

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

A C I-1101 (18)

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	AC-1101 (18)

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00

Yellow
76
Orange
1-98

WAR.-25-(8.48)
MOT.-25-(0.00)

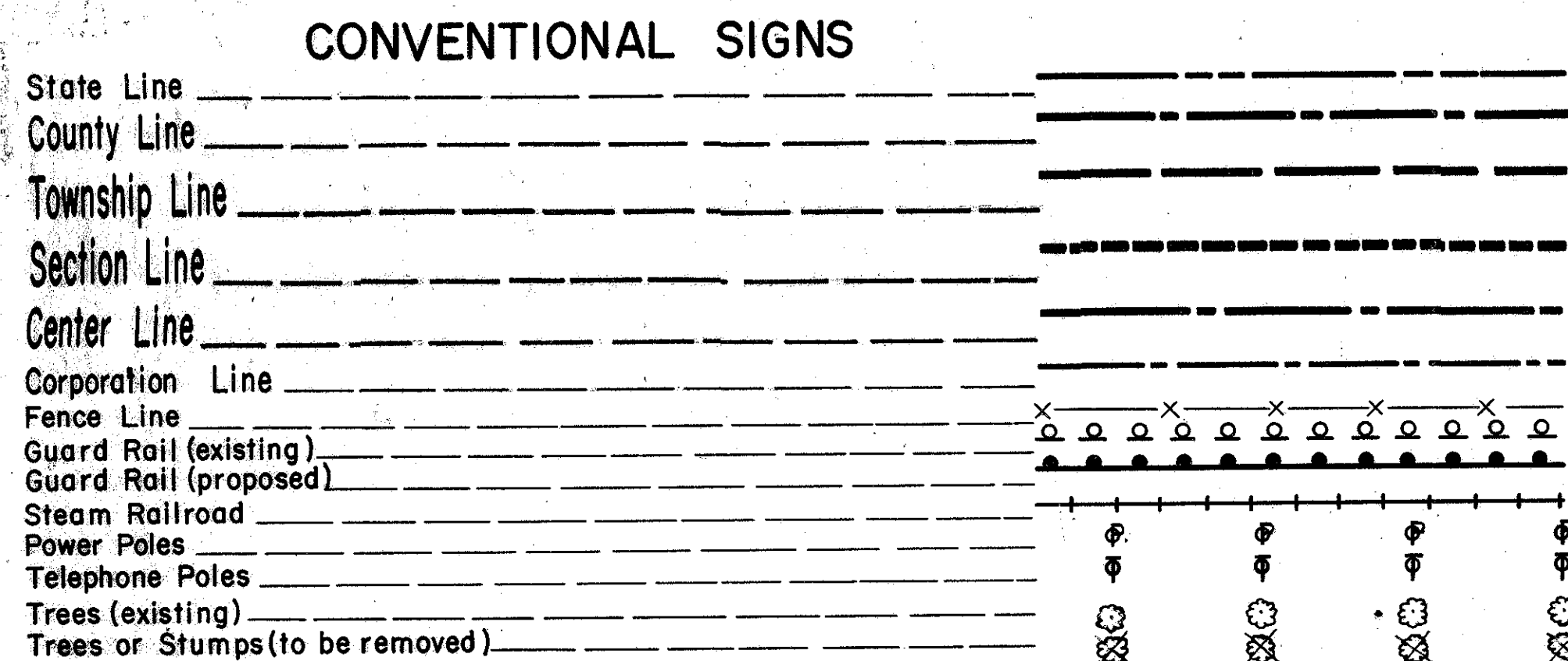
JAN 22 1962
GROUND PHOTOLAB

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.

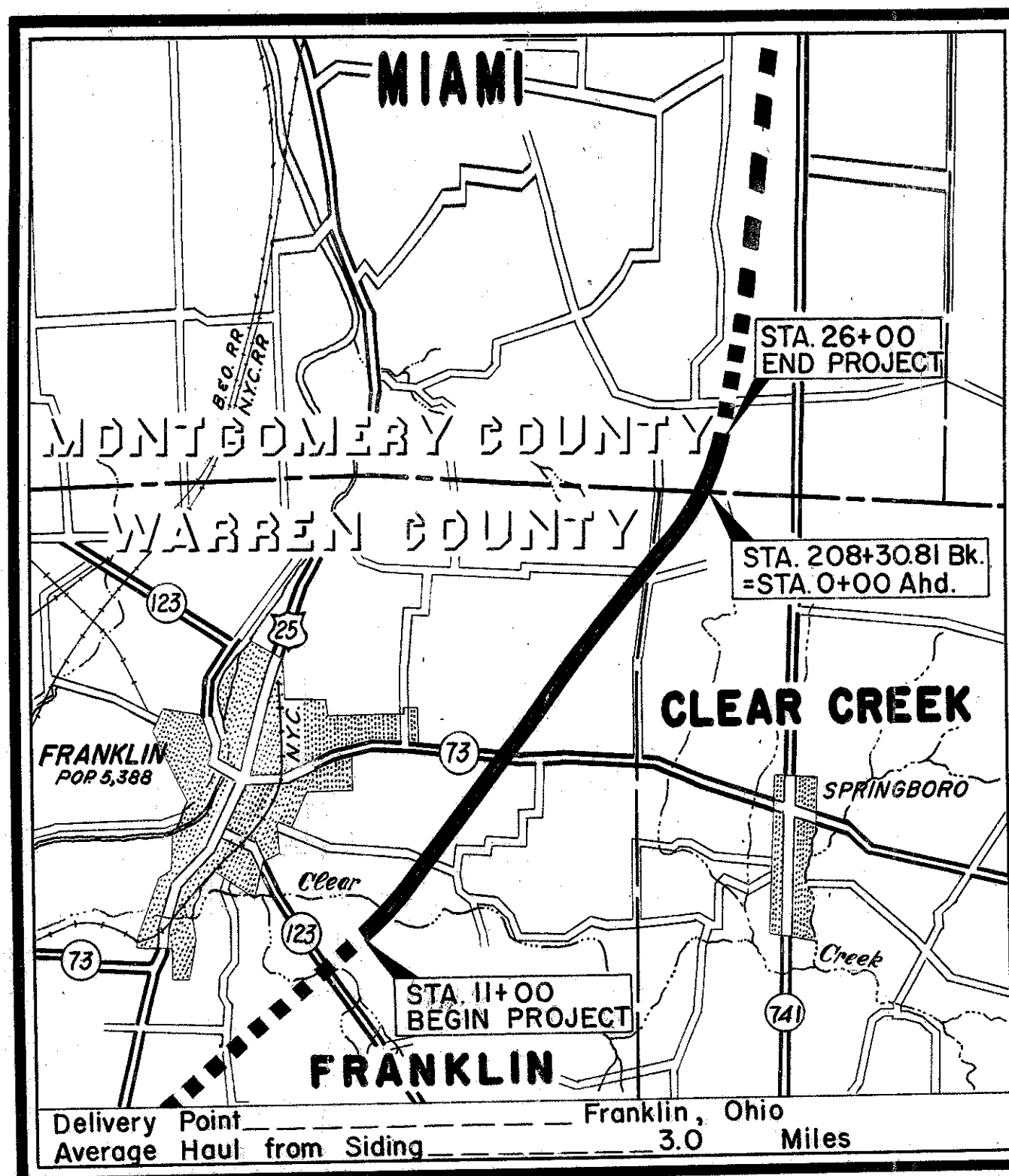
FRANKLIN & CLEAR CREEK TOWNSHIPS, WARREN COUNTY
MIAMI TOWNSHIP, MONTGOMERY COUNTY

NOTE: All references to Federal Aid Project No. I-1101(18) appearing throughout this plan shall be considered to read AC-1101(18).

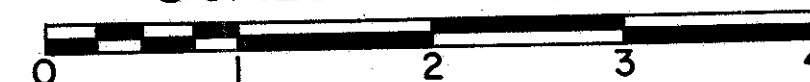


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LOCATION MAP
SCALE OF MILES



SCALE

Plans	1" = 50'
Profile: Horizontal	1" = 50'
Profile: Vertical	1" = 5'
Cross Sections	1" = 10'

JAN 22 1962
GROUND PHOTOLAB

Sheet 348 revised 9-3-58.
Sheets 349, 350, 351, 352 & 354 SUPERSEDED by
sheets 349A, 350A, 351A, 352A & 354A. 9-3-58.
Sheet 325 revised 2-13-59.

LINE DATA

Begin Project Sta. 11+00
County Line Sta. 208+30.81 Bk. = Sta. 0+00 Ahd.
End Project Sta. 26+00
No additions or deductions
Net Length of Project = 22,330.81 Lin. Ft.
or 4.229 Miles

Begin Work Sta. 10+50
County Line Sta. 208+30.81 Bk. = Sta. 0+00 Ahd.
End Work Sta. 27+00
No Equations
Net Length of Work U.S. 25 = 22,480.81 Lin. Ft.
Add for Approaches (See Sheet 2) 9,181.00 Lin. Ft.
Total Length of Work = 31,661.81 Lin. Ft.
or 5.996 Miles

Supplemental Prints of Standard Construction Drawings

DRAWING NO.	DATE	DRAWING NO.	DATE	DRAWING NO.	DATE	DRAWING NO.	DATE	DRAWING NO.	DATE
B-T-50-70-71E No.1	10-1-47	I-12	7-1-54	I-21-23	8-1-56	T.J.	5-1-56	AR-1-57	3-1-58
B-T-71-R	3-2-53	I-14G	1-22-52	L-3	4-1-50	I-8 C.B. No.2,3 & 24	5-1-52	AS-1-54	12-1-54
DR-1	1-3-55	I-15 No.1	8-1-55	L-3A	4-1-50	I-8 C.B. No.3A	5-1-52	CSB-2-56	3-1-58
F-1	4-1-57	I-15 No.2A	6-1-57	L-J No.1	7-1-55	I-8 C.B. No.5	4-24-58	RB-1-55	3-1-55
G-707	6-1-56	I-15 No.2B	6-1-57	RI-1	1-3-55	I-8 C.B. No.6	5-1-52	SP-53	7-21-53
I-1,2,3,4 & 5	4-24-58	I-15 No.4	12-1-54	S-27 PC3	2-20-45	L-1	4-1-50		
I-8CB 2-2A & B	8-1-56	I-15 No.3	12-1-54	S-27 PC4	1-4-54				
I-8CB No.4	4-24-58			T-35	1-2-56				

Supplemental Specification

NO.	DATE	NO.	DATE
18	Rev. 2-6-57	M-106.6(d)	Rev. 4-1-58
B-119	Rev. 8-11-57	5	6-8-55
E-101	1-1-57	9	6-24-58
I-127	Rev. 11-16-57		
M-206.14	7-15-49		
I-125	Rev. 11-6-57		
B-219	8-2-57		
S-114	Rev. 8-1-57		

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

DIVISION ENGINEER _____ DATE _____

WARREN & MONTGOMERY COUNTIES
Date of Letting
Contract No.

WAR-25-(8.48)
MOT-25-(0.00)
1958

LOCATION PLAN

U.S. ROUTE NO. 25
WAR.-25-8.48
MOT.-25-0.00

WARREN & MONTGOMERY COUNTIES

FED. DIVISION	STATE	PROJECT	TYPE	NUMBER
2	OHIO			377

WAR.-25-8.48
MOT.-25-0.00

I-110(18)
BEGIN PROJECT
STA. 11+00

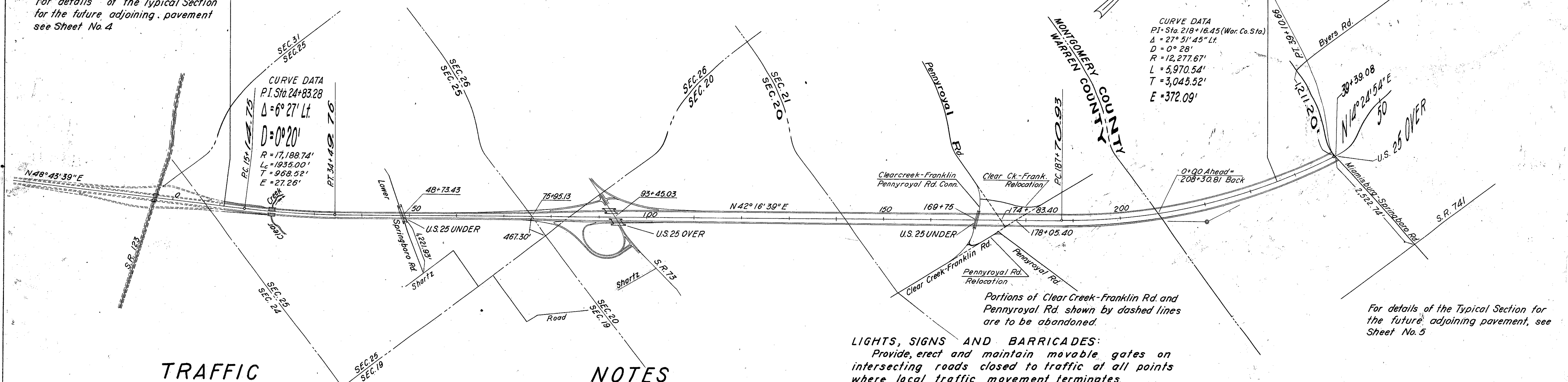
I-110(18)
END PROJECT
STA. 26+00

Markers will be furnished and erected on the right by the State before the acceptance of this improvement.

Markers will be furnished and erected on the left by the State before the acceptance of this improvement.



For details of the Typical Section for the future adjoining pavement see Sheet No. 4



TRAFFIC

NOTES

MAINTAINING LOCAL TRAFFIC
Local traffic shall be maintained at all time in accordance with Section G-4.05, and shall be understood to include maintaining access to adjacent property affected by any of the construction operations. Quantities of T-10, Traffic Compacted Surface Course and M-10 Chloride have been provided below for the maintenance of local traffic and for the maintenance of traffic on temporary lanes that may be required at the beginning and the end of the project, as well as at other locations that may be required.
Cost of the above, except for the furnishing and placing of the T-10, Traffic Compacted Surface Course, and M-10, Chloride, shall be included in the Lump Sum Price bid for Maintaining Traffic.

ESTIMATED QUANTITIES:
T-10 Traffic Compacted Surface Course 800 Cu.Yds.
M-10 Calcium Chloride 16 Tons

LOWER SPRINGBORO ROAD
Two-way traffic shall be maintained at all times at this location except during the time when Lower Springboro Road may be closed to traffic for a period not to exceed two hundred and ten (210) consecutive calendar days during the construction of the structure and grading and paving of the approaches.
S. R. 73
Two-way traffic shall be maintained on S.R. 73 at all times by means of a temporary run-around (Item S-15) constructed to line, grade and typical section as shown on sheet 3, S. R. 73 Interchange Run-Around Plan.
CLEARCREEK-FRANKLIN & PENNYROYAL RDS.
Two-way traffic shall be maintained over the present facilities at this location until after the completion of the structure and all possible grading outside the limits of the present roadways. The roads may then be closed to traffic for a period not to exceed ninety (90) consecutive calendar days during which time the remainder of the grading, the paving and draining shall be sufficiently completed that two-way traffic can be routed over the new work

LIGHTS, SIGNS AND BARRICADES:
Provide, erect and maintain movable gates on intersecting roads closed to traffic at all points where local traffic movement terminates.
Provide, erect, and maintain lights, signs, and barricades at the work limits on S. R. 73 and on Lower Springboro, Clearcreek-Franklin and Pennyroyal Roads.
Provide, erect, and maintain standard road closed signs, sign supports, and lights at the following locations during periods in which the affected roads are closed to through traffic:
1. Lower Springboro Road just west of Shartz Road.
2. Lower Springboro Road at east corporation line of Franklin.
3. Clearcreek - Franklin Road at north side of S.R. 73.
4. Clearcreek - Franklin Road at south side of Miamisburg - Springboro Road.
5. Pennyroyal Road; just east of first county road intersection west of the centerline of relocated U.S. 25; and just west of S.R. 741.
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 Std. Construction Drawing No. G-7.07. Standard "Road Closed" signs shall be 40" x 24" size. Payment for providing, erecting, maintaining, and removing barricades, lights, and signs is included in the lump sum bid for "Maintaining Traffic."

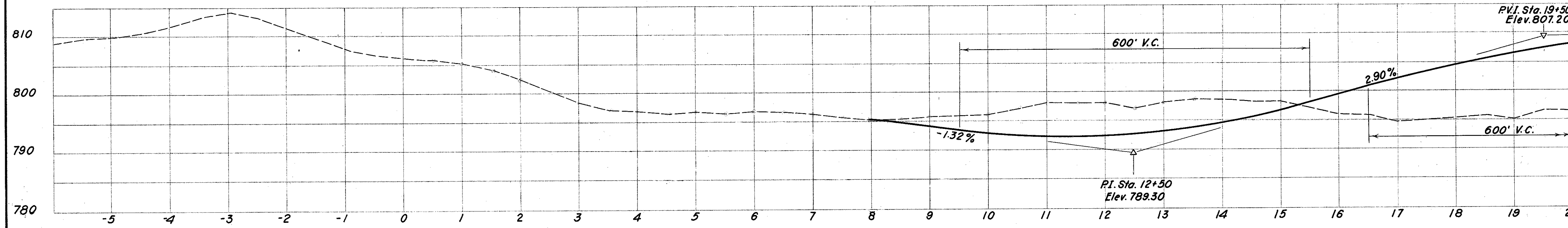
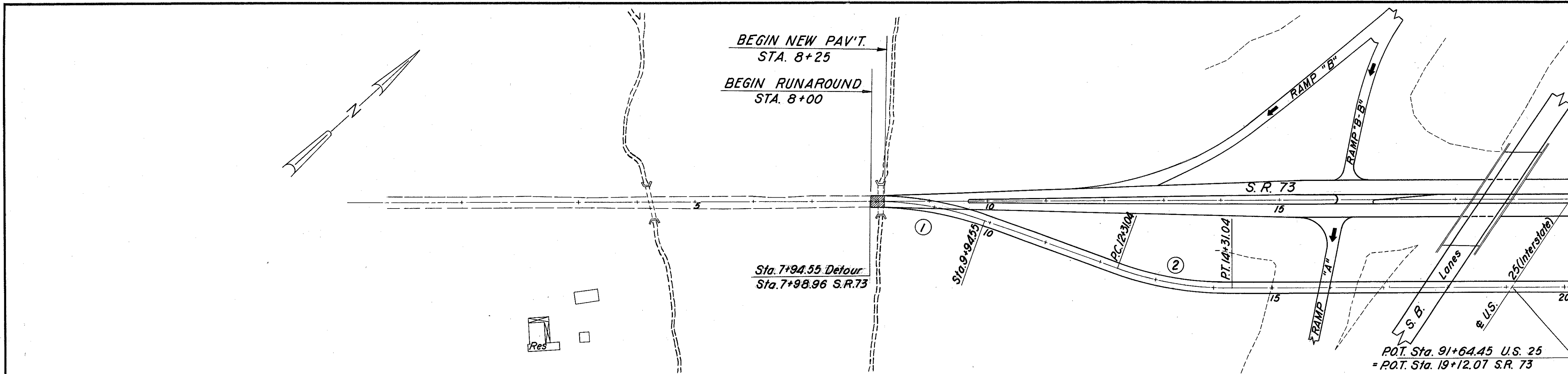
LINE DATA FOR APPROACHES

ROAD	Begin Work	End Work	Net Length of Work	Lin. Ft.
LOWER SPRINGBORO ROAD	Sta. 17+35	Sta. 27+70		1035.00
S. R. 73	Sta. 8+00	Sta. 40+74		3274.00
CLEARCREEK-FRANKLIN RD-PENNYROYAL RD CONNECTION	Sta. 2+75	Sta. 28+40		2565.00
CLEARCREEK-FRANKLIN RD RELOCATION	Sta. 0+09	Sta. 15+50		1541.00
PENNYROYAL ROAD RELOCATION	Sta. 0+09	Sta. 7+75		766.00
TOTAL LENGTH				9,181.00

Rev. 7-29-58

For details of the Typical Section for the future adjoining pavement, see Sheet No. 5

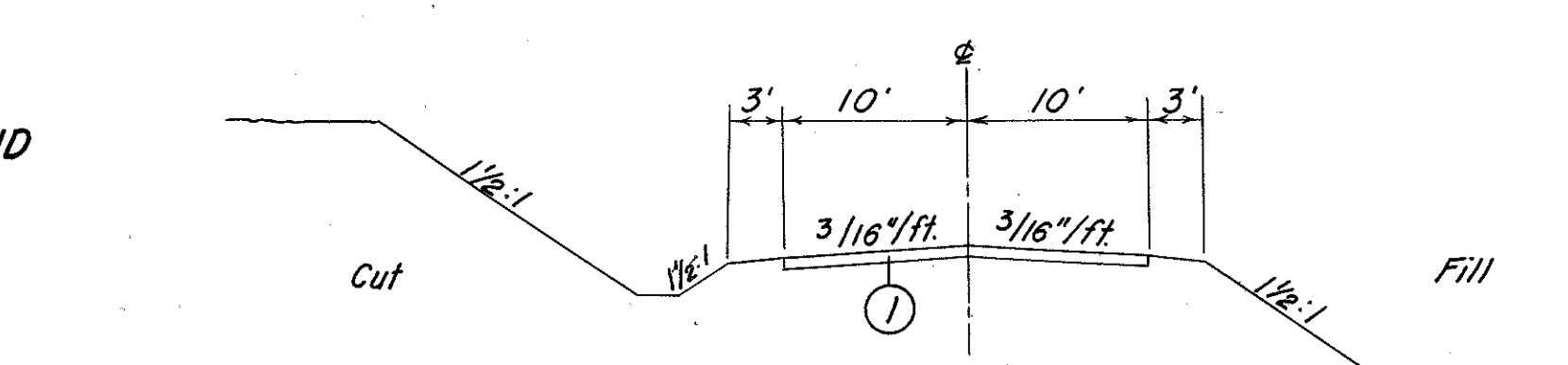
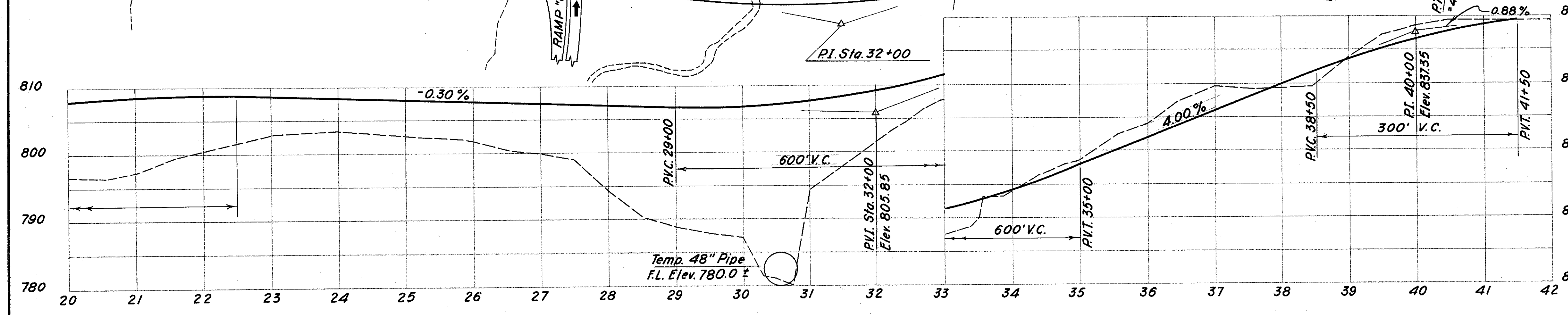
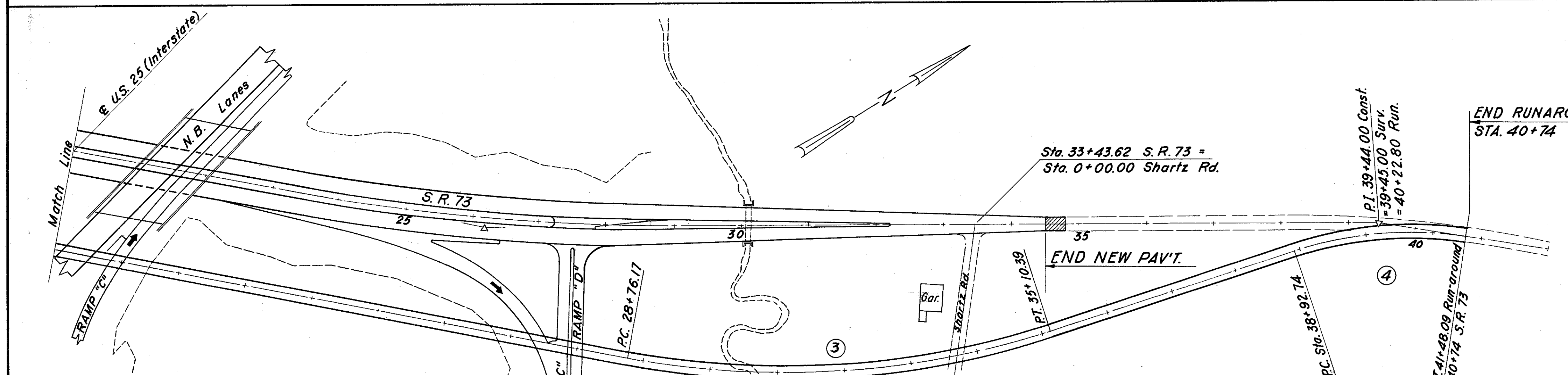
WAR-25-848
MOT-25-000



CURVE DATA

①
PI Sta. 8+91.40
Δ = 20°00'
D = 10°00'
R = 573'
T = 101.04'
Lc = 200'

②
PI Sta. 13+30
Δ = 10°00'
D = 10°00'
R = 573'
T = 101.04'
Lc = 200'



TYPICAL SECTION TEMPORARY RUN-AROUND

① Class A Pavement (Item S-15)

CURVE DATA

③
PI Sta. 32+00.00
Δ = 28°32'23"
D = 4°30'
R = 1273.24'
T = 323.83'
L = 634.22'

④
PI Sta. 40+22.80 (Detour)
Δ = 26°48'42"
D = 10°30'
R = 545.67'
T = 130.06'
L = 255.35'

ESTIMATED QUANTITIES:

Item S-15 Temporary Runaround Road, using Class "A" pavement, as per plan-Lump Sum

NOTE: Payment for construction, maintenance, and subsequent removal of temporary pipe drainage structures shown is included in the Lump-Sum bid for the Item S-15 Runaround.

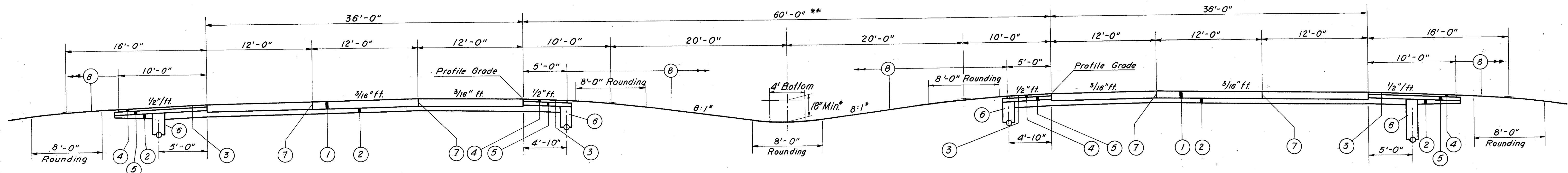
Scale: 1" = 100' horiz.; 1" = 10' vert.

TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		4 377

WAR-25-8.48
MOT-25-0.00



NORMAL SECTION

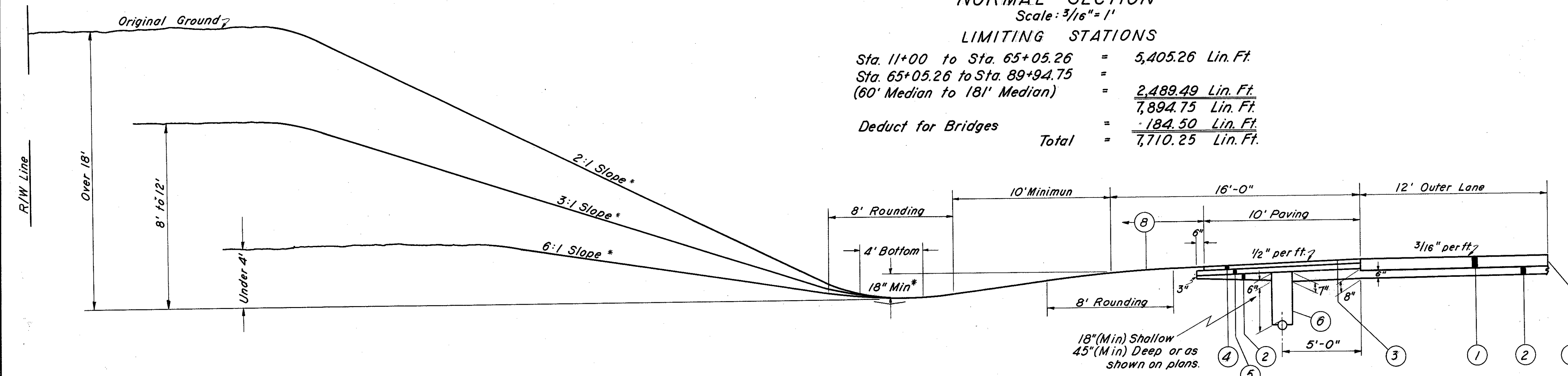
Scale: 3/16" = 1'

LIMITING STATIONS

Sta. 11+00 to Sta. 65+05.26	=	5,405.26 Lin. Ft.
Sta. 65+05.26 to Sta. 89+94.75	=	2,489.49 Lin. Ft.
(60' Median to 181' Median)	=	7,894.75 Lin. Ft.
Deduct for Bridges	=	-184.50 Lin. Ft.
Total	=	7,710.25 Lin. Ft.

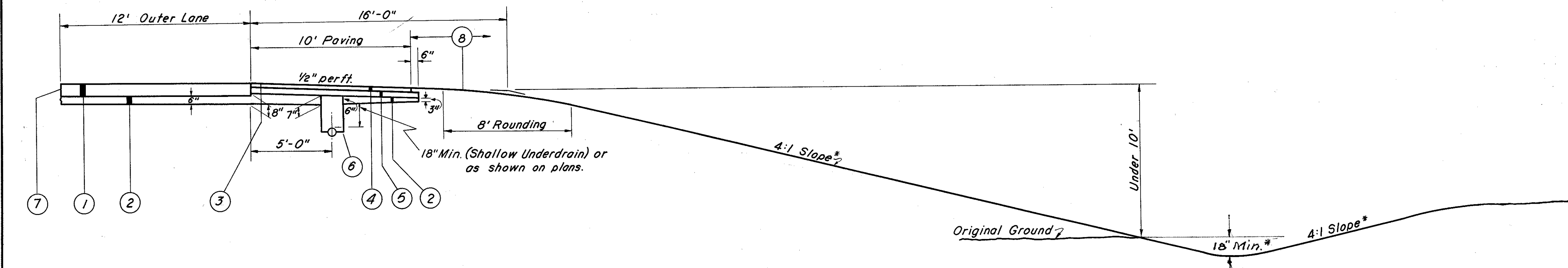
LEGEND

- ① T-71 10" Portland Cement Reinforced Concrete Pavement
- ② I-22 Subbase (Variable Depth, 3" Min. - 8" Max.)
- ③ T-31 Bituminous Surface Treatment. (See note in proposal)
- ④ B-219 3" Waterproofed Aggregate Base Course
- ⑤ I-18 5" Stabilized Crushed Aggregate Shoulders and Approaches
- ⑥ I-4 6" Pipe Underdrain.
- ⑦ Standard Longitudinal Joint.
- ⑧ L-9 Seeding and Protecting



SHOULDER & SLOPE TREATMENT-NORMAL CUT SECTION

Scale 1/4" = 1'-0"



NORMAL FILL SECTION FOR FILLS UNDER 10'

Scale 1/4" = 1'-0"

For fills 10' and over, see Sheet No. 5

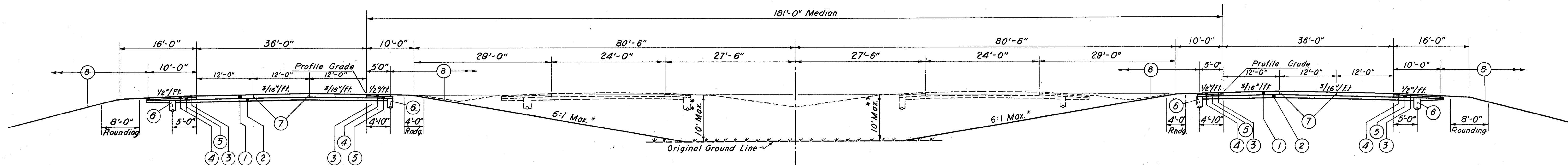
* Unless otherwise shown on the Cross-Sections.
**Varies from 60'-0" to 181'-0" through median transition

ADDITIONAL SUBBASE DEPTH
The subbase shall be increased by an additional twelve(12)inches over frost susceptible silts in the following areas:
Sta.43+00 to Sta. 49+00
An additional 990 cu.yds. of I-22, Subbase has been included in the Estimated Quantities for the increased depth.

WAR-25-8.48
MOT-25-0.00

TYPICAL SECTIONS

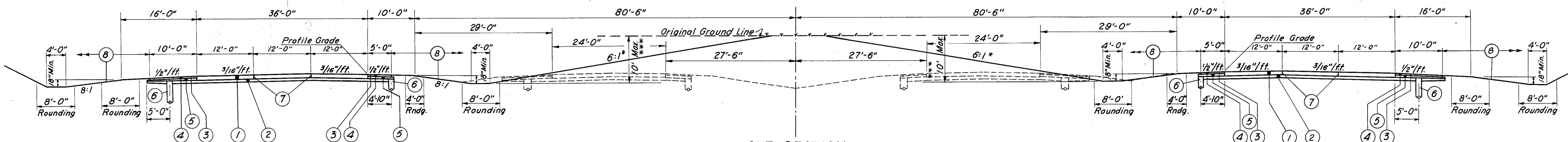
TYPE T-71



Note: Future Construction Shown by Dashed Lines

FILL SECTION

** Wherever the general elevation of the existing surface within the median area is not lower than ten (10) feet below edge of shoulder, the area between its intersections with fill slopes shall remain undisturbed except when as shown on the cross-sections it has been shaped to drain. Embankments shall be built so that the maximum depth of median at toe of slopes will not exceed ten (10) feet below the shoulder edge with the central median shaped to drain, all as shown on the cross-sections.



CUT SECTION

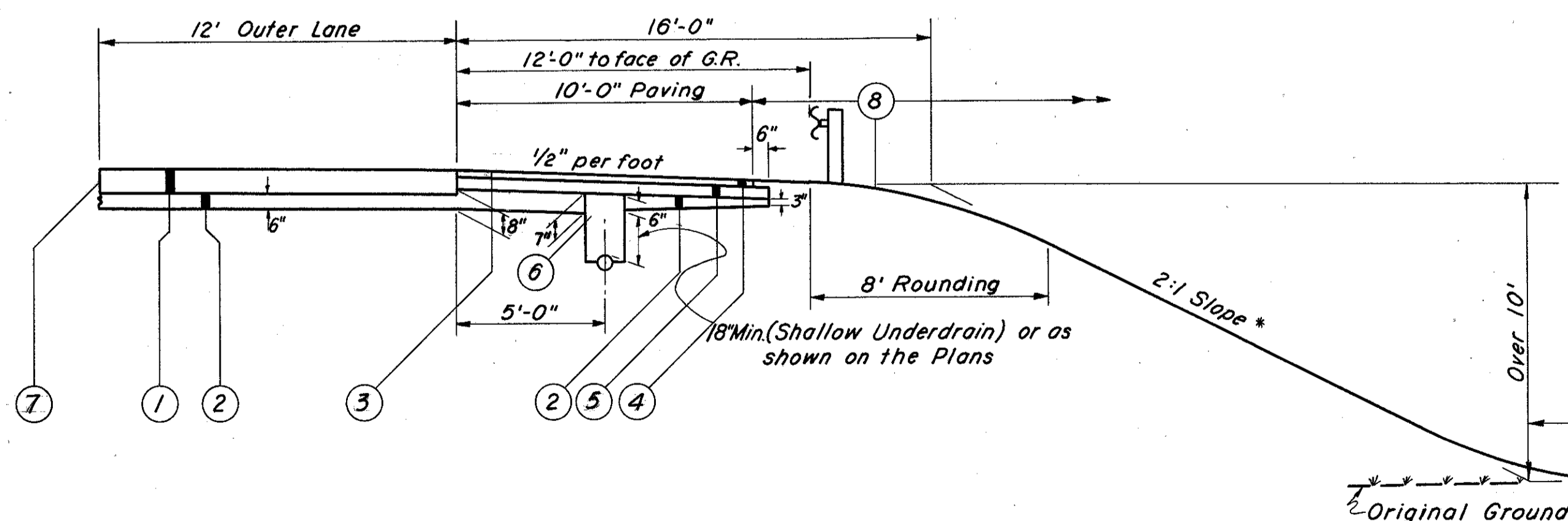
*** Wherever the general elevation of the existing surface within the median area is not higher than ten (10) feet above ditch flow line, the area between its intersection with backslopes shall remain undisturbed, except when as shown on the cross-sections, it has been shaped to drain. All existing material in the median area, lying more than ten (10) feet above ditch elevation shall be removed with the central median shaped to drain, all as shown on the cross-sections.

* Unless otherwise shown on the Cross-Sections

NORMAL SECTIONS
Scale: 1" = 10'

LIMITING STATIONS

Sta. 89+94.75 to Sta. 208+30.81 = 11,836.06 Lin. Ft.
Sta. 0+00 to Sta. 26+00 = 2,600.00 Lin. Ft.
14,436.06 Lin. Ft.
Deduct for Bridge = 253.42 Lin. Ft.
Total = 14,182.64 Lin. Ft.

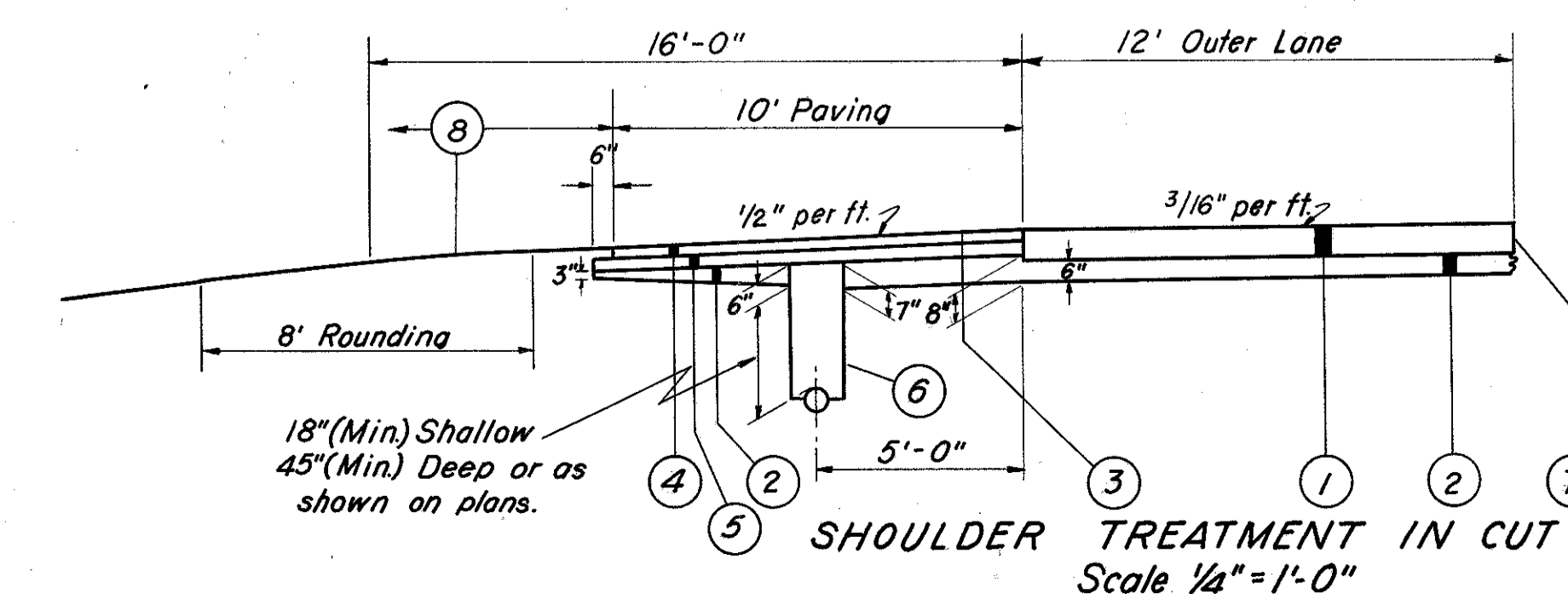


SHOULDER AND SLOPE TREATMENT FOR NORMAL SECTION FOR FILLS OVER 10'
Scale: 1/4" = 1'

For Shoulder and Slope Treatment of Normal Fill Sections of under 10', See Sheet No. 4

LEGEND

- ① T-71 10" Portland Cement Reinforced Concrete Pavement
- ② I-22 Subbase (Variable Depth, 3" Min, 8" Max)
- ③ T-31 Bituminous Surface Treatment (See note in proposal)
- ④ B-219 3" Waterproofed Aggregate Base Course
- ⑤ I-18 5" Stabilized Crushed Aggregate Shoulders and Approaches
- ⑥ I-4 6" Pipe Underdrain
- ⑦ Standard Longitudinal Joint
- ⑧ L-9 Seeding and Protecting



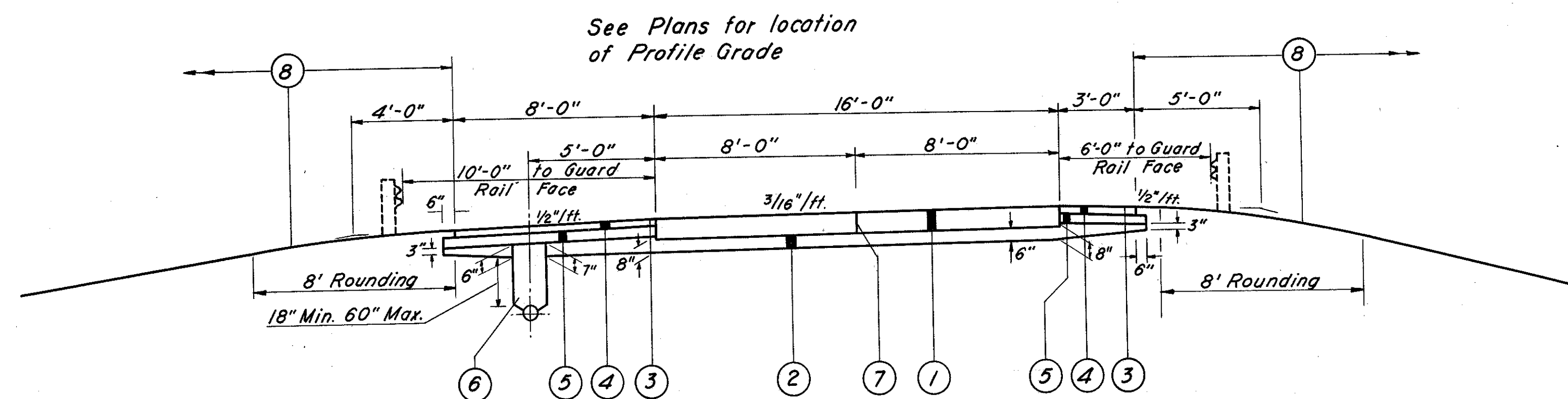
SHOULDER TREATMENT IN CUT
Scale 1/4" = 1'-0"

WAR.-25-8.48
MOT.-25-0.00

TYPICAL SECTIONS

TYPE T-71

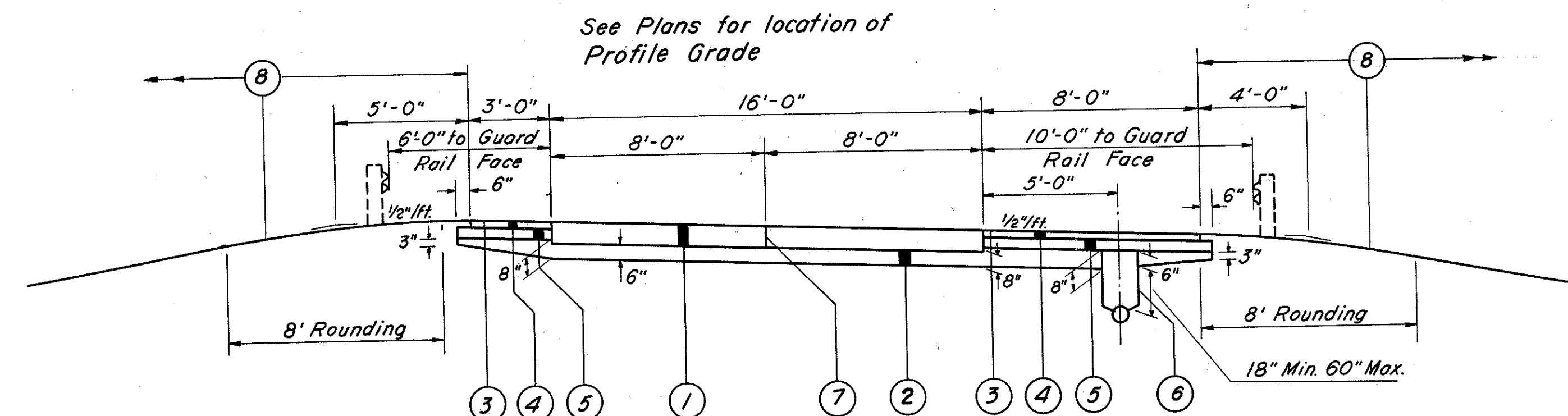
Scale: 1/4" = 1'-0"



S.R. 73 INTERCHANGE
RAMP A-B

NORMAL SECTION
LIMITING STATIONS

RAMP A	Sta. 7+12.29	to Sta. 8+59.73	= 147.44	Lin. Ft.
RAMP B	Sta. 4+31.92	to Sta. 5+49.50	= 117.58	"
	Sta. 7+77.59	to Sta. 9+46.67	= 169.08	"
		Total	= 434.10	"



S.R. 73 INTERCHANGE
RAMP C-D

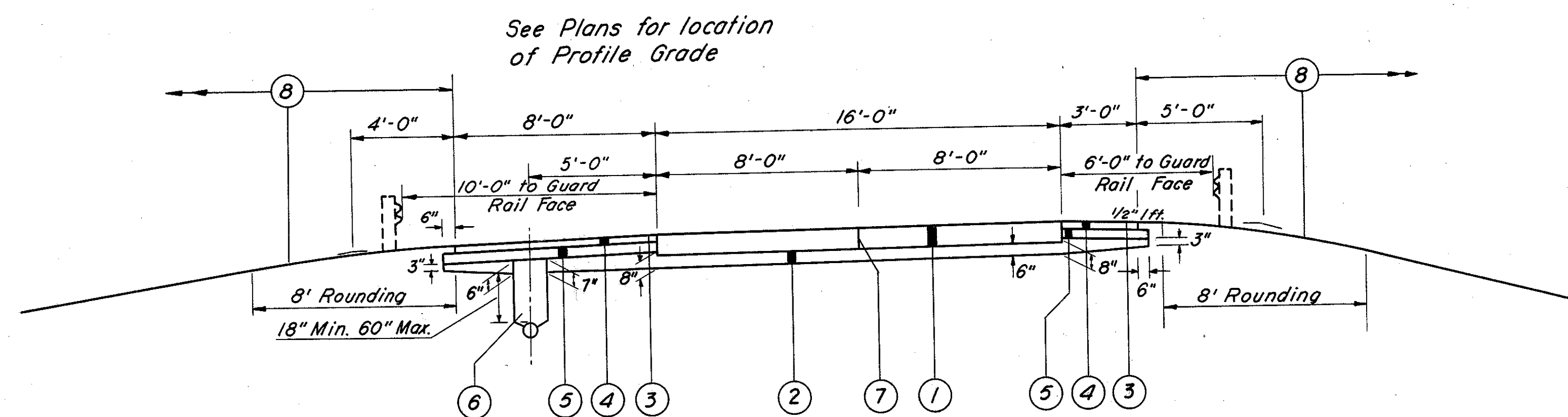
SUPERELEVATED SECTION
LIMITING STATIONS

RAMP C	Sta. 4+59	to Sta. 5+44.40	= 85.40	Lin. Ft.
	Sta. 12+38.50	to Sta. 16+17.14	= 378.64	"
RAMP D	Sta. 5+53.07	to Sta. 13+45.00	= 791.93	"
		Total	= 1,255.97	"

Note: See Typical Sections on Sheet 4&5 for slope treatment criteria.

LEGEND

- ① T-71 10" Reinforced Portland Cement Concrete Pavement
- ② I-22 Subbase (Variable Depth, 3" Min. - 8" Max.)
- ③ T-31 Bituminous Surface Treatment (See note in proposal)
- ④ B-219 3" Waterproofed Aggregate Base Course
- ⑤ I-18 5" Stabilized Crushed Aggregate Shoulders
- ⑥ I-4 6" Pipe Underdrain
- ⑦ Standard Longitudinal Joint
- ⑧ L-9 Seeding and Protecting



S.R. 73 INTERCHANGE
RAMPS A-B-BB

SUPERELEVATED SECTION
LIMITING STATIONS

RAMP A	Sta. 4+50	to Sta. 7+12.29	= 262.29	Lin. Ft.
RAMP B	Sta. 2+25	to Sta. 4+31.92	= 206.92	"
	Sta. 9+46.67	to Sta. 15+46.6	= 600.00	"
RAMP B-B	Sta. 3+51.52	to Sta. 5+50.20	= 198.68	"
		Totals	= 1,267.89	"

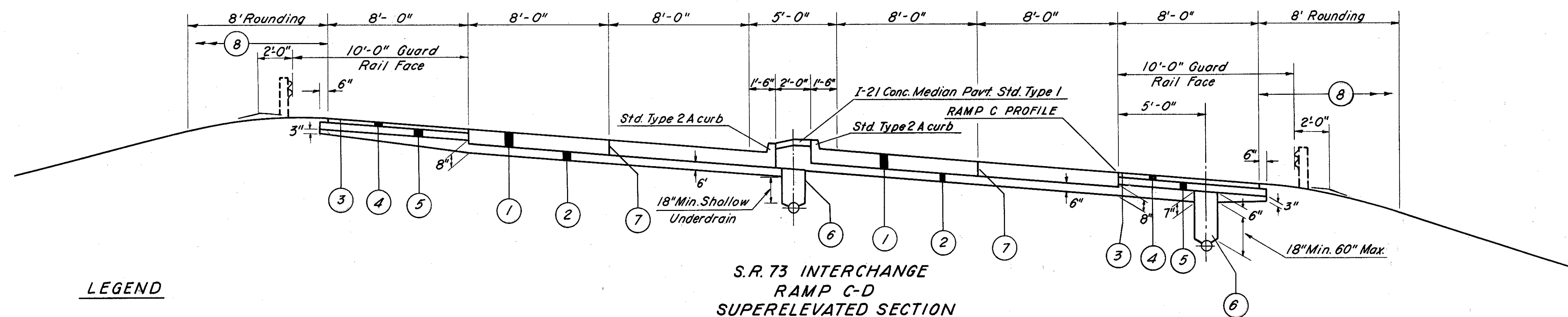
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

7
377

WAR.-25-8.48
MOT.-25-0.00

TYPICAL SECTIONS

TYPE T-71
Scale: 1/4" = 1'-0"



LEGEND

- ① T-71 10" Reinforced Portland Cement Concrete Pavement
- ② I-22 Subbase (Variable Depth, 3" Min. 8" Max.)
- ③ T-31 Bituminous Surface Treatment (See note in proposal)
- ④ B-219 3" Waterproofed Aggregate Base Course
- ⑤ I-18 5" Stabilized Crushed Aggregate Shoulders
- ⑥ I-4 6" Pipe Underdrain
- ⑦ Standard Longitudinal Joint
- ⑧ L-9 Seeding and Protecting

S.R. 73 INTERCHANGE
RAMP C-D
SUPERELEVATED SECTION
LIMITING STATIONS

Sta. 7+42.33 to Sta. 10+60.23 = 317.90 Lin. Ft.
Sta. 20+64.75 to Sta. 21+47.49 = 82.74 Lin. Ft.
Total 400.64 " "

Note: See Typical Sections on Sheets 4 & 5 for slope treatment criteria

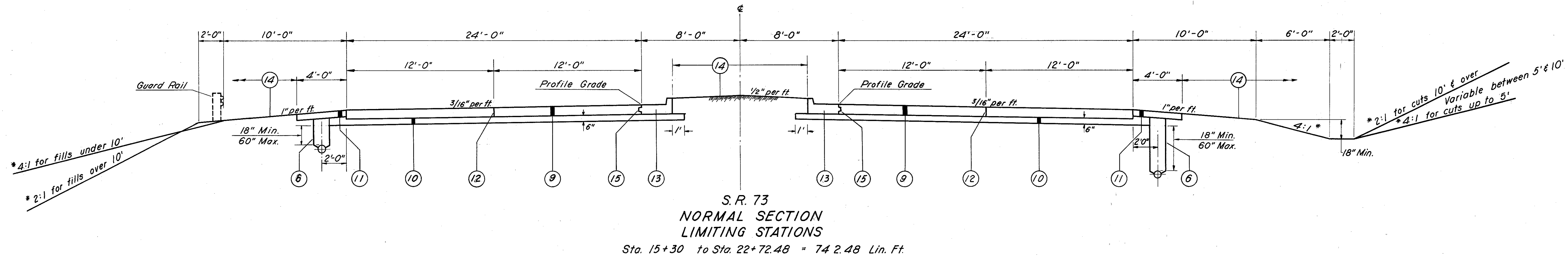
TYPICAL SECTIONS

TYPE T-71
Scale: 1/4"=1'-0"

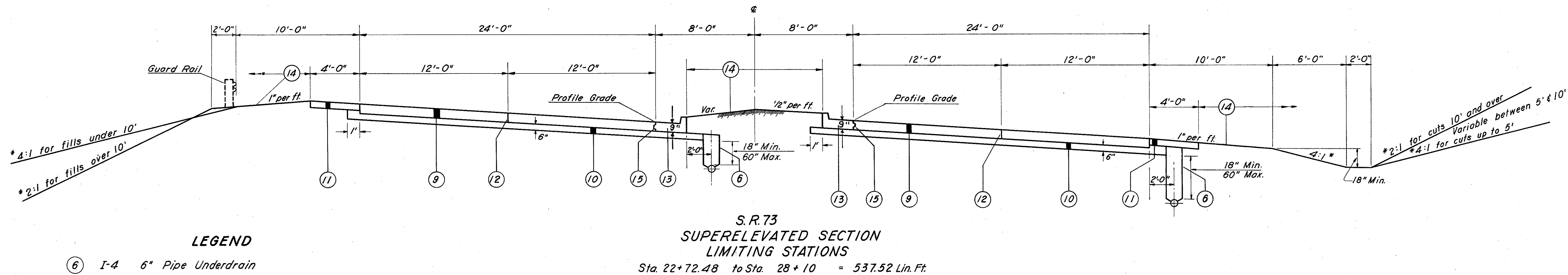
FED. RD. DIVISION	STATE	PROJECT	TYPE FUND
2	OHIO		

8
377

WAR-25-8.48
MOT-25-0.00



*Unless otherwise shown on the Cross-Sections



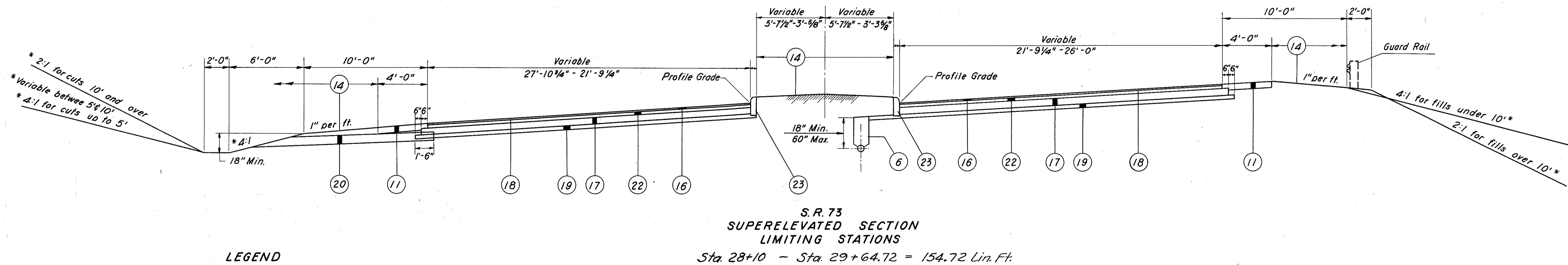
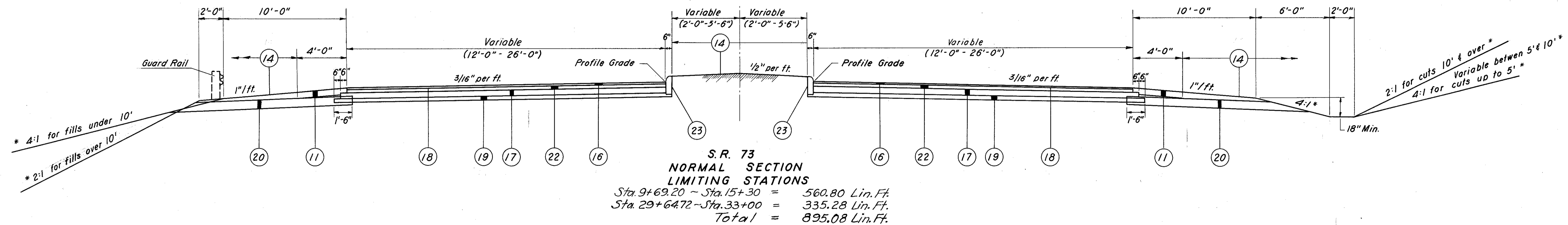
LEGEND

- ⑥ I-4 6" Pipe Underdrain
- ⑨ T-71 - 9" Reinforced Portland Cement Concrete Pavement
- ⑩ I-22 Subbase (Variable Depth, 6" Min. 9" Max.)
- ⑪ I-18 6" Stabilized Crushed Aggregate Shoulders (See note in proposal for additional stabilization with calcium chloride in upper 3 inches of this item)
- ⑫ Standard Longitudinal Joint
- ⑬ I-12 Standard Type 2 Combination Curb and Gutter
- ⑭ L-9 Seeding and Protecting
- ⑮ Standard Longitudinal Key Joint

WAR.-25-8.48
MOT.-25-0.00

TYPICAL SECTIONS

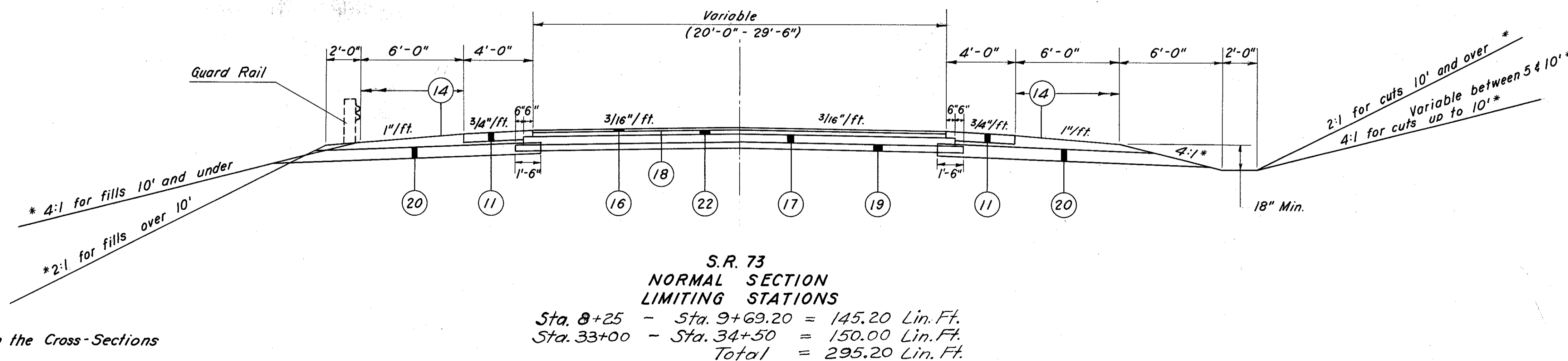
TYPE-T-35
Scale: 1/4"=1'-0"



LEGEND

- ⑥ I - 4 6" Pipe Underdrain
- ⑪ I - 18 Stabilized Crushed Aggregate Shoulders (See Note in proposal for additional Stabilization with Calcium Chloride in upper 3 inches of this Item)
- ⑭ L - 9 Seeding and Protecting
- ⑯ T - 35 1 1/2" Asphaltic Concrete Surface Course Type A (85-100)
- ⑰ B - 119 Crushed Aggregate Base Course
- ⑱ T - 30 Bituminous Prime Coat Sec. M-5.7, RT-2 or Sec. M-5.3, MC-0 or MC-1
- ⑲ I - 22 4" Subbase
- ⑳ I - 9 Stone Underdrain No. 2 Staggered at 50' intervals or as directed by the Engineer
- ㉒ B - 35 3" Asphaltic Concrete Leveling Course
- ㉓ I - 12 Standard Type 6 Curb.

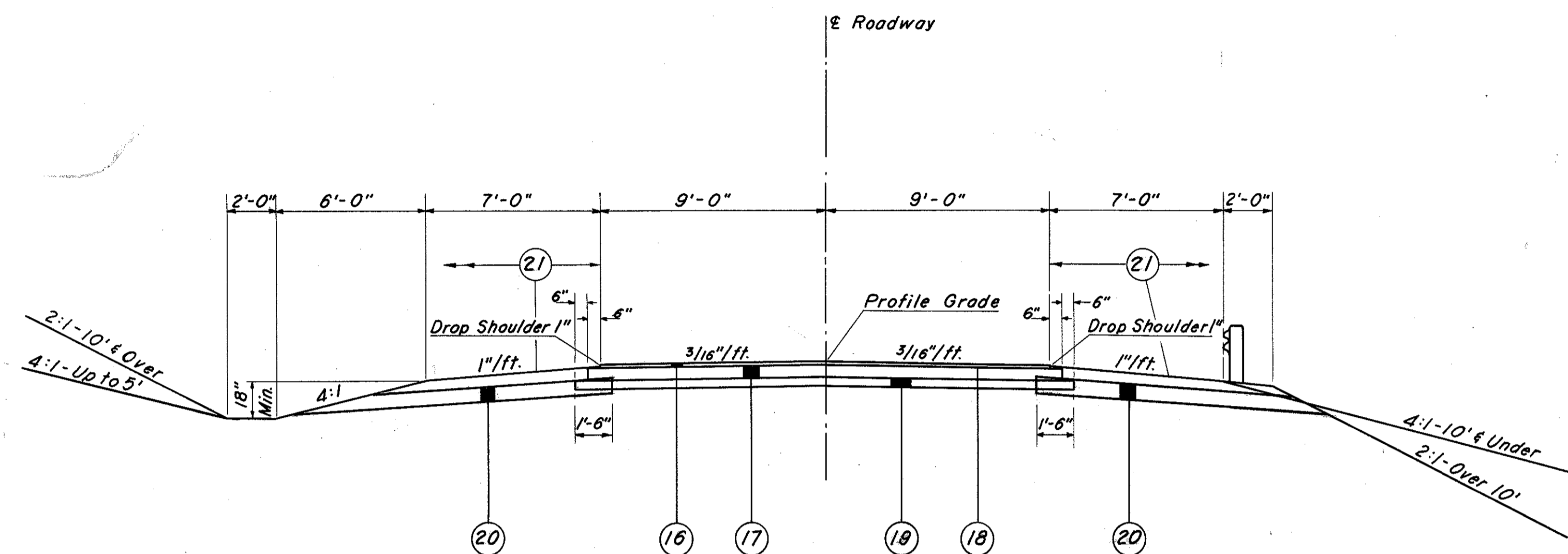
* Unless otherwise shown on the Cross-Sections



TYPICAL SECTIONS

TYPE T-35

Scale 1/4"=1'-0"

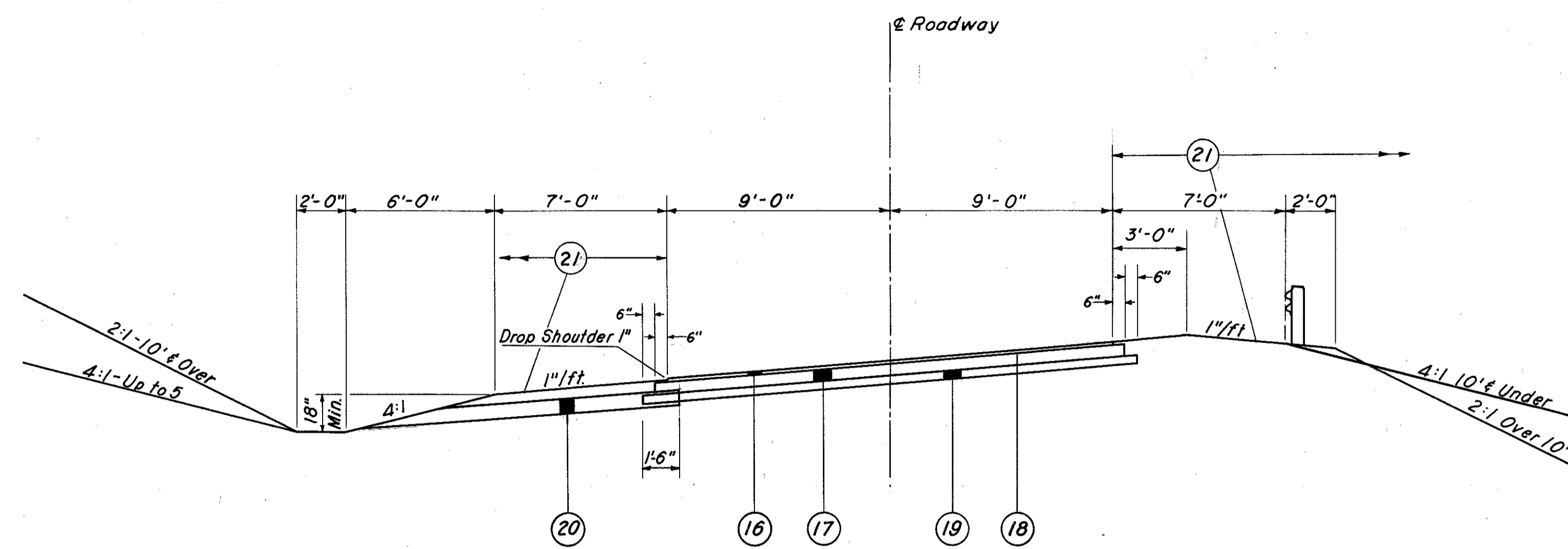


NORMAL SECTION

LIMITING STATIONS

LOWER SPRINGBORO ROAD
Sta. 17+60 to Sta. 23+19.04 = 559.04 Lin. Ft.
Deduct for bridge = 346.74 " "
Total = 212.30 " "

CLEAR CREEK - FRANKLIN ROAD - PENNYROYAL ROAD CONNECTION
Sta. 3+80.00 to Sta. 9+28.00 = 548.00 Lin. Ft.
Sta. 22+25.83 to Sta. 22+83.73 = 57.90 Lin. Ft.
Sta. 27+95.29 to Sta. 28+20.00 = 24.71 Lin. Ft.
630.61 Lin. Ft.



SUPERELEVATED SECTION

LIMITING STATIONS

LOWER SPRINGBORO ROAD
Sta. 23+19.04 to Sta. 27+00 = 380.96 Lin. Ft.

CLEAR CREEK - FRANKLIN ROAD - PENNYROYAL ROAD CONNECTION
Sta. 9+28.00 to Sta. 17+74.17 = 846.17 Lin. Ft.
Sta. 22+83.73 to Sta. 27+95.29 = 511.56 Lin. Ft.
Totals 1357.73 Lin. Ft.

LEGEND

- ①6 T-35 1 1/2" Asphaltic Concrete Surface Course Type A (85-100)
- ①7 B-119 6" Crushed Aggregate Base Course
- ①8 T-30 Bituminous Prime Coat - Sec. M-5.7, RT2 or RT3 or Sec. M-5.3, MC-0 or MC-1.
- ①9 I-22 4" Subbase
- ①0 I-9 Stone Underdrain No.2 staggered at 50' intervals or as directed by the Engineer
- ①1 L-9 Seeding and Protecting

TYPICAL SECTIONS

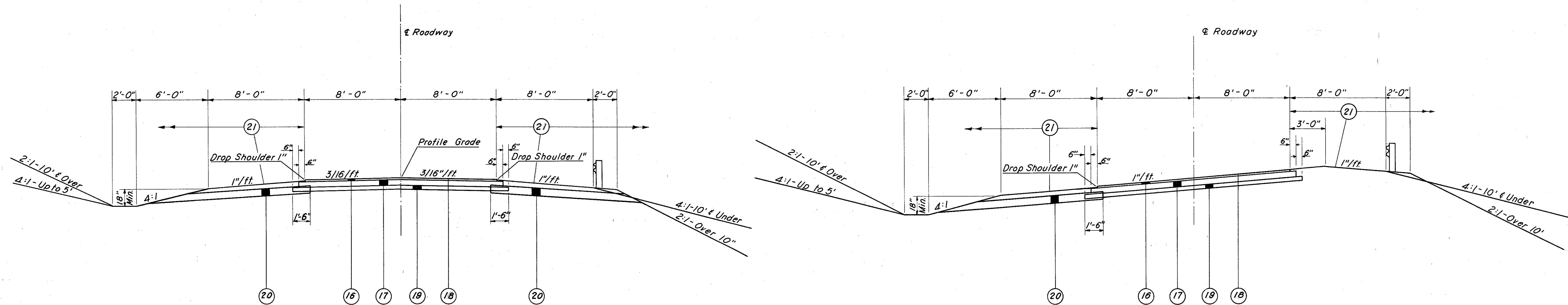
TYPE T-35

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

FED. RD. DIVISION	STATE	PROJECT	TYPE FUND
2	OHIO		



WAR.-25-848
MOT.-25-0.00



NORMAL SECTION
LIMITING STATIONS

CLEAR CREEK - FRANKLIN ROAD RELOCATION
Sta. 2+87.47 to Sta. 7+15.85 = 428.38 Lin. Ft.

PENNYROYAL ROAD RELOCATION
Sta. 3+47.63 to Sta. 4+17.08 = 69.45 Lin. Ft.

SUPERELEVATED SECTION
LIMITING STATIONS

CLEAR CREEK - FRANKLIN ROAD RELOCATION
Sta. 0+56.83 to Sta. 2+87.47 = 230.64 Lin. Ft.
Sta. 7+15.85 to Sta. 15+05 = 789.15 Lin. Ft.
Totals = 1019.79 Lin. Ft.

PENNYROYAL ROAD RELOCATION
Sta. 0+69.00 to Sta. 3+47.63 = 278.63 Lin. Ft.
Sta. 4+17.08 to Sta. 7+50.00 = 332.92 Lin. Ft.
Totals = 611.55 Lin. Ft.

LEGEND

- (16) T-35 1 1/2" Asphaltic Concrete Surface Course Type A (85-100)
- (17) B-119 6" Crushed Aggregate Base Course
- (18) T-30 Bituminous Prime Coat Sec. M-5.7, R.T-2 or R.T-3 or Sec. M-5.3, MC-0 or MC-1.
- (19) I-22 4" Subbase
- (20) I-9 Stone Underdrain No. 2 staggered at 50' intervals or as directed by the Engineer
- (21) L-9 Seeding and Protecting

GENERAL

NOTES

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, Item E-101.

FIELD OFFICE

The contractor shall provide a suitable Field Office for the exclusive use of the State Employees in accordance with Sec. S-0.01(b), having a minimum of 500 square feet of floor space. The contractor shall have a telephone installed and maintained in the Field Office during the construction of this project. Contractor shall also install wiring and outlets suitable for connecting to office equipment, and provide 110 volt alternating current during the construction of this project.

DESIGN SPEED:

The geometrics for this project have been planned for a design speed of 70 miles per hour.

UTILITIES:

The Contractor shall notify at least 48 hours before breaking ground all Public Service Corporations having wire, poles, pipes, 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.

ROUNDING OF CORNER ON CROSS-SECTIONS:

The rounded corners, shown on Standard Drawing RI-1, apply to all cross-sections even though otherwise shown in these plans.

R/W MONUMENTS, FEDERAL PROJECT MARKERS AND SECTION MARKERS:

Existing R/W MONUMENTS, Bench Marks, Federal Project Markers that will be removed by construction, shall be protected by the Contractor as per Section G-7.09 until they can be witnessed, referenced and reset by the Construction Crew.

ELEVATIONS DATUM:

All elevations are based on U.S.G.S. datum

LOCATION AND SIZE OF PIPES

The location, type, depth and size of all existing

pipes are shown as near exact as the available information will permit. The State will not be responsible for any variations found during construction.

UNDERGROUND UTILITIES:

The location of the underground utilities shown on the plans has 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.

REMOVAL OF TREES AND STUMPS:

All trees and stumps lying within the construction limits of this project shall be removed under the Lump Sum Bid for Removal of Trees and Stumps, Item E-9, unless work is indicated in these plans to preserve same.

The following is an approximate estimate of the number of trees and stumps to be removed:

Sizes	No. Trees	No. Stumps
12" - 18"	604	
18" - 24"	188	2
24" - 30"	46	
30" - 36"	6	1
Over 48"	0	

The above estimate is only 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 Right-of-Way lines. Payment for the removal of these additional trees or stumps is included for payment in the Lump Sum Bid under Item E-9, Removal of Trees and Stumps.

Any trees to be preserved within the construction limits will be conspicuously marked by the Division Landscape Architect. Before any trees are removed the Contractor shall notify the Project Engineer so that trees to be preserved will be marked.

REPLACEMENT:

The Contractor shall replace at his own expense any item not specifically listed for removal that is damaged or destroyed by his operations.

SPECIAL DITCHES:

For special ditch grades, see Cross-Sections.

TILE FOR SUBGRADE DRAINAGE:

6" Drain Tile Section M-6.7 (b) shall be furnished and placed by the contractor, in manholes, catch basins and inlets for each subgrade drain, where, and as directed by the Engineer. Payment for same shall be included in the price bid per each for manholes, catch basins and inlets.

PIPE CULVERT:

When bell and spigot pipe is used, any necessary pipe cut-off 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 a Class E Concrete collar 12" larger than the outside diameter and 12" in length. The cost of the Joint and collar shall be included in the Contract Unit price bid for the pertinent pipe item. See sheet 272 for detail.

REMOVAL OF EXISTING HOUSE DRAINS:

The removal of all existing house connections, which includes sanitary, yards, roof, basement or other similar pipe drains within the roadway construction limits shall be classified and paid for as Roadway Excavation, Item E-101, unless otherwise itemized for payment in the plans.

STONE UNDERDRAIN NO. 2:

Stone Underdrains No.2 have been estimated for cross-road drainage at 50 feet intervals on each side where I-4 drainage is not provided. They shall be placed not over 50 feet apart. This quantity is to be used in its entirety.

PLUGGING PIPE ENDS:

The upstream ends of pipe lines or tile lines intercepted by earthwork operations 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, precast clay or concrete stopper. Payment for the above work shall be included in the price bid for Roadway Excavation, Item E-101.

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, Item E-101. 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 at the disposal of the State.

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. Heavy equipment shall not be operated over any completed layer of embankment, compacted sub-grade or sub-base, such operation tends to destroy the soil structure or pipe underdrains; 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.

EXCAVATION FOR ITEM B-119:

Excavation for B-119 Material used on Side Road Approaches, Mail Box Turnouts and Drives has been included in Earthwork Quantities when same is in "Cut". Where side approaches, mail box turnouts and drives are in "Fill", excavation for B-119 material shall be made by the contractor at his own expense if he builds the embankment up to finish grade before placing the B-119 material.

EXISTING WATER WELLS:

Dug wells encountered within the work limits shall be filled with rock or granular material. Drilled well casing shall be removed to an elevation approximately three feet below finished grade and covered with a pre-cast concrete slab or a large rock. Prior to construction of embankment, the contractor shall remove any masonry surrounding a well, within three feet of finished grade. Pumps, and other appurtenances shall become the property of the contractor and shall be disposed of by him. The cost of filling or capping of wells shall be included in the unit price bid per cubic yard of Roadway Excavation, Item E-101, for payment.

PART WIDTH CONSTRUCTION:

Because of the necessity of building certain cross roads 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-119 and I-22 courses.

This shall be accomplished by building the B-119 and I-22 courses, placed with the first portion of the pavement built, at least 18" beyond the centerline and by surfacing no closer than 18" to this edge of the above courses. When the second portion of the pavement is built, at least twelve inches (12") 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. Payment for this operation shall be included in the unit prices bid for the pertinent pavement items.

EXISTING FLEXIBLE PAVEMENT:

Within the limits of construction where the existing flexible pavement will have less than six inches (6") 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 plane of separation between it and the embankment placed thereon. Outside the limits of construction the existing flexible pavement shall be thoroughly scarified, mixed with sufficient soil and shaped to fill the surrounding terrain in such a manner as to insure the growth of seed planted thereon. Payment for all the above shall be included in the unit price bid for Roadway Excavation, Item E-101.

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2	OHIO	

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WAR-25-8.48
MOT-25-0.00

GENERAL NOTES

EXISTING SANITARY DRAINS OR SEWERS:

Sanitary drains or sewers, which include leaching bed outlets, cellar drains, sink drains or polluted water of any kind, shall not be connected to the highway drainage system, either pipes or ditches. Any such drains encountered shall be plugged with Class "E" concrete at the Right-of-Way line. Payment for plugging shall be included in the unit price bid for Item E-101 Roadway Excavation.

NON-RIGID PAVEMENT REMOVAL:

The removal of non-rigid pavement is to be paid for under Item E-101, Roadway Excavation.

SUBGRADE COMPACTION FOR DRIVES AND M. B. TURNOUTS WITH B-119 OR T-70:

The subgrade under B-119 or T-70 material used on Drives and Mail Box Turnouts shall be compacted for a depth of six (6") inches to the density requirements of Table III in Item E-101. Payment for Subgrade compaction as specified above, shall be included in the unit price bid for Item E-101, Roadway Excavation.

SUBGRADE COMPACTION 12" IN DEPTH:

The area of compacted subgrade to be paid for includes the main pavements, B-219 paved shoulders, and hard-surfaced crossroad pavements.

L-9 COMMERCIAL FERTILIZER:

All areas to be seeded under Item L-9, or sodded under Item L-10, shall have commercial fertilizer 12-12-12, applied at the rate of twenty (20) pounds per 1,000 sq. ft.

SEEDING AND PROTECTING (SR 73)

Quantities for Seeding Item L-9 are calculated for the soil areas between lines ten (10) feet outside the work limits as shown on the Cross-Sections or to the Right-of-Way line if such line is less than ten (10) feet from the work limits, and for all areas surrounded by Ramps or proposed pavement.

Seed shall be sown at the rate of three (3) pounds per 1,000 sq. ft. except as otherwise noted in plans. Seeding formula for all seeded areas shall be in accordance with the following:

- 30% Kentucky Bluegrass (*Poa pratensis*)
- 60% Kentucky 31 Fescue (*Festuca elatior* var. Ky. 31)
- 10% Red Clover (*Trifolium pratense*)

SEEDING AND PROTECTING ROADWAY AREAS

Lower Springboro, Clearcreek-Franklin & Pennyroyal Roads
Quantities for seeding are calculated for the soil areas within the work limits as shown on the cross-section and payment shall not be made for seeding beyond these limits. Seed shall be sown at the rate of three (3) pounds per 1,000 sq. ft. except as otherwise noted in plans. Seeding formula for all seeded areas shall be in accordance with the following:

- 30% Kentucky Bluegrass (*Poa pratensis*)
- 60% Kentucky 31 Fescue (*Festuca elatior* var. Ky. 31)
- 10% Red Clover (*Trifolium pratense*)

SEEDING AND PROTECTING-(INTERSTATE - US 25)

Quantities for Seeding Item L-9 are calculated for the soil areas between the Right-of-Way lines and for the soil areas of any work limits that are beyond the Right-of-Way lines. Seed shall be sown at the rate of three (3) pounds per 1,000 sq. ft. except as otherwise noted in plans. Seeding formula for all seeded areas shall be in accordance with the following:

- 30% Kentucky Bluegrass (*Poa pratensis*)
- 60% Kentucky 31 Fescue (*Festuca elatior* var. Ky. 31)
- 10% Red Clover (*Trifolium pratense*)

ITEM I-15

GUARD RAIL REMOVED AND STORED, AS PER PLAN

This item shall include storage only of the rail elements and incidental hardware. The posts shall become the property of the contractor and be disposed of by him.

AGRICULTURAL LIMING MATERIALS:

The location and need for agricultural liming materials will be determined by Laboratory tests after rough grading operations have been performed. Quantities of agricultural liming materials as shown on the plans are sufficient for the entire project, but will be non-performed for the areas where tests show that the liming material is not needed. Where used this material shall be applied at the rate of 100 lbs. per 1,000 sq. ft.

ITEM L-10 SODDING, I-10 RIPRAP AND I-14 PAVED GUTTER:

These items are provided on the plans for erosion control. The Engineer shall check and make adjustments in the location and quantities for these items where indicated by field conditions during construction. Should rock of a stable nature be encountered at flow line of any of these items, they may be non-performed.

FLARING GUARD RAIL AT BRIDGES

Guard Rail shall be flared to meet the bridge railing in such a manner that the change in alignment of the Guard Rail shall not exceed 1:10.

GUARD RAIL POST ANCHORS:

At locations where pier footings interfere with installation of full length guard rail posts, short posts shall be provided and shall be anchored in accordance with the detail shown elsewhere in the plans.

Cost of providing and installing necessary anchors shall be included in the unit price bid per lineal foot for guard rail.

GUARD RAIL PARAPET ANCHOR:

Cost of providing and installing anchor for connecting deep steel beam guard rail to bridge parapet is included in the bridge quantities for payment. Contractor shall provide one (1) additional guard rail post in the center of the first panel of deep steel beam guard rail where anchored to the parapet, cost of which shall be included in the unit price bid per lineal foot of guard rail.

DRAINAGE OF SUBBASE MATERIAL:

Where the subbase material is drained by I-9 Stone Underdrain or by extensions 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 subbase material.

The actual area of the outcrop of the subbase material or I-9 Underdrain shall not be seeded.

CONNECTION TO EXISTING SEWERS

At places where the plans provide for proposed drainage pipe to be connected to existing pipes, it shall be responsibility of the Contractor to locate the existing both as to line and grade before he starts to lay the proposed sewer. The cost of this operation shall be included in the unit price bid for the pertinent Pipe Item.

CENTERLINE REFERENCE MONUMENTS:

Monuments shall be constructed of class "C" concrete-cast-in-place in a circular hole eight (8") inches in diameter and forty-four (44") inches in depth. Top of concrete shall be finished at a depth of two (2") inches below ground level and the upper six (6") inch portion of the concrete shall be formed. One-half (1/2") inch Brass Rods six (6") inches long shall be embedded in the wet concrete as directed by the Engineer to mark the Centerline and Station. For location, see Sheet No. 19.

RIGHT-OF-WAY FENCE:

Fence shall be Type A. For location, see Right-of-Way Plans.

SODDING AT CATCH BASINS

Sodding at Standard No. 4 Catch Basins shall be performed as shown on Std. Drawing I-8 C.B. No. 4. The quantities of sod have been included in the roadway quantities for payment.

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.

CHANNEL EXCAVATION

Where channel excavation is carried through a proposed pipe structure site, additional excavation required to obtain a stable foundation for the structure shall be measured and paid for as Item E-3, Channel Excavation.

EXPANSION AND CONTRACTION JOINTS

Although specific locations of certain expansion and contraction joints have been detailed on this plan, no waiver of the specifications is intended and the maximum distance between contraction joints and the location of expansion joints shall in all cases be in accordance with Standard Drawing T. J.

GENERAL SUMMARY

WAR.-25-8.48
MOT.-25-0.00

ITEM NO.	SHEET NUMBERS																								CALCULATIONS	TYPE CODE 7221			DESCRIPTION					
	3	2	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		40	41	42		43	ITEM NO.	GRAND TOTALS	UNIT	
																																ROADWAY		
E-101					1,262,763																									E-101	1,262,763	cu.yds.	roadway excavation, as per plan	
E-101																														304,194	E-101	304,194	sq.yds.	compacted subgrade
E-4					16,134																										E-4	16,134	cu.yds.	borrow
E-9																														lump	E-9	lump	lump	removal of trees and stumps
E-11					6,017																										E-11	6,017	Mgals.	water
E-12			328																												E-12	328	lin.ft.	pipe removed, 15" and under
E-12			25																												E-12	25	lin.ft.	pipe removed, over 15"
I-8				102																											I-8	102	each	centerline reference monuments, as per plan.
I-15			8412 1/2																												I-15	8412 1/2	lin.ft.	guard rail, steel beam standard type (deep) as per standard drawing I-15 No. 2-A.
I-15						2125	1225		425	475	400	950	771.5	1553.5	1500				300	300	300	200		150						I-15	10,675	lin.ft.	guard rail, steel beam standard type (deep) as per standard drawing I-15 No. 2-B.	
I-15						2875	2875		50																						I-15	625	lin.ft.	guard rail, steel beam barrier type (deep) as per standard drawing I-15 No. 2-B.
I-15			22																												I-15	22	each	wood guard rail posts, without rail
I-15			162																												I-15	162	lin.ft.	guard rail removed and disposed of.
I-15			87																												I-15	87	lin.ft.	guard rail removed and stored, as per plan
																														17.15	I-125	17.15	miles	4" edge lines
I-125																														6.34	I-125	6.34	miles	6" lane lines
I-125																														lump	I-125	lump	lump	curb and island marking
I-127																														278	I-127	278	each	standard delineators
L-9					1,048,785																										L-9	1,048,785	sq.yds.	seeding and protecting, as per plan
L-9					98.20																										L-9	97.08	tons.	commercial fertilizer (12-12-12)
L-9					485.39																										L-9	485.39	tons.	agricultural liming material, as per plan
L-10			3117			1618	1093	1674	688	135	1098	629	308	237	1017	3885	2967	462	1566	311	456		134	1217	2261	3649	1183	160		L-10	29,865	sq.yds.	sodding	
S-15	lump																													S-15	lump	lump	lump	temporary runaround road, using Class A pavement, as per plan
S-24			lump																											S-24	lump	lump	lump	removal of existing structures
S-25			637																											S-25	637	lin.ft.	lin.ft.	4" asbestos cement conduit, Sec. M-206.14 as per plan.
SS-18					44,238																									SS-18	44,238	lin.ft.	lin.ft.	fence, Type "A"
M-10		16	5.9																											M-10	21.9	tons.	tons.	calcium chloride furnished and applied
T-10		530																												T-10	530	cu.yds.	cu.yds.	traffic compacted surface course for maintaining traffic.
T-10		270																												T-10	270	cu.yds.	cu.yds.	traffic compacted surface course, using size No. 2 material, for maintaining traffic.

GENERAL SUMMARY

WAR. - 25 - 8.48
MOT. - 25 - 0.00

ITEM NO.	SHEET NUMBERS																												CALCULATIONS	TYPE CODE 7221		DESCRIPTION
	2	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	ITEM NO.		GRAND UNIT TOTALS		
DRAINAGE																																
E-2	758			2				428	96				98			130	690	1						2			708	E-2	2,913	cu.yds.	excavation for structures	
E-3	32900							759	510				365			1030	220										2,370	E-3	38,154	cu.yds.	channel excavation	
I-1	330																											I-1	330	lin.ft.	12" pipe for driveways, Sec. M-6.4 (a)	
I-1	216																											I-1	216	lin.ft.	18" pipe for driveways, Sec. M-6.4 (a)	
I-1	162																											I-1	162	lin.ft.	24" pipe for driveways, Sec. M-6.4 (a)	
I-2															156	318		100							212			I-2	786	lin.ft.	8" Class "A" storm sewers	
I-2	100																											I-2	100	lin.ft.	12" Class "A" storm sewers	
I-2								34								10	18											I-2	62	lin.ft.	15" Class "A" storm sewers	
I-2						548	198																					I-2	746	lin.ft.	18" Class "A" storm sewers	
I-2	500																											I-2	500	lin.ft.	24" Class "A" storm sewers, Sec. M-6.6(a) or Sec. M-6.8(b)	
I-2	76				112		112	56	56		144	106	266	150	100	200	116	246	54		398	382	128	174	688		I-2	3,564	lin.ft.	8" Class "A" storm sewers under pavement and approaches, Sec. M-6.5(b) or Sec. M-6.8(b)		
I-2				158	280						192								250									I-2	880	lin.ft.	15" Class "A" storm sewers under pavement and approaches Sec. M-6.5(b) or Sec. M-6.8(b)	
I-2	224																											I-2	224	lin.ft.	15" Class "B" storm sewers under pavement and approaches	
I-2					104			120		142																		I-2	366	lin.ft.	18" Class "A" storm sewers under pavement and approaches Sec. M-6.5(b) or Sec. M-6.8(b)	
I-2										130																		I-2	130	lin.ft.	21" Class "A" storm sewers under pavement and approaches Sec. M-6.6(c)	
I-2													202															I-2	202	lin.ft.	27" Class "A" storm sewers under pavement and approaches, Sec. M-6.6(c)	
I-2																								100				I-2	100	lin.ft.	30" Class "A" storm sewers under pavement and approaches Sec. M-6.6(a) or Sec. M-6.8(b)	
I-2																										172		I-2	172	lin.ft.	36" Class "A" storm sewers under pavement and approaches Sec. M-6.6(a) or Sec. M-6.8(b)	
I-2					68	67							200															I-2	335	lin.ft.	15" Class "A" storm sewers, Sec. M-6.4(c)	
I-2					500																							I-2	500	lin.ft.	6" Class "B" storm sewers, under pavement and approaches	
I-2					1000																							I-2	1000	lin.ft.	8" Class "B" storm sewers, under pavement and approaches	
I-2					500																							I-2	500	lin.ft.	10" Class "B" storm sewers, under pavement and approaches	
I-3					500																							I-3	500	lin.ft.	6" roadway drainage	
I-3					1,000																							I-3	1,000	lin.ft.	8" roadway drainage	
I-3					1,000																							I-3	1,000	lin.ft.	10" roadway drainage	
I-3					500																							I-3	500	lin.ft.	12" roadway drainage	
I-3					100																							I-3	100	lin.ft.	6" outlets for roadway drainage, Sec. M-6.4(h) without perforations	
I-3	10				200																							I-3	210	lin.ft.	8" outlets for roadway drainage, Sec. M-6.4(c)	
I-3					200																							I-3	200	lin.ft.	10" outlets for roadway drainage, Sec. M-6.4(c)	
I-3					100																							I-3	100	lin.ft.	12" outlets for roadway drainage Sec. M-6.4(c)	
I-4	5,731				3608	3379	4212	1992	2556	2404	2914	3616	2376	3930	2113	1994	3334	1184	3284	2352	2000	2510	2988	1736	3485	3968	2400	I-4	70,066	lin.ft.	6" underdrains (shallow)	
I-4	4,097							1992	1599	1638	1208	684	818		1871	1972	650	2800	700	1716	2000	1473	996	1572	500			I-4	28,286	lin.ft.	6" underdrains (deep)	
I-4	110				70	80	20	70	30	40	50	106	40	20	20	20	20	20	20	30		20	20	20	20	60		I-4	886	lin.ft.	8" pipe outlets for underdrains, Sec. M-6.4(a)	
I-5	14				1	6	8	2	6	3	4	5	5	4	2	2	2	2	2	3		2	2	2	2	2		I-5	81	each	6" pipe specials for underdrains	
I-5					4			4	2	2		3	1	2	4	4	4	2	4	1		2	2	2	2	6		I-5	51	each	8" pipe specials for underdrains	
I-5													2															I-5	2	each	8" pipe specials for outlets for underdrains Sec. M-6.4(a) / under Pavt. or App.	
I-5													3	2	2	4	2	3		1		2	2	3	2	6		I-5	32	each	8" pipe specials for Class "A" storm sewers, Sec. M-6.5(b) or Sec. M-6.8(b),	
I-5					4	4							4															I-5	12	each	15" pipe specials for Class "A" storm sewers, Sec. M-6.4(c)	
I-5	2																											I-5	2	each	24" pipe specials for Class "A" storm sewers, Sec. M-6.6(a) or Sec. M-6.8(b)	

GENERAL SUMMARY

ITEM NO.	SHEET NUMBERS																											CALCULATIONS	TYPE CODE 7221			DESCRIPTION		
	2	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		287	ITEM NO.	GRAND TOTALS		UNIT	
<i>DRAINAGE (Cont.)</i>																																		
I-5																				1										I-5	1	each	54" pipe special for roadway culverts	
I-5																														I-5	1	each	60" pipe special for roadway culverts, Sec. M-6.6(c) or M-6.4(g), 10-10 ga.	
I-5																														I-5	1	each	72" pipe special for roadway culverts, Sec. M-106.6(d) or M-6.4(g), 10-10 ga.	
I-8		3																												I-8	3	each	Standard No. 3 A catch basins	
I-8		2																												I-8	3	each	Standard No. 2-2 B catch basins	
I-8																														I-8	15	each	Standard No. 4 catch basins	
I-8		2																												I-8	6	each	Standard No. 5 catch basins	
I-8		1																												I-8	1	each	Standard No. 2-3 catch basin	
I-8																														I-8	1	each	Standard No. 6 catch basin	
I-9		1674																												910	I-9	2,584	lin. ft.	stone underdrains, No. 2
I-10		94																												I-10	1,254	cu. yds.	dumped rock channel protection	
I-10		10																												I-10	625	sq. yds.	rip rap Type "A", 6" reinforced concrete.	
I-14																														I-14	3,121	lin. ft.	special paved gutter, Type 1A as per plan	
I-14		77																												I-14	77	lin. ft.	special paved gutter, Type 1B, as per plan	
S-1		223																												S-1	89	cu. yds.	concrete for structures, Class "E"	
S-27		64																												S-27	64	lin. ft.	15" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)	
S-27		106																												S-27	106	lin. ft.	18" pipe for roadway culverts, Sec. M-6.6(b)	
S-27		234																												S-27	234	lin. ft.	18" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)	
S-27																														S-27	152	lin. ft.	18" pipe for roadway culverts, Sec. M-106.6(d)	
S-27																														S-27	82	lin. ft.	21" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)	
S-27																														S-27	104	lin. ft.	24" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)	
S-27																														S-27	212	lin. ft.	24" pipe for roadway culverts, Sec. M-106.6(d)	
S-27																														S-27	292	lin. ft.	30" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)	
S-27																														S-27	114	lin. ft.	42" pipe for roadway culverts, Sec. M-6.6(b)	
S-27																														S-27	400	lin. ft.	54" pipe for roadway culverts	
S-27																														S-27	368	lin. ft.	60" pipe for roadway culverts, Sec. M-6.6(c) or Sec. M-6.4(g), 10-10 ga.	
S-27																														S-27	544	lin. ft.	60" pipe for roadway culverts, Sec. M-106.6(d) or Sec. M-6.4(g), 10-10 ga.	
S-27																														S-27	776	lin. ft.	60" pipe for roadway culverts, Sec. M-6.6(b)	
S-27																														S-27	284	lin. ft.	72" pipe for roadway culverts, Sec. M-6.6(c) or Sec. M-6.4(g), 10-10 ga.	
S-27																														S-27	258	lin. ft.	72" pipe for roadway culverts, Sec. M-106.6(d) or Sec. M-6.4(g), 10-10 ga.	
S-27																														S-27	388	lin. ft.	84" pipe for roadway culverts, Sec. M-6.6(b)	
S-28																														S-28	160	lin. ft.	66" sectional corrugated metal structure, Sec. M-6.4(g) 10-10 gage	

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	17 377
2	OHIO		

WAR.-25-8.48
MOT.-25-0.00

ITEM NO.	SHEET NUMBERS																								271	CALCULATIONS	TYPE CODE 7221			DESCRIPTION					
	2	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			41	42	43		ITEM NO.	GRAND TOTALS	UNIT		
									PAVEMENT																										
B-35			487																										B-35	487	cu. yds.	asphaltic concrete leveling course (B5-100)			
B-119			4,079																										B-119	4,079	cu. yds.	crushed aggregate base course			
B-219																												82	B-219	6,799	cu. yds.	waterproofed aggregate base course, Type "B"			
T-30			5,265																										T-30	5,265	gals.	bituminous prime coat, Sec. M-5.7, RT-2 or RT-3 or Sec. M-5.3, MG-0 or MG-1			
T-31																												246	T-31	20,395	gals.	bituminous surface treatment - bituminous material as per plan.			
T-31																												8	T-31	654	cu. yds.	bituminous surface treatment - No. 6 aggregate			
T-35			718																										T-35	718	cu. yds.	asphaltic concrete surface course, Type "A" (85-100)			
T-70			83																										T-70	83	sq. yds.	7" Portland cement concrete pavement			
T-71																												7,030	T-71	7,030	sq. yds.	9" reinforced Portland cement concrete pavement			
T-71																												198,008	T-71	198,008	sq. yds.	10" reinforced Portland cement concrete pavement			
I-7			300																										I-7	300	sq. yds.	reinforced concrete approach slab, as per plan (T=13")			
I-7																												494	I-7	494	sq. yds.	reinforced concrete approach slab, (T=13")			
I-12			1,005																										I-12	1,005	lin. ft.	special Portland cement concrete curb, as per plan			
I-12			2,350																										I-12	2,350	lin. ft.	Standard Type 6 concrete curb			
I-12			2,332																										I-12	2,332	lin. ft.	Standard Type 2 combination curb and gutter			
I-12			2,005																										I-12	2,005	lin. ft.	Standard Type 2 A concrete curb			
I-18																												148	I-18	12,416	cu. yds.	stabilized crushed aggregate shoulders and approaches			
I-21			269																										I-21	6	sq. yds.	4' Portland cement concrete median pavement, standard Type 1			
I-22			1,247																									189	I-22	50,380	cu. yds.	subbase			
I-23			8																										I-23	8	each	precast white Portland cement concrete traffic dividers			
Special			3,526																									1,807	Special	5,333	sq. yds.	mixing calcium chloride and crushed aggregate			
									STRUCTURES OVER 20 FT. SPAN																										
									For estimated quantities																										
									BR. NO. WAR-25-0866									See Sh. No. 315																	
									BR. NO. WAR-25-0920									See Sh. No. 322																	
									BR. NO. WAR-25-1005									See Sh. No. 330																	
									West Bridge									See Sh. No. 337																	
									East Bridge									See Sh. No. 349																	
									BR. NO. WAR-25-1149									See Sh. No. 349																	
									lump									lump									construction layout stakes								

SUB-SUMMARY

FED. RD. DIVISION	STATE	PROJECT	18 377
2	OHIO		

WAR.-25-8.48
MOT.-25-0.00

ITEM NO.	SHEET NUMBERS																								CALCULATIONS	TYPE CODE 7221			DESCRIPTION			
	141	142	151	153	154	155	156	158	159	160	161	179	183	184	197	201	215	216	240	241	242	243	254	255		262	277	227A		ITEM NO.	GRAND TOTALS	UNIT
																													ROADWAY			
E-12	20	192				52												14	50									E-12	328	lin.ft.	pipe removed, 15" and under	
E-12						25																						E-12	25	lin.ft.	pipe removed, over 15"	
I-15	100	1200				4375						275			9125	900	1250		1525	775					10375		I-15	8412.5	lin.ft.	guard rail, steel beam type, deep as per Standard Drawing I-15 No. 2A		
I-15																				22								I-15	22	each	wood guard rail posts without rail	
I-15				87																								I-15	87	lin.ft.	guard rail removed and stored	
I-15		162																										I-15	162	lin.ft.	guard rail removed and disposed of	
M-10																										3.8		M-10	5.9	tons	calcium chloride furnished and applied.	
S-24					lump	lump	lump												lump						lump			S-24	lump	lump	removal of existing structures	
S-25				657																								S-25	637	lin.ft.	4" asbestos cement conduit, Sec. M-206.14, as per plan	
L-10		362			11	211	209					880							210	1090	108					36		L-10	3,117	sq.yds.	Sodding	
																													DRAINAGE			
E-2					168	83						44	67		86	92	42	132							32	10	2	E-2	758	cu.yds.	excavation for structures	
E-3					5	32,841						2	5		5		35	5									2	E-3	32,900	cu.yds.	channel excavation	
I-1		62																		36	180					70	198	I-1	330	lin.ft.	12" pipe for driveways, Sec. M-6.4(a)	
I-1																													I-1	216	lin.ft.	18" pipe for driveways, Sec. M-6.4(a)
I-1		54				18	90																						I-1	162	lin.ft.	24" pipe for driveways, Sec. M-6.4(a)
I-2							100																						I-2	100	lin.ft.	12" Class "A" storm sewers
I-2						200	300																						I-2	500	lin.ft.	24" Class "A" storm sewers Sec. M-6.6(a) or Sec. M-6.8(b)
I-2															56			20											I-2	76	lin.ft.	8" Class "A" storm sewers under pavement and approaches, Sec. M-6.5(b) or Sec. M-6.8(b)
I-2						150												74											I-2	224	lin.ft.	15" Class "B" storm sewers under pavement and approaches
I-3																				10									I-3	10	lin.ft.	8" pipe outlets for roadway drainage, Sec. M-6.4(c)
I-4						675						300		743	174	1521	488	1230											I-4	5,731	lin.ft.	6" underdrains, shallow
I-4					972	1090						422	874	146	187	406													I-4	4,097	lin.ft.	6" underdrains, deep
I-4					20							20	10	10	10	20	10	10											I-4	110	lin.ft.	8" pipe outlets for underdrains, Sec. M-6.4(a)
I-5						2																							I-5	2	each	24" pipe specials for Class "A" storm sewers, Sec. M-6.6(a) or Sec. M-6.8(b)
I-5					2	1						2	1	1	1	4	1	1											I-5	14	each	6" pipe specials for underdrains
I-5																1		3											I-5	4	each	8" pipe specials for underdrains
I-8						2												1											I-8	3	each	Standard No. 3 A catch basin
I-8																		1									1		I-8	2	each	Standard No. 2-2 B catch basin
I-8													1			1													I-8	2	each	Standard No. 5 catch basin
I-8					1																								I-8	1	each	Standard No. 2-3 catch basin
I-9	45	225																	48	384	264	48	264	108	288			I-9	1,674	lin.ft.	stone underdrains, No. 2	
I-10						64									6												13		I-10	94	cu.yds.	dumped rock channel protection
I-10																			10										I-10	10	sq.yds.	rip rap, Type "A" (6" reinforced concrete)
I-14						77																							I-14	77	lin.ft.	special paved gutter Type I-B as per plan
S-1					1.9	14.4						0.8	0.8		1.0	0.8	0.5	0.3							0.7	0.5	0.6	S-1	22.3	cu.yds.	concrete for structures, Class "E"	
S-27																												64	S-27	64	lin.ft.	15" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)
S-27																	106												S-27	106	lin.ft.	18" pipe for roadway culverts, Sec. M-6.6(b)
S-27												90						144											S-27	234	lin.ft.	18" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)

SUB-SUMMARY

FED. RD. DIVISION	STATE	PROJECT	19 377
2	OHIO		

WAR. - 25 - 8.48
MOT. - 25 - 0.00

ITEM NO	SHEET NUMBERS																										CALCULATIONS	TYPE CODE 7221			DESCRIPTION		
	141	142	151	153	154	155	156	158	159	160	161	179	183	184	197	201	215	216	227	232	240	241	242	243	254	255		262	ITEM NO.	GRAND TOTALS		UNIT	
<i>DRAINAGE (cont.)</i>																																	
S-27																											152	S-27	152	lin.ft.	18" pipe for roadway culverts, Sec.M-106.6 (d)		
S-27																										82	S-27	82	lin.ft.	21" pipe for roadway culverts, Sec. M-6.6(b) or Sec. M-6.8(b)			
S-27															212												S-27	212	lin.ft.	24" pipe for roadway culverts, Sec.M-106.6 (d)			
S-27												100			74												S-27	174	lin.ft.	30" pipe for roadway culverts, Sec. M-6.6 (b) or Sec. M-6.8(b)			
S-27					114																						S-27	114	lin.ft.	42" pipe for roadway culverts, Sec. M-6.6(b)			
S-27																											S-28	160	lin.ft.	66" sectional corrugated metal structure, Sec. M-6.4(c), 10-10 gage			
<i>PAVEMENT</i>																																	
B-35																											487	B-35	487	cu.yds.	asphaltic concrete leveling course, (85-100)		
B-119	51	410				51	127											785	27		61	526	264	43	330	159	253	992	B-119	4,079	cu.yds.	crushed aggregate base course	
T-30	50	390																				9	739	554	89	693	334	532	1,875	T-30	5,265	gals.	bituminous prime coat, Sec. M-5.7 RT-2 or RT-3 or Sec. M-5.2 RC-1 or RC-2
T-35	16	55.1				14	15.1	3			4								7.7		17.6	99.3	623	13	77.8	41.4	60.5	243.2	T-35	718	cu.yds.	asphaltic concrete surface course, Type "A" (85-100)	
T-70						83																						T-70	83	sq.yds.	7" Portland cement concrete pavement		
I-7	75	75																								150	I-7	300	sq.yds.	reinforced Portland cement concrete approach slabs (T=13") as per plan			
I-12												556															I-12	1,005	lin.ft.	special Portland cement concrete curb, as per plan			
I-12								468	660	381	448			100	47	146	100										I-12	2,350	lin.ft.	Standard Type 6 concrete curb			
I-12								1627	705																		I-12	2,332	lin.ft.	Standard Type 2 concrete combination curb and gutter.			
I-12														104		104	104	1693									I-12	2,005	lin.ft.	Standard Type 2 A concrete curb			
I-21								16	16					11	4	8	11	203									I-21	269	sq.yds.	Portland cement concrete median pavement Type I			
I-22	17	130																	22		30	247	186	90	233	113	179	I-22	1,247	cu.yds.	subbase		
I-23								8																			I-23	8	each	precast white Portland cement concrete traffic dividers			
																											Special	3,526	sq.yds.	mixing calcium chloride and crushed aggregate.			
																			3526														

CENTERLINE REFERENCE MONUMENTS

Station	I-8 Centerline Reference Monuments Each	See Sheet No.	Station	I-8 Centerline Reference Monuments Each.	See Sheet No.	Station	I-8 Centerline Reference Monuments Each	See Sheet No.	Station	I-8 Centerline Reference Monuments Each	See Sheet No.
WARREN CO						SR. 73					
11+00 P.O.T.	2	355	85+00 P.O.T.	2	355	168+00 P.O.T.	2	355 A			
15+14.76 P.C.	2	355	89+94.75 P.O.T.	2	355	171+00 P.O.T.	2	355 A			
20+00 P.O.C.	2	355	95+00 P.O.T.	2	355	180+00 P.O.T.	2	355 A	10+00 P.O.T.	2	355
25+00 P.O.C.	2	355	100+00 P.O.T.	2	355	187+70.93 P.C.	2	355 A	15+00 P.O.T.	2	355
30+00 P.O.C.	2	355	105+00 P.O.T.	2	355-A	195+00 P.O.C.	2	355 A	23+22.49 P.C.	2	355
34+49.76 P.T.	2	355	110+00 P.O.T.	2	355-A	200+00 P.O.C.	2	355 A	24+22.48 P.C.	2	355
38+00 P.O.T.	2	355	115+00 P.O.T.	2	355-A	208+30.81 P.O.C.	2	355 A	28+14.72 P.C.C.	2	355
43+00 P.O.T.	2	355	120+00 P.O.T.	2	355-A				29+14.71 P.T.	2	355
48+00 P.O.T.	2	355	125+00 P.O.T.	2	355-A	MONTGOMERY CO			38+25 P.O.T.	2	355
50+00 P.O.T.	2	355	130+00 P.O.T.	2	355-A						
55+00 P.O.T.	2	355	135+00 P.O.T.	2	355-A	5+00 P.O.C.	2	355 A			
60+00 P.O.T.	2	355	140+00 P.O.T.	2	355 A	10+00 P.O.C.	2	355 A			
65+05.26 P.O.T.	2	355	145+00 P.O.T.	2	355 A	15+00 P.O.C.	2	355 A			
70+00 P.O.T.	2	355	150+00 P.O.T.	2	355 A	20+00 P.O.C.	2	355 A			
75+00 P.O.T.	2	355	155+00 P.O.T.	2	355 A	26+00 P.O.C.	2	355 A			
80+00 P.O.T.	2	355	160+00 P.O.T.	2	355 A						
									TOTAL	102	

GENERAL NOTES & QUANTITIES

STORM SEWERS & ROADWAY DRAINAGE

An estimated amount of Class "B" Storm Sewers under Pavement and Approaches, Item I-2 and Roadway Drainage, Item I-3, has been provided to outlet any existing field drains or tile which may be encountered during construction. The outlet locations, grades and depths required shall be determined by the Engineer during construction. The following basis shall be used in the handling of the tile.

(a) If fill is to be placed over the existing tile, it shall be replaced within the limits of the proposed roadway with new tile, one commercial size larger.

(b) If the proposed ditches undercut the existing tile, outlet the existing tile into the proposed ditch with 10 lin.ft of pipe outlet.

Payment will be made on final measurement.

The size and estimated amounts are listed as follows:

- Item I-3 6" roadway drainage 500 lin. ft.
- Item I-3 8" roadway drainage 1000 lin. ft.
- Item I-3 10" roadway drainage 1000 lin. ft.
- Item I-3 12" roadway drainage 500 lin. ft.
- Item I-3 6" outlets for roadway drainage 100 lin. ft.
- Item I-3 8" outlets for roadway drainage 200 lin. ft.
- Item I-3 10" outlets for roadway drainage 200 lin. ft.
- Item I-3 12" outlets for roadway drainage 100 lin. ft.
- Item I-2 6" class "B" Storm Sewers under pavt. & Appr'hs. 500 lin. ft.
- Item I-2 8" class "B" Storm Sewers under pavt. & Appr'hs. 1000 lin. ft.
- Item I-2 10" class "B" Storm Sewers under pavt. & Appr'hs. 500 lin. ft.

PROTECTING BACK SLOPES:

An estimated quantity of dumped rock channel protection has been provided to be placed as directed by the Engineer on the back slopes of the proposed ditches where said ditches undercut or intercept adjacent swales. Payment will be made on final measurement.

The estimated amount is as listed below:

- Item I-10 Dumped Rock Channel Protection 100 cu.yds.

R/W FENCE	
FROM SHEET NO.	TYPE "A" FENCE LIN. FT.
357	800
358	2,783
359	3,002
360	2,751
361	2,976
362	2,086
363	1,555
364	0
365	1,368
366	532
367	2,967
368	3,000
369	2,972
370	2,976
371	2,708
373	3,000
374	3,000
375	2,664
376	2,898
377	200
Total	44,238

SEEDING & PROTECTING		
Stations		Seeding & Protecting Sq.Yds.
From	To	
WARREN COUNTY		
10+00	20+00	28,451
20+00	30+00	26,282
30+00	40+00	27,191
40+00	50+00	31,067
50+00	60+00	27,067
60+00	70+00	30,223
70+00	80+00	35,135
80+00	90+00	26,911
90+00	100+00	24,303
100+00	110+00	33,841
110+00	120+00	43,444
120+00	130+00	44,699
130+00	140+00	42,234
140+00	150+00	41,429
150+00	160+00	45,144
160+00	170+00	42,718
170+00	180+00	42,219
180+00	190+00	42,548
190+00	200+00	39,739
200+00	208+308/	33,908
MONTGOMERY CO.		
0+00	10+00	40,065
10+00	20+00	43,757
20+00	26+00	27,961
INTERSECTING RDS.		
Lower Springboro Rd		9,998
S.R.73		32,258
Service Rd.		9,844
Shartz Rd.		292
Ramp A		14,929
Ramp B		40,815
Ramp B-B		3,135
Ramp C		31,970
Ramp C-D		8,281
Ramp D		40,259
C-D Loop Area		9,192
Cl.Crk.Frank-Penny.Conn.		27,083
Cl.Cr.Frank.Relocation		10,690
Pennyroyal Relocation		8,751
Channel Change-S.R.73		14,348
Channel Change Sta.110±		776
Totals		1,082,957
Deductions		
Sodding	29,865	
Paved gutters	2,115	
Dumped rock	1,567	
Rio Rap	625	
Total	34,172	
Net Totals		1,048,785

L-9 COMMERCIAL FERTILIZER

Area-Seeding = 1,048,785 sq.yds
 Area-Sodding = 29,865 sq.yds.
 Total Area 1,078,650 sq.yds.
 1,078,650sq.yds @ 20 lbs per 1000 sq.ft. = 97.08 tons.

L-9 AGRICULTURAL LIMING MATERIALS

Area Seeding and Sodding = 1,078,650 sq.yds.
 1,078,650 @ 100 lbs. per 1000 sq.ft. = 485.39 tons

E-4 BORROW

Embankment +18% (Roadway, See Table) 1,321,942 C.Y.
 Embankment 18% Channel, See Sh.294 3,892 C.Y.
 See Sh.281 146 C.Y.
Total 1,325,980 C.Y.

Roadway Excavation (See Table) 1,262,763 C.Y.
 Channel Excavation See Sh.15 38,154 C.Y.
 Structure Excavation 20 Ft Span & Under 3,504 C.Y.
 Structure Excavation Over 20 Ft. Span 5,425 C.Y.
Total 1,309,846 C.Y.
Net Borrow 16,134 C.Y.

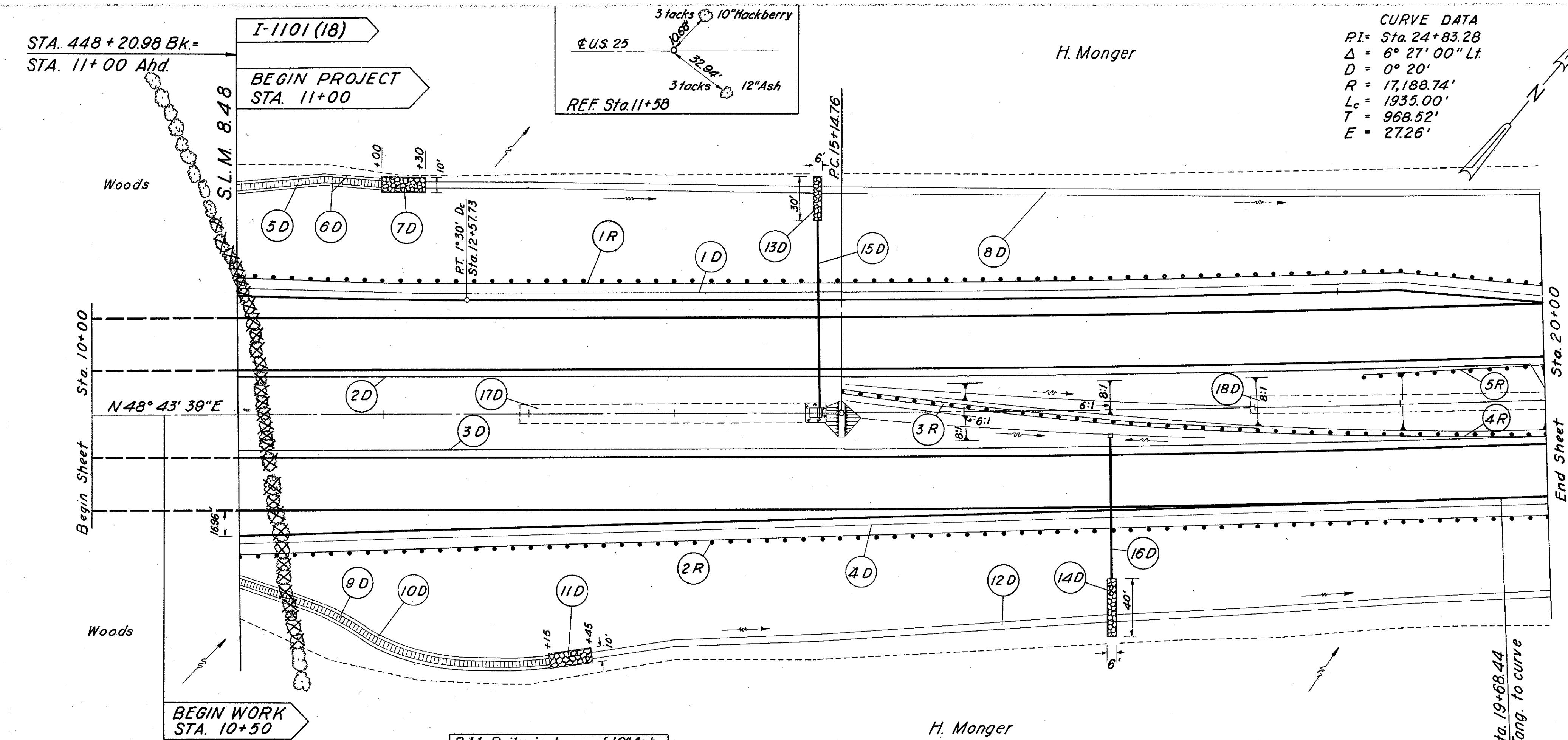
E-11 WATER:

Embankment 1,135,475 Cu. Yd.
 I-22 52,521 Cu. Yd.
 B-119 2,796 Cu. Yd.
 I-18 12,520 Cu. Yd.
 1,203,312 Cu Yd x 5' / 1000 = 6,017 M. gals.

EARTHWORK QUANTITIES				
STATIONS		EXCAVATION	EMBANKMENT	EMB. + 18%
FROM	TO	CU. YDS	CU. YDS.	CU. YDS.
WARREN COUNTY				
10+50	20+00	7,360	113,646	134,102
20+00	30+00	2,754	59,195	69,850
30+00	40+00	2,947	34,840	41,111
40+00	50+00	215,583	0	0
50+00	60+00	64,285	29,080	34,314
60+00	70+00	34,955	6,592	7,779
70+00	80+00	10,455	54,402	64,194
80+00	90+00	7,612	64,533	76,149
90+00	100+00	35,961	33,897	39,998
100+00	110+00	2,997	133,593	157,640
110+00	120+00	60,548	5,402	6,374
120+00	130+00	142,298	0	0
130+00	140+00	20,647	56,592	66,779
140+00	150+00	52,720	8,938	10,547
150+00	160+00	17,254	43,050	50,799
160+00	170+00	58,560	9,269	10,937
170+00	180+00	82,532	103	122
180+00	190+00	55,989	13,247	15,631
190+00	200+00	14,888	20,525	24,220
200+00	208+308/	23,511	2,144	2,530
MONTGOMERY CO.				
0+00	10+00	9,988	22,458	26,500
10+00	20+00	6,815	78,901	93,103
20+00	27+00	5,769	53,810	63,496
INTERSECTING RDS.				
Lower Springboro Rd.		767	18,050	21,299
S.R.73 & Interchange				
0+00 - 10+00		2,011	364	430
10+00 - 20+00		80,717	0	0
20+00 - 31+00		53,556	10,098	11,916
31+00 - 38+00		1,292	4,398	5,189
Service Road		2,177	4,091	4,827
Shartz Rd & Drive		399	24	28
Ramp A		15,474	1,415	1,670
Ramp B		114,594	27,316	32,233
Ramp B-B		27,021	0	0
Ramp C		12,927	31,912	37,656
Ramp C-D		4,007	31,103	36,702
Ramp D		3,046	44,167	52,117
Area Grading (Interchge)		1,784	1,331	1,571
Cl.Crk.Frank-Penn.Conn.		2,788	69,445	81,945
Cl.Crk.Frank-Relocation		3,068	4,639	5,474
Pennyroyal Relocation		707	27,720	32,710
Totals		1,262,763	1,120,290	1,321,942

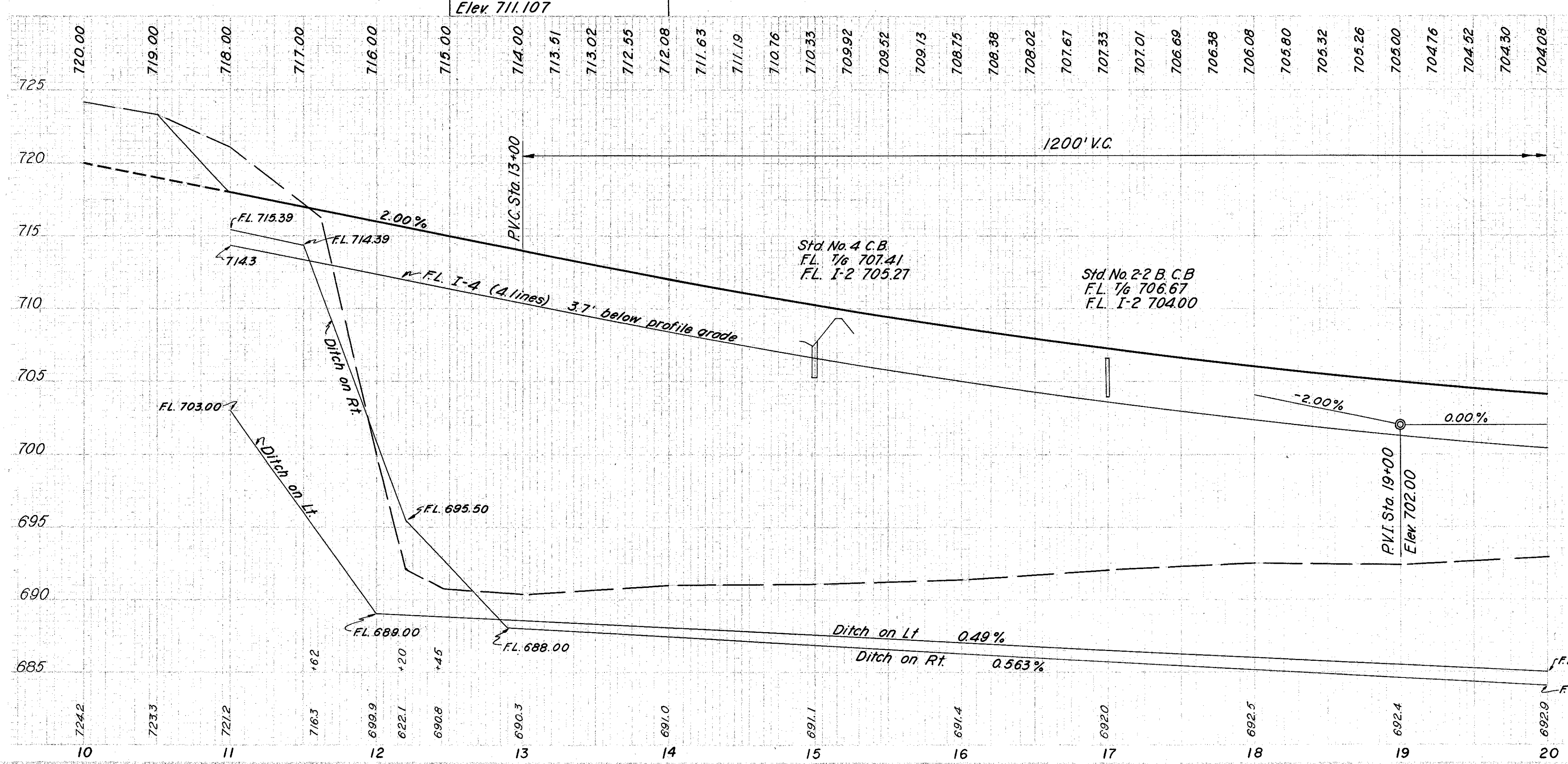
WAR.-25-8.48
MOT.-25-0.00

CURVE DATA
 PI = Sta. 24+83.28
 Δ = 6° 27' 00" Lt.
 D = 0° 20'
 R = 17,188.74'
 Lc = 1935.00'
 T = 968.52'
 E = 27.26'



Ref No.	Station		Side	I-4 Underdrain Shallow 6" Lin. Ft.	I-5 for I-4 60° Bend 6" Each	I-14 Paved Gutter Type I-A Lin. Ft.	L-10 Sodding		I-10 Dumped Rock Channel Protection		
	From	To					Width L.F.	S.Y.	Depth inches	C.Y.	
1 D	11+00	20+00	L	902							
2 D	11+00	20+00	L	906	1						
3 D	11+00	20+00	R	900							
4 D	11+00	20+00	R	900							
5 D	11+00	12+00	L			104					
6 D	11+00	12+00	L				2@1.5	35			
7 D	12+00	12+30	L						30	28	
8 D	12+30	20+00	L				9	764			
9 D	11+00	13+15	R			227					
10 D	11+00	13+15	R				2@1.5	76			
11 D	13+15	13+45	R						30	28	
12 D	13+45	20+00	R				9	649			
13 D	15+00		L						30	17	
14 D	17+00		R						30	22	
Totals				3608	1	331		1524		95	

Ref No.	Station		Side	I-2 Storm Sewer Sec. M-6.50(15" L.F.)	I-2 Storm Sewer Sec. M-6.4(15" Each)	I-5 for I-2 30° Bend 15" Each	I-8 Std. No. 4 Catch Basin Each	I-8 Standard No. 2-2 B Catch Basin Each	S-1 Conc. for Structures Class E Cu. Yd.	L-10 Sodding		E-2 Excavation for Structures C.Y.
	From	To								Width L.F.	S.Y.	
15 D	15+00		L	92	36	2	1		0.3	3	14	1
16 D	17+00		R	66	32	2		1	0.3			1
17 D	12+93	14+93	E							8" Strips	40	
18 D	17+98	19+98	L to E							8" Strips	40	
Totals				158	68	4	1	1	0.6		94	2

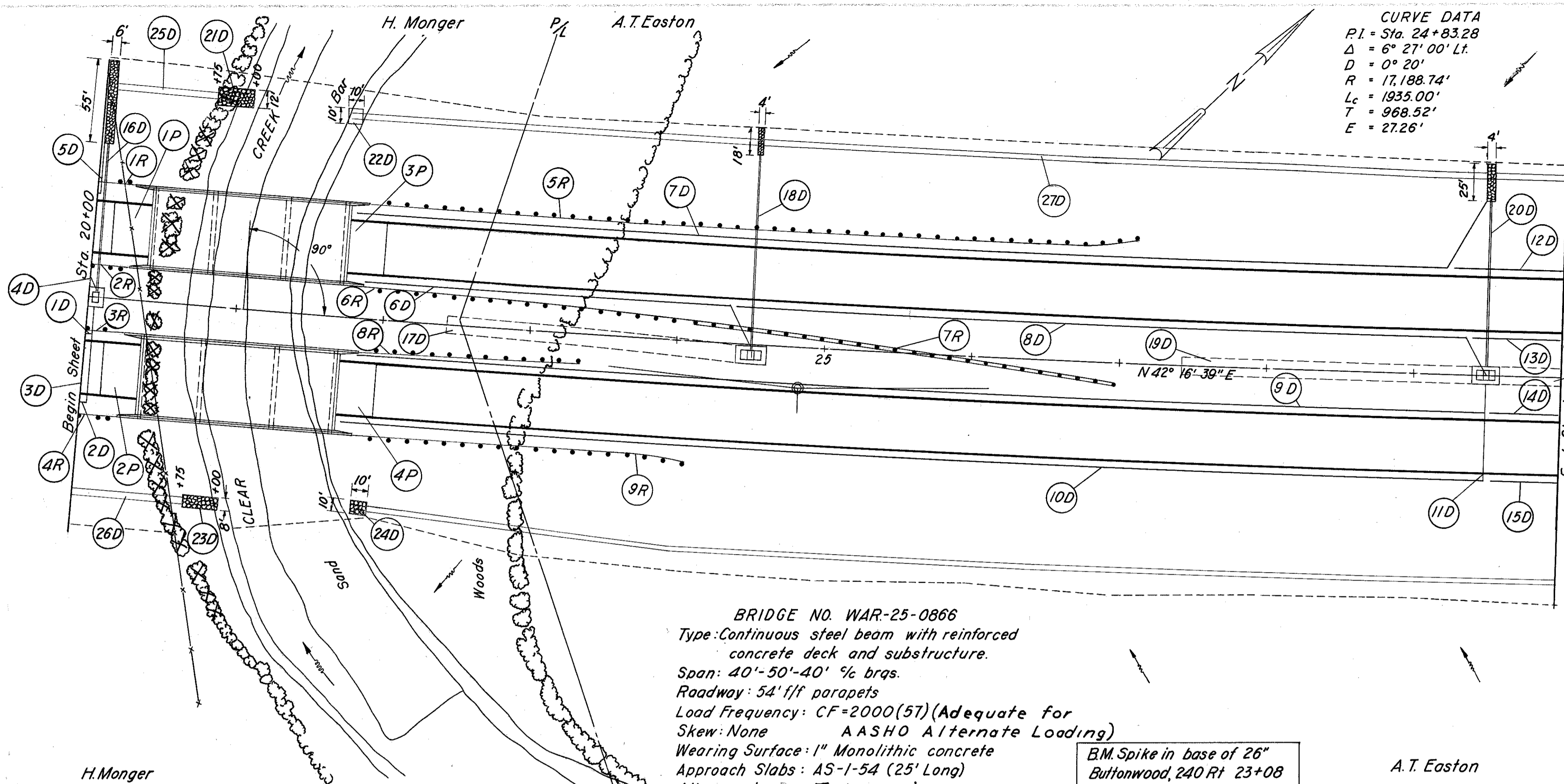
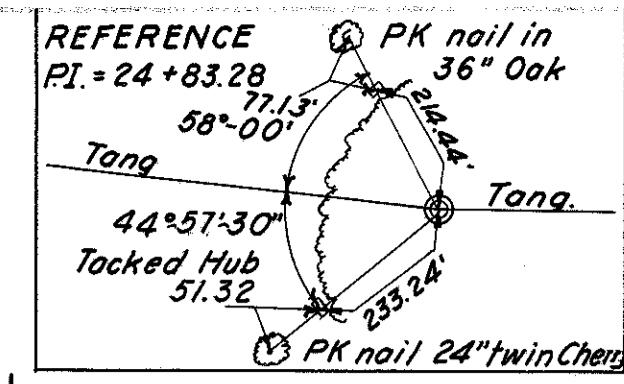


Ref No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.	I-15 Guard Rail Steel Beam Type Deep Barrier L.F.
	From	To			
1 R	11+00	20+00	L	900	
2 R	11+00	20+00	R	900	
3 R	15+15	18+00	L to R		287.5
4 R	18+00	20+00	R	200	
5 R	18+75	20+00	L	125	
Totals				2125	287.5

Excavation 7,360 C.Y.
 Embankment 113,646 C.Y.
 Embankment + 18% 134,102 C.Y.

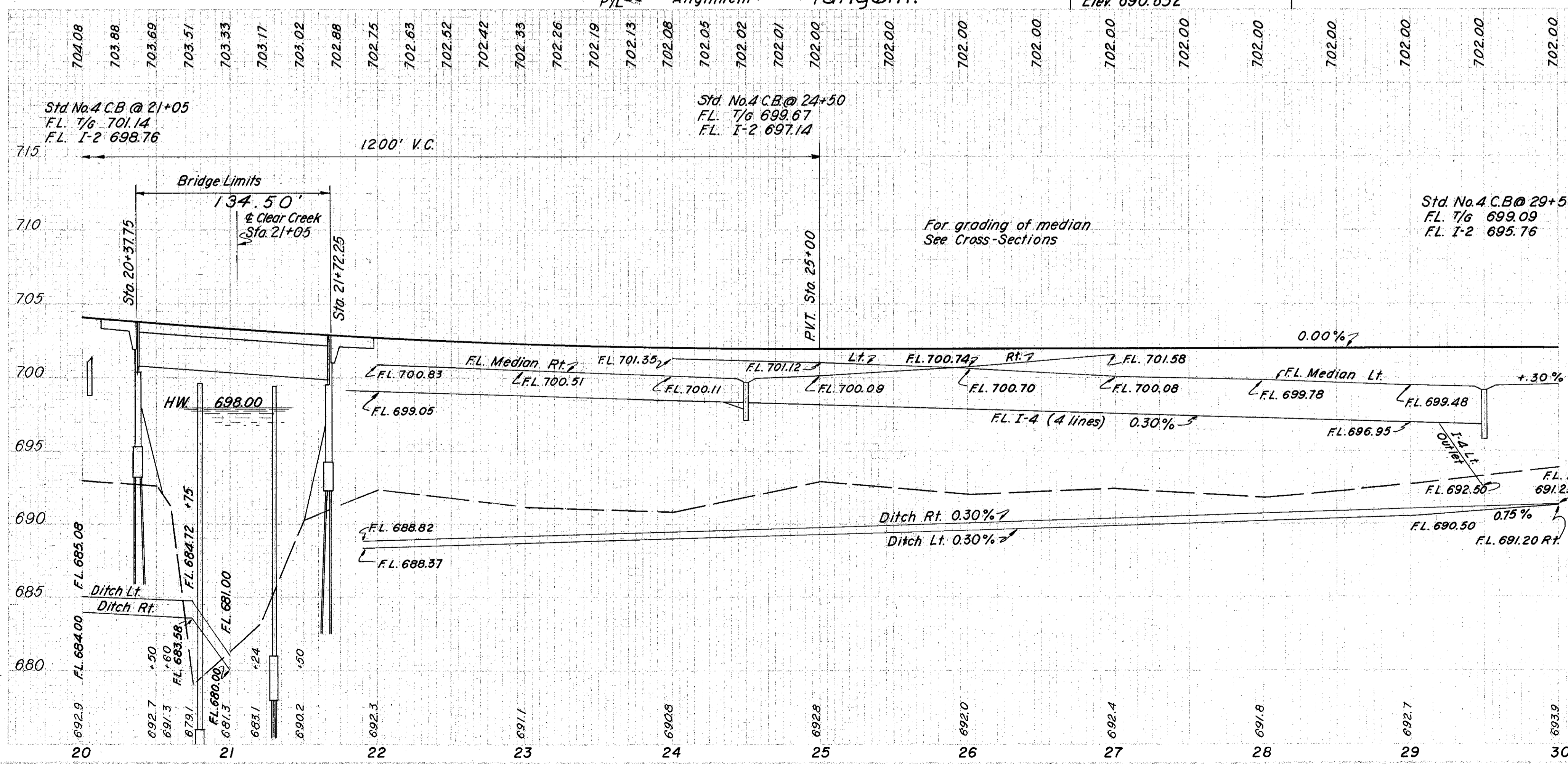
WAR-25-8.48
MOT-25-0.00

CURVE DATA
 P.I. = Sta. 24+83.28
 Δ = 6° 27' 00" Lt.
 D = 0° 20'
 R = 17,188.74'
 Lc = 1935.00'
 T = 968.52'
 E = 27.26'



BRIDGE NO. WAR-25-0866
 Type: Continuous steel beam with reinforced concrete deck and substructure.
 Span: 40'-50'-40' % brgs.
 Roadway: 54' f/f parapets
 Load Frequency: CF=2000(57) (Adequate for AASHTO Alternate Loading)
 Skew: None
 Wearing Surface: 1" Monolithic concrete
 Approach Slabs: AS-1-54 (25' Long)
 Alignment: Tangent

B.M. Spike in base of 26" Buttonwood, 240 Rt 23+08 Elev. 690.632



DRAINAGE

Ref. No.	Station		Side	I-4 Underdrain Shallow 6" L.F.	I-5 for I-4			I-2 Class A Storm Sewer Under Pavement 8" L.F.	I-4 Pipe Outlet for Underdrain 8" L.F.	
	From	To			Bend 90° 6" Ea.	Incr. 6"-8" Ea.	Tee 8"x6" Ea.			Bend 60° 6" Ea.
1 D	20+00	20+05	R	5						
2 D	20+00	20+05	R	5						
3 D	20+05	-	R		1	1		56		
4 D	20+00	20+05	L					10		
5 D	20+00	20+02	L	26	1			10		
6 D	21+86	24+50	L	268			1	10		
7 D	21+78	29+50	L	797			1	10		
8 D	24+40	29+50	L	510			1	10		
9 D	21+86	29+50	R	764						
10 D	21+78	29+50	R	772						
11 D	29+50	-	R to E		1	1	1	56		
12 D	29+24	30+00	L	76				10		
13 D	29+40	30+00	L	60						
14 D	29+52	30+00	R	48						
15 D	29+52	30+00	R	48						
Totals				3379	3	2	2	3	112	70

DRAINAGE (Cont)

Ref. No.	Station		Side	I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 15" L.F.	I-2 Class A Storm Sewers Sec. M-6.4(c) 15" L.F.	I-5 for I-2 30° Bend 15" L.F.	I-8 Std. No. 4 Catch Basin Each	S-1 Concrete for Structures Class E C.Y.	I-10 Dumped Rock Channel Protection		L-10 Sodding	
	From	To							Depth inches	C.Y.	Width L.F.	S.Y.
16 D	20+05	Left		80	24	2	1	0.3	30	31	3	14
17 D	22+43	24+43	E								18 Strips	40
18 D	24+50	Left		84	43	2	1	0.3	30	7	3	14
19 D	27+43	29+43	E								18 Strips	40
20 D	29+50	Left		116			1	0.3	30	10	3	14
21 D	20+75	21+00	L						30	28		
22 D	21+65	21+75	L						30	9		
23 D	20+75	21+00	R						30	19		
24 D	21+90	22+00	R						30	9		
25 D	20+06	20+75	L								9	69
26 D	20+00	20+75	R								9	75
27 D	21+75	30+00	L								9	817
28 D	29+57	30+00	E								18 Strips	10
Totals				280	67	4	3	0.9	113	1093		

ROADWAY

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.	I-15 Guard Rail Steel Beam Type Deep Barrier L.F.
	From	To			
1 R	20+00	20+25	L	25	
2 R	20+00	20+25	L	25	
3 R	20+00	20+25	R	25	
4 R	20+00	20+25	R	25	
5 R	21+84	27+09	L	525	
6 R	21+84	24+09	L	225	
7 R	24+09	26+95	L to R		287.5
8 R	21+84	23+34	R	150	
9 R	21+84	24+09	R	225	
Totals				1225	287.5

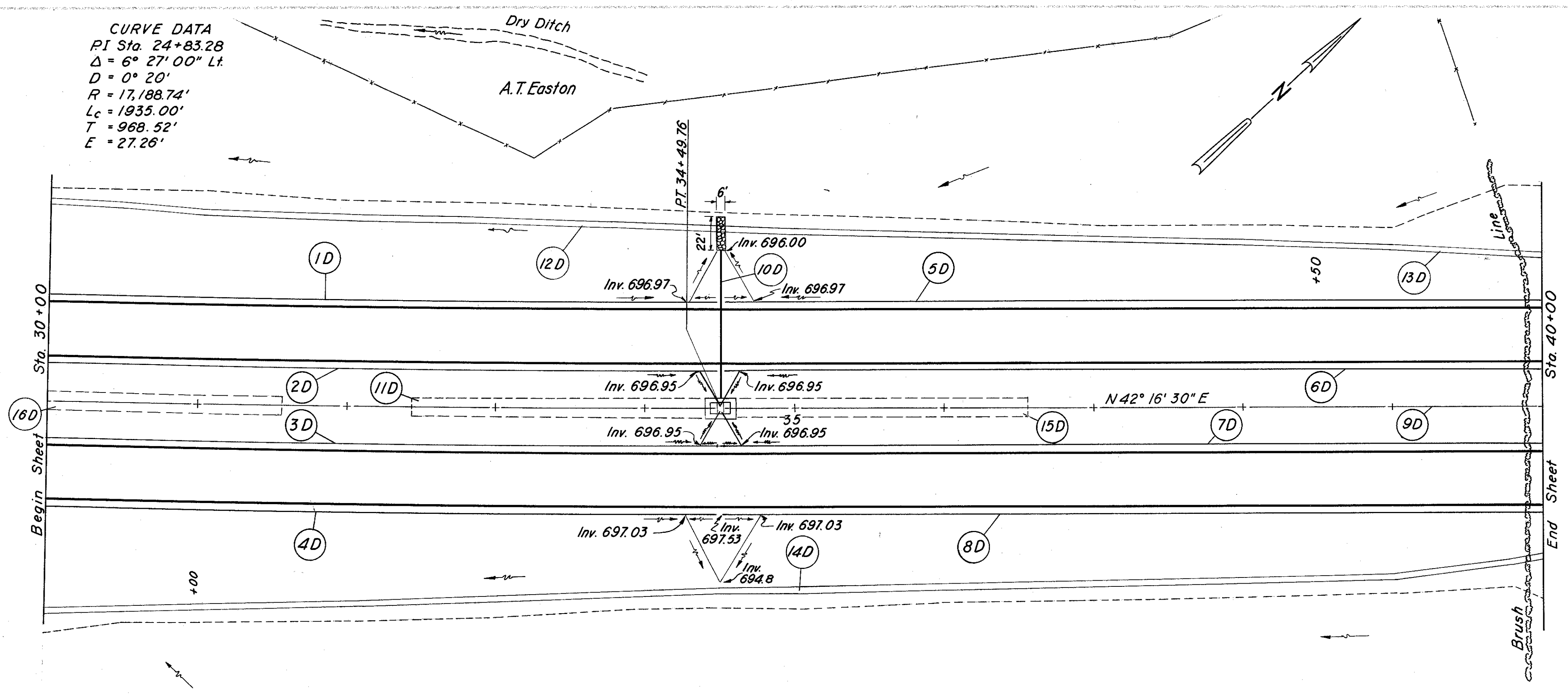
PAVEMENT

Ref. No.	Station		Side	I-7 Reint. Conc. Approach Slab T=13" S.Y.
	From	To		
1 P	20+12.75	20+37.75	L	100
2 P	20+12.75	20+37.75	R	100
3 P	21+72.25	21+97.25	L	100
4 P	21+72.25	21+97.25	R	100
Totals				400

Excavation 2,754 C.Y.
 Embankment 59,195 C.Y.
 Embankment +18% 69,850 C.Y.

WAR-25-8.48
MOT-25-0.00

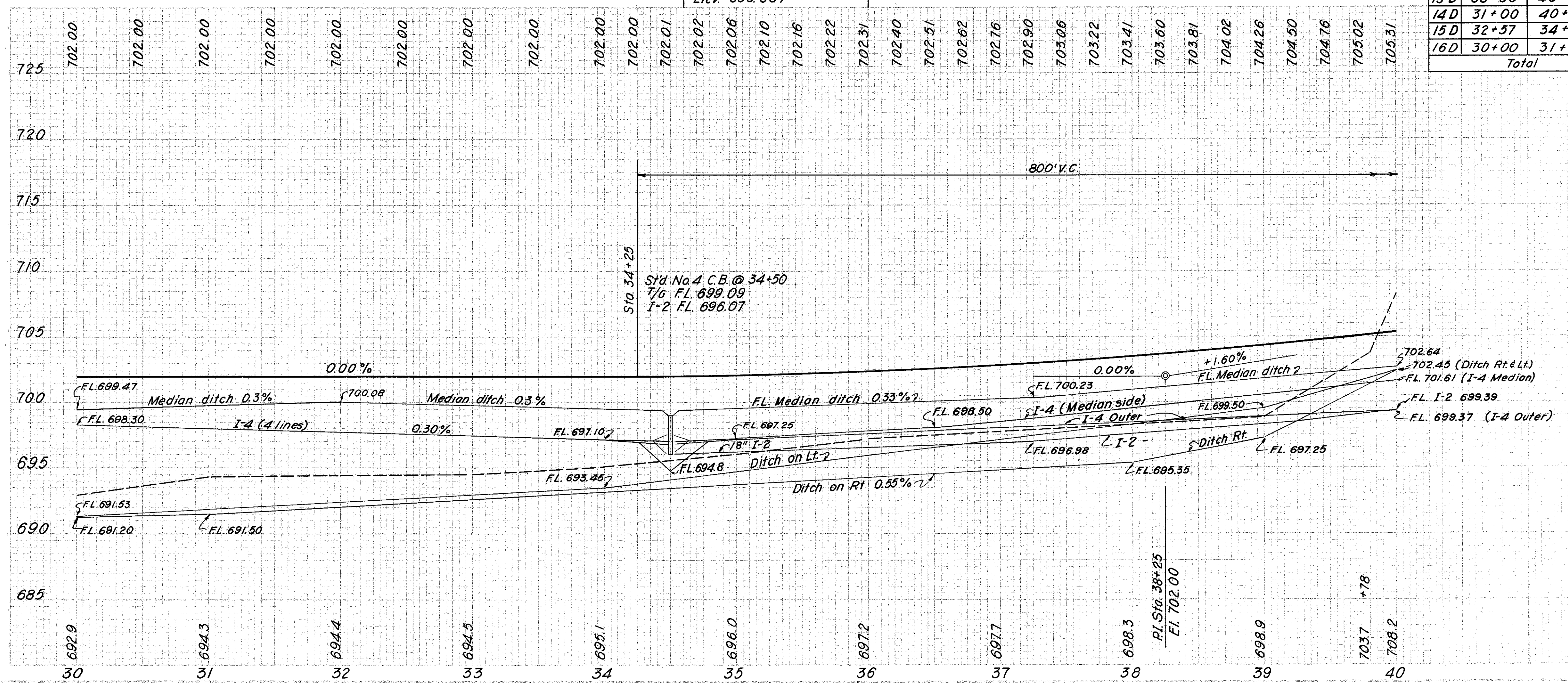
CURVE DATA
 PI Sta. 24+83.28
 $\Delta = 6^\circ 27' 00''$ Lt.
 $D = 0^\circ 20'$
 $R = 17,188.74'$
 $L_c = 1935.00'$
 $T = 968.52'$
 $E = 27.26'$



Ref. No.	Station		Side	I-4 Underdrain 6" L.F.	I-4 Pipe Outlets to Underdrains 8" L.F.	I-5 for I-4 Wye 60° 6"x6" Each	I-2 Class A Storm Sewer 18" L.F.
	From	To					
1 D	30+00	34+48	L	478	10	1	
2 D	30+00	34+48	L	462	10	1	
3 D	30+00	34+48	R	462	10	1	
4 D	30+00	34+50	R	496	10	1	
5 D	34+52	40+00	L	578	10	1	
6 D	34+52	40+00	L	578	10	1	
7 D	34+50	40+00	R	562	10	1	
8 D	34+50	40+00	R	596	10	1	
9 D	34+52	40+00	E				548
Totals				4212	80	8	548

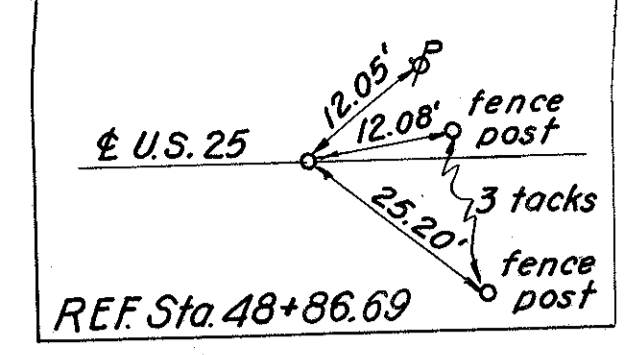
B.M. Spike in root of 36" Buttonwood 235' Lt 35+60 Elev. 699.007

Ref. No.	Station		Side	S-1 Concrete for Structures Class E C.Y.	I-2 Storm Sewers Sec. M-63(b) or M-68(b) 18" L.F.	I-8 Std. No. 4 Catch Basin Each	I-10 Dumped Rock Channel Protection		L-10 Sodding		See Sheet No.
	From	To					Depth inches	C.Y.	Width L.F.	S.Y.	
10 D	34+50	Left		0.3	104	1	30	12	3	14	
11 D	32+43	34+43	E						18"strips	40	
12 D	30+00	38+50	L						9'	850	
13 D	38+50	40+00	L						6'	100	
14 D	31+00	40+00	R						6'	600	
15 D	32+57	34+57	E						18"strips	40	
16 D	30+00	31+57	E						18"strips	30	
Total				0.3	104	1	12	12	3	1674	



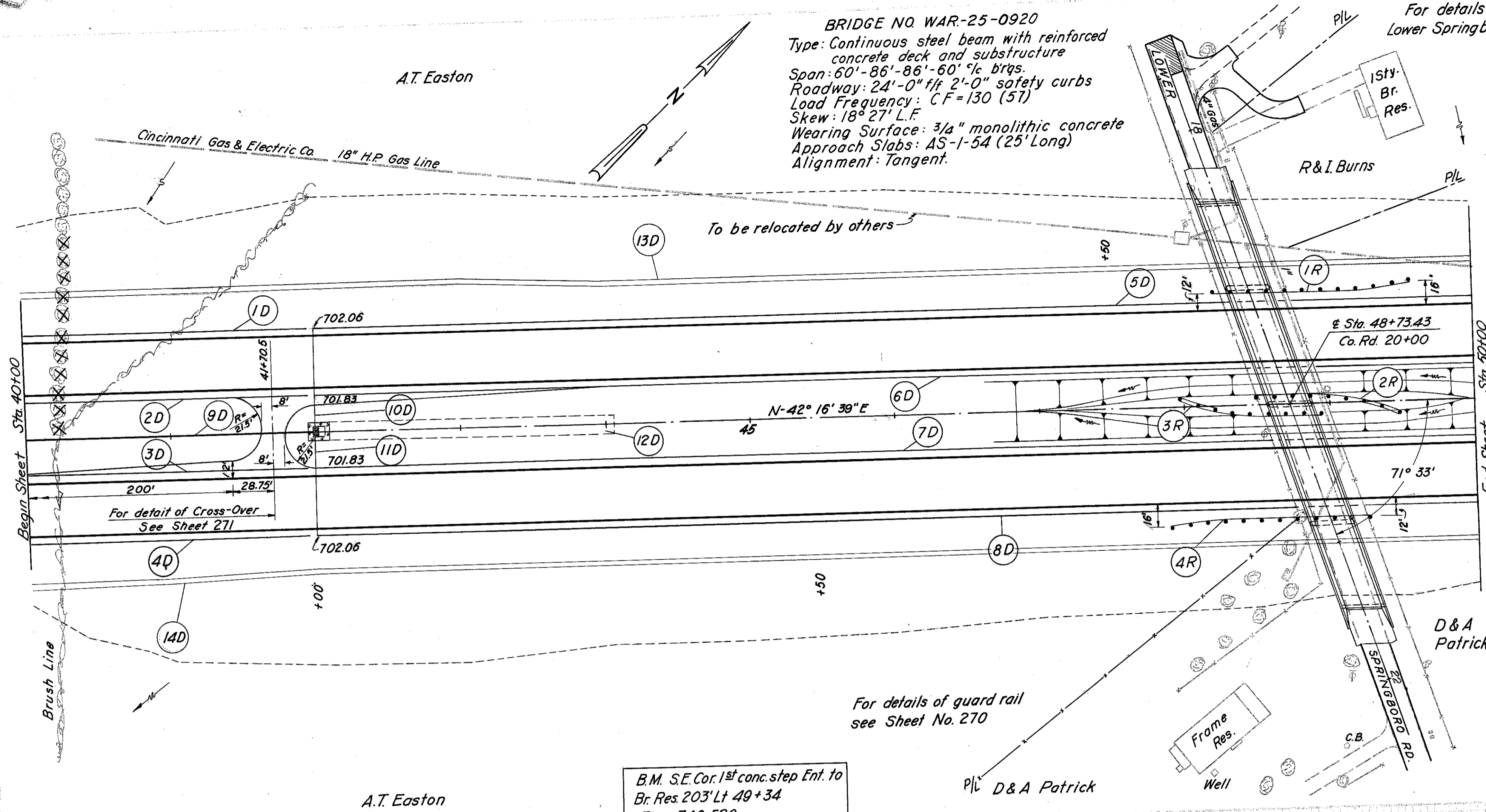
Excavation 2,947 C.Y.
 Embankment 34,840 C.Y.
 Embankment +18% 41,111 C.Y.

WAR-25-848
MOT-25-0.00



BRIDGE NO. WAR-25-0920
 Type: Continuous steel beam with reinforced concrete deck and substructure
 Span: 60'-86'-86'-60' 1/4 brqs.
 Roadway: 24'-0" flt 2'-0" safety curbs
 Load Frequency: CF=130 (57)
 Skew: 18° 27' L.F.
 Wearing Surface: 3/4" monolithic concrete
 Approach Slabs: AS-1-54 (25' Long)
 Alignment: Tangent.

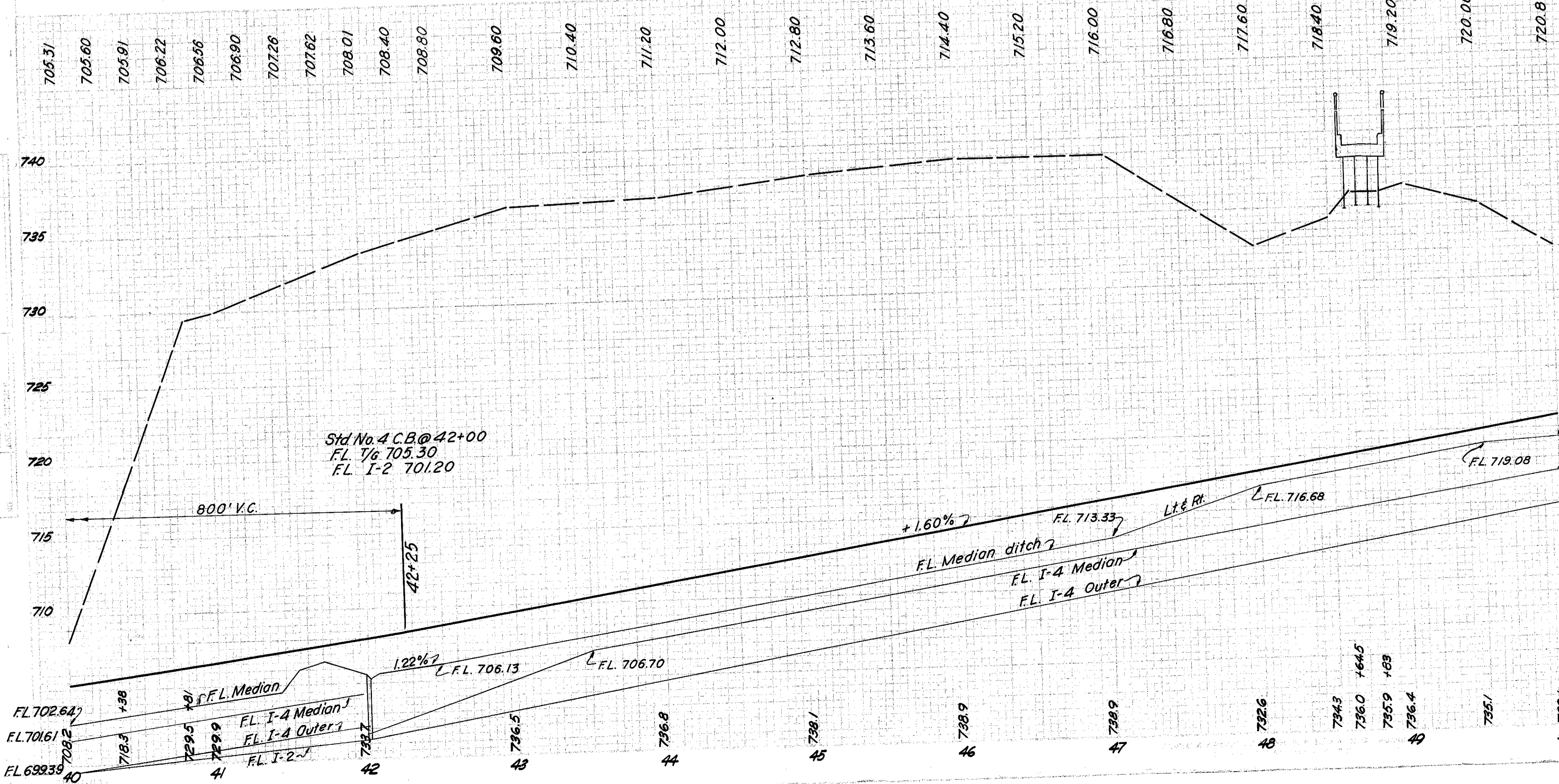
For details and quantities of Lower Springboro Rd. See Sheet 141-142



Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4			I-2 Class A Storm Sewer 18" L.F.	I-2 Storm Sewer Sec. M-6.5(a) or M-6.8(b) 8" L.F.	I-4 Outlet for Underdrain Sec. M.6.4(a) 8" L.F.	I-8 Std. No. 4 Catch Basin	L-10 Sodding		
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 90° 6" Ea.	Increase 8"x6" Ea.	Tee 8"x6"x6" Ea.					Width L.F.	S.Y.	
1 D	40+00	41+96	L		196										
2 D	40+00	41+96	L	196											
3 D	40+00	41+96	R	196											
4 D	40+00	41+96	R		196										
5 D	42+00	50+00	L		800										
6 D	42+00	50+00	L	800											
7 D	42+00	50+00	R	800											
8 D	42+00	50+00	R		800			198				1	3	14	
9 D	40+00	41+98	E						56	10					
10 D	42+00	L to E							56	10					
11 D	42+00	R to E											18 Strips	40	
12 D	42+07	44+07	E										6	500	
13 D	40+00	47+50	L										6	134	
14 D	40+00	42+00	R												
Total						1992	1992	2	2	2	198	112	20	1	688

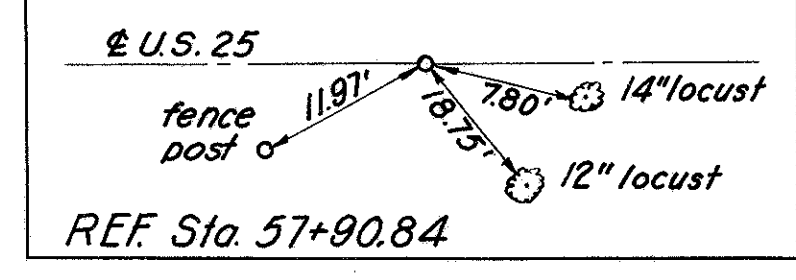
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam	
	From	To		Type Deep Standard	Type Deep Barrier
1 R	40+20	49+57		137.5	
2 R	48+50	49+50		75	25
3 R	47+96	48+94		75	25
4 R	47+87	49+25		137.5	
Total				425	50

B.M. S.E. Cor. 1st conc. step Ent. to Br. Res. 203' Lt 49+34 Elev. 740.520

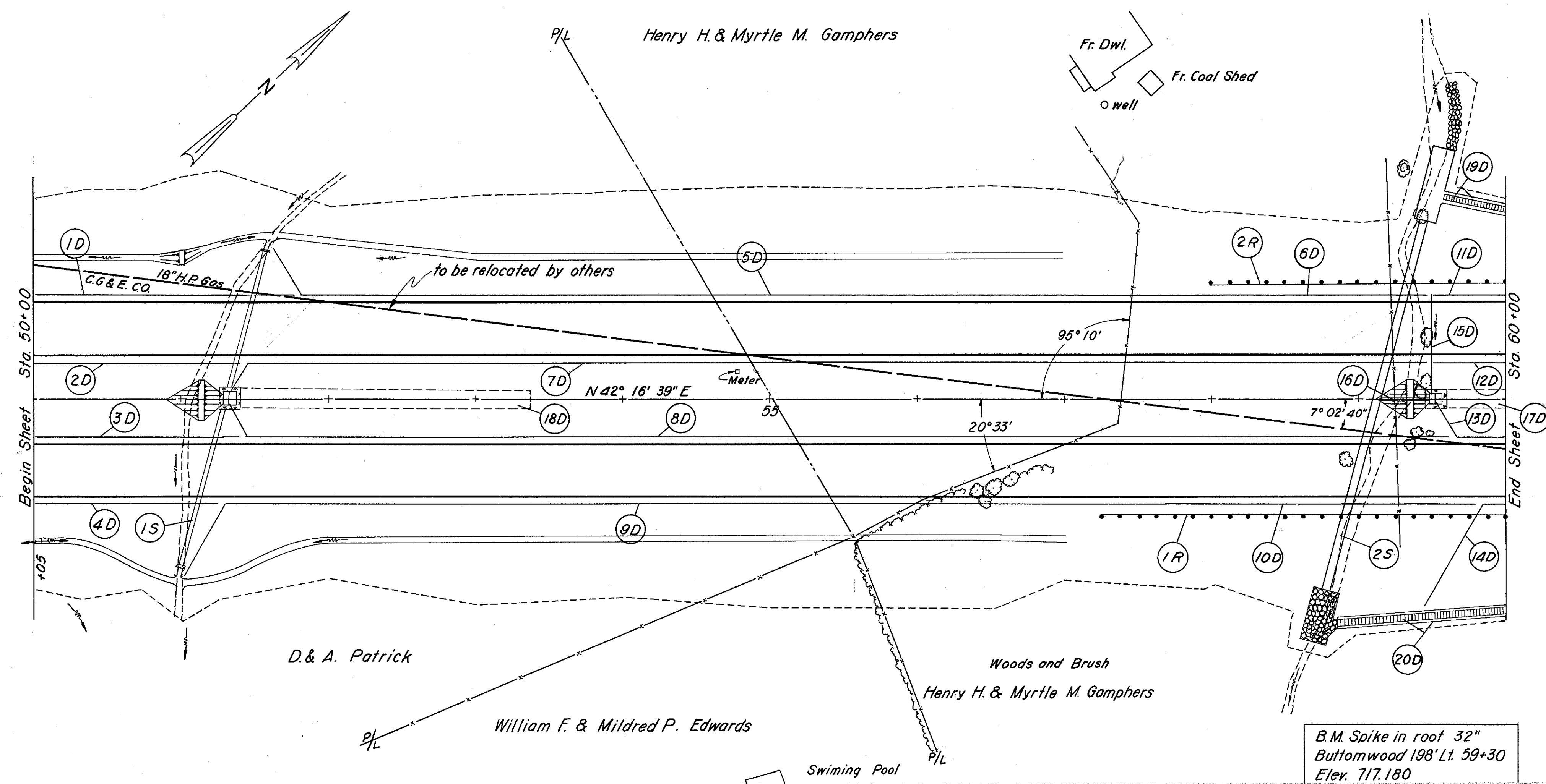


Excavation 215,583 C.Y.
 Embankment 0 C.Y.
 Embankment +18% 0 C.Y.

Sta. 40+00 To Sta. 50+00

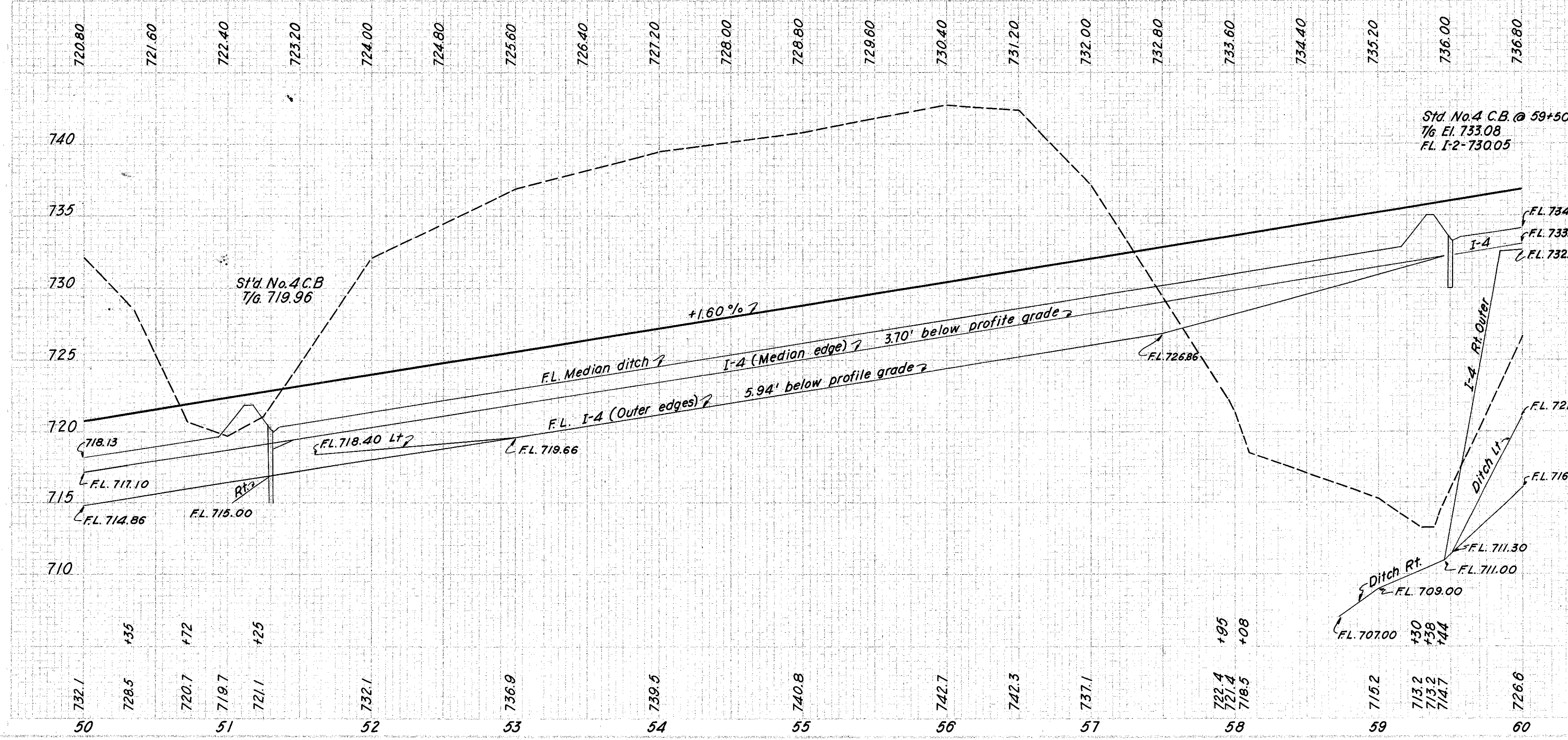


WAR-25-848
MOT-25-0.00



Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4				I-4 Pipe Outlets for Underdrain 8" L.F.	I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8" L.F.
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 60° 6" Ea.	Bend 90° 6" Ea.	Increase 6"x8" Ea.	Tee 8"x8" x 6" Ea.		
1 D	50+00	51+77	L		177						
2 D	50+00	51+40	L	140							
3 D	50+00	51+40	R	140							
4 D	50+00	51+26	R		126						
5 D	51+61	57+65	L		614					10	
6 D	57+65	59+46	L	181							
7 D	51+30	59+46	L	816			1			10	
8 D	51+30	59+63	R	832			1			10	
9 D	51+02	57+65	R		682		1			10	
10 D	57+65	59+80	R	215							
11 D	59+50	60+00	L	50							
12 D	59+50	60+00	L	50							
13 D	59+50	60+00	R	48						10	
14 D	59+45	60+00	R	84			1			10	
15 D	59+50							1	1	1	56
Totals				2556	1599	5	1	1	1	70	56

Ref. No.	Station		Side	I-2 Class A Storm Sewers 15" L.F.	I-8 Std. No. 4 Catch Basin Ea.	L-10 Sodding		I-14 Paved Gutter Type I-A L.F.
	From	To				Width L.F.	S.Y.	
16 D	59+12	59+50	E	34	1	3	14	
17 D	59+57	60+00	E			18" strips	8	
18 D	51+37	53+37	E			18" strips	40	
19 D	59+58	60+00	L			3	14	42
20 D	58+85	60+00	R			3	38	115
Totals				34	1	114	157	



Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	S-1 Concrete for Structures Class "E" C.Y.	S-27 Pipe for Rd'wy Culvert Sec. M-6.6(b) or Sec. M-6.8 (b)		S-27 Pipe for Roadway Culverts 72" L.F.	I-5 for S-27 72"x72" x 15" Wye Each	I-8 Std. No. 4 Catch Basin Each	I-10 Sodding S.Y.	Excavation 64,285 C.Y.	Embankment 29,080 C.Y.	Embankment + 18% 34,314 C.Y.
					24" L.F.	30" L.F.							
1S	51+30	260	184	3.9	104	118				21			
2-S	59+12	168	575	7.5			258	1					
Totals		428	759	11.4	104	118	258	1	1	21			

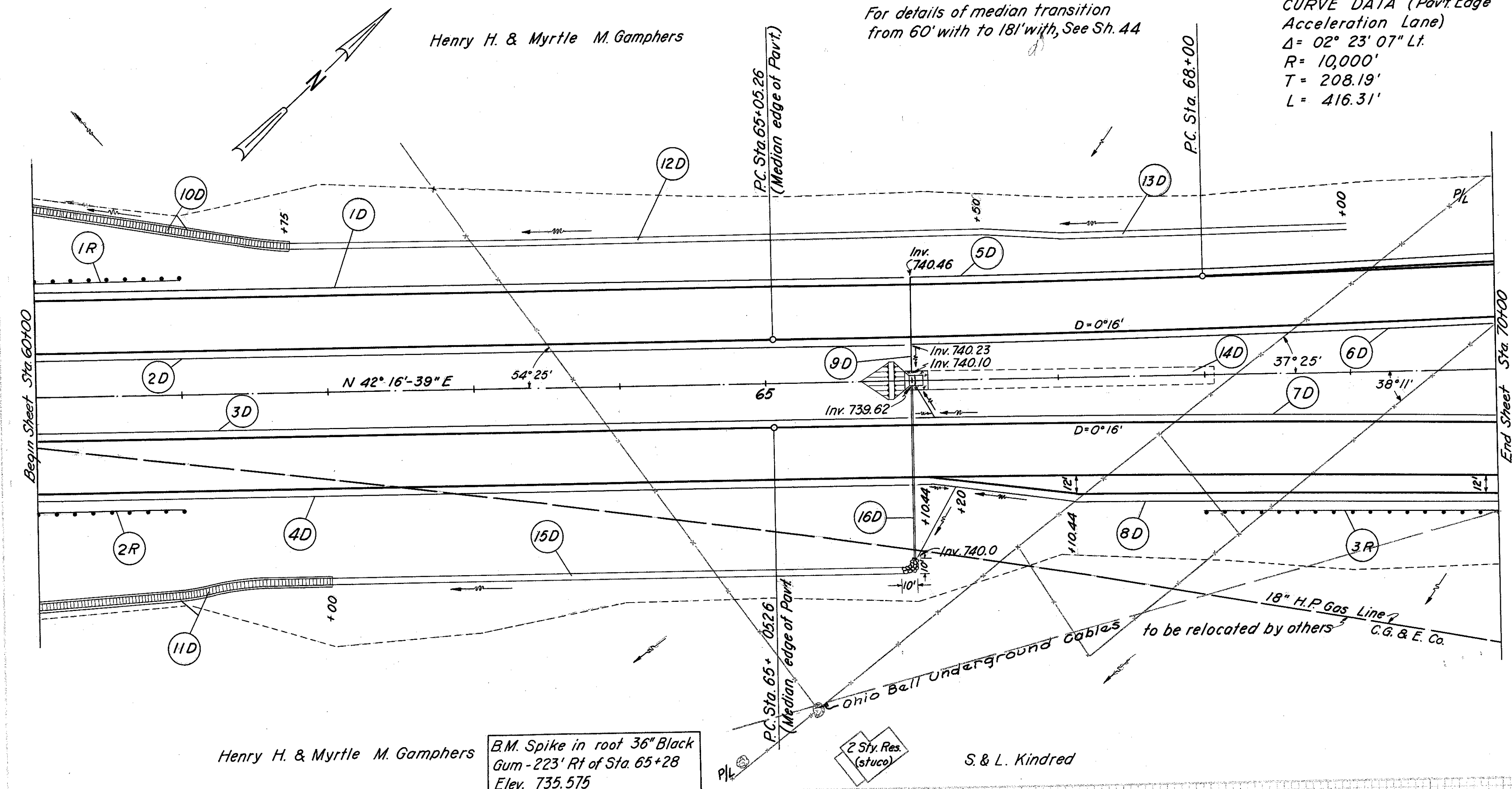
Ref. No.	Station	I-10 Type A Riprap 6" Reinf. Concrete S.Y.	I-10 Dumped Rock Channel Protection C.Y.	See Sheet No.	ROADWAY		I-15 Guard Rail Steel Beam Type Deep Standard L.F.
					From	To	
1S	51+30	37	15	273			
2S	59+12	100	79	275			
Totals		137	94				475

WAR-25-848
MOT-25-000

Henry H. & Myrtle M. Gamphers

For details of median transition from 60' with to 181' with, See Sh. 44

CURVE DATA (Pavt Edge Acceleration Lane)
 $\Delta = 02^\circ 23' 07''$ Lt.
 $R = 10,000'$
 $T = 208.19'$
 $L = 416.31'$



Henry H. & Myrtle M. Gamphers

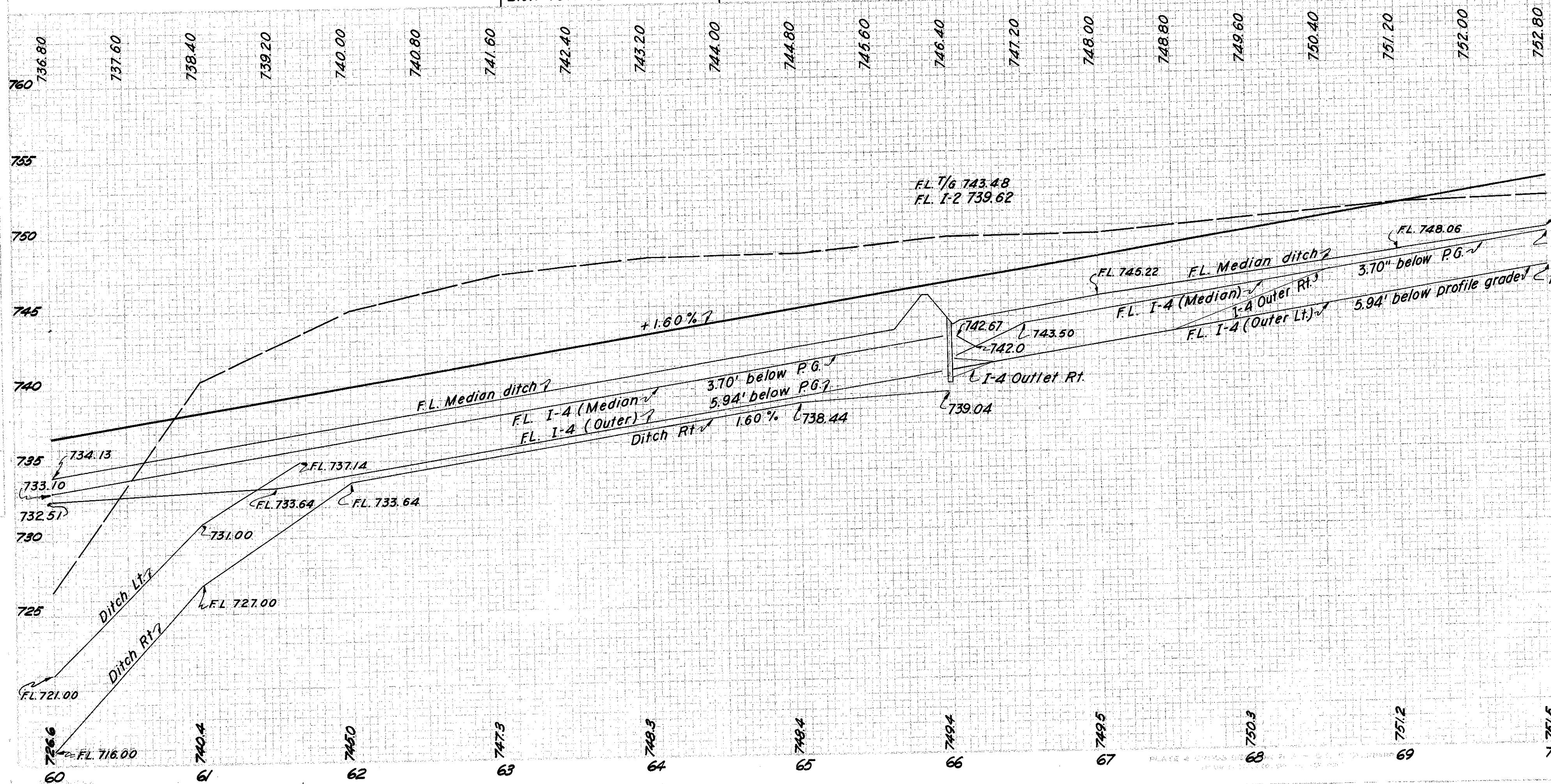
B.M. Spike in root 36\"/>

S & L. Kindred

Ref No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlet for Underdrains 8\"/>					
	From	To		Shallow 6\"/>							
1 D	60+00	65+96	L	150	446						
2 D	60+00	65+96	L	596							
3 D	60+00	65+98	R	598							
4 D	60+00	65+98	R		598						
5 D	66+00	70+00	L		400						
6 D	66+00	70+00	L	400							
7 D	66+02	70+00	R	410		10	1				
8 D	66+00	70+00	R	250	194	10	1				
9 D	66+00	-						1	1	1	56
Totals				2404	1638	30	2	1	1	1	56

Ref No.	Station		Side	S-1 Concrete for Structures Class E C.Y.	I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 18\"/>				
	From	To				I-8 Standard No. 4 Catch Basin Ea.	I-14 Paved Gutter Type I-A L.F.	L-10 Sodding Width L.F. S.Y.	I-10 Dumped Rock Channel Protection Depth in. C.Y.
10 D	60+00	61+75	L				178	2 @ 18\"/>	
11 D	60+00	62+00	R				202	2 @ 18\"/>	
12 D	61+75	67+00	L					9 525	
13 D	67+00	69+00	L					6 133	
14 D	66+07	68+07	R					18 strips 40	
15 D	62+00	65+90	R					6' 260	
16 D	66+00	-		0.3	120	1		3' 14	30 10
Totals				0.3	120	1	380	1098	10

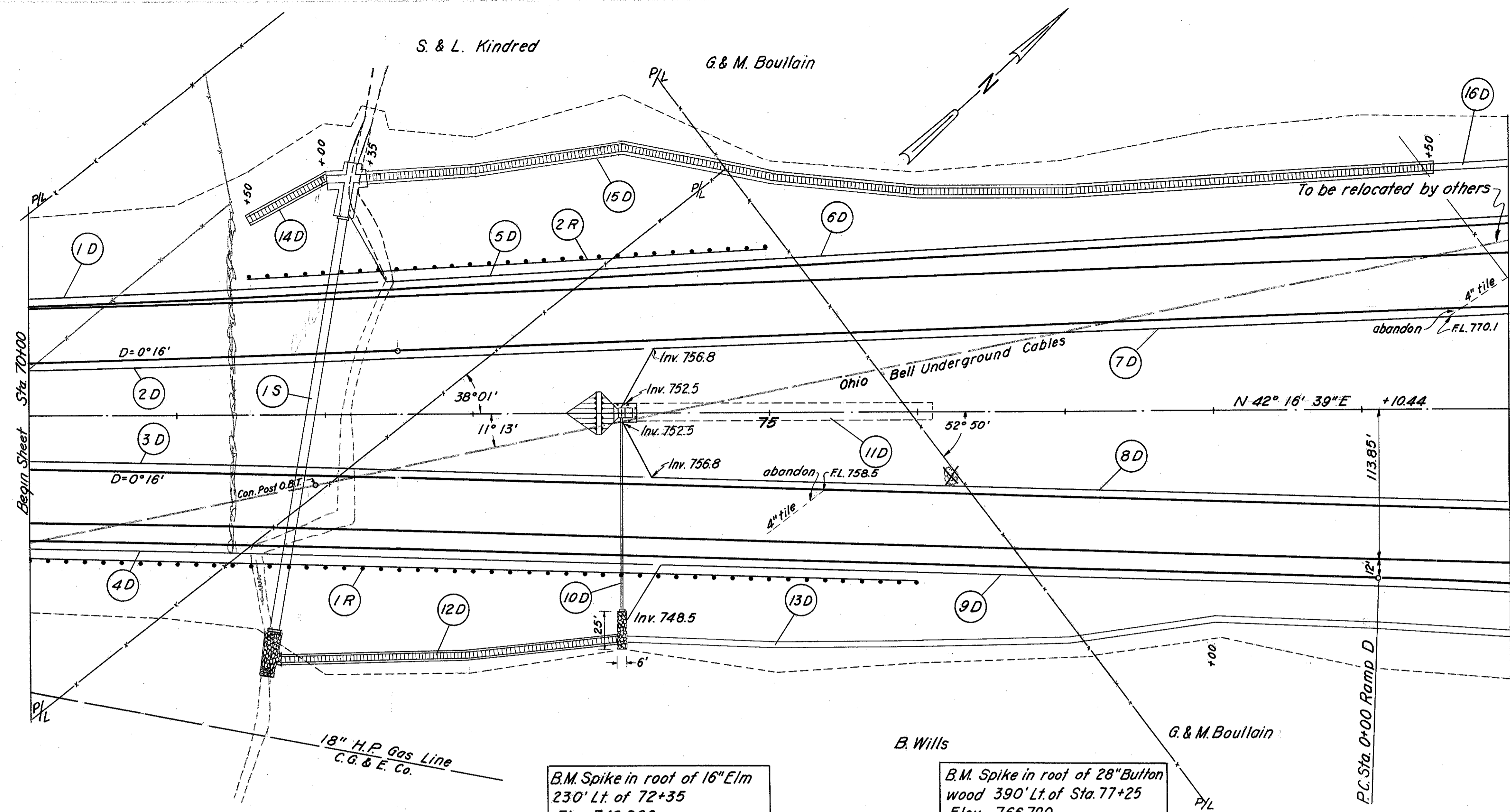
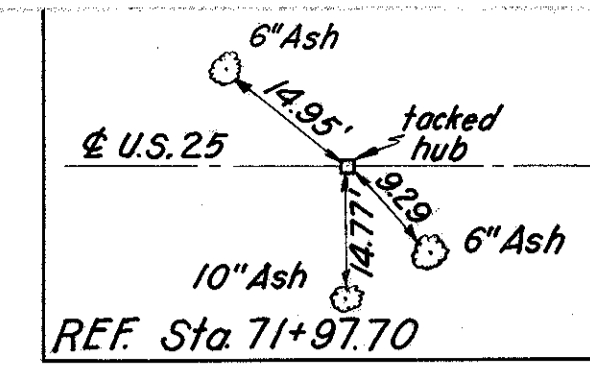
Ref No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1 R	60+00	61+00	L	100
2 R	60+00	61+00	R	100
3 R	68+00	70+00	R	200
Totals				400



Excavation 34,955 C.Y.
 Embankment 6,592 C.Y.
 Embankment +18% 7,779 C.Y.

Sta. 60+00 To Sta. 70+00

WAR-25-848
MOT-25-0.00



DRAINAGE

Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4 Bend 60° 6" Each	I-4 Pipe Outlets for Underdrains 8" L.F.
	From	To		Shallow 6" L.F.	Deep 6" L.F.		
1 D	70+00	72+36	L	136	100		
2 D	70+00	74+16	L	416			
3 D	70+00	74+16	R	416			
4 D	70+00	74+20	R	420			
5 D	72+18	75+00	L	294		1	10
6 D	75+00	80+00	L		500		
7 D	74+00	80+00	L	616		1	10
8 D	74+00	80+00	R	616		1	10
9 D	74+04	80+00	R		608	1	10
Totals				2914	1208	4	40

DRAINAGE (Cont.)

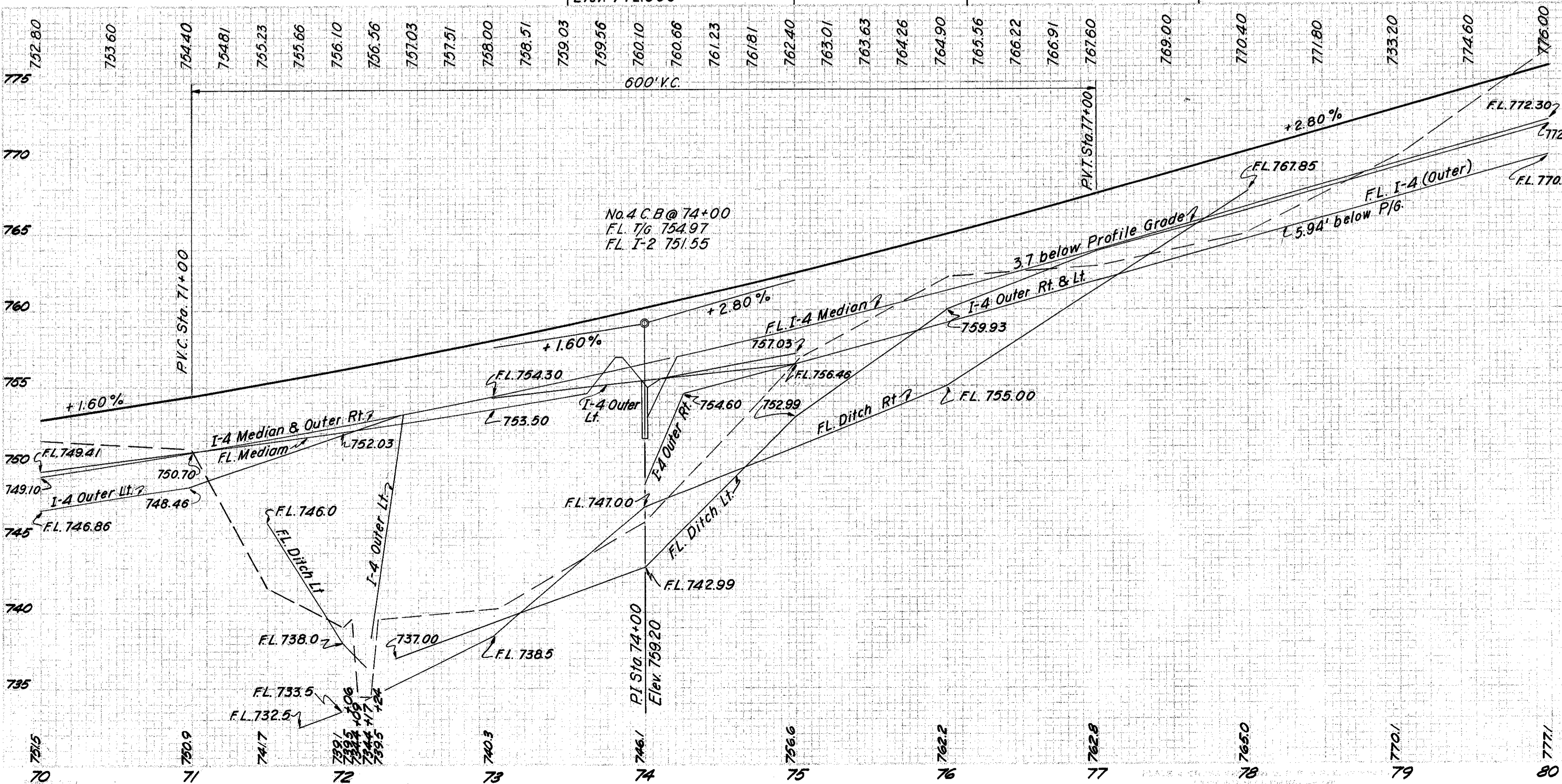
Ref. No.	Station		Side	S-1 Concrete for Structures Class E C.Y.	I-2 Storm Sewer Sec. M-66(0) or M-68(0) 21" L.F.	I-8 Standard No. 4 Catch Basin Each	I-10 Dumped Rock Channel Protection		I-14 Paved Gutter Type I.A. L.F.	L-10 Sodding	
	From	To					Depth inches	C.Y.		Width L.F.	S.Y.
10 D	74+00	76+00	R	0.4	130	1	30	14		3	14
11 D	74+07	76+07	R							18 strips	40
12 D	71+72	73+97	R						225		
13 D	74+03	78+00	R							6	265
14 D	71+50	72+00	L						65	2@18"	22
15 D	72+35	79+50	L						715	2@18"	238
16 D	79+50	80+00	L							9	50
Totals				0.4	130	1	14	1005			629

STRUCTURES (20' Span and Under)

Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	S-1 Concrete for Structure Class E C.Y.	S-27 Pipe for Roadway Culverts 72" L.F.	I-10 Dumped Rock Channel Protection C.Y.	I-10 Type A Rip Rap 6" Reint. Concrete S.Y.	See Sheet No.
I-S	71+91	96	510	7.5	284	42	294	277
Totals		96	510	7.5	284	42	294	

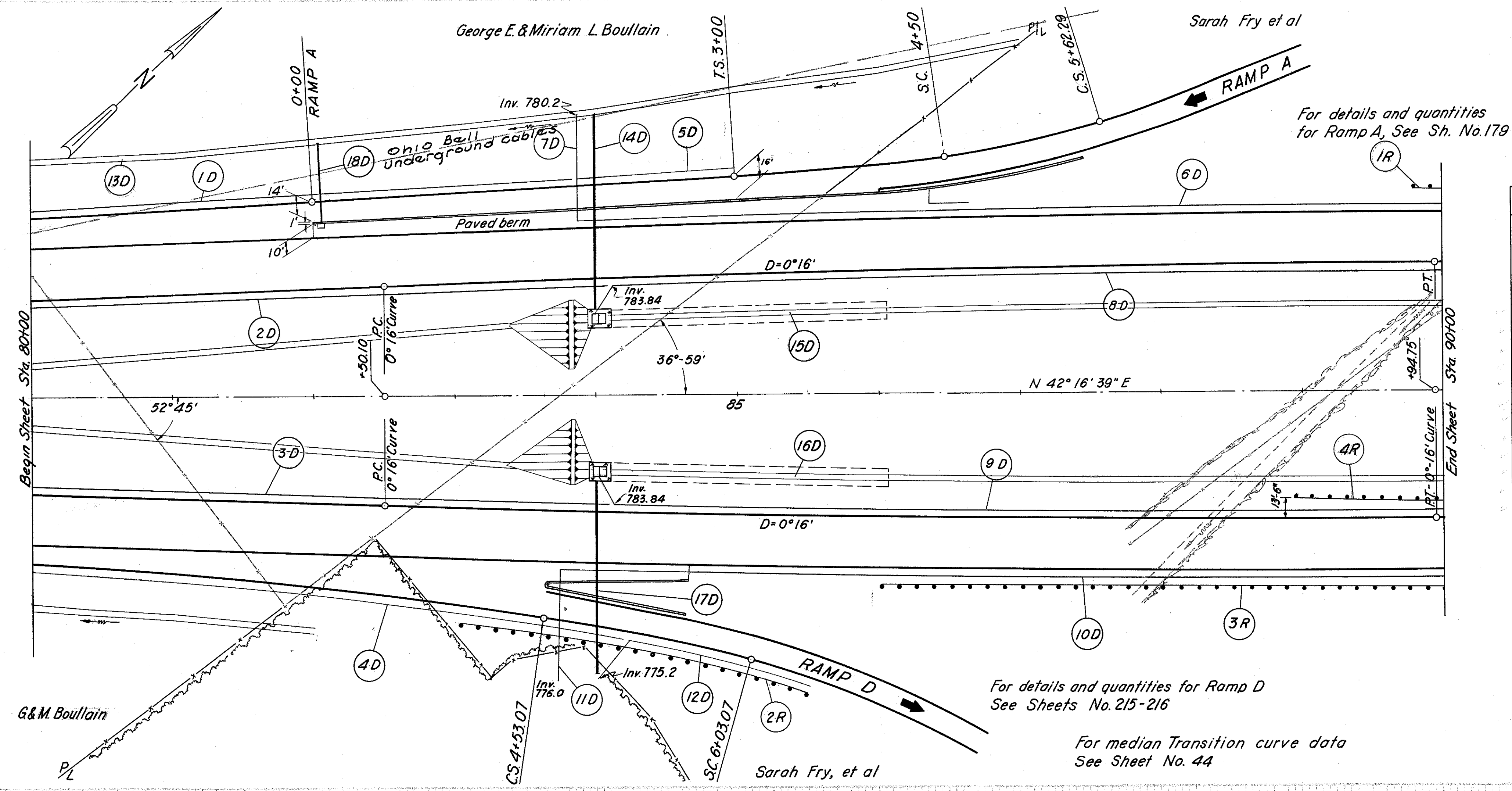
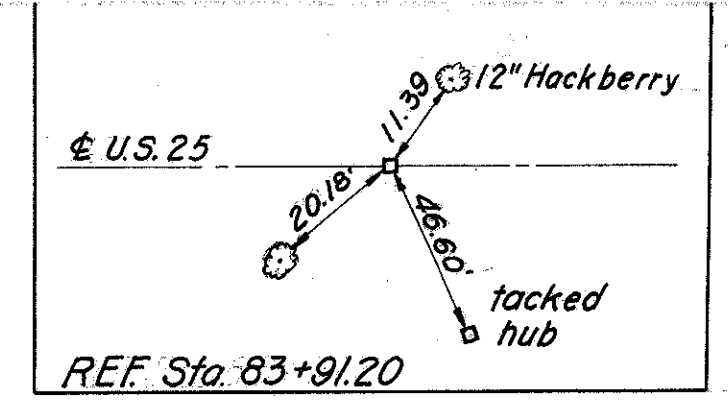
ROADWAY

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
From	To			
1 R	70+00	76+00	R	600
2 R	71+50	75+00	L	350
Totals				950



Excavation 10,455 C.Y.
Embankment 54,402 C.Y.
Embankment +18% 64,194 C.Y.

WAR-25-8.48
MOT-25-0.00



DRAINAGE

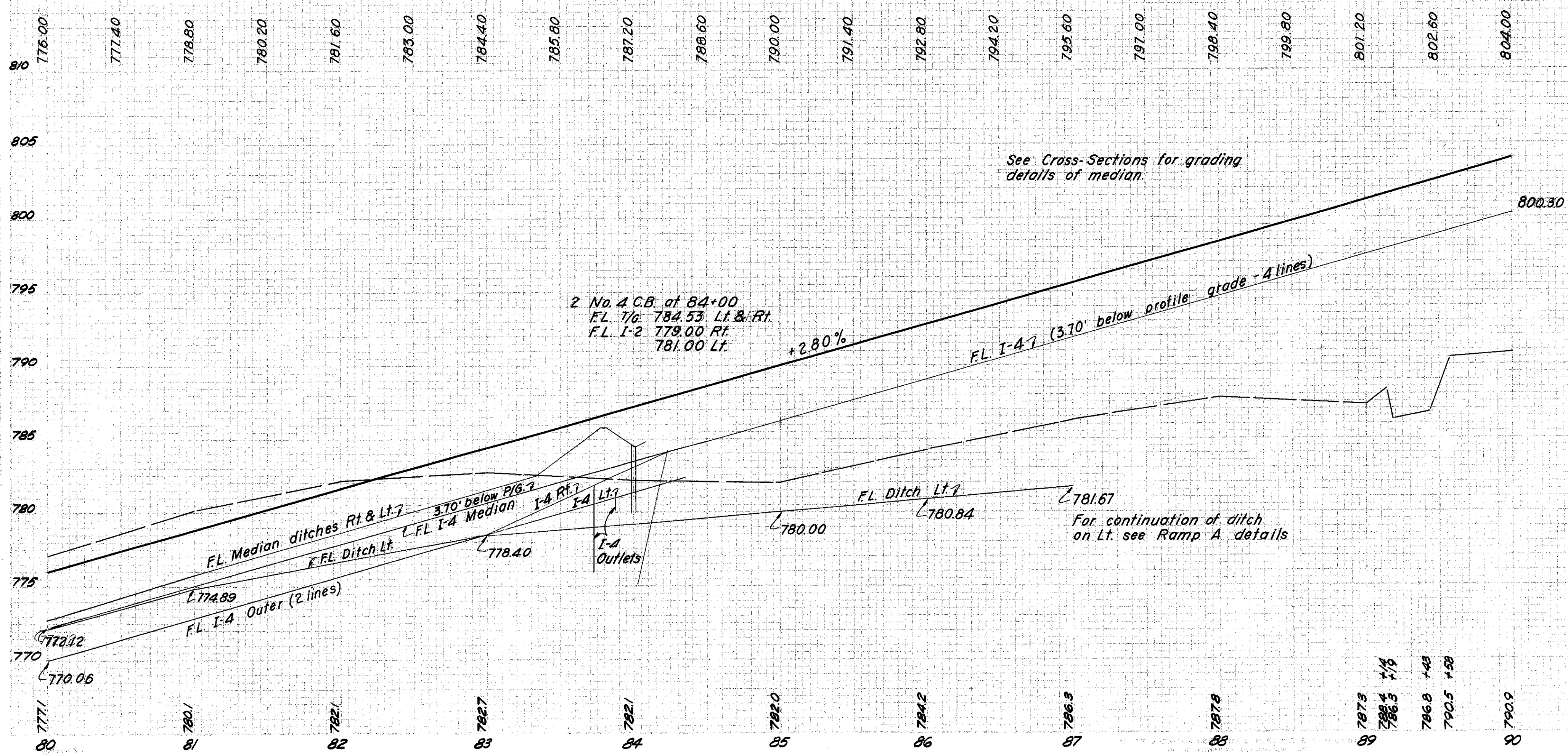
Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4				I-4 Pipe Outlet for Underdrain 8" L.F.	I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8" L.F.
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 60° 6" Ea.	Bend 90° 6" Ea.	Increase 6"x8" Ea.	TEE 8"x8"x6" Ea.		
1 D	80+00	83+84	L		384						
2 D	80+00	84+00	L	400							
3 D	80+00	84+00	R	400							
4 D	80+00	84+20	R	122	300						
5 D	83+88	85+00	L	112							
6 D	83+88	90+00	L	612							
7 D	83+88		L				1	1	1	10	66
8 D	84+00	90+00	L	594		1				10	
9 D	84+00	90+00	R	594		1				10	
10 D	83+74	90+00	R	626							
11 D	83+74		R				1	1		10	78
12 D	84+02	85+50		156		1				10	
Totals				3616	684	3	2	2	1	50	144

DRAINAGE (CONT.)

Ref. No.	Station		Side	I-2 Storm Sewers Sec. M-6.5(b) or M-6.8(b) 15" L.F.	I-2 Storm Sewers Sec. M-6.5(b) or M-6.8(b) 18" L.F.	I-8 Std. No. 4 Catch Basin Ea.	I-8 Std. No. 6 Catch Basin Ea.	S-1 Concrete for Structures Class E C.Y.	L-10 Sodding		
	From	To							Width L.F.	S.Y.	
13 D	80+00	8+00	L						9	200	
14 D	84+00			138		1		0.3	3	14	
15 D	84+07	86+07							18 Strips	40	
16 D	84+07	86+07							18 Strips	40	
17 D	84+00				142	1		0.3	3	14	
18 D	82+05			54			1	0.3			
Totals				192	142	2	1	0.9			308

ROADWAY

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1 R	89+84	90+00	L	16
2 R	83+02	85+50	R	250
3 R	86+00	90+00	R	400
4 R	88+94.5	90+00	R	105.5
Total				771.5

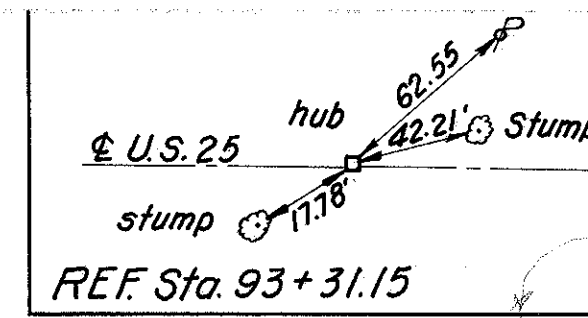


Excavation 7,612 C.Y.
 Embankment 64,533 C.Y.
 Embankment +18% 76,149 C.Y.

Sta. 80+00 To Sta. 90+00

Sarah E. Fry, et al.

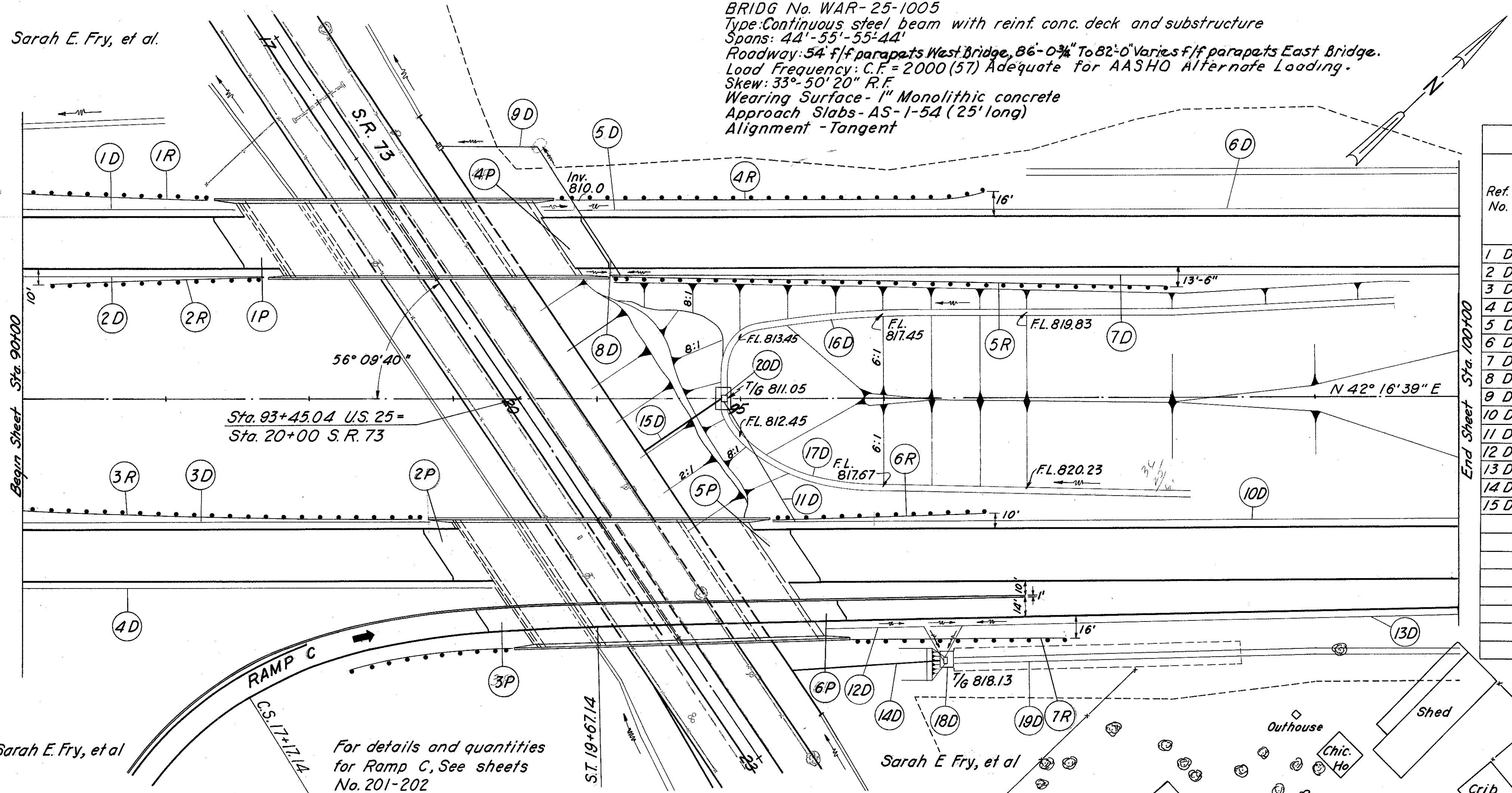
BRIDG No. WAR-25-1005
 Type: Continuous steel beam with reinf. conc. deck and substructure
 Spans: 44'-55'-55'-44'
 Roadway: 54' f/f parapets West Bridge, 86'-0 3/4" To 82'-0" Varies f/f parapets East Bridge.
 Load Frequency: C.F. = 2000 (57) Adequate for AASHTO Alternate Loading.
 Skew: 33° 50' 20" R.F.
 Wearing Surface - 1" Monolithic concrete
 Approach Slabs - AS-1-54 (25' long)
 Alignment - Tangent



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

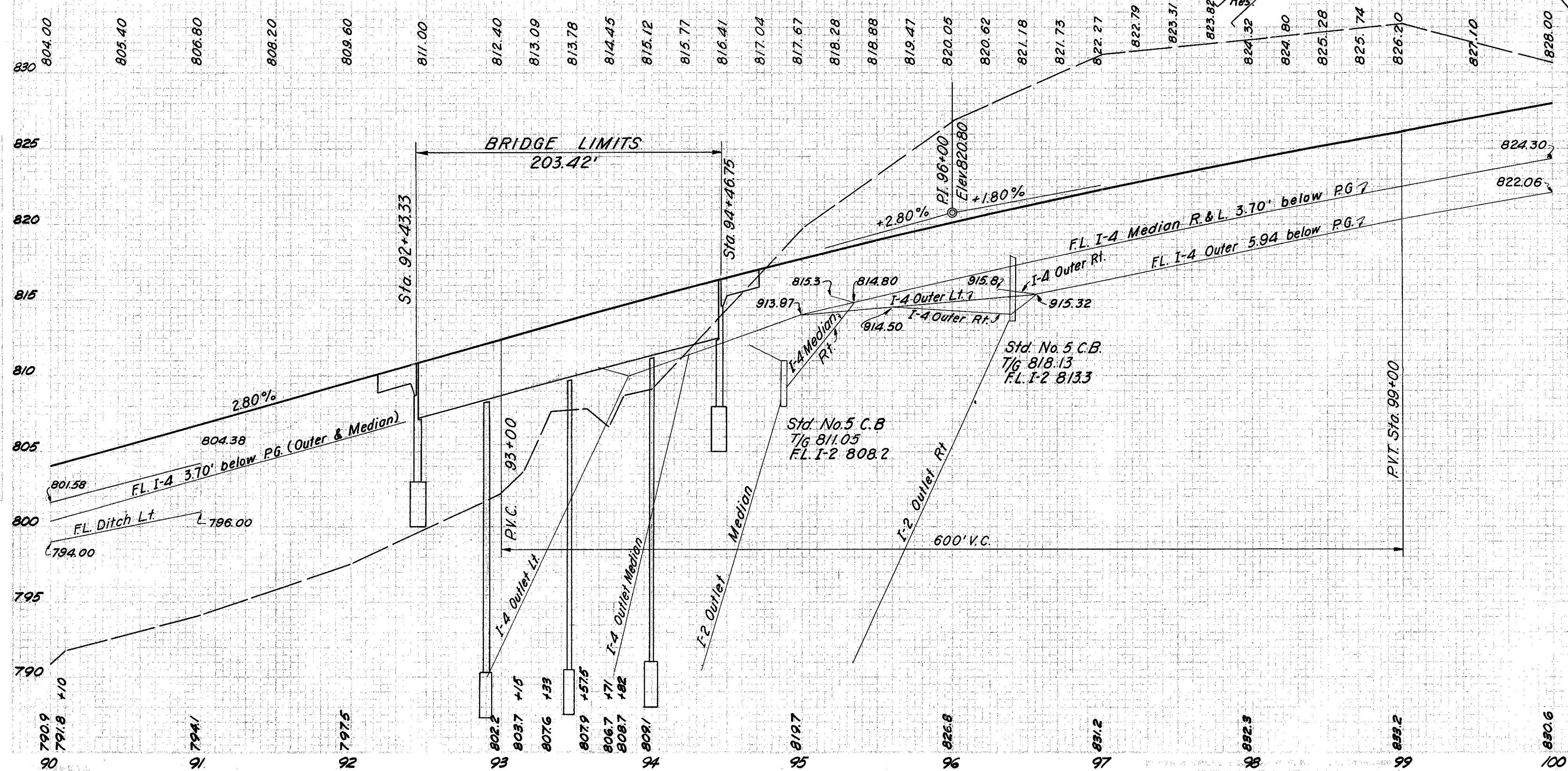
29
377

WAR-25-8.48
 MOT.-25-0.00



Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4				I-4		I-5 for I-2		I-2 Class A Storm Sewer		I-2 Storm Sewer	
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Wye 6"x6" Each	Bend 60° Each	Bend 90° Each	Incr. 6"x8" Each	Bend 30° Sec. M-6.4c 8" Each	Pipe Outlets for Underdrains 8" L.F.	Bend 30° Sec. M-6.4c 15" Ea.	Wye 8"x6" 60° Ea.	Bend 90° 8" Ea.	Class A Storm Sewer Sec. M-6.4c 15" L.F.	Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8" L.F.	
1 D	90+00	91+48	L	148													
2 D	90+00	91+64	L	164													
3 D	90+00	92+84	R	284													
4 D	90+00	93+38	R	338													
5 D	93+64	96+50	L	286													
6 D	96+50	100+00	L		350												
7 D	94+10	100+00	L	590													
8 D	93+60	94+16	L														
9 D	92+90	93+60	L														
10 D	95+20	100+00	R	480													
11 D	94+88	95+37	R	86													
12 D	95+58	96+48	R														
13 D	96+40	100+00	R														
14 D	95+25	96+38	R														
15 D	94+32	95+86	E														
Totals				2376	818	3	1	1	1	2	106	4	2	1	200	106	

For details and quantities for Ramp C, See sheets No. 201-202



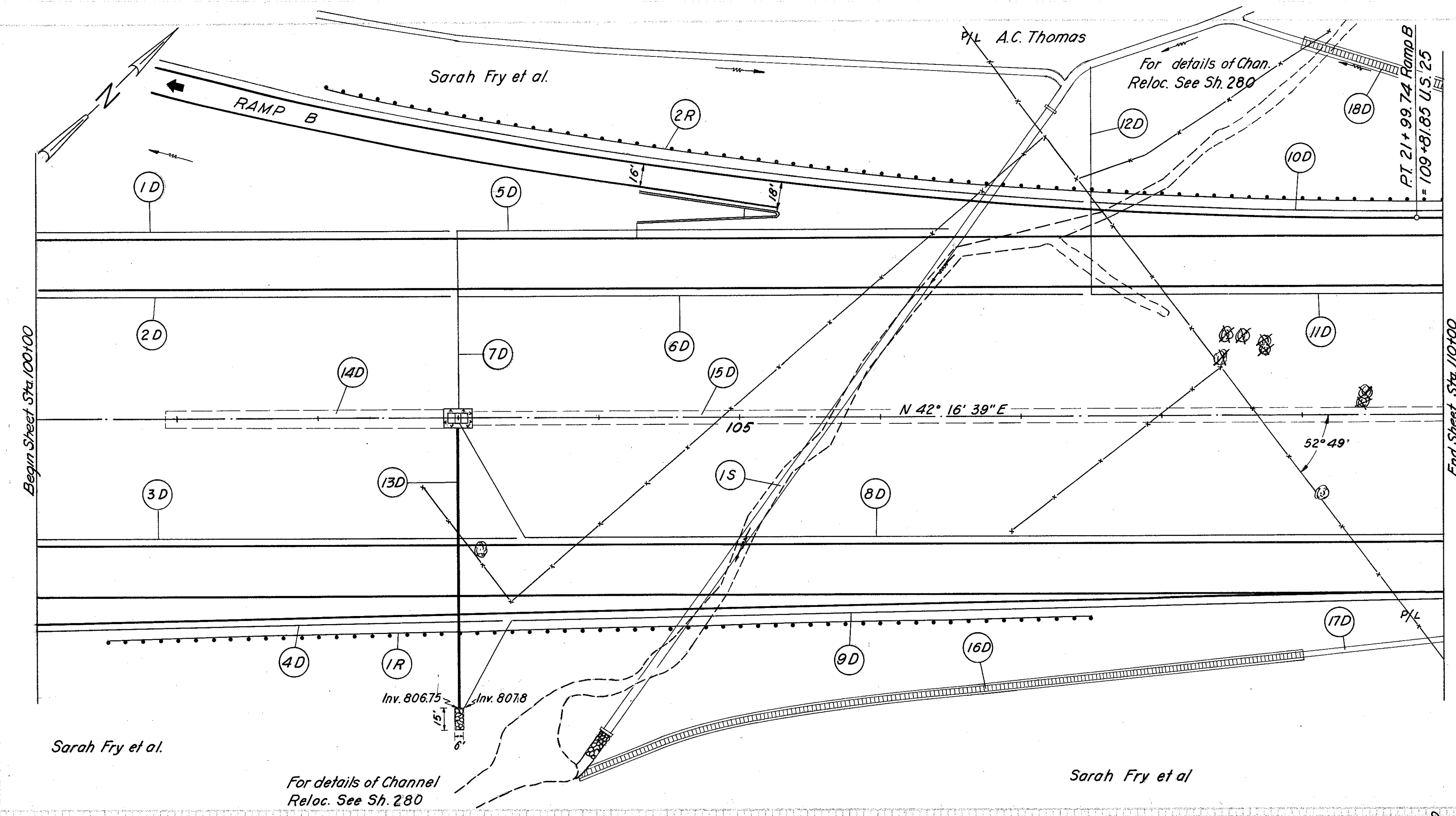
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Standard Type Deep L.F.
	From	To		
1 R	90+00	91+34	L	134
2 R	90+20	91+70	L	150
3 R	90+00	92+82	R	282
4 R	93+70	96+70	L	300
5 R	94+08	97+95	L	387.5
6 R	95+20	96+70	R	150
7 R	95+75	97+25	R	150
Totals				1553.5

Ref. No.	Station		Side	I-7 Reinf. Conc. Approach Slab T=13" S.Y.
	From	To		
1 P	91+45	91+70	L	100
2 P	92+92	93+17	R	100
3 P	93+21	93+46	R	49
4 P	93+73.5	93+98.5	L	100
5 P	95+20	95+45	R	100
6 P	95+45	95+70	R	44.4
Totals				493.4

Ref. No.	Station		Side	I-8 Standard No. 5 Catch Basin Ea.	L-10 Sodding	
	From	To			Width L.F.	S.Y.
16 D	94+88	96+00	L		6	94
17 D	94+88	96+00	R		6	87
18 D	96+40		R	1		
19 D	96+47	98+47	R		15 Strips	56
20 D	94+88		E	1		
Totals				2		237

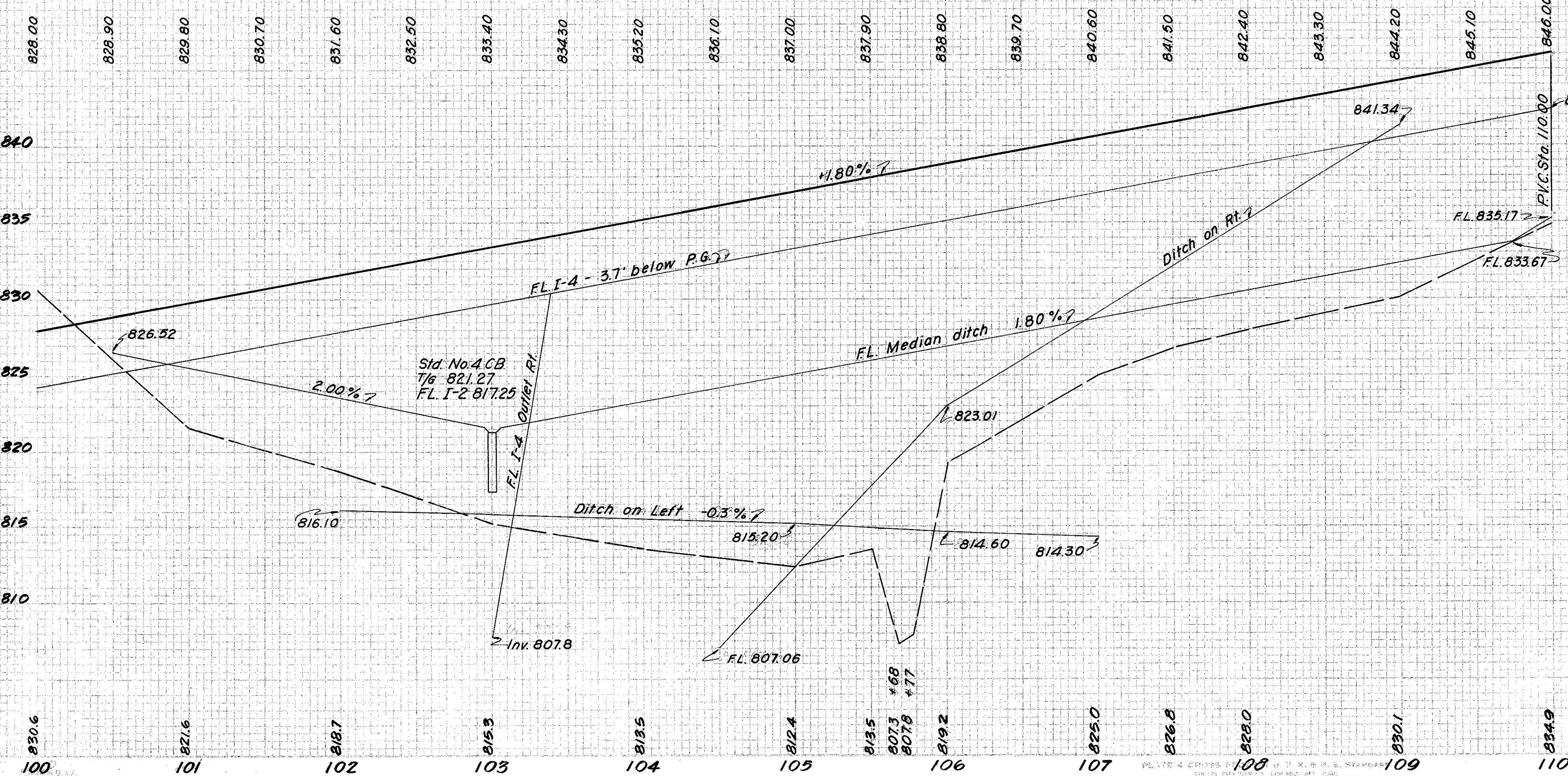
Excavation 35,961 C.Y.
 Embankment 33,897 C.Y.
 Embankment + 18% 39,998 C.Y.

Sta. 90+00 To Sta. 100+00



Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlet for Underdrain 8" L.F.	I-5 for I-4		I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(d) 6" L.F.	I-5 for I-2 Tee 8"x8"x6" Each
	From	To		Shallow 6" L.F.	Deep 6" L.F.		Bend 90° 6" Ea.	Incr. 6"x8" Ea.		
1-D	100+00	102+96	L	296						
2-D	100+00	102+96	L	296						
3-D	100+00	103+43	R	343						
4-D	103+00	103+33	R	333						
5-D	103+00	106+50	L	350						
6-D	103+00	107+46	L	346						
7-D	103+00	-				10	1	1	118	1
8-D	103+00	110+00	R	736		10				
9-D	103+03	110+00	R	730		10				
10-D	107+50	110+00	L	250						
11-D	107+50	110+00	L	250						
12-D	107+50	-	L			10	1	1	148	1
Totals				3930		40	2	2	266	2

Ref. No.	Station		Side	S-1 Concrete for Structures Class E C.Y.	I-2 Storm Sewer Sec. M-6.6(c) 27" L.F.	I-8 Std. No. 4 Catch Basin Ea.	I-10 Dumped Rock Channel Protection		I-14 Paved Gutter Type I-A L.F.	L-10 Sodding	
	From	To					Depth inches	C.Y.		Width L.F.	S.Y.
13-D	103+00	to Rt		0.5	202	1	30	8		3	14
14-D	100+93	102+93	E							18 strips	40
15-D	103+10	110+00	E							9	690
16-D	103+90	109+00	R						518	2@18"	173
17-D	109+00	110+00	R							9	100
18-D	109+00	110+00	L						108		
Totals				0.5	202	1		8	626		1017

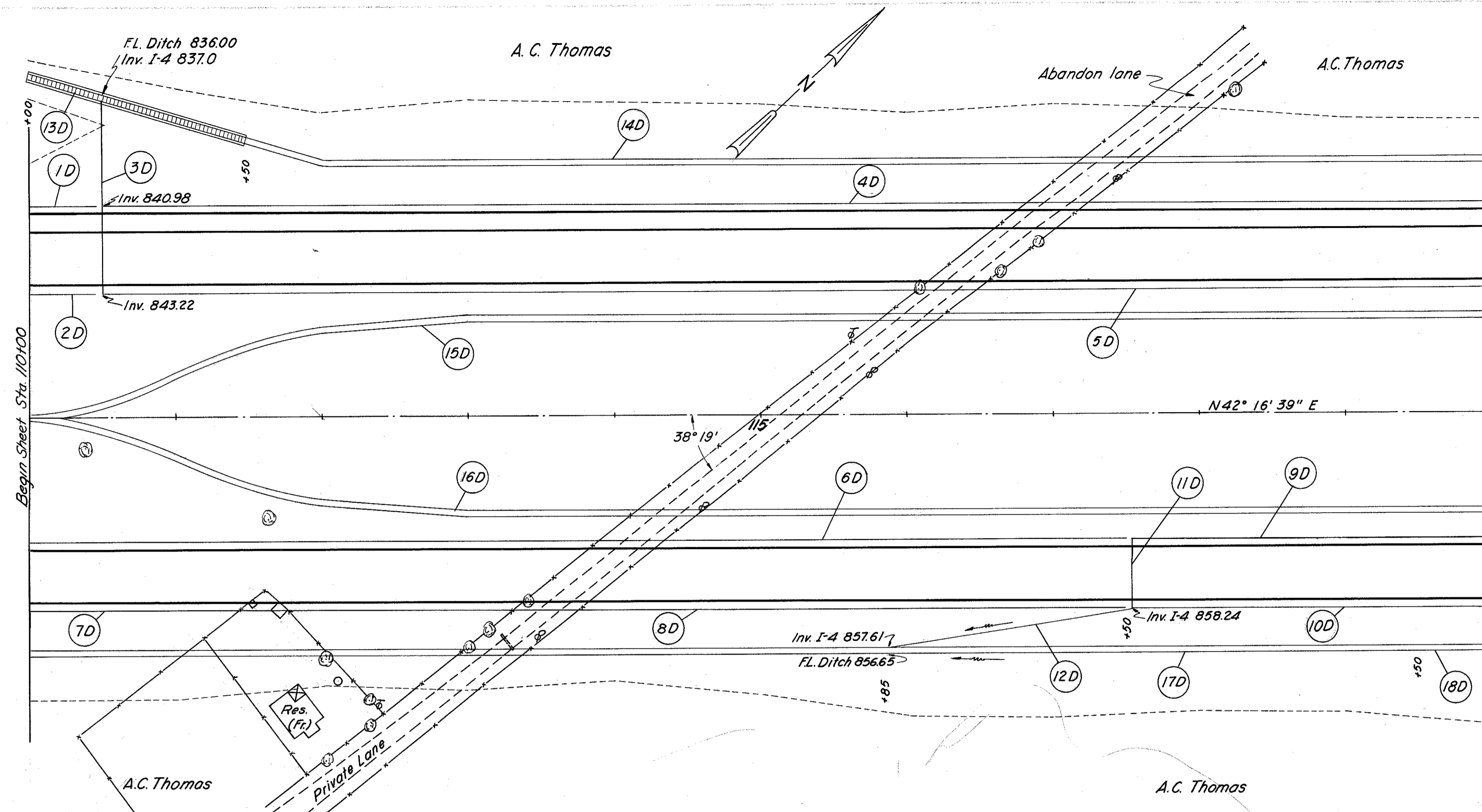


Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	I-10 Dumped Rock Channel Protection C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Roadway Culverts 60" L.F.	See Sheet No.
1-S	105+65	98	365	15	6.0	544	278
Totals		98	365	15	6.0	544	

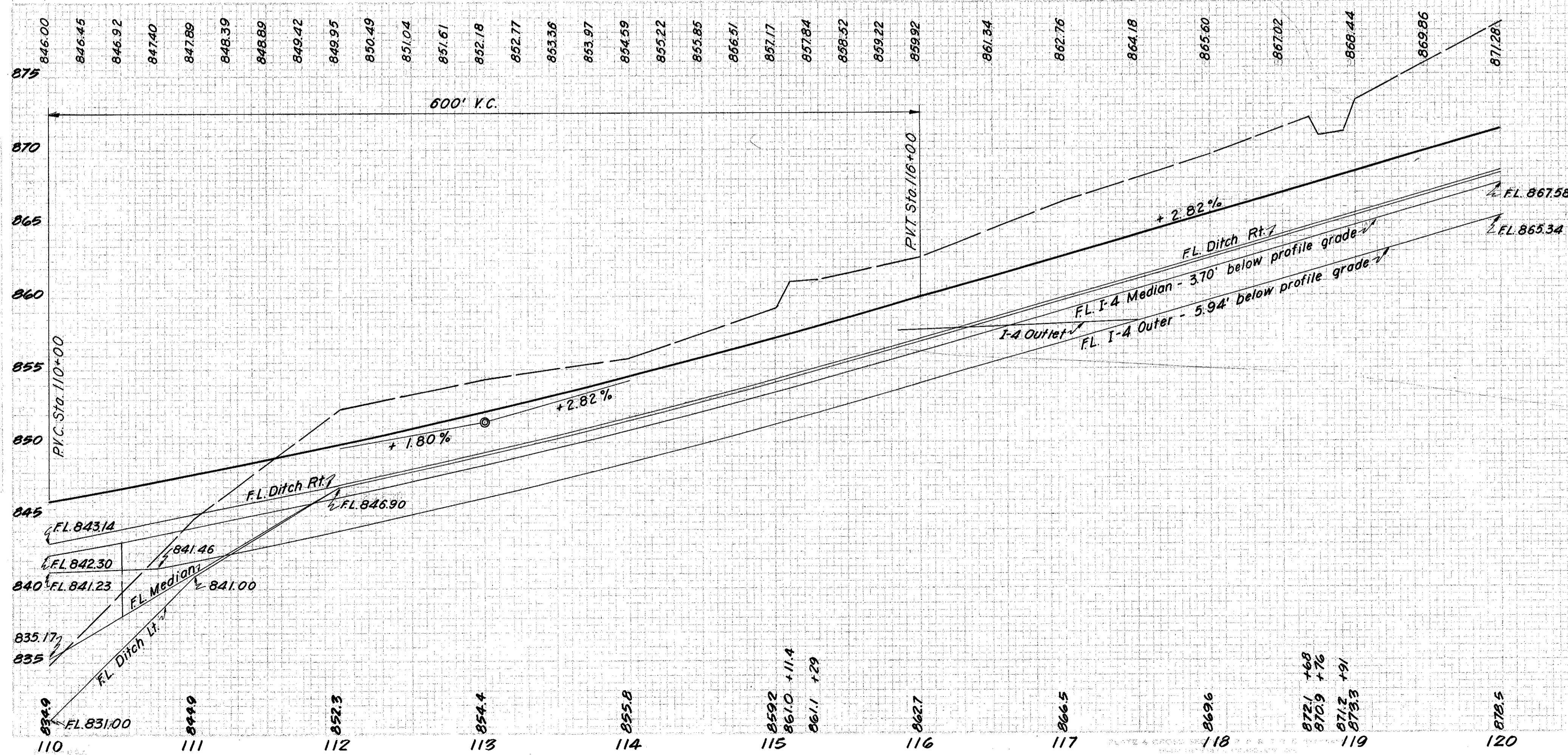
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1 R	100+50	107+50	R	700
2 R	102+06	110+00	L	800
Totals				1500

Excavation 2,997 C.Y.
Embankment 133,593 C.Y.
Embankment + 18% 157,640 C.Y.

WAR-25-848
MOT-25-0.00

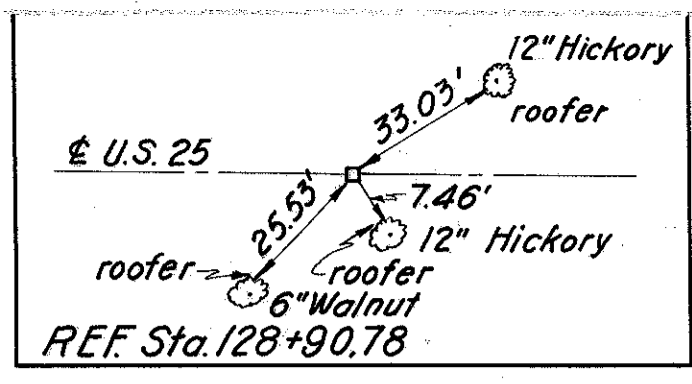
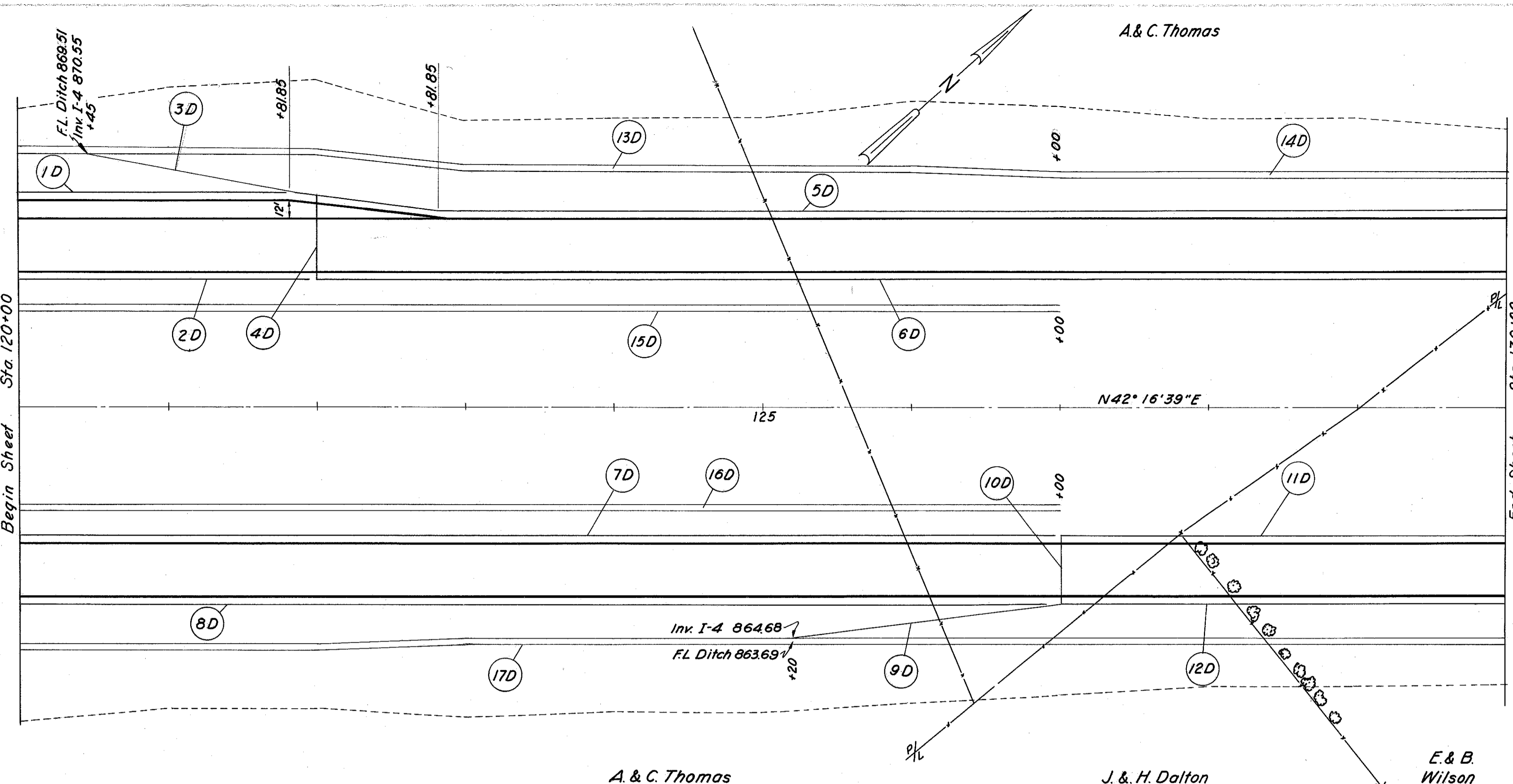


Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4		I-5 for I-2		I-4 Pipe Outlets for Underdrains	I-2 Storm Sewer	I-2 Class A Storm Sewer	I-14 Paved Gutter Type IA	L-10 Sodding		
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 90°	Incr. 15°	Bend 15°	Tees 8"x8" x 8"					Tees 8"x8" x 6"	Width L.F.	S.Y.
1 D	110+00	110+46	L	46												
2 D	110+00	110+46	L	46												
3 D	110+50					1	1		1	10	116					
4 D	110+50	120+00	L	950												
5 D	110+50	120+00	L	950												
6 D	110+00	117+46	R	746												
7 D	110+00	110+75	R	75												
8 D	110+75	117+46	R	671												
9 D	117+50	120+00	R	250												
10 D	117+50	120+00	R	250		1										
11 D	117+50					1	1		1		44					
12 D	115+85	117+50	R					1		10		156				
13 D	110+00	111+50	L										155	2@18"	52	
14 D	111+50	120+00	L											9	854	
15 D	110+00	120+00	L											9	1008	
16 D	110+20	120+00	R											9	998	
17 D	110+00	119+50	R											9	950	
18 D	119+50	120+00	R											6	33	
Totals				2113	1871	2	3	1	1	1	20	150	156	155		3885



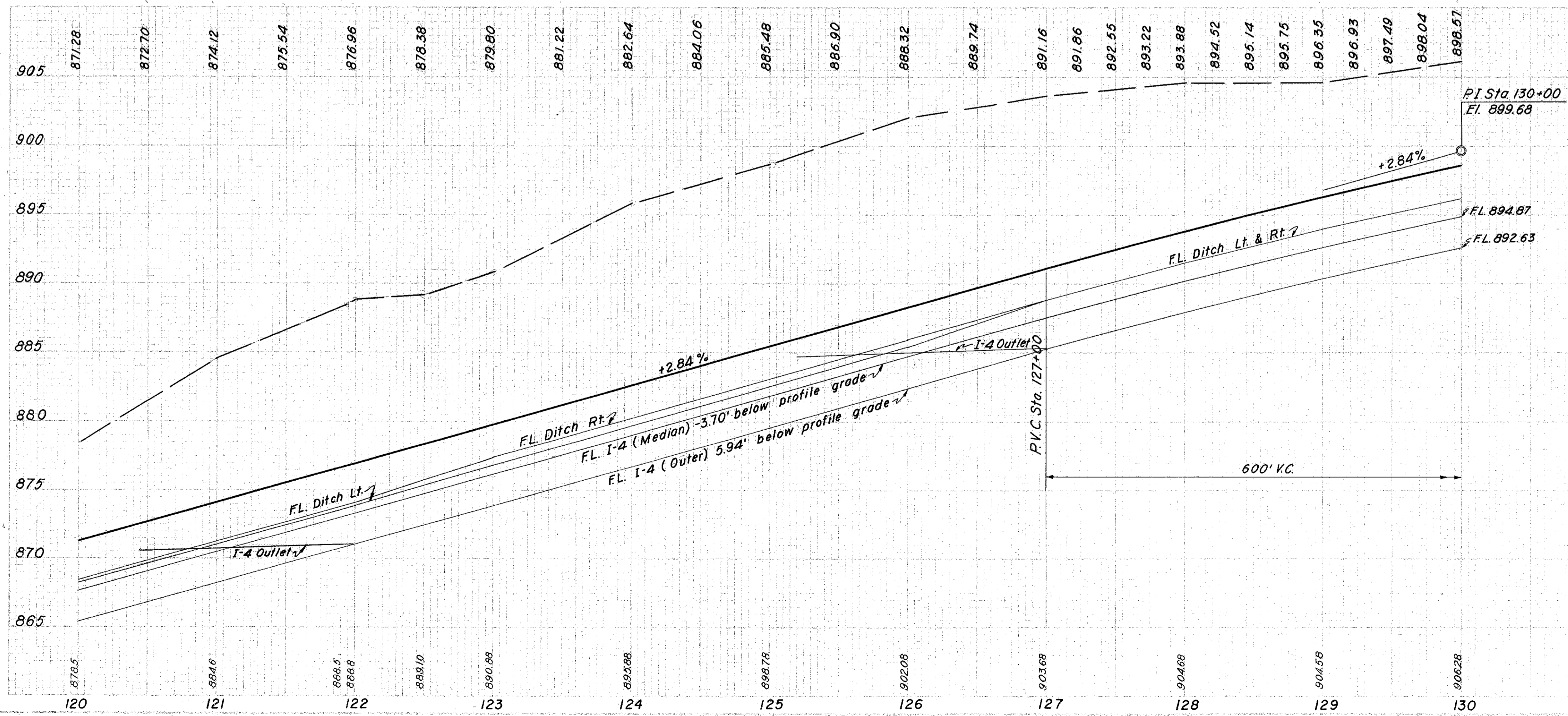
Excavation	60,548	C.Y.
Embankment	5,402	C.Y.
Embankment	6,374	C.Y.

Sta 110+00 To Sta 120+00

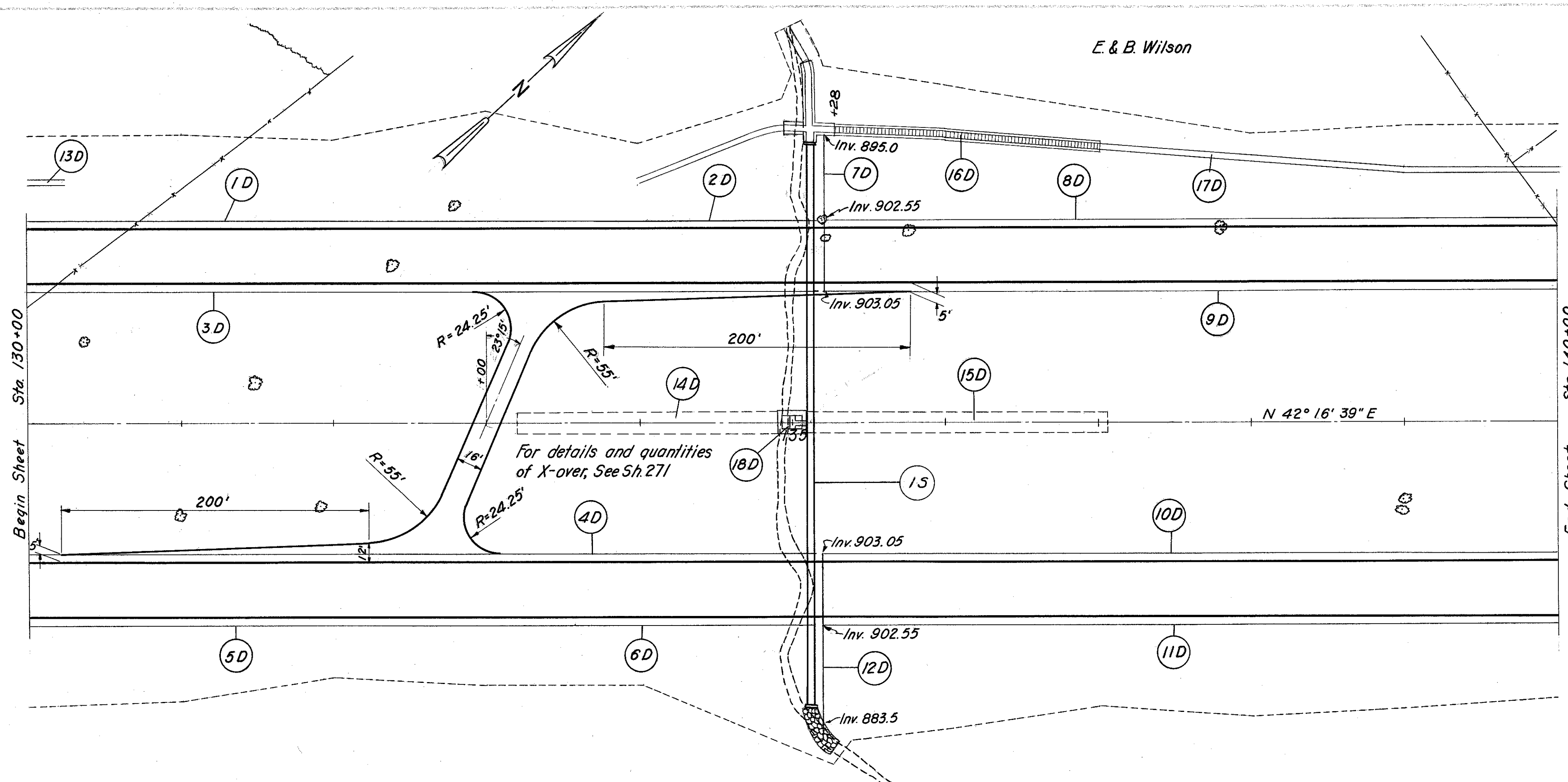


WAR = 25-8.48
 MOT = 25-0.00

Ref No.	Station		Side	I-4 Underdrain		I-5 for I-4		I-5 for I-2		I-4 Pipe Outlet for Underdrain 8" L.F.	I-2 Storm Sewer Sec. M-65(b) or M-68(b) 8" L.F.	I-2 Class A Storm Sewer 8" L.F.	L-10 Sodding	
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 90° 6" Each	Increase 6"x8" x 8" Each	Tees 8"x8" x 8" Each	Bend 15" 8" Each				Width L.F.	S.Y.
	1 D	120+00		121+80	L		180							
2 D	120+00	121+96	L	196										
3 D	120+45	122+00	L						10		148			
4 D	122+00		L			1	1	1			56			
5 D	122+00	130+00	L	802		1								
6 D	122+00	130+00	L	800										
7 D	120+00	126+98	R	698										
8 D	120+00	126+90	R		690									
9 D	125+20	127+00	R					1	10		170			
10 D	127+00					1	1	1			44			
11 D	127+00	130+00	R	300										
12 D	127+00	130+00	R		300		1							
13 D	120+00	127+00	L										9	700
14 D	127+00	130+00	L										6	200
15 D	120+00	127+00	L										9	700
16 D	120+00	127+00	R										9	700
17 D	120+00	130+00	R										6	667
Totals				1994	1972	2	4	2	2	20	100	318		2967

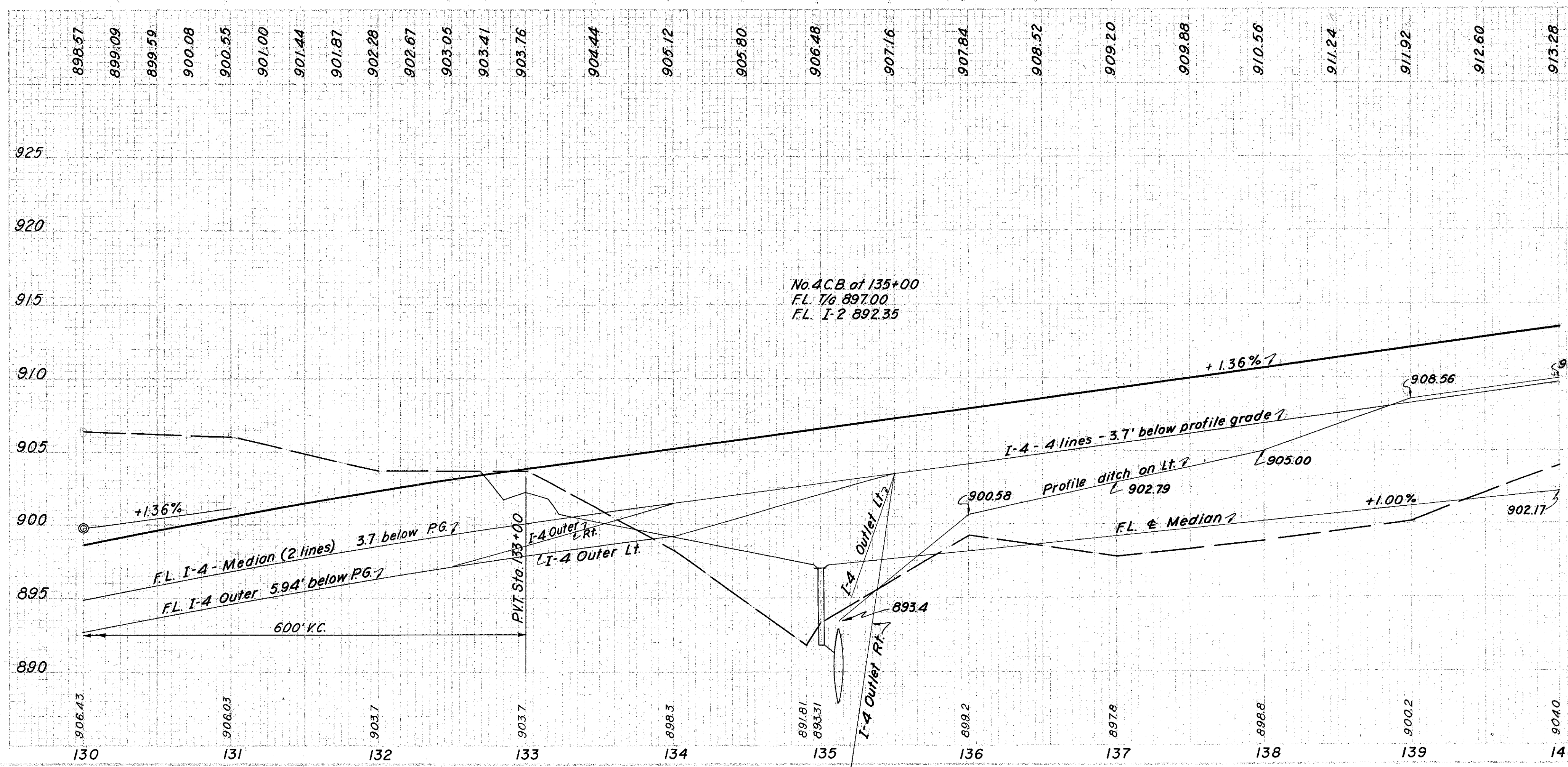


Excavation 142,298 C.Y.
 Embankment 0 C.Y.
 Embankment + 18% 0 C.Y.



DRAINAGE

Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4 Bend 90°		I-5 for I-2 Tee	I-4 Pipe Outlets for Underdrains	I-2 Storm Sewer	L-10 Sodding		I-14 Paved Gutter Type I-A	I-8 Std. No. 4 Catch Basin
	From	To		Shallow 6" L.F.	Deep 6" L.F.	6" Ea.	6"-8" Ea.				Width L.F.	S.Y.		
1 D	130+00	134+00	L		400									
2 D	134+00	135+16	L	116										
3 D	130+00	135+16	L	516										
4 D	130+00	135+16	R	516										
5 D	130+00	132+50	R		250									
6 D	132+50	135+16	R	266										
7 D	135+20		L			1	1	1	10	96				
8 D	135+20	140+00	L	480										
9 D	135+20	140+00	L	480										
10 D	135+20	140+00	R	480										
11 D	135+20	140+00	R	480										
12 D	135+20		R			1	1	1	10	104				
13 D	130+00	130+25	L								6	17		
14 D	133+20	134+93	E								18 Strips	34		
15 D	135+07	137+07	E								18 Strips	40		
16 D	135+28	137+00	L								2 @ 18"	57	172	
17 D	137+00	140+00	L								9	300		
18 D	135+00		E								3	14		1
				3334	650	2	4	2	20	200		462	172	1

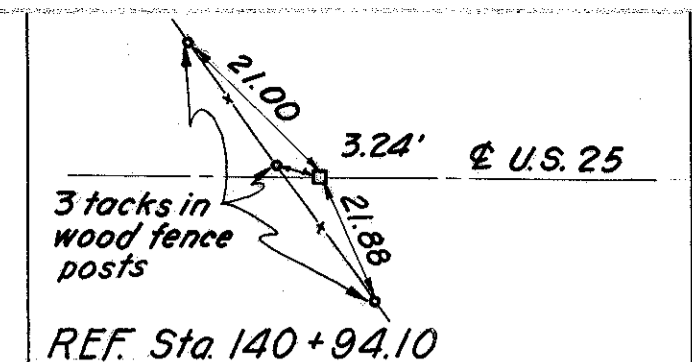
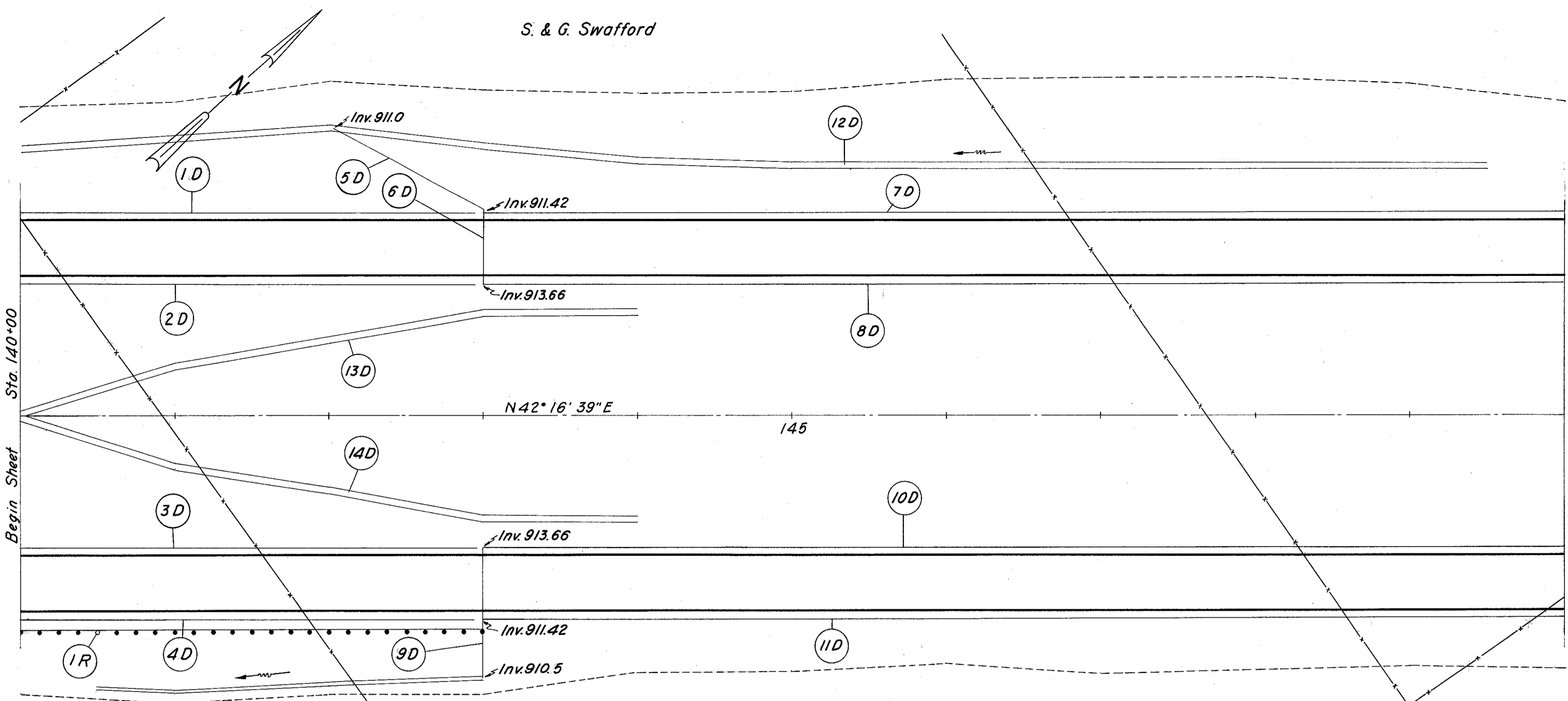


STRUCTURES (20' Span and Under)

Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	I-10 Type A Rip Rap 6" Reinf. Concrete C.Y.	I-10 Dumped Rock Channel Protection C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Roadway Culverts 60" L.F.	I-2 Class A Storm Sewers 15" L.F.	I-5 for S-27 60"x15" Tee Ea.	See Sheet No.
I-S	135+12	130	1030	102	33	6.0	368	10	1	282
Totals		130	1030	102	33	6.0	368	10	1	

Excavation 20,647 C.Y.
 Embankment 56,592 C.Y.
 Embankment +18% 66,779 C.Y.

S. & G. Swafford



WAR.-25-8.48
MOT.-25-0.00

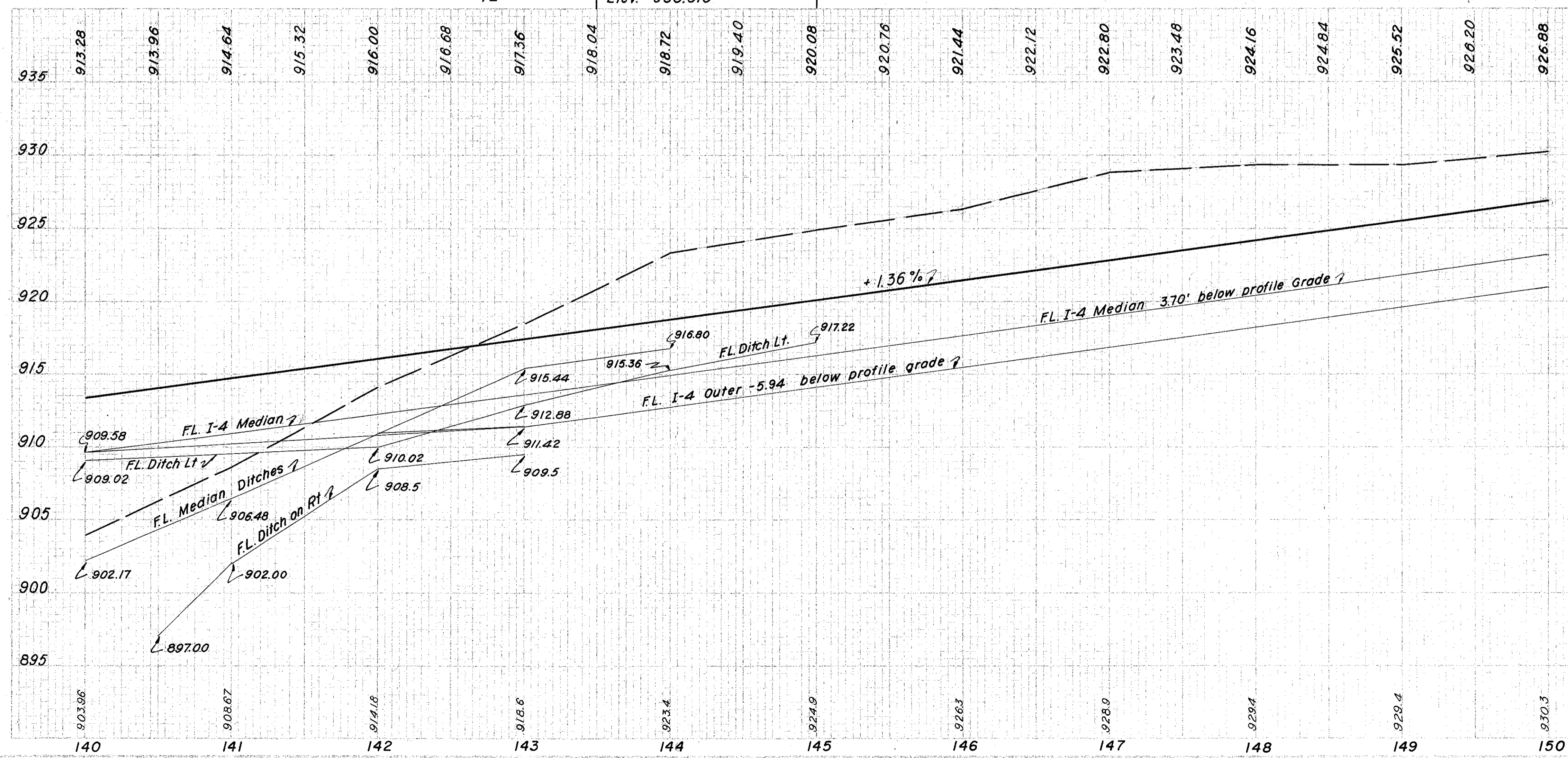
DRAINAGE

Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4		I-5 for I-2		I-2 Storm Sewers Sec. M-6.5(b) or M-6.8(c) 8" L.F.	I-2 Class A Storm Sewer 8" L.F.	I-4 Pipe Outlets for Underdrain 8" L.F.	L-10 Sodding		
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 90° 6" Ea.	Incr-aser 6"-8" Ea.	Tee 8"x8" x 6" Ea.	Bend 30° 8" Ea.				Width L.F.	S.Y.	
1 D	140+00	142+96	L	296											
2 D	140+00	142+96	L	296											
3 D	140+00	142+96	R	296											
4 D	140+00	142+96	R	296											
5 D	142+00	143+00	L						1		100	10			
6 D	143+00	-	L			1	1		1	44					
7 D	143+00	150+00	L	700											
8 D	143+00	150+00	L	700											
9 D	143+00	-	L			1	1		1	72		10			
10 D	143+00	150+00	R	700											
11 D	143+00	150+00	R	700											
12 D	140+00	149+50	L										9	950	
13 D	140+00	143+00	L										9	308	
14 D	140+00	143+00	R										9	308	
Totals				1184	2800	2	2		2	1	116	100	20		1566

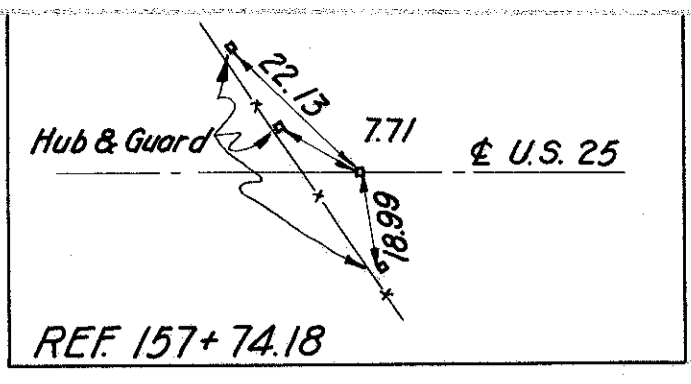
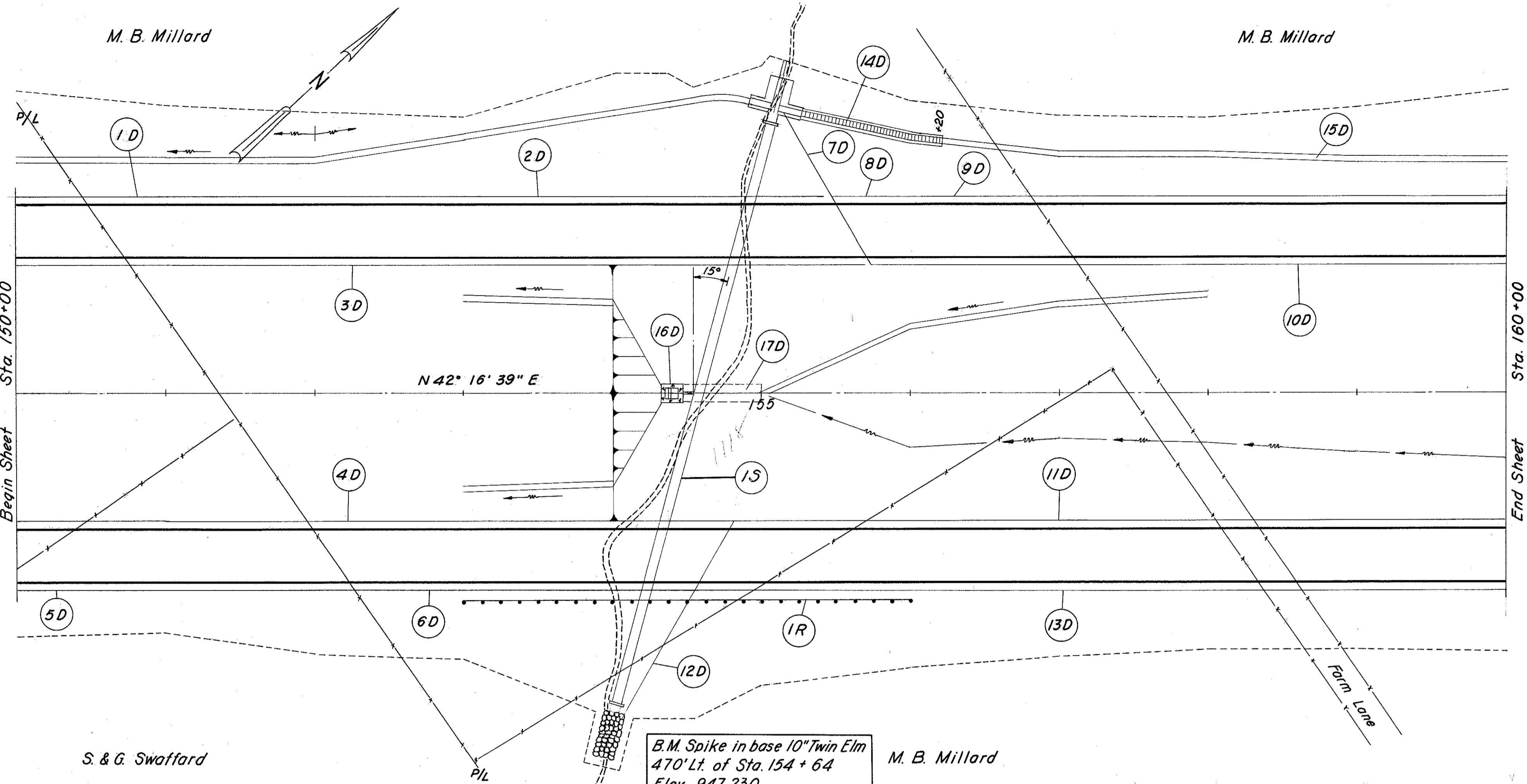
ROADWAY

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1 R	140+00	143+00	R	300
Totals				300

B.M. Spike in base 10" Walnut
332' Lt. of Sta. 145+50
Elev. 938.310

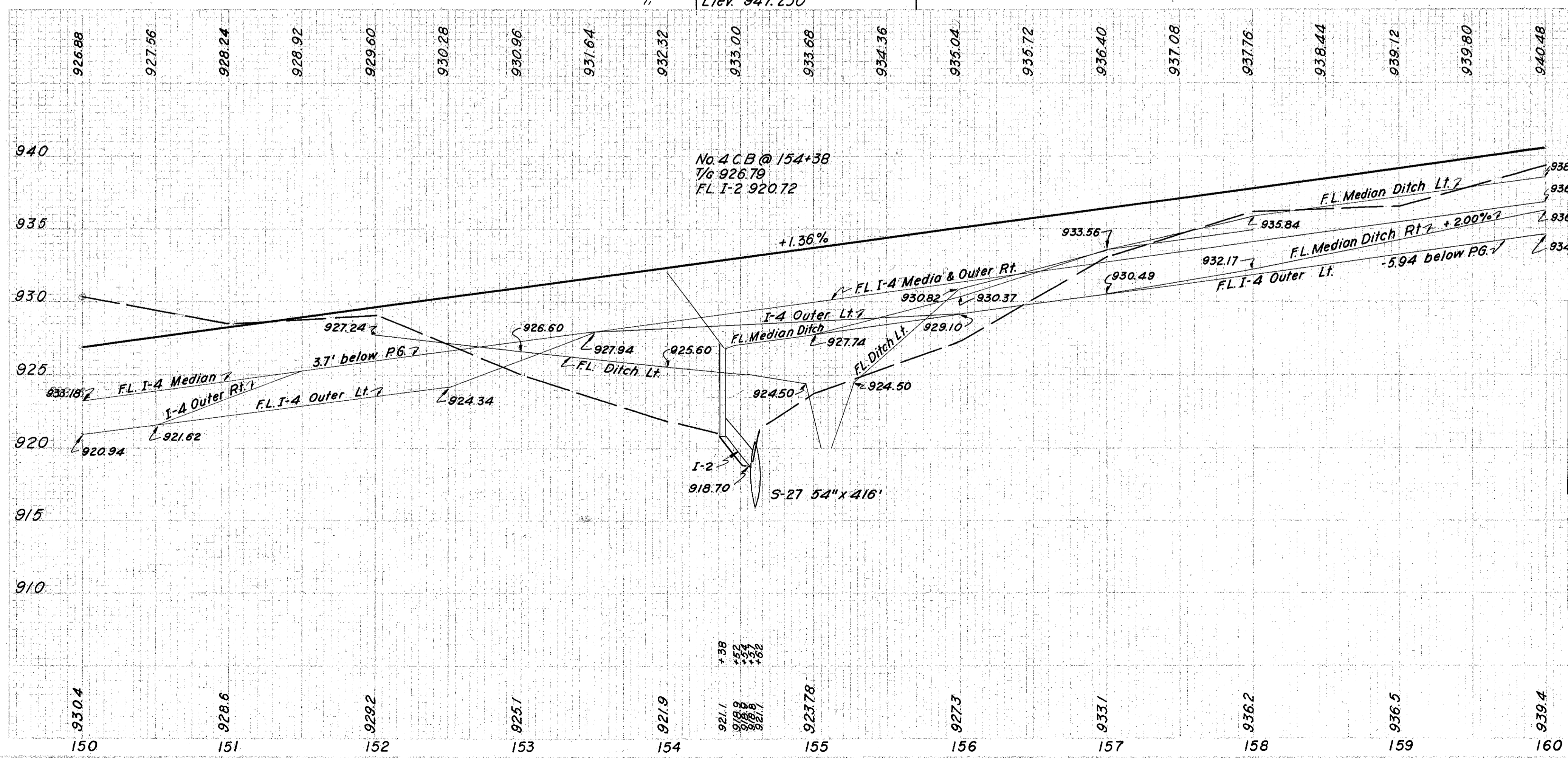


Excavation 52,720 C.Y.
Embankment 8,938 C.Y.
Embankment + 18% 10,547 C.Y.



WAR-25-8.48
MOT.-25-0.00

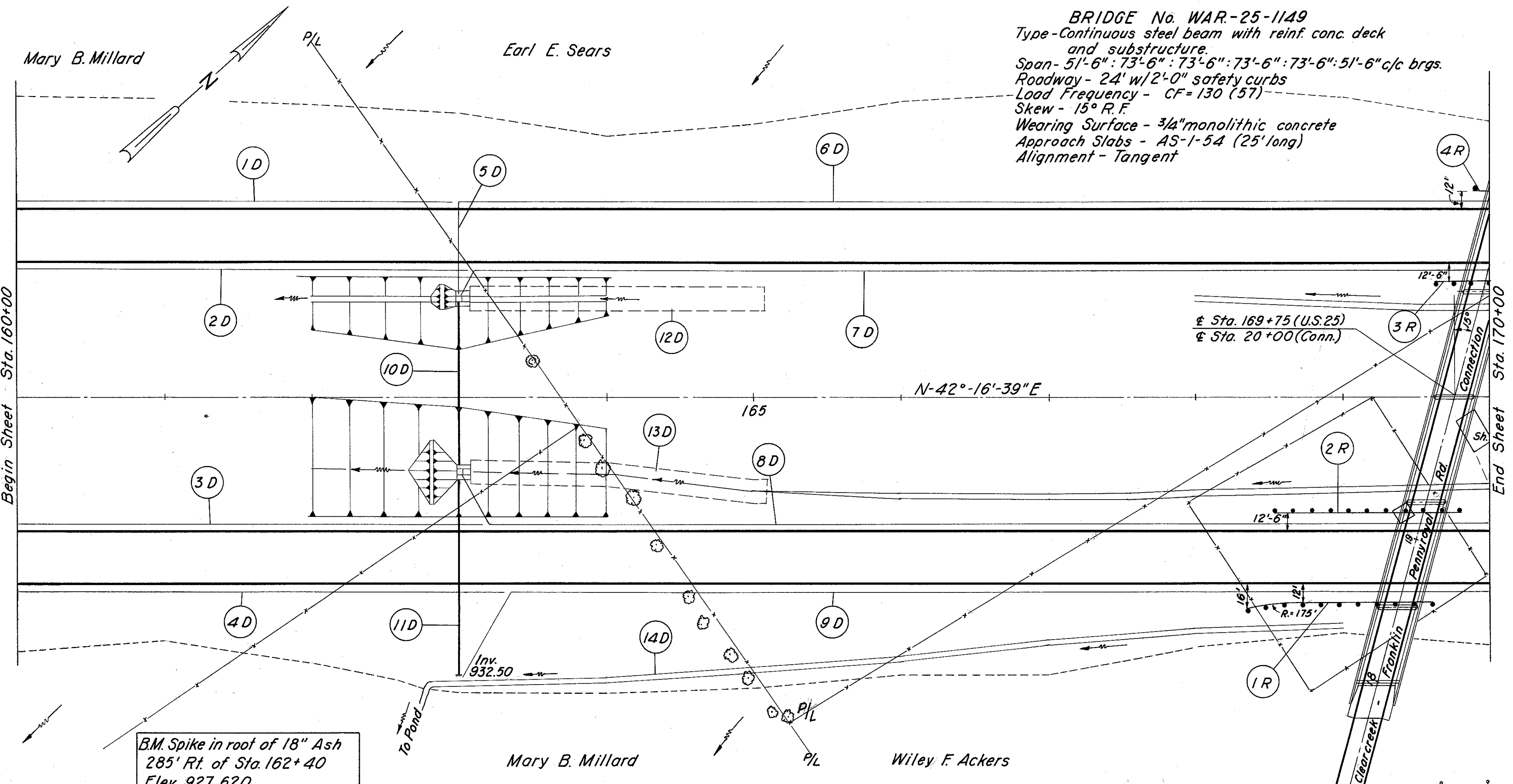
Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlets for Underdrains	I-5 for I-4			I-2 Storm Sewer Sec. #65(b) or #68(b) 8\"	I-8 Std. No. 4 Catch Basin Ea.	L-10 Sodding		I-14 Paved Gutter Type L.F.
	From	To		Shallow 6\"	Deep 6\"		Bend 60°	Incr. 6\"-6\"	Wye 60°			Width L.F.	S.Y.	
	L.F.	L.F.		L.F.	Ea.		Ea.	Ea.	L.F.			L.F.		
1 D	150+00	152+50	L	250										
2 D	152+50	155+44	L	294										
3 D	150+00	155+70	L	570										
4 D	150+00	154+78	R	478										
5 D	150+00	150+50	R		50									
6 D	150+50	154+52	R	402										
7 D	155+16	155+74	L			10	1	1	1	104				
8 D	155+48	156+00	L	52										
9 D	156+00	160+00	L	400										
10 D	155+74	160+00	L	426										
11 D	154+82	160+00	R	518										
12 D	154+05	154+82	R			10	1	1	1	142				
13 D	154+56	160+00	R	544										
14 D	155+25	156+20	L									3	32	95
15 D	156+20	160+00	L									6	253	
16 D	154+38	-	±									1	3	14
17 D	154+45	155+00	±									18 Strip	12	
				3284	700	20	2	2	2	246	1		311	95



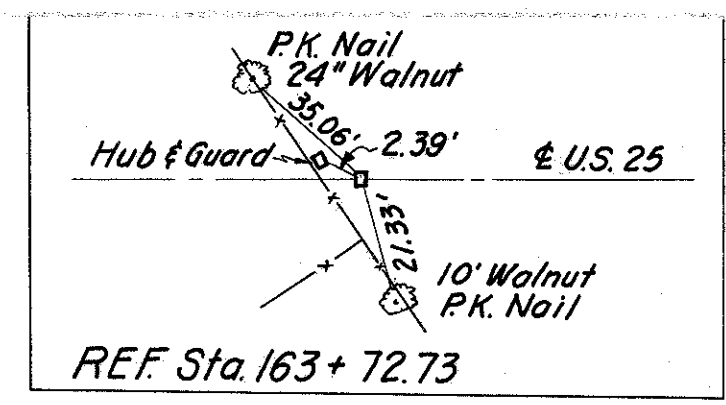
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep L.F.
	From	To		
	1 R	153+00		
Totals				300

Ref. No.	Station	STRUCTURES (20' Span and Under)							See Sheet No.	
		E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Roadway Culverts 54\"	I-2 Class A Storm Sewers 15\"	I-5 for S-27 54\"x15\" Tee Ea.	I-10 Type A Rip-Rap 6\" Reinf. Concrete S.Y.		I-10 Dumped Rock Channel Protection C.Y.
1 S	154+59	690	220	1.9	400	18	1	82	55	284
Totals		690	220	1.9	400	18	1	82	55	

Excavation 17,254 C.Y.
Embankment 43,050 C.Y.
Embankment +18% 50,799 C.Y.



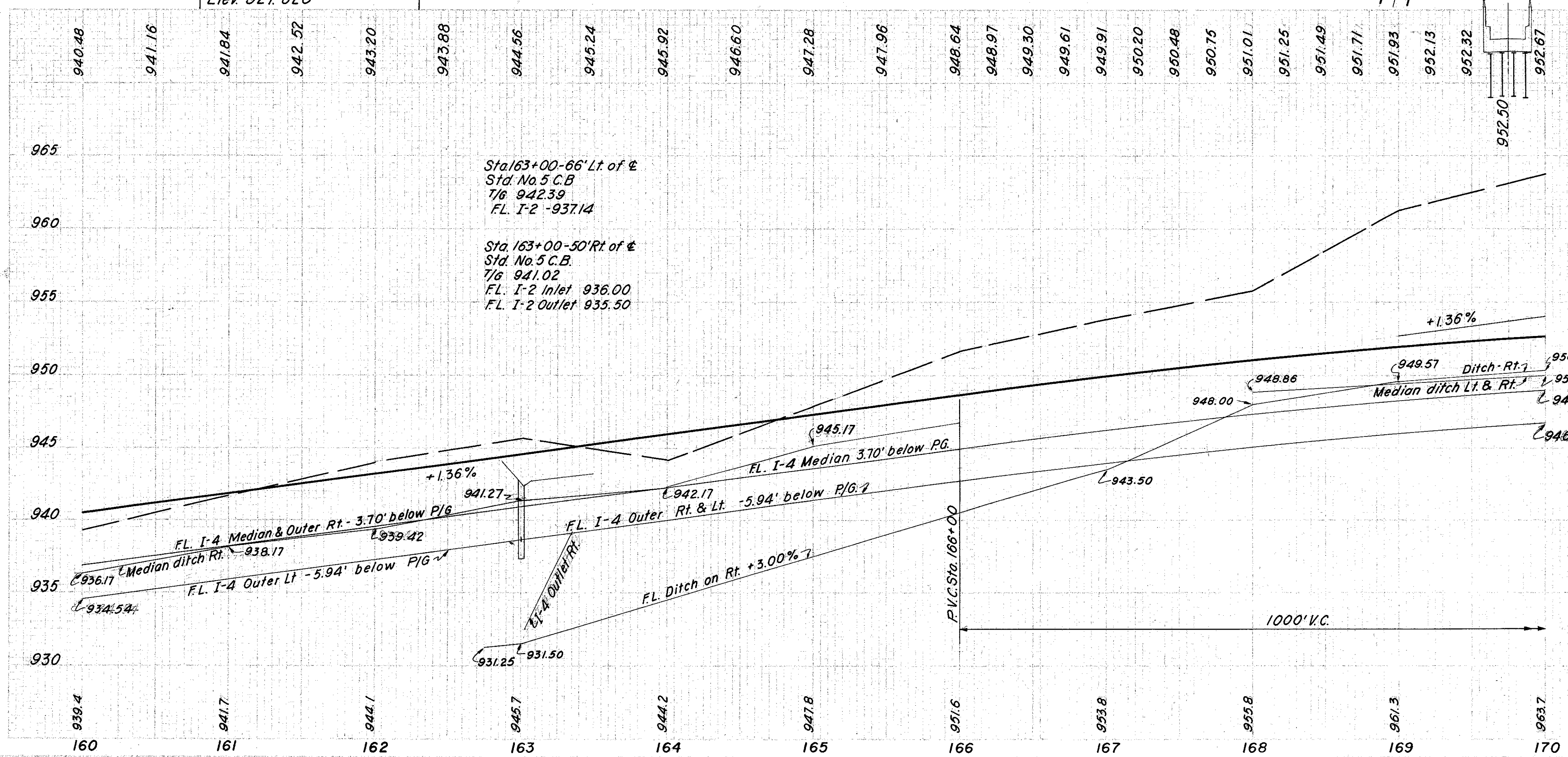
BRIDGE No. WAR-25-1149
 Type-Continuous steel beam with reinf. conc. deck and substructure.
 Span - 51'-6" : 73'-6" : 73'-6" : 73'-6" : 51'-6" c/c brgs.
 Roadway - 24' w/2'-0" safety curbs
 Load Frequency - CF=130 (57)
 Skew - 15° R.F.
 Wearing Surface - 3/4" monolithic concrete
 Approach Slabs - AS-1-54 (25' long)
 Alignment - Tangent



Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlet for Underdrain L.F.	I-5 for I-4			I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8"x8"x6" L.F.	I-5 for I-2 Tee 8"x8"x6" Ea.		
	From	To		Shallow 6" L.F.	Deep 6" L.F.		Bend 90° 6" Ea.	Incr. 6"-8" 6" Ea.	Bend 60° 6" Ea.				
1 D	160+00	162+96	L			296							
2 D	160+00	162+96	L			296							
3 D	160+00	163+16	R			316							
4 D	160+00	163+32	R			332							
5 D	163+00	-	L				10	1	1	54	1		
6 D	163+00	170+00	L			700							
7 D	163+00	170+00	L			700							
8 D	163+00	170+00	R			708			1				
9 D	163+02	170+00	R			720	10		1				
Totals						2352	1716	30	1	1	2	54	1

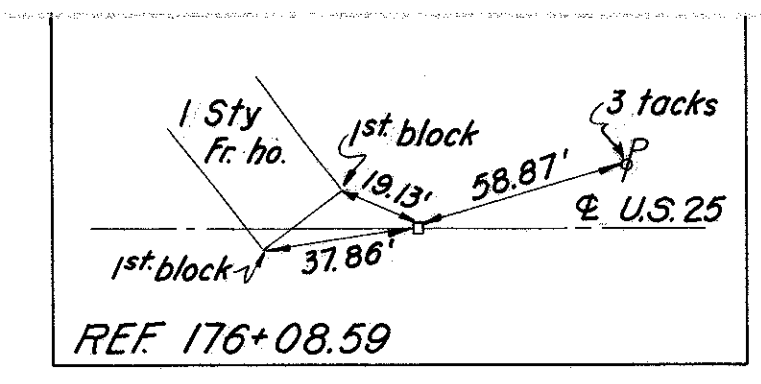
Ref. No.	Station		Side	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures Class E C.Y.	I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 15" L.F.	I-8 Std. No. 5 Catch Basin Ea.	L-10 Sodding		See Sheet No.
	From	To						Width L.F.	S.Y.	
10 D	163+00		L/R			114	1			
11 D	163+00		R	1	0.3	136	1			
12 D	163+07	165+07	L					18strips	53	
13 D	163+07	165+07	R					18strips	53	
14 D	162+75	168+00	R					6	350	
Totals				1	0.3	250	2		456	

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Standard Type-Deep L.F.
	From	To		
1 R	168+35	169+60	R	125
2 R	168+54	169+79	R	125
3 R	169+62.5	170+00	L	37.5
4 R	169+87.5	170+00	L	12.5
Total				300.00



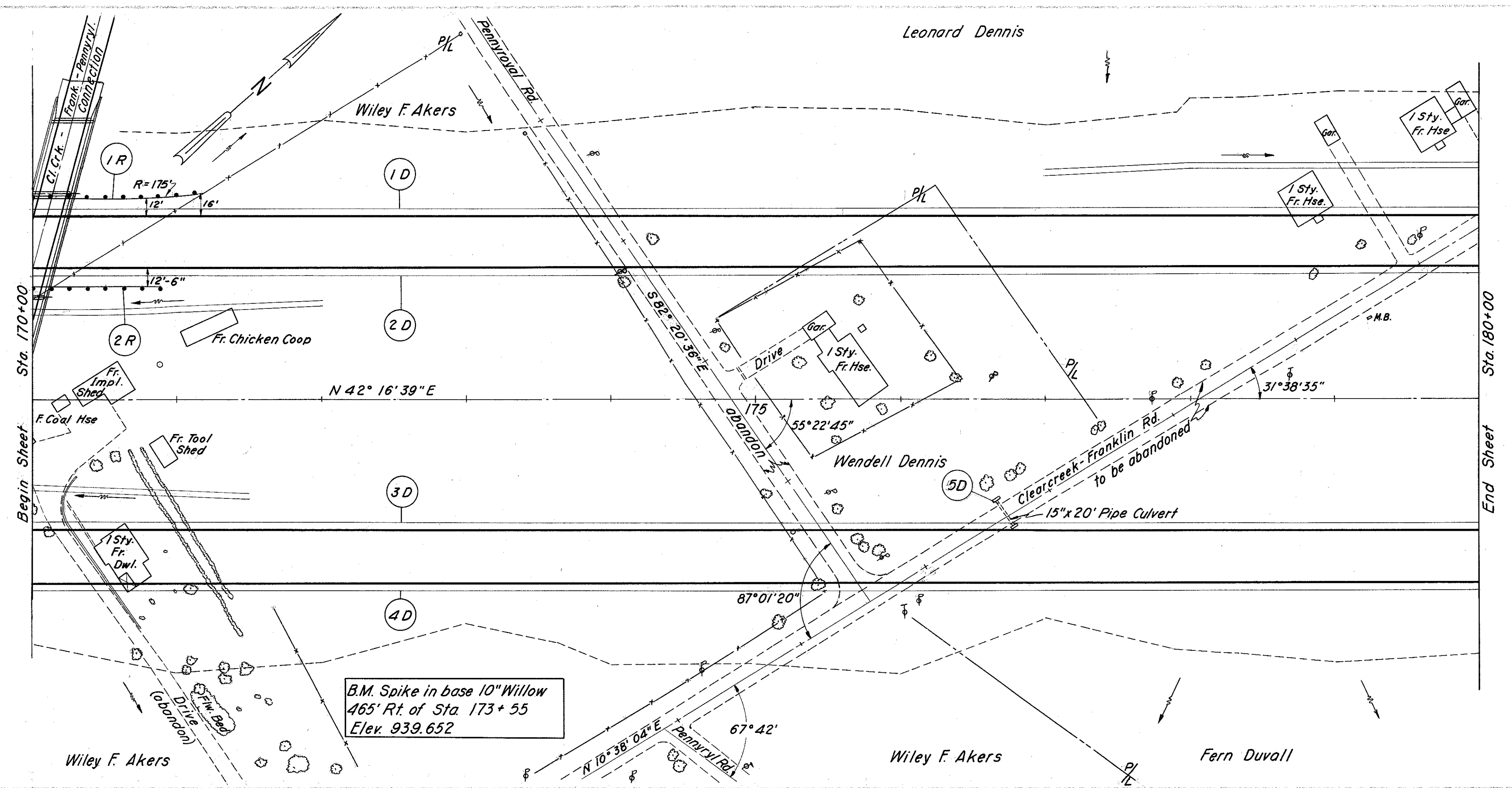
Excavation 58,560 C.Y.
 Embankment 9,269 C.Y.
 Embankment + % 10,937 C.Y.

WAR-25-8.48
MOT-25-0.00



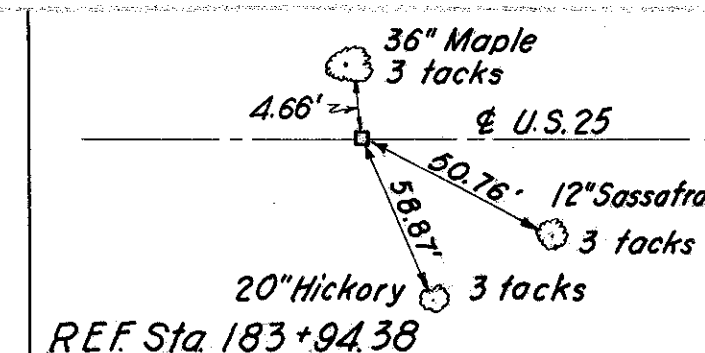
DRAINAGE						
Ref. No.	Station		Side	I-4 Underdrain		S-24 Remove Existing Structure Lump Sum
	From	To		Shallow 6" L.F.	Deep 6" L.F.	
1 D	170+00	180+00	L		1000	
2 D	170+00	180+00	L	1000		
3 D	170+00	180+00	R	1000		
4 D	170+00	180+00	R		1000	
5 D	176+75		R			lump
Totals				2000	2000	lump

ROADWAY				
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam S'ld Type Deep L.F.
	From	To		
1 R	170+00	171+12.5	L	112.5
2 R	170+00	170+87.5	L	87.5
Totals				200.0

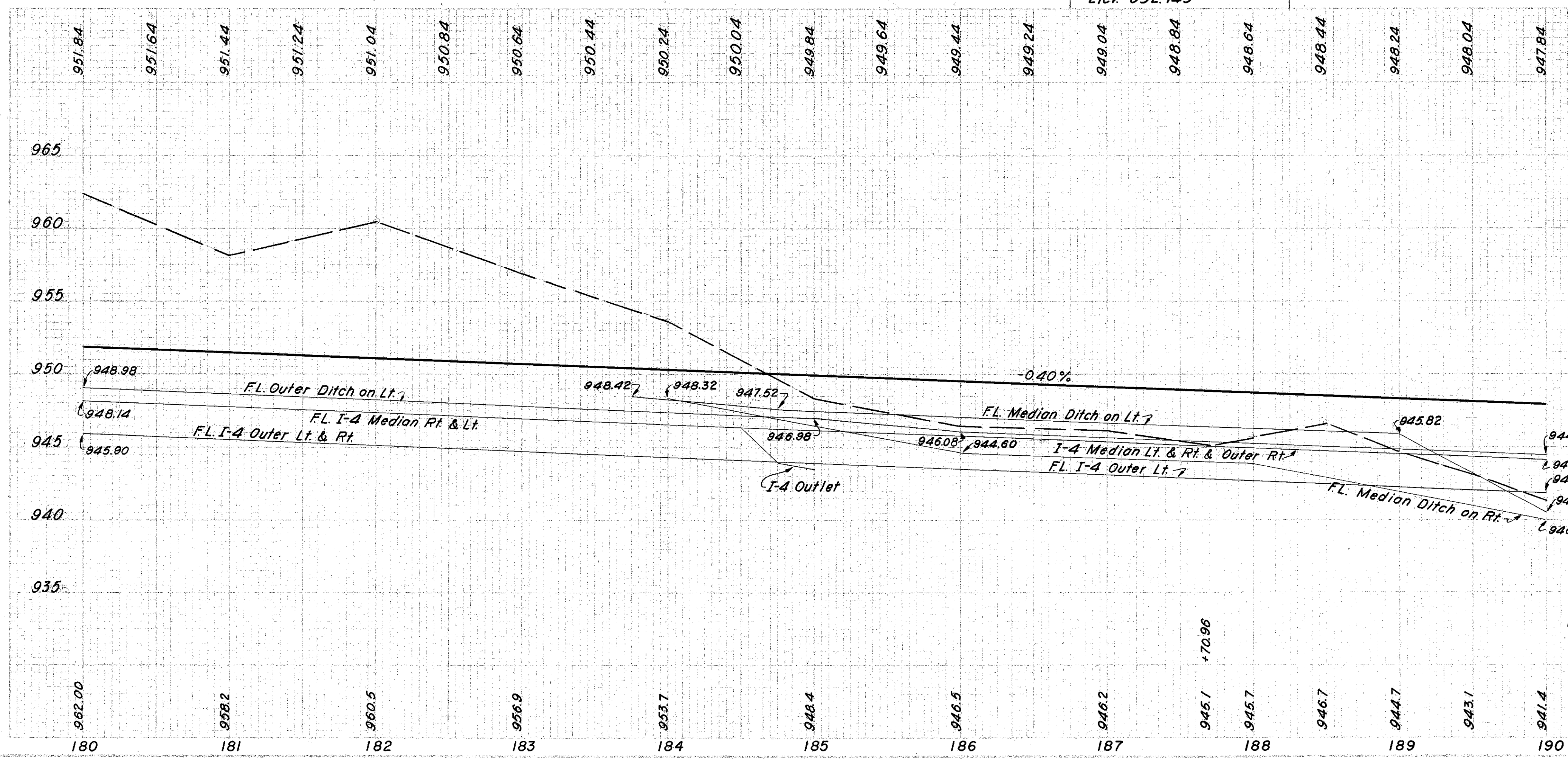
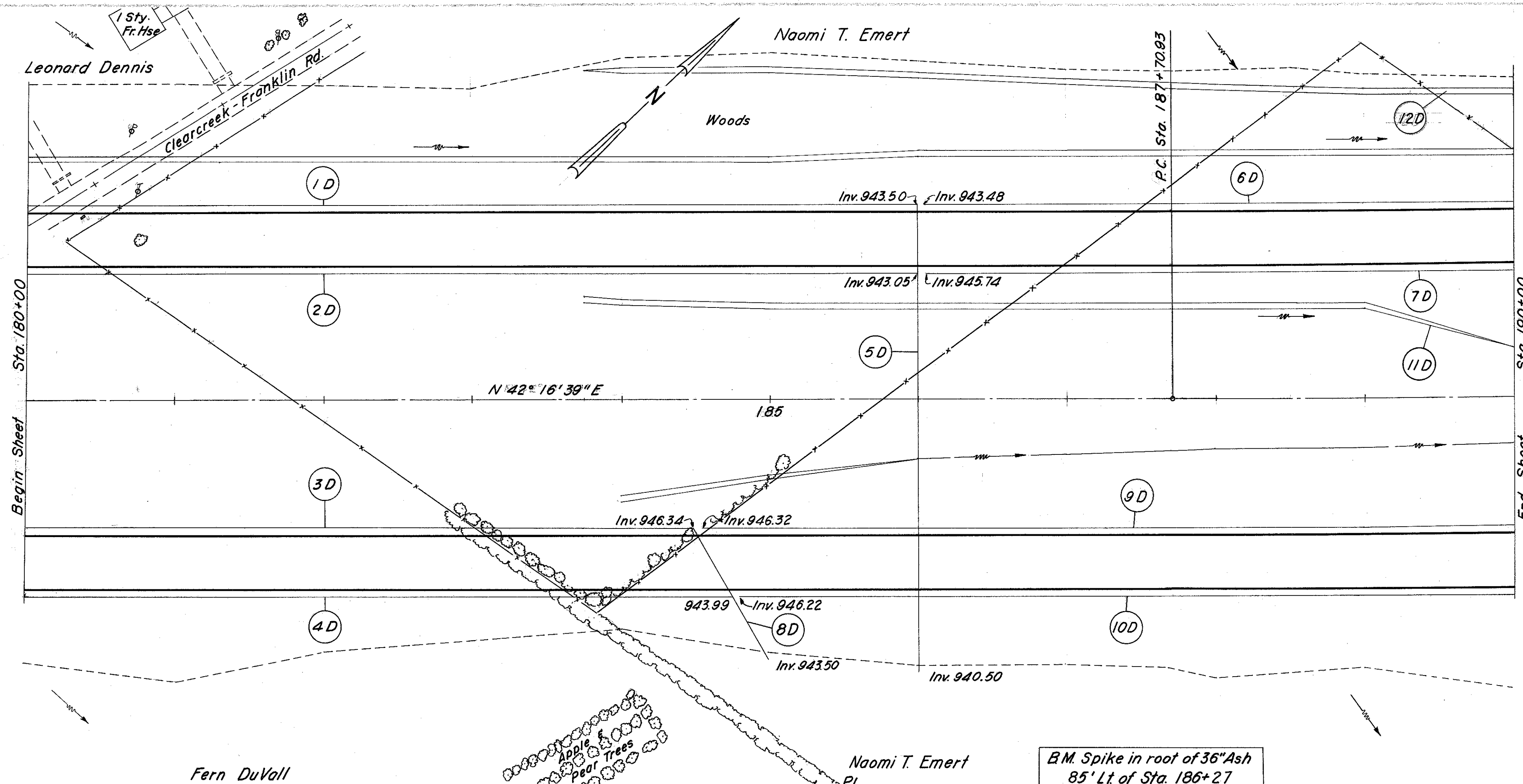


Excavation 82,532 C.Y.
Embankment 103 C.Y.
Embankment +18% 122 C.Y.

WAR-25-848
MOT.-25-0.00



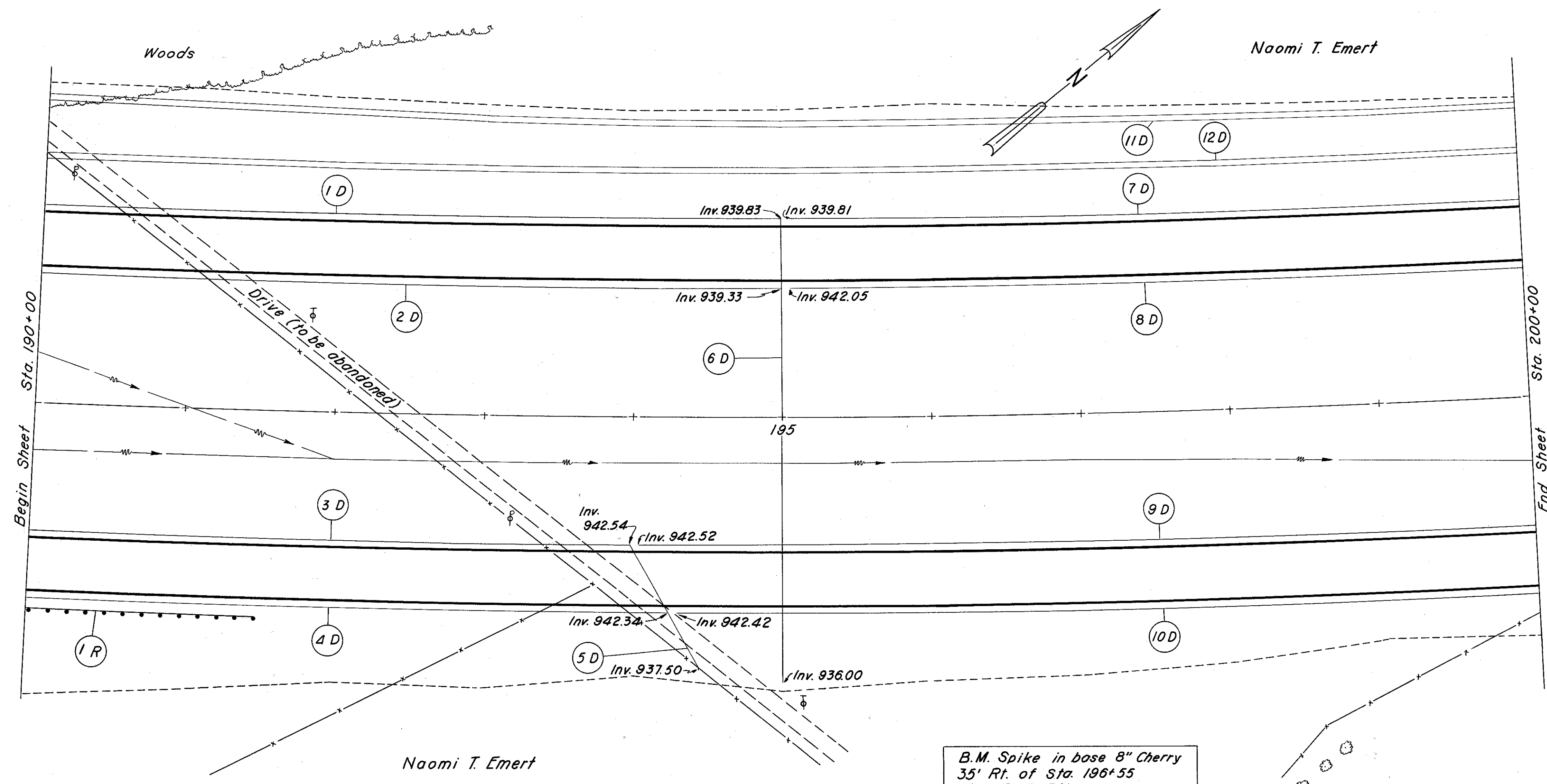
Ref. No.	Station		Side	I-4 Underdrain 6"		I-4 Pipe Outlet for Underdrain 8" L.F.	I-5 for I-4		I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8" L.F.	I-5 for I-2		L-10 Sodding		
	From	To		Shallow L.F.	Deep L.F.		Bend 60° 6" Ea.	Bend 90° 6" Ea.		Incr. 6"-8" Ea.	Tee 8"x6" Ea.	Wye 8"x6" 60° Ea.	Width L.F.	S.Y.
	1 D	180+00		186+00	L			600						
2 D	180+00	186+00	L	600										
3 D	180+00	184+50	R	450										
4 D	180+00	184+77	R		477									
5 D	186+00	-	L&R			10			1	1	304	1		
6 D	186+04	190+00	L		396									
7 D	186+04	190+00	L	396										
8 D	184+50	184+98	R			10	1		1	94		1		
9 D	184+54	190+00	R	546										
10 D	184+82	190+00	R	518										
11 D	189+00	190+00	L									6	67	
12 D	189+00	190+00	L									6	67	
Totals				2510	1473	20	1	1	2	398	1	1	134	



Excavation 55,989 C.Y.
Embankment 13,247 C.Y.
Embankment + 18% 15,631 C.Y.

CURVE DATA
 PI = Sta. 218+16.45
 $\Delta = 27^\circ 51' 45''$ Lt.
 $D = 0^\circ 28'$
 $R = 12,277.67'$
 $L_c = 5,370.54$
 $T = 3,045.52$
 $E = 372.09$

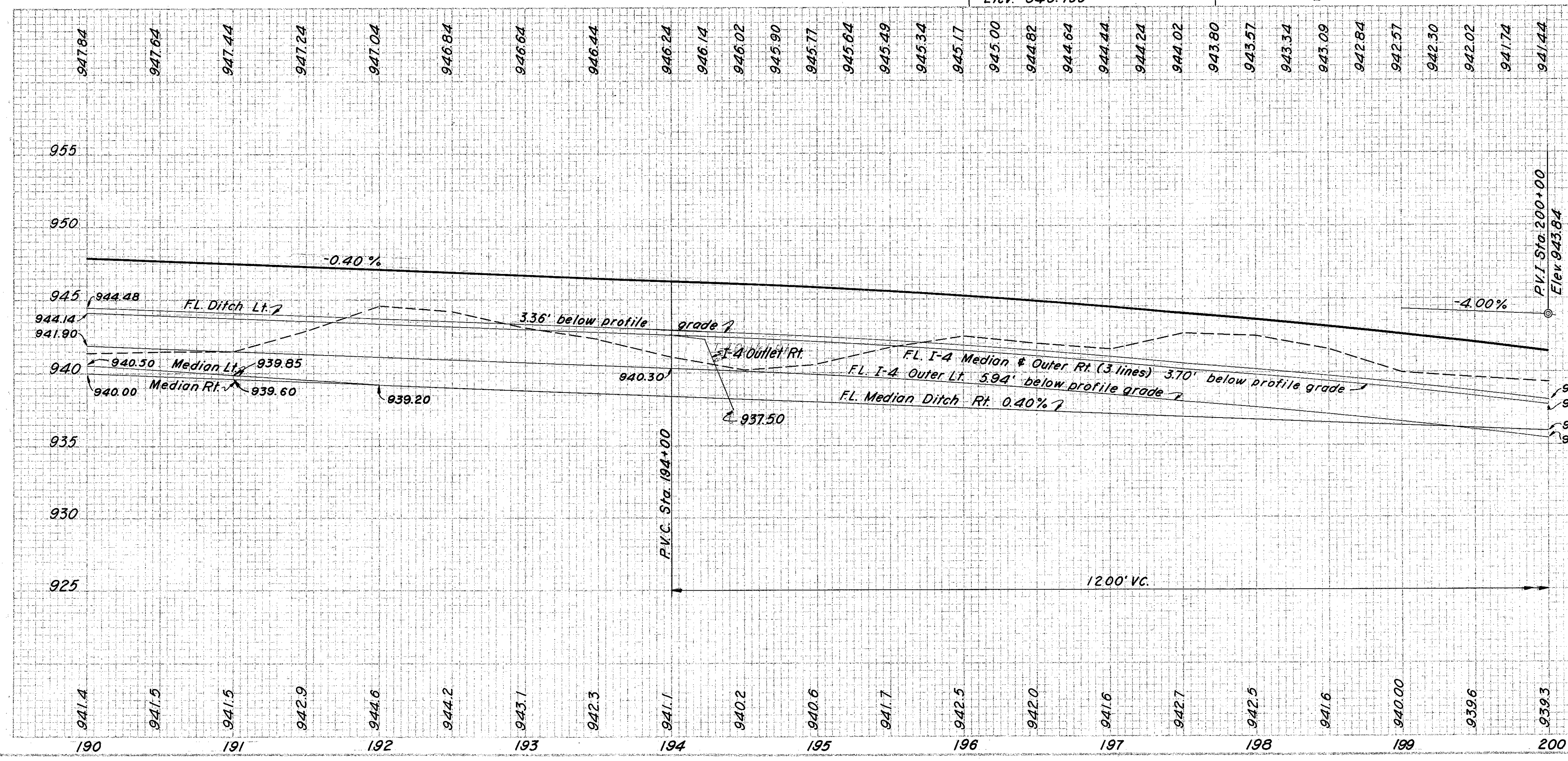
WAR.-25-8.48
MOT.-25-0.00



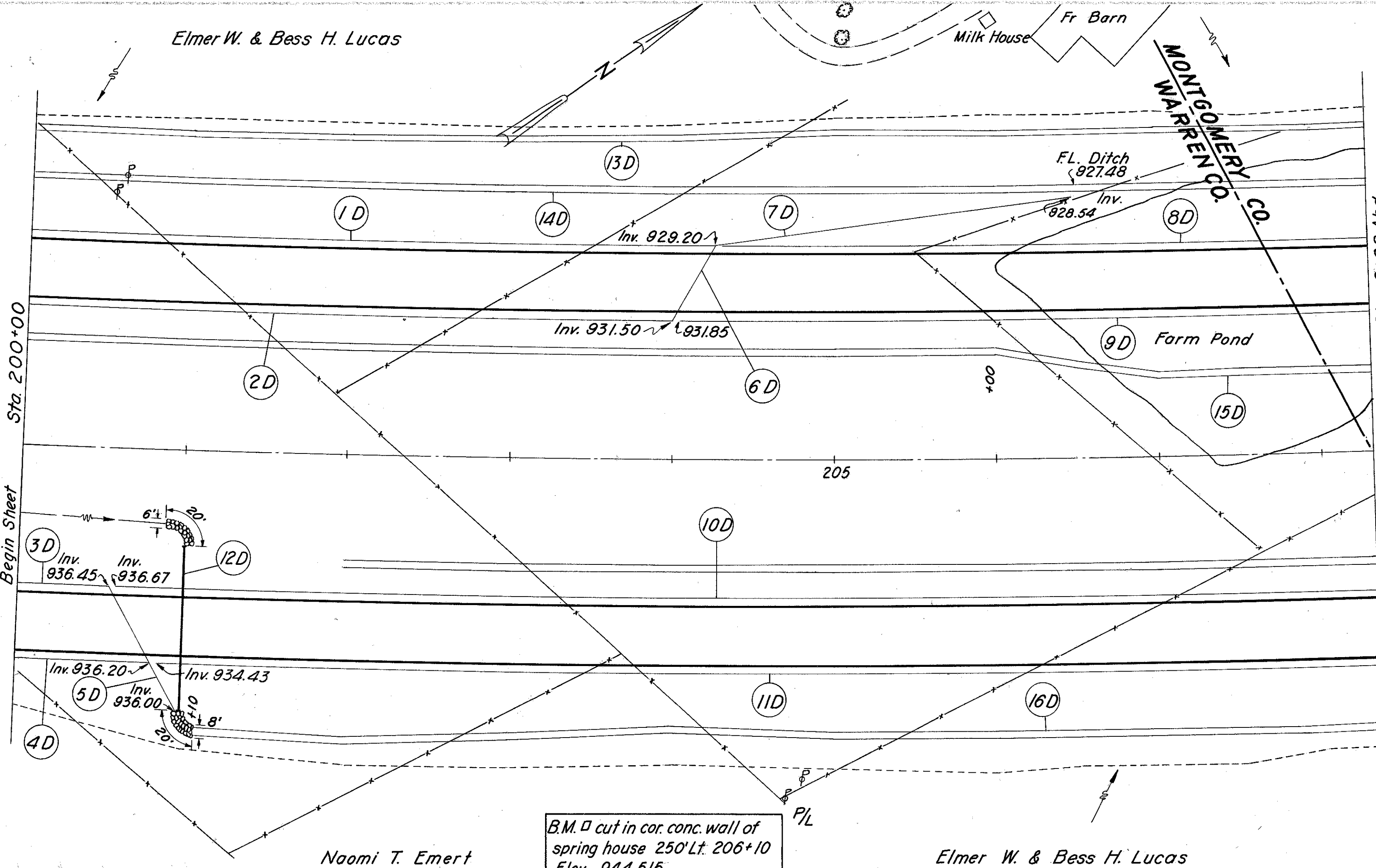
Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4		I-2 Storm Sewer	I-5 for I-2		I-4 Pipe Outlets for Underdrain	L-10 Sodding	
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 90° Ea.	Bend 60° Ea.		Incr. aser 6"x8" Ea.	Wye 8"x6" Ea.		Tee 8"x6" Ea.	Width L.F.
1 D	190+00	195+00	L		500								
2 D	190+00	195+00	L	500									
3 D	190+00	194+00	R	400									
4 D	190+00	194+26	R	426									
5 D	194+00	194+45	R					84	1		10		
6 D	195+00	L to R						298		1	10		
7 D	195+04	200+00	L		496								
8 D	195+04	200+00	L	496									
9 D	194+04	200+00	R	596									
10 D	194+30	200+00	R	570									
11 D	190+00	200+00	L									6	667
12 D	194+50	200+00	L									9	550
Totals				2988	996	1	1	2	382	1	1	20	1217

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Standard Type Deep L.F.
	From	To		
1 R	190+00	191+50	R	150
Totals				150

B.M. Spike in base 8" Cherry
 35' Rt. of Sta. 196+55
 Elev. 940.730'

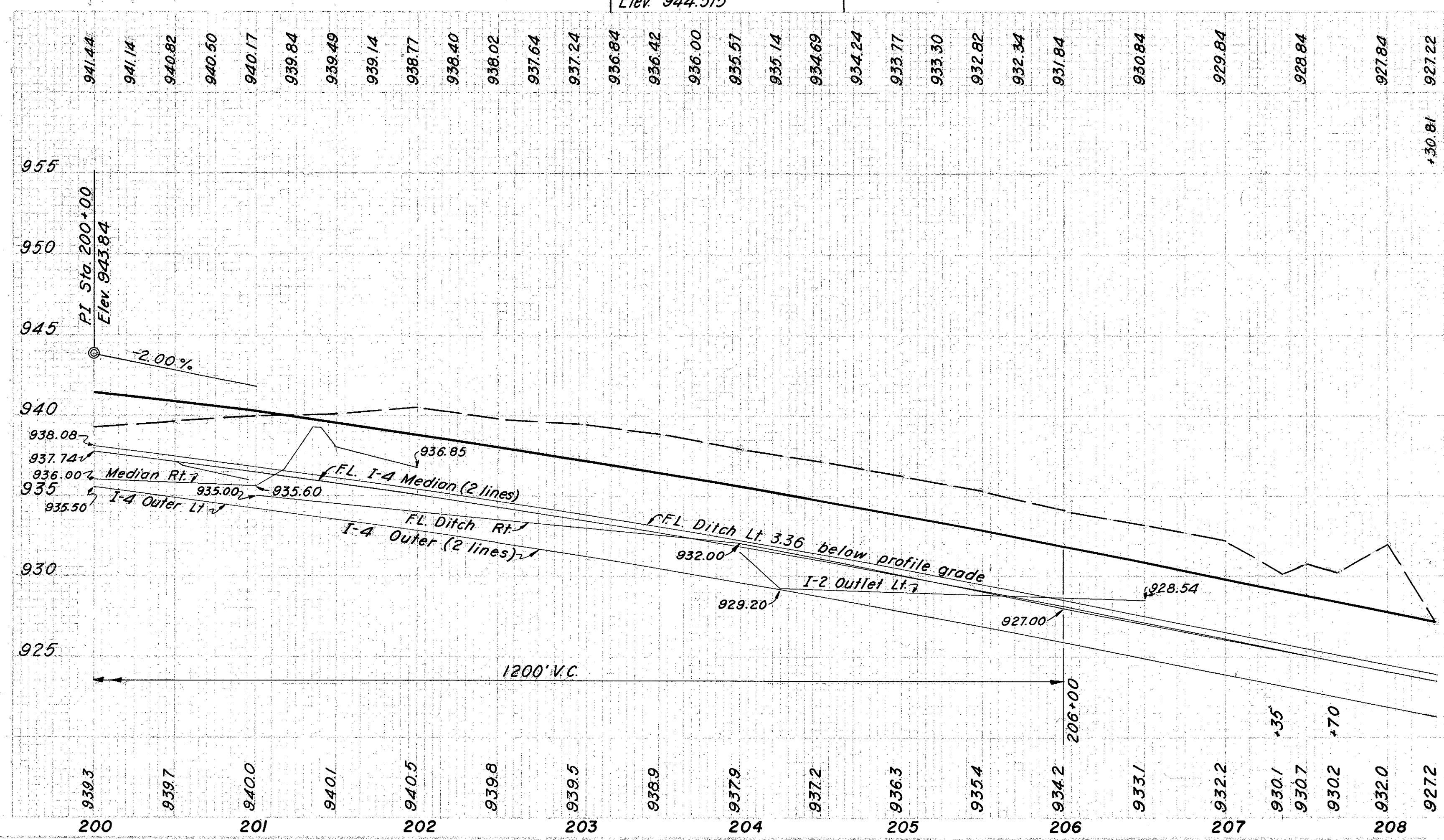


Excavation 14,888 C.Y.
 Embankment 20,525 C.Y.
 Embankment +18% 24,220 C.Y.



CURVE DATA
 PI Sta 218+16.45
 $\Delta = 27^\circ 51' 45'' Lt$
 $D = 0^\circ 28'$
 $R = 12277.67'$
 $Lc = 5970.94'$
 $T = 3045.52'$
 $E = 372.09'$

Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4		I-2 Storm Sewer		I-5 for I-2 Wye Bend 60° 8" x 6" Ea.	I-4 Pipe Outlet for Underdrain 8" L.F.	S-1 Concrete for Structures Class E L.F.	E-2 Excavation for Structures C.Y.	I-10 Dumped Rock Channel Protection		L-10 Sodding		See Sheet No.	
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 60° Each	Increase 6"-8" Each	8" L.F.	30" L.F.					Depth inches	C.Y.	Width L.F.	S.Y.		
	1 D	200+00		204+26	L		426												
2 D	200+00	204+00	L	400		1	1												
3 D	200+00	200+56	R	56		1	1												
4 D	200+00	200+82	R	82															
5 D	200+82	200+96	R						76										
6 D	204+00	204+26	L						52										
7 D	204+26	206+50	L							212	1	1							
8 D	204+30	208+30.81	L		401														
9 D	204+04	208+30.81	L	427															
10 D	200+60	208+30.81	R	771															
11 D	200+86	208+30.81	R		745														
12 D	201+00		R						100				1.0	2	30	26			
13 D	200+00	208+30.81	L														6	554	
14 D	200+00	208+30.81	L														9	831	
15 D	206+00	208+30.81	L														6	154	
16 D	201+10	208+30.81	R														8	722	
Totals				1736	1572	2	2	128	100	212	2	1	20	1.0	2	26		2261	

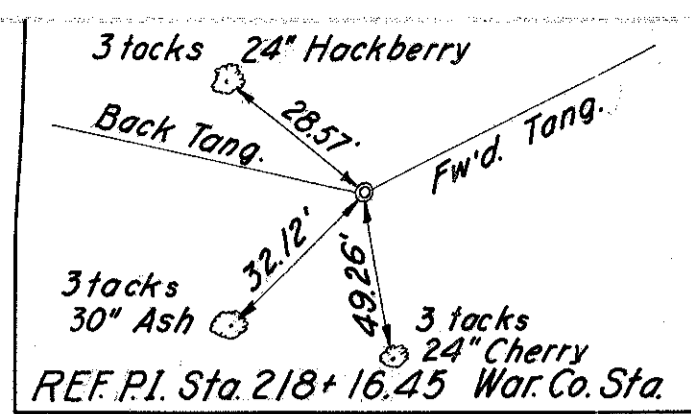


Excavation 23,511 C.Y.
 Embankment 2,144 C.Y.
 Embankment +18% 2,530 C.Y.

Elmer W. & Bess H. Lucas

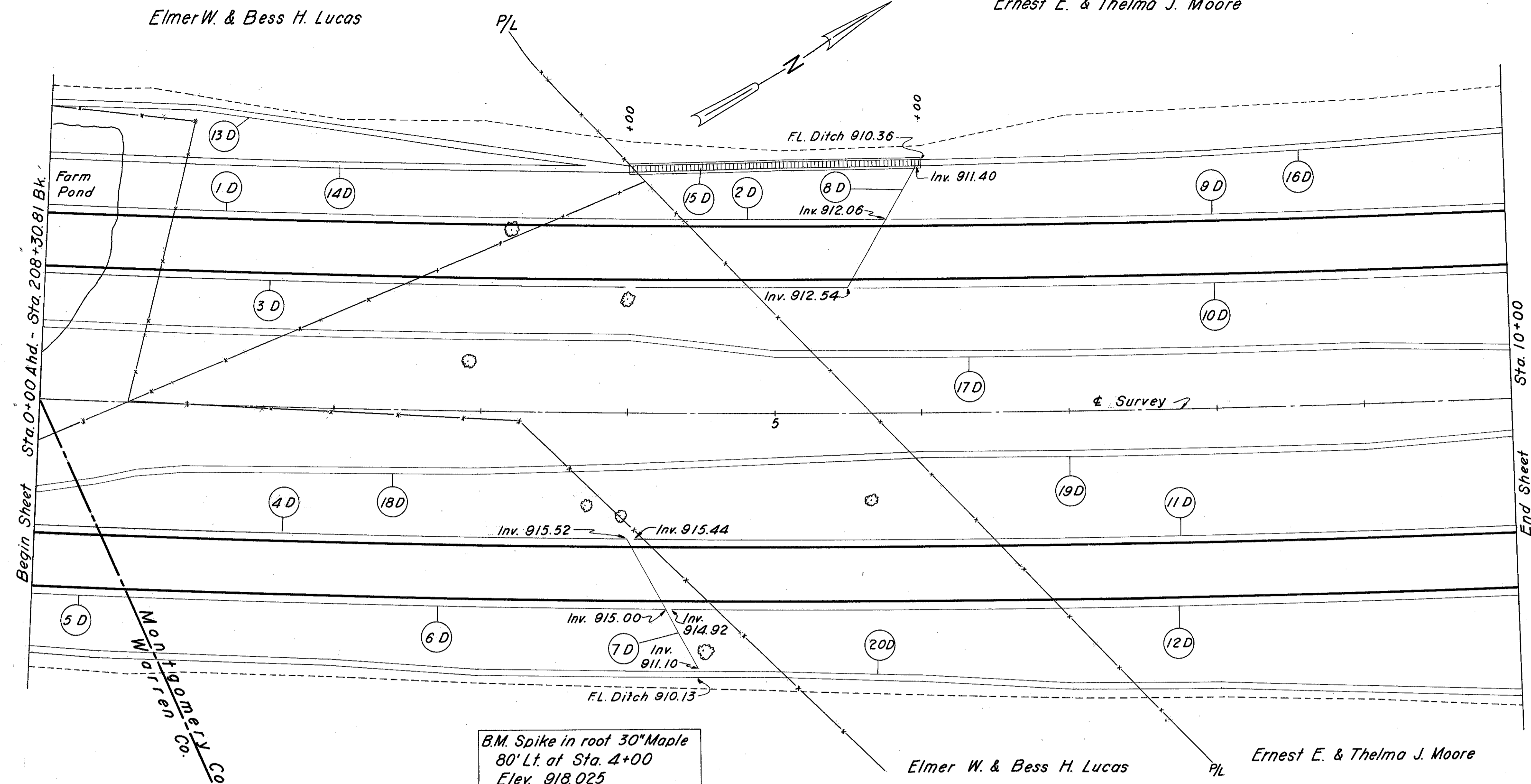
Ernest E. & Thelma J. Moore

CURVE DATA
 P.I. Sta. 218+16.45 (War. Co. Sta.)
 $\Delta = 27^\circ 51' 45''$ Lt.
 $D = 0^\circ 28' 17''$
 $R = 12,277.67'$
 $L_c = 3,970.54'$
 $T = 3,045.52'$
 $E = 372.09'$



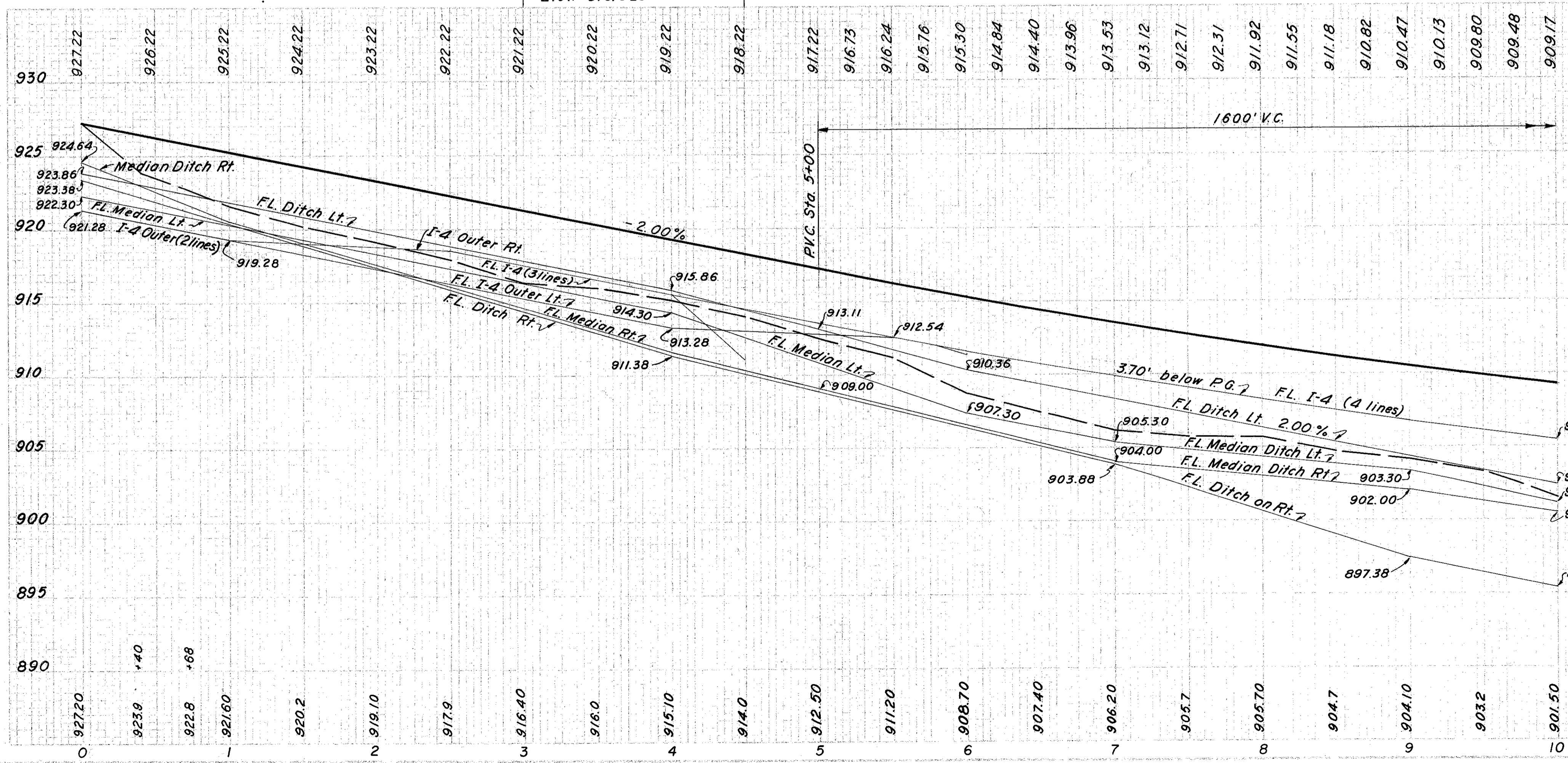
WAR-25-8.48
 MOT-25-0.00

41
 377



Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4		I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8" L.F.	I-5 for I-2 Wye 8"x6" L.F.	I-4 Pipe Outlet for Underdrains 8" L.F.	L-10 Sodding Width L.F.	S.Y.	I-14 Paved Gutter Type I-A L.F.
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 60" L.F.	Increase 6"-8" Ea.						
1 D	0+00	4+00	L		400								
2 D	4+00	5+75	L	175									
3 D	0+00	5+50	L	550		1	1						
4 D	0+00	4+00	R	400		1	1						
5 D	0+00	1+00	R		100								
6 D	1+00	4+26	R	326									
7 D	4+00	4+50	R					90	1	10			
8 D	5+50	5+96	L					84	1	10			
9 D	5+78	10+00	L	422									
10 D	5+54	10+00	L	446									
11 D	4+04	10+00	R	596									
12 D	4+30	10+00	R	570									
13 D	0+00	3+72	L								6	248	
14 D	0+00	4+00	L								9	400	
15 D	4+00	6+00	L								2@15	67	200
16 D	6+00	10+00	L								9	400	
17 D	0+00	10+00	L								6	667	
18 D	0+00	4+00	R								6	267	
19 D	4+00	10+00	R								9	600	
20 D	0+00	10+00	R								9	1000	
Totals				3485	500	2	2	174	2	20	3649	200	

B.M. Spike in root 30" Maple
 80' Lt. of Sta. 4+00
 Elev. 918.025

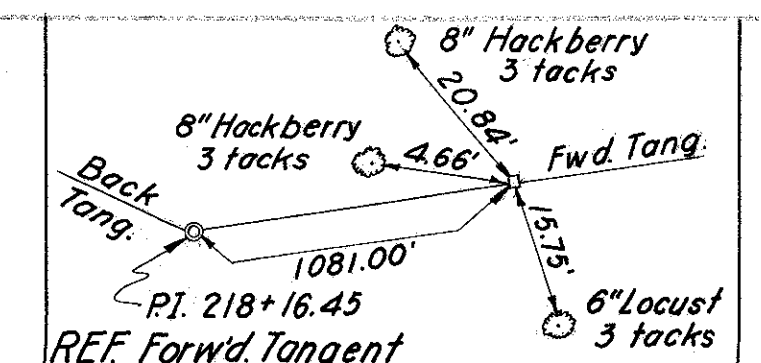


Excavation 9,988 C.Y.
 Embankment 22,458 C.Y.
 Embankment + 18% 26,500 C.Y.

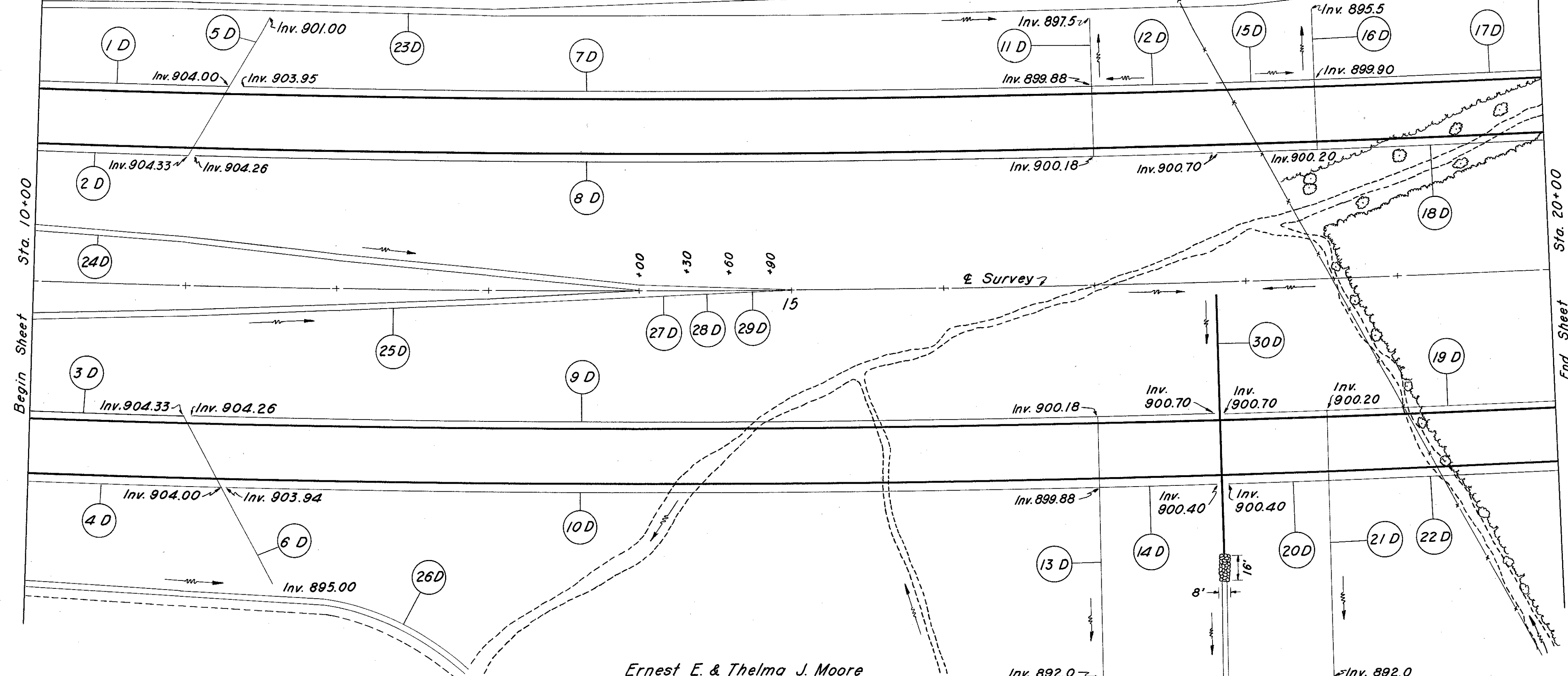
Sta. 0+00 to 10+00

CURVE DATA
 PI Sta. 218+16.45 (War. Co)
 $\Delta = 27^\circ 51' 45''$ Lt.
 $D = 0^\circ 28'$ Lt.
 $R = 12,277.67'$
 $L_c = 5,970.54'$
 $T = 3,045.52'$; $E = 372.09'$

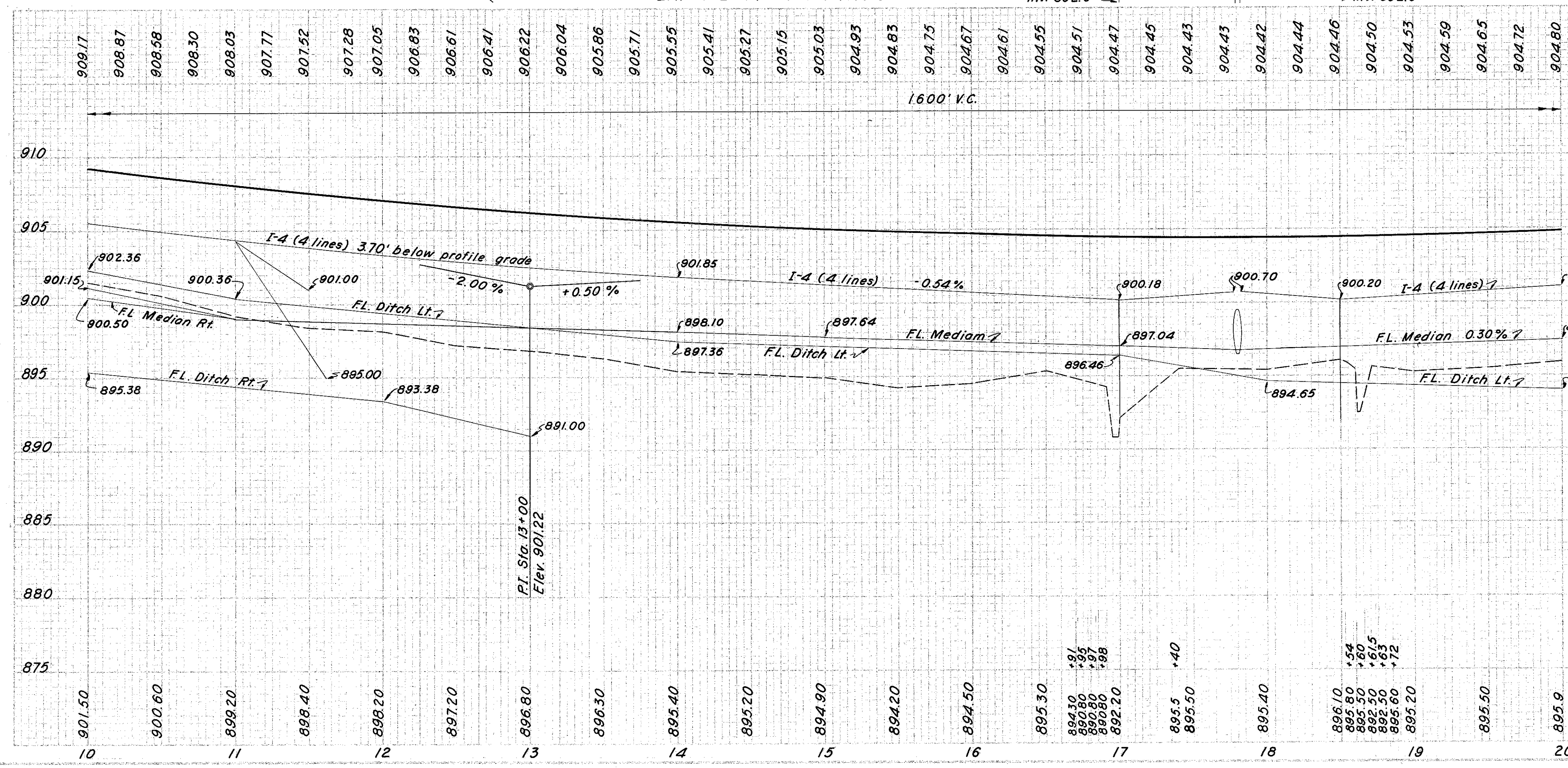
Ernest E. & Thelma J. Moore
 Henry N. Hollencamp, Trustee



WAR. - 25- 8.48
 MOT. - 25- 0.00



Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4			I-2 Storm Sewer	I-5 for I-2	I-4 Pipe	L-10 Sodding		
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Bend 60° Ea.	Increase 6"-8" Ea.	Tees 8" Ea.	Wye 8"x6" 60° Ea.	Cross 8"x6" Ea.	Offsets for Underdrains 8" L.F.	Width L.F.	S.Y.	
	1 D	10+00		11+26	L	126								
2 D	10+00	11+00	L	100										
3 D	10+00	11+00	R	100										
4 D	10+00	11+26	R	126										
5 D	11+00	11+50	L			1	1		94	1	10			
6 D	11+00	11+60	R			1	1		114	1	10			
7 D	11+30	17+00	L	570										
8 D	11+04	17+78	L	674										
9 D	11+04	17+78	R	674										
10 D	11+30	17+00	R	570										
11 D	17+00	-	L						80	1	10			
12 D	17+00	17+78	L	78										
13 D	17+00	-	R						160	1	10			
14 D	17+00	17+78	R	78										
15 D	17+82	18+50	L	68										
16 D	18+50	-	L						80	1	10			
17 D	18+50	20+00	L	150										
18 D	17+82	20+00	L	218										
19 D	17+82	20+00	R	218										
20 D	17+82	18+50	R	68										
21 D	18+50	-	R						160	1	10			
22 D	18+50	20+00	R	150										
23 D	10+00	13+00	L									9	300	
24 D	10+00	11+10	L									6	73	
25 D	10+00	14+00	R									9	400	
26 D	10+00	13+00	R									9	320	
27 D	14+00	14+30	E									12	40	
28 D	14+30	14+60	E									9	30	
29 D	14+60	14+90	E									6	20	
Totals				3968		2	2	4	688	2	4	60		1183

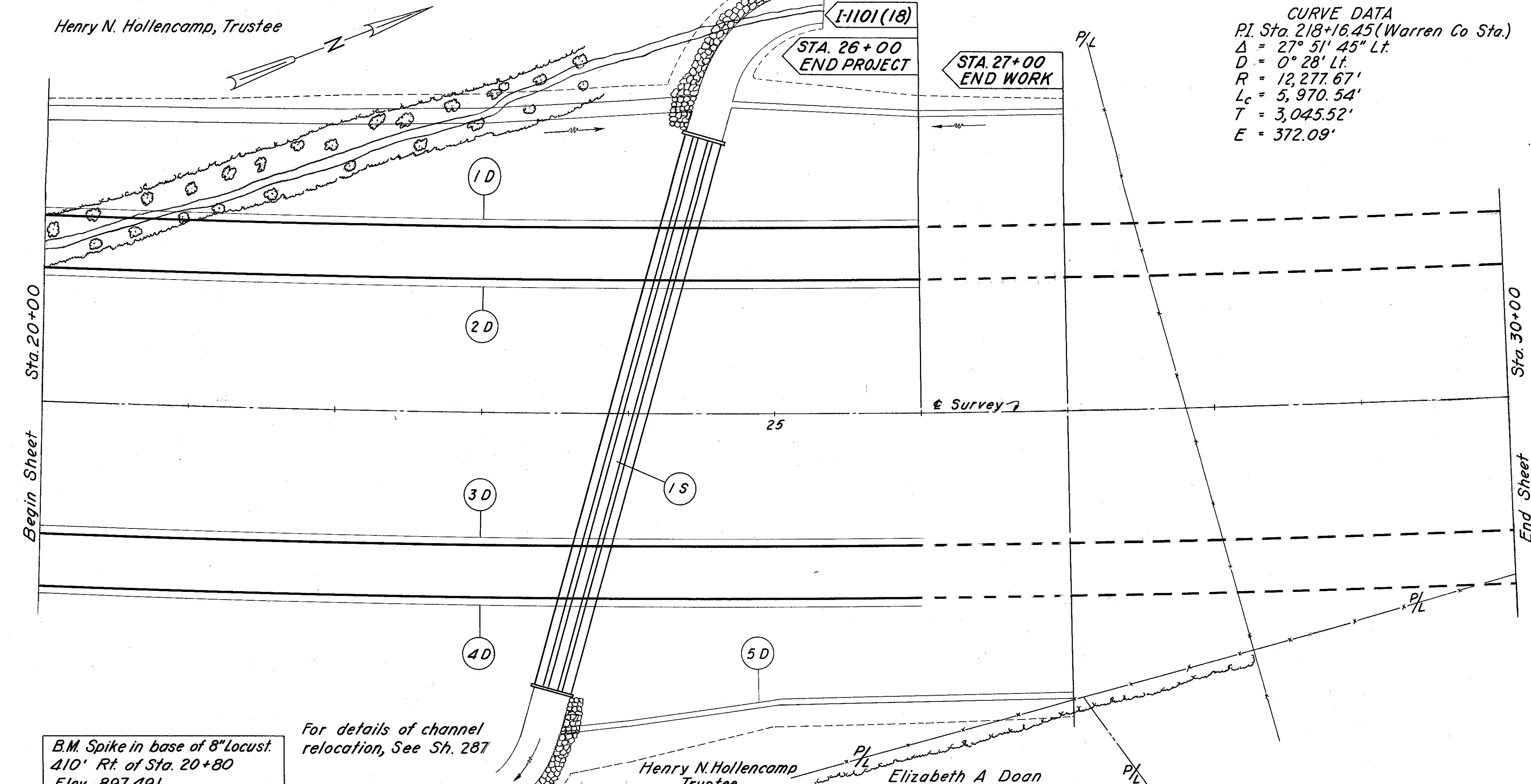


Ref. No.	Station		Side	I-2 Class A Storm Sewer Under Pavement Sec. M-6.6(a) or M-6.8(b)		I-10 Dumped Rock Channel Protection	S-1 Concrete for Structures Class E	See Sheet No.
	From	To		Depth 36" L.F.	C.Y.	C.Y.		
	30 D	17+80		Rt	172	30	12	
Totals				172		12	1.2	

Excavation 6,815 C.Y.
 Embankment 78,901 C.Y.
 Embankment + 18% 93,103 C.Y.

Henry N. Hollencamp, Trustee

CURVE DATA
 P.I. Sta. 218+16.45 (Warren Co Sta.)
 $\Delta = 27^\circ 51' 45''$ Lt.
 $D = 0^\circ 28' 14''$ Lt.
 $R = 12,277.67'$
 $L_c = 5,970.54'$
 $T = 3,045.52'$
 $E = 372.09'$



DRAINAGE

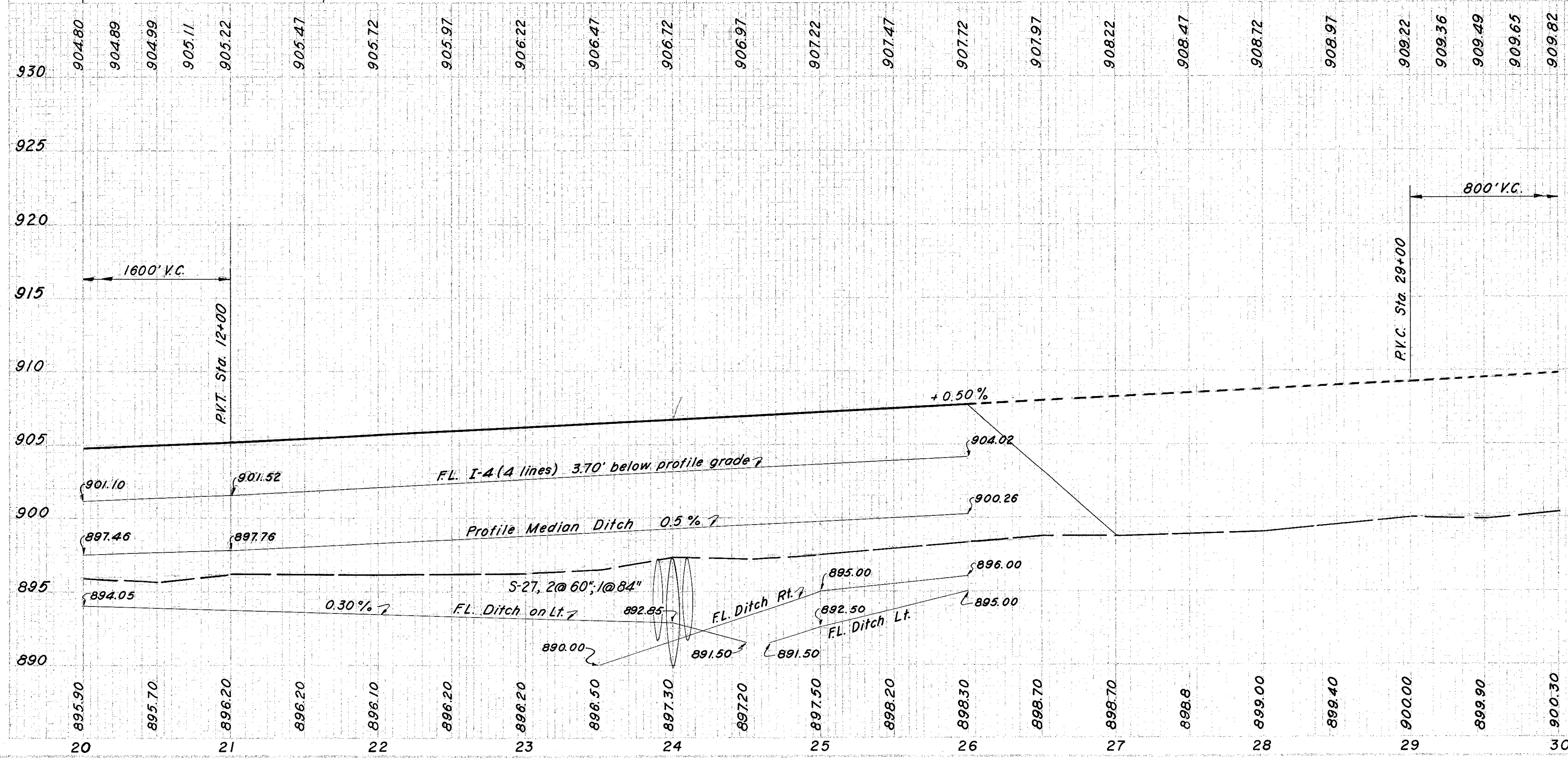
Ref. No.	Station		Side	I-4 Underdrain		L-10 Sodding	
	From	To		Shallow 6" L.F.	Deep 6" L.F.	Width L.F.	S.Y.
1 D	20+00	26+00	L	600			
2 D	20+00	26+00	L	600			
3 D	20+00	26+00	R	600			
4 D	20+00	20+00	R	600			
5 D	23+60	26+00	R			6	160
Total				2400		160	

STRUCTURES (20' Span and under)

Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	I-10 Dumped Rock Channel Protection C.Y.	S-1 Concrete for Structures Class E C.Y.		S-27 Pipe for Rdwg Culverts Sec. M.-6.6(b)		See Sheet No.
					60" L.F.	84" L.F.	60" L.F.	84" L.F.	
1 S	24+60	708	2370	337	27.4	776	388	286	
Totals		708	2370	337	27.4	776	388		

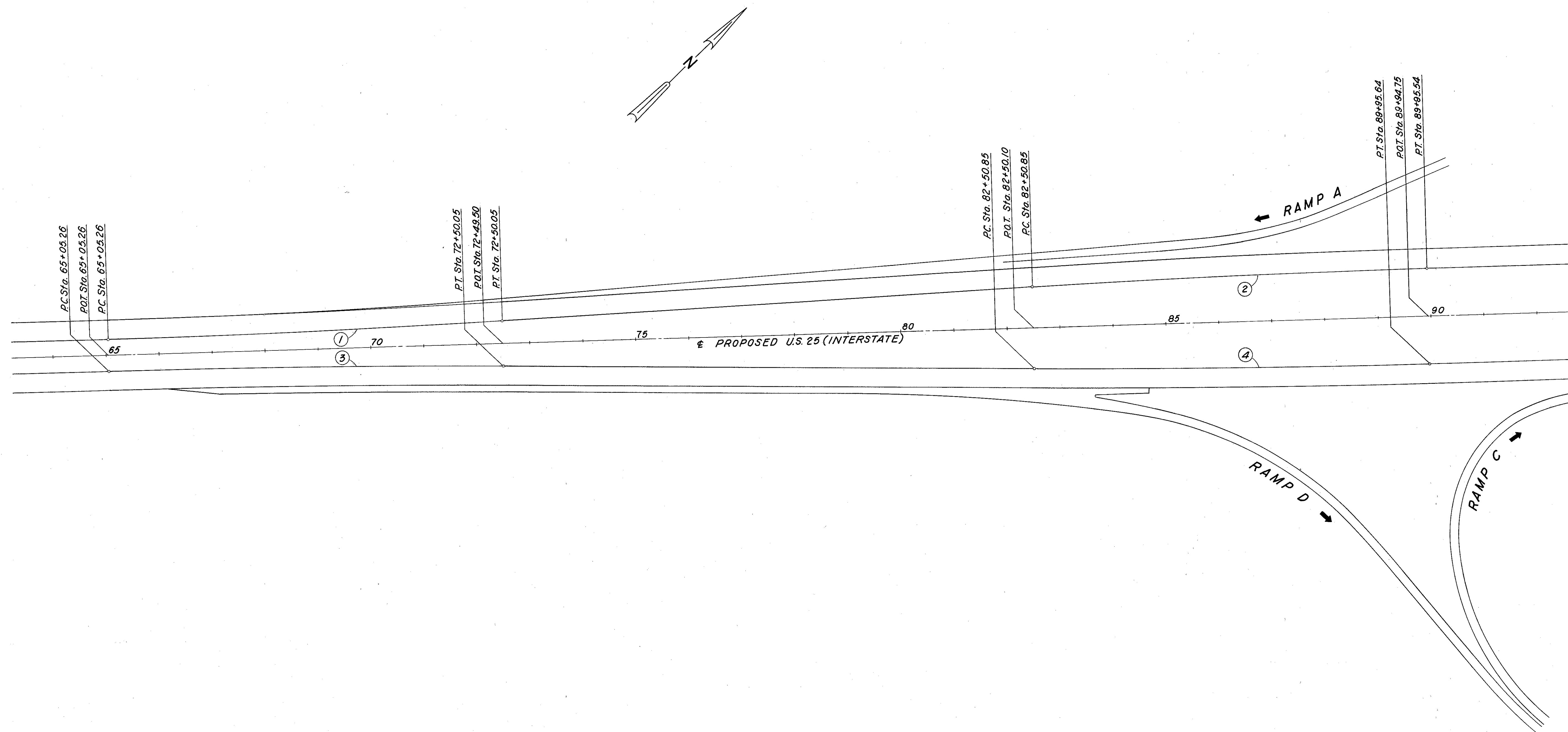
B.M. Spike in base of 8" Locust.
 410' Rt. of Sta. 20+80
 Elev. 897.491

For details of channel relocation, See Sh. 287



Excavation 5,769 C.Y.
 Embankment 53,810 C.Y.
 Embankment + 18% 63,496 C.Y.

WAR.-25-848
MOT.-25-0.00



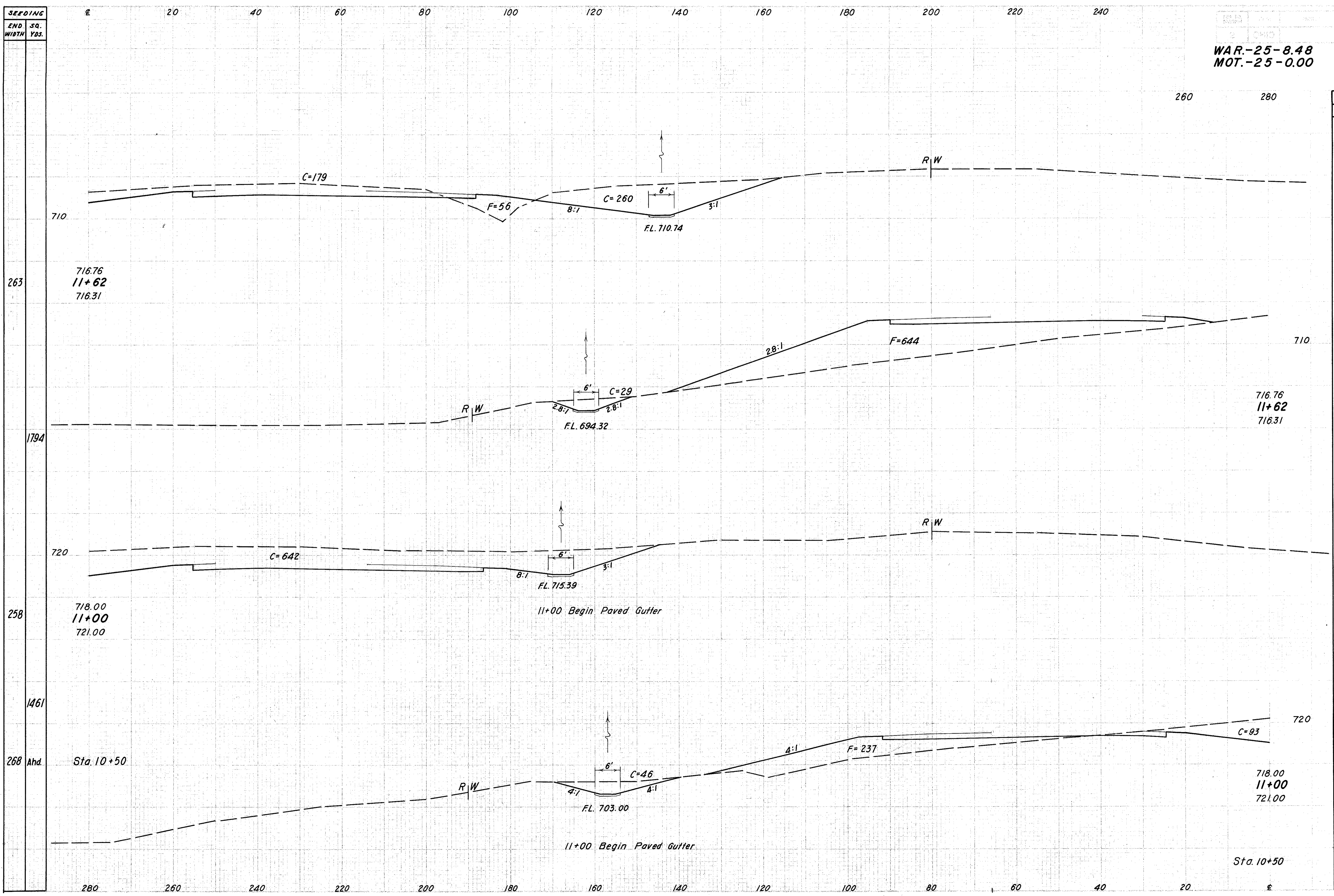
Station	Offset	Station	Offset	Station	Offset	Station	Offset	Station	Offset
± Station	Lt. & Rt.	± Station	Lt. & Rt.	± Station	Lt. & Rt.	± Station	Lt. & Rt.	± Station	Lt. & Rt.
65+05.26	30.00'	71+00	38.24'	74+00	48.12'	80+00	68.92'	85+00	84.71'
66+00	30.21	71+50	39.68'	75+00	51.58'	81+00	72.39'	86+00	86.87'
67+00	30.88	72+00	41.24'	76+00	55.05'	82+00	75.86'	87+00	88.48'
68+00	32.02	72+17	41.79'	77+00	58.52'	82+50.10	77.59'	88+00	89.62'
69+00	33.63'	72+49.50	42.91'	78+00	61.99'	83+00	79.26'	89+00	90.29'
70+00	35.79'	73+00	44.65'	79+00	65.45'	84+00	82.26'	89+94.75	90.50'

1	2	3	4
PI Sta. 68+77.69	PI. Sta. 86+23.28	PI. Sta. 68+77.69	PI. Sta. 86+23.28
$\Delta = 01^{\circ}59'10''$ Lt.	$\Delta = 01^{\circ}59'10''$ Rt.	$\Delta = 01^{\circ}59'10''$ Rt.	$\Delta = 01^{\circ}59'10''$ Lt.
$D = 0^{\circ}16'00''$	$D = 0^{\circ}16'00''$	$D = 0^{\circ}16'00''$	$D = 0^{\circ}16'00''$
$T = 372.43'$	$T = 372.43'$	$T = 372.43'$	$T = 372.43'$
$L = 744.79'$	$L = 744.79'$	$L = 744.79'$	$L = 744.79'$
$R = 21,485.90'$	$R = 21,485.90'$	$R = 21,485.90'$	$R = 21,485.90'$

MEDIAN TRANSITION 60' to 181' Width

WAR-25-8.48
MOT.-25-0.00

45
377

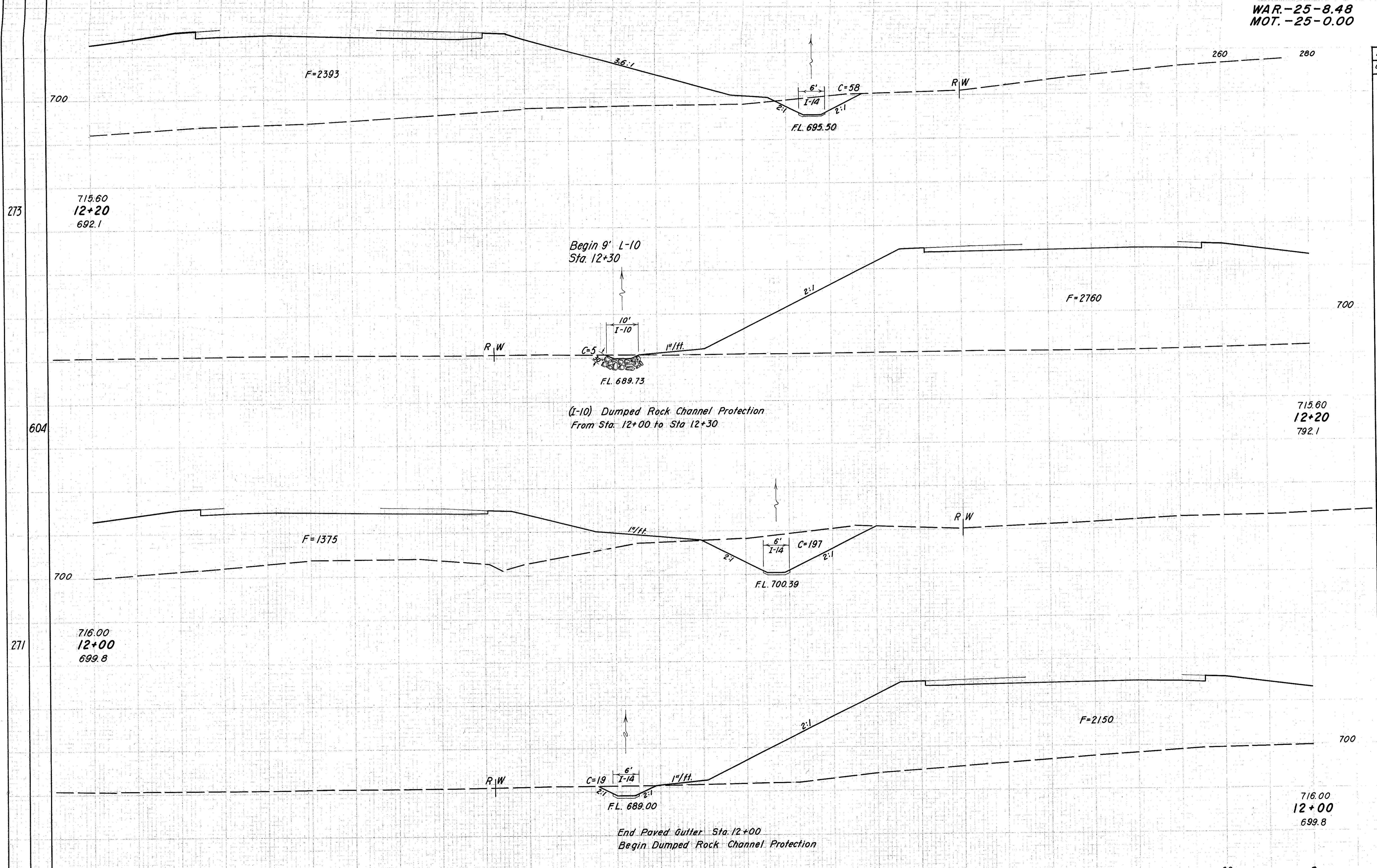


SEEDING	
END WIDTH	SQ. YDS.
263	716.76 11+62 716.31
1794	
258	718.00 11+00 721.00
1461	
268	718.00 11+00 721.00

END AREA		CU. YD.	
CUT	FILL	CUT	FILL
		468	700
		1434	1076
		781	237
			723 219
		0	0

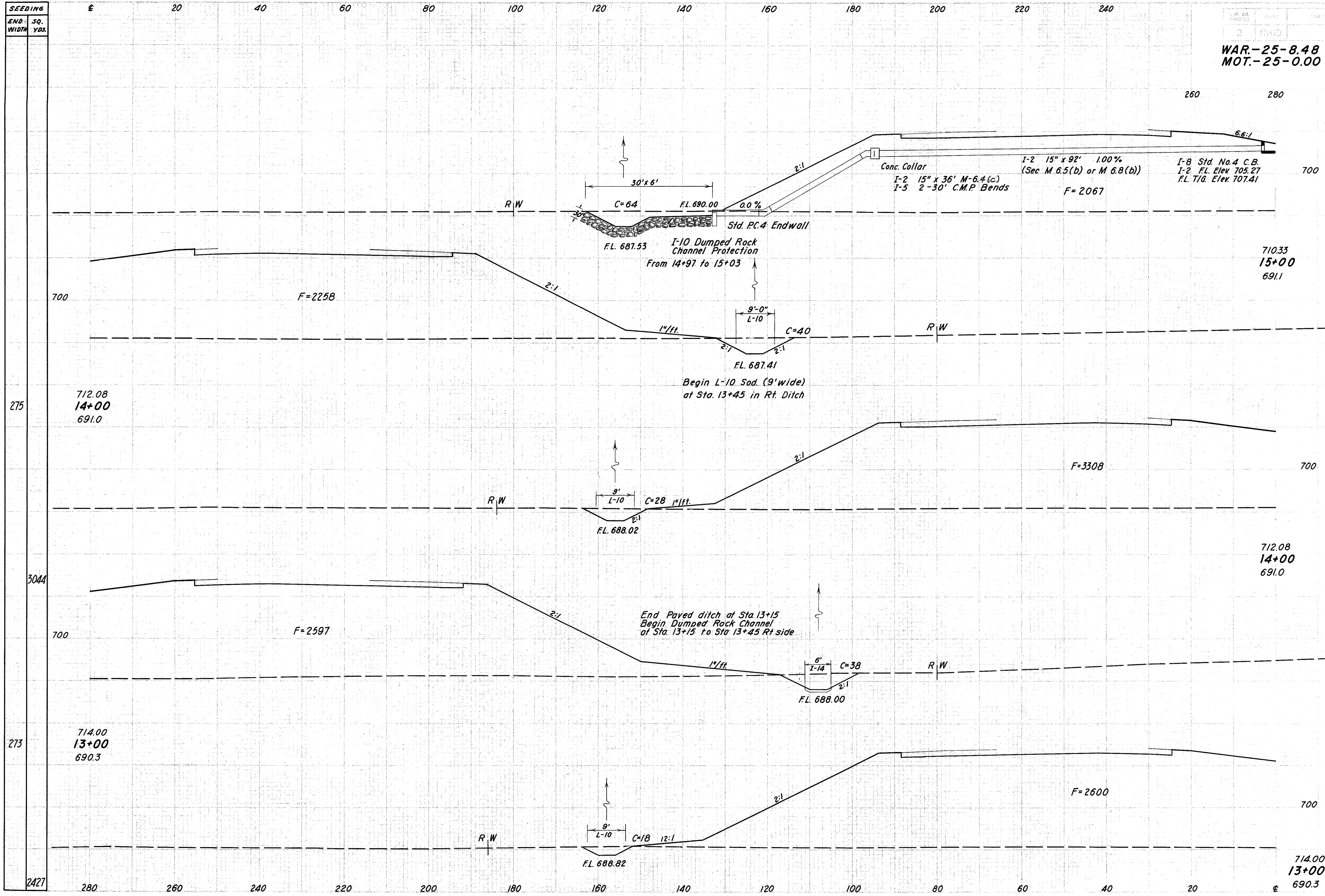
Sta. 11+00 to Sta. 11+62

SEEDING
END SQ.
WIDTH YDS.



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
63		5153	
103		3214	
216		3525	
481		2973	

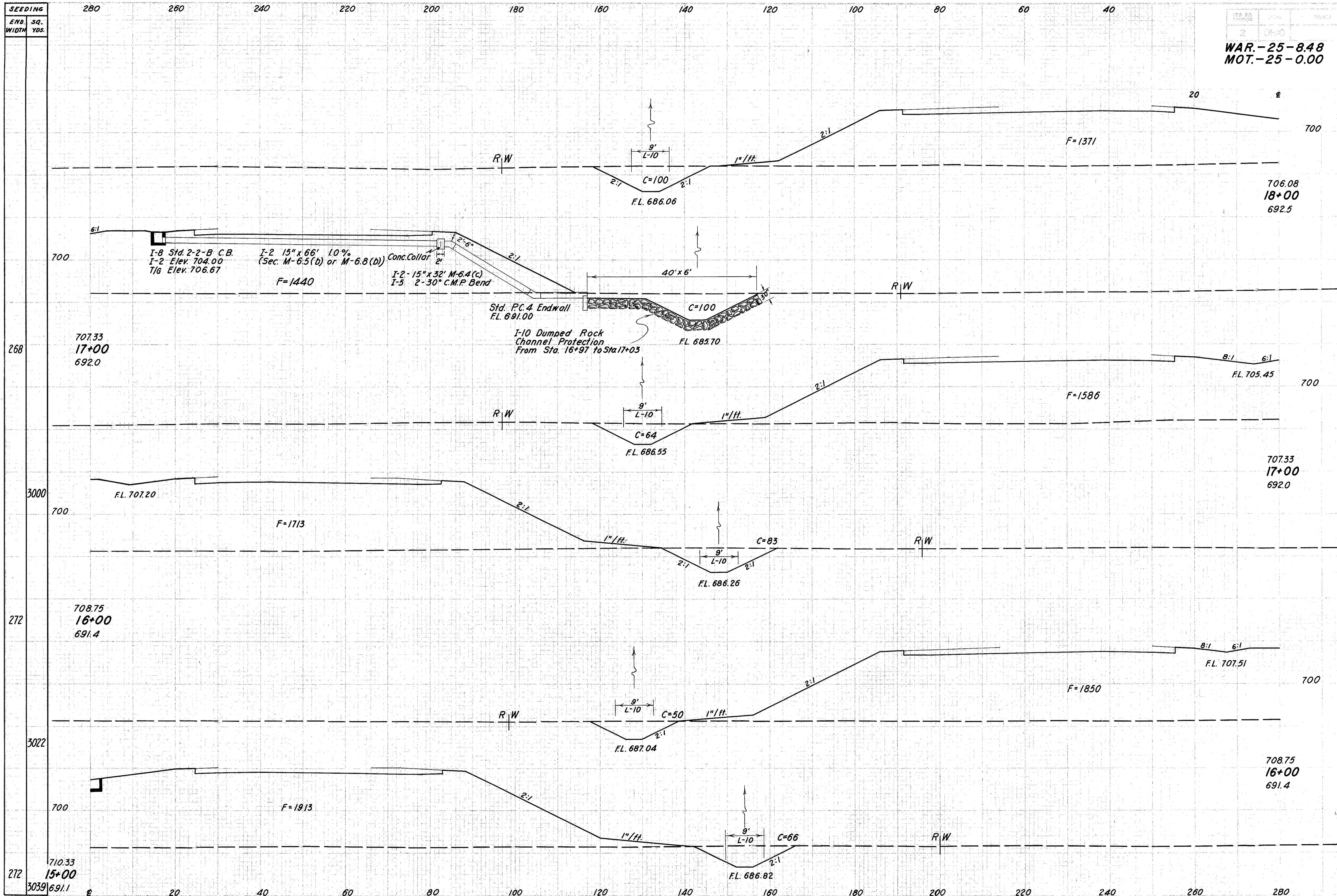
Sta. 12+00 to Sta. 12+20



WAR.-25-8.48
MOT.-25-0.00

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
130	3980		
367	17678		
68	5566		
230	19931		
56	5197	176	15304

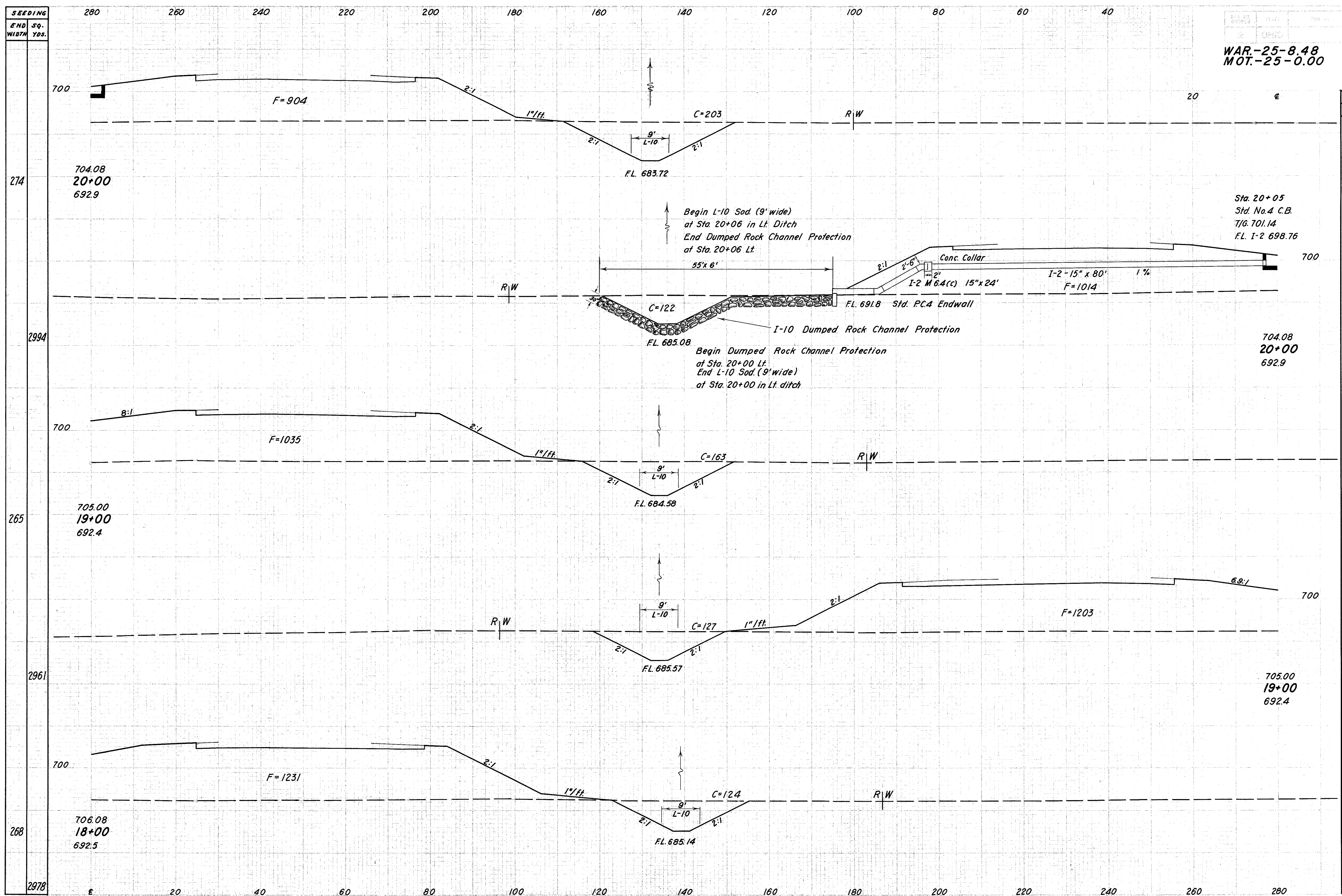
Sta. 13+00 to Sta. 15+00 Lt.



WAR.-25-8.48
MOT.-25-0.00

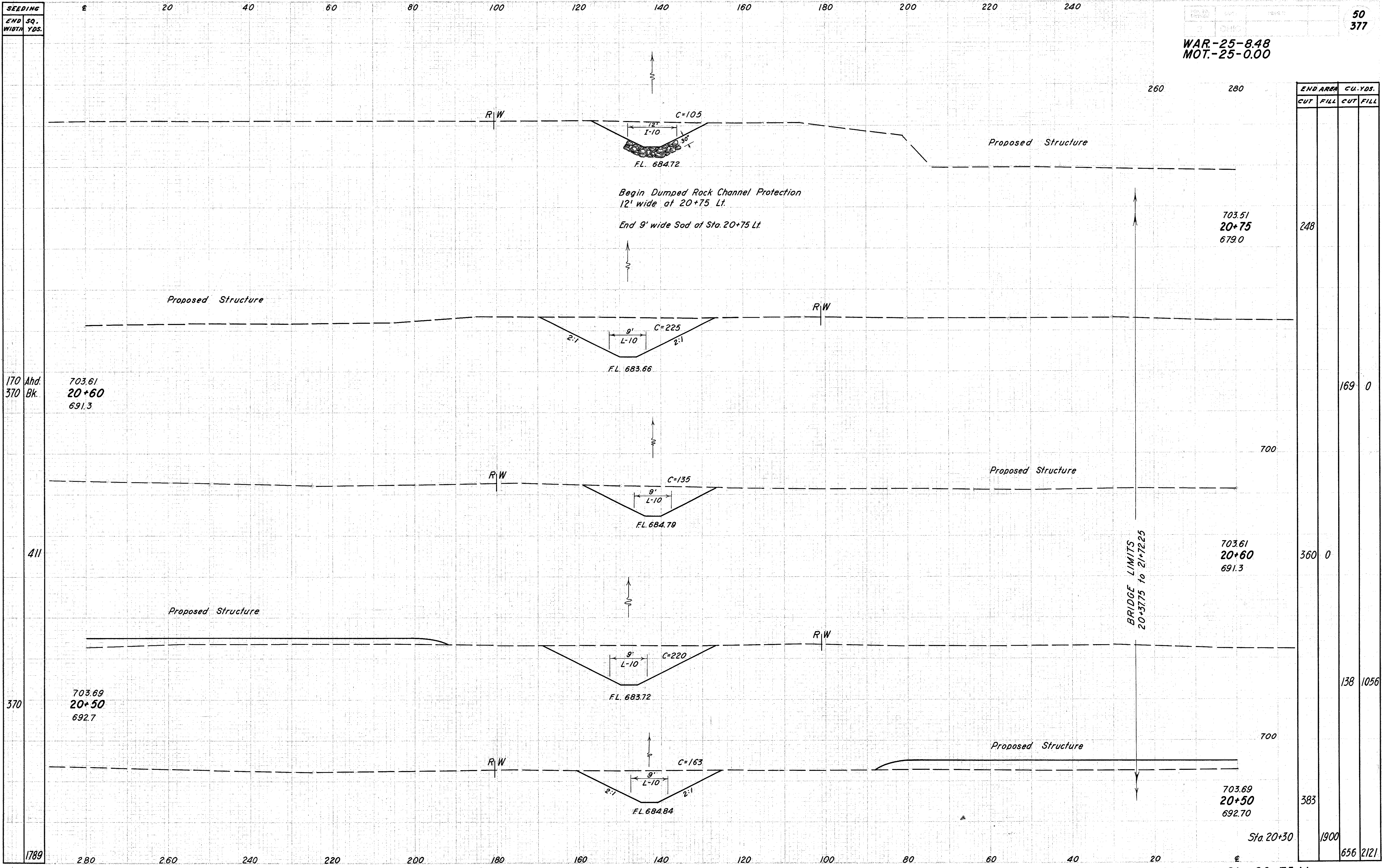
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
224	2602		
		718	10422
164	3026		
		550	12202
133	3563		
		487	13968

Sta. 15+00 Rt. to Sta. 18+00 Lt.



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
325	1918		
1139	7696		
290	2238		
952	8963		

Sta. 18+00 Rt. to Sta. 20+00



WAR-25-8.48
MOT-25-0.00

50
377

SEEDING	END SQ. WIDTH YDS.
170 Ahd. 370 Bk.	703.61 20+60 691.3
411	
370	703.69 20+50 692.7
1789	

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		248	
		169	0
		360	0
		138	1056
		383	
		1900	
		656	2121

Sta. 20+50 to Sta. 20+75 Lt.

SEEDING
END SQ.
WIDTH YDS.

280 260 240 220 200 180 160 140 120 100 80 60 40

51
377

WAR.-25-8.48
MOT.-25-0.00

20 ±

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

700

703.18
21+24
683.2

Proposed Structures

R.W.

700

Proposed Structures

R.W.

703.18
21+24
683.2

700

703.33
21+00
681.3

End Dumped Rock Channel
Protection @ Sta. 21+00 Rt.

R.W.

700

BRIDGE LIMITS
20+37.75 to 21+72.25

R.W.

End Dumped Rock Channel
Protection @ Sta. 21+00 Lt.

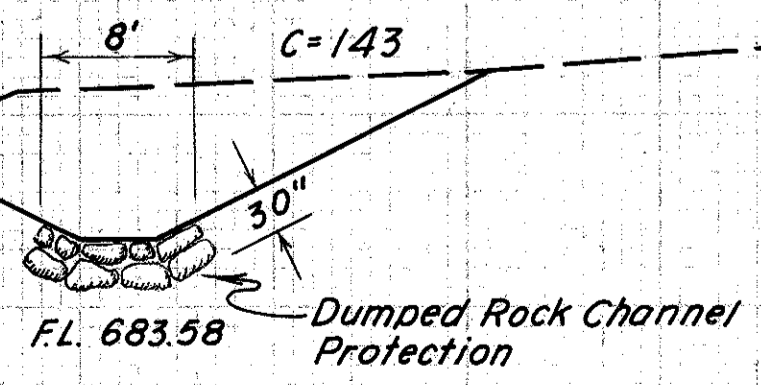
703.33
21+00
681.3

0

700

Proposed Structures

R.W.



Begin Dumped Rock
Channel Protection @ Sta. 20+75

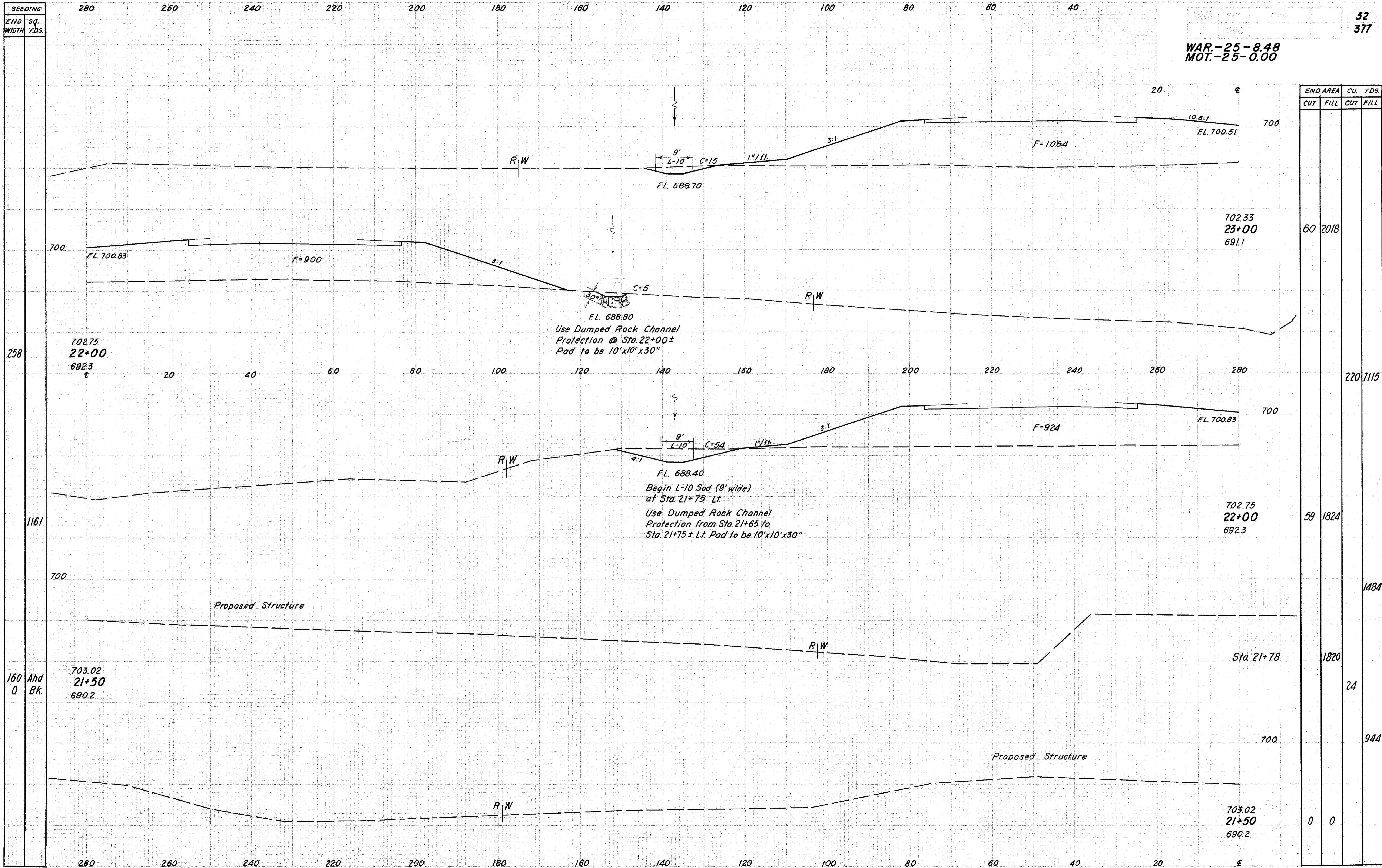
0 Ahd.
165 Bk.
703.51
20+75
679.0

279

± 20 40 60 80 100 120 140 160 180 200 220 240 260 280

300 115

Sta. 20+75 Rt. to Sta. 21+24

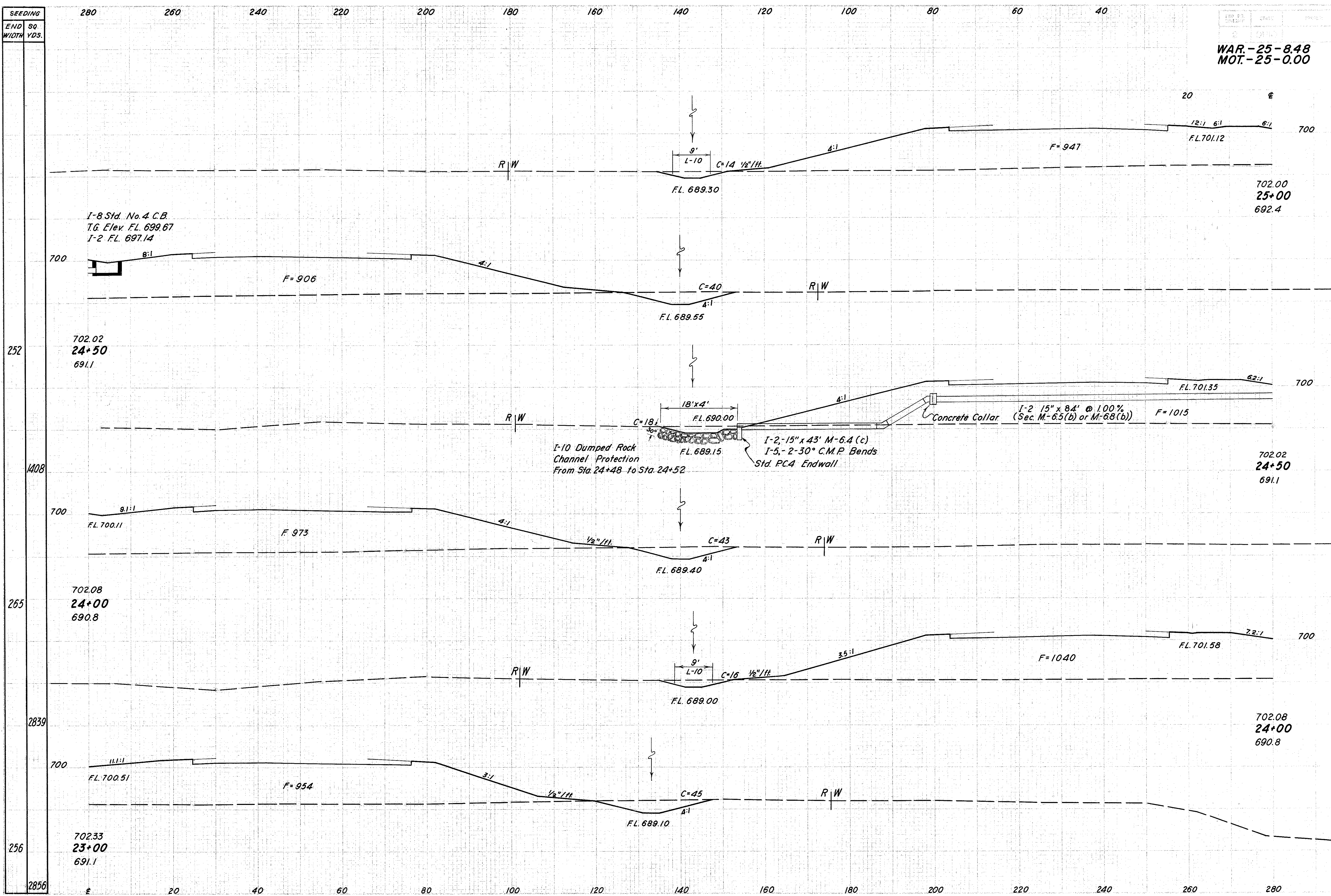


WAR.-25-8.48
MOT.-25-0.00

52
377

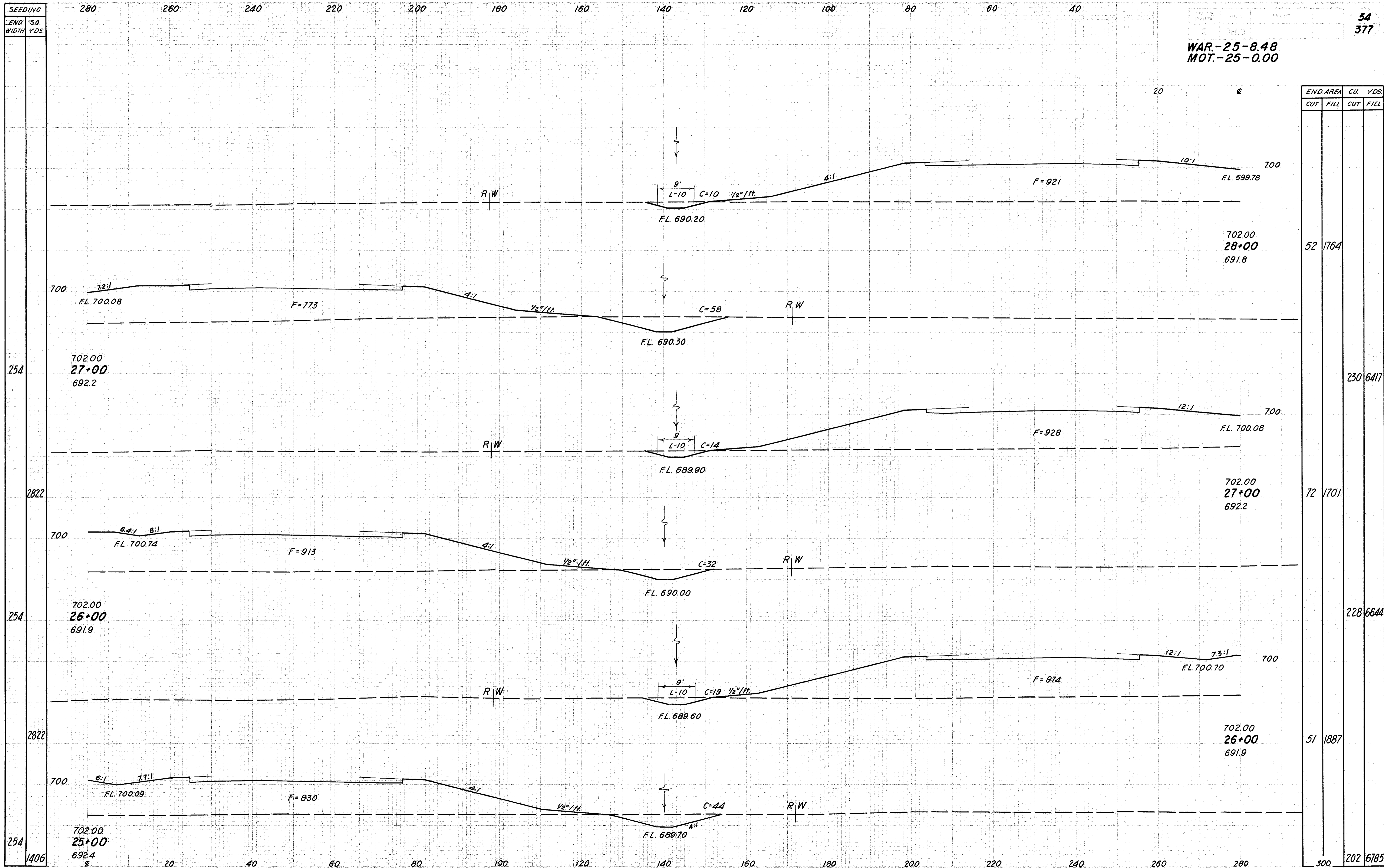
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
60	2018		
220	7115		
59	1824		
	1484		
	1820		
	24		
	944		
0	0		

Sta. 21+50 to Sta. 23+00 Lt.



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
58	1777		
107	3424		
58	1921		
108	3642		
59	2013		
220	7465		

Sta. 23+00 Rt. to Sta. 25+00 Lt.



SEEDING	END WIDTH	S.Q. YDS.
	1406	

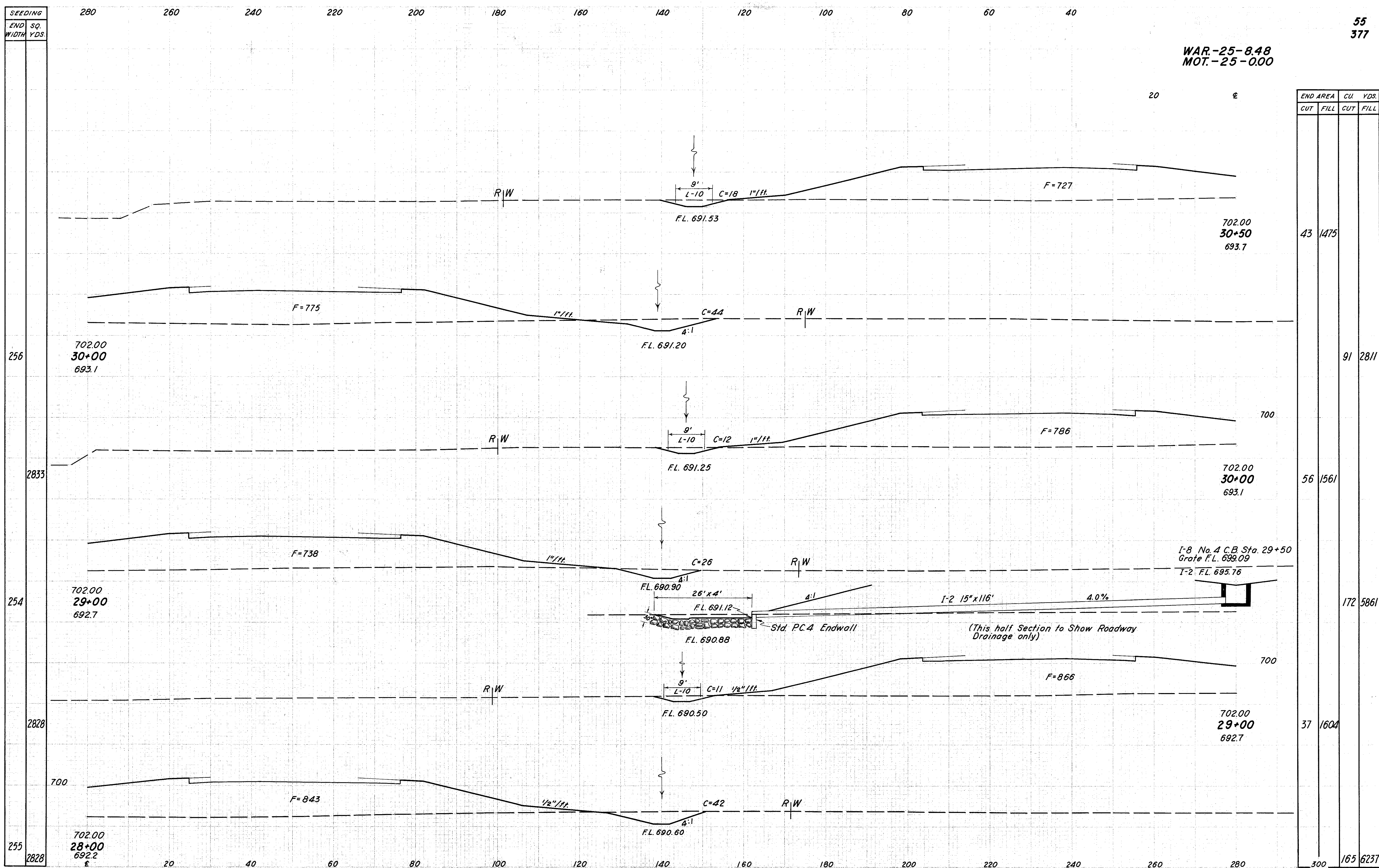
WAR-25-8.48
MOT.-25-0.00

54
377

END AREA	CU. YDS.	
	CUT	FILL
52	1764	
230	6417	
72	1701	
228	6644	
51	1887	
202	6785	

Sta. 25+00 Rt. to Sta. 28+00 Lt.

WAR-25-848
MOT.-25-0.00



SEEDING	
END WIDTH	SQ. YDS.

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

256

702.00
30+00
693.1

F=775

FL. 691.20

R|W

91 2811

2833

700

R|W

FL. 691.25

F=786

702.00
30+00
693.1

56 1561

254

702.00
29+00
692.7

F=738

FL. 690.90

R|W

26' x 4'

FL. 691.12

FL. 690.88

Std. PC.4 Endwall

I-2 15" x 116"

4.0%

I-8 No. 4 C.B. Sta. 29+50
Grape F.L. 699.09
I-2 FL. 695.76

(This half Section to Show Roadway Drainage only)

172 5861

2828

700

R|W

FL. 690.50

F=866

702.00
29+00
692.7

37 1604

255

702.00
28+00
692.2

F=843

FL. 690.60

R|W

C=42

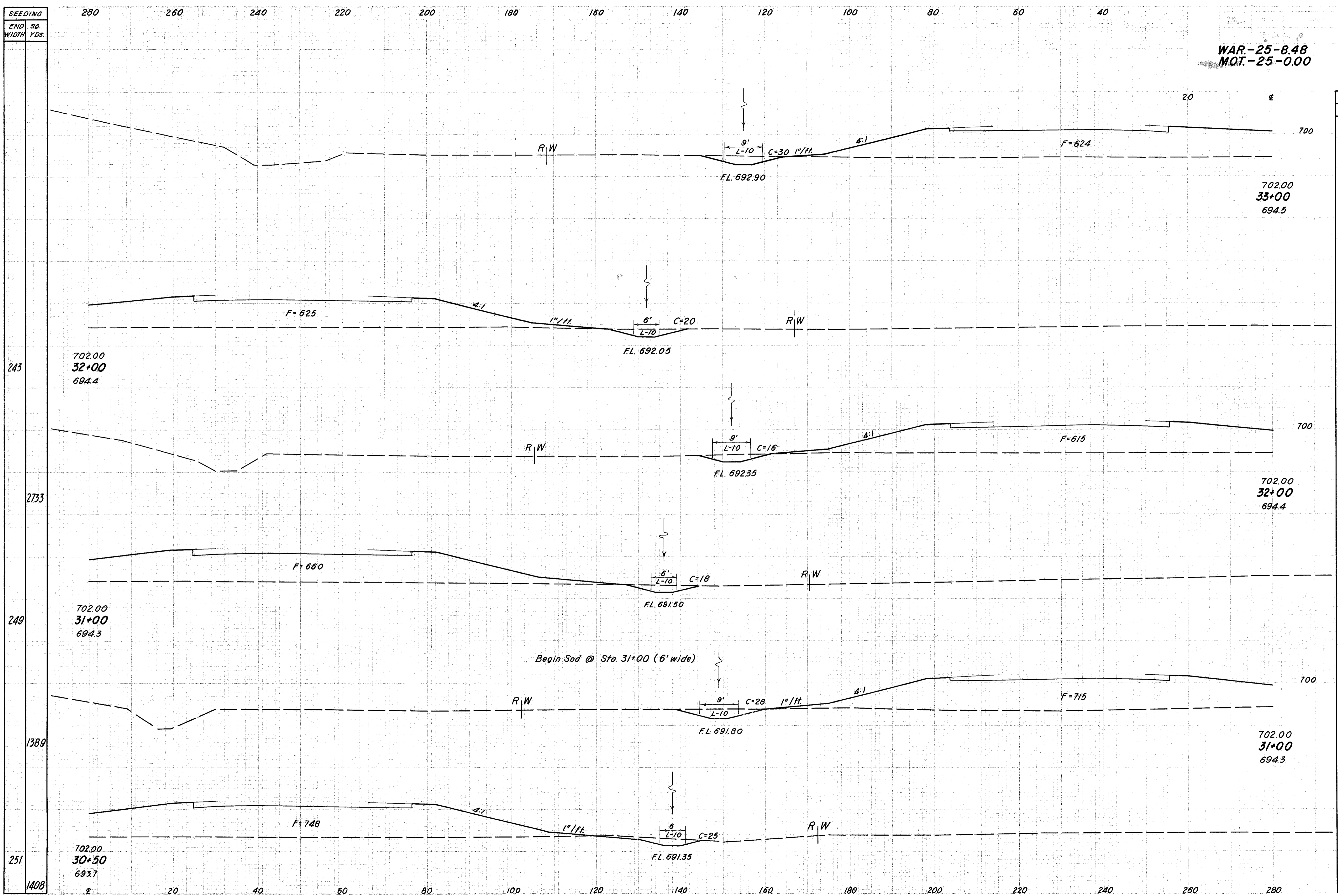
1/2" / ft.

165 6237

Sta. 28+00 Rt. to Sta. 30+50 Lt

WAR-25-8.48
MOT-25-0.00

56
377



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
60	1244		
178	4600		
36	1240		
152	4842		
46	1375		
82	2639		

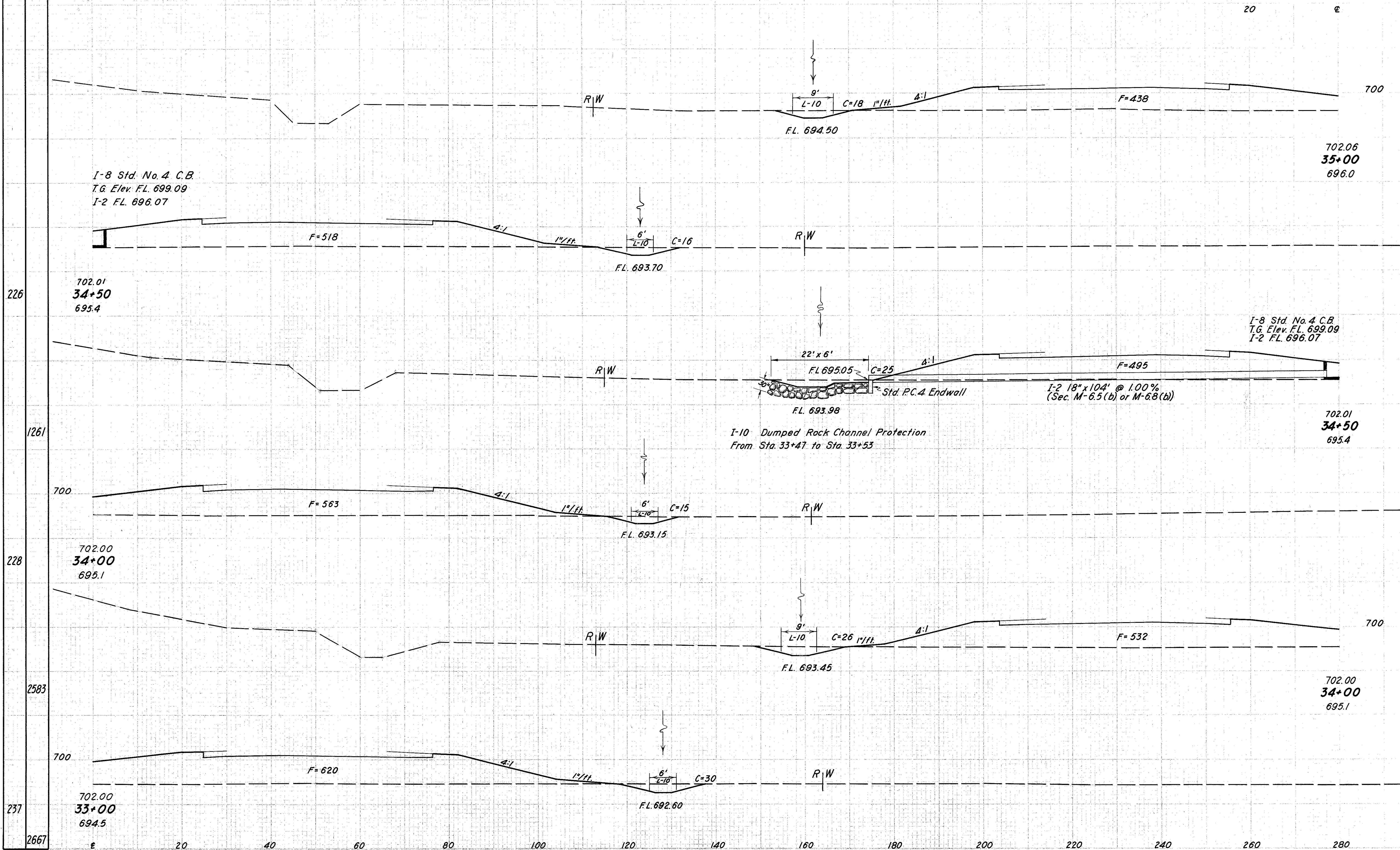
Sta. 30+50 Rt. to Sta. 33+00 Lt.

SEEDING
END SQ.
WIDTH YDS.

280 260 240 220 200 180 160 140 120 100 80 60 40

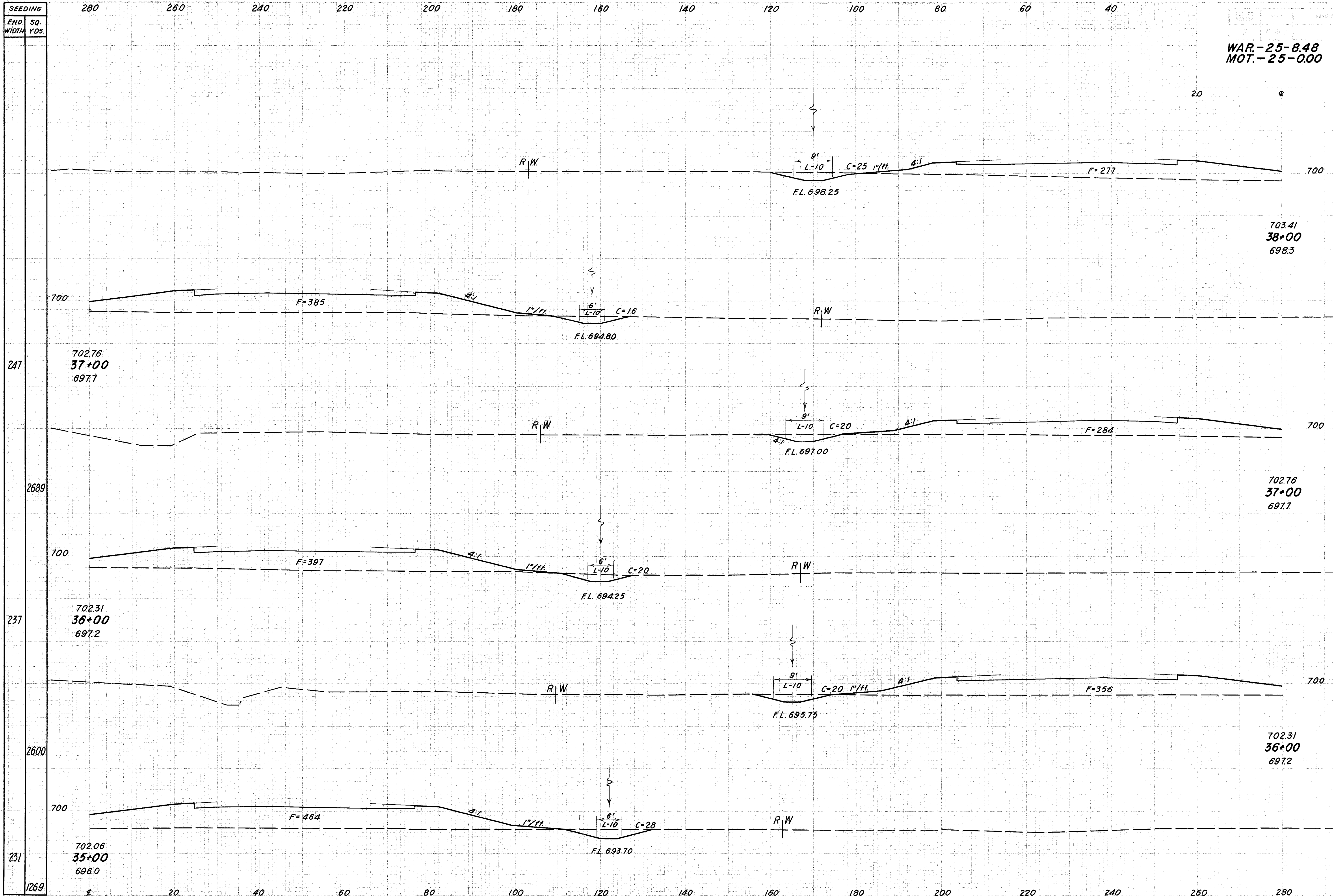
WAR.-25-8.48
MOT.-25-0.00

57
377



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
46	902		
80	1773		
41	1013		
76	1952		
41	1095		
300	187	4331	

Sta. 33+00 Rt. to Sta. 35+00 Lt.

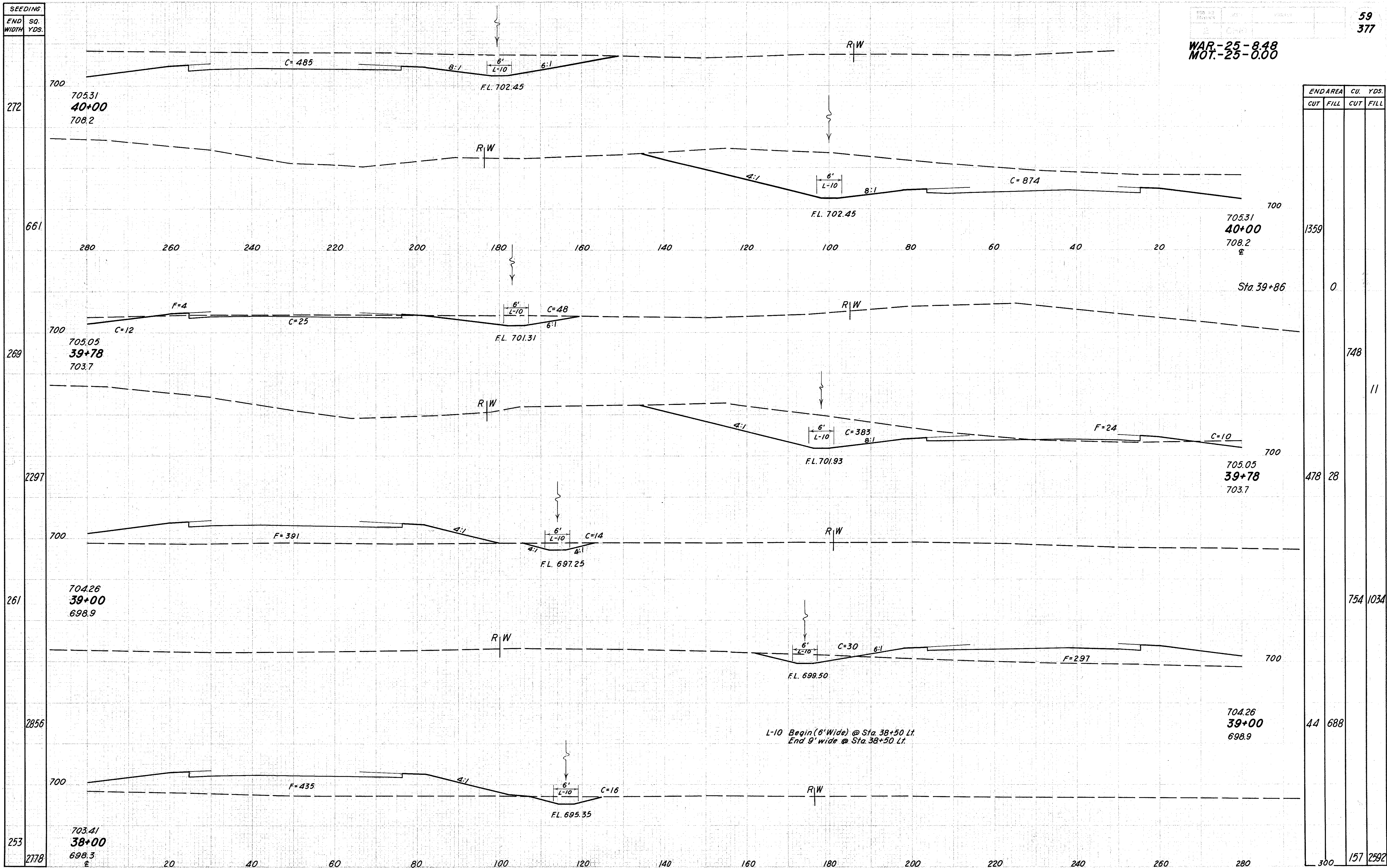


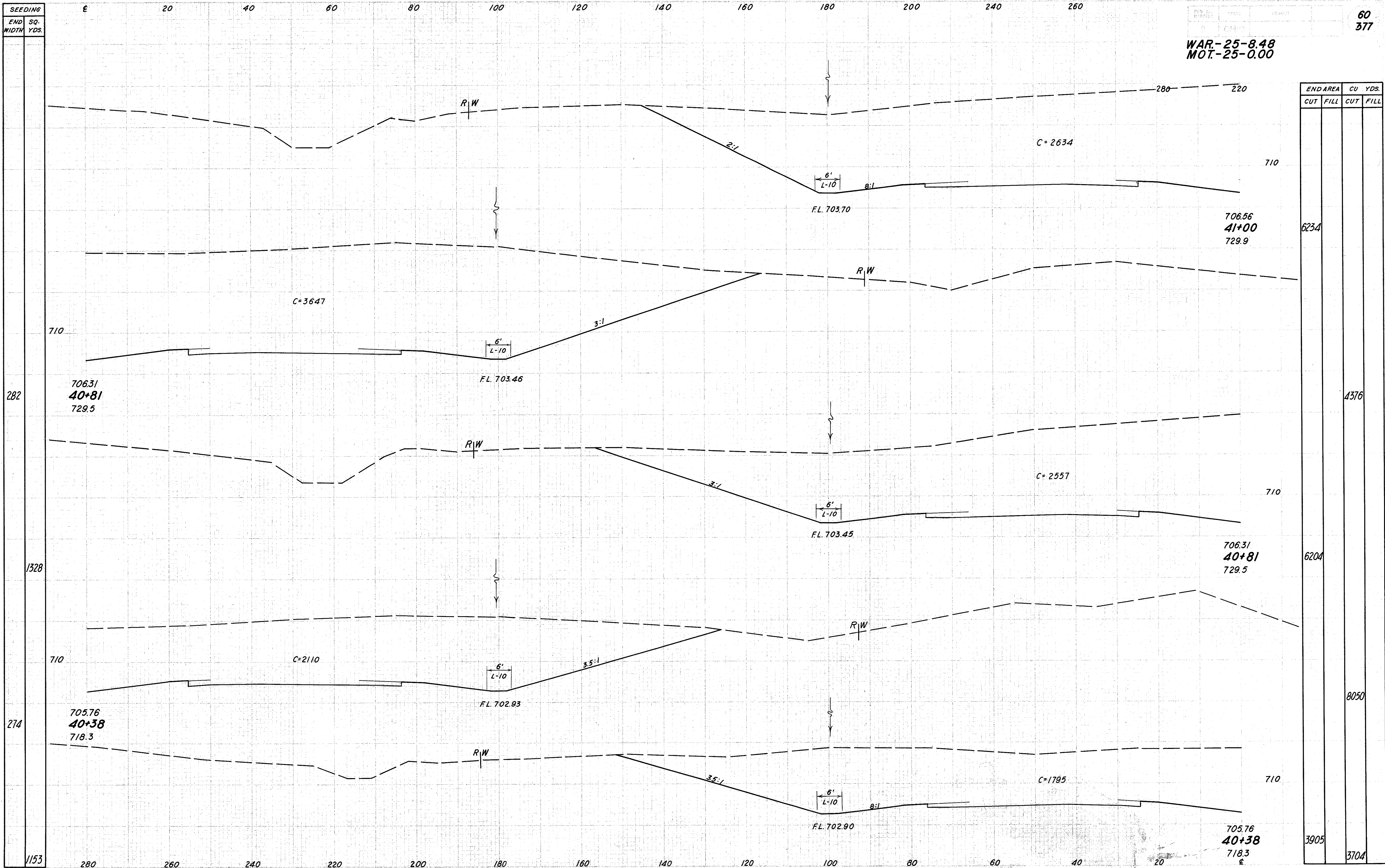
WAR.-25-8.48
MOT.-25-0.00

58
377

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
41	712		
142	2557		
36	669		
141	2633		
40	753		
159	3065		

Sta. 35+00 Rt. to Sta. 38+00 Lt.





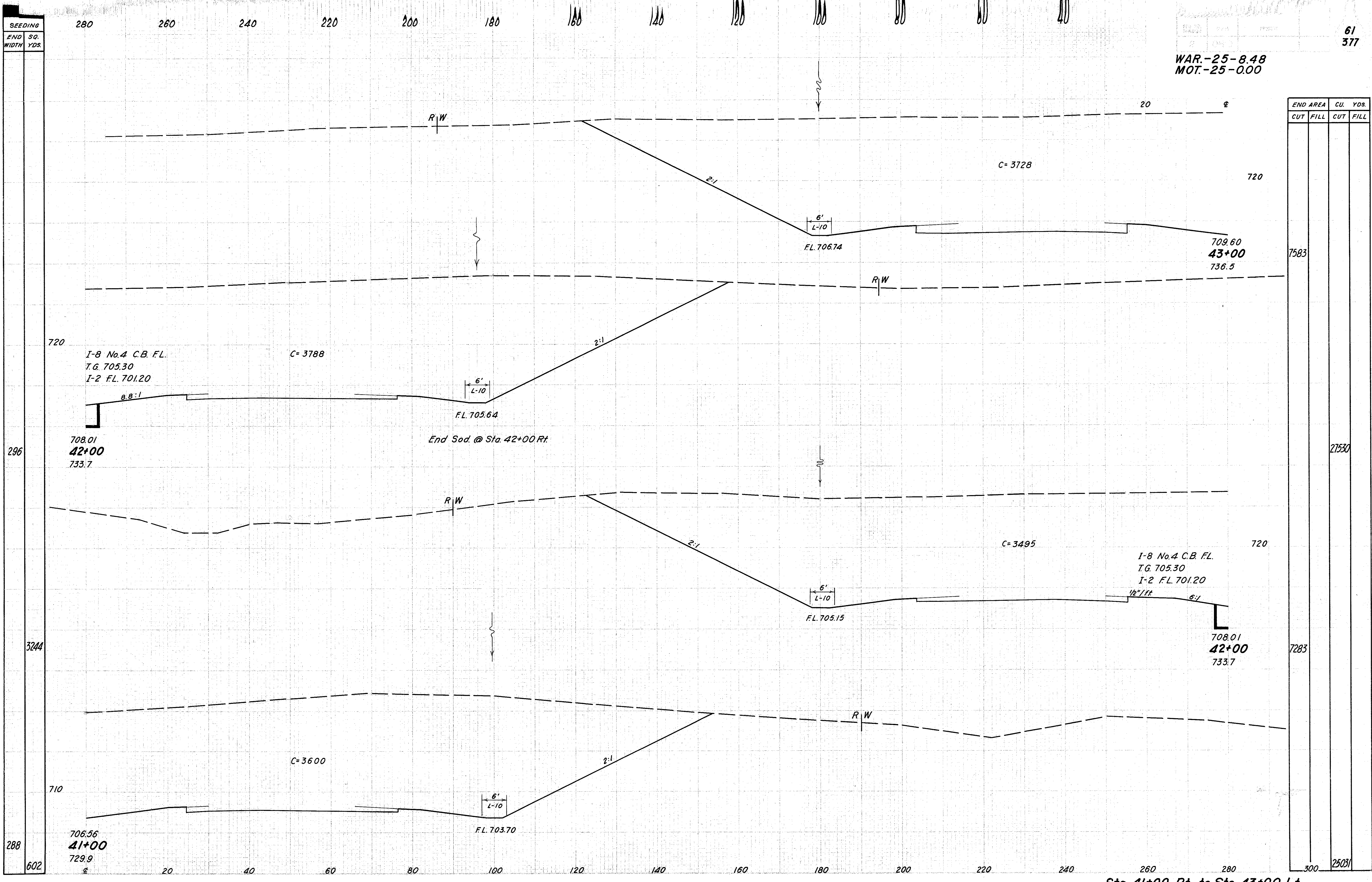
WAR-25-8.48
MOT-25-0.00

60
377

SEEDING	
END WIDTH	SQ. YDS.
282	
1328	
274	
1153	

END AREA		CU YDS.	
CUT	FILL	CUT	FILL
		6234	
		4376	
		6204	
		8050	
		3905	
		3704	

Sta. 40+38 to Sta. 41+00 Lt.



WAR.-25-8.48
MOT.-25-0.00

61
377

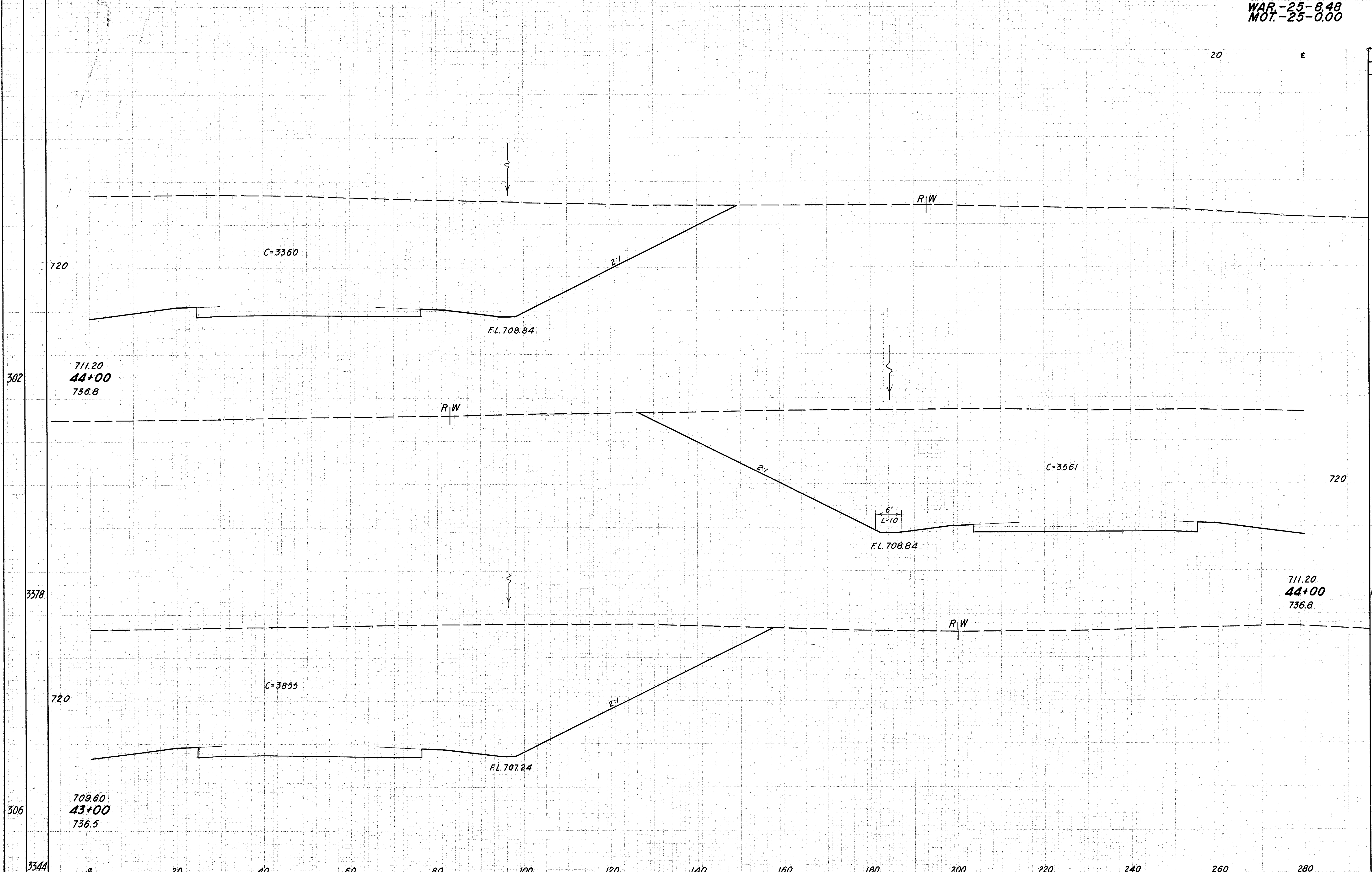
Sta. 41+00 Rt. to Sta. 43+00 Lt.

SEEDING
END WIDTH
SQ. YDS.

280 260 240 220 200 180 160 140 120 100 80 60 40

WAR-25-8.48
MOT.-25-0.00

62
377



302

711.20
44+00
736.8

R|W

R|W

C=3360

2:1

FL. 708.84

2:1

C=3561

6'
L-10

FL. 708.84

R|W

C=3855

2:1

FL. 707.24

711.20
44+00
736.8

3378

6921

306

709.60
43+00
736.5

3344

26859

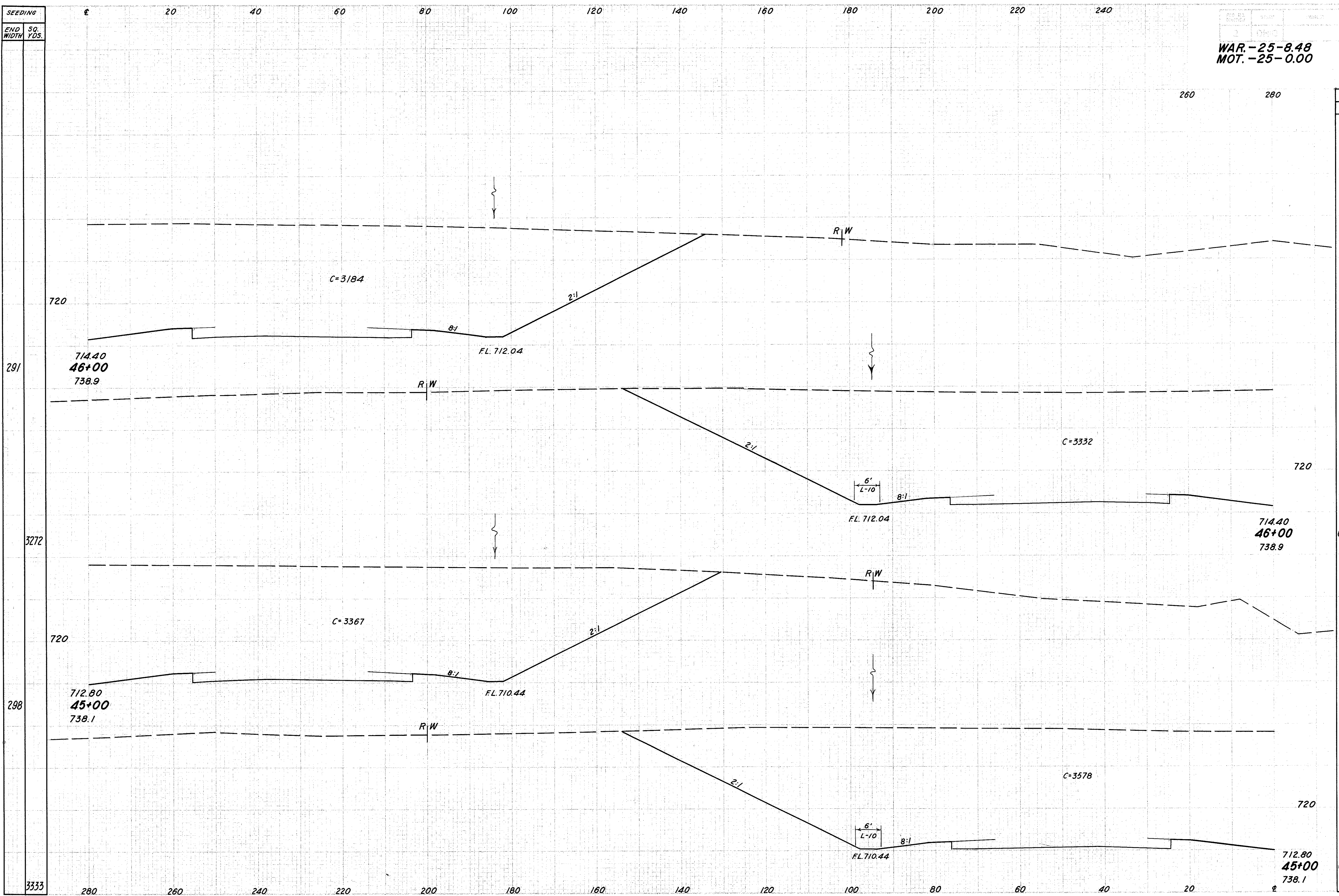
Sta. 43+00Rt. to Sta. 44+00

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

SEEDING
END WIDTH SQ. YDS.

WAR. -25-8.48
MOT. -25-0.00

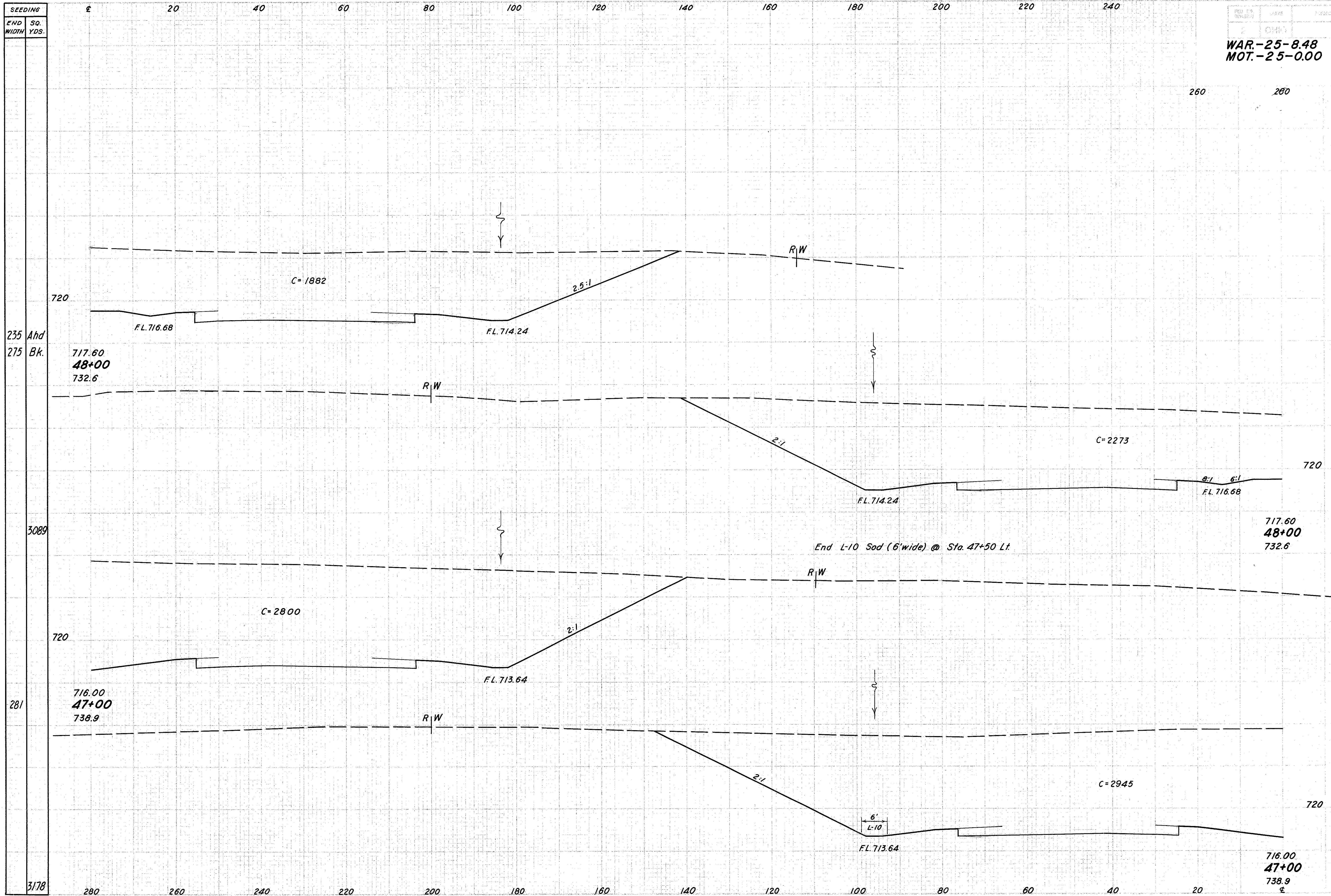
63
377



291	3272	298	3333
-----	------	-----	------

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		65/6	24928
6945		25678	

Sta. 45+00 to Sta. 46+00

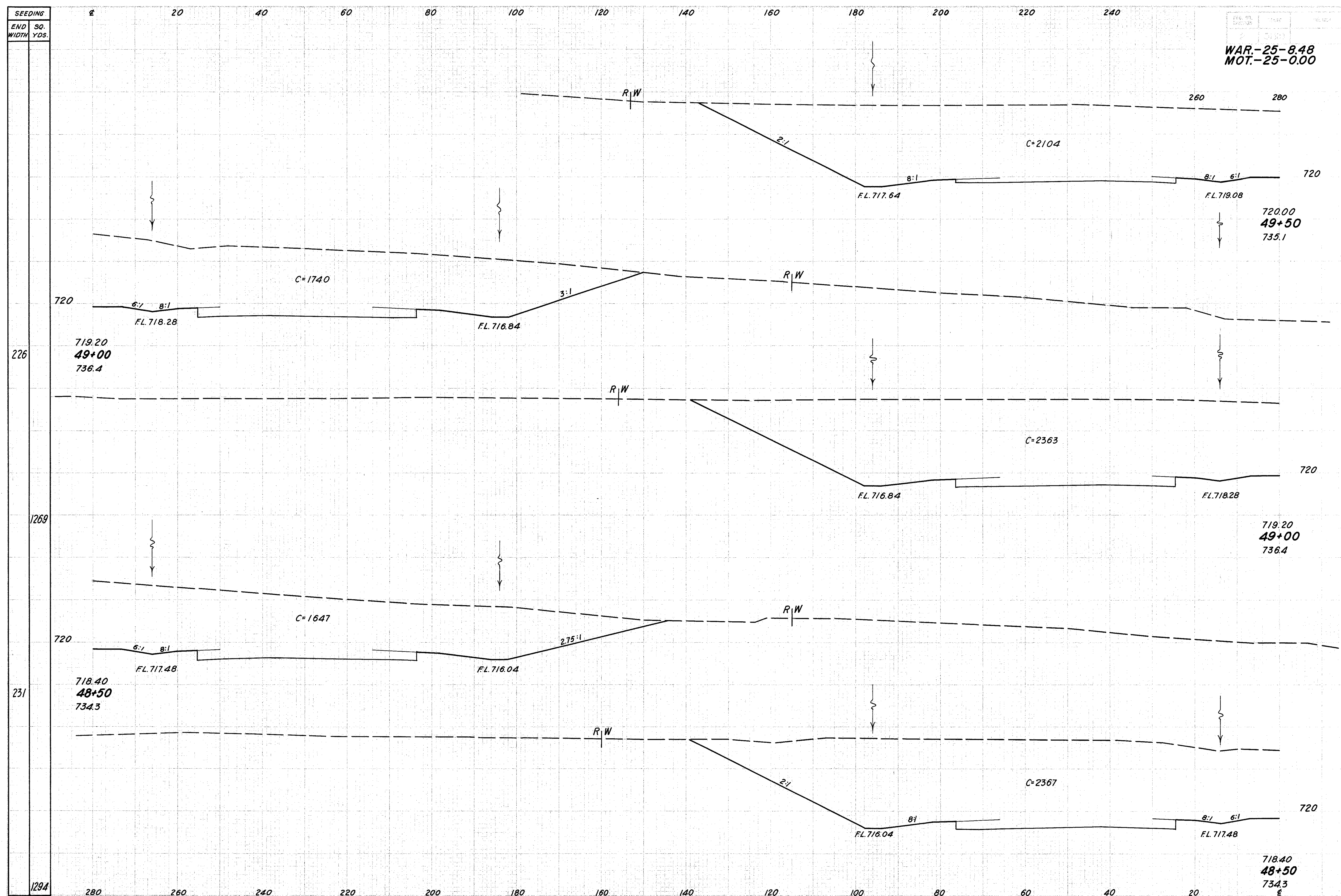


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
4155	18333	5745	22706

SEEDING	END WIDTH	SQ. YDS.
235	Ahd	720
275	Bk.	720
3089		720
281		720
3178		720

Sta. 47+00 to Sta. 48+00

WAR.-25-8.48
MOT.-25-0.00



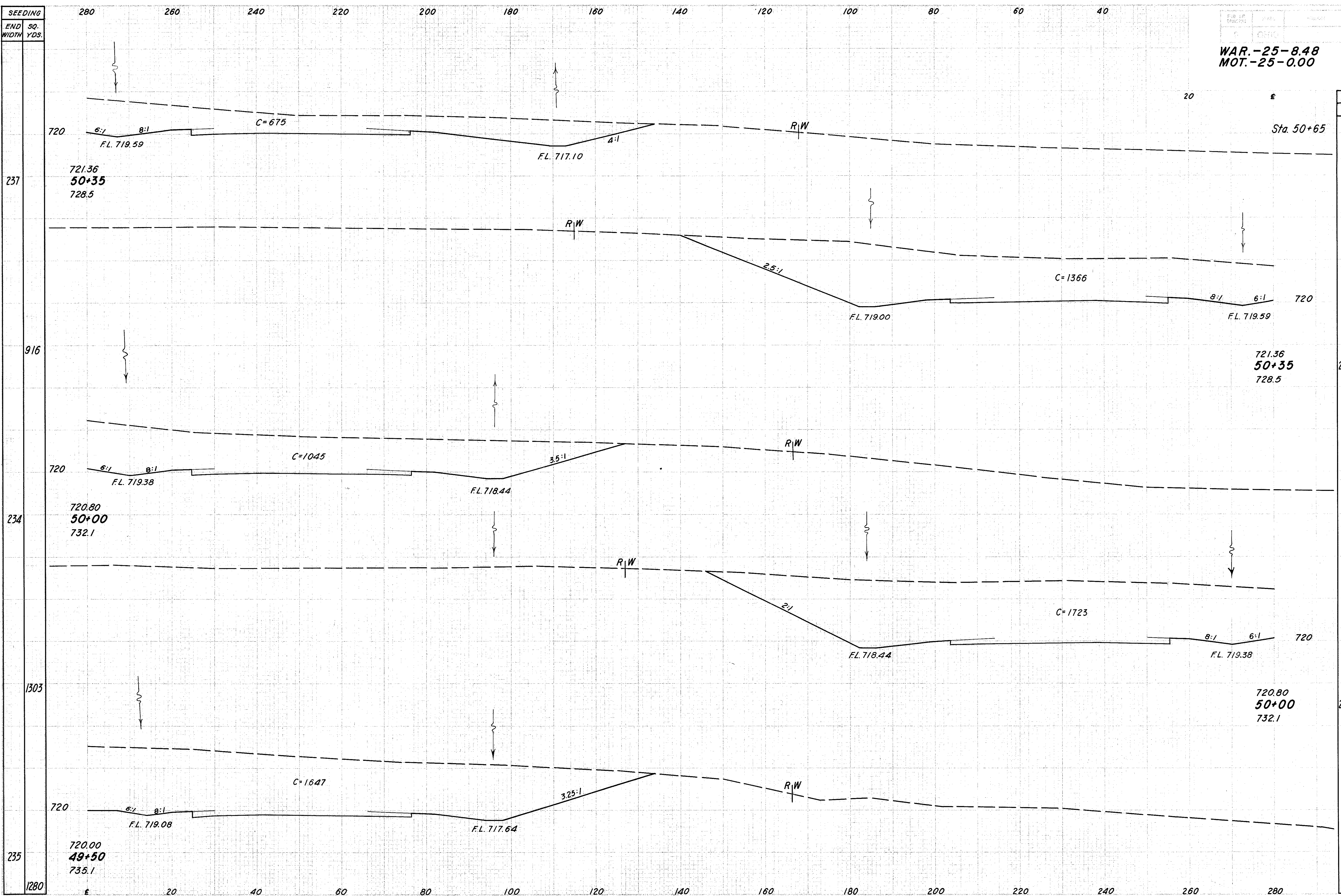
END AREA		CU.		YDS.
CUT	FILL	CUT	FILL	
				3751
				7272
				4103
				7516
				4014
				7564

Sta. 48+50 to Sta. 49+50 Lt.

SEEDING
END WIDTH
SQ. YDS.

WAR.-25-8.48
MOT.-25-0.00

66
377



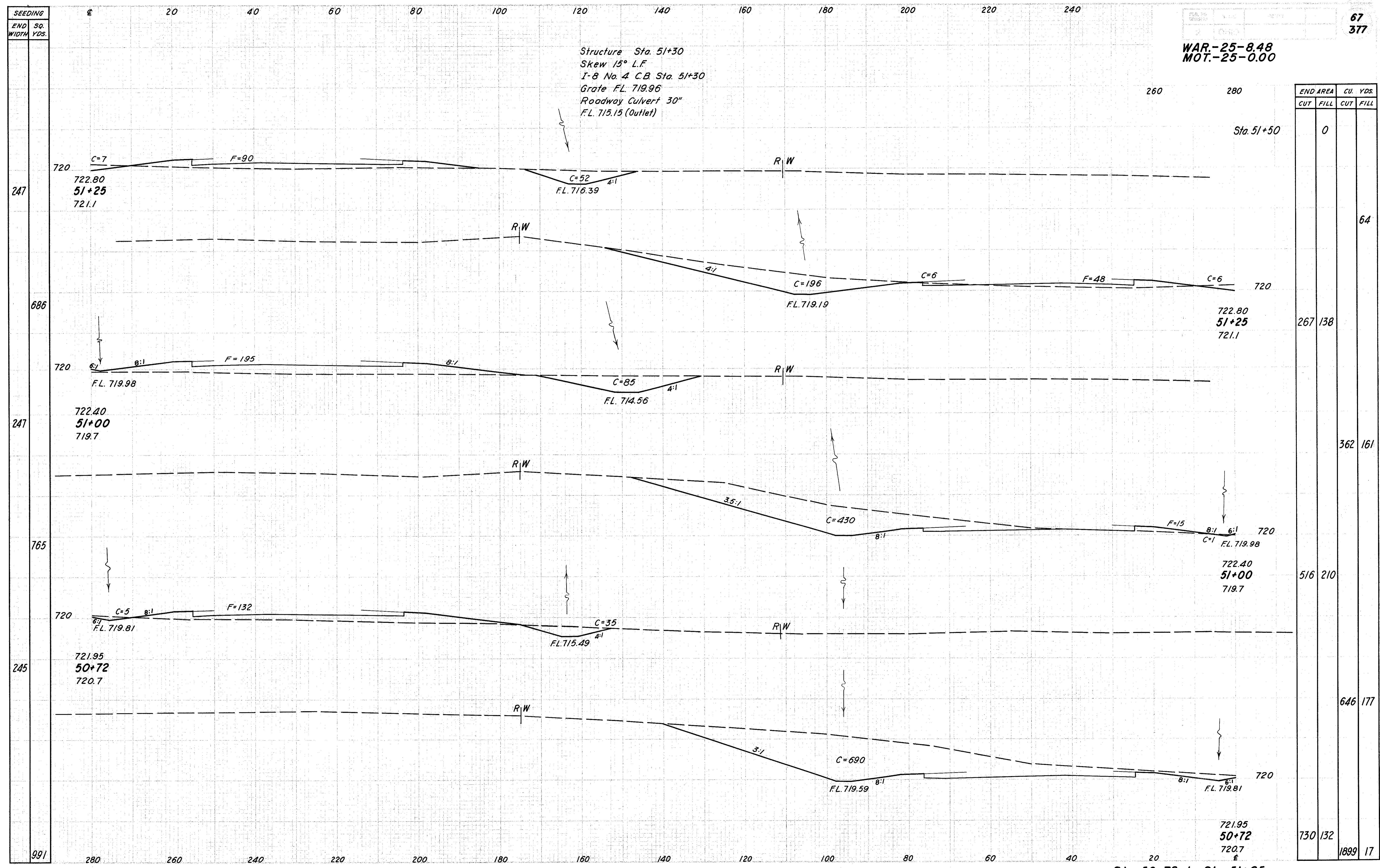
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0			
2041			
3117			
2768			
6036			

Sta. 49+50 Rt. to Sta. 50+35

WAR.-25-8.48
MOT.-25-0.00

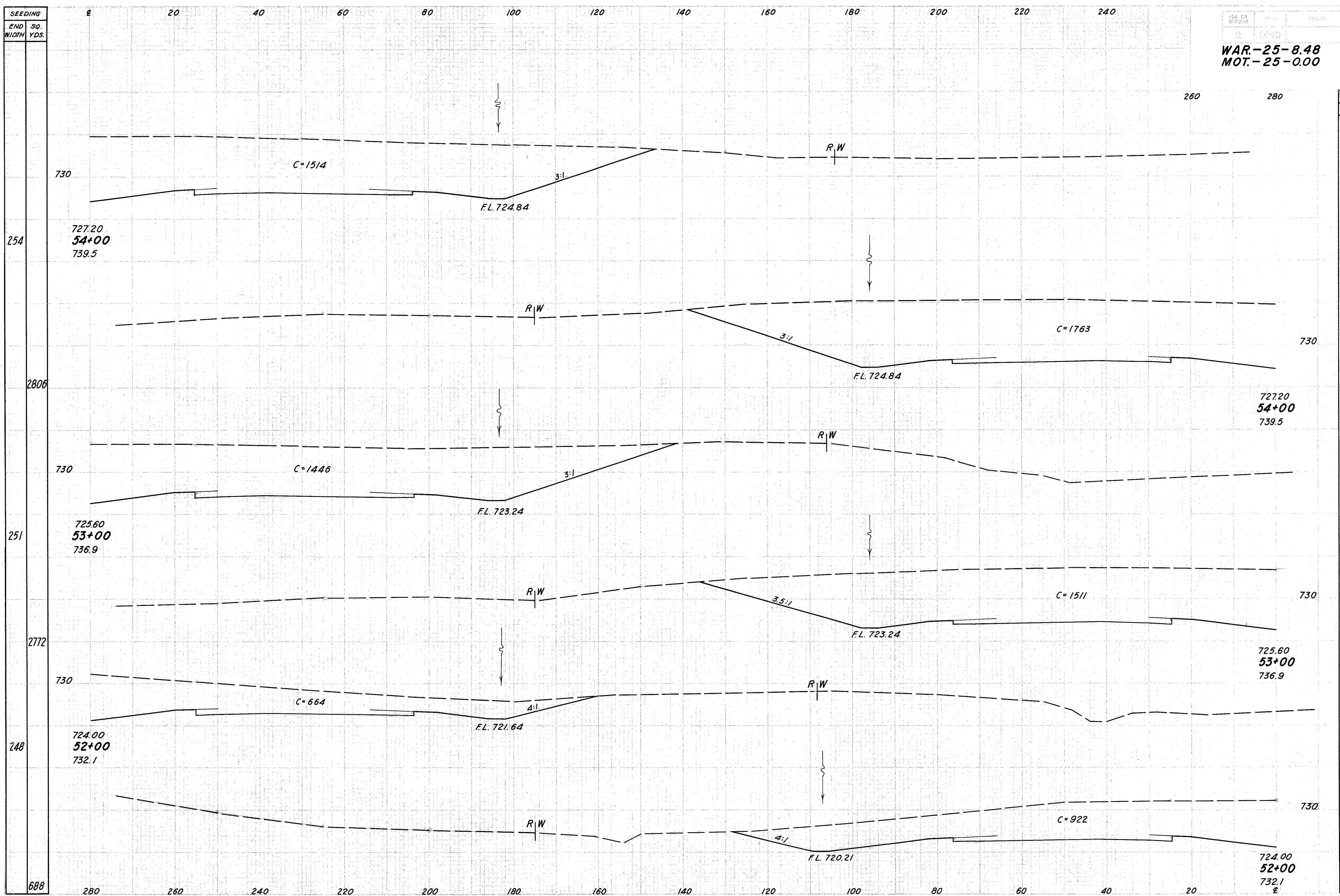
67
377

Structure Sta. 51+30
Skew 15° L.F
I-8 No. 4 C.B. Sta. 51+30
Grate F.L. 719.96
Roadway Culvert 30"
F.L. 715.15 (Outlet)



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0			
267	138	362	161
516	210	646	177
730	132	1899	17

Sta. 50+72 to Sta. 51+25



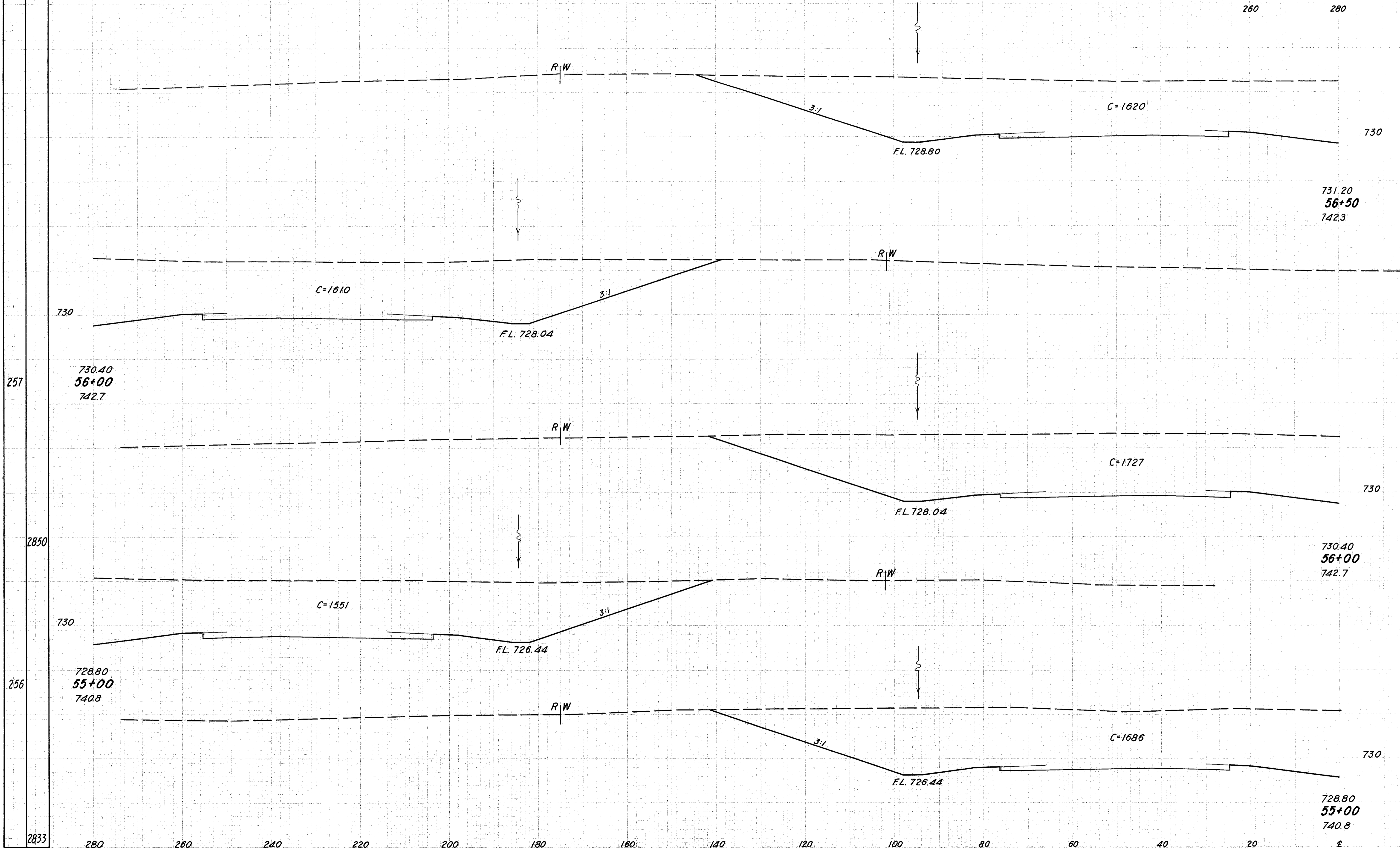
END AREA		CU.		YDS	
CUT	FILL	CUT	FILL	CUT	FILL

Sta. 52+00 to Sta. 54+00

SEEDING
END SQ.
WIDTH YDS.

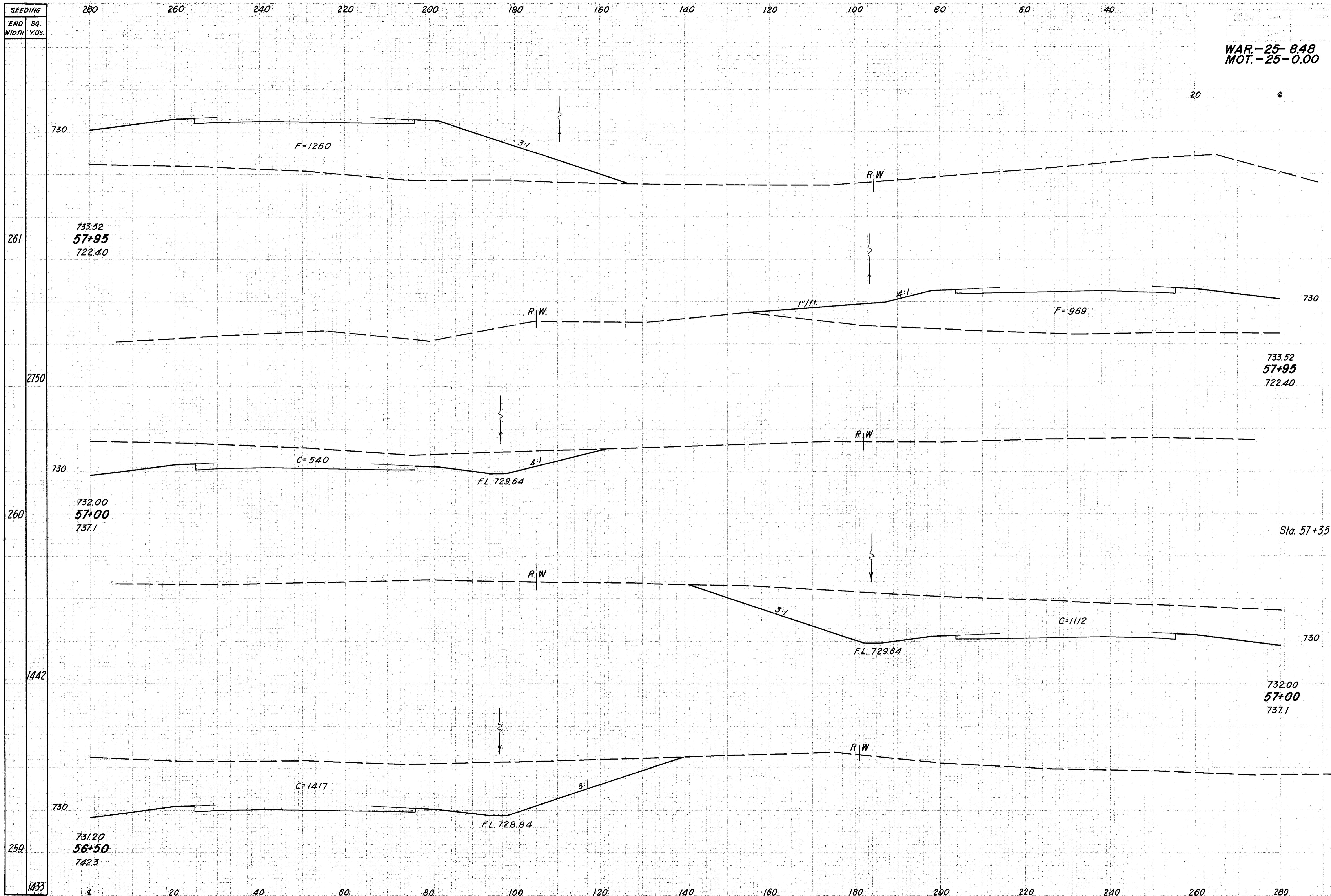
WAR.-25-8.48
MOT.-25-0.00

69
377



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		3037	
		5902	
		3337	
		12174	
		3237	
		12063	

Sta. 55+00 to Sta. 56+50 Lt.

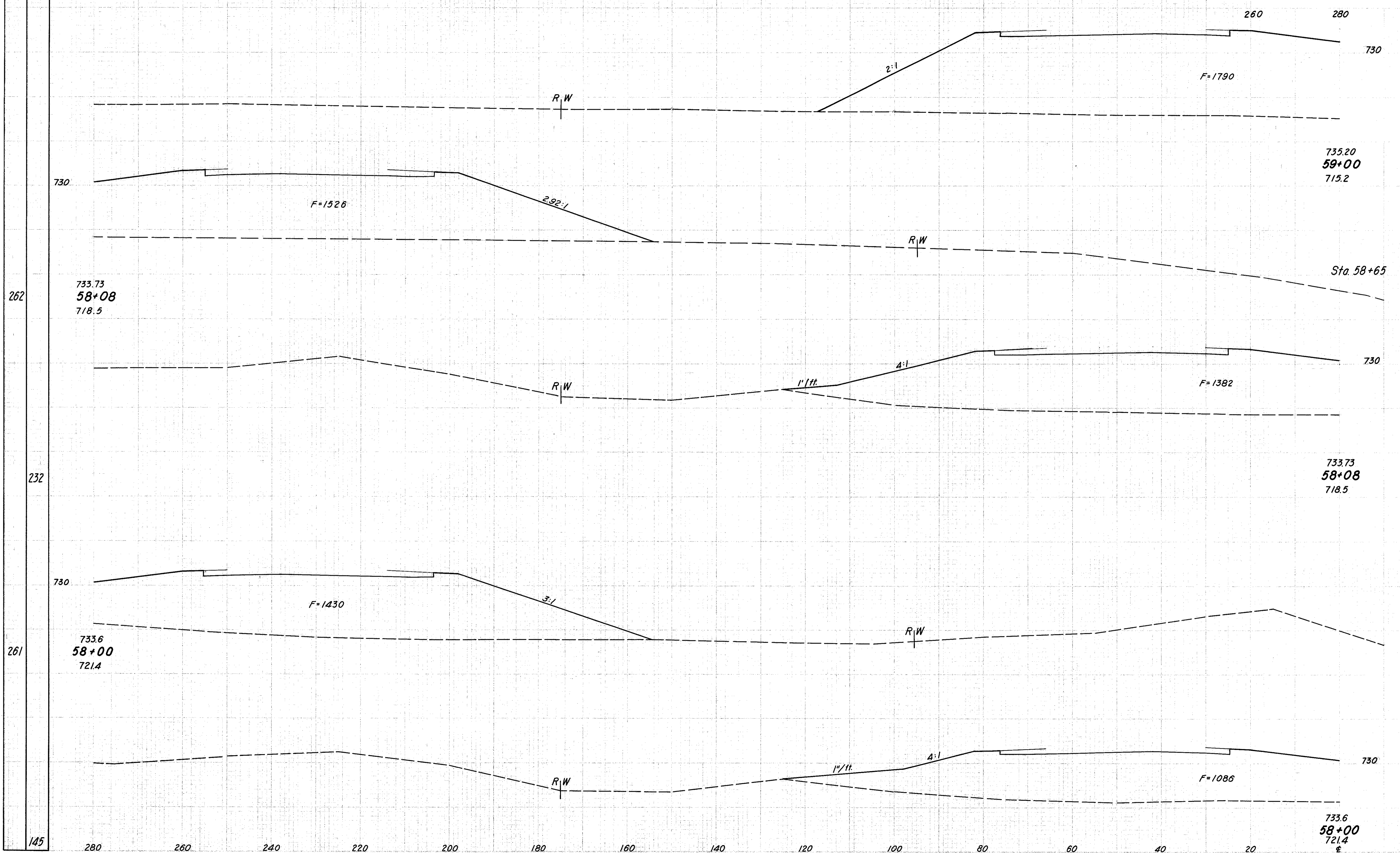


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
			70
			377
			2229
			2477
0	0		
			1071
			1652
			4342

Sta. 56+50 Rt. to Sta. 57+95

SEEDING
END SQ.
WIDTH YDS.

71
377
WAR-25-8.48
MOT.-25-0.00

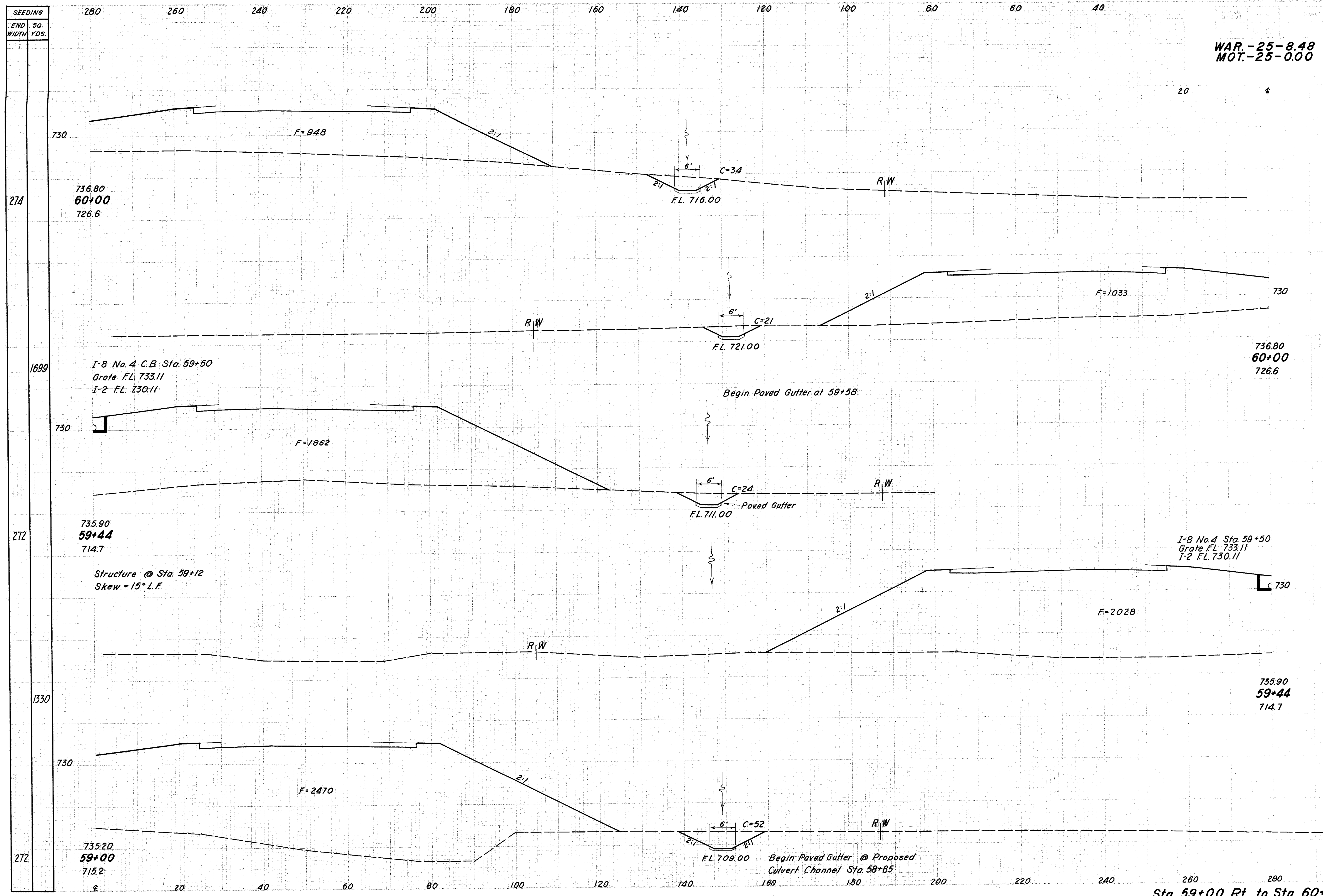


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
52	4260		
		34	
		0	
		12212	
		2908	
		804	
2516			439

Sta. 58+00 to Sta. 59+00 Lt.

WAR.-25-8.48
MOT.-25-0.00

72
377

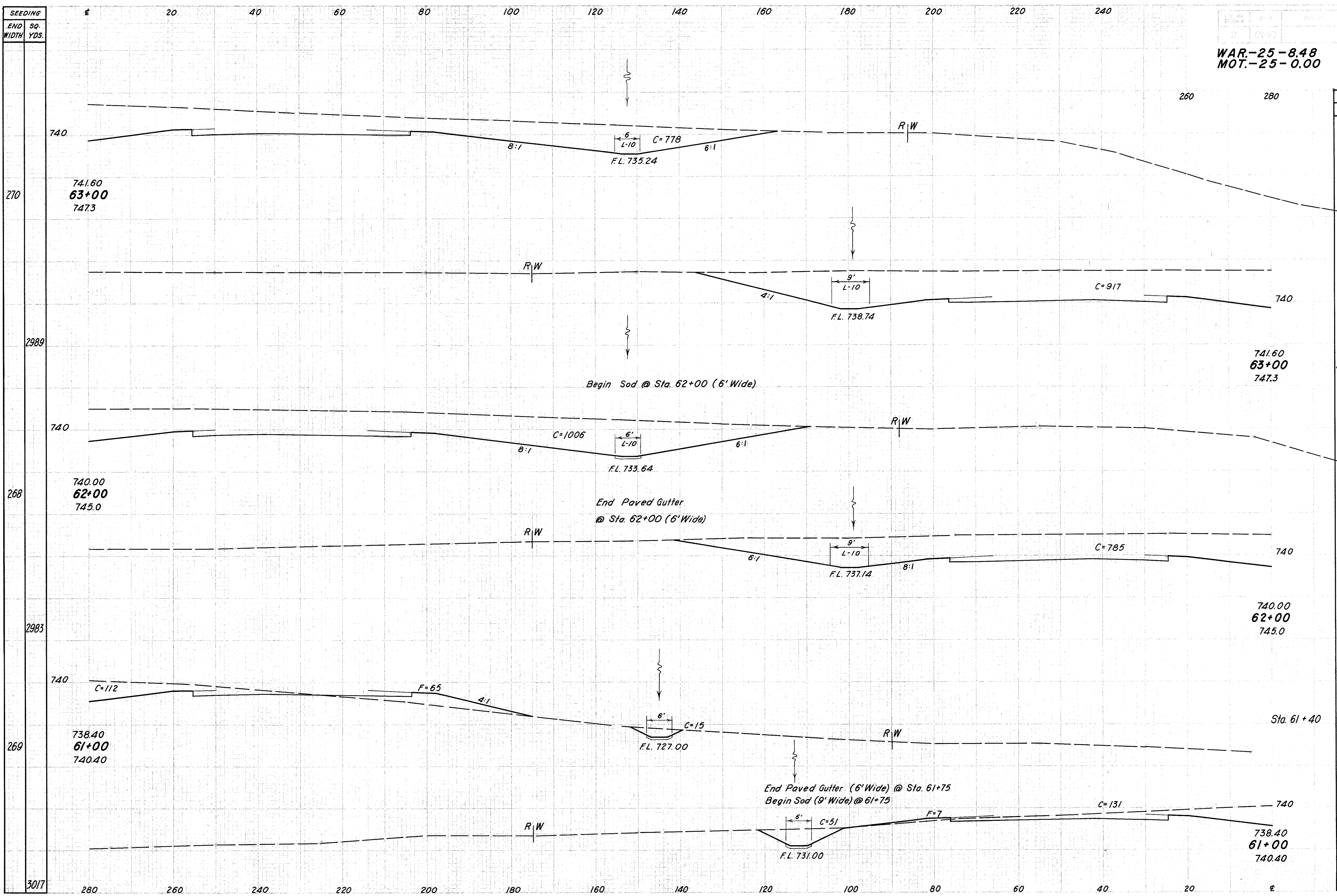


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
55	1981		
82	6088		
24	3890		
62	6641		

Sta. 59+00 Rt. to Sta. 60+00

WAR-25-848
MOT-25-0.00

73
377



END AREA		CU.		YDS.
CUT	FILL	CUT	FILL	
				270
				2989
				268
				2983
				269
309	72	674	3802	

1695

6456

1791

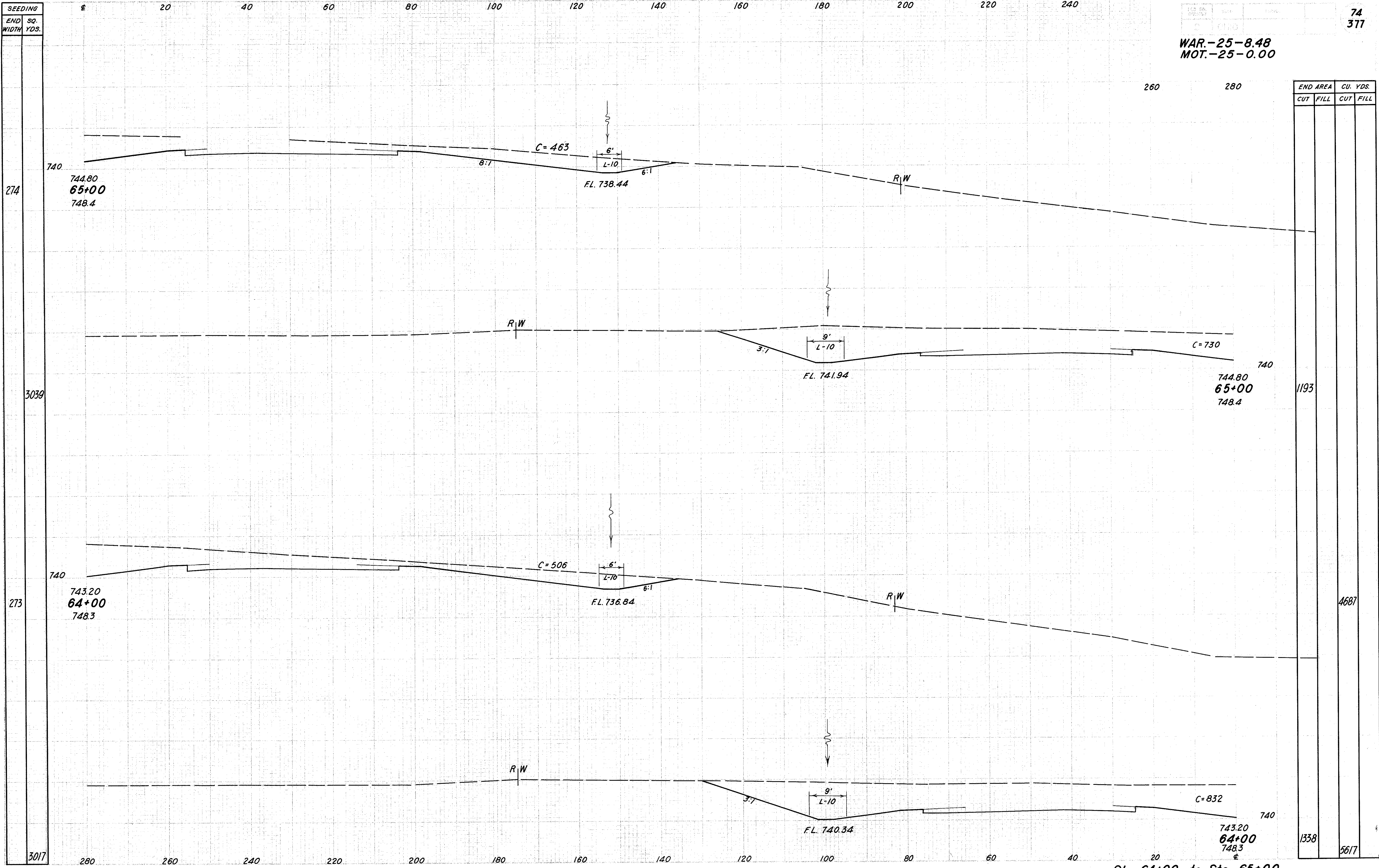
0 3889

53

Sta. 61+00 to Sta. 63+00

WAR.-25-8.48
MOT.-25-0.00

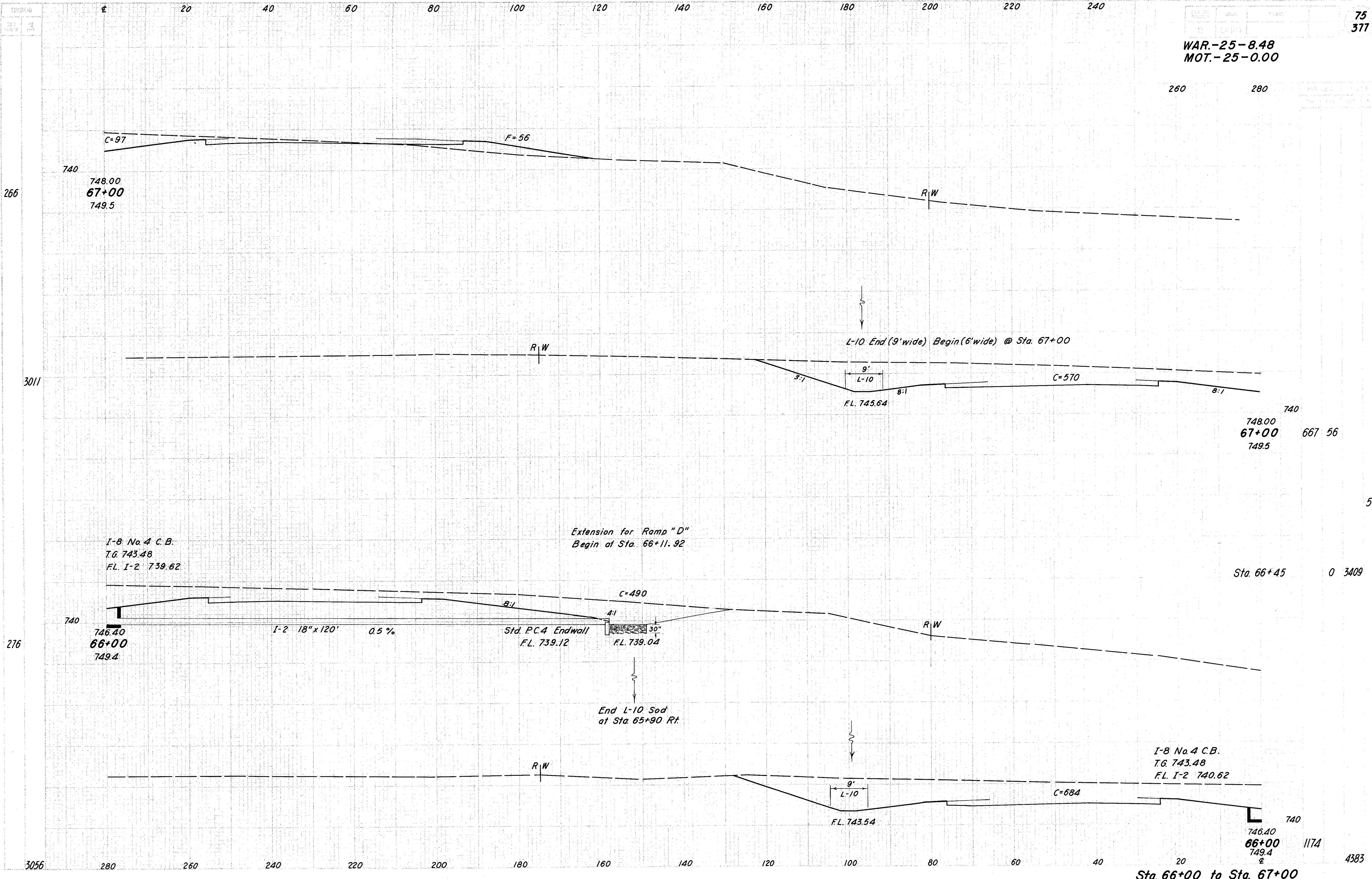
74
377



SEEDING
END SQ. WIDTH YDS.
274
3039
273
3017

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		1193	
			4687
		1338	5617

Sta. 64+00 to Sta. 65+00



WAR.-25-8.48
MOT.-25-0.00

75
377

260 280

266

3011

740
748.00
67+00
749.5
667 56

57

I-8 No. 4 C.B.
T.G. 743.48
FL. I-2 739.62

Extension for Ramp "D"
Begin at Sta. 66+11.92

Sta. 66+45 0 3409

276

740
746.40
66+00
749.4

I-2 18" x 120' 0.5%

Std. P.C.4 Endwall
FL. 739.12

FL. 739.04

End L-10 Sod
at Sta 65+90 Rt.

I-8 No. 4 C.B.
T.G. 743.48
FL. I-2 740.62

FL. 743.54

740
746.40
66+00
749.4
1174

3056

280

260

240

220

200

180

160

140

120

100

80

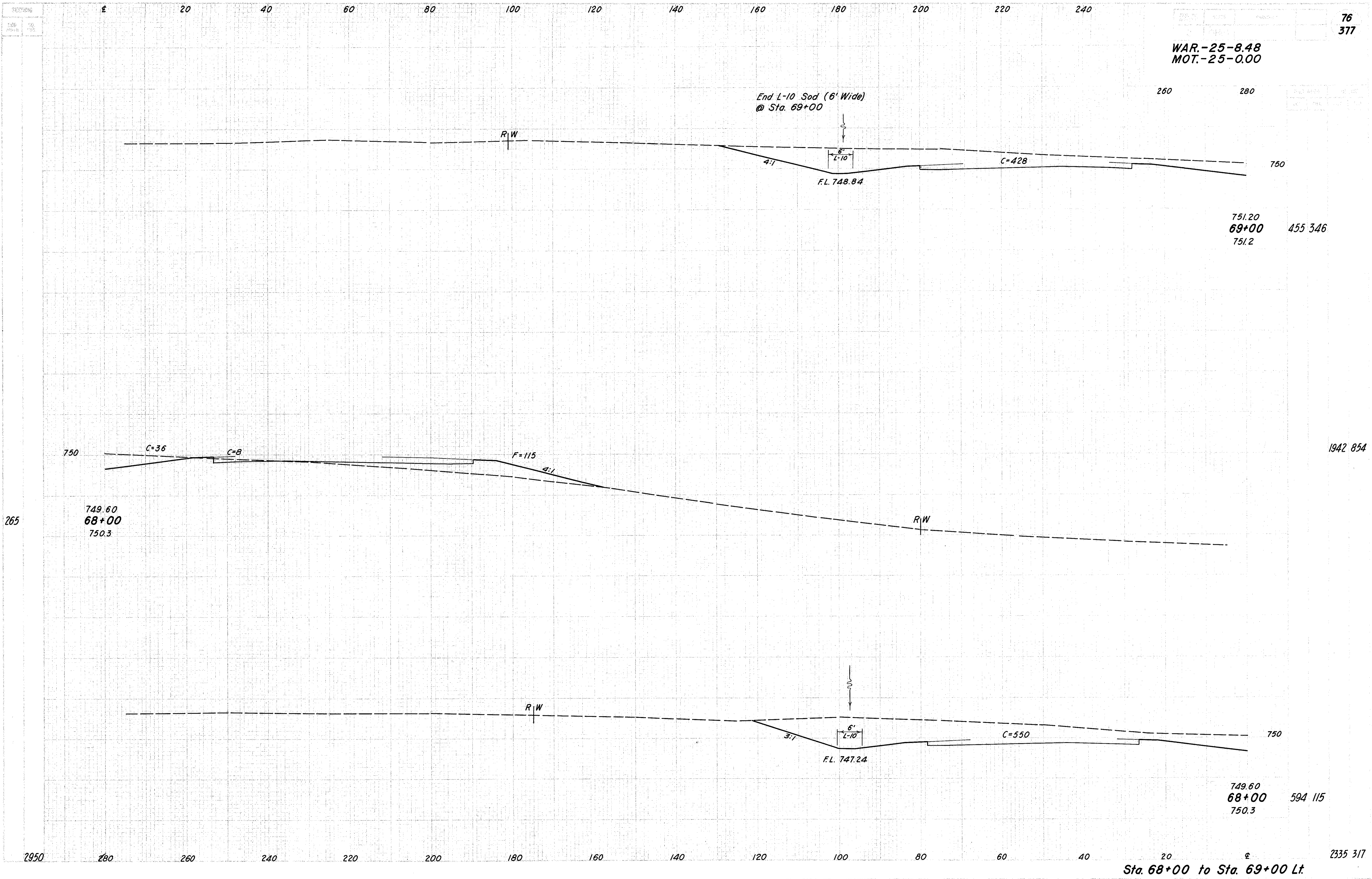
60

40

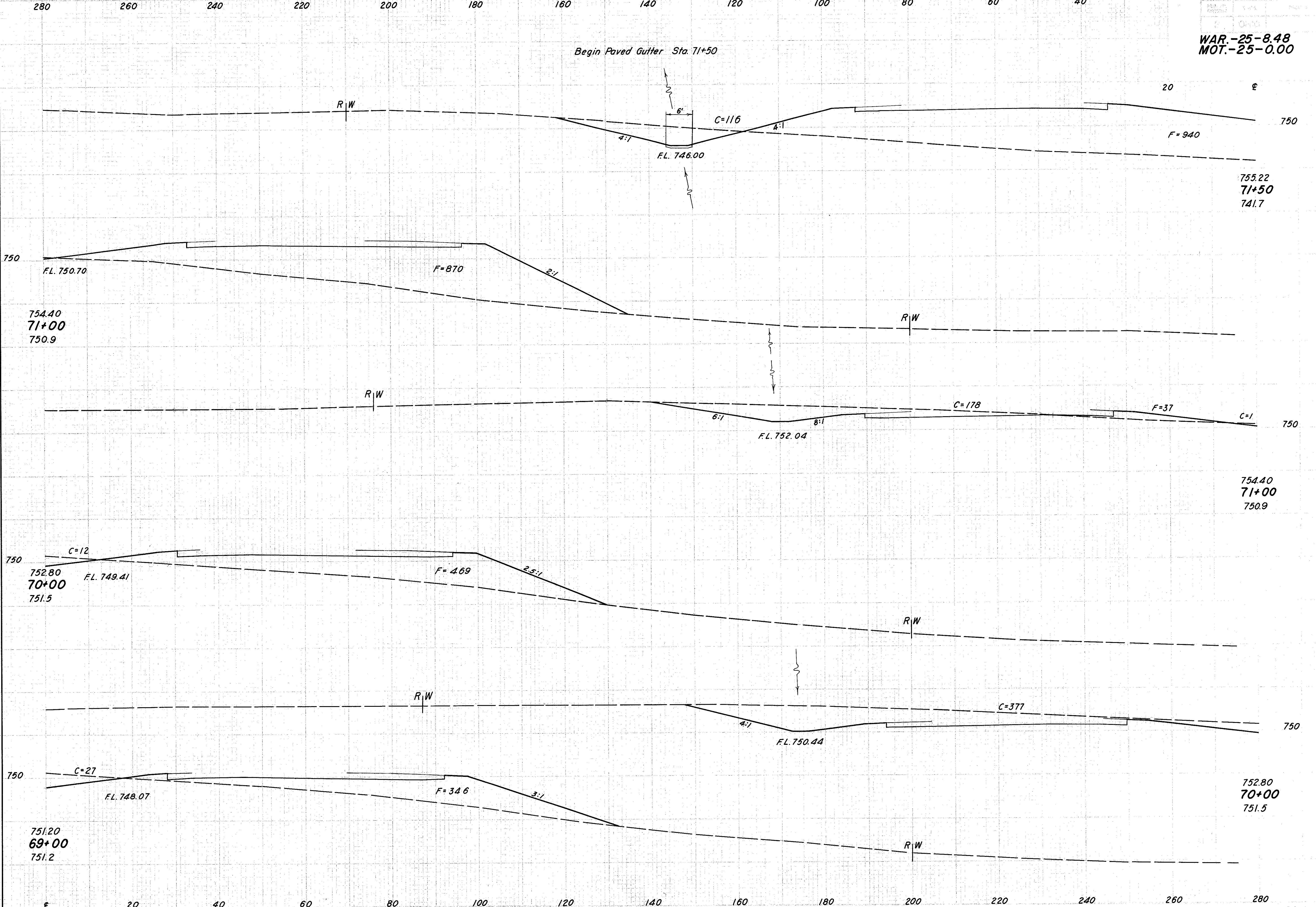
20

Sta. 66+00 to Sta. 67+00

4383



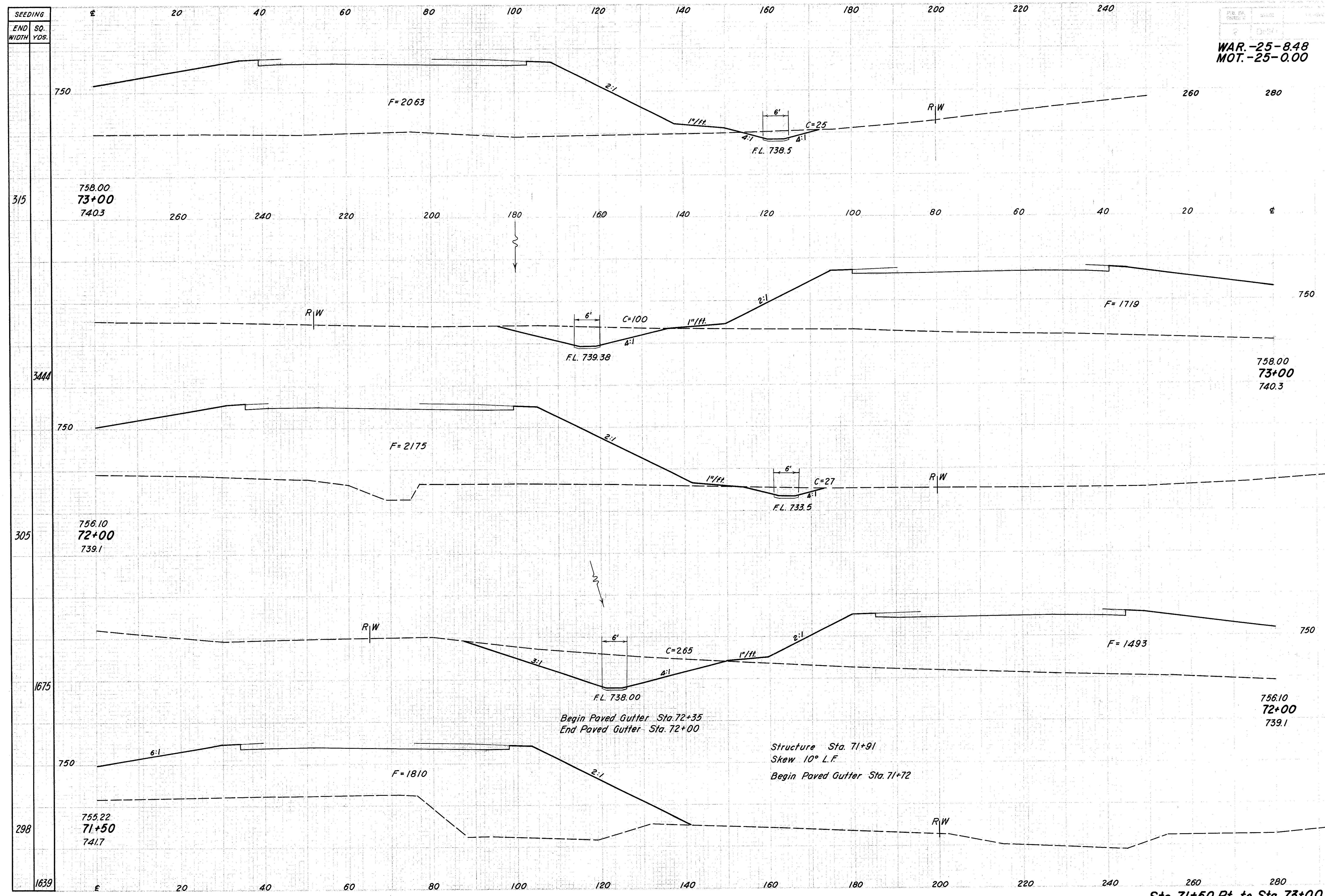
SEEDING
END SQ.
WIDTH YDS.
280
292
3189
282
3128
281
3033



WAR.-25-8.48
MOT.-25-0.00

END AREA	CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL
116	2750				273	3386			179	907
									1052	2548
									389	469
									1563	1509

Sta. 69+00 Rt. to Sta. 71+50 Lt.



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
125	3782		
772	3796		
292	3668		
300	378	5942	

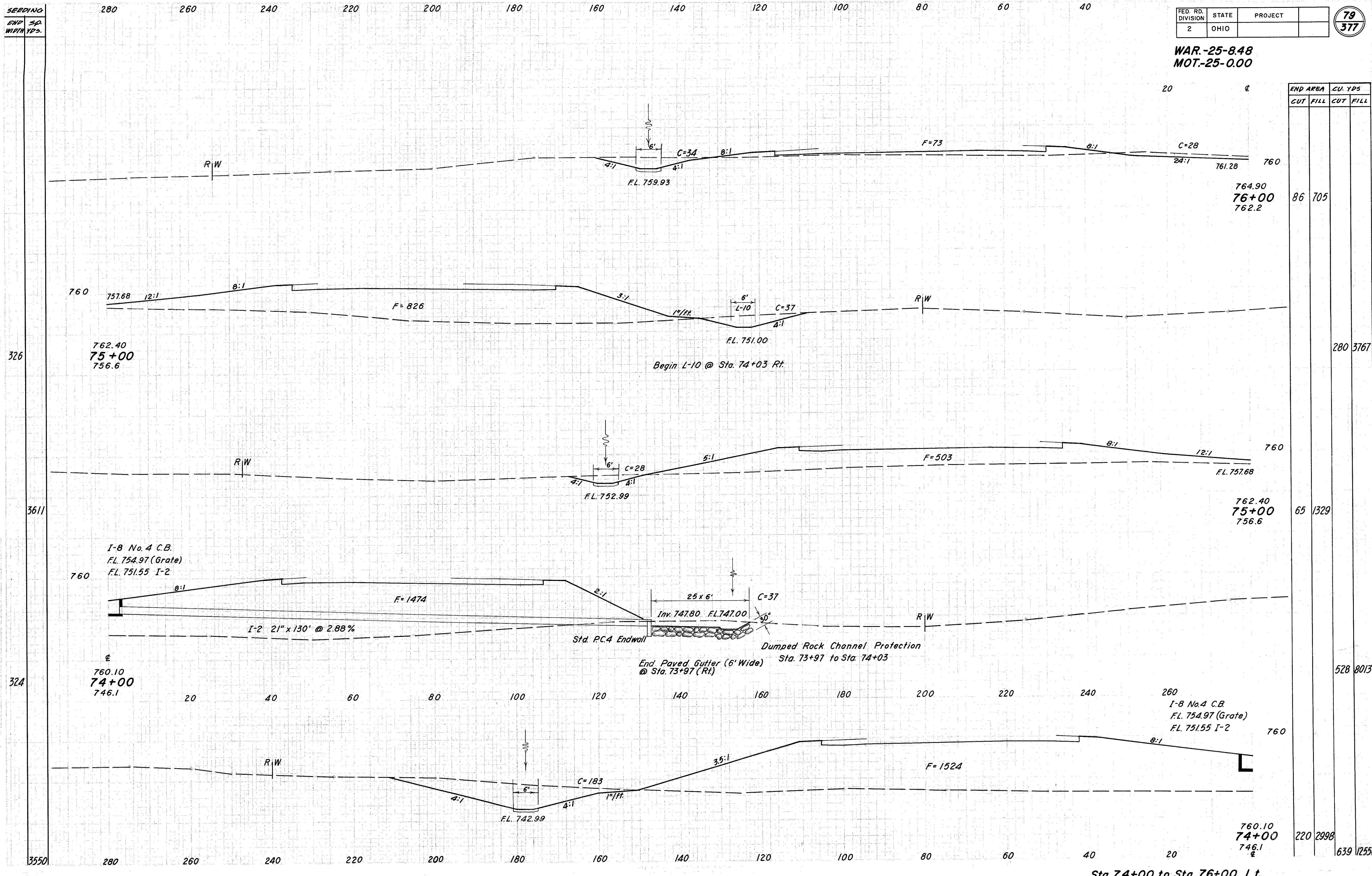
Sta. 71+50 Rt. to Sta. 73+00

SEEDING
END SP.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

79
377

WAR.-25-8.48
MOT.-25-0.00



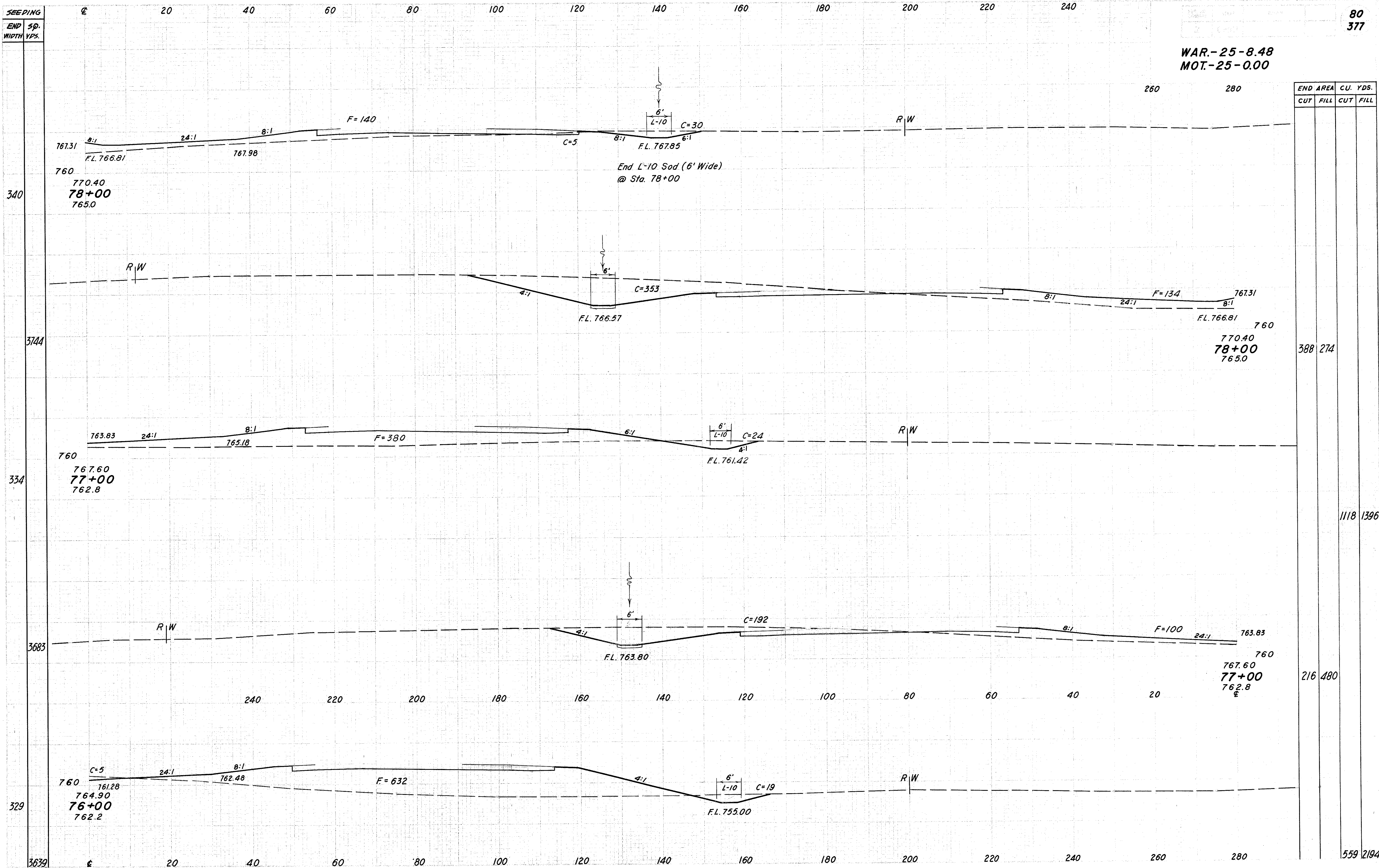
END AREA		CU. YDS	
CUT	FILL	CUT	FILL
86	705		
280	3767		
65	1329		
528	8013		
220	2998	639	12556

Sta. 74+00 to Sta. 76+00 Lt.

SEEDING
END SP.
WIDTH YPS.

80
377

WAR.-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

388 274

1118 1396

216 480

559 2194

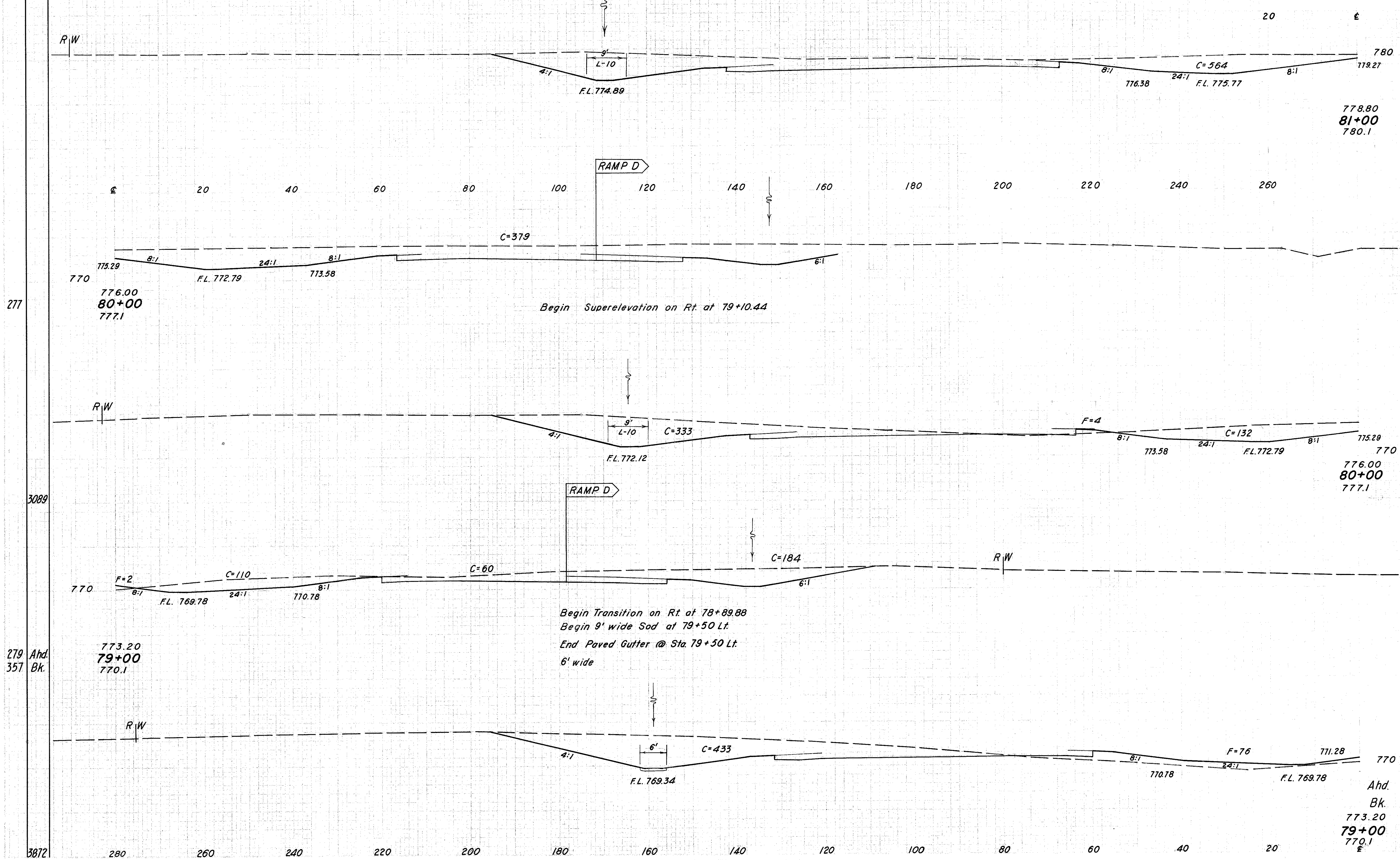
Sta. 76+00 Rt to Sta. 78+00

SEEDING
END SQ.
WIDTH YFS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

(81/377)

WAR.-25-8.48
MOT.-25-0.00



END STA.	AREA	CU YDS	
		CUT	FILL
780	780.1	919	0
770	777.1	3265	7
80+00	776.00	844	4
770	770.1	2680	152
79+00	773.20	603	78
770	770.1	787	78
79+00	770.1	2176	652

277

3089

279 Ahd.
357 Bk.

3872

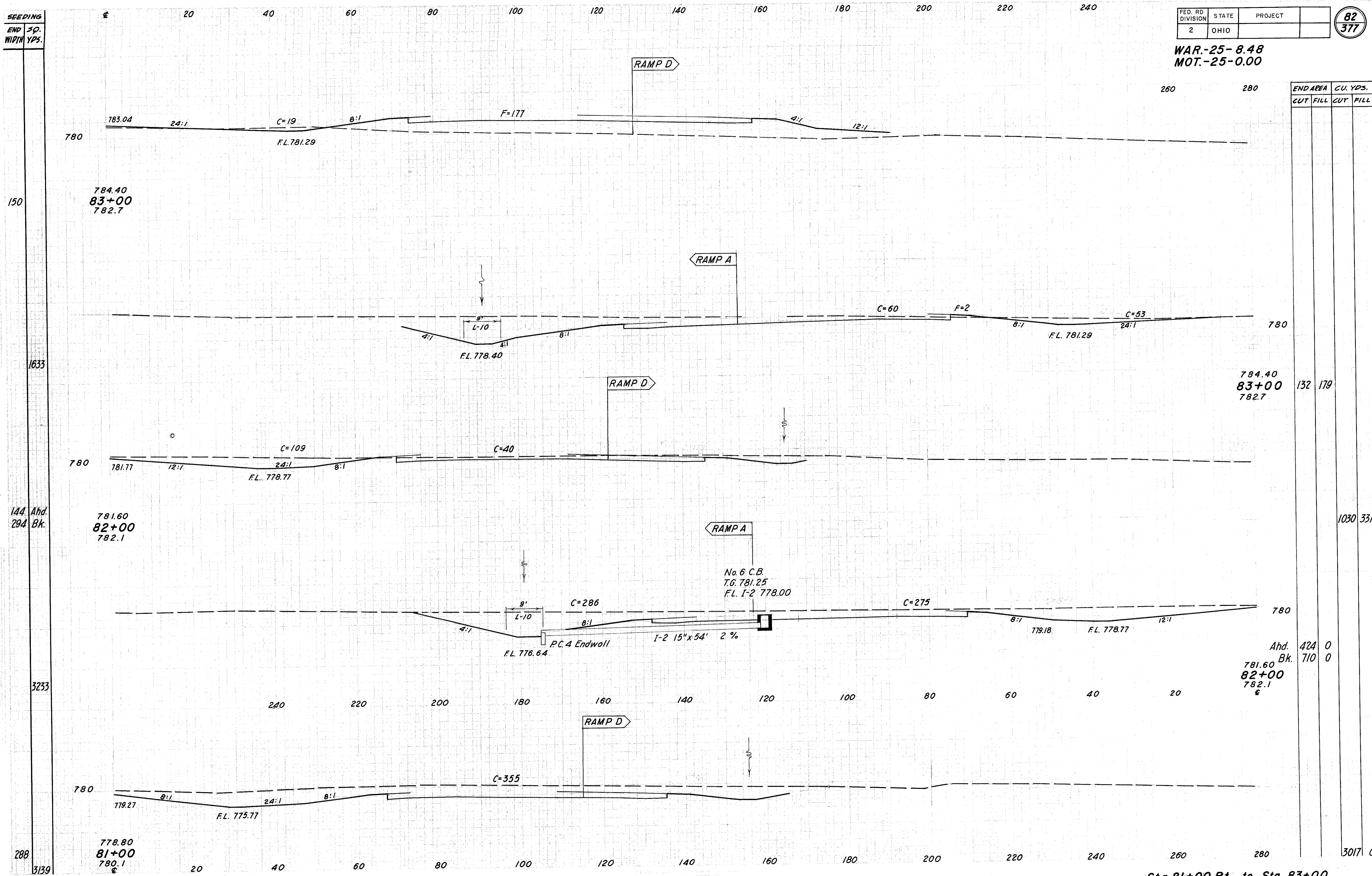
Sta 79+00 to Sta 81+00 Lt.

SEEDING
END 50.
WIDTH YPS.

FED. RD DIVISION	STATE	PROJECT
2	OHIO	

82
377

WAR-25-8.48
MOT.-25-0.00



END AREA	CU. YDS.
CUT	FILL

132	179	1030	331	424	0	710	0	3017	0
-----	-----	------	-----	-----	---	-----	---	------	---

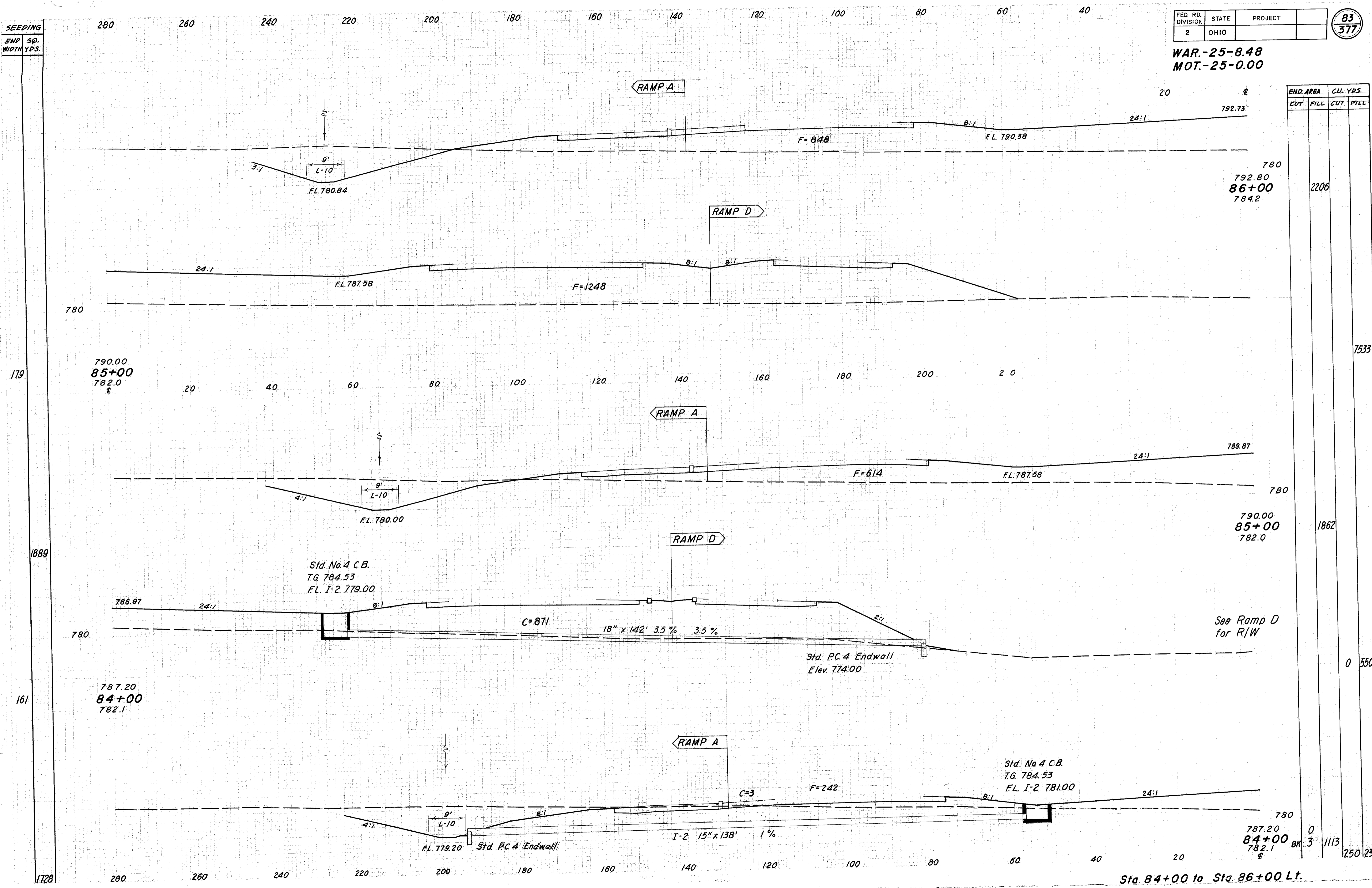
Sta. 81+00 Rt. to Sta. 83+00

SEEDING
END SQ.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

83
377

WAR.-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

780	792.80	2206	
85+00	784.2		
780	790.00	1862	
85+00	782.0		
780	787.20	0	
84+00	782.1	1113	
84+00	782.1		

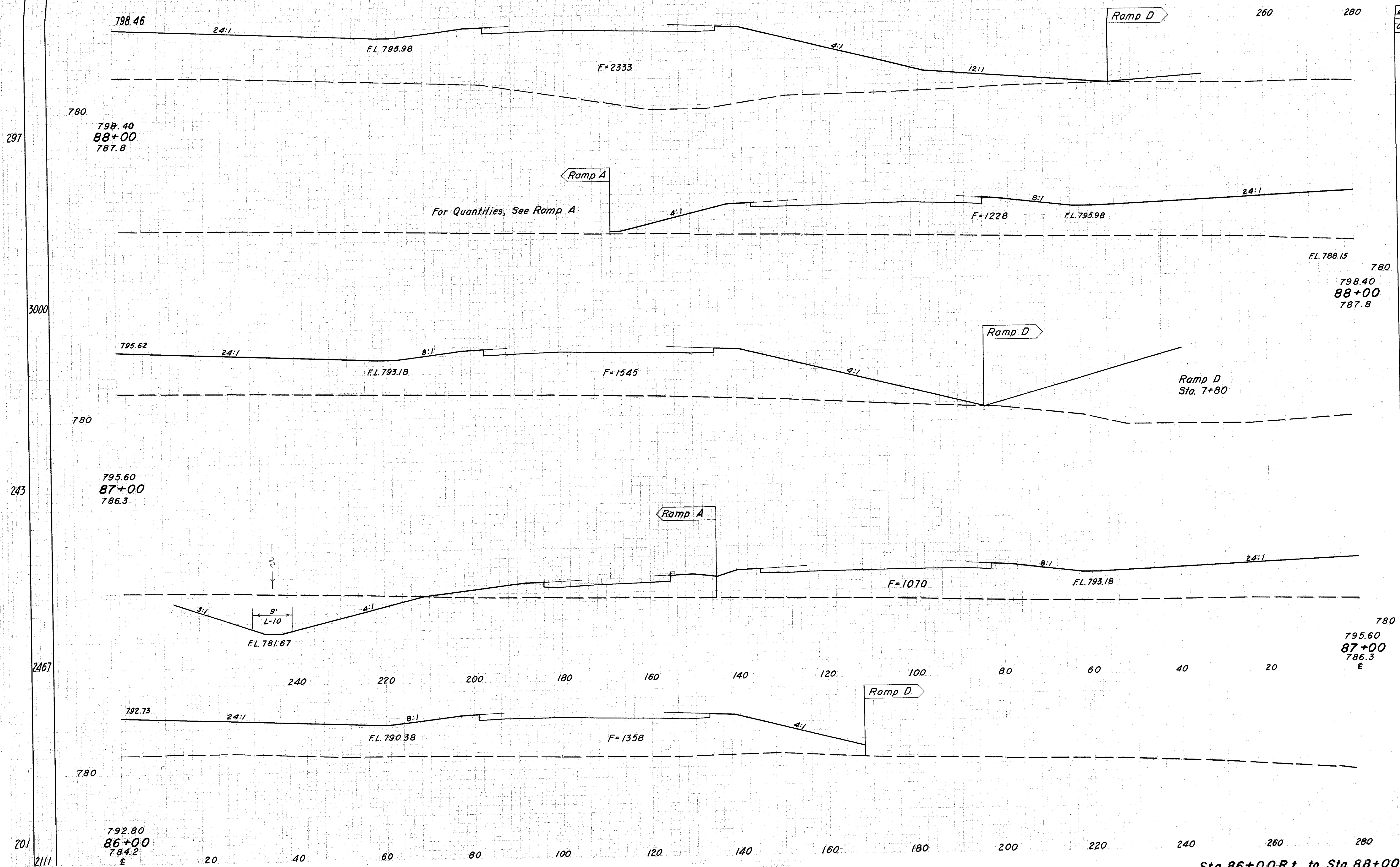
Sta. 84+00 to Sta. 86+00 Lt.

SEEDING
END SQ.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

84
377

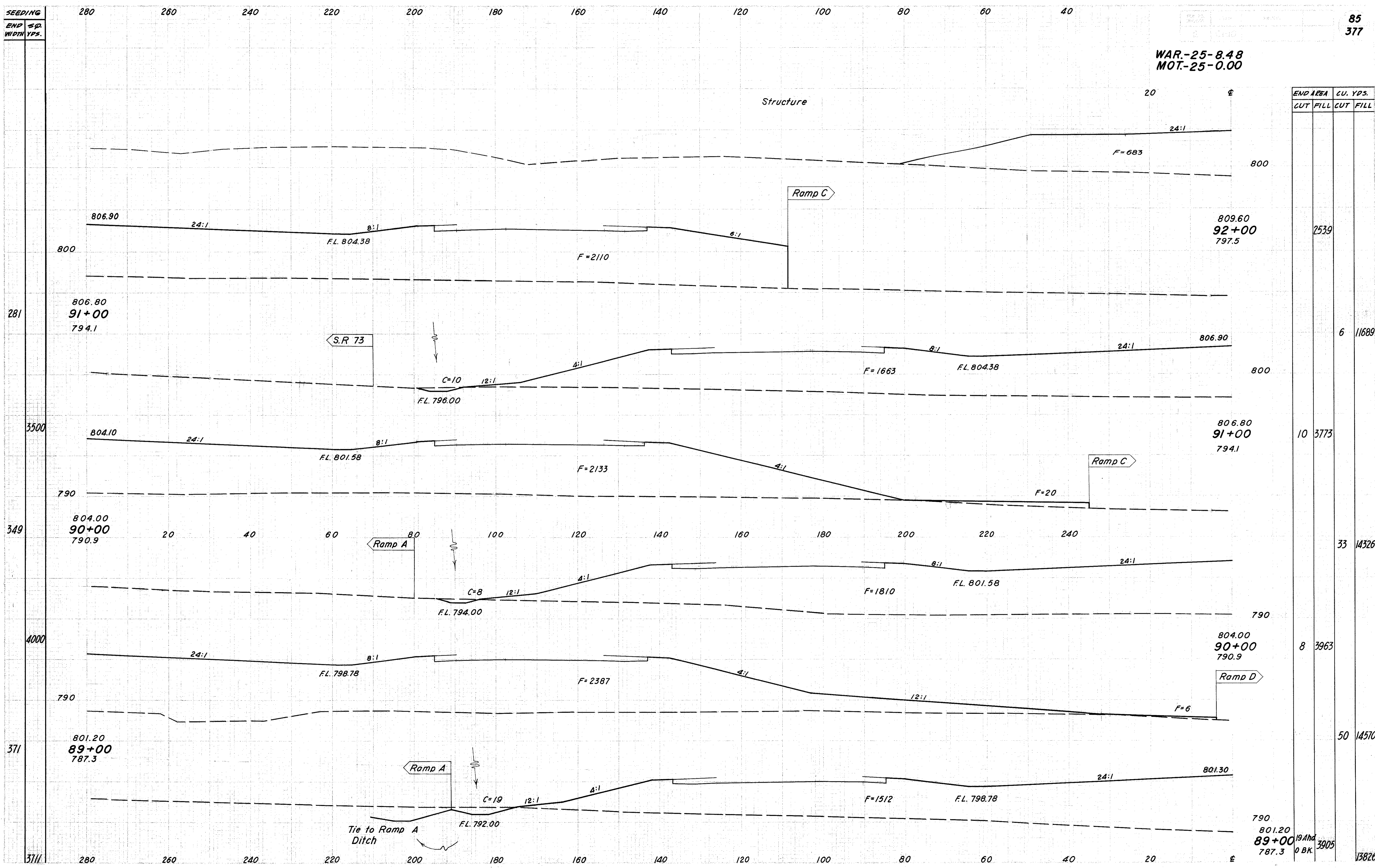
WAR.-25-8.48
MOT.-25-0.00



END AREA	CU. YDS.	
	CUT	FILL
3561		
2615		
8926		

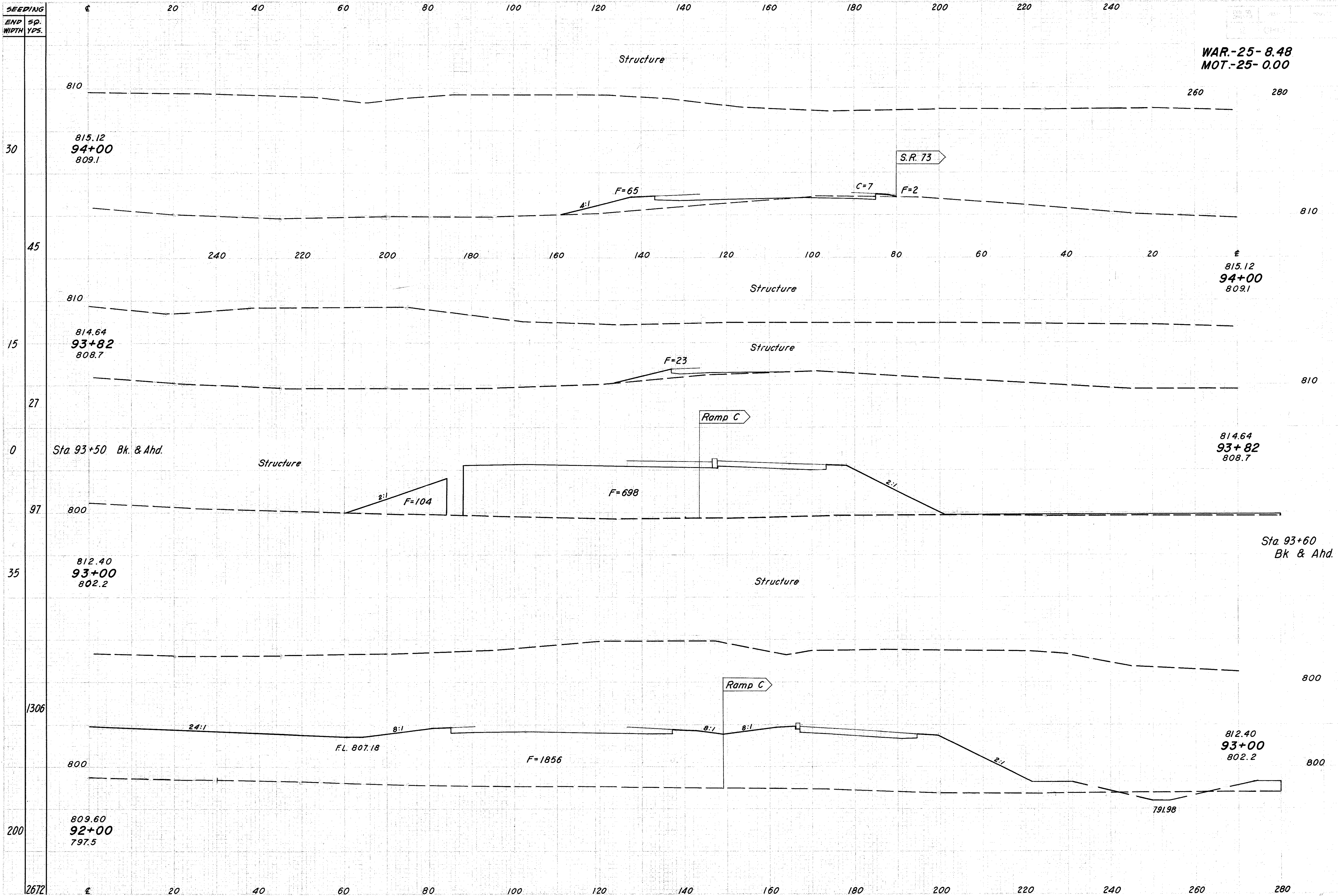
Sta. 86+00 R.t. to Sta. 88+00

WAR.-25-8.48
MOT.-25-0.00



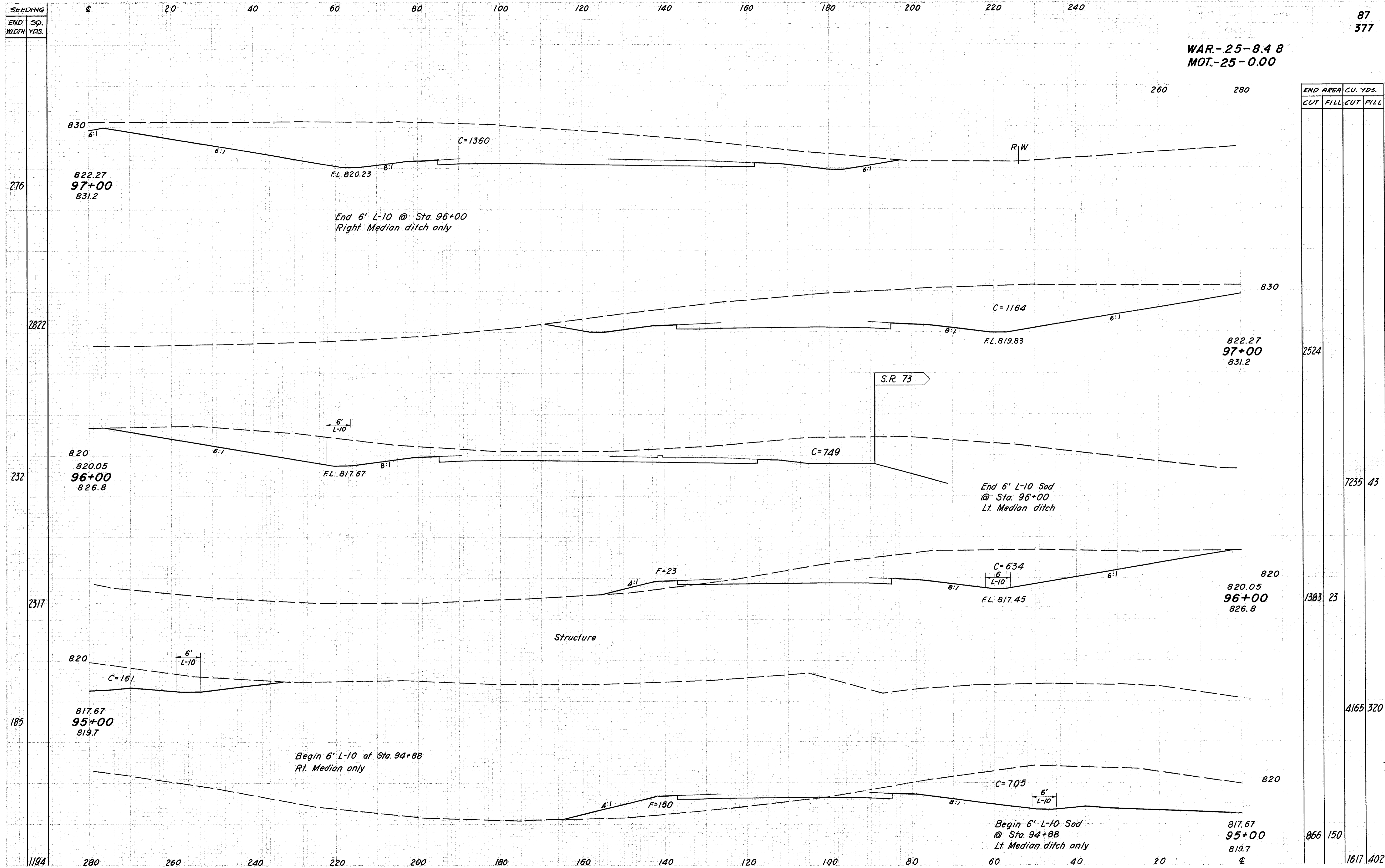
Sta. 89+00 to Sta. 92+00 Lt.

WAR.-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
7	67		
0	23	2	30
0	0	0	9
0	0	0	0
802	0	891	0
2672	0	6187	0

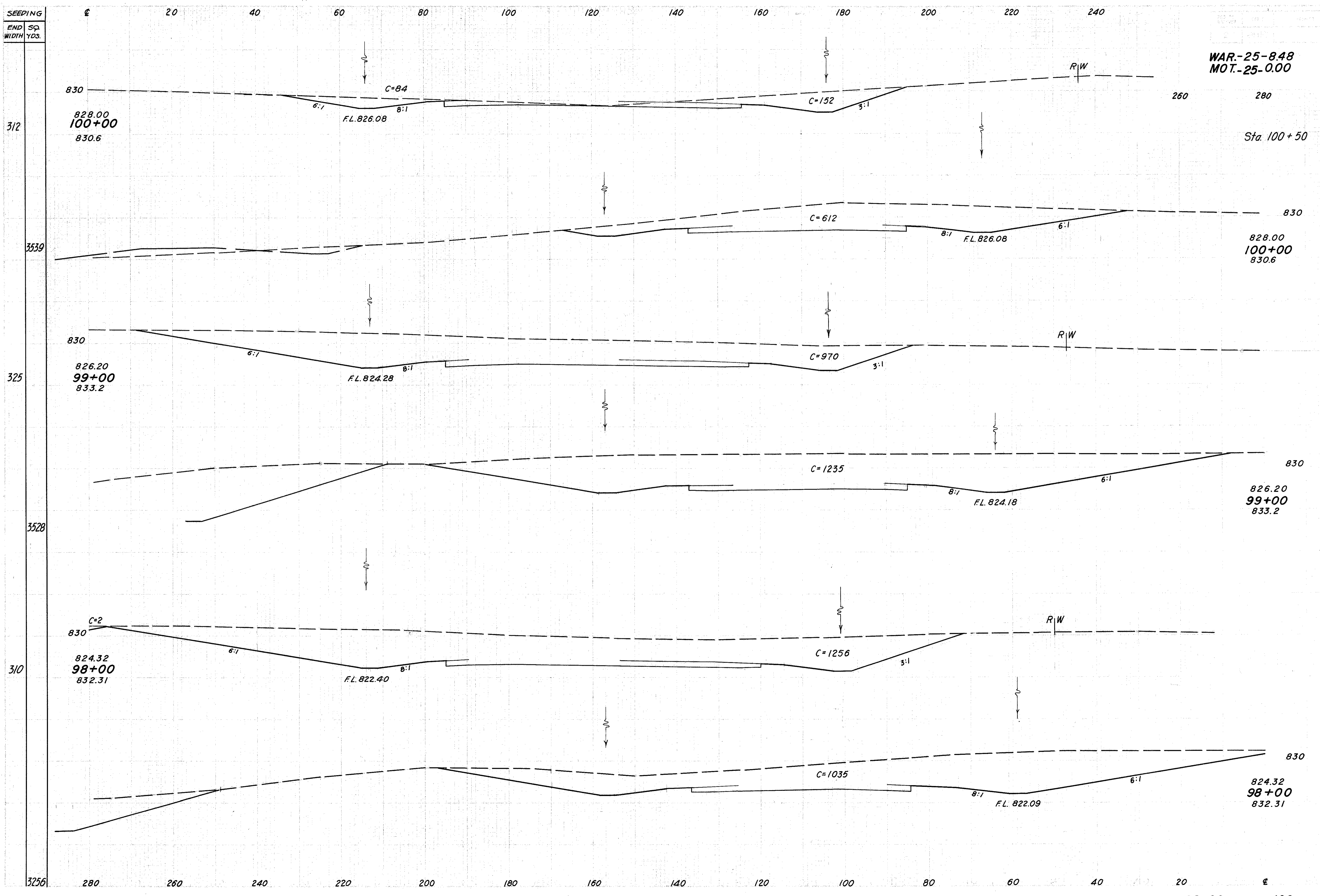
Sta. 92+00 Rt. to Sta. 94+00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
2524			
		7235	43
		1383	23
		4165	320
		866	150
		1617	402

Sta. 95+00 to Sta. 97+00

WAR-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0			
848	0		785
		2205	5654
		2293	8929
		8920	0

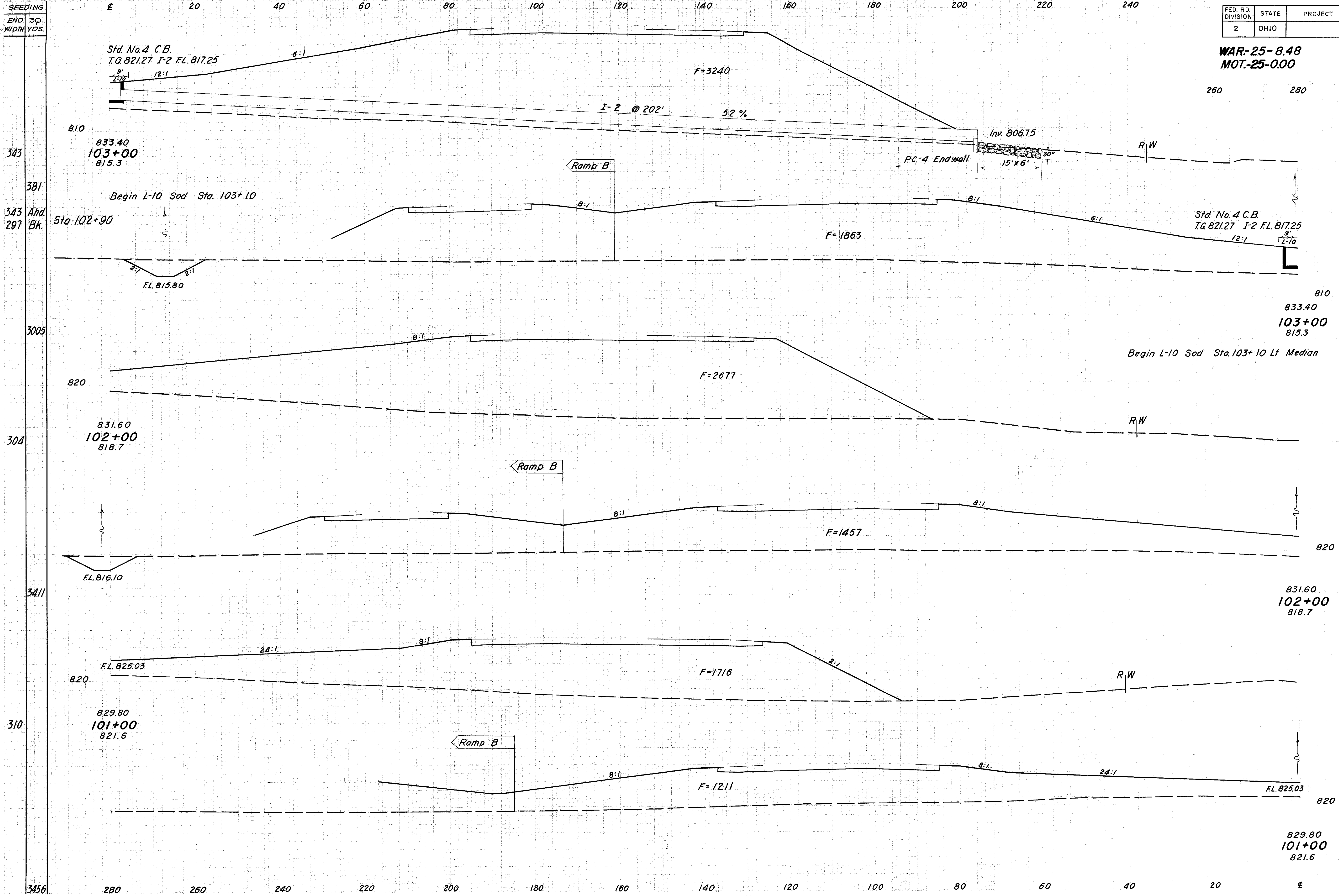
Sta 98+00 to Sta 100+00

SEEDING
END SQ. WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

89
377

WAR-25-8.48
MOT-25-0.00



END AREA	C.U. YDS.
CUT	FILL
CUT	FILL

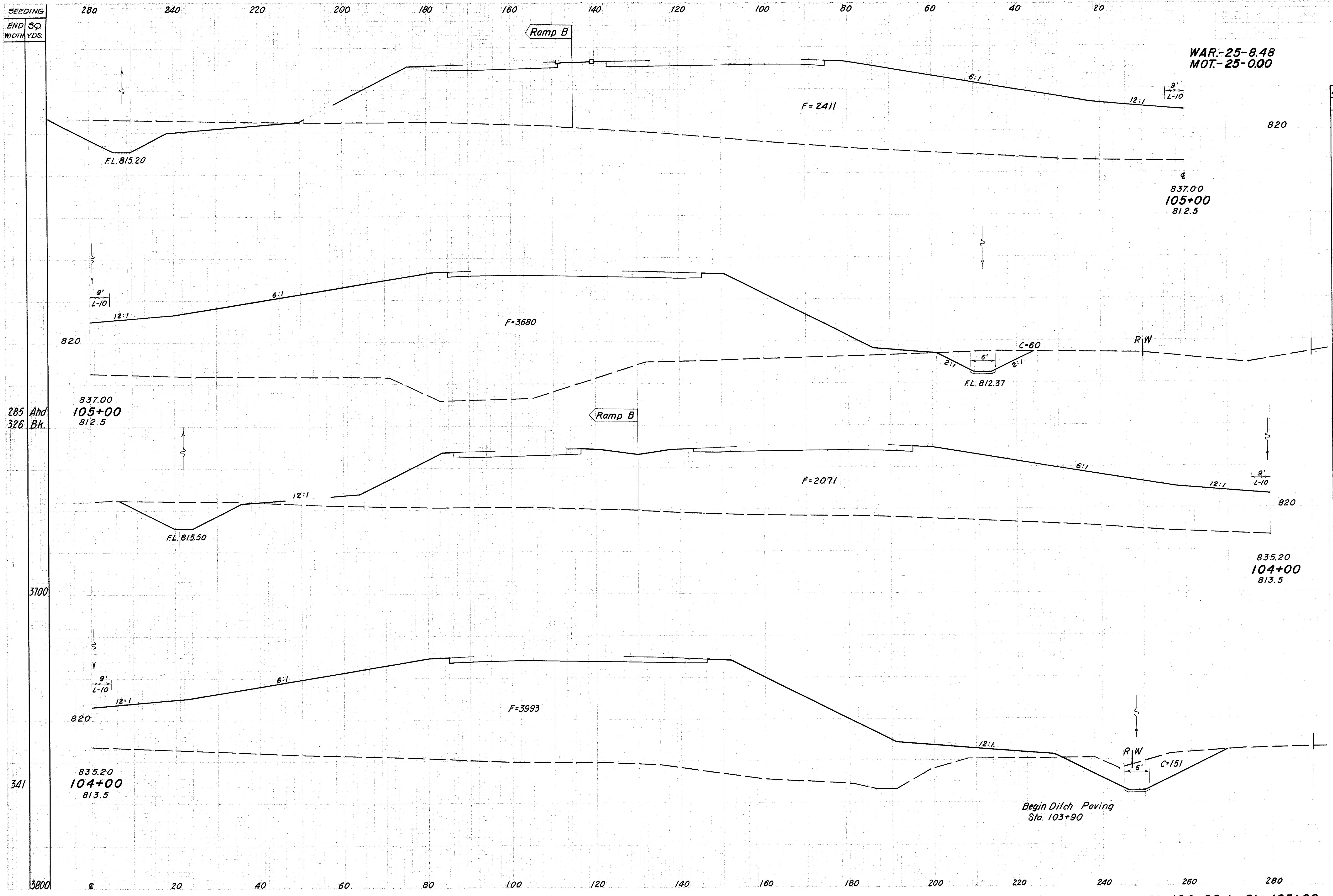
5103	17106
4134	13076
2927	5420

Sta. 101+00 to Sta. 103+00

SEEDING
END SQ.
WIDTH YDS.

90
377

WAR-25-8.48
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

60	6091	391	22509
151	6064		
			20680

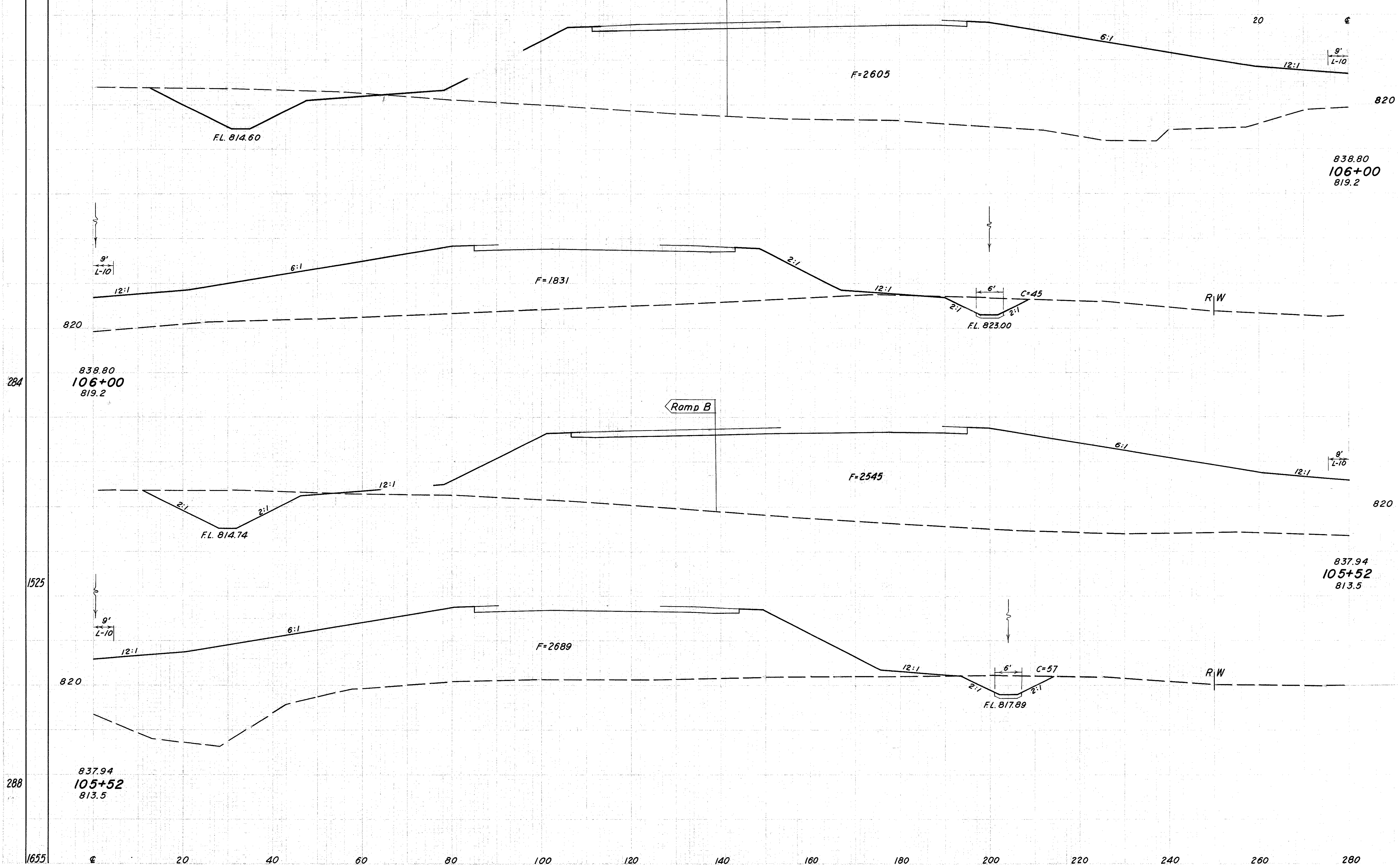
Sta. 104+00 to Sta. 105+00

SEEPING
END SQ.
WIDTH YDS.

91
377

Structure Sta. 105+65
Skew 36° LF.

WAR-25-8.48
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

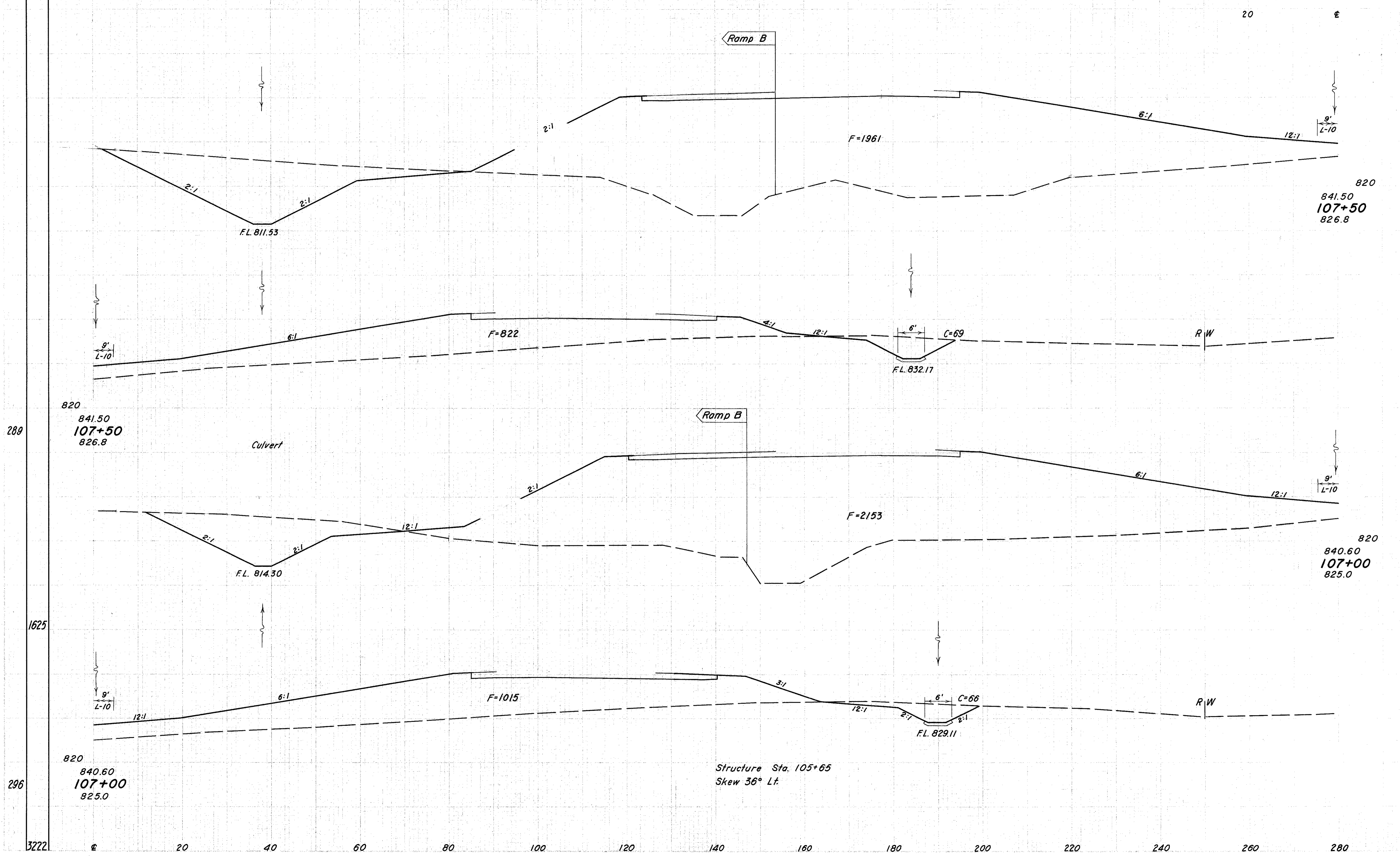
45	4436			91	8596
57	5234			113	10906

Sta. 105+52 to Sta. 106+00

SEEDING
END SQ.
WIDTH YDS.

92
377

WAR-25-8.48
MOT-25-0.00



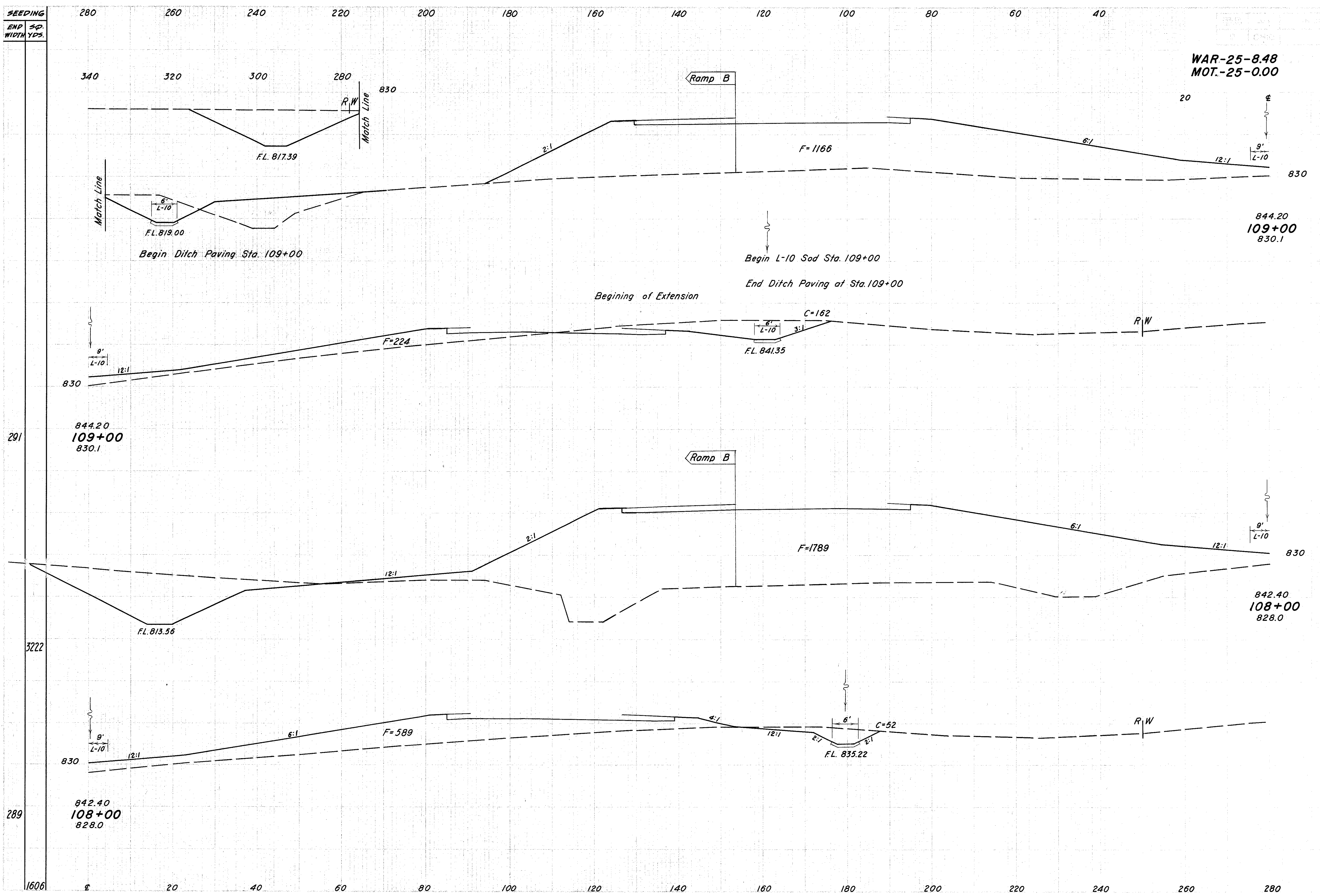
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
69	2783		
		125	5510
66	3168		
		206	44081

Sta. 107+00 to Sta. 107+50

SEEDING
END 50'
WIDTH YDS.

93
377

WAR-25-8.48
MOT.-25-0.00



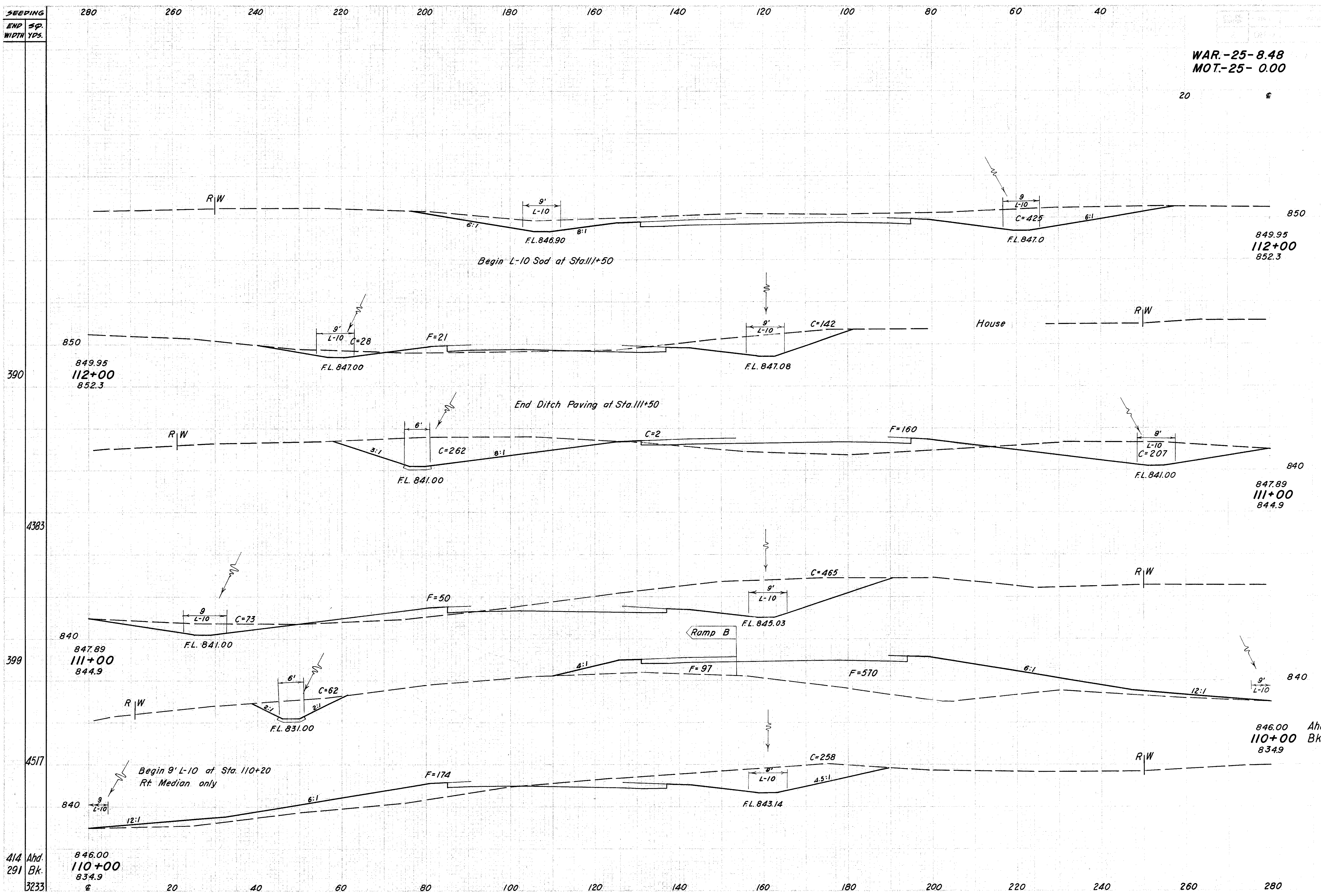
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
162	1390	396	6978
52	2378	112	4779

Sta. 108+00 to Sta. 109+00

SEEDING
END SP.
WIDTH YDS.

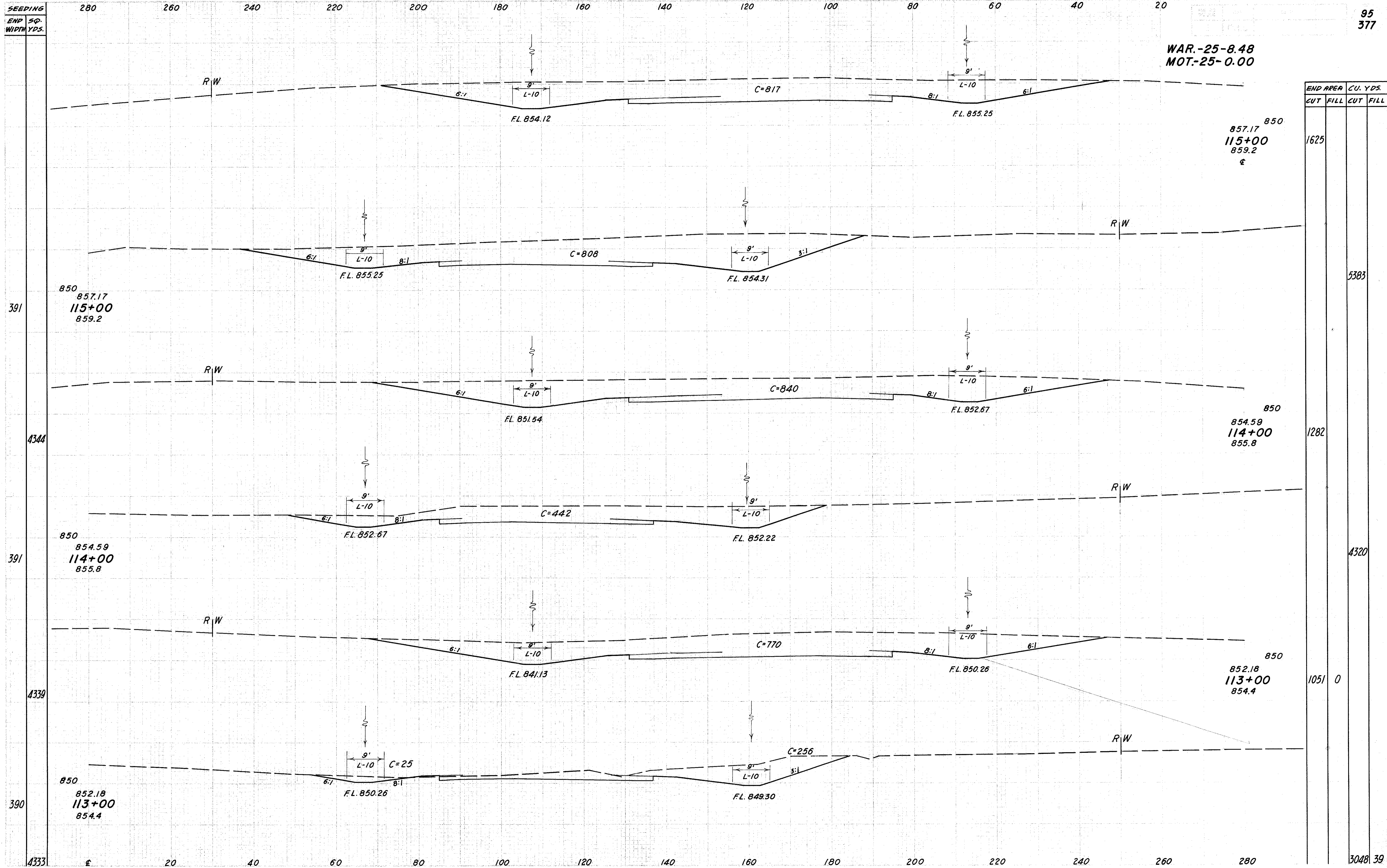
94
377

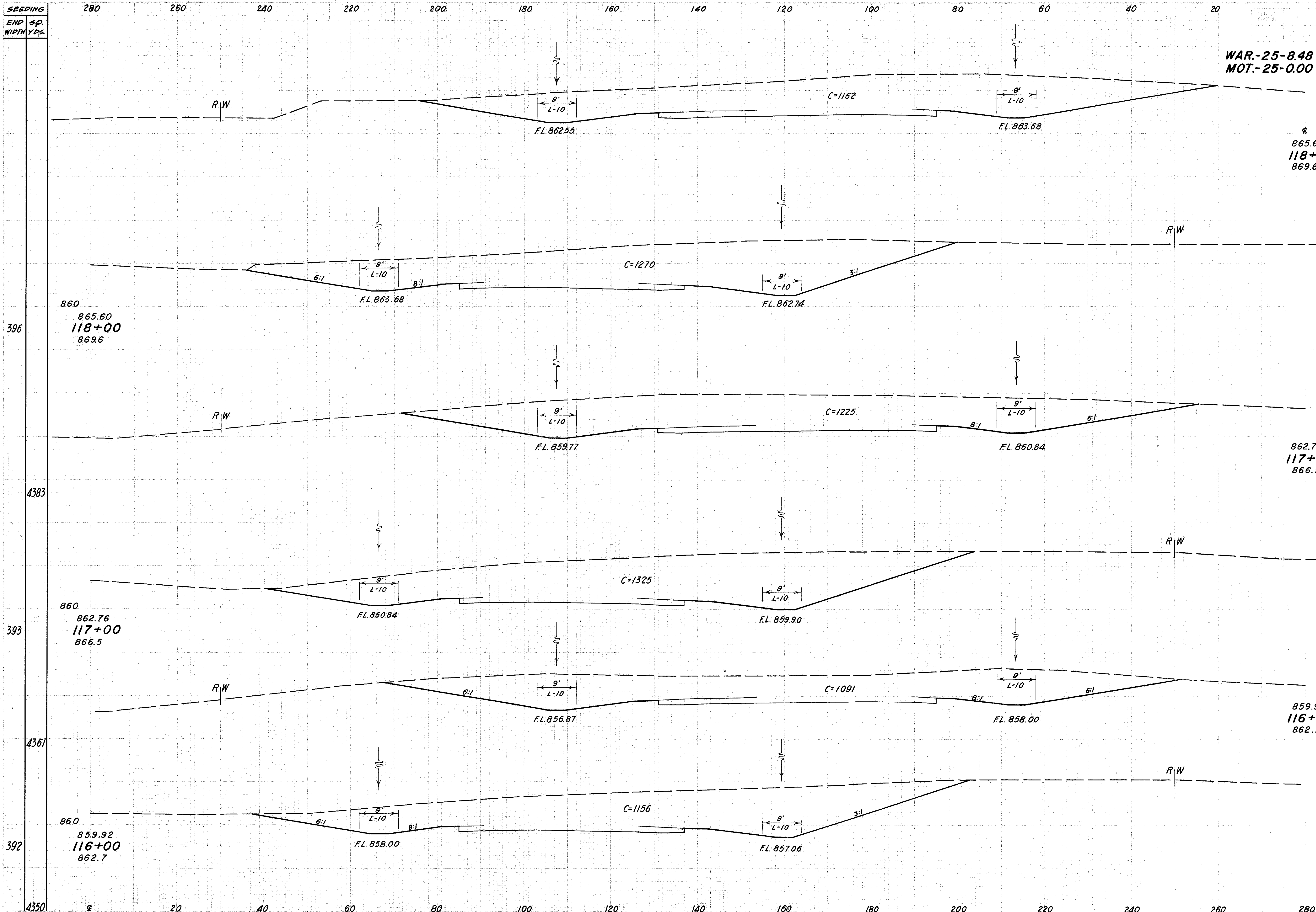
WAR.-25-8.48
MOT.-25-0.00



STATION	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
112+00	595	21		
111+00	1491	1907		
110+00	210	1009		
110+00 (Ahd. Bk.)	320	841	258	744
TOTAL	778	3952		

Sta. 110+00 to Sta. 112+00





END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
2432			
		9226	
		2550	
		8883	
		2247	
		7170	

SEEDING
END SP.
WIDTH YDS.

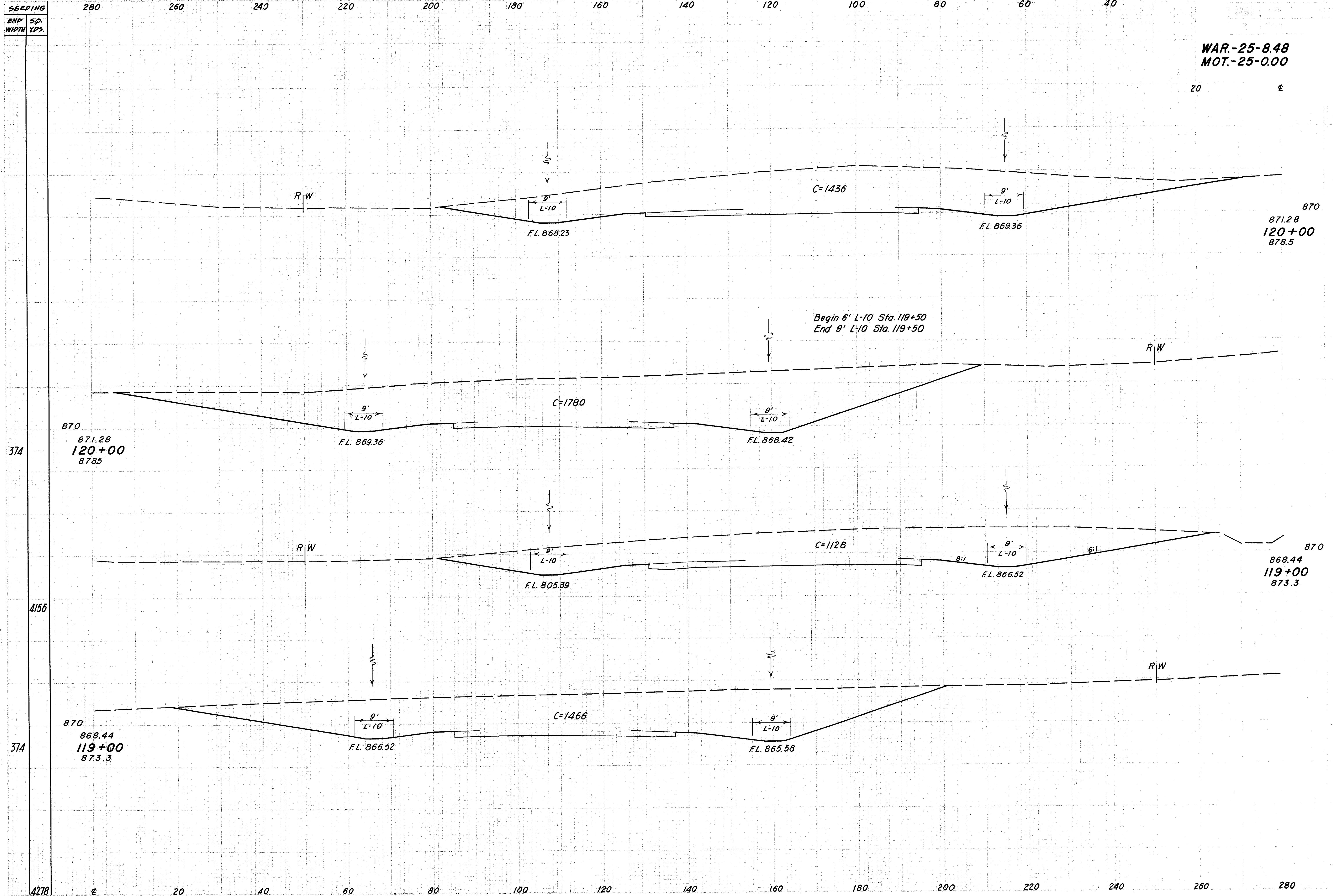
280 260 240 220 200 180 160 140 120 100 80 60 40

97
377

WAR-25-8.48
MOT-25-0.00

20 2

END AREA CU. YDS.
CUT FILL CUT FILL



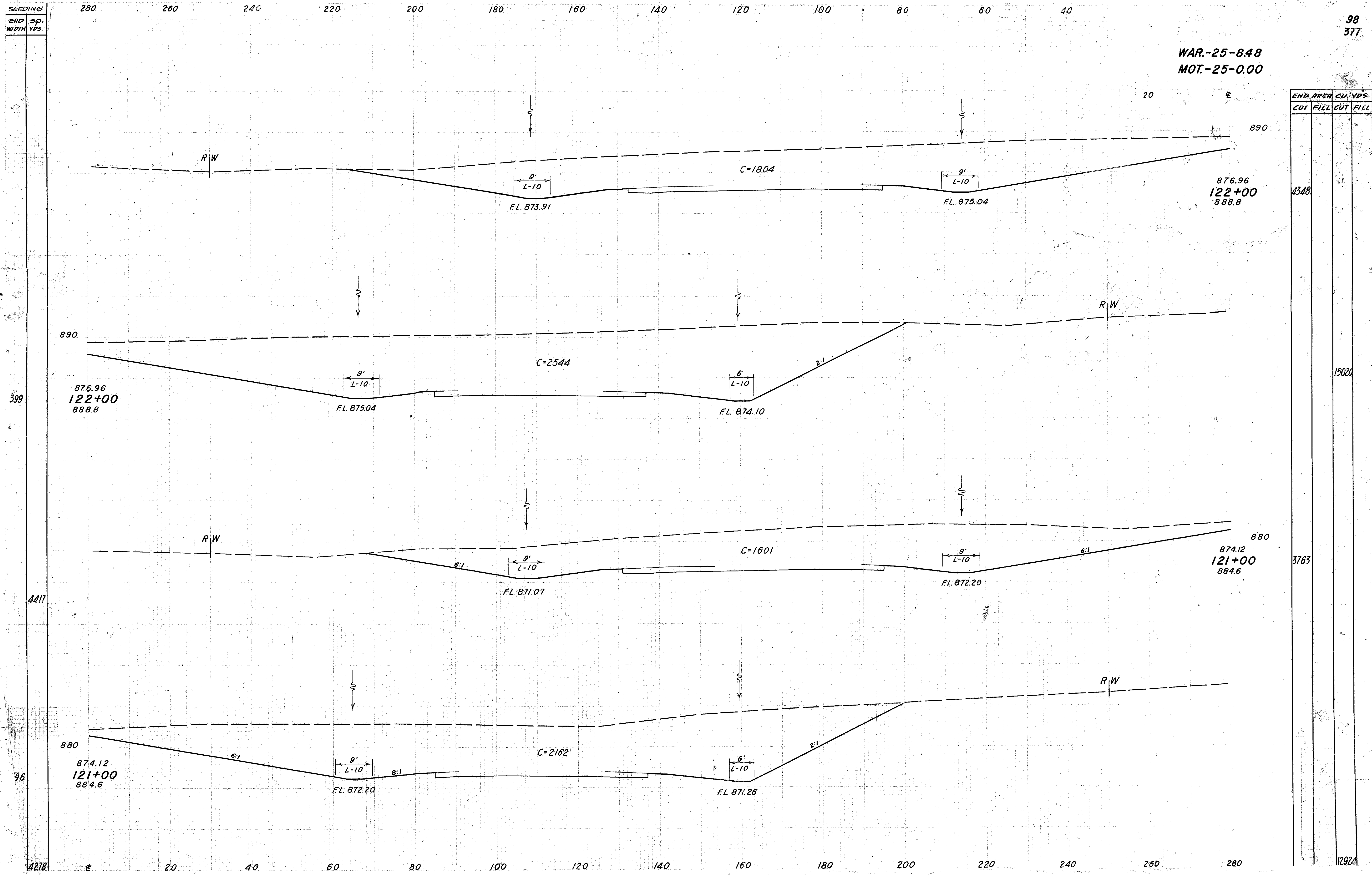
3216

10759

2594

9307

Sta. 119+00 to Sta. 120+00



WAR.-25-848
MOT.-25-0.00

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
4348			
	15020		
3763			
	12924		

98
377

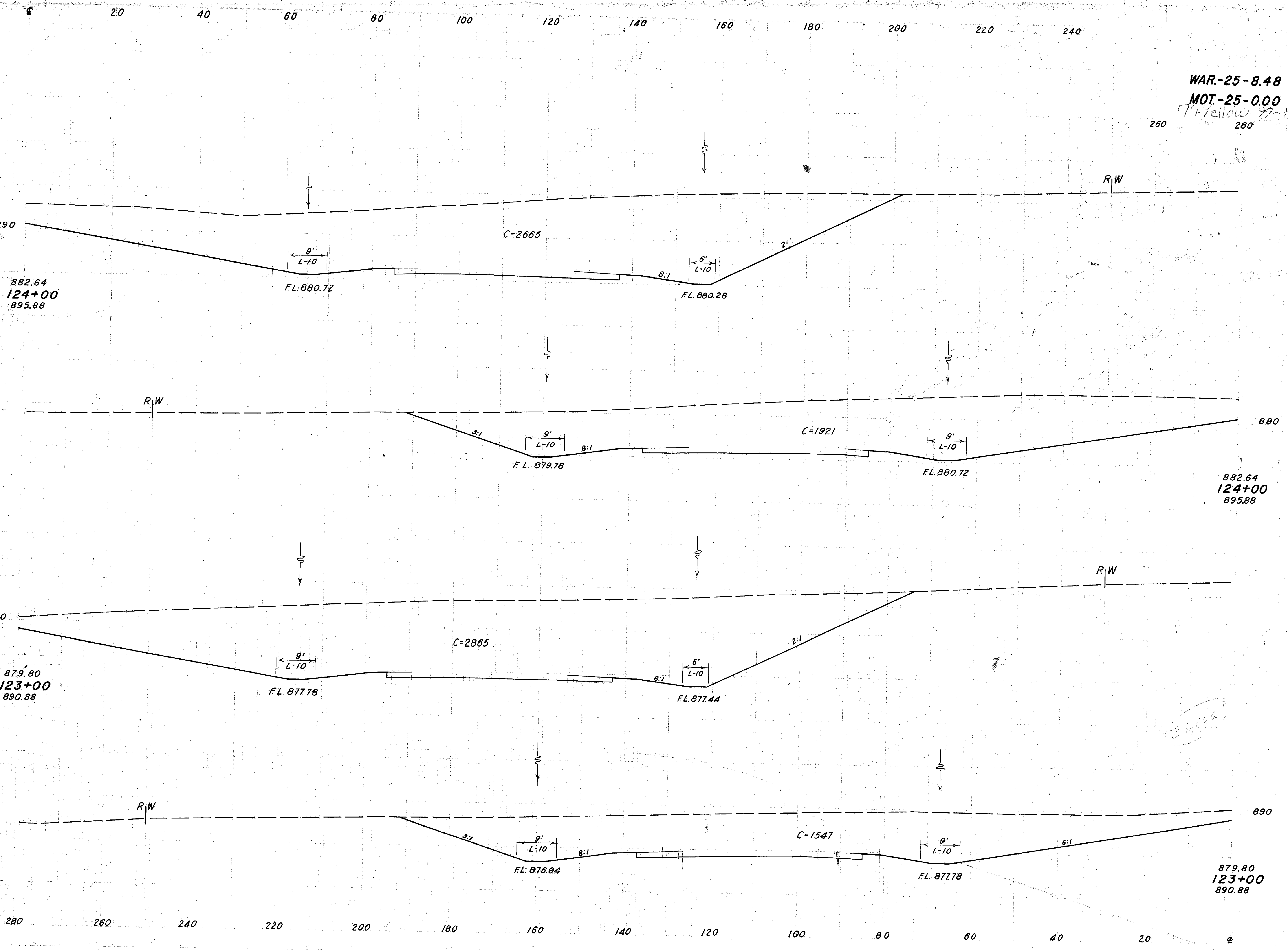
Sta. 122+00 to Sta. 121+00

WAR-25-8.48
MOT-25-0.00
Yellow 99-199

260 280

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

SEEDING	
END WIDTH	SQ. YDS.
410	
4556	
410	
4494	



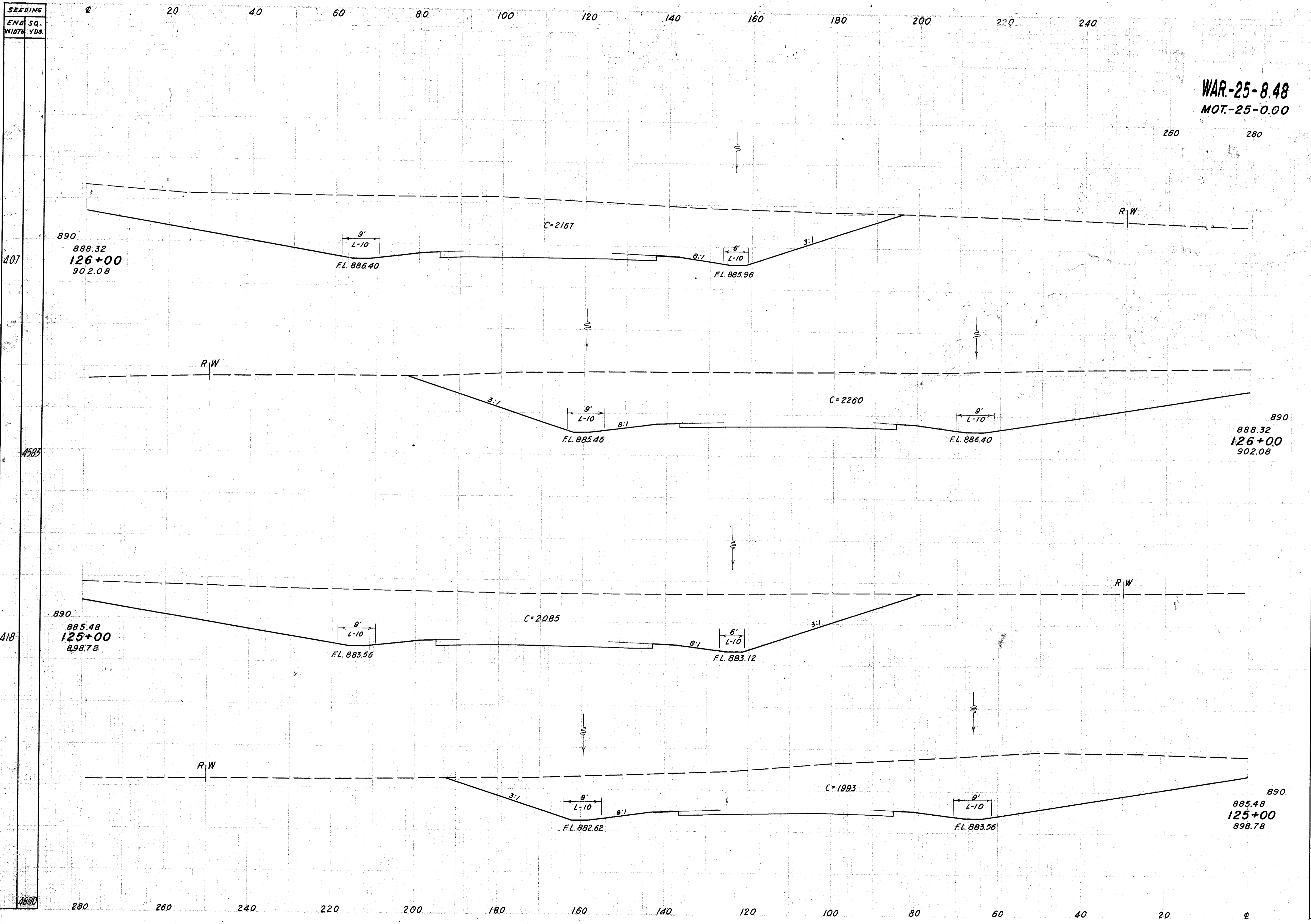
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
410			
4586		16663	
410			
4412		16222	

Sta. 123+00 to Sta. 124+00

SEEDING
END SQ.
WIDTH YDS.

100
377

WAR-25-8.48
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

407			
4583		4427	
418		15750	
4690		4078	
		16044	

Sta. 125+00 to Sta. 126+00

SEEDING
END SO.
WIDTH YDS.

2 20 40 60 80 100 120 140 160 180 200 220 240

WAR-25-8.48
MOT-25-0.00

101
377

260 280

END AREA	CU. YDS.
CUT F. II	CUT F. II

402

890
891.16
127+00
903.68

End 9' L-10 Sod at Sta. 127+00
Right Median Only

9'
L-10
F.L. 889.24

C=1854

6'
L-10
F.L. 888.80

8:1

3:1

End 9' L-10 Sod at Sta. 127+00
Left Median Only

6'
L-10
F.L. 888.8

8:1

C=2115

9'
L-10
F.L. 889.24

890
891.16
127+00
903.68

Begin (6' wide) at Sta. 127+00
End (9' wide) at Sta. 127+00

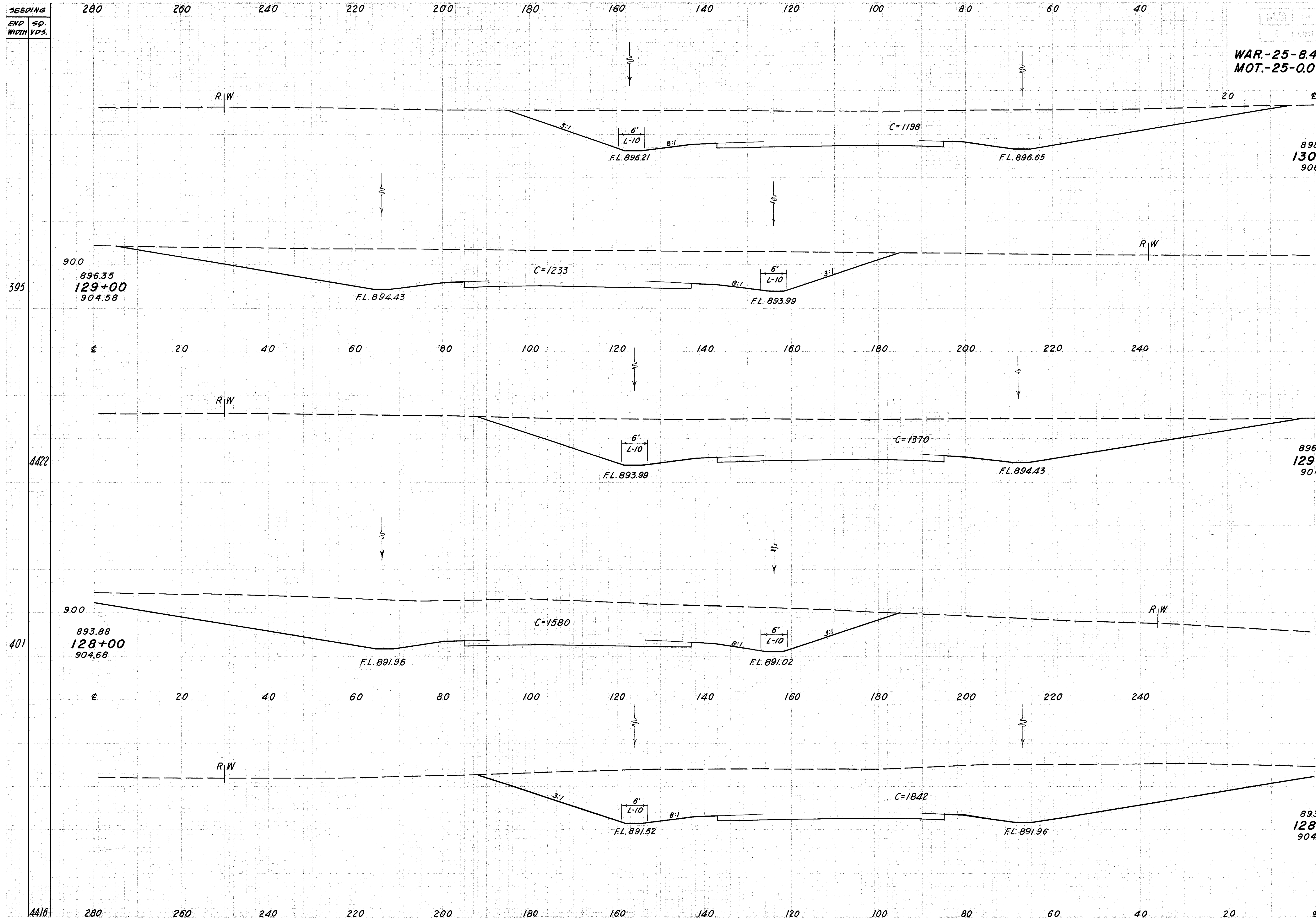
3969

4494

280 260 240 220 200 180 160 140 120 100 80 60 40 20 2

Sta. 127+00

15548



WAR.-25-8.48
MOT.-25-0.00

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
2410			9283
2603			11157
3422			13687

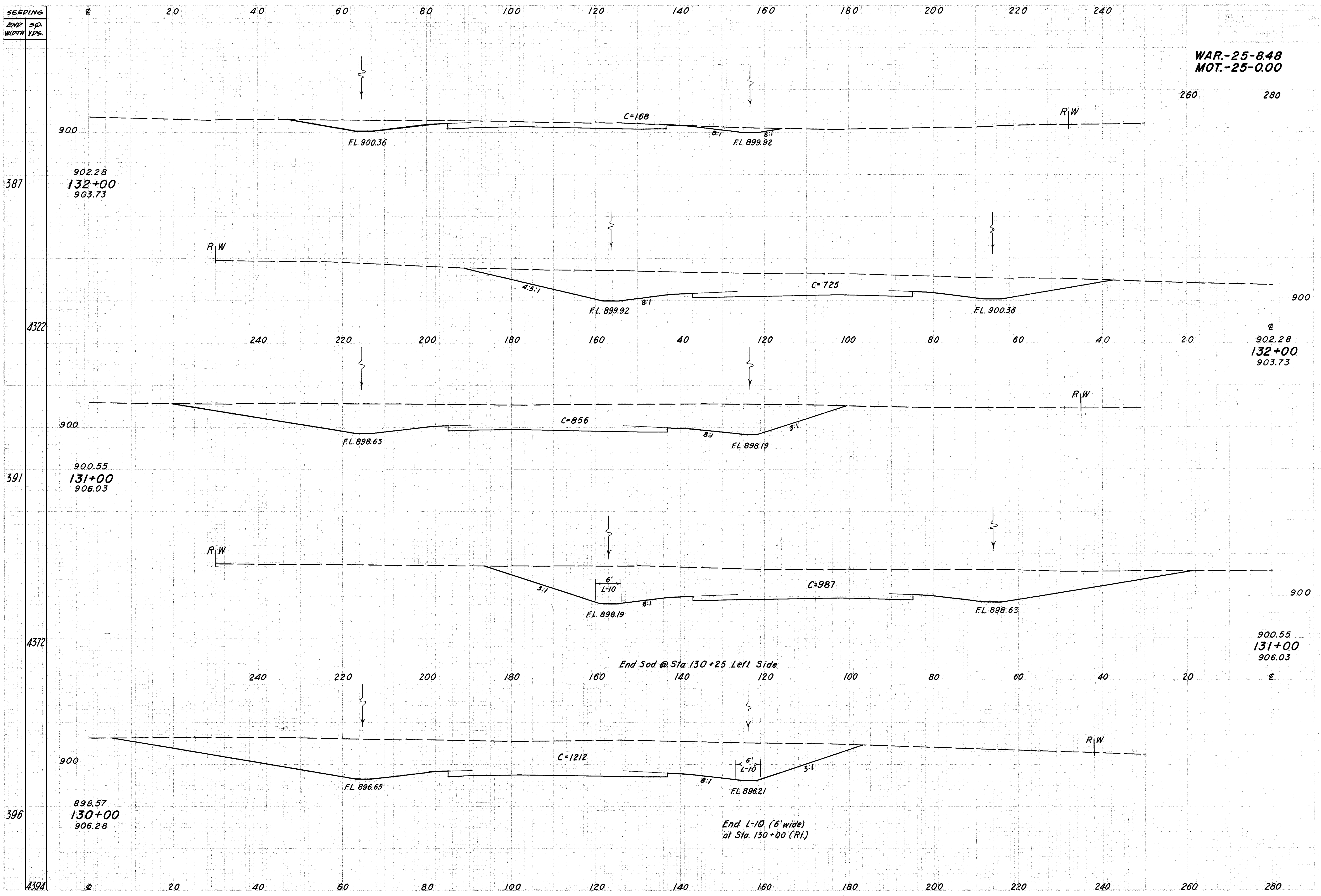
102
377

Sta. 128+00 to Sta. 130+00 Lt.

SEEDING
END SP.
WIDTH YFS.

WAR-25-848
MOT-25-0.00

103
377



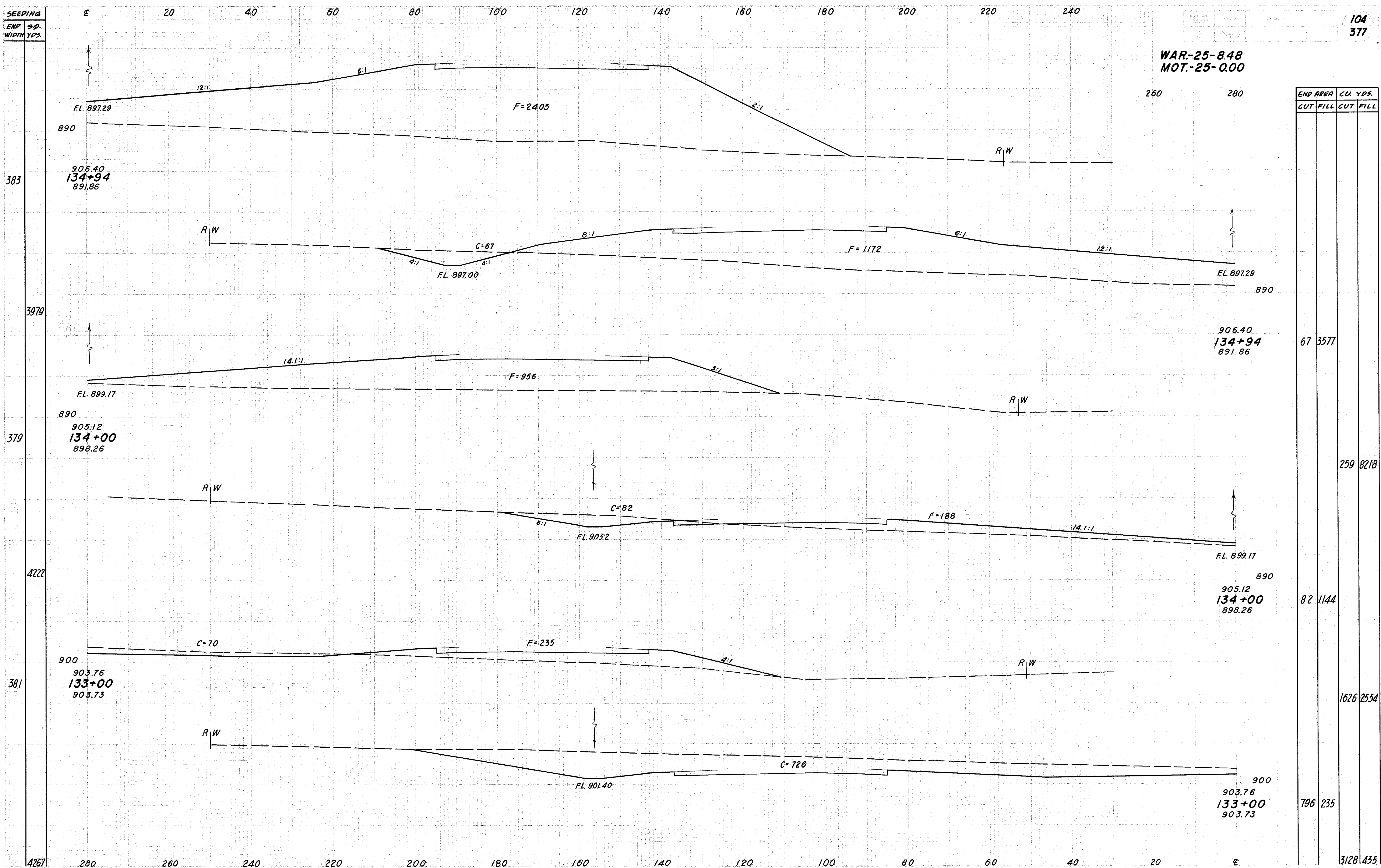
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
893	0		
		5067	
		1843	
		7876	

Sta. 130+00 Rt. to Sta. 132+00

SEEPING
ENP 50.
WIDTH YDS.

104
377

WAR-25-848
MOT-25-000



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
67	3577		
82	1144		
796	235		
3128	435		

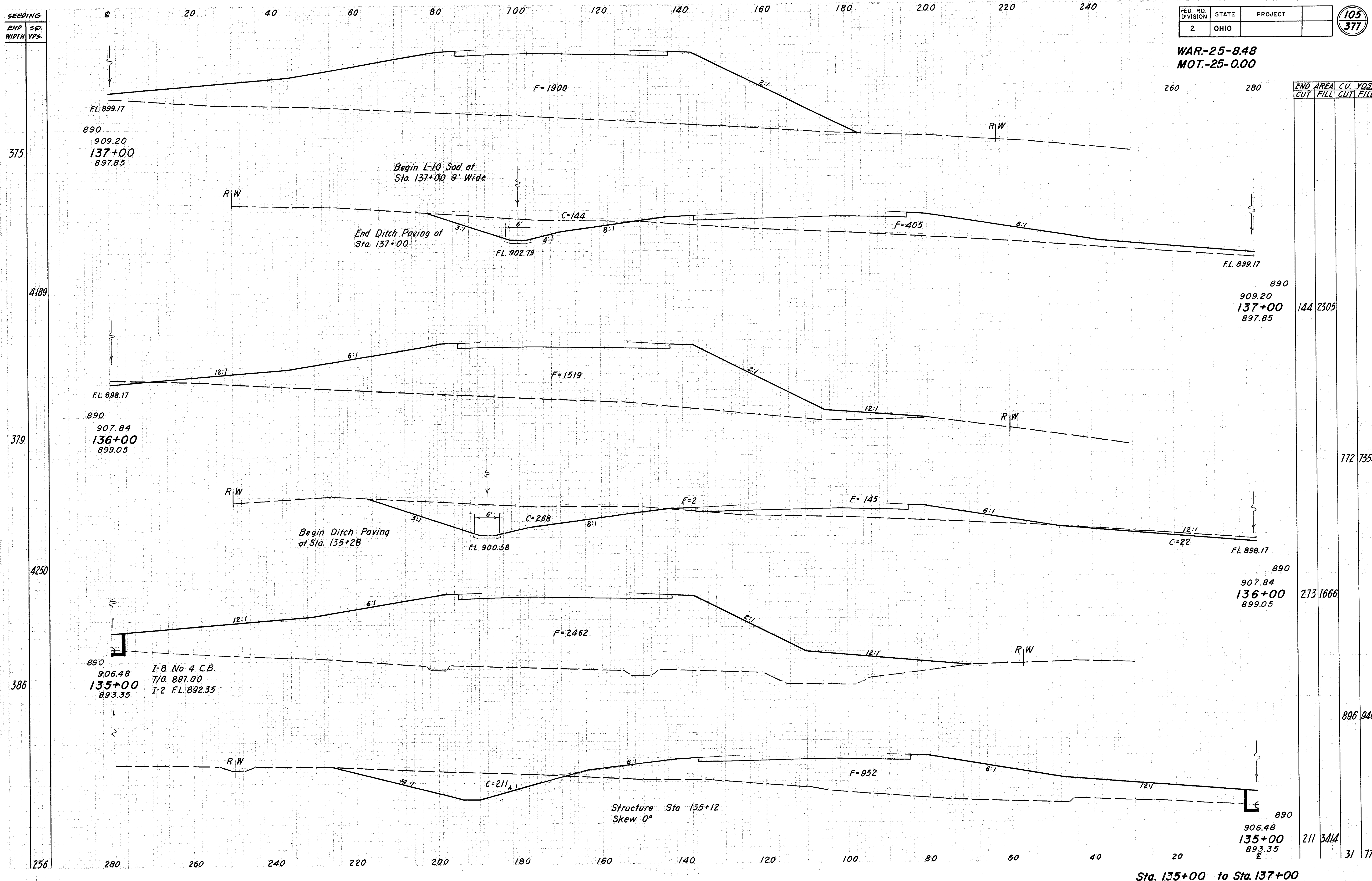
Sta. 133+00 to Sta 134+94

SEEDING
ENP SO.
WIDTH YPS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

105
377

WAR-25-848
MOT.-25-000



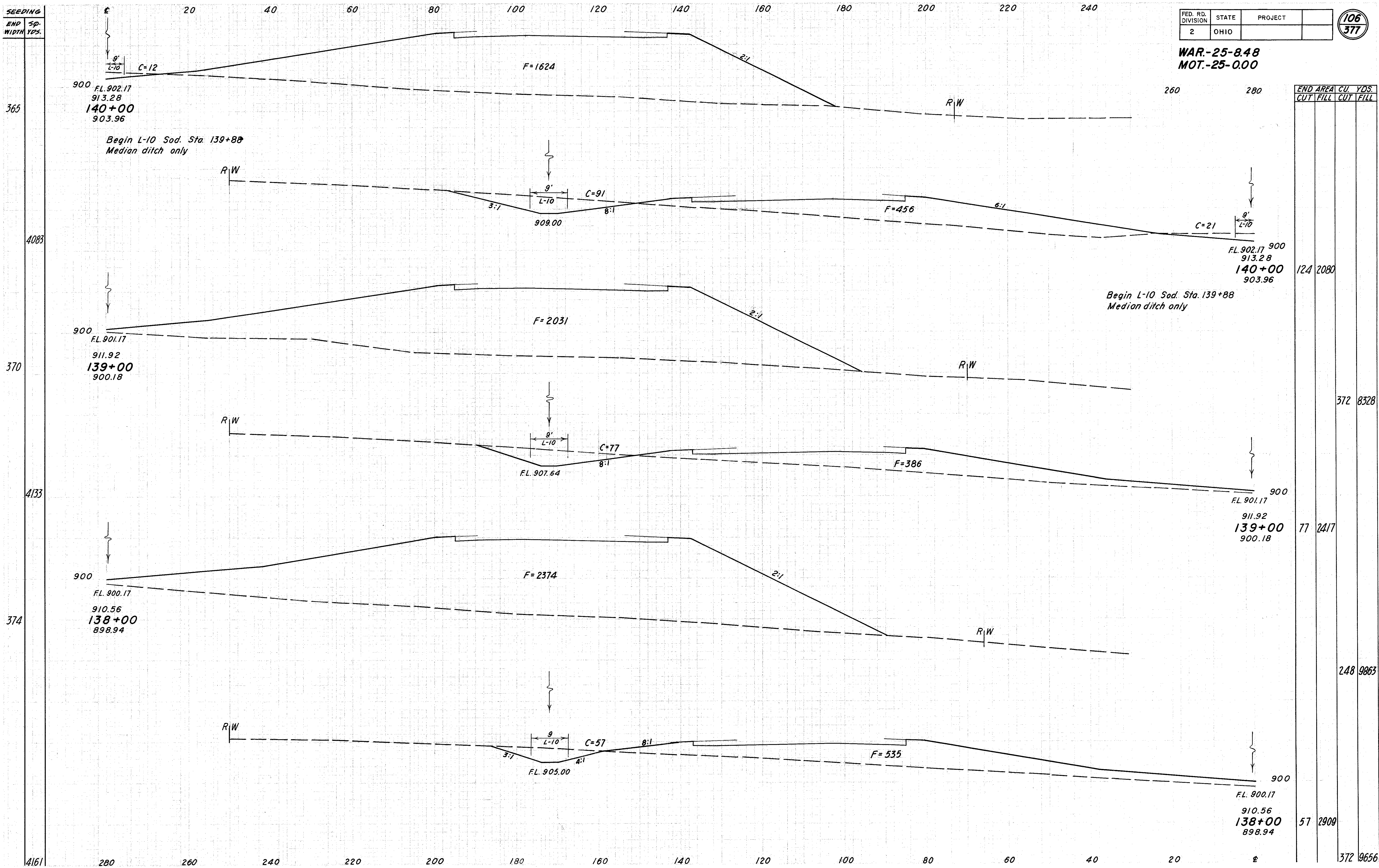
Sta. 135+00 to Sta. 137+00

SEEDING
END SP.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

106
377

WAR.-25-8.48
MOT.-25-0.00

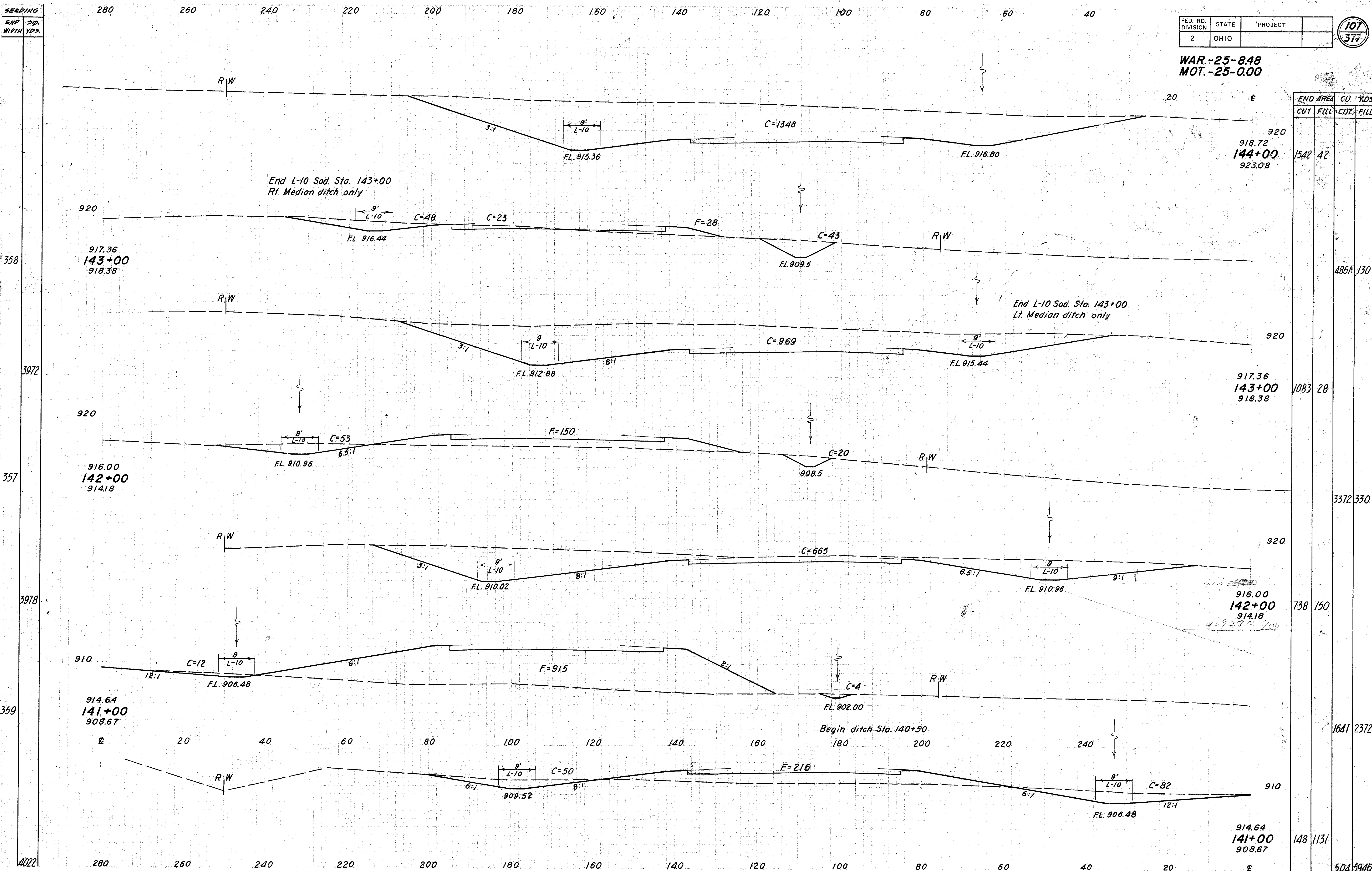


Sta. 138+00 to Sta. 140+00

SEEPING
ENP 20
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT	107 377
2	OHIO		

WAR.-25-848
MOT.-25-000

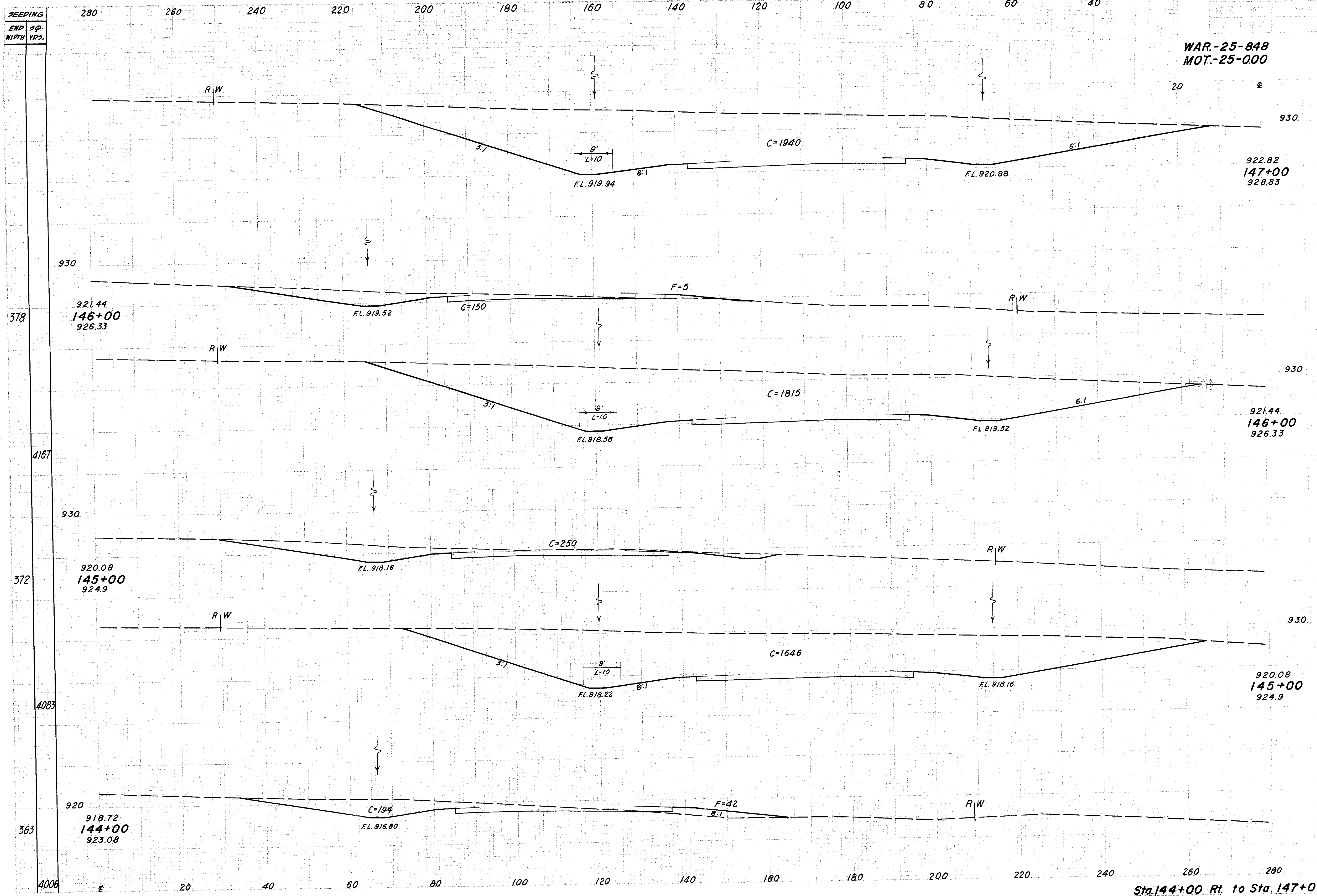


END AREA	CU. YDS.	
	CUT	FILL
918.72 144+00 923.08	1542	42
917.36 143+00 918.38	486	130
917.36 143+00 918.38	1083	28
916.00 142+00 914.18	3372	330
916.00 142+00 914.18	738	150
914.64 141+00 908.67	1641	2372
914.64 141+00 908.67	148	1131
	504	5946

Sta. 141+00 To Sta. 144+00 Lt.

WAR-25-848
MOT-25-000

108
377



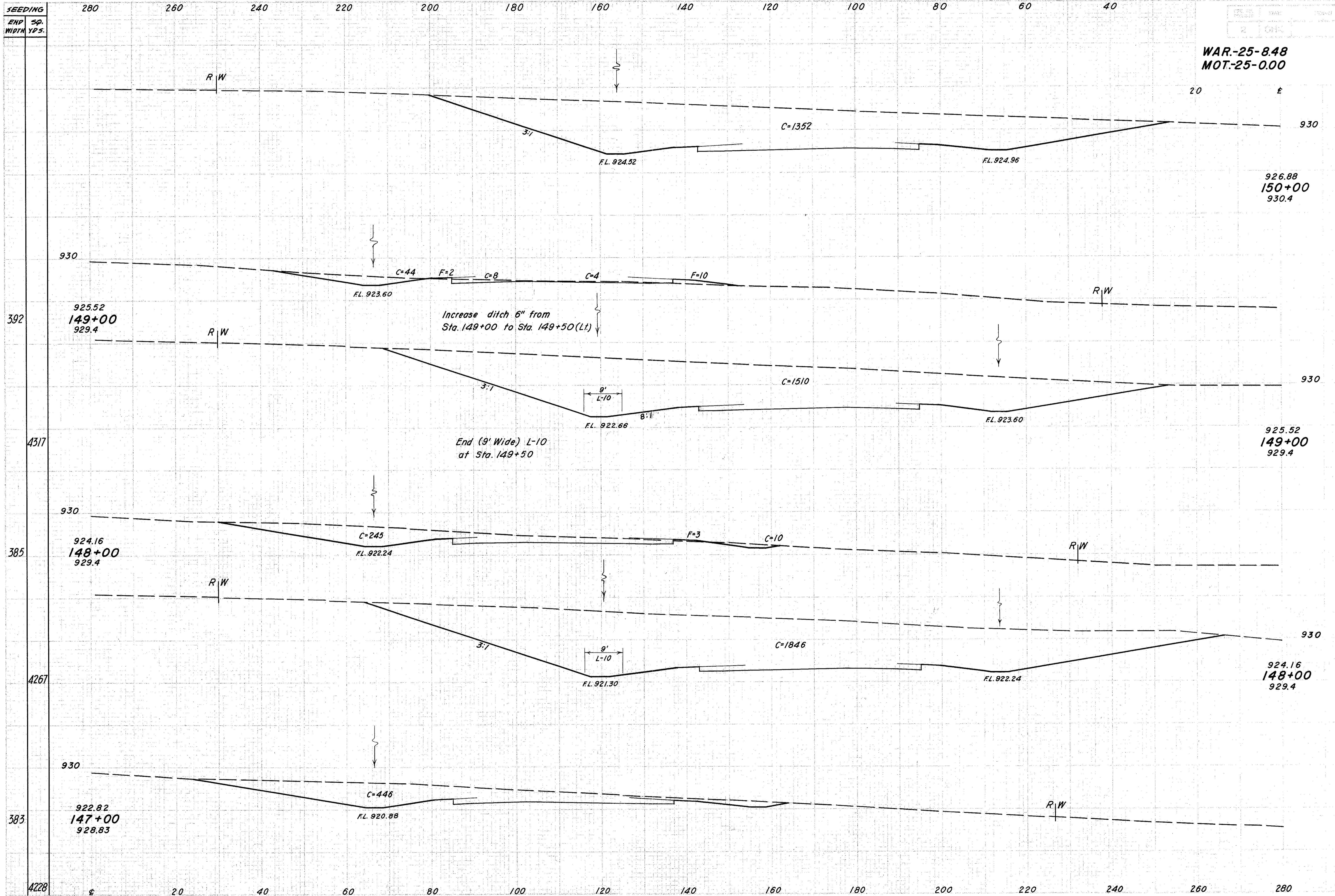
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
2386	0	8057	9
1965	5	7150	9
1896	0	6367	78

Sta. 144+00 Rt. to Sta. 147+00 Lt.

SEEDING
END SP.
WIDTH YPS.

WAR.-25-848
MOT.-25-0.00

109
377

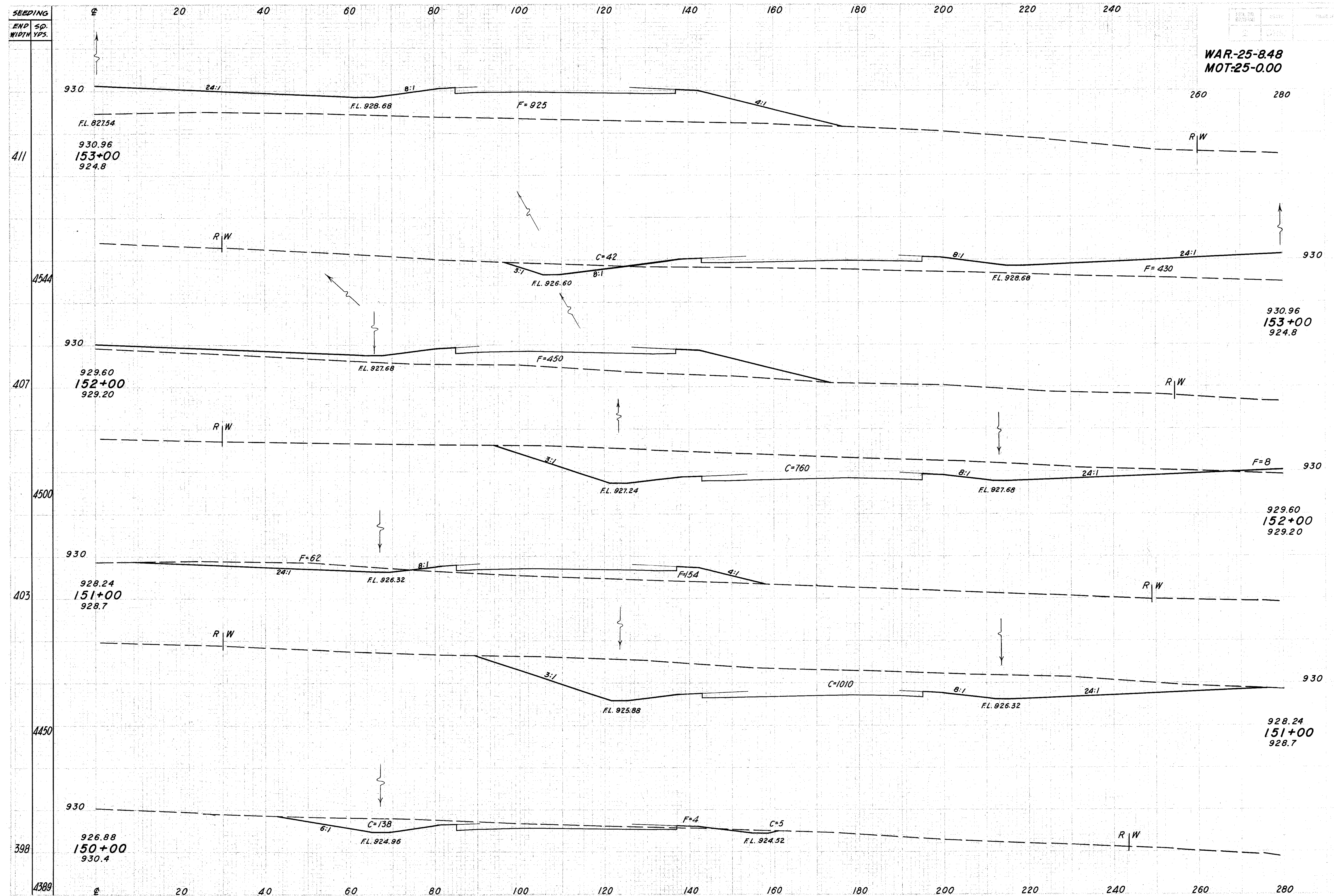


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
1495	4		
		5668	30
1566	12		
		6791	28
2101	3		
		8309	6

Sta. 147+00 Rt. to Sta. 150+00 Lt.

WAR-25-848
MOT-25-0.00

110
377



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
42	1355		
1485	3357		
760	458		
3392	1133		
1072	154		
4754	292		

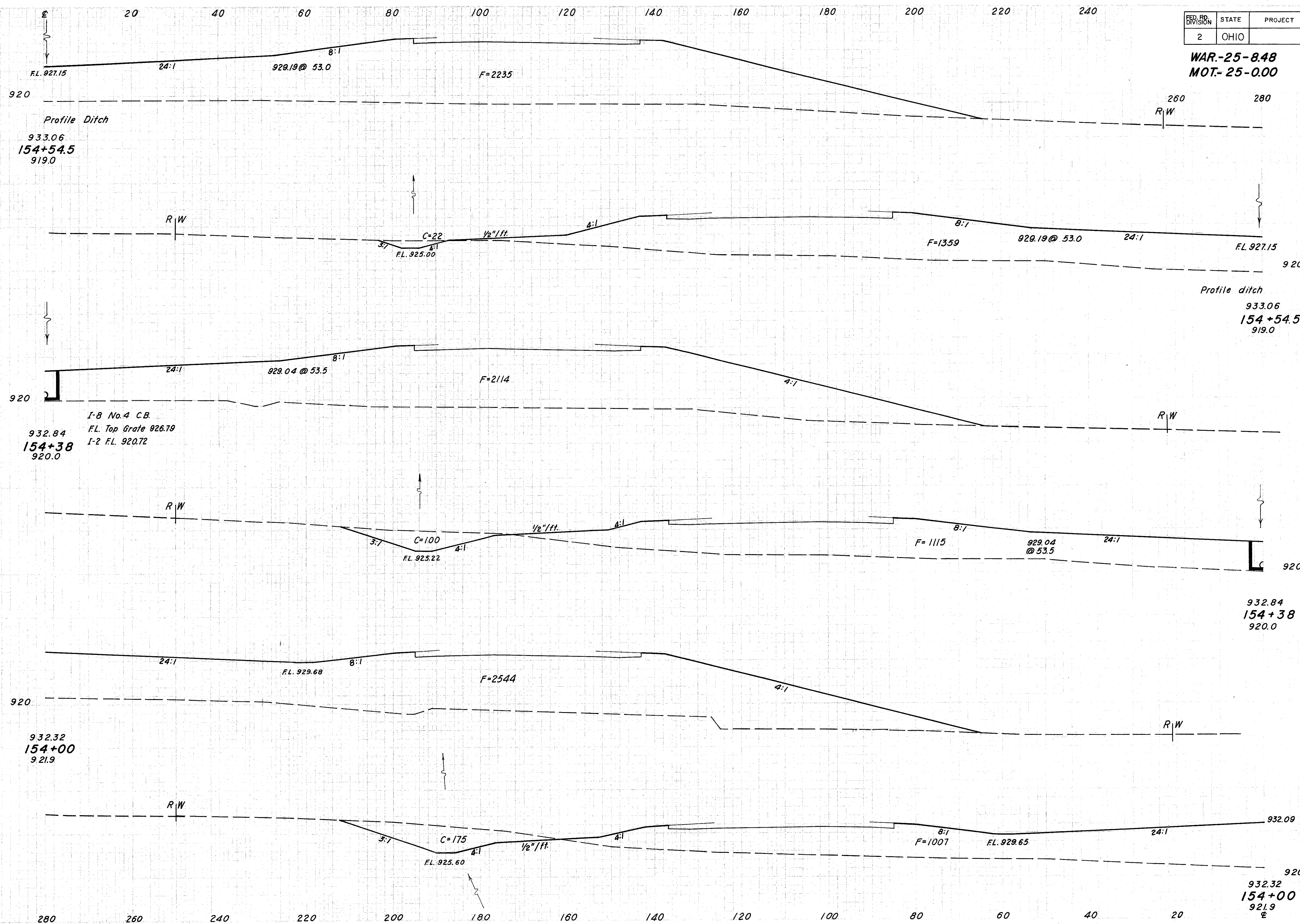
Sta. 150+00 Rt. to Sta. 153+00

SEEDING	
END	SP.
WIDTH	YDS.
412	
756	
413	
1748	
415	
4589	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



WAR-25-848
MOT-25-000



END STA.	AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
154+54.5				
154+38	22		3594	
154+00	100		3229	
154+00	175		3551	
154+00				402
154+54.5				9085

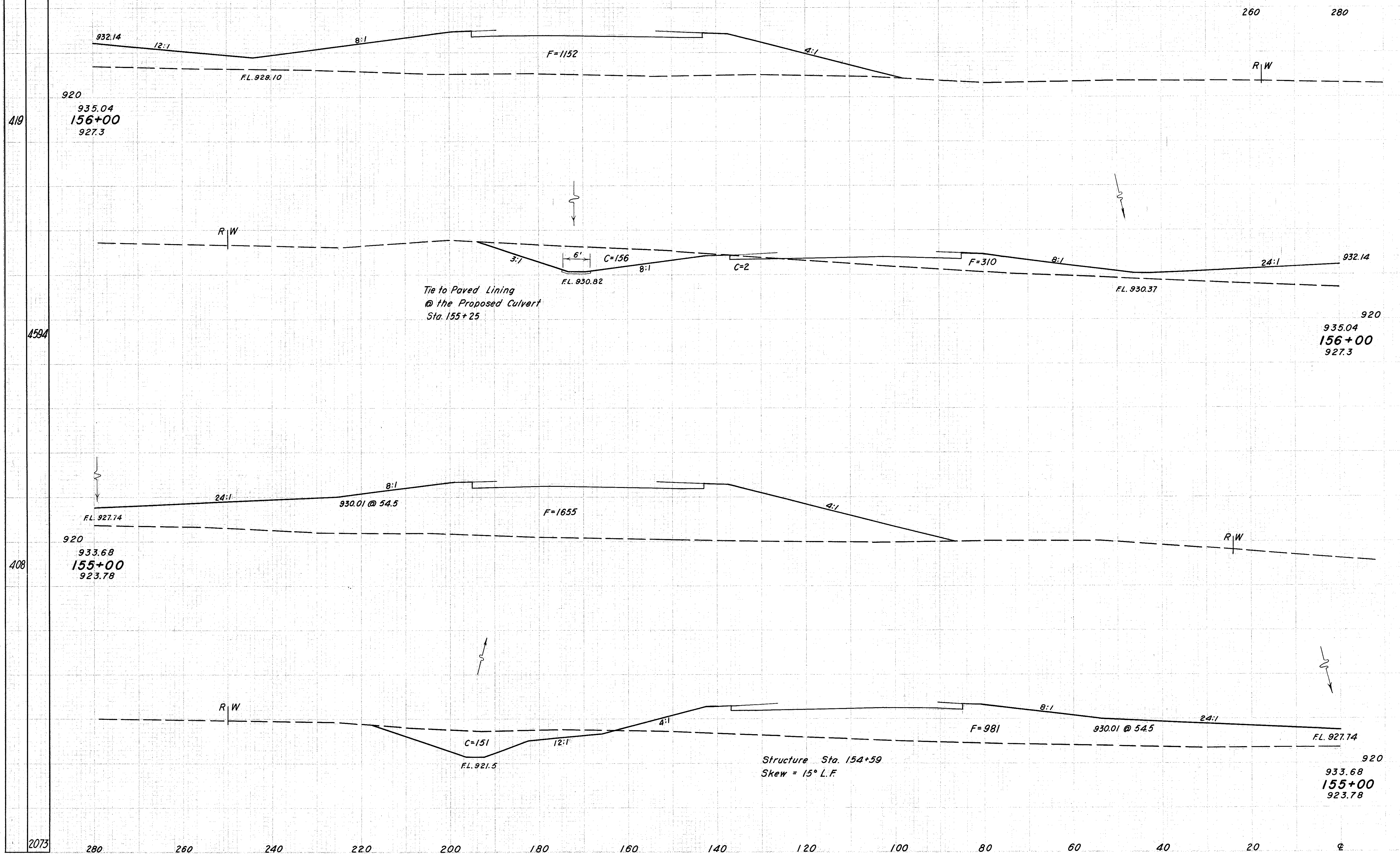
Sta. 154+00 to Sta. 154+54.50

SEEDING
END S.P.
WIDTH YDS.

DATE: 2/25/50
SHEET: 2
PROJECT: CHMS

112
377

WAR-25-8.48
MOT-25-0.00



END AREA	CUT	FILL	CUT	FILL	CUT	FILL
156	1462					
151	2636					
146	5249					

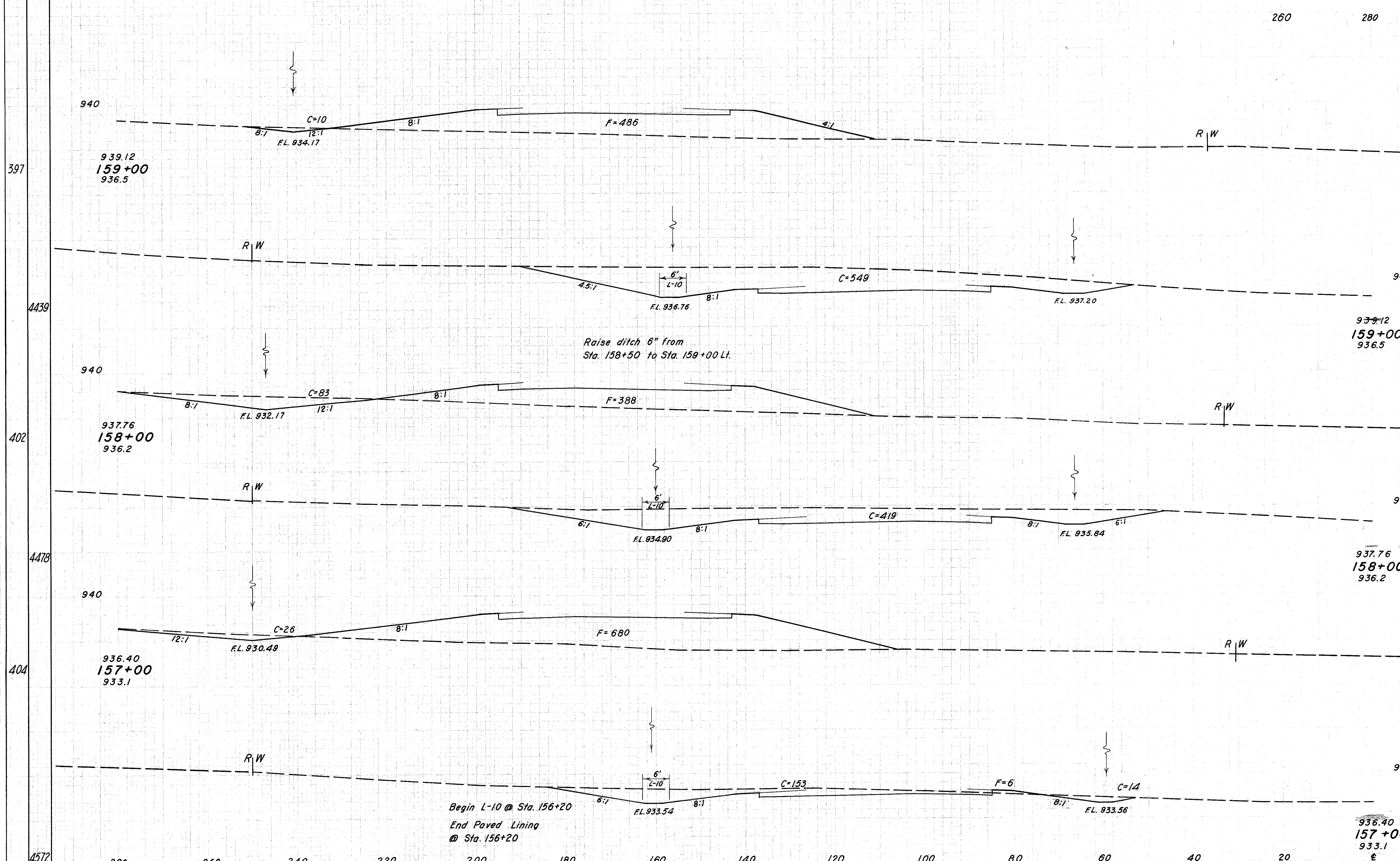
Sta. 155+00 to Sta. 156+00

SEEPING
END SQ.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

113
377

WAR-25-848
MOT-25-0.00

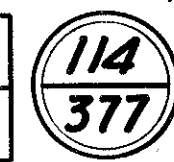


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
559	486		
1965	1618		
502	388		
1287	1989		
193	686	646	3978

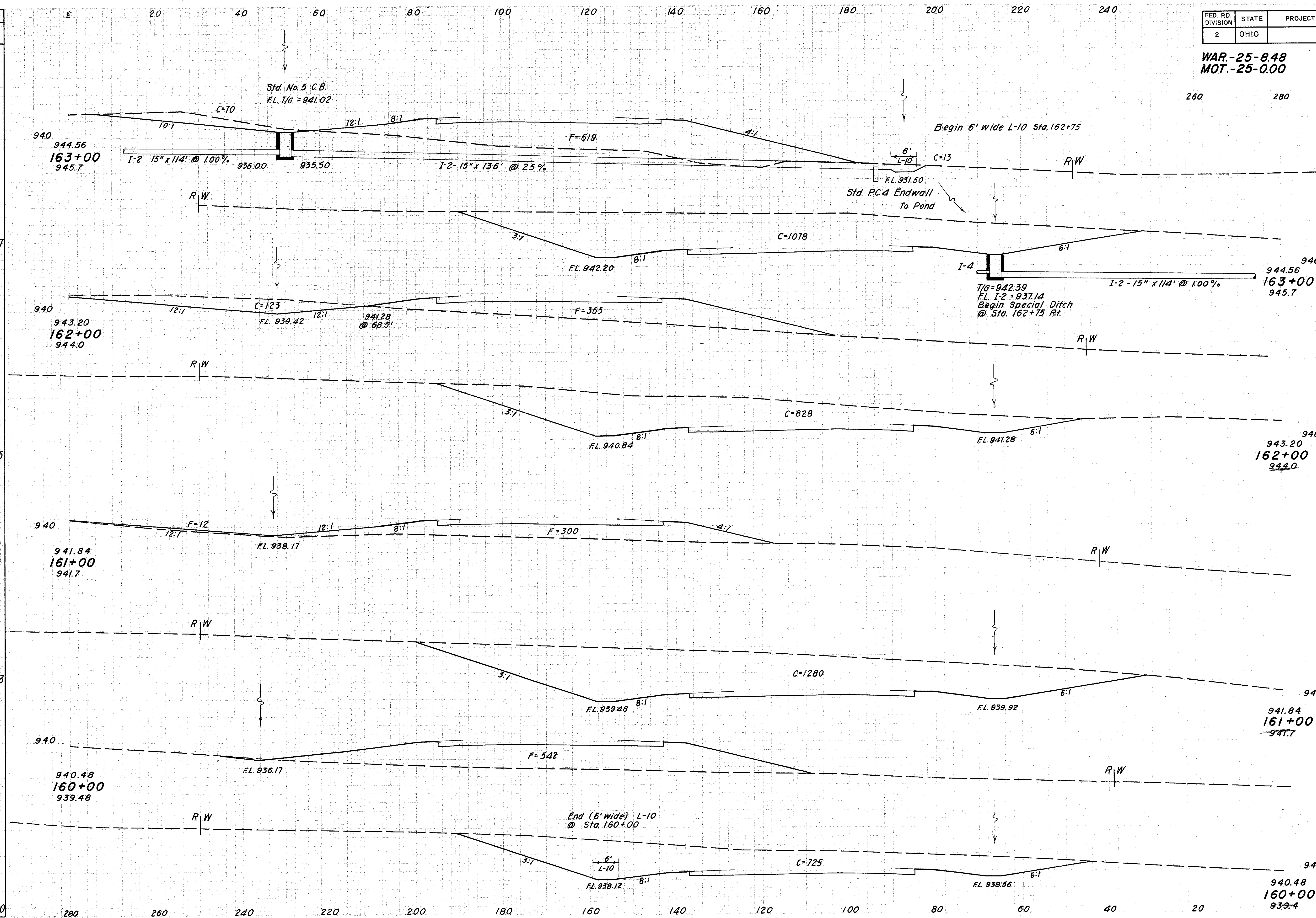
Sta. 157+00 To Sta. 159+00

SEEDING	
END WIDTH	SP. YPS.
387	
4317	
390	
4556	
394	
4383	
395	
4400	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



WAR.-25-848
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
1161	619		
3911	1822		
951	365		
4131	1254		
1280	312		
3713	1581		
725	542	2378	1904

Sta. 160+00 To Sta. 163+00

SEEDING
END SQ.
WIDTH YDS.

280 260 240 220 200 180 160 140 120 100 80 60 40

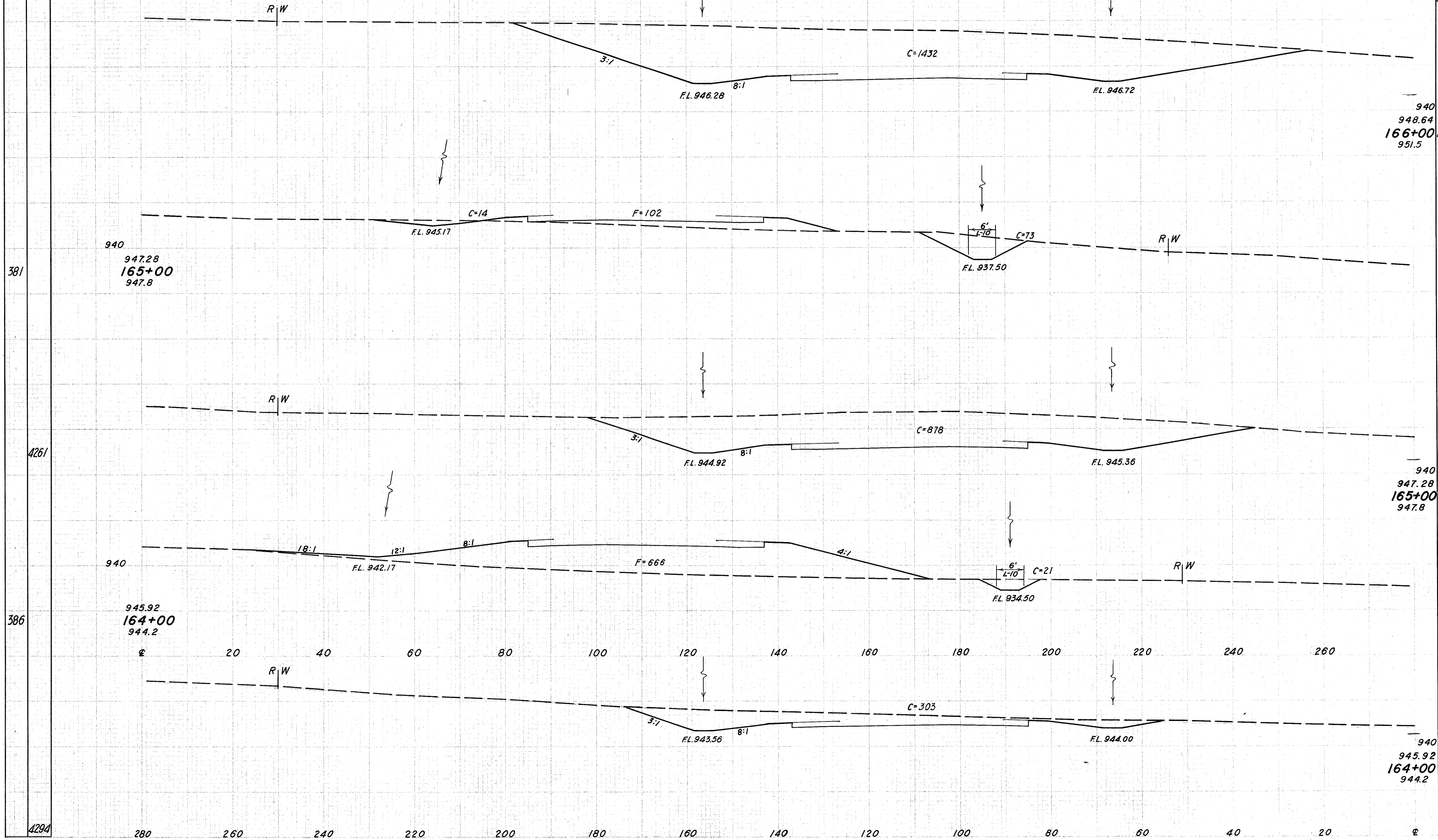
PLAN NO.
DATE
PROJECT

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377

WAR-25-848
MOT-25-000

20 ±

END AREA
CUT F.II
CU. YDS.
CUT F.II



381

940
947.28
165+00
947.8

940
948.64
166+00
951.5

4556 326

4261

940
947.28
165+00
947.8

965 102

386

940
945.92
164+00
944.2

2387 1422

4294

940
945.92
164+00
944.2

2750 2380

Sta. 164+00 to Sta. 166+00 Lt.

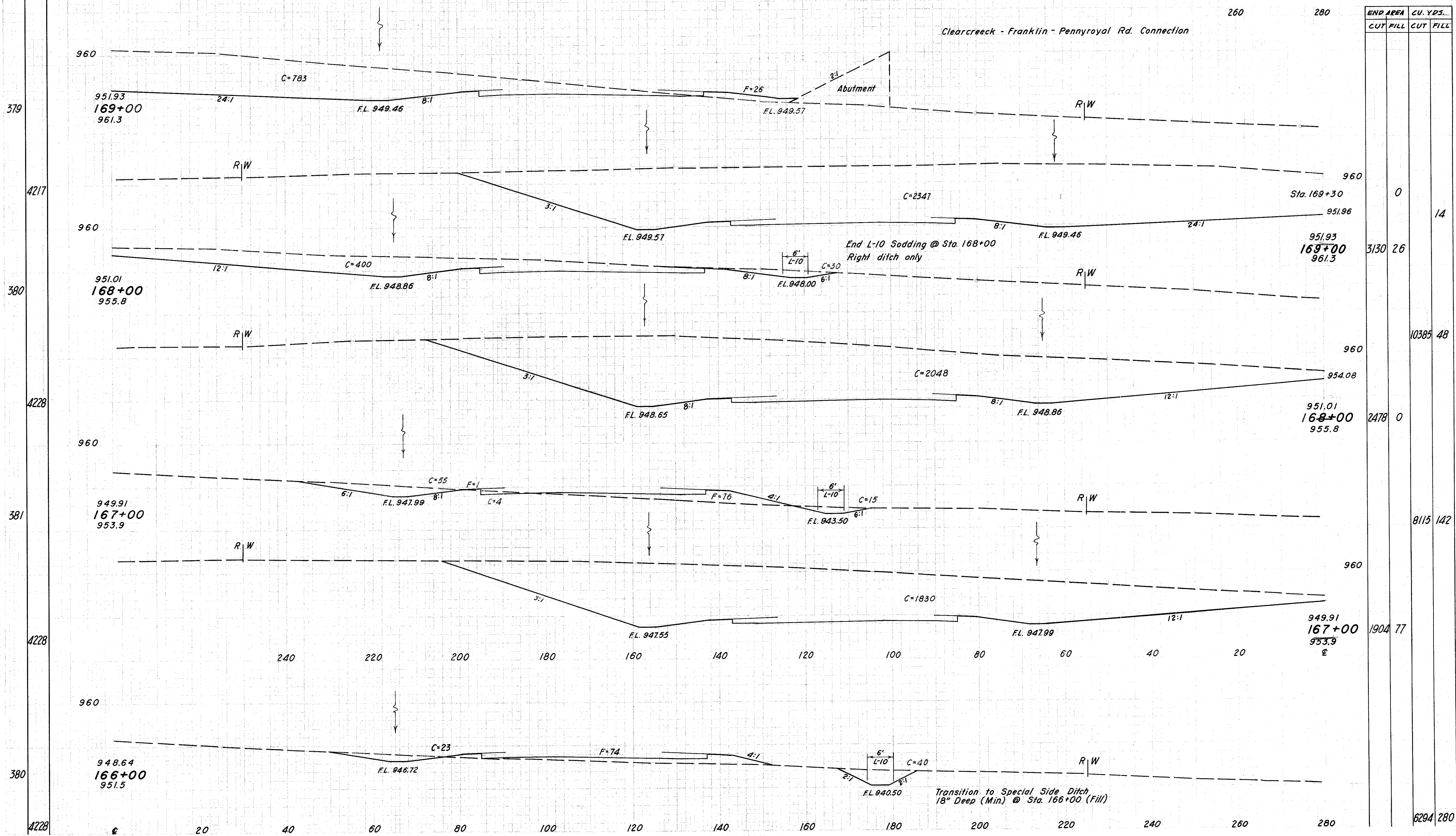
SEEDING
END SQ.
WIDTH YFS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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MOT-25-0.00

Clearcreek - Franklin - Pennyroyal Rd. Connection



END AREA	CU. YDS.
CUT	FILL

		0	14
3130	26		
		10385	48
		2478	0
		8115	142
		1904	77
		6294	280

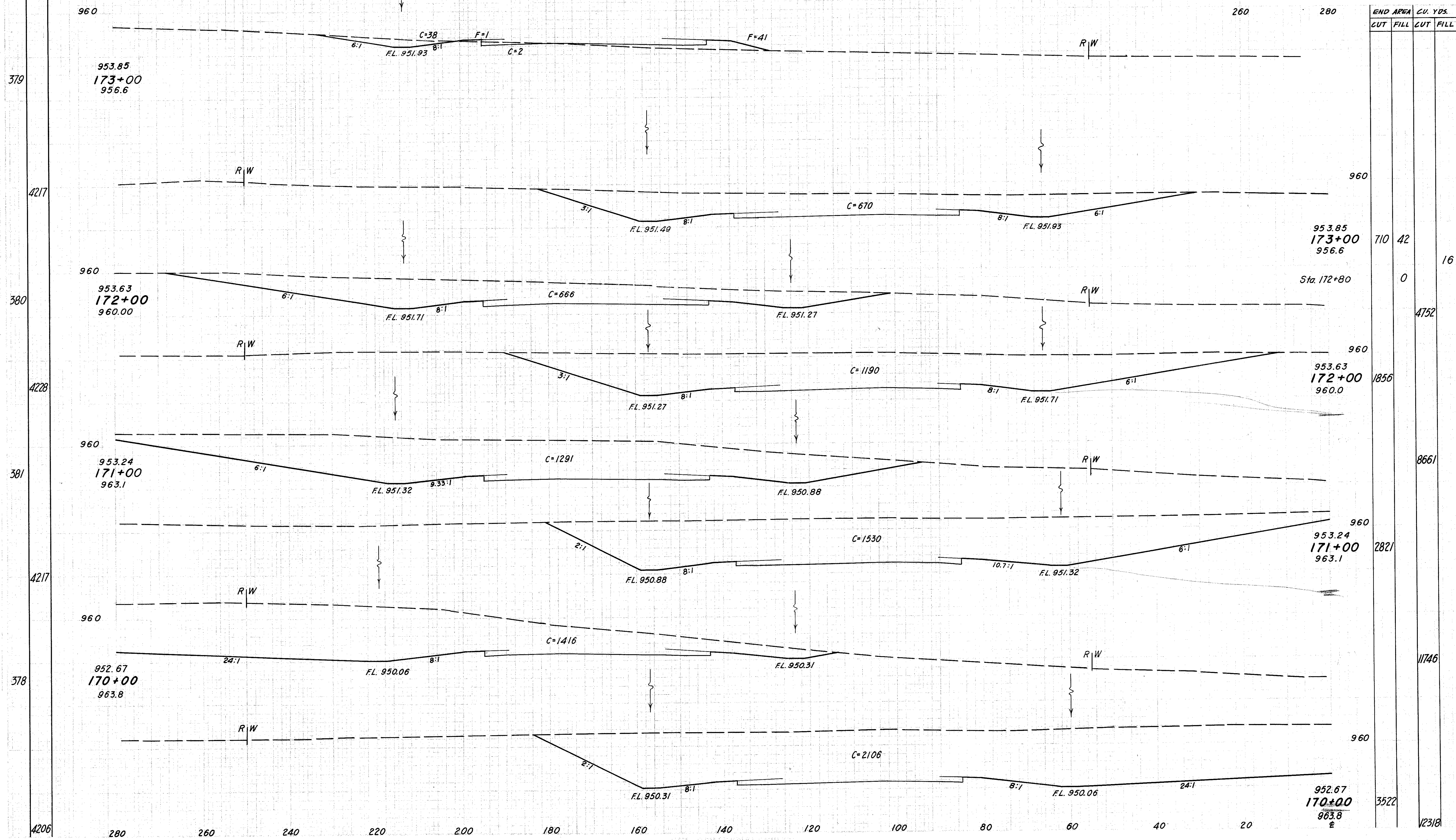
Sta. 166+00 Rt. To Sta. 169+00

SEEDING
END SP.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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377

WAR-25-848
MOT-25-0.00



END AREA	CU. YDS.	
	CUT	FILL
710	42	16
0	0	0
4752		
1856		
8661		
2821		
11746		
3522		
12318		

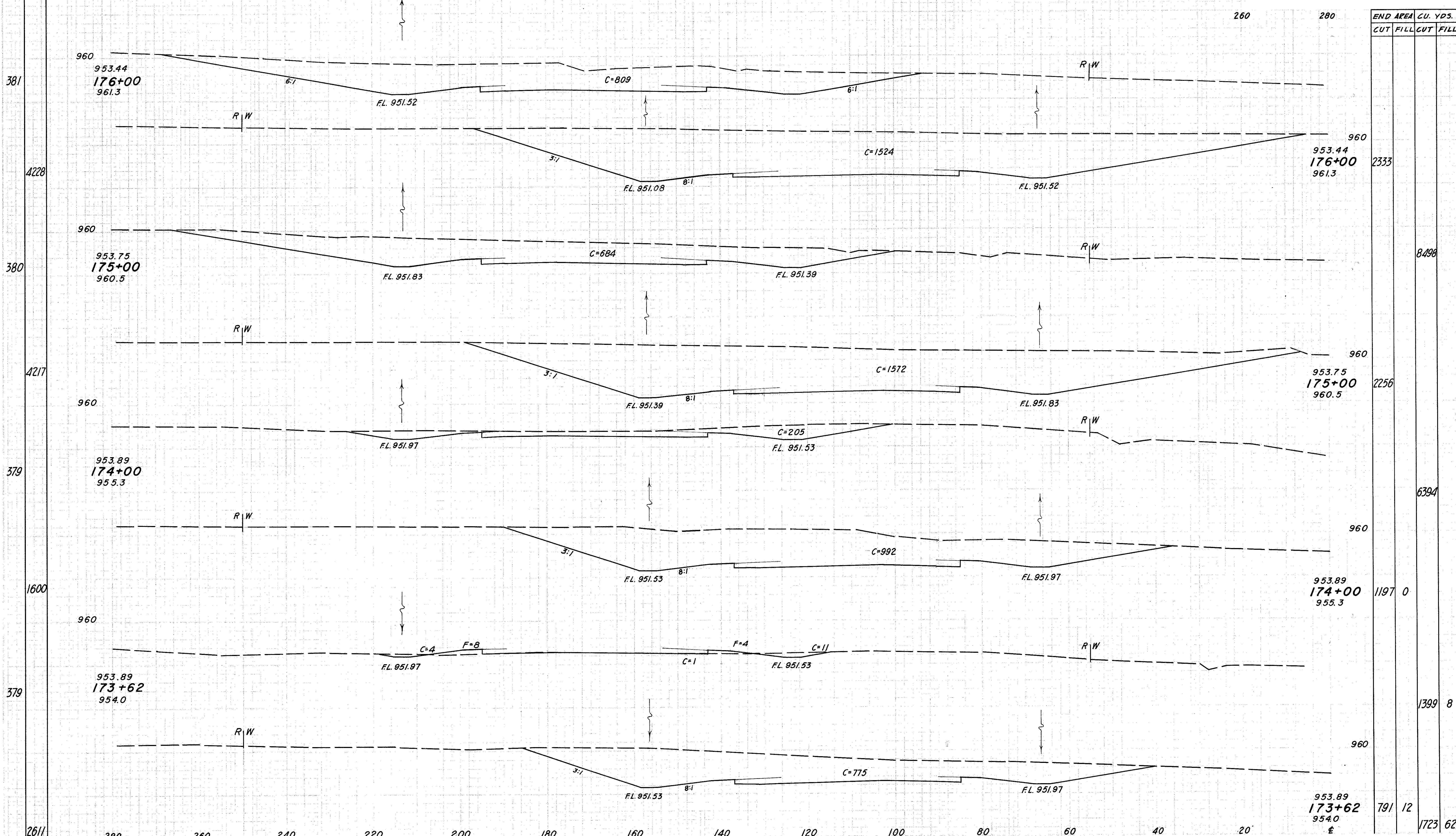
Sta. 170+00 To Sta. 173+00

SEEPING
END SP.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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MOT-25-000



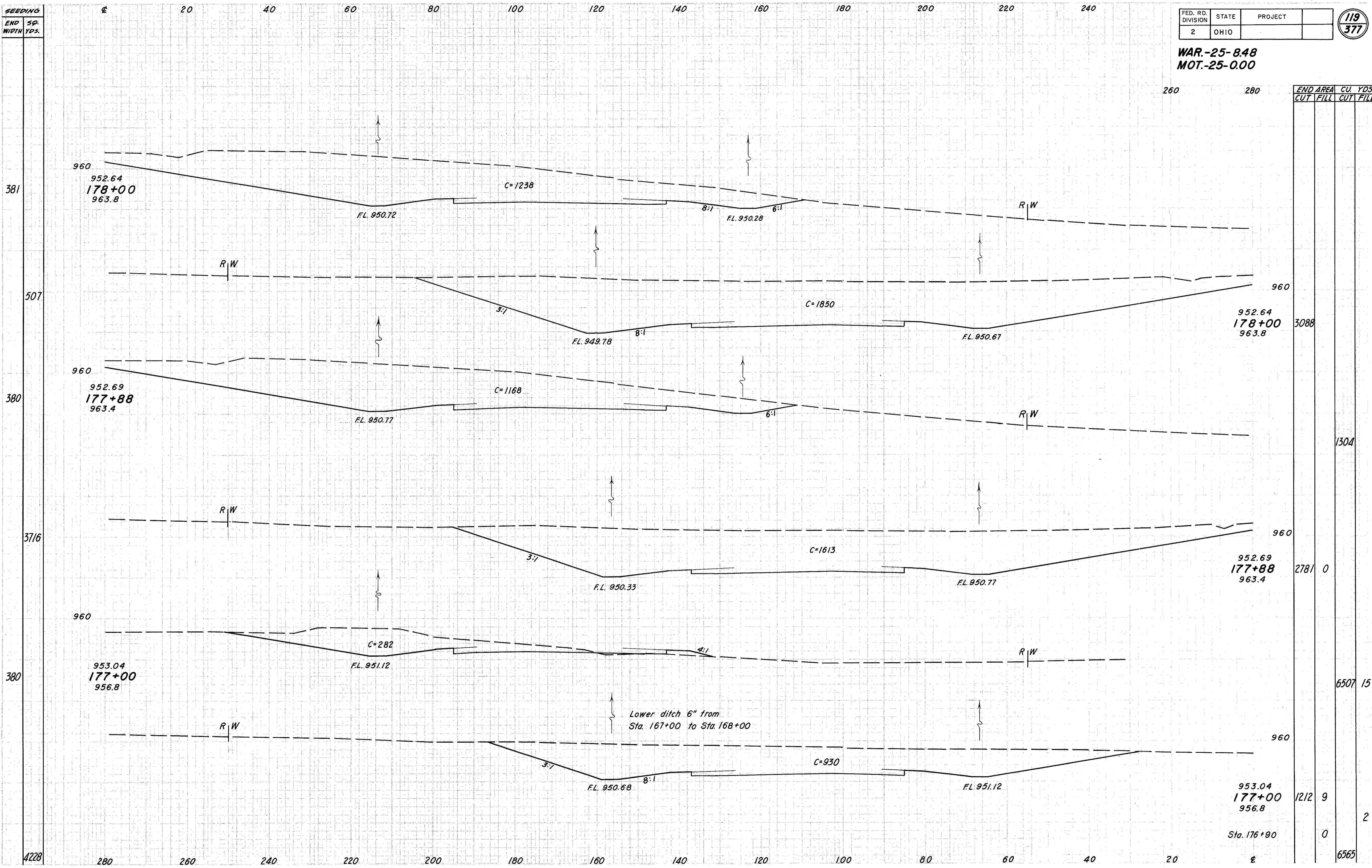
END AREA	CU. YDS.	
	CUT	FILL
2333		
8498		
2256		
6394		
1197	0	
1399	8	
791	12	
1723	62	

Sta. 173+62 to Sta. 176+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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WAR.-25-848
MOT.-25-0.00



END STA.	AREA CUT	AREA FILL	CU. YDS. CUT	CU. YDS. FILL
178+00	3088	0	0	0
177+88	2781	0	0	0
177+00	1212	9	9	2
Sta. 176+90	0	0	0	0
176+90	6507	15	15	2
176+00	6565	0	0	0

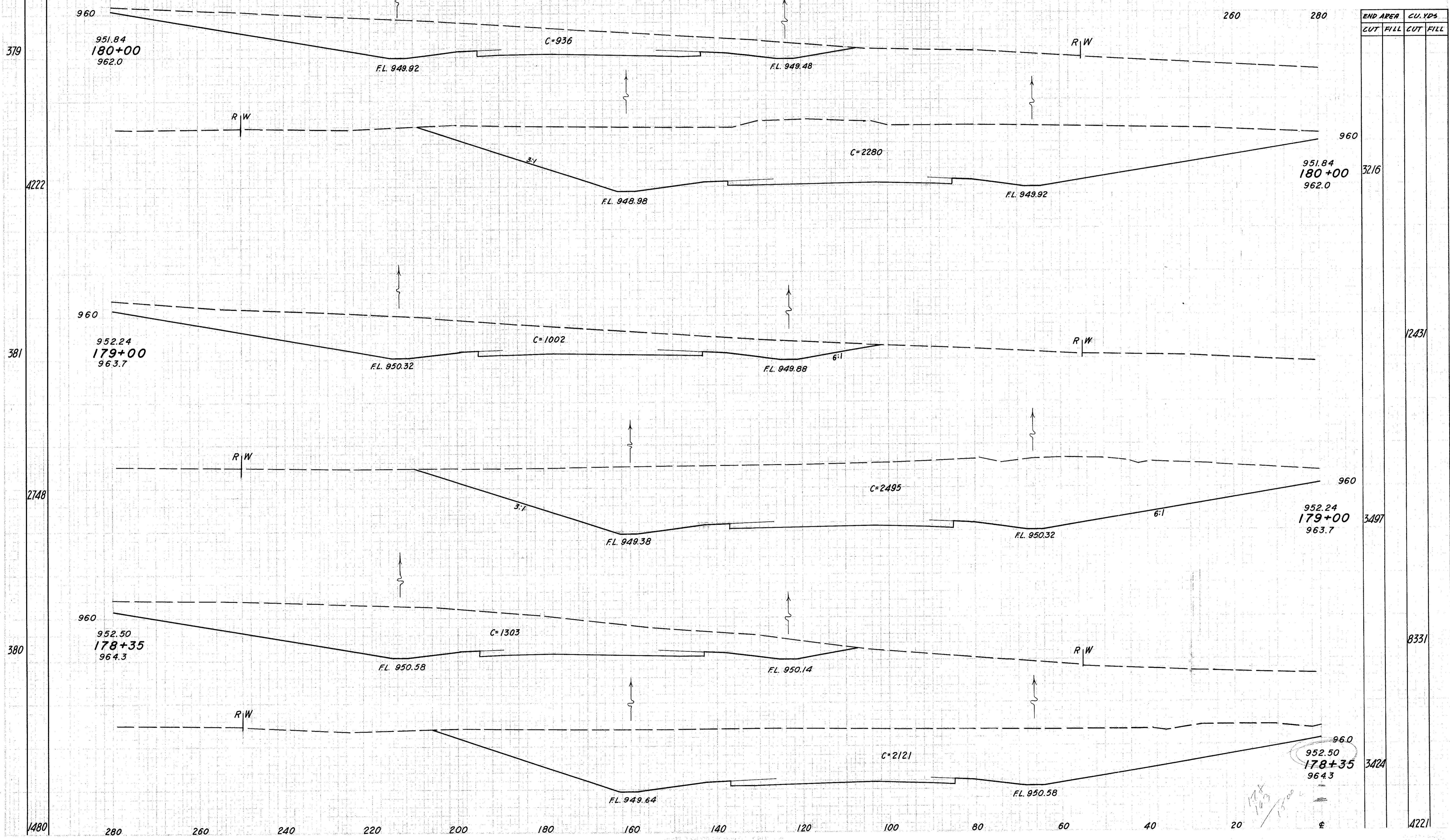
Sta. 177+00 to Sta. 178+00

SEEDING
END SP.
WIDTH YFS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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377

WAR-25-8.48
MOT-25-0.00



END AREA	CU. YDS	
	CUT	FILL
3216		
12431		
3497		
8331		
3424		
4221		

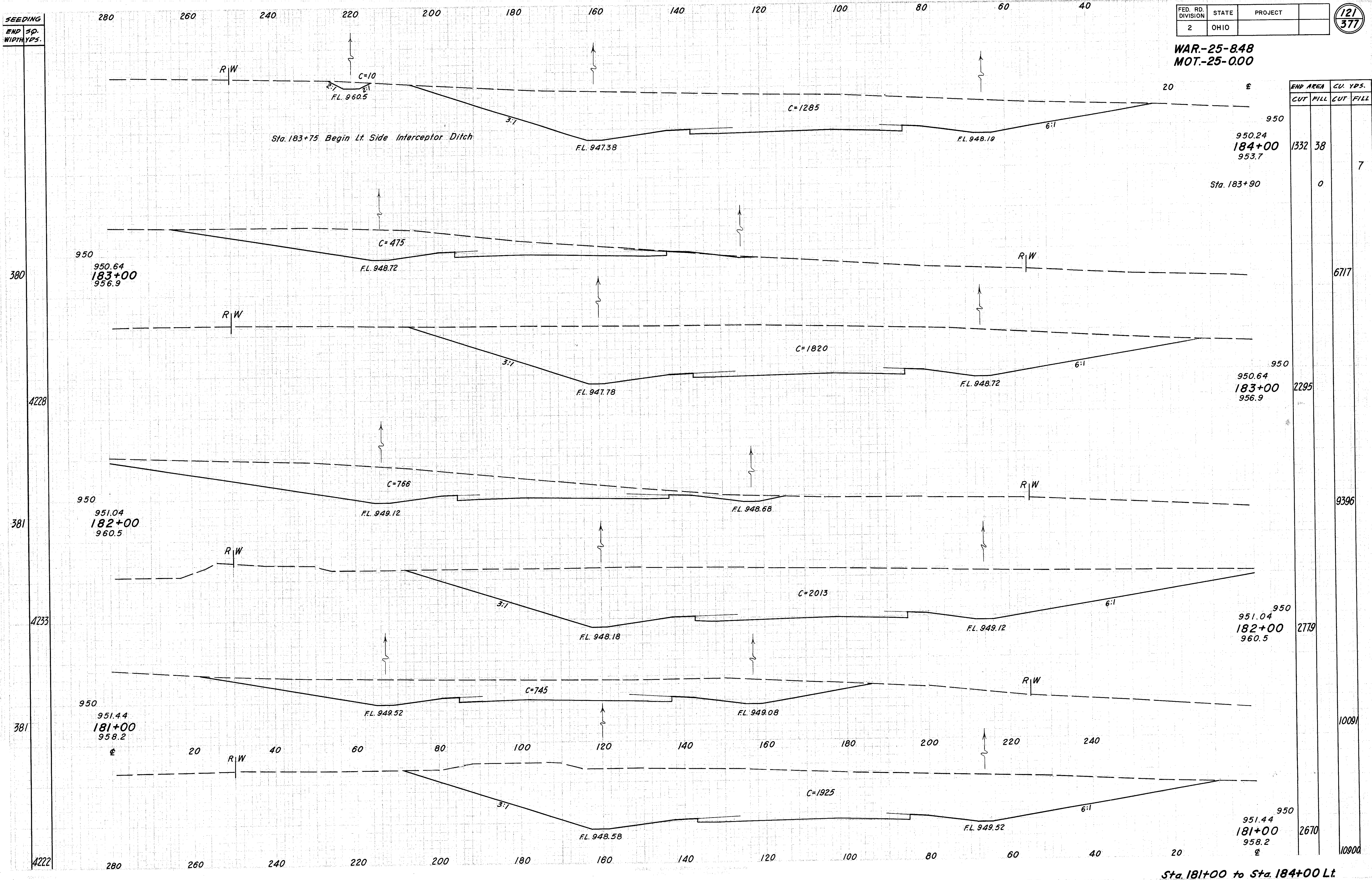
Sta. 178+35 To Sta. 180+00

SEEDING
END SP.
WIDTHS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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WAR-25-848
MOT-25-000



END AREA	CU. YDS.	
	CUT	FILL
950	1332	38
950.24 184+00 953.7		7
950	0	
950.64 183+00 956.9		6717
950	2295	
950.64 183+00 956.9		9396
950	2779	
951.04 182+00 960.5		10091
950	2670	
951.44 181+00 958.2		10900

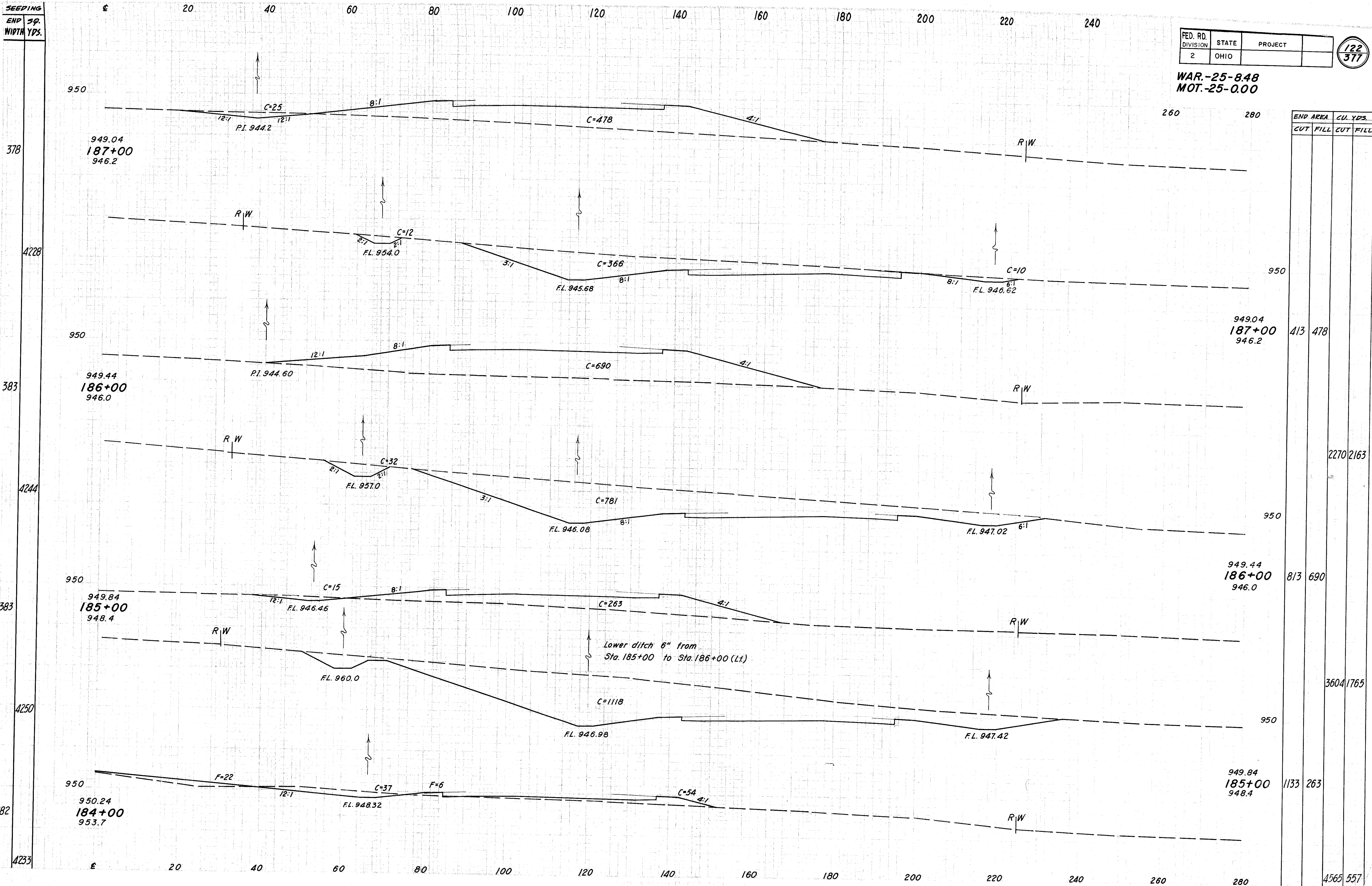
Sta. 181+00 to Sta. 184+00 Lt.

SEEDING
ENP SP.
WIDTH YPS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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377

WAR.-25-8.48
MOT.-25-0.00

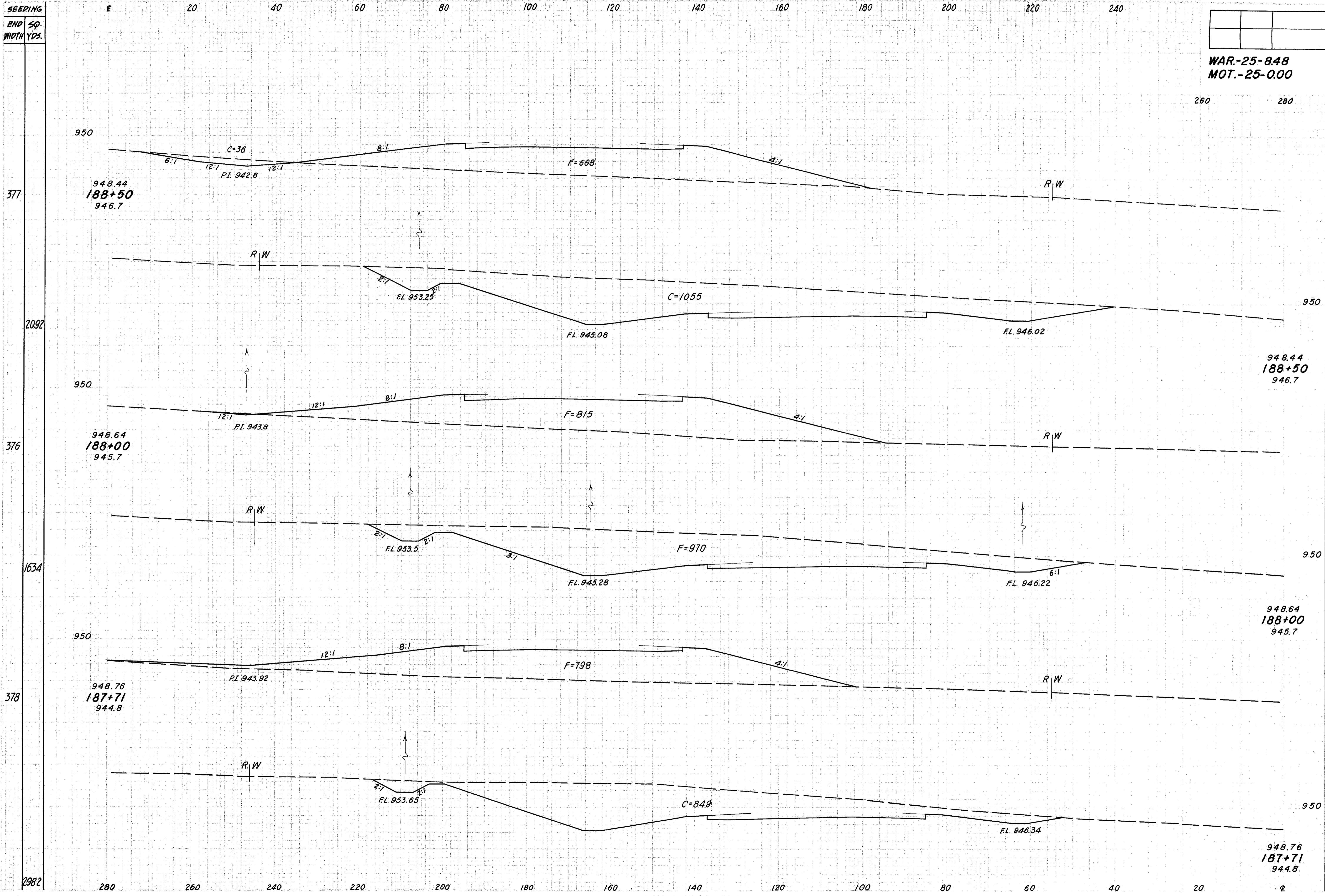


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
413	478		
2270	2163		
813	690		
3604	1765		
1133	263		
4565	557		

SEEPING
END SP.
WIDTH YDS.

			123 377

WAR.-25-8.48
MOT.-25-0.00



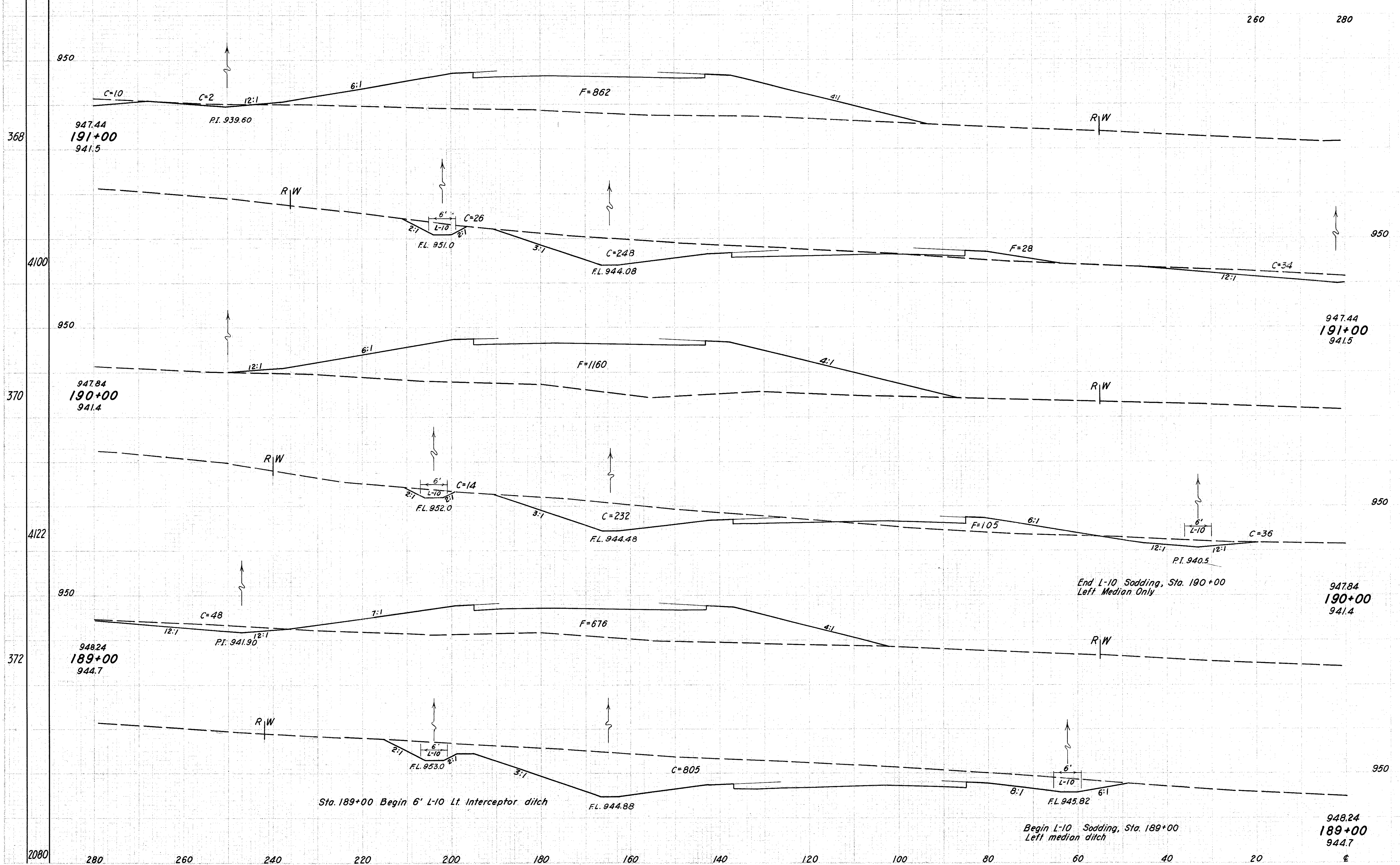
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
1091	668		
1908	1373		
970	815		
977	866		
849	798		
1659	1678		

Sta. 187+71 to Sta. 188+50

SEEDING
END 3/4
WIDTH YDS.

WAR.-25-8.48
MOT.-25-0.00

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377

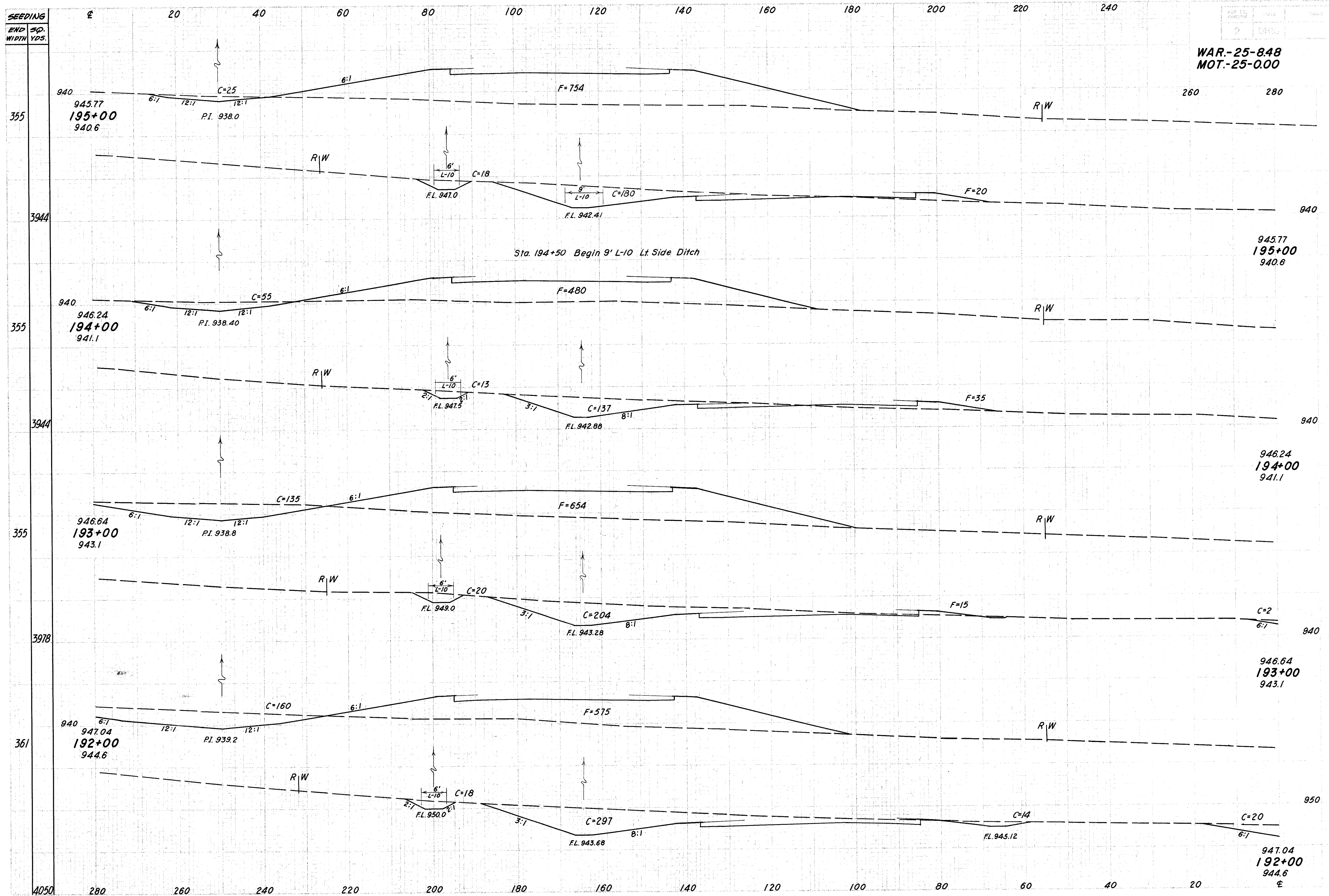


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
320	890		
1115	3991		
282	1265		
2102	3594		
853	676		
1800	1244		

Sta. 189+00 to Sta. 191+00

WAR-25-848
MOT-25-000

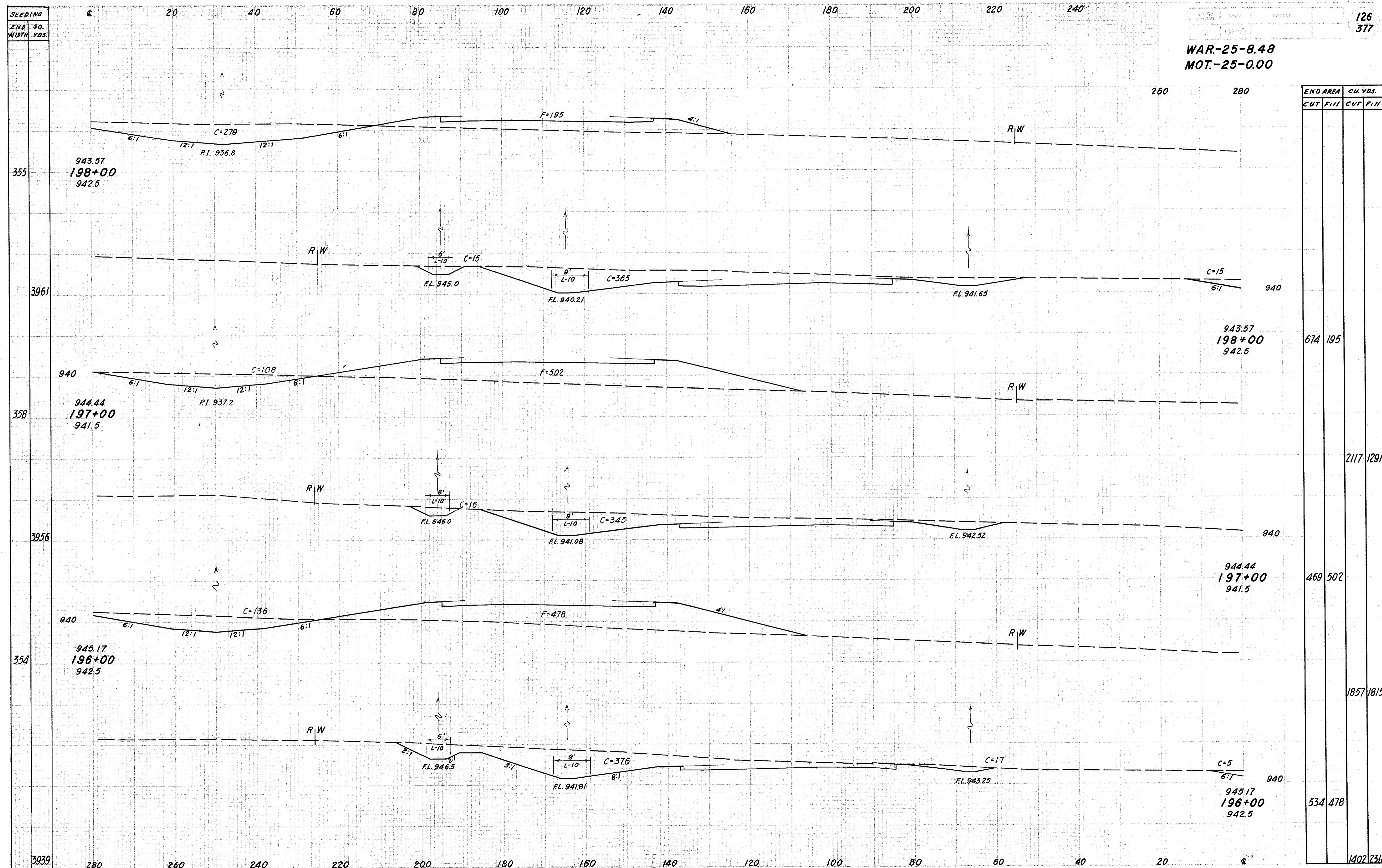
125
377



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		260	280
223	774		
		792	2387
205	515		
		1048	2192
361	669		
		1611	2304
509	575		
		1685	2713

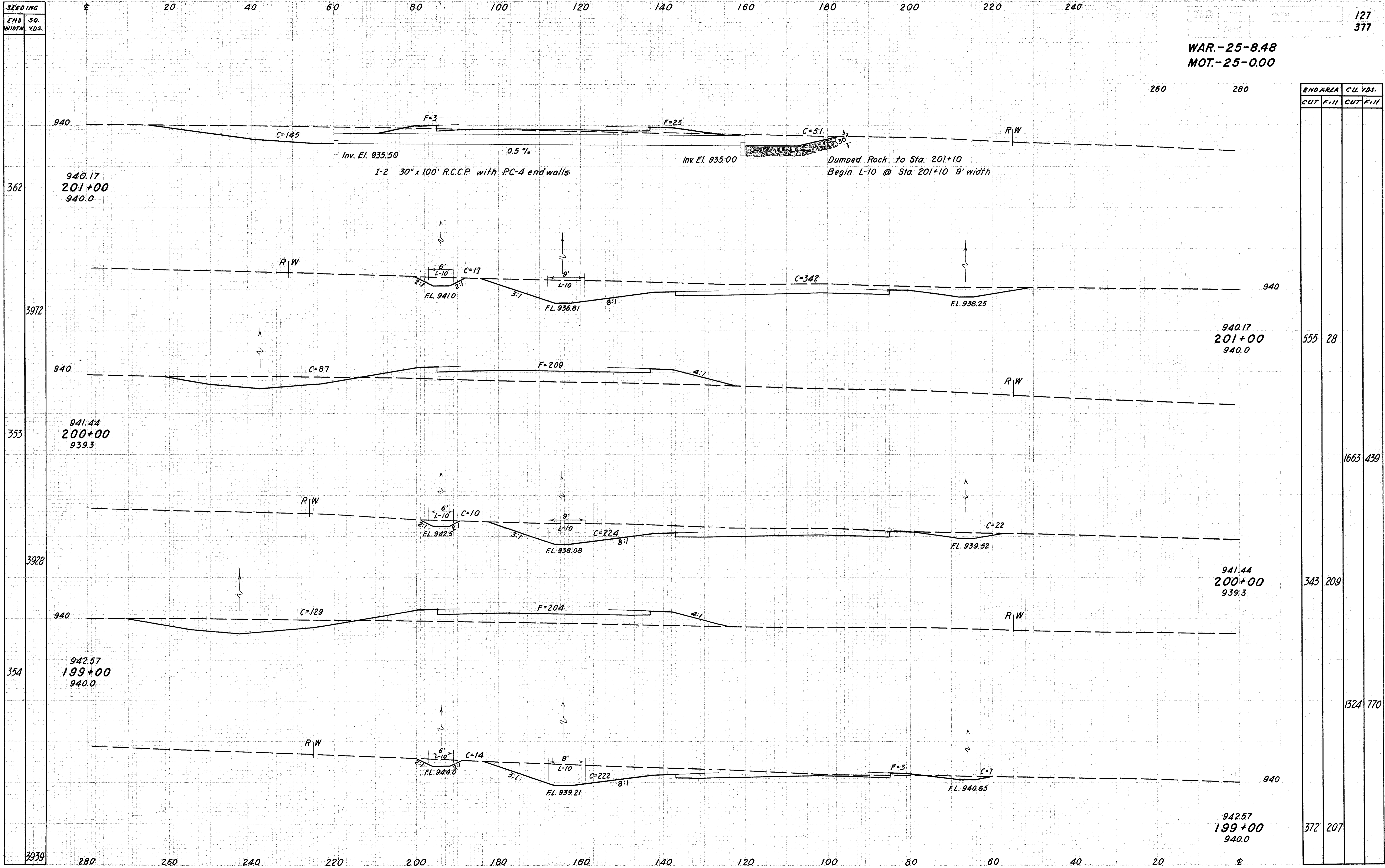
Sta. 192+00 to Sta. 195+00

WAR-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
674	195		
		2117	1291
469	502		
		1857	1815
534	478		
		1402	2318

Sta. 196+00 to Sta. 198+00



WAR.-25-8.48
MOT.-25-0.00

127
377

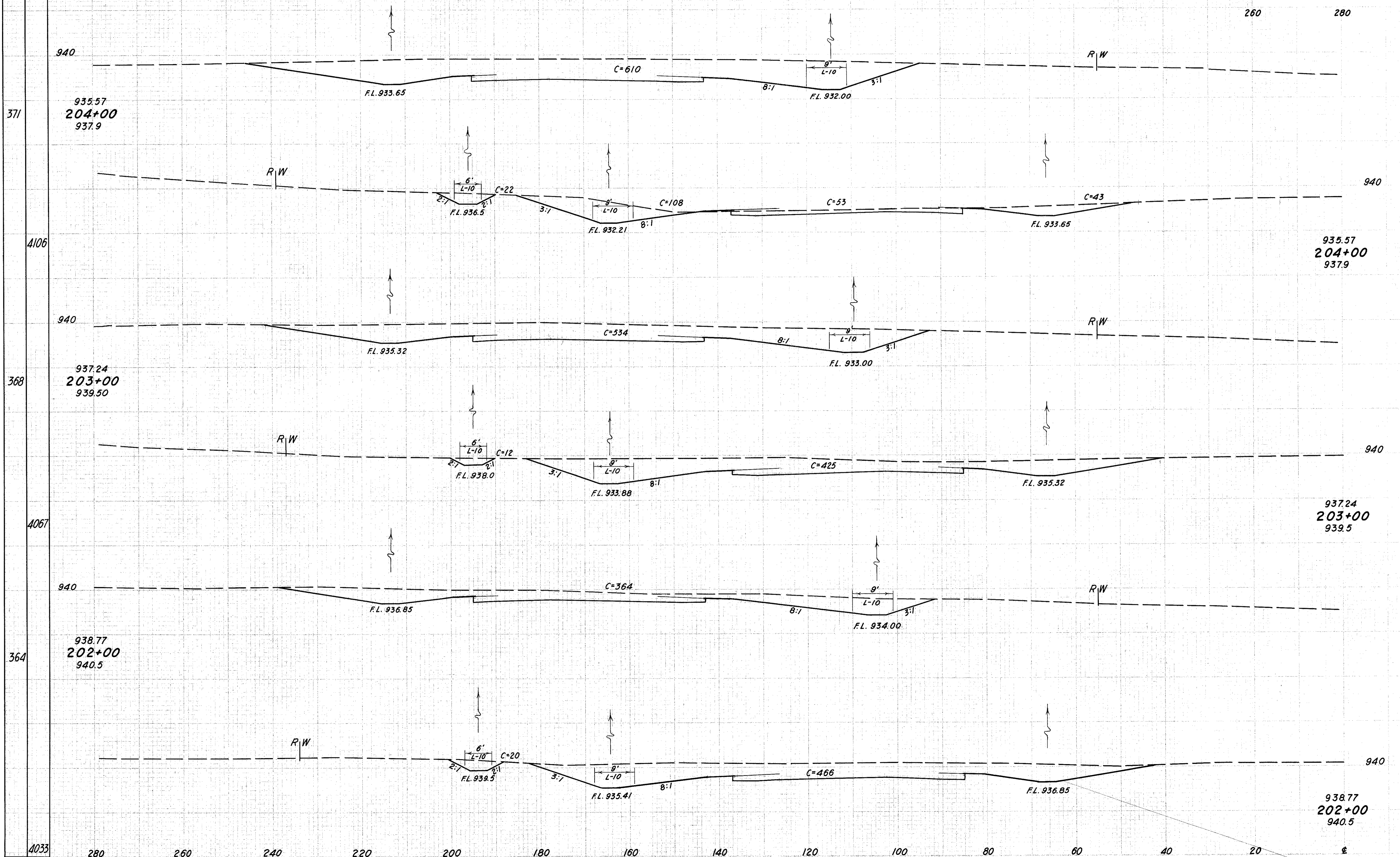
END AREA	C.U. YDS.
CUT F.I.I	CUT F.I.I
555	28
1663	439
343	209
1324	770
372	207

Sta.199+00 to Sta.201+00

SEEDING
END SQ.
WIDTH YDS.

128
377

WAR.-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
826			
3328			
971			
3372	0		
850	0		
2602	52		

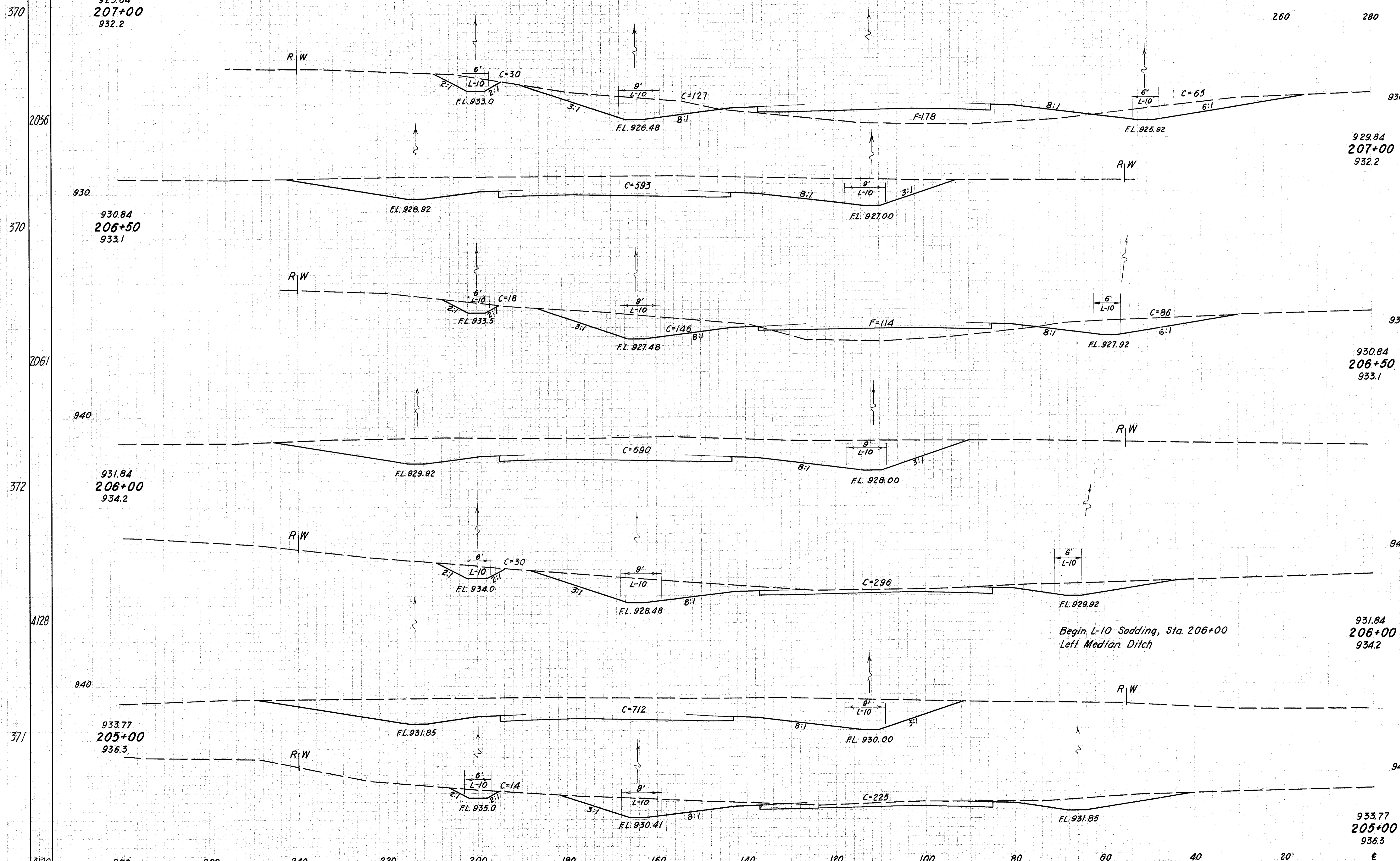
Sta. 202+00 to Sta. 204+00

SEEDING
END SQ.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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377

WAR-25-8.48
MOT-25-0.00



END AREA	C.U. YDS.	
	CUT	FILL
774	178	
1497	270	
843	114	
1721	106	
1016	0	
3642		
951		
3291		

Sta. 205+00 to Sta. 207+00

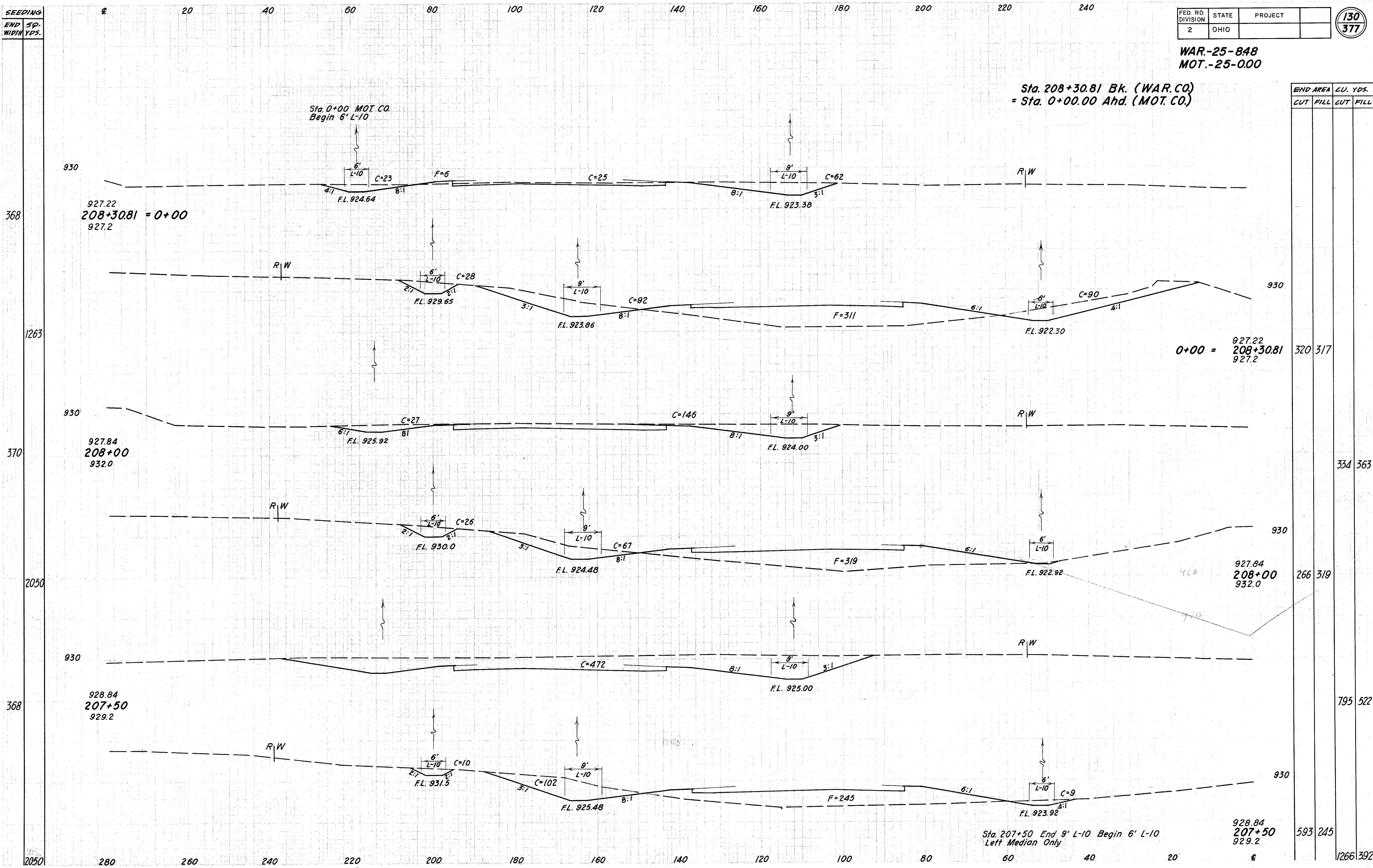
SEEDING
END SP.
WIDTH YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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377

WAR-25-848
MOT.-25-000

Sta. 208+30.81 Bk. (WAR. CO)
= Sta. 0+00.00 Ahd. (MOT. CO)



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
320	317		
266	319		
593	245		
1266	392		

0+00 = 927.22
208+30.81
927.2

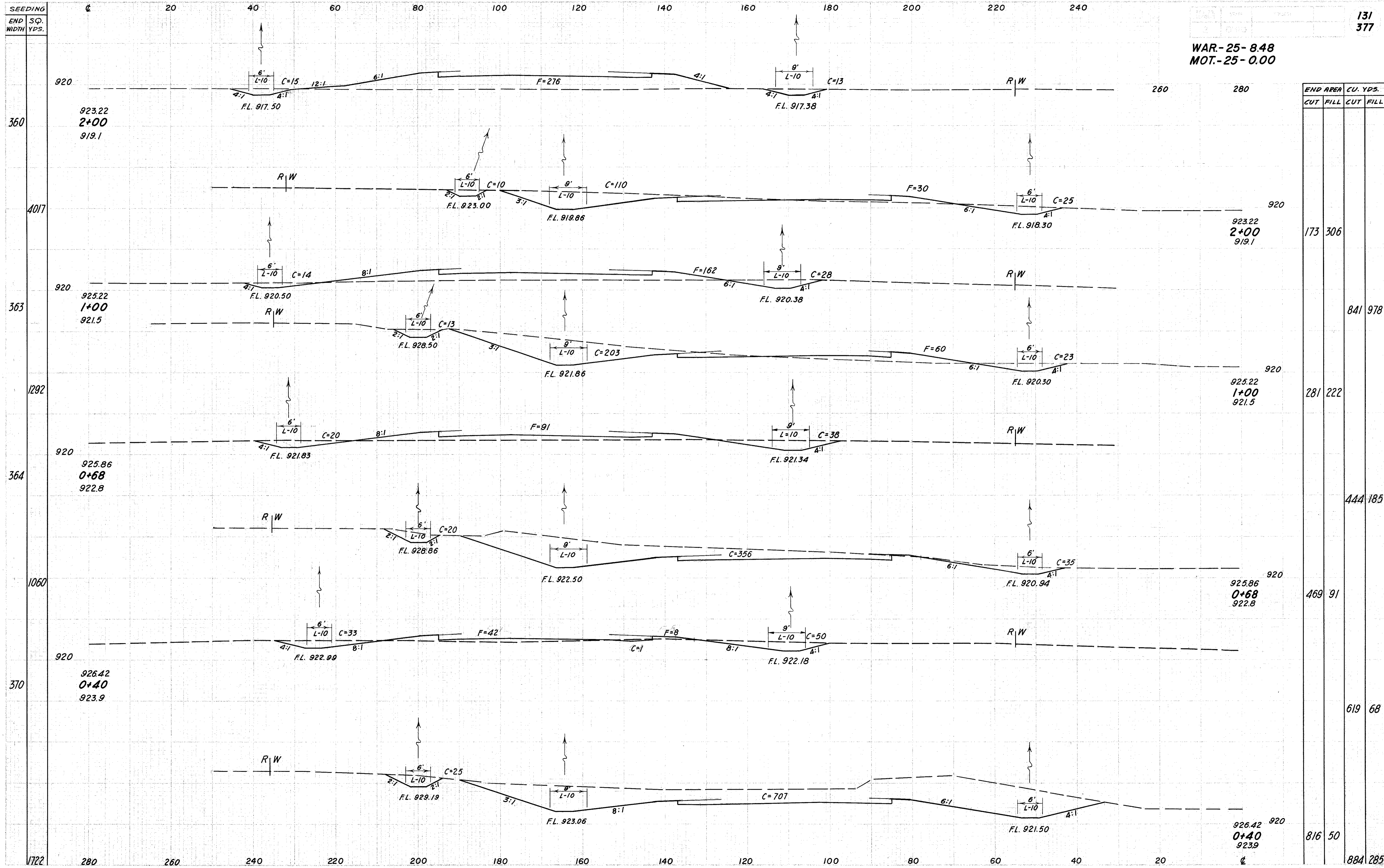
927.84
208+00
932.0

928.84
207+50
929.2

Sta. 207+50 End 9' L-10 Begin 6' L-10
Left Median Only

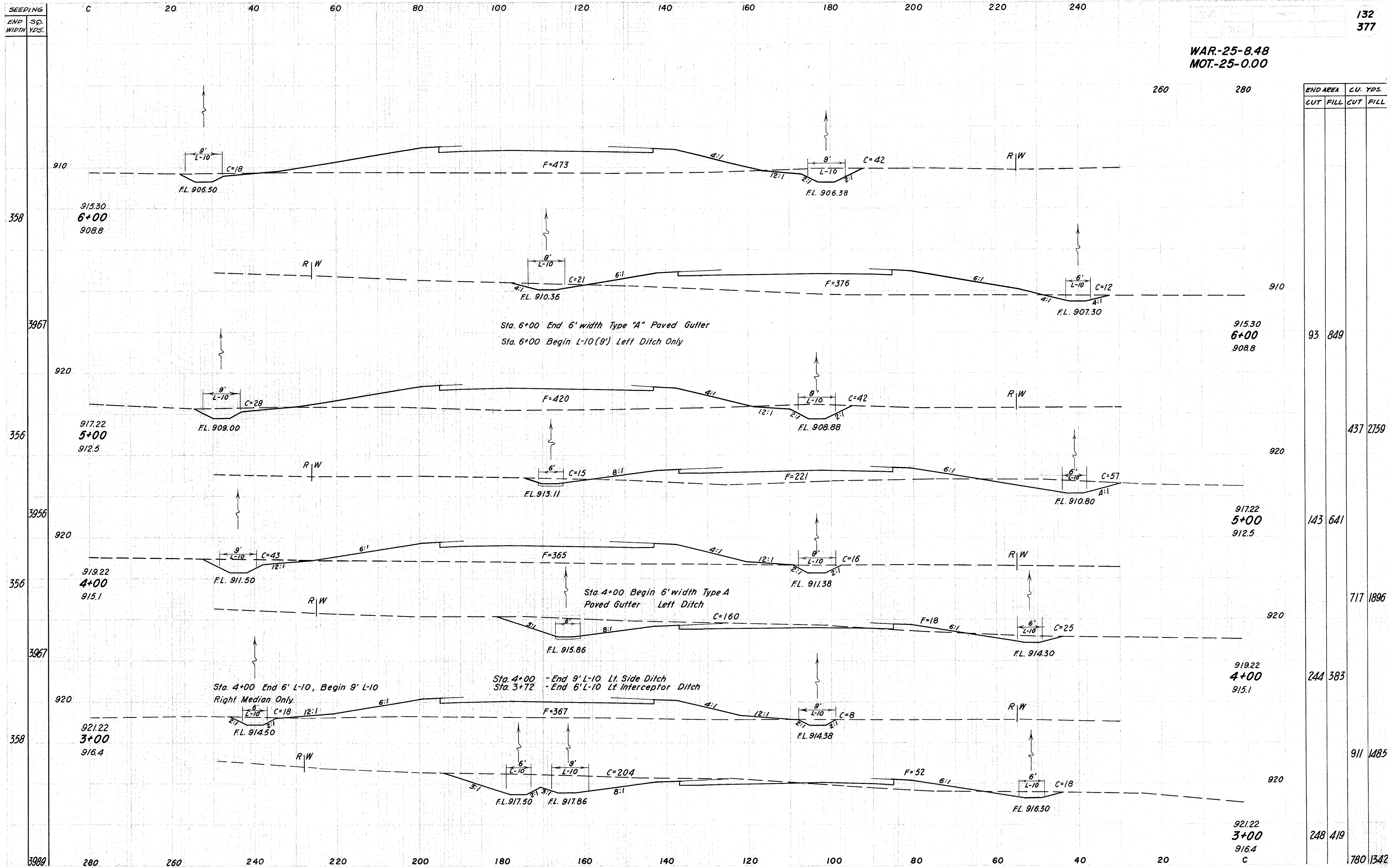
Sta. 207+50 to Sta. 208+30.81

WAR-25-8.48
MOT.-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
173	306		
		841	978
281	222		
		444	185
469	91		
		619	68
816	50		
		884	285

WAR-25-8.48
MOT-25-0.00



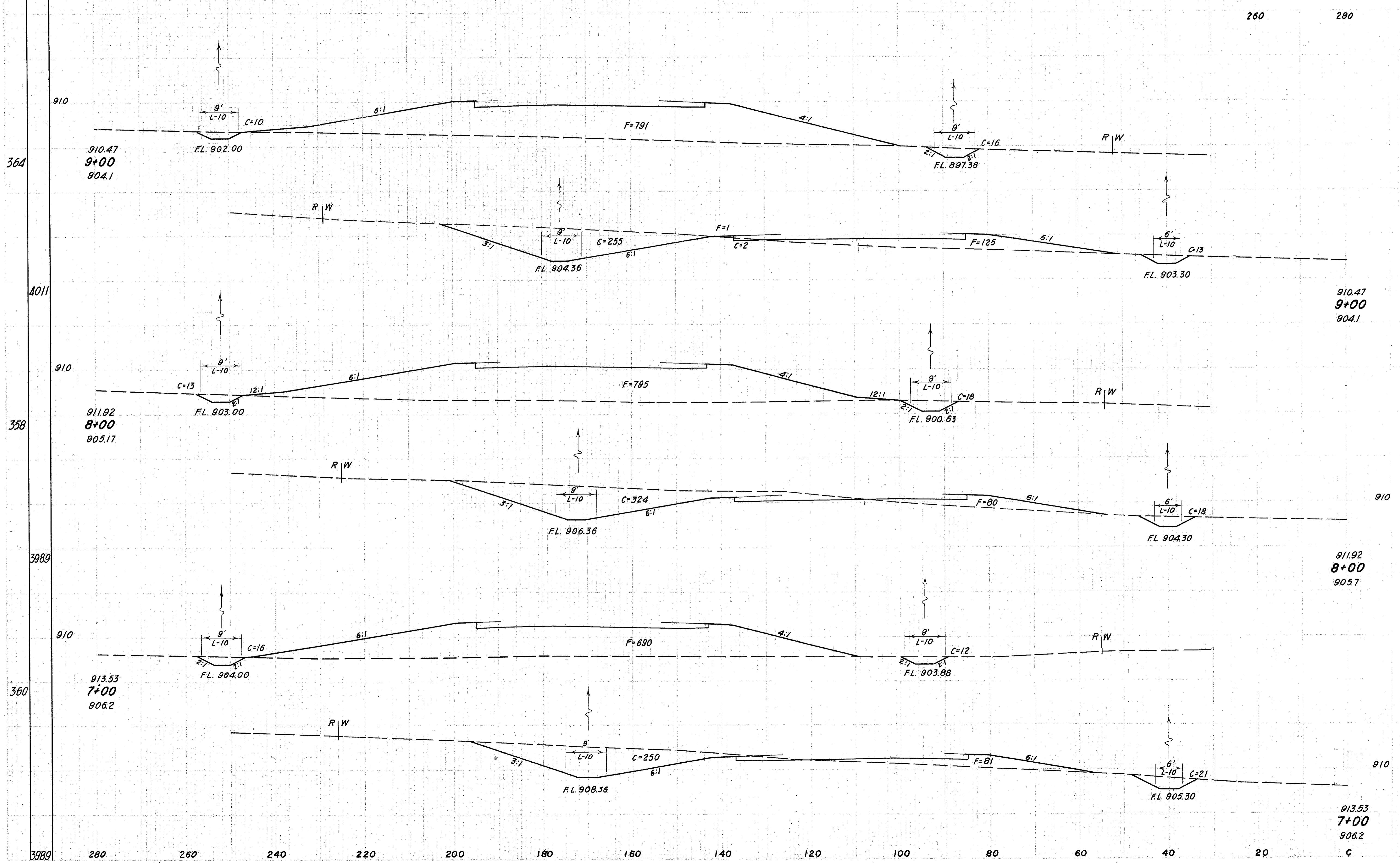
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		93	849
		437	2759
		143	641
		717	1896
		244	383
		911	1485
		248	419
		780	1342

Sta. 3+00 To Sta. 6+00

SEEPING
END SQ.
WIDTH YDS.

133
377

WAR-25-8.48
MOT-25-0.00



260 280

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

296	917
-----	-----

1239	3318
------	------

373	875
-----	-----

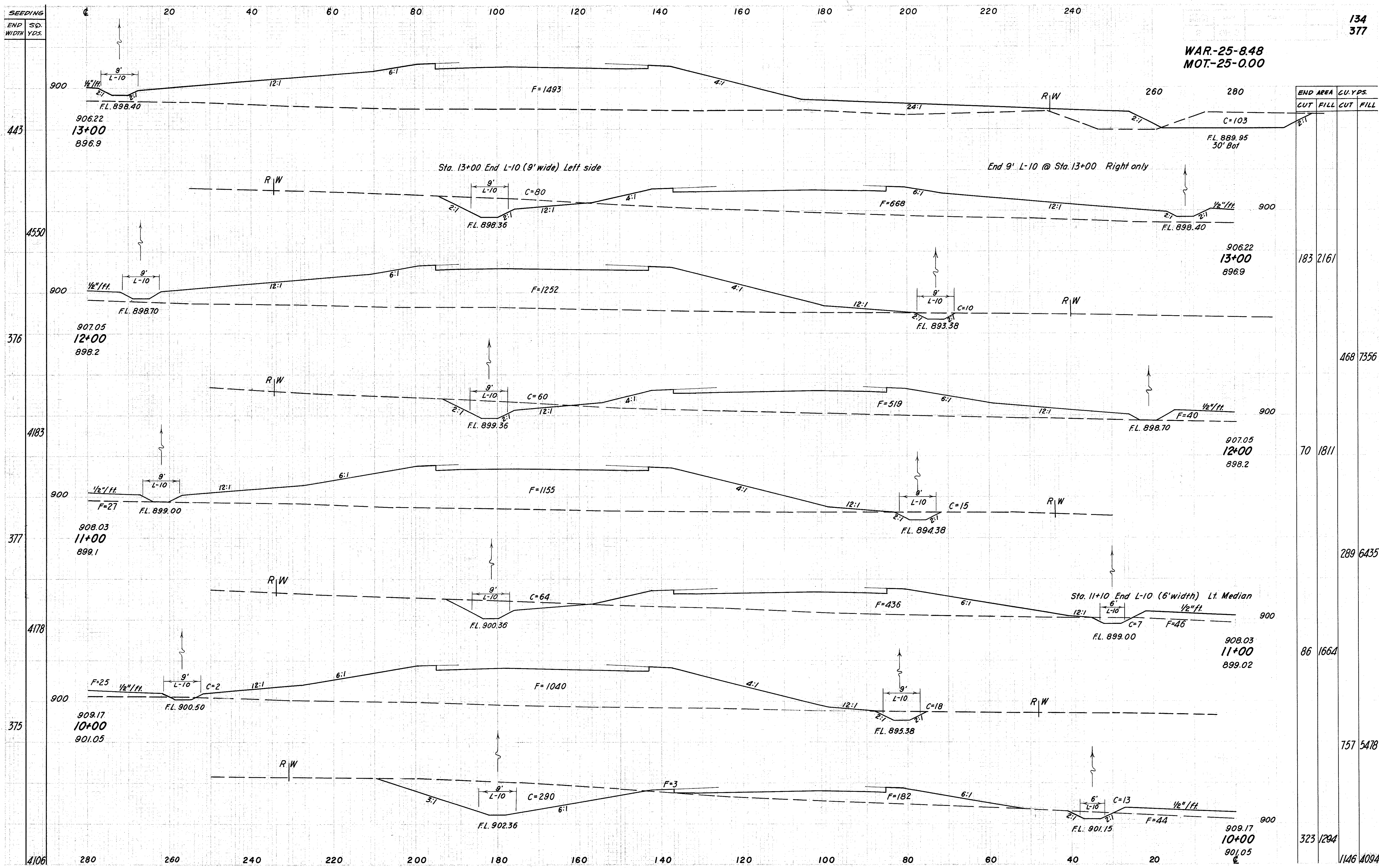
1244	3048
------	------

299	771
-----	-----

726	3000
-----	------

Sta. 7+00 to Sta. 9+00

WAR-25-848
MOT-25-0.00



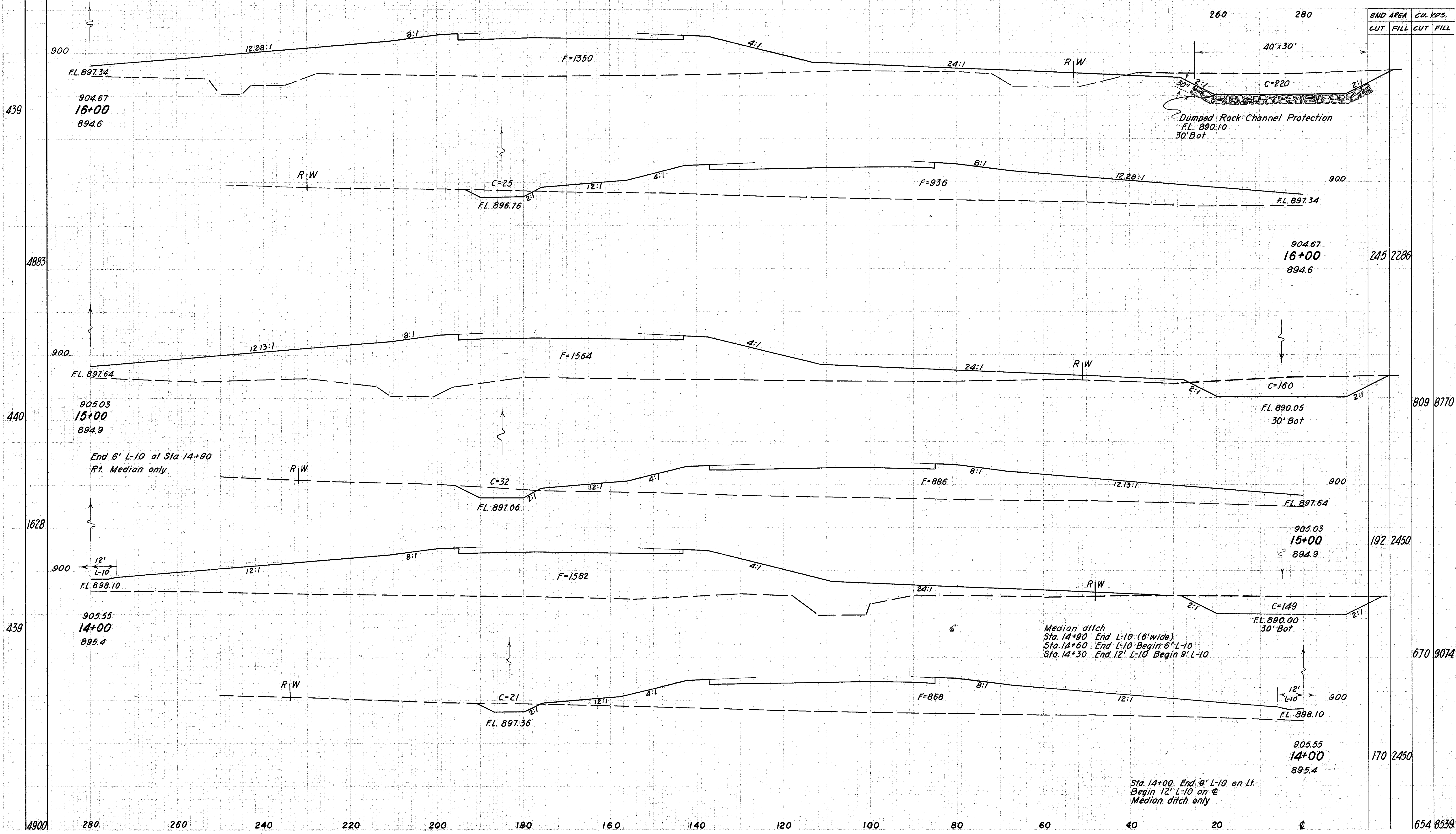
260	280	183	2161
70	1811	289	6435
86	1664	1757	5478
323	1294	1146	4094

Sta. 10+00 to Sta. 13+00

SEEDING
END SQ.
WIDTH YDS.

135
377

WAR-25-848
MOT-25-0.00



Median ditch
Sta. 14+90 End L-10 (6' wide)
Sta. 14+60 End L-10 Begin 6' L-10
Sta. 14+30 End 12' L-10 Begin 9' L-10

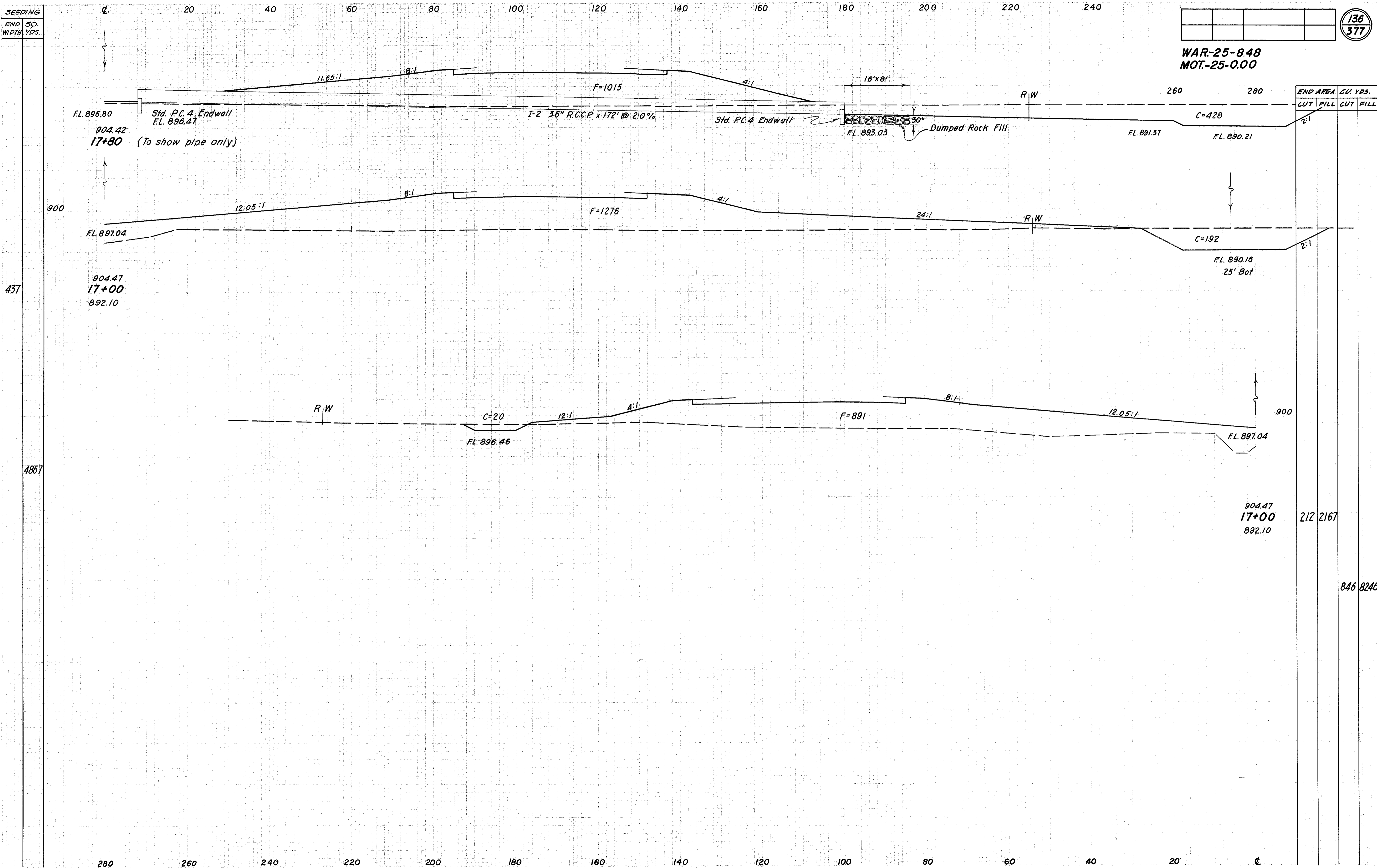
Sta. 14+00: End 9' L-10 on Lt.
Begin 12' L-10 on &
Median ditch only

Sta. 14+00 to Sta. 16+00

SEEDING
END 50.
WIDTH YDS.

136
377

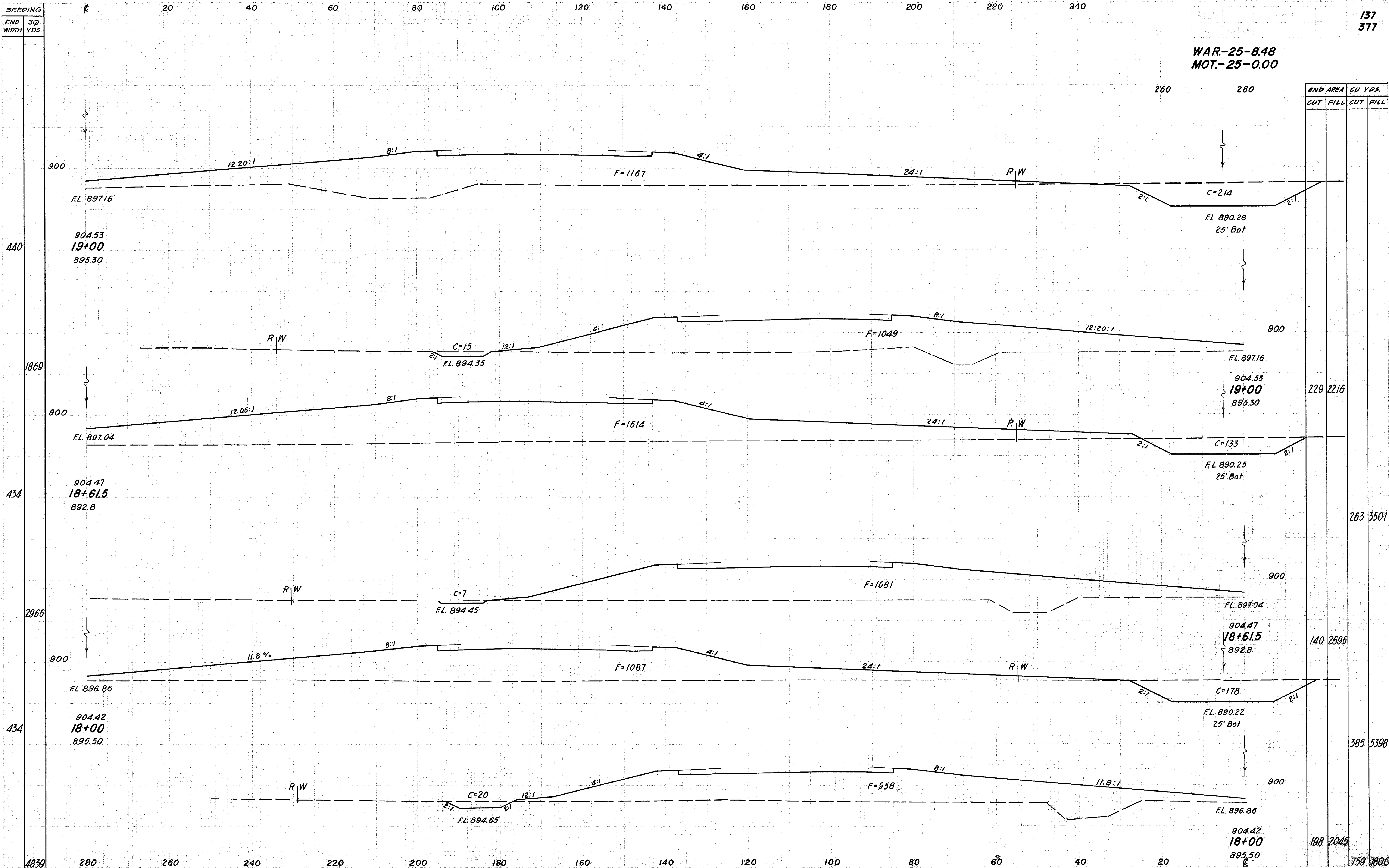
WAR-25-848
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
260	280		
212	2167		
		846	8246

Sta. 16+97 To Sta. 17+00Rt.

WAR-25-8.48
MOT.-25-0.00



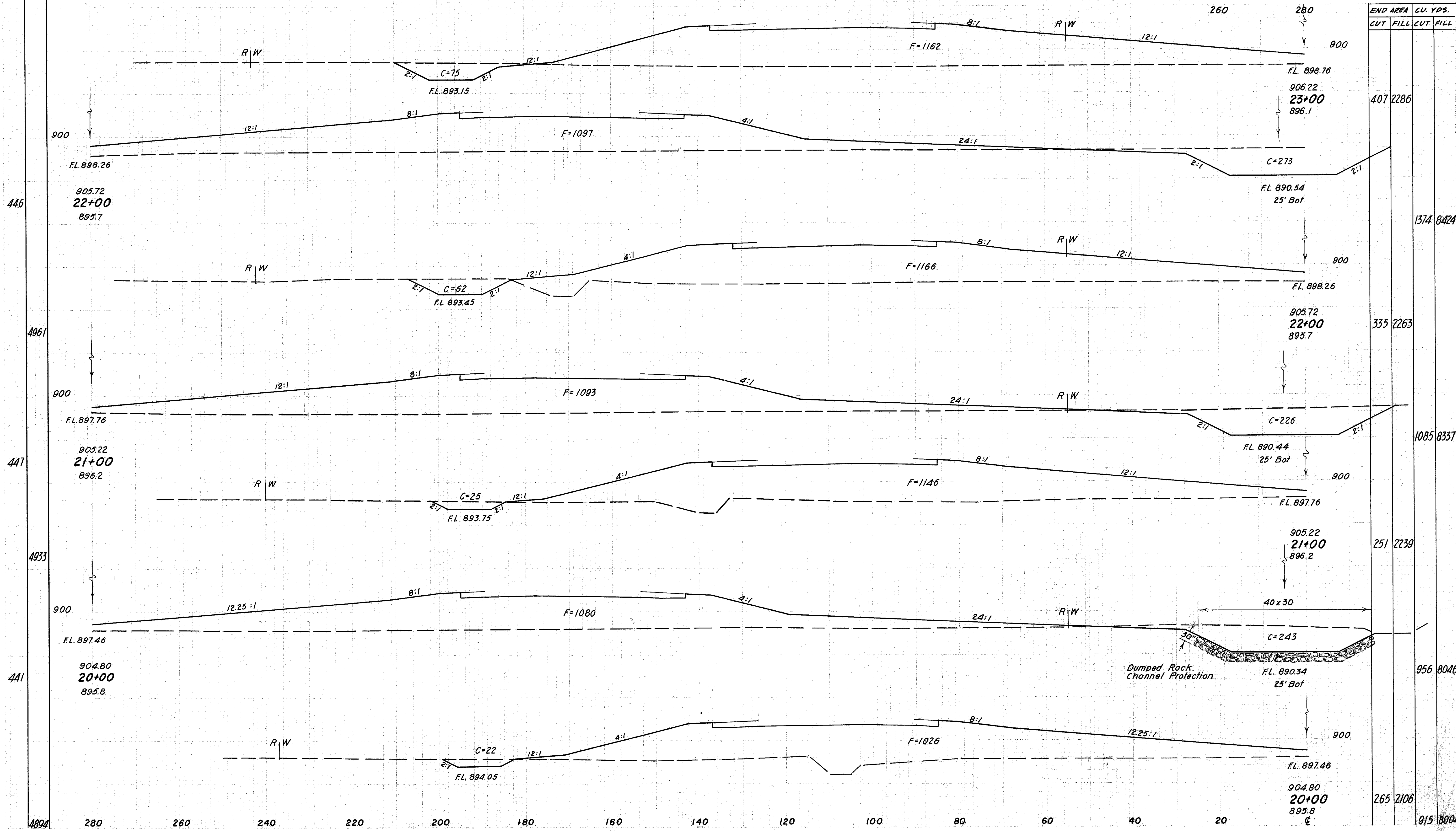
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
229	2216		
263	3501		
140	2695		
385	5398		
198	2045		
		759	7800

Sta. 18+00 To Sta. 19+00

SEEDING
END
WIDTH
YDS.

138
377

WAR-25-8.48
MOT.-25-0.00

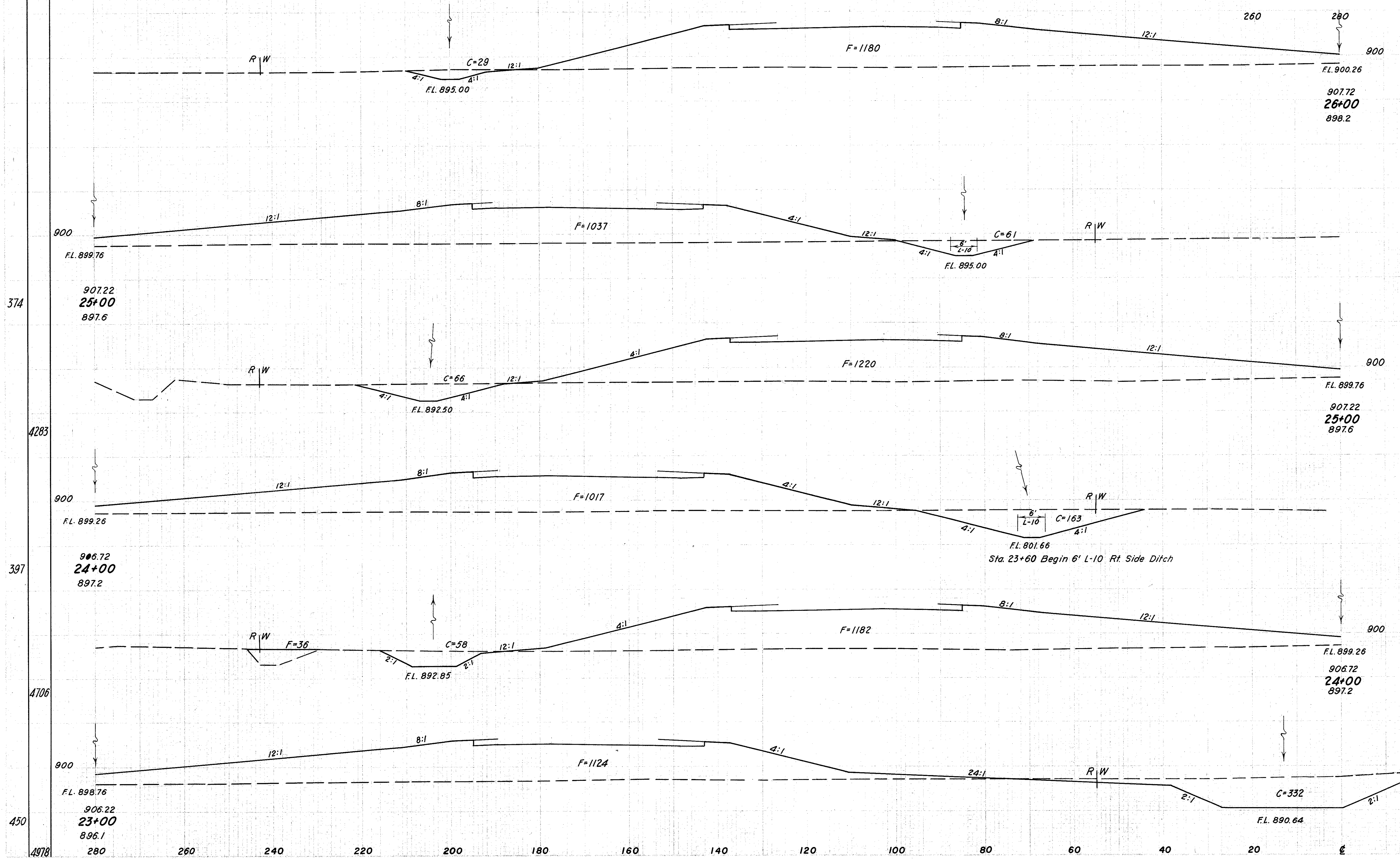


Sta. 20+00 To Sta. 23+00 Lt.

SEEDING
END WIDTH
30
YDS.

139
377

WAR-25-8.48
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
84	2196		
391	8246		
127	2257		
644	8318		
221	2235		
1163	8372		

374

4283

397

4706

450

4978

Sta. 23+00 Rt. to Sta. 26+00 Lt.

260 280

900

908.22
27+00
898.7

R|W

R|W

900

908.22
27+00
898.7

0 0

900

FL. 900.26

12:1

8:1

F=1016

4:1

12:1

4:1

6'

L-10

C=55

FL. 896.00

R|W

End 6' L-10 Rt. side ditch Sta. 26+00

907.72
26+00
898.3

364

4100 280

260

240

220

200

180

160

140

120

100

80

60

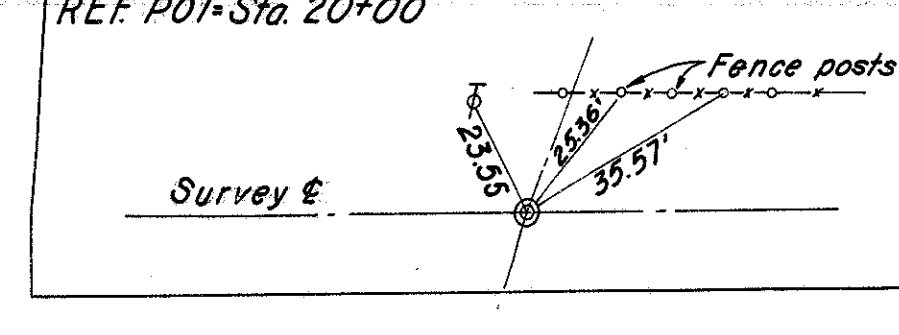
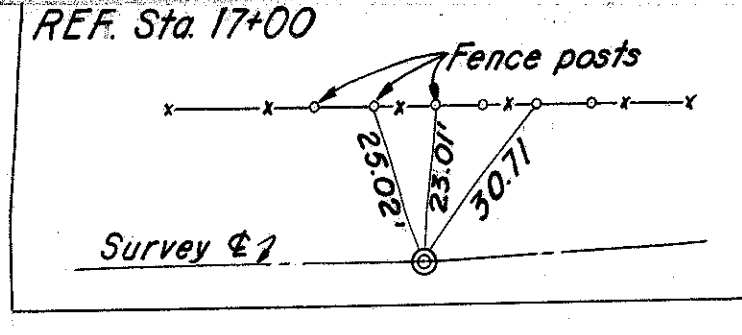
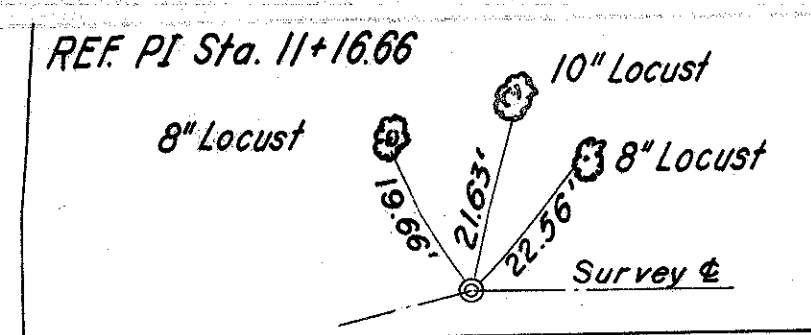
40

20

0

156 4067

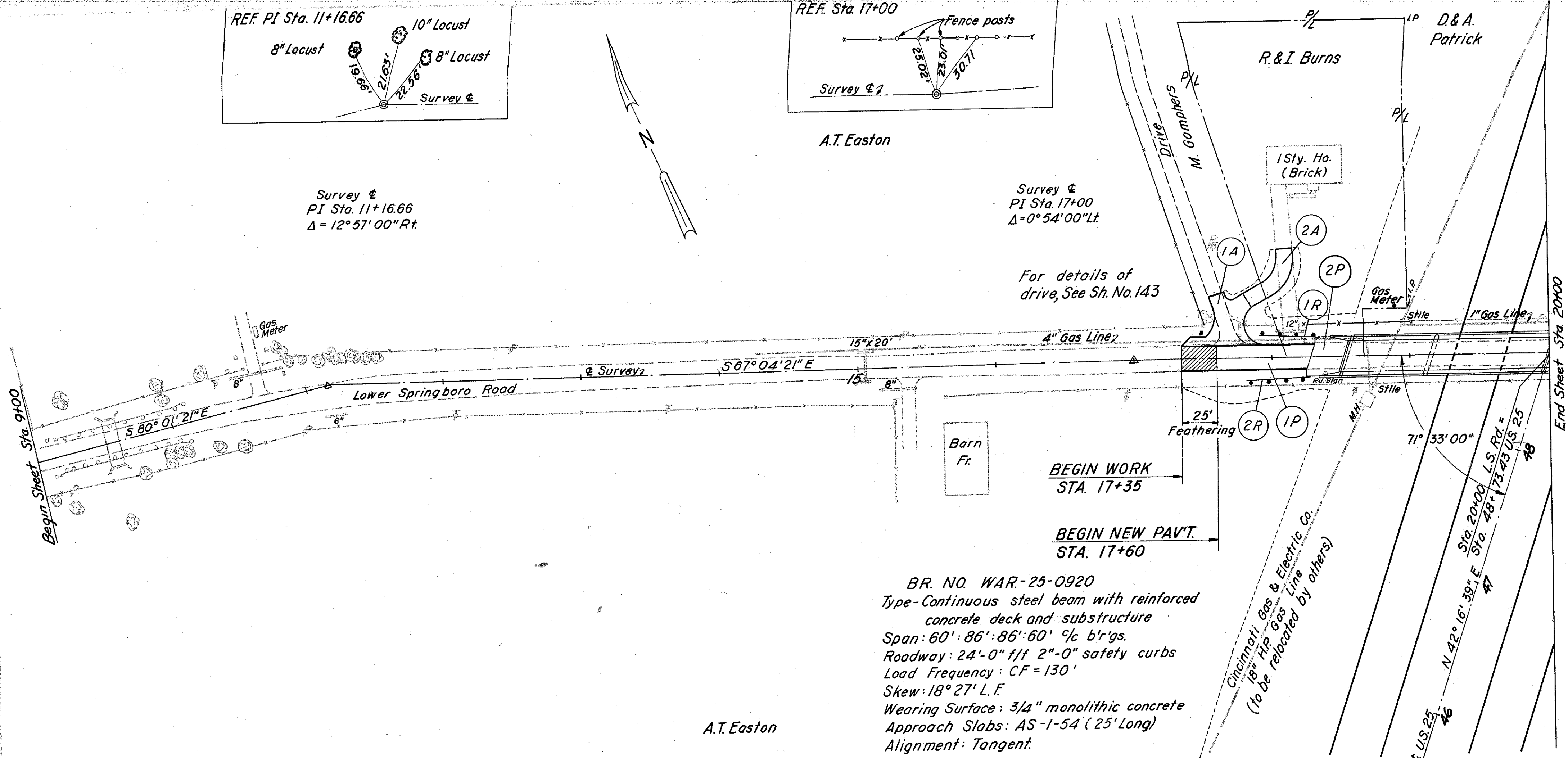
Sta. 26+00 Rt. to Sta. 27+00



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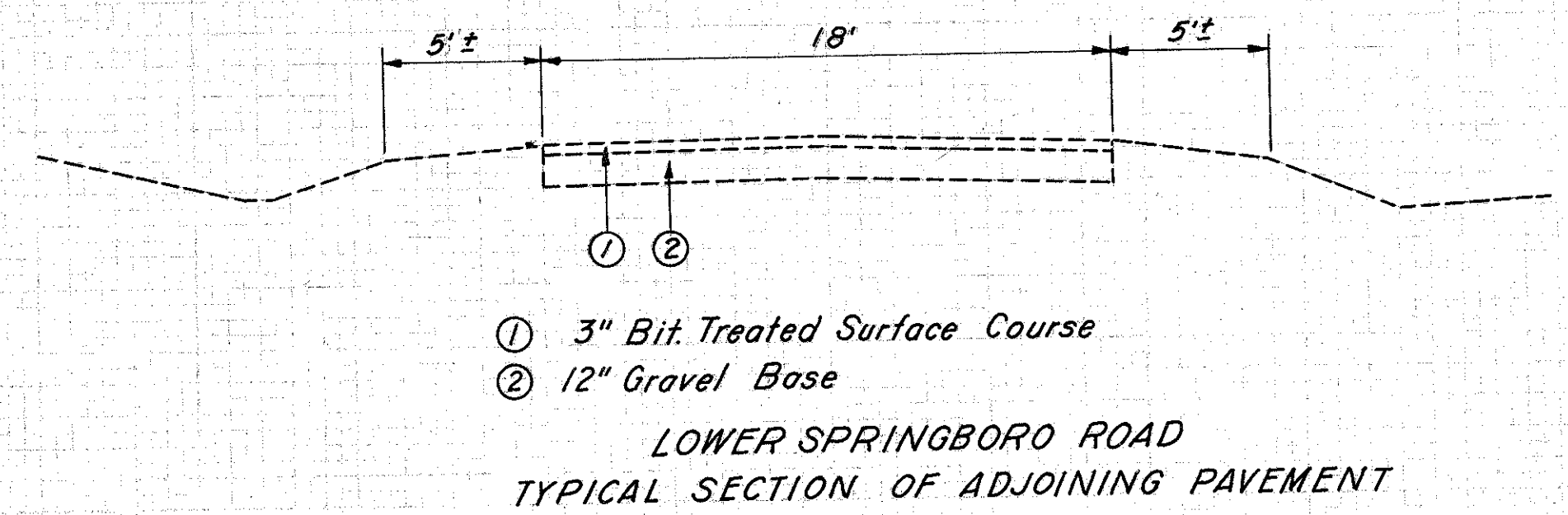
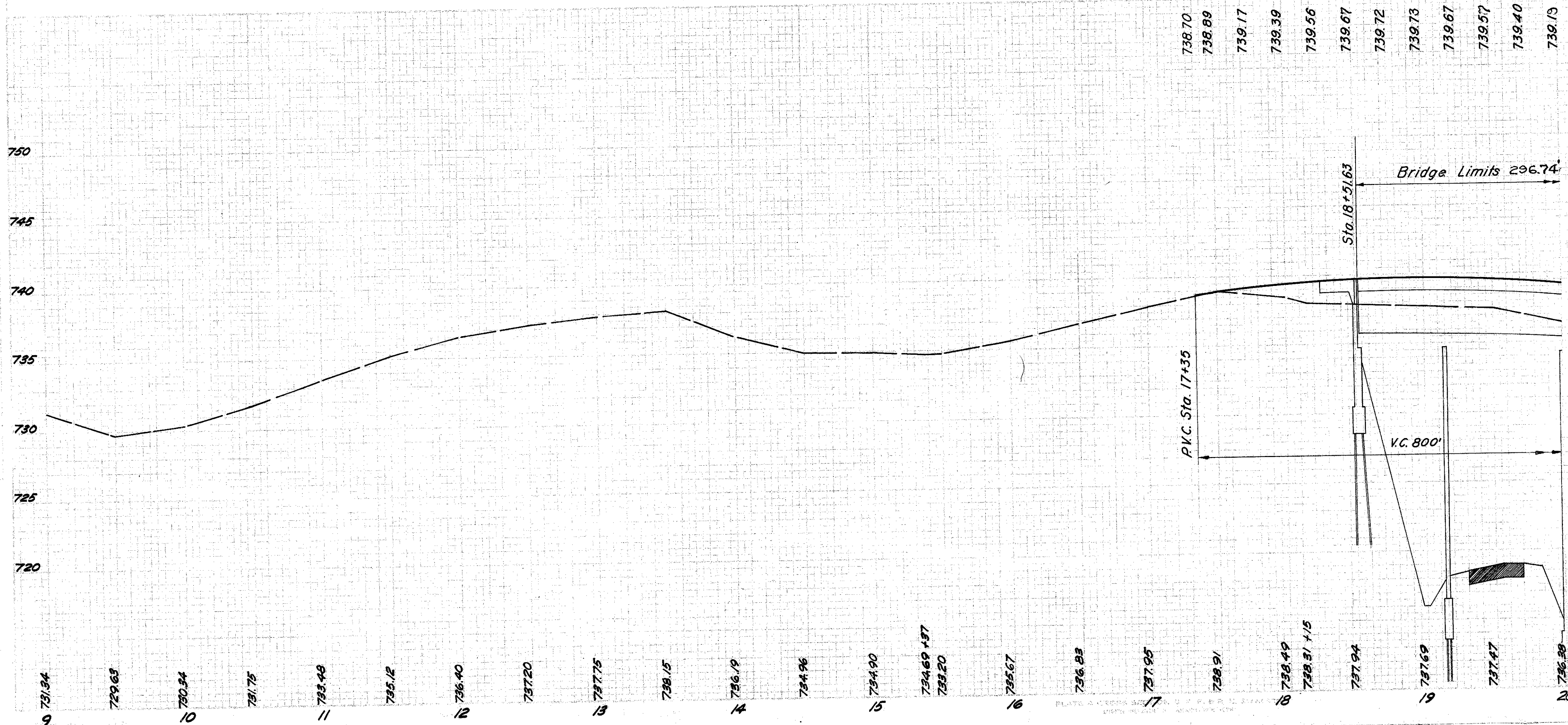


BR. NO. WAR-25-0920
Type-Continuous steel beam with reinforced concrete deck and substructure
Span: 60'-86'-86'-60' c/c b'rgs.
Roadway: 24'-0" f/f 2"-0" safety curbs
Load Frequency: CF = 130'
Skew: 18° 27' L.F.
Wearing Surface: 3/4" monolithic concrete
Approach Slabs: AS-1-54 (25' Long)
Alignment: Tangent.

Ref. No.	Station		Side	B-119 Crushed Aggr. Base Course 6" C.Y.	T-30 Bitum. Prime Coat Gal.	T-35 Asph. Conc. Surf. Crse 1 1/2" C.Y.	I-22 Subbase 4" C.Y.	I-7 Reinf. Conc. Approach Slab T-13 S.Y.	I-9 Stone Underdrain No. 2 L.F.
	From	To							
1 P	17+35	18+26.63		24	50	8	17	75	45
2 P	18+26.63	18+51.63							
Totals				24	50	8	17	75	45

Ref. No.	Station	Length	Side	E-12 Pipe Removed 15" & under L.F.	T-35 Asph. Conc. Surf. Crse 2" C.Y.	B-119 Crushed Aggr. Base Course		See Sheet No.
						5" C.Y.	6" C.Y.	
1A	17+65	-	L		8	19		
2A	17+85	36	L	20			8	
Totals				20	8	19	8	

Ref. No.	Station		Side	1-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1-R	17+90	18+40	L	50
2-R	17+83	18+33	R	50
Totals				100



LOWER SPRINGBORO RD. Sta. 9+00 To Sta. 20+00

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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WAR-25-8.48
MOT-25-0.00

ROADWAY

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.	I-15 Guard Rail Removed and Disposed of L.F.
	From	To			
1 R	21+70	25+80	L	462.5	
2 R	26+00	27+44	L	175	
3 R	21+60	25+90	R	450	
4 R	26+13	27+05	R	112.5	
5 R	25+82	27+44	L		162
Totals				1200.0	162

* NOTE
End post for existing guard rail at station 27+40±Lt. shall be modified and anchored as detailed on Std. Drawing No. I-15 No. 3. New end post shall be furnished if, in the opinion of the Engineer, same is necessary. Payment for labor and materials shall be included in unit price bid for Item I-15 G, Rail Removed & Stored.

PAVEMENT

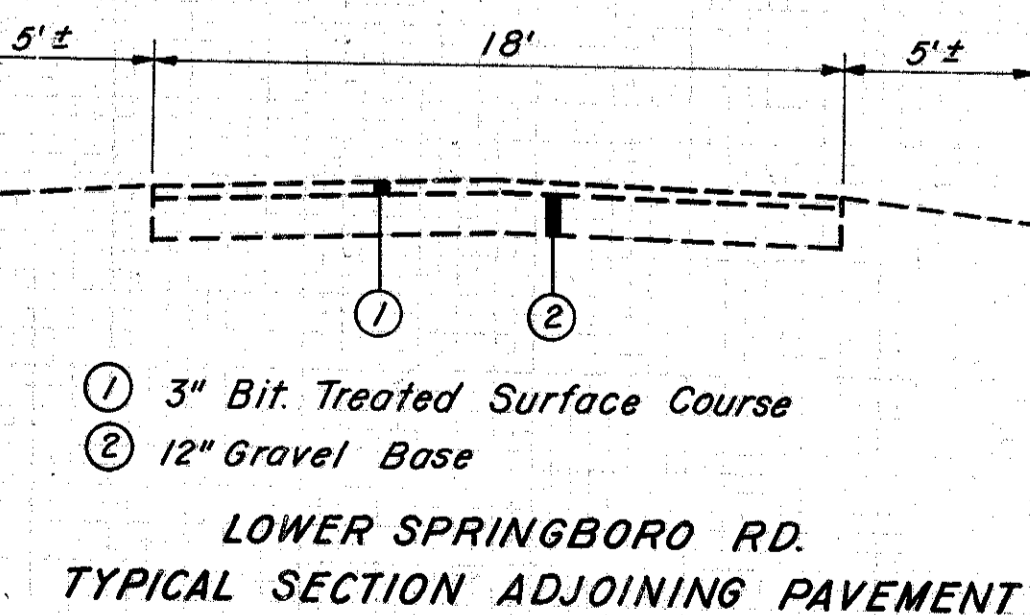
Ref. No.	Station		Side	B-119 Crushed Agg. Base Course 6" C.Y.	T-30 Bitum. Prime Coat Gal.	T-35 Asph. Conc. Surf. Crse. 1 1/2" Cu. Yd.	I-22 Subbase 4" Cu. Yds.	I-7 Reint. Conc. Approach Slab T- S.Y.	I-9 Stone Underdrain No. 2 L.F.
	From	To							
1 P	21+48.37	21+73.37						75	
2 P	21+73.37	27+25		186	390	46	130		225
Totals				186	390	46	130	75	225

DRAINAGE

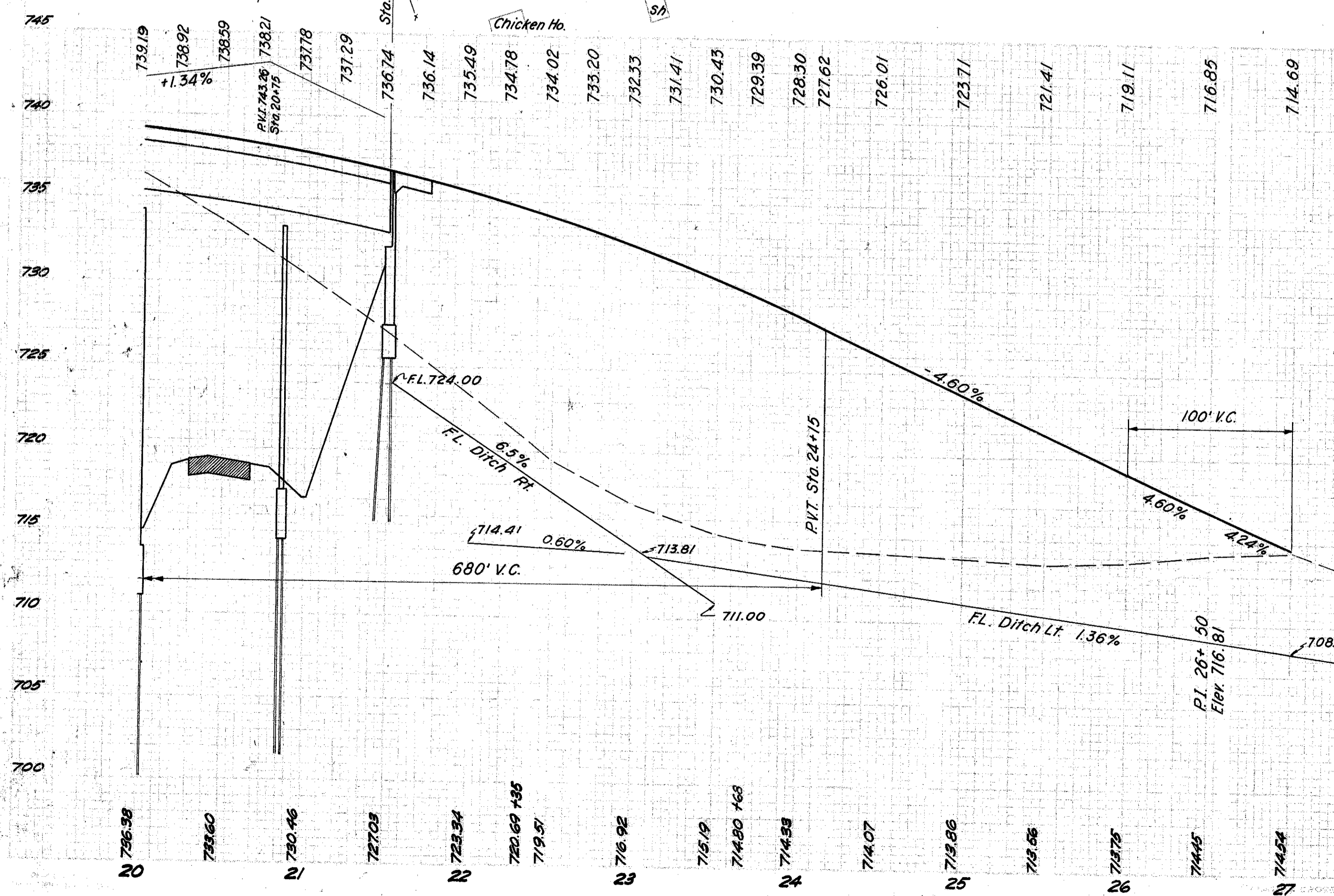
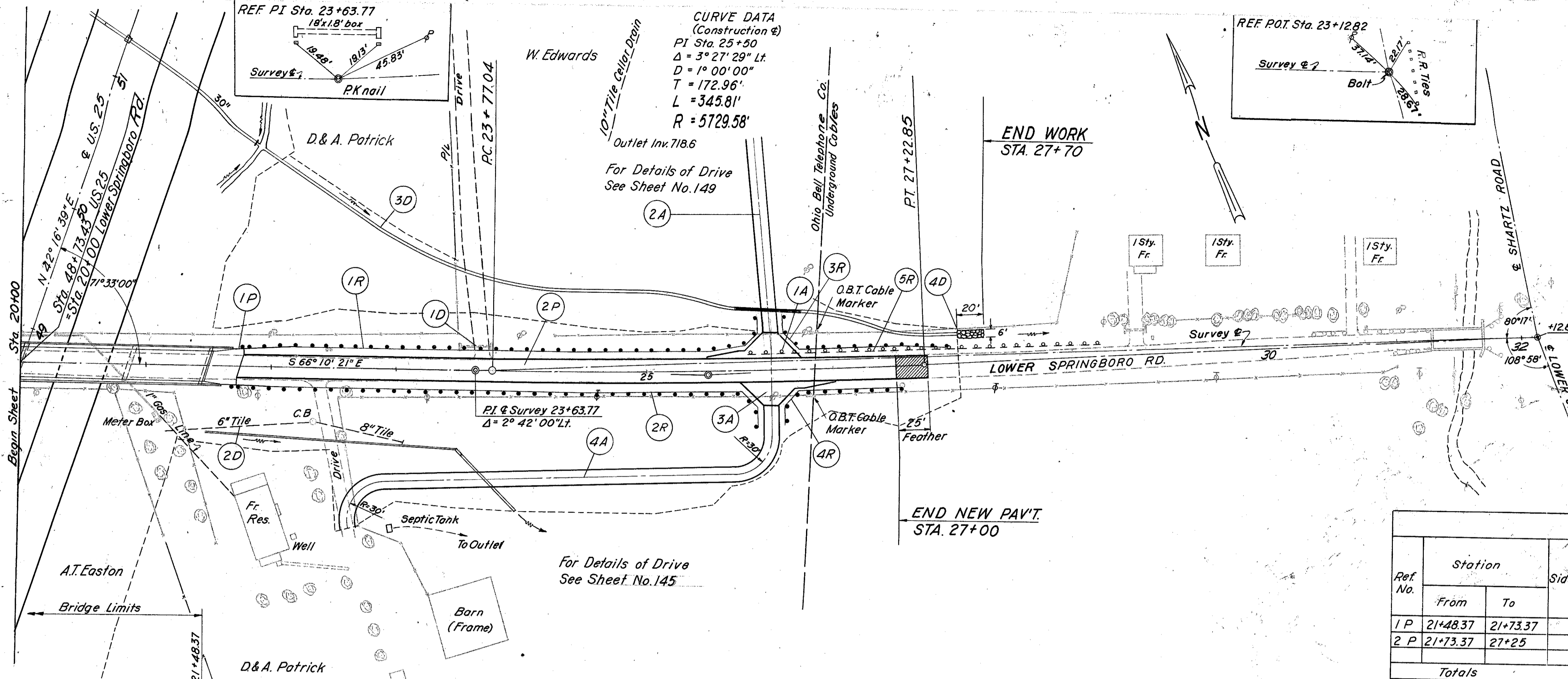
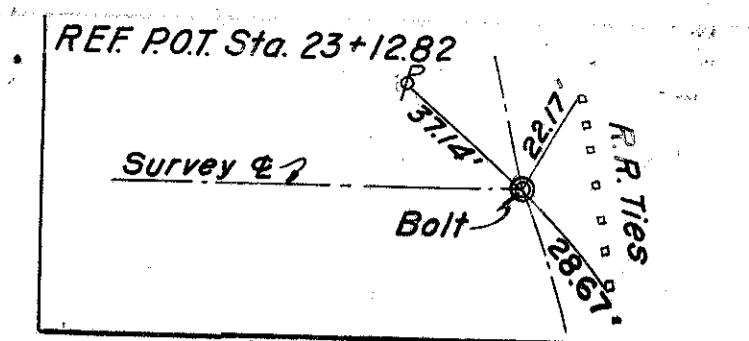
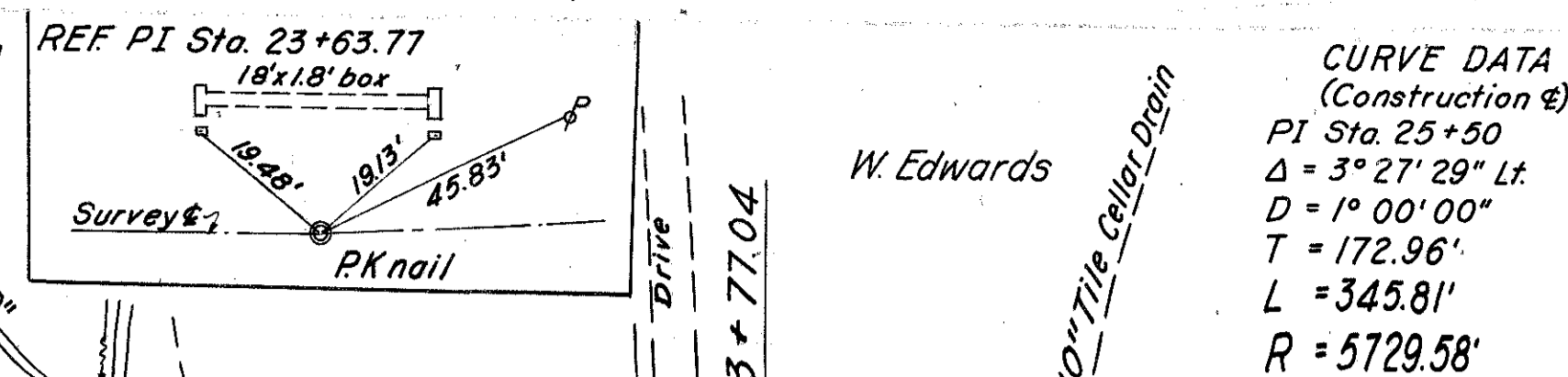
Ref. No.	Station		Side	S-24 Removal of Existing Structures Lump Sum	E-12 Pipe Removed 15" and Under L.F.	I-10 Dumped Rock Channel Protection Depth inches C.Y.	L-10 Sodding	
	From	To					Width L.F.	S.Y.
1 D	23+64		L	L.S.				
2 D	21+15	23+07	R		192			
3 D	21+85	27+50	L			30	11	
4 D	27+50	27+70	L					
Totals				L.S.	192			362

DRIVES AND APPROACHES

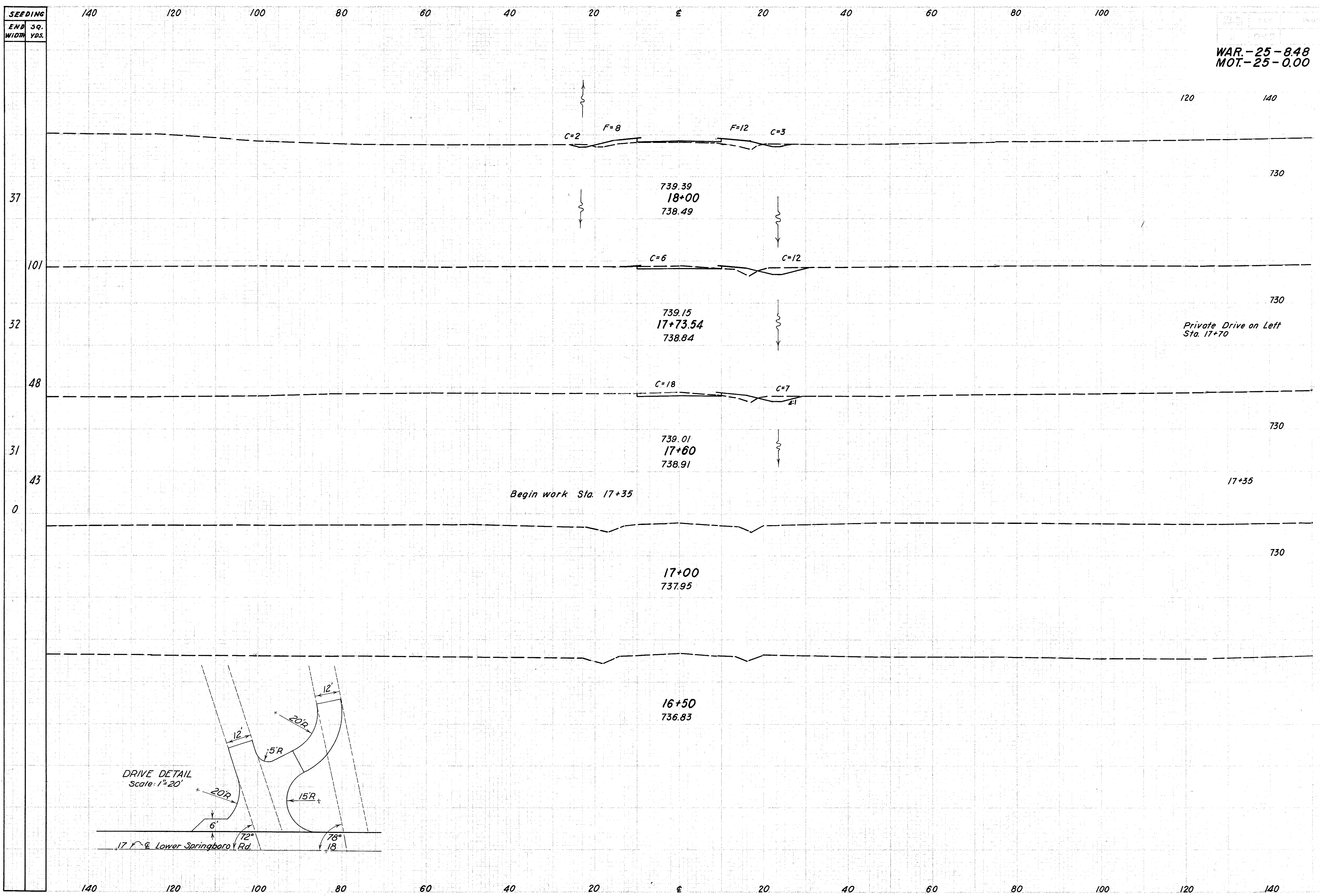
Ref. No.	Station	Side	Length	T-35 Asphaltic Concrete Surface Course 5" C.Y.	B-119 Crushed Aggregate Base Course		I-1 Pipe for Driveways		See Sheet No.
					5" Cu. Yd.	6" Cu. Yd.	12" L.F.	24" L.F.	
1 A	26+00	Lt.	20	4.6	12				
2 A	26+00	Lt.				111		54	
3 A	26+00	Lt.	20	4.6	12				
4 A	26+00	Lt.	400			89	62		
Totals				9.2	24	200	62	54	



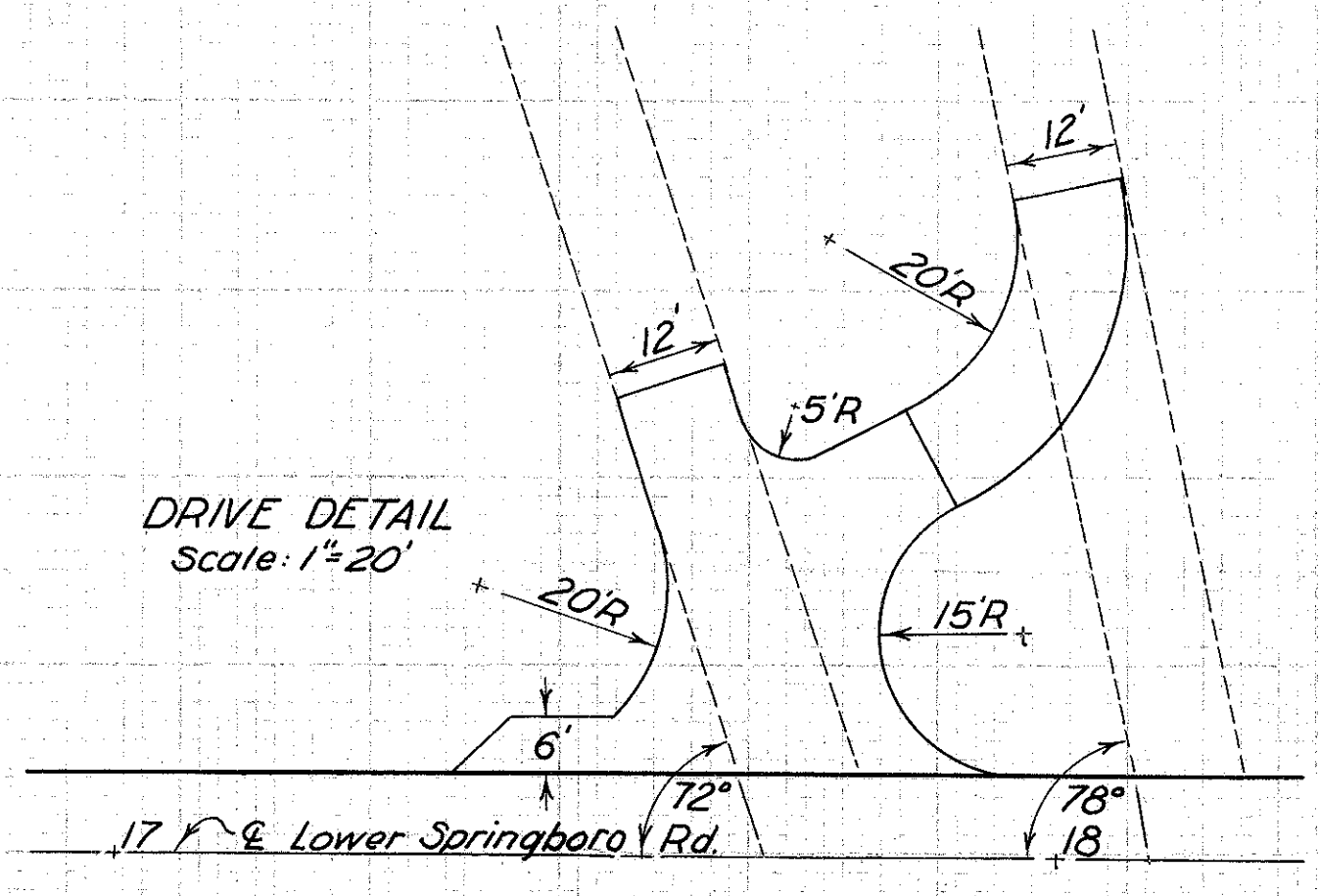
LOWER SPRINGBORO RD. Sta. 20+00 To Sta. 32+12.82



WAR-25-848
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
5	20		
		11	12
18	5		
		17	3
25	8	12	4
0	0		

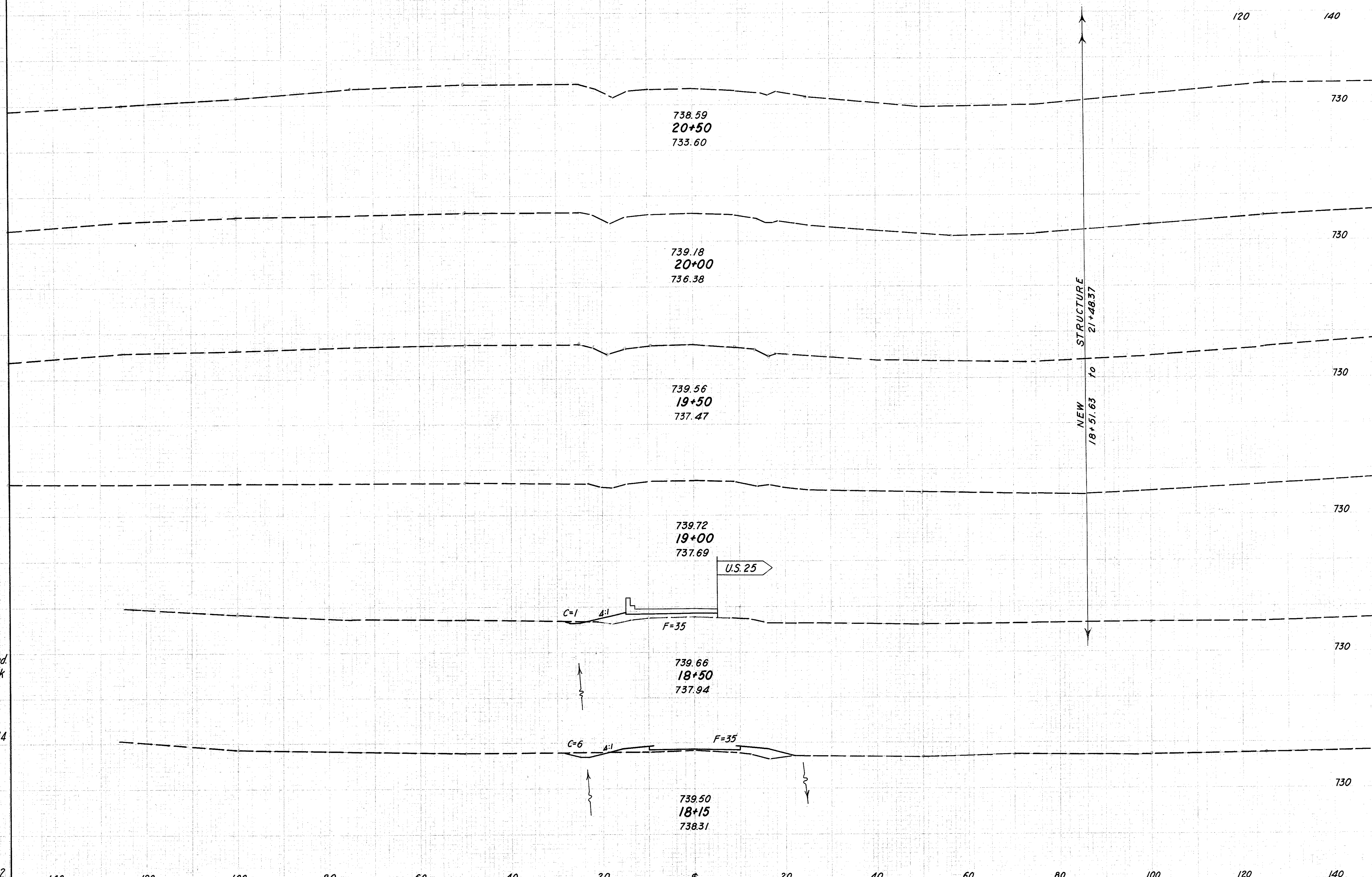


SEEDING	END SQ.
WIDTH	YDS.
0	Ahd.
37	Bk
144	
37	
62	

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

WAR.-25-8.48
MOT.-25-0.00

144
377

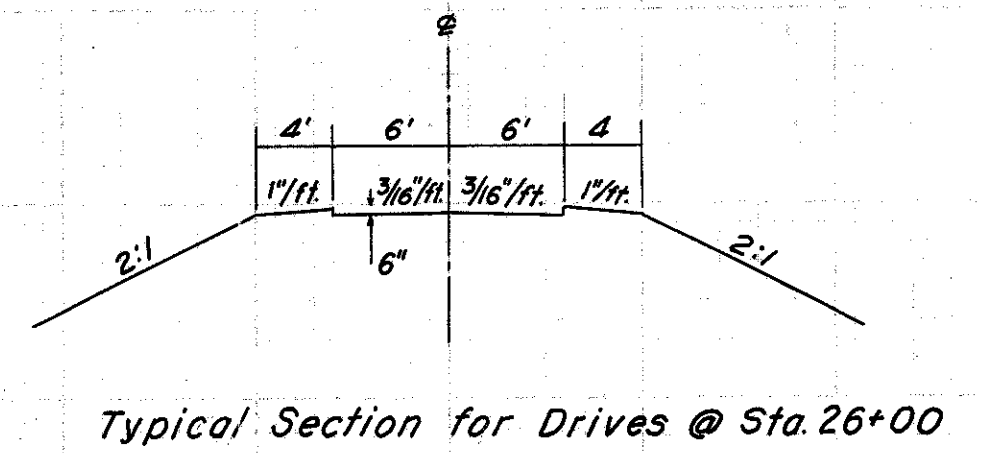
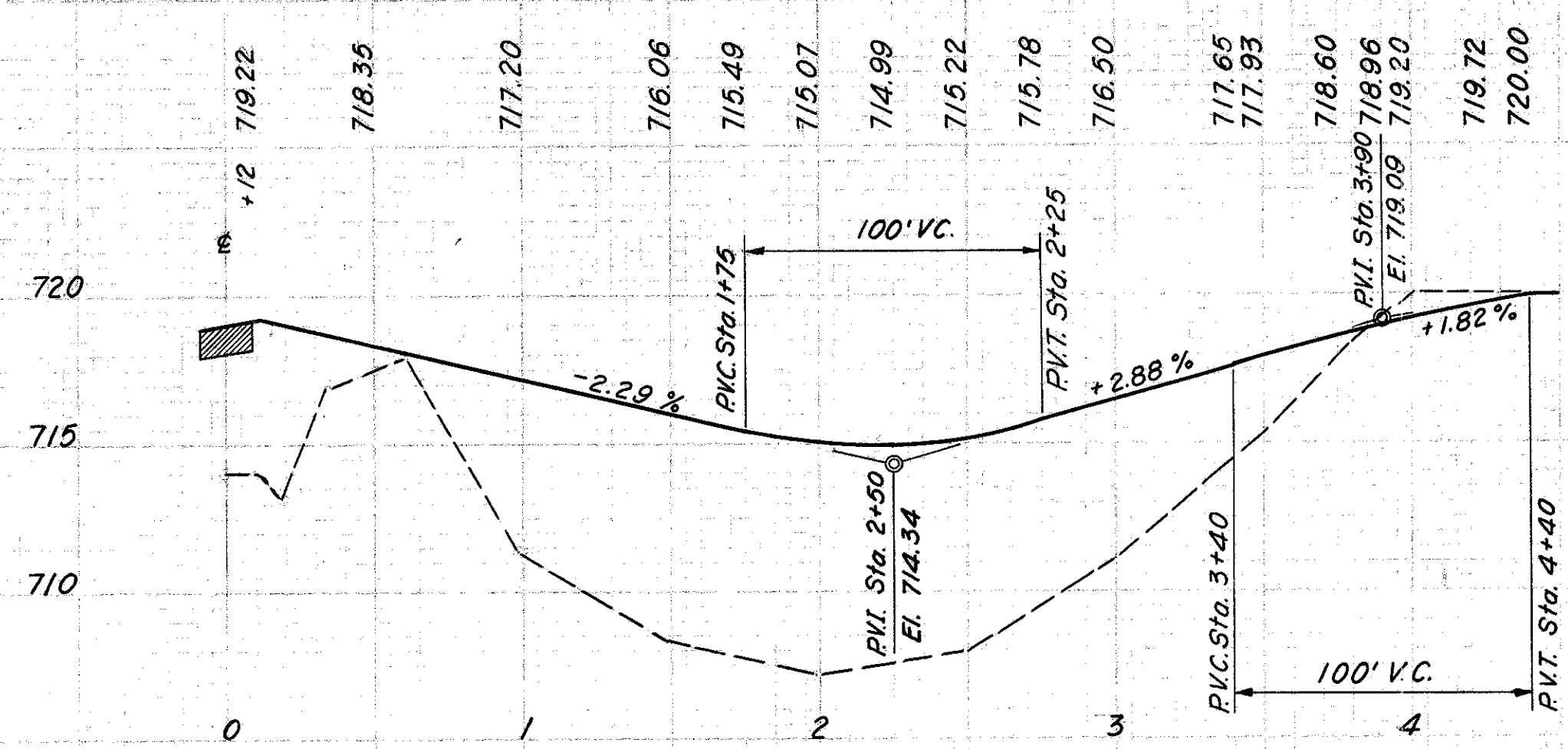
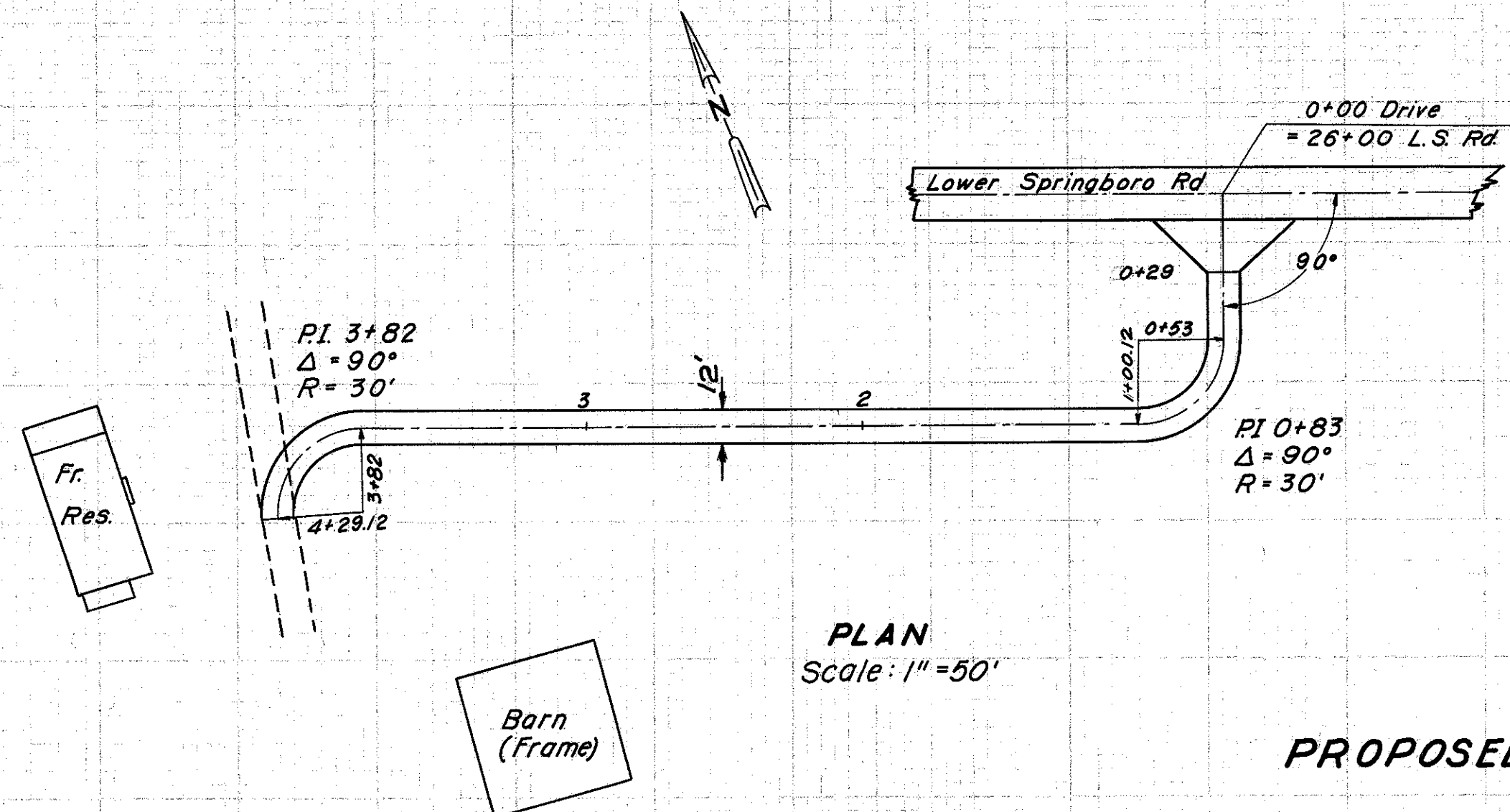


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
1		35	
	5		45
6		35	
	3		15

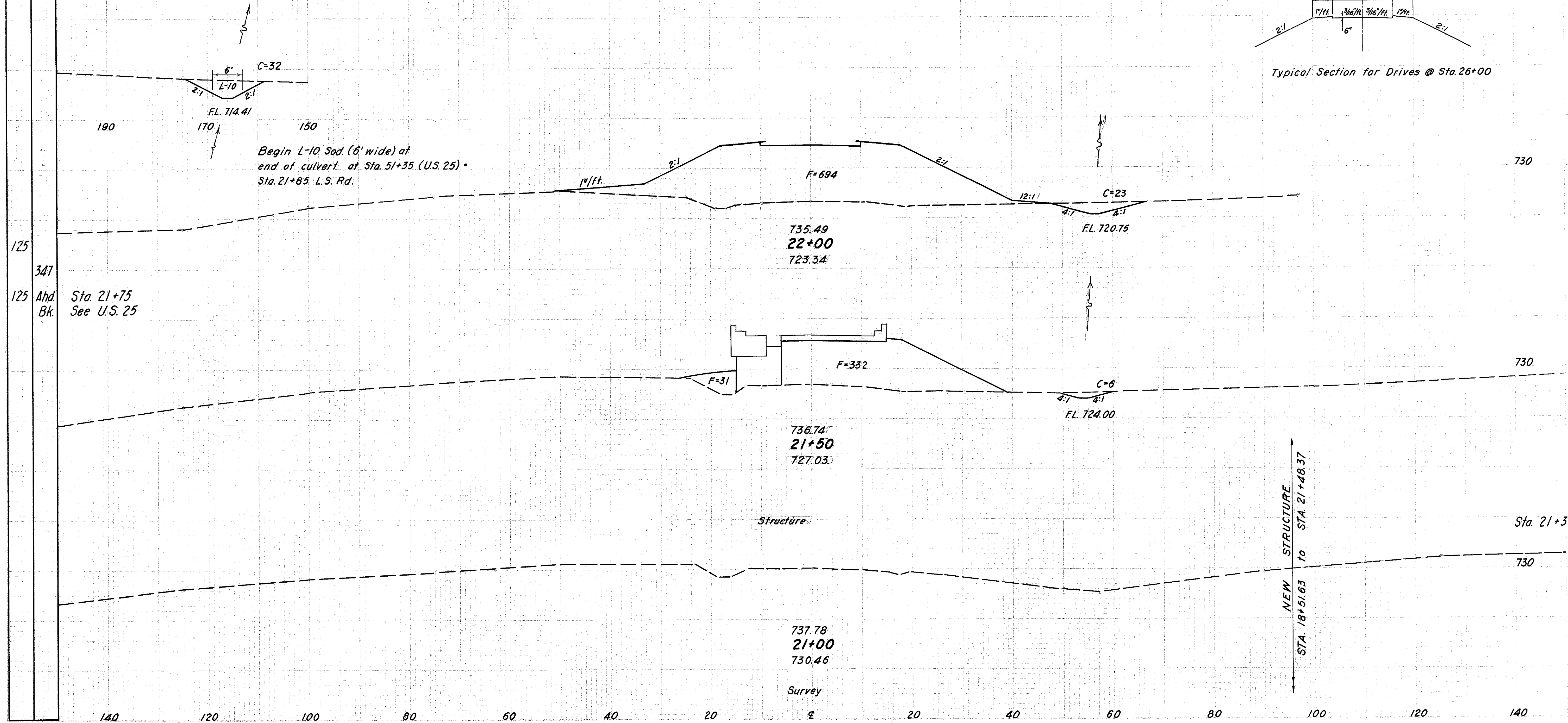
LOWER SPRINGBORO ROAD.- Sta. 18+15 to Sta 20+50

SEEDING	Sq. Yds.
END WIDTH	

WAR-25-8.48
MOT.-25-0.00

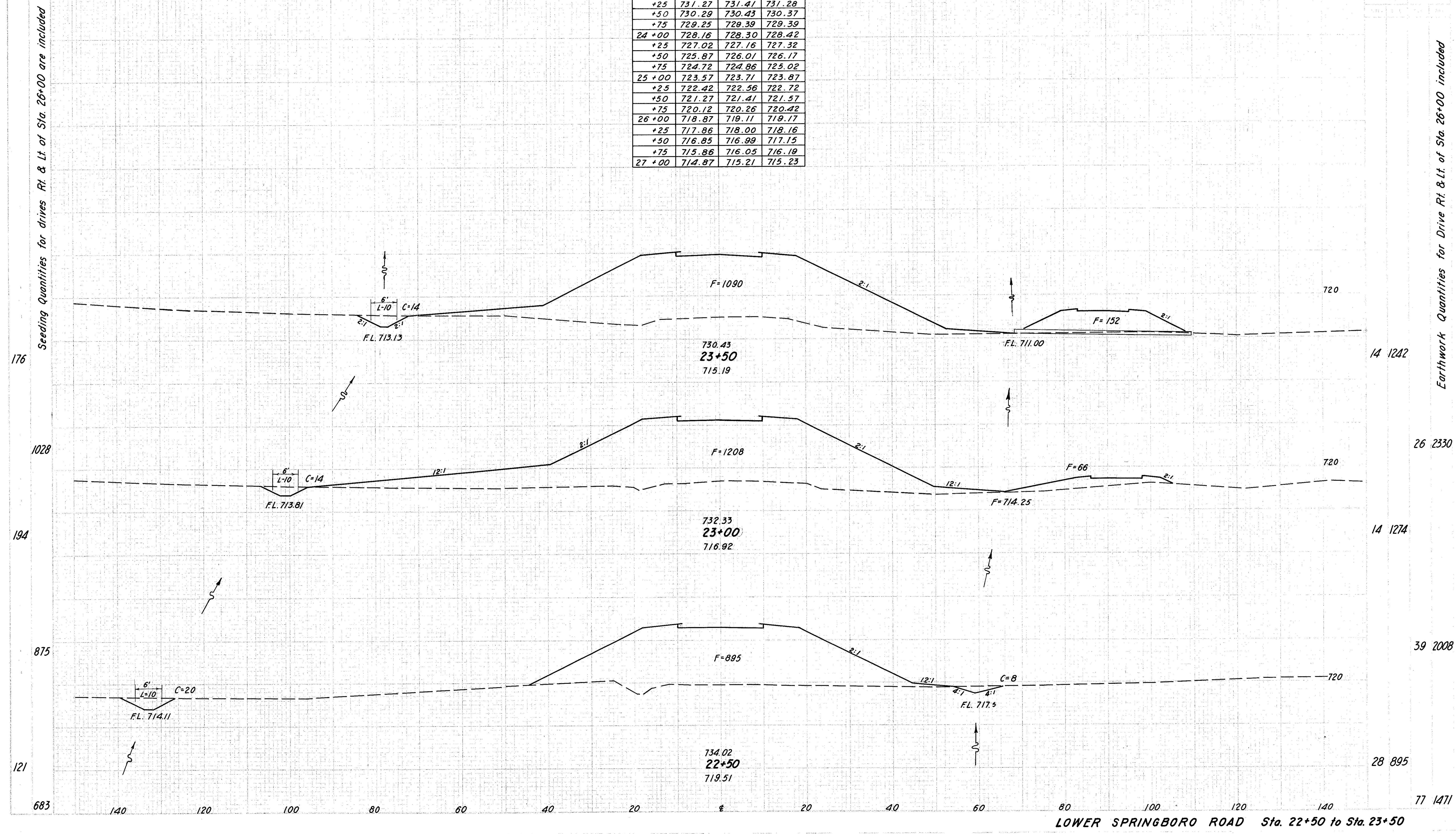


PROPOSED DRIVE STA. 26+00 RT.



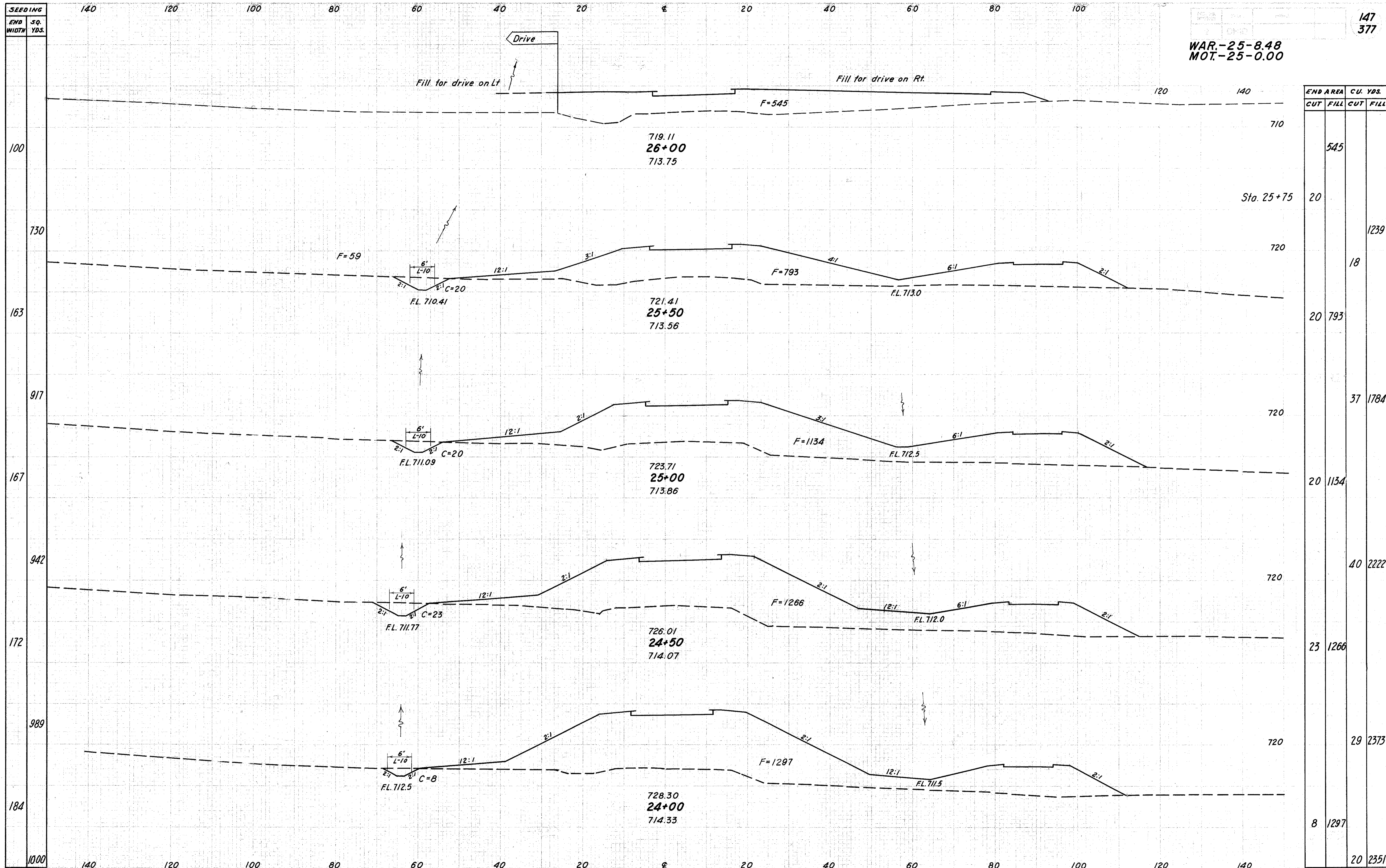
END AREA	CU. YDS.	
	CUT	FILL
	55	694
	27	979
	6	363
	2	134
	0	0

SUPERELEVATION TABLE			
STATION	LT EDGE	PROFILE	RT EDGE
23+00	732.19	732.33	732.19
+25	731.27	731.41	731.28
+50	730.29	730.43	730.37
+75	729.25	729.39	729.39
24+00	728.16	728.30	728.42
+25	727.02	727.16	727.32
+50	725.87	726.01	726.17
+75	724.72	724.86	725.02
25+00	723.57	723.71	723.87
+25	722.42	722.56	722.72
+50	721.27	721.41	721.57
+75	720.12	720.26	720.42
26+00	718.87	719.11	719.17
+25	717.86	718.00	718.16
+50	716.85	716.99	717.15
+75	715.86	716.05	716.19
27+00	714.87	715.21	715.23



Seeding Quantities for drives Rt. & Lt. of Sta. 26+00 are included

Earthwork Quantities for Drive Rt. & Lt. of Sta. 26+00 included



SEEDING	
END WIDTH	SQ. YDS.
140	
120	
100	
80	
60	
40	
20	
0	
20	
40	
60	
80	
100	
120	
140	
100	
730	
163	
917	
167	
942	
172	
989	
184	
1000	

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
	545		
20			1239
		18	
20	793		
		37	1784
20	1134		
		40	2222
23	1266		
		29	2373
8	1297		
		20	2351

WAR.-25-8.48
MOT.-25-0.00

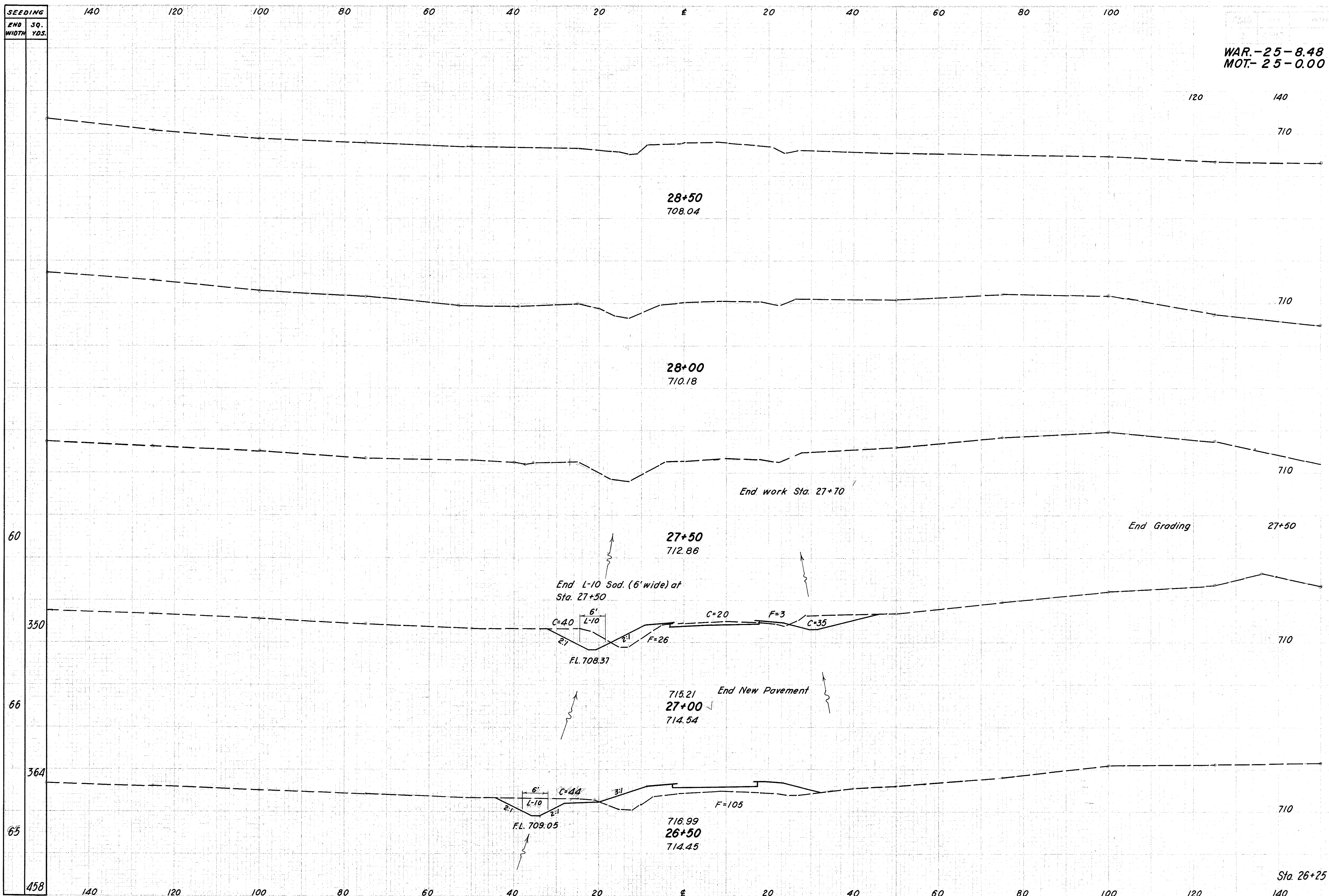
147
377

LOWER SPRINGBORO RD. Sta. 24+00 to Sta. 26+00

SEEDING
END WIDTH SQ. YDS.

148
377

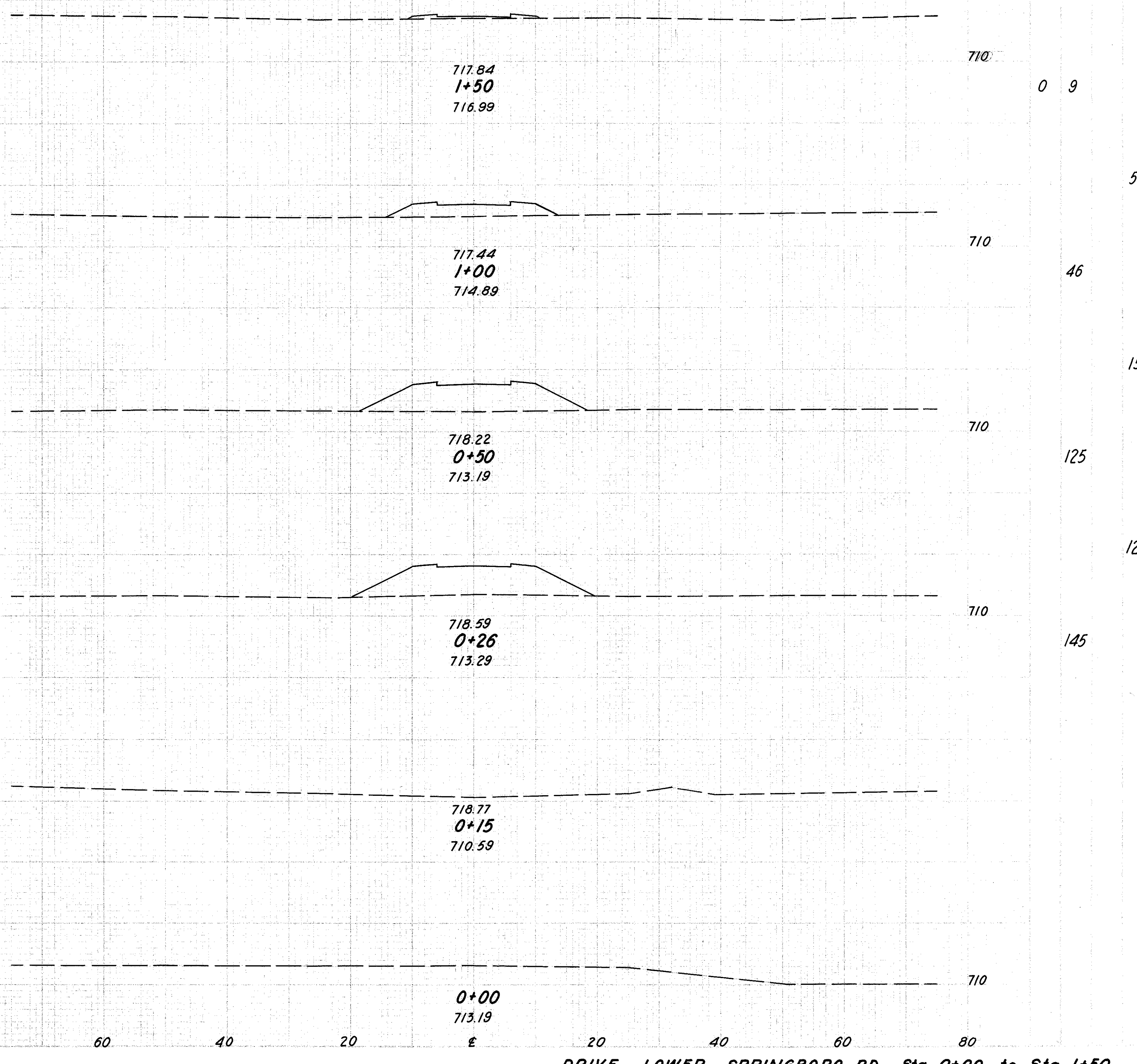
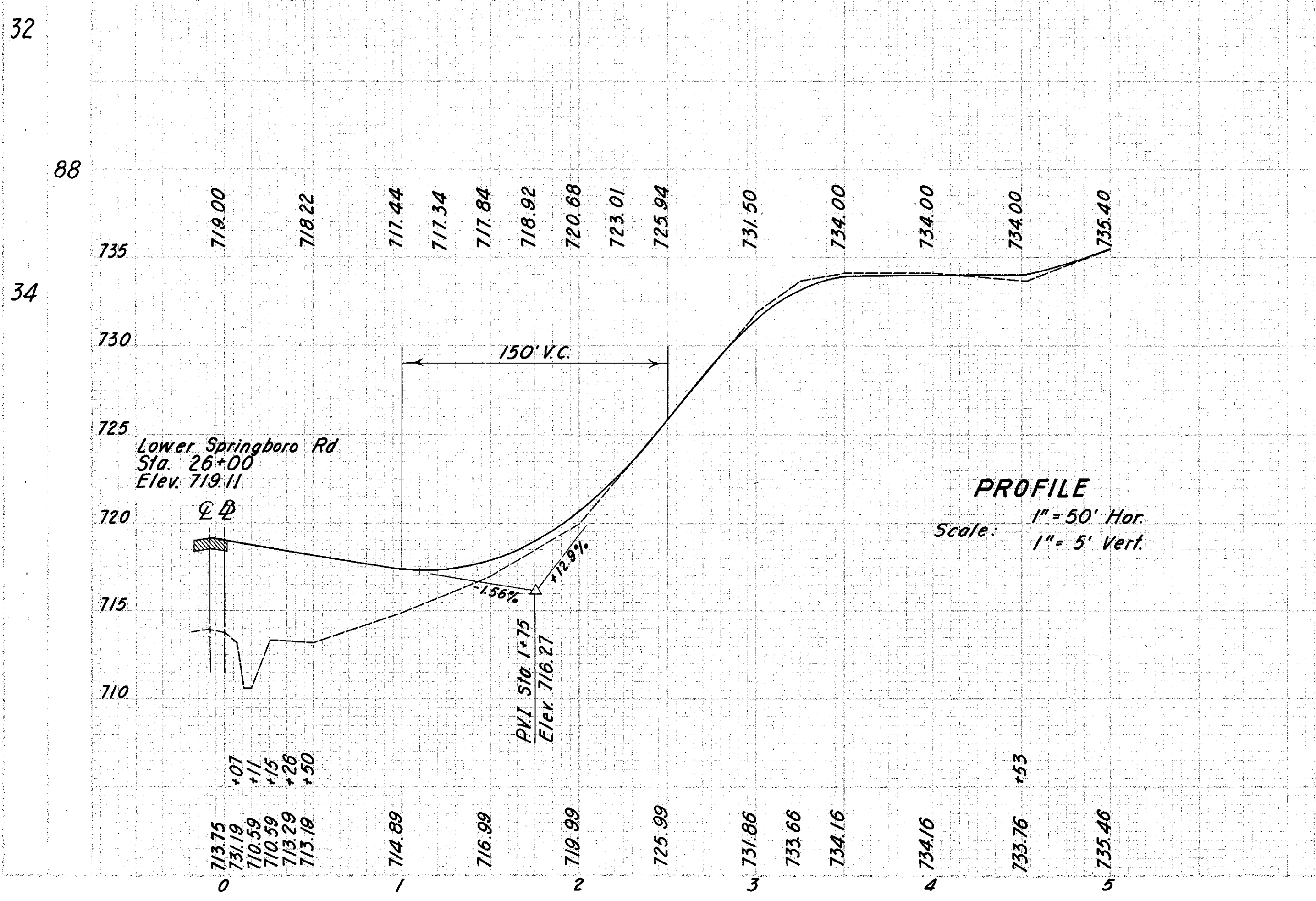
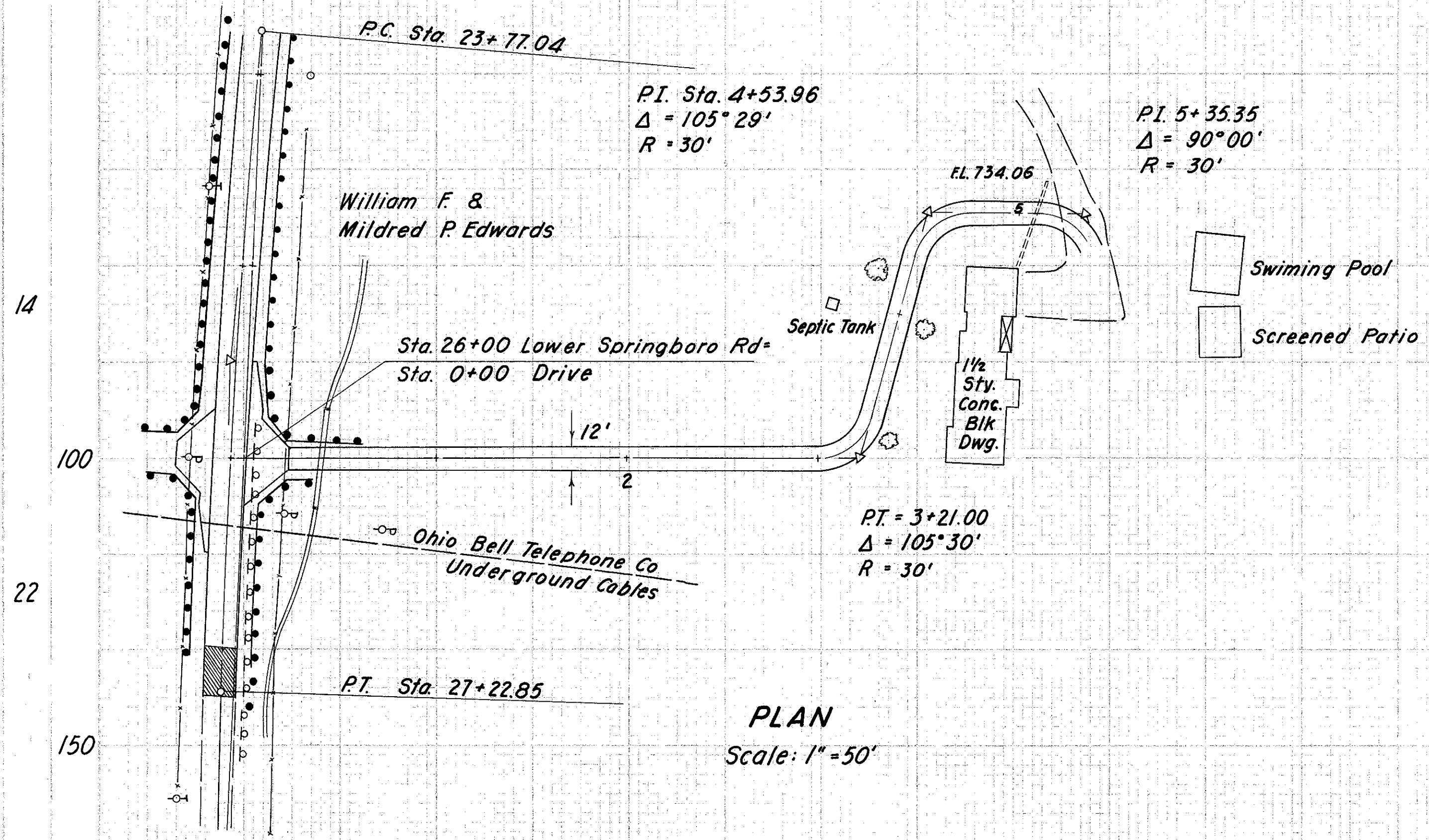
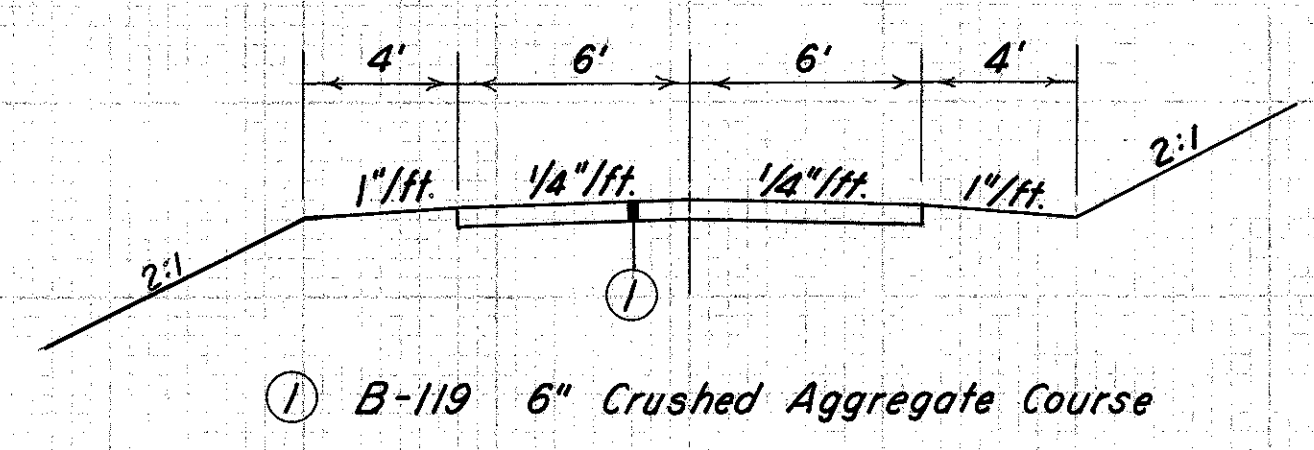
WAR.-25-8.48
MOT.-25-0.00

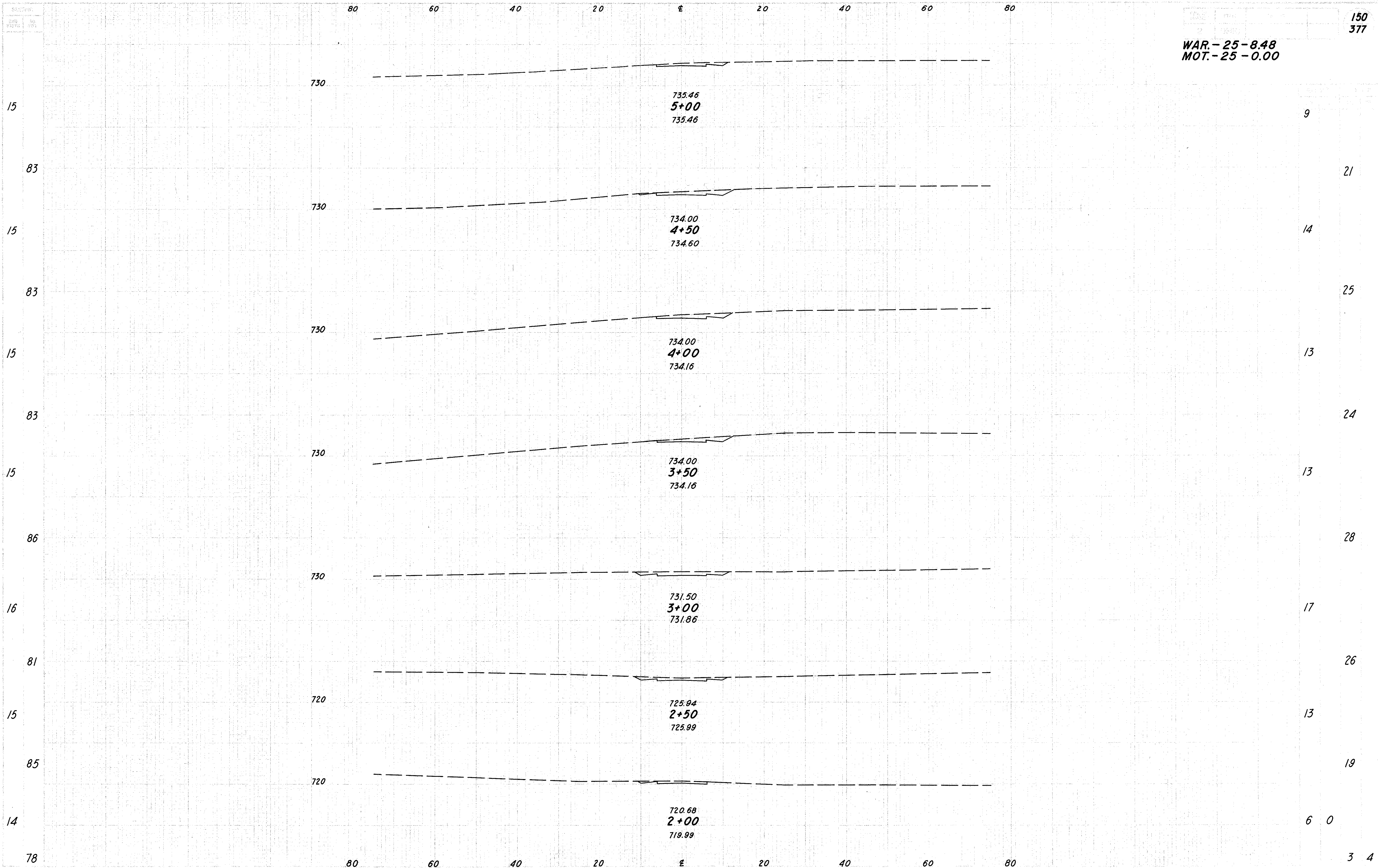


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	0		
		88	24
		95	26
		129	121
		44	105
			41
44			602

LOWER SPRINGBORO ROAD.- Sta. 26+50 to Sta. 28+50

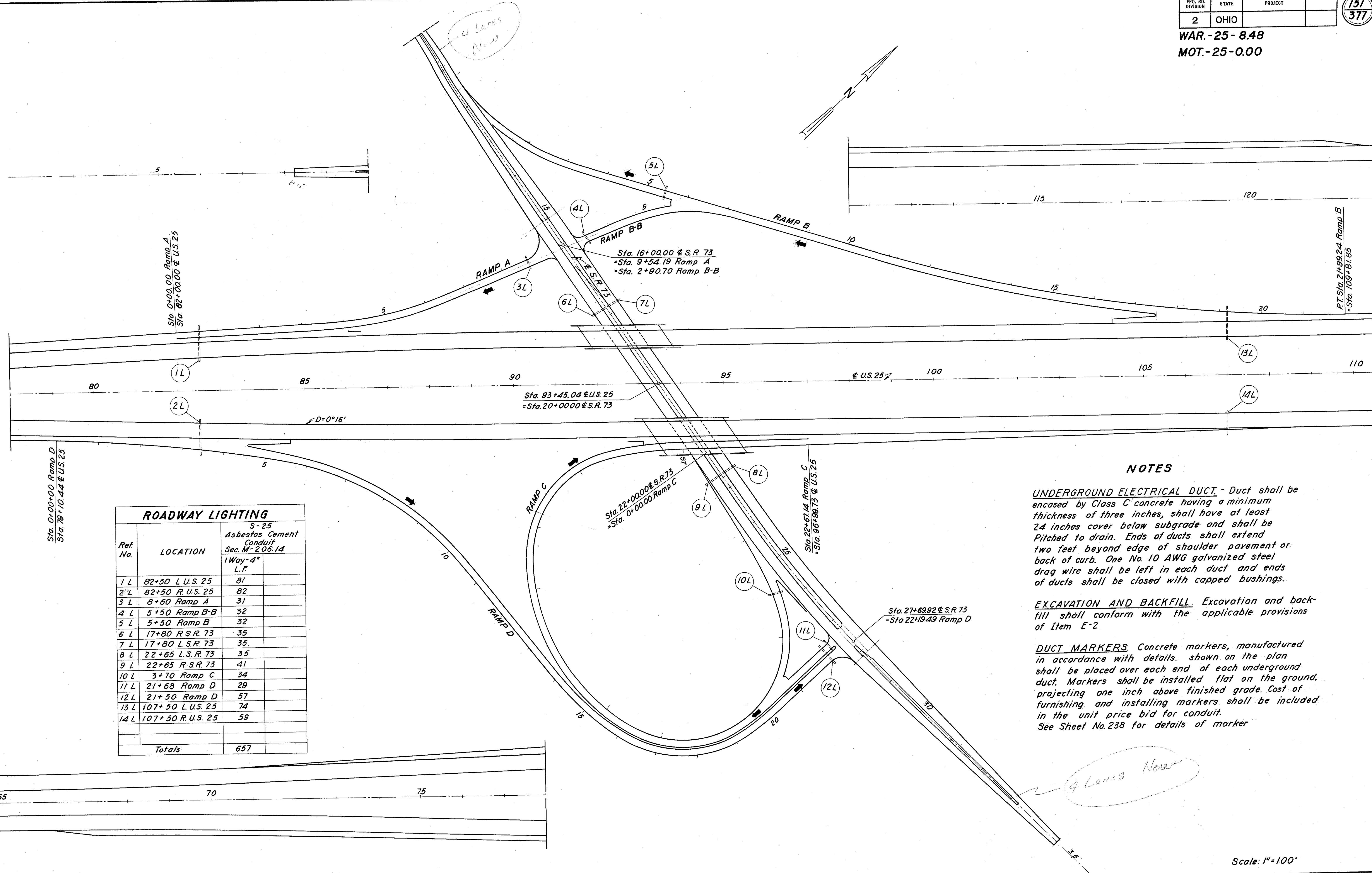
WAR.-25-8.48
MOT.-25-0.00





DRIVE LOWER SPRINGBORO RD. Sta. 2+00 to Sta. 5+00

WAR.-25-8.48
MOT.-25-0.00



ROADWAY LIGHTING		
Ref. No.	LOCATION	5-25
		Asbestos Cement Conduit Sec. M-206.14
		1 Way-4" L.F.
1 L	82+50 L.U.S. 25	81
2 L	82+50 R.U.S. 25	82
3 L	8+60 Ramp A	31
4 L	5+50 Ramp B-B	32
5 L	5+50 Ramp B	32
6 L	17+80 R.S.R. 73	35
7 L	17+80 L.S.R. 73	35
8 L	22+65 L.S.R. 73	35
9 L	22+65 R.S.R. 73	41
10 L	3+70 Ramp C	34
11 L	21+68 Ramp D	29
12 L	21+50 Ramp D	57
13 L	107+50 L.U.S. 25	74
14 L	107+50 R.U.S. 25	59
Totals		657

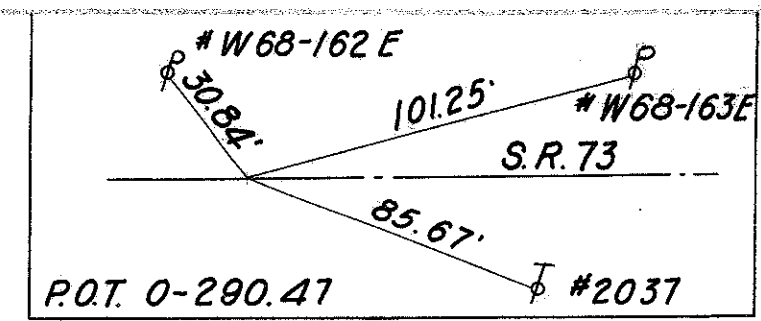
NOTES

UNDERGROUND ELECTRICAL DUCT - Duct shall be encased by Class C concrete having a minimum thickness of three inches, shall have at least 24 inches cover below subgrade and shall be pitched to drain. Ends of ducts shall extend two feet beyond edge of shoulder pavement or back of curb. One No. 10 AWG galvanized steel drag wire shall be left in each duct and ends of ducts shall be closed with capped bushings.

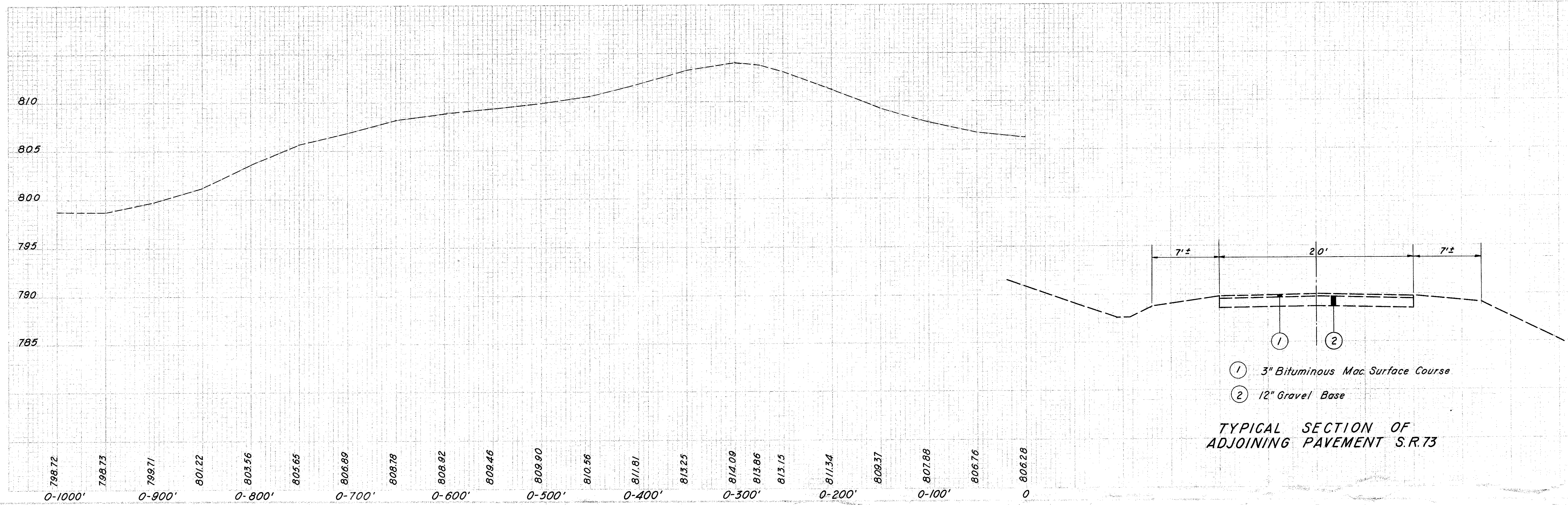
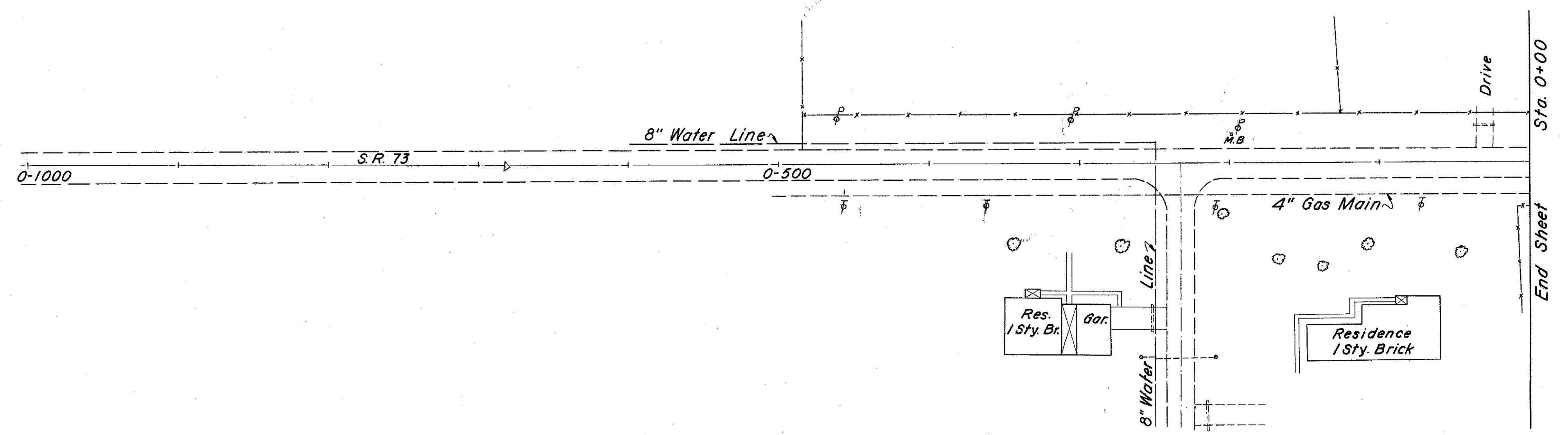
EXCAVATION AND BACKFILL - Excavation and backfill shall conform with the applicable provisions of Item E-2.

DUCT MARKERS - Concrete markers, manufactured in accordance with details shown on the plan shall be placed over each end of each underground duct. Markers shall be installed flat on the ground, projecting one inch above finished grade. Cost of furnishing and installing markers shall be included in the unit price bid for conduit. See Sheet No. 238 for details of marker.

WAR.-25-8.48
MOT.-25-0.00

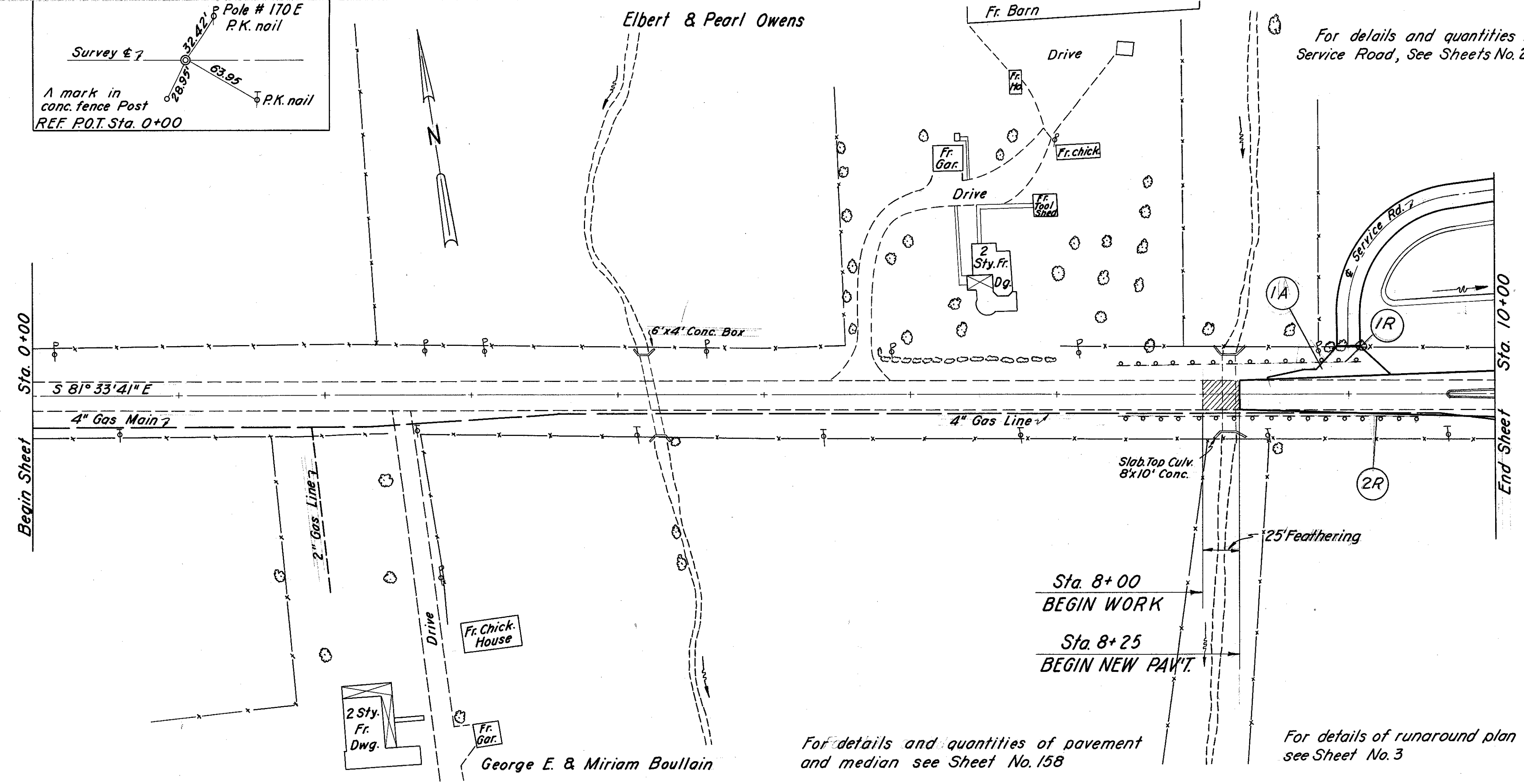
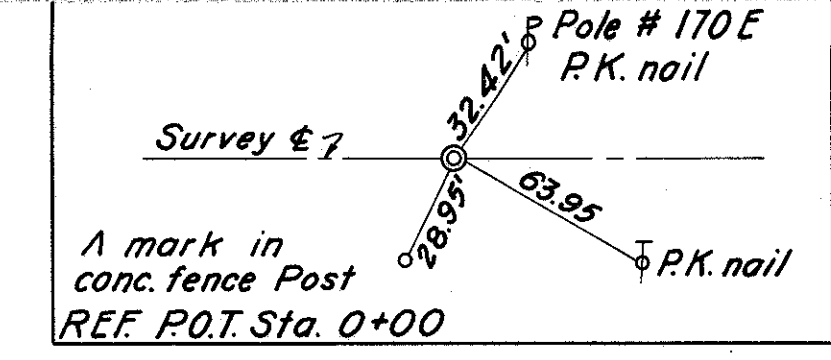


PI Sta 0-678.46'
 $\Delta = 0^\circ-14' \text{ Rt.}$



TYPICAL SECTION OF
ADJOINING PAVEMENT S.R.73

S.R.73 Sta. 0-1000' to Sta. 0+00



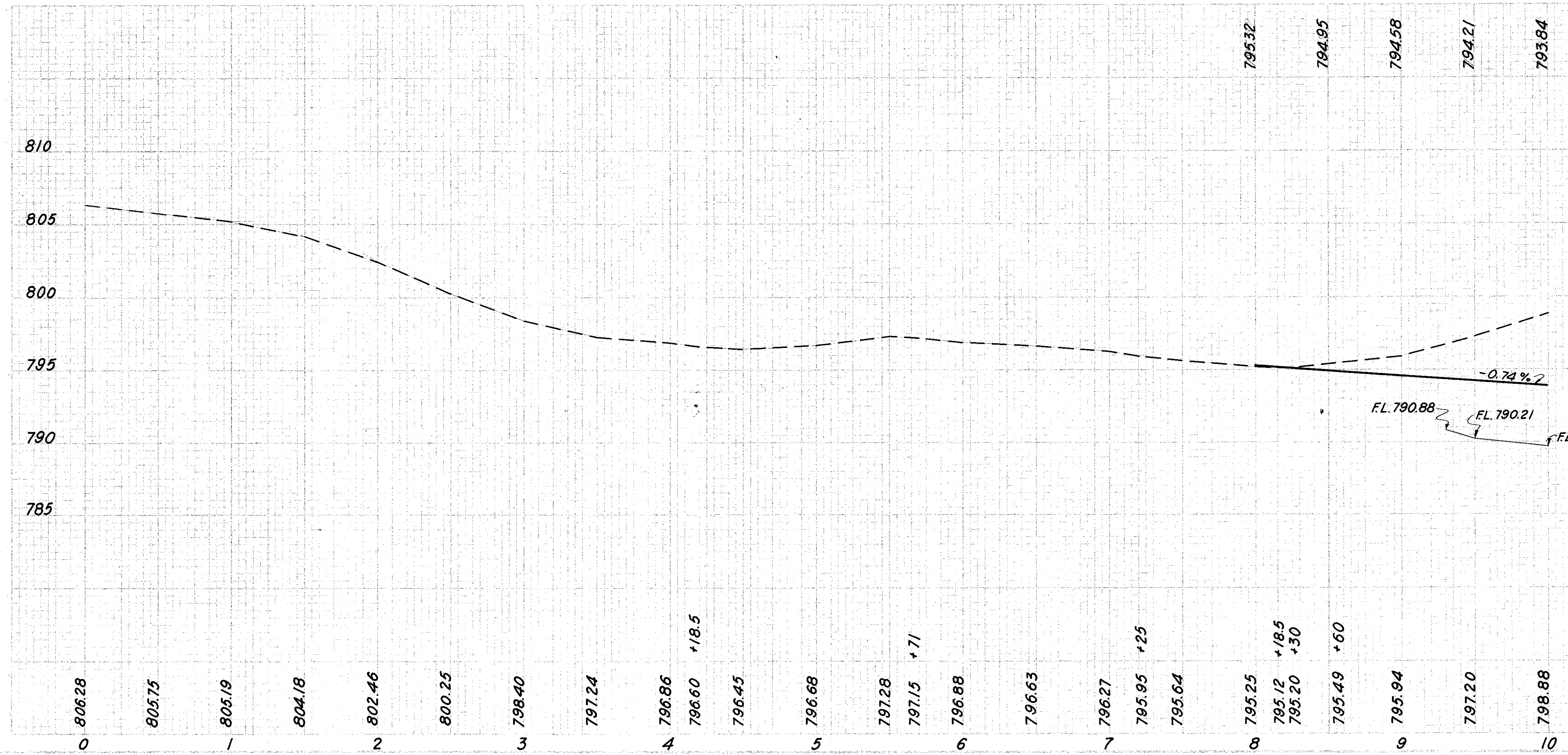
For details and quantities for Service Road, See Sheets No. 227-230

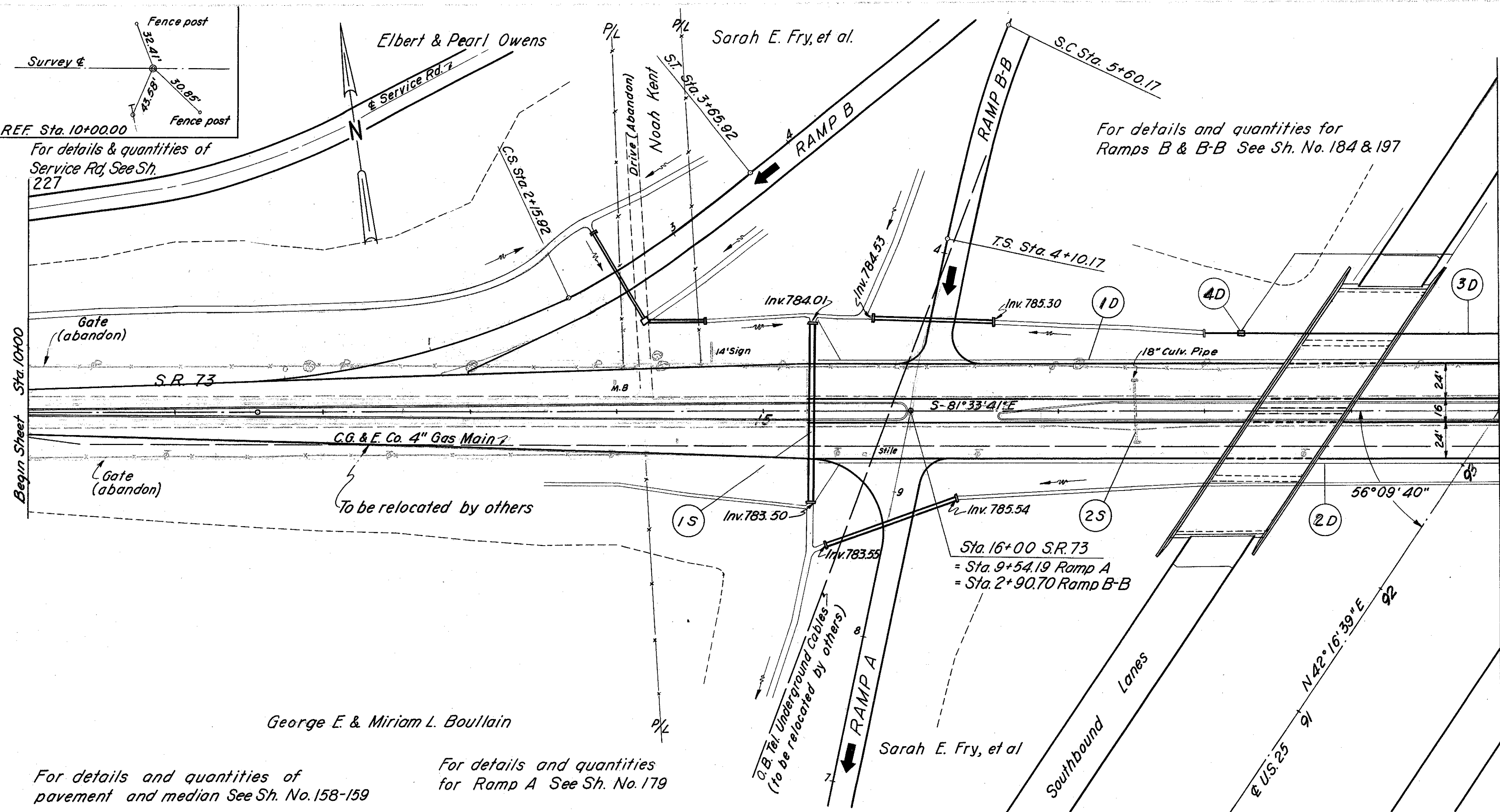
For details and quantities of pavement and median see Sheet No. 158

For details of runaround plan see Sheet No. 3

DRIVES AND APPROACHES					
Ref. No.	Station	Side	Length	Crushed Agg. Base Course	
				5' C.Y.	2" C.Y.
1A	9+00	L		13	5.1
Totals				13	5.1

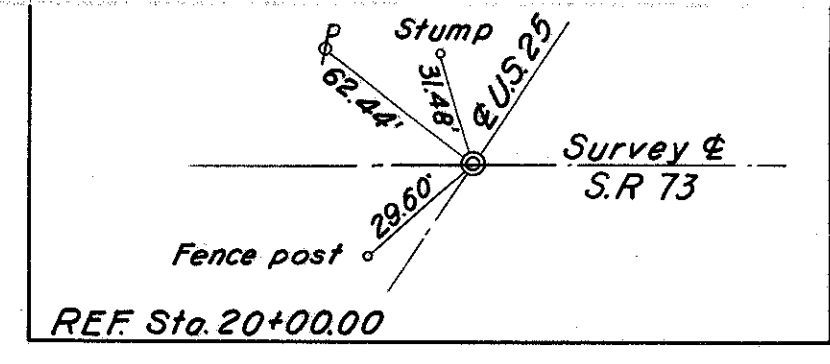
ROADWAY				
Ref. No.	Station		Side	I-15 Guard Rail Removed and Stored L.F.
	From	To		
1R	8+70	9+07.5	L	37.5
2R	9+00	9+50	R	50
Totals				87.5





For details and quantities of pavement and median See Sh. No. 158-159

For details and quantities for Ramp A See Sh. No. 179



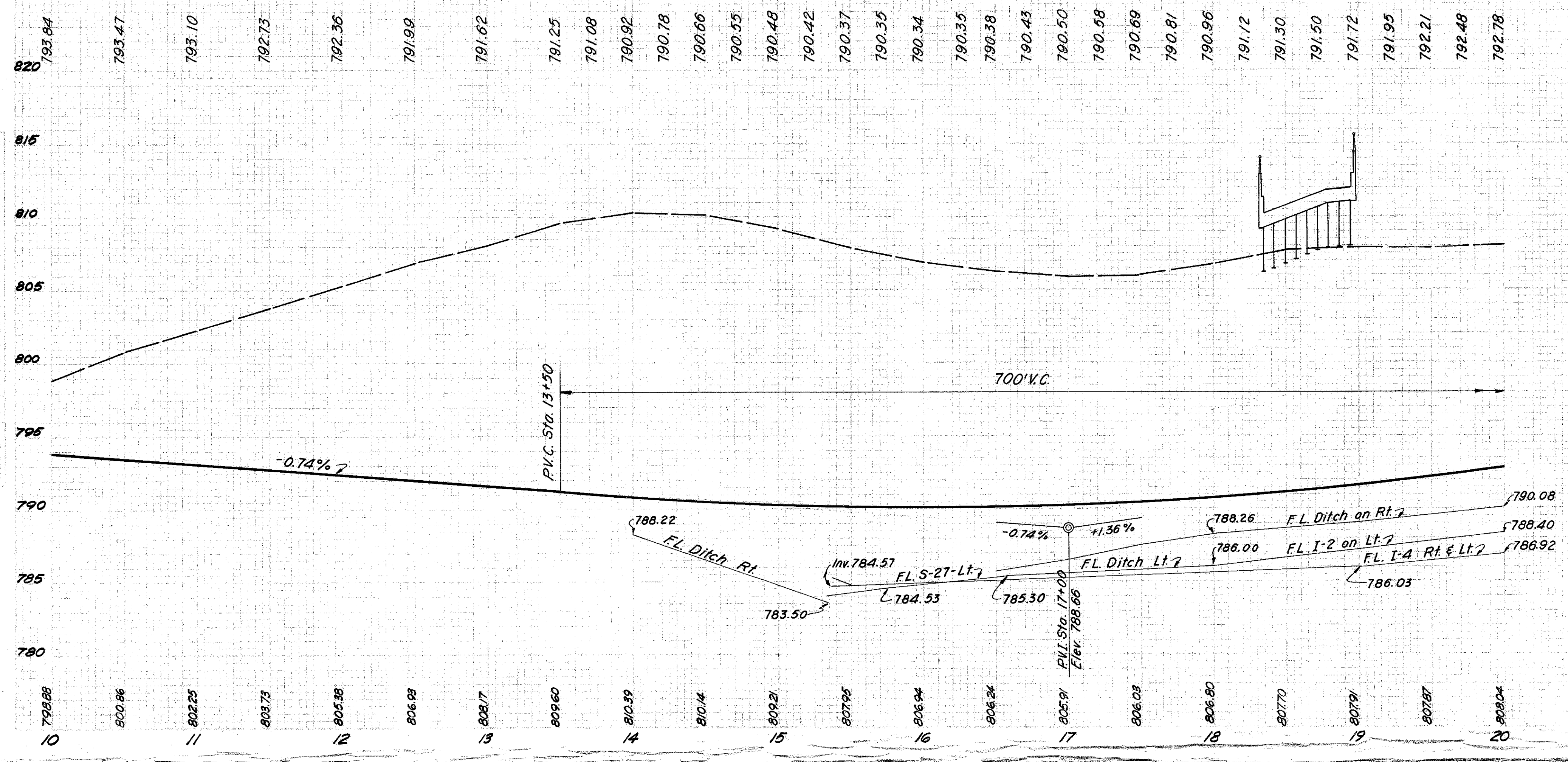
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

WAR - 25-8.48
MOT - 25-0.00

154
377

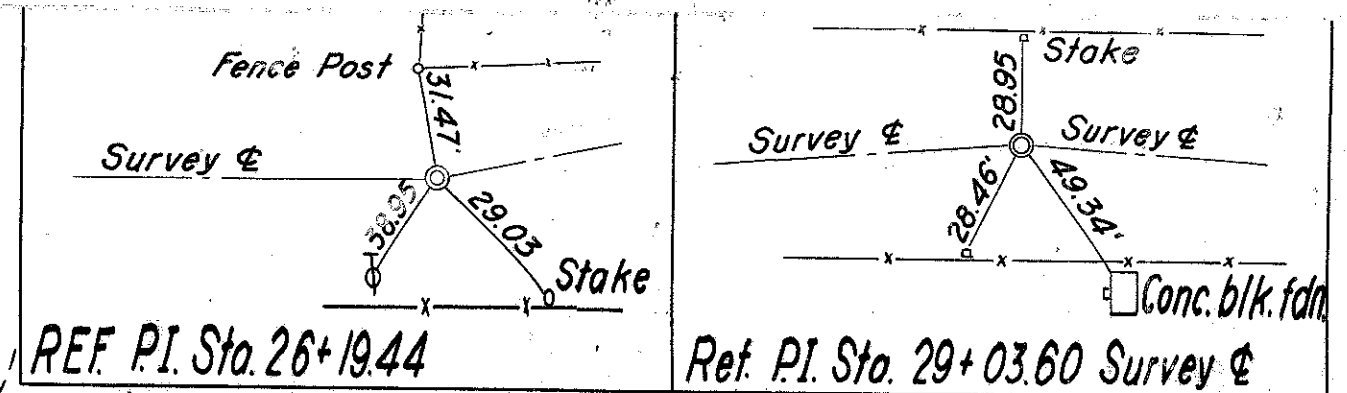
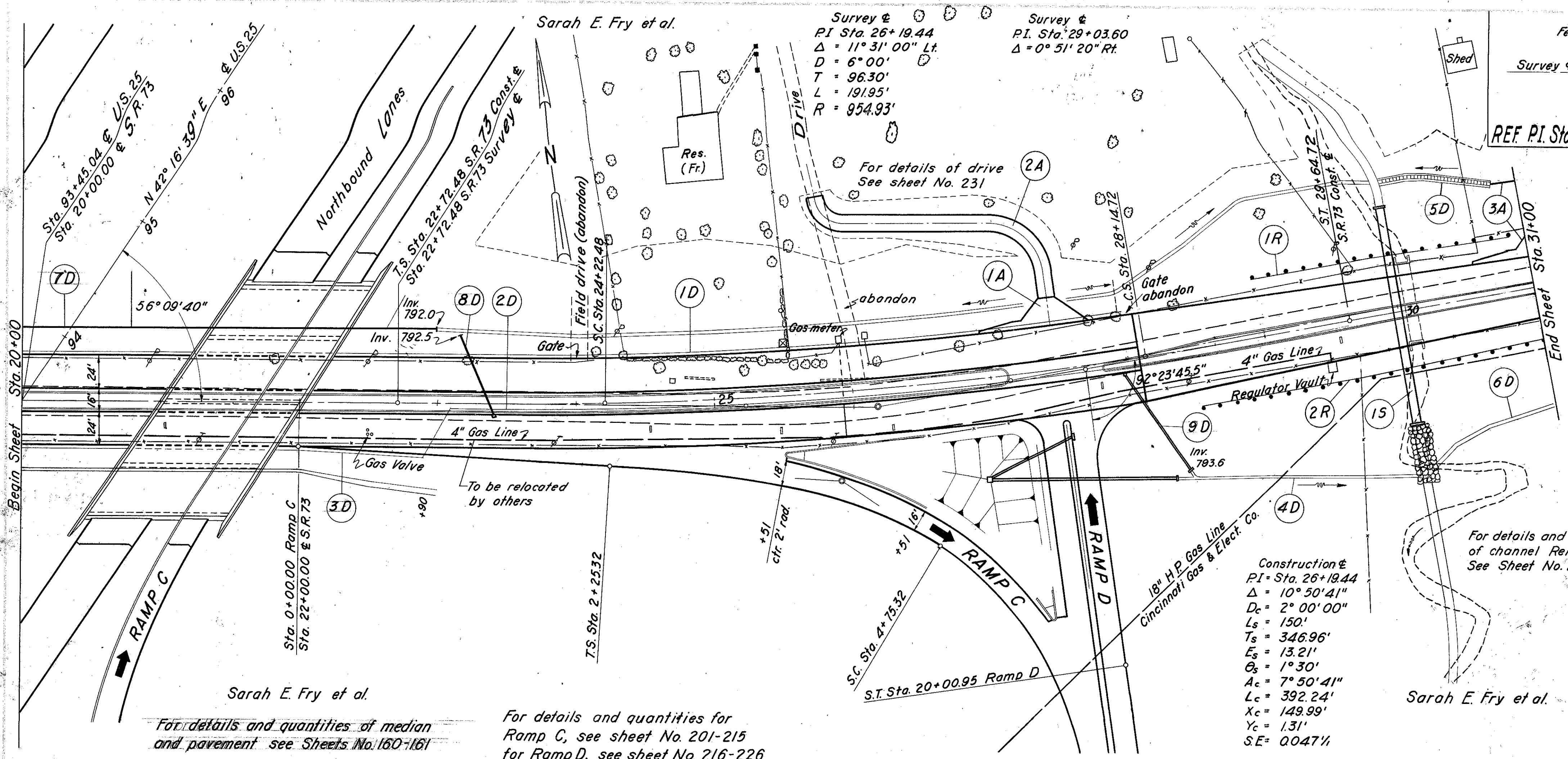
Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlets for Underdrains	I-5 for I-4 Wye 60° 6" Each	I-2 Storm Sewers Sec. M-66(a) or M-68(b) 24" L.F.	I-8 Standard No. 2-3 Catch Basin Each	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures Class E C.Y.
	From	To		Shallow 6" L.F.	Deep 6" L.F.						
1 D	15+36	20+00	L	486	10	1					
2 D	15+36	20+00	R	486	10	1					
3 D	18+00	20+00	L					200		1	.4
4 D	18+25	-	L								
Totals				972	20	2		200	1	1	.4

Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	S-1 Concrete for Structures Class E C.Y.	S-24 Removal of Existing Structures Lump Sum	S-27 Pipe for Rdwy Culv. 42" L.F.	L-10 Sodding S.Y.	See Sheet No.
2-5	17+52				L.S.			
Totals		167	5	1.5		114	11	



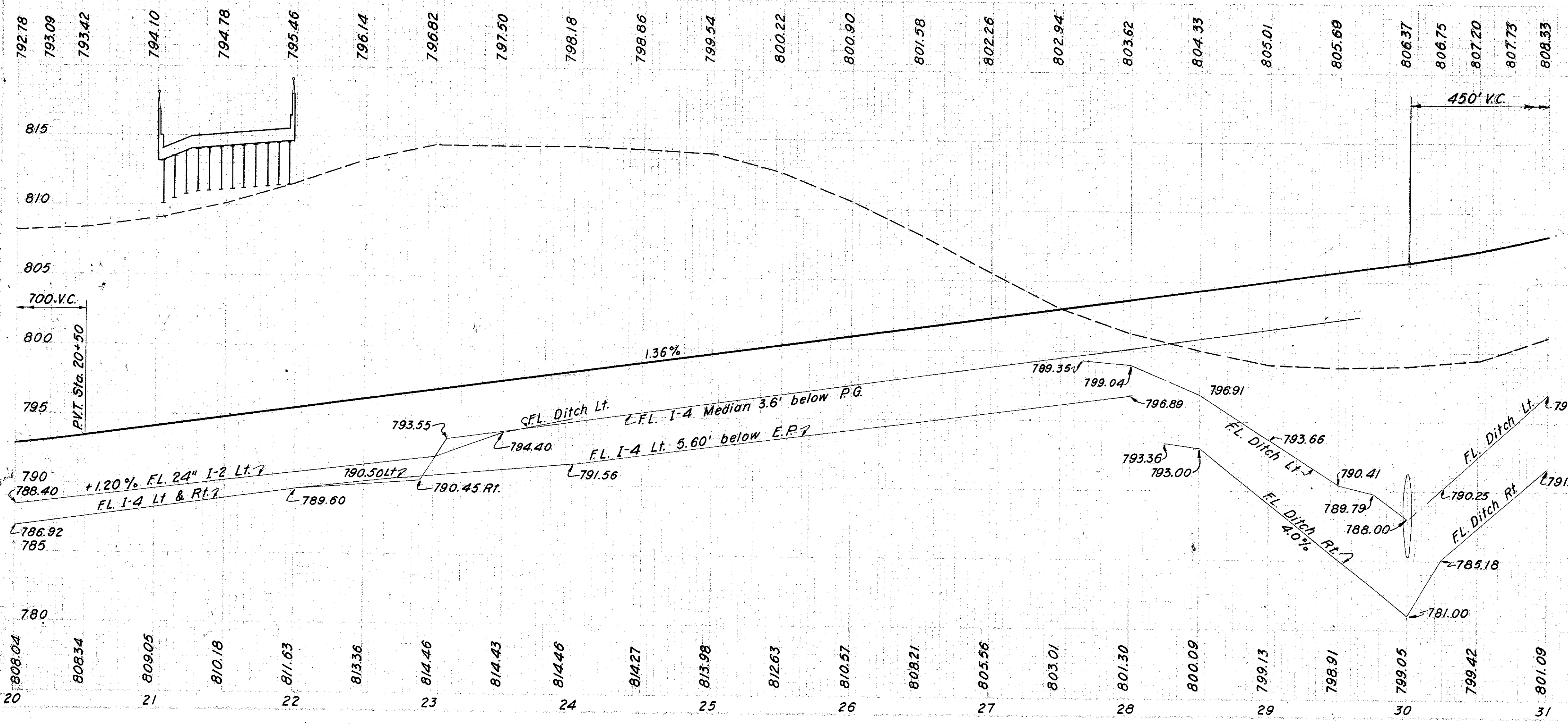
S.R. 73 Sta. 10+00 to Sta. 20+00

WAR-25-8.48
MOT-25-0.00



DRAINAGE									
Ref. No.	Station		Side	I-4 Underdrain		I-5 for I-4	Wye 60\"/>		
	From	To		Shallow 6\"/>					
1 D	20+00	28+00	L		800				
2 D	22+90	29+65	Med.	675					
3 D	20+00	22+90	R		290				
4 D	28+20	29+95	R					6	117
5 D	30+05	30+82	L					2@1.5	26 77
6 D	30+05	31+00	R					6	68
Totals				675	1090	1		211	77

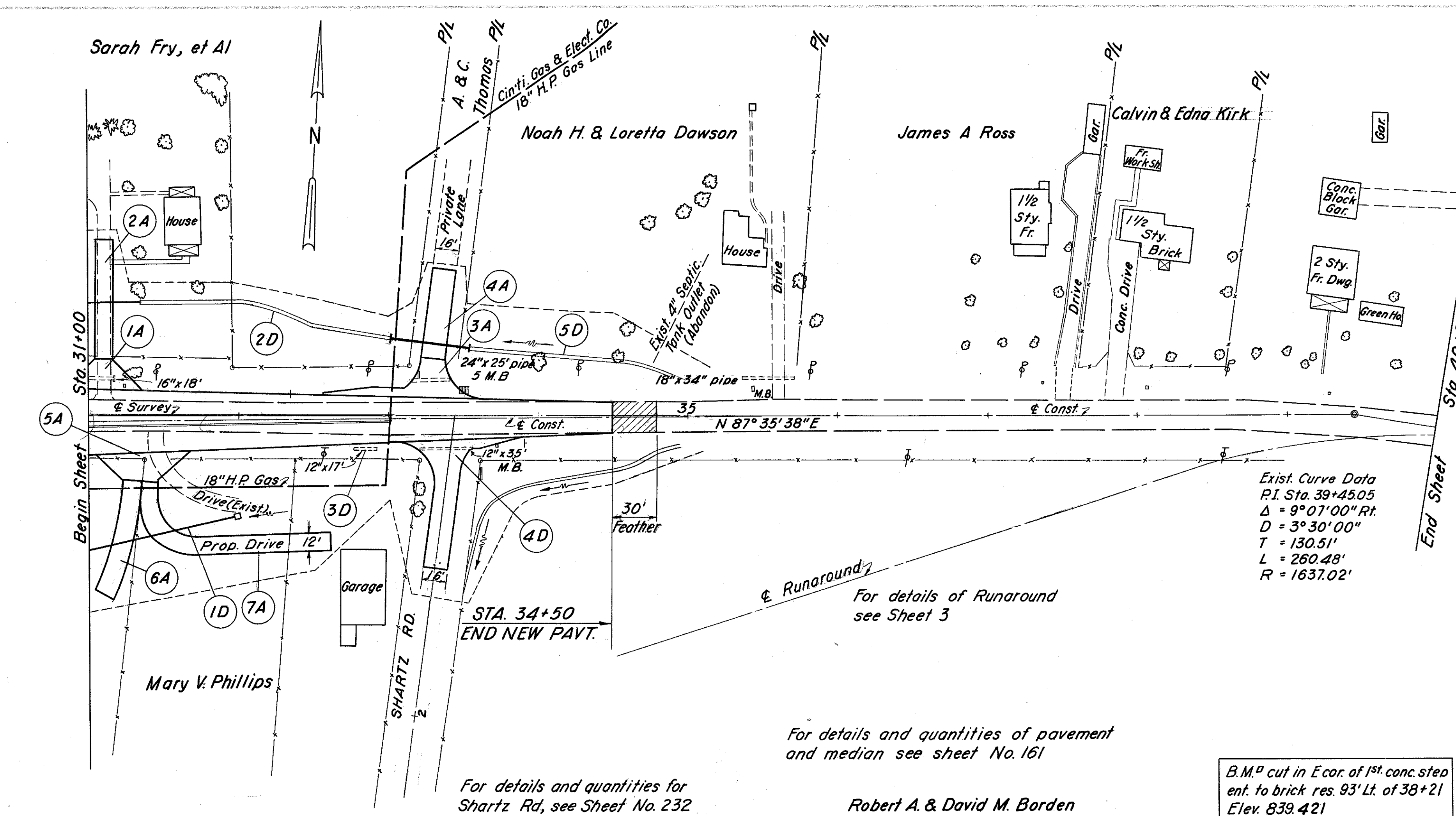
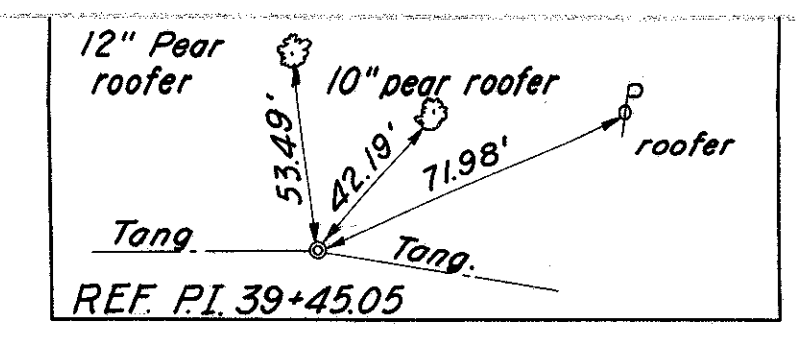
DRAINAGE (Cont.)									
Ref. No.	Station		Side	I-2 Storm Sewers Sec. M-6.6(b) or M-6.8(b) 24\"/>					
	From	To			I-2 Storm Sewers Class 'B' 15\"/>				
7 D	20+00	23+00	L	300		1	0.4		
8 D	23+15	23+40	L&R		62	1	0.3		
9 D	27+98	28+35	R		88	1	0.3		
Totals				300	150	3	1.0	2	1 1



STRUCTURES (20' span and under)								
Ref. No.	Station	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures Class E C.Y.	S-24 Removal of Existing Structures Lump Sum	S-28 Sec. C.M.P. 10-10 gage 66\"/>			
						E-3 Channel Excavation C.Y.	See Sheet No.	
1 S	30+00	80	13.4	L.S.	160	64	33 915	293
Totals		80	13.4	L.S.	160	64	33 915	

ROADWAY			
Ref. No.	Station		I-15 Guard Rail Std. Type - Deep L.F.
	From	To	
1 R	29+00	30+87.5	1875
2 R	28+50	31+00	250
Totals			4375

DRIVES AND APPROACHES						
Ref. No.	Station	Length	Side	I-70 Port. Cem. Conc. Pavt. 7\"/>		
					T-35 Asphaltic Conc. Surf. 2\"/>	
1 A	27+50		L	83		
2 A	27+50		L			47
3 A	30+91		L		1.4	18
Totals				83	1.4	18



DRIVES & APPROACHES

Ref. No.	Station	Side	Length	B-119 Crushed Agg. Base Course		T-35 Asphaltic Concrete Surface Course 2" C.Y.	E-12 Pipe Removal Over 15" L.F.	I-1 Pipe for Roadway 24" L.F.
				5" C.Y.	6" C.Y.			
1 A	31+10	L	20	9		32		
2 A	31+10	L	80		17			36
3 A	33+24	L	26	16		6.3	25	
4 A	33+24	L	60		19			54
5 A	31+35	R	20	14		5.6		
6 A	31+35	R	80		18			
7 A	31+35	R	150		34			
Totals				39	88	15.1	25	90

DRAINAGE

Ref. No.	Station		Side	I-2 Storm Sewers Class A 12" L.F.	E-12 Removal of Pipe 15" and Under L.F.	L-10 Sodding	
	From	To				Width L.F.	S.Y.
1 D	31+00	32+00	R	100			
2 D	31+35	33+00	L			6	112
3 D	32+75	32+92	R		17		
4 D	33+20	33+55	R		35		
5 D	33+54	35+00	L			6	97
Totals				100	52		209

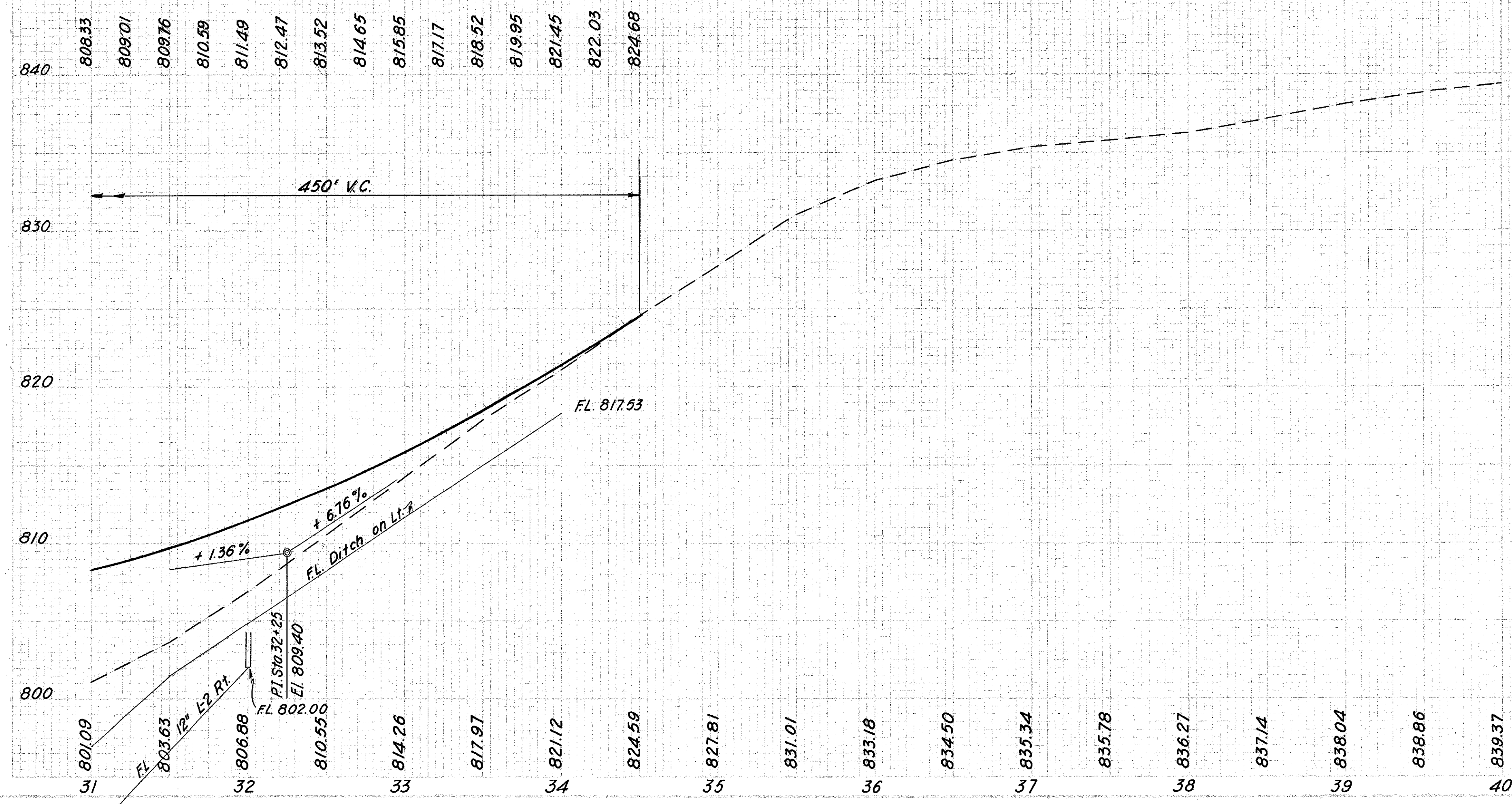
Exist. Curve Data
P.I. Sta. 39+45.05
 $\Delta = 9^\circ 07' 00''$ Rt.
 $D = 3^\circ 30' 00''$
 $T = 130.51'$
 $L = 260.48'$
 $R = 1637.02'$

For details and quantities of pavement and median see sheet No. 161

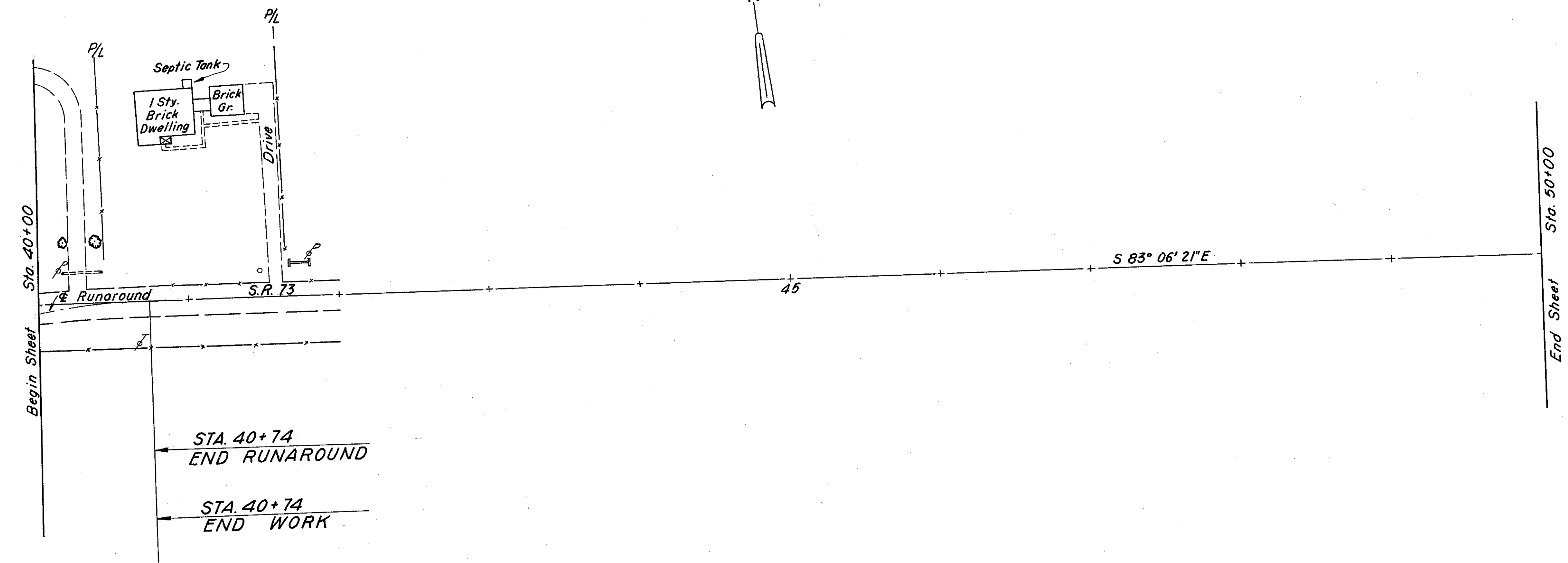
Robert A. & David M. Borden

For details and quantities for Shartz Rd, see Sheet No. 232

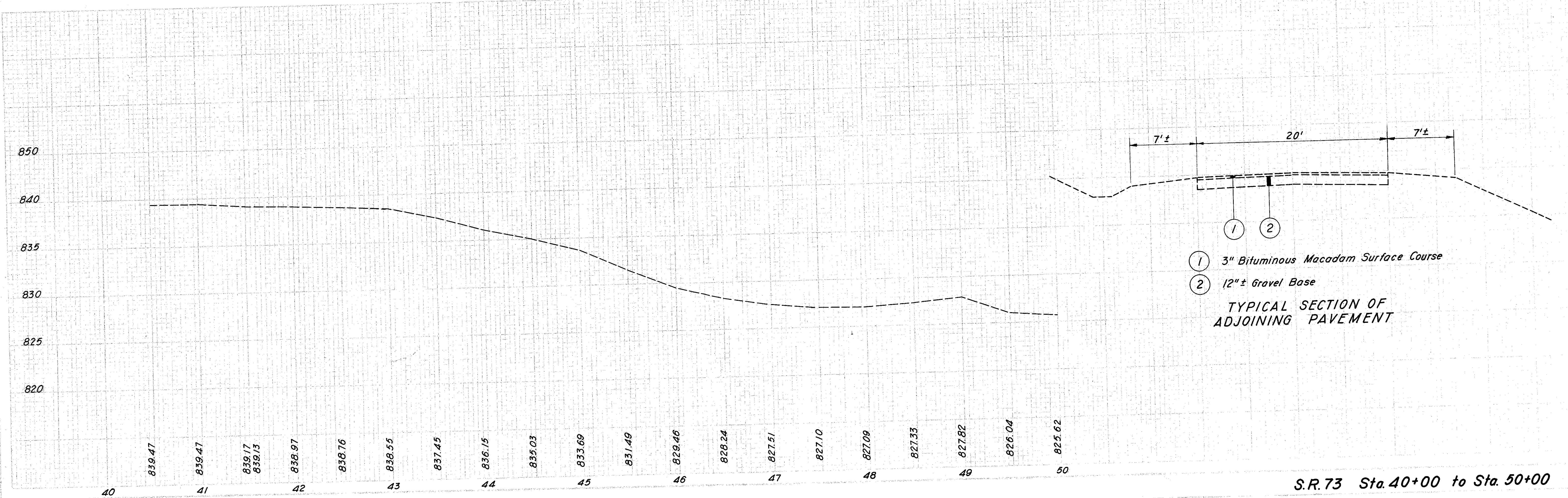
B.M. cut in E cor. of 1st conc. step ent. to brick res. 93' Lt. of 38+21 Elev. 839.421



WAR.-25-8.48
MOT.-25-0.00

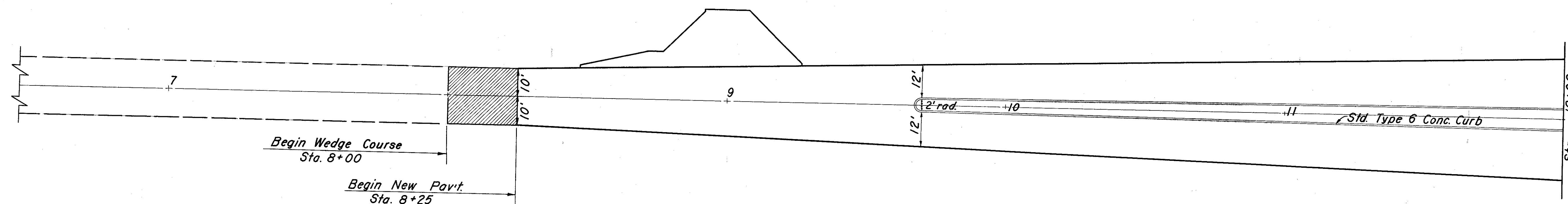


For details of Runaround
See Sheet No. 3



S.R. 73 Sta. 40+00 to Sta. 50+00

WAR.-25-8.48
MOT.-25-0.00

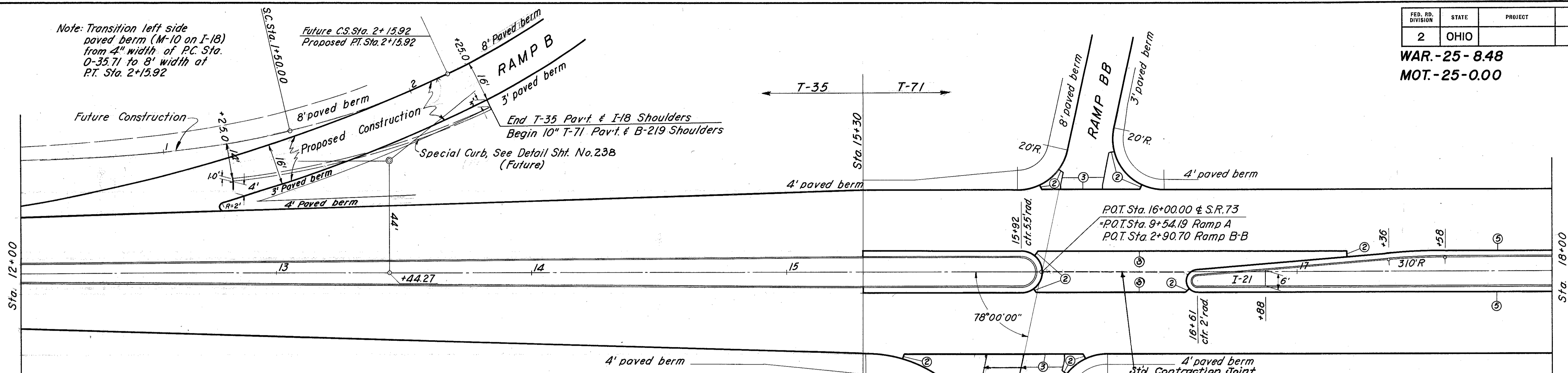


PAVEMENT					
Ref. No	Station		T-35 Asph. Conc. Surf Crse Type A (85-100) C.Y.	I-12 Std. Type 6 Concrete Curb L. F.	I-23 Precast Concrete Traffic Dividers Ea.
	From	To			
1 P	8+00	8+25	3		
2 P	9+21.20	9+69.20			8
3 P	9+66.7	12+00		468	
Totals			3	468	8

Scale: 1"=20'

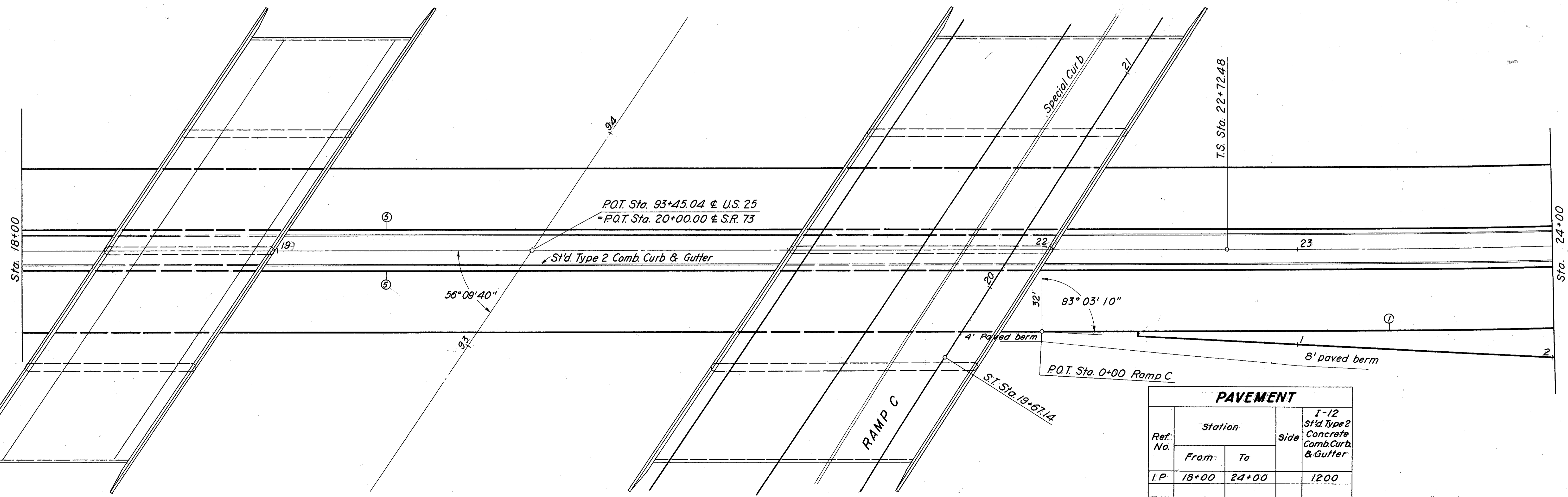
WAR.-25-8.48
MOT.-25-0.00

Note: Transition left side paved berm (M-10 on I-18) from 4" width of P.C. Sta. 0+35.71 to 8" width at P.T. Sta. 2+15.92



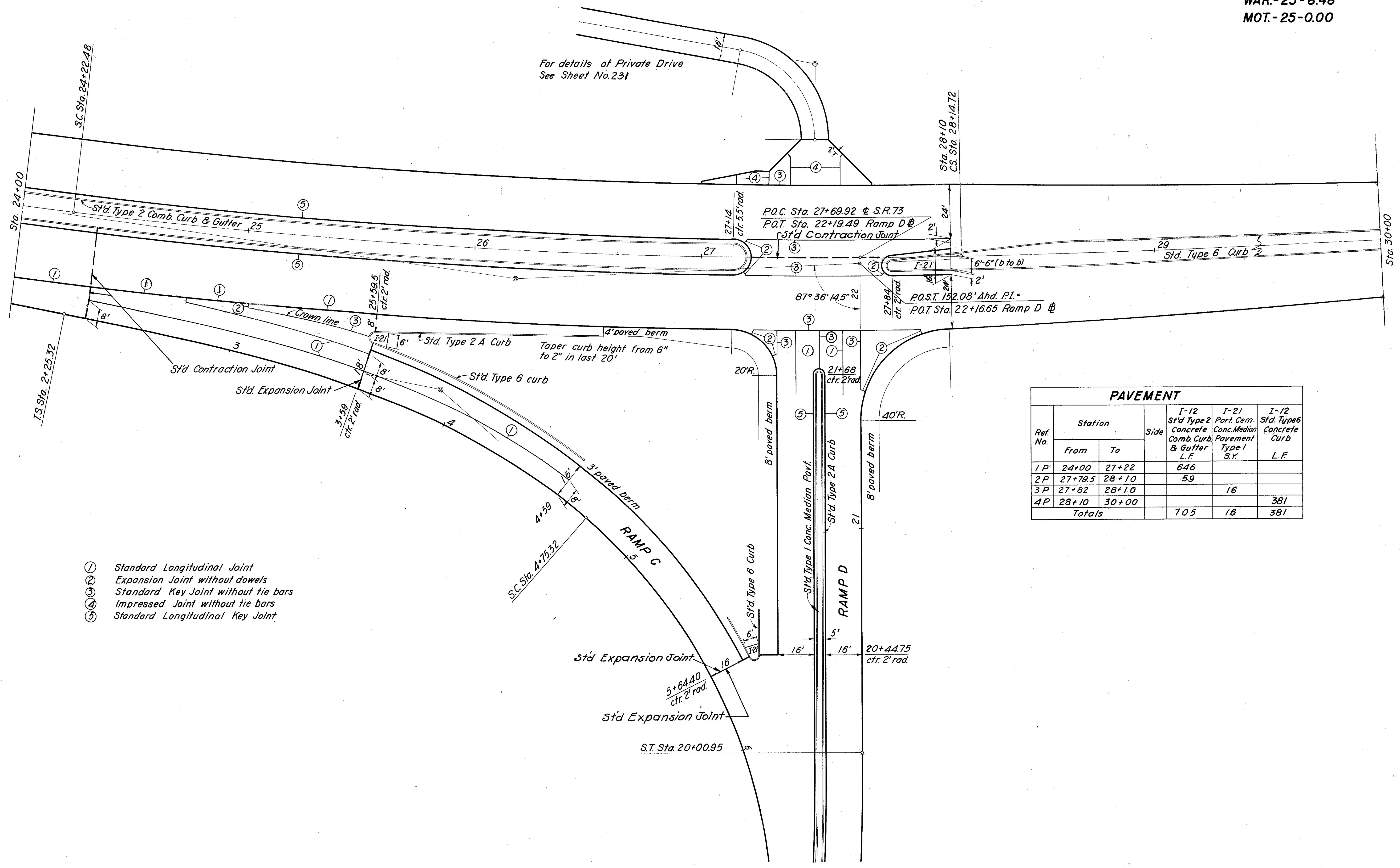
Ref. No.	Station		Side	I-12 St'd. Type 2 Concrete Comb. Curb. & Gutter L.F.	I-21 Port. Cem. Conc. Median Pavement Type 1 S.Y.	I-12 Standard Type 6 Concrete Curbs L.F.
	From	To				
1 P	12+00	15+30				660
2 P	16+56.5	18+00		285		
	16+59	16+88			16	
	15+30	16+00		142		
	Total			427	16	660

- ① Standard Longitudinal Joint
- ② Expansion Joint without dowels
- ③ Standard Key Joint without tie bars
- ④ Impressed Joint without tie bars
- ⑤ Standard Longitudinal Key Joint



Ref. No.	Station		Side	I-12 St'd. Type 2 Concrete Comb. Curb. & Gutter
	From	To		
1 P	18+00	24+00		1200
	Total			1200

Scale: 1"=20'

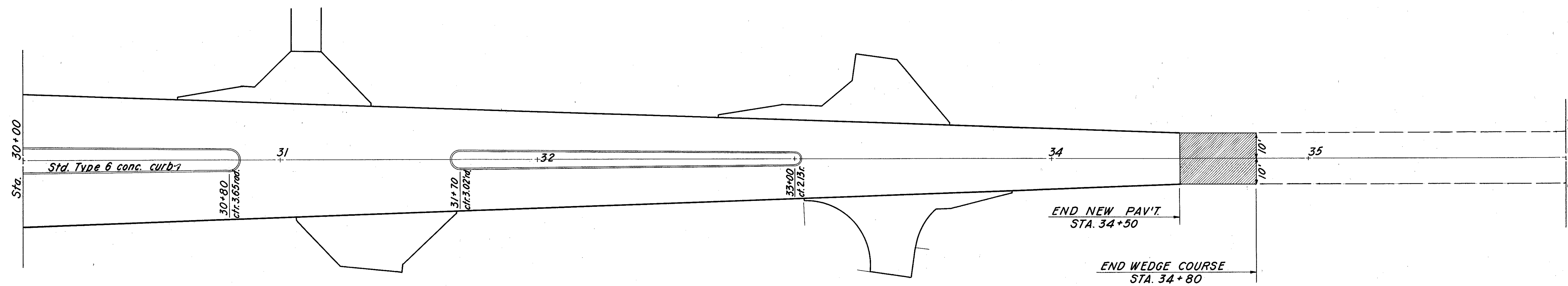


- ① Standard Longitudinal Joint
- ② Expansion Joint without dowels
- ③ Standard Key Joint without tie bars
- ④ Impressed Joint without tie bars
- ⑤ Standard Longitudinal Key Joint

PAVEMENT						
Ref. No.	Station		Side	I-12 Std. Type 2 Concrete Comb. Curb, & Gutter L.F.	I-21 Port. Cem. Conc. Median Pavement Type 1 S.Y.	I-12 Std. Type 6 Concrete Curb L.F.
	From	To				
1P	24+00	27+22		646		
2P	27+79.5	28+10		59		
3P	27+82	28+10			16	
4P	28+10	30+00				381
Totals				705	16	381

Scale: 1"=20'

WAR-25-8.48
MOT-25-0.00



PAVEMENT					
Ref. No.	Station		Side	I-12	T-35
	From	To		Std. Type 6 Concrete Curb	Asph. Conc. Surf. Crse. Type A (85-100) C.Y.
1 P	30+00	30+84.15		L.F.	
2 P	31+66.48	33+02.63		172	276
3 P	34+50	34+80		4	4
Totals				448	4

Scale: 1" = 20'

SEEDING	
END WIDTH	SQ. YDS.

140

120

100

80

60

40

20

±

20

40

60

80

100

WAR.-25-8.48
MOT.-25-0.00

162
377

800

120

140

END AREA	CUT	FILL	CU.	YDS.
CUT	FILL	CUT	FILL	

798.85
4+00
796.86

800

799.66
3+50
797.24

800

800.60
3+00
798.40

800

801.66
2+50
800.25

800

802.85
2+00
802.46

140

120

100

80

60

40

20

±

20

40

60

80

100

120

140

S.R.73 Sta. 2+00 to Sta. 4+00

SEEDING
END SQ.
WIDTH YDS.

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

163
377

WAR-25-8.48
MOT-25-0.00

800 140

796.80
6+00
796.88

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

797.01
5+71
797.15

C=100

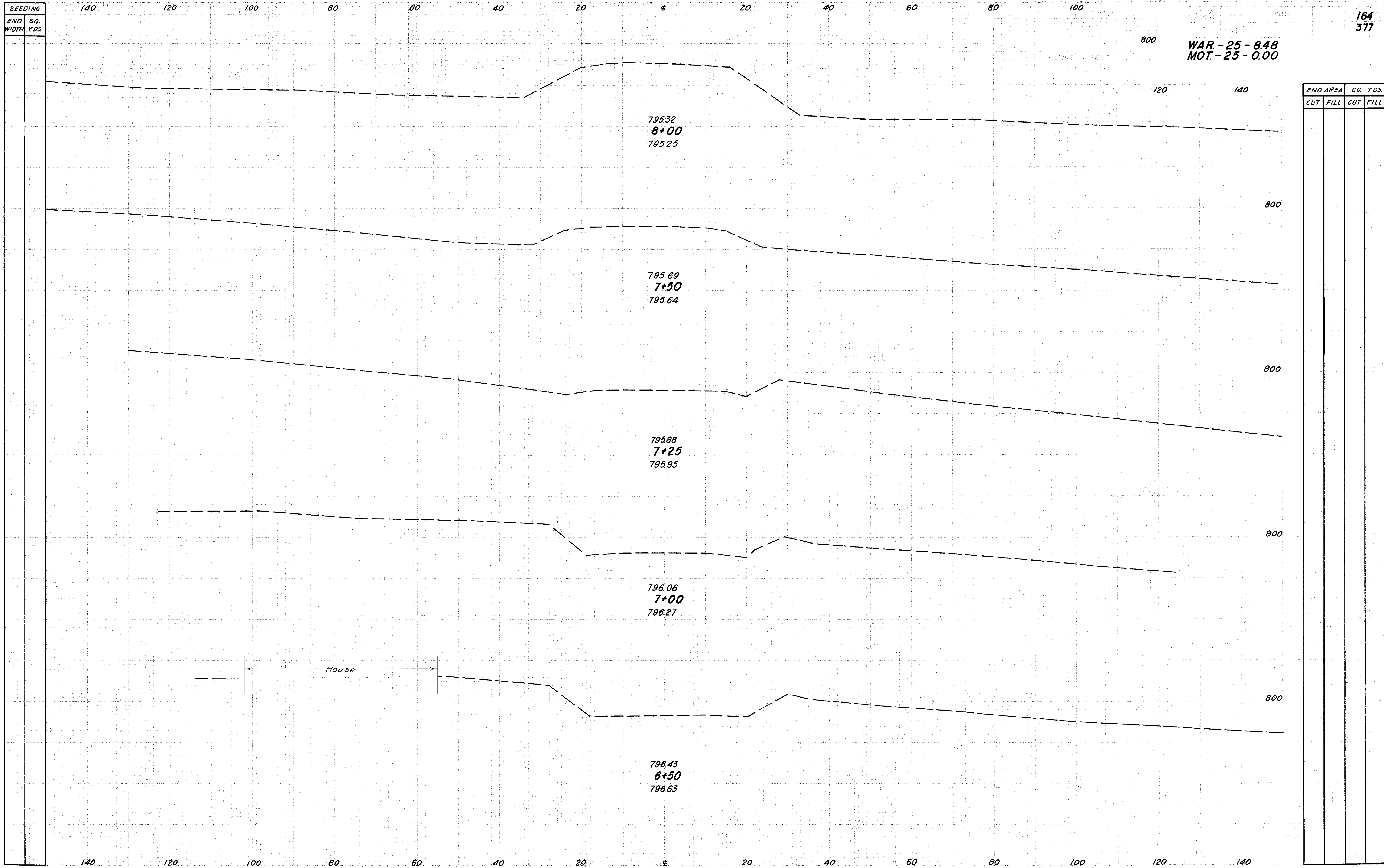
797.17
5+50
797.28

797.60
5+00
796.68

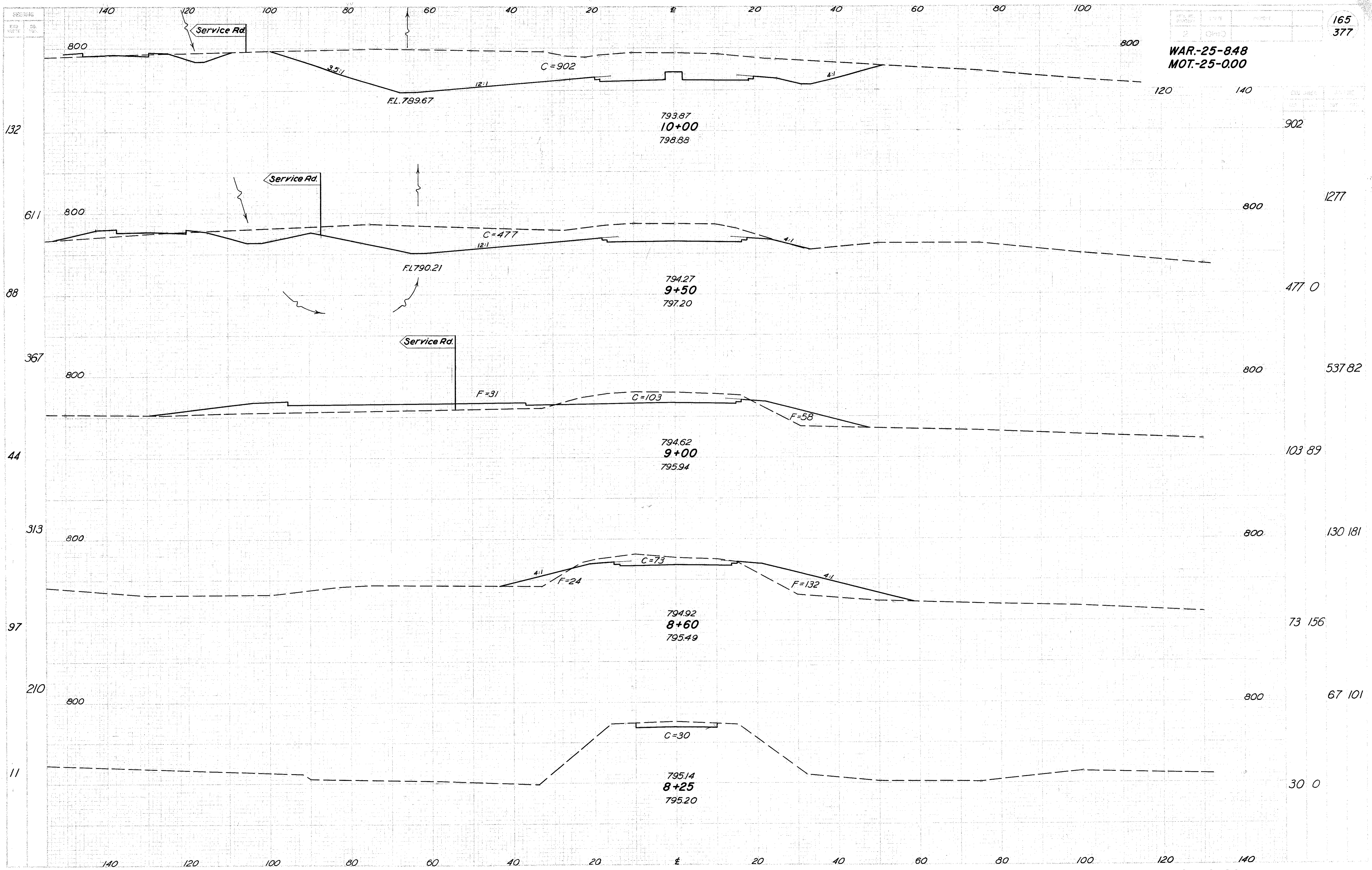
798.16
4+50
796.45

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

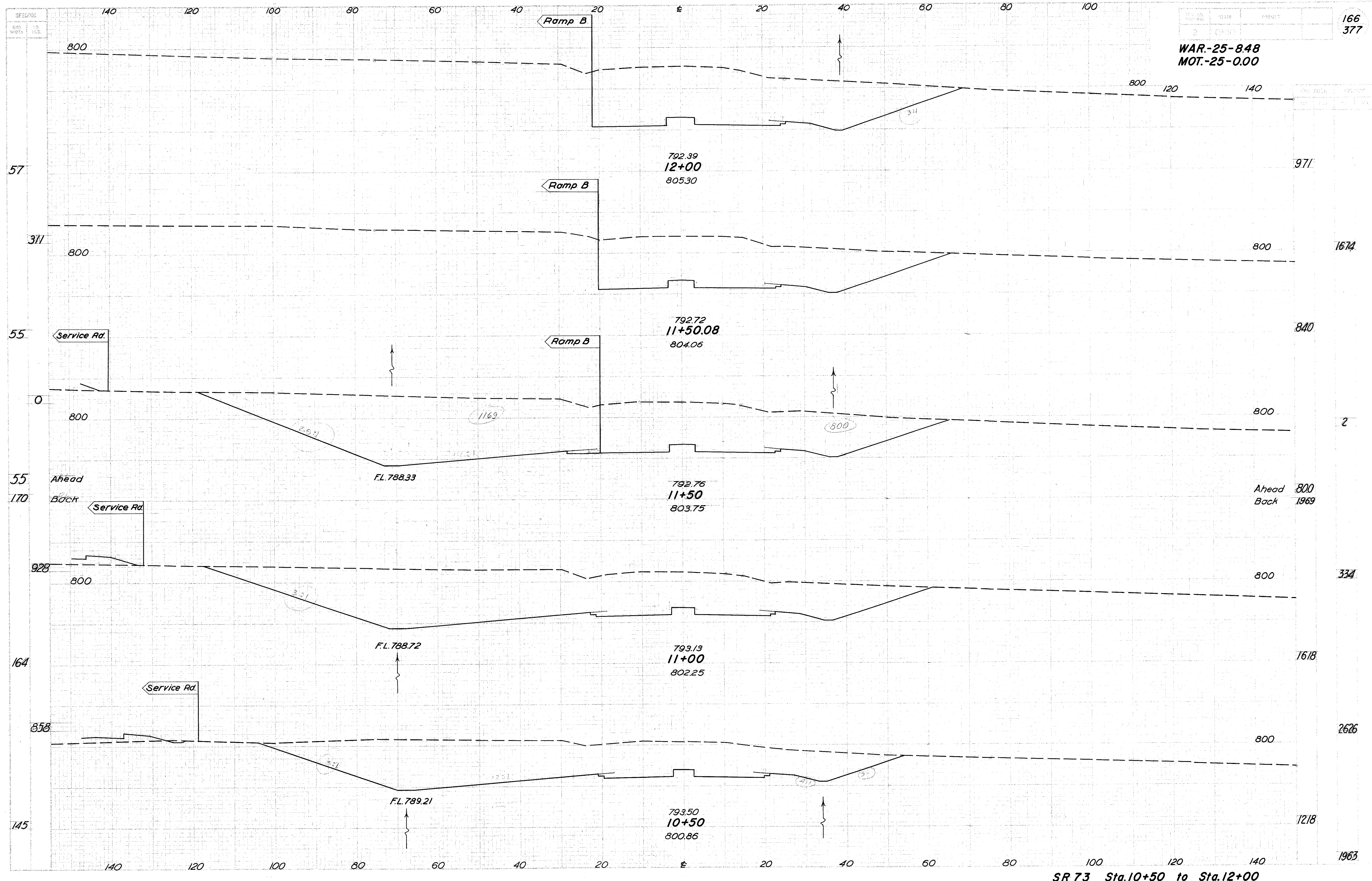
120 140
S.R.73 Sta. 4+50 to Sta. 6+00



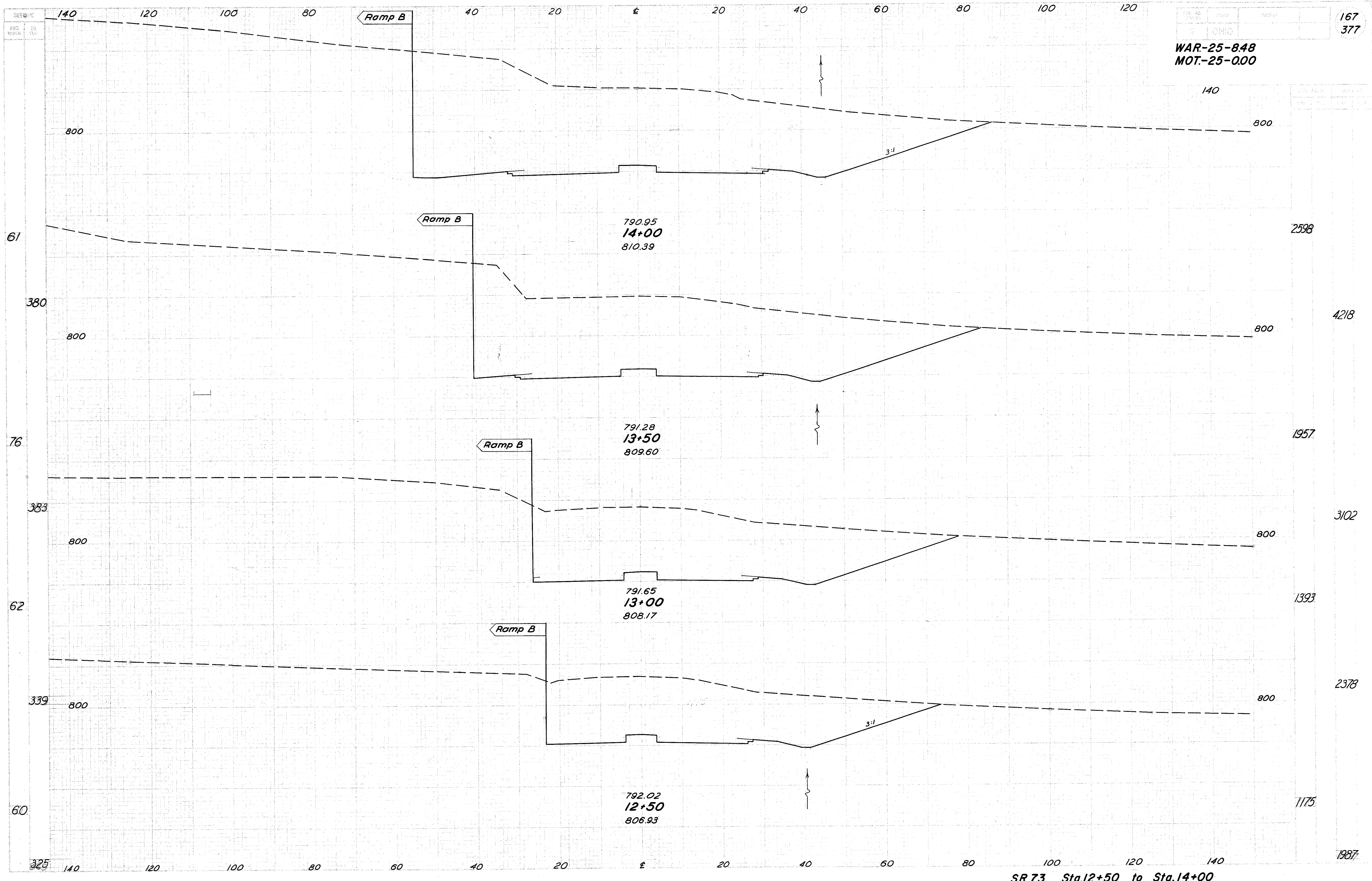
S.R. 73 Sta. 6+50 to Sta. 8+00



SR 73 Sta. 8+25 to Sta. 10+00

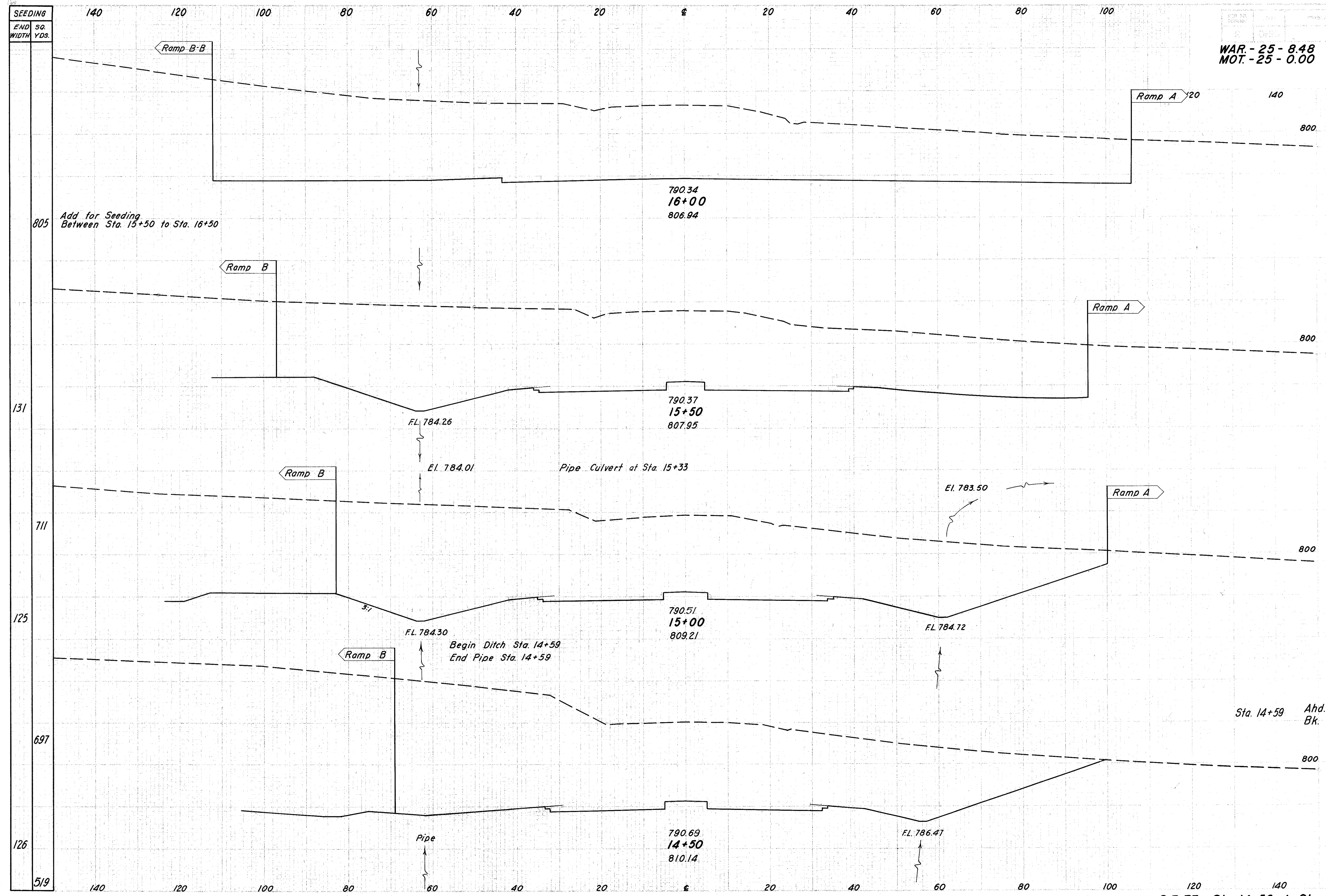


SR 73 Sta.10+50 to Sta.12+00



SR 73 Sta. 12+50 to Sta. 14+00

WAR. - 25 - 8.48
MOT. - 25 - 0.00

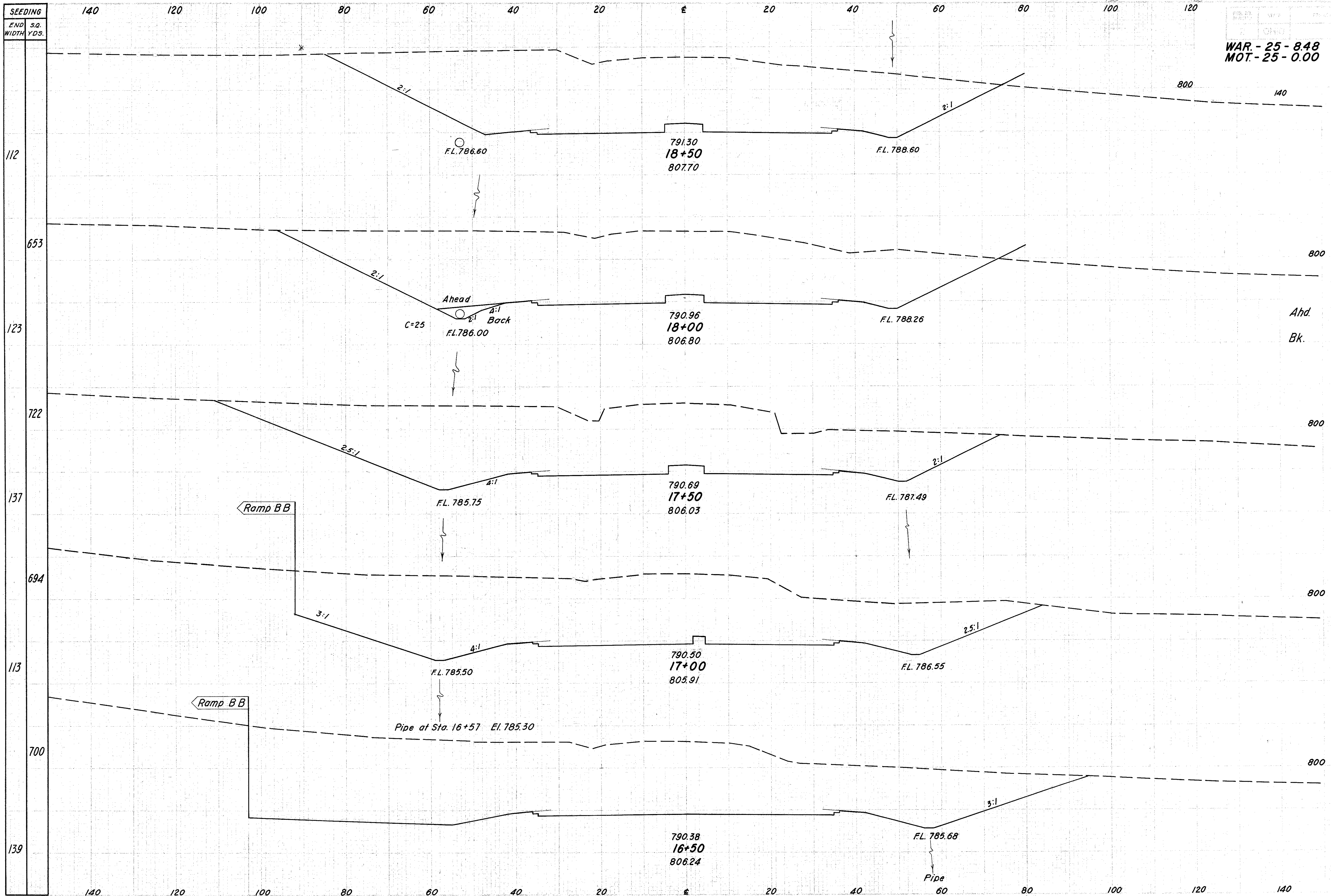


SEEDING
END SQ. WIDTH YDS.
805
131
711
125
697
126
519

END AREA	CU. YDS.	
	CUT	FILL
3597		
3403		6481
3350		6253
3300		3350
3300		5087
3300	0	1100
3300		5461

S.R. 73 Sta. 14+50 to Sta. 16+00

WAR. - 25 - 8.48
MOT. - 25 - 0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
2185			
	4098		
2241			
	2266		
	4185		
2254			
	4312		
2403			
	4982		
2978			
	6096		

S.R. 73 Sta. 16+50 to Sta. 18+50



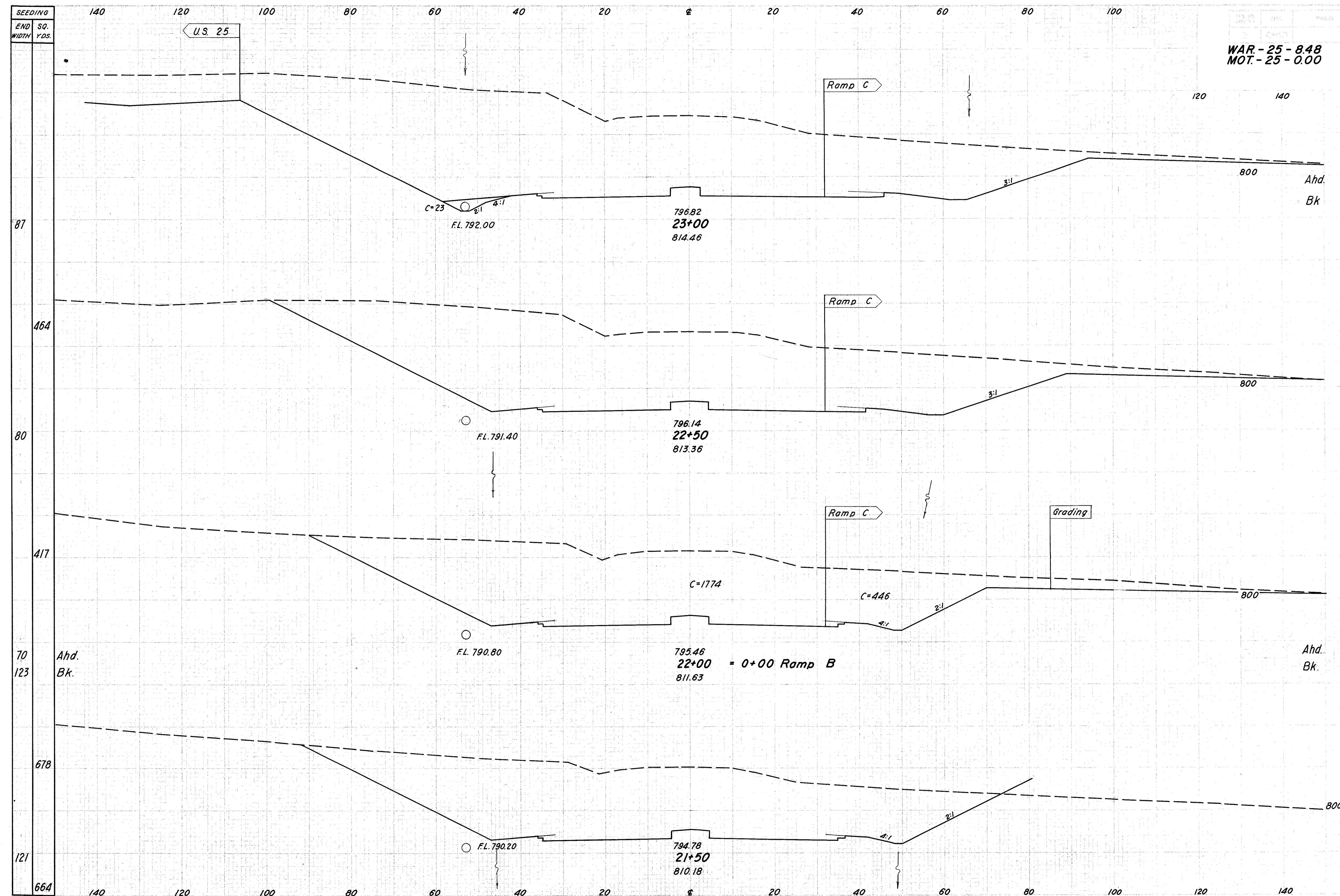
WAR. - 25 - 8.48
 MOT. - 25 - 0.00

SEEDING	END SO. WIDTH	SO. YDS.
	140	118
	120	669
	100	123
	80	675
	60	120
	40	656
	20	116
	0	647
	20	117
	40	636

END STA.	AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
1898				
1946			3559	
1976			3631	
1950			3635	
2121			3769	
3987				

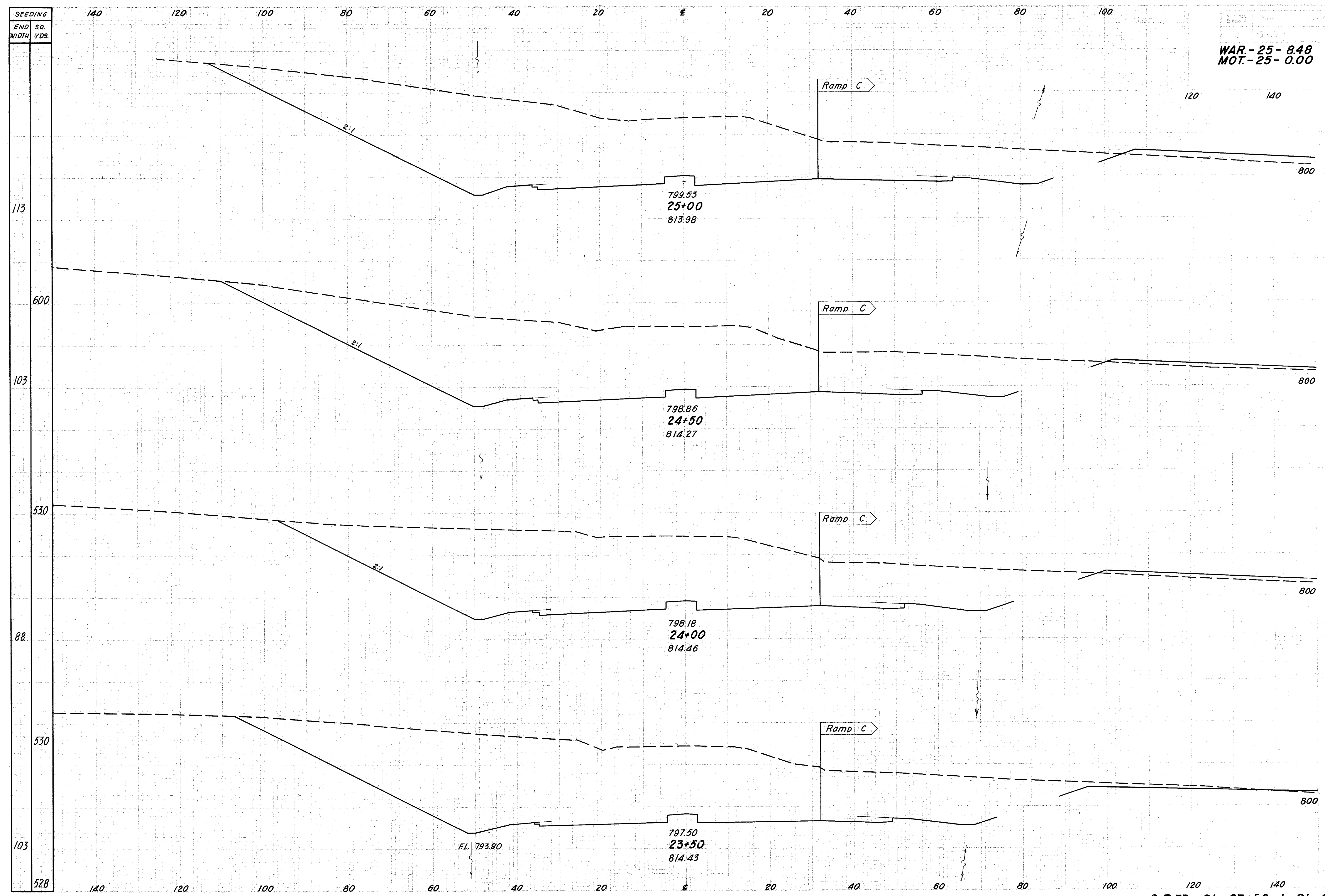
S.R. 73 Sta. 19+00 to Sta. 21+00

WAR-25-8.48
MOT-25-0.00



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
2779	2756		
		4483	
		2086	
		3574	
1774	2220		
		4046	
2150			
		3748	

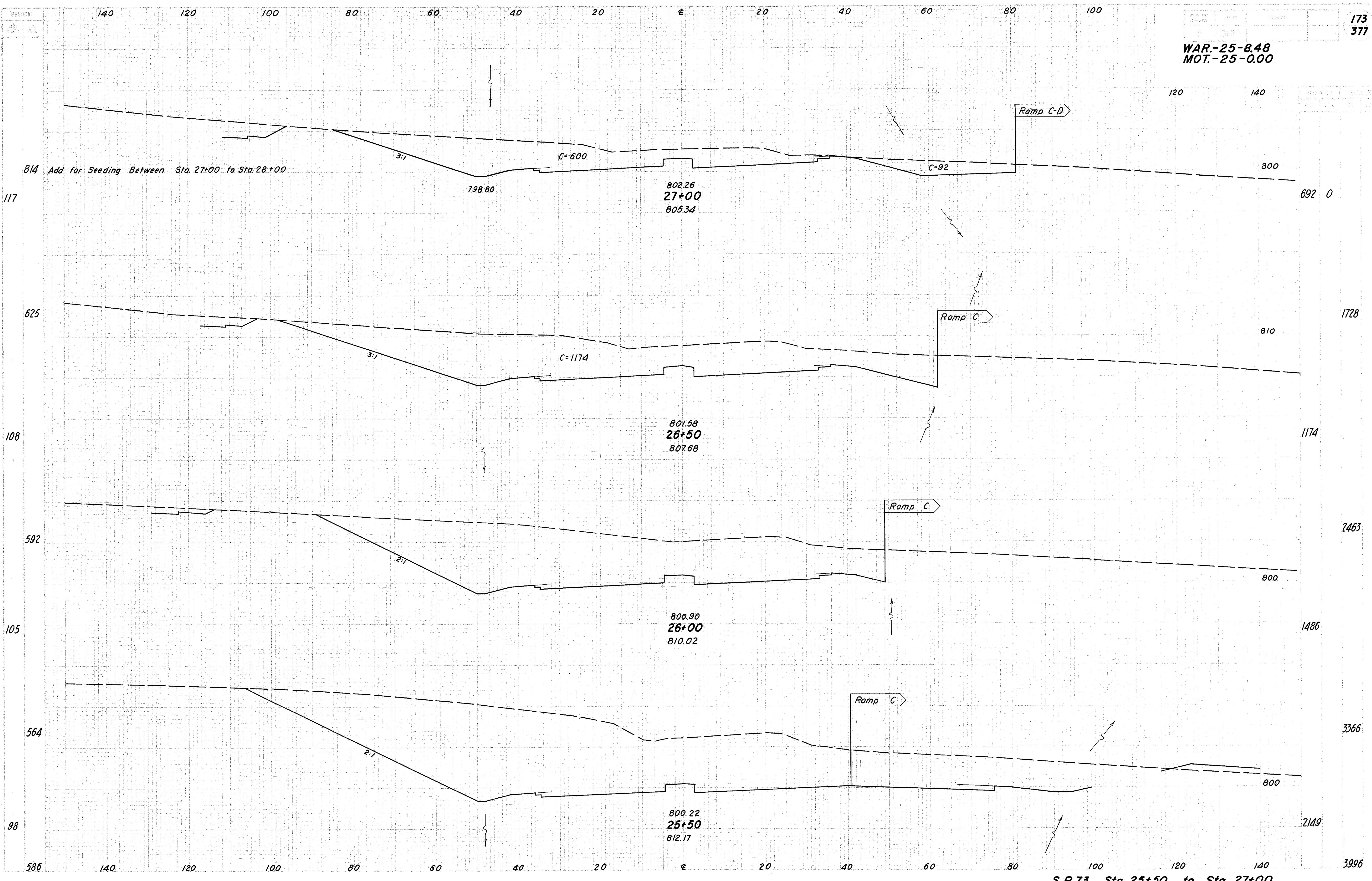
WAR.-25-8.48
MOT.-25-0.00



END AREA	CU. YDS.	
	CUT	FILL
2167		
2018		3875
1981		3703
2221		3891
		4630

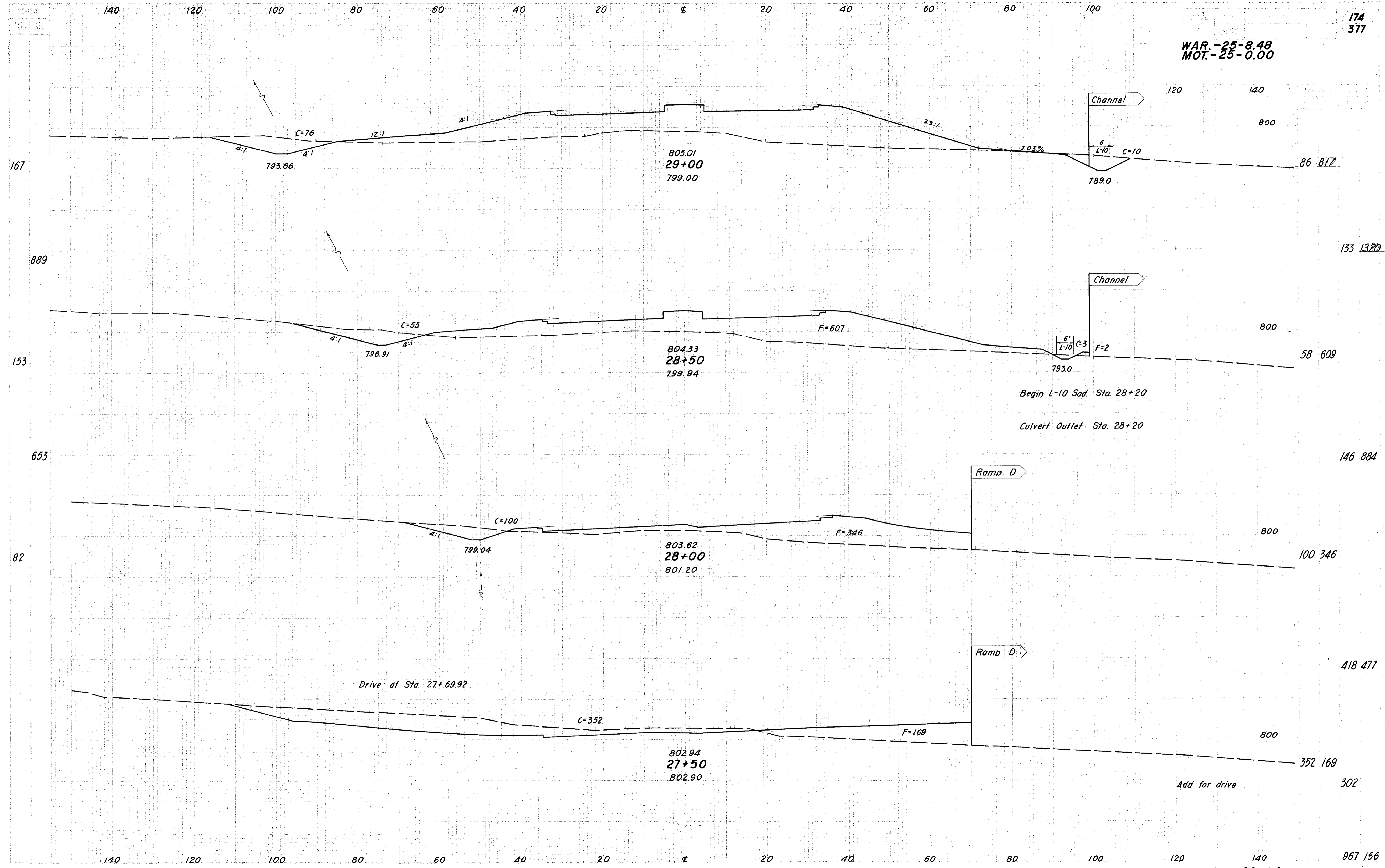
WAR.-25-8.48
MOT.-25-0.00

173
377

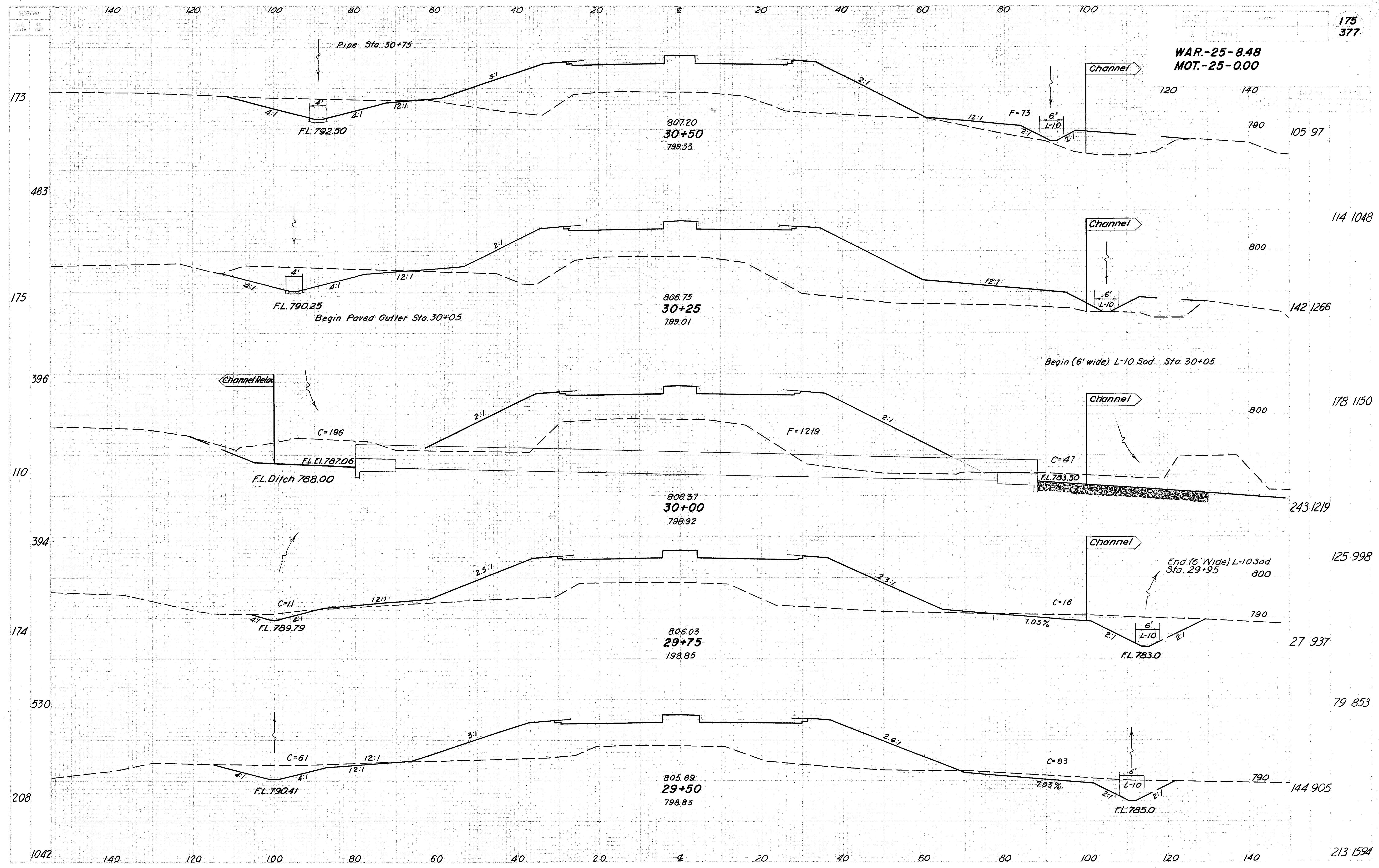


WAR.-25-8.48
MOT.-25-0.00

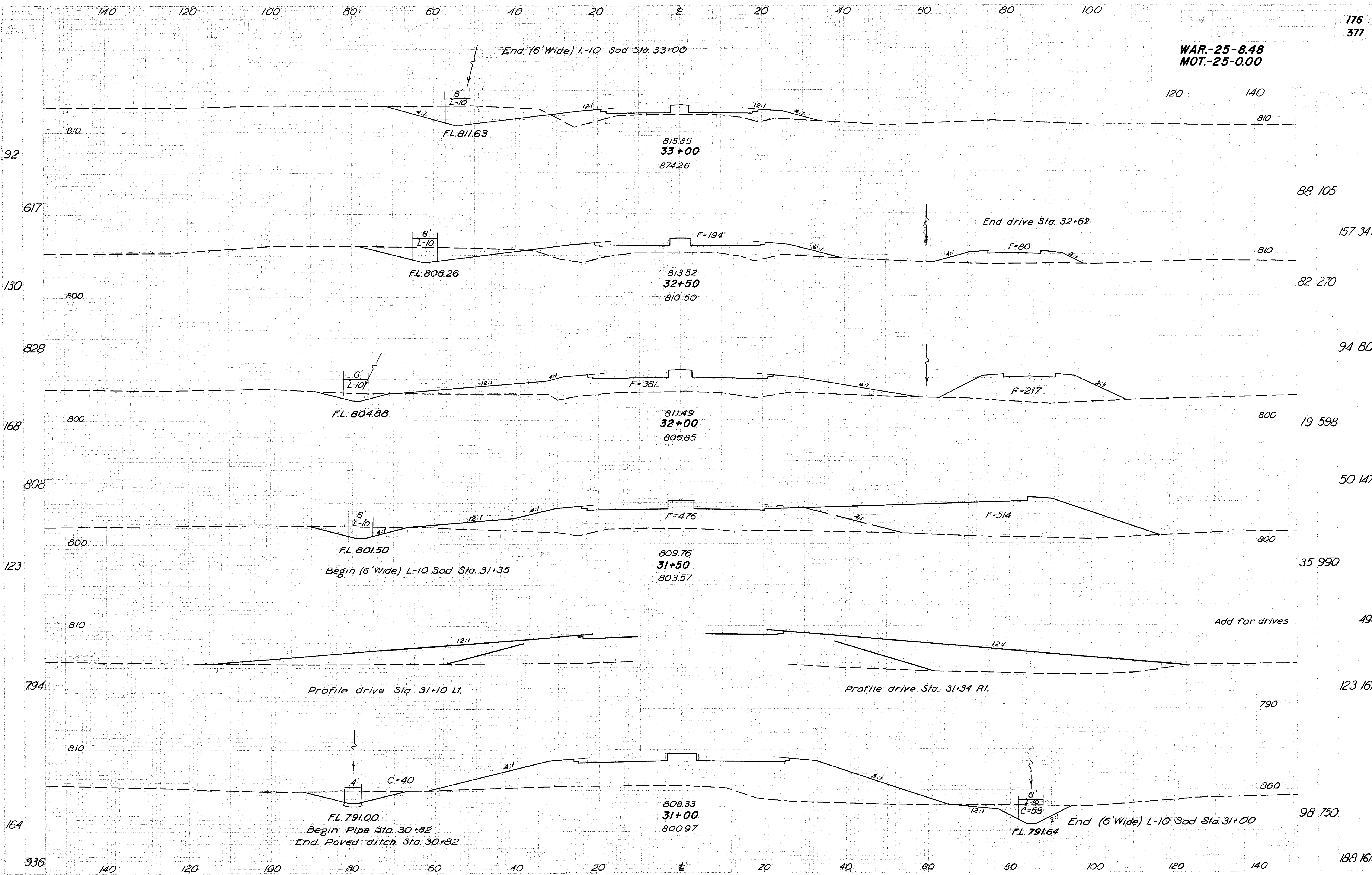
174
377



WAR-25-8.48
MOT-25-0.00



WAR.-25-8.48
MOT.-25-0.00



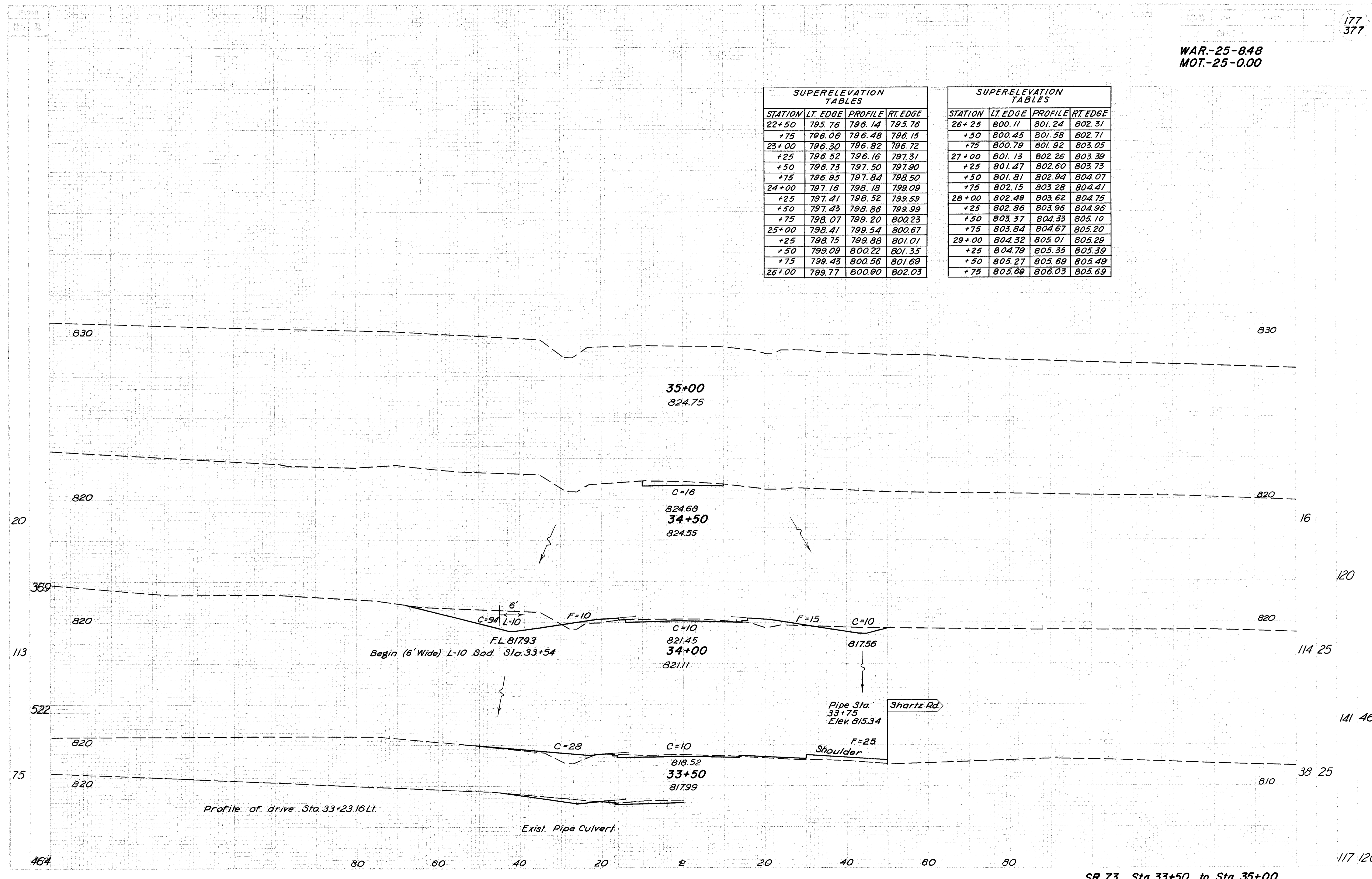
WAR-25-848
MOT-25-0.00

SUPERELEVATION TABLES

STATION	LT. EDGE	PROFILE	RT. EDGE
22+50	795.76	796.14	795.76
+75	796.06	796.48	796.15
23+00	796.30	796.82	796.72
+25	796.52	796.16	797.31
+50	796.73	797.50	797.90
+75	796.95	797.84	798.50
24+00	797.16	798.18	799.09
+25	797.41	798.52	799.59
+50	797.43	798.86	799.99
+75	798.07	799.20	800.23
25+00	798.41	799.54	800.67
+25	798.75	799.88	801.01
+50	799.09	800.22	801.35
+75	799.43	800.56	801.69
26+00	799.77	800.90	802.03

SUPERELEVATION TABLES

STATION	LT. EDGE	PROFILE	RT. EDGE
26+25	800.11	801.24	802.31
+50	800.45	801.58	802.71
+75	800.79	801.92	803.05
27+00	801.13	802.26	803.39
+25	801.47	802.60	803.73
+50	801.81	802.94	804.07
+75	802.15	803.28	804.41
28+00	802.49	803.62	804.75
+25	802.86	803.96	804.96
+50	803.37	804.33	805.10
+75	803.84	804.67	805.20
29+00	804.32	805.01	805.29
+25	804.79	805.35	805.39
+50	805.27	805.69	805.49
+75	805.69	806.03	805.69

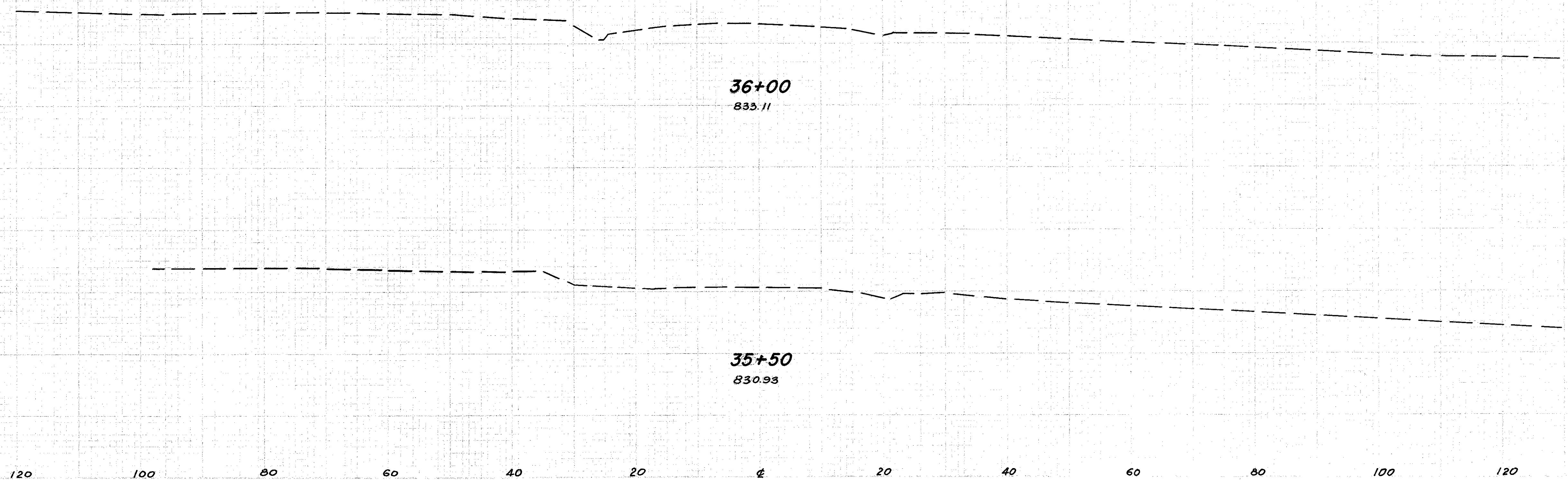


SR 73 Sta. 33+50 to Sta. 35+00

SECTION
NO. 1

178
377

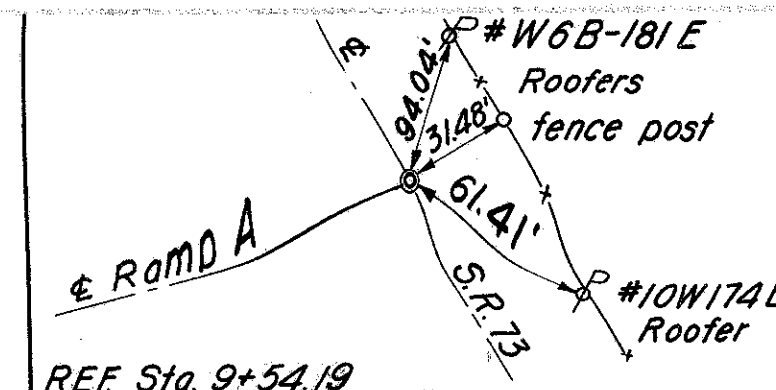
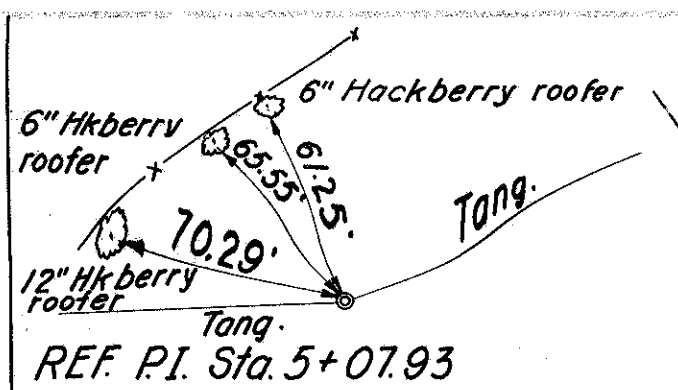
WAR.-25-8.48
MOT.-25-0.00



S.R. 73 Sta. 35+50 to Sta. 36+00

George E. & Miriam L. Boullain

CURVE DATA
 P.I. Sta. 5+07.93
 $\Delta = 18^{\circ}40'03''$ Lt.
 $D_c = 7^{\circ}07'02''$
 $L_s = 150'$
 $T_s = 207.93'$
 $L_c = 5^{\circ}20'16''$
 $\Delta_c = 7^{\circ}59'31''$
 $L_c = 112.29'$
 $X_c = 149.87'$
 $Y_c = 4.66'$
 $R_c = 805.04'$
 $SE = 0.057\%$



WAR-25-848
 MOT.-25-0.00

DRAINAGE

Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlets for Underdrain 8" L.F.	I-5 for I-4 Bend 60° 6" Ea.	Wye 60° 6" Ea.	L-10 Sodding	
	From	To		Shallow	Deep				Width L.F.	S.Y.
1 D	3+00	6+00	L	300						
2 D	6+00	7+30	L		146	10	1			
3 D	7+04	9+00	L		276	10				
4 D	0+00	8+80	L						9	880
Totals				300	422	20	1	1		880

STRUCTURES (20' Span and under)

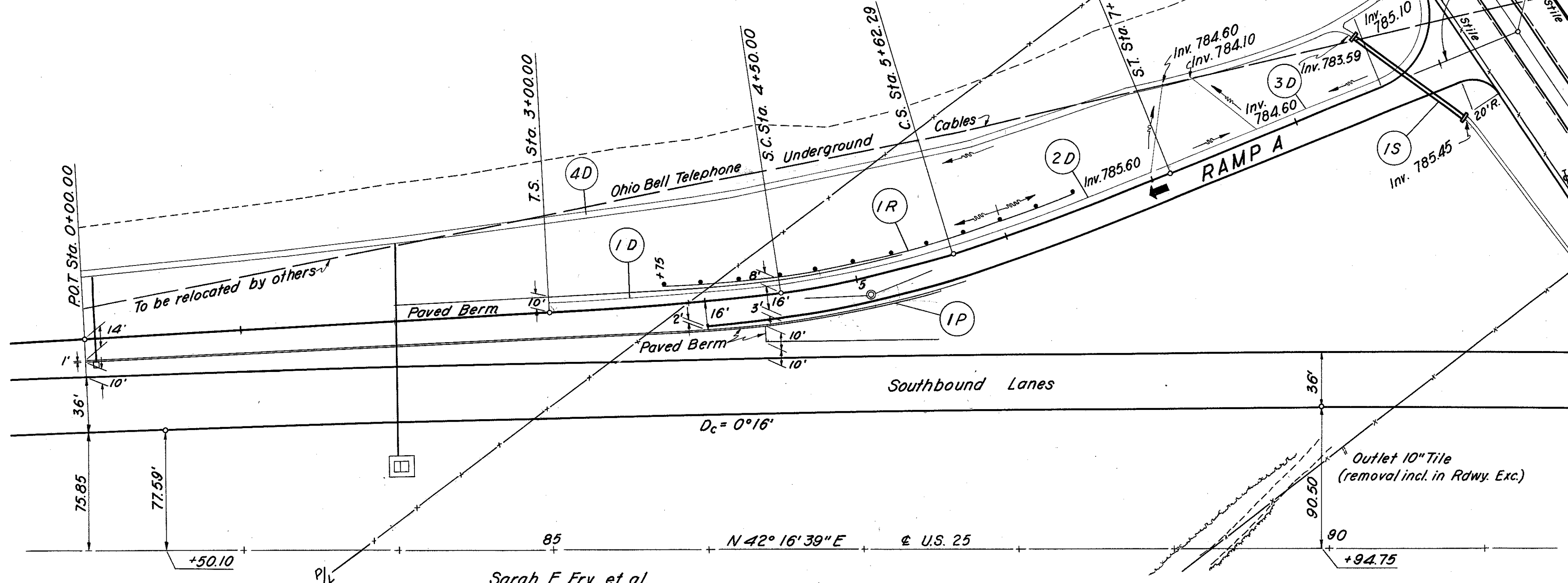
Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Rwy's Curb Sec. M-55(b) or M-68(b) 18" L.F.	See Sheet No.
Totals		44	2	0.8	90	

ROADWAY

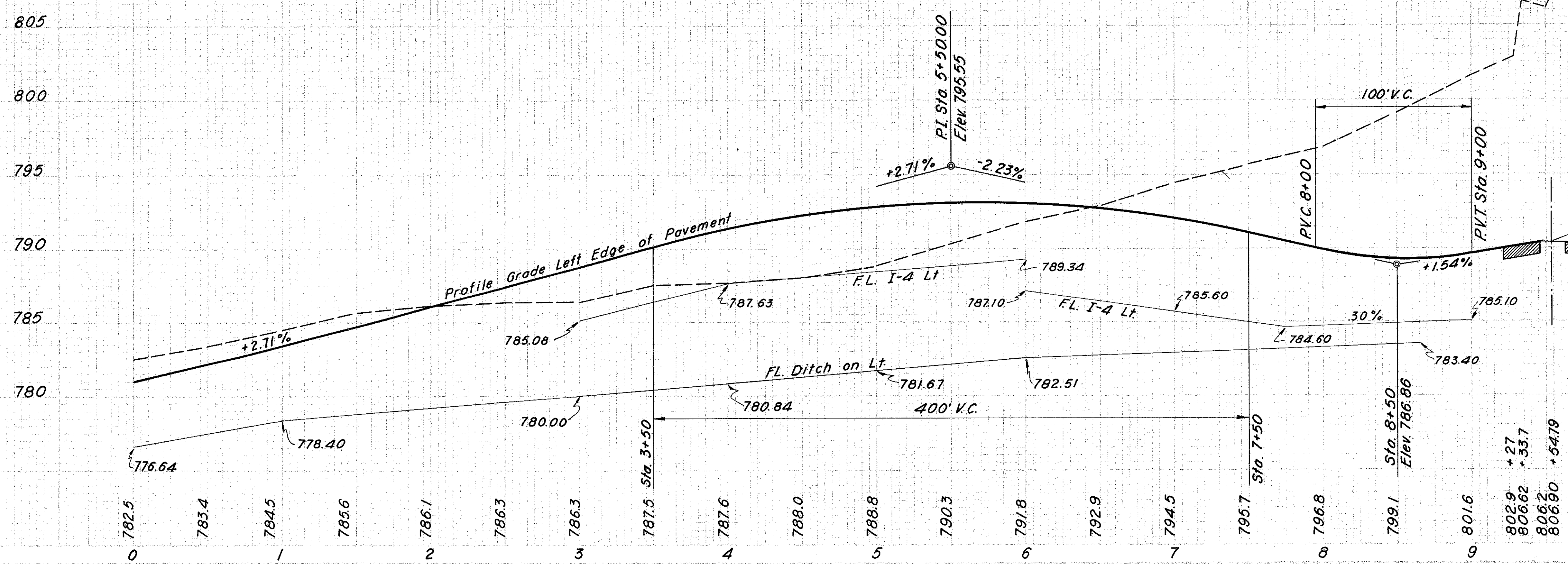
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Std. Type Deep L.F.
	From	To		
1 R	3+75	6+50	L	275
Totals				275

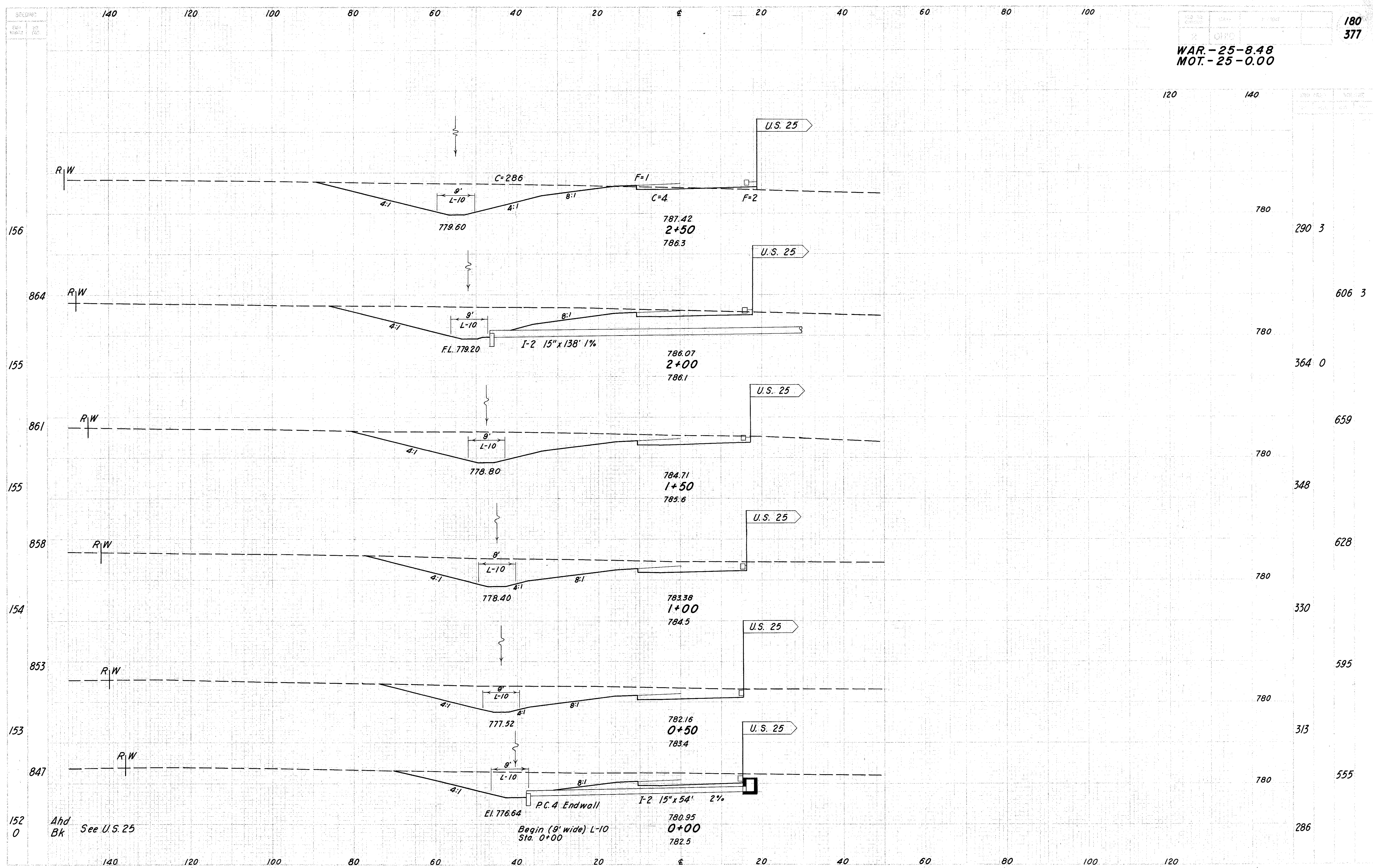
PAVEMENT

Ref. No.	Station		Side	I-12 Special Port. Cem. Concrete Curb L.F.	See Sheet No.
	From	To			
1 P	0+00	5+50	R	556	238
Totals				556	

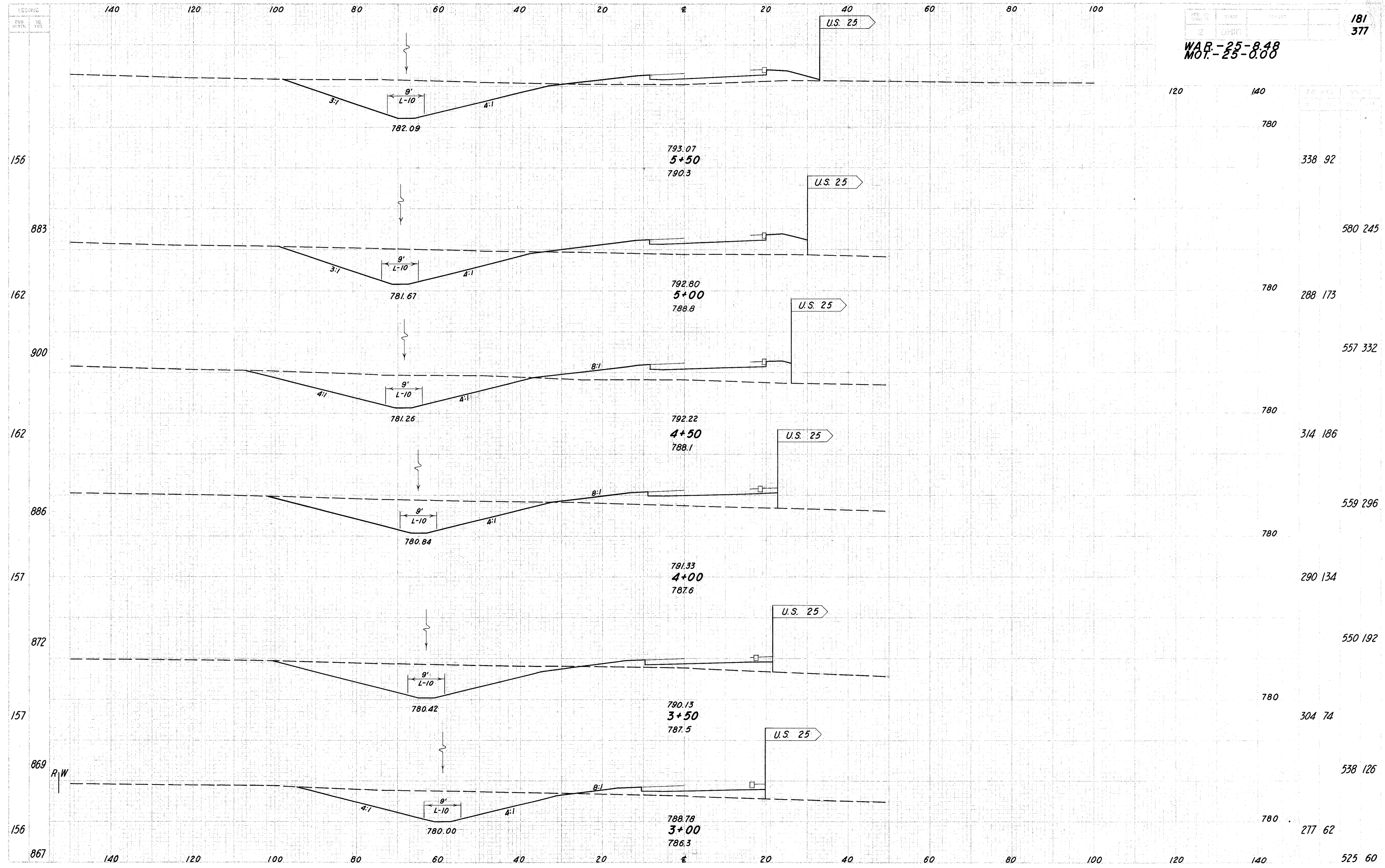


- 780.95
- 781.55
- 782.16
- 782.76
- 783.38
- 784.04
- 784.71
- 785.39
- 786.07
- 786.75
- 787.42
- 788.10
- 788.78
- 789.46
- 790.13
- 790.77
- 791.33
- 791.81
- 792.22
- 792.65
- 792.80
- 792.97
- 793.07
- 793.09
- 793.04
- 792.91
- 792.70
- 792.41
- 792.05
- 791.61
- 791.08
- 790.54
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- 789.37
- 789.63
- +4601 780.34
- +5419 790.34

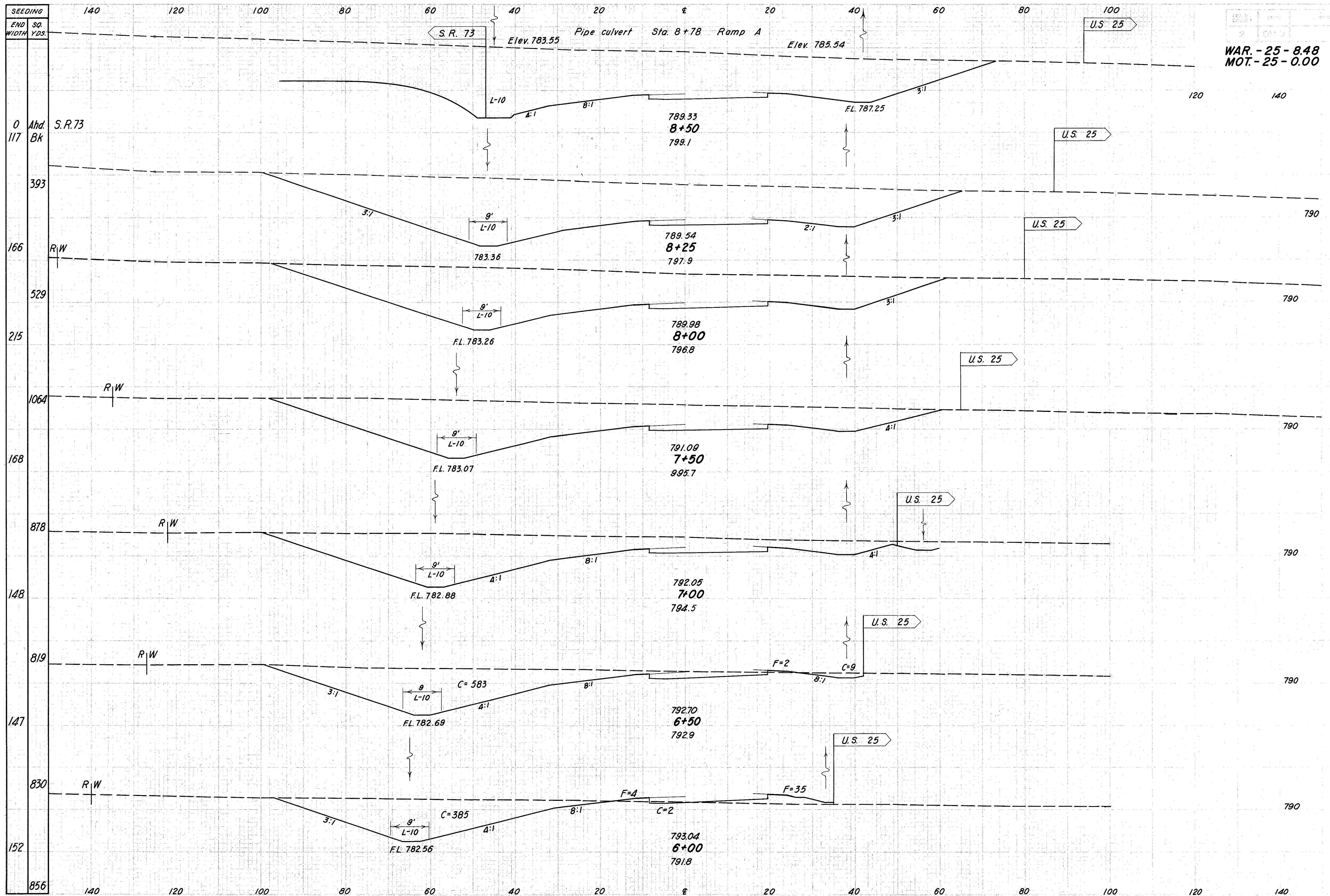




RAMP A Sta. 0+00 to Sta. 2+50



RAMP A Sta. 3+00 to Sta. 5+50



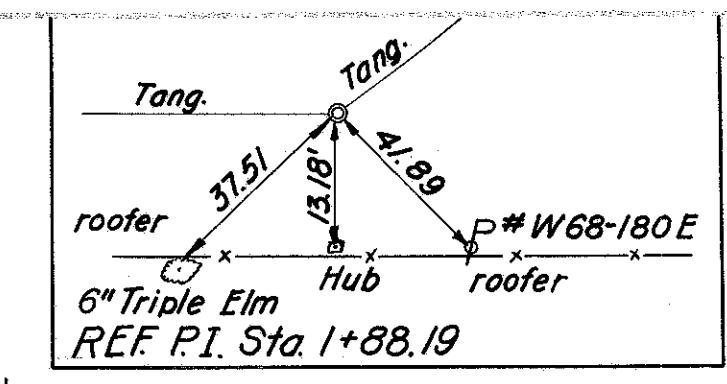
WAR. - 25 - 8.48
MOT. - 25 - 0.00

182
377

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
1185			
	1218		
1445			
	1198		
1143			
	2055		
1076			
	1761	0	
826	0		
	1313	2	
592	2		
	906	38	
387	39		
	671	121	

RAMP A Sta. 6+00 to Sta. 8+50

WAR - 25 - 848
MOT - 25 - 000

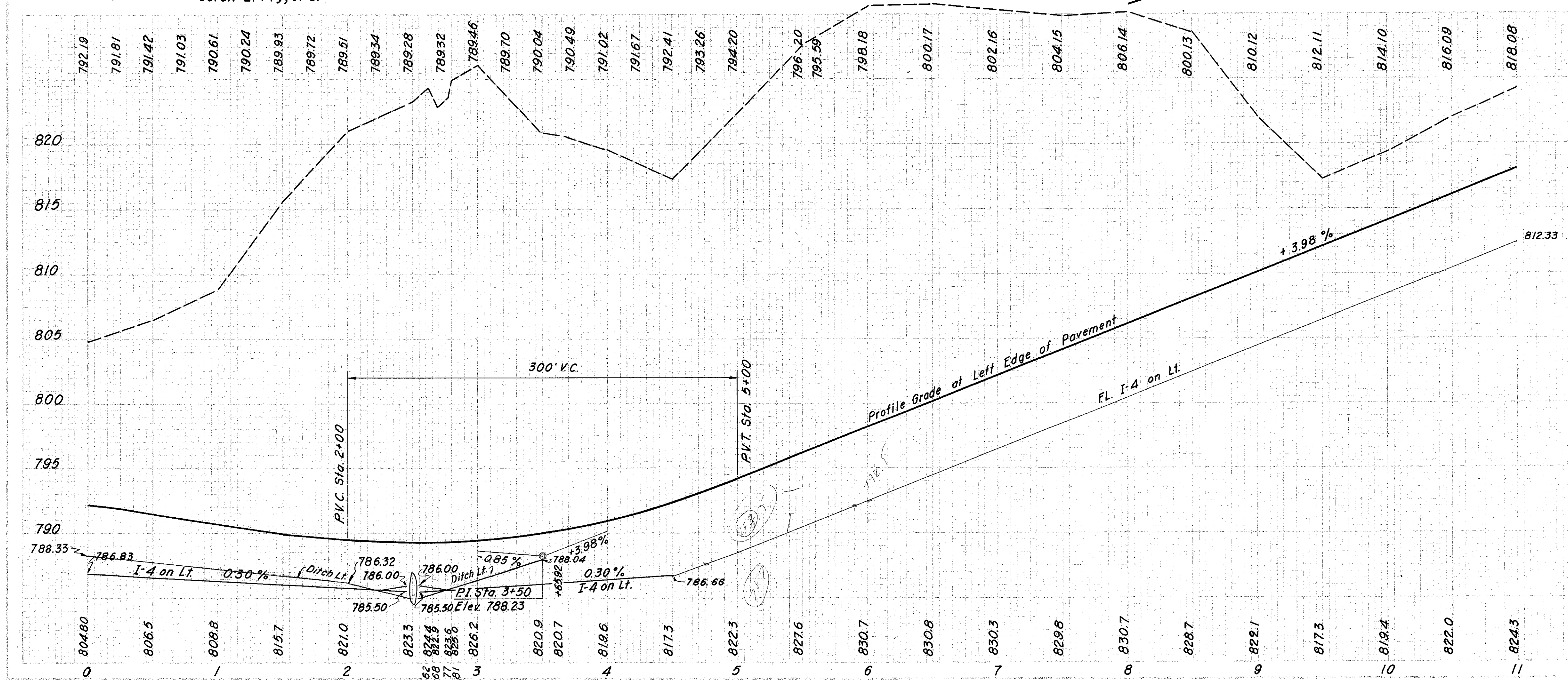
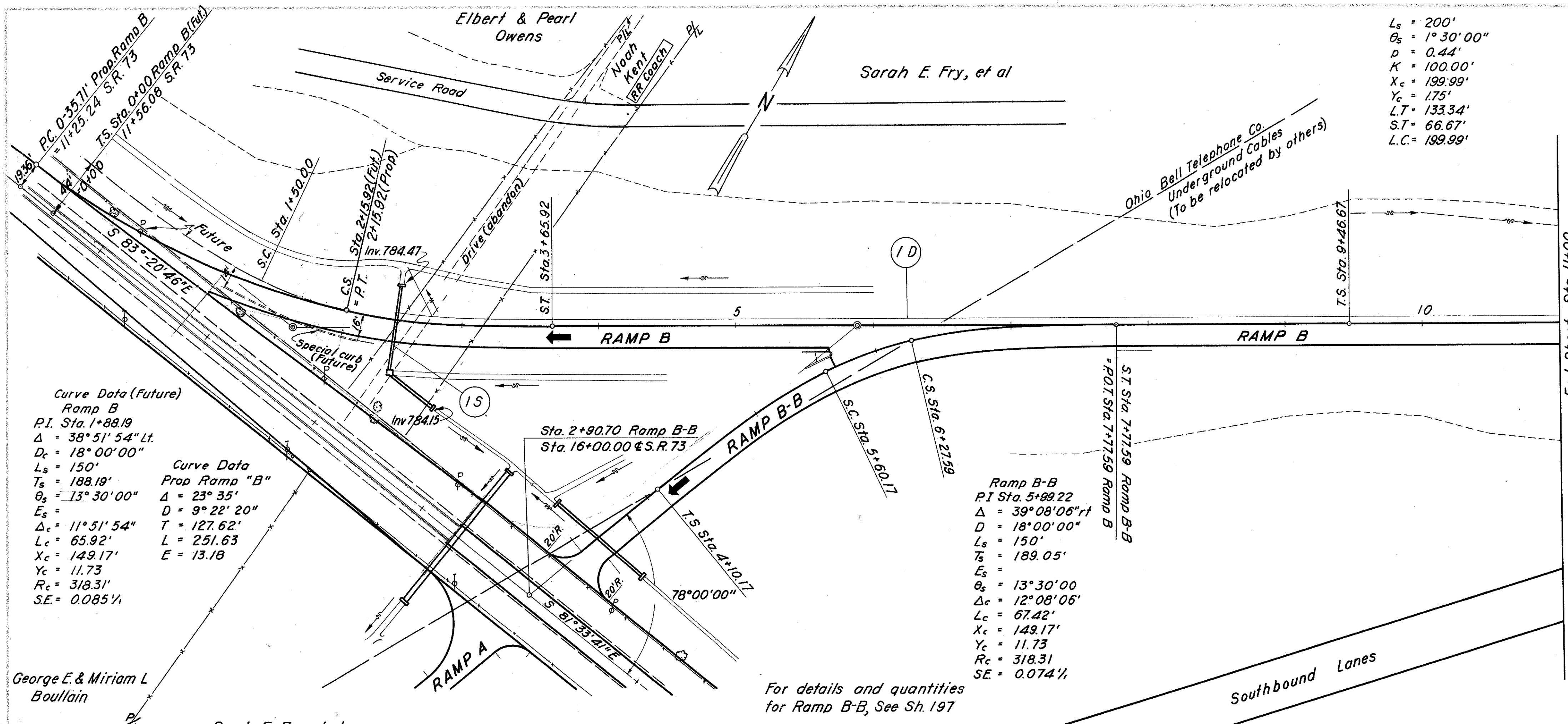


$L_s = 200'$
 $\theta_s = 1^\circ 30' 00''$
 $D = 0.44'$
 $K = 100.00'$
 $X_c = 199.99'$
 $Y_c = 175'$
 $L.T. = 133.34'$
 $S.T. = 66.67'$
 $L.C. = 199.99'$

DRAINAGE						
Ref. No.	Station		Side	I-4 Underdrain		I-4 for I-5 Wye 60° 6" Ea.
	From	To		Shallow 6" L.F.	Deep 6" L.F.	
I-D	2+56	11+00	L		874	1
						10
Totals					874	1

STRUCTURES (20' Span and under)							
Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	I-8 Standard No. 5 Catch Basin Ea.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for R/Wy. Culv. Sec. M-6.6(b) or M-6.8(b) 30" L.F.	See Sheet No.
Totals		67	5	1	0.8	100	

PAVEMENT				
Ref. No.	Station		Side	See Sheet No.
	From	To		
Total				

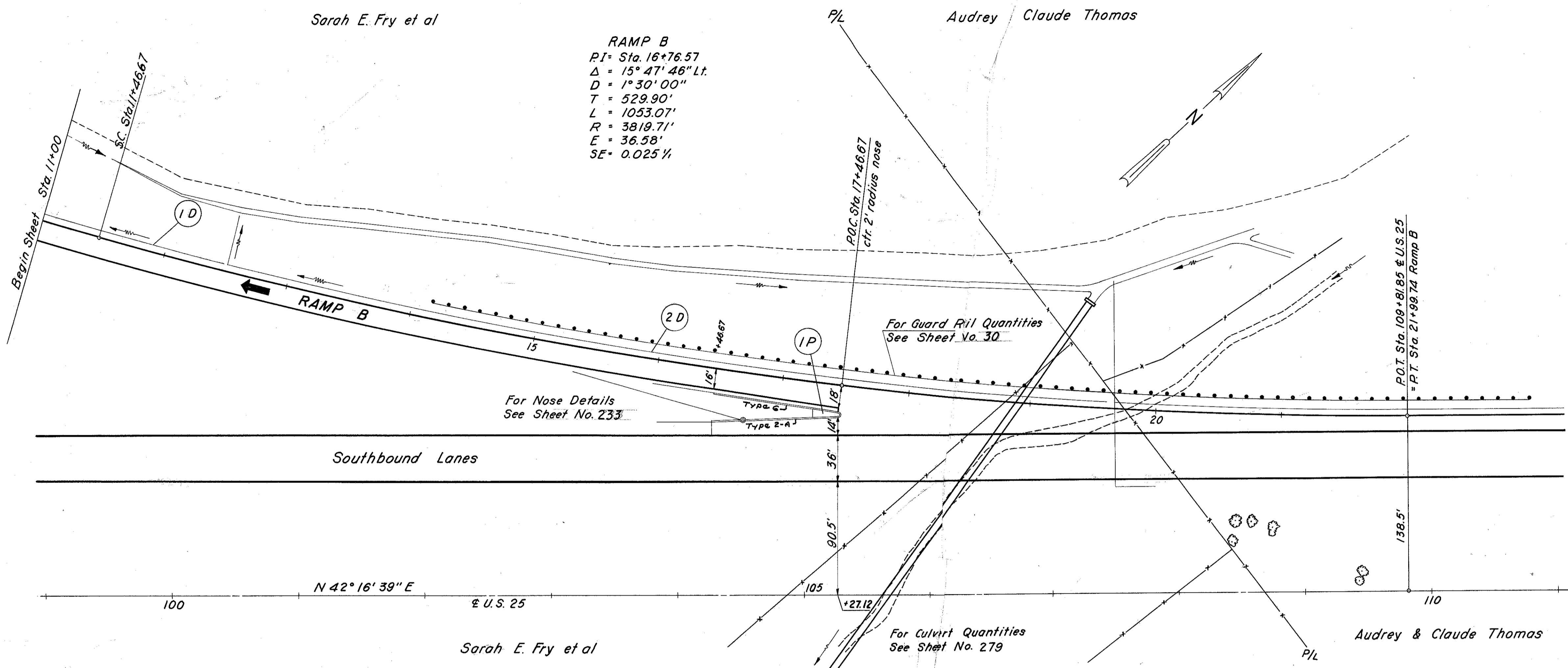


Sarah E. Fry et al

Audrey Claude Thomas

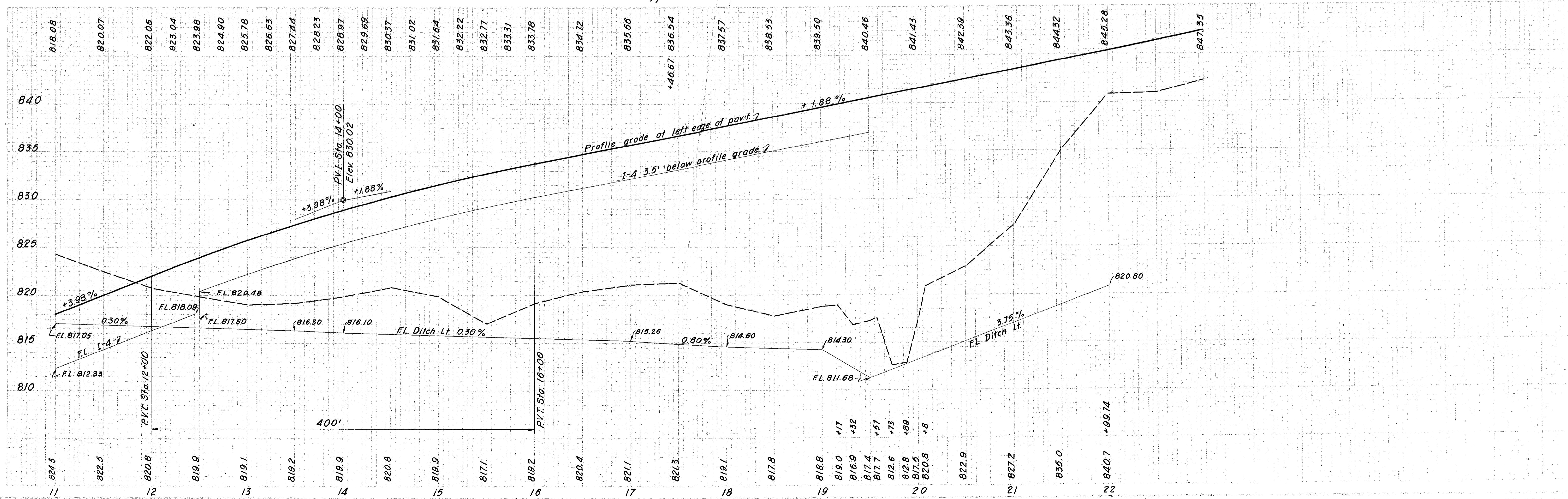
WAR. - 25 - 8.48
MOT. - 25 - 0.00

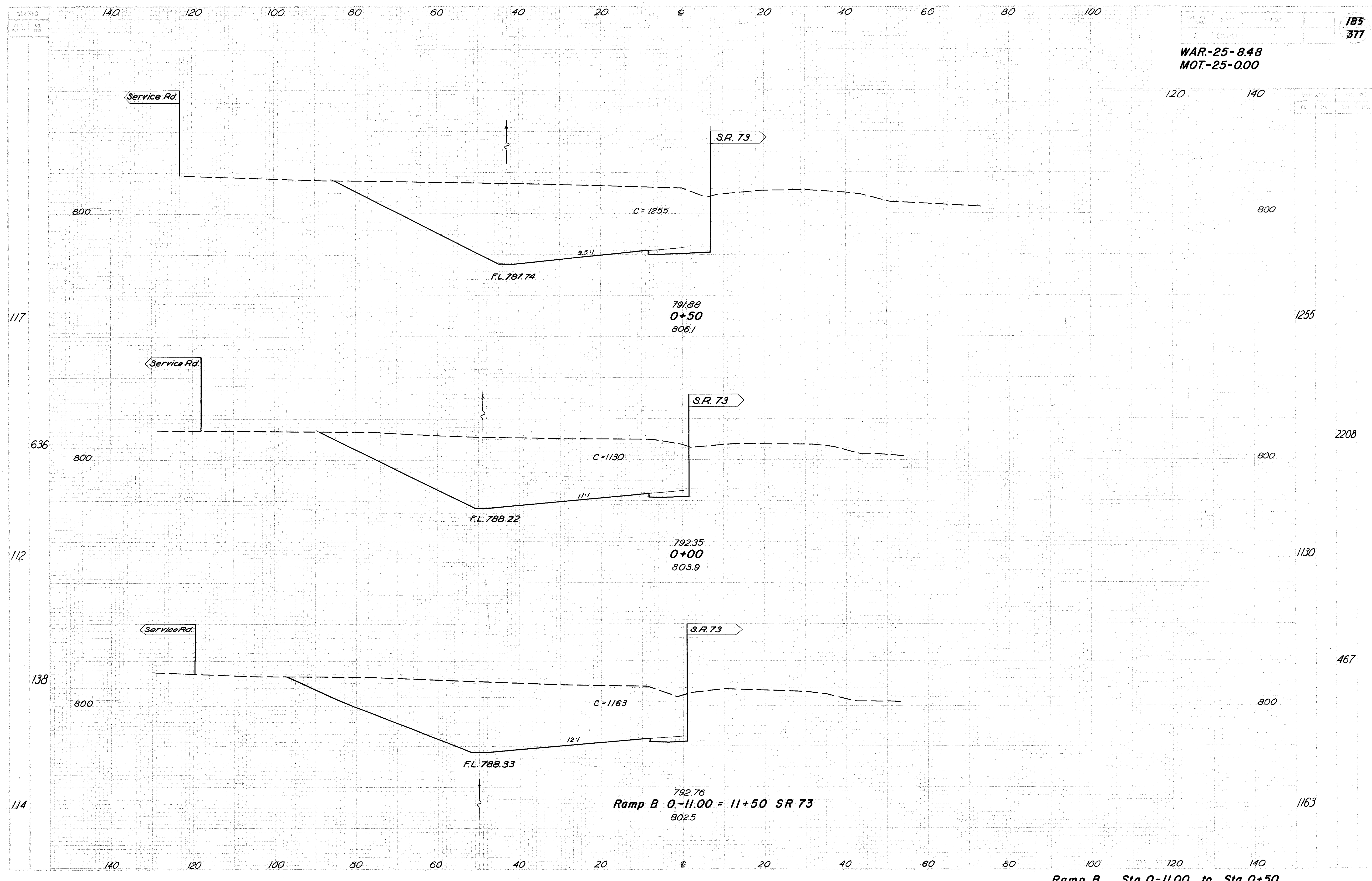
RAMP B
 P.I. = Sta. 16+76.57
 $\Delta = 15^\circ 47' 46''$ Lt.
 $D = 1^\circ 30' 00''$
 $T = 529.90'$
 $L = 1053.07'$
 $R = 3819.71'$
 $E = 36.58'$
 $SE = 0.025\%$



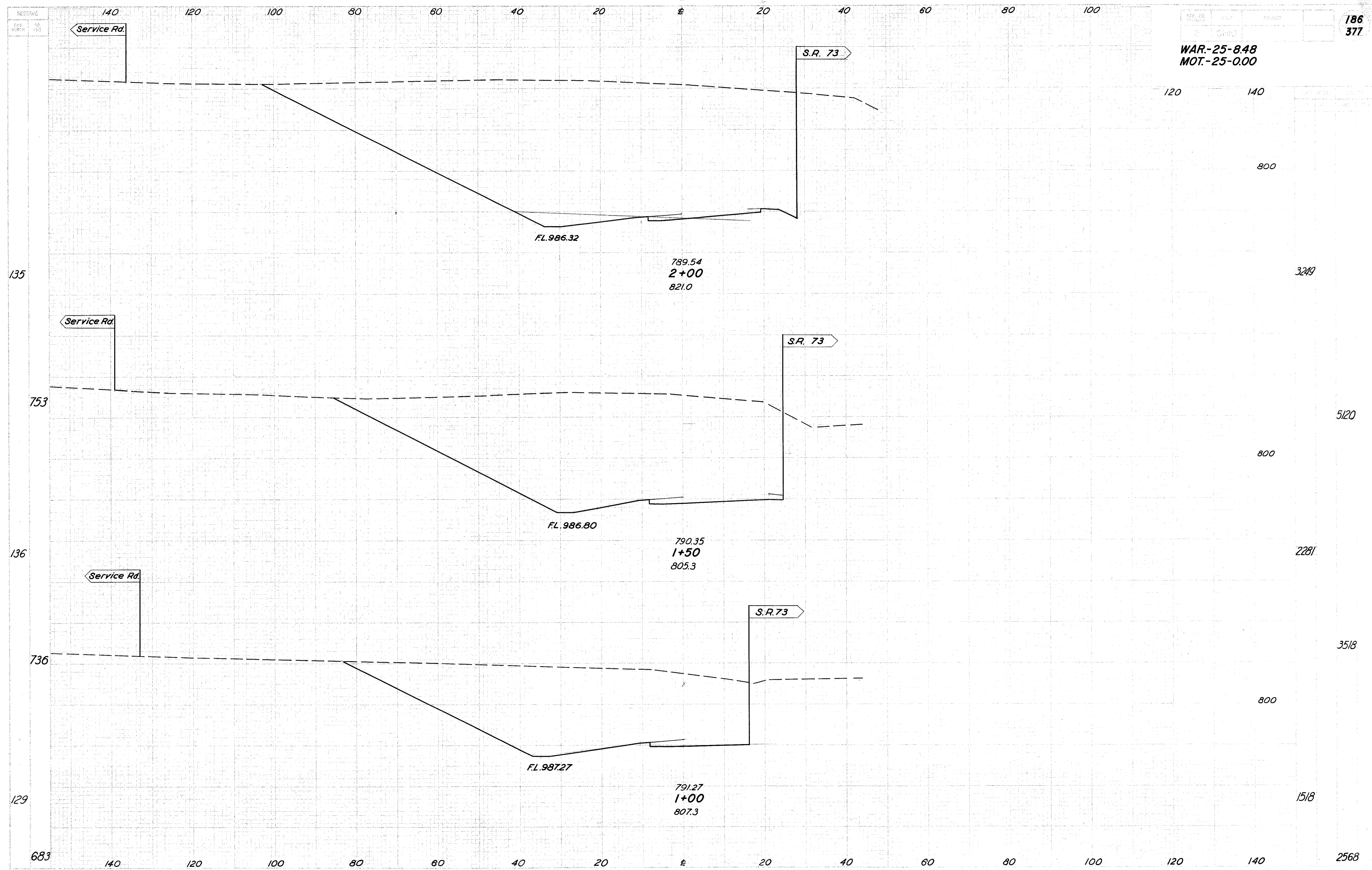
Ref No	Station		Side	I-4 Underdrain 6"		I-4 Pipe Outlets for Underdrain 8" L.F.	I-5 for I-4 Bend 90° 6" Ea.
	From	To		Shallow	Deep		
1 D	11+00	12+46	L		146		
2 D	12+50	19+63	L	743		10	1
Totals				743	146	10	1

Ref No	Station		Side	I-12 Standard Type 6 Concrete Curb L.F.	I-21 Port. Cem. Pavement Type 1 S.Y.	I-12 Standard Type 2-A Concrete Curb L.F.
	From	To				
1 P	16+46.67	17+46.67	R	100	11	104
Totals				100	11	104



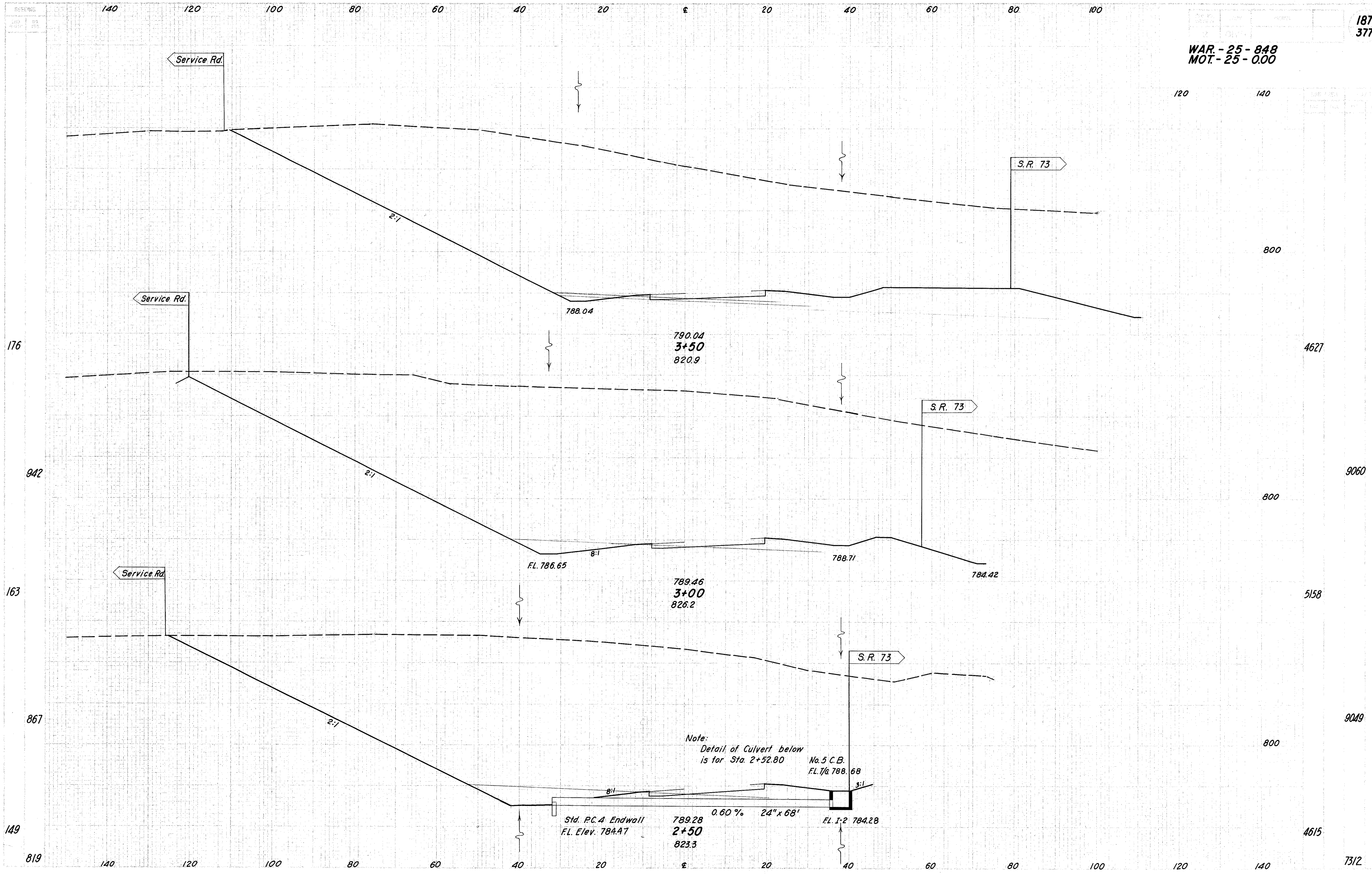


Ramp B Sta. 0-11.00 to Sta. 0+50



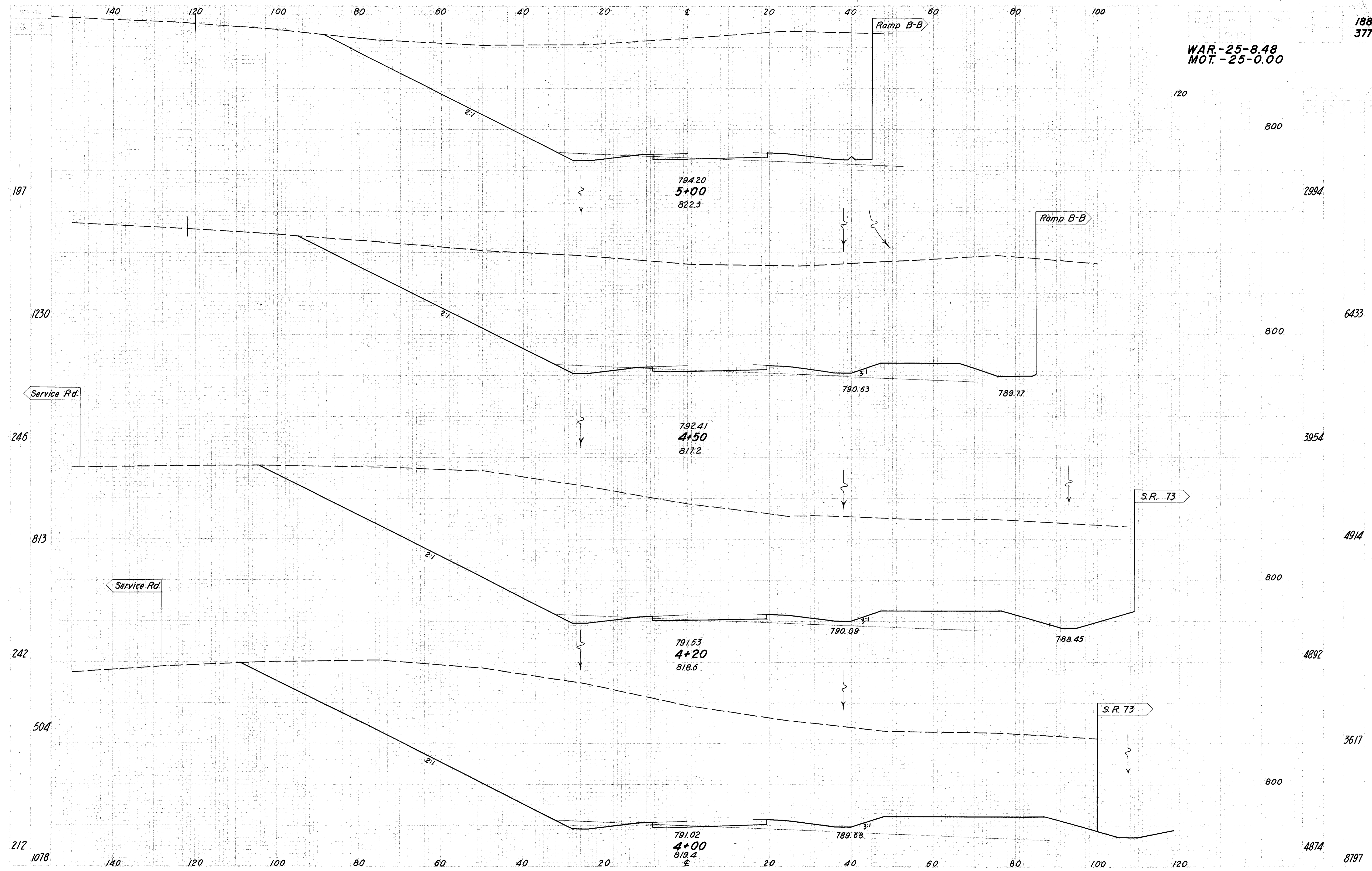
Ramp B Sta. 1+00 to Sta. 2+00

WAR - 25 - 848
MOT - 25 - 0.00



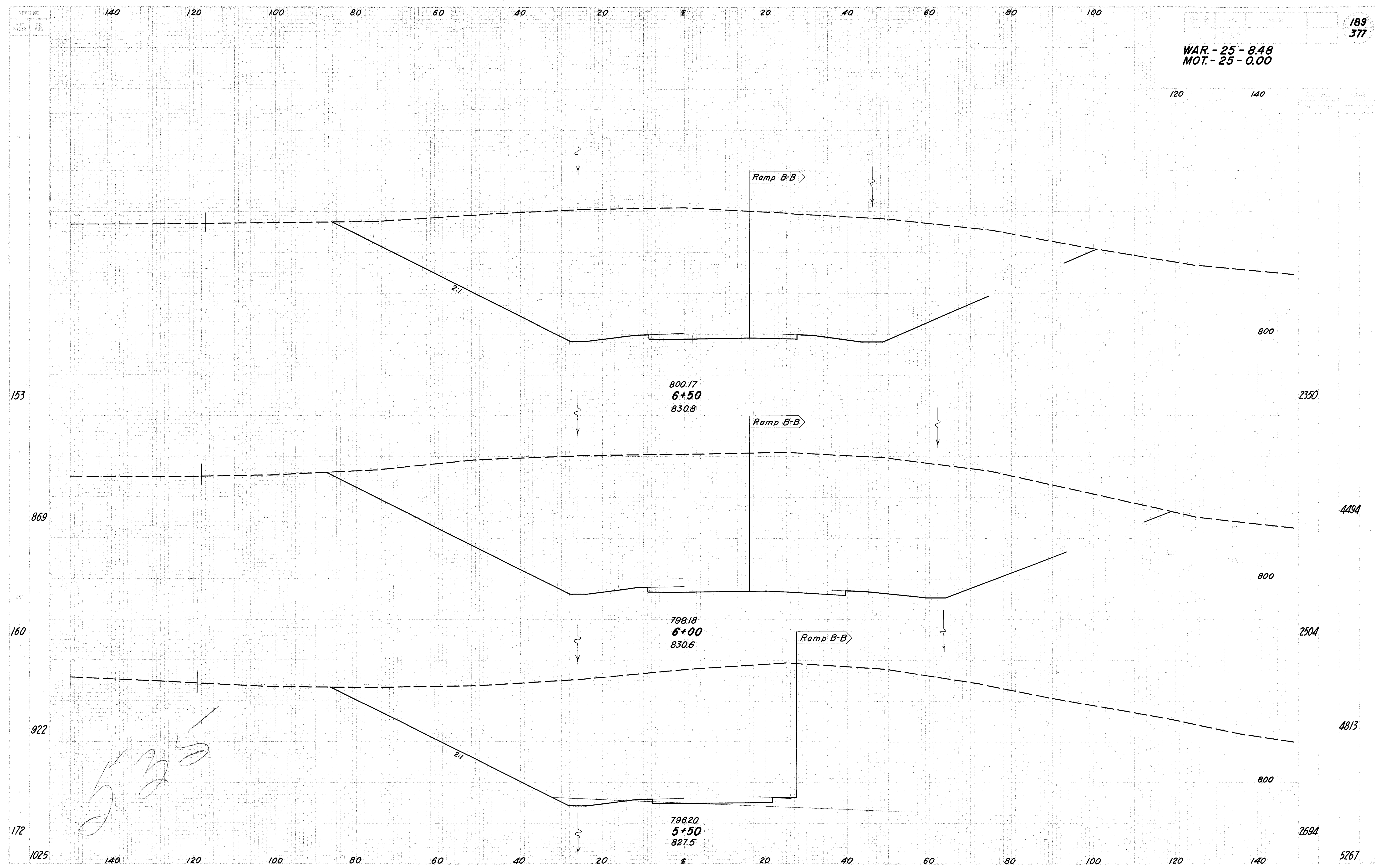
INTERCHANGE RAMP B.- Sta. 2+50 to Sta. 3+50

WAR-25-8.48
MOT.-25-0.00

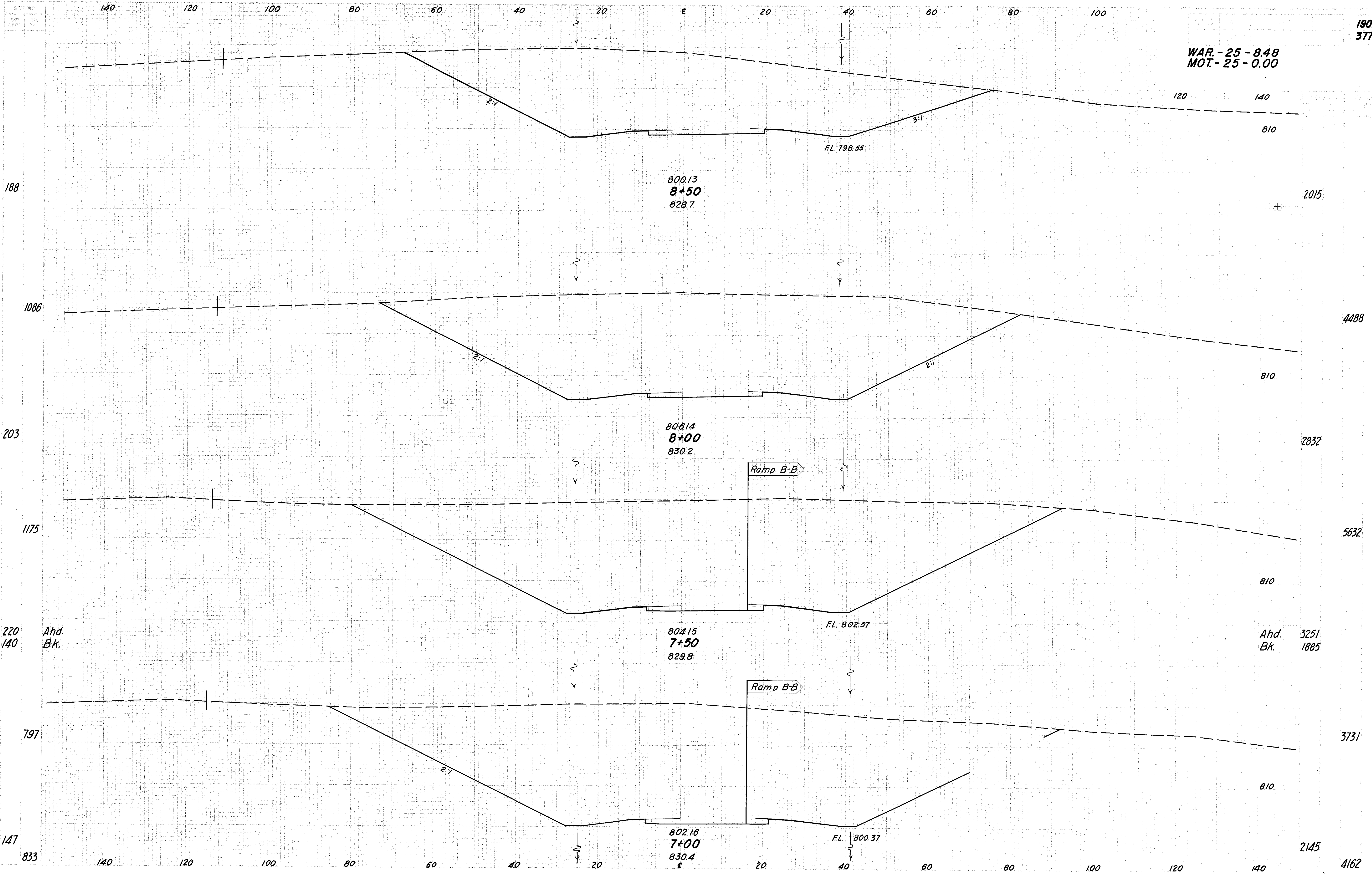


S.R. 73 INTERCHANGE RAMP B Sta. 4+00 to Sta. 5+00

WAR - 25 - 8.48
MOT. - 25 - 0.00



INTERCHANGE RAMP B.- Sta. 5+50 to Sta. 6+50



WAR.-25-848
MOT.-25-0.00

190
377

800.13
8+50
828.7

2015

806.14
8+00
830.2

4488

804.15
7+50
829.8

2832

802.16
7+00
830.4

2145

F.L. 798.55

F.L. 802.57

F.L. 800.37

Ramp B-B

Ramp B-B

INTERCHANGE RAMP B.- Sta. 7+00 to Sta. 8+50

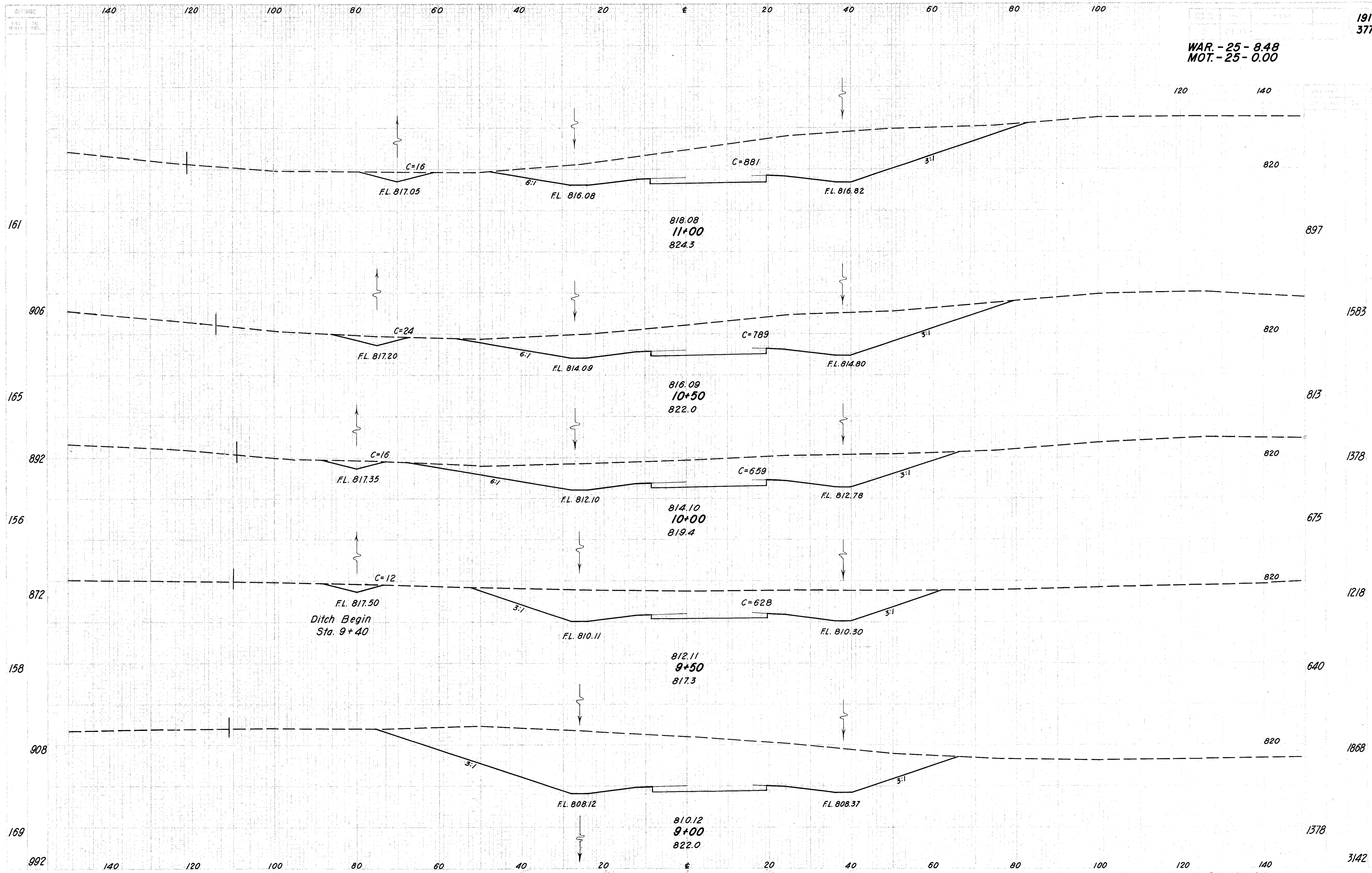
Ahd.
Bk.

Ahd.
Bk. 3251
1885

3731

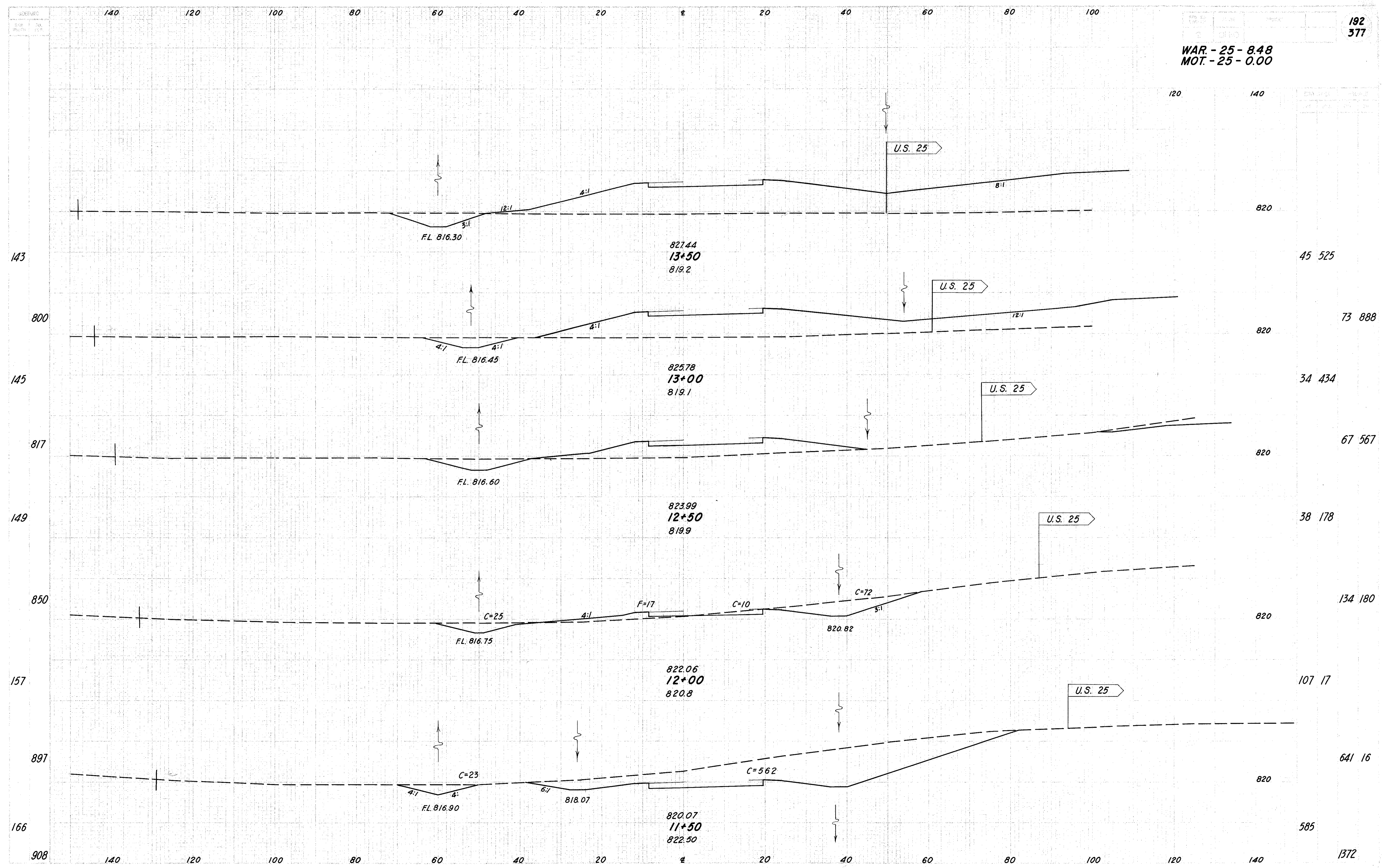
4162

WAR. - 25 - 8.48
MOT. - 25 - 0.00

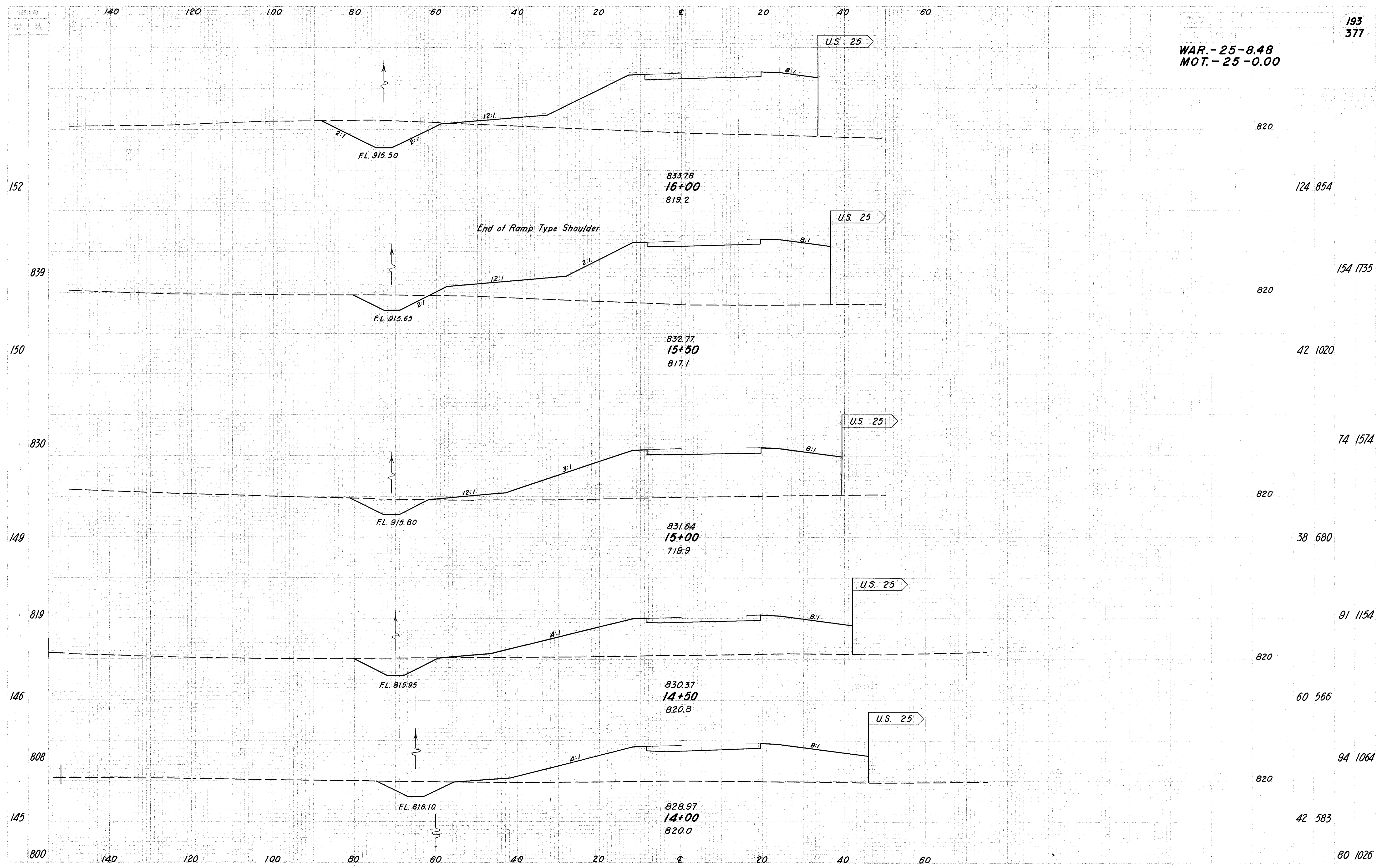


INTERCHANGE RAMP B Sta. 9+00 to Sta. 11+00

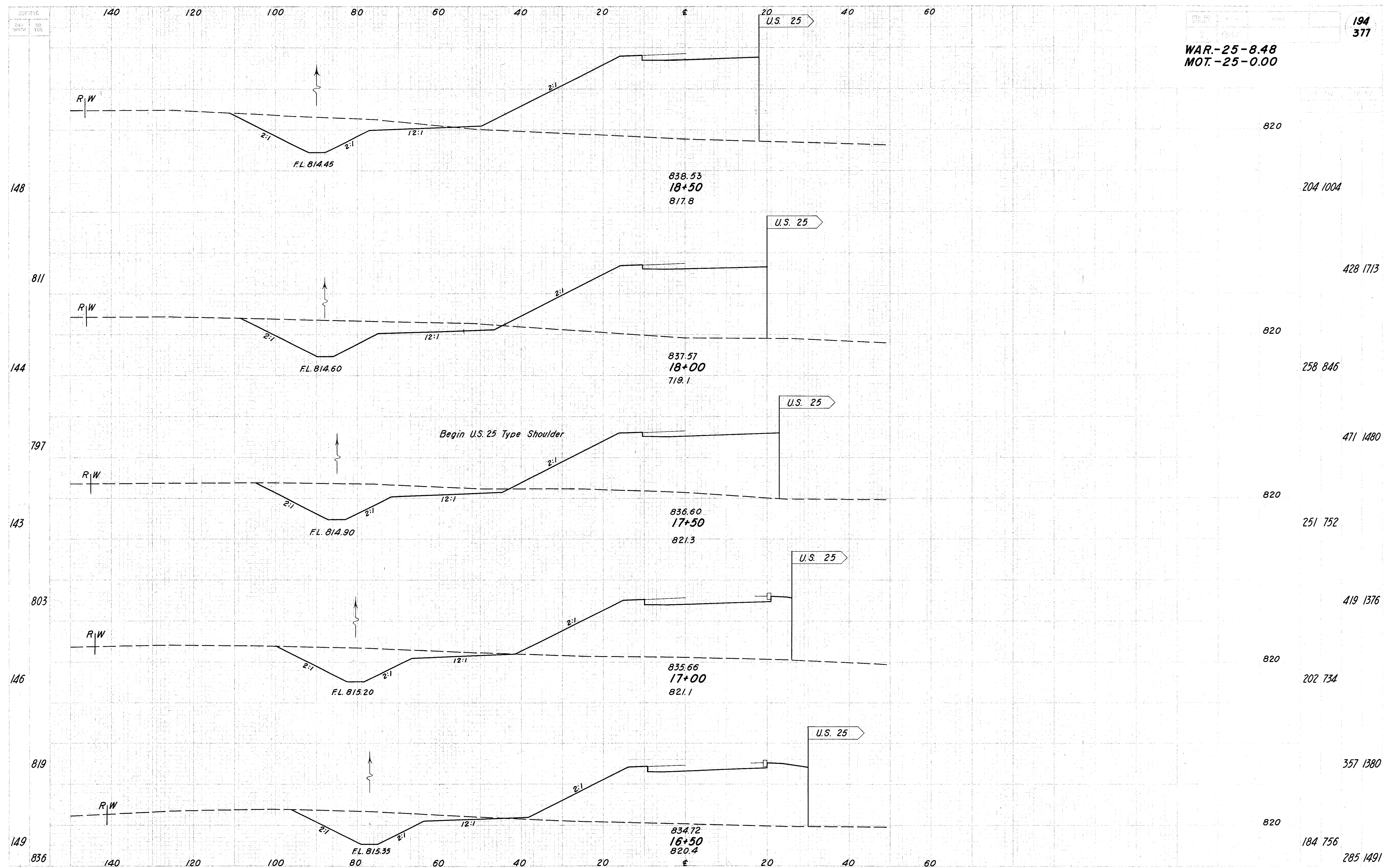
WAR - 25 - 8.48
MOT. - 25 - 0.00



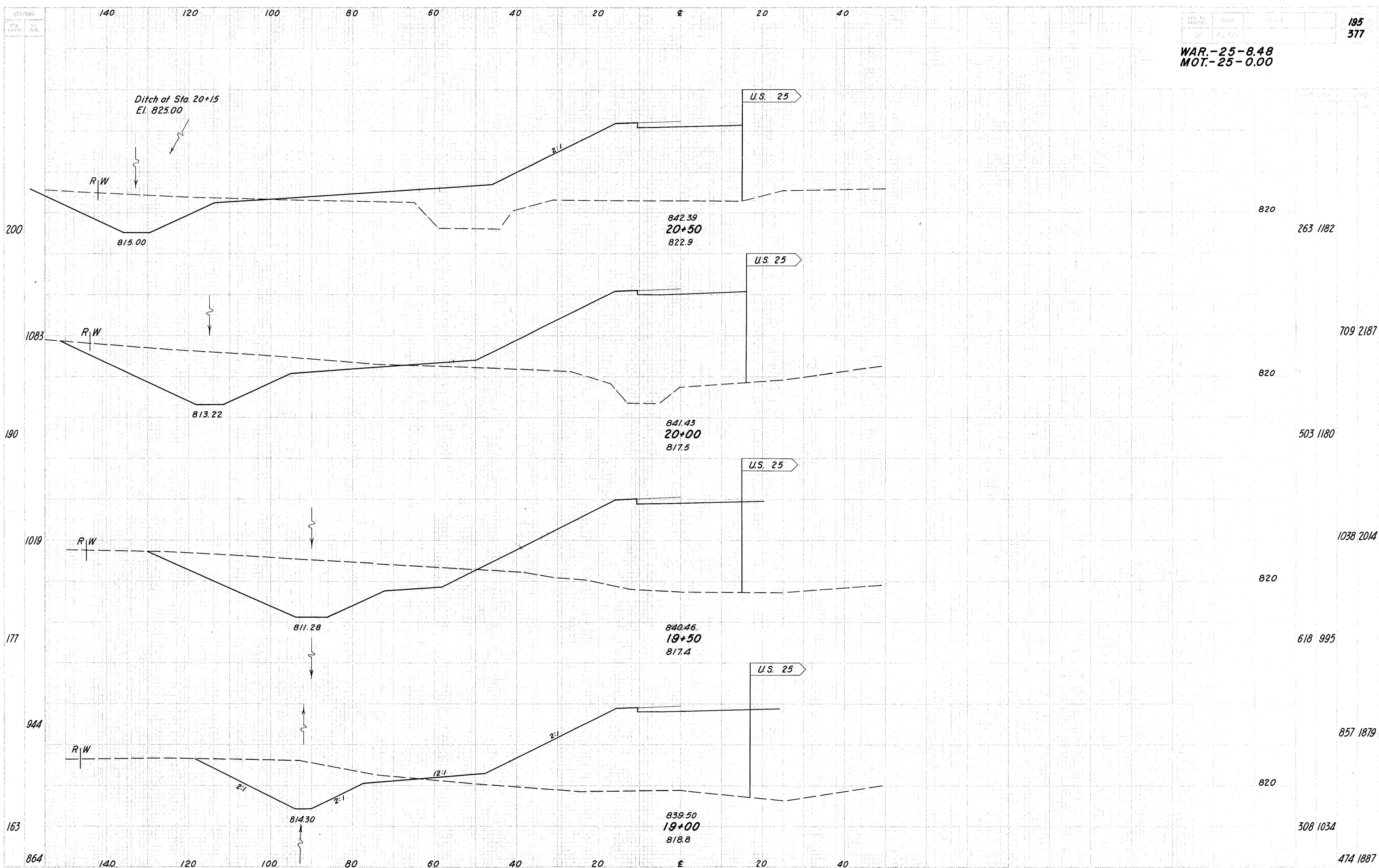
INTERCHANGE RAMP B.- Sta. 11+50 to Sta. 13+50



RAMP B Sta. 14+00 to Sta. 16+00



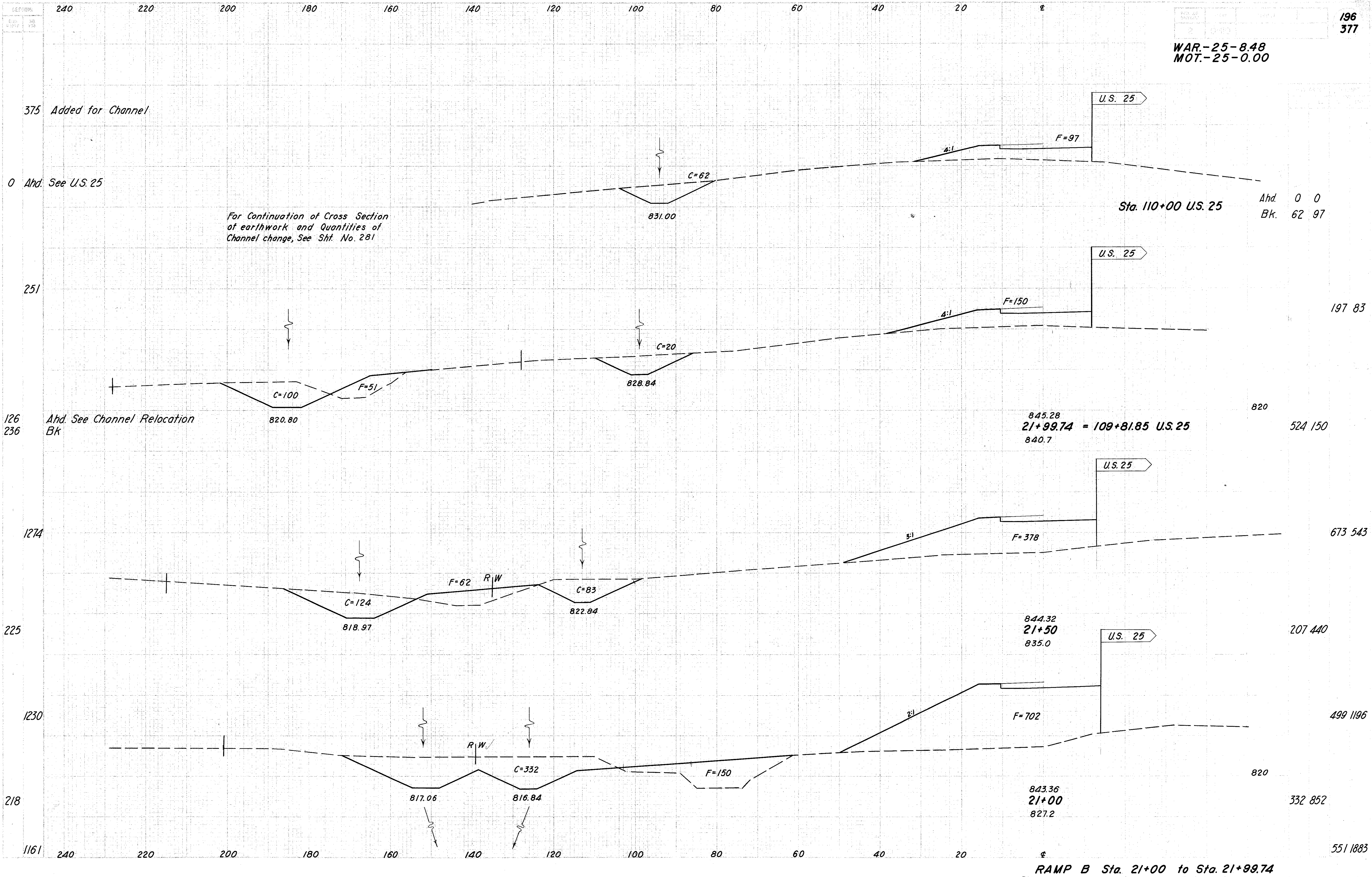
RAMP B Sta. 16+50 to Sta. 18+50



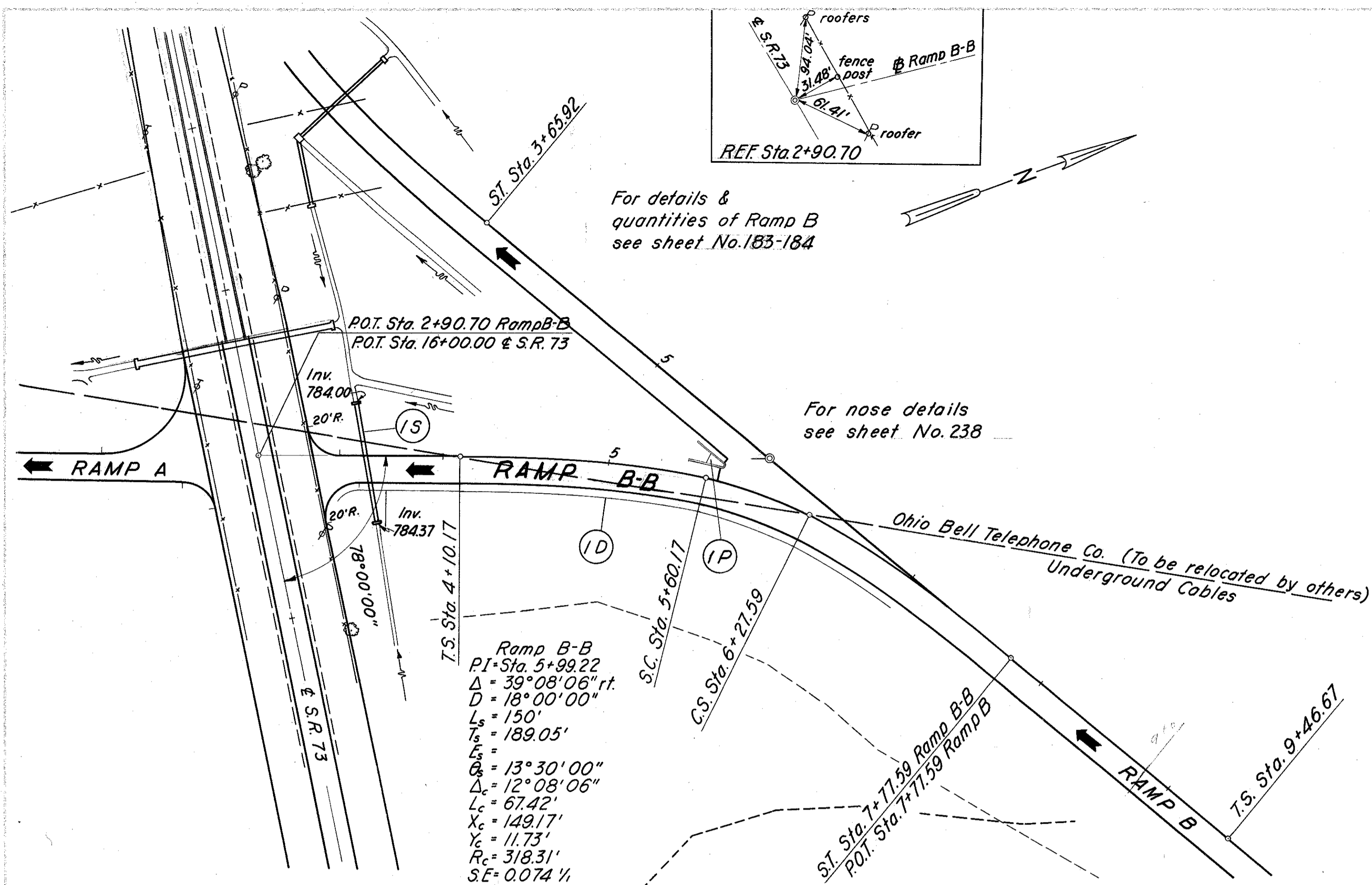
RAMP B Sta. 19+00 to Sta. 20+50

WAR.-25-8.48
MOT.-25-0.00

196
377



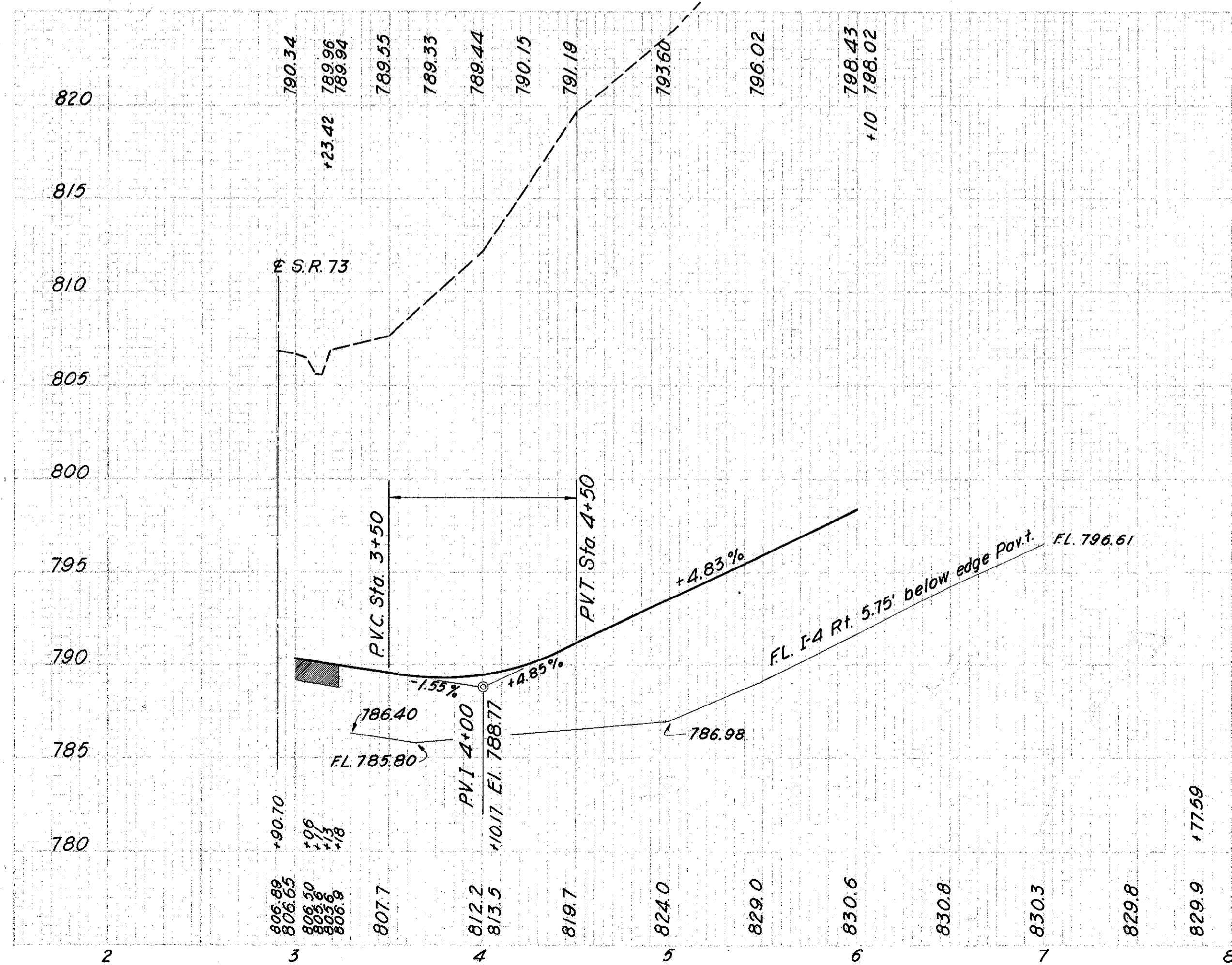
WAR.-25-848
MOT.-25-0.00



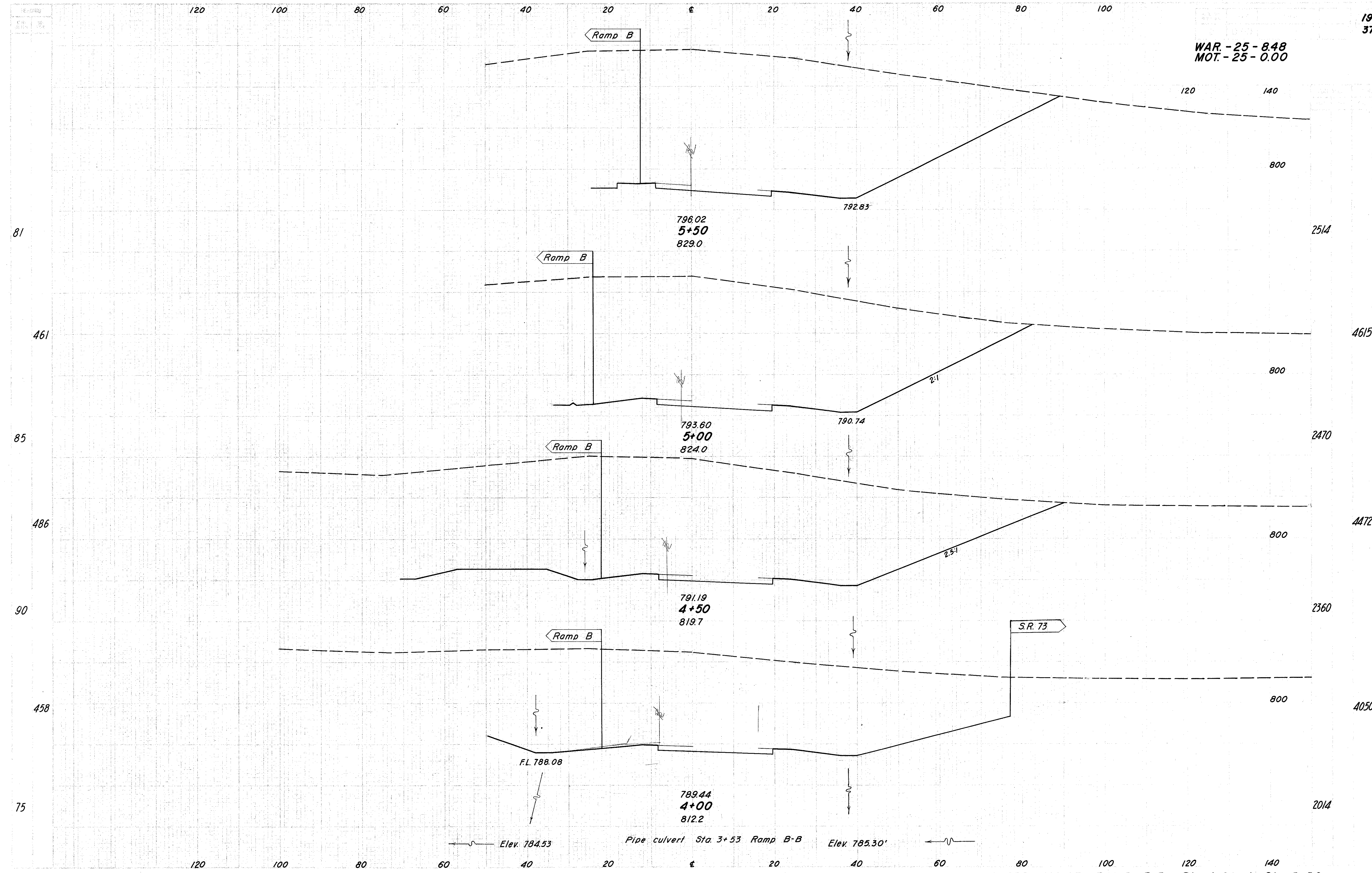
Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlets for Underdrains 8" L.F.	I-5 for I-4 Tee 6"x6"x6" Ea.
	From	To		Shallow 6" L.F.	Deep 6" L.F.		
I D	3+38	7+00	R	174	187	10	1
Totals				174	187	10	1

Ref. No.	Station		Side	I-12 Standard Type 6 Concrete Curb L.F.	I-21 Port. Cem. Concrete Median Pvt. Type 1 S.Y.	See Sheet No.
	From	To				
I P	5+50	5+70.2	L	47	4	
Totals				47	4	

Ref. No.	Station	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Rdwy. Culv. Sec. M-66(b) or M-68(b) 30" L.F.	E-3 Channel Excavation C.Y.	See Sheet No.
I-S	3+53	86	1.0	74	5	306
Totals		86	1	74	5	



WAR. - 25 - 848
MOT. - 25 - 0.00



796.02
5+50
829.0

793.60
5+00
824.0

791.19
4+50
819.7

789.44
4+00
812.2

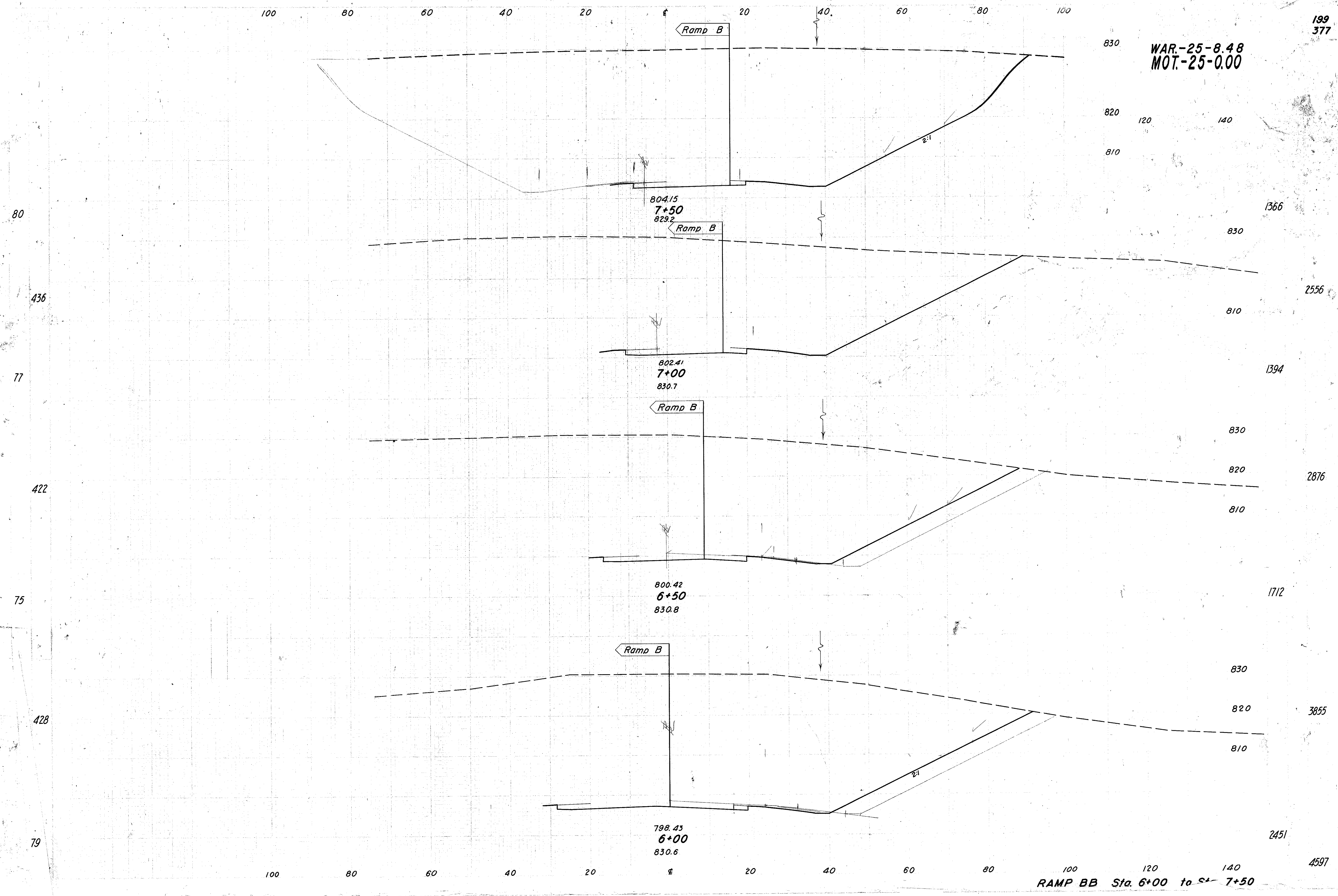
FL. 788.08

Elev. 784.53

Pipe culvert Sta. 3+53 Ramp B-B Elev. 785.30'

INTERCHANGE RAMP B-B - Sta. 4+00 to Sta. 5+50

WAR.-25-8.48
MOT.-25-0.00



RAMP BB Sta. 6+00 to Sta. 7+50

1366

2556

1394

2876

1712

3855

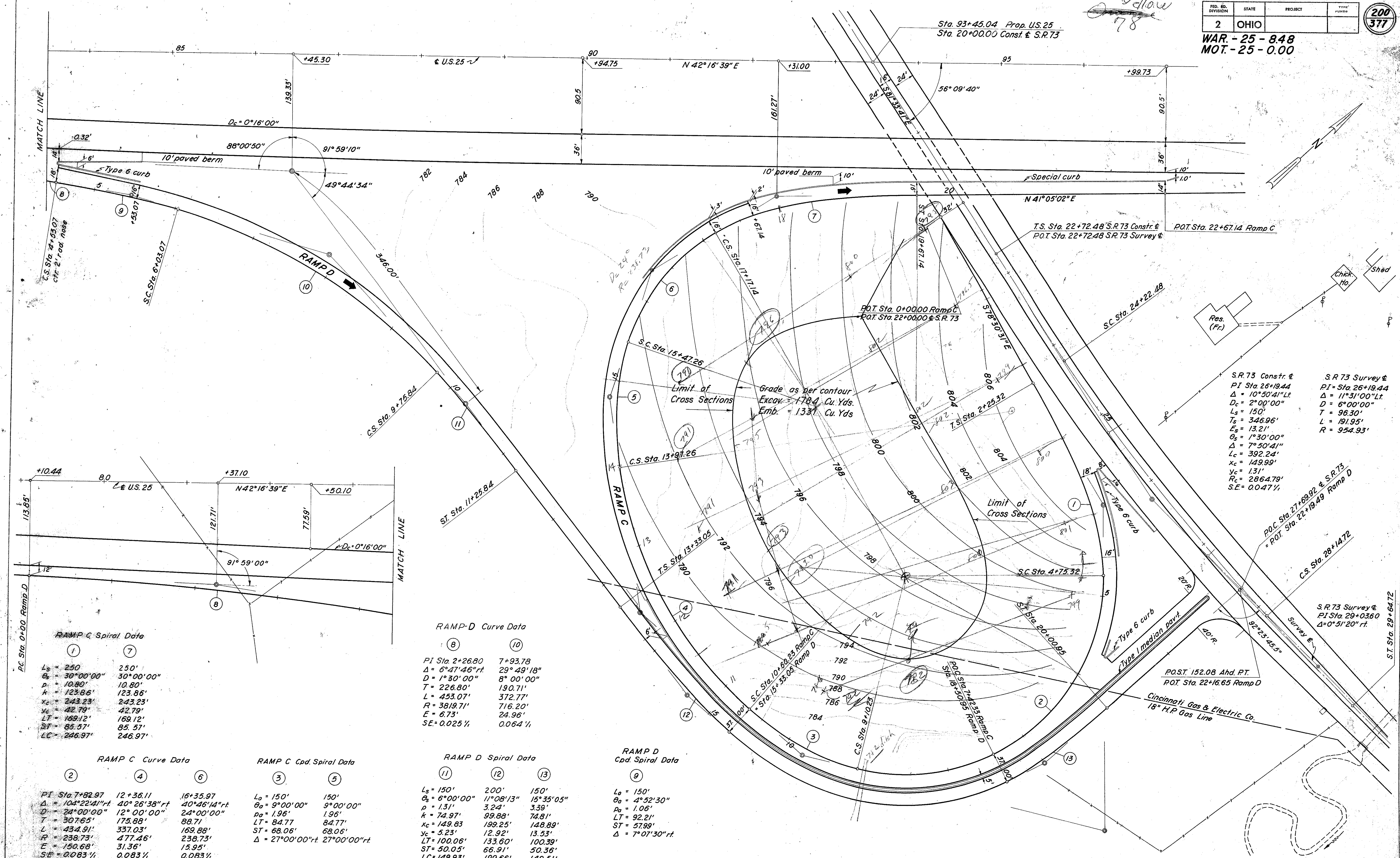
2451

4597

3000 2
Yellow
78

FED. DIVISION	STATE	PROJECT	TYPE NUMBER
2	OHIO		200 377

WAR - 25 - 848
MOT - 25 - 0.00



RAMP C Spiral Data

1	7
$L_s = 250'$	$250'$
$\theta_s = 30^\circ 00' 00''$	$30^\circ 00' 00''$
$p = 10.80'$	$10.80'$
$k = 123.86'$	$123.86'$
$x_c = 243.23'$	$243.23'$
$y_c = 42.79'$	$42.79'$
$LT = 169.12'$	$169.12'$
$ST = 85.57'$	$85.57'$
$LC = 246.97'$	$246.97'$

RAMP D Curve Data

8	10
PI Sta 2+26.80	7+93.78
$\Delta = 6^\circ 47' 46''$	$29^\circ 49' 18''$
$D = 1^\circ 30' 00''$	$8^\circ 00' 00''$
$T = 226.80'$	$190.71'$
$L = 453.07'$	$372.77'$
$R = 3819.71'$	$716.20'$
$E = 6.73'$	$24.96'$
$SE = 0.025\%$	0.064%

RAMP C Curve Data

2	4	6
PI Sta 7+82.97	12+36.11	16+35.97
$\Delta = 104^\circ 22' 41''$	$40^\circ 26' 38''$	$40^\circ 46' 14''$
$D = 24^\circ 00' 00''$	$12^\circ 00' 00''$	$24^\circ 00' 00''$
$T = 307.65'$	$175.88'$	$88.71'$
$L = 434.91'$	$337.03'$	$169.88'$
$R = 238.73'$	$477.46'$	$238.73'$
$E = 150.68'$	$31.36'$	$15.95'$
$SE = 0.083\%$	0.083%	0.083%

RAMP C Cpd. Spiral Data

3	5
$L_a = 150'$	$150'$
$\theta_a = 9^\circ 00' 00''$	$9^\circ 00' 00''$
$p_a = 1.96'$	$1.96'$
$LT = 84.77'$	$84.77'$
$ST = 68.06'$	$68.06'$
$\Delta = 27^\circ 00' 00''$	$27^\circ 00' 00''$

RAMP D Spiral Data

11	12	13
$L_s = 150'$	$200'$	$150'$
$\theta_s = 6^\circ 00' 00''$	$11^\circ 08' 13''$	$15^\circ 35' 05''$
$p = 1.31'$	$3.24'$	$3.39'$
$k = 74.97'$	$99.88'$	$74.81'$
$x_c = 149.83'$	$199.25'$	$148.89'$
$y_c = 5.23'$	$12.92'$	$13.53'$
$LT = 100.06'$	$133.60'$	$100.39'$
$ST = 50.05'$	$66.91'$	$50.36'$
$LC = 149.93'$	$199.66'$	$149.51'$

RAMP D Cpd. Spiral Data

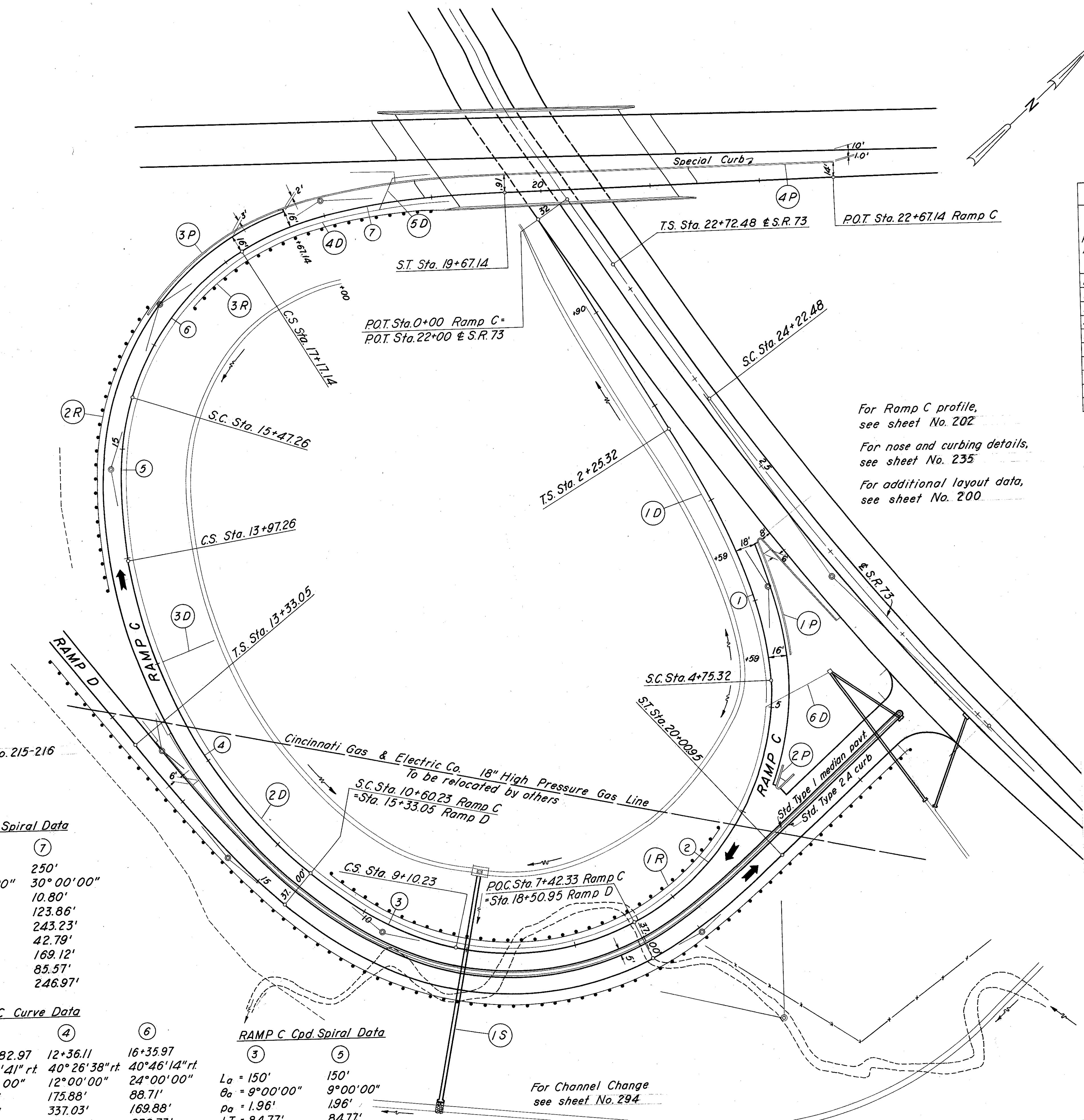
9
$L_a = 150'$
$\theta_a = 4^\circ 52' 30''$
$p_a = 1.06'$
$LT = 92.21'$
$ST = 57.89'$
$\Delta = 7^\circ 07' 30''$

S.R. 73 Constr. & S.R. 73 Survey

PI Sta 25+19.44	PI Sta 26+19.44
$\Delta = 10^\circ 50' 41''$	$\Delta = 11^\circ 31' 00''$
$D = 2^\circ 00' 00''$	$D = 6^\circ 00' 00''$
$T = 150'$	$T = 96.30'$
$L_s = 346.96'$	$L = 191.95'$
$E_s = 13.21'$	$R = 954.93'$
$\theta_s = 1^\circ 30' 00''$	
$\Delta = 7^\circ 50' 41''$	
$L_c = 392.24'$	
$x_c = 149.99'$	
$y_c = 131'$	
$R_c = 2864.79'$	
$SE = 0.047\%$	

SR 73 INTERCHANGE RAMP C & D

WAR-25-848
MOT-25-000



DRAINAGE

Ref. No.	Station		Side	I-4 Underdrain 6"		I-4 Pipe Outlets for Underdrains 8" L.F.	I-2 Storm Sewer Sec. M-65(B) or M-68(B) 8" L.F.	I-5 for I-4			
	From	To		Shallow L.F.	Deep L.F.			Tea Ea.	Bend 60" Ea.	Incr. 6" 6"-8" Ea.	Wye 6"x6" Ea.
1 D	0+90	4+96	R		406						
2 D	5+00	13+00	R	800		10					
3 D	13+00	-	R	41							
4 D	13+00	19+15	R	615							
5 D	18+50	19+00	L	65							
6 D	4+70	5+00	R			10	56	1	1		
Totals				1521	406	20	56	1	2	1	1

PAVEMENT

Ref. No.	Station		Side	I-12 Standard Type 6 Concrete Curb L.F.	I-12 Special Port. Cem. Concrete Curb L.F.	I-21 Portland Cem. Conc. Median Pav. Type 1 S.Y.	I-12 Standard Type 2-A Concrete Curb L.F.	See Sheet No.
	From	To						
1 P	3+59	4+59	L	100		4	104	
2 P	5+44.4	5+64.4	L	46		4		238
3 P	16+17.14	19+07	L		290			238
4 P	21+08.5	22+67.14	L		159			
Totals				146	449	8	104	

STRUCTURES (20' Span and under)

Ref. No.	Station	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Roadway Culverts Sec. H-66(24") L.F.	I-8 Standard No. 5 Catch Basin Each	I-10 Dumped Rock Channel Protection C.Y.	See Sheet No.
1 S	9+00	92	0.8	212	1	6	307
Totals		92	0.8	212	1	6	

ROADWAY

Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Standard Type Deep L.F.
	From	To		
1 R	6+25	10+45	R	400
2 R	13+75	16+25	L	262.5
3 R	16+50	19+10	R	250
Totals				912.5

For guard rail quantities, see Ramp D Sh. No. 215-216

For Ramp C profile, see sheet No. 202
For nose and curbing details, see sheet No. 235
For additional layout data, see sheet No. 200

For Channel Change see sheet No. 294

RAMP C Spiral Data

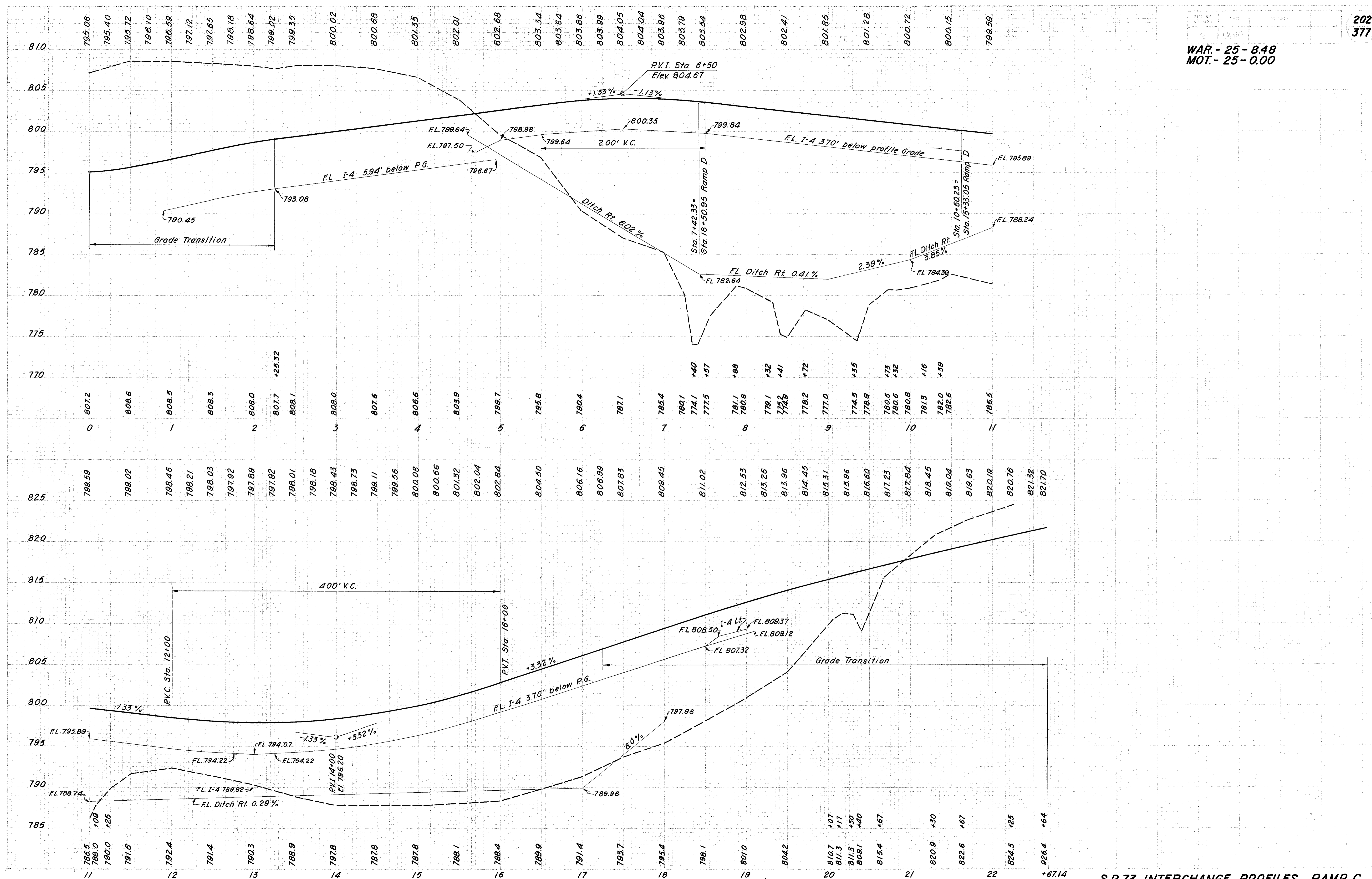
①	⑦
$L_s = 250'$	$250'$
$\theta_s = 30^\circ 00' 00''$	$30^\circ 00' 00''$
$p = 10.80'$	$10.80'$
$k = 123.86'$	$123.86'$
$X_c = 243.23'$	$243.23'$
$Y_c = 42.79'$	$42.79'$
$LT = 169.12'$	$169.12'$
$ST = 85.57'$	$85.57'$
$LC = 246.97'$	$246.97'$

RAMP C Curve Data

②	④	⑥
$PI = \text{Sta. } 7+82.97$	$12+36.11$	$16+35.97$
$\Delta = 104^\circ 22' 41'' \text{ rt}$	$40^\circ 26' 38'' \text{ rt}$	$40^\circ 46' 14'' \text{ rt}$
$D = 24^\circ 00' 00''$	$12^\circ 00' 00''$	$24^\circ 00' 00''$
$T = 307.65'$	$175.88'$	$88.71'$
$L = 434.91'$	$337.03'$	$169.88'$
$R = 238.73'$	$477.46'$	$238.73'$
$E = 150.68'$	$31.36'$	$15.95'$
$SE = 0.083\%$	0.083%	0.083%

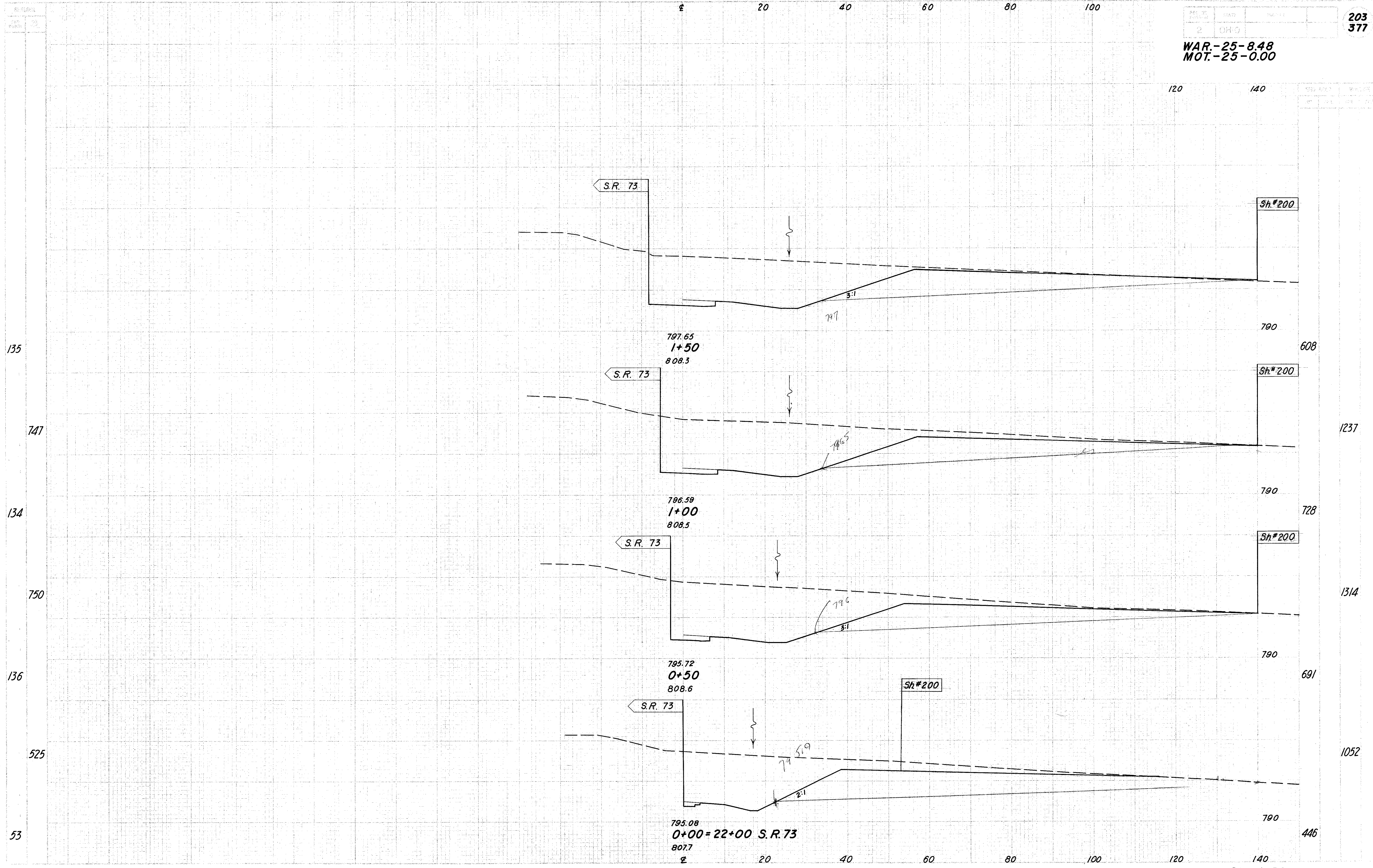
RAMP C Cpd. Spiral Data

③	⑤
$L_a = 150'$	$150'$
$\theta_a = 9^\circ 00' 00''$	$9^\circ 00' 00''$
$p_a = 1.96'$	$1.96'$
$LT = 84.77'$	$84.77'$
$ST = 68.06'$	$68.06'$
$\Delta = 27^\circ 00' 00'' \text{ rt}$	$27^\circ 00' 00'' \text{ rt}$



S.R. 73 INTERCHANGE PROFILES RAMP C

WAR-25-848
MOT.-25-0.00



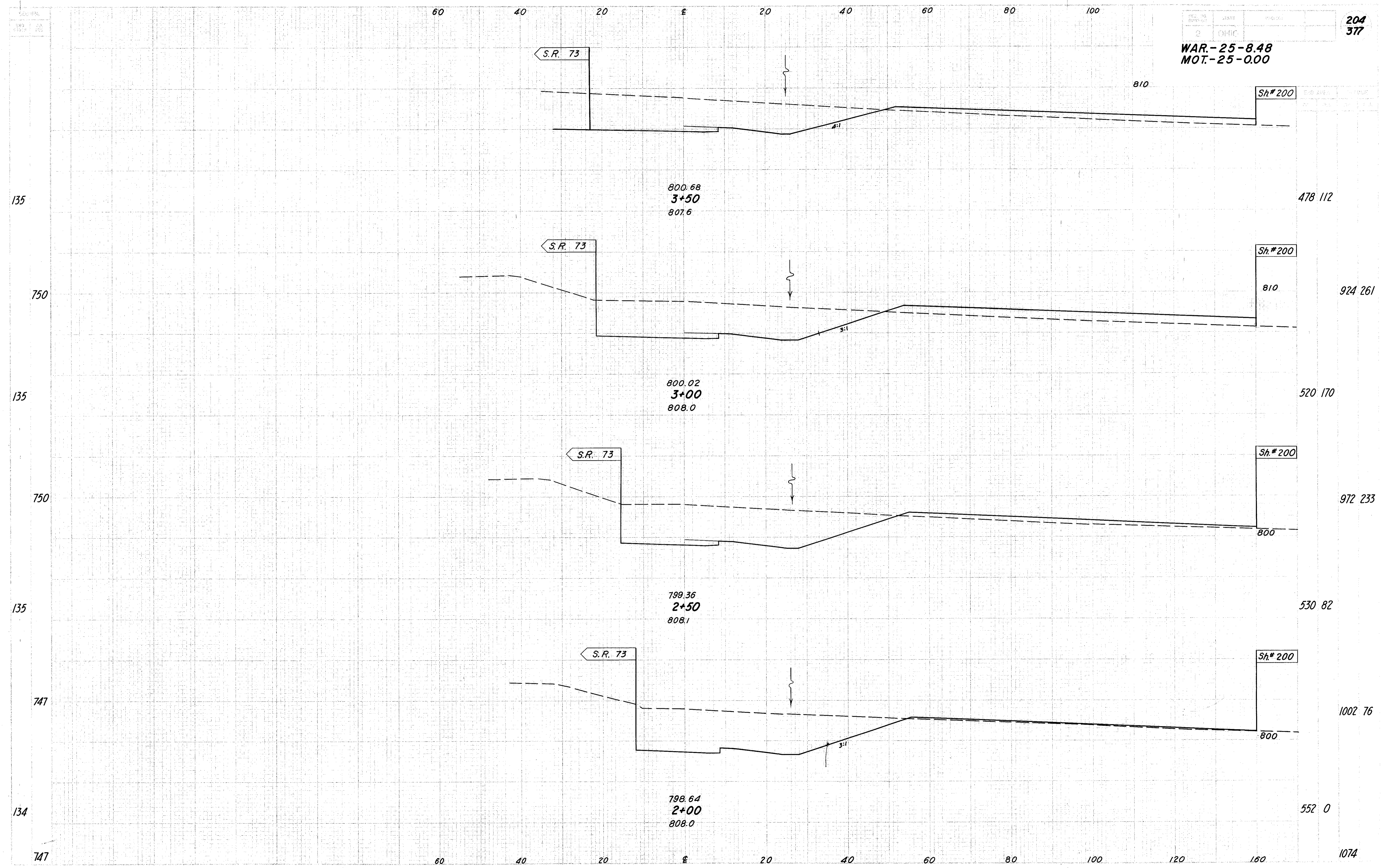
797.65
1+50
808.3

796.59
1+00
808.5

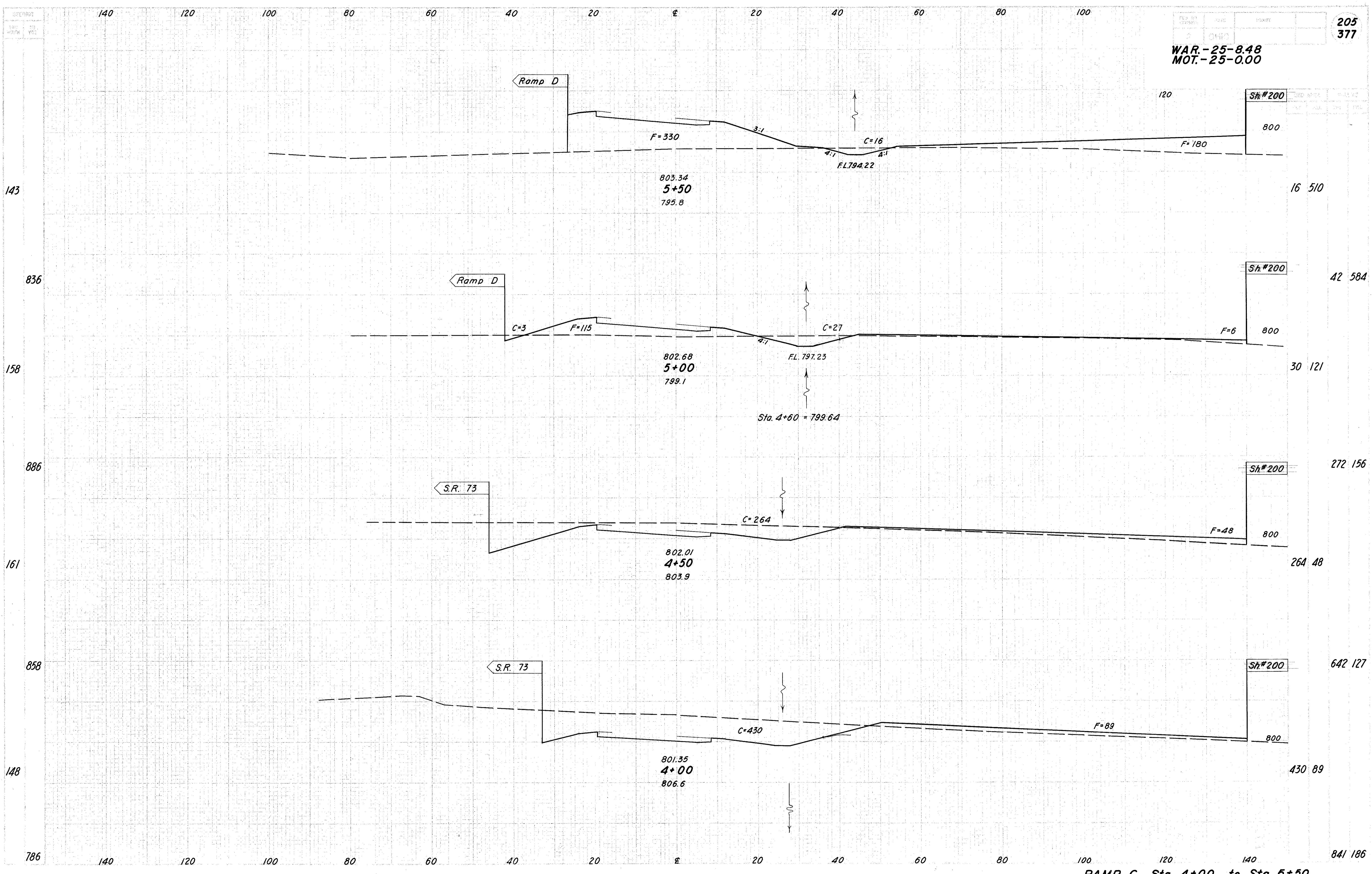
795.72
0+50
808.6

795.08
0+00 = 22+00 S.R. 73
807.7

RAMP C Sta. 0+00 to Sta. 1+50



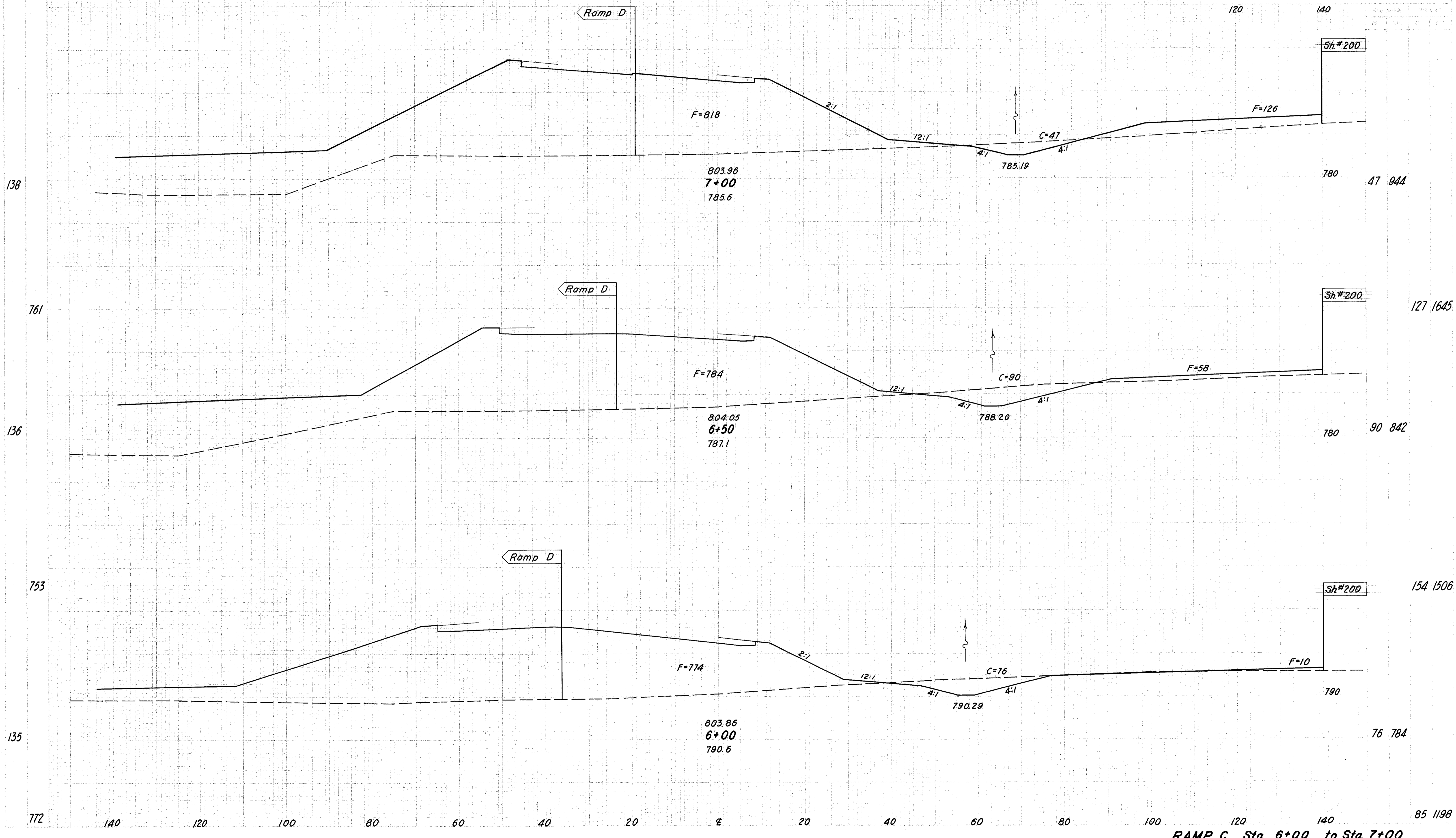
RAMP C Sta. 2+00 to Sta. 3+50



RAMP C Sta. 4+00 to Sta. 5+50

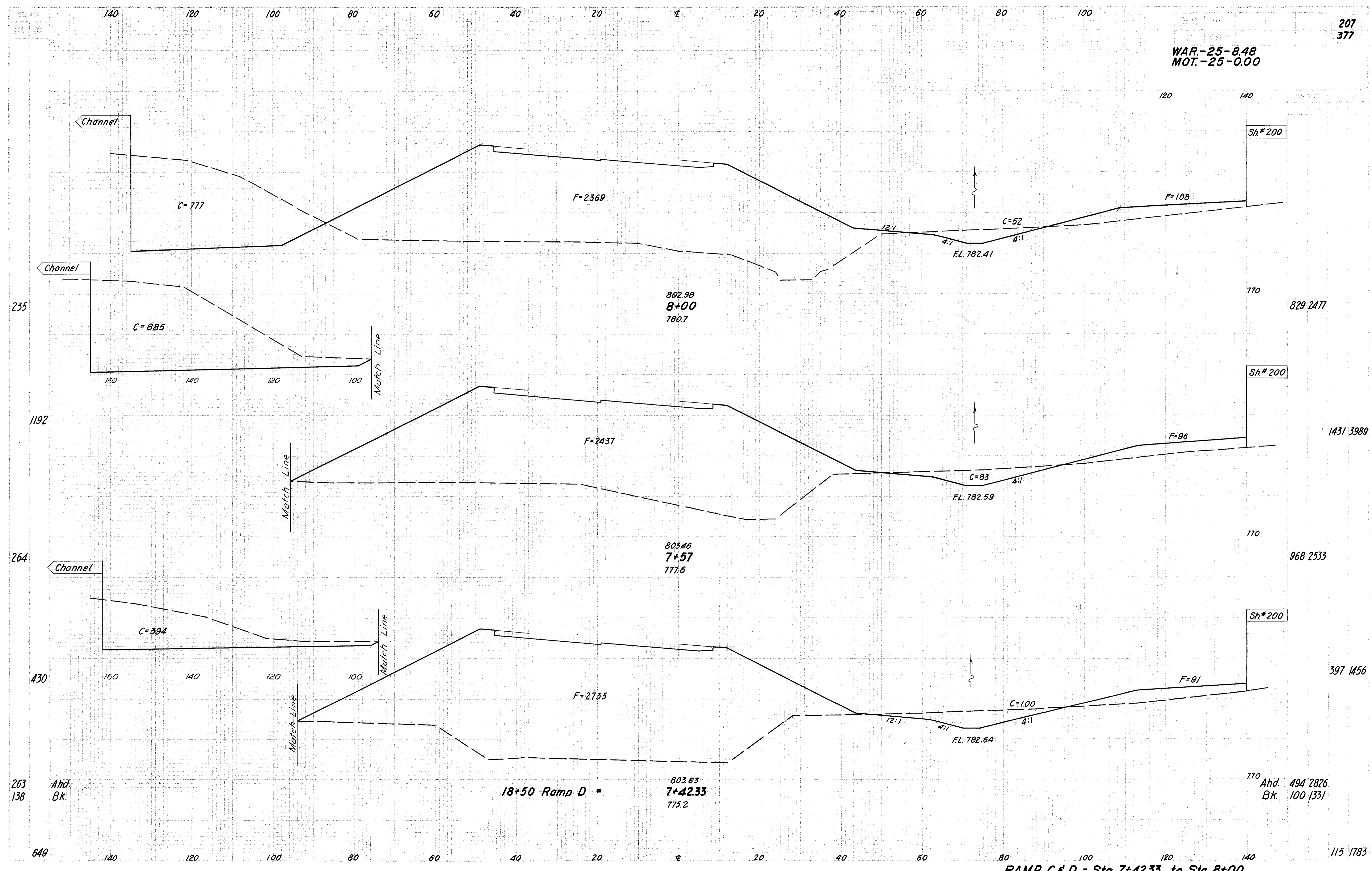
WAR.-25-8.48
MOT.-25-0.00

206
377

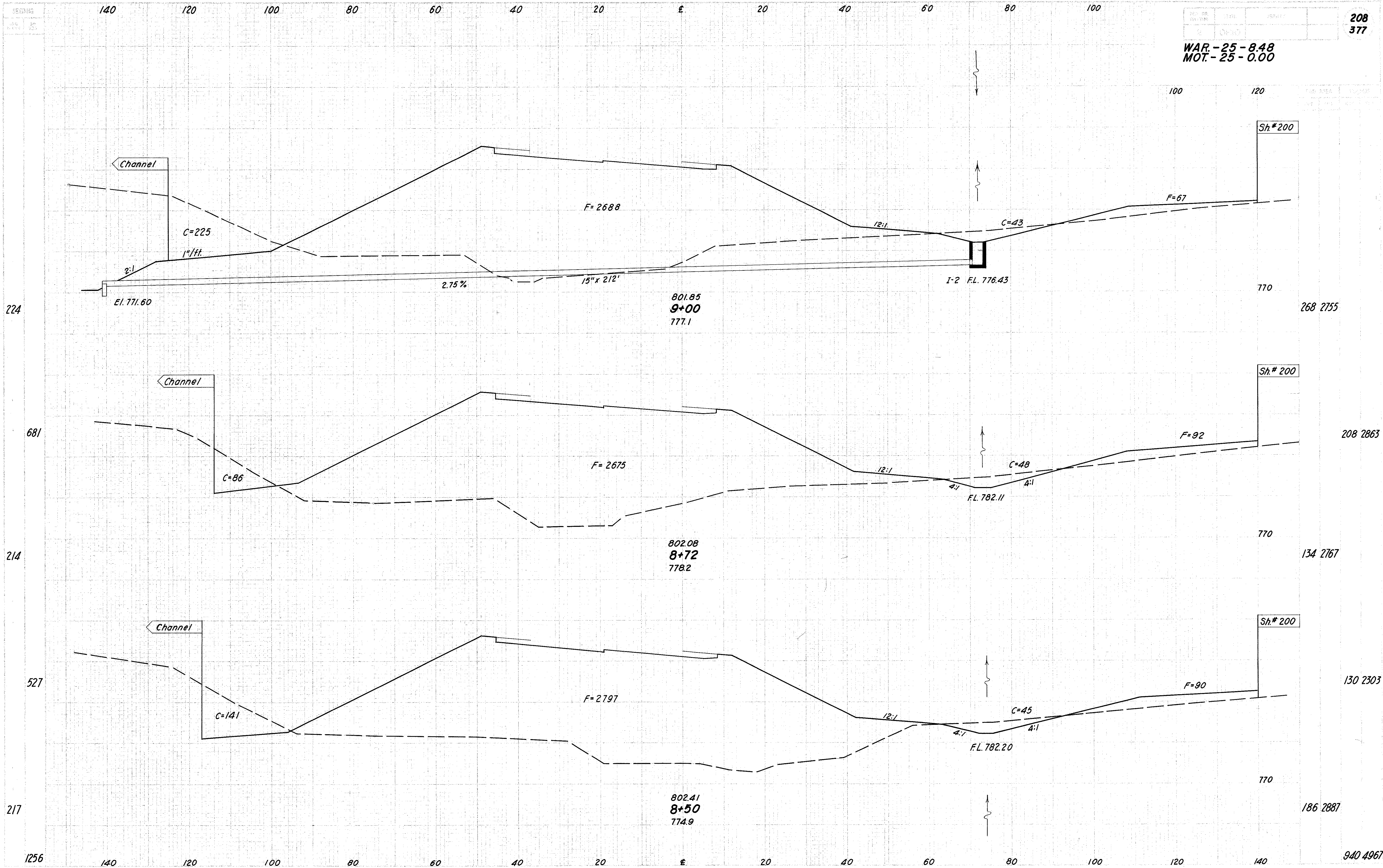


RAMP C Sta. 6+00 to Sta. 7+00

WAR-25-848
MOT.-25-000

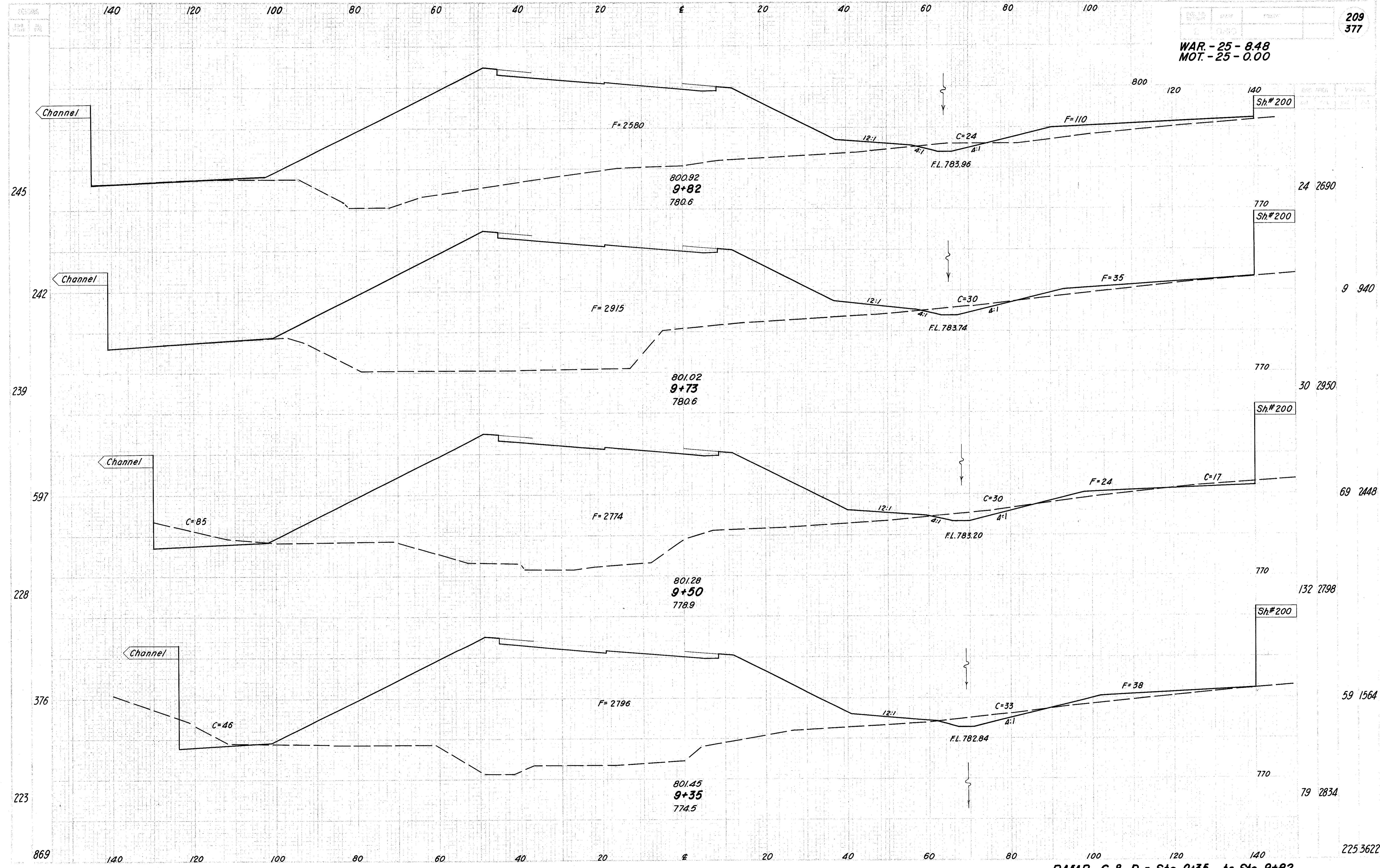


WAR-25-848
MOT.-25-0.00



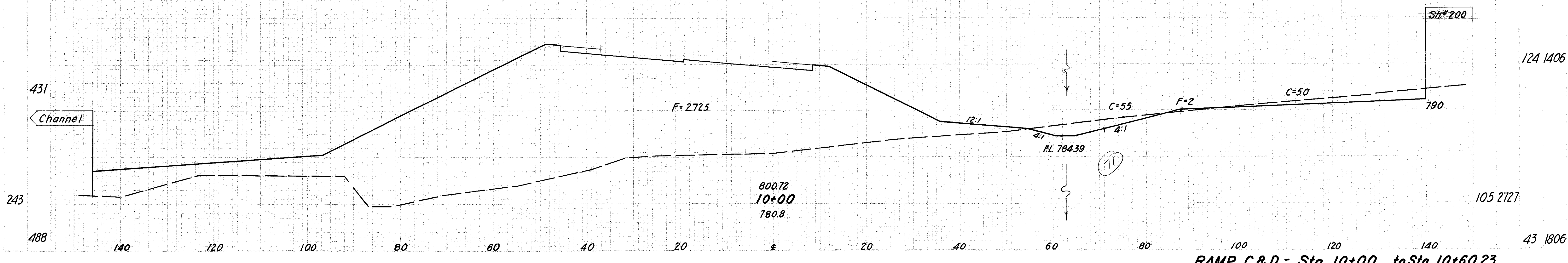
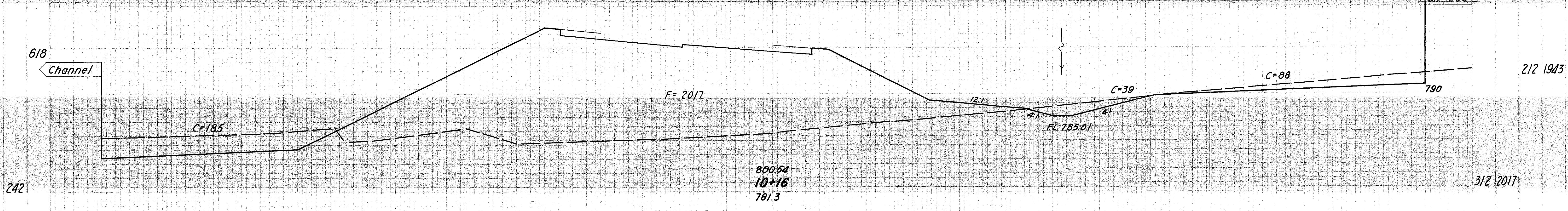
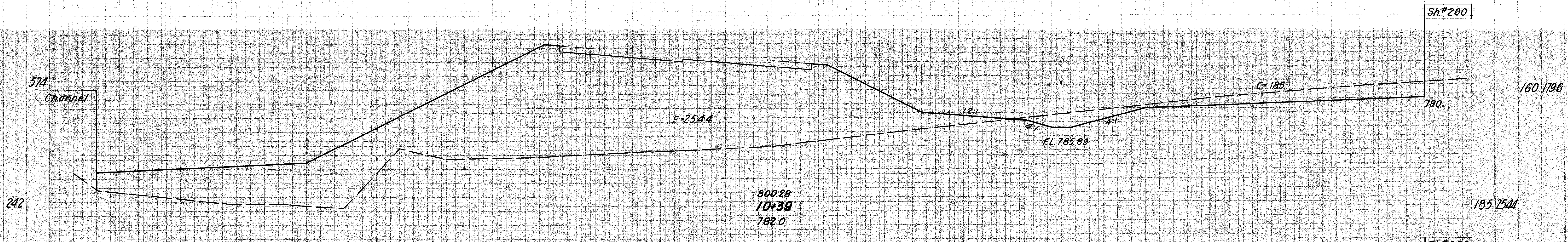
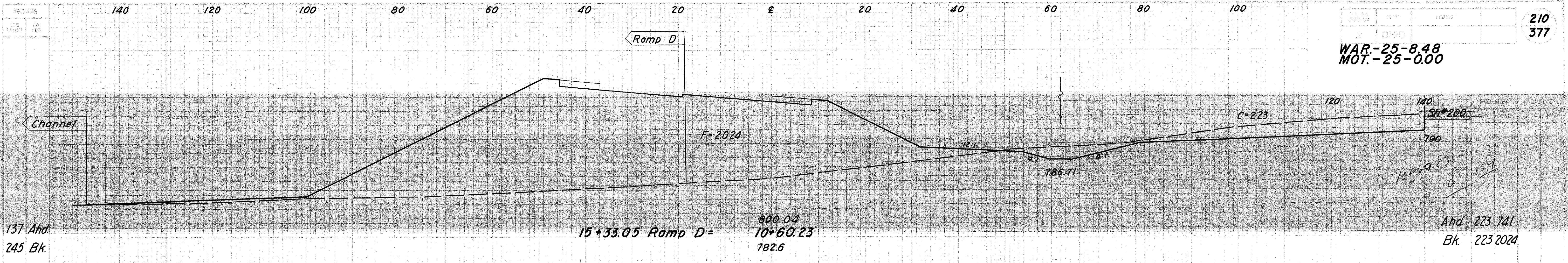
RAMP C & D - Sta. 8+50 to Sta. 9+00

WAR - 25 - 8.48
MOT. - 25 - 0.00



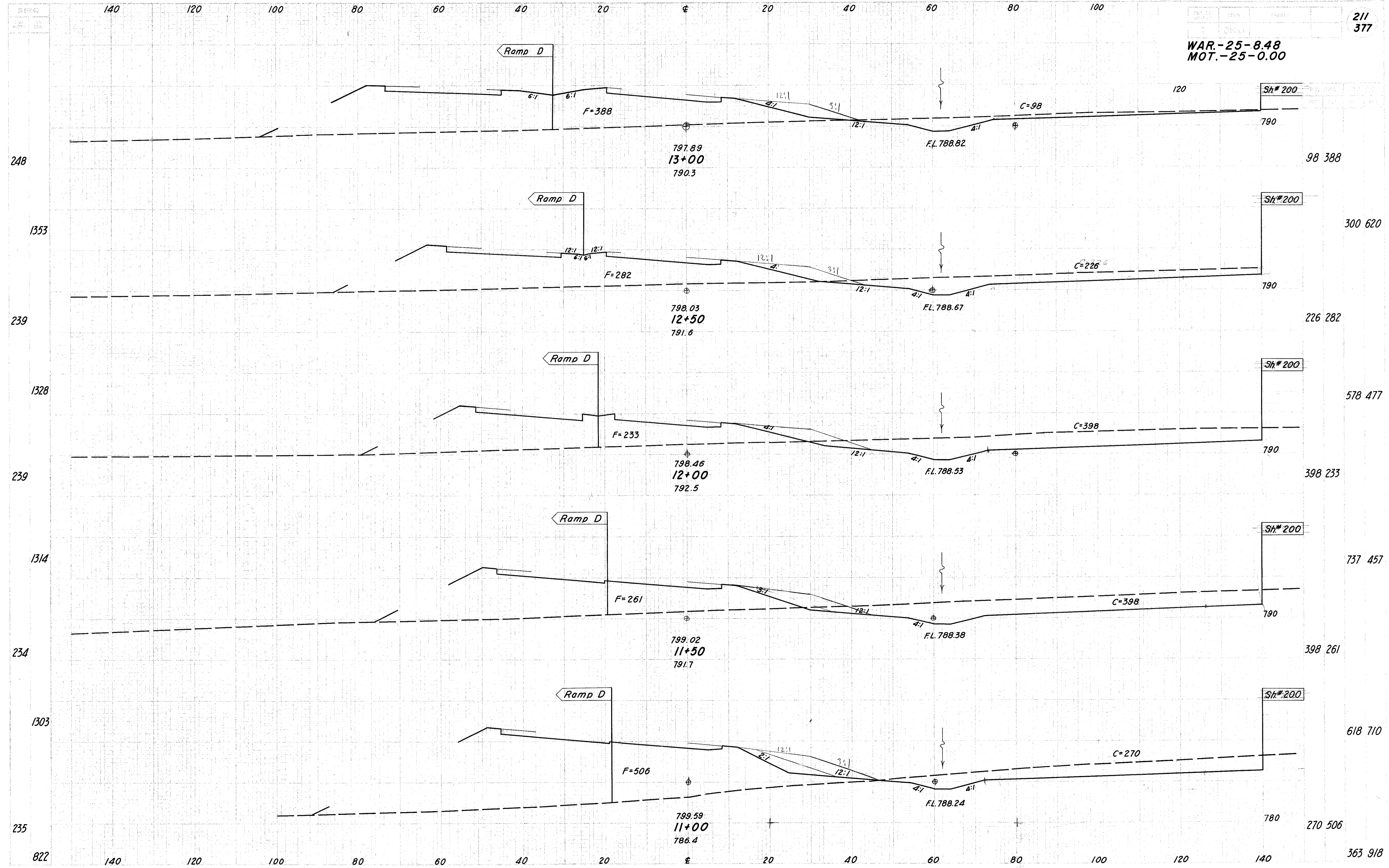
RAMP C & D - Sta. 9+35 to Sta. 9+82

WAR-25-8.48
MOT.-25-0.00

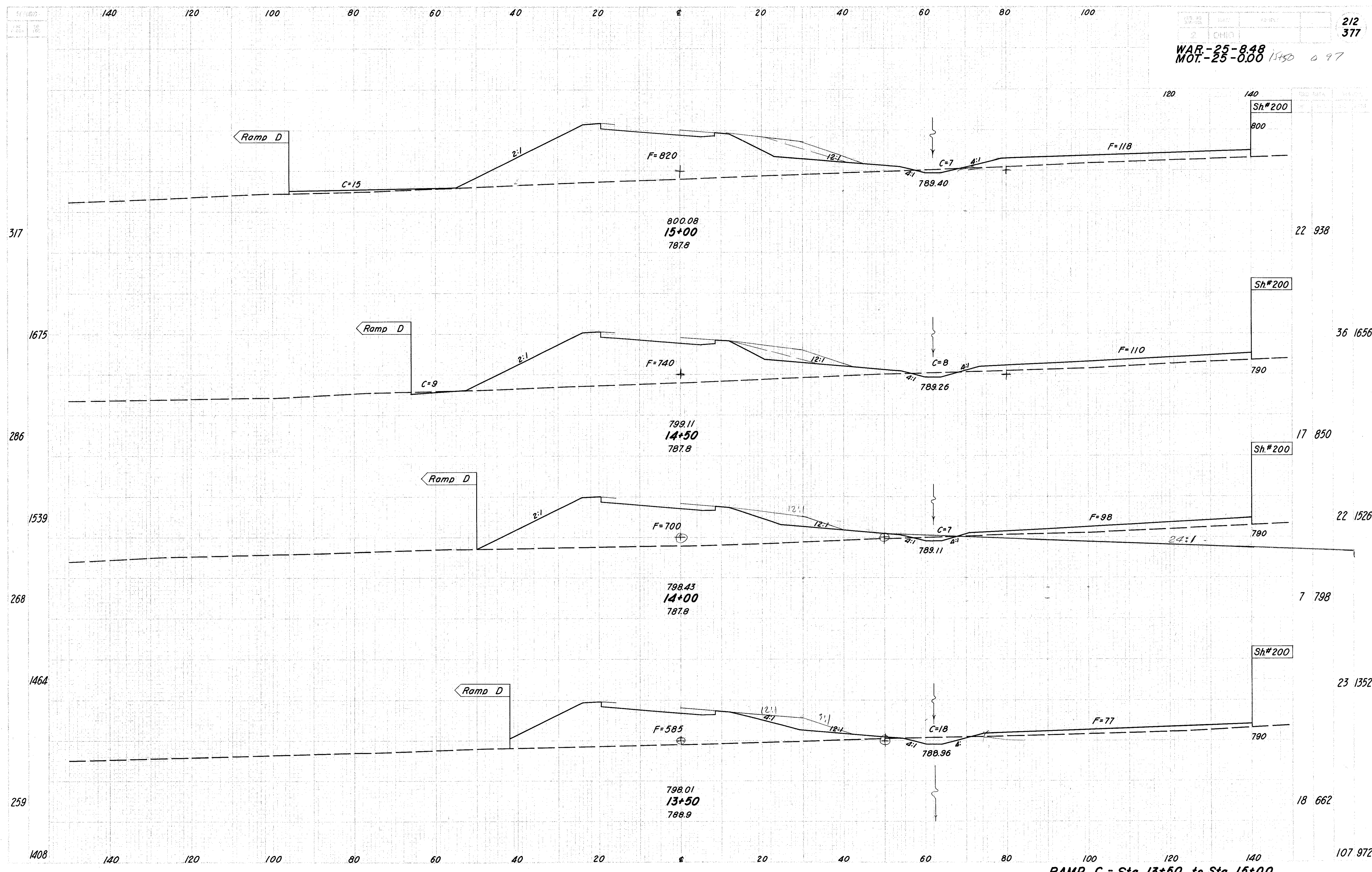


RAMP C&D.- Sta. 10+00 to Sta. 10+60.23

WAR.-25-8.48
MOT.-25-0.00

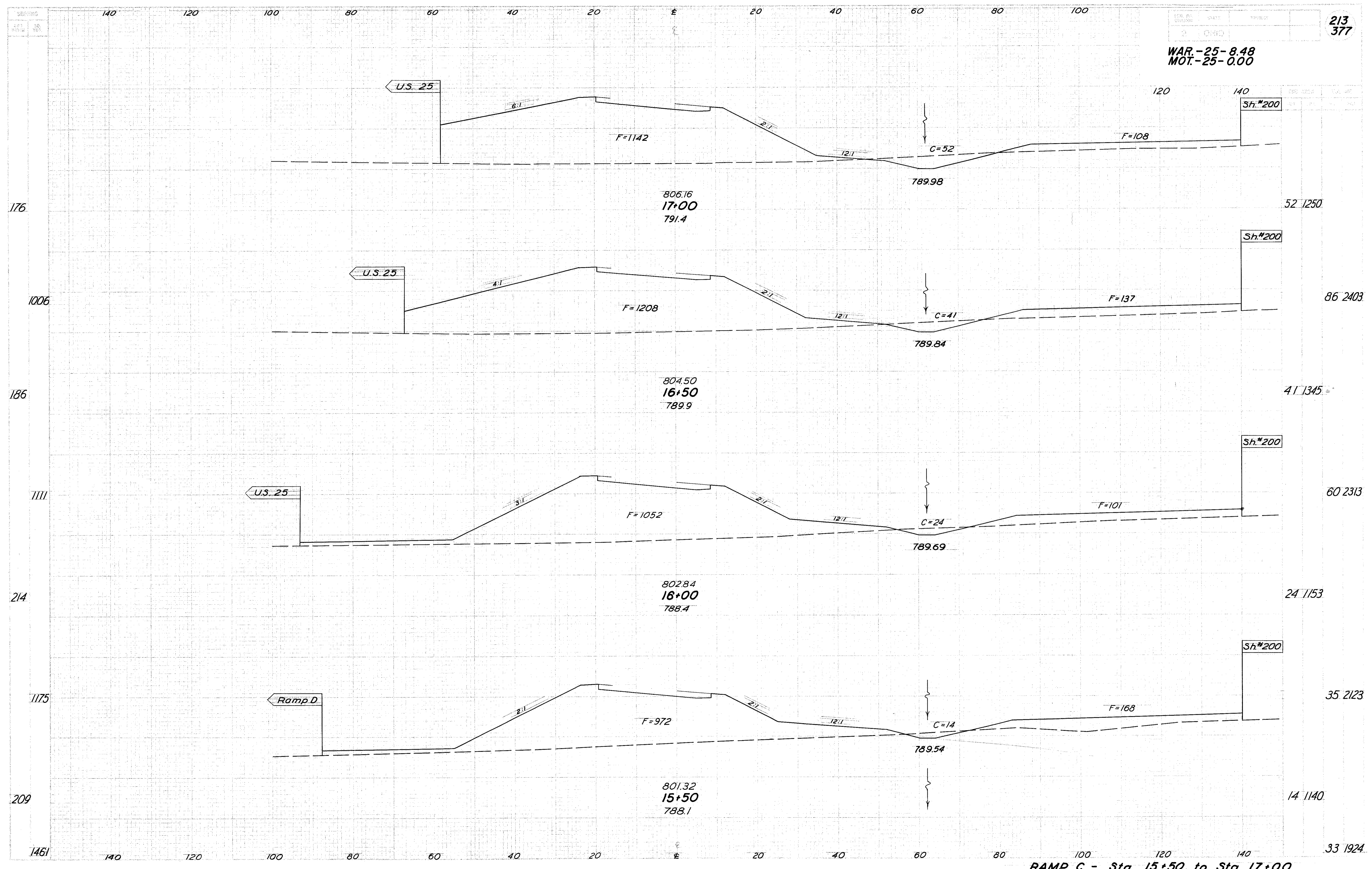


RAMP C Sta. 11+00 to Sta. 13+00



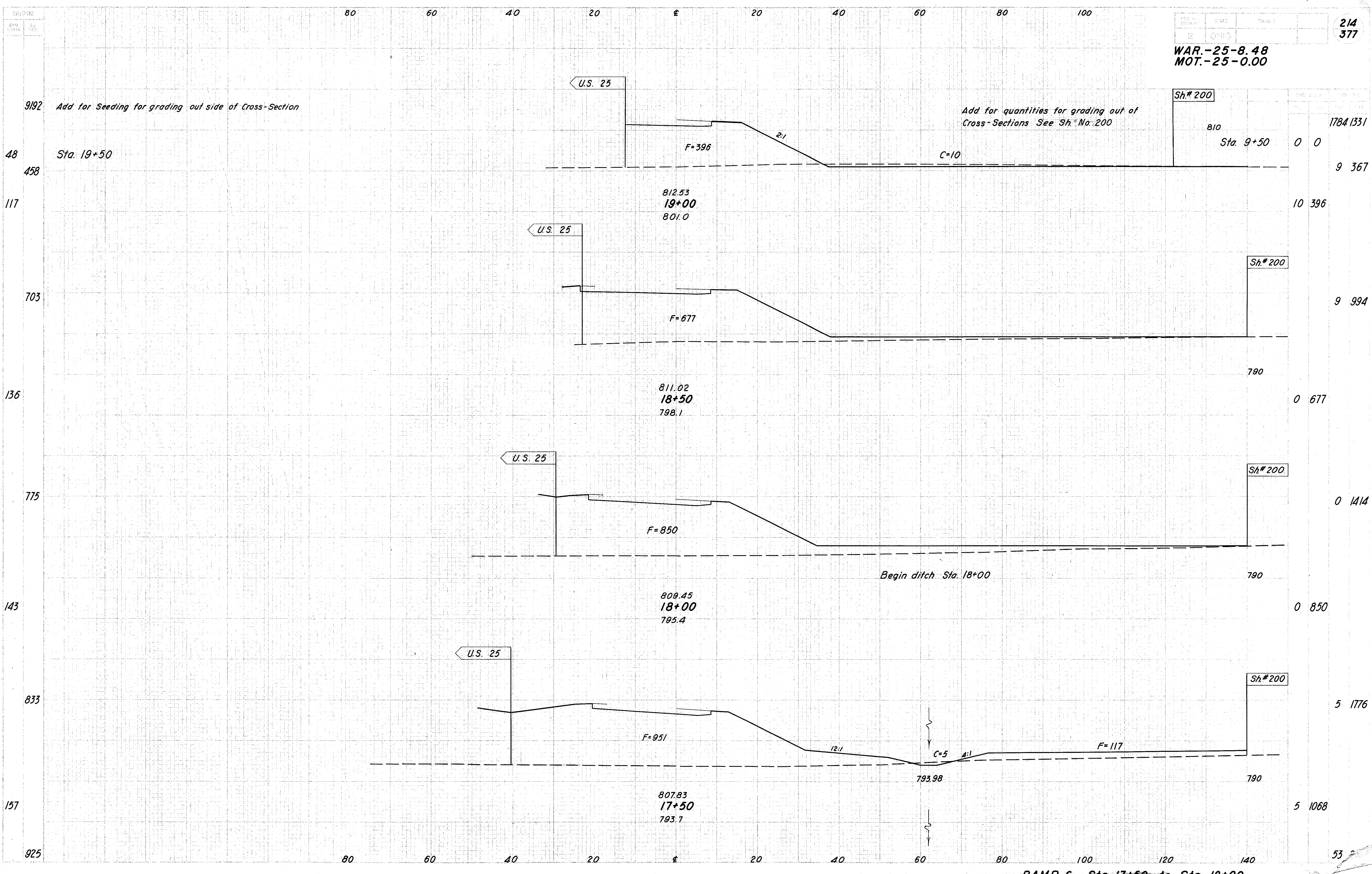
RAMP C.- Sta. 13+50 to Sta. 15+00

WAR-25-8.48
MOT-25-0.00



RAMP C.- Sta. 15+50 to Sta. 17+00

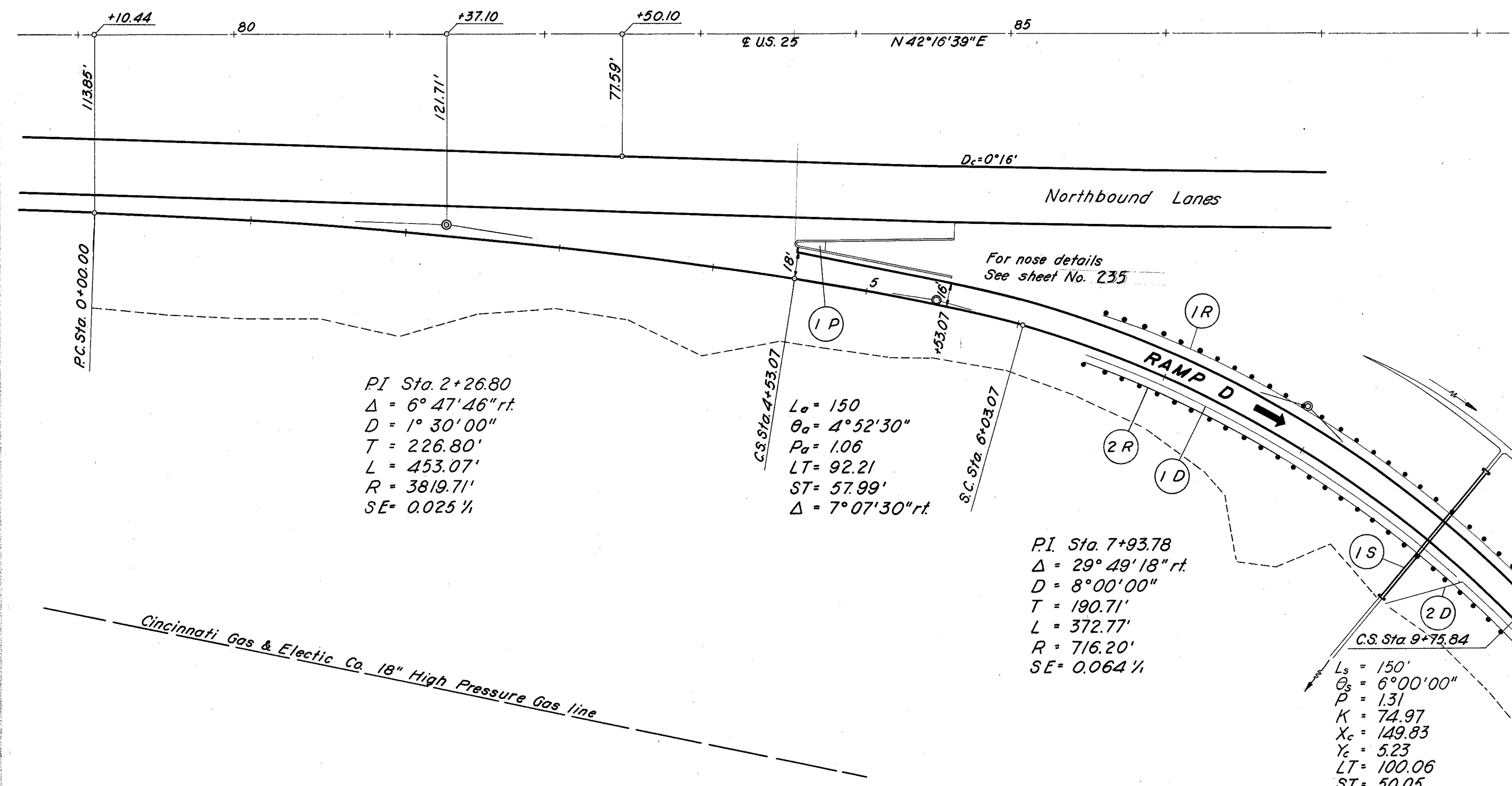
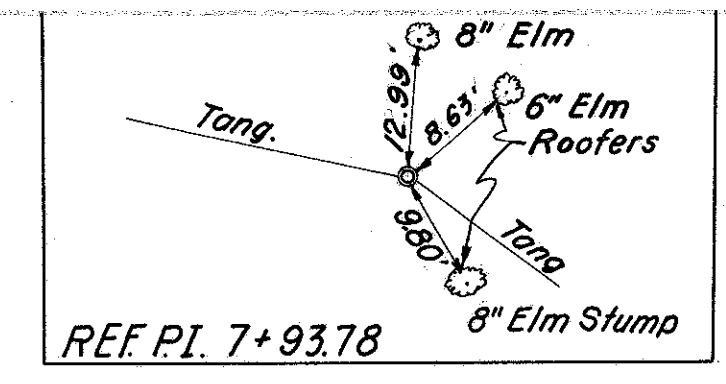
WAR.-25-8.48
MOT.-25-0.00



Station	810	0	0	1784	1331
Sta. 19+50				0	0
19+00				10	396
18+50				0	677
18+00				0	850
17+50				5	1776
				5	1068

RAMP C Sta. 17+50 to Sta. 19+00

WAR.-25-8.48
MOT.-25-0.00



PI Sta. 2+26.80
 $\Delta = 6^\circ 47' 46'' \text{rt.}$
 $D = 1^\circ 30' 00''$
 $T = 226.80'$
 $L = 453.07'$
 $R = 3819.71'$
 $SE = 0.025 \%$

$L_s = 150$
 $\theta_a = 4^\circ 52' 30''$
 $P_a = 1.06$
 $LT = 92.21$
 $ST = 57.99'$
 $\Delta = 7^\circ 07' 30'' \text{rt.}$

PI Sta. 7+93.78
 $\Delta = 29^\circ 49' 18'' \text{rt.}$
 $D = 8^\circ 00' 00''$
 $T = 190.71'$
 $L = 372.77'$
 $R = 716.20'$
 $SE = 0.064 \%$

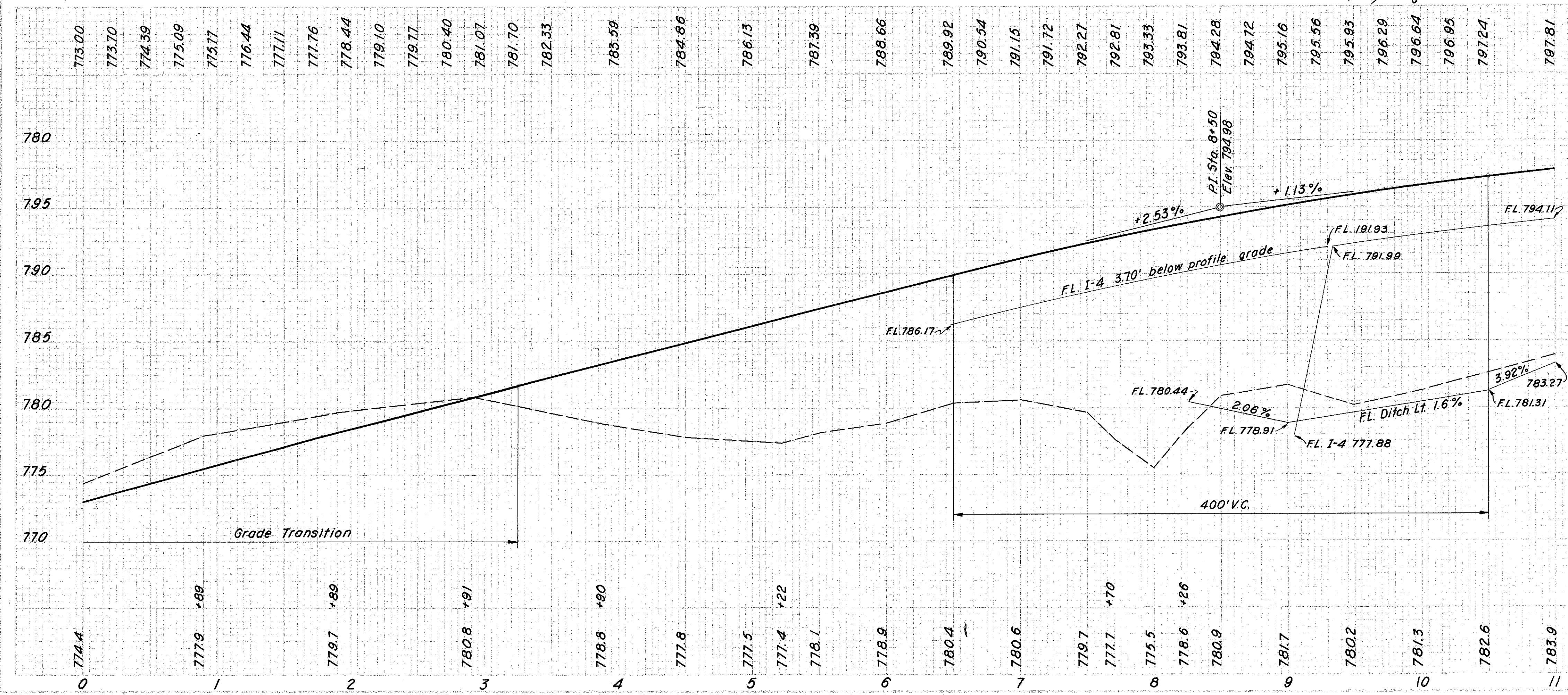
$L_s = 150'$
 $\theta_s = 6^\circ 00' 00''$
 $P = 1.31$
 $K = 74.97$
 $X_c = 149.83$
 $Y_c = 5.23$
 $LT = 100.06$
 $ST = 50.05$

Ref. No.	Station		Side	I-4 Underdrain		I-4 Pipe Outlets for Underdrain	I-5 for I-4 Bend 60°
	From	To		Shallow 6" L.F.	Deep 6" L.F.		
1 D	6+48	9+30	R	282			
2 D	9+02	11+00	R	206		10	1
Totals				488		10	1

Ref. No.	Station		Side	I-12 Standard Type 6 Concrete Curb L.F.	I-21 Port. Cem. Concrete Median Pt. Type 1 S.Y.	I-12 Standard Type 2-A Concrete Curb L.F.
	From	To				
1 P	4+53.07	5+53.07	L	100	11	104
Totals				100	11	104

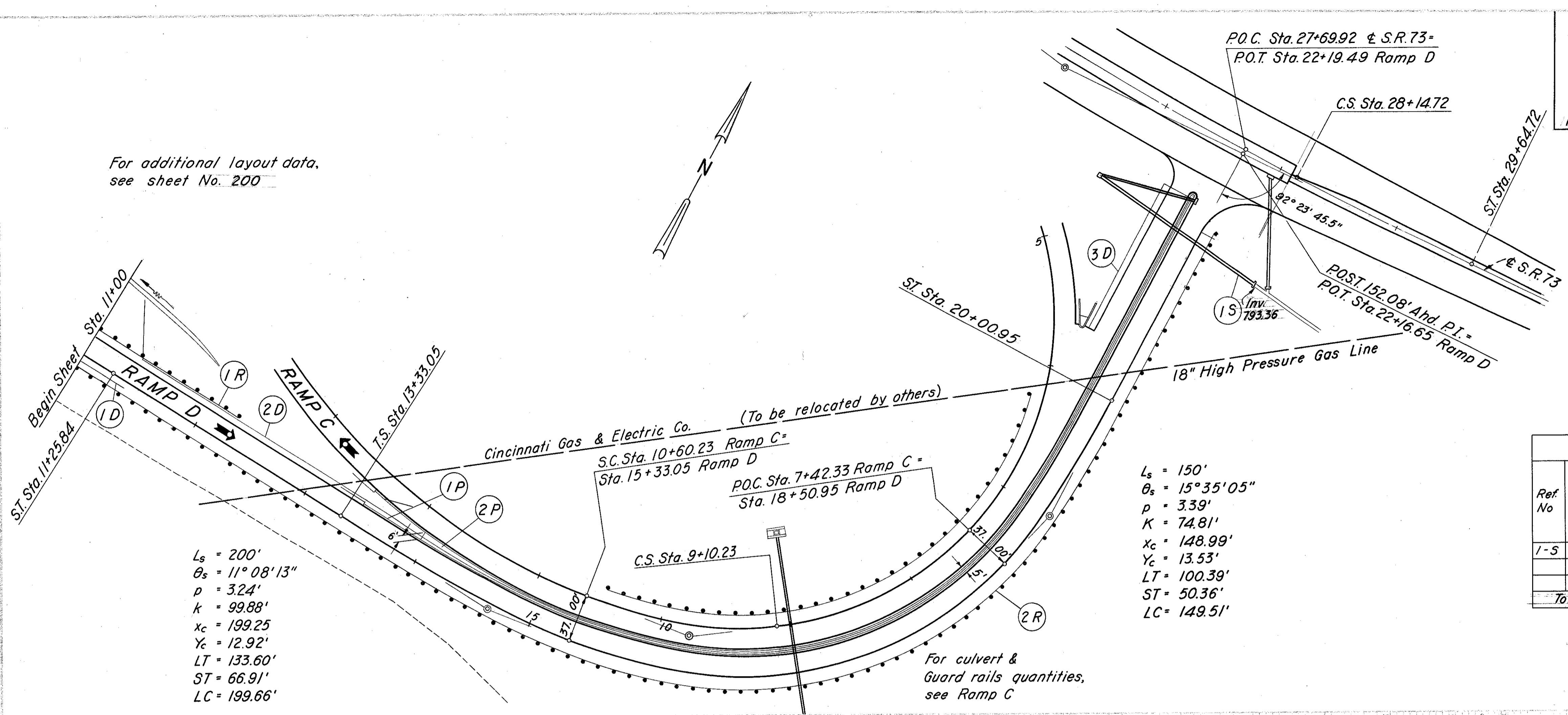
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Standard Type Deep L.F.
	From	To		
1 R	6+50	11+00		450
2 R	6+50	11+00		450
Total				900

Ref. No.	Station	E-2 Excavation for Structures C.Y.	E-3 Channel Excavation C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Rdwy. Culv. Sec. M-6.60 18" L.F.	See Sheet No.
Totals		42	35	0.5	106	



WAR.-25-8.48
MOT-25-0.00

For additional layout data,
see sheet No. 200



Ref. No.	Station		Side	I-4 Underdrain		I-2 Storm Sewer Sec. M-6.5(b) or M-6.8(b) 8\"	I-5 for I-4 Bend 60\"	I-5 for I-4 Increaser 6\"-8\"	I-4 Tee 8\"	I-4 Pipe Outlets for Underdrain 8\"
	From	To		Shallow 6\" L.F.	Deep 6\" L.F.					
1 D	11+00	11+40	R	40						
2 D	11+18	21+66	L	1070			1	1		10
3 D	20+45	21+66	L	120		20		1	2	
Totals				1230		20	1	1	2	10

Ref No	Station	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures C.Y.	S-27 Pipe for Raw Cully Sec. M-6.5(b) or M-6.8(b) 18\"	I-2 Storm Sewer Class B 15\" L.F.	E-3 Channel Excavation C.Y.	I-8 Standard No. 2-2-B Catch Basin Each	I-8 Standard No. 3 A Catch Basin Each	See Sheet No.
1-5	21+38	132	0.3	144	74	5	1	1	309
Totals		132	0.3	144	74	5	1	1	

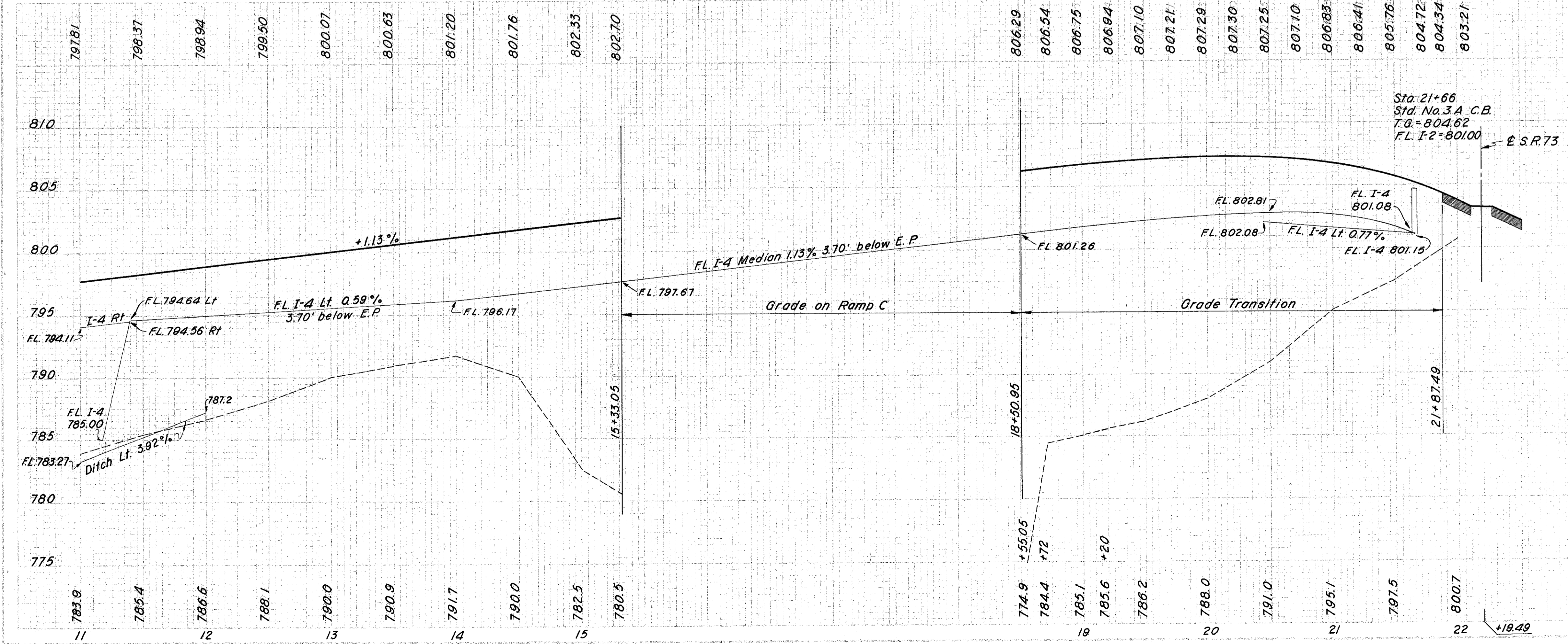
$L_s = 200'$
 $\theta_s = 11^\circ 08' 13''$
 $p = 3.24'$
 $k = 99.88'$
 $x_c = 199.25'$
 $y_c = 12.92'$
 $LT = 133.60'$
 $ST = 66.91'$
 $LC = 199.66'$

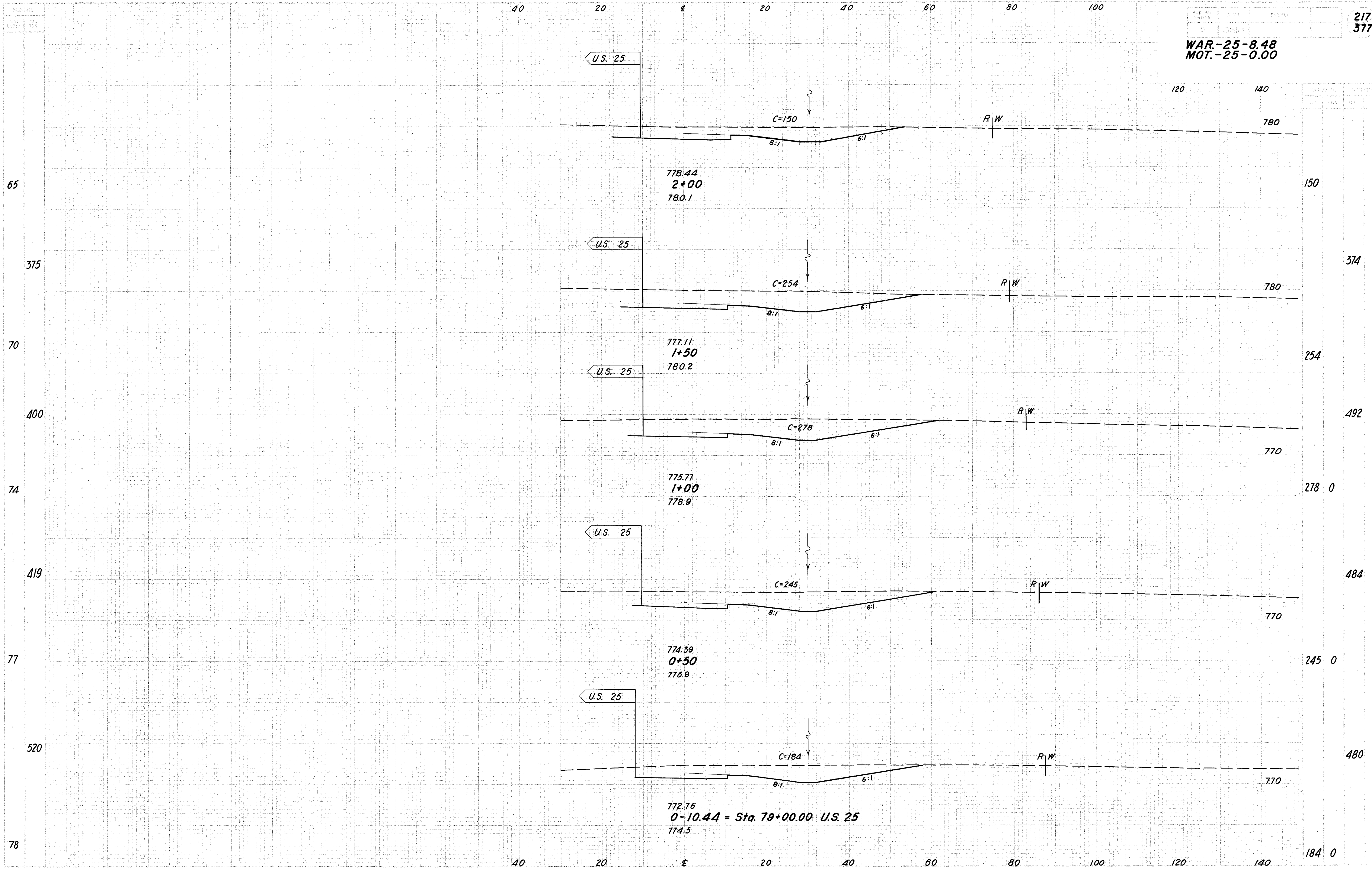
$L_s = 150'$
 $\theta_s = 15^\circ 35' 05''$
 $p = 3.39'$
 $k = 74.81'$
 $x_c = 148.99'$
 $y_c = 13.53'$
 $LT = 100.39'$
 $ST = 50.36'$
 $LC = 149.51'$

For culvert & Guard rails quantities, see Ramp C

Ref No	Station		Side	I-12 Standard Type 2 A Concrete Curb L.F.	I-21 Port. Cem. Conc. Med. Pavt. Type 1 S.Y.	See Sheet No.
	From	To				
1 P	13+45	21+70	L	1693		
2 P	13+95	21+70	L		203	
Totals				1693	203	

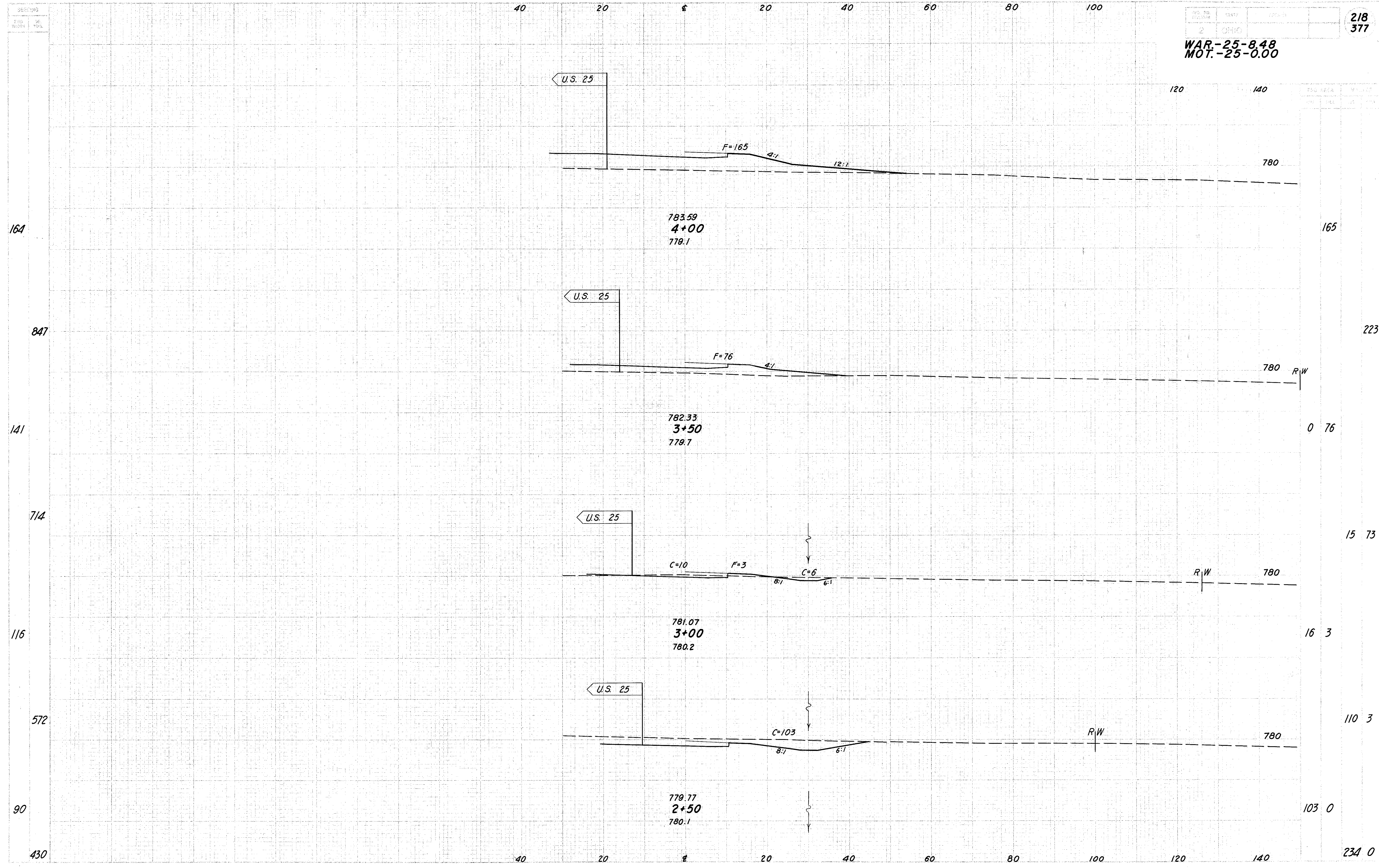
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1 R	11+00	12+25	L	125
2 R	11+00	21+50	R	1125
Totals				1250





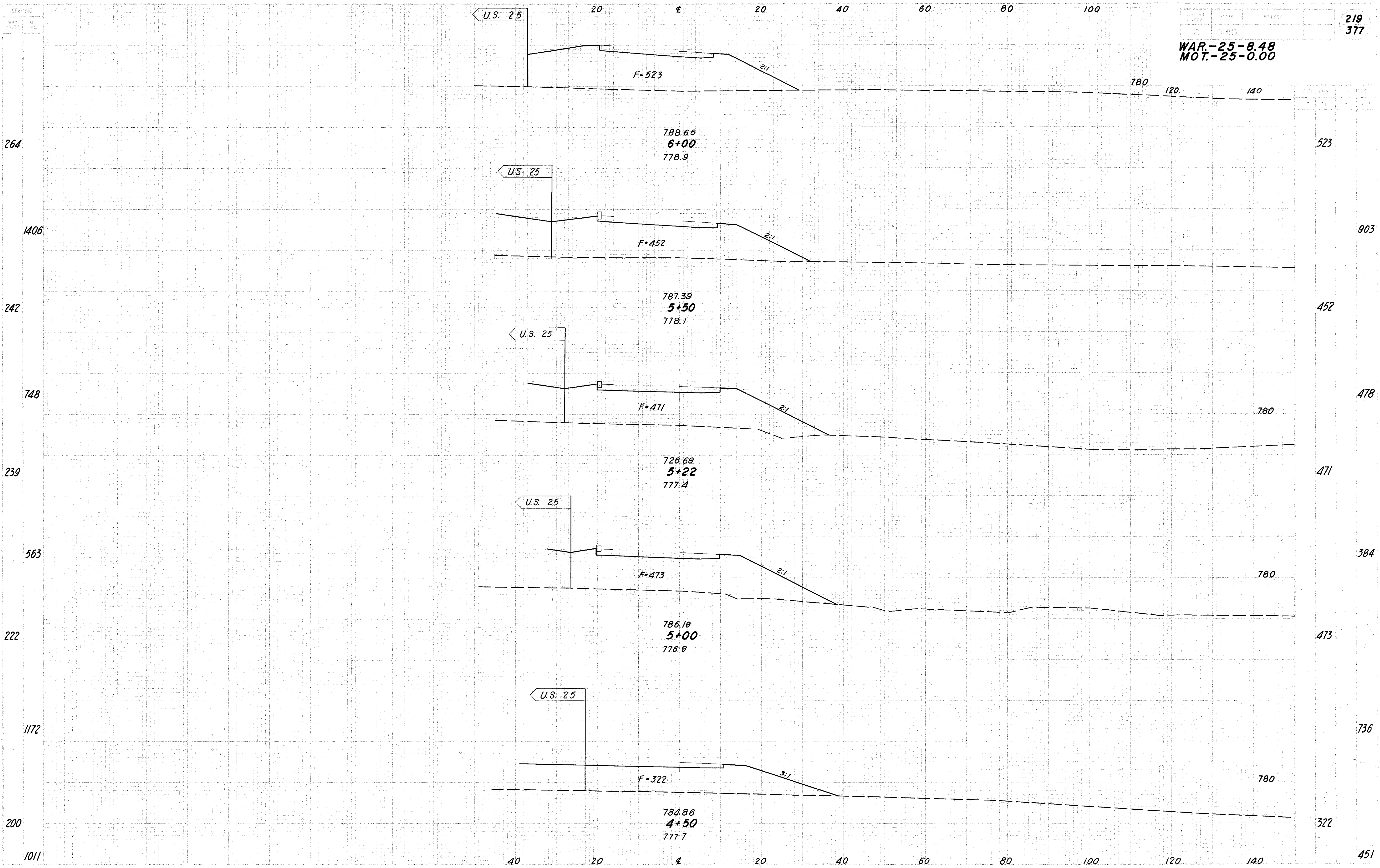
RAMP D Sta. 0+00 to Sta. 2+00

WAR.-25-8.48
MOT.-25-0.00

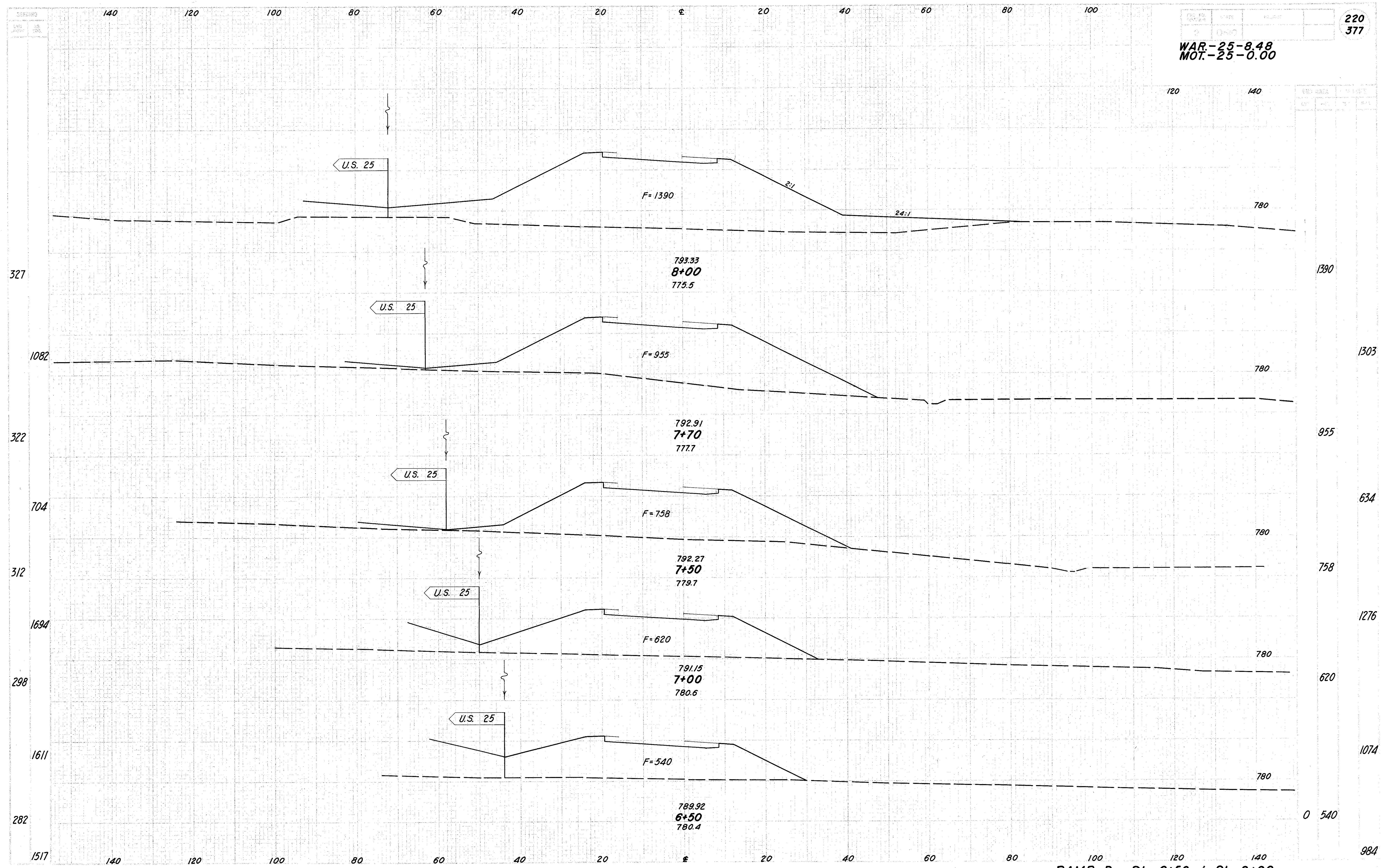


RAMP D Sta. 2+50 to Sta. 4+00

WAR-25-8.48
MOT.-25-0.00

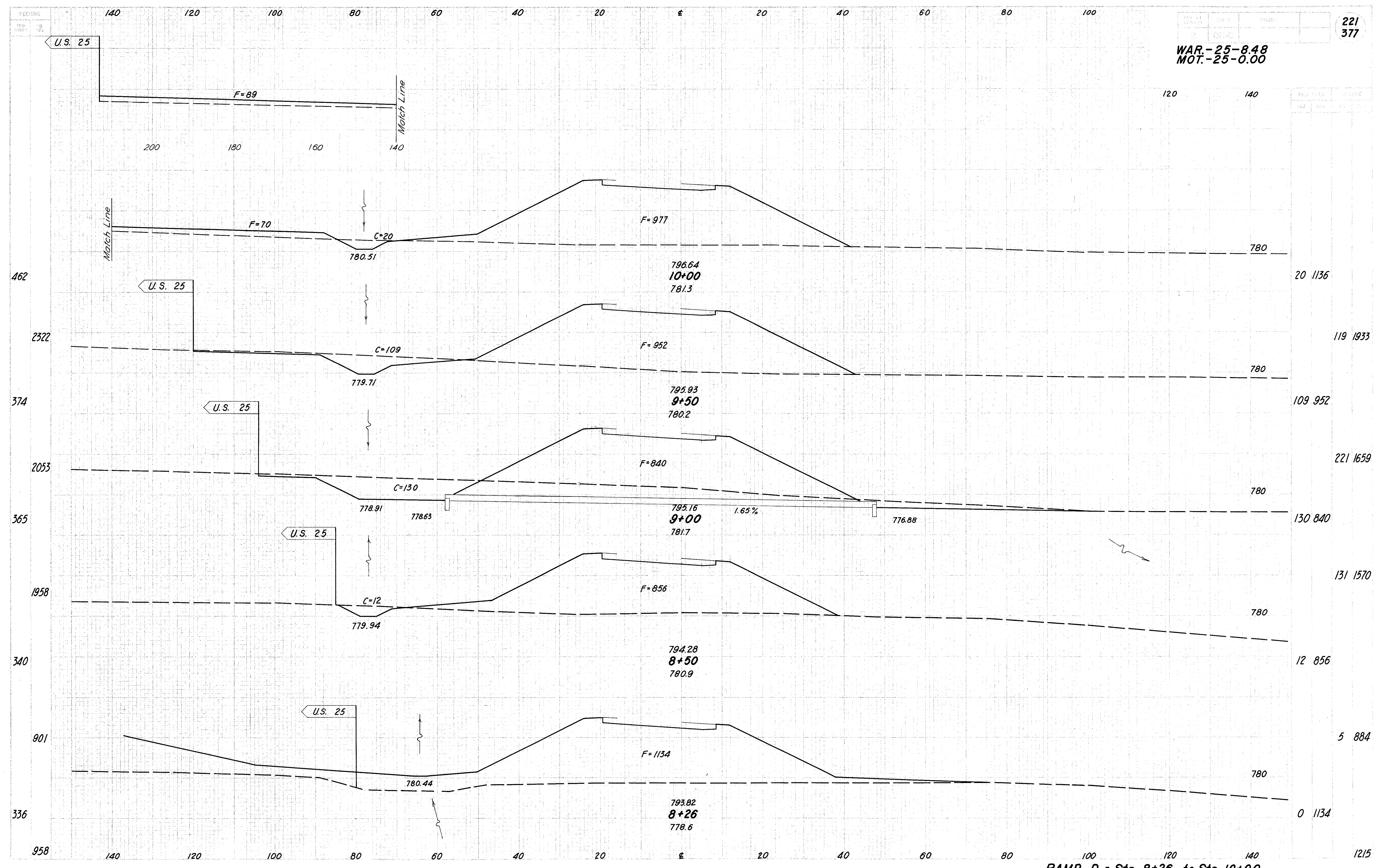


RAMP D Sta. 4+50 to Sta. 6+00

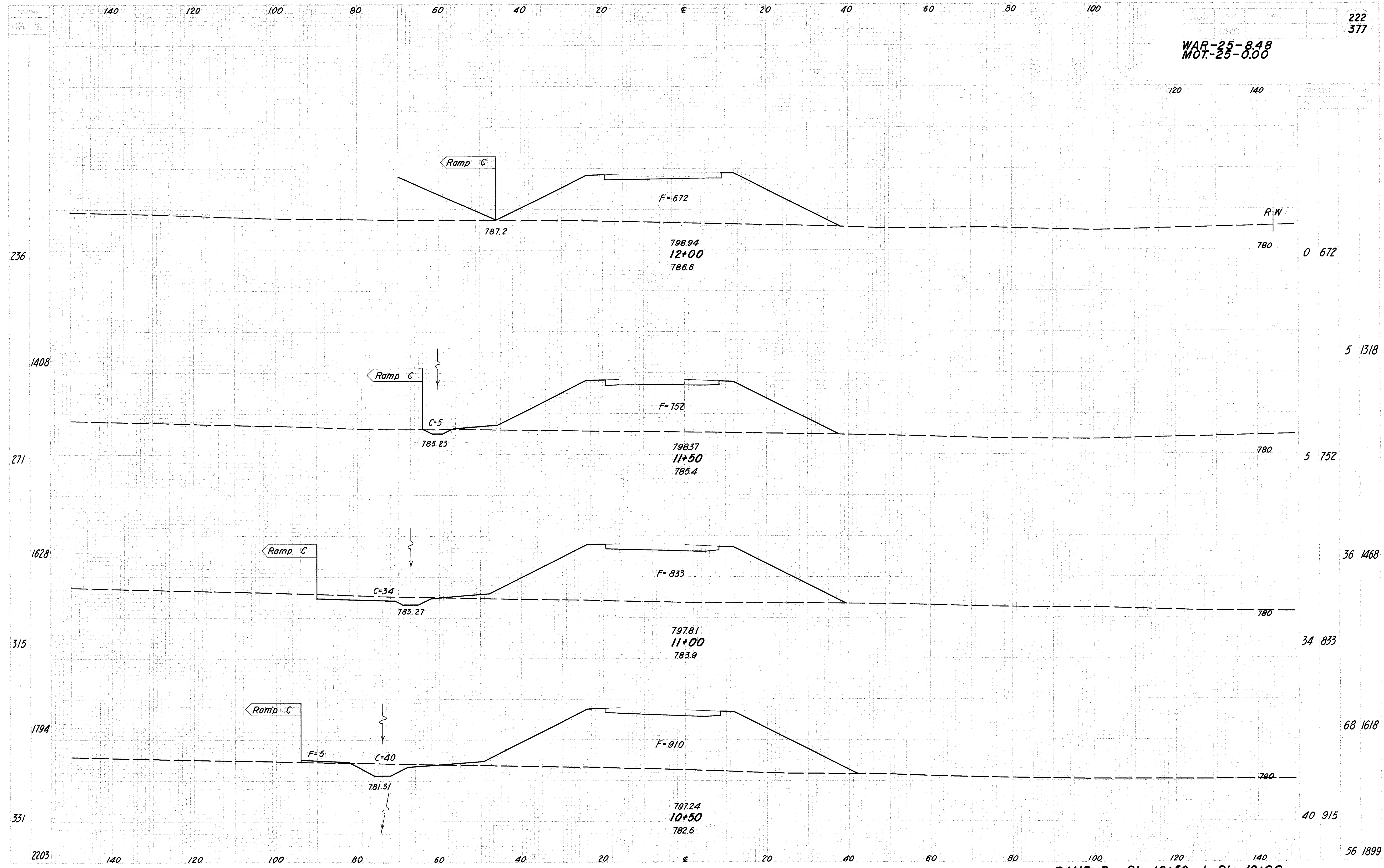


RAMP D.- Sta. 6+50 to Sta. 8+00

WAR.-25-8.48
MOT.-25-0.00

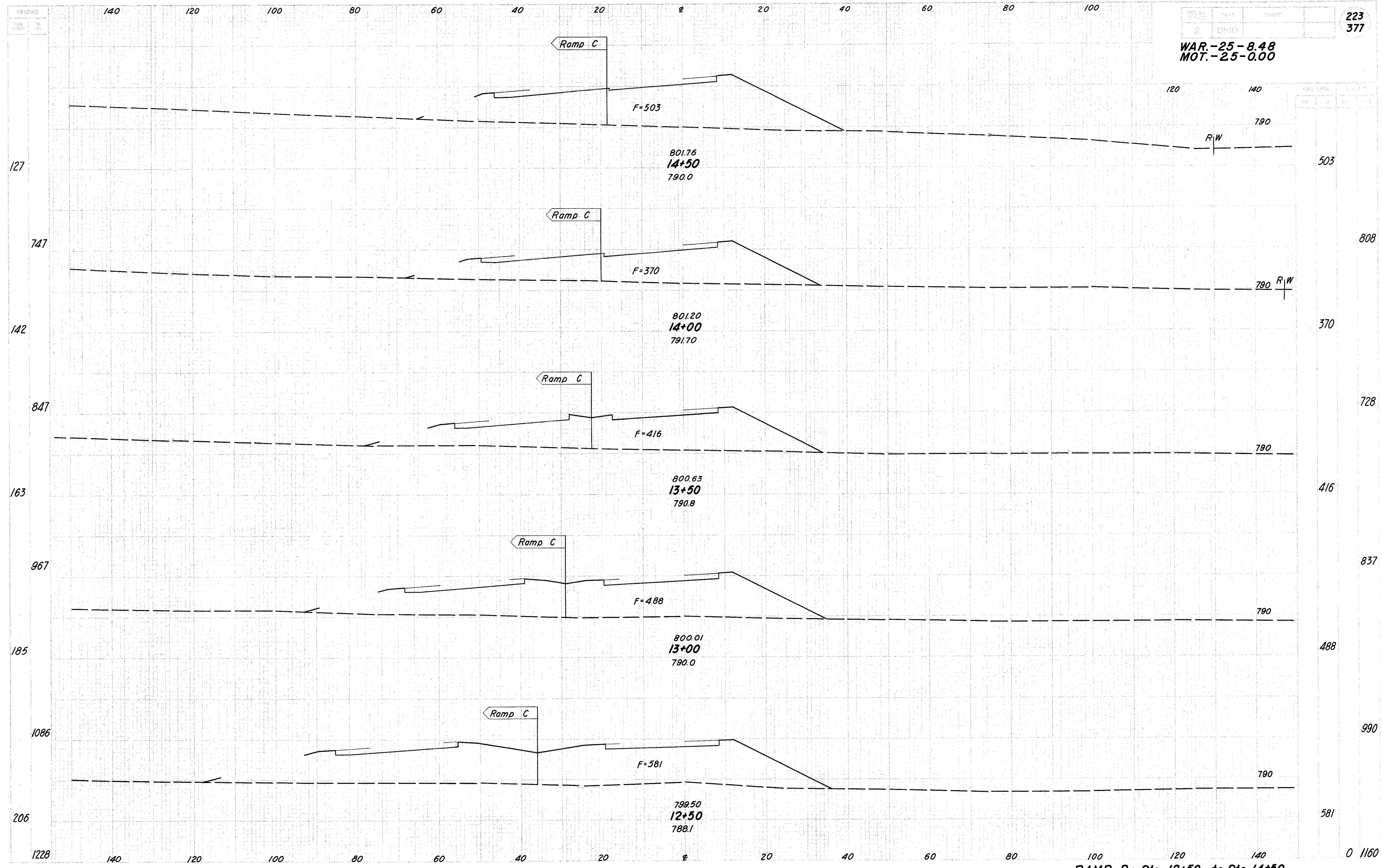


RAMP D - Sta. 8+26 to Sta. 10+00

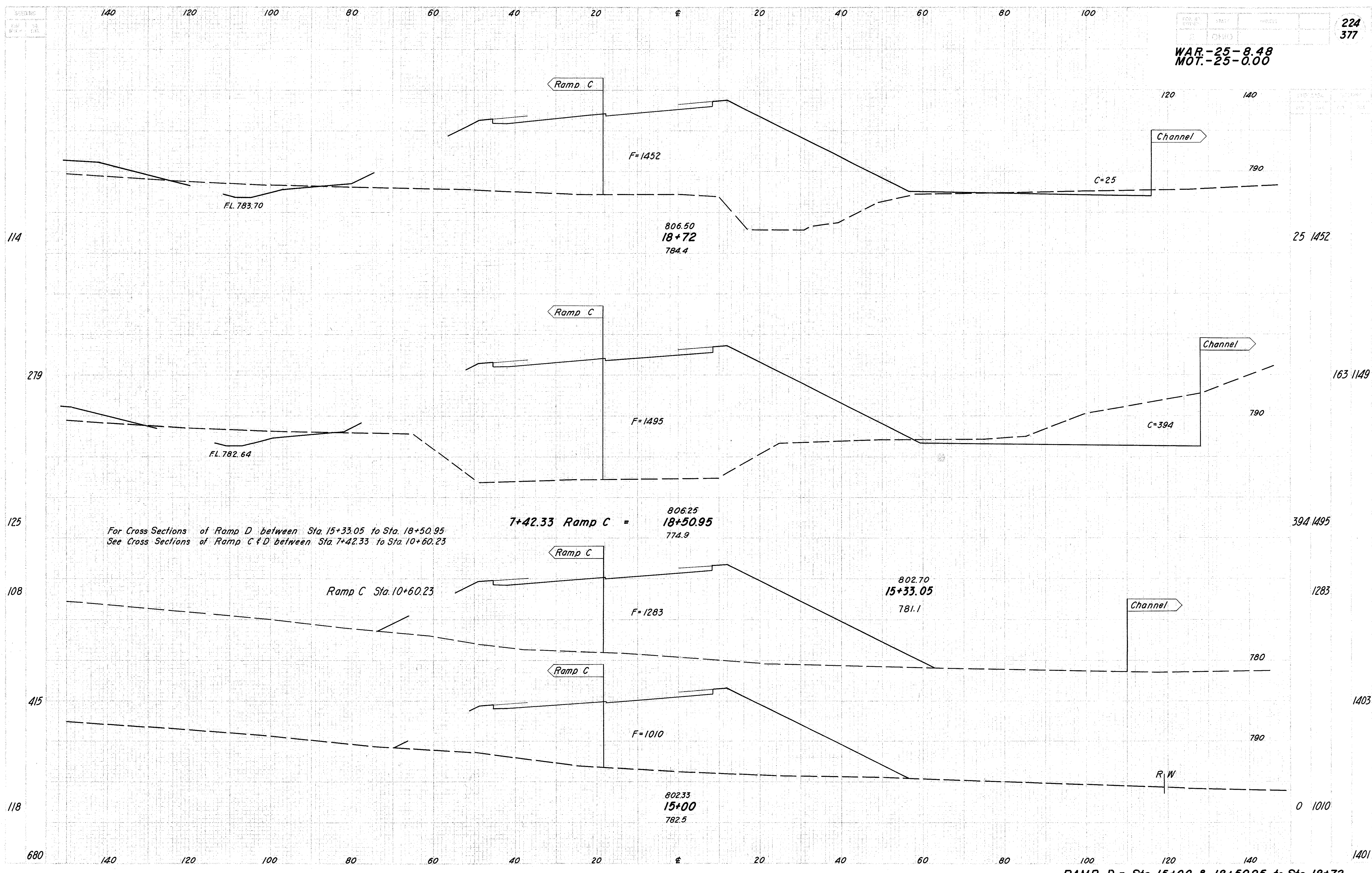


RAMP D.- Sta. 10+50 to Sta. 12+00

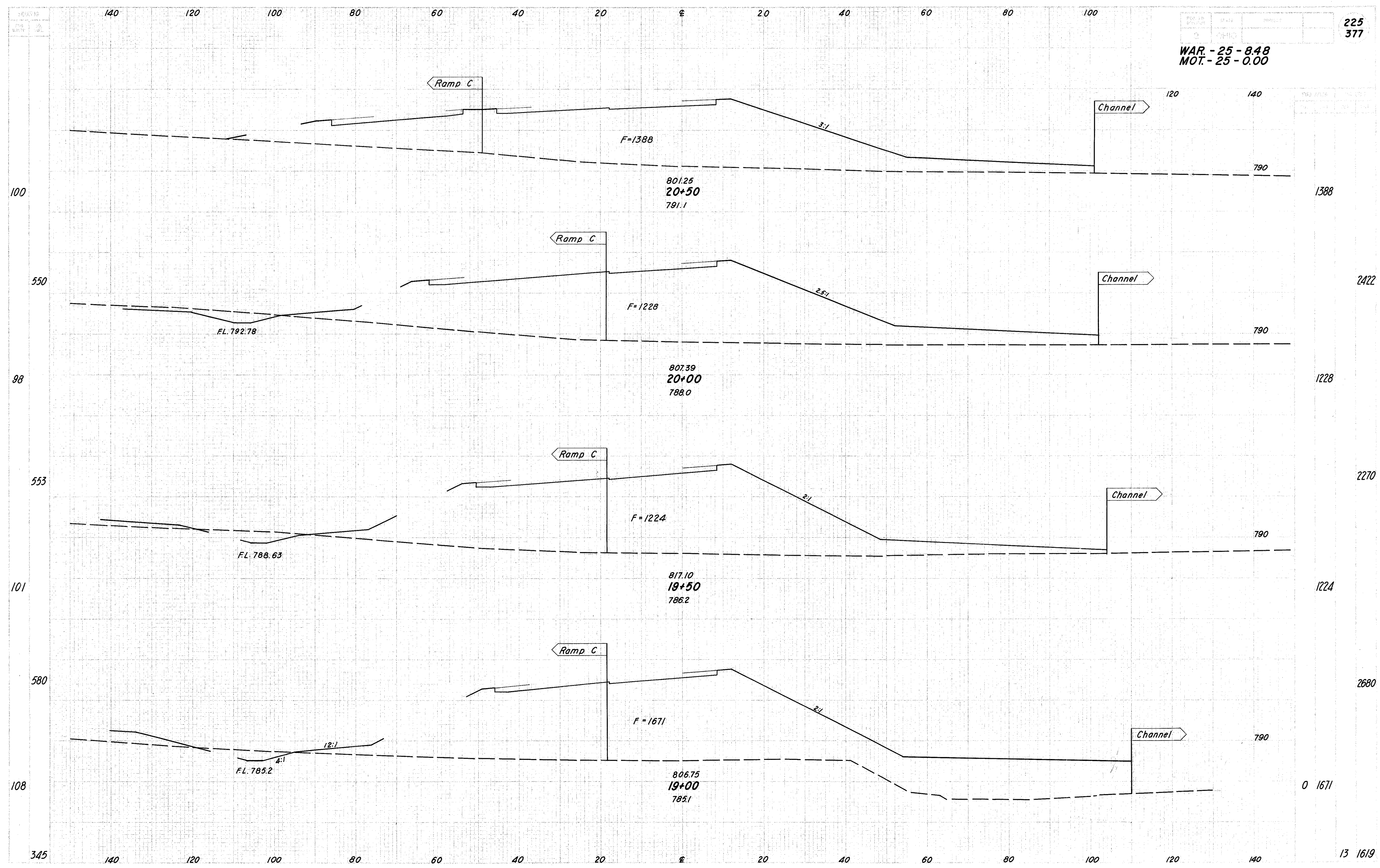
WAR-25-8.48
MOT.-25-0.00



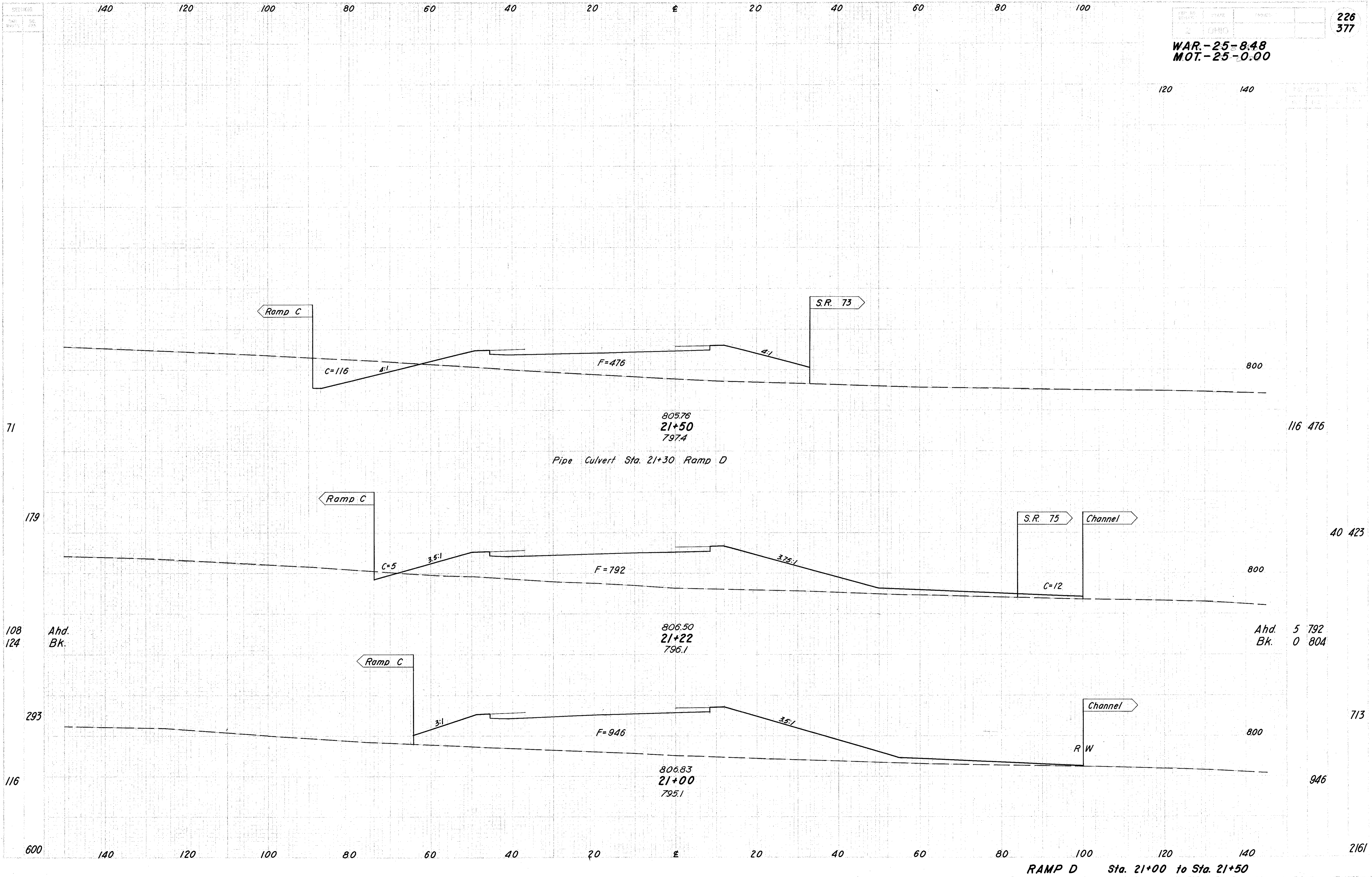
RAMP D:- Sta. 12+50 to Sta. 14+50



RAMP D.- Sta. 15+00 & 18+50.95 to Sta. 18+72



RAMP D.- Sta. 19+00 to Sta. 20+50

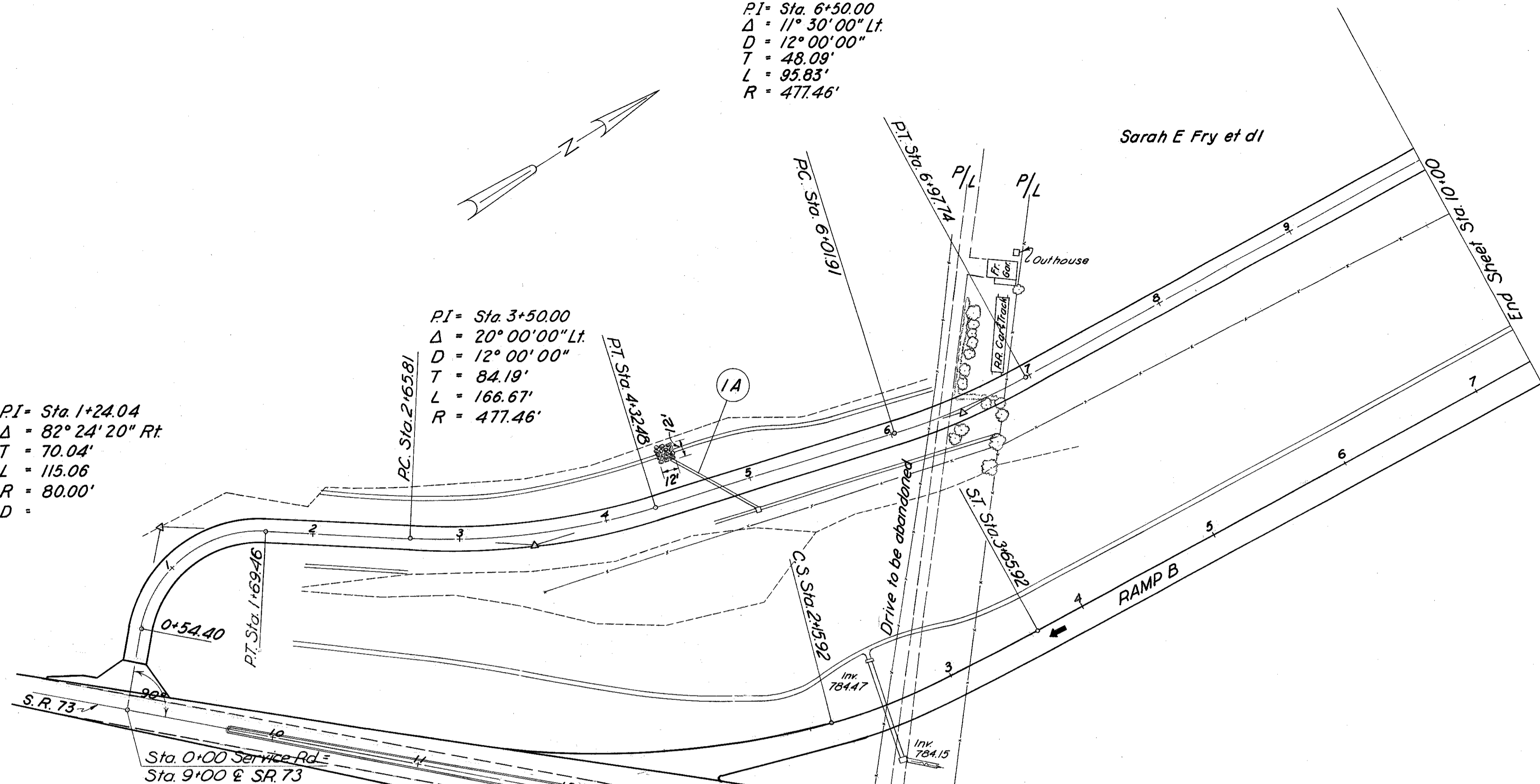


WAR-25-848
MOT-25-0.00

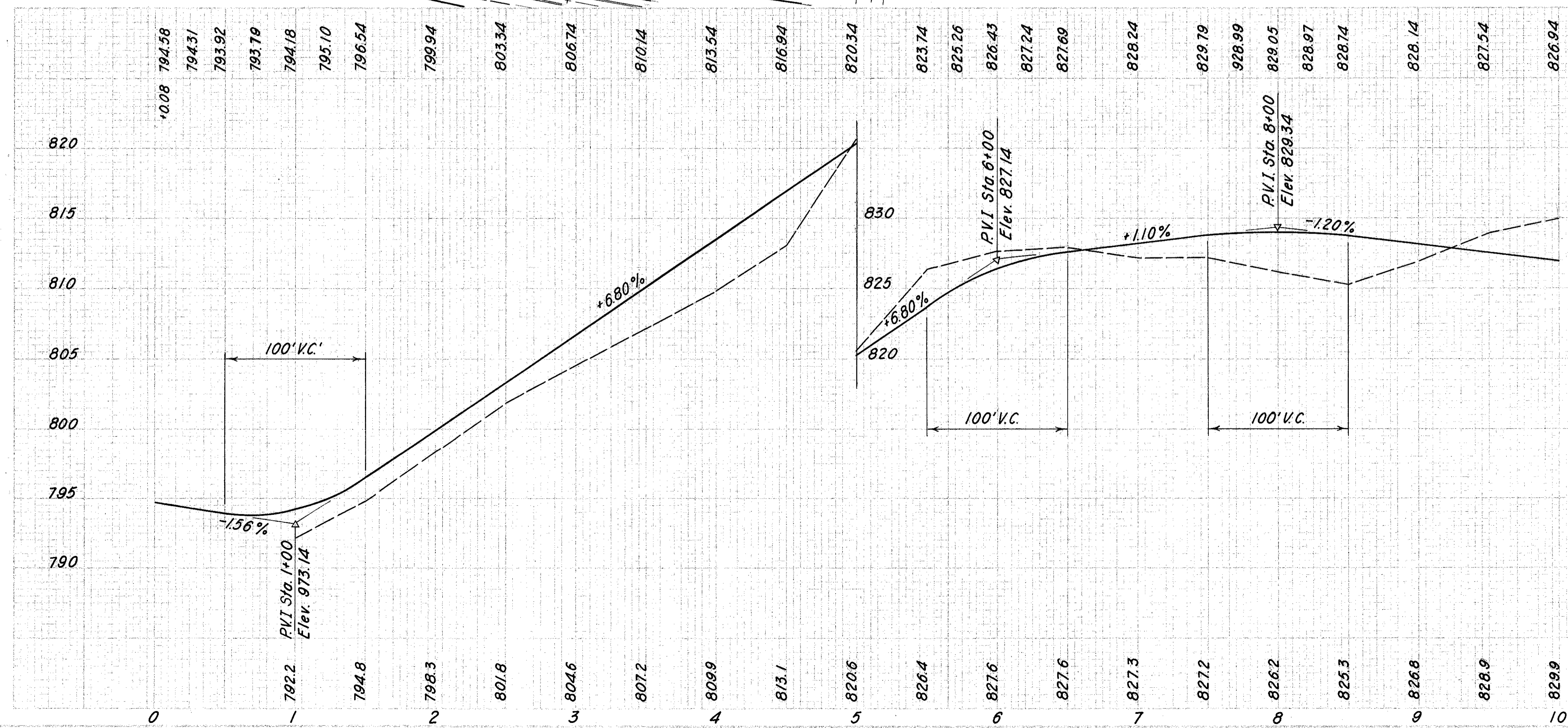
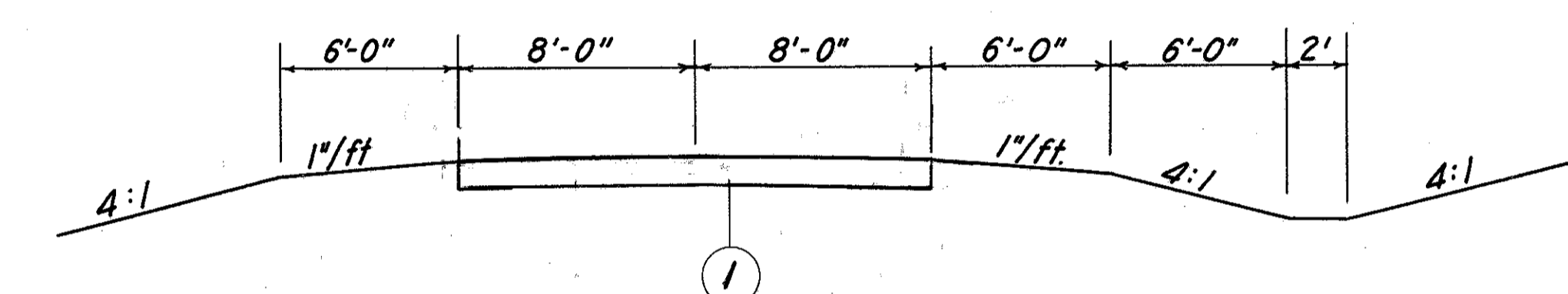
PI = Sta. 6+50.00
Δ = 11° 30' 00" Lt.
D = 12° 00' 00"
T = 48.09'
L = 95.83'
R = 477.46'

PI = Sta. 3+50.00
Δ = 20° 00' 00" Lt.
D = 12° 00' 00"
T = 84.19'
L = 166.67'
R = 477.46'

PI = Sta. 1+24.04
Δ = 82° 24' 20" Rt.
T = 70.04'
L = 115.06'
R = 80.00'
D =



DRIVES AND APPROACHES					
Ref. No.	Station	Side	I-1	I-8	I-10
			Pipe for 12" L.F.	Standard No. 2-2 B Catch Basin Ea.	Dumped Rock Channel Prot. Depth In. C.Y.
1A	4+80		70	1	30 13
			70	1	13



① B-119 8" Crushed Aggregate Base Course (For additional Stabilization of upper 3" of this item with calcium Chloride, see note in proposal).
TYPICAL SECTION FOR SERVICE ROAD
Sta. 0+32 - Sta. 20+15 = 1983 Lin. Ft.

ESTIMATED QUANTITIES		
B-119	Crushed Aggregate Base Course	785 C.Y.
SPECIAL	Mixing Calcium Chloride and Crushed Aggregate	3526 S.Y.
M-10	Calcium Chloride	3.8 Tons.

Excavation
Embankment
Embankment + 18%

2013 C.Y.
1482 C.Y.
1748 C.Y.

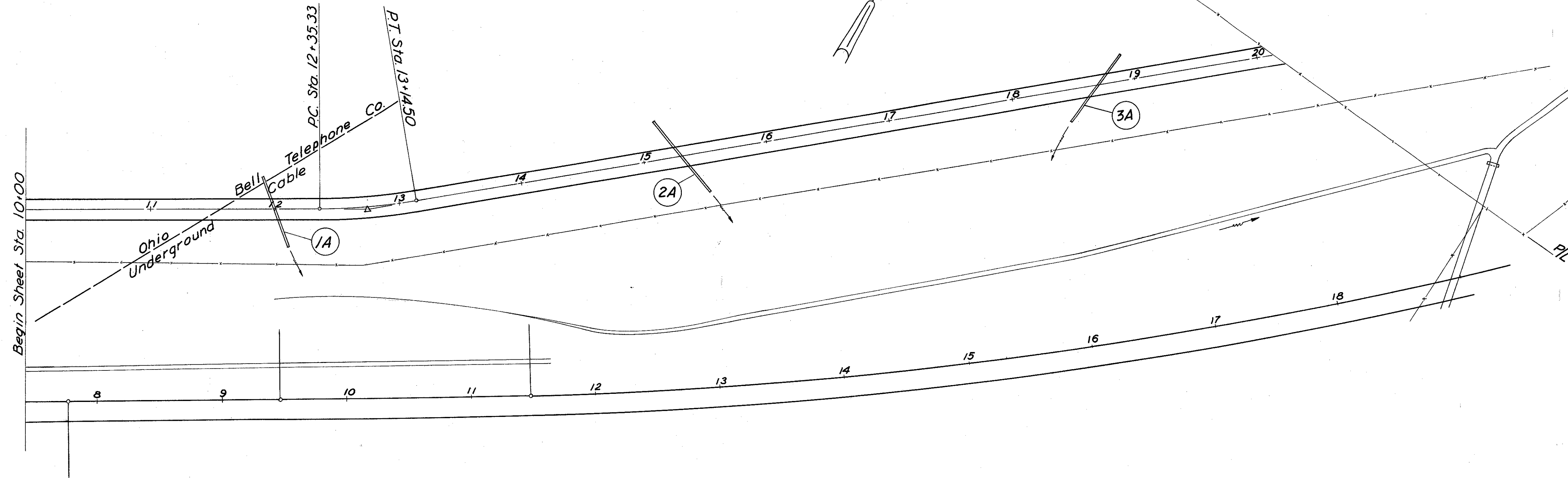
SERVICE ROAD Sta. 0+00 to Sta. 10+00

P.I. Sta. 12+75.00
 $\Delta = 9^{\circ}30'00''$
 $D = 12^{\circ}00'00''$
 $T = 39.67'$
 $R = 477.46'$

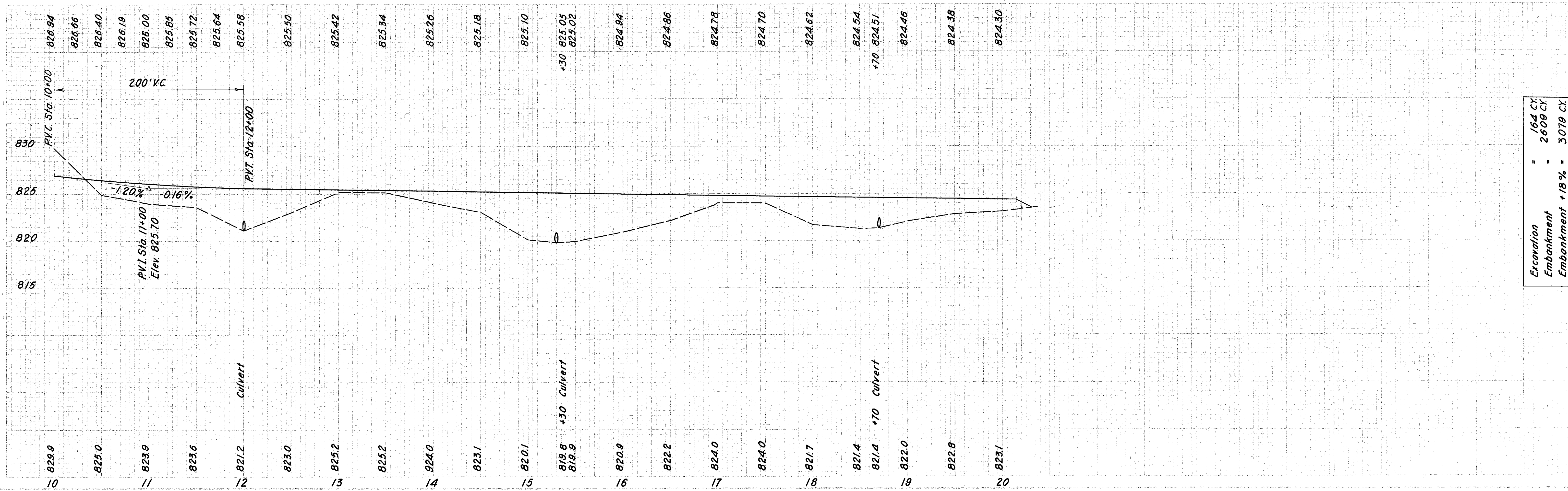
Sarah E. Fry et al

Audrey & Claude Thomas

WAR-25-8.48
 MOT-25-0.00

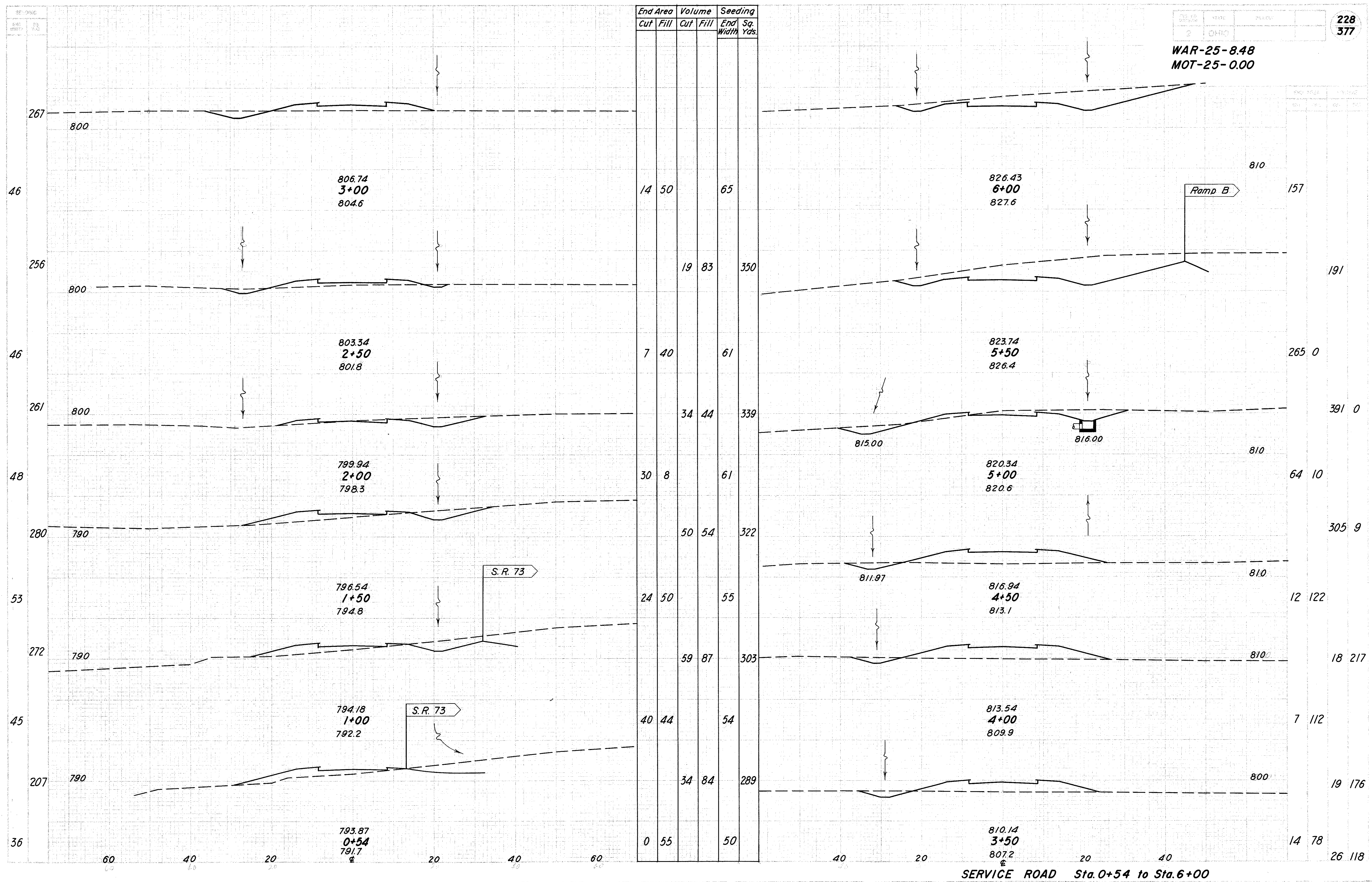


Ref. No.	Station	Side	I-1 Pipe for Driveways 12" L.F.
1A	12+00		60
2A	15+30		72
3A	18+70		66
Totals			198



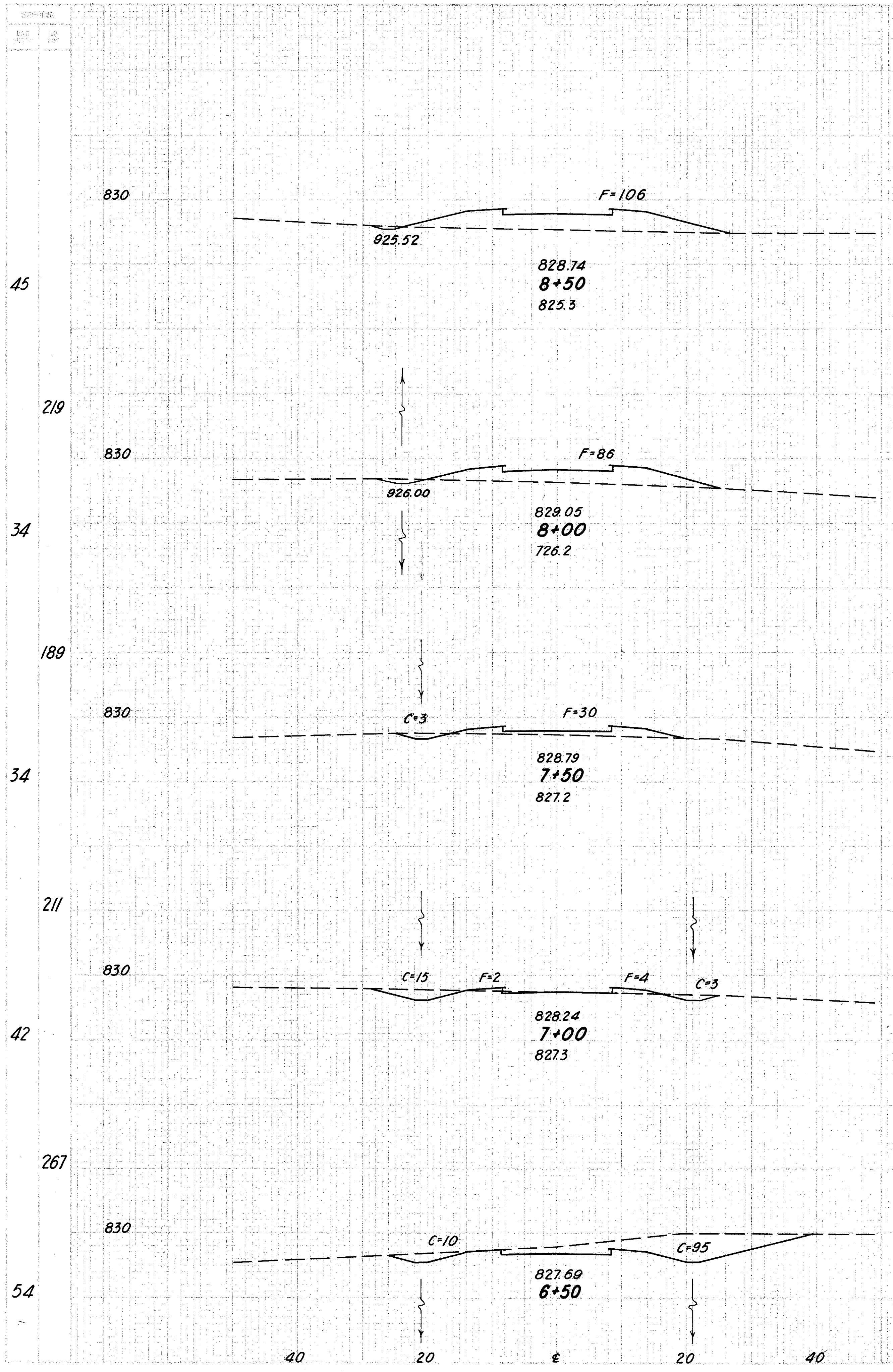
Excavation = 164 CY
 Embankment = 2609 CY
 Embankment +18% = 3079 CY

WAR-25-8.48
MOT-25-0.00

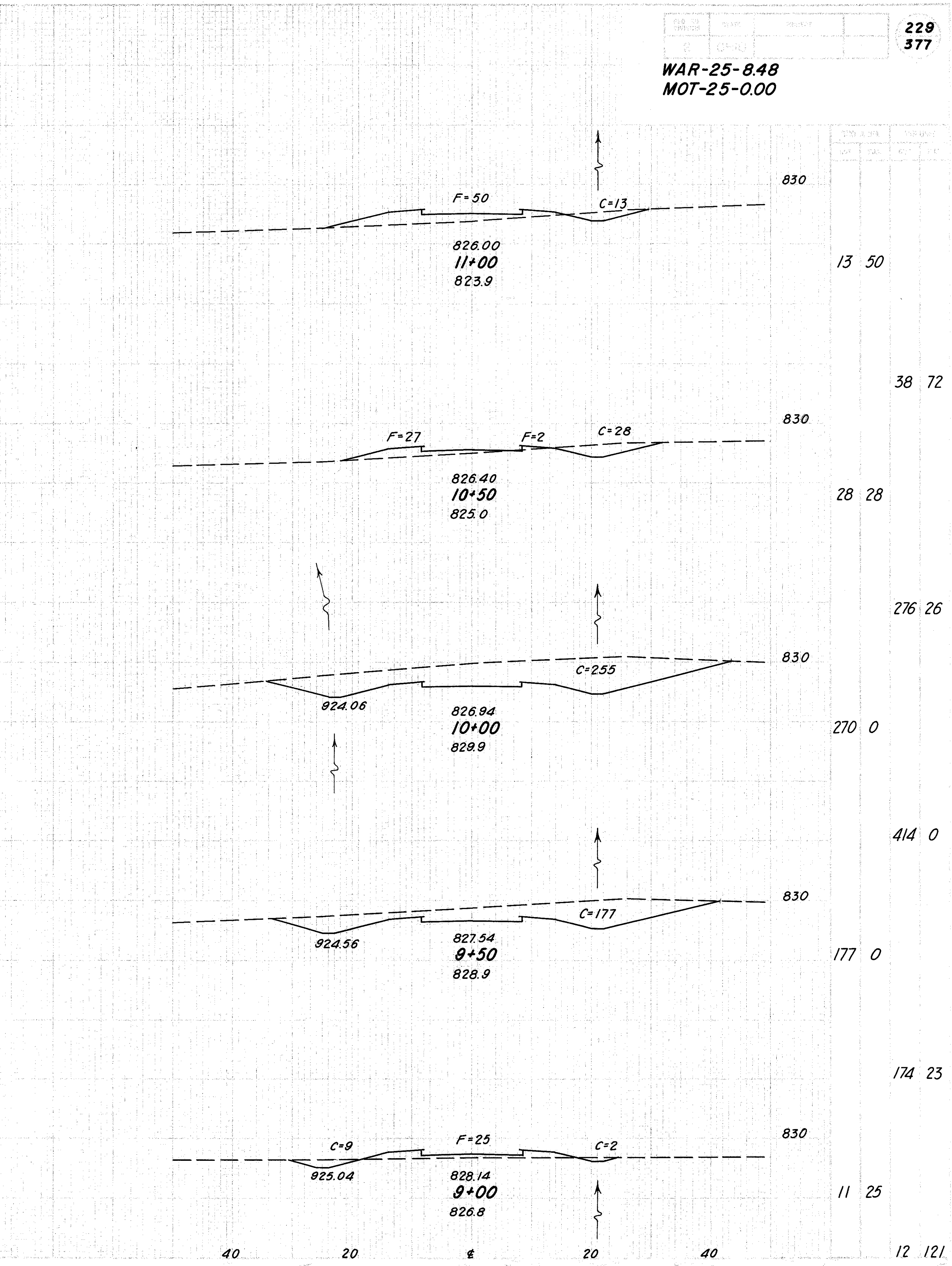


SERVICE ROAD Sta. 0+54 to Sta. 6+00

WAR-25-8.48
MOT-25-0.00

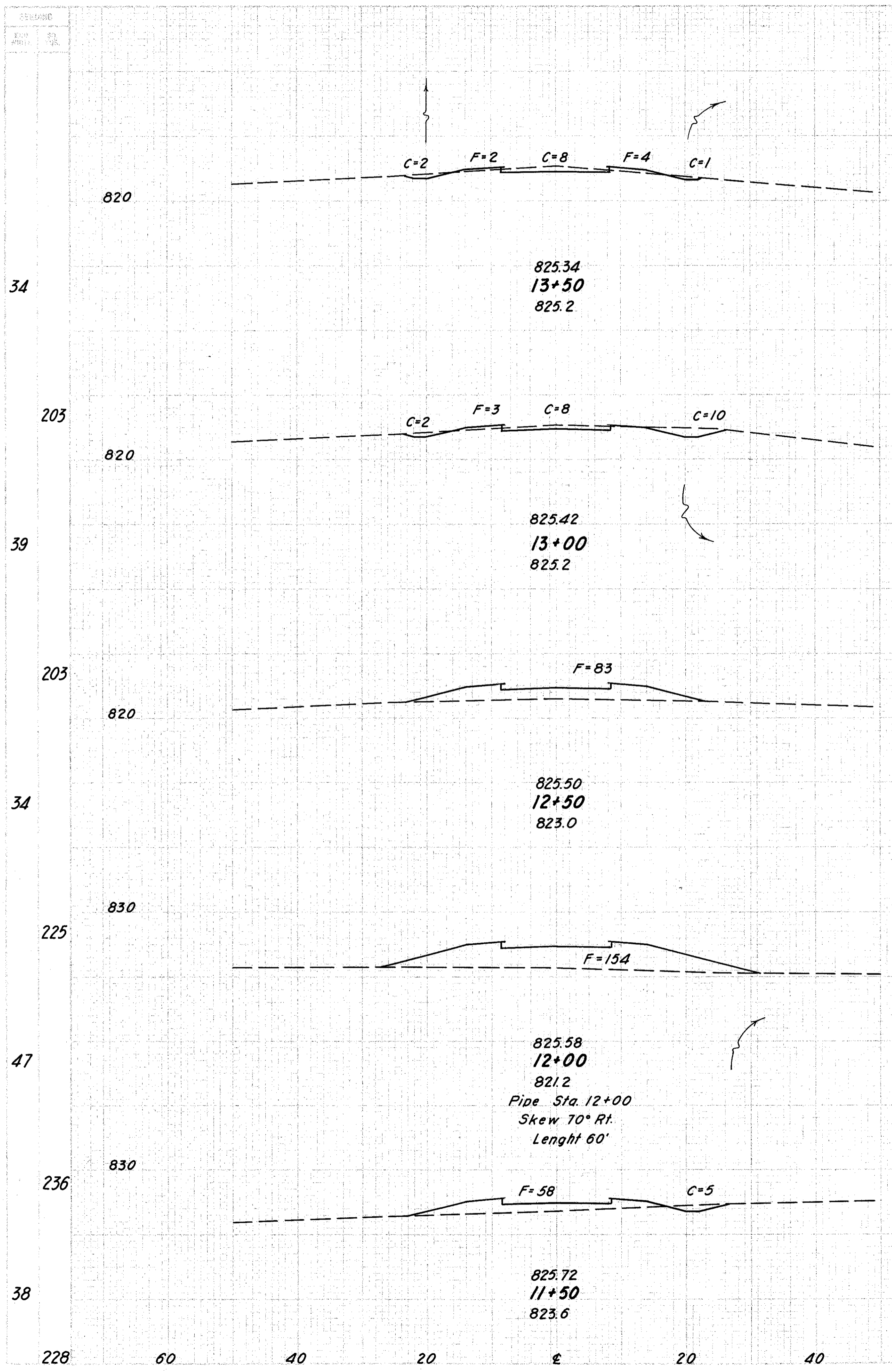


End Area		Volume		Seeding	
Cut	Fill	Cut	Fill	End Width	Sq. Yds.
2	106			44	
		2	178		239
0	86			42	
		3	107		303
3	30			67	
		19	33		372
18	6			67	
		114	6		308
105	0			44	
					247

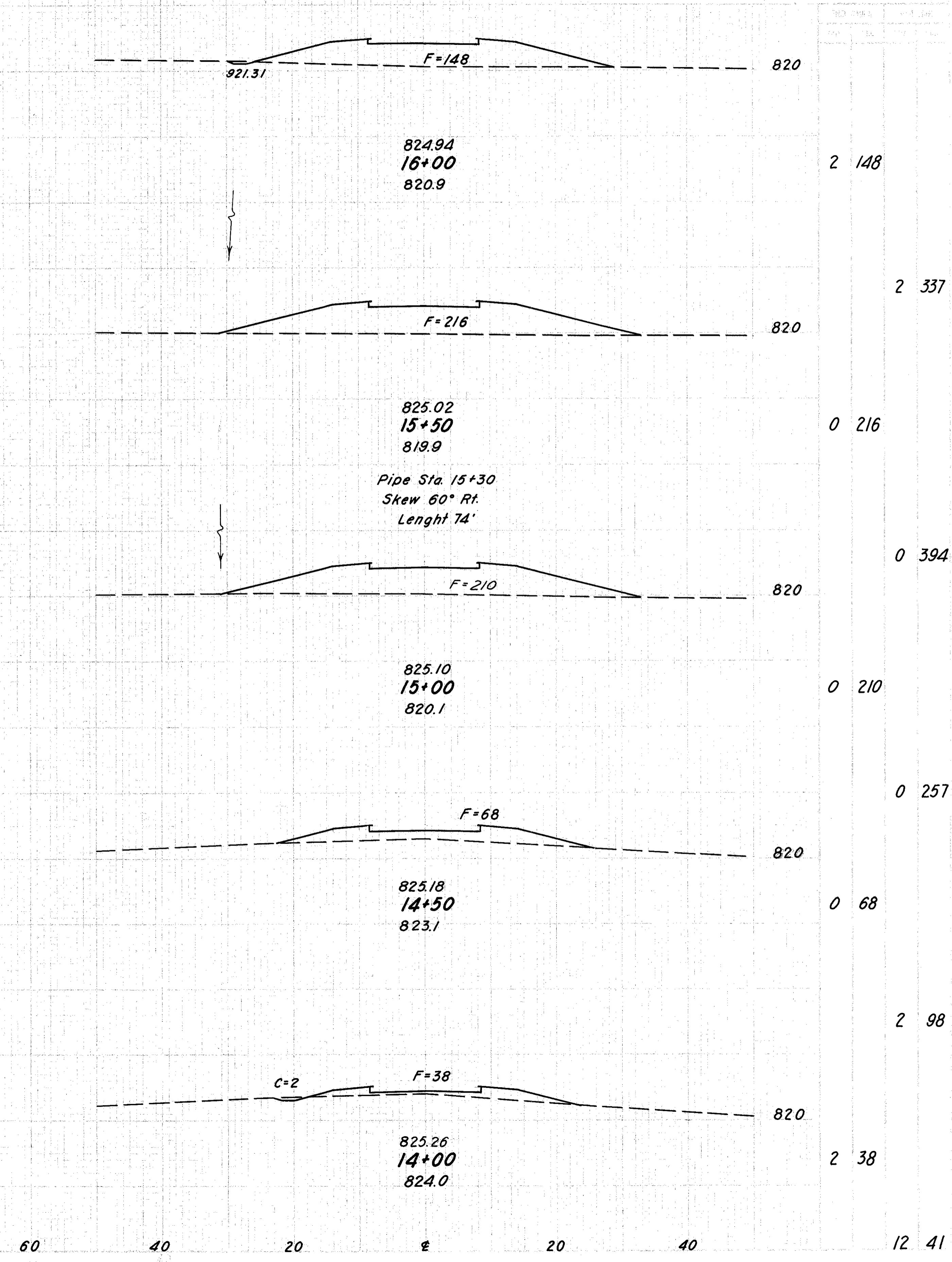


SERVICE ROAD Sta. 6+50 to Sta. 11+00

WAR-25-8.48
MOT-25-0.00

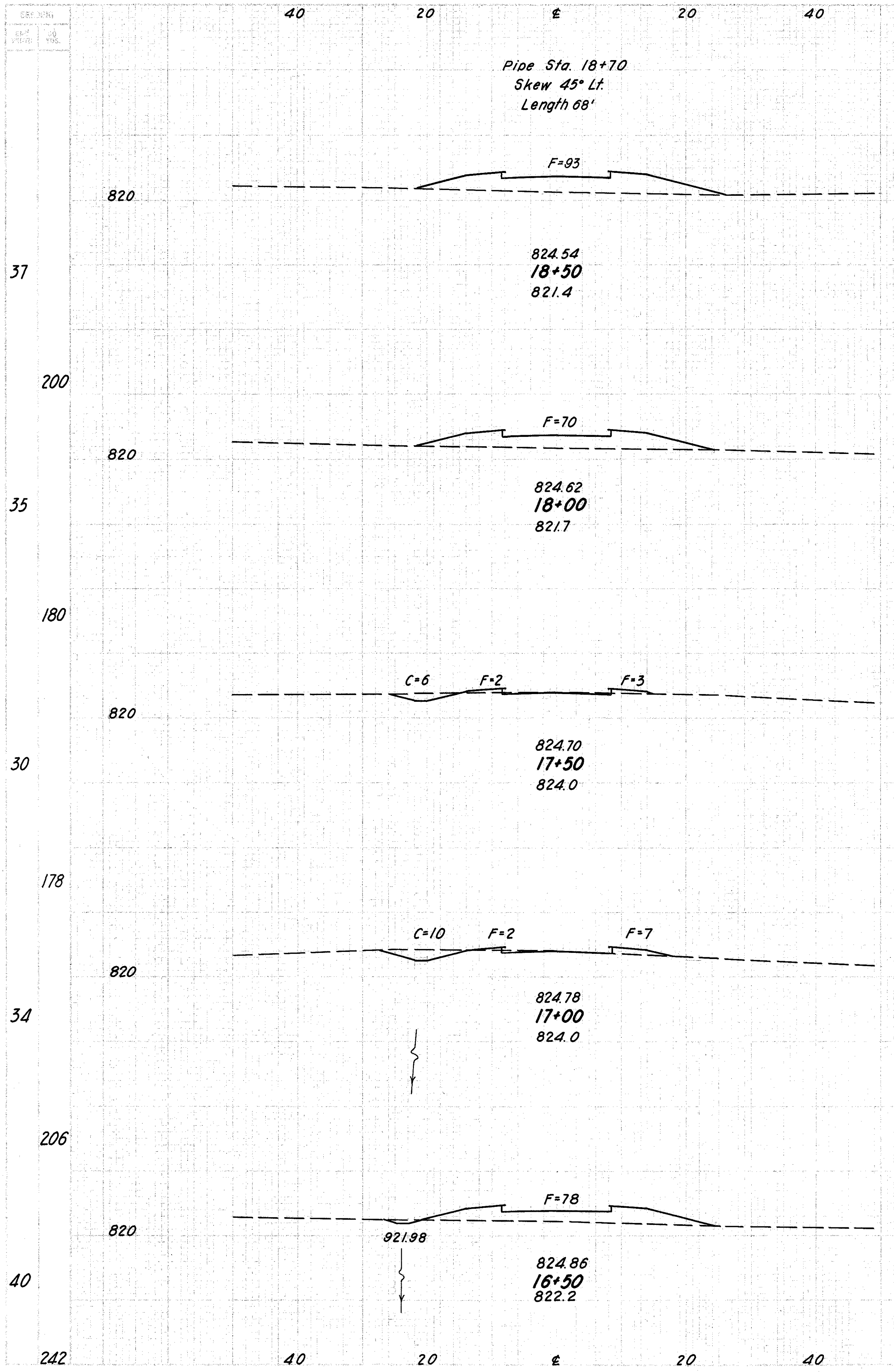


End Area		Volume		Seeding	
Cut	Fill	Cut	Fill	End Width	Sq. Yds
11	6			47	
		29	8	280	
20	3			54	
		18	80	297	
0	83			53	
		0	219	247	
154				36	
5	196			194	
5	58			34	
		17	100	189	



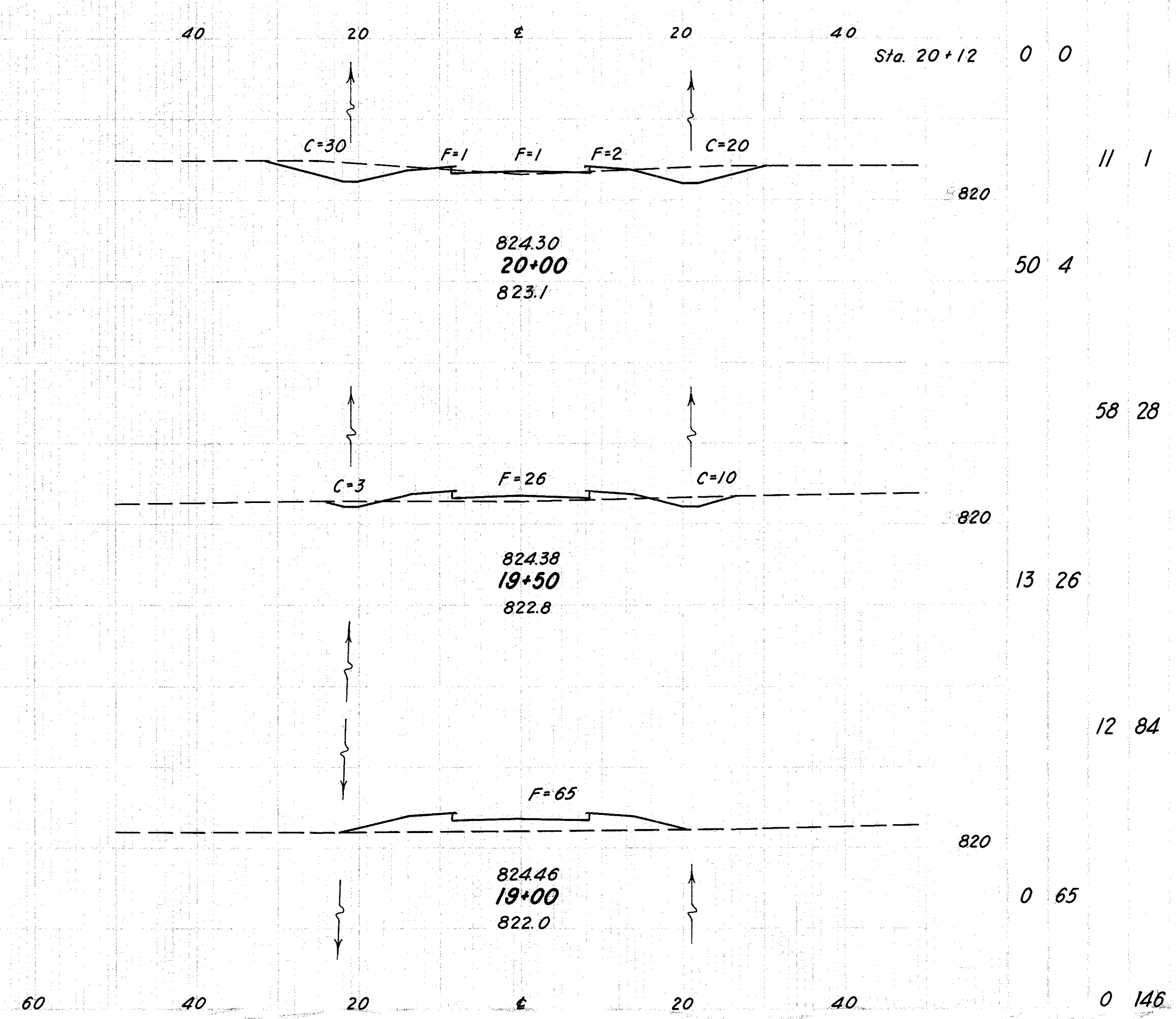
SERVICE ROAD Sta. 11+50 to Sta. 16+00

WAR-25-8.48
MOT-25-0.00



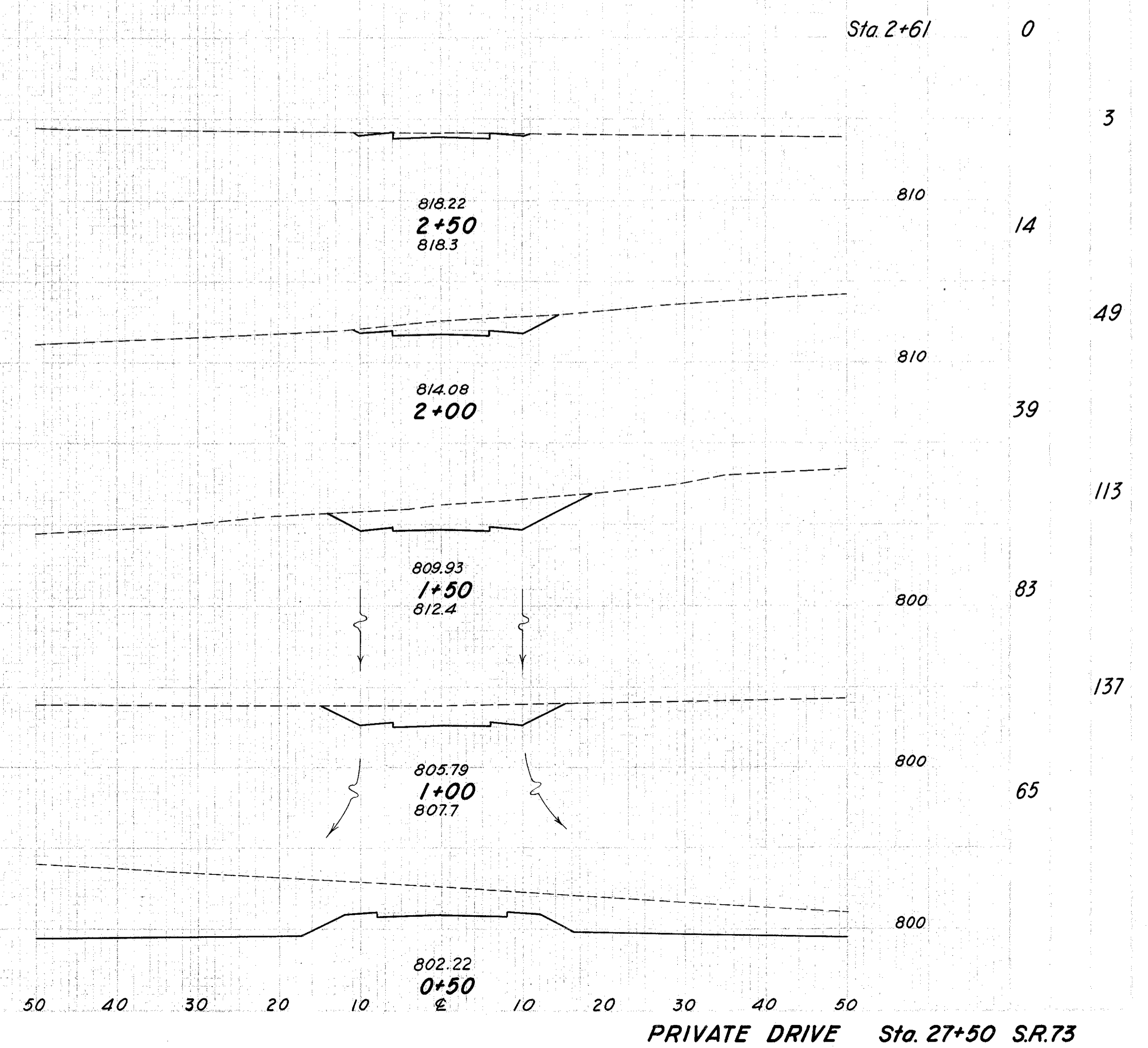
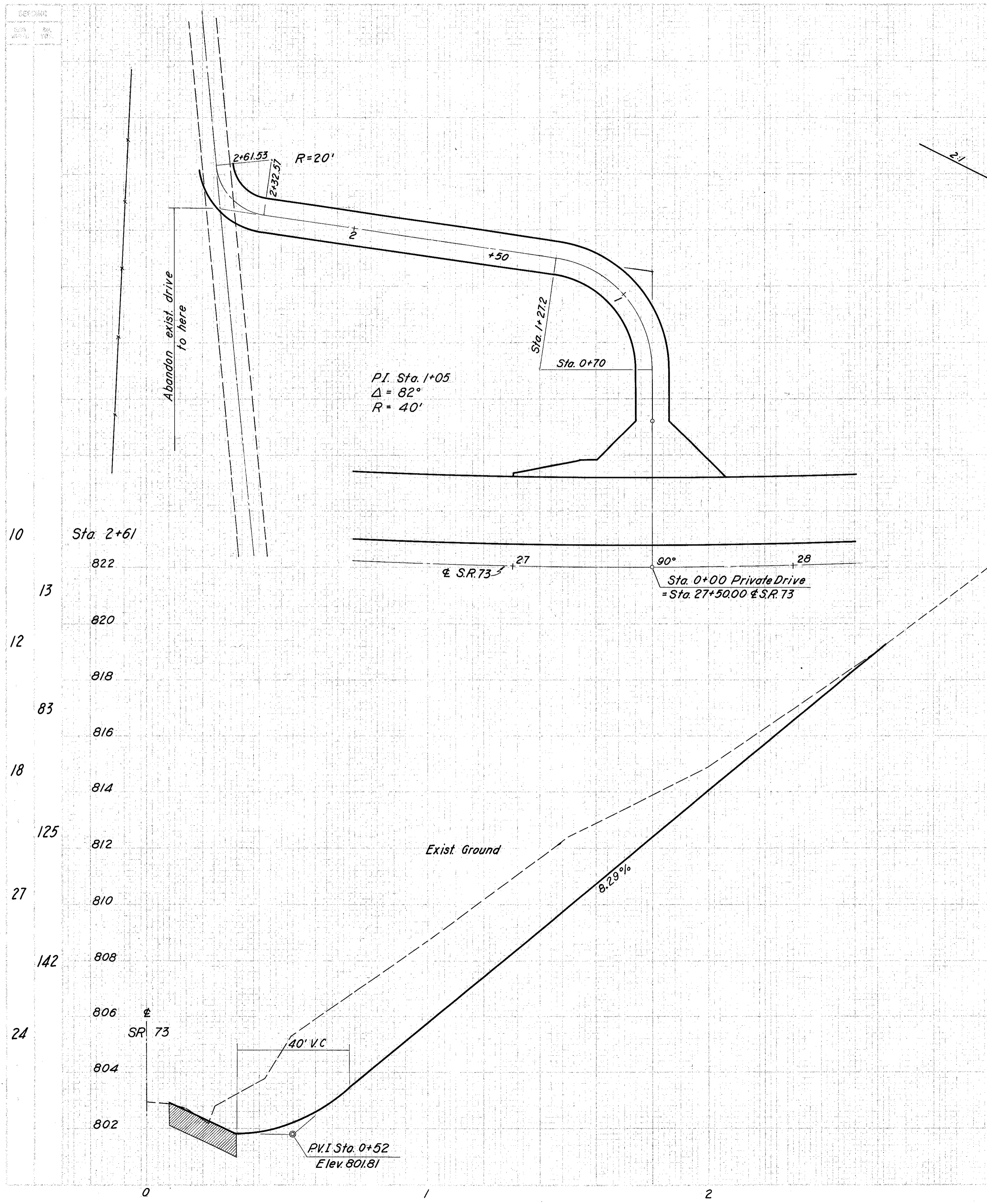
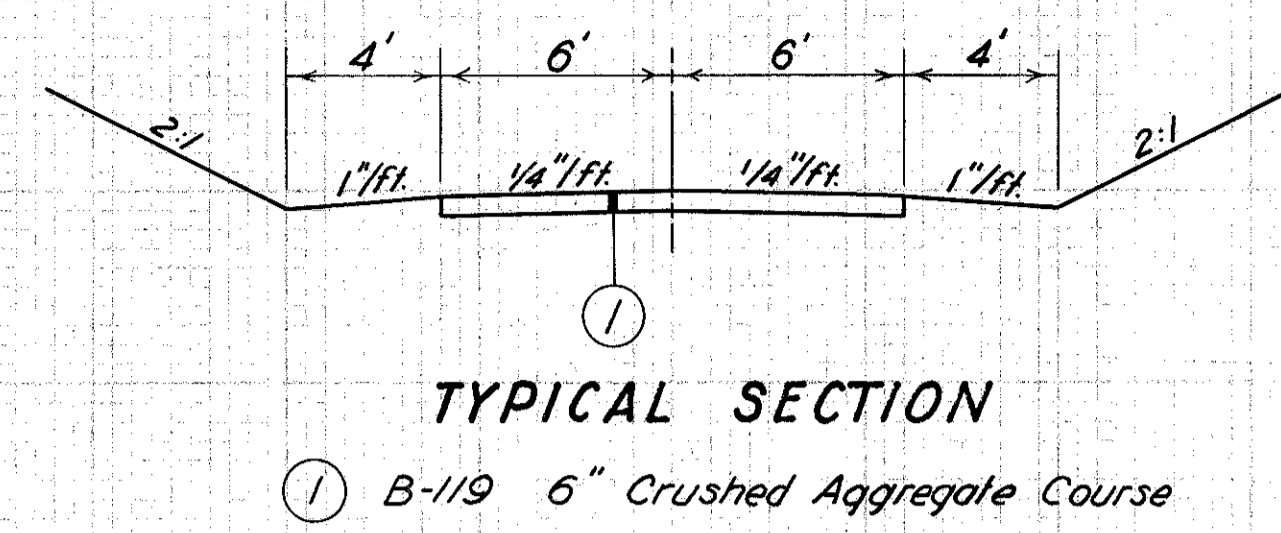
End Area		Volume		Seeding	
Cut	Fill	Cut	Fill	End Width	Sq. Yds.
0	93	0	151		
0	70				
6	69	68	50		
6	5	51			
	15	13	253		
10	9	40			
	11	80	194		
2	78	30			
4	209	186			

Sta. 20+12

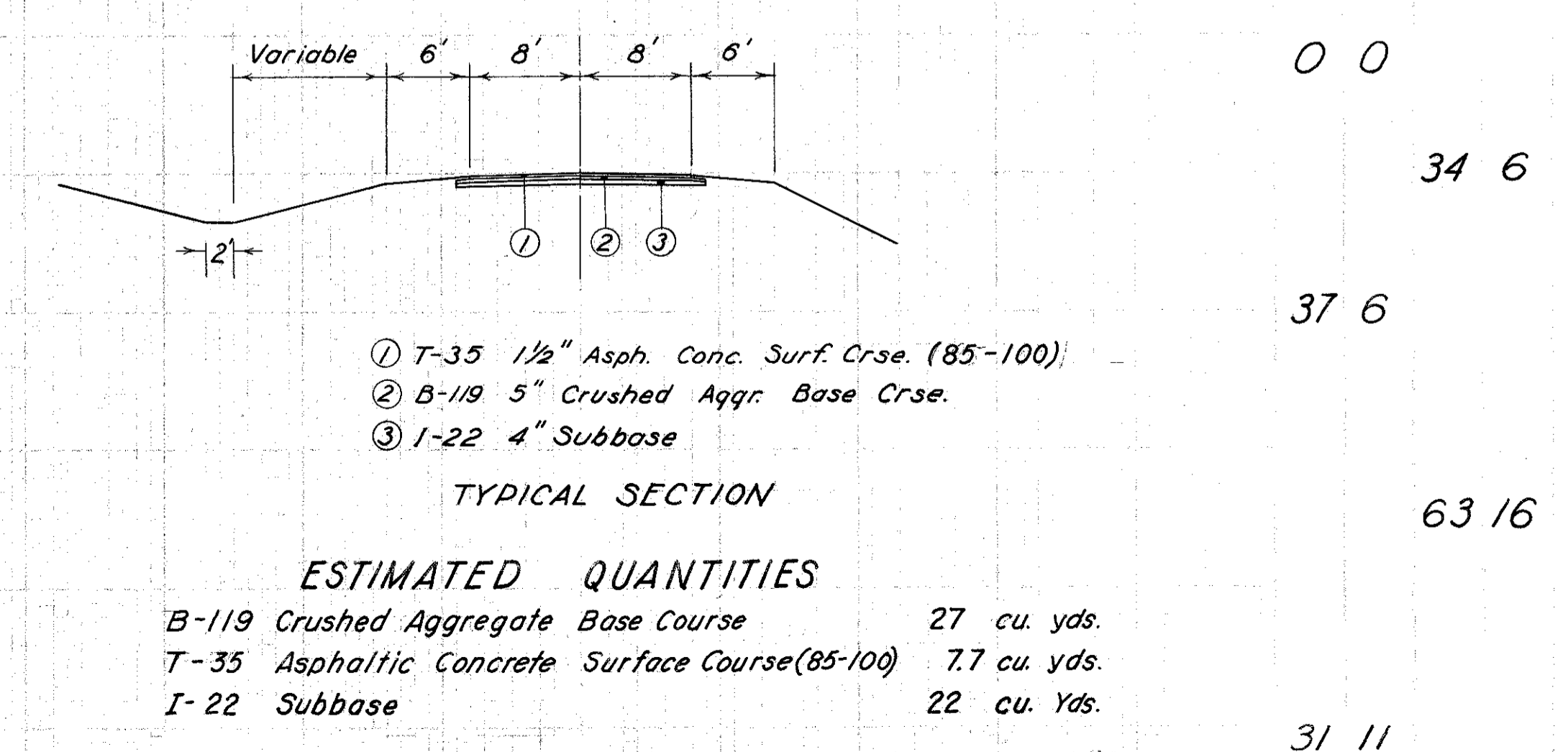
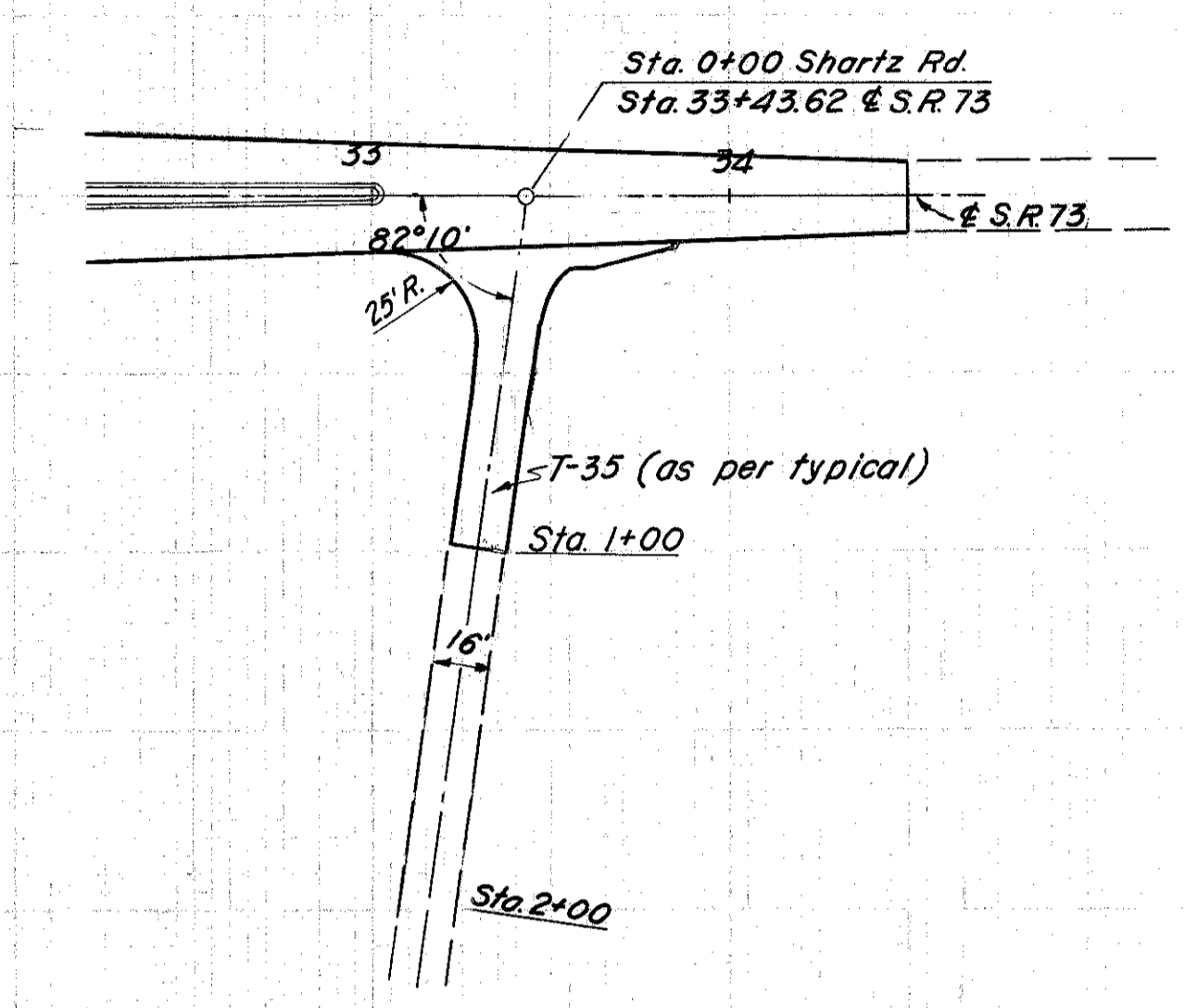
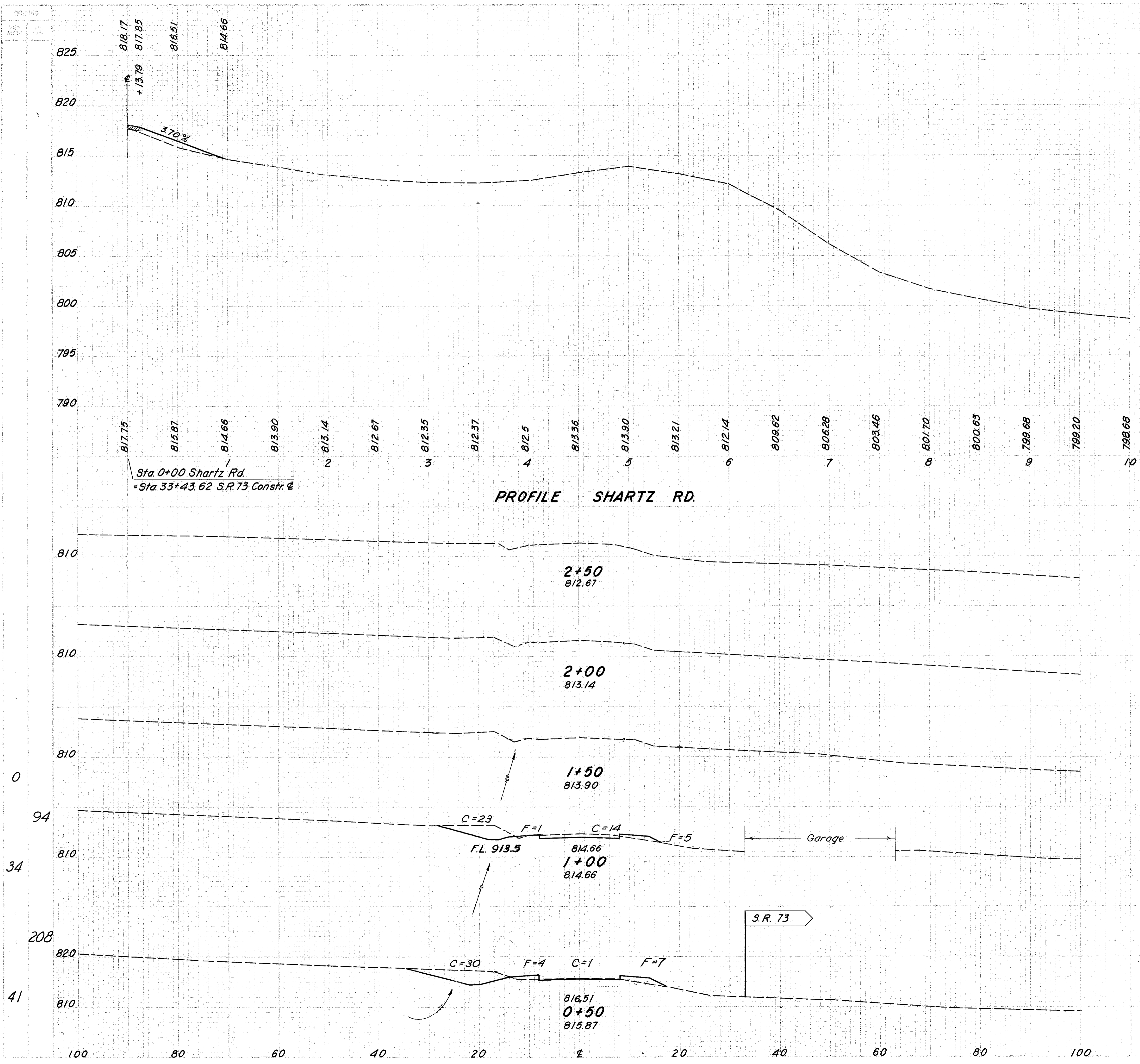


SERVICE ROAD Sta. 16+50 to Sta. 20+00

WAR. = 25-8.48
MOT. = 25-0.00



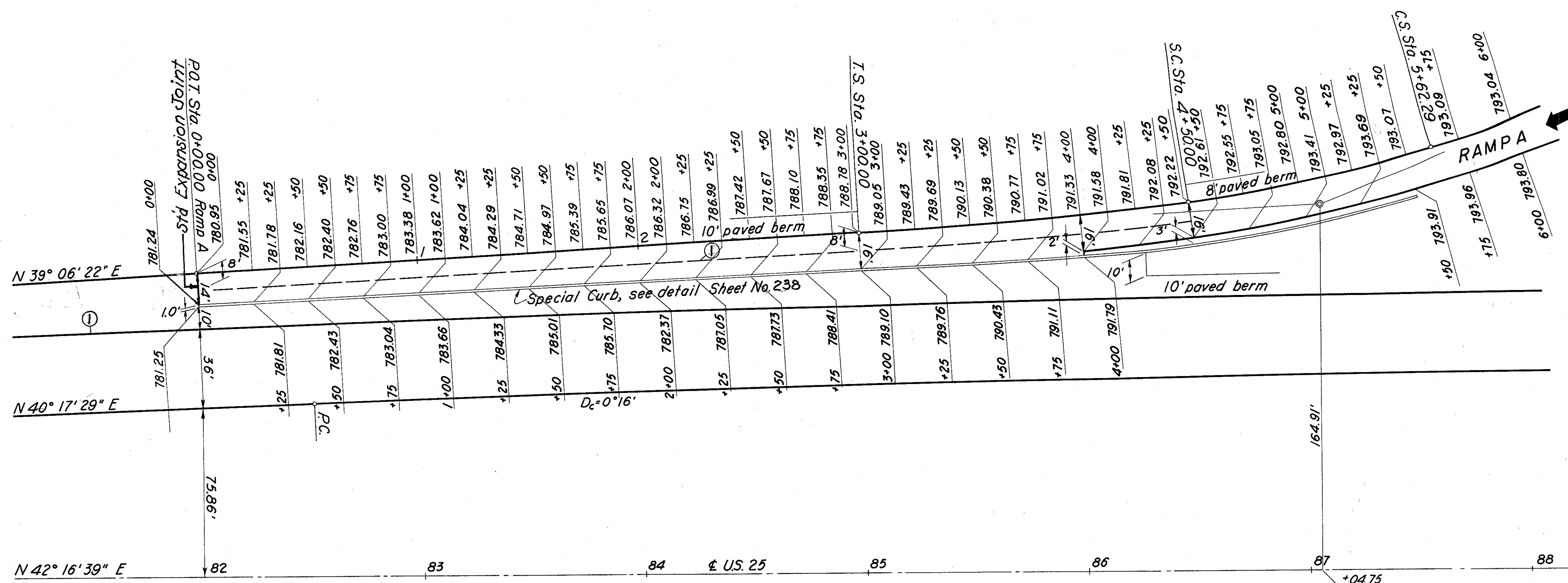
WAR.-25-8.48
MOT.-25-0.00



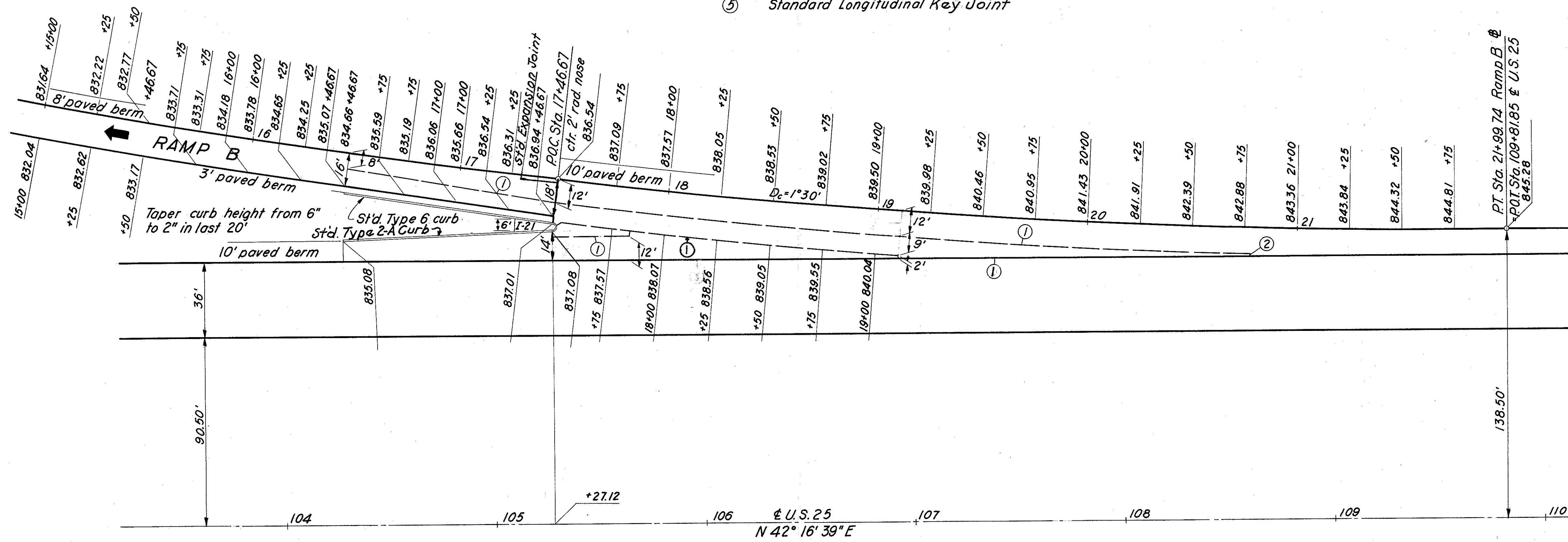
FED. RD. DIVISION	STATE	PROJECT	TYPE FUND
2	OHIO		

233
377

WAR-25-8.48
MOT-25-0.00

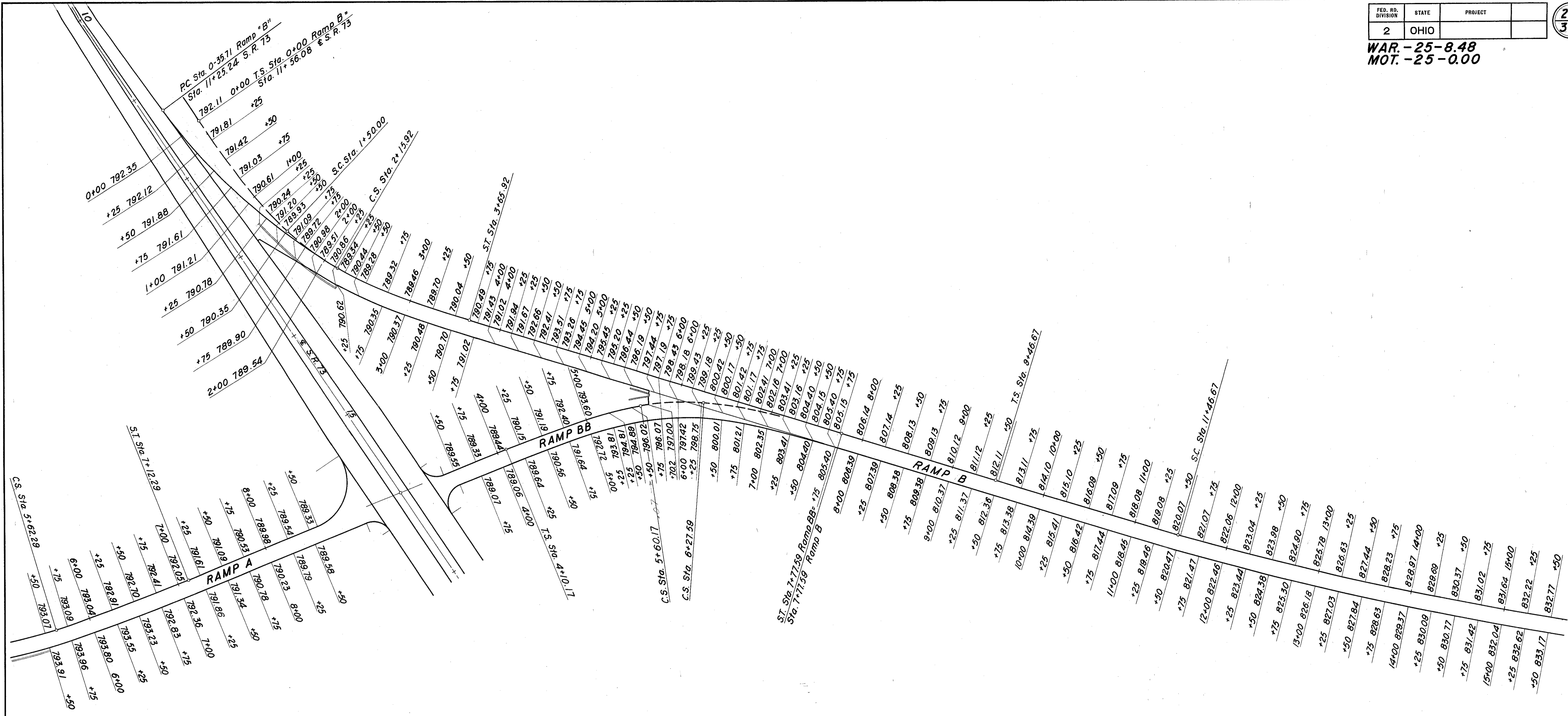


- ① Standard Longitudinal Joint
- ② Expansion Joint without dowels
- ③ Standard Key Joint without tie bars
- ④ Standard Longitudinal Key Joint

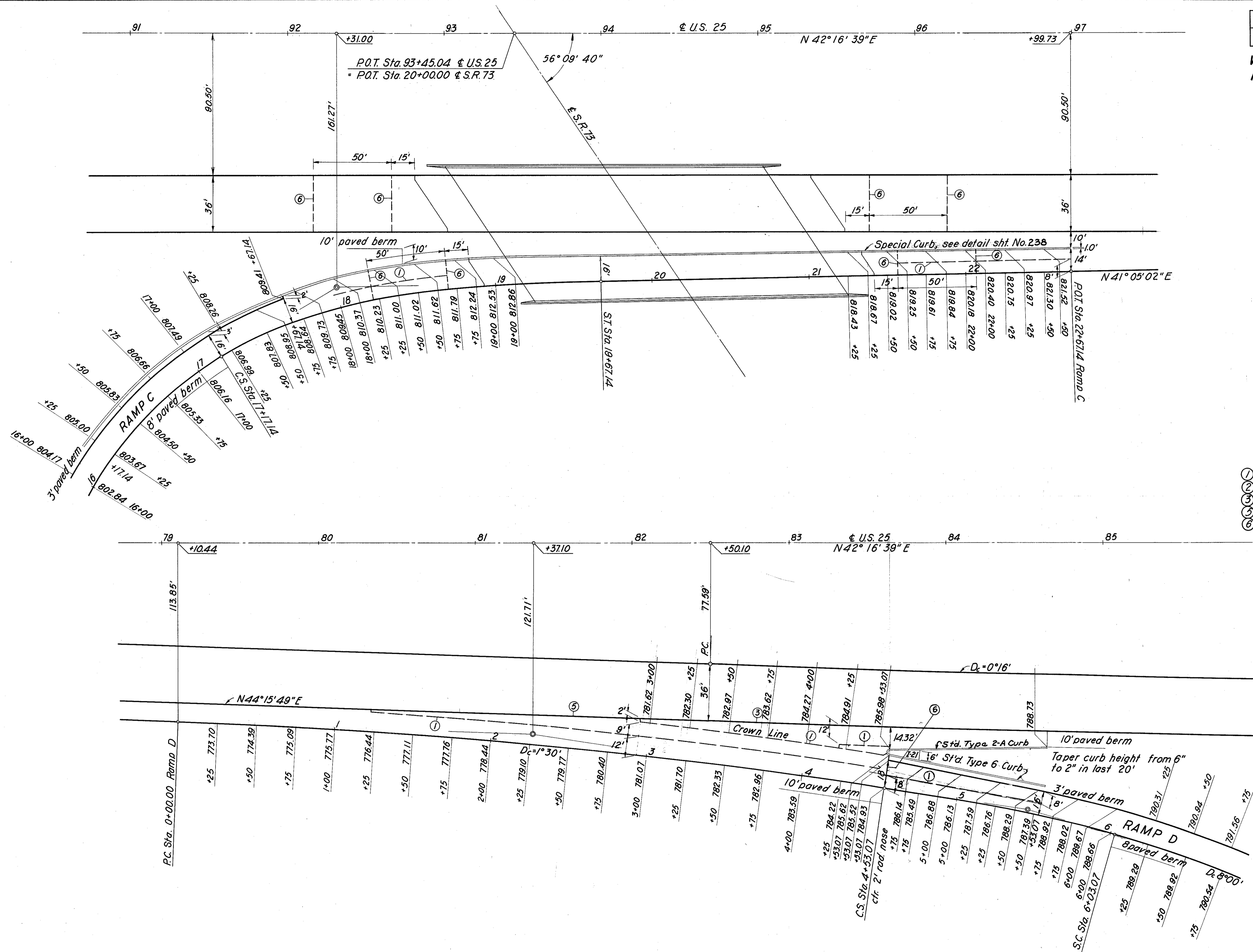


Scale: 1" = 30'

WAR. - 25-8.48
MOT. - 25-0.00



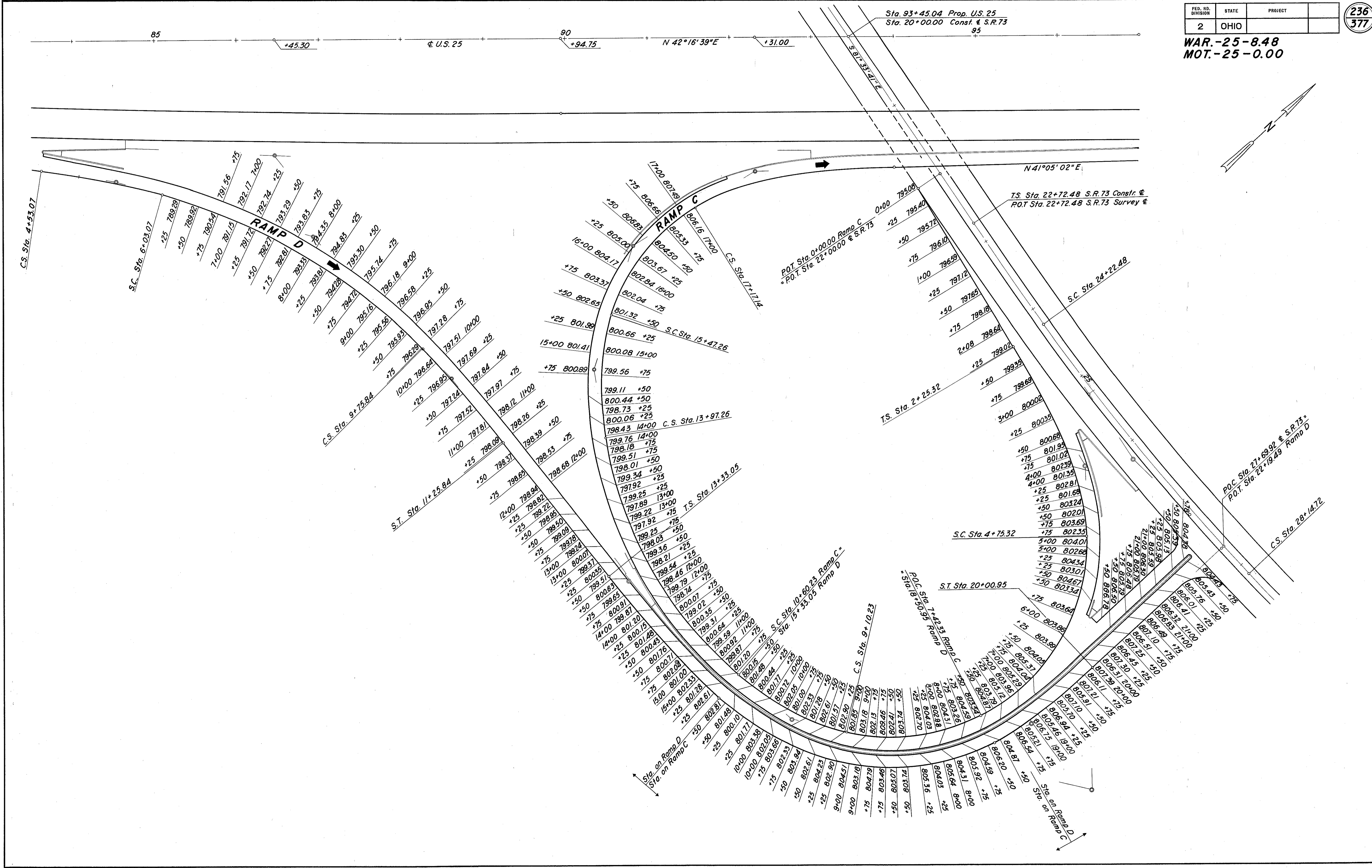
WAR - 25 - 8.48
MOT - 25 - 0.00



- ① Standard Longitudinal Joint
- ② Expansion Joint without dowels
- ③ Standard Key Joint without tie bars
- ④ Standard Longitudinal Key Joint
- ⑤ Standard Pavement Expansion Joint

Scale: 1" = 30'

WAR.-25-8.48
MOT.-25-0.00



PAVEMENT EDGE GRADES RAMPS C & D

WAR.-25-8.48
MOT.-25-0.00

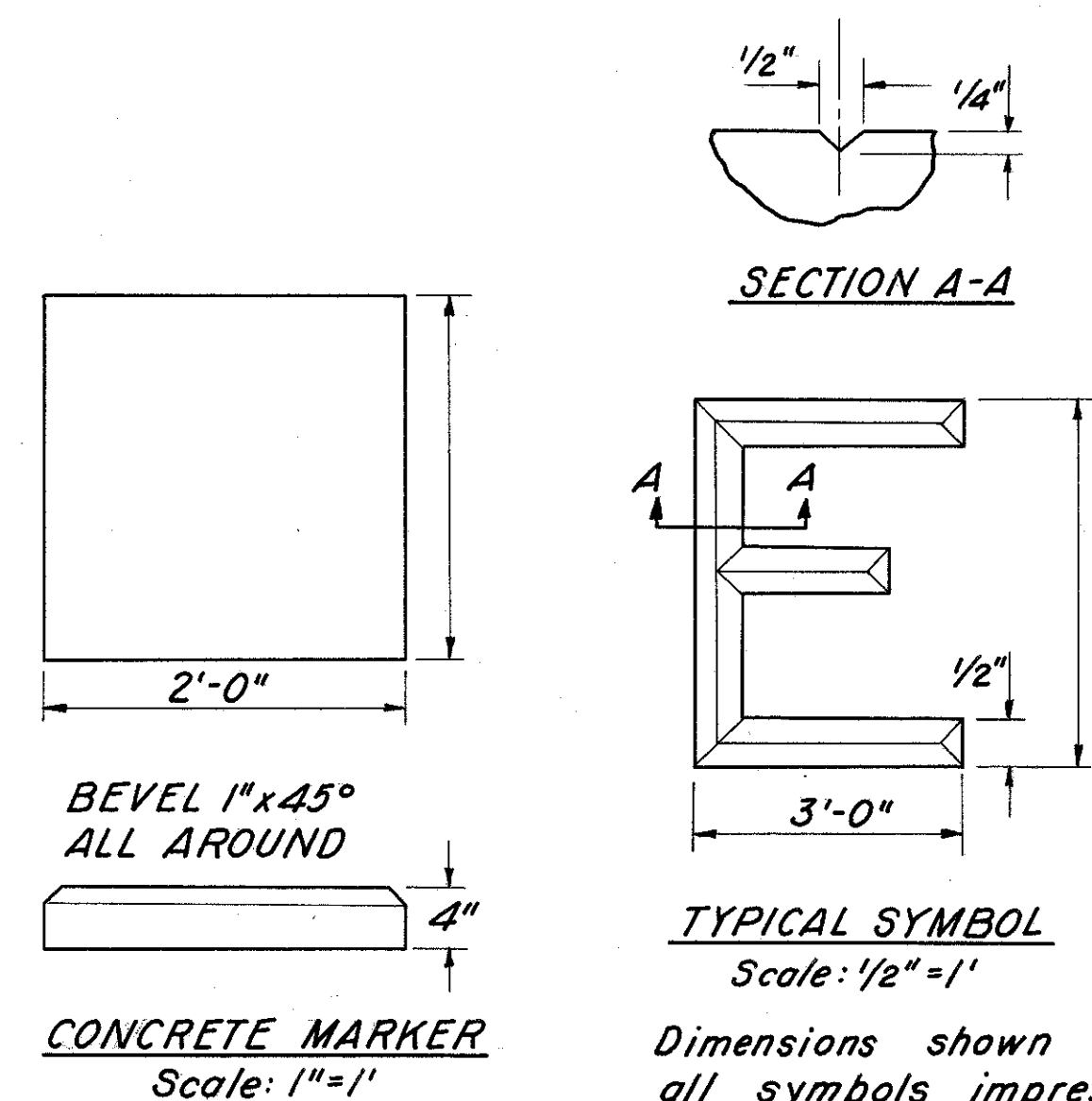
PAVEMENT ELEVATION TABLES S.R.73

Station	Grade	Inner Edge		Outer Edge	
		Width	Elev.	Width	Elev.
8+00	795.32		795.32		795.16
+25	795.14		795.14		794.98
+50	794.95		794.92		794.79
+75	794.76		794.80		794.61
9+00	794.58		794.62		794.42
+25	794.40		794.45		794.24
+50	794.21		794.27		794.05
+75	794.03		794.06		793.87
10+00	793.84		793.87		793.67
+25	793.66		793.68		793.47
+50	793.47		793.50		793.28
+75	793.19		793.32		793.09
11+00	793.10		793.13		792.89
+25	792.92		792.94		792.69
+50	792.73		792.76		792.50
+75	792.54		792.58		792.31
12+00	792.36		792.39		792.11
+25	792.18		792.20		791.91
+50	791.99		792.02		791.72
+75	791.81		791.84		791.53
13+00	791.62		791.65		791.33
+25	791.44		791.46		791.13
+50	791.25		791.28		790.94
+75	791.08		791.11		790.76
14+00	790.92		790.95		790.59
+25	790.78		790.81		790.44
+50	790.66		790.69		790.31
+75	790.56		790.59		790.21
15+00	790.48		790.51		790.12
+25	790.42		790.45		790.05
+50	790.37		790.37		789.99

PAVEMENT ELEVATION TABLES S.R.73

Station	Grade	Inner Edges			
		Outer Lt. Edge	Left	Right	Outer Rt. Edge
28+00	803.62	802.49	803.62	803.62	804.75
+25	803.96	802.86	803.96	803.96	804.96
+50	804.30	803.37	804.33	804.33	805.10
+75	804.64	803.84	804.67	804.67	805.20
29+00	804.98	804.32	805.01	805.01	805.29
+25	805.32	804.79	805.35	805.35	805.39
+50	804.66	805.27	805.69	805.69	805.49
+75	805.00	805.69	806.03	806.03	805.69
30+00	805.34	806.05	806.37	806.37	806.05
+25	806.72	806.44	806.75	806.75	806.44
+50	807.17	806.90	807.20	807.20	806.90
+75	807.70	807.44	807.73	807.73	807.44
31+00	808.30	808.05	808.33	808.33	808.05
+25	808.98	808.74	809.01	809.01	808.74
+50	809.73	809.50	809.76	809.76	809.50
+75	810.56	810.34	810.59	810.59	810.34
32+00	811.46	811.25	811.49	811.49	811.25
+25	812.44	812.24	812.47	812.47	812.24
+50	813.49	813.30	813.52	813.52	813.30
+75	814.62	814.44	814.65	814.65	814.44
33+00	815.82	815.65	815.85	815.85	815.65
+25	817.10	816.95	817.17	817.17	816.95
+50	818.45	818.31	818.52	818.52	818.31
+75	819.88	819.75	819.95	819.95	819.75
34+00	821.38	821.27	821.45	821.45	821.27
+25	822.96	822.86	823.03	823.03	822.86
+50	824.61	824.52	824.68	824.68	824.52

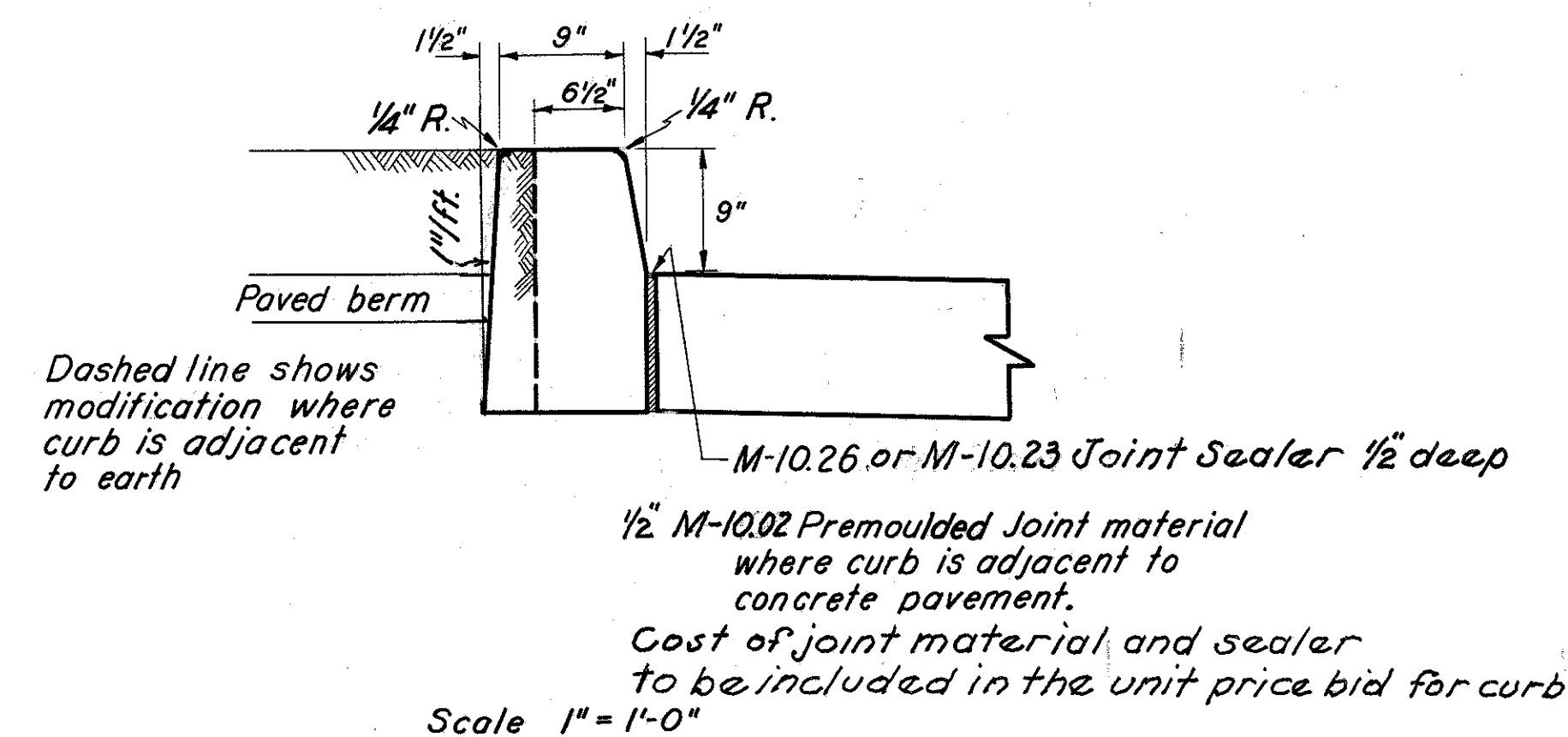
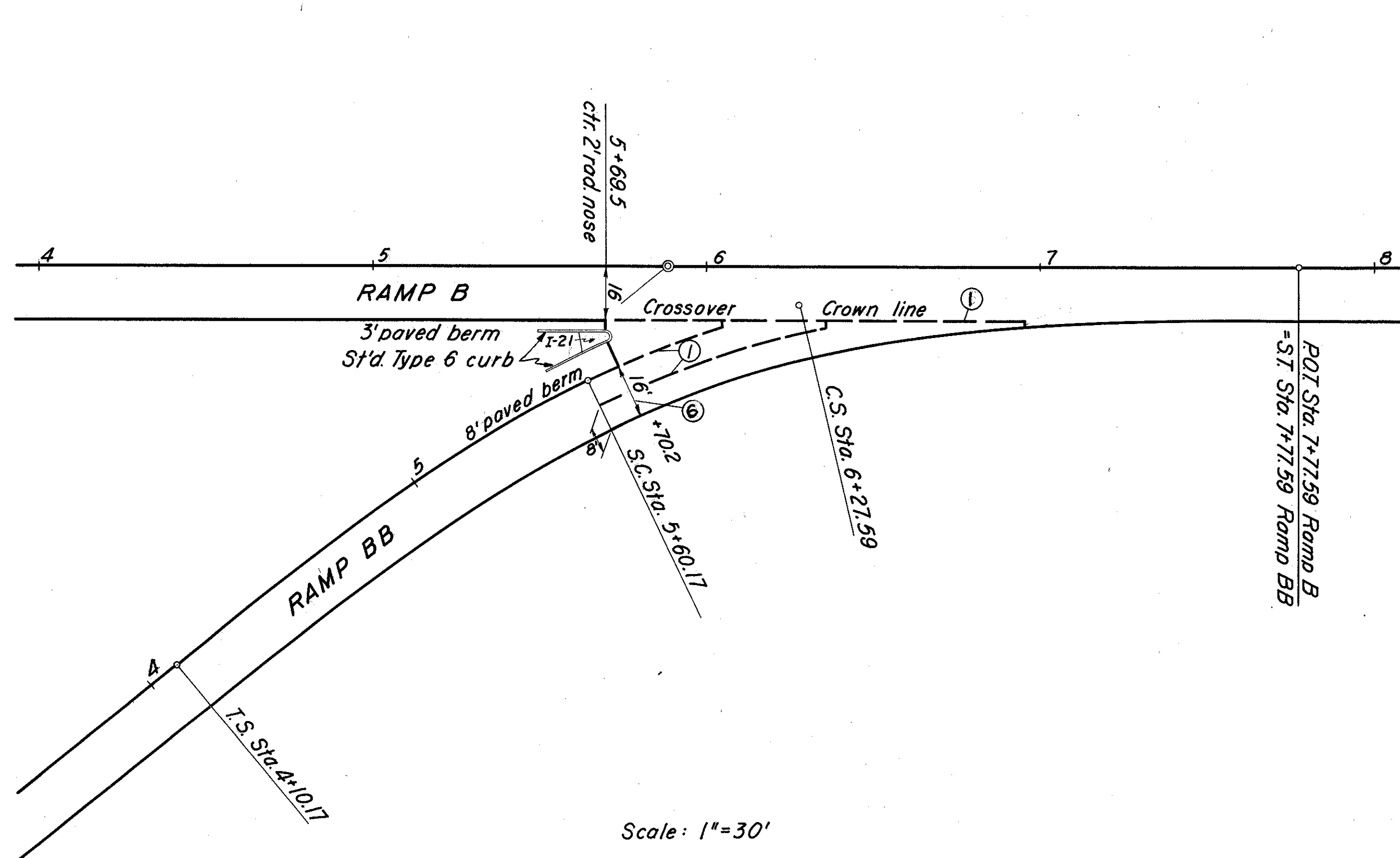
WAR-25-8.48
MOT-25-0.00



Dimensions shown are for all symbols impressed in concrete marker

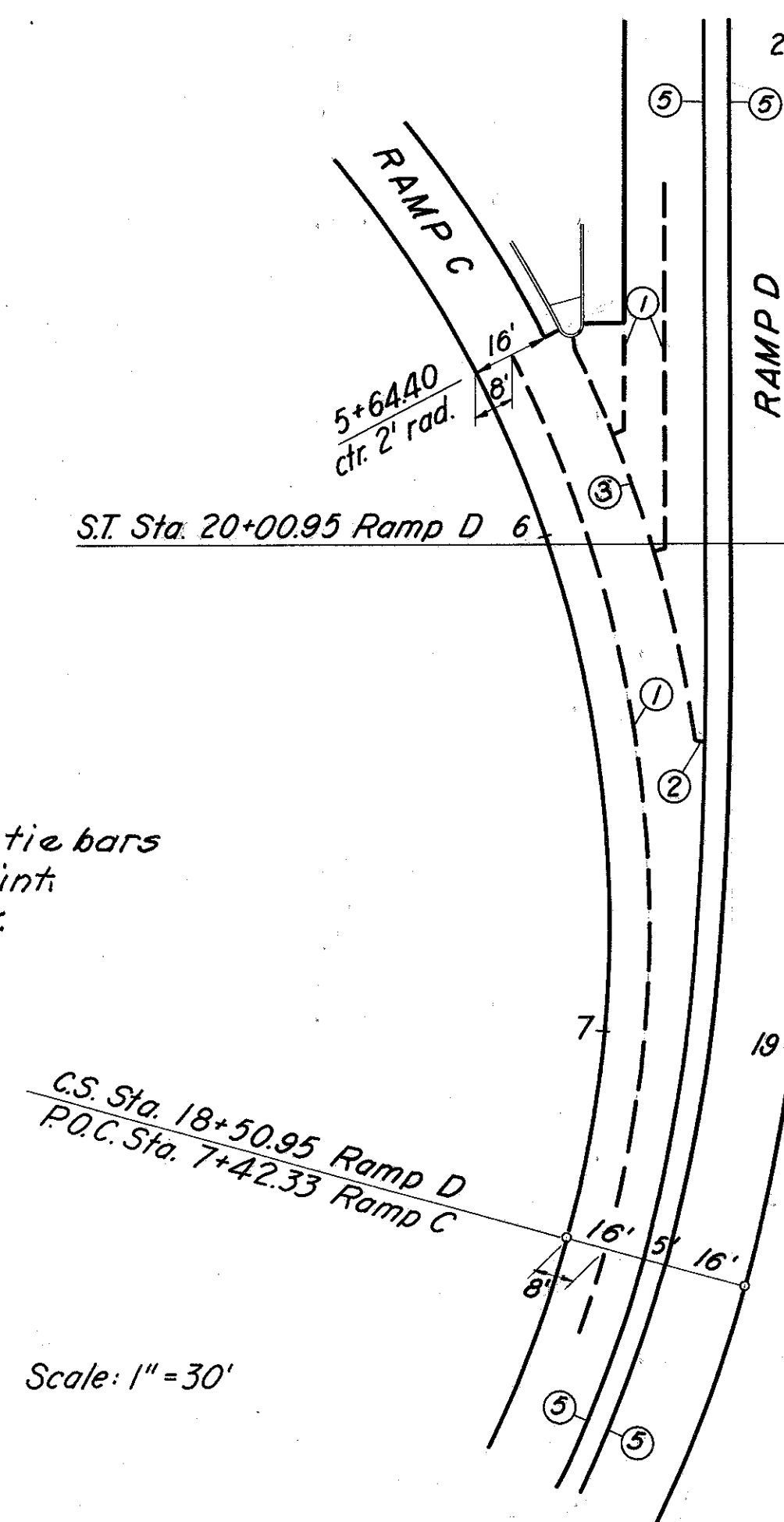
NOTE:
Impress the word "CABLE", "CABLE SPLICE", or "DUCT" in the top of concrete marker using letters of the type and dimensions as per details.

MARKER DETAILS

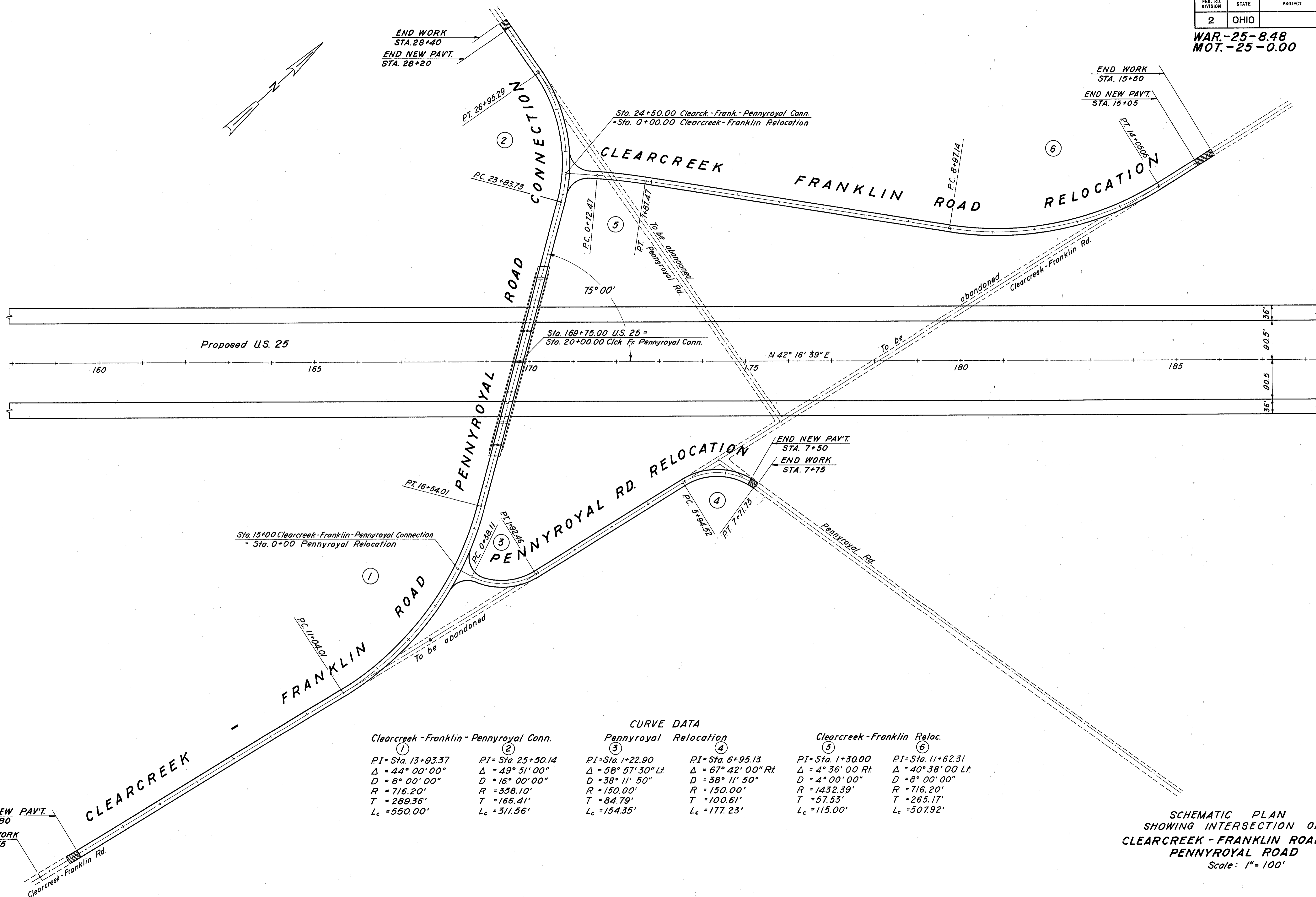
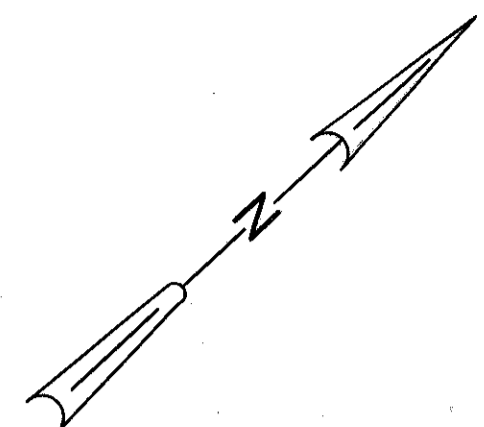


SPECIAL PORTLAND CEMENT CONCRETE CURB DETAIL

- ① Standard Longitudinal Joint
- ② Expansion Joint without dowels
- ③ Standard Key Joint without tie bars
- ④ Standard Longitudinal Key Joint
- ⑤ Standard Expansion Joint



WAR.-25-8.48
MOT.-25-0.00



Clearcreek - Franklin - Pennyroyal Conn.

①	②
PI = Sta. 13+93.37	PI = Sta. 25+50.14
Δ = 44° 00' 00"	Δ = 49° 51' 00"
D = 8° 00' 00"	D = 16° 00' 00"
R = 716.20'	R = 358.10'
T = 289.36'	T = 166.41'
Lc = 550.00'	Lc = 311.56'

CURVE DATA

Pennyroyal Relocation

③	④
PI = Sta. 1+22.90	PI = Sta. 6+95.13
Δ = 58° 57' 30" Lt.	Δ = 67° 42' 00" Rt.
D = 38° 11' 50"	D = 38° 11' 50"
R = 150.00'	R = 150.00'
T = 84.79'	T = 100.61'
Lc = 154.35'	Lc = 177.23'

Clearcreek - Franklin Reloc.

⑤	⑥
PI = Sta. 1+30.00	PI = Sta. 11+62.31
Δ = 4° 36' 00" Rt.	Δ = 40° 38' 00" Lt.
D = 4° 00' 00"	D = 8° 00' 00"
R = 1432.39'	R = 716.20'
T = 57.53'	T = 265.17'
Lc = 115.00'	Lc = 507.92'

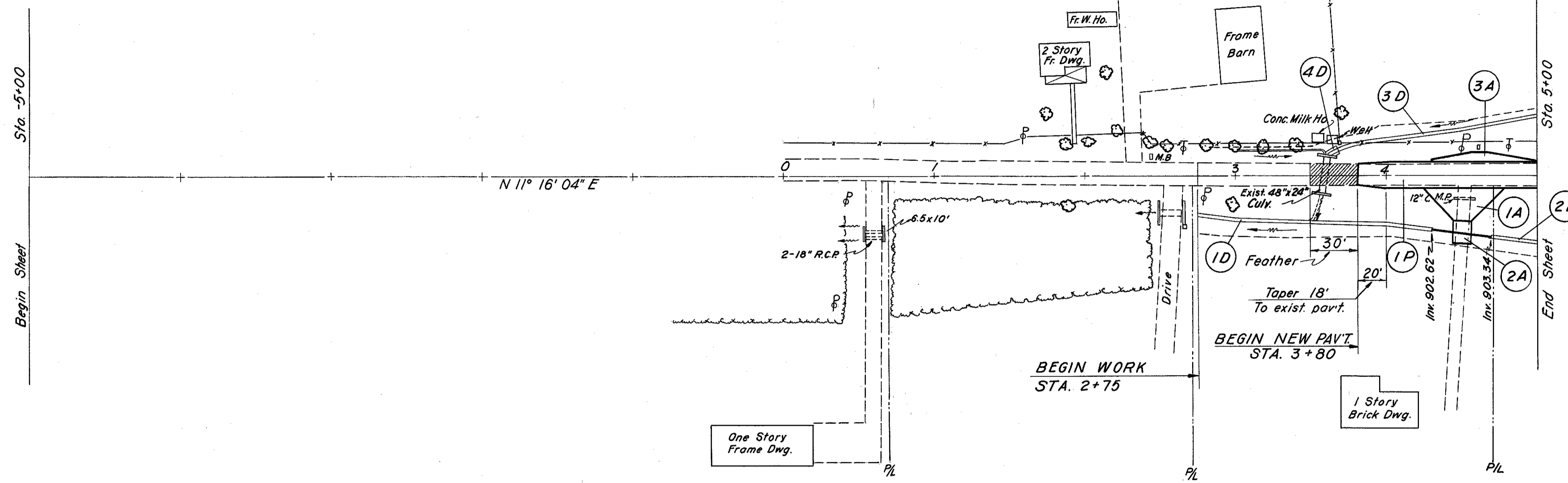
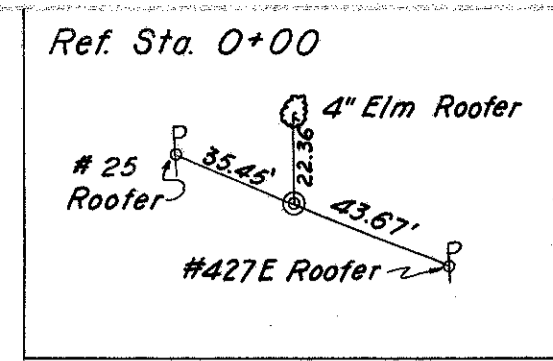
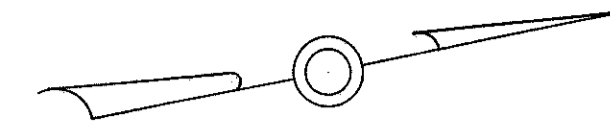
BEGIN NEW PAV'T.
STA. 3+80

BEGIN WORK
STA. 2+75

Clearcreek - Franklin Rd.

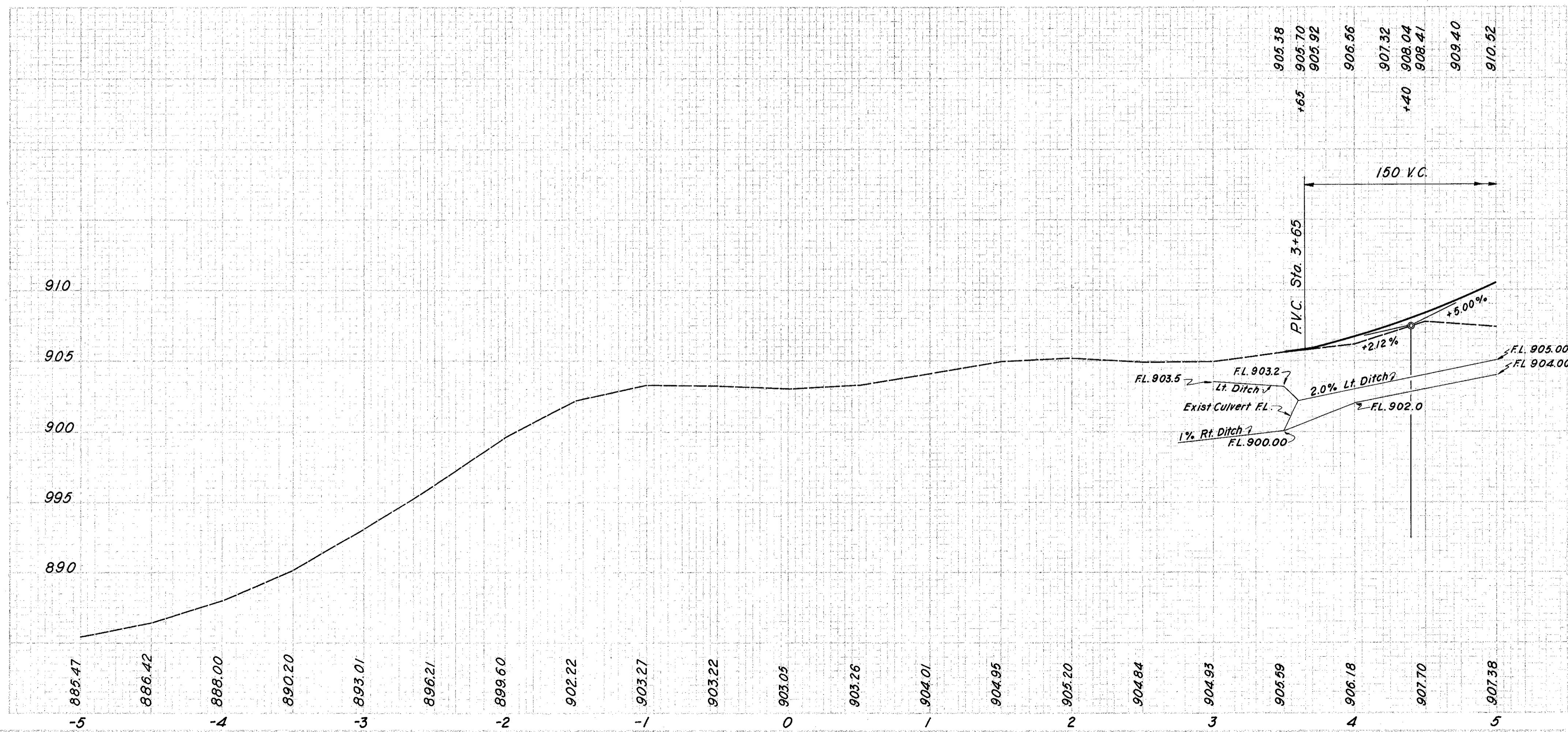
SCHEMATIC PLAN
SHOWING INTERSECTION OF
CLEARCREEK - FRANKLIN ROAD AND
PENNYROYAL ROAD
Scale: 1" = 100'

WAR-25-848
 MOT-25-0.00

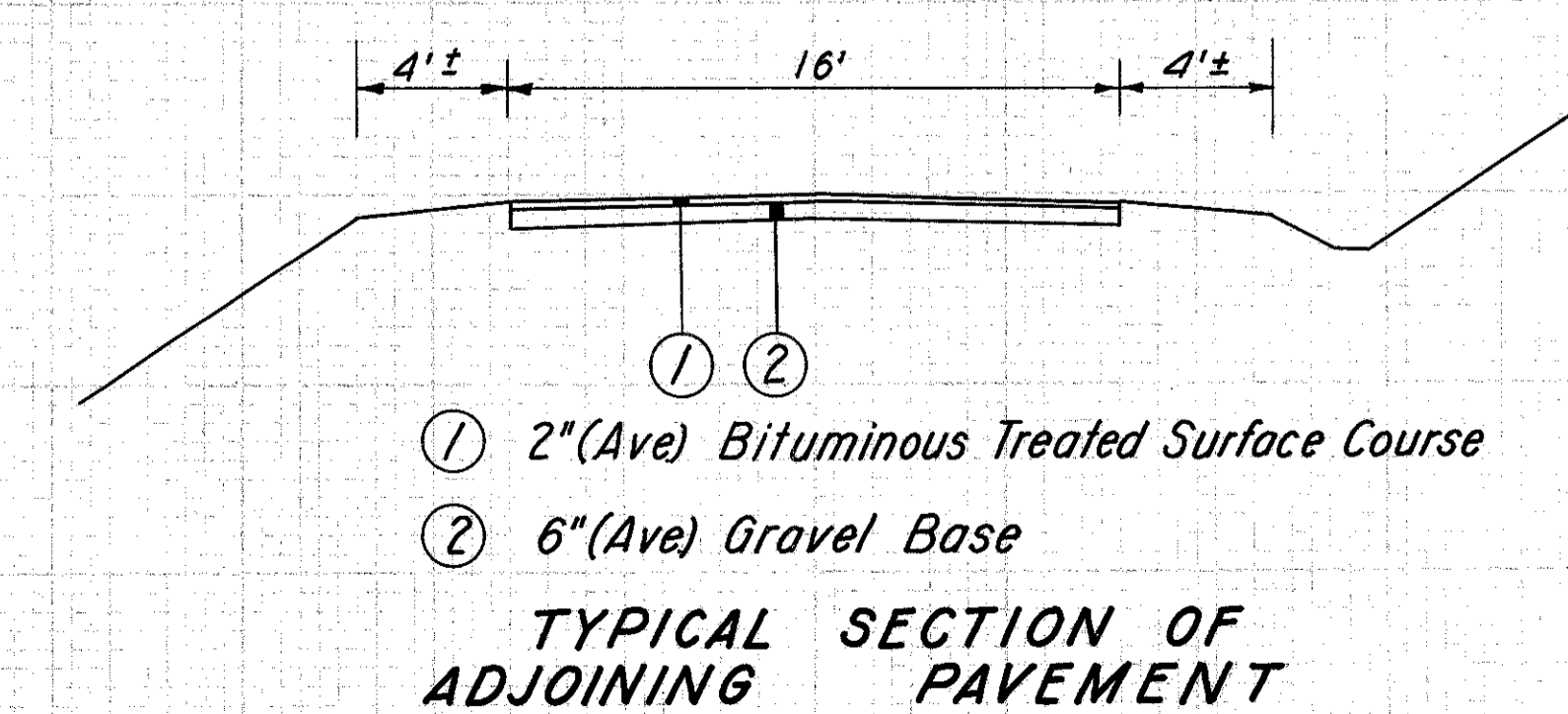


Ref. No.	Station		Side	L-10 Sodding		I-10 Type A Rip Rap 6" Reinf. Concrete Sq. Yds.
	From	To		Width Lin. Ft.	Sq. Yds.	
	1 D	2+75		4+30	R	
2 D	4+66	5+00	R	6	23	
3 D	3+70	5+00	L	6	88	
4 D	3+60	3+70	L			10
Totals					214	10

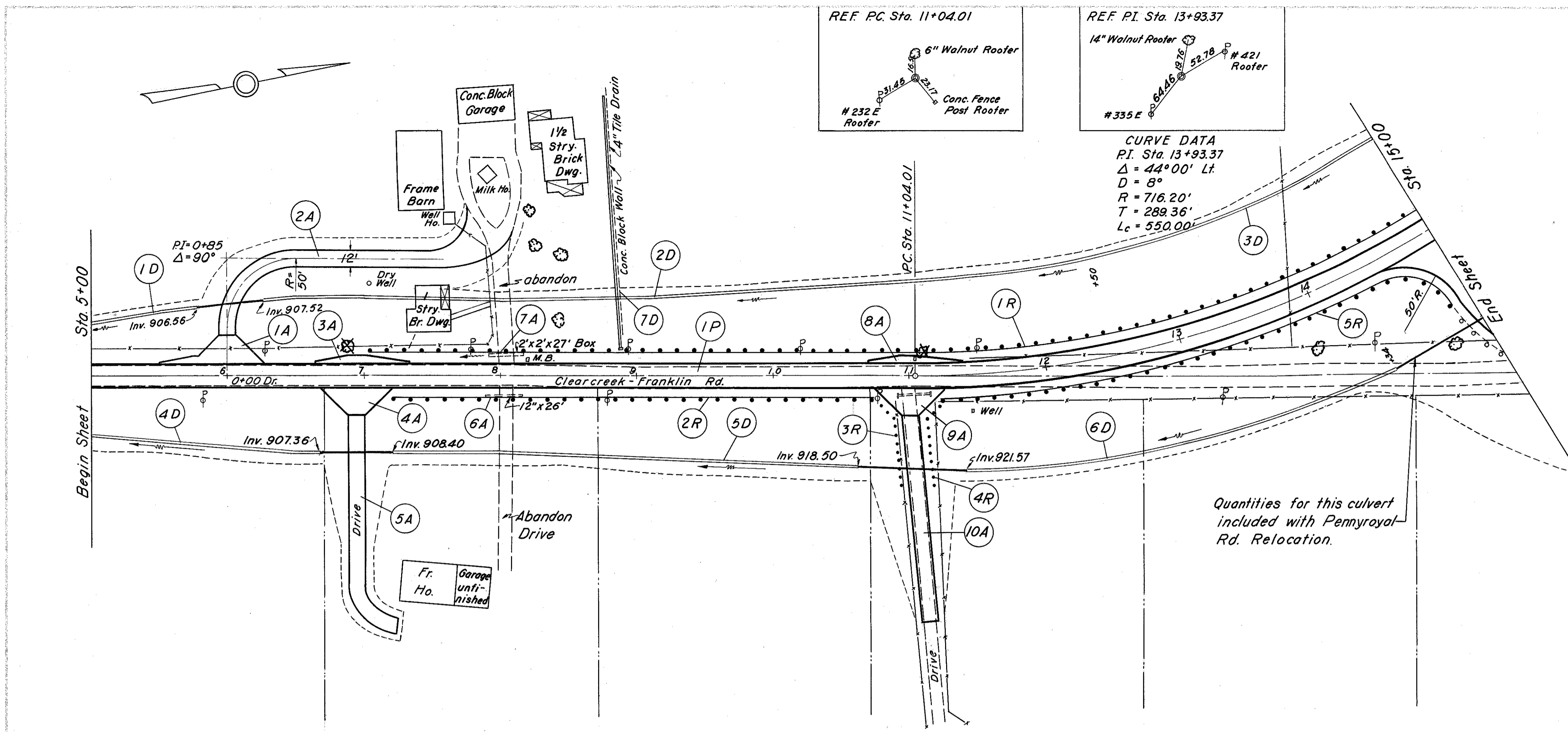
Ref. No.	Station	Side	Length	B-119 Crushed Aggregate Base Course		T-35 Asphaltic Concrete Surface Course	I-1 Pipe for Driveways	E-12 Pipe Removed
				5" C.Y.	6" C.Y.	2" C.Y.	18" L.F.	15" and Under L.F.
				1 A	4+52	R	20	10
2 A	4+52	R	15		4	36		
3 A	4+60	L		5	1.7			
Totals				15	4	5.7	36	14



Ref. No.	Station		Side	B-119 Crushed Agg. Base Course	T-30 Bituminous Prime Coat	T-35 Asphaltic Concrete Surface Course	I-22 Subbase	I-9 Stone Underdrain
	From	To		6" C.Y.	Gal.	1 1/2" C.Y.	4" C.Y.	No. 2 L.F.
	1 P	3+50		5+00		42	9	11.9
Totals				42	9	11.9	30	48

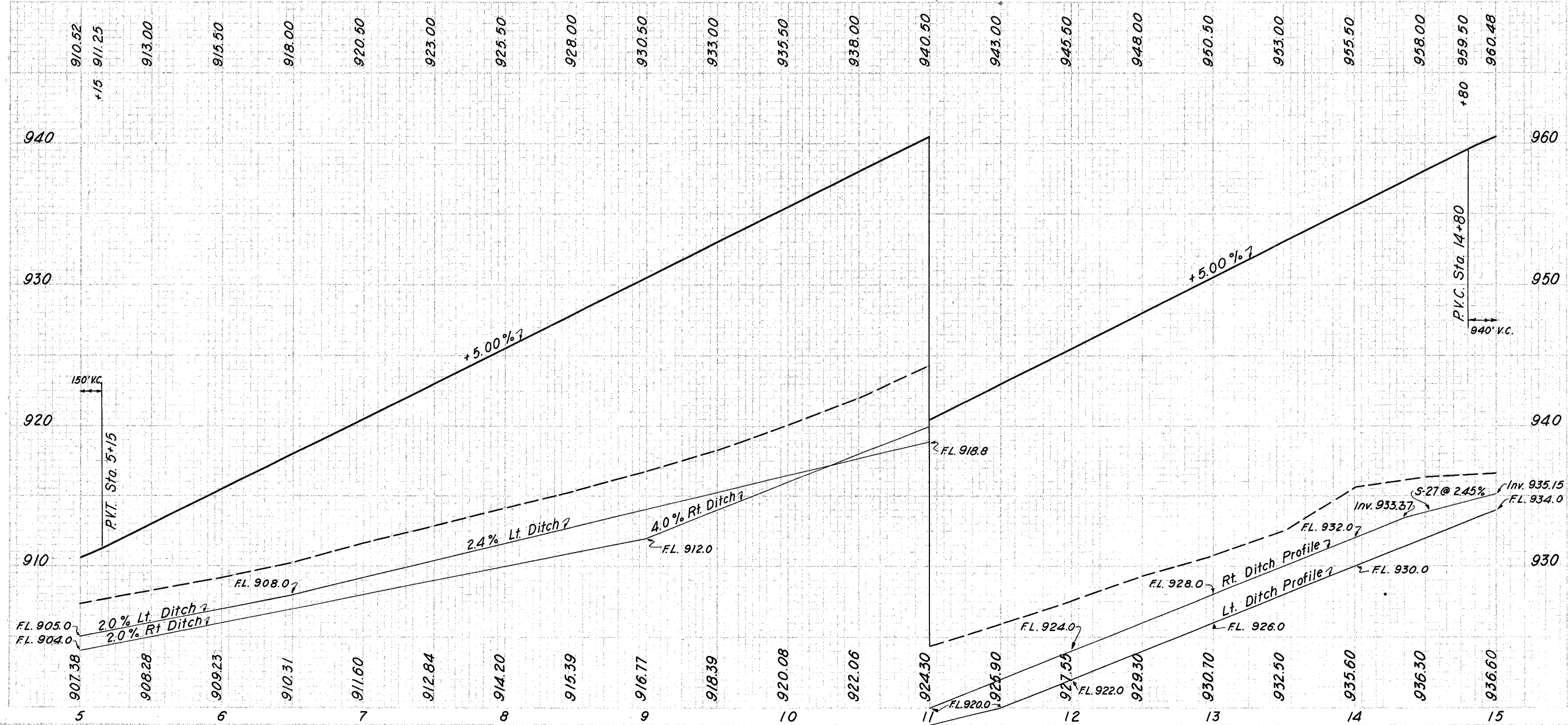


WAR-25-8.48
MOT-25-0.00



Ref. No.	Station	Side	Length	B-119 Crushed Agg. Base Course		T-35 Asphaltic Concrete Surface Course	E-12 Pipe Removed 15" and Under L.F.	S-24 Removal of Existing Structures Lump Sum	I-1 Pipe for Driveways 18" L.F.
				5" C.Y.	6" C.Y.	2" C.Y.			
1 A	6+00	L	20	12		46			
2 A	6+00	L	225		60			48	
3 A	6+95	L		5		1.7			
4 A	6+95	R	20	10		4.0			
5 A	6+95	R	170		38			52	
6 A	8+05	R					26		
7 A	8+05	L					Lump		
8 A	11+00	L		5		1.7			
9 A	11+00	R	20	10		4.0	24		
10 A	11+00	R	152		34			80	
Totals				42	132	16.0	50	Lump	180

Ref. No.	Station		Side	B-119 Crushed Agg. Base Course 6" C.Y.	T-30 Bituminous Prime Coat Gal.	T-35 Asphaltic Concrete Surface Course 1 1/2" C.Y.	I-22 Subbase 4" C.Y.	I-9 Stone Underdrain No. 2 L.F.
	From	To						
1 P	5+00	15+00		352	739	83.3	247	384
Total				352	739	83.3	247	384



Ref. No.	Station		Side	L-10 Sodding		I-3 Pipe Outlets for Rdwy Drain 8" L.F.
	From	To		Width L.F.	S.Y.	
1 D	5+00	5+78	L	6	52	
2 D	6+26	12+50	L	6	407	
3 D	12+50	15+00	L	3	75	
4 D	5+00	6+68	R	6	112	
5 D	7+20	10+62	R	6	228	
6 D	11+42	14+34	R	6	216	
7 D	8+90		L			10
Totals					1090	10

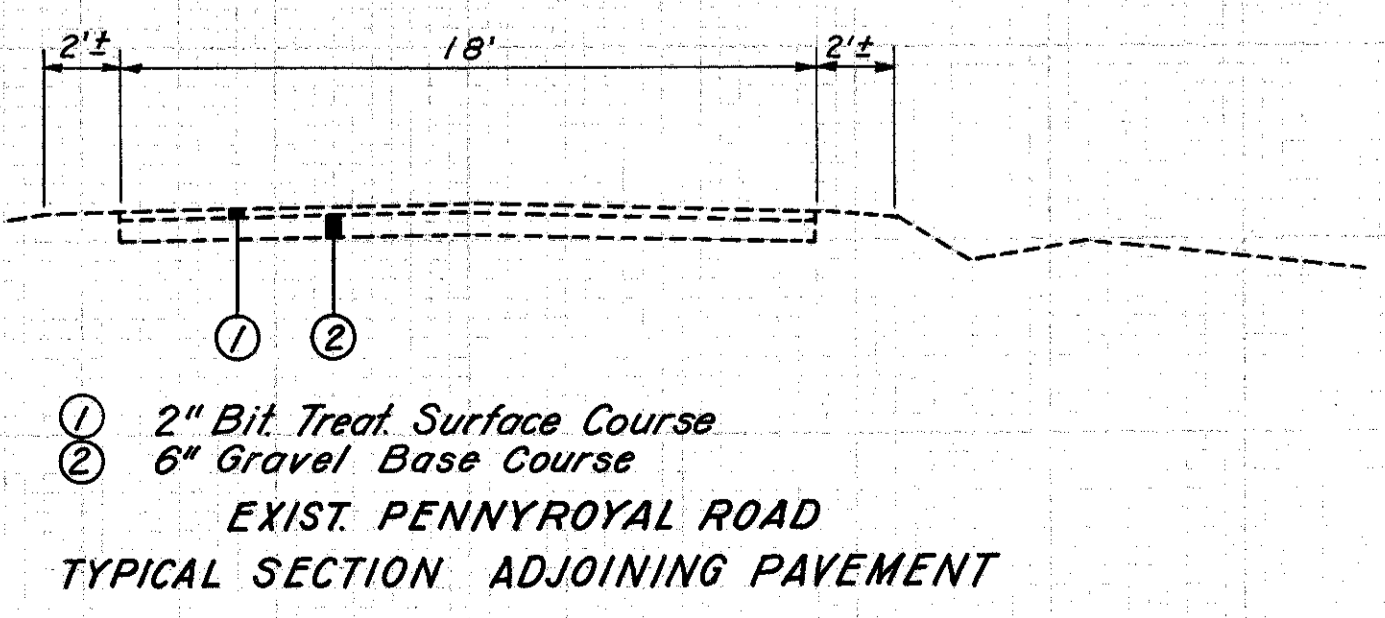
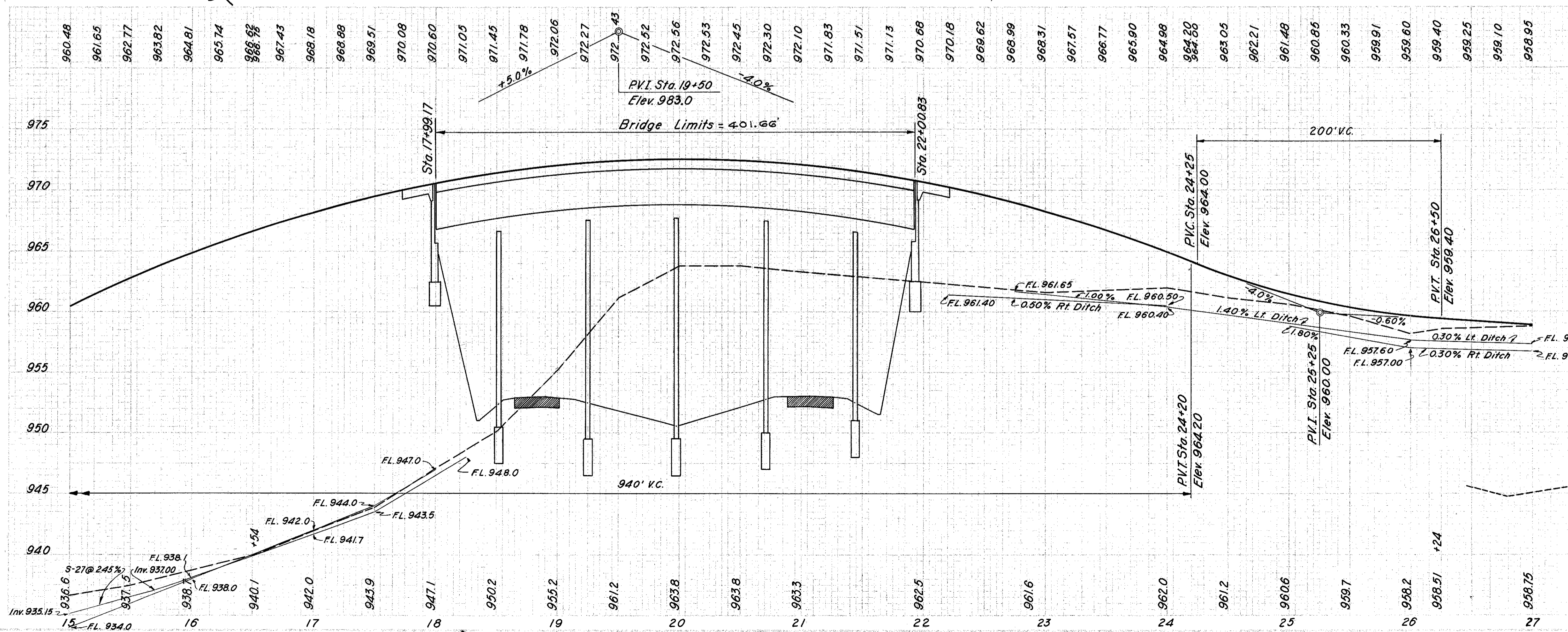
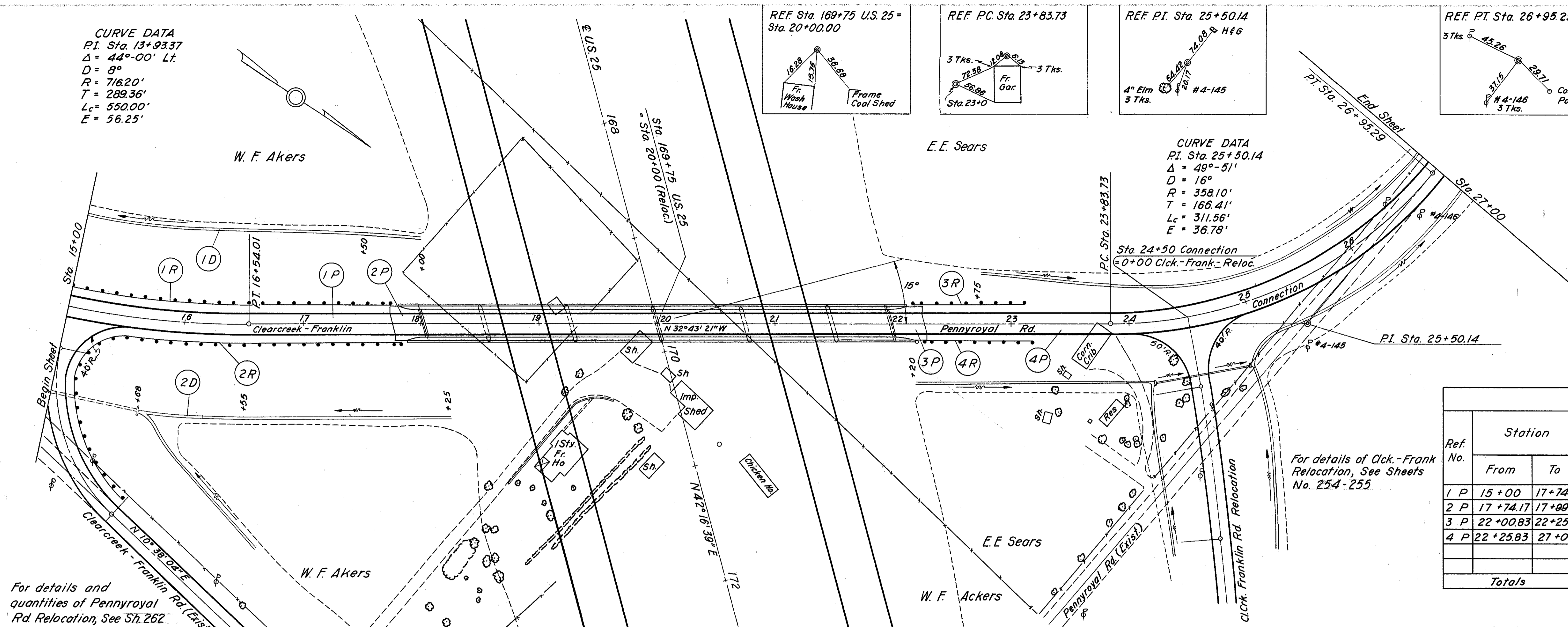
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Standard L.F.	I-15 Wood Guard Rail Post Without Rail Ea.
	From	To			
1 R	7+04	15+00	L	787.5	
2 R	7+20	10+70	R	350	
3 R	10+75	10+92	R		11
4 R	11+06	11+26	R		11
5 R	11+26	14+87	R	387.5	
Totals				1525.0	22

WAR-25-848
MOT-25-0.00

ROADWAY					
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type-Deep Standard L.F.	
	From	To			
1 R	15+00	17+82	L	275	
2 R	15+18	17+89	R	300	
3 R	22+12	23+12	L	100	
4 R	22+19	23+19	R	100	
Totals				775	

PAVEMENT									
Ref. No.	Station		Side	B-119 Crushed Agg. Base Course 6" C.Y.	T-30 Bituminous Prime Coat Gal.	T-35 Asphaltic Concrete Surface Course 1 1/2" C.Y.	I-22 Subbase 4" C.Y.	I-7 Reinf. Conc. Approach Slab 7'-13" S.Y.	I-9 Stone Underdrain No. 2 L.F.
	From	To							
1 P	15+00	17+74.17		97	203	228	68	75	96
2 P	17+74.17	17+89.17						75	
3 P	22+00.83	22+25.83						75	
4 P	22+25.83	27+00		167	351	39.5	118		168
Totals				264	554	62.3	186	150	264

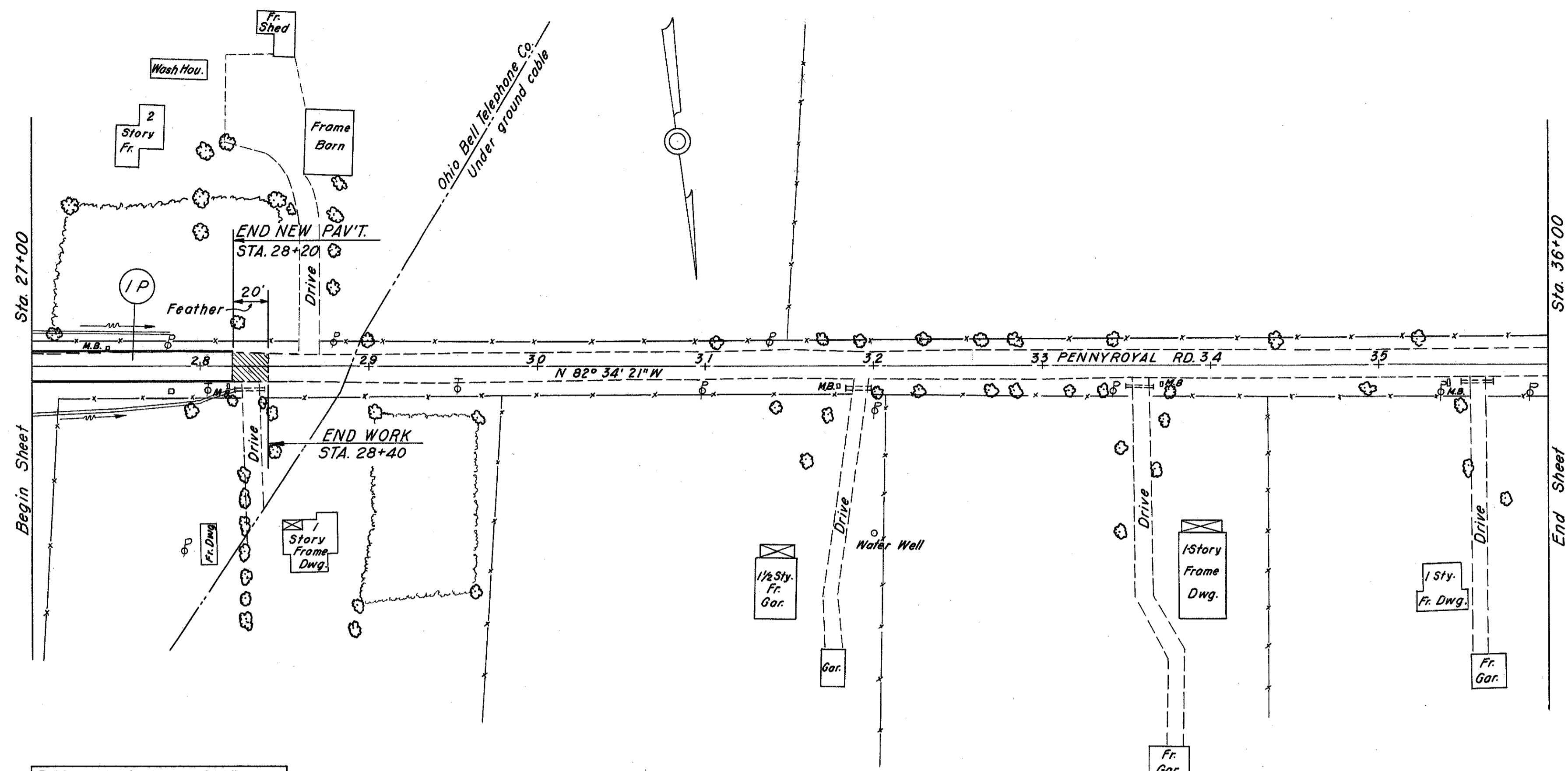
DRAINAGE					
Ref. No.	Station		Side	L-10 Sodding Width L.F.	S.Y.
	From	To			
1 D	15+00	17+50	L	3	78
2 D	15+68	16+55	R	3	30
Totals					108



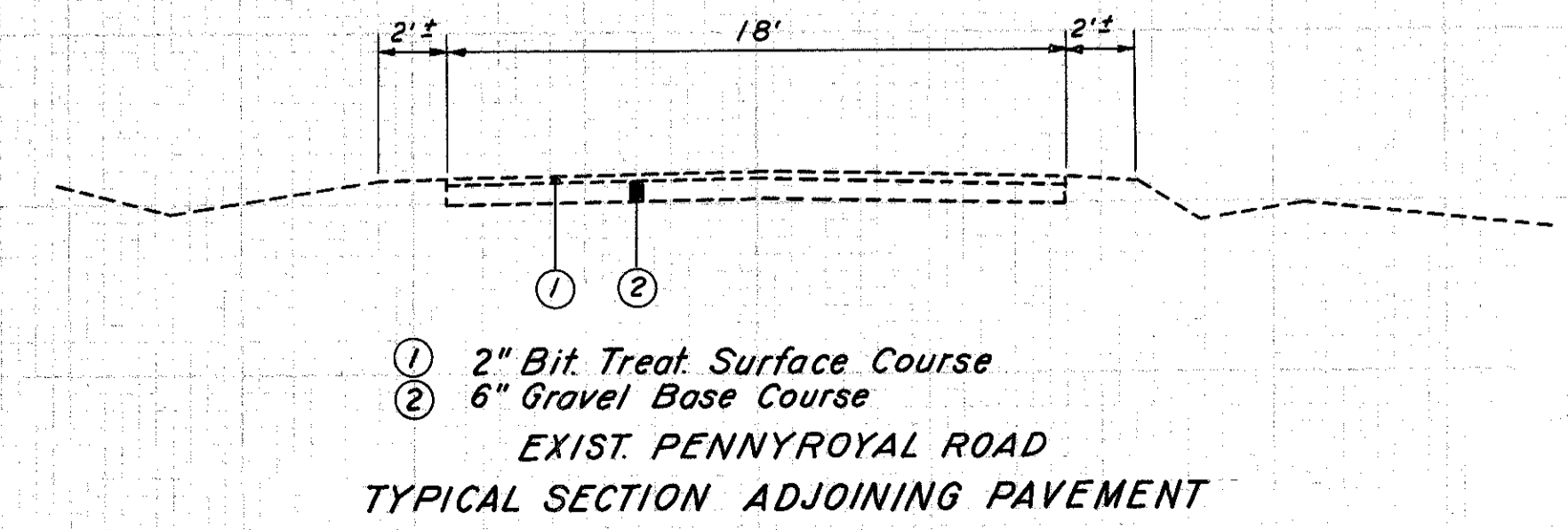
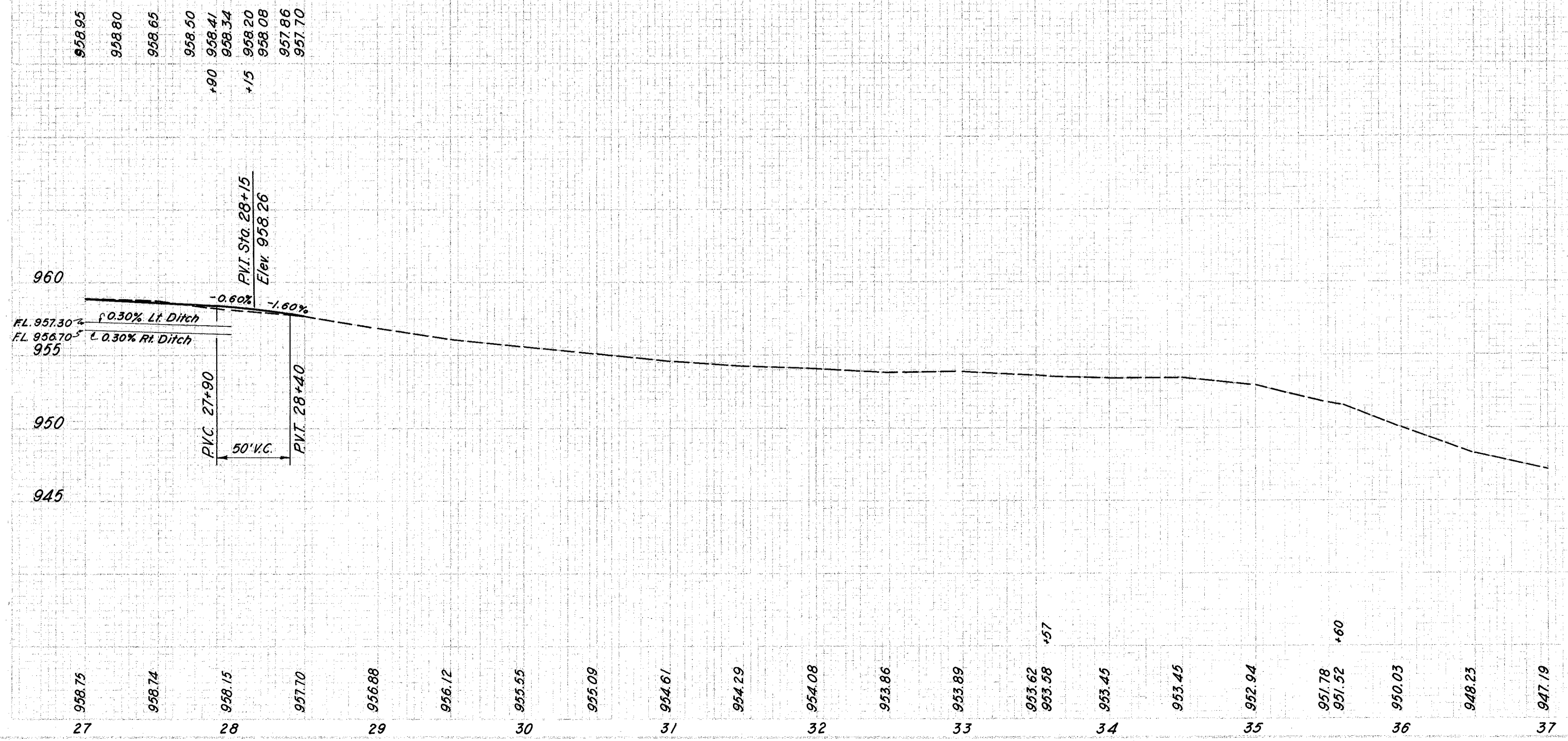
CLEARCREEK-FRANK.-PENNYROYAL CONNECTION - Sta. 15+00 to Sta. 27+00

WAR-25-8.48
MOT-25-0.00

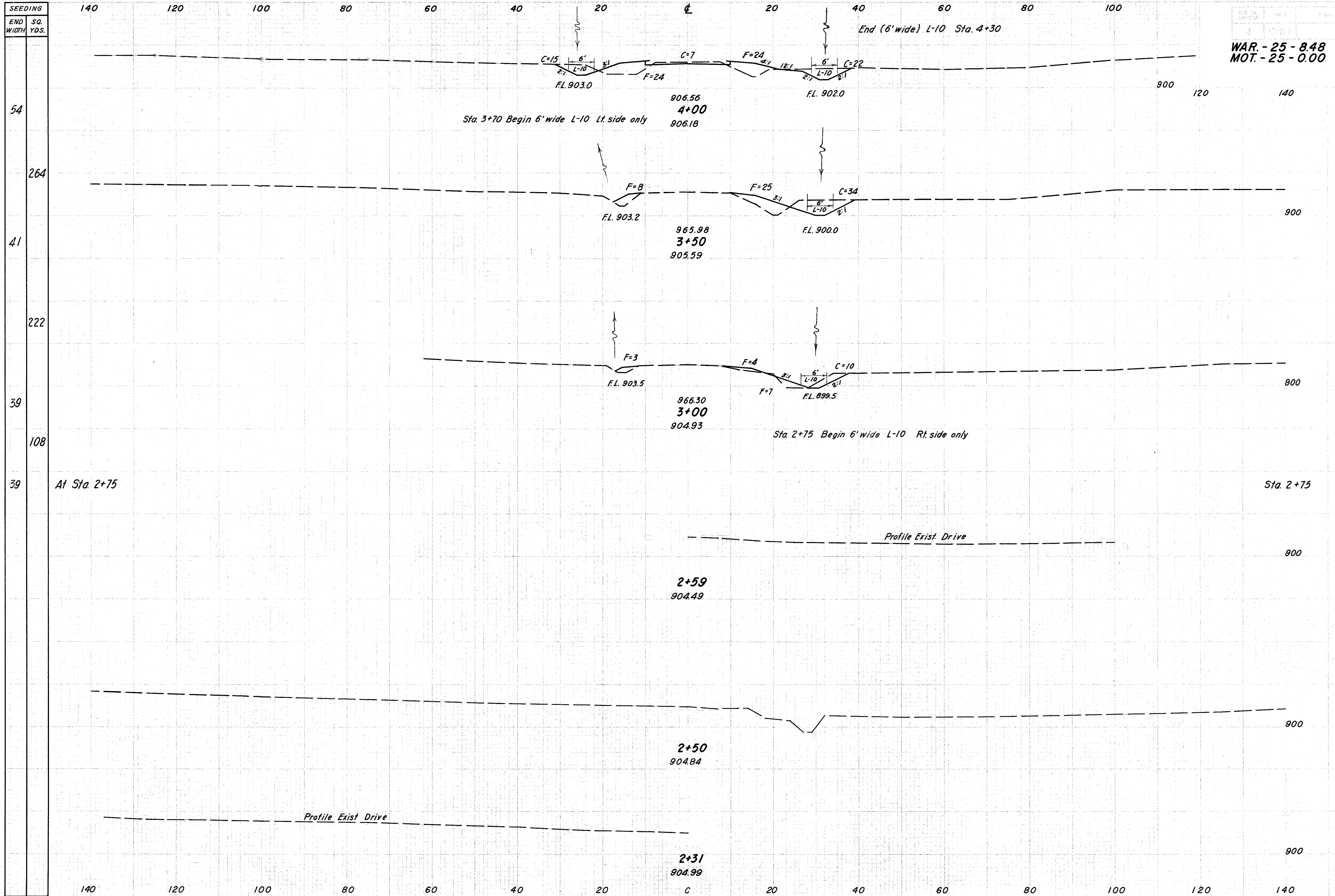
PAVEMENT								
Ref. No.	Station		Side	B-119 Crushed Agg. Base Course 6" C.Y.	T-30 Bituminous Prime Coat Gal.	T-35 Asphaltic Concrete Surface Course 1 1/2" C.Y.	I-22 Subbase 4" C.Y.	I-9 Stone Underdrain No.2 L.F.
	From	To						
I P	27+00	28+40		43	89	13.0	90	48
Totals				43	89	13.0	90	48



B.M. Spike in base of 10"
Rosebud 155' Rt of 27+75
Elev. 960.100

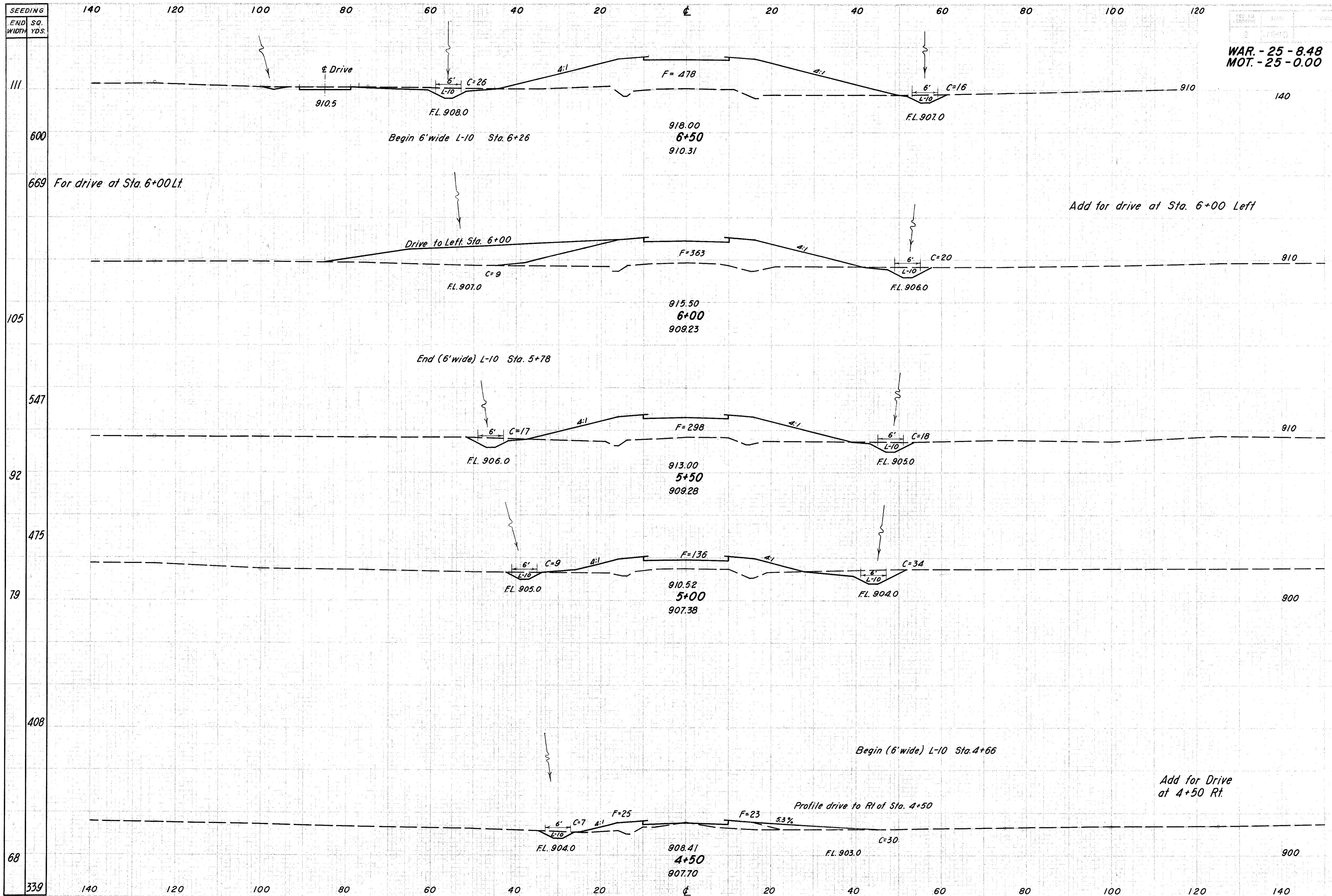


CLEARCREEK-FRANK-PENNYROYAL CONNECTION.- Sta. 27+00 to Sta. 36+00



WAR. - 25 - 8.48
 MOT. - 25 - 0.00

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
44	48		
		72	75
34	33		
		41	44
10	14		
		5	6
0	0		

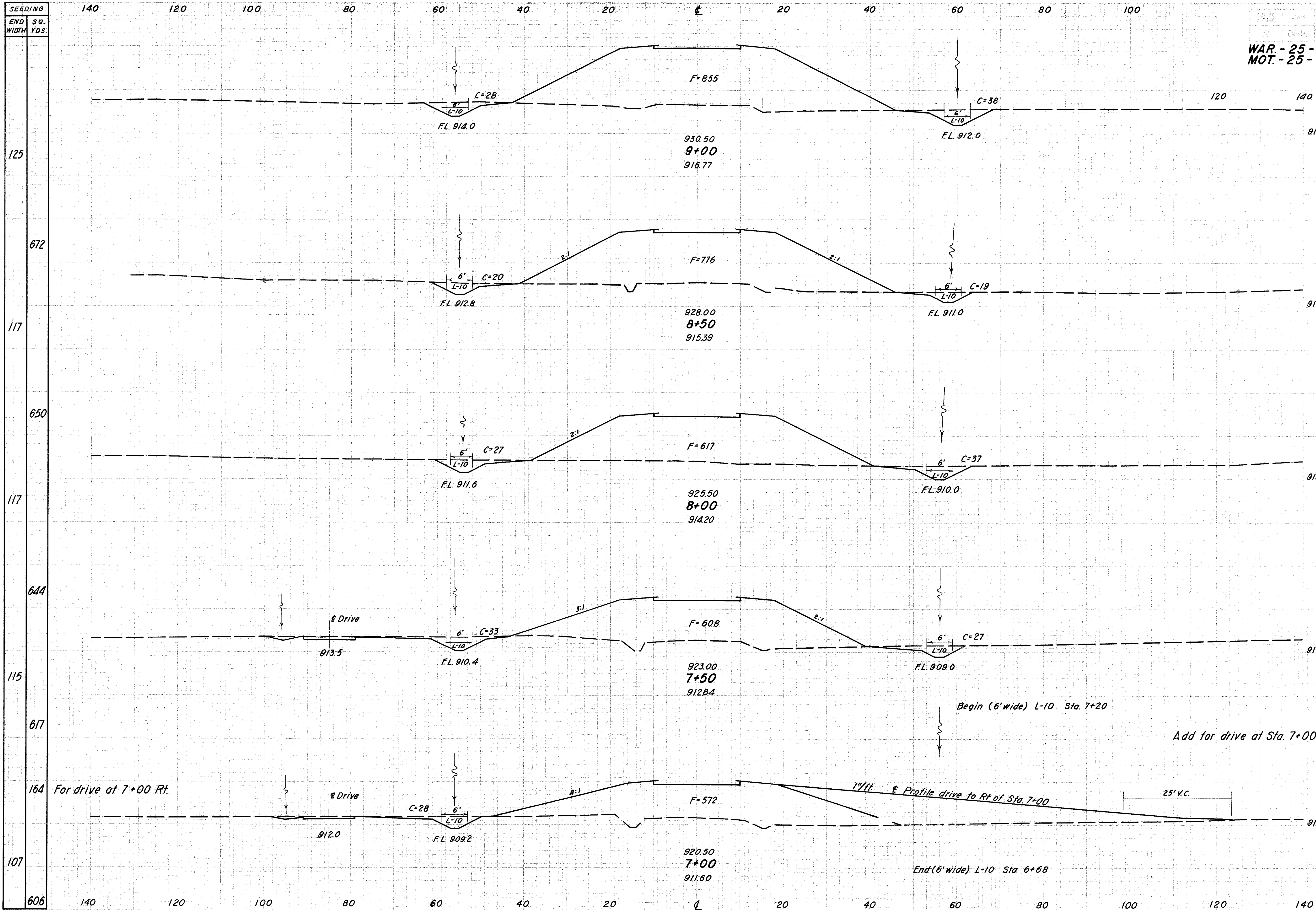


WAR. - 25 - 8.48
MOT. - 25 - 0.00

245
377

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
42	478		
		66	778
		56	234
29	363		
		59	612
35	298		
		72	402
43	136		
		74	170
			14
37	48		
		75	89

CLEARCK. - FRANK. - PENNYROYAL CONNECTION. - Sta. 4+50 to Sta. 6+50

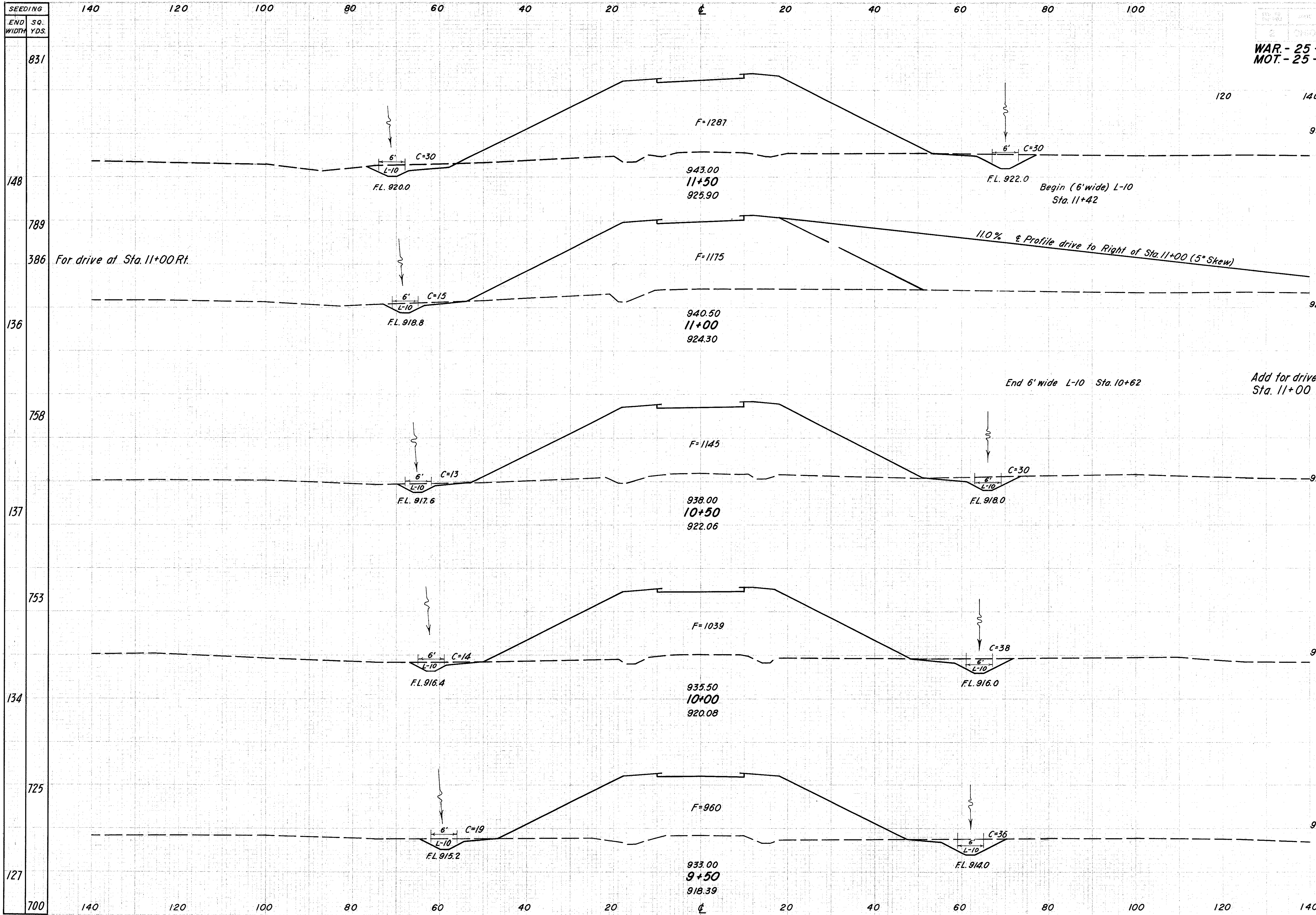


WAR - 25 - 848
MOT. - 25 - 0.00

246
377

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
66	855		
		97	1510
39	776		
		95	1290
64	617		
		115	1134
60	608		
		428	
		98	1093
46	572		
		81	972

CLEARCK - FRANK - PENNYROYAL CONNECTION - Sta. 7+00 to Sta. 9+00

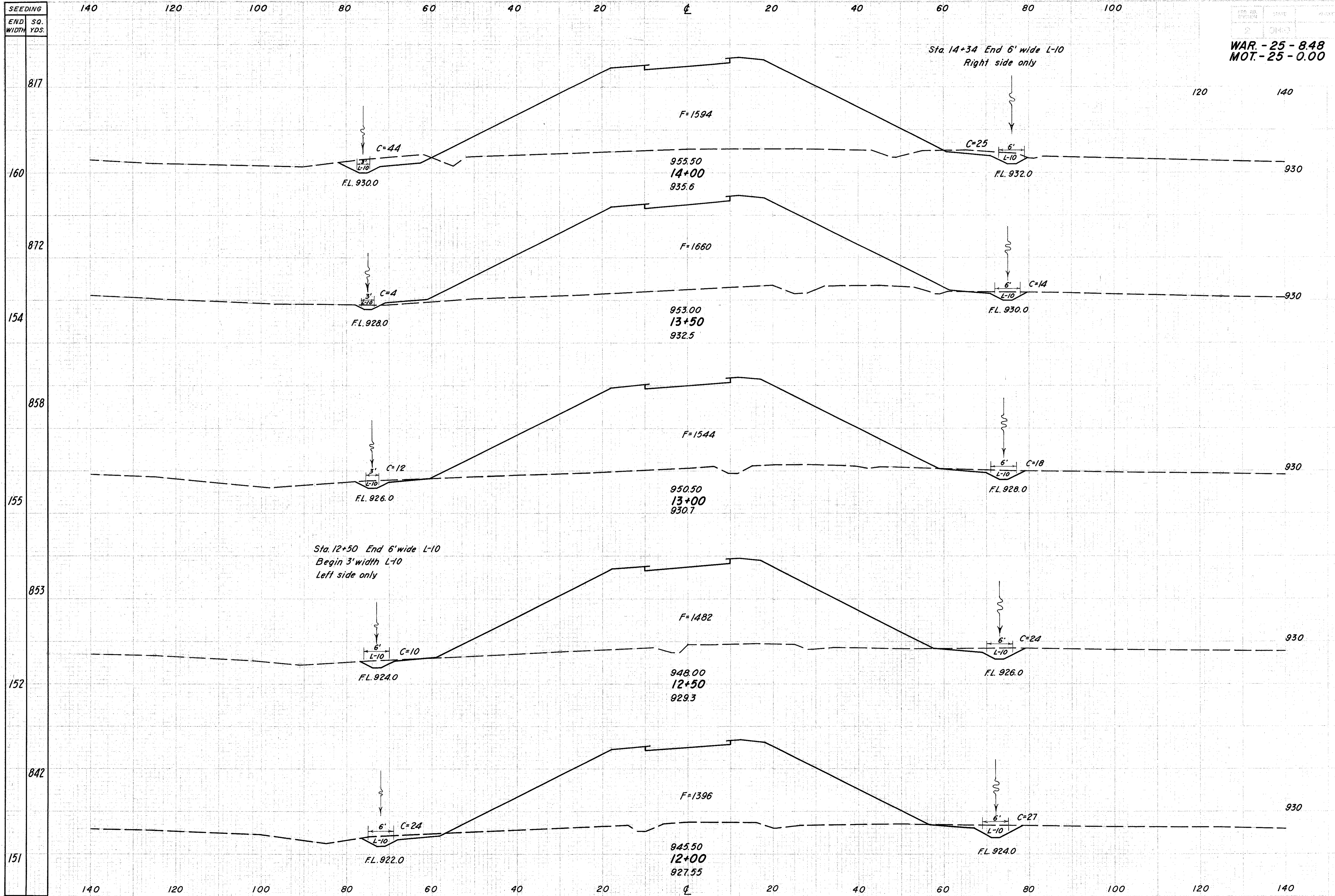


WAR - 25 - 8.48
MOT - 25 - 0.00

247
377

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
60	1287		
55	1175	106	2280
43	1145	91	2148
52	1039	88	2022
55	960	99	1851
		112	1681

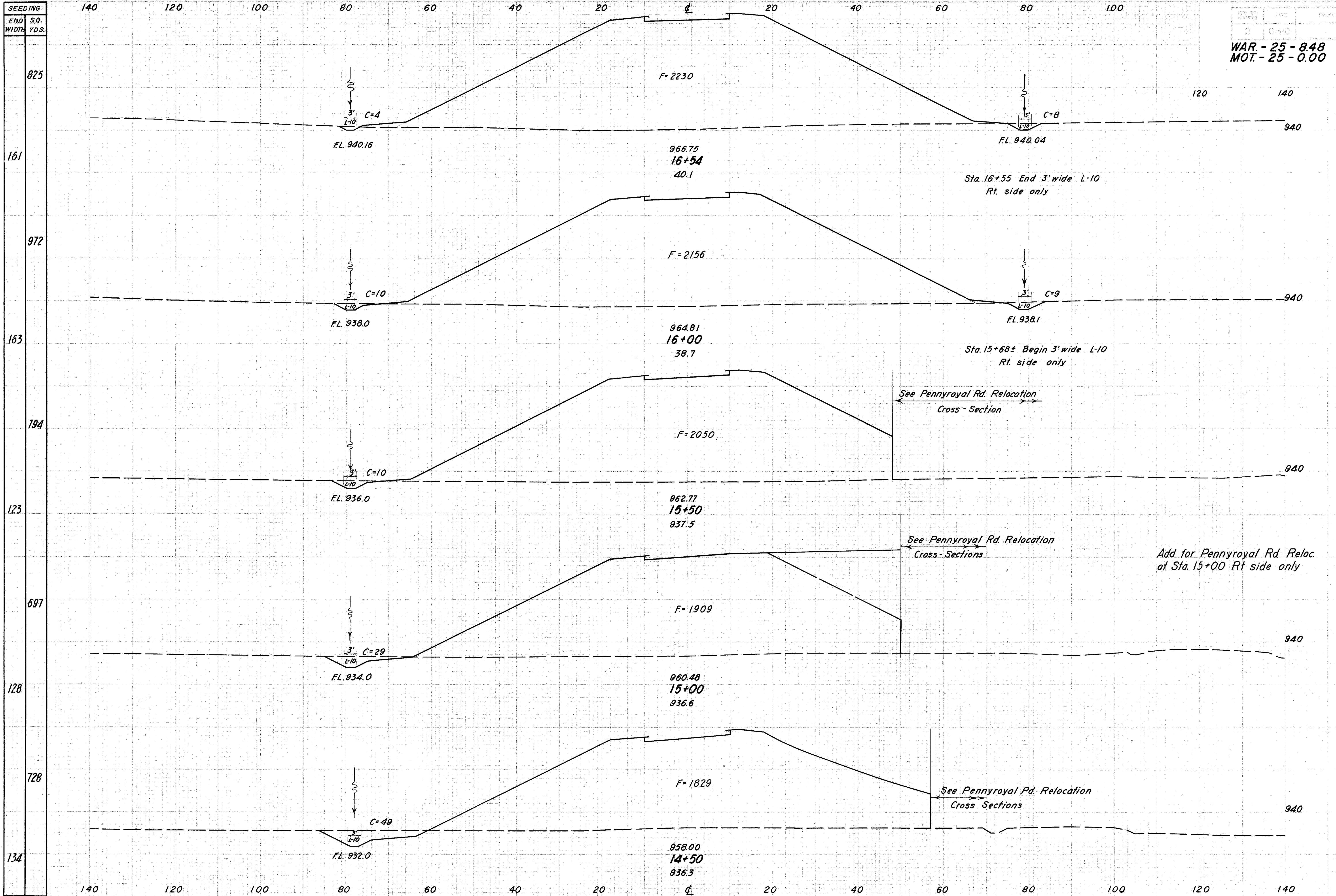
CLEARCREEK - FRANK - PENNYROYAL CONNECTION - Sta. 9+50 to Sta. 11+50



WAR. - 25 - 8.48
 MOT. - 25 - 0.00

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
69	1594	81	3013
18	1660	44	2967
30	1544	59	2802
34	1482	79	2665
51	1396		
		103	2484

CLEARCREEK - FRANK - PENNYROYAL - CONNECTION Sta. 12+00 to Sta. 14+00

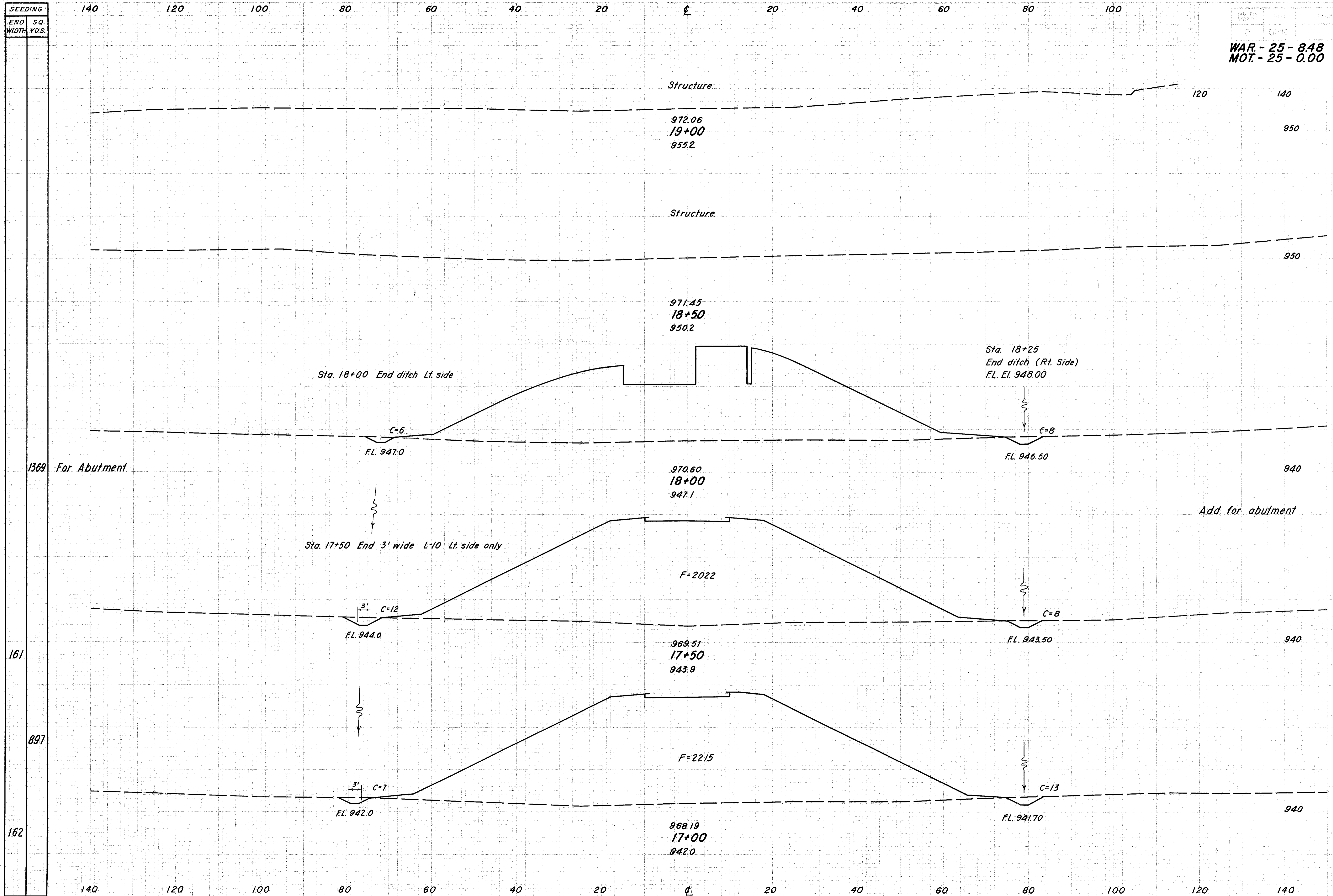


WAR-25-848
MOT-25-0.00

249
377

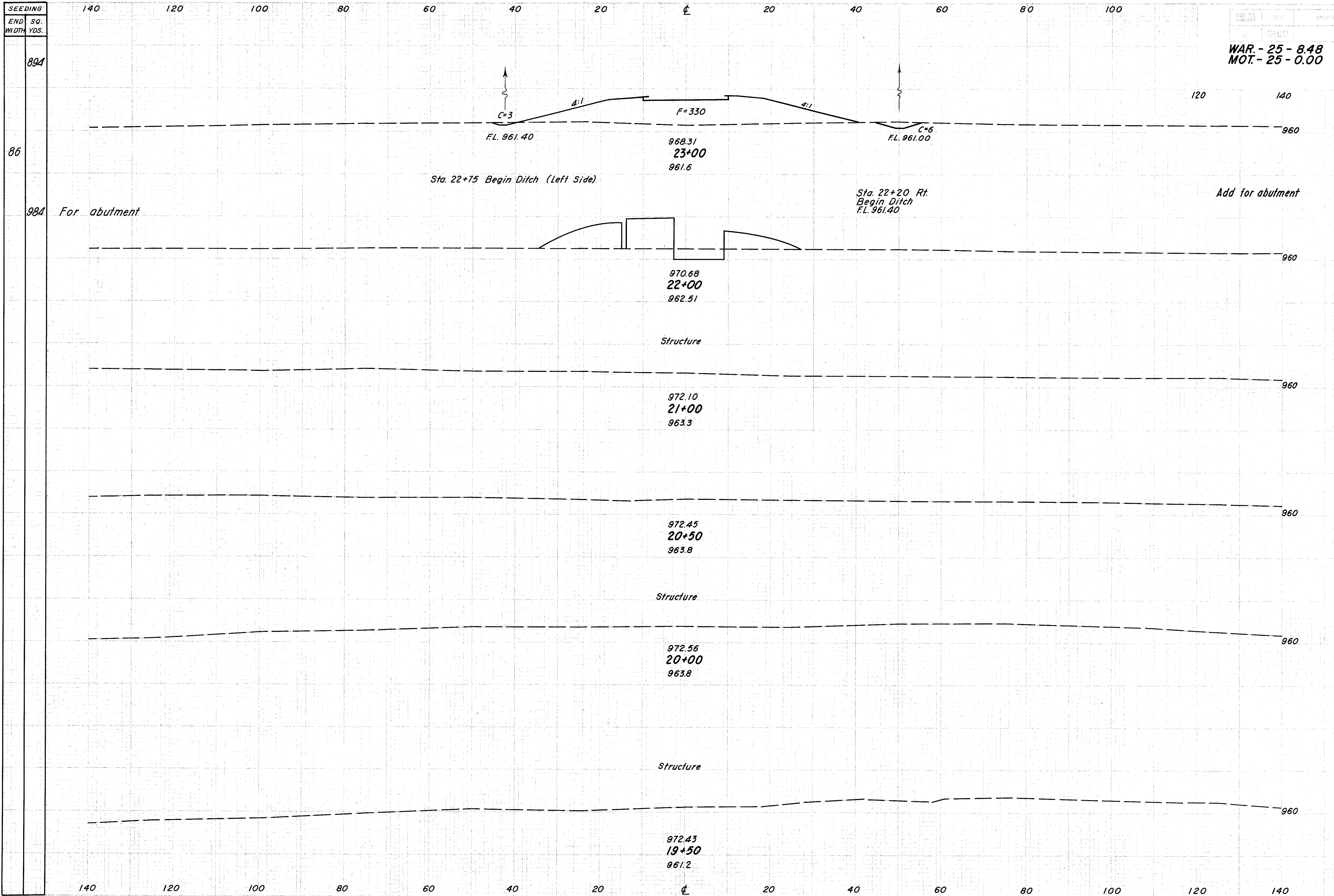
END AREA	CU. YDS.	
	CUT	FILL
12	2230	
		31 4386
19	2156	
		29 3894
10	2050	
		911
		36 3666
29	1909	
		72 3461
49	1829	
		121 3169

CLEARCREEK-FRANK-PENNYROYAL CONNECTION Sta. 14+50 to Sta. 16+54



WAR. - 25 - 8.48
 MOT. - 25 - 0.00

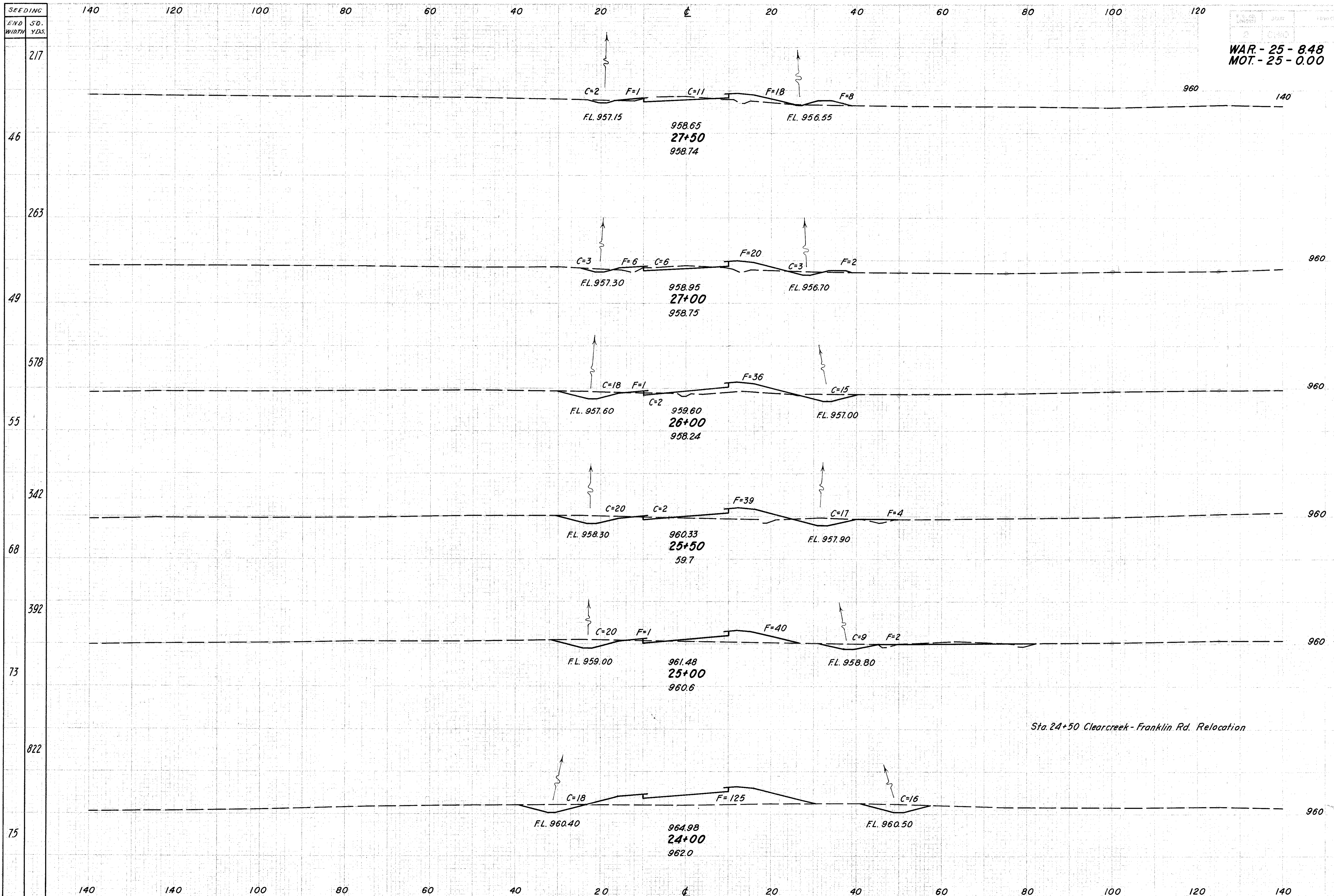
END AREA		CU.YDS.	
CUT	FILL	CUT	FILL
20	2022	39	4718
20	2215	27	3786



WAR - 25 - 8.48
 MOT - 25 - 0.00

251
 377

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
9	330		
		25	1223

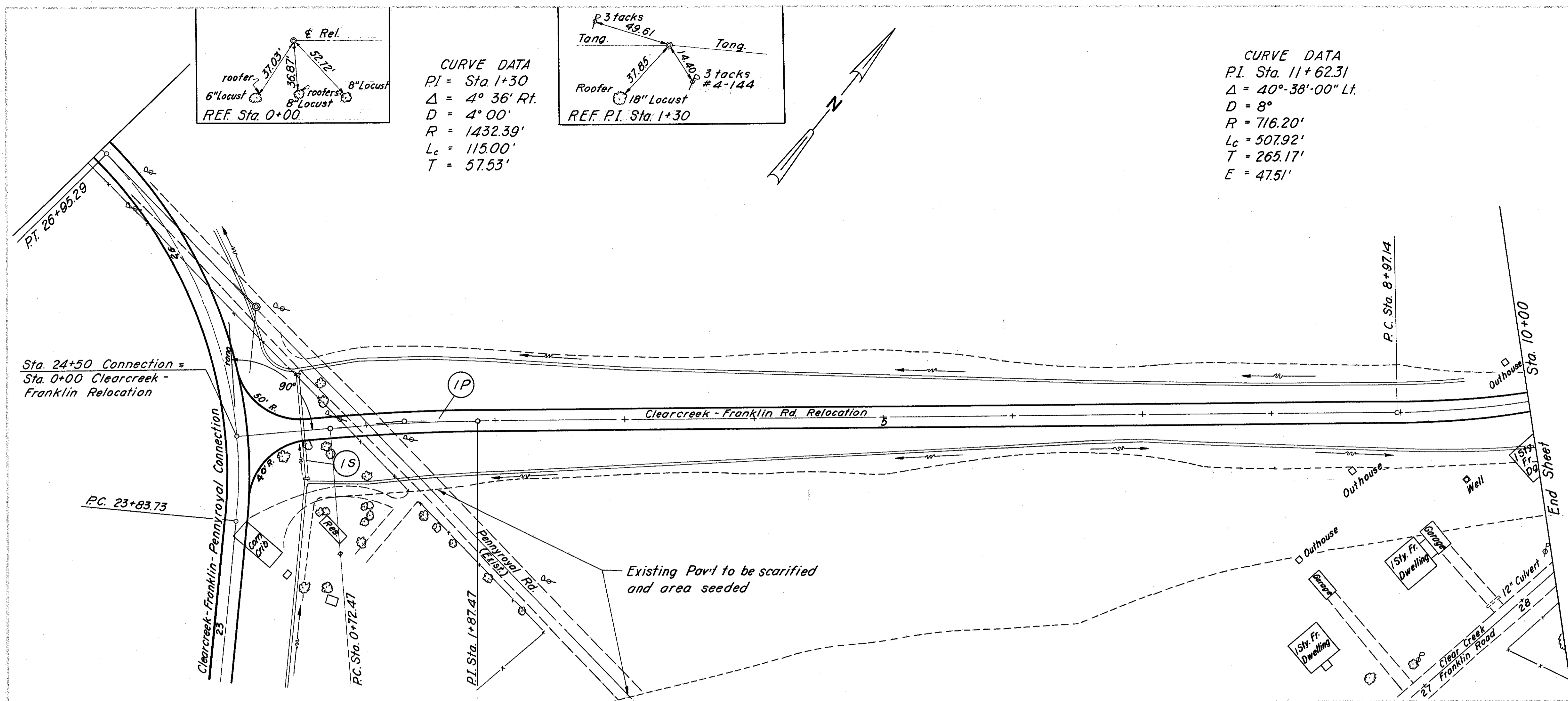


WAR - 25 - 848
 MOT - 25 - 0.00

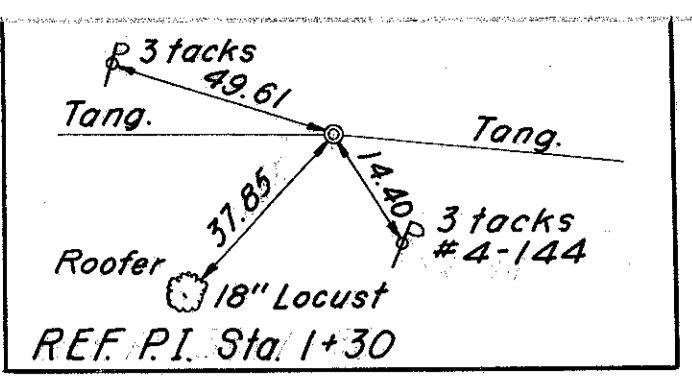
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
13	27		
		23	51
12	28		
		87	120
35	37		
		69	74
39	43		
		65	80
31	43		
		322	
		120	311
34	125		
		80	843

CLEARCREEK-FRANK-PENNYROYAL CONNECTION-Sta. 24+00 to Sta. 27+50

WAR. - 25 - 8.48
MOT. - 25 - 0.00



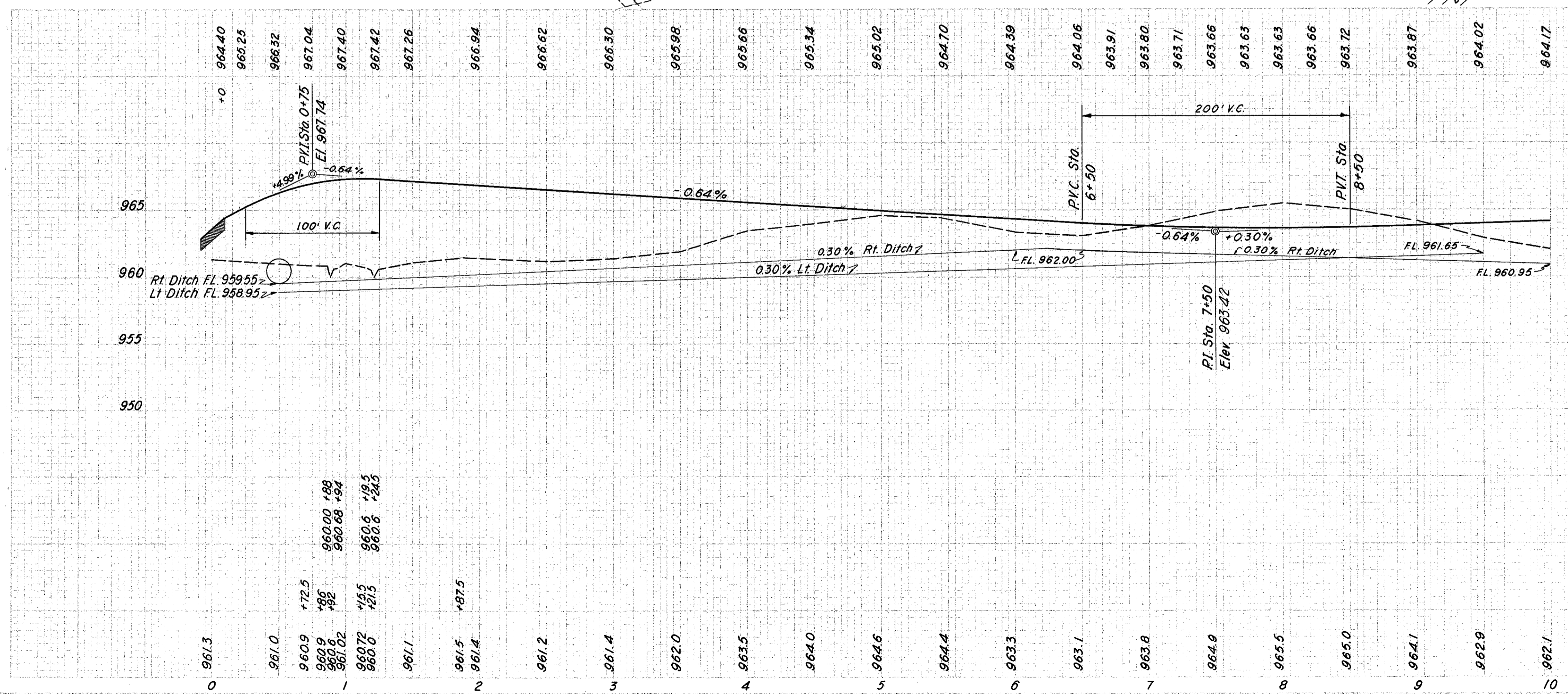
CURVE DATA
 PI = Sta. 1+30
 $\Delta = 4^\circ 36' \text{ Rt.}$
 $D = 4^\circ 00'$
 $R = 1432.39'$
 $L_c = 115.00'$
 $T = 57.53'$



CURVE DATA
 PI. Sta. 11+62.31
 $\Delta = 40^\circ 38' 00'' \text{ Lt.}$
 $D = 8^\circ$
 $R = 716.20'$
 $L_c = 507.92'$
 $T = 265.17'$
 $E = 47.51'$

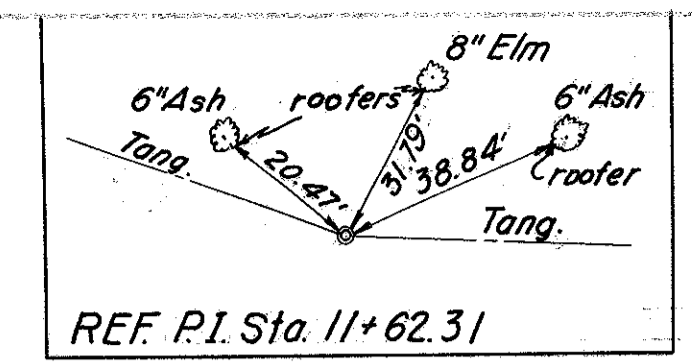
PAVEMENT								
Ref No	Station		Side	B-119	T-30	T-35	I-22	I-9
	From	To		Crushed Agg. Base Course 6" Cu. Yd.	Bituminous Prime Coat Gal.	Asphaltic Concrete Surface Course 1/2" Cu. Yd.	Subbase 4" Cu. Yd.	Stone Underdrains No. 2 L.F.
IP	0+09	10+00		330	693	77.8	233	264
Totals				330	693	77.8	233	264

STRUCTURES (20' Span and Under)						
Ref No	Station	Side	E-2	S-1	S-27	See Sheet No
			Excavation for Structures C.Y.	Concrete for Structures Class E C.Y.	Pipe for Rdwy Culv. Sec. M-6.6(b) or M-6.8(b) 21" L.F.	
I-S	0+50	RtoL	32	0.7	82	256
Totals			32	0.7	82	



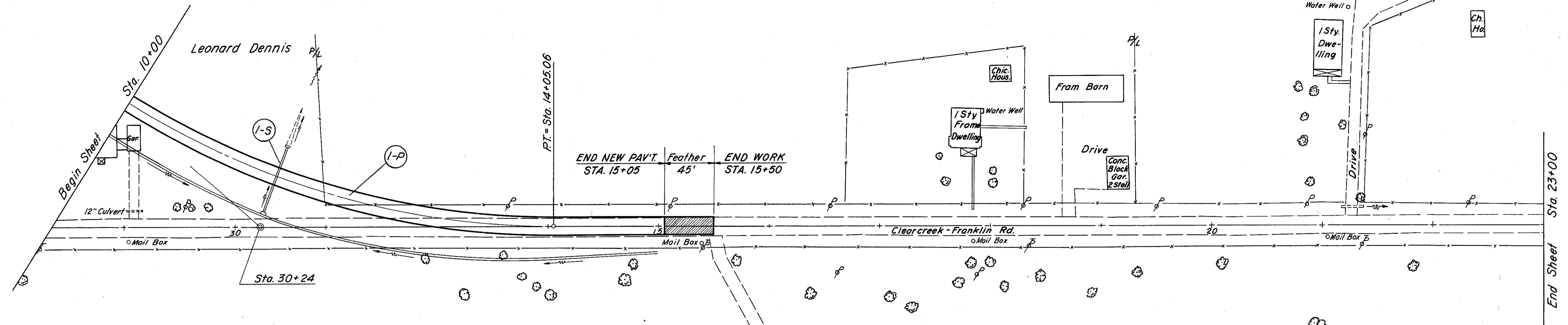
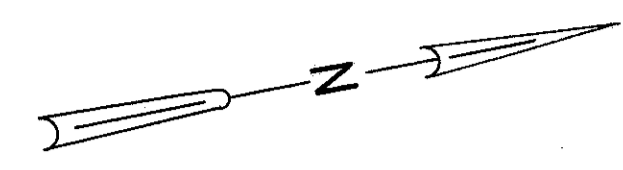
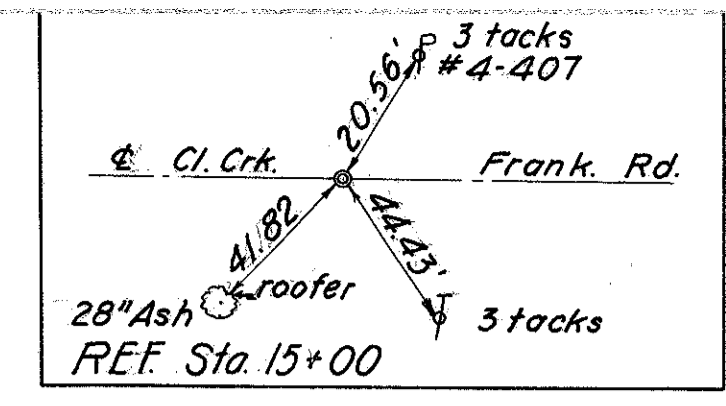
CLEAR CREEK - FRANKLIN Relocation - Sta. 0+09 to Sta. 10+00

WAR.-25-8.48
MOT.-25-0.00

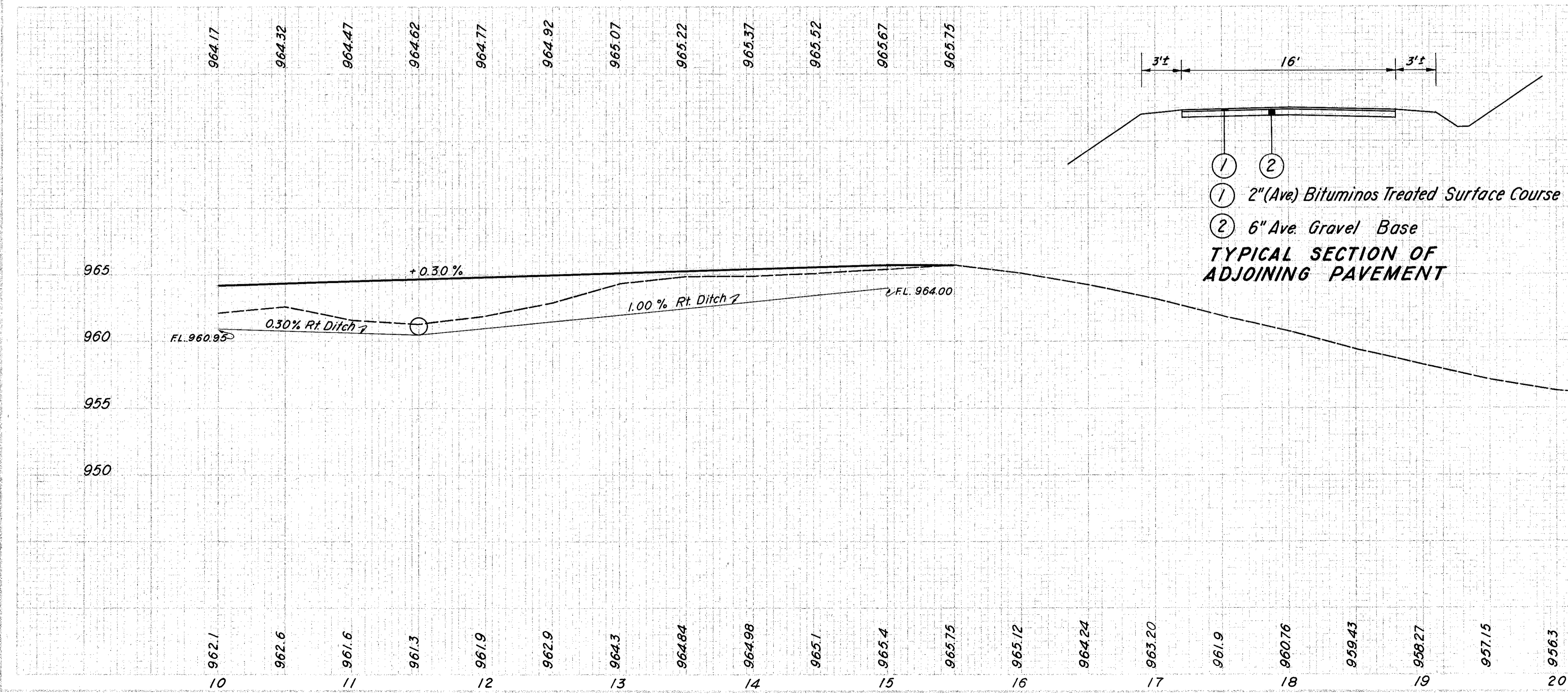


CURVE DATA
 P.I. = Sta. 11+62.31
 $\Delta = 40^\circ 38' 00''$ Lt.
 $D = 8^\circ 00'$
 $R = 716.20'$
 $L_c = 507.92'$
 $T = 265.17'$
 $E = 47.51'$

Victor & Alice E. Johnson

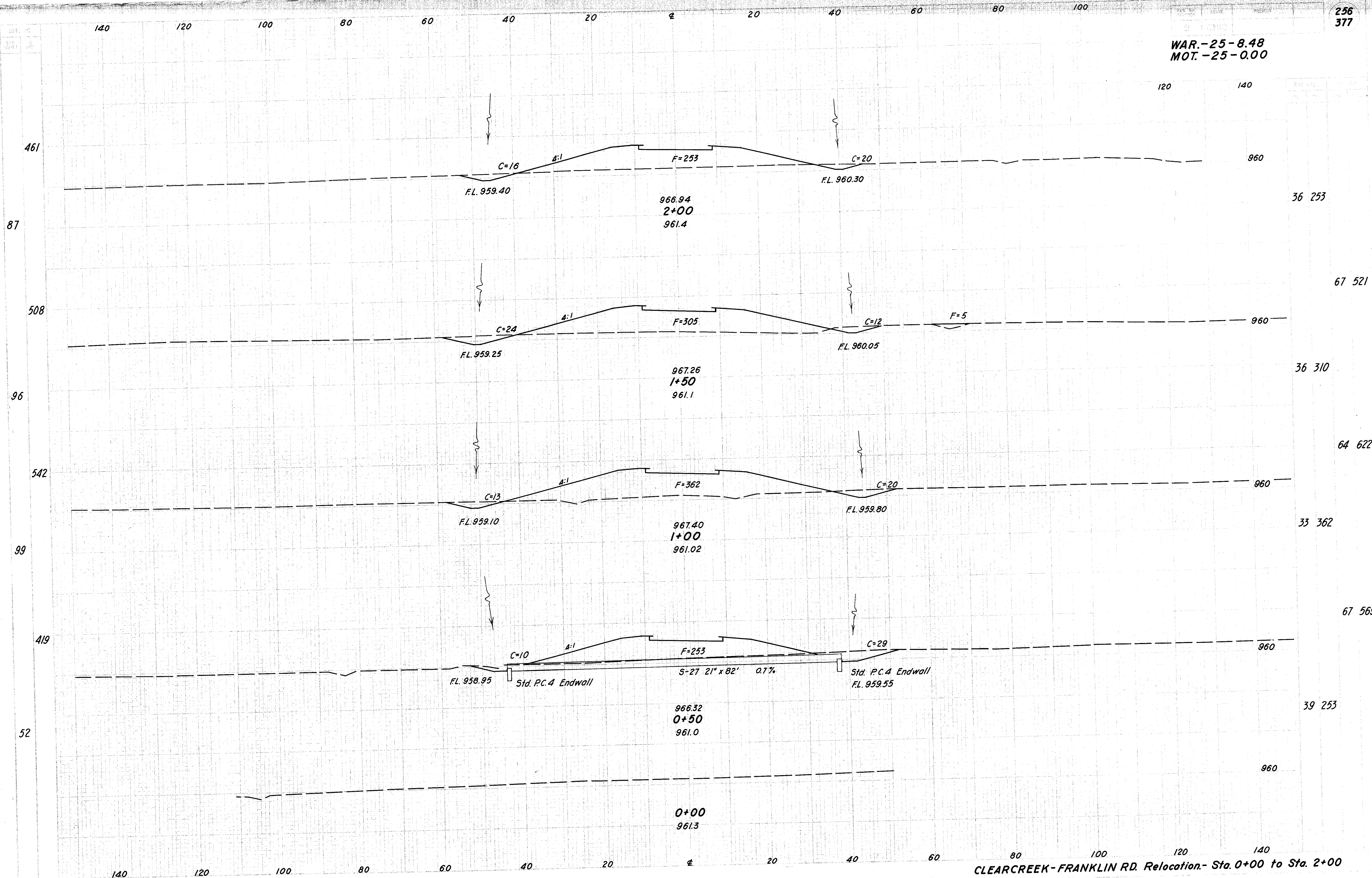


PAVEMENT								
Ref. No.	Station		Side	B-119	T-30	T-35	I-22	I-9
	From	To		Crushed Agg Base Course 6" Cu. Yd.	Bituminous Prime Coat Gal.	Asphaltic Concrete Surface Course 1 1/2" Cu. Yd.	Subbase 4" Cu. Yd.	Stone Underdrain No. 2 L.F.
I-P	10+00	15+50		159	334	41.4	113	108
Totals				159	334	41.4	113	108

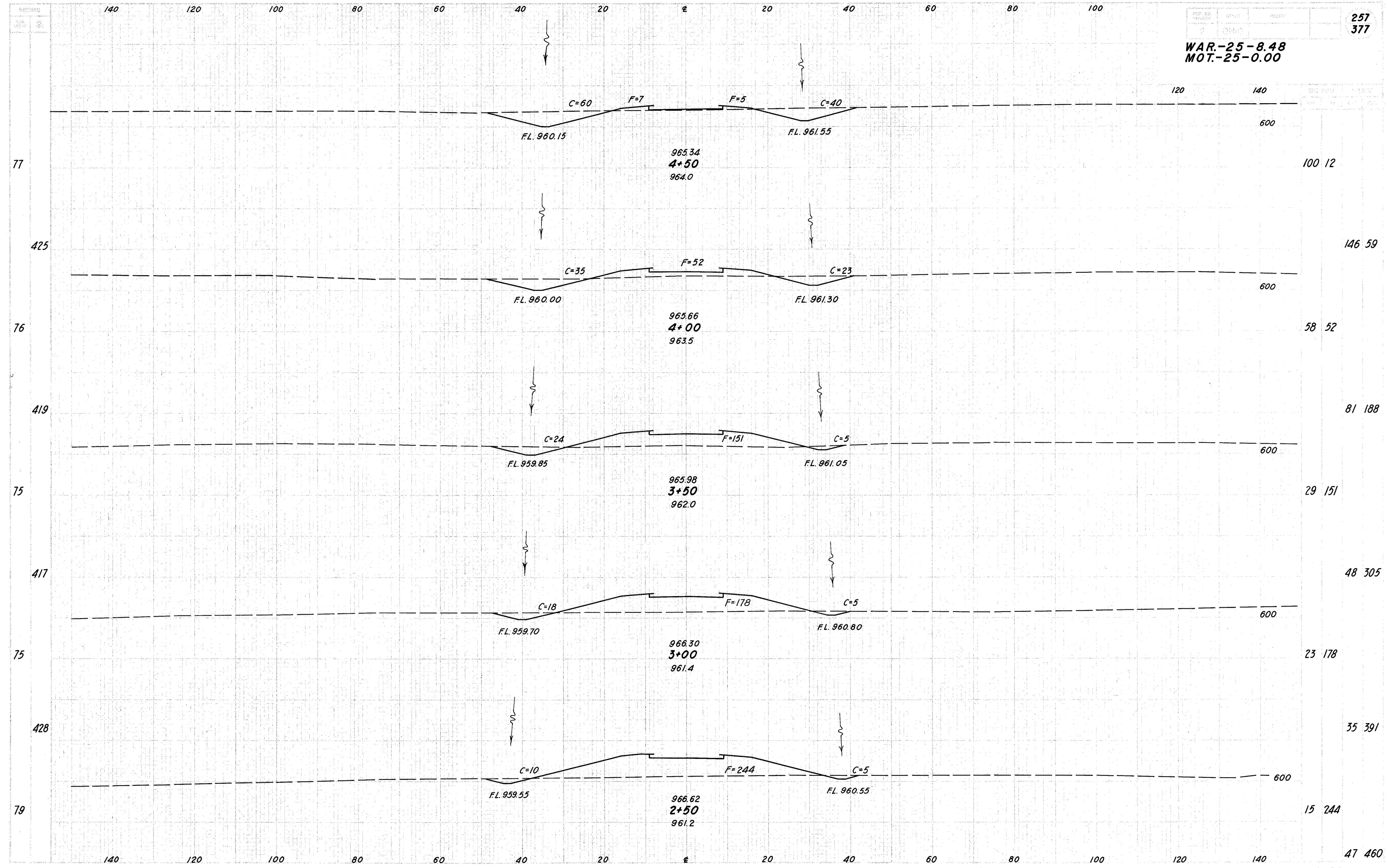


STRUCTURES (20' Span and Under)							
Ref. No.	Station	Side	E-2 Excavation for Structures Cu. Yd.	E-3 Channel Excavation Cu. Yd.	S-1 Concrete for Structures Class E Cu. Yd.	S-27 Pipe for Rdwy. Culk. Sec. M-6.6(b) or M-6.8(b) 15" Lin. Ft.	See Sheet No.
I-S	11+50	RtoL	10	2	0.5	64	260
Totals			10	2	0.5	64	

WAR.-25-8.48
MOT.-25-0.00

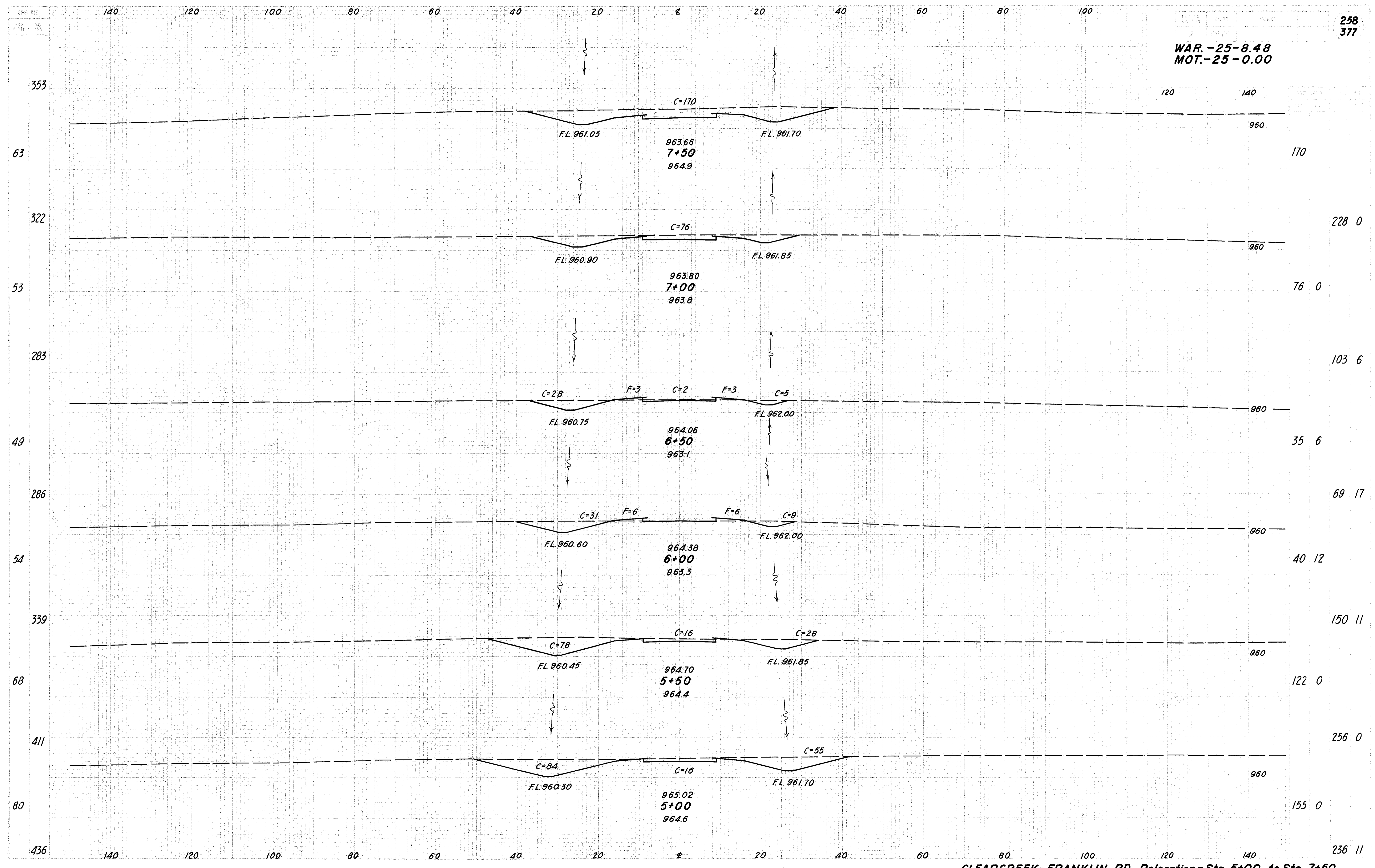


WAR.-25-8.48
MOT.-25-0.00

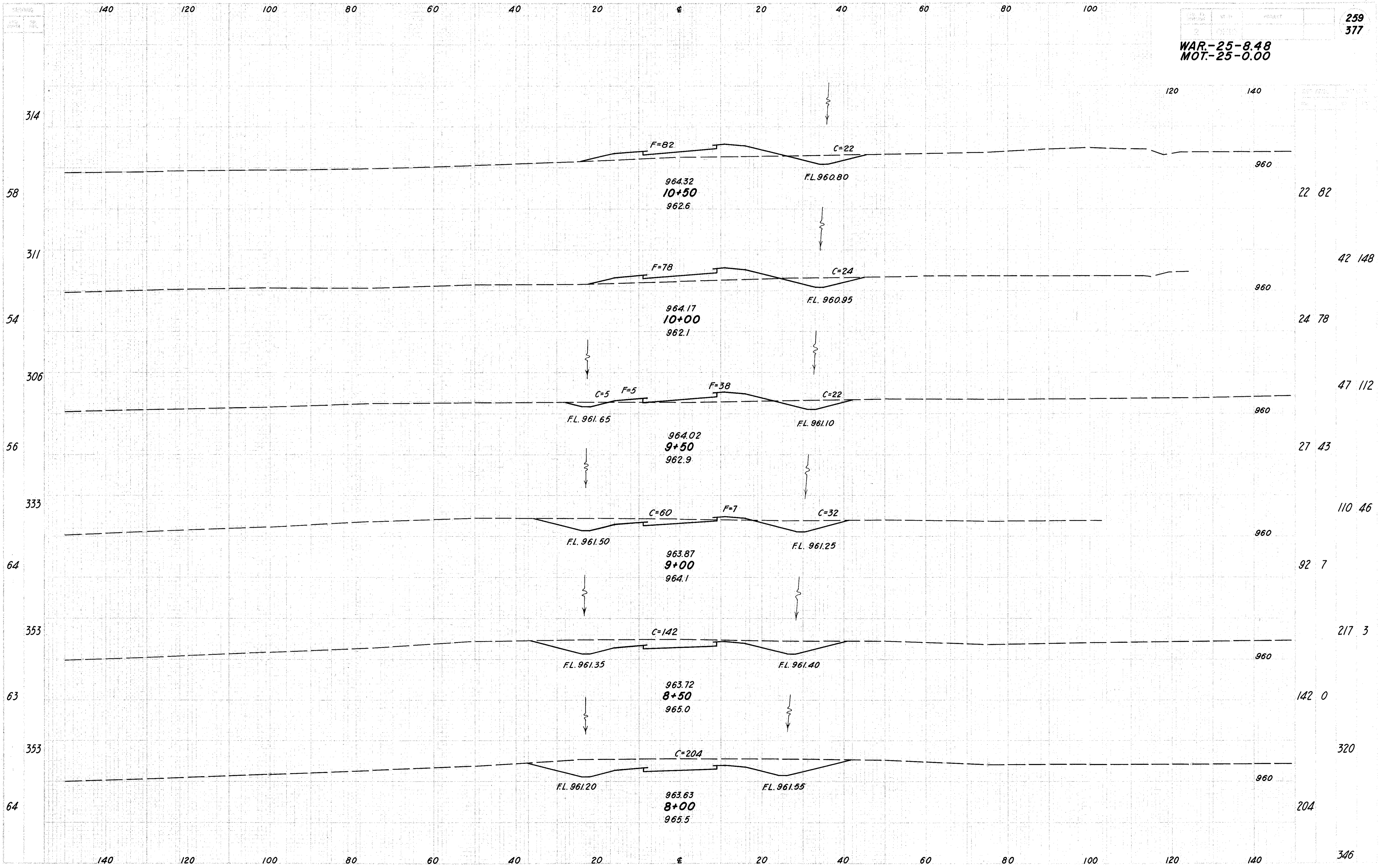


CLEARCREEK-FRANKLIN RD. Relocation.- Sta. 2+50 to Sta. 4+50

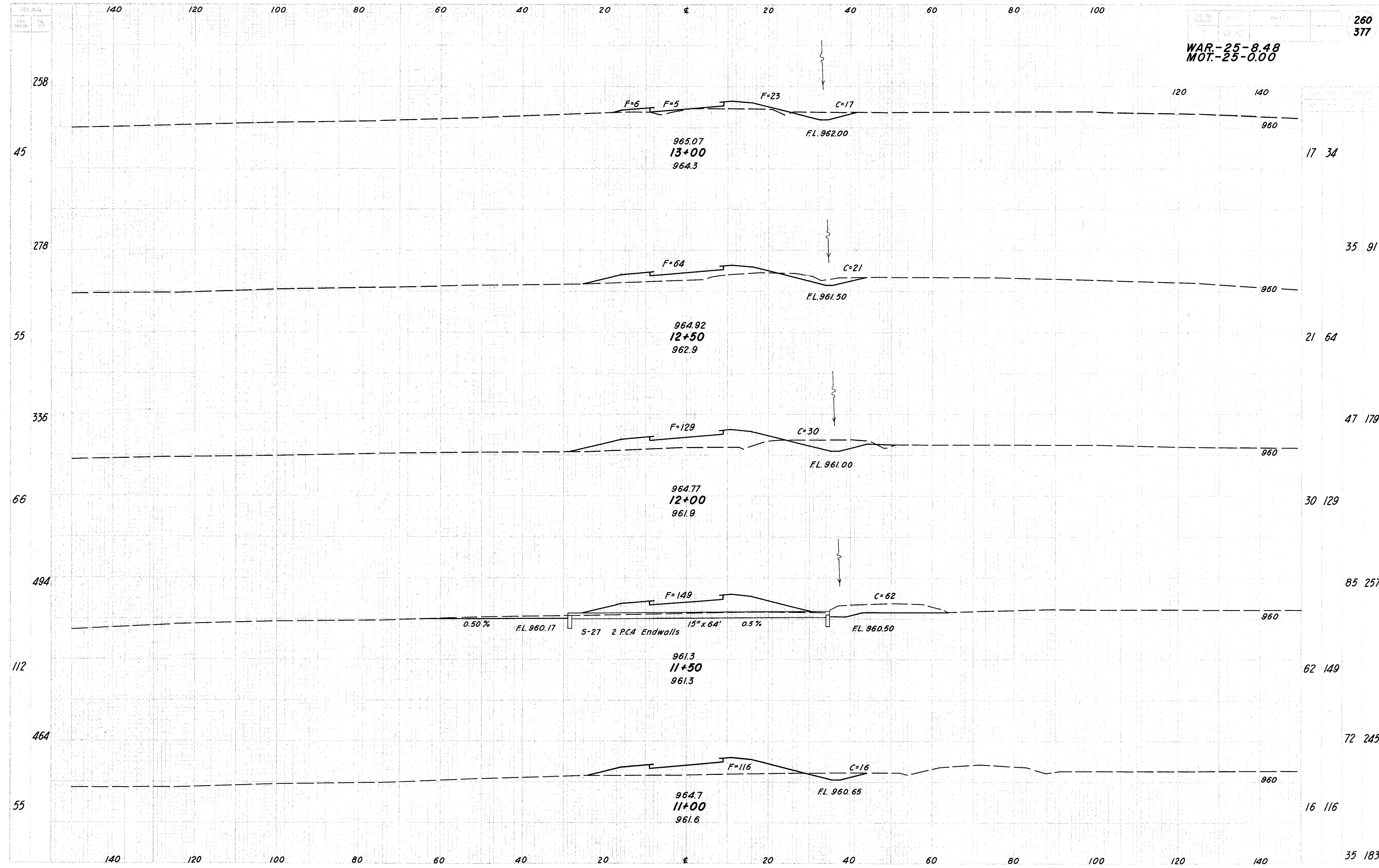
WAR. -25-8.48
MOT. -25-0.00



CLEARCREEK-FRANKLIN RD. Relocation.- Sta. 5+00 to Sta. 7+50



CLEARCREEK-FRANKLIN RD. Relocation.- Sta. 8+00 to Sta. 10+50



WAR-25-8.48
MOT.-25-0.00

SUPERELEVATION TABLES

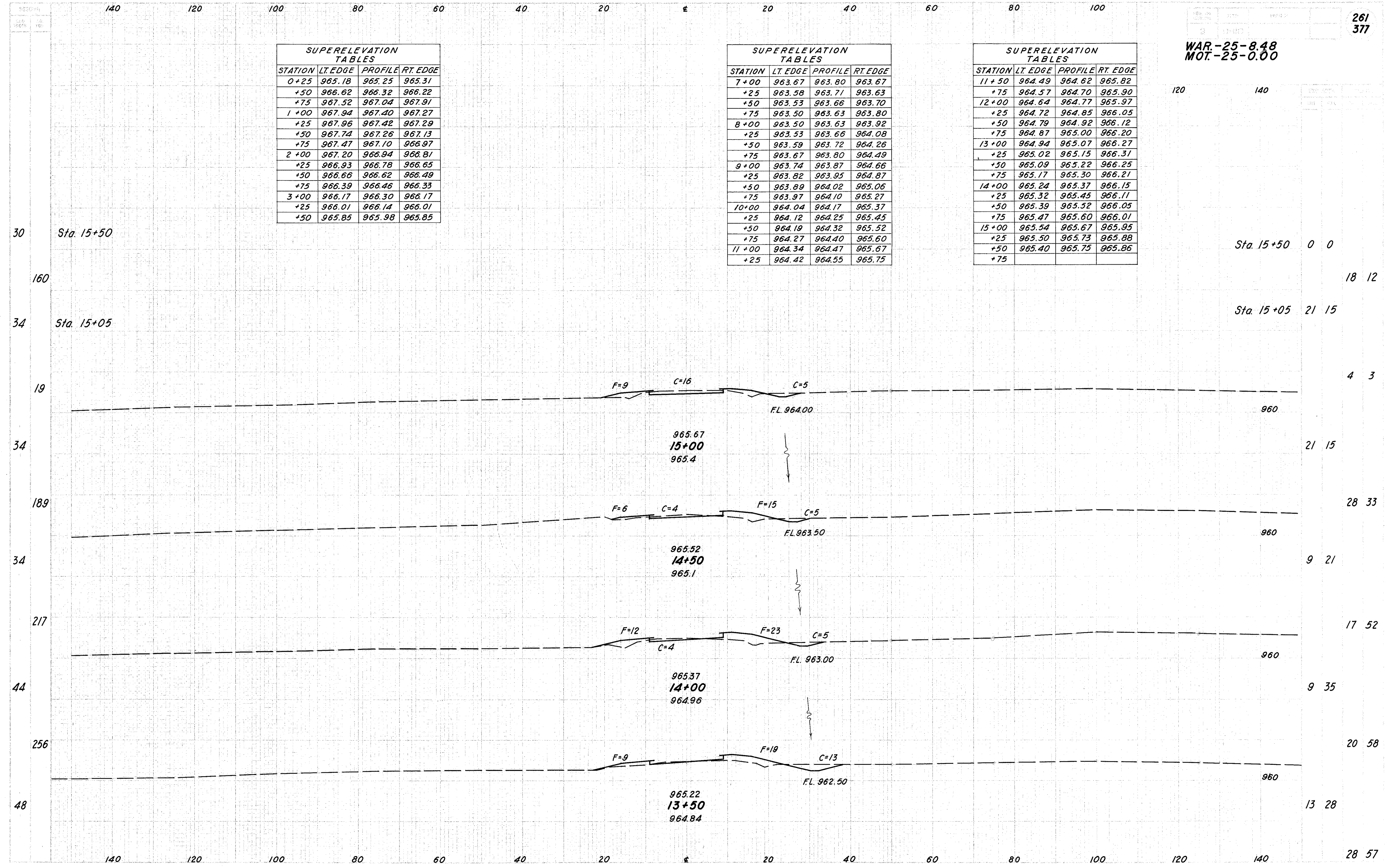
STATION	LT. EDGE	PROFILE	RT. EDGE
0+25	965.18	965.25	965.31
+50	966.62	966.32	966.22
+75	967.52	967.04	967.91
1+00	967.94	967.40	967.27
+25	967.96	967.42	967.29
+50	967.74	967.26	967.13
+75	967.47	967.10	966.97
2+00	967.20	966.94	966.81
+25	966.93	966.78	966.65
+50	966.66	966.62	966.49
+75	966.39	966.46	966.33
3+00	966.17	966.30	966.17
+25	966.01	966.14	966.01
+50	965.85	965.98	965.85

SUPERELEVATION TABLES

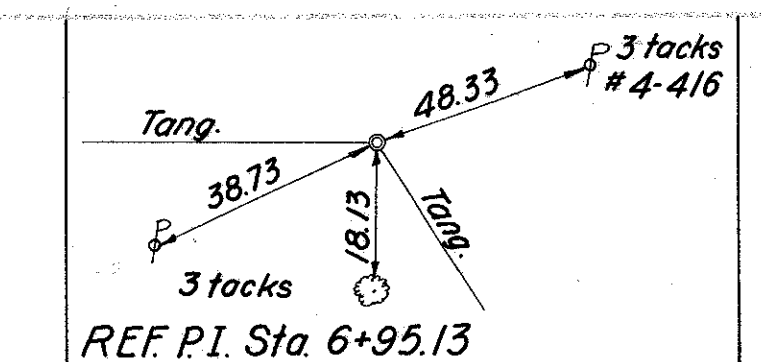
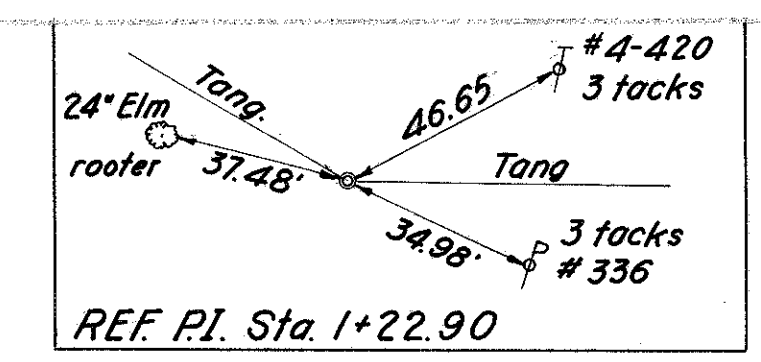
STATION	LT. EDGE	PROFILE	RT. EDGE
7+00	963.67	963.80	963.67
+25	963.58	963.71	963.63
+50	963.53	963.66	963.70
+75	963.50	963.63	963.80
8+00	963.50	963.63	963.92
+25	963.53	963.66	964.08
+50	963.59	963.72	964.26
+75	963.67	963.80	964.49
9+00	963.74	963.87	964.66
+25	963.82	963.95	964.87
+50	963.89	964.02	965.06
+75	963.97	964.10	965.27
10+00	964.04	964.17	965.37
+25	964.12	964.25	965.45
+50	964.19	964.32	965.52
+75	964.27	964.40	965.60
11+00	964.34	964.47	965.67
+25	964.42	964.55	965.75

SUPERELEVATION TABLES

STATION	LT. EDGE	PROFILE	RT. EDGE
11+50	964.49	964.62	965.82
+75	964.57	964.70	965.90
12+00	964.64	964.77	965.97
+25	964.72	964.85	966.05
+50	964.79	964.92	966.12
+75	964.87	965.00	966.20
13+00	964.94	965.07	966.27
+25	965.02	965.15	966.31
+50	965.09	965.22	966.25
+75	965.17	965.30	966.21
14+00	965.24	965.37	966.15
+25	965.32	965.45	966.11
+50	965.39	965.52	966.05
+75	965.47	965.60	966.01
15+00	965.54	965.67	965.95
+25	965.50	965.73	965.88
+50	965.40	965.75	965.86
+75			



WAR. - 25 - 8.48
MOT. - 25 - 0.00

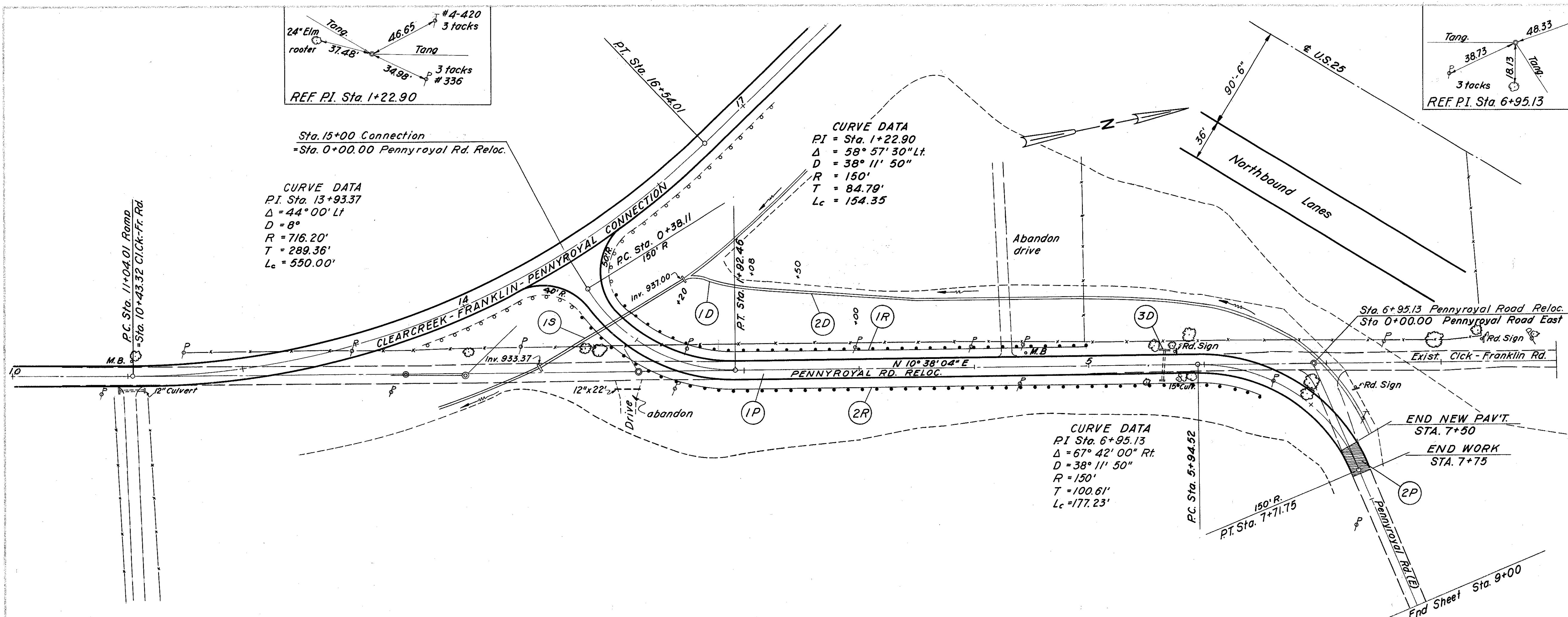


Sta. 15+00 Connection
=Sta. 0+00.00 Pennyroyal Rd. Reloc.

CURVE DATA
PI Sta. 13+93.37
Δ = 44° 00' Lt
D = 8°
R = 716.20'
T = 289.36'
Lc = 550.00'

CURVE DATA
PI = Sta. 1+22.90
Δ = 58° 57' 30" Lt
D = 38° 11' 50"
R = 150'
T = 84.79'
Lc = 154.35

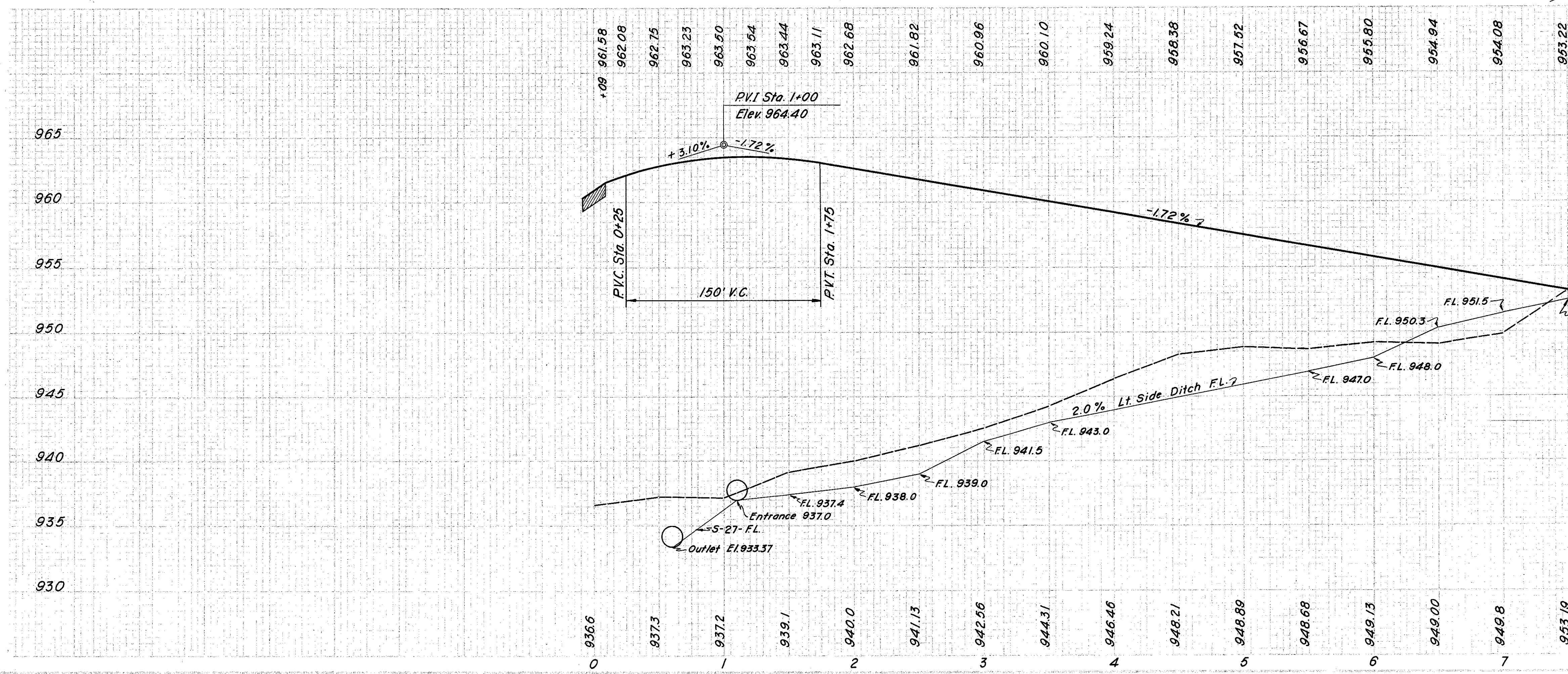
CURVE DATA
PI Sta. 6+95.13
Δ = 67° 42' 00" Rt
D = 38° 11' 50"
R = 150'
T = 100.61'
Lc = 177.23'



DRAINAGE						
Ref. No.	Station		Side	L-10 Sodding		S-24 Removal of Existing Structures Lump Sum
	From	To		Width L.F.	S.Y.	
1 D	1+20	2+08	L	3	19	
2 D	2+50	3+00	L	3	17	
3 D	5+65		E			Lump
Totals					36	Lump

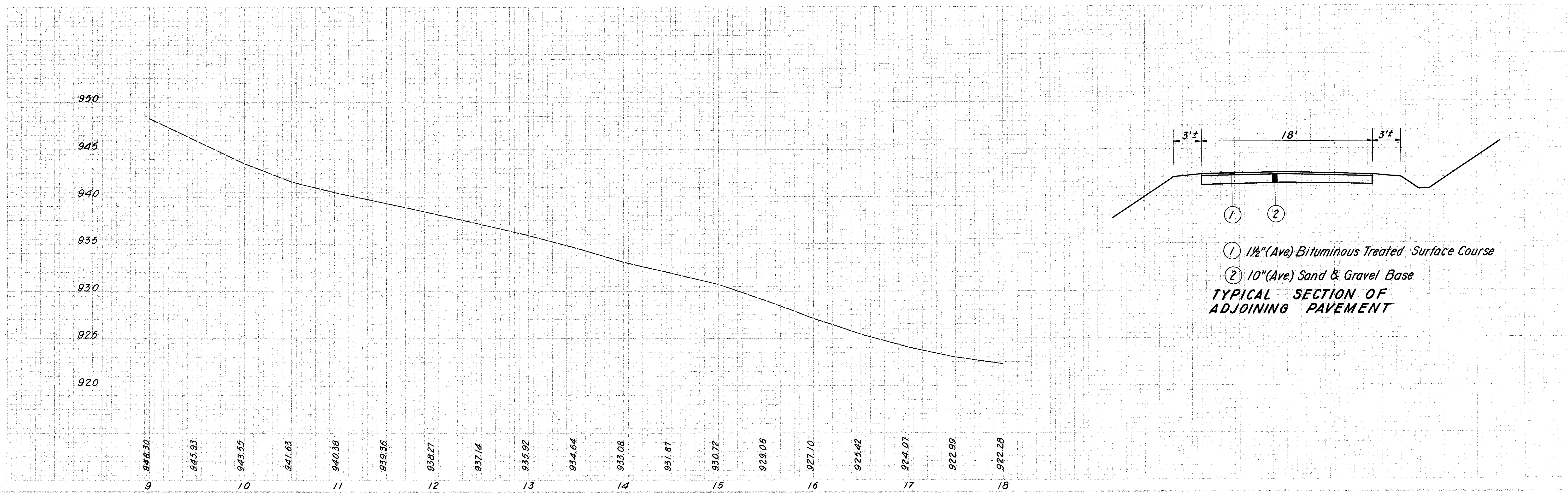
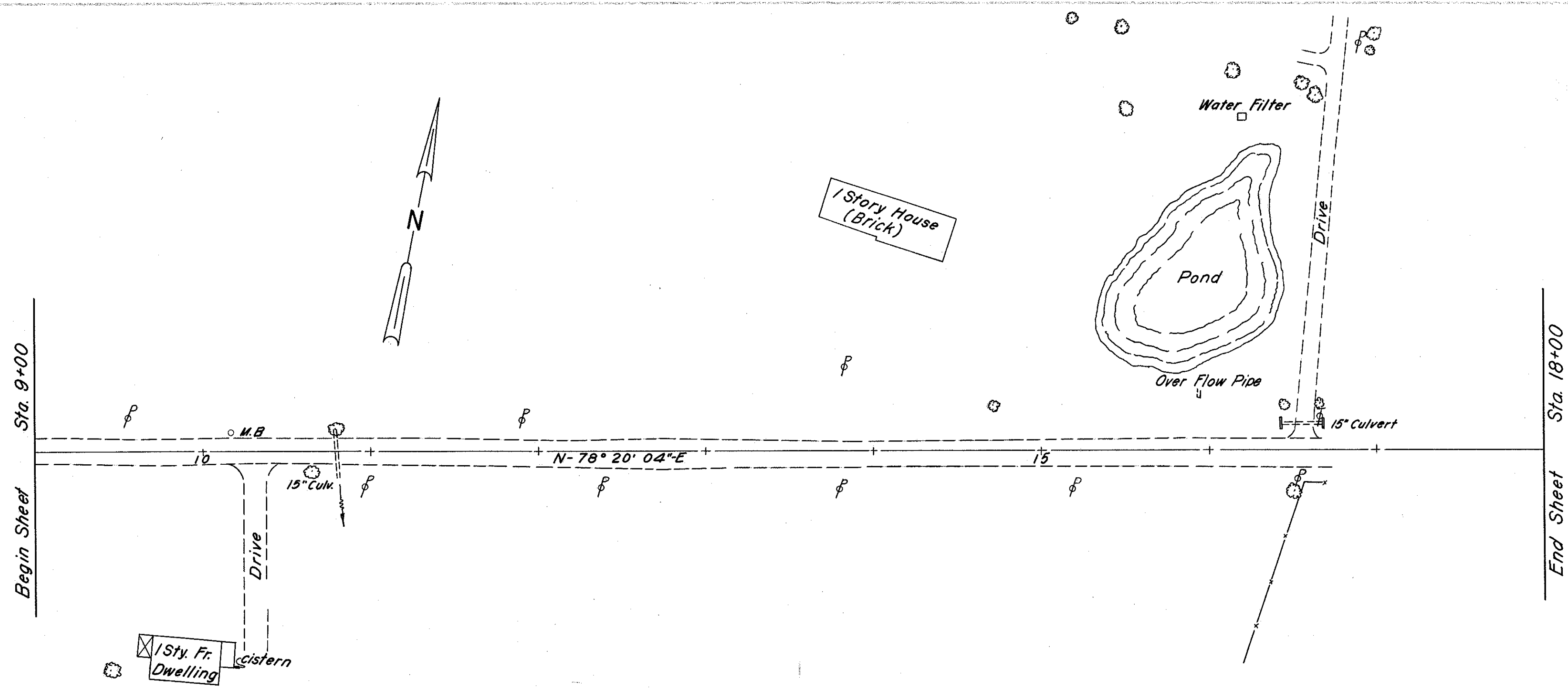
ROADWAY				
Ref. No.	Station		Side	I-15 Guard Rail Steel Beam Type Deep Standard L.F.
	From	To		
1 R	0+55	5+00	L	425
2 R	0+55	6+50	R	612.5
Total				1037.5

PAVEMENT								
Ref. No.	Station		Side	B-119 Crushed Agg. Base Course 6" C.Y.	T-30 Bituminous Prime Coat Gal.	T-35 Asphaltic Concrete Surface Course 1 1/2" Cu. Yd.	I-22 Subbase 4" C.Y.	I-9 Stone Underdrain No.2 L.F.
	From	To		253	532	1.0	179	288
1 P	0+09	7+50						
2 P	7+50	7+75						
Totals				253	532	60.5	179	288



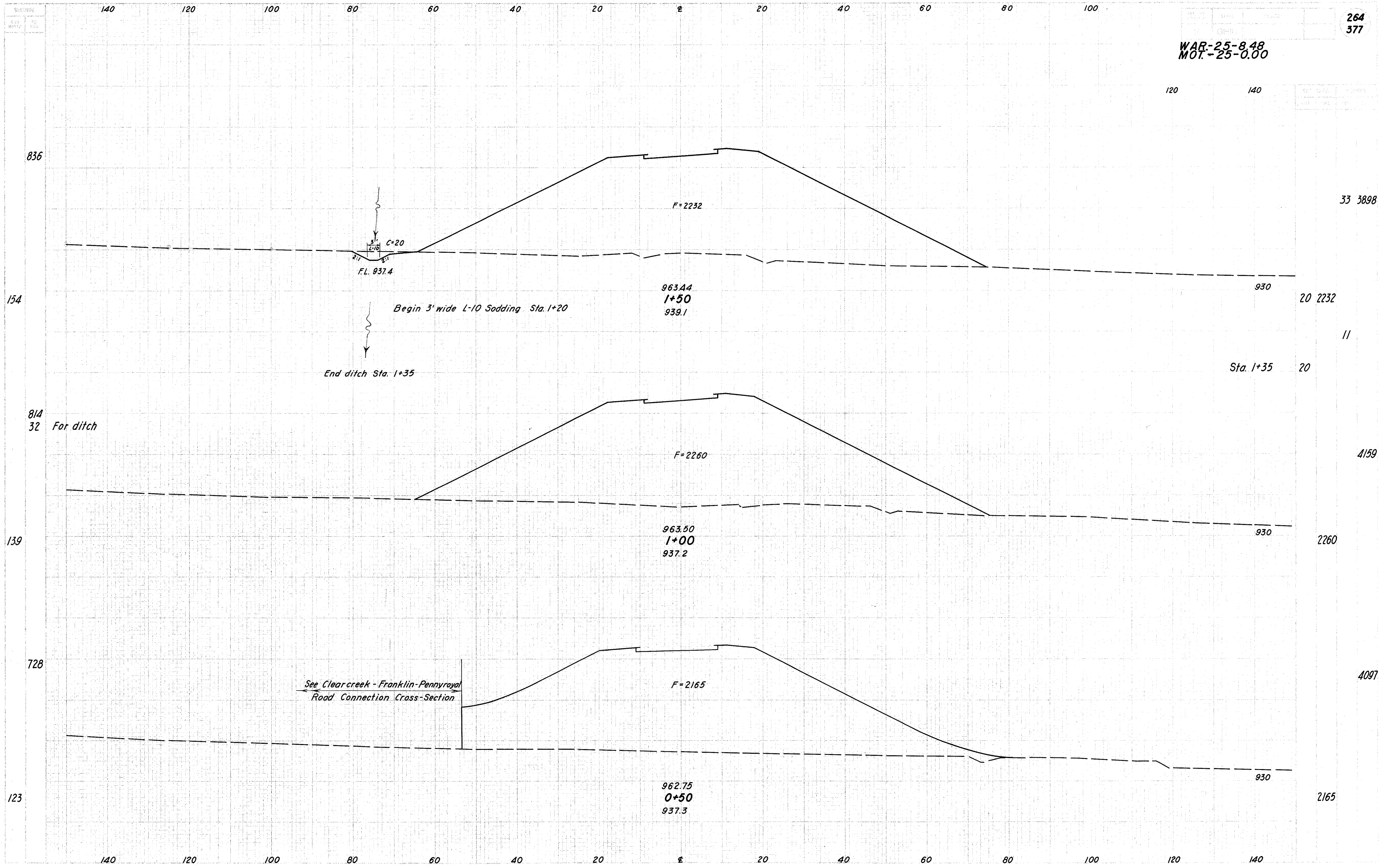
STRUCTURES (20' Span and Under)						
Ref. No.	Station	Side	E-2 Excavation for Structures C.Y.	S-1 Concrete for Structures Class E C.Y.	S-27 Pipe for Rdwy. Culv. Sect. 1106.6(d) 18" L.F.	See Sheet No.
			35	0.6	152	
1-5	0+75	L to R				3/0
Totals			35	0.6	152	

WAR. - 25 - 8.48
MOT. - 25 - 0.00

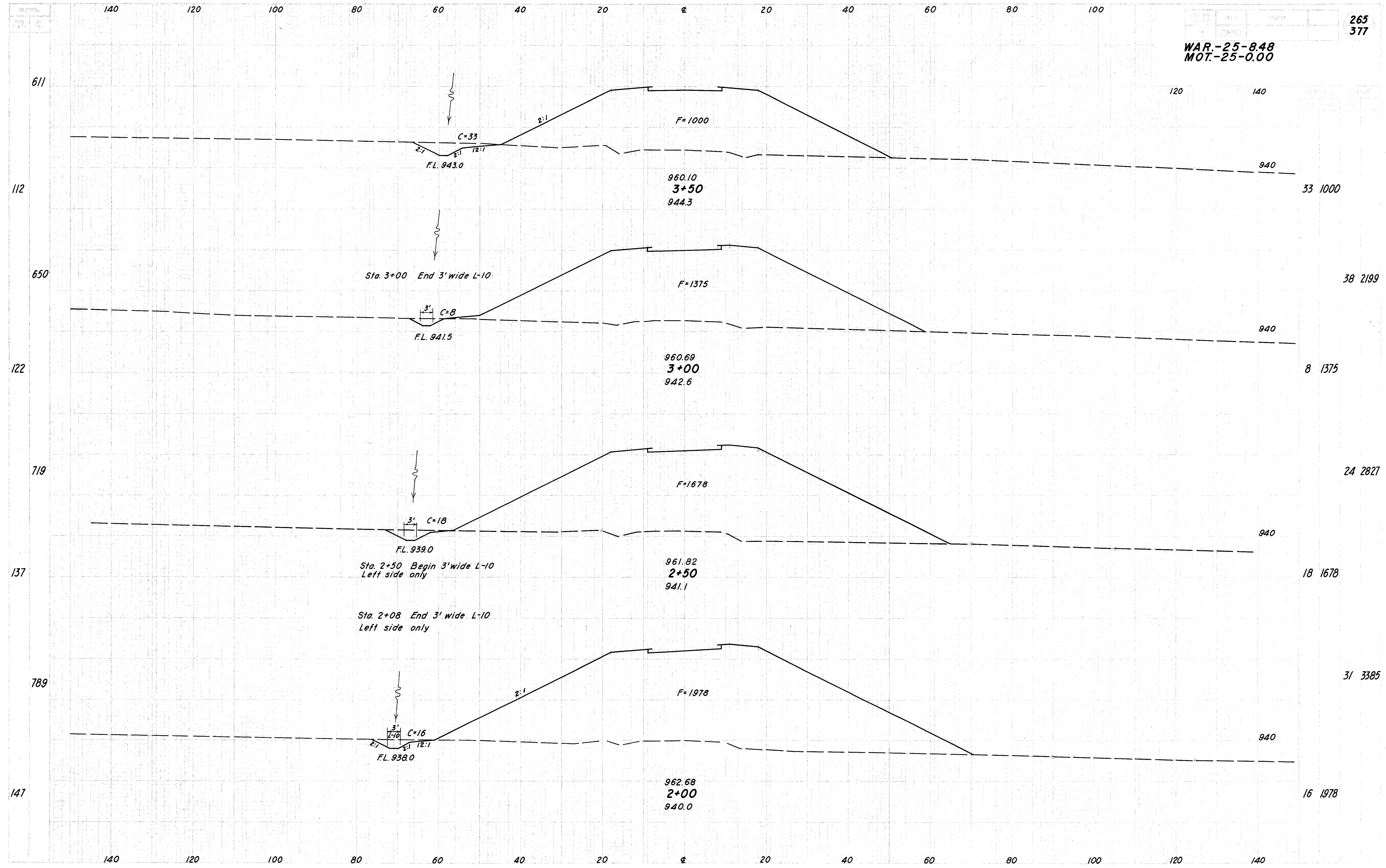


- ① 1½" (Ave) Bituminous Treated Surface Course
 - ② 10" (Ave) Sand & Gravel Base
- TYPICAL SECTION OF ADJOINING PAVEMENT**

WAR-25-8.48
MOT.-25-0.00

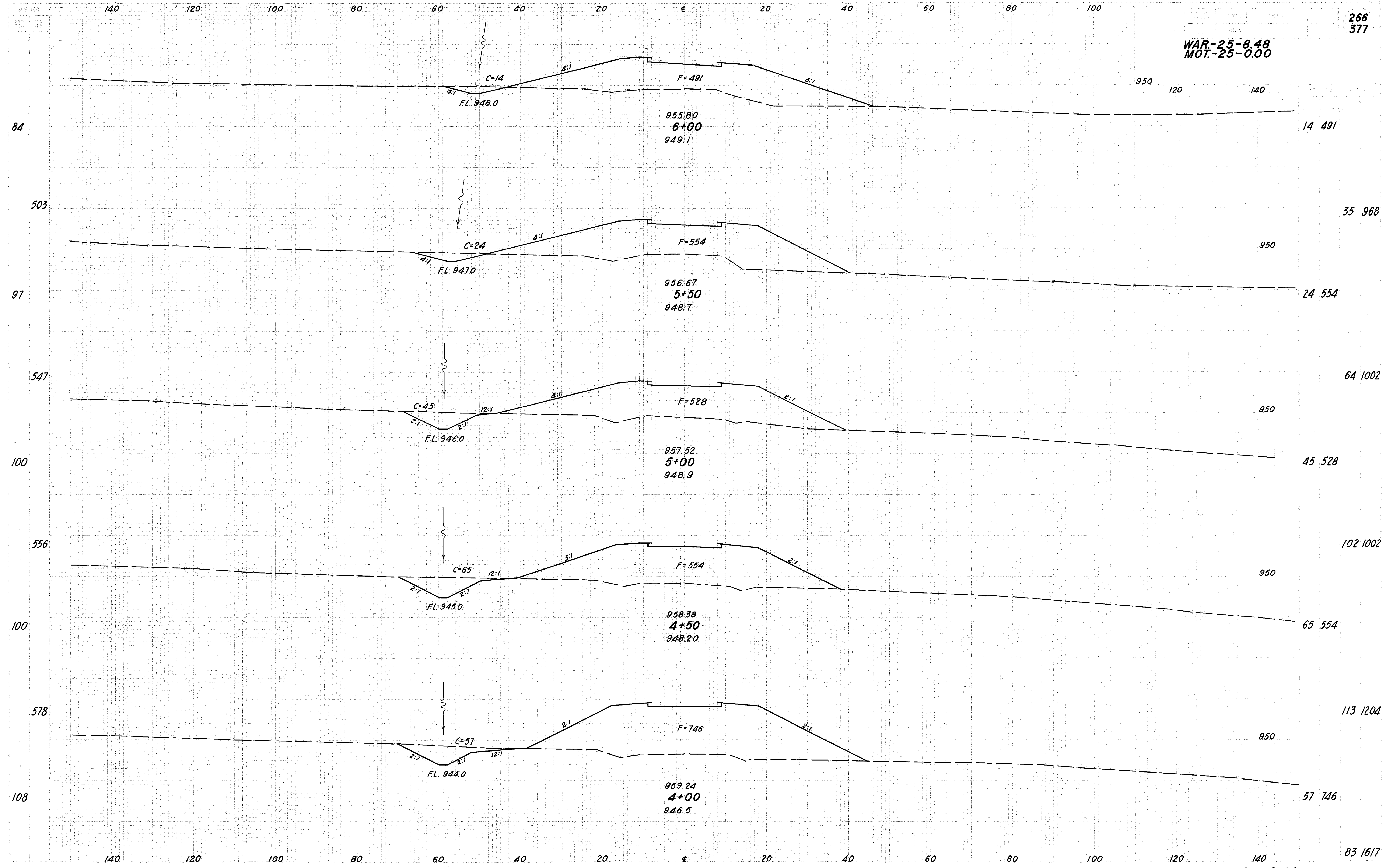


PENNYROYAL RD. Relocation - Sta. 0+50 to Sta. 1+50



PENNYROYAL RD. Relocation.- Sta. 2+00 to Sta. 3+50

WAR-25-8.48
MOT-25-0.00



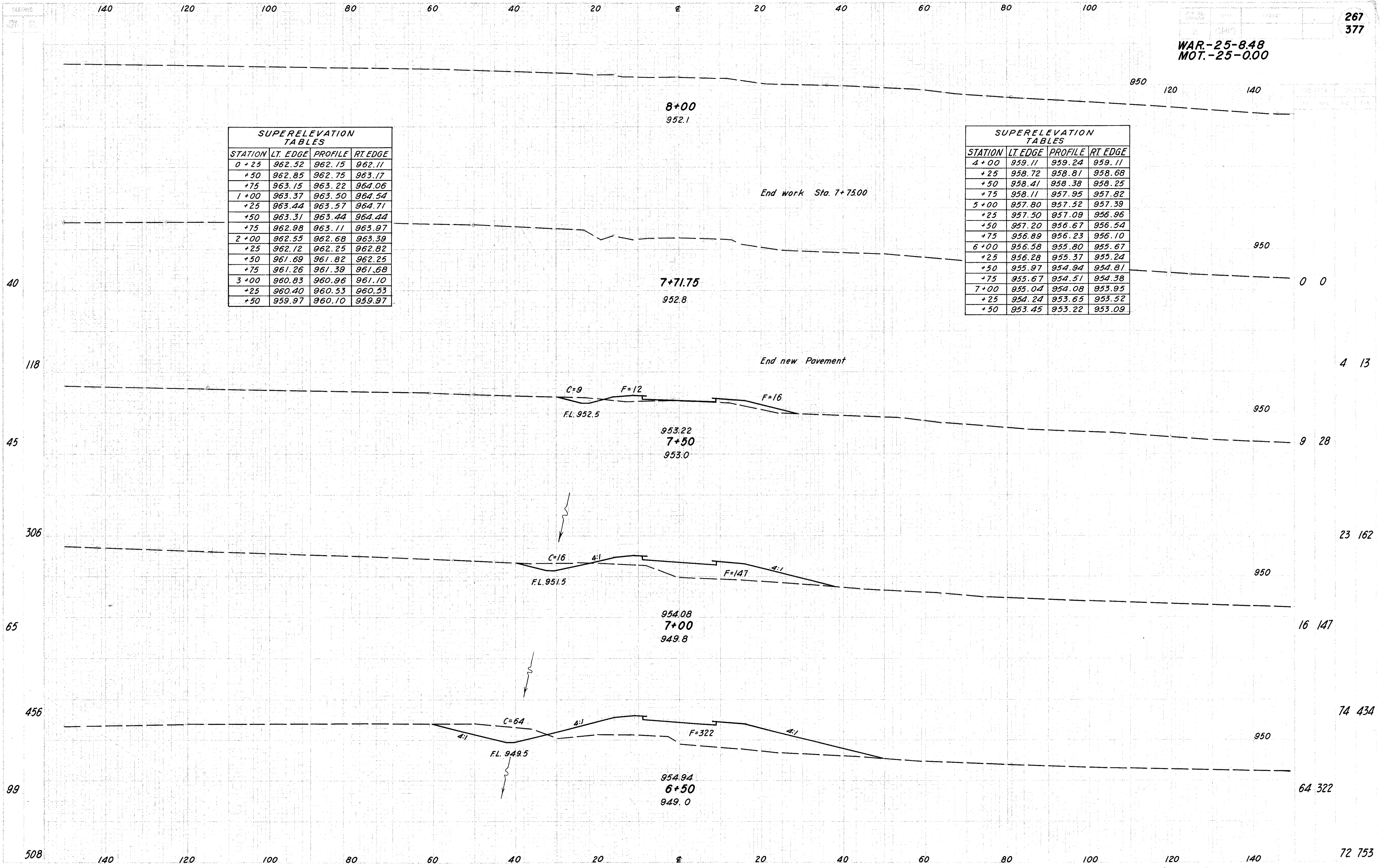
WAR.-25-848
MOT.-25-000

SUPERELEVATION TABLES

STATION	LT. EDGE	PROFILE	RT. EDGE
0+25	962.52	962.15	962.11
+50	962.85	962.75	963.17
+75	963.15	963.22	964.06
1+00	963.37	963.50	964.54
+25	963.44	963.57	964.71
+50	963.31	963.44	964.44
+75	962.98	963.11	963.97
2+00	962.55	962.68	963.39
+25	962.12	962.25	962.82
+50	961.69	961.82	962.25
+75	961.26	961.39	961.68
3+00	960.83	960.96	961.10
+25	960.40	960.53	960.53
+50	959.97	960.10	959.97

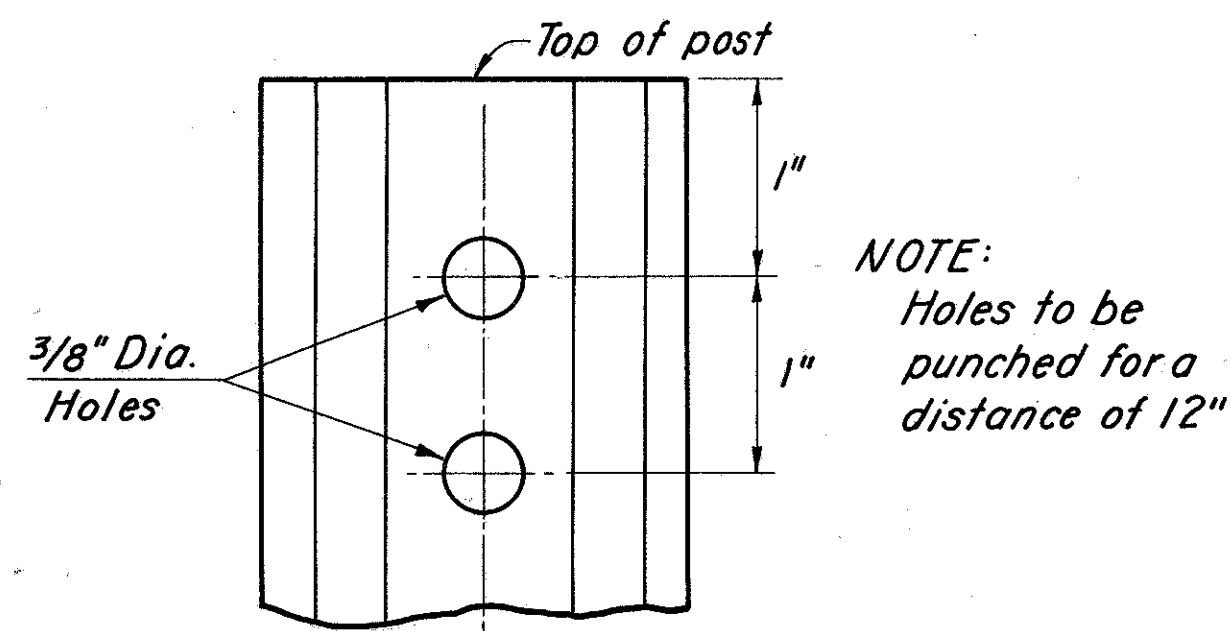
SUPERELEVATION TABLES

STATION	LT. EDGE	PROFILE	RT. EDGE
4+00	959.11	959.24	959.11
+25	958.72	958.81	958.68
+50	958.41	958.38	958.25
+75	958.11	957.95	957.82
5+00	957.80	957.52	957.39
+25	957.50	957.09	956.96
+50	957.20	956.67	956.54
+75	956.89	956.23	956.10
6+00	956.58	955.80	955.67
+25	956.28	955.37	955.24
+50	955.97	954.94	954.81
+75	955.67	954.51	954.38
7+00	955.04	954.08	953.95
+25	954.24	953.65	953.52
+50	953.45	953.22	953.09



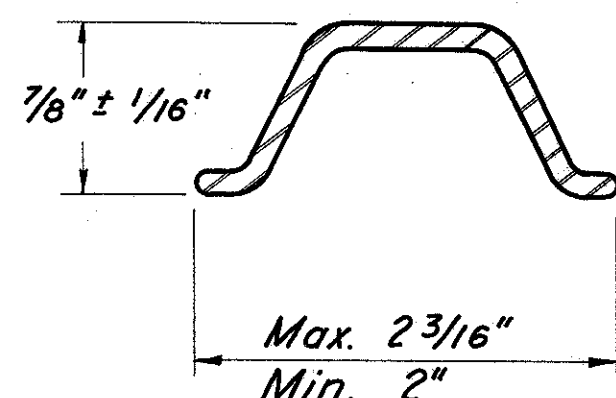
PENNYROYAL RD. Relocation.- Sta. 6+50 to Sta. 8+00

WAR-25-8.48
MOT.-25-0.00



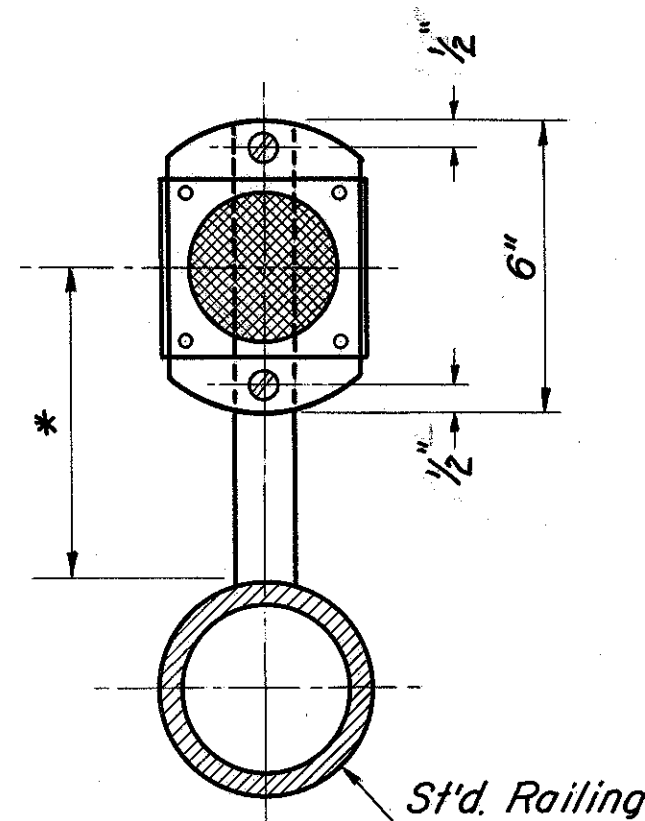
NOTE:
Holes to be punched for a distance of 12"

Length of post.....7'-6" ± 1/4"
No. Holes.....12 per post
Weight.....1.12 lbs. per ft.



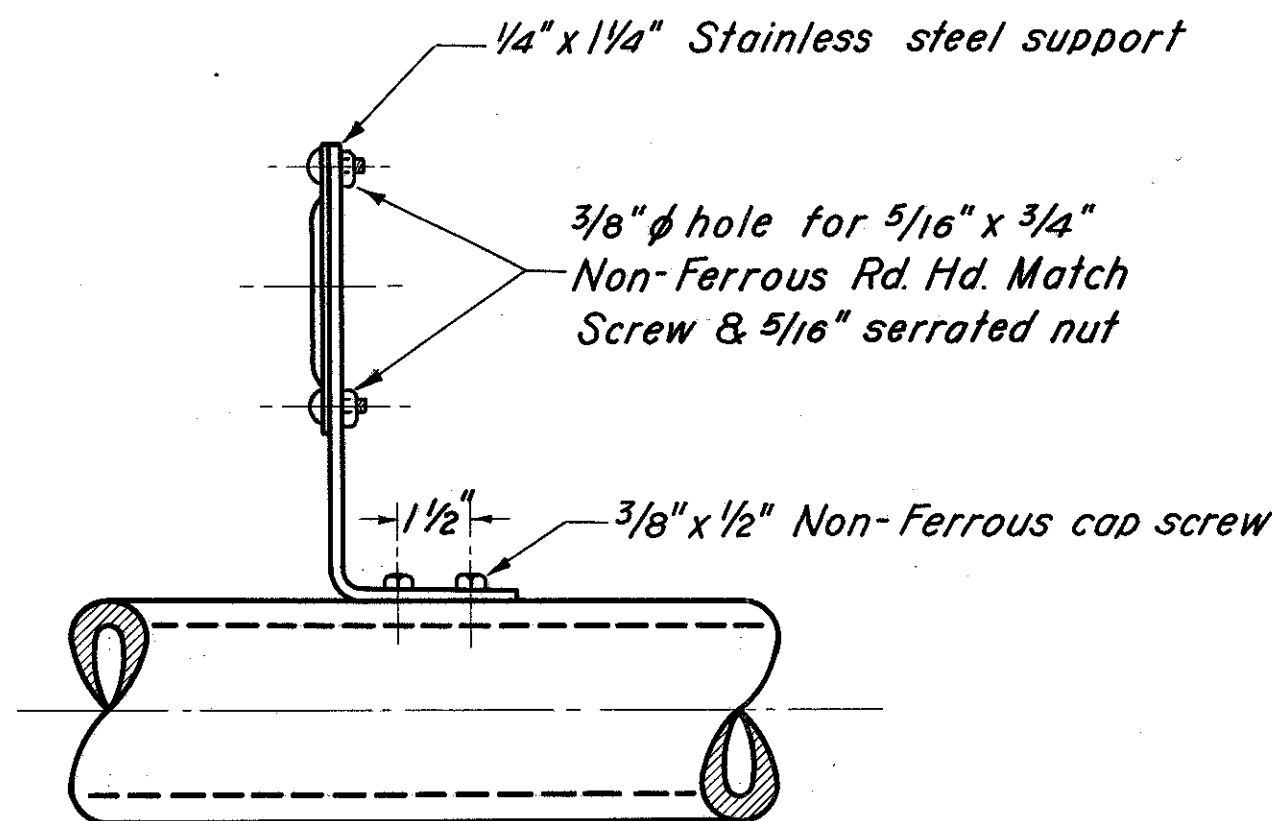
SECTION VIEW

DETAIL STEEL DRIVE POST FOR DELINEATOR

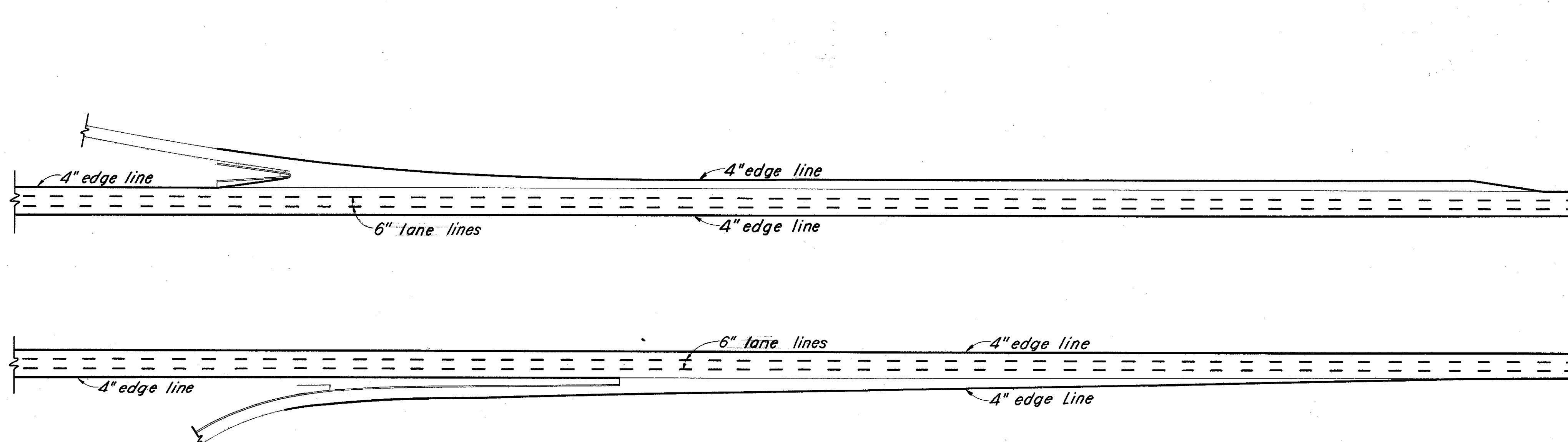


Std. Railing

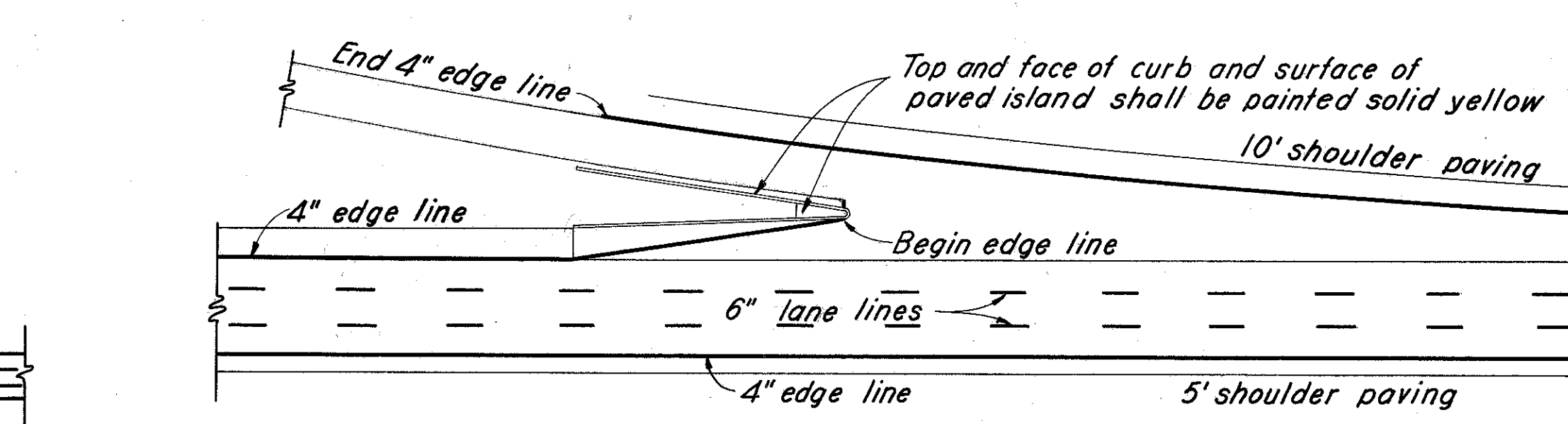
* Length of steel support shall be such that the center of the delineator will be 48" above the elevation of a point in the bridge deck located 12' from the face of the parapet.



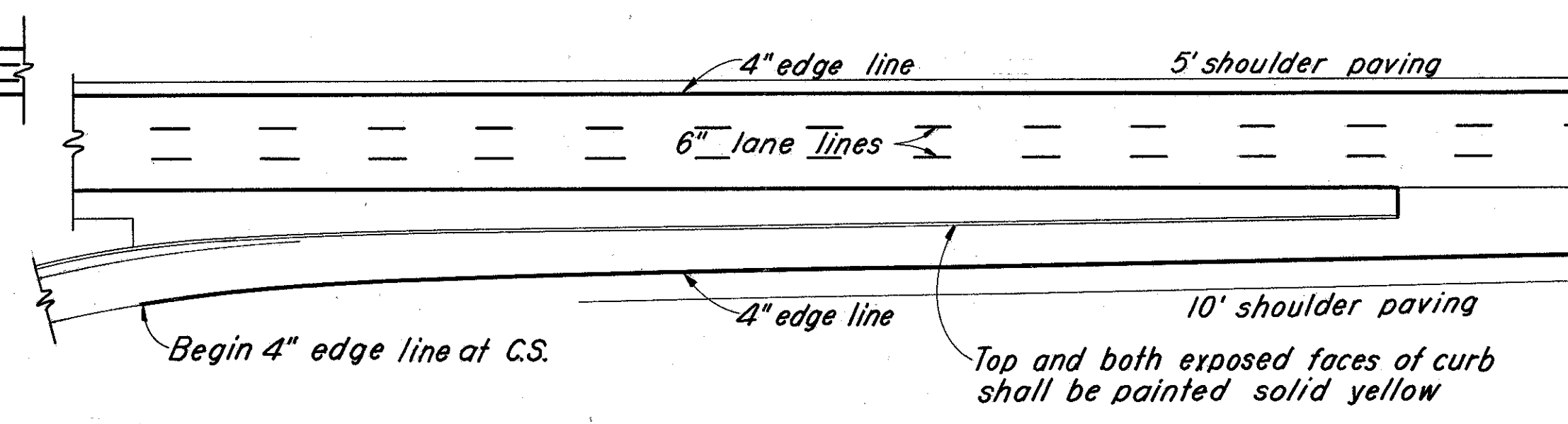
BRIDGE DELINEATOR



TYPICAL DETAILS
EDGE LINE STRIPING
LANE LINE STRIPING
CURB & ISLAND PAINTING

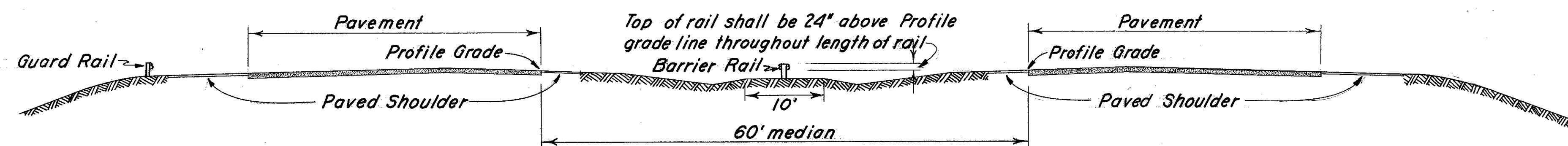
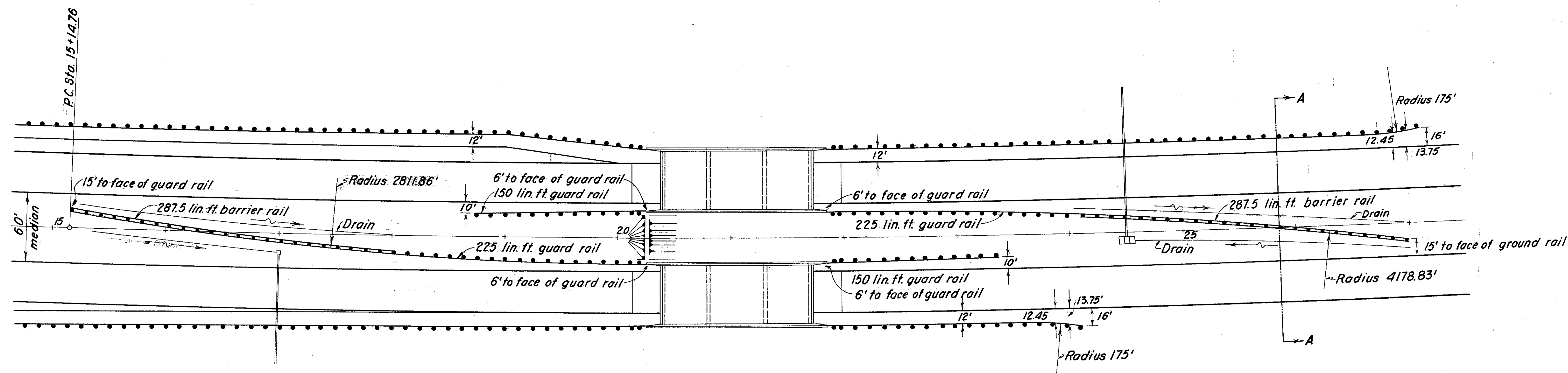


EXIT TERMINAL



ENTRANCE TERMINAL

WAR.-25-8.48
MOT.-25-0.00

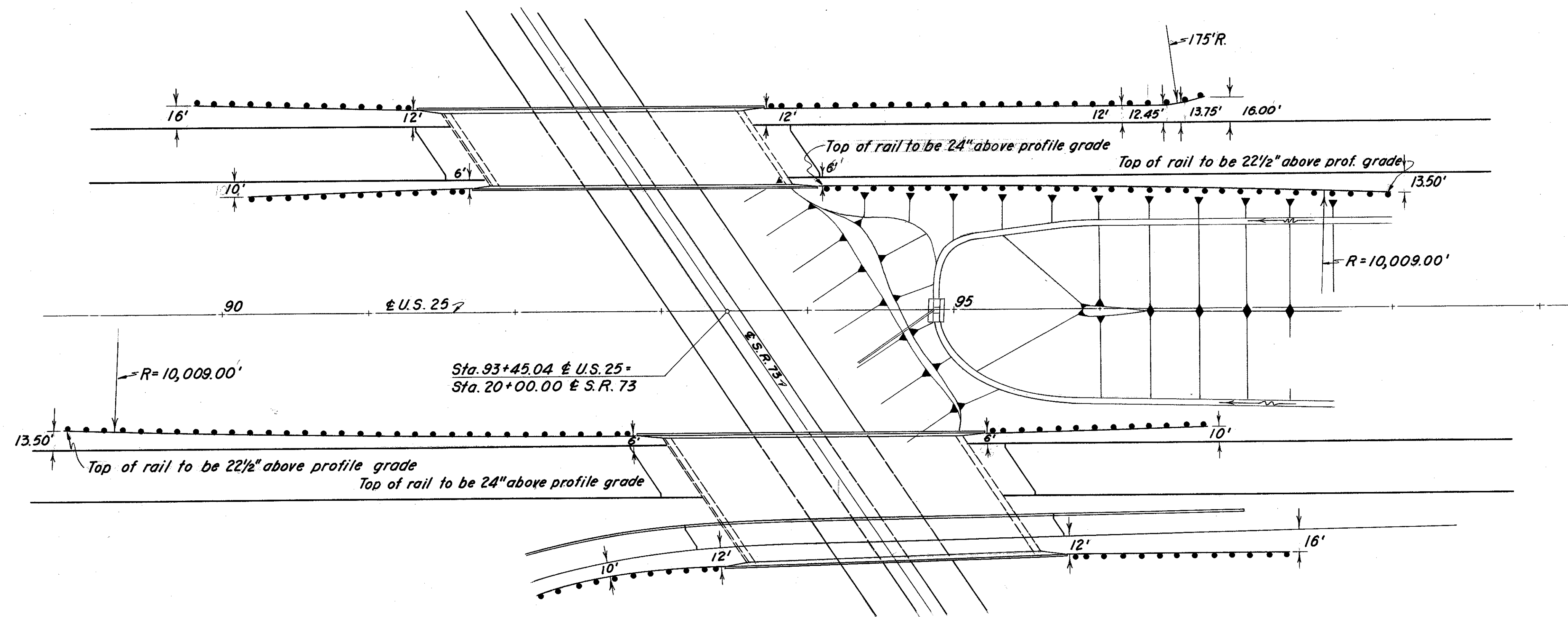


SECTION A-A

DISTANCE BETWEEN EDGE OF PAVEMENT AND FACE OF GUARD RAIL			
POST	OFFSET	POST	OFFSET
1/2	6.01	21	16.25
1	6.02	22	17.24
2	6.09	23	18.29
3	6.21	24	19.38
4	6.37	25	20.52
5	6.58	26	21.70
6	6.84	27	22.93
7	7.13	28	24.21
8	7.49	29	25.53
9	7.88	30	26.90
10	8.32	31	28.32
11	8.81	32	29.78
12	9.35	33	31.29
13	9.93	34	32.43
14	10.55	35	34.44
15	11.23	36	36.09
16	11.95	37	37.78
17	12.72	38	39.52
18	13.53	39	41.30
19	14.39	40	43.11
20	15.29	41	45.00

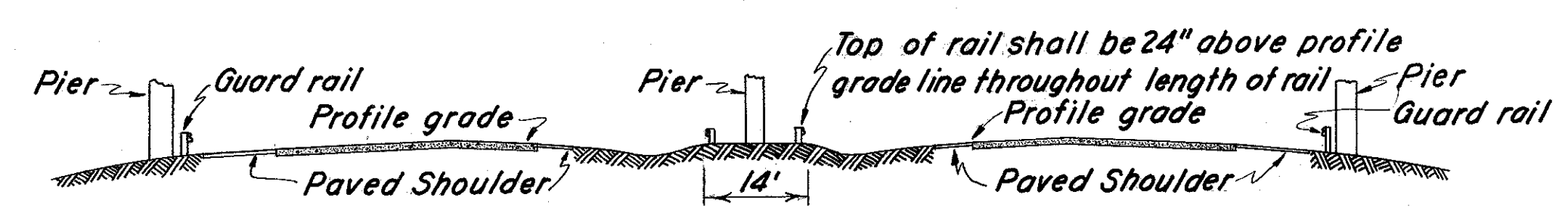
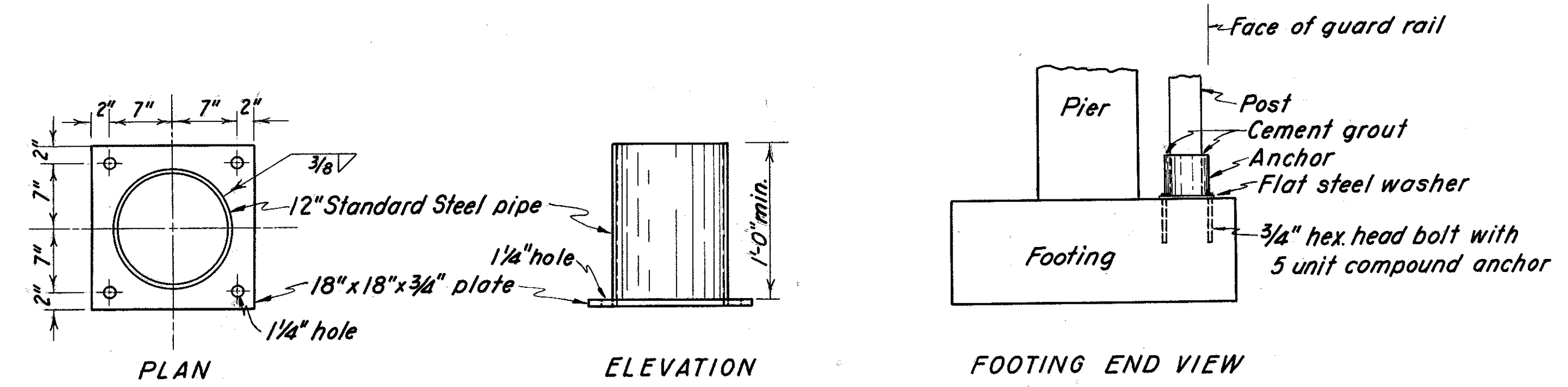
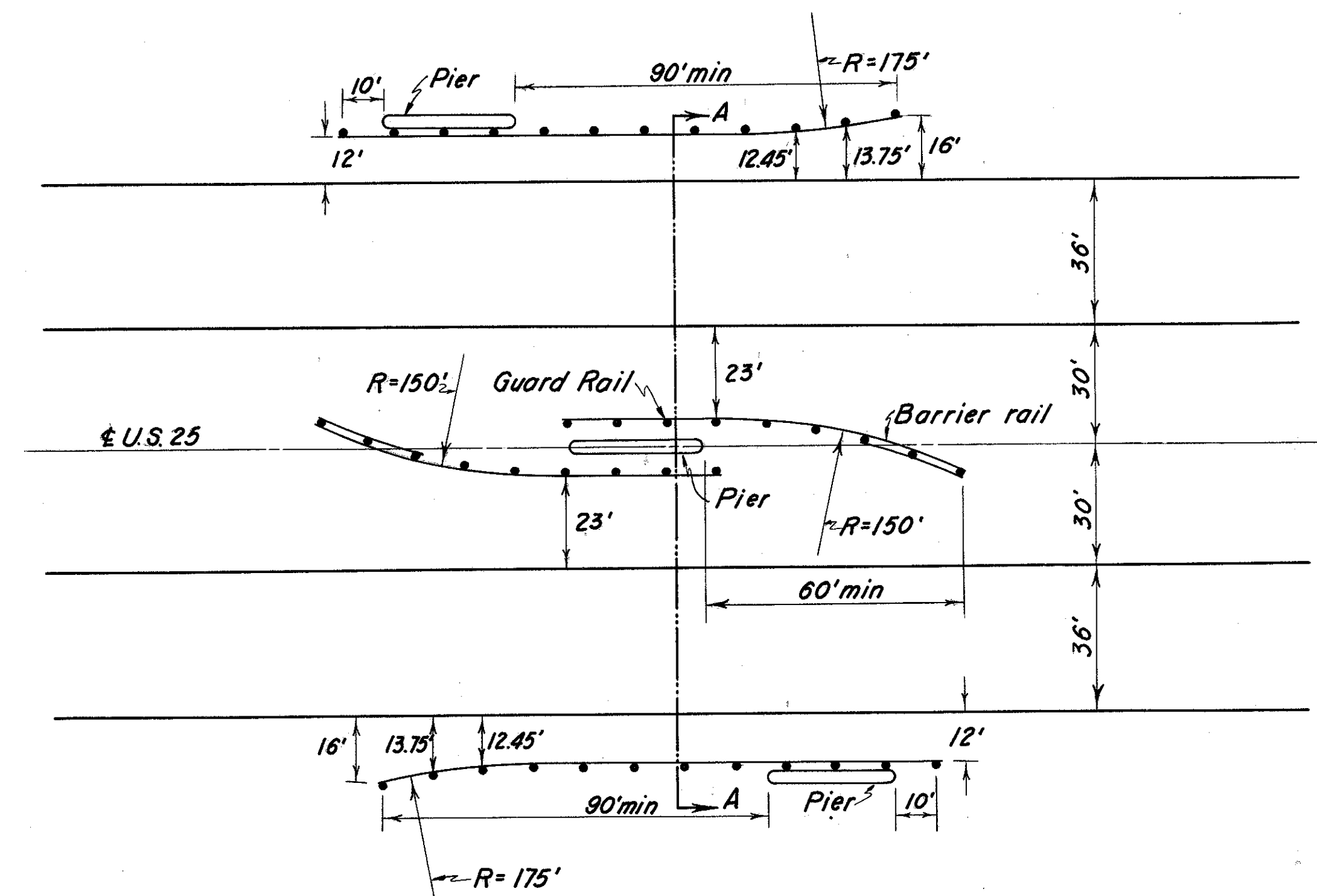
DISTANCE BETWEEN EDGE OF PAVEMENT AND FACE OF GUARD RAIL			
POST	OFFSET	POST	OFFSET
1/2	6.00	21	16.24
1	6.02	22	17.25
2	6.09	23	18.29
3	6.21	24	19.38
4	6.37	25	20.52
5	6.58	26	21.70
6	6.83	27	22.93
7	7.14	28	24.21
8	7.49	29	25.53
9	7.88	30	26.90
10	8.33	31	28.31
11	8.81	32	29.78
12	9.35	33	31.28
13	9.93	34	32.43
14	10.55	35	34.44
15	11.23	36	36.09
16	11.95	37	37.78
17	12.71	38	39.52
18	13.53	39	41.29
19	14.39	40	43.13
20	15.30	41	45.00

WAR.-25-8.48
MOT.-25-0.00



DISTANCE BETWEEN EDGE OF PAVEMENT AND FACE OF GUARD RAIL

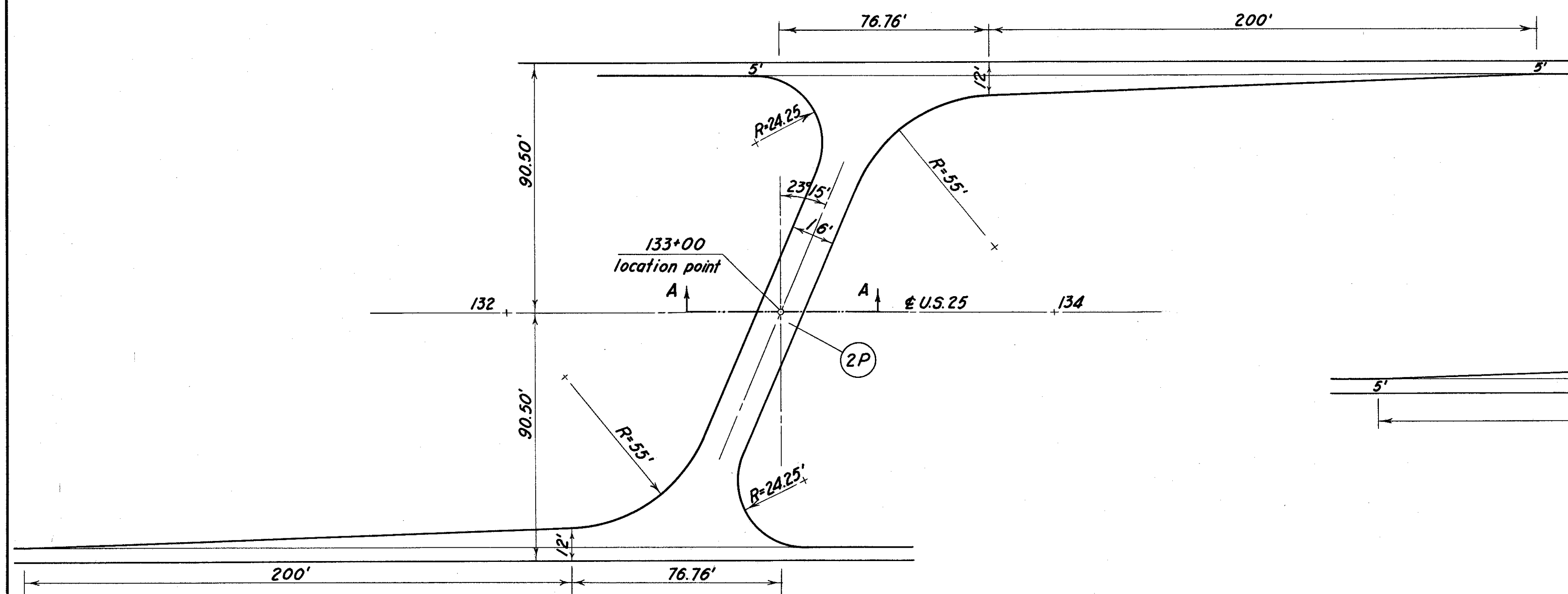
POST	OFFSET	POST	OFFSET
1/2	6.00	16	7.94
1	6.01	17	8.26
2	6.03	18	8.53
3	6.07	19	8.82
4	6.13	20	9.12
5	6.20	21	9.44
6	6.28	22	9.78
7	6.38	23	10.13
8	6.50	24	10.50
9	6.63	25	10.98
10	6.78	26	11.28
11	6.94	27	11.69
12	7.12	28	12.12
13	7.31	29	12.56
14	7.53	30	13.02
15	7.76	31	13.50



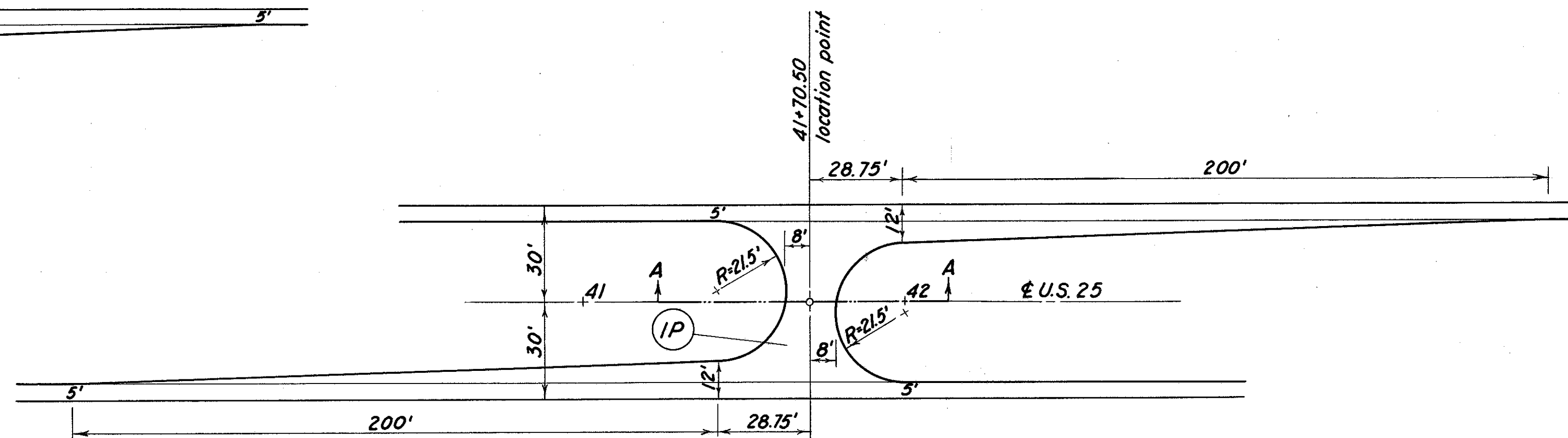
SECTION A-A

NOTE: Footing anchors to be used where post are over footings and less than 3'-0" of earth is provided above the top of the footing

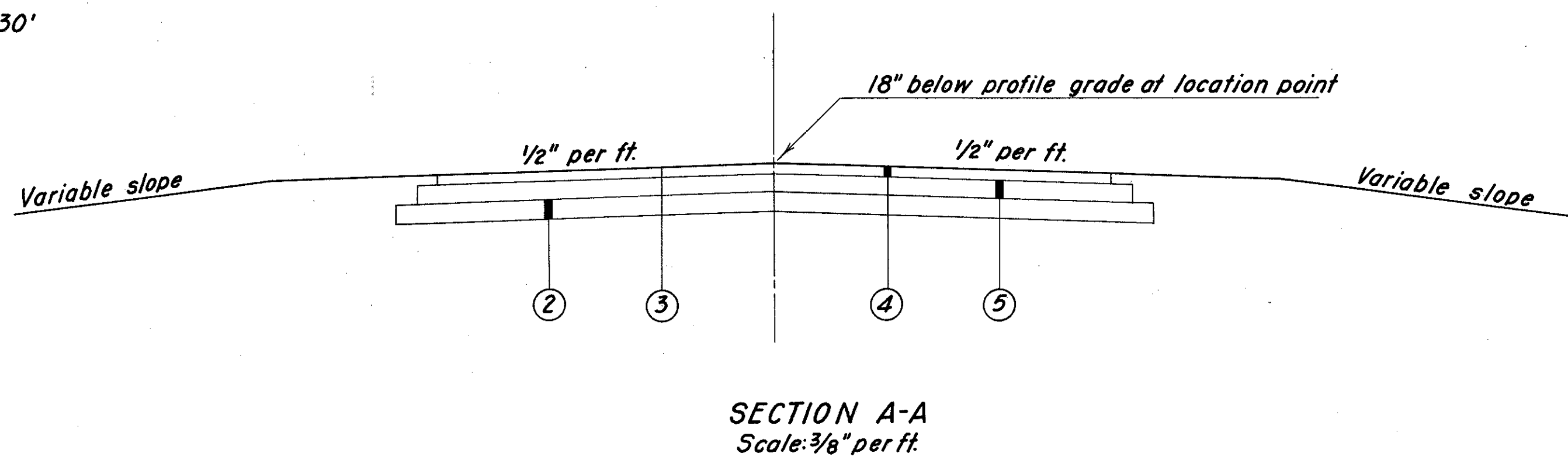
WAR-25-8.48
MOT-25-0.00



MEDIAN CROSS-OVER at Sta. 133+00
Scale: 1"=30'



MEDIAN CROSS-OVER at Sta. 41+70.50
Scale 1"=30'



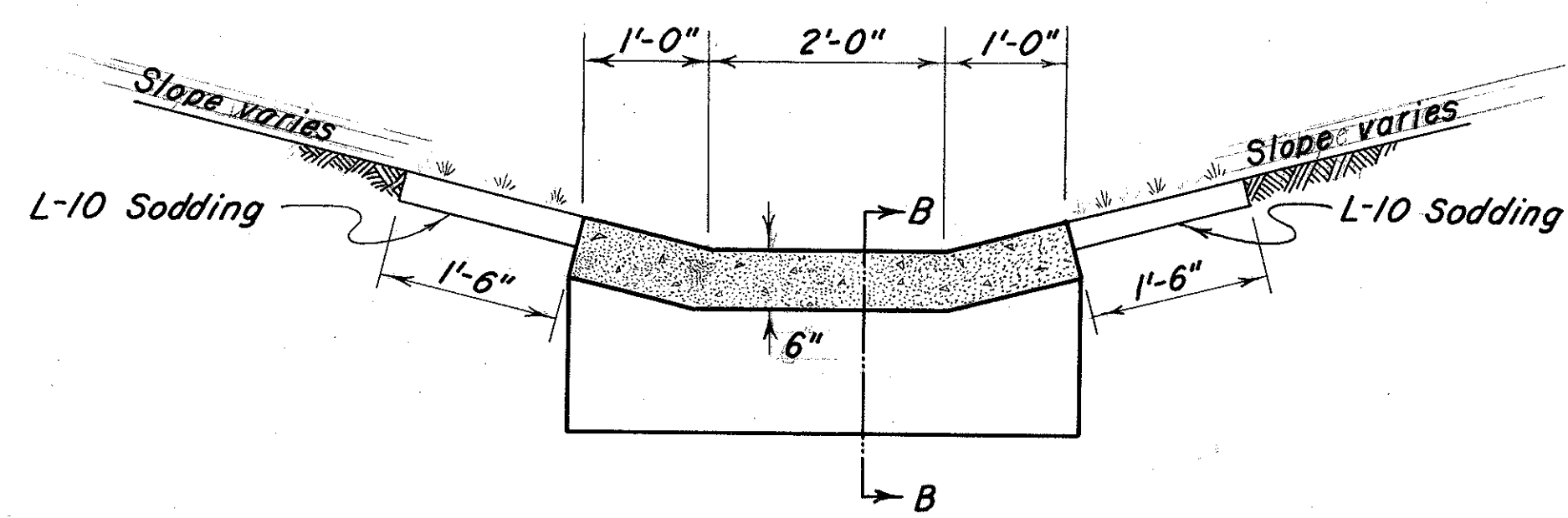
- ② I - 22 6" Subbase
- ③ T - 31 Bituminous Surface Treatment
- ④ B - 219 3" Waterproofed Aggregate Base Course
- ⑤ T - 18 5" Stabilized Crushed Aggregate Shoulders and Approaches

PAVEMENT						
Ref. No.	Station	B-219	T-31	I-18	I-22	
		Waterproofed Aggregate Base Course 3" C.Y.	Bituminous Surface Treatment No. 6 Bituminous Material Gals. Aggregate C.Y.	Stab. Cr. Aggr. Shldr. & Apprs. 5" C.Y.	Subbase 6" C.Y.	
1P	41+70.50	26.7	81	2.6	49	63.4
2P	133+00	54.8	165	5.3	99	125.0
Totals		81.5	246	7.9	148	188.4

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

272
377

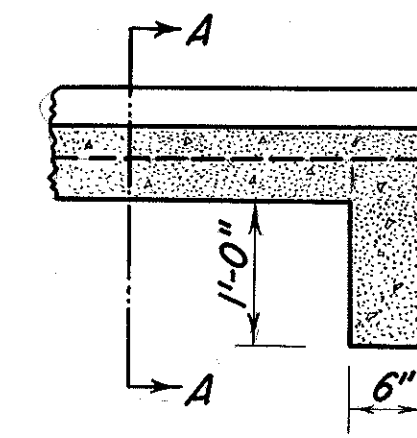
WAR-25-8.48
MOT-25-0.00



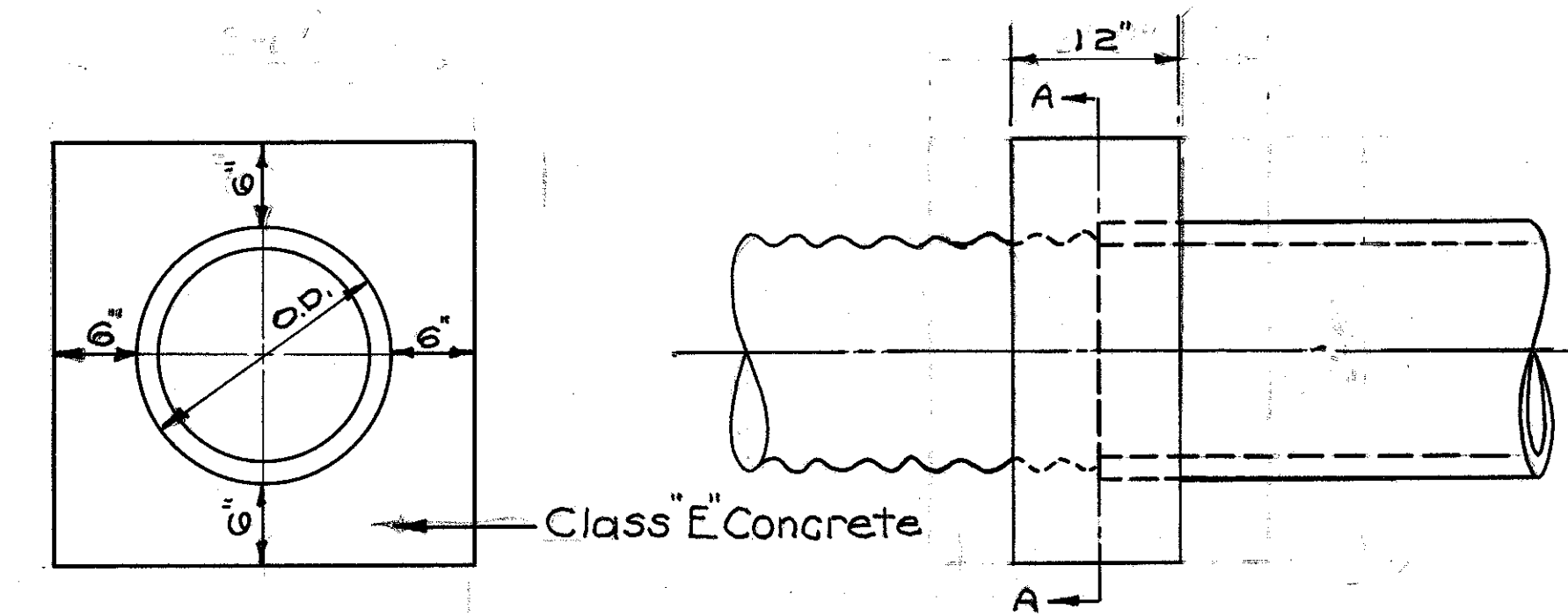
SECTION A-A

I-14 TYPE I-B PAVED GUTTER

Scale: 3/4" = 1'-0"



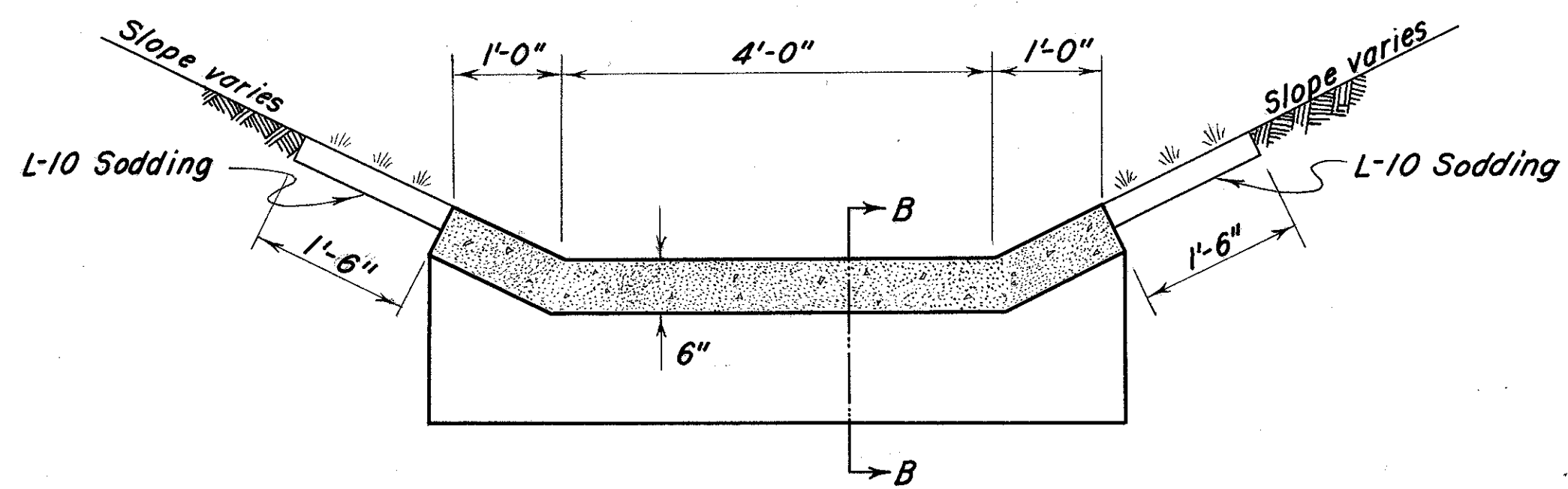
SECTION B-B



SEC. A-A

DETAIL OF COLLAR
FOR
JOINING SMOOTH PIPE &
CORRUGATED PIPE

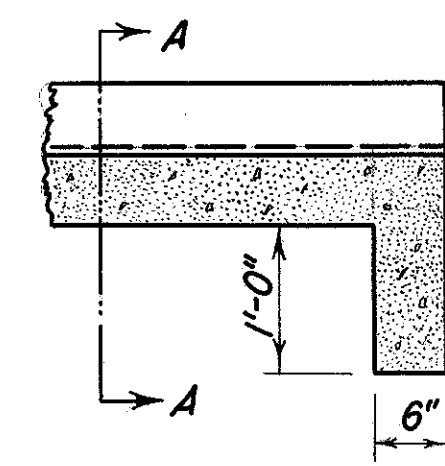
NOTE: Concrete collar to be included
in bid price for I-2 pipe



SECTION A-A

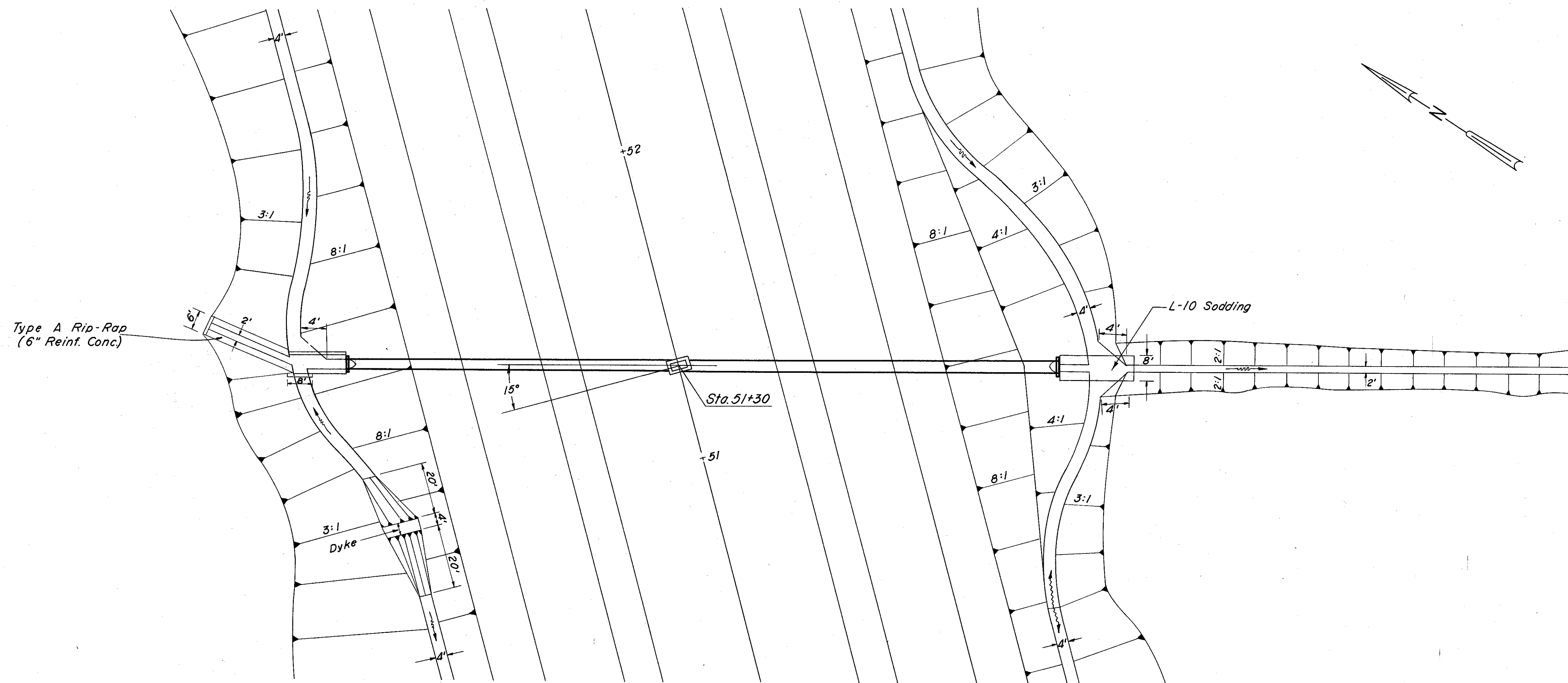
I-14 TYPE I-A PAVED GUTTER

Scale: 3/4" = 1'-0"



SECTION B-B

WAR.-25-8.48
MOT.-25-0.00



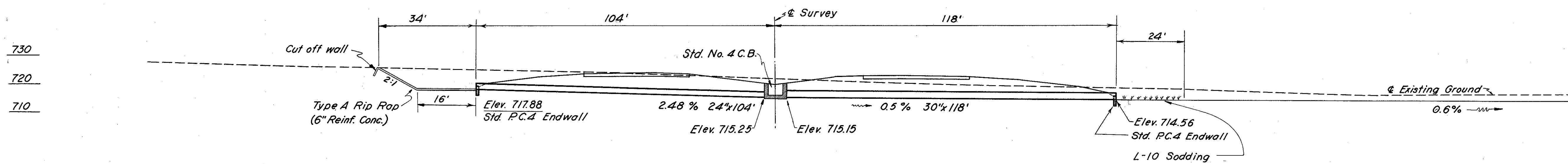
CULVERT DATA

TYPE - Pipe Culvert S-27 P.C. 3 & 4 No. 4
 SIZE - 24"x104'
 30"x118'
 WORK REQ'D.- Build a Pipe Culvert with Std. No. 4 Catch Basin and Std. P.C. 4 Endwalls. Excavate inlet & outlet Channel. Place Dumped Rock Channel Protection Rt. & Type A Rip-Rap Lt. as shown.

ESTIMATED QUANTITIES

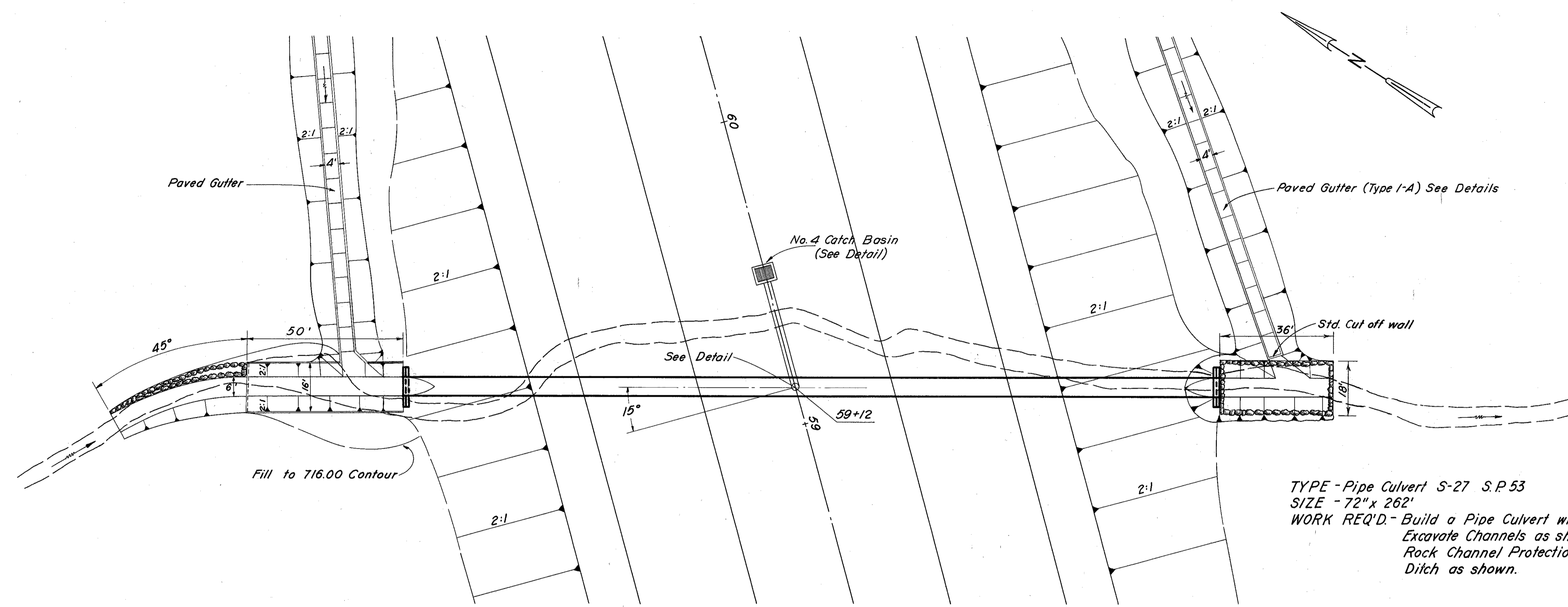
E - 2	Excavation for Structures	260	Cu. Yds.
E - 3	Channel Excavation	184	Cu. Yds.
I - 8	Std. No. 4 Catch Basin	1	Ea.
I - 10	Type A Rip Rap	37	Sq. Yds.
L - 10	Sodding	2.1	Sq. Yds.
S - 1	Concrete for Structures	3.9	Cu. Yds.
S - 27	24" Pipe for Roadway Culverts, Sec. M-6.6(b) or M-6.8(b)	104	Lin. Ft.
S - 27	30" Pipe for Roadway Culverts, Sec. M-6.6(b) or M-6.8(b)	118	Lin. Ft.

Area = 7.4 acres
 Q₂₅ = 16.4
 Q₅₀ = 22.8 outlet



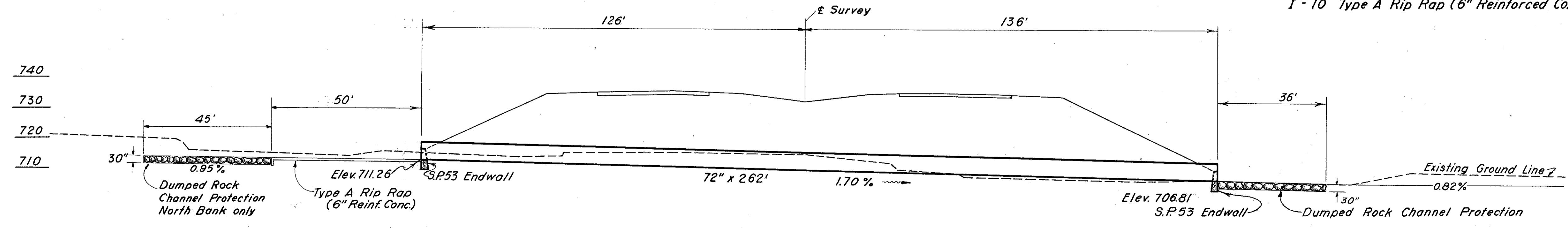
Scale: 1" = 20'-0"

WAR.-25-8.48
MOT.-25-0.00



TYPE - Pipe Culvert S-27 S.P.53
 SIZE - 72" x 262'
 WORK REQ'D. - Build a Pipe Culvert with S.P.53 Endwalls
 Excavate Channels as shown. Place Dumped
 Rock Channel Protection Rt. & Lt. and Paved
 Ditch as shown.

E - 2	Excavation for Structures	168	Cu. Yds.
E - 3	Channel Excavation	575	Cu. Yds.
I - 10	Dumped Rock Channel Protection	79	Cu. Yds.
S - 1	Concrete for Structures (Class E)	7.5	Cu. Yds.
S - 27	72" Pipe for Roadway Culverts	258	Lin. Ft.
I - 5	72" Pipe Specials for S-27	1	Ea.
I - 10	Type A Rip Rap (6" Reinforced Concrete)	100	Sq. Yds.

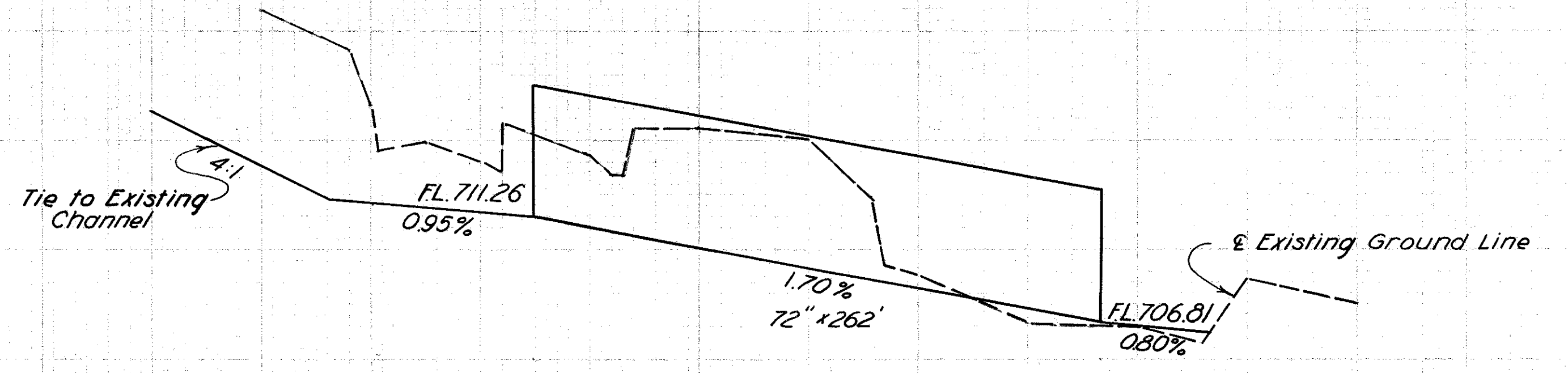


Area = 277 acres
 Q₅₀ = 318 cfs.

Scale = 1" = 20'-0"

WAR.-25-8.48
MOT.-25-0.00

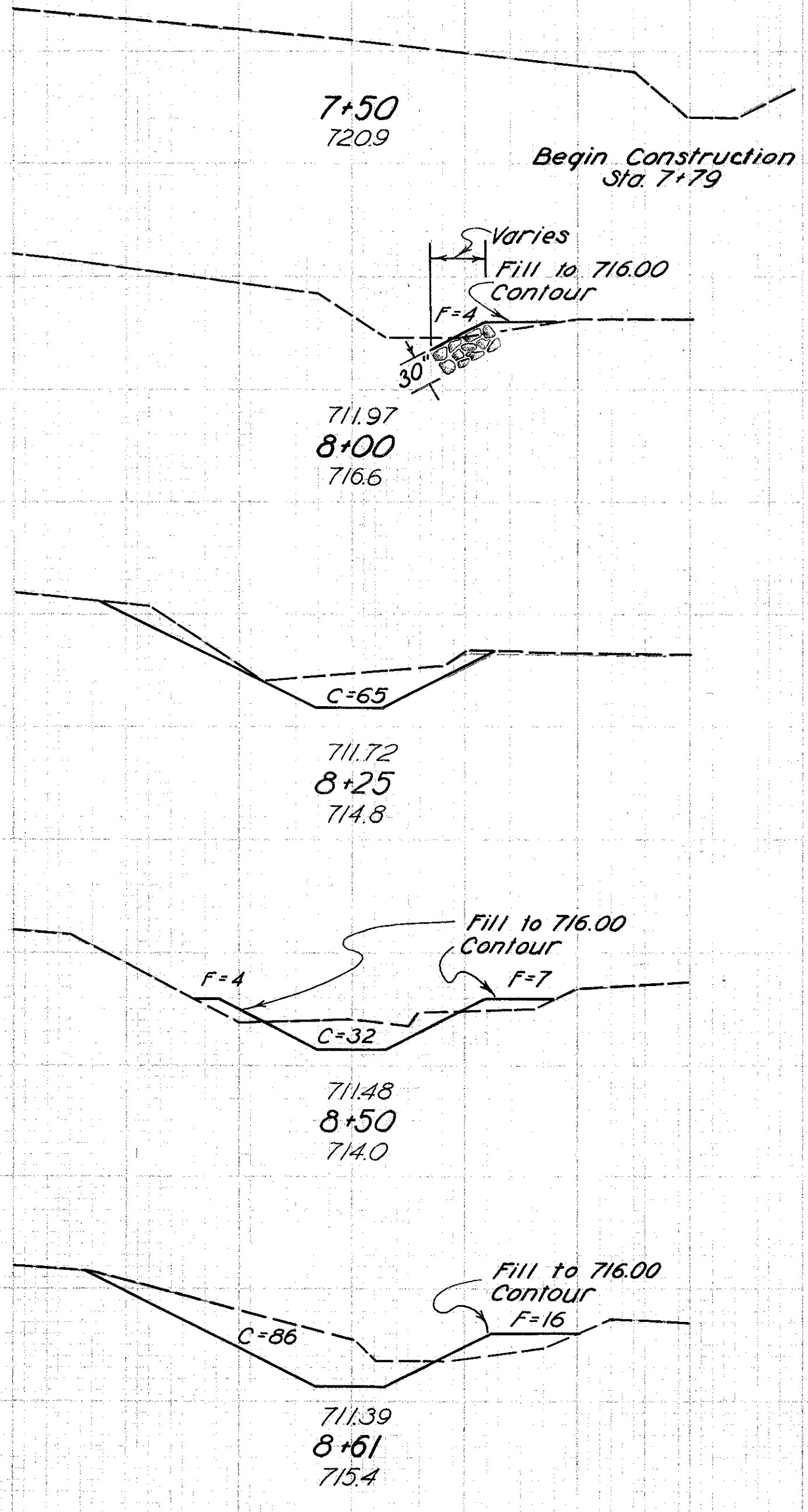
720
715
710
705



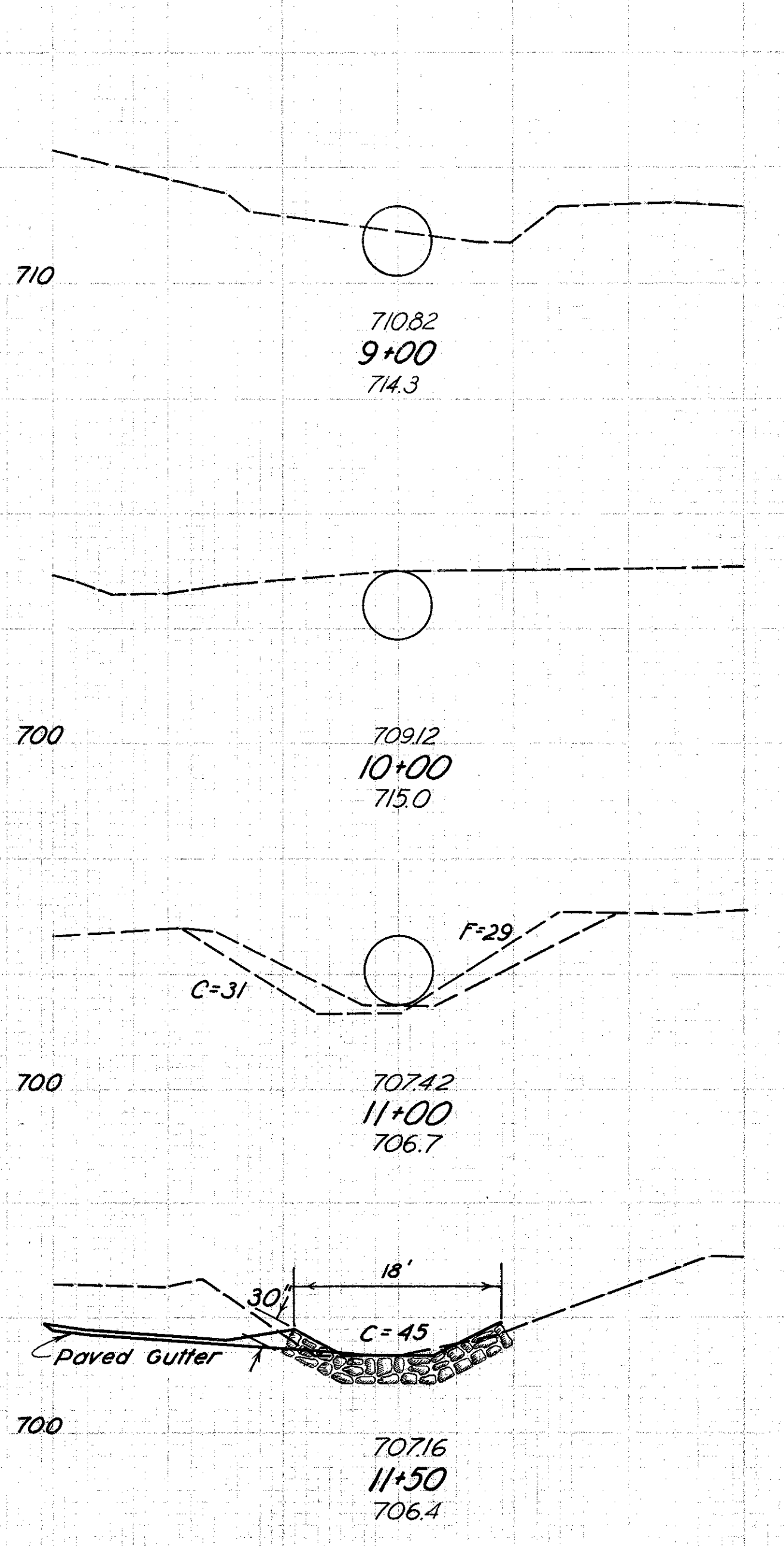
4 5 6 7 8 9 10 11 12 13 14 15 16

Culvert Profile
Sta 59+12 Skew 15 L.F.
Scale as Shown

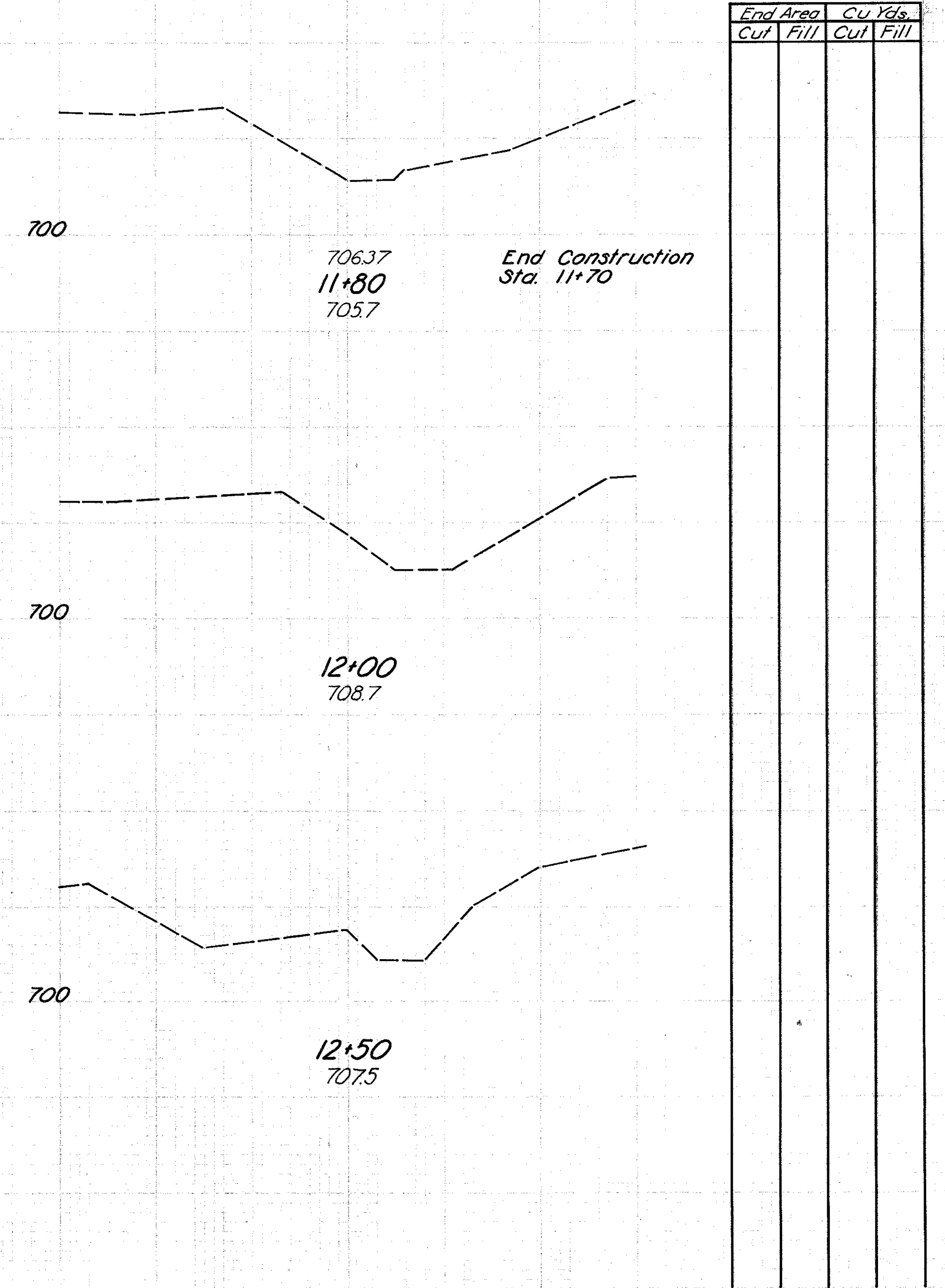
720
710
710
710
710



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
4			
65		30	
32	11	45	
86	16	55	11



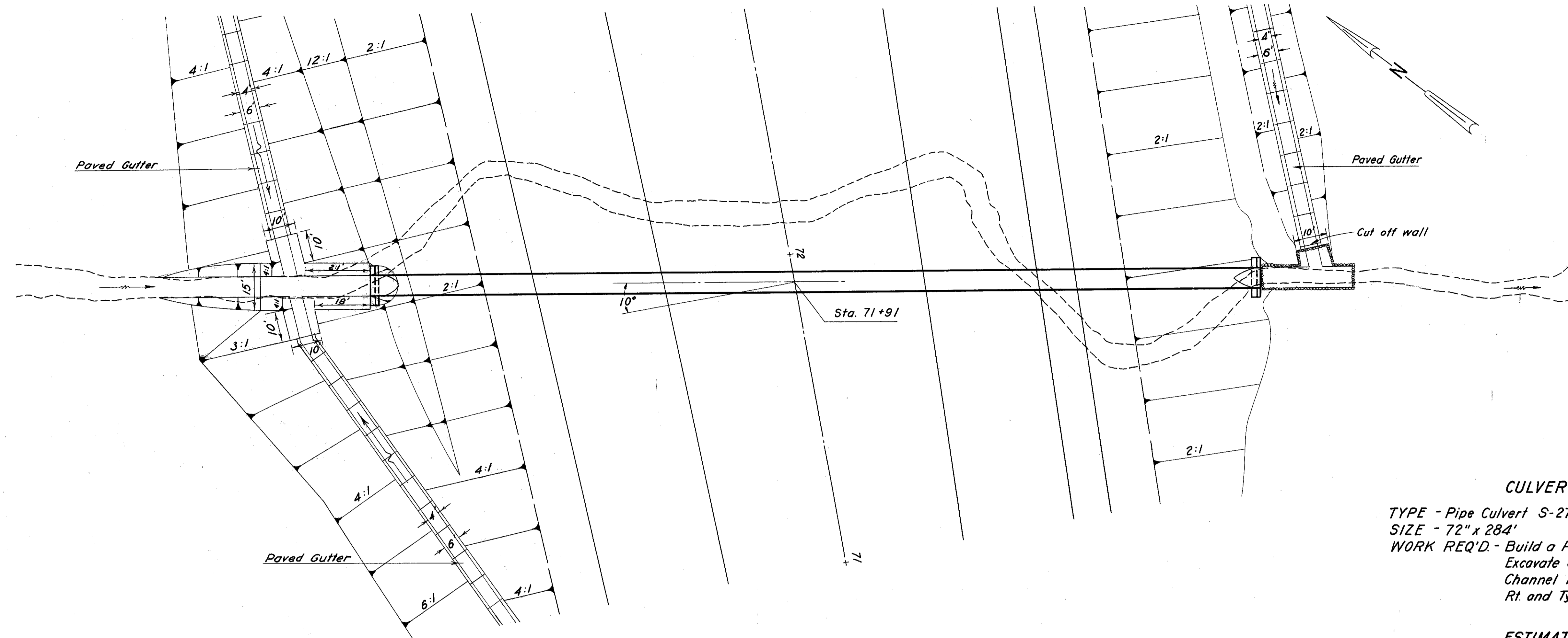
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
31	29	18	15
45			



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill

CROSS SECTIONS OF PROPOSED CULVERT Sta. 59+12

WAR.- 25 - 8.48
MOT.- 25 - 0.00

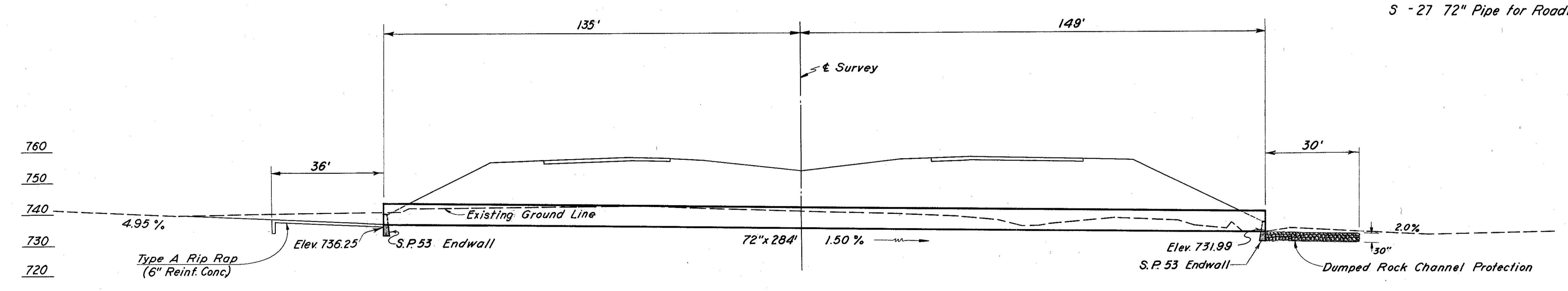


CULVERT DATA

TYPE - Pipe Culvert S-27 S.P.53
 SIZE - 72" x 284'
 WORK REQ'D. - Build a Pipe Culvert with S.P.53 Endwalls
 Excavate Channel, Place Dumped Rock Channel Protection on Rt. with Paved ditch Rt. and Type A Rip Rap Lt. as shown.

ESTIMATED QUANTITIES

E - 2	Excavation for Structures	96	Cu. Yds.
E - 3	Channel Excavation	510	Cu. Yds.
I - 10	Dumped Rock Channel Protection	42	Cu. Yds.
I - 10	Type A Rip Rap (6" Reinforced Concrete)	79	Sq. Yds.
S - 1	Concrete for Structures (Class E)	75	Cu. Yds.
S - 27	72" Pipe for Roadway Culverts	284	Lin. Ft.

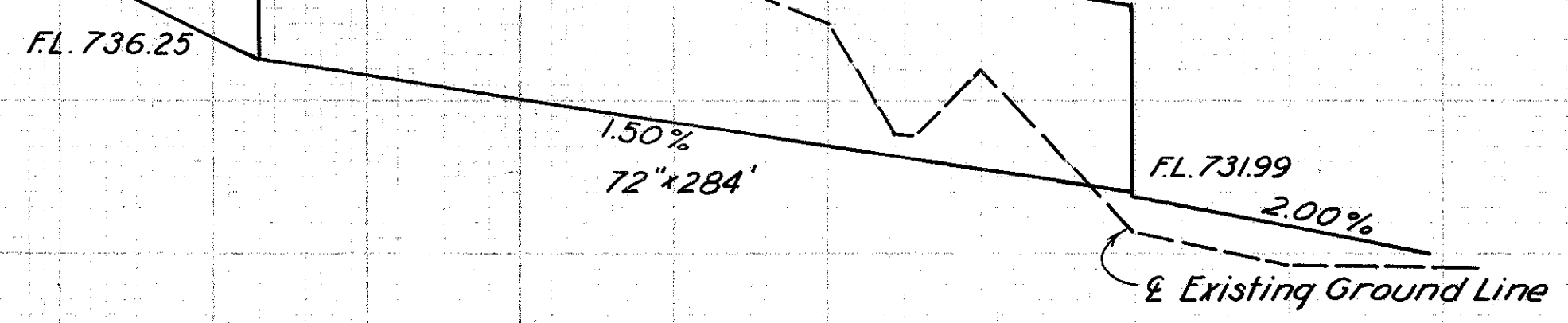


Area = 351 acres
Q₂₅ = 365 cfs

Scale = 1" = 20'-0"

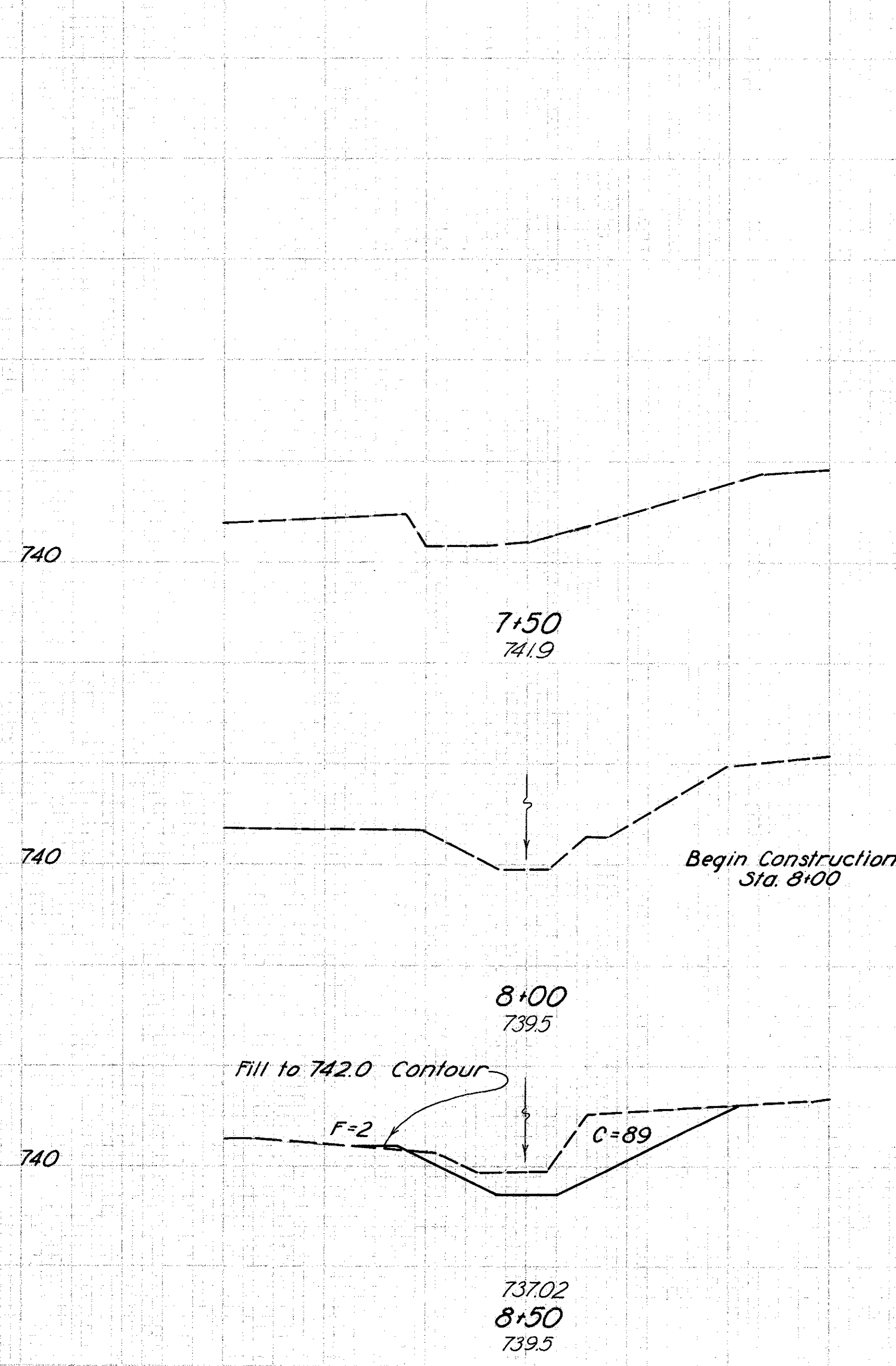
WAR.-25-8.48
MOT.-25-0.00

740
735
730

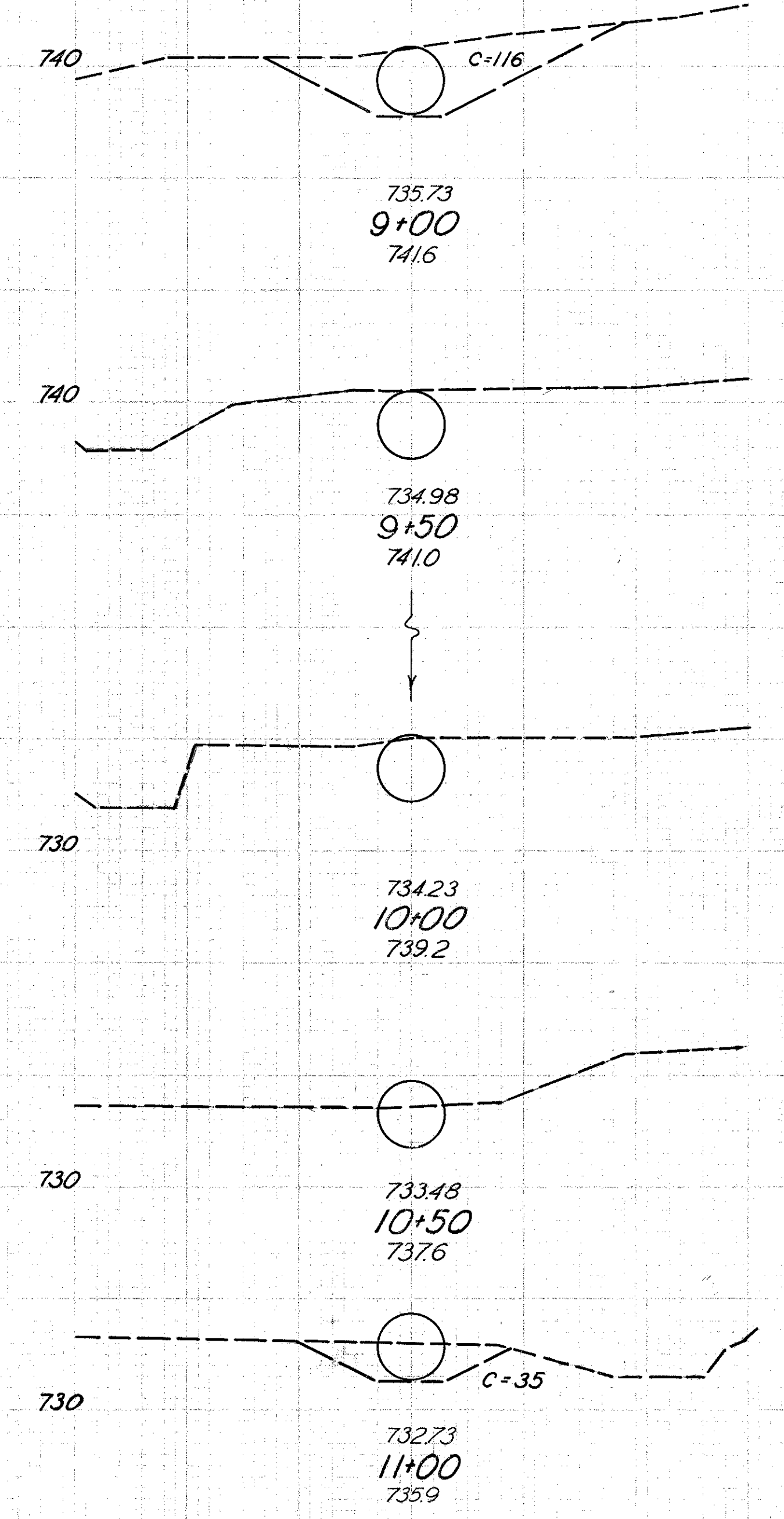


4 5 6 7 8 9 10 11 12 13 14 15 16

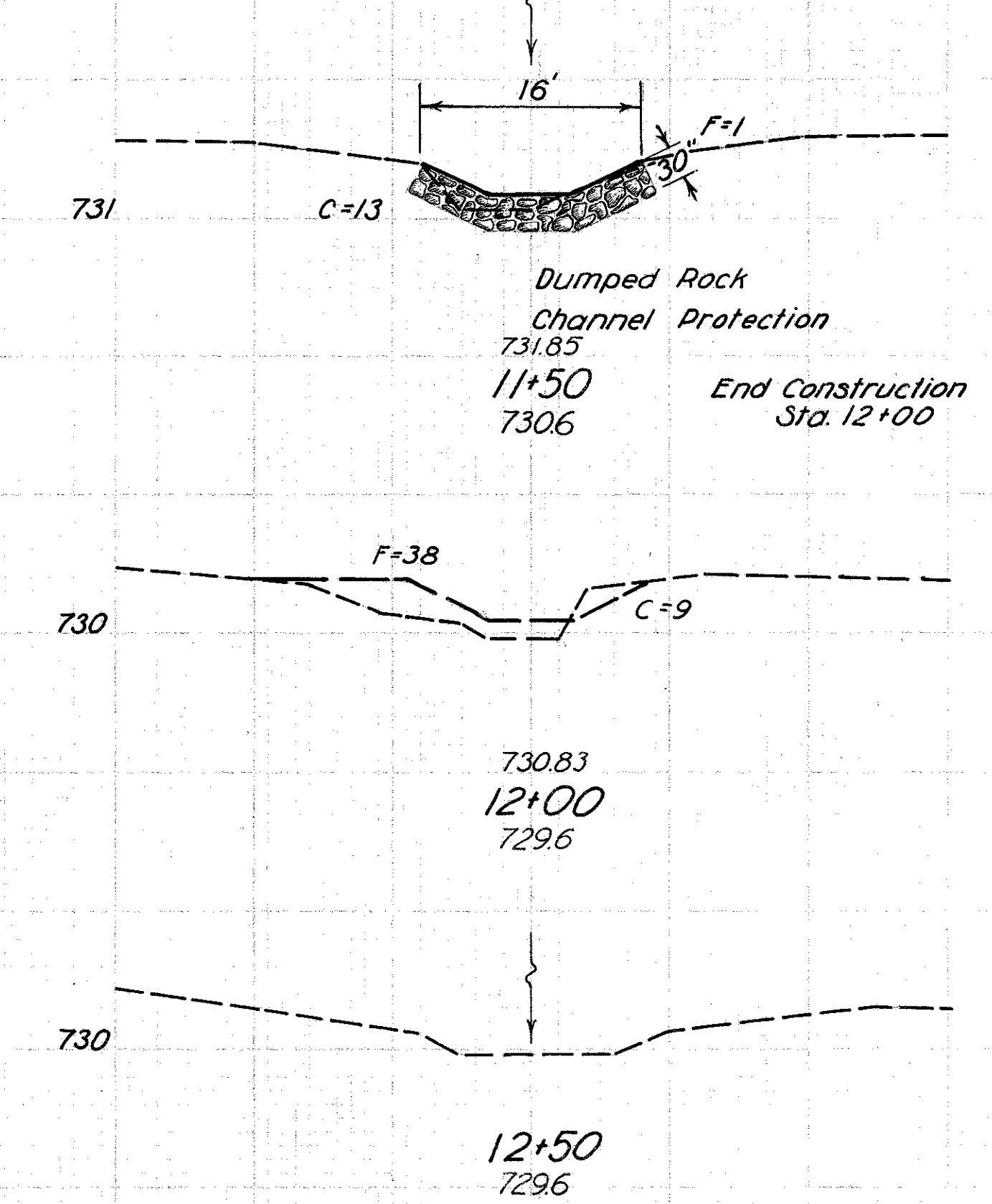
Culvert Profile
Sta. 71+91 Skew 10° LF
Scale as Shown



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
89	2	11	2



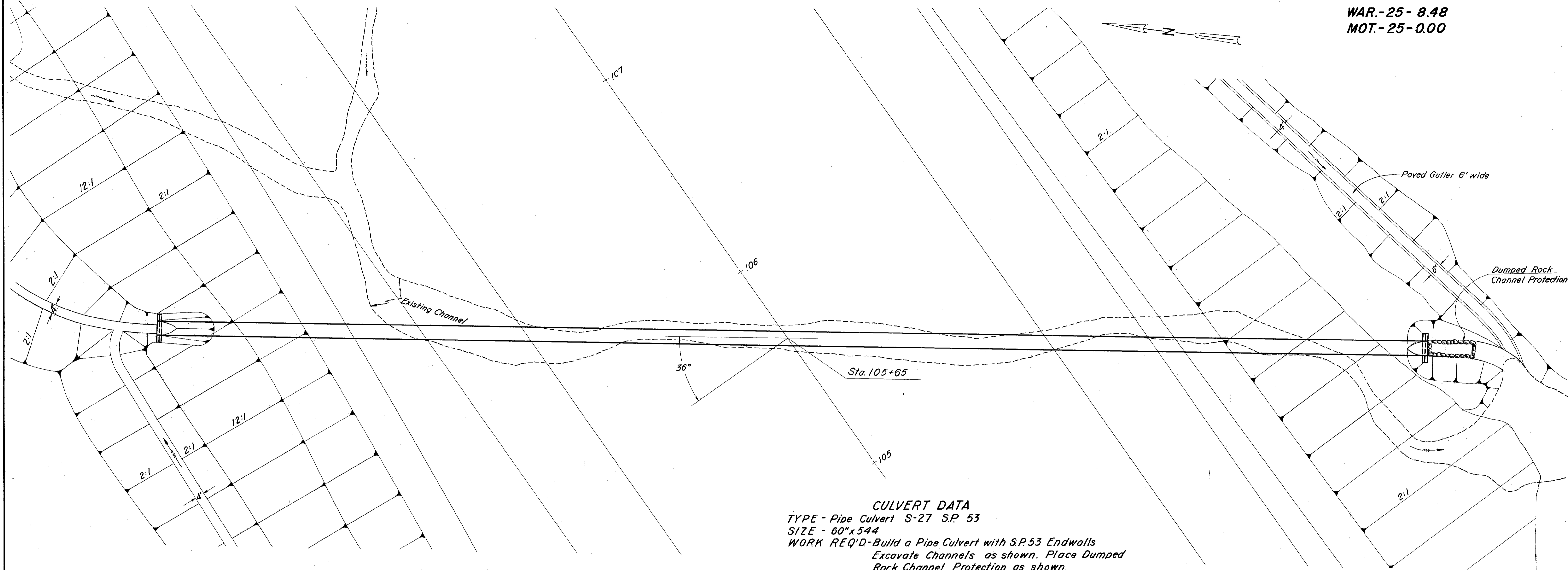
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
116		60	
35		416	



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
13	1	20	11
9	38		14

CROSS SECTIONS OF PROPOSED CULVERT Sta. 71+91

WAR.-25-8.48
MOT.-25-0.00

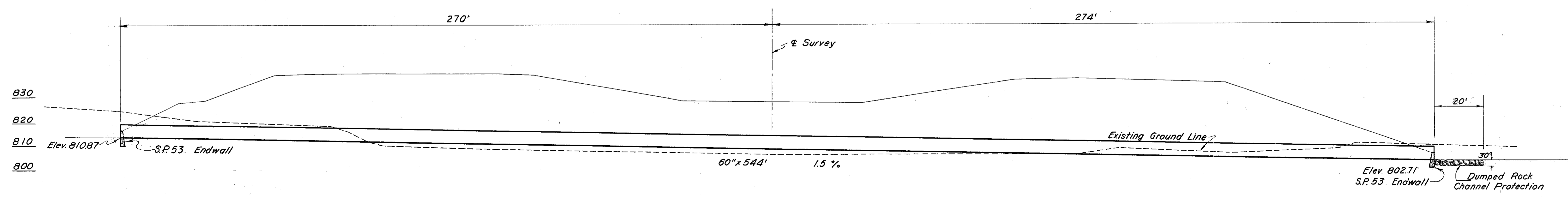


CULVERT DATA
 TYPE - Pipe Culvert S-27 S.P. 53
 SIZE - 60"x544"
 WORK REQ'D - Build a Pipe Culvert with S.P.53 Endwalls
 Excavate Channels as shown. Place Dumped
 Rock Channel Protection as shown.

ESTIMATED QUANTITIES

E-2	Excavation for Structures	98	Cu. Yds.
E-3	Channel Excavation	365	Cu. Yds.
I-10	Dumped Rock Channel Protection	15	Cu. Yds.
S-1	Concrete for Structures (Class E)	60	Cu. Yds.
S-27	60" Pipe for Roadway Culverts	544	Lin. Ft.

Area = 149 acres
Q₂₅ = 212 cfs.



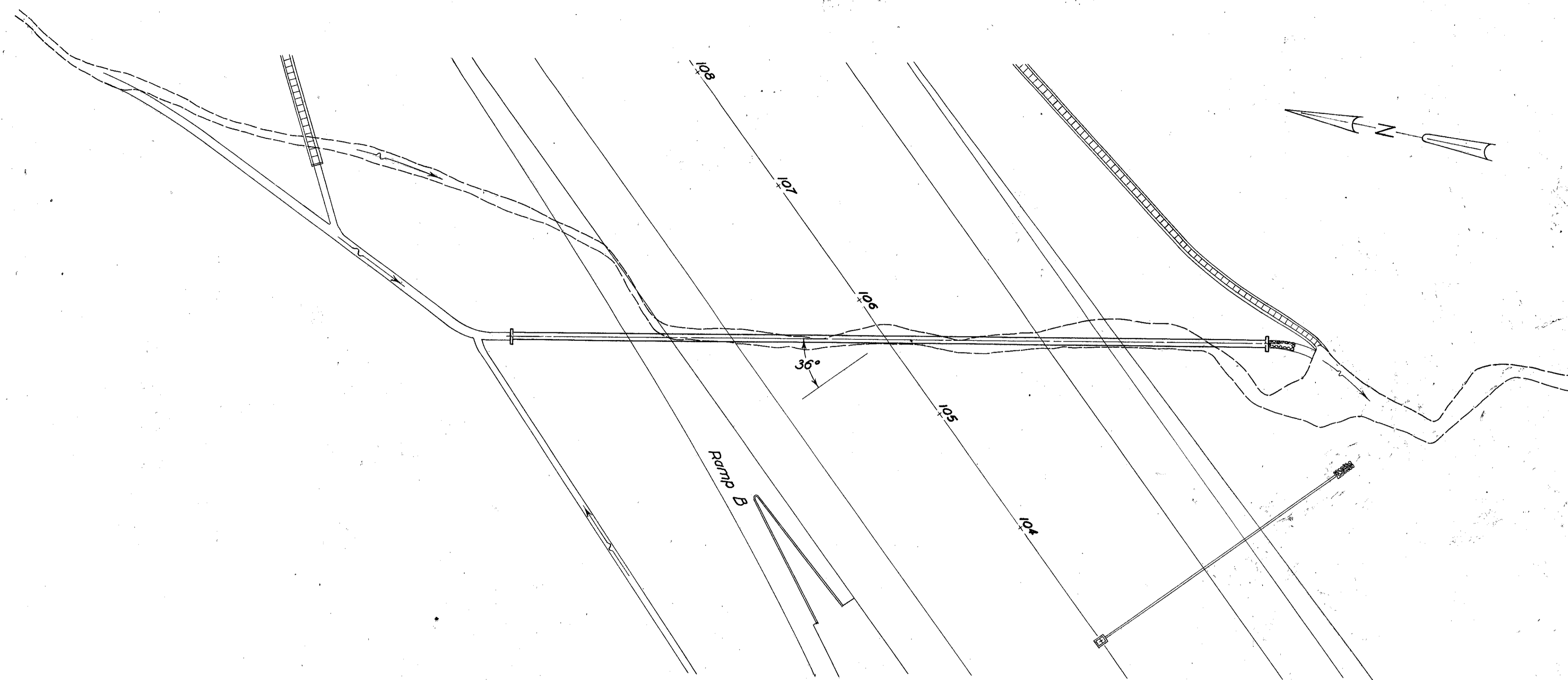
Scale: 1" = 20'-0"

PIPE CULVERT Sta. 105+65

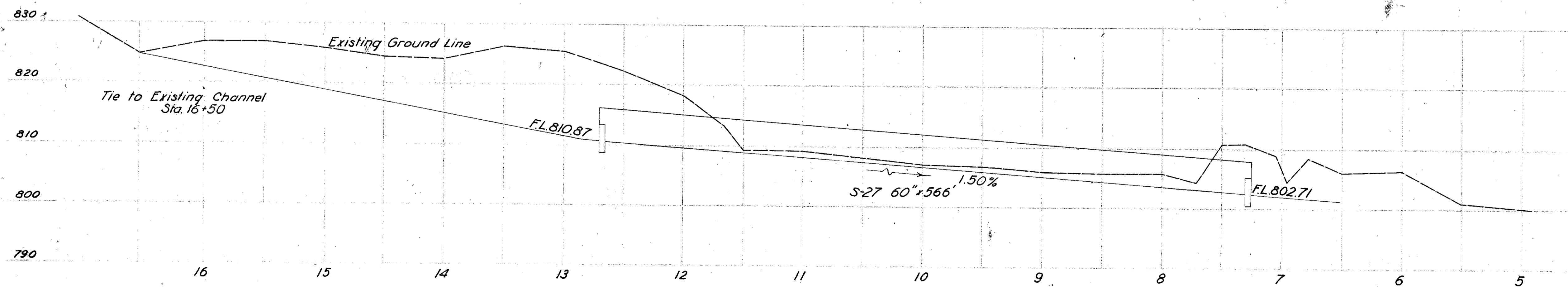
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

280
377

WAR-25-8.48
MOT-25-000



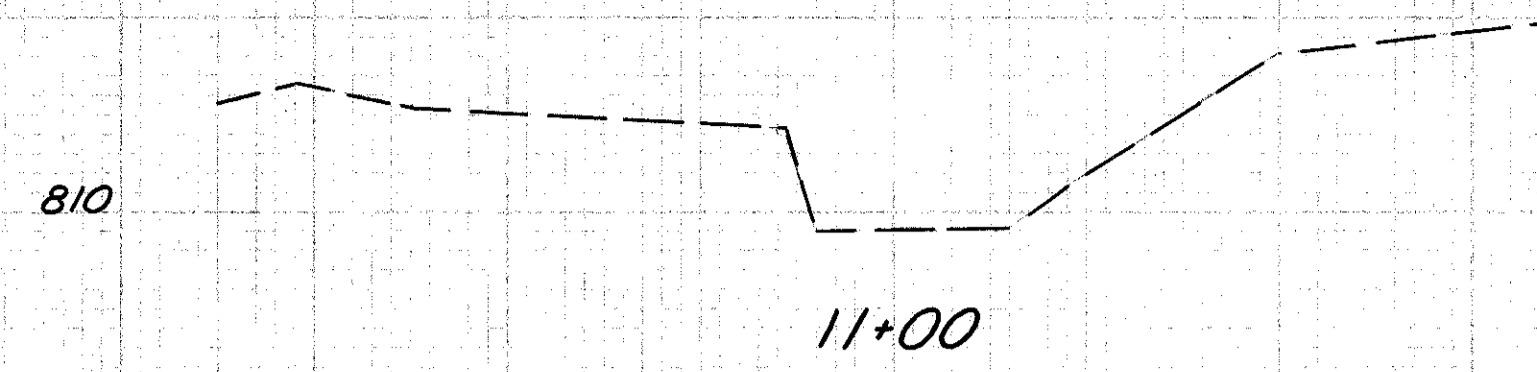
PLAN
Scale: 1"=50'



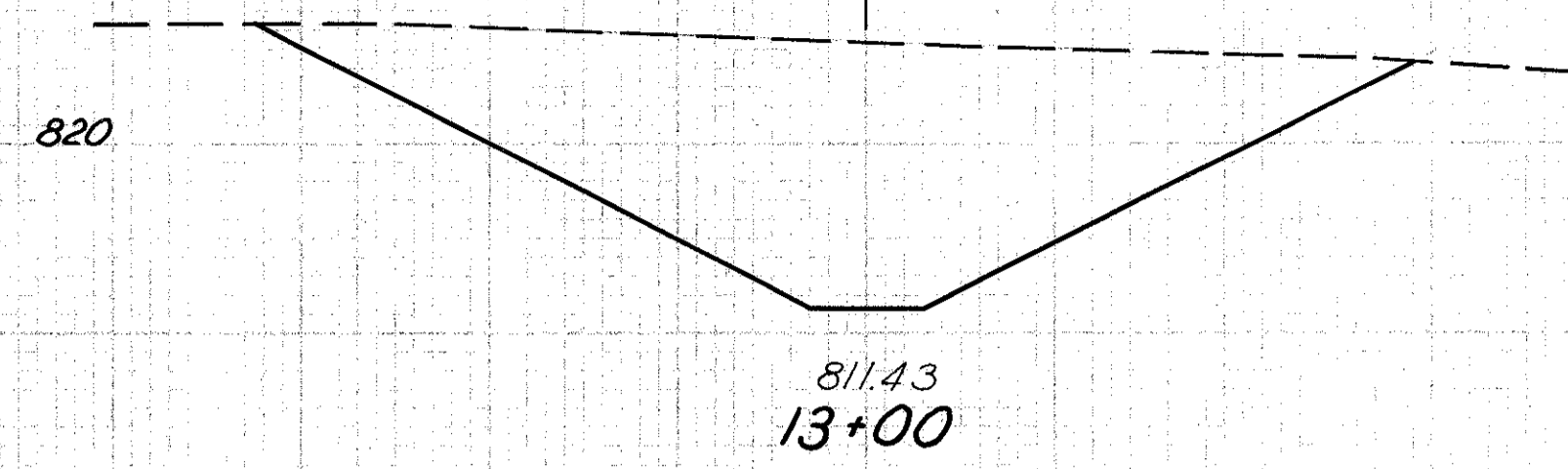
PROFILE
1"=50' Hor.
Scale: 1"=10' Vert.

PROPOSED CULVERT Sta. 105+65

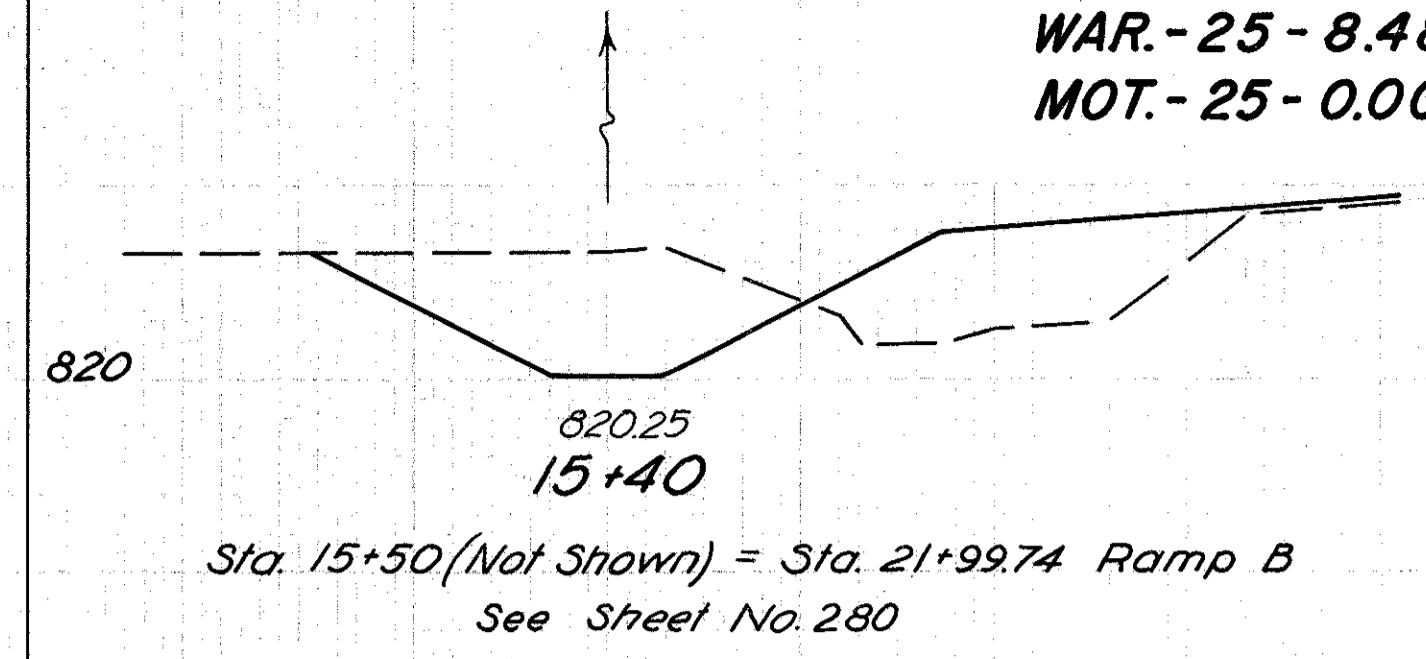
WAR.-25-8.48
 MOT.-25-0.00



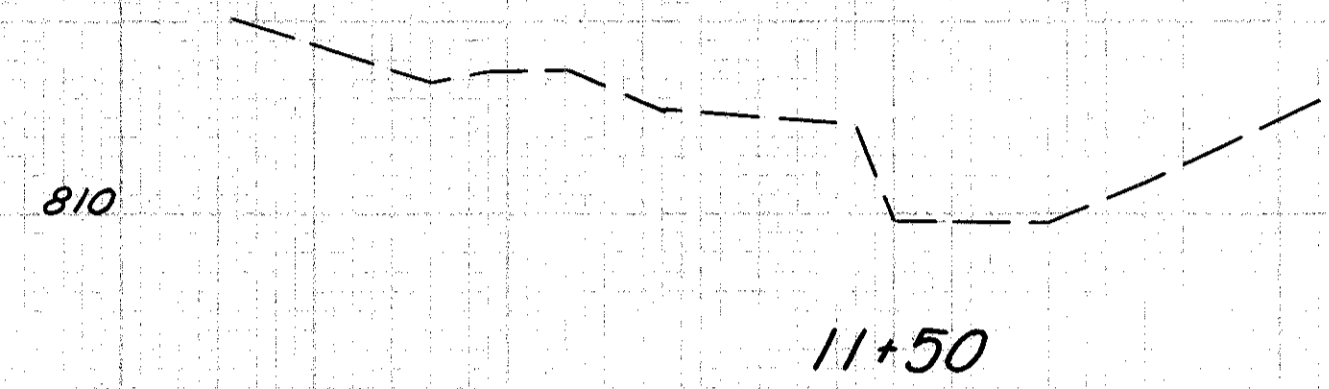
11+00



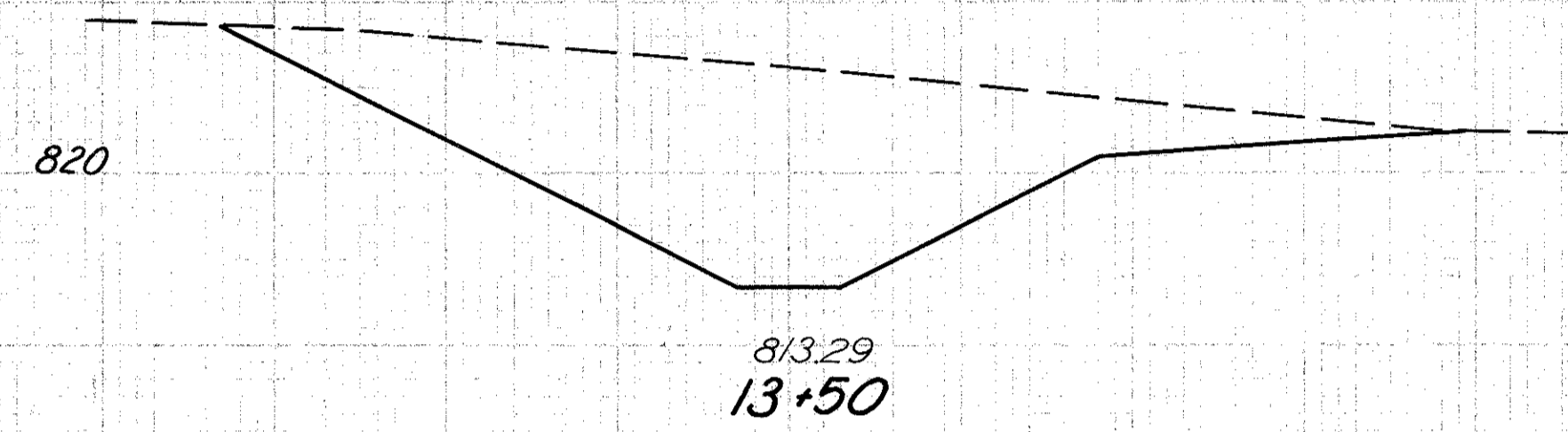
811.43
 13+00



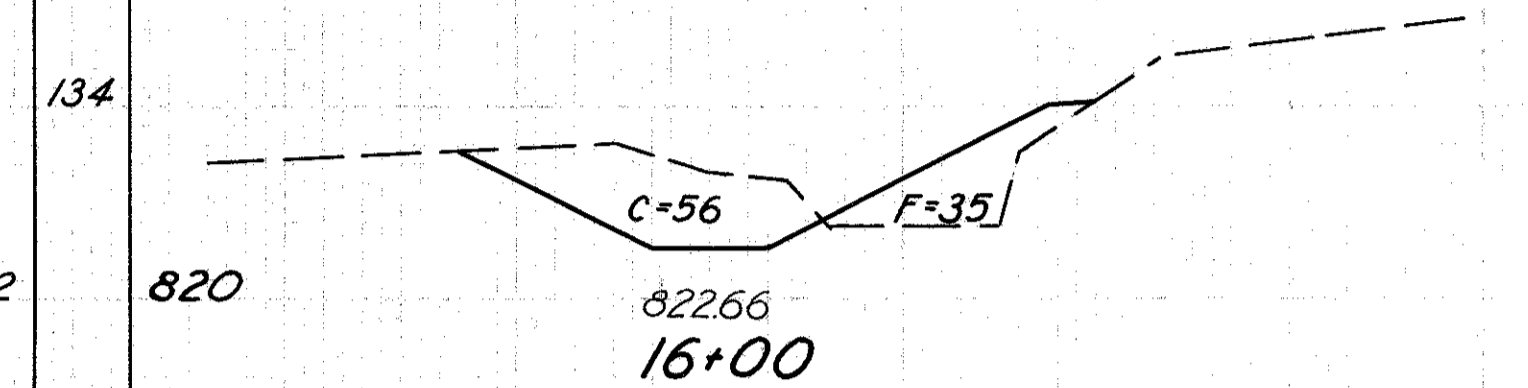
820.25
 15+40



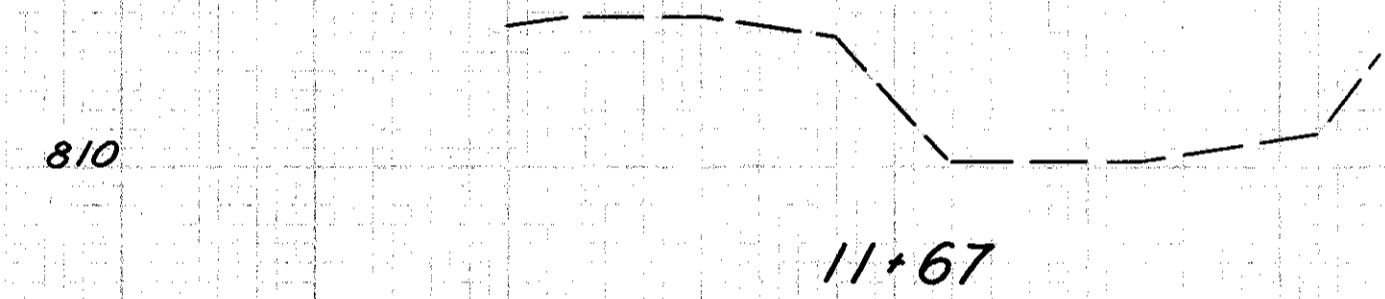
11+50



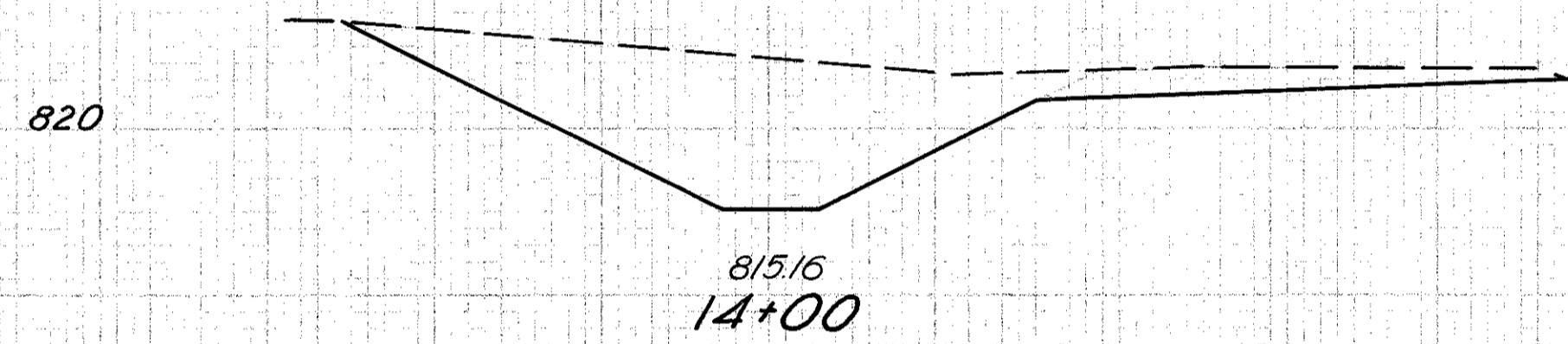
813.29
 13+50



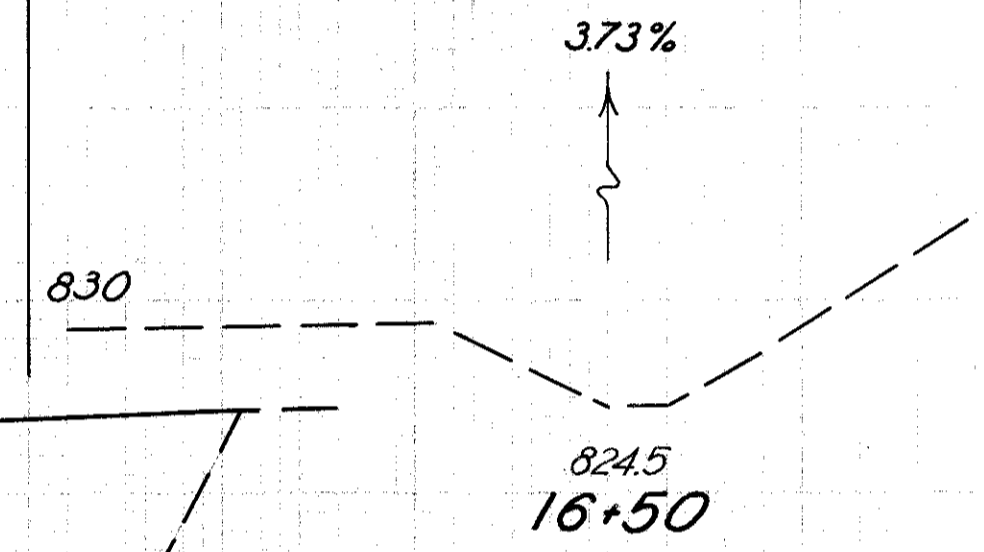
822.66
 16+00



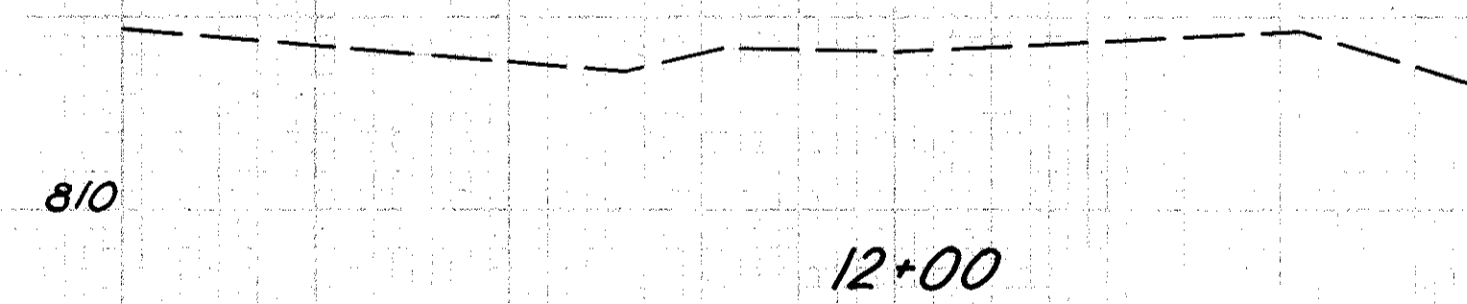
11+67



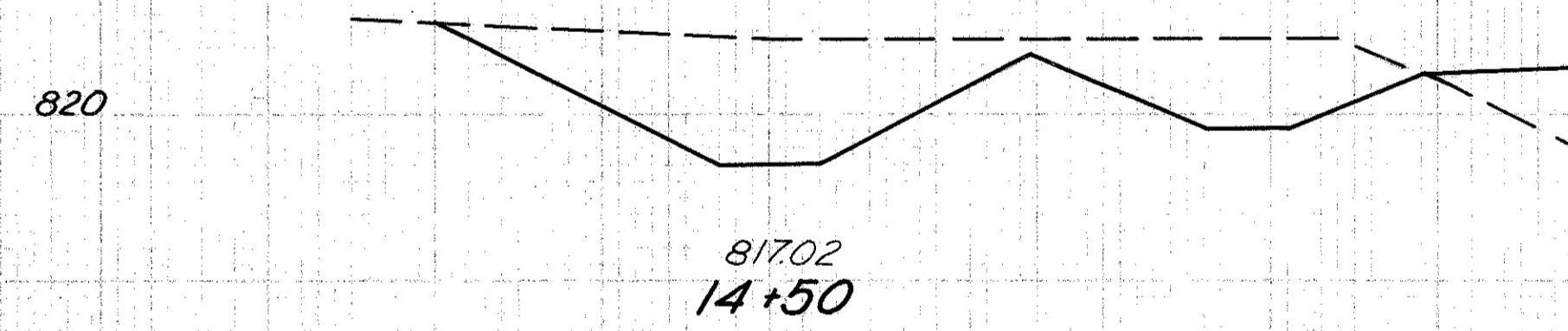
815.16
 14+00



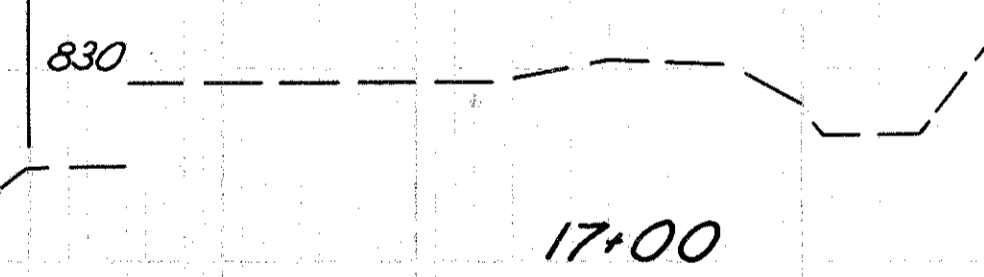
824.5
 16+50



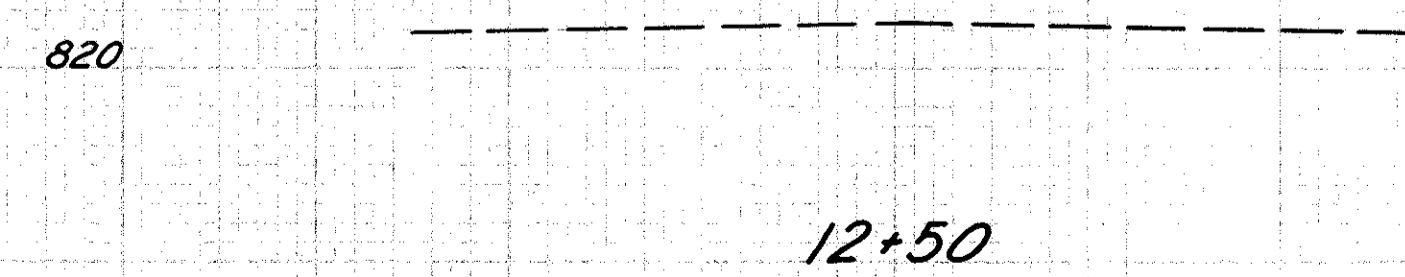
12+00



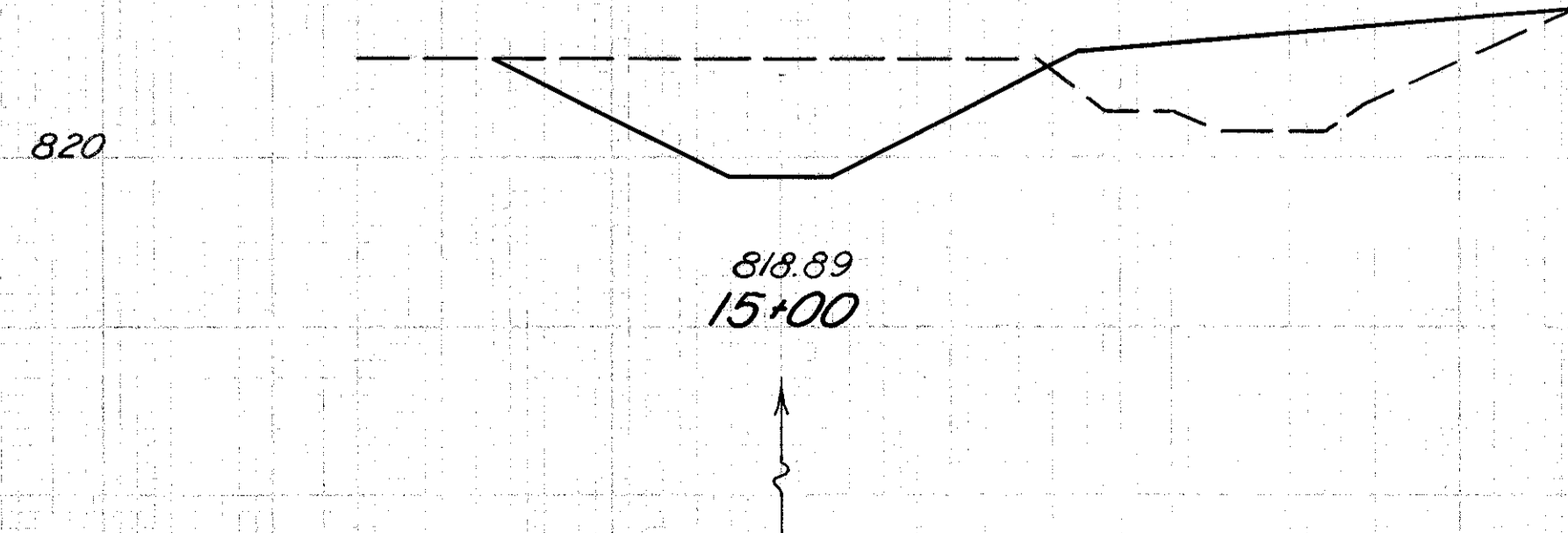
817.02
 14+50



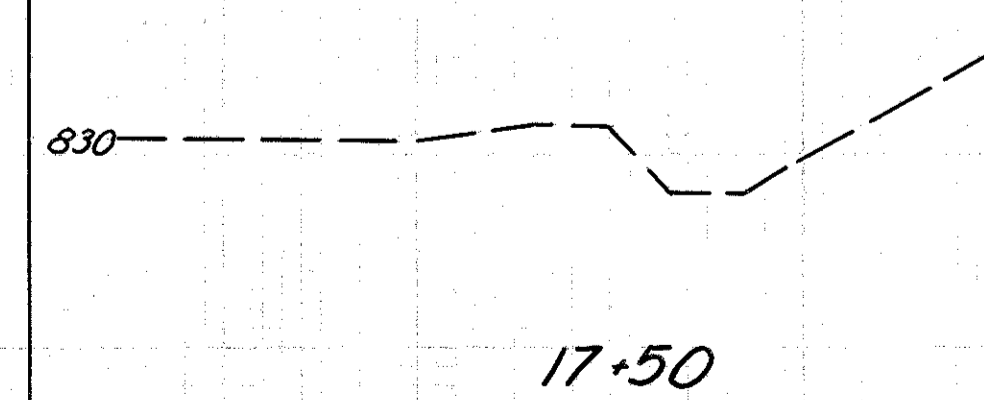
830
 17+00



12+50



818.89
 15+00



830
 17+50

Seeding	width	area
	110	
	134	
	132	
	642	
	99	

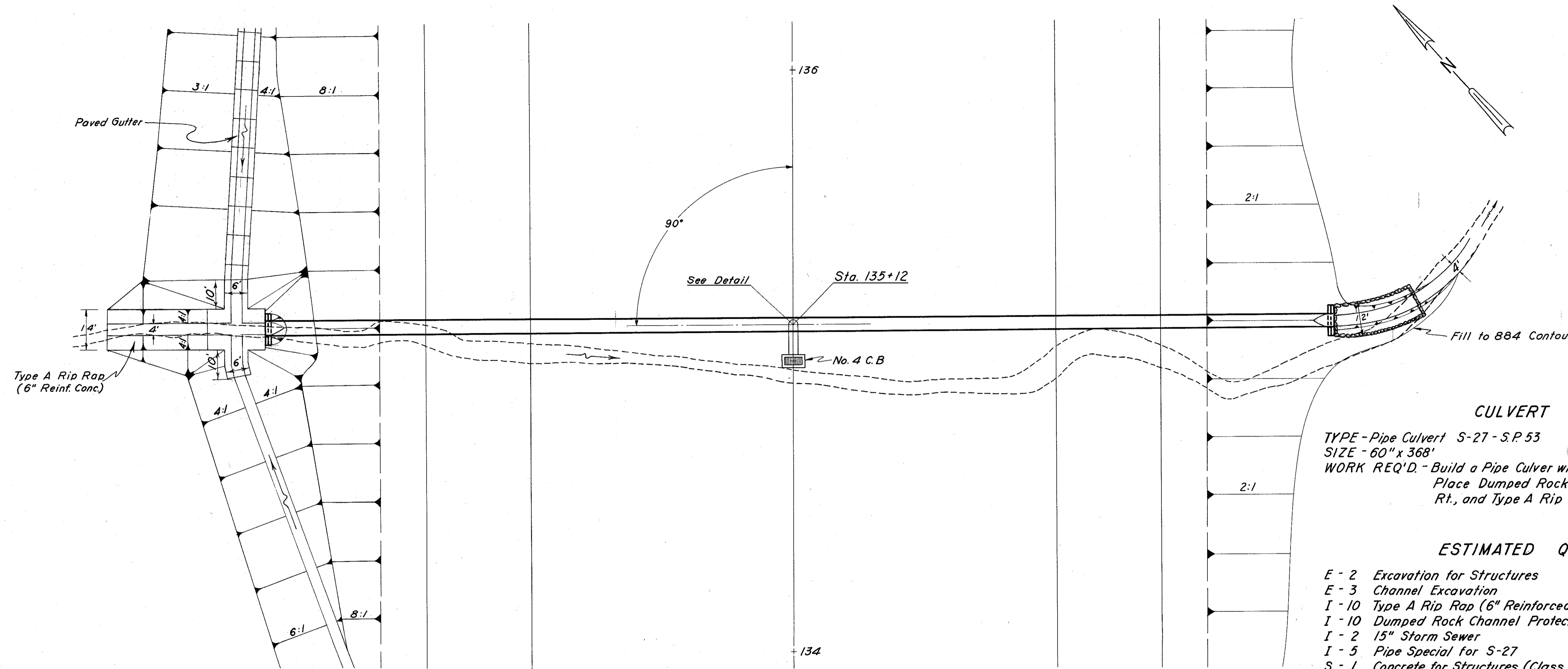
Ramp B

Cross Sections of

For Quantities see

Station	Width	Area
100	51	
116	92	
56	35	
52	32	

WAR-25-848
MOT-25-000



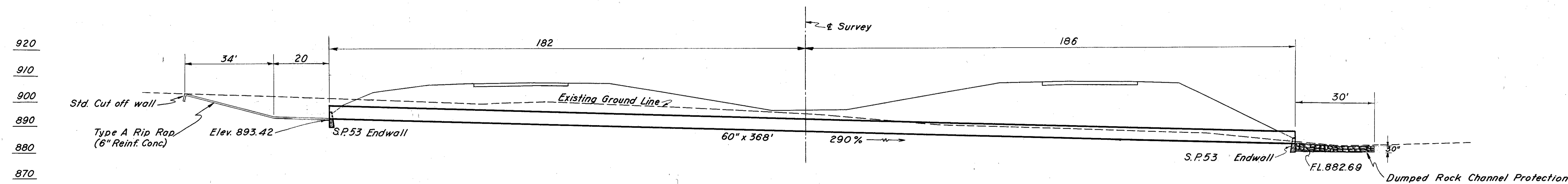
CULVERT DATA

TYPE - Pipe Culvert S-27 - S.P. 53
 SIZE - 60" x 368"
 WORK REQ'D. - Build a Pipe Culvert with S.P. 53 Endwalls
 Place Dumped Rock Channel Protection
 Rt., and Type A Rip Rap on Lt. as shown.

ESTIMATED QUANTITIES

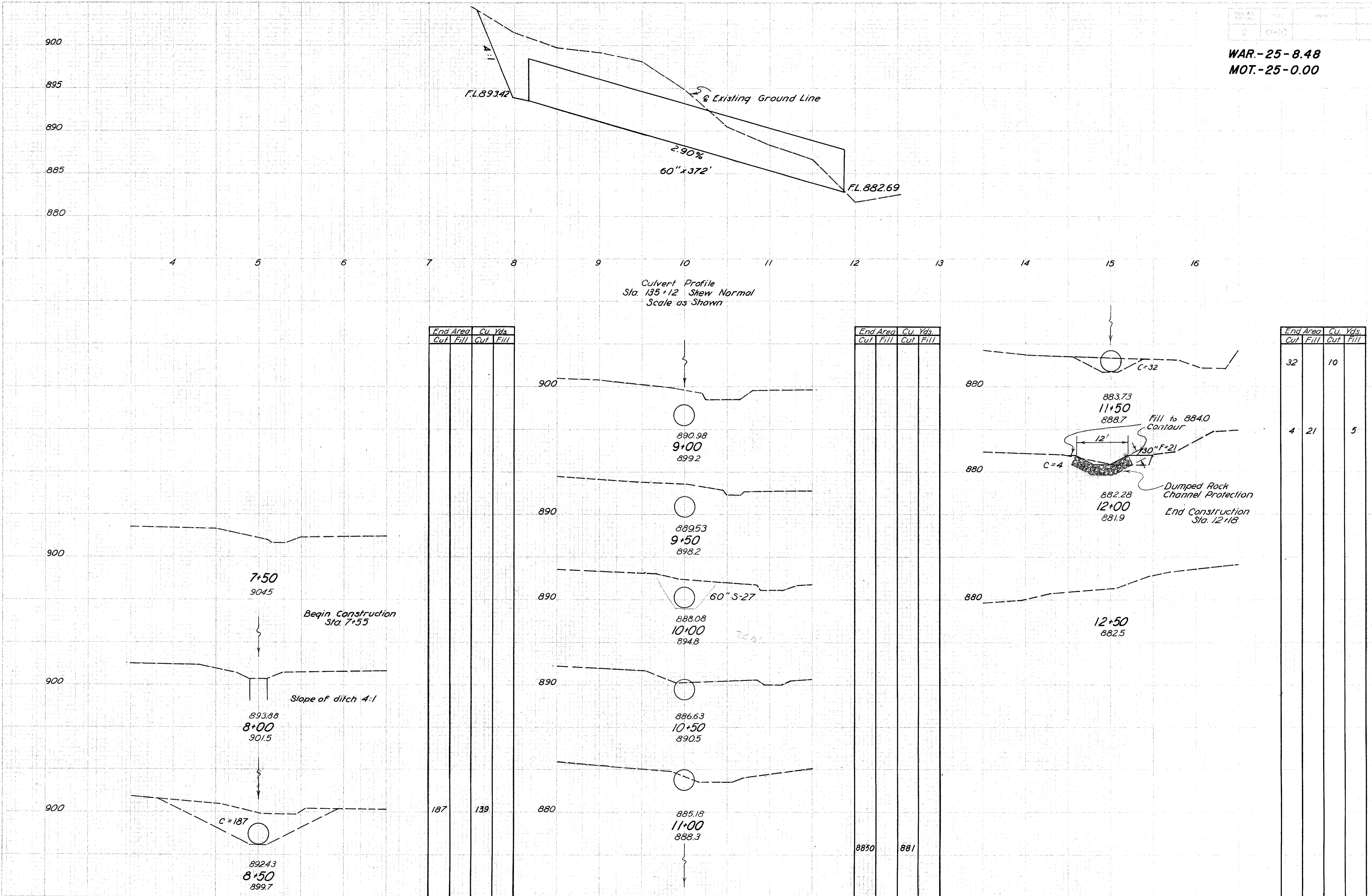
E - 2	Excavation for Structures	130 Cu. Yds.
E - 3	Channel Excavation	1030 Cu. Yds.
I - 10	Type A Rip Rap (6" Reinforced Concrete)	102 Sq. Yds.
I - 10	Dumped Rock Channel Protection	33 Cu. Yds.
I - 2	15" Storm Sewer	10 Lin Ft.
I - 5	Pipe Special for S-27	1 Ea.
S - 1	Concrete for Structures (Class E)	6.0 Cu. Yds.
S - 27	60" Pipe for Roadway Culverts	368 Lin. Ft.

Area = 84 acres
Q25 = 144 cfs.



Scale: 1" = 20'-0"

WAR-25-8.48
MOT-25-0.00



Culvert Profile
Sta. 135+12 Stew Normal
Scale as Shown

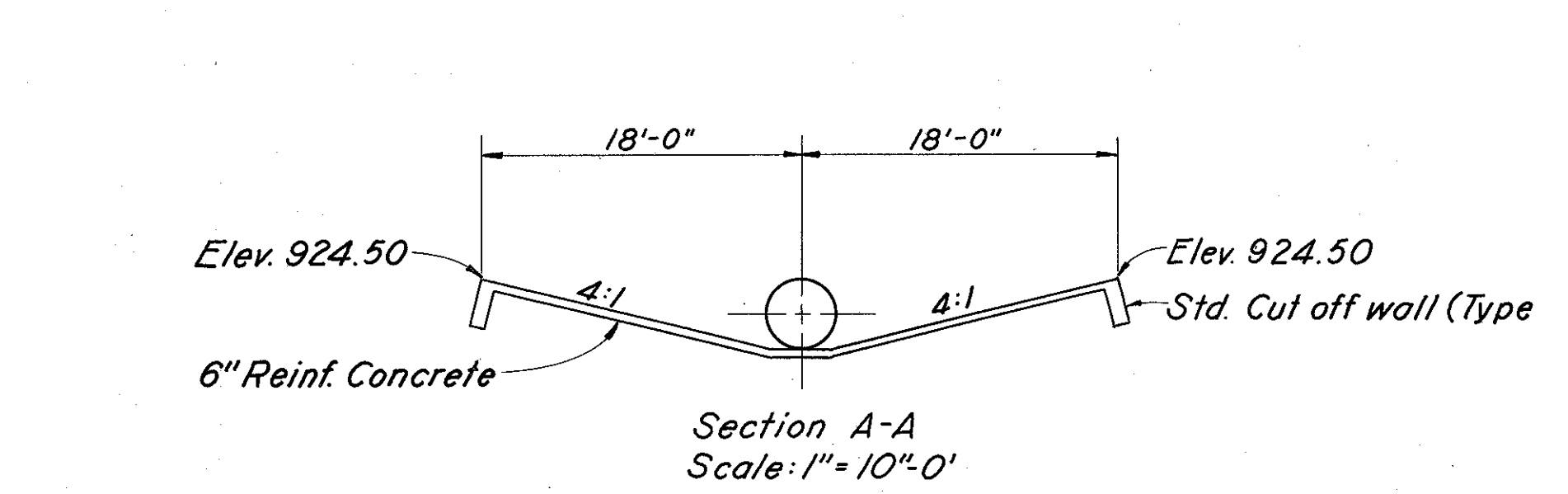
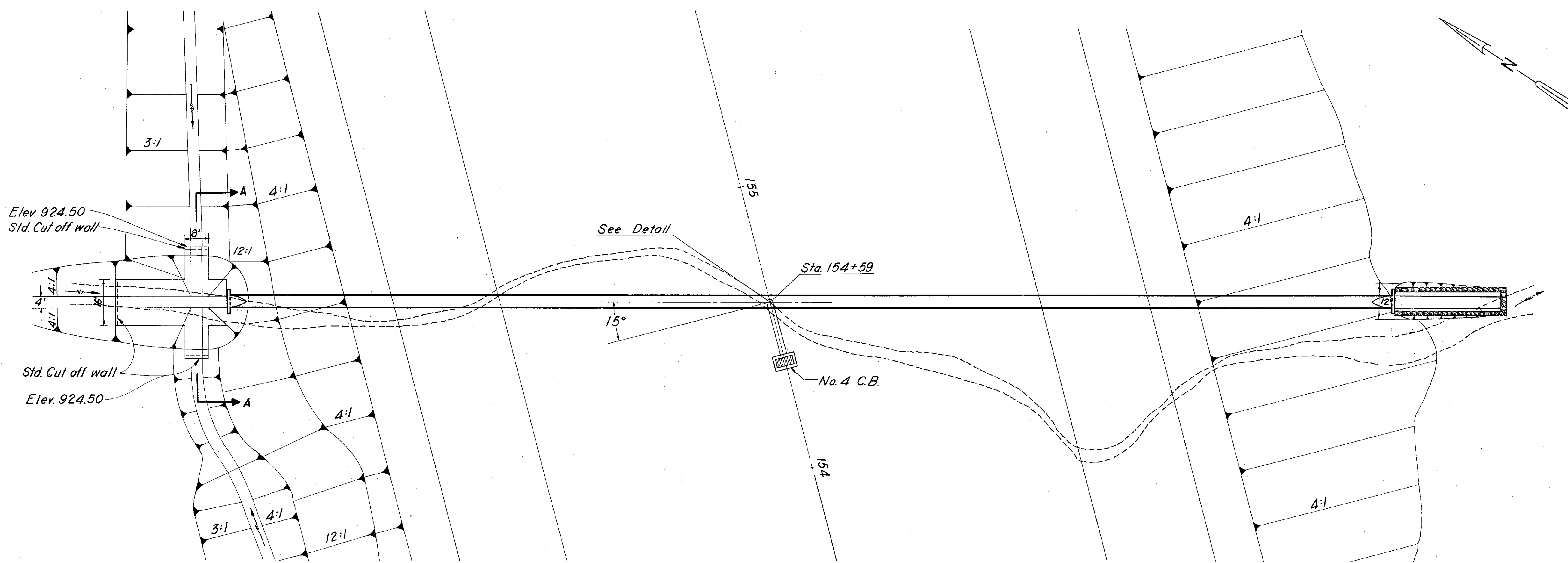
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
		187	139

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
8850		881	

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
32		10	
4	21	5	

CROSS SECTIONS OF PROPOSED CULVERT Sta. 135+12

WAR-25-8.48
MOT-25-0.00

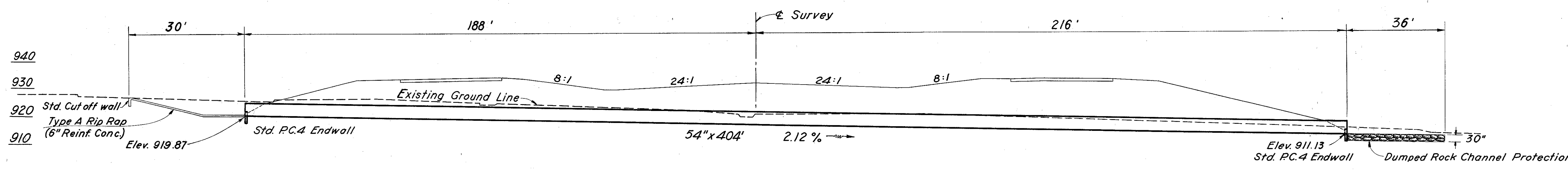


CULVERT DATA

TYPE - Pipe Culvert S-27 P.C. 3 & 4
 SIZE - 54" x 404'
 WORK REQ'D. - Build a Pipe Culvert with Std. P.C. 4 Endwalls
 Place Type A Rip Rap Lt. and Dumped Rock Channel Protection Rt. as shown. Excavate Channels.

ESTIMATED QUANTITIES

E = 2	Excavation for Structures	690	Cu. Yds.
E = 3	Channel Excavation	220	Cu. Yds.
I = 10	Type A Rip Rap (6" Reinf. Conc.)	82	Sq. Yds.
I = 10	Dumped Rock Channel Protection	55	Cu. Yds.
S = 1	Concrete for Structures (Class E)	19	Cu. Yds.
S = 27	54" Pipe for Roadway Culverts	400	Lin. Ft.
I = 5	54" Pipe Special for S-27	1	Ea.
I = 2	15" Storm Sewers	18	Lin. Ft.

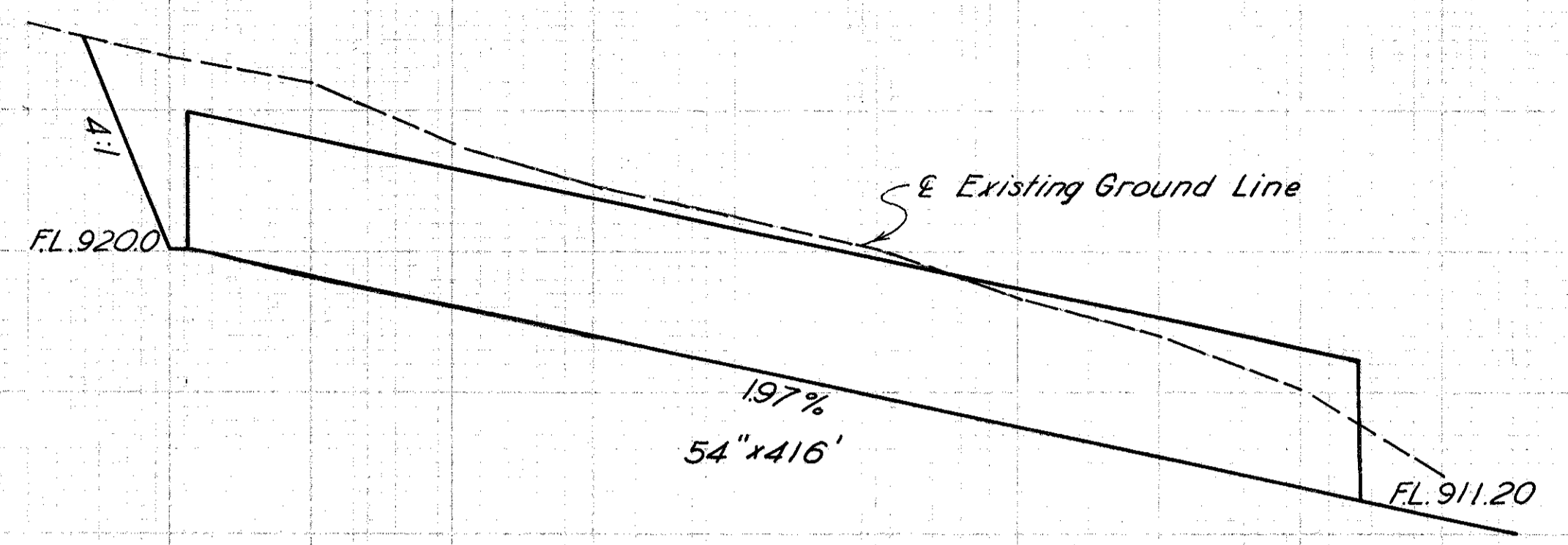


Area = 88 acres
Q₅₀ = 135 cfs.

Scale: 1" = 20'-0"

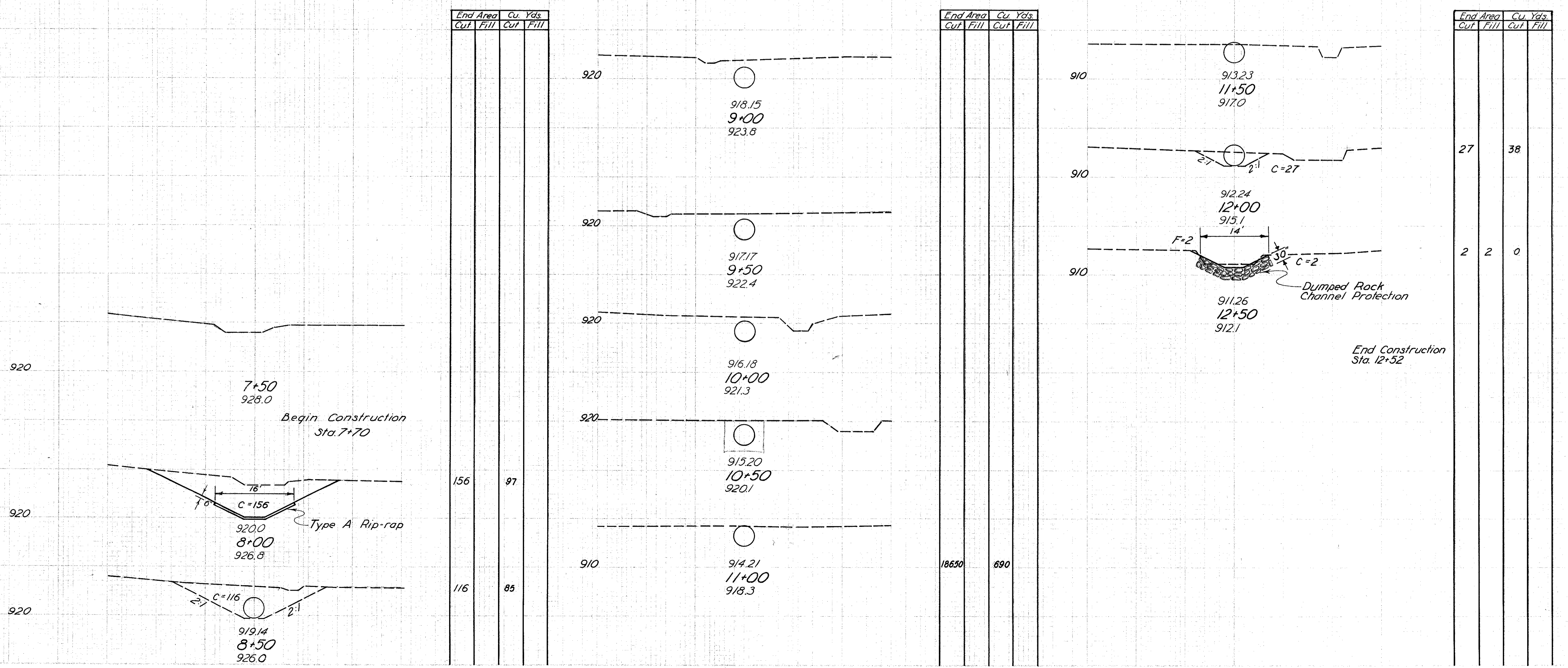
WAR-25-848
MOT-25-0.00

930
925
920
915
910



4 5 6 7 8 9 10 11 12 13 14 15 16

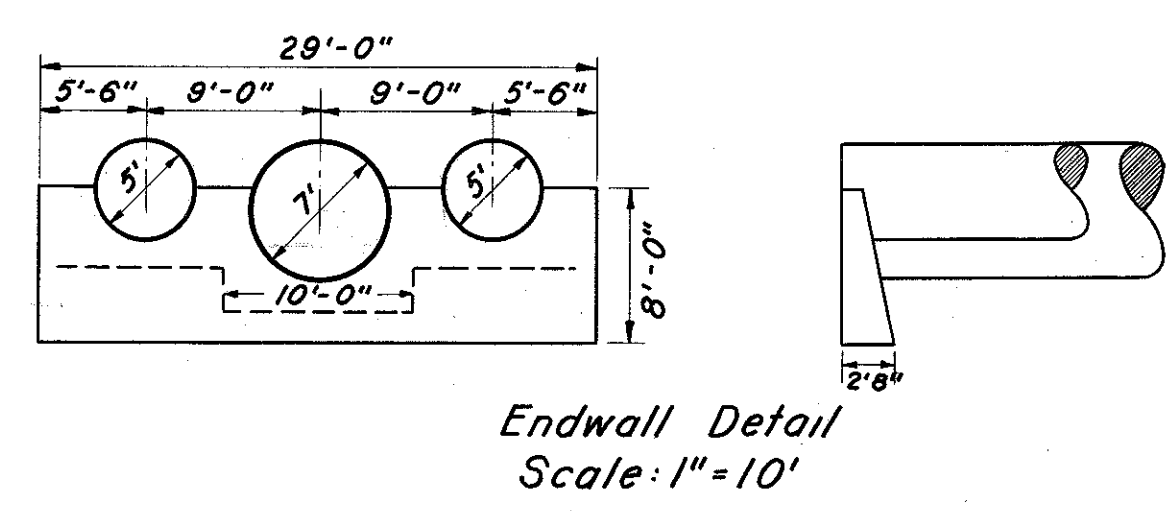
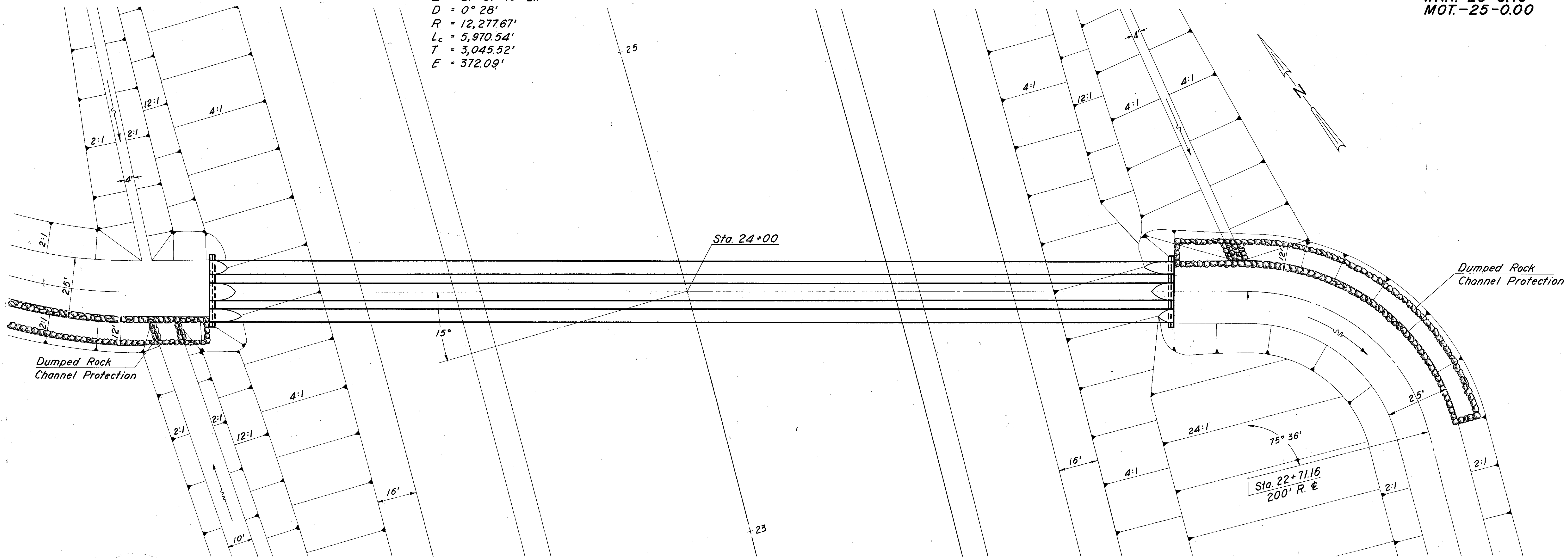
Culvert Profile
Sta. 154+59 Skew 15° LF
Scale as Shown



CROSS SECTIONS OF PROPOSED CULVERT Sta. 154+59

WAR-25-848
MOT-25-0.00

CURVE DATA
 PI = Sta. 218+16.45 (War. Co.)
 $\Delta = 27^\circ 51' 45''$ Lt.
 $D = 0^\circ 28'$
 $R = 12,277.67'$
 $L_c = 5,970.54'$
 $T = 3,045.52'$
 $E = 372.09'$

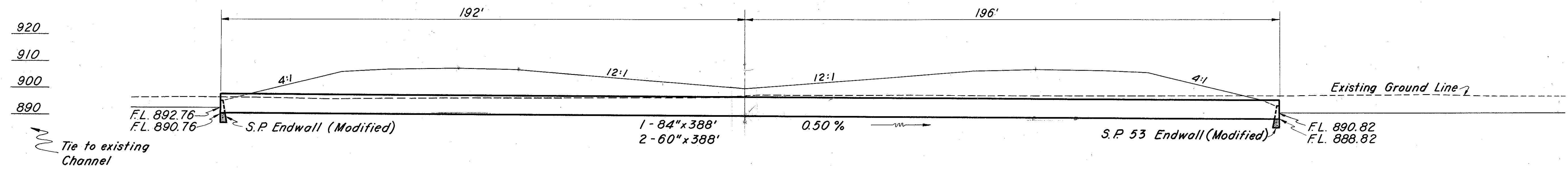


CULVERT DATA
 Type - Multiple Pipe Culvert S-27, M 6.6 b S.P 53 (Modified)
 Size - 1-84" x 388" 2-60" x 388"
 Work - Req'd - Build a Multiple Pipe Culvert with modified S.P 53 Endwalls. Excavate inlet & outlet channels. Place Dumped Rock Channel Protection Rt. & Lt. as shown

ESTIMATED QUANTITIES

E - 2	Excavation for Structures	708	Cu.Yd.
E - 3	Channel Excavation	2370	Cu.Yd.
I - 10	Dumped Rock Channel Protection	337	Cu.Yd.
S - 1	Concrete for Structures (Class E)	274	Cu.Yd.
S - 27	84" Pipe for Roadway Culverts (M 6.6 b)	388	Lin.Ft.
S - 27	60" Pipe for Roadway Culverts (M 6.6 b)	776	Lin.Ft.

Area = 789 acres
Q25 = 619 cfs.

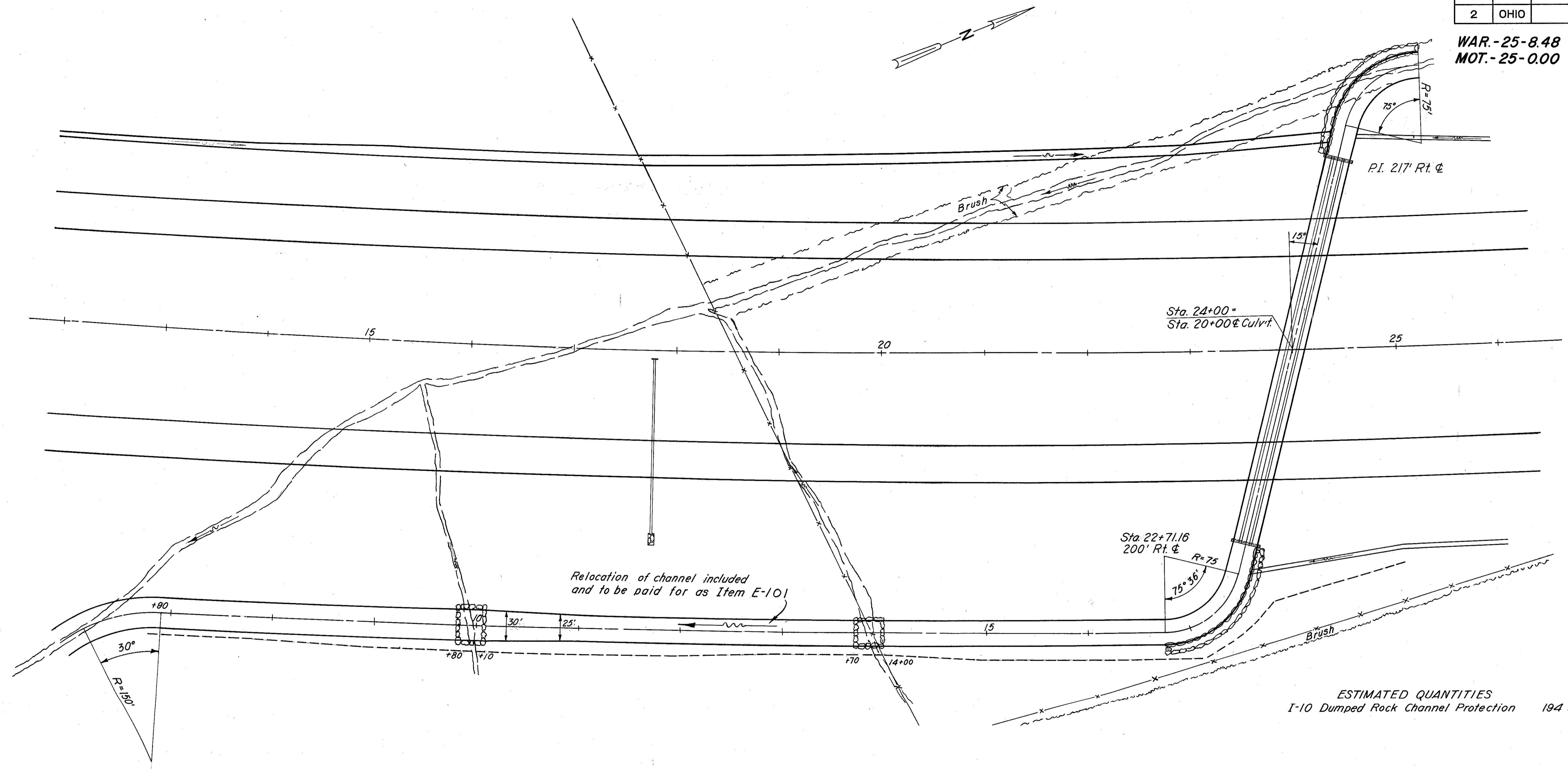


Scale: 1"=20'

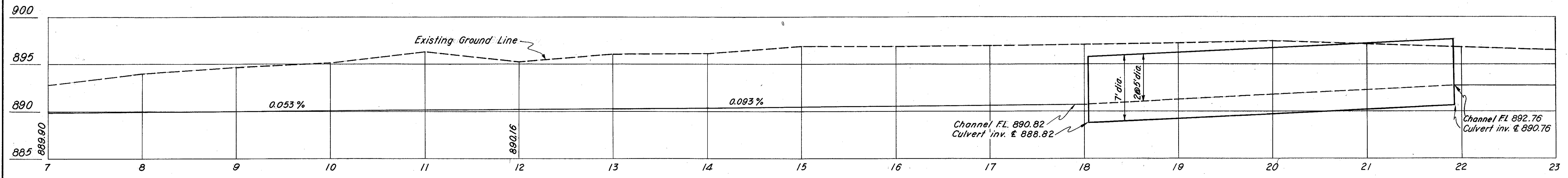
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

287
377

WAR.-25-8.48
MOT.-25-0.00

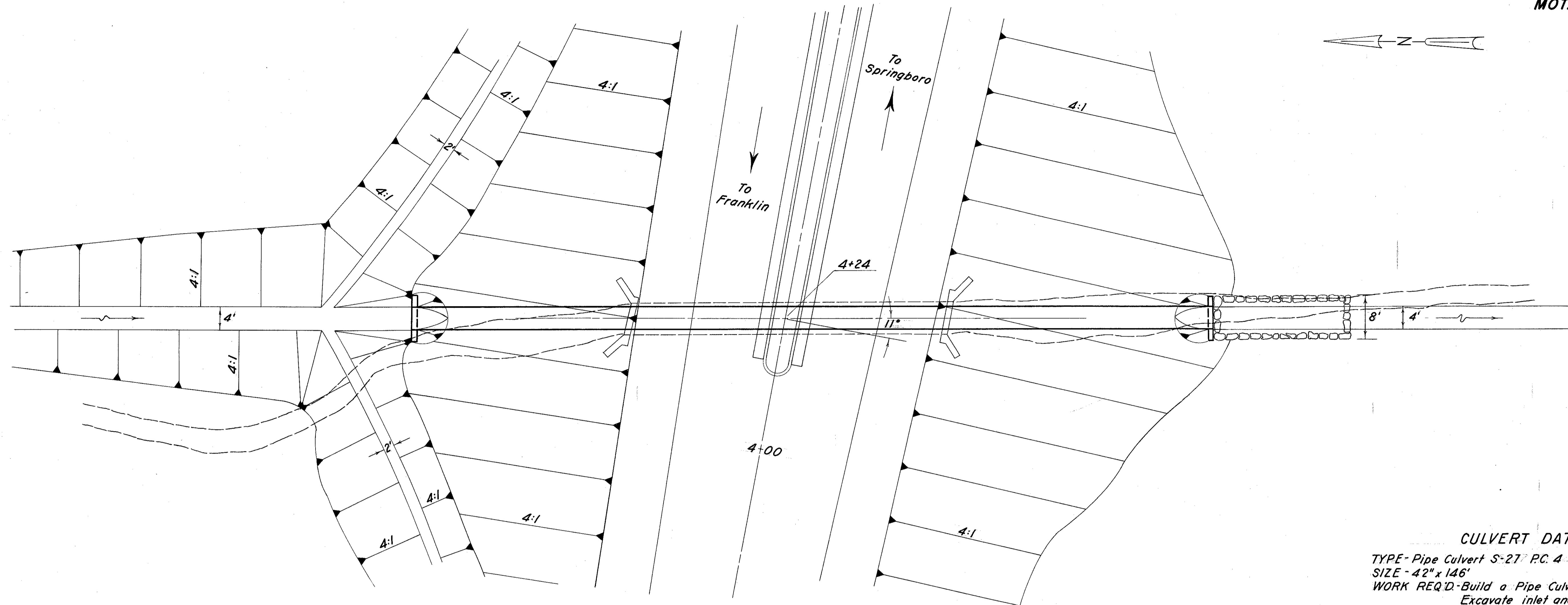
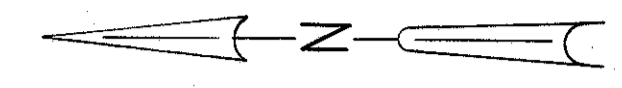


ESTIMATED QUANTITIES
I-10 Dumped Rock Channel Protection 194 c. y.



Scale:
Hor. 1" = 50'
Vert. 1" = 5'

WAR.-25-8.48
MOT.-25-0.00



CULVERT DATA

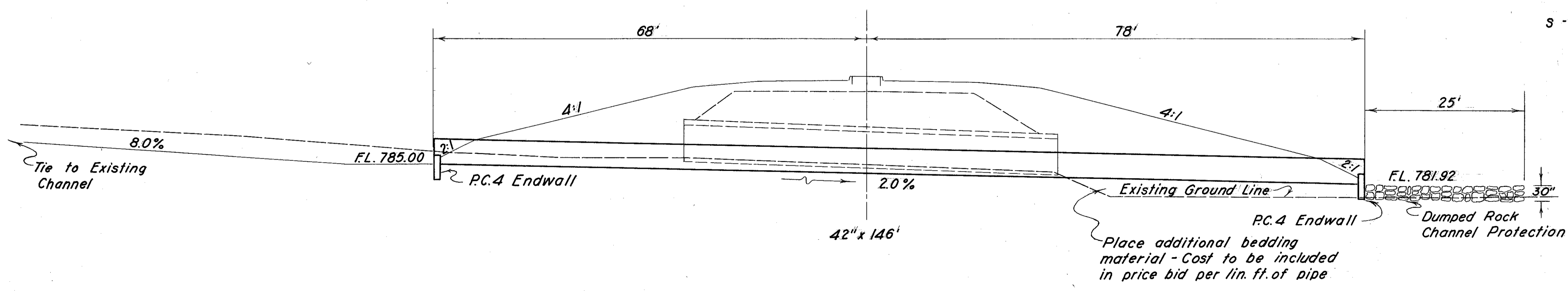
TYPE - Pipe Culvert S-27 PC.4
 SIZE - 42" x 146"
 WORK REQ'D - Build a Pipe Culvert with PC.4 Endwalls
 Excavate inlet and outlet Channels as
 Shown. Place Dumped Rock Channel
 Protection Rt. as shown. Remove existing
 Structure.

ESTIMATED QUANTITIES

E - 2	Excavation for Structures	416 Cu. Yds.
E - 3	Channel Excavation	50 Cu. Yds.
I - 10	Dumped Rock Channel Protection	19 Cu. Yds.
S - 1	Concrete for Structures (Class E)	1.5 Cu. Yds.
S - 27	42" Roadway Culvert (Sec. M-6.6 b)	146 Lin. Ft.
S - 24	Removal of Existing Structures	L.S.

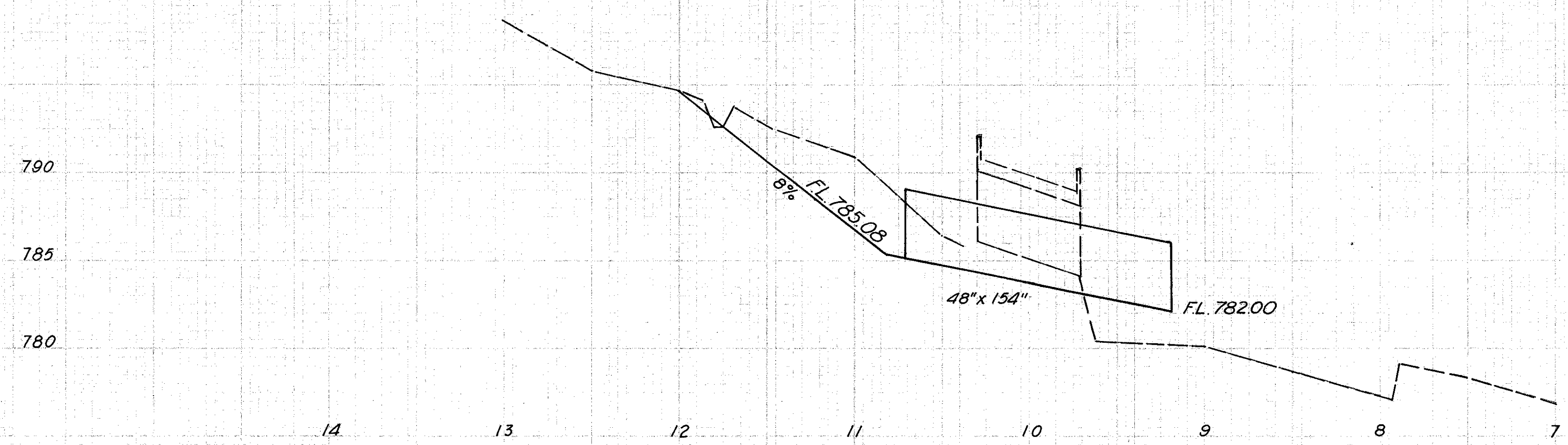
Area = 75 Acres
Q₂₅ = 132 cfs.

**THIS SHEET
VOID**



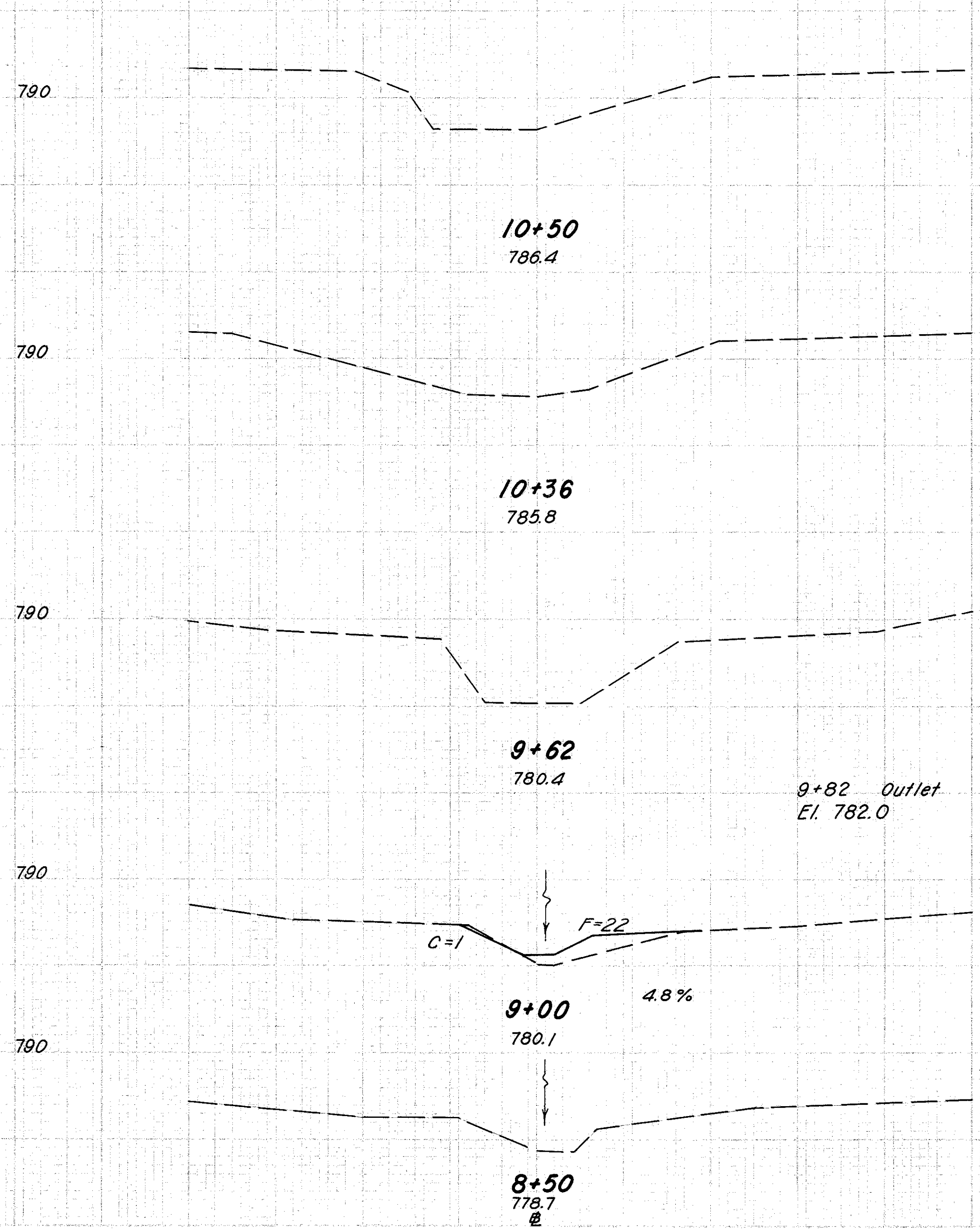
Scale: 1" = 10'-0"

WAR-25-8.48
MOT.-25-0.00



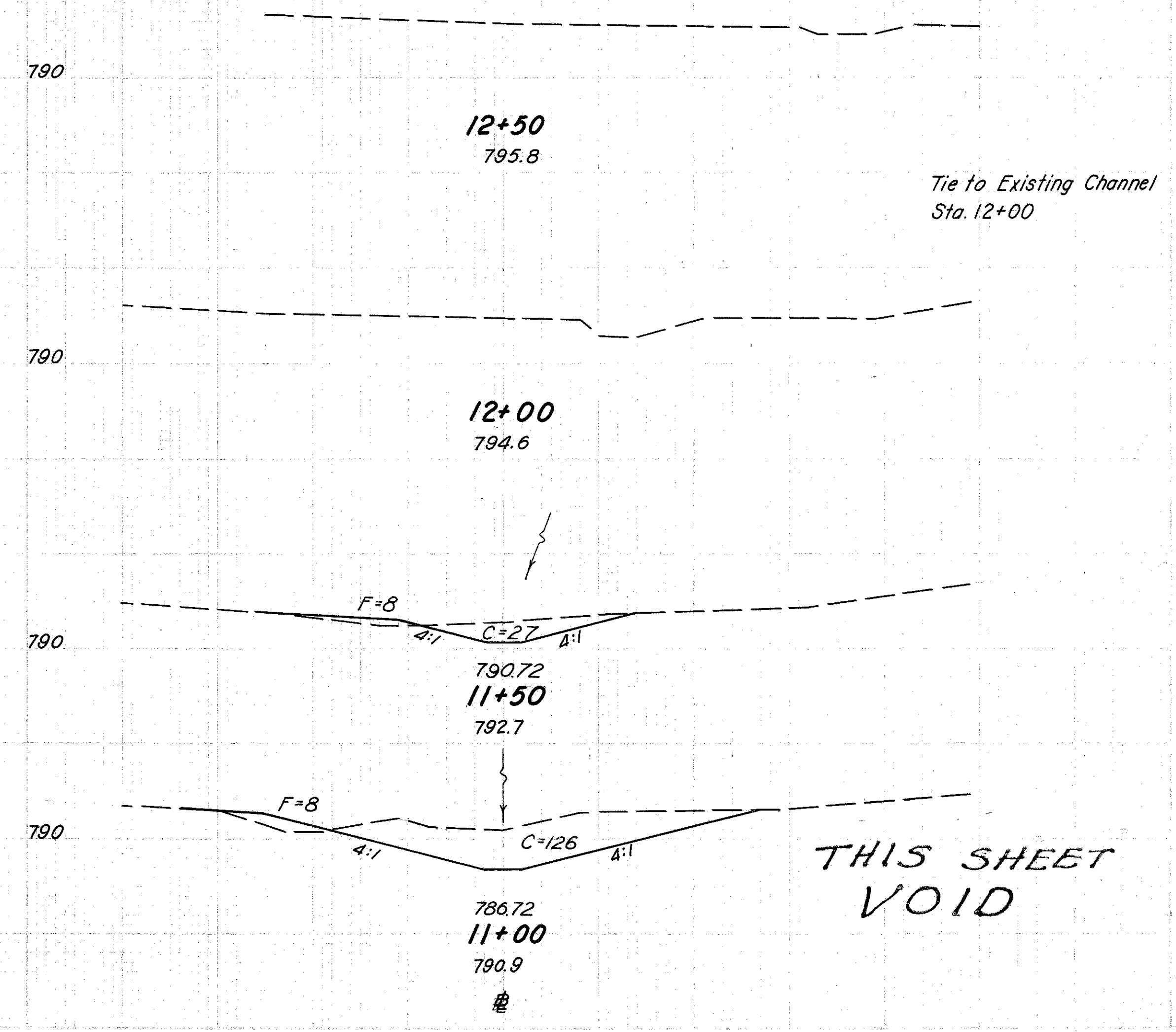
Proposed Culvert @
Sta 4+24 S.R. 73 Skew
11° 00' R.F.

Tie to Sta. 11+75



9+82 Outlet
El. 782.0

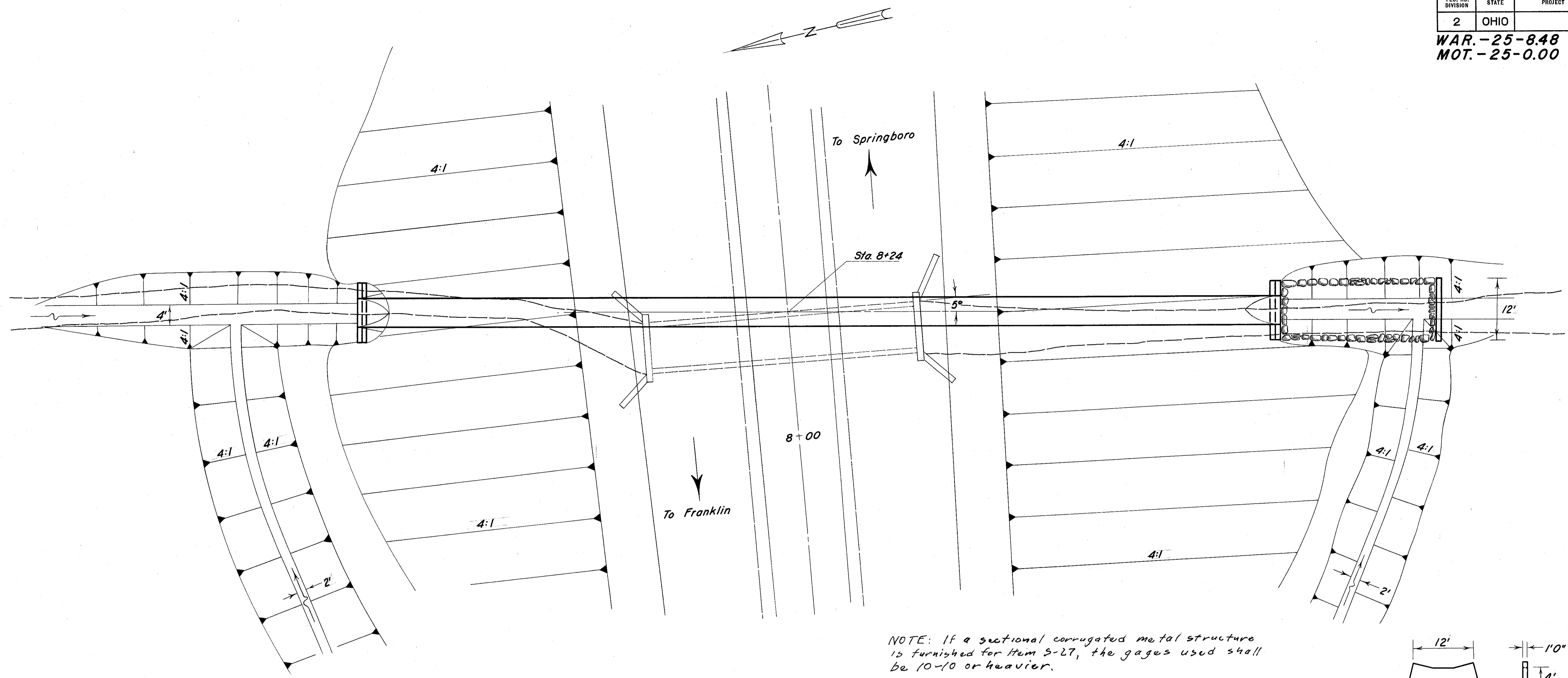
END AREA		VOLUME		SEEDING	
CUT	FILL	CUT	FILL	END WIDTH	SO YDS
1	22	13	8		



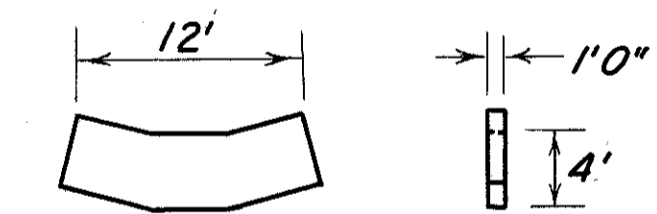
Tie to Existing Channel
Sta. 12+00

THIS SHEET
VOID

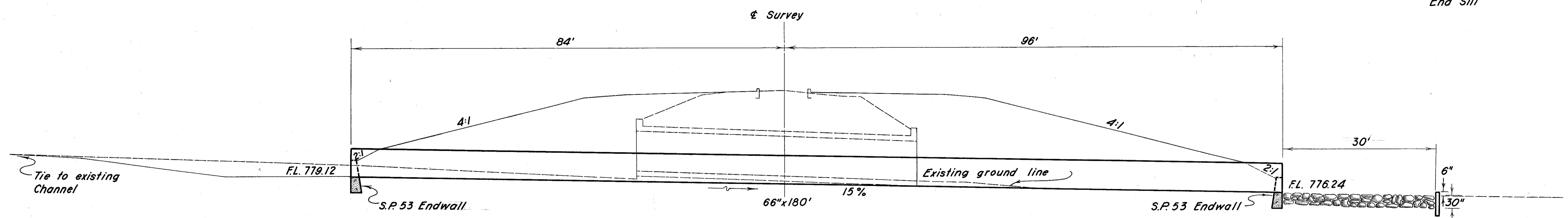
WAR.-25-8.48
MOT.-25-0.00



NOTE: If a sectional corrugated metal structure is furnished for Item S-27, the gages used shall be 10-10 or heavier.



End Sill



CULVERT DATA
 TYPE - Pipe Culvert S-27 S.P. 53 Endwall
 SIZE - 66"x180'
 WORK REQ'D.- Build a Pipe Culvert with S.P. 53 Endwalls
 Excavate inlet and outlet and Place Dumped
 Rock Channel Protection Rt. as shown
 Remove Existing Structure

ESTIMATED QUANTITIES

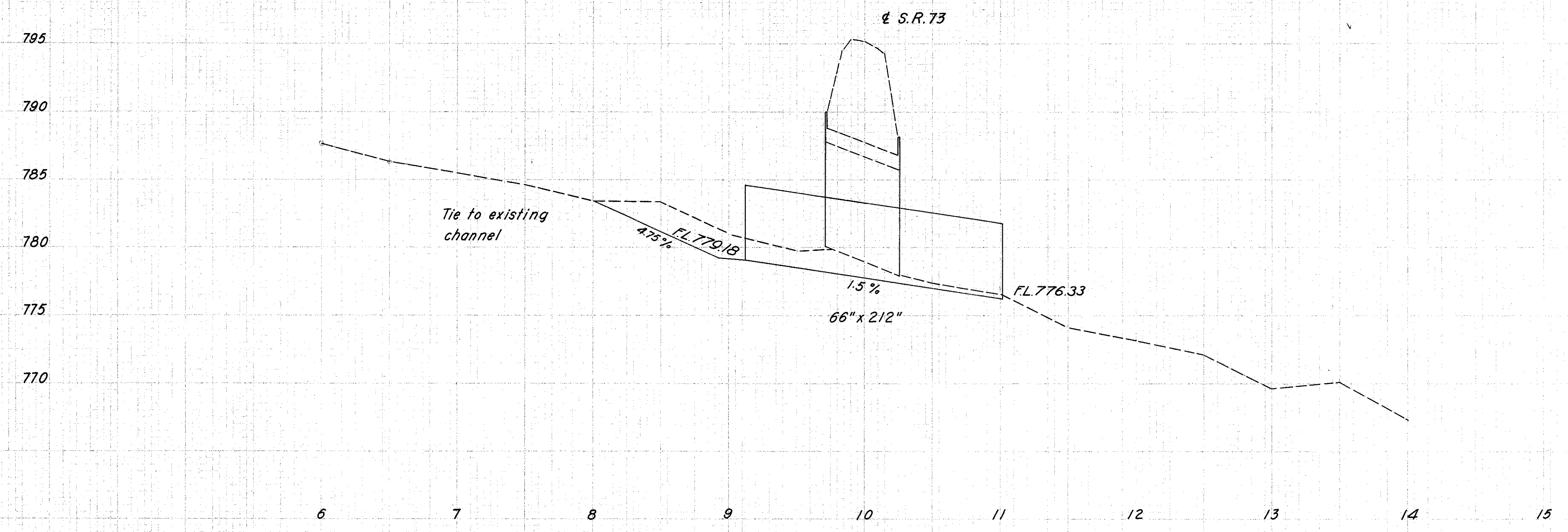
E-2 Excavation for Structures	174	Cu. Yds.
E-3 Channel Excavation	20	Cu. Yds.
I-10 Dumped Rock Channel Protection	33	Cu. Yds.
S-1 Concrete for Structures (Class E)	83	Cu. Yds.
S-24 Removal of Existing Structures	L.S.	
S-27 66" Pipe for Roadway Culverts	180	Lin. Ft.

Area = 189 Acres
Q25 237 cfs.

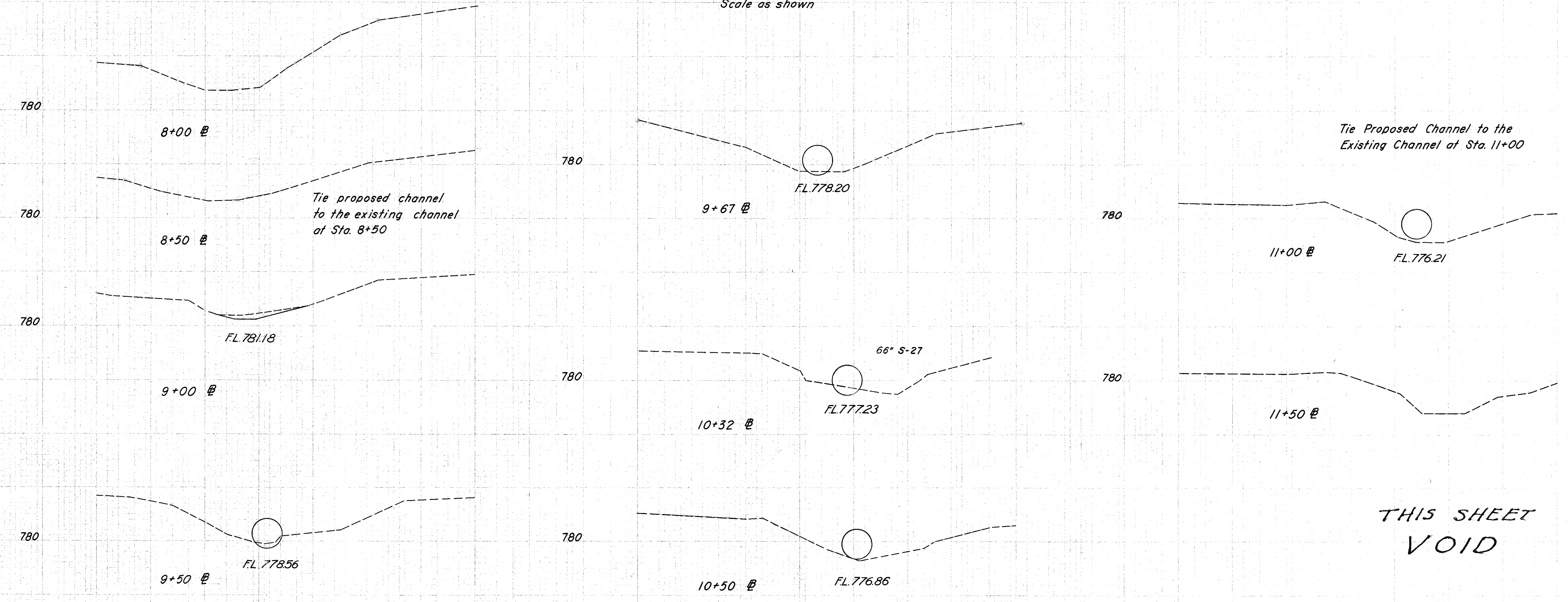
THIS SHEET
VOID

Scale: 1" = 10'-0"

WAR-25-848
MOT.-25-0.00

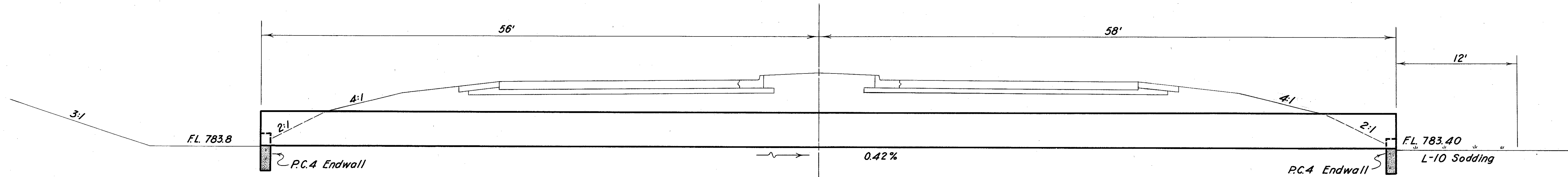
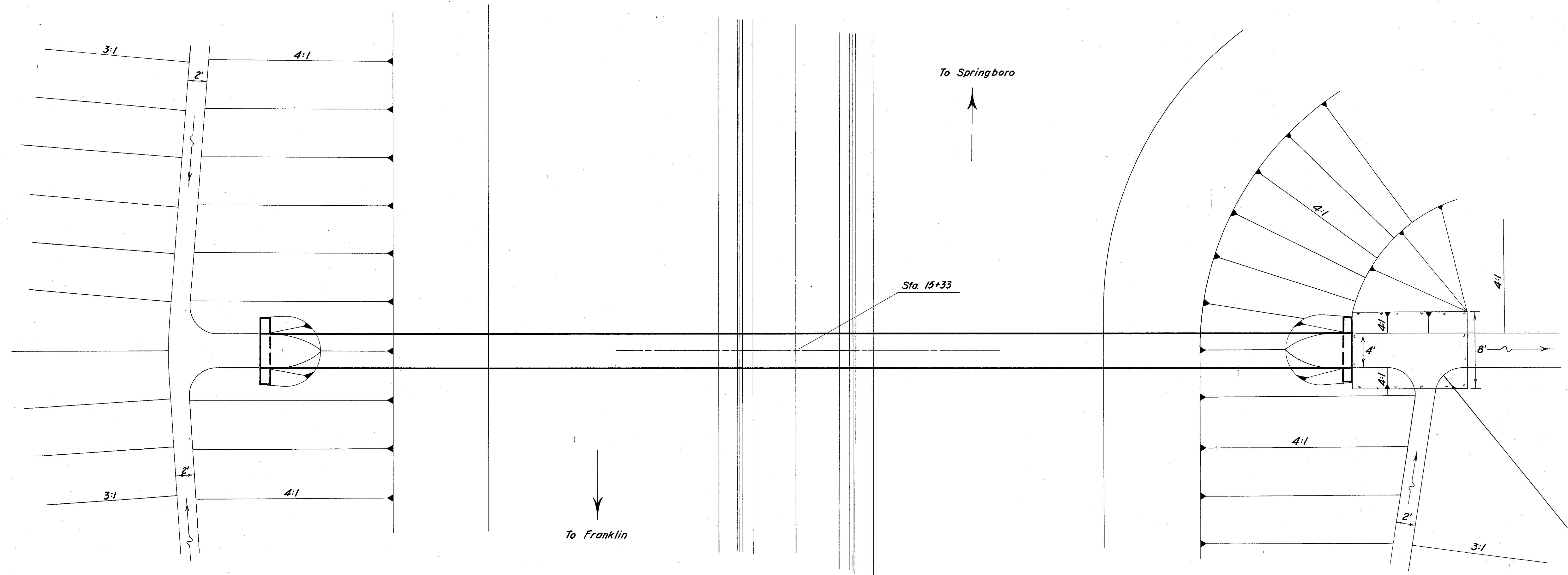
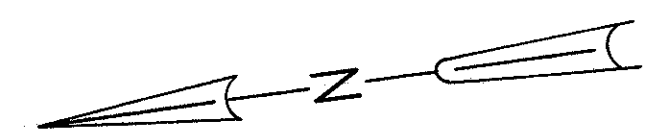


Culvert Profile
Sta. 8+24 S.R. 73 Skew 5°
Scale as shown



THIS SHEET
VOID

WAR.-25-8.48
MOT.-25-0.00



CULVERT DATA
 TYPE- Pipe Culvert S-27 P.C.4
 SIZE- 42"x114'
 WORK REQ'D.-Build a Pipe Culvert with P.C.4
 Endwall. Excavate inlet and outlet
 Channels. Place sodding as shown

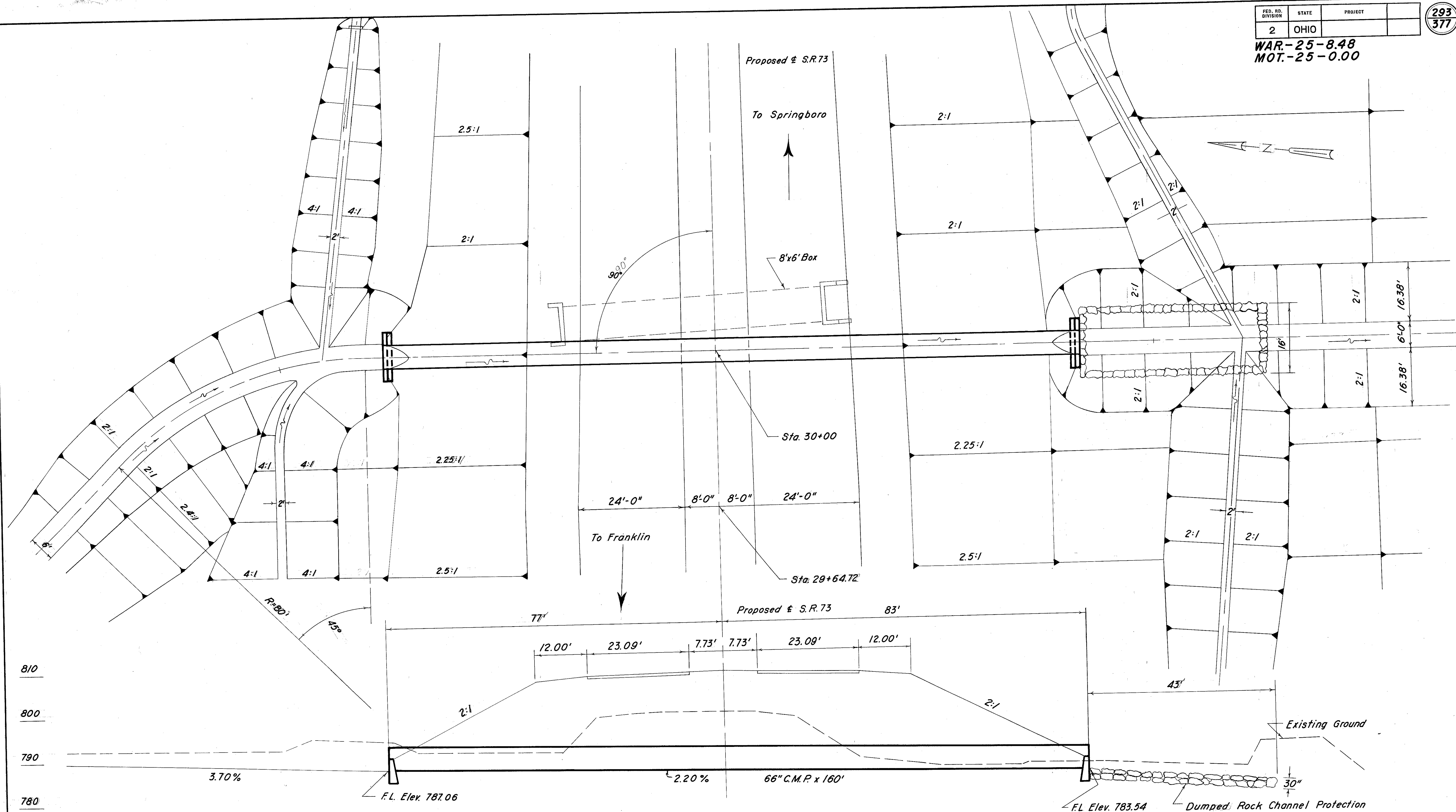
ESTIMATED QUANTITIES

E-2	Excavation for Structures	167	Cu. Yds.
E-3	Channel Excavation	5	Cu. Yds.
L-10	Sodding	11	Sq. Yds.
S-1	Concrete for Structures (Class E)	1.5	Cu. Yds.
S-27	42" Pipe for Roadway Culverts (Sec. M-6.6 b)	114	Lin. Ft.

Area = 19.0 Acres
Q25 = 55 cfs.

Scale: 1" = 5'-0"

WAR.-25-8.48
MOT.-25-0.00



Area = 229 acres
Q25 = 275 cfs.

CULVERT DATA

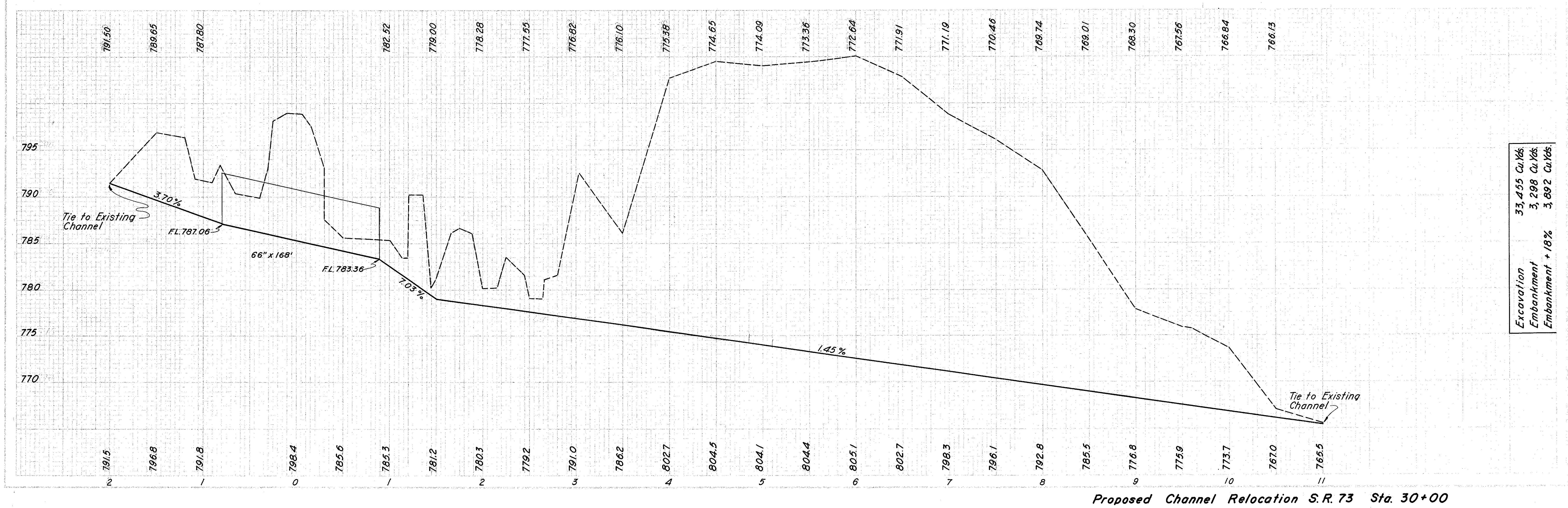
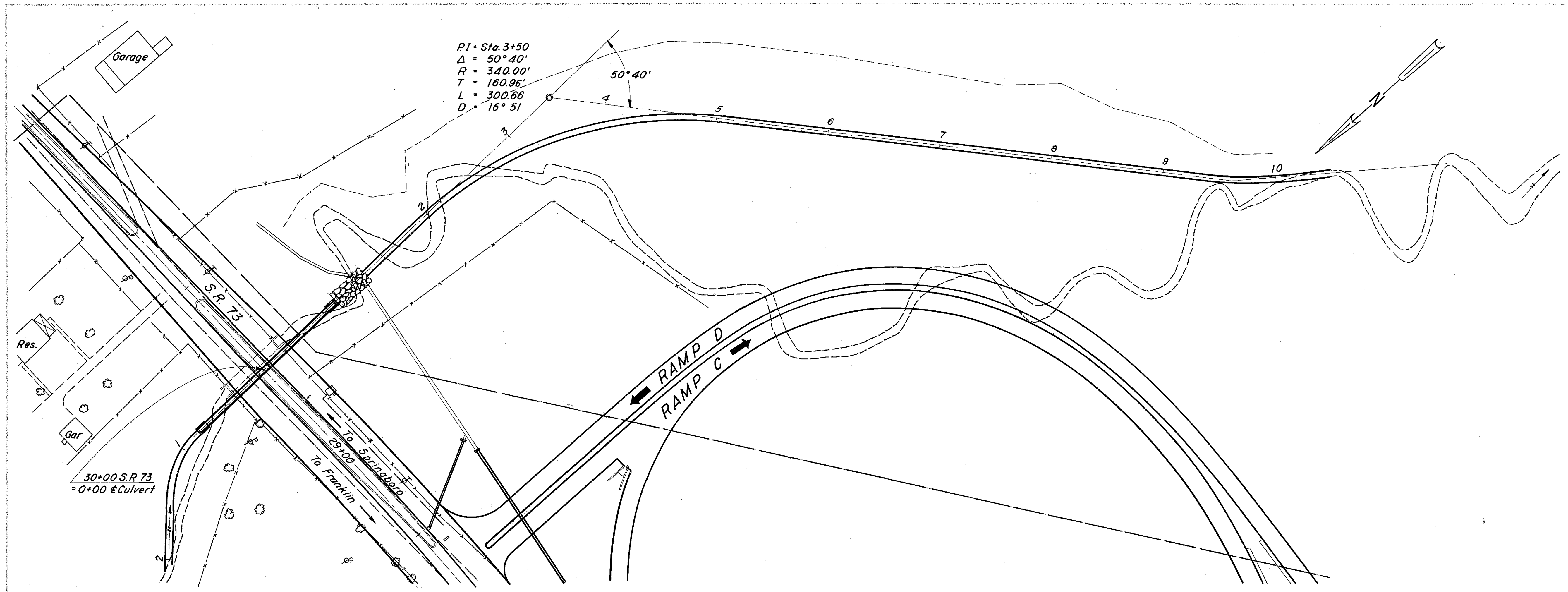
TYPE - Pipe Culvert S-28 S.P. 53
 SIZE - 66" x 160"
 WORK REQ'D- Build a Sectional Corrugated Metal Structure with S.P. 53 Endwalls. Remove Existing Structure. Excavate Channel on Rt. & Lt. and place Dumped Rock Channel Protection on Rt as shown.

ESTIMATED QUANTITIES

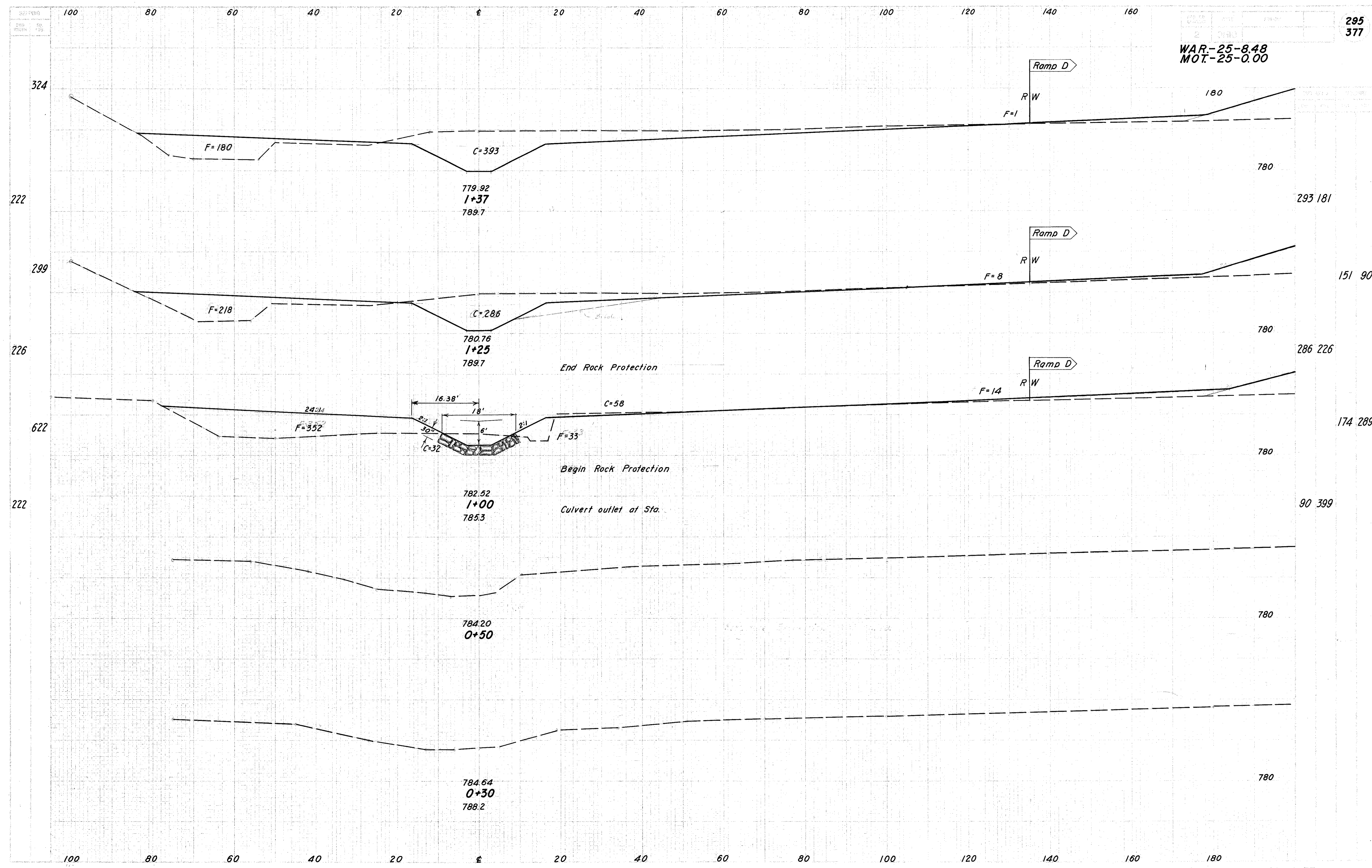
E - 2 Excavation for Structure	435	Cu. Yds.
E - 3 Channel Excavation (Included in channel relocation. See sheet 155)		
I - 10 Dumped Rock Channel Protection	64	Cu. Yds.
S - 1 Concrete for Structures (Class E)	13.4	Cu. Yds.
S - 24 Removal of Existing Structures (8' x 6' Box)	1	Each
S - 28 Sectional Corrugated Metal Structure, Sec. M-6.4(g) 10-10 gage	160	Lin. Ft.

Scale: 1" = 10'-0"

PIPE CULVERT Sta. 30+00 SR 73

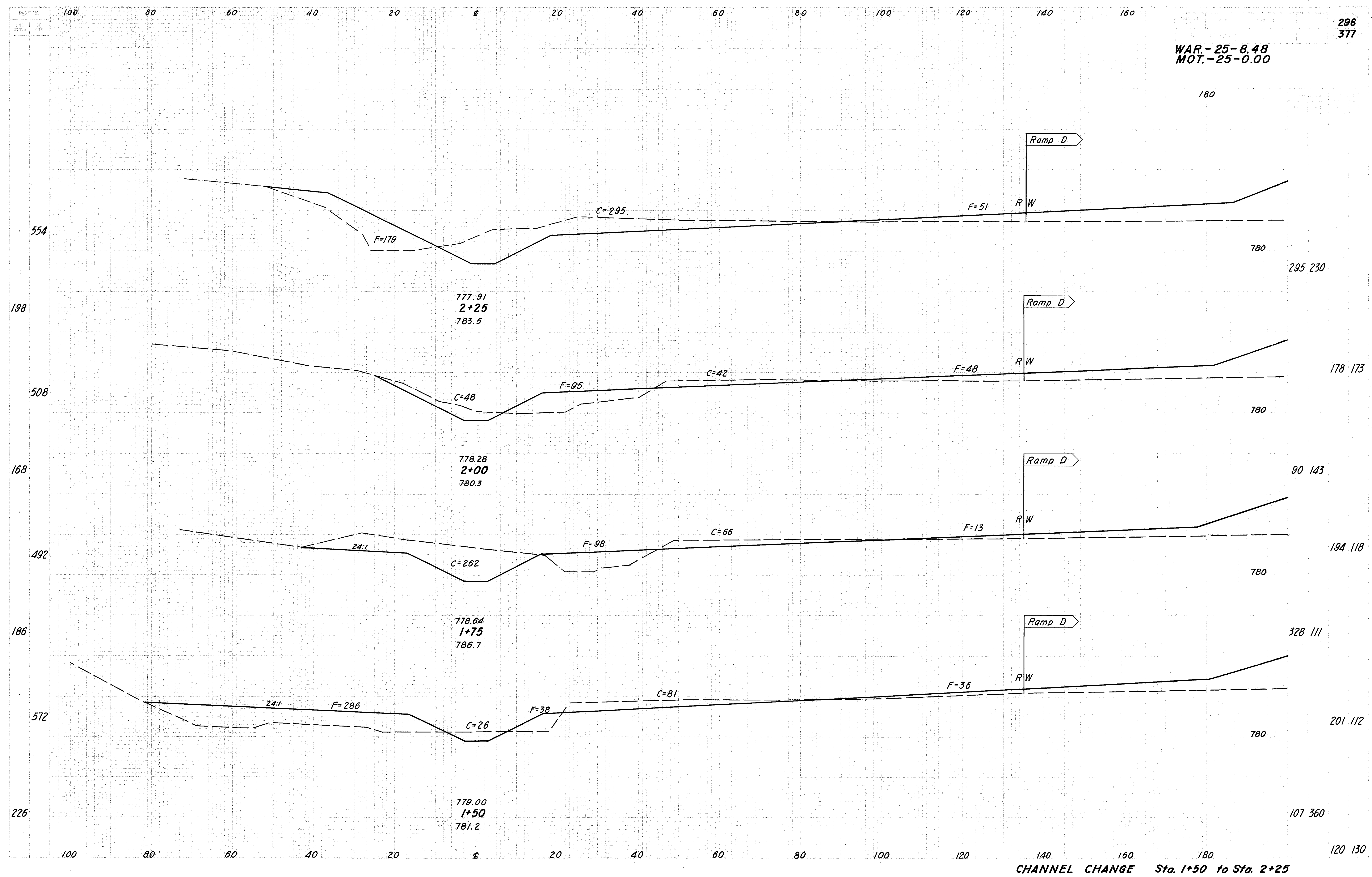


WAR.-25-8.48
MOT.-25-0.00

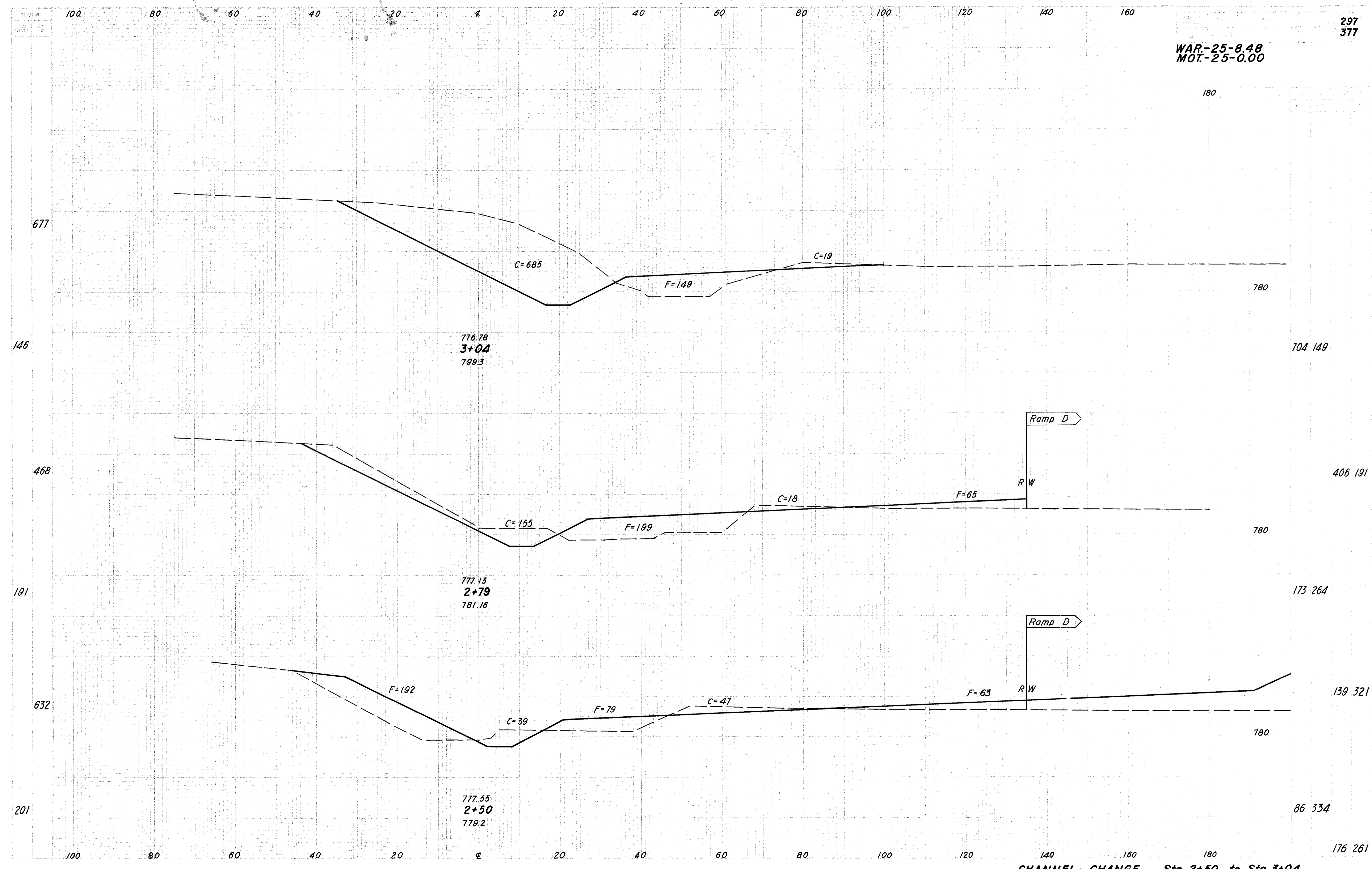


CHANNEL CHANGE Sta. 0+30 to Sta. 1+37

WAR. - 25 - 8.48
MOT. - 25 - 0.00



WAR-25-8.48
MOT-25-0.00



776.78
3+04
799.3

777.13
2+79
781.16

777.55
2+50
779.2

C=685

F=149

C=19

C=155

F=199

C=18

F=65

F=192

C=39

F=79

C=47

F=63

Ramp D

RW

Ramp D

RW

CHANNEL CHANGE Sta. 2+50 to Sta. 3+04

180

780

704 149

406 191

780

173 264

139 321

780

86 334

176 261

677

146

468

191

632

201

100

80

60

40

20

0

20

40

60

80

100

120

140

160

100

80

60

40

20

0

20

40

60

80

100

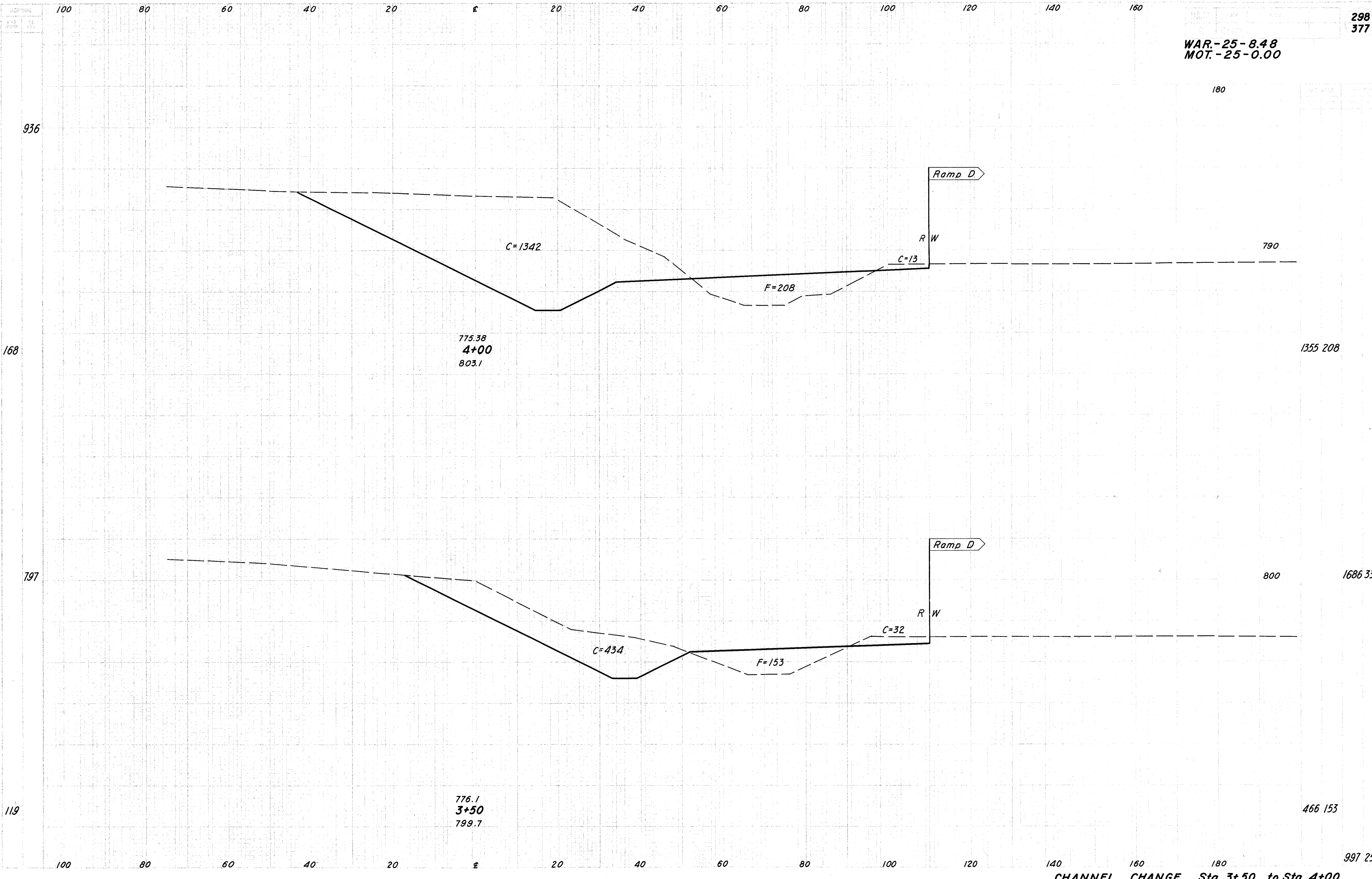
120

140

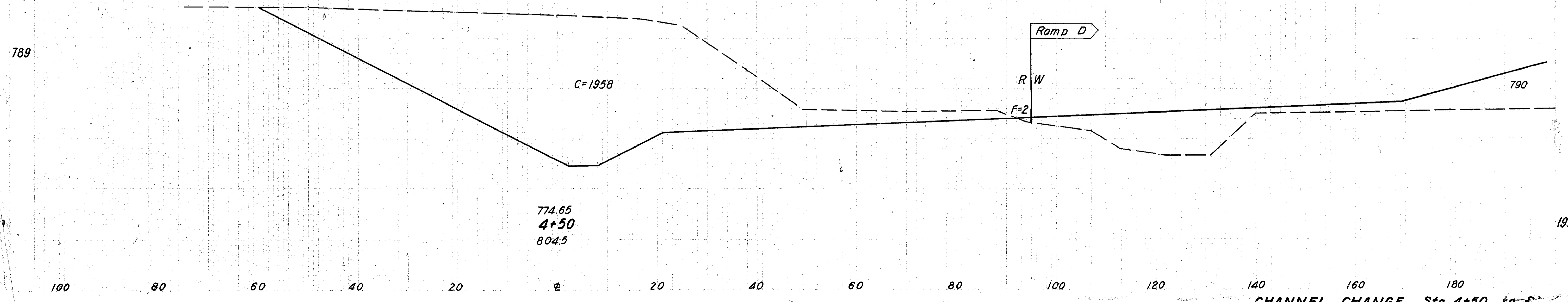
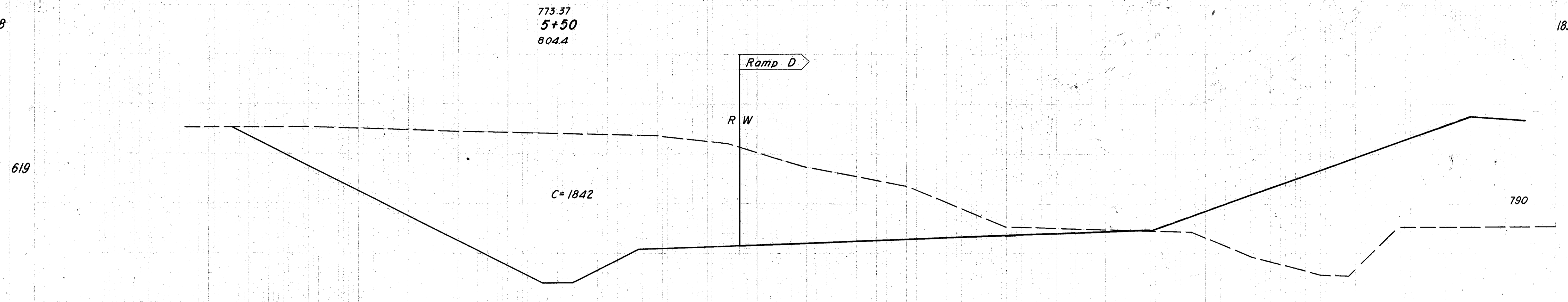
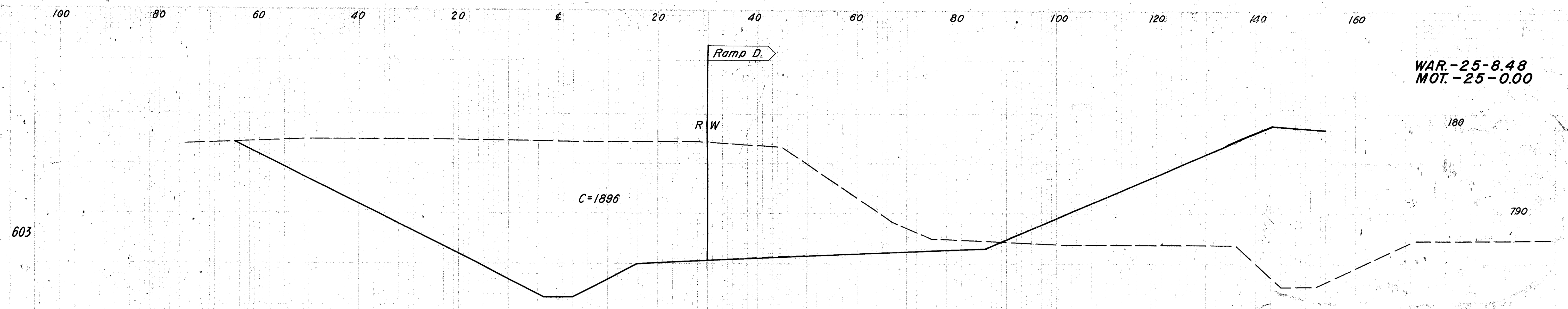
160

180

WAR.-25-8.48
MOT.-25-0.00



WAR-25-8.48
MOT-25-0.00



CHANNEL CHANGE Sta. 4+50 to 5+

1958 2

3519 0

1842

3461

1896

180

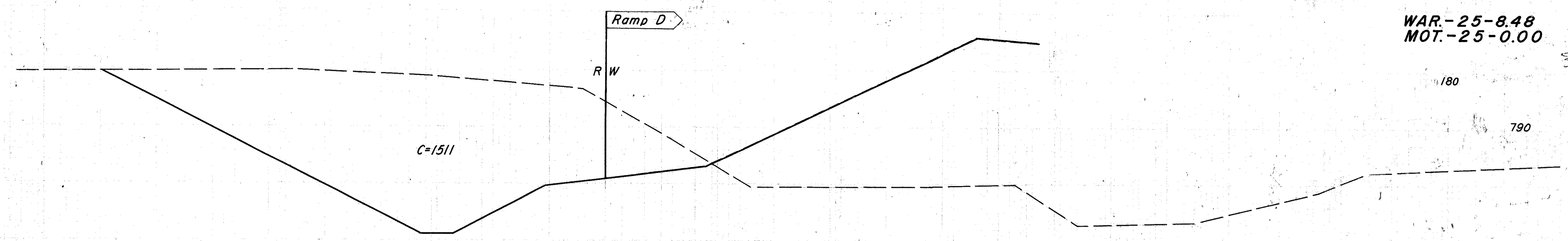
790

790

790

100 80 60 40 20 0 20 40 60 80 100 120 140 160

WAR-25-8.48
MOT-25-0.00
300
377
Yellow
179
300-377



771.19
7+00
798.9

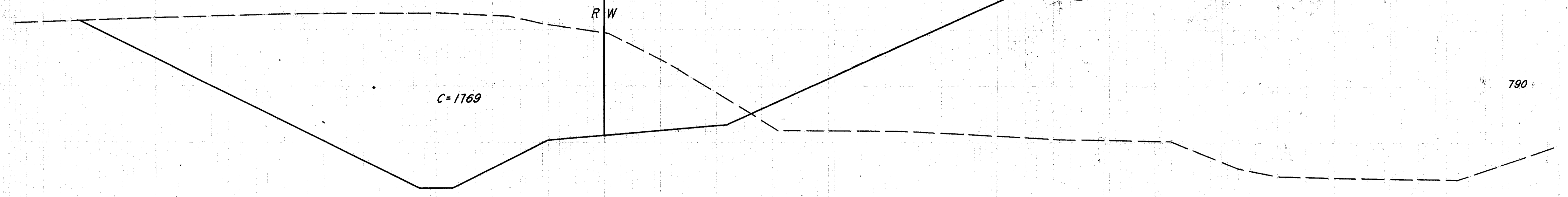
180
790

1511

103

Ramp D

R W



C=1769

771.91
6+50
802.8

790

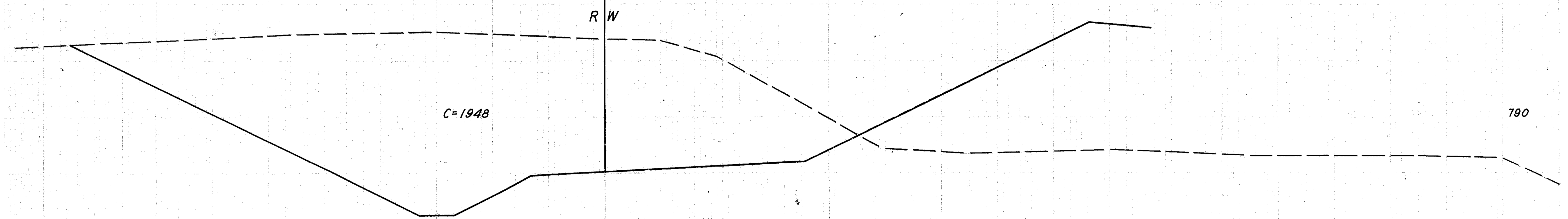
3037

1769

583

Ramp D

R W



C=1948

772.64
6+00
805.1

790

3442

1948

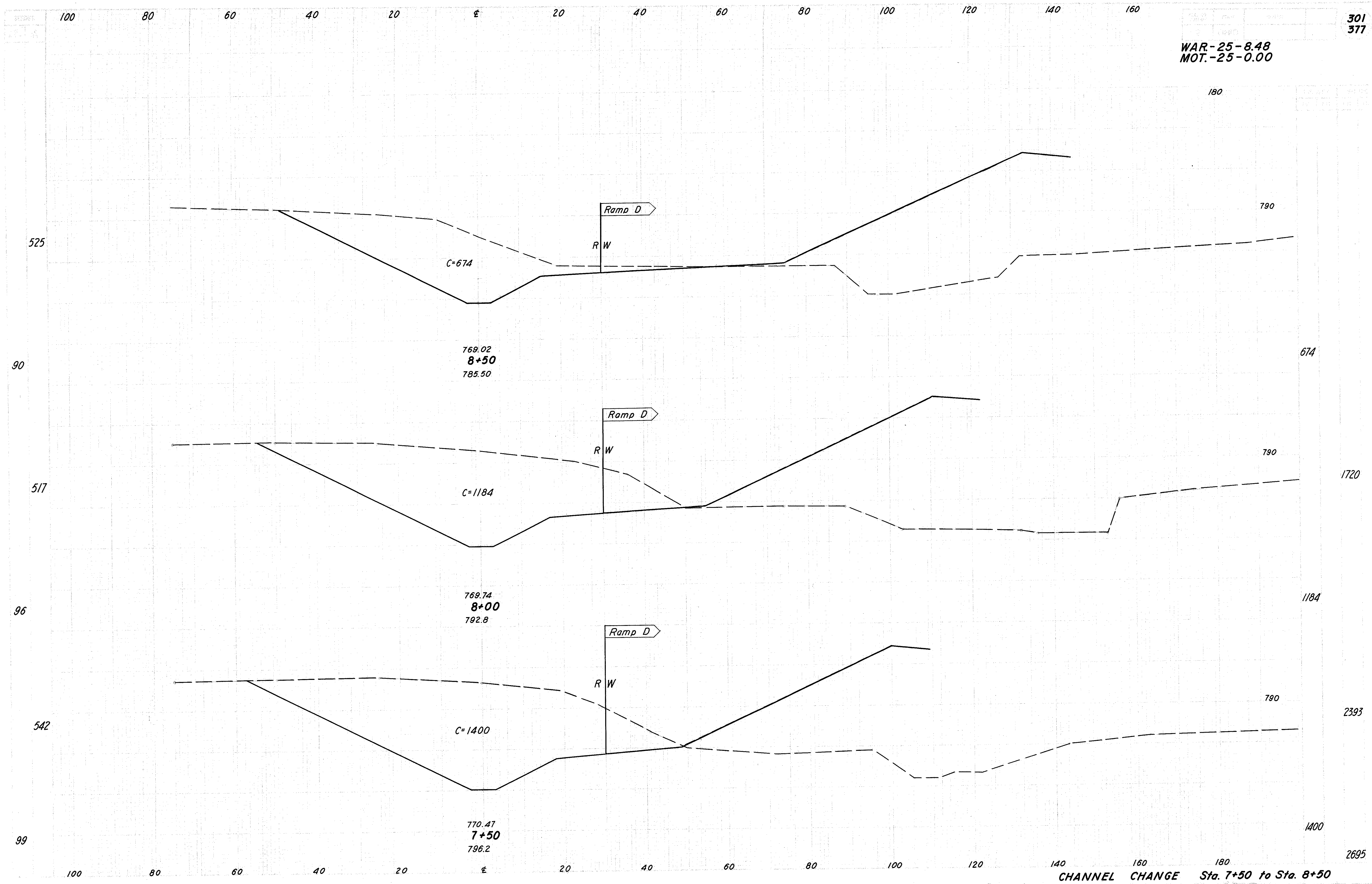
600

100 80 60 40 20 0 20 40 60 80 100 120 140 160 180

CHANNEL CHANGE Sta. 6+00 to Sta. 7+00

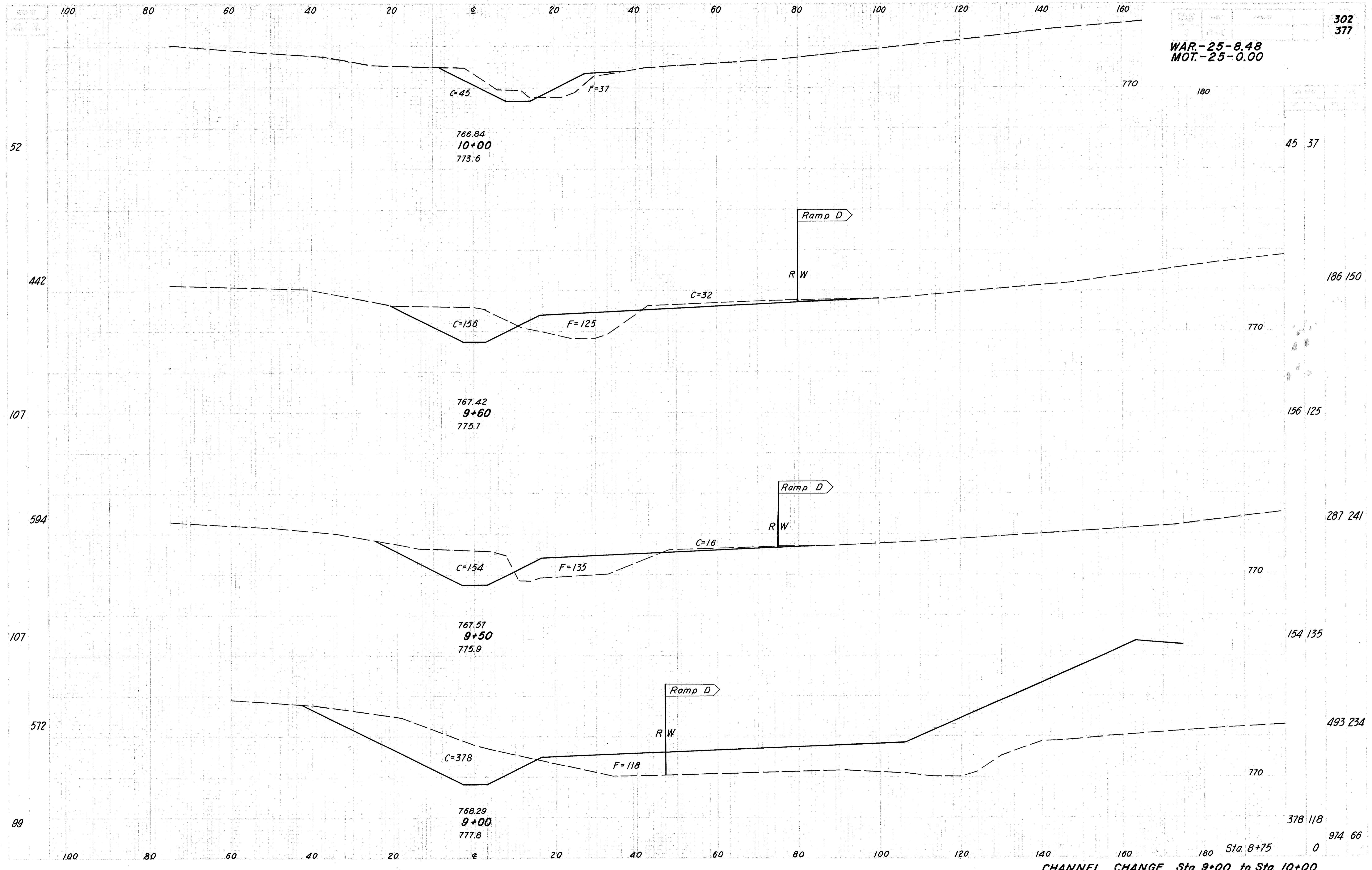
3559

109



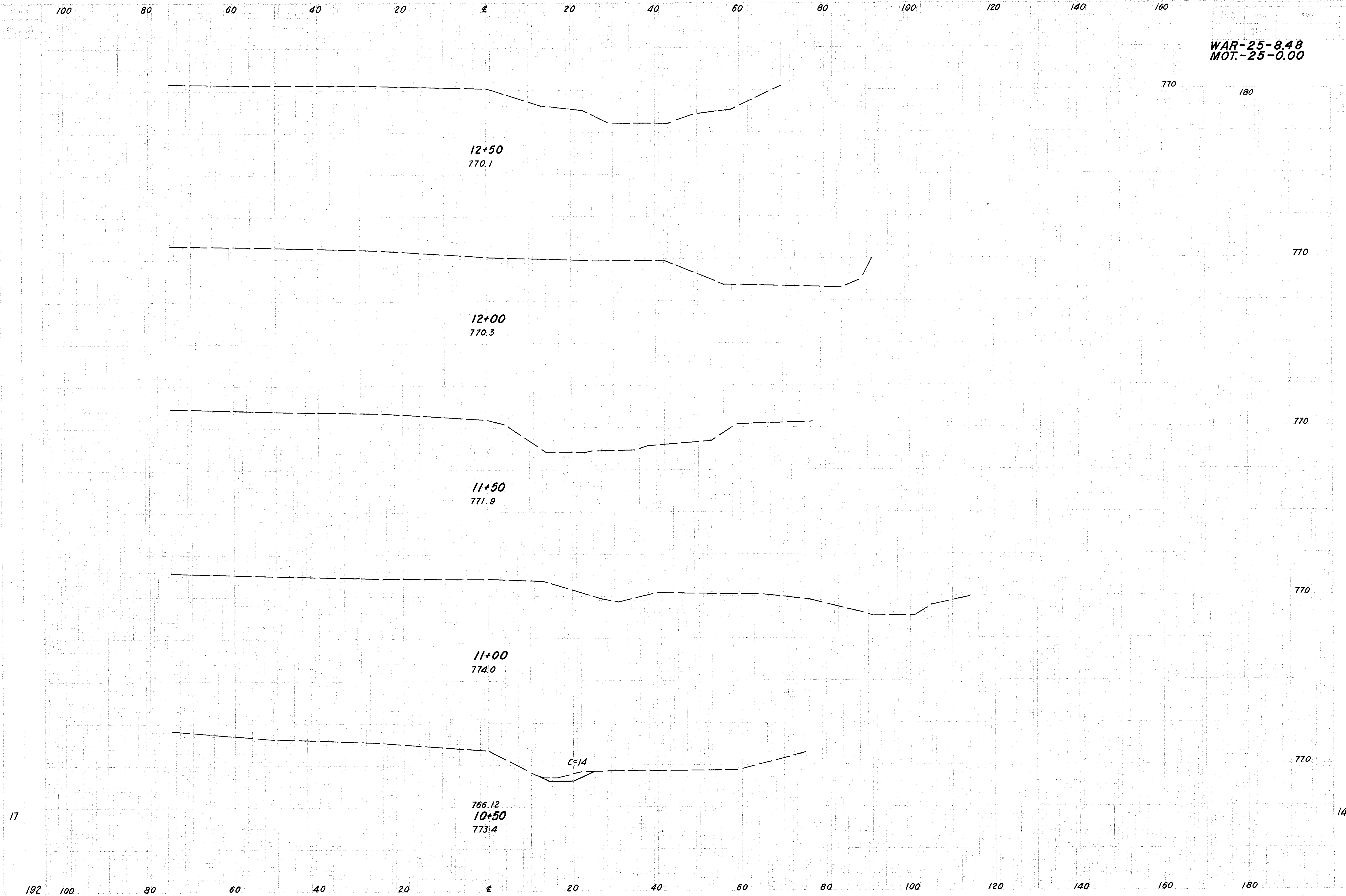
WAR-25-8.48
MOT.-25-0.00

302
377



WAR-25-8.48
MOT.-25-0.00

303
377



12+50
770.1

12+00
770.3

11+50
771.9

11+00
772.0

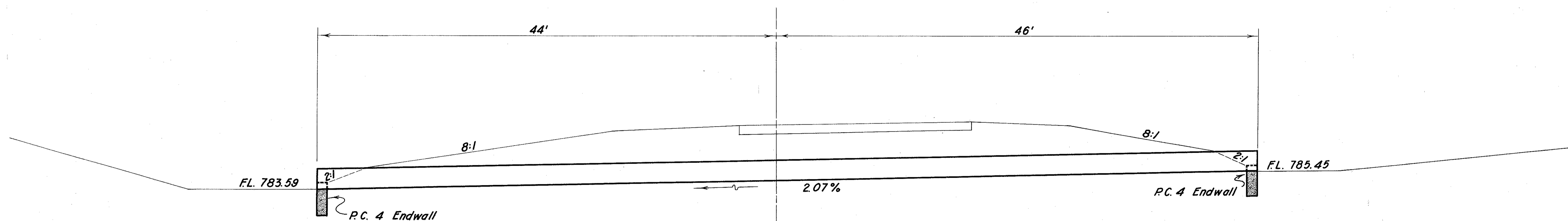
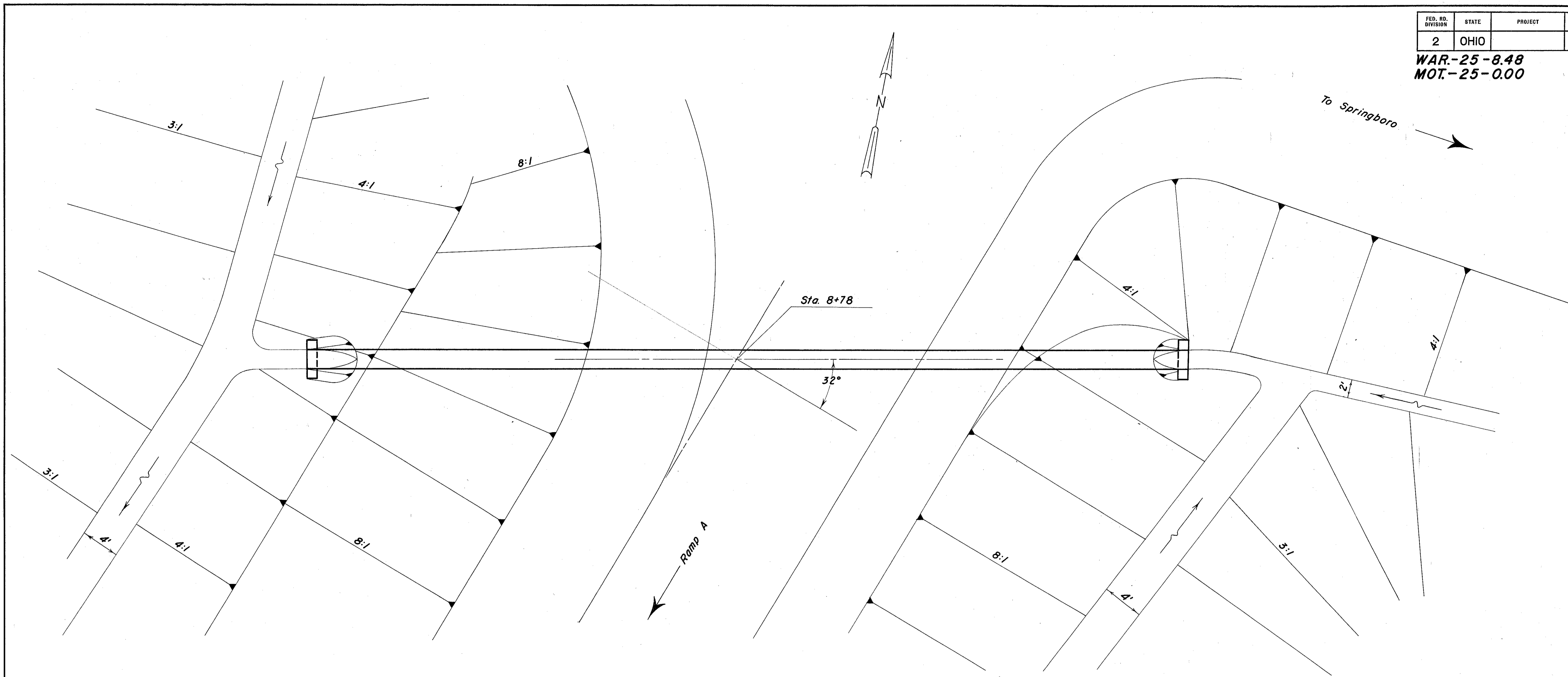
766.12
10+50
773.4

c=14

CHANNEL CHANGE Sta. 10+50 to Sta. 12+50

55 34

WAR.-25-8.48
MOT.-25-0.00



CULVERT DATA
 TYPE - Pipe Culvert S-27 P.C.4
 SIZE - 18" x 90'
 WORK REQ'D. - Build Pipe Culvert with P.C. 4 Endwalls
 Excavate inlet and outlet Channels
 as shown.

ESTIMATED QUANTITIES

E - 2	Excavation for Structures	44	Cu. Yds.
S - 1	Concrete for Structures (Class E)	0.8	Cu. Yds.
S - 27	18" Pipe for Roadway Culverts (Sec. M-6.6 b or Sec. M-6.8 b)	90	Lin. Ft.
E - 3	Channel Excavation	2	Cu. Yds.

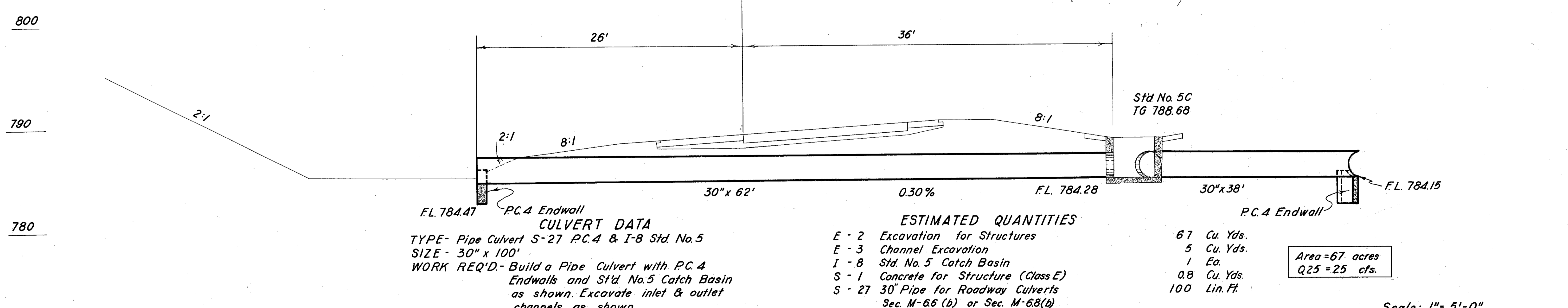
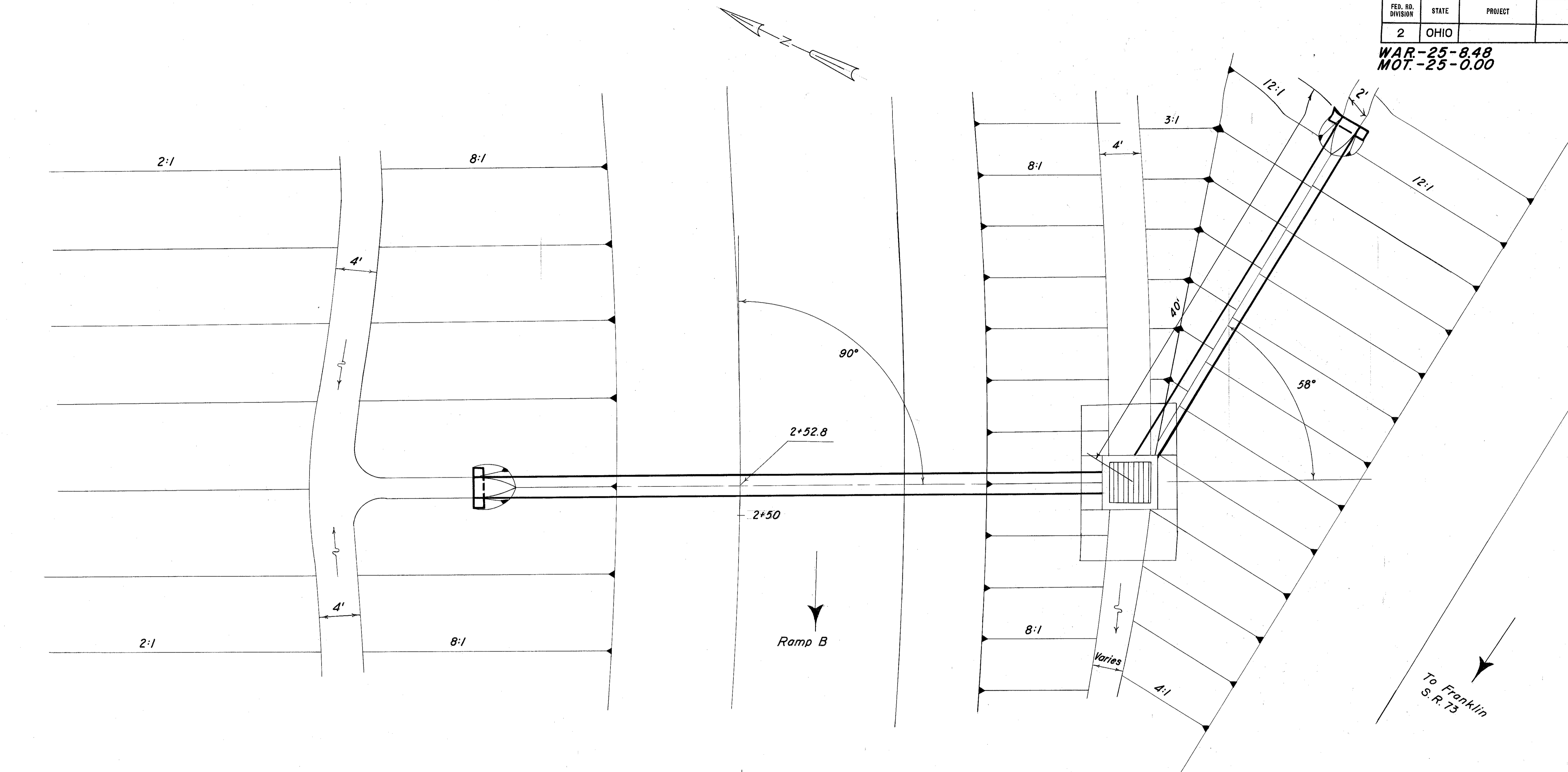
Area = 1.8 Acres
Q₅₀ = 77 cfs.

Scale: 1" = 5'-0"

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

305
377

WAR-25-848
MOT.-25-0.00



CULVERT DATA
 TYPE- Pipe Culvert S-27 P.C.4 & I-8 Std. No.5
 SIZE - 30" x 100"
 WORK REQ'D.- Build a Pipe Culvert with P.C.4 Endwalls and Std. No.5 Catch Basin as shown. Excavate inlet & outlet channels as shown.

ESTIMATED QUANTITIES
 E - 2 Excavation for Structures
 E - 3 Channel Excavation
 I - 8 Std. No. 5 Catch Basin
 S - 1 Concrete for Structure (Class E)
 S - 27 30" Pipe for Roadway Culverts
 Sec. M-66 (b) or Sec. M-68(b)

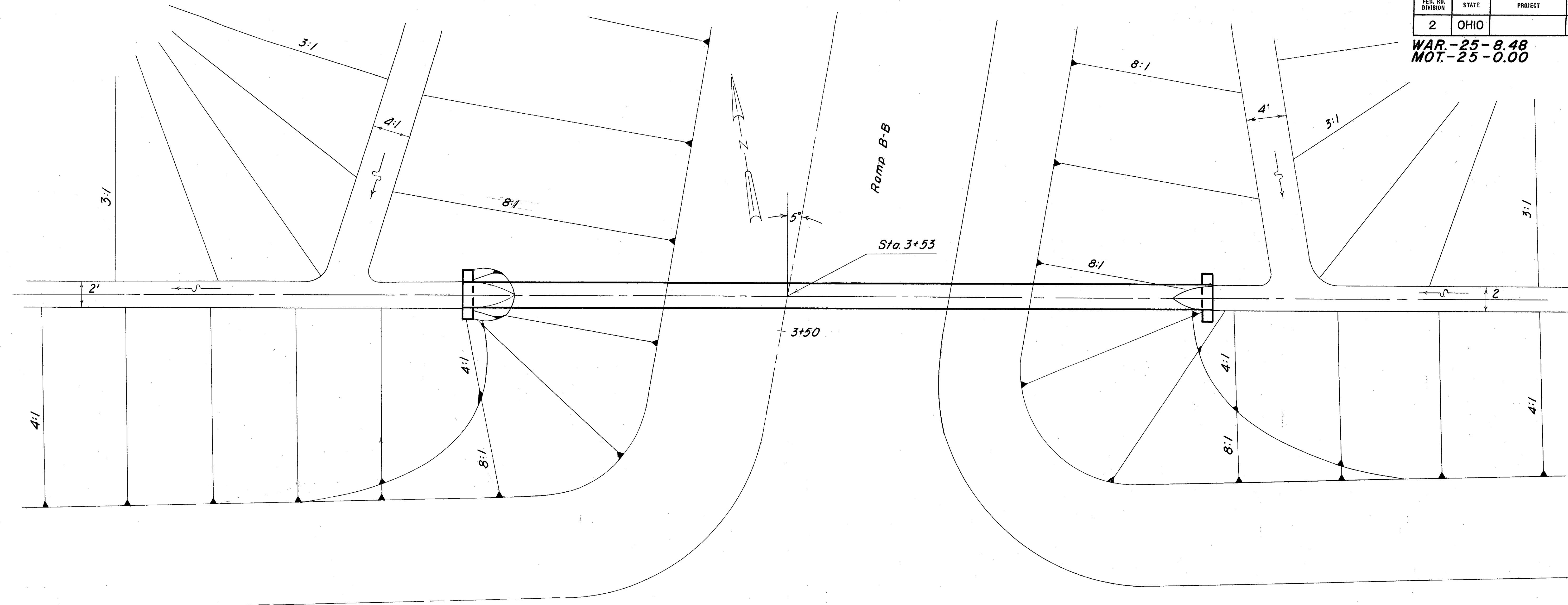
67 Cu. Yds.
 5 Cu. Yds.
 1 Ea.
 0.8 Cu. Yds.
 100 Lin. Ft.

Area = 67 acres
 Q25 = 25 cfs.

Scale: 1" = 5'-0"

PIPE CULVERT STA. 2+52.8 Ramp B

WAR-25-8.48
MOT-25-0.00



To Franklin ←

CULVERT DATA

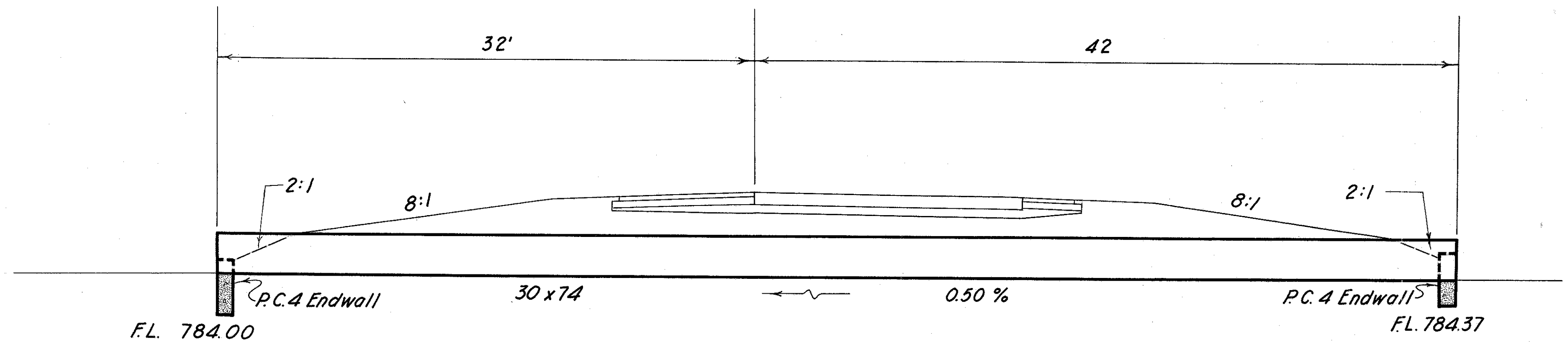
TYPE - Pipe Culvert S-27 PC.4
 SIZE - 30"x 74' Sec. M-6.6(b) or Sec. M-6.8(b)
 WORK REQ'D. - Build a Pipe Culvert with PC.4 Endwalls
 Excavate inlet & outlet channels as shown.

ESTIMATED QUANTITIES

E-2	Excavation for Structures	86	Cu. Yds.
E-3	Channel Excavation	5	Cu. Yds.
S-1	Concrete for Structures (Class E)	1	Cu. Yds.
S-27	30" Pipe for Roadway Culverts Sec. M-6.6(b) or Sec. M-6.8(b)	74	Lin. Ft.

Area 11.76 acres
Q 25 35 cfs.

800
790
780

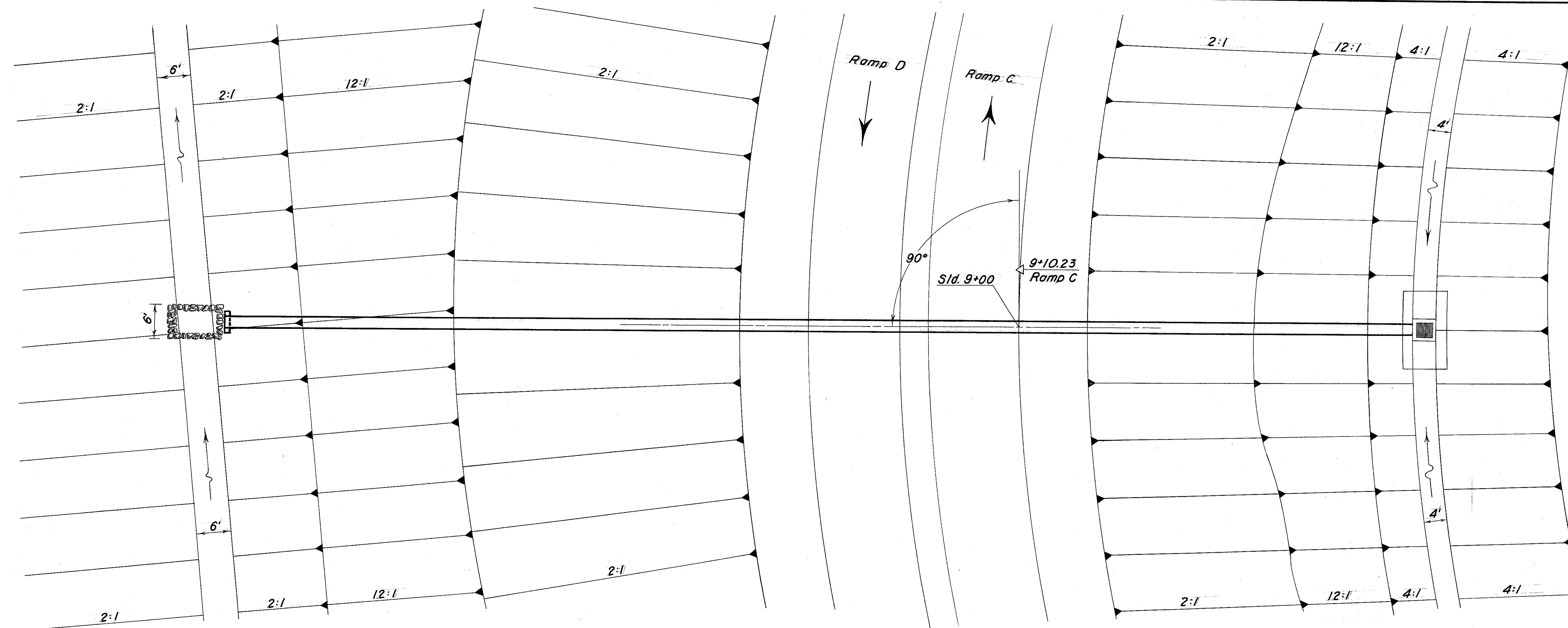


Scale: 1" = 5'-0"

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

307
377

WAR.-25-8.48
MOT.-25-0.00



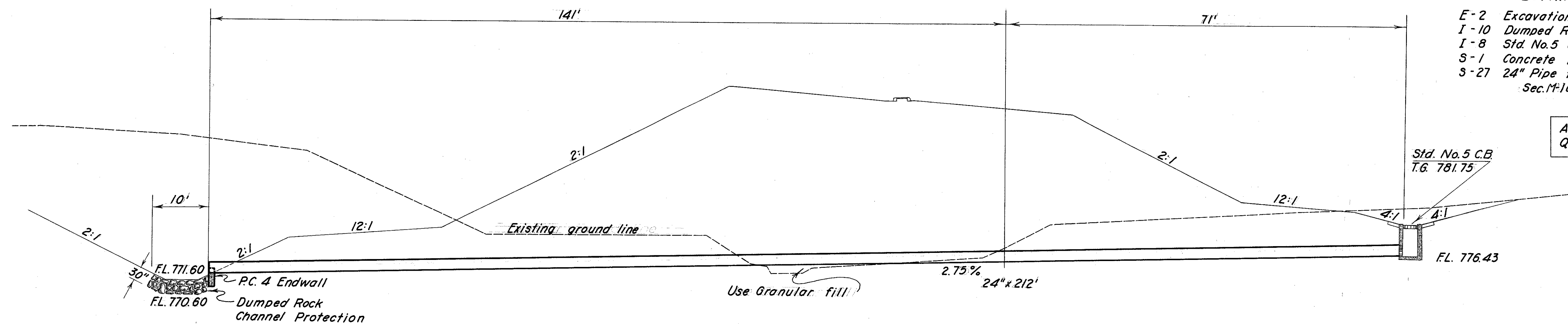
CULVERT DATA

TYPE - Pipe Culvert S-27 P.C. 4 & I-8 Std. No. 5
 SIZE - 24" x 212"
 WORK REQ'D. - Build a Pipe Culvert with No. 5 Catch Basin & P.C. 4 Endwalls
 Place Dumped Rock Channel Protection
 Protection Left as shown.

ESTIMATED QUANTITIES

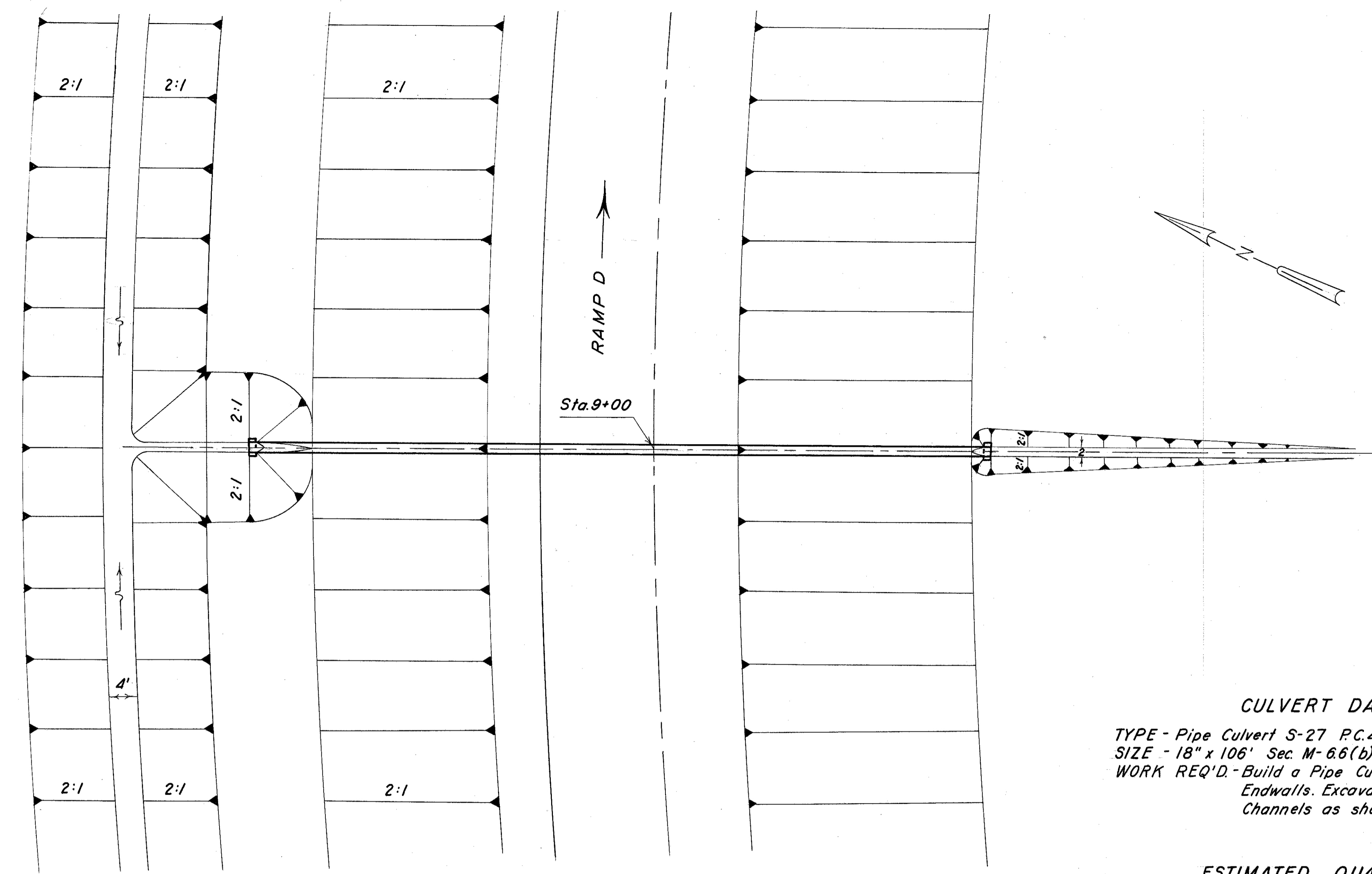
E-2	Excavation for Structures	92 Cu. Yds.
I-10	Dumped Rock Channel Protection	6 Cu. Yds.
I-8	Std. No. 5 Catch Basin	1 Ea.
S-1	Concrete for Structures (Class E)	0.8 Cu. Yds.
S-27	24" Pipe for Roadway Culvert	212 Lin. Ft.
	Sec. M-106.6 d.	

Area = 64 Acres
Q24 = 27 cfs.



Scale: 1" = 10'-0"

WAR.-25-8.48
MOT.-25-0.00



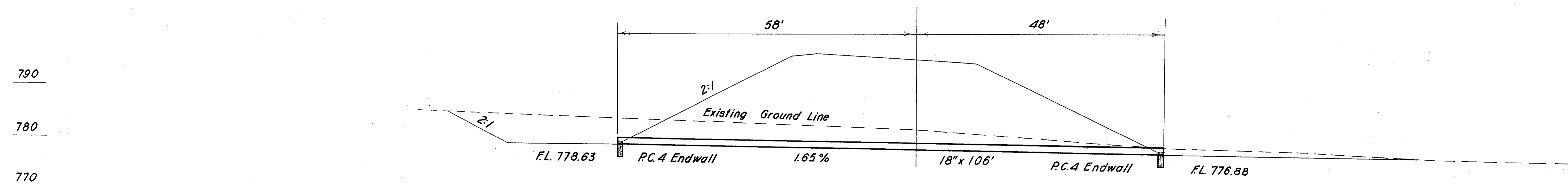
CULVERT DATA

TYPE - Pipe Culvert S-27 P.C.4
 SIZE - 18" x 106' Sec. M-6.6(b)
 WORK REQ'D. - Build a Pipe Culvert with P.C.4
 Endwalls. Excavate inlet and outlet
 Channels as shown.

ESTIMATED QUANTITIES

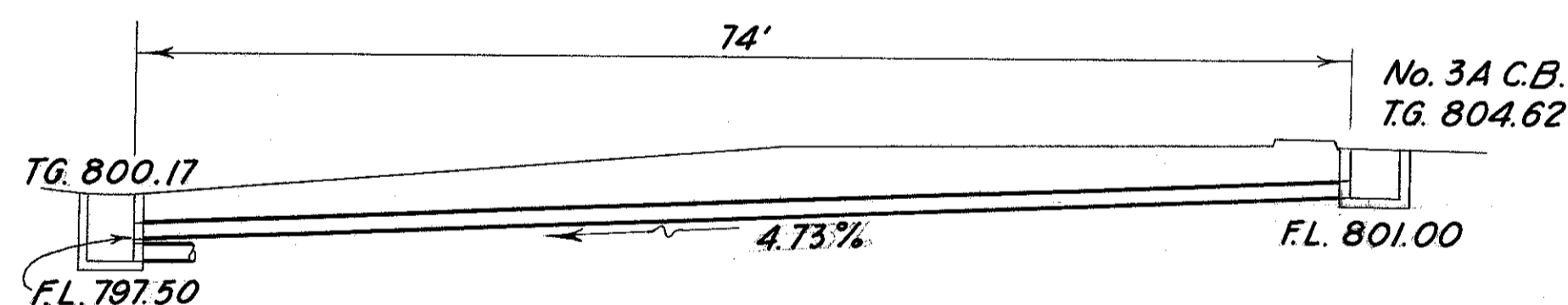
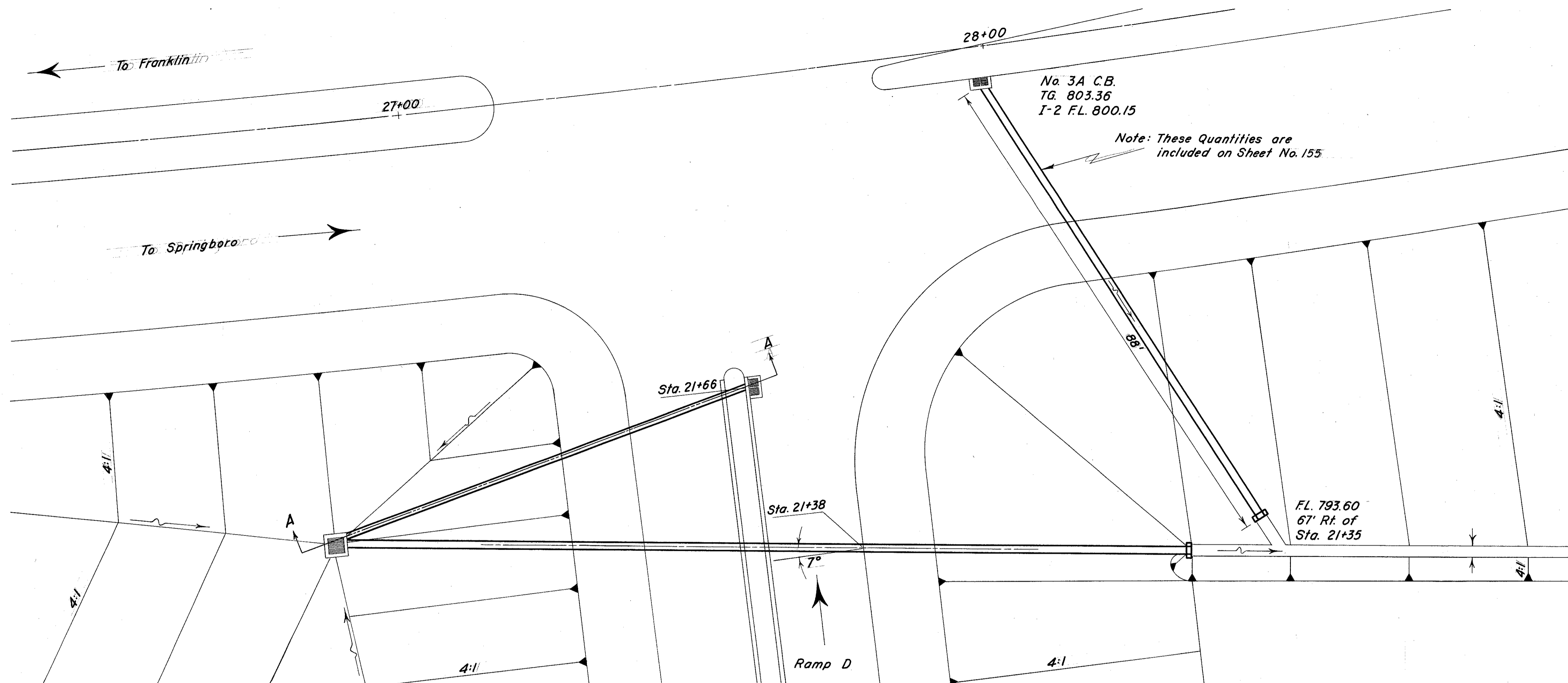
E - 2	Excavation for Structures	42	Cu. Yds.
E - 3	Channel Excavation	35	Cu. Yds.
S - 1	Concrete for Structures (Class E)	0.5	Cu. Yds.
S - 27	18" Pipe for Roadway Culverts Sec. M-6.6(b)	106	Lin. Ft.

Area = 24 acres
Q₂₅ = 13 cfs.



Scale: 1" = 10'-0"

WAR.-25-8.48
MOT.-25-0.00



SECTION A-A

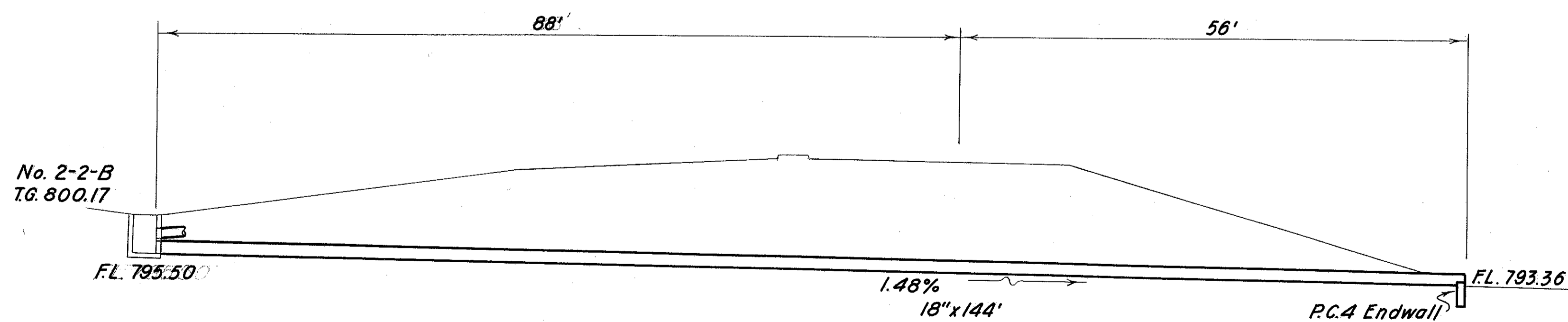
CULVERT DATA

TYPE- Pipe Culvert S-27 with P.C. 4 Endwalls
I-8 No. 2-2-B & No. 3A C.B.
SIZE- 18"x 144"
15" x 74'

WORK REQ'D.- Build a Pipe Culvert with P.C. 4 Endwall including I-2 Storm Sewer connection into the Catch Basin as shown.

ESTIMATED QUANTITIES

E-2 Excavation for Structures	132 Cu. Yds.
E-3 Channel Excavation	5 Cu. Yds.
I-8 Std. No. 2-2-B Catch Basin	1 Each
I-8 Std. No. 3-A Catch Basin	1 Each
S-1 Concrete for Structures (Class E)	0.3 Cu. Yds.
S-27 18" Pipe for Roadway Culverts (Sec. M-6.6 b or Sec. M-6.8 b)	144 Lin. Ft.
I-2 15" Class B Storm Sewer under Pavt & Approaches	74 Lin. Ft.

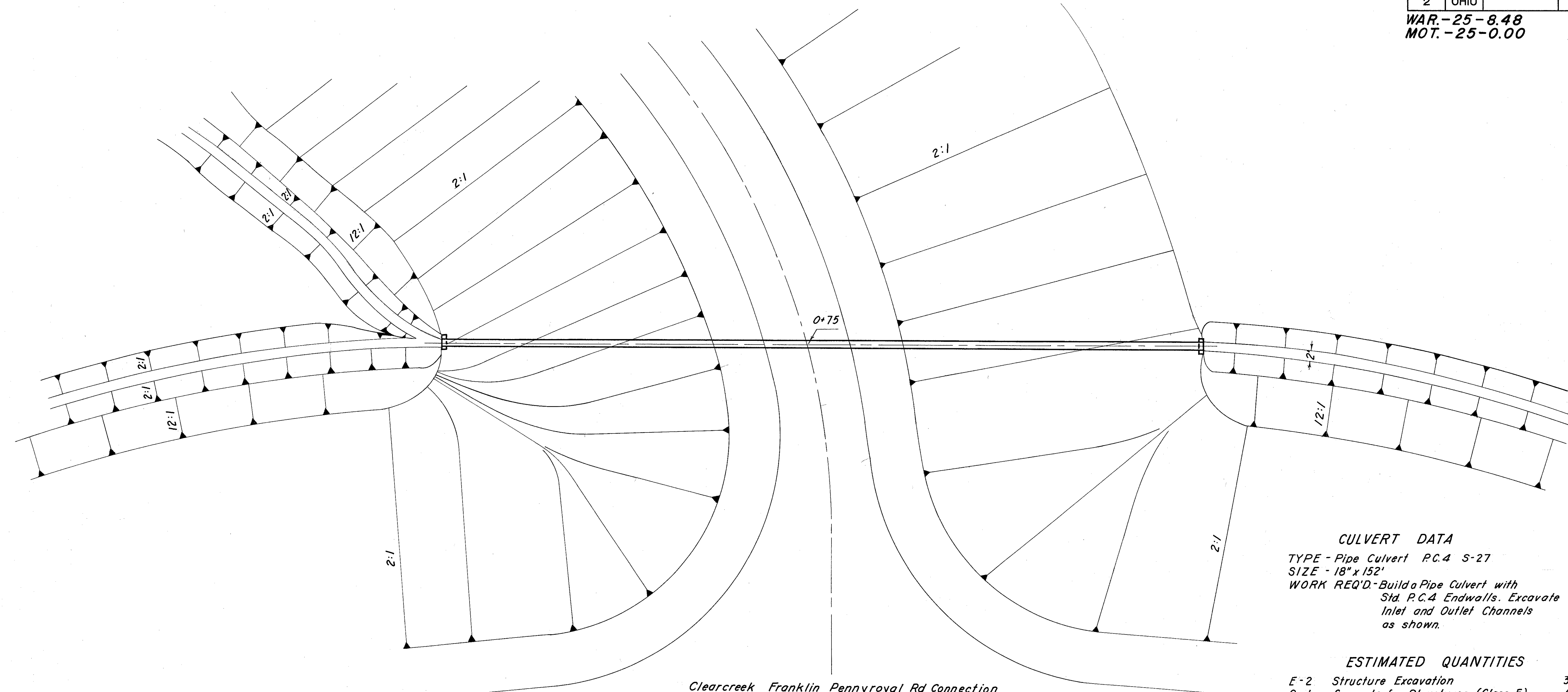


Scale: 1" = 10'-0"

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

310
377

WAR.-25-8.48
MOT.-25-0.00



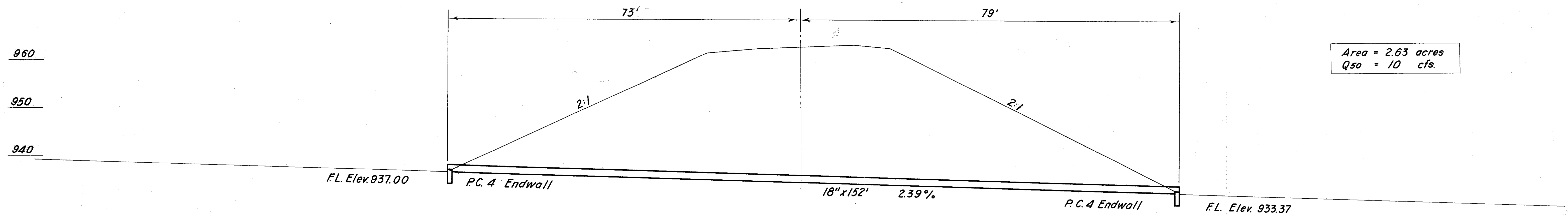
Clearcreek Franklin Pennyroyal Rd Connection

CULVERT DATA
 TYPE - Pipe Culvert P.C.4 S-27
 SIZE - 18" x 152'
 WORK REQ'D - Build a Pipe Culvert with Std. P.C.4 Endwalls. Excavate Inlet and Outlet Channels as shown.

ESTIMATED QUANTITIES

E-2	Structure Excavation	35 Cu. Yds.
S-1	Concrete for Structures (Class E)	0.6 Cu. Yds.
S-27	18" Pipe for Roadway Culverts (Sec.M-106.6d)	152 Lin Ft.

Area = 2.63 acres
Q₅₀ = 10 cfs.



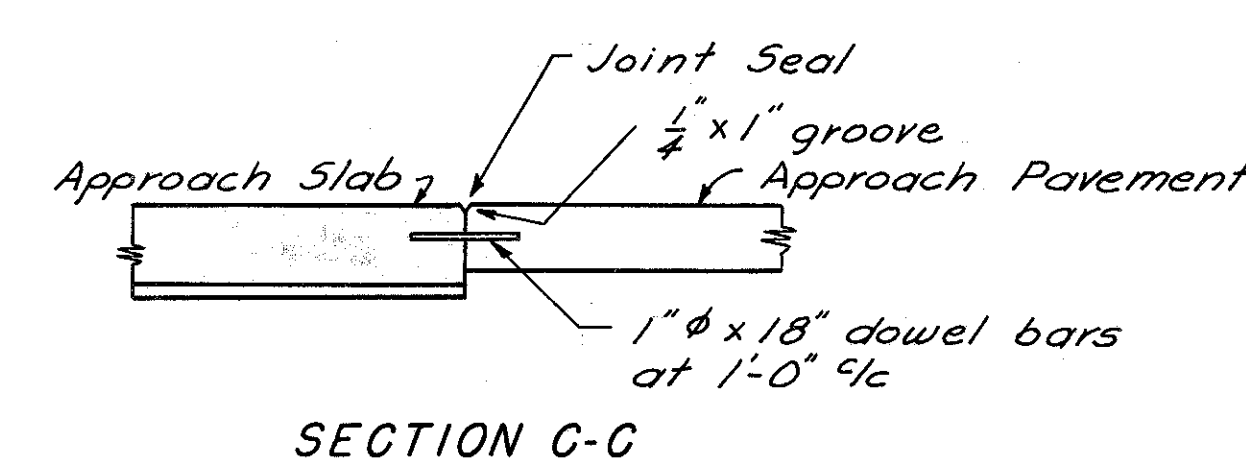
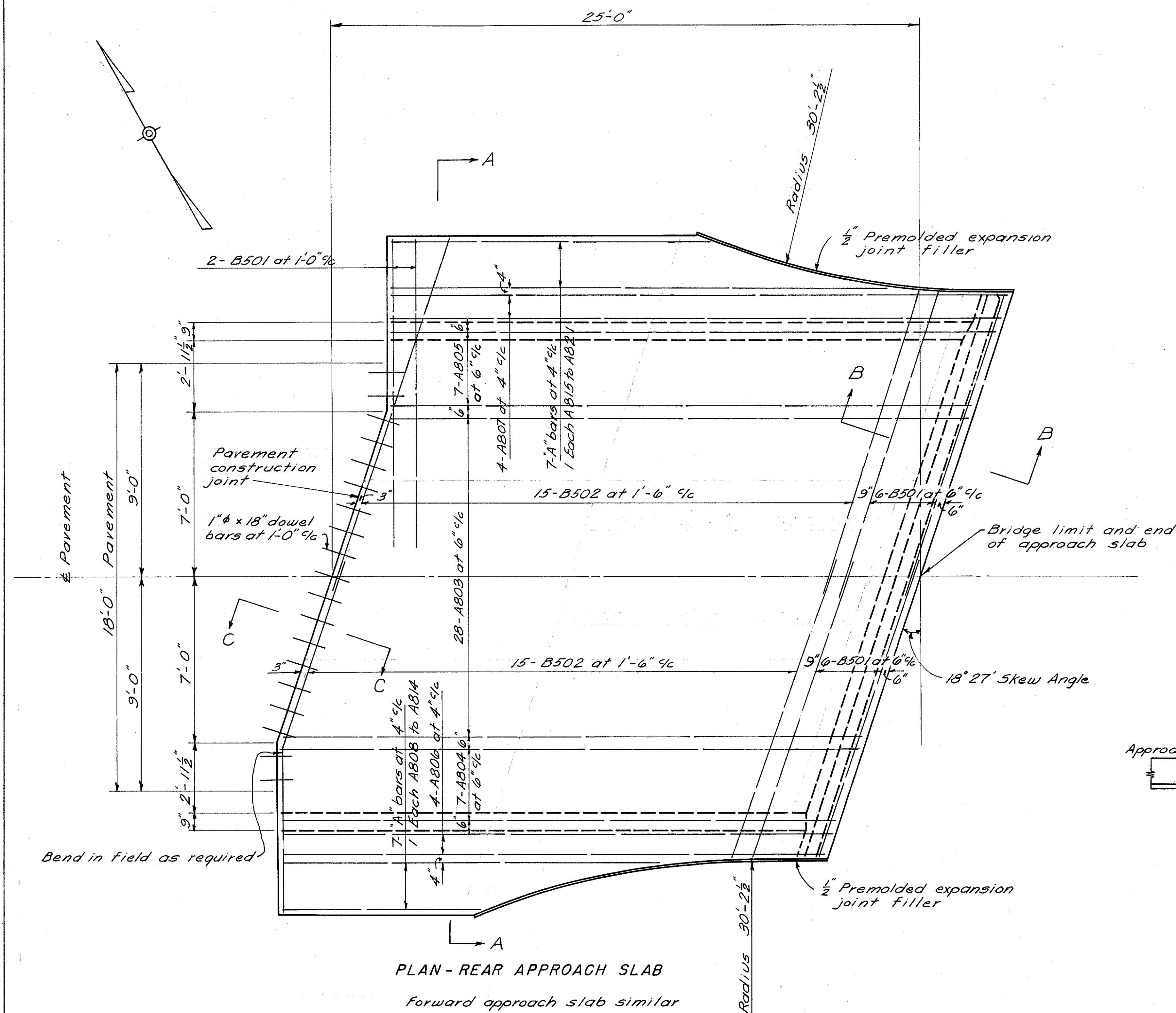
Scale: 1" = 10'-0"

PIPE CULVERT Sta. 0+75

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

311
377

WARREN COUNTY
WAR-25-8.46
MOT-25-0.00



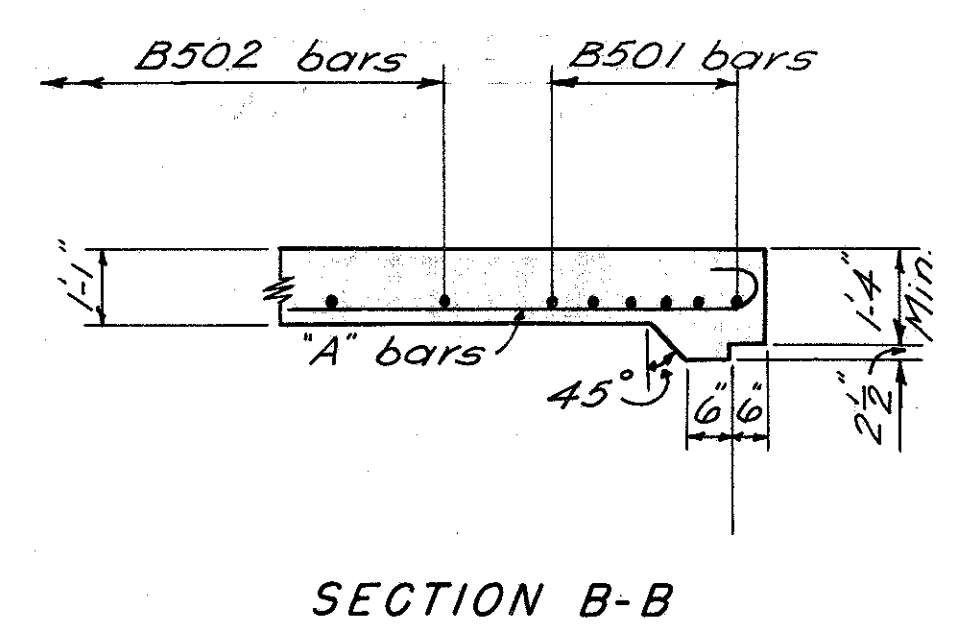
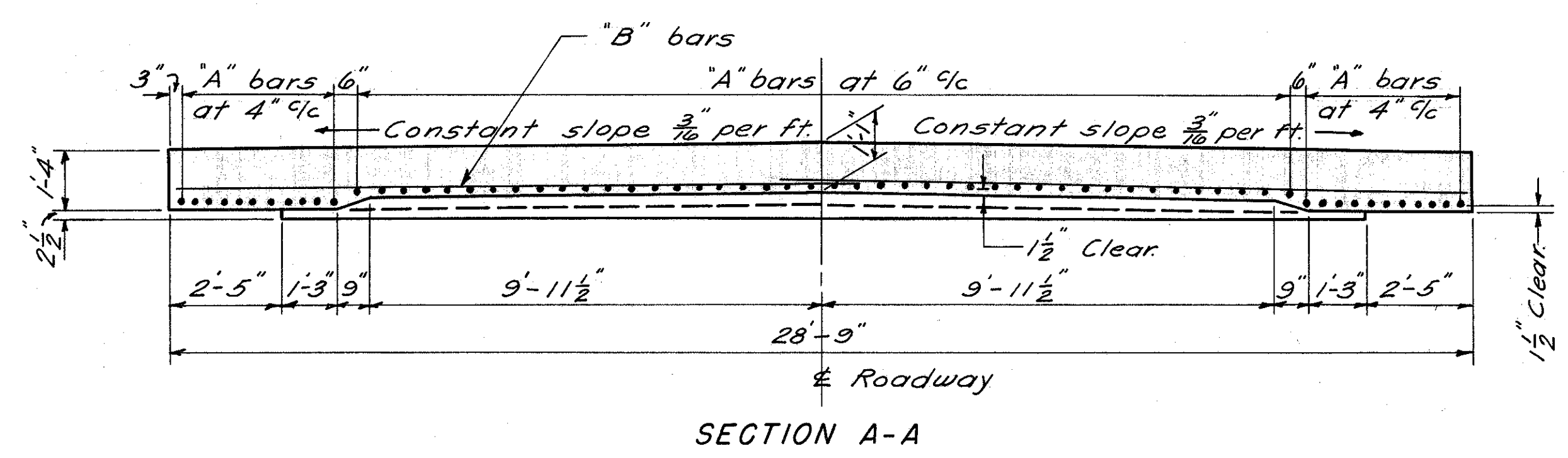
REINFORCING STEEL					2 Approach Slabs	
Mark	No.	Length	Weight	Shp.	Bending Diagram	
A803	56	25'-7"	*	B	24'-6" % A803	
A804	2 Series of 7	24'-5" to 25'-5"		B	23'-4" to 24'-4" % A804	
A805	2 Series of 7	25'-8" to 26'-8"		B	24'-7" to 25'-7" % A805	
A806	2 Series of 4	23'-11" to 24'-2"		B	22'-10" to 23'-1" % A806	
A807	2 Series of 4	26'-10" to 27'-1"		B	25'-9" to 26'-0" % A807	
A808	2	16'-3"		S		
A809	2	14'-0"		S		
A810	2	12'-6"		S		
A811	2	11'-3"		S		
A812	2	10'-3"		S		
A813	2	9'-3"		S		
A814	2	8'-6"		S		
A815	2	13'-6"		S		
A816	2	14'-3"		S		
A817	2	15'-3"		S		
A818	2	16'-3"		S		
A819	2	17'-6"		S		
A820	2	19'-3"		S		
A821	2	21'-3"		S		
B501	26	13'-0"		S		
B502	60	15'-6"	*	S		

REPLACEMENT BARS

REB22	1	6'-6"		S		
RE503	1	5'-7"		S		

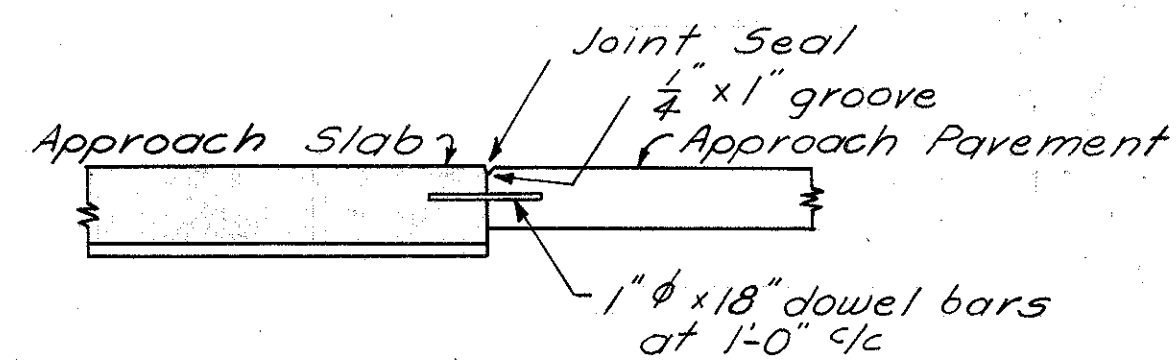
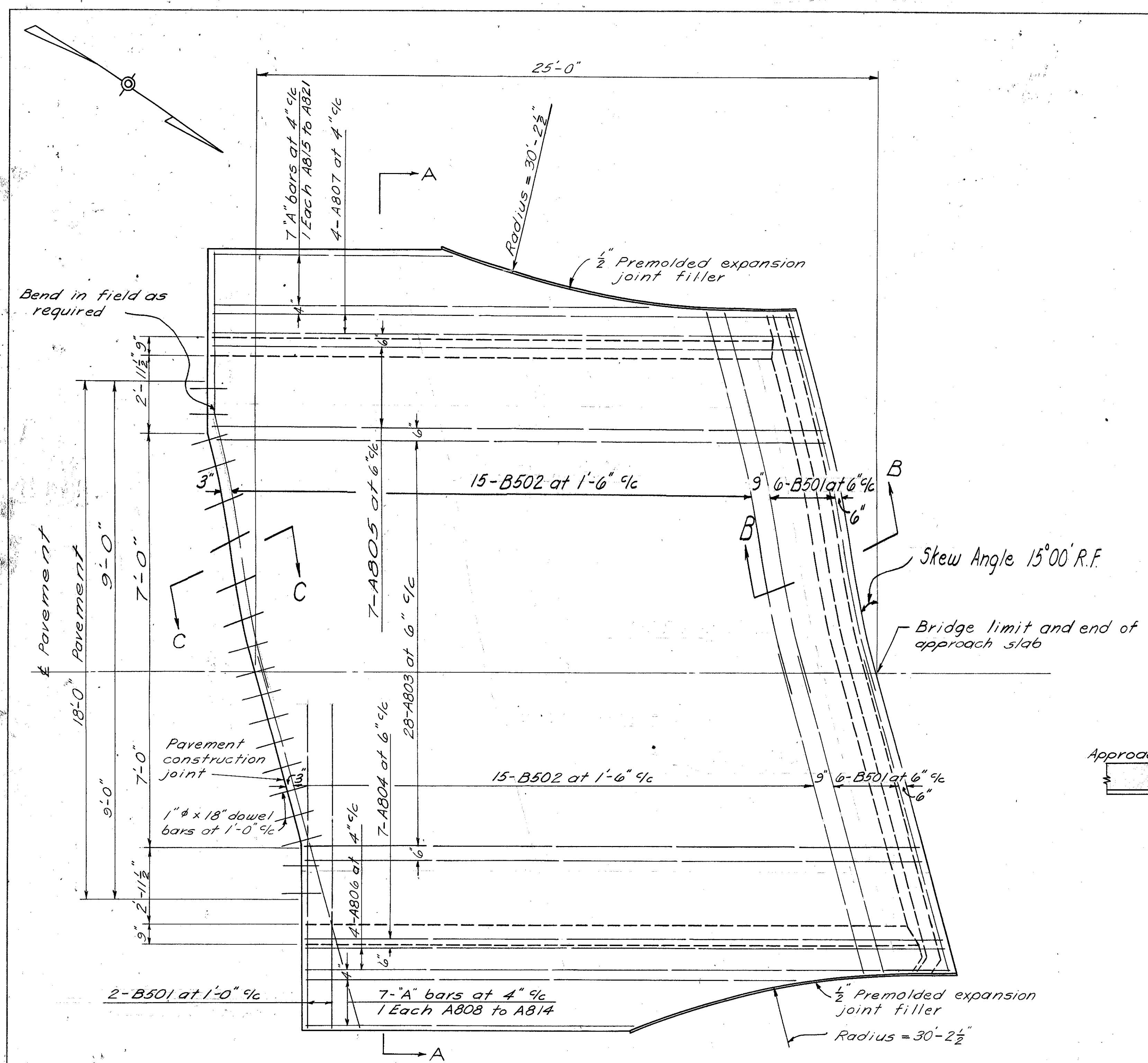
* Included with approach slab for payment.

GENERAL NOTES
 CONCRETE shall be Class "C".
 Bar Size is indicated in the bar mark. The first digit indicates the bar size number; for example A803 is a No. 8 size bar.
 PREMOLDED EXPANSION JOINT FILLER at the edges of the approach slabs shall be included with the approach slabs for payment.
 2-APPROACH SLABS: 150 Sq. Yds. Total.

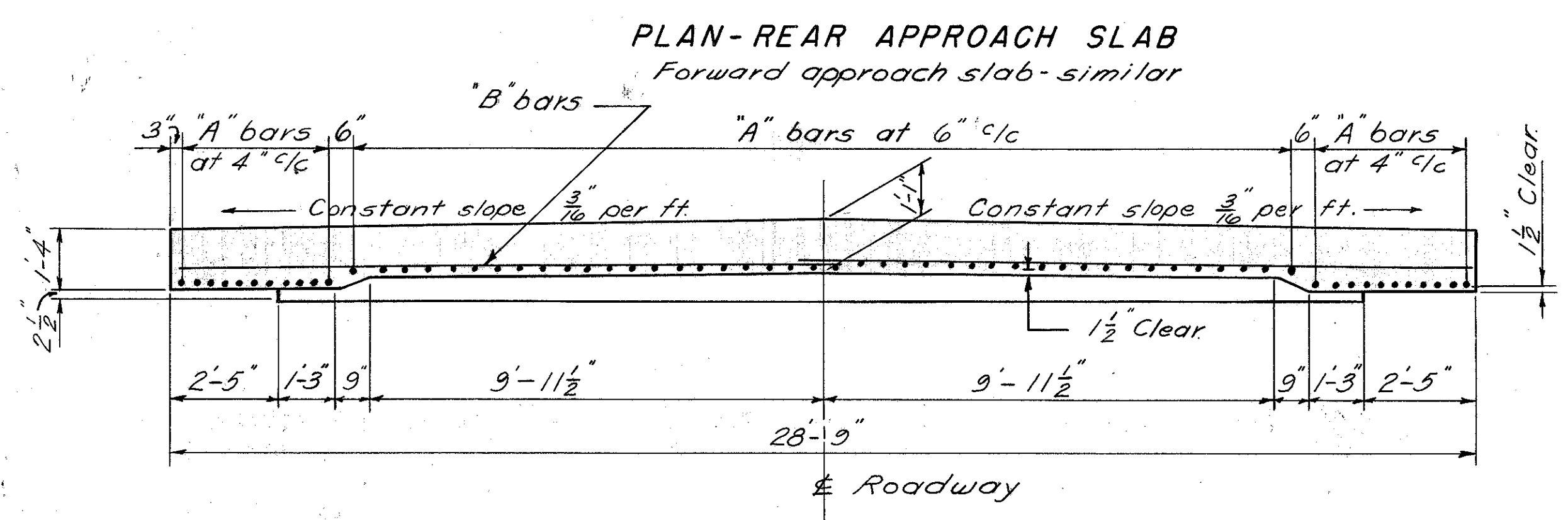


YULE, STICKLEN, JORDAN & McNEE ENGINEERS COLUMBUS OHIO					
APPROACH SLABS					
BRIDGE NO. WAR-25-0920 US 25 UNDER LOWER SPRINGBORO RD. WARREN COUNTY STA. 48 + 73.43					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE REVIS
W.J.W.	W.J.W.	H.G.	R.R.	J.C.L.	7/10/53

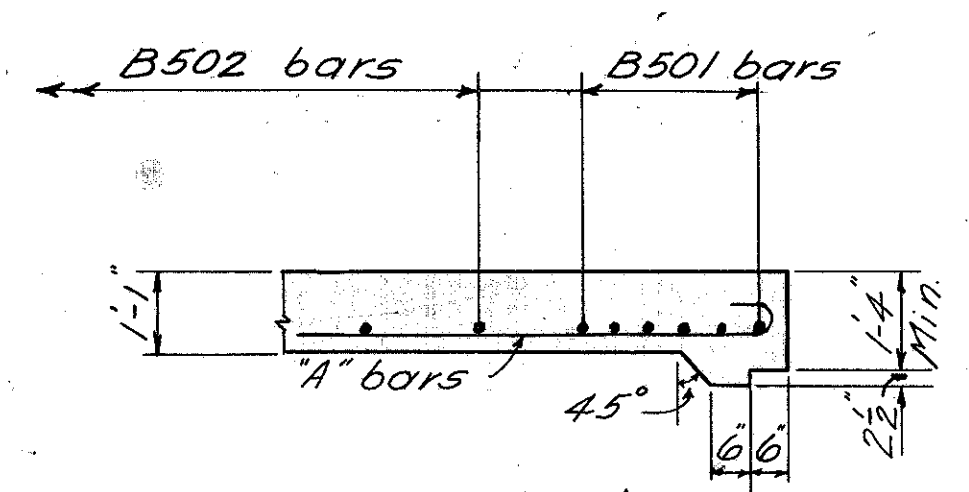
WARREN COUNTY
WAR - 25 - 8.46
MOT - 25 - 0.00



SECTION C-C



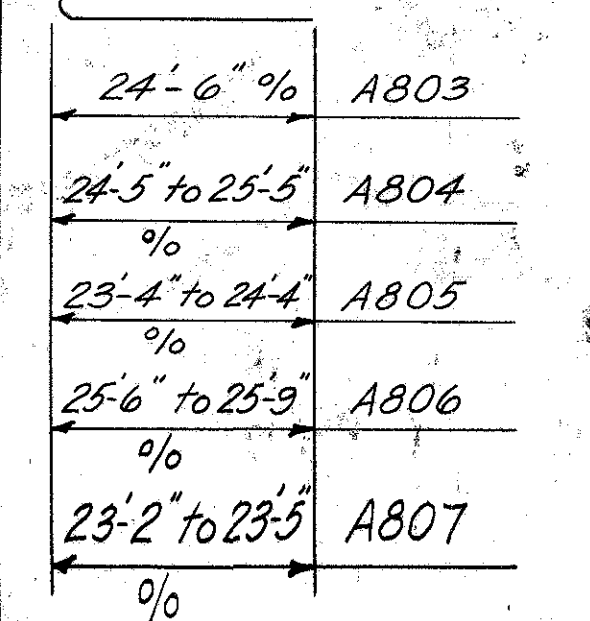
SECTION A-A



SECTION B-B

2" Increment
2" Increment
1" Increment
1" Increment

REINFORCING STEEL					2 Approach Slabs	
Mark	No.	Length	Weight	Shp.	Bending Diagram	
A803	56	25'-7"	*	B		
A804	2 Series of 7	25'-6" to 26'-6"		B		
A805	2 Series of 7	24'-5" to 25'-5"		B		
A806	2 Series of 4	26'-7" to 26'-9"		B		
A807	2 Series of 4	24'-3" to 24'-6"		B		
A808	2	13'-6"		S		
A809	2	14'-3"		S		
A810	2	15'-3"		S		
A811	2	16'-3"		S		
A812	2	17'-3"		S		
A813	2	18'-9"		S		
A814	2	20'-9"		S		
A815	2	9'-9"		S		
A816	2	10'-6"		S		
A817	2	11'-6"		S		
A818	2	12'-6"		S		
A819	2	14'-0"		S		
A820	2	15'-6"		S		
A821	2	17'-9"		S		
B501	26	13'-0"		S		
B502	60	15'-6"	*	S		
REPLACEMENT BARS						
RE822	1	6'-6"		S		
RE503	1	3'-7"		S		



REPLACEMENT BARS and TEST SAMPLES will not be required if bars are fabricated from stock that has previously been tested and approved by the Ohio Highway Testing Laboratory.

* Included with approach slab for payment.

GENERAL NOTES

CONCRETE shall be Class 'C'.

Bar Size is indicated in the bar mark. The first digit indicates the bar size number; for example A803 is a No. 8 size bar.

PREMOLDED EXPANSION JOINT FILLER at the edges of the approach slab shall be included with the approach slab for payment.

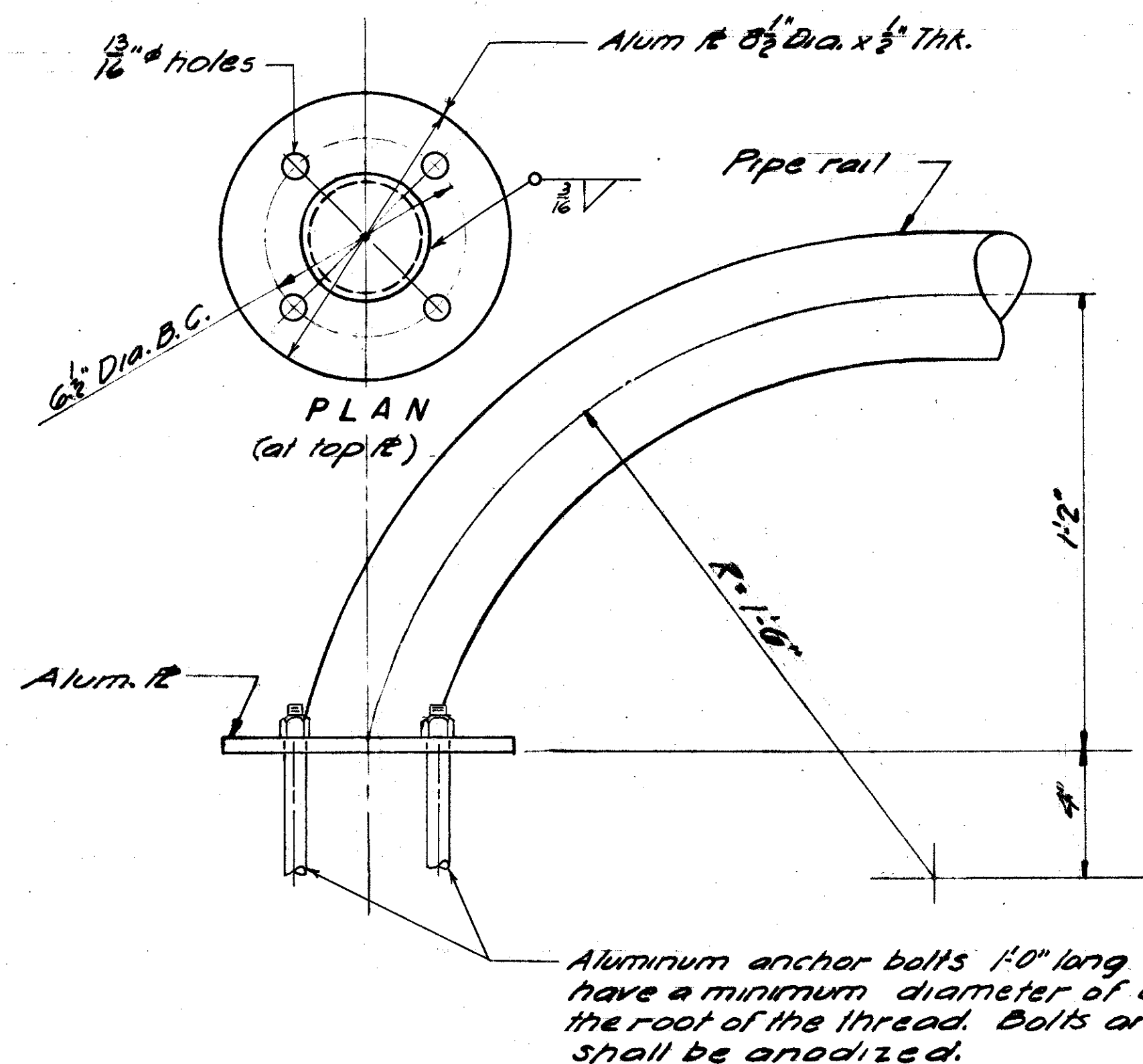
2- APPROACH SLABS: 150 Sq. Yds. Total.

YULE, STICKLEN, JORDAN & MCNEE
ENGINEERS
COLUMBUS OHIO

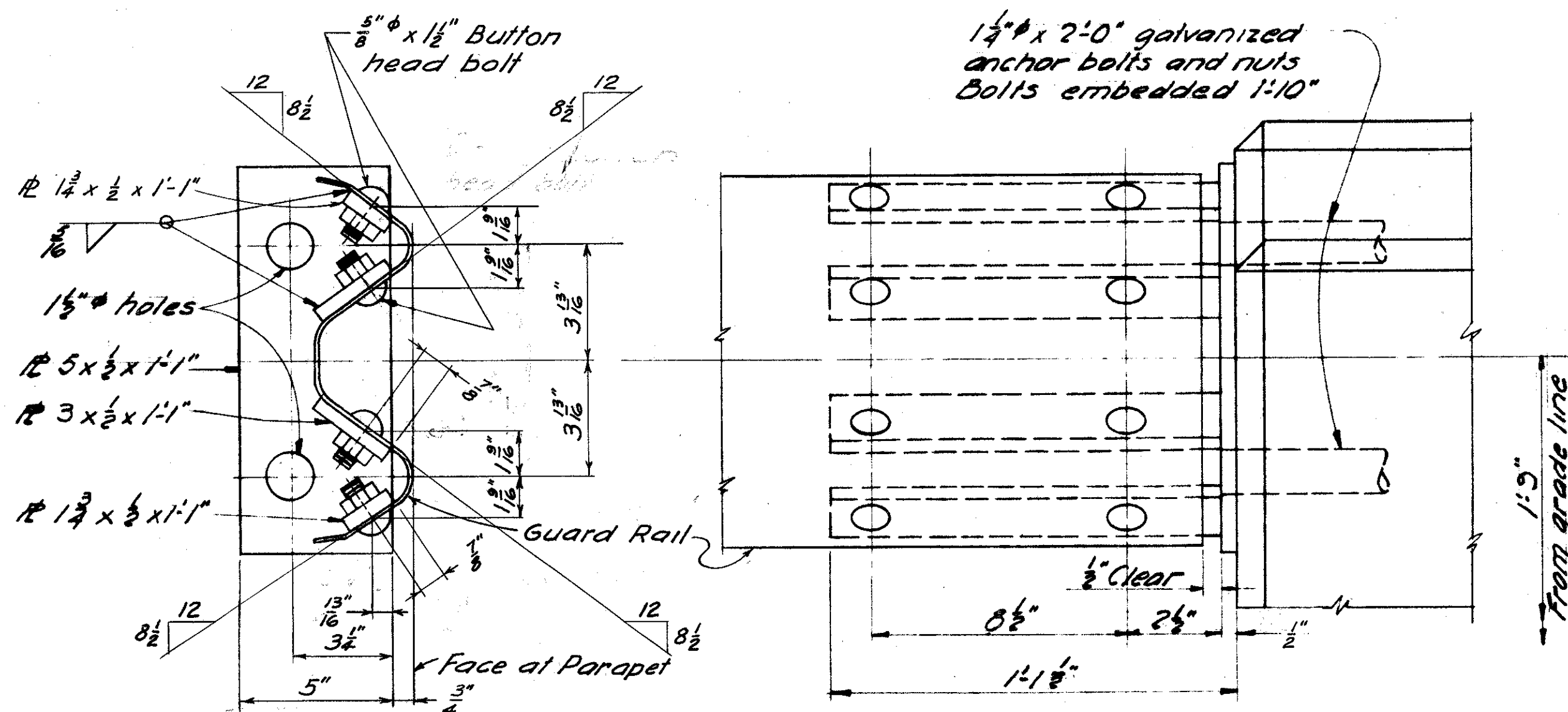
APPROACH SLABS

BRIDGE NO. WAR-25-1149
US 25 UNDER PENNYROYAL RD.
WARREN COUNTY STA. 169 + 75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.J.W.	W.J.W.	H.G.	R.R.	J.C.L.	7-10-58	

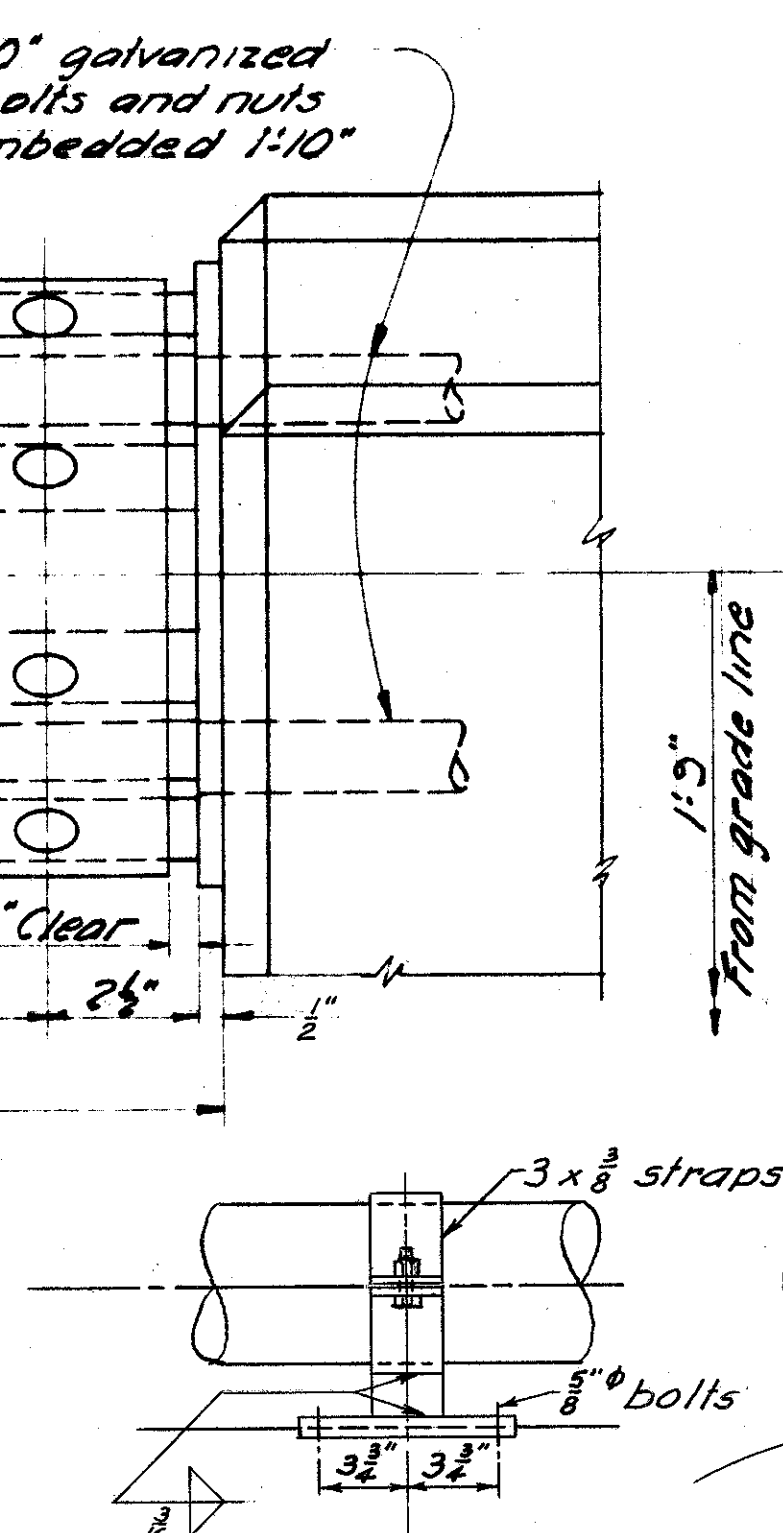


RAILING END DETAIL



GUARD RAIL CONNECTION DETAIL

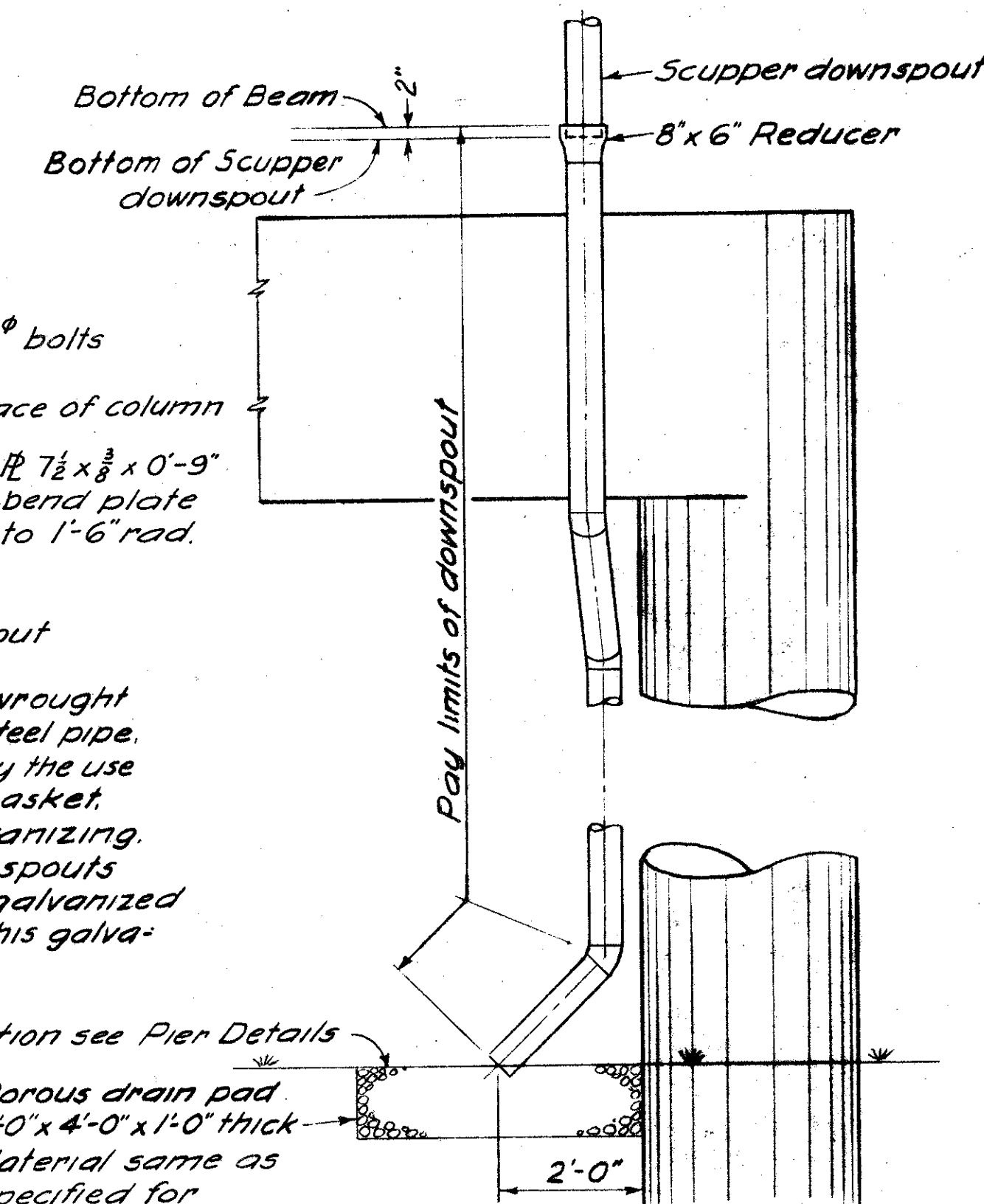
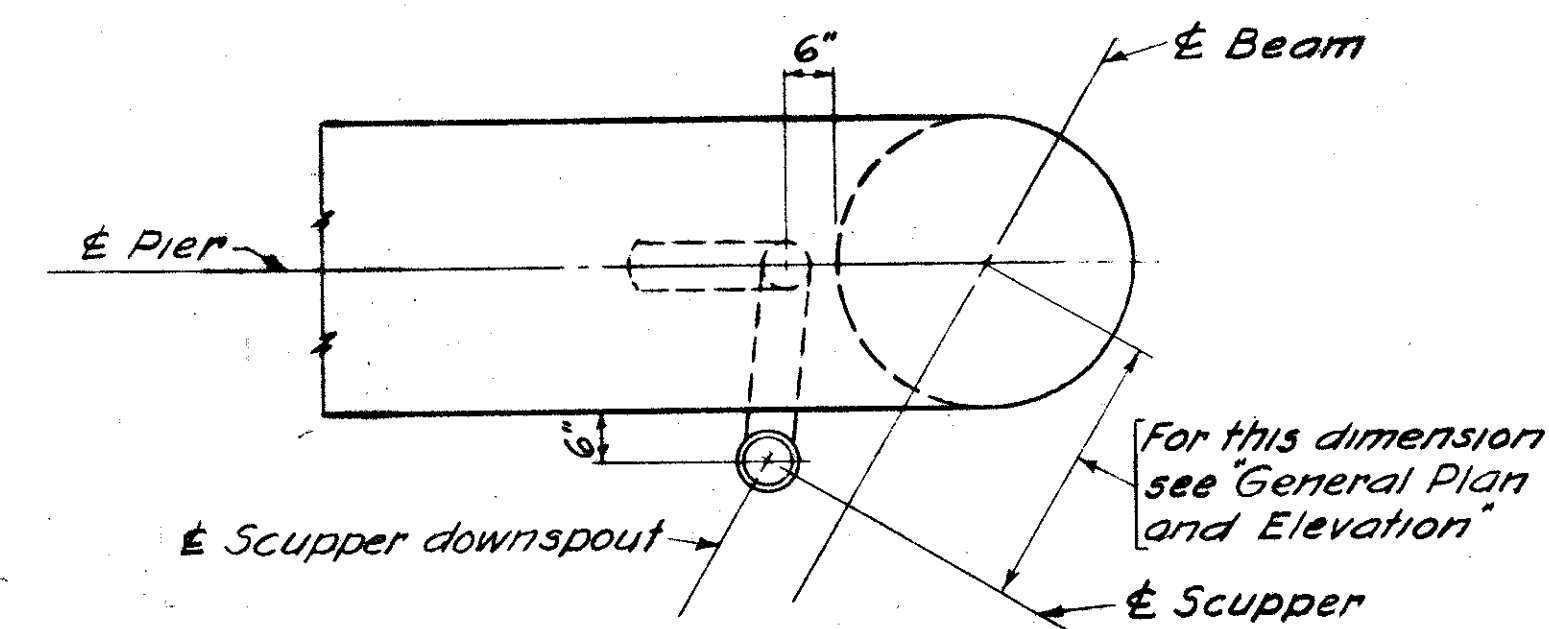
As seen from pavement side
Payment is included with Item S-14



DOWNSPOUT SUPPORT DETAIL

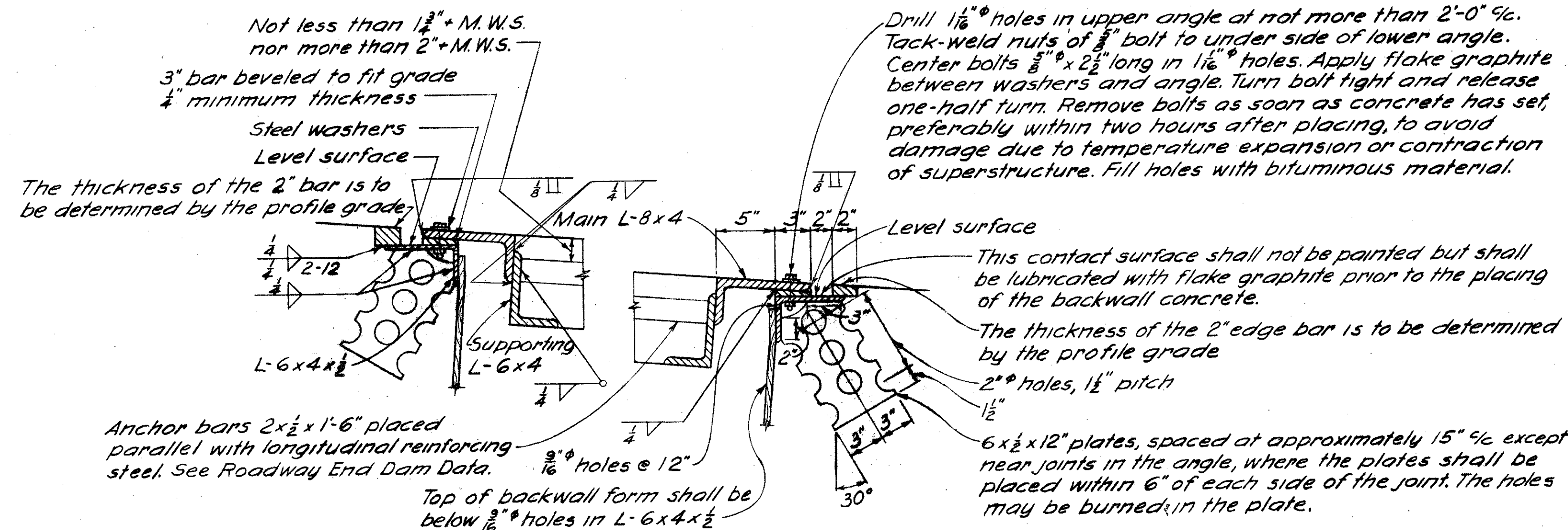
Minimum 4 supports per downspout

DOWNSPOUTS shall be 6" standard wrought iron pipe or hot-dipped galvanized steel pipe. Joints shall be made by welding or by the use of a clamp-type coupling with a ring gasket. All welding shall be done before galvanizing. Straps or clamps for attaching downspouts shall be wrought iron or hot-dipped galvanized steel. Bolts shall be galvanized but this galvanizing need not be hot-dipped.



DOWNSPOUT DETAIL

For locations of downspouts see General Plan



ROADWAY END DAM DETAIL

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.

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.

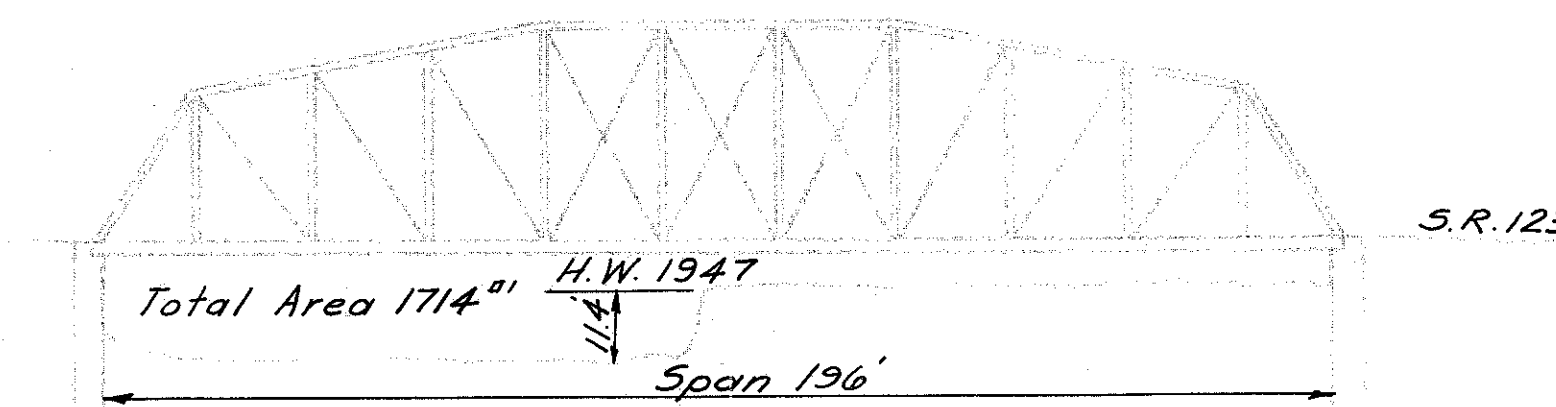
ROADWAY END DAM DATA

Member	Thickness or spacing of member for Bridge Nos.		
	WAR-25-0920	WAR-25-1005 E. & W. BRIDGES	WAR-25-1149
Main angle 8x4	3/4"	1"	3/4"
2 x 1/2 x 1'-6" anchor bar spacing	18" sp.	12" sp.	18" sp.
Supporting angle 6x4	1/2"	3/4"	1/2"

YULE, STICKLEN, JORDAN & McNEE COLUMBUS ENGINEERS OHIO					
TYPICAL DETAILS					
WAR - 25 - 0866					
BRIDGE NOS. WAR - 25 - 0920					
WAR - 25 - 1005					
WAR - 25 - 1149					
WARREN COUNTY U.S. 25					
DESIGNED	DRAWN	TRACE	CHECKED	REVISED	DATE
C.P.	C.P.	C.P.	E.W.T.	R.B.Y.	6/23/58

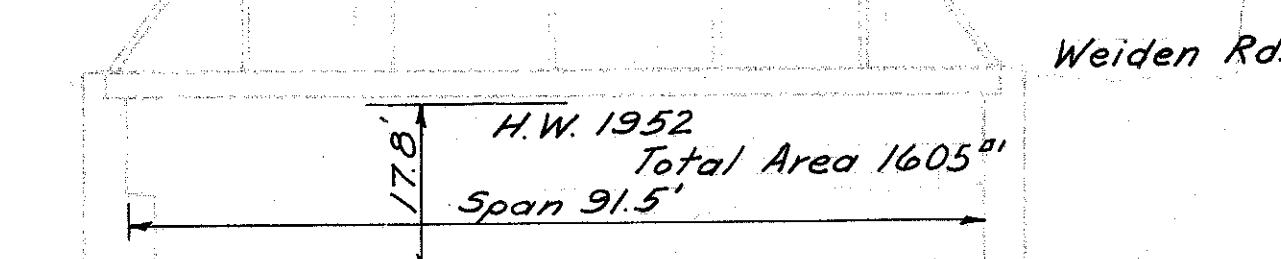
CURVE DATA
P.I. Sta. 24+83.28
 $\Delta = 6^{\circ} 27' 00''$ L.F.
 $D = 0^{\circ} 20'$
 $R = 17,188.74'$
 $L = 1935.00'$
 $T = 968.52'$
 $E = 27.26'$

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of 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.



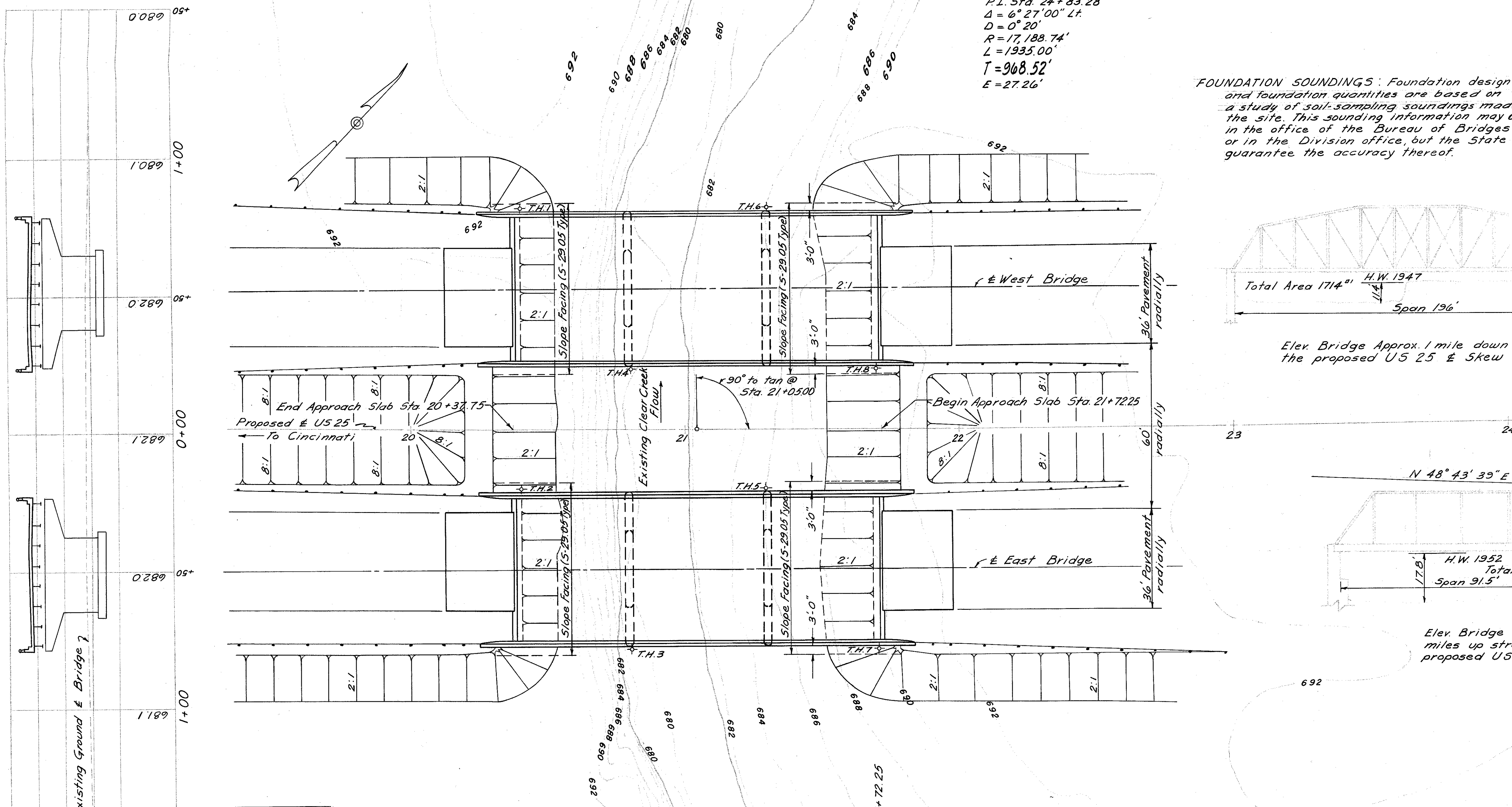
Elev. Bridge Approx. 1 mile down stream of the proposed US 25 & Skew 30° L.F.

To Dayton →



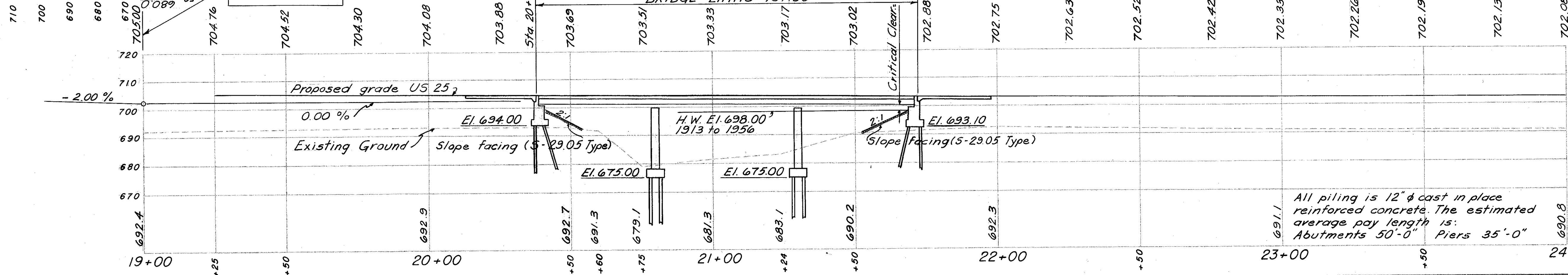
Elev. Bridge Approx. 3 1/2 miles up stream of the proposed US 25 &

NOTE:
Trees on banks in the construction area are to be cut but the stumps are to remain.



P.I. Sta. 19+00
Elev. 702.00
V.C. = 1200'

BRIDGE LIMITS 134.50



All piling is 12" ϕ cast in place reinforced concrete. The estimated average pile length is:
Abutments 50'-0" Piers 35'-0"

PROPOSED STRUCTURE
Type: Continuous steel beam with reinf. concrete deck and substructure.
Span: 40'-50'-40' $\%$ brgs.
Roadway: 54' f/f parapets.
Load Frequency: CF 2000(5T) (Adequate for AASHTO Alternate Loading)
Skew: None
Wearing Surface: 1" Monolithic Concrete
Approach Slabs: A5-1-54 (25' Long)
Alignment: Tangent
Traffic: 30,590 ADT 1975
Drainage Area 46.0 Sq Miles

YULE STICKLEN JORDAN and McNEE ENGINEERS COLUMBUS OHIO

SITE PLAN
BRIDGE NO. WAR-25-0866
OVER CLEAR CREEK
WARREN COUNTY U.S. 25

SCALE HOR. 1"=20' STA. 20+37.75
21+72.25

PRESNT TOPOGRAPHY	PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED
W.C.R.	T.J.A.	J.C.L.	J.C.L.	R.B.Y.
	8/20/57	8/24/57	8/24/57	8/27/57

ESTIMATED QUANTITIES (2 BRIDGES)										
Item	Total	Unit	Description	Super-structs.	Rear Abuts.	Piers 1	Piers 2	Forward Abuts.	General	
E-2	Lump	Sum	Cofferdams, cribs and sheeting							
E-2	915	Cu.Yds.	Unclassified excavation		250	140	275	250	Lump	
I-127	2	each	Bridge delineators						2	
S-1	441	Cu.Yds.	Class "C" Concrete - Superstructure	441						
S-1	320	Cu.Yds.	Class "C" Concrete - Piers above footings			161	159			
S-1	363	Cu.Yds.	Class "E" Concrete - Abutments		181			182		
S-1	126	Cu.Yds.	Class "E" Concrete - Pier footings			63	63			
S-4	134,556	Lbs.	Reinforcing steel	126,270	10,348	10,795	10,795	10,348		
S-7	331,170	Lbs.	Structural steel	331,170						
S-8	331,170	Lbs.	Field painting of structural steel							
S-14	629	Lin.Ft.	Railing (aluminum rail, supports & concrete parapet)	527	51			51		
S-16	Lump	Sum	First test pile						Lump	
S-18	6700	Lin.Ft.	12" Cast in place concrete piles		2000	1400	1300	2000		
S-29	160	Cu.Yds.	Slope Facing (S-29.05 Type)		70			90		
S-29	89	Cu.Yds.	Porous backfill		44			45		

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AR-1-57, revised 3-1-58 (Type A), AS-1-54 revised 12-1-54, CSB-2-56 Sheet No. 2, revised 3-1-58, CSB-2-56 Sheet No. 3 revised 3-1-58, and supplemental specifications S-114 (aluminum for bridge railing) revised 8-1-57.

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 the revisions thereof, dated 2-21-58.

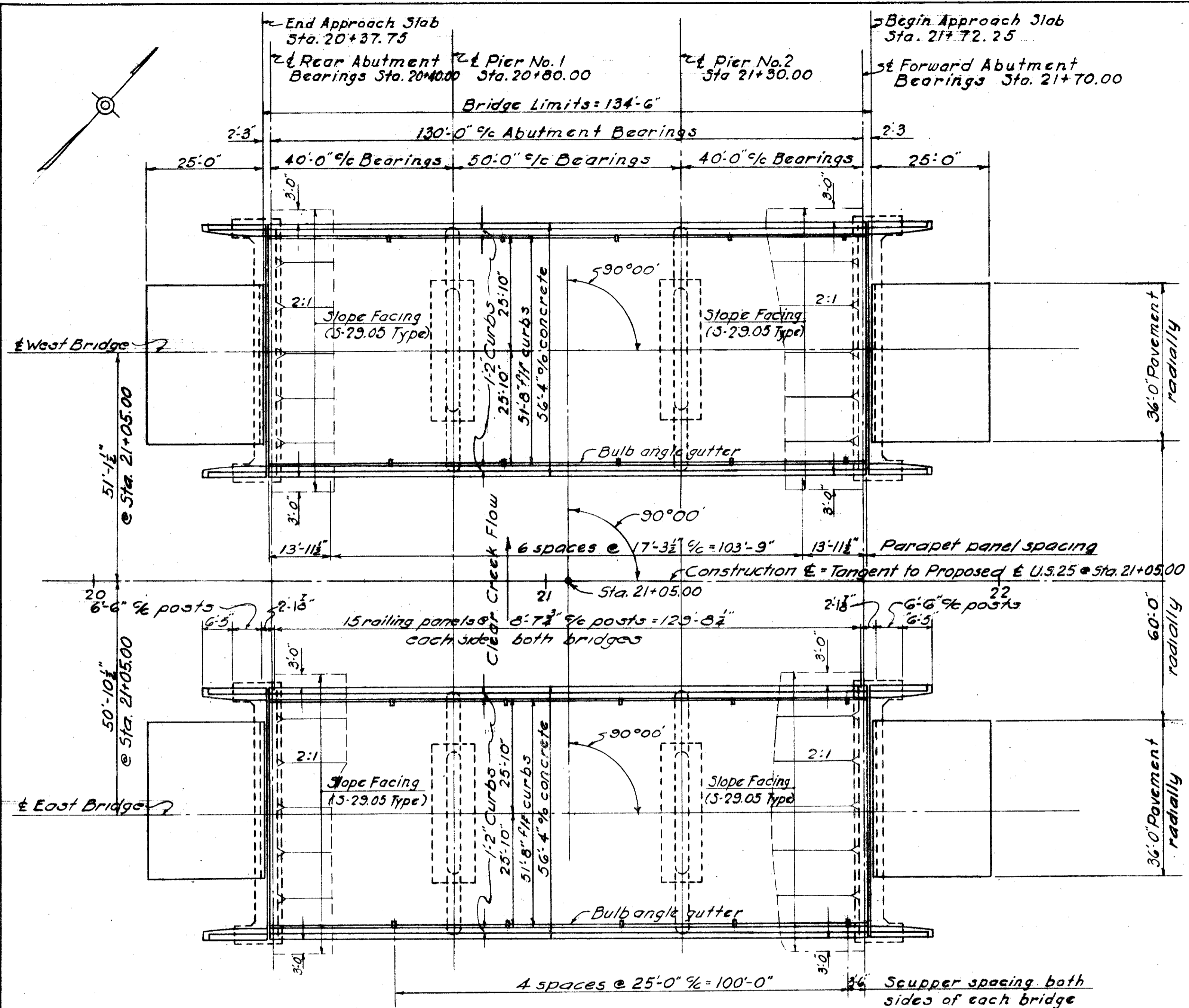
PILES shall be driven to a minimum bearing capacity of 30 tons per pile for the abutments and 35 tons per pile for the piers.

EXCAVATION QUANTITY includes the removal of fill material for the construction of the abutments.

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

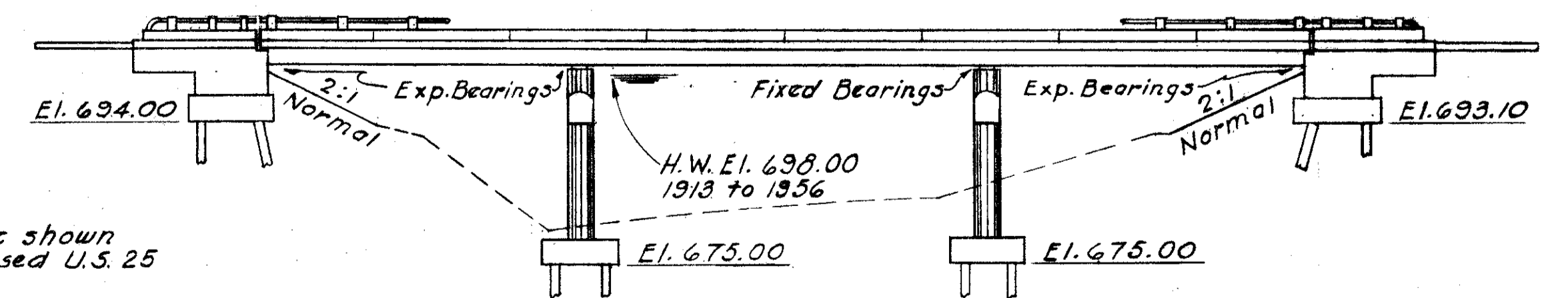
SLOPE FACING (S-29.05 Type) shall be provided under the structure at both abutments. The slope facing material shall be 12" thick and shall extend from the face of the abutment to the natural existing bench and transversely to 3 feet outside of the edge of the superstructure.

PROCEDURE: The embankment shall be placed and compacted to subgrade elevation after which excavation shall be made for the abutments before any of the required piling is driven.



GENERAL PLAN

NOTE: Bridge geometry is straight, square and parallel to the tangent to the centerline survey curve thru Sta. 21+05.00.



ELEVATION

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

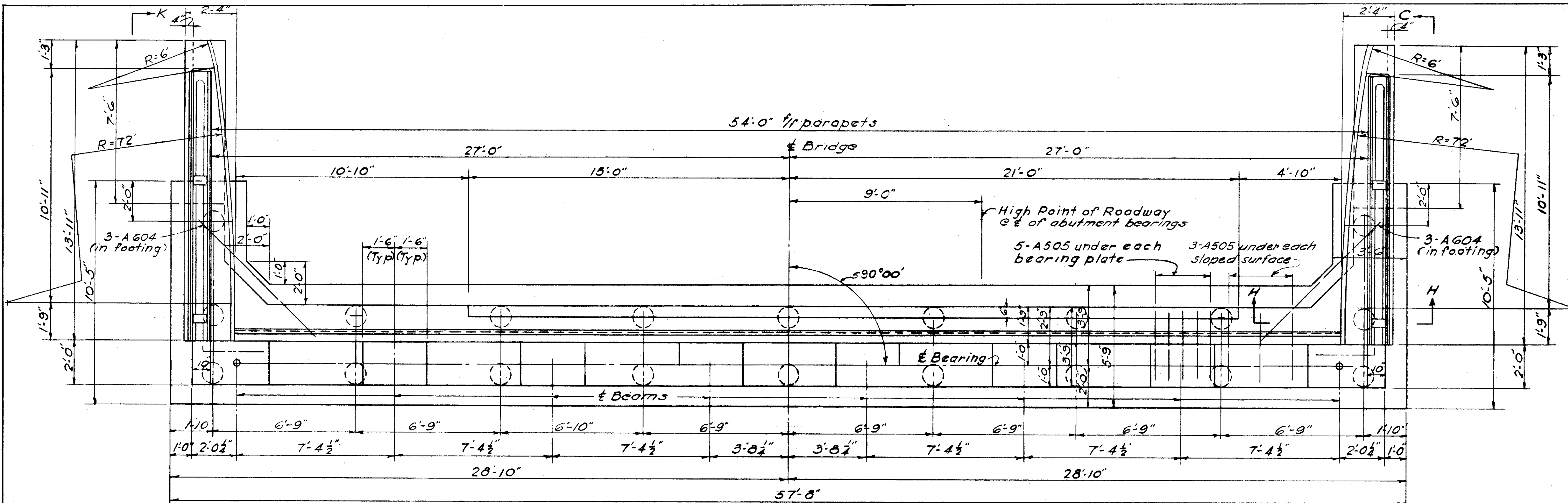
**GENERAL PLAN & ELEVATION
ESTIMATED QUANTITIES**

BRIDGE NO WAR-25-0866
OVER CLEAR CREEK

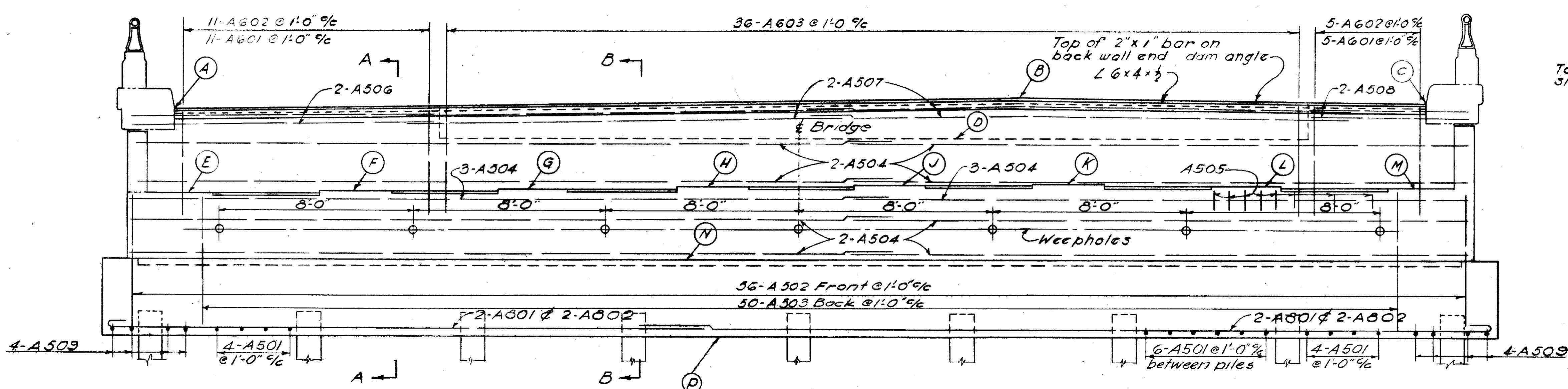
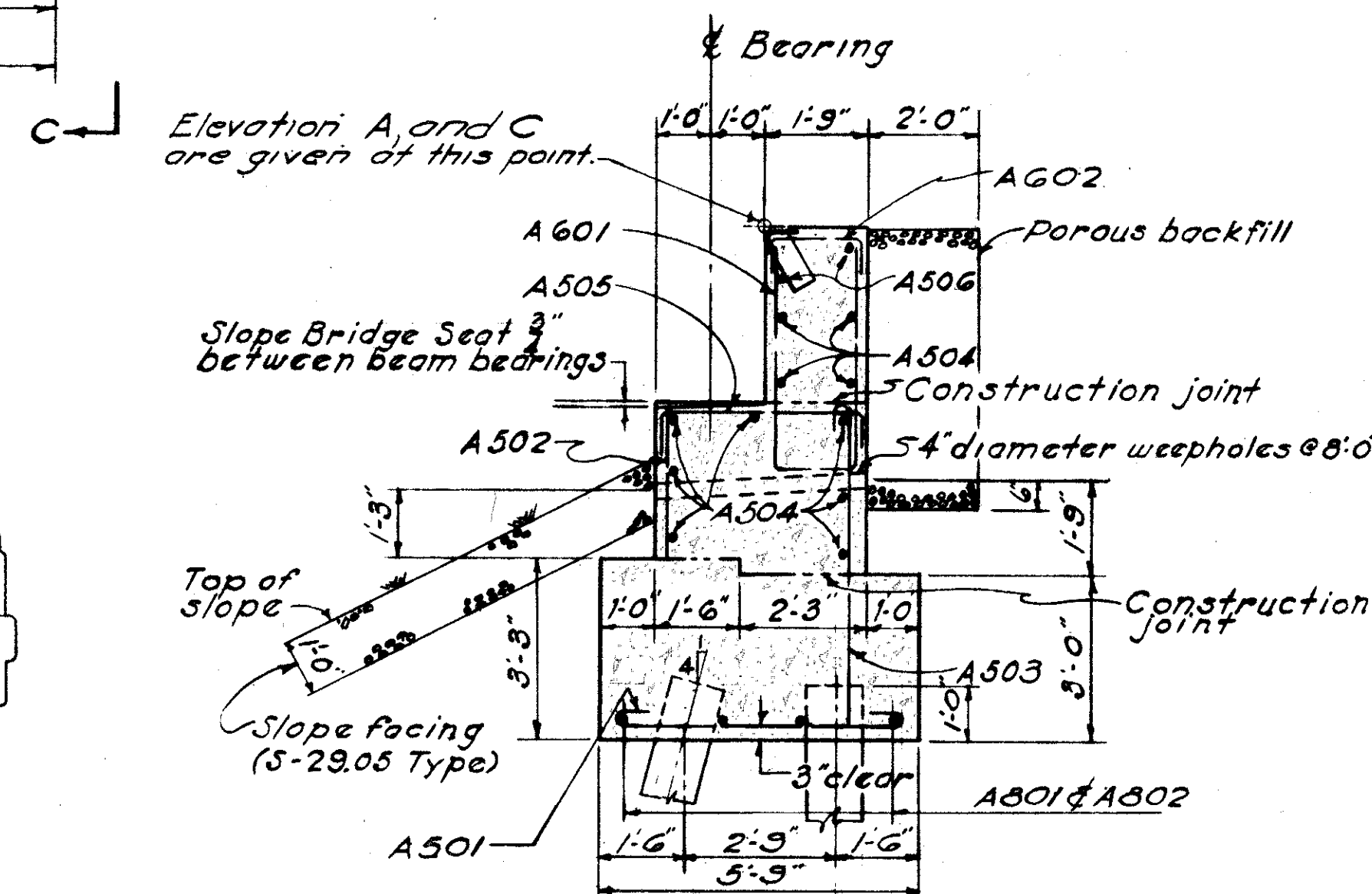
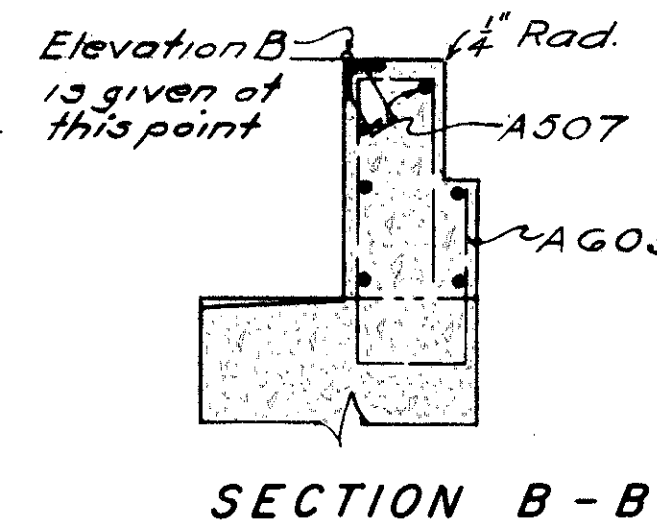
WARREN COUNTY STA. 20 + 37.75
STA. 21 + 72.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	J.H.D.	J.H.D.	E.W.T.	R.B.Y.	6/27/58	

For Sections C-C, H-H, and K-K see Sheet 317
POROUS BACKFILL, 2 feet thick; full length of abutments and wings shall extend up to the underside of the approach slab and paved portion on the shoulders and to the finished surface of the unpaved portion of the shoulders.



ABUTMENT PLAN
 East Bridge Rear Abutment as shown
 West Bridge Rear Abutment opposite hand
 West Bridge Forward Abutment as shown
 East Bridge Forward Abutment opposite hand



ABUTMENT ELEVATION

For locations of points Q, R, S, T, U and V see Sheet 317.

Abutments	ELEVATIONS																			
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V
Rear	703.41	703.96	703.70	702.03	699.99	700.10	700.22	700.33	700.45	700.50	700.38	700.27	697.23	694.00	702.79	702.81	703.00	702.51	702.52	702.72
Forward	702.55	703.09	702.83	701.19	699.19	699.25	699.36	699.48	699.59	699.64	699.53	699.41	696.35	693.10	701.95	701.93	701.94	701.67	701.66	701.67

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 COLUMBUS ENGINEERS OHIO

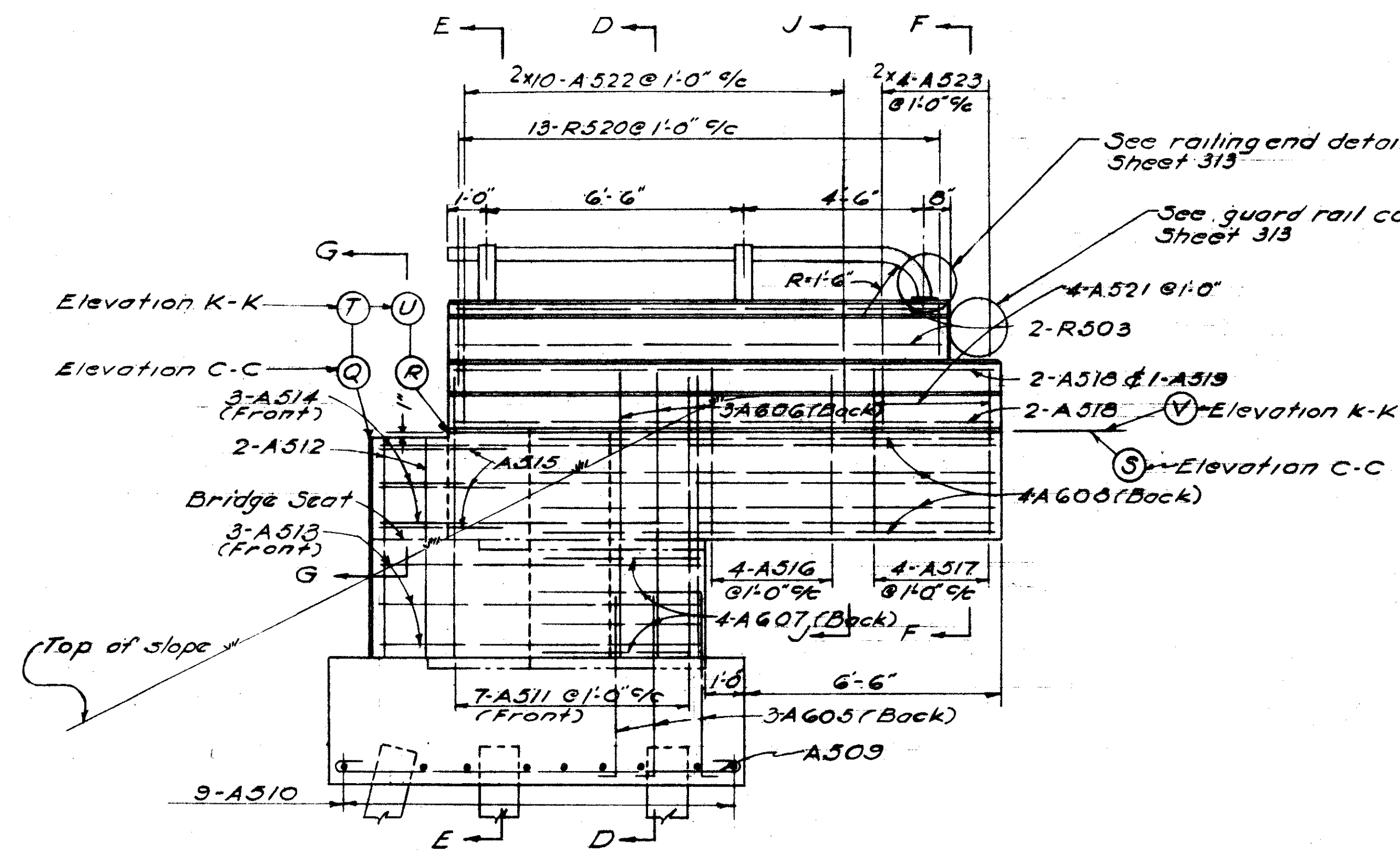
ABUTMENT DETAILS
 BRIDGE NO WAR-25-0866
 OVER CLEAR CREEK
 WARREN COUNTY STA. 20 + 37.75
 STA. 21 + 72.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.R.T.	A.M.	J.M.D.	E.W.T.	R.B.Y.	6/2/58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

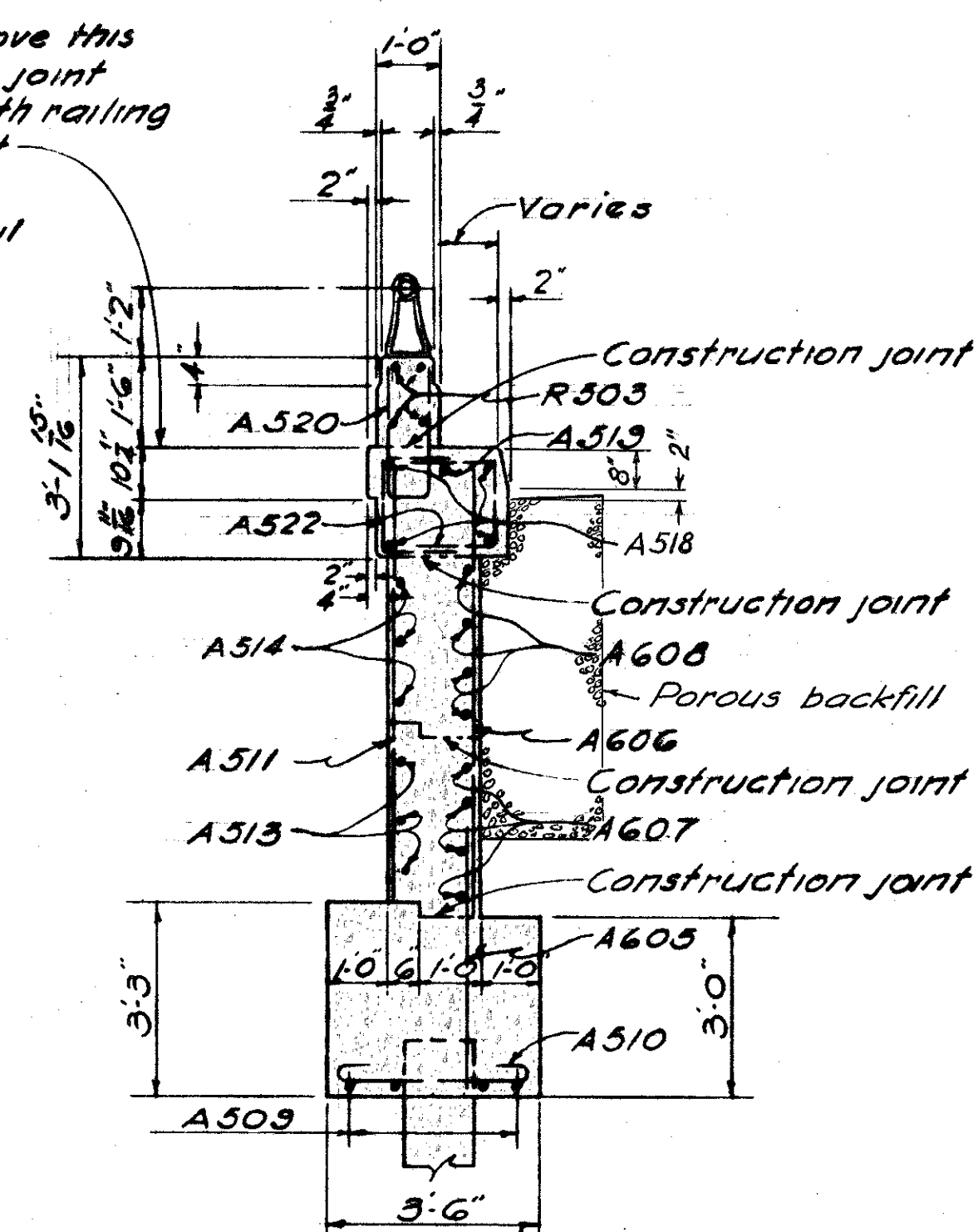
317
377

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00

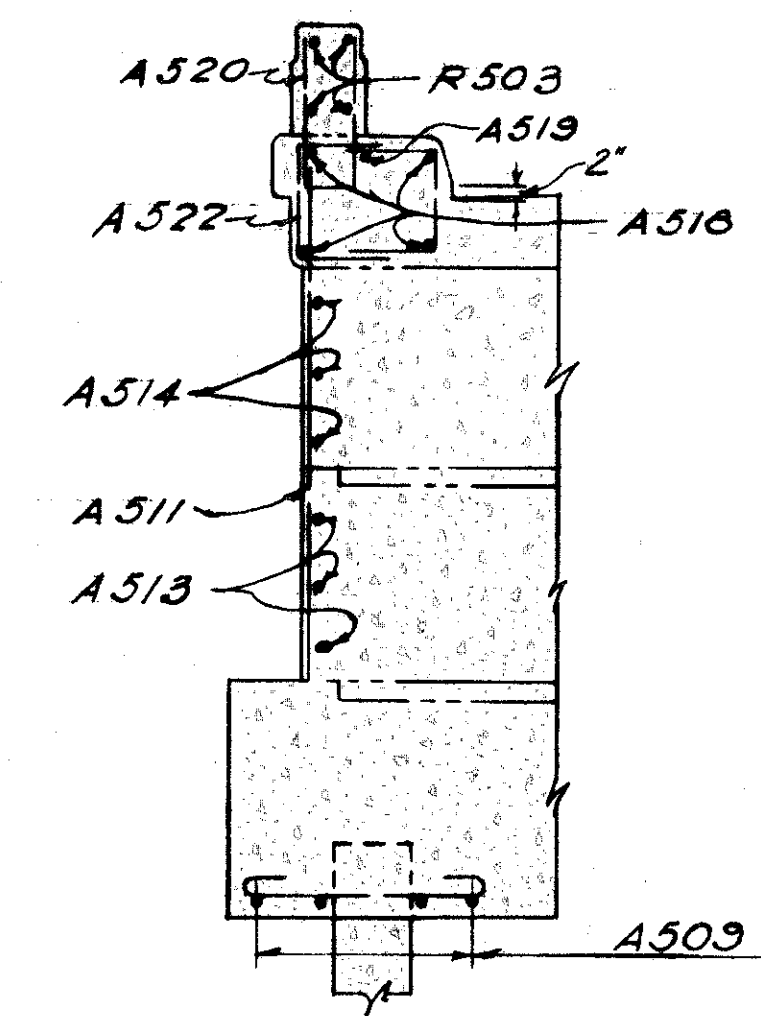


ELEVATION C - C As shown
ELEVATION K - K Opposite hand and as noted

Concrete above this construction joint included with railing for payment

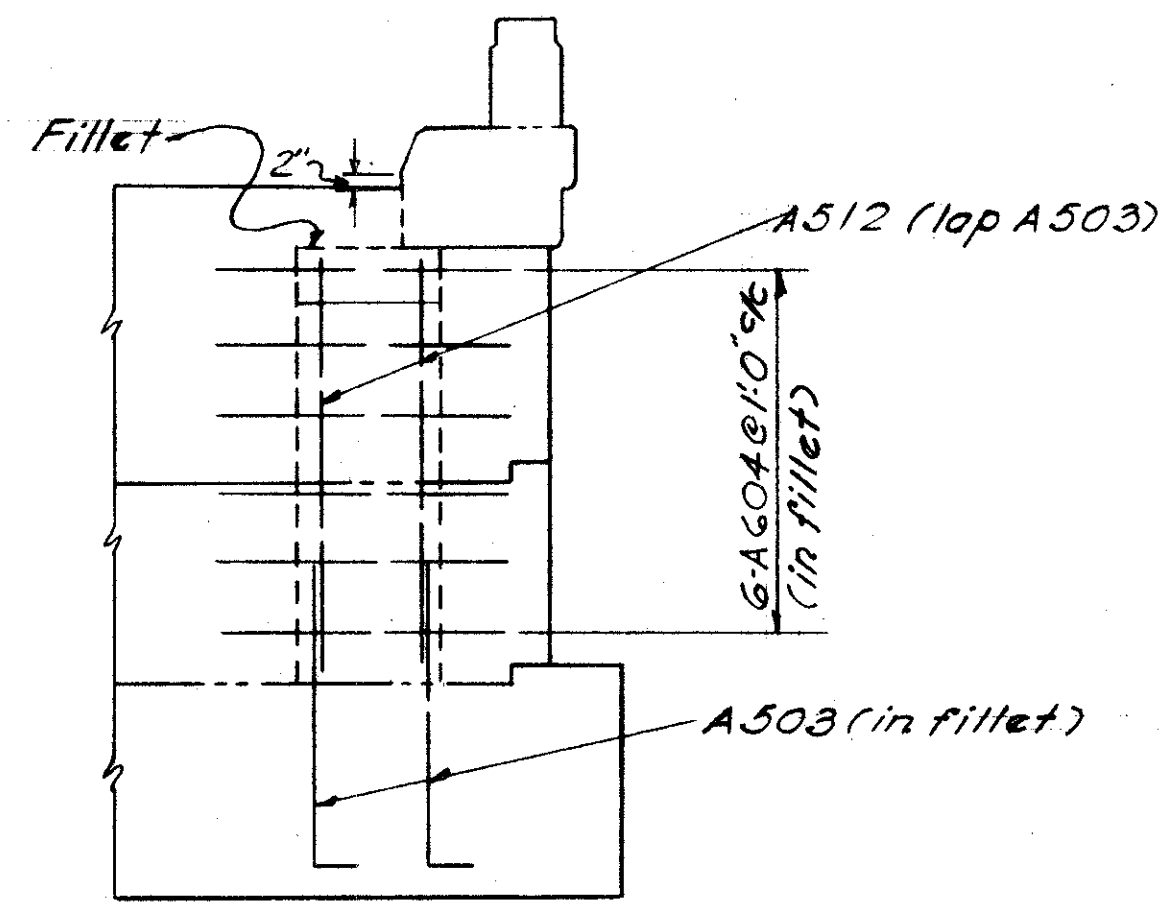


SECTION D-D

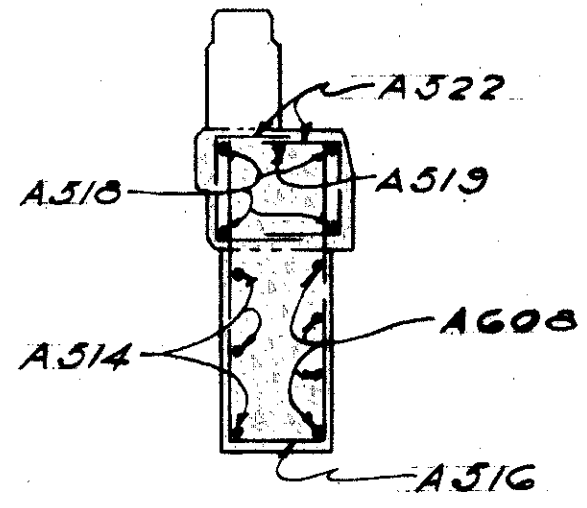


SECTION E-E

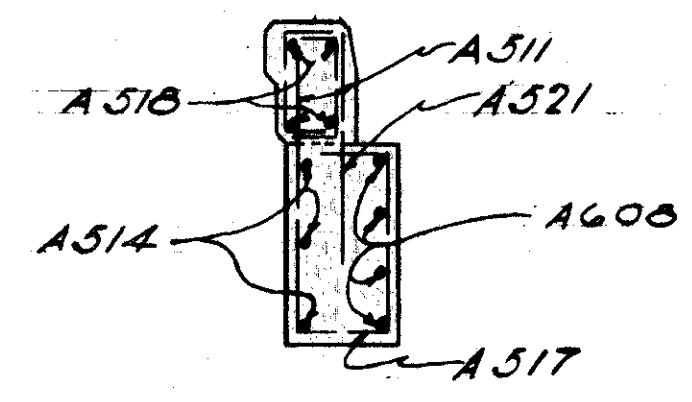
For locations of Sections and Elevations see Sheet 316.
For elevation of points Q, R, S, T, U and V see Sheet 316.



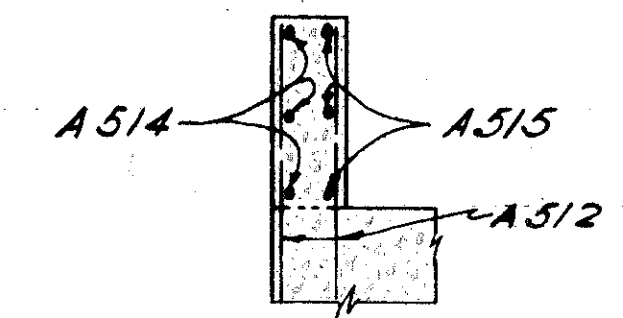
SECTION H-H



SECTION J-J



SECTION F-F



SECTION G-G

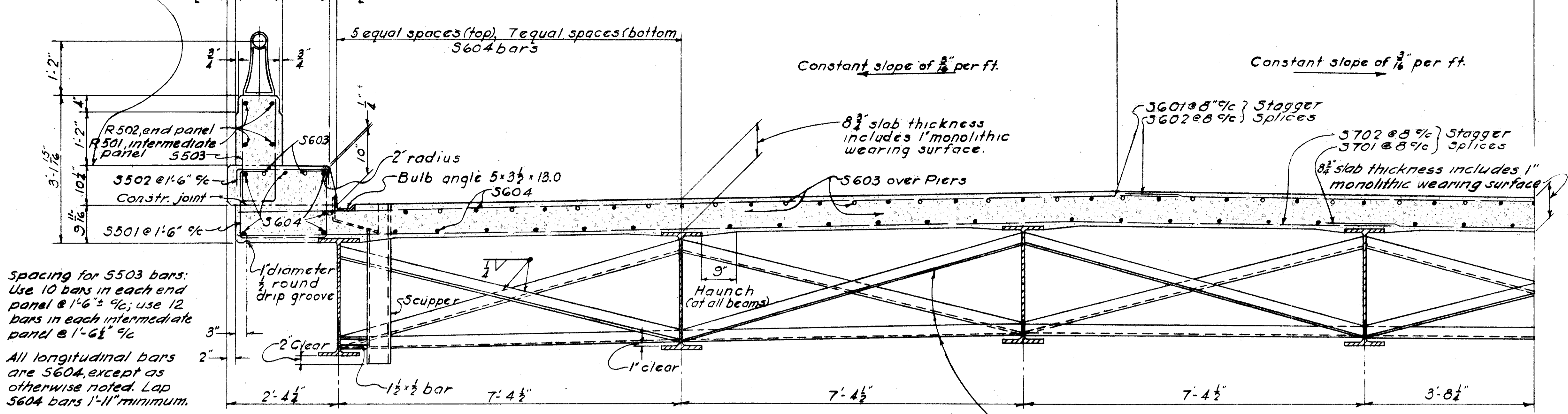
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ABUTMENT DETAILS

BRIDGE NO WAR-25-0866
OVER CLEAR CREEK
WARREN COUNTY STA. 20 + 37.75
STA. 21 + 72.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	A.M.	J.H.D.	E.W.T.	R.B.Y.	6/27/58	

Concrete above this construction joint included with railing for payment.

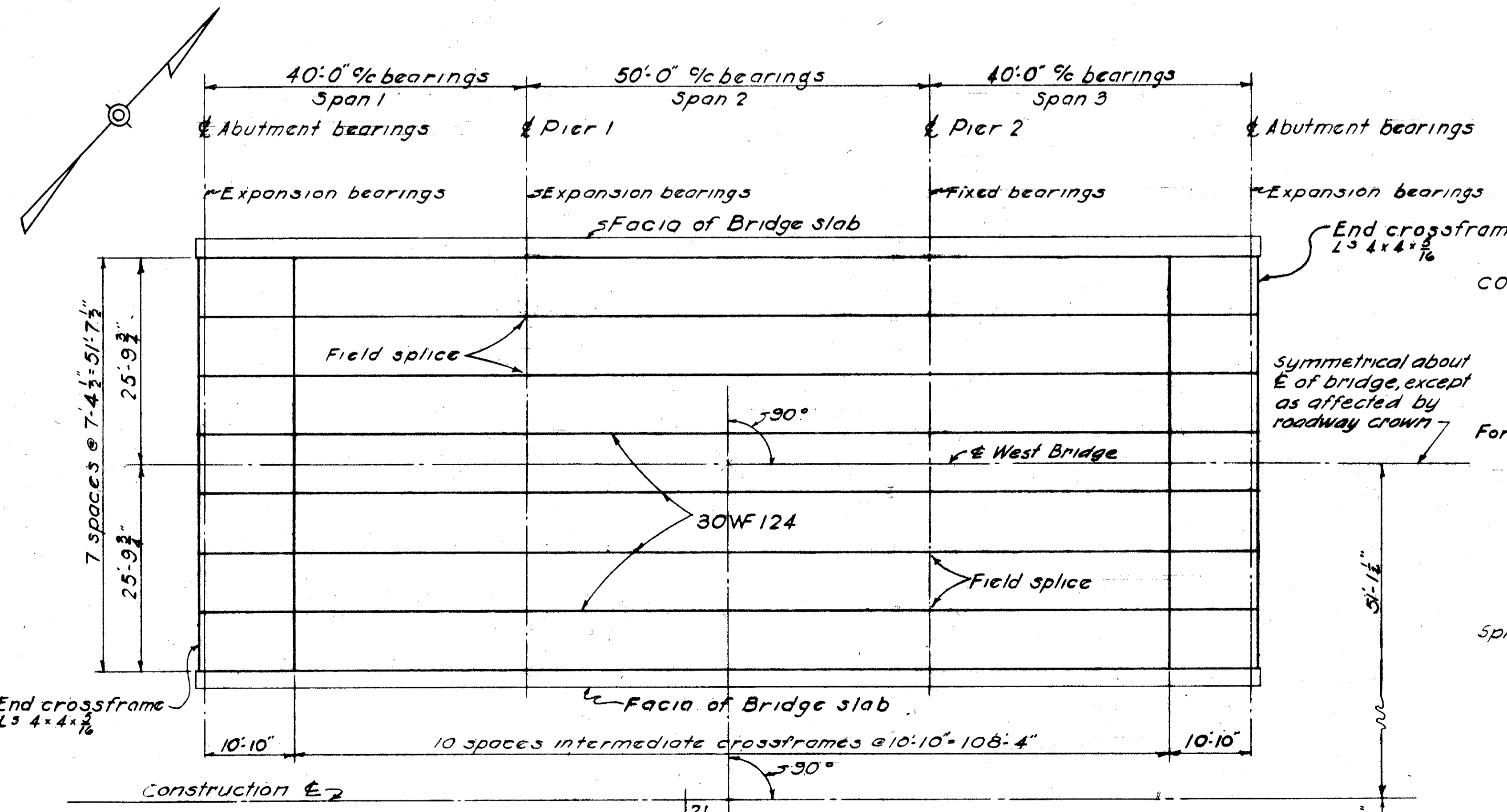


Spacing for 5503 bars: Use 10 bars in each end panel @ 1'-6" c; use 12 bars in each intermediate panel @ 1'-6 1/2" c

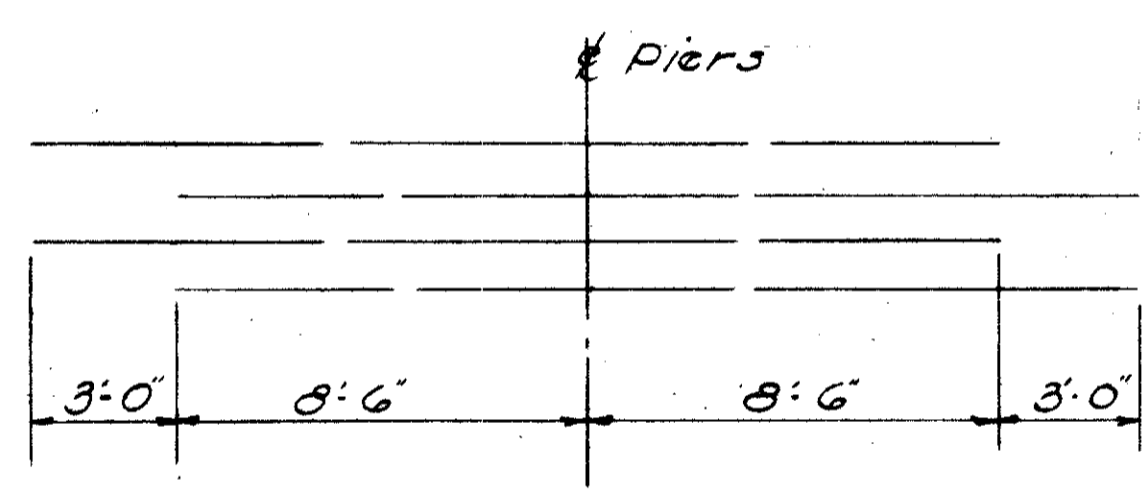
All longitudinal bars are S604, except as otherwise noted. Lap S604 bars 1'-11" minimum.

NOTE: For Bulb angle gutter support, scupper and curb plate details see Standard Drawing CSB-2-56, Sheet 3 dated 3-1-58.

HALF TRANSVERSE SECTION, EAST BRIDGE
 West bridge opposite hand



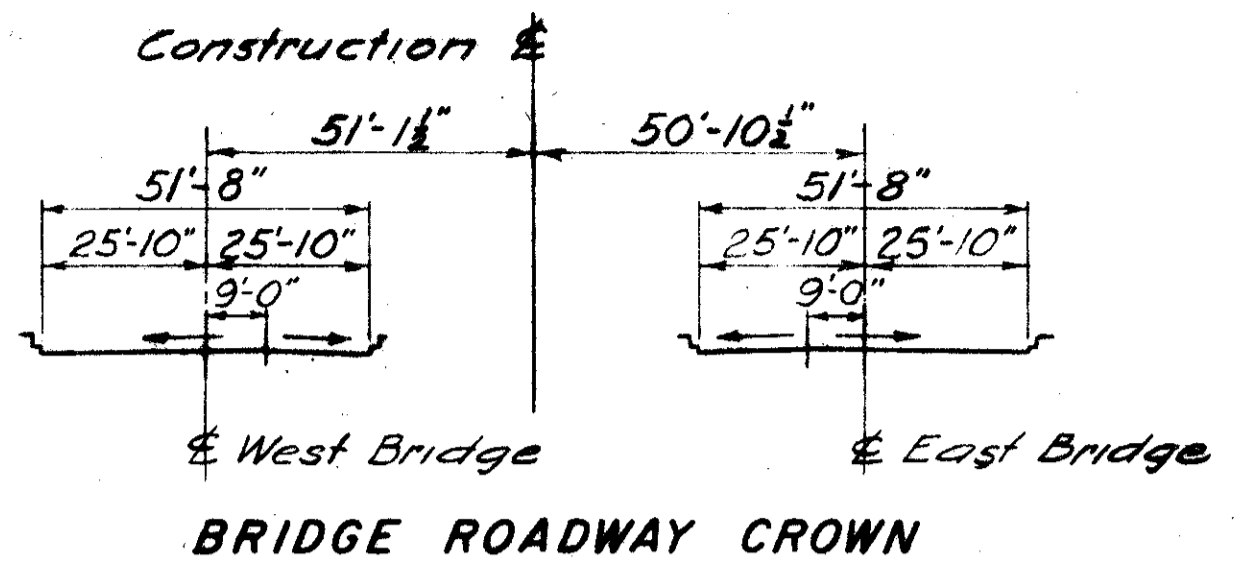
STEEL FRAMING PLAN, WEST BRIDGE
 East bridge similar



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

For details of end crossframes, end dam, beam cut off at back wall, welded butt-joint in superstructure end dam angle at high point of roadway see Standard Drawing CSB-2-56, sheet 2, revised 3-1-58. For details of beam splices, abutment and pier bearing plates see Standard Drawing CSB-2-56, sheet 3, revised 3-1-58. For details of aluminum railing posts see Standard Drawing AR-1-57, revised 3-1-58, Type A.

Splice plate sizes are:
 9 x 3/8 x 9'-6" for top splice plates
 12 x 1/2 x 9'-6" for bottom splice plates



DEFLECTION AND CAMBER

Outside Beams			
	Span 1	Span 2	Span 3
Deflection due to weight of steel	0	0	0
Deflection due to remaining dead load	1/8"	3/16"	1/8"
Convexity required for vertical curve	-1/16"	-1/16"	-1/16"
Sum of Deflection and Convexity	1/16"	1/8"	1/16"
Required Camber	0	0	0

Inside Beams			
	Span 1	Span 2	Span 3
Deflection due to weight of steel	0	0	0
Deflection due to remaining dead load	1/8"	3/16"	1/8"
Convexity required for vertical curve	-1/16"	-1/16"	-1/16"
Sum of Deflection and Convexity	1/16"	1/8"	1/16"
Required Camber	0	0	0

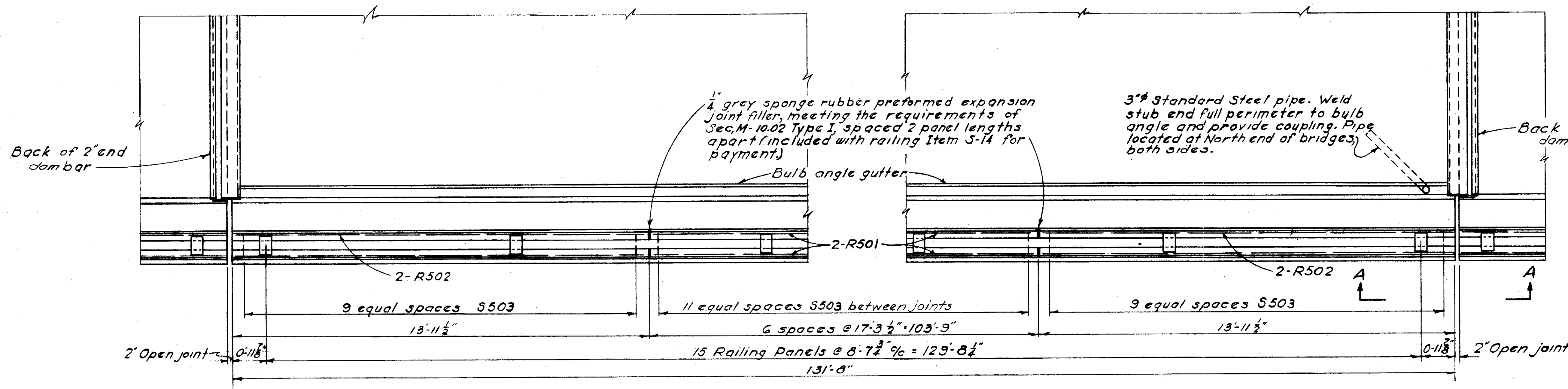
Place mill camber up.

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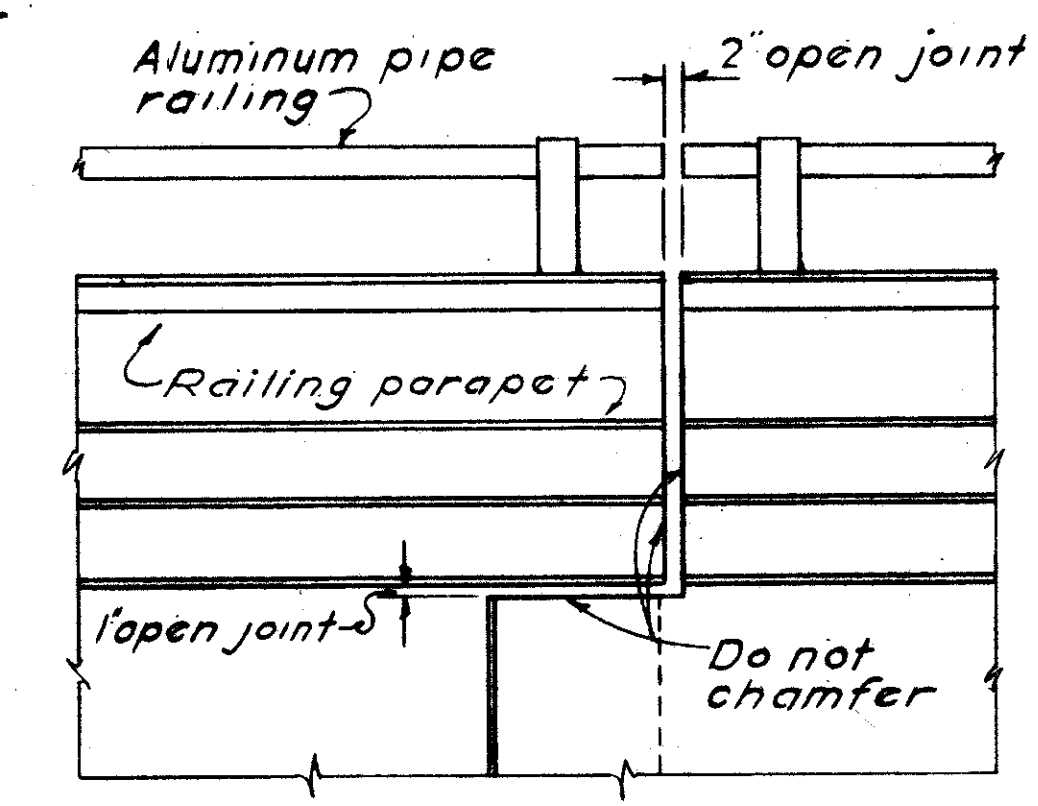
SUPERSTRUCTURE DETAILS

BRIDGE NO WAR-25-0866
 OVER CLEAR CREEK
 WARREN COUNTY STA. 20 + 37.75
 STA. 21 + 72.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.S.	A.M.	J.H.D.	E.W.T.	R.B.Y.	6/27/58	



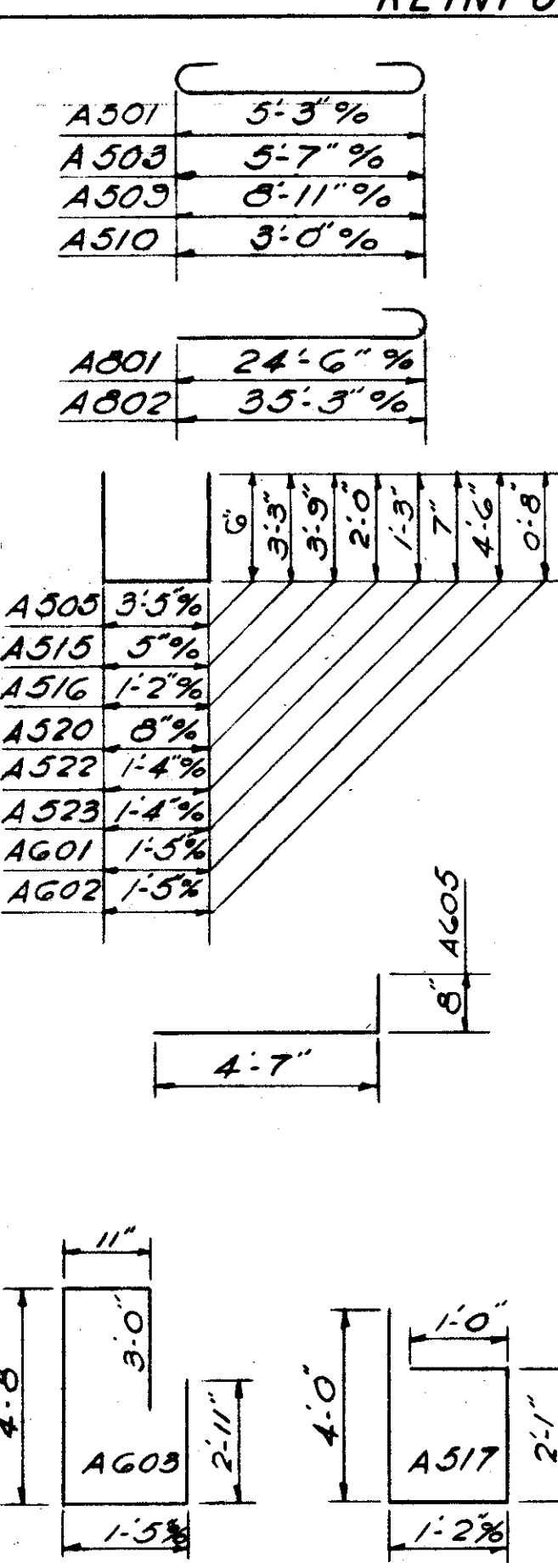
PART PLAN AT ABUTMENTS, WEST BRIDGE
East Bridge similar



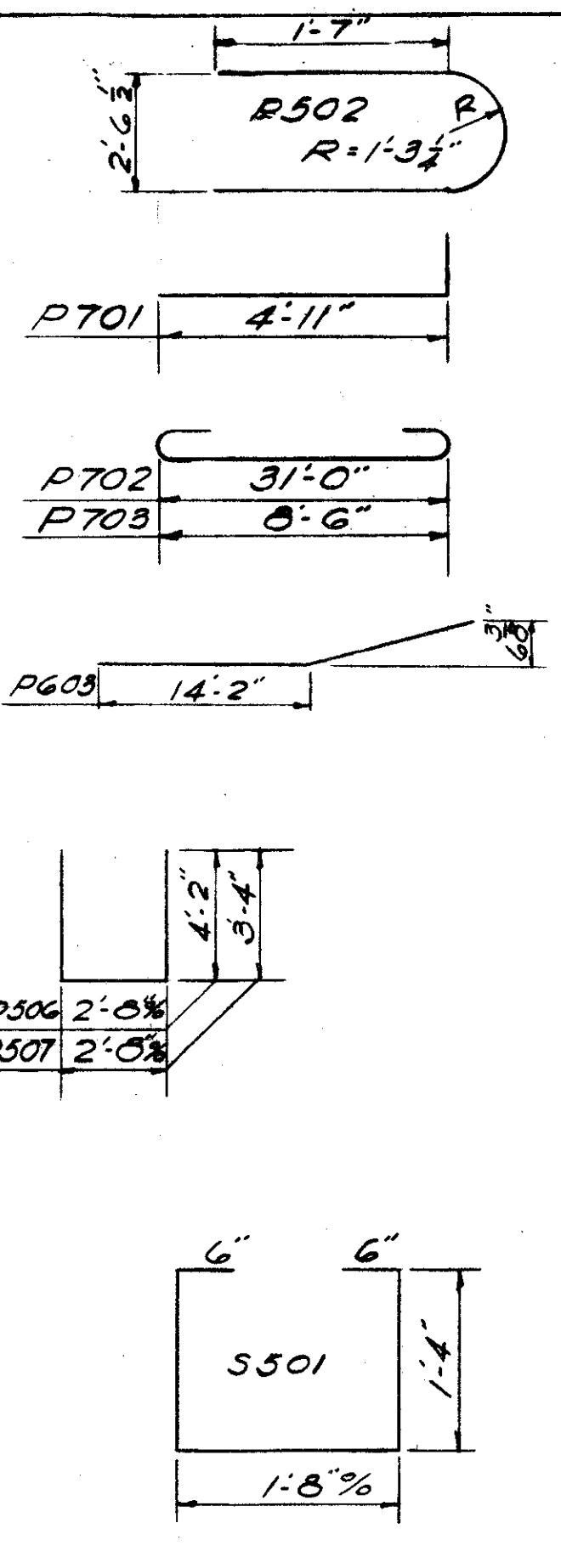
VIEW A - A

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp
Abutments				
A501	176	6'-5"	1178	B
A502	224	2'-7"	603	S
A503	216	6'-9"	1521	B
A504	88	28'-3"	2593	S
A505	244	4'-5"	1124	B
A506	8	12'-3"	102	S
A507	16	20'-4"	339	S
A508	8	6'-3"	52	S
A509	32	9'-1"	303	B
A510	72	4'-2"	313	B
A511	56	6'-8"	389	S
A512	48	5'-1"	254	S
A513	24	8'-1"	202	S
A514	24	15'-7"	330	S
A515	24	6'-11"	173	B
A516	32	8'-8"	289	B
A517	32	8'-3"	275	B
A518	32	18'-7"	453	S
A519	8	10'-0"	83	S
A520	104	4'-8"	506	B
A521	32	3'-1"	103	S
A522	160	3'-10"	640	B
A523	64	2'-6"	167	B
AG01	64	10'-5"	1001	B
AG02	64	2'-9"	264	B
AG03	144	12'-11"	2794	B
AG04	72	6'-6"	703	S
AG05	24	5'-3"	189	B
AG06	24	7'-1"	255	S
AG07	32	4'-7"	220	S
AG08	32	11'-11"	573	S
AB01	16	25'-7"	1093	B
AB02	16	36'-4"	1552	B



Mark	No.	Length	Weight	Shp
Piers				
P501	64	24'-0"	1602	S
P502	64	7'-2"	478	B
P503	8	27'-0"	225	S
P504	16	20'-11"	349	S
P505	16	27'-10"	464	S
P506	160	11'-0"	1836	B
P507	160	9'-4"	1558	B
P508	8	2'-8"	22	S
PG01	144	16'-10"	3641	S
PG02	144	8'-0"	1730	S
PG03	16	16'-0"	385	B
P701	280	5'-9"	3291	B
P702	36	32'-8"	2404	B
P703	196	10'-2"	4073	B
P1001	56	28'-9"	6928	S
P1101	56	28'-11"	8604	S
Superstructure				
S501	352	5'-4"	1958	B
S502	352	2'-8"	979	B
S503	352	4'-8"	1713	B
S501	394	21'-5"	12674	S
S502	394	36'-2"	21403	S
S503	156	20'-0"	4686	S
S504	704	34'-3"	36216	S
S701	394	32'-8"	26308	S
S702	394	25'-3"	20335	S
Railing				
R501	96	17'-0"	*	S
R502	32	13'-7"	*	S
R503	32	12'-4"	*	S



Mark	No.	Length	Weight	Shp
Replacement Bars				
RE501	2	5'-7"		S
RE601	3	3'-11"		S
RE701	3	6'-3"		S
RE801	1	6'-6"		S
RE1001	1	7'-5"		S
RE1101	1	7'-7"		S

BAR SIZE is indicated in the bar mark. The first digit where are used, and the first two digits where four digits are used, indicates the bar size number. For example P701 is a No.7 size bar and P1101 is a No. 11 size bar.

REPLACEMENT BARS. If the bars are fabricated from stock that has previously been tested and approved by the Ohio Highway Testing Laboratory, the furnishing of test samples and replacement bars will not be required.

* Included with railing Item S-14 for payment.

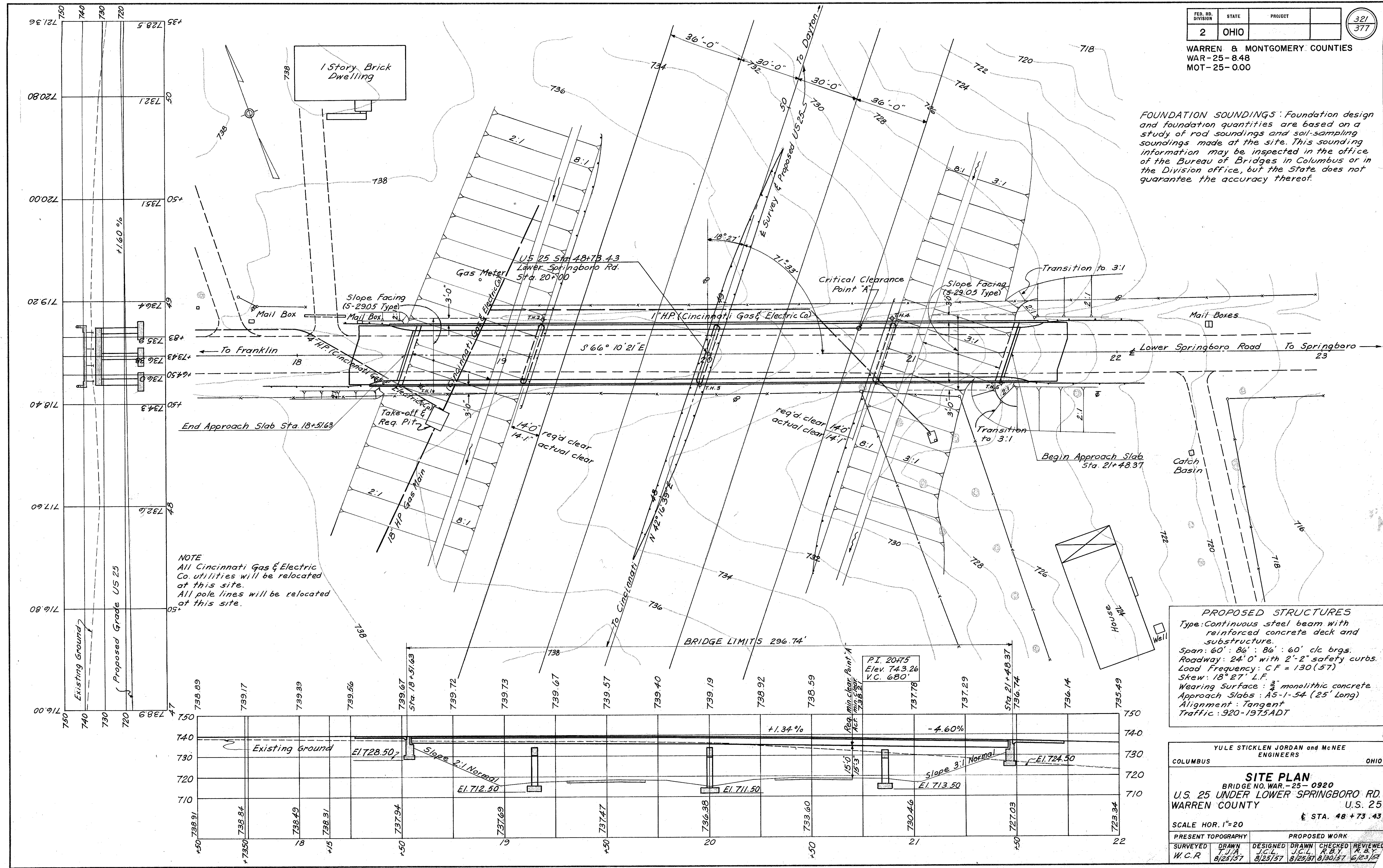
YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

SUPERSTRUCTURE DETAILS & REINFORCING STEEL LIST

BRIDGE NO WAR-25-0866
OVER CLEAR CREEK
WARREN COUNTY STA. 20 + 37.75
STA. 21 + 72.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.S.	A.M.	J.H.D.	E.W.T.	R.B.Y.	6/27/58	

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.



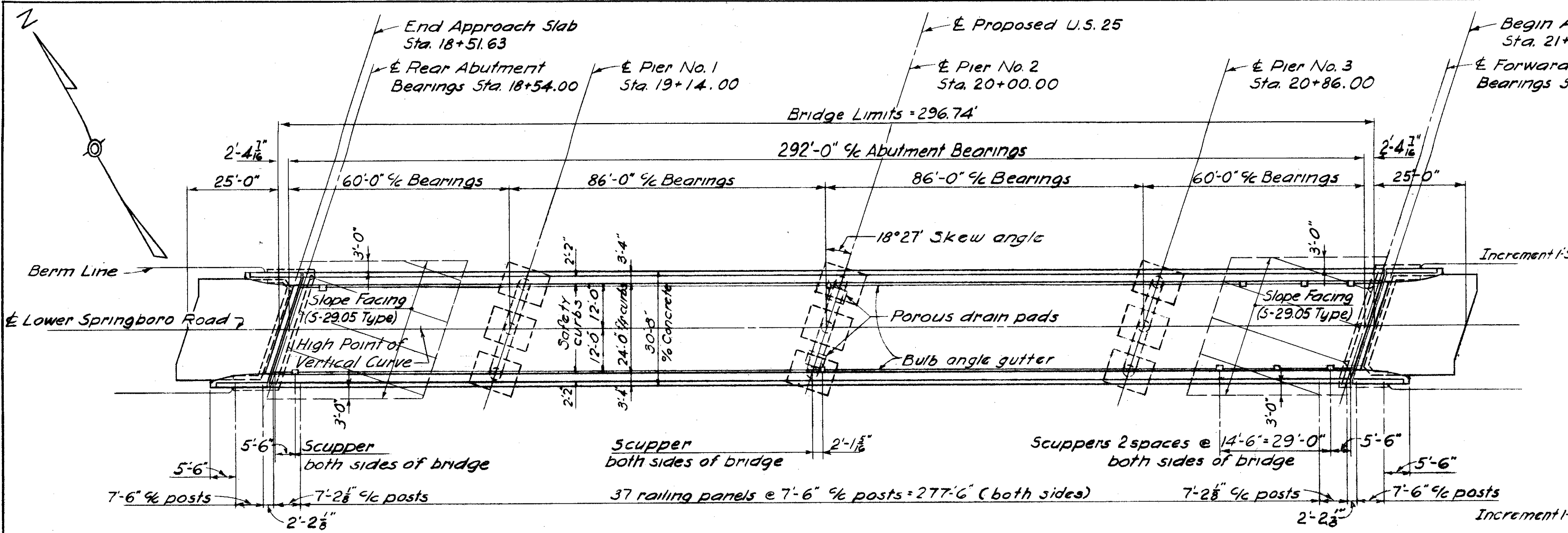
NOTE
 All Cincinnati Gas & Electric Co. utilities will be relocated at this site.
 All pole lines will be relocated at this site.

PROPOSED STRUCTURES
 Type: Continuous steel beam with reinforced concrete deck and substructure.
 Span: 60' : 86' : 86' : 60' c/c brgs.
 Roadway: 24' 0" with 2'-2" safety curbs.
 Load Frequency: C.F. = 130 (57)
 Skew: 18° 27' L.F.
 Wearing Surface: 3" monolithic concrete.
 Approach Slabs: A5-1-54 (25' Long)
 Alignment: Tangent
 Traffic: 920-1975ADT

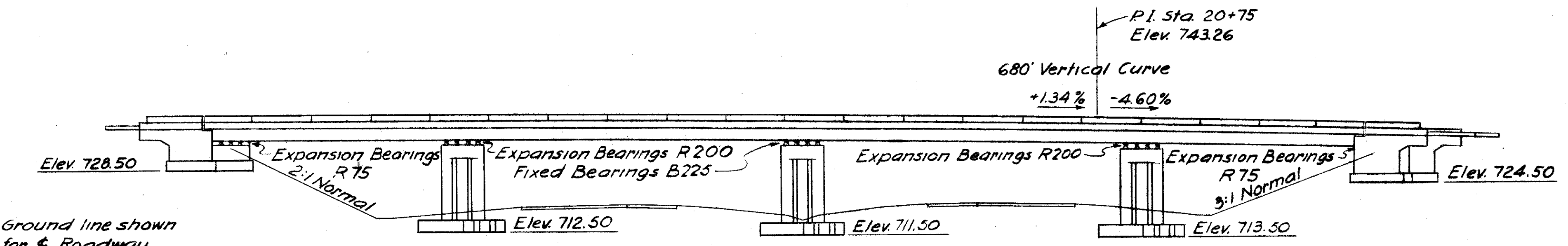
YULE STICKLEN JORDAN and McNEE
 ENGINEERS
 COLUMBUS OHIO

SITE PLAN
 BRIDGE NO. WAR-25-0920
 U.S. 25 UNDER LOWER SPRINGBORO RD.
 WARREN COUNTY U.S. 25
 STA. 48+73.43

SCALE HOR. 1"=20		PRESENT TOPOGRAPHY				PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED				
W.C.R.	T.J.A.	J.C.L.	J.C.L.	R.B.V.	R.B.V.				
	8/25/57	8/25/57	8/25/57	8/30/57	6/23/57				



GENERAL PLAN



ELEVATION

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AR-1-57, revised 3-1-58 (Type A), AS-1-54 revised 12-1-54, CSB-2-56 Sheet No. 2, revised 3-1-58, CSB-2-56 Sheet No. 3, revised 3-1-58, RB-1-55, revised 3-1-55 and supplemental specifications S-114 (aluminum for bridge railing) revised 8-1-57.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways dated 3-1-57, together with the revisions thereof dated 2-21-58.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2.6 tons per sq. ft. and pier footings are designed for a maximum bearing pressure of 2.9 tons per sq. ft.

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

WELDED STEEL: The steel for the 36WF 230 beams shall conform to ASTM Designation A-373. All other structural steel shall conform to either ASTM A-7 (as per Sec. M-7.4 (a) of the Construction and Material Specifications) or to A-373.

SLOPE FACING (S-29.05 TYPE) shall be provided under the structure at both abutments. The slope facing shall be 12" thick and shall extend from the face of the abutment to the flow line of the ditch and transversely to 3 feet outside of the edge of the superstructure.

BEAM SEAT ELEVATIONS shall be checked immediately before superstructure steel is erected, and steel shims shall be used under the bearing plates to correct any settlement of abutments and piers.

PROCEDURE: The embankment for the east abutment 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. The excavation for and construction of the east abutment shall not be performed until 90 days after the embankment at this location has been in place. The 90-day waiting period may be shortened, if observations indicate settlement has ceased and approval of the Director is obtained.

EXCAVATION QUANTITY includes the removal of fill material required for the construction of the forward abutment.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super-struct.	Rear Abut.	Pier 1	Pier 2	Pier 3	Forward Abut.	General
E-2	425	Cu. Yds.	Unclassified excavation		100	75	80	75	95	
S-1	282	Cu. Yds.	Class "C" Concrete - Superstructure	282						
S-1	68	Cu. Yds.	Class "C" Concrete - Pier Caps and Columns			23	24	21	65	
S-1	125	Cu. Yds.	Class "E" Concrete - Abutments		60					
S-1	108	Cu. Yds.	Class "E" Concrete - Pier Footings			36	36	36		
S-4	93,380	Lbs.	Reinforcing steel	68,314	3,316	7,870	7,941	7,395	3,544	
S-7	283,180	Lbs.	Structural steel	283,180						
S-8	283,180	Lbs.	Field painting of structural steel	283,180						
S-14	644	Lin. Ft.	Railing (aluminum rail, supports & concrete parapet)	388	28				28	
S-29	122	Cu. Yds.	Slope facing (S-29.05 Type)		63				59	
S-29	37	Cu. Yds.	Porous backfill		18		1		18	
S-29	43	Lin. Ft.	Downspouts (6" wrought iron or hot-dipped galvanized steel)				43			

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp.	Mark	No.	Length	Weight	Shp.		
Superstructure											
A519	12	7'-0"	88	B	A520	20	6'-8"	139	B		
5501	488	30'-0"	15270	S	A521	4	8'-2"	34	B		
5502	2	27'-10"	58	S	A522	4	9'-2"	38	B		
<i>3 of Varies from 10 to 25'-1"</i>											
5503	2	7'-6"	359	S	A523	2	7'-6"	16	S		
					A524	33	5'-2"	173	S		
5504	8	16'-7"	138	S	A525	26	8'-4"	226	B		
5505	8	8'-0"	67	S	A526	6	8'-9"	55	S		
5506	428	4'-8"	2084	B	A527	16	10'-10"	181	S		
5507	392	2'-10"	1158	S	A528	2	8'-6"	18	S		
5508	784	2'-3"	1840	B							
<i>3 of Varies from 10 to 25'-1"</i>											
5601	488	30'-0"	21939	S	A601	50	15'-6"	1164	B		
5602	470	30'-7"	21590	S	A602	36	4'-3"	230	S		
5603	60	34'-0"	3064	S	A603	8	15'-2"	182	S		
5604	2	27'-10"	84	S	A604	4	16'-1"	97	S		
<i>3 of Varies from 10 to 25'-1"</i>											
5605	2	7'-10"	517	S	A605	2	13'-8"	41	S		
					A606	10	5'-0"	75	S		
5606	8	8'-0"	96	S	A607	24	4'-4"	156	B		
					A608	14	9'-9"	205	S		
					A609	11	8'-6"	140	S		
					A610	11	6'-0"	99	S		
					A611	6	15'-11"	143	B		
					A612	12	10'-6"	139	S		
Railing											
R501	16	11'-7"	*	S	A613	4	14'-10"	89	S		
R502	14	14'-8"	*	S	A606	2	13'-8"	41	S		
R503	16	13'-8"	*	S	A607	8	13'-4"	160	S		
					A608	10	5'-0"	75	S		
					A609	24	4'-4"	156	B		
					A610	14	9'-9"	205	S		
					A611	11	8'-6"	140	S		
					A612	11	6'-0"	99	S		
					A613	6	15'-11"	143	B		
					A614	12	10'-6"	139	S		
Abutments					Piers						
A501	26	7'-4"	199	B	P501	6	25'-3"	158	S		
A502	33	4'-1"	141	S	P502	60	7'-10"	489	B		
A503	9	28'-6"	268	S	P503	30	10'-4"	323	B		
A504	14	16'-6"	241	S	P701	42	11'-10"	1016	B		
A505	58	4'-5"	268	B	P801	90	10'-8"	2563	B		
A506	24	15'-4"	384	S	P802	90	13'-8"	3284	B		
A507	60	4'-8"	292	B	P901	108	6'-6"	2387	B		
A508	36	4'-5"	442	B	P902	36	18'-8"	2235	S		
A509	16	3'-1"	51	B	P903	36	19'-11"	2336	S		
A510	8	2'-5"	70	B	P904	36	15'-11"	1948	S		
A511	4	17'-0"	71	S	P905	6	25'-3"	315	S		
A512	4	17'-6"	73	S	P906	6	27'-7"	363	S		
A513	2	10'-0"	21	S	P907	3	27'-11"	285	S		
A514	3	10'-6"	39	S	P908	42	9'-2"	1309	B		
A515	16	4'-1"	68	B	P101	15	16'-4"	1302	S		
A516	6	7'-9"	40	S							
A517	16	9'-6"	159	S							
A518	7	9'-10"	72	S							
Replacement Bars					Spiral Reinforcing List*						
RE101	1	7'-7"		S	Mark	No.	Core Dia	Length	Pitch	No. Turns	Weight
RE301	1	6'-10"		S	SP401	3	32"	15'-5"	4 1/2	44	854
RE801	1	6'-6"		S	SP402	3	32"	15'-10"	4 1/2	45	874
RE701	1	6'-8"		S	SP403	3	32"	12'-8"	4 1/2	37	715
RE601	3	5'-11"		S							
RE501	2	5'-7"		S							
RE401	1	5'-9"		B							

The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the underside of the pier cap. The "No. of Turns" shown in the steel list for the spiral bars is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S-4. The 1/2 closed coils shall be provided of the ends of each spiral unit.

Four steel channel's 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 lbs. 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.

BAR SIZE is indicated in the bar mark. The first digit where three are used, and the first two digits where four digits are used, indicates the bar size number. For example, P901 is a No. 9 size bar and P101 is a No. 11 size bar.

REPLACEMENT BARS. If the bars are fabricated from stock that has previously been tested and approved by the Ohio Highway Testing Laboratory, the furnishing of test samples and replacement bars will not be required.

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

**GENERAL PLAN & ELEVATION
ESTIMATED QUANTITIES &
REINFORCING STEEL LIST**

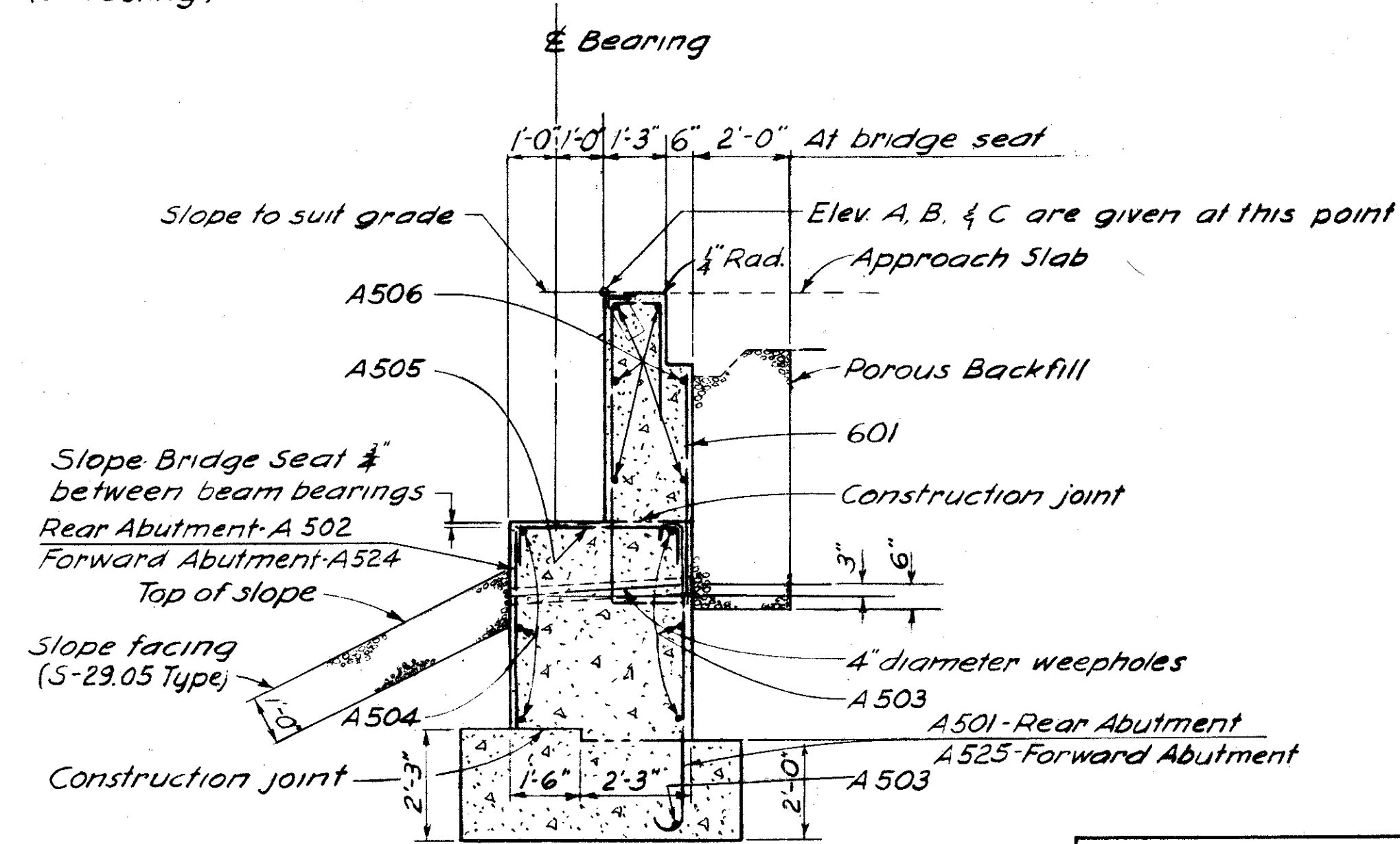
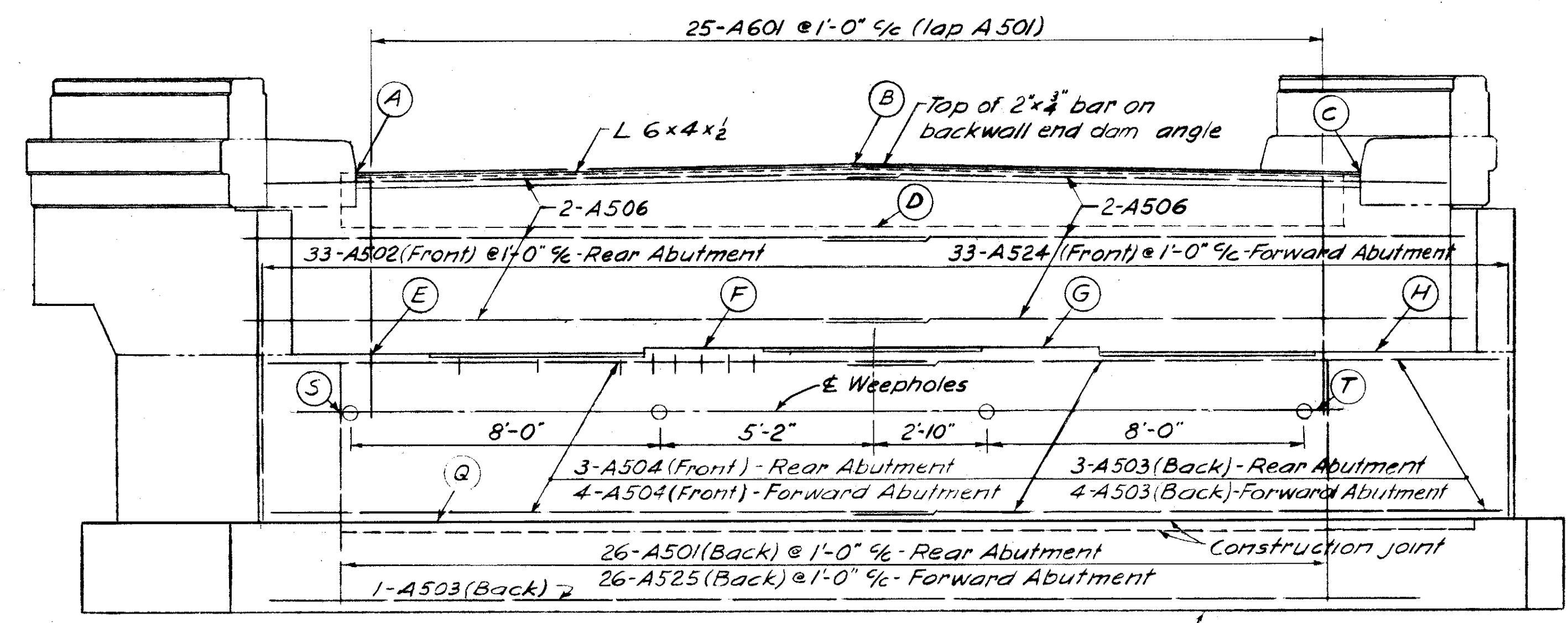
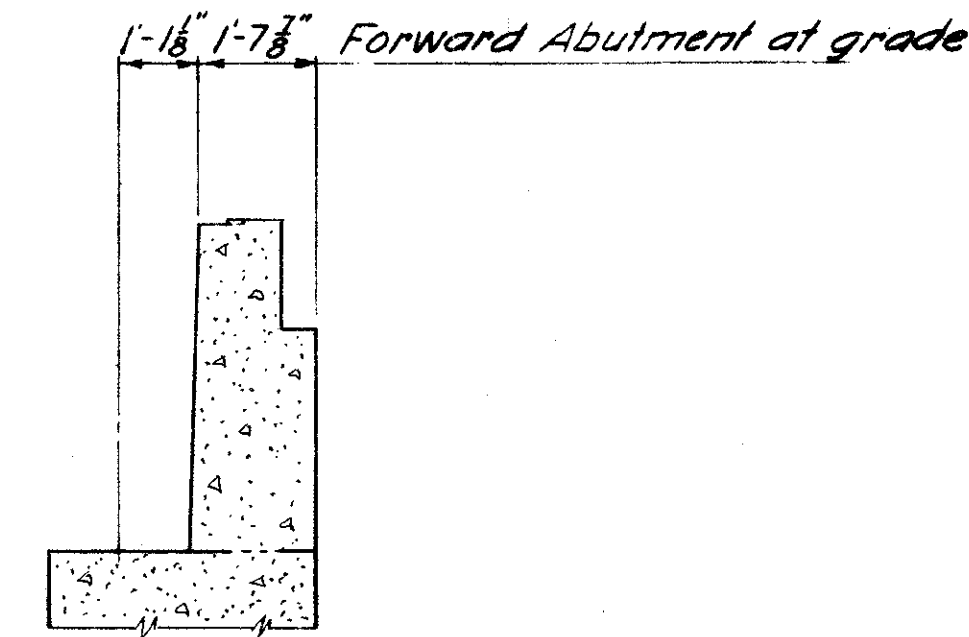
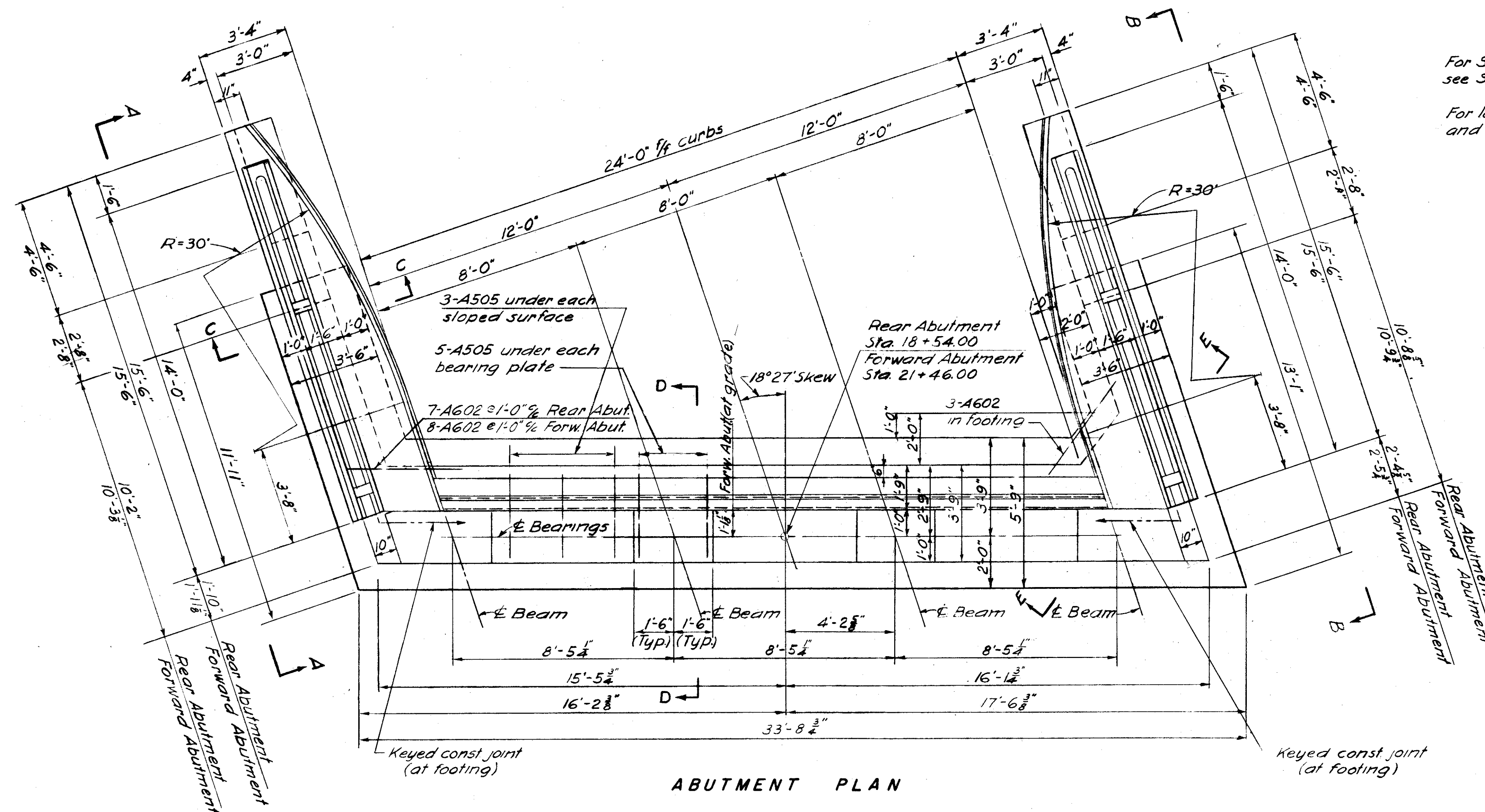
BRIDGE NO. WAR-25-0920
UNDER LOWER SPRINGBORO RD
WARREN COUNTY STA. 48+73.43

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.S.	A.M.	A.M.	E.W.T.	R.B.Y.	6/23/58	

For Sections A-A, B-B, C-C, & E-E see Sheet 324

For location of Points J, K, L, M, N and P see Sheet 324

POROUS BACKFILL, 2 feet thick, full length of abutment and wings, shall extend up to the underside of the approach slab.



ABUTMENT ELEVATION

SECTION D-D
 Rear Abutment as shown
 Forward Abutment similar except that backwall is sloped (See Detail, Forward Abutment Backwall).

Abutment	ELEVATIONS																		
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	
Rear	739.47	739.68	739.50	738.14	735.03	735.17	735.18	735.06	738.66	738.64	738.65	738.68	738.67	738.70	730.75	728.50	733.03	733.56	
Forward	736.52	736.80	736.70	735.19	732.11	732.30	732.36	732.29	735.39	735.68	735.72	735.95	735.89	735.62	726.75	724.50	730.11	730.79	

YULE, STICKLEN, JORDAN & McNEE
 COLUMBUS ENGINEERS OHIO

ABUTMENT DETAILS

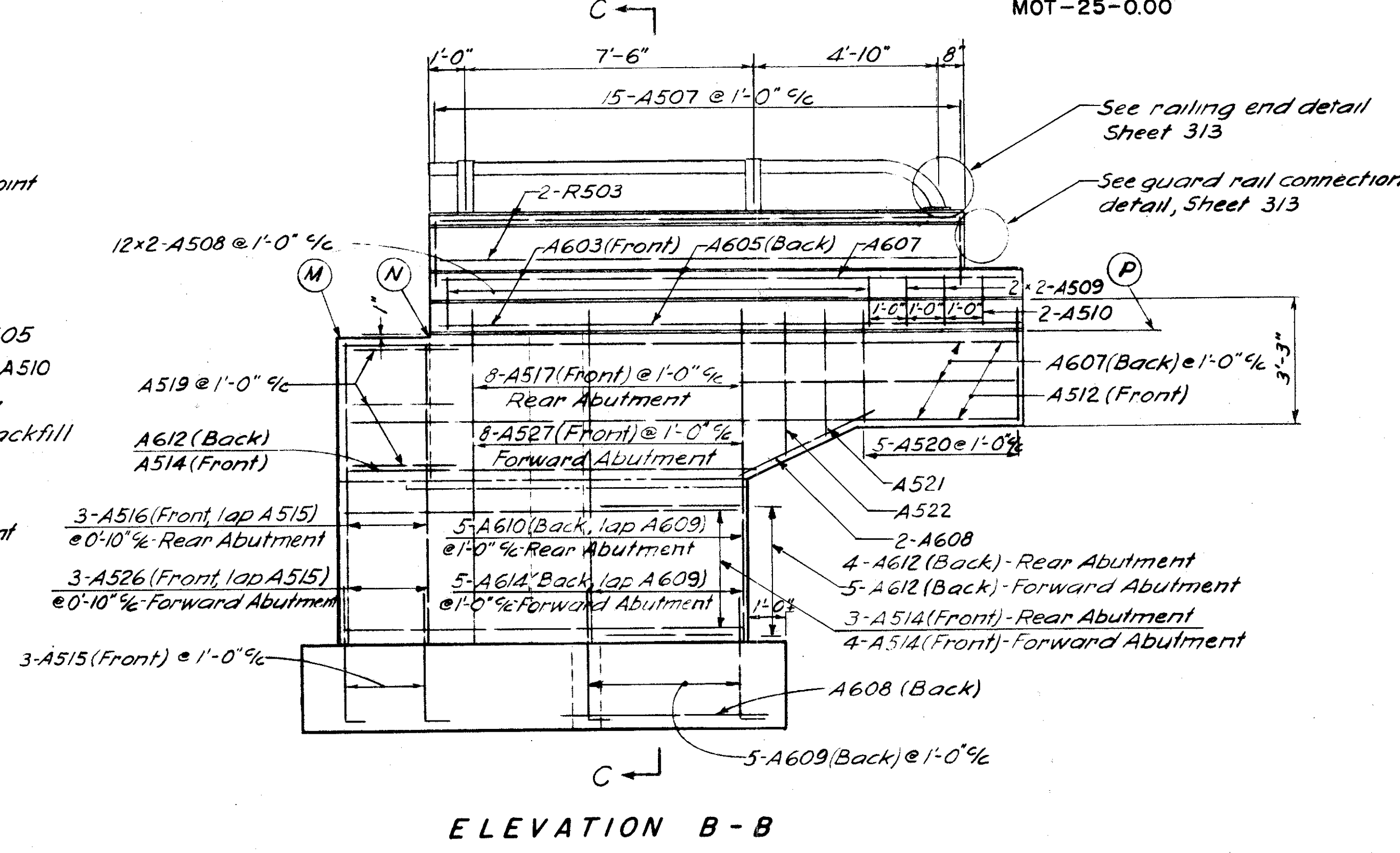
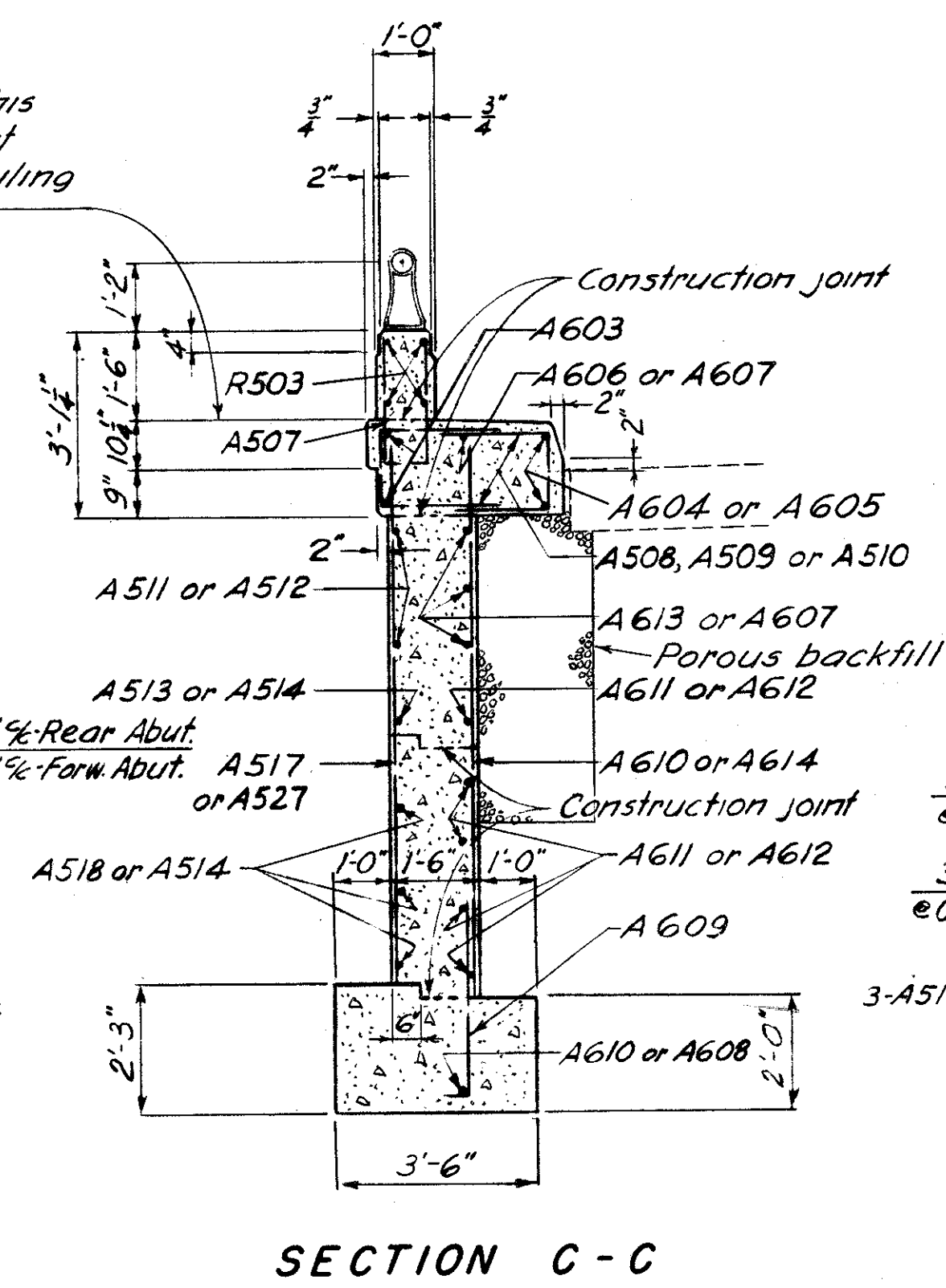
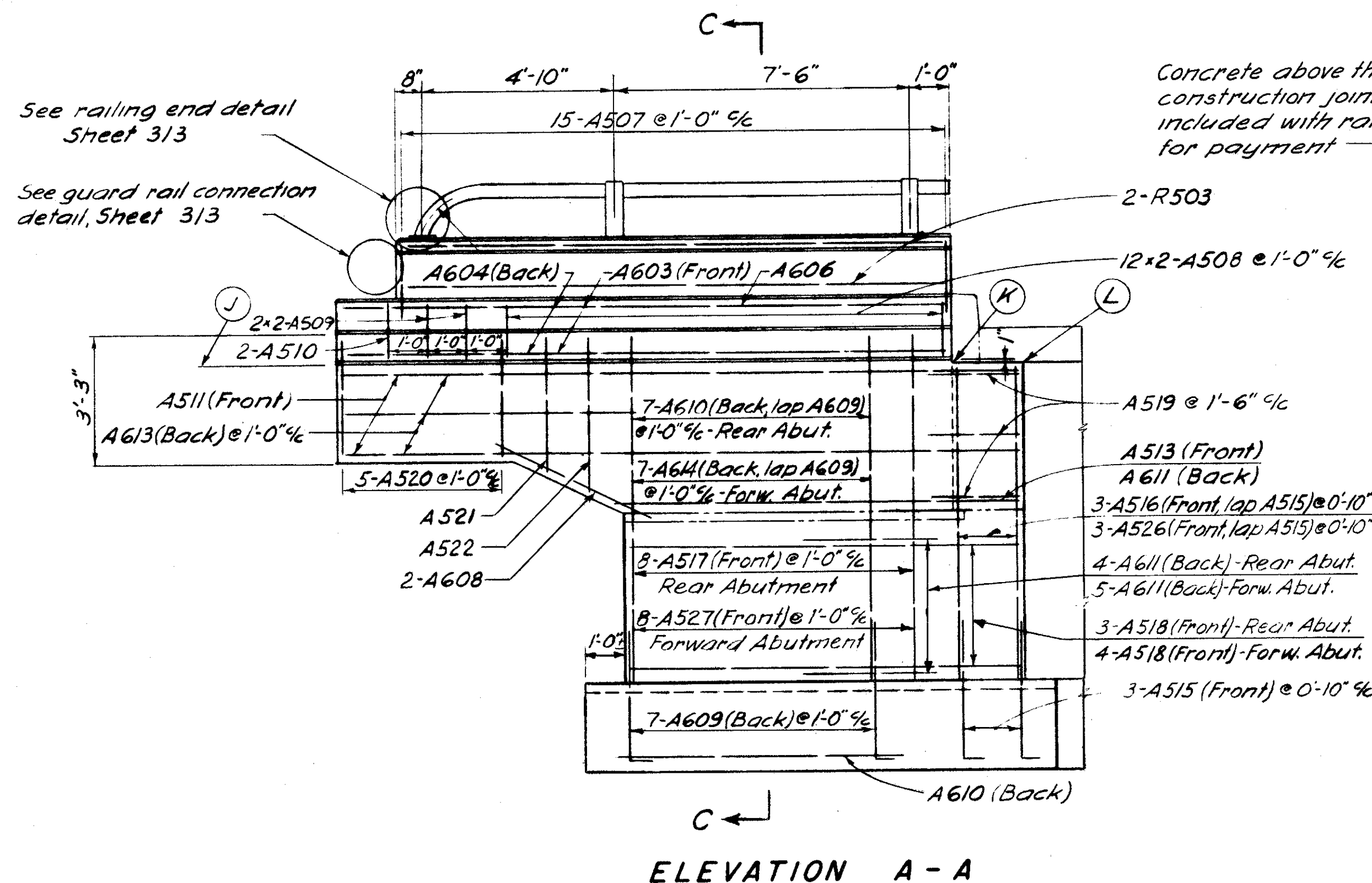
BRIDGE NO. WAR-25-0920
 UNDER LOWER SPRINGBORO RD.
 WARREN COUNTY STA. 48+73.43

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.S.	A.M.	A.M.	E.W.T.	R.B.Y.	6/23/58	

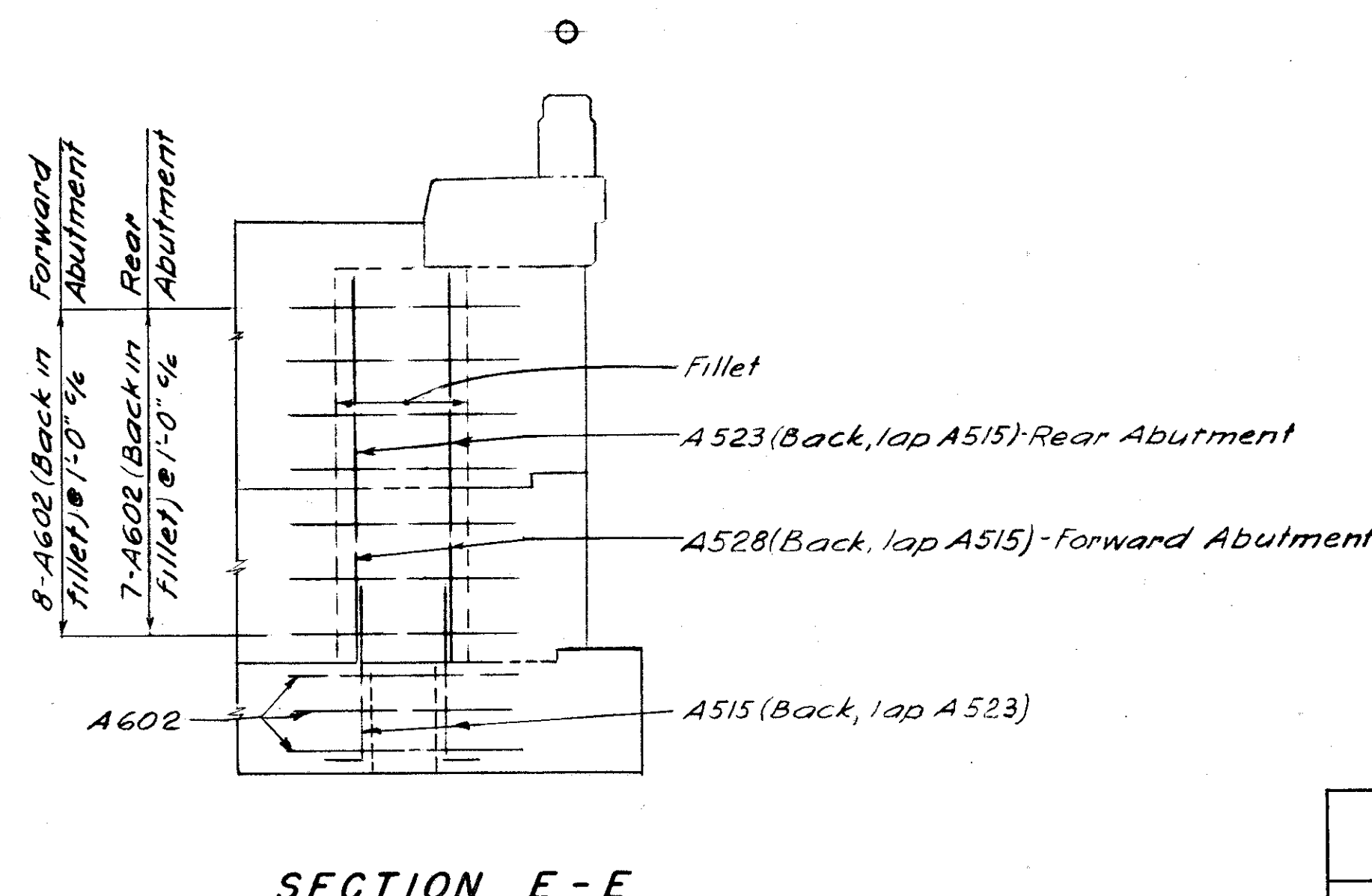
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	324 377
2	OHIO			

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00

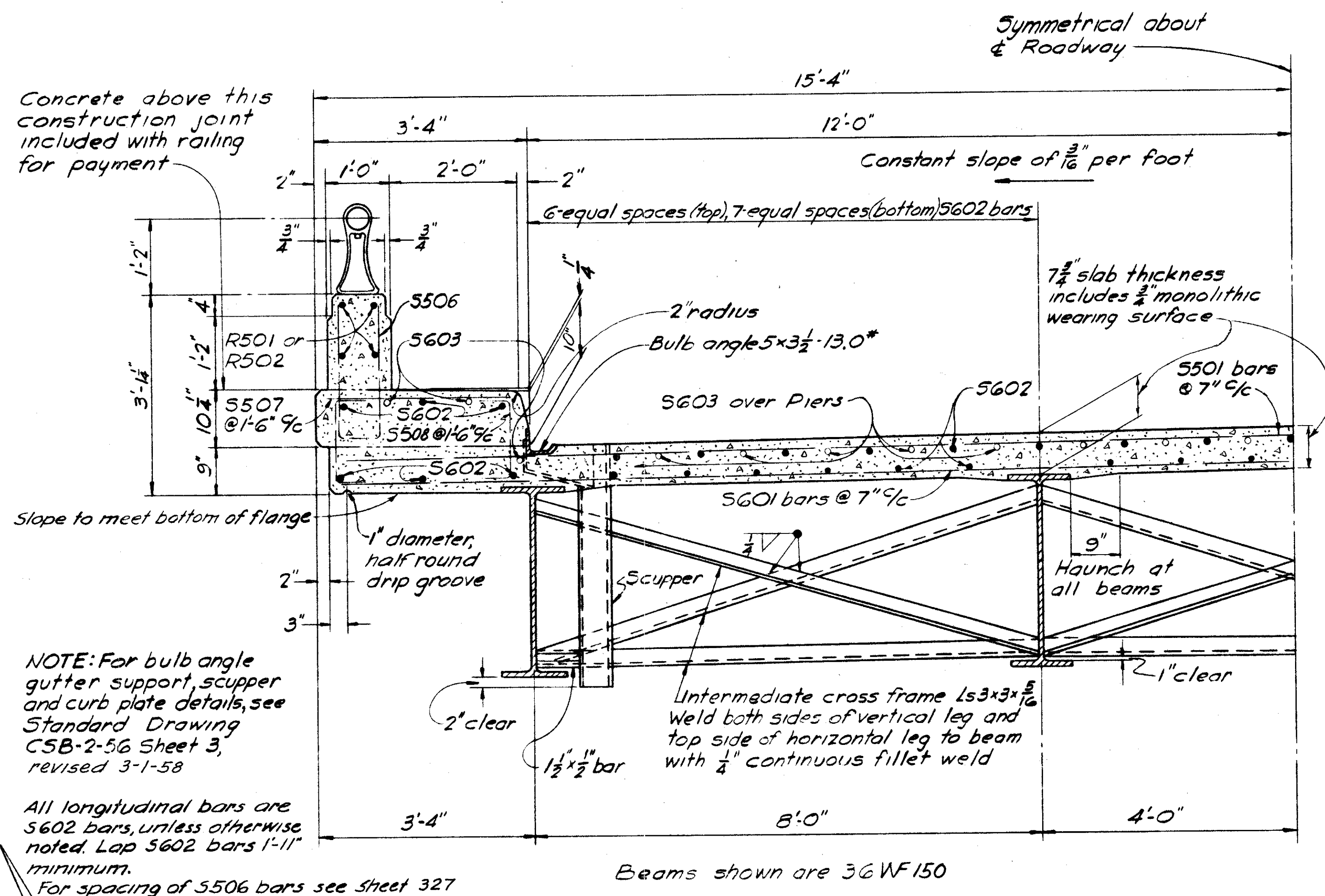
For locations of Elevations and Sections see Sheet 323



For elevations of Points J, K, L, M, N and P see Sheet 323



YULE, STICKLEN, JORDAN & McNEE COLUMBUS ENGINEERS OHIO						
ABUTMENT DETAILS						
BRIDGE NO. WAR-25-0920 UNDER LOWER SPRINGBORO RD. WARREN COUNTY STA. 48+73.43						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.S.	A.M.	A.M.	E.W.T.	R.B.Y.	6/23/58	



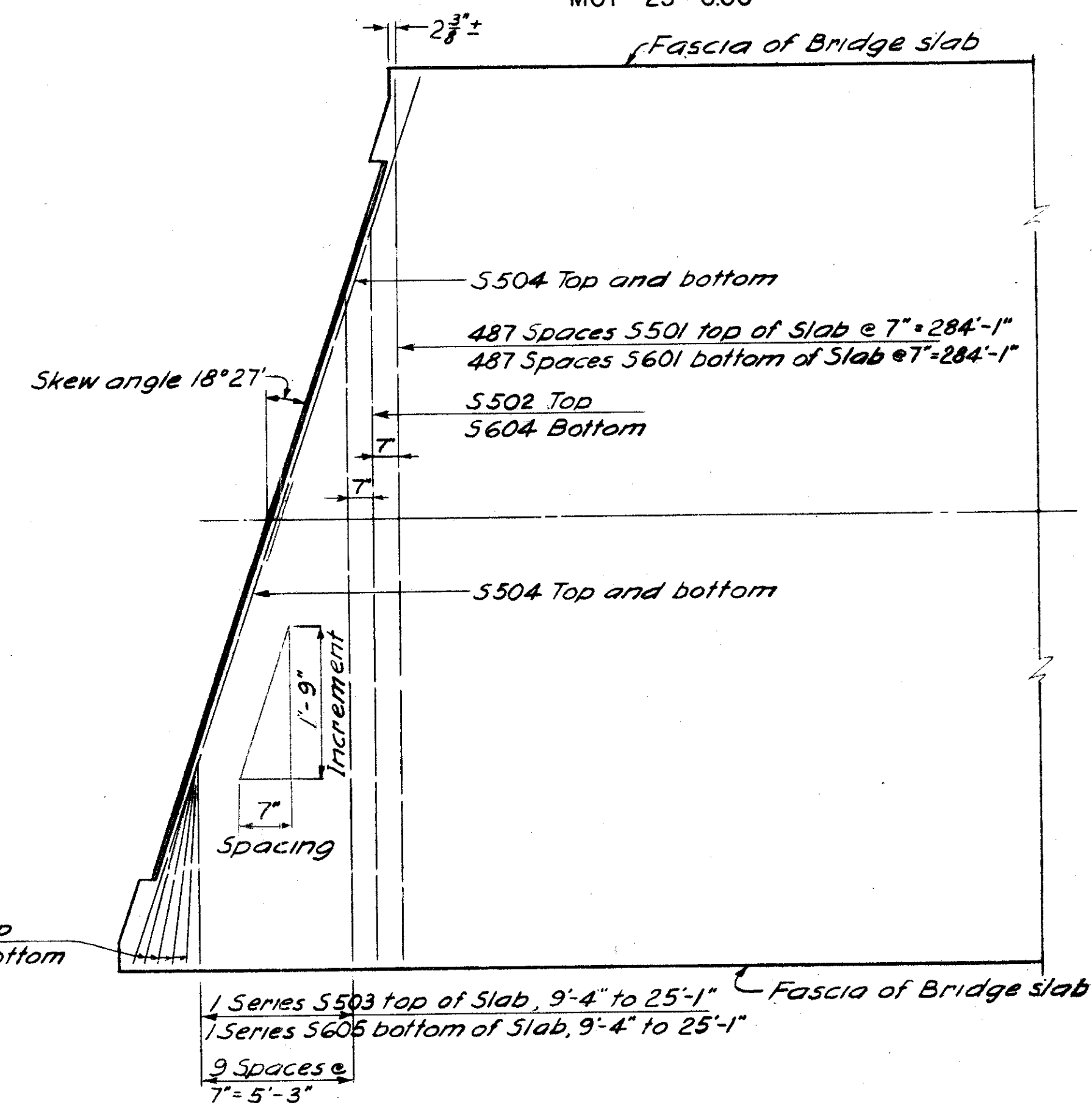
NOTE: For bulb angle gutter support, scupper and curb plate details, see Standard Drawing CSB-2-56 Sheet 3, revised 3-1-58

All longitudinal bars are 5602 bars, unless otherwise noted. Lap 5602 bars 1'-11" minimum.
 For spacing of 5506 bars see sheet 327

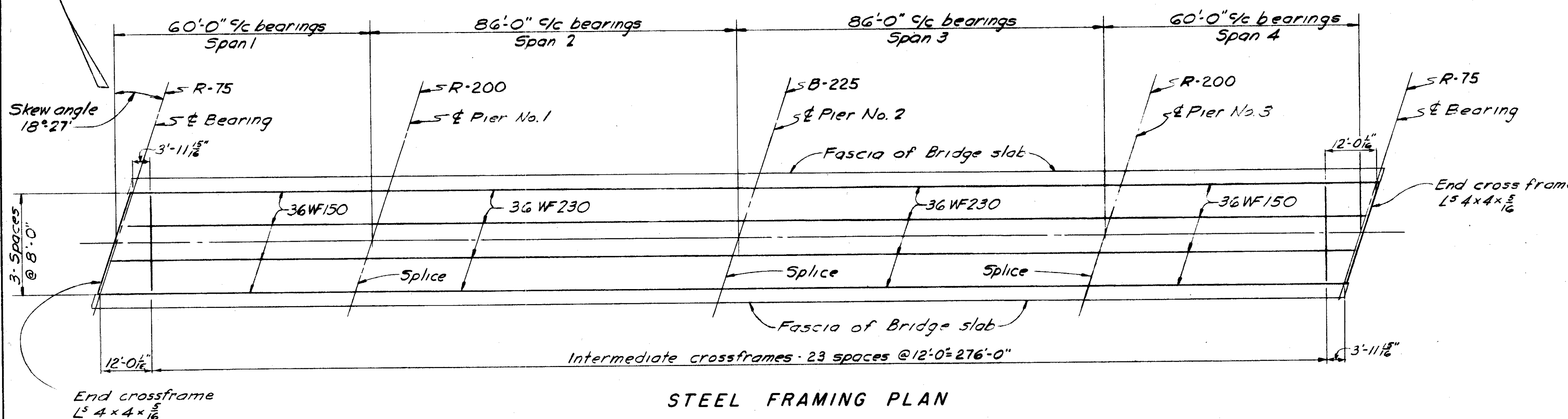
HALF TRANSVERSE SECTION

DEFLECTION AND CAMBER

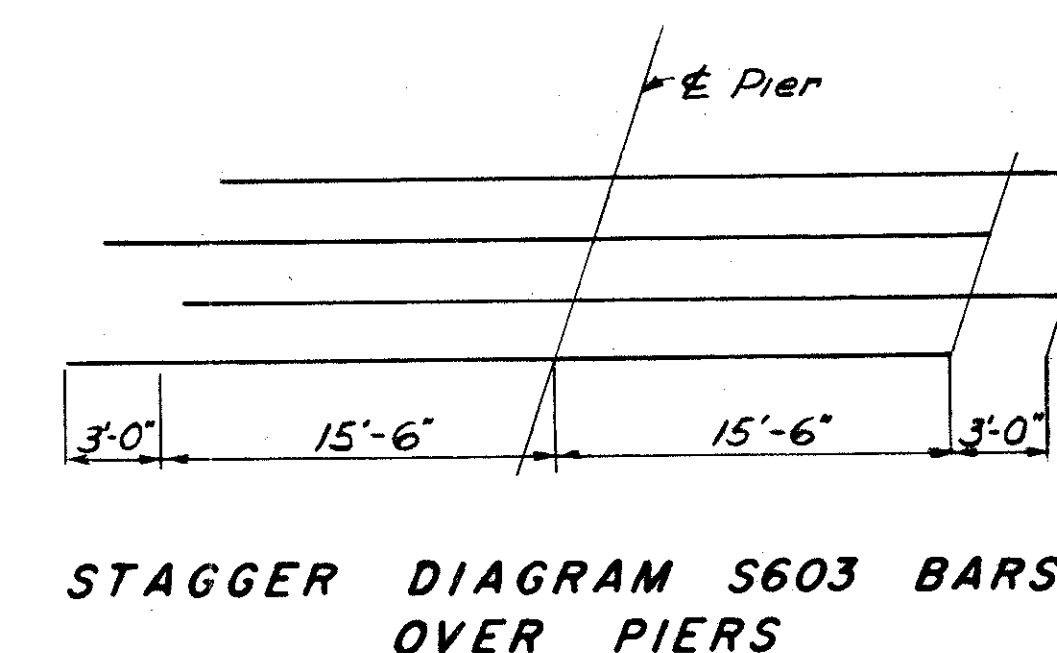
	Outside beams			
	Span 1	Span 2	Span 3	Span 4
Deflection due to weight of steel	1/16"	1/8"	1/8"	1/16"
Deflection due to remaining dead load	1/4"	5/8"	5/8"	1/4"
Convexity required for vertical curve	1/2"	1"	1"	1/2"
Sum of deflection and convexity	13/16"	1 3/4"	1 3/4"	13/16"
Required camber	1"	1 3/4"	1 3/4"	1"
	Inside beams			
	Span 1	Span 2	Span 3	Span 4
Deflection due to weight of steel	0"	3/16"	3/16"	0"
Deflection due to remaining dead load	1/4"	1/2"	1/2"	1/4"
Convexity required for vertical curve	1/2"	1"	1"	1/2"
Sum of deflection and convexity	3/4"	1 1/2"	1 1/2"	3/4"
Required camber	1"	1 3/4"	1 3/4"	1"



REINFORCING STEEL LAYOUT AT END OF SUPERSTRUCTURE



STEEL FRAMING PLAN



STAGGER DIAGRAM S603 BARS OVER PIERS

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 normal to the centerline of bridge and are located near the center of any span.

For details of roadway end dam for Forward Abutment see Typical Details, Sheet 313.
 For details of end crossframes and roadway end dam for Rear Abutment see Standard Drawing No. CSB-2-56 Sheet 2, revised 3-1-58.
 For details of aluminum railing posts, see Standard Drawing No. AR-1-57, revised 3-1-58, Type A.

YULE, STICKLEN, JORDAN & McNEE
 COLUMBUS ENGINEERS OHIO

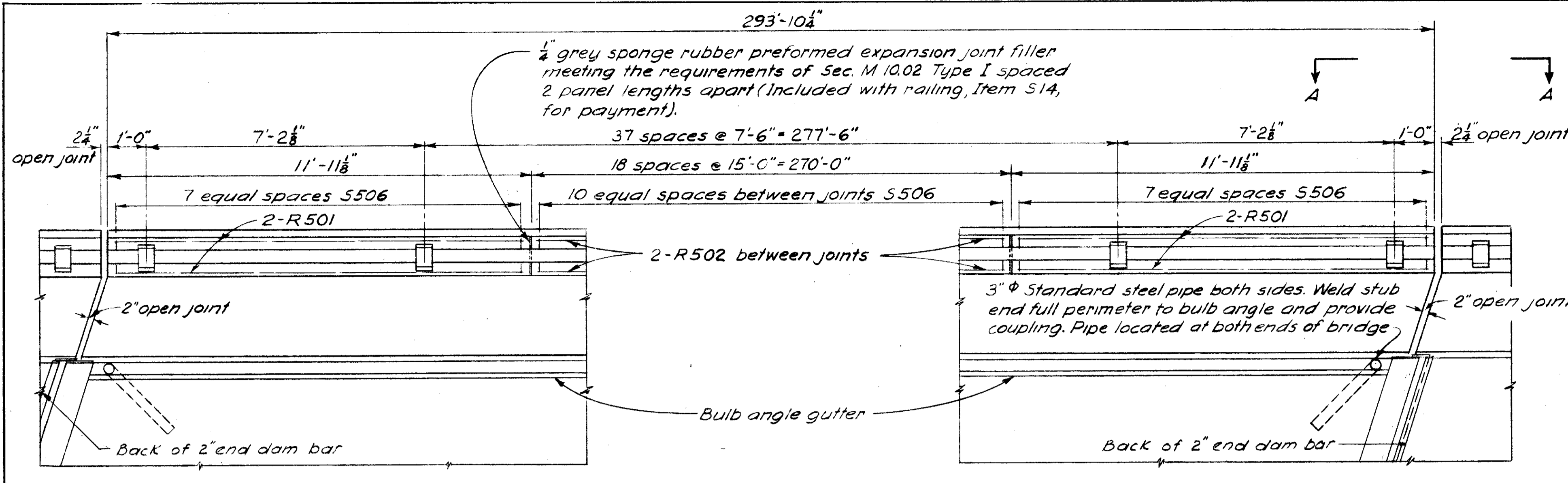
SUPERSTRUCTURE DETAILS

BRIDGE NO. WAR-25-0920
 UNDER LOWER SPRINGBORO RD.
 WARREN COUNTY STA. 40+73.43

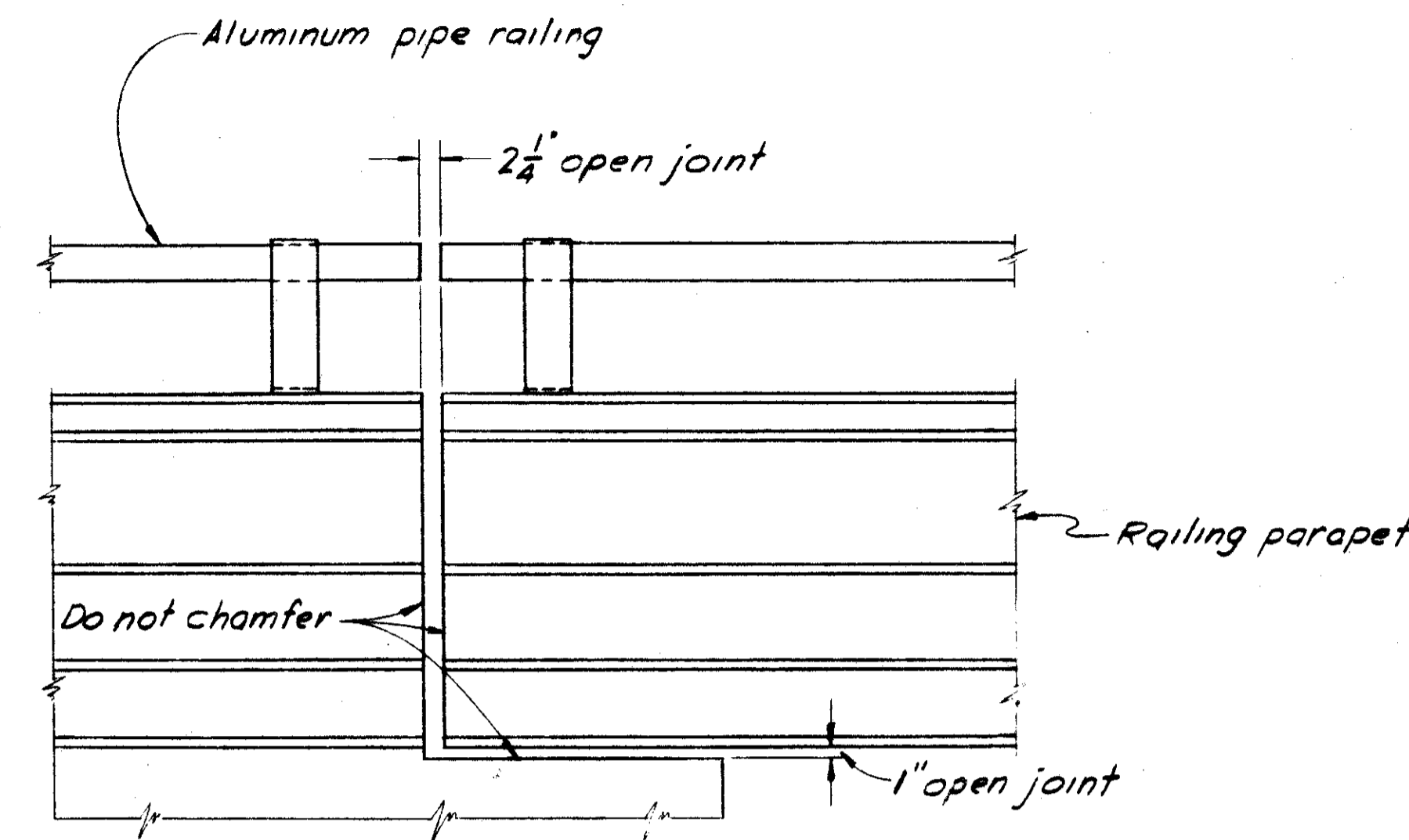
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	A.M.	A.M.	E.W.T.	R.B.Y.	6/23/58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	327 377
2	OHIO			

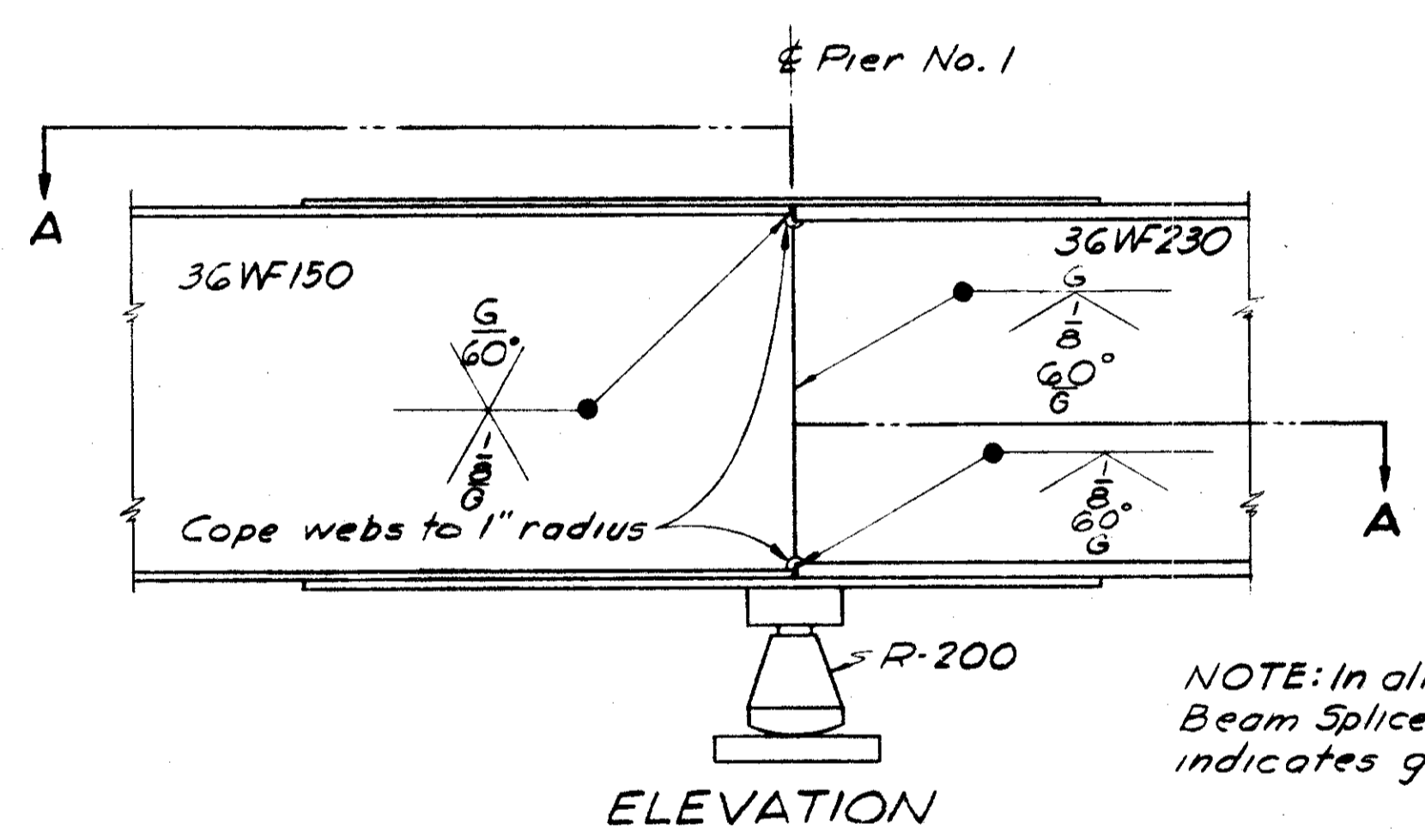
WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00



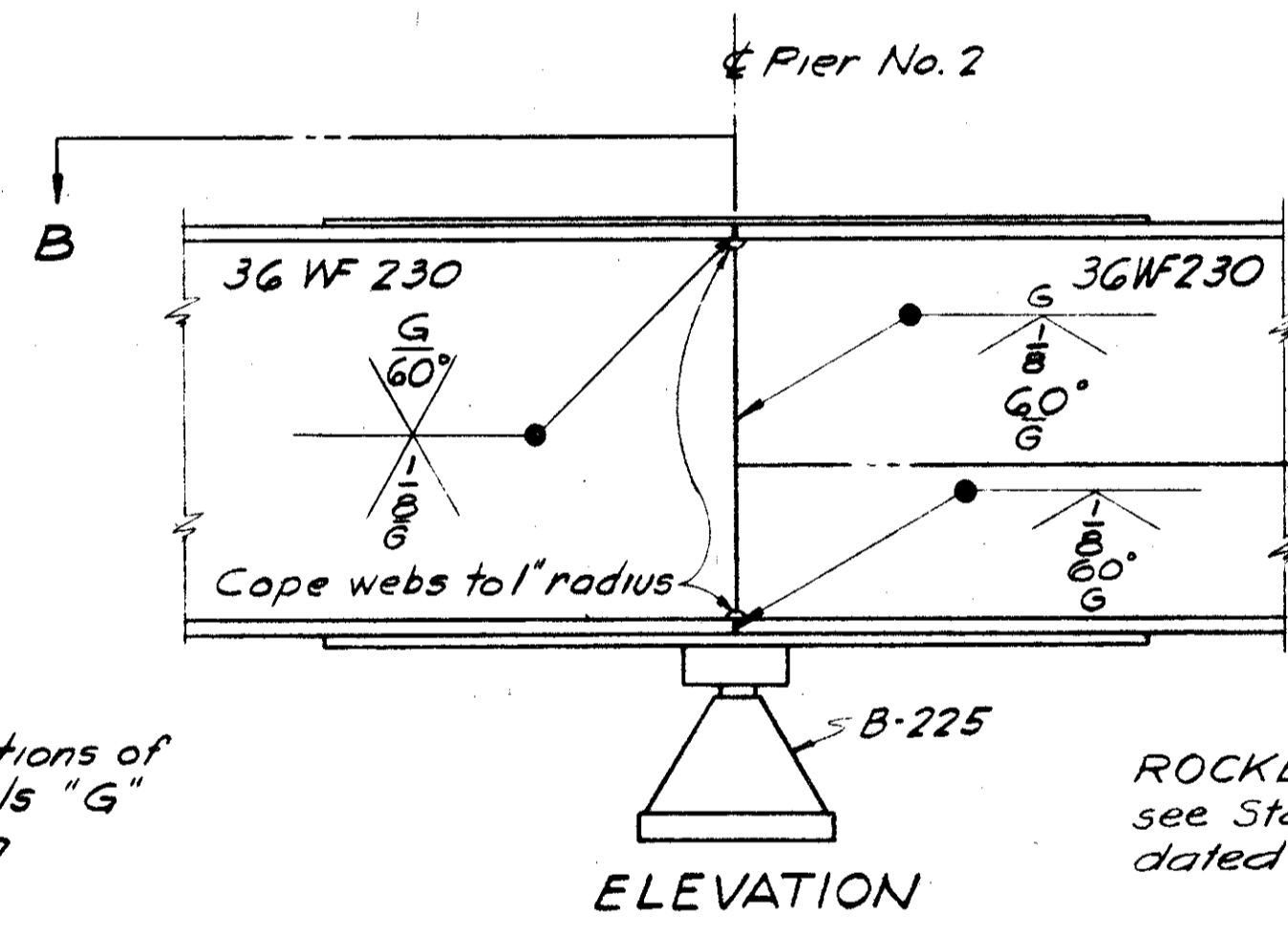
PART PLAN AT ABUTMENTS



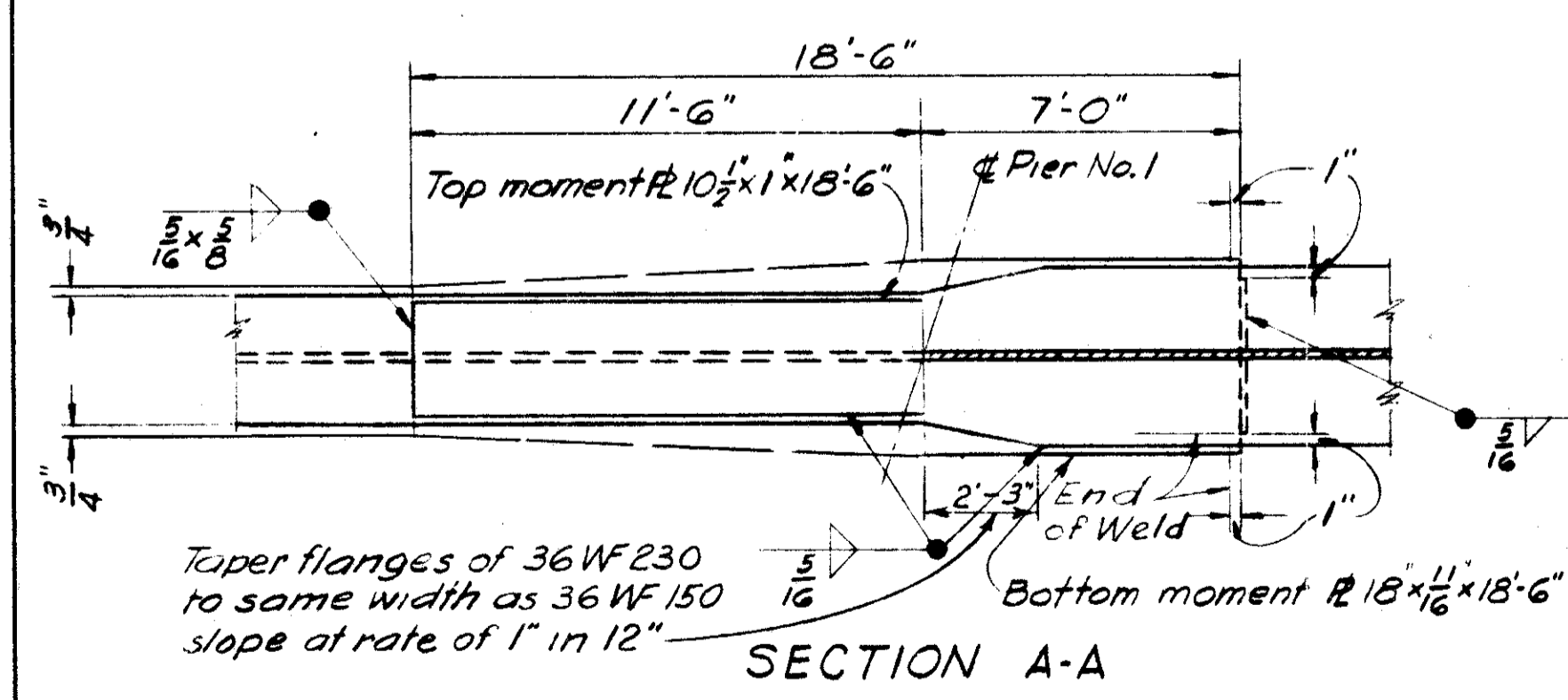
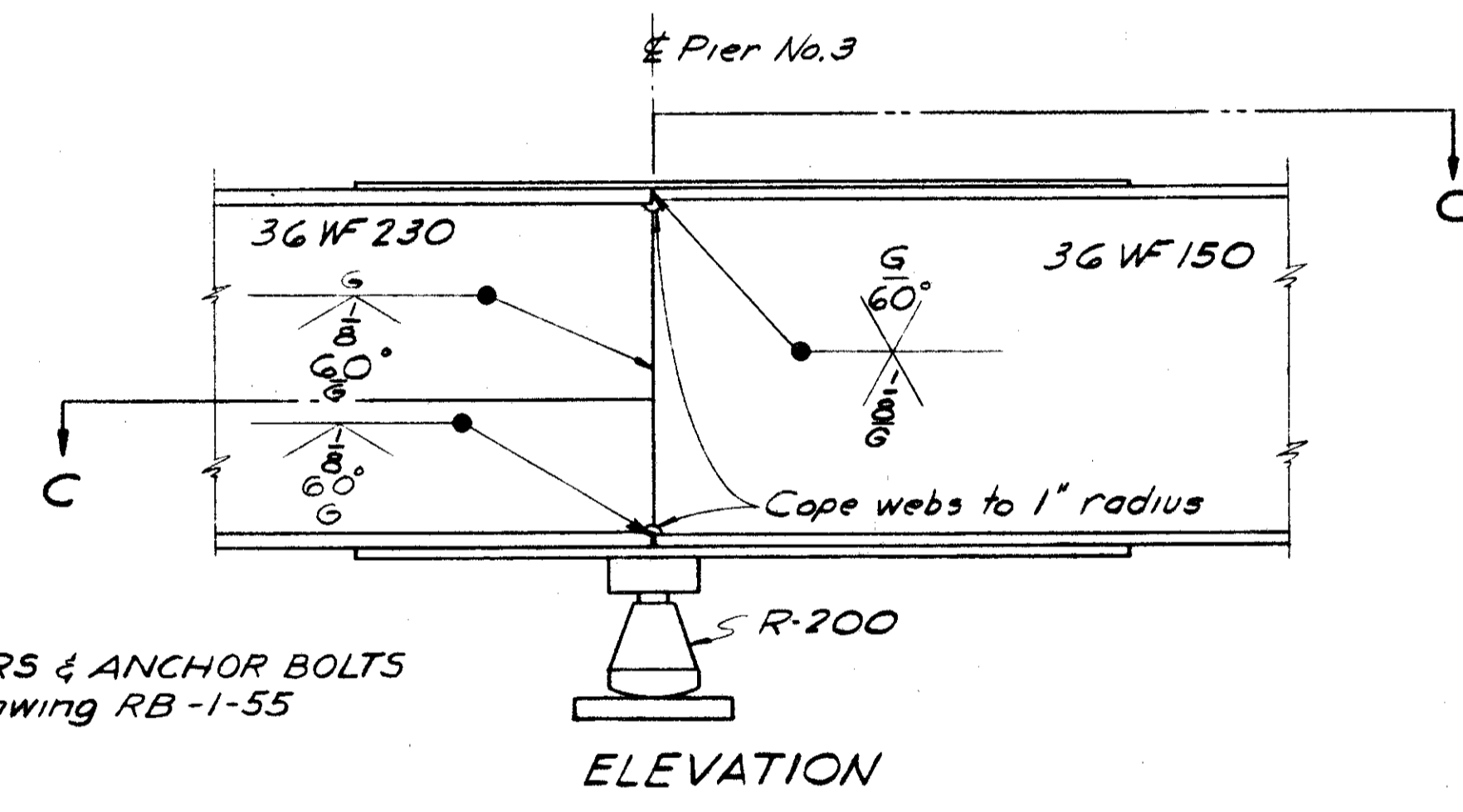
VIEW A - A



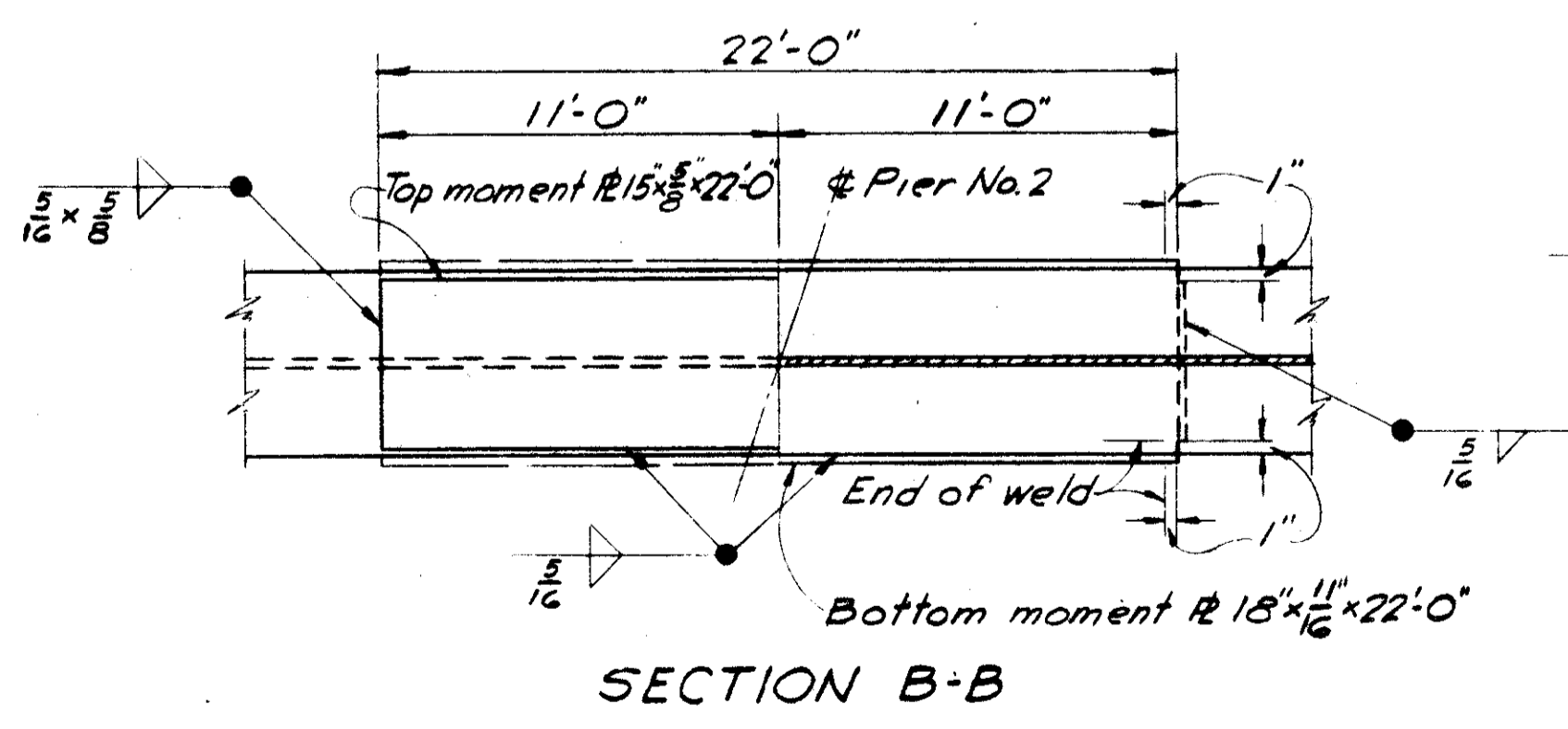
NOTE: In all Elevations of Beam Splice Details "G" indicates grinding



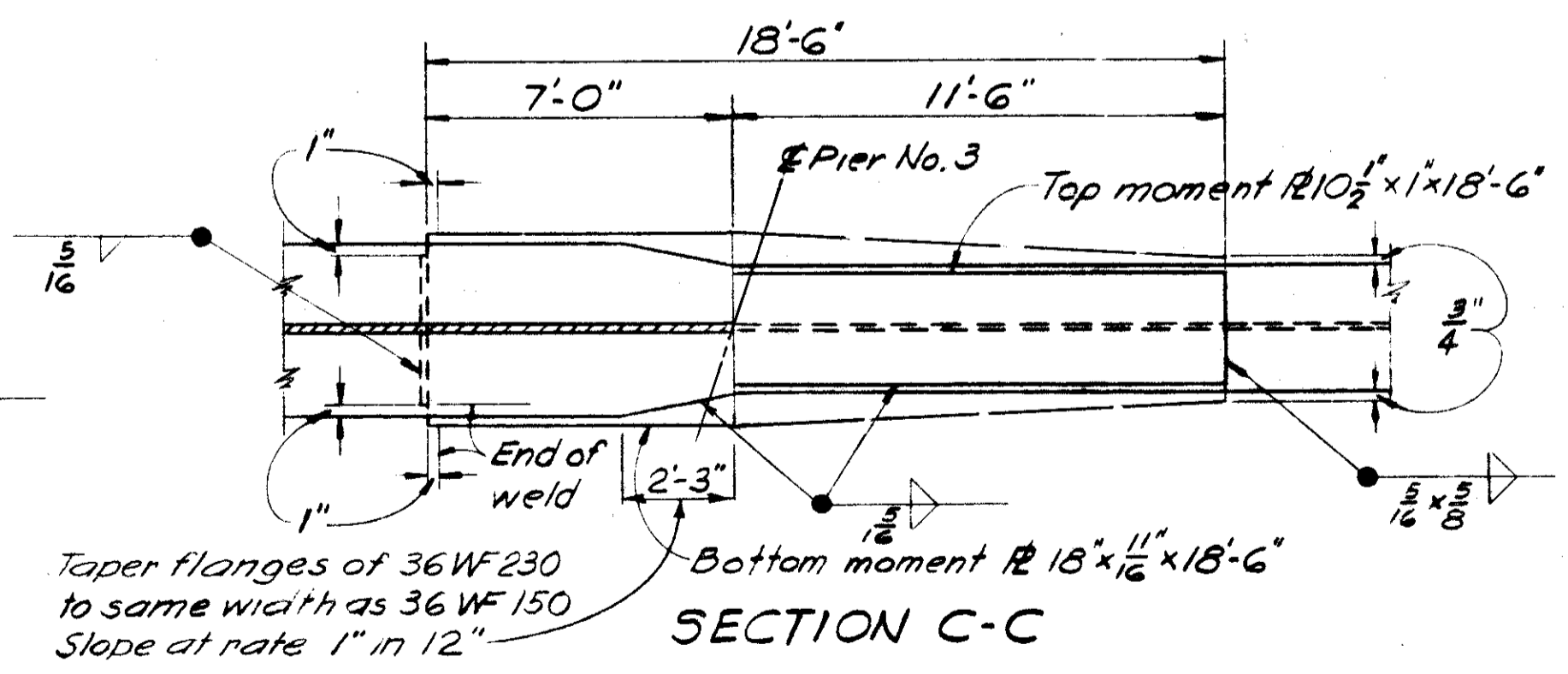
ROCKERS, BOLSTERS & ANCHOR BOLTS see Standard Drawing RB-1-55 dated 3-1-55.



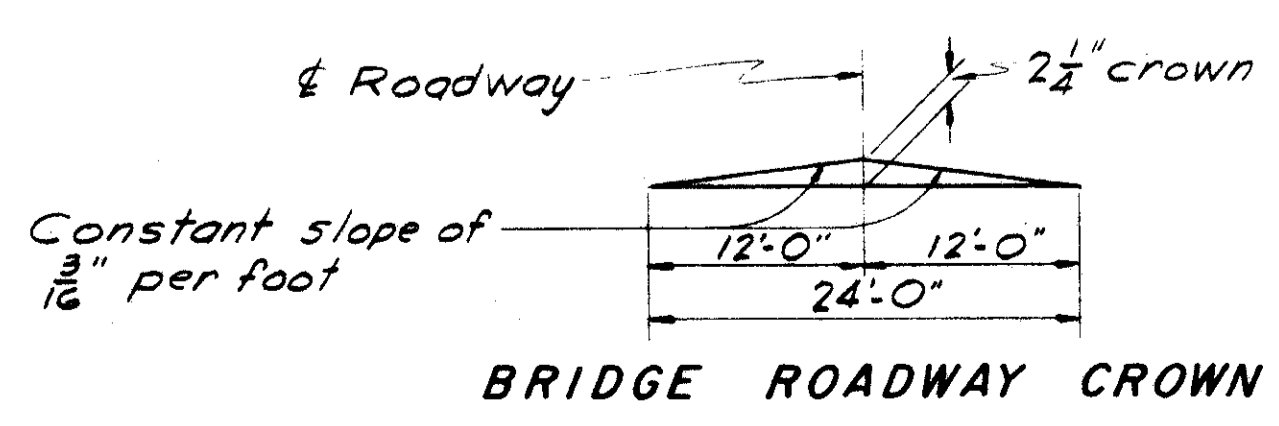
BEAM SPLICE DETAILS AT PIER NO. 1



BEAM SPLICE DETAILS AT PIER NO. 2



BEAM SPLICE DETAILS AT PIER NO. 3



BEAM SPLICE WELDING PROCEDURE

1. Raise end of beam at third pier 2 1/4"
2. But-weld beam flanges and web at second pier using the following sequence: make one pass on each flange, then one on the web; repeat until welds are completed.
3. Weld top and bottom flange moment plates at second pier.
4. Lower end of beam at third pier.
5. Raise ends of beams at rear and forward abutments 1/16"
6. Make splice at first and third piers in the same manner.

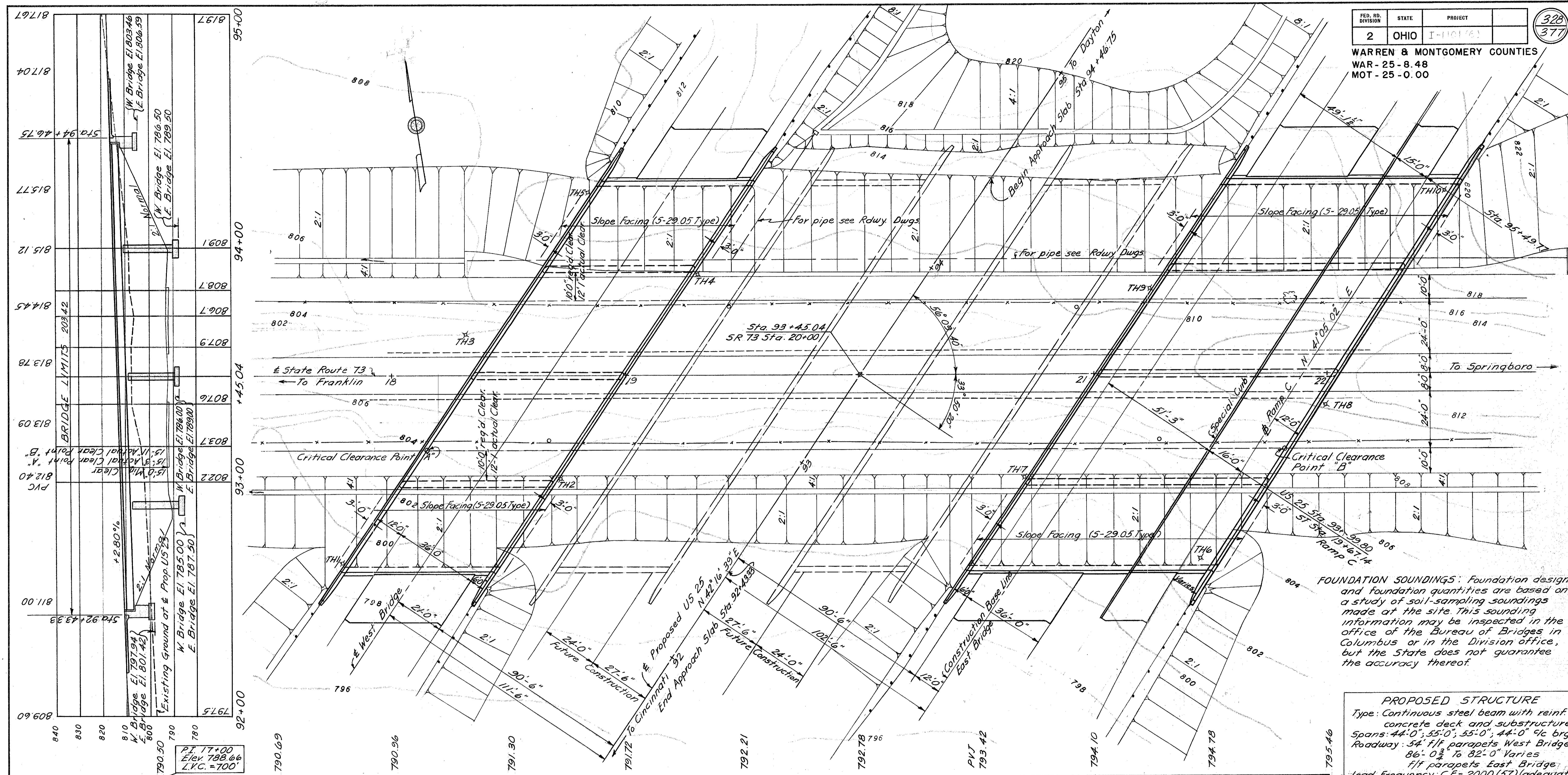
YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. WAR-25-0920
UNDER LOWER SPRINGBORO RD.
WARREN COUNTY STA. 48+73.43

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	A.M.	A.M.	E.W.T.	R.B.Y.	6/23/58	

WARREN & MONTGOMERY COUNTIES
 WAR-25-8.48
 MOT-25-0.00



FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of 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.

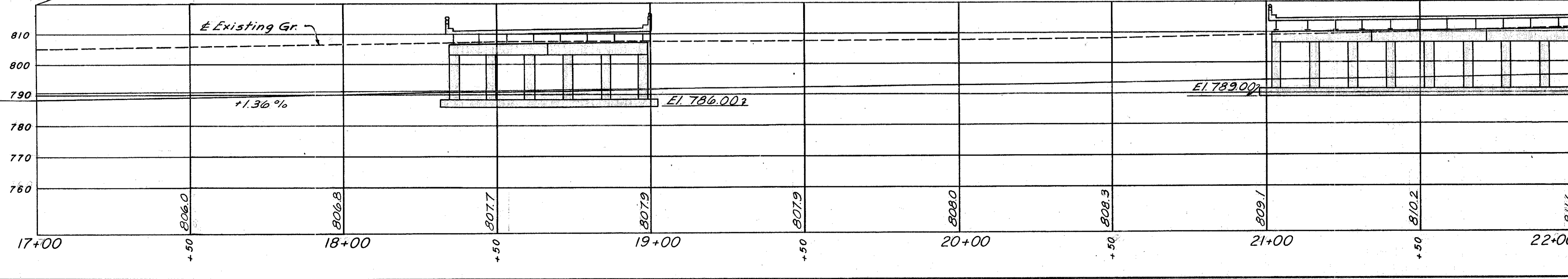
PROPOSED STRUCTURE
 Type: Continuous steel beam with reinf. concrete deck and substructure.
 Spans: 44'-0", 55'-0", 55'-0", 44'-0" 5/8 brgs.
 Roadway: 54' f/f parapets West Bridge 86'-0" To 82'-0" Varies f/f parapets East Bridge.
 Load Frequency: C.F.=2000(57) (adequate for AASHO alternate loading.)
 Skew: 33° 50' 20" R.F.
 Wearing Surface: 1" monolithic conc.
 Approach Slabs: A5-1-54 (25' long.)
 Alignment: Tangent
 Traffic: 11,440-1975 ADT

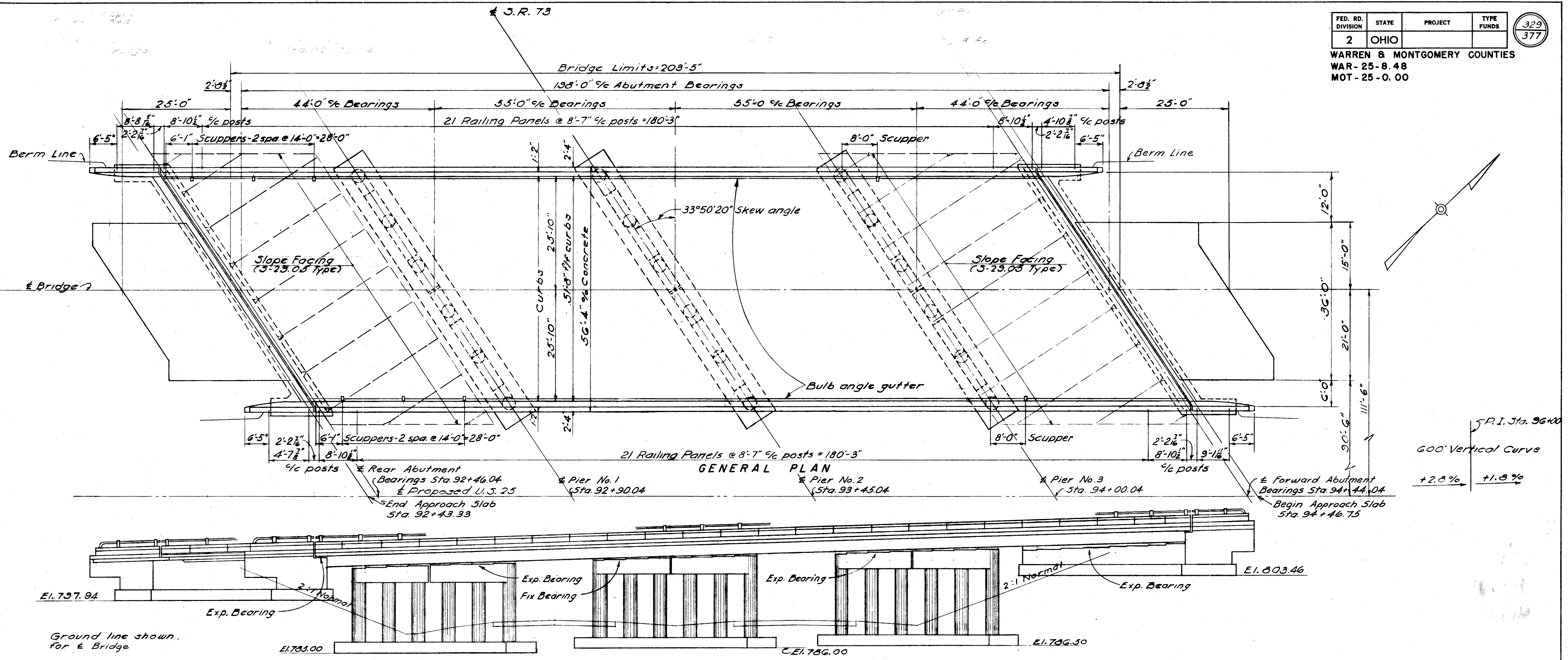
YULE STICKLEN JORDAN and McNEE ENGINEERS
 COLUMBUS OHIO

SITE PLAN
 BRIDGE NO. WAR-25-1005
 OVER S.R. 73
 WARREN COUNTY U.S. 25

SCALE HOR. 1"=20'
 STA. 92+43.33
 94+46.75

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
J.A.	J.C.L.	J.C.L.	R.S.V.	J.S.V.	R.S.V.
8/20/57	8/25/57	8/25/57	8/30/57	9/16/58	





GENERAL NOTES

REFERENCE shall be made to Standard Drawings AR-1-57, revised 3-1-58 (Type A), AS-1-54 revised 12-7-54, CSB-2-56 Sheet No. 2, revised 3-1-58 CSB-2-56 Sheet No. 3, revised 3-1-58 and supplemental specifications 5-114 Calcium for bridge railing, revised 8-1-57.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways dated 3-1-57 together with revisions thereof dated 2-21-58.

FOUNDATION BEARING PRESSURE: Abutment and Pier footings are designed for the following maximum bearing pressure.
Rear Abutment-1.39 tons per sq. ft.
Pier 1-2.15 tons per sq. ft.
Pier 2-1.72 tons per sq. ft.
Pier 3-2.26 tons per sq. ft.
Forward Abutment-1.77 tons per sq. ft.

WELDING of structural steel shall be Class "A" except as otherwise shown. Class "B" welds shown thus $\overline{\text{B}}$. Any welds shown as field welds may, at the option of the contractor be made in the shop.

SLOPE FACING (3-29.05 Type) shall be provided under the structure at both abutments. The slope facing shall be 12" thick and shall extend from the face of the abutment to the flow line of the ditch and transversely to 3 feet outside of the edge of the superstructure.

EXCAVATION QUANTITY includes the removal of the fill material for the construction of the abutments.

PROCEDURE: The embankment for the rear abutment 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. Excavation for the rear abutment shall not begin before 60 days after placing the embankment. The 60 day waiting period may be shortened, if observations indicate settlement has ceased and approval of the Director is obtained. Excavation for and construction of the forward abutment shall not be started until 30 days after the roadway excavation for S.R. 73 has been completed 200 feet each side of the center line of Proposed U.S. 25.

YULE, STICKLEN, JORDAN & McNEE COLUMBUS ENGINEERS OHIO					
GENERAL PLAN & ELEVATION					
BRIDGE NO. WAR-25-1005 WEST BRIDGE OVER SR 73 WARREN COUNTY STA. 92+43.33 STA. 94+46.75					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
C.P.T.	J.H.D.	J.H.D.	E.W.T.	J.C.L.	7-1-58
					REVISED

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp	Bending Diagram	Mark	No.	Length	Weight	Shp	Bending Diagram	Mark	No.	Length	Weight	Shp	Bending Diagram	Mark	No.	Length	Weight	Shp	Spiral Reinforcing List												
Superstructure																																			
S501	592	2'-4"	1439	B		A401	16	34'-8"	371	B		A535	6	8'-6"	53	B		P501	321	8'-8"	2902	B	SP401	G	32"	14'-3 1/2"	4 1/2"	41	1593						
S502	296	1'-10"	366	S		A402	136	7'-0"	636	B		A536	6	10'-6"	66	B							SP402	G	32"	15'-1"	4 1/2"	43	1670						
S503	296	4'-6 1/2"	1402	B								A537	8	9'-9"	81	S																			
S601	117	22'-0"	3866	S		A501	49	5'-1"	260	S		A538	6	16'-2"	101	S								P504	48	8'-2"	409	B	SP403	G	32"	16'-0 1/2"	4 1/2"	46	1785
S602	328	34'-10"	27624	S		A502	37	8'-3"	318	B		A507																							
S603	271	21'-5"	8718	S		A503	14	4'-0"	58	S		A509																							
S604	245	36'-2"	13309	S		A504	18	4'-3"	80	S		A511																							
S605	2912	40'-10"	1075	S	Increment 2'-0"	A505	18	7'-5"	139	B		A512																							
S606	2	24'-11"	75	S		A506	18	4'-6"	84	S		A530																							
S607	2919	29'-0"	1142	S	Increment 1'-0"	A507	18	7'-8"	144	B		A606																							
S608	20	11'-6"	345	S		A508	17	4'-11"	87	S																									
S609	24	14'-1"	508	S		A509	17	8'-1"	143	B																									
S610	2912	32'-3"	772	S	Increment 2'-0"	A510	17	4'-8"	83	S																									
S611	4	34'-3"	206	S		A511	17	7'-10"	139	B																									
S701	269	25'-4"	13929	S		A512	9	7'-2"	67	B																									
S702	245	32'-8"	16359	S		A513	12	34'-1"	427	S																									
S703	2	31'-4"	128	S		A514	12	32'-5"	406	S																									
S704	2911	28'-10"	847	S	Increment 2'-0"	A515	32	33'-10"	1129	S																									
S705	24	17'-11"	879	S		A516	150	4'-5"	691	B																									
S706	2912	36'-3"	1239	S	Increment 2'-0"	A517	7	7'-10"	57	S																									
S707	2920	30'-0"	1076	S	Increment 1'-0"	A518	12	6'-7"	82	S																									
S708	20	11'-6"	470	S		A519	8	8'-8"	72	S																									
S709	4	34'-3"	280	S		A520	8	7'-5"	62	S																									
Abutments																																			
R501	16	5'-3"	*	S		A521	5	9'-0"	47	B																									
R502	88	16'-10"	*	S		A522	5	10'-2"	53	B																									
R503	4	10'-8"	*	S		A523	28	9'-6"	277	B																									
R504	4	10'-5"	*	S		A524	8	6'-11"	58	S																									
R505	4	14'-6"	*	S		A525	6	11'-11"	75	S																									
R506	4	14'-11"	*	S		A526	88	4'-6"	413	B																									
Piers																																			
RE501	1	5'-3"		S		A527	16	3'-2"	53	B																									
RE502	1	5'-3"		B		A528	8	2'-6"	21	B																									
RE503	1	5'-7"		S		A529	56	4'-6 1/2"	265	B																									
RE601	4	5'-11"		S		A530	14	4'-1"	60	B																									
RE701	3	6'-3"		S		A531	3	9'-1"	28	S																									
RE801	7	6'-6"		S		A532	5	7'-11"	41	S																									
RE901	2	6'-10"		S		A533	9	7'-6"	70	S																									
RE402	1	5'-3"		S		A534	9	8'-9"	82	S																									
RE504	1	5'-7"		S																															
RE602	4	5'-11"		S																															
RE702	3	6'-3"		S																															
RE802	7	6'-6"		S																															
RE902	2	6'-10"		S																															
Replacement Bars																																			
* Included with railing for payment																																			

SPIRAL REINFORCING BARS: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 5-4. 1 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channels, 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.

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, indicate the bar size number. For example A601 is a No. 6 size bar.

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

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super-Struc.	Rear Abut.	Pier 1	Pier 2	Pier 3	Forward Abut.	General
E-2	870	Cu.Yds.	Unclassified excavation		185	160	160	175	190	
S-1	336	Cu.Yds.	Class "C" Concrete-Superstructure	336						
S-1	165	Cu.Yds.	Class "C" Concrete-Pier above footings			54	55	56		
S-1	228	Cu.Yds.	Class "E" Concrete-Abutments		112				116	
S-1	159	Cu.Yds.	Class "E" Concrete-Pier Footings			53	53	53		
S-4	153286	Lbs.	Reinforcing steel	96854	5790	14528	14859	15375	5880	
S-7	258850	Lbs.	Structural steel	258850						
S-8	258850	Lbs.	Field painting of structural steel	258850						
S-14	451	Lin.Ft.	Railing (aluminum rail, supports and concrete parapet.)	399	26				26	
S-29	210	Cu.Yds.	Slope facing (S-29.05 Type)		95				115	
S-29	51	Cu.Yds.	Porous backfill		24				27	
I-127	2	Each	Bridge delineators							2

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

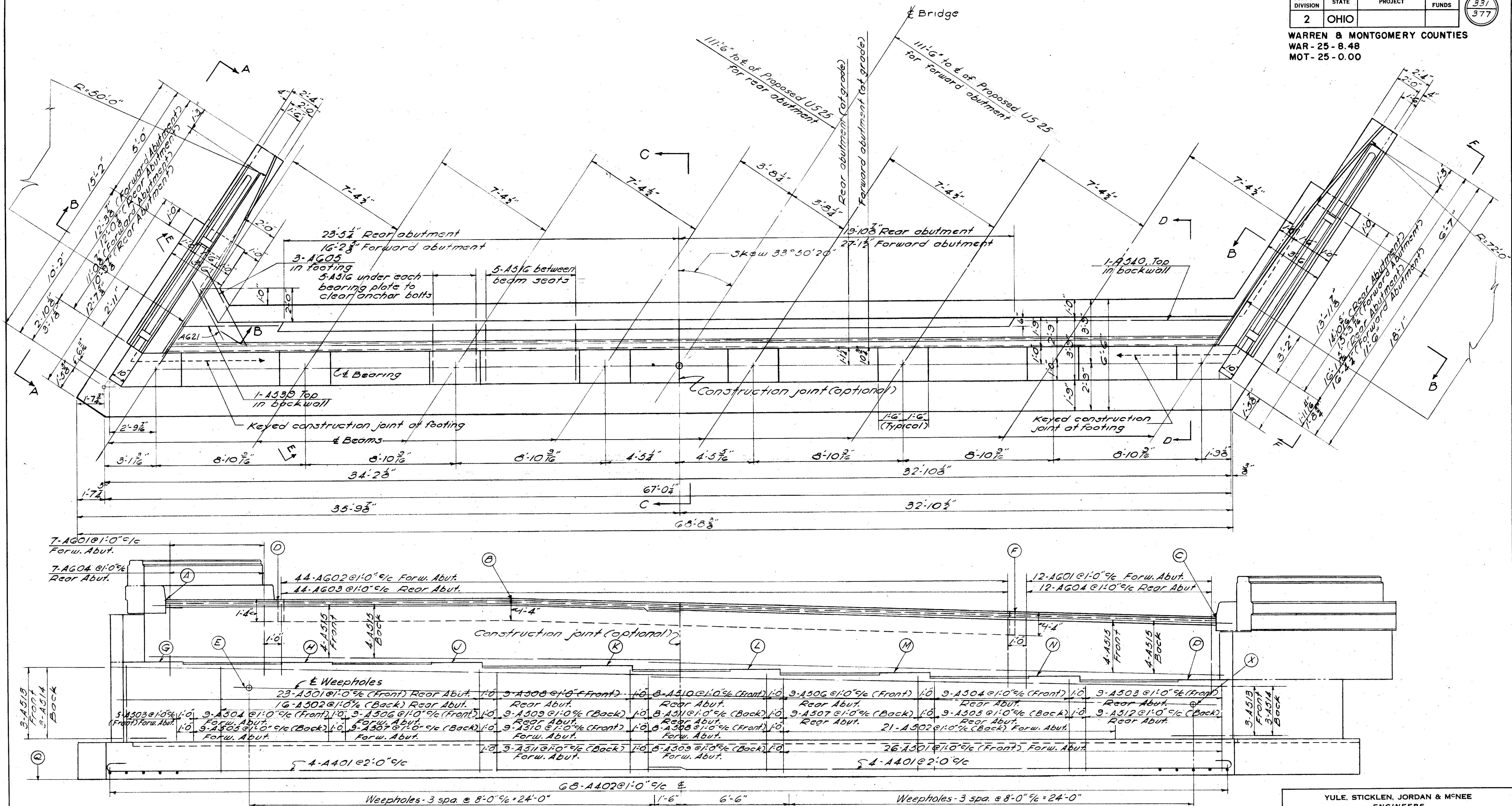
ESTIMATED QUANTITIES & REINFORCING STEEL LIST
BRIDGE NO. WAR-25-1005
WEST BRIDGE OVER SR 73
WARREN COUNTY STA. 92+43.33
STA. 94+46.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
C.P.T.	J.D.	J.D.	E.W.T.	J.C.L.	7-1-58

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

331
377

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00



POROUS BACKFILL, 2 feet thick, full length of abutment and wings, shall extend up to the underside of the approach slab.

For Sections A-A, B-B, C-C, D-D, E-E and F-F see sheet 332

ABUTMENT	ELEVATIONS																					
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
Rear	809.15	809.15	807.93	809.11	802.87	808.23	805.54	805.51	805.49	803.30	805.05	804.80	804.54	804.29	797.94	808.31	808.39	807.05	807.01	807.07	806.64	801.82
Forward	813.52	814.68	814.72	814.91	807.25	814.75	809.81	810.06	810.31	810.56	810.81	810.99	811.00	811.02	803.46	812.60	812.52	813.02	813.35	813.81	814.37	807.88

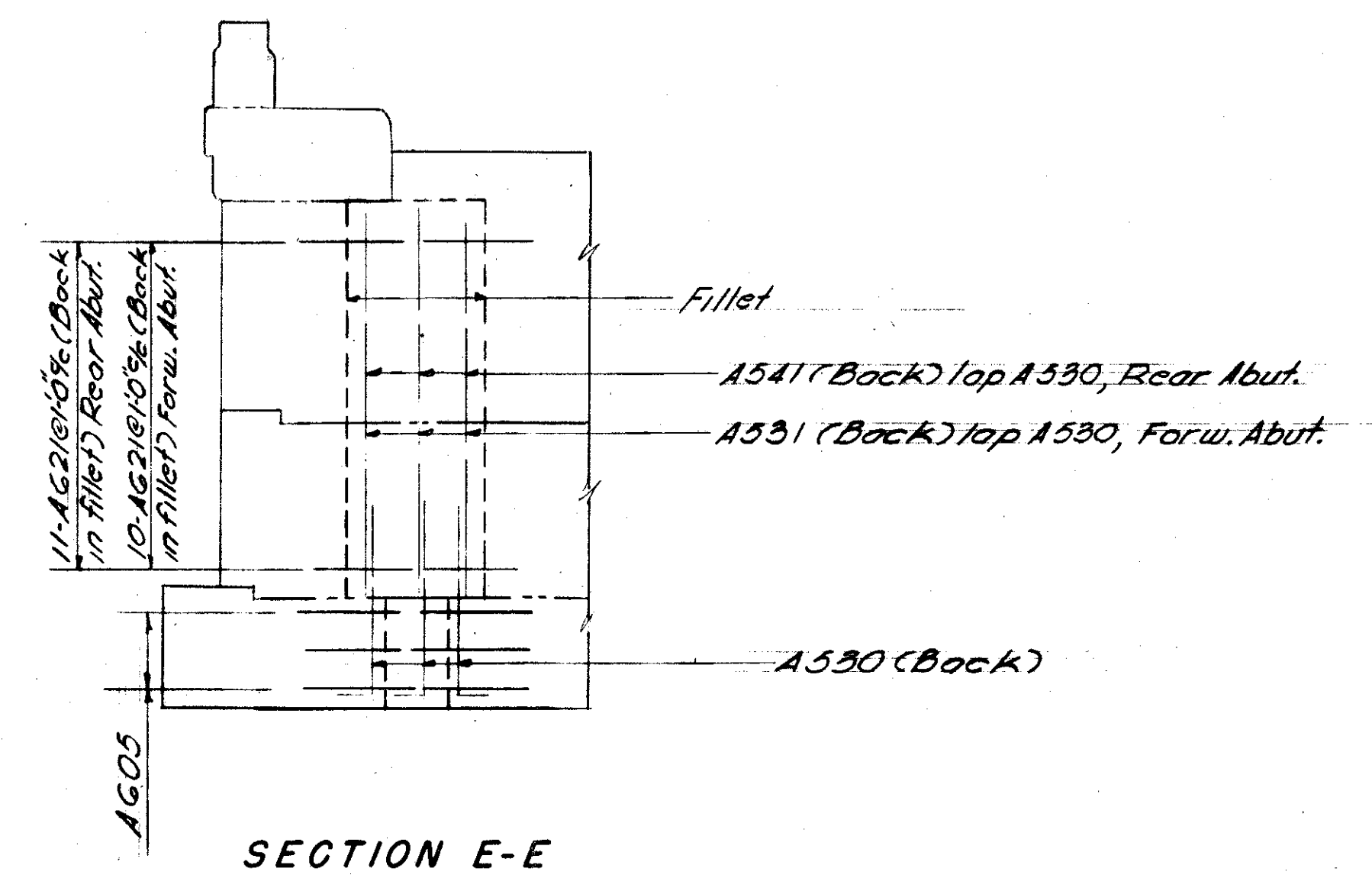
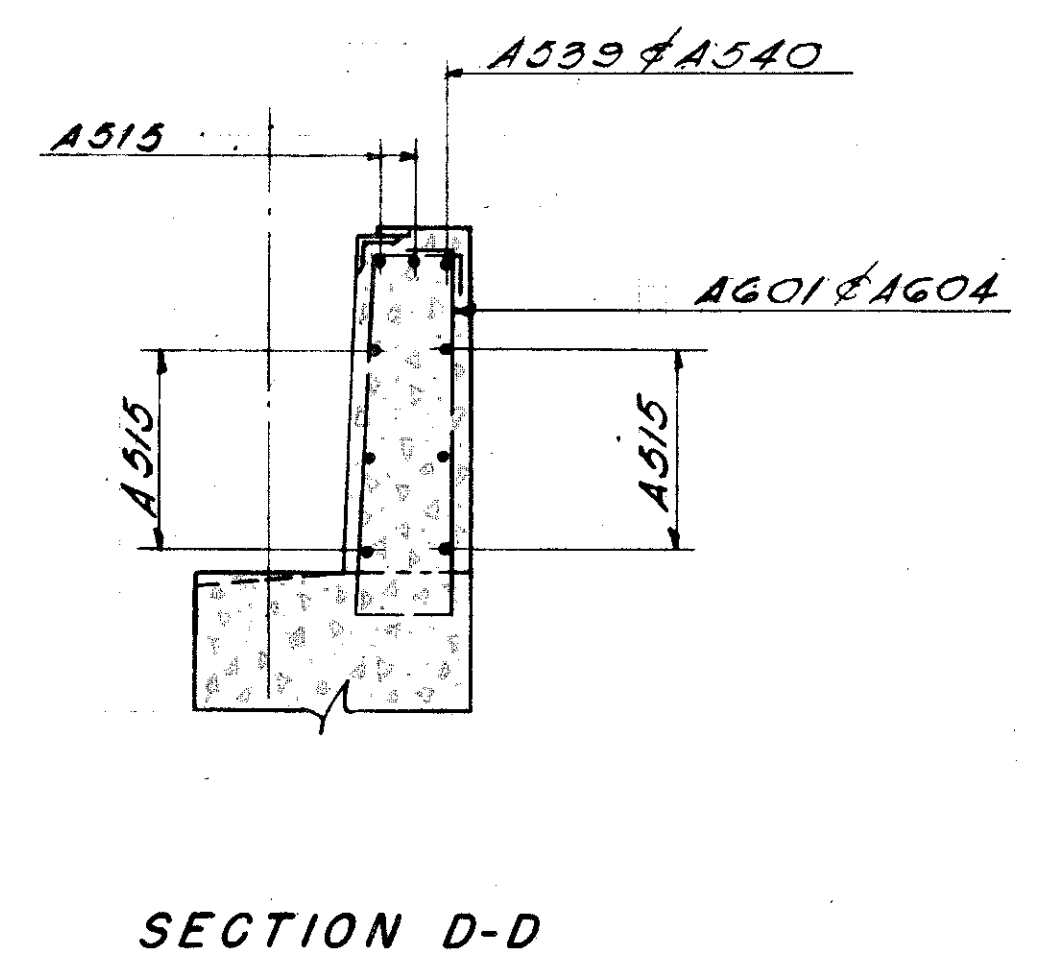
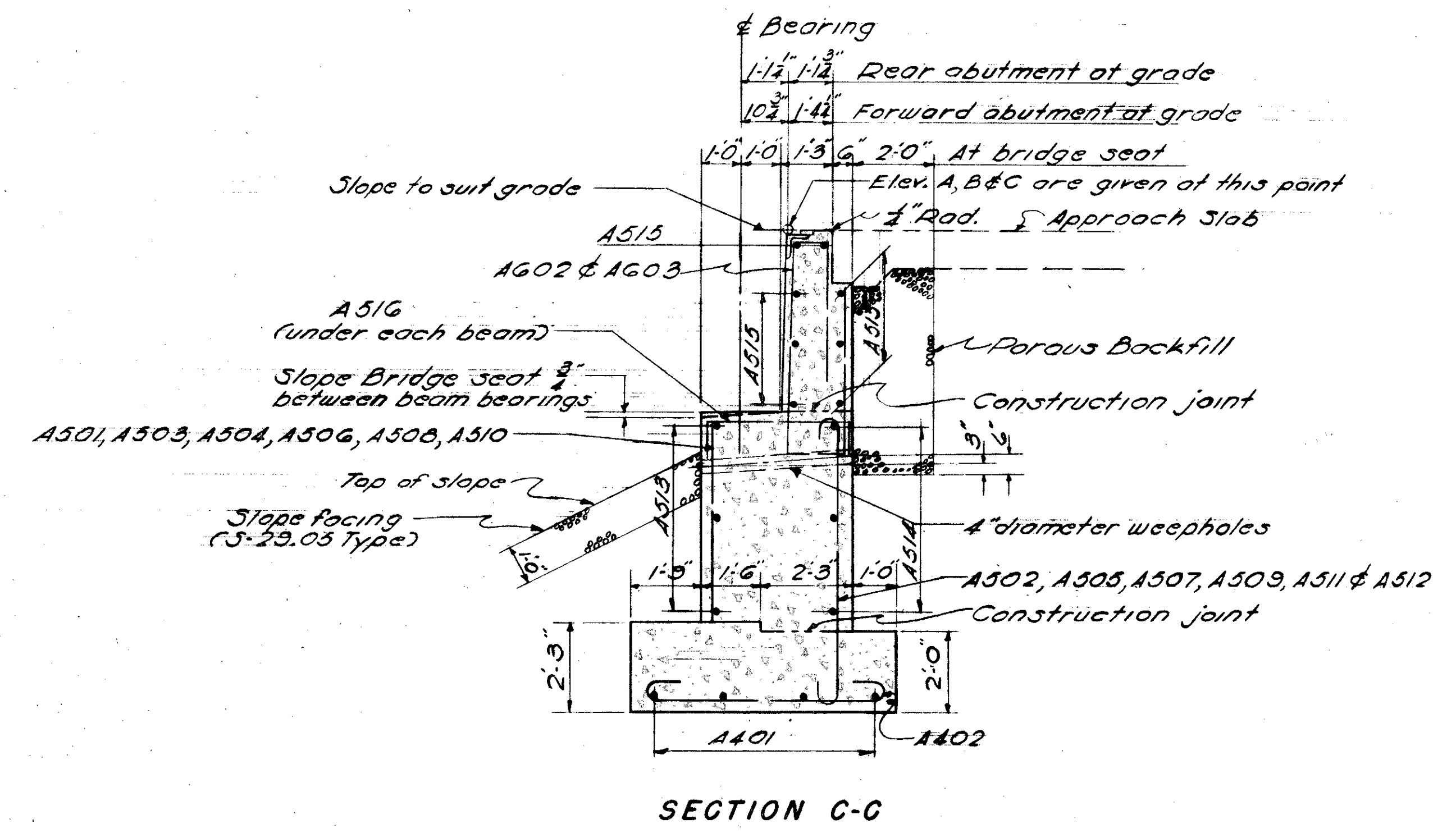
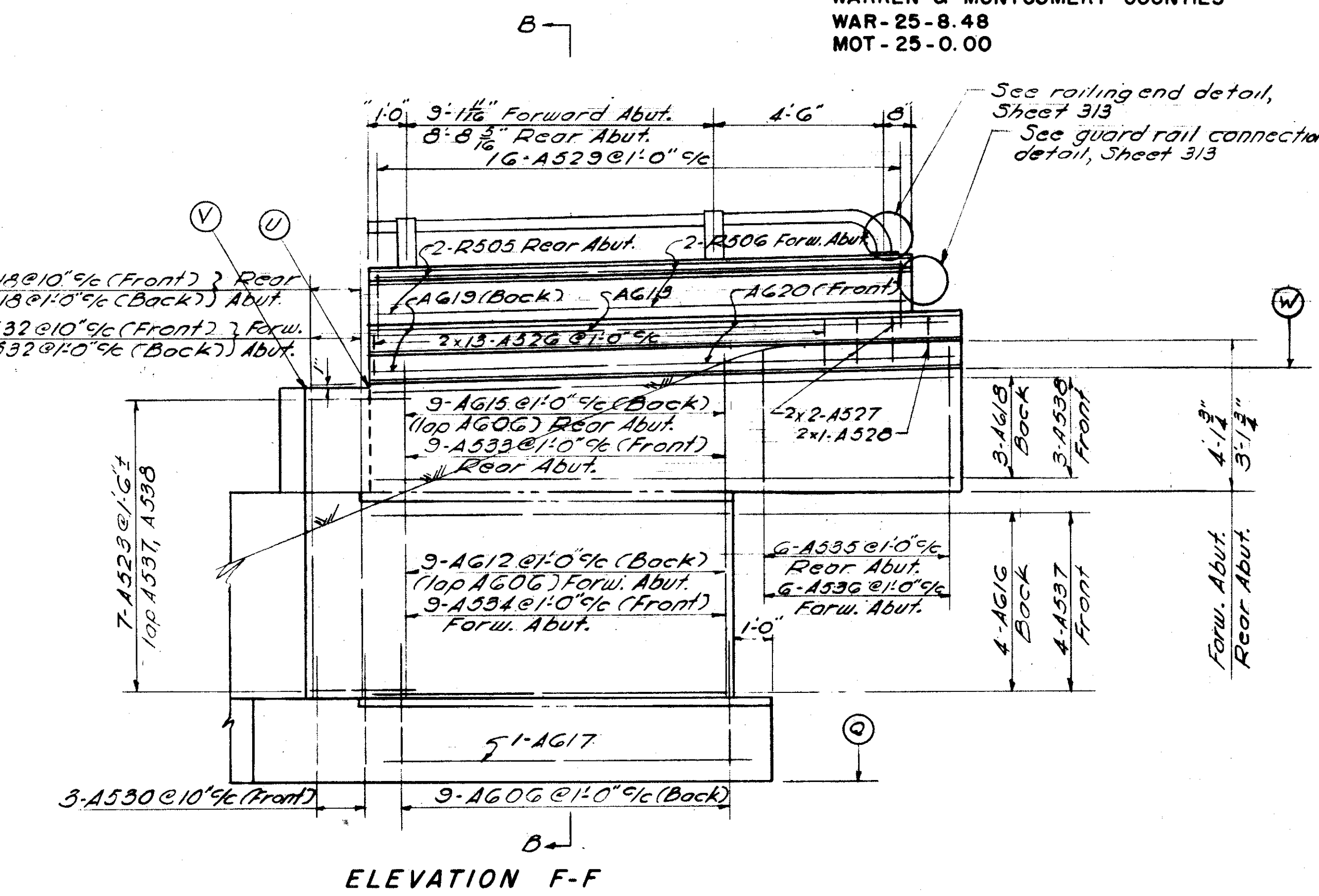
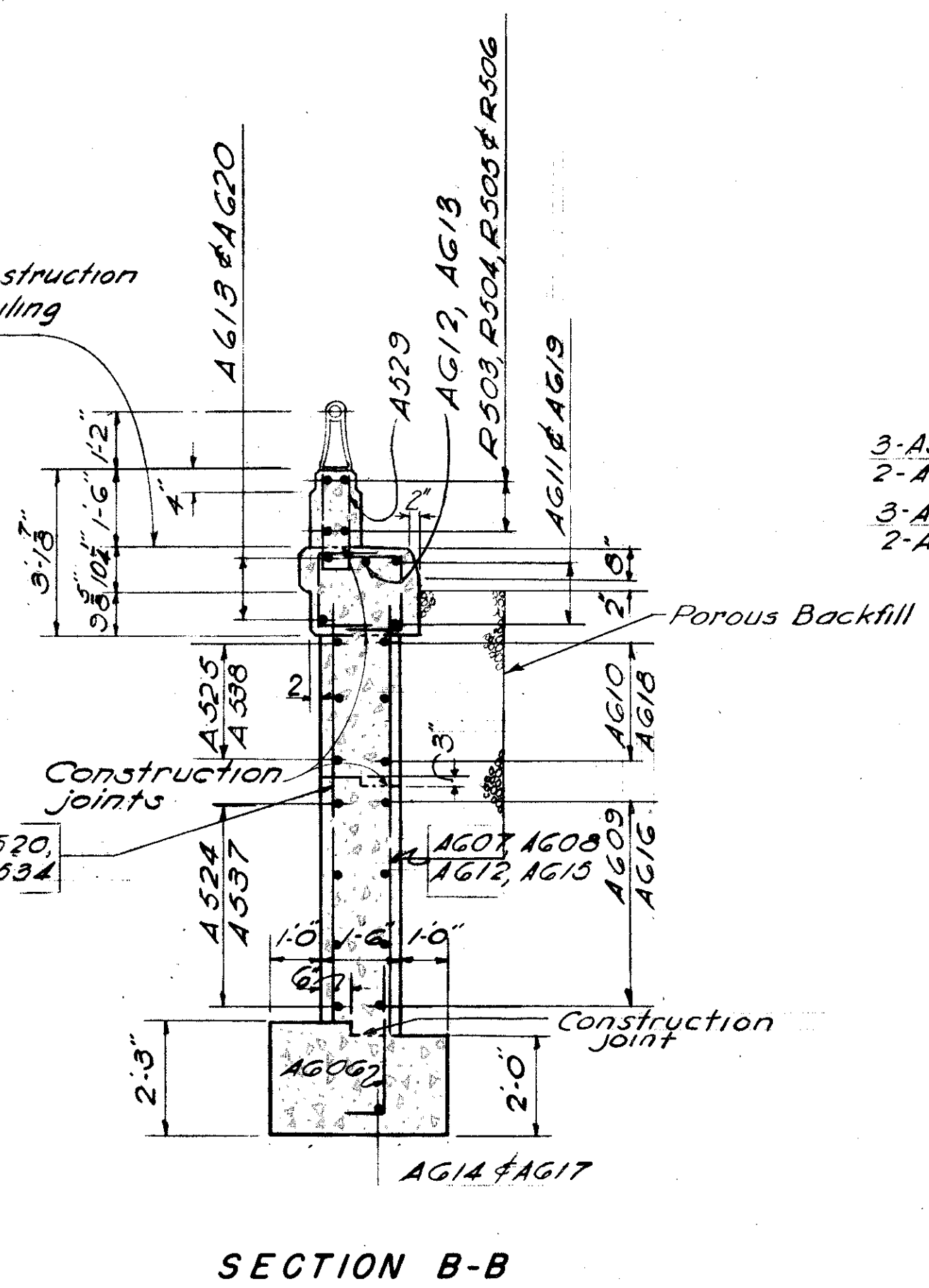
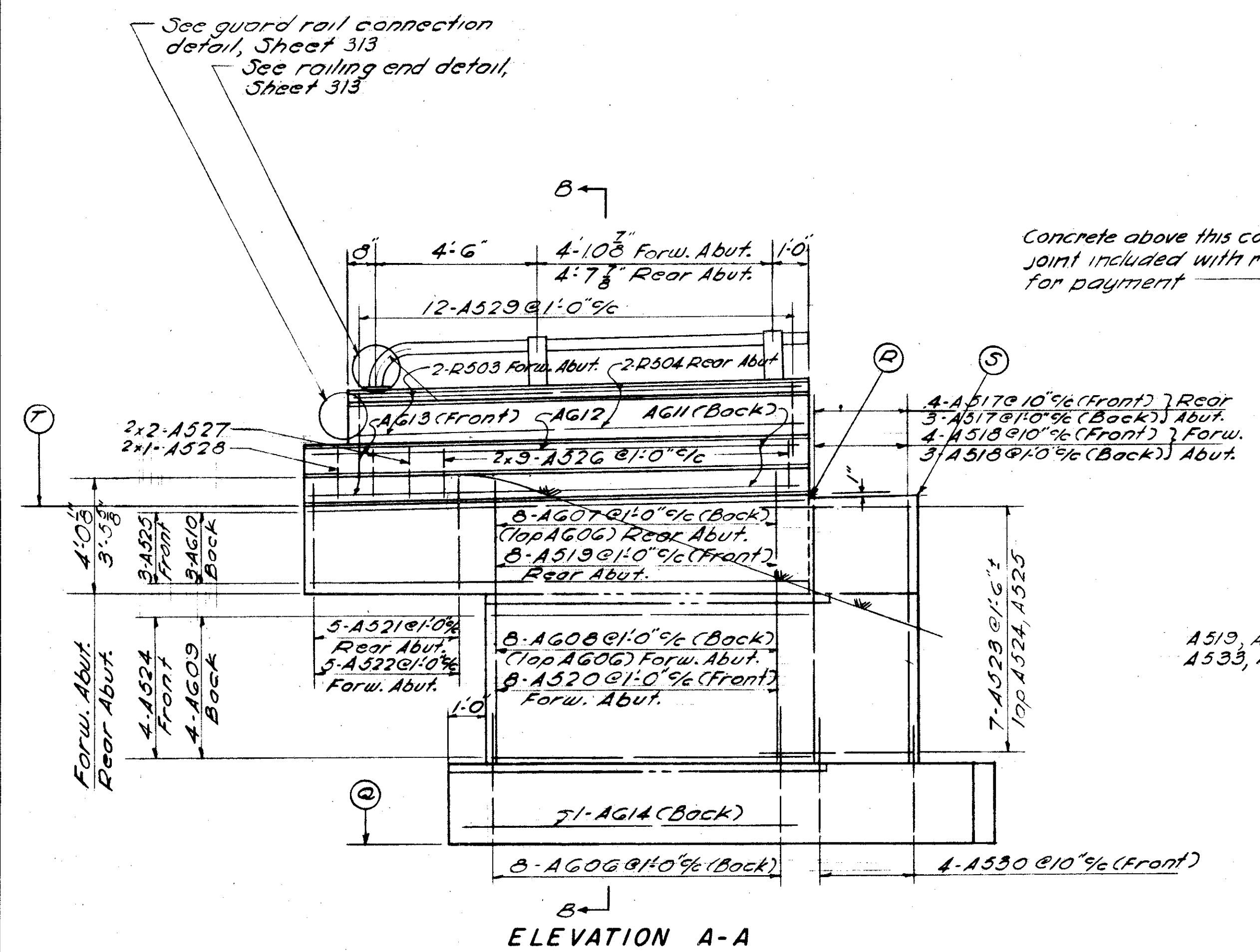
YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

ABUTMENT PLAN
BRIDGE NO. WAR-25-1005
WEST BRIDGE OVER SR 73
WARREN COUNTY STA. 92 + 43.33
STA. 94 + 46.75

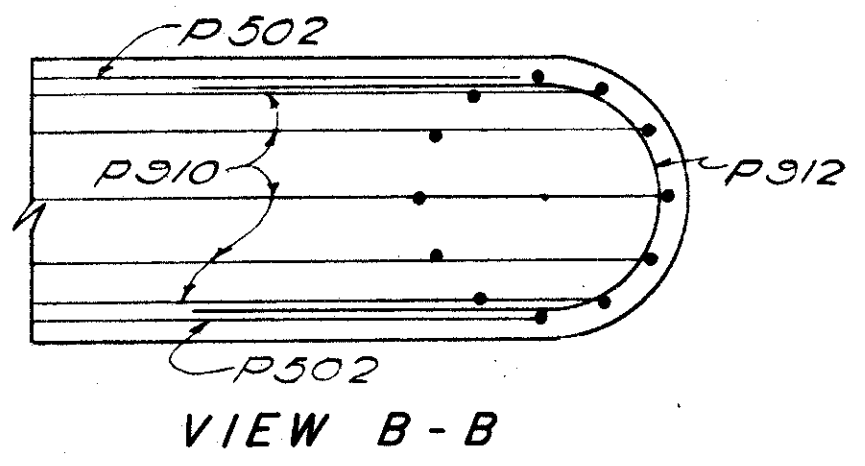
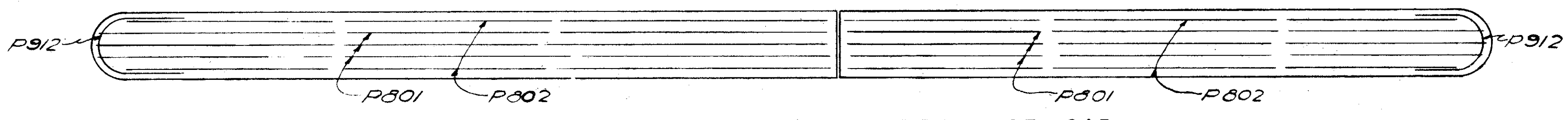
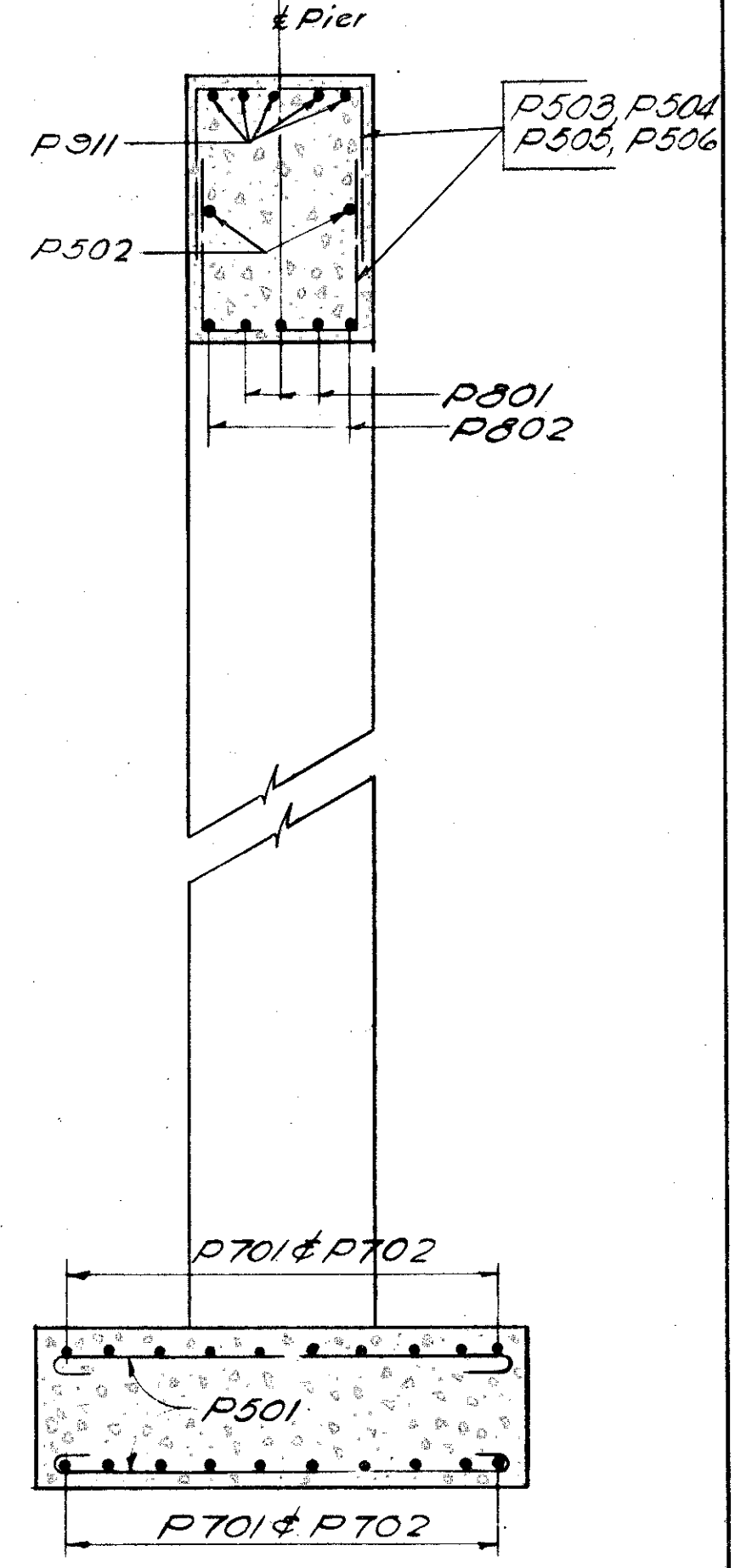
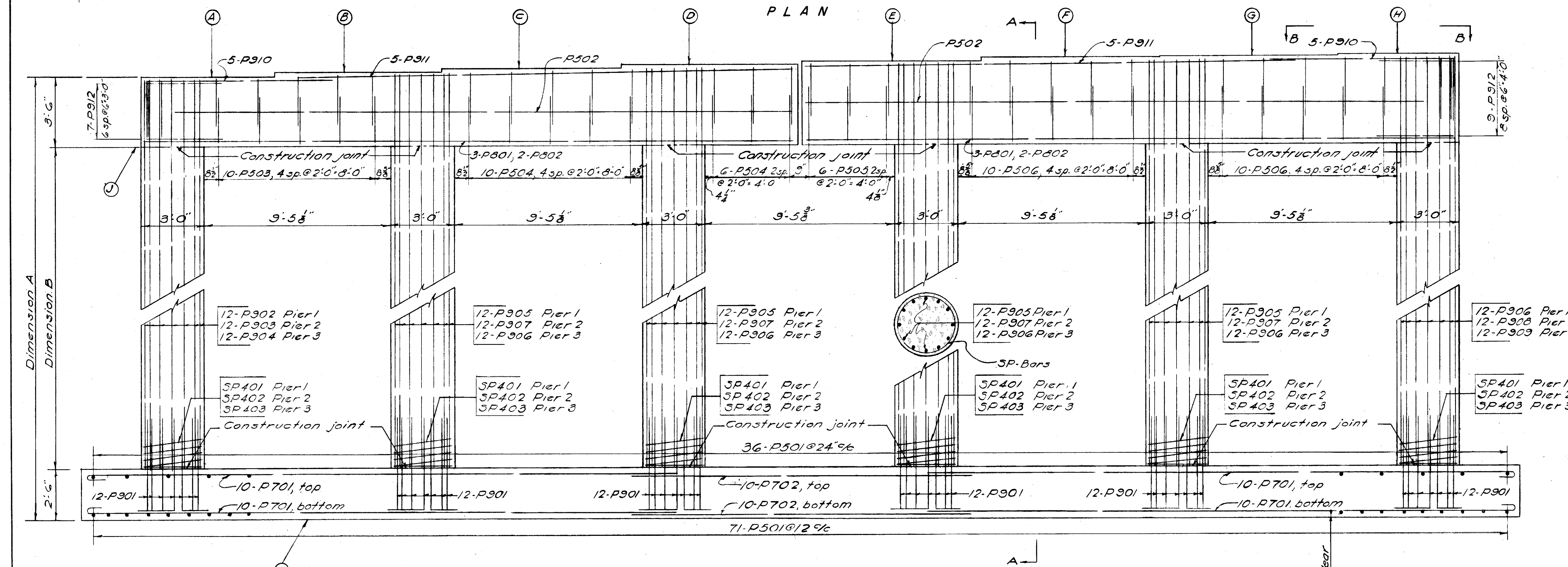
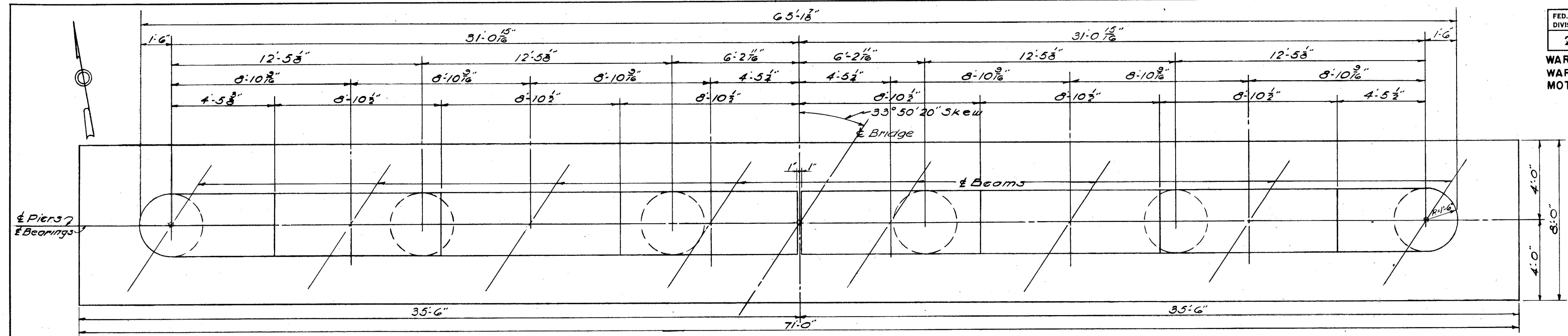
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W.W.W.	J.D.	J.D.	E.W.T.	J.C.L.	7-1-58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	332 377
2	OHIO			

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00



YULE, STICKLEN, JORDAN & MCNEE COLUMBUS ENGINEERS OHIO					
ABUTMENT DETAILS					
BRIDGE NO. WAR-25-1005 WEST BRIDGE OVER SR 73					
WARREN COUNTY			STA. 92 + 43.33 STA. 94 + 46.75		
DESIGNED	DRAWN	TRACED	CHECKED	DATE	REVISED
CPT	JHD	JHD	EWT	JCL 7-1-58	



	PIER 1	PIER 2	PIER 3
Elev. A	805.46	807.08	808.54
Elev. B	805.71	807.33	808.79
Elev. C	805.97	807.59	809.04
Elev. D	806.22	807.84	809.30
Elev. E	806.47	808.10	809.55
Elev. F	806.66	808.28	809.73
Elev. G	806.68	808.31	809.75
Elev. H	806.71	808.33	809.77
Elev. J	807.36	803.58	805.04
Elev. K	785.00	786.00	786.50
Dim. A	20'-5 1/2"	21'-1"	22'-0 1/2"
Dim. B	14'-5 1/2"	15'-1"	16'-0 1/2"

NOTES:
 REINFORCING STEEL in pier cap shall be placed so that it will not interfere with anchor bars.

YULE, STICKLEN, JORDAN & McNEE
 COLUMBUS ENGINEERS OHIO

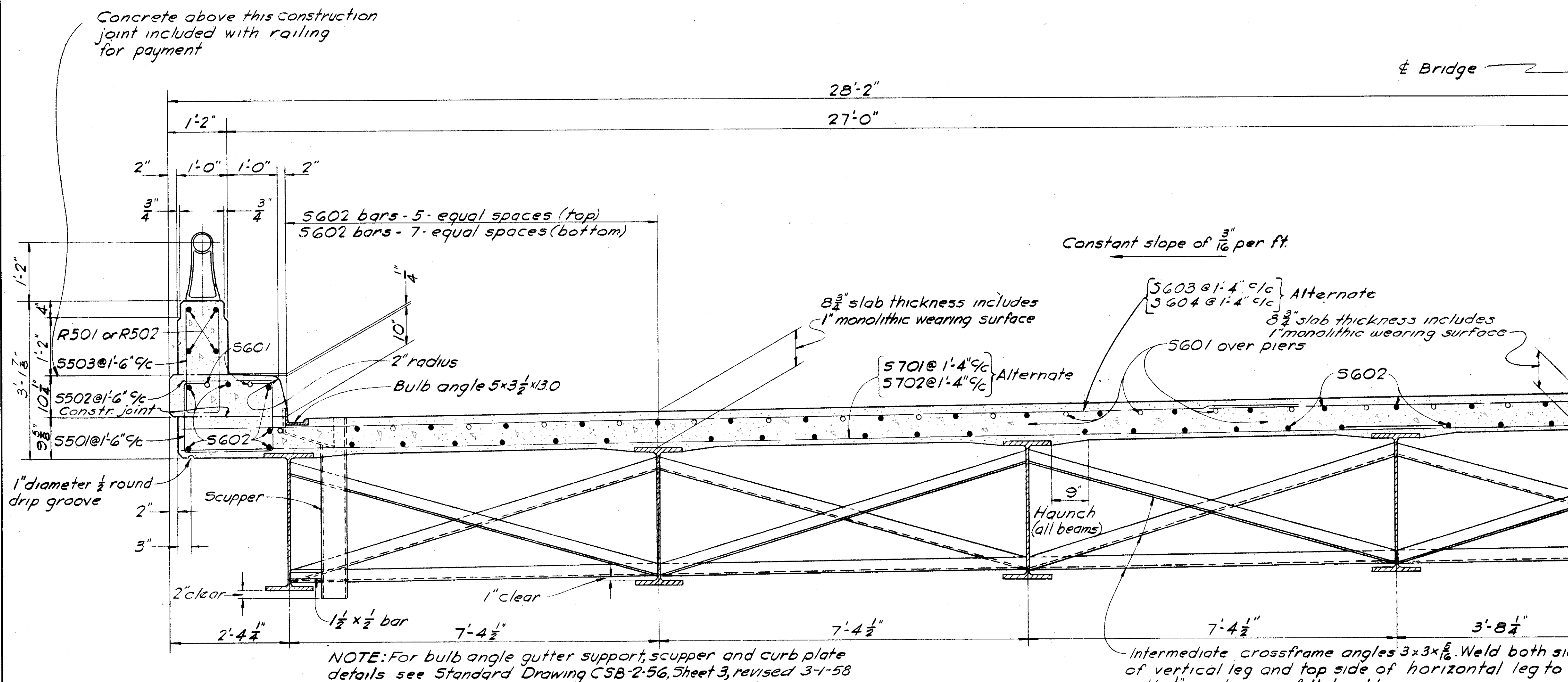
PIER DETAILS

BRIDGE NO. WAR-25-1005
 WEST BRIDGE OVER SR 73
 WARREN COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.R.T.	J.H.D.	J.H.D.	E.W.T.	JCL	7-1-58	

STA. 92 + 43.33
 STA. 94 + 46.75

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00

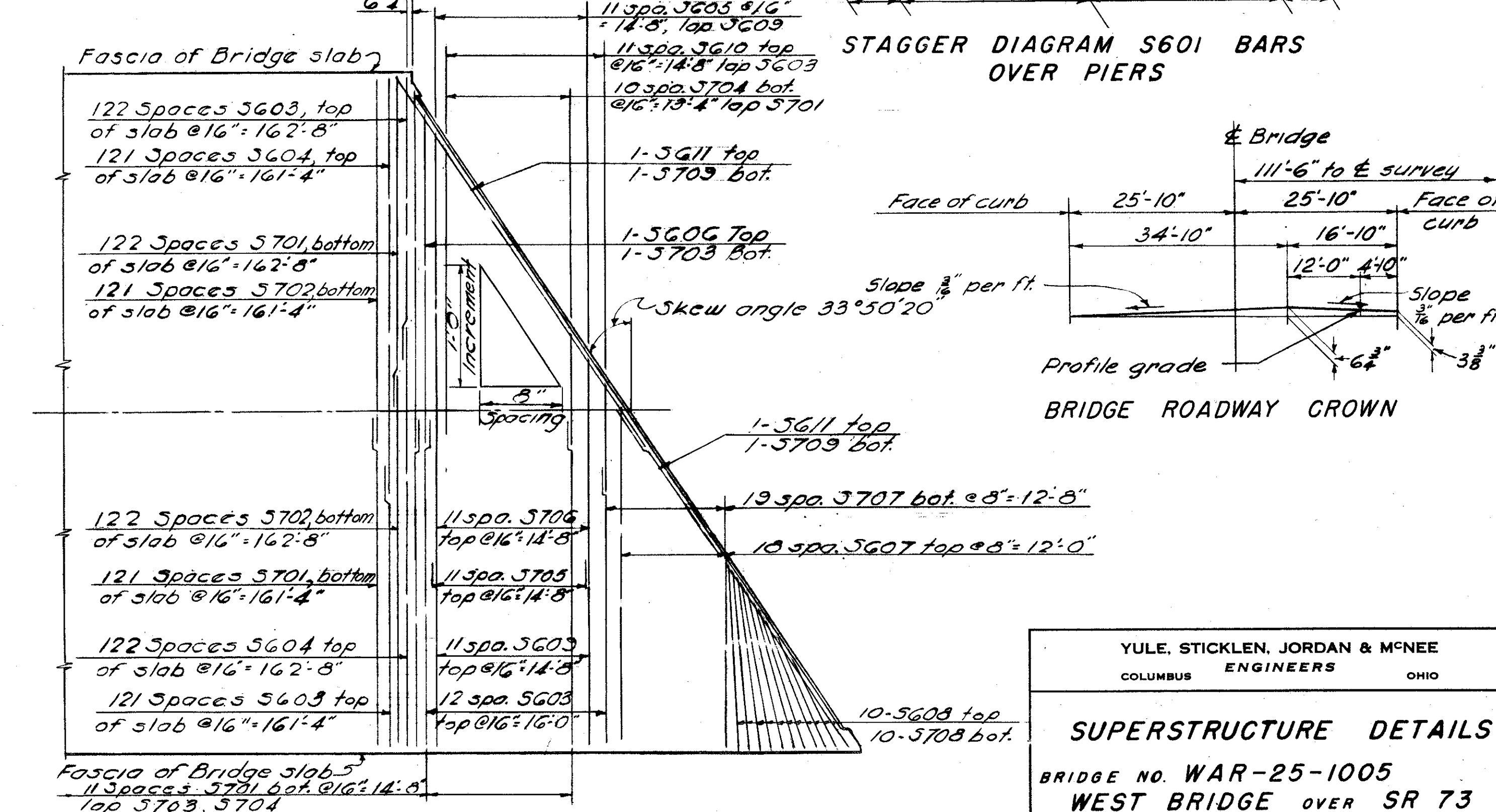
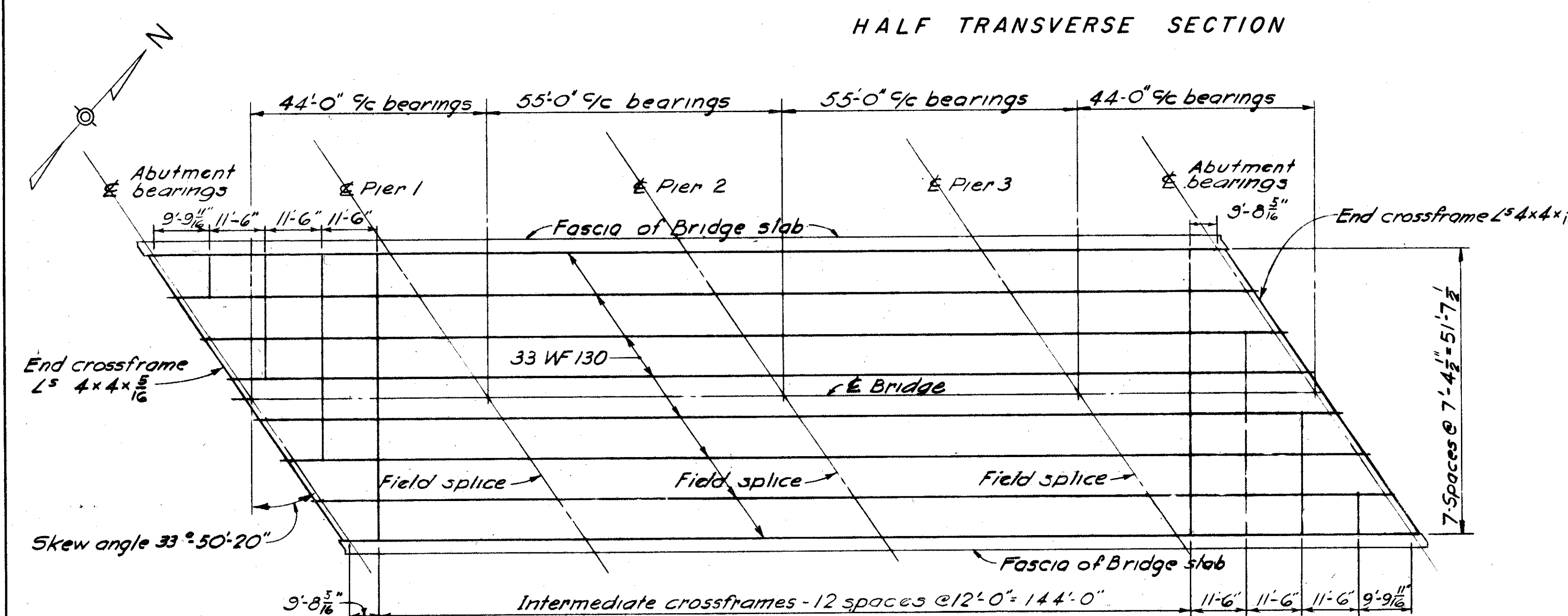


DEFLECTION AND CAMBER

	Outside Beams			
	Span 1	Span 2	Span 3	Span 4
Deflection due to weight of steel	0"	0"	0"	0"
Deflection due to remaining dead load	3/16"	1/4"	1/4"	3/16"
Convexity required for vertical curve	0"	0"	1/16"	1/16"
Sum of Deflection and Convexity	3/16"	1/4"	5/16"	1/4"
Required Camber*	0"	0"	0"	0"

	Inside Beams			
	Span 1	Span 2	Span 3	Span 4
Deflection due to weight of steel	0"	0"	0"	0"
Deflection due to remaining dead load	3/16"	3/16"	1/4"	3/16"
Convexity required for vertical curve	0"	0"	1/16"	1/16"
Sum of Deflection and Convexity	3/16"	3/16"	5/16"	1/4"
Required Camber*	0"	0"	0"	0"

* Place mill camber up.



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 normal to the centerline of bridge and are located near the center of any span

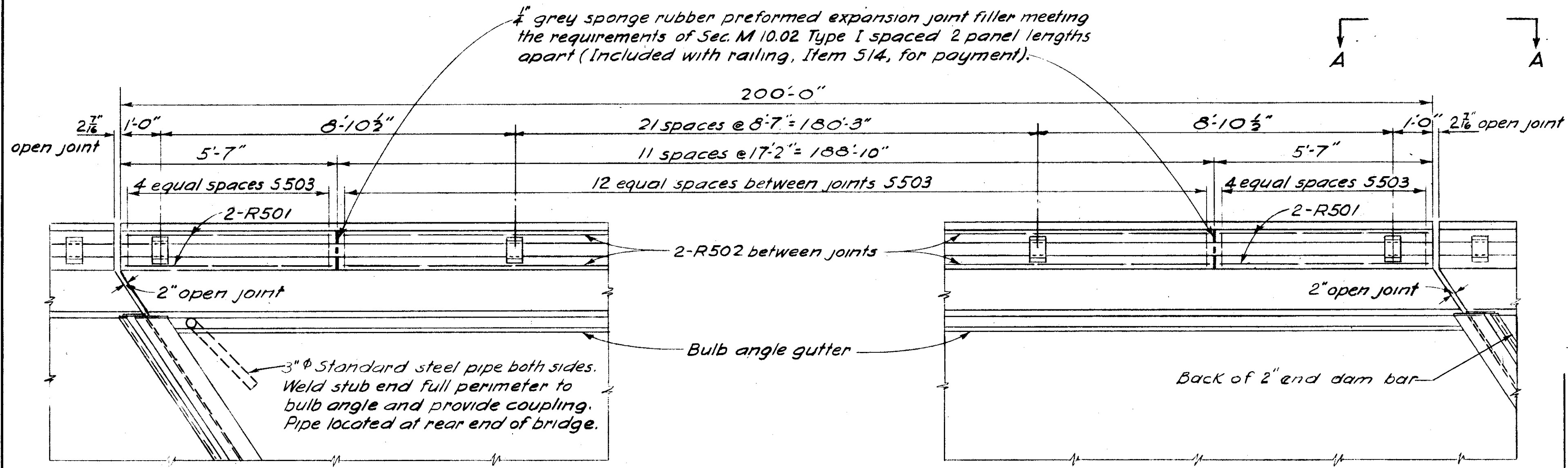
For details of end crossframes, beam cut-off at backwall and welded butt joint in superstructure end dam, see Standard Drawing No. CSB-2-56 Sheet 2, revised 3-1-58
Aluminum railing post, see Standard Drawing No. AR-1-57 revised 3-1-58 Type A.
For details of roadway end dam see Typical Details Sheet 313.

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

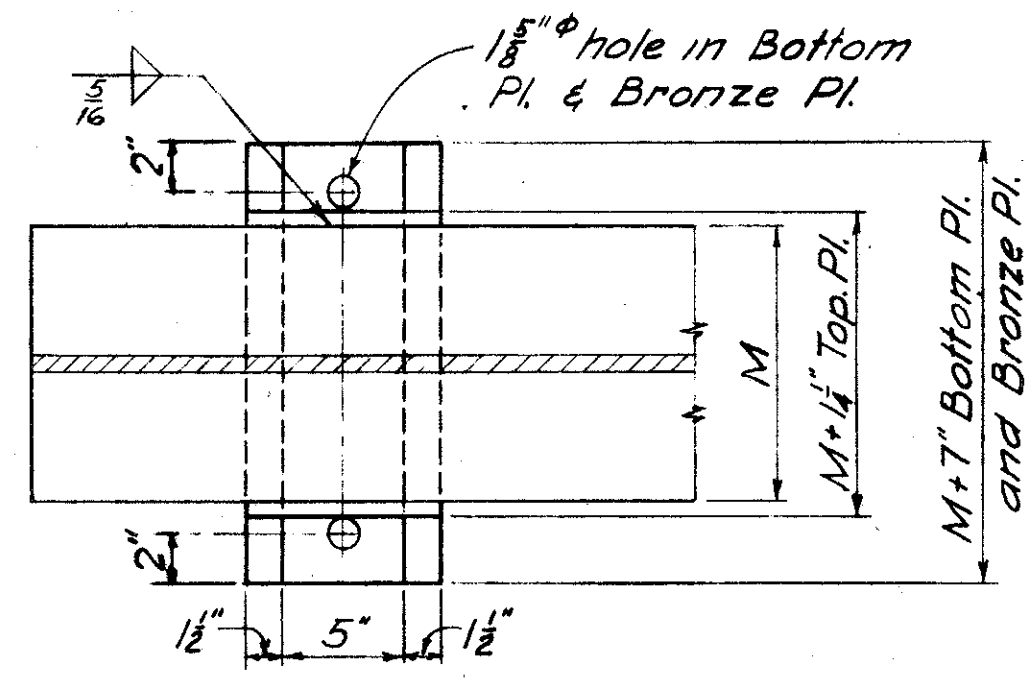
SUPERSTRUCTURE DETAILS

BRIDGE NO. WAR-25-1005
WEST BRIDGE OVER SR 73
WARREN COUNTY STA. 92 + 43.33
STA. 94 + 46.75

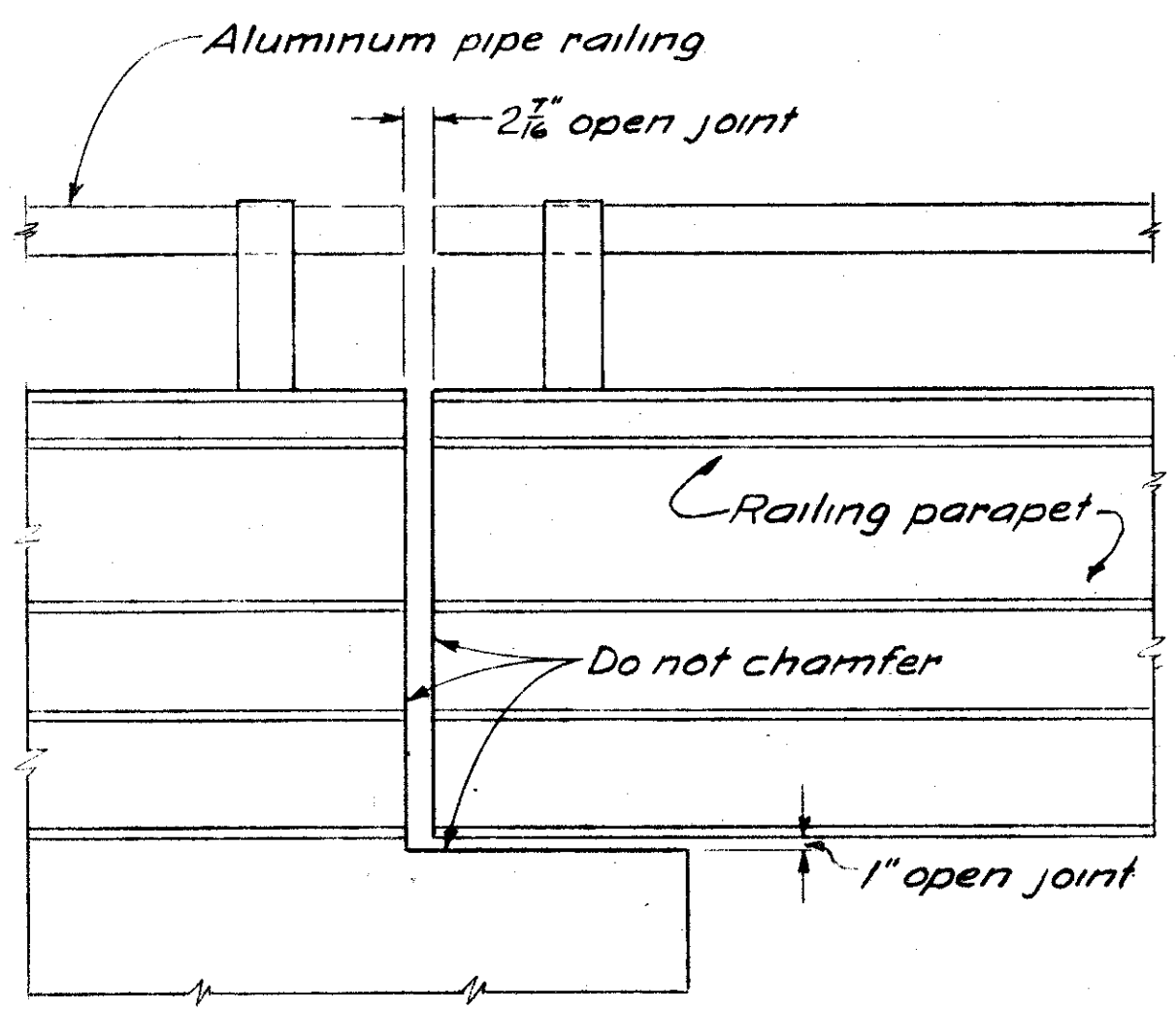
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C.P.T.	A.M.	A.M.	E.W.T.	J.C.L.	7-1-58	



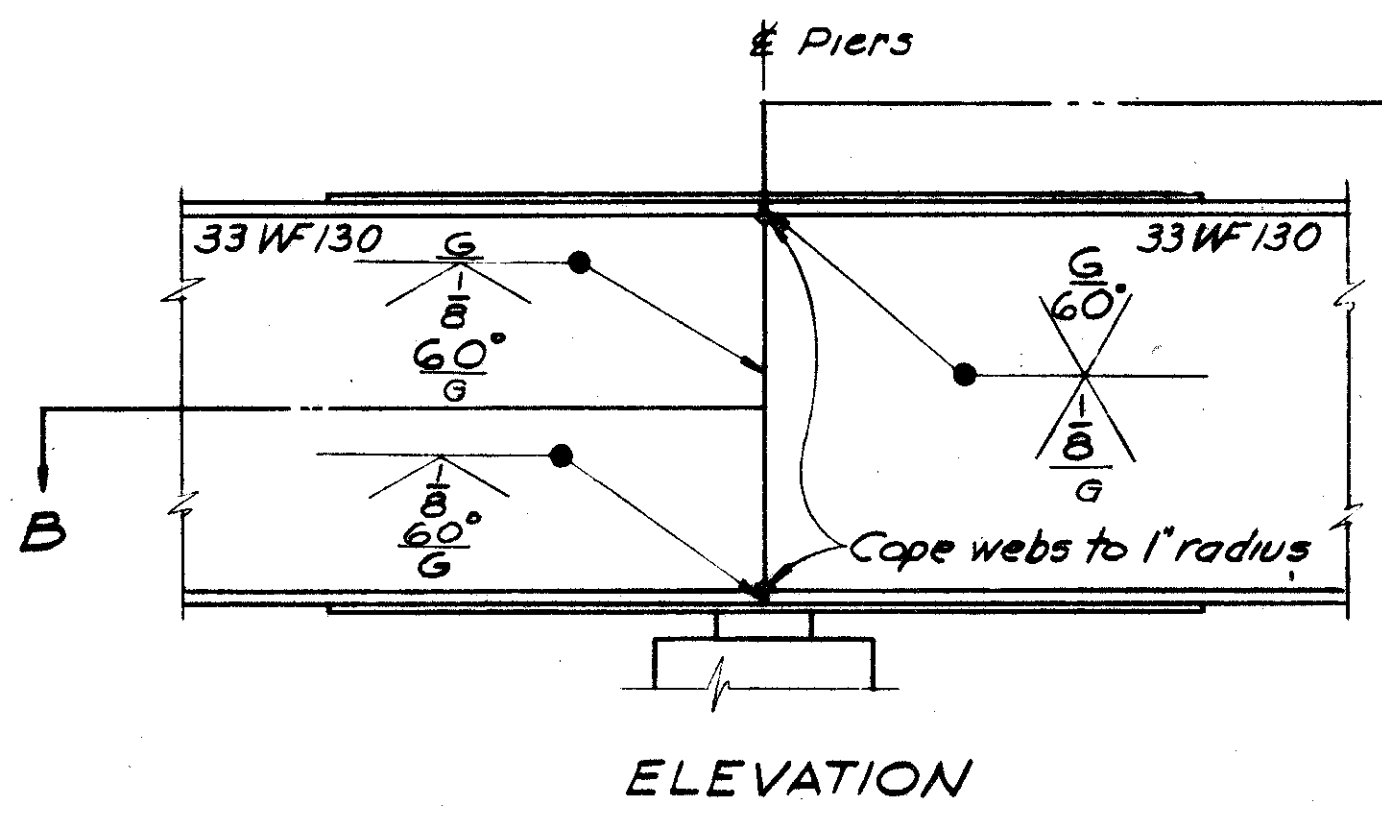
PART PLAN AT ABUTMENTS



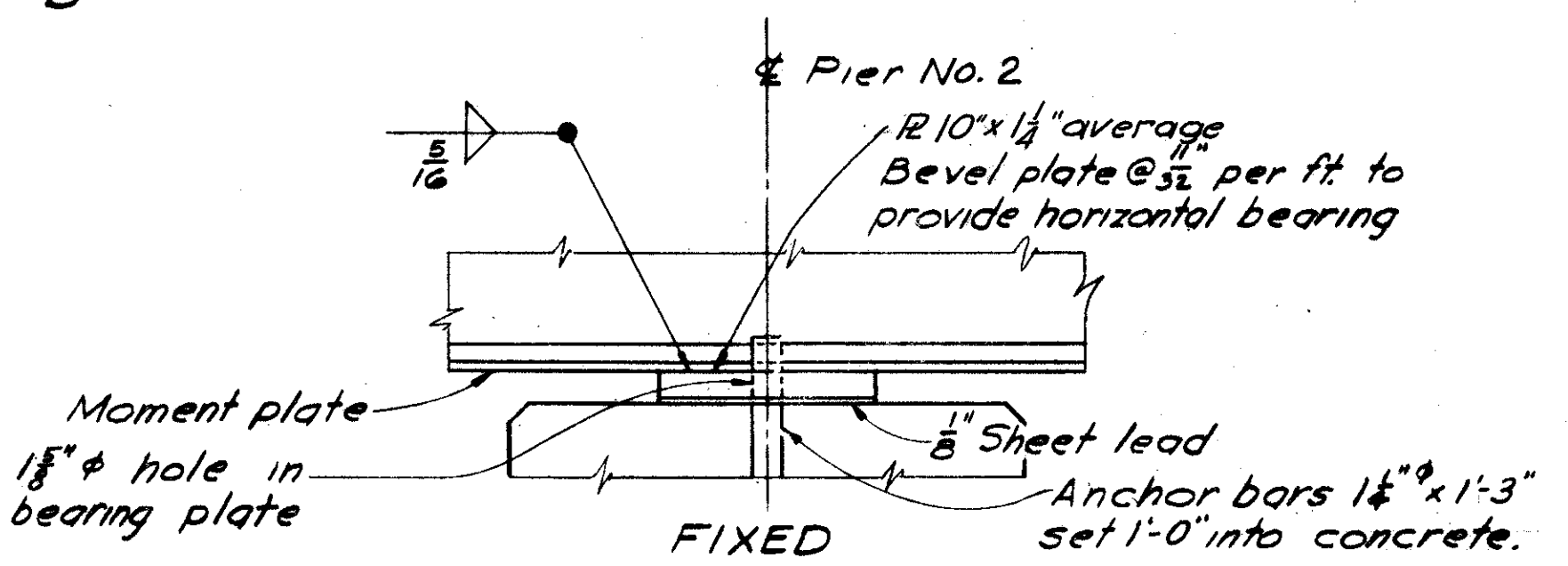
ABUTMENT BEARING PLATES



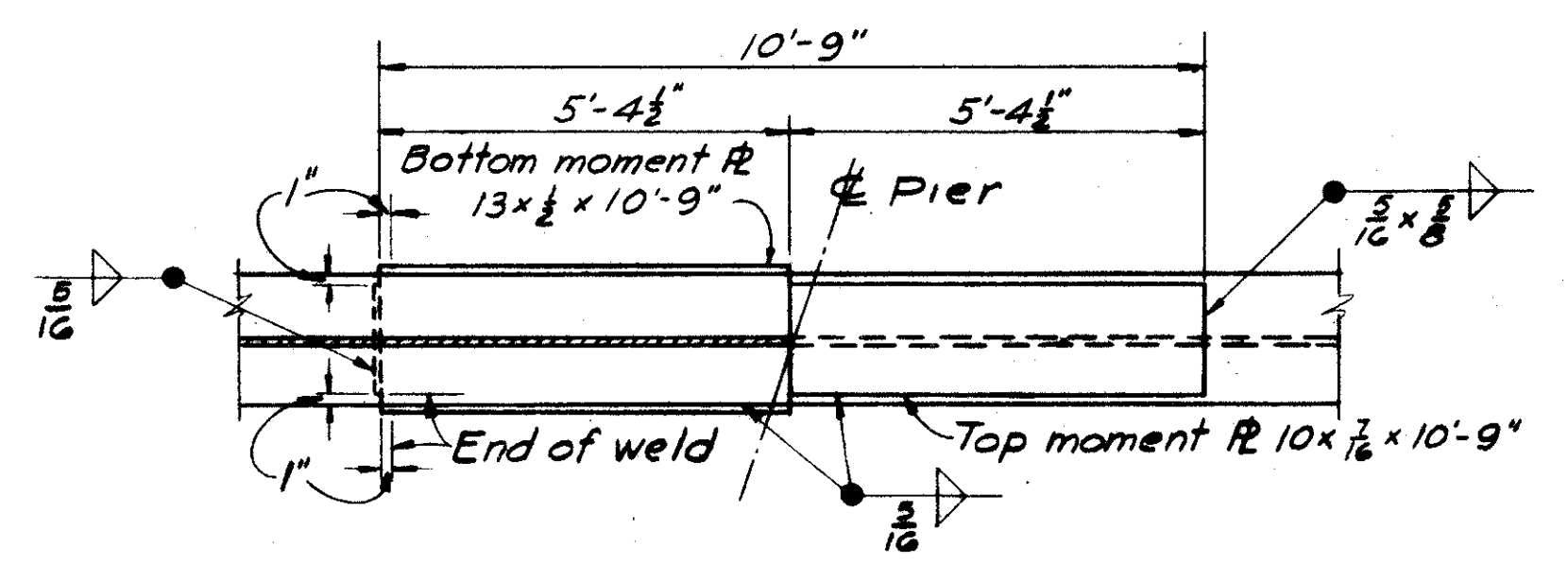
VIEW A - A



ELEVATION

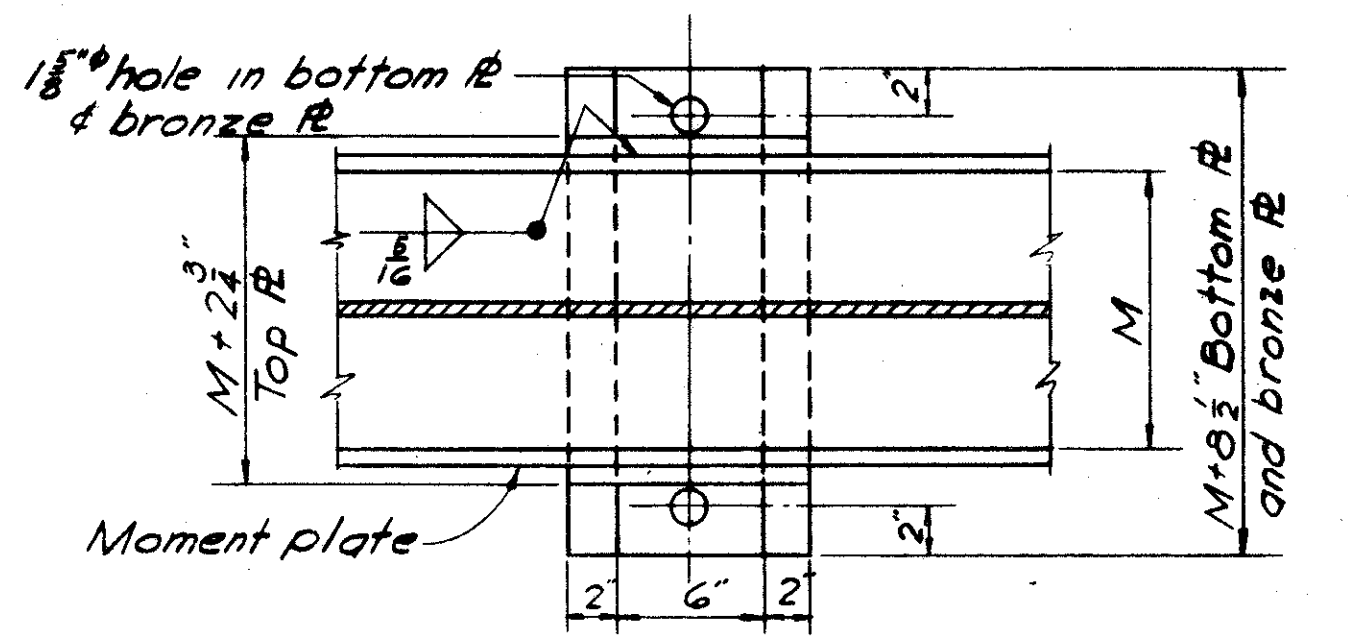


FIXED

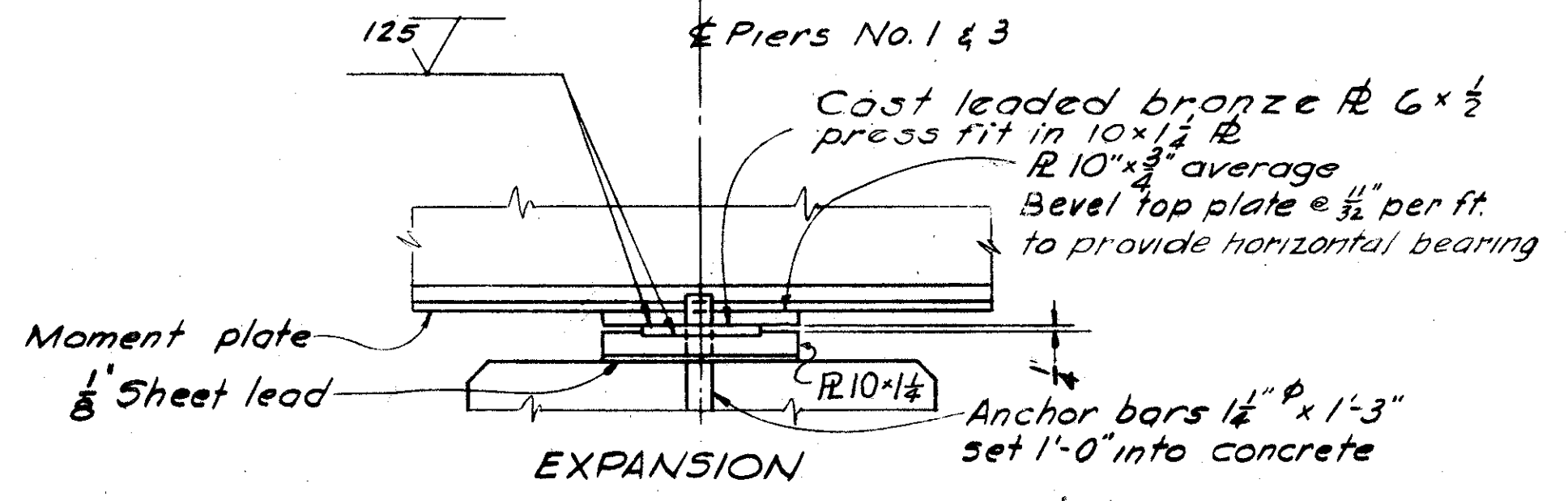


SECTION B-B

BEAM SPLICE DETAILS AT PIERS



EXPANSION



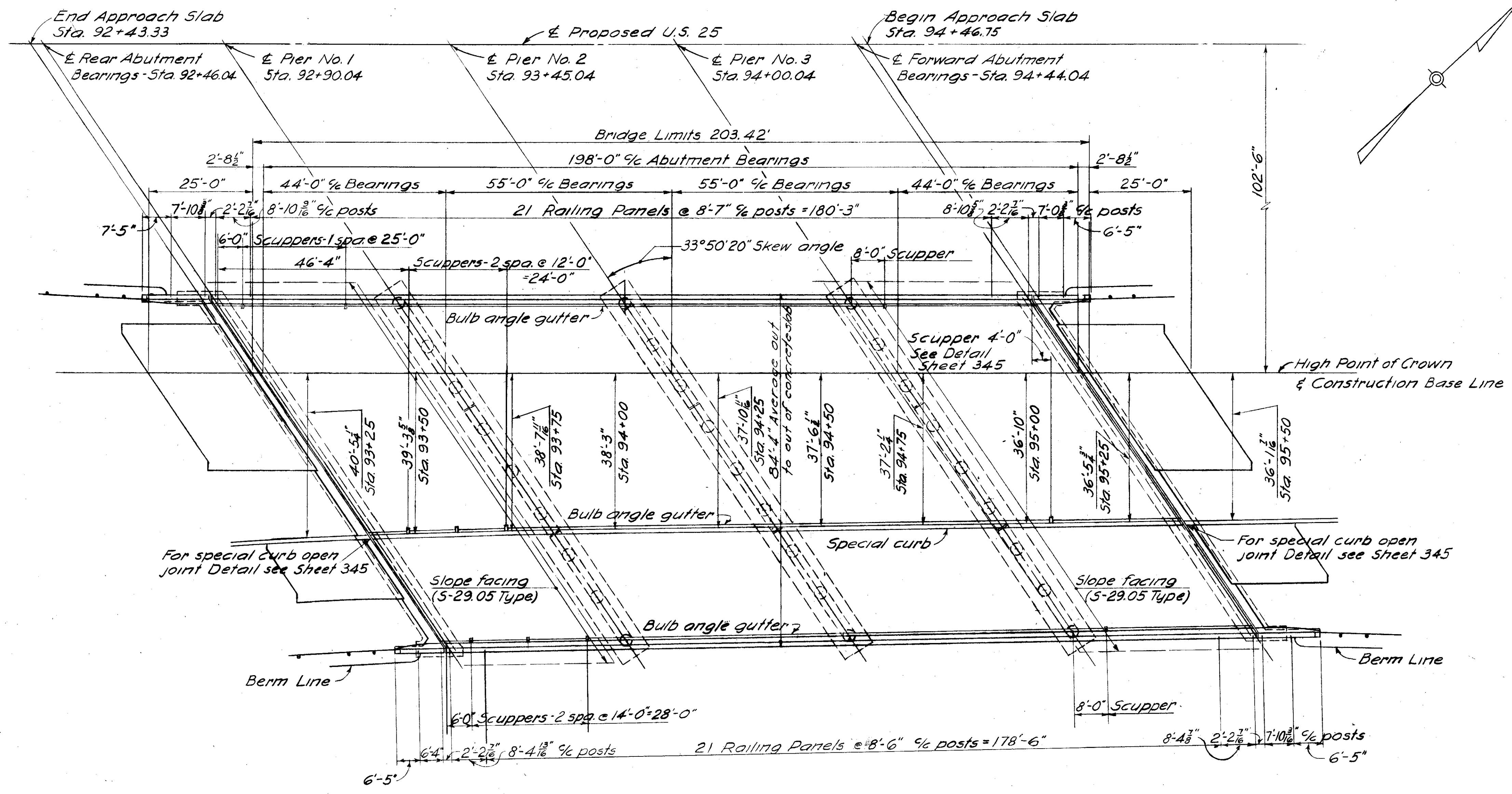
PIER BEARING PLATES

- BEAM SPLICE WELDING PROCEDURE**
1. Raise end of beam at third pier 3/8".
 2. Butt-weld beam flanges and web at second pier using the following sequence: make one pass on each flange, then one on the web; repeat until welds are completed.
 3. Weld top and bottom flange moment plates at second pier.
 4. Lower end of beam at third pier.
 5. Make splice at first and third pier in the same manner raising the end of the beams 3/8" at the abutments.

YULE, STICKLEN, JORDAN & McNEE COLUMBUS ENGINEERS OHIO						
SUPERSTRUCTURE DETAILS						
BRIDGE NO. WAR-25-1005						
WEST BRIDGE OVER SR 73						
WARREN COUNTY						
					STA. 92 + 43.33	
					STA. 94 + 46.75	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	A.M.	A.M.	E.W.T.	JGL	7-1-58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	336 377
2	OHIO			

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00



PLAN

REFERENCE shall be made to Standard Drawings AR-1-57, revised 3-1-58 (Type A), AS-1-54 revised 12-1-54, CSB-2-56 Sheet No. 2, revised 3-1-58, CSB-2-56 Sheet No. 3, revised 3-1-58, and supplemental specifications 5-114 (aluminum for bridge railing) revised 8-1-57.

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 the revisions thereof dated 2-21-58.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 1.88 tons per sq. ft. and pier footings are designed for a maximum bearing pressure of 2.28 tons per sq. ft.

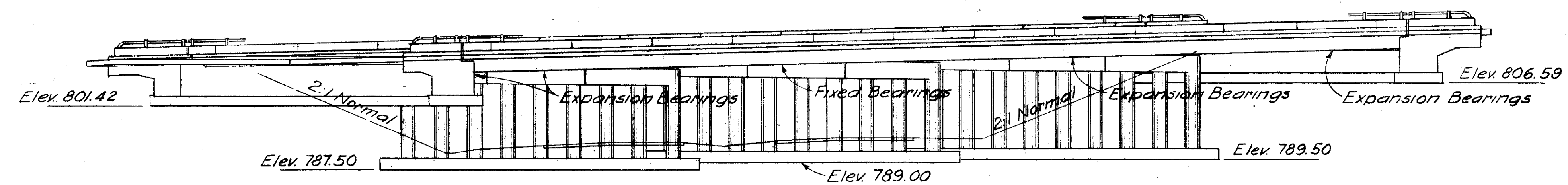
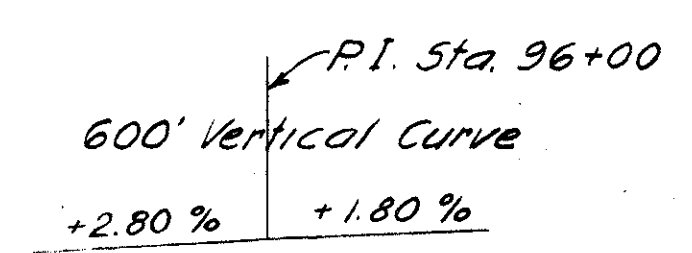
WELDING of structural steel shall be Class "A" except as otherwise shown. Class "B" welds shown thus $\overline{\text{---}}$. Any welds shown as field welds may, at the option of the contractor be made in the shop.

SLOPE FACING (S-29.05 TYPE) shall be provided under the structure at both abutments. The slope facing shall be 12" thick and shall extend from the face of the abutment to the flow line of the ditch and transversely to 3 feet outside of the edge of the superstructure.

EXCAVATION QUANTITY includes the removal of the fill material for the construction of the abutments.

MACHINE FINISHING of bridge deck slab as specified in the Proposal does not apply to the acceleration lane on the southeast portion of the deck of this structure.

PROCEDURE: The embankment for the rear abutment 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. Excavation for the rear abutment shall not begin before 60 days after placing the embankment. The 60 day waiting period may be shortened, if observations indicate settlement has ceased and approval of the Director is obtained. Excavation for and construction of the forward abutment shall not be started until 30 days after the roadway excavation for S.R. 73 has been completed 200 feet each side of the center line of Proposed U.S. 25.



ELEVATION

Ground line shown at high point of crown and construction base line of East Bridge

YULE, STICKLEN, JORDAN & McNEE ENGINEERS OHIO						
GENERAL PLAN & ELEVATION						
BRIDGE NO WAR-25-1005 EAST BRIDGE OVER SR 73						
WARREN COUNTY					STA. 92 + 43.33	DATE
					STA. 94 + 46.75	REVISED
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	A.M.	A.M.	E.W.T.	JCL	7-1-58	

REINFORCING STEEL LIST

Superstructure					Superstructure					Superstructure					Abutments					Piers				
Mark	No.	Length	Weight	Shp	Mark	No.	Length	Weight	Shp	Mark	No.	Length	Weight	Shp	Mark	No.	Length	Weight	Shp	Mark	No.	Length	Weight	Shp
J401	298	3'-8"	731	B	JG27	1713	28'-0"	312	S	5723	1713	21'-3"	118	S	A519	1	18'-6"	19	S	P501	486	8'-8"	4395	B
J501	306	4'-6"	1436	B	JG28	1717	15'-3"	129	S	J724	7	8'-0"	114	S	A520	1	23'-6"	25	S	P502	4	30'-11"	129	S
J502	306	1'-0"	584	S	JG29	1714	14'-9"	71	S	J725	1717	15'-3"	175	S	A521	6	8'-6"	59	B	P503	2	36'-10"	77	S
J503	612	2'-4"	1487	B	JG29	1714	14'-9"	71	S	J726	1710	23'-0"	286	S	A522	10	6'-3"	652	B	P504	2	35'-0"	75	S
JG01	177	22'-0"	5849	S	J701	166	34'-0"	11536	S	R501	8	5'-3"	*	S	A523	12	7'-8"	96	S	P505	48	7'-10"	39	B
JG02	810	35'-0"	42582	S	J702	250	40'-0"	20440	S	R502	44	16'-10"	*	S	A524	12	8'-5"	105	S	P506	174	8'-0"	1452	B
JG03	167	14'-9"	3700	S	J703	167	18'-9"	6400	S	R503	8	4'-9"	*	S	A525	20	4'-1"	851	B	P508	4	30'-6"	127	S
JG04	256	40'-0"	15380	S	J704	36	17'-9"	1306	S	R504	44	16'-8"	*	S	A526	24	8'-6"	213	S	P509	2	36'-3"	76	S
JG05	169	37'-3"	9455	S	J705	35	33'-0"	2361	S	R505	4	12'-2"	*	S	A527	16	9'-3"	154	S	P510	4	30'-0"	125	S
JG06	35	36'-3"	1906	S	J706	35	16'-9"	1193	S	R506	4	12'-10"	*	S	A528	13	8'-8"	118	B	P701	60	30'-10"	3781	B
JG07	36	13'-9"	743	S	J707	37	32'-0"	664	S	R507	4	14'-8"	*	S	A529	12	7'-2"	90	B	P702	40	27'-9"	2269	S
JG08	39	35'-3"	2063	S	J708	10	32'-6"	664	S	R508	4	13'-8"	*	S	A530	10	7'-9"	808	S	P703	4	31'-8"	256	S
JG09	35	12'-9"	670	S	J709	1718	23'-3"	266	S	A401	186	7'-0"	870	B	A531	16	3'-2"	59	B	P704	6	32'-2"	394	S
JG10	2	35'-9"	107	S	J710	1715	37'-6"	723	S	A402	16	30'-0"	320	B	A532	8	2'-6"	21	B	P705	7	36'-10"	527	S
JG11	1716	13'-0"	126	S	J711	1719	33'-9"	1467	S	A403	8	26'-3"	140	S	A533	58	4'-6"	278	B	P706	20	27'-0"	1104	S
JG12	1717	37'-9"	581	S	J712	9	12'-3"	225	S	A404	8	23'-7"	126	S	A534	10	5'-4"	57	B	P707	10	40'-0"	818	S
JG13	1730	39'-3"	1115	S	J713	1714	30'-6"	501	S	A405	1717	13'-0"	50	B	A535	5	10'-6"	53	S	P708	4	30'-3"	247	S
JG14	9	12'-3"	165	S	J714	1718	37'-6"	499	S	A406	8	13'-9"	74	B	A536	3	15'-3"	49	S	P709	10	31'-3"	639	S
JG15	1716	33'-9"	451	S	J715	1714	30'-0"	486	S	A407	1718	12'-7"	21	B	A537	10	10'-6"	53	S	P710	6	31'-9"	389	S
JG16	1716	37'-6"	293	S	J716	8	25'-0"	409	S	A408	1718	12'-7"	21	B	A538	10	10'-6"	53	S	P711	7	36'-3"	321	S
JG17	6	32'-9"	295	S	J717	34	15'-9"	1095	S	A409	1718	12'-7"	21	B	A539	3	16'-0"	50	S	P712	30	26'-3"	1610	S
JG18	1716	37'-0"	527	S	J718	1719	21'-9"	253	S	A410	13	8'-1"	110	B	A540	6	7'-4"	46	B	P713	4	30'-9"	251	S
JG19	34	11'-6"	587	S	J719	2717	15'-3"	132	S	A411	13	8'-1"	110	B	A541	3	8'-0"	25	S	P714	4	30'-0"	245	S
JG20	1716	33'-3"	439	S	J720	30	23'-3"	1426	S	A412	13	8'-1"	110	B	A542	3	8'-9"	27	S	P715	7	35'-10"	518	S
JG21	19	34'-3"	978	S	J721	28	25'-3"	1445	S	A413	13	8'-1"	110	B	A543	4	15'-0"	63	S	P716	60	24'-6"	3005	B
JG22	14	17'-6"	368	S	J722	1710	23'-3"	291	S	A414	13	8'-1"	110	B	A544	1	18'-6"	19	S	P717	20	39'-0"	1594	S
JG23	1715	12'-0"	60	S																P718	4	30'-11"	253	S
JG24	1719	30'-0"	297	S																P901	324	6'-1"	6698	B
JG25	4	25'-0"	150	S																P902	12	13'-8"	802	S
JG26	7	8'-0"	84	S																P903	12	20'-4"	830	S

* Included with railing for payment.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Location						
				Super-Struc.	Rear Abut.	Pier 1	Pier 2	Pier 3	Forward Abut.	General
E-2	1070	Cu.Yds.	Unclassified excavation		260	175	165	210	260	
S-1	503	Cu.Yds.	Class "C" Concrete-Superstructure	503						
S-1	234	Cu.Yds.	Class "C" Concrete-Piers above footings			85	84	85		
S-1	352	Cu.Yds.	Class "E" Concrete-Abutments	179					173	
S-1	240	Cu.Yds.	Class "E" Concrete-Pier Footings			81	80	79		
S-4	241,293	Lbs.	Reinforcing steel	149959	10306	23703	24092	24143	3092	
S-7	338500	Lbs.	Structural steel	338500						
S-8	338500	Lbs.	Field painting of structural steel	338500						
S-14	452	Lin.Ft.	Railing (Aluminum rail, supports and concrete parapet.)	397	28				27	
S-29	308	Cu.Yds.	Slope Facing (S-29.05 Type)		141				167	
S-29	34	Cu.Yds.	Porous backfill		47				47	
I-127	2	Each	Bridge delineators							2

Spiral Reinforcing List

Mark	No.	Core Dia. % Spiral	Length	Pitch	No. Turns	Weight
RE401	1	5'-3"				5
RE402	1	5'-3"				5
RE501	2	5'-7"				5
SPA01	9	32"	16'-4"	4"	47	2726
SPA02	9	32"	16'-3"	4"	47	2729
SP103	9	32"	17'-3"	4"	49	2844
RE701	4	6'-3"				5
RE901	2	6'-10"				5
RE1001	1	7'-3"				5

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. 1 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channels, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. 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.

BAR SIZE: is indicated in the bar mark. The first digit where three digits are used and the first two digits where four digits are used, indicate the bar size number. For example, AG01 is a No. 6 size bar and P1001 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. 5-4.02 need not be furnished and replacement bars will not be required.

YULE, STICKLEN, JORDAN & MCNEE
 COLUMBUS ENGINEERS OHIO

ESTIMATED QUANTITIES & REINFORCING STEEL LIST

BRIDGE NO. WAR-25-1005
 EAST BRIDGE OVER SR 73

STA. 92 + 43.33
 STA. 94 + 46.75

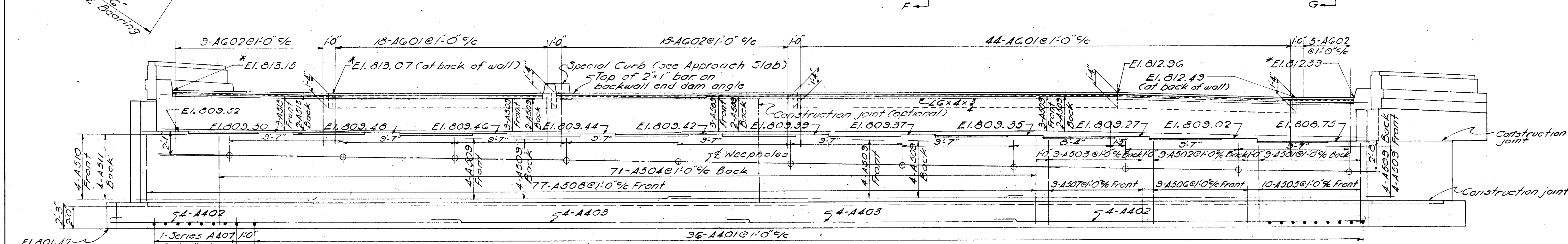
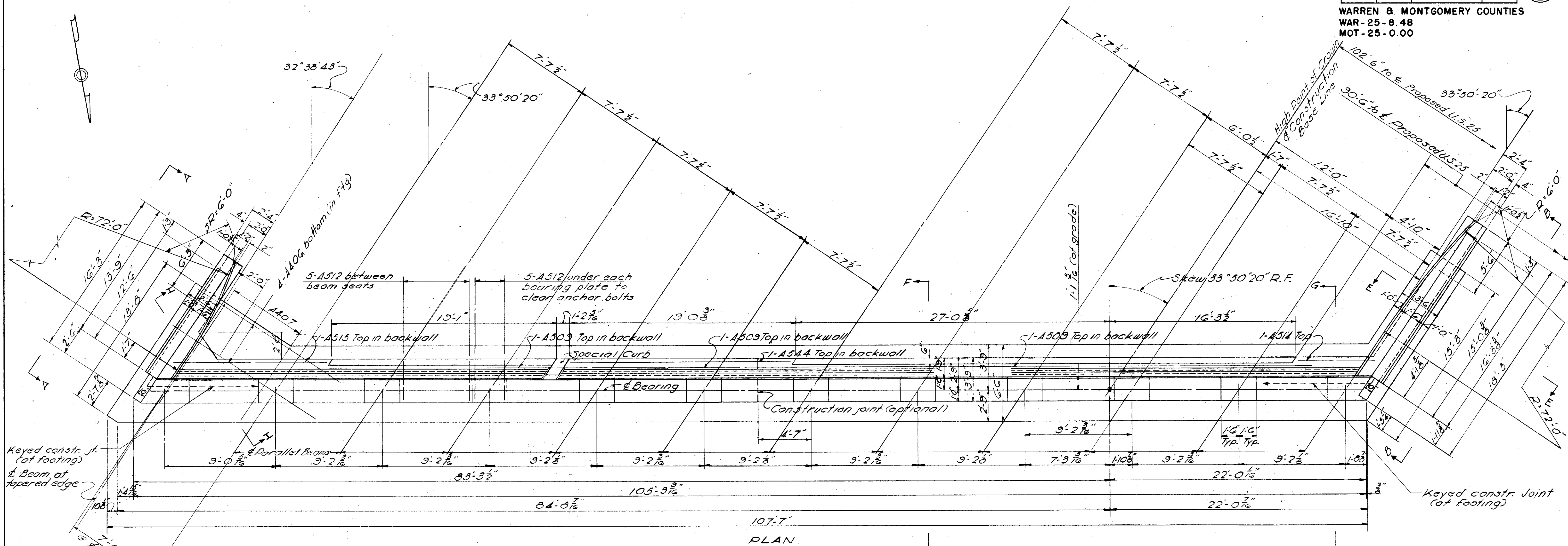
WARREN COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JD	JD	JD	EWT	JCL	7-1-58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

338
377

WARREN & MONTGOMERY COUNTIES
WAR - 25 - 8.48
MOT - 25 - 0.00



ELEVATION

POROUS BACKFILL, 2 feet thick, full length of abutment and wings, shall extend up to the underside of the approach slab.

NOTE
For elevations marked with * see Sections F-F and G-G, Sheet 340

For Elevations A-A and B-B, Sections E-E, F-F, G-G and H-H see sheet 340.

YULE, STICKLEN, JORDAN & MCNEE
COLUMBUS ENGINEERS OHIO

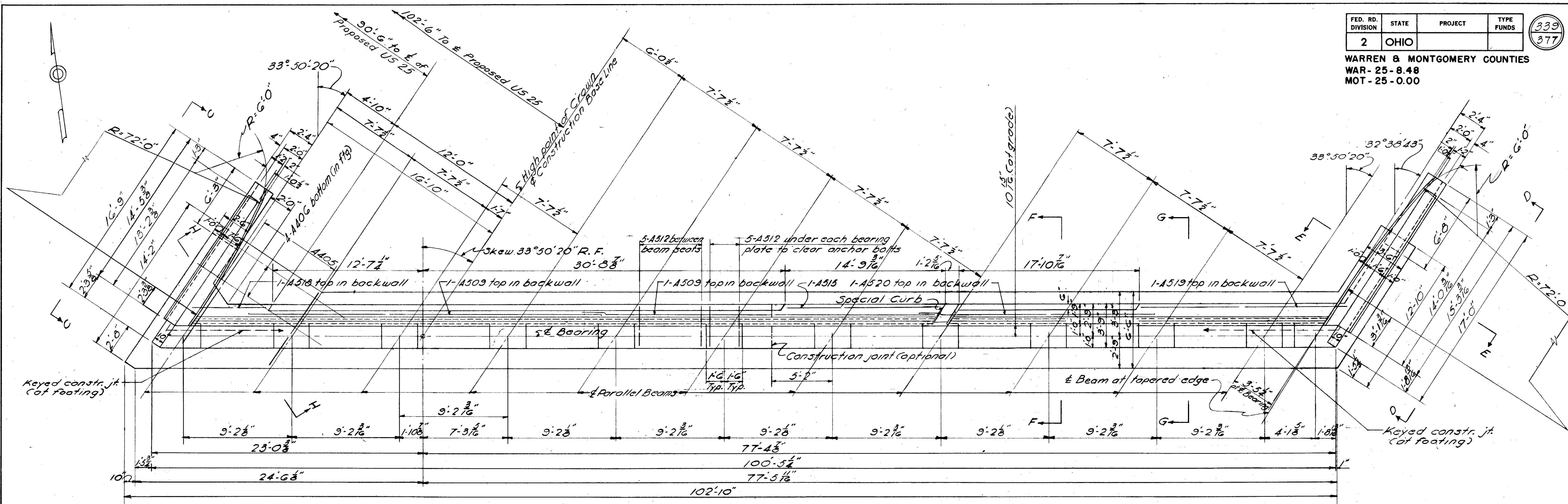
REAR ABUTMENT PLAN AND ELEVATION.

BRIDGE NO. WAR-25-1005
EAST BRIDGE OVER SR 73

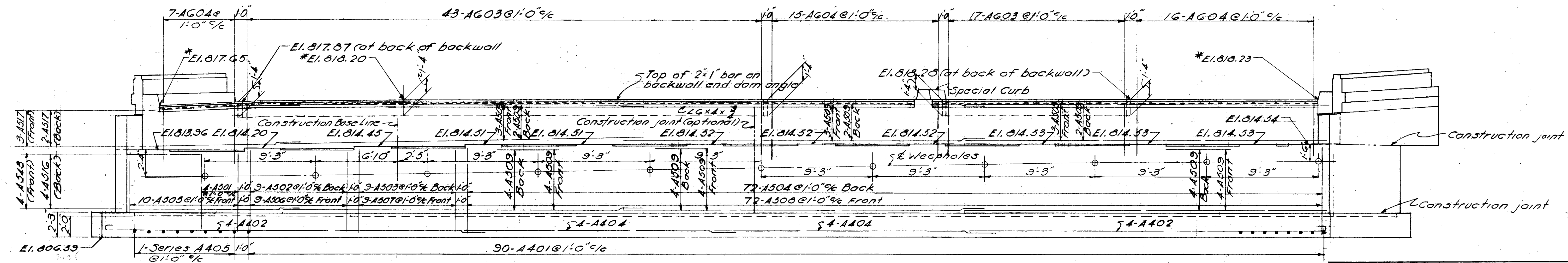
WARREN COUNTY
STA. 92 + 43.33
STA. 94 + 46.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	J.H.D.	C.P.	W.J.W.	J.C.L.	7-1-58	

WARREN & MONTGOMERY COUNTIES
 WAR-25-8.48
 MOT-25-0.00



PLAN



ELEVATION

POROUS BACKFILL, 2 feet thick, full length of abutment and wings, shall extend up to the underside of the approach slab.

NOTE
 For elevations marked with * see Sections F-F and G-G

For Elevations C-C and D-D, Sections E-E, F-F, G-G and H-H see Sheet 340

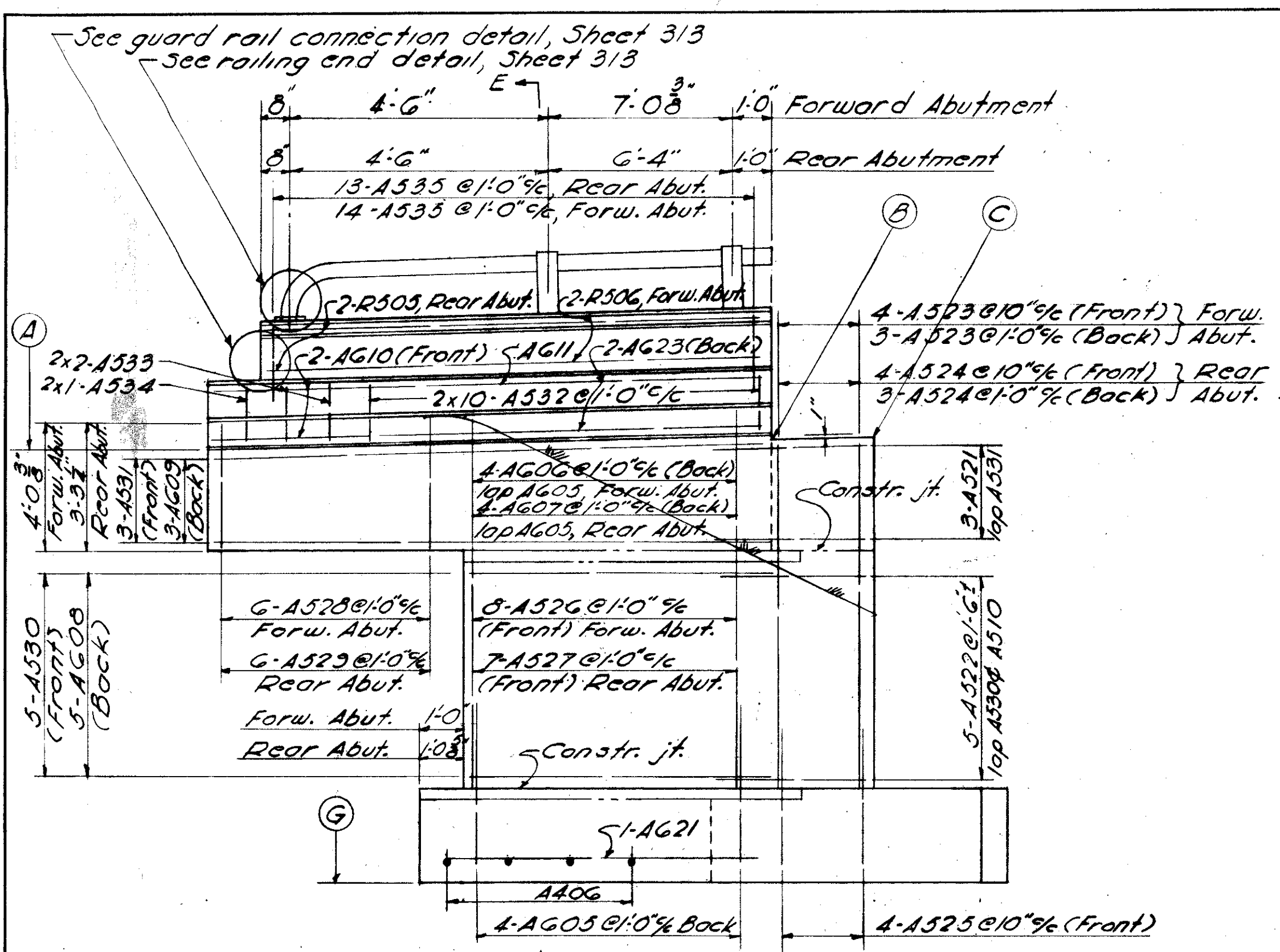
YULE, STICKLEN, JORDAN & MCNEE
 COLUMBUS ENGINEERS OHIO

FORWARD ABUTMENT PLAN AND ELEVATION

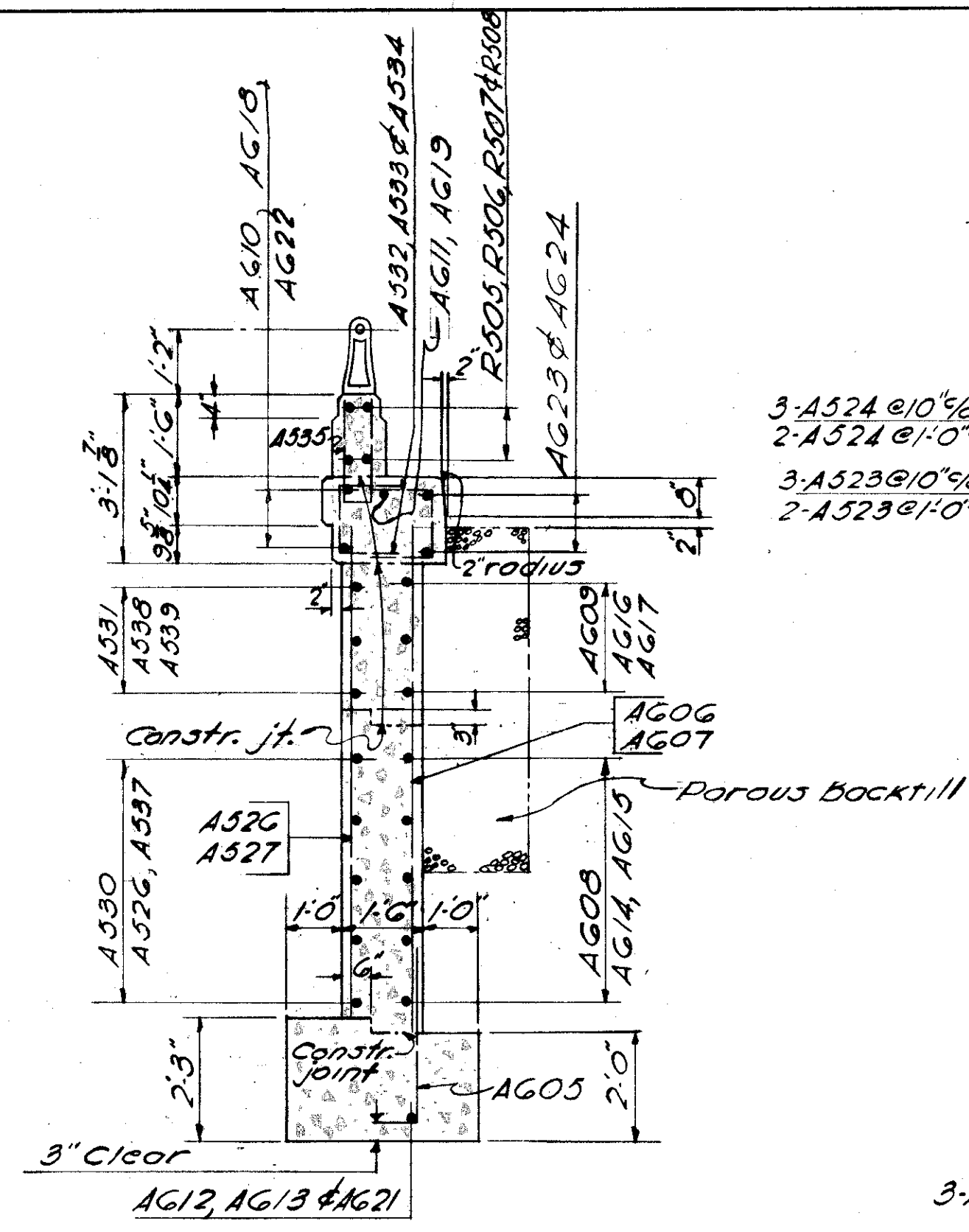
BRIDGE NO. WAR-25-1005
 EAST BRIDGE OVER SR 73

WARREN COUNTY
 STA. 92 + 43.33
 STA. 94 + 46.75

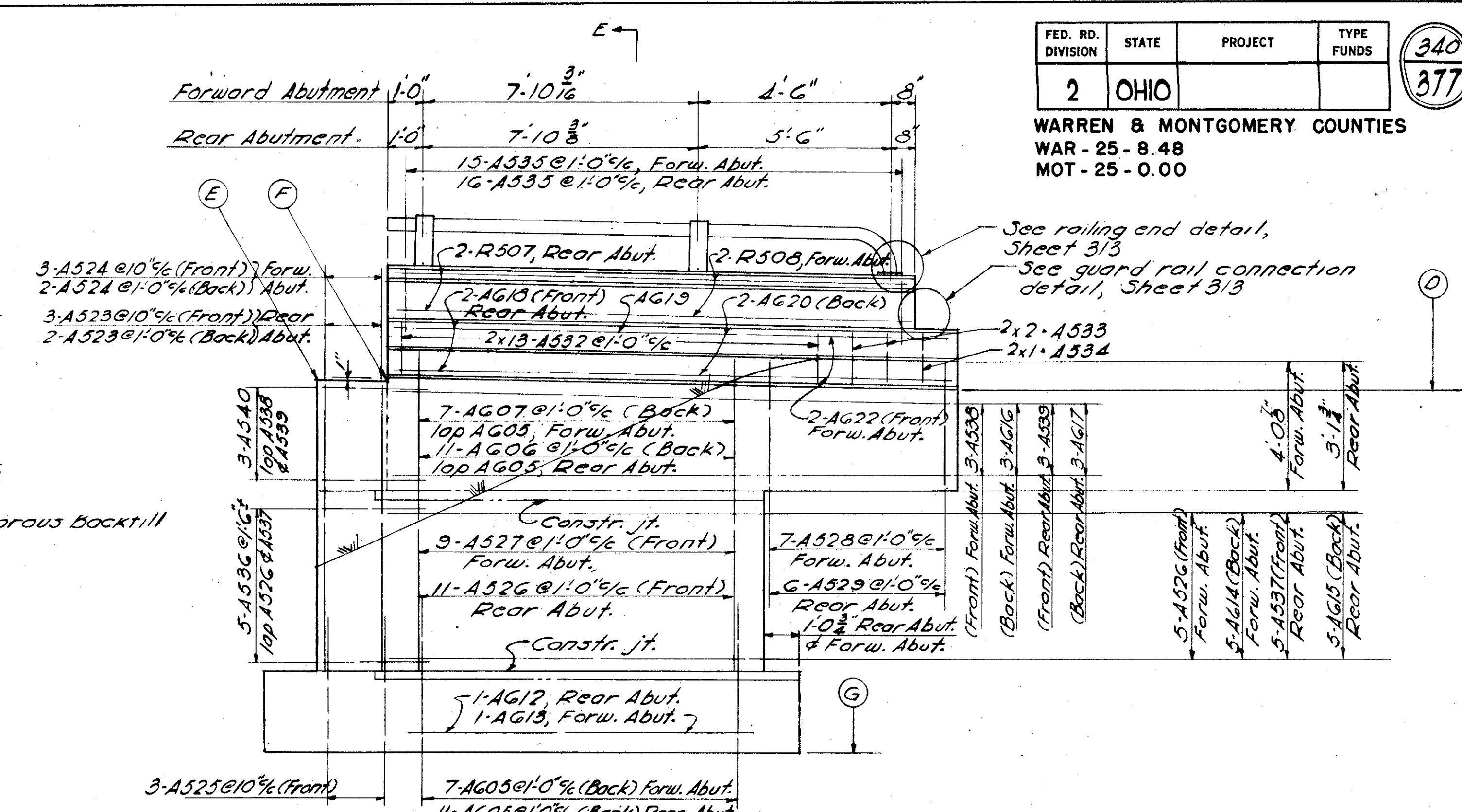
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.R.T.	J.H.D.	C.P.	W.J.W.	J.C.L.	7-1-58	



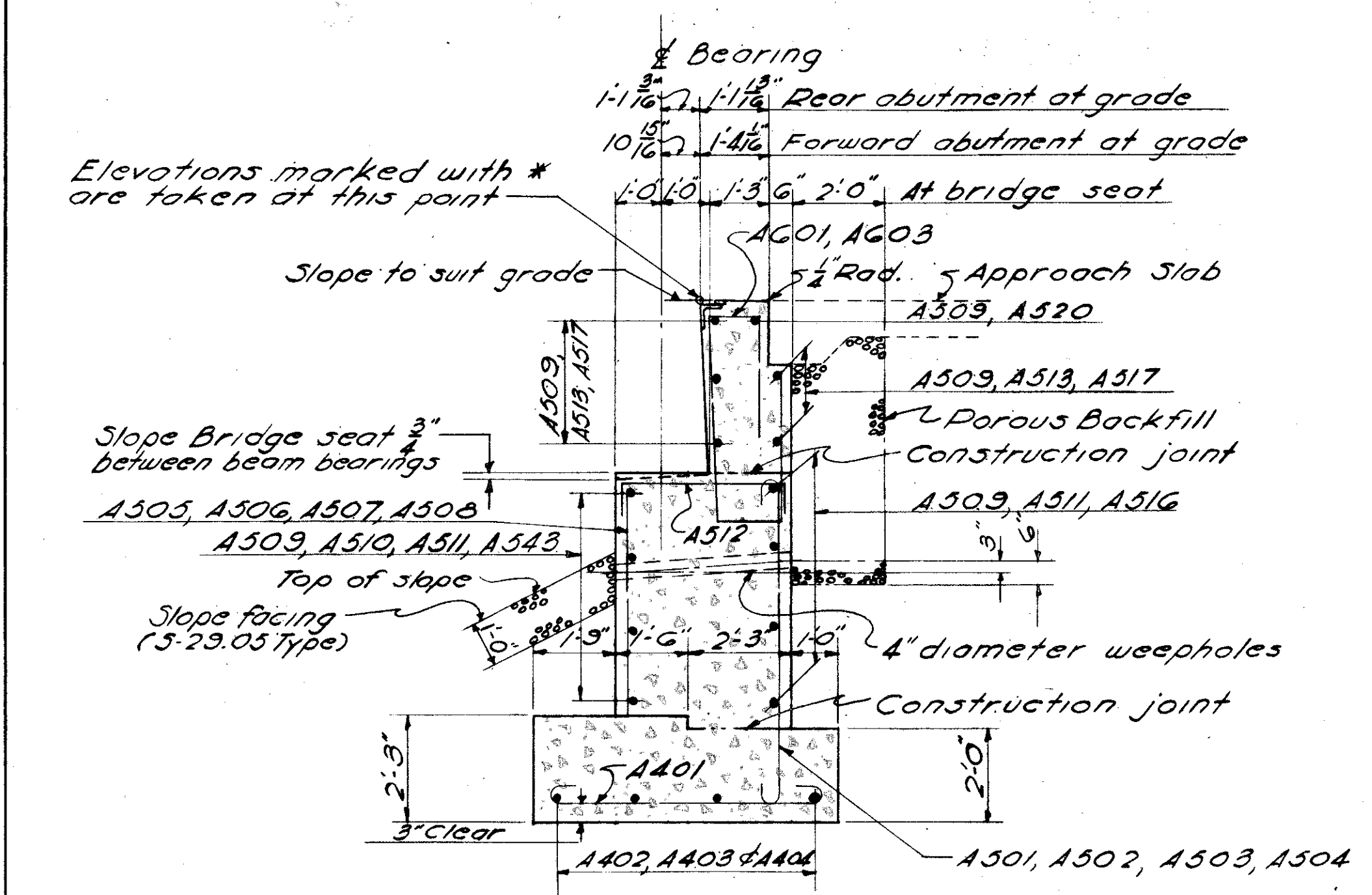
ELEVATION A-A As Shown
ELEVATION C-C As Noted



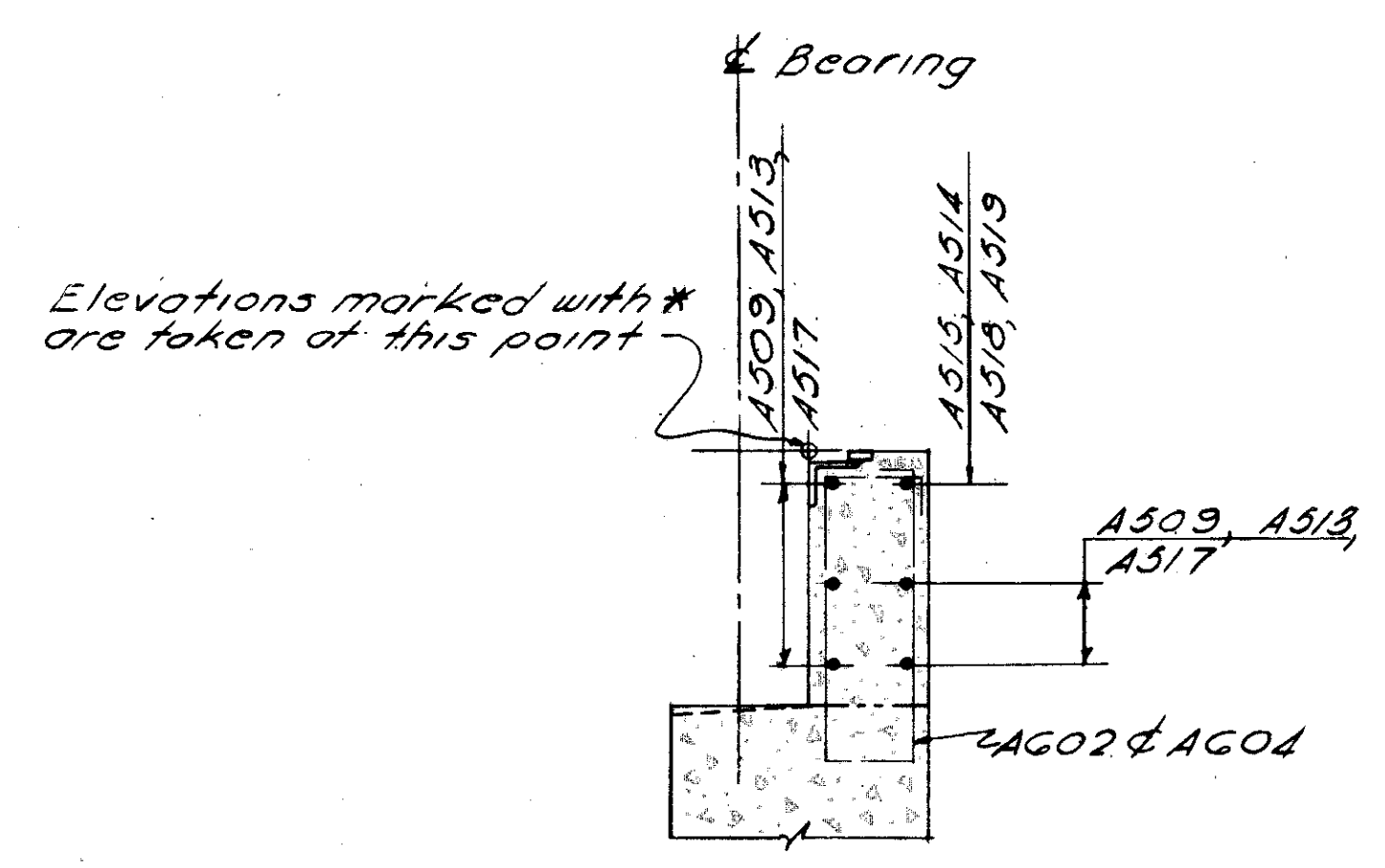
SECTION E-E



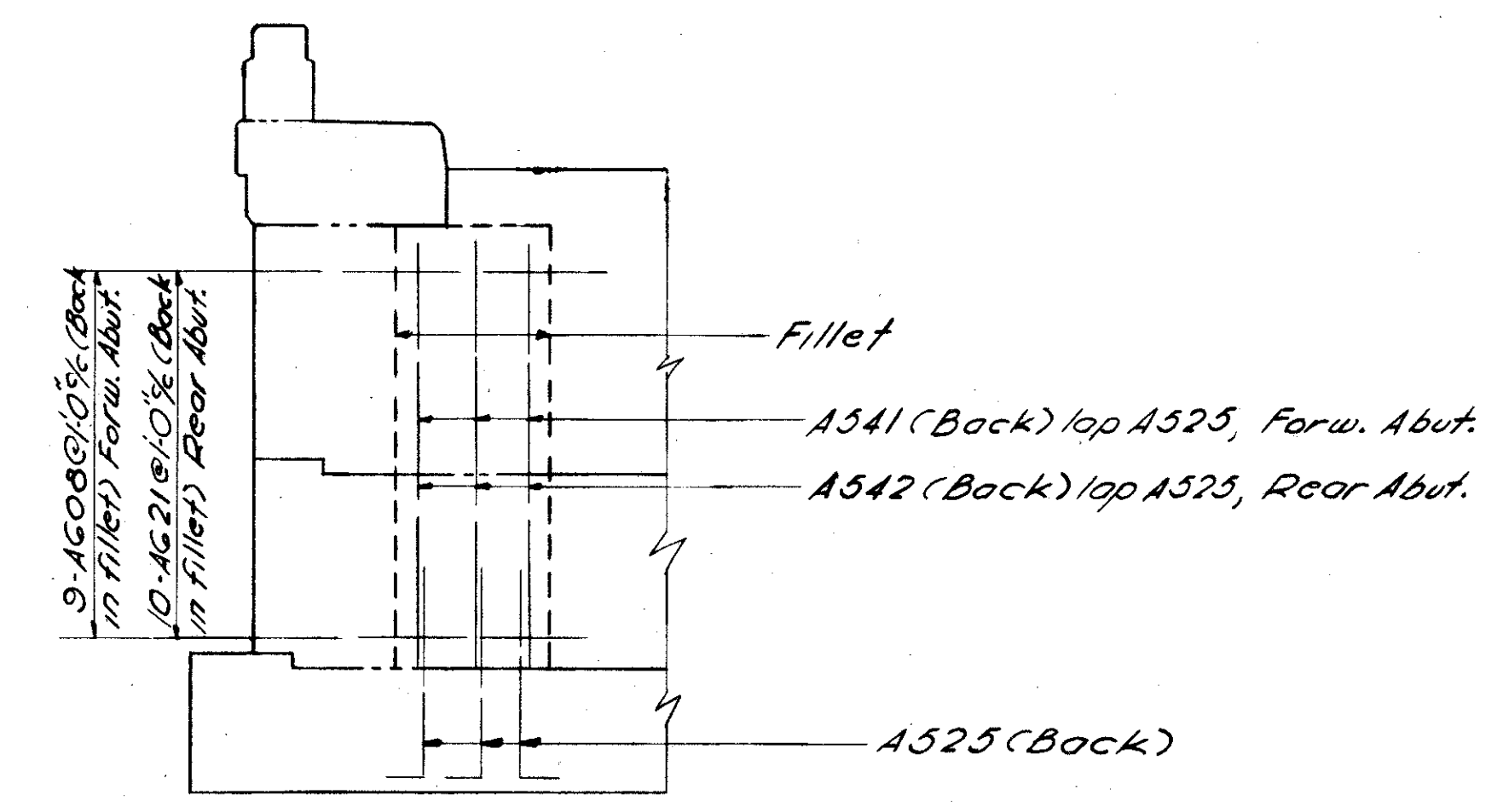
ELEVATION B-B As Shown
ELEVATION D-D As Noted



SECTION F-F



SECTION G-G



SECTION H-H

ELEVATIONS							
Abutment	A	B	C	D	E	F	G
Rear	812.00	812.28	812.35	811.11	811.53	811.48	801.42
Forward	817.19	816.75	816.69	817.80	817.32	817.36	806.59

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

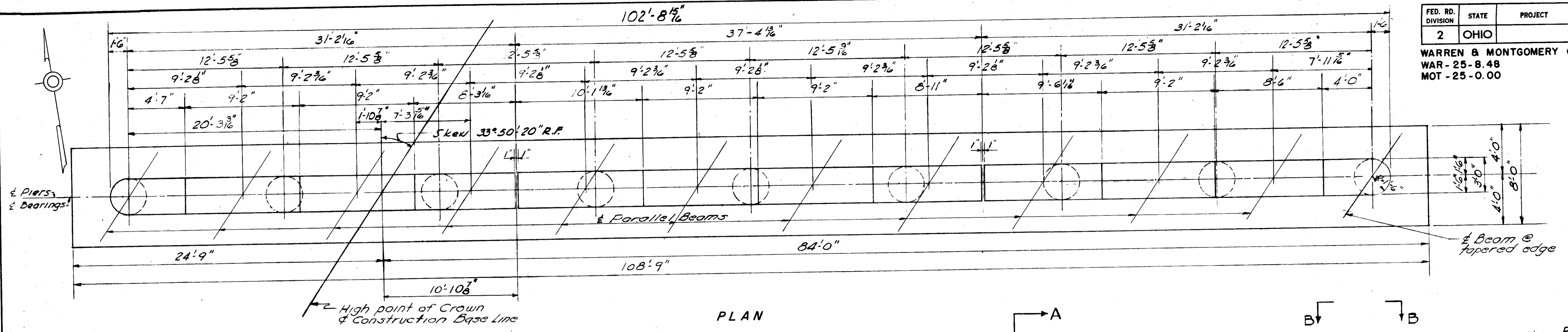
ABUTMENT DETAILS
BRIDGE NO. WAR-25-1005
EAST BRIDGE OVER SR 73.
WARREN COUNTY STA. 92 + 43.33
STA. 94 + 46.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	J.H.D.	J.H.D.	E.W.T.	J.C.L.	7-1-58	

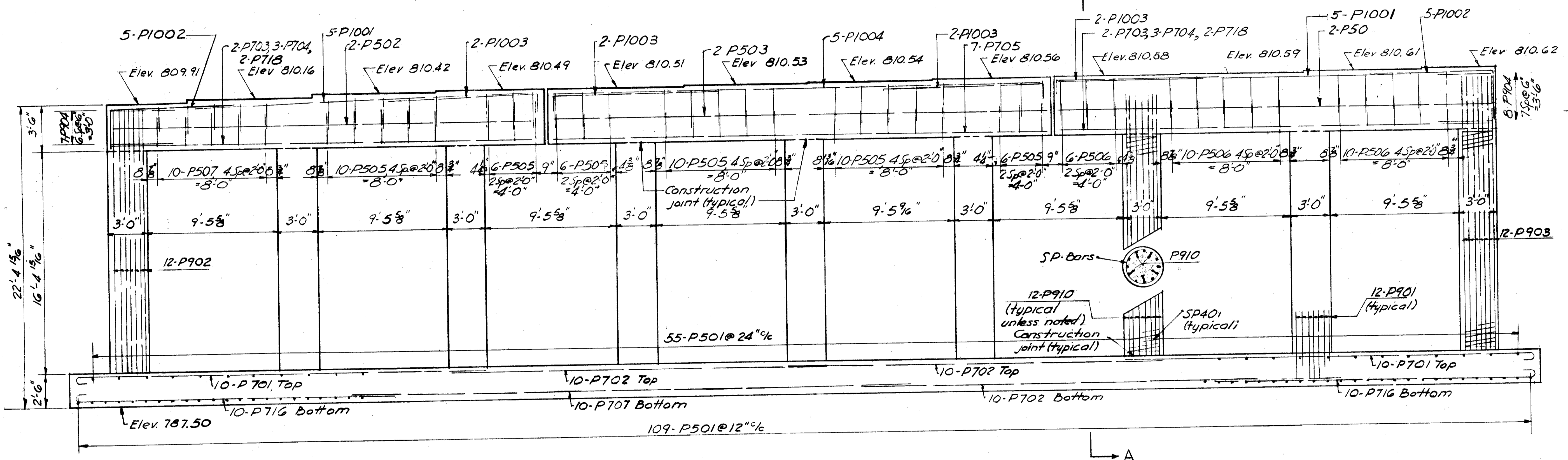
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

WARREN & MONTGOMERY COUNTIES
 WAR-25-8.48
 MOT-25-0.00

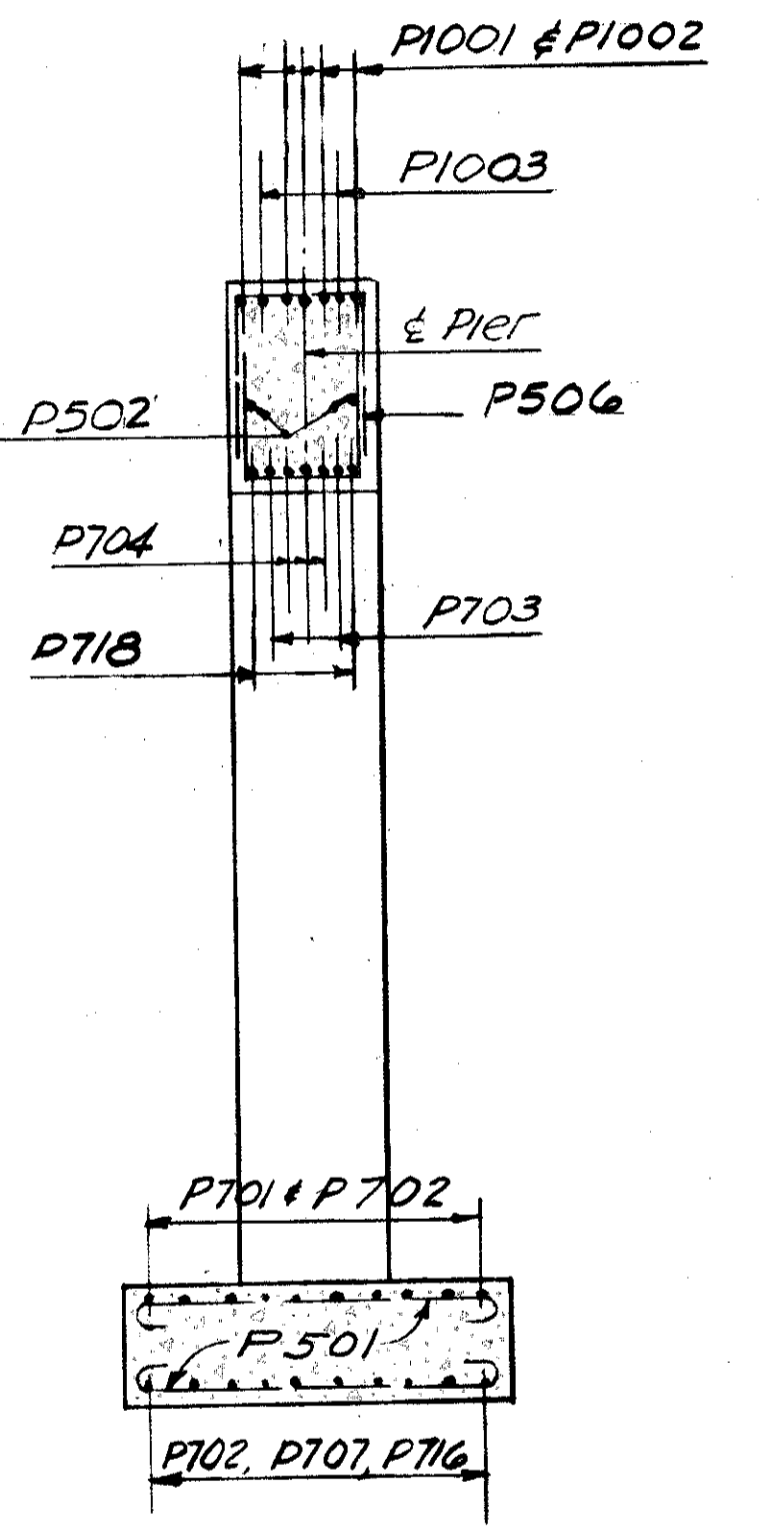
341
 377



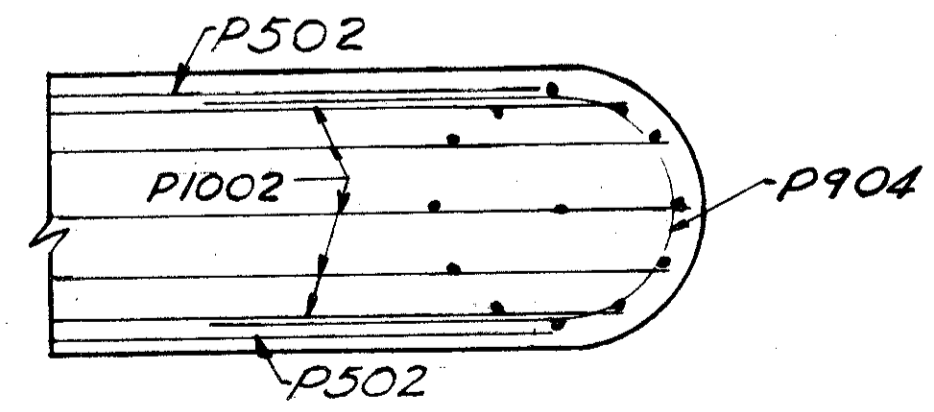
PLAN



ELEVATION



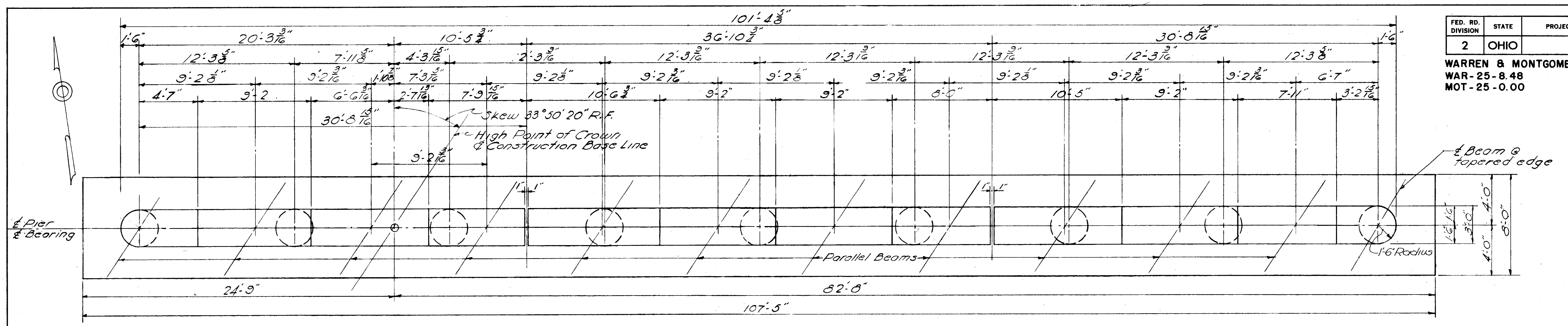
SECTION A-A



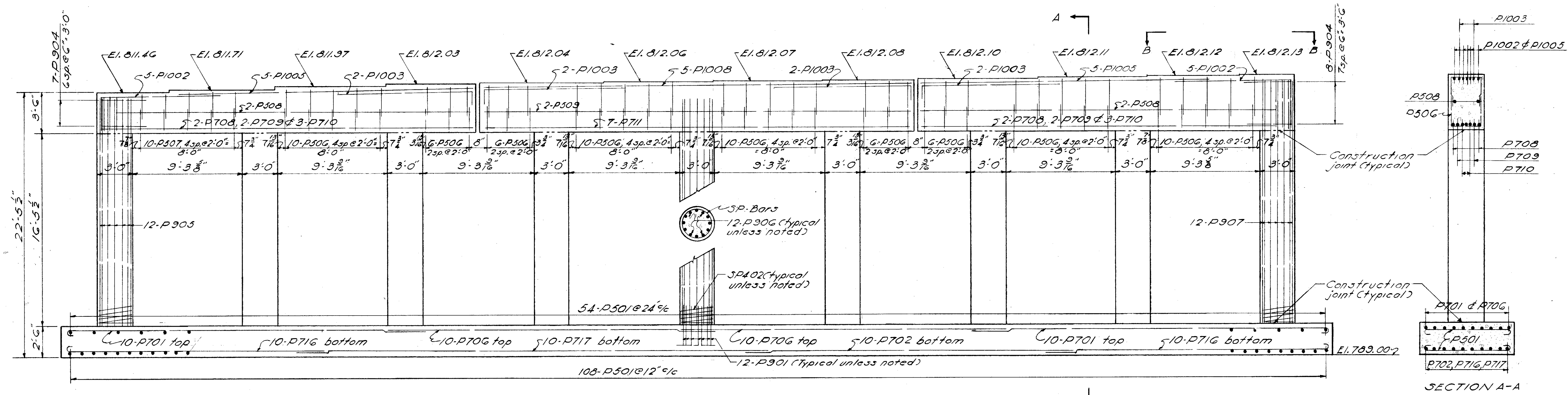
VIEW B-B

NOTE
 REINFORCING STEEL in pier caps shall be placed so that
 it will not interfere with anchor bolts.

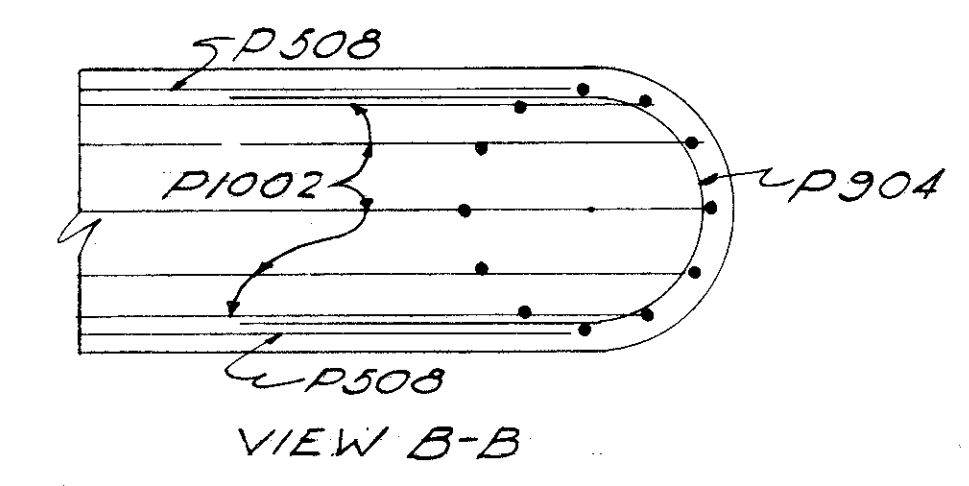
YULE, STICKLEN, JORDAN & McNEE ENGINEERS COLUMBUS OHIO					
PIER NO. 1 DETAILS					
BRIDGE NO. WAR-25-1005					
EAST BRIDGE OVER SR 73					
WARREN COUNTY				STA. 92 + 43.33	
				STA. 94 + 46.75	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
CPT	B.R.	B.R.	WJW	JCL	7-1-58



PLAN



ELEVATION



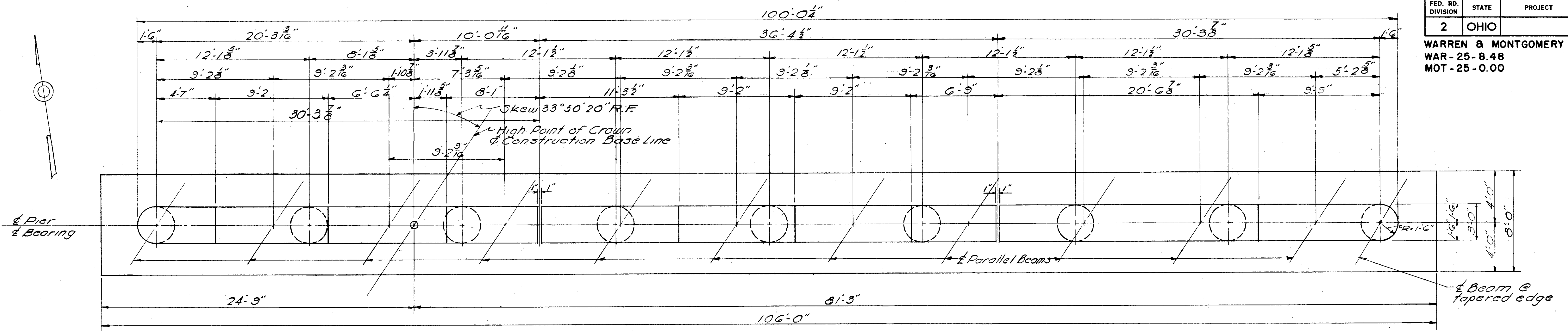
NOTE
REINFORCING STEEL in pier cap shall be placed so that it will not interfere with anchor bolts.

YULE, STICKLEN, JORDAN & McNEE ENGINEERS COLUMBUS OHIO			
PIER NO. 2 DETAILS			
BRIDGE NO. WAR-25-1005 EAST BRIDGE OVER SR 73			
		STA 92 + 43.33 STA 94 + 46.75	
WARREN COUNTY			
DESIGNED	DRAWN	CHECKED	REVIEWED
CPT	JHD	JHD	W.J.W.
		REVIEWED	DATE
		JCL	7-1-58
		REVISOR	

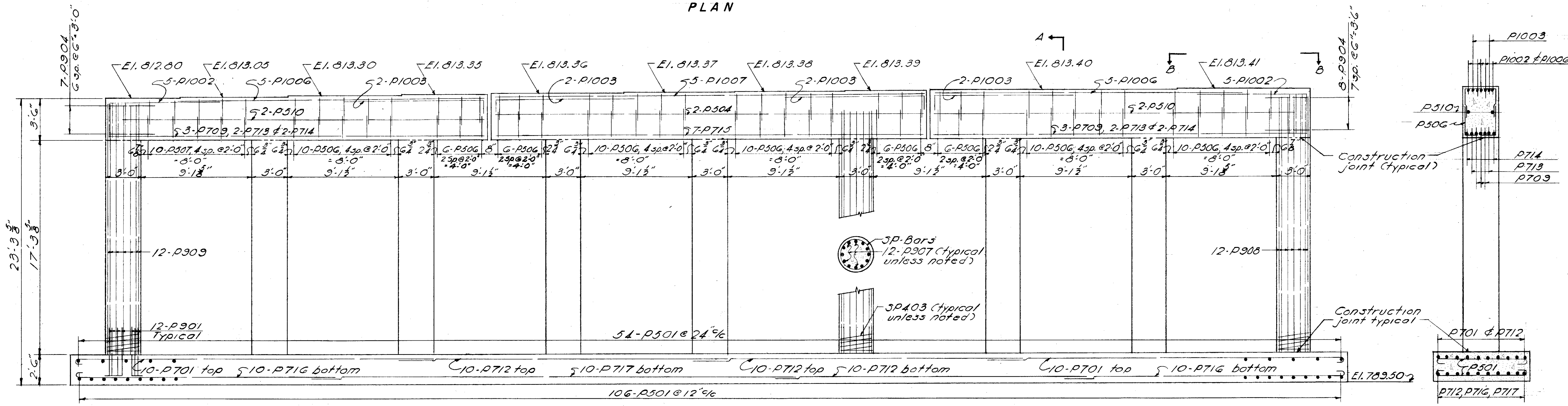
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

WARREN & MONTGOMERY COUNTIES
 WAR-25-8.48
 MOT-25-0.00

343
377



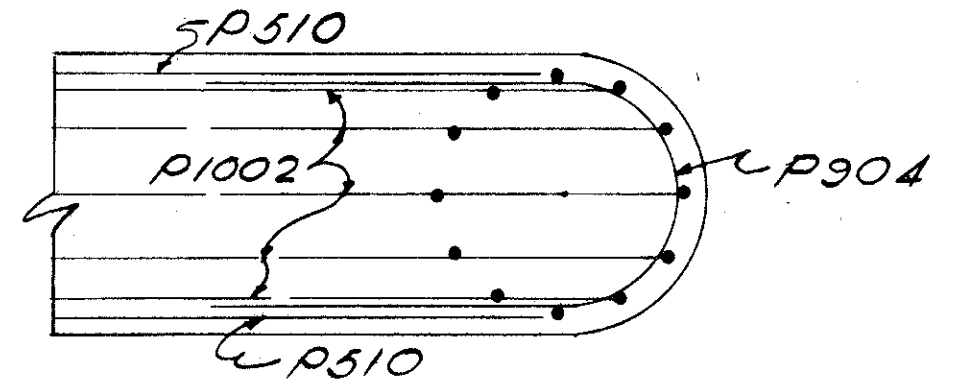
PLAN



ELEVATION

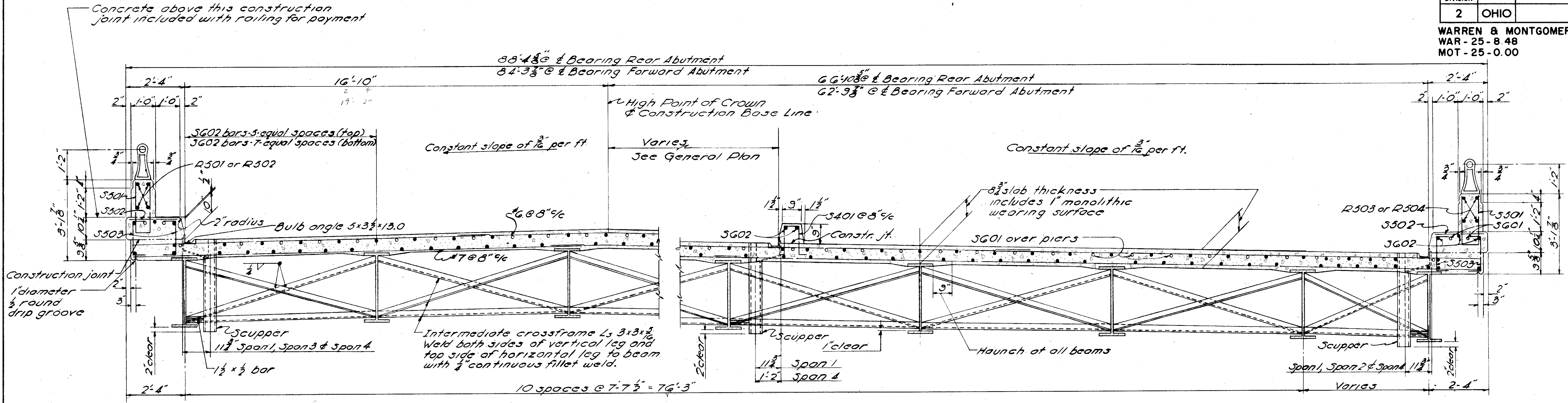
SECTION A-A

NOTES:
 REINFORCING STEEL in pier cap shall be placed so that it will not interfere with anchor bolts.



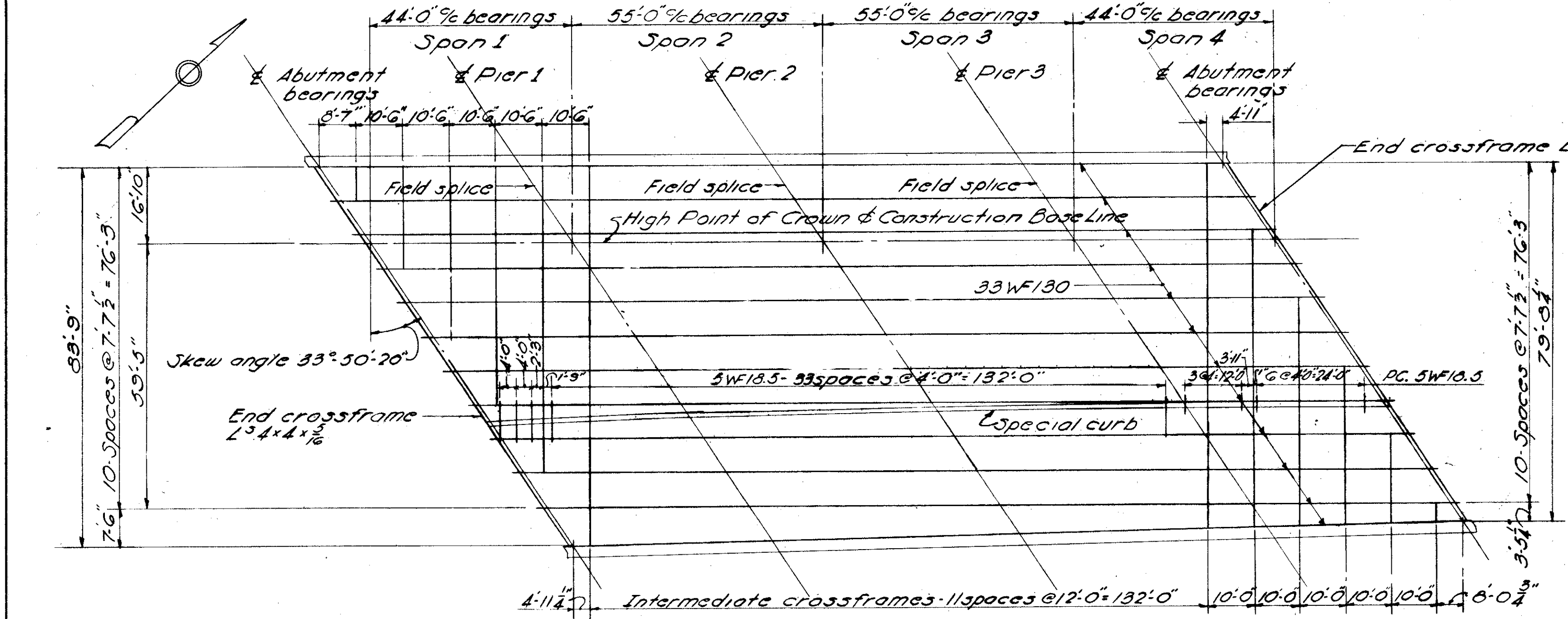
VIEW B-B

YULE, STICKLEN, JORDAN & MCNEE COLUMBUS ENGINEERS OHIO					
PIER NO. 3 DETAILS					
BRIDGE NO. WAR-25-1005					
EAST BRIDGE OVER SR 73					
WARREN COUNTY					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
CPT	JHD	C.P.	W.J.W.	JCL	7-1-58
					REVIS



NOTE: For bulb angle gutter support, scupper and curb plate details, of exterior beams see Standard Drawing C5B-2-56 Sheet 3, revised 3-1-58

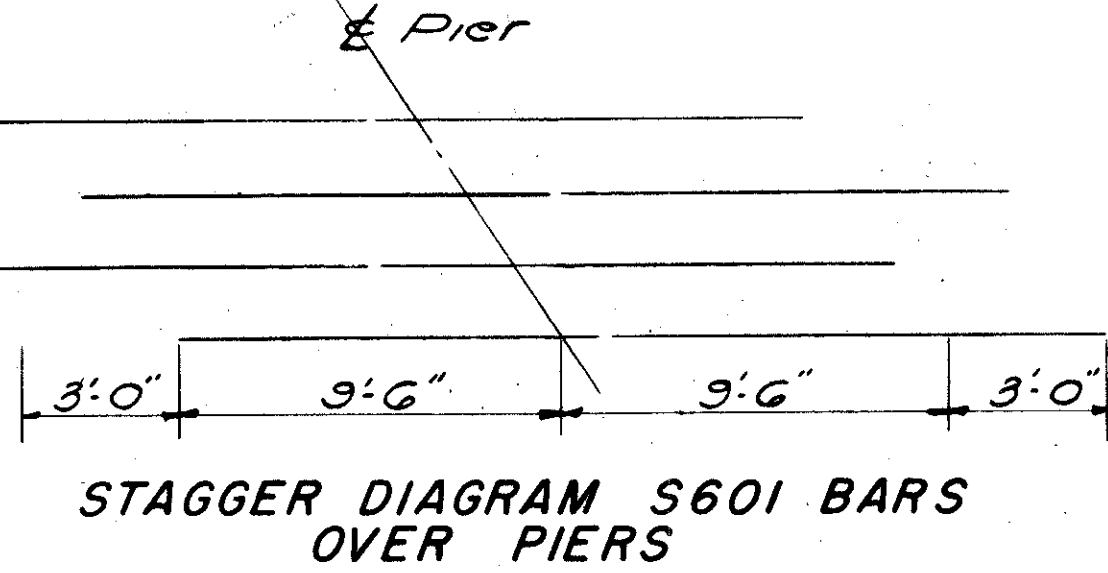
TRANSVERSE SECTION
With Monolithic Wearing Surface



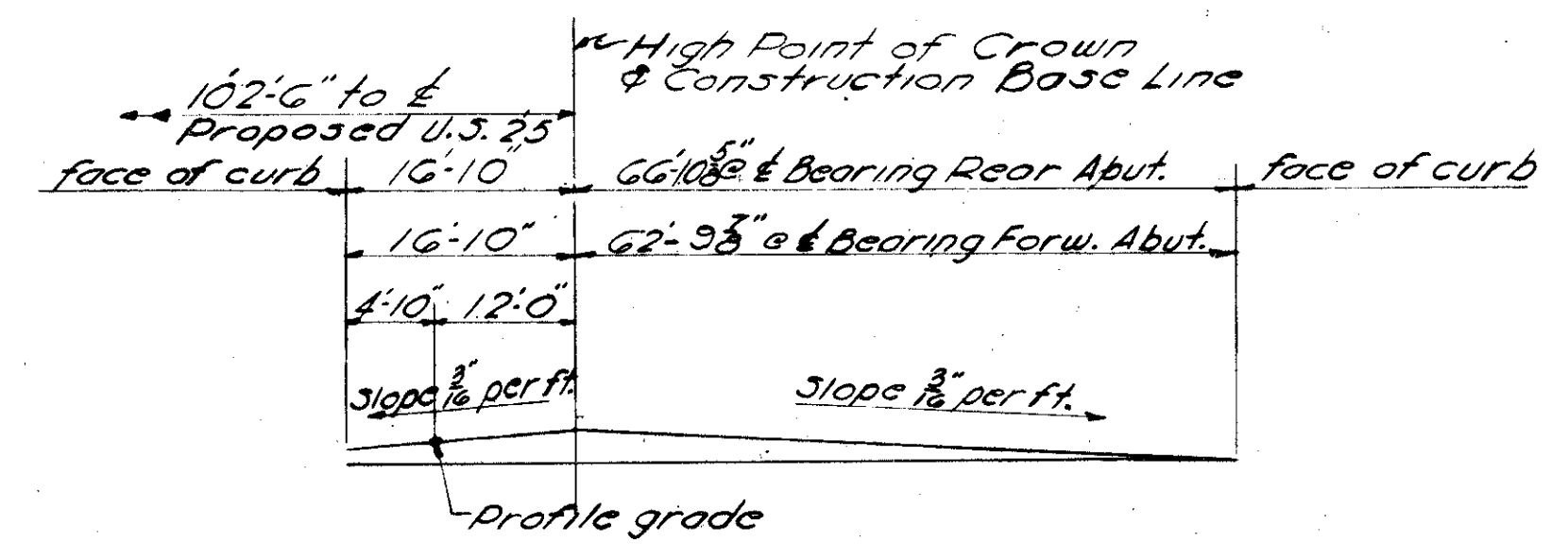
STEEL FRAMING PLAN

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 normal to the const. base line of bridge and are located near the center of any span.

For details of end crossframes, beam cut-off at backwall and welded butt-joint in superstructure end dam see Standard Drawing No. C5B-2-56 Sheet 2, revised 3-1-58. Aluminum railing post, see Standard Drawing No. AR-1-57 revised 3-1-58 Type A. For details of left and interior beam bearing plates and beam splice details, see Standard Drawing No. C5B-2-56 Sheet 3 revised 3-1-58. At all pier splices the top moment plate shall be 10' x 7/8" x 10'-9" and the bottom moment plate shall be 13' x 1/2" x 10'-9". For details of roadway end dam, see Typical Detail Sheet 313.



STAGGER DIAGRAM S601 BARS
OVER PIERS



BRIDGE ROADWAY CROWN

DEFLECTION AND CAMBER

	Outside beams	
	Span 1 & Span 4	Span 2 & Span 3
Deflection due to weight of steel	0	0
Deflection due to remaining dead load	3/16"	1/4"
Convexity due to vertical curve	1/16"	1/16"
Sum of deflection and convexity	1/4"	3/16"
Required camber	0	0
Inside beams		
Deflection due to weight of steel	0	0
Deflection due to remaining dead load	3/16"	3/16"
Convexity due to vertical curve	1/16"	1/16"
Sum of deflection and convexity	1/4"	1/4"
Required camber	0	0

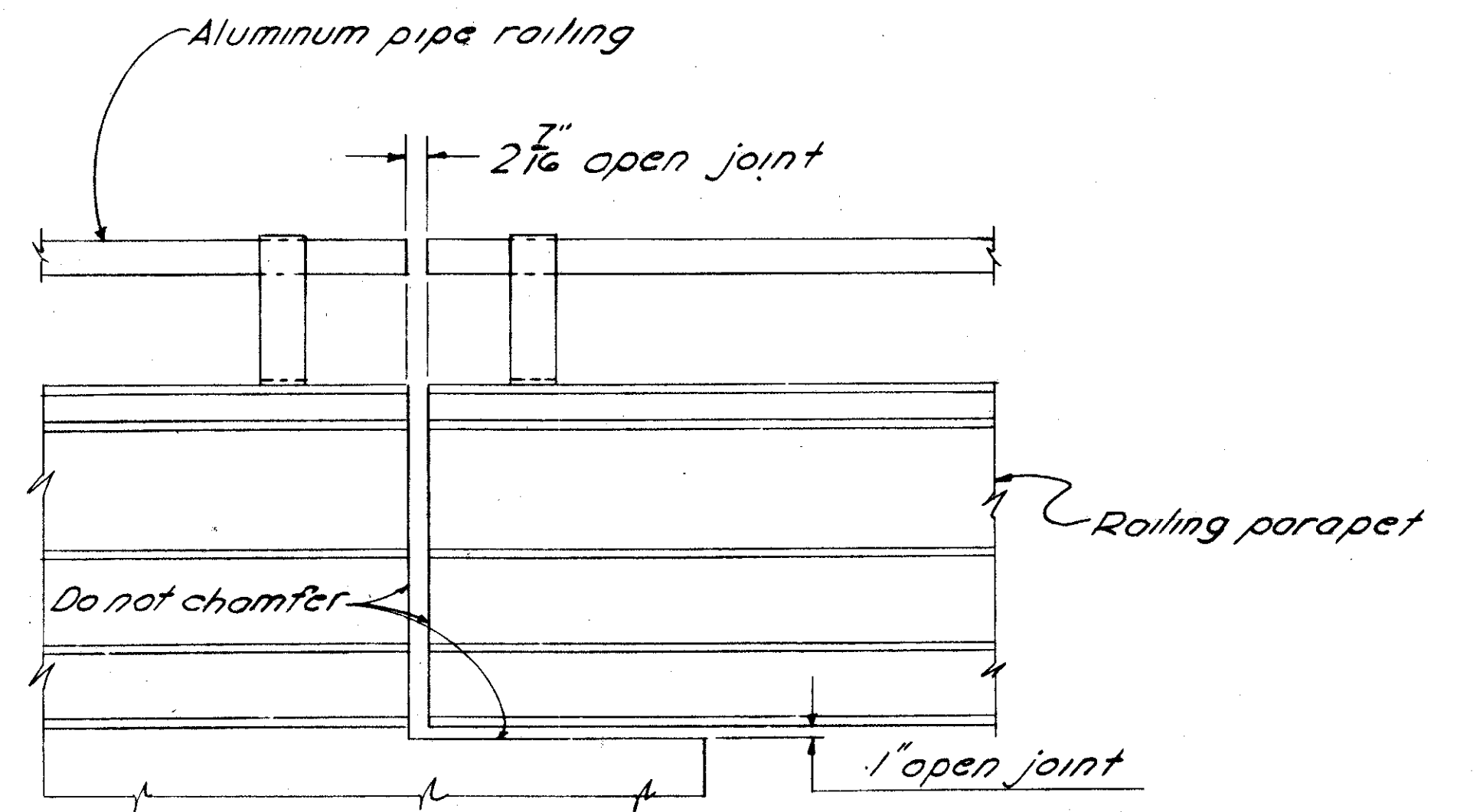
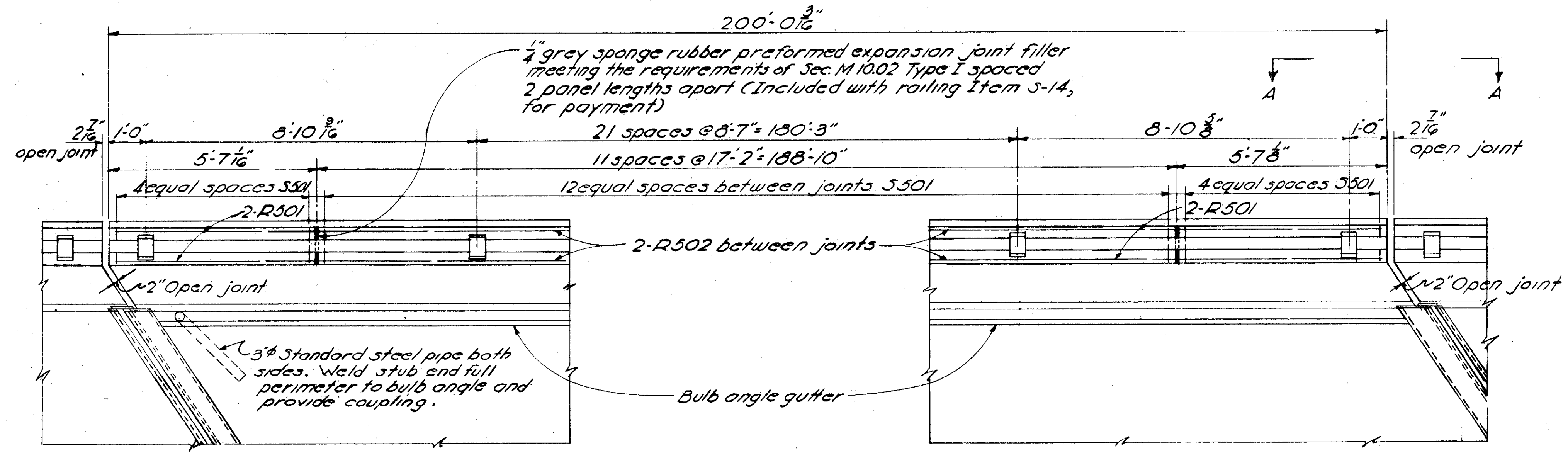
Place Mill Camber Up on all beams

YULE, STICKLEN, JORDAN & MCNEE
COLUMBUS ENGINEERS OHIO

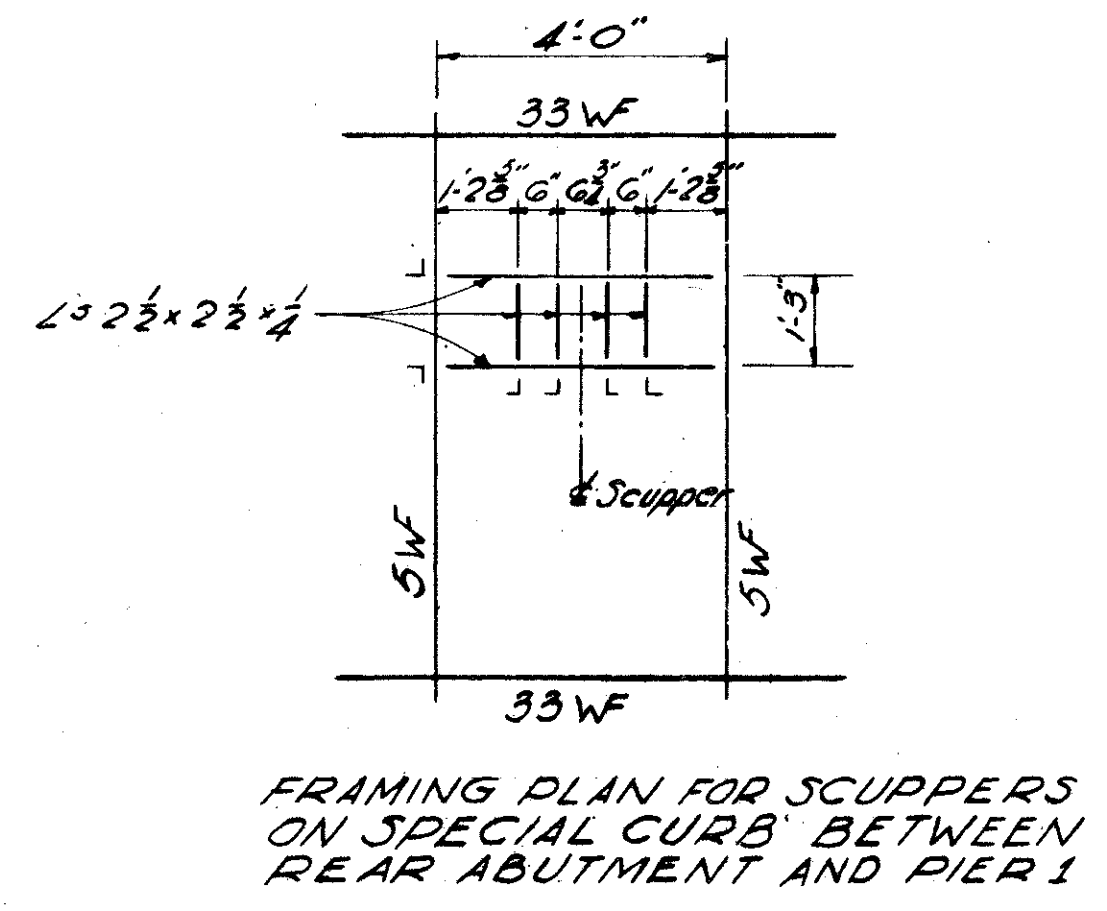
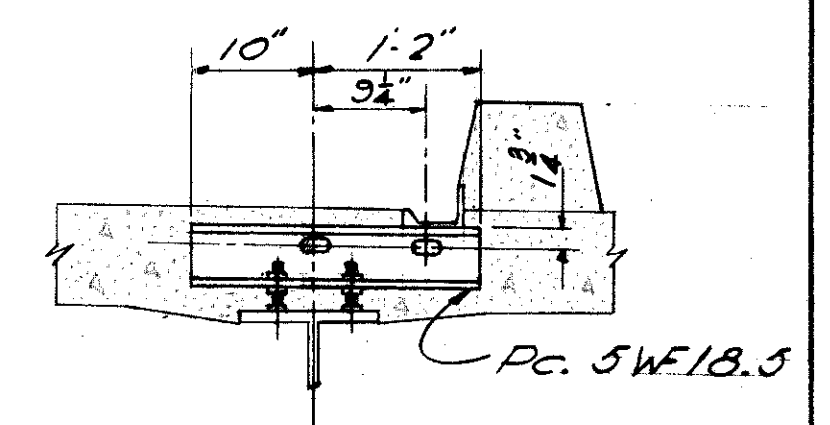
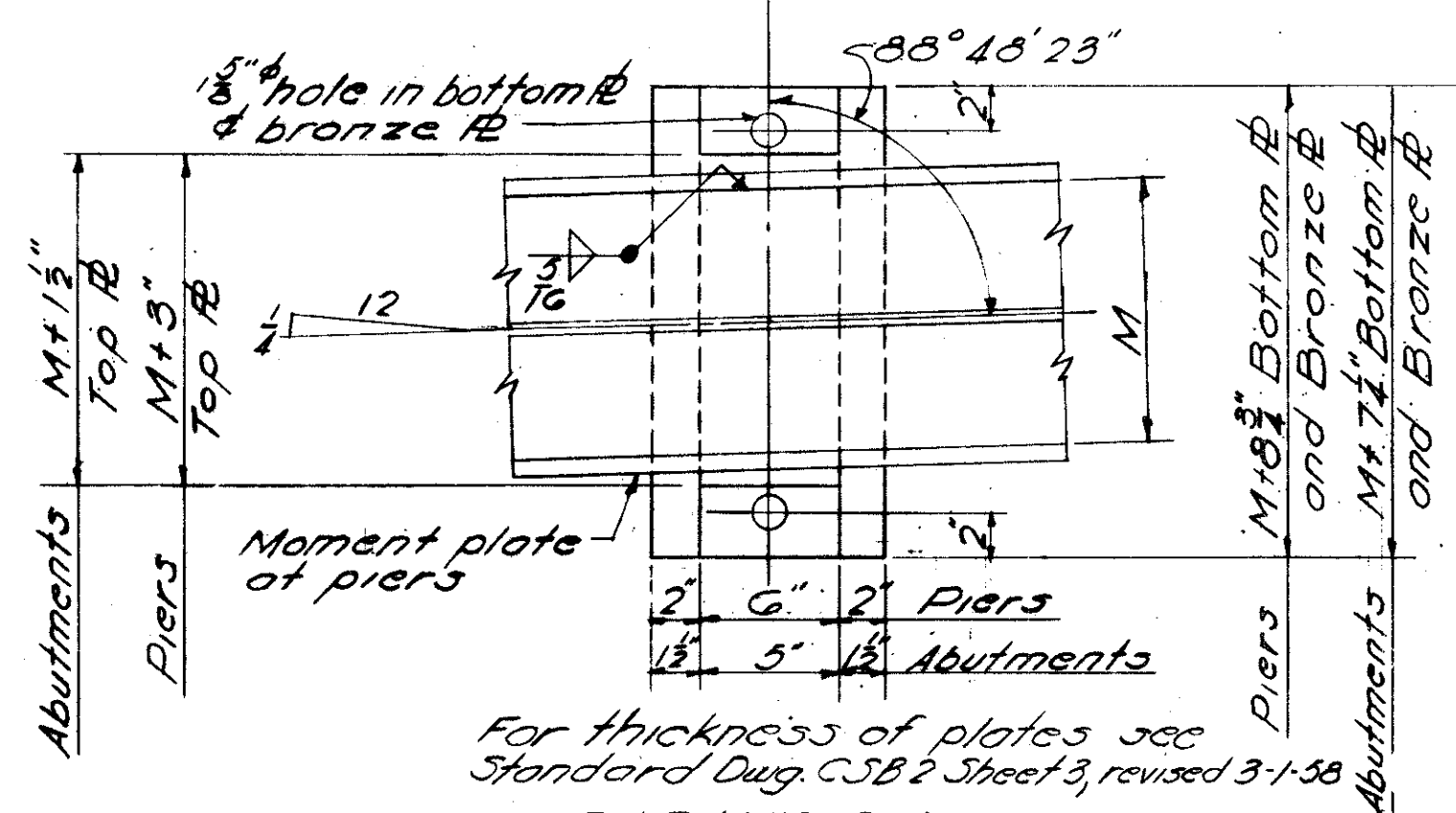
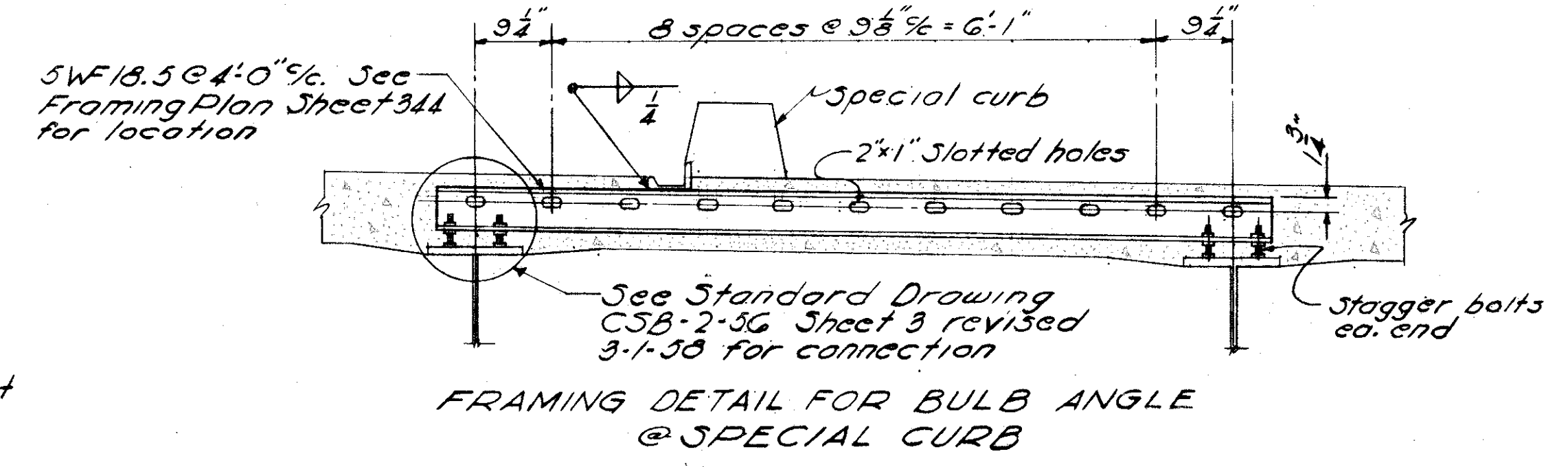
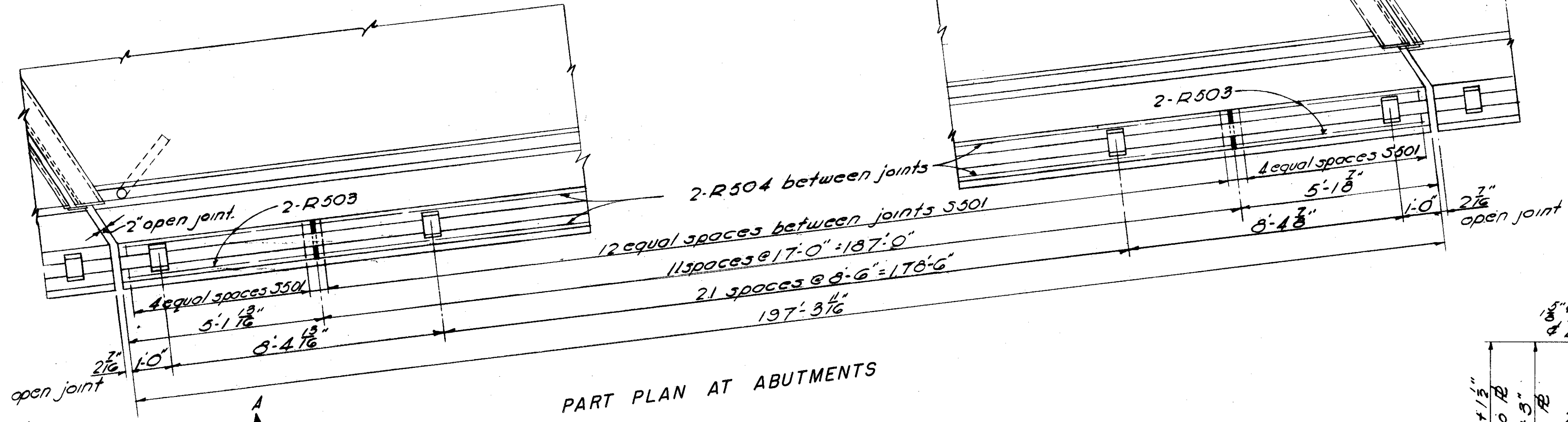
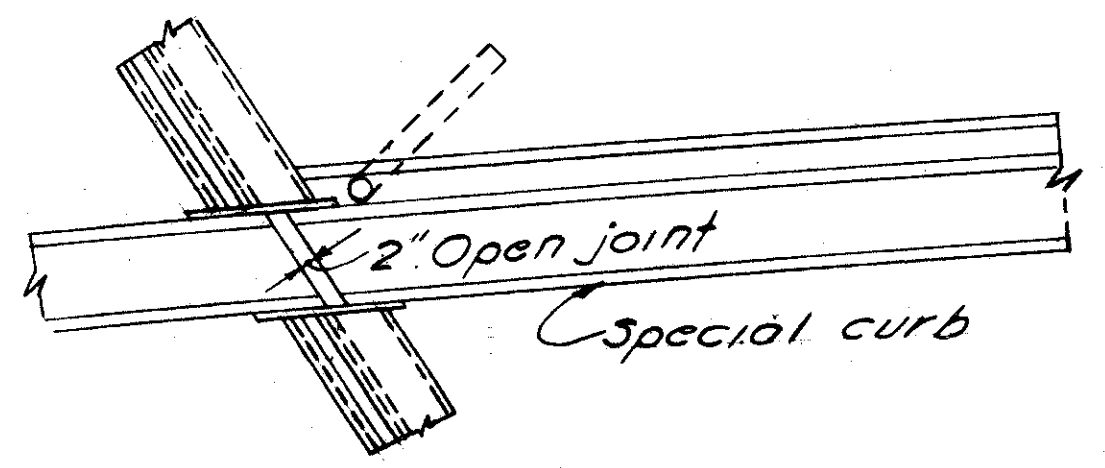
SUPERSTRUCTURE DETAILS
BRIDGE NO. WAR-25-1005
EAST BRIDGE OVER SR 73

WARREN COUNTY
STA. 92 + 43.33
STA. 94 + 46.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CPT	JHD	JHD	EWI	JCL	7-1-58	



VIEW A-A

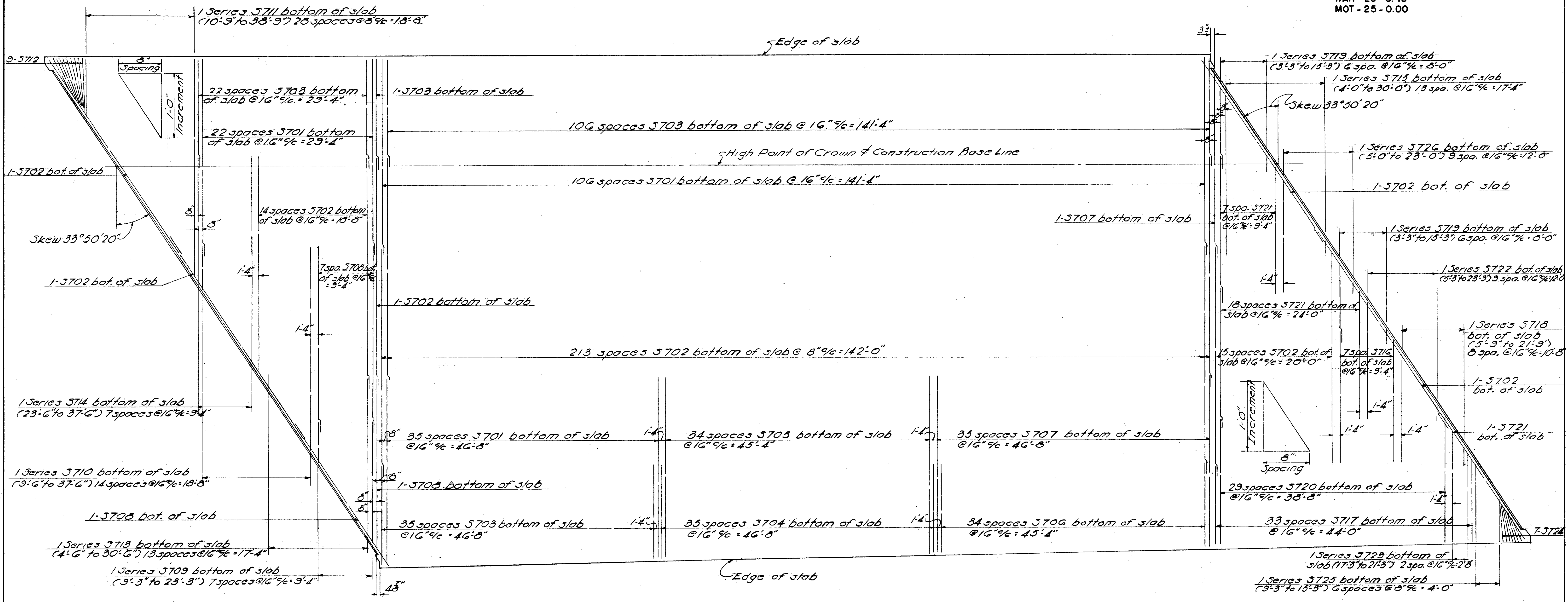


YULE, STICKLEN, JORDAN & MCNEE COLUMBUS ENGINEERS OHIO						
SUPERSTRUCTURE DETAILS						
BRIDGE NO. WAR-25-1005						
EAST BRIDGE OVER SR 73						
WARREN COUNTY					STA 92 + 43.33	DATE
					STA 94 + 46.75	REVISION
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
JHD	JHD	JHD	EWT	JCL	7-1-58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

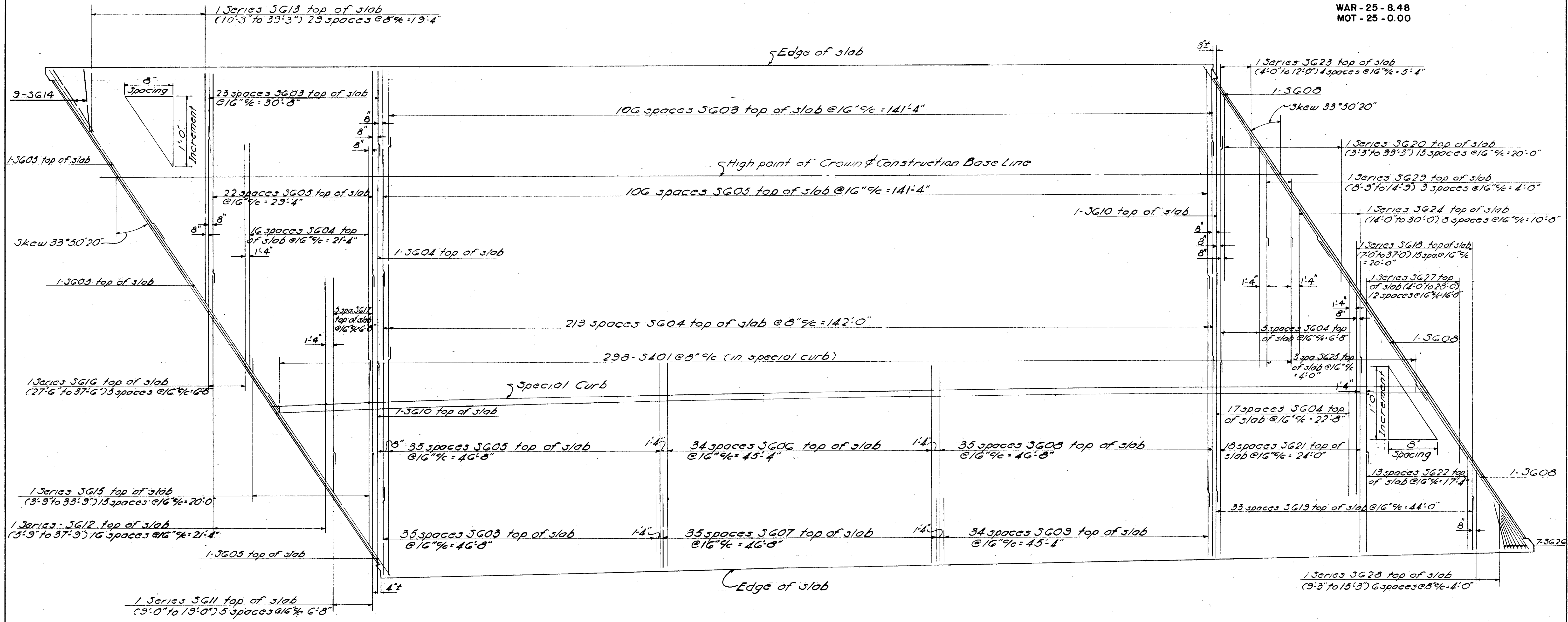
346
377

WARREN & MONTGOMERY COUNTIES
WAR - 25 - 8.48
MOT - 25 - 0.00



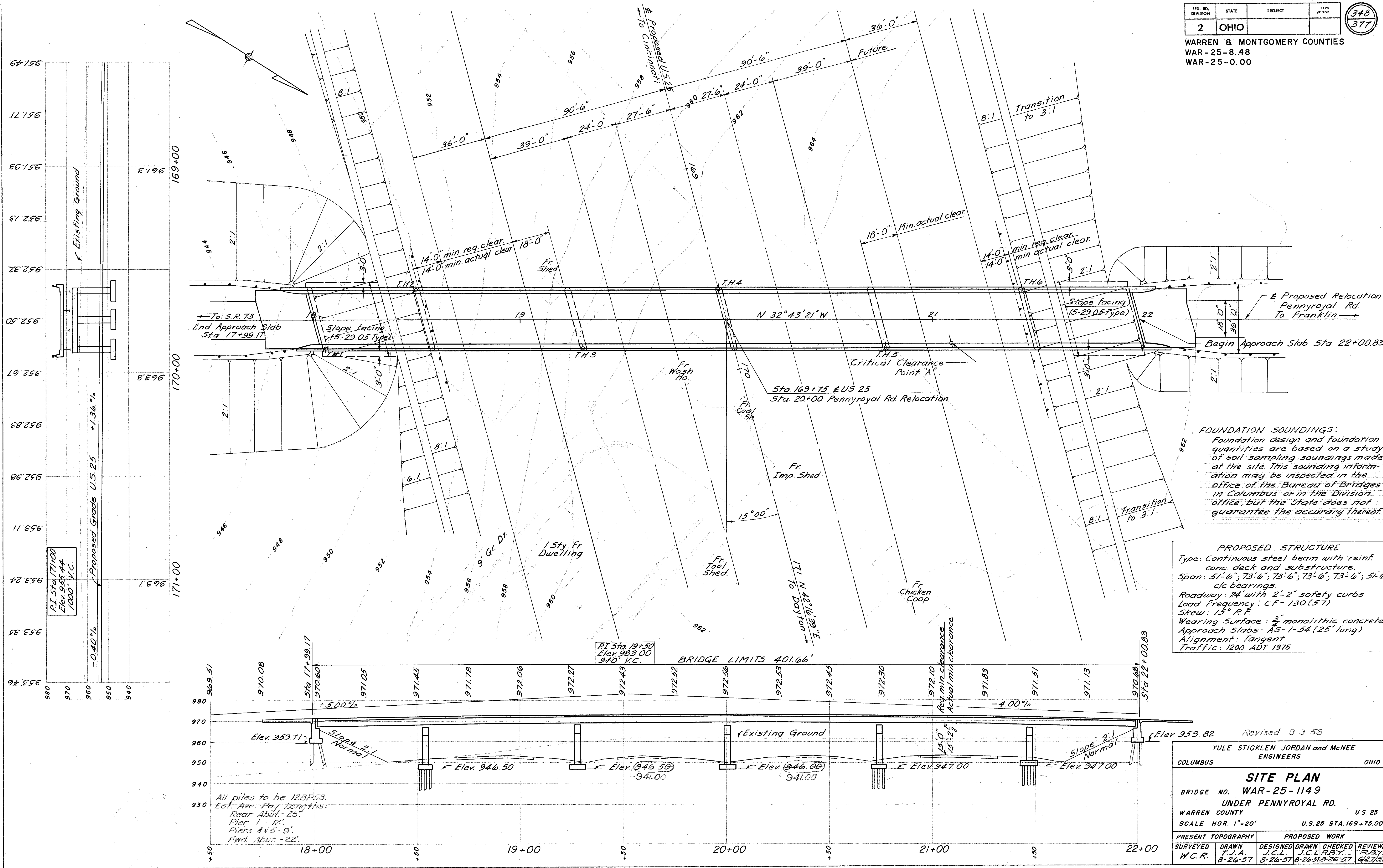
BOTTOM STEEL SLAB REINFORCING LAYOUT
For top steel see sheet 347

YULE, STICKLEN, JORDAN & MCNEE ENGINEERS COLUMBUS OHIO					
SUPERSTRUCTURE DETAILS					
BRIDGE NO. WAR-25-1005					
EAST BRIDGE OVER SR 73					
WARREN COUNTY					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
CPT	JHD	JHD	WJW	JCL	7-1-58
				STA. 92 + 43.33	
				STA. 94 + 46.75	



TOP STEEL SLAB REINFORCING LAYOUT
For bottom steel see sheet 346

YULE, STICKLEN, JORDAN & McNEE ENGINEERS OHIO					
SUPERSTRUCTURE DETAILS					
BRIDGE NO. WAR-25-1005 EAST BRIDGE OVER SR 73					
WARREN COUNTY					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
C.R.T.	J.M.D.	J.M.D.	W.J.W.	JCL	7-1-58
					REVIS



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

PROPOSED STRUCTURE
 Type: Continuous steel beam with reinf. conc. deck and substructure.
 Span: 51'-6", 73'-6", 73'-6", 73'-6", 51'-6" c/c bearings.
 Roadway: 24' with 2'-2" safety curbs
 Load Frequency: CF=130 (57)
 Skew: 15° R.F.
 Wearing Surface: 3" monolithic concrete
 Approach slabs: AS-1-54 (25' long)
 Alignment: Tangent
 Traffic: 1200 ADT 1975

Station	Elevation	Notes
17+00	963.8	Vertical Curve
17+50	963.1	Vertical Curve
18+00	969.51	Station
18+50	970.08	Station
19+00	971.05	Station
19+50	971.45	Station
20+00	971.78	Station
20+50	972.06	Station
21+00	972.27	Station
21+50	972.43	Station
22+00	972.52	Station
22+50	972.56	Station
23+00	972.53	Station
23+50	972.45	Station
24+00	972.90	Station
24+50	972.10	Station
25+00	971.83	Station
25+50	971.51	Station
26+00	971.13	Station
26+50	970.68	Station

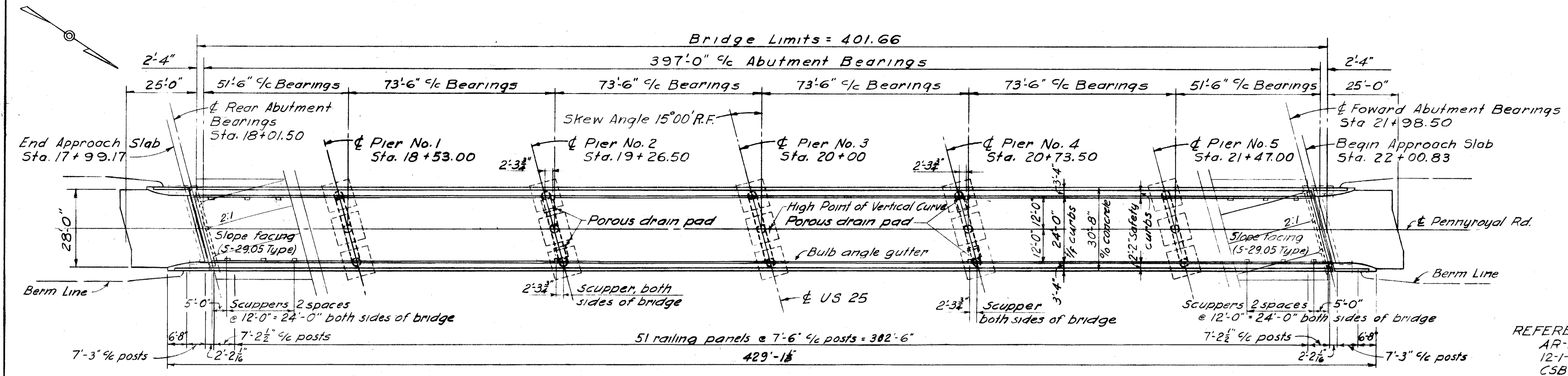
All piles to be 12B P53.
 Est. Ave. Pile Lengths:
 Rear Abut. - 25'.
 Pier 1 - 12'.
 Piers 4 & 5 - 9'.
 Fwd. Abut. - 22'.

Revised 9-3-58

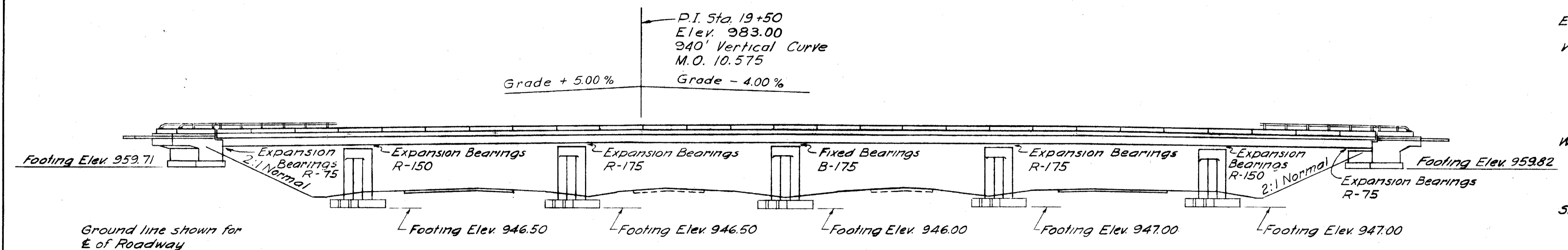
YULE STICKLEN JORDAN and McNEE
 ENGINEERS
 COLUMBUS OHIO

SITE PLAN
 BRIDGE NO. WAR-25-1149
 UNDER PENNYROYAL RD.
 WARREN COUNTY U.S. 25
 SCALE HOR. 1"=20' U.S. 25 STA. 169+75.00

PRESENT TOPOGRAPHY	PROPOSED WORK		
SURVEYED W.C.R.	DRAWN T.J.A. 8-26-57	DESIGNED J.C.L. 8-26-57	CHECKED R.B.T. 8-26-57
			REVIEWED F.B.B. 6/27/58



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super-struct.	Rear Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Forward Abut.	General
E-2	550	Cu. Yds.	Unclassified excavation		90	85	70	65	70	80	90	
S-1	381	Cu. Yds.	Class "C" Concrete - Superstructure	381								
S-1	110	Cu. Yds.	Class "C" Concrete - Piers above footings			22	22	23	22	21		
S-1	114	Cu. Yds.	Class "E" Concrete - Abutments		57						57	
S-1	165	Cu. Yds.	Class "E" Concrete - Pier footings			33	33	33	33	33		
S-4	137 616	Lbs.	Reinforcing steel	101 253	3181	5 917	6 048	6 180	5 988	58 68	3181	
S-7	315 860	Lbs.	Structural steel	315 860								
S-8	315 860	Lbs.	Field painting of structural steel									
S-14	852	Lin. Ft.	Railing (aluminum rail, supports & concrete parapet)	798							27	
S-29	94	Cu. Yds.	Slope facing (S-29.05 Type)		47						47	
S-29	34	Cu. Yds.	Porous backfill		16		1		1		16	
S-29	79	Lin. Ft.	Downspouts (6" wrought iron or hot-dipped galvanized steel)				40		39			

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AR-1-57, revised 3-1-58 (Type A), AS-1-54, revised 12-1-54, CSB-2-56 Sheet No. 2, revised 3-1-58, CSB-2-56 Sheet No. 3, revised 3-1-58, RB-1-55 dated 3-1-55 and supplemental specifications S-114 (aluminum for bridge railing, revised 8-1-57).

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 the revisions thereof, dated 2-21-58.

EXCAVATION QUANTITY includes the removal of fill material for construction of the abutments.

WELDED STEEL: The steel for the 36 WF160 beams shall conform to ASTM Designation A-373. All other structural steel shall conform to either ASTM A-7 (as per Sec. M-7.4 (a) of the Construction and Material Specifications) or to A-373.

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

SLOPE FACING (S-29.05 TYPE) shall be provided under the structure at both abutments. The slope facing shall be 12" thick and shall extend from the face of the abutment to the flow line of the ditch and transversely to 3 feet outside of the edge of the superstructure.

PROCEDURE: The embankments for the abutments 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. Excavation for abutments shall not begin before 90 days after placing the embankments. The 90-day waiting period may be shortened, if observations indicate settlement has ceased, and approval of the Director is obtained. The 90-day limitation shall not apply for the north abutment.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2.0 tons per sq. ft. and pier footings are designed for a maximum bearing pressure of 3.0 tons per sq. ft.

This sheet SUPERSEDED by sheet 349A, 9-3-58

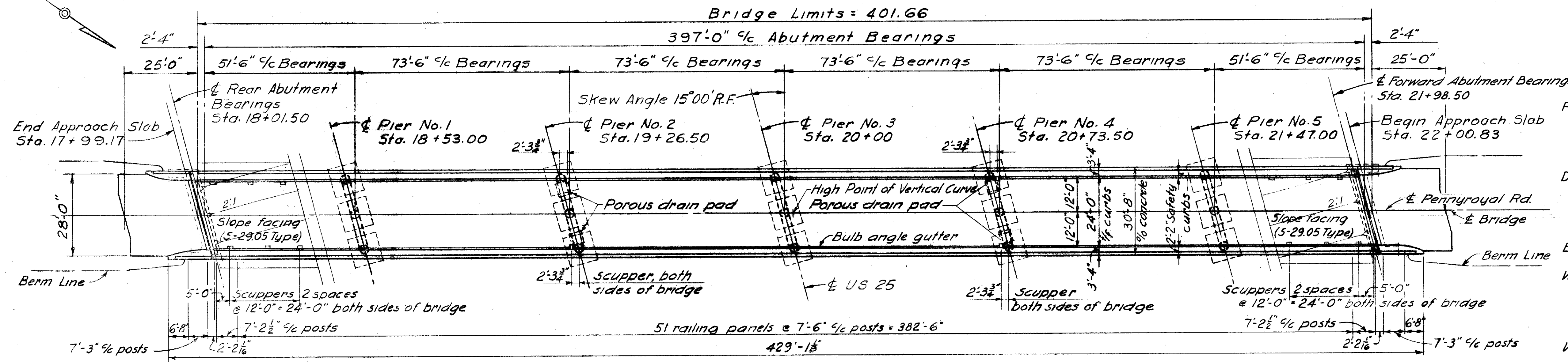
YULE, STICKLEN, JORDAN & McNEE
 COLUMBUS ENGINEERS OHIO

**GENERAL PLAN & ELEVATION
 ESTIMATED QUANTITIES**

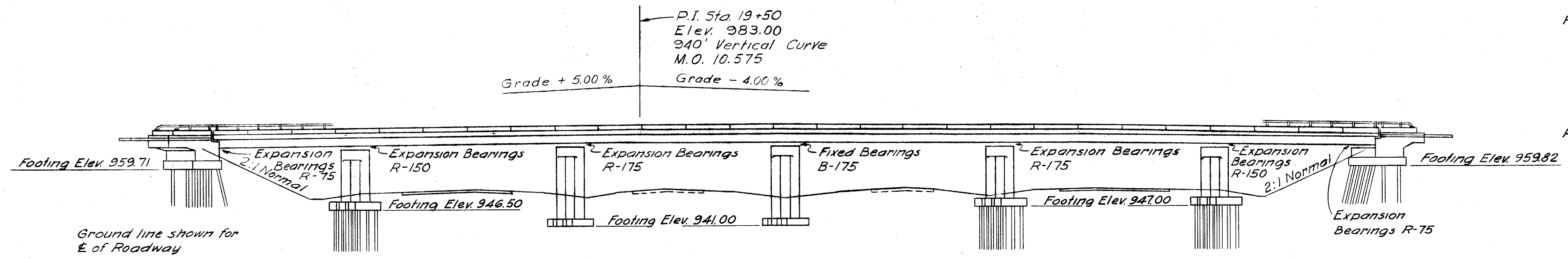
BRIDGE NO. WAR-25-1149
 UNDER PENNYROYAL RD.
 WARREN COUNTY STA. 169 + 75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.P.K.	J.M.M.	J.M.M.	E.W.T.	R.B.Y.	6/27/58	

WARREN & MONTGOMERY COUNTIES
 WAR-25-8.48
 MOT-25-0.00



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super-struct.	Rear Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Forward Abut.	General
E-2	Lump	Sum	Cofferdams, cribs and sheeting									Lump
E-2	560	Cu. Yds.	Unclassified excavation		90	70	100	90	55	65	90	
S-1	381	Cu. Yds.	Class "C" Concrete - Superstructure	381								
S-1	119	Cu. Yds.	Class "C" Concrete - Piers above footings			22	27	27	22	21		
S-1	122	Cu. Yds.	Class "E" Concrete - Abutments		61						61	
S-1	113	Cu. Yds.	Class "E" Concrete - Pier footings			27	16	16	27	27		
S-4	146,274	Lbs.	Reinforcing steel	101,253	3661	6169	9544	9629	6238	6119	3661	
S-7	315,860	Lbs.	Structural steel	315,860								
S-8	315,860	Lbs.	Field painting of structural steel									
S-14	852	Lin. Ft.	Railing (aluminum rail, supports & concrete parapet)	798	27						27	
S-16	Lump	Sum	First Test Pile									Lump
S-18	1311	Lin. Ft.	Steel piles 12 BP53		300	288			243	216	264	
S-29	94	Cu. Yds.	Slope facing (5-29.05 Type)		47						47	
S-29	34	Cu. Yds.	Porous backfill		16				1		16	
S-29	79	Lin. Ft.	Downspouts (6" wrought iron or hot-dipped galvanized steel)				40		39			

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AR-1-57, revised 3-1-58 (Type A), AS-1-54 revised 12-1-54, CSB-2-56 Sheet No. 2, revised 3-1-58, CSB-2-56 Sheet No. 3, revised 3-1-58, RB-1-55 dated 3-1-55 and supplemental specifications 5-114 (aluminum for bridge railing), revised 8-1-51.

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 the revisions thereof, dated 2-21-58.

EXCAVATION QUANTITY includes the removal of fill material for construction of the abutments.

WELDED STEEL: The steel for the 36 WF 160 beams shall conform to ASTM Designation A-373. All other structural steel shall conform to either ASTM A-7 (as per Sec. M-7.4 (a) of the Construction and Material Specifications) or to A-373.

WELDING of structural steel shall be class "A" except as otherwise shown. Class "B" welds shown thus $\overline{\text{---}}$. Any welds shown as field welds may, at the option of the Contractor be made in the shop.

SLOPE FACING (5-29.05 TYPE) shall be provided under the structure at both abutments. The slope facing shall be 12" thick and shall extend from the face of the abutment to the flow line of the ditch and transversely to 3 feet outside of the edge of the superstructure.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing load of 35 tons per pile. Piers 1, 4 and 5 are designed for a maximum pile load of 25 tons. Piers 2 and 3 are designed for a maximum bearing pressure of 5.5 tons per sq. ft.

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 to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating.

For the abutment piles
 50 tons per pile using an 11,000 ft. lb. hammer
 40 " " " a 15,000 ft. lb. hammer

For piers 1, 4 and 5
 40 tons per pile using an 11,000 ft. lb. hammer
 35 " " " a 15,000 ft. lb. hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation.

This sheet SUPERSEDES sheet 349, 9-3-58.

YULE, STICKLEN, JORDAN & McNEE
 COLUMBUS ENGINEERS OHIO

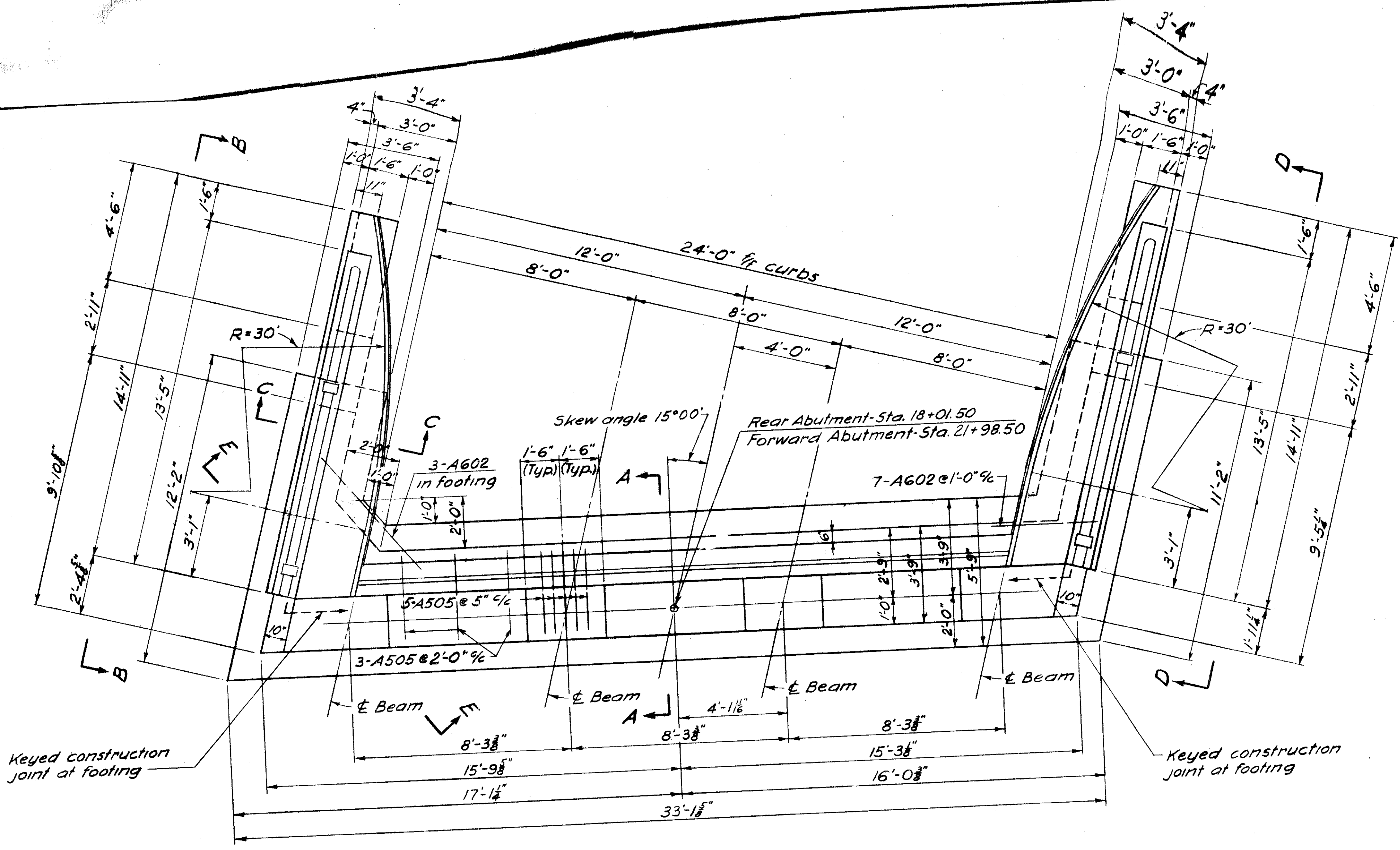
**GENERAL PLAN & ELEVATION
 ESTIMATED QUANTITIES**

BRIDGE NO. WAR-25-1149
 UNDER PENNYROYAL RD.
 WARREN COUNTY STA. 169 + 75.00

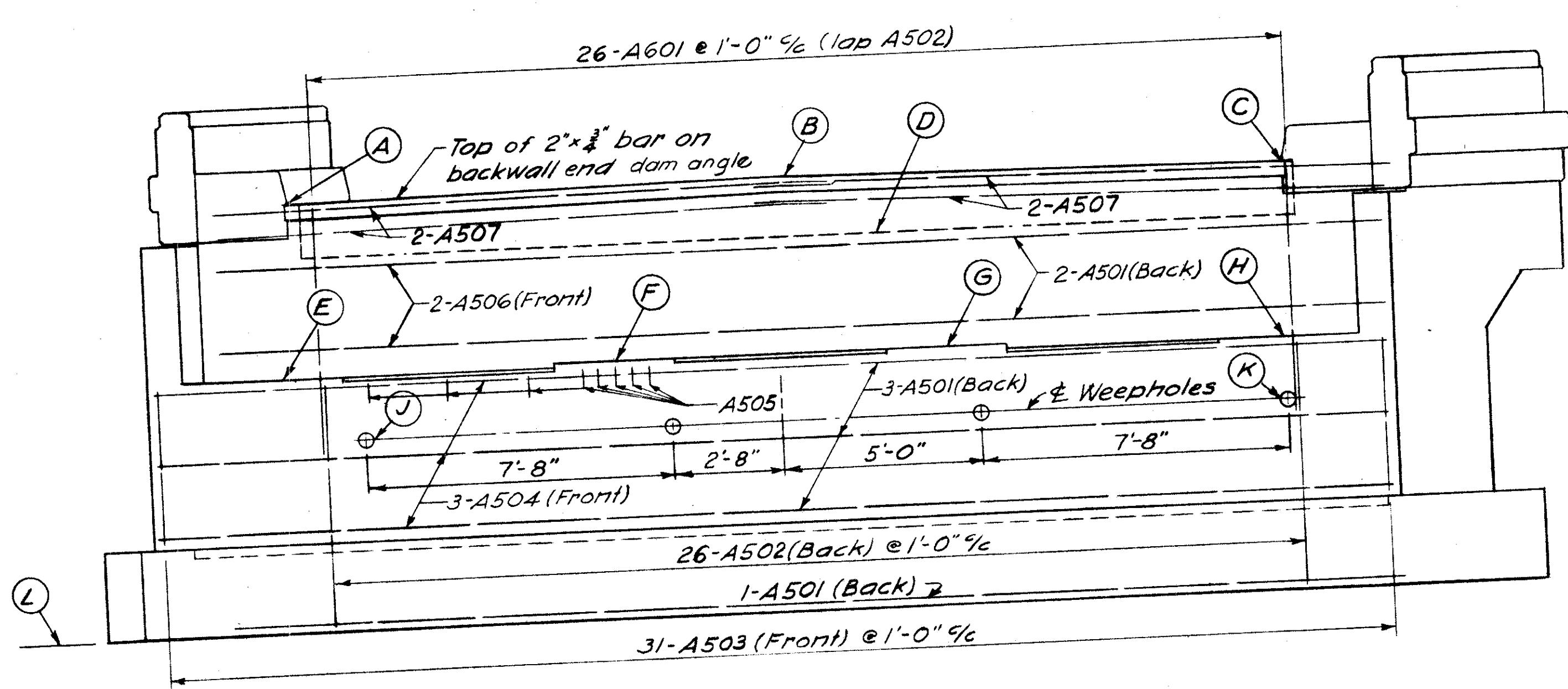
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	A.M.	A.M.	E.W.T.	R.B.Y.	8-14-58	

For Sections B-B, C-C, D-D, & E-E see sheet 351
 For locations of points M, N, P, Q, R and S see sheet 351

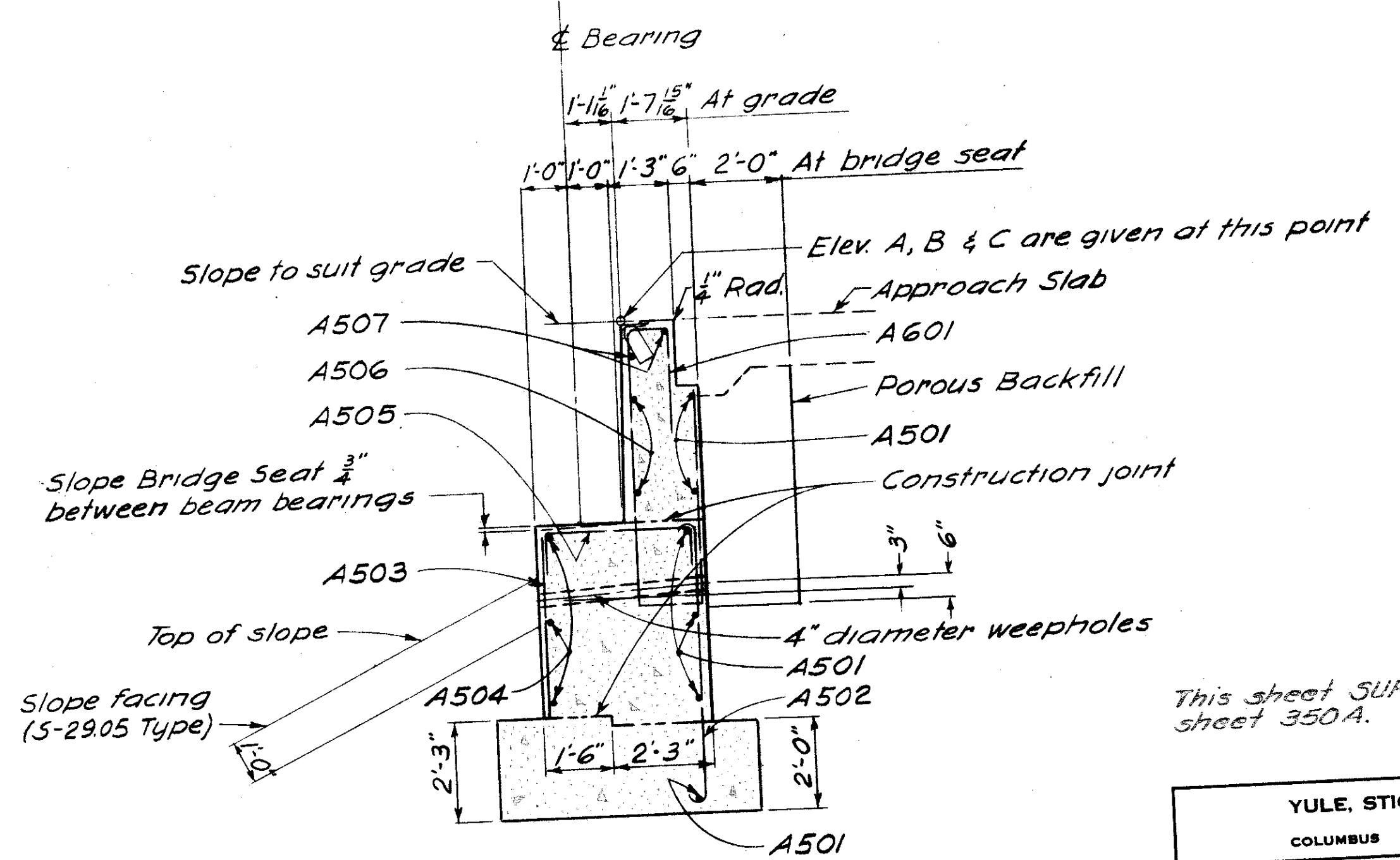
POROUS BACKFILL, 2 feet thick, full length of abutment and wings, shall extend up to the underside of the approach slab.



ABUTMENT PLAN



ABUTMENT ELEVATION



SECTION A-A

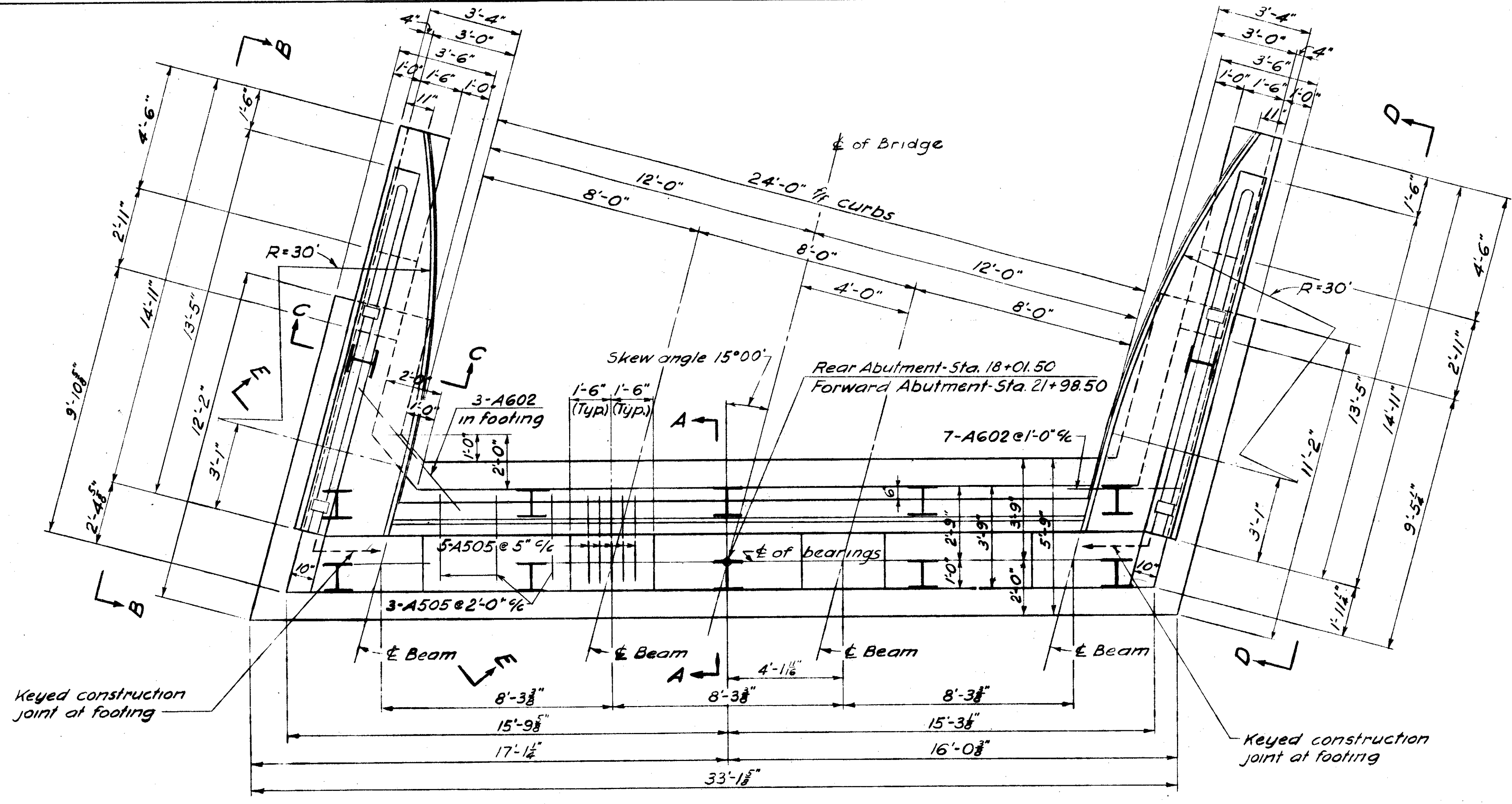
This sheet SUPERSEDED by sheet 350A. 9-3-58.

YULE, STICKLEN, JORDAN & McNEE
 COLUMBUS ENGINEERS OHIO

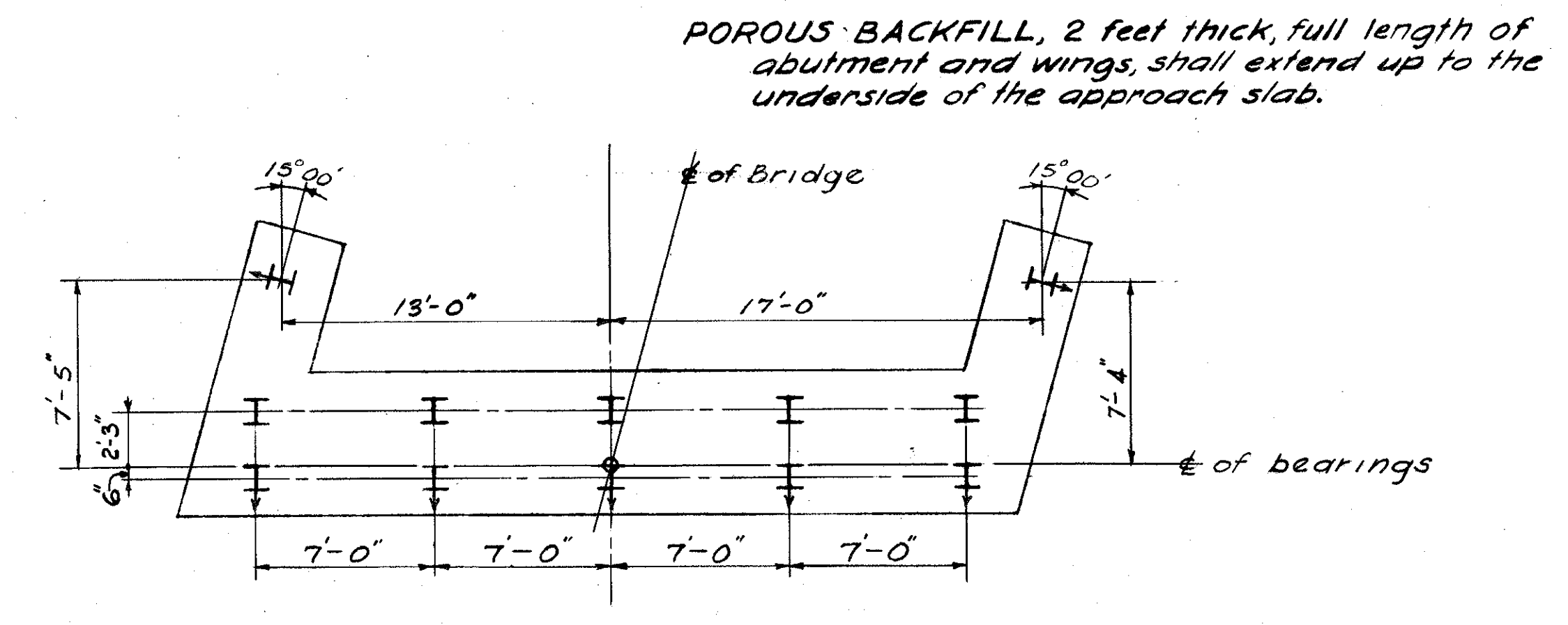
ABUTMENT DETAILS
 BRIDGE NO. WAR-25-1149
 UNDER PENNYROYAL RD.
 WARREN COUNTY STA. 189 + 75.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
Abutment																	
Rear	970.48	970.61	970.36	968.79	966.06	966.14	966.10	965.93	964.50	964.37	957.71	969.47	969.68	969.72	969.57	969.53	969.31
Forward	970.57	970.70	970.45	968.88	966.14	966.23	966.18	966.02	964.58	964.46	959.82	969.56	969.76	969.81	969.65	969.62	969.40

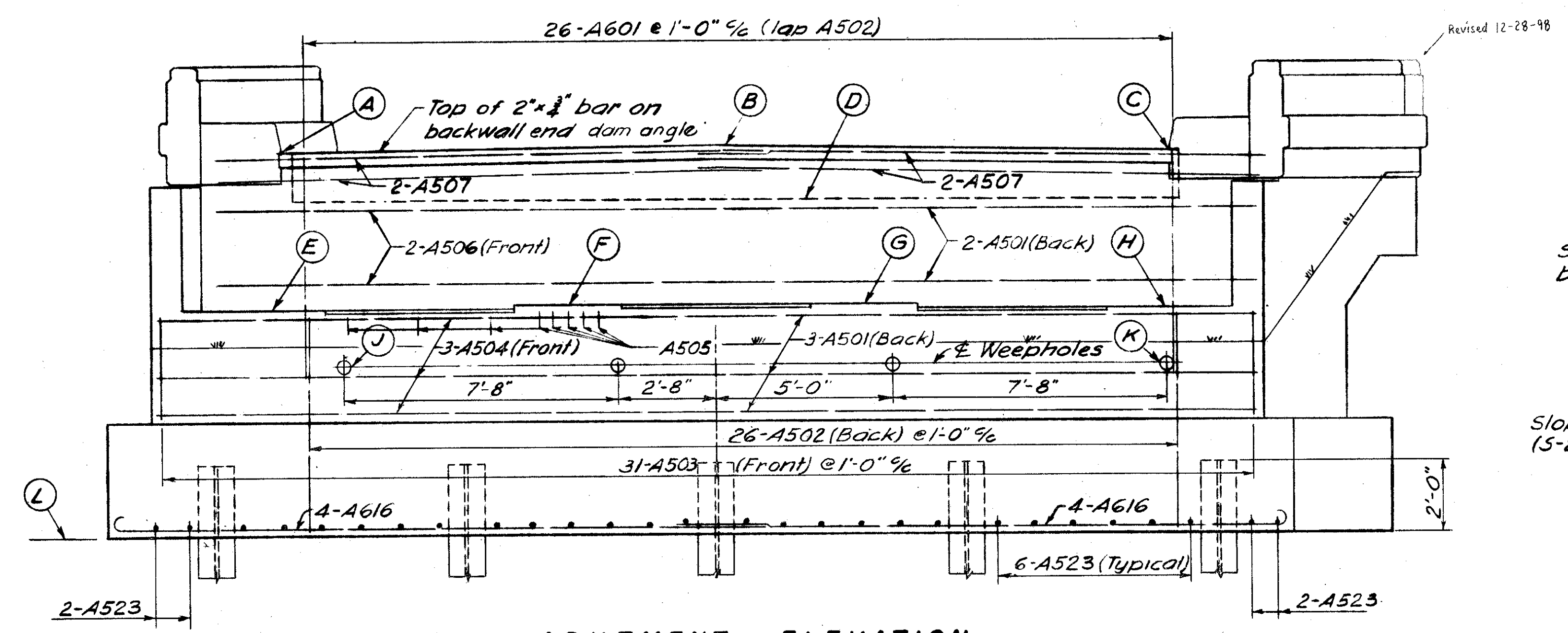
For Sections B-B, C-C, D-D, & E-E see sheet 351A.
For locations of points M, N, P, Q, R and S see sheet 351A.



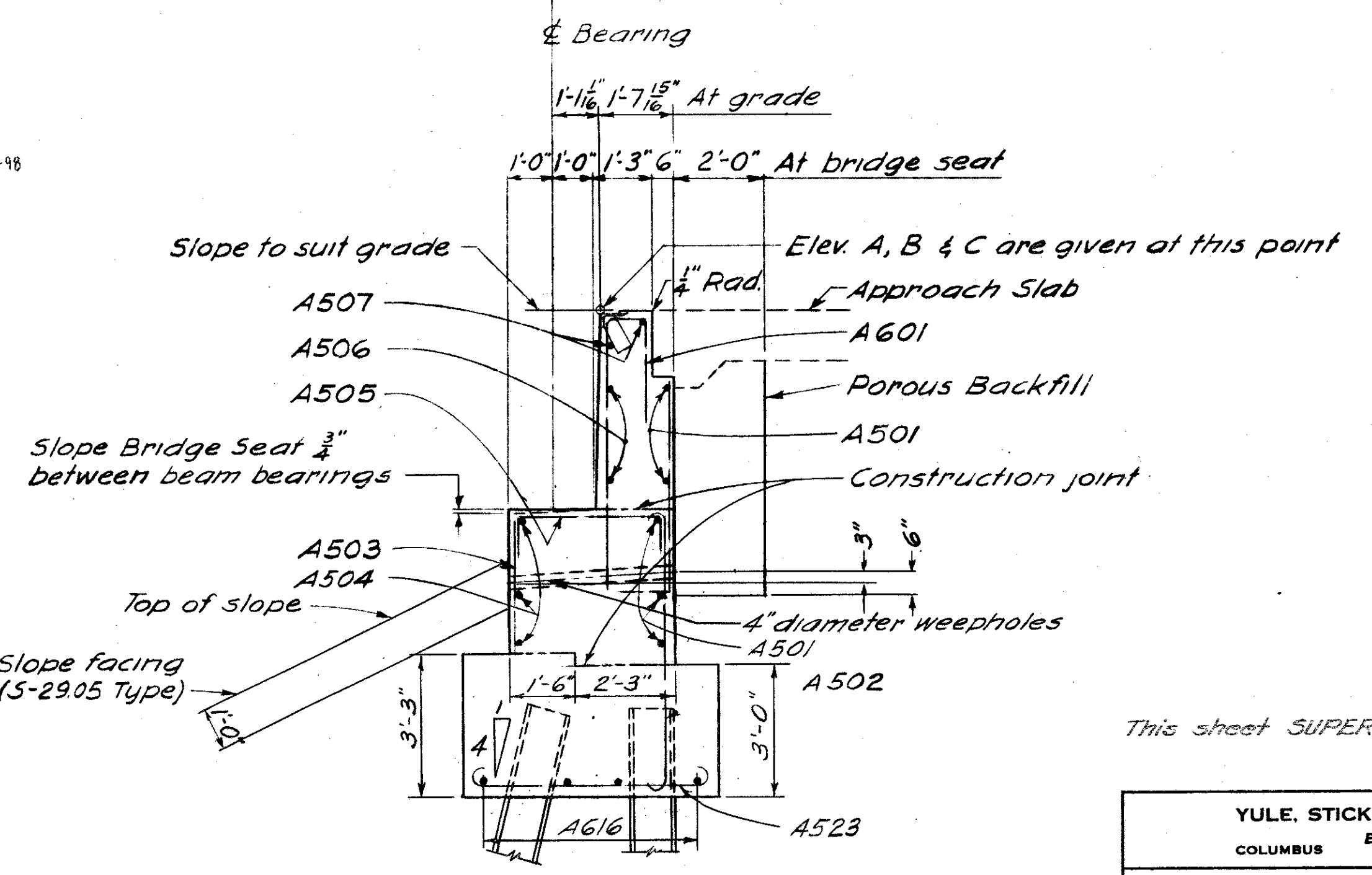
ABUTMENT PLAN



PILING PLAN
At bottom of footings



ABUTMENT ELEVATION



SECTION A-A

This sheet SUPERSEDES sheet 350.
9-3-58

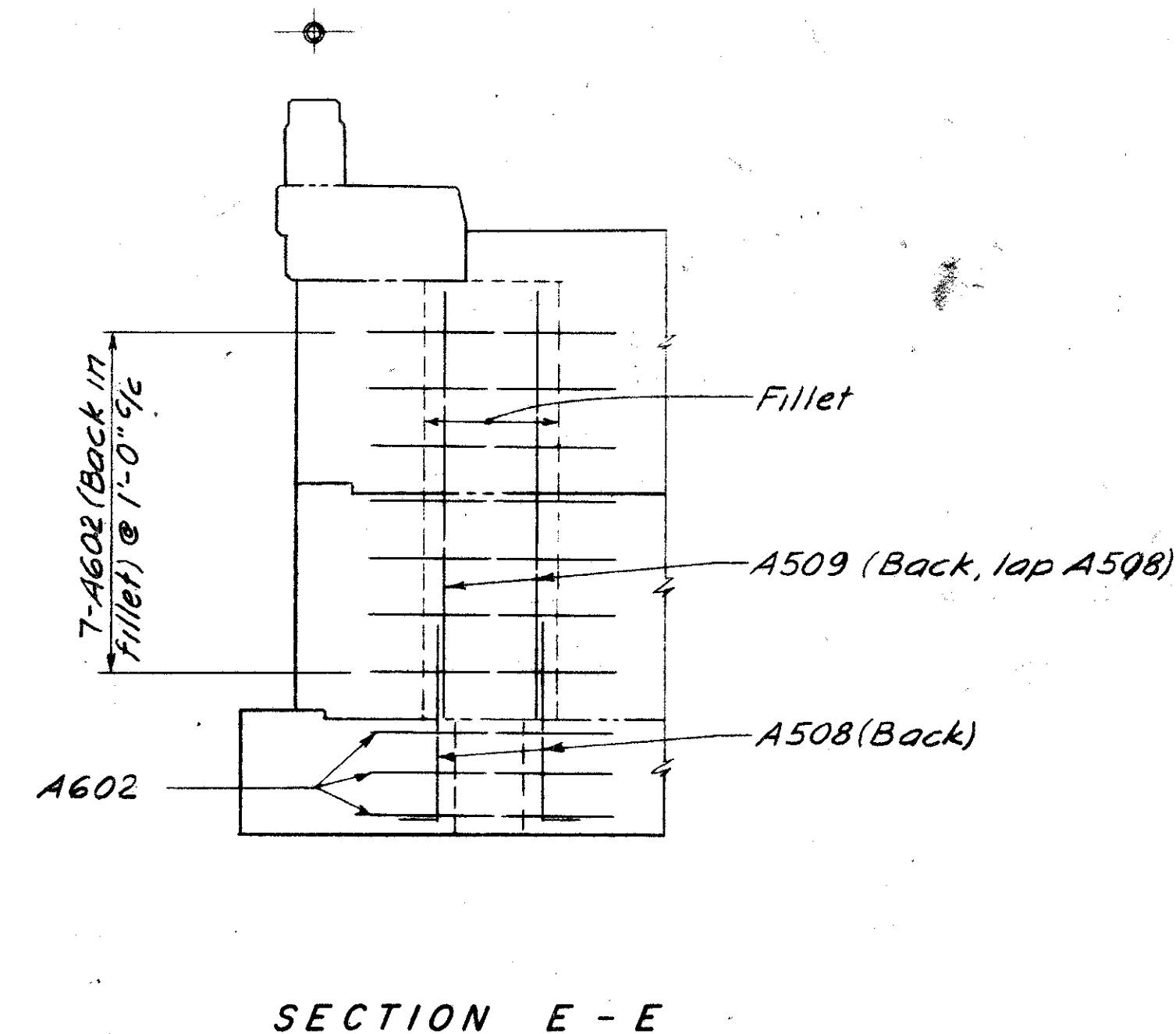
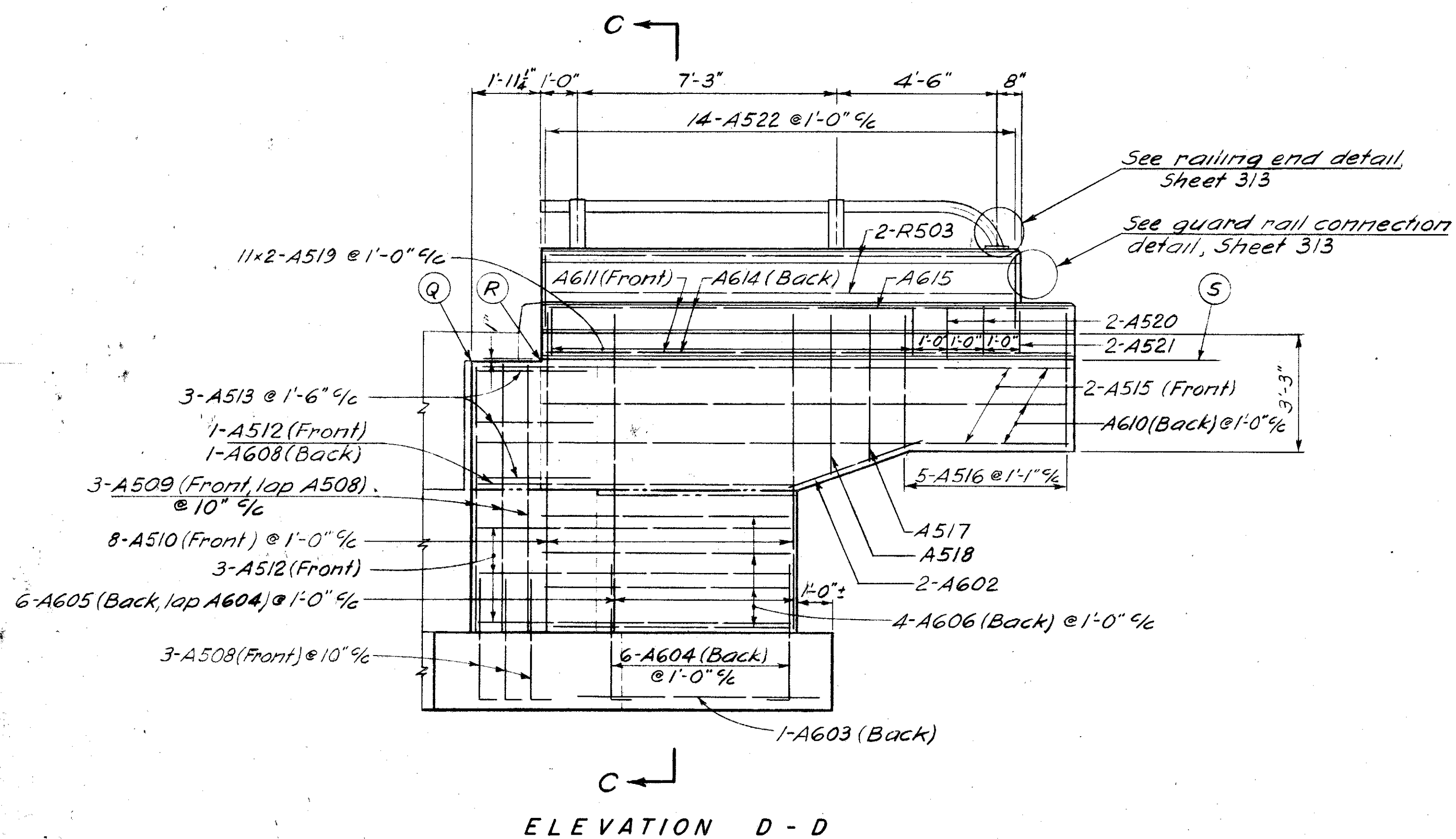
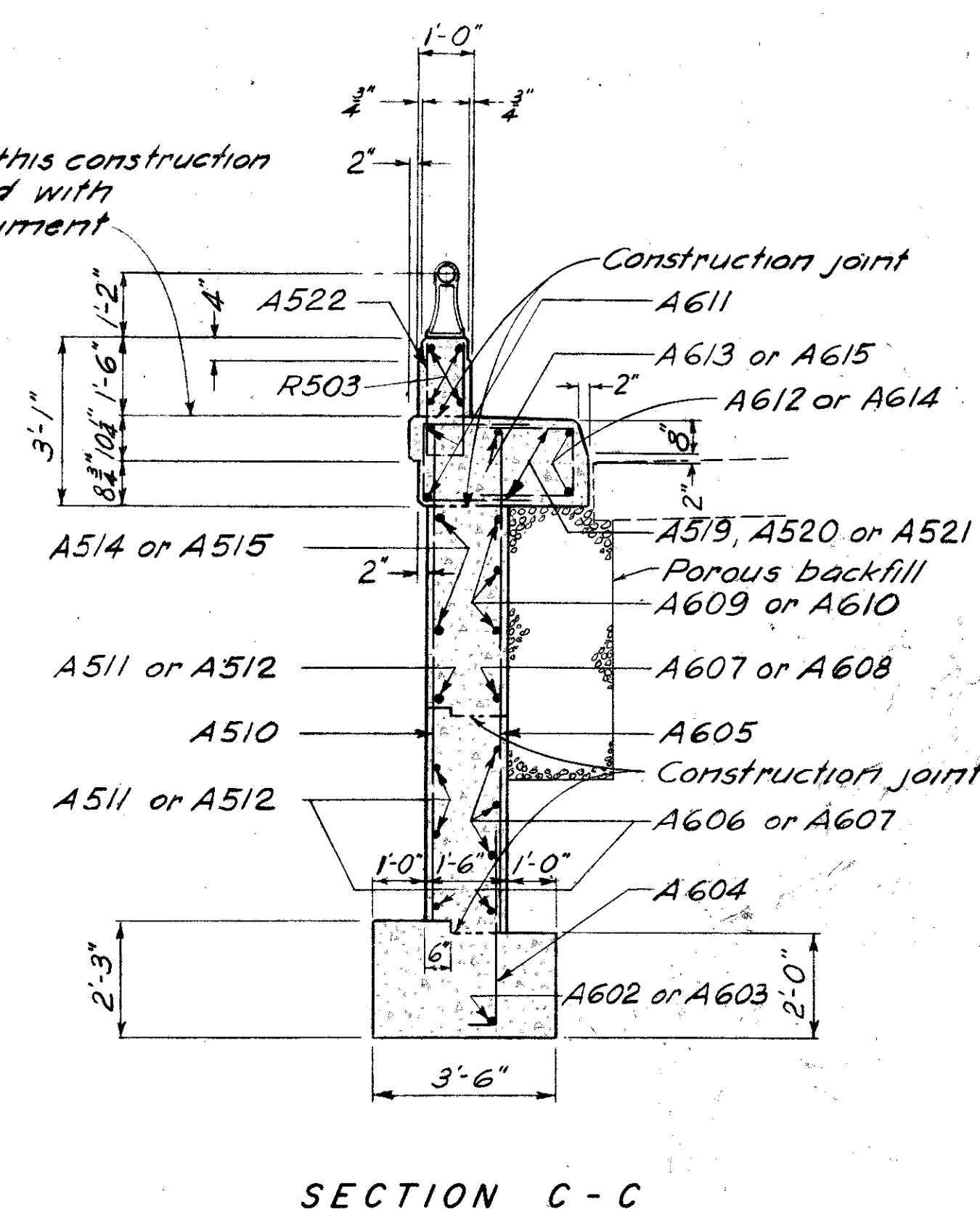
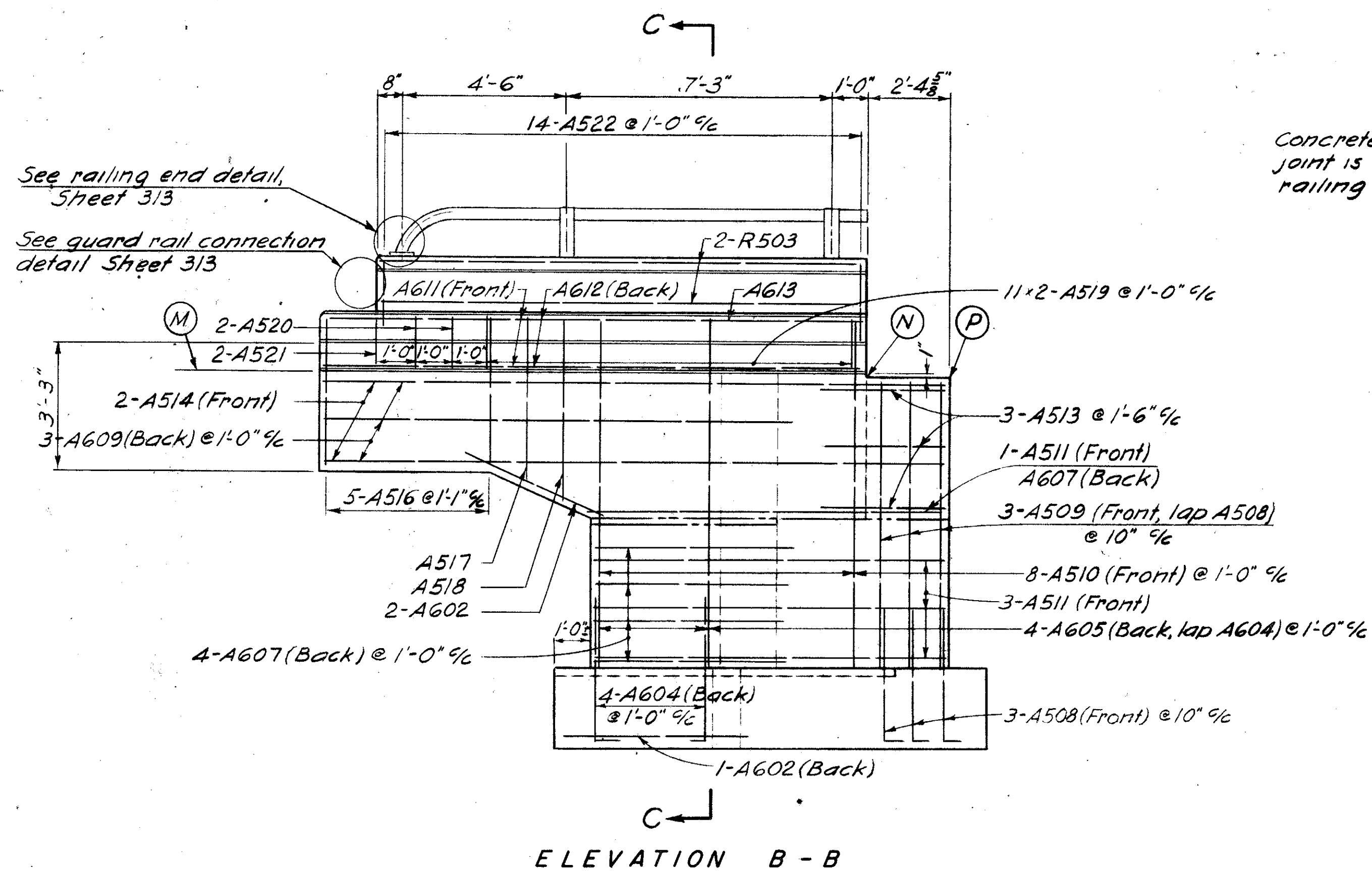
YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

ABUTMENT DETAILS

BRIDGE NO. WAR-25-1149
UNDER PENNYROYAL RD.
WARREN COUNTY STA. 169+75.00

ELEVATIONS																	
Abutment	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
Rear	970.48	970.61	970.36	968.79	966.06	966.14	966.10	965.93	964.50	964.37	959.71	969.47	969.68	969.72	969.57	969.53	969.31
Forward	970.57	970.70	970.45	968.88	966.14	966.23	966.18	966.02	964.58	964.46	959.82	969.56	969.76	969.81	969.65	969.62	969.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.Y.L.	A.M.	A.M.	E.W.T.	R.B.Y.	8-14-58	



This sheet SUPERSEDED by sheet 351A. 9-3-58.

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

ABUTMENT DETAILS

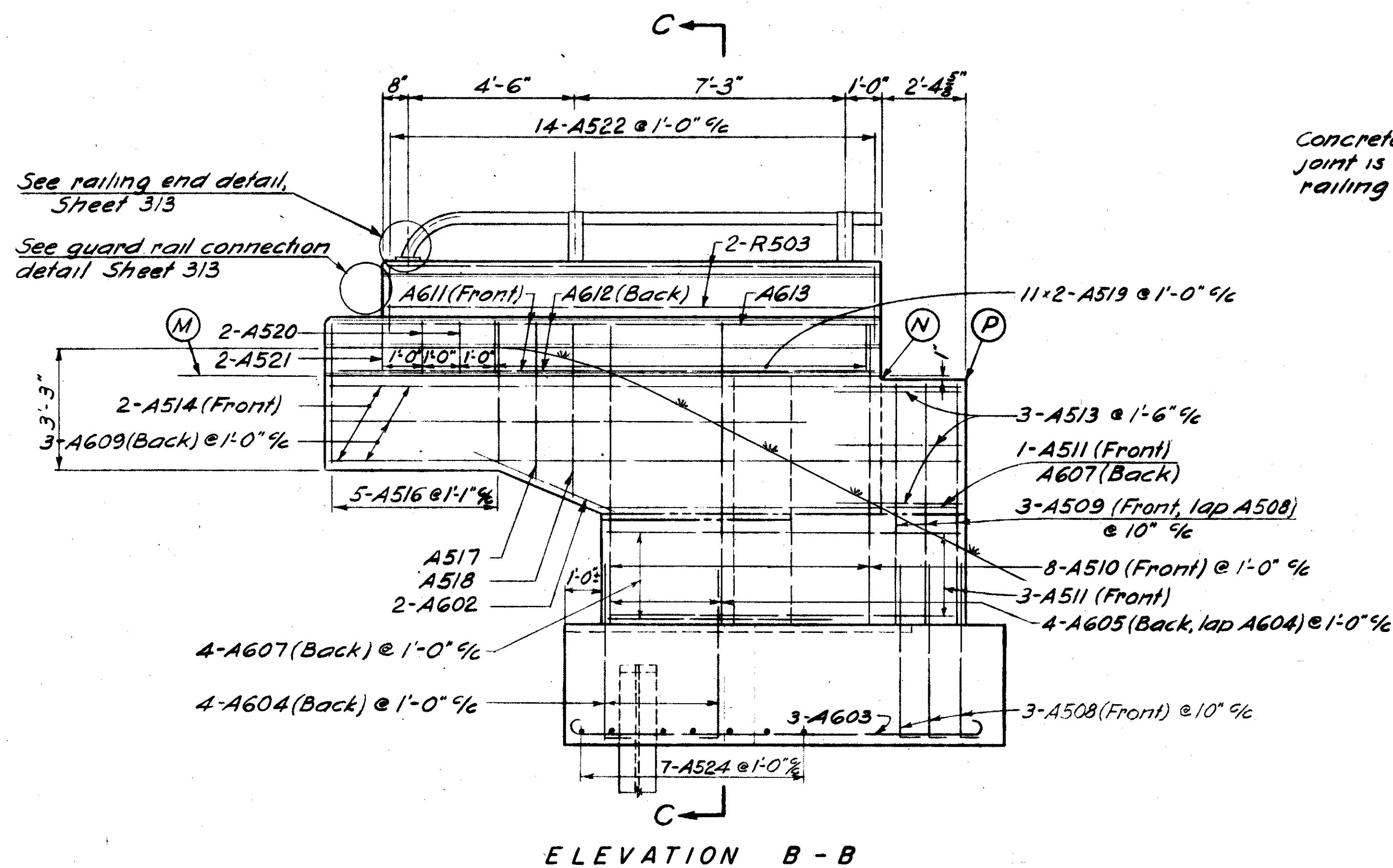
BRIDGE NO. WAR-25-1149
UNDER PENNYROYAL RD.
WARREN COUNTY STA. 169+75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.P.K.	A.M.	A.M.	E.W.T.	R.B.Y.	6/27/58	

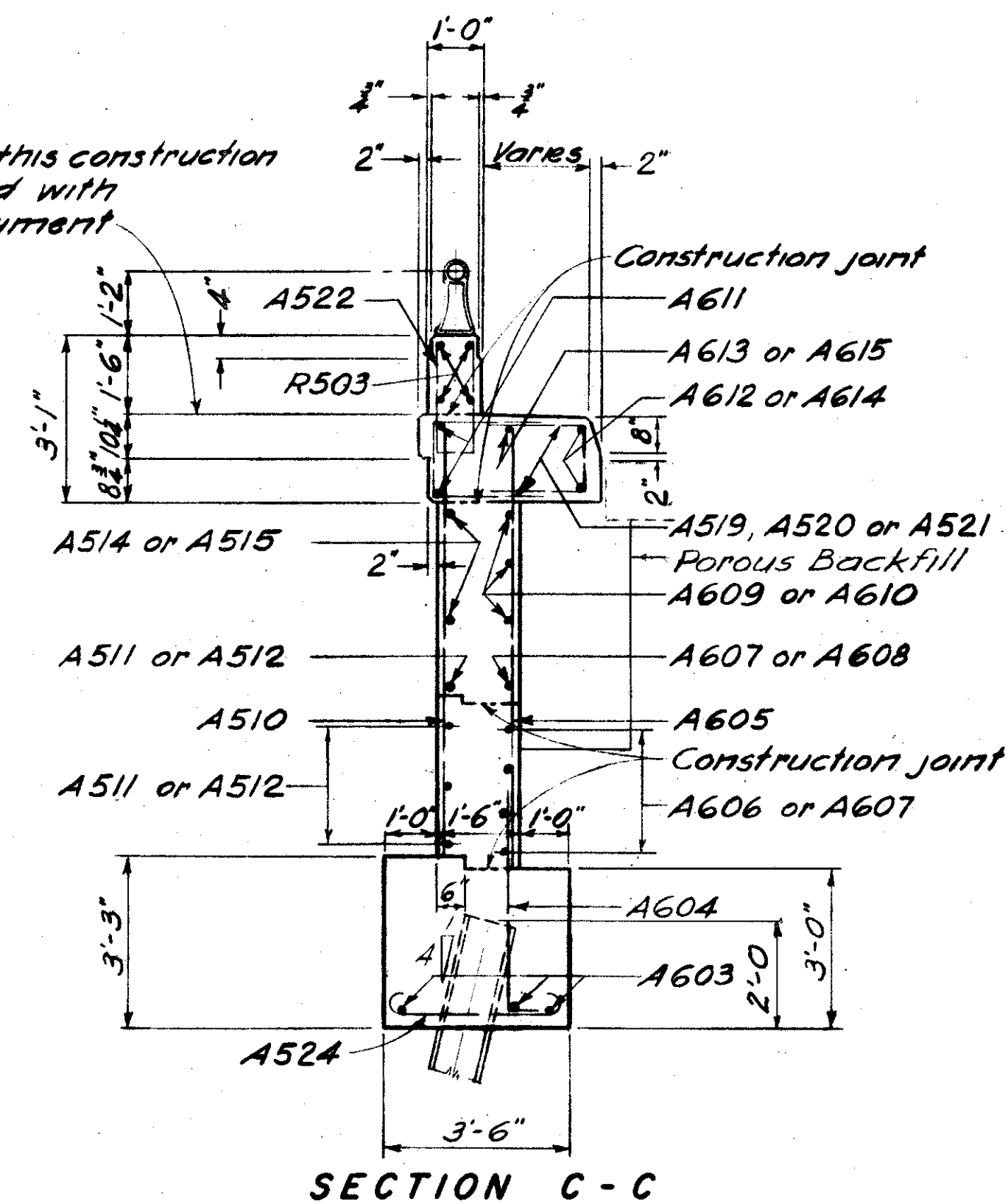
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

351A
377

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00

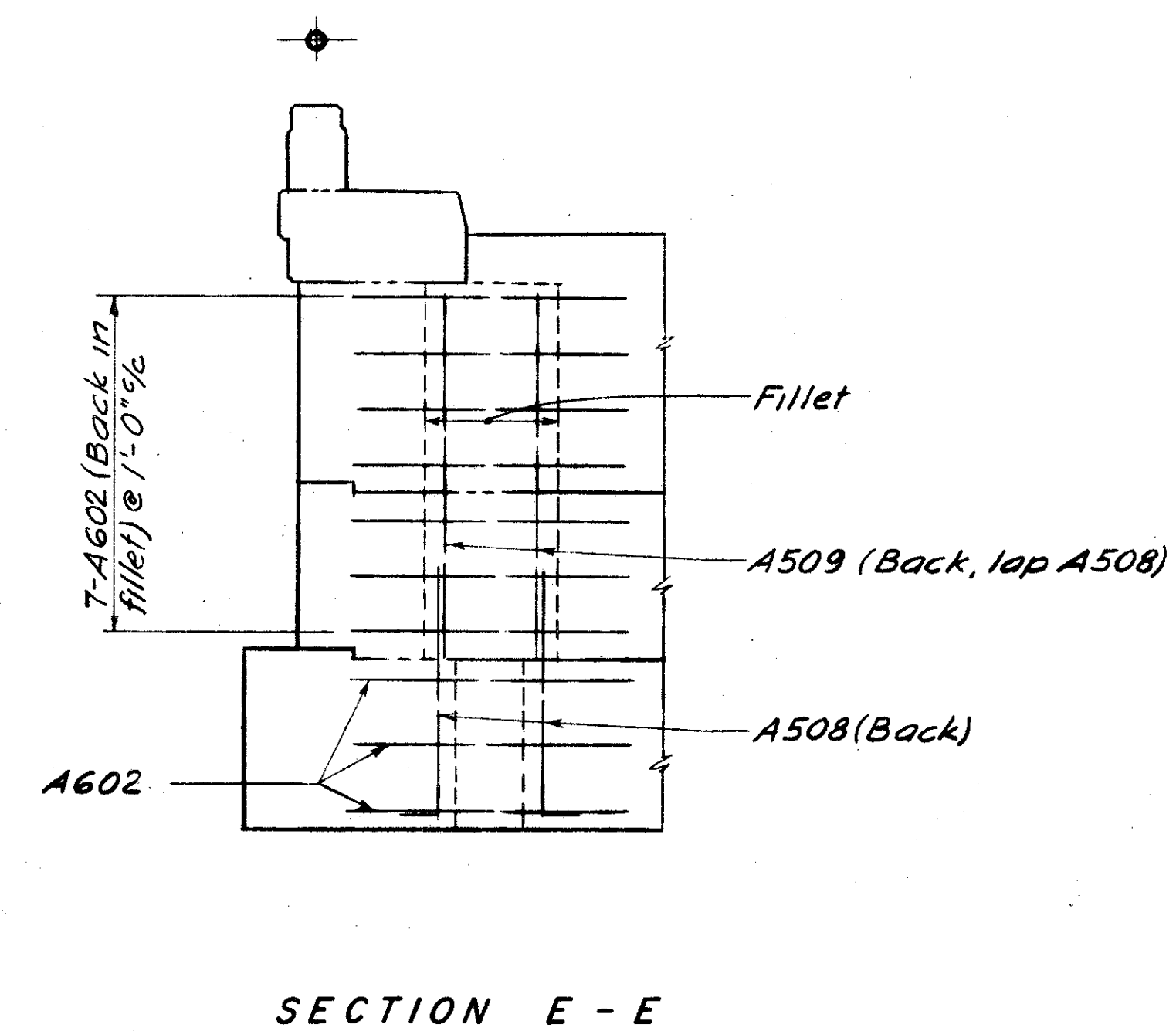
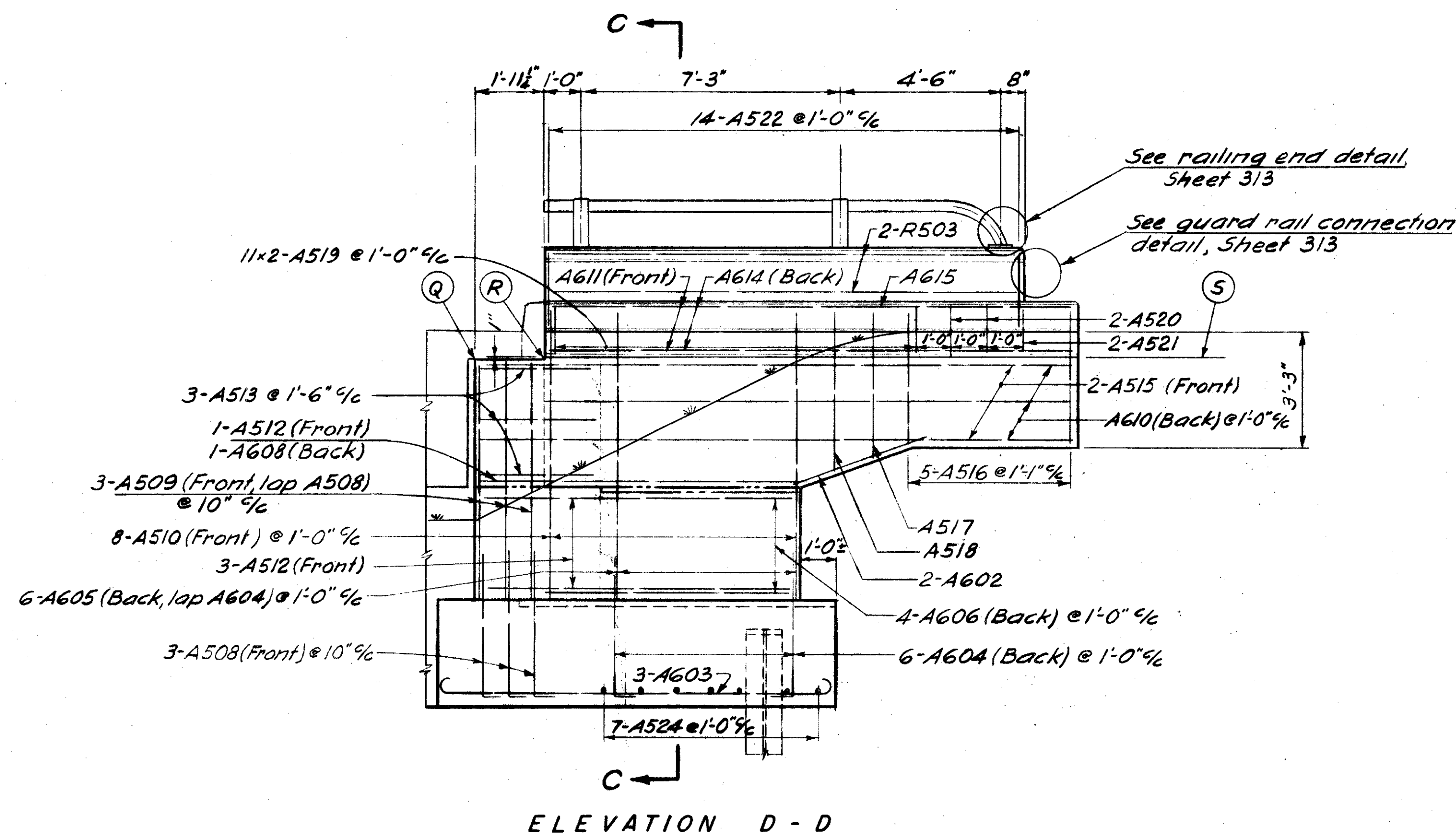


Concrete above this construction joint is included with railing for payment



For locations of Elevations and Sections see Sheet 350A.

For elevations of points M, N, P, Q, R and S see Sheet 350A.

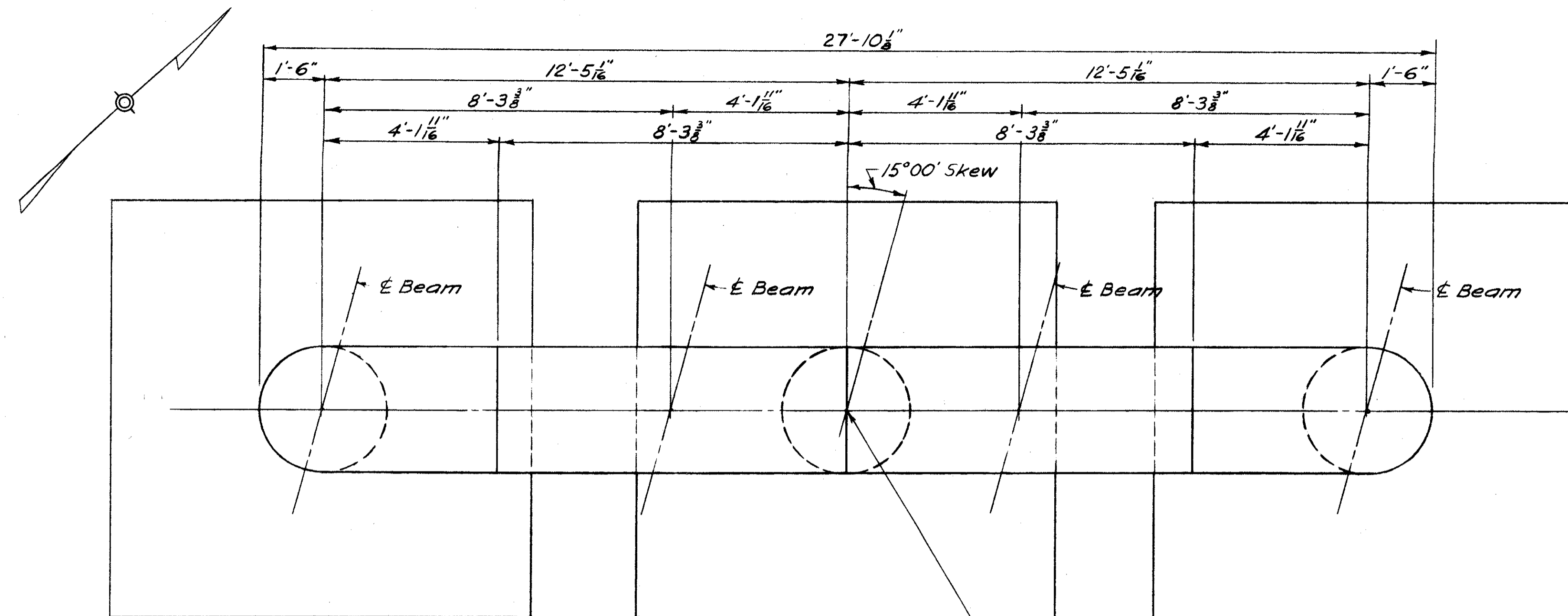


This sheet SUPERSEDES sheet 351, 9-3-58

YULE, STICKLEN, JORDAN & McNEE COLUMBUS ENGINEERS OHIO					
ABUTMENT DETAILS					
BRIDGE NO. WAR-25-1149 UNDER PENNYROYAL RD. WARREN COUNTY STA. 169+75.00					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
S.Y.L.	A.M.	A.M.	E.W.T.	R.B.X.	8-14-58

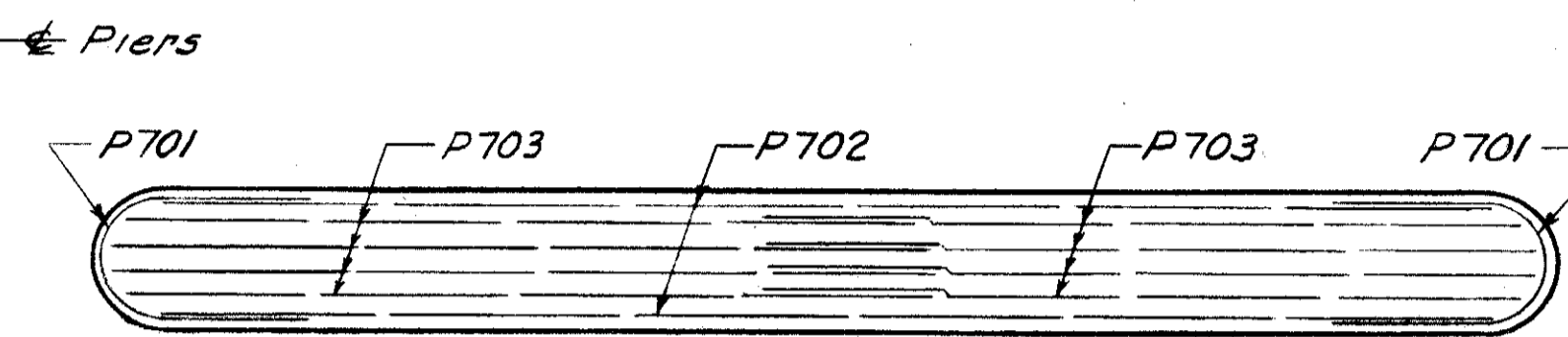
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	352 377
2	OHIO			

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00

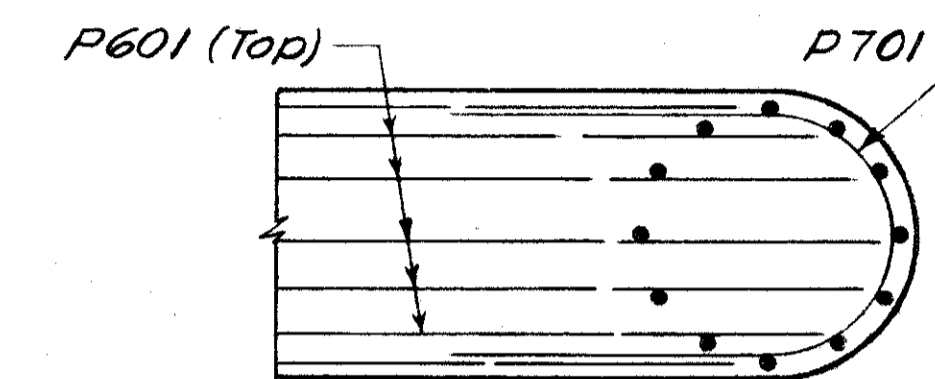


PLAN

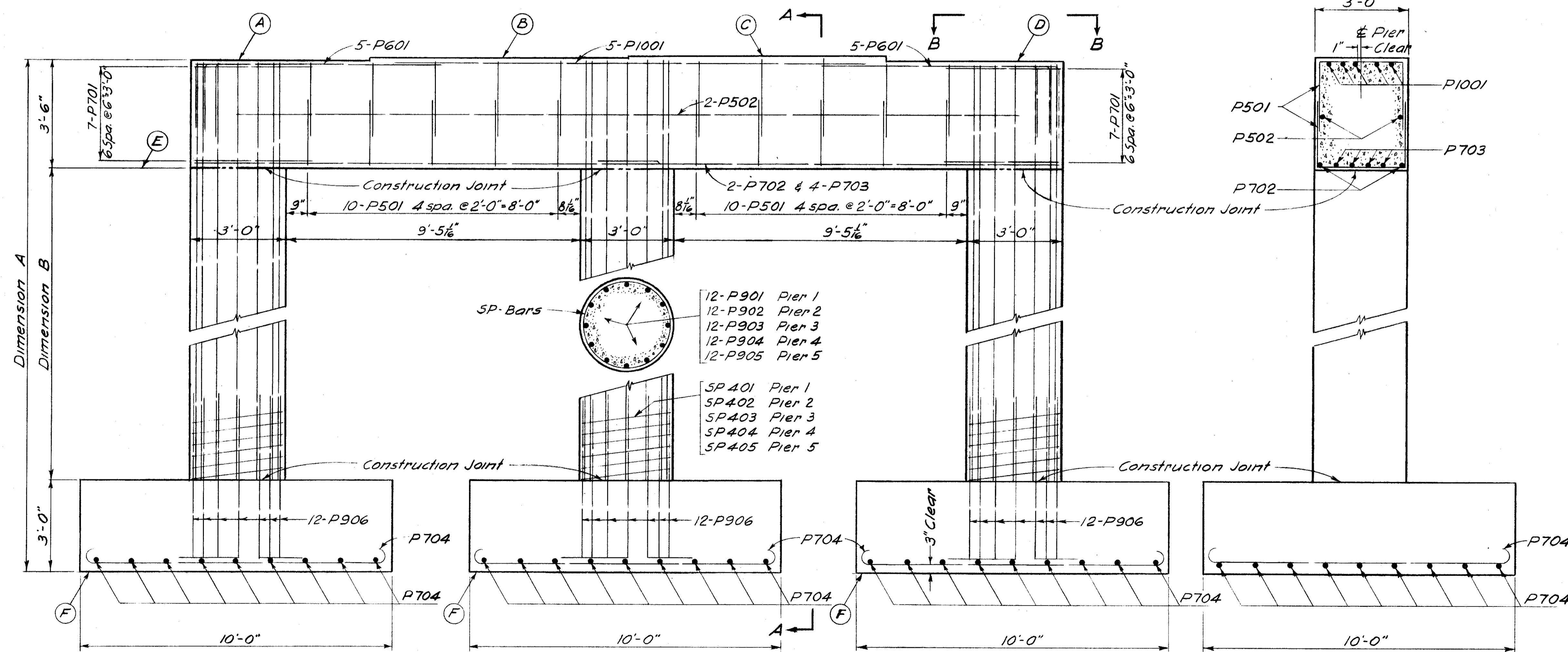
Sta. 18+53.00 Pier 1
Sta. 19+26.50 Pier 2
Sta. 20+00.00 Pier 3
Sta. 20+73.50 Pier 4
Sta. 21+47.00 Pier 5



REINFORCING IN BOTTOM OF CAP



VIEW B-B



ELEVATION

SECTION A-A

	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5
Elevation A	966.40	967.06	967.40	967.14	966.55
Elevation B	966.56	967.20	967.53	967.25	966.65
Elevation C	966.59	967.22	967.53	967.23	966.62
Elevation D	966.49	967.11	967.40	967.09	966.47
Elevation E	962.94	963.60	963.90	963.68	963.10
Elevation F	946.50	946.50	946.00	947.00	947.00
Dimension A	19'-10 3/4"	20'-6 3/4"	21'-4 3/4"	20'-1 1/2"	19'-6 3/8"
Dimension B	13'-4 3/8"	14'-0 3/8"	14'-10 3/8"	13'-7 3/8"	13'-0 3/8"

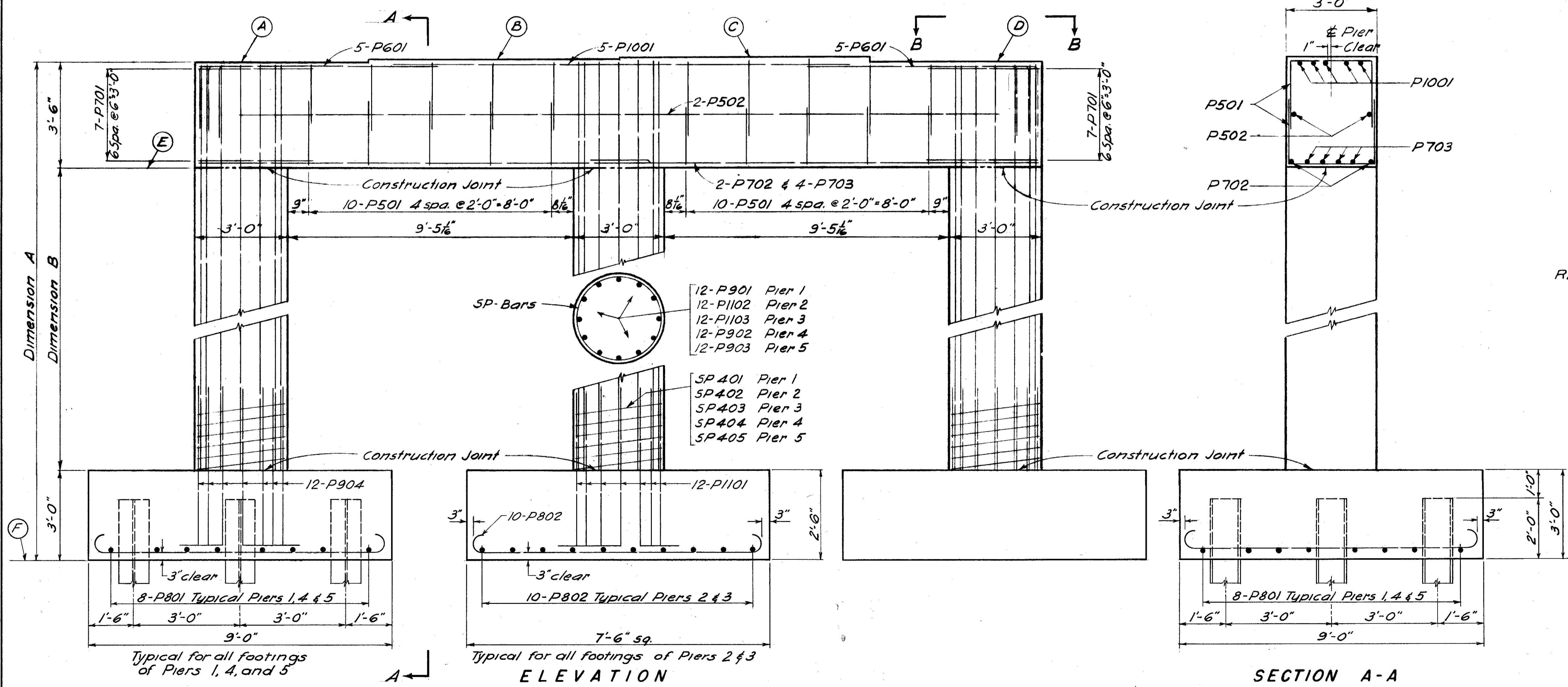
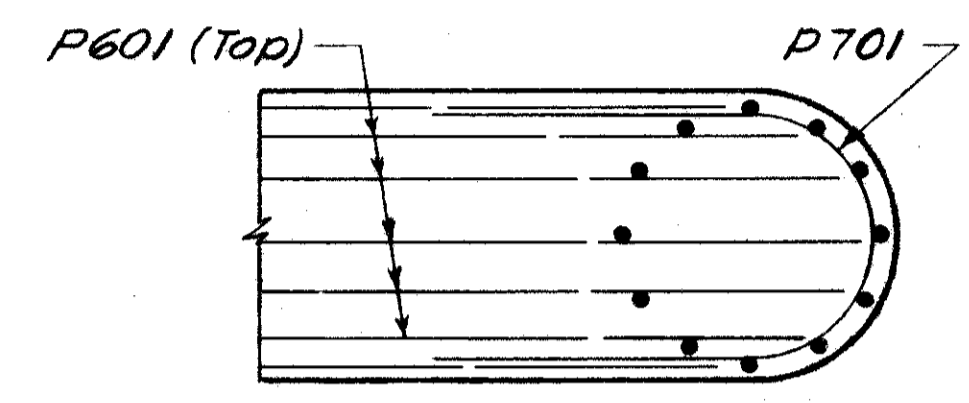
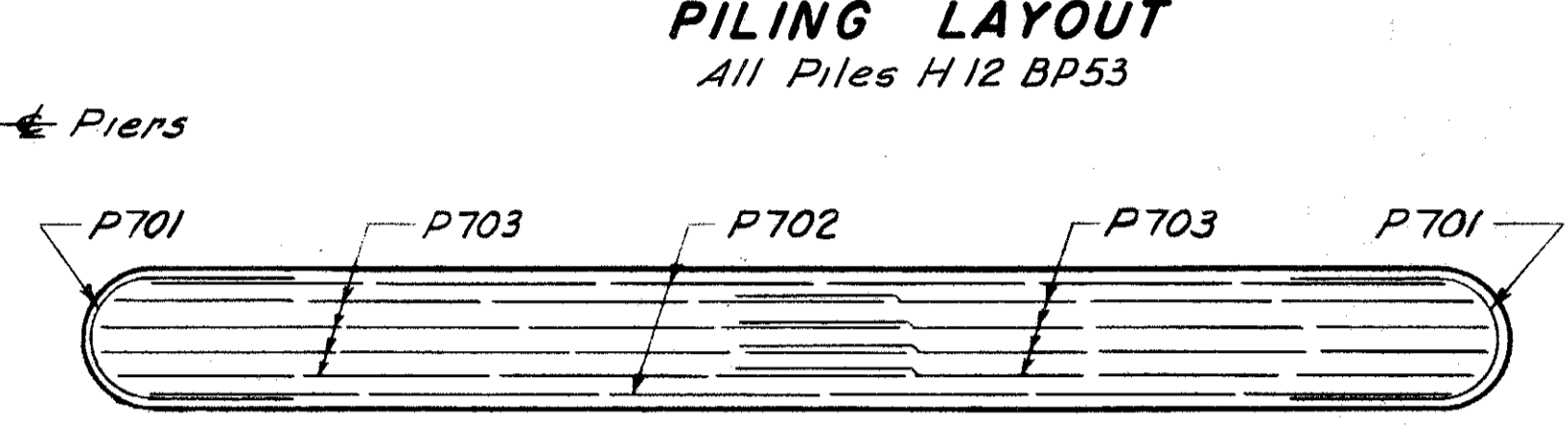
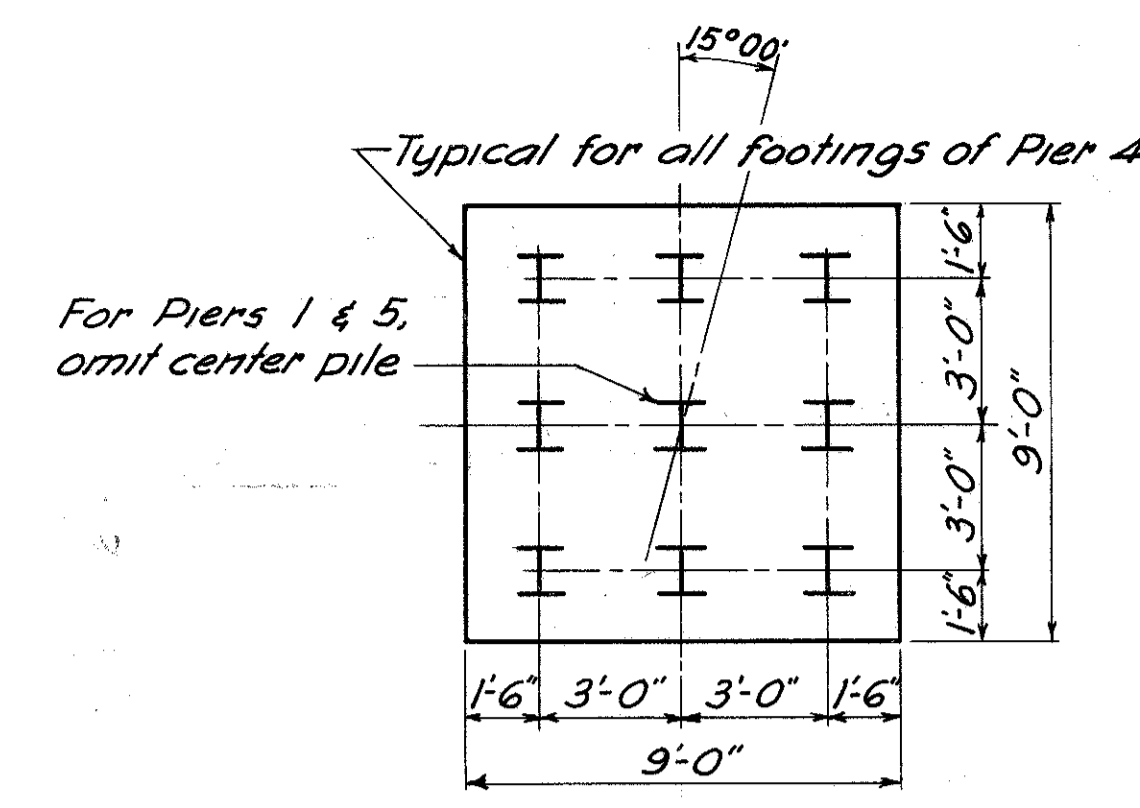
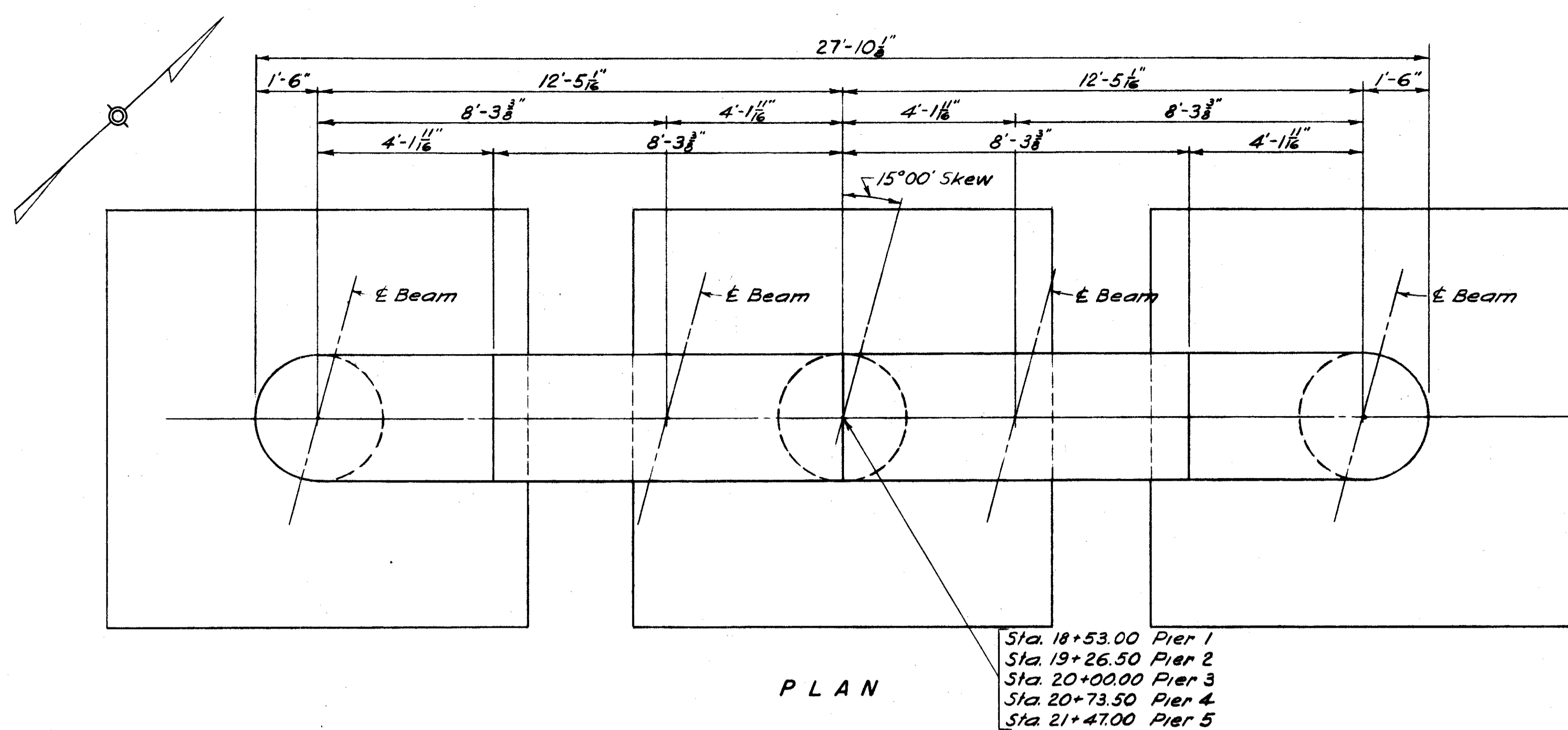
REINFORCING STEEL in pier caps shall be placed so that it will not interfere with anchor bolts.

This sheet SUPERSEDED by sheet 352A. 9-3-58.

YULE, STICKLEN, JORDAN & McNEE COLUMBUS ENGINEERS OHIO					
PIER DETAILS					
BRIDGE NO. WAR-25-1149 UNDER PENNYROYAL RD. WARREN COUNTY STA. 169 + 75.00					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
GPK	A.M.	A.M.	E.W.T.	F.B.Y.	6/27/58

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	352A 377
2	OHIO			

WARREN & MONTGOMERY COUNTIES
WAR-25-8.48
MOT-25-0.00



	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5
Elevation A	966.40	967.06	967.40	967.14	966.55
Elevation B	966.56	967.20	967.53	967.25	966.65
Elevation C	966.59	967.22	967.53	967.23	966.62
Elevation D	966.49	967.11	967.40	967.09	966.47
Elevation E	962.94	963.60	963.90	963.68	963.10
Elevation F	946.50	941.00	941.00	947.00	947.00
Dimension A	19'-10 3/4"	26'-0 3/4"	26'-4 3/4"	20'-1 3/8"	19'-6 5/8"
Dimension B	13'-4 1/2"	20'-0 1/2"	20'-4 1/4"	13'-7 1/8"	13'-0 3/8"

REINFORCING STEEL in pier caps shall be placed so that it will not interfere with anchor bolts.

This sheet SUPERSEDES sheet 352.
9-3-58

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

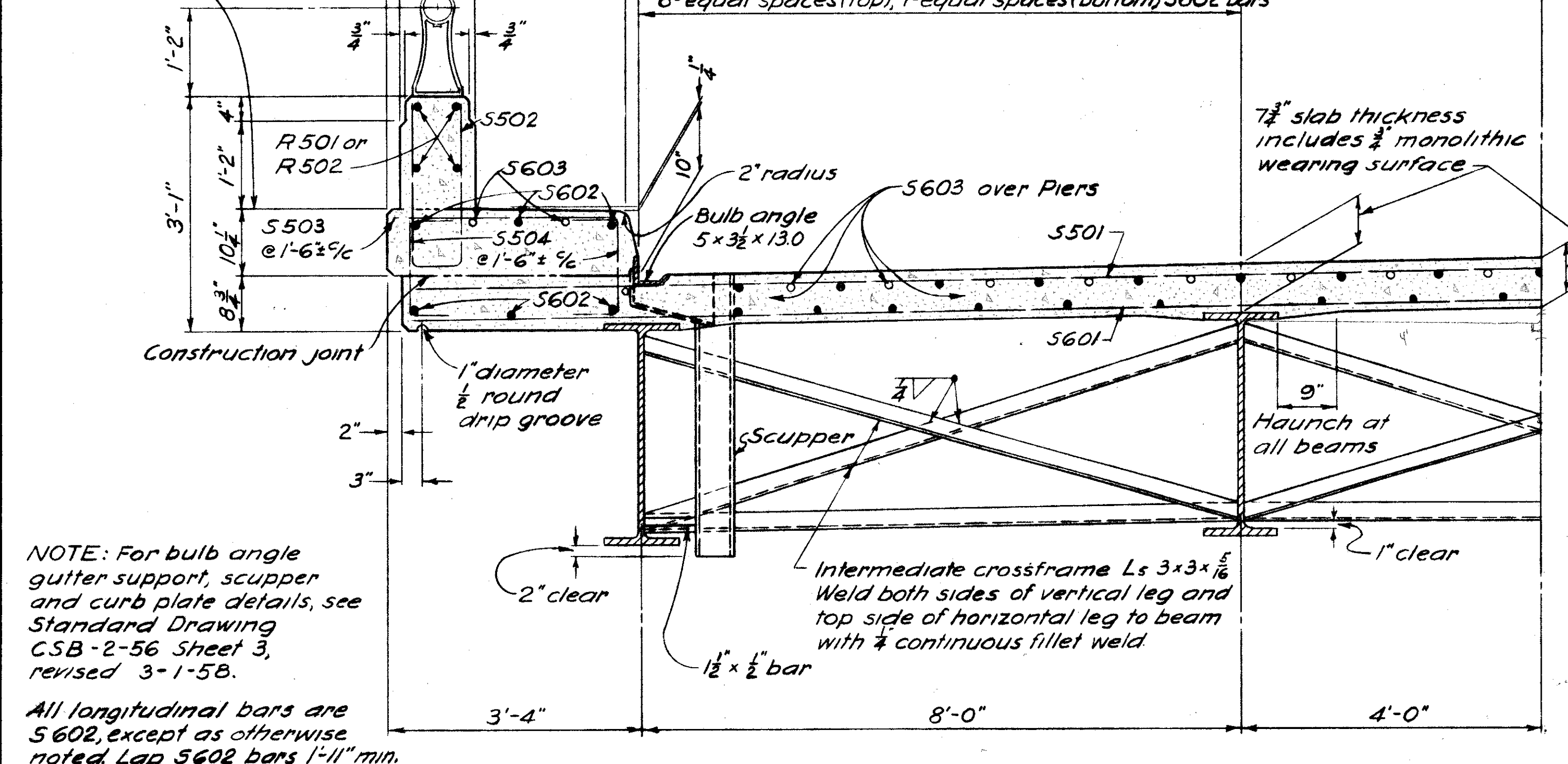
PIER DETAILS

BRIDGE NO. WAR-25-1149
UNDER PENNYROYAL RD.
WARREN COUNTY STA. 189 + 75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.P.T.	E.W.T.	A.M.	A.M.	R.B.Y.B.	11-14-58	

For spacing of S502 bars, see Part Plan of Abutments, Sheet 354

Concrete above this construction joint included with railing for payment

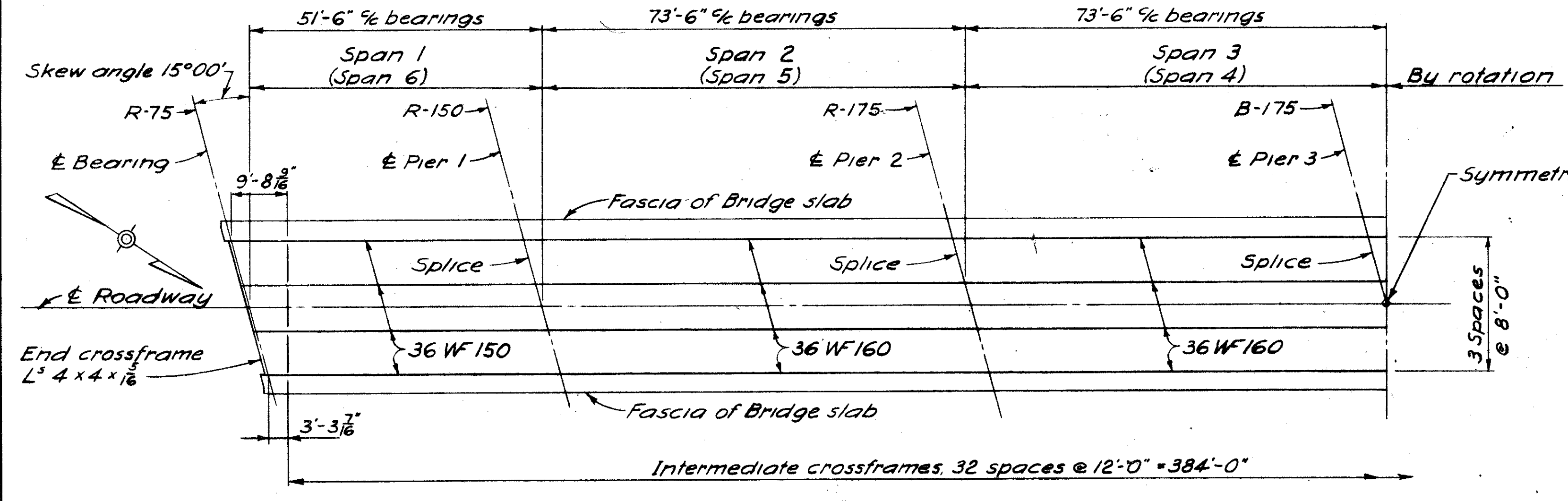


NOTE: For bulb angle gutter support, scupper and curb plate details, see Standard Drawing CSB-2-56 Sheet 3, revised 3-1-58.

All longitudinal bars are S602, except as otherwise noted. Lap S602 bars 1'-11" min.

Slab thickness over the beams is $\frac{7}{8}$ " for intermediate spans and $\frac{7}{8}$ " for end spans.

HALF TRANSVERSE SECTION



HALF STEEL FRAMING PLAN

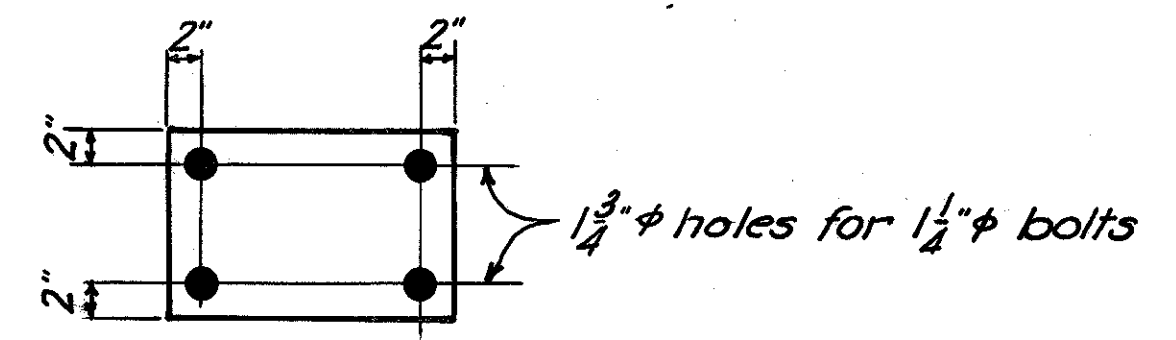
CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are normal to the centerline of bridge and are located near the center of any span.

For details of end crossframes, beam cut-off at back wall and welded built-joint in superstructure end dam, see Standard Drawing No. CSB-2-56 Sheet 2, revised 3-1-58. For details of roadway end dam see sheet 313, Typical Details. For details of aluminum railing posts, see Standard Drawing No. AR-1-57, revised 3-1-58, Type A.

DEFLECTION AND CAMBER

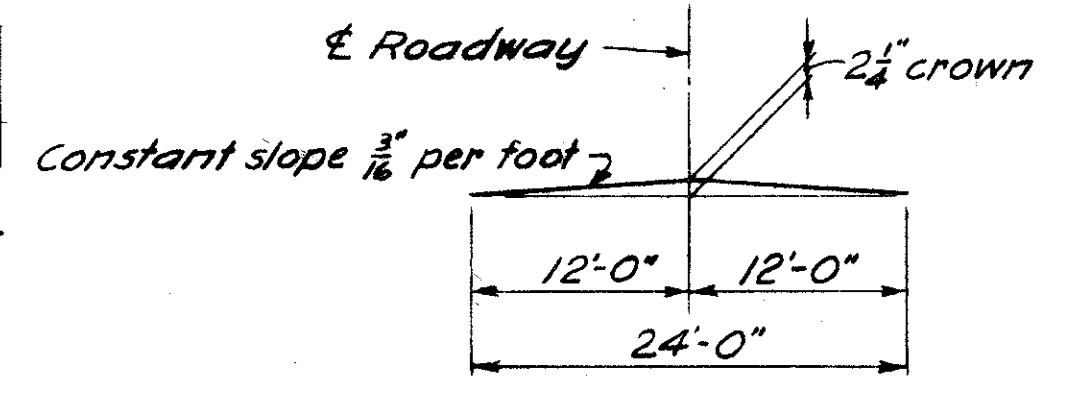
	Outside beams					
	Span 1	Span 2	Span 3	Span 4	Span 5	Span 6
Deflection due to weight of steel	0"	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{16}$ "	0"
Deflection due to remaining dead load	$\frac{3}{16}$ "	$\frac{7}{16}$ "	$\frac{5}{16}$ "	$\frac{5}{16}$ "	$\frac{7}{16}$ "	$\frac{4}{16}$ "
Convexity required for vertical curve	$\frac{3}{8}$ "	$\frac{13}{16}$ "	$\frac{13}{16}$ "	$\frac{13}{16}$ "	$\frac{13}{16}$ "	$\frac{9}{16}$ "
Sum of deflection and convexity	$\frac{9}{16}$ "	$\frac{17}{16}$ "	$\frac{17}{16}$ "	$\frac{17}{16}$ "	$\frac{17}{16}$ "	$\frac{17}{16}$ "
Required camber (place mill camber up)	0"	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	0"

	Inside beams					
	Span 1	Span 2	Span 3	Span 4	Span 5	Span 6
Deflection due to weight of steel	0"	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{16}$ "	0"
Deflection due to remaining dead load	$\frac{1}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{8}$ "
Convexity required for vertical curve	$\frac{3}{8}$ "	$\frac{7}{8}$ "	$\frac{13}{16}$ "	$\frac{13}{16}$ "	$\frac{7}{8}$ "	$\frac{3}{8}$ "
Sum of deflection and convexity	$\frac{1}{2}$ "	$\frac{11}{16}$ "	$\frac{11}{8}$ "	$\frac{11}{8}$ "	$\frac{11}{16}$ "	$\frac{1}{2}$ "
Required camber (place mill camber up)	0"	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	0"

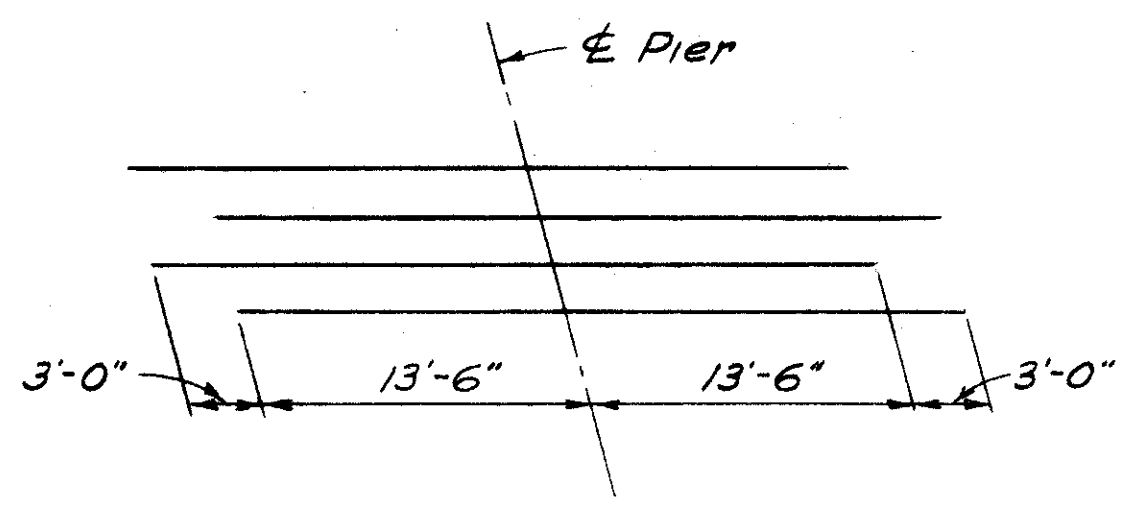


Rocker	Length	Width	Thickness
R-150	22"	16"	$\frac{3}{4}$ "
R-175	23"	17"	$\frac{3}{4}$ "

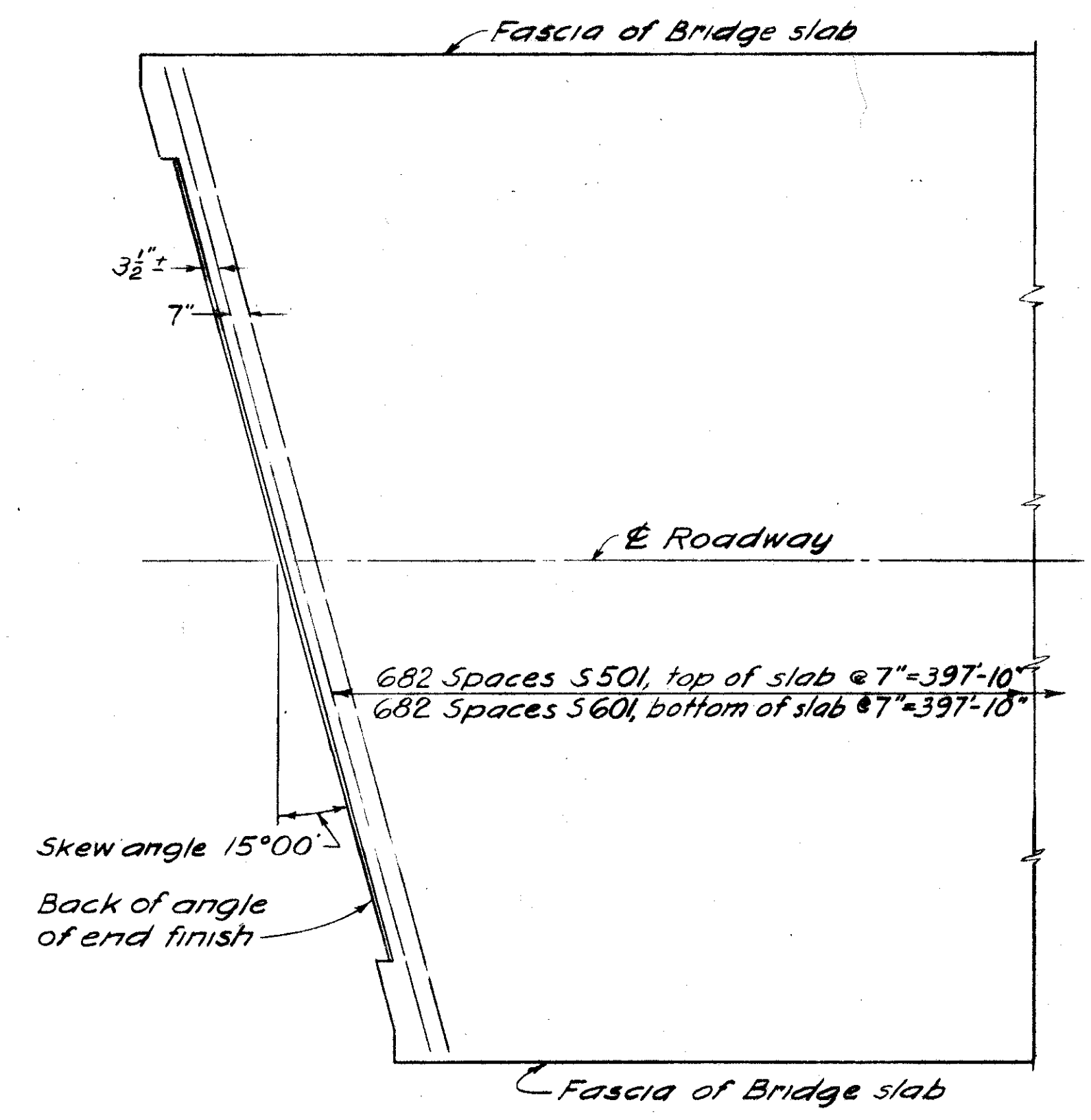
ROCKER BED - PLATE DETAIL



BRIDGE ROADWAY CROWN



STAGGER OF S603 BARS OVER PIERS



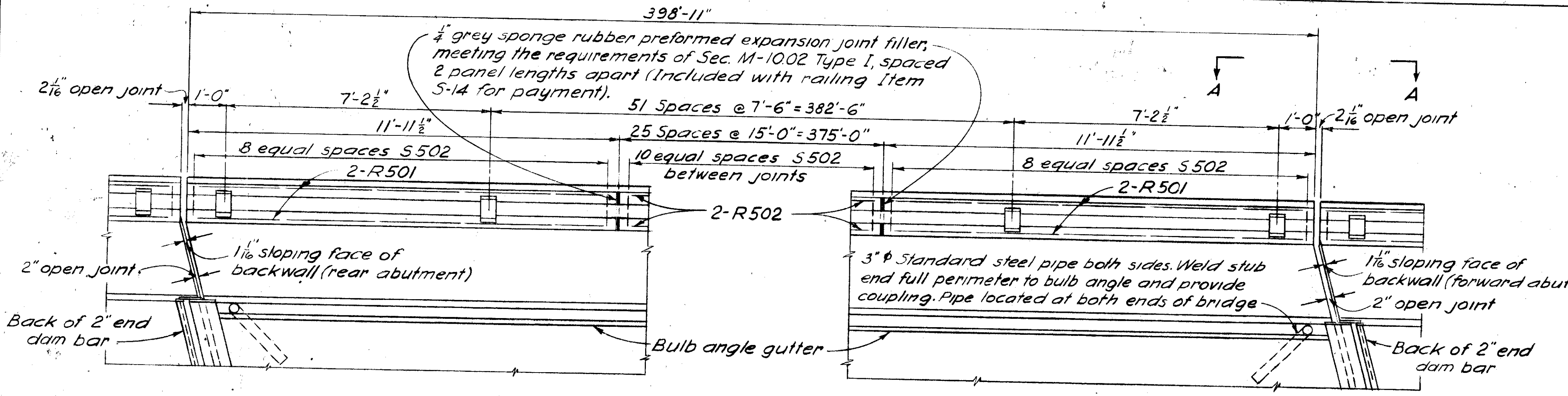
REINFORCING STEEL LAYOUT AT END OF SUPERSTRUCTURE

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

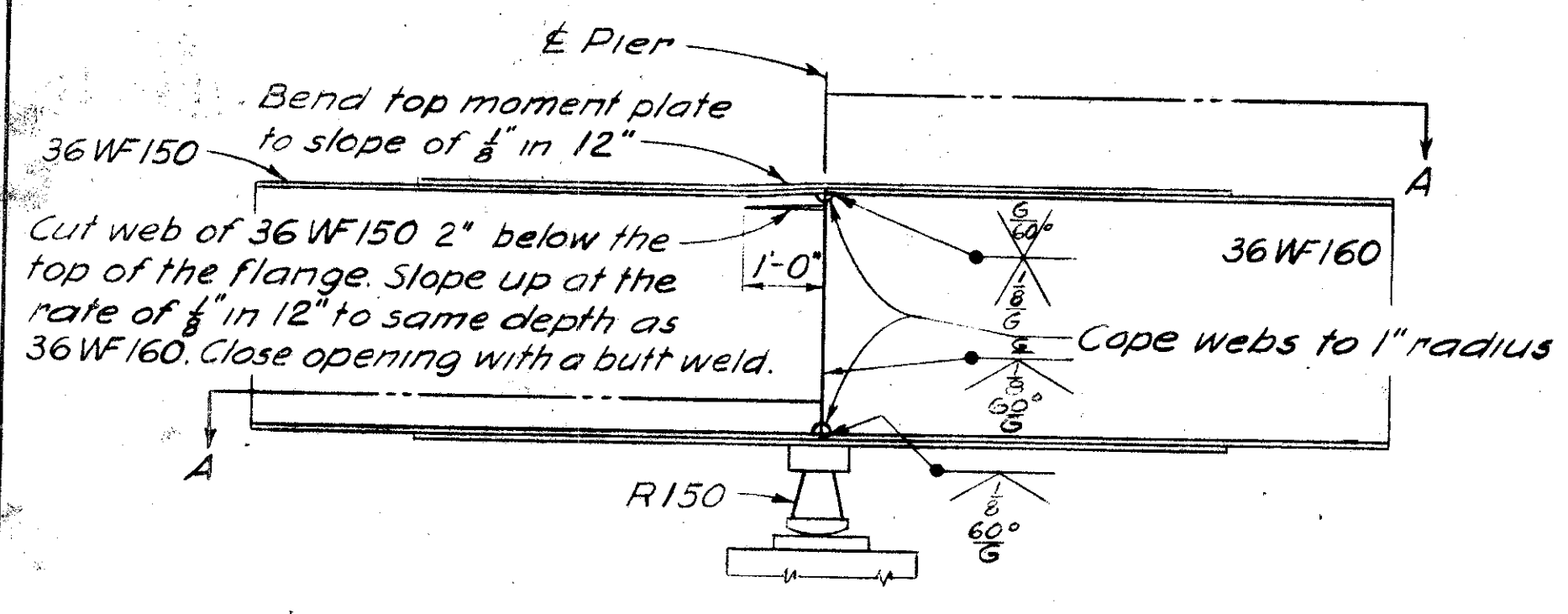
SUPERSTRUCTURE DETAILS

BRIDGE NO. WAR-25-1149
UNDER PENNYROYAL RD.
WARREN COUNTY STA. 169 + 75.00

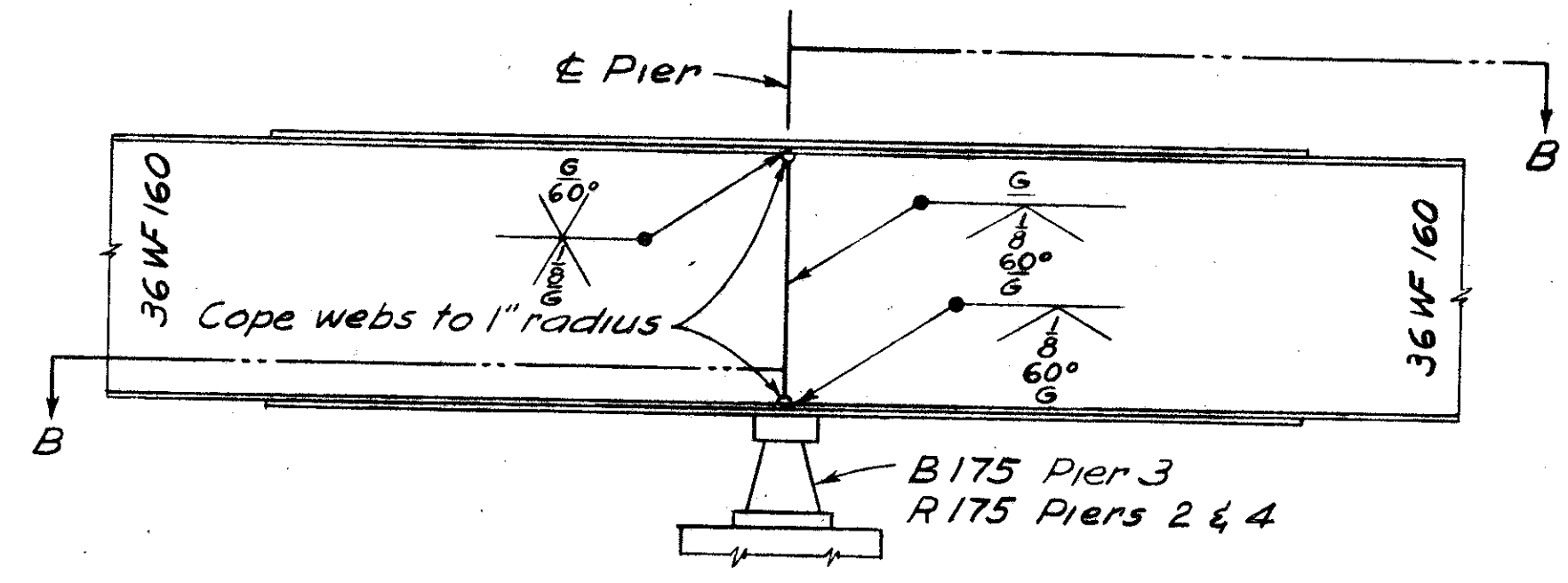
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.P.K.	A.M.	A.M.	E.W.T.	R.B.Y.	6/27/58	



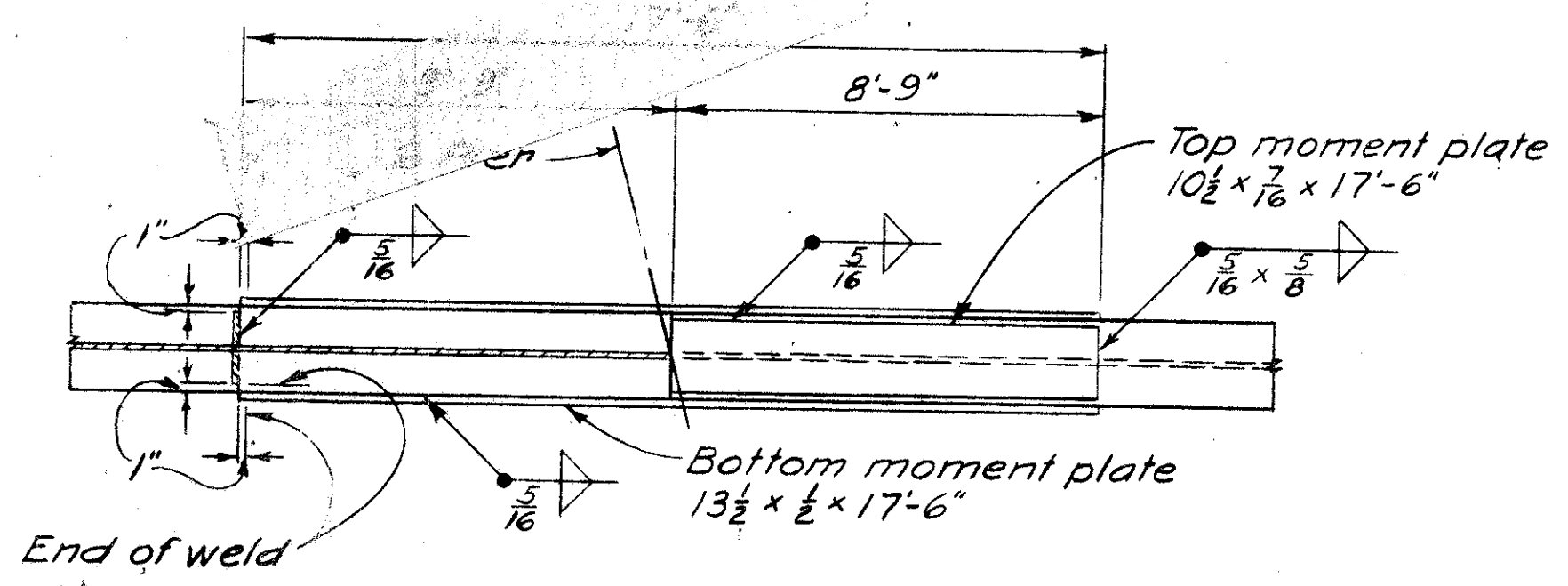
PART PLAN OF ABUTMENTS



ELEVATION

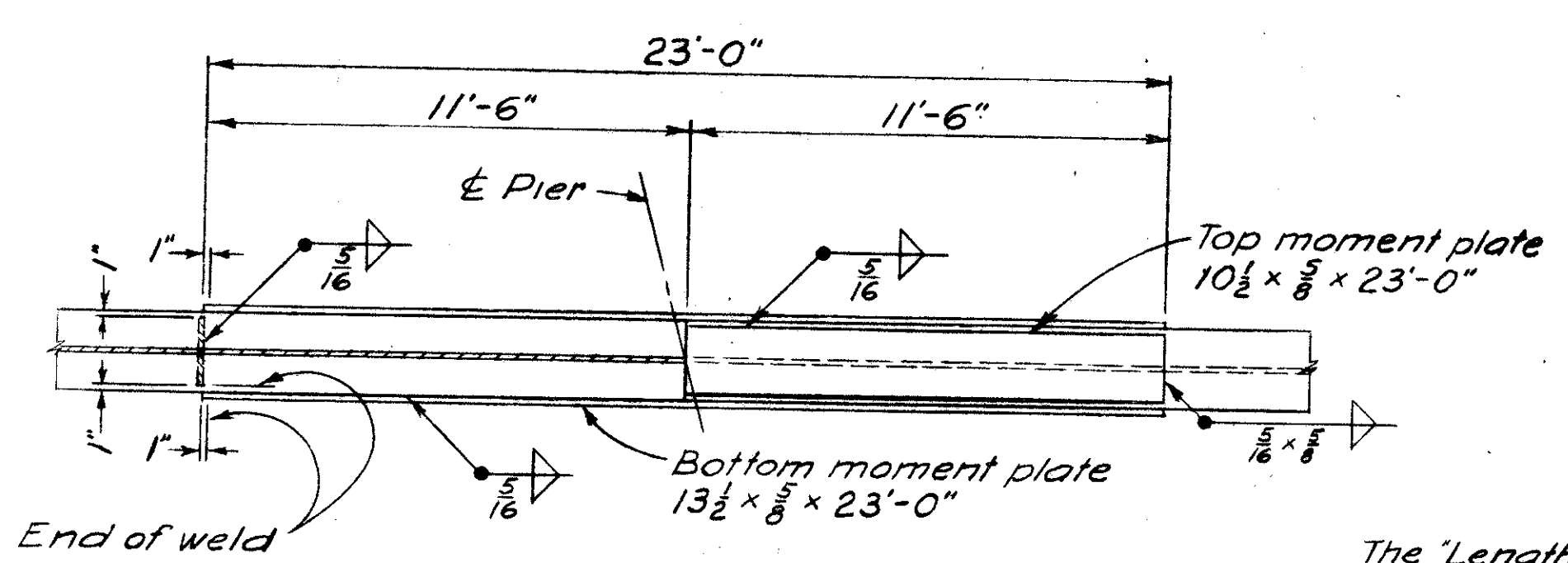


ELEVATION



SECTION A-A

BEAM SPLICE DETAILS AT PIER 1 AS SHOWN AT PIER 5 OPPOSITE HAND

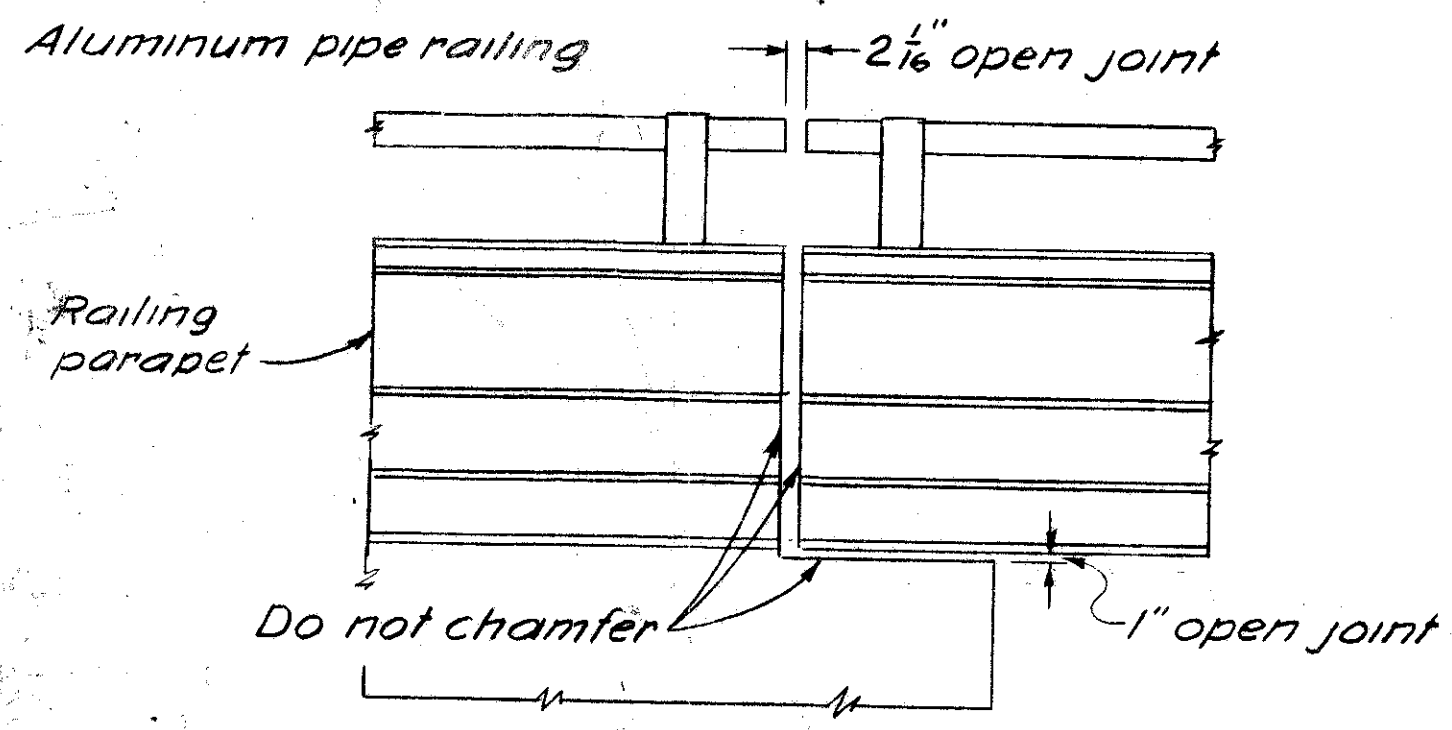


SECTION B-B

BEAM SPLICE DETAILS AT PIER 2, 3 AND 4

BEAM SPLICE WELDING PROCEDURE

1. Raise end of beam at fourth pier 2 1/4".
2. Butt-weld beam flanges and web at third pier using following sequence: make one pass on each flange, then one on web; repeat until welds are completed.
3. Weld top and bottom flange moment plates at third pier.
4. Lower end of beam at fourth pier.
5. Raise ends of beams at first and fifth piers 1 1/8".
6. Make splice at second and fourth piers in the same manner.
7. Lower ends of beams at first and fifth piers.
8. Raise ends of beams at abutments 3/8".
9. Make splice at first and fifth piers in the same manner.



VIEW A - A

REINFORCING STEEL LIST														
Mark	No.	Length	Weight	Shp.	Bending Diagram					Mark	No.	Length	Weight	Shp.
Abutments										Piers				
A501	12	29'-0"	363	S	5'-9" %					P501	100	7'-6"	782	B
A502	52	6'-11"	375	B	3'-5" %					P502	10	24'-10"	259	S
A503	62	3'-9"	242	S	A502					P601	50	9'-8"	726	B
A504	6	30'-8"	192	S	10" %					P701	35	8'-0"	572	B
A505	58	4'-5"	286	B	6'-2" %					P702	10	24'-10"	508	S
A506	4	30'-0"	125	S	2'-4" ±					P703	40	14'-11"	1220	S
A507	8	15'-0"	125	S	4'-7" ±					P704	270	11'-2"	6763	B
A508	16	4'-1"	68	B	1'-4" %					P901	36	16'-6"	2020	S
A509	16	7'-3"	121	S	A601					P902	36	17'-3"	2111	S
A510	32	9'-0"	300	S	A608					P903	36	18'-0"	2203	S
A511	8	9'-5"	79	S	A610					P904	36	16'-11"	2071	S
A512	8	8'-11"	74	S	A513					P905	36	16'-3"	1989	S
A513	12	7'-6"	94	B	A516					P906	180	6'-6"	3978	B
A514	4	16'-9"	70	S	A517					P1001	25	14'-0"	1506	S
A515	4	16'-6"	69	S	A518					Superstructure				
A516	20	7'-2"	149	B	A519					S501	683	31'-0"	22083	S
A517	4	8'-2"	34	B	A520					S502	586	5'-0"	3056	B
A518	4	8'-8"	36	B	A521					S503	586	2'-10"	1732	S
A519	88	4'-5"	405	B	A522					S504	1172	2'-3"	2750	B
A520	16	3'-1"	51	B	P704					S601	683	31'-0"	31802	S
A521	8	2'-5"	20	B	P601					S602	611	38'-0"	34873	S
A522	56	4'-8"	273	B	P906					S603	110	30'-0"	4957	S
A601	52	15'-3"	1191	B	R=1'-4"					Railing				
A602	44	5'-0"	330	S	R=1'-2"					R501	16	11'-7"	*	S
A603	2	7'-0"	21	S	R=1'-2"					R502	200	14'-8"	*	S
A604	20	4'-4"	130	B	R=1'-2"					R503	16	13'-1"	*	S
A605	20	9'-0"	270	S	RE401					Replacement bars				
A606	8	7'-5"	89	S	RE901					RE1001	1	7'-2"		S
A607	10	6'-2"	93	S	RE701					RE901	1	6'-10"		S
A608	2	7'-10"	24	B	RE601					RE701	1	6'-2"		S
A609	6	12'-9"	115	S	RE501					RE601	4	5'-11"		S
A610	6	15'-2"	137	B	RE401					RE501	2	5'-7"		S
A611	8	14'-7"	175	S	P701					RE401	1	5'-3"		B
A612	4	14'-3"	86	S										
A613	2	12'-9"	38	S										
A614	4	15'-4"	92	S										
A615	2	13'-8"	41	S										

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

Spiral Reinforcing List						
Mark	No.	Core Dia.	Length	Pitch	No. Turns	Weight
SP401	3	32"	13'-5"	4 1/2"	39	754
SP402	3	32"	14'-1"	4 1/2"	41	794
SP403	3	32"	14'-10 1/2"	4 1/2"	41	834
SP404	3	32"	13'-8"	4 1/2"	41	774
SP405	3	32"	13'-1"	4 1/2"	38	736

*Included with railing for payment.

This sheet SUPERSEDED by sheet 354A. 9-3-58.

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicates the bar size number. For example, P901 is a No. 9 size bar and No. 1001 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. 5-4.02 need not be furnished and replacement bars will not be required.

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

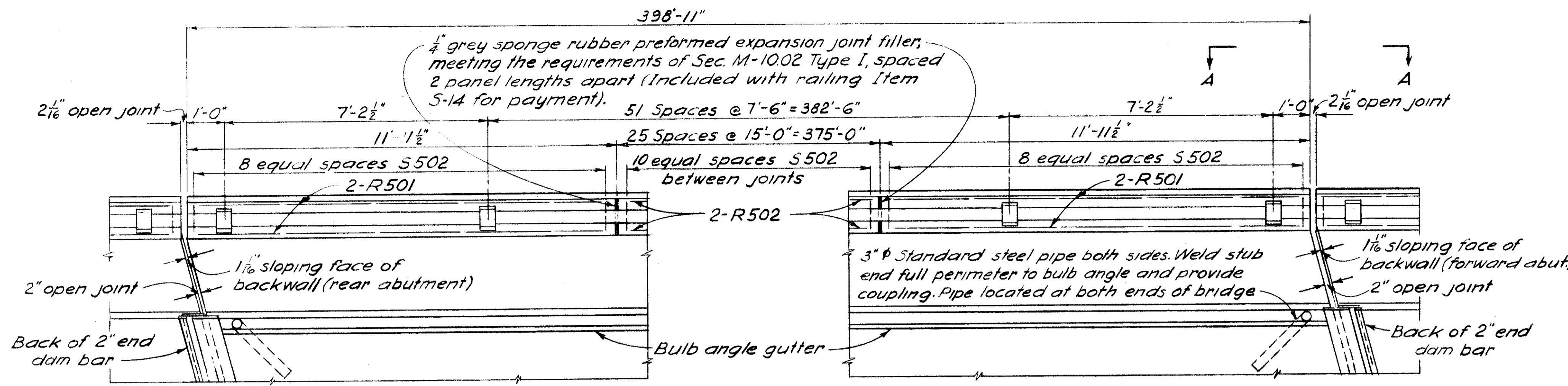
SUP RSTRUCTURE DET. RE FORCING STEEL

BRID: WAR-25-1149

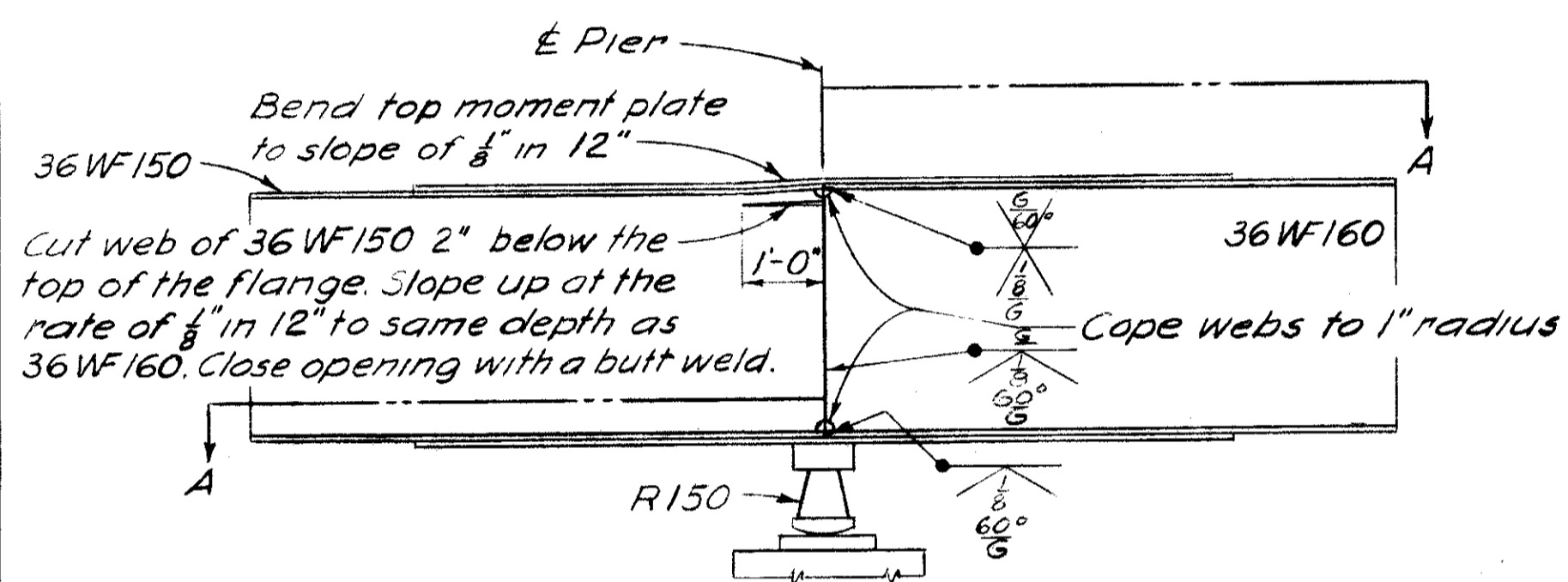
WARR PENNYROYAL RD STA. 16

DESIGNED: G.P.K.

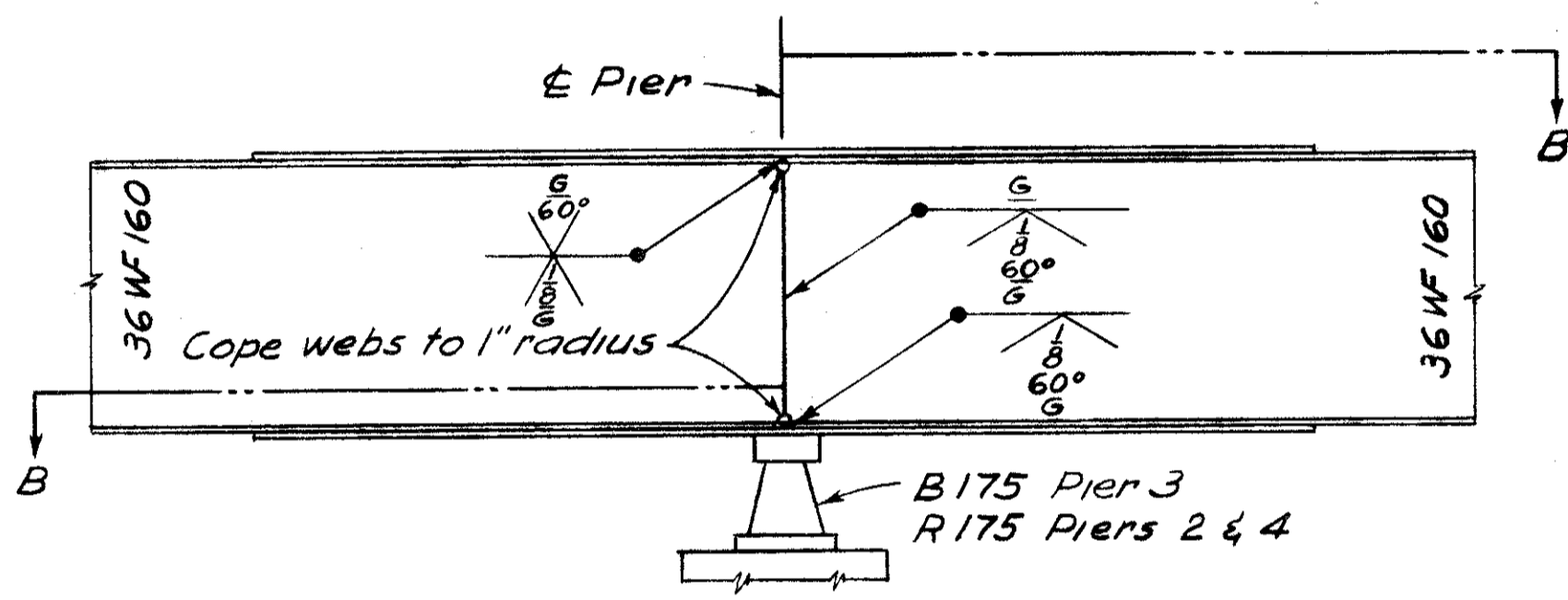
CHECKED: E.W.T. REVIEWED: R.B.Y. 6/27



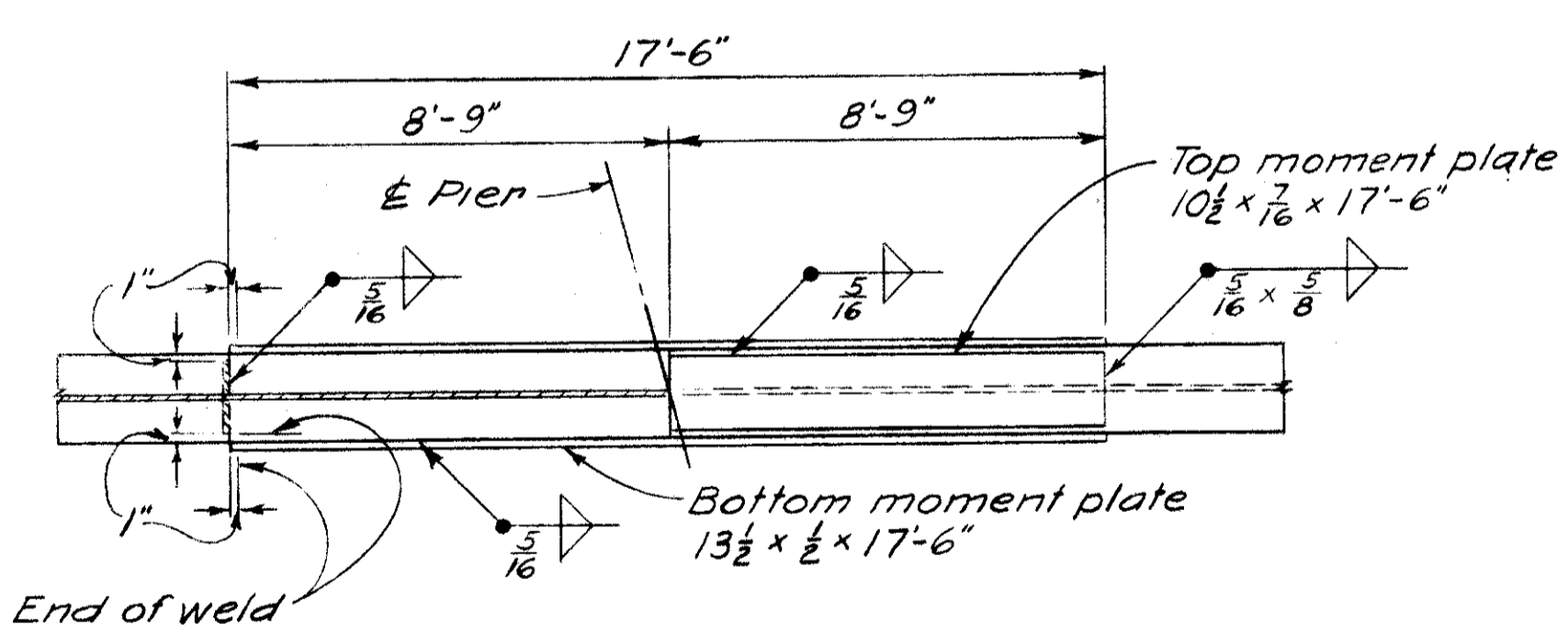
PART PLAN OF ABUTMENTS



ELEVATION

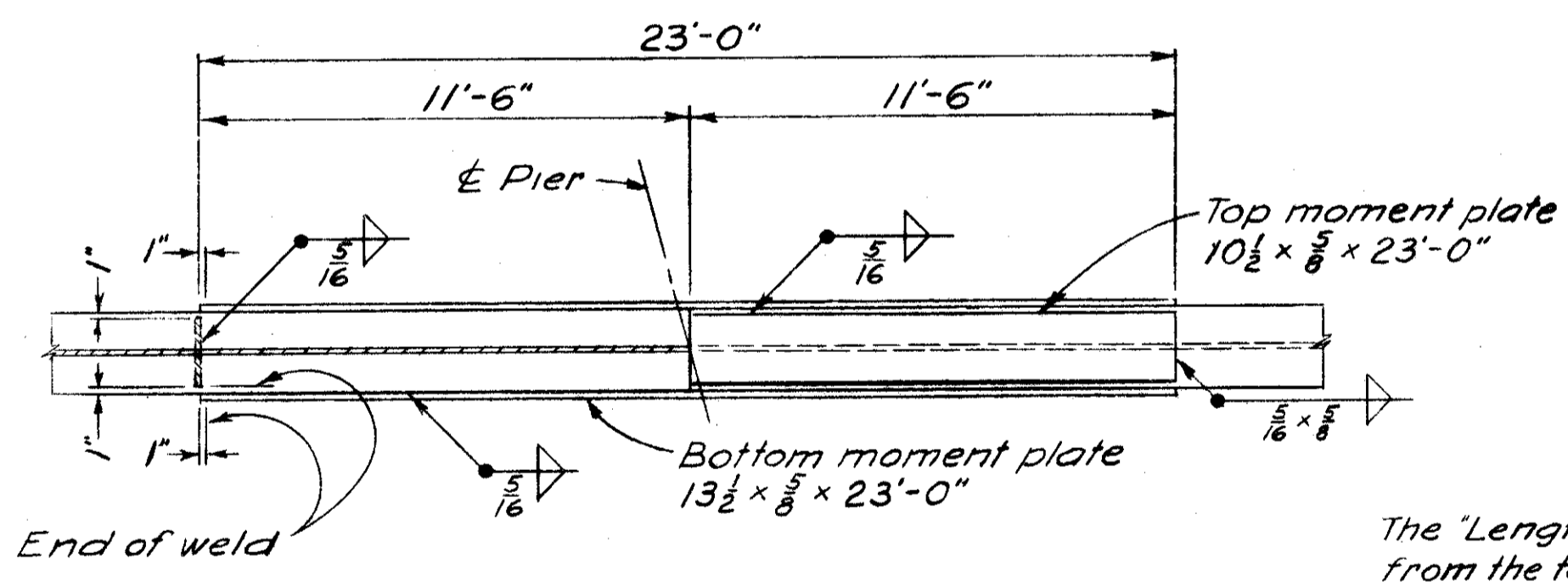


ELEVATION



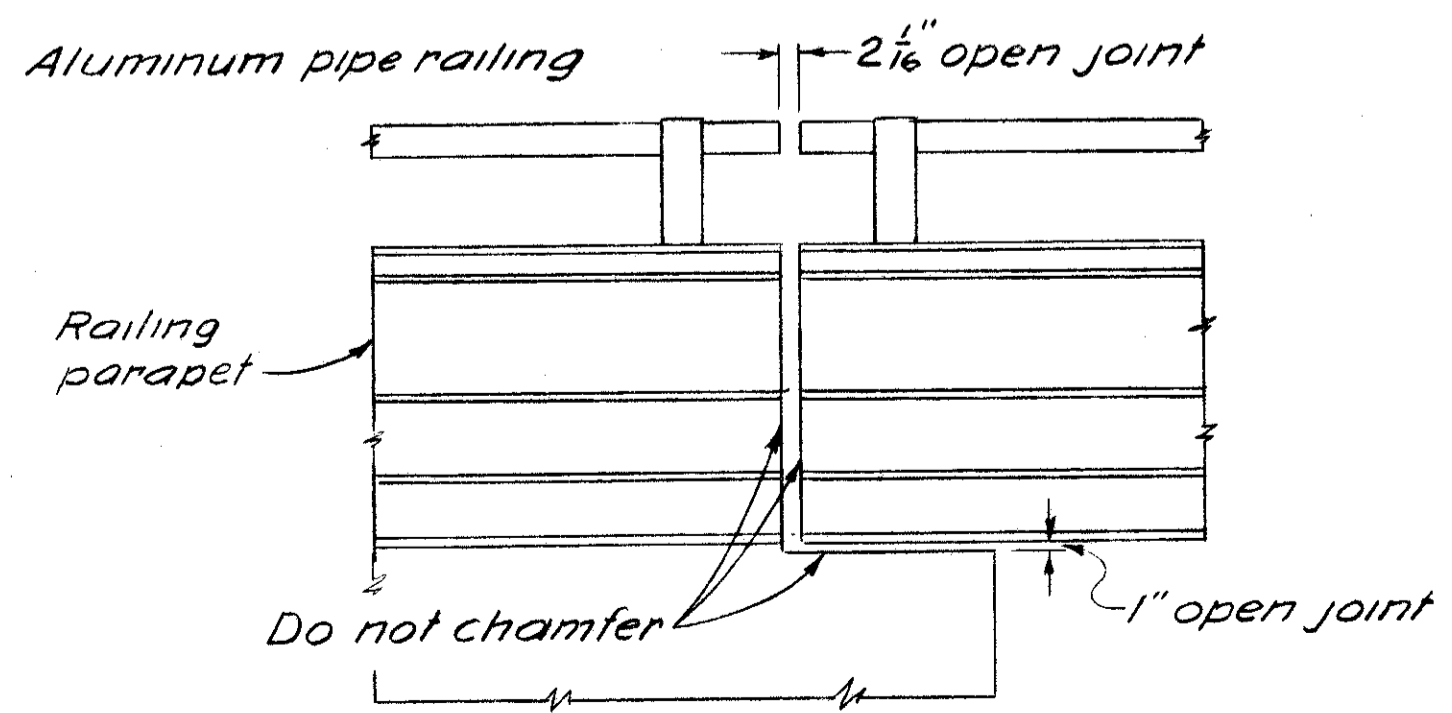
SECTION A-A

BEAM SPLICE DETAILS AT PIER 1 AS SHOWN AT PIER 5 OPPOSITE HAND



SECTION B-B

BEAM SPLICE DETAILS AT PIER 2, 3 AND 4



VIEW A - A

BEAM SPLICE WELDING PROCEDURE

1. Raise end of beam at fourth pier 2 1/4".
2. Butt-weld beam flanges and web at third pier using following sequence: make one pass on each flange, then one on web; repeat until welds are completed.
3. Weld top and bottom flange moment plates at third pier.
4. Lower end of beam at fourth pier.
5. Raise ends of beams at first and fifth piers 1 1/8".
6. Make splice at second and fourth piers in the same manner.
7. Lower ends of beams at first and fifth piers.
8. Raise ends of beams at abutments 3/4".
9. Make splice at first and fifth piers in the same manner.

REINFORCING STEEL LIST					REINFORCING STEEL LIST																
Mark	No.	Length	Weight	Shp.	Bending Diagram					Mark	No.	Length	Weight	Shp.							
Abutments					Piers					Superstructure											
A501	10	29'-0"	302	S	A505	3'-5"	A508	4'-7"	P501	100	7'-6"	782	B	Railing							
A502	52	6'-11"	375	B	A601	10'-0"	A604	4'-8"	P502	10	24'-10"	259	S	R501	16	11'-7"	*	S			
A503	62	2'-9"	178	S	A608	7'-2"	A610	14'-6"	P601	50	9'-8"	726	B	R502	200	14'-8"	*	S			
A504	6	30'-8"	192	S	A616	17'-4"	A603	10'-8"	P701	70	8'-1"	1156	B	R503	16	13'-1"	*	S			
A505	58	4'-5"	286	B	A524	3'-0"	A523	5'-3"	P702	10	24'-10"	508	S	Replacement bars							
A506	4	30'-0"	125	S	A502	5'-9"	A522	8"	P703	40	14'-11"	1220	S	RE1101	1	7'-7"		S			
A507	8	15'-0"	125	S	A513	7'-6"	A514	16'-9"	P801	144	10'-8"	4101	B	RE1001	1	7'-2"		S			
A508	16	5'-1"	84	B	A515	4	A516	16'-6"	P802	120	9'-2"	2937	B	RE901	1	6'-10"		S			
A509	16	6'-3"	104	S	A517	4	A518	8'-2"	P901	36	16'-6"	2020	S	RE801	1	6'-6"		S			
A510	32	8'-0"	266	S	A519	88	A520	16	P902	36	16'-11"	2071	S	RE701	1	6'-2"		S			
A511	8	9'-5"	79	S	A521	8	A522	8	P903	36	16'-3"	1989	S	RE601	4	5'-11"		S			
A512	8	8'-11"	74	S	A523	56	A524	28	P904	108	6'-6"	2387	B	RE501	2	5'-7"		S			
A513	12	7'-6"	94	B	A601	52	A602	42	P1001	25	14'-0"	1506	S	RE401	1	5'-3"		B			
A514	4	16'-9"	70	S	A603	12	A604	20	P1101	72	6'-11"	2646	B	Spiral Reinforcing List							
A515	4	16'-6"	69	S	A605	20	A606	8	P1102	36	23'-2"	4431	S	SP401	3	32"	13'-5"	4 1/2"	39	754	
A516	20	7'-2"	149	B	A607	10	A608	2	P1103	36	23'-6"	4495	S	SP402	3	32"	20'-0"	4 1/2"	56	1091	
A517	4	8'-2"	34	B	A609	6	A610	6	P501	5501	683	31'-0"	22083	S	SP403	3	32"	20'-4 1/2"	4 1/2"	57	1110
A518	4	8'-8"	36	B	A611	8	A612	4	P502	5502	586	5'-0"	3056	B	SP404	3	32"	13'-8"	4 1/2"	40	774
A519	88	4'-5"	405	B	A613	2	A614	2	P503	5503	586	2'-10"	1732	S	SP405	3	32"	13'-1"	4 1/2"	38	736
A520	16	3'-1"	51	B	A615	2	A616	16	P504	5504	1172	2'-3"	2750	B	* Included with railing for payment.						
A521	8	2'-5"	20	B																	
A522	56	4'-8"	273	B																	
A523	56	6'-5"	374	B																	
A524	28	4'-2"	122	B																	

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

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicates the bar size number. For example, P901 is a No. 9 size bar and No. 1001 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. 5-4.02 need not be furnished and replacement bars will not be required.

YULE, STICKLEN, JORDAN & McNEE
COLUMBUS ENGINEERS OHIO

SUPERSTRUCTURE DETAILS & REINFORCING STEEL LIST

BRIDGE NO. WAR-25-1149
UNDER PENNYROYAL RD
WARREN COUNTY STA. 169 + 75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.P.K.	A.M.	A.M.	E.W.T.	R.B.Y.	8-14-58	

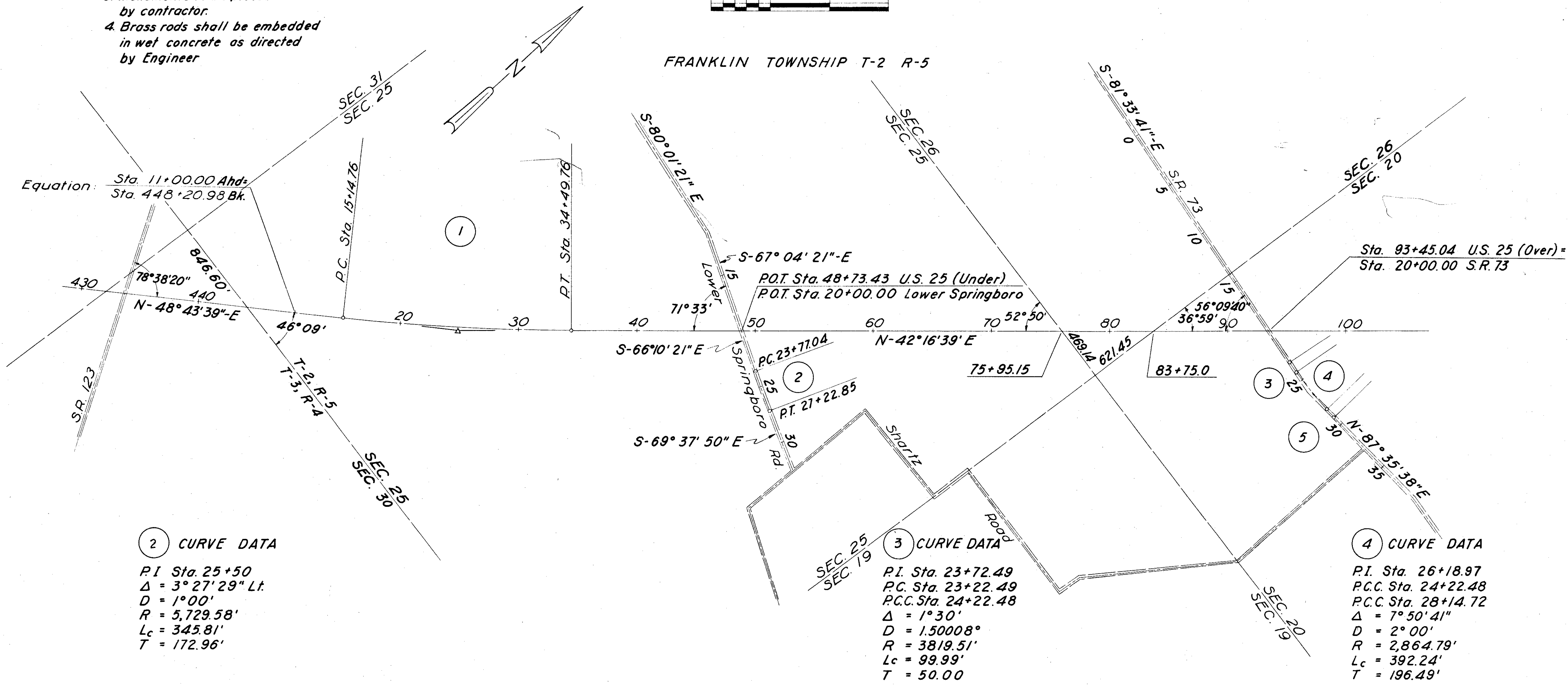
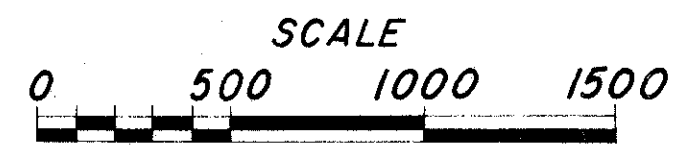
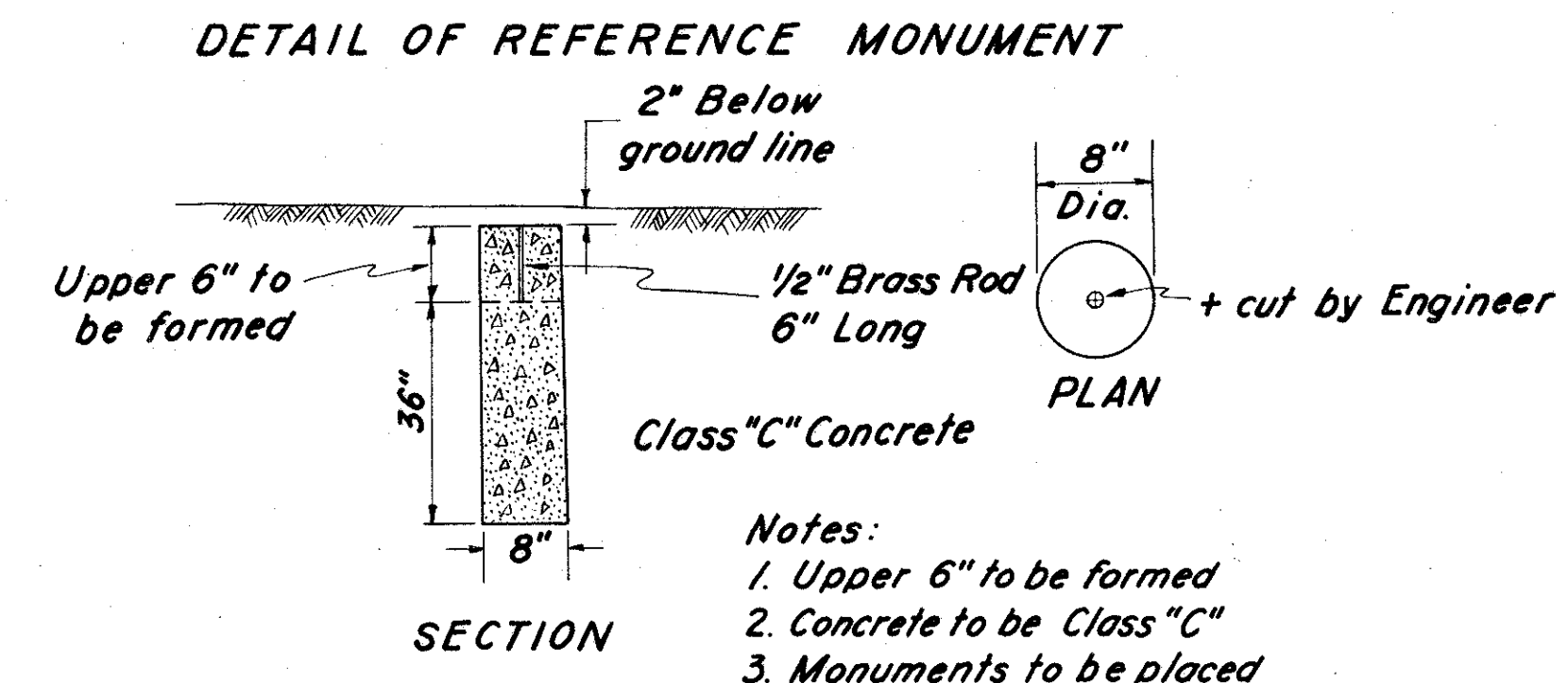
WAR.-25-848
MOT.-25-0.00

LOCATION PLAN

U.S. ROUTE NO. 25
WAR.-25-848

WARREN COUNTY

Recorded: _____
Plat Book _____ Page _____
Warren County, Ohio
Fee _____
Signed _____
Date _____ Division Deputy Director
Registered Surveyor No. _____
Registered Engineer No. _____



1 CURVE DATA
P.I. Sta. 24+83.28
 $\Delta = 6^\circ 27' 00''$ Lt.
D = 0' 20"
R = 17,188.74'
Lc = 1935.00'
T = 968.52'

2 CURVE DATA
P.I. Sta. 25+50
 $\Delta = 3^\circ 27' 29''$ Lt.
D = 1' 00"
R = 5,729.58'
Lc = 345.81'
T = 172.96'

3 CURVE DATA
P.I. Sta. 23+72.49
P.C. Sta. 23+22.49
P.C.C. Sta. 24+22.48
 $\Delta = 1^\circ 30'$
D = 1,500.08°
R = 3819.51'
Lc = 99.99'
T = 50.00'

4 CURVE DATA
P.I. Sta. 26+18.97
P.C. Sta. 24+22.48
P.C.C. Sta. 28+14.72
 $\Delta = 7^\circ 50' 41''$
D = 2' 00"
R = 2,864.79'
Lc = 392.24'
T = 196.49'

5 CURVE DATA
P.I. Sta. 28+64.72
P.C. Sta. 28+14.72
P.T. Sta. 29+14.71
 $\Delta = 1^\circ 30'$
D = 1,500.08°
R = 3819.51'
Lc = 99.99'
T = 50.00'

CENTERLINE REFERENCE MONUMENTS U.S. 25 (INTERSTATE)

CENTERLINE REFERENCE MONUMENTS S.R. 73

P.O.T. Sta. 11+00	P.C. Sta. 15+14.76	P.O.C. Sta. 20+00	P.O.C. Sta. 25+00	P.O.C. Sta. 30+00	P.T. Sta. 34+49.76	P.O.T. Sta. 38+00	P.O.T. Sta. 43+00	P.O.T. Sta. 48+00	P.O.T. Sta. 50+00	P.O.T. Sta. 0+00	P.O.T. Sta. 5+00	P.O.T. Sta. 10+00	P.O.T. Sta. 15+00	P.O.T. Sta. 20+00
P.O.T. Sta. 55+00	P.O.T. Sta. 60+00	P.O.T. Sta. 65+05.26	P.O.T. Sta. 70+00	P.O.T. Sta. 75+00	P.O.T. Sta. 80+00	P.O.T. Sta. 85+00	P.O.T. Sta. 89+94.75	P.O.T. Sta. 95+00	P.O.T. Sta. 100+00	P.C. Sta. 23+22.49	P.C.C. Sta. 22+24.48	P.C.C. Sta. 28+14.72	P.T. Sta. 29+14.71	P.O.T. Sta. 38+25

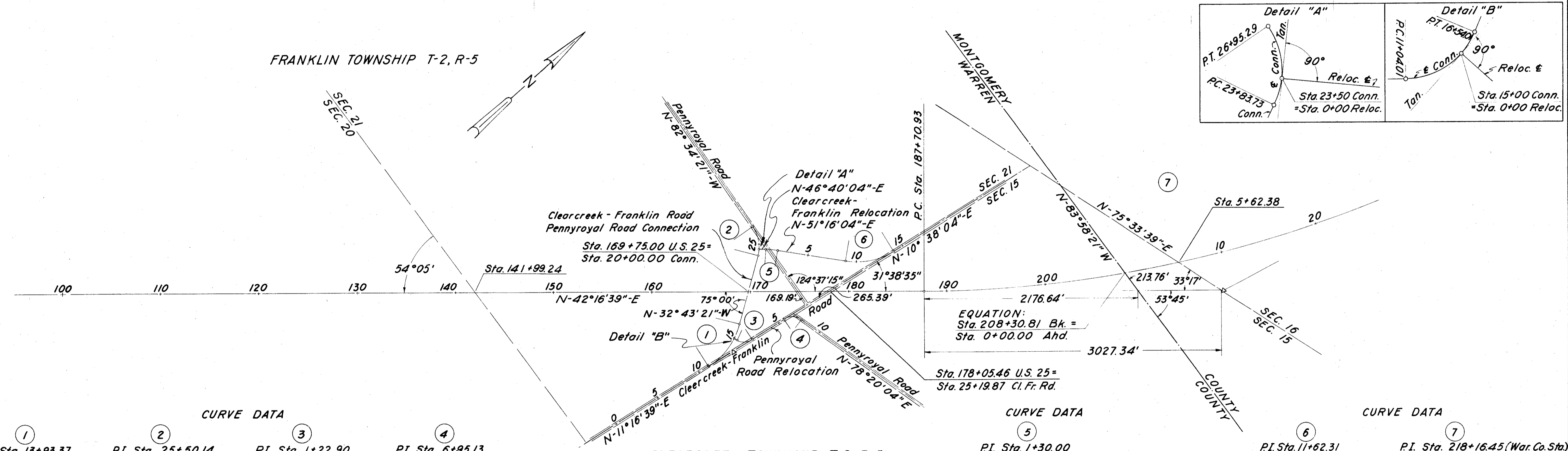
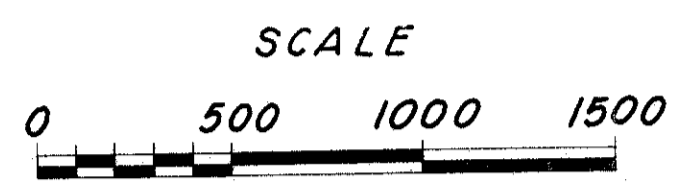
LOCATION PLAN

U. S. ROUTE NO. 25
WAR.-25-8.48

Recorded: _____
Plot Book _____ Page _____
Warren County, Ohio
Fee _____

Signed _____
Date _____ Division Deputy Director
Registered Surveyor No. _____
Registered Engineer No. _____

WARREN COUNTY



CURVE DATA

<p>①</p> <p>PI Sta. 13+93.37 PC Sta. 11+04.01 PT Sta. 16+54.01 Δ = 44° 00' Lt. D = 8° 00' R = 716.20' T = 289.36' Lc = 550.00'</p>	<p>②</p> <p>PI Sta. 25+50.14 PC Sta. 23+83.73 PT Sta. 26+95.29 Δ = 49° 51' Lt. D = 16° 00' R = 358.10' T = 166.41' Lc = 311.56'</p>	<p>③</p> <p>PI Sta. 1+22.90 PC Sta. 0+38.11 PT Sta. 1+92.46 Δ = 58° 57' 30" Rt. D = 38° 11' 50" R = 150.00' T = 84.79' Lc = 154.35'</p>
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<p>④</p> <p>PI Sta. 6+95.13 PC Sta. 5+94.52 PT Sta. 7+71.75 Δ = 67° 42' 00" Rt. D = 38° 11' 50" R = 150.00' T = 100.61' Lc = 177.23'</p>
--

CURVE DATA

<p>⑤</p> <p>PI Sta. 1+30.00 PC Sta. 0+72.47 PT Sta. 1+87.47 Δ = 4° 36' 00" Rt. D = 4° 00' R = 1432.39' T = 57.53' Lc = 115.00'</p>
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CURVE DATA

<p>⑥</p> <p>PI Sta. 11+62.31 PC Sta. 8+97.14 PT Sta. 14+05.06 Δ = 40° 38' 00" Lt. D = 8° 00' R = 716.20' T = 265.17' Lc = 507.92'</p>	<p>⑦</p> <p>PI Sta. 218+16.45 (War. Co. Sta.) PC Sta. 187+70.93 PT Sta. 39+10.66 Δ = 27° 51' 45" Lt. D = 0° 28' R = 12,277.67' T = 3,045.52' Lc = 5,970.54'</p>
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CENTERLINE REFERENCE MONUMENTS U.S. 25 (INTERSTATE)

<p>P.O.T. Sta. 105+00</p>	<p>P.O.T. Sta. 110+00</p>	<p>P.O.T. Sta. 115+00</p>	<p>P.O.T. Sta. 120+00</p>	<p>P.O.T. Sta. 125+00</p>	<p>P.O.T. Sta. 130+00</p>	<p>P.O.T. Sta. 135+00</p>	<p>P.O.T. Sta. 140+00</p>	<p>P.O.T. Sta. 145+00</p>	<p>P.O.T. Sta. 150+00</p>	<p>P.O.T. Sta. 155+00</p>	<p>P.O.T. Sta. 160+00</p>	<p>P.O.T. Sta. 168+00</p>	<p>P.O.T. Sta. 171+00</p>	<p>P.O.T. Sta. 180+00</p>	<p>PC Sta. 187+70.93</p>	<p>P.O.C. Sta. 195+00</p>	<p>P.O.C. Sta. 200+00</p>	<p>P.O.C. Sta. 208+30.81</p>
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SUMMARY OF ADDITIONAL R/W REQUIRED

U.S. ROUTE 25 SECTION 8.48 WARREN CO.
TOTAL NUMBER OF OWNERS-43

PARCEL NO.	OWNERS NAME	AREA ACRES	EXIST. BLDGS.	SHEET NO.	REMARKS
76-LA	Howard Monger	12.84		3&4	
77-LA	Arthur T. Easton	21.81		4,5&6	
77	"	.01		6	
77-A	"	.02		6	
78-LA	Robert & Irene Burns	.09		6	
78	"	.03		6	
78-WA	"			6	
79-LA	David D. & Angeline Patrick	.14		6	
79	"	.50		6	
79-X	"	.04		6	
79-WA	"			6	
79A-LA	"	4.24		6	
79A	"	.09		6	
79A-X	"	.25		6	
80-LA	William F. & Mildred P. Edwards	.22		6	
80-X	"	.30		6	
80	"	.15		6	
80-WA	"			6	
81-LA	Henry H. & Myrtle M. Gampher	11.01		6&7	
81	"	.03		6	
81-X	"	.09		6	
82-LA	Stetson & Lena Kindred	4.19		7	
83-LA	Brooks Wills	3.09		7-8	
84-LA	George E. & Miriam L. Boullain	9.78		7,8&9	
84A-LA	"	2.01		9&10	
84A-X	"	.13		10	
84A-Y	"	.10		10	
84A-T	"	2.52		9&10	
85-LA	Sarah E. Fry, Et Al	56.57		8,9,11,12&13	
85-X	"	3.60		11&12	
85-Y	"	.12		11&12	
85-Z	"	.21		13	
85-WA	"			12	
85-WA-1	"			11	
85-WA-2	"			12	
85-T	"	.39		12	
85-SL	"	.01		12	
85	"	2.52		9&13	
86-LA	Cincinnati Gas & Electric Co.	.07	Yes	11	
86-X	"	.04		11	
87-LA	Mary V. Phillips	.35		12	
87-T	"	.22		12	
87-WA	"			12	
87-SL	"	.03		12	
88-LA	Noah & Loretta Dawson	.24		12	
89-LA	James A. Ross	.13		12	
90-LA	Calvin & Edna Kirk	.03		12	
91-LA	Robert A. & David M. Borden	.33		12	
91-T	"	1.56		12	

U.S. ROUTE 25 SECTION 8.48 WARREN CO.
CONTINUED

PARCEL NO.	OWNERS NAME	AREA ACRES	EXIST. BLDGS.	SHEET NO.	REMARKS
91-SL	Robert A. & David M. Borden	.06		12	
92-LA	Noah Kent	.23		9	
92	"	.07	Yes	9	
93-LA	Elbert & Pearl Owens	2.34	Yes	9&10	
93	"	1.12		9&10	
93-X	"	.02		10	
93-Y	"	.53		10	
94-LA	Audrey & Claude Thomas	23.66	Yes	13,14&15	
94-X	"	.62		13	
94A-LA	"	.04		12	
94A-WA	"			12	
95-LA	Joseph P. & Hattie M. Dalton	.58		14	
96-LA	Everett & Blanche Wilson	12.13		14&15	
97-LA	Samuel L. & Grace Swafford	11.55		15&16	
97	"	.05		18	
98-LA	Mary B. Millard	13.94		16&17	
98	"	1.07		18	
98-WA	"			18	
98A	Alfred H. Millard	.43	Yes	18	
98A-WA	"			18	
99-LA	Earl E. Sears	5.69		17	
99	"	1.24	Yes	17	
100-LA	Wiley F. Akers	5.64	Yes	17&19	
100	"	2.79		17&18	
100A-LA	"	.19		17&19	
100A	"	.02		17&19	
101	James F. & Kathleen V. Miller	.40		17&19	
102	Edith I. Hacker	.30		17&18	
103	Dona Patrick, Jr.	.30		18	
104	Wayne W. & Anna L. Russell	.30		18	
105	"	.30		18	
105-WA	"			18	
106	Charles F. & Valerie G. Tinsley	.30		18	
107	Wade & Erna M. Abrams	.26		18	
107-WA	"			18	
108	Tom Florence, Inc.	.20		18	
109	Walter G. & Merinell F. Vance, Jr.	.14		18	
110-LA	Fay Beal	.17		17	
110	"	.06		17	
111	Delbert G. & Evelyn Lakes	.06		17	
112-LA	Leonard Dennis	2.59	Yes	17&19	
112	"	3.80	Yes	17&19	
113-LA	Wendell Dennis	.78	Yes	17&19	
114-LA	Fern Du Vall	3.66		19	
115-LA	Kenneth A. & Phyllis J. Ward	.01		19	
116-LA	Noomi T. Emert	21.11		19&20	
116	"	.16		19	
117	Victor & Alice E. Johnson	.21		19	
118-LA	Elmer W. & Bess H. Lucas	6.32	Yes	20&21	

U.S. ROUTE 25 SECTION 0.00 MONTGOMERY CO.
TOTAL NUMBER OF OWNERS-4

PARCEL NO.	OWNERS NAME	AREA ACRES	EXIST. BLDGS.	SHEET NO.	REMARKS
1-LA	Elmer W. & Bess H. Lucas	5.90		21	
2-LA	Ernest E. & Thelma J. Moore	13.61		21&22	
2-X	"	1.86		22	
3-LA	Henry N. Hollencamp, Trustee	10.03		22&23	
3-X	"	.57		22&23	
3-Y	"	1.01		22&23	
4-LA	Elizabeth A. Doan	.04		23	
4-X	"	.12		22&23	

LIMITED ACCESS

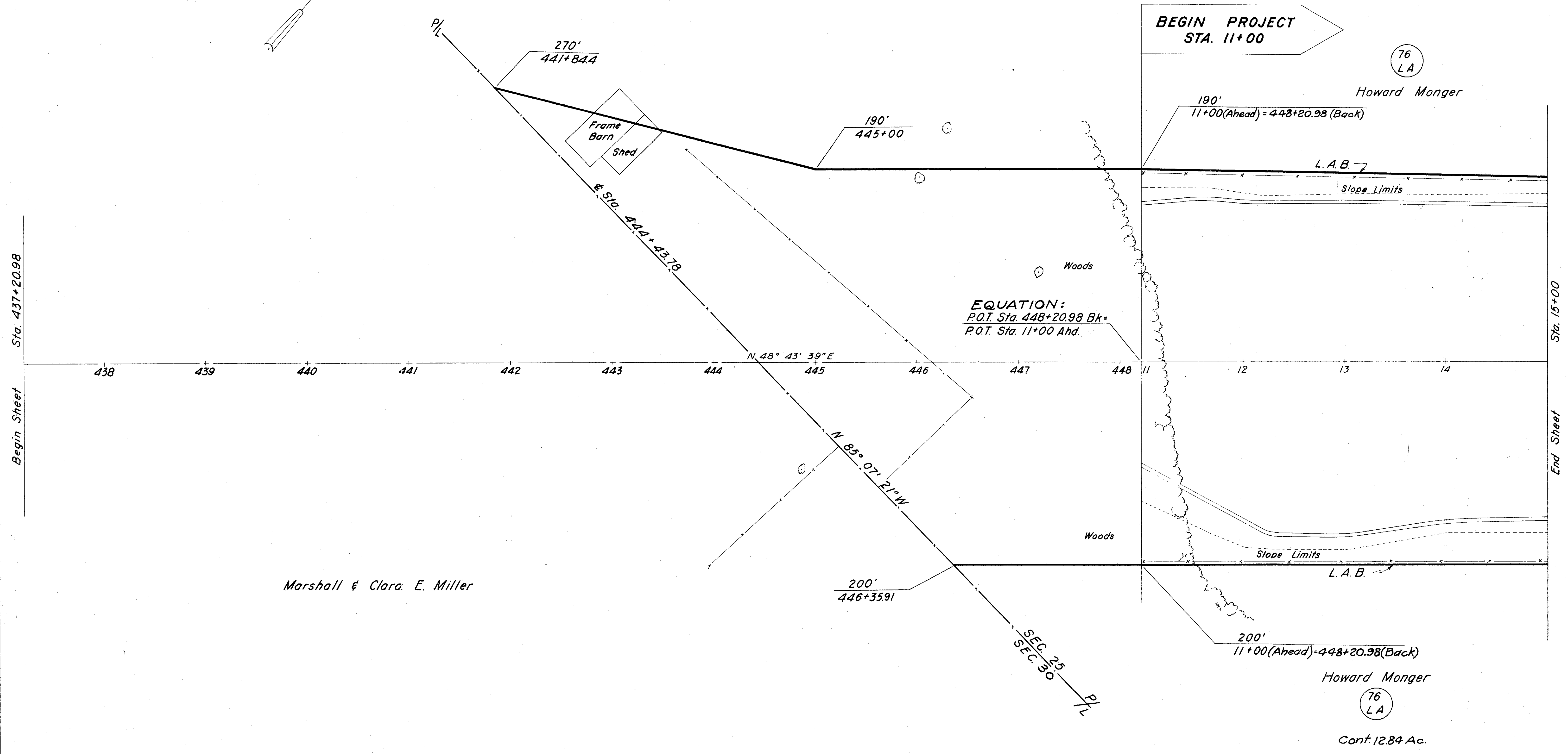
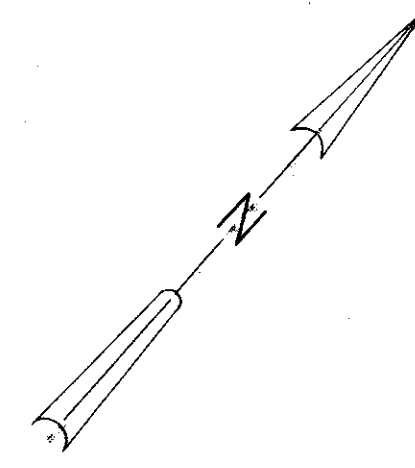
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

357
377

WAR.-25-8.48
MOT.-25-0.00

3
23

Scale: 1" = 50'



Begin Sheet Sta. 437+20.98

End Sheet Sta. 15+00

FRANKLIN TWP. T3 R-4 SEC. 30

FRANKLIN TWP. T2 R5 SEC. 25

RIGHT OF WAY Sta. 11+00 to Sta. 15+00

Item SS-18 Type A Fence 800 L.F.

LIMITED ACCESS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

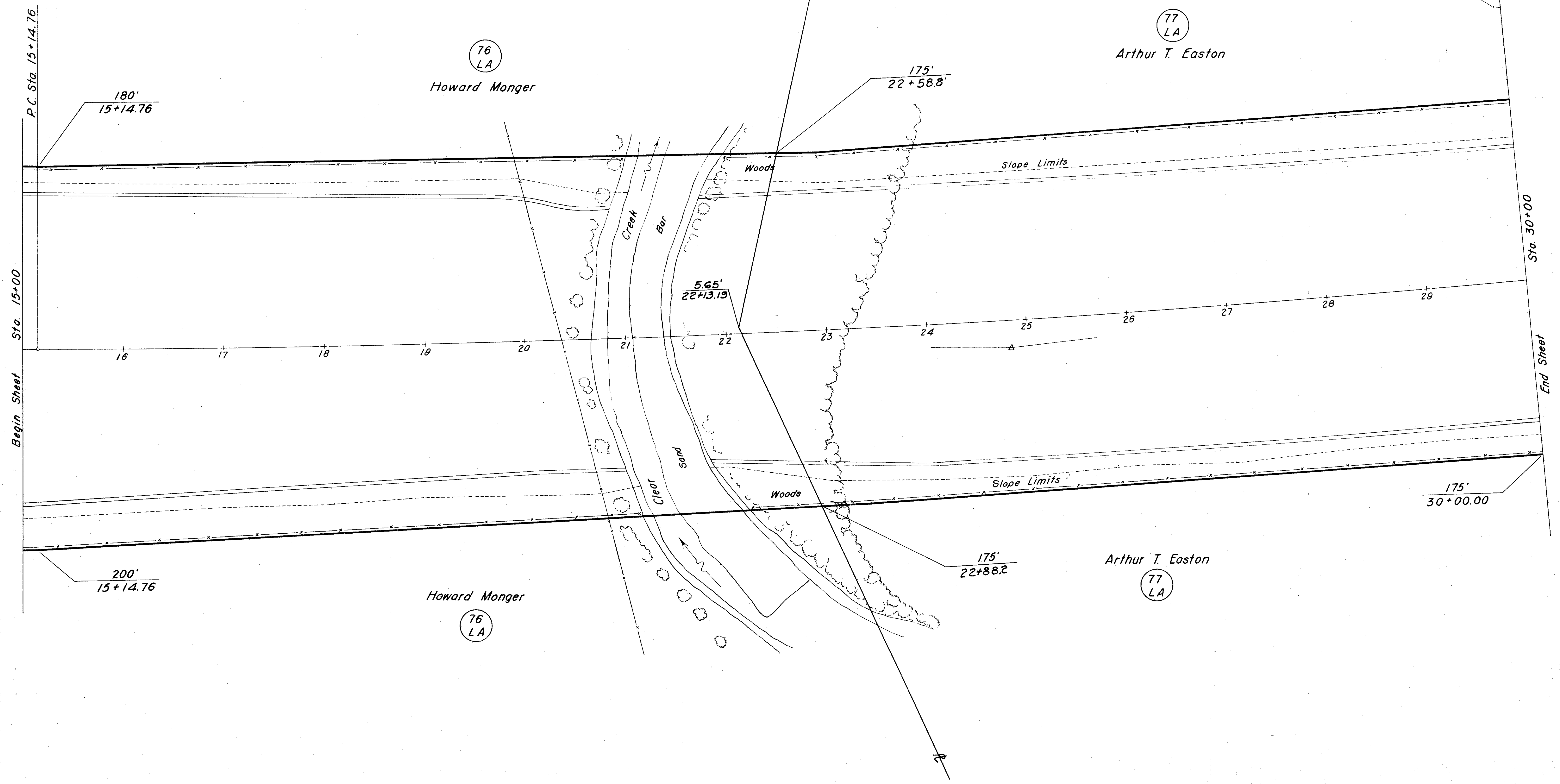
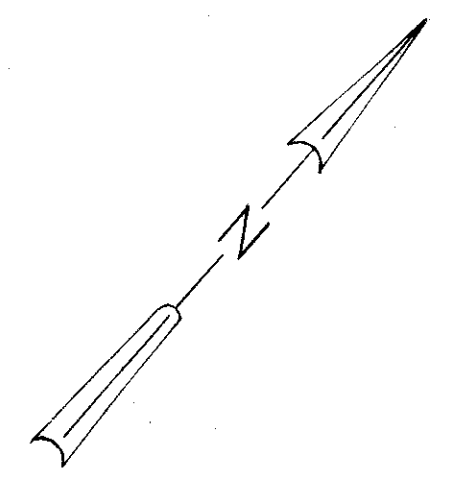
358
377

WAR. - 25-8.48
MOT. - 25-0.00

4
23

Scale: 1" = 50'

CURVE DATA
 PI = Sta. 24 + 83.28
 $\Delta = 6^\circ 27' 00''$ Lt
 D = $0^\circ 20'$
 R = 17,188.74'
 Lc = 1935.00'
 T = 968.52'
 E = 27.26'



Item SS-18 Type A Fence 2783 L.F.

FRANKLIN TWP. T.2 R-5 SEC. 25

RIGHT OF WAY Sta. 15+00 to Sta. 30+00

LIMITED ACCESS

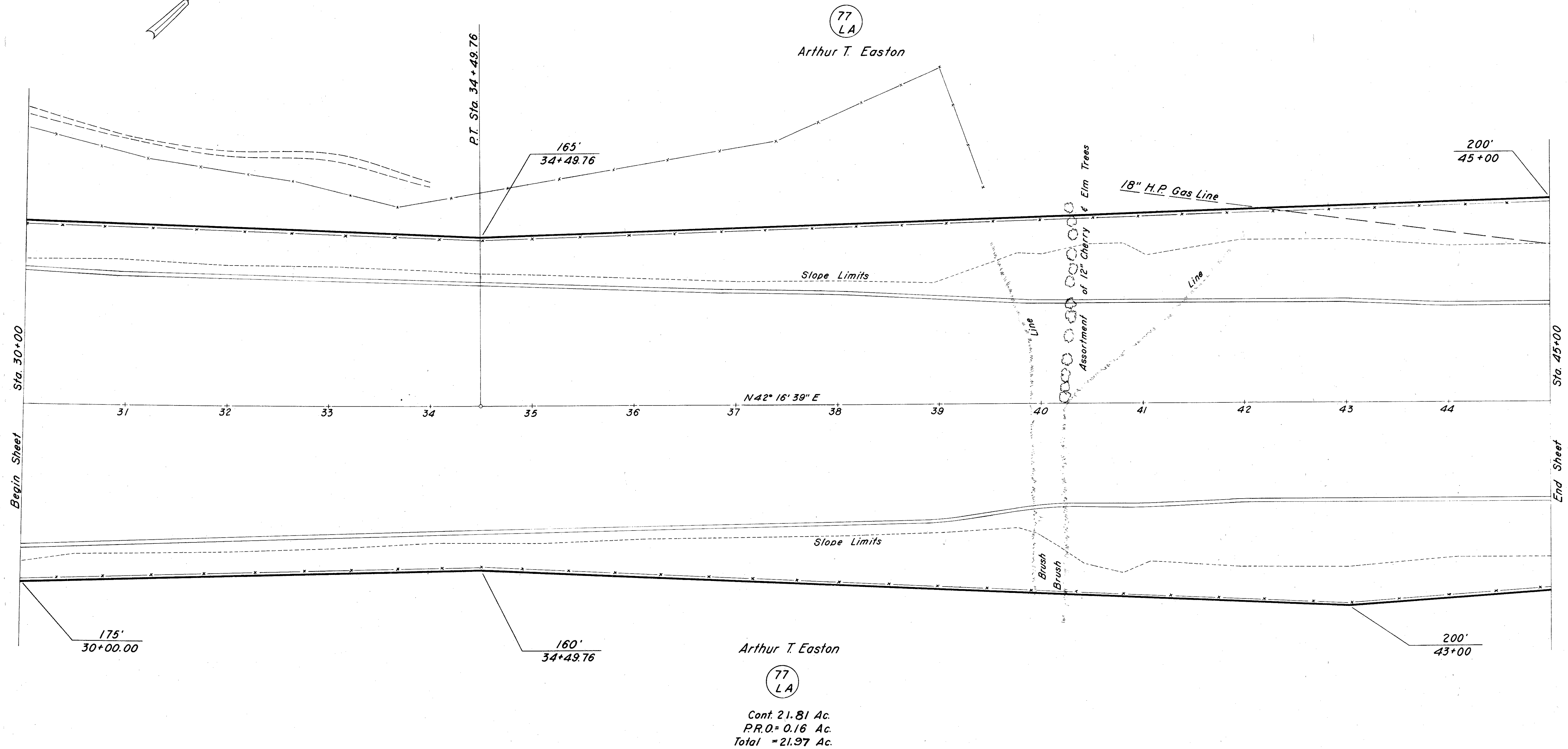
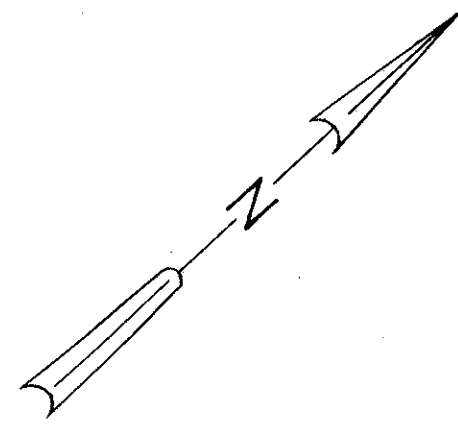
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

359
377

WAR. - 25-8.48
MOT. - 25-0.00

5
23

Scale: 1" = 50'



Arthur T. Easton
 (77 LA)
 Cont. 21.81 Ac.
 P.R.O. = 0.16 Ac.
 Total = 21.97 Ac.

Item 55-18 Type A Fence 3002 L.F.

FRANKLIN TWP. T.2 R-5 SEC. 25

RIGHT OF WAY Sta. 30+00 to Sta. 45+00

LIMITED ACCESS

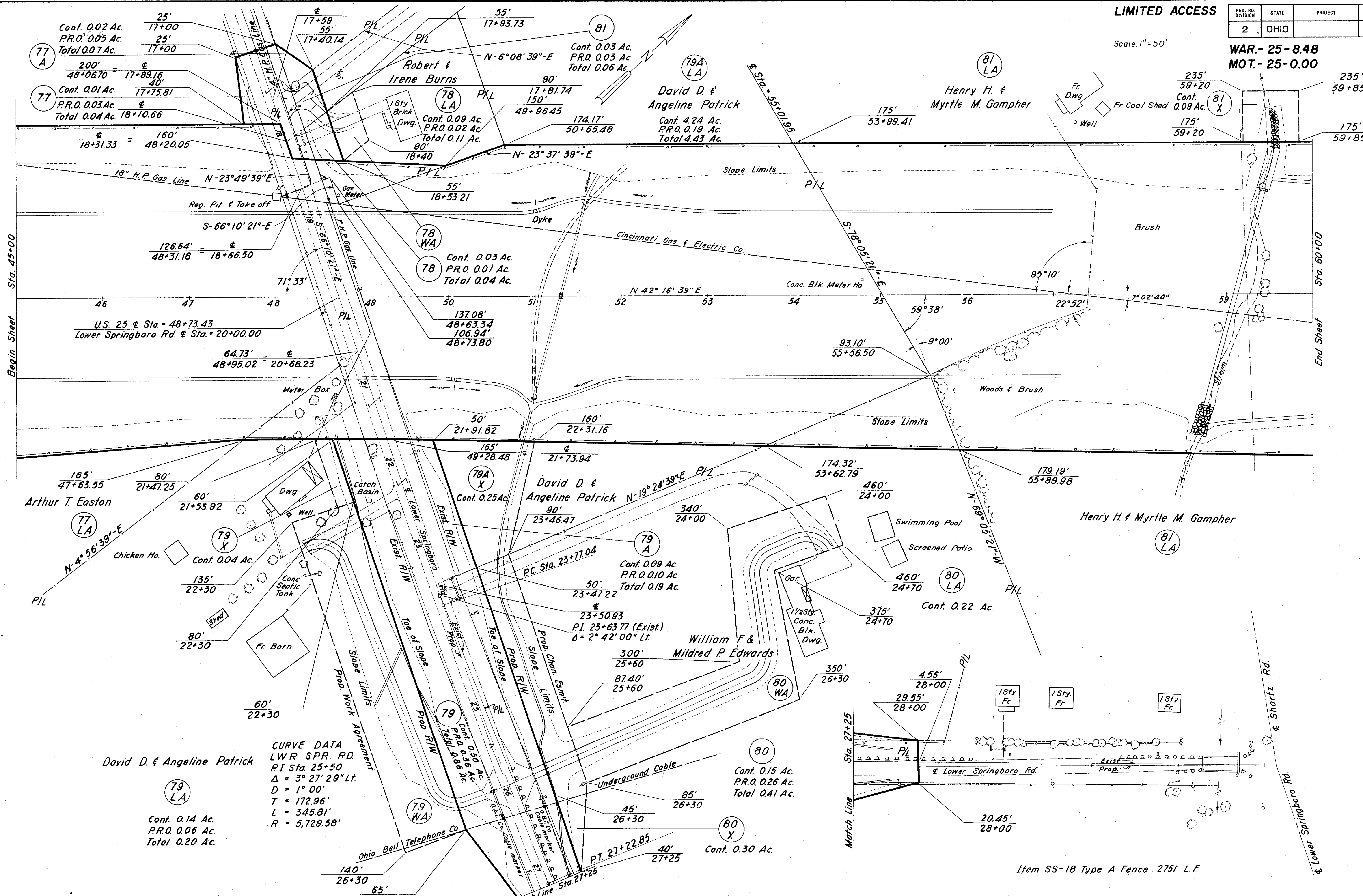
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

360
377

Scale: 1" = 50'

WAR.-25-8.48
MOT.-25-0.00

6
23



David D. & Angeline Patrick
 79 LA
 Cont. 0.14 Ac.
 P.R.O. 0.06 Ac.
 Total 0.20 Ac.

CURVE DATA
 LWR SPR. RD.
 PI Sta. 25+50
 $\Delta = 3^\circ 27' 29''$ Lt.
 $D = 1^\circ 00'$
 $T = 172.96'$
 $L = 345.81'$
 $R = 5,729.58'$

FRANKLIN TWP. T.2 R-5 SEC. 25

Item SS-18 Type A Fence - 2751 L.F.

RIGHT OF WAY Sta. 45+00 to Sta. 60+00

LIMITED ACCESS

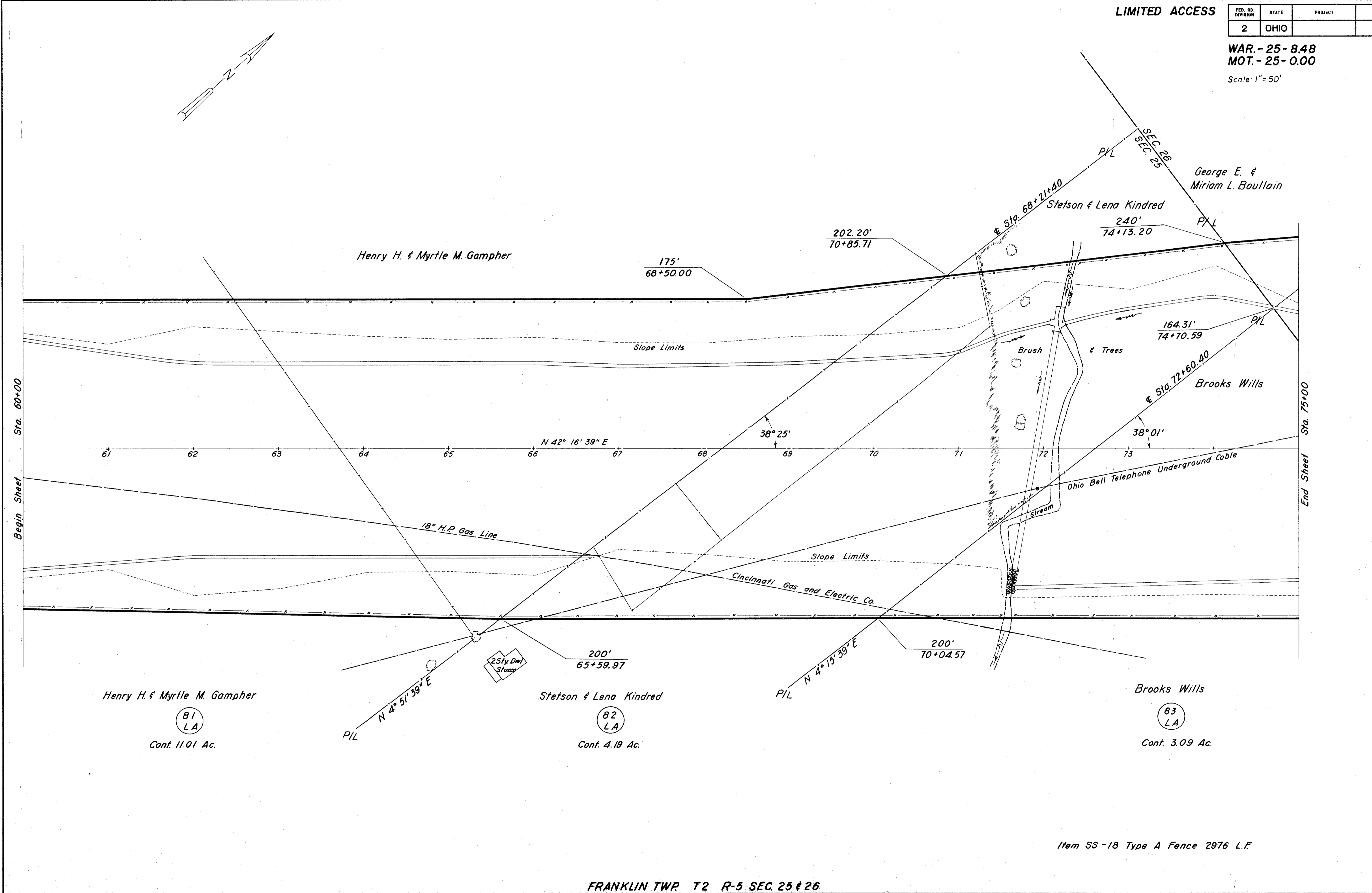
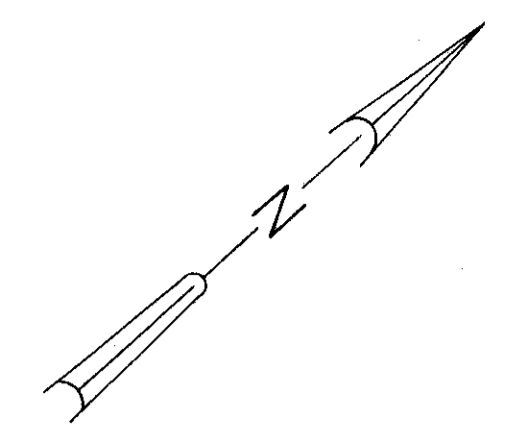
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

361
377

WAR. - 25-8.48
MOT. - 25-0.00

7
23

Scale: 1" = 50'



Henry H. & Myrtle M. Gampher
 (81 LA)
 Cont. 11.01 Ac.

Stetson & Lena Kindred
 (82 LA)
 Cont. 4.19 Ac.

Brooks Wills
 (83 LA)
 Cont. 3.09 Ac.

LIMITED ACCESS

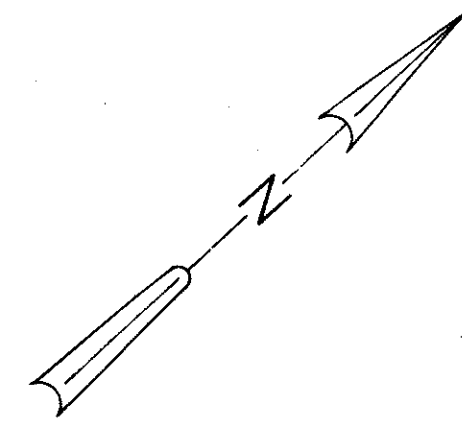
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

362
377

WAR.-25-8.48
MOT.-25-0.00

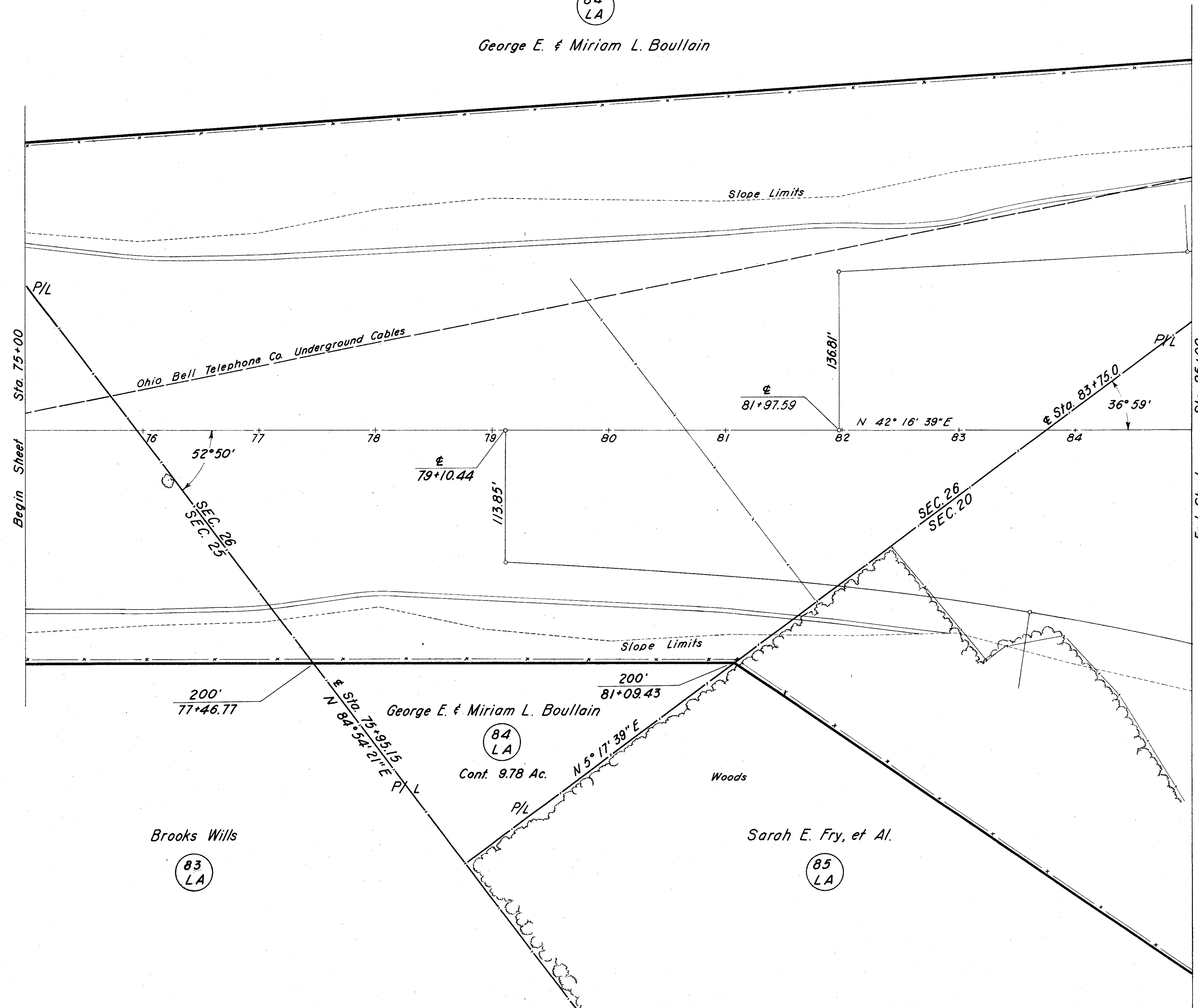
8
23

Scale: 1" = 50'



84
LA

George E. & Miriam L. Boullain



Brooks Wills

83
LA

George E. & Miriam L. Boullain

84
LA

Cont. 9.78 Ac.

Woods

Sarah E. Fry, et Al.

85
LA

Item SS-18 Type A Fence 2085 L.F.

FRANKLIN TWP. T.2 R-5 SEC. 20, 25 & 26

RIGHT OF WAY Sta. 75+00 to Sta. 85+00

LIMITED ACCESS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

363
377

WAR. - 25-8.48
MOT. - 25-0.00

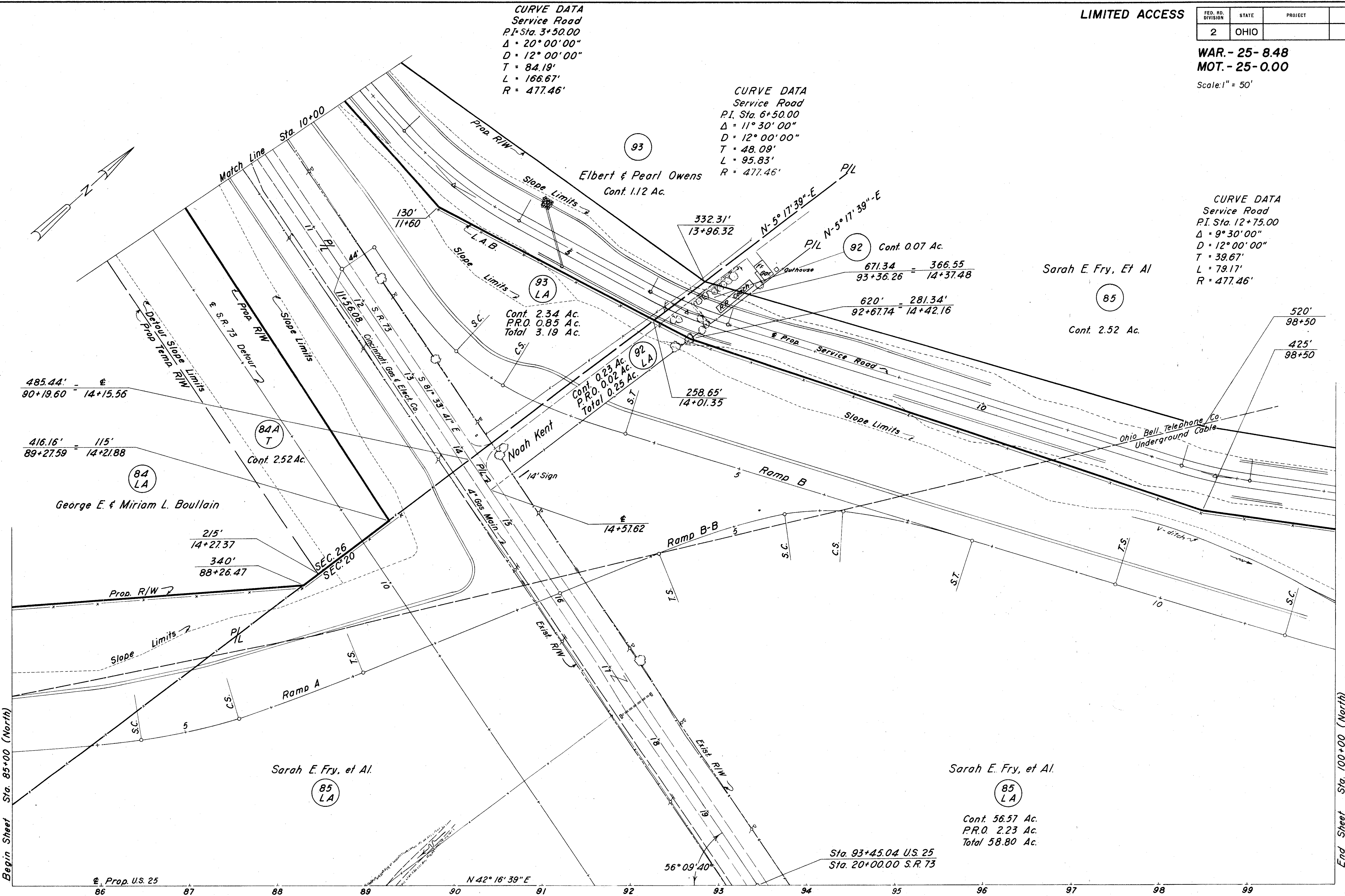
9
23

Scale: 1" = 50'

CURVE DATA
Service Road
P.I. Sta. 3+50.00
 $\Delta = 20^\circ 00' 00''$
 $D = 12^\circ 00' 00''$
 $T = 84.19'$
 $L = 166.67'$
 $R = 477.46'$

CURVE DATA
Service Road
P.I. Sta. 6+50.00
 $\Delta = 11^\circ 30' 00''$
 $D = 12^\circ 00' 00''$
 $T = 48.09'$
 $L = 95.83'$
 $R = 477.46'$

CURVE DATA
Service Road
P.I. Sta. 12+75.00
 $\Delta = 9^\circ 30' 00''$
 $D = 12^\circ 00' 00''$
 $T = 39.67'$
 $L = 79.17'$
 $R = 477.46'$



FRANKLIN TWP. T.2 R-5 SEC. 20 & 26

Item SS-1B Type A Fence 1555 L.F.

RIGHT OF WAY Sta. 85+00 to Sta. 100+00 (North)

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

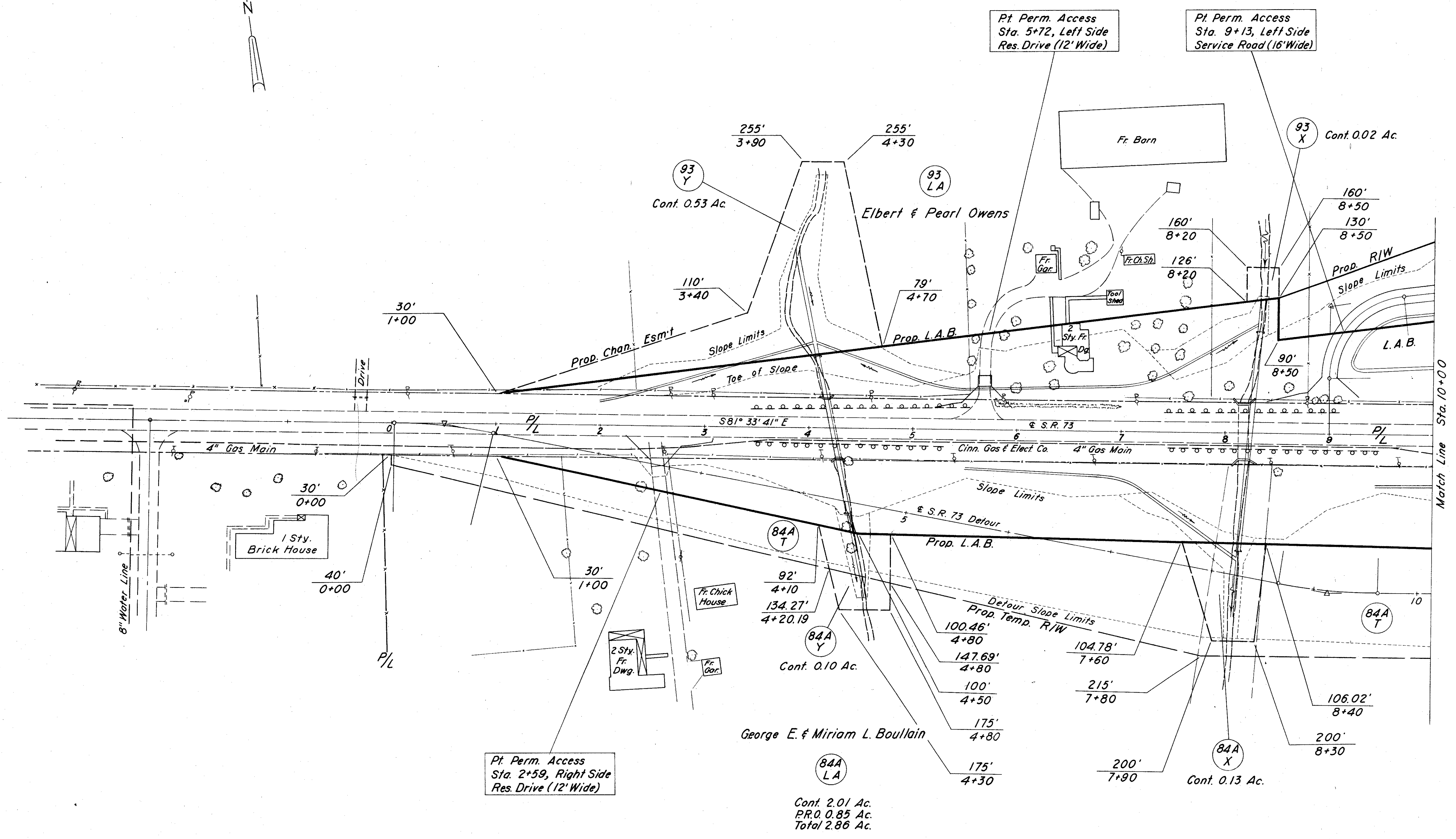
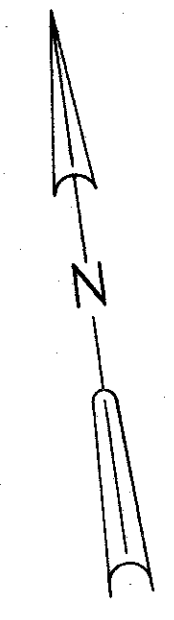
364
377

WAR.-25-8.48
MOT.-25-0.00

10
23

Scale: 1"=50'

CURVE DATA
Service Road
P.I. Sta. 1+24.04
Δ = 82° 24' 20" Rt.
D = 71° 40'
T = 70.04'
L = 115.06'
R = 80.00'



FRANKLIN TWP. T.2 R-5 SEC. 26

RIGHT OF WAY S.R. 73 Sta. 0+00 to Sta. 10+00

LIMITED ACCESS

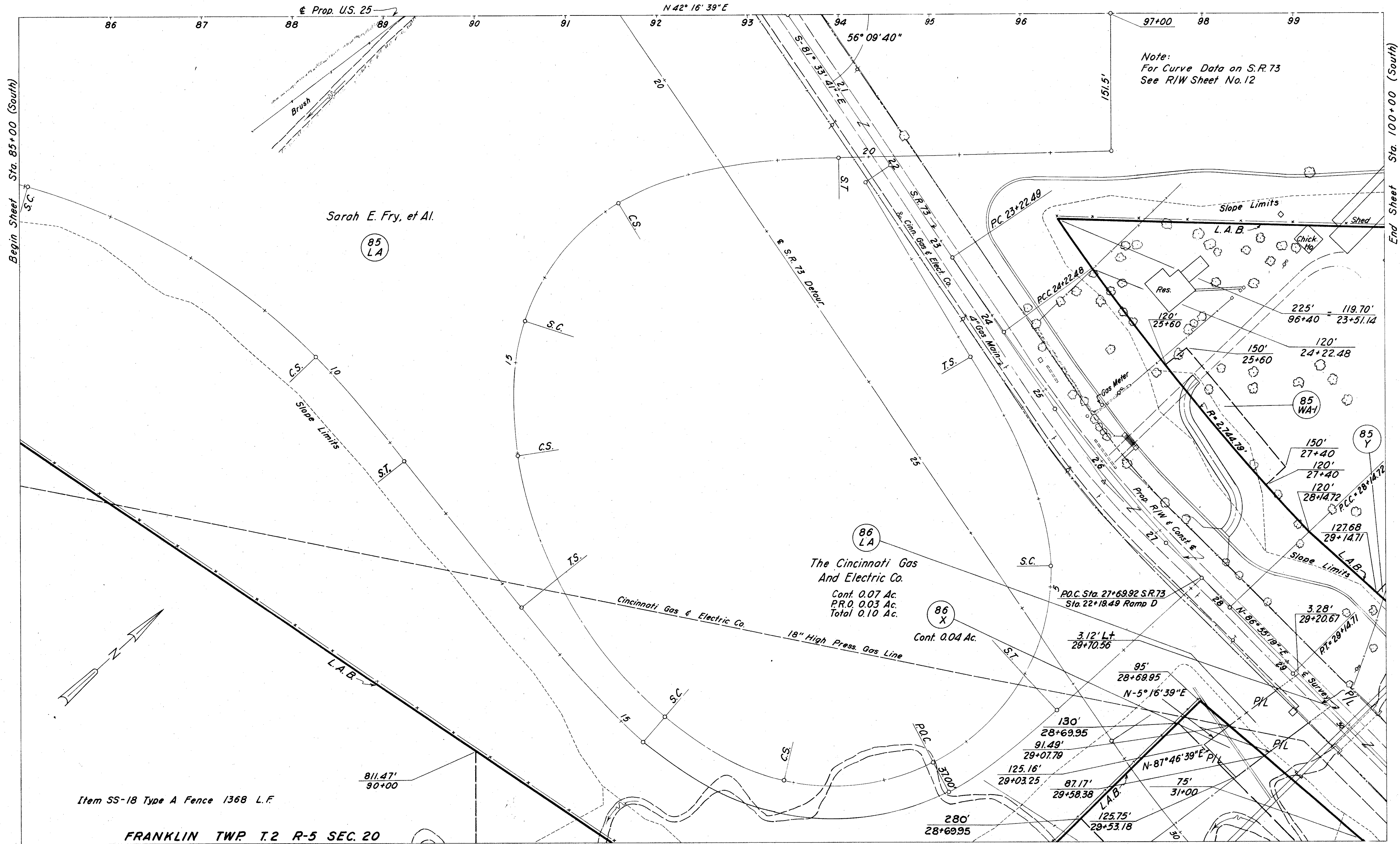
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

365
377

WAR.- 25-8.48
MOT.- 25-0.00

11
23

Scale: 1" = 50'



Note:
For Curve Data on S.R. 73
See R/W Sheet No. 12

Begin Sheet Sta. 85+00 (South)

End Sheet Sta. 100+00 (South)

Item SS-18 Type A Fence 1368 L.F.

FRANKLIN TWP. T.2 R-5 SEC. 20

Match Line

RIGHT OF WAY Sta. 85+00 to Sta. 100+00 (South)

WAR.-25-848
MOT.-25-0.00

Scale: 1" = 50'

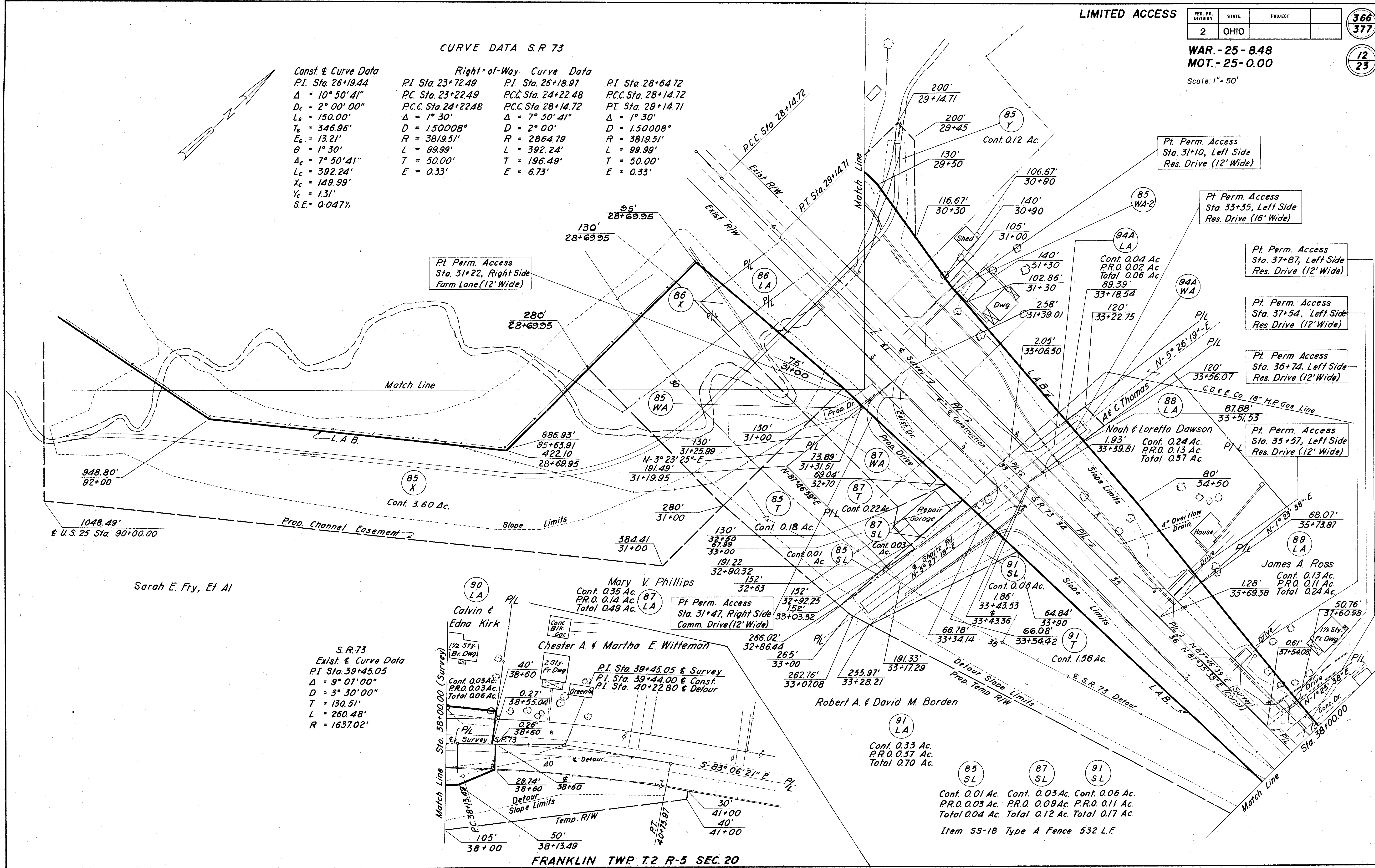
CURVE DATA S.R.73

Const. & Curve Data
 P.I. Sta. 26+19.44
 $\Delta = 10^\circ 50' 41''$
 $D_c = 2^\circ 00' 00''$
 $L_s = 150.00'$
 $T_s = 346.96'$
 $E_s = 13.21'$
 $\theta = 1^\circ 30'$
 $A_c = 7^\circ 50' 41''$
 $L_c = 392.24'$
 $X_c = 149.99'$
 $Y_c = 1.31'$
 $S.E. = 0.047\%$

Right-of-Way Curve Data
 P.I. Sta. 23+72.49
 P.C. Sta. 23+22.49
 P.C.C. Sta. 24+22.48
 $\Delta = 1^\circ 30'$
 $D = 1.50008^\circ$
 $R = 3819.51'$
 $L = 99.99'$
 $T = 50.00'$
 $E = 0.33'$

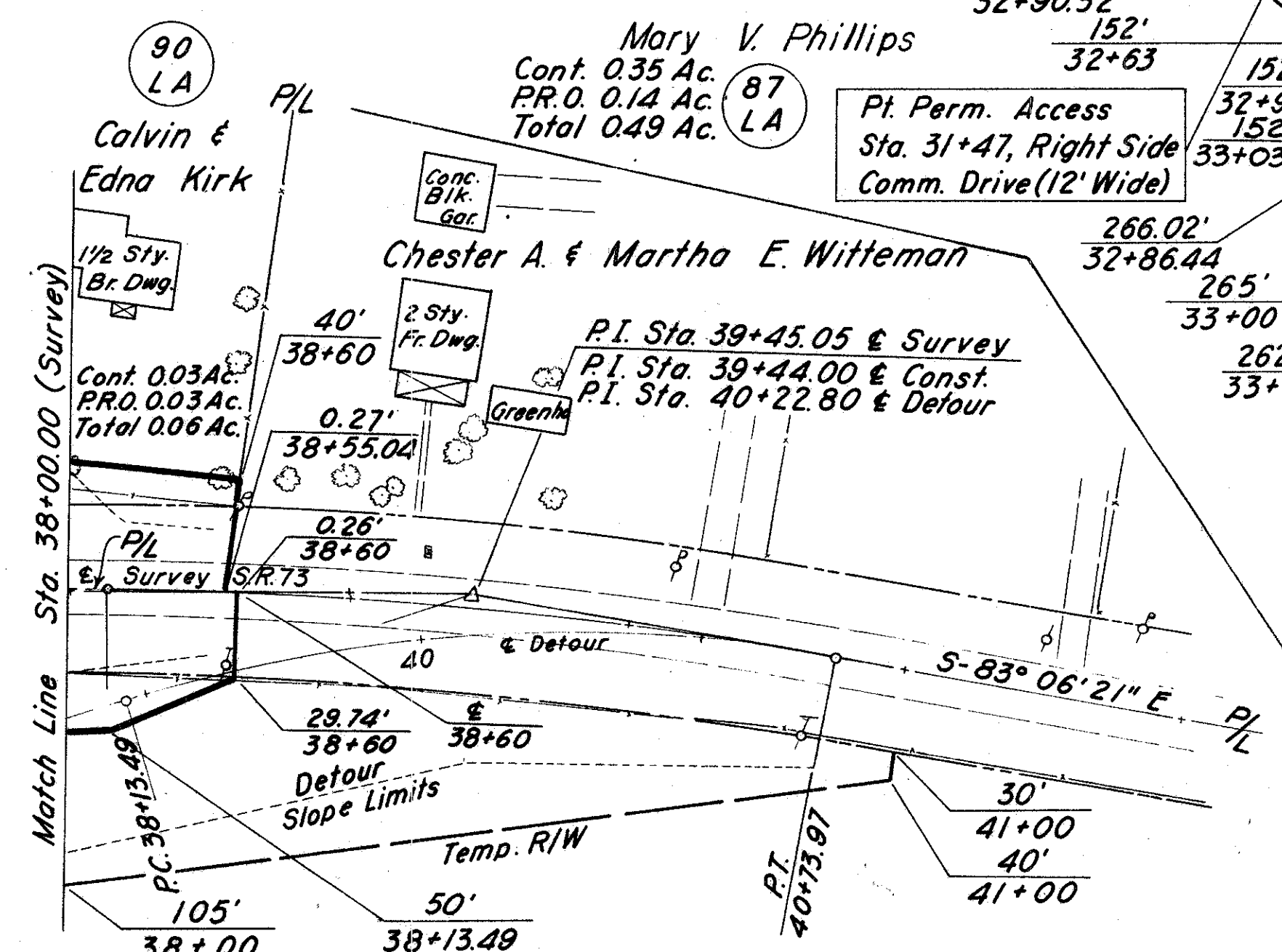
P.I. Sta. 26+18.97
 P.C.C. Sta. 24+22.48
 $\Delta = 7^\circ 50' 41''$
 $D = 2^\circ 00'$
 $R = 2864.79'$
 $L = 392.24'$
 $T = 196.49'$
 $E = 6.73'$

P.I. Sta. 28+64.72
 P.C.C. Sta. 28+14.72
 P.T. Sta. 29+14.71
 $\Delta = 1^\circ 30'$
 $D = 1.50008^\circ$
 $R = 3819.51'$
 $L = 99.99'$
 $T = 50.00'$
 $E = 0.33'$



Sarah E. Fry, Et Al

S.R.73
 Exist. & Curve Data
 P.I. Sta. 39+45.05
 $\Delta = 9^\circ 07' 00''$
 $D = 3^\circ 30' 00''$
 $T = 130.51'$
 $L = 260.48'$
 $R = 1637.02'$



FRANKLIN TWP. T.2 R-5 SEC. 20

LIMITED ACCESS

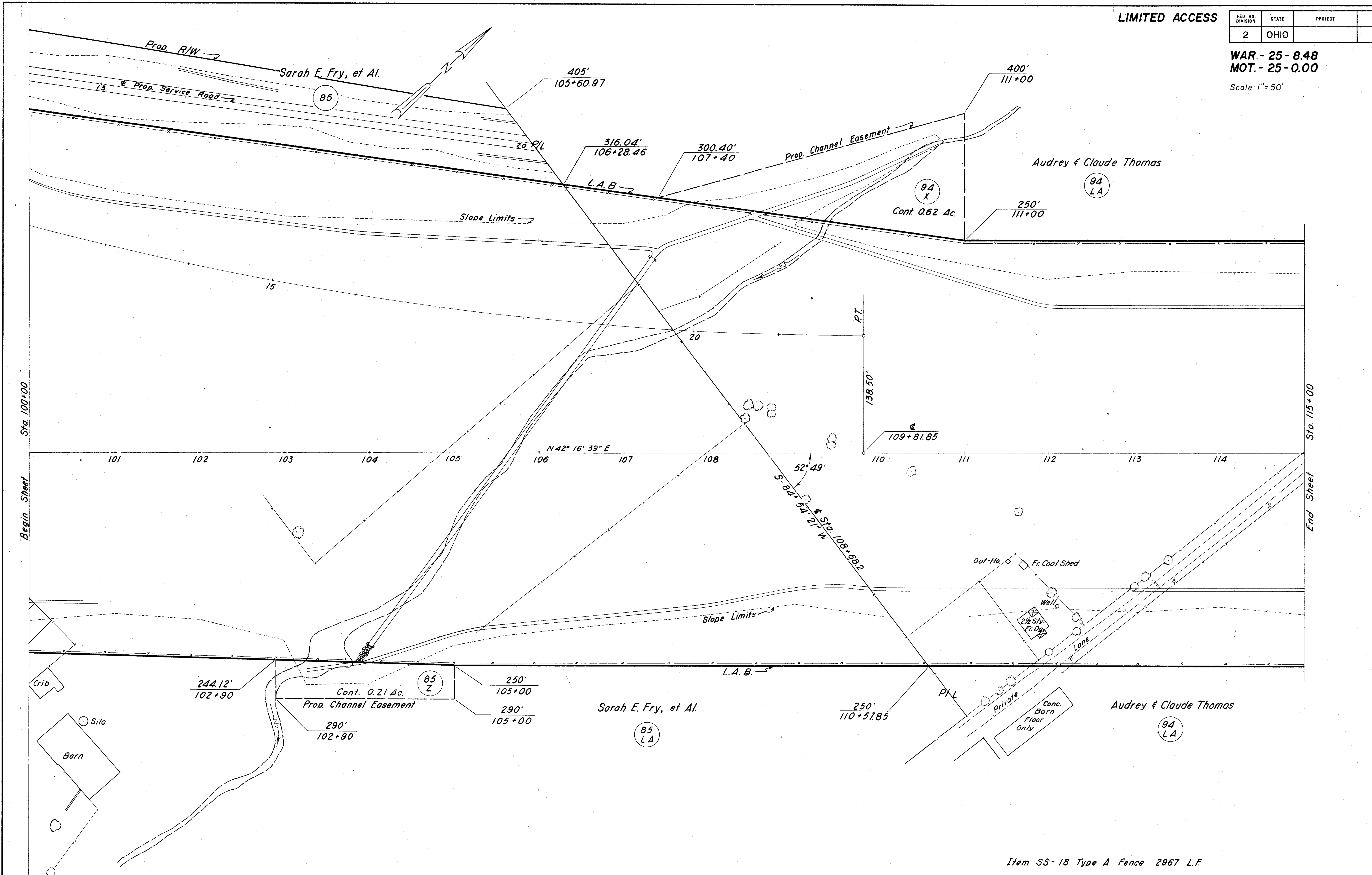
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

367
377

WAR - 25 - 8.48
MOT - 25 - 0.00

13
23

Scale: 1" = 50'



FRANKLIN TWP. T.2 R-5 SEC. 20

RIGHT OF WAY Sta. 100+00 to Sta. 115+00

Item SS-18 Type A Fence 2967 L.F.

LIMITED ACCESS

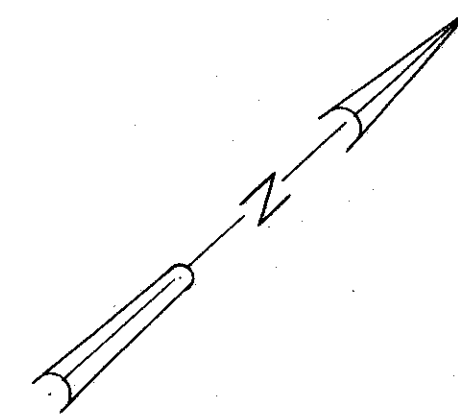
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

368
377

WAR.- 25- 8.48
MOT.- 25- 0.00

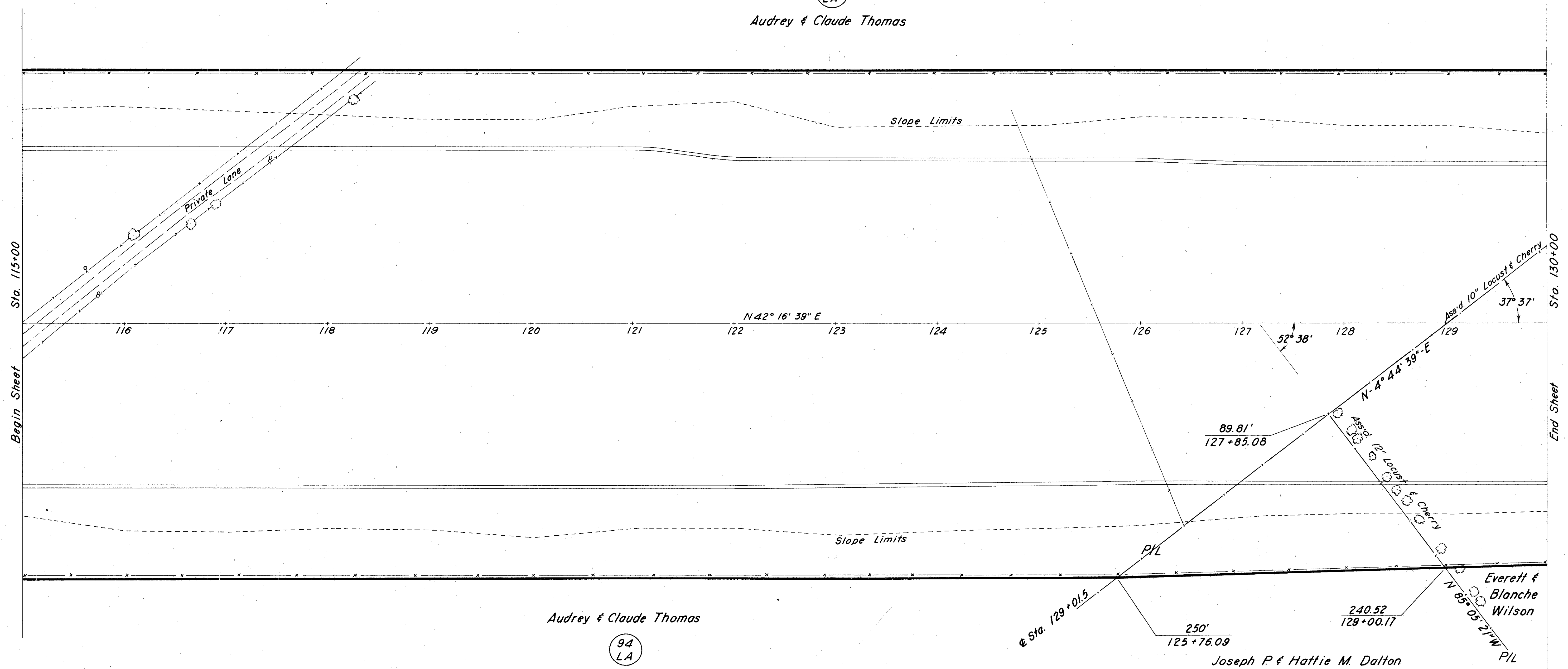
14
23

Scale: 1" = 50'



94
LA

Audrey & Claude Thomas



Audrey & Claude Thomas

94
LA

Cont. 23.66 Ac.

Joseph P & Hattie M. Dalton

95
LA

Cont. 0.58 Ac.

Item SS-18 Type A Fence 3000 L.F.

FRANKLIN TWP. T.2 R-5 SEC. 20

RIGHT OF WAY Sta. 115+00 to Sta. 130+00

LIMITED ACCESS

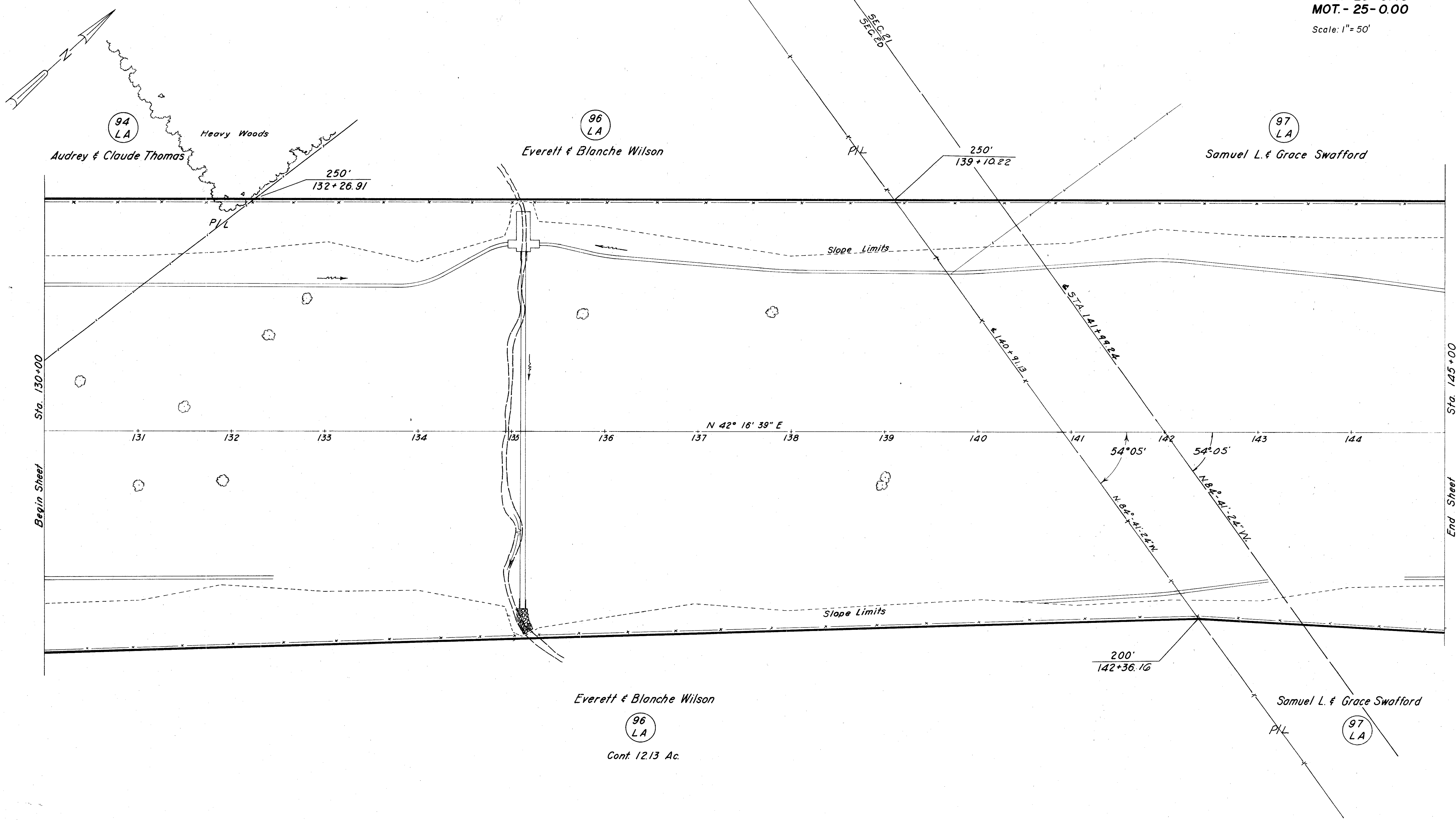
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

369
377

WAR. - 25 - 8.48
MOT. - 25 - 0.00

15
23

Scale: 1" = 50'



Sta. 130+00
Begin Sheet

Sta. 145+00
End Sheet

Everett & Blanche Wilson
96
LA
Cont. 12.13 Ac.

Samuel L. & Grace Swafford
97
LA

200'
142+36.16

250'
139+10.22

250'
132+26.91

N 42° 16' 39" E

54° 05'

54° 05'

Item SS-18 Type A Fence 2972 L.F.

FRANKLIN TWP. T2 R-5 SEC. 20 & 21

RIGHT OF WAY Sta. 130+00 to Sta. 145+00

LIMITED ACCESS

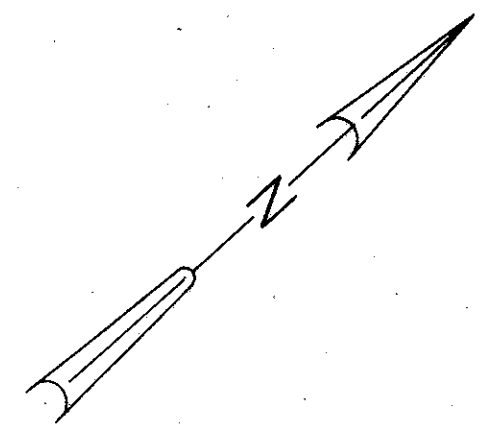
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

370
377

WAR - 25 - 8.48
MOT - 25 - 0.00

16
23

Scale: 1" = 50'



97
LA
Samuel & Grace Swafford

98
LA
Mary B. Millard

P/L
250'
149+60.38

Slope Limits

Begin Sheet Sta. 145+00

End Sheet Sta. 160+00

146 147 148 149 150 151 152 153 154 155 156 157 158 159

N 42° 16' 39" E

55° 04'

N - 82° 39' 21" W

Slope Limits

Farm Lane

260'
153+16.60

E Sta. 151+35.0
P/L

Samuel & Grace Swafford

97
LA

Cont. 11.55 Ac.

Mary B. Millard

98
LA

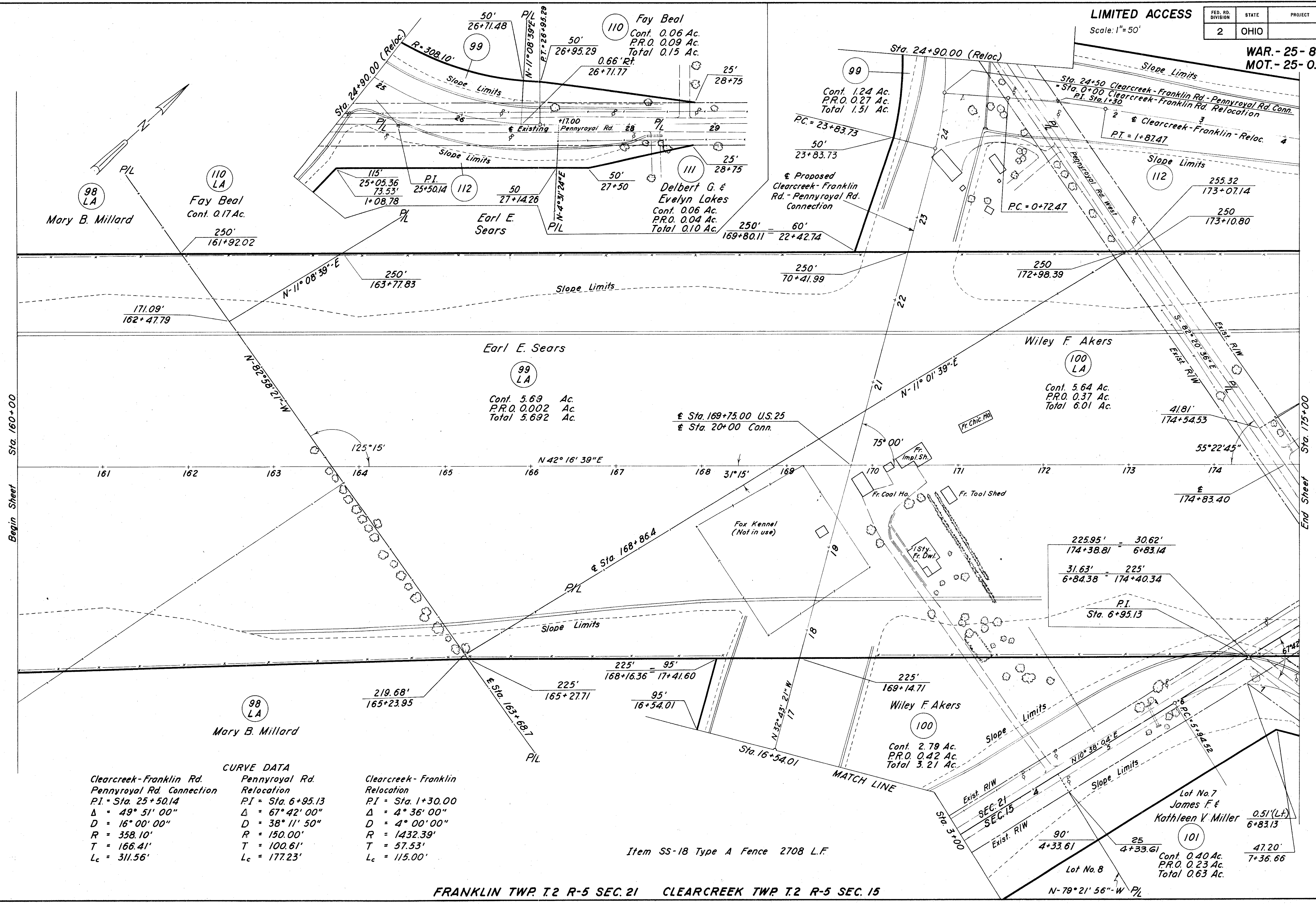
Cont. 13.94 Ac.

Item SS-18 Type A Fence 2976 L.F.

FRANKLIN TWP. T.2 R-5 SEC. 21

RIGHT OF WAY Sta. 145+00 to Sta. 160+00

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



CURVE DATA

Clearcreek-Franklin Rd. Pennyroyal Rd. Connection	Pennyroyal Rd. Relocation	Clearcreek-Franklin Relocation
PI = Sta. 25+50.14	PI = Sta. 6+95.13	PI = Sta. 1+30.00
Δ = 49° 51' 00"	Δ = 67° 42' 00"	Δ = 4° 36' 00"
D = 16° 00' 00"	D = 38° 11' 50"	D = 4° 00' 00"
R = 358.10'	R = 150.00'	R = 1432.39'
T = 166.41'	T = 100.61'	T = 57.53'
Lc = 311.56'	Lc = 177.23'	Lc = 115.00'

FRANKLIN TWP. T.2 R-5 SEC. 21 CLEARCREEK TWP. T.2 R-5 SEC. 15

RIGHT OF WAY Sta. 160+00 to Sta. 175+00

Item SS-18 Type A Fence 2708 L.F.

Begin Sheet Sta. 160+00

End Sheet Sta. 175+00

MATCH LINE

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

372
377

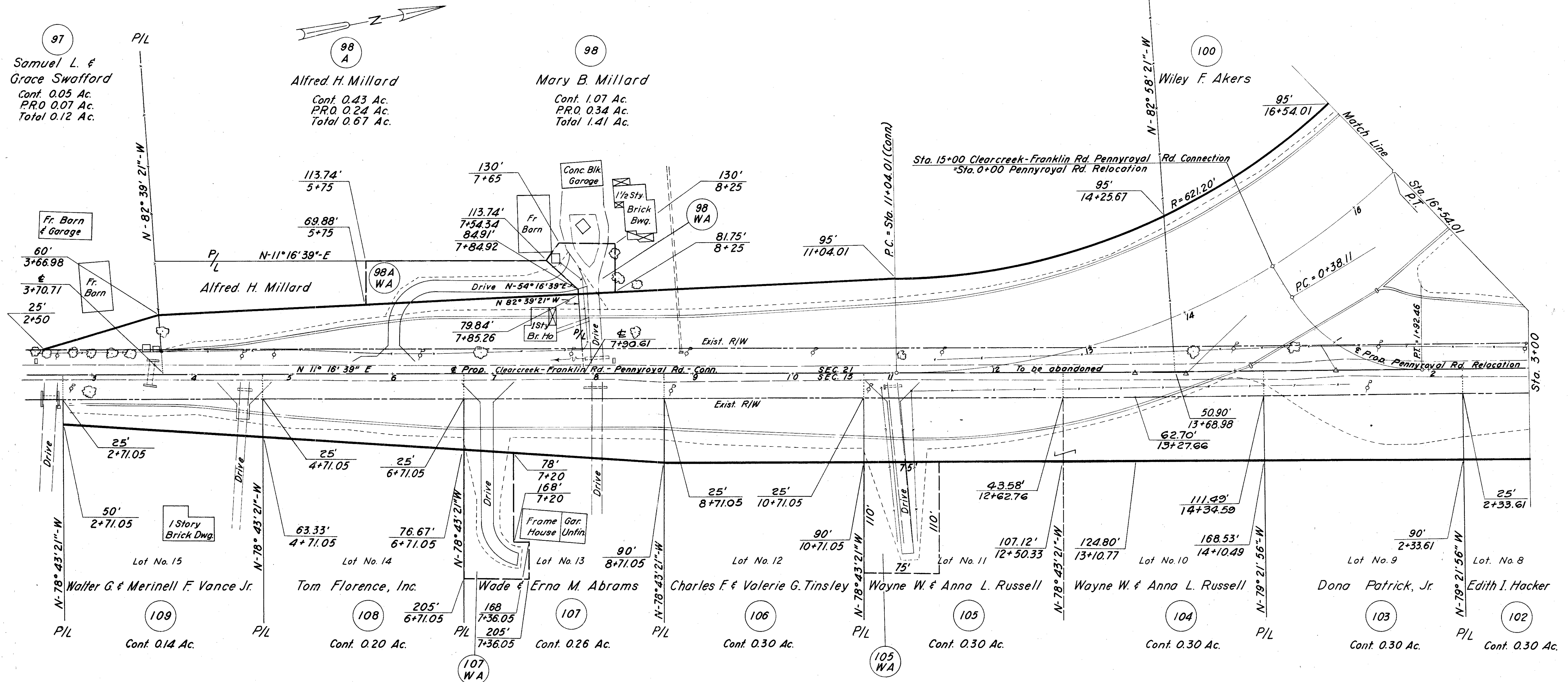
WAR.- 25-8.48
MOT.- 25-0.00

18
23

Scale: 1" = 50'

CURVE DATA

Clearcreek-Franklin Rd. Pennyroyal Rd. Connection PI = Sta. 13+93.37 Δ = 44° 00' 00" D = 8° 00' 00" R = 716.20' T = 289.36' Lc = 550.00'	Pennyroyal Rd. Relocation PI = Sta. 1+22.90 Δ = 58° 57' 30" D = 38° 11' 50" R = 150.00' T = 84.79' Lc = 154.35'
---	--



MEADOW ACRES SUBDIVISION

LIMITED ACCESS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

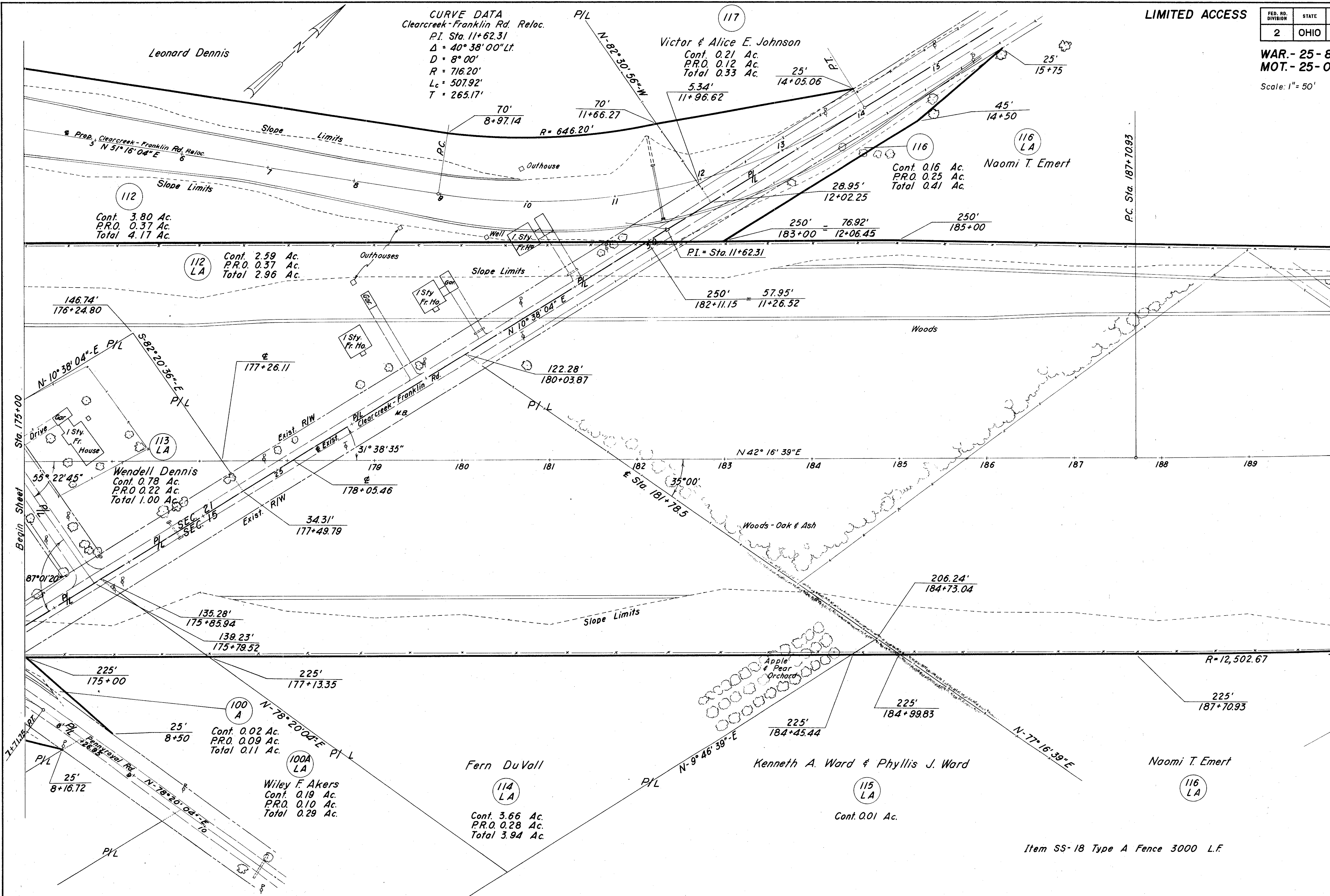
373
377

WAR.- 25-8.48
MOT.- 25-0.00

19
23

Scale: 1" = 50'

CURVE DATA
 Clearcreek-Franklin Rd. Reloc.
 P.I. Sta. 11+62.31
 $\Delta = 40^\circ 38' 00''$ Lt.
 $D = 8^\circ 00'$
 $R = 716.20'$
 $L_c = 507.92'$
 $T = 265.17'$



LIMITED ACCESS

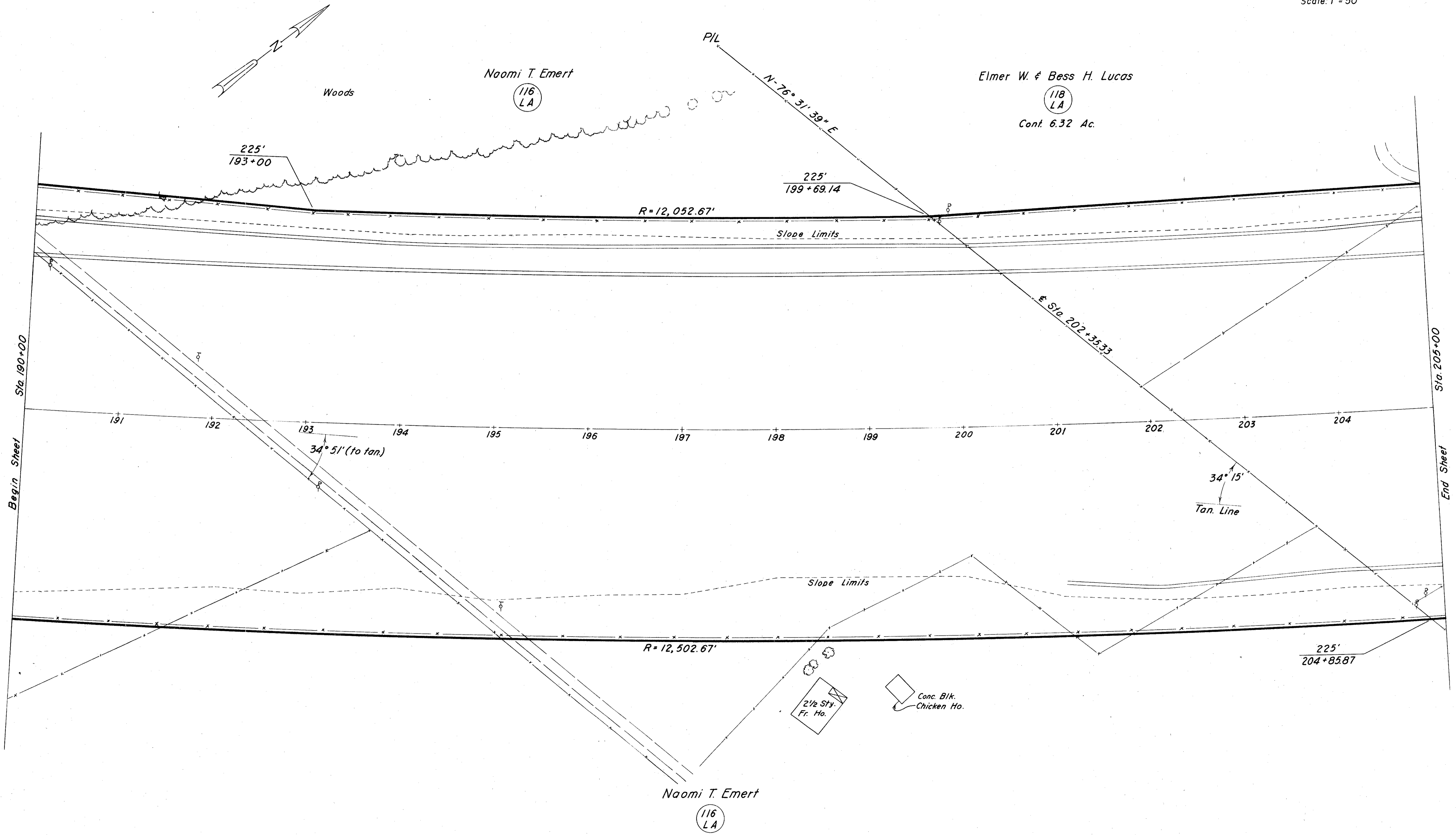
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

374
377

WAR.-25-848
MOT.-25-0.00

20
23

Scale: 1" = 50'



Naomi T. Emert
116
LA
Cont. 21.11 Ac.
PRD. 0.15 Ac.
Total 21.26 Ac.

Item SS-18 Type A Fence 3000 L.F

CLEARCREEK TWP. T.2 R-5 SEC.15

RIGHT OF WAY Sta. 190+00 to Sta. 205+00

LIMITED ACCESS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

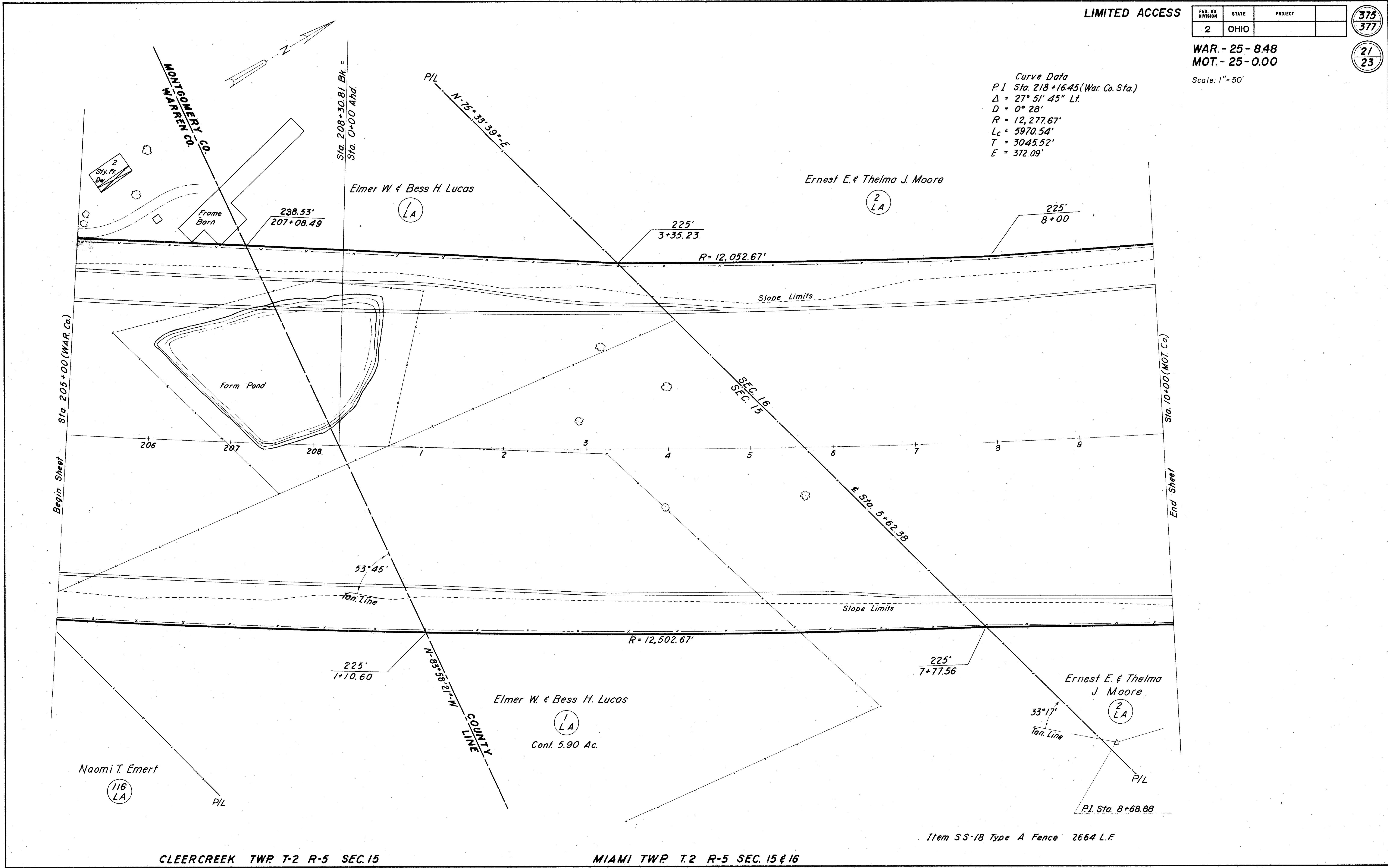
375
377

WAR - 25 - 8.48
MOT - 25 - 0.00

21
23

Scale: 1" = 50'

Curve Data
 P.I. Sta. 218+16.45 (War. Co. Sta.)
 $\Delta = 27^\circ 51' 45''$ Lt.
 $D = 0^\circ 28'$
 $R = 12,277.67'$
 $L_c = 5970.54'$
 $T = 3045.52'$
 $E = 372.09'$



CLEERCREEK TWP T-2 R-5 SEC.15

MIAMI TWP T.2 R-5 SEC. 15 & 16

RIGHT OF WAY Sta. 205+00 (War. Co.) to Sta. 10+00 (Mot. Co.)

Item SS-18 Type A Fence 2664 L.F.

LIMITED ACCESS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

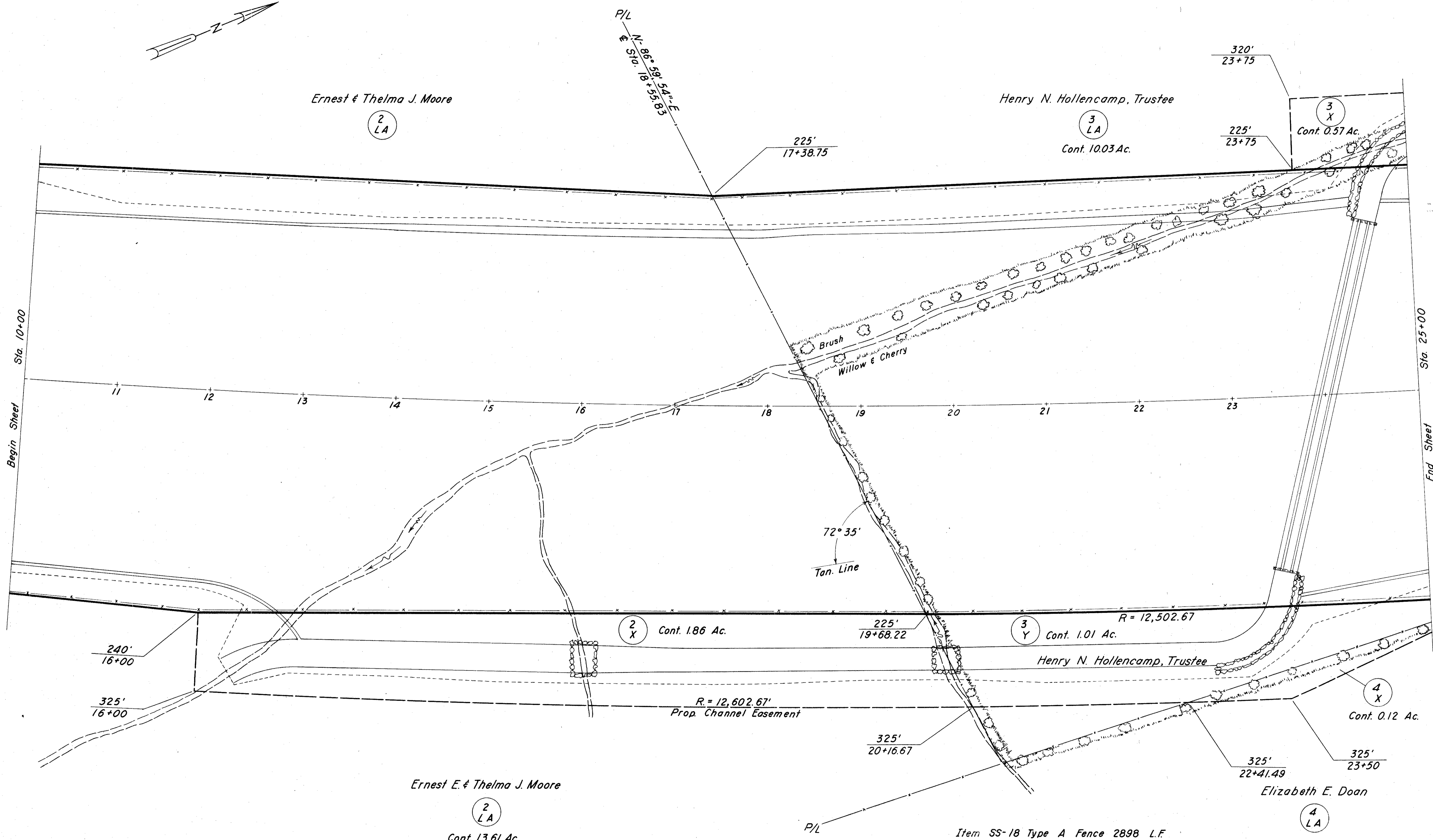
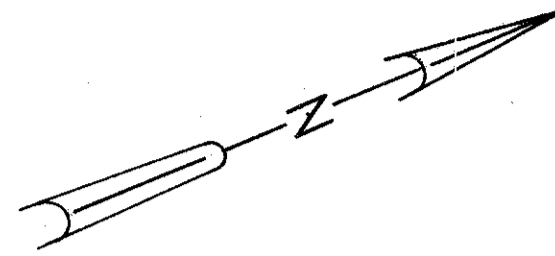
376

377

WAR. - 25-8.48
MOT. - 25-0.00

22
23

Scale: 1" = 50'



MIAMI TWP. T.2 R-5 SEC.16

RIGHT OF WAY Sta. 10+00 to Sta. 25+00

LIMITED ACCESS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

377
377

WAR. - 25-8.48
MOT. - 25-0.00

23
23

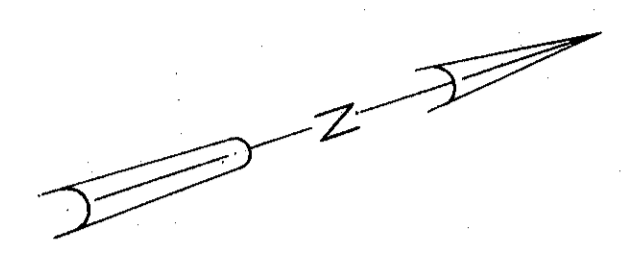
Scale: 1" = 50'

END PROJECT
STA. 26+00

3
L A

Henry N. Hollencamp
Trustee

P/L
N. 84° 24' 06" W



Prop. Channel Easement

320'
26+99.17

240'
27+20.18

Loran E. & Amelia Smith

Begin Sheet Sta. 25+00

26 27 28 29 30 31 32 33 34 35 36 37 38 39

Tan. Line
60° 41'

Tan. Line
81° 11'

194.09'
27+08.64

165.97'
28+22.68

3
Y

Brush - Willow - Cherry

225'
25+93.22

N. 75° 05' 54" E
225'
27+30.42

Lovina Smith

Elizabeth A. Doan

4
L A

Cont. 0.04 Ac.

P/L

4
X

Item SS-18 Type A Fence 200 L.F.

Woodward
1 Sty. Fr. Ho.

P.T. Sta. 39+10.66

39+39.08 U.S. 25
11+00 Mia. Sp. Rd.

MANISBURG
SPRINGBORO RD.

End Sheet Sta. 40+00