

STATE OF OHIO DEPARTMENT OF HIGHWAYS COL-170-19.81 COLUMBIANA COUNTY UNITY TOWNSHIP

~ CONVENTIONAL SIGNS ~

STATE LINE	-----
COUNTY LINE	-----
TOWNSHIP LINE	-----
CORPORATION LINE	-----
CENTER LINE	-----
PROPERTY LINE	-----
POLE LINE	-----
RAILROAD LINE	-----
GUARD RAIL	-----
DRAIN PIPE	-----
FENCE LINE	-----
Telephone ♂ Electric ♀	-----
New.....Old.....	-----
New.....Old.....	-----

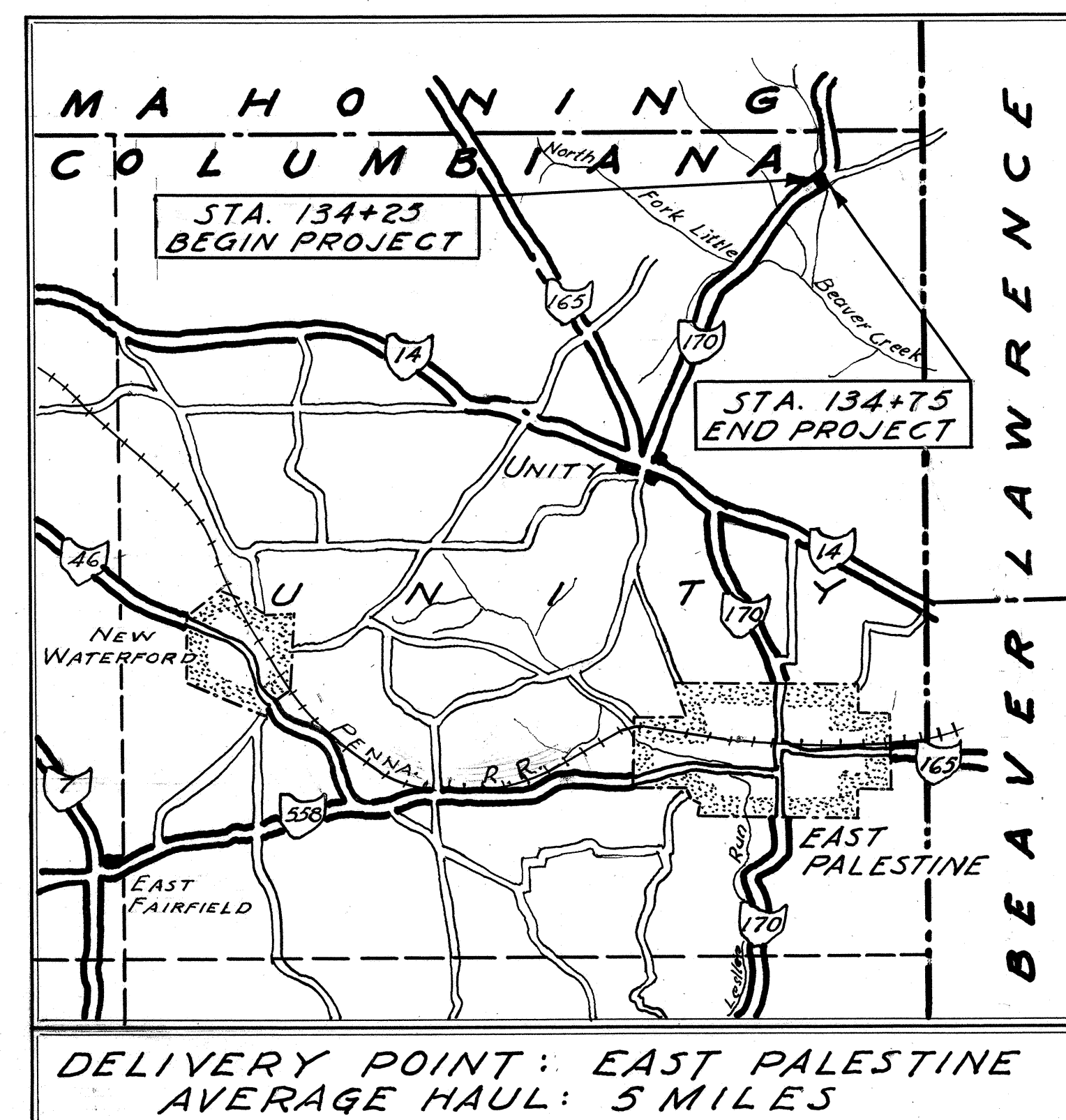
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~ LINE DATA ~

BEGIN PROJECT STA. 134+25
 END PROJECT STA. 134+75
 NET LENGTH OF PROJECT = 50 LIN. FT. OR 0.009 MILE

BEGIN WORK STA. 133+25
 END WORK STA. 137+00
 NET LENGTH OF WORK = 375 LIN. FT. OR 0.071 MILE



LOCATION PLAN

Scale 1"=1 MILE

PORTION TO BE IMPROVED STATE HIGHWAYS
 OTHER ROADS

SCALES

PLAN 1"= 50'
 PROFILE HORIZONTAL 1"= 50'
 PROFILE VERTICAL 1"= 10'
 CROSS SECTIONS 1"= 10'

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

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

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

Approved Dean R. Sever
 Date 1-20-56 Division Deputy Director

Approved John H. Hines
 Date 8-2-56 Deputy Director of Planning and Programming

Approved W. C. Worman
 Date 7-30-56 Engineer of Bridges

Approved E. S. Putter
 Date 7-31-56 Engineer of Location and Design

Approved H. J. Gerold
 Date 7-31-56 Deputy Director of Design and Construction

Approved V. J. Knaubler
 Date 8-2-56 First Assistant Director

Approved J. H. Russell
 Date 8-3-56 Director of Highways

CONSTRUCTION
 & BUREAU
 MARCH 1956
 GROUND PHOTOS

STANDARD DRAWINGS

G-7.07	6-1-56	L-3-A	4-1-50			
T-35	1-2-56	I-15 No. 2-A	7-2-56			
RI-1	1-3-55					
I-15 No. 1	8-1-55					
I-15 No. 2	12-1-54					
SP-53	7-21-53					
L-1	4-1-50					
L-3	4-1-50					

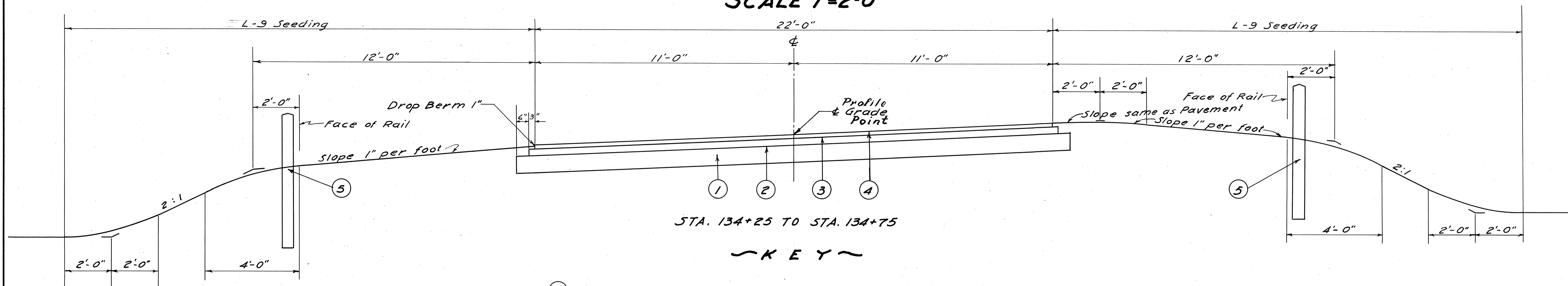
SUPPLEMENTAL SPECIFICATIONS

B-119	Rev.	6-30-56
G		12-28-55
L-209.12		7-17-54

FILE	COL-170-19.81
No	DATE OF LETTING _____ 195__
	CONTRACT No _____

TYPICAL SECTION TYPE-T-35 ON B-119

SCALE 1"=2'-0"



STA. 134+25 TO STA. 134+75

~ KEY ~

- ① Item B-119 9" Crushed Aggregate Base Course.
- ② Item T-30 Bituminous Prime Coat, using 0.35 Gal. per Sq. Yd.
- ③ Item B-35 3" Asphaltic Concrete Base Course (70-80).
- ④ Item T-35 2" Asphaltic Concrete Surface Course, Type "A" (70-80).
- ⑤ Item I-15 Guard Rail, Steel Beam Type (Deep).

GENERAL NOTES

SEEDING: Quantities for seeding are calculated for the soil areas within the construction limits as shown on the plans and payment shall not be made for seeding beyond these limits. Areas outside construction limits where the Engineer determines that the existing grass areas have been disturbed by construction operations shall be seeded in accordance with Section G-7.09 at the Contractor's expense.

TREES: Payment for removal of trees and stumps shall be included in the lump sum bid for Item E-9. Approximately 7 trees and stumps, 12 inches or more in diameter, are to be removed.

FIELD OFFICE: The Contractor shall provide a suitable "Field Office" in accordance with Section S-0.01 (b) having a minimum of 150 square feet of floor space. The Contractor shall have a telephone installed and maintained during construction of the project.

S-15 MATERIAL: The aggregate for the S-15 material used on this project shall meet the requirements of Section I-18.02. Method of measurement shall be in accordance with Section I-18.04.

BITUMINOUS CONCRETE BASE COURSE: B-35 base course may be constructed of Type "A" surface course composition.

GUARD RAIL REMOVED AND REBUILT: Existing guard rail consists of wood posts and steel beam type (deep) rail. The guard rail was erected in 1952 and is in good condition. The Contractor shall exercise care in the removal operations. Guard rail shall be set 10 feet from the edge of pavement as shown on the typical section. Care shall be exercised in locating the posts so as to fit the new structure.

TRAFFIC: The Contractor shall maintain traffic at all times in accordance with the requirements of Section G-7.07 and Item S-15. The item of "Maintaining Traffic" shall include furnishing all lights, signs, barricades and watchmen necessary to secure the flow of traffic 24 hours daily.

SUMMARY OF QUANTITIES

PAVEMENT CALCULATIONS

Area of Pavement	=	$50 \times 22 \div 9$	=	123 Sq.Yds.
Item E-1, Compacted Subgrade Same as Pavement Area	=		=	123 Sq.Yds.
Item B-119		$50 \times 23.5 \times 0.75 \div 27$	=	33 Cu.Yds.
Item T-30		$50 \times 23.5 \div 9$	=	131×0.35 = 46 Gals.
Item B-35		$50 \times 22.5 \times 0.25 \div 27$	=	11 Cu.Yds.
Item T-35		$123 \times 2 \div 36$	=	7 Cu.Yds.
Item 5-15 Aggregate Length of Runaround = 275 Lin. Ft.		$275 \times 109 \div 100$	=	300 Cu.Yds.
Item 5-15 Calcium Chloride		$300 \div 50$	=	6 Tons

Station		Emb.	Emb + 20%	Seeding	Fertilizer	Lime
From	To	Cu. Yds.	Cu. Yds.	Sq. Yds.	Lbs.	Lbs.
134+00	135+00	268	322	2500	450	2250
Totals		268	322	2500	450	2250

NOTE: Embankment shall be made from Channel Excavation, See Sheet 7.
 Water for Embankment and B-119 = $268 + 4 = 272 \times 5 \div 1000 = 2$ M-Gals.

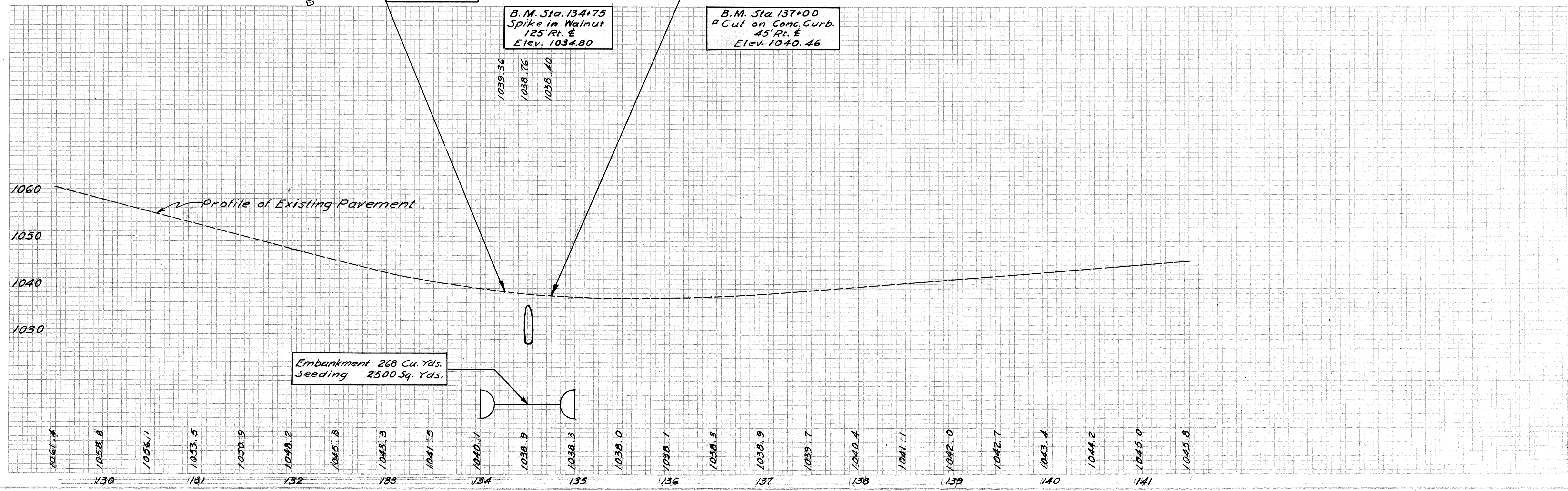
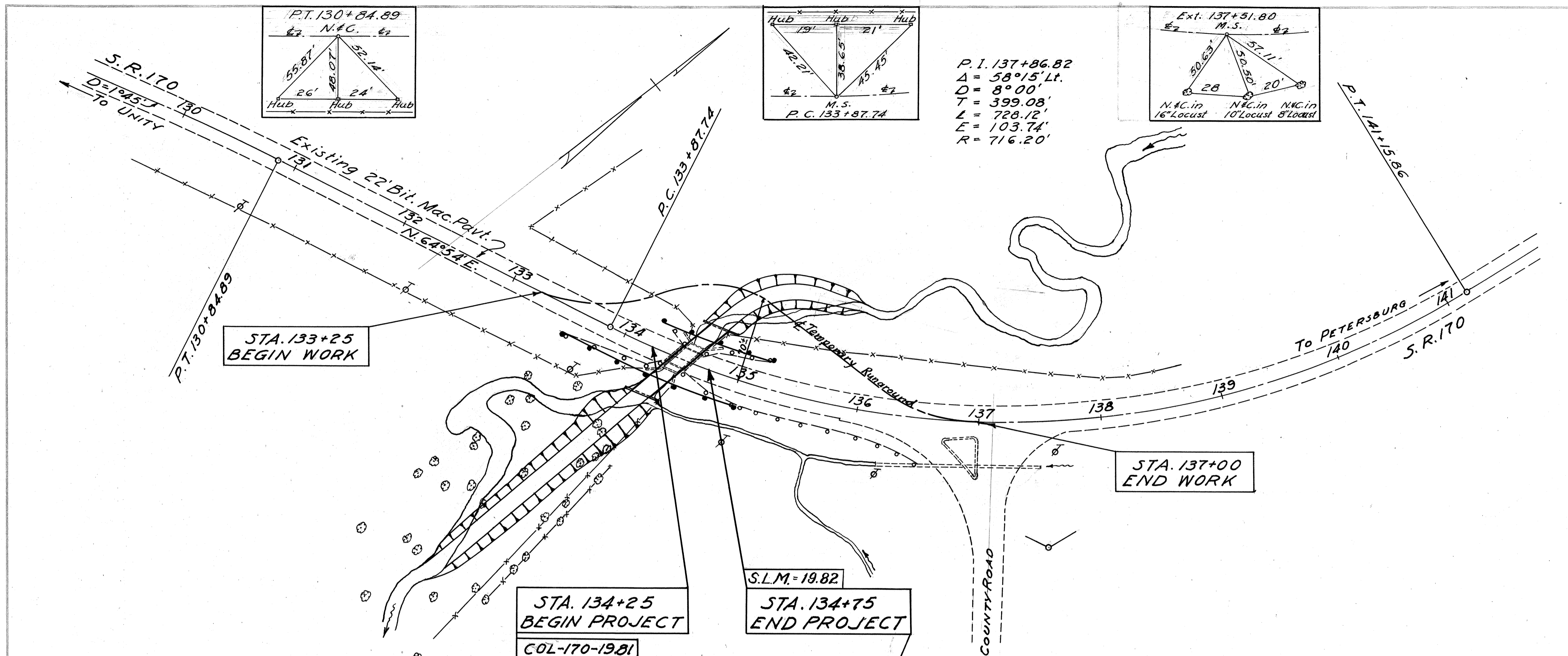
GENERAL SUMMARY

Carried from Sheet No.				ITEM	QUANTITY	UNIT	DESCRIPTION ROADWAY
3	4	7					
123				E-1	123	Sq.Yds.	Compacted Subgrade.
	Lump			E-9	Lump	Lump	Removal of Trees and Stumps.
				E-11	2	M-Gals.	Water.
				I-15	175	Lin.Ft.	Guard Rail Removed and Rebuilt.
				I-15	75	Lin.Ft.	Guard Rail, Steel Beam Type (deep).
2500				L-9	2,500	Sq.Yds.	Seeding and Protecting.
0.23				L-9	0.23	Ton	Commercial Fertilizer (10-6-4).
1.13				L-9	1.13	Tons	Agricultural Liming Materials.
DRAINAGE							
			43	E-2	43	Cu.Yds.	Excavation for Structures.
			1,127	E-3	1,127	Cu. Yds.	Channel Excavation, as per plan.
			40	I-10	40	Cu.Yds.	Dumped Rock Fill, as per plan.
			21	5-1	21	Cu.Yds.	Concrete for Structures, Class E.
				Lump	5-15	Lump	Temporary Run Around, Bridge and Approaches.
300				5-15	300	Cu.Yds.	Furnishing and Placing Aggregate for Traffic Bound Surface Course, as per Plan.
6				5-15	6	Tons	Furnishing and Applying Calcium Chloride or Calcium Magnesium Chloride.
				Lump	5-24	Lump	Removal of Existing Structures, as per Plan.
			84	5-28	84	Lin. Ft.	13' 5" Span X 8' 5" Rise Sectional Corrugated Metal Structure, 5-3 Gage, Sec. M-6.A (g).
PAVEMENT							
			33	B-119	33	Cu.Yds.	Crushed Aggregate Base Course.
			46	T-30	46	Gals.	Bituminous Prime Coat, Sec. M-5.2, RC-1 or RC-2 or Sec. M-5.7, RT-2 or RT-3.
			11	B-35	11	Cu. Yds.	Asphaltic Concrete Base Course (70-80), as per plan.
			7	T-35	7	Cu.Yds.	Asphaltic Concrete Surface Course Type A, (70-80).

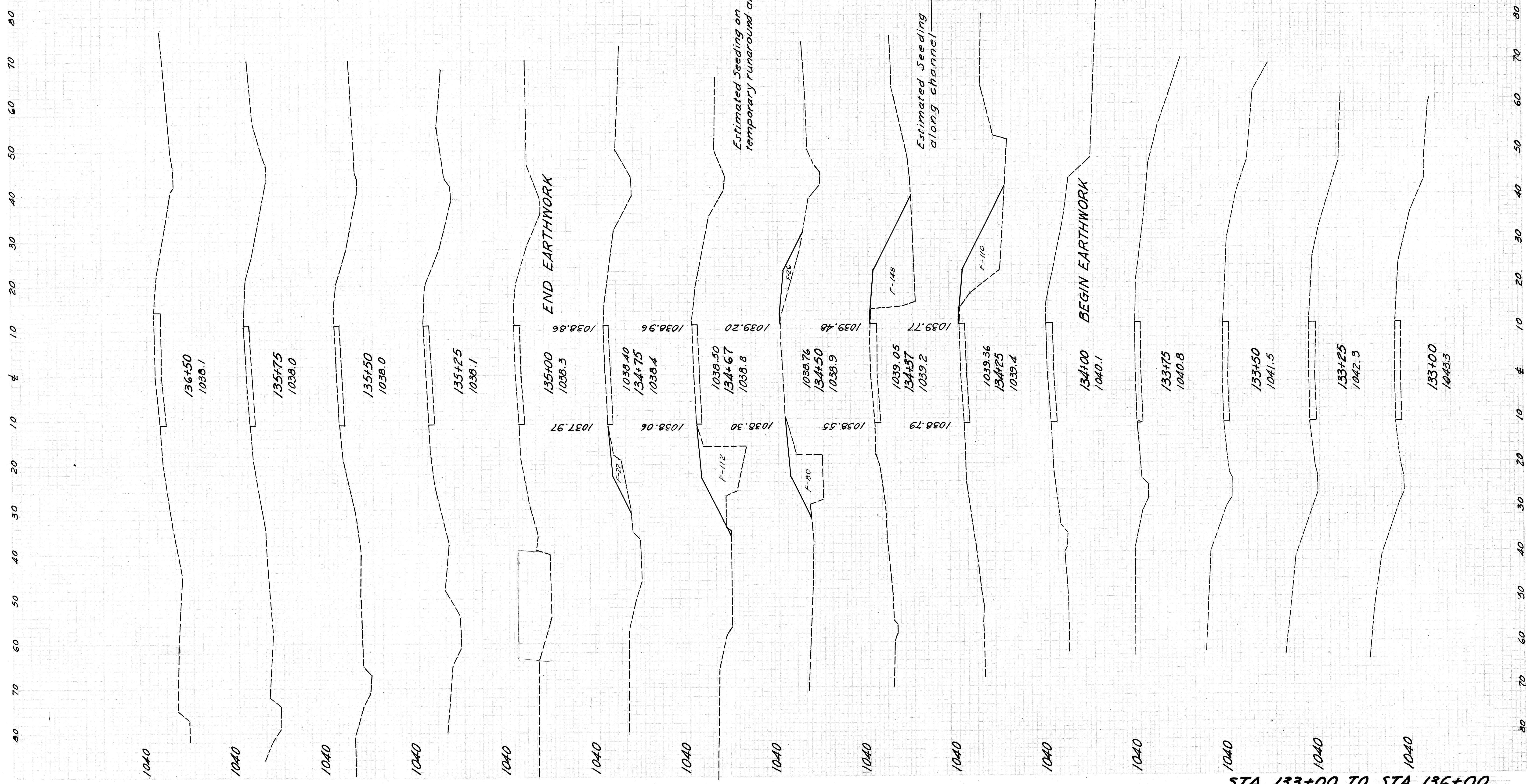
GUARD RAIL				
From Sta.	To Sta.	Side & Remove & Rebuild-Lin.Ft.	New-Lin.Ft.	
133+55	135+05	Rt.	125	25
134+25	135+25	Lt.	50	50
Totals			175	75

CULVERTS					
Station Sheet	See	New Work			Removals
		Type	Size	Length	
134+51.1	6 & 7	Pipe Arch	13'-5" x 8'-5"	84'	See Sheets 6 & 7
Total					7

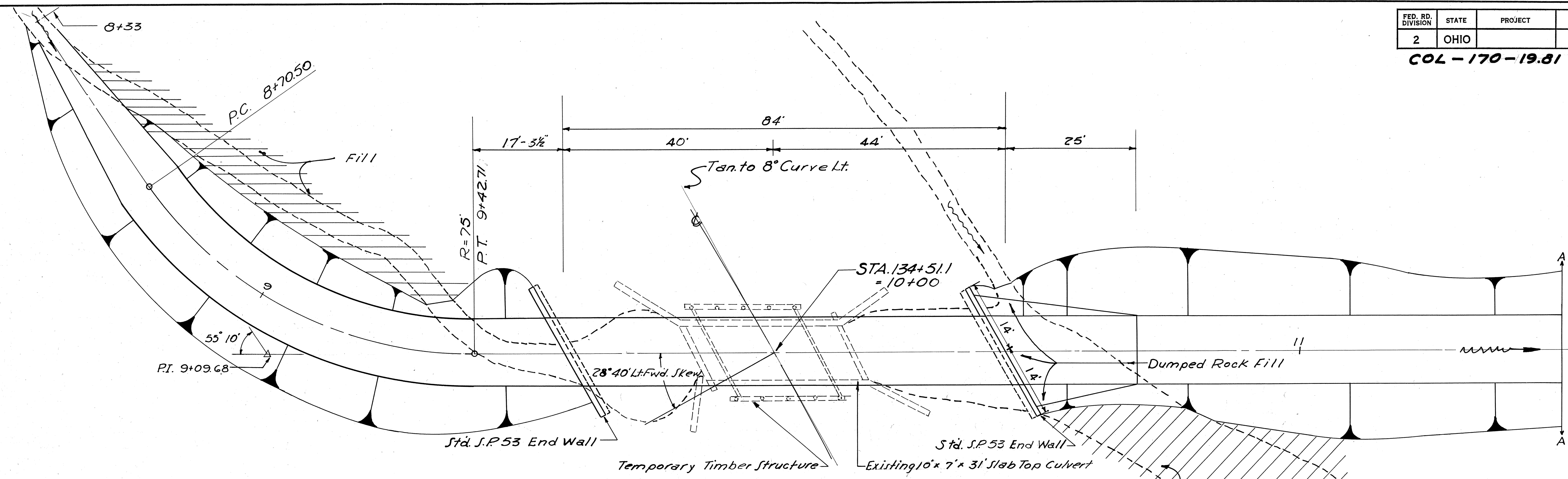
TREE REMOVAL					
Station	From	To	Side &	Each	
				12"-18"	18"-24"
133+50	134+30		Rt.	5	2
Total					7



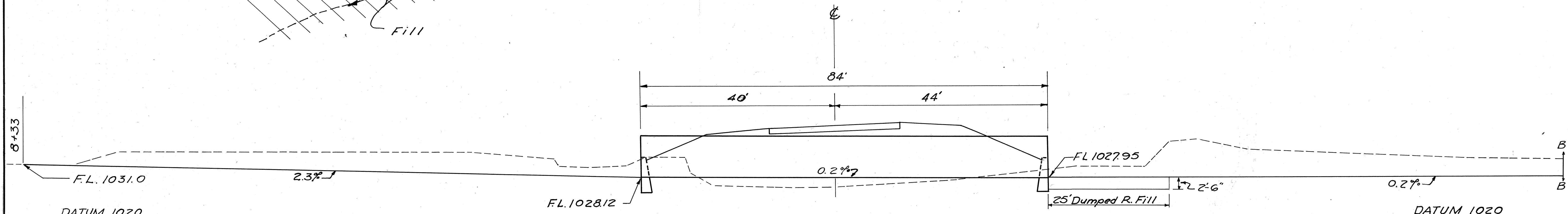
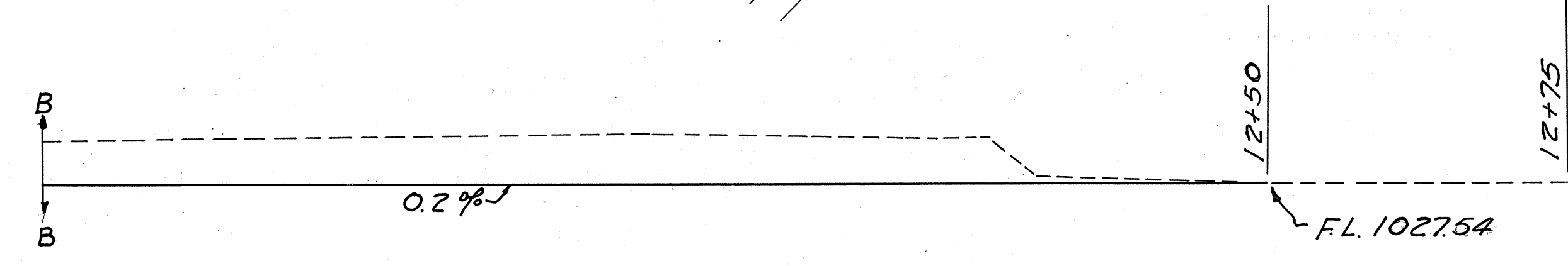
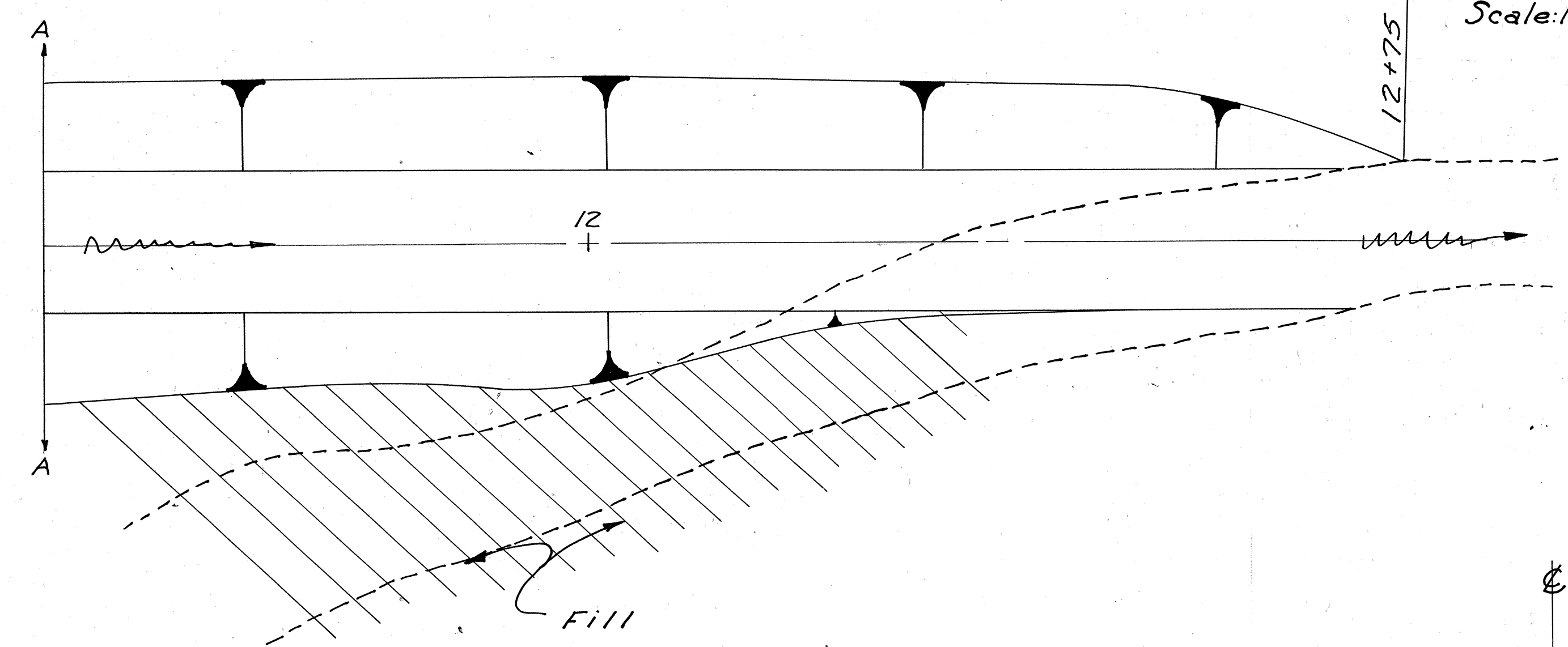
SEEDING END AREA CUT/DS.	Width 10' to 15' CUT/FILL Exc. Emb.	SEEDING END AREA CUT/DS.		Width 10' to 15' CUT/FILL Exc. Emb.	
		0	10	0	10
		112	0	0	0
		64	0	10	0
		34	0	22	0
		33	0	20	0
		40	0	112	0
		79	0	69	0
		44	0	106	0
		62	0	61	0
		42	0	148	0
		59	0	57	0
		46	0	110	0
		81	0	51	0
		112	0	0	0



STA. 133+00 TO STA. 136+00



PLAN
Scale: 1"=10'



1038.75
134+51.1
1038.9
CROSS SECTION
Scale: 1"=10'

134+51.1
13'-5" x 8'-5" x 84' PIPE-ARCH CULVERT
SHEET 1 OF 2 SHEETS

REMOVAL OF EXISTING STRUCTURES: Existing structures consist of a 10' x 7' x 31' concrete slab top culvert, which partially failed during a flash flood, and a 17' span temporary timber bridge with steel beams and plank floor with 16' roadway. Portions of concrete culvert were removed when temporary bridge was constructed. When no longer needed to maintain traffic existing structures shall be removed. Backing plank shall be removed and piles cut off at least 3 ft. below subgrade and further where necessary for new construction. The concrete culvert shall be removed. Suitable waste masonry shall be used as bank protection where directed by the Engineer. The existing steel beams, plank floor and railing shall be piled along the right of way as directed by the Engineer and left at the disposal of the State's forces. The remainder of the removed materials shall become the property of the Contractor.

CHANNEL EXCAVATION: Suitable channel excavation shall be used in roadway embankment. Remainder of channel excavation shall be used to backfill old channel as directed by the Engineer.

NOTE: All Dumped Rock, Item I-10, used at outlet of culvert shall be uniformly placed and at least 50% of the pieces shall weigh at least 75 pounds. Excavation necessary for placing dumped rock shall be included in the unit price bid per Cu. Yd., Item I-10, Dumped Rock Fill.

NOTE: For details not shown see Std. Drawing S.P.-53. Plates shall be formed with 2" corrugations and shall be No. 3 gage for bottom and corner plates and No. 5 gage for all others.

NOTE: Backfill: Channel Excavation has been calculated through the roadway area for the entire length of pipe culvert. Backfill around the structure shall be placed in accordance with the requirements of Sec. E-2.08. Payment shall be included in the unit price bid per Cu. Yd. of Item E-3, Channel Excavation.

TEMPORARY RUN-AROUND BRIDGE AND APPROACHES: Bridge frequency rating, CF=130. Grade to be approximately the same as the existing pavement. Surface course shall be traffic compacted and quantities of aggregate and chloride are included in the General Summary. See Sheet 3.

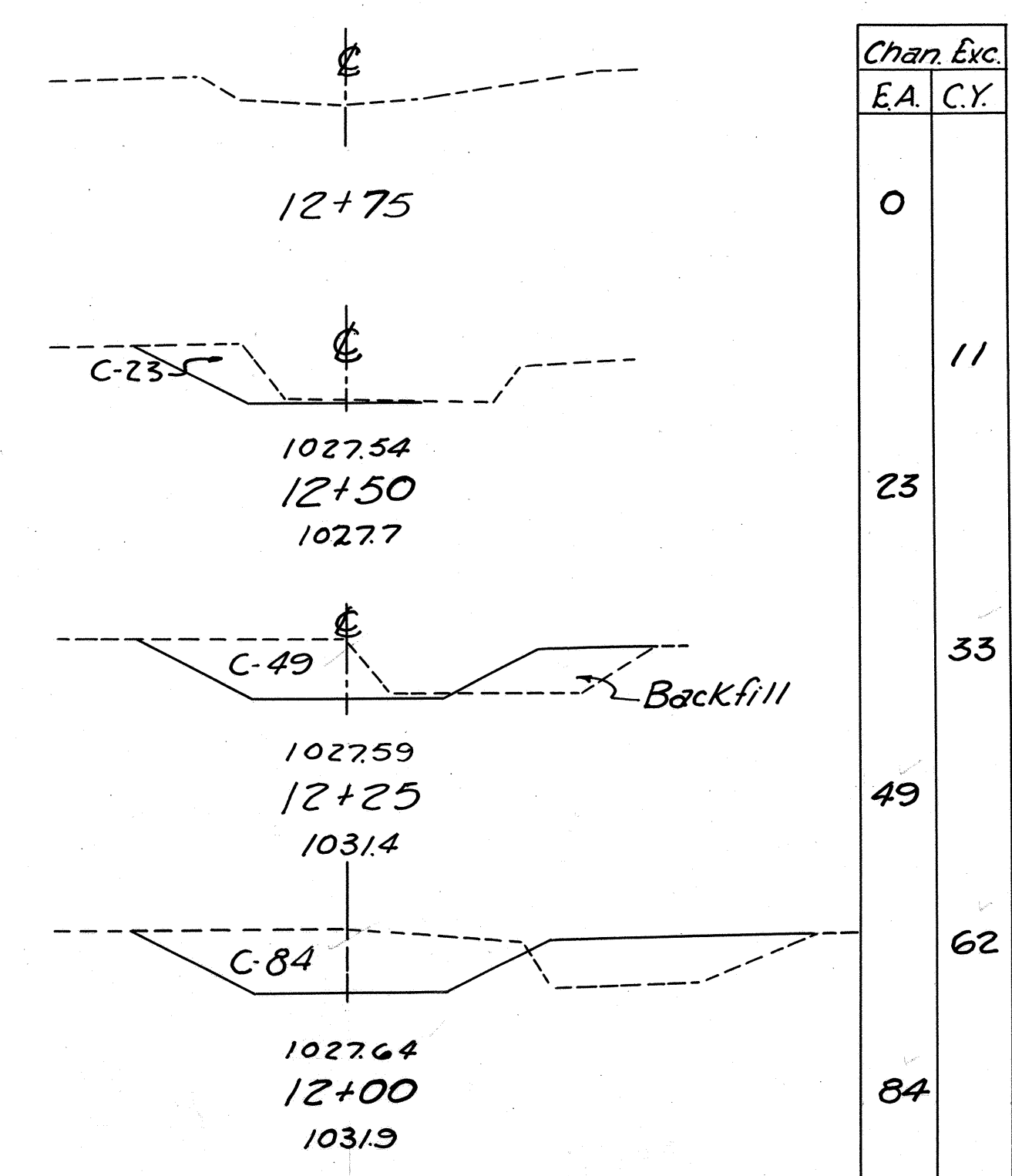
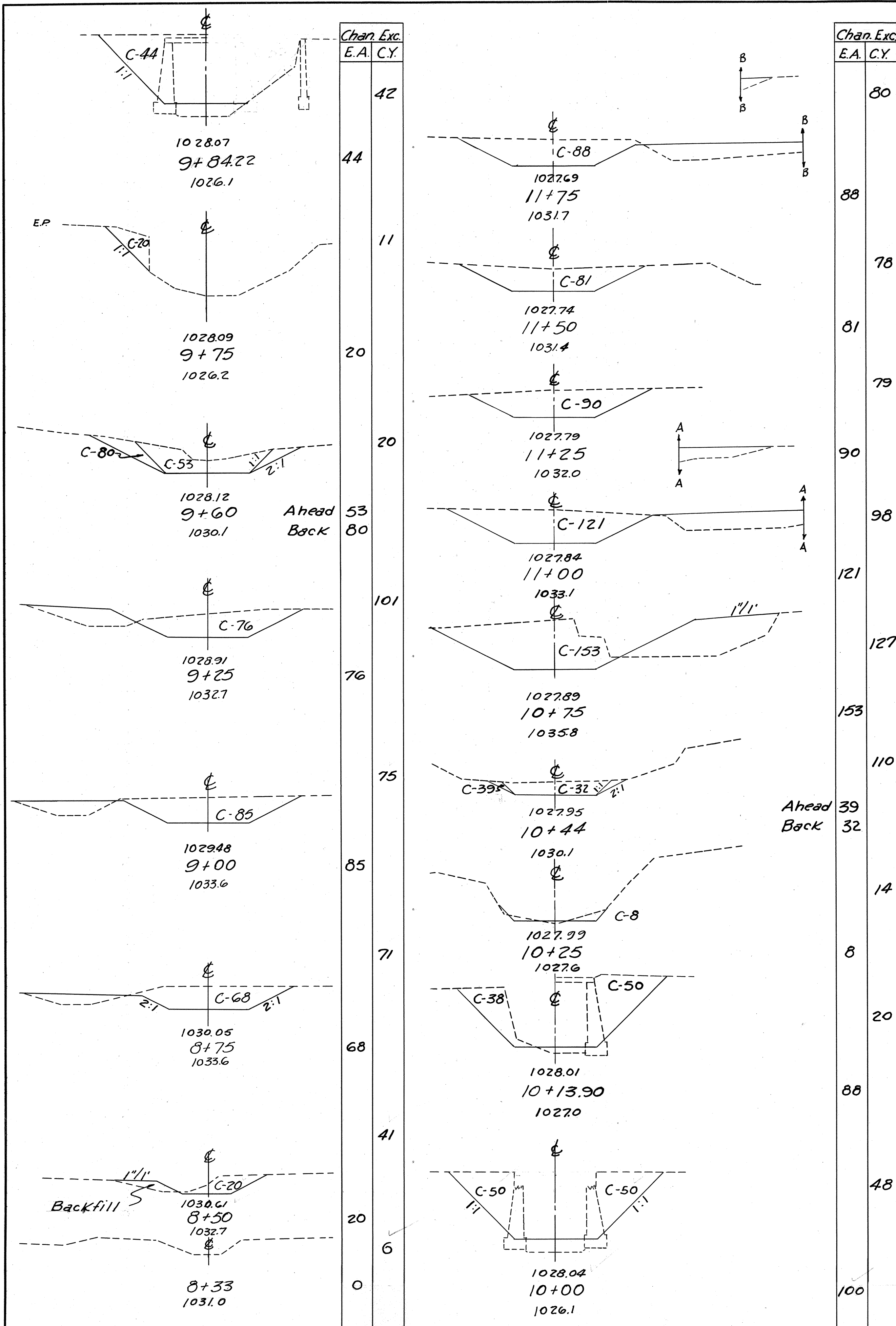
WORK REQUIRED

Build Pipe Arch Culvert, inlet and outlet channels as shown.

ESTIMATED QUANTITIES

13'-5" x 8'-5" Sec. Corr. Plate Pipe Arch Culvert M-C46 84 L.F.
 Excavation for Structures 43 C.Y.
 Channel Excavation 1127 C.Y.
 Dumped Rock Fill 40 C.Y.
 Concrete for Structures "Class E" 21 C.Y.
 Removal of Existing Structures Lump Sum
 Temporary Run-Around Bridge and Approaches Lump Sum

Area: 1083 acres
 Q₂₅ (Calculated): 585 c.f.s.
 Q₂₅ (Field Observation): 700 c.f.s.



134+51.1
13'-5" x 8'-5" x 84' PIPE-ARCH CULVERT
 SHEET 2 OF 2 SHEETS

UNITY TWP — SEC. 1 — T. 8 — R. 1

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

COL-170-19.81
R/W PLAN

(1-T) (1-X) (1-Y)

Roy Beight et al

1-T Total Area = 0.10 Ac.

1-X Total Area = 0.25 Ac.

1-Y Total Area = 0.32 Ac.

