

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
**ASD-603-(4.03-4.17)**  
**ASHLAND COUNTY**  
**MIFFLIN TOWNSHIP**  
**VILLAGE OF MIFFLIN**

FED. RD. DIVISION	STATE	PROJECT	1
2	OHIO	STATE	34

ASD-603-(4.03-4.17)

**CONVENTIONAL SIGNS**

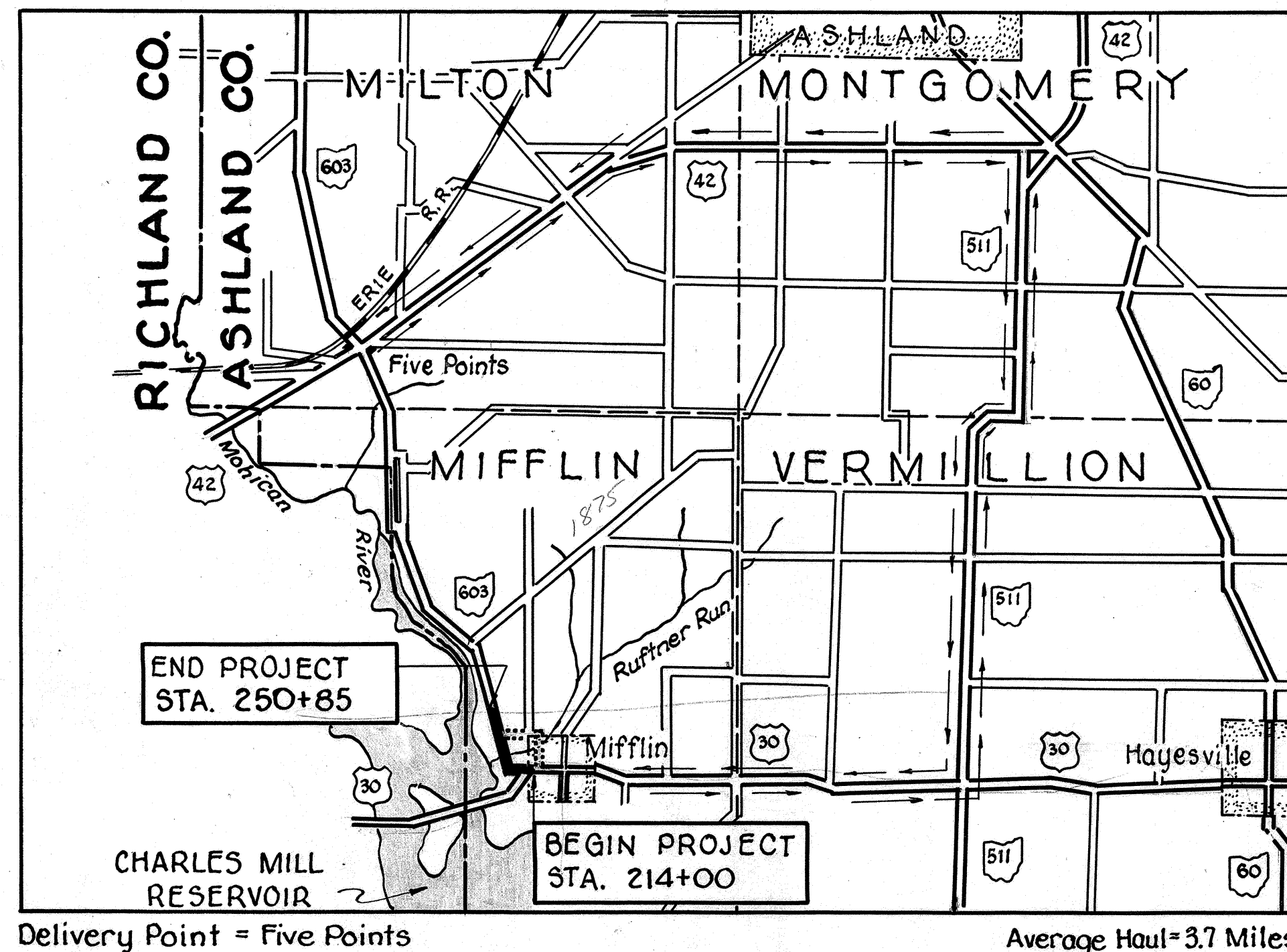
COUNTY LINE	-----
TOWNSHIP LINE	-----
SECTION LINE	-----
CORPORATION LINE	-----
FENCE LINE	-----
PROPERTY LINE	-----
CENTER LINE	-----
POLE LINES	⊕ ⊕ ⊕ ⊕ ⊕
RAILROAD	-----
GUARD RAIL (PROPOSED)	-----
GUARD RAIL (EXISTING)	-----

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**LINE DATA**

	<b>PROJECT</b>	<b>WORK</b>
BEGIN	STA. 214+00	STA. 213+50
END	STA. 250+85	STA. 250+85
GROSS LENGTH	3685.00 Lin. Ft.	3735.00 Lin. Ft.
DEDUCT FOR EQUATION	55.82 Lin. Ft.	55.82 Lin. Ft.
ADD FOR INTERSECTIONS & APPROACHES	0.00 Lin. Ft.	855.00 Lin. Ft.
NET LENGTH	3629.18 Lin. Ft.	4534.18 Lin. Ft.
	0.687 Miles	0.858 Miles



**LOCATION MAP**

SCALE OF MILES

PORTION TO BE IMPROVED	=====
STATE HIGHWAYS	=====
OTHER ROADS	-----
DETOURS	-----
ABANDONED AS A STATE HIGHWAY	-----

**SCALES**

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

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

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

I hereby approve these plans and declare that the making of this improvement will require the part time closing of the highway to traffic and that detours will be provided as shown on the plans. Provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved E. H. Schew  
Date 10/11/56 Division Deputy Director

Approved John H. King  
Date 11-15-56 Deputy Director of Planning and Programming

Approved W. A. Corman  
Date 11-9-56 Engineer of Bridges

Approved Ed. Stanton  
Date 11-10-56 Engineer of Location and Design

Approved H. F. Jewell  
Date 11-10-56 Deputy Director of Design and Construction

Approved R. J. Schaudlin  
Date 11-15-56 First Assistant Director

Approved S. D. Simpf  
Date 11-15-56 Director of Highways

CONSTRUCTION BUREAU  
MAY 15 1959  
GROUND PHOTOLAB

Revised As-Built

FILE NO	ASD-603-(4.03-4.17)
DATE OF LETTING	
CONTRACT NO	

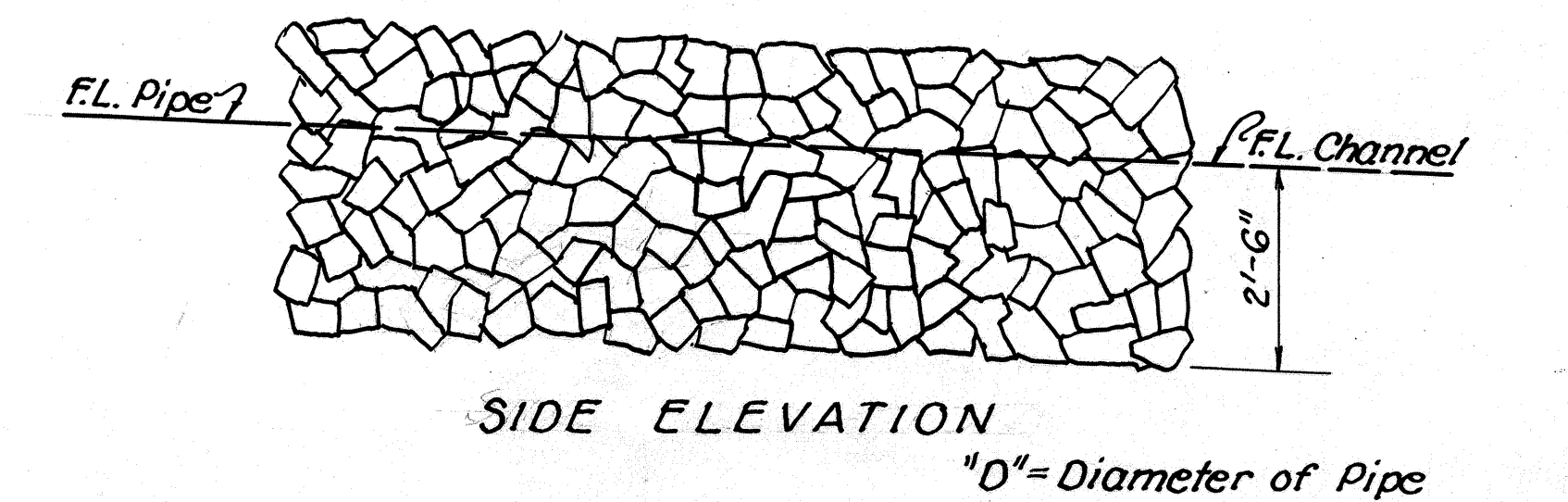
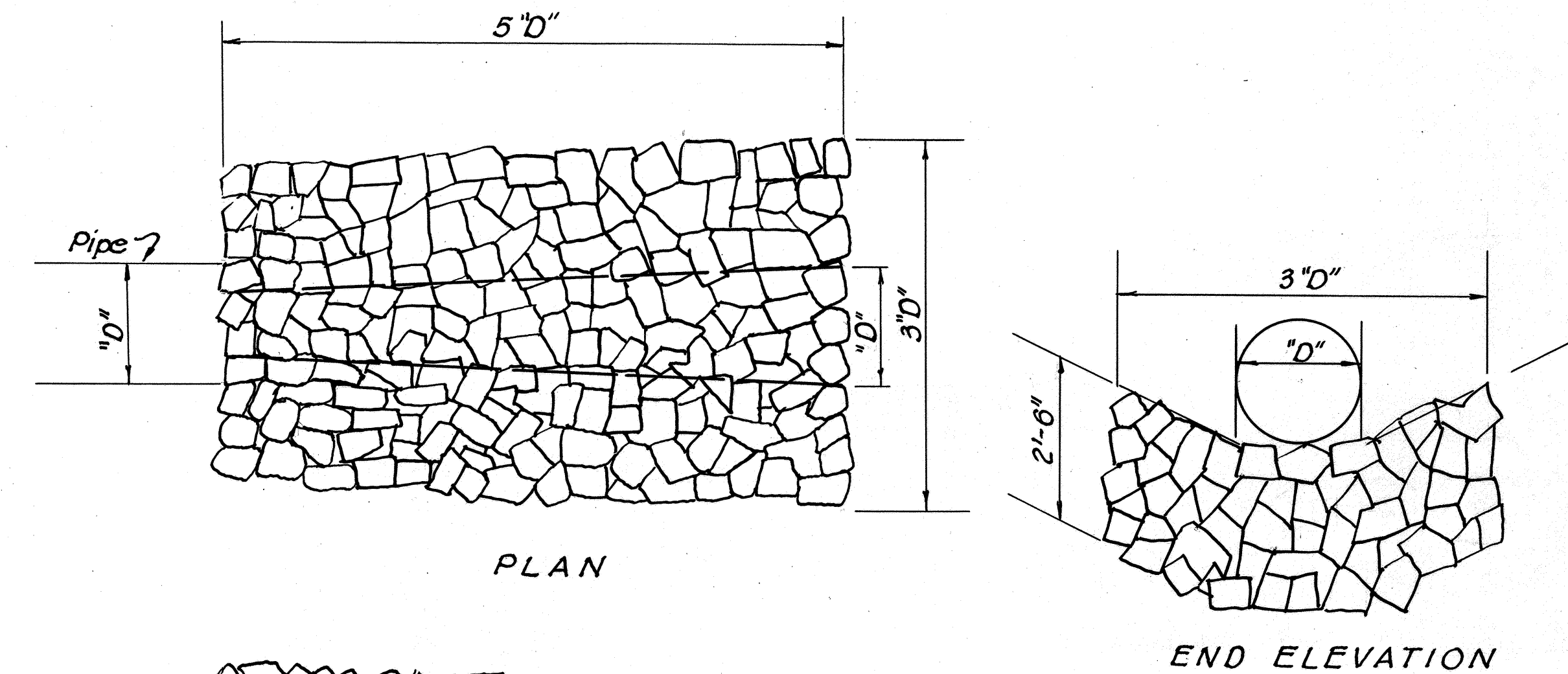
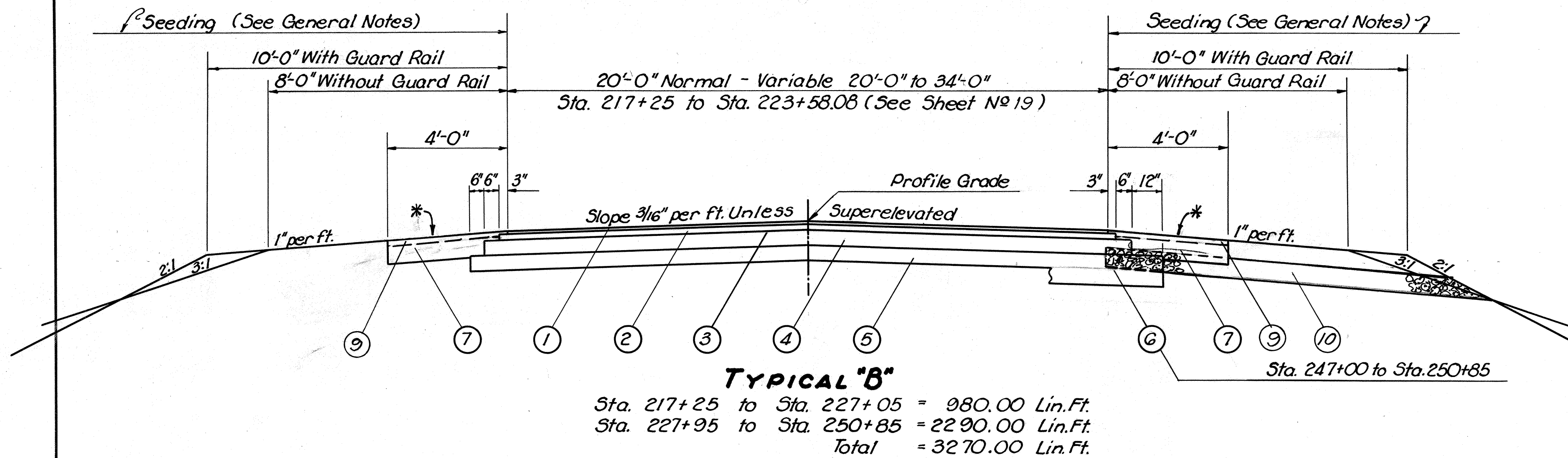
STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS			
L-1	4-1-50	I-15 N <sup>o</sup> 1	8-1-55	L-209.12	7-17-54		
L-3	4-1-50	I-15 N <sup>o</sup> 2	12-1-54	B-119 Rev.	6-30-56		
L-3A	4-1-50	I-15 N <sup>o</sup> 2A	7-2-56				
RI-1	1-3-55	G-7.07	6-1-56				
T-35	1-2-56	DR-1	1-3-55				
S-27 PC.3	2-20-45	AS-1-54	12-1-54				
S-27 PC.4	1-4-54	CS-1-54 (2 Sheets)	7-16-56				
I-1,2,3,4 & 5	2-20-45	P-1-54	12-1-54				
I-8 C.B. 2-2A & B	8-1-56	A-1-54	12-1-54				
I-8 I N <sup>o</sup> 1	5-1-52						

# TYPICAL SECTIONS

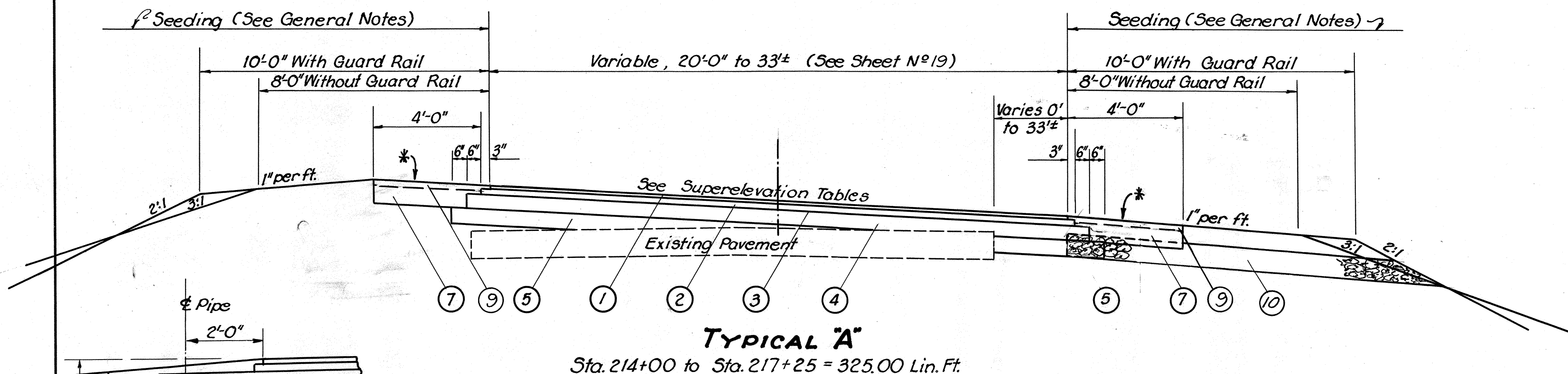
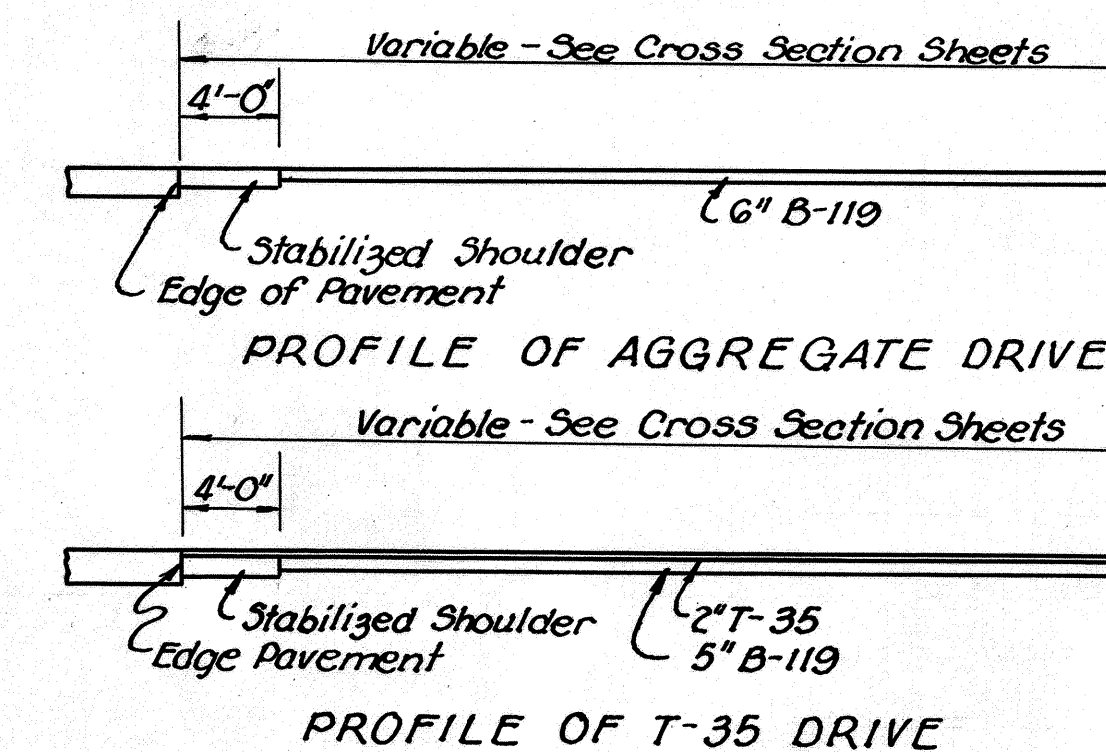
T-35

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

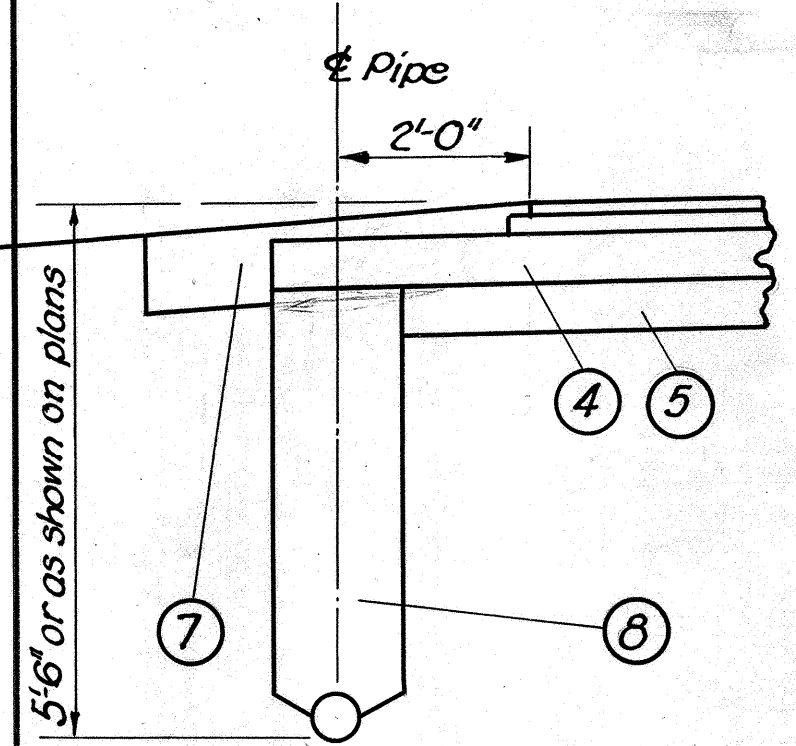
45D-603-(4.03-4.17)



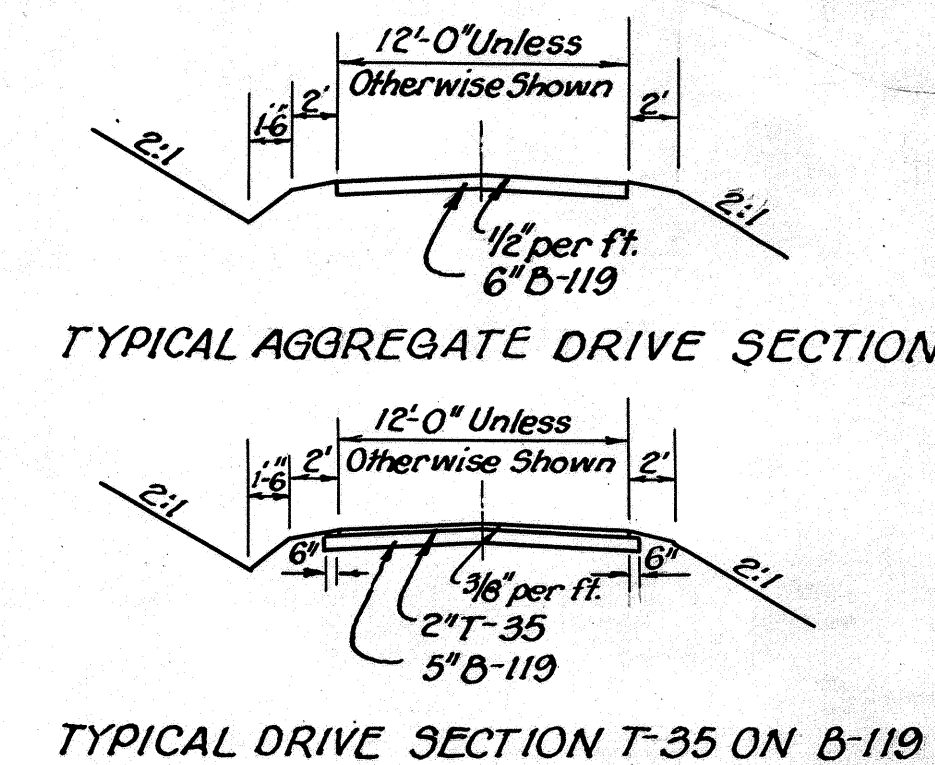
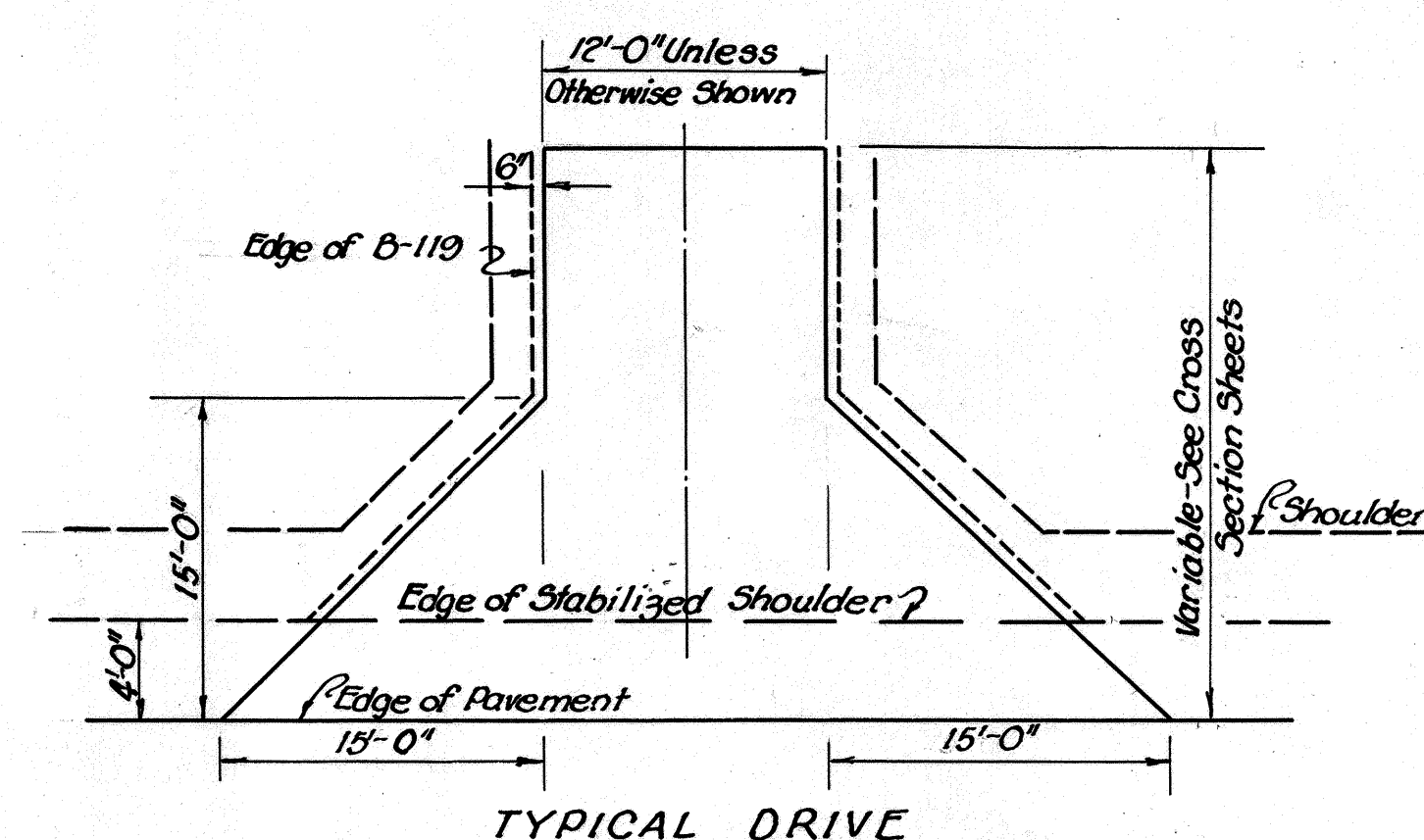
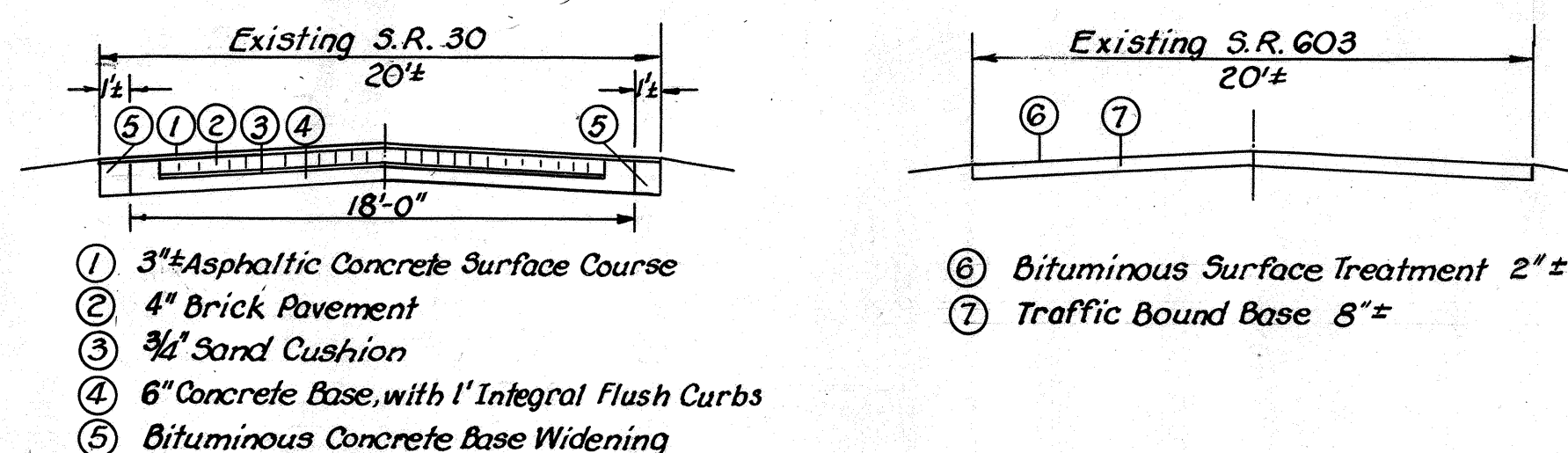
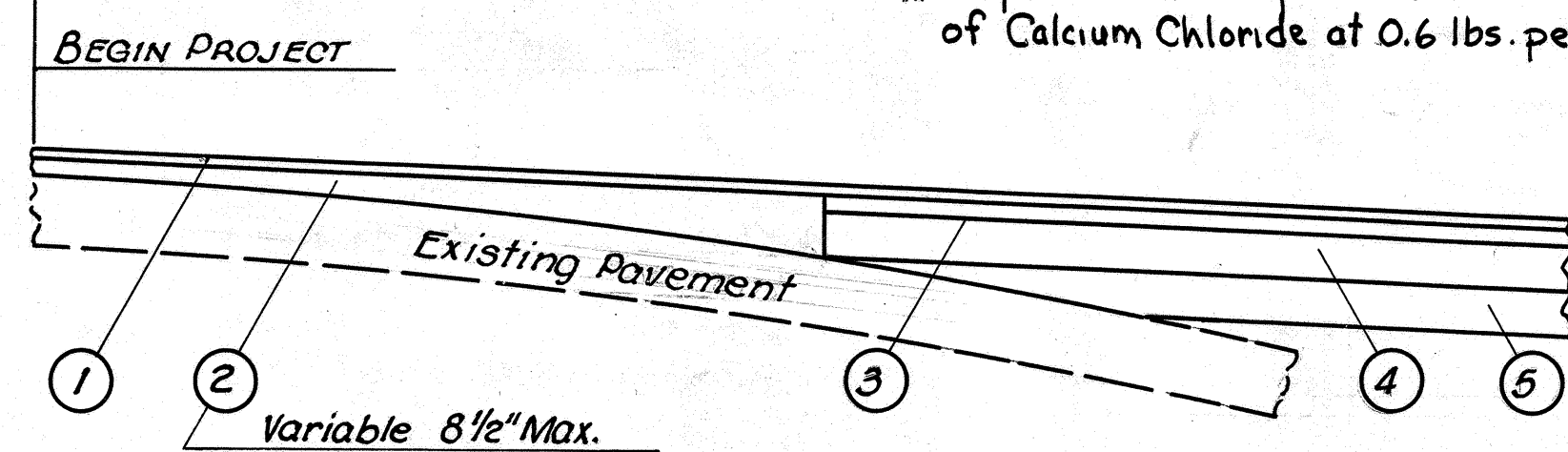
### DETAIL OF DUMPED ROCK FILL



- ⑩ I-9 Stone Underdrains N#2 (Spaced each side at 50' intervals as directed by the Engineer), Estimated 1700 Lin. Ft. Req'd.
  - ① T-35, 1 1/2" Asphaltic Concrete Surface Course, Type "A" (70-80)
  - ② B-35, 2 1/2" Asphaltic Concrete Leveling Course (70-80)
  - ③ T-30, Bituminous Prime Coat, Sec. M-5.2 (RC-1 or RC-2) or M-5.3 (MC-0 or MC-1), Applied @ the Rate of 0.35 Gal. per Sq. Yd.
  - ④ B-119, 6" Crushed Aggregate Base Course (Variable for Typical "A")
  - ⑤ I-22, 6" Subbase (Variable for Typical "A")
  - ⑥ I-22, 12" Subbase
  - ⑦ I-18 10" Stabilized Crushed Aggregate Shoulders and Approaches
  - ⑧ I-4 6" Pipe Underdrains (Where called for on Plans)
  - ⑨ Special, Mixing Calcium Chloride and Crushed Aggregate
- Note: Details of Shoulders, Slopes and Ditches, not shown are to conform to Standard Drawing RI-1 unless otherwise shown on the Cross Sections.  
 \* Upon final compaction and completion of the calcium chloride stabilized shoulders a surface application of Calcium Chloride at 0.6 lbs. per Sq. Yd. shall be accomplished as described in Sec. B-11.15 and paid for under Item M-10



### DETAIL OF I-4 PIPE UNDERDRAINS



### DRIVE DETAILS

# GENERAL NOTES

**UTILITIES:** Any and all work required for Public or Private Utilities shall be done by and at the expense of their respective owners using their own forces unless otherwise shown on these plans.

**CALCULATIONS:** All Calculations are on file in the Division Office.

**SODDED DITCHES:** Shall be of the same contour as shown on the cross sections and shall contain 2/3 Sq.Yd. per Lin.Ft. unless otherwise shown on these plans.

**SANITARY:** No drains, either existing or proposed, carrying domestic waste shall be connected to any portion of the proposed drainage system on this project.

**PAVEMENT REMOVAL:** Pavement removal quantities Item E-8 shall consist of rigid type pavement only. Non-rigid type pavement removal is paid for as E-1 Roadway Excavation. Existing pavement types are given on Typical Section Sheet N<sup>o</sup> 2.

After removing the existing pavement, as called for on Sheet N<sup>o</sup> 4, the old roadway shall be plowed, harrowed and dragged to a smooth grade and the entire area left in a neat condition. The area shall then be seeded and mulched. Cost of plowing, harrowing etc. is included in the unit price bid for Item E-8 Pavement Removal. Seeding shall be paid for under Item L-9.

**MATERIALS REMOVED:** Under Item E-12 and S-24 shall become the property of the Contractor. The Contractor may in lieu of pipe removal, uncover the pipe, break it, and compact backfill in accordance with Sec. E-1.08 of the Construction and Materials Specifications.

**EXISTING PIPE:** The existing 12" tile on the Left from Sta. 213+50 to Sta. 217+00 shall not be disturbed, it will be the responsibility of the Contractor to protect the pipe from breakage. If during construction operations the Contractor is at fault, either from hauling heavy equipment or otherwise to cause breakage of pipe or destruction of any part of existing drainage he shall replace it at his own expense.

**SUBGRADE COMPACTION:** The subgrade under the B-119 material used for Drives and Approaches shall be compacted to a depth of six (6) inches to the density requirements in Table III, Item E-1. Payment for subgrade compaction, as specified above, shall be included in the unit price bid for Item E-1, Roadway Excavation.

**SUPERELEVATION:** Superelevated pavement shall be built without crown. The crown shall be worked out in that portion between the beginning of the transition and the point where the superelevation equals twice the crown.

**REMOVAL OF TREES AND STUMPS:** Shall be paid for by a lump sum bid. The number of trees and stumps shown in the following Table is for estimating purposes only. Sizes under 12" are not listed. The State does not guarantee the accuracy of the following Table.

SIZE	12" - 18"	18" - 24"	24" - 30"	30" - 36"	36" - 42"	42" - 48"	Over 48"
TREES	106	43	14	10	4	1	2
STUMPS	8	4	0	0	0	0	0

**SEEDING AND PROTECTING:** The seeding formula for the entire area shall be: 70% Kentucky 31 Fescue, 20% Kentucky Bluegrass, 5% Red top and 5% Alsike Clover, sown at the rate of 20 lbs. per 1000 Sq.Ft. Commercial Fertilizer shall have a formula of 12-12-12 applied to seeded and sodded areas, at the rate of 20 lbs. per 1000 Sq.Ft. The quantities for seeding are calculated for the soil areas ten (10) feet outside the construction limits as shown on the cross sections or to the R/W line if such line is less than ten (10) feet from the construction limits. All areas outside these limits, where the vegetative growth has been injuriously disturbed or destroyed by the Contractor shall be restored and seeded in accordance with the provisions of Item L-9 by the Contractor and at his own expense. Seeding limits are indicated on the cross sections by the symbol /S. Seeding quantities included in this plan are estimated quantities only.

**DUMPED ROCK FILL:** At least 50% of the dumped rock shall consist of stones weighing a minimum of 75 lbs. Cost of excavation necessary for placing of dumped rock is included in the unit price bid for Item I-10 Dumped Rock Fill.

**TRAFFIC MAINTENANCE:** Route 603 traffic will be detoured as indicated on the title sheet. The work schedule for this project should be so arranged that the detour will need be in effect for a minimum length of time. The detour shall not be extended for convenience of construction on PART I of this project. In the event PART II is completed in advance of PART I a tie-in at the end of PART II to existing Route 603 shall be maintained with I-10 Traffic Compacted Surface Course and M-10 Calcium Chloride or Calcium Magnesium Chloride.

**TRAFFIC MAINTENANCE (CONT.):** No work on existing Route 30 that would disrupt traffic will be permitted until written permission is obtained by the Contractor from the Director. This permission will be granted only when completion of PART I and PART II is assured within approximately 15 Days.

Two way traffic on Route 30 shall be maintained at all times except one way traffic will be permitted during the paving operations, at points A and B. (See sketch below) Pavement at point B shall be completed before starting pavement at point A. While constructing pavement at A, traffic will be routed over pavement B and E.

At the direction of the Engineer, ramps D and C shall be constructed as per plan or otherwise be non-performed. In the event the ramps are constructed, removal of the ramps and the existing pavement from A to B (See Sheet 5) may be non-performed at the direction of the Engineer. Ramp removal shall include removal of temporary culvert extension, ramp embankment and all ramp pavement. Payment for ramp removal shall be included in the unit price bid for Item E-8 Pavement Removal. If ramp and pavement removal is non-performed this work will be done by State forces.

The ramps shall be constructed over the existing Route 30 pavement and shall be of the same width. A separator, satisfactory to the Engineer, shall divide the surface courses of the proposed ramps from the new pavement on S.R. 603 so that a smooth line can be obtained when removing the ramps. The ramp pavement shall be approximately the same as Typical Section A on Sheet 2 except no prime coat will be used. Berms shall be 3 feet in width with 2:1 slopes. The box culvert at Sta. 217+00 shall be extended temporarily on the Left with 16 feet of 18 inch drive pipe. A temporary block at the outlet end of the box culvert shall be constructed to the satisfaction of the Engineer, cost of which is to be included in the unit price bid for I-1 Pipe for Driveways. The following estimated quantities are provided for constructing the ramps.

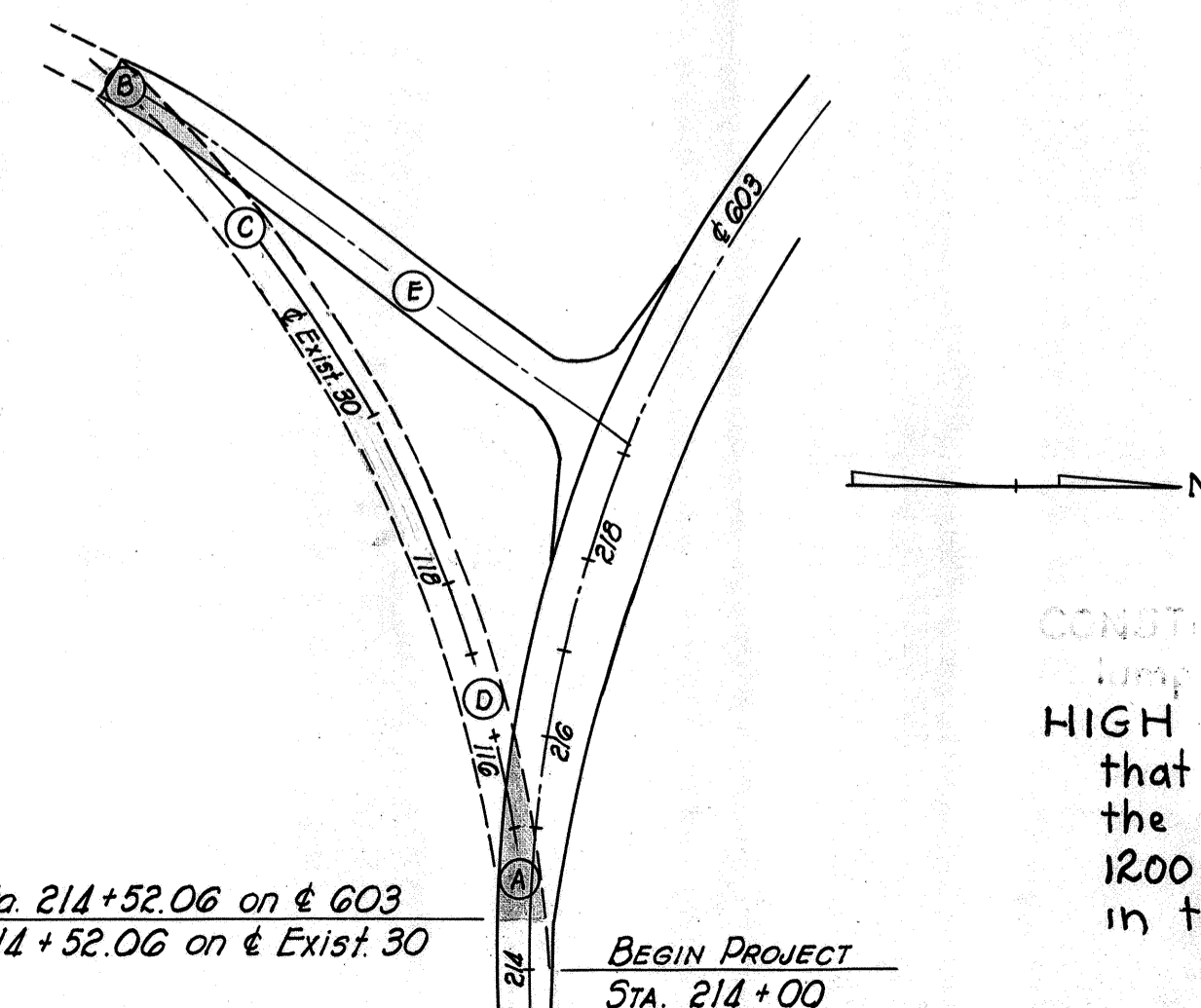
T-35 Asphaltic Concrete Surface Course	44	Cu. Yds.
B-35 Asphaltic Concrete Leveling Course	75	Cu. Yds.
B-119 Crushed Aggregate Base Course	186	Cu. Yds.
I-22 Subbase	196	Cu. Yds.
I-1 18" Pipe for Driveways	16	Lin. Ft.
T-10 Traffic Compacted Surface Course	*100	Cu. Yds.
M-10 Calcium Chloride	* 2	Tons

Estimated Embankment (Carried to Sheet 10)

\* Included in the above quantities are 50 Cu.Yds. T-10 and 1 Ton M-10 for Maintaining Local Traffic. Traffic may be maintained on any portion of the I-22 or B-119 material while constructing pavement at A, D, or B. Damage to the I-22 or B-119 courses shall be repaired by reshaping, recompact and by addition of extra material if necessary. Reshaping and recompact operations shall be done at no additional cost to the State. The ramps shall be constructed to the grades in the following Table.

### GRADES ON RUN AROUND

Station	Width	Grade Lt.	Grade Rt.	Station	Width	Grade Lt.	Grade Rt.
115+00	0	1017.91		119+25		1009.70	1010.83
+50	1.0	1017.31		+50		1009.32	1010.51
116+00	3.5	1016.86		+75		1009.17	1010.30
+50	8.0	1016.66		120+00		1009.20	1010.20
+75	12.0	1016.60		+25		1009.35	1010.20
117+00	18.0	1016.50		+50		1009.50	1010.20
+25	20.0	1016.40	1015.78	+75	20.0	1009.67	1010.20
+50		1015.82	1015.67	121+00	15.0	1009.80	
+75		1015.02	1015.02	+25	10.0	1009.90	
118+00		1013.90	1014.14	+50	6.5	1010.10	
+25		1012.68	1013.25	+75	3.5	1010.21	
+50		1011.67	1012.47	122+00	1.5	1010.33	
+75		1010.85	1011.81	+25	1.0	1010.32	
119+00		1010.25	1011.26	+50	0	1010.28	



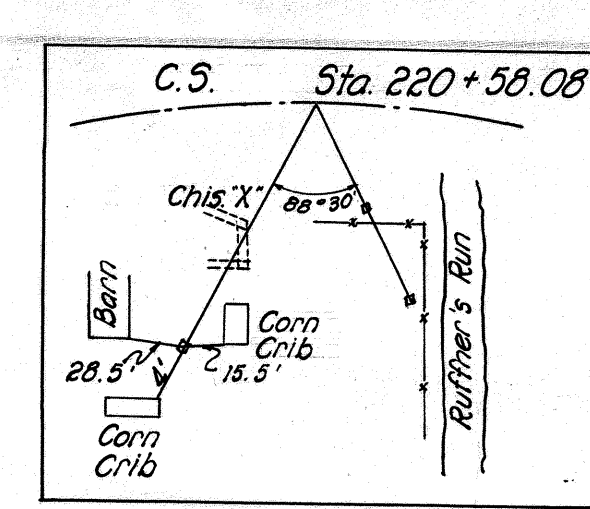
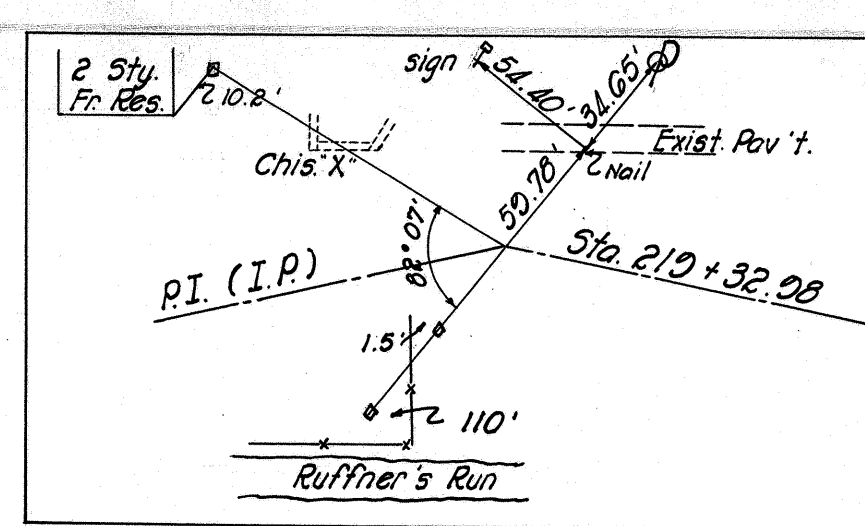
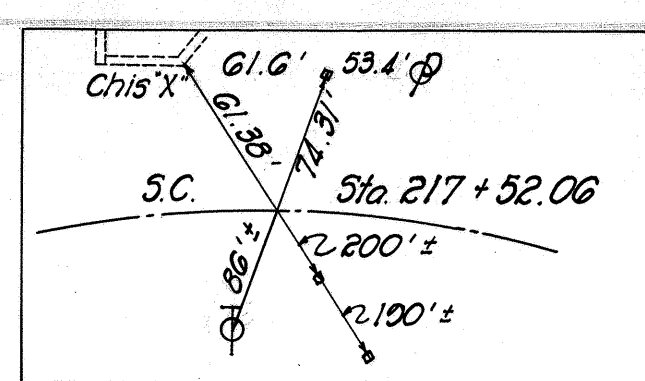
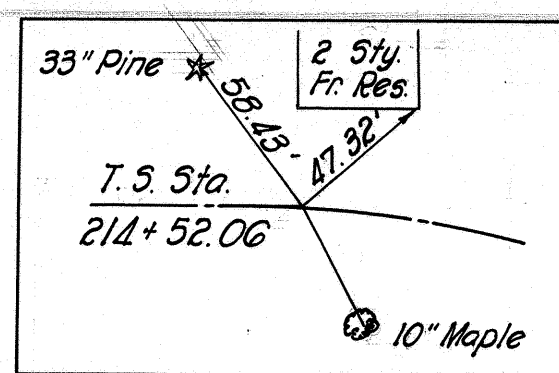
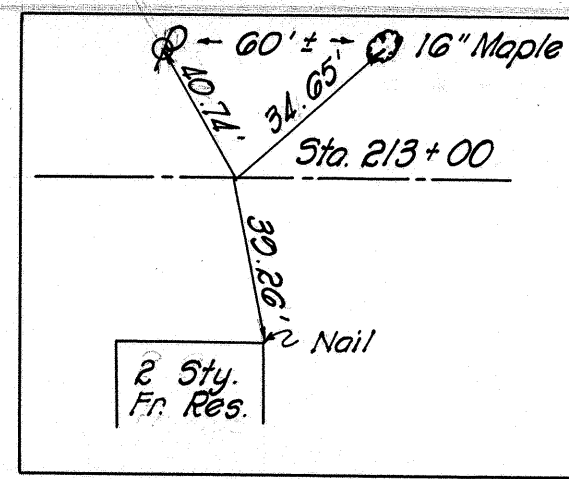
# GENERAL SUMMARY

3	5	6	7	8	19	22	CALC.	ITEM	TOTAL QUANT.	UNITS	DESCRIPTION
ROADWAY											
								E-1	9050	Sq. Yds.	Compacted Subgrade
								E-1	22027	Cu. Yds.	Roadway Excavation, as per plan
								E-4	24979	Cu. Yds.	Borrow
								E-8	32	Sq. Yds.	Removal and Disposal of Existing Wearing Course
								E-8	894	Sq. Yds.	Removal and Disposal of Existing Rigid Pavement as per plan
Lump	894							E-9	Lump		Removal of Trees and Stumps
								E-11	277	M. Gal.	Water
100								T-10	100	Cu. Yds.	Traffic Compacted Surface Course for Maintaining Traffic
2								M-10	5.7	Tons	Calcium Chloride furnished and applied.
								I-8	14	Each	Centerline Reference Monuments, as per plan
								I-15	1580	Lin. Ft.	Guard Rail Steel Beam Type (Deep)
								I-15	80	Lin. Ft.	Guard Rail Removed and Disposed of
								L-9	45,650	Sq. Yds.	Seeding and Protecting as per plan
								L-9	4.11	Tons	Commercial Fertilizer (12-12-12)
								L-10	84	Sq. Yds.	Sodding
								I-18	880	Cu. Yds.	Stabilized Crushed Aggregate Shoulders and Approaches
								Special	3526	Sq. Yds.	Mixing Calcium Chloride and Crushed Aggregate
DRAINAGE											
								E-2	110	Cu. Yds.	Excavation for Structures
								E-3	25	Cu. Yds.	Channel Excavation
								E-12	282	Lin. Ft.	Pipe Removed, 15" and Under
								S-1	2.5	Cu. Yds.	Concrete for Structures, Class "E"
								S-24	Lump	Lump	Removal of Existing Structures
								S-27	90	Lin. Ft.	24" Pipe for Roadway Culverts
								S-27	56	Lin. Ft.	30" Pipe for Roadway Culverts
								S-27	80	Lin. Ft.	36" Pipe for Roadway Culverts
								I-1	58	Lin. Ft.	12" Pipe for Driveways, Sec. M-6.4(a)
								I-2	212	Lin. Ft.	12" Class "A" Storm Sewers
								I-2	78	Lin. Ft.	12" Class "A" Storm Sewers Under Pavement or Approaches
								I-2	28	Lin. Ft.	18" Class "A" Storm Sewers Under Pavement or Appr, as per plan
								I-1	16	Lin. Ft.	18" Pipe for Driveways, Sec. M-6.4(a) as per plan
								I-4	1670	Lin. Ft.	6" Underdrains
								I-4	10	Lin. Ft.	6" Outlets for Underdrains, Sec. M-6.4(h) without perforations
								I-5	2	Each	6" Pipe Specials for Underdrains
								I-5	1	Each	12" Pipe Specials for Class "A" Storm Sewers Under Pavt. or Approaches
								I-9	1700	Lin. Ft.	Stone Underdrains N <sup>o</sup> 2
								I-8	2	Each	Standard N <sup>o</sup> 2-2-B Catch Basins
								I-8	2	Each	Standard N <sup>o</sup> 1 Side Ditch Inlets
								I-8	1	Each	Standard No. 2-2-A Catch Basin Modified as per plan
								I-10	31	Cu. Yds.	Dumped Rock Fill, as per plan
								I-16	1	Each	Catch Basins Abandoned
PAVEMENT											
								B-35	810	Cu. Yds.	Asphaltic Concrete Leveling Course (70-80)
								T-30	3661	Gal.	Bituminous Prime Coat, Sec. M-5.2: RC-1 or RC-2, or Sec. M-5.3: MC-0 or MC-1
								T-35	502	Cu. Yds.	Asphaltic Concrete Surface Course, Type "A" (70-80)
								I-22	2086	Cu. Yds.	Subbase
								B-119	2116	Cu. Yds.	Crushed Aggregate Base Course
								I-7	67	Sq. Yds.	Reinforced Concrete Approach Slabs (T=10")
								Lump Sum			Construction Type 1 Slab
FOR STRUCTURE QUANTITIES, SEE SHEET N <sup>o</sup> 29											

**CONSTRUCTION LAYOUT STAKES:** See notes on project plan for details on layout stakes and survey points.

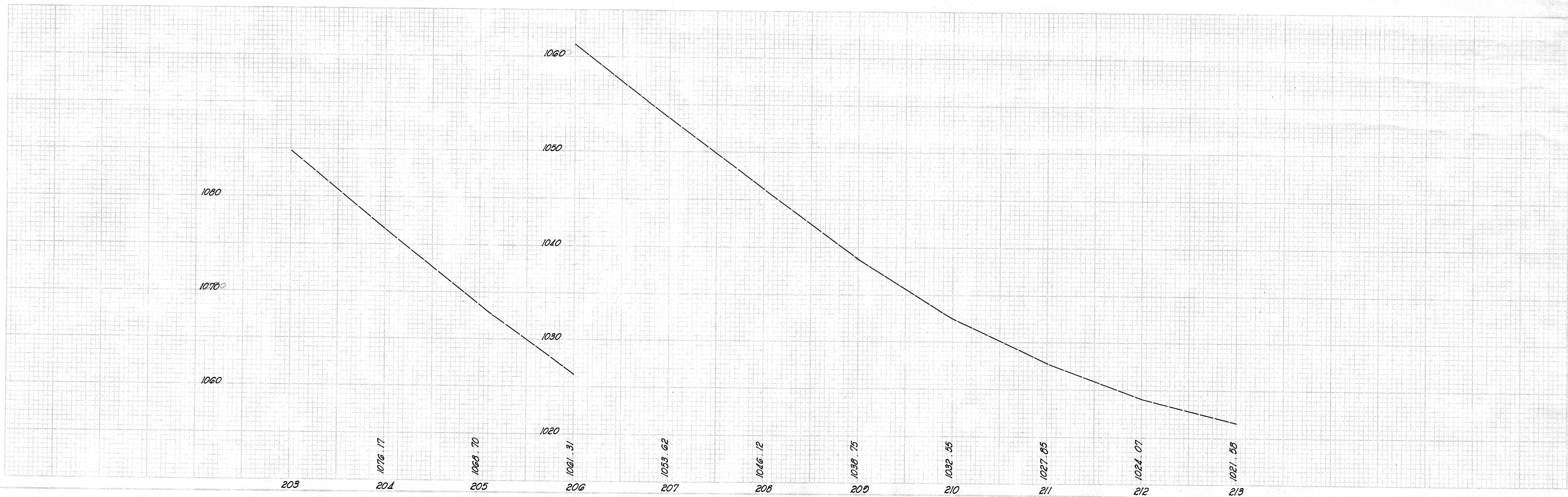
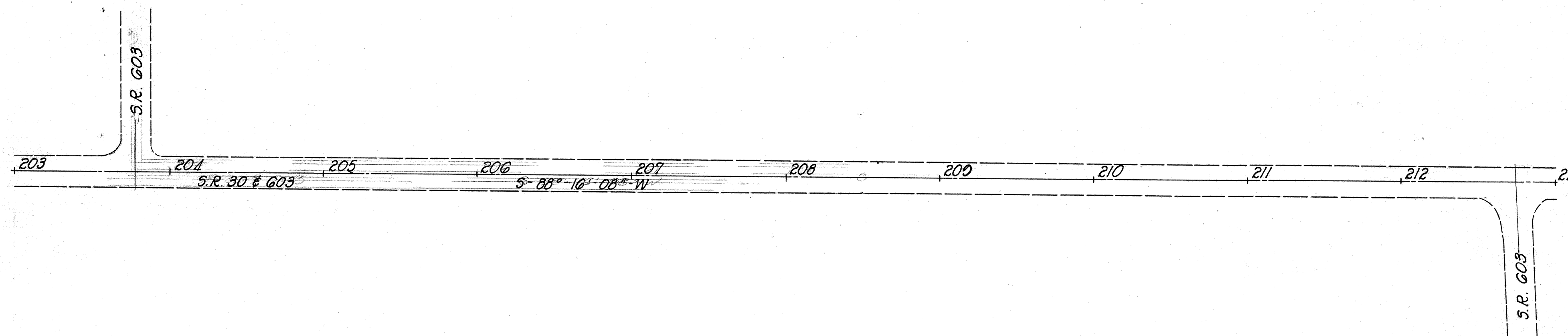
**HIGH PRESSURE GAS LINE:** The contractor's attention is directed to the fact that the existing 10" gas line crossing proposed SR-603 at Sta. 221+57 and the intersecting road detailed on Sheet 19 at Sta. 3+95 carries a pressure of 1200 p.s.i. The contractor shall exercise appropriate safety measures for work in this area.

**FIELD OFFICE:** The contractor shall provide a suitable field office in accordance with Sec. 5-0.01 having a minimum floor area of 200 sq. ft. The contractor shall have a telephone installed and maintained during construction of this project.

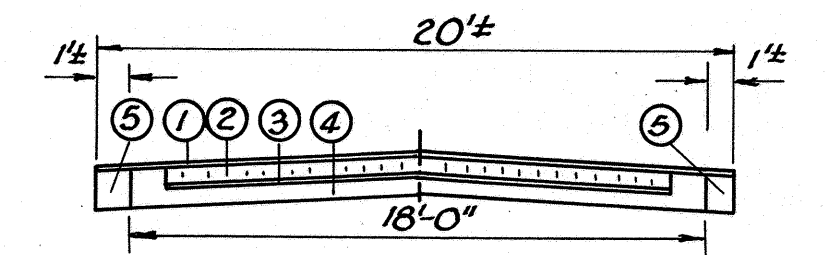


FED. DIV.	STATE	PROJECT
2	CHIO	

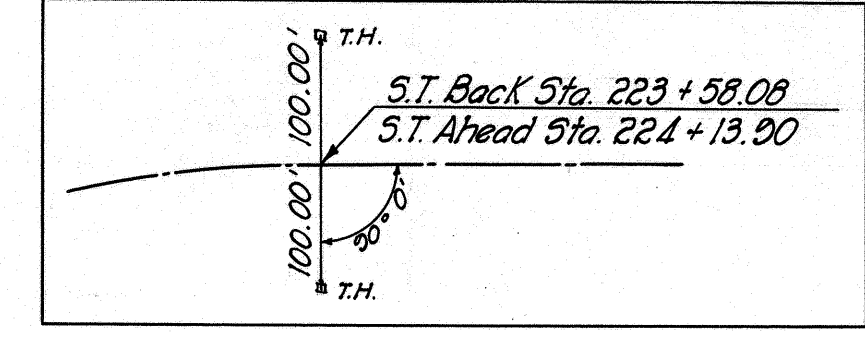
A5D-603-(4.03-4.17)



**CURVE DATA**  
 P.I. Sta. 219+32.98  
 $\Delta = 54^{\circ}-32'-30''$  Rt.  
 $\Delta c = 9^{\circ}-00'-00''$   
 $Ls = 300'$   
 $Xc = 298.34'$   
 $Yc = 23.47'$   
 $\phi_c = 4^{\circ}-30'-00''$   
 $\Delta c = 27^{\circ}-32'-30''$   
 $Lc = 306.02'$   
 $Ts = 480.92'$   
 $Es = 86.22'$   
 $c = 0.00005'$



**TYPICAL SECTION OF ADJOINING PAVEMENT**

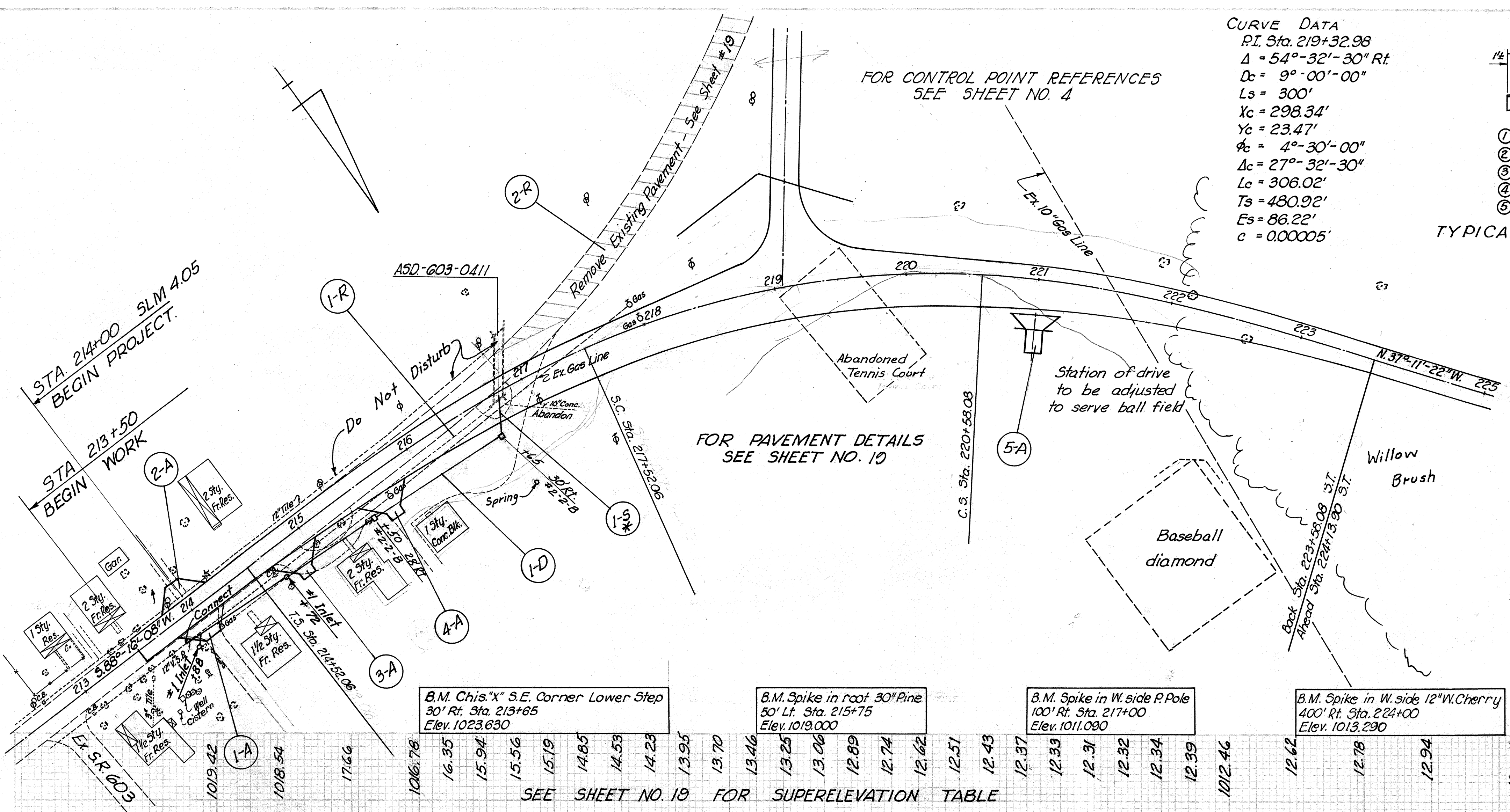


FOR CONTROL POINT REFERENCES  
SEE SHEET NO. 4

FOR PAVEMENT DETAILS  
SEE SHEET NO. 10

STA. 214+00 SLM 4.05  
BEGIN PROJECT.

STA. 213+50  
BEGIN WORK



Ref. No.	Station.	E-12 Pipe Removed 15' Under Lin. Ft.	I-2 Class A Storm Sewers 12" Under Approach Lin. Ft.	I-5 Pipe Specials 12" Y Each	I-8 Catch Basins #2-2-B #1 Each	I-16 Catch Basins Abandn Course Each	T-35 A. C. Surface Cu. Yds.	B-119 Crushed Aggr. Cu. Yds.	E-8 Pav't Removal Sq. Yds.			
1-A	214+01 Rt.						2.5	4.2				
2-A	214+11 Lt.						2.5	4.2				
3-A	214+85 Rt.						3.0	5.4				
4-A	215+63 Rt.						3.0	5.4				
5-A	221+00 Rt.							8.7				
1-D	213+80 - 216+65		212	78	1	1	2					
1-R	213+96 - 216+70	282					1					
2-R	Ex. Pav't As shown								894			
*1-S	216+65 - 216+73			28*	1							
<b>TOTALS</b>		<b>282</b>	<b>212</b>	<b>78</b>	<b>28*</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>11.0</b>	<b>27.9</b>	<b>894</b>

\* Includes blocking inlet end of existing 2'x5' box culvert with 8" masonry wall in accordance with Sec. I-8.03  
 Δ 28 Lin. Ft. 12" I-1 Pipe for Drives.

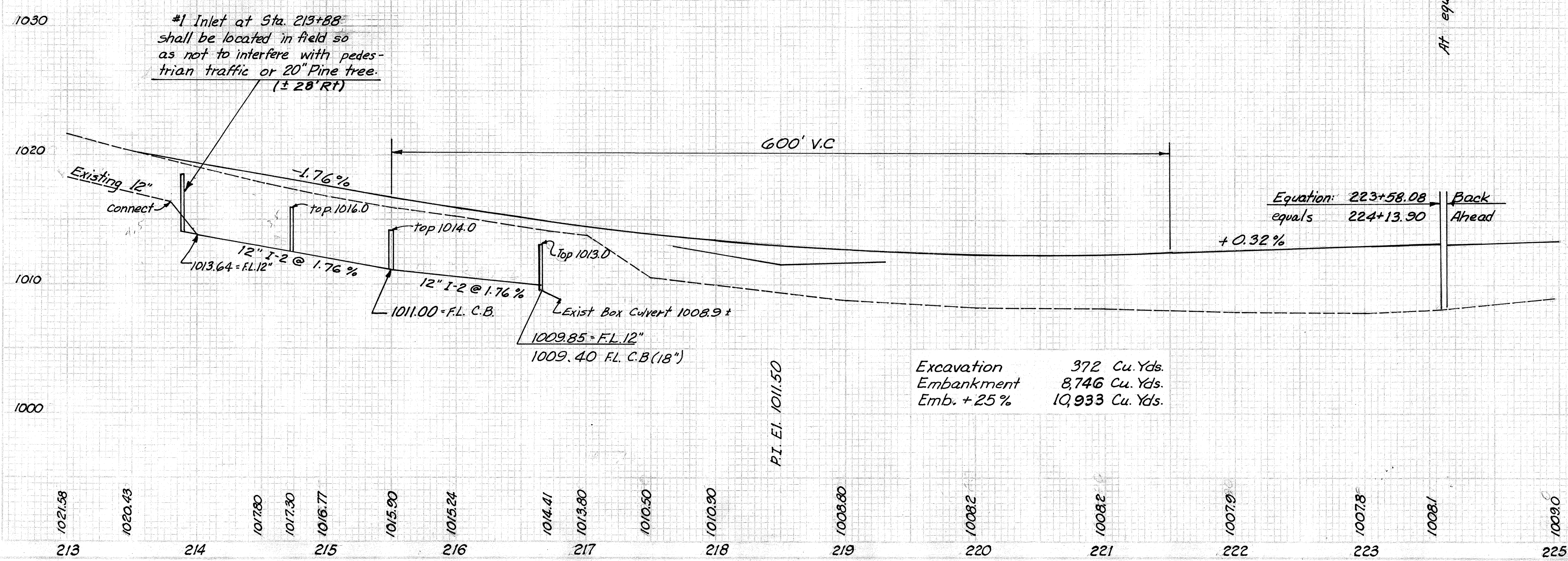
B.M. Chis. 'X' S.E. Corner Lower Step  
30' Rt. Sta. 213+65  
Elev. 1023.630

B.M. Spike in root 30" Pine  
50' Lt. Sta. 215+75  
Elev. 1019.000

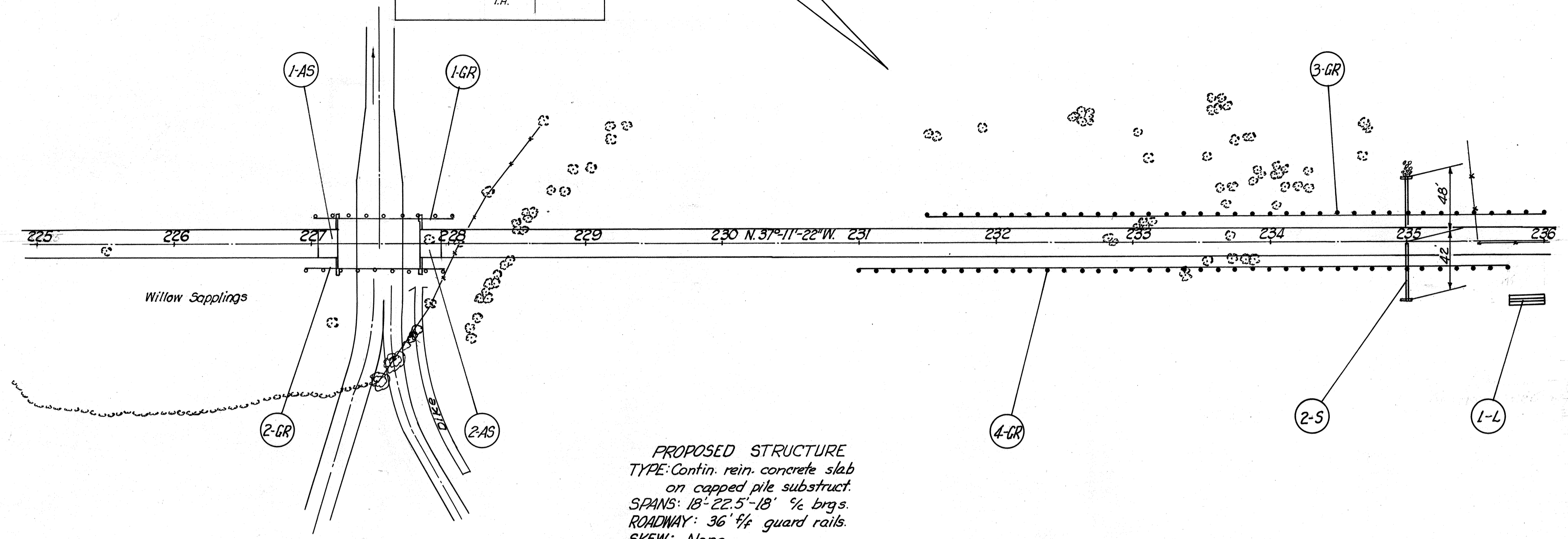
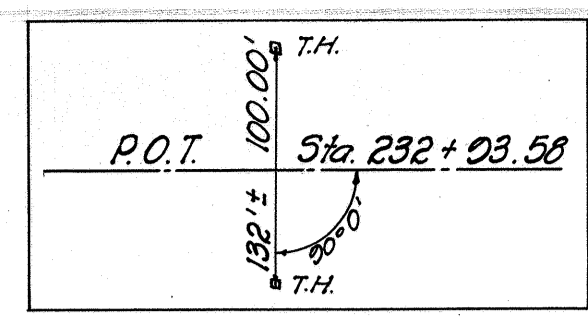
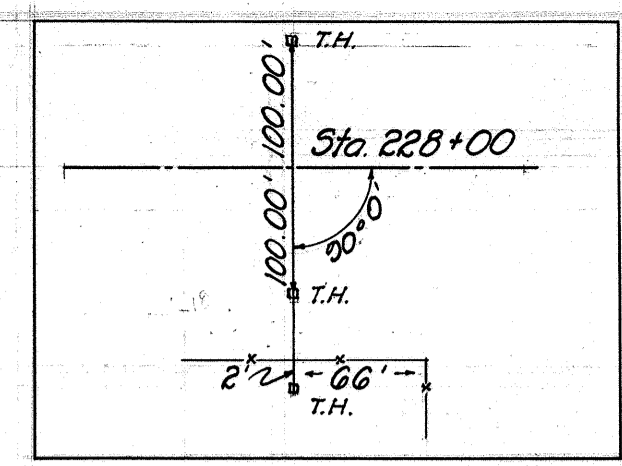
B.M. Spike in W. side P. Pole  
100' Rt. Sta. 217+00  
Elev. 1011.090

B.M. Spike in W. side 12" W. Cherry  
400' Rt. Sta. 224+00  
Elev. 1013.290

SEE SHEET NO. 10 FOR SUPERELEVATION TABLE



Structure No. 2-5 ASD-603-0445  
 Station 235+00  
 Drainage Area = 10 Acres  
 Fill on culvert at  $\pm = 11.1'$   
 Existing: None  
 Proposed: 24" Pipe Culvert  
 Construct \*S-27 RC-4 End Walls



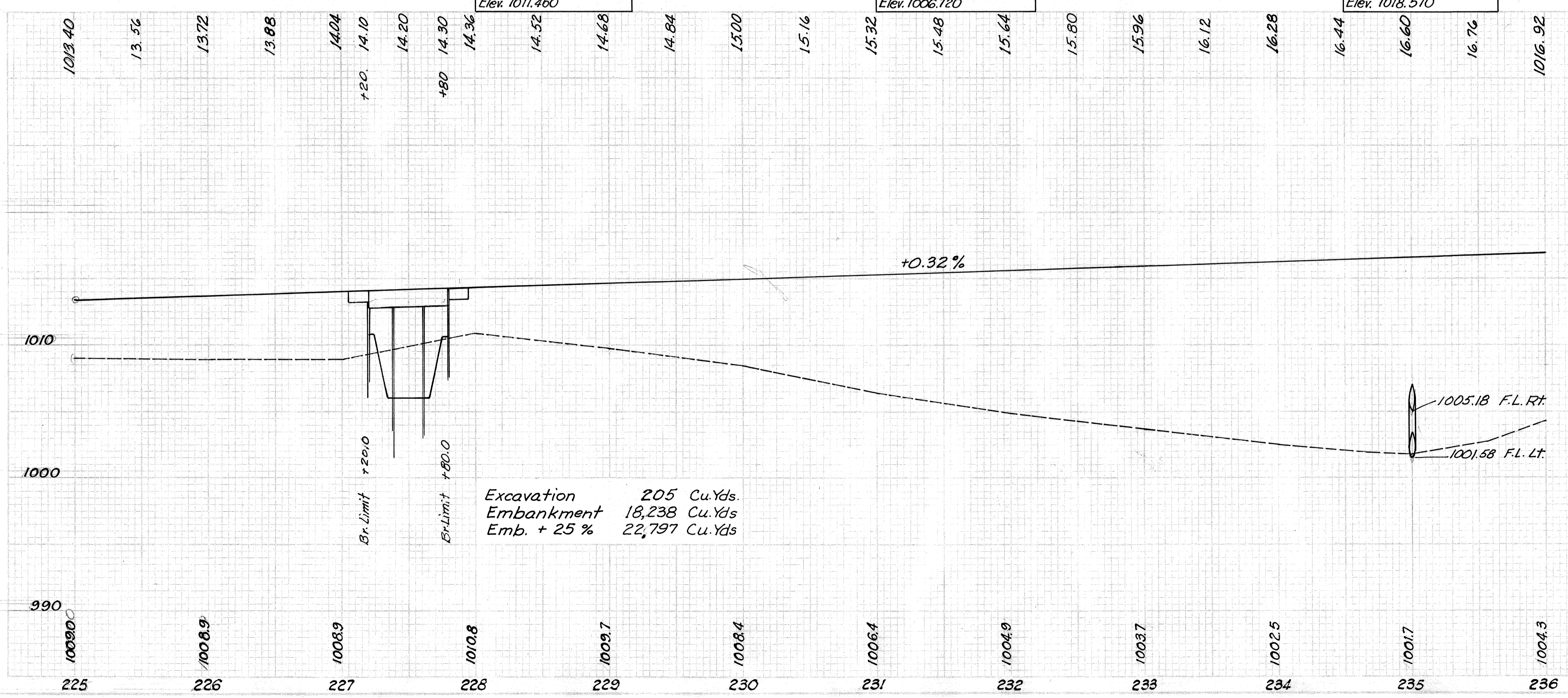
**PROPOSED STRUCTURE**  
 TYPE: Contin. rein. concrete slab  
 on capped pile substruct.  
 SPANS: 18'-22.5'-18' % brgs.  
 ROADWAY: 36'  $\frac{1}{4}$  guard rails.  
 SKEW: None  
 WEARING SURFACE:  $\frac{3}{4}$ " Mono Conc.  
 APPR: SLABS: AS-1-54 (15' Long)

B.M. Spike in 6" Twin Tree  
 125' Rt. Sta. 228+50  
 Elev. 1011.460

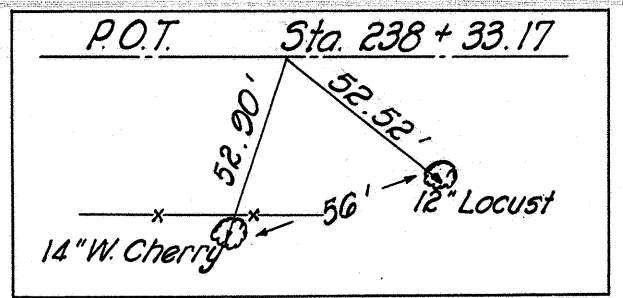
B.M. Spike in 22" Willow  
 100' Lt. Sta. 231+50  
 Elev. 1006.720

B.M. Yellow Angle Iron  
 100' Rt. Sta. 235+20  
 Elev. 1018.570

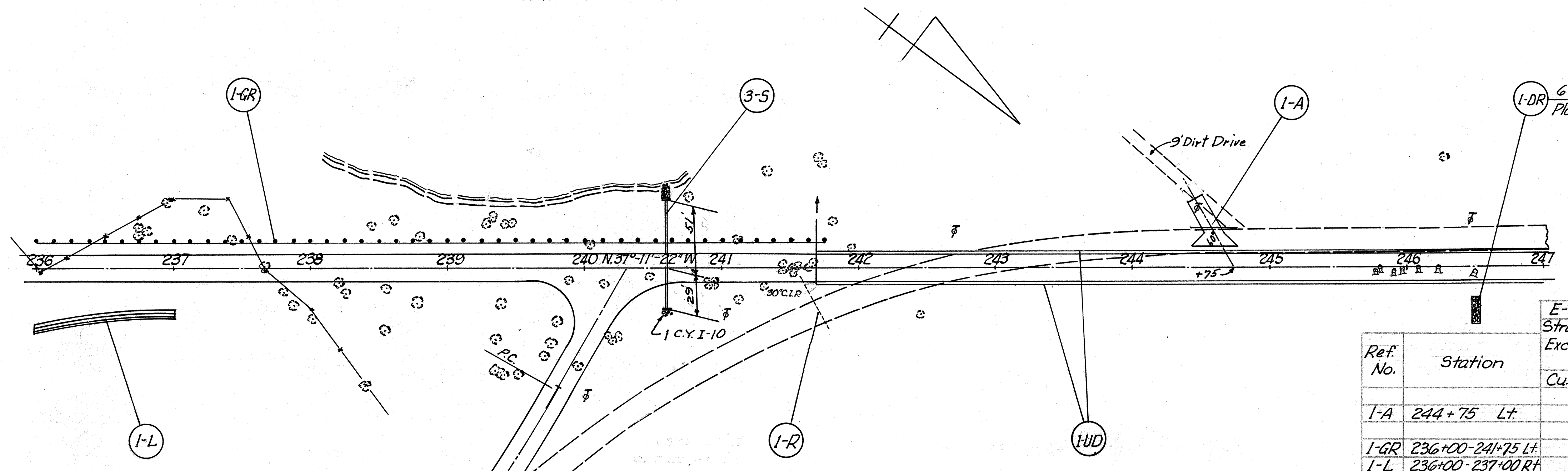
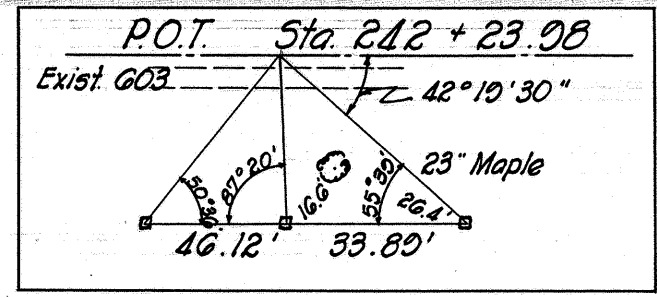
Ref. No.	Station	E-2 Struct. Exca.	S-1 Conc. for Pipe Cl. "E"	S-27 Culvert 24" Pipe	I-10 Dumped Rock Fill	I-15 Guard Rail Deep	L-10 Sod-Clng 6' Wide	I-7 Conc. Slabs	I-22 Sub-base 6"
		Cu.Yds.	Cu.Yds.	Lin.Ft.	Cu.Yds.	Lin.Ft.	Sq.Yds.	Sq.Yds.	Cu.Yds.
1-GR	227+02.98 - 228+02.98						40		
2-GR	226+96.73 - 227+96.73						40		
3-GR	231+50 - 236+00 Lt.						450		
4-GR	231+00 - 235+75 Rt.						475		
1-L	235+75 - 236+00 Rt.							17	
2-5	235+00	5	0.82	90	5				
1-AS	227+05 - 227+20							33.3	5.6
2-AS	227+80 - 227+95							33.3	5.6
<b>TOTALS</b>		<b>5</b>	<b>0.82</b>	<b>90</b>	<b>5</b>	<b>1005</b>	<b>17</b>	<b>66.6</b>	<b>11.2</b>



Excavation 205 Cu.Yds.  
 Embankment 18,238 Cu.Yds.  
 Emb. + 25% 22,797 Cu.Yds.



Structure No 3-S ASD-603-0456  
 Station 240+60  
 Drainage Area 30 Acres  
 Fill on culvert at  $\phi = 6.6'$   
 Existing 30" C.I.P. (to be removed)  
 Proposed 36" Pipe Culvert  
 Construct 3-27 PC-4 End walls



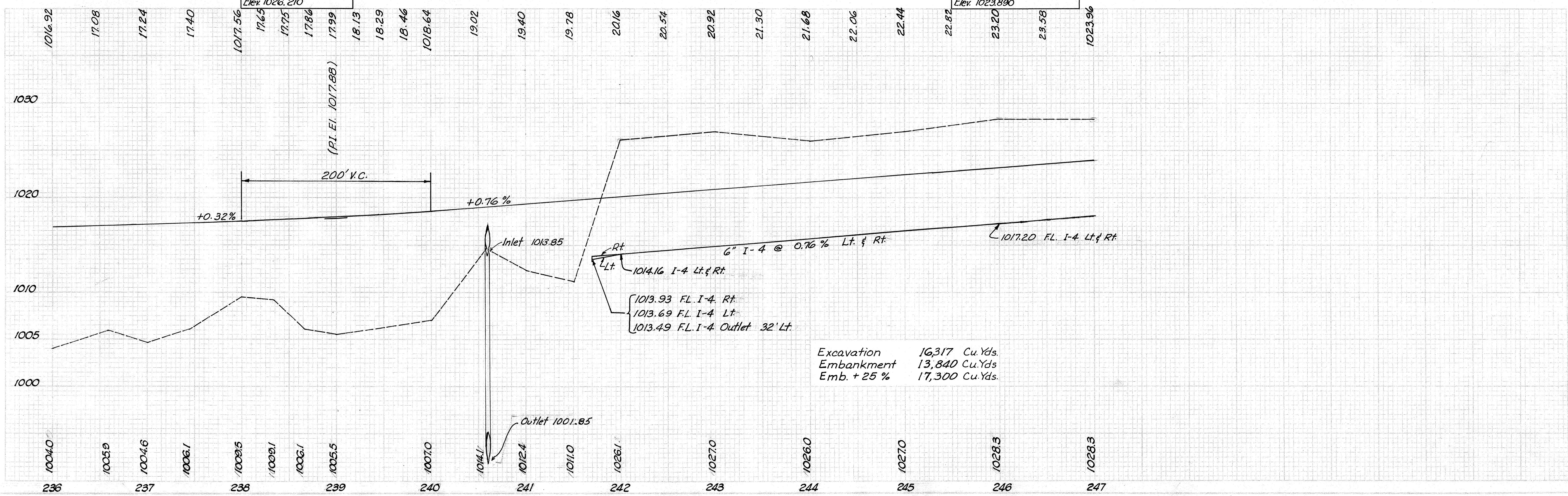
Ref. No.	Station	E-2 Struct. Excav. Cu.Yds.	S-24 Struct. Remov. Lump	S-1 Conc. for Struct. C.I. "E" Cu.Yds.	S-27 Culvert Pipe 36" Lin. Ft.	I-1 Drive Pipe 12" Lin. Ft.	I-4 6" Pipe Underdrains Outlets Lin. Ft.	I-5 Pipe Special 6" Each	I-10 Dumped Rock Fill Cu.Yds.	I-15 Guard Rail Deep. Lin. Ft.	L-10 Sodding 6' Wide Sq.Yds.	B-119 Crushd Aggr. Cu.Yds.	
I-A	244+75 Lt.					30						11.4	
I-GR	236+00-241+75 Lt.									575			
I-L	236+00-237+00 Rt.										67		
I-R	241+75 Rt.		Lump										
3-S	240+60	50		1.10	80				13				
I-UD	241+70-247+00 Lt.					1090	10	2*					
I-DR	246+50 *							13					
TOTALS		50	Lump	1.10	80	30	1090	10	2*	26	575	67	11.4

FOR INTERSECTION DETAILS AND QUANTITIES, SEE SHEETS NO. 22, 23.

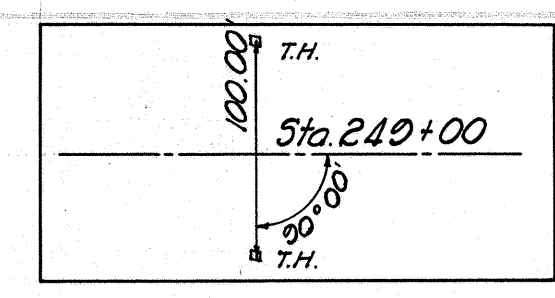
B.M. Spike in 12" W. Cherry  
 125' Rt. Sta. 238+57  
 Elev. 1026.210

B.M. Spike in 6" Twin W. Cherry  
 100' Lt. Sta. 246+25  
 Elev. 1023.890

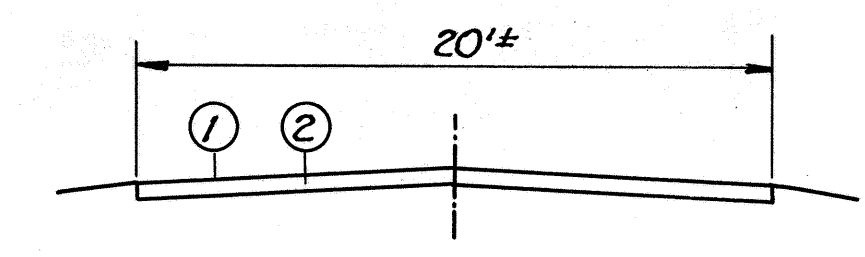
\* 1-6" Elbow and 1-6" Tee.



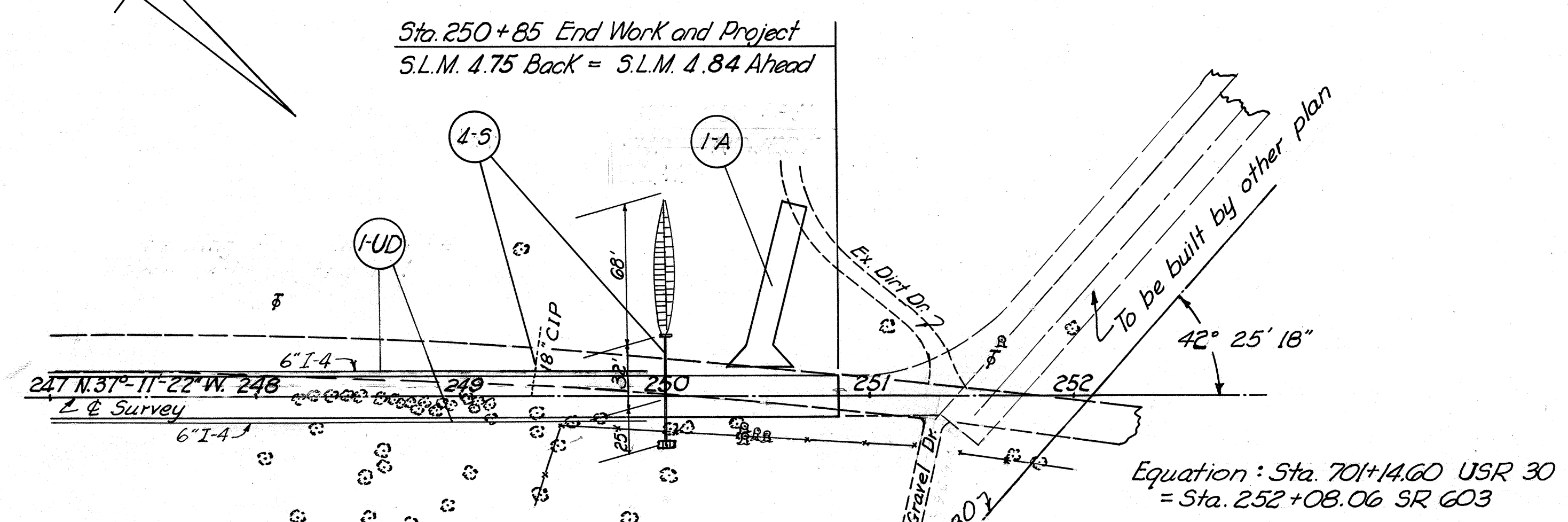
Excavation 16,317 Cu.Yds.  
 Embankment 13,840 Cu.Yds.  
 Emb. + 25% 17,300 Cu.Yds.



R.I. Sta. 252+08.06 & Survey =  
Sta. 701+14.60 & U.S.R. 30  
125.60' 7" 130.4' 7" 215.2' 7" 231.04' 7"



① Bituminous Surface Treatment 2"±  
② Traffic Bound Base 8"±  
TYPICAL SECTION OF ADJOINING PAVEMENT



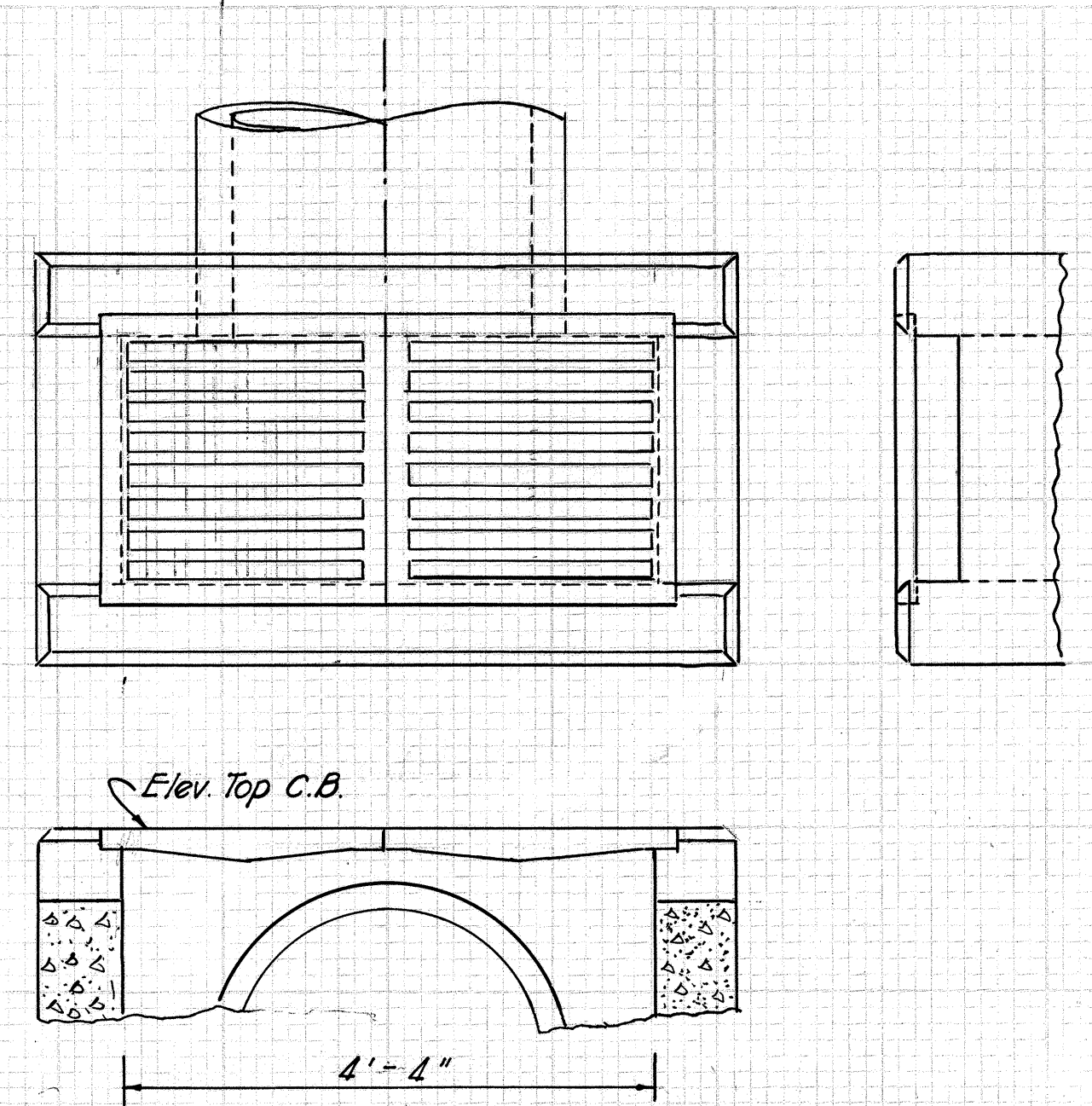
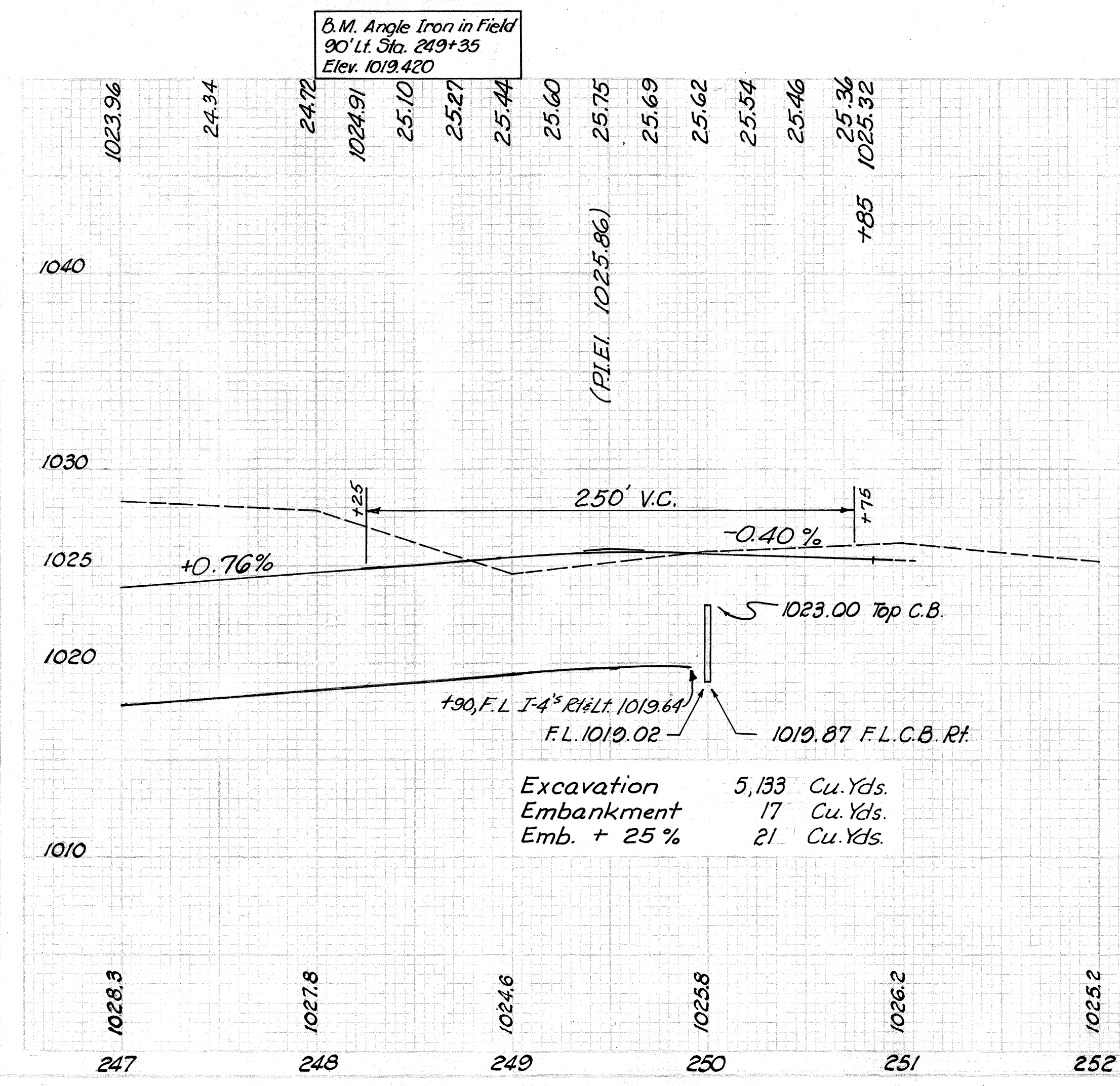
Str. No. 4-5 Station 250+00 ASD-603-0473  
D.A. = 12 acres plus  
Fill on Culv. at  $\epsilon = 36'$   
Existing 18" Pipe Culv.  
Proposed 30" Pipe Culv.  
Work at Sta. 249+35 Remove Exist. Culv.  
Sta. 250+00 Construct 30" Pipe Culv.  
to dimensions given, 5-27-PC-4 Endwall  
on Lt. End & 2-2-A-M Catch Basin on Rt. End.  
Clean channel to 100' from  $\epsilon$  on Lt. @ 1.0% Grade  
Ditch bottom 2 1/2' 2:1 side slopes

**EARTHWORK TABLE**

From Sheet	Excavation	Embankment	Emb. + 25%
5	372	8,746	10,933
6	205	18,238	22,707
7	16,317	13,840	17,300
8	5,133	17	21
<b>Totals</b>	<b>22,027</b>	<b>40,841</b>	<b>51,051</b>

5304 + 25 = 5304 Cu. Yds. Channel Excavation available for reducing Borrow  
75% Available Channel Excavation Estimated to be suitable material (75% x 5304 = 4045)  
51,051 - (22,027 Excav + 4045 suitable Channel Excavation) = 24,979 Cu. Yds. Borrow

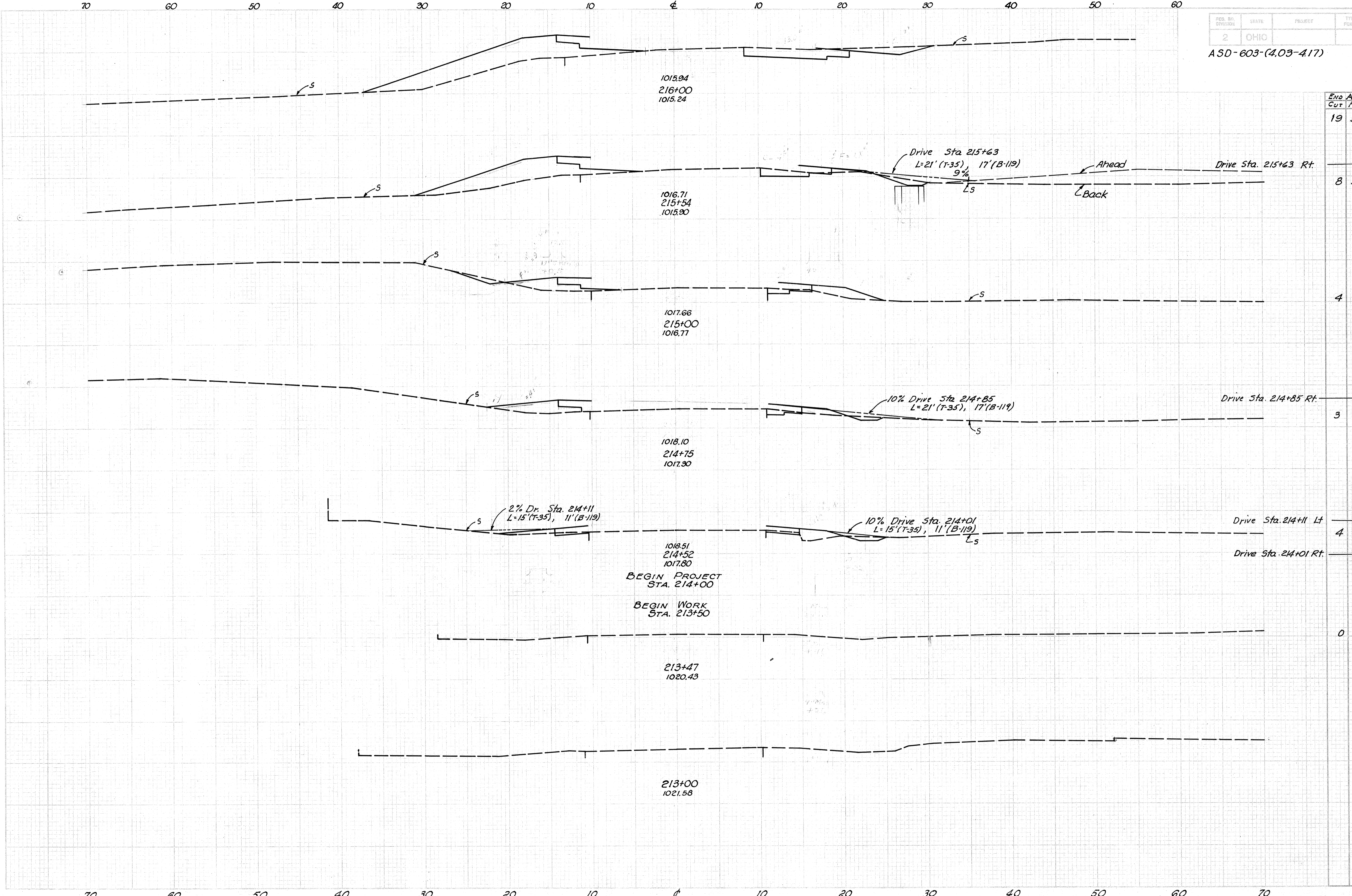
Ref. No.	Station	S-24 Struct. Crushed Removl	B-110 Conc. Aggr.	5-1 Conc. For Struct.	5-27 Culvert For 30"	E-2 Excav. For Struct.	E-3 Chan- nel Excav.	I-B Catch Basin	I-4 6" Under- drains
		Lump	Cu. Yds.	Cu. Yds.	Lin. Ft.	Cu. Yds.	Cu. Yds.	Each	Lin. Ft.
4-5	250+00	Lump		0.51	56	55	25	1	
I-A	250+10 Lt.		10.1						
I-UD	247+00 to 249+90								580
	<b>TOTAL</b>	Lump	10.1	0.51	56	55	25	1	580



For dimensions other than that shown above, and notes, see Std. Const. Drwg. I-B C.B. 2-2-A & B  
**DETAIL OF 2-2-A-M CATCH BASIN**



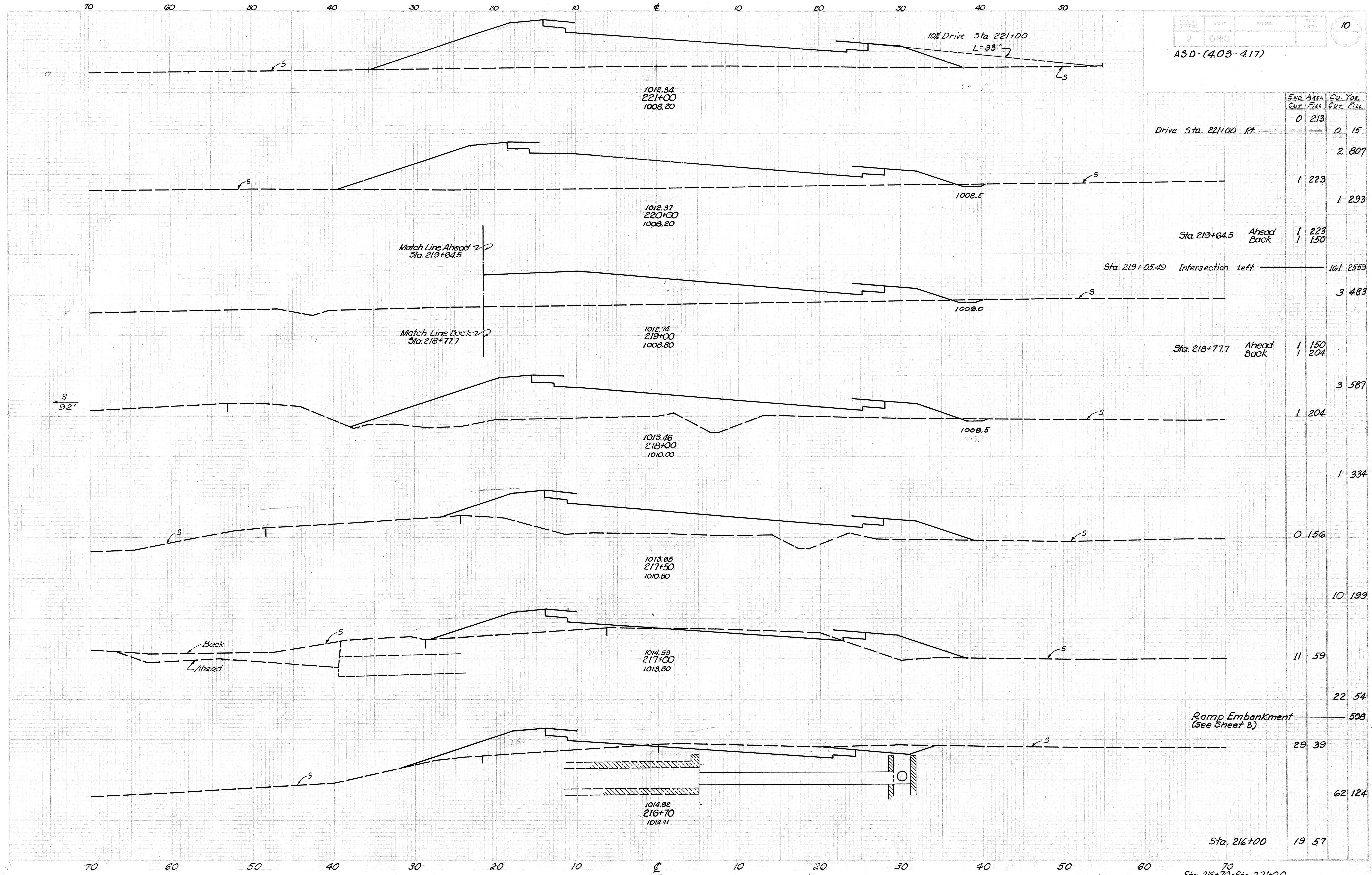
ASD-603-(4.03-4.17)



Sta.	End Area Cut	Area Fill	Cu. Yds. Cut	Yds. Fill
216+00	19	57		
215+63	23	81	1	4
215+54	8	38		
215+00	12	55		
215+00	4	17		
214+85	3	14	1	2
214+75	3	13		
214+11	4	7	1	2
214+01	1	2	1	2
214+00	7	13		
213+50	0	0		
213+47				
213+00				

Sta. 213+00 - Sta. 216+00

ASD-(4.03-4.17)



ENO	AREA	Cu. Yds.	
Cut	Fill	Cut	Fill
0	213	0	15
		2	807
1	223	1	293
1	223	1	150
161	2559		
3	483		
1	150	1	204
		3	587
1	204		
		1	334
0	156		
		10	199
11	59		
		22	54
			508
29	39		
		62	124
		19	57

Drive Sta. 221+00 Rt.

Sta. 219+64.5 Ahead Back

Sta. 219+05.49 Intersection Left.

Sta. 218+77.7 Ahead Back

Ramp Embankment (See Sheet 3)

Sta. 216+00

Sta. 216+70 - Sta. 221+00

1012.34  
221+00  
1008.20

1012.37  
220+00  
1008.20

1012.74  
219+00  
1008.80

1013.46  
218+00  
1010.00

1013.95  
217+50  
1010.80

1014.53  
217+00  
1013.80

1014.92  
216+70  
1014.41

Match Line Ahead Sta. 219+64.5

Match Line Back Sta. 218+77.7

10% Drive Sta 221+00 L=33'

Back Ahead

S 92'

70

60

50

40

30

20

10

0

10

20

30

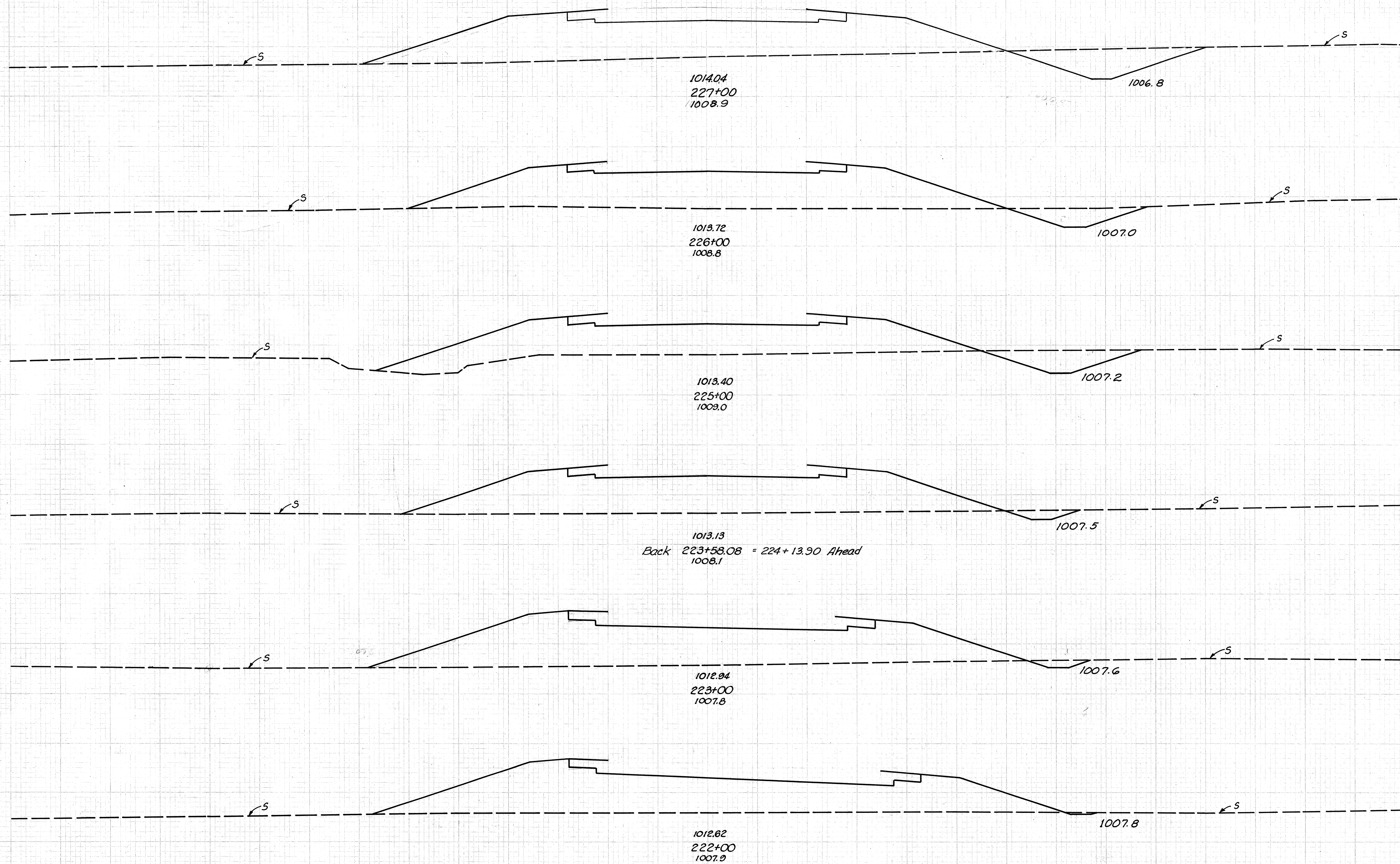
40

50

FED. RD. DIVISION	STATE	PROJECT	TYPE
2	OHIO		

11

ASD-603-(4.03-4.17)



Sta.	Area Cut	Area Fill	Cu. Cut	Yds. Fill
227+00	34	211		
226+00	15	182	91	728
225+00	20	163	65	639
224+00	4	187	38	558
223+00	3	219	8	436
222+00	1	218	7	809
221+00	0	213	2	798

70

60

50

40

30

20

10

0

10

20

30

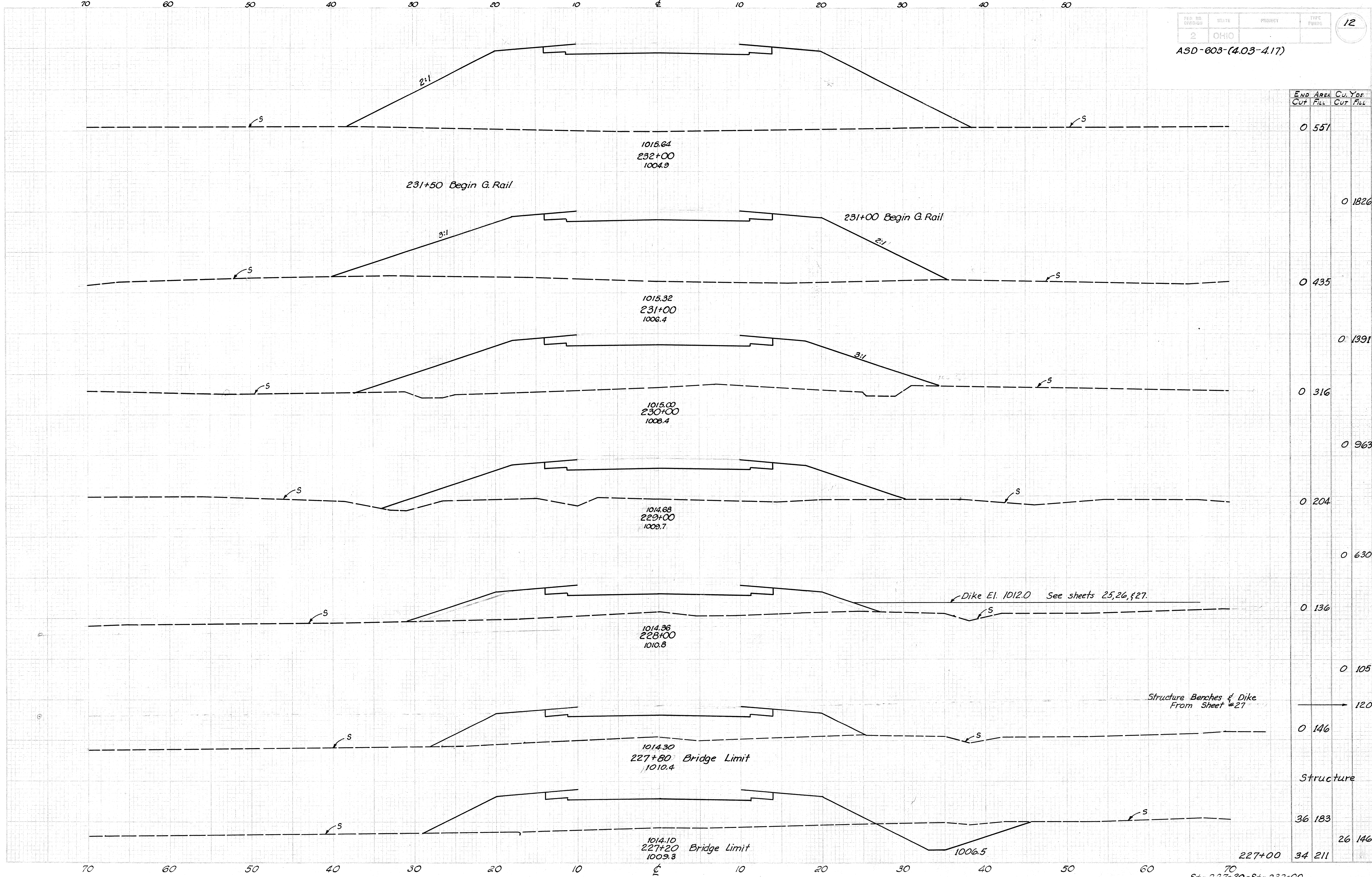
40

50

60

70

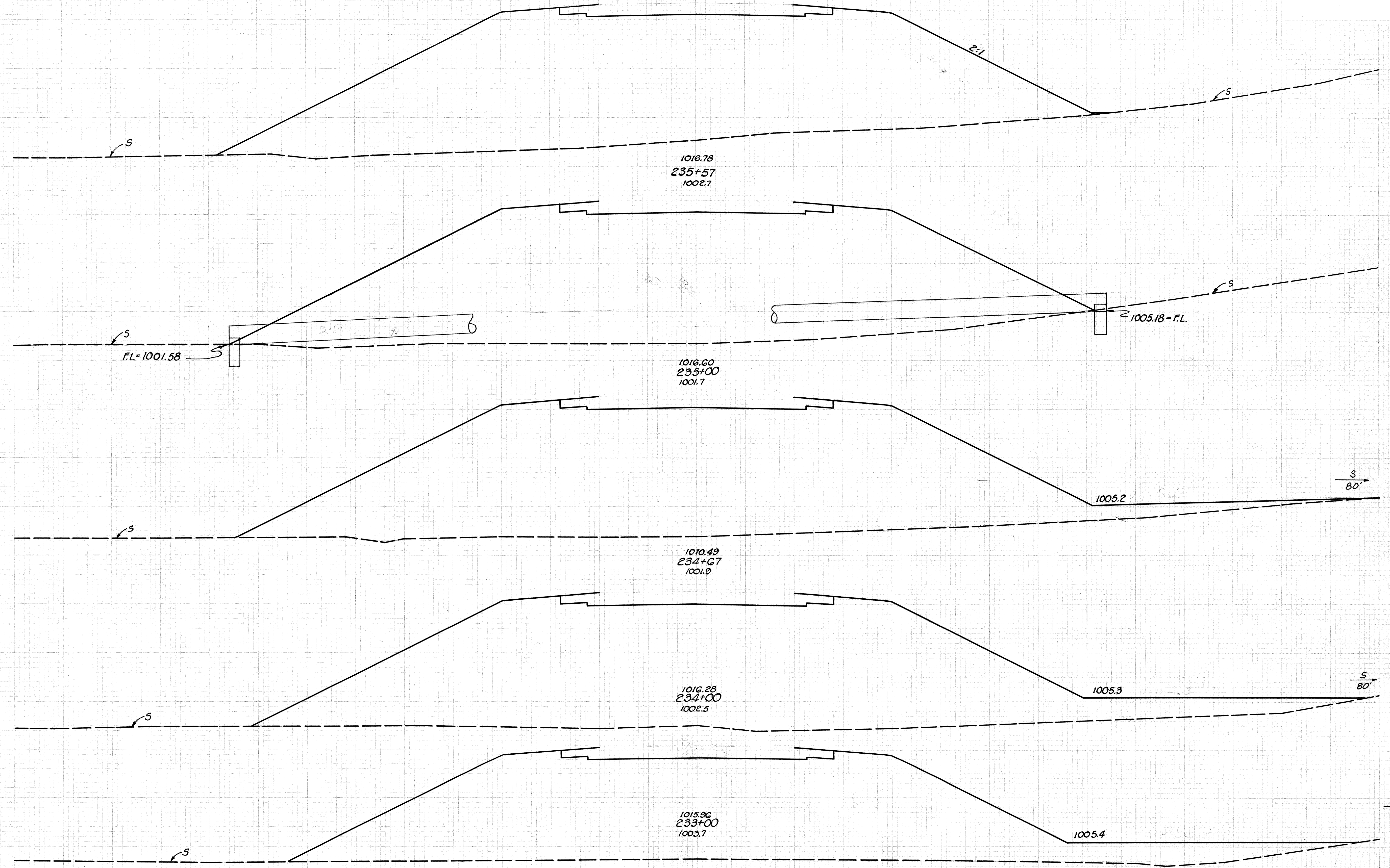
Sta. 222+00 - Sta. 227+00



END AREA	Cu. Yds.
Cut	Fill
0	551
0	1826
0	435
0	1391
0	316
0	963
0	204
0	630
0	136
0	105
0	146
36	183
34	211

A5D-603-(403-4.17)

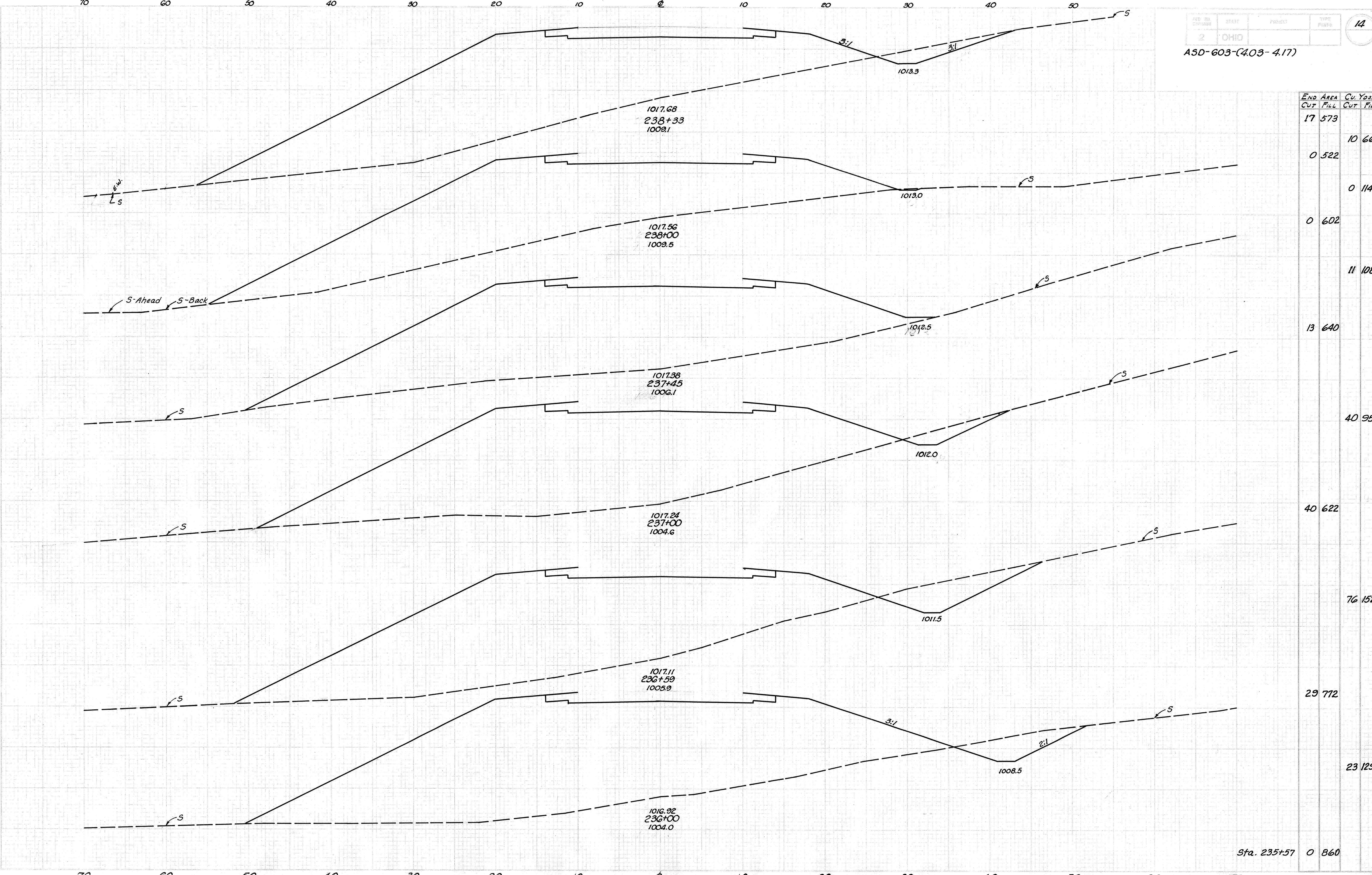
235+75 End G. Rail



END STA.	AREA CUT	AREA FILL	CU. Yds. CUT	CU. Yds. FILL
0	860			
0	1835			
0	878			
0	1078			
0	886			
0	2191			
0	880			
0	2948			
0	712			
0	2339			
Sta. 232+00	0	551		

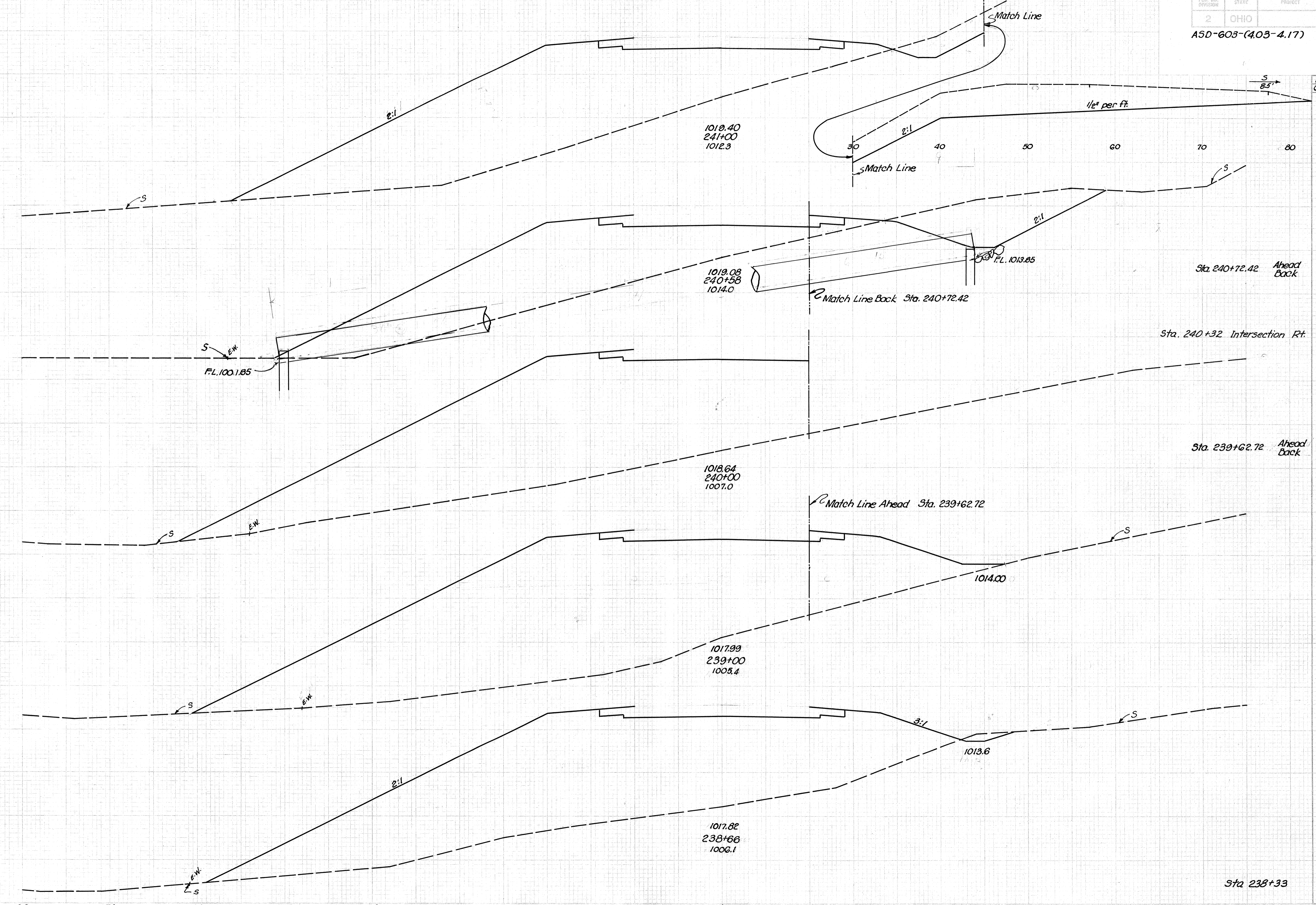
Sta. 232+00 0 551

ASD-603-(4.03-4.17)



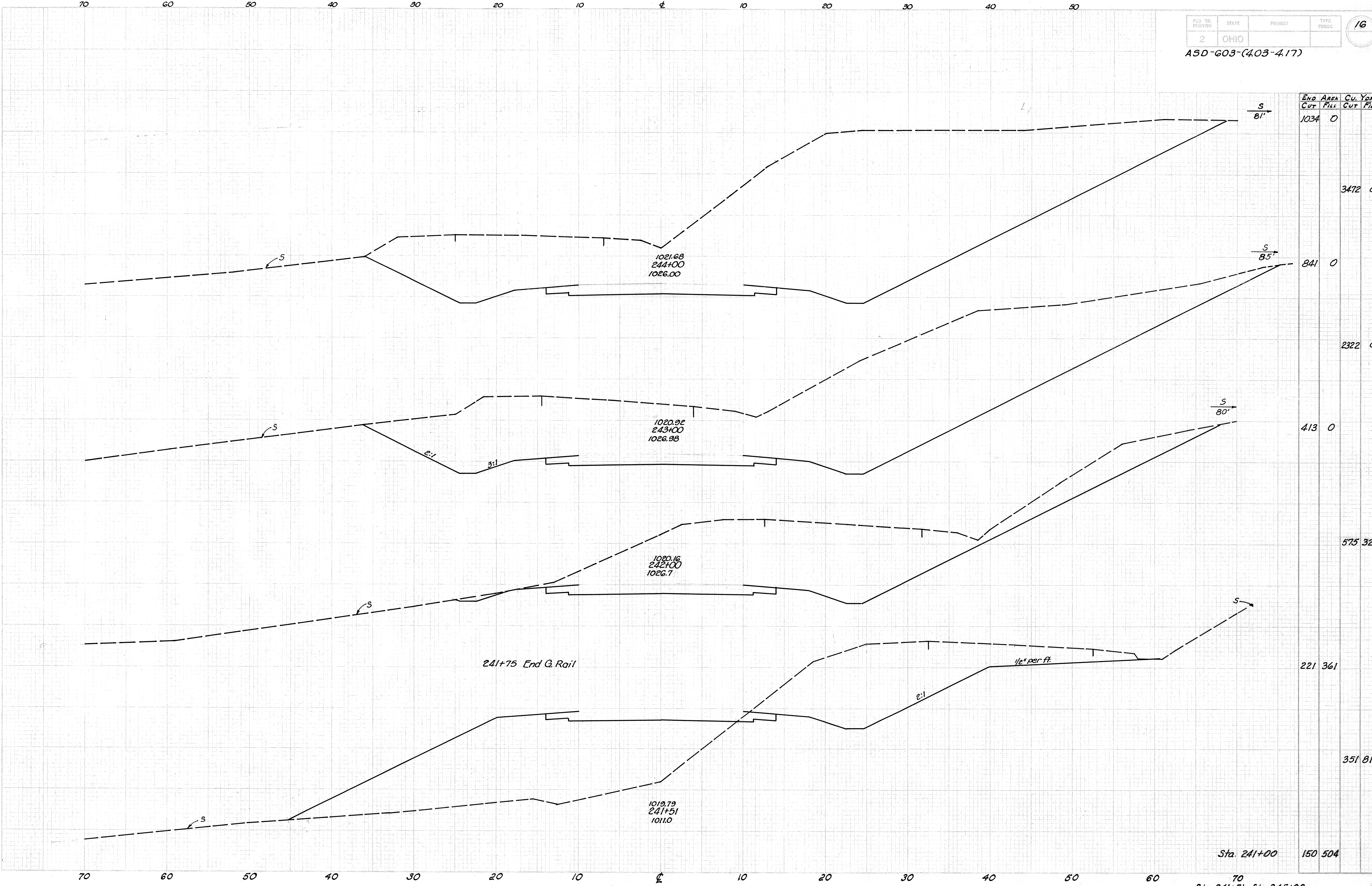
END AREA	Cu. Yds.
CUT	FILL
17	573
	10 669
0	522
	0 1145
0	602
	11 1081
13	640
	40 958
40	622
	76 1523
29	712
	23 1299
	Sta. 235+57 0 860
	Sta. 236+00 - Sta. 238+33

70 60 50 40 30 20 10 0 10 20 30 40



END STA.	AREA CUT	AREA FILL	Cu. Yds. CUT	Cu. Yds. FILL
150		504		
			118	433
Sta. 240+72.42	81	343		
	0	336		
			0	1345
Sta. 240+32 Intersection Pt.			2180	822
	0	667		
			0	973
Sta. 239+62.72	0	742		
	0	848		
			0	1970
			0	848
			2	987
			3	720
			12	790
Sta. 238+33	17	573		

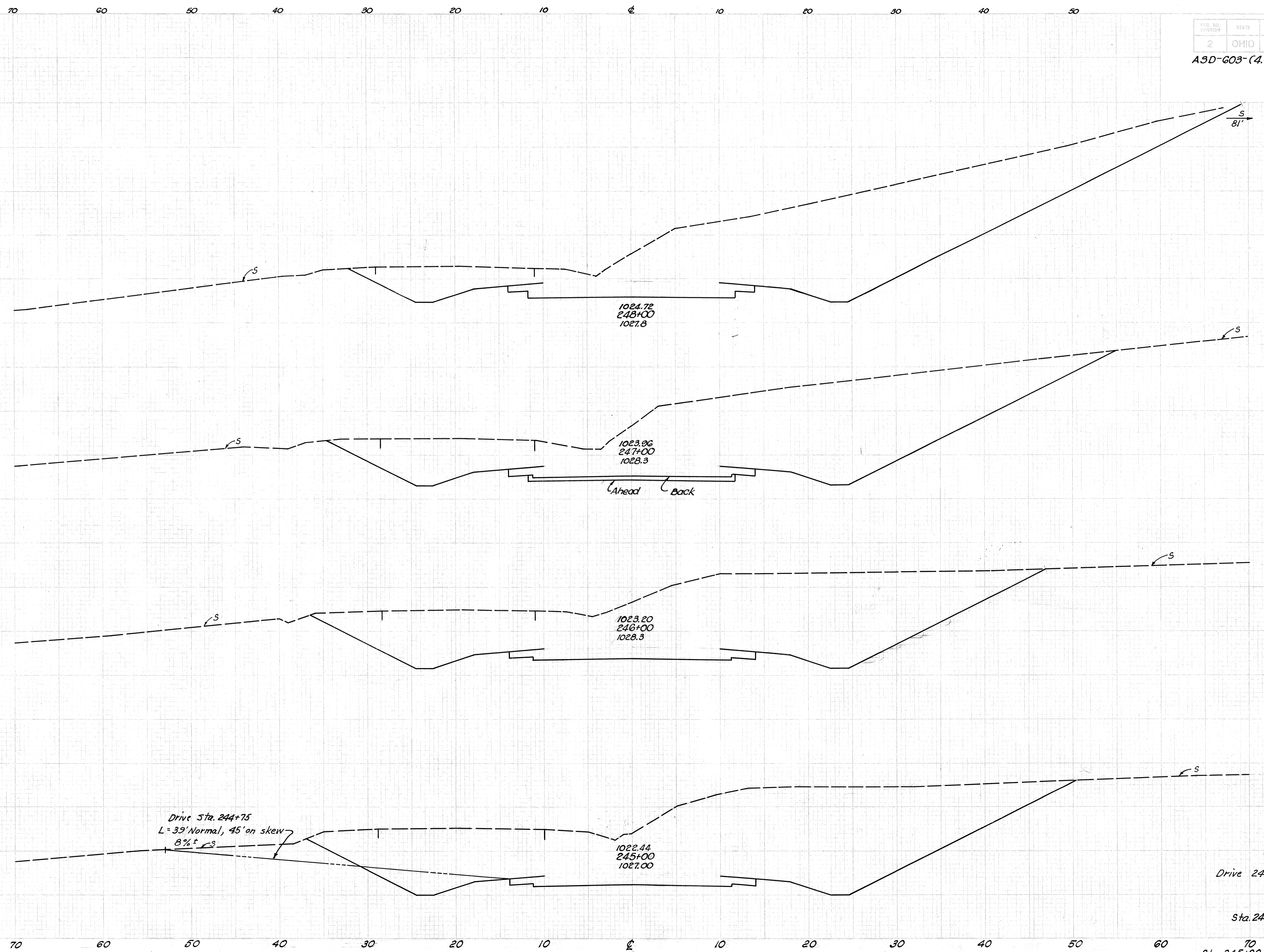
80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 Sta. 238+66 - Sta. 241+00



Sta.	End Area Cut	Area Fill	Cu. Yds. Cut	Yds. Fill
241+00	1034	0		
			3472	0
	841	0		
			2322	0
	413	0		
			575	328
	221	361		
			351	816
Sta. 241+00	150	504		



A3D-603-(4.03-4.17)



End	Area	Cu.	Yds.
Cut	Fill	Cut	Fill
586	0		
		2100	0
Ahead	548	0	
Back	536	0	
		1965	0
		525	0
		2109	0
		614	0
		3052	0
Drive 244+75 Lt.		22	0
Sta. 244+00	1034	0	

Drive Sta. 244+75  
L=39' Normal, 45' on skew  
8% grade

1024.72  
248+00  
1027.8

1023.96  
247+00  
1028.3

1023.20  
246+00  
1028.3

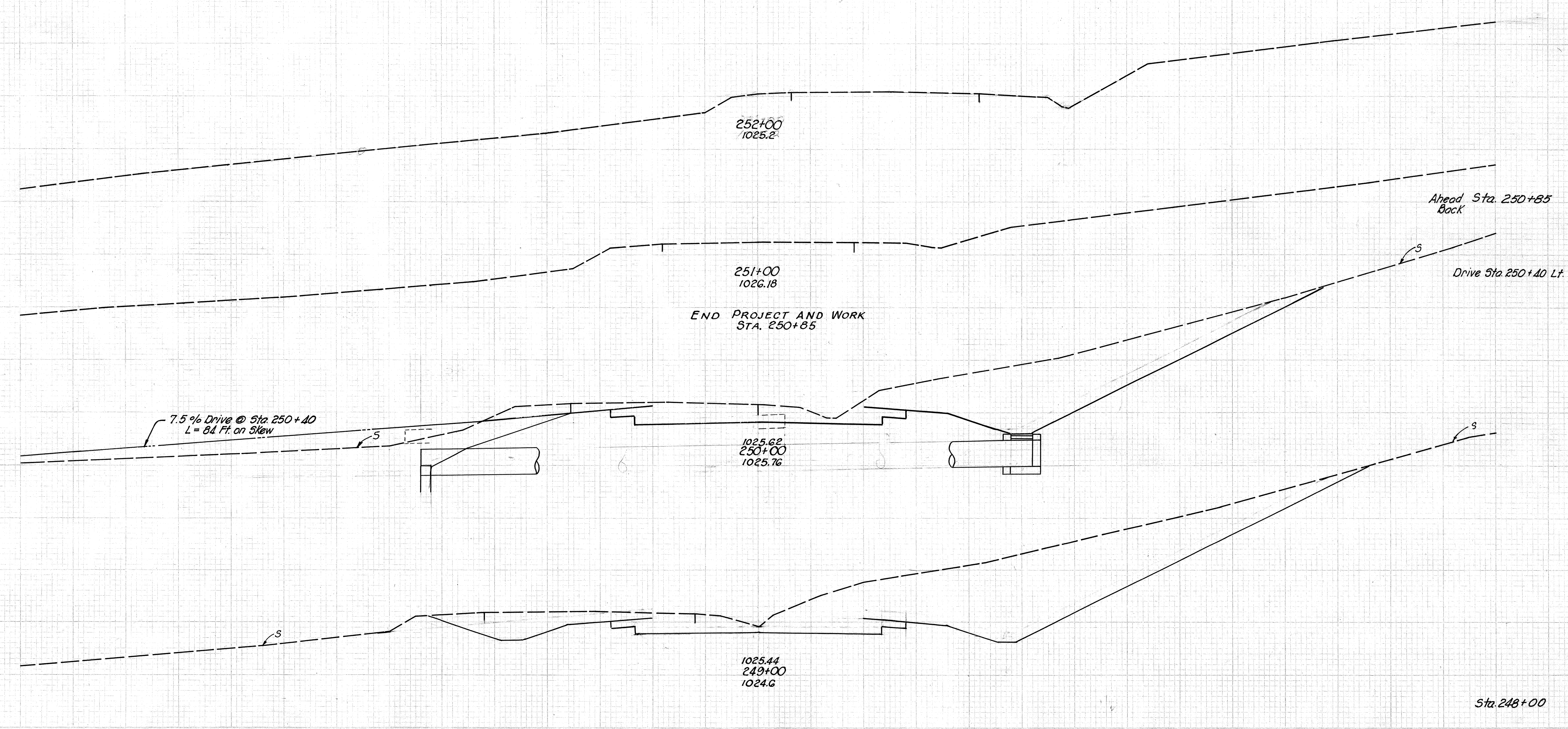
1022.44  
245+00  
1027.00

Ahead Back

Sta. 245+00 - Sta. 248+00

70 60 50 40 30 20 10 0 10 20 30 40 50

END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL



Ahead Sta. 250+85	0	0		
Back	142	3		
			107	0
Drive Sta. 250+40 Lt.	174	0		
			3	17
				885
				304
				1675
				1648
Sta. 248+00	586	0		

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70  
Sta. 249+00 - Sta. 252+00

**SUPERELEVATION TABLE**

The pavement is rotated about the normal right pavement edge (10' right of  $\epsilon$ ). This rotation point is always 0.16' lower than the profile grade elevations shown on sheet No. 4.

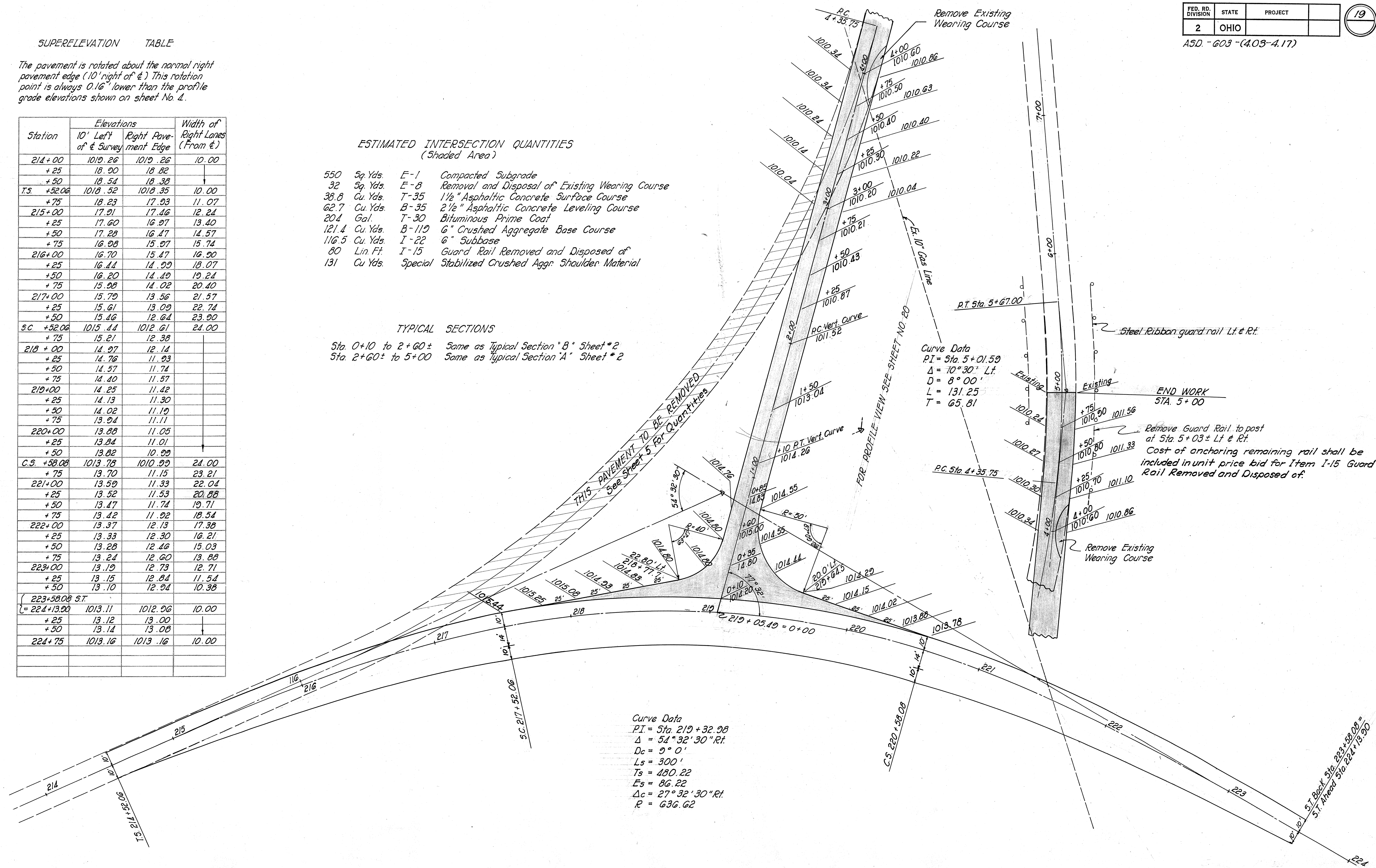
Station	Elevations		Width of Right Lanes (From $\epsilon$ )
	10' Left of $\epsilon$ Survey	Right Pavement Edge	
214+00	1019.26	1019.26	10.00
+25	18.90	18.82	
+50	18.54	18.38	
T.S. +52.06	1018.52	1018.35	10.00
+75	18.23	17.93	11.07
215+00	17.21	17.46	12.24
+25	17.60	16.97	13.40
+50	17.28	16.47	14.57
+75	16.98	15.97	15.74
216+00	16.70	15.47	16.90
+25	16.44	14.99	18.07
+50	16.20	14.40	19.24
+75	15.98	14.02	20.40
217+00	15.79	13.56	21.57
+25	15.61	13.09	22.74
+50	15.46	12.64	23.90
S.C. +52.06	1015.44	1012.61	24.00
+75	15.21	12.38	
218+00	14.27	12.14	
+25	14.76	11.93	
+50	14.57	11.74	
+75	14.40	11.57	
219+00	14.25	11.42	
+25	14.13	11.30	
+50	14.02	11.19	
+75	13.94	11.11	
220+00	13.88	11.05	
+25	13.84	11.01	
+50	13.82	10.99	
C.S. +53.08	1013.78	1010.99	24.00
+75	13.70	11.15	23.21
221+00	13.59	11.33	22.04
+25	13.52	11.53	20.88
+50	13.47	11.74	19.71
+75	13.42	11.92	18.54
222+00	13.37	12.13	17.38
+25	13.33	12.30	16.21
+50	13.28	12.46	15.03
+75	13.24	12.60	13.88
223+00	13.19	12.73	12.71
+25	13.15	12.84	11.54
+50	13.10	12.94	10.38
223+58.08 S.T.			
T=224+13.90	1013.11	1012.96	10.00
+25	13.12	13.00	
+50	13.14	13.08	
224+75	1013.16	1013.16	10.00

**ESTIMATED INTERSECTION QUANTITIES (Shaded Area)**

- 550 Sq. Yds. E-1 Compacted Subgrade
- 32 Sq. Yds. E-8 Removal and Disposal of Existing Wearing Course
- 38.8 Cu. Yds. T-35 1 1/2" Asphaltic Concrete Surface Course
- 62.7 Cu. Yds. B-35 2 1/2" Asphaltic Concrete Leveling Course
- 204 Gal. T-30 Bituminous Prime Coat
- 121.4 Cu. Yds. B-119 6" Crushed Aggregate Base Course
- 116.5 Cu. Yds. I-22 6" Subbase
- 80 Lin. Ft. I-15 Guard Rail Removed and Disposed of
- 131 Cu. Yds. Special Stabilized Crushed Aggr. Shoulder Material

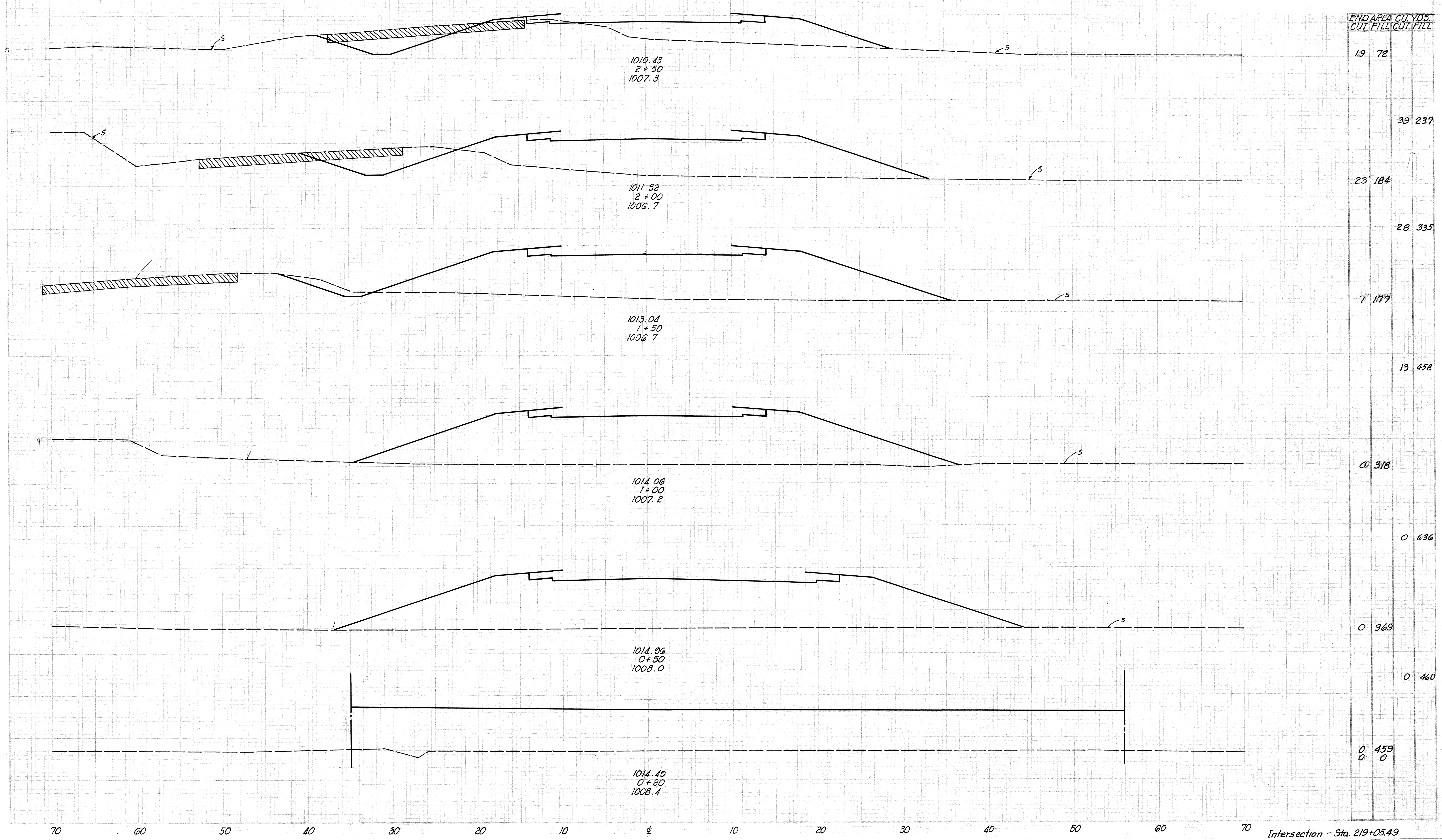
**TYPICAL SECTIONS**

Sta. 0+10 to 2+60± Same as Typical Section "B" Sheet #2  
 Sta. 2+60± to 5+00 Same as Typical Section "A" Sheet #2

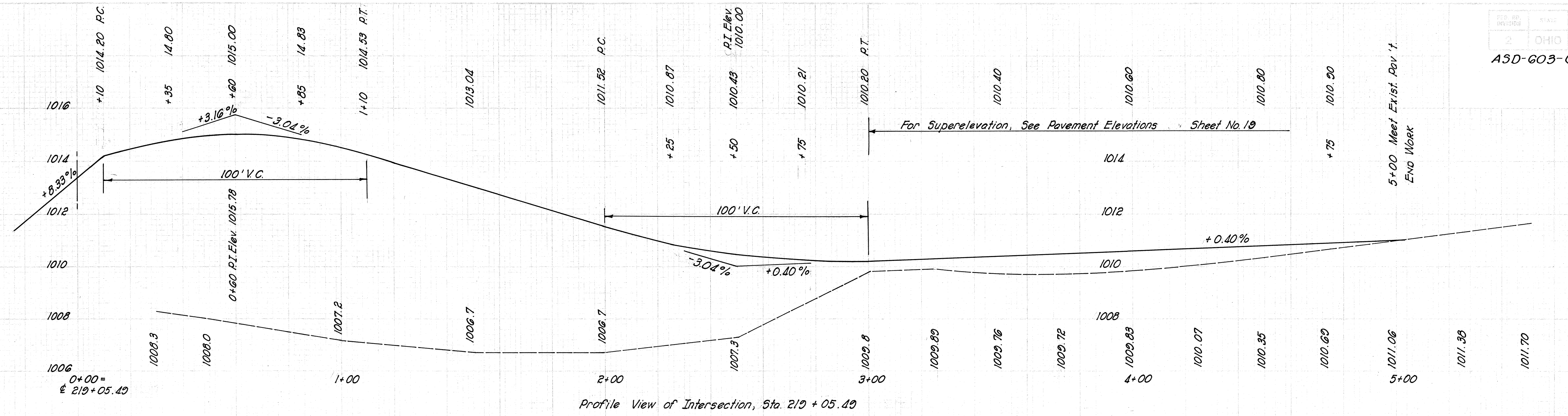


Curve Data  
 PI = Sta. 5+01.59  
 $\Delta = 10^{\circ}30' Lt.$   
 $D = 8^{\circ}00'$   
 $L = 131.25$   
 $T = 65.81$

Curve Data  
 PI = Sta. 219+32.98  
 $\Delta = 54^{\circ}32'30" Rt.$   
 $Dc = 9^{\circ}0'$   
 $Ls = 300'$   
 $Ts = 480.22$   
 $Es = 86.22$   
 $\Delta c = 27^{\circ}32'30" Rt.$   
 $R = 636.62$



END AREA CU. YDS.	
CUT	FILL
19	72
39	237
23	184
28	335
7	177
13	458
0	318
0	636
0	369
0	460
0	459
0	0

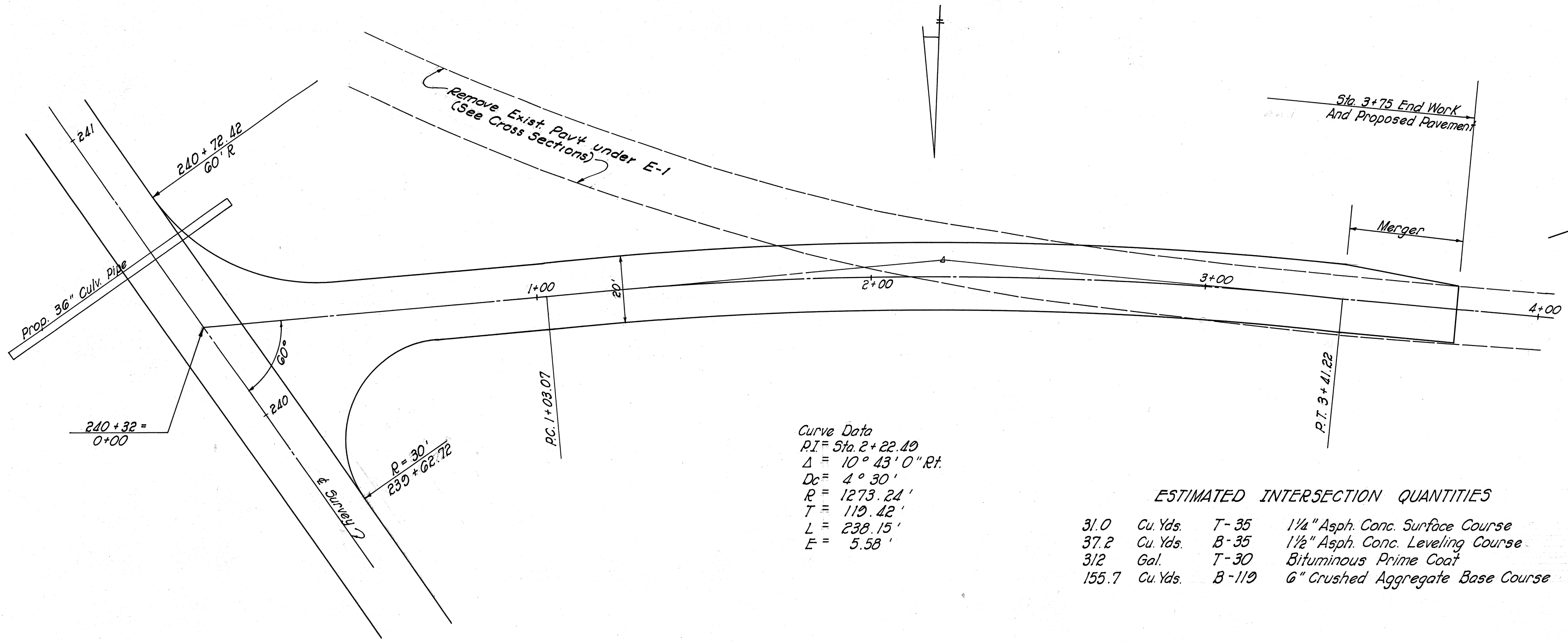


SCALE 1" = 20'



Sta. 2 + 50  
Intersection - Sta. 219 + 05.49

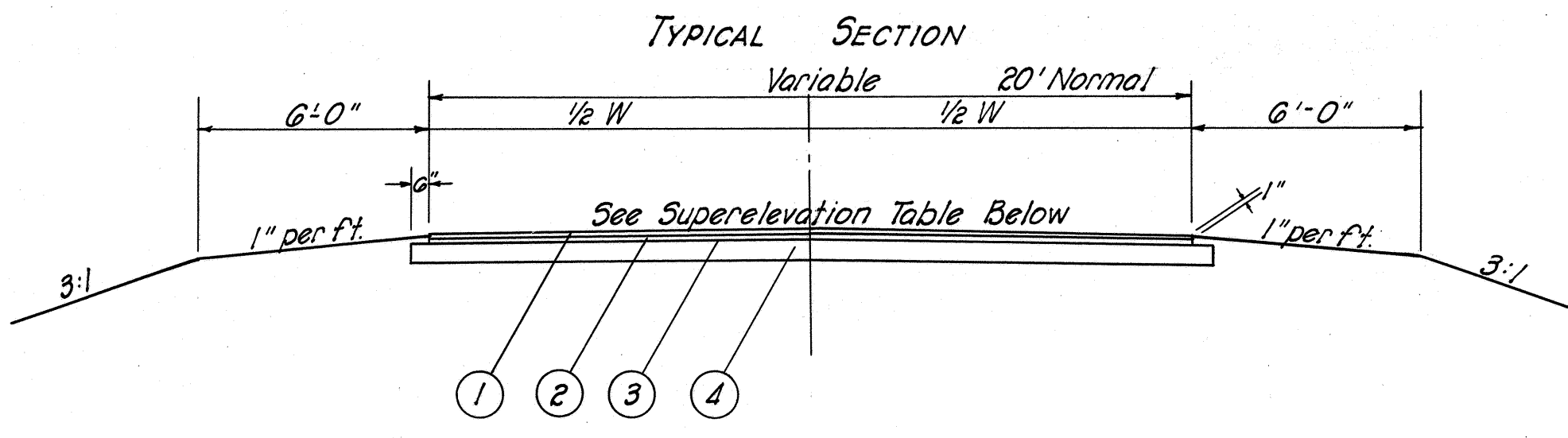
ASD-603-(4.03-4.17)



Curve Data  
 P.I. = Sta. 2+22.40  
 $\Delta = 10^\circ 43' 0''$  Rt.  
 $D_c = 4^\circ 30'$   
 $R = 1273.24'$   
 $T = 119.42'$   
 $L = 238.15'$   
 $E = 5.58'$

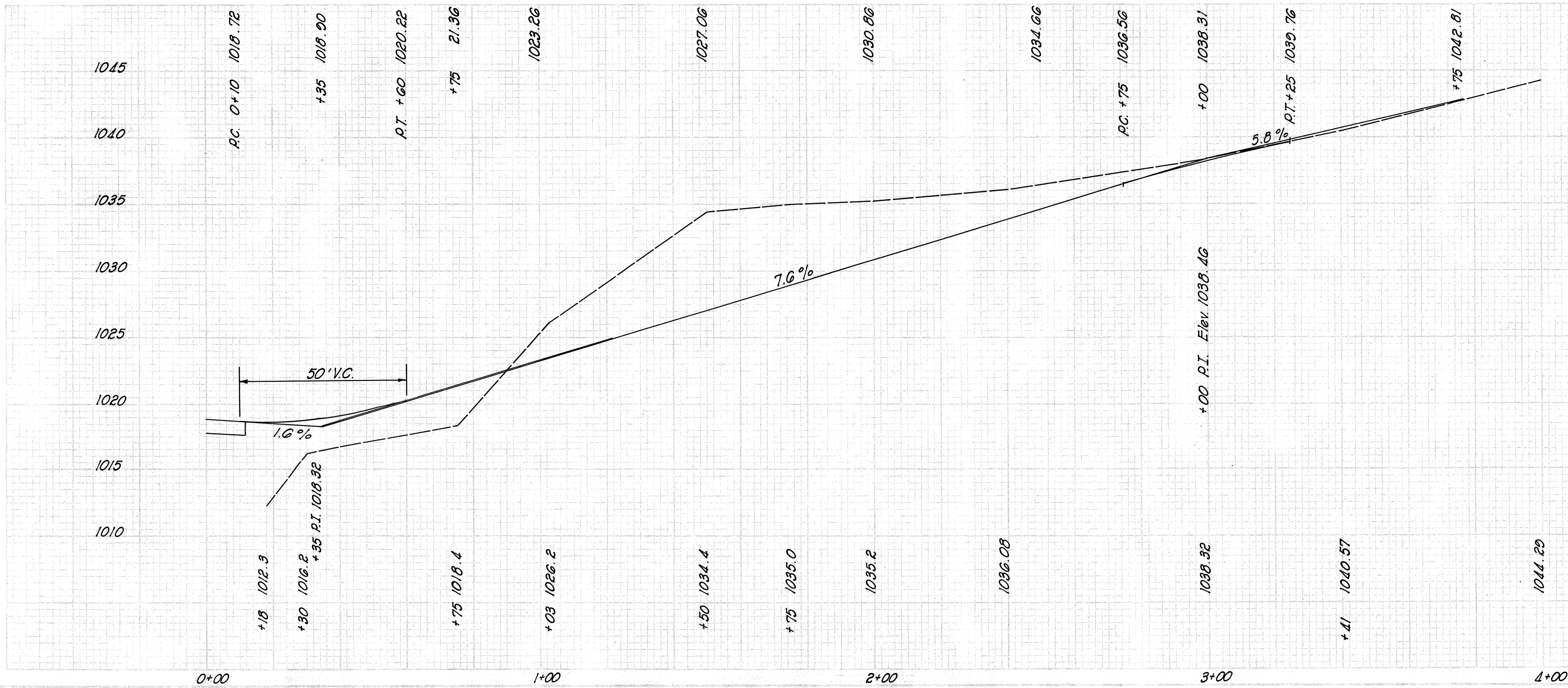
ESTIMATED INTERSECTION QUANTITIES

31.0	Cu. Yds.	T-35	1/4" Asph. Conc. Surface Course
37.2	Cu. Yds.	B-35	1/2" Asph. Conc. Leveling Course
3/2	Gal.	T-30	Bituminous Prime Coat
155.7	Cu. Yds.	B-119	6" Crushed Aggregate Base Course



- ① 1/4" T-35 Asphaltic Concrete Surface Course "Type A" (70-80)
- ② 1/2" B-35 Asphaltic Leveling Course (70-80)
- ③ T-30 Bituminous Prime Coat
- ④ 6" Crushed Aggregate Base Course

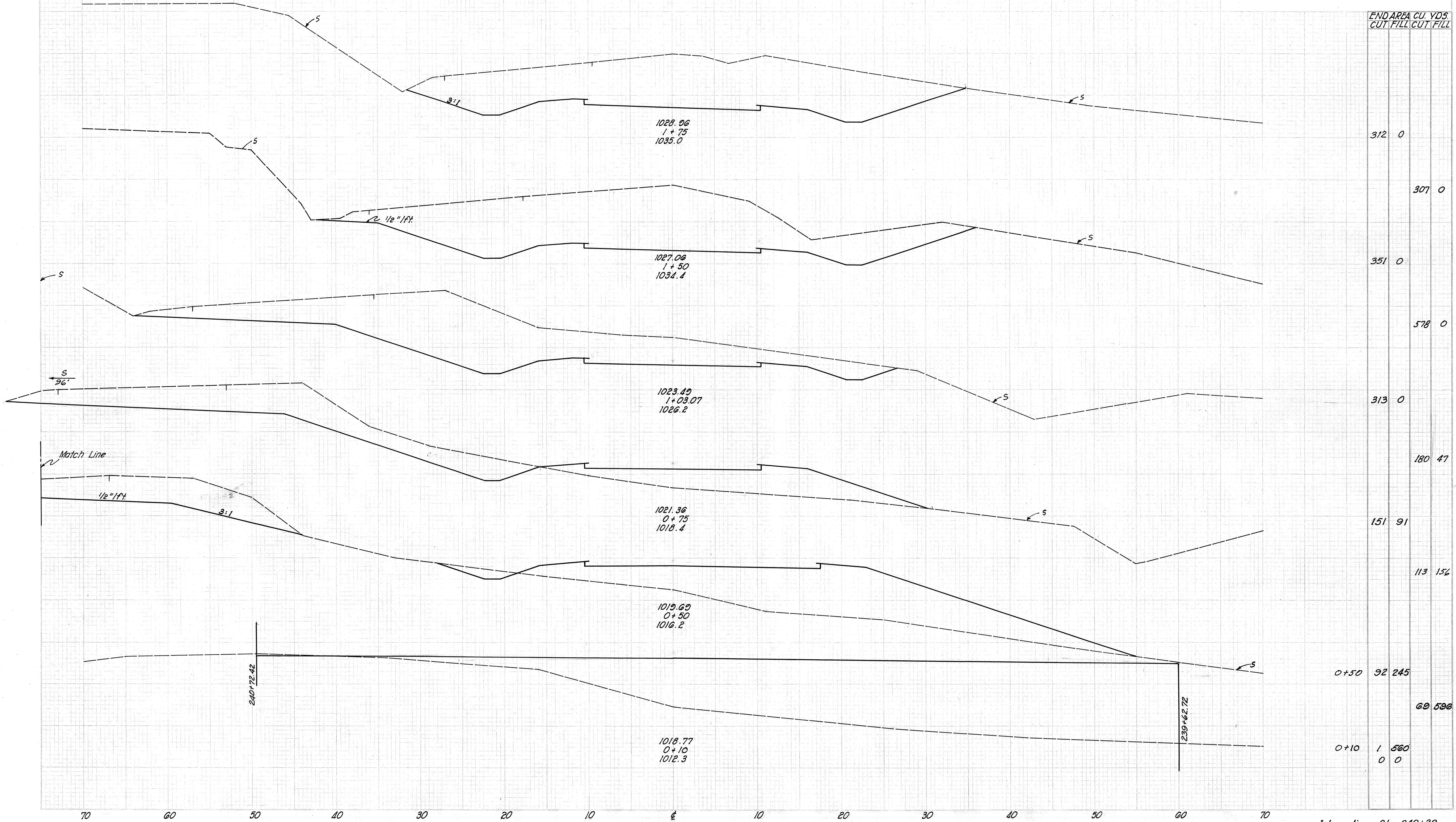
SCALE 1" = 20'



**SUPERELEVATION TABLE**

Revolve pavement about Right Edge

Station	Elevations		Remarks
	Lt. Edge	Rt. Edge	
0+25			Normal Crown
0+50	1019.61	1019.53	
0+75	1021.36	1021.20	Left Lane Level
1+00	23.40	23.10	
1+25	25.43	25.00	
1+50	27.17	26.90	
1+75	29.50	28.80	
2+00	31.53	30.70	Full Super - 1/2' ft.
2+25	33.30	32.60	
2+50	35.07	34.50	
2+75	36.83	36.40	
3+00	38.45	38.15	
3+25	39.91	39.75	Left Lane Level
3+50	41.28	41.20	
3+75	1042.65	1042.65	Normal Crown



END AREA CU. YDS.  
CUT FILL CUT FILL

TOTAL  
Carried to Sta. 15+15 2180 822

3+75 0 0

38 5

60 8

103 11

75 6

249 7

149 0

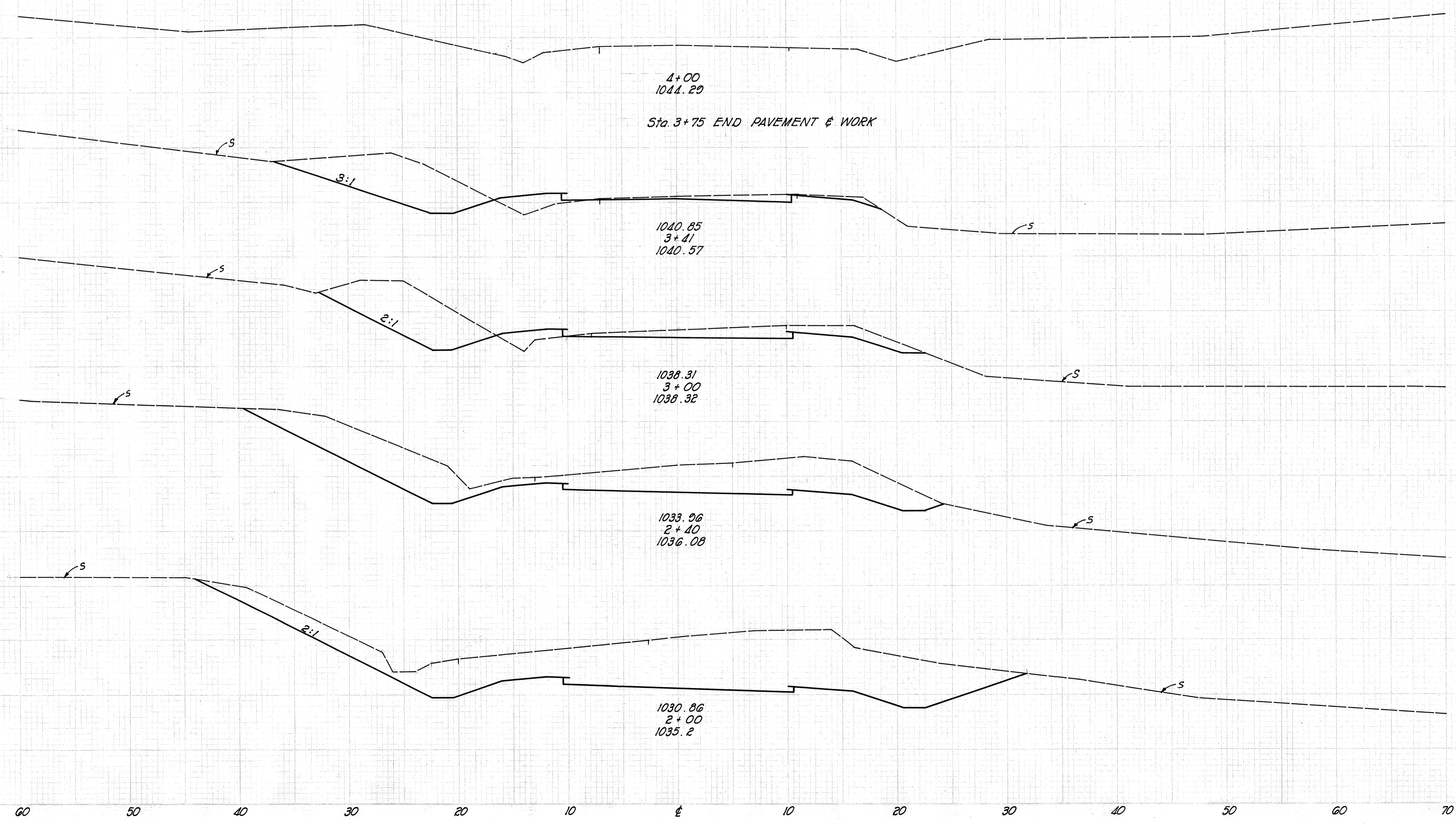
288 0

239 0

255 0

Sta. 175+00 312 0

Intersection - Sta. 240+32



4+00  
1044.20

Sta. 3+75 END PAVEMENT & WORK

1040.85  
3+41  
1040.57

1038.31  
3+00  
1038.32

1033.96  
2+40  
1036.08

1030.86  
2+00  
1035.2

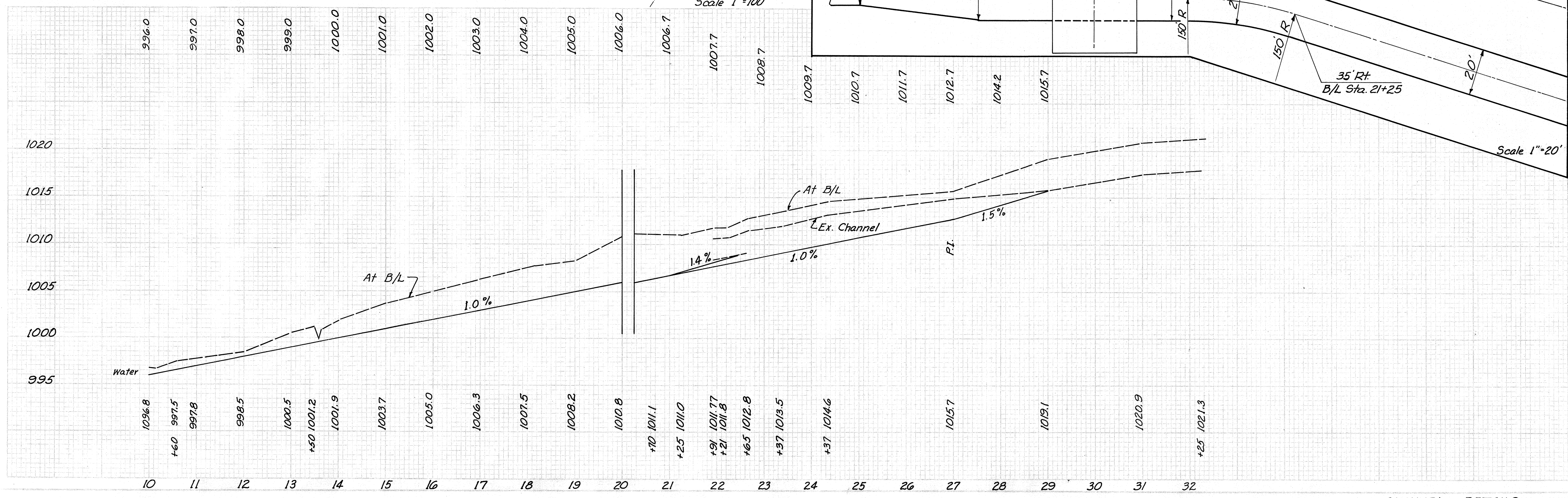
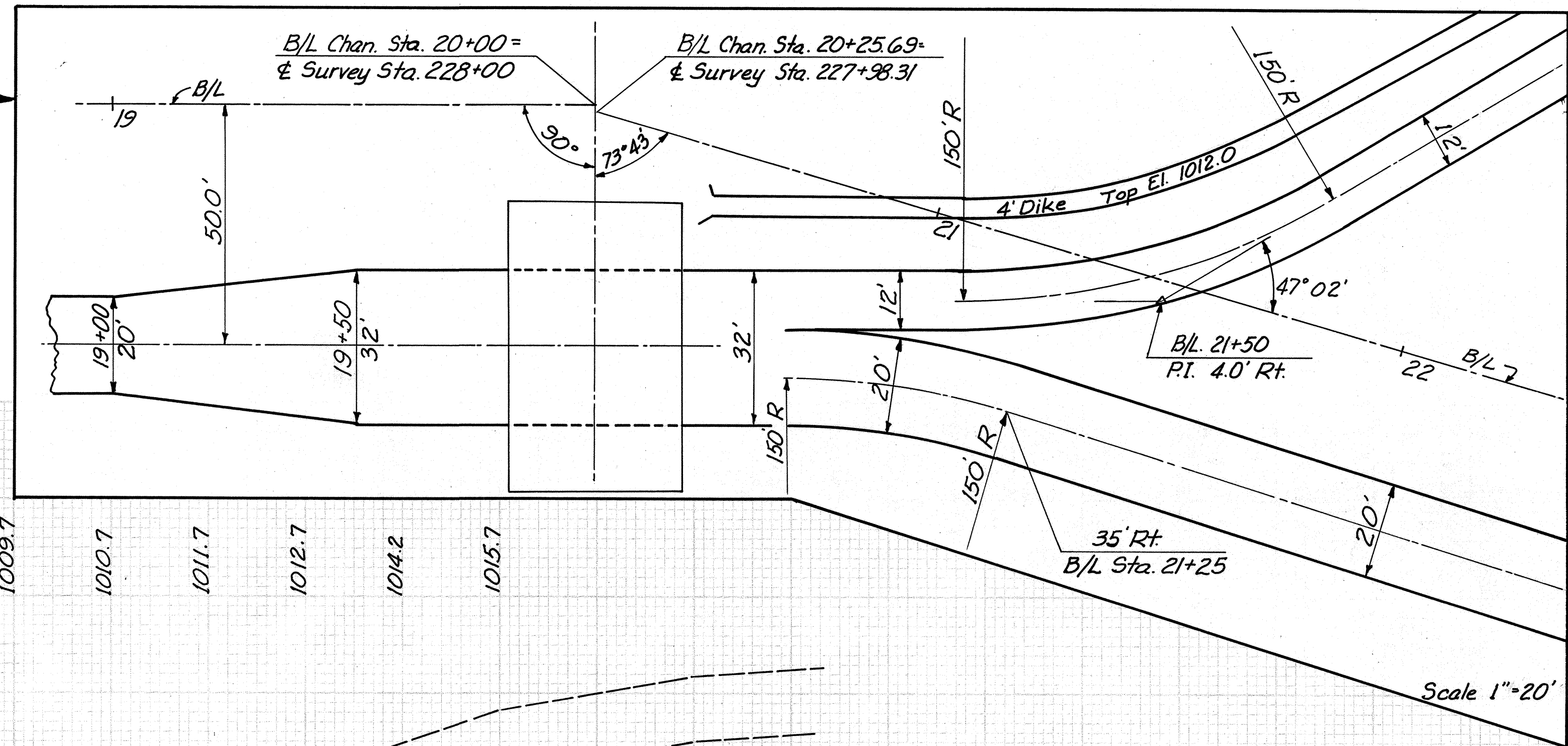
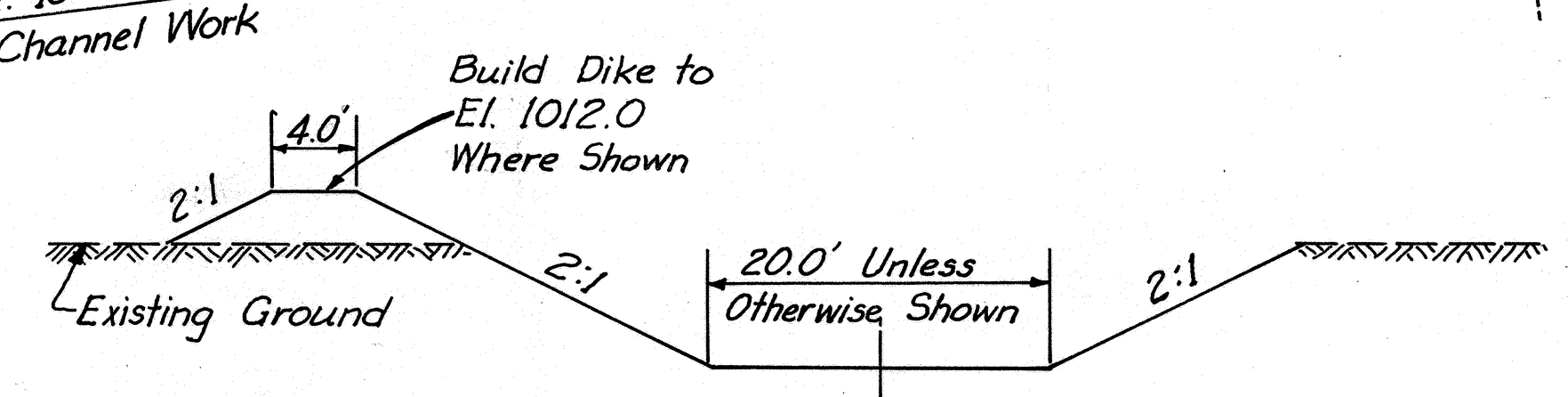
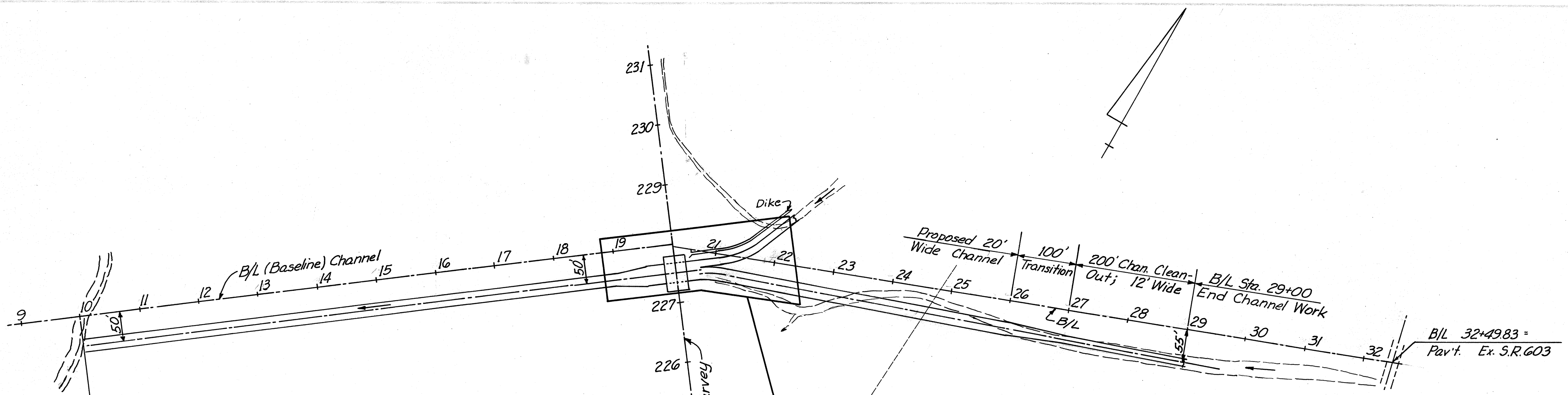
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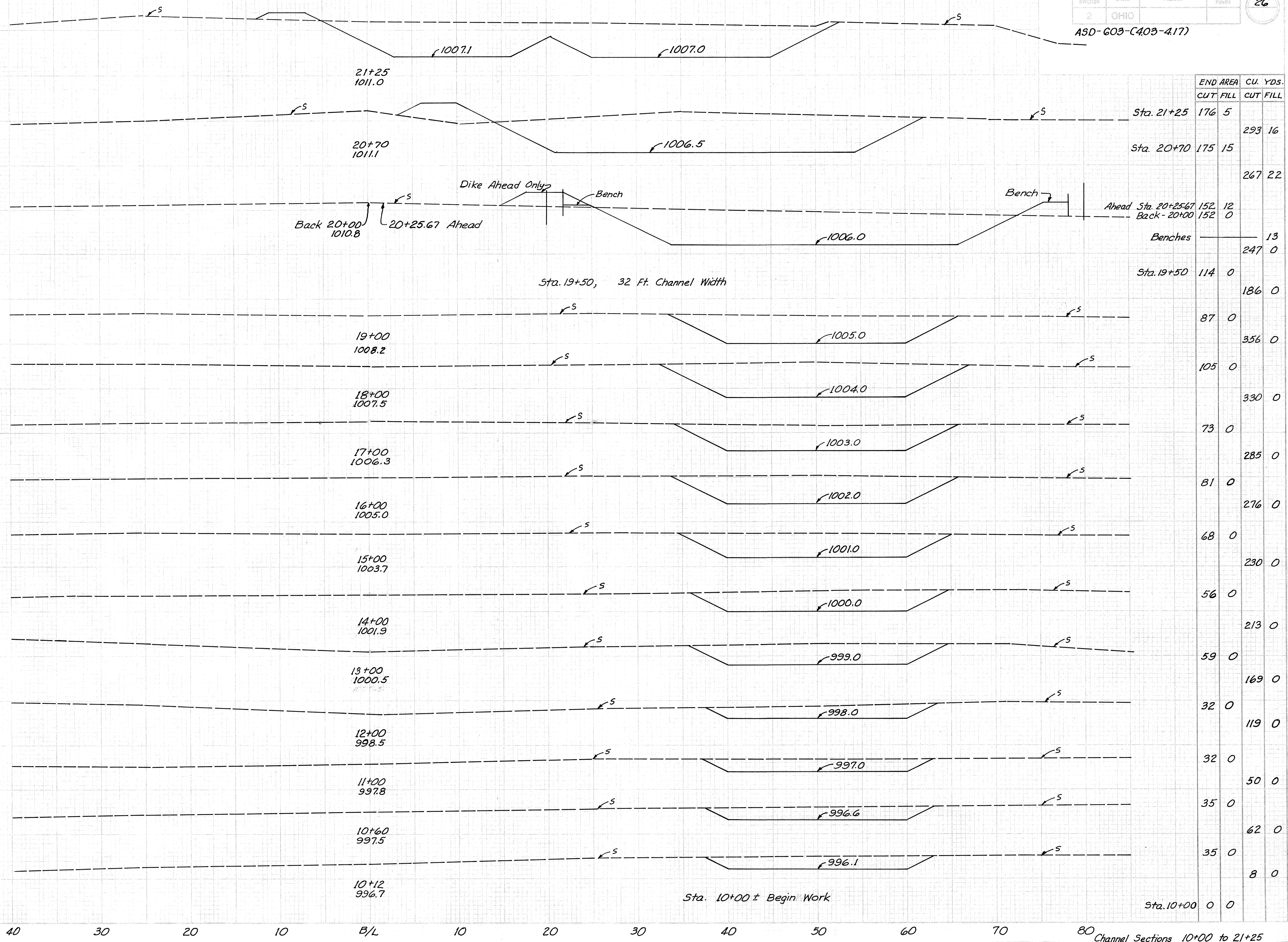
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2:1

60 50 40 30 20 10 0 10 20 30 40 50 60 70



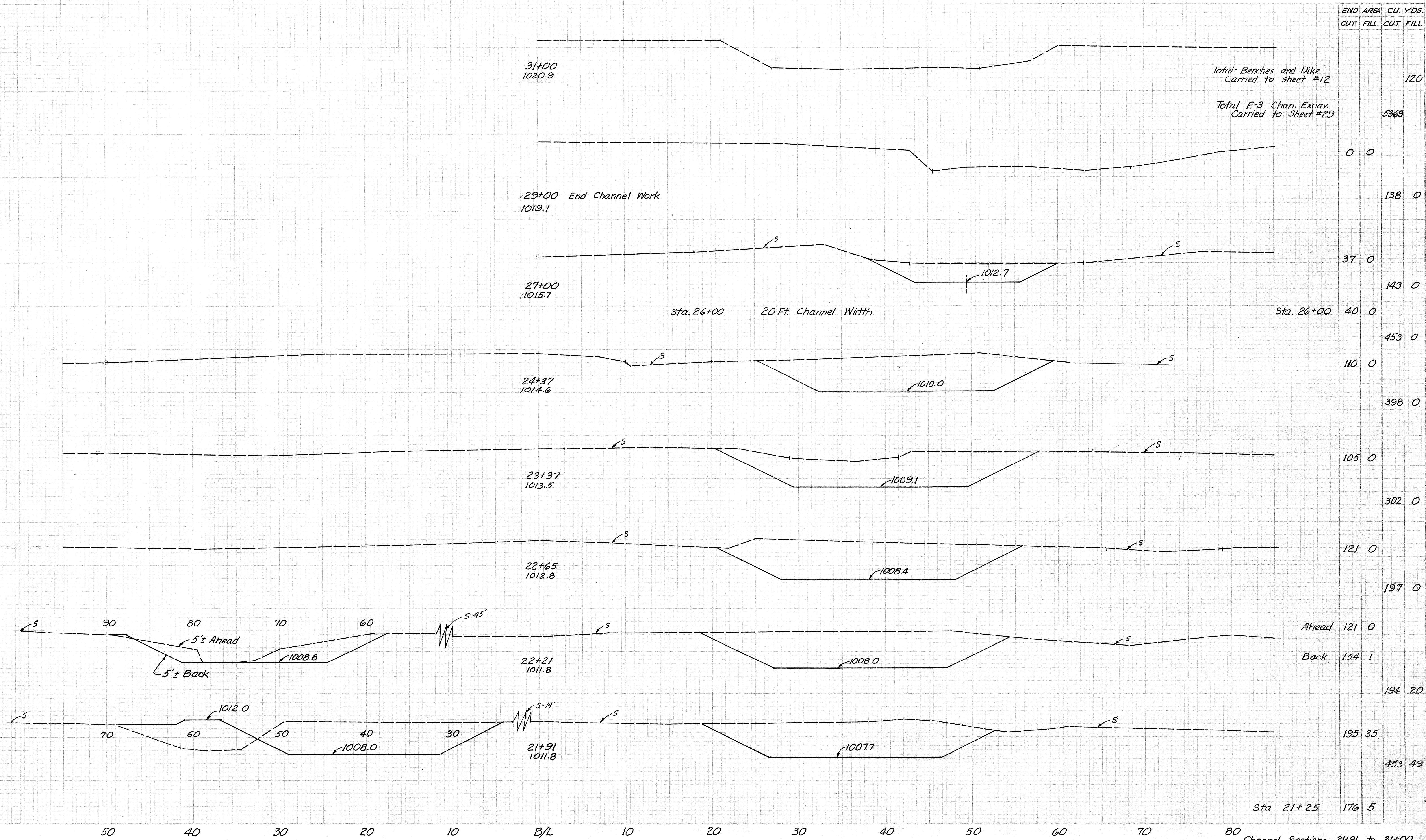




	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
Sta. 21+25	176	5		
Sta. 20+70	175	15	293	16
			267	22
Ahead Sta. 20+25.67	152	12		
Back - 20+00	152	0		
Benches			13	
			247	0
Sta. 19+50	114	0		
			186	0
			87	0
			105	0
			73	0
			81	0
			68	0
			56	0
			59	0
			32	0
			32	0
			35	0
			35	0
				8
Sta. 10+00	0	0		

40 30 20 10 B/L 10 20 30 40 50 60 70 80 Channel Sections 10+00 to 21+25

A5D-603(4.03-4.17)

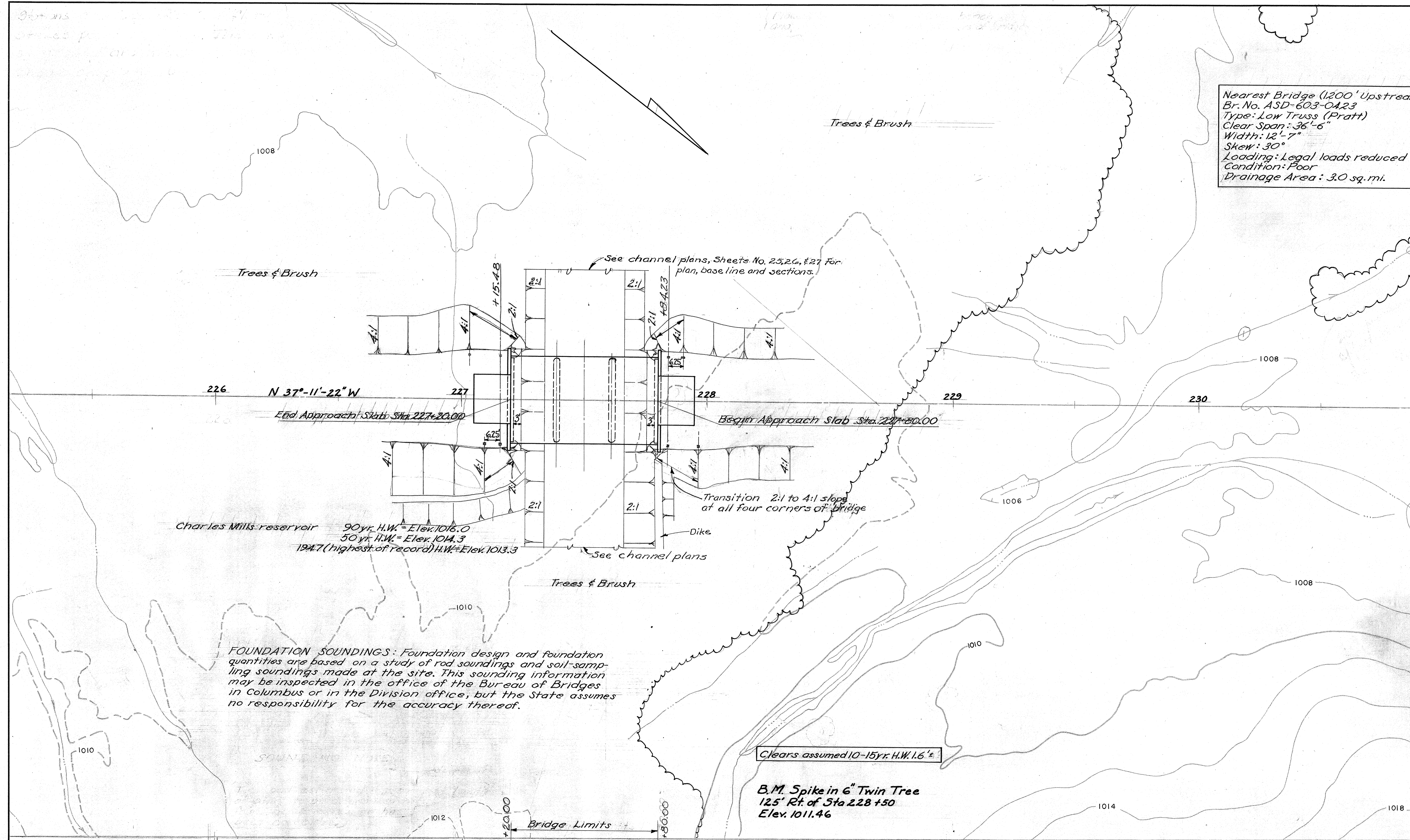


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
			120
		5369	
0	0		138 0
37	0		143 0
40	0		453 0
110	0		398 0
105	0		302 0
121	0		197 0
Ahead	121	0	
Back	154	1	
			194 20
195	35		453 49
176	5		

Channel Sections 21+91 to 31+00

ASD-603-(4.03-4.17)  
At N.W. edge of Mifflin

Nearest Bridge (1200' Upstream)  
Br. No. ASD-603-04.23  
Type: Low Truss (Pratt)  
Clear Span: 36'-6"  
Width: 12'-7"  
Skew: 30°  
Loading: Legal loads reduced 60%  
Condition: Poor  
Drainage Area: 3.0 sq. mi.



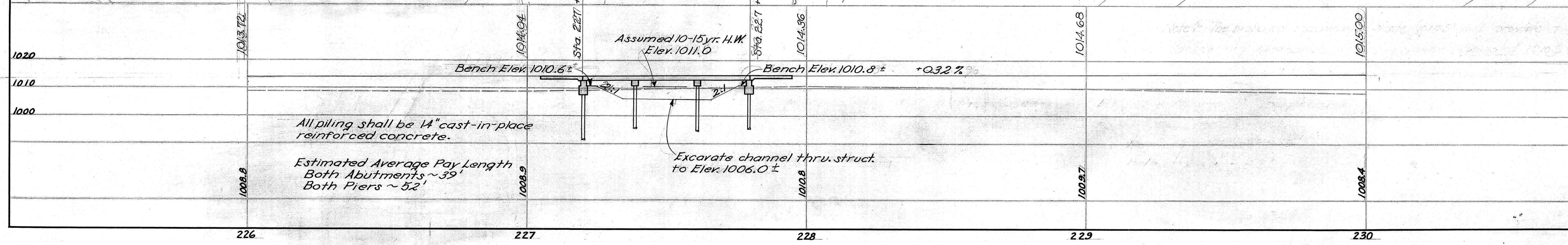
Charles Mills reservoir  
90 yr. H.W. = Elev. 1016.0  
50 yr. H.W. = Elev. 1014.3  
1947 (highest of record) H.W. = Elev. 1013.3

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 assumes no responsibility for the accuracy thereof.

**PROPOSED STRUCTURE**  
Type: Continuous reinforced concrete slab on capped pile substructure.  
SPANS: 18'-22.5'-18' 1/2 brgs.  
Roadway: 36'-0" 1/2 guard rails  
Load Frequency: CF=130(51)  
Skew: None  
Wearing Surface: 3" monolithic concrete  
Approach Slabs: AS-1-54 (15' long)  
Alignment: Tangent

Clears assumed 10-15 yr. H.W. 1.6' ±  
B.M. Spike in 6" Twin Tree  
12.5' Rt. of Sta 228 +50  
Elev. 1011.46

Drainage Area = 3.8 Sq. Mi.



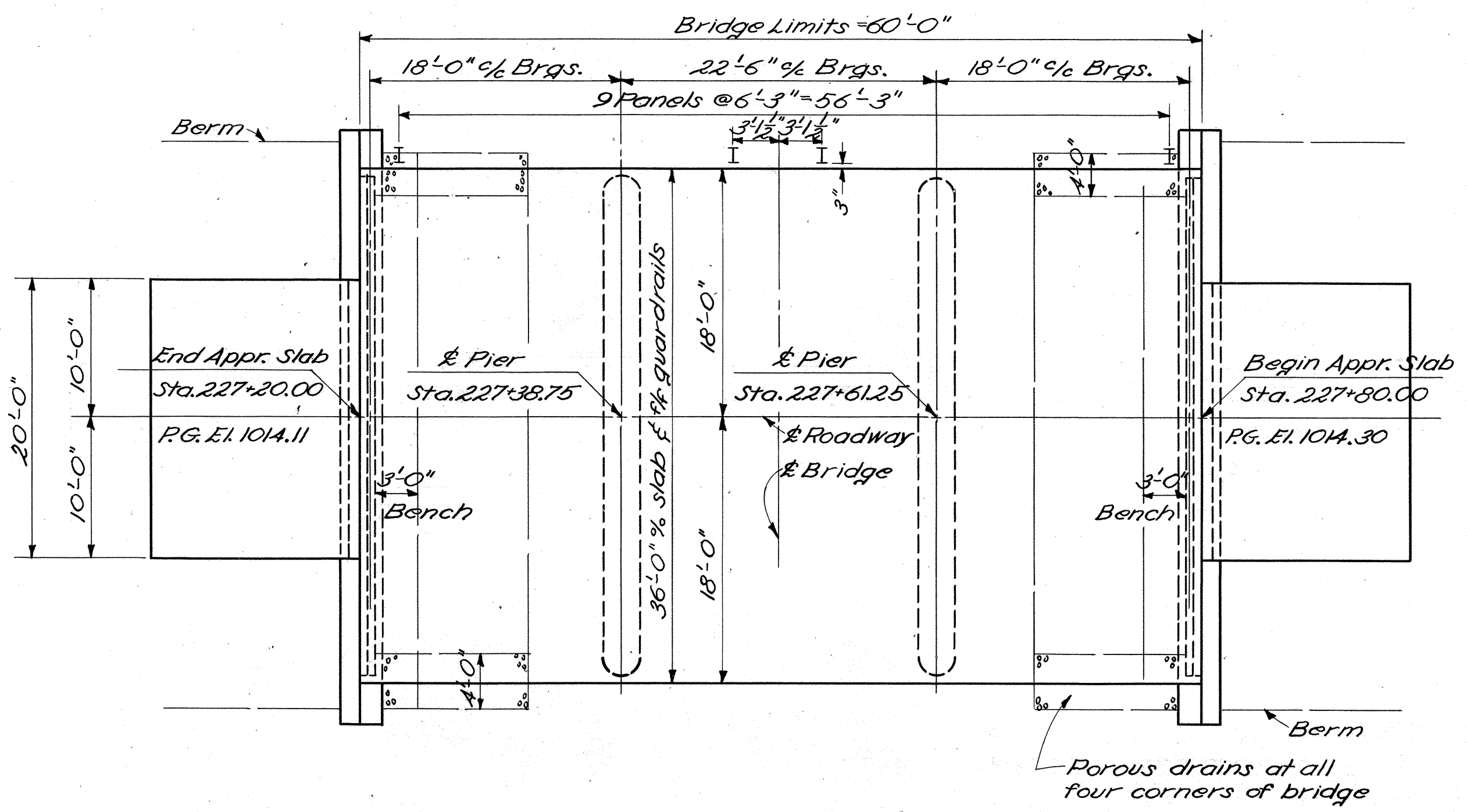
All piling shall be 14" cast-in-place reinforced concrete.

Estimated Average Pile Length  
Both Abutments ~ 39'  
Both Piers ~ 52'

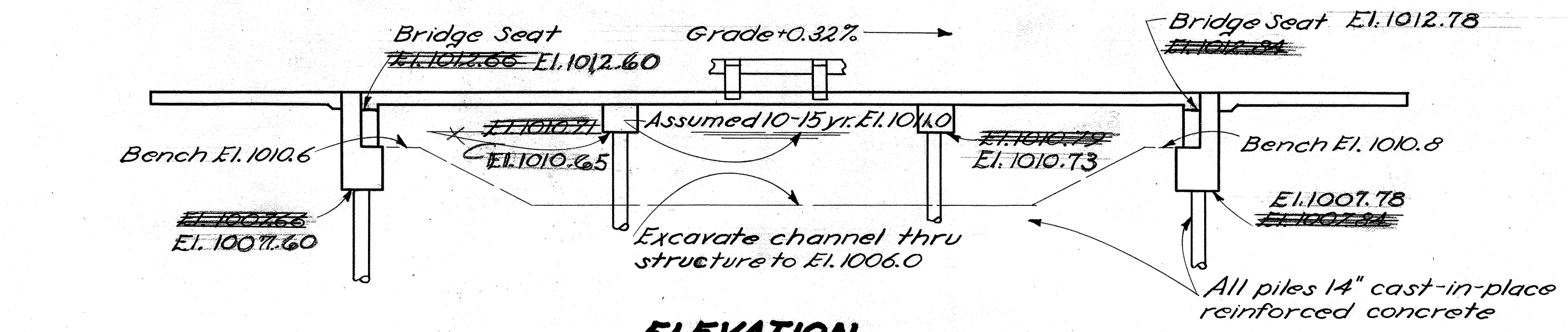
Excavate channel thru. struct. to Elev. 1006.0 ±

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
<b>SITE PLAN</b>					
BRIDGE NO. ASD-603-04.29 OVER RUFFNER RUN					
ASHLAND CO. S.R. 603			STA. 227+20.00 227+80.00		
SCALE 1"=20'					
PRESENT TOPOGRAPHY			PROPOSED WORK		
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Harold Quincy	Harold Quincy	D.I.C.	D.I.C.	J.E.P.	C.E.S.
BFG 10-30-56					

ASD-603-(4.03-4.17)



PLAN



ELEVATION

ESTIMATED QUANTITIES								
Item	Total	Unit	Description	Super.	Abut.	Piers	General	As Built
E-2	58 47	Cu. Yd.	Unclassified excavation		58 47			58
E-3	5,369	Cu. Yd.	Channel excavation				5,196	5,369
S-1	90	Cu. Yd.	Class "C" concrete, superstructure and pier caps	77		13		
S-1	56 44	Cu. Yd.	Class "E" concrete, abutments		56 44			56
S-4	26,929	Lbs.	Reinforcing steel	18,691	4,807	3,422	103	27,186
S-14	1,200	Lin. Ft.	Railing (Type I-15.13 with galvanized steel posts and bolts)	1,200				
S-16	Lump	Sum	First test pile				Lump	
S-18	1,718 1/2	Lin. Ft.	14" Cast-in-place reinforced concrete piles		550	620		1,718
S-29	14	Cu. Yd.	Porous backfill		14			
S-29	8	Cu. Yd.	Porous drains on embankment slopes				8	

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp.	Bending Diagrams		Mark	No.	Length	Weight	Shp.
Superstructure							Abutments				
A 721	111	21'-5"	4859	S			R 1001	16	18'-11"	1302	S
B 721	36	16'-8"	1226	B			R 801	16	22'-1"	943	S
C 721	36	14'-5"	1061	B			R 501	16	21'-7"	360	S
D 721	18	16'-6"	607	S			R 502	136	6'-7"	934	B
E 721	18	12'-0"	442	S			R 503	8	18'-1"	151	S
F 821	66	15'-9"	2775	S			R 504	24	5'-4"	134	S
G 821	32	8'-6"	726	S			R 505	28	7'-11"	231	B
H 821	32	7'-6"	641	S			R 506	8	10'-8"	89	S
J 601	34	12'-1"	617	S			R 507	16	4'-11"	82	S
K 601	17	11'-8"	298	S			R 508	24	6'-8"	167	B
M 601	58	35'-6"	3093	S			R 509	24	8'-5"	211	B
N 601	44	35'-6"	2346	S			R 401	56	5'-5"	203	B
Piers							Replacement Bars				
P 1001	8	35'-6"	1222	S			RE 1000	1	7'-2"	31	S
P 901	8	32'-6"	884	S			RE 900	1	6'-10"	23	S
P 701	72	4'-0"	590	S			RE 800	1	6'-6"	17	S
P 501	4	32'-6"	136	S			RE 700	1	6'-2"	13	S
P 502	56 28	9'-0"	263	B			RE 600	1	5'-11"	9	S
P 503	8	6'-4"	53	B			RE 500	1	5'-7"	6	S
P 401	48	5'-5"	174	B			RE 400	1	5'-3"	4	S

GENERAL NOTES

REFERENCE shall be made to Standard Drawings CS-1-54, revised 7-16-56, P-1-54, and A-1-54 both revised 12-1-54.

PILES shall be driven to a minimum bearing capacity of 19 tons for the abutments and 26 tons for the piers. The length of penetration of every pile shall be at least 80% of the estimated average length of penetration of the piles in the pertinent pier or abutment as indicated on the plans, unless a lesser penetration is approved by the Director.

GRAVEL, if used as the coarse aggregate, shall be according to Sec. M-3.93 instead of M-3.91 for Class "C" concrete in the superstructure. Gravel meeting the requirements of Sec. M-3.93 also may be used for other concrete in this structure.

POROUS DRAINS, extending from face of abutment to Elev. 1006.0, shall be provided at all four corners of the bridge. The drains shall be 4 feet wide and one foot thick.

PIER PILE ENCASEMENT as shown on Standard Drawing No. P-1-54 may be omitted provided that the tapered portion, if any, of all pier piles does not extend above the stream bed or the proposed surface of the ground. If the tapered portion of any pile extends above these limitations, the encasement will be required for all the pier piles. If the encasement is omitted the pile casings shall have a thickness of metal not less than No. 7 gauge, and the painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, the painting shall extend to at least one foot below the proposed surface of the ground.

SLAB THICKNESS is 11 1/4" which includes 3/4" for monolithic wearing surface.

Revised 1-16-57

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

GENERAL PLAN & ELEVATION & NOTES  
ESTIMATED QUANTITIES & STEEL LIST  
BRIDGE NO. ASD 603-0429  
OVER RUFFNER RUN

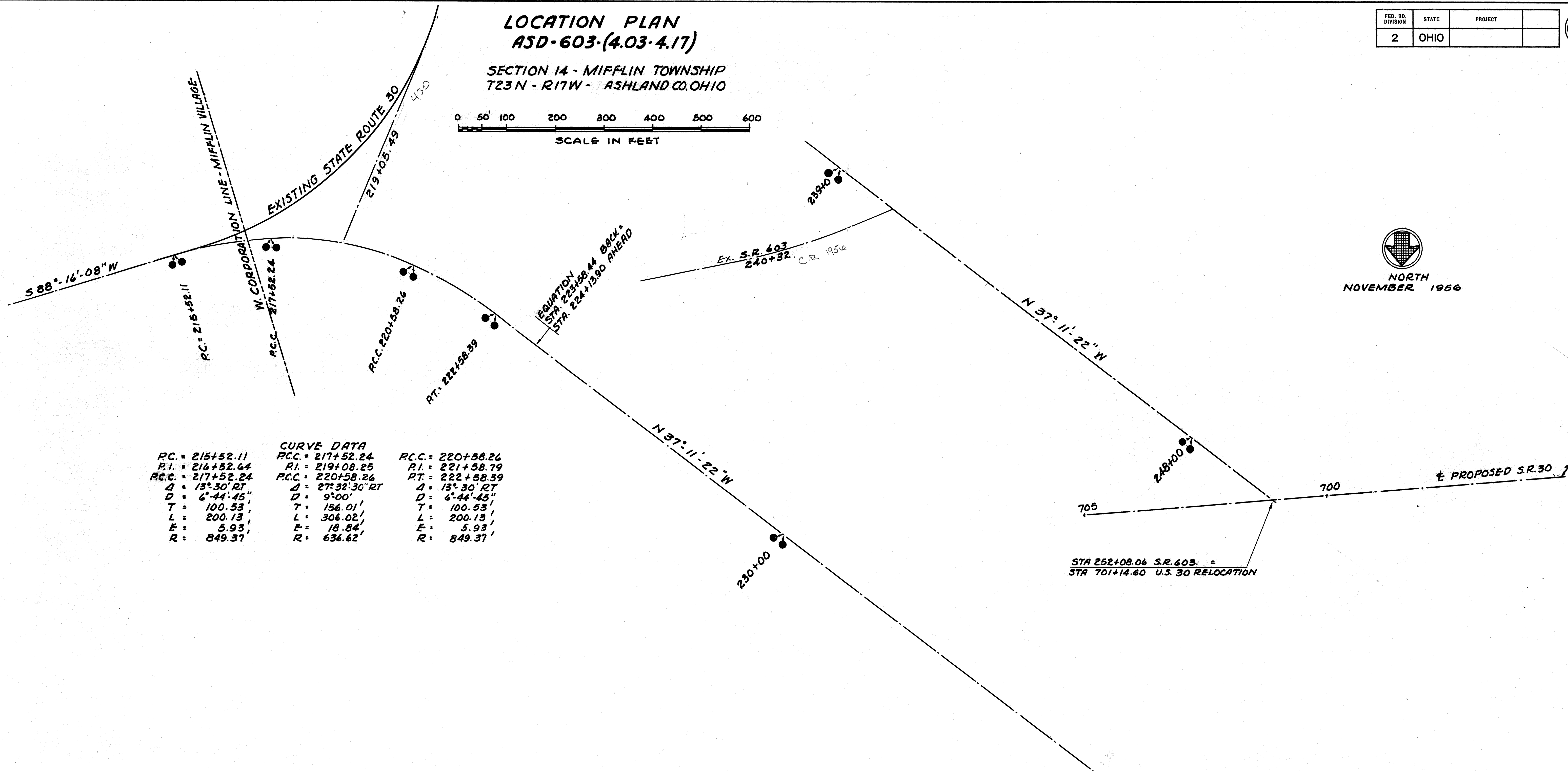
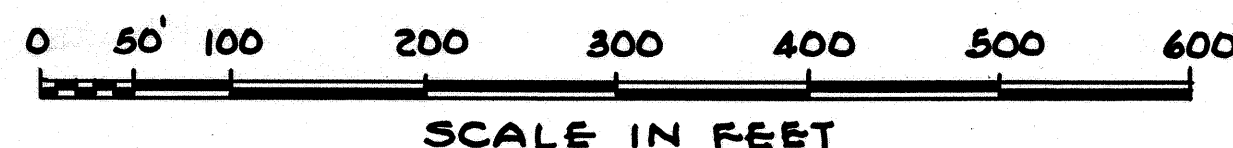
ASHLAND COUNTY STA 227+20.00  
227+80.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		R.M.L.	B.F.G.		10-30-56	

11-3-58 Revised As-Built J.E.P.

### LOCATION PLAN ASD-603-(4.03-4.17)

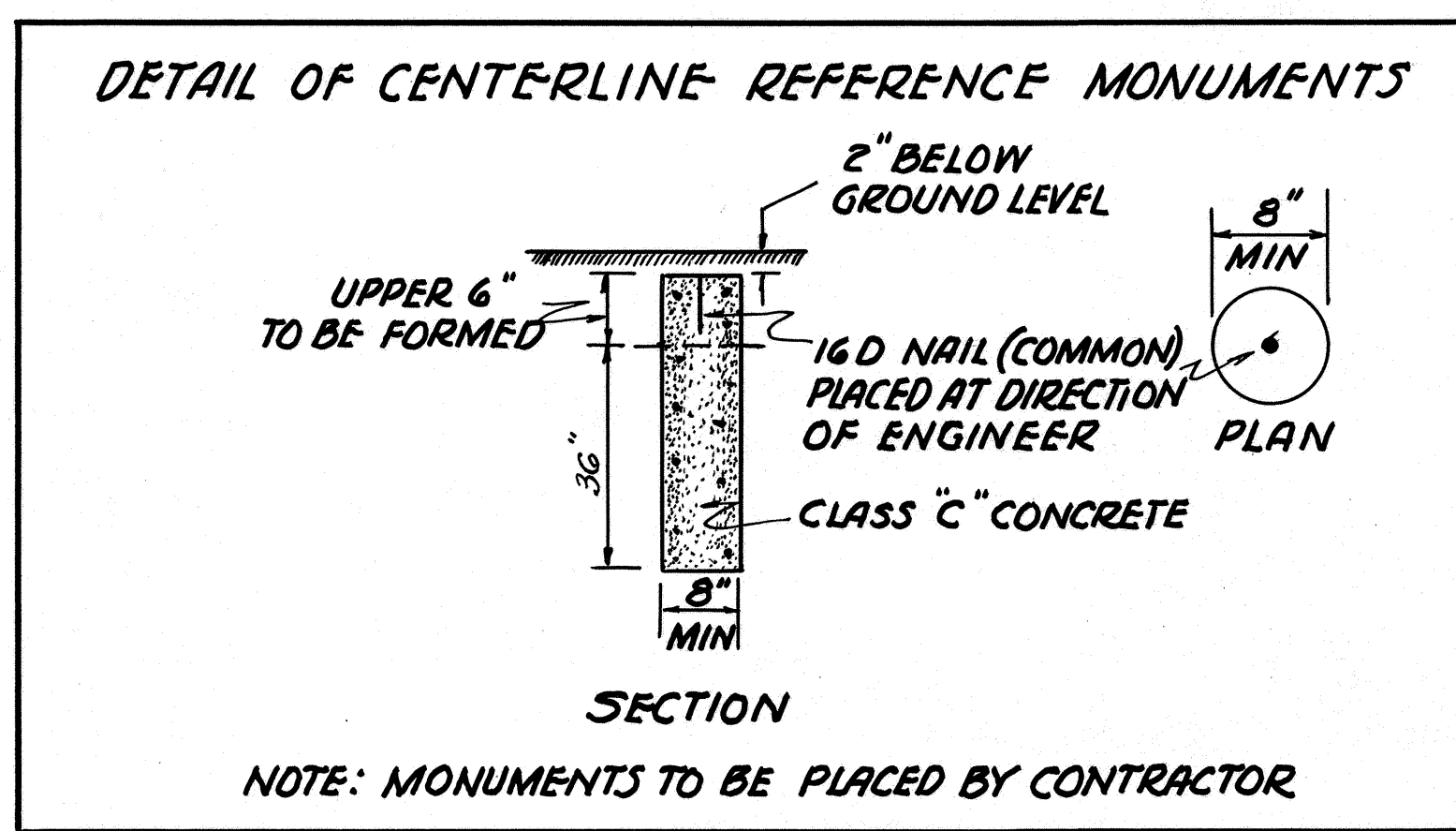
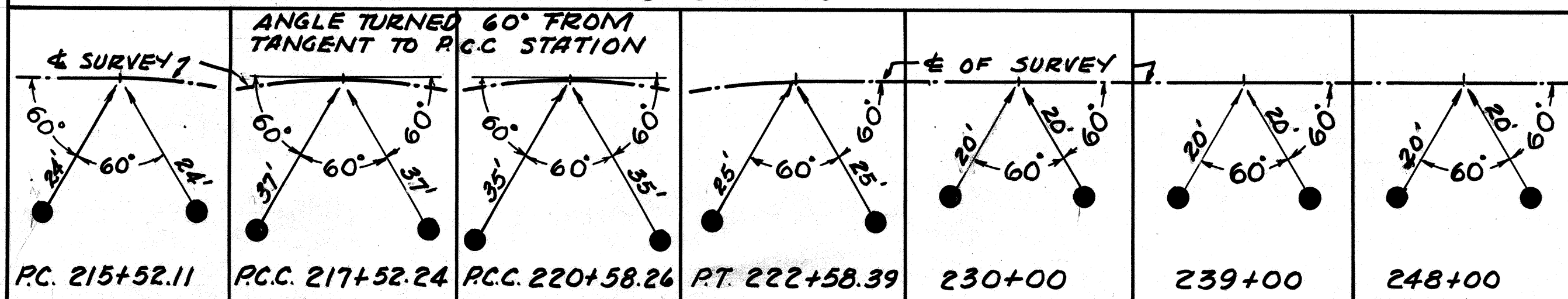
SECTION 14 - MIFFLIN TOWNSHIP  
T23 N - R17 W - ASHLAND CO. OHIO



NORTH  
NOVEMBER 1956

CURVE DATA		
PC. = 215+52.11	PCC. = 217+52.24	PCC. = 220+58.26
PI. = 216+52.64	PI. = 219+08.25	PI. = 221+58.79
P.C.C. = 217+52.24	P.C.C. = 220+58.26	P.T. = 222+58.39
$\Delta = 13^{\circ} 30' RT$	$\Delta = 27^{\circ} 32' 30" RT$	$\Delta = 13^{\circ} 30' RT$
$D = 6^{\circ} 44' 45"$	$D = 9^{\circ} 00'$	$D = 6^{\circ} 44' 45"$
$T = 100.53'$	$T = 156.01'$	$T = 100.53'$
$L = 200.13'$	$L = 306.02'$	$L = 200.13'$
$E = 5.93'$	$E = 18.84'$	$E = 5.93'$
$R = 849.37'$	$R = 636.62'$	$R = 849.37'$

CENTERLINE REFERENCE MONUMENTS



FILED FOR RECORD DEC 28 1956 1956  
 DATE RECORDED DEC 28 1956 1956  
 VOL 8 PAGE 19 NO. 32003  
 FEE 1.50 PAID DEC 28 1956 1956

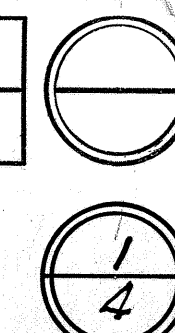
*Art R. Tucker*  
 ASHLAND COUNTY RECORDER

I HEREBY CERTIFY THAT THE ACCOMPANYING  
 PLAT IS A TRUE DELINEATION OF A SURVEY  
 MADE BY THE DEPARTMENT OF HIGHWAYS,  
 STATE OF OHIO

1956 *E. J. Johnson R.L.D.*  
 DIVISION ENGINEER - DIVISION 3  
 REGISTERED CIVIL ENGINEER NO 6311

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

ASD-603-(403-4.17)  
RIGHT OF WAY PLANS



SCALE: 1" = 50'

NOTE:  
SEE SHEET No. 4 FOR  
DETAIL OF CHANNEL

SHOWN ON THIS PLAN SECURED  
EASEMENTS OR APPROPRIATION.

CURVE DATA  
P.I. = 5+01.59  
Δ = 10° 30' Lt  
D = 8° 00'  
T = 65.81'  
L = 131.25'  
E =  
R = 716.20'

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

MUSKINGUM WATERSHED  
CONSERVANCY DISTRICT

Vol 267 Pg 3  
7A, 7B, 7C  
7X, 7Y  
7WA + 7WA1

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

MUSKINGUM WATERSHED  
CONSERVANCY DISTRICT

P.C.C. = 217+52.24  
P.I. = 219+08.25  
P.C.C. = 220+58.24  
Δ = 27° 32' 30" Rt  
D = 9° 00'  
T = 156.01'  
L = 306.02'  
E = 18.84'  
R = 436.42'

P.C.C. = 220+58.24  
P.I. = 221+58.74  
P.T. = 222+58.39  
Δ = 13° 30' Rt  
D = 6° 44' 45"  
T = 100.53'  
L = 200.13'  
E = 5.93'  
R = 849.37'

P.C. = 215+52.11  
P.I. = 216+52.64  
P.C.C. = 217+52.24  
Δ = 13° 30' Rt  
D = 6° 44' 45"  
T = 100.53'  
L = 200.13'  
E = 5.93'  
R = 849.37'

Vol 259 Pg 365  
MARTIN L. BRIGHT

MARTIN L. BRIGHT

MIFFLIN TWP T-23 R-17 SEC-14

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

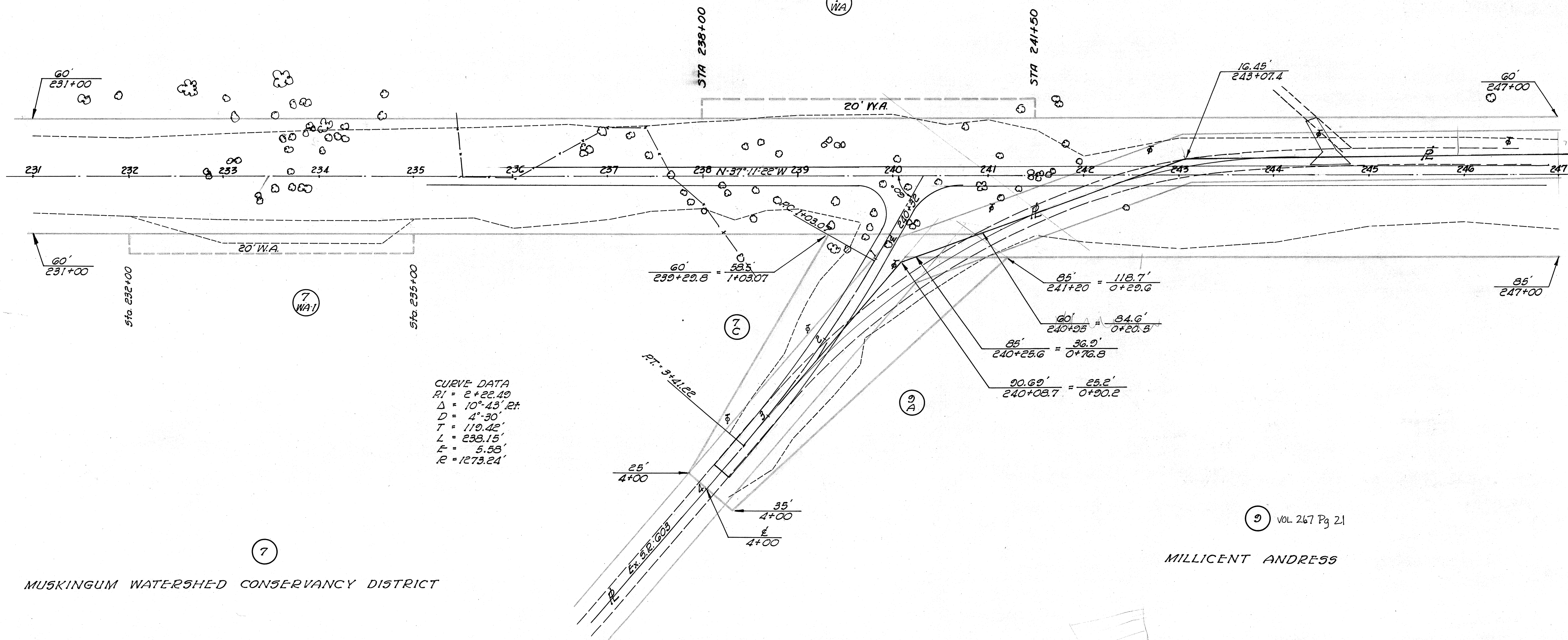
A5D-603-(4.03-4.17)  
RIGHT-OF-WAY PLANS

2  
4

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

SCALE: 1" = 50'

R/W SHOWN ON THIS PLAN SECURED BY EASEMENTS OR APPROPRIATION.



CURVE DATA  
 PI = 2+22.40  
 Δ = 10°-43' Rt.  
 D = 4'-30"  
 T = 110.42'  
 L = 238.15'  
 E = 5.58'  
 R = 1273.24'

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

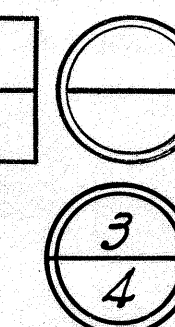
MILLICENT ADDRESS

MIFFLIN TWP. T-23 R-17 SEC-14



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

A5D-603-(4.03-4.17)  
RIGHT-OF-WAY PLANS

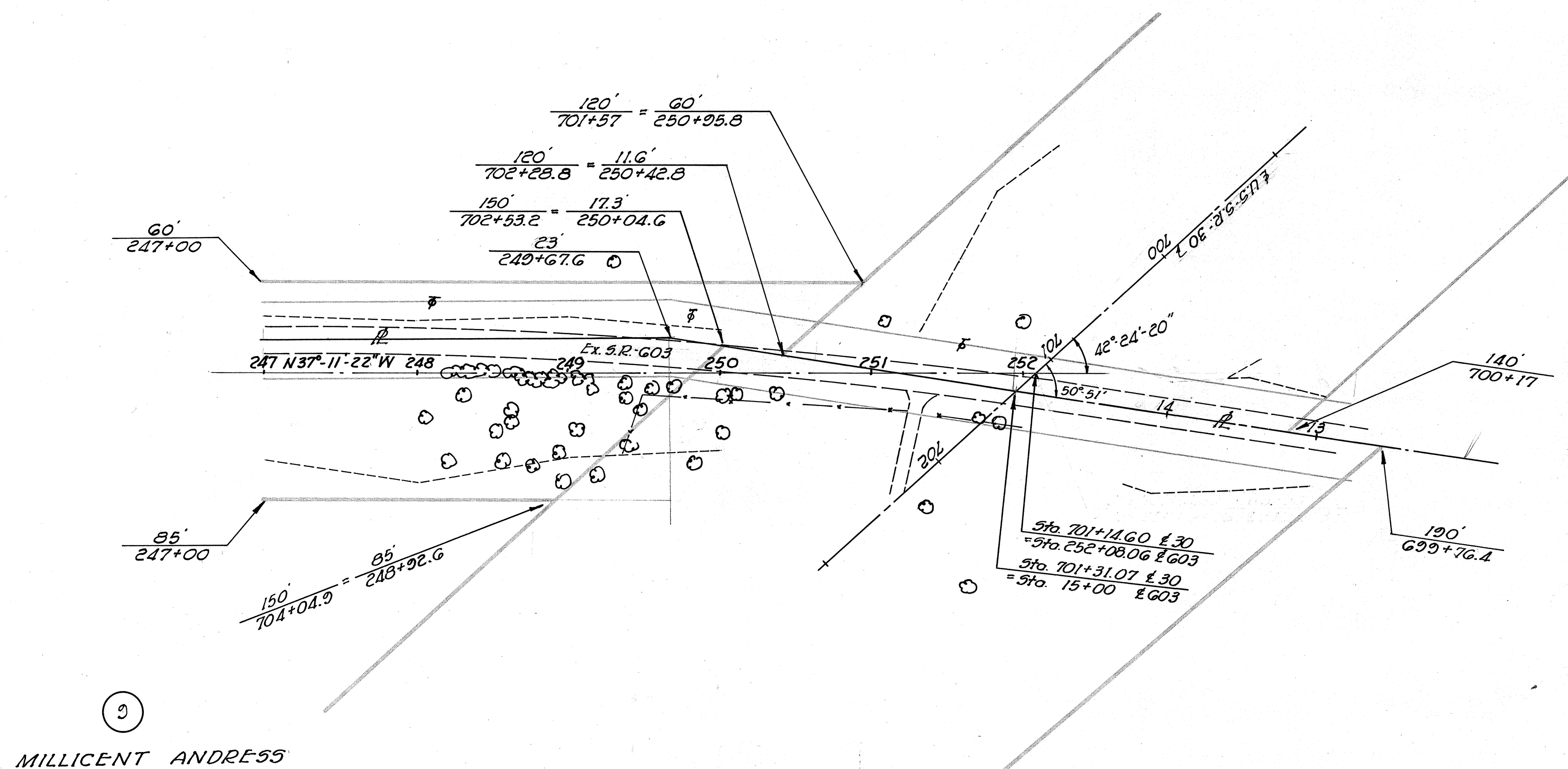


SCALE: 1" = 50'

R/W SHOWN ON THIS PLAN SECURED BY EASEMENTS OR APPROPRIATION.

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

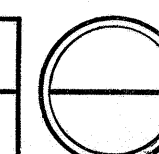
7



MILLICENT ADDRESS

MIFFLIN TWP T-23 R-17 SEC-14

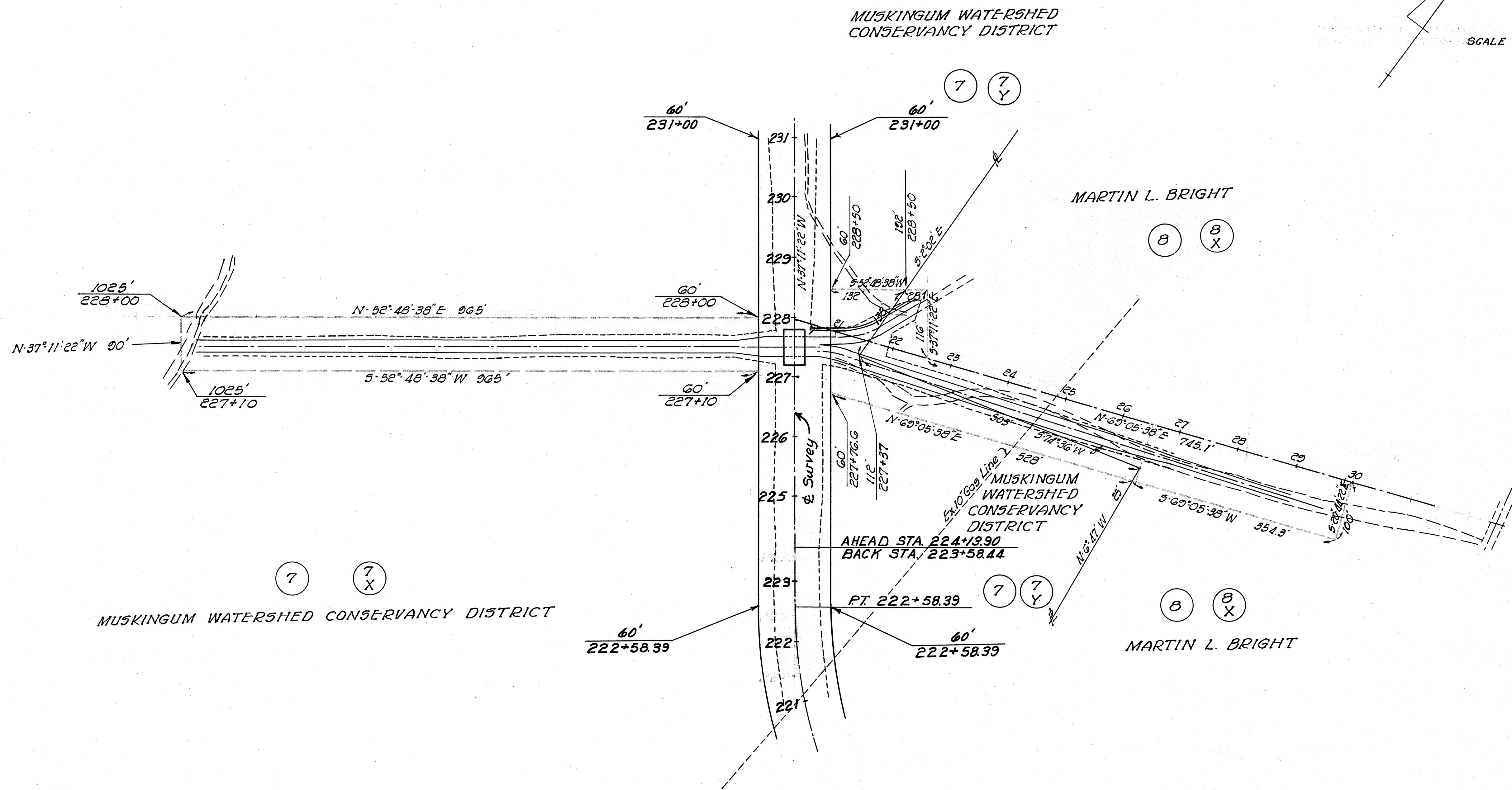
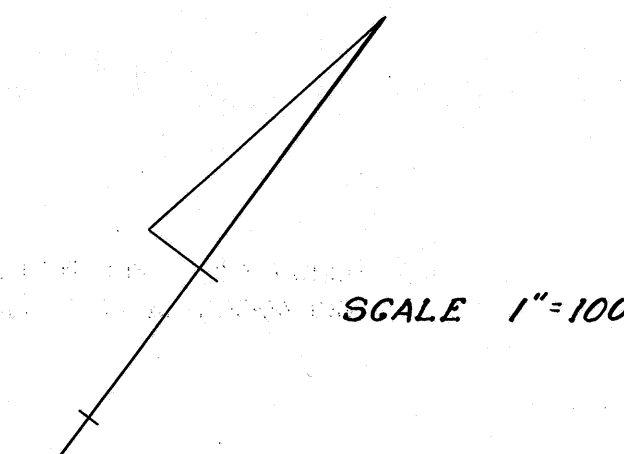
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		



ASD 603-(403-417)  
RIGHT OF WAY PLANS



R/W SHOWN ON THIS PLAN SECURED BY EASEMENTS OR APPROPRIATION.



MIFFLIN TWP T-23 R-17 SEC-14

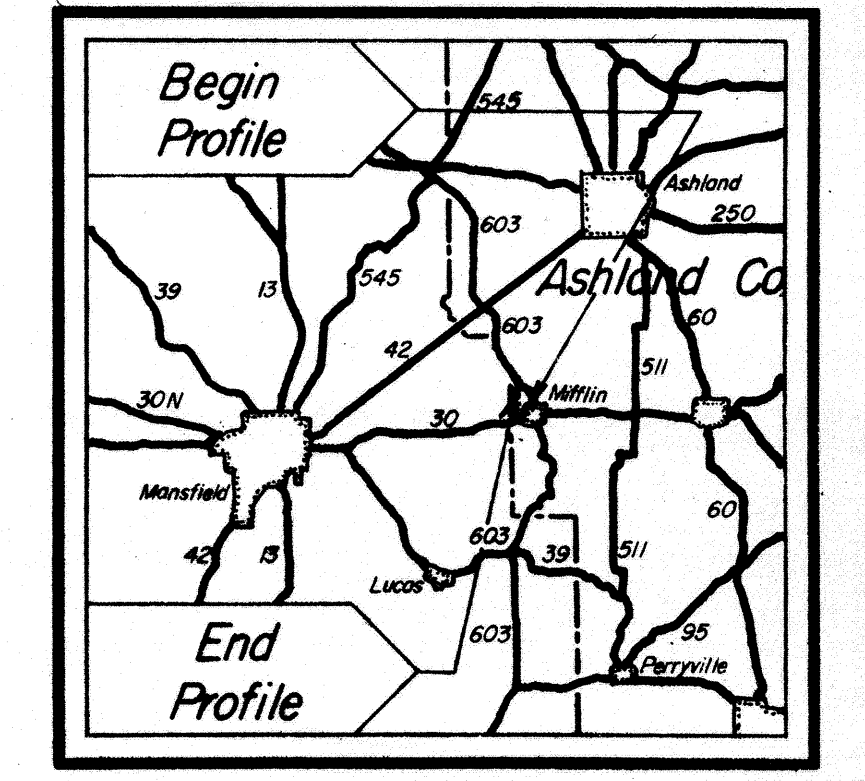
NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.

**LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 72 SAMPLES TESTED**

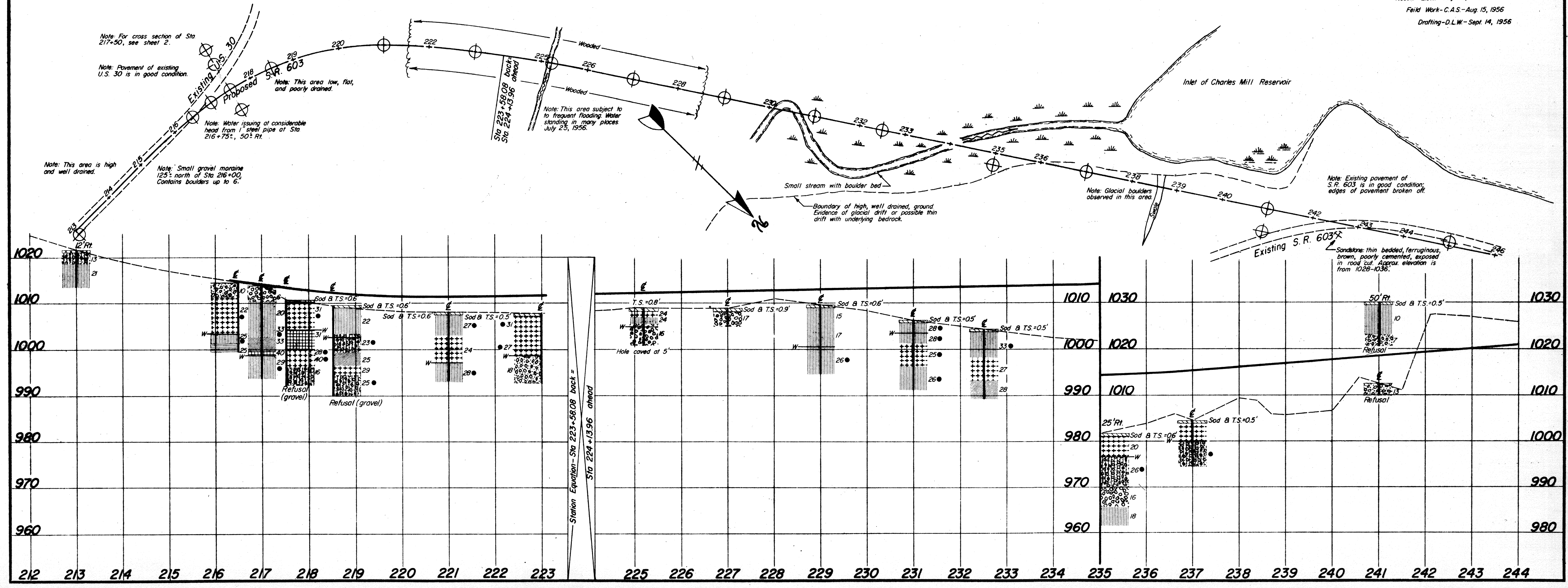
DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Gravel	A-1-a (1)	A-1-a	68	13	7	7	5	N.P.	N.P.	16	4
Gravel or stone fragments with sand	A-1-b (1)	A-1-b	60	8	12	12	8	22	1	13	6
Gravel with sand and silt	A-2-4 (1)	A-2-4	52	8	13	16	11	25	5	21	8
Sandy silt	A-4 (5)	A-4a	17	5	20	36	22	27	5	24	28
Silt	A-4 (8)	A-4b	1	1	15	56	27	28	6	27	18
Silt and clay	A-6 (9)	A-6a	12	1	6	45	36	33	13	25	4
Silty clay	A-6 (11)	A-6b	6	3	9	44	38	34	17	25	1
Clay	A-7-6 (18)	A-7-6	8	1	8	55	28	52	28	36	3

Sod & top soil=X' = Approximate depth  
 Berm material  
 Auger boring-plan view  
 Auger boring plotted to vertical scale only

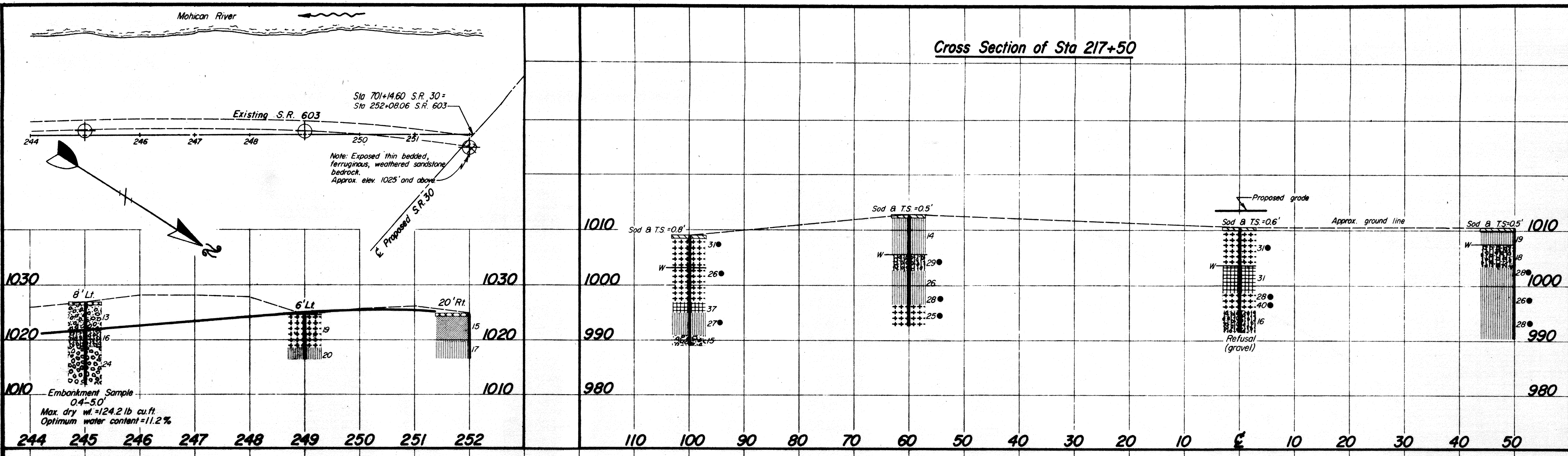
• Water content nearly equal to or greater than liquid limit.  
 Samples Taken Lab. Nos. So. 47988-48059 incl.  
 Moisture Density Sample Lab. No. So. 48060  
 Note: Figures beside borings designate water content in percent



**LOCATION MAP**  
 Recon. - L.O.T. - July 25, 1956  
 Field Work - C.A.S. - Aug 15, 1956  
 Drafting - D.L.W. - Sept. 14, 1956



Cross Section of Sta 217+50



Embankment Sample  
 0.4'-5.0'  
 Max dry wt = 124.2 lb cu.ft.  
 Optimum water content = 11.2%