

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS

**HOL-39-11.64**  
MONROE TOWNSHIP  
HOLMES COUNTY

**1963 SPECIFICATIONS**

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the Proposal, shall govern this improvement.

The Right of Way for this improvement will be provided by the State of Ohio.

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

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Division Deputy Director

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Engineer of Bridges

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Engineer of Location and Design

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Deputy Director of Design and Construction

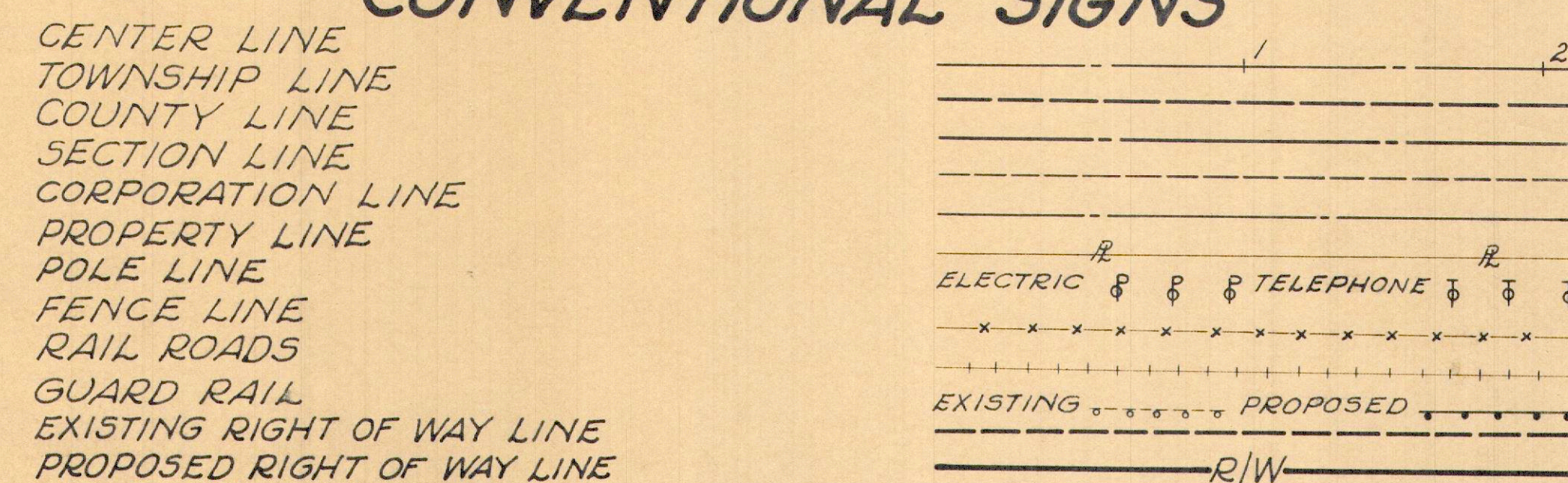
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Deputy Director of Right of Way

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Deputy Director of Planning and Programming

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ First Assistant Director

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Director of Highways

**CONVENTIONAL SIGNS**

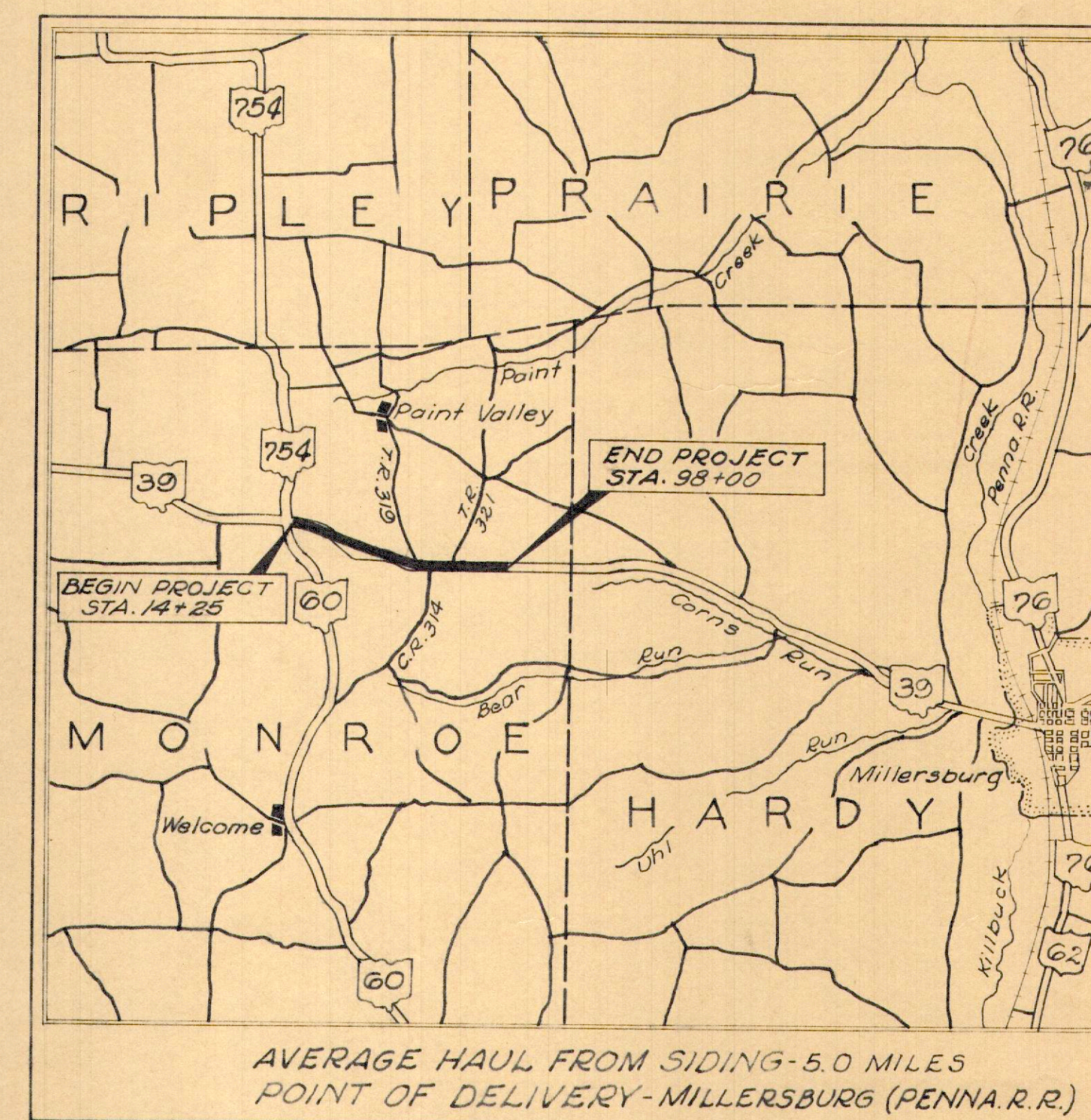


**INDEX OF SHEETS**

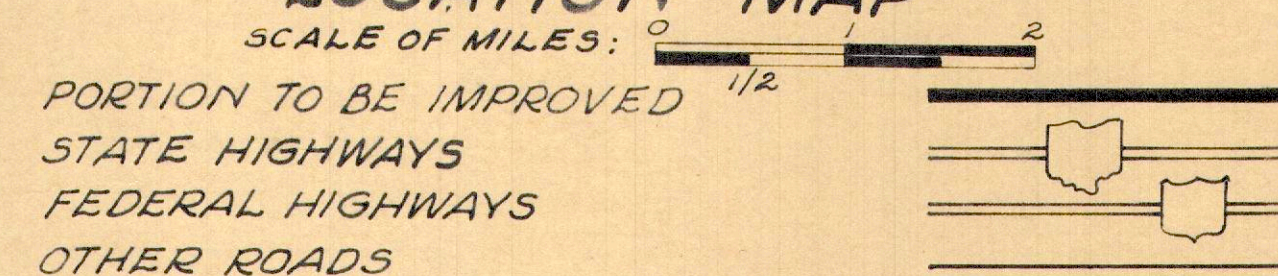
TITLE SHEET	1
TYPICAL SECTIONS	2
SCHEMATIC LAYOUT AND MONUMENT ASSEMBLIES	3
GENERAL NOTES	4-5
PAVEMENT CALCULATIONS	6
SUMMARY OF QUANTITIES	7-8
PLAN AND PROFILE	9-18
CURVE TABLES	19
CROSS SECTIONS	20-37
APPROACH DETAILS	38-45
SPECIAL DETAILS FOR DRAINAGE	46
STRUCTURES 20' SPAN AND UNDER	47-52
STORM SEWER DETAILS	53-54
RIGHT OF WAY	55-62

**LINE DATA**

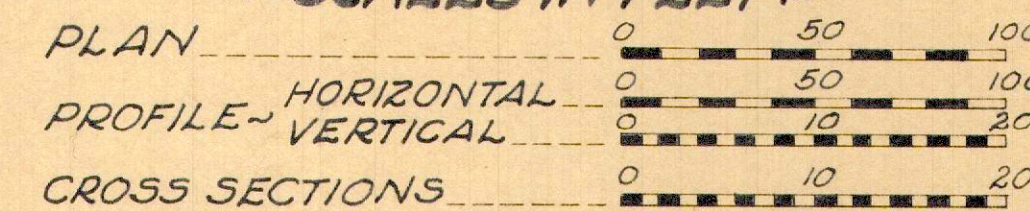
BEGIN PROJECT	STA. 14+25	
END PROJECT	STA. 98+00	
GROSS LENGTH OF PROJECT		8375.00 LIN. FT.
DEDUCT FOR EQUATION:		
STA. 69+46.21 BACK = STA. 69+54.85 AHEAD		8.64 LIN. FT.
NET LENGTH OF PROJECT		8366.36 LIN. FT. OR 1.584 MILES
ADD FOR WORK AND APPROACH:		
STA. 13+75 TO STA. 14+25		50.00 LIN. FT.
STA. 21+00 LT.		612.23 LIN. FT.
STA. 98+00 TO STA. 98+50		50.00 LIN. FT.
TOTAL		712.23 LIN. FT.
NET LENGTH OF WORK		9078.59 LIN. FT. OR 1.719 MILES



**LOCATION MAP**



**~SCALES IN FEET~**



**STANDARD DRAWINGS**

DR-1	1-1-55	L-1	4-1-50
G-7.07	4-1-64	L-3	4-1-50
HW-E	2-1-63	L-3A	4-1-50
I-1	1-15-60	7-35	7-2-56
I-8 C.B. No. 2, 2A & B	2-1-63	FAC I-1	2-25-64
I-8 C.B. No. 2, 3 & 4	2-1-63	FAC I-2	7-25-64
I-8 I No. 1	2-1-63	SP-53	6-30-61
I-14 G	1-28-59	RT-1	7-15-58
I-15 No. 1	1-17-60		
I-15 No. 2-A	2-1-60		

**SUPPLEMENTAL SPECIFICATIONS**


DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

APPROVED: \_\_\_\_\_  
DIVISION ENGINEER

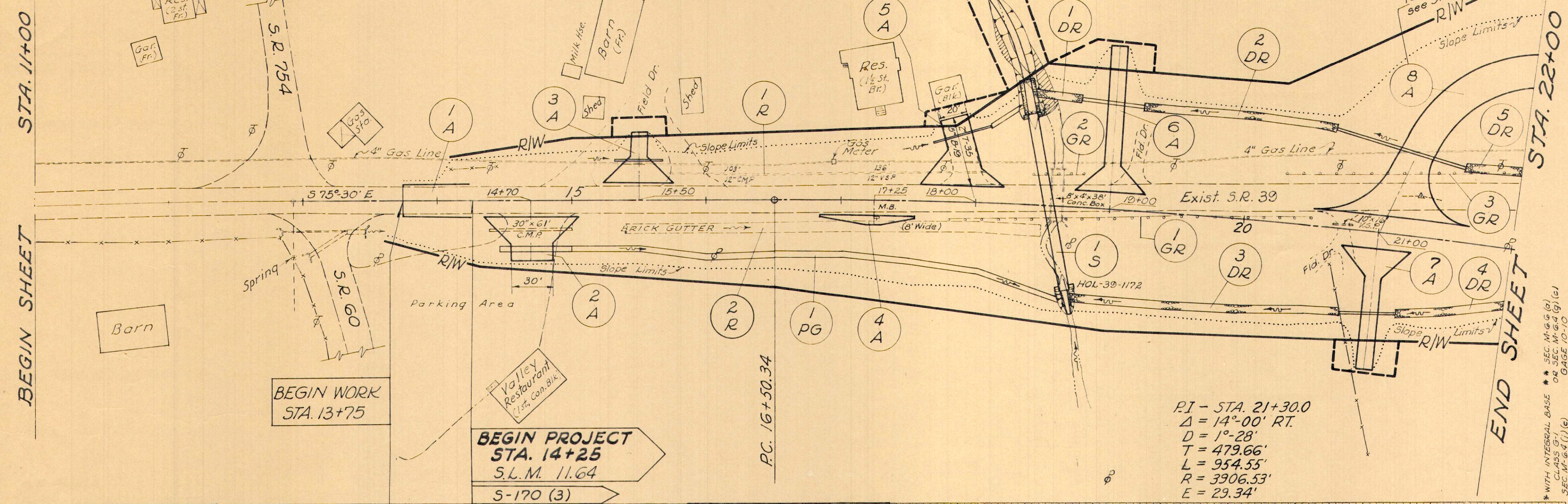
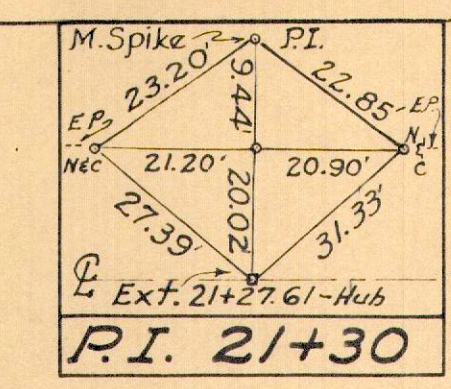
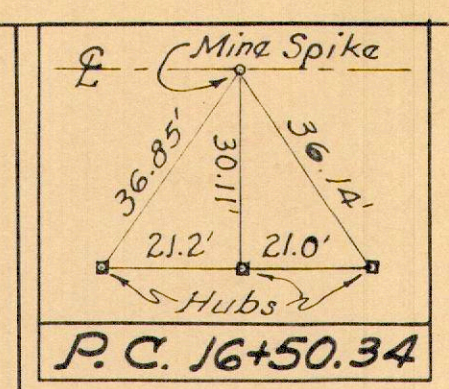
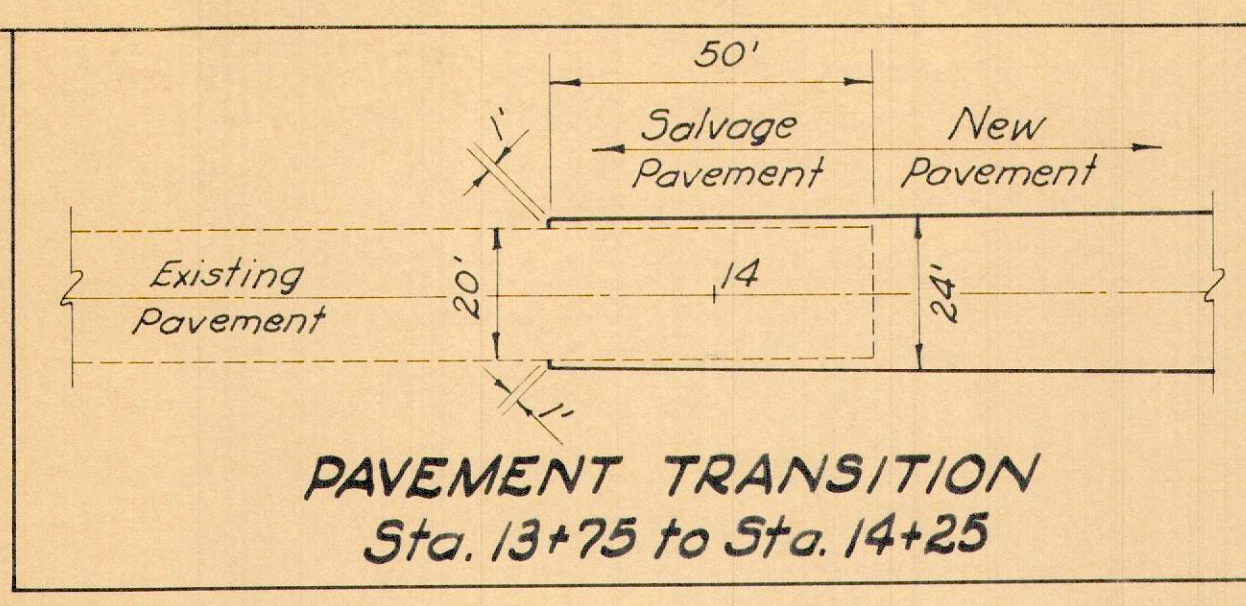
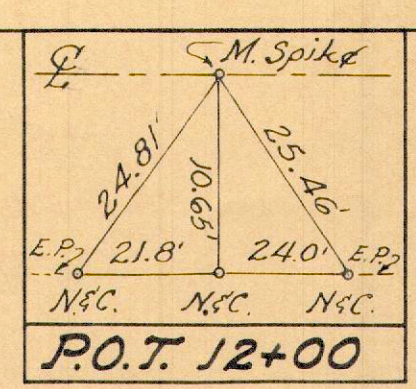
DATE \_\_\_\_\_

FILE No. HOL-39-11.64  
Date of Letting \_\_\_\_\_  
Contract No. \_\_\_\_\_





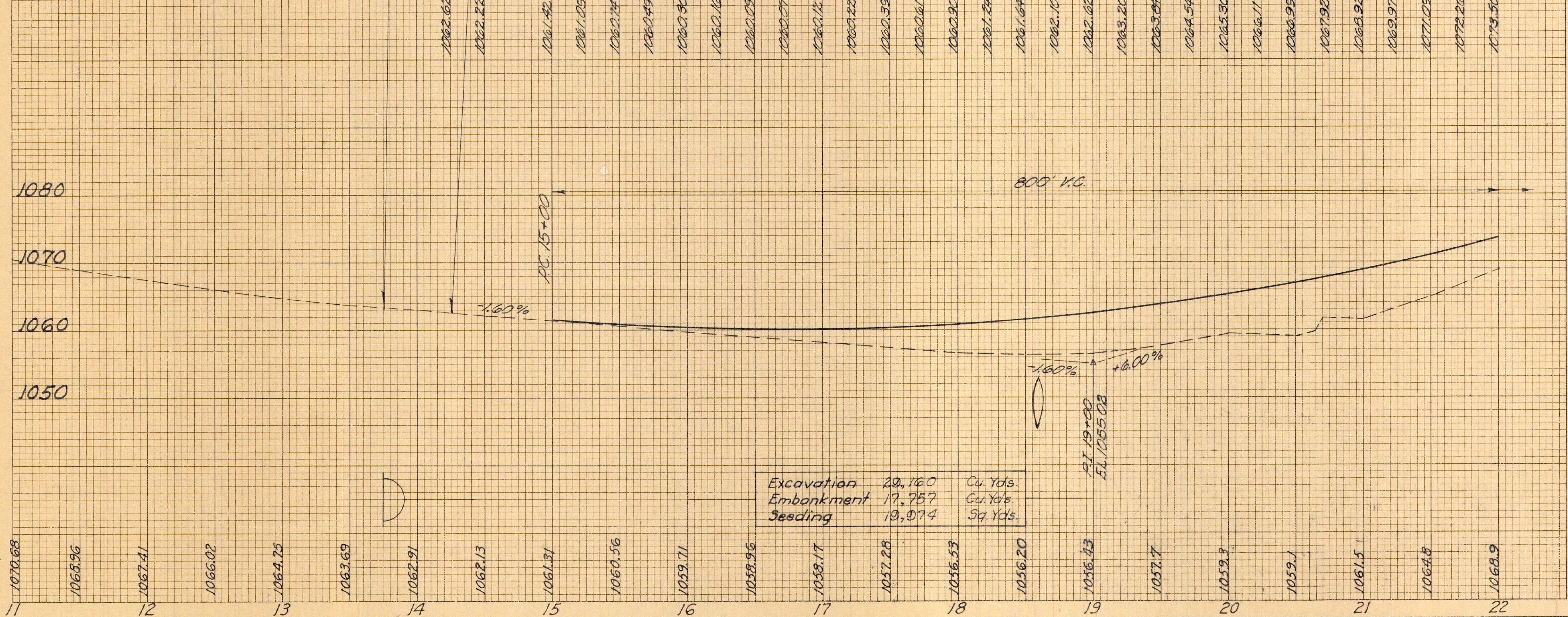




**B.M. STA. 12+85**  
On Hd. Wall Culv. S.W. Cor. S.R. 39 & 60  
24. T. RT.  
ELEV. 1064.71

**B.M. U.S.C. & G.S.**  
# V. 263 - 1959  
25.2' LT. STA. 14+08  
ELEV. 1061.99

PI - STA. 21+30.0  
Δ = 14°-00' RT.  
D = 1°-28'  
T = 479.66'  
L = 954.55'  
R = 3906.53'  
E = 29.34'



REF. NO.	STATION TO STATION	SIDE	PIPE REMOVED UNDER 18" BAND	PIPE REMOVED OVER 18" BAND	GUARD RAIL REMOVED	SODDING	CHANNEL REPAIR	GLASS C-4	3" DIPE	1" DIPE	EXPOSED METAL ARCH	EXPOSED METAL ARCH	REINFORCED CONCRETE	MASONRY	REPAIR	DUMPED	PROTECT	PAVED	MOD.	REPAIR	REMOVAL	REMOVAL	REMOVAL	WATER PROOFED	ASPH. LEV. COURSE	ASPH. SUBBASE COURSE	BIT. PRIME COAT	ASPH. SURFACE COURSE	SEE SHEET NO.						
1-A	13+75 TO 14+25	E																																	
2-A	14+70	RT.																																	
3-A	15+50	LT.																																	
4-A	17+25	RT.																																	
5-A	18+00	LT.																																	
6-A	19+00	LT.																																	
7-A	21+00	RT.																																	
1-GR	17+70 TO 20+50	RT&LT			272																														
2-GR	18+40 TO 18+80	LT.			40																														
3-GR	20+28 TO 22+00	LT.			176																														
1-R	15+70 TO 18+07	LT.	239																																
2-R	15+40 TO 19+50	RT.																																	
1-S	13+55	RT&LT																																	
1-PG	15+00 TO 18+65	RT																																	
1-DR	13+41 TO 18+75	LT																																	
2-DR	18+22 TO 20+62	LT																																	
3-DR	13+76 TO 20+78	RT																																	
4-DR	21+20 TO 22+00	RT																																	
5-DR	21+61 TO 22+00	LT																																	
EXIST. PAVT. REMOVAL		LT																																	
EXIST. PAVT. REMOVAL		LT																																	
TOTALS			255	61	488	132	42	36	44	42	46	54		8.8	16	2.8	25																		

PLAN & PROFILE - STA. 11+00 TO STA. 22+00













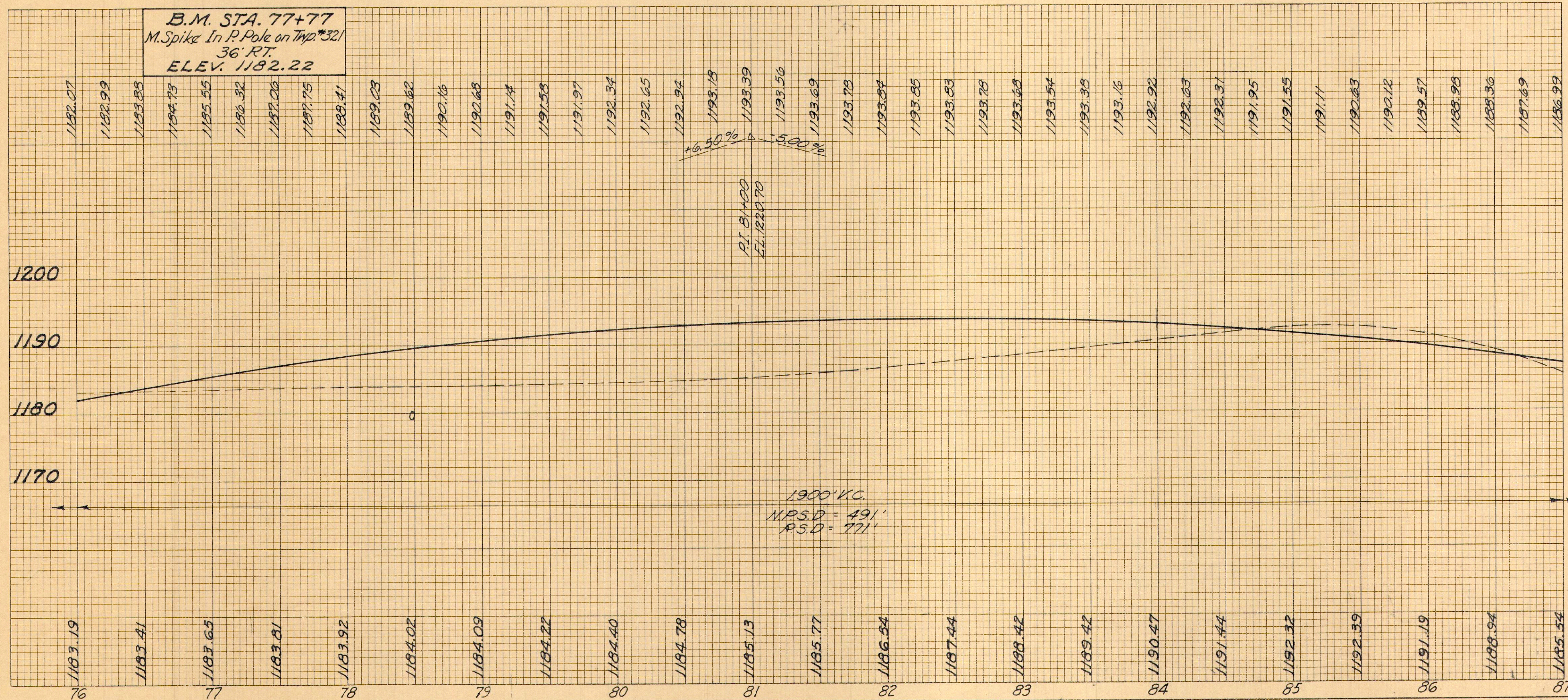
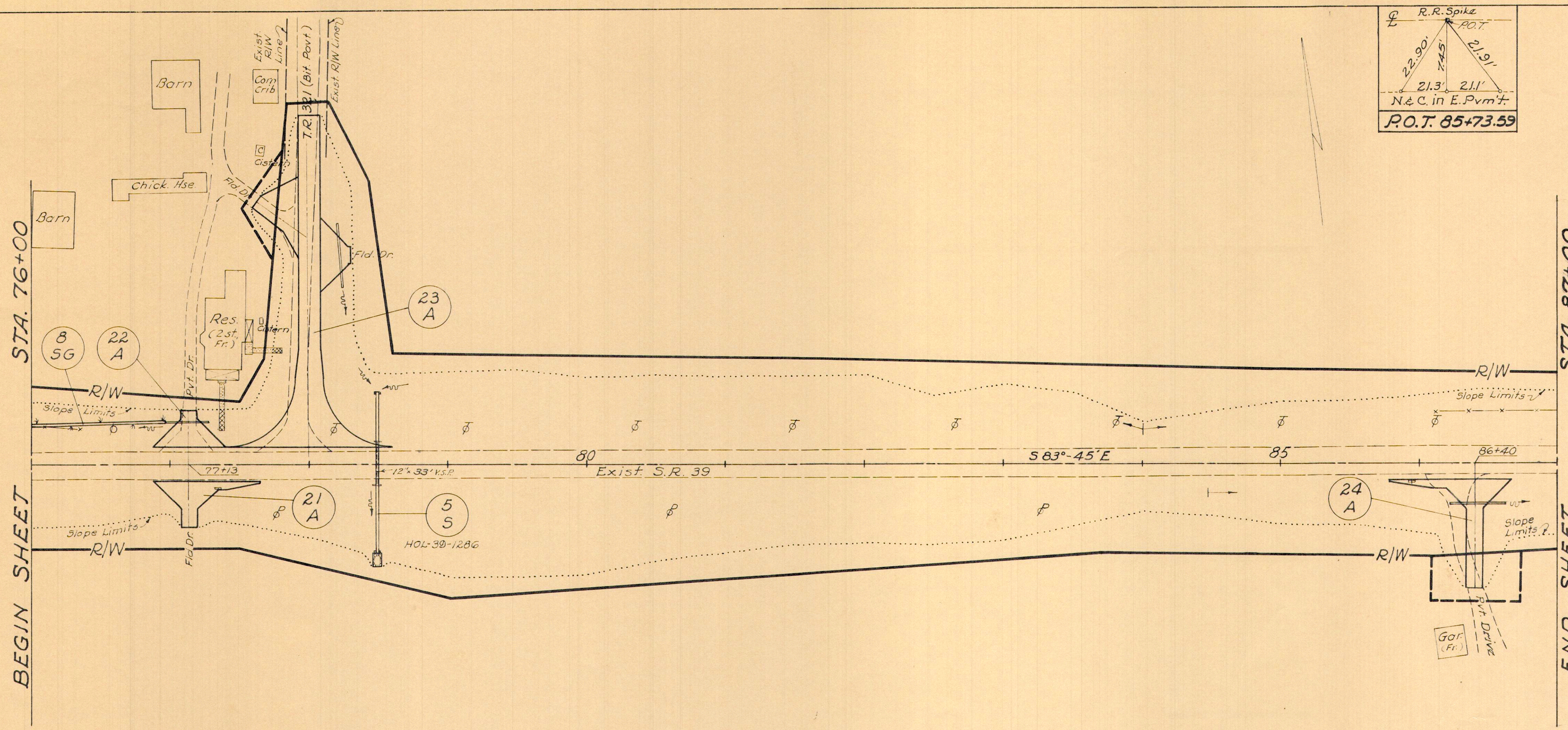
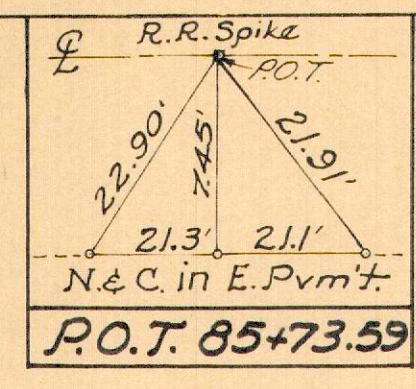












ESTIMATED QUANTITIES

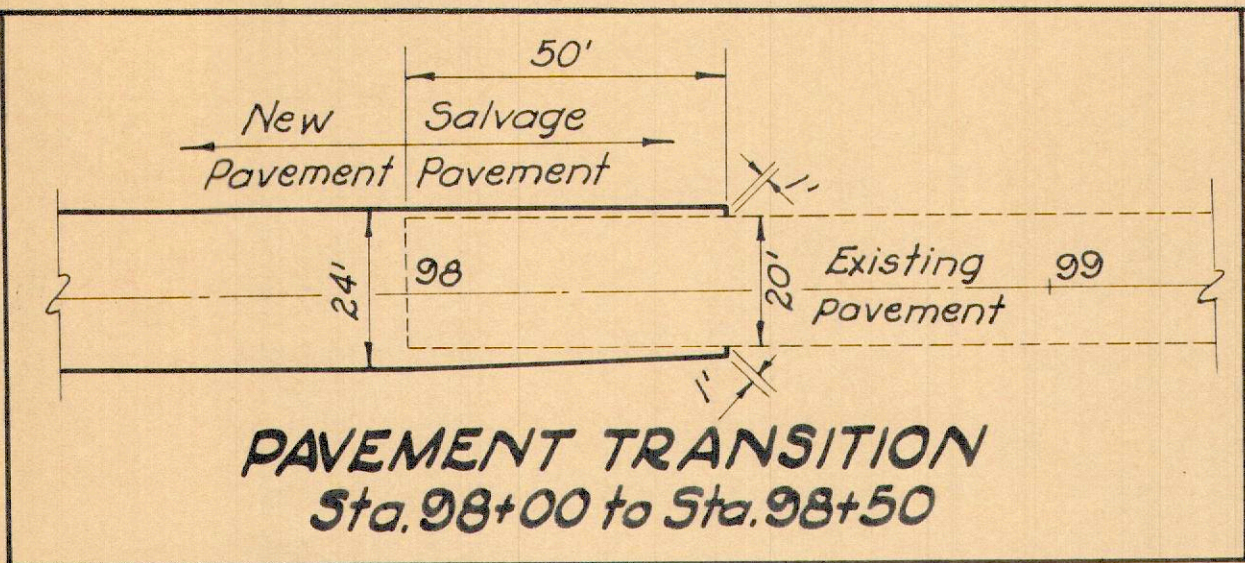
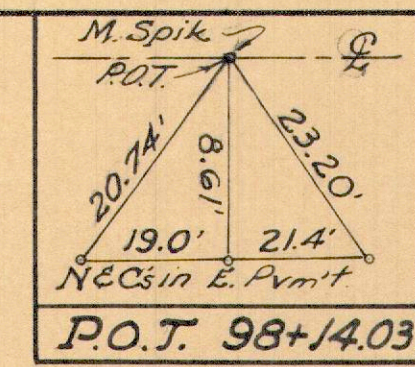
SEE SHEET NO.	T-35 ASPH. CONCRETE SURFACE COURSE	T-30 BIT PRIME COURSE	0-35 ASPH. CONCRETE LEVELING COURSE	B-10 AGGR. BASE COURSE	5-22 REMT. OF EXISTING STRUCTURE	1-2 DUMPS ROCK CHAIN PROTECT.	1-2 MASONRY	E-1 PIPE CLASS C-12	L-10 SODDING	E-2 REMOVE & DISPOSE EXISTING SUBGRADE UNDER	E-1 COMPACTED SUBGRADE	SIDE	STATION TO STATION	REF. NO.
33				16.8								RT	77+13	
33		24.4		11.7							56.0	LT	77+13	
45		233.5		143.8								LT	79+00	
36		34.0		28.0								RT	86+40	
51					3.0							LT & RT	78+49	
									6.6			LT	76+00 TO 76+97	
										42.8		LT	EXIST. PAVT. REMOVAL 76+00 TO 77+10	
											56.0	LT	84+25 TO 87+00	
													TOTALS	

PLAN & PROFILE - STA. 76+00 TO STA. 87+00

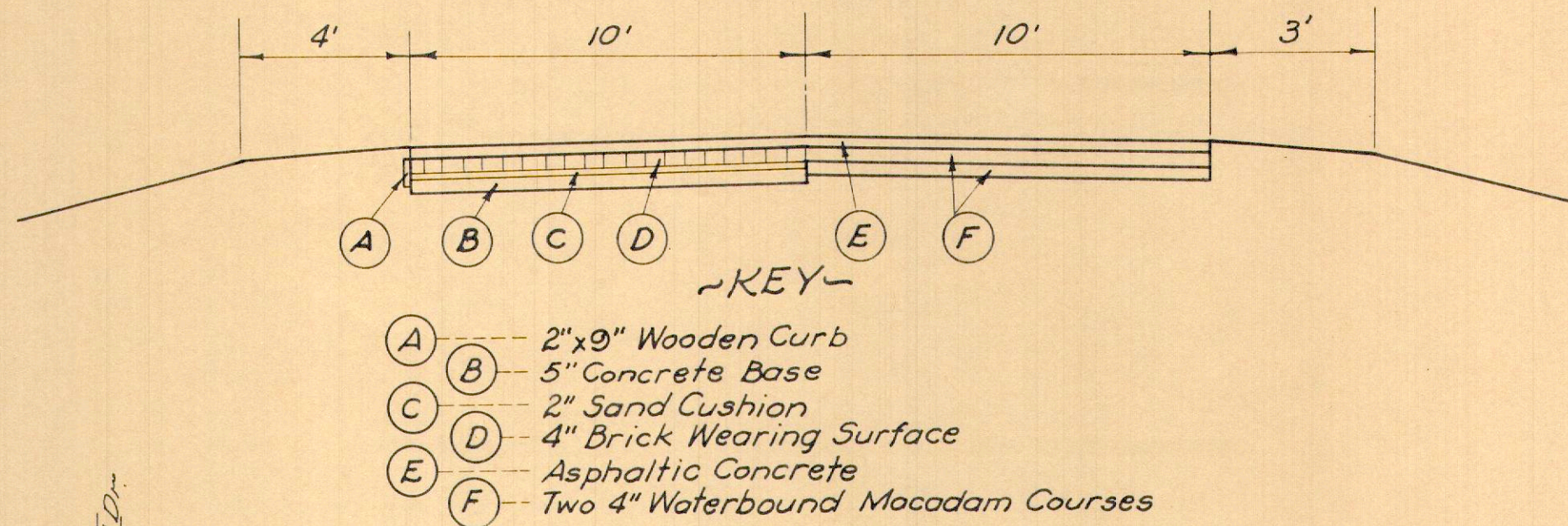






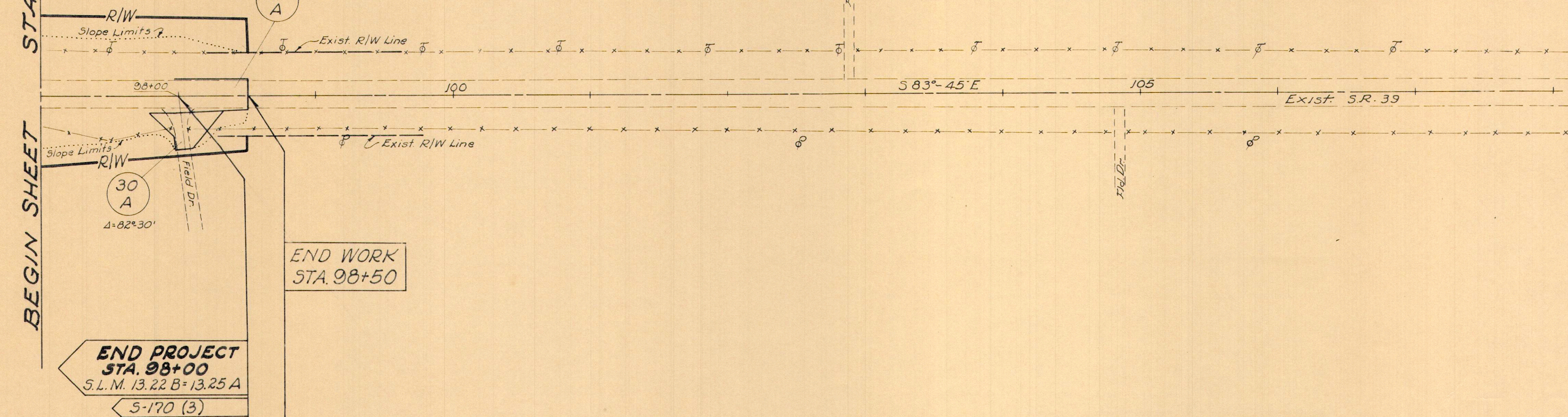


TYPICAL SECTION OF ADJOINING PAV'T.



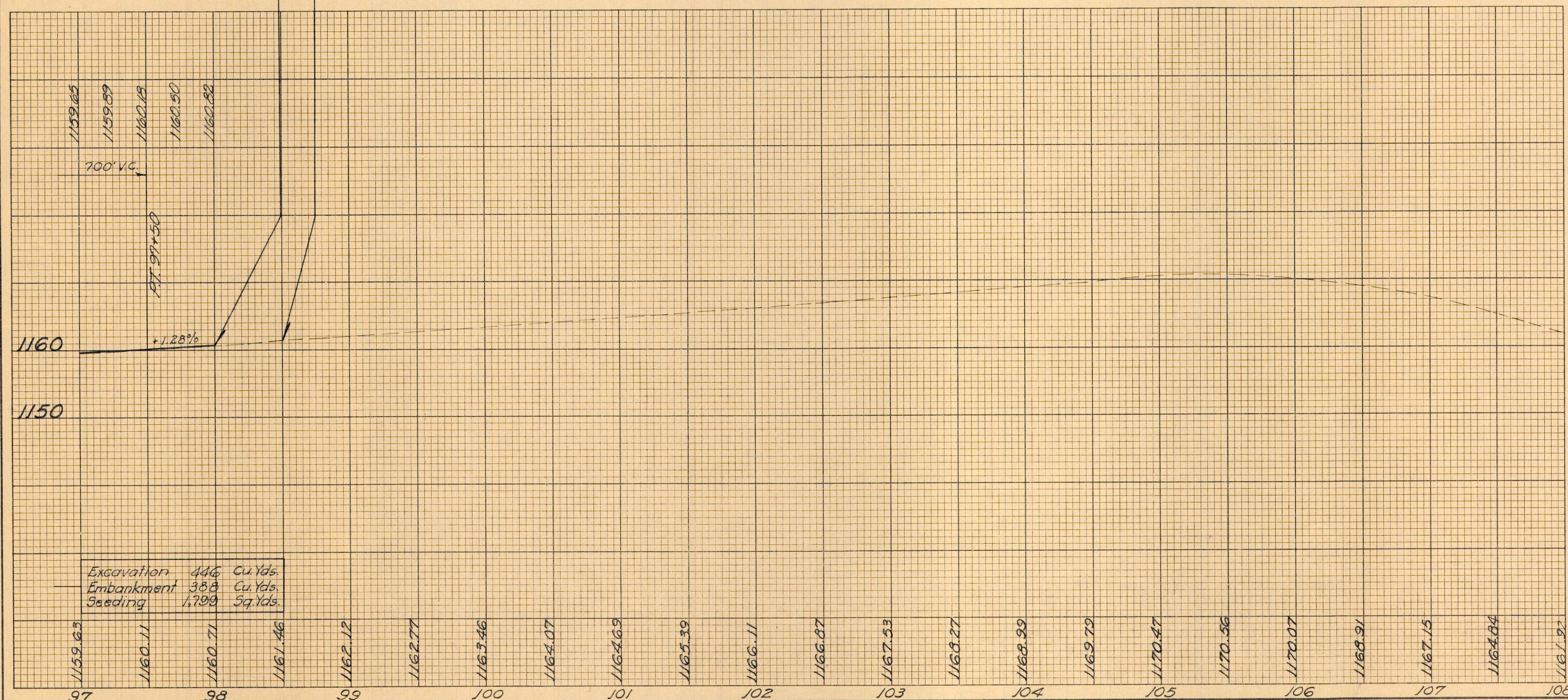
- (A) 2"x9" Wooden Curb
- (B) 5" Concrete Base
- (C) 2" Sand Cushion
- (D) 4" Brick Wearing Surface
- (E) Asphaltic Concrete
- (F) Two 4" Waterbound Macadam Courses

BEGIN SHEET



END WORK  
STA. 98+50

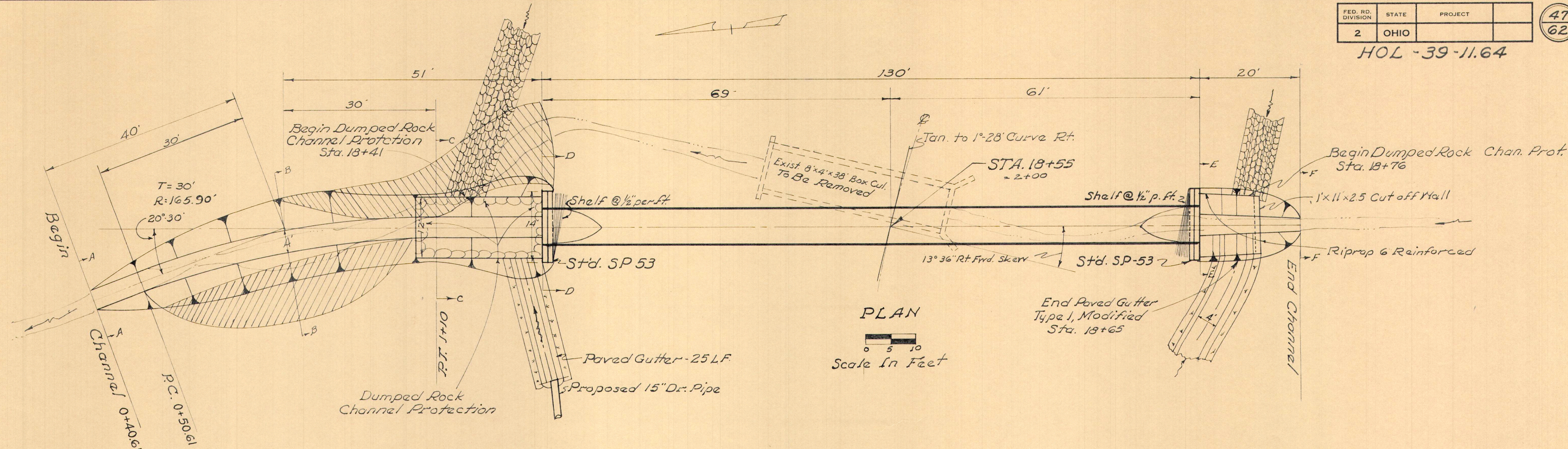
END PROJECT  
STA. 98+00  
S.L.M. 13.22 B=13.25 A  
5-170 (3)



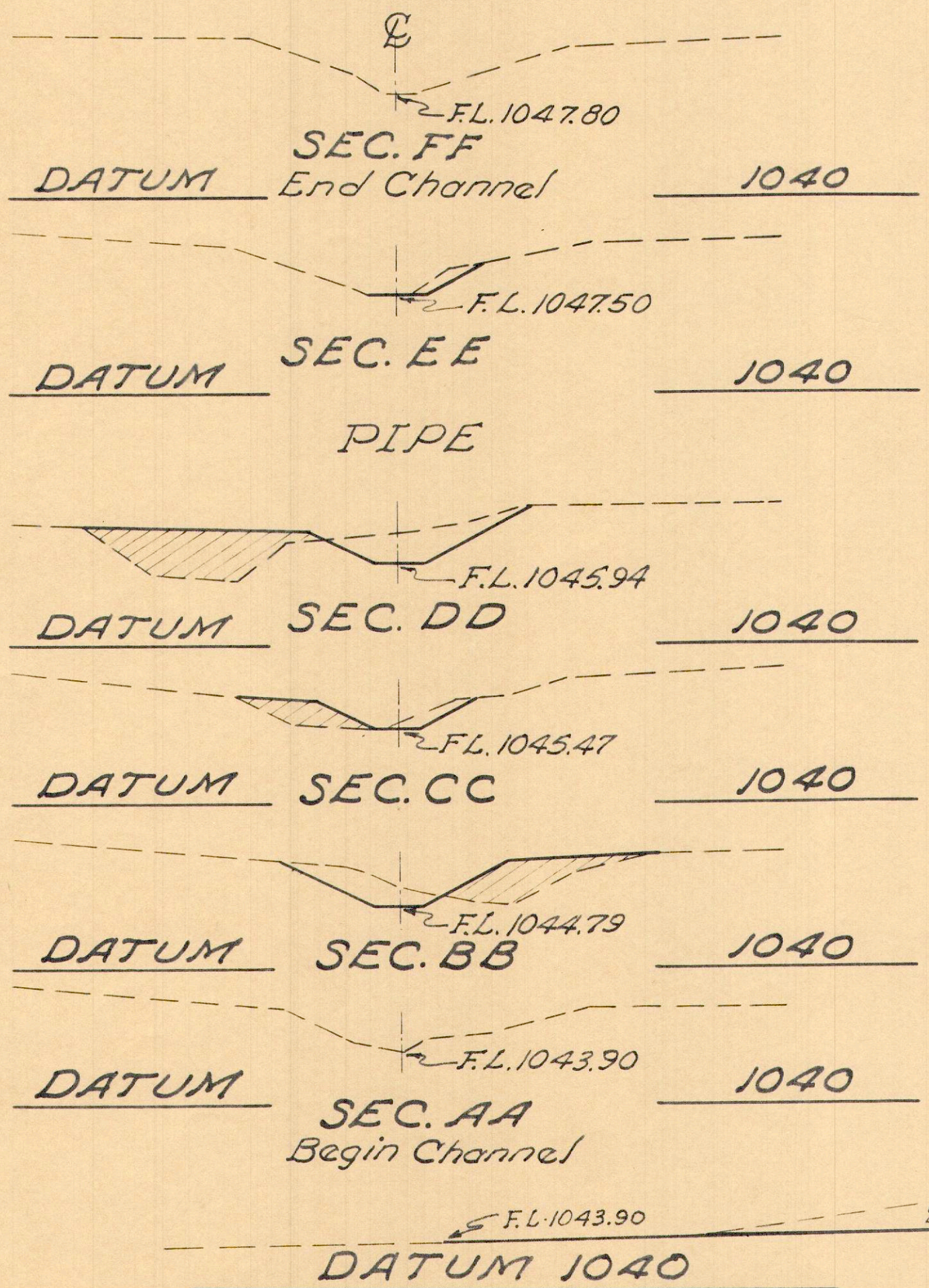
ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	REMOVE & DISPOSE EXISTING PAV'T. (1810)	AGGR. BASE COURSE (1810)	WATER-PROOFED AGG. BASE COURSE (1810)	ASPH. CONCRETE LEVELING COURSE (1810)	ASPH. CONCRETE SURFACE COURSE (1810)	TOTALS
30-A	98+00	RT.						
31-A	98+00 TO 98+50	R		139	2.5	0.6	2.6	
	EXIST. PAV'T. REMOVAL 97+00 TO 98+00	LT.	111					
	TOTALS		111	139	2.5	0.6	3.1	2.6





PLAN  
Scale In Feet

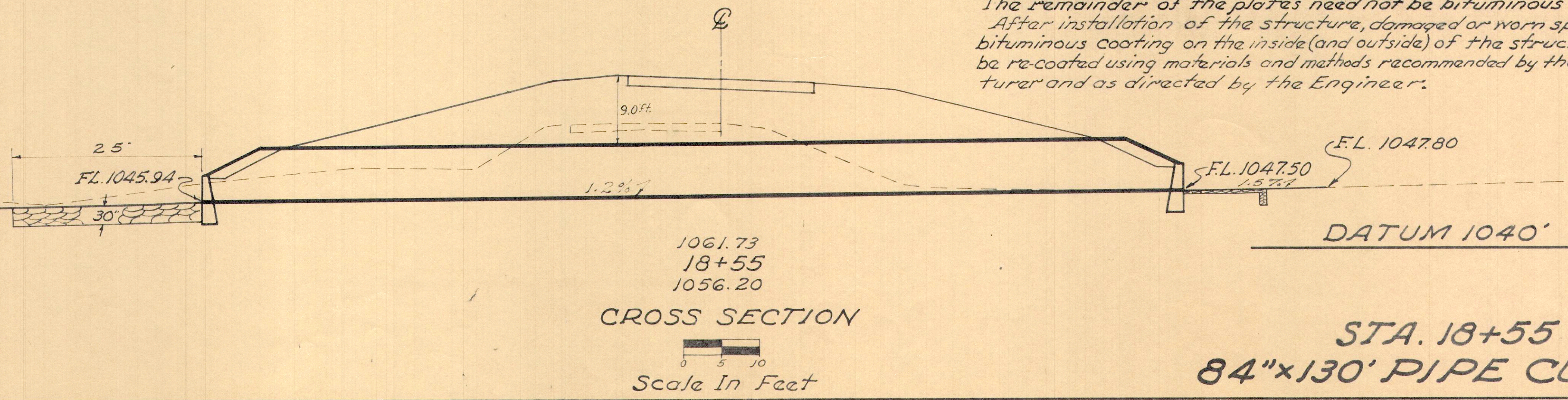


**ESTIMATED QUANTITIES**

84" Pipe, Class A-1, Sec. M-6.6(a) or Sec. M-6.4(g)(c), gage 10, 10	130 Lin. Ft.
Masonry	8.8 Cu. Yd.
Removal of Existing Structure	Lump Sum
Riprap 6" Reinforced	16 Sq. Yd.
Channel Excavation	42 Cu. Yd.
Dumped Rock Channel Protection	28 Cu. Yd.
Embankment (Carried to Sh# 2L...)	65 Cu. Yd.
Paved Gutter, Type 1	25 Lin. Ft.
Sod Gutter	9 Sq. Yds.

Area: 238 acres  
Q 25: 215 c.f.s.

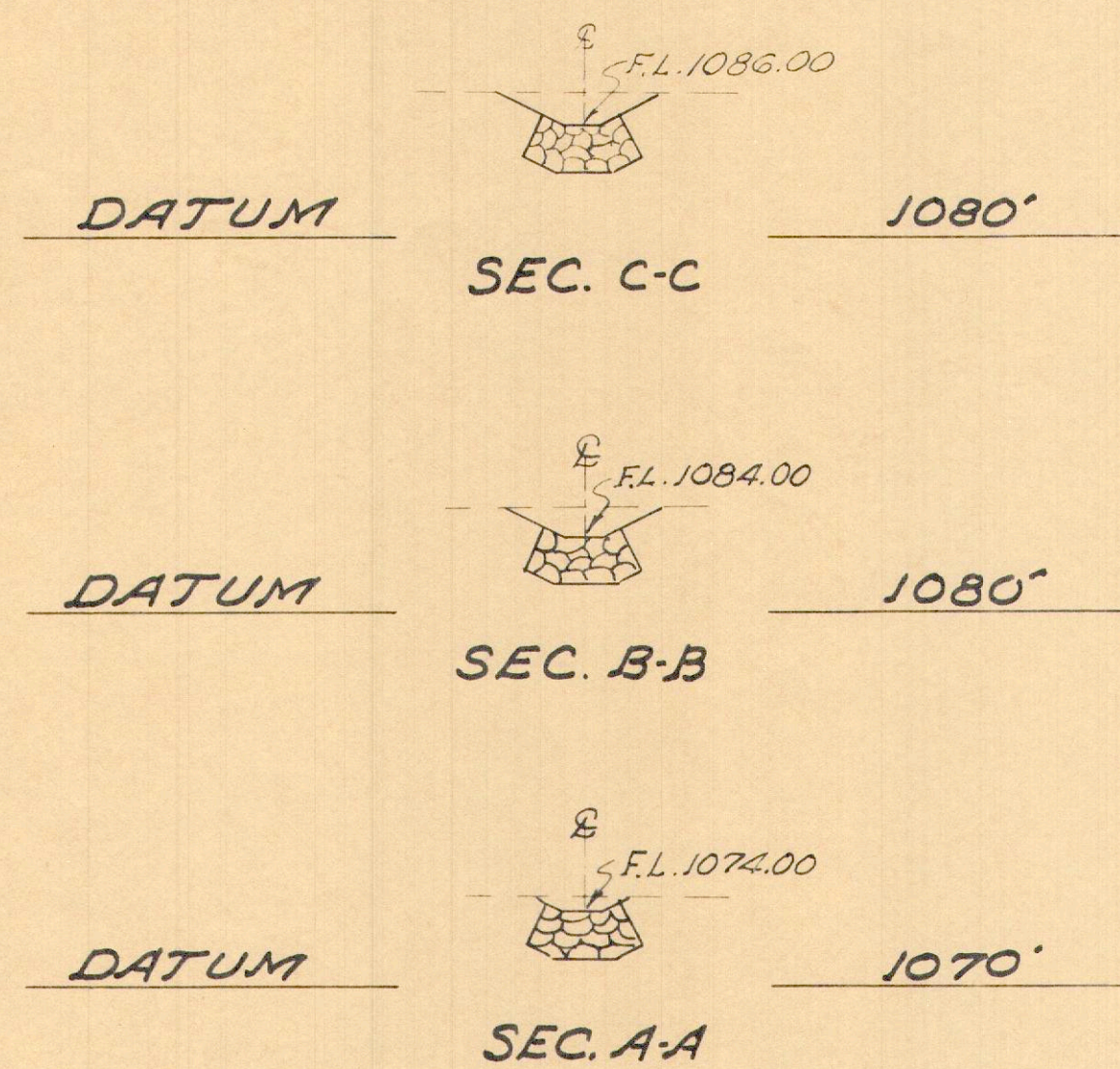
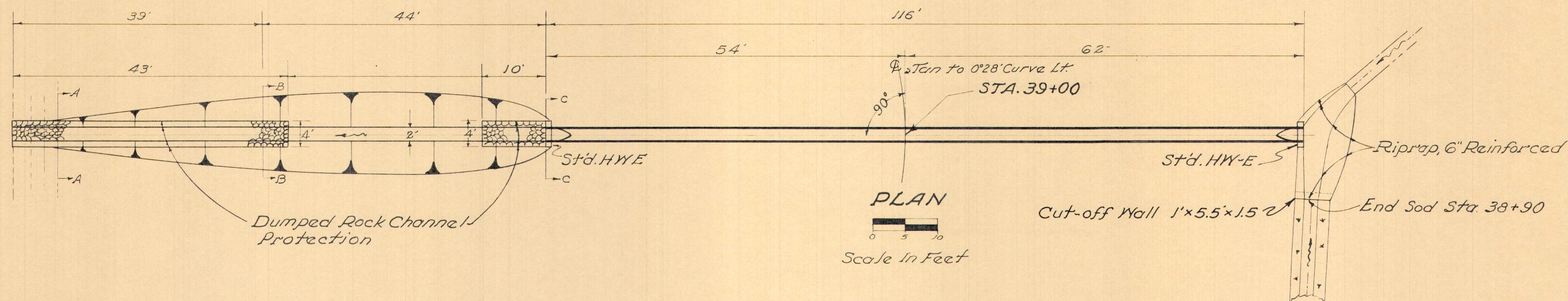
NOTE: - If the Concrete Pipe Alternate is used, the portion of the pipe which extends above the end wall (shall not be cut) off in a plane which is parallel to the finished embankment surface.  
If the Sectional Corrugated Metal Pipe Alternate is used the metal plates that are incorporated into the lower 1/4 of the structure shall be shop coated in accordance with Sec. M-6.4(c). The remainder of the plates need not be bituminous coated.  
After installation of the structure, damaged or worn spots in the bituminous coating on the inside (and outside) of the structure shall be re-coated using materials and methods recommended by the manufacturer and as directed by the Engineer.



1061.73  
18+55  
1056.20  
CROSS SECTION  
Scale In Feet

STA. 18+55  
84" x 130' PIPE CULVERT

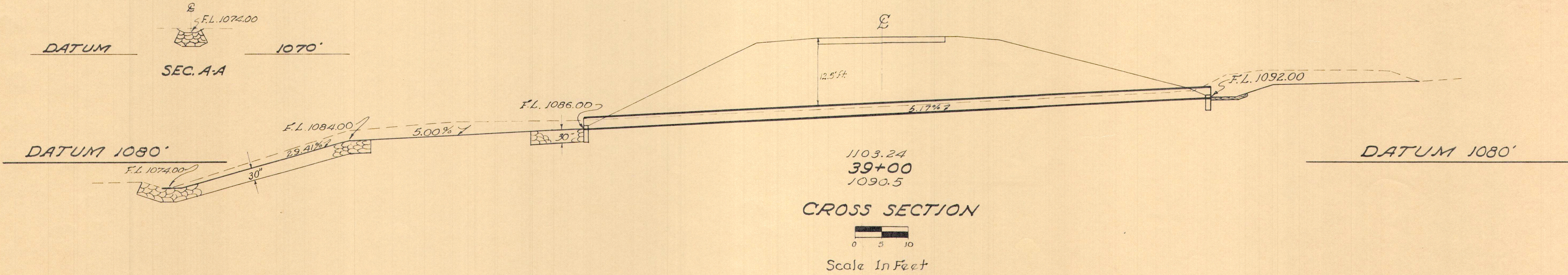




**ESTIMATED QUANTITIES**

24" Pipe, Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)	116 Lin Ft.
Masonry	0.8 Cu. Yd.
Riprap, 6" Reinforced	10 Sq. Yd.
Channel Excavation	32 Cu. Yd.
Dumped Rock Channel Protection	20 Cu. Yd.

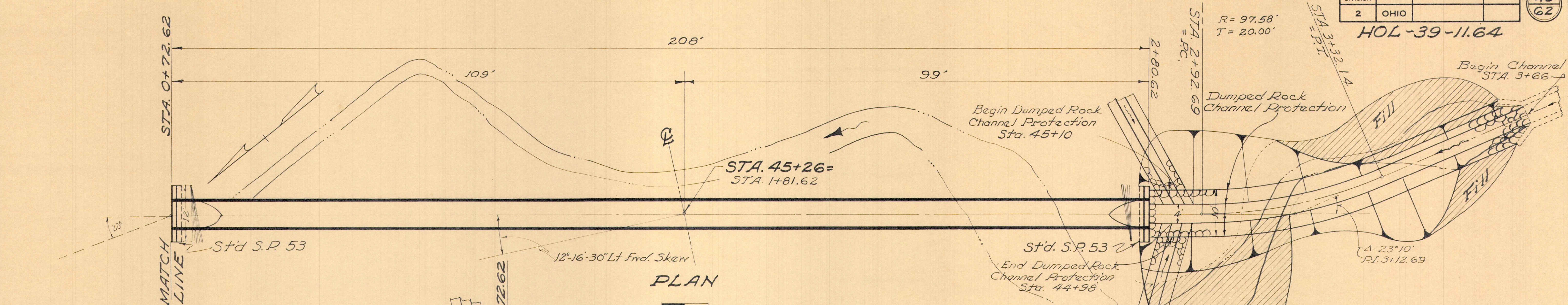
Area: 6 Acres  
Q25: 16 C.F.S.



2-S

STA. 39+00  
24" x 116' PIPE CULVERT

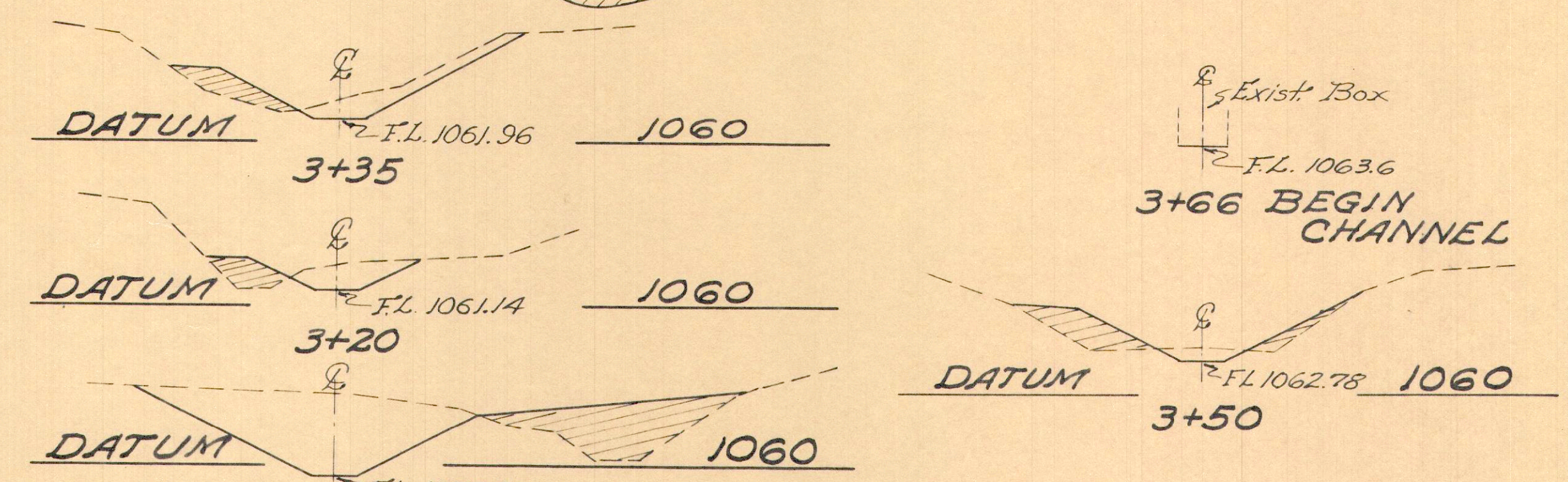
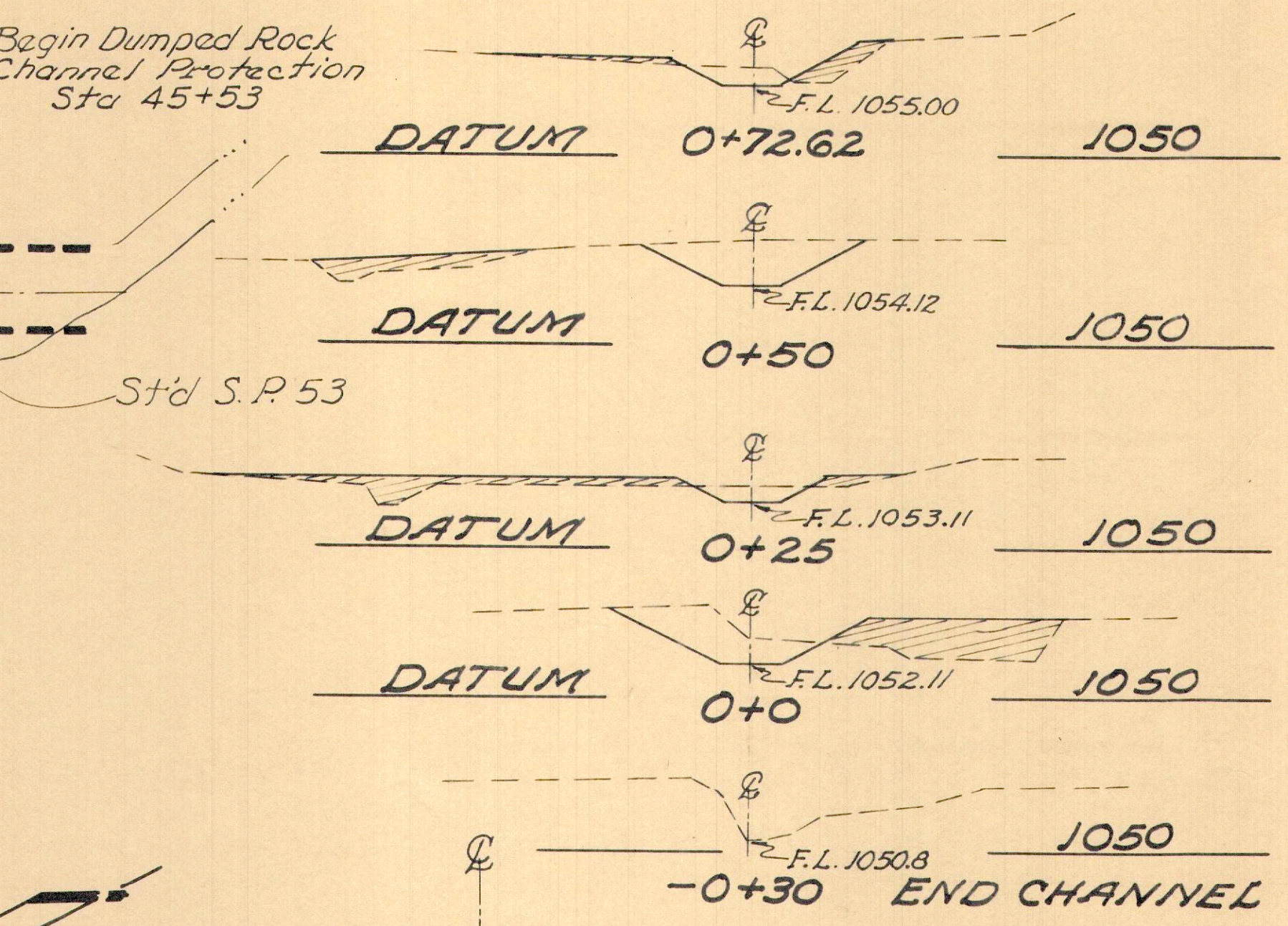
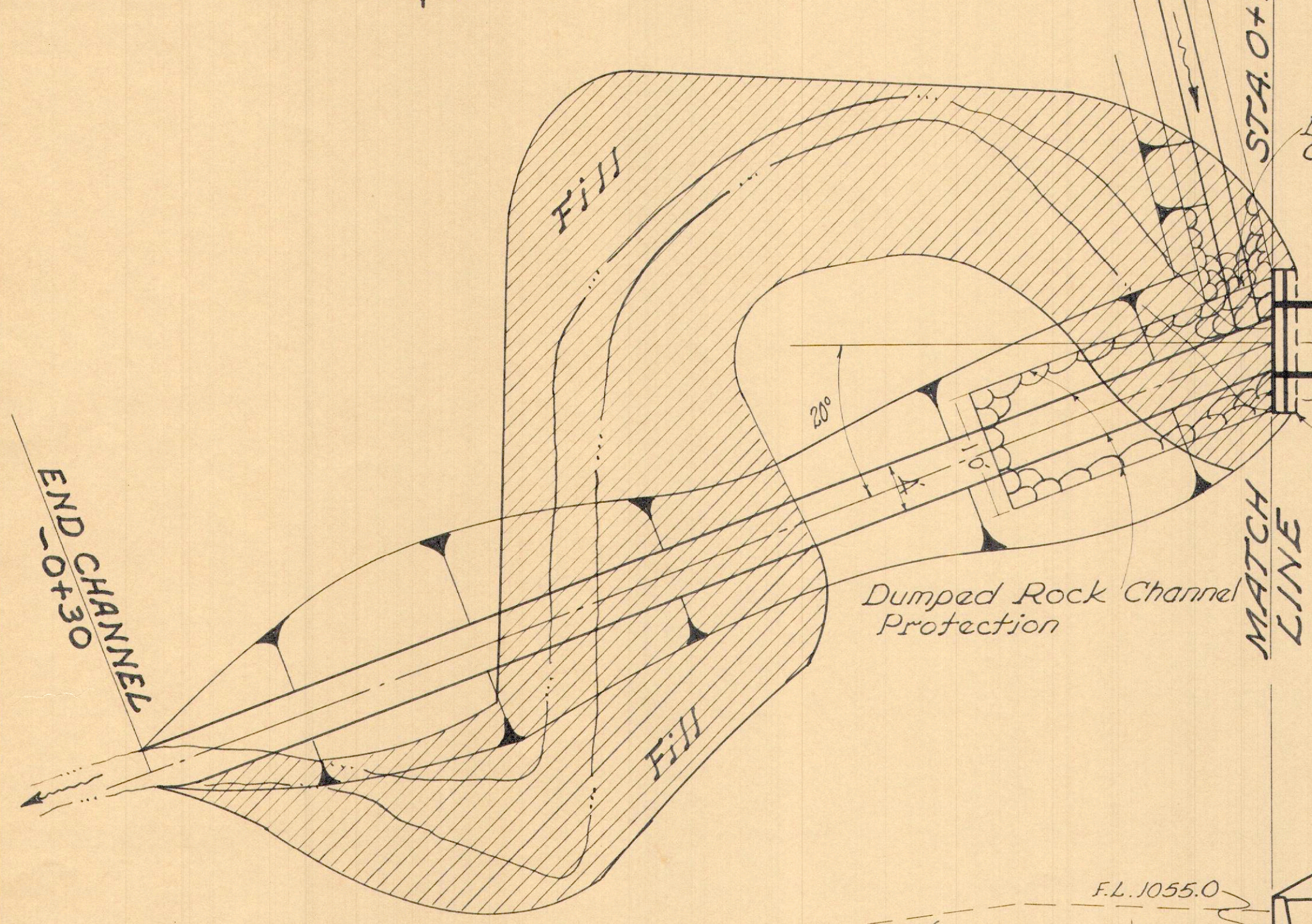




**PLAN**

Scale In Feet

0 5 10

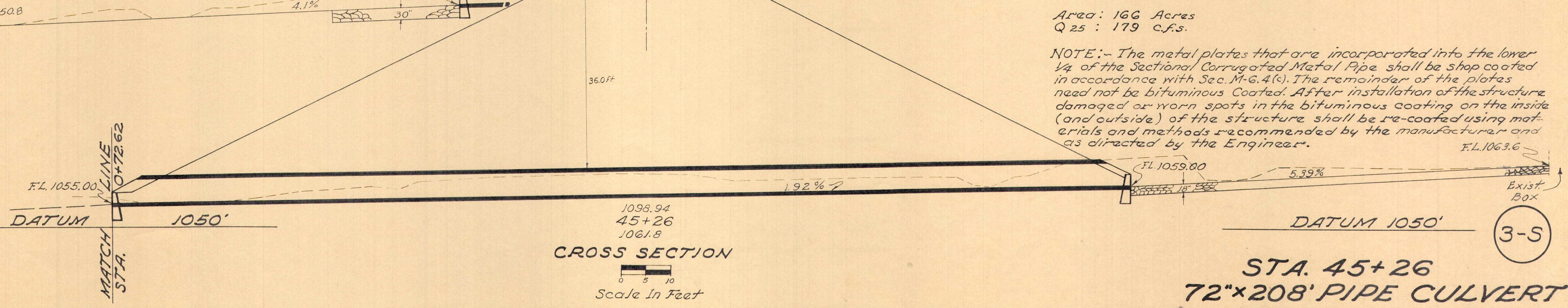


**ESTIMATED QUANTITIES**

72" Pipe, Class A-1, Sec. M-6.4(g)(c) gage 10-8	208	Lin. Ft.
Masonry	6.7	Cu. Yd.
Embankment (Carried to Sh.# 26)	140	Cu. Yd.
Dumped Rock Channel Protection	72	Cu. Yd.
Channel Excavation	163	Cu. Yd.

Area: 166 Acres  
 Q 25: 179 c.f.s.

**NOTE:** - The metal plates that are incorporated into the lower 1/4 of the Sectional Corrugated Metal Pipe shall be shop coated in accordance with Sec. M-6.4(c). The remainder of the plates need not be bituminous coated. After installation of the structure damaged or worn spots in the bituminous coating on the inside (and outside) of the structure shall be re-coated using materials and methods recommended by the manufacturer and as directed by the Engineer.



**CROSS SECTION**

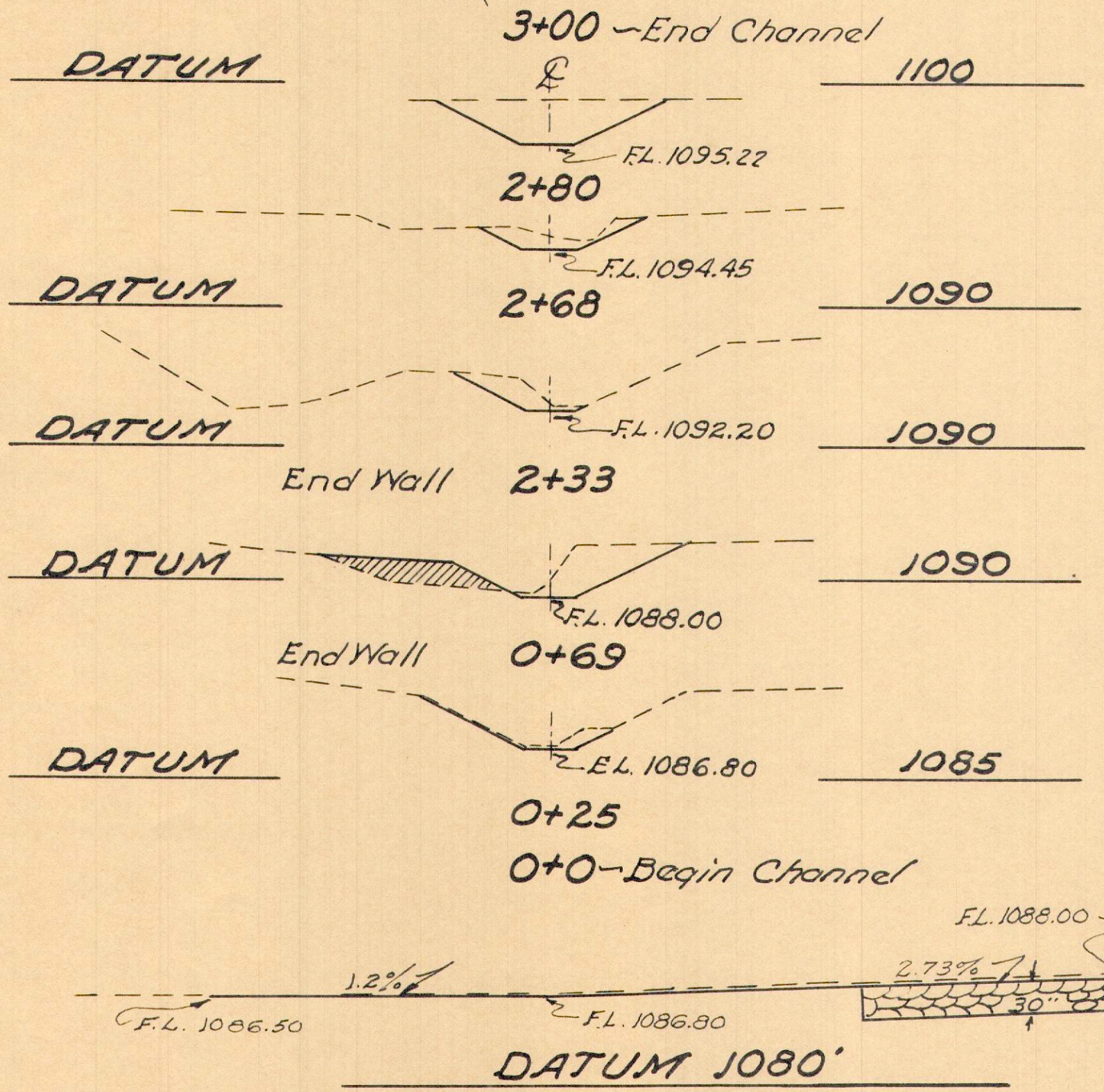
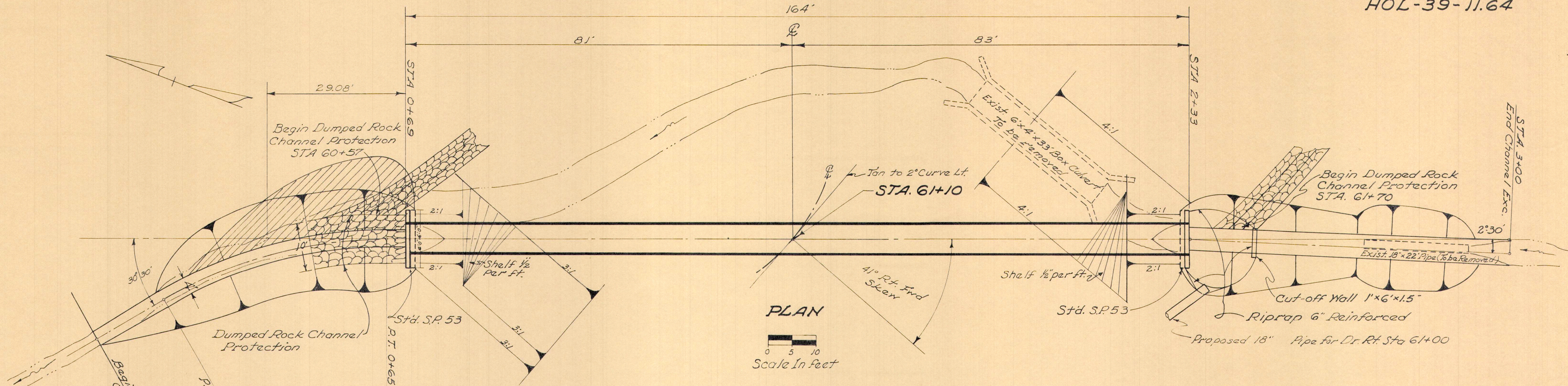
Scale In Feet

0 5 10

**STA. 45+26**  
**72" x 208' PIPE CULVERT**



HOL-39-11.64

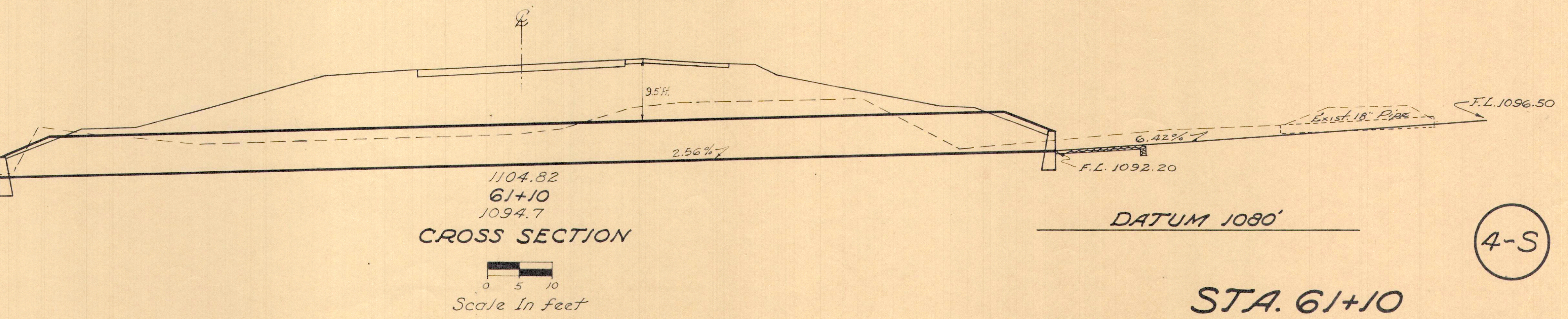


NOTE:- If the Concrete Pipe Alternate is used, the portion of the pipe which extends above the end wall (Shall not be Cut) off in a plane which is parallel to the finished embankment surface. If the Sectional Corrugated Metal Pipe Alternate is used the metal plates that are incorporated into the lower 1/4 of the structure shall be shop coated in accordance with Sec. M-6.4(c). The remainder of the plates need not be bituminous coated. After installation of the structure, damaged or worn spots in the bituminous coating on the inside (and outside) of the structure shall be re-coated using materials and methods recommended by the manufacturer and as directed by the Engineer.

ESTIMATED QUANTITIES

72" Pipe, Class A-1, Sec. M-6.6(b) or Sec. M-6.4(g)(c) Gage 10-10	164 Lin Ft.
Masonry	6.7 Cu. Yd.
Removal of Existing Structure	Lump Sum
18" Pipe Removed	22 Lin. Ft.
Embankment, Carried to Street No. 30	12 Cu. Yds.
Channel Excavation	56 Cu. Yds.
Dumped Rock Channel Protection	10 Cu. Yds.
Riprap 6" Reinforced	24 Sq. Yds.

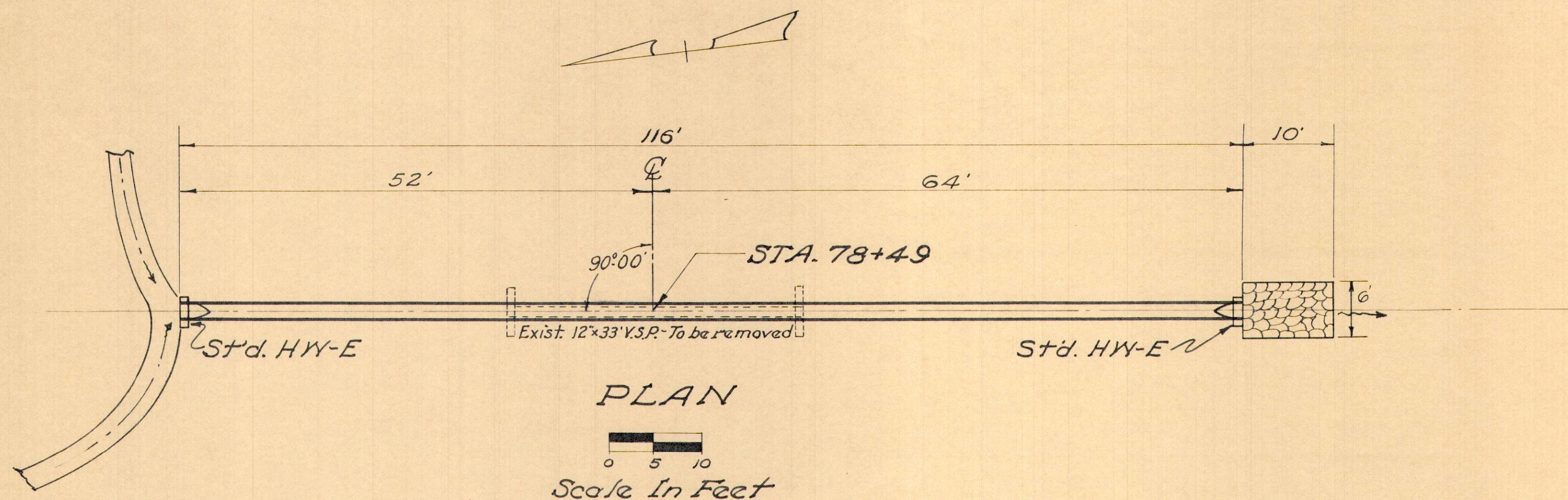
Area: 75 Acres  
Q<sub>25</sub>: 98 C.F.S.



STA. 61+10  
72" x 164' PIPE CULVERT

4-S

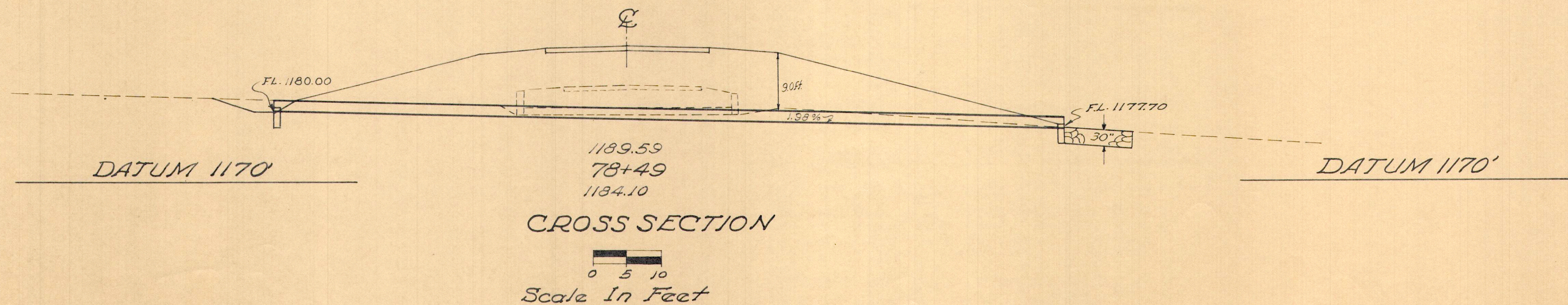




**ESTIMATED QUANTITIES**

18" Pipe, Class A-1, Sec. M-6.6 (b) or Sec. M-6.8 (b)	116	Lin. Ft.
Masonry	0.6	Cu. Yds.
12" Pipe Removed	33	Lin. Ft.
Removal of Portions of Existing Structures	3	Cu. Yds.
Dumped Rock Channel Protection	6	Cu. Yds.

Area: 4 acres  
Q 25: 14 c.f.s.

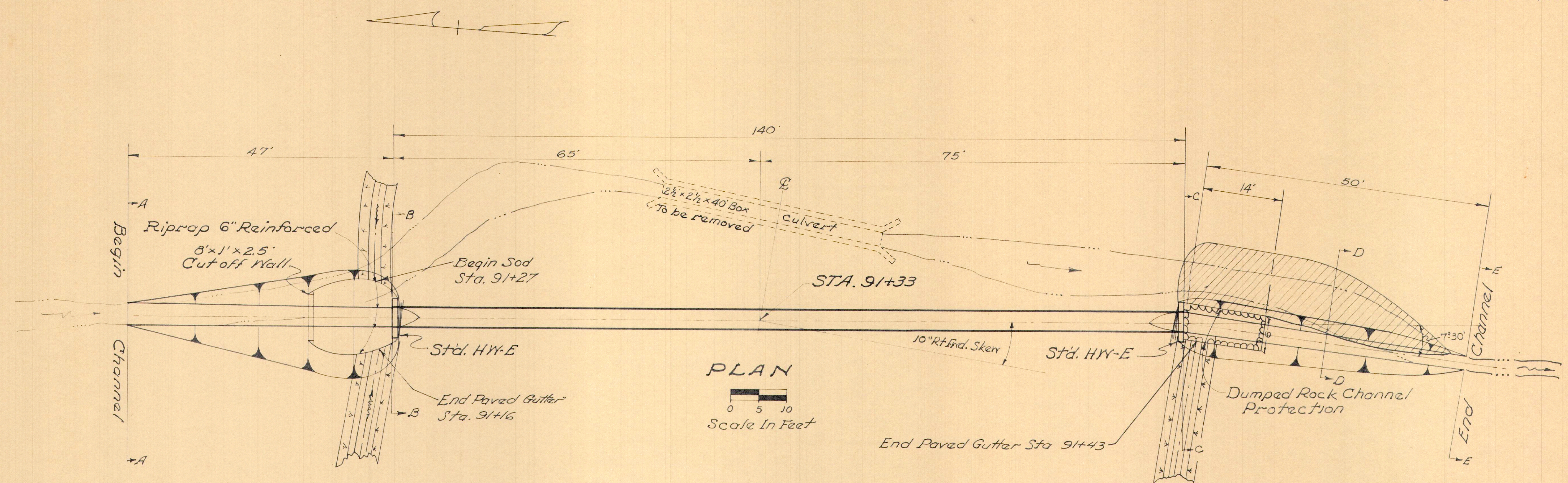


5-S

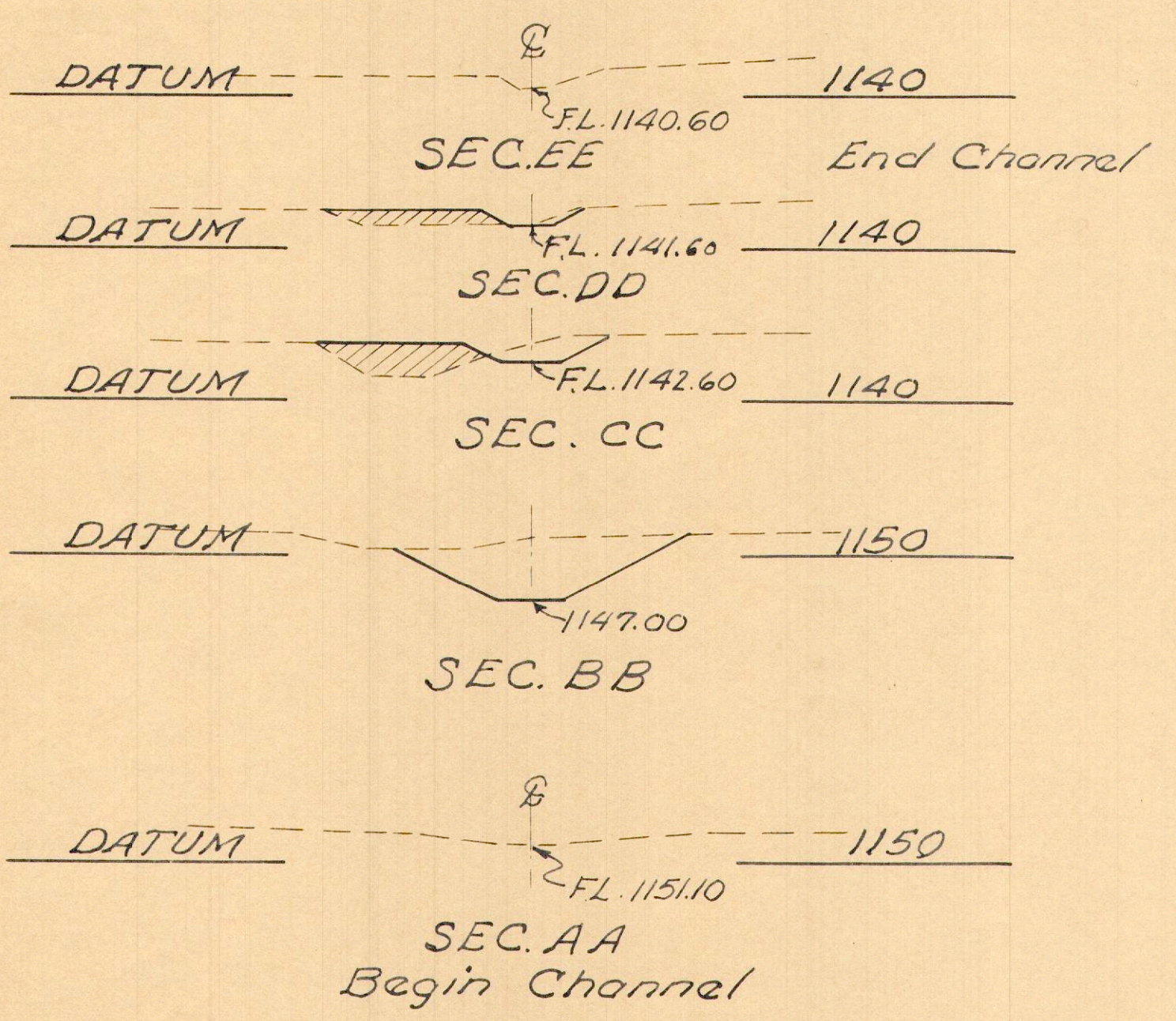
**STA. 78+49**  
**18" x 116' PIPE CULVERT**



HOL-39-11.64



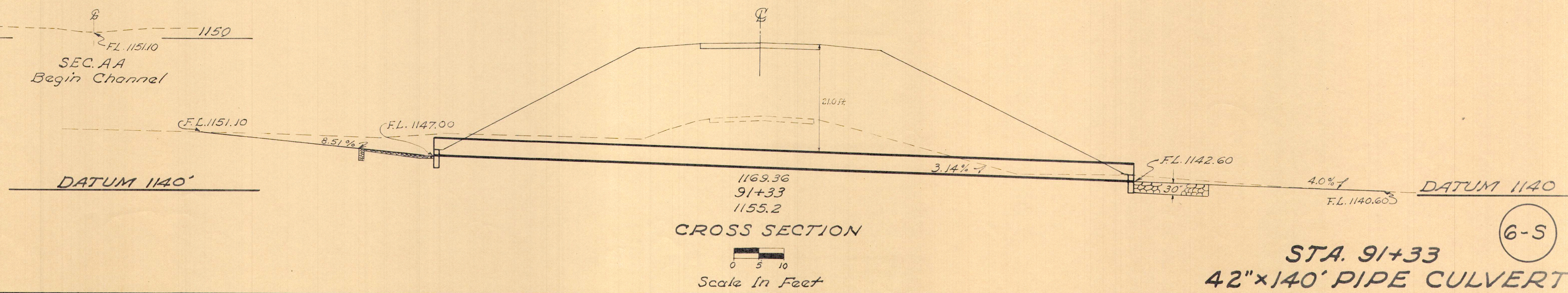
PLAN  
Scale In Feet  
0 5 10



**ESTIMATED QUANTITIES**

42" Pipe, Class A-1 Sec. M-6.6(d) or Sec. M-6.4 (d)	140	Lin Ft.
Masonry	1.5	Cu. Yd.
Removal of Existing Structure	Lump Sum	
Embankment (Carried to Sh.#. 36.)	14	Cu. Yd.
Riprap 6" Reinforced	20	Sq. Yd.
Dumped Rock Channel Protection	9	Cu. Yd.
Channel Excavation	49	Cu. Yd.

Area: 27 acres  
Q25: 52 c.f.s.

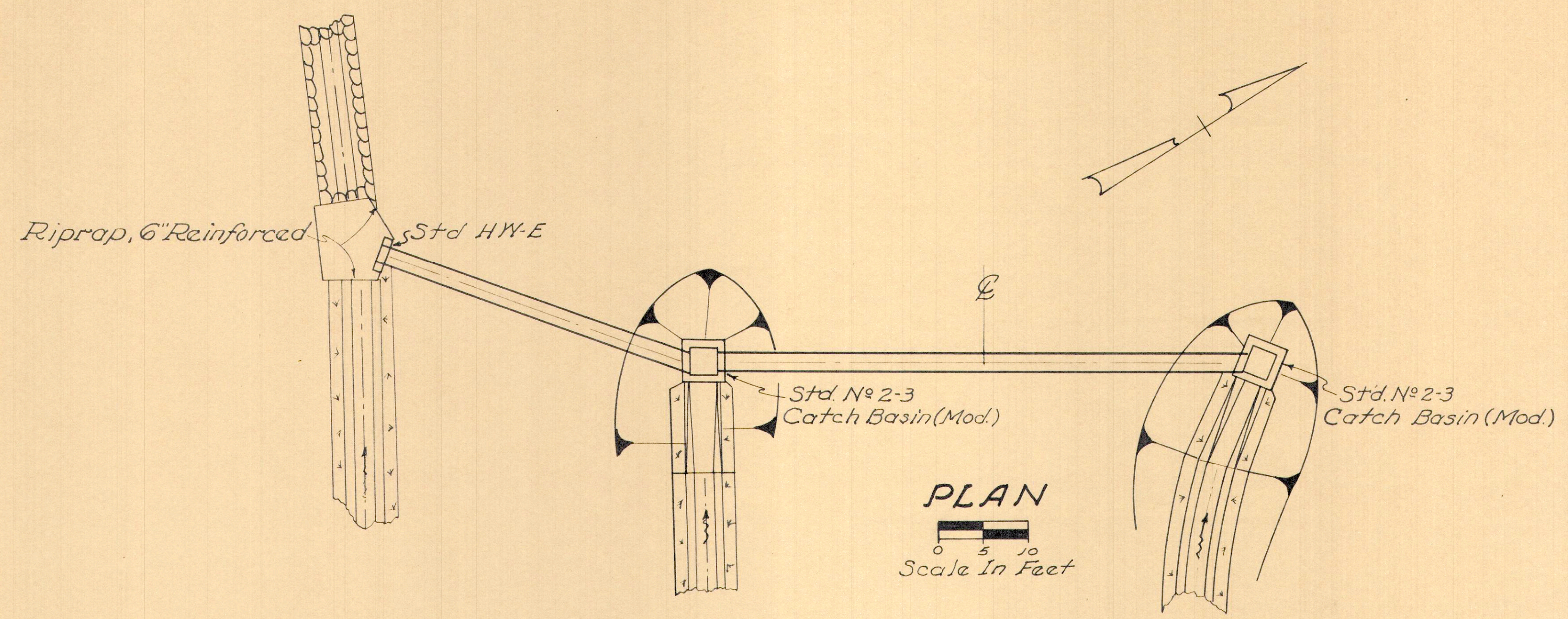


CROSS SECTION  
Scale In Feet  
0 5 10

STA. 91+33  
42" x 140' PIPE CULVERT

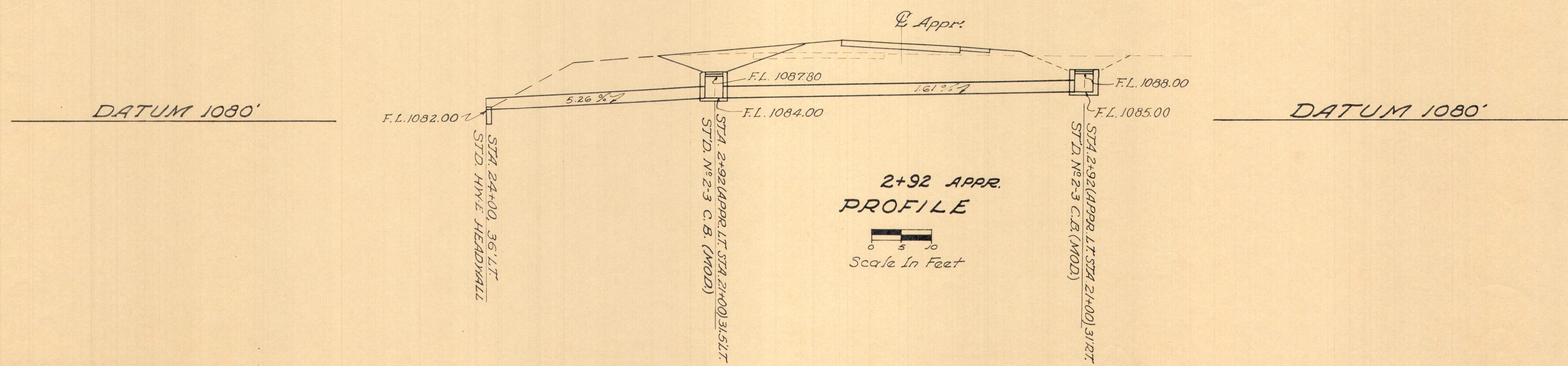


HOL-39-11.64



**ESTIMATED QUANTITIES**

24" Pipe, Class B-1	101 Lin. Ft.
Std. No 2-3 Catch Basin (Mod.)	2 Each
Masonry	0.4 Cu. Yds
Riprap, 6" Reinforced	7 Sq. Yds.



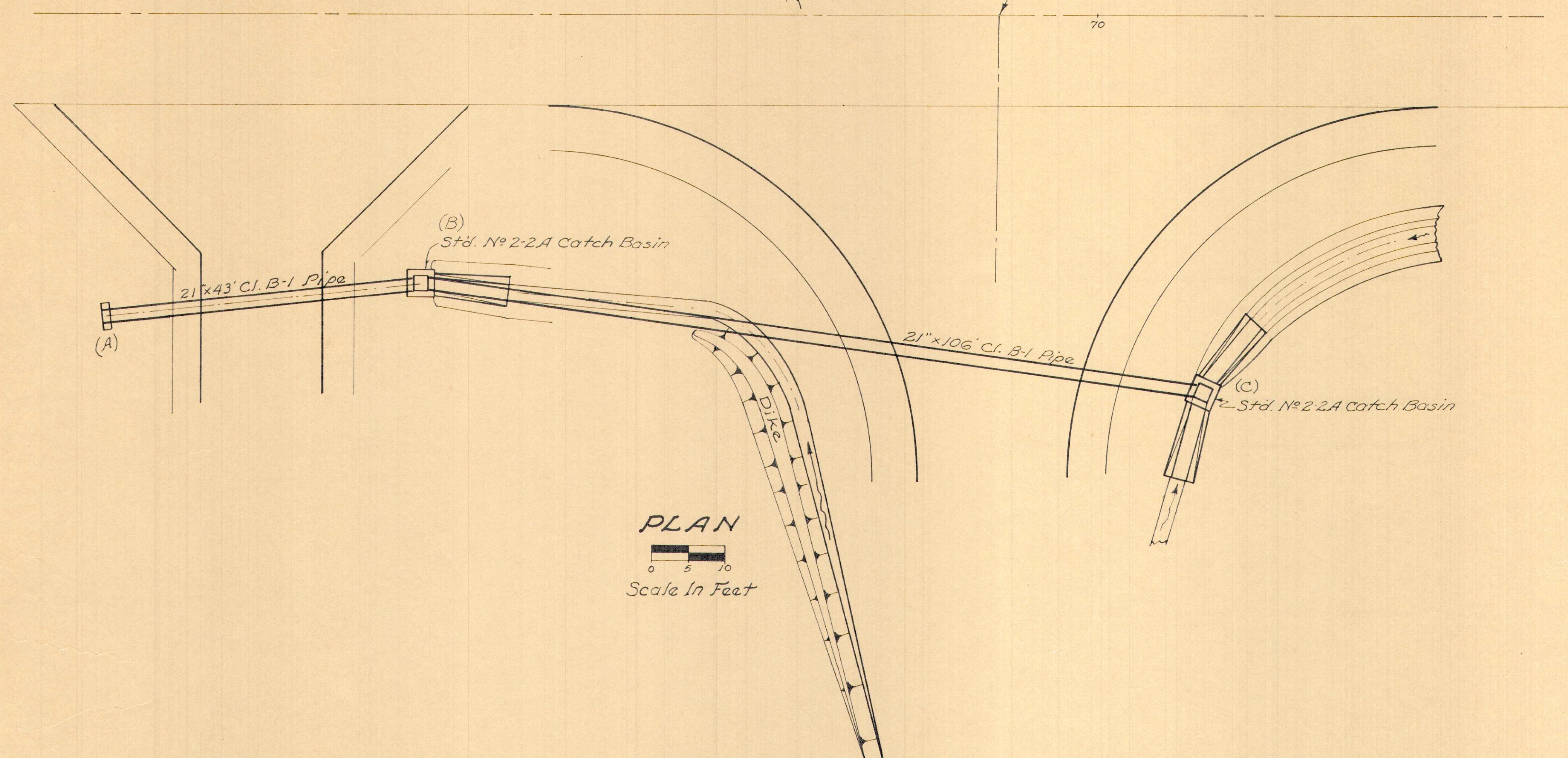
1-SS

**STORM SEWER ON  
APPROACH LT. STA. 21+00**



HOL-39-11.64

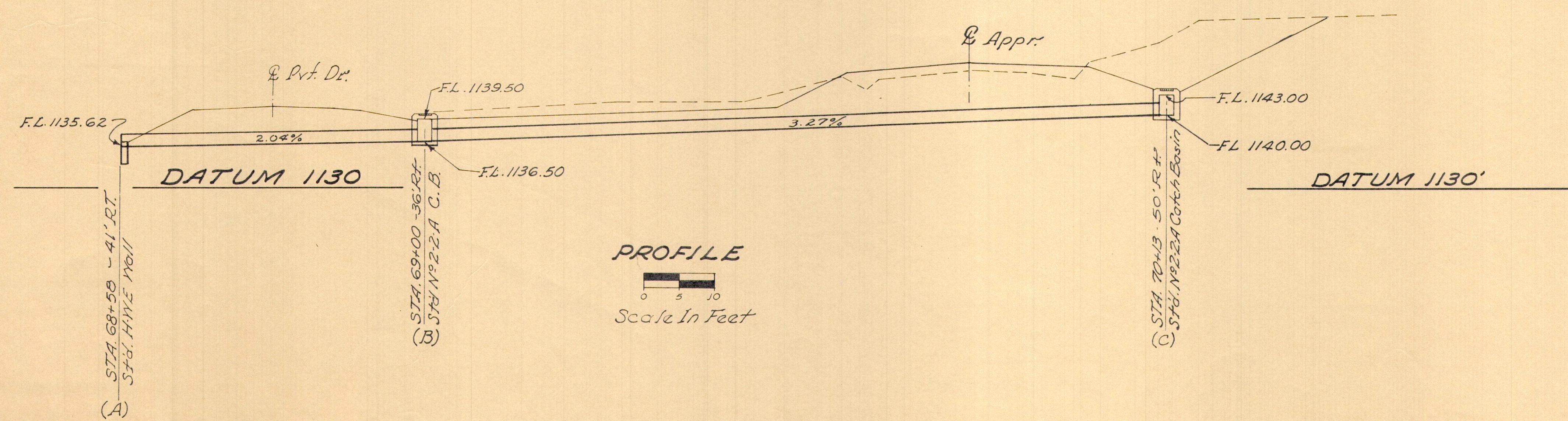
CO. RD. 314  
STA. 69+86.83



PLAN  
Scale In Feet

**ESTIMATED QUANTITIES**

21" Pipe, Class B-1	149 Lin Ft.
Std. No 2-2A Catch Basin	2 Each
Masonry	0.4 Cu. Yds.



PROFILE  
Scale In Feet

2-SS

STORM SEWER UNDER  
CO. RD. 314 RT. STA. 69+86.83