	6'-7 7/8"	71'-1 1/8"	3'-5 7/16"
	PIER NO. 5	69'-11 5/8"	33'-11 5/8"	6'-8 3/16"	22'-3 3/8"	35'-6"	11'-0"	12'-11 3/4"	14'-0"	4'-3 3/8"	9'-8 1/4"	8'-0"	6'-0"	70'-0"	4'-0"
	PIER NO. 6	68'-10 1/8"	32'-10 1/8"	5'-6 11/16"	22'-10 5/8"	34'-4 1/4"	10'-9 1/4"	14'-9 1/8"	13'-9 1/4"	4'-6 1/2"	9'-2 3/4"	8'-5 1/2"	5'-3 3/4"	68'-10 1/4"	4'-6 7/8"

	LOCATION	A	B	C	D	E	F	G	H	J	K	L
ELEVATIONS	PIER NO. 4	600.00	621.88	622.00	622.13	622.05	621.93	621.81	621.76	621.64	621.52	621.41
	PIER NO. 5	602.00	621.98	622.10	622.22	622.14	622.01	621.89	621.84	621.70	621.58	621.48
	PIER NO. 6	600.00	621.83	621.94	622.06	621.96	621.83	621.70	621.65	621.51	621.38	621.29

	LOCATION	A	B	C	D	E	F	G
REINFORCING BARS	PIER NO. 4	P1104	P1007	SP404	P1011	P505	P1109	P1113
	PIER NO. 5	P1105	P1008	SP405	P1012	P506	P1110	P1114
	PIER NO. 6	P1106	P1009	SP406	P1013	P507	P1111	P1115

SEP 1-5 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

PIERS 4, 5, & 6

BRIDGE NO. ERI. 6-1152, RIGHT OVER

U.S. 250 & S.R. 13 — Sta. 859+49.76

ERIE CO. — to 861+34.66

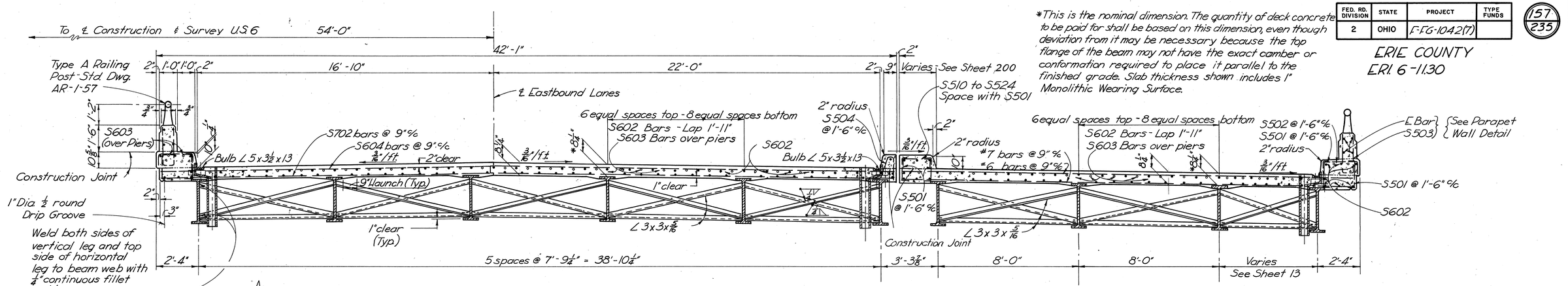
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CES	TFH	JEC	RJH BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(17)	

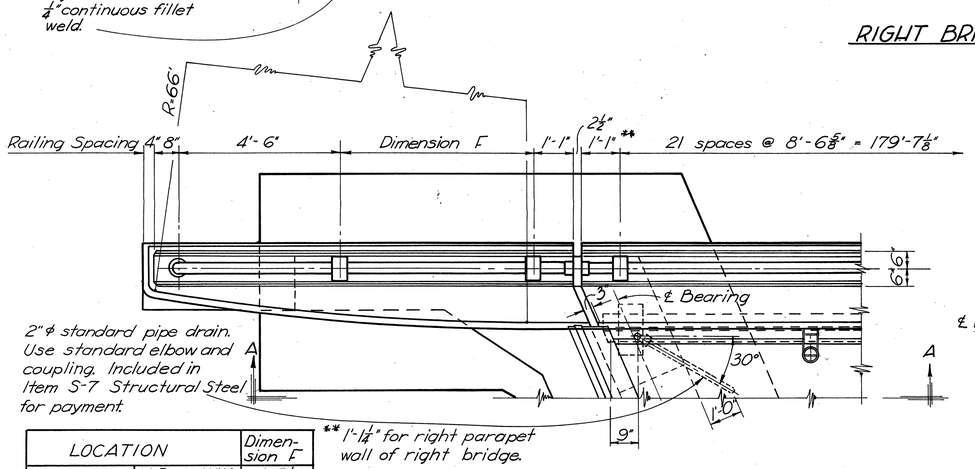
157
235

ERIE COUNTY
ERI 6-11.30

*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 thickness shown includes 1" Monolithic Wearing Surface.



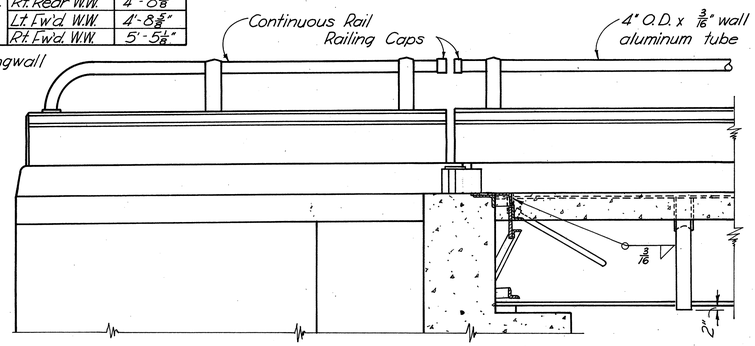
RIGHT BRIDGE TRANSVERSE SECTION OF DECK



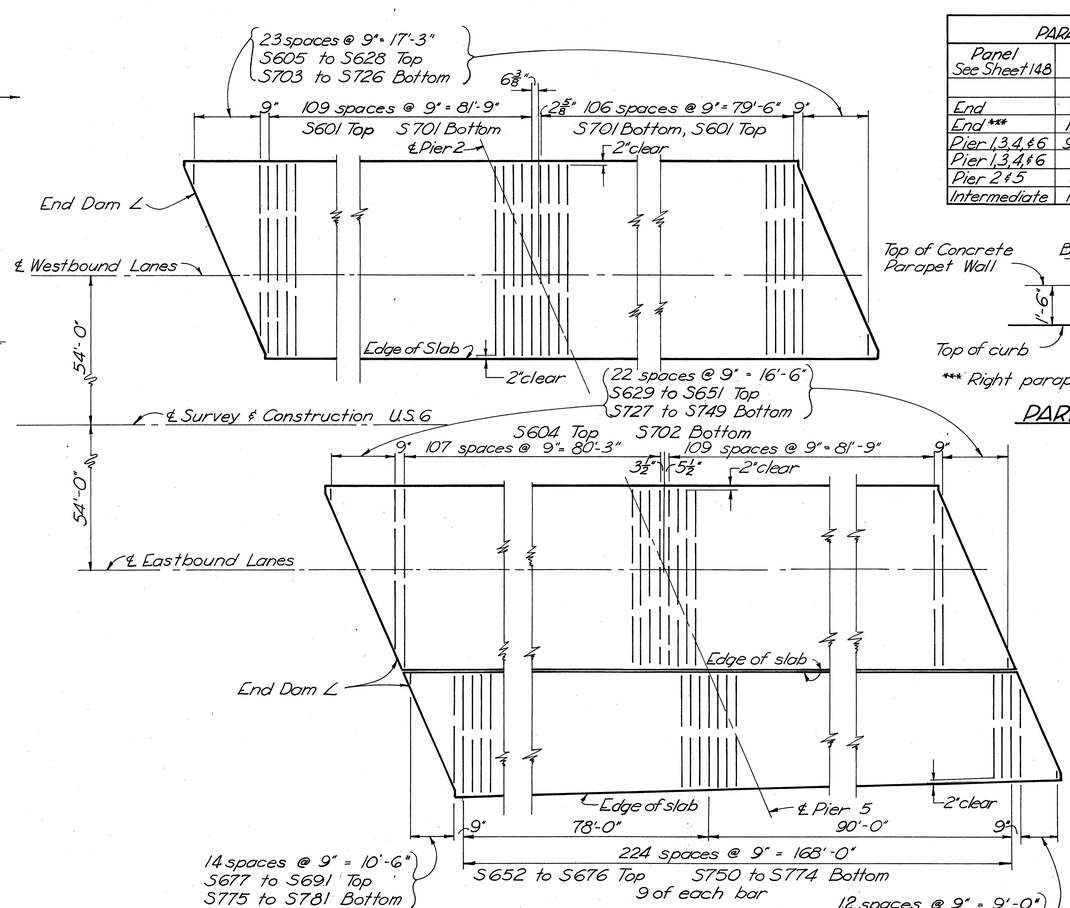
LOCATION		Dimension F
LT. BRIDGE	Lt. Rear W.W.	4'-5⅝"
	Rt. Rear W.W.	4'-8⅝"
	Lt. Fwd. W.W.	4'-8⅜"
	Rt. Fwd. W.W.	5'-5⅛"
RT. BRIDGE	Lt. Rear W.W.	5'-5⅛"
	Rt. Rear W.W.	4'-8⅜"
	Lt. Fwd. W.W.	4'-8⅝"
	Rt. Fwd. W.W.	5'-5⅛"

W.W. = Wingwall

PLAN AT ABUTMENT

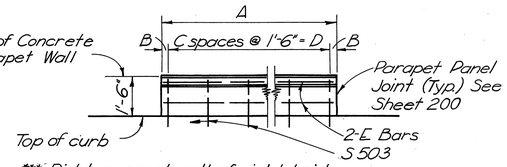


SECTION A-A



SLAB TRANSVERSE REINFORCING STEEL

PARAPET WALL DIMENSIONS						
Panel See Sheet 148	A	B	C	D	No. of S503	E Bars
End	13'-11"	2⅛"	9	13'-6"	10	S505
End ***	13'-11⅛"	2⅝"	9	13'-6"	10	S505
Pier 1, 3, 4 & 6	9'-10⅛"	5⅝"	6	9'-0"	7	S506
Pier 1, 3, 4 & 6	7'-3"	7½"	4	6'-0"	5	S507
Pier 2 & 5	8'-6⅝"	6½"	5	7'-6"	6	S508
Intermediate	17'-1½"	3⅝"	11	16'-6"	12	S509



*** Right parapet wall of right bridge

PARAPET WALL DETAILS

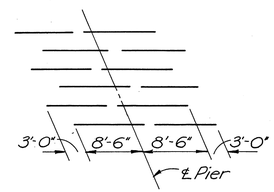


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. ERI 6-1152 LEFT & RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76 to
ERIE COUNTY Sta. 861+34.66

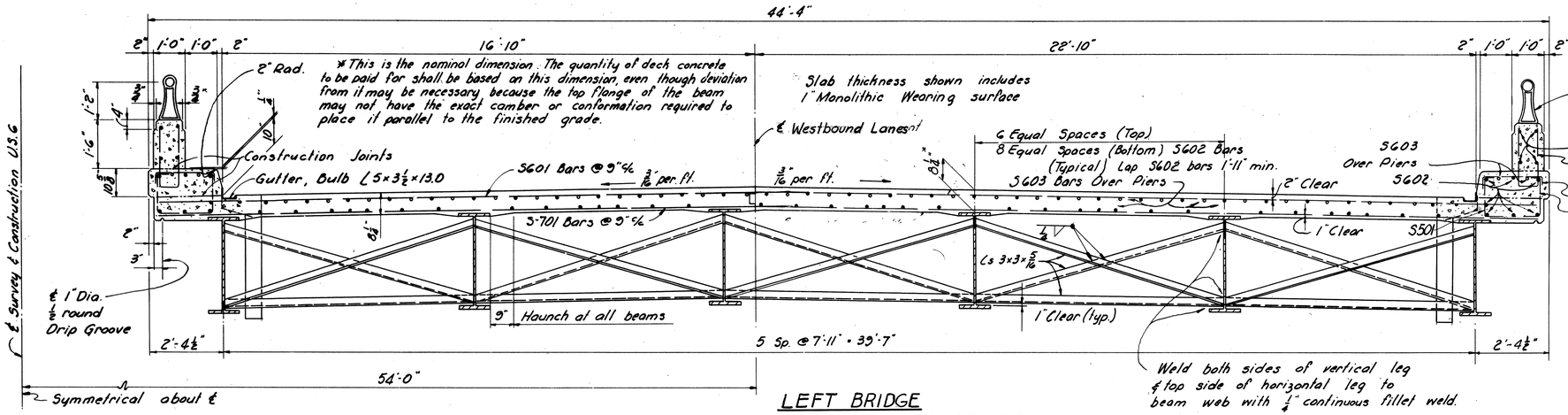
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TFH	RJH	JEC	TFH BJH	FCM 5-2-60		

SEP 15 1960

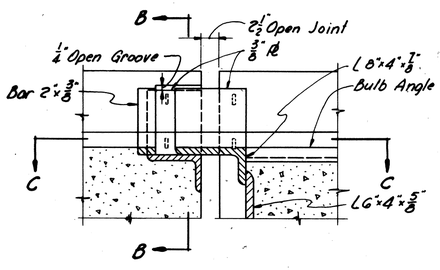
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

158
235

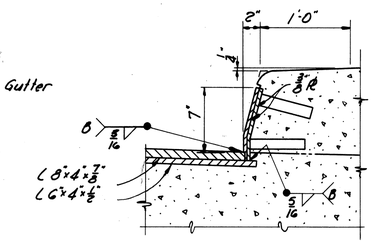
ERIE COUNTY
ERI 6-11.30



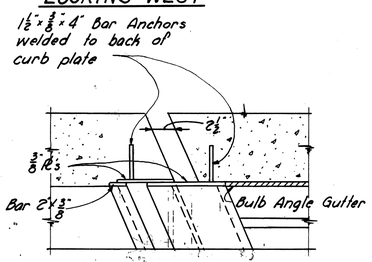
LEFT BRIDGE
TRANSVERSE SECTION OF DECK
LOOKING WEST



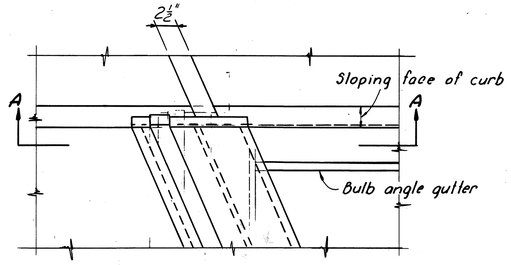
SECTION A-A



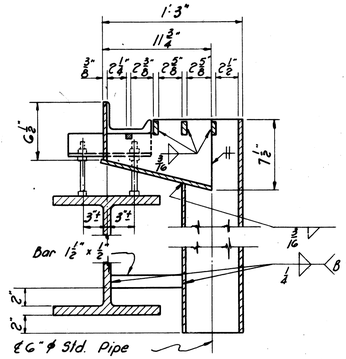
SECTION B-B



SECTION C-C



PART PLAN



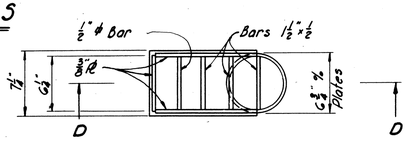
SECTION D-D

CURB PLATE DETAILS

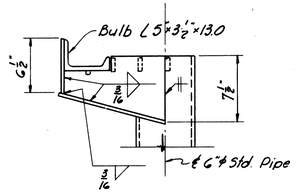
Omit shop coat on all portions of end dam. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.

This contact surface shall not be painted and shall be lubricated with flake graphite prior to placing of backwall concrete.

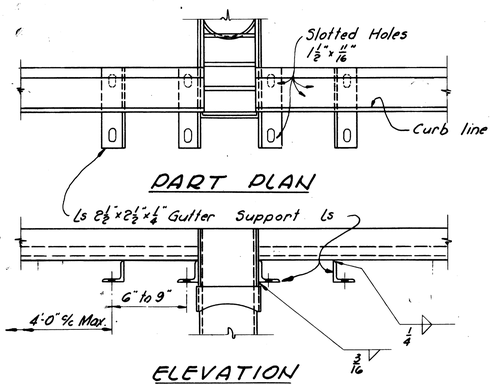
⅝"×2" bolts at not more than 2'-0" ℄ with nuts tack-welded to underside of lower angle. 1 1/16" ϕ holes in upper angle. Center ⅝" bolts in 1 1/16" holes. Apply flake graphite between washers and angle. Turn bolt tight and release one-half turn. Remove bolts as soon as concrete has set, preferably within two hours after placing, to avoid damage due to temperature expansion or contraction of superstructure. Fill holes with bituminous material.



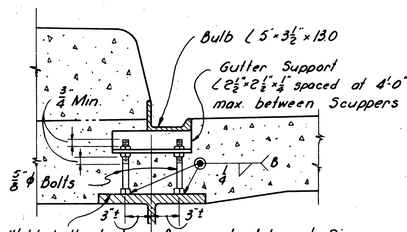
SCUPPER PLAN



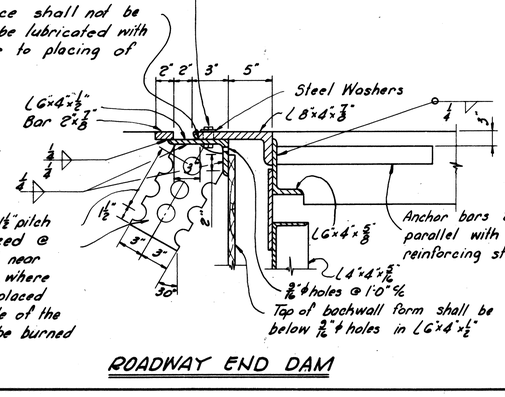
SCUPPER ELEVATION



ELEVATION
GUTTER & SCUPPER DETAILS

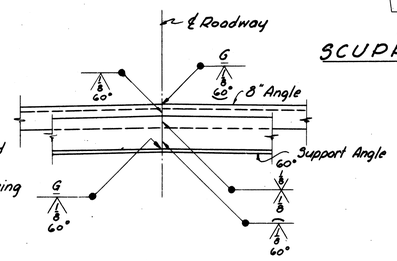


GUTTER SUPPORT



2" ϕ holes, 1½" pitch
6"×½"×1'-0" plates spaced @ approx. 1'-3" ℄ except near joints in the angle, where the plates shall be placed within 6" of each side of the joint. The holes maybe burned in the plates.

ROADWAY END DAM



WELDED BUTT JOINT IN SUPERSTRUCTURE
END DAM ANGLES AT ℄ OF ROADWAY

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.

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

For bearing plate details see CSB 2-56 (Sheet 3 of 6), revised 2-2-59.

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

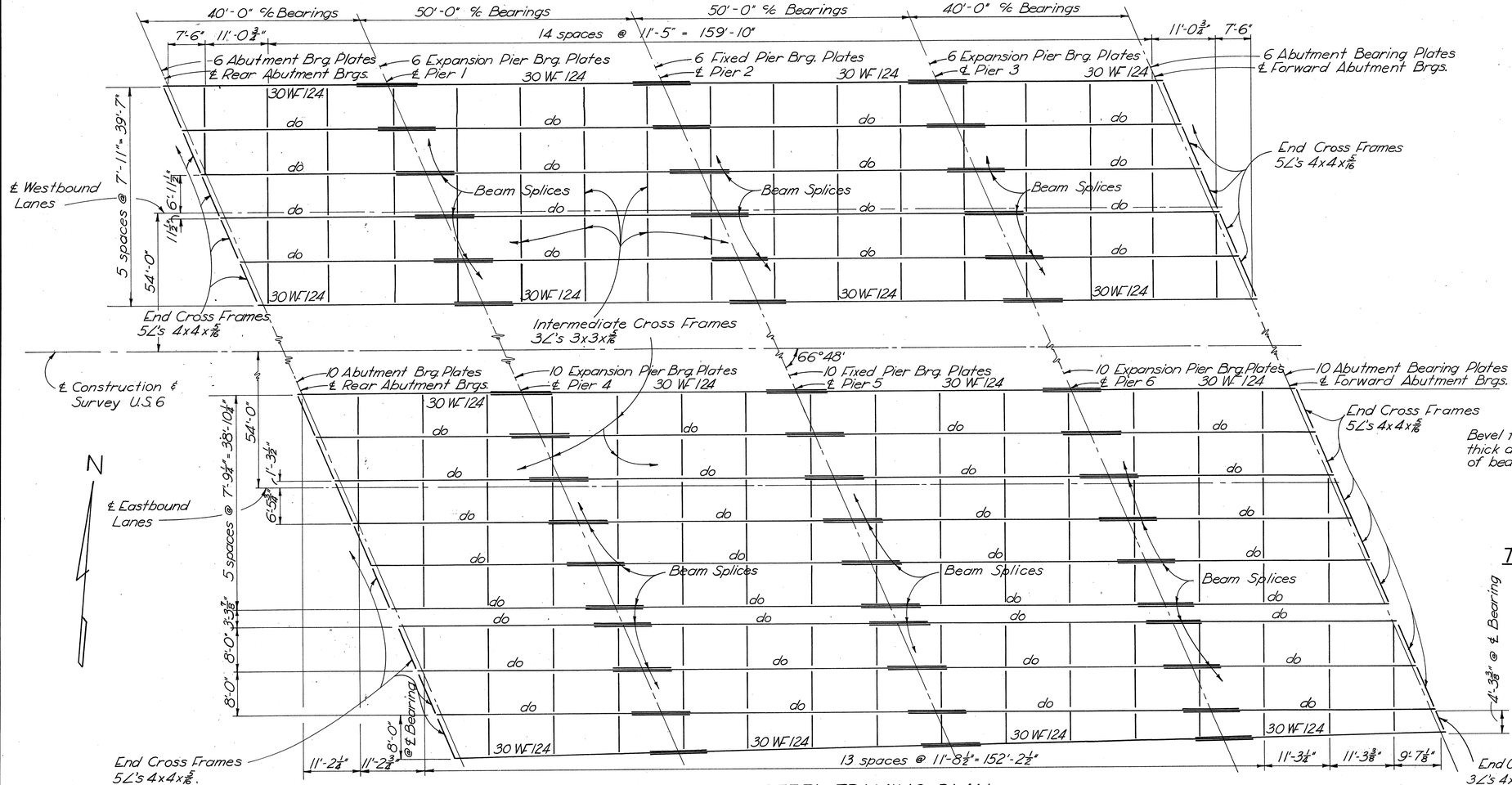
SUPERSTRUCTURE DETAILS
BRIDGE No. ERI 6-1152 LEFT & RIGHT
OVER US 250 & STATE ROUTE 13
ERIE COUNTY STA. 859+49.76 TO STA. 861+34.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.J.B.	B.J.H. A.J.B.	B.B.	T.F.H. B.J.H.	FCM 5-2-60	

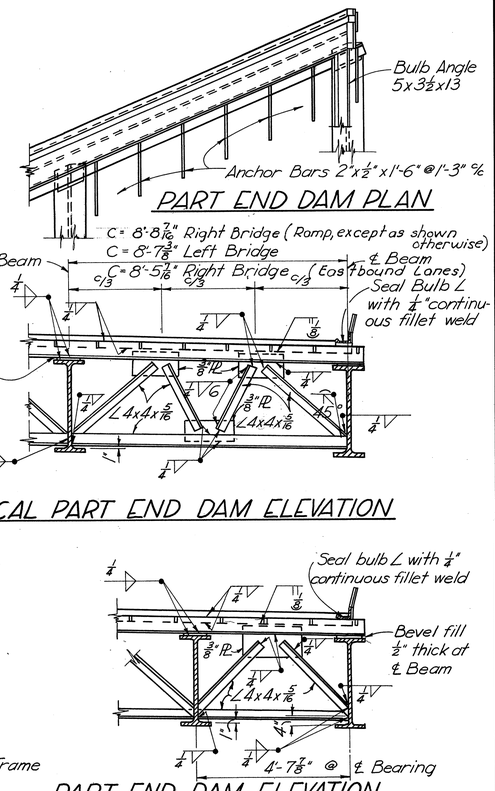
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

159
235

ERIE COUNTY
ERI. 6-11.30



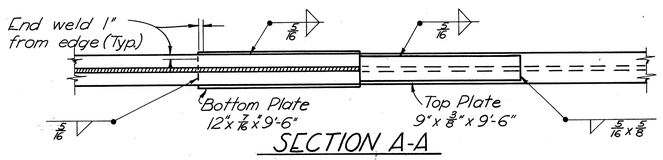
STEEL FRAMING PLAN



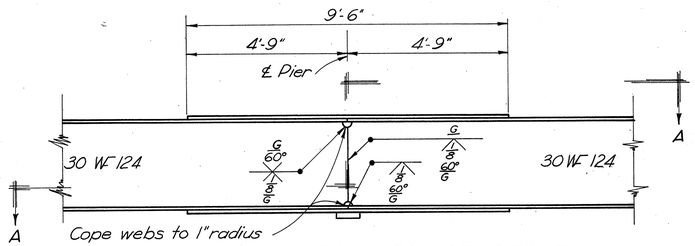
PART END DAM PLAN

TYPICAL PART END DAM ELEVATION

PART END DAM ELEVATION FORWARD ABUTMENT RIGHT BRIDGE FASCIA BEAM



SECTION A-A



ELEVATION BEAM SPLICE DETAIL

BEAM SPLICE WELDING PROCEDURE :

1. Raise end of beam at Pier 2 (or Pier 5) ⅝".
2. Butt weld beam 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 ⅝" at Pier 3 (or Pier 6) and ⅜" at the Forward Abutments.

PAINTING :

After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 518.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams and all sides of the bottom flange.

CAMBERING: No camber is required. Fabricate beams with convex flange up. The dead load deflection is ⅛" in the end spans and ¼" in the center spans.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI. 6-1152 LEFT & RIGHT OVER
U.S. 250 & S.R. 13 Sta. 859+49.76 to
ERIE COUNTY Sta. 861+34.66

DESIGNED	DRAWN	TRACED	CHECKED	RECVIEWED	DATE	REVISED
TFH	RJH	JEC	TFH BJH	FCM 5-2-60		

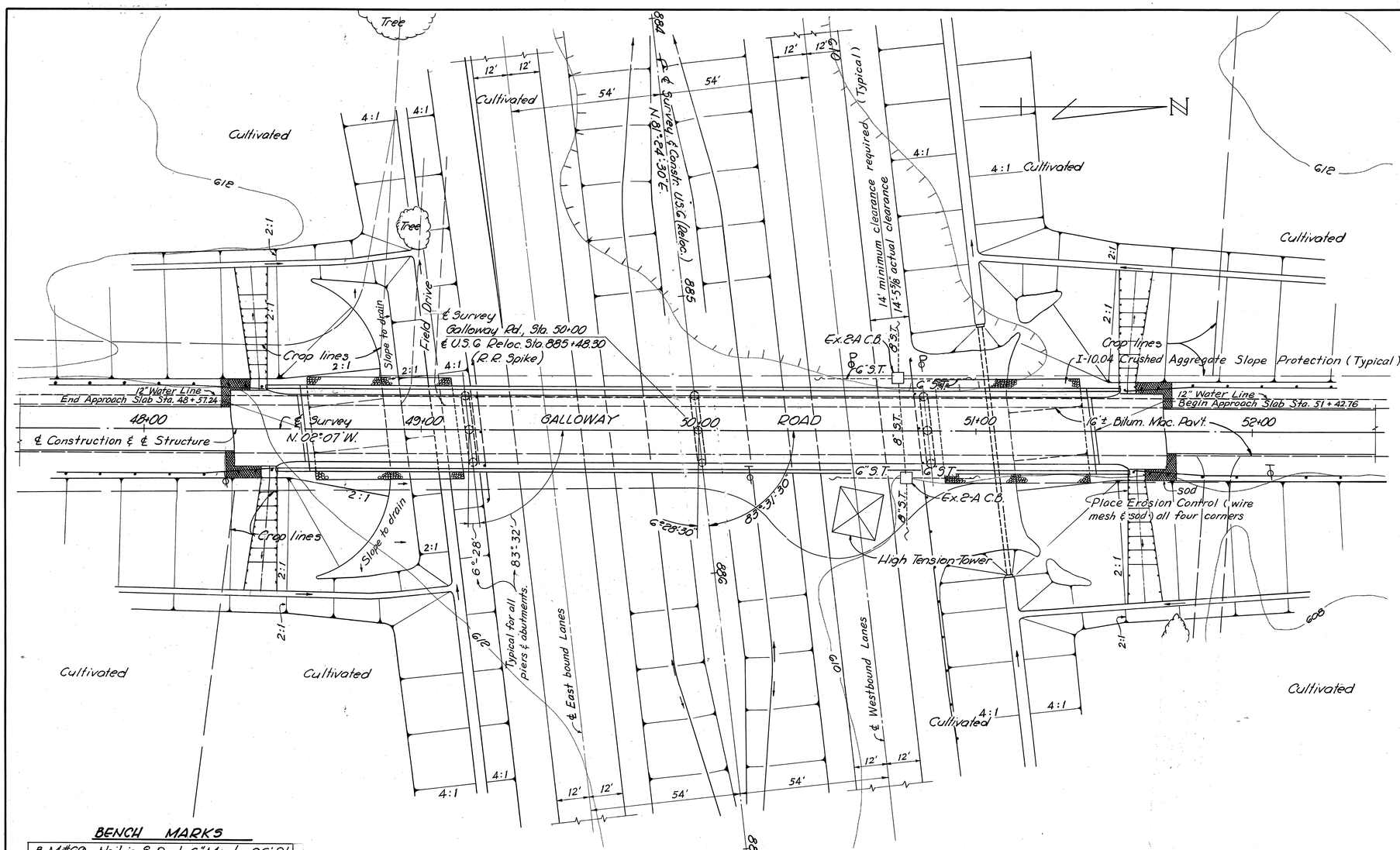
SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

160
235

ERIE COUNTY
ERI. 6-11.30
2.9 Miles West of Huron

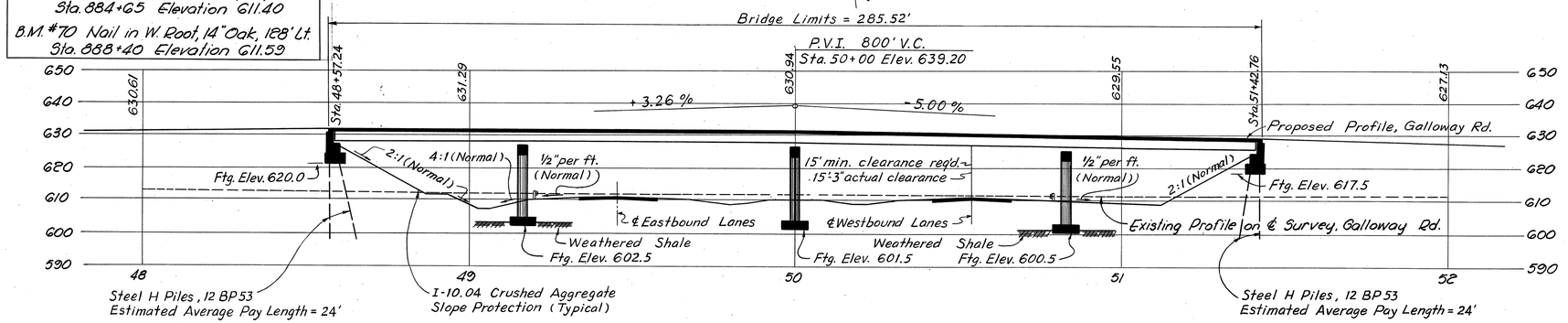
FOUNDATION SOUNDINGS : Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division Office, but the State does not guarantee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



BENCH MARKS

B.M. #69 Nail in S. Root, 6" Maple, 96' Rt. Sta. 884+65 Elevation 611.40

B.M. #70 Nail in W. Root, 14" Oak, 188' Lt. Sta. 888+40 Elevation 611.59



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: 24'-0" f/f of 2'-3" Safety Curbs.

Load Frequency: CF 130 (57)
Skew: 6°-28' Right Forward.
Wearing Surface: ¾" Monolithic Concrete.
Approach Slabs: AS-1-54 (25' Long)
Alignment: Tangent

MICROFILMED
MAR 20 1985

SEP 15 1960
Rev. 7-27-60 R.E.C.

SANZENBACHER . MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SITE PLAN
BRIDGE No. ERI6-1199 UNDER GALLOWAY ROAD

Sta. 48+57.24 To Sta. 51+42.76

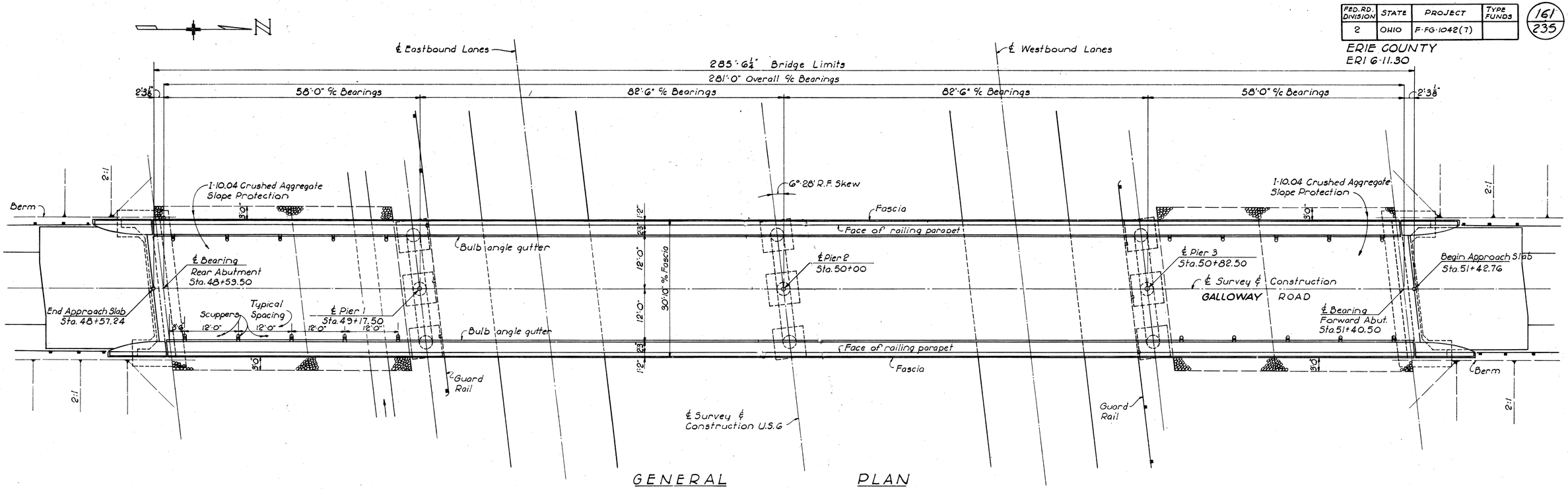
SCALE: 1"=20'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED S.M.B.	DRAWN T.F.H.-B.B.	DESIGNED N.D	DRAWN N.D. JHY	CHECKED B.J.H	REVIEWED FCM 5-2-60

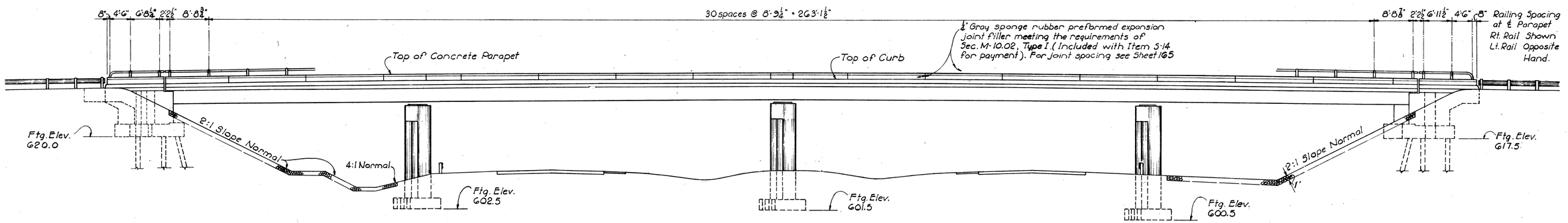
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

161
235

ERIE COUNTY
ERI 6-11.30



GENERAL PLAN



GENERAL ELEVATION

MICROFILMED
MAR 20 1985

SEP 15 1960
Rev. 7-27-60 R.E.C.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL PLAN & ELEVATION

BRIDGE No. ERIG-1199
UNDER GALLOWAY ROAD

ERIE CO.
STA. 48+57.24 To
STA. 51+42.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.		B.J.H	FCM 5-2-60	

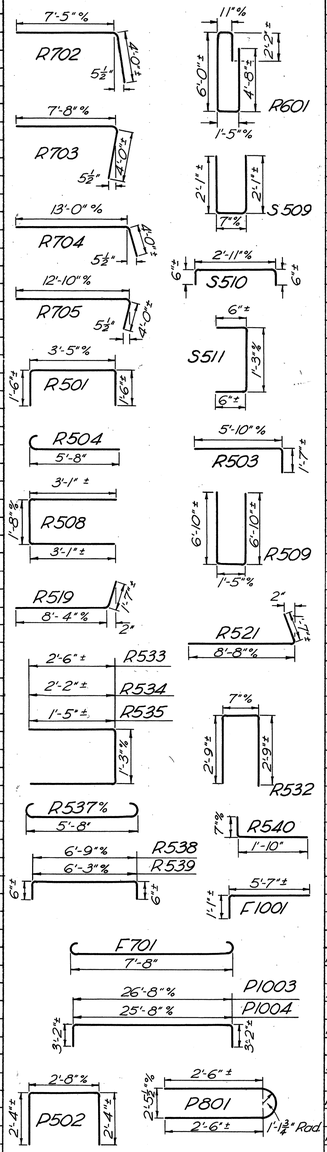
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

(162) (235)

ERIE COUNTY
ERI G-11.30

REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHAPE
ABUTMENTS				
R701	24	11'-3"	552	S
R702	2	11'-3"	46	B
R703	2	11'-6"	47	B
R704	4	16'-10"	138	B
R705	4	16'-6"	135	B
R601	48	14'-8"	1057	B
R501	76	6'-2"	489	B
R502	40	6'-2"	257	S
R503	40	7'-3"	302	B
R504	48	6'-3"	313	B
R505	12	34'-7"	433	S
R506	26	30'-0"	814	S
R508	56	7'-7"	443	B
R509	8	14'-10"	124	B
R510	16	6'-8"	111	S
R511	16	11'-2"	186	S
R512	8	8'-3"	69	S
R513	16	2'-6"	42	S
R514	24	11'-3"	282	S
R515	8	4'-6"	38	S
R516	8	3'-9"	31	S
R517	32	3'-7"	120	S
R518	4	8'-4"	35	S
R519	4	9'-10"	41	B
R520	4	8'-8"	36	S
R521	4	10'-2"	42	B
R522	2	9'-4"	19	S
R523	2	9'-8"	20	S
R524	4	15'-0"	63	S
R525	4	14'-10"	62	S
R526	8	13'-0"	108	S
R527	4	13'-4"	56	S
R528	8	12'-10"	107	S
R529	4	12'-8"	53	S
R530	8	12'-9"	*	S
R531	8	12'-6"	*	S
R532	44	5'-10"	268	B
R533	24	6'-0"	150	B
R534	8	5'-4"	44	B
R535	8	3'-10"	32	B
R536	12	3'-5"	43	S
R537	20	6'-10"	143	B
R538	10	7'-6"	78	B
R539	10	7'-0"	73	B
R540	40	2'-3"	94	B
PIERS				
F1001	90	6'-4"	2453	B
F701	288	9'-4"	5494	B
P1001	9	26'-8"	1033	S
P1002	6	25'-8"	663	S
P1003	6	32'-4"	835	B
P1004	6	31'-4"	809	B
P1005	9	14'-2"	549	S
P1006	30	20'-11"	2700	S
P1007	30	21'-6"	2775	S
P1008	30	21'-5"	2765	S
P801	12	8'-9"	280	B
P501	6	25'-8"	161	S
P502	72	7'-1"	532	B



MARK	NO.	LENGTH	WEIGHT	SHAPE
SUPERSTRUCTURE				
S601	484	30'-6"	22173	S
S602	477	33'-1"	23703	S
S603	66	34'-0"	3370	S
S501	484	30'-6"	15397	S
S502	104	17'-2"	*	S
S503	8	13'-9"	*	S
S504	8	9'-4"	*	S
S505	8	7'-7"	*	S
S506	8	4'-8"	*	S
S507	8	12'-2"	*	S
S508	8	5'-0"	*	S
S509	378	4'-6"	1774	B
S510	378	3'-8"	1446	B
S511	756	2'-0"	1577	B

REPLACEMENT BARS				
RE1001	1	7'-3"		S
RE801	1	6'-6"		S
RE701	1	6'-3"		S
RE601	3	5'-11"		S
RE501	2	5'-7"		S
RE401	1	5'-3"		S

SPIRAL REINFORCING LIST						
MARK	NO.	CORE DIA. & SPIRAL	LENGTH	PITCH	NO. TURNS	WEIGHT
SP401	3	32"	17'-7¼"	4½	50	971
SP402	3	32"	18'-2⅝"	4½	52	1009
SP403	3	32"	18'-1⅝"	4½	52	992

* Included with Item 5-14 for payment

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS REAR	ABUTMENTS FORWARD	PIERS 1	PIERS 2	PIERS 3	SUPER.	GENERAL
E-2	Lump	Sum	Cofferdams, cribs and sheeting.							Lump
E-2	484	Cu.Yds.	Unclassified excavation.	103	103	75	98	105		
E-2	17	Cu.Yds.	Shale excavation.			5	6	6		
S-1	272	Cu.Yds.	Class "C" concrete, superstructure						272	
S-1	74	Cu.Yds.	Class "C" concrete, pier caps and columns.			24	25	25		
S-1	132	Cu.Yds.	Class "E" concrete, abutments.	66	66					
S-1	54	Cu.Yds.	Class "E" concrete, pier footings			18	18	18		
S-4	101,057	Lbs.	Reinforcing Steel	3,798	3,798	7,940	8,054	8,027	69,440	
S-7	256,000	Lbs.	Structural Steel						256,000	
S-8	256,000	Lbs.	Field painting of structural steel, as per plan.						256,000	
S-14	618	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)						618	
S-16	Lump	Sum	First test pile							Lump
S-18	670	Lin.Ft.	Steel piles 12 BP 53	335	335					
S-29	20	Cu.Yds.	Porous backfill.	10	10					
S-29	20	Each	Scuppers						20	
I-10	480	Sq.Yds.	Crushed aggregate slope protection.							480

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, AR-1-57 Aluminum Railing with Concrete Parapet", revised 2-2-59, CSB 2-56, "Continuous Steel Beam Bridges" revised 2-2-59 and to Supplemental Specification S-101, dated 12-2-59.

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.

PILES shall be driven with a hammer of not less than 11,000 ft-lbs. per blow to firm contact with shale. If the length of penetration is approximately equal to the depth of firm shale 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:

50 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 30 tons per pile for the abutment piles.

STEEL: See Proposal regarding A-373 Steel.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of the 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.

MACHINE FINISH: The concrete bridge deck shall be finished as specified in the proposal note "Machine Finishing of Bridge Deck Slabs".

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

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of till 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.

Immediately after the pier excavation is completed, the area to be in contact with the footing concrete shall be given an application of bituminous material (¼ gal. per square yard). This bituminous material to be one of the following emulsions or cut-backs as per Item M-5 of the specifications: MC-4, MC-5, RC-4, RC-5, MS-2 or RS-2.

PIER FOOTINGS shall extend a minimum of 3" into shale or to the elevation shown, whichever is lower.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 4.0 tons per sq. ft.

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. S-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 S-4. 1½ closed coils shall be provided at the ends of each spiral unit.

Four (or three) 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.

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SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL NOTES, REINFORCING STEEL & ESTIMATED QUANTITIES

BRIDGE No. ERI G-1199
UNDER GALLOWAY ROAD
STA. 48+57.24 TO
ERIE CO. STA. 51+42.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD		BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	
2	OHIO	F-FG-1042(7)		163 / 235

ERIE COUNTY
ERI G-11.30

PLAN
Top of Curb Elev. 631.69 Rear Abut. 629.02 Fwd. Abut.
Top of Curb Elev. 631.66 Rear Abut. 628.92 Fwd. Abut.
Top of Curb Elev. 631.82 Rear Abut. 629.39 Fwd. Abut.
Top of Curb Elev. 631.80 Rear Abut. 629.31 Fwd. Abut.
℄ Survey & Construction Galloway Road
For Rear Abut.
For Forward Abut.
Pile Spacing
℄ Bearing
R501 Symmetrical about ℄
SECTION D-D
SECTION E-E
SECTION F-F
Top of backwall
Construction Joint
Top of fillet
Construction Joints
ELEVATION
24-R601 @ 1'-0" c/c
1-R506
4" ϕ Weepholes
12BP53
Rear Abut. Elev. 620.0
Fwd. Abut. Elev. 617.5
R502, R503 & R504 Bar Spacing
c/c Piles
R502 near face
R503 far face
Rear Abut.
Fwd. Abut.
WINGWALL ELEVATION
Construction Details
Construction Joint
Batter 1:4
13'-3 3/8" Rear Abut. Left Side
13'-3 7/8" Rear Abut. Right Side
13'-4 5/8" Fwd. Abut. Left Side
13'-3 1/4" Fwd. Abut. Right Side
SECTION B-B
1/2" Preformed Expansion Joint Filler. Included for payment in Item I-7, Reinforced Concrete Approach Slabs.
Bend in field
R533, R534 or R535 space with R532 & R540
WINGWALL ELEVATION C-C
Reinforcing Details
Reinforcing in both wingwalls similar except where noted.
10 equal spaces 11-R532
SECTION A-A
℄ Bearing
Slope Fwd. Abut. Backwall only.
Porous Backfill
Slope bridge seat 3/4" between beams
Construction Joint

NOTES:

PROCEDURE: The embankment shall be placed and compacted up to 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 abutment, and the piles driven.

F.F. = Far Face
N.F. = Near Face
Both abutments are identical, except as noted.

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ABUTMENT DETAILS

BRIDGE No. ERI G-1199
UNDER GALLOWAY ROAD

STA. 48+57.24 To
STA. 51+42.76

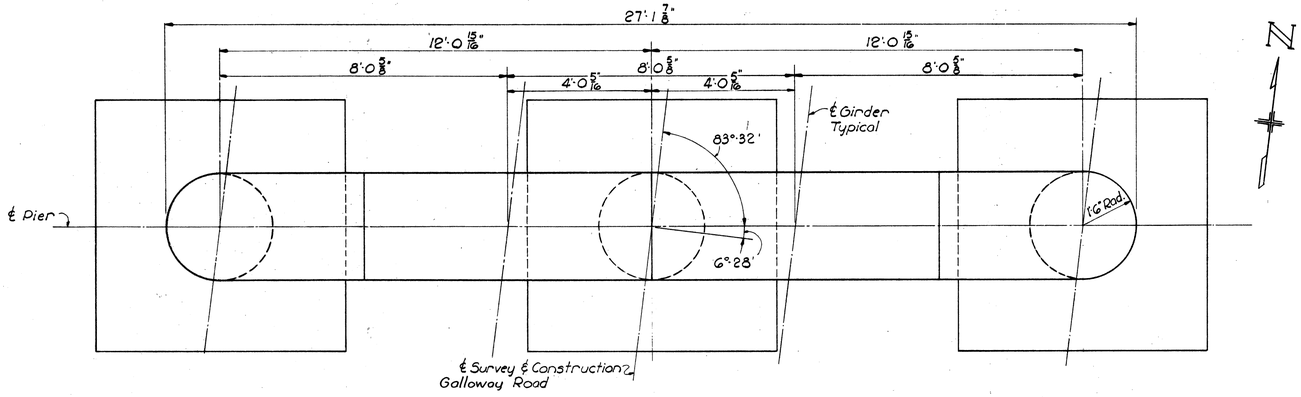
ERIE CO.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.	T.W.D.	B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

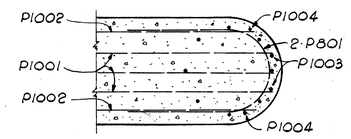
(164/235)

ERIE COUNTY
ERI G-11.30

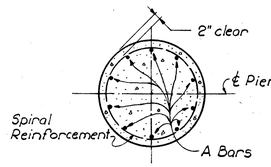


PLAN

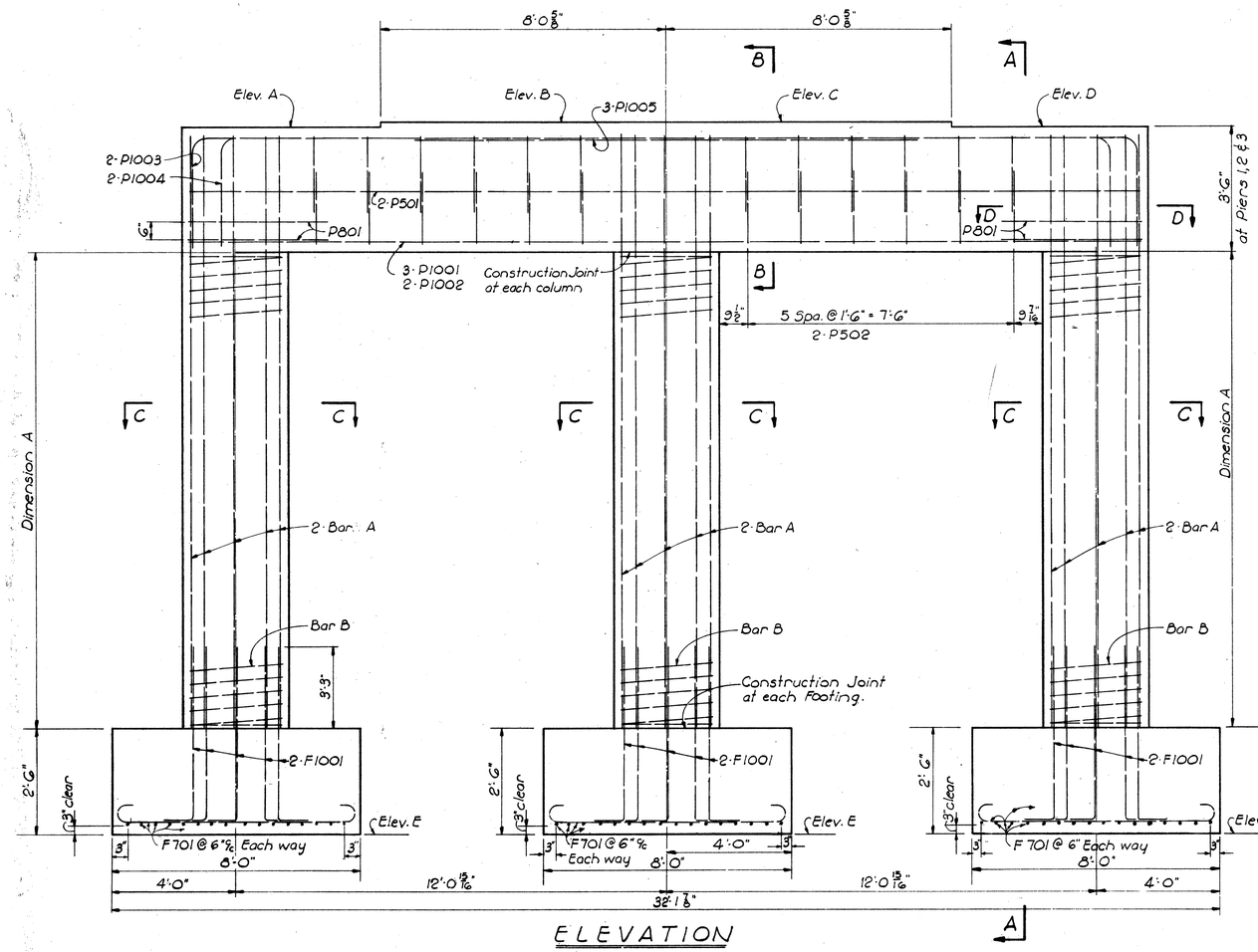
PIER NUMBER	ELEVATIONS					DIMENSION	BARS	
	A	B	C	D	E	A	A	B
1	G26.10	G26.22	G26.22	G26.10	G02.5	17'-7 1/4"	P1006	SP401
2	G25.74	G25.86	G25.85	G25.72	G01.5	18'-2 3/8"	P1007	SP402
3	G24.69	G24.80	G24.78	G24.64	G00.5	18'-1 3/8"	P1008	SP403



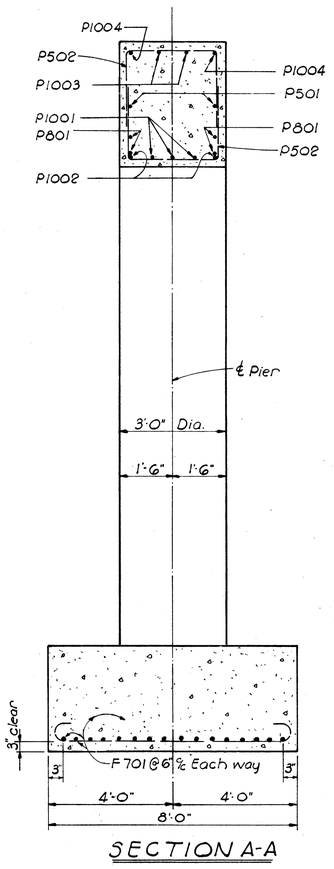
SECTION D-D



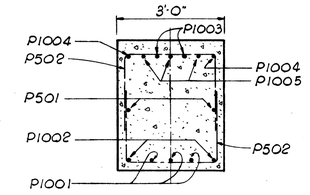
SECTION CC



ELEVATION



SECTION A-A



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.

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PIERS 1, 2 & 3

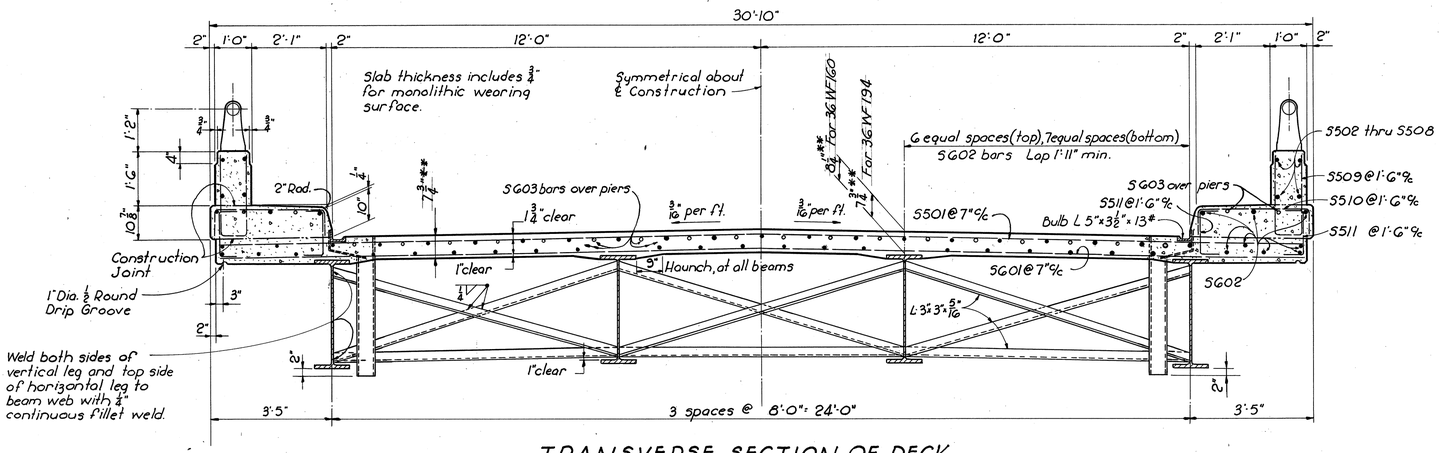
BRIDGE No. ERI G-1199
UNDER GALLOWAY ROAD
STA. 48+57.24 TO
ERIE CO. STA. 51+42.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TWD	TWD		B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

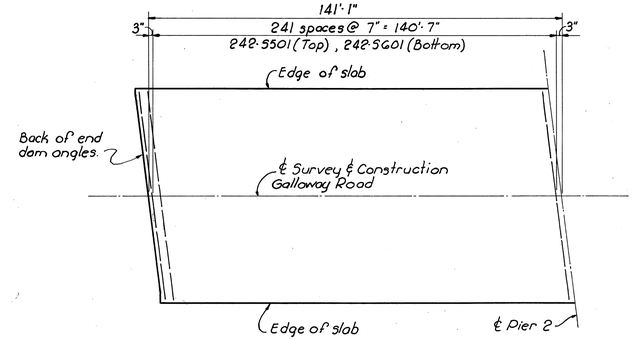
165/235

ERIE COUNTY
ERI G-11.30

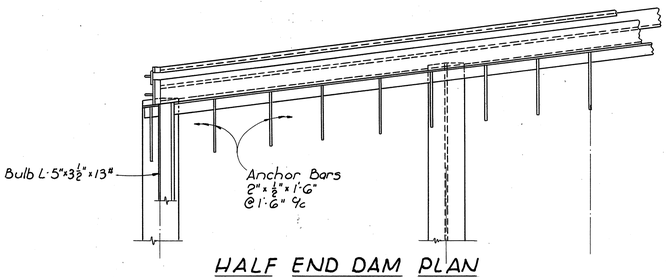


TRANSVERSE SECTION OF DECK

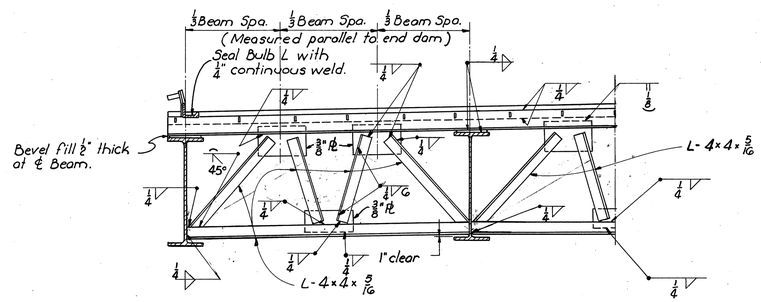
** This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.



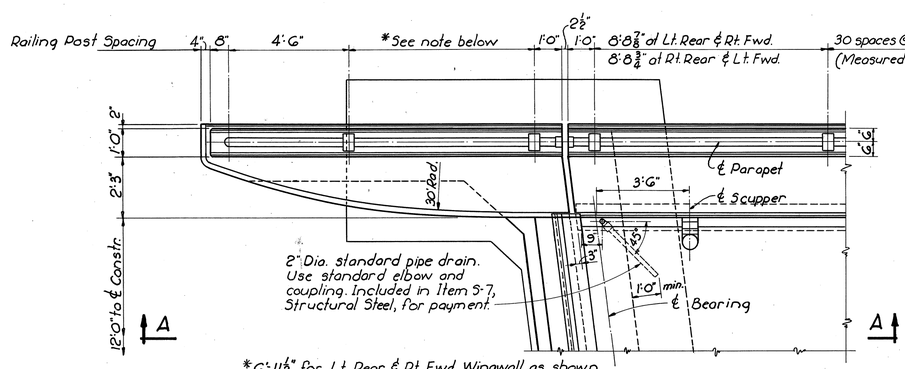
SLAB TRANSVERSE REINFORCING STEEL HALF PLAN



HALF END DAM PLAN



HALF END DAM ELEVATION



PLAN AT ABUTMENT

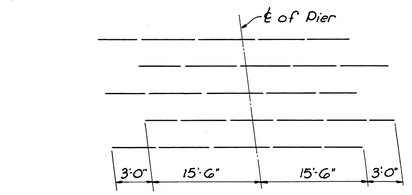
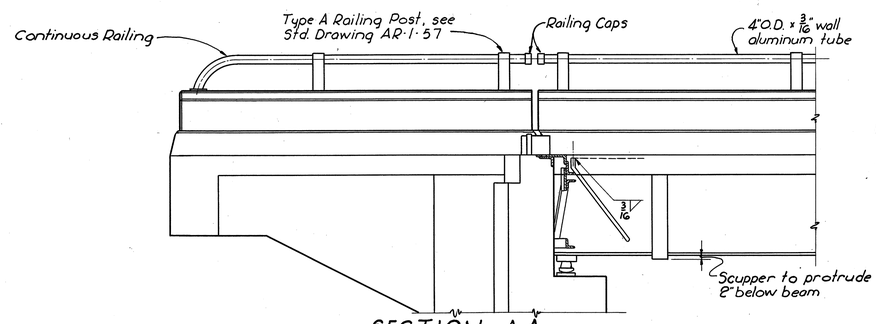
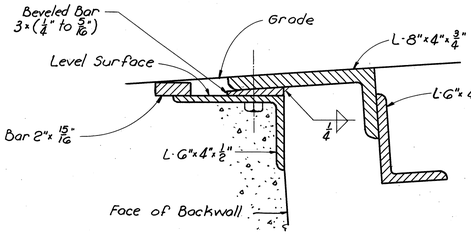


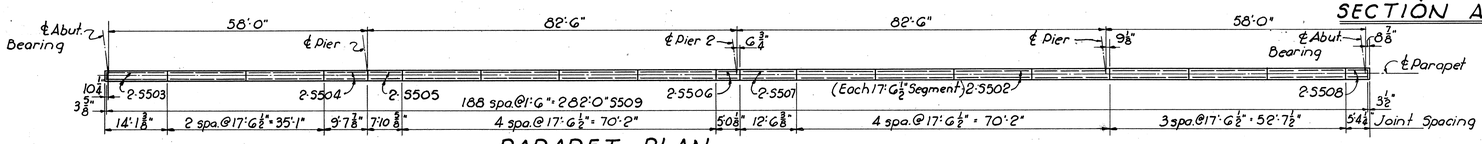
DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



SECTION A-A



FORWARD ABUTMENT END DAM



PARAPET PLAN

Right Parapet Shown (Left Parapet similar by 180° Rotation)

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SUPERSTRUCTURE DETAILS

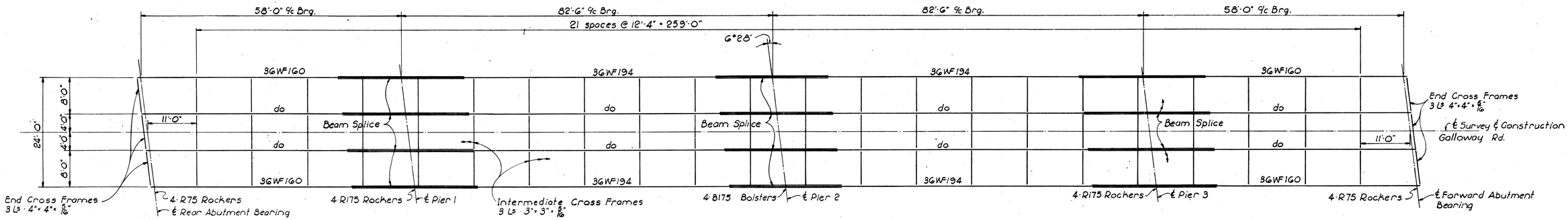
BRIDGE No. ERI G-1199
UNDER GALLOWAY ROAD
STA. 48+57.24 To
ERIE CO. STA. 51+42.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.	T.W.D.	B.J.H.	FCM 5-2-60	

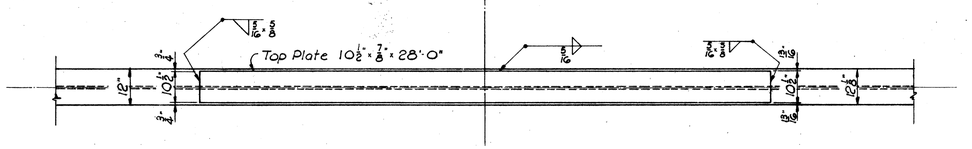
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

166
235

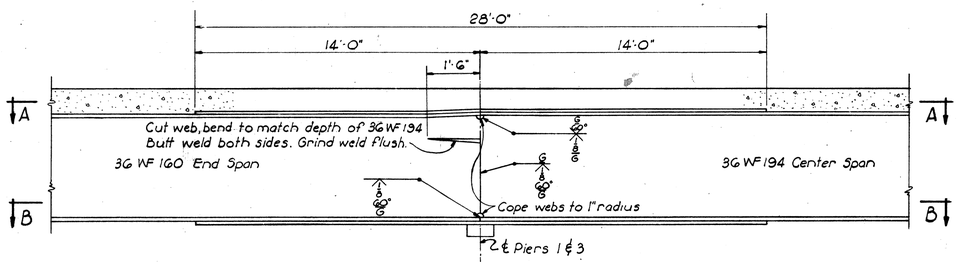
ERIE COUNTY
ERI G-11.30



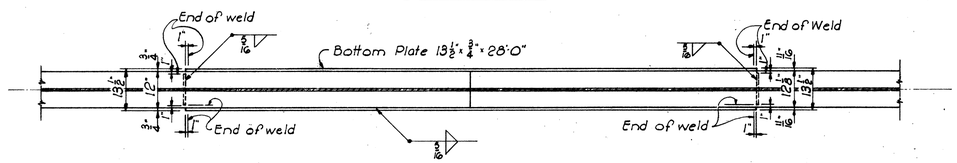
STEEL FRAMING PLAN



SECTION A-A

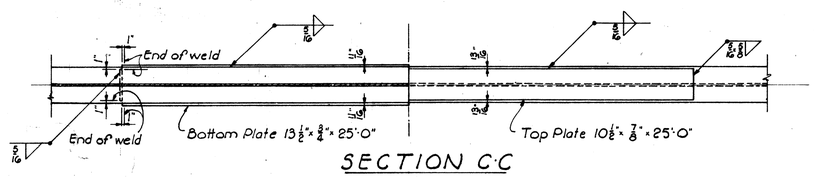


ELEVATION

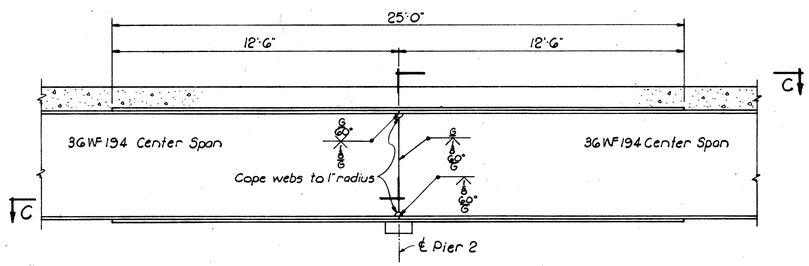


SECTION B-B

BEAM SPLICE DETAIL (PIERS 1 & 3)



SECTION C-C



ELEVATION

BEAM SPLICE DETAIL (PIER 2)

BEAM SPLICE WELDING PROCEDURE:

1. Raise end of beam at Pier 2, 2⅛"
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 the beams 3" at Pier 3 and ¾" at the Forward Abutment.

PAINTING:

After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams and all sides of the bottom flange.

CAMBERING of beams is required in accordance with the following table.

DEFLECTION AND CAMBER

LOCATION	INTERIOR BEAMS				EXTERIOR BEAMS			
	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 1	SPAN 2	SPAN 3	SPAN 4
Deflection due to Dead Load	¼"	½"	½"	¼"	¼"	⅝"	⅝"	¼"
Camber for Vertical Curve	½"	1"	1"	½"	½"	1"	1"	½"
Total Camber	¾"	1½"	1½"	¾"	¾"	1⅜"	1⅜"	¾"
Required Shop Camber	1"	1½"	1½"	1"	1"	1⅜"	1⅜"	1"

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TOLEDO OHIO

SUPERSTRUCTURE DETAILS

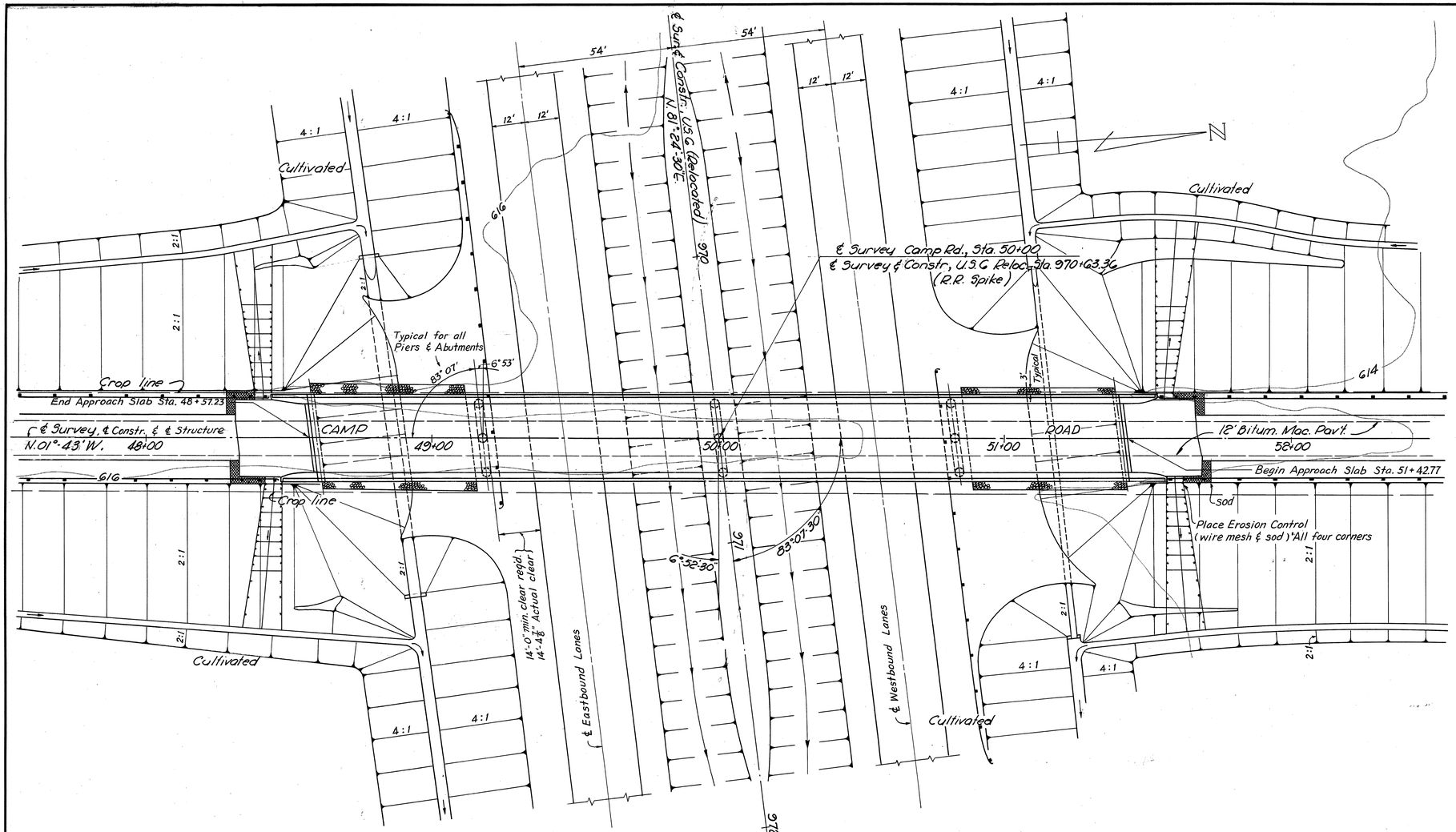
BRIDGE NO. ERI G-1199
UNDER GALLOWAY ROAD
STA. 48+57.24 To
ERIE CO. STA. 51+42.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TWD	TWD		B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

167
235

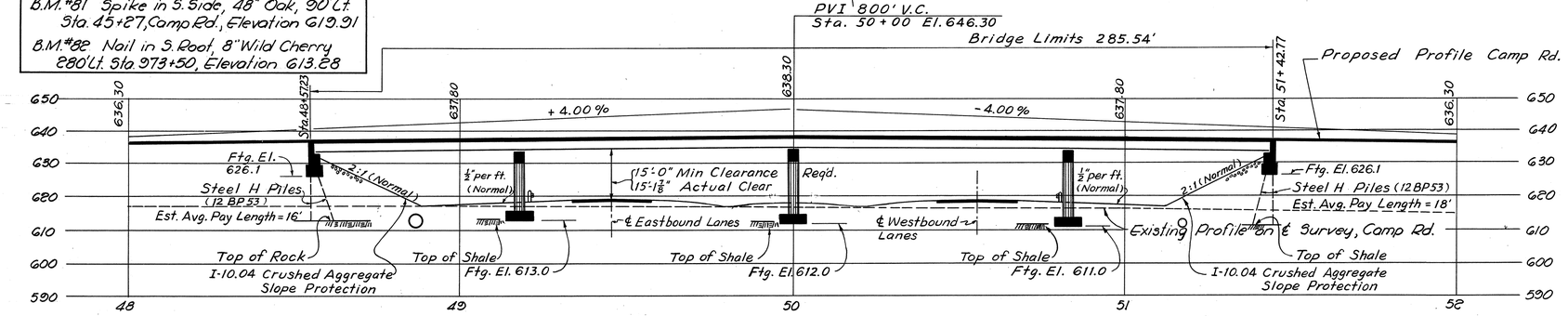
ERIE COUNTY
ERI 6-11.30
1.3 Miles West of Huron



BENCH MARKS

B.M. #81 Spike in S. Side, 48" Oak, 90' Lt. Sta. 45+27, Camp Rd., Elevation 619.91

B.M. #82 Nail in S. Root, 8" Wild Cherry 280' Lt. Sta. 973+50, Elevation 613.88



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: 24'-0" f/f 2'-3" Safety Curbs.
Load Frequency: CF 130 (57)
Skew: 6°-53' Right Forward
Wearing Surface: 3/4" Monolithic Concrete
Approach Slabs: AS-1-54 (25' Long)
Alignment: Tangent

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.

SEP 15 1960
Rev. 7-27-60 R.E.C.

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SITE PLAN
BRIDGE No. ERI 6-13.61
UNDER CAMP ROAD

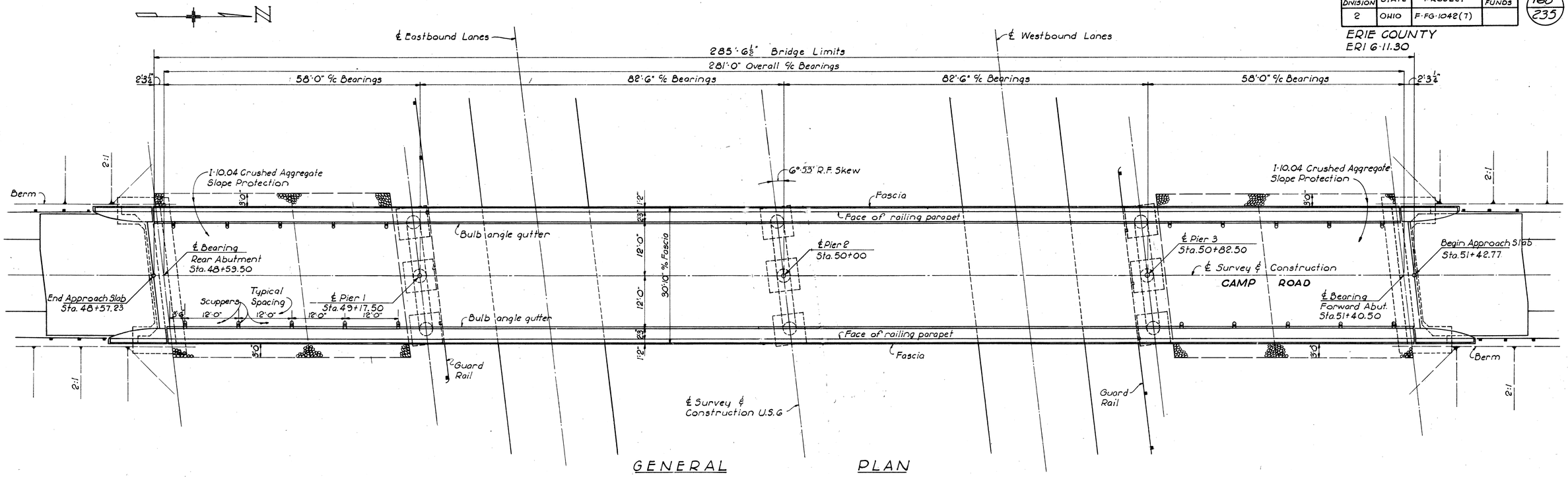
ERIE CO. STA. 48+57.23 To
SCALE: 1"=20' STA. 51+42.77

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
S.M.B.	T.F.H.-B.B.	A.J.B., T.W.D.	A.J.B., T.W.D., J.H.Y.	B.J.H.	FCM 8-8-60

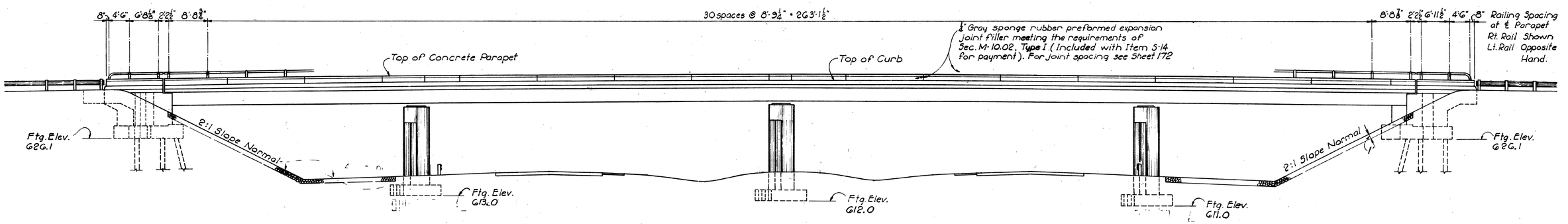
FED.RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

168
235

ERIE COUNTY
ERI G-11.30



GENERAL PLAN



GENERAL ELEVATION

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CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL PLAN & ELEVATION

BRIDGE No. ERI G-1361
UNDER CAMP ROAD
ERIE CO. STA. 48+57.83 To STA. 51+42.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.		B.J.H	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

169
235

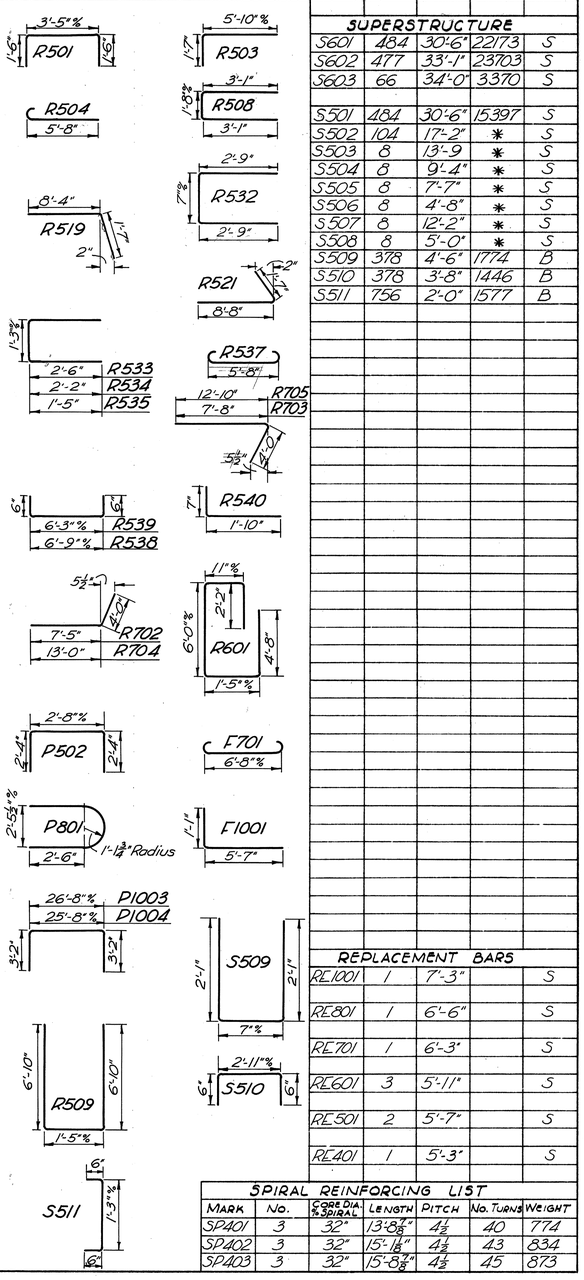
ERIE COUNTY
ERI G-11.30

REINFORCING STEEL LIST

MARK	No.	LENGTH	WEIGHT	SHAPE
ABUTMENTS				
R701	24	11'-6"	564	S
R702	2	11'-3"	46	B
R703	2	11'-6"	47	B
R704	4	16'-10"	138	B
R705	4	16'-6"	135	B
R601	48	14'-8"	1057	B
R501	76	6'-2"	489	B
R502	40	6'-2"	257	S
R503	40	7'-3"	302	B
R504	48	6'-3"	313	B
R505	12	34'-7"	433	S
R506	26	30'-0"	814	S
R508	56	7'-7"	443	B
R509	8	14'-10"	124	B
R510	16	6'-8"	111	S
R511	16	11'-2"	186	S
R512	8	8'-3"	69	S
R513	16	2'-6"	42	S
R514	24	11'-6"	288	S
R515	8	4'-5"	37	S
R516	8	3'-9"	31	S
R517	32	3'-7"	120	S
R518	4	8'-4"	35	S
R519	4	9'-10"	41	B
R520	4	8'-8"	36	S
R521	4	10'-1"	42	B
R522	2	9'-4"	19	S
R523	2	9'-8"	20	S
R524	4	15'-0"	63	S
R525	4	14'-10"	62	S
R526	8	13'-0"	108	S
R527	4	13'-4"	56	S
R528	8	12'-10"	107	S
R529	4	12'-8"	53	S
R530	8	12'-9"	*	S
R531	8	12'-6"	*	S
R532	44	5'-10"	268	B
R533	24	6'-0"	150	B
R534	8	5'-4"	44	B
R535	8	3'-10"	32	B
R536	12	3'-5"	43	S
R537	20	6'-10"	143	B
R538	10	7'-6"	78	B
R539	10	7'-0"	73	B
R540	40	2'-3"	94	B
PIERS				
F1001	90	6'-4"	2453	B
F701	252	8'-4"	4292	B
P1001	9	26'-8"	1033	S
P1002	6	25'-8"	663	S
P1003	6	32'-4"	835	B
P1004	6	31'-4"	809	B
P1005	9	14'-2"	549	S
P1006	30	17'-1"	2205	S
P1007	30	18'-5"	2377	S
P1008	30	19'-1"	2463	S
P801	12	8'-9"	280	B
P501	6	25'-8"	161	S
P502	72	7'-1"	532	B

MARK	No.	LENGTH	WEIGHT	SHAPE
SUPERSTRUCTURE				
S601	484	30'-6"	22173	S
S602	477	33'-1"	23703	S
S603	66	34'-0"	3370	S
S501	484	30'-6"	15397	S
S502	104	17'-2"	*	S
S503	8	13'-9	*	S
S504	8	9'-4"	*	S
S505	8	7'-7"	*	S
S506	8	4'-8"	*	S
S507	8	12'-2"	*	S
S508	8	5'-0"	*	S
S509	378	4'-6"	1774	B
S510	378	3'-8"	1446	B
S511	756	2'-0"	1577	B

BENDING DIAGRAMS



REPLACEMENT BARS				
RE1001	1	7'-3"		S
RE801	1	6'-6"		S
RE701	1	6'-3"		S
RE601	3	5'-11"		S
RE501	2	5'-7"		S
RE401	1	5'-3"		S

SPIRAL REINFORCING LIST						
MARK	No.	CORE DIA. & SPIRAL	LENGTH	PITCH	No. TURNS	WEIGHT
SP401	3	32"	13'-8 7/8"	4 1/2	40	774
SP402	3	32"	15'-1 1/8"	4 1/2	43	834
SP403	3	32"	15'-8 7/8"	4 1/2	45	873

*Included with Item 5·14 for payment

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS REAR	ABUTMENTS FORWARD	PIERS 1	PIERS 2	PIERS 3	Super.	General
E·2	289	Cu.Yds.	Unclassified excavation	103	103	22	25	36		
E·2	23	Cu.Yds.	Shale excavation			4	8	11		
S·1	272	Cu.Yds.	Class "C" concrete, superstructure						272	
S·1	67	Cu.Yds.	Class "C" concrete, pier caps and columns.			21	23	23		
S·1	132	Cu.Yds.	Class "E" concrete, abutments.	66	66					
S·1	42	Cu.Yds.	Class "E" concrete, pier footings			14	14	14		
S·4	98,186	Lbs.	Reinforcing Steel	3,806	3807	6,848	7,080	7,205	69440	
S·7	256,000	Lbs.	Structural Steel						256,000	
S·8	256,000	Lbs.	Field painting of structural steel, as per plan.						256,000	
S·14	618	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)						618	
S·16	Lump	Sum	First test pile						Lump	
S·18	470	Lin.Ft.	Steel piles 12 BP 53	220	250					
S·29	20	Cu.Yds.	Porous backfill.	10	10					
S·29	20	Each	Scuppers						20	
I·10	472	Sq.Yds.	Crushed aggregate slope protection.							472

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, AR·1·57 Aluminum Railing with Concrete Parapet", revised 2·2·59, CBB·2·56, "Continuous Steel Beam Bridge", revised 2·2·59 and Supplemental Specification 5·101, dated 12·2·59.

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.

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. 1½ closed coils shall be provided at the ends of each spiral unit.
Four (or three) 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.

PILES shall be driven with a hammer of not less than 11,000 ft·lbs. per blow to firm contact with shale. If the length of penetration is approximately equal to the depth of firm shale 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:
50 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 30 tons per pile for the abutment piles.

STEEL: See Proposal regarding A·373 Steel.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of the 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.

MACHINE FINISH: The concrete bridge deck shall be finished as specified in the proposal note, "Machine Finishing of Bridge Deck Slabs."

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

EXCAVATION AND BACKFILL

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. Immediately after the pier excavation is completed, the area to be in contact with the footing concrete shall be given an application of bituminous material (¼ gal. per square yard). This bituminous material to be one of the following emulsions or cut-backs as per item M·5 of the specifications: MC·4, MC·5, RC·5, MS·2 or RS·2.

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

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 6.0 tons per sq. ft.

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CONSULTING ENGINEERS
TOLEDO, OHIO

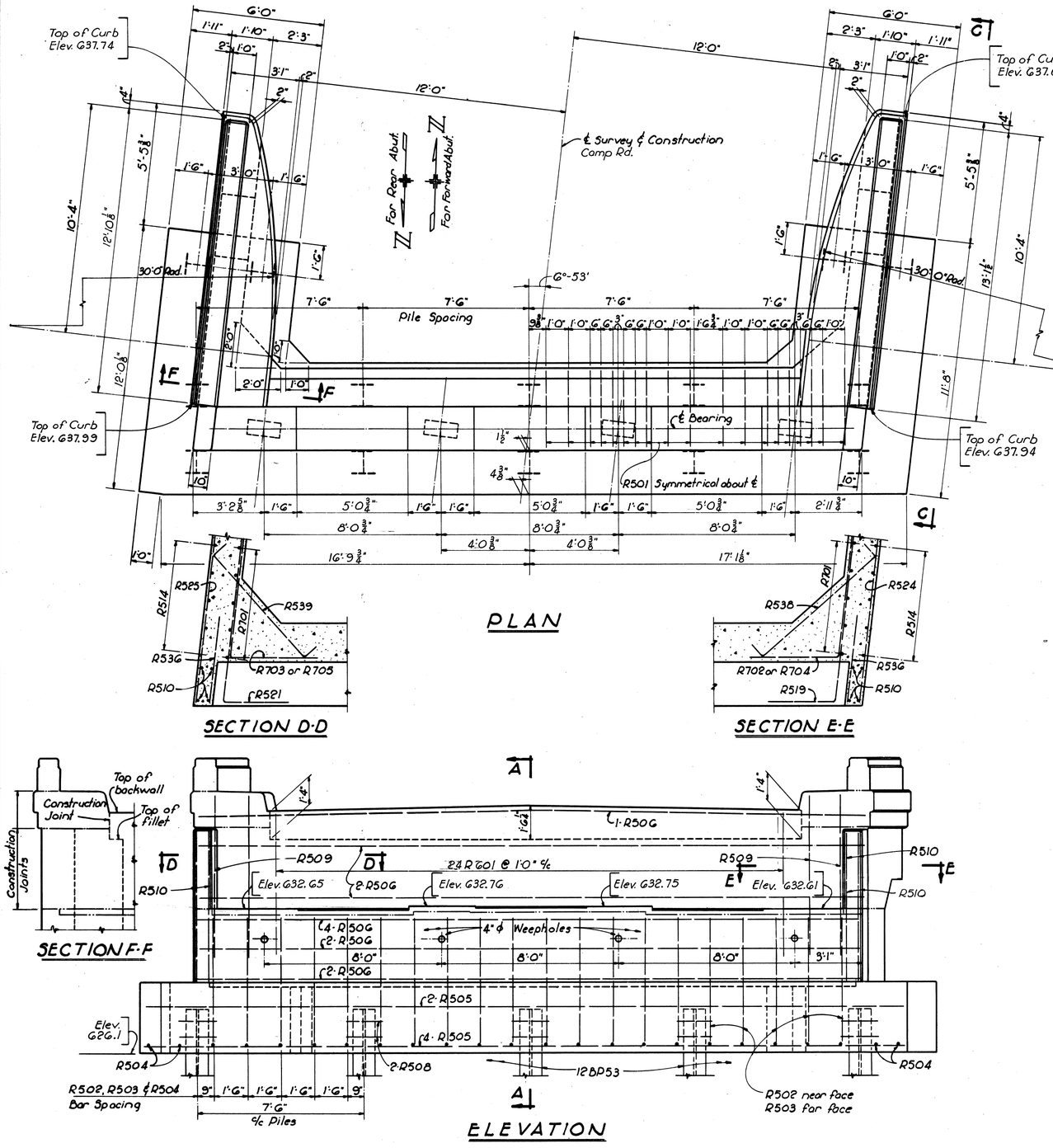
GENERAL NOTES, REINFORCING STEEL & ESTIMATED QUANTITIES
BRIDGE No. ERI G-1361
UNDER CAMP ROAD
ERIE CO. STA. 48+57.23 TO STA. 51+42.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD		BJH	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

170
235

ERIE COUNTY
ERI G - 11.30



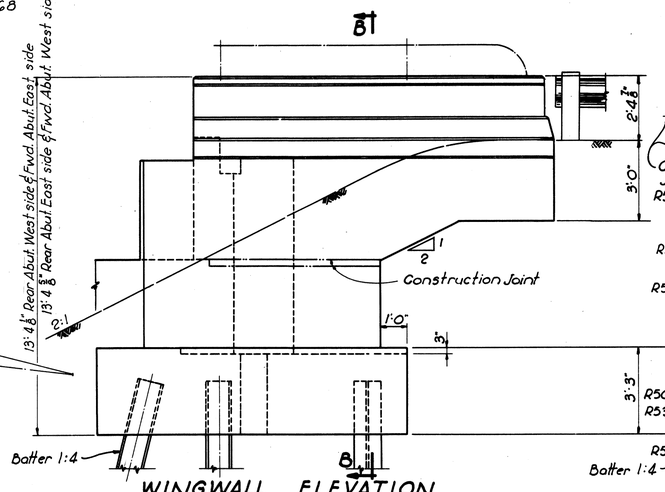
PLAN

SECTION D-D

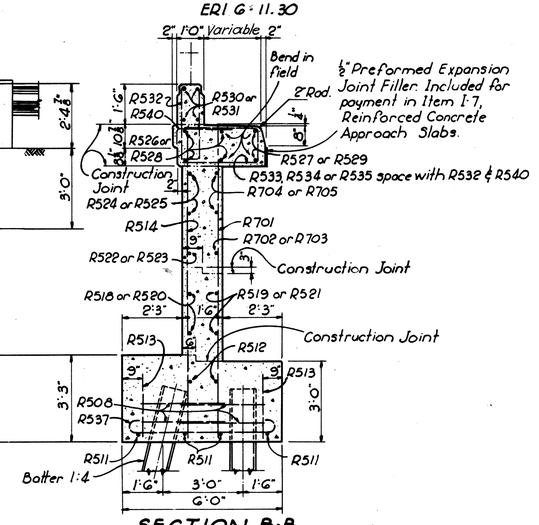
SECTION E-E

SECTION F-F

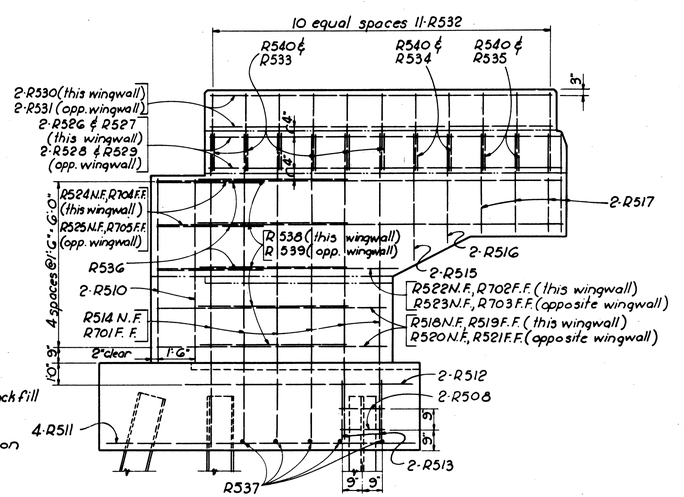
ELEVATION



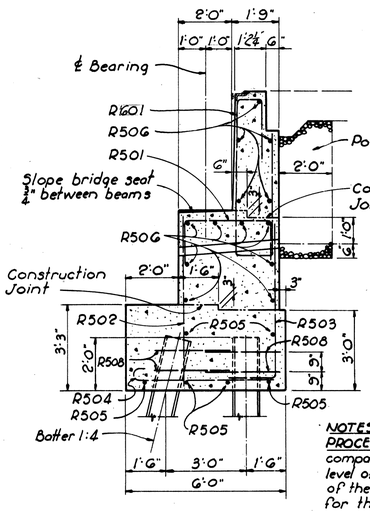
WINGWALL ELEVATION
Construction Details



SECTION B-B



WINGWALL ELEVATION C-C
Reinforcing Details
Reinforcing in both wingwalls similar except where noted.



SECTION A-A

NOTES:
PROCEDURE: The embankment shall be placed and compacted up to 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 abutment, and the piles driven.

F.F. = Far Face
N.F. = Near Face
Both abutments are identical.

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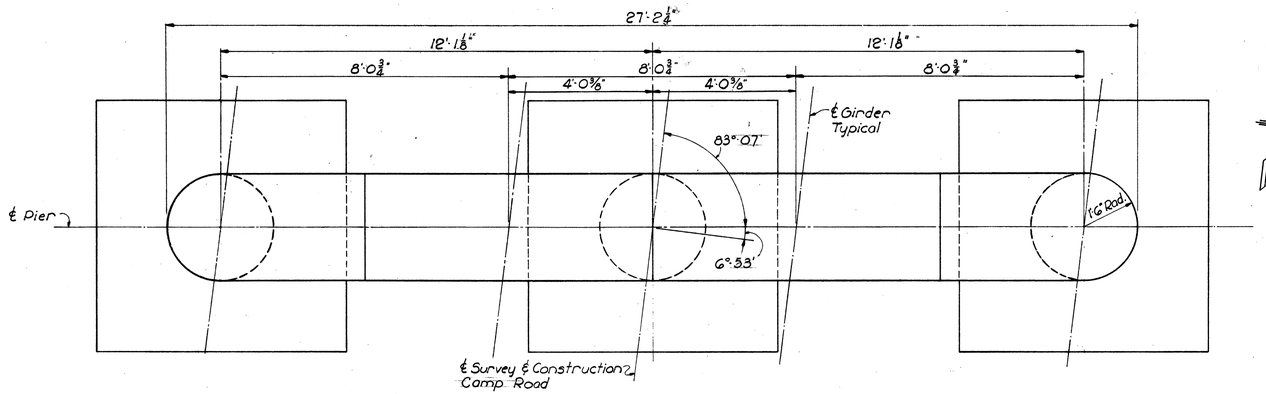
ABUTMENT DETAILS
BRIDGE No. ERI G-13.61
UNDER CAMP ROAD
STA. 48+57.23 To
ERIE CO. STA. 51+42.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.	T.W.D.	B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

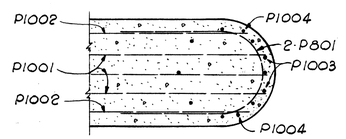
171
235

ERIE COUNTY
ERI G-11.30

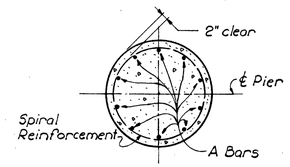


PLAN

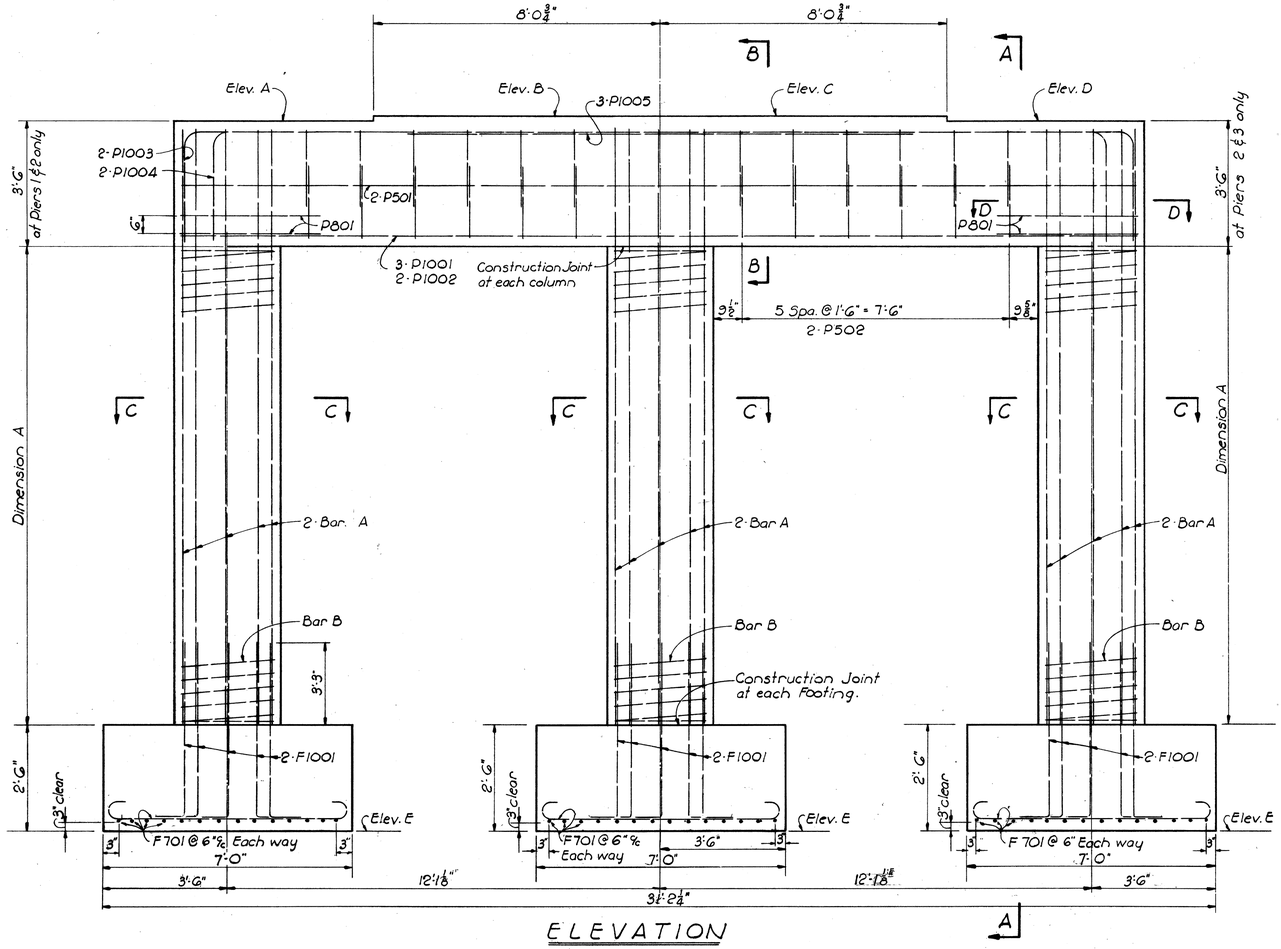
PIER NUMBER	ELEVATIONS					DIMENSION	BARS	
	A	B	C	D	E	A	A	B
1	632.74	632.87	632.88	632.76	613.0	13'-8⅞"	P1006	SP401
2	633.09	633.28	633.22	633.09	612.0	15'-1⅛"	P1007	SP402
3	632.76	632.88	632.87	632.74	611.0	15'-8⅞"	P1008	SP403



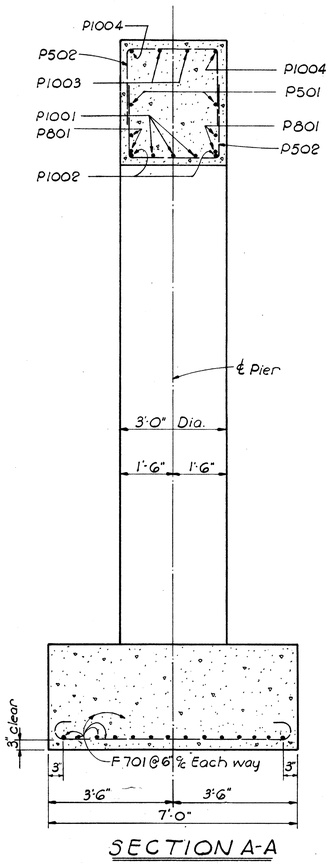
SECTION D-D



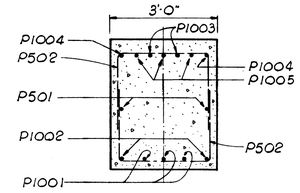
SECTION CC



ELEVATION



SECTION A-A



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.

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TOLEDO OHIO

PIERS 1, 2 & 3

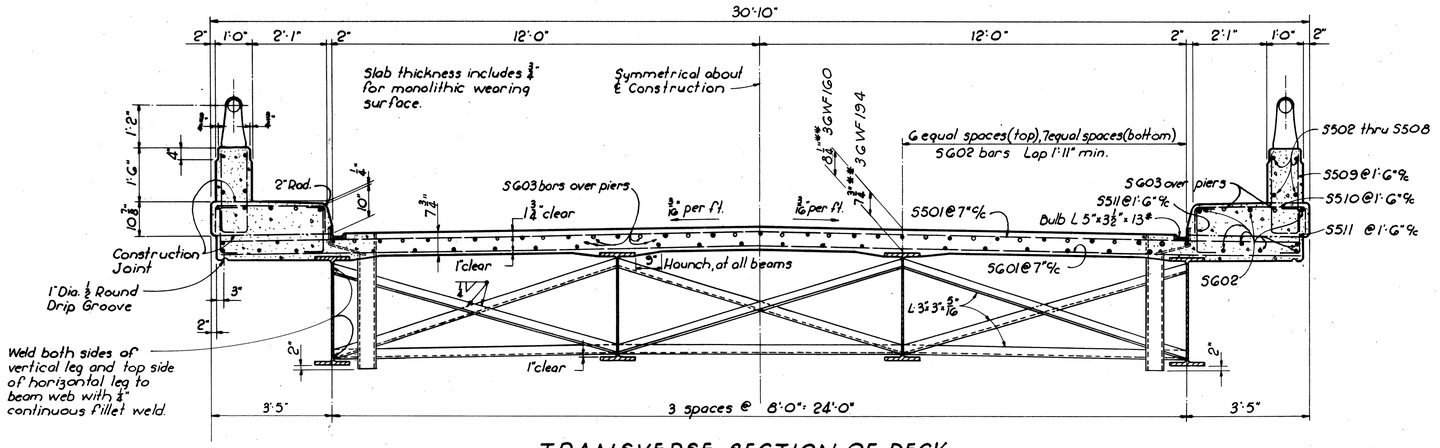
BRIDGE No. ERI G-1361
UNDER CAMP ROAD
ERIE CO. STA. 48+57.23 To STA. 51+42.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TWD	TWD		B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

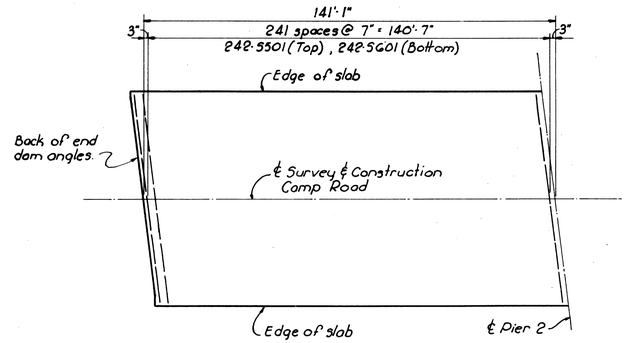
172
235

ERIE COUNTY
ERI G-11.30

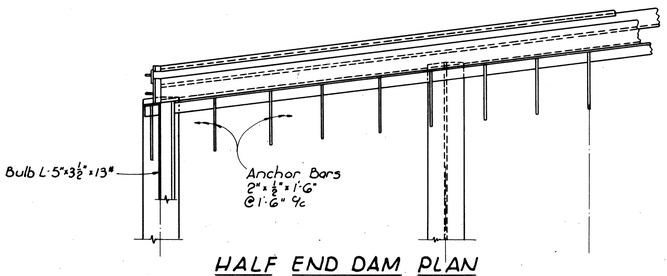


TRANSVERSE SECTION OF DECK

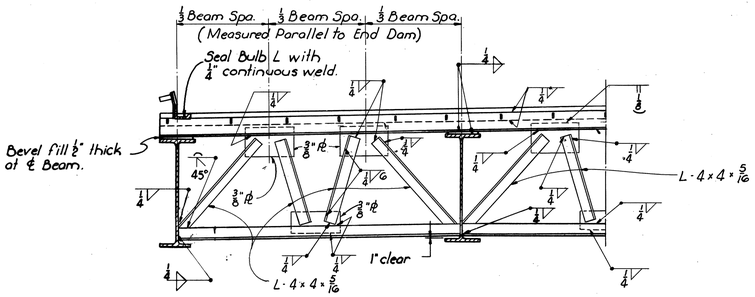
** This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.



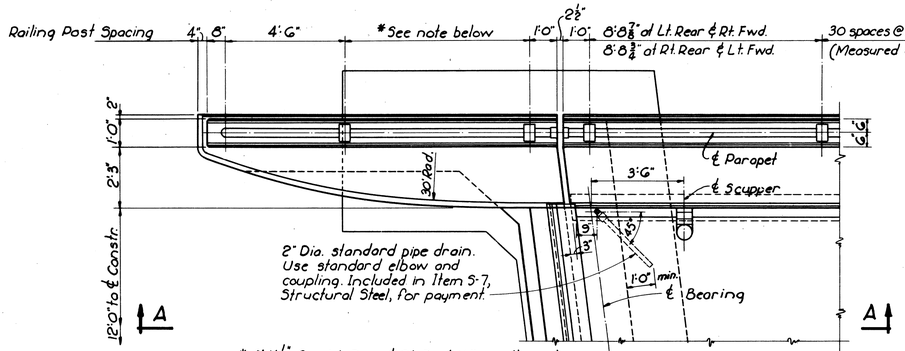
SLAB TRANSVERSE REINFORCING STEEL HALF PLAN



HALF END DAM PLAN



HALF END DAM ELEVATION



PLAN AT ABUTMENT

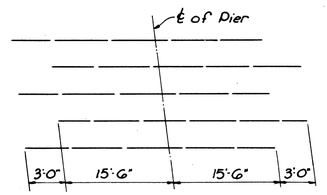
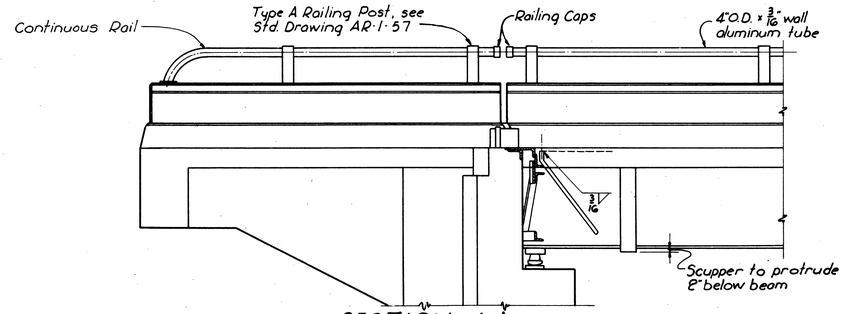
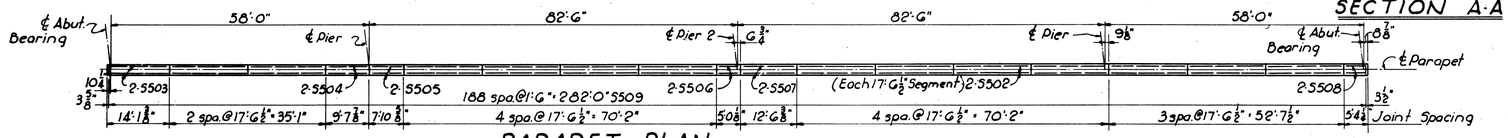


DIAGRAM SHOWING STAGGER OF 5G03 BARS OVER PIERS



SECTION A-A



PARAPET PLAN

Right Parapet Shown (Left Parapet similar by 180° Rotation)

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TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

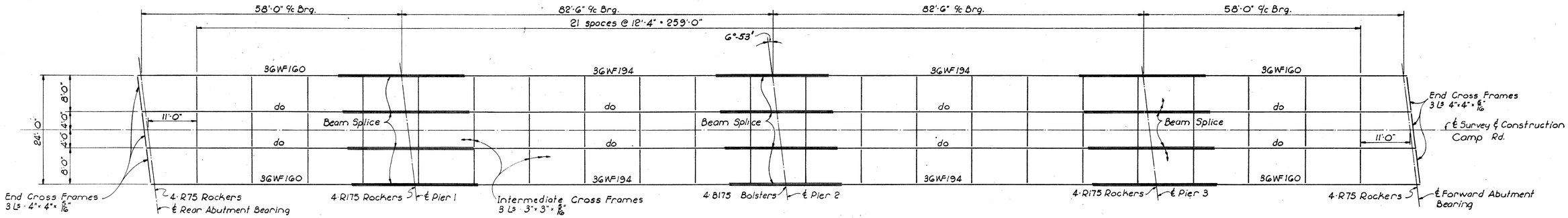
BRIDGE NO. ERI G-1361
UNDER CAMP ROAD
STA. 48+57.23 To
ERIE CO. STA. 51+42.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.	T.W.D.	B.J.H.	FCM 5-2-60	

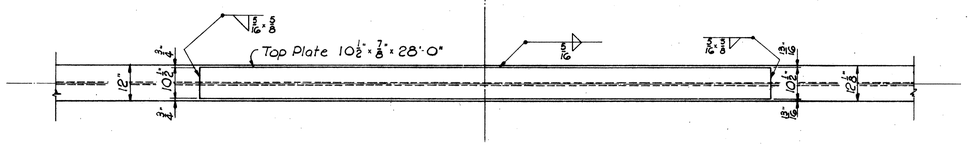
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

173
235

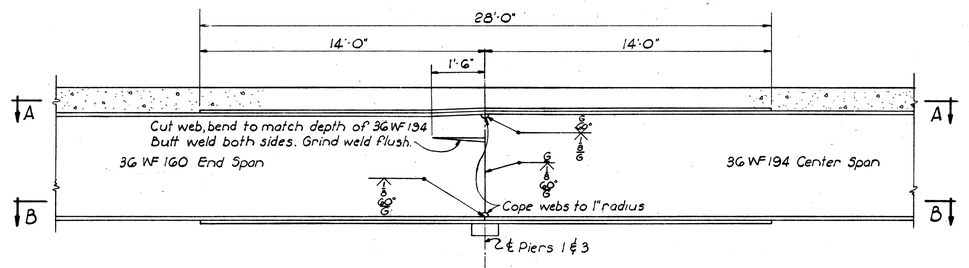
ERIE COUNTY
ERI G-11.30



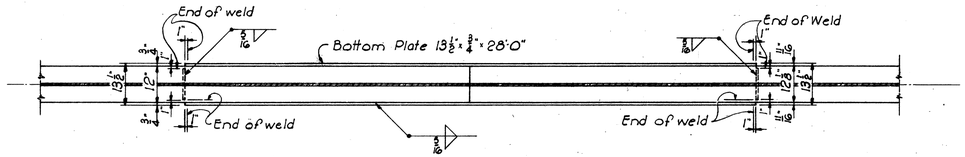
STEEL FRAMING PLAN



SECTION A-A

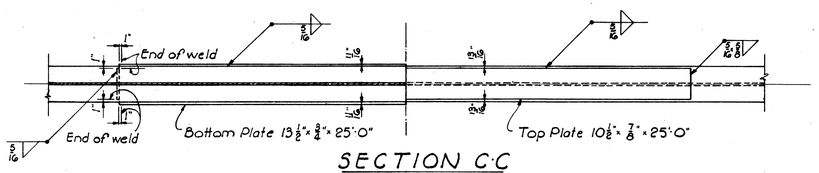


ELEVATION

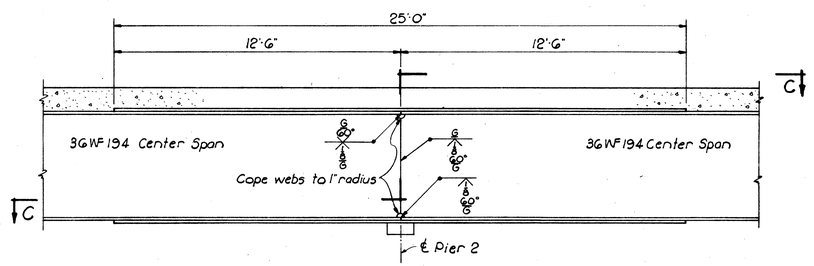


SECTION B-B

BEAM SPLICE DETAIL (PIERS 1 & 3)



SECTION C-C



ELEVATION

BEAM SPLICE DETAIL (PIER 2)

BEAM SPLICE WELDING PROCEDURE:

1. Raise end of beam at Pier 2, 2⅛".
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 the beams 3" at Pier 3 and ¾" at the Forward Abutment.

PAINTING:

After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams and all sides of the bottom flange.

CAMBERING of beams is required in accordance with the following table.

DEFLECTION AND CAMBER

LOCATION	INTERIOR BEAMS				EXTERIOR BEAMS			
	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 1	SPAN 2	SPAN 3	SPAN 4
Deflection due to Dead Load	¼"	½"	½"	¼"	¼"	⅝"	⅝"	¼"
Camber for Vertical Curve	½"	1"	1"	½"	½"	1"	1"	½"
Total Camber	¾"	1½"	1½"	¾"	¾"	1⅝"	1⅜"	¾"
Required Shop Camber	1"	1½"	1½"	1"	1"	1⅜"	1⅜"	1"

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SUPERSTRUCTURE DETAILS

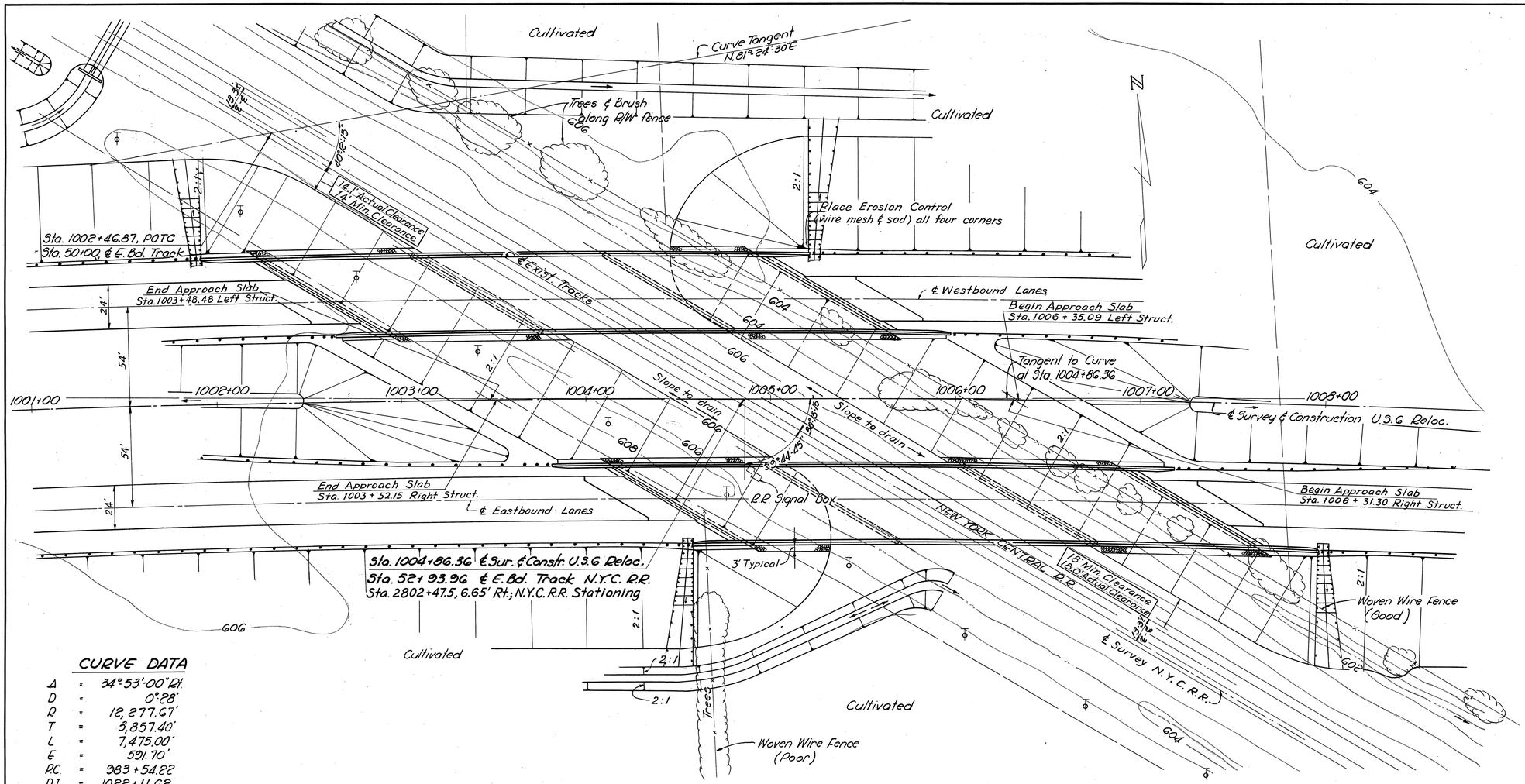
BRIDGE NO. ERI G-13.61
UNDER CAMP ROAD
STA. 48+57.23 To
ERIE CO. STA. 51+42.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TWD	TWD		B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
8	OHIO	F-FG-1042(7)	

174
235

ERIE COUNTY
ERI. 6-11.30
0.6 Miles West of Huron

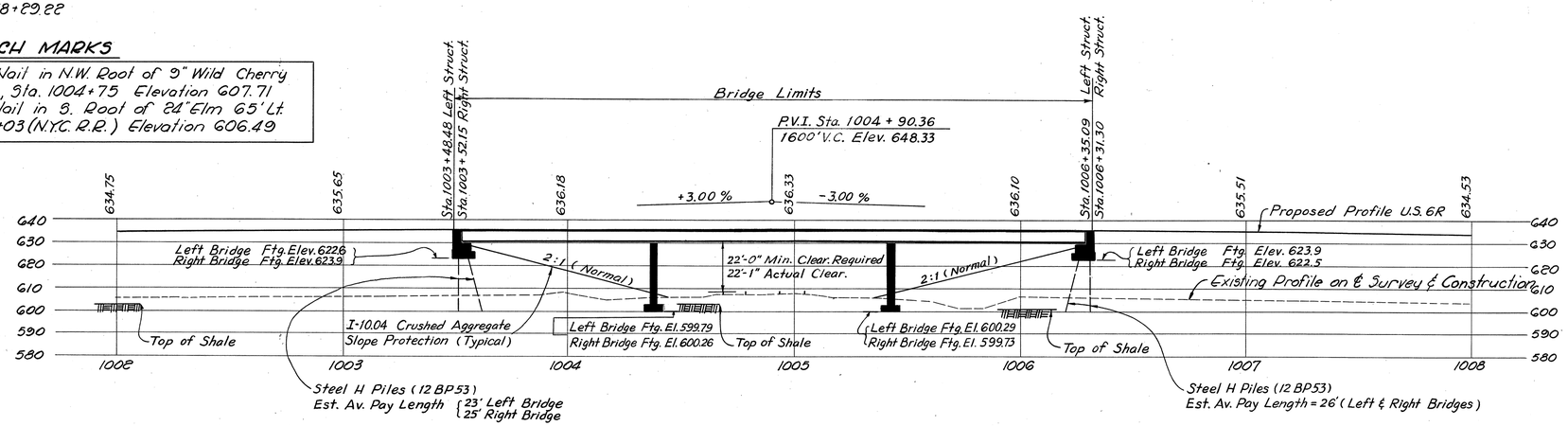


CURVE DATA

Δ	=	34°-53'-00" Rt.
D	=	0°-28'
R	=	12,277.67'
T	=	3,857.40'
L	=	7,475.00'
E	=	591.70'
P.C.	=	983+54.22
P.I.	=	1022+11.62
P.T.	=	1058+29.22

BENCH MARKS

B.M. #86 Nail in N.W. Root of 9" Wild Cherry 193' Rt., Sta. 1004+75 Elevation 607.71
B.M. #85 Nail in S. Root of 24" Elm 65' Lt. Sta. 49+03 (N.Y.C. R.R.) Elevation 606.49



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 welded steel plate girder with reinf. concrete deck, Reinf. conc. substructure, Stub abutments and "T" type piers.
Spans: 84', 105', 84' ℄ Brg's, (Left and Right Bridges)
Roadway: 39'-8" f/f of 1'-2" curbs. (Left and Right Bridges)
Load Frequency: C.F. = 400 (57)
Skew: 59°-44'-45" R.F. at U.S.6 & Survey ℄ ℄ of Tracks
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: A S-1-54 (25' Long)
Alignment: 0°-28' Curve Right

SEP 15 1960

MICROFILMED
MAR 20 1965

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SITE PLAN

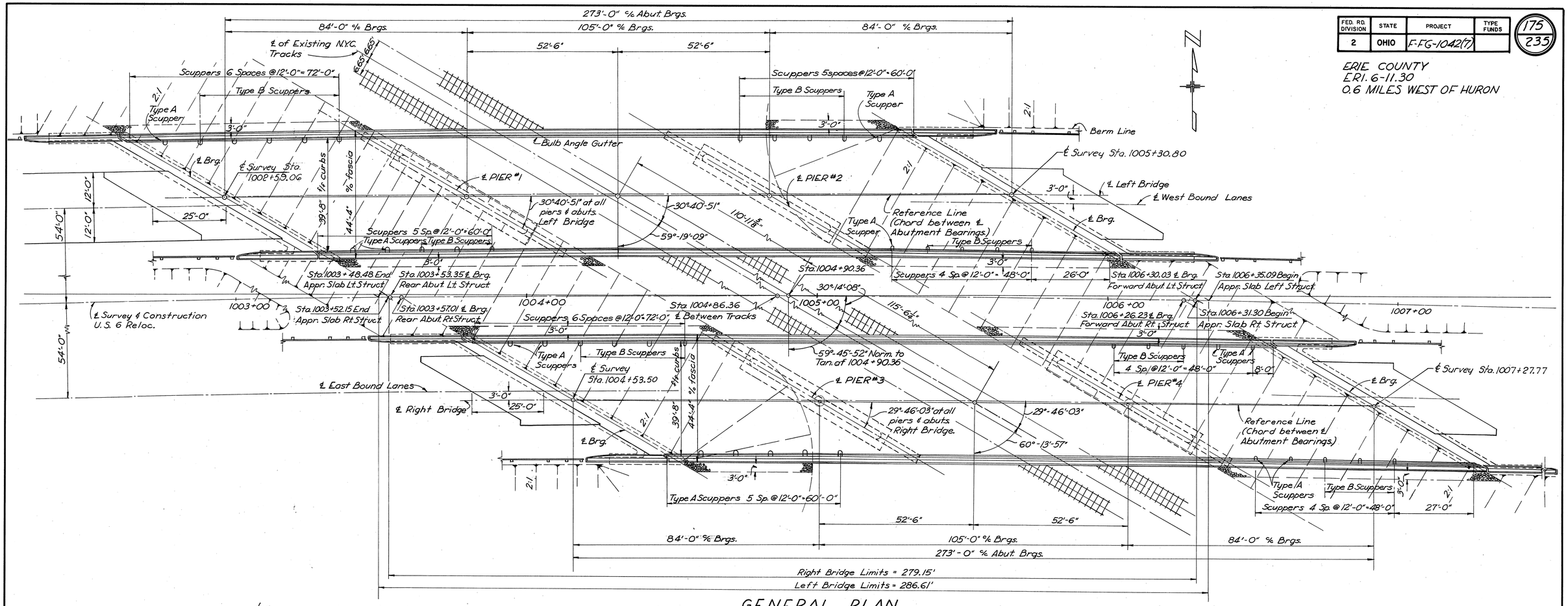
BRIDGE NO. ERI. 6-1427 LEFT and RIGHT OVER NEW YORK CENTRAL RAILROAD
ERIE CO. STA. 1003+48.48 to 1006+35.09 Left Bridge
STA. 1003+52.15 to 1006+31.30 Right Bridge
SCALE 1"=30'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED S.M.B.	DRAWN T.H.-B.B.	DESIGNED N. D.	DRAWN N.D. J.H.Y.	CHECKED B.J.H	REVIEWED FCM 52-60

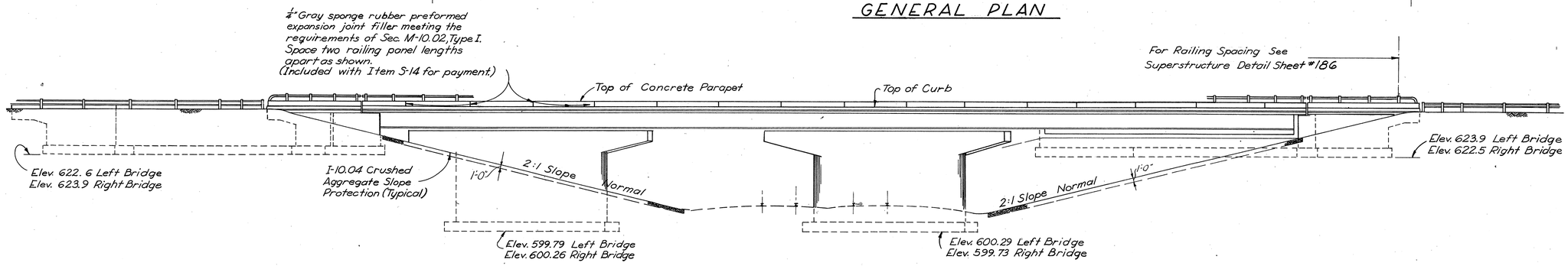
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

175
235

ERIE COUNTY
ERI. 6-11.30
0.6 MILES WEST OF HURON



GENERAL PLAN



GENERAL ELEVATION

MICROFILMED
MAR 20 1985

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

GENERAL PLAN & ELEVATION
BRIDGE NO. ERI. 6-1427 LEFT & RIGHT OVER
NEW YORK CENTRAL RAILROAD
ERIE COUNTY
STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 to 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D	T.W.D	J.E.C.	B.J.H.	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

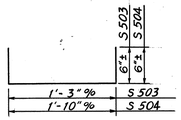
176
235

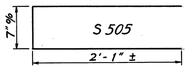
ERIE COUNTY
ERI. 6-11.30
0.6 Miles West of Huron

SUPERSTRUCTURE REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape
S 701	549	43'-8"	49000	S
S 702	4	42'-8"	349	S
S 703	4	42'-3"	345	S
S 704	4	41'-9"	341	S
S 705	4	41'-4"	338	S
S 706	4	40'-10"	334	S
S 707	4	40'-5"	330	S
S 708	4	40'-0"	327	S
S 709	4	39'-7"	324	S
S 710	4	39'-1"	320	S
S 711	4	38'-8"	316	S
S 712	4	38'-3"	313	S
S 713	4	37'-9"	309	S
S 714	4	37'-4"	305	S
S 715	4	36'-11"	302	S
S 716	4	36'-5"	298	S
S 717	4	36'-0"	294	S
S 718	4	35'-7"	291	S
S 719	4	35'-1"	287	S
S 720	4	34'-8"	283	S
S 721	4	34'-2"	279	S
S 722	4	33'-9"	276	S
S 723	4	33'-4"	273	S
S 724	4	32'-10"	268	S
S 725	4	32'-5"	265	S
S 726	4	32'-0"	262	S
S 727	4	31'-7"	258	S
S 728	4	31'-1"	254	S
S 729	4	30'-8"	251	S
S 730	4	30'-2"	247	S
S 731	4	29'-9"	243	S
S 732	4	29'-4"	240	S
S 733	4	28'-10"	236	S
S 734	4	28'-5"	232	S
S 735	4	28'-0"	229	S
S 736	4	27'-6"	225	S
S 737	4	27'-1"	221	S
S 738	4	26'-8"	218	S
S 739	4	26'-2"	214	S
S 740	4	25'-9"	210	S
S 741	4	25'-4"	207	S
S 742	4	24'-10"	203	S
S 743	4	24'-5"	200	S
S 744	4	24'-0"	196	S
S 745	4	23'-6"	192	S
S 746	4	23'-1"	189	S
S 747	4	22'-8"	185	S
S 748	4	22'-2"	181	S
S 749	4	21'-9"	178	S
S 750	4	21'-4"	174	S
S 751	4	20'-10"	170	S
S 752	4	20'-5"	168	S
S 753	4	20'-0"	164	S
S 754	4	19'-6"	159	S
S 755	4	19'-1"	156	S
S 756	4	18'-8"	153	S
S 757	4	18'-2"	149	S
S 758	4	17'-9"	145	S
S 759	4	17'-4"	142	S
S 760	4	16'-10"	138	S
S 761	4	16'-5"	134	S
S 762	4	16'-0"	131	S
S 763	4	15'-6"	127	S
S 764	4	15'-1"	123	S
S 765	4	14'-8"	120	S
S 766	4	14'-2"	116	S
S 767	4	13'-9"	112	S
S 768	4	13'-4"	109	S
S 769	4	12'-10"	105	S
S 770	4	12'-5"	102	S
S 771	4	12'-0"	98	S
S 772	4	11'-6"	94	S
S 773	4	11'-1"	91	S
S 774	4	10'-8"	87	S
S 775	4	10'-2"	83	S
S 776	4	9'-9"	80	S
S 777	4	9'-4"	76	S

Bending Diagrams





Mark	No.	Length	Weight	Shape
S 778	4	8'-10"	72	S
S 779	4	8'-5"	69	S
S 780	4	8'-0"	65	S
S 781	4	7'-6"	61	S
S 782	4	7'-1"	58	S
S 783	4	6'-8"	54	S
S 784	4	6'-2"	50	S
S 785	4	5'-9"	47	S
S 786	4	5'-4"	44	S
S 787	4	4'-10"	40	S
S 788	4	4'-5"	36	S
S 789	4	4'-0"	33	S
S 790	4	3'-6"	29	S
S 791	3	3'-1"	19	S
S 792	3	2'-8"	16	S
S 793	3	2'-2"	13	S
S 794	2	1'-9"	7	S
S 795	1	1'-4"	3	S
S 796	1	2'-4"	5	S
S 797	1	1'-11"	4	S
S 798	1	1'-6"	3	S
S 799	126	3'-9"	966	S
SA701	40	44'-2"	3611	S
S 601	549	43'-8"	36007	S
S 602	1314	32'-4"	63814	S
S 603	128	42'-0"	8075	S
S 604	4	42'-8"	256	S
S 605	4	42'-3"	254	S
S 606	4	41'-9"	251	S
S 607	4	41'-4"	248	S
S 608	4	40'-10"	245	S
S 609	4	40'-5"	243	S
S 610	4	40'-0"	240	S
S 611	4	39'-7"	238	S
S 612	4	39'-1"	235	S
S 613	4	38'-8"	232	S
S 614	4	38'-3"	230	S
S 615	4	37'-9"	227	S
S 616	4	37'-4"	224	S
S 617	4	36'-11"	222	S
S 618	4	36'-5"	219	S
S 619	4	36'-0"	216	S
S 620	4	35'-7"	214	S
S 621	4	35'-1"	211	S
S 622	4	34'-8"	208	S
S 623	4	34'-2"	205	S
S 624	4	33'-9"	203	S
S 625	4	33'-4"	200	S
S 626	4	32'-10"	197	S
S 627	4	32'-5"	195	S
S 628	4	32'-0"	192	S
S 629	4	31'-7"	190	S
S 630	4	31'-1"	187	S
S 631	4	30'-8"	184	S
S 632	4	30'-2"	181	S
S 633	4	29'-9"	179	S
S 634	4	29'-4"	176	S
S 635	4	28'-10"	173	S
S 636	4	28'-5"	171	S
S 637	4	28'-0"	168	S
S 638	4	27'-6"	165	S
S 639	4	27'-1"	163	S
S 640	4	26'-8"	160	S
S 641	4	26'-2"	157	S
S 642	4	25'-9"	155	S
S 643	4	25'-4"	152	S
S 644	4	24'-10"	149	S
S 645	4	24'-5"	147	S
S 646	4	24'-0"	144	S
S 647	4	23'-6"	141	S
S 648	4	23'-1"	139	S

Mark	No.	Length	Weight	Shape
S 649	4	22'-8"	136	S
S 650	4	22'-2"	133	S
S 651	4	21'-9"	131	S
S 652	4	21'-4"	128	S
S 653	4	20'-10"	125	S
S 654	4	20'-5"	123	S
S 655	4	20'-0"	120	S
S 656	4	19'-6"	117	S
S 657	4	19'-1"	115	S
S 658	4	18'-8"	112	S
S 659	4	18'-2"	109	S
S 660	4	17'-9"	107	S
S 661	4	17'-4"	104	S
S 662	4	16'-10"	101	S
S 663	4	16'-5"	99	S
S 664	4	16'-0"	96	S
S 665	4	15'-6"	93	S
S 666	4	15'-1"	91	S
S 667	4	14'-8"	88	S
S 668	4	14'-2"	85	S
S 669	4	13'-9"	83	S
S 670	4	13'-4"	80	S
S 671	4	12'-10"	77	S
S 672	4	12'-5"	75	S
S 673	4	12'-0"	72	S
S 674	4	11'-6"	69	S
S 675	4	11'-1"	67	S
S 676	4	10'-8"	64	S
S 677	4	10'-2"	61	S
S 678	4	9'-9"	59	S
S 679	4	9'-4"	56	S
S 680	4	8'-10"	53	S
S 681	4	8'-5"	51	S
S 682	4	8'-0"	48	S
S 683	4	7'-6"	45	S
S 684	4	7'-1"	43	S
S 685	4	6'-8"	40	S
S 686	4	6'-2"	37	S
S 687	4	5'-9"	35	S
S 688	4	5'-4"	32	S
S 689	4	4'-10"	29	S
S 690	4	4'-5"	27	S
S 691	4	4'-0"	24	S
S 692	4	3'-6"	21	S
S 693	3	3'-1"	14	S
S 694	3	2'-8"	12	S
S 695	3	2'-2"	10	S
S 696	2	1'-9"	5	S
S 697	1	1'-4"	2	S
S 698	1	2'-4"	3	S
S 699	1	1'-11"	3	S
SA601	1	1'-6"	2	S
SA602	125	3'-5"	641	S
SA603	40	44'-0"	2644	S
S 501	224	17'-6"	*	S
S 502	32	12'-11"	*	S
S 503	1472	2'-0"	3070	B
S 504	736	2'-7"	1983	B
S 505	736	4'-6"	3454	B

* included with Item S-14 for payment

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. S-4.02 need not be furnished and replacement bars will not be required.

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, S501 is a No. 5 size bar, and S1101 is a No. 11 size bar.

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 abutment and the piles driven and piers constructed.

ESTIMATED QUANTITIES - TWO BRIDGES

Item	Total	Unit	Description	Abutments Lt. Rear	Abutments Lt. Forwd.	Abutments Rt. Rear	Abutments Rt. Forwd.	Piers 1	Piers 2	Piers 3	Piers 4	Super.	General
E-2	Lump	Sum	Cofferdams, cribs and sheeting										Lump
E-2	1409	Cu.Yds.	Unclassified excavation	271	276	275	281	72	68	90	76		
E-2	129	Cu.Yds.	Shale excavation					46	25	28	30		
S-1	712	Cu.Yds.	Class "C" concrete, superstructure									712	
S-1	722	Cu.Yds.	Class "C" concrete, pier walls					178	177	183	184		
S-1	770	Cu.Yds.	Class "E" concrete, abutments	190	190	192	198						
S-1	198	Cu.Yds.	Class "E" concrete, pier footings					49	49	50	50		
S-3	66	Lin.Ft.	Waterproofing, premolded sealing strip	16	17	17	16						
S-4	306,064	Lbs.	Reinforcing steel	9,987	10,073	10,049	10,179	15,597	15,598	16,023	16,023	202,535	
S-7	954,000	Lbs.	Structural steel									954,000	
S-8	954,000	Lbs.	Field painting of structural steel, as per plan									954,000	
S-14	1345	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)									1345	
S-16	Lump	Sum	First test pile										Lump
S-18	3690	Lin.Ft.	Steel piles, 12 BP 53	850	960	920	960						
S-29	140	Cu.Yds.	Porous backfill	34	34	36	36						
S-29	42	Each	Scuppers									42	
I-10	2020	Sq.Yds.	Crushed aggregate slope protection										2020

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 AR-1-57 "Aluminum Railing with Concrete Parapet," revised 2-2-59 and to Supplemental Specification No. S207 "High Strength Steel Bolts" dated 4-28-55. and Supplemental Specification No. S101 dated 12-2-59.

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 footings. Backfill behind the abutments shall be compacted in accordance with the requirements for embankment compaction.

MACHINE FINISH: The concrete bridge deck shall be finished as specified in the "proposal note", Machine Finishing of Bridge Deck Slabs".

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. energy per blow to firm contact with shale. If the length of penetration is approximately equal to the depth to shale 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:
50 tons per pile using an 11,000 ft. lb. hammer.
43 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 34 tons per pile for the abutment piles.

ALIGNING RAILROAD TRACKS: After the Contractor has completed all excavation and backfill adjacent to the railroad tracks in compliance with Sec. E-2.04 and E-2.08 of the Construction and Material Specifications, subject to the supervision of the Railroad Company, nothing in Sec. E-2.04, E-2.08 or G-8.07 of the Specifications shall be construed to hold the Contractor liable for aligning and re-surfacing the railroad tracks.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 4.5 tons per sq. ft.

PIER FOOTINGS shall extend a minimum of 3" into solid shale or to the elevation shown, whichever is lower. Immediately after the pier excavation is completed, the area to be in contact with the footing concrete shall be given an application of bituminous material (1 gal. per square yard). This bituminous material to be one of the following emulsions or cutbacks as per item M-5 of the specifications: MC-4, MC-5, RC-4, RC-5, MS-2 or RS-2.

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

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.

PAINTING. After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face and all sides of bottom flange of the outside steel girders.

PAINT ON TRACK SPANS: One additional field coat of paint, of the same kind as the shop coat, shall be applied to the structural steel in the track spans before the application of the aluminum paint, except to those surfaces which are to be in contact with concrete.

CONSTRUCTION CLEARANCE of 19' vertically above the top of the railroad rails and 8' horizontally from the center of the tracks shall be maintained at all times.

STEEL: See Proposal regarding A-373 Steel.

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.

RECEIVED
MAR 20 1960
SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL NOTES, REINFORCING STEEL & ESTIMATED QUANTITIES
BRIDGE NO. ERI. 6-1427 LEFT & RIGHT OVER NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 1006+35.09 Left Bridge
STA. 1003+52.15 to 1006+31.30 Right Bridge

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAR	RAR	JEC JHY	BJH RCG	FCM	5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

177
235

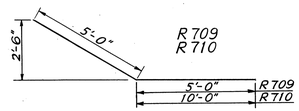
ERIE COUNTY
ERI. 6-11.30
0.6 Miles West of Huron

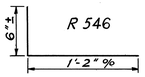
SUBSTRUCTURE REINFORCING STEEL LIST

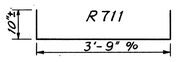
Mark	No.	Length	Weight	Shape
ABUTMENTS				
R 701	112	12'-2"	2785	S
R 702	12	24'-6"	601	S
R 703	4	20'-5"	167	S
R 704	8	26'-9"	437	S
R 705	12	25'-0"	613	S
R 706	4	25'-8"	210	S
R 707	8	30'-9"	503	S
R 708	20	16'-3"	664	S
R 709	28	10'-0"	572	B
R 710	16	15'-0"	491	B
R 711	24	5'-1"	249	B
R601	126	14'-2"	2682	B
R602	186	15'-4"	4282	B
R 501	408	6'-10"	2908	B
R 502	8	28'-0"	234	S
R 503	8	30'-9"	256	S
R 504	304	7'-7"	2404	B
R 505	450	5'-10"	2738	S
R 506	64	30'-8"	2047	S
R 507	14	33'-4"	486	S
R 508	6	25'-1"	156	S
R 509	367	6'-8"	2385	B
R 510	16	28'-11"	482	S
R 511	7	35'-5"	259	S
R 512	4	19-10"	82	S
R 513	4	22'-7"	94	S
R 514	112	12'-2"	1421	S
R 515	12	25'-0"	313	S
R 516	16	29'-9"	*	S
R 517	152	5'-10"	925	B
R 518	32	8'-0"	267	S
R 519	16	5'-8"	95	S
R 520	16	4'-11"	82	S
R 521	16	4'-2"	70	S
R 522	48	3'-4"	167	S
R 523	12	27'-6"	344	S
R 524	72	7'-8"	576	S
R 525	20	27'-1"	565	S
R 526	16	26'-9"	*	S
R 527	1	12'-7"	13	S
R 528	1	14'-9"	15	S
R 529	24	9'-0"	225	B
R 530	2	10'-0"	21	S
R 531	2	13'-6"	28	S
R 532	1	23'-3"	24	S
R 533	1	25'-7"	27	S
R 534	1	5'-4"	6	S
R 535	1	4-10"	5	S
R 536	2	24'-3"	50	S
R 537	1	13'-9"	14	S
R 538	1	12'-3"	13	S
R 539	20	30'-1"	628	S
R 540	8	33'-9"	282	S
R 541	4	28'-8"	120	S
R 542	16	25'-2"	420	S
R 543	8	33'-3"	277	S
R 544	4	27'-2"	113	S
R 545	12	24'-6"	307	S
R 546	152	1'-6"	238	B
R 547	152	3'-0"	476	B
R 548	6	18'-5"	115	S
R 549	1	20'-3"	21	S
R 550	1	22'-0"	23	S
R 551	3	23'-10"	75	S
R 552	6	21'-2"	132	S

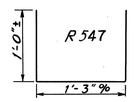
* included with Item S-14 for payment

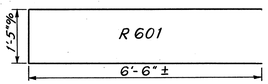
Bending Diagrams

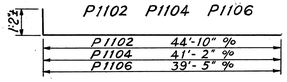


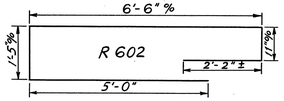


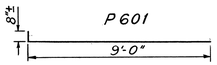


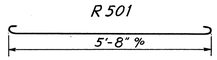


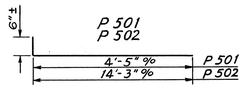


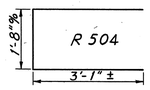


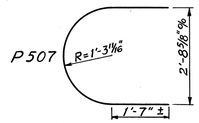


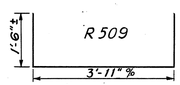


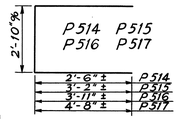


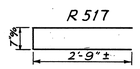


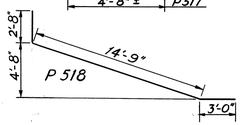


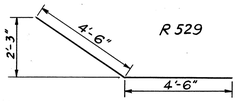


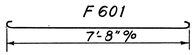


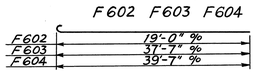












Mark	No.	Length	Weight	Shape
R 553	1	23'-0"	24	S
R 554	1	24'-9"	26	S
R 555	3	26'-7"	83	S
R 556	35	30'-8"	1120	S
R 557	15	32'-6"	508	S
R 558	2	23'-0"	48	S
R 559	2	21'-1"	44	S
R 560	14	19'-1"	278	S
R 561	7	31'-8"	231	S
R 562	10	36'-0"	376	S
R 563	8	20'-7"	172	S
R 564	4	23'-6"	98	S
PIERS				
P1101	48	44'-10"	11,434	S
P1102	8	46'-0"	1955	B
P1103	24	41'-2"	5249	S
P1104	4	42'-0"	893	B
P1105	24	39'-5"	5026	S
P1106	4	40'-3"	855	B
P 901	24	30'-0"	2448	S
P 601	392	9'-8"	5692	B
P 501	228	4'-10"	1149	B
P 502	196	14'-8"	2999	B
P 503	204	22'-10"	4859	S
P 504	24	17'-10"	446	S
P 505	88	30'-0"	2754	S
P 506	44	21'-5"	983	S
P 507	80	7'-4"	612	B
P 508	44	19'-5"	891	S
P 509	4	31'-10"	133	S
P 510	8	35'-5"	296	S
P 511	4	33'-10"	141	S
P 512	12	27'-8"	346	S
P 513	12	28'-8"	359	S
P 514	64	7'-7"	506	B
P 515	80	8'-11"	744	B
P 516	48	10'-5"	522	B
P 517	150	11'-11"	1865	B
P 518	24	20'-4"	509	B
P 519	12	27'-0"	338	S
P 520	12	28'-0"	350	S
F 601	448	9'-0"	6056	B
F 602	32	19'-8"	945	B
F 603	16	38'-3"	919	B
F 604	16	40'-3"	967	B
REPLACEMENT BARS				
RE1101	2	7'-7"		S
RE 901	1	6'-10"		S
RE 701	7	6'-3"		S
RE 601	6	5'-11"		S
RE 501	3	5'-7"		S

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. S-4.02 need not be furnished and replacement bars will not be required.

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, R501 is a No. 5 size bar, and P1101 is a No. 11 size bar.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SUBSTRUCTURE
REINFORCING STEEL LIST
BRIDGE NO. ERI. 6-1427 LEFT & RIGHT OVER NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 1006+35.09 Left Bridge
STA. 1003+52.15 to 1006+31.30 Right Bridge

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	JHY	JHY	BJH RCG	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

178
235

ERIE COUNTY
ERI G-11.30
0.6 MILES WEST OF HURON

RADIOGRAPHIC EXAMINATION OF WELDS

THIS WORK SHALL CONSIST OF THE PERFORMANCE AND INTERPRETATION OF A RADIOGRAPHIC EXAMINATION OF BUTT WELDS AS REQUIRED BY THESE SPECIFICATIONS. IT SHALL INCLUDE THE PREPARATION AND POSITIONING OF WELDS FOR EXAMINATION, THE RADIOGRAPHING OF WELDS, THE PROCESSING AND EXAMINATION OF RADIOGRAPHS, THE INTERPRETATION OF RADIOGRAPHS FOR COMPLIANCE WITH THESE SPECIFICATIONS, AND THE PERFORMANCE AND INTERPRETATION OF ANY RETAKES OF RADIOGRAPHS REQUIRED FOR WELDS MADE TO REPLACE UNSATISFACTORY WELDS.

APPROVAL OF DIRECTOR

THE CONTRACTOR SHALL FURNISH EVIDENCE, ACCEPTABLE TO THE DIRECTOR, OF THE ADEQUACY OF THE EQUIPMENT TO BE USED AND THE COMPETENCE OF THE PERSONNEL.

THE INTERPRETATION OF RADIOGRAPHS AND THE CORRECTION OF DEFECTIVE WELDS SHALL BE SUBJECT TO THE APPROVAL OF THE DIRECTOR.

SCOPE OF EXAMINATION

BY MEANS OF RADIOGRAPHIC EXAMINATION, THE CONTRACTOR SHALL FURNISH EVIDENCE OF THE ACCEPTABLE QUALITY OF THE BUTT WELDS OF ALL GIRDERS. THE PARTS OF THESE MEMBERS TO BE RADIOGRAPHED ARE AS FOLLOWS:

1. THE COMPLETE BUTT WELDS IN THE FLANGES OF EACH GIRDER EXCEPT THE BOTTOM FLANGE OVER THE BEARING DEVICES.
2. ONE FOOT AT EACH END OF EACH OF THE WEB SPLICE WELDS.

THE SHOP EXAMINATION OF THE BUTT WELDS OF THE FLANGE PLATES AND OF THE WEB PLATES SHALL BE DETERMINED TO BE ACCEPTABLE BEFORE THESE FLANGE AND WEB PLATES ARE ASSEMBLED AND WELDED TO FORM THE GIRDERS. THE EXAMINATION OF FIELD WELDS SHALL BE MADE AS SOON AS PRACTICABLE AFTER WELDING AT EACH FIELD SPLICE IS COMPLETED.

WELD CONDITION

ALL WELDED JOINTS WHICH ARE TO BE RADIOGRAPHED SHALL BE FREE OF PAINT, SCALE AND GREASE, AND SHALL BE GROUND FREE OF ALL WELD RIPPLES AND SURFACE IRREGULARITIES ON BOTH SIDES. THE DIRECTION OF GRINDING SHALL BE PERPENDICULAR TO THE LENGTH OF THE WELD. THE WELDS SHALL BE GROUND TO SUCH A DEGREE THAT THE RESULTING RADIOGRAPHIC CONTRAST, DUE TO REMAINING IRREGULARITIES, CANNOT MASK OR BE CONFUSED WITH THAT OF ANY OBJECTIONABLE DEFECT AND THAT THE WELD SURFACE WILL MERGE SMOOTHLY INTO THE PLATE SURFACE. UNLESS SPECIFIED TO BE GROUND FLUSH, THE FINISHED SURFACE OF THE REINFORCEMENT MAY HAVE A CROWN EQUAL TO ONE-EIGHTH THE THICKNESS OF THE METAL BUT NOT MORE THAN 1/8 INCH.

RADIOGRAPHIC TECHNIQUE

THE WELD SHALL BE RADIOGRAPHED WITH A TECHNIQUE WHICH WILL DETERMINE QUANTITATIVELY THE SIZE OF DEFECTS WITH THICKNESSES EQUAL TO OR GREATER THAN 2 PER CENT OF THE THICKNESS OF THE BASE METAL. IN THE CASE OF A WELD JOINING PLATES OF UNEQUAL THICKNESS, BOTH PLATES MUST BE RADIOGRAPHED AT 2 PER CENT SENSITIVITY TOGETHER OR SINGLY, WITH THE WELD JUNCTION EVIDENT IN BOTH VIEWS.

TO DETERMINE WHETHER THE RADIOGRAPHIC TECHNIQUE EMPLOYED IS DETECTING DEFECTS OF A THICKNESS EQUAL TO OR GREATER THAN 2 PER CENT OF THE THICKNESS OF THE BASE MATERIAL, THICKNESS GAGES OR PENETRAMETERS OF THE TYPE HEREINAFTER SPECIFIED SHALL BE PLACED ON THE SIDE OF THE WELDED PLATE NEAREST THE SOURCE OF RADIATION AT AN EXTREME EDGE OF THE RADIOGRAPHIC PLATE OR FILM.

THE MATERIAL OF THE PENETRAMETER SHALL BE SUBSTANTIALLY THE SAME AS THAT OF THE WELDED PLATE.

THE THICKNESS OF THE PENETRAMETER SHALL BE NOT MORE THAN 2 PER CENT OF THE THICKNESS OF THE PLATE EXCLUSIVE OF ANY WELD REINFORCEMENT. PENETRAMETERS DESIGNED FOR INCREMENTS OF 1/8" OF PLATE THICKNESS ARE ACCEPTABLE.

IN EACH PENETRAMETER THERE SHALL BE THREE HOLES WITH DIAMETERS EQUAL RESPECTIVELY TO TWO, THREE AND FOUR TIMES THE PENETRAMETER THICKNESS, BUT IN NO CASE SHALL LESS THAN 1/16" DIAMETER BE USED.

EACH PENETRAMETER SHALL CARRY AN IDENTIFYING NUMBER REPRESENTING IN TWO SIGNIFICANT FIGURES THE MINIMUM THICKNESS IN INCHES OF THE PLATE FOR WHICH IT MAY BE USED. PENETRAMETERS MAY BE ESTABLISHED FOR DIFFERENCES IN THICKNESS NOT TO EXCEED 1/8" SO THAT A SET OF PENETRAMETERS VARYING FOR INCREMENTS OF PLATE THICKNESS OF 1/8" WILL BE ADEQUATE TO SERVE PLATES HAVING THICKNESSES BETWEEN THESE 1/8" DIMENSIONS.

THE IMAGES OF IDENTIFYING NUMBERS AND THE HOLES OF EACH PENETRAMETER MUST APPEAR CLEARLY ON THE RADIOGRAPH TO ESTABLISH THE 2 PER CENT SENSITIVITY.

FOR PLATES UP TO AND INCLUDING 2-1/2" IN THICKNESS, EACH PENETRAMETER SHALL BE 1-1/2" LONG AND 1/2" WIDE. FOR PLATES THICKER THAN 2-1/2" EACH PENETRAMETER SHALL BE 2-1/4" LONG AND 1" WIDE.

THE FILM DURING EXPOSURE SHALL BE AS CLOSE TO THE WELD AS PRACTICABLE. IF POSSIBLE, THIS DISTANCE SHALL BE NOT GREATER THAN 1 INCH. IN ANY EVENT, THE RATIO

$$\frac{\text{DISTANCE FROM SOURCE OF RADIATION TO WELD SURFACE TOWARD RADIATION}}{\text{DISTANCE FROM WELD SURFACE TOWARD RADIATION TO FILM}}$$

SHALL BE AT LEAST 7 TO 1.

ALL RADIOGRAPHS SHALL BE FREE FROM EXCESSIVE MECHANICAL PROCESSING DEFECTS WHICH WOULD INTERFERE WITH PROPER INTERPRETATION OF THE RADIOGRAPH.

IDENTIFICATION MARKERS, THE IMAGES OF WHICH WILL APPEAR ON THE FILM, SHALL BE PLACED ADJACENT TO THE WELD AND THEIR LOCATIONS SHALL BE ACCURATELY AND PERMANENTLY MARKED ON THE OUTSIDE SURFACE NEAR THE WELD SO THAT A DEFECT APPEARING ON THE RADIOGRAPH MAY BE ACCURATELY LOCATED.

THE SIZE OF FILM TO BE USED SHALL BE AT LEAST 4" WIDE X 15" LONG UNLESS PERMISSION TO USE A DIFFERENT SIZE IS OBTAINED IN WRITING FROM THE DIRECTOR.

STANDARDS OF ACCEPTABILITY

THE ACCEPTABILITY OF THE WELDS EXAMINED BY RADIOGRAPHY SHALL BE JUDGED BY THE FOLLOWING STANDARDS:

(1) CRACKS:
DEFINITION - A DISCONTINUITY RESULTING FROM A VERY NARROW SEPARATION OF METAL.
STANDARD - NO WELD CONTAINING CRACKS REGARDLESS OF LENGTH, SIZE OR LOCATION SHALL BE CONSIDERED ACCEPTABLE.

(2) GAS POROSITY:
DEFINITION - GAS POCKETS OR VOIDS IN METAL.
STANDARD - THE MAXIMUM DIMENSION OF ANY INDIVIDUAL GAS POCKET SHALL NOT EXCEED 1/8 INCH. THE MAXIMUM ACCUMULATION OF GAS POCKETS SHALL NOT EXCEED THAT SHOWN IN THE "POROSITY STANDARDS" OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS.

(3) SLAG INCLUSIONS:
DEFINITION - NON-METALLIC, SOLID MATERIAL ENTRAPPED IN WELD METAL OR BETWEEN WELD METAL AND BASE METAL.
STANDARD - A. ELONGATED SLAG INCLUSIONS: NO ELONGATED SLAG INCLUSION SHALL EXCEED TWO-THIRDS OF THE THICKNESS OF THE THINNER PLATE OF THE JOINT IN LENGTH AND 1/16" IN WIDTH, EXCEPT THAT REGARDLESS OF THE PLATE THICKNESS NO SUCH INCLUSION SHALL BE LONGER THAN 3/4" AND EXCEPT THAT NO SUCH INCLUSION WHICH IS SHORTER THAN 1/4" SHALL BE CAUSE FOR REJECTION.

B. ISOLATED SLAG INCLUSIONS: IN ANY 12 INCH LENGTH OF WELD, THE MAXIMUM WIDTH OF ANY ISOLATED SLAG INCLUSION SHALL NOT EXCEED 1/8 INCH, THE SUMMATION OF LENGTHS OF ISOLATED SLAG INCLUSIONS SHALL NOT EXCEED 1 INCH, AND THERE SHALL BE NO MORE THAN FOUR ISOLATED SLAG INCLUSIONS OF THE MAXIMUM WIDTH OF 1/8 INCH. ANY TWO SUCH INCLUSIONS SHALL BE SEPARATED BY AT LEAST 2 INCHES OF SOUND WELD METAL.

(4) INCOMPLETE FUSION:
DEFINITION - FAILURE OF THE WELD METAL TO FUSE COMPLETELY WITH THE BASE METAL OR PRECEDING BEADS.
STANDARD - NO INDIVIDUAL LACK OF FUSION SHALL EXCEED 1/2 INCH IN LENGTH. IN ANY 12 INCH LENGTH OF WELD, THE SUMMATION OF LENGTHS OF LACK OF FUSION SHALL NOT EXCEED 3/4 INCH AND INDIVIDUAL DEFECTS SHALL BE SEPARATED BY AT LEAST 6 INCHES OF SOUND METAL.

(5) INCOMPLETE PENETRATION:
DEFINITION - ROOT PENETRATION WHICH IS LESS THAN COMPLETE OR FAILURE OF A ROOT PASS AND A BACKING PASS TO FUSE WITH EACH OTHER.
STANDARD - NO INDIVIDUAL LACK OF PENETRATION SHALL EXCEED 1/2 INCH IN LENGTH. IN ANY 12 INCH LENGTH OF WELD, THE SUMMATION OF LENGTHS OF LACK OF PENETRATION SHALL NOT EXCEED 3/4 INCH AND INDIVIDUAL DEFECTS SHALL BE SEPARATED BY AT LEAST 6 INCHES OF SOUND METAL.

REPAIR OF DEFECTIVE WELDS

DEFECTIVE WELDS SHALL BE REPAIRED BY CHIPPING OR MELTING OUT SUCH DEFECTS FROM ONE OR BOTH SIDES OF THE JOINT AS REQUIRED, REMOVING ONLY SUFFICIENT WELD METAL TO CORRECT THE DEFECT. THE JOINT SHALL THEN BE REWELDED AND AGAIN RADIOGRAPHED.

ADDITIONAL RADIOGRAPHS

WHEREVER AN UNACCEPTABLE WELD OCCURS, A RADIOGRAPH SHALL BE MADE OF THE ADJOINING 12-INCH LENGTHS OF WELD TO DETERMINE IF THE FLAWS EXTEND BEYOND THE LIMITS OF THE ORIGINAL RADIOGRAPH. IF UNACCEPTABLE FLAWS OCCUR IN THESE ADJOINING LENGTHS OF WELD, THESE DEFECTIVE WELDS SHALL BE REPAIRED AND THIS ENTIRE PROCEDURE REPEATED FOR THE NEXT ADJOINING 12-INCH LENGTH OF WELD.

CUSTODY OF RADIOGRAPHS

AS SOON AS THE RADIOGRAPHING OF THE WELDMENTS ON THE FULL LENGTH OF EACH FLANGE OR WEB PLATE BETWEEN FIELD SPLICES HAS BEEN COMPLETED, THE CONTRACTOR SHALL SEND TO THE STATE THE PROCESSED CONTACT FILM (THAT FILM CLOSEST TO THE SOURCE OF RADIATION) OF ALL ORIGINAL AND RETAKE RADIOGRAPHS. THESE RADIOGRAPHS SHALL BE ACCOMPANIED BY A CERTIFICATION FROM THE CONTRACTOR THAT THE RADIOGRAPHIC EXAMINATION WAS PERFORMED IN CONFORMANCE WITH THESE SPECIFICATIONS. THE RADIOGRAPHS SHALL BECOME THE PROPERTY OF THE STATE. EACH RADIOGRAPH SHALL BE CLEARLY IDENTIFIED TO SHOW THE LOCATION ON THE STRUCTURE AT WHICH IT WAS TAKEN. UNACCEPTABLE DEFECTS SHALL BE IDENTIFIED IN EACH RADIOGRAPH IN WHICH THEY OCCUR AND THE REPAIR OR REPLACEMENT OF EACH UNACCEPTABLE WELD DEFECT SHALL BE NOTED AND IDENTIFIED.

REPORT OF COST

AFTER THE COMPLETION OF THE RADIOGRAPHIC INSPECTION OF WELDS, THE CONTRACTOR SHALL FURNISH THE STATE A COMPLETE REPORT OF THE COST OF PERFORMING THIS WORK, SEPARATED INTO THE ITEMS MENTIONED IN THE FOLLOWING PARAGRAPH.

BASIS OF PAYMENT

PAYMENT FOR THIS WORK, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR S-7, STRUCTURAL STEEL.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

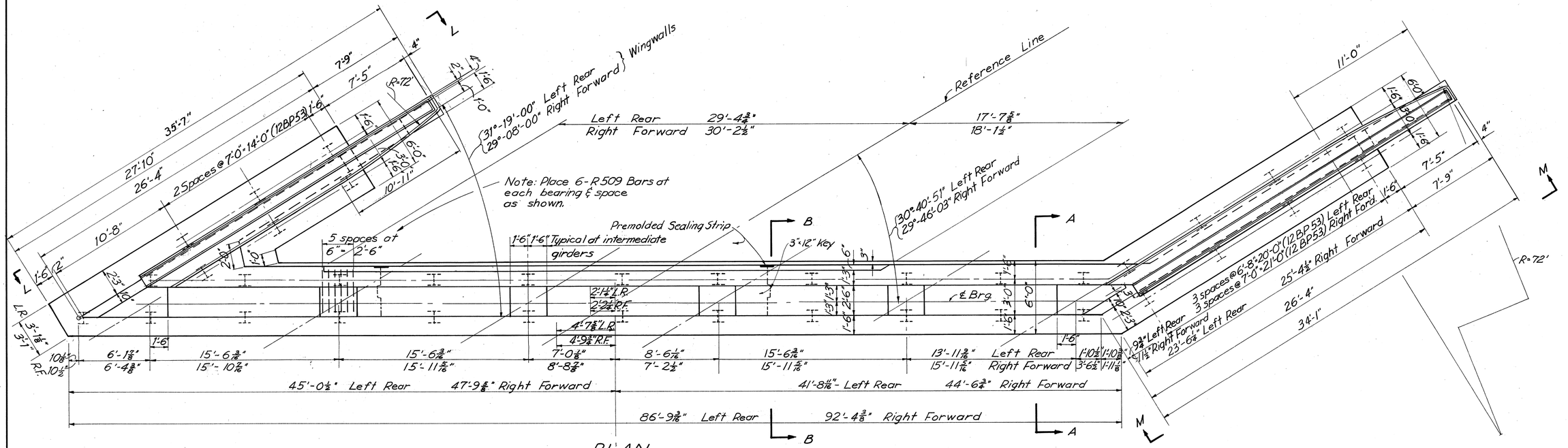
RADIOGRAPHIC EXAMINATION OF WELDS
BRIDGE NO. ERI. 6-1427 LEFT AND RIGHT
OVER NEW YORK CENTRAL RAILROAD
ERIE CO. STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 to 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	H.H. J.H.Y.		B.J.H. T.W.D.	FCM	5-2-60	

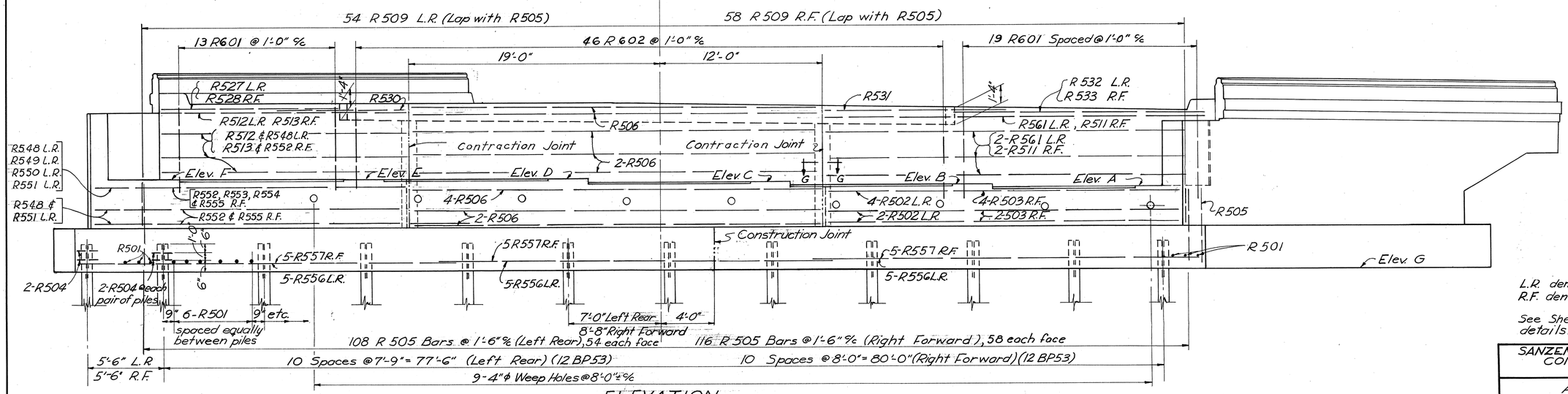
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

179
235

ERIE COUNTY
ERI 6-11.30
0.6 MILES WEST of HURON



PLAN



ELEVATION

ELEVATION	A	B	C	D	E	F	G
Left Rear Abut.	628.84	629.07	629.31	629.53	629.52	629.49	622.60
Right Ford. Abut.	628.77	629.03	629.28	629.49	629.48	629.47	622.50

L.R. denotes Left Rear Abutment
R.F. denotes Right Forward Abutment

See Sheets 181 & 182 for additional details.

MICROFILMED
MAR 20 1961

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

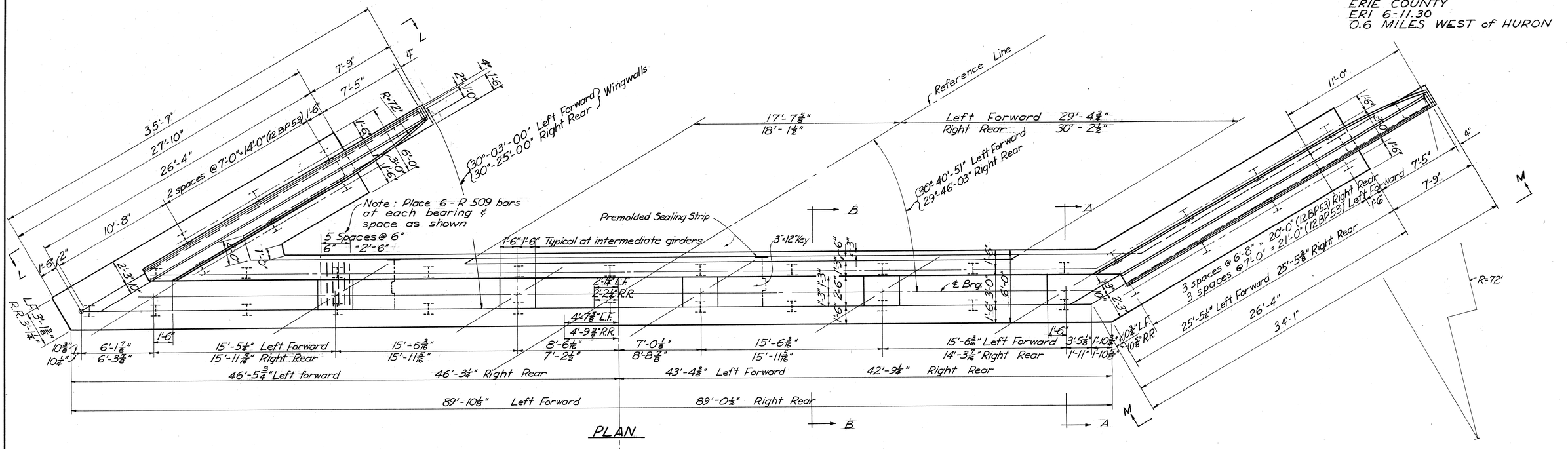
ABUTMENTS
LEFT REAR & RIGHT FORWARD.
BRIDGE No. ERI 6-1427 LEFT & RIGHT OVER
NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 to 1006+31.80 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	AJB	RJH JEC	BJH	FGM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

180
235

ERIE COUNTY
ERI 6-11.30
0.6 MILES WEST of HURON



ELEVATION	A	B	C	D	E	F	G
Left Ford. Abut.	630.15	630.30	630.45	630.36	630.25	630.14	623.90
Right Rear Abut.	630.14	630.28	630.44	630.38	630.26	630.14	623.90

NOTE:
L.F. DENOTES LEFT FORWARD ABUT.
R.R. DENOTES RIGHT REAR ABUT.

SEE SHEETS 181 & 182 FOR ADDITIONAL DETAILS.

MICROFILMED
MAR 20 1985

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

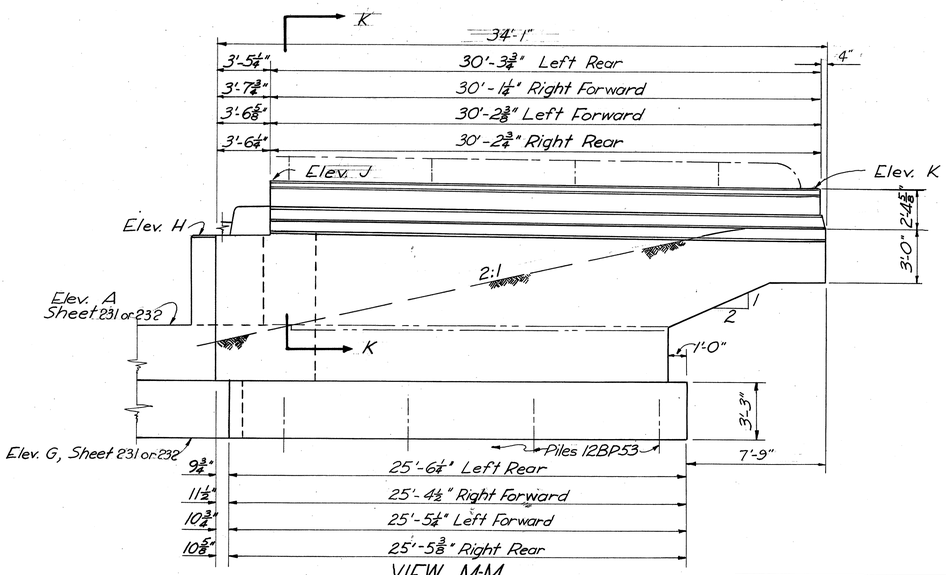
ABUTMENTS
LEFT FORWARD & RIGHT REAR
BRIDGE No. ERI 6-1427 LEFT & RIGHT over
NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 TO 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 TO 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	AJB	JEC	BJH	FCM 5-2-60	

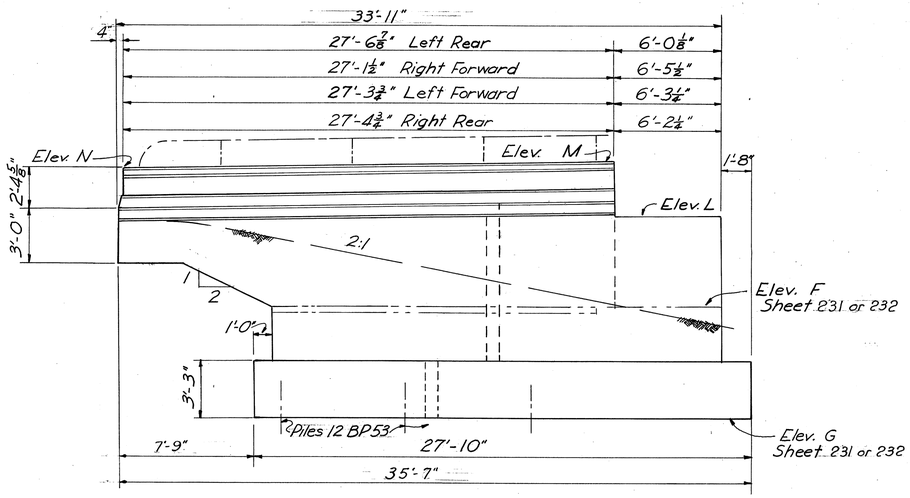
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

181
235

ERIE COUNTY
ERI 6-11.30
0.6 MILES WEST of HURON

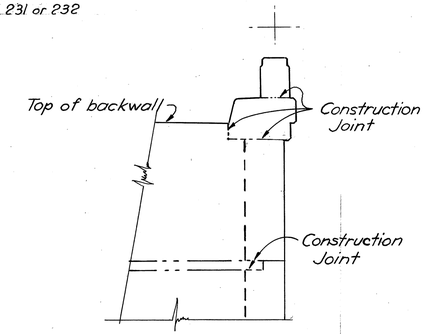


VIEW M-M
WINGWALL ELEVATION
(Construction Details)

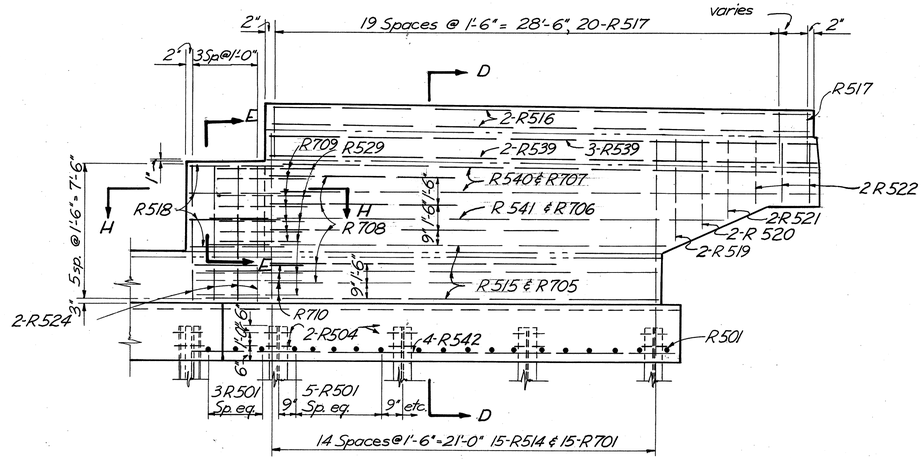


VIEW L-L
WINGWALL ELEVATION
(Construction Details)

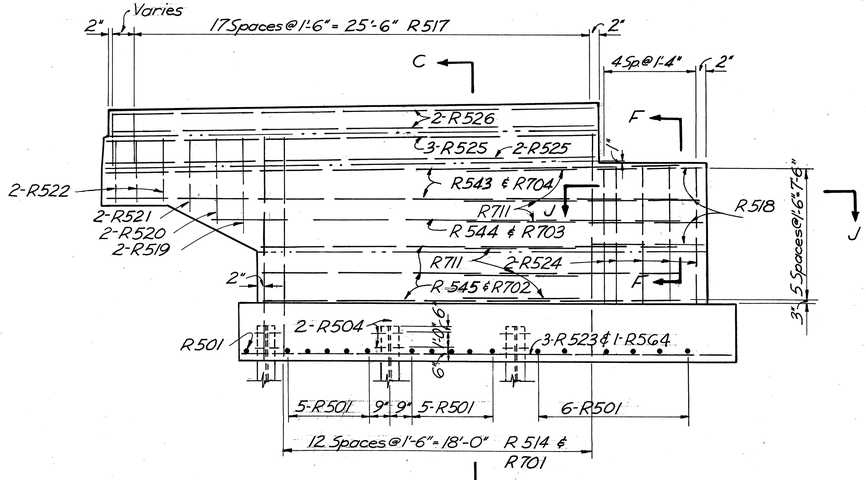
ELEVATION	H	J	K	L	M	N
Left Rear	633.74	636.99	636.64	634.42	637.67	637.47
Right For'd.	633.67	636.92	636.55	634.40	637.65	637.42
Left For'd.	635.08	638.33	638.20	635.08	638.33	638.30
Right Rear	635.07	638.32	638.20	635.08	638.33	638.31



SECTION K-K



VIEW M-M
WINGWALL ELEVATION
(Reinforcing Bar Details)



VIEW L-L
WINGWALL ELEVATION
(Reinforcing Bar Details)

See Sheets 179, 180 & 182 for additional details.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ABUTMENT WINGWALL DETAILS
BRIDGE NO. 6-1427 LEFT & RIGHT over
NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 TO 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 TO 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
BJH	AJB	RJH JEC	BJH	FCM 5-2-60	

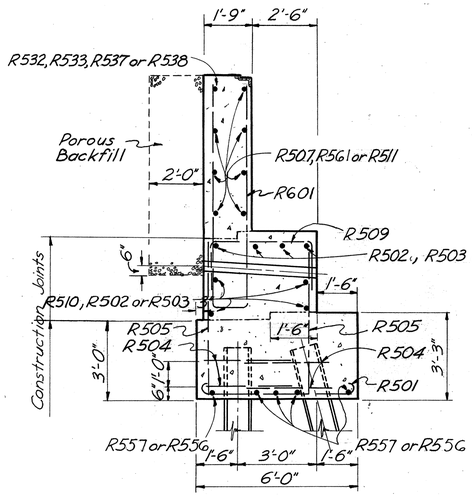
MICROFILMED
MAR 2 0 1965

SEP 15 1960

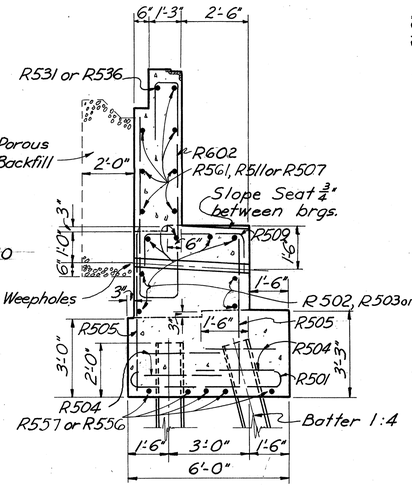
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

182
235

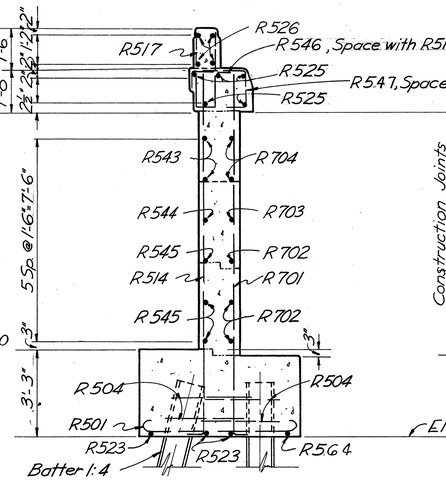
ERIE COUNTY
ERI 6-1130
0.6 MILES WEST OF HURON



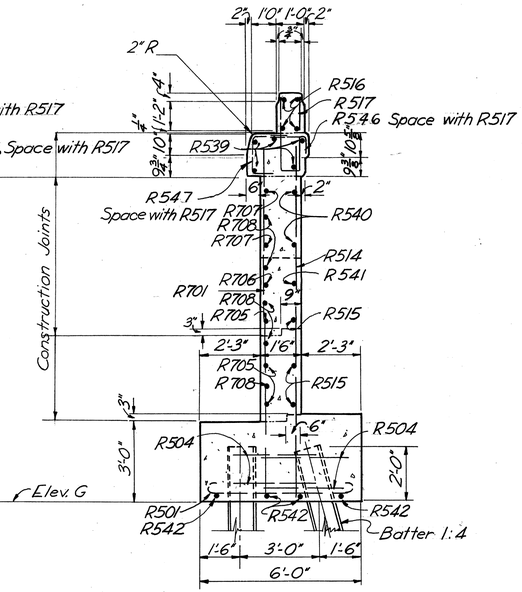
SECTION A-A



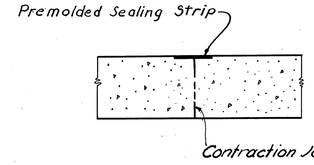
SECTION B-B



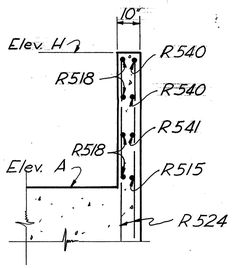
SECTION C-C



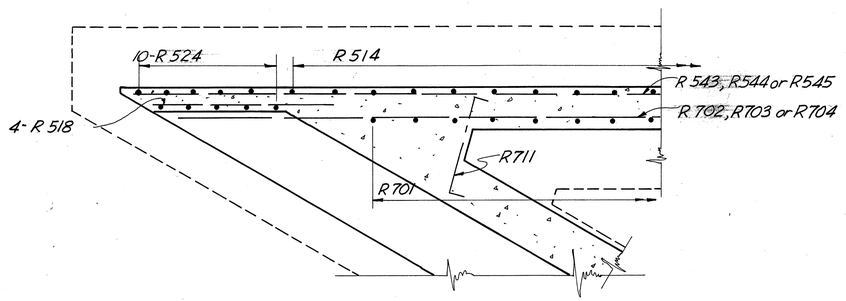
SECTION D-D



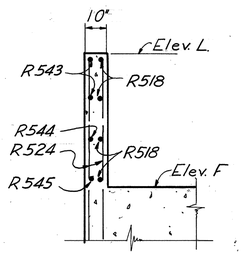
SECTION G-G



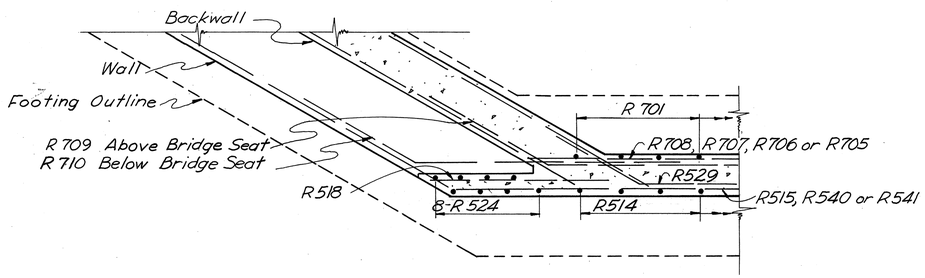
SECTION E-E



SECTION J-J



SECTION F-F



SECTION H-H

See sheets 179, 180 & 181 for additional details.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ABUTMENT DETAILS
BRIDGE No 6-1427 LEFT & RIGHT over
NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 TO 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 TO 1006+31.30 RIGHT BRIDGE

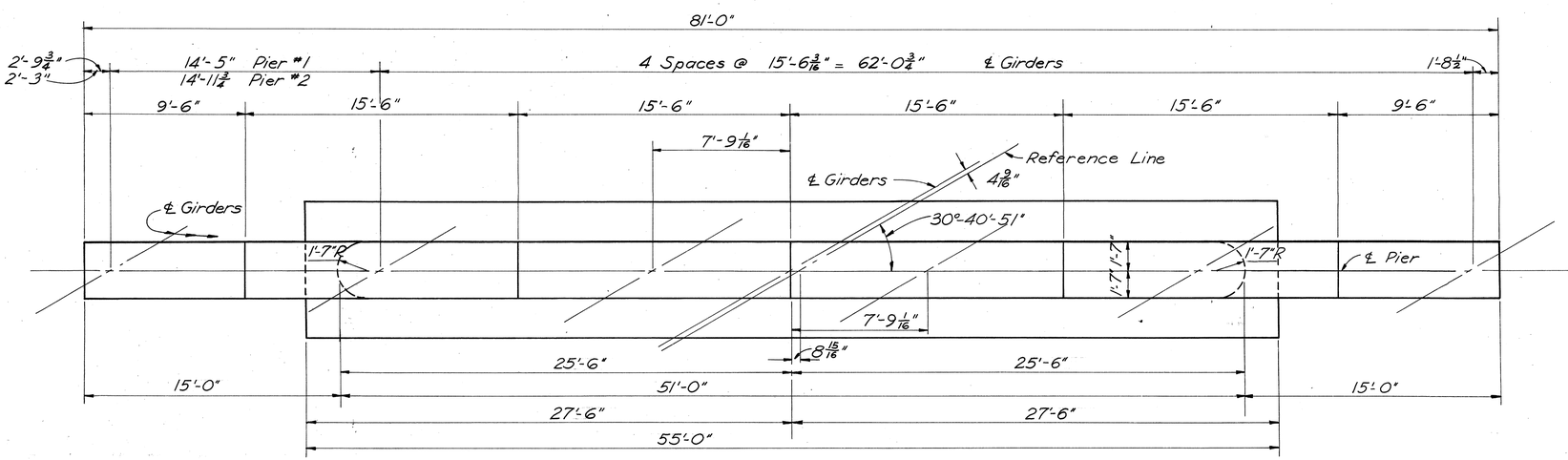
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	AJB	JEC	BJH	FCM 5-2-60	

SEP 15 1960

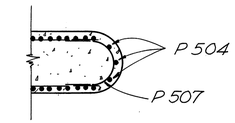
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

183
235

ERIE COUNTY
ERI. 6-11.30
0.6 MILES WEST OF HURON

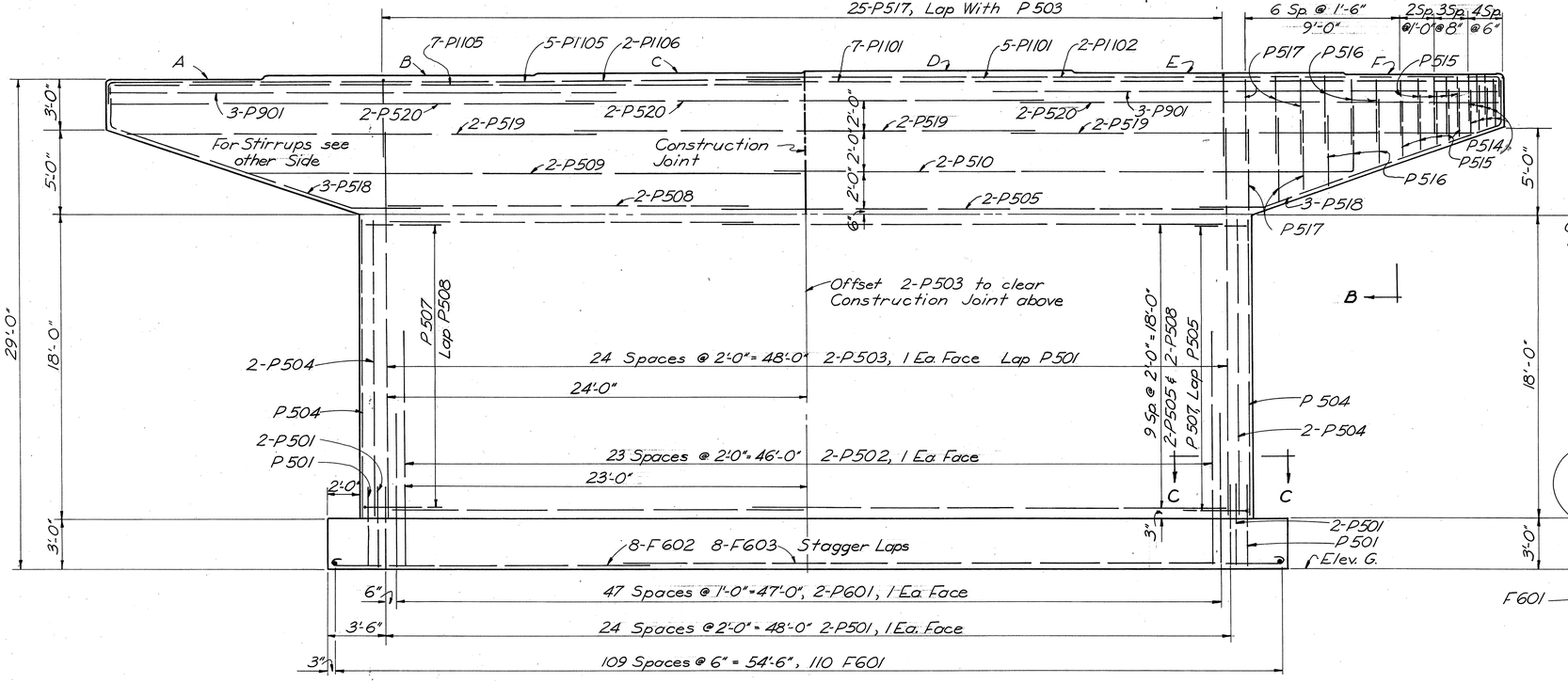


PLAN

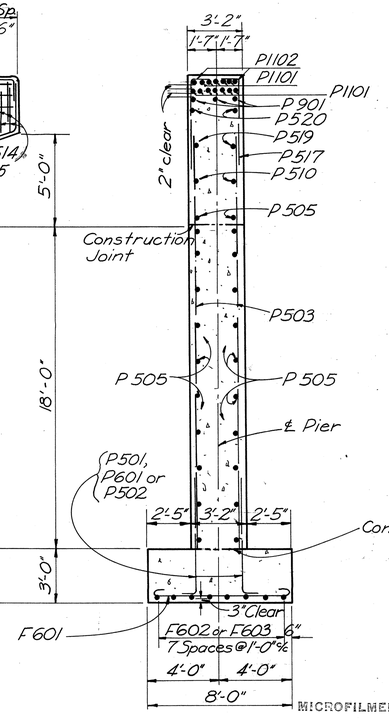


SECTION C-C

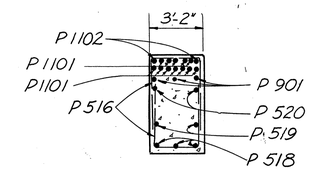
ELEVATION	A	B	C	D	E	F	G
Pier #1	628.79	628.99	629.19	629.35	629.29	629.23	599.79
Pier #2	629.29	629.44	629.59	629.70	629.59	629.48	600.29



ELEVATION



SECTION A-A



SECTION B-B

P1101, P1102, P1105 & P1106 bars shall be spaced to clear bolster anchor bolts on Pier #1

MICROFILMED
MAR 20 1965

SEP 15 1960

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

PIERS #1 & #2

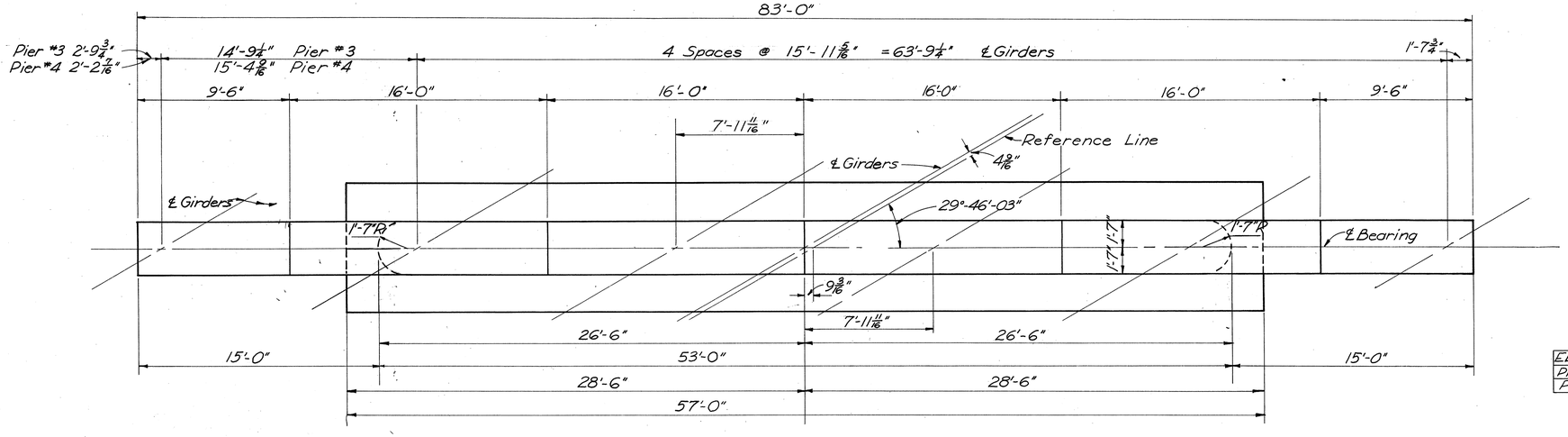
BRIDGE No. ERI 6R-1427 (LEFT)
OVER NEW YORK CENTRAL R.R.
ERIE COUNTY
STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
AJB	AJB	JEC	BJH	FCM 5-2-60	

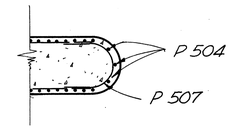
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

184
235

ERIE COUNTY
ERI 6-11.30
0.6 MILES WEST OF HURON

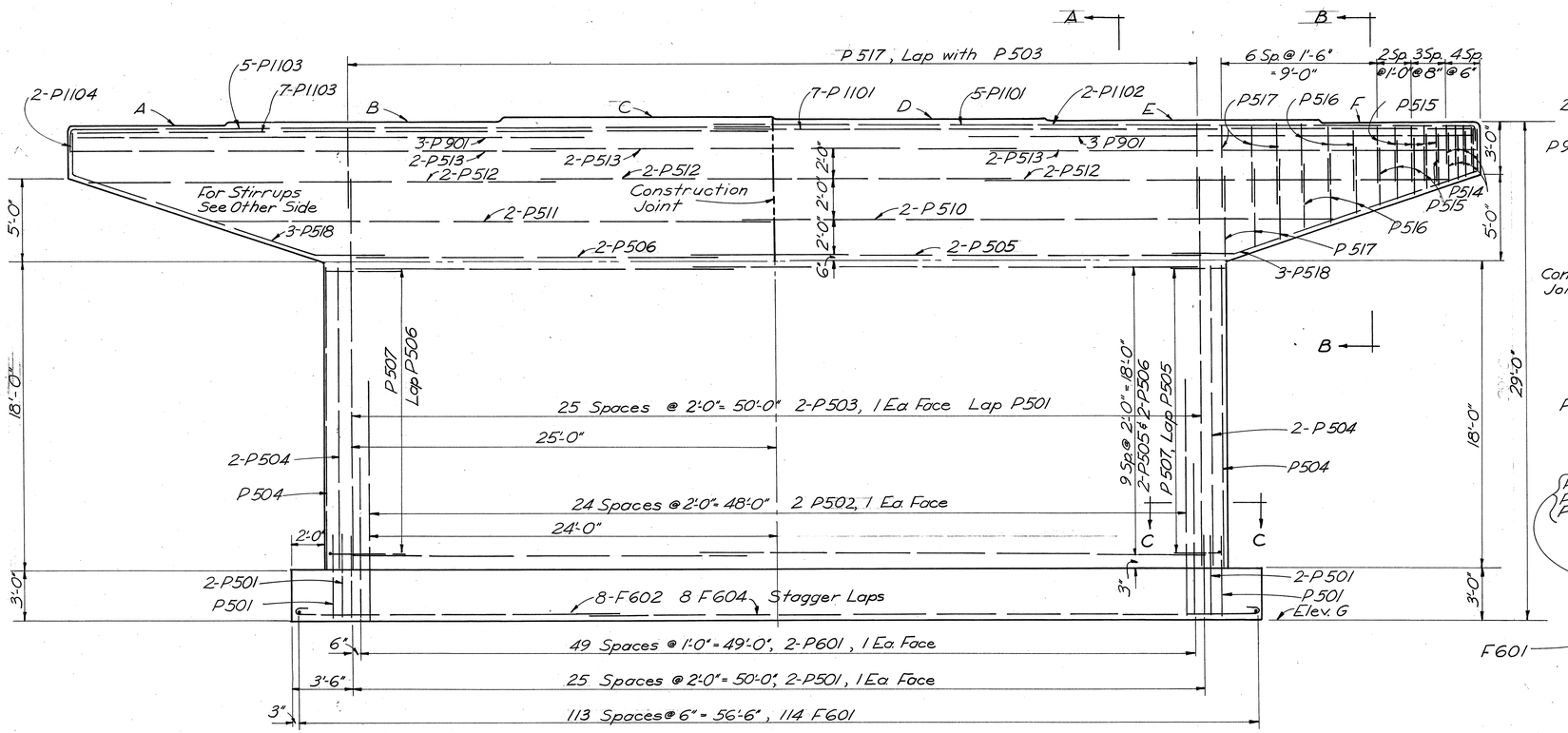


PLAN

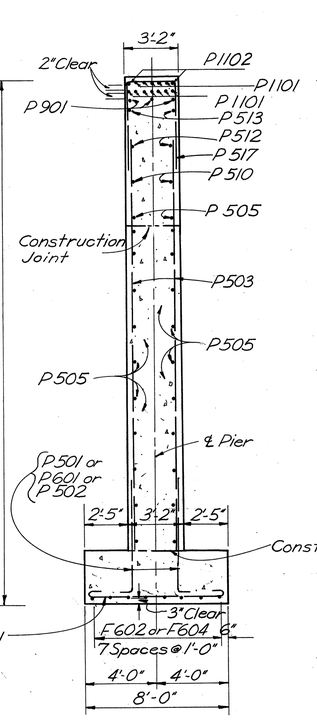


SECTION C-C

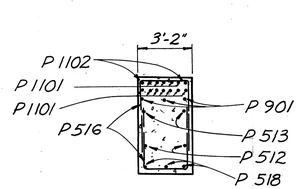
ELEVATION	A	B	C	D	E	F	G
Pier #3	629.48	629.60	629.71	629.58	629.42	629.26	600.26
Pier #4	629.23	629.29	629.34	629.16	628.95	628.73	599.73



ELEVATION



SECTION A-A



SECTION B-B

P1101, P1102, P1103 & P1104 Bars shall be spaced to clear bolster anchor bolts on Pier # 3

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

PIERS #3 & #4

BRIDGE N° ERI 6R-1427 (RIGHT)
OVER NEW YORK CENTRAL RAILROAD
ERIE COUNTY
STA. 1003+52.15 to 1006+31.30 RIGHT BRIDGE

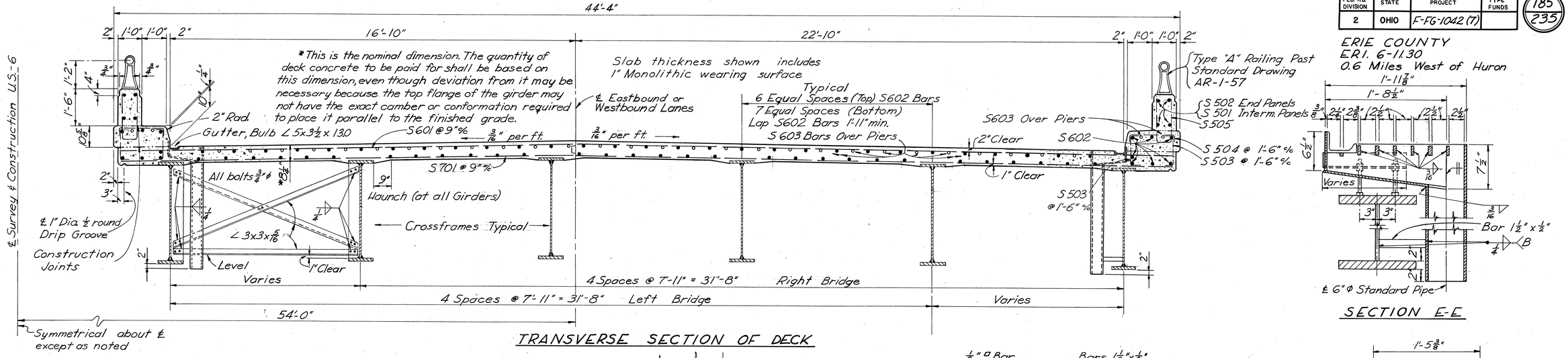
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
AJB	AJB	JEC	BJH	FCM 5-2-60	

SEP 15 1960

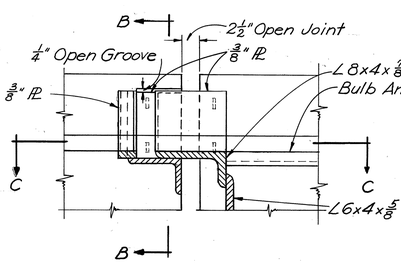
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

185
235

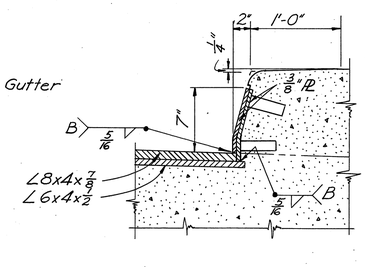
ERIE COUNTY
ER1. 6-11.30
0.6 Miles West of Huron



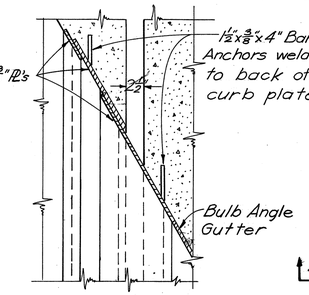
TRANSVERSE SECTION OF DECK



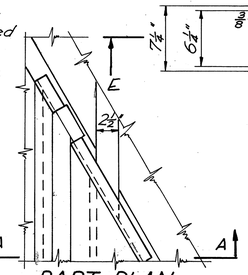
SECTION A-A



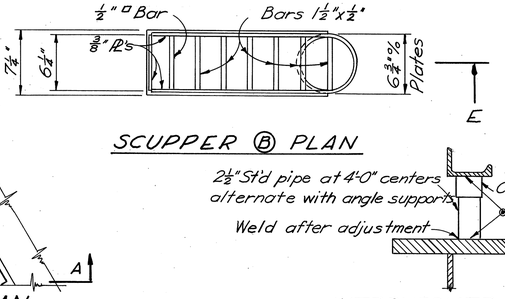
SECTION B-B
CURB PLATE DETAILS



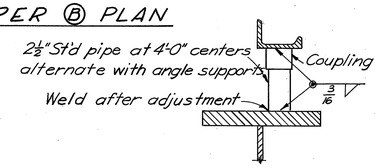
SECTION C-C



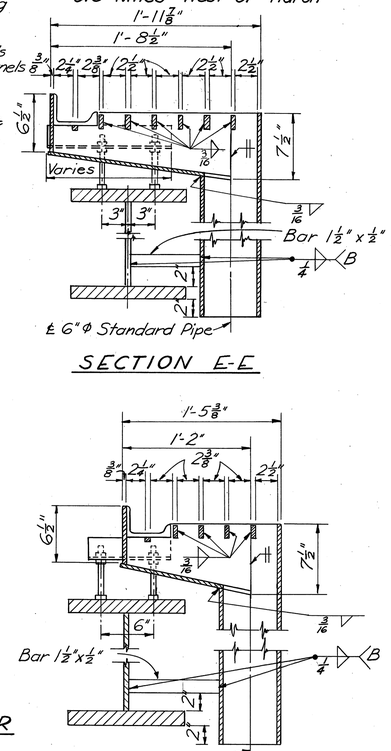
PART PLAN



SCUPPER Ⓑ PLAN



INTERMEDIATE GUTTER SUPPORT



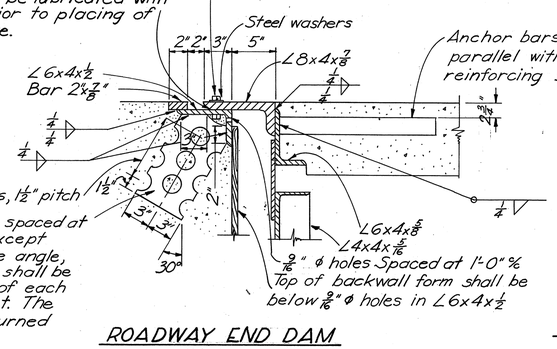
SECTION E-E

SECTION D-D

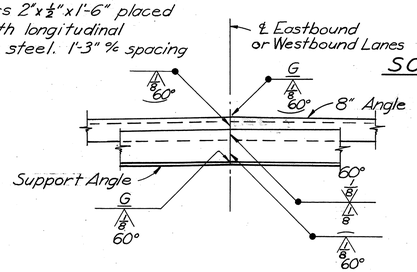
Omit Shop coat on all portions of end dam. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.

⅝"x 2" bolts at not more than 2'-0" ℄ with nuts tack-welded to underside of lower angle. 1⅛" ϕ holes in upper angle. Center ⅝" bolts in 1⅛" 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 super structure. Fill holes with bituminous material.

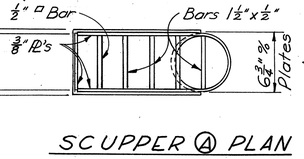
This contact surface shall not be painted and shall be lubricated with flake graphite prior to placing of backwall concrete.



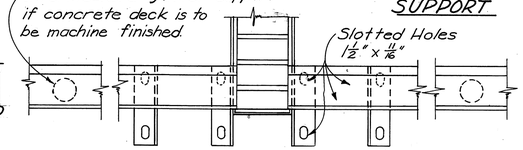
ROADWAY END DAM



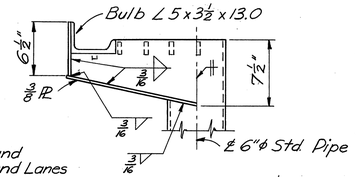
WELDED BUTT JOINT IN SUPERSTRUCTURE
END DAM ANGLES AT ℄ OF APPROACH PAVEMENT



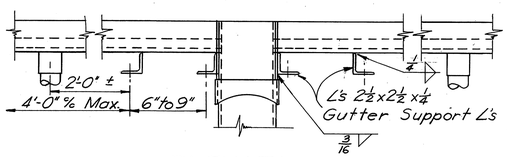
SCUPPER Ⓐ PLAN



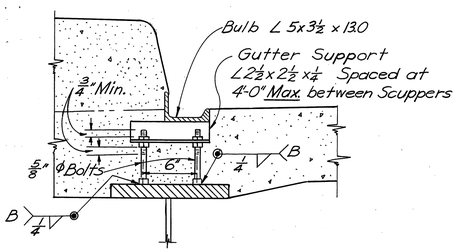
PART PLAN



SCUPPER ELEVATION



ELEVATION
GUTTER & SCUPPER DETAILS



GUTTER SUPPORT

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.

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

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

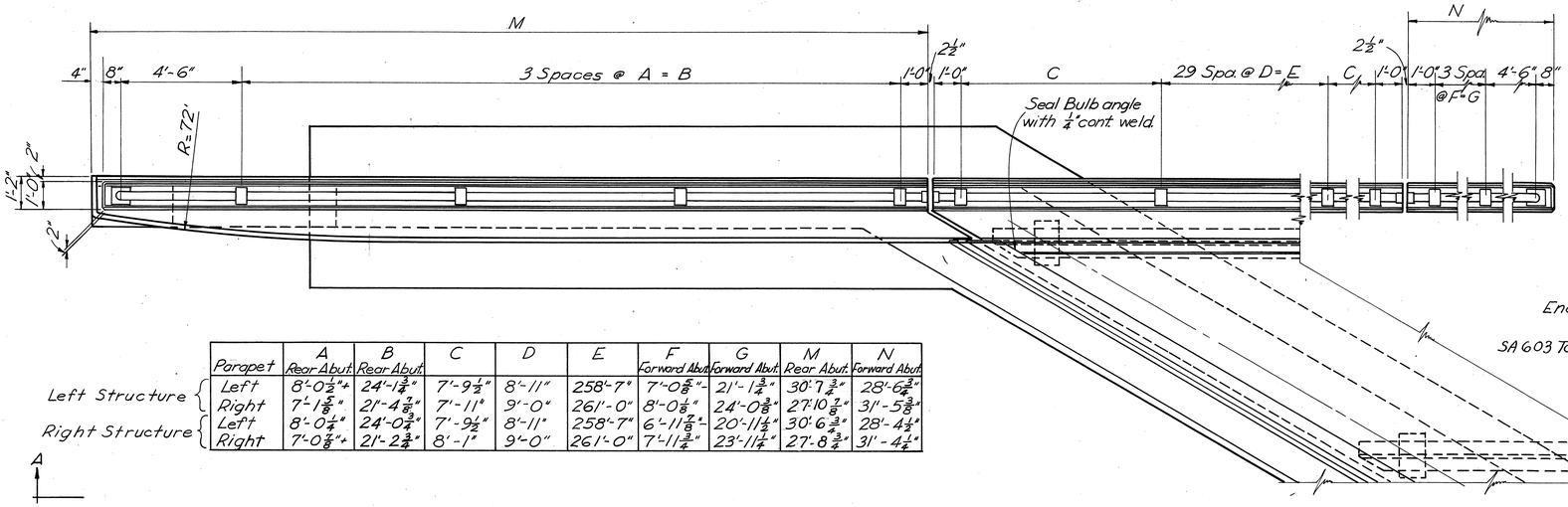
SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI. 6-1427 LEFT AND RIGHT OVER NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 to 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	RAR	RJH JEC	BJH	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

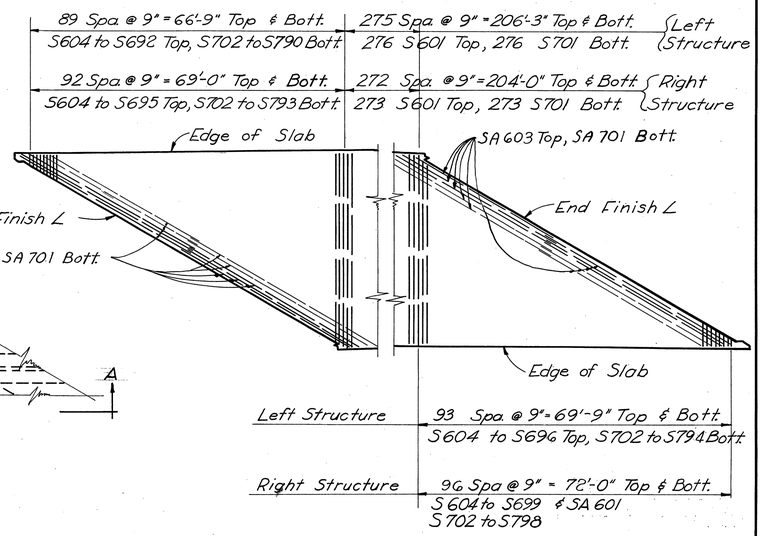
186
235

ERIE COUNTY
ERI. 6-11.30
0.6 Miles West of Huron

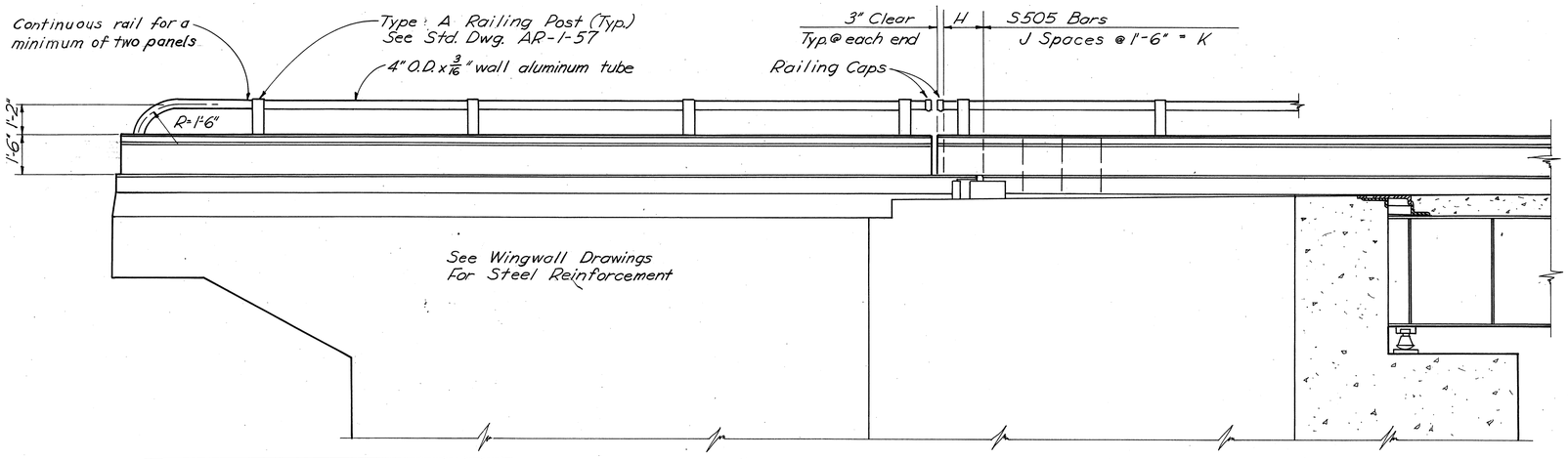


Parapet		A Rear Abut.	B Rear Abut.	C	D	E	F Forward Abut.	G Forward Abut.	M Rear Abut.	N Forward Abut.
Left Structure	Left	8'-0 1/2"+	24'-1 3/4"	7'-9 1/2"	8'-11"	258'-7"	7'-0 5/8"-	21'-1 3/4"	30'-7 3/4"	28'-6 3/8"
	Right	7'-1 5/8"	21'-4 3/8"	7'-11"	9'-0"	261'-0"	8'-0 1/8"	24'-0 3/8"	27'-10 7/8"	31'-5 3/8"
Right Structure	Left	8'-0 1/4"	24'-0 3/4"	7'-9 1/2"	8'-11"	258'-7"	6'-11 7/8"+	20'-11 1/2"	30'-6 3/4"+	28'-4 1/2"
	Right	7'-0 7/8"+	21'-2 3/4"	8'-1"	9'-0"	261'-0"	7'-1 1/4"-	23'-11 1/4"	27'-8 3/4"	31'-4 1/2"

PLAN AT ABUTMENT AND RAILING SPACING



SLAB TRANSVERSE REINFORCING STEEL



Parapet		H	J Spaces @ 1'-6" = K
Left Structure	Left	1'-4"	182 Spaces @ 1'-6" = 273'-0"
	Right	1'-2"	184 Spaces @ 1'-6" = 276'-0"
Right Structure	Left	1'-4"	182 Spaces @ 1'-6" = 273'-0"
	Right	1'-4"	184 Spaces @ 1'-6" = 276'-0"

SECTION A-A

Right Structure — Lap the S634 to S697 Bars with 1 SA 602 Bar
Lap the S732 to S794 Bars with 1 S799 Bar

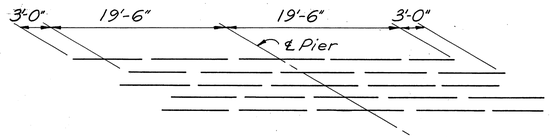


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

MICROFILMED
MAR 20 1961
SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

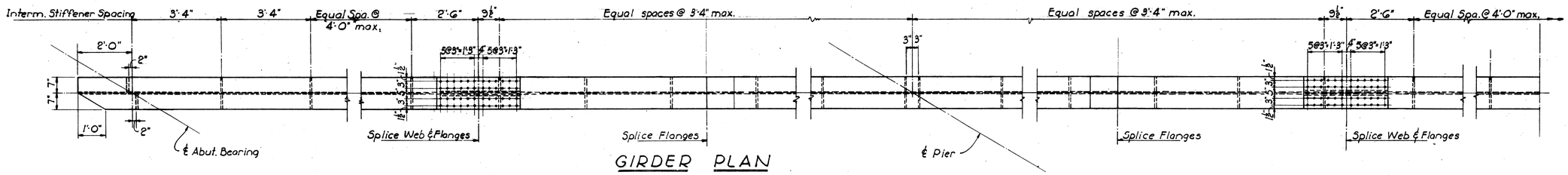
SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI. 6-1427 LEFT & RIGHT OVER
NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 to 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	RAR	JEC	BJH	FCM 5-2-60	

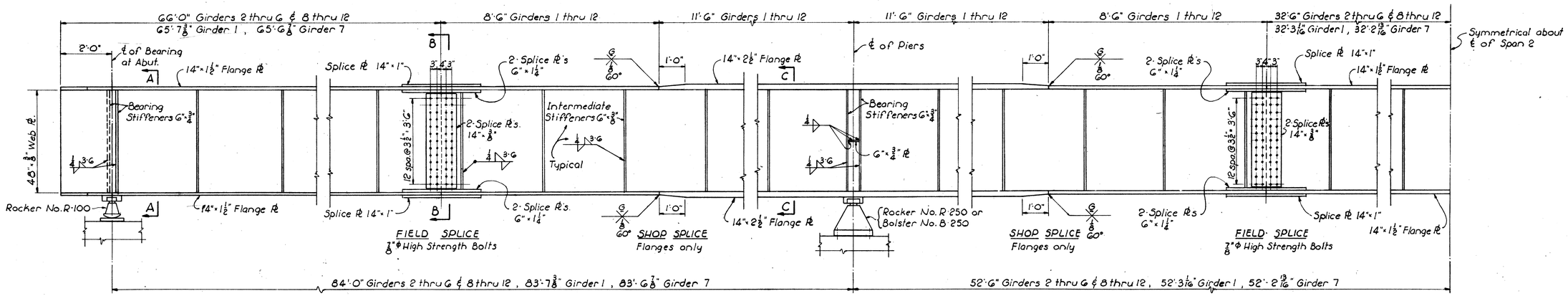
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

187
235

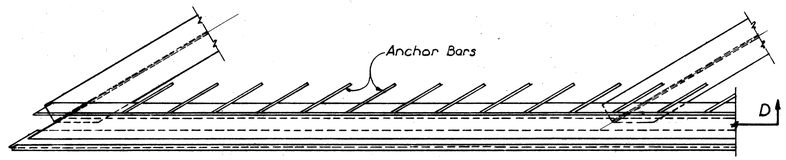
ERIE COUNTY
ERI G-11.30
O.G Miles West of Huron



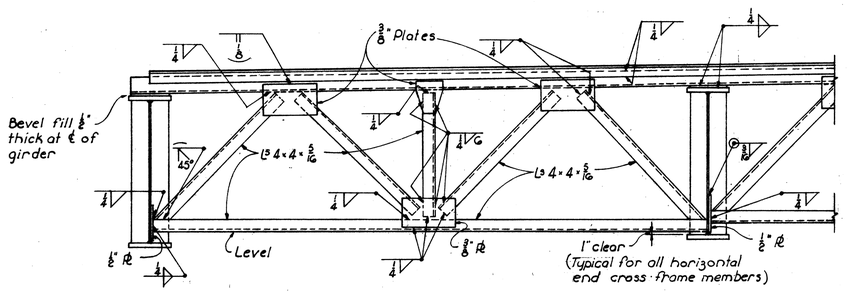
GIRDER PLAN



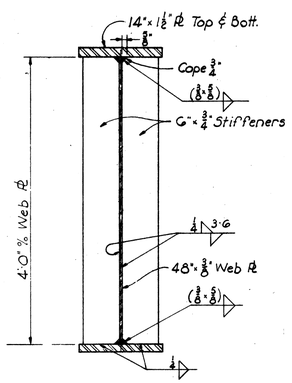
GIRDER ELEVATION



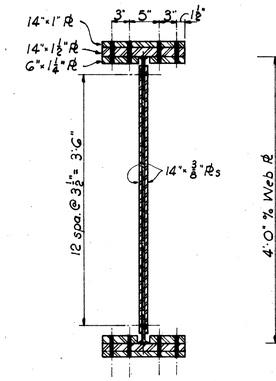
PART END DAM PLAN



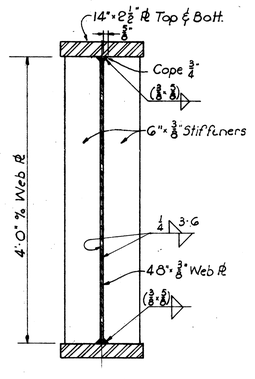
SECTION D-D



SECTION A-A



SECTION B-B



SECTION C-C

STIFFENERS: Intermediate stiffeners shall not be welded to the flanges but shall be fitted to the flanges in close enough contact that when the shop paint is applied it will fill and close the openings. The bearing stiffeners over piers and abutments shall be grooved and fully butt welded to the lower flange and fitted in close contact, without welding, at the upper flange.

CAMBERING of beams is required in accordance with the following table.

DEFLECTION AND CAMBER	Interior Beams		Exterior Beams	
	End Spans	Center Span	End Spans	Center Span
Deflection due to Dead Load	½"	⅝"	⅝"	⅝"
Camber required for vertical curve	⅜"	⅝"	⅜"	⅝"
Total Camber.	⅞"	1¼"	1"	1¼"
Required Shop Camber	1"	1¼"	1"	1¼"

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

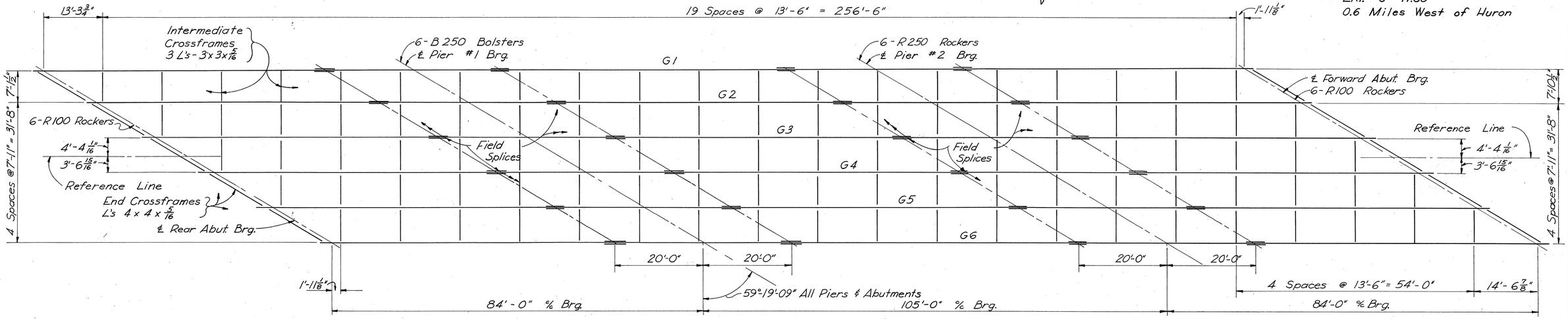
SUPERSTRUCTURE DETAILS
BRIDGE No. ERI G-1427 LEFT AND RIGHT OVER NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 100G+35.09 LEFT BRIDGE
STA. 1003+52.15 to 100G+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
BJH	TWD		BJH	FCM 5-2-60	

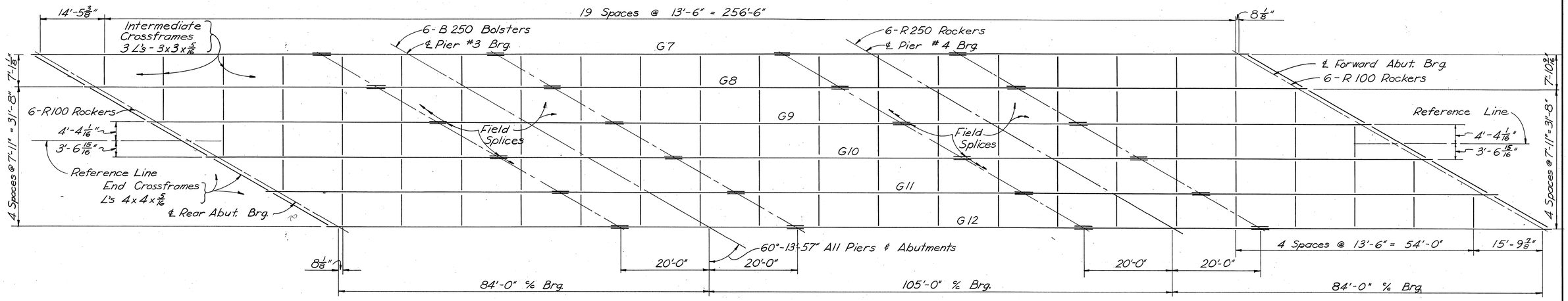
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

188
235

ERIE COUNTY
ERI. 6 - 11.30
0.6 Miles West of Huron



LEFT BRIDGE FRAMING PLAN



RIGHT BRIDGE FRAMING PLAN

NOTES

SHOP DRAWINGS for the girders shall include an overall layout with dimensions showing the relative unloaded vertical position of each girder or girder segment with respect to the others in the same girder line and with respect to a full length base or work line taking into account deflection and the profile of the highway.

SHOP ASSEMBLY Reaming of holes for high strength bolts in field splices of girder segments shall be done with at least three adjacent segments assembled in their correct unloaded positions as shown on the shop drawing layout required in the note at left. Similar procedure shall be followed for any shop welding of web plate segments.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

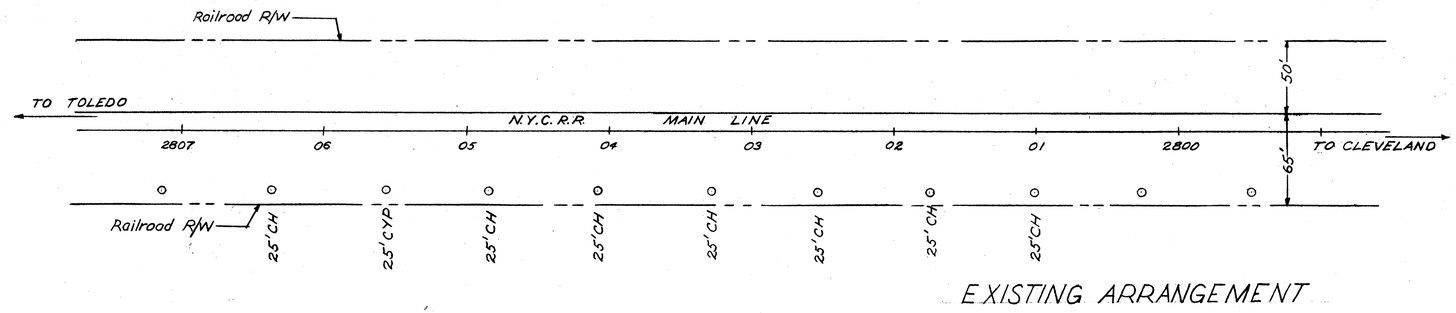
BRIDGE NO. E.R.I. 6-1427 LEFT & RIGHT OVER
NEW YORK CENTRAL RAILROAD
ERIE CO.
STA. 1003+48.48 to 1006+35.09 LEFT BRIDGE
STA. 1003+52.15 to 1006+31.30 RIGHT BRIDGE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAR	DFS	JEC	BJH	FCM 5-2-60	

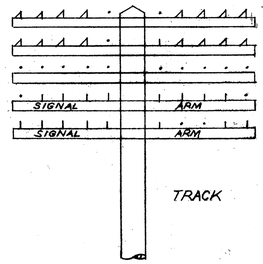
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

189
235

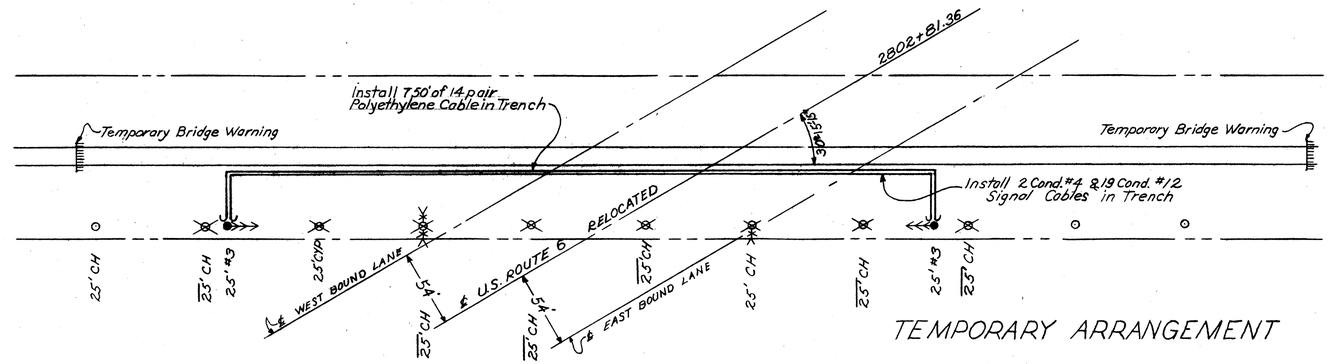
ERI - 6 - 11.30



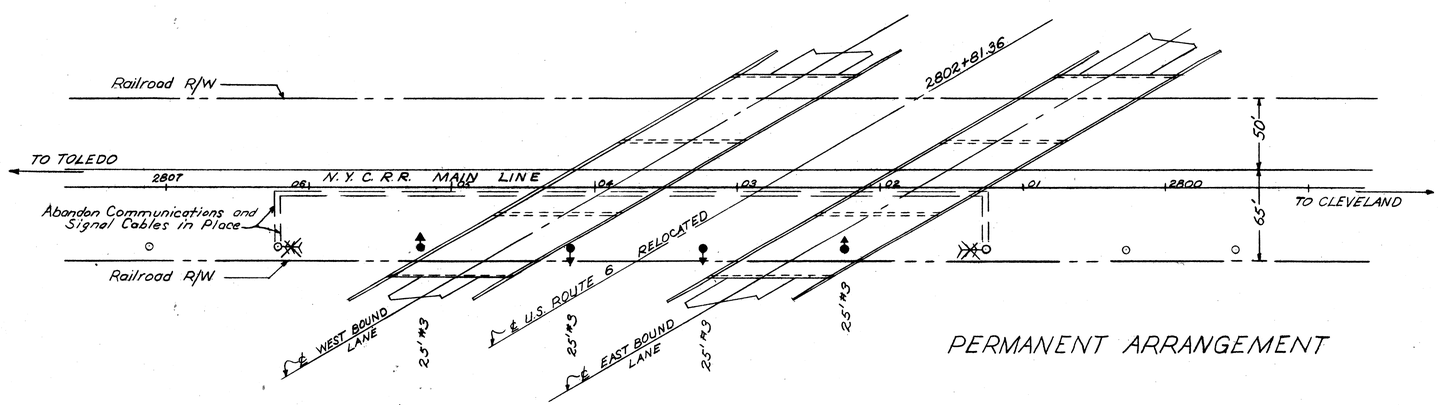
EXISTING ARRANGEMENT



POLE LINE



TEMPORARY ARRANGEMENT



PERMANENT ARRANGEMENT

LEGEND:

- ○ Existing Pole
- ● New Pole
- ⊗ Pole to be removed
- 25'CH⊗ Salvage 25' CH Pole
- ○⇒ Anchors and Guy to be installed
- ⊗⇒ Anchor and Guy to be removed
- ●→ Patent Anchor to be installed

NOTE:
All labor and the furnishing of all material in connection with changes as shown on this sheet and called for in the estimate will be performed by the N.Y.C.R.R. force account.

FORCE ACCOUNT WORK ESTIMATE
by
The New York Central System

Preliminary Engineering
Construction Engineering
Track Work
Communications Work
Signal Work
Protection of Railroad Traffic
Accounting
Insurance

BRIDGE No. ERI - 6 - 1427

N.Y.C. SYSTEM	OFFICE OF CHIEF ENGINEER	CHICAGO, ILL.

PROPOSED DUAL OVERHEAD HIGHWAY BRIDGES
U.S. ROUTE 6 RELOCATED
2.66 MILES WEST OF
HURON, OHIO
PROPOSED COMMUNICATION & SIGNAL LINE CHANGES

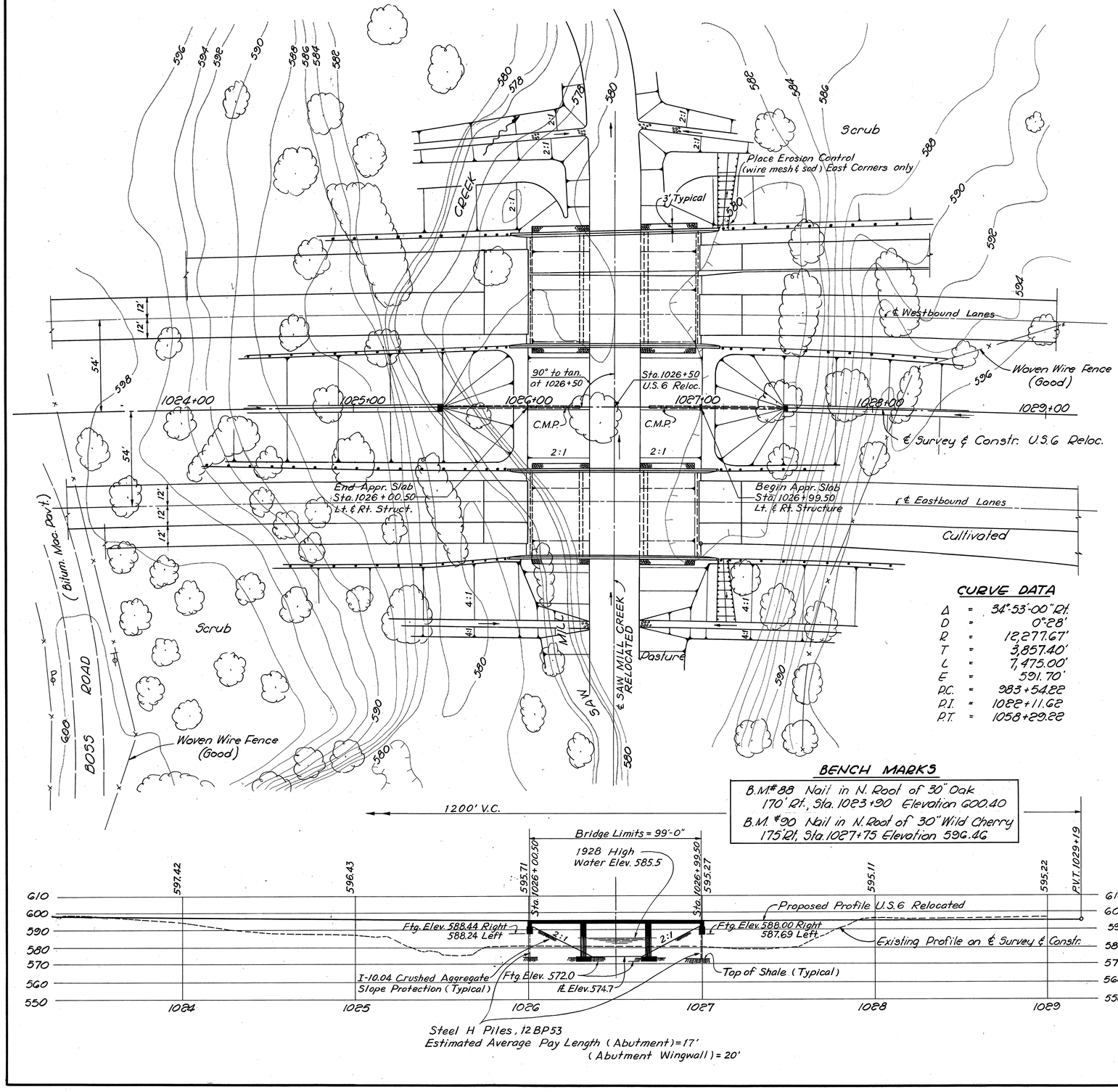
WESTERN DISTRICT	TOLEDO DIVISION		PLAN No. 7324
SCALE: 1"=50'	OCT. 30, 1959	V.S. 206	FILE No. 121-177

SEP 15 1960

FED. ED. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

190
235

ERI..6-11.30
0.2 MILES WEST OF HURON



CURVE DATA

Δ	=	34°-53'-00" Rt.
D	=	0°-28'
R	=	12,277.67'
T	=	3,857.40'
L	=	7,475.00'
E	=	591.70'
P.C.	=	983+54.22
P.I.	=	1022+11.62
P.T.	=	1058+29.22

BENCH MARKS

B.M #88 Nail in N. Root of 30" Oak
170' Rt., Sta. 1023+90 Elevation 600.40
B.M. #90 Nail in N. Root of 30" Wild Cherry
175' Rt, Sta. 1027+75 Elevation 596.46

EXISTING BRIDGE DATA

Upstream Bridge: At N.Y.C. R.R. 900' Upstream
Type: Concrete Slab added to arch
Span: Single Span 24.9' clear.
Skew: None
Length: 28.9'
Condition: Good
Clear Opening: 370 sq.ft.

Downstream Bridge: At Existing U.S.6, ERI.6-1494, 450' Downstream
Type: Concrete Beam
Span: Single Span 35.2' Normal clear.
Roadway: 50' f/f curbs
Length: 40'
Condition: Fair
Waterway opening: 252 sq.ft.
Clear opening: 252 sq.ft.

Overflow Downstream Bridge: At Existing U.S.6, ERI 6-1499, 500' Downstream
Type: Concrete Slab
Span: Single Span 16' Normal clear
Roadway: 40' f/f curbs
Condition: Fair
Waterway opening: 66 sq.ft.
Clear opening: 66 sq.ft.
Total Waterway opening, downstream bridges = 318 sq.ft.
Total Clear opening, downstream bridges = 318 sq.ft.

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 Reinforced Concrete Slab. Reinforced Concrete Substructure. C Type Abuts. on H Piles. T Type Piers.
Spans: 30'-0", 37'-6", 30'-0" ℄ Bearings Left and Right Structures.
Roadway: 50'-0" f/f of Parapets Rt. Struct. Variable f/f of Parapets Lt. Struct.
Load Frequency: CF 400 (57)
Skew: None
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: AS-1-54 (25'-0" Long)
Alignment: 0°28' Rt., Superelevation: None

DRAINAGE AREA = 22 Sq. Miles

Net Waterway Opening = 485 Sq.Ft. Below 1928 H.W.

BANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SITE PLAN
BRIDGE NO. ERI. 6-1466
LEFT and RIGHT
OVER SAW MILL CREEK

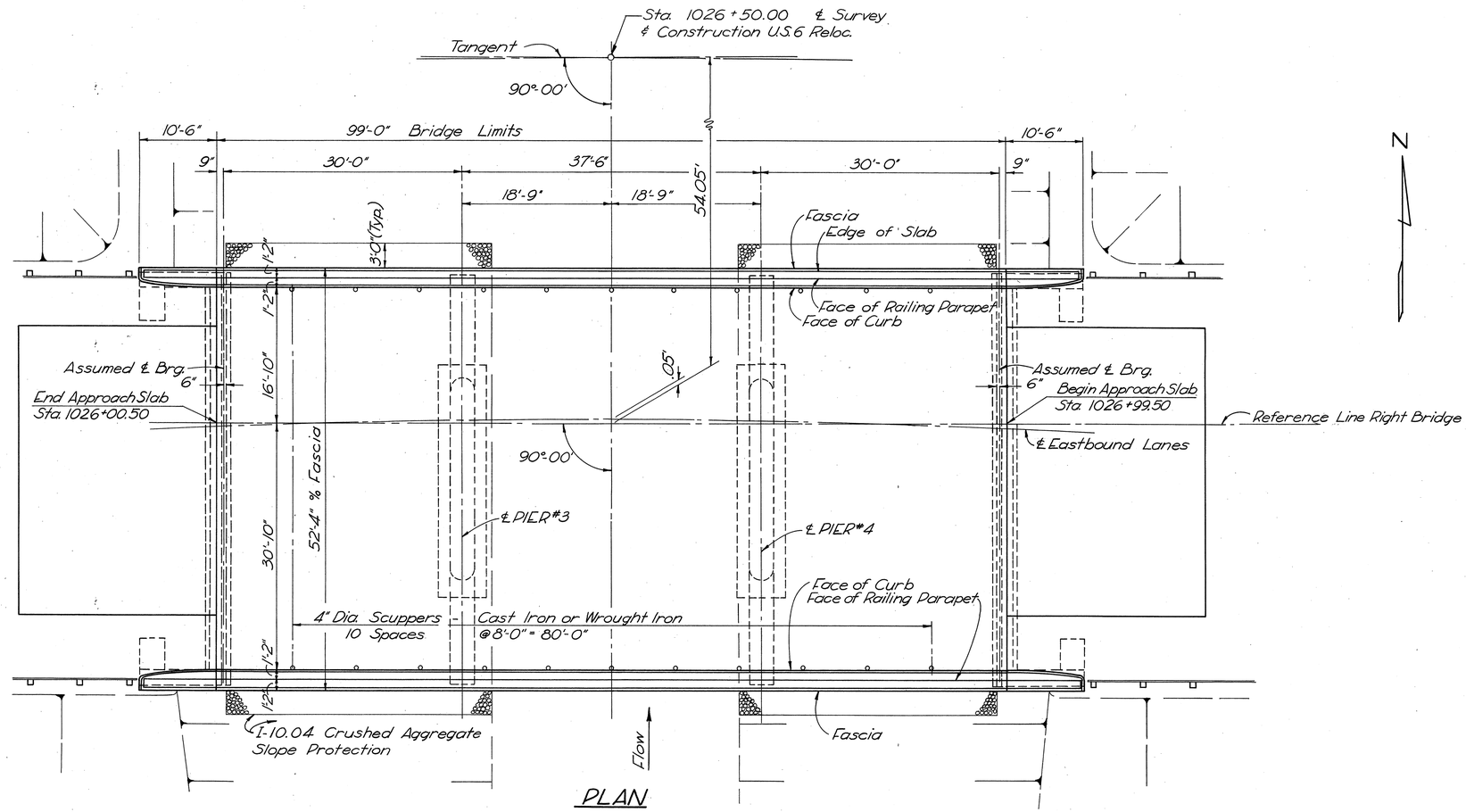
ERIE COUNTY STA. 1026+00.50 to
SCALE: 1"=30' STA. 1026+99.50

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED S.M.B.	DRAWN R.H.-B.B.	DESIGNED N.D.	DRAWN N.D. JHY	CHECKED B.J.H	REVIEWED F.C.M 5-24-61

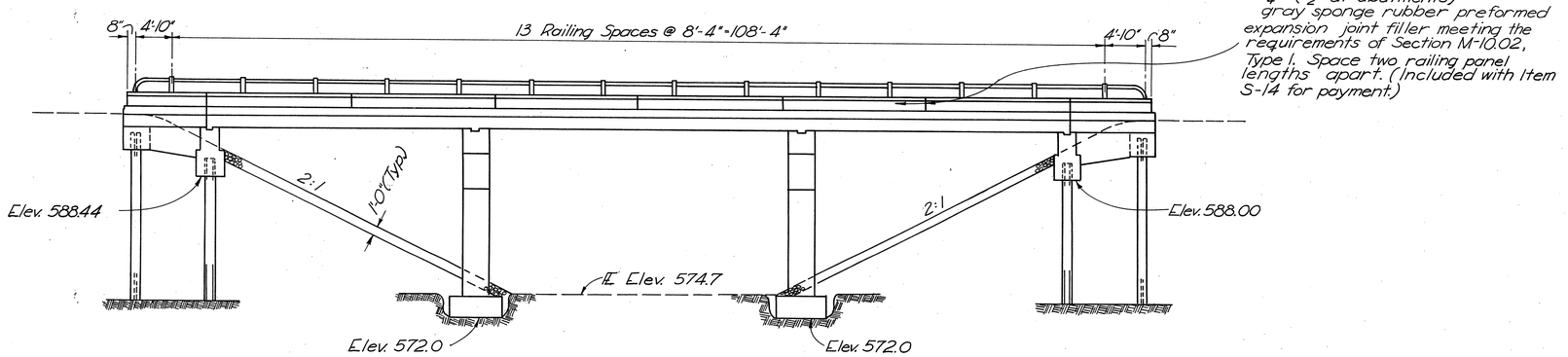
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

191
235

E.R.I. 6-11.30
0.2 MILES WEST OF HURON



PLAN



ELEVATION

MICROFILMED
MAR 2 0 1985

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL PLAN & ELEVATION

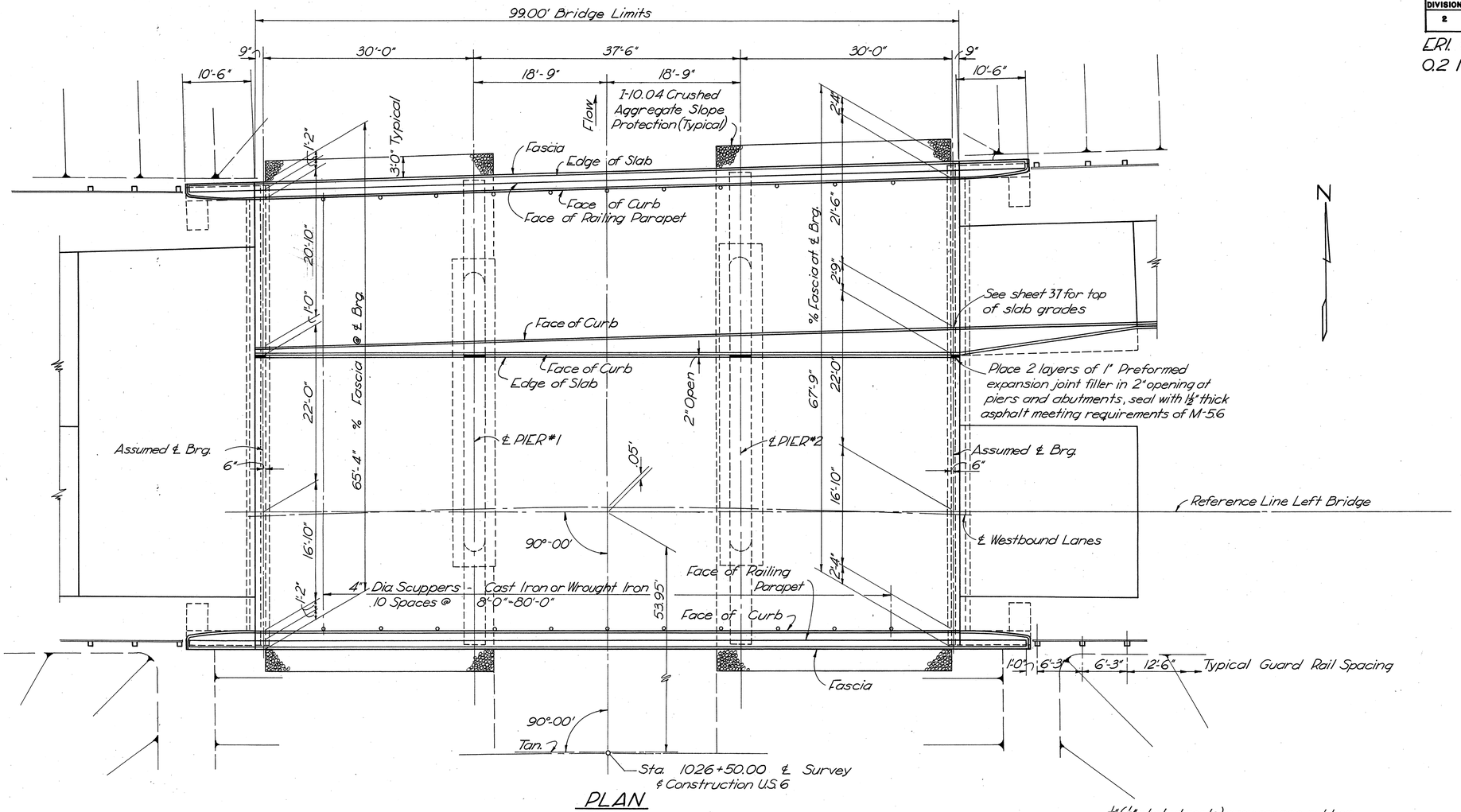
BRIDGE No. ERI. 6-1466 RIGHT OVER
SAW MILL CREEK Sta. 1026+00.50 to
ERIE COUNTY Sta. 1026+99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AJB	AJB	JEC	BJH	F C M	5-2-60	

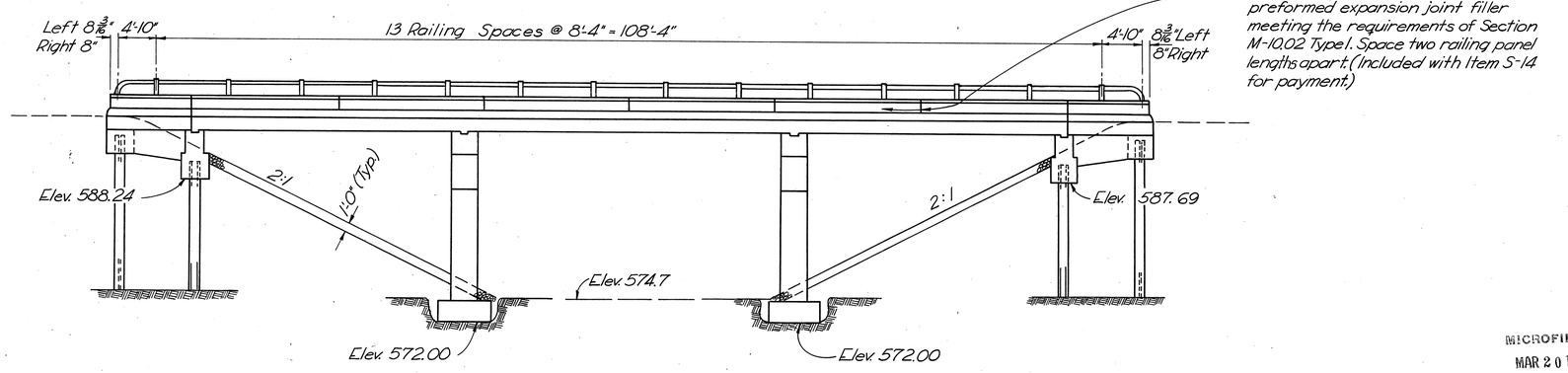
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

192
235

ERI. 6-11.30
0.2 MILES WEST OF HURON



PLAN



ELEVATION

MICROFILMED
MAR 20 1965

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL PLAN & ELEVATION

BRIDGE No. ERI. 6-1466 LEFT OVER
SAW MILL CREEK Sta. 1026+00.50 to
ERIE COUNTY Sta. 1026+99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AJB	AJB	JEC	BJH	FCM	5-2-60	

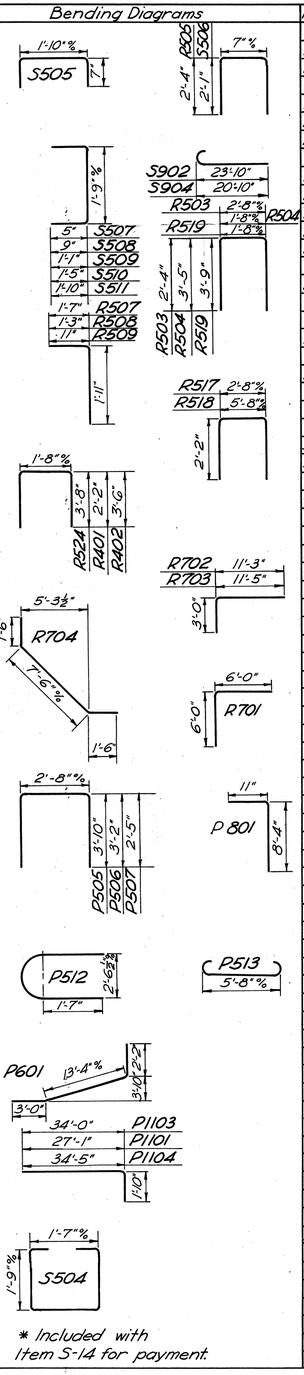
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

193
235

ERI. 6-11.30

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape
ABUTMENTS				
R1001	8	31'-6"	1084	S
R1002	8	23'-0"	792	S
R1003	4	38'-0"	654	S
R1004	4	29'-6"	508	S
R1005	4	36'-2"	623	S
R1006	4	33'-9"	581	S
R801	8	30'-10"	659	S
R802	8	23'-0"	491	S
R803	4	37'-2"	397	S
R804	4	29'-6"	315	S
R805	4	35'-6"	379	S
R806	4	33'-9"	360	S
R701	24	11'-10"	580	B
R702	8	14'-1"	230	B
R703	24	14'-3"	699	B
R704	32	10'-4"	676	B
R601	24	4'-1"	147	S
R602	8	4'-5"	53	S
R603	4	4'-6"	27	S
R604	8	4'-9"	57	S
R605	4	5'-0"	30	S
R606	4	4'-3"	26	S
R607	4	5'-2"	31	S
R501	12	29'-11"	374	S
R502	12	23'-0"	288	S
R503	398	7'-1"	2940	B
R504	72	8'-3"	620	B
R505	56	5'-0"	292	B
R506	32	9'-9"	*	S
R507	48	3'-4"	167	B
R508	32	3'-0"	100	B
R509	32	2'-8"	89	B
R510	32	10'-0"	334	S
R511	32	11'-5"	381	S
R512	24	4'-1"	102	S
R513	8	4'-5"	37	S
R514	4	4'-6"	19	S
R515	8	4'-9"	40	S
R516	4	5'-0"	21	S
R517	32	6'-9"	225	B
R518	64	9'-9"	651	B
R519	44	8'-11"	409	B
R520	6	36'-5"	228	S
R521	6	29'-6"	185	S
R522	4	4'-3"	18	S
R523	4	5'-2"	22	S
R524	45	8'-9"	411	B
R525	6	34'-7"	216	S
R526	6	33'-9"	211	S
R401	164	5'-9"	630	B
R402	32	8'-5"	180	B
R403	32	2'-8"	57	S
PIERS				
P1101	8	28'-7"	1215	B
P1102	40	27'-1"	5756	S
P1103	4	35'-6"	754	B
P1104	4	35'-11"	763	B
P1105	20	34'-0"	3613	S
P1106	20	34'-5"	3657	S
P801	264	9'-3"	6520	B
P601	24	18'-6"	667	B
P501	8	26'-3"	219	S
P502	8	20'-0"	167	S
P503	4	24'-8"	103	S
P504	12	22'-6"	282	S
P505	188	10'-1"	1977	B



* Included with Item S-14 for payment.

Mark	No.	Length	Weight	Shape
PIERS CONTINUED				
P506	48	8'-9"	438	B
P507	48	7'-3"	363	B
P508	48	14'-5"	722	S
P509	6	12'-5"	78	S
P510	6	12'-3"	77	S
P511	28	22'-0"	642	S
P512	56	7'-1"	414	B
P513	145	6'-10"	1033	B
P514	12	28'-8"	359	S
P515	4	33'-0"	138	S
P516	4	33'-6"	140	S
P517	4	26'-9"	112	S
P518	4	27'-3"	114	S
P519	4	20'-6"	86	S
P520	4	21'-0"	88	S
P521	76	14'-2"	1123	S
P522	6	12'-3"	77	S
P523	6	12'-0"	75	S
P524	28	18'-8"	545	S
P525	28	19'-2"	560	S
P526	12	22'-0"	275	S
SUPERSTRUCTURE				
S1001	216	27'-2"	25,250	S
S1002	104	12'-11"	5780	S
S1003	104	8'-10"	3953	S
S901	396	34'-10"	46,900	S
S902	118	24'-11"	9997	B
S903	59	23'-4"	4681	S
S904	118	21'-11"	8793	B
S905	59	18'-2"	3644	S
S906	50	20'-8"	3513	S
S701	97	20'-2"	3998	S
S702	97	34'-0"	6741	S
S703	96	40'-6"	7947	S
S704	19	23'-8"	919	S
S705	21	24'-2"	1037	S
S706	17	24'-8"	857	S
S707	21	25'-2"	1080	S
S708	18	25'-8"	944	S
S601	112	18'-4"	3084	S
S602	56	15'-4"	1290	S
S603	64	19'-10"	1907	S
S604	64	33'-10"	3252	S
S605	64	40'-6"	3893	S
S606	11	23'-8"	391	S
S607	16	24'-2"	581	S
S608	10	24'-8"	370	S
S609	16	25'-2"	605	S
S610	11	25'-8"	424	S
S501	29	21'-10"	660	S
S502	15	20'-0"	313	S
S503	96	16'-4"	*	S
S504	464	5'-10"	2823	B
S505	464	2'-9"	1331	B
S506	288	4'-6"	1352	B
S507	38	2'-4"	92	B
S508	56	3'-0"	175	B
S509	42	3'-8"	161	B
S510	56	4'-4"	253	B
S511	38	5'-2"	205	B
REPLACEMENT BARS				
RE1001	2	7'-3"		S
RE901	4	6'-10"		S
RE801	1	6'-6"		S
RE701	2	6'-3"		S
RE601	2	5'-11"		S
RE501	2	5'-7"		S
RE401	1	5'-3"		S
RE1101	1	7'-6"		S

ESTIMATED QUANTITIES - TWO BRIDGES

Item	Total	Unit	Description	Abutments Lt.Rear	Abutments Lt.Fwrd.	Abutments Rt.Rear	Abutments Rt.Fwrd.	Piers 1	Piers 2	Piers 3	Piers 4	Superstructure Left	Superstructure Right	General
E-2	Lump	Sum	Cofferdams, cribs and sheeting											Lump
E-2	351	Cu.Yds.	Unclassified excavation	70	71	60	60	27	27	18	18			
E-2	86	Cu.Yds.	Shale excavation					26	26	17	17			
E-3	3268	Cu.Yds.	Channel Excavation											32.68
S-1	649	Cu.Yds.	Class "C" concrete, superstructure									365	284	
S-1	172	Cu.Yds.	Class "E" concrete, abutments	46	48	39	39							
S-1	322	Cu.Yds.	Class "C" concrete, piers above footings					94	97	66	65			
S-1	80	Cu.Yds.	Class "E" concrete, pier footings					24	24	16	16			
S-4	210,994	Lbs.	Reinforcing steel	5124	5324	4099	4099	9411	9495	7123	7123	89,166	70,030	
S-9	40	Sq.Ft.	½" preformed expansion joint filler	10	10	10	10							
S-9	32	Sq.Ft.	1" preformed expansion joint filler including asphalt seal									32		
S-14	477.4	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)									238.7	238.7	
S-16	Lump	Sum	First test pile											Lump
S-18	1010	Lin.Ft.	Steel piles, 12 BP53	270	280	230	230							
S-29	58	Cu.Yds.	Porous backfill	16	16	13	13							
S-29	44	Each	Scuppers, 4" ø cast iron or wrought iron									22	22	
I-10	1090	Sq.Yds.	Crushed aggregate slope protection									600	490	

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 P601 is a No. 6 size bar and R1003 is a No. 10 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. S-4.02 need not be furnished and replacement bars will not be required.

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-54, "Reinforced Concrete Approach Slabs", revised 12-1-54; AR-1-57, "Aluminum Railing with Concrete Parapet, revised 2-2-59; and Supplemental Specification S-101, dated 12-2-59.

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.

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with shale. If the length of penetration is approximately equal to the depth of firm shale 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:

53 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 28 tons per pile for the abutment piles.

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.

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 abutment and the piles driven and the piers constructed.

MACHINE FINISH: The concrete bridge deck shall be finished as specified in the proposal note, "Machine Finishing of Bridge Deck Slabs".

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 4.0 tons per sq. ft.

CAMBER of 1/800 of the span shall be provided in each span to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this, proper allowance shall be made for the deflection of falsework members.

CURBS AND PARAPETS shall be placed after the shoring under the slab has been released sufficiently to permit the slab spans to attain full dead load deflection.

PIER FOOTINGS shall extend a minimum of 3" into solid shale or to the elevation shown, whichever is lower. Immediately after the pier excavation is completed, the area to be in contact with the footing concrete shall be given an application of bituminous material (¼ gallon per square yard). This bituminous material to be one of the following emulsions or cut-backs as per item M-5 of the specifications: MC-4, MC-5, RC-4, RC-5, MS-2 or RS-2.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL NOTES, REINFORCING STEEL & ESTIMATED QUANTITIES

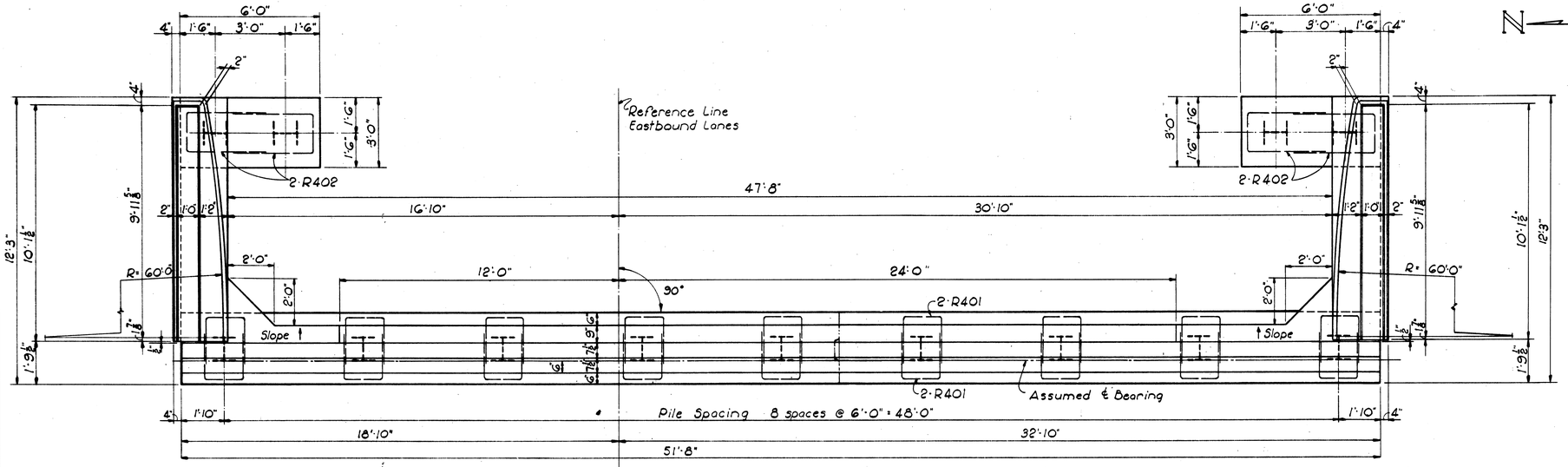
BRIDGE No. ERI. 6-1466 LEFT & RIGHT OVER
SAW MILL CREEK Sta. 1026+00.50 to
ERIE COUNTY Sta. 1026+99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD	JEC	BJH RCG	FCM	5-2-60	

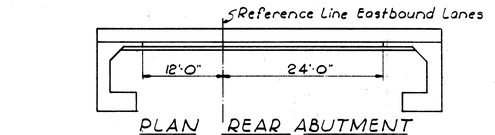
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

194
235

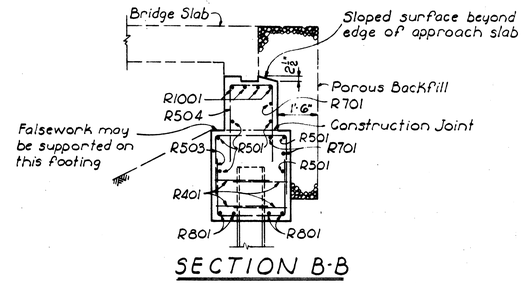
ERI 6-11.30
0.2 Miles West of Huron



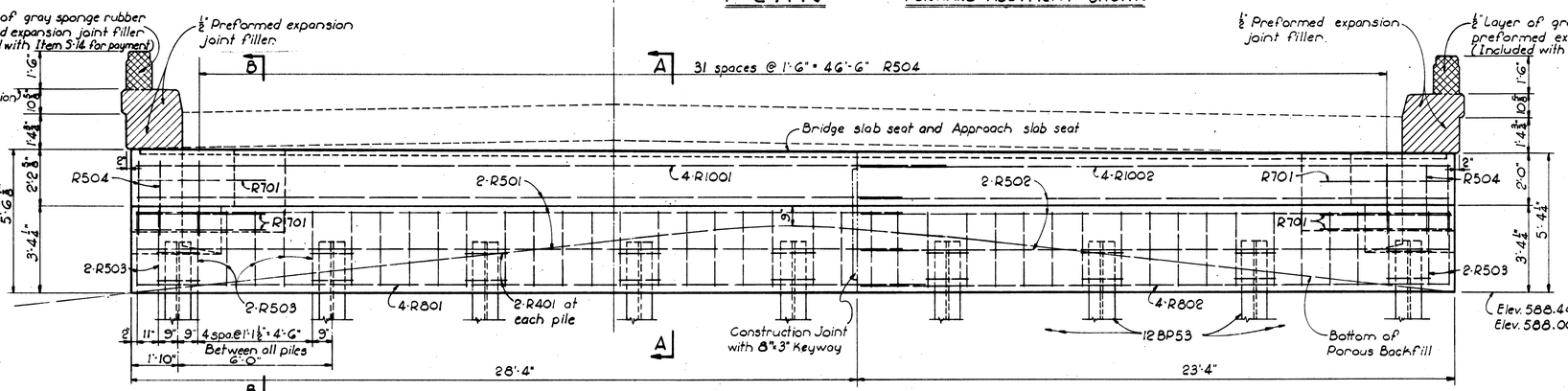
PLAN FORWARD ABUTMENT SHOWN



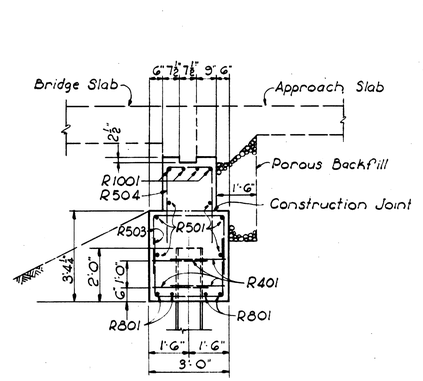
PLAN REAR ABUTMENT
Details similar to Forward Abutment



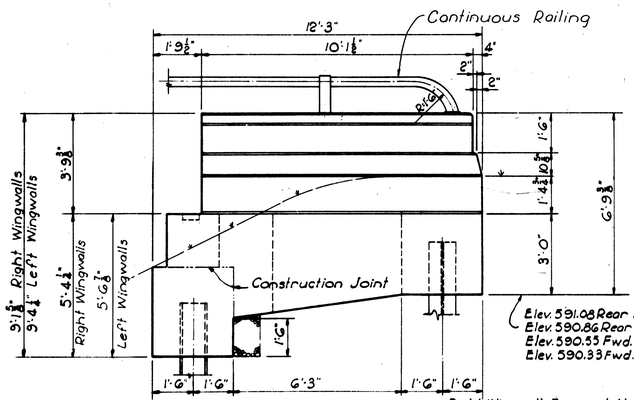
SECTION B-B



ELEVATION FORWARD ABUTMENT SHOWN



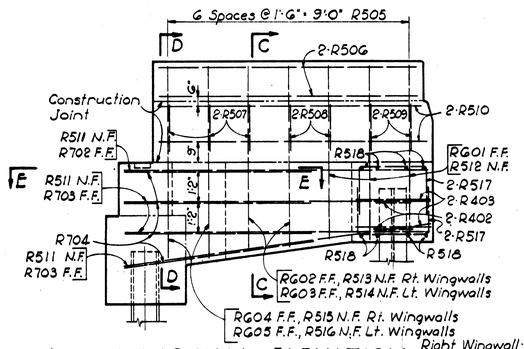
SECTION A-A



Elev. 591.08 Rear Abut., Left Wingwall
Elev. 590.86 Rear Abut., Right Wingwall
Elev. 590.33 Fwd. Abut., Left Wingwall
Elev. 590.33 Fwd. Abut., Right Wingwall

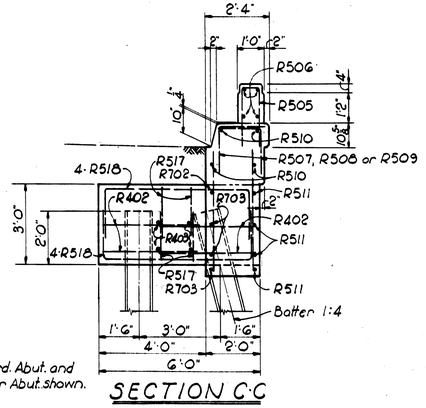
WINGWALL ELEVATION
Construction Details

Right Wingwall-Forward Abut. and Left Wingwall-Rear Abut. shown.



WINGWALL ELEVATION
Reinforcing Bar Details

Right Wingwall-Fwrd. Abut. and Left Wingwall-Rear Abut. shown.



SECTION C-C

Details on this sheet are for the Right Structure only. For Sections not shown see sheet 196

N.F. = Near Face
F.F. = For Face

MICROFILMED
MAR 2 0 1961

SEP 15 1960

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

ABUTMENTS

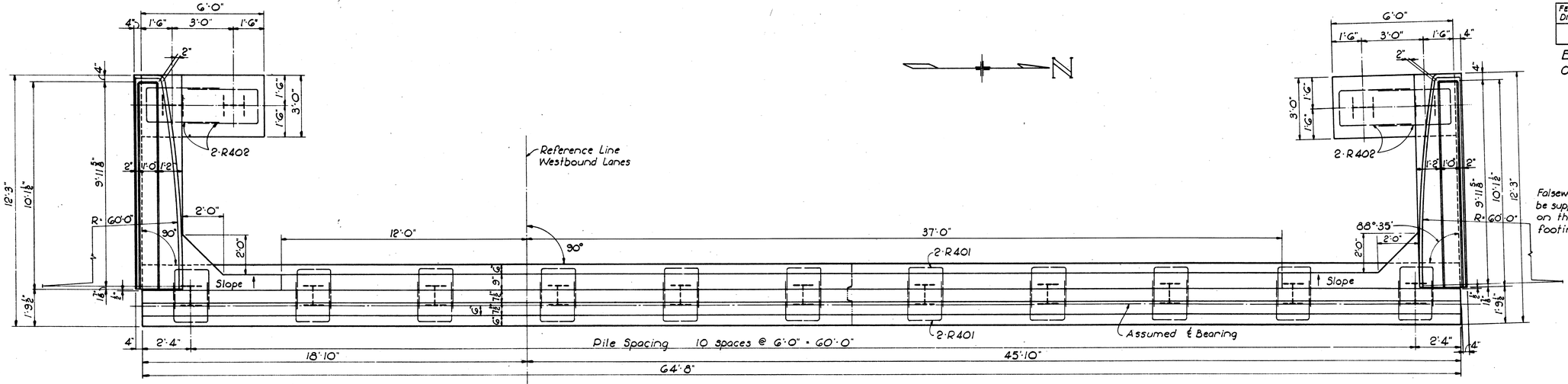
BRIDGE No. ERI G-1466
RIGHT OVER
SAW MILL CREEK
ERIE COUNTY
STA. 1026+00.50 TO STA. 1026+99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.		B.J.H.	F.C.M. 5-2-60	

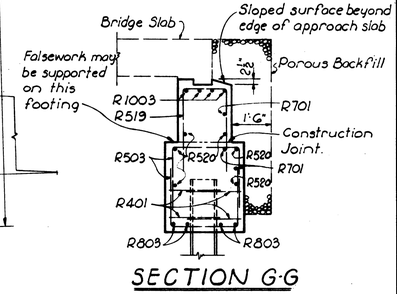
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

195
235

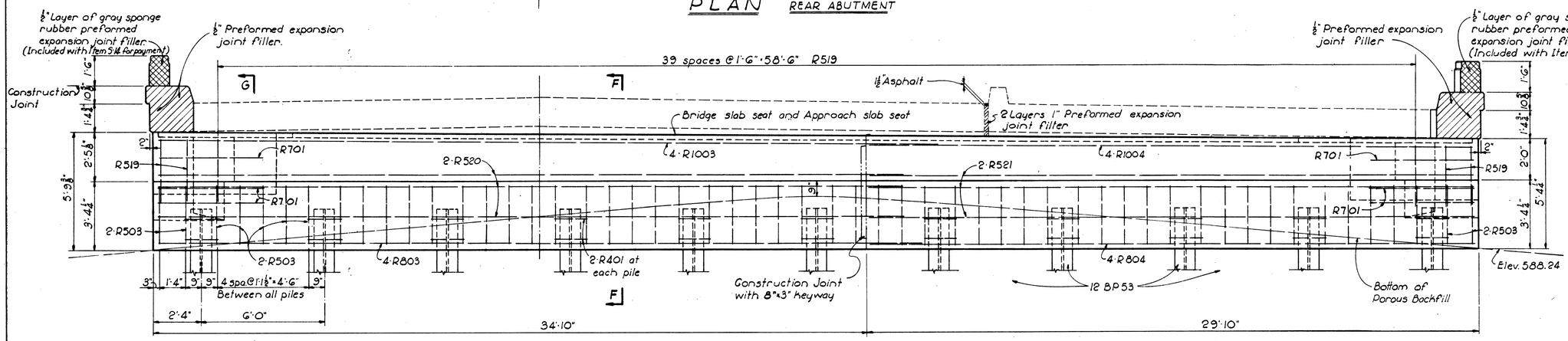
ERI G-11.30
0.2 Miles West of Huron



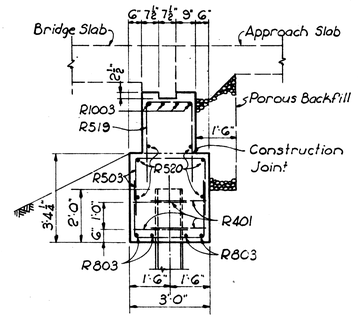
PLAN REAR ABUTMENT



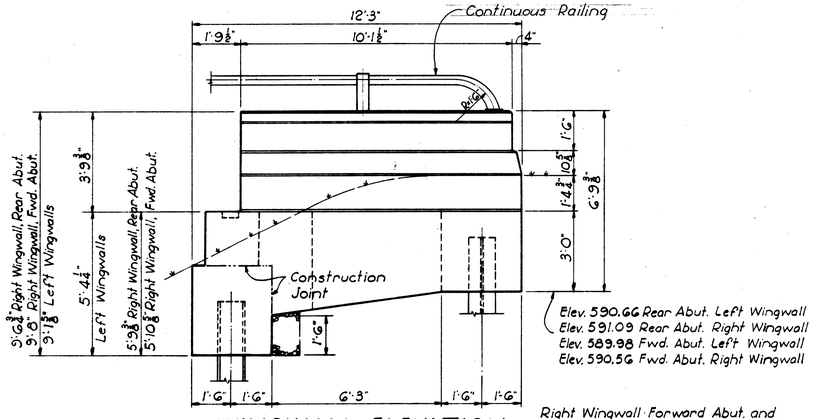
SECTION G-G



ELEVATION REAR ABUTMENT



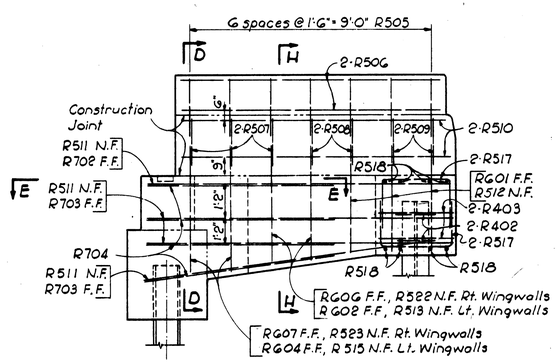
SECTION F-F



Elev. 590.66 Rear Abut. Left Wingwall
Elev. 591.09 Rear Abut. Right Wingwall
Elev. 589.98 Fwd. Abut. Left Wingwall
Elev. 590.56 Fwd. Abut. Right Wingwall

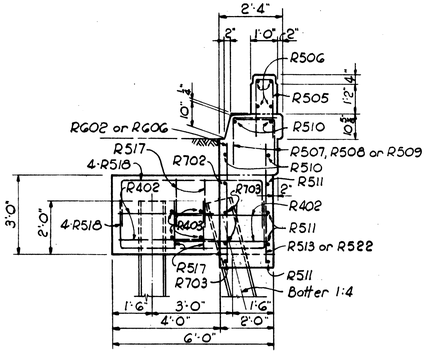
WINGWALL ELEVATION
Construction Details

Right Wingwall-Forward Abut. and Left Wingwall-Rear Abut. shown



WINGWALL ELEVATION
Reinforcing Bar Details

Right Wingwall-Fwrd. Abut. and Left Wingwall-Rear Abut. shown



SECTION H-H

Details on this sheet are for the Left Structure only. For Sections not shown see sheet 196

N.F. = Near Face
F.F. = For Face.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

ABUTMENTS
BRIDGE No. ERI G-1466
LEFT OVER SAW MILL CREEK
ERIE COUNTY STA. 1086+00.50 To STA. 1086+39.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.W.D.	T.W.D.		B.J.H.	FCM 5-2-60	

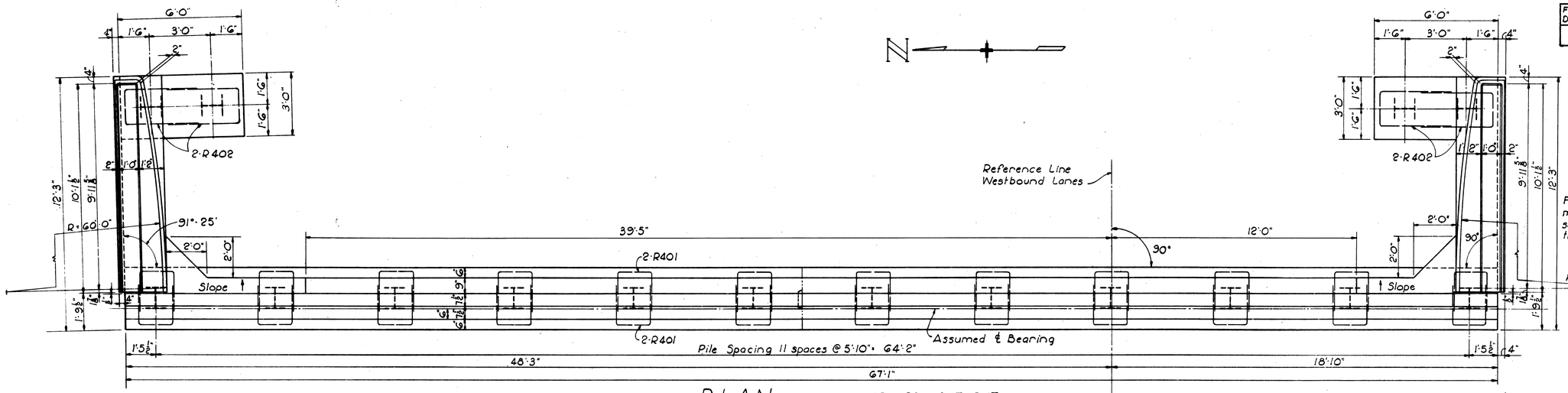
MICROFILMED
MAR 20 1985

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

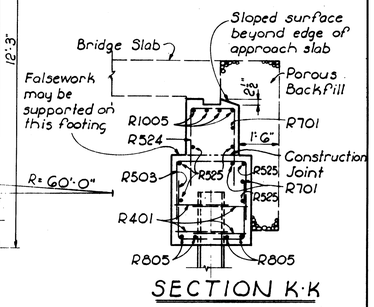
196
235

ERI G-11.30
0.2 Miles West of Huron

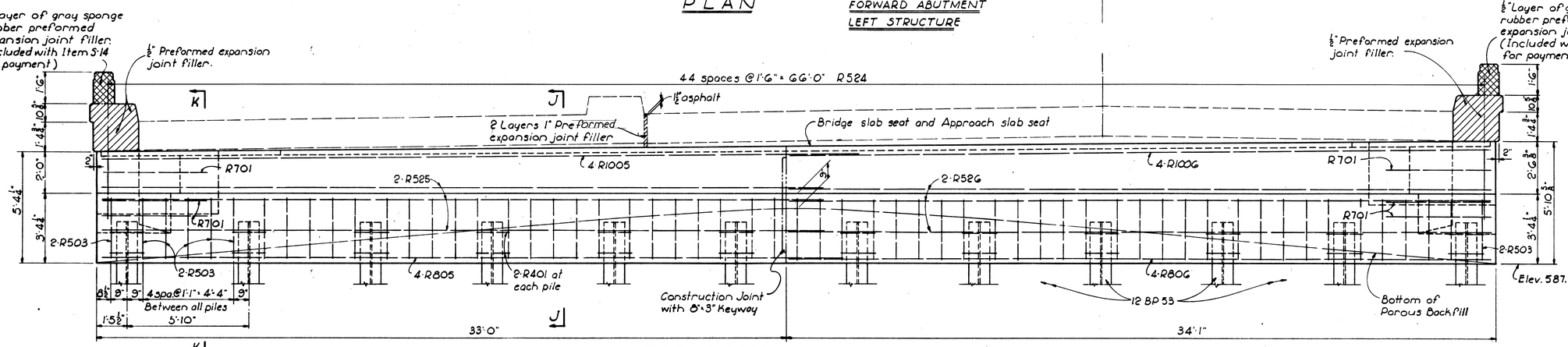


PLAN

FORWARD ABUTMENT
LEFT STRUCTURE

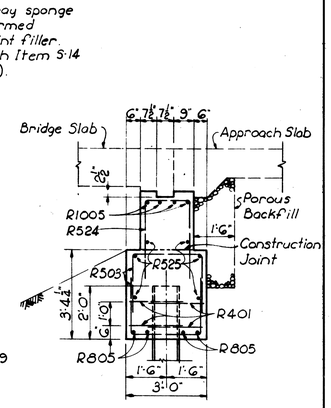


SECTION K-K

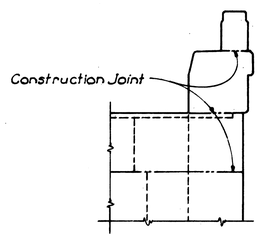


ELEVATION

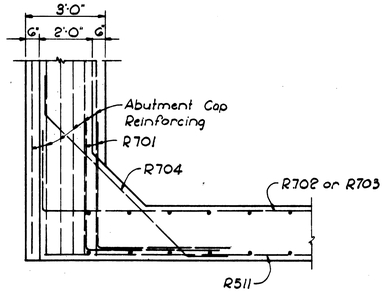
FORWARD ABUTMENT
LEFT STRUCTURE



SECTION J-J



SECTION D-D
Left and Right Structure



SECTION E-E
Left and Right Structures

Details on this sheet are for Left and Right Structures as indicated.

NOTES:
POROUS BACKFILL shall extend upward to the approach slab and to the surface of the earth shoulders, and outward 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.

MICROFILMED
MAR 20 1965

SEP 15 1960

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

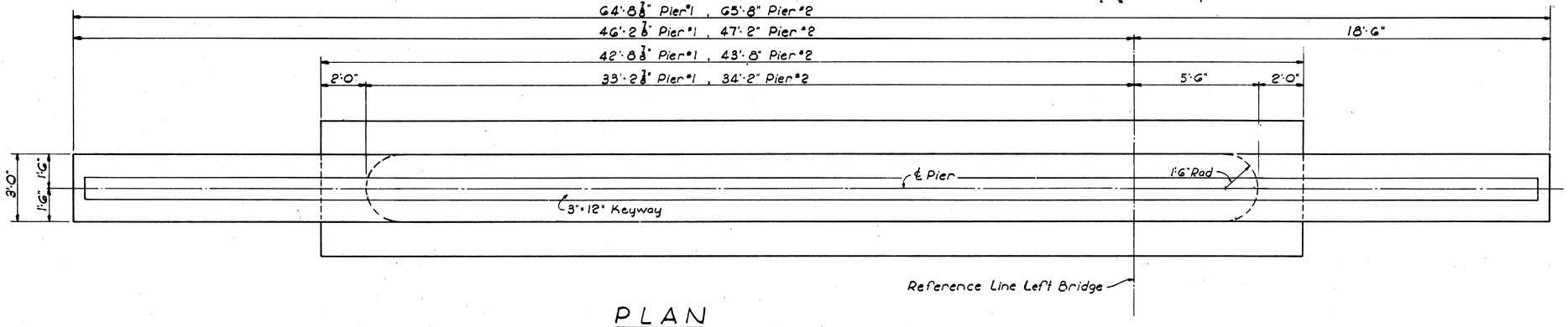
ABUTMENTS
BRIDGE No. ERI G-1466
LEFT & RIGHT over
SAW MILL CREEK
ERIE COUNTY. STA. 1086+00.50 To STA. 1086+93.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.W.D.	T.W.D.		B.J.H.	F.C.M.	5-2-60	

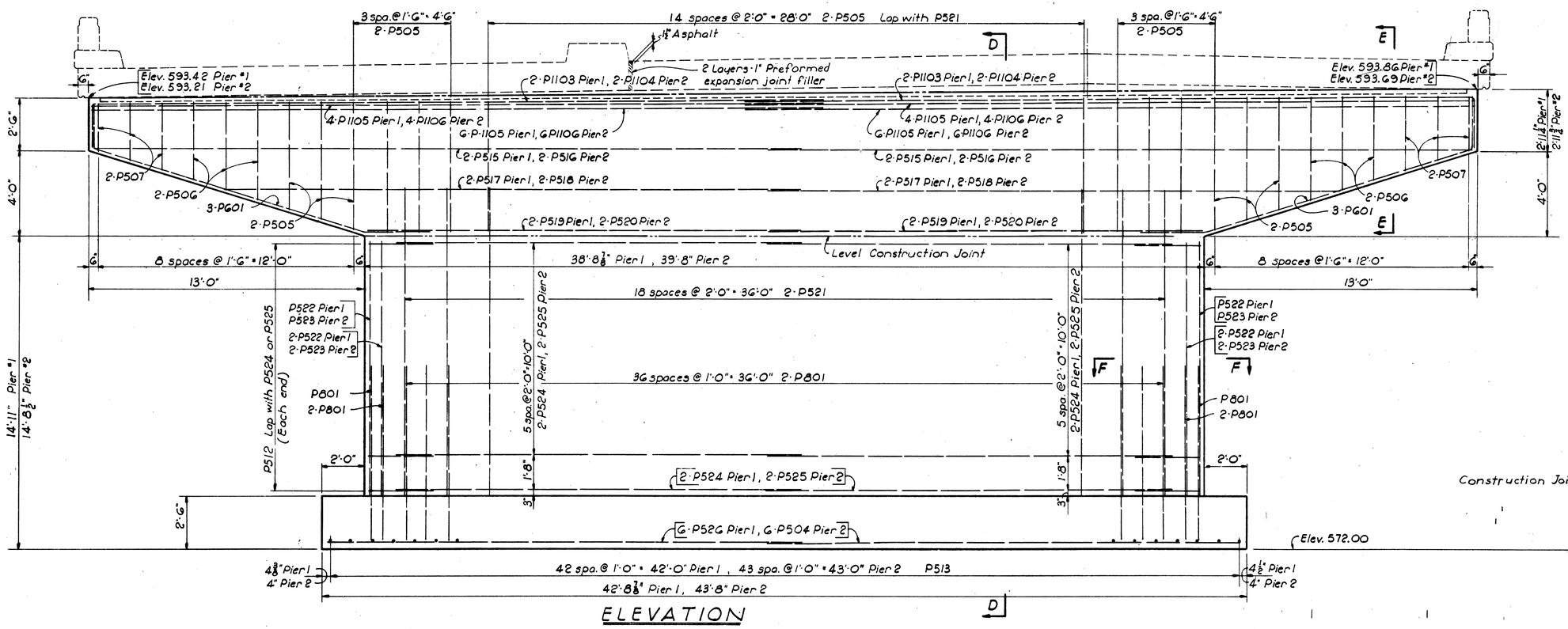
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	FFG-1042(7)	

197
235

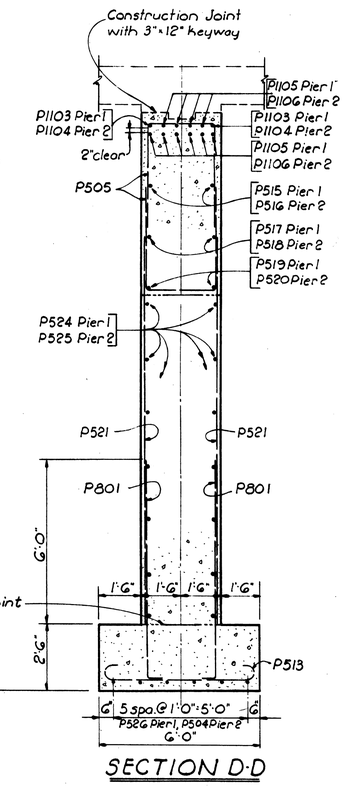
ERI.G-11.30
0.2 Miles West of Huron



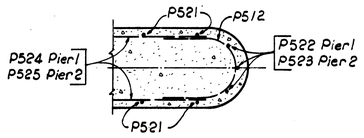
PLAN



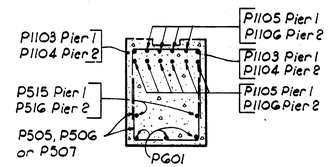
ELEVATION



SECTION D-D



SECTION F-F



SECTION E-E

MICROFILMED
MAR 20 1965
SEP 15 1960

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

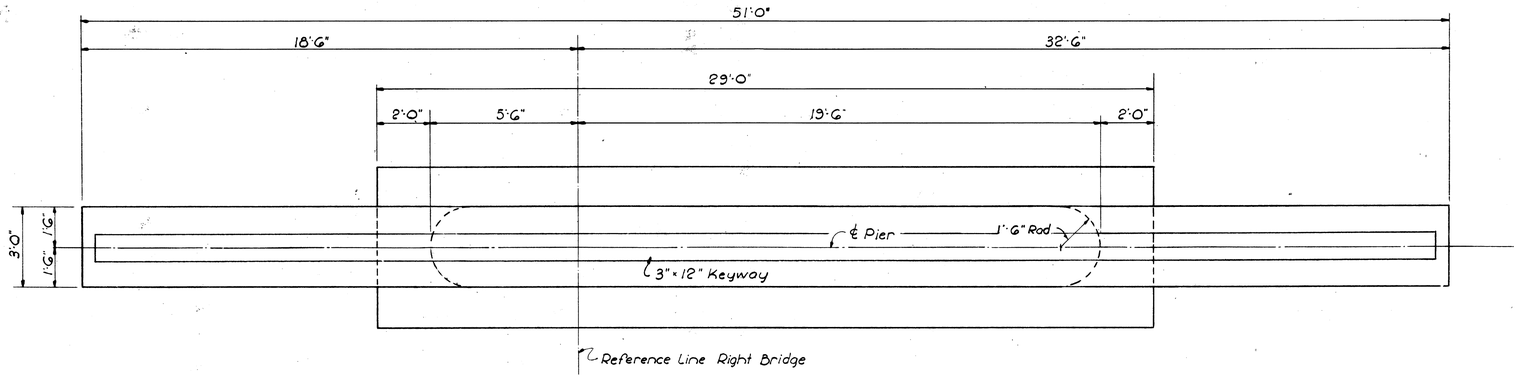
PIERS #1 & #2
BRIDGE No. ERI G-1466
LEFT OVER
SAW MILL CREEK
ERIE COUNTY
STA. 1026+00.50 To STA. 1026+99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TWD	TWD		BJH	FCM 5-2-60	

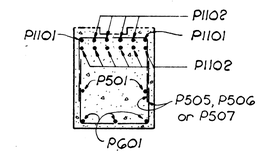
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

198
235

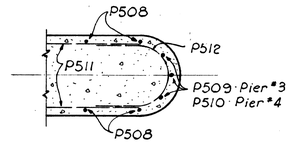
ERI G-11.30
0.2 Miles West of Huron



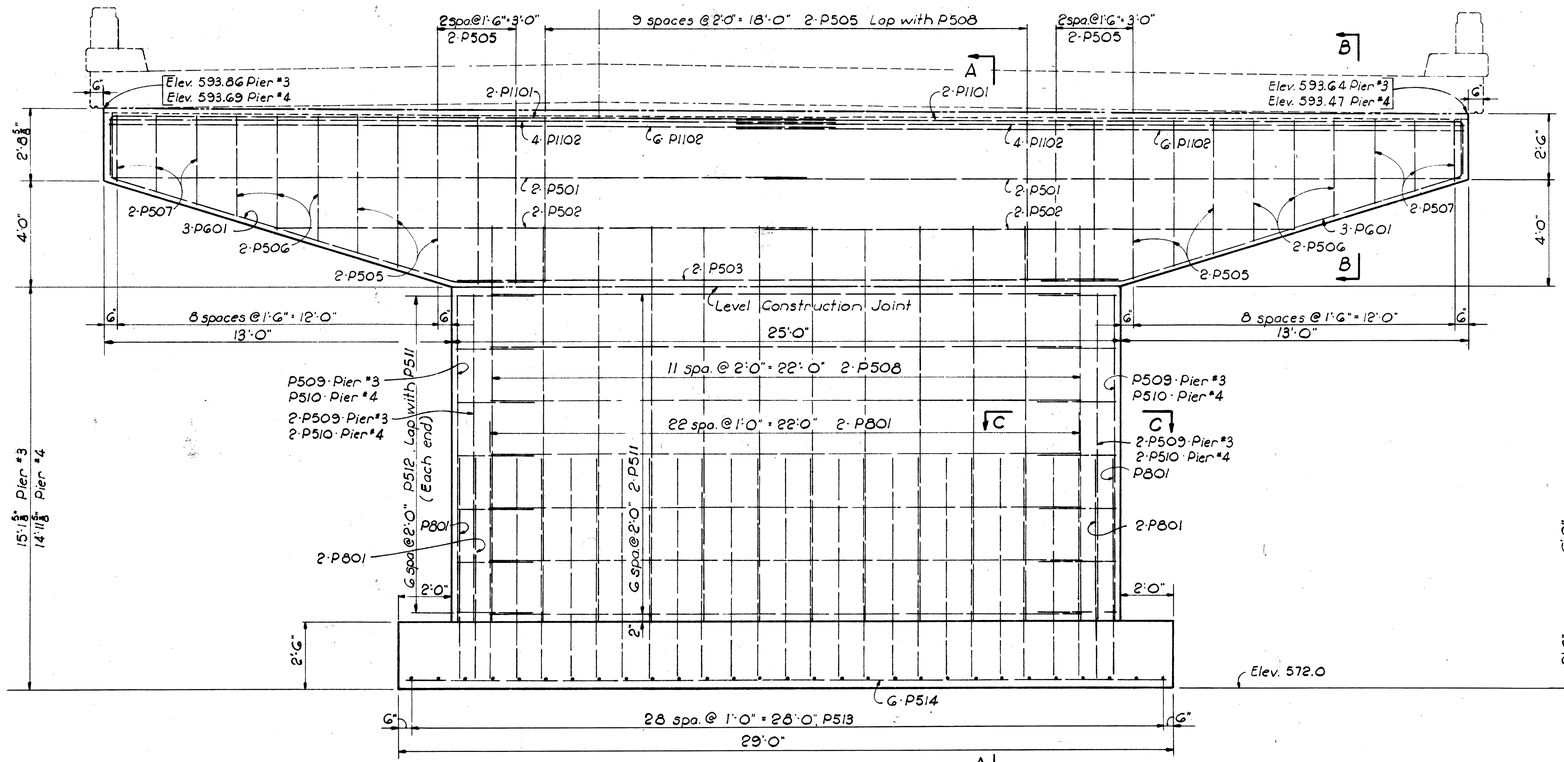
PLAN



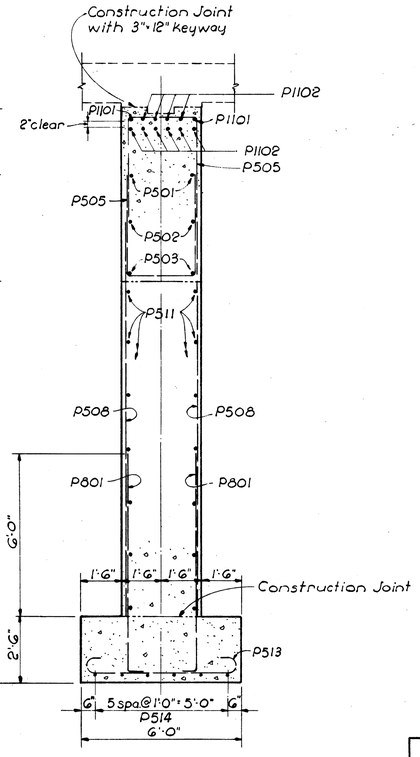
SECTION B-B



SECTION C-C



ELEVATION



SECTION A-A

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

PIERS #3 & #4
BRIDGE No. ERI G-1466
RIGHT OVER
SAW MILL CREEK
ERIE COUNTY

STA. 1028+00.50 To
STA. 1028+99.50

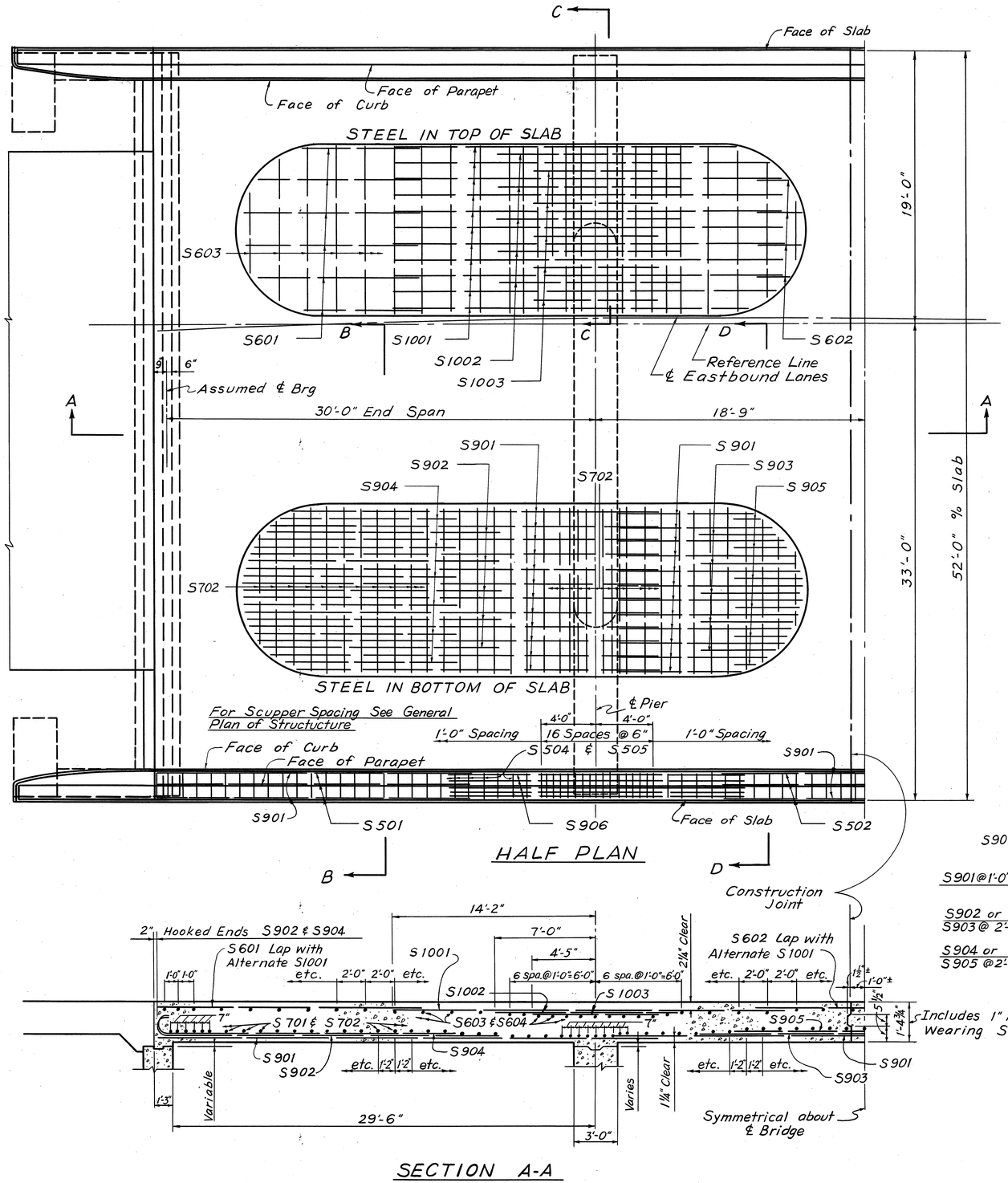
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TWD	TWD		BJH	FCM 5-2-60	

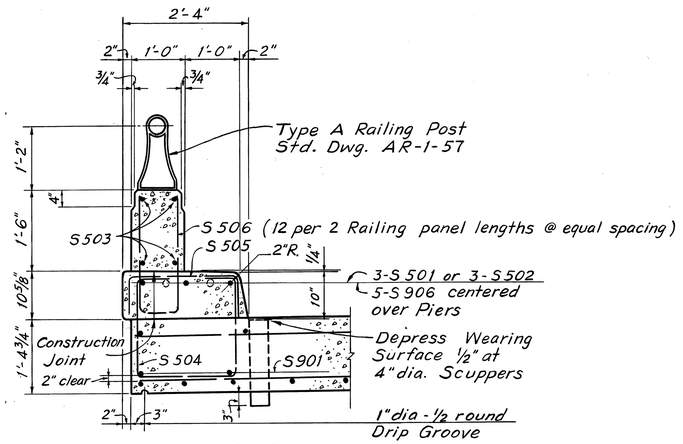
SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG 1042(7)	

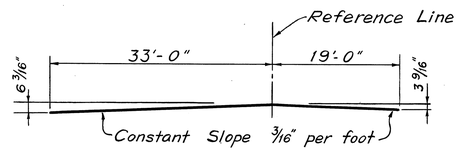
199
235

ERI - 6-11.30

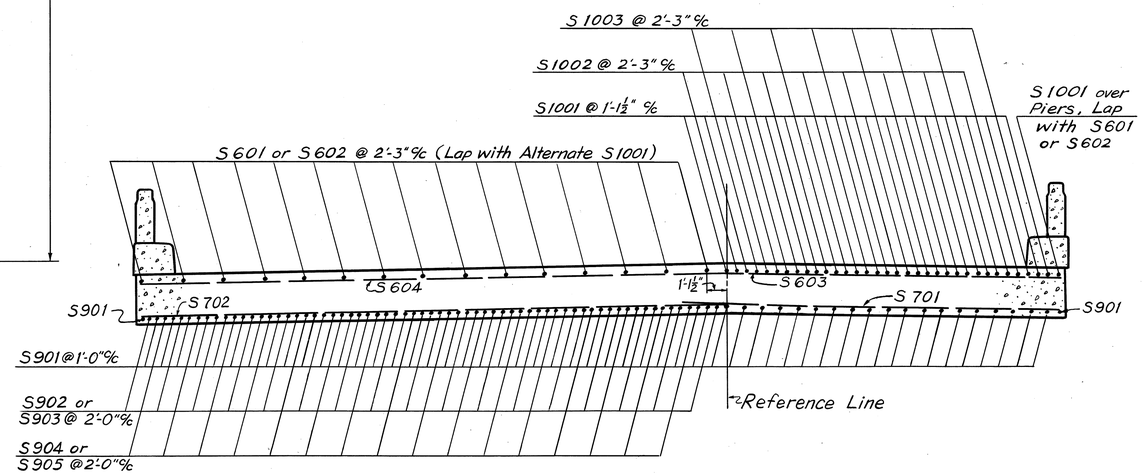




TYPICAL SECTION AT EDGE OF SLAB



BRIDGE ROADWAY CROWN



SECTION B-B and D-D

SECTION C-C

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS

BRIDGE No. ERI 6-1466
RIGHT OVER
SAW MILL CREEK
ERIE COUNTY
STA. 1026+00.50 To STA. 1026+99.50

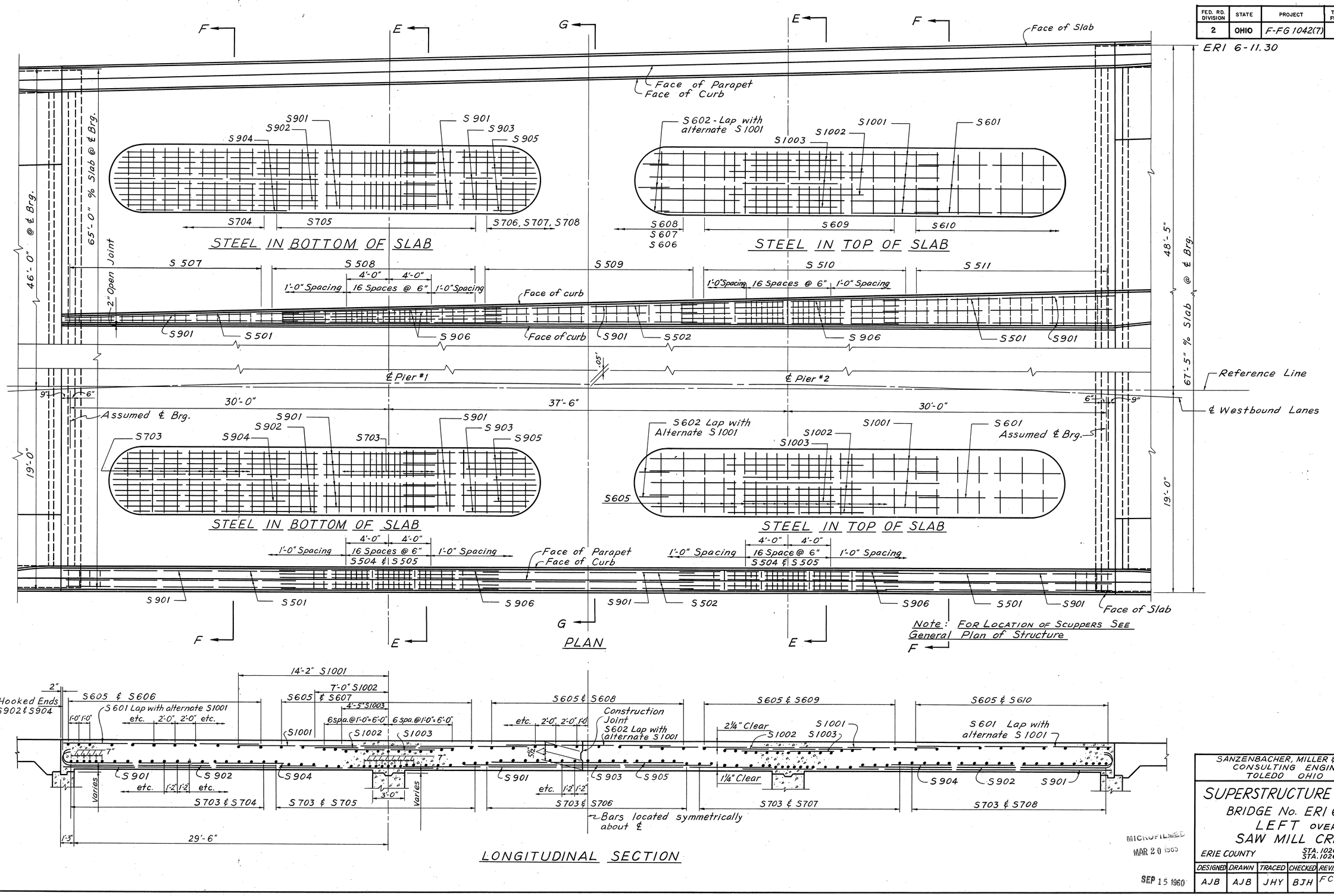
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AJB	AJB	JHY	BJH	FCM	5-2-60	

MICROFILMED
MAR 20 1985

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG 1042(7)	

200
235



LONGITUDINAL SECTION

MICROFILMED
MAR 20 1963

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. ERI 6-1466
LEFT OVER SAW MILL CREEK

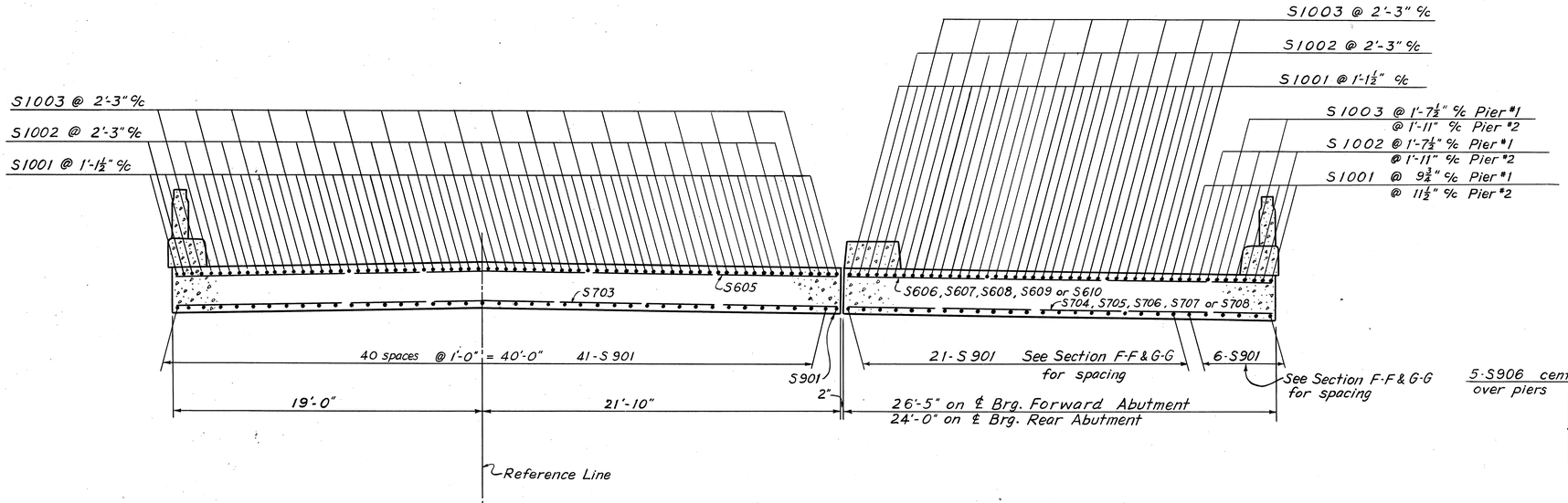
ERIE COUNTY STA: 1026 + 00.50 To STA: 1026 + 99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
AJB	AJB	JHY	BJH	FCM 5-2-60	

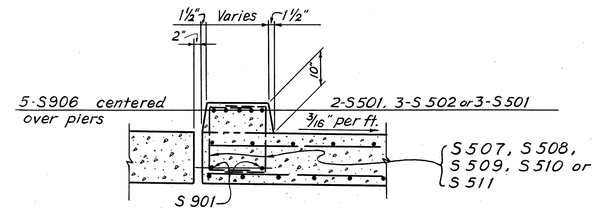
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

201
235

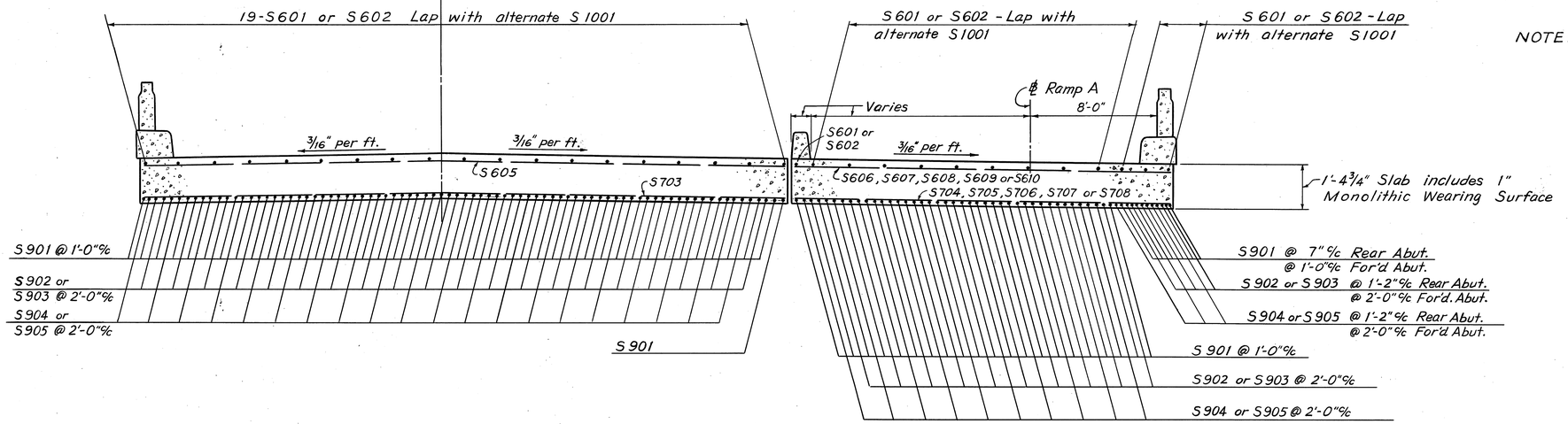
ERI 6-11.30



SECTION E-E



TYPICAL SECTION AT DIVIDER CURB



SECTION F-F and G-G

NOTE: For Typical Section showing Curb & Parapet steel, see Sheet No. 199

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. ERI 6-1466
LEFT OVER
SAW MILL CREEK

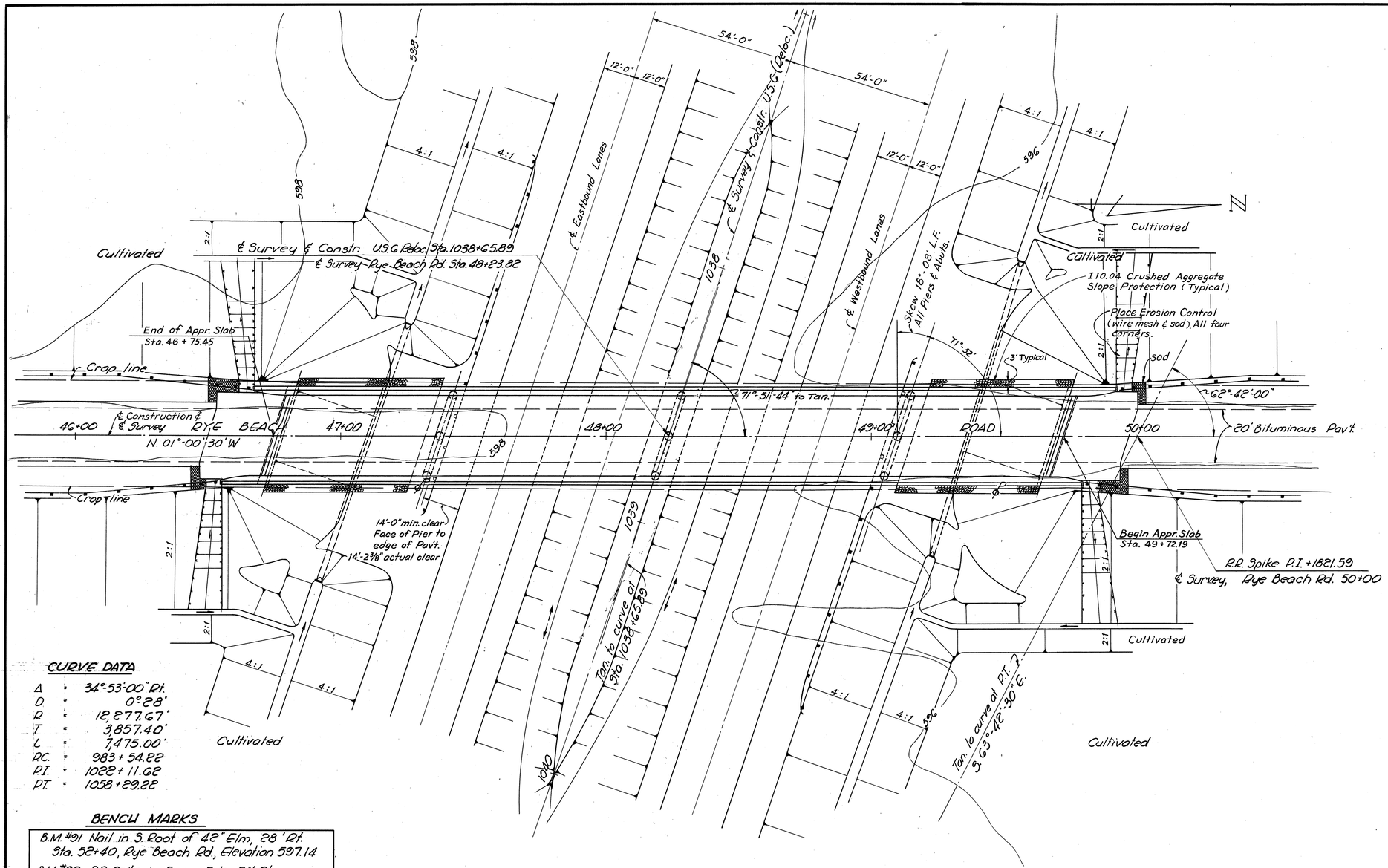
ERIE COUNTY STA. 1026 + 00.50 To STA. 1026 + 99.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
AJB	AJB	JHY	BJH	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

202
235

ERI. 6-11.30
ON WEST CORPORATION LINE OF HURON.



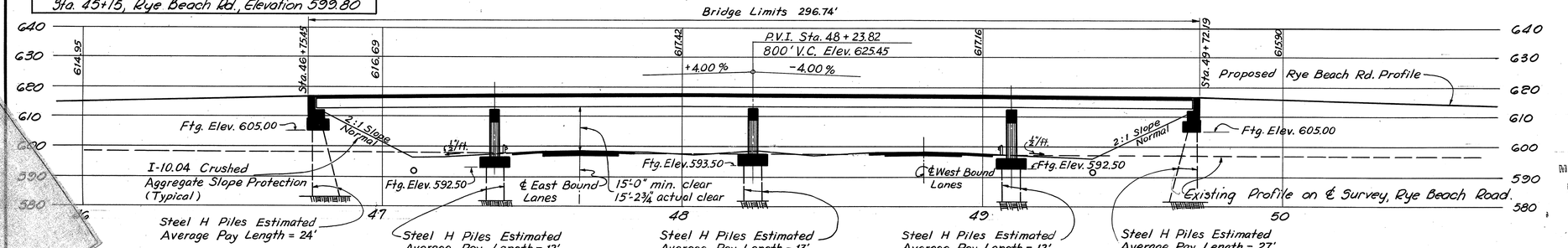
CURVE DATA

Δ	=	34°-53'-00" Rt.
D	=	0°-28'
R	=	12,277.67'
T	=	3,857.40'
L	=	7,475.00'
P.C.	=	983+54.82
P.I.	=	1022+11.62
P.T.	=	1058+29.82

BENCH MARKS

B.M. #91 Nail in S. Root of 42" Elm, 28' Rt. Sta. 52+40, Rye Beach Rd, Elevation 597.14

B.M. #92 R.R. Spike in Power Pole, 20' Rt. Sta. 45+15, Rye Beach Rd., Elevation 599.80



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. concrete Pier bents and stub abutments.
Spans: 60'-0", 86'-0", 86'-0", 60'-0" c/c Brgs.

Roadway: 30'-0" f/f of 2'-3" safety curbs.

Load Frequency: CF-130 (57)
Skew: 18°-08' L.F.
Wearing Surface: ¾" Monolithic Concrete.
Approach Slabs: AS-1-54 (25'-0" Long)
Alignment: Tangent.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO, OHIO

SITE PLAN
BRIDGE NO. ERI 6-1489
UNDER RYE BEACH ROAD
ERIE CO.

Sta. 46+75.45 To Sta. 49+72.19

SCALE: 1"=20'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED S.M.B.	DRAWN R.R.P.-B.B.	DESIGNED T.W.D. N.O.	DRAWN N.O. T.W.D. J.H.Y.	CHECKED B.J.H. T.W.D.	REVIEWED FCM 3-2-60

MICROFILMED
MAR 20 1961

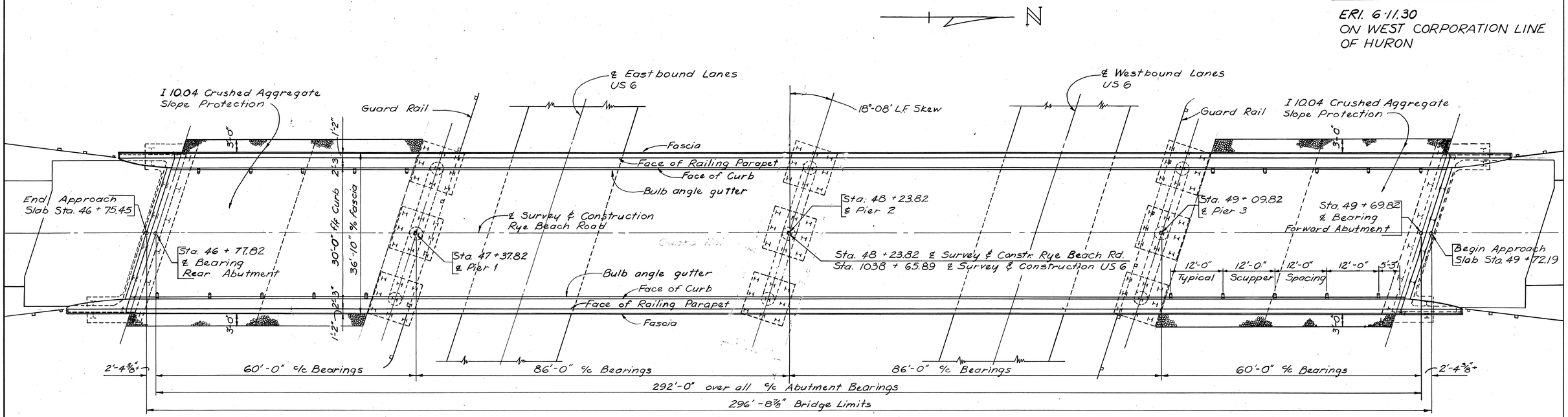
SEP 15 1960

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

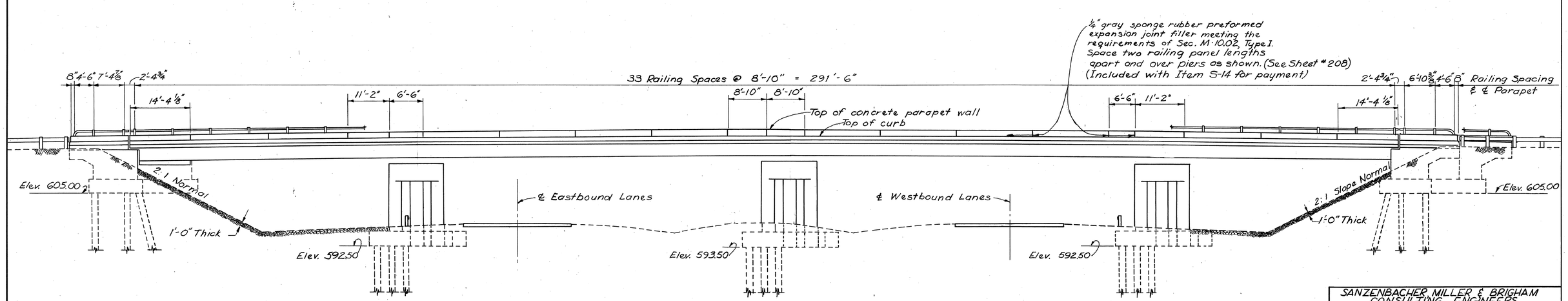
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

203
235

ERI. 6·11.30
ON WEST CORPORATION LINE
OF HURON



GENERAL PLAN



GENERAL ELEVATION

MICROFILMED
MAR 20 1961

SEP 15 1960
Rev. 7-27-60 R.E.C.

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. ERI. 6 - 1489 UNDER
RYE BEACH ROAD
ERIE COUNTY STA. 46 + 75.45 to
STA. 49 + 72.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RJH	RJH	JEC	BJH	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

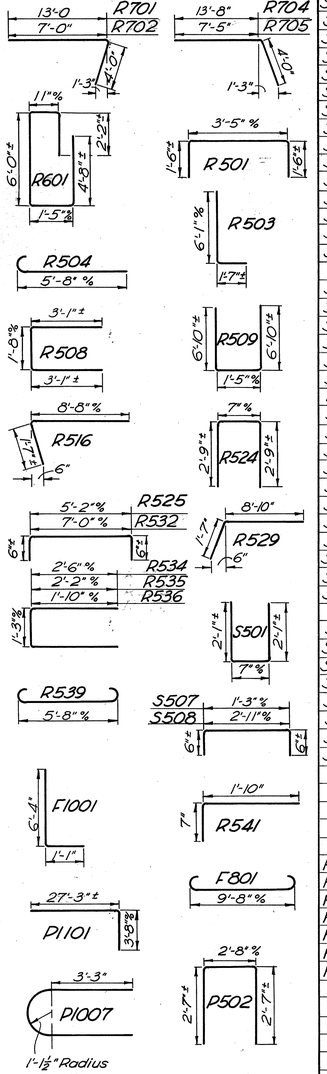
204
235

ERI. 6-11.30
ON WEST CORPORATION LINE
OF HURON

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shape
ABUTMENTS				
R701	4	16'-9"	137	B
R702	2	10'-10"	44	B
R703	24	11'-5"	560	S
R704	4	17'-6"	143	B
R705	2	11'-3"	46	B
R601	62	14'-8"	1366	B
R501	96	6'-2"	617	B
R502	50	6'-4"	330	S
R503	50	7'-6"	391	B
R504	56	6'-3"	365	B
R505	24	21'-10"	547	S
R506	52	19'-8"	1067	S
R508	64	7'-7"	506	B
R509	8	14'-10"	124	B
R510	16	11'-0"	184	S
R511	4	15'-6"	65	S
R513	8	6'-9"	56	S
R514	2	9'-6"	20	S
R515	4	9'-0"	38	S
R516	4	10'-1"	42	B
R517	8	6'-11"	58	S
R518	24	11'-5"	286	S
R519	4	4'-9"	20	S
R520	32	3'-8"	122	S
R521	8	13'-0"	108	S
R522	8	12'-10"	*	S
R523	8	8'-0"	67	S
R524	40	5'-10"	243	B
R525	10	5'-11"	62	B
R526	4	15'-9"	66	S
R527	2	9'-6"	20	S
R528	4	8'-10"	37	S
R529	4	10'-3"	43	B
R530	8	13'-8"	114	S
R531	8	13'-4"	*	S
R532	10	7'-9"	81	B
R533	16	2'-6"	42	S
R534	24	6'-0"	150	B
R535	8	5'-4"	44	B
R536	4	4'-8"	19	B
R537	4	12'-8"	53	S
R538	4	14'-2"	59	S
R539	20	6'-10"	143	B
R540	12	3'-8"	46	S
R541	36	2'-3"	84	B
PIERS				
F1001	90	7'-1"	2743	B
F801	216	11'-10"	6825	B
P1101	24	30'-7"	3158	B
P1001	60	15'-7"	4023	S
P1002	30	15'-0"	1936	S
P1003	6	34'-0"	878	S
P1004	6	33'-10"	874	S
P1005	6	33'-6"	865	S
P1006	6	33'-0"	852	S
P1007	12	10'-0"	516	B
P501	6	31'-7"	198	S
P502	108	7'-7"	854	B

Bending Diagrams



Mark	No.	Length	Weight	Shape
SUPERSTRUCTURE				
S701	337	36'-2"	24913	S
S702	2	35'-6"	145	S
S703	2	32'-11"	135	S
S704	2	30'-5"	124	S
S705	2	27'-10"	114	S
S706	2	25'-4"	104	S
S707	2	22'-9"	93	S
S708	2	20'-3"	83	S
S709	2	17'-8"	72	S
S710	2	15'-2"	62	S
S711	2	12'-7"	51	S
S712	2	10'-1"	41	S
S713	2	7'-6"	31	S
S714	2	5'-0"	20	S
S715	2	2'-5"	10	S
S716	2	1'-0"	4	S
S601	337	36'-2"	18307	S
S602	549	34'-3"	28242	S
S603	72	36'-0"	3893	S
S604	2	35'-6"	107	S
S605	2	32'-11"	99	S
S606	2	30'-5"	91	S
S607	2	27'-10"	84	S
S608	2	25'-4"	76	S
S609	2	22'-9"	68	S
S610	2	20'-3"	61	S
S611	2	17'-8"	53	S
S612	2	15'-2"	46	S
S613	2	12'-7"	38	S
S614	2	10'-1"	30	S
S615	2	7'-6"	23	S
S616	2	5'-0"	15	S
S617	2	2'-5"	7	S
S618	2	1'-0"	3	S
S501	404	4'-6"	1896	B
S502	16	14'-0"	*	S
S503	16	6'-2"	*	S
S504	16	10'-10"	*	S
S505	16	8'-6"	*	S
S506	96	17'-4"	*	S
S507	784	2'-0"	1635	B
S508	392	3'-8"	1499	B
REPLACEMENT BARS				
RE1101	1	7'-7"		S
RE1001	1	7'-3"		S
RE 801	1	6'-6"		S
RE 701	2	6'-3"		S
RE 601	3	5'-11"		S
RE 501	1	5'-7"		S
RE 401	1	5'-3"		S

SPIRAL REINFORCING LIST						
Mark	No.	CORE DIA. % SPIRAL	Length	Pitch	NO. OF TURNS	Weight
SP401	6	32"	11'-10"	4½	35	1350
SP402	3	32"	11'-2⅜"	4½	33	639

*Included with Item S-14 for payment

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abutments Rear	Abutments Forward	Piers 1	Piers 2	Piers 3	Super.	General		
E-2	470	Cu.Yds.	Unclassified excavation	115	115	88	72	80				
S-1	309	Cu.Yds.	Class "C" concrete, superstructure						309			
S-1	74	Cu.Yds.	Class "C" concrete, pier caps and columns			25	24	25				
S-1	160	Cu.Yds.	Class "E" concrete, abutments.	80	80							
S-1	117	Cu.Yds.	Class "E" concrete, pier footings			39	39	39				
S-4	116,601	Lbs.	Reinforcing steel	4,307	4,308	8,607	8,496	8,608	82,275			
S-7	326,000	Lbs.	Structural steel						326,000			
S-8	326,000	Lbs.	Field painting of structural steel, as per plan						326,000			
S-14	642	Lin.Ft.	Railing (aluminum rail and supports, concrete parapet)						642			
S-16	Lump	Sum	First test pile							Lump		
S-18	1,800	Lin.Ft.	Steel piles, 12 BP 53	380	430	320	350	320				
S-29	20	Each	Scuppers						20			
S-29	24	Cu.Yds.	Porous backfill	12	12							
I-10	542	Sq.Yds.	Crushed aggregate slope protection							542		

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. S-402 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 S-4. 1½ closed coils shall be provided at the ends of each spiral unit.
Four (or three) 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.

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, AR-1-57 "Aluminum Railing with Concrete Parapet," revised 2-2-59, CSB-2-56, "Continuous Steel Beam Bridge", revised 2-2-59 and Supplemental Specification S-101, dated 12-2-59.

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 there of.

PILES shall be driven with a hammer of not less than 11,000 ft-lbs. per blow to firm contact with shale. If the length of penetration is approximately equal to the depth to shale 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:
50 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:
55 tons per pile using an 11,000 ft-lb. hammer
47 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 30 tons per pile for the abutment piles and 25 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 the 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

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

STEEL: See Proposal regarding A-373 Steel.

MACHINE FINISH: The concrete bridge deck shall be finished as specified in the proposal note, "Machine Finishing of Bridge Deck Slabs".

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL NOTES, REINFORCING STEEL & ESTIMATED QUANTITIES
BRIDGE NO. ERI. 6-1489 UNDER
RYE BEACH ROAD
ERIE COUNTY STA. 46 + 75.45 to STA. 49 + 72.19

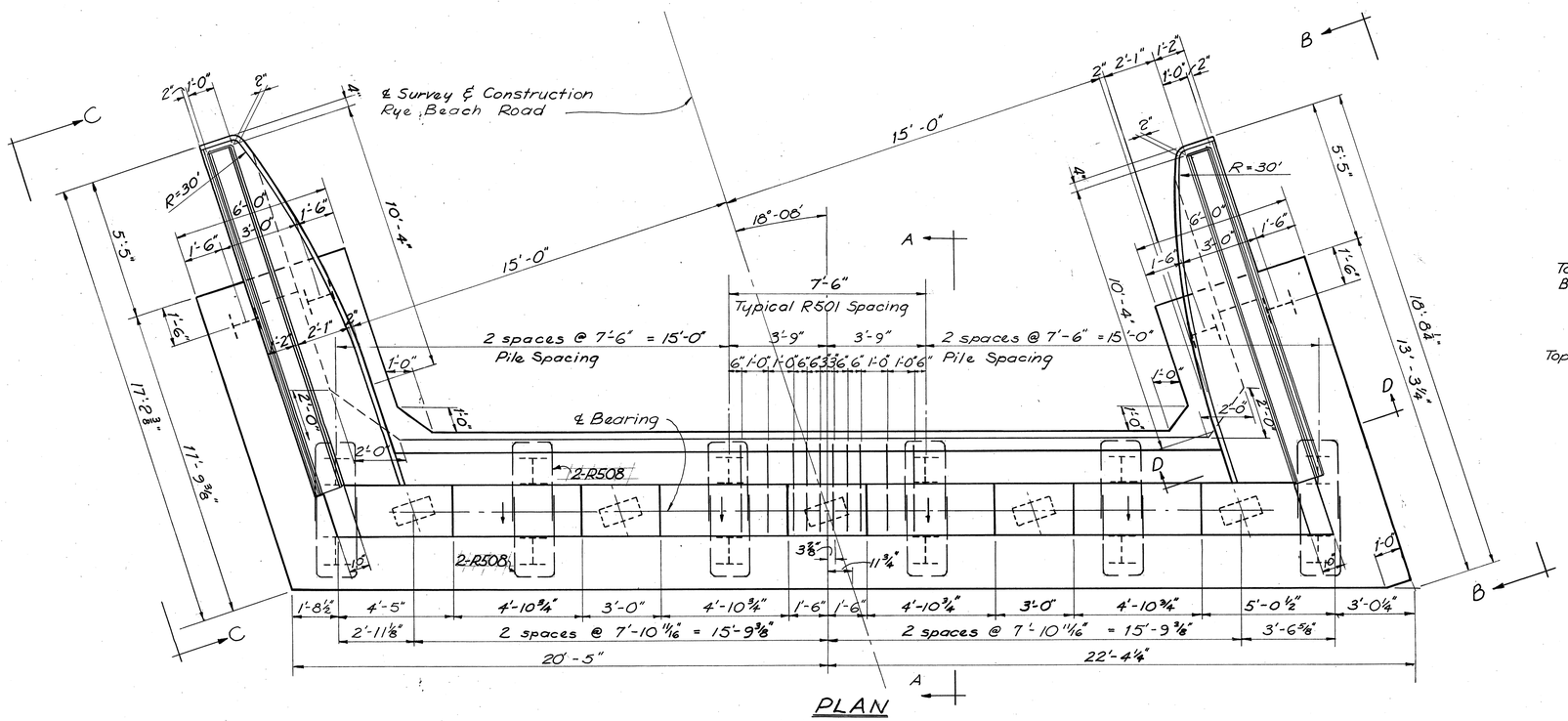
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RJH	RJH	JEC	BJH	FCM 5-2-60	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

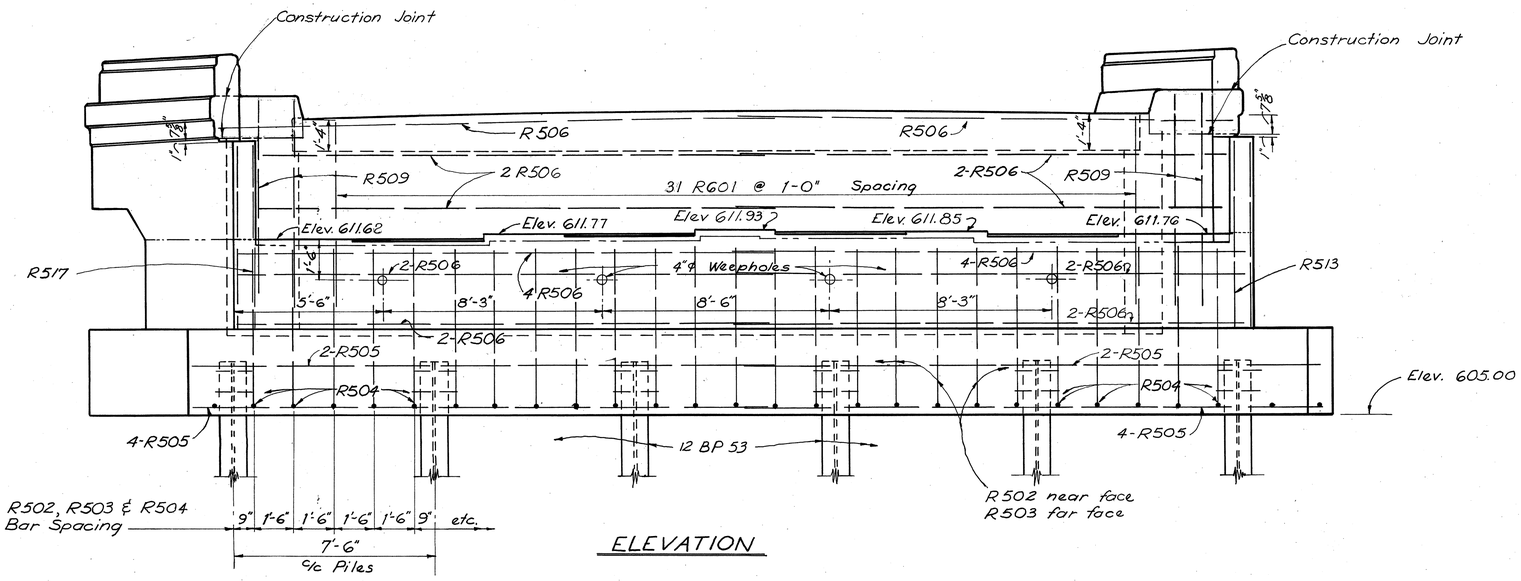
205
235

ERI. 6-11.30
ON WEST CORPORATION LINE OF HURON

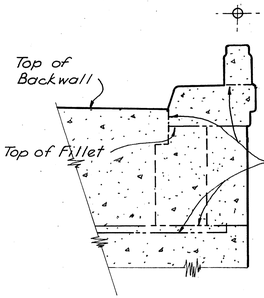
PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the Subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment and the piles driven.



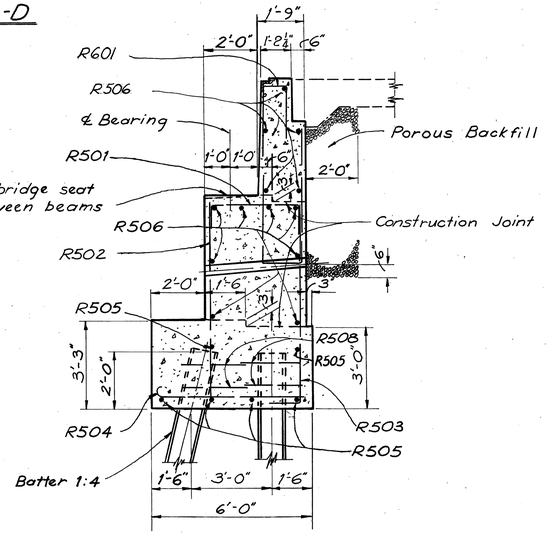
PLAN



ELEVATION



SECTION D-D



SECTION A-A

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TOLEDO OHIO

ABUTMENTS

BRIDGE NO. ERI. 6 - 1489 UNDER RYE BEACH ROAD
ERIE COUNTY STA. 46 + 75.45 to STA. 49 + 72.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RJH	RJH	JEC	BJH	F.C.M. 5-2-60	

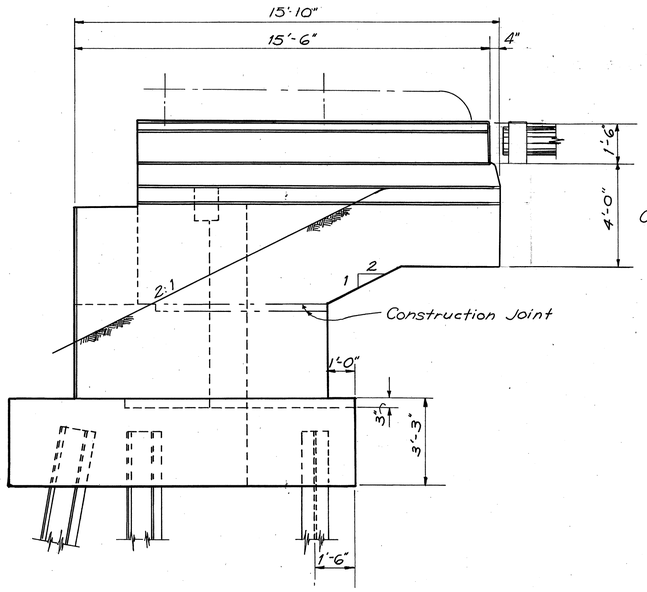
MICROFILMED
MAR 20 1985

SEP 15 1960

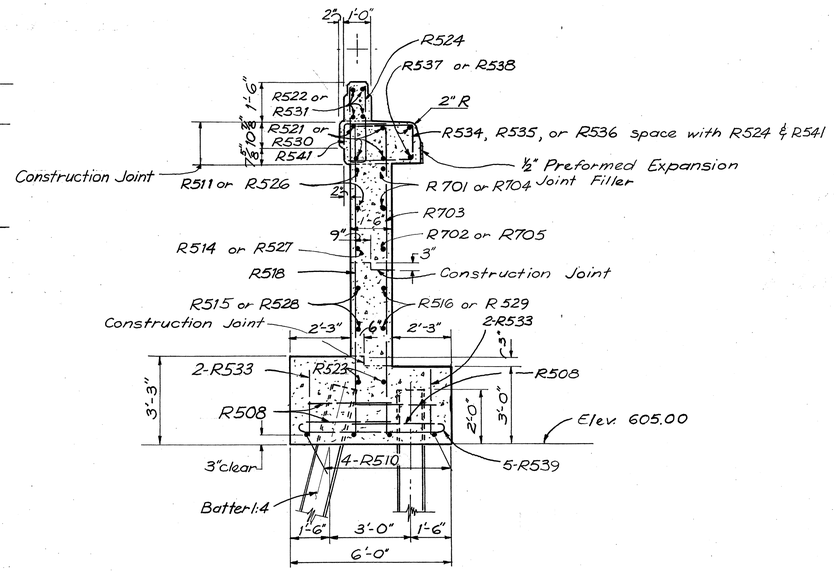
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

206
235

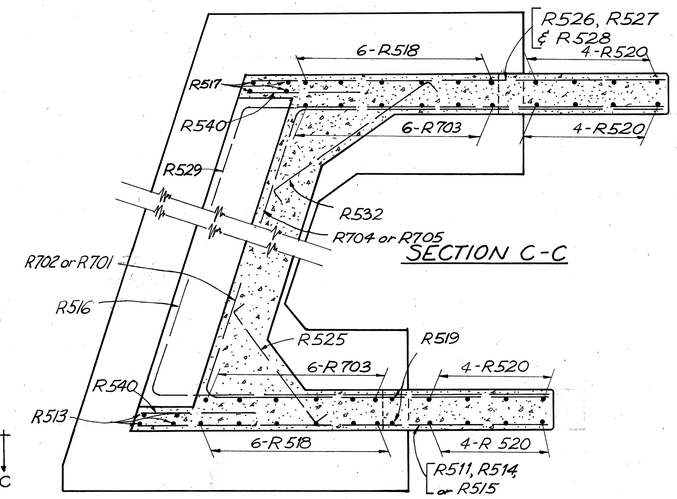
ERI. 6·11.30
ON WEST CORPORATION LINE
OF HURON



WINGWALL ELEVATION - (CONSTRUCTION DETAILS)

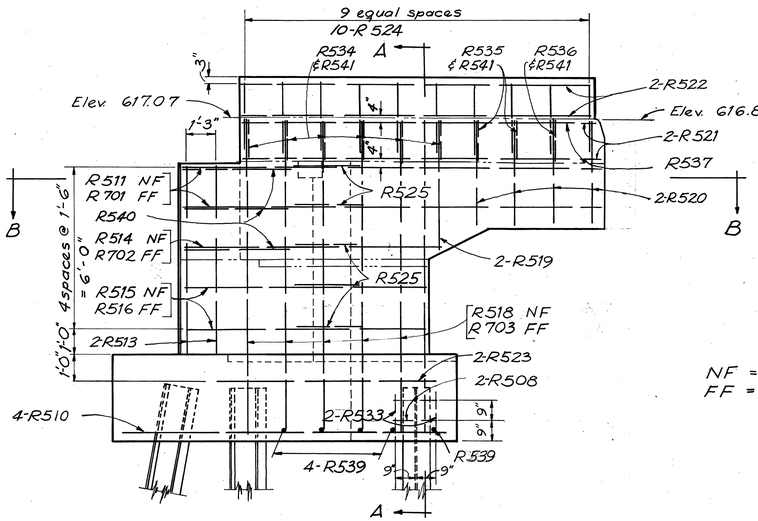


SECTION A A



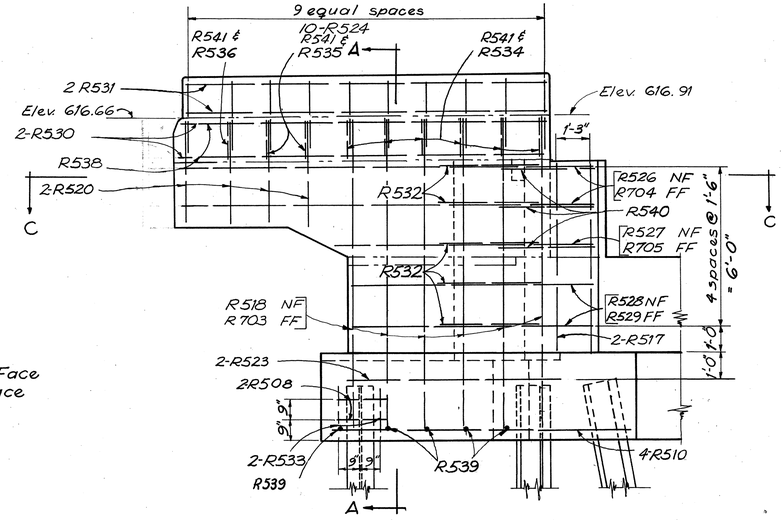
SECTION C-C

SECTION B-B



WINGWALL ELEVATION - (REINFORCING BAR DETAILS)
VIEW B-B

NF = Near Face
FF = Far Face



WINGWALL ELEVATION - (REINFORCING BAR DETAILS)
VIEW C-C

Note: The ½" Preformed expansion joint filler is included with the approach slabs for payment.

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ABUTMENTS

BRIDGE NO. ERI. 6 - 1489 UNDER RYE BEACH ROAD
ERIE COUNTY STA. 46 + 75.45 to STA. 49 + 72.19

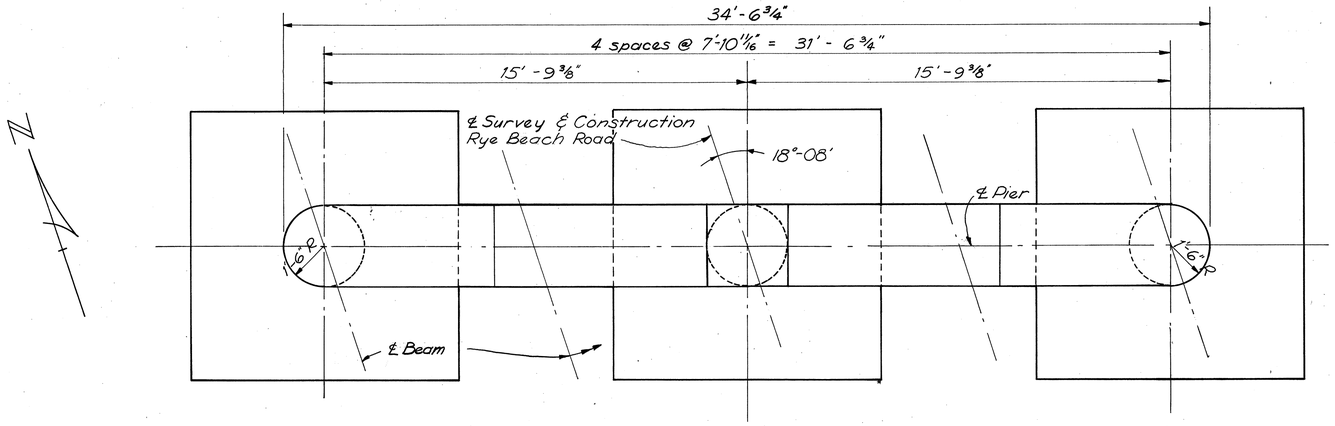
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RJH	RJH	JEC	BJH	FCM 5-2-60	

SEP 15 1960

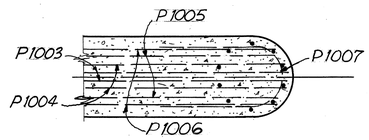
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

207
235

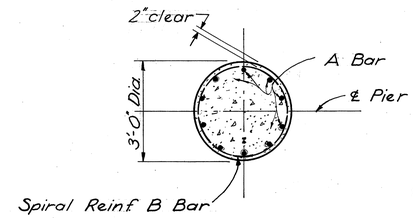
ERI 6·11.30
ON WEST CORPORATION LINE
OF HURON



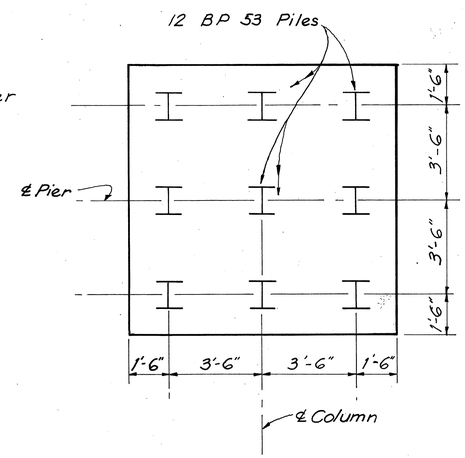
PLAN



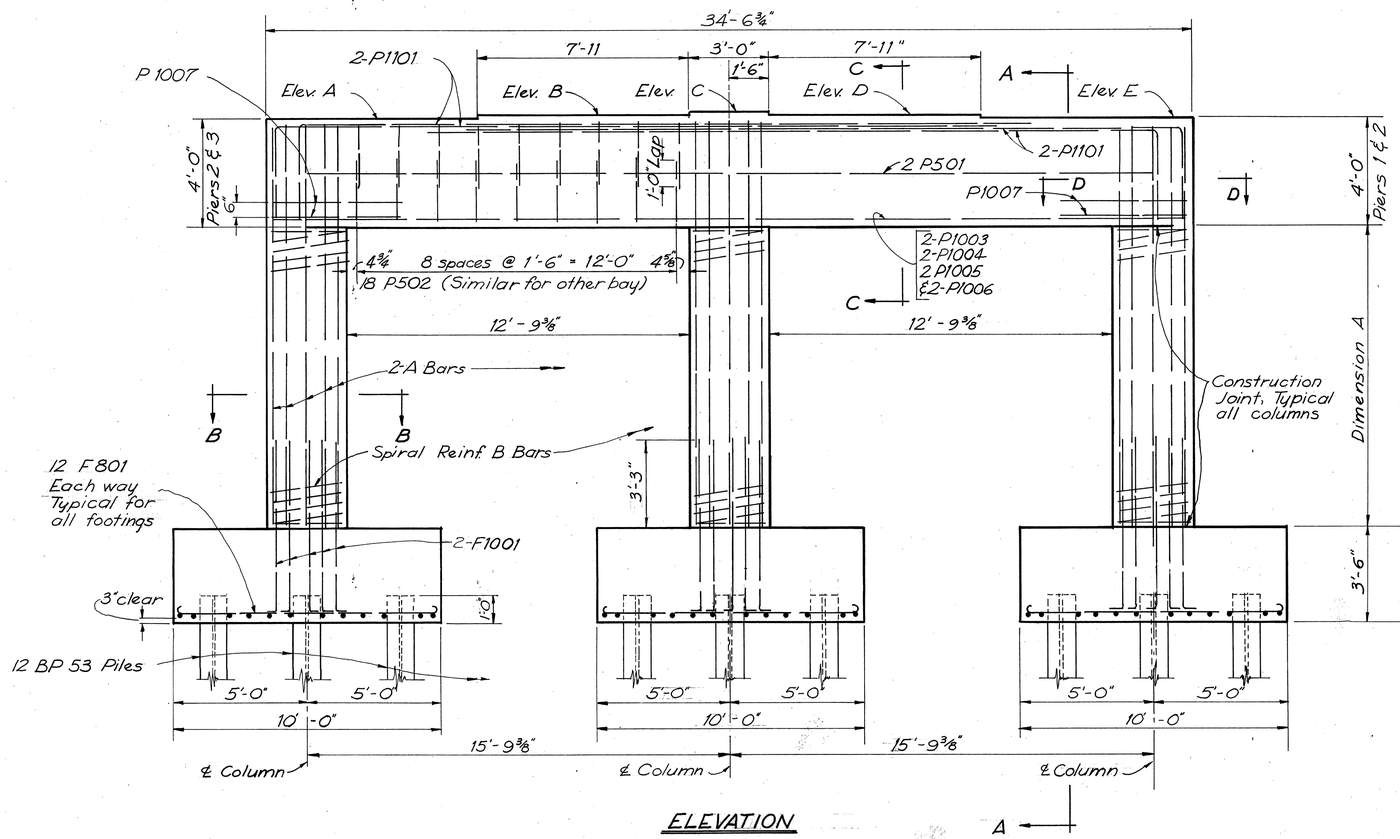
SECTION D-D



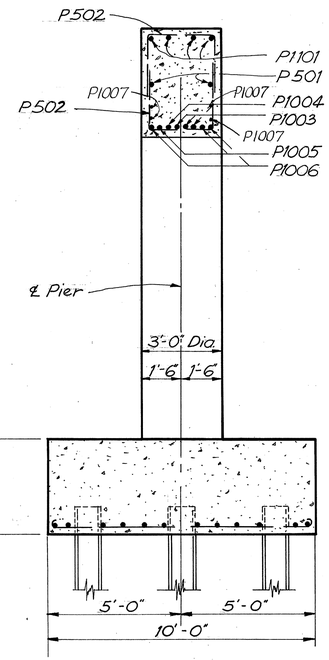
SECTION B-B
Typical Column



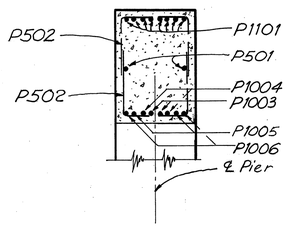
PILE PLAN
Typical Pile Plan



ELEVATION



SECTION A-A



SECTION C-C

PIER NUMBER	ELEVATIONS						DIM.	BARS	
	A	B	C	D	E	F	A	A	B
Pier #1	611.92	612.01	612.11	611.97	611.83	592.50	11'-10"	P1001	SP401
Pier #2	612.24	612.36	612.48	612.36	612.24	593.50	11'-2⅜"	P1002	SP402
Pier #3	611.83	611.97	612.11	612.01	611.92	592.50	11'-10"	P1001	SP401

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

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CONSULTING ENGINEERS
TOLEDO OHIO

PIERS 1, 2, & 3

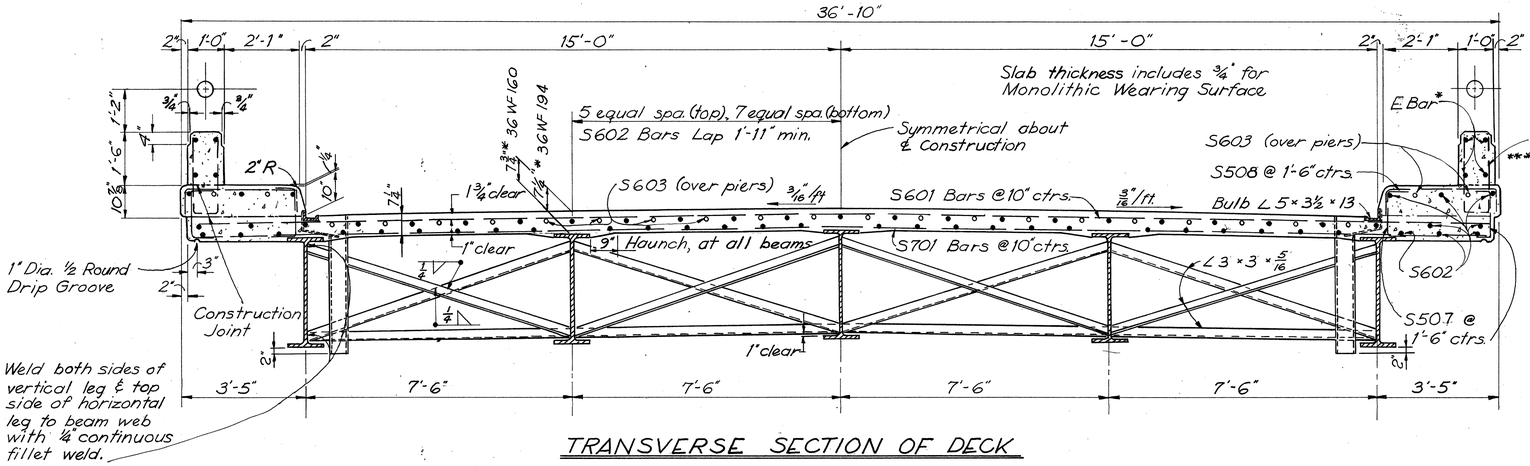
BRIDGE NO. ERI. 6-1489 UNDER
RYE BEACH ROAD
ERIE COUNTY STA. 46 + 75.45 to
STA. 49 + 72.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RJH	RJH	JEC	BJH	FCM 5-2-60	

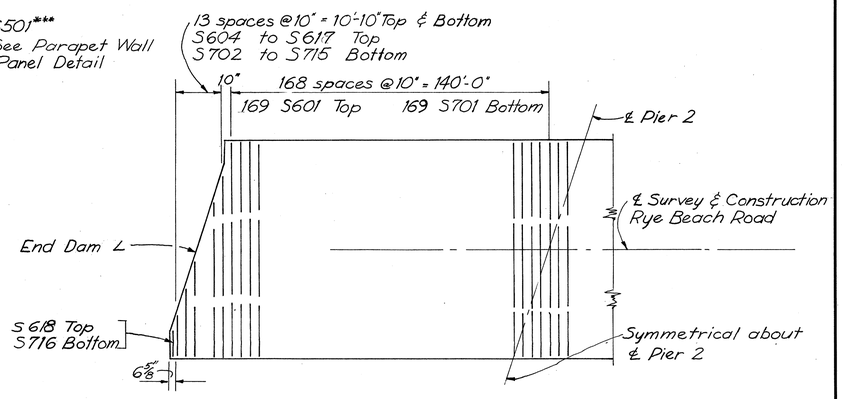
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

208
235

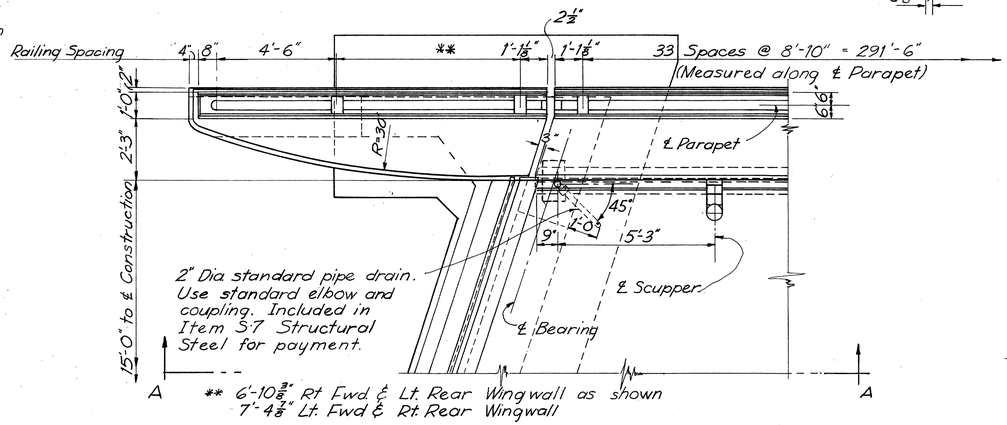
ERI. 6-11.30
ON WEST CORPORATION LINE
OF HURON



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 beam may not have the exact camber or conformation required to place it parallel to the finished grade.



PLAN AT ABUTMENT

SLAB TRANSVERSE REINFORCING STEEL

HALF END DAM PLAN

HALF END DAM ELEVATION

SECTION A-A

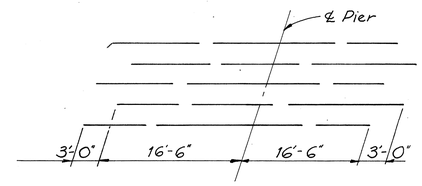
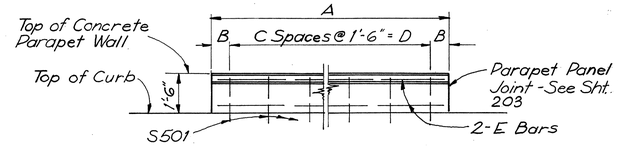


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



PARAPET WALL PANEL DETAIL

MICROFILMED
MAR 20 1965

SEP 15 1960

PARAPET WALL DIMENSIONS

PANEL See Sheet 2	A	B	C	D	No. of S501	E Bars
End	14'-4⅝"	5"	9	13'-6"	10	S502
Pier 1 & 3	6'-6"	3"	4	6'-0"	5	S503
Pier 1 & 3	11'-2"	4"	7	10'-6"	8	S504
Pier 2	8'-10"	8"	5	7'-6"	6	S505
Intermediate	17'-8"	7"	11	16'-6"	12	S506

SEP 15 1960

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CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS

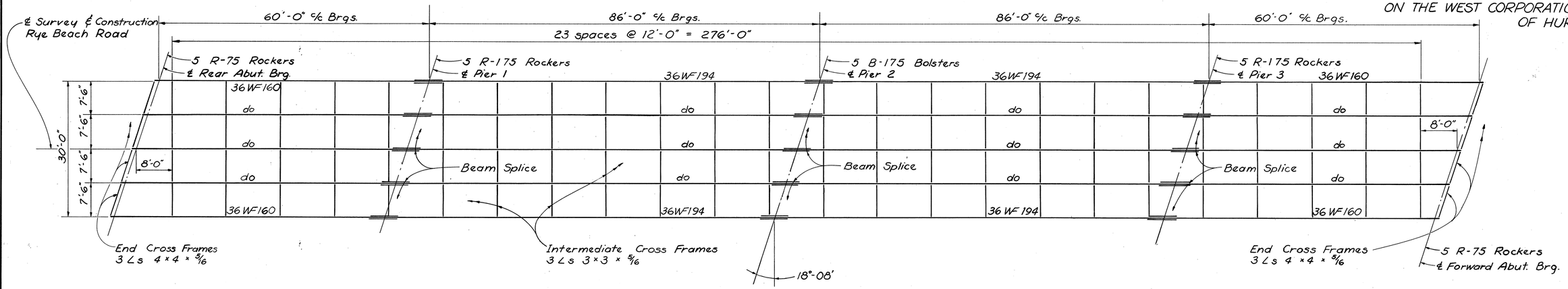
BRIDGE NO. ERI 6-1489 UNDER RYE BEACH RD.
ERIE COUNTY STA. 46 + 75.45 to STA. 49 + 72.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RJH	RJH	JEC	BJH	FCM	5-2-60	

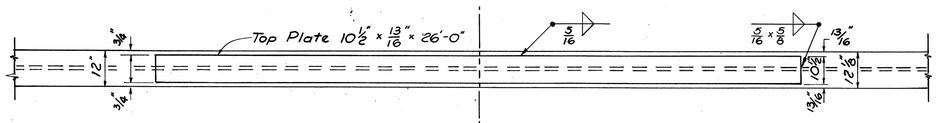
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

209
235

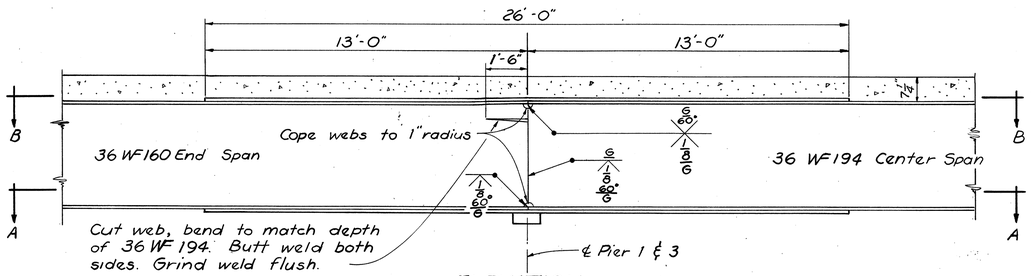
ERI 6-11.30
ON THE WEST CORPORATION LINE OF HURON



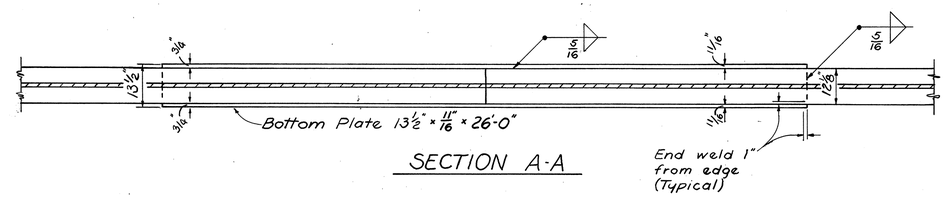
STEEL FRAMING PLAN



SECTION B-B

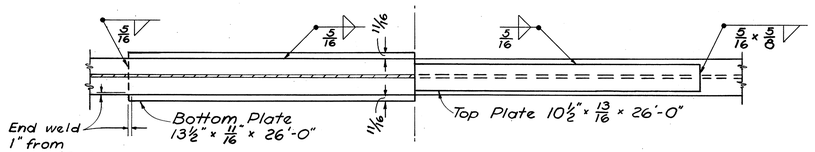


ELEVATION

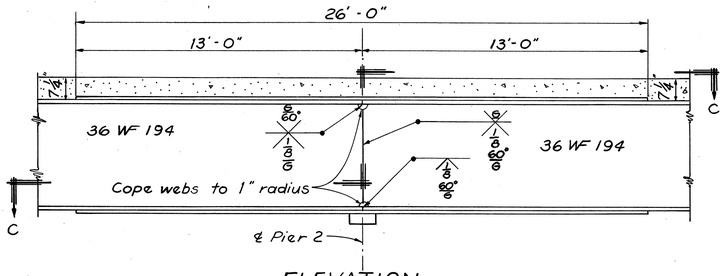


SECTION A-A

BEAM SPLICE DETAIL (Piers 1 & 3)



SECTION C-C



ELEVATION

BEAM SPLICE DETAIL (Pier 2)

BEAM SPLICE WELDING PROCEDURE

1. Raise end of beam at Pier 2, 2½".
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 the beams 3½" at Pier 3 and ⅞" at the Forward Abutment.

PAINTING

After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. S 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams and all sides of the bottom flange.

CAMBERING of beams is required in accordance with the following table:

DEFLECTION AND CAMBER

Location	Interior Beams				Exterior Beams			
	Span 1	Span 2	Span 3	Span 4	Span 1	Span 2	Span 3	Span 4
Deflection due to Dead Load	¼"	5/16"	5/16"	¼"	¼"	5/16"	5/16"	¼"
Camber for Vertical Curve	½"	1⅛"	1⅛"	½"	½"	1⅛"	1⅛"	½"
Total Camber	¾"	1¾"	1¾"	¾"	¾"	1¾"	1¾"	¾"
Required Shop Camber	1"	1¾"	1¾"	1"	1"	1¾"	1¾"	1"

SEP 15 1960

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CONSULTING ENGINEERS
TOLEDO OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. ERI 6-1489 UNDER
RYE BEACH ROAD
ERIE COUNTY STA. 46 + 75.45 to STA. 49 + 72.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RJH	RJH	RJH	BJH	FCM 5-2-60	

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	—

210
235

ERIE COUNTY
0.2 MILES WEST OF HURON.

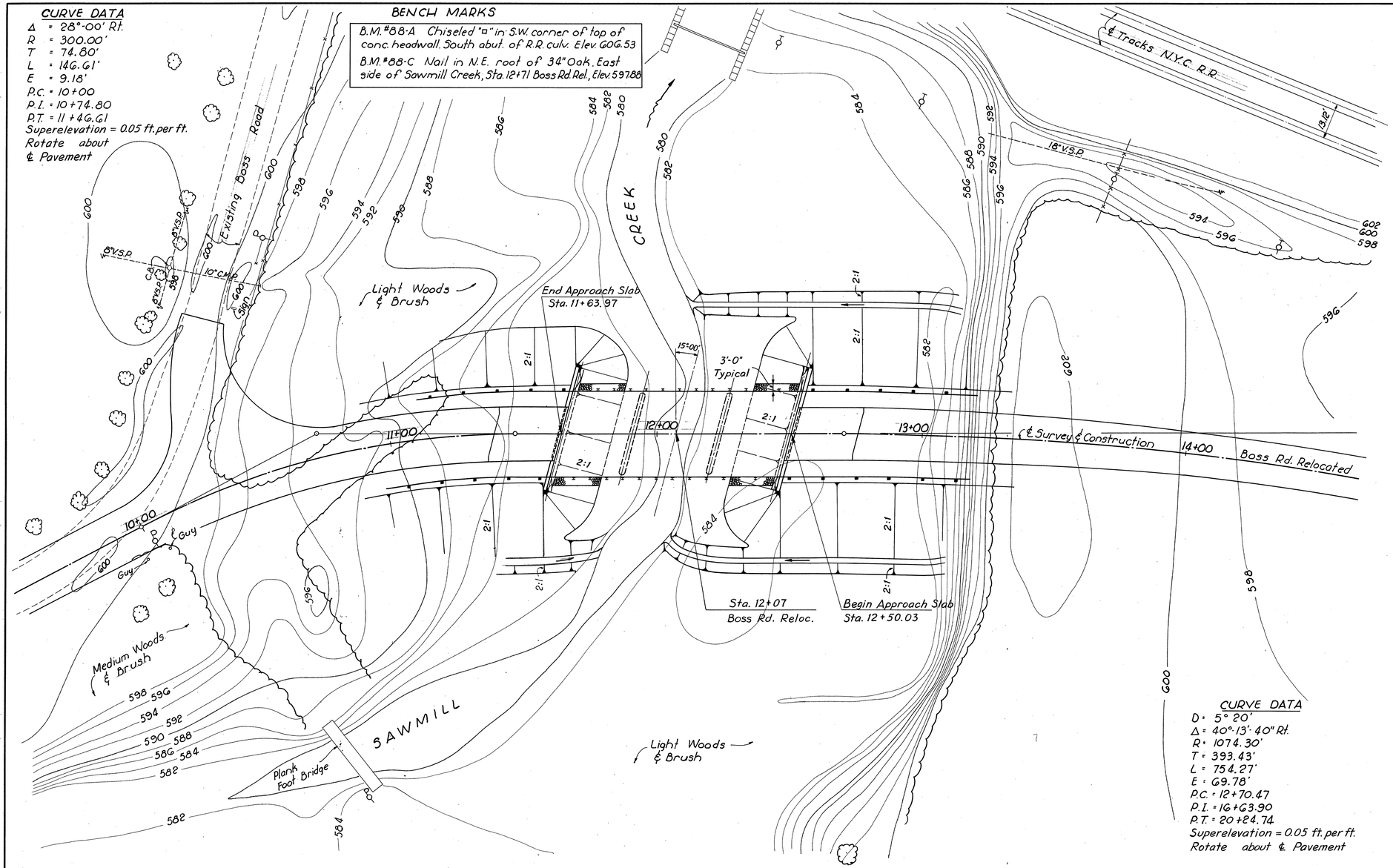
CURVE DATA

Δ = 28°-00' Rt.
R = 300.00'
T = 74.80'
L = 146.61'
E = 9.18'
P.C. = 10+00
P.I. = 10+74.80
P.T. = 11+46.61
Superelevation = 0.05 ft. per ft.
Rotate about ℄ Pavement

BENCH MARKS

B.M. #88-A Chiseled "□" in S.W. corner of top of conc. headwall. South abut. of R.R. culv. Elev. 606.53

B.M. #88-C Nail in N.E. root of 34" Oak, East side of Sawmill Creek, Sta. 12+71 Boss Rd. Rel., Elev. 597.88



CURVE DATA

D = 5° 20'
Δ = 40°-13'-40" Rt.
R = 1074.30'
T = 393.43'
L = 754.27'
E = 69.78'
P.C. = 12+70.47
P.I. = 16+63.90
P.T. = 20+24.74
Superelevation = 0.05 ft. per ft.
Rotate about ℄ Pavement

EXISTING BRIDGE DATA

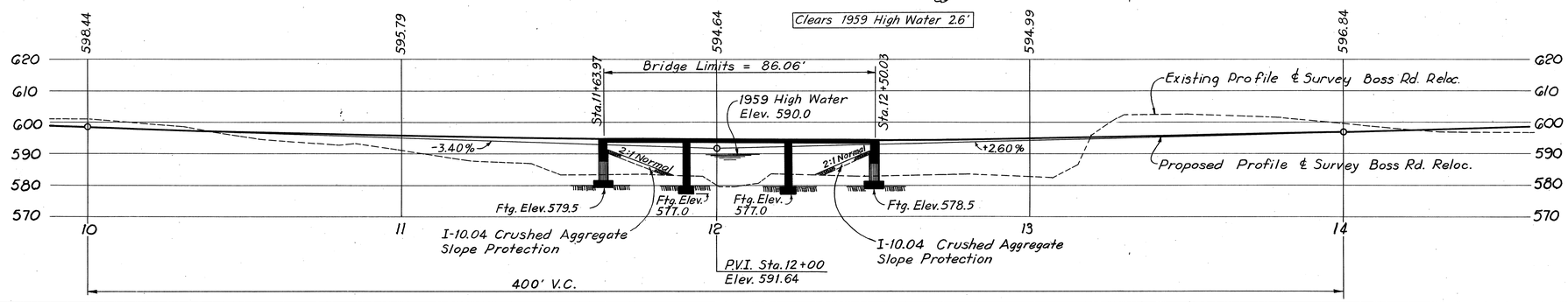
Downstream Bridge: At N.Y.C. R.R. 150' Downstream
Type: Concrete Slab added to arch.
Span: Single Span 24.9' clear.
Skew: None.
Length: 28.9'
Condition: Good.
Clear Opening: 370 sq. ft.
Upstream Bridge: At Bogart Rd., 1 mile Upstream.
Type: Steel Truss.
Span: 28.5±
Skew: None.
Roadway: 28' c/c of trusses.
Length: 31.1'
Waterway Opening: 250 sq. ft.

Foundation design and foundation quantities are based on hand rod soundings made at time of field survey. Adjustment of footing elevations may be required as directed by the Engineer at time of construction.

PROPOSED STRUCTURE

Type: Continuous Reinforced Concrete Slab. Reinforced Concrete Substructure. Abutments on pedestals. Solid wall piers.
Spans: 26'-0", 32'-6", 26'-0"
Roadway: 32'-0" f/f of Guard Rail and out to out of slab.
Load Frequency: CF 130 (57)
Skew: 15° Left Forward
Wearing Surface: ¾" Monolithic Concrete.
Approach Slabs: AS-1-54 (25'-0" Long)
Alignment: Tangent

DRAINAGE AREA = 22 Sq. Miles.



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CONSULTING ENGINEERS
TOLEDO OHIO

SITE PLAN
BOSS ROAD
OVER SAWMILL CREEK

ERIE COUNTY STA. 11+63.97 To
SCALE: 1"=20' STA. 12+50.03

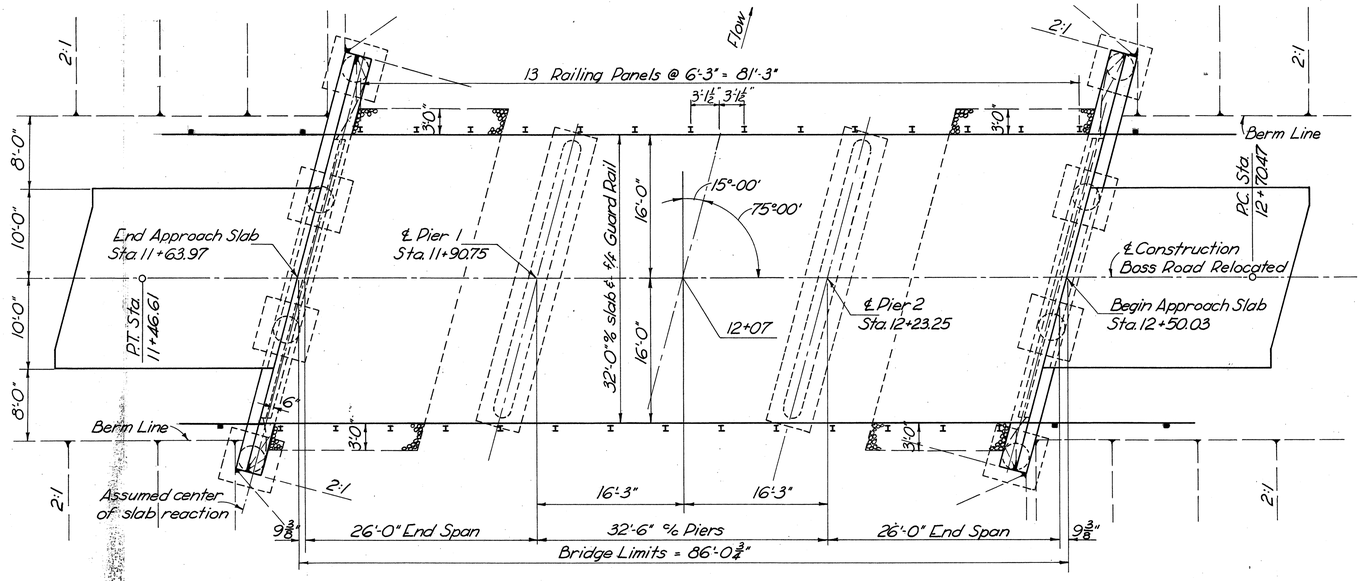
SEP 15 1960

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
SMB	TWD	BJH TWD	TWD JHY	BJH	FCM 5-26-60

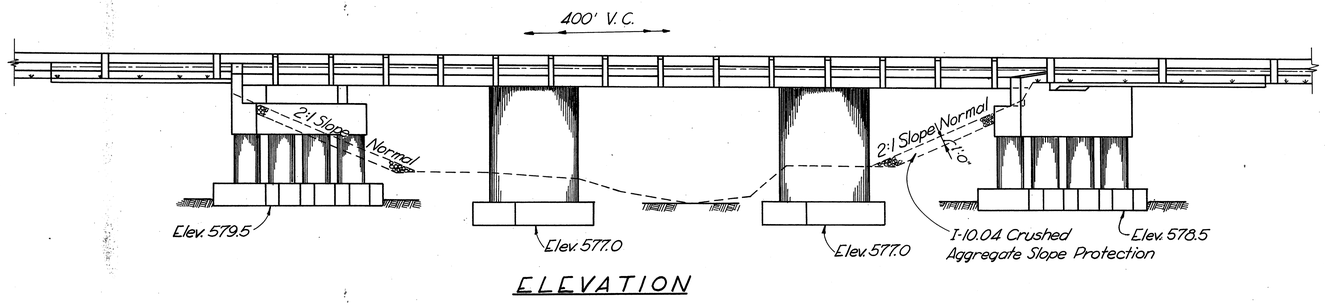
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042 (7)	

211
235

ERIE COUNTY
ERI. 6-11.30



PLAN



ELEVATION

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-54, "Reinforced Concrete Approach Slabs," revised 12-1-54, CS-1-54, "Continuous Slab Bridge," revised 7-16-56, and Supplemental Specification S-101, dated 12-2-59.

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.

PIER & ABUTMENT FOOTINGS: Pier footings shall extend a minimum of 1'0" into solid shale, and abutments 3" into solid shale or to the elevation shown whichever is lower. Immediately after the pier or abutment excavation is completed, the area to be in contact with the footing concrete shall be given an application of bituminous material (¼ gal. per square yard). This bituminous material to be one of the following emulsions or cut-backs as per Item M-5 of the specifications: MC-4, MC-5, RC-4, RC-5, MS-2 or RS-2.

ABUTMENT EXCAVATION QUANTITY includes the removal of till material between the bottom of the abutment crossbeam and elev. 590.9 at the rear abutment and elev. 590.6 at the forward abutment.

FOUNDATION BEARING PRESSURES: Pier footings are designed for a maximum bearing pressure of 3.4 tons per sq. ft. Abutment pedestal footings are designed for a maximum bearing pressure of 3.3 tons per sq. ft.

SLAB THICKNESS is 13¾" (14¾" at slab edge) which includes ¾" for monolithic wearing surface.

MACHINE FINISH: The concrete bridge deck shall be finished as specified in the proposal note, "Machine Finishing of Bridge Deck Slabs".

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp.
ABUTMENTS				
F1001	64	6'-2"	1698	B
F701	112	8'-4"	1908	B
R1001	8	31'-9"	1093	S
R1002	8	25'-5"	875	S
R1003	32	8'-8"	1193	S
R1004	32	9'-5"	1297	S
R901	16	25'-3"	1374	S
R501	8	24'-7"	205	S
R502	108	7'-1"	798	B
R503	4	31'-9"	132	S
R504	16	4'-9"	79	S
R505	28	6'-2"	180	S
R506	14	9'-5"	137	B
R507	14	10'-5"	152	B
R508	8	6'-8"	56	S
R509	8	8'-7"	72	S
R510	8	7'-9"	65	S
R511	8	11'-3"	94	S
R512	16	6'-0"	100	B
R513	8	8'-11"	74	B
R514	8	11'-11"	99	B

Bending Diagrams: F701 (6'-8" %); P508 (R=9", 2'-4"±); F1001 (5'-5", 1'-1"±); FG01 (8'-2" %); F401 (4'-8" %); R502 2'-8" %, R506 1'-8" %, R507 1'-8" %, R512 11" %, R513 2'-2" %, R514 2'-2" %; 2'-4"±, 4'-0"±, 4'-6"±, 2'-8"±, 3'-6"±, 5'-0"±; 21'-1" % B825; 18'-2" % C825

Mark	No.	Length	Weight	Shp.
PIERS				
P501	10	14'-6"	152	S
P502	16	14'-3"	238	S
P503	16	14'-0"	234	S
P504	16	13'-8"	228	S
P505	16	13'-4"	222	S
P506	22	13'-0"	298	S
P507	32	30'-2"	1006	S
P508	32	6'-10"	228	B
FG01	136	8'-10"	1804	B
F401	70	5'-8"	264	B
F402	8	33'-10"	180	S
SUPERSTRUCTURE				
A825	93	30'-3"	7511	S
B825	30	22'-2"	1776	B
C825	30	19'-3"	1542	B
D825	15	20'-10"	834	S
E825	15	15'-8"	627	S

Mark	No.	Length	Weight	Shp.
F925	62	24'-11"	5252	S
G925	30	12'-11"	1318	S
H925	30	10'-1"	1029	S
J601	32	16'-6"	793	S
K601	16	12'-5"	298	S
M601	87	32'-8"	4269	S
N601	57	32'-8"	2797	S
REPLACEMENT BARS				
RE1001	1	7'-3"		
RE901	1	6'-10"		
RE801	1	6'-6"		
RE701	1	6'-3"		
RE601	1	5'-11"		
RE501	1	5'-7"		
RE401	1	5'-3"		

SPIRAL REINFORCING LIST

Mark	No.	Coil's Dia. % Spiral	Length	Pitch	No. Turns	Weight
SP401	4	32"	5'-6½"	4½"	18	457
SP402	4	32"	6'-2⅞"	4½"	20	509

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abutments Rear	Abutments Forward	Piers 1	Piers 2	Super.	General
E-2	Lump	Sum	Cofferdams, cribs and sheeting						Lump
E-2	212	Cu.Yds.	Unclassified excavation	68	79	28	37		
E-2	44	Cu.Yds.	Shale excavation	5	7	16	16		
S-1	118	Cu.Yds.	Class "C" concrete, superstructure					118	
S-1	107	Cu.Yds.	Class "E" concrete, abutments	53	54				
S-1	65	Cu.Yds.	Class "E" concrete, piers above footings			33	32		
S-1	32	Cu.Yds.	Class "E" concrete, pier footings			16	16		
S-4	45,547	Lbs.	Reinforcing steel	6245	6402	2427	2427	28,046	
S-14	172	Lin. Ft.	Railing (Type I-15.13 with galvanized steel posts & bolts)						172
S-29	16	Cu.Yds.	Porous backfill	8	8				
I-10	153	Sq.Yds.	Crushed aggregate slope protection						153

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 701 is a No. 7 size bar and A 1014 is a No. 10 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. S-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 abutment beam. 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 S-4. 1½ closed coils shall be provided at the ends of each spiral unit.

Four (or three) 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 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.

SEP 15 1960

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

GENERAL PLAN & ELEVATION, GENERAL NOTES, REINFORCING STEEL & ESTIMATED QUANTITIES

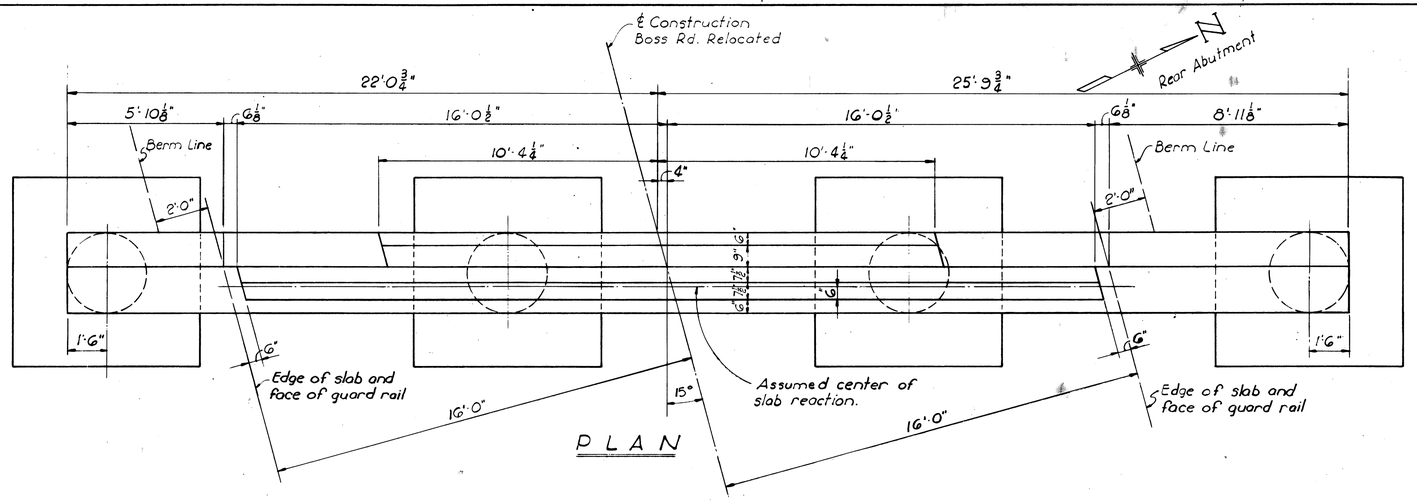
BOSS ROAD OVER
SAW MILL CREEK Sta. 11+63.97 to
ERIE CO. Sta. 12+50.03

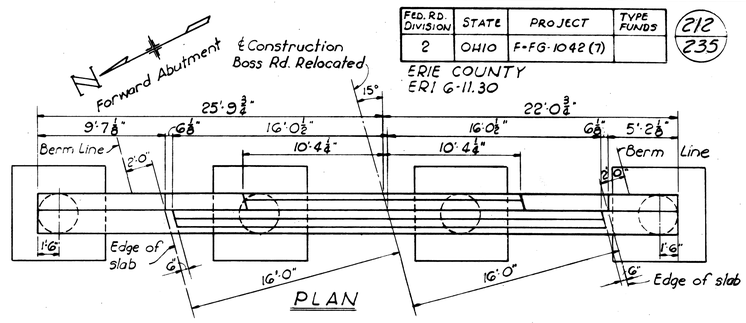
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TWD	TWD	JEC	BJH	FCM	5-2-60	

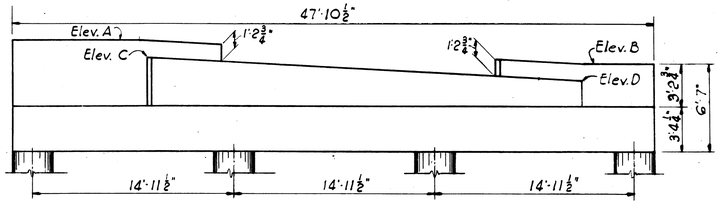
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

212
235

ERIE COUNTY
ERI 6-11.30

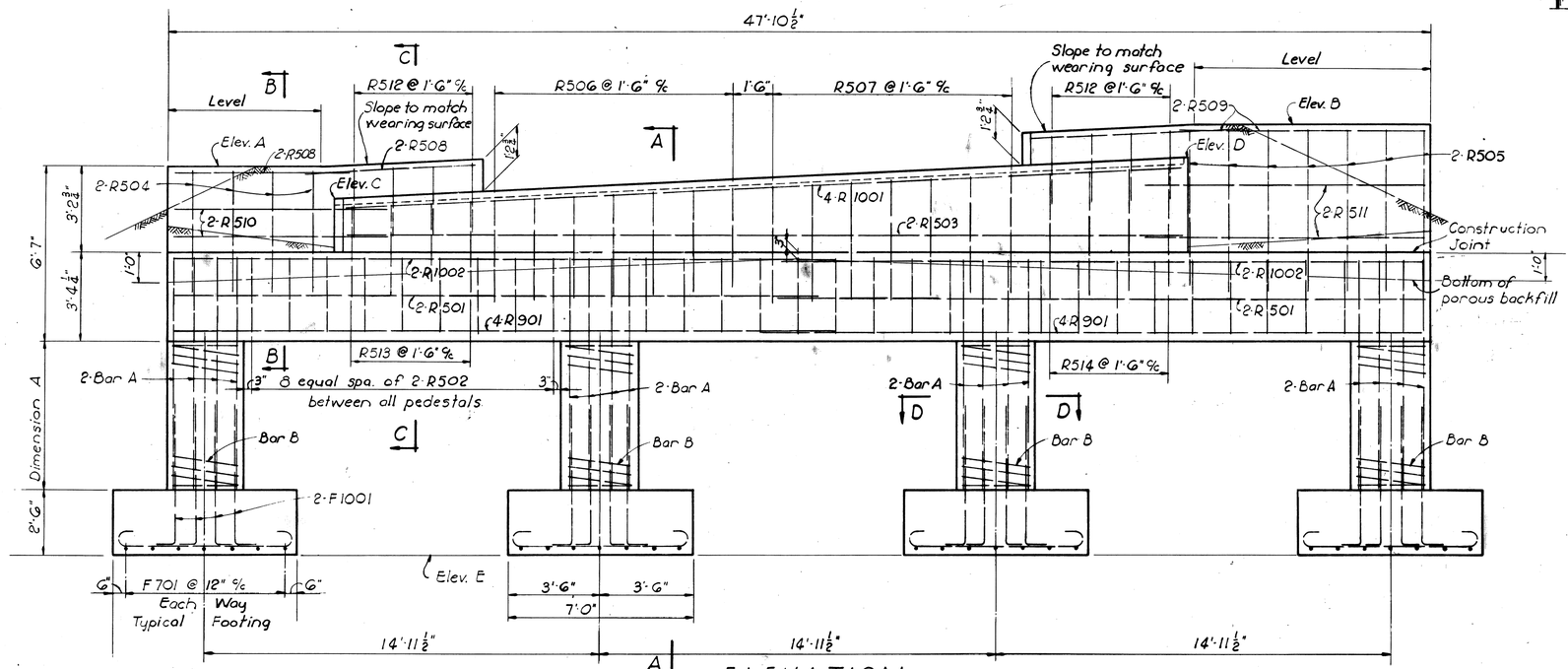




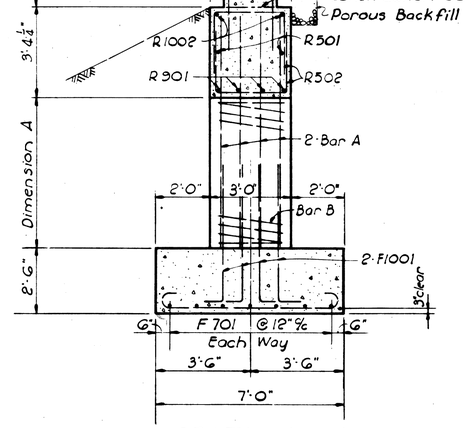


ELEVATION
Forward Abutment

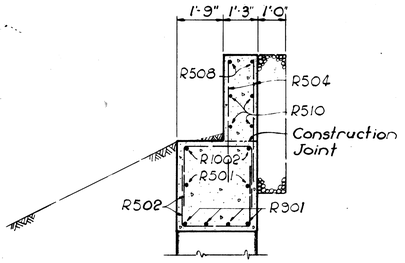
Details not shown are similar to Rear Abutment.



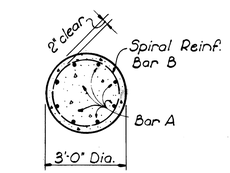
ELEVATION
Rear Abutment Shown



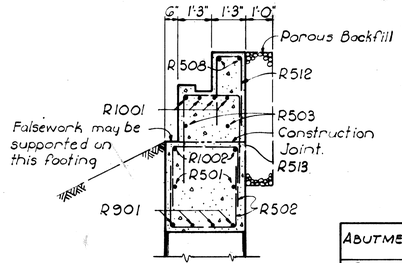
SECTION A-A



SECTION B-B



SECTION D-D



SECTION C-C

PROCEDURE: After the pedestals are placed, the earth fill shall be made to the height of the top of the abutment crossbeam and the excavation made for the crossbeam.

POROUS BACKFILL shall extend upward to the approach slab and to the surface of the earth shoulders, and outward 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 price per cu. yd. paid for porous backfill.

ABUTMENT	ELEVATION					DIMENS.	BAR	
	A	B	C	D	E	A	A	B
Rear	594.12	595.65	592.92	594.39	578.5	5'-6⅛"	R1003	SP401
Forward	595.44	593.82	594.19	592.61	578.5	6'-2⅜"	R1004	SP402

SEP 15 1960

SANZENBACHER MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

ABUTMENTS
BOSS ROAD OVER SAW MILL CREEK

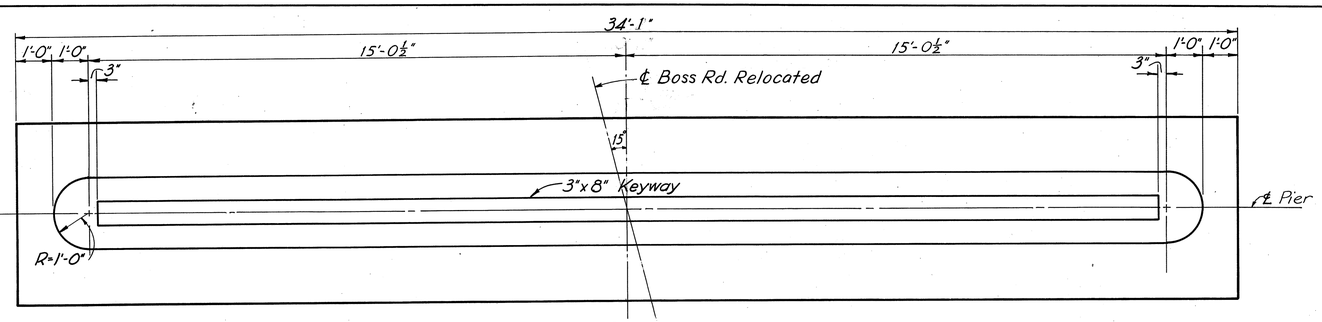
ERIE CO.
STA. 11+63.97 To
STA. 12+50.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
BJH	TWD		BJH TWD	FCM 5-2-60	

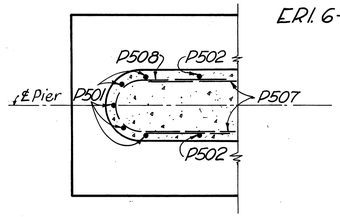
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-FG-1042(7)	

213
235

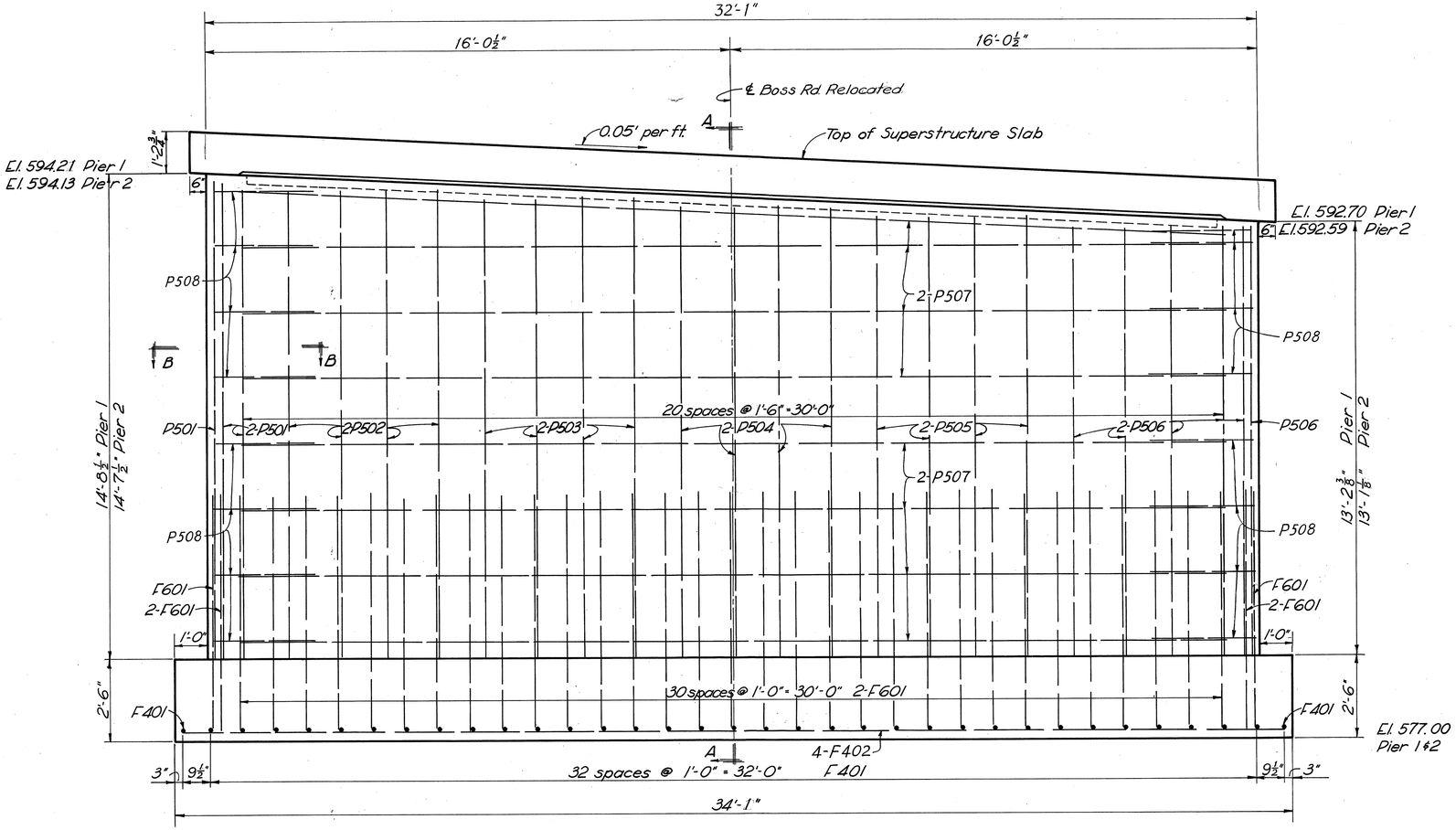
ERIE COUNTY
ERI. 6-11.30



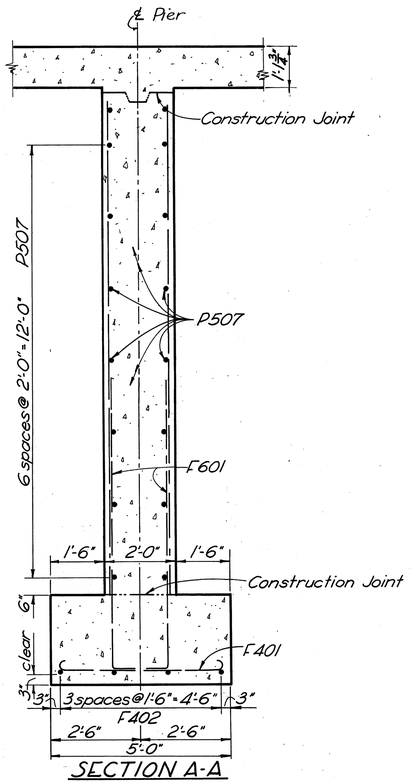
PLAN



SECTION B-B



ELEVATION



SECTION A-A

SANZENBACHER, MILLER & BRIGHAM
CONSULTING ENGINEERS
TOLEDO OHIO

PIERS

BOSS ROAD OVER
SAWMILL CREEK

ERIE CO.

Sta. 11+63.97 to
Sta. 12+50.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JHY	JHY	JEC	BJH	FCM	5-2-60	

SEP 15 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

214
235

LIMITED ACCESS

Sheet 1 of 2

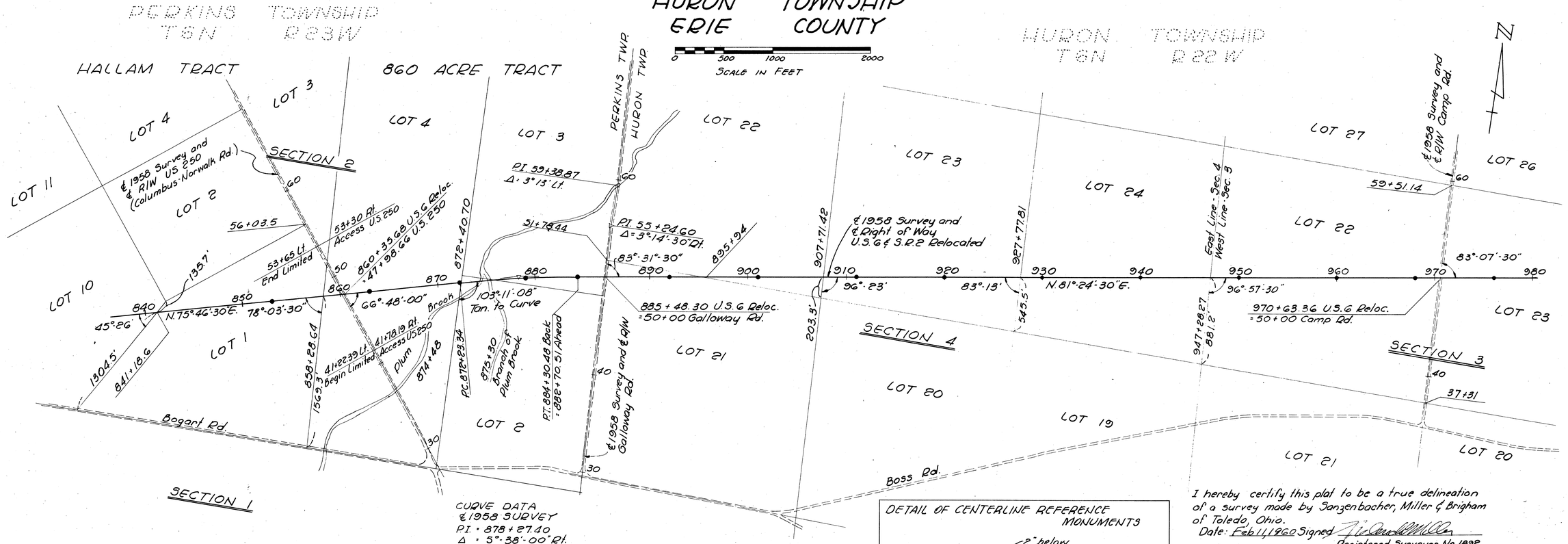
1/2

This improvement has been declared a limited access highway by action of the Director of Highways and recorded in Volume 43, Page 1120 of the Director's Journal.
Hearing held in Sandusky, Ohio October 14, 1958.

LOCATION PLAN
DEPARTMENT OF HIGHWAYS

ERI. 6-11.30
VILLAGE OF HURON
PERKINS TOWNSHIP
HURON TOWNSHIP
ERIE COUNTY

0 500 1000 2000
SCALE IN FEET

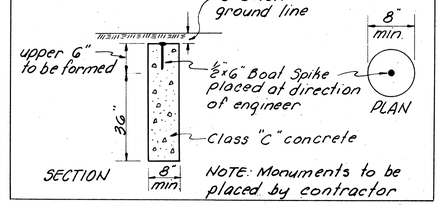


CURVE DATA
℄ 1958 SURVEY
P.I. = 878+27.40
Δ = 5°-38'-00" Rt.
D = 0°-28'
R = 12,277.67'
T = 604.06'
L = 1207.14'
E = 14.85'

Totals:
Monuments as per plan - 22

NOTE: All monuments shown east of the monument at Sta. 1040+00 are not included in contract for ERI. 6-11.30.

DETAIL OF CENTERLINE REFERENCE MONUMENTS



CENTERLINE MONUMENTS TO BE SET AS PART OF CONSTRUCTION

℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.C.	℄ Survey Mon. P.O.C.
P.O.T. Sta. 853+00	P.O.T. Sta. 863+00	P.C. Sta. 878+23.34	P.O.C. Sta. 879+00

℄ Survey Mon. P.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.
P.T. Sta. 884+30.48 Back Sta. 882+70.51 Ahead	P.O.T. Sta. 892+00	P.O.T. Sta. 901+00	P.O.T. Sta. 911+00	P.O.T. Sta. 920+00	P.O.T. Sta. 930+00	P.O.T. Sta. 940+00	P.O.T. Sta. 950+00	P.O.T. Sta. 960+00	P.O.T. Sta. 968+00	P.O.T. Sta. 976+00

I hereby certify this plat to be a true delineation of a survey made by Sanzenbacher, Miller & Brigham of Toledo, Ohio.
Date: Feb 11, 1960 Signed _____
Registered Surveyor No. 1898

Approved:
Signed: E. L. Johnson Date: 2-17-60
Division Deputy Director
Professional Engineer No. 6311

RECEIVED Feb. 25-1960 AT 10:25 A.M.
RECORDED Feb. 26-1960.
PLAT BOOK 14 PAGE 63 + 64
FEE $4.00 Paid File No. 168,804

SIGNED Paul A. Spain
ERIE COUNTY RECORDER

SEP 15 1960

SANZENBACHER MILLER & BRIGHAM TOLEDO, OHIO

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

215/235

2/2

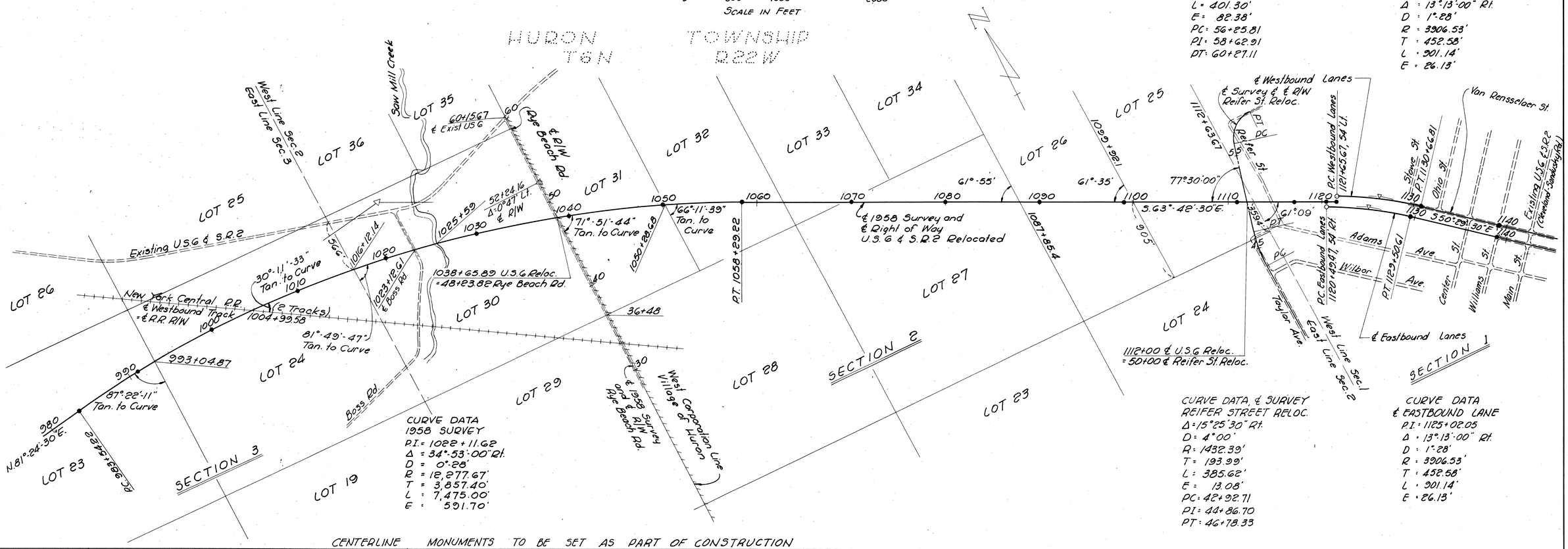
LOCATION PLAN
DEPARTMENT OF HIGHWAYS
ERI. 6-11.30
PERKINS & HURON TOWNSHIPS & VILLAGE OF HURON
ERIE COUNTY

LIMITED ACCESS

Sheet 2 of 2

This improvement has been declared a limited access highway by action of the Director of Highways and recorded in Volume 43, Page 1120 of the Director's Journal.

0 500 1000 8000
SCALE IN FEET



CURVE DATA, ℄ SURVEY
REIFER STREET RELOC.
Δ = 76°38'30" Rt.
D = 19°05'55"
R = 300.00'
T = 237.10'
L = 401.30'
E = 82.38'
PC = 56+85.81
PI = 58+62.91
PT = 60+87.11

CURVE DATA
℄ WESTBOUND LANE
P.I. = 1126+18.25
Δ = 13°-13'-00" Rt.
D = 1°-28'
R = 3906.53'
T = 452.58'
L = 901.14'
E = 26.13'

CURVE DATA
1958 SURVEY
P.I. = 1022 + 11.62
Δ = 34°-53'-00" Rt.
D = 0°-28'
R = 12,277.67'
T = 3,857.40'
L = 7,475.00'
E = 591.70'

CURVE DATA, ℄ SURVEY
REIFER STREET RELOC.
Δ = 15°25'30" Rt.
D = 4°00'
R = 1432.39'
T = 193.99'
L = 385.62'
E = 13.08'
PC = 42+92.71
PI = 44+86.70
PT = 46+78.33

CURVE DATA
℄ EASTBOUND LANE
P.I. = 1125+02.05
Δ = 13°-13'-00" Rt.
D = 1°-28'
R = 3906.53'
T = 452.58'
L = 901.14'
E = 26.13'

CENTERLINE MONUMENTS TO BE SET AS PART OF CONSTRUCTION

℄ Survey Mon. P.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.O.C.	℄ Survey Mon. P.T.	℄ Survey Mon. P.O.T.
P.C. Sta. 983+54.22	P.O.C. Sta. 991+00	P.O.C. Sta. 1000+00	P.O.C. Sta. 1010+00	P.O.C. Sta. 1020+00	P.O.C. Sta. 1030+00	P.O.C. Sta. 1040+00	P.O.C. Sta. 1050+00	P.T. Sta. 1058+29.22	P.O.T. Sta. 1070+00

Monument Boxes - See Std. Const. Dwg. RI-1

℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. P.O.T.	℄ Survey Mon. 90° 54° ℄ E.B. Lanes P.C.	℄ W.B. Lanes 90° 54° ℄ Survey Mon.	℄ E.B. Lanes Mon. Box P.T.	℄ W.B. Lanes Mon. Box P.T.	℄ E.B. Lanes Mon. Box P.O.T.	℄ W.B. Lanes Mon. Box P.O.T.
P.O.T. 1080+00	P.O.T. Sta. 1090+00	P.O.T. Sta. 1099+00	P.O.T. Sta. 1111+00	P.O.T. Sta. 1117+00	Eastbound Lanes P.C. Sta. 1120+49.47	Westbound Lanes P.C. Sta. 1121+65.67	Eastbound Lanes P.T. Sta. 1129+50.61	Westbound Lanes P.T. Sta. 1130+66.81	Eastbound Lanes P.O.T. Sta. 1138+97.92	Westbound Lanes P.O.T. Sta. 1139+25.31

SEP 15 1960

ERI.6-11.30 2/2

SANZENBACHER, MILLER & BRIGHAM TOLEDO, OHIO

SUMMARY OF ADDITIONAL R/W REQUIRED

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

216/235

ERI 6-11.30
R/W PLAN

1/20

PARCEL NO.	OWNER	TO BE ACQUIRED AREA ACRES	TO BE ACQUIRED EXIST. BLDGS.	SHEET NOS.	REMARKS
200	Wm. O. Hemminger	0.31		5,6	
200 LA	" "	8.80			See ERI 6-7.31 R/W Plans
202 LA	Ruth Emch, et al	3.72		3	
203	John Stamm, Jr. and Lucille Stamm	0.21		5	
203 LA	" " " " "	15.74	Yes	3,5	
203 T	" " " " "	0.63		5	
207	Frank Ostheimer and Minnie Ostheimer	0.16		4,6	
208	Vernon Wyatt and Marian Wyatt	0.12		6	
209	Paul E. Michel and Atho Michel	0.07		4	
210	Lloyd A. Hills and Nellie E. Hills	0.13		4	
211	J. Martin Kaltenbach and Marian A. Kaltenbach	0.21		4	
212 LA	Frank J. Naderer and Mabel Naderer	1.58	Yes	4	
213 LA	Lee Roy England and Youlanda England	0.37	Yes	4	
214 LA	Virgil Fillipucci and Julia Fillipucci	0.45		4	
215 LA	Donald J. Sheffer and Dorothy L. Sheffer	0.37	Yes	4	
216 LA	Charles P. Faulhaber and Sara J. Faulhaber	1.45	Yes	4	
217 LA	Charles R. Caton and Doris L. Caton	0.37	Yes	4	
218 LA	Edward L. Horn and Lillian Horn	0.82	Yes	4	
219 LA	Lawrence Tight and Edith N. Tight	15.94	Yes	4,5,7	
220 LA	Richard D. Whaley and Ruth A. Whaley	0.26	Yes	4	
221 LA	Clyde H. Jones and Miriam W. Jones	0.21	Yes	4	
222 LA	Anna Horn	1.38	Yes	4	
223 LA	Ralph Likes and Ruth A. Likes	0.23	Yes	4	
224	Belle Kob	0.42		5,6	
224 LA	" "	4.03		5	
226 LA	Iona Jones, et al	3.76		7	
226 X	" " " "	0.08		7	
227	John E. Kessler	0.06		8	
227 LA	" "	3.58		7	
227 X	" "	0.14		7	
228	Belle Steinen	0.62		8	
228 LA	" "	2.13		7	
232	John E. Everett and Clara Marie Jennifer	0.67		8	
232 LA	" " " " "	5.34		7	
233 LA	Alfred F. Klepper and Rhea M. Klepper	0.72		8	
234	Paul J. Christiansen and Corrine C. Christiansen	0.04		8	
234 LA	" " " "	0.33		7,8	
235	John A. Kessler and Marcella L. Kessler	0.10		8	
236		0.50		8	See 228
236 LA		7.38		7,9	See 228
237	Ralph C. Kessler and Lucille E. Kessler	0.09		8	
238	Milton C. Opper and Laurene A. Opper	0.08		8	
239	Edward J. Kessler and Ethel M. Kessler	0.07		8	

PARCEL NO.	OWNER	TO BE ACQUIRED AREA ACRES	TO BE ACQUIRED EXIST. BLDGS.	SHEET NOS.	REMARKS
250 LA	Alverna Bell Davlin	1.11		7,9	
252 LA	Herman J. Casper, et al	8.88		9	
253 LA	W. Carl Schemenaur	3.96		9,10	
254 LA	Frank Henry Everett	6.51		10	
254 X	" " "	0.11		10	
255 LA	George Boos	12.05		10	
256	Martin Purcell	1.02		12	
256 A	" "	0.85		12	
256 LA	" "	9.42		11	
257	Lawrence Jennings and Emma Clair Jennings	0.22		12	
257 A	" " " " "	0.88		12	
257 LA	" " " " "	3.58		11	
258	Allena E. Leibach	0.81		12	
259	Harry C. Strauss	0.06		12	
260 LA	John M. Altman	3.46		11	
261 LA	Eugene C. Ommert	7.38		11,13	
262 LA	Mossie A. Stout	7.61		13	
262A-LA	" "	0.19		13	
263	New York Central Railroad Company	0.013		14	
263 A	" " " " "	0.013		14	
263 B	" " " " "	0.014		14	
263 C	" " " " "	0.014		14	
263 SL-1	" " " " "	0.53		14	
263 SL-2	" " " " "	0.37		14	
263 X	" " " " "	0.11		14	
263 S	" " " " "	0.03		14	
263 Aerial	" " " " "	0.88		14	
264 LA	Roscoe E. Stout and Violet Stout	0.18		13	
265 LA	Andrew J. Schenk and Ethelyn E. Schenk	1.41		13	
266 LA	William J. Hinde III	0.25		13	
267	Fred W. Willgrube	0.23		15	
267 A	" "	0.08		15	
267 LA	" "	11.67		13 & 15	
268	Clarence G. Isaac	0.28		16	
268 A	" "	0.69		17	
268 B	" "	0.08		15	
268 LA	" "	19.22	Yes	15 & 17	
268 X	" "	0.45		15	
268 Y	" "	0.16		15	

SEP 15 1960

Sept 6, 1960 (S.M.&B.)
MAY 5, 1960
May 2, 1960

SANZENBACHER, MILLER & BRIGHAM, TOLEDO, OHIO.

SUMMARY OF ADDITIONAL R/W REQUIRED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

217/235

ERI 6-11.30
R/W PLAN

2/20

PARCEL NO.	OWNER	TO BE ACQUIRED AREA ACRES	TO BE ACQUIRED EXIST. BLDGS.	SHEET NOS.	REMARKS
270	Norma H. Hinde, et al	0.18		16	
270 A	" " "	0.08		18	
271	Charles Malone and Helen Malone	2.10		16&18	
271 LA	" " " "	14.47		16&18	
271A-LA	" " " "	0.79		17	
~~272~~	~~Ohio Edison Co.~~	~~0.34~~		~~21~~	
272 LA	Ohio Edison Co.	0.60		17	
~~272A-LA~~	" " "	~~4.63~~		~~19~~	
~~272B-LA~~	" " "	~~0.68~~		19&20	
272C-LA	" " "	0.40		20	
272D-LA	" " "	4.25		20	
272E-LA	" " "	0.41		20&22	
272 X	" " "	~~0.02~~		18	
~~272 Y~~	" " "	0.14		~~19~~	
273	Max Osterling	0.57		16	
273 LA	" "	0.52		16	
~~274 LA~~	George A. Staley and Evelyn C. Staley	~~25.55~~		17&18	
~~274A-LA~~	" " " " " " "	~~3.13~~		~~18~~	
275	Rae W. Fabens	0.69	Yes	21	
275 A	" "	0.15	Yes	21	
275 B	" "	0.21		21	
275 LA	" "	5.24		19&20	
275A-LA	" "	2.43	Yes	20	
275 X	" "	0.17		13&20	
275 C	" "	0.10		21	
276 LA	Roy U. Butler and Frances J. Butler	0.85	Yes	20	
277 LA	John T. Wade and Eleanor C. Wade	0.17		13&20	
277 X	" " " "	0.44		13	
278 LA	John P. Mc Cormick	0.99		20	
278A-LA	" "	0.12		20	
278B-LA	" "	0.31		20	
279 LA	Ralph G. Chicotel and Antoinette Chicotel	0.02		20	
280 LA	Matthew P. Smith and Eleanor Smith	0.33	Yes	20	
~~282 LA~~	R. Stanley and Evelyn E. Toomey	180 sq.ft		20	
286 LA	Adam P. Beckloff	1.59	Yes	20	
286A-LA	" "	1.48		20	
287 LA	Earl E. Smith and Sophia C. Smith	0.23		20	
287 X	" " " "	0.05		20	
~~288 LA~~	Village of Huron	2.97	Yes	20	
~~289 LA~~	Harvey A. Parman, et al	0.00		20	~~L.A. only~~

PARCEL NO.	OWNER	TO BE ACQUIRED AREA ACRES	TO BE ACQUIRED EXIST. BLDGS.	SHEET NOS.	REMARKS
~~290 LA~~	Charles R. Reddick and Margaret L. Reddick	0.00		20	L.A. only
291 LA	Doris M. Leidheiser	0.00		20	Point of Access
292 LA	Sarah N. Montague, Life Estate, et al	0.00		20	L.A. only
293 LA	D.W. Matthews	0.00		20&22	Point of Access
294 LA	Yale H. La Voo	0.20	Yes	20&22	
295 LA	Darwin T. Schwochow and Marie J. Schwochow	0.19		20	
301 LA	Mary L.B. Murrey	0.00		22	Point of Access
302 LA	Zion Evangelical Lutheran Church	0.20	Yes	22	
305 LA	Gayle C. Cole	0.00		22	Point of Access
306 LA	Lois D. Wile	0.00		22	Point of Access
307 LA	William L. Allen	0.00		22	L.A. only
308 LA	Ethel G. Swanbeck	0.20		22	
309 LA	Cathryn P. Komarek	0.00		22	L.A. only
316	Leo Klein and Clara Klein	0.04		21	
319	Frederick A. Boos and Virginia M. Boos	0.05		21	
320	William Kaman and Blanche M. Kaman	1.42		21	
321	Board of Education of The Huron Local School District, Erie County, Ohio.	0.16		21	
330	Doris L. Knott	0.15		25	
332	Donald C. Comparette and Mae Della Comparette	0.15	Yes	25	
336	Gola M. Dussel	0.15	Yes	25	
~~338~~	James F. Delahunt and Nancy E. Delahunt	0.15	Yes	25	
350	William J. Hinde III	0.05		19	See 266
351	Fred Post, Jr. and Christina Post	4.65		19&20	
353	C. Leo Wunder and Anna Wunder	0.13		19&20	
354	Tina Mc Cormick	0.27		20	

SEP 15 1960

Sept. 6, 1960 (S.M.&B.)
MAY 5, 1960
May 2, 1960

SANZENBACHER, MILLER & BRIGHAM, TOLEDO, OHIO.


FED. RD. DIVISION 2
STATE OHIO
PROJECT
TYPE FUNDS
218/235
3/20
ERI-6-11.30
R/W PLAN
LIMITED ACCESS
Proposed R/W Line
Const. Limits
841+00 160'
+13.80 96.65'
South Line Lot 2
North Line Lot 1
Woven Wire
843+62.04 160'
200 LA See ERI-6-7.31
Wm. O. Hemminger
841+18.6
45°-26'
Ruth Emch
Deloris Camp
Alice M. Camp
Mary Biehl
202 LA Cont. 3.72 Ac.±
839 840 841 842 843 844
N. 75°-46'-30" E.
For Balance of This Parcel - See Below
24" Steel Raw Water Line
Woven Wire
Pipe
840+04.43 115.91'
Const. Limits
844+00 130'
112°-51'
Proposed R/W Line
East Line-Lot 10
West Line-Lot 1
Heavy Brush
201
Luke O'Malley
Wm O. Hemminger
Corn Crib
200 LA
Begin Project ERI. 6-11.30 Sta. 844+00
Pipe
South Line - Lot 2
North Line - Lot 1
Cropline
846+21.04 170'
849+00 190'
851+50 240'
R/W Fence
Proposed R/W Line
I.A.P.A.
Const. Limits
For Balance of These Parcels - See R/W Dwgs. 4 & 5
John Stamm, Jr.
Lucille Stamm
203 LA Cont. 15.74 P.R.O. 0.33
203 Cont. 0.21 P.R.O. 0.16
Total 16.43
203 T Cont. 0.63 Ac.±
Cropline
68°-09'
844 845 846 847 848 849 850 851 852 853 854
N. 75°-46'-30" E.
℄ Survey & Construction
Ruth Emch
Deloris Camp
Alice M. Camp
Mary Biehl
202 LA For Area & Balance of This Parcel - See Above
Field Drive
Const. Limits
844+00 130'
847+57.38 170'
852+00 180'
854+00 225'
Proposed R/W Line
R/W Fence
PERKINS TWP, ERIE CO.
HALLAM TRACT, SEC. 2 T6N R23W
Concrete Culvert
Pipe
Proposed R/W Line
Const. Limits
1108+46.17 120'
1108+54.35 120'
Rae W. Fabens
275A LA See R/W Dwgs. 19 & 20
℄ Survey & Construction U.S. 6 Relocated
1107 1108 1109 1110 1111
S. 63°-42'-30" E.
81°-44'
85°-57'
61°-45'
Roy U. Butler
Frances J. Butler
276 LA See R/W Dwg. 20
277 LA
275 LA See R/W Dwgs. 19 & 20
1108+93.58 150'
Const. Limits
1 Sty. Fr. Res.
Pipe
Proposed R/W Line
1108+25 150'
1108+43.94 150'
1109+02.16 209.08'
Car Port
Stone Drive
1 Sty. Fr. Res.
275 X Cont. 0.17 Ac.±
See R/W Dwg. 20
John T. Wade
Eleanor C. Wade
277 LA Cont. 0.17 Ac.±
277 X Cont. 0.44 Ac.±
1109+02.16 484.87'
1108+45.62 511.68'
1108+25 511.68'
DETAIL "A"
Total This Sheet
55-18 Type A Fence
2040 Lin. Ft.
SEP 15 1960
Sept. 6, 1960 (S.M.&B.)
May 5, 1960
May 2, 1960

ERI-6-11.30 R/W PLAN LIMITED ACCESS

Sta. 860+35.68 ℄ Survey U.S. 6 Relocated
Sta. 47+98.66 ℄ Survey U.S. 250
℄ Survey & Construction
N. 75°-46'-30" E.
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
10' Field Dr.
Field Dr.
Cropline
John Stamm, Jr.
Lucille Stamm
For Area and Balance of This Parcel - See R/W Dwgs. 3 & 5
205 LA
C.P.A.
854+00
225'
Const. Limits
R/W Fence
I.A.P.A.
855+75
520'
Proposed R/W Line
856+88.15
664.28'
East Line - Lot 1 Hallam Tract
West Line - Lot 4 860 Acre Tract
Vernon Wyatt
Marian Wyatt
For Area and Balance of This Parcel - See R/W Dwg. 6
208
Anna Horn
Cont. 1.38 Ac.±
P.R.O. 0.11 Ac.±
Total 1.49 Ac.±
222 LA
Edward L. Horn
Lillian Horn
Cont. 0.82 Ac.±
P.R.O. 0.07 Ac.±
Total 0.89 Ac.±
218 LA
Charles P. Faulhaber
Sara J. Faulhaber
Cont. 1.45 Ac.±
P.R.O. 0.05 Ac.±
Total 1.50 Ac.±
216 LA
Frank J. Naderer
Mabel Naderer
Cont. 1.58 Ac.±
P.R.O. 0.10 Ac.±
Total 1.68 Ac.±
212 LA
Virgil Filipucci
Julia Filipucci
Cont. 0.45 Ac.±
P.R.O. 0.07 Ac.±
Total 0.52 Ac.±
214 LA
Lawrence Tight
Edith N. Tight
Cont. 15.94 Ac.±
P.R.O. 0.51 Ac.±
Total 16.45 Ac.±
219 LA
223 LA
221 LA
220 LA
217 LA
215 LA
213 LA
J. Martin Kaltenbach
Marian A. Kaltenbach
Cont. 0.17 Ac.±
P.R.O. 0.14 Ac.±
Total 0.31 Ac.±
211
Begin Limited Access
Sta. 41+22.39 Left
Sta. 41+78.19 Right
Board of Trustees, Perkins Township
206
Frank Ostheimer
Minnie Ostheimer
For Area and Balance of This Parcel - See R/W Dwg. 6
207
Lloyd A. Hills
Nellie E. Hills
Cont. 0.13 Ac.±
P.R.O. 0.10 Ac.±
Total 0.23 Ac.±
210
210 WA
Paul E. Michel
Atho Michel
Cont. 0.07 Ac.±
P.R.O. 0.07 Ac.±
Total 0.14 Ac.±
209
Existing R/W Line
N. 37°-25'-30" W.
865+09.89, 471.81' = 41+78.19, 250'
868+25
270'
℄ Survey & Construction - U.S. 250
Total This Sheet
SS-18 Type A Fence
1820 Lin. Ft.

Parcel	Owner	Area
213 LA	Lee Roy England Youlanda England	Cont. 0.37 Ac.± P.R.O. 0.05 Ac.± Total 0.42 Ac.±
215 LA	Donald J. Sheffer Dorothy L. Sheffer	Cont. 0.37 Ac.± P.R.O. 0.05 Ac.± Total 0.42 Ac.±
217 LA	Charles R. Caton Doris L. Caton	Cont. 0.37 Ac.± P.R.O. 0.05 Ac.± Total 0.42 Ac.±
220 LA	Richard D. Whaley Ruth A. Whaley	Cont. 0.26 Ac.± P.R.O. 0.06 Ac.± Total 0.32 Ac.±
221 LA	Clyde H. Jones Miriam W. Jones	Cont. 0.21 Ac.± P.R.O. 0.05 Ac.± Total 0.26 Ac.±
223 LA	Ralph Likes Ruth A. Likes	Cont. 0.23 Ac.±

PERKINS TWP., ERIE CO.
SEC. 2 T6N R23W
HALLAM TRACT | 860 ACRE TRACT

Sept. 6, 1960 (S.M.&B.)
Added 210 WA - May 12, 1960
May 5, 1960
May 2, 1960

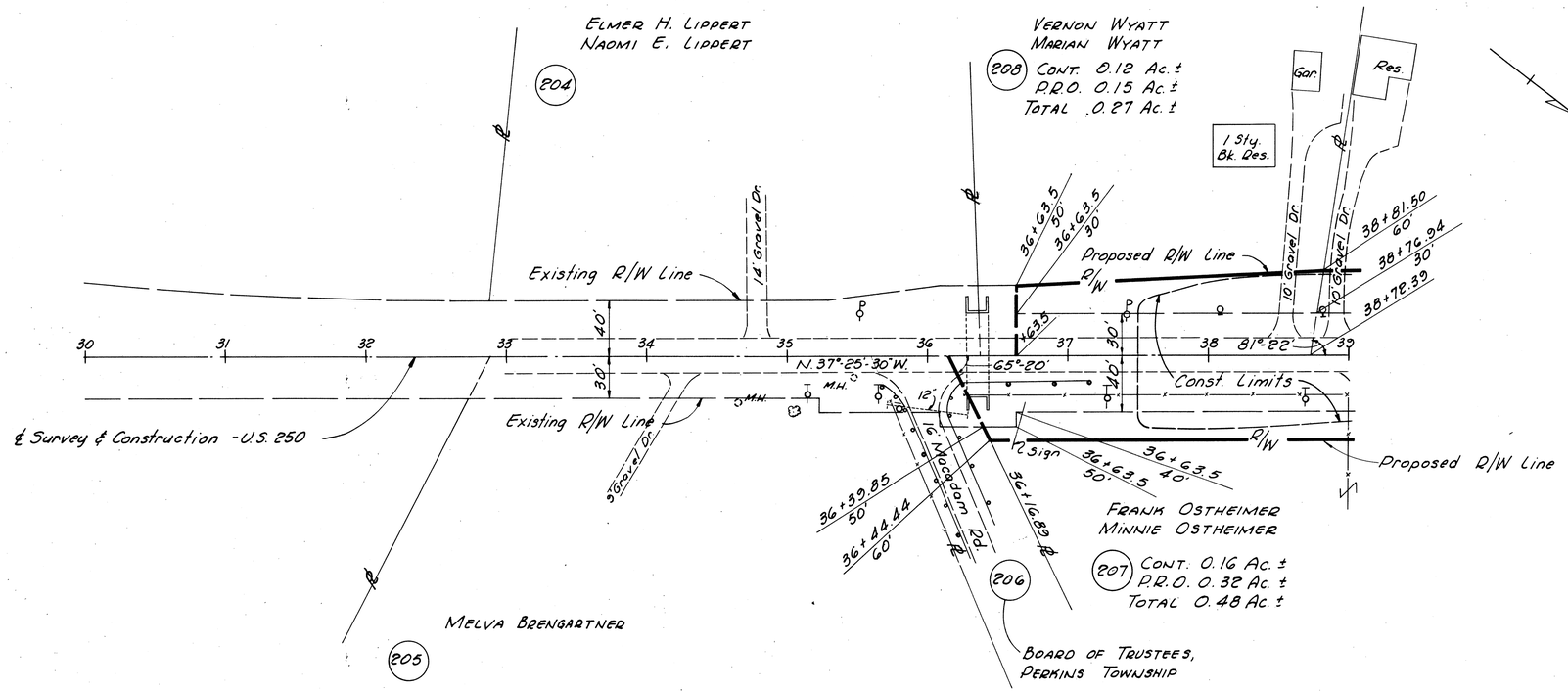
PERKINS TWP., ERIE CO.
SEC. 2 T6N R23W
FED. RD. DIVISION
STATE
PROJECT
TYPE FUNDS
2
OHIO
220
235
ERI-6-11.30
R/W PLAN
LIMITED ACCESS
5
20
225 NOT ASSIGNED
860 ACRE TRACT
O.S.H.D. R/W Mon. 66+23
(Used to establish
℄ Survey U.S. 250)
For Balance of
Parcels 200 & 200 LA
-See R/W Dwgs.
3 & 6
& ERI. 6-7.50 R/W
Cultivated
Gulf Oil
Wm. O. HEMMINGER
200
CONT. 0.31 Ac.±
P.R.O. 0.28 Ac.±
TOTAL 0.59 Ac.±
Orchard
Sohio
Ramada Inn
Cultivated
Total This Sheet
55-18 Type A Fence
1470 Lin. Ft.
Frame Barn
Frame Barn
Frame Shed
Stone Gar.
2 Sty. Fr. Res.
10' Gravel Dr.
South Line - Lot 2
Corn Crib
Cropline
North Line - Lot 1
Holiday Inn
East Line - Lot 2
Existing R/W Line
West Line - Lot 3 Hallam Tract
East Line - Lot 3 Hallam Tract
Stone Bldg.
Fr. Barn
Fr. Shed
End Limited Access
Sta. 54+00
HALLAM TRACT
R/W Fence
Proposed R/W Line
Const. Limits
Ramp "A"
Ramp "B"
E.P.A.
I.A.P.A.
LA
R/W Fence
Parcel 203-T- Call-out 53+65/320 was 53+65/230
Sept. 6, 1960 (S.M. & B.)
August 29, 1960
MAY 5, 1960
May 2, 1960
Cultivated
BELLE KOB
224 LA CONT. 4.03 Ac.±
P.R.O. 0.11 Ac.±
224 CONT. 0.42 Ac.±
P.R.O. 0.43 Ac.±
TOTAL 5.04 Ac.±
Proposed R/W Line
Const. Limits
West Line - Lot 4, 860 Acre Tract
East Line - Lot 1 Hallam Tract
℄ Survey & Construction - U.S. 250
Existing R/W Line
O.S.H.D. R/W Mon.
(Used to establish
℄ Survey U.S. 250)
1½ Sty. Fr. Res.
JOHN STAMM, JR.
LUCILLE STAMM
203 LA
203
203 T
For Area and Balance
of These Parcels -
See R/W Dwgs. 3 & 4
LAWRENCE TIGHT
EDITH N. TIGHT
219 LA
For Area and Balance
of This Parcel -
See R/W Dwgs. 4 & 7
Cultivated
Cropline
Field Drive
℄ Survey & Construction
See R/W Dwg. 4
Frame Barn
Shed
2 Sty. Fr. Res.
10' Field Dr.
11' Gravel Dr.
10' Gravel Dr.
N. 75°-46'-30" E.
Field Drive
Sta. 860+35.68 ℄ Survey U.S. 6 Relocated
Sta. 47+98.66 ℄ Survey U.S. 250
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870

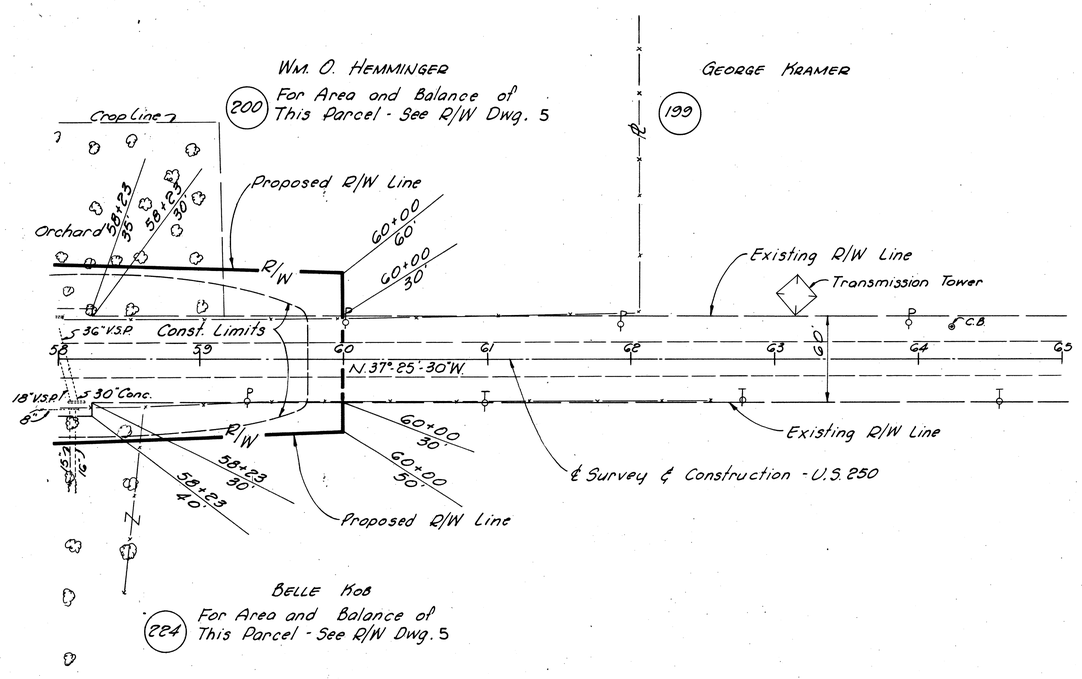
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

221
235

ERI-6-11.30
R/W PLAN

6
20





SEP 15 1960

MAY 5, 1960
May 2, 1960

U.S. 250 R/W 30 to 39, 58 to 65

FED. RD. DIVISION
STATE
PROJECT
TYPE FUNDS
2
OHIO
222
235
7
20
ERI - 6 - 11.30
R/W PLAN
LIMITED ACCESS
PERKINS TWP., ERIE CO.
SEC. 2 T6N R23W
860 ACRE TRACT
N
Cultivated
R/W Fence
Proposed R/W Line
Const. Limits
Cropline
Woods
PLUM BROOK
I.A.P.A.
E.P.A.
LA
870+60 260'
872+23.34 225'
872+81.81 178.10
872+89.05 210'
875+00 240'
875+00 185.73'
876+00 240'
876+00 175.54'
879+00 150'
878+46.37 42.42'
880+52.68
West Line Lot 3
East Line - Lot 4
West Line - Lot 2
+40.70
P.I. Sta 878+27.40
+38.75
76°-48'-52" Tan. to Curve
79°-50'-19" Tan. to Curve
N 75°-46'-30" E
Heavy Brush
¢ Survey & Construction
LAWRENCE TIGHT
EDITH N. TIGHT
219 LA For Area and Balance of This Parcel - See R/W Dwg's. 4 & 5
JOHN E. KESSLER
227 LA CONT. 3.58 Ac. ±
227 X CONT. 0.14 Ac. ±
227 CONT. 0.06 Ac. ± P.R.O. 0.08 Ac. ±
TOTAL 3.72 Ac. ±
IONA JONES, ET AL
226 LA CONT. 3.76 Ac. ±
226 X CONT. 0.08 Ac. ±
BELLE STEINEN
228 LA CONT. 2.13 Ac. ± P.R.O. 0.01 Ac. ±
228 CONT. 0.62 Ac. ± P.R.O. 0.30 Ac. ±
TOTAL 3.06 Ac. ±
South Line - Lot 3
North Line - Lot 2
Light Brush
CURVE DATA - ¢ SURVEY
Δ = 5°-38'-00" Rt.
D = 0°-28'
R = 12277.67'
T = 604.06'
L = 1207.14'
E = 14.85'
P.C. = 872+23.34
P.I. = 878+27.40
P.T. = 884+30.48 Back
874+80 155'
875+40 156.56'
876+20 158.19'
876+20 200'
875+40 200'
878+09.69 160'
872+23.34 190'
871+94.54 195.78'
P.C. 872+23.34
BOARD OF TRUSTEES, PERKINS TOWNSHIP Cemetery
206
226 X
PERKINS TWP., ERIE CO.
SEC. 2 T6N R23W
860 ACRE TRACT
HURON TWP., ERIE CO.
SEC. 4 T6N R22W
For Areas & Balance of These Parcels See R/W Dwg. 8
R/W Fence Fed. Participation
235
234
Pipe
234 LA
236 For Balance of This Parcel See R/W Dwg. 8
R/W Fence Non-Fed. Participating
Field Drive
51+84.59
883+65.43 160'
885+68.42/177.30' 51+78.44
888+13.11 135'
884+30.48 Back =882+70.51 Ahead 150'
51+38.36 199.75'
51+58.76 20'
885+88.16 173.89'
885+66.46/160' 51+61.03
PERKINS TWP. E. Line Sec. 2
W. Line Sec. 4 HURON TWP.
50+62.59
50+72.63 199.75'
50+63.60 20'
ALFRED F. KLEPPER
RHEA M. KLEPPER
233 LA
JOHN E. KESSLER
227 LA See Above
Transmission Tower
BELLE STEINEN
236 LA CONT. 7.38 Ac. ±
236 CONT. 0.50 Ac. ± P.R.O. 0.22 Ac. ±
TOTAL 8.12 Ac. ±
16" Gas Line
+00 135'
236 LA For Balance of this Parcel - See R/W Dwg. 9
South Line - Lot 22
North Line - Lot 21
¢ Survey & Construction
N 81°-24'-30" E
N 2°-07' W
83°-31'-30"
82°-56'
895+94
Sta. 885+48.30 ¢ Survey U.S. 6 Reloc.
Sta. 50+00.00 ¢ Survey Galloway Rd.
883+38.28 79.19'
48+97.63 199.75'
48+88.60 20'
48+87.59 20'
48+61.86 20'
Field Dr.
Crop Line
885+32.98/135' 48+64.13
885+53.14 134.70'
JOHN E. EVERETT
CLARA MARIE JENNIFER
232 LA CONT. 5.34 Ac. ± P.R.O. 0.14 Ac. ±
232 CONT. 0.67 Ac. ± P.R.O. 0.31 Ac. ±
TOTAL 6.46 Ac. ±
896+71.38 130'
896+85.54 15.83'
+87.5
ALVERNA BELL DAVLIN
250 LA For Area & Balance of This Parcel See R/W Dwg. 9
R/W Fence - Fed. Participation
South Line - Lot 3
North Line - Lot 2
884+30.48 Back =882+70.51 Ahead 135'
P.T. 884+30.48 Back =882+70.51 Ahead
228
232 For Balance of These Parcels - See R/W Dwg. 8
Existing R/W Line
¢ Survey Galloway Rd.
+00 125'
BELLE STEINEN
228 LA See Above
Total This Sheet
55-18 Type A Fence
5360 Lin. Ft.
Rev. 7-27-60 R.E.C.
SEP 15 1960
MAY 5, 1960
May 2, 1960

R/W 870 to 897

Parcel	Owner	Area
230	Russell S. Camp Caroline L. Camp	
231	Donald G. & Joan B. Everett	
233 LA	Alfred F. Klepper Rhea M. Klepper	Cont. 0.72 Ac.± P.R.O. 0.08 Ac.± Total 0.80 Ac.±
234 LA 234	Paul J. Christiansen Corrine C. Christiansen	Cont. 0.33 Ac.± P.R.O. 0.05 Ac.± Cont. 0.04 Ac.± P.R.O. 0.01 Ac.± Total 0.43 Ac.±

Parcel	Owner	Area
237	Ralph C. Kessler Lucille E. Kessler	Cont. 0.09 Ac.± P.R.O. 0.04 Ac.± Total 0.13 Ac.±
238	Milton C. Opper Laurene A. Opper	Cont. 0.08 Ac.± P.R.O. 0.04 Ac.± Total 0.12 Ac.±
239	Edward J. Kessler Ethel M. Kessler	Cont. 0.07 Ac.± P.R.O. 0.04 Ac.± Total 0.11 Ac.±
245	Peter Sammo Myrtle B. Sammo	

Parcel	Owner	Area
241	Evangeline H. Feick	
242	William Zoellner	
243	Walter P. Schnellinger Margaret Rose Schnellinger	
246	Robert Gerding Sally Ann Gerding	

Fed. Rd. Division	State	Project	Type Funds
2	Ohio		

223
235

8
20

ERI-6-11.30
R/W PLAN

PERKINS TWP., ERIE CO.
SEC. 2 T6N R23W
860 ACRE TRACT

HURON TWP., ERIE CO.
SEC. 4 T6N R22W

PERKINS TWP., ERIE CO.
SEC. 2 T6N R23W
860 ACRE TRACT

HURON TWP., ERIE CO.
SEC. 4 T6N R22W

SEP 15 1960

MAY 5, 1960
May 2, 1960

ERIE - 6 - 11.30 R/W 8/20

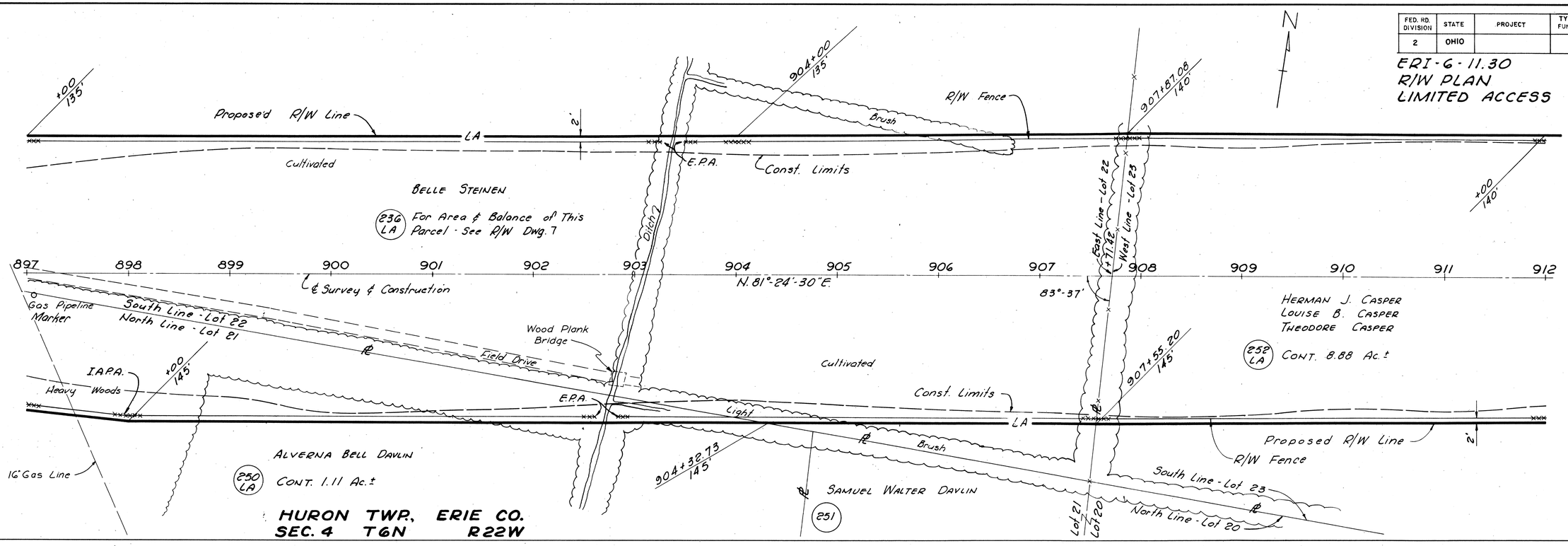
GALLOWAY RD. R/W 38+00 to 65+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

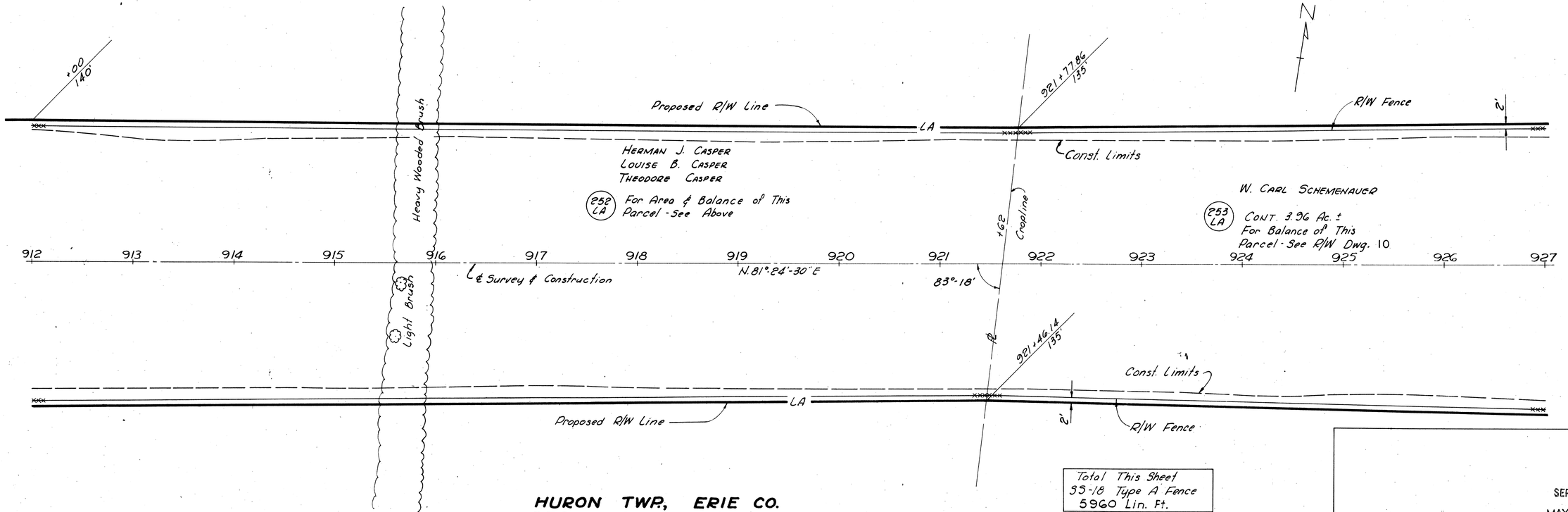
224
233

9
20

ERI-6-11.30
R/W PLAN
LIMITED ACCESS



HURON TWP., ERIE CO.
SEC. 4 T6N R22W



HURON TWP., ERIE CO.
SEC. 4 T6N R22W

Total This Sheet
33-18 Type A Fence
5960 Lin. Ft.

SEP 15 1960

MAY 5, 1960
May 2, 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

225/235

10/20

ERI. -6-11.30
R/W PLAN
LIMITED ACCESS

Access to this parcel orignally across Parcel No. 255 LA. Access will now be cut-off.

25 Acre Tract — Charles Boos Etal

255 RI.A

N

927+94.46 140'

932+25 200'

932+25 140'

254 X

933+00 200'

933+00 140'

R/W Fence

2'

Proposed R/W Line — LA

approx. 220'±

E.P.A.

Const. Limits

W. CARL SCHEMENAUER

253 LA — For Area & Balance of This Parcel - See R/W Dwg. 9

FRANK HENRY EVERETT

254 LA — CONT. 6.51 Ac.±

254 X — CONT. 0.11 Ac.±

℄ & 2' Creek

Heavy Brush

937+71.42 140

927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942

83°-13'

N. 81°-24'-30" E.

83°-08'

℄ Survey & Construction

GEORGE BOOS

255 LA — CONT. 12.05 Ac.±

+77.81

Light Brush

+54.56

Heavy Brush

Const. Limits

E.P.A.

I.A.P.A.

+00 150'

LA

Proposed R/W Line

R/W Fence

2'

927+59.97 150'

East Line - Lot 23
West Line - Lot 24

Light Brush

Light Woods
Heavy Brush

937+36.50 150'

34" R.C.P. Raw Water Line

HURON TWP., ERIE CO.
SEC. 4 T6N R22W

957+16.82 145'

R/W Fence

2'

Const. Limits

LA

Proposed R/W Line

+00 125'

34" R.C.P. Raw Water Line

GEORGE BOOS

255 LA — For Area & Balance of This Parcel - See Above

8' Field Dr. (Gravel)

+28.27

Cropline?

942 943 944 +17.4 945 946 947 948 949 950 951 952 953 954 955 956 957

+53

21°-26'-30"

96°-57'-30"

N. 81°-24'-30" E.

℄ & Survey & Construction

84°-45'

+03.5

+00 125'

+00 125'

I.A.P.A.

Const. Limits

LA

R/W Fence

2'

Proposed R/W Line

956+90.18 145'

Heavy Brush

East Line - Lot 24, Sec. 4
West Line - Lot 22, Sec. 3

HURON TWP, ERIE CO.
SEC. 4 T6N R22W

HURON TWP, ERIE CO.
SEC. 3 T6N R22W

Total This Sheet
55-18 Type A Fence
5960 Lin. Ft.

Sept. 6, 1960 (S.M. & B.)
Parcel No. 255 LA added - September 6, 1960
MAY 5, 1960
May 2, 1960

ERIE - 6 - 11.30 R/W 10/20

R/W 927 to 957


FED. RD. DIVISION 2 | STATE OHIO | PROJECT | TYPE FUNDS
226/235
11/20
ERI. -6-11.30
R/W PLAN
LIMITED ACCESS
NOTE: For Balance of Parcels 256, 256A, 257, & 257A See R/W Dwg. 12
Proposed R/W Line
Const. Limits
R/W Fence
Cultivated
Heavy Woods
Medium Woods
Ditch
E.P.A.
LA
957+16.82 145'
956+90.18 145'
+00 160'
+00 155'
255 LA
MARTIN PURCELL
256 LA CONT. 9.42 Ac.± P.R.O. 0.14 Ac.±
256 CONT. 1.02 Ac.± P.R.O. 0.37 Ac.±
256 A CONT. 0.85 Ac.± P.R.O. 0.34 Ac.± TOTAL 12.14 Ac.±
957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972
84°-45'
+03.5
N.81°-24'-30" E.
℄ Survey & Construction
970+61.37 150.53'
970+81.45 150' 51+51.08
971+01.53 149.46'
970+24.53 155'
970+65.46 149.64'
970+45.27 150' 48+48.92
970+44.67 155' 48+43.88
83°-07'-30"
East Line-Lot 22
West Line-Lot 23
N.1°-43' W.
Existing R/W Line
49
48
40'
℄ Survey & Construction-Camp Rd.
Sta. 970+63.36 ℄ Survey U.S. 6 Reloc.
Sta. 50+00.00 ℄ Survey Camp Rd.
LAWRENCE JENNINGS
EMMA CLAIR JENNINGS
257 LA For Area & Balance of This Parcel - See Below
257
256 A
257 A
HURON TWP., ERIE CO.
SEC. 3 T6N R22W
ALLENA E. LEIBACH
258 See R/W Dwg. 12
981+96.36 135'
+54.22 135'
+00 140'
976+43.08 135'
976+09.11 140'
981+63.44 135'
+54.22 135'
JOHN M. ALTMAN
260 LA CONT. 3.46 Ac.±
EUGENE C. OMMERT
261 LA CONT. 7.38 Ac.± For Balance of This Parcel - See R/W Dwg. 13
972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987
Cropline
82°-57'-30"
N.81°-24'-30" E.
83°-03'
+26.4
+79.9
Heavy Brush
P.C. 983+54.22
LAWRENCE JENNINGS
EMMA CLAIR JENNINGS
257 LA CONT. 3.58 Ac.± P.R.O. 0.14 Ac.±
257 CONT. 0.22 Ac.± P.R.O. 0.07 Ac.±
257 A CONT. 0.88 Ac.± P.R.O. 0.34 Ac.± TOTAL 5.23 Ac.±
Total This Sheet
SS-18 Type A Fence
5570 Lin. Ft.
SEP 15 1960
MAY 5, 1960
May 2, 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

227
235

ERI - 6 - 11.30
R/W PLAN

12
20

MARTIN PURCELL

256 For Area & Balance of Parcels 256, 256A & 256LA
256A See R/W Dwg. 11 & Below

N

256 LA

LA

48+33.03
90'

48+41.47
20'

48+43.88
970+44.67 / 155'

970

969

51+42.61
30'

256

51+49.20
20'

LA

Proposed R/W Line

45+00
80'

R/W

256 A

Const. Limits

Existing R/W Line

East Line - Lot 22

+00
35'

+00
20'

C.D.

8"

12"

10"

38 39 40 41 42 43 40' 44 45 46 47 48 49 50 51 52

N.01°-43'W.

Existing R/W Line

West Line - Lot 23

970+45.27
48+51.69
20'

48+48.92
150'

971

83°-07'-30"

51+51.08
970+81.45 / 150'

51+52.95
20'

257

257 A

Const. Limits

+00
20'

+00
35'

& Survey & Construction Camp Road

R/W

Proposed R/W Line

45+00
80'

48+61.30
90'

970+63.36 & Survey U.S.G. Relocated
50+00.00 & Survey Camp Road

972

51+52.50
90'

LA

257 LA

LAWRENCE JENNINGS
EMMA CLAIR JENNINGS

257 For Area & Balance of Parcels 257, 257A & 257LA
257A See R/W Dwg. 11 & Below

HURON TWP., ERIE CO.
SEC. 3 T6N R22W

MARTIN PURCELL

256 See Above

N

HARRY C. STRAUSS

259 CONT. 0.06 Ac.±
P.R.O. 0.11 Ac.±
TOTAL 0.17 Ac.±

59+54.61
60'

North Line - Lot 22
South Line - Lot 27
Brush & Trees 59+51.14

59+52.87
30'

59+52.30
20'

86°-41'-30"

+00
30'

+00
20'

Proposed R/W Line

R/W

Const. Limits

East Line - Lot 22

Existing R/W Line

C.B.

East Line - Lot 27

52 53 54 55 40' 56 57 58 59 60 61 62 63 64

N.01°-43'W.

West Line - Lot 23

Existing R/W Line

West Line - Lot 26

8" 8" 8" C.B.

53+11.68
20'

Const. Limits

R/W

Proposed R/W Line

53+10.07
75'

58+00
65'

+00
30'

+00
20'

& Survey & Construction Camp Road

LAWRENCE JENNINGS
EMMA CLAIR JENNINGS

257 See Above

ALLENA E. LEIBACH

258 CONT. 0.81 Ac.±
P.R.O. 0.41 Ac.±
TOTAL 1.22 Ac.±

53+12.26

North Line - Lot 23
South Line - Lot 26

HURON TWP., ERIE CO.
SEC. 3 T6N R22W

SEP 15 1960
MAY 5, 1960
May 2, 1960

ERIE - 6 - 11.30 R/W 12/20

CAMP ROAD R/W 38+00 to 64+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

228/235

13/20

ERI.-6-11.30
R/W PLAN
LIMITED ACCESS

N

+00 140'

+00 150'

393+11.66 150'

Proposed R/W Line

LA

R/W Fence

2'

Const. Limits

1000+87.41 175'

E.P.A.

C.N.Y.C. R.R. R/W Line

Cropline

East Line - Lot 23
West Line - Lot 24

262 LA

987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001

EUGENE C. OMMERT

87°-22'-11" Tan. to Curve

℄ Survey & Construction

MOSSIE A. STOUT

262 LA CONT. 7.61 Ac.±

262A LA CONT. 0.19 Ac.±

TOTAL 7.80 Ac.±

261 LA For Area & Balance of This Parcel - See R/W Dwg. 11

+04.87

Cropline

992+97.91 150

+00 140'

I.A.P.A.

+00 160

I.A.P.A.

I.A.P.A.

+00 150

I.A.P.A.

Const. Limits

LA

Proposed R/W Line

R/W Fence

2'

Cultivated

CURVE DATA & SURVEY

Δ = 34°-53'-00" Rt.
D = 0°-28'
R = 12,277.67'
T = 3,857.40'
L = 7,475.00'
E = 591.70'
P.C. = 983+54.22
P.I. = 1022+11.62
P.T. = 1058+29.22

HURON TWP., ERIE CO.
SEC. 3 T6N R22W

C.P.A. 1001+54.70 303.12'

E.P.A.

See Below

262A LA

264 LA

1003+46.42 200

1004+45.53 190'

Cultivated

1007+57.08 185'

+00 175'

Proposed R/W Line

LA

R/W Fence

2'

Const. Limits

1001+39.22 277.63'

49

I.A.P.A.

1003+48.74 147.59'

Pipe

50

51

52

53

54

55

56

57

1000+87.41 175'

1002+32.50 84.17

30°-18'-57" Tan. to Curve

1004+50.83 86.48

1004+54.77 84.17

ANDREW J. SCHENK
ETHELYN E. SCHENK

265 LA CONT. 1.41 Ac.±

Sta. 1004+73.15 ℄ Survey U.S.6 Reloc.
Sta. 52+82.54 ℄ Eastbound Track - New York Central Railroad

Parcel	Owner	Area
264 LA	Roscoe E. Stout Violet Stout	CONT. 0.18 Ac.±
263	New York Central Railroad	

(See Supplemental R/W Plan for Areas and Balance of Railroad Parcels)

+68.27

Cropline

85°-41'-04" Tan. to Curve

267 LA

1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017

℄ Survey & Construction

Fast Line - Lot 24, Sec. 3
West Line - Lot 30, Sec. 2

+12.14

81°-49'-47" Tan. to Curve

MOSSIE A. STOUT

262 LA For Area & Balance of These Parcels - See Above

262A LA

263 R.R. Signal Box

1004+68.68 57.25

1005+15.11 84.17

1007+49.73 84.17

1007+78.51 90.97

FRED W. WILLGRUBE

267 LA	CONT.	11.67	Ac.±
	P.R.O.	0.16	Ac.±
267 A	CONT.	0.08	Ac.±
	P.R.O.	0.04	Ac.±
267	CONT.	0.23	Ac.±
	P.R.O.	0.20	Ac.±
	Total	12.38	Ac.±

For Balance of These Parcels - See R/W Dwg. 15

Const. Limits

E.P.A.

1004+73.80 170'

WILLIAM J. HINDE III

266 LA CONT. 0.25 Ac.±

E.P.A.

1006+66.78 170'

E.P.A. 1009+17.85 175'

Const. Limits

I.A.P.A.

+00 155

LA

R/W Fence

2'

Proposed R/W Line

63.3'

New York Central R.R. Existing R/W

51.7'

Cultivated

Total This Sheet
55-18 Type A Fence
F-1042(7) 600 Lin. Ft.
FG-1042(7) 5150 Lin. Ft.

HURON TWP., ERIE CO.
SEC. 3 T6N R22W

SEP 15 1960

Sept. 6, 1960 (S.M. & B.)
MAY 5, 1960
May 2, 1960

R/W 987 to 1017

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

229
235

ERI.-6-11.30
R/W PLAN
SUPPLEMENTAL SHEET

14
20

CURVE DATA
℄ SURVEY - U.S.6

Δ = 34°-53'-00" Rt.
D = 0°-28'
R = 12,277.67'
T = 3,857.40'
L = 7,475.00'
E = 591.70'
P.C. = 983+54.22
P.I. = 1022+11.62
P.T. = 1058+29.22

Scale: 1"=30'

New York Central Railroad Company

263	Cont.	0.013 Ac.±
263 A	Cont.	0.013 Ac.±
263 B	Cont.	0.014 Ac.±
263 C	Cont.	0.014 Ac.±
263 SL-1	Cont.	0.53 Ac.±
263 SL-2	Cont.	0.37 Ac.±
263 X	Cont.	0.11 Ac.±
263 3	Cont.	0.04 Ac.±
263 Aerial	Cont.	0.88 Ac.±

NOTE:
Valuation Survey Stations shown hereon are referred to those shown on N.Y.C. R.R. R/W and Track Map V. 206, Sheet 24

NOTE:
New York Central Railroad V.3.S. Located on ℄ of Eastbound Track

Sept. 6, 1960 (S.M.&B.)
Rev.-9-1-60 Parcel 263-3
Rev. 7-14-60 Parcel 263-5

PLAN SHOWING
HIGHWAY RIGHT OF WAY EASEMENTS
REQUIRED
AT
NEW YORK CENTRAL RAILROAD

MAY 5, 1960
Date: May 2, 1960
Scale: 1"=30'

HURON TWP., ERIE CO.
SEC. 3 TGN R22W.

SANZENBACHER, MILLER AND BRIGHAM
TOLEDO, OHIO

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

230
235

15
20

ERI.-6-11.30
R/W PLAN
LIMITED ACCESS

CLARENCE G. ISAAC

268 LA	CONT.	19.22 Ac.±
	P.R.O.	0.68 Ac.±
268	CONT.	0.28 Ac.±
	P.R.O.	0.13 Ac.±
268 A	CONT.	0.69 Ac.±
	P.R.O.	0.32 Ac.±
268 B	CONT.	0.08 Ac.±
	P.R.O.	0.04 Ac.±
	TOTAL	21.44 Ac.±
268 X	CONT.	0.45 Ac.±
268 Y	CONT.	0.16 Ac.±

For Balance of These Parcels See R/W Dwg. 16 & 17

FRED W. WILLGRUBE

267 LA — For Area & Balance of These Parcels - See R/W Dwg. 13

267 A — 267

Shed
Barn
Corn Crib
Well
Proposed R/W Line
LA
CLOSE
Existing R/W
R/W
70'
65'
40'
78°-19'-39" Tan. to Curve
N. 0°-47'-30" W.
1022+40.87 255.68'
1022+58.06 270'
1022+79.88 260.72'
1023+29.07 240'
1021+97.85 220'
1022+08.06 167.42'
1022+97.17 174.58'
1023+42.65 173.76'
1022+58.00 169.22'
1022+77.97 170'
1022+76.96 175'
1023+12.61
1025+50 172.18'
1025+50 300'
1027+00 300'
1027+00 173.25'
1028+00 175'
1032+00 260'
268 X
268 Y
268 LA
C.P.A.
Creek
Pasture
Abutment Connection
I.A.P.A.
Const. Limits
R/W Fence
℄ Survey & Construction
1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032

1023+46.07 160'
1023+25.59 161.16'
1023+67.00 161.01'
1023+22.58 161.33'
1023+32.40 192.97'
1023+53.45 194.50'
1022+28.68 405.86'
1022+48.06 412.94'
1022+67.39 420'
1022+86.78 427.03'
1026+00 169.31'
1026+00 240'
1027+00 172.39'
1027+00 240'
1030+00 175'
N. 30°-16'-52" E.
405.86'
32°-04'-22"
1023+76.17 300'
267
268 Y
Cultivated
Const. Limits
I.A.P.A.
R/W Fence
Proposed R/W Line
LA
CURVE DATA ℄ SURVEY
Δ = 34°-53'-00" Rt.
D = 0°-28'
R = 12,277.67'
T = 3,857.40'
L = 7,475.00'
E = 591.70'
P.C. = 983+54.22
P.I. = 1022+11.62
P.T. = 1058+29.22

Total This Sheet
55-18 Type A Fence
F-1042(7) 2650 Lin. Ft.
FG-1042(7) 600 Lin. Ft.

HURON TWP., ERIE CO.
SEC. 2 T6N R22W

SEP 15 1960
Sept. 6, 1960 (S.M.&B.)
MAY 5, 1960
May 2, 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

231
235

16
20

ERI.-6-11.30
R/W PLAN
LIMITED ACCESS

1520

Sta. 1038+65.89 ℄ Survey U.S. 6 Relocated
Sta. 48+23.82 ℄ Survey Rye Beach Rd.

1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047

49 48 47 46 45 44 43 42 41 40

71°-51'-44" Tan. to Curve

℄ Survey & Construction

℄ Survey & Rye Beach Rd. Construction

Existing R/W Line

Existing R/W Line - Lot 31

Cropline

Cropline

CLARENCE G. ISAAC

268 LA — For Area & Balance of These
268 — Parcels - See R/W Dwgs. 15 & 17.

271 LA

Cultivated

Cultivated

CHARLES MALONE
HELEN MALONE

271 LA — CONT. 14.47 Ac.±
P.R.O. 0.42 Ac.±
271A LA — CONT. 0.79 Ac.±
P.R.O. 0.003 Ac.±
271 — CONT. 2.10 Ac.±
P.R.O. 0.027 Ac.±
TOTAL 17.81 Ac.±

For Balance of These
Parcels - See R/W Dwgs. 17 & 18

Hatched area vacated by Entry dated 8-17-72 Vol. 57 Pg 657 of the Director's Journal

C.P.A.

1033+75 225'

Proposed R/W Line

LA

R/W Fence (865 Lin. Ft.)

2'

I.A.P.A.

1037+06.29 495.16'

44+00 300'

C.P.A.

42+75 175'

1038+70.66 576.04'

E.P.A.

East Line - Lot 30

West Corporation Village of Huron West Line - Lot 31

42+45 20'

I.A.P.A.

E.P.A.

271

1039+75.80 560.75'

42+57.86 75'

1040+49 548.71'

42+45

41+88.83 65'

41+88.26 20'

90° 44'-02"

N. 1°-00'-30" W.

R/W

Now LA

* Reference ERI-2-12.588 (2000)
NORMA H. HINDE, ET AL

270 — CONT. 0.18 Ac.±
P.R.O. 0.10 Ac.±
270 A — CONT. 0.08 Ac.±
TOTAL 0.36 Ac.±

For Parcel 270-A
See R/W Dwg. 18

Begin Limited Access
Sta. 42+45 Left
Sta. 42+45 Right

268

R/W

NOTE: SEE ERI-6-15.20 FOR CHANGE OF R/W TO LA

39+75 50'
39+75 20'
39+75 50'
39+75 20'
39+75
Now LA
Now LA

Total This Sheet
55-18 Type A Fence
865 Lin. Ft.

1045+50 300'

I.A.P.A.

I.A.P.A.

1047+00 245'

LA

Proposed R/W Line

Const. Limits

2'

Proposed R/W for Access Rd.

R/W

1041+43.33 519.08'

41+88

268

270

Existing R/W West Line - Lot 31

NORMA H. HINDE, ET AL

℄ Survey & Rye Beach Rd. Construction

CLARENCE G. ISAAC

East Line - Lot 30

38 40' 37 36 35

South Line - Lot 30
North Line - Lot 29

East Line - Lot 29

269

℄ WILLIAM G. BEATTY CAROLYN Z. BEATTY

8/72 Vacated Par. 271 Access Rd.-Acq 271 LA-1
4-19-71 Rye Beach Rd. Limited Access J.E.C.
Sept. 6, 1960 (S.M.B.)
MAY 5 1960
May 23 1960

HURON TWP., ERIE CO.
SEC. 2 T6N R22W

ERIE-6-11.30 R/W 16/20

R/W 1032 to 1047, South

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

2.32
2.35

17
20

ERI.-6-11.30
R/W PLAN
LIMITED ACCESS

Fr. Barn

(273 A) CONT. - 0.02 AC.± LEASED TO SHELL OIL CO.

℄ R/W & ℄ Survey Rye Beach Rd.

Now L.A.

℄ Survey - Rye Beach Rd.

Woods

East Line - Lot 30

West Line - Lot 31

Village of Huron Limits

N. 01°-47'-30" W.

MAX. OSTERLING

(273 LA) CONT. 0.52 Ac.±
P.R.O. 0.08 Ac.±
(273) CONT. 0.57 Ac.±
P.R.O. 0.29 Ac.±
TOTAL 1.46 Ac.±

NOTE: SEE ERI-6-15.20 FOR CHANGE OF R/W TO L.A.

End Limited Access
Sta. 54+00 Left
Sta. 54+00 Right

E.P.A. 54+00 20'

I.A.P.A.

1036+09.98 54+00
520.40' 90'

R/W Fence (500 Lin. Ft.)

Proposed R/W Line

L.A.

1036+93.00 - 54+00
348.09' Gar.

2 Sty Fr. Res.

273 LA

53

75°-39'

52+29.88 20'

52+24.16

52+24.30 Bk. 20'

52+24.02 20'

52+14.75 20'

52+25.08

P.I. 52+24.16
Δ = 0°-47' Lt. ℄ R/W &
℄ Survey

51+47.23 20'

51+57.55

271A LA See Below

R/W Fence (By Others)

Proposed R/W Line

L.A.

50+34.10 370'

I.A.P.A.

1038+00 860

1035+50 335'

℄ Const. Limits

CLARENCE G. ISAAC

(268 LA) (268 A) For Area & Balance of These Parcels - See R/W Dwg's. 15 & 16

Cultivated

51

40'

Existing R/W Line

Existing R/W Line

N. 01°-00'-30" W.

50

49

48

71°-51'-44" Tan. to Curve

℄ Survey and ℄ R/W Rye Beach Rd.

Sta. 1038 + 65.89 ℄ Survey U.S. 6 Relocated
Sta. 48 + 23.82 ℄ Survey Rye Beach Rd.

Cultivated

HELEN MALONE
CHARLES MALONE

(271 LA) (271A LA) For Area & Balance of These Parcels - See R/W Dwgs. 16 & 18

Cropline

Cropline

℄ Survey & Construction

(271 LA)

OHIO EDISON CO.
(272 LA) CONT. 0.60 Ac.±
P.R.O. 0.03 Ac.±
Total 0.63 Ac.±

I.A.P.A.

49+25.89 450'

℄ Const. Limits

1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047

59+29.58 60'

Conc. Post

59+15.67

60+22.34 23.34'

59+79.63 25'

Billboard 20'

59+78.21

59+72.48

(273 A)

59+55.43 60'

25'

41.5'

59+66.82 20'

(268 A)

Now L.A.

59+59.32 20'

58+61.94 29.57'

58+00 32'

MAX OSTERLING

(273) See At Left

Proposed R/W Line

Now L.A.

57+00 85'

℄ Survey - Rye Beach Rd.

Existing R/W Line

South Line - Lot 35
North Line - Lot 30

Proposed R/W Line

CLARENCE G. ISAAC

(268 A) See At Left

58+00 60'

Const. Limits

N. 01°-47'-30" W.

℄ R/W & ℄ Survey Rye Beach Rd.

57+00 75'

Now L.A.

57+00 85'

℄ R/W - Existing U.S. 6 & S.R. 2

NOTE:
℄ Survey shown hereon was set by Field Survey. References for points on ℄ Survey are given on Rye Beach Rd. Plan and Profile drawings.

Total This Sheet
55-18 Type A Fence
500 Lin. Ft.

4-19-71 Rye Beach Rd Limited Access JEC.
Sept. 6, 1960 (S.M.&B.)
MAY 5, 1960
May 2, 1960

HURON TWP., ERIE CO.
SEC. 2 T6N R22W

R/W 1032 to 1047, North


FED. RD. DIVISION 2
STATE OHIO
PROJECT
TYPE FUNDS
233
235
ERI.-6-11.30
R/W PLAN
LIMITED ACCESS
18
20
Heavy Brush
Ohio Edison Co.
272 LA
Proposed R/W Line
LA
(By Others) R/W Fence
Const. Limits
1049+54.10
171.61'
West Line - Lot 32
East Line - Lot 31
1058+29.22
140'
1062+00
140'
Cropline
1047
1048
1049
1050
1051
1052
1053
1054
1055
1056
1057
1058
1059
1060
1061
1062
Helen Malone
Charles Malone
66°-11'-39"
Tan. to Curve
℄ Survey & Construction
George A. Staley
Evelyn C. Staley
S63°-42'-30"E
271 LA
For Area & Balance of These Parcels - See R/W Dwgs. 16&17
271
+28.68
274 LA
See ERI. 6-14.97
2' Min. along Curved R/W Line
P.T. 1058+29.22
+52
1051+07.97
192.79'
I.A.P.A.
1051+04.87
170'
1051+13.98
190.08'
1049+00
190'
1047+00
245'
I.A.P.A.
R=12,107.67'
Proposed R/W Line
Const. Limits
1062+00
160
Proposed R/W
For Access Rd.
1049+80
249.71'
R/W
270 A
Norma H. Hinde, Et Al
For Area of This Parcel - See R/W Dwg. 16
1051+28.66
235'
HURON TWP., ERIE CO.
SEC. 2 T6N R22W
1058+29.22
170'
R/W Fence
(By Others)
272 X
See ERI. 6-14.97
Heavy Brush
Field
60" C.M.P.
Drive
Ohio Edison Co.
272 LA
(By Others)
R/W Fence
E.P.A.
Proposed R/W Line
Const. Limits
+00
140'
1064+25
160'
1064+25
140'
1064+75
160'
1064+75
140'
+00
140'
1062
1063
1064
1065
1066
1067
1068
1069
1070
1071
1072
1073
1074
1075
1076
1077
S63°-42'-30"E
℄ Survey & Construction
4' Ditch
West Line - Lot 33
East Line - Lot 32
George A. Staley
Evelyn C. Staley
274 LA
See ERI. 6-14.97
South Line - Lot 33
North Line - Lot 27
Const. Limits
1074+00
150'
E.P.A.
LA
Proposed R/W Line
R/W Fence
(By Others)
1062+00
160'
HURON TWP., ERIE CO.
SEC. 2 T6N R22W
SEP 15 1960
Sept. 6, 1960 (S.M.&B.)
MAY 5, 1960
May 2, 1960

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

234
235

19
20

ERI. 6-11.30
R/W PLAN

WILLIAM J. HINDE III
350 CONT. 0.05 Ac.±
P.R.O. 0.10 Ac.±
TOTAL 0.15 Ac.±

FRED POST, JR.
CHRISTINA POST
351 CONT. 4.65 Ac.±
P.R.O. 0.21 Ac.±
TOTAL 4.86 Ac.±

NEW YORK CENTRAL RAILROAD 352

353 See R/W Dwg. 20

Guard Rail
R.R. Culvert
℄ Westbound Track
Eastbound Track
N.Y.C. R.R. R/W Line
R.R. Signal
Whistle Sign
Telephone Booth
Control Box
Electric Panels
℄ Survey Boss Rd. Existing
Existing R/W
Proposed R/W Line
Const. Limits
℄ Survey and Construction Boss Road Relocated
Boss Rd. Relocated
Boss Rd. Exist.
Light Woods & Brush
Medium Woods & Brush
Frame Barn
Gar.
2 Stw. Fr. Res.
Frame Shed
Hopper
Sand Dr.
Stone Dr.
Foot Bridge
CREEK
MILL
SAW
Cistern
Well
Frame Barn

3+18.24
2+32.69
2+30.41
2+13.23
170.41
171.58
S.58°-23'-26"E.
S.60°-10'-56"E.
639.71'
S.80°-34'-30"E
N.80°-34'-30"W.
350.45'
122.51'
N.85°-27'-39"W.
P.C. 12+70.47
P.I. 14+46.61
P.T. 14+46.61
15+06.59
12°-35'-35" Tan. to Curve
Arc: 501.27'
Rad: 1039.30'
S.40°-20'-50"E.
18+27.54
18.87'
20+84.74
30'
1569.06'
N.40°-20'-50"W.
1307.32'
20+84.74
35'
P.I. 20+24.74
0+58.08
0+36.98
9+00
35'
N.68°-33'-45"E.
140.28'
N.54°-43'-35"E.
121.80'
8+50
80'
7+83.33
7+64.50
80'
N.71°-25'-30"E.
Sign
C.B.
Existing R/W
℄ Survey and Construction Boss Road Relocated
℄ Boss Rd. Relocated
℄ Boss Rd. Existing
10+00
40'
10+00 ℄ Boss Rd. Relocated
10+74.80
216.67'
P.C. 10+00
M.B.
229.37'
236.35'
S.76°-16'-46"W.
T=70.43
396.07'
N.02°-03'-38"W.
East Line - Lot 24
West Line - Lot 30
South Line - Lot 30
North Line - Lot 29
South Line - Lot 24
North Line - Lot 19
East Line - Lot 19
West Line - Lot 29

CURVE DATA
℄ SURVEY
Δ = 28°-00' Rt.
R = 300.00'
T = 74.80'
L = 146.61'
E = 9.18'
P.C. = 10+00
P.I. = 10+74.80
P.T. = 11+46.61

CURVE DATA
℄ SURVEY
Δ = 40°-13'-40" Rt.
D = 5°-20'
R = 1074.30'
T = 393.43'
L = 754.27'
E = 69.78'
P.C. = 12+70.47
P.I. = 16+63.90
P.T. = 20+24.74

HURON TWP, ERIE CO.
SEC. 3 T6N R22W

HURON TWP, ERIE CO.
SEC. 2 T6N R22W

SEP 15 1960

MAY 5, 1960
May 2, 1960

R/W - BOSS ROAD RELOCATED - STA. 5+00 TO 22+00


FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS
2 | OHIO
235/235
ERI. 6-11.30
R/W PLAN
20/20
NEW YORK CENTRAL RAILROAD
℄ Westbound Track
Eastbound Track
℄ N.Y.C. R.R. R/W Line
N.Y.C. R.R. R/W Line
352
50'
65'
South Line - Lot 30
North Line - Lot 29
18+16.92
Existing R/W
40'
℄ Survey Rye Beach Road
2 Sty. Fr. Res.
Well
Shed
8' Stone Dr.
Fr. Barn
N.01°-59'-10"W.
N.38°-30'-37"E.
P.T. 35+79.78 30'
Field Dr. 12+43.42
12+20 20'
195.08'
36+29.78 ℄ Boss Rd. Reloc. = 11+54.87 ℄ Rye Beach Rd.
90°00'
N.88°-00'-50"E.
10+73.61 20'
10+48.34
38°-21'-40"
West Line - Lot 28
East Line - Lot 29
C. LEO WUNDER
ANNA WUNDER
353
CONT. 0.13 Ac.±
P.R.O. 0.08 Ac.±
TOTAL 0.21 Ac.±
Proposed R/W Line
S.40°-20'-50"E.
1569.06'
℄ Const. Limits
R/W
S.40°-20'-50"E.
Const. Limits
1307.32'
N.40°-20'-50"W.
Proposed R/W Line
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
33+88.78 30'
34+44.59 30'
P.C. 34+44.59
Arc = 108.15 - Rad. = 120'
196.61'
232.19'
91.39'
86.27'
48°-53'-28"
112.53'
Arc = 160.08' Rad. = 185'
35+74.34 35'
33+62.60
S.89°-14'-18"E.
33+32.06 35'
34+44.59 35'
37+14.68 ℄ Boss Rd. Extended = 10+00 ℄ Rye Beach Rd.
℄ Survey and Construction Boss Road Relocated
FRED POST, JR.
CHRISTINA POST
351
For Area and Balance of This Parcel - See R/W Dwg. 19
℄ Cropline
℄ Cropline
CURVE DATA
℄ SURVEY
Δ = 51°-38'-20" Lt.
R = 150.00'
T = 72.58'
L = 135.19'
E = 16.64
P.C. = 34+44.59
P.I. = 35+17.17
P.T. = 35+79.78
TINA McCORMICK
354
CONT. 0.27 Ac.±
HURON TWP., ERIE CO.
SEC. 2 T6N R22W
SEP 15 1960
MAY 5, 1960
May 2, 1960

TE-54-A
200-6-57

Berm material — Sod and/or Topsoil = X' = approximate depth.

| Auger boring plotted to vertical scale only.

• Water content nearly equal to or greater than liquid limit.

W—Free water

Auger boring - plan view

Drive Sample - Core boring - plan view

Samples Tested
Lab. Nos. So. 3766–3829 incl.
3849–3982 incl.

Note: Figures beside borings indicate water content in per cent.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 198 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 and stone fragments with sand	A-1-b(0)	A-1-b	59	9	10	13	9	27	5	16	2
Fine sand with silt	—	A-3a	0	2	64	24	10	NP	NP	21	1
Stone fragments with sand and silt	A-2-4(0)	A-2-4	51	9	8	17	15	28	3	13	2
Stone fragments with sand, silt, and clay	A-2-6(0)	A-2-6	74	4	4	9	9	34	16	15	1
Sandy silt	A-4(5)	A-4a	11	6	21	34	28	26	5	16	15
Silt	A-4(8)	A-4b	1	1	3	73	22	29	3	24	46
Silt and clay	A-6(9)	A-6a	5	3	8	40	44	32	13	24	68
Silty clay	A-6(11)	A-6b	2	2	6	41	49	39	18	25	31
Elastic clay	A-7-5(11)	A-7-5	6	3	10	41	40	48	13	36	2
Clay	A-7-6(13)	A-7-6	2	2	7	35	54	45	21	25	25
Fill material; cinders, brick bats, sandy silt, stone fragments, and large stones			(Visual classification)								
Weathered shale			(Visual classification)								2
Shale			(Visual classification)								3
Limestone or Dolomite / Sandstone			(Visual classification)								

Revised
March 28, 1960

SOIL PROFILE
ERIE COUNTY

1/12

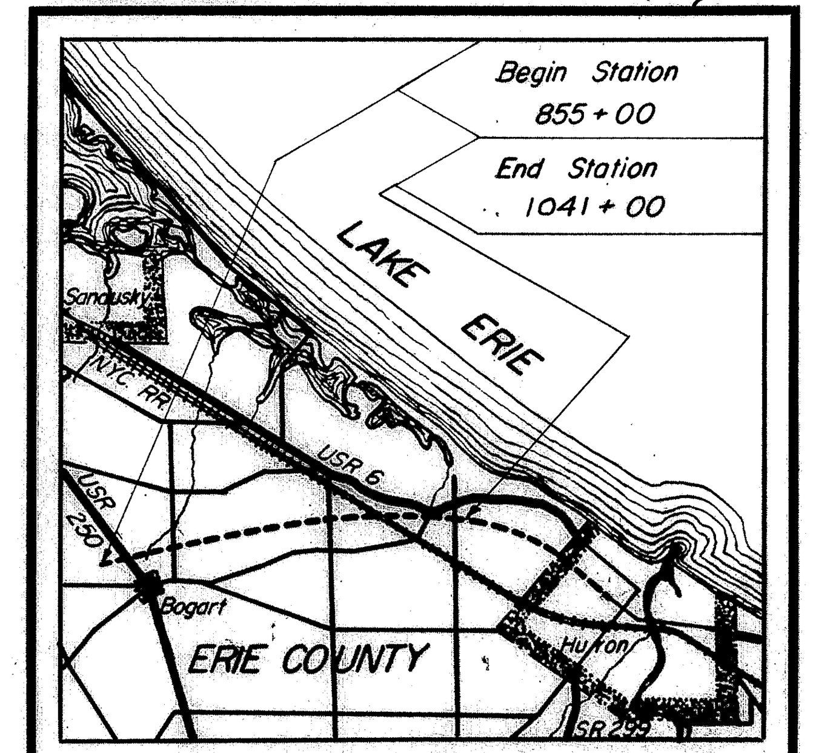
ERI-6-11.30

STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, 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.

Fed. No. F-FG-1042(7)

Recon. J.S.M. Oct. 10, 1958
Auger C.A.C. & C.E.G. Oct. 31, 1958
Drive Sample-Core W.R.B. & H.W.H. Nov. 12, 1958
Drafting W.L.T., R.O.L., H.E.H., & G.V.T. Jan. 20, 1959



LOCATION MAP

Summary of Soil Test Data

NP shown in liquid limit and plasticity index columns indicates that the material is non-plastic.

Station & Offset	Depth From-To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
856+00 CL	0.0-5.0	0	1	3	81	15	NP	NP	24	A-4b
	5.0-8.0	0	1	2	49	48	38	16	36	A-6b
	8.0-11.0	0	2	4	59	35	25	6	24	A-4b
	11.0-14.0	0	1	2	64	33	23	6	26	A-4b
	14.0-17.0	0	2	3	45	50	32	11	26	A-6a
	17.0-22.0	11	7	12	37	33	25	11	14	A-6a
860+50 CL	0.3-7.0	5	1	1	85	8	NP	NP	24	A-4b
	7.0-10.0	0	2	4	84	10	NP	NP	24	A-4b
	10.0-16.0	0	0	1	59	40	29	12	27	A-6a
	16.0-21.0	15	4	12	32	37	26	11	20	A-6a
	21.0-28.0	14	8	12	35	31	26	6	14	A-4a
865+00 CL	0.3-8.0	4	1	2	61	32	25	2	20	A-4b
	8.0-12.0	0	2	4	38	56	31	15	22	A-6a
	12.0-16.0	0	1	3	29	67	43	21	30	A-7-6
	16.0-20.0	0	2	6	39	53	32	11	25	A-6a
869+00 CL	0.3-5.0	0	1	4	47	48	32	12	21	A-6a
	5.0-9.5	0	1	3	44	52	36	11	21	A-6a
	9.5-12.0	6	3	11	50	30	24	9	13	A-4b
	12.0-16.0	13	8	28	32	19	23	9	15	A-4a
	16.0-20.0	14	9	11	35	31	24	5	13	A-4a
872+25 50'RT	0.3-6.0	22	5	12	27	34	38	16	19	A-6b
	6.0-11.0	12	8	13	33	34	26	6	14	A-4a
	11.0-19.0	16	9	12	32	31	27	11	13	A-6a
875+50 CL	0.4-5.0	7	9	33	21	30	30	12	21	A-6a
	5.0-11.0	9	12	12	34	33	24	8	12	A-4a
	11.0-14.0	6	3	5	34	52	37	14	20	A-6a
	14.0-15.0	Gray	Weathered		Shale				11	VISUAL
878+00 CL	0.4-4.0	0	1	2	55	42	35	9	25	A-4b
	4.0-11.5	0	2	5	35	58	34	13	28	A-6a
	11.5-14.0	57	10	14	10	9	20	5	14	A-1-b
	14.0-20.0	11	8	13	33	35	25	11	13	A-6a
881+75 CL	0.4-4.0	0	1	4	54	41	35	14	22	A-6a
	4.0-8.0	0	3	9	35	53	29	11	19	A-6a
	8.0-11.0	13	7	11	32	37	27	11	13	A-6a
	11.0-16.0	16	7	12	31	34	30	12	13	A-6a
885+00 CL	0.4-5.5	0	3	13	32	52	41	18	19	A-7-6
	5.5-11.0	27	1	0	24	48	51	26	14	A-7-6
	11.0-15.0	Gray	Weathered		Shale				11	VISUAL
889+00 40'LT	0.4-4.0	7	4	9	31	49	38	20	21	A-6b
	4.0-7.0	8	2	5	22	63	45	22	24	A-7-6
	7.0-9.0	12	2	3	24	59	42	19	17	A-7-6
894+00 CL	0.4-5.0	25	13	5	39	18	23	3	17	A-4a
	5.0-6.0	0	2	53	22	23	NP	NP	19	A-4a
	6.0-6.5	Carbonaceous		Shale					3	VISUAL
902+00 CL	0.5-3.0	15	4	6	36	39	35	4	16	A-4a
906+00 CL	0.5-1.5	0	2	20	41	37	46	17	37	A-7-6
	1.5-4.0	0	3	20	36	41	38	14	22	A-6a
914+00 CL	0.4-2.0	3	2	13	43	39	38	13	34	A-6a
	2.0-7.0	0	2	4	48	46	37	14	24	A-6a
918+00 CL	6.0-8.0	0	0	1	57	42	29	12	34	A-6a
922+65 CL	0.3-6.5	5	3	12	41	39	28	15	20	A-6a
	6.5-8.0	0	2	5	42	51	28	16	20	A-6b
926+00 CL	0.5-7.5	0	2	3	49	46	34	18	25	A-6b
	7.5-10.0	0	1	3	34	62	32	15	33	A-6a

Station & Offset	Depth From-To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
934+50 CL	0.3-6.0	0	6	16	36	42	32	18	23	A-6b
	6.0-7.0	Carbonaceous			Shale				6	VISUAL
942+00 CL	0.3-3.0	6	3	15	28	48	39	14	29	A-6a
947+00 CL	0.3-2.0	4	3	5	35	53	47	24	29	A-7-6
	2.0-3.0	Carbonaceous			Shale				11	VISUAL
950+50 CL	0.3-3.0	37	10	8	21	24	36	15	19	A-6a
954+50 CL	0.4-4.0	0	1	6	35	58	45	19	37	A-7-6
958+00 CL	0.5-3.0	5	3	14	34	44	36	12	16	A-6a
962+00 CL	0.0-2.5	16	3	21	25	35	34	17	26	A-6b
966+00 CL	0.5-3.0	3	6	11	33	47	44	19	29	A-7-6
970+50 CL	0.3-2.0	0	2	64	24	10	NP	NP	21	A-3a
	2.0-4.5	48	11	10	19	12	NP	NP	16	A-2-4
979+00 CL	0.5-3.0	0	4	10	31	55	52	27	26	A-7-6
987+00 CL	0.5-6.0	10	3	16	29	42	37	20	25	A-6b
991+00 CL	0.5-2.0	0	3	13	25	59	34	16	28	A-6b
995+00 CL	0.3-3.0	0	1	25	26	48	34	14	28	A-6a
1002+00 CL	0.5-3.0	0	1	6	46	47	51	12	42	A-7-5
1006+00 30'RT	0.3-4.0	74	4	4	9	9	34	16	15	A-2-6
	4.0-5.0	22	10	26	19	23	36	15	37	A-6a
1011+00 CL	0.5-2.0	0	1	52	24	23	NP	NP	20	A-4a
	2.0-7.0	0	5	13	34	48	34	13	21	A-6a
1019+00 CL	0.5-4.0	0	1	8	48	43	32	11	25	A-6a
	4.0-7.0	6	2	4	20	68	49	22	24	A-7-6
	7.0-10.0	14	7	15	31	33	26	8	16	A-4a
1023+00 CL	0.3-3.0	10	2	4	37	47	39	15	27	A-6a
	3.0-7.0	4	3	4	31	58	43	18	21	A-7-6
	7.0-12.0	9	7	11	31	42	33	15	18	A-6a
1027+00 CL	0.3-5.5	11	5	13	37	34	46	15	30	A-7-5
1030+00 50'LT	0.3-3.0	0	1	2	43	54	41	19	28	A-7-6
	3.0-7.0	0	2	4	47	47	33	11	20	A-6a
	7.0-12.0	0	1	3	20	76	53	26	26	A-7-6
1034+00 CL	0.5-3.0	0	5	8	30	57	50	24	28	A-7-6
	3.0-7.0	0	4	8	34	54	45	23	25	A-7-6
1038+50 CL	0.3-5.0	0	1	4	46	49	46	20	21	A-7-6
	5.0-9.0	6	1	3	47	43	35	15	20	A-6a
	9.0-11.0	0	1	2	32	65	36	11	23	A-6a
	11.0-12.0	54	8	7	14	17	28	6	10	A-2-4
1043+00 CL	0.5-3.0	0	1	10	44	45	43	16	20	A-7-6
	3.0-8.0	0	2	6	42	50	41	13	26	A-7-6
	8.0-10.0	0	0	1	59	40	33	9	24	A-4b
1047+00 CL	0.5-4.0	0	1	6	41	52	49	27	23	A-7-6
	4.0-8.0	0	0	2	47	51	42	18	31	A-7-6
1051+00 CL	0.5-5.0	0	1	1	46	52	38	11	23	A-6a
	7.0-8.0	0	1	3	35	61	40	16	29	A-6b
	8.0-10.0	12	4	9	36	39	31	13	15	A-6a

Station & Offset	Depth From-To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
1055+00 CL	0.5-3.0	0	1	10	43	46	37	16	23	A-6b
	3.0-5.0	0	1	2	47	50	40	18	24	A-6b
	5.0-10.0	7	2	4	41	46	36	16	20	A-6b
1059+00 CL	7.0-10.0	0	3	8	38	51	43	18	22	A-7-6
1063+00 CL	0.5-3.0	0	2	8	37	53	39	17	20	A-6b
	3.0-6.0	3	2	3	46	46	38	17	20	A-6b
	6.0-8.0	22	8	14	30	26	31	12	13	A-6a
	8.0-10.0	15	9	15	32	29	26	7	12	A-4a
1071+00 CL	0.5-4.0	0	1	2	42	55	39	17	17	A-6b
	4.0-8.0	0	1	2	28	69	49	21	20	A-7-6
	8.0-9.5	44	10	8	18	20	32	12	13	A-6a
1075+00 CL	9.0-10.0	61	8	7	15	9	33	6	18	A-1-b
1078+00 CL	0.5-5.0	0	1	5	36	58	45	19	21	A-7-6
	5.0-9.5	6	4	9	29	52	34	11	17	A-6a
1082+00 CL	0.5-7.0	0	1	4	37	58	47	22	22	A-7-6
1086+00 CL	0.5-5.0	0	2	2	42	54	43	21	23	A-7-6
1090+00 CL	0.3-2.0	0	0	7	43	50	40	15	22	A-6a
	2.0-7.0	0	0	2	65	33	27	4	26	A-4b
	7.0-9.0	0	1	2	37	60	39	14	24	A-6a
	9.0-10.0	0	0	5	50	45	29	6	21	A-4b
1094+00 CL	0.3-2.0	0	0	8	37	55	48	24	21	A-7-6
	2.0-7.0	0	2	3	55	40	32	12	22	A-6a
	7.0-11.0	0	1	2	63	34	31	7	23	A-4b
	11.0-17.0	8	4	7	29	52	32	12	25	A-6a
1098+00 75'LT	0.5-2.0	0	0	26	44	30	42	18	25	A-7-6
	2.0-4.0	0	1	36	35	28	27	8	24	A-4a
	4.0-9.0	0	0	2	45	53	39	15	30	A-6a
	9.0-10.0	0	0	1	42	57	37	13	25	A-6a
1102+00 CL	0.3-4.0	0	1	12	46	41	35	14	16	A-6a
	4.0-6.0	0	1	2	67	30	27	5	15	A-4b
	6.0-10.0	0	0	1	41	58	40	16	24	A-6b
1106+00 CL	0.5-5.0	0	0	13	43	44	37	14	25	A-6a
	5.0-10.0	0	0	2	57	41	31	6	24	A-4b
1108+50 CL	0.3-4.0	0	2	18	39	41	34	12	25	A-6a
	4.0-6.0	7	4	15	35	39	28	11	22	A-6a
	6.0-8.0	30	7	13	28	22	24	3	12	A-4a
1112+50 CL	0.3-4.0	0	0	8	36	56	50	27	29	A-7-6
	4.0-5.0	0	0	7	90	3	NP	NP	25	A-4b
	5.0-10.0	0	1	2	54	43	33	17	24	A-6b
1117+00 CL	0.5-2.0	0	1	31	42	26	25	5	24	A-4a
	4.0-5.0	0	0	2	48	50	40	16	28	A-6b
1121+00 CL	0.5-4.0	0	0	4	89	7	NP	NP	22	A-4b
	4.0-5.0	0	0	2	80	18	25	1	25	A-4b
	5.0-10.0	0	0	3	58	39	30	10	29	A-4b
1125+00 CL WEST BOUND LANE	0.5-2.0	0	1	11	57	31	30	8	21	A-4b
	2.0-4.0	0	1	4	71	24	NP	NP	34	A-4b
	4.0-5.0	0	0	1	97	2	NP	NP	30	A-4b
	5.0-10.0	0	0	3	52	45	32	13	29	A-6a

Station & Offset	Depth From-To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
1135+00 CL EAST BOUND LANE	0.5-4.0	0	1	11	31	57	42	[illegible]	[illegible]	[illegible]
	4.0-6.0	0	0	3	92	5	NP	[illegible]	[illegible]	[illegible]
	6.0-7.0	0	0	3	44	53	46	[illegible]	[illegible]	[illegible]
	7.0-10.0	0	0	2	44	54	35	13	30	[illegible]
1127+00 CL WEST BOUND LANE	0.5-4.0	0	1	5	49	45	[illegible]	15	[illegible]	[illegible]
	4.0-7.0	7	6	15	36	36	[illegible]	12	[illegible]	[illegible]
	7.0-15.0	21	12	14	29	[illegible]	27	11	13	[illegible]
1129+25 CL WEST BOUND LANE	0.3-5.0	9	5	17	43	26	29	7	19	[illegible]
	5.0-10.0	0	1	7	55	37	30	6	21	[illegible]
	10.0-17.0	0	2	4	59	35	30	5	28	[illegible]
	17.0-19.0	0	0	1	46	53	41	18	28	A-7-6
	19.0-25.0	0	2	4	42	52	34	11	24	A-6a
1132+00 CL EAST BOUND LANE	0.3-4.0	0	0	5	78	17	NP	NP	22	A-4b
	4.0-6.0	0	0	1	83	16	NP	NP	28	A-4b
	6.0-13.0	0	0	2	49	49	38	19	33	A-6b
	13.0-20.0	0	0	1	53	46	27	15	29	A-6a
	20.0-27.0	0	0	1	47	52	34	13	30	A-6a
	27.0-30.0	11	3	9	31	46	25	14	23	A-6a
1133+00 CL EAST BOUND LANE	0.3-4.0	0	0	4	89	7	NP	NP	27	A-4b
	4.0-5.0	0	0	2	93	5	NP	NP	28	A-4b
	5.0-9.0	0	0	4	44	52	37	20	30	A-6b
	9.0-15.0	0	0	2	53	45	24	9	31	A-4b
	15.0-23.0	0	0	1	52	47	32	11	31	A-6a
	23.0-25.0	4	2	5	39	50	34	14	28	A-6a
1135+00 CL EAST BOUND LANE	0.3-3.0	0	0	8	82	10	NP	NP	23	A-4b
	8.0-16.0	0	1	2	48	49	34	14	38	A-6a
	16.0-25.0	0	0	2	50	48	34	12	32	A-6a
	25.0-30.0	4	2	4	39	51	30	15	27	A-6a
1137+00 CL EAST BOUND LANE	0.3-6.0	0	1	4	86	9	NP	NP	26	A-4b
	6.0-9.0	0	0	1	95	4	NP	NP	22	A-4b
	9.0-15.0	0	0	2	69	29	20	6	28	A-4b
	15.0-22.0	0	0	2	71	27	24	4	27	A-4b
	22.0-25.0	0	0	1	57	42	31	12	27	A-6a
1138+00 20'RT EAST BOUND LANE	1.0-6.0	0	1	5	87	7	NP	NP	23	A-4b
	6.0-9.0	0	0	7	93	0	NP	NP	27	A-4b
	9.0-15.0	0	1	3	63	33	18	7	32	A-4b
	15.0-20.0	0	0	2	57	41	23	10	34	A-4b
	20.0-26.0	0	1	4	48	47	24	14	31	A-6a
	26.0-30.0	0	0	1	44	55	28	11	26	A-6a
1140+75 25'RT EAST BOUND LANE	0.0-2.0	24	6	6	50	14	NP	NP	6	A-4b
1144+00 25'RT EAST BOUND LANE	1.0-3.0	0	1	2	80	17	NP	NP	24	A-4b
	3.0-7.0	0	1	3	88	8	NP	NP	26	A-4b
	7.0-10.0	0	0	1	83	16	NP	NP	21	A-4b
1147+00 CL Median	0.3-3.0	15	2	4	59	20	NP	NP	14	A-4b
	3.0-7.0	9	2	7	62	20	26	8	23	A-4b
	7.0-9.0	3	2	3	61	31	35	17	21	A-6b
	9.0-12.0	0	0	1	88	11	NP	NP	21	A-4b
	12.0-15.0	0	0	0	83	17	NP	NP	21	A-4b
	15.0-20.0	0	0	1	49	50	30	15	33	A-6a
	20.0-25.0	0	0	2	50	48	36	18	32	A-6b
	25.0-30.0	0	0	2	56	42	24	13	31	A-6a

TE-54-B
600-1-58

Revised
March 28,1960

SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS 10, OHIO

2/12

Description of Drive Sample - Core Boring
Sta 859+57 102' Lt.

(1) Top of Rock
(2) Limestone, gray, hard, dense, broken and jointed. No Loss.
(3) Sandstone, gray, hard, fine to medium grained, jointed. No Loss.
(4) Limestone, gray, hard, dense, slightly fossiliferous, with a shale interval in upper 0.25'. No Loss.
(5) Shale, gray, medium hard, somewhat siliceous with two 0.16' thick seams at elevations 574.2 and 573.3 respectively. No Loss.
(6) Limestone, gray, hard, dense, slightly fossiliferous. No Loss.

Corn — Residential — Corn — Clover — Corn
U.S. Rte. 6
49
Sta. 860+35.68 ℄ USR6 Relocated
Sta. 47+98.66 ℄ U.S.R. 250
℄ Proposed U.S.R. 6 Relocated
855 860 865 870 875 877
47
Brush — Weeds & Brush — Plum Brook — Brush — Weeds & Brush
Corn — Lawn — Residential — Soybeans — Pasture

Drive Sample-Core Boring 102' Lt.
Refusal (Boulders)
Refusal (Boulders)
Proposed grade of U.S.R. 250
Sod=0.3'
Sod=0.3'
Sod=0.3'
50' Rt.
Sod=0.4'
Refusal (Boulders)
Refusal

620 610 600 590 580

855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877

Weeds & Brush — Corn — Soybeans — Galloway Rd. — Corn — Brush
℄ Proposed U.S.R. 6 Relocated
877 880 885 890 895 900 905 907
Sta. 885+48.30 ℄ U.S.R. 6 Relocation
Sta. 50+00.00 ℄ Galloway Rd.
49
48
Weeds & Brush — Soybeans — Grass — Soybeans — Wooded Area — Trees — Corn — Brush — Ditch

Sta. 884+30.48 Back =
Sta. 882+70.51 Ahead
Station Equation
Note: Elev. of Galloway Rd. proposed grade is 631.0

Sod=0.4'
Refusal (Boulders)
TS=0.4'
Refusal (Boulders)
Core Boring 79' Lt.
TS=0.4'
Refusal
40' Lt.
Sod=0.4'
Refusal
Core Boring
TS=0.4'
Refusal
TS=0.5'
Refusal (Hand auger)
Rock Outcrop Carbonaceous shale
TS=0.5'+
Refusal (Hand auger)

Top of Soft Weathered Rock
Shale, gray, soft, weathered, argilloceous, broken & jointed. Core Loss 40%
Top of Firm Rock
Shale, gray, firm, argilloceous. No Loss.

Weathered and badly broken shale, dark brownish gray, hard, separated into thin plates(1/16" to 1/2" thick), with thin clay seams.
Top of Firm Rock
Dolomite, gray, dense, hard, firm, medium bedded, jointed in top 1.5'. No Loss.
Shale, gray, argilloceous, medium firm. Core Loss 11%

Log of Offset Boring
150' Rt.
TS=0.4'
Refusal

620 610 600 590

877 878 879 880 881 882 883 884 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907

Revised
March 28, 1960
SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
STATE HIGHWAY TESTING
LABORATORY
O. S. U. CAMPUS, COLUMBUS 10, OHIO
3
12
Corn
Soybeans
Soybeans & Weeds
Beans
Meadow
Weeds
Brush
Creek
Light weeds & Heavy Brush
℄ Proposed U.S.R. 6 Relocated
Auger & Core Boring
TS=0.4'
Refusal
(Hand auger)
Weathered and badly broken shale
Top of firm Rock
Shale, dark brownish gray, contains considerable carbonaceous matter, pyritiferous, dense, hard, firm, fissile. No Loss.
Dolomite, gray to brownish gray, crystalline, dense, hard, firm, with clay seam at base. Core Loss 3%.
Sod=0.3'
620
610
600
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
Clover
Wooded Area
℄ Proposed U.S.R.6 Relocated
Core Boring
Top of Rock
939
940
941
942
943
944
945
946
947
948
950
951
952
953
954
MICROFILMED

TE-54-B
600-1-58
Revised
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SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
STATE HIGHWAY TESTING
LABORATORY
O. S. U. CAMPUS, COLUMBUS 10, OHIO
4
12
Soybeans
Corn
Grass
Brush
N.Y.C. RR
℄ Proposed U.S.R. 6 Relocated
TS=0.5'
Refusal
(Hand auger)
TS=0.3'
Match line "AA"
Pasture
Plowed field
Boss Rd.
Saw Mill Creek
Black shale exposed in creek bank Sta. 1025+30, 25' Lt. Top elev. 579.0'
Core Boring 80' Lt.
Cinders=0.3'
30' Rt.
Core Boring 80' Rt.
Top of Rock
Shale, dark brownish gray, contains considerable carbonaceous matter, pyritiferous, dense, hard, firm, fissile, jointed 24.0'-25.0', separated into thin (0.5" avg.) plates in top 5.0'. Core Loss 4%
Dolomite, gray, dense, hard, firm medium bedded. No Loss
Shale, gray, argillaceous, firm, fissile. Core Loss 63%
Shale, dark brownish gray, contains considerable carbonaceous matter, pyritiferous, dense, hard, firm, fissile, broken in portions of top 4.0', separated into thin (0.5" avg.) plates in top 3.0', bedding slopes 5° to 10° in top 5.5'. Core Loss 5%
Dolomite, gray, dense, hard, firm, medium bedded No Loss
Shale, gray, argillaceous, generally firm, with clay seams. No Loss.
50' Lt.
Sod=0.3'
Core Boring 80' Rt
Weathered shale, broken
Top of Firm Rock
Shale, dark brownish gray, contains considerable carbonaceous matter, pyritiferous, dense, hard, firm. Core Loss 13%
SEP 15 1960

TE-54-B
600-1-58

Revised
March 28, 1960

SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS 10, OHIO

5/12

Sta 1038+65.89 ℄ U.S.R. 6 Relocated
Sta 48+23.82 ℄ Rye Beach Rd.

Plowed field | Clover | Soybeans | Plowed field | Heavy brush | Stubble | Heavy brush | Alfalfa

℄ Proposed U.S.R. 6 Relocated

Rye Beach Rd.

Plowed field | Clover | Soybeans | Plowed field | Stubble | 4' Ditch | Alfalfa

Note: Elev of Rye Beach Rd proposed grade is 617.5'

Drive Sample – Core Boring 78' Lt.

Dolomite block, underlain by gray silt containing broken shale. Top of Rock

Shale, dark brownish gray, contains considerable carbonaceous matter, pyritiferous, hard, firm, jointed 17.8'-18.5'. Core Loss 4%

Refusal

TS=0.5'

Sod & TS=0.5'

W = Water at 18'

Alfalfa | Heavy brush | Corn | Heavy brush | Weeds & brush | Standing water Oct.10, 1958 | Weeds & Soybeans

℄ Proposed U.S.R. 6 Relocated

Alfalfa | Corn | Weeds & brush | Weeds & Soybeans

Refusal (Hand auger)

Sod=0.3'

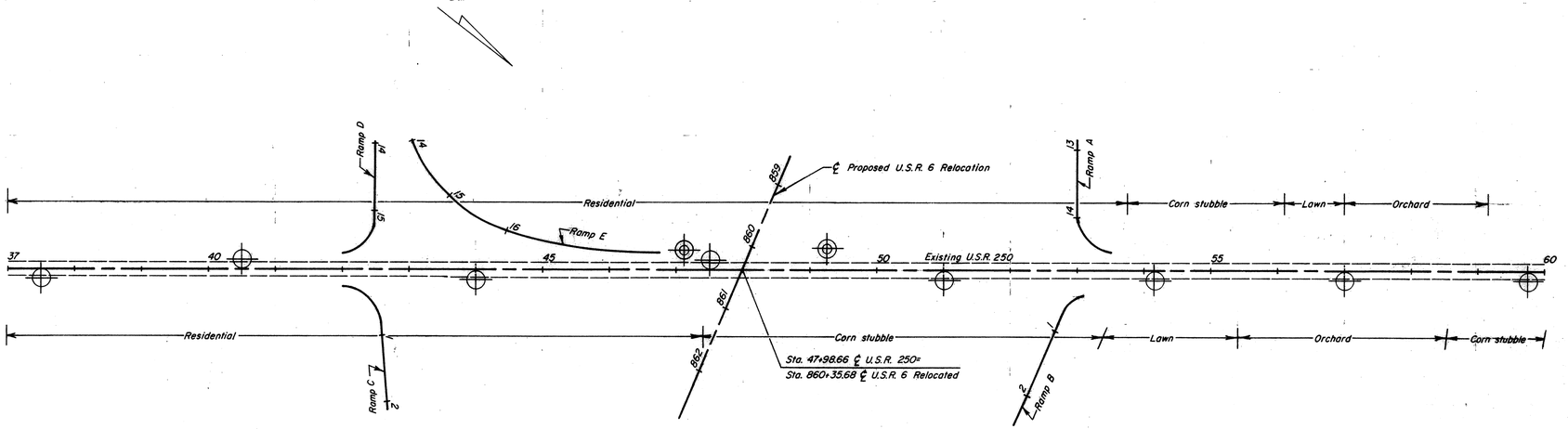
75' Lt.

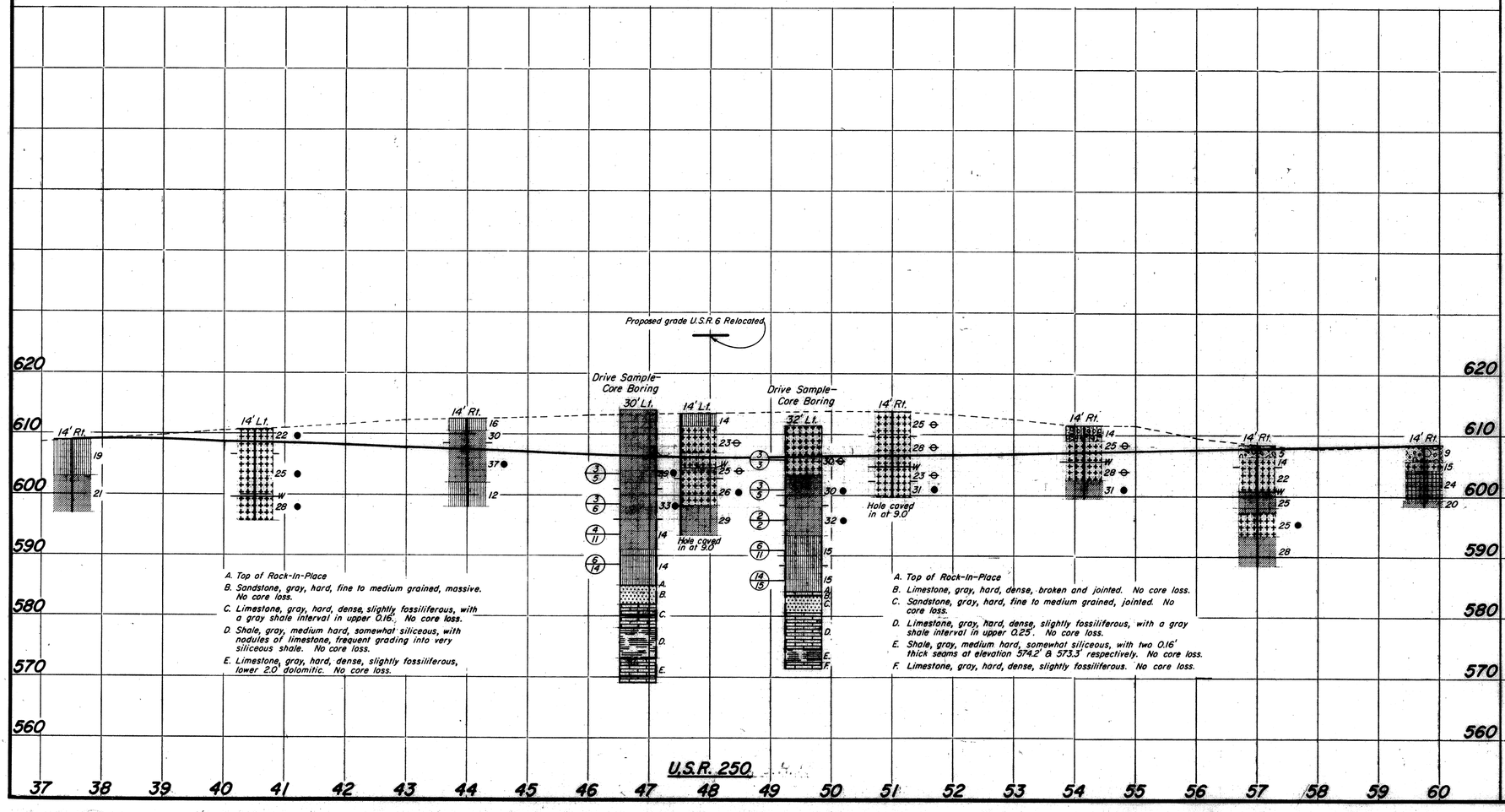
Loss on ignition = 7%

Organic

SEP 15 1960

TE.54.B
900-5-59





SOIL PROFILE
ERIE COUNTY
ERI-6-11.30

OHIO STATE HIGHWAY
TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

6/12

Supplement, March 28, 1960

SUPPLEMENTARY SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION & OFFSET		DEPTH FROM–TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
37+50	14'Rt	0.0–6.0	43	3	12	24	18	28	7	19	A–1a*
		6.0–12.0	0	2	19	42	37	28	13	21	A–6a
40+50	14'Lt	0.0–4.0	0	4	13	57	26	20	4	22	A–4b*
		4.0–11.0	0	2	7	55	36	25	9	25	A–4b*
		11.0–15.0	0	0	1	50	49	27	8	28	A–4b
44+00	14'Rt	0.0–2.0	36	4	14	28	18	21	2	16	A–1a
		2.0–4.0	0	2	9	49	40	36	14	30	A–6a*
		4.0–10.5	0	1	4	47	48	33	13	37	A–6a*
		10.5–14.0	15	7	16	27	35	19	6	12	A–4a
47+50	14'Lt	0.0–2.0	39	11	10	28	12	NP	NP	14	A–1a
		2.0–8.0	0	0	1	87	12	NP	NP	23	A–4b*
		8.0–10.5	0	1	5	71	23	NP	NP	25	A–4b*
		10.5–15.0	0	0	1	63	36	27	9	26	A–4b
		15.0–20.0	0	1	2	31	66	35	15	29	A–6a
51+00	14'Rt	0.0–4.0	0	0	7	81	12	NP	NP	25	A–4b
		4.0–9.0	0	0	2	84	14	NP	NP	28	A–4b*
		9.0–11.5	0	0	3	84	13	NP	NP	23	A–4b*
		11.5–14.0	0	0	1	60	39	23	6	31	A–4b
54+15	14'Rt	0.0–2.0	51	5	10	25	9	NP	NP	14	A–2–4a
		2.0–6.0	5	2	4	69	20	NP	NP	25	A–4b*
		6.0–9.0	0	1	3	80	16	NP	NP	28	A–4b*
		9.0–12.0	0	0	0	48	52	33	12	31	A–6a
57+00	14'Rt	0.0–2.0	64	9	9	13	7	NP	NP	5	A–1–b*
		2.0–3.5	9	3	19	50	20	NP	NP	14	A–4b*
		3.5–7.5	0	3	7	53	37	29	10	22	A–4b
		7.5–11.0	0	1	3	48	48	32	14	25	A–6a
		11.0–15.0	0	1	2	50	47	25	7	25	A–4b
		15.0–20.0	0	0	0	43	57	32	11	28	A–6a
59+75	14'Rt	0.0–2.5	59	10	9	13	9	NP	NP	9	A–1–b*
		2.5–4.0	0	2	27	52	19	NP	NP	15	A–4b*
		4.0–9.0	0	2	8	38	52	41	20	24	A–7–6
		9.0–10.0	0	3	5	39	53	28	11	20	A–6a

SUPPLEMENTARY DRIVE SAMPLE BORING SOIL TEST DATA

Note: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.

47+00	30'Lt	10.0–11.0	0	2	3	45	53	30	11	29	A–6a
		15.0–16.0	0	4	4	31	61	34	13	33	A–6a
		20.0–21.0	4	4	4	35	53	29	11	14	A–6a
		25.0–26.0	10	9	13	35	33	25	9	14	A–4a
49+23	32'Lt	5.0–6.0	0	0	2	80	18	NP	NP	30	A–4b
		10.0–11.0	0	0	1	53	46	26	12	30	A–6a
		15.0–16.0	0	0	0	38	62	27	13	32	A–6a
		20.0–21.0	11	13	13	32	31	23	9	15	A–4a
		25.0–26.0	25	7	11	28	29	19	9	15	A–4a

TE-54-A
200-8-57

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 19 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Coarse and fine sand	—	A-3a	0	1	67	22	10	NP	NP	13	1
Sandy silt	A-4 (1)	A-4a	0	1	57	29	13	NP	NP	11	1
Silt	A-4 (8)	A-4b	0	0	8	52	40	22	1	17	1
Silt and clay	A-6 (9)	A-6a	9	4	13	30	44	34	12	18	3
Clay	A-7-6 (14)	A-7-6	7	1	4	28	60	47	22	18	10
Weathered shale		(Visual Classification)									3
Shale		(Visual Classification)									

Note: Figures beside borings indicate water content in per cent.

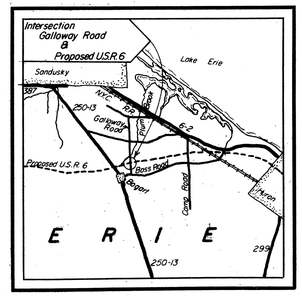
Sod +X"Approx. depth
Berm Material
Auger boring plotted to vertical scale only.
Auger boring - plan view
Core boring - plan view

Samples Tested
Lab. Nos. So. 3801-3803 incl.
7276-7291 incl.

SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
GALLOWAY ROAD Intersection
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

7/12

NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.



LOCATION MAP

Recon: C.J.K. Nov. 7, 1958
Auger: C.E.S. Nov. 13, 1958
Core: W.R.B. Oct. 14, 1958
Drafting: W.L.T., L.N.L., R.V.S., Dec. 19, 1958

SUMMARY OF SOIL TEST DATA

Note: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes samples taken at or near grade

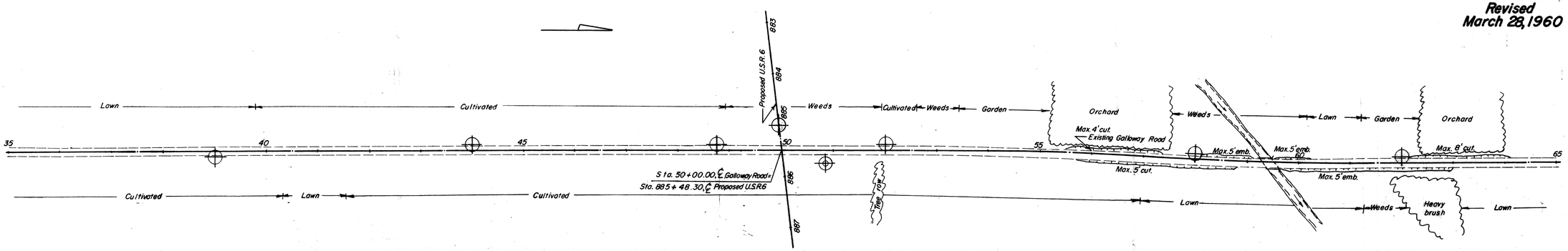
STATION	& OFFSET	DEPTH FROM-TO	% AGG	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
39+00	10'Rt	0.3-6.0	0	1	67	22	10	NP	NP	13	A-3a*
		6.0-7.0	10	7	20	24	39	30	11	20	A-6a
44+00	10'Lt	0.3-3.0	0	3	5	29	63	44	24	16	A-7-6
		3.0-6.5	0	0	0	15	85	54	29	21	A-7-6
48+75	10'Lt	0.3-3.0	10	2	8	39	41	49	24	24	A-7-6
		3.0-6.0	11	4	9	27	49	41	18	31	A-7-6
		6.0-8.0	9	6	10	26	49	38	15	15	A-6a
		8.0-13.5	0	1	1	29	69	49	23	14	A-7-6
49+95	49'Lt	0.4-5.5	0	3	13	32	52	41	18	19	A-7-6
		5.5-11.0	27	1	0	24	48	51	26	14	A-7-6
		11.0-15.0	Gray Weathered Shale							11	Visual
52+00	10'Lt	0.3-6.0	0	2	4	31	63	42	18	22	A-7-6
		6.0-11.0	9	0	0	28	63	53	26	17	A-7-6
		11.0-16.0	Gray Weathered Shale							18	A-7-6
58+00	10'Lt	0.3-4.0	8	0	8	41	43	32	11	19	A-6a
		4.0-8.0	4	2	4	20	70	42	16	19	A-7-6
		8.0-13.0	Gray Weathered Shale							13	A-7-6
62+00	10'Lt	0.3-5.0	0	1	57	29	13	NP	NP	11	A-4a*
		5.0-8.0	0	0	8	52	40	22	1	17	A-4b

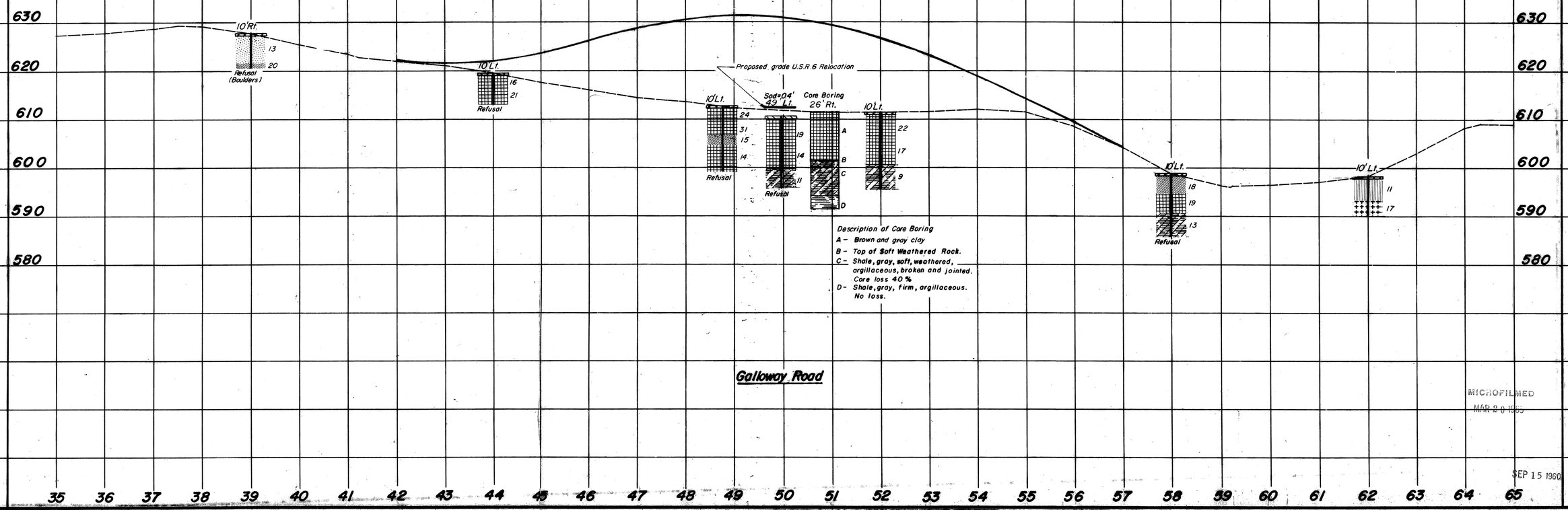
TE-54-B
600-1-55

SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
GALLOWAY ROAD Intersection
STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS 10, OHIO

8/12

Revised
March 28, 1960





	Signature	Date
Drawn by	Wm. Hall	12-28-59
Checked by	Wm. Hall	12-28-59
Recon. checked by	[illegible]	1-5-60
Reviewed by	[illegible]	1-5-60

TE-54-A
200-8-57

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 12 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Stone fragments with sand	A-1-b (0)	A-1-b	73	4	5	10	8	31	6	8	1
Coarse and fine sand	——	A-3a	0	2	64	24	10	NP	NP	21	1
Stone fragments with sand and silt	A-2-4 (0)	A-2-4	52	10	8	17	13	16	3	13	2
Sandy silt	A-4 (3)	A-4a	5	1	43	26	25	NP	NP	31	1
Elastic clay	A-7-5 (13)	A-7-5	14	3	8	27	48	51	18	28	4
Clay	A-7-6 (14)	A-7-6	6	2	10	30	52	48	20	29	3
Shale					(Visual Classification)						

Note: Figures beside borings indicate water content in per cent.

● Water content nearly equal to or greater than liquid limit.

Berm Material

Core boring-plan view

Auger boring plotted to vertical scale only.

Auger boring-plan view

Samples Tested

Lab. Nos. So. 3957-3958 incl.
7292-7301 incl.

SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
CAMP ROAD Intersection

9/12

STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

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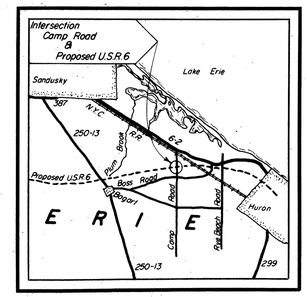


LOCATION MAP

Recon. C.J.K. Nov. 15, 1958
Auger C.E.G. Nov. 14, 1958
Core: W.R.B. Oct. 9, 1958
Drafting: L.N.L., R.V.S., W.L.T. Dec. 16, 1958

SUMMARY OF SOIL TEST DATA

Note: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade

STATION & OFFSET	DEPTH FROM-TO	% AGG	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTD CLASS
37+00 10'Lt	0.3-4.0	73	4	5	10	8	31	6	8	A-1-b*
42+06 12'Rt	0.3-2.0	0	1	12	39	48	45	16	27	A-7-6*
	2.0-5.0	17	4	7	16	56	53	26	34	A-7-6
	5.0-7.0	33	1	2	17	47	55	24	27	A-7-5
47+00 12'Lt	0.3-2.0	18	7	19	23	33	43	12	26	A-7-5
49+99 13'Lt	0.3-2.0	0	2	64	24	10	NP	NP	21	A-3a
	2.0-4.5	48	11	10	19	12	NP	NP	16	A-2-4
51+25 12'Rt	2.0-4.0	0	2	10	35	53	46	17	26	A-7-6
	4.0-5.5	56	10	7	14	13	31	6	10	A-2-4
55+00 12'Rt	0.3-2.0	4	4	11	31	50	47	15	41	A-7-5
60+00 12'Rt	0.2-4.5	5	1	43	26	25	NP	NP	31	A-4a
64+00 12'Lt	0.3-3.5	0	1	2	36	61	57	26	29	A-7-5*

SEP 15 1960

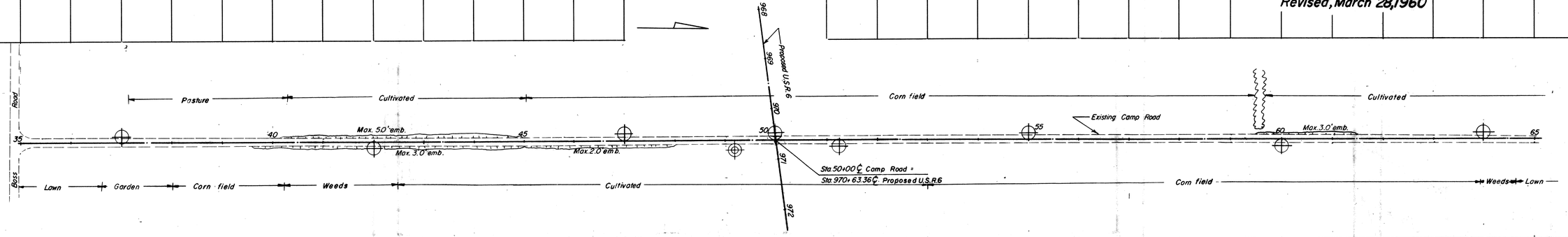
TE-54-B
600-1-58

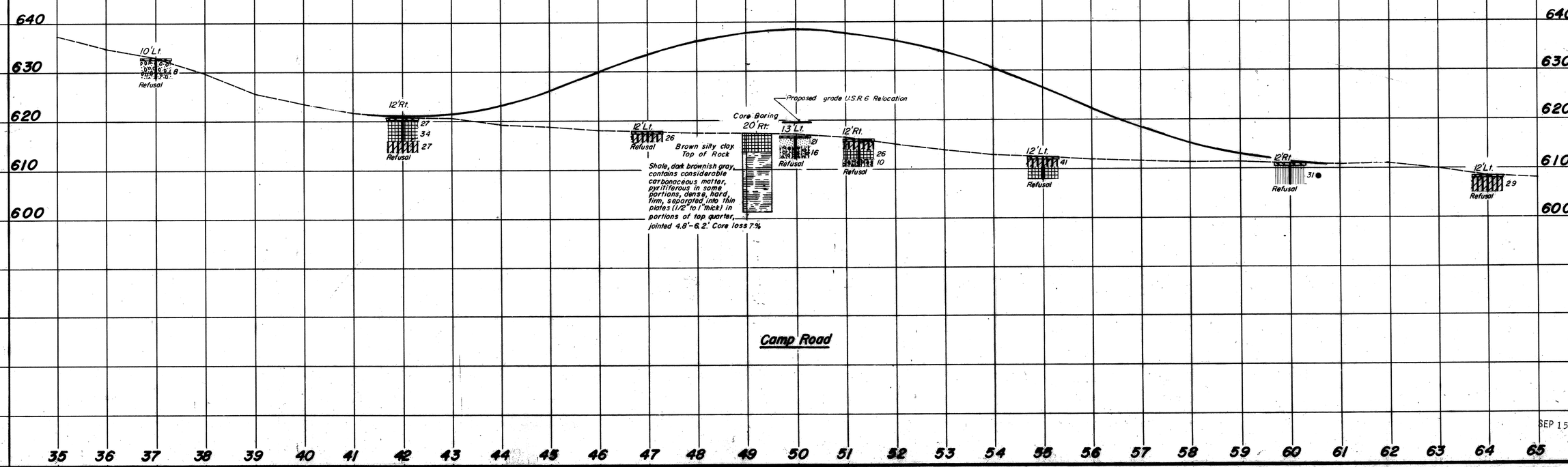
SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
CAMP ROAD Intersection

STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS 10, OHIO

10
12

Revised, March 28, 1960





	Signature	Date
Drawn by		
Checked by		
Recom. checked by		
Reviewed by		

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TE-54-A
200-5-57

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 20 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Sandy silt	A_{-2}-4(4)	A-4a	25	7	11	29	28	29	3	12	2
Silt	A-4(8)	A-4b	0	1	6	51	42	32	9	44	2
Silt and clay	A-6(9)	A-6a	7	3	5	35	50	35	13	21	8
Silty clay	A-6(9)	A-6b	20	4	10	32	34	36	17	19	2
Elastic clay	A-7-5(12)	A-7-5	0	5	10	28	57	48	17	28	1
Clay	A-7-6(12)	A-7-6	1	1	5	38	55	45	20	23	4
Stone fragments with sand and silt	A-2-4(0)	A-2-4	54	8	7	14	17	28	6	10	1

Weathered shale (Visual classification)

Shale (Visual classification)

Note: Figures beside borings indicate water content in per cent.

● Water content nearly equal to or greater than liquid limit.

Sod and Top soil=X'=Approx. depth.

Berm Material

Auger boring-plan view

Auger boring plotted to vertical scale only.

Core boring-plan view

W—— Free water

Samples Tested
Lat. Nos. Sc. 3932-3935 incl.
5944-5947 incl.
7302-7313 incl.

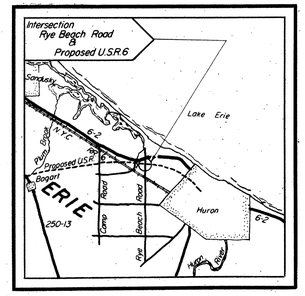
Number of blows for "Standard Penetration" Test.
X = number of blows for the first 6 inches.
Y = number of blows for second 6 inches.

SOIL PROFILE
ERIE COUNTY
ERI-6-11.30
RYE BEACH ROAD Intersection

11/12

STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.



LOCATION MAP

Recon: C.J.K. Nov. 6, 1958
Auger: C.E.G. Nov. 14, 1958
Core: W. R. B. Oct. 29, 1958
Drafting: W.L.T., L.N.L., R.V.S. Dec. 24, 1958

SUMMARY OF SOIL TEST DATA

*Denotes sample taken at or near grade.

STATION & OFFSET	DEPTH FROM-TO	% AGG	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
35+00 12'Lt	0.3-4.0	3	1	8	35	53	46	22	23	A-7-6
	4.0-8.0	0	2	4	35	59	43	17	27	A-7-6
43+00 12'Lt	0.3-5.0	0	1	3	36	60	44	20	20	A-7-6
	5.0-9.0	0	1	3	33	63	38	13	22	A-6a
	9.0-12.0	30	6	10	29	25	22	3	12	A-4a
48+30 17'Lt	0.3-5.0	0	1	4	46	49	46	26	21	A-7-6
	5.0-9.0	6	1	3	47	43	35	15	20	A-6a
	9.0-11.0	0	1	2	32	65	36	11	23	A-6a
	11.0-12.0	54	8	7	14	17	28	6	10	A-2-4
53+00 10'Rt	0.5-4.0	3	1	3	46	47	34	11	21	A-6a
	4.0-12.0	5	2	4	35	54	39	15	17	A-6a
	12.0-15.5	21	8	12	29	30	25	3	11	A-4a
56+50 8'Rt	0.3-4.0	0	1	11	51	37	29	8	28	A-4b
	4.0-8.0	0	5	10	28	57	48	17	28	A-7-5
59+50 CL	0.5-5.0	0	1	10	50	39	36	17	19	A-6b
	5.0-8.0	0	1	1	50	48	35	10	23	A-4b

TE-54-B
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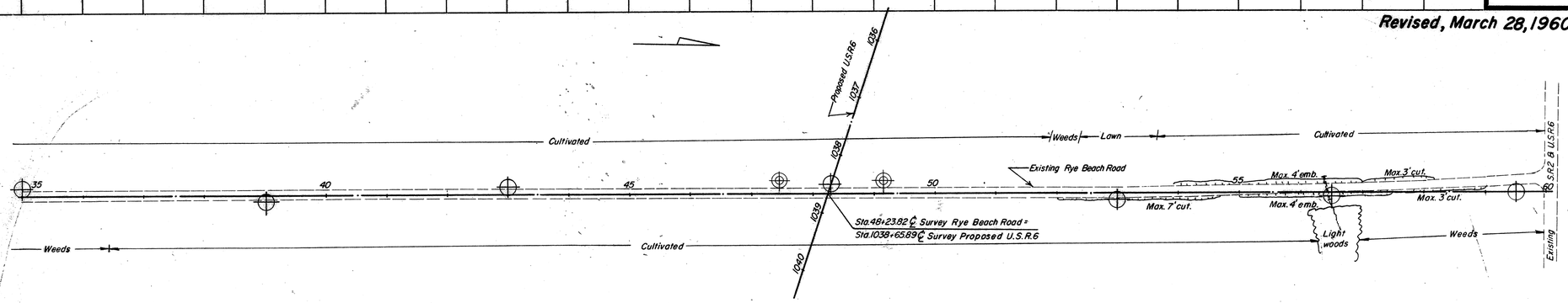

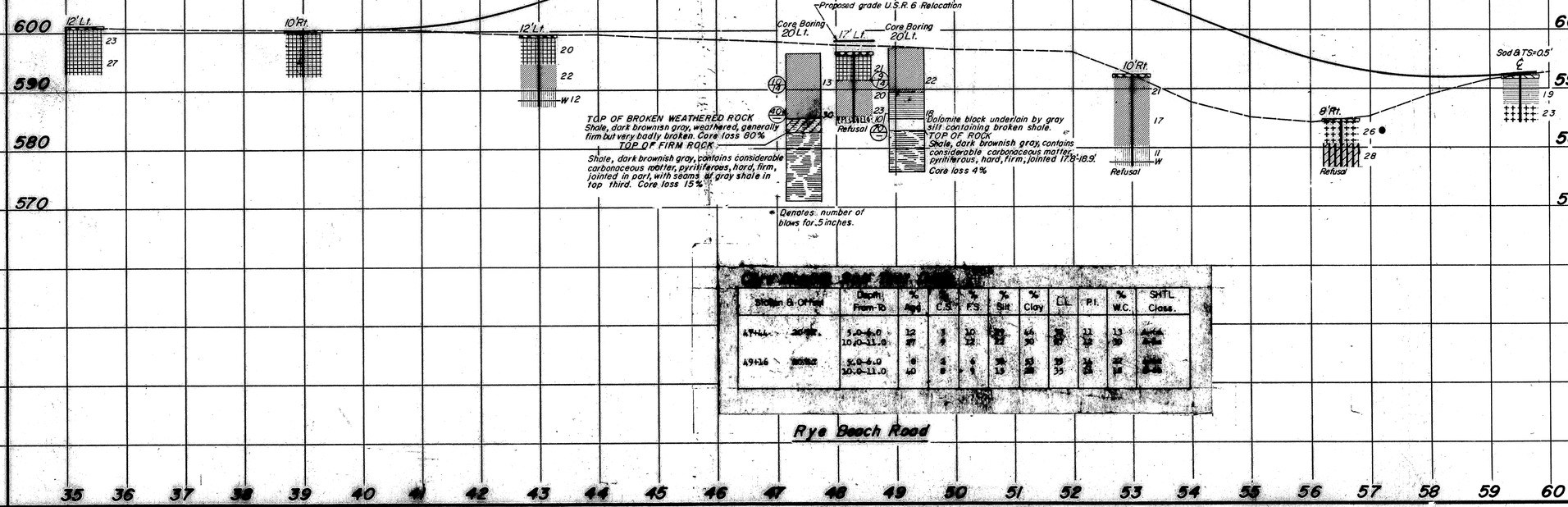

Station & Offset	Depth From-To	% Aggl.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
47+44 - 20'Rt.	5.0-6.0	12	3	10	33	42	38	11	13	A-4(8)
	10.0-11.0	49	4	13	13	20	27	12	20	A-4(8)
49+16 - 20'Rt.	5.0-6.0	8	3	6	36	31	29	14	22	A-4(8)
	10.0-11.0	40	8	4	13	35	33	13	18	A-4(8)

Rye Beach Road

	Signature	Date
Drawn by		
Traced by		
Recom. checked by		
Reviewed by		

RECEIVED
SEP 15 1960