

MICROFILMED
JUL 26 1988

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
ATB-307 - (13.90-19.92)
ASHTABULA COUNTY
JEFFERSON, LENOX & DORSET TOWNSHIPS
VILLAGE OF JEFFERSON

FED. RD. DIVISION	STATE	PROJECT	1 174
2	OHIO	S-494(2)	

ATB-307-(13.90-19.92)

DEC 8 1965

GROUND PHOTOLAB

NOTE: The total Sheet number shown as 187 throughout this plan shall be considered to read 174.

S - 494 (2)

DETOUR MAP
CONVENTIONAL SIGNS

State Line	-----
County Line	-----
Township Line	-----
Section Line	-----
Center Line	-----
Corporation Line	-----
Fence Line	x x x x x x x x
Guard Rail (existing)	o o o o o o o o o o
Guard Rail (proposed)	o o o o o o o o o o
Steam Railroad	-----
Power Poles	o o o o o o o o
Telephone Poles	o o o o o o o o
Trees (existing)	o o o o o o o o
Trees (to be removed)	o o o o o o o o

INDEX OF SHEETS

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Right of Way	154-174

LINE DATA

Begin Project	Sta. 731 + 48.78
End Project	Sta. 1087 + 14.76
Net Length Project	= 35,565.98 Lin. Ft. or 6.735 Miles
Proposed S.R. 307	65
Begin Work	Sta. 730 + 36.5
End Work	Sta. 1088 + 97.72
	= 35,861.22 Lin. Ft.
Existing S.R. 307 & Proposed S.R. 307 Intersection	
Begin Work	Sta. 1 + 32
End Work	Sta. 5 + 81
	= 449.0 Lin. Ft.
Net Length of Work	= 36,310.22 Lin. Ft. or 6.876 Miles



LOCATION MAP
SCALE OF MILES

Partion to be improved
State Roads
Other Roads
Detours

SCALE
Plan, Profile - Horizontal
Profile - Vertical, Cross Sections

1"=50'
1"=5'

STANDARD DRAWINGS		SP-53	
G7.07	6-1-56 I-8MH.NQ1A 10-2-61	DR-1	1-3-55
I-1	11-15-60 I-15 No 1	HW-E	11-15-60
I-8 C.B.2-2A&B	3-2-59 L-1	4-1-50	I-15 No 2A 8-17-60
I-14 G	1-22-52 L-3	4-1-50	I-15 No 2 11-15-60
I-8CB No 6	1-26-59 L-3A	4-1-50	FAC I-1 12-27-61
I-8CB No 7	3-11-60 RI-1	7-15-58	FAC I-2 12-27-61
I-8MH.No 1	1-26-59 T-35	1-2-56	I-12 7-1-54

SUPPLEMENTAL SPECIFICATIONS	
No I-129	Rev. 4-5-61
No I-128	7-31-59
M-107.18	4-3-61
M-109.28	Rev. 8-12-59

DEC 8 1965
GROUND PHOTOLAB

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____

DIVISION ENGINEER _____ DATE _____

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

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

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as indicated on these plans.

Approved Carl S. Campbell
Date 3-16-62 Division Deputy Director

Approved [Signature]
Date 4-27-62 Engineer of Bridges

Approved [Signature]
Date 4-30-62 Engineer of Location and Design

Approved C.W. Grogan
Date 4-30-62 Deputy Director of Design and Construction

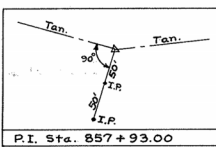
Approved [Signature]
Date 4-30-62 Deputy Director of Right-of-Way

Approved [Signature]
Date 5-9-62 Deputy Director of Planning and Programming

Approved [Signature]
Date 5-9-62 First Assistant Director

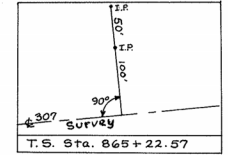
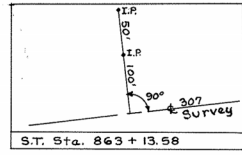
Approved E. A. Preston
Date 5-9-62 Director of Highways

File No	ASTABULA COUNTY ATB-307-(13.90-19.92)
Date of Letting	1962
Contract No	



PROPOSED CURVE DATA

P.I. = 857+93.00	L.C. = 349.87'
Δ = 21° 00' Lt	Rc = 1,909.86'
Dc = 3° 00'	Dc = 10° 30'
Ls = 350'	Lc = 350'
Ts = 629.42'	P = 2.67'
Es = 35.24'	X = 174.95'
Os = 5° 15'	Xc = 349.71'
L.T. = 233.44'	Yc = 10.68'
S.T. = 116.76'	



DRIVES & APPROACHES

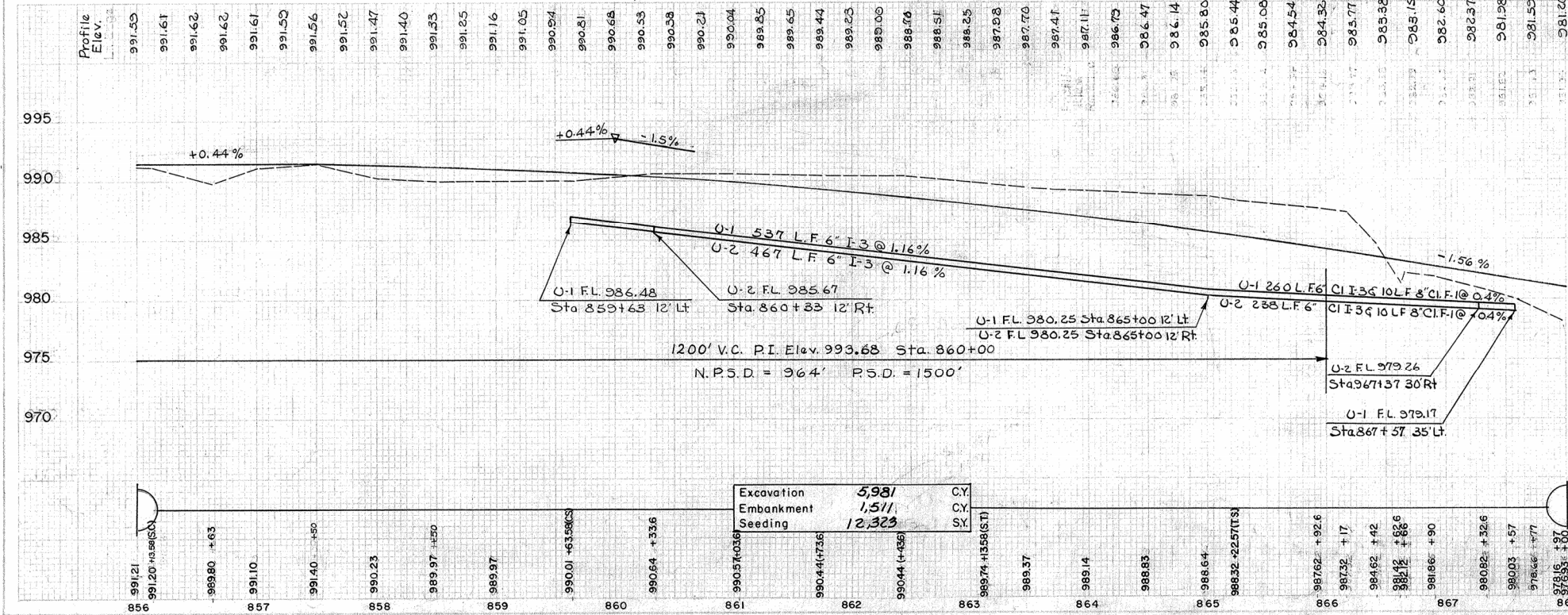
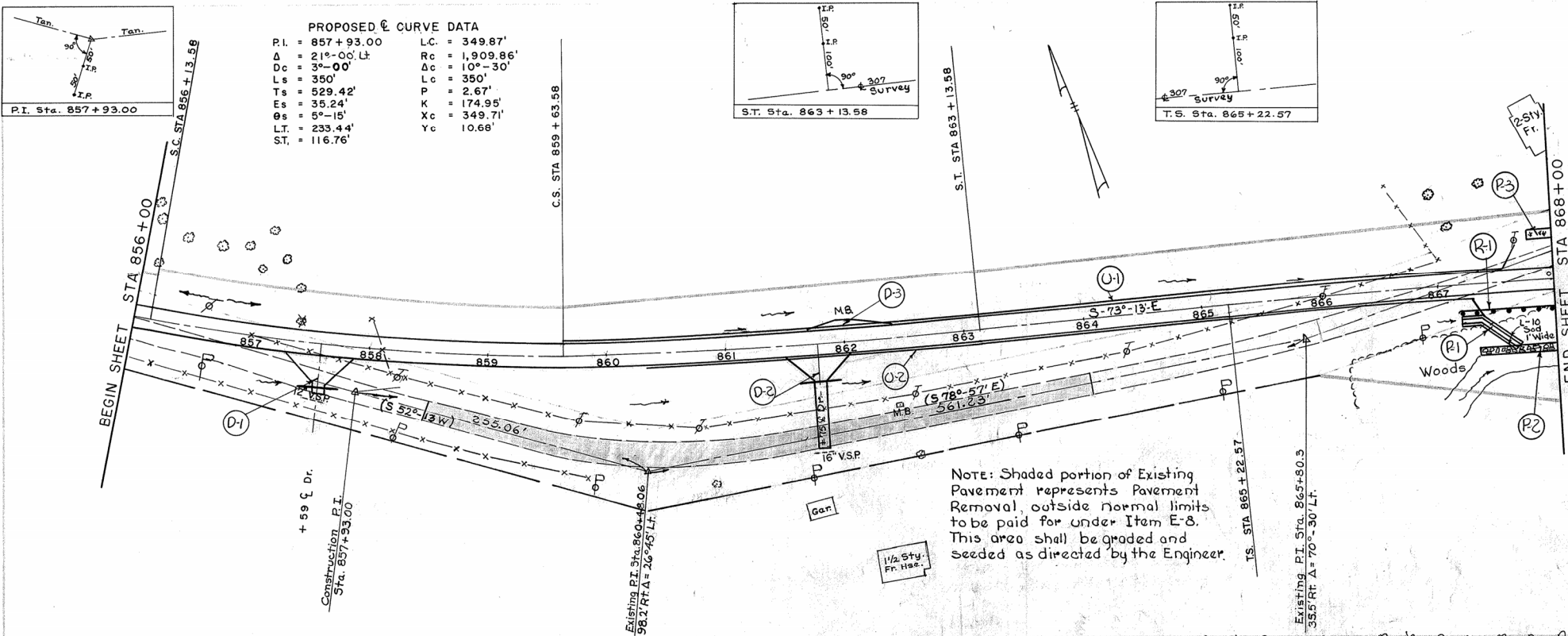
M.A.R.K.	STATION	TYPE	SIDE	LETH.	T-35			B-19			I-1	
					2-1" Courses	5"	6"	8"	12"	15"		
D-1	857+59	Fid.	Rt.	30								
D-2	861+75	Res	Rt.	77	4.0	28.4	9.9	14.1	16.9			32
D-3	862+00	MB	Lt.		1.7	12.6	4.3					
TOTALS					6	41	14	14	17	32	32	

REMOVAL QUANTITIES

STATION	FROM	TO	SIDE	E-8 Rem'd Disp. S.Y.	E-12 Pipe Rem'd 15" Under	
856+00	858+50	Rt.		28.5	18	
858+50	864+00	Rt.		126.0		
864+00	868+00	Rt.		45.0		
TOTALS					195.5	18

DRAINAGE QUANTITIES

M.A.R.K.	STATION	FROM	TO	SIDE	I-14 Poly Gutter Type 1 L.F.	L-10 Sod 8" S.V.	I-10 Dumped Rock Fill 30" Deep C.Y.
P-1	867+22	867+57	Rt.		36	13	
P-2	867+32	868+00	Rt.				45
P-3	867+77	868+00	Lt.			23	
TOTALS					36	36	45



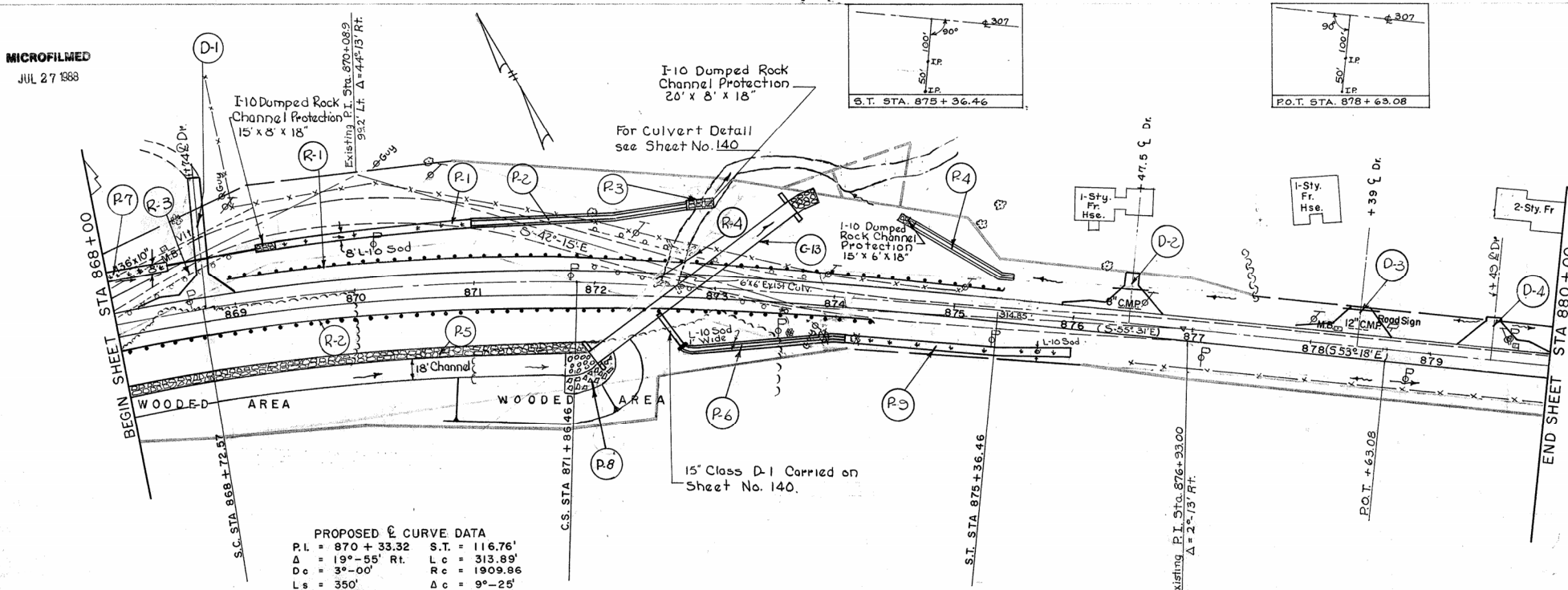
GUARD RAIL

M.A.R.K.	STATION	FROM	TO	SIDE	I-15 GR Steel Beam L.F.
R-1	867+20	868+00	Rt.		80
TOTAL					80

UNDERDRAINS

M.A.R.K.	STATION	FROM	TO	SIDE	I-1 Class I-3 L.F.	I-1 Class F-1 L.F.	T-5 Pipe Spaz. Class I-3 6"x60" Bend Ea.
U-1	859+63	867+33	Lt.		797	10	1
U-2	860+33	867+37	Rt.		705	10	1
TOTALS					1502	20	2

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PROPOSED CURVE DATA

P.I. = 870 + 33.32	S.T. = 116.76'
D.O. = 13° - 55' RT.	R.C. = 313.89'
L.F. = 350'	R.P.C. = 1909.86'
E.T. = 510.75'	L.D.C. = 9° - 25'
G. = 31.93'	P.C. = 349.97'
O. = 5° - 15'	X = 2.67'
L.T. = 233.44'	Xc = 174.95'
	Yc = 349.71'
	Yc = 10.68'

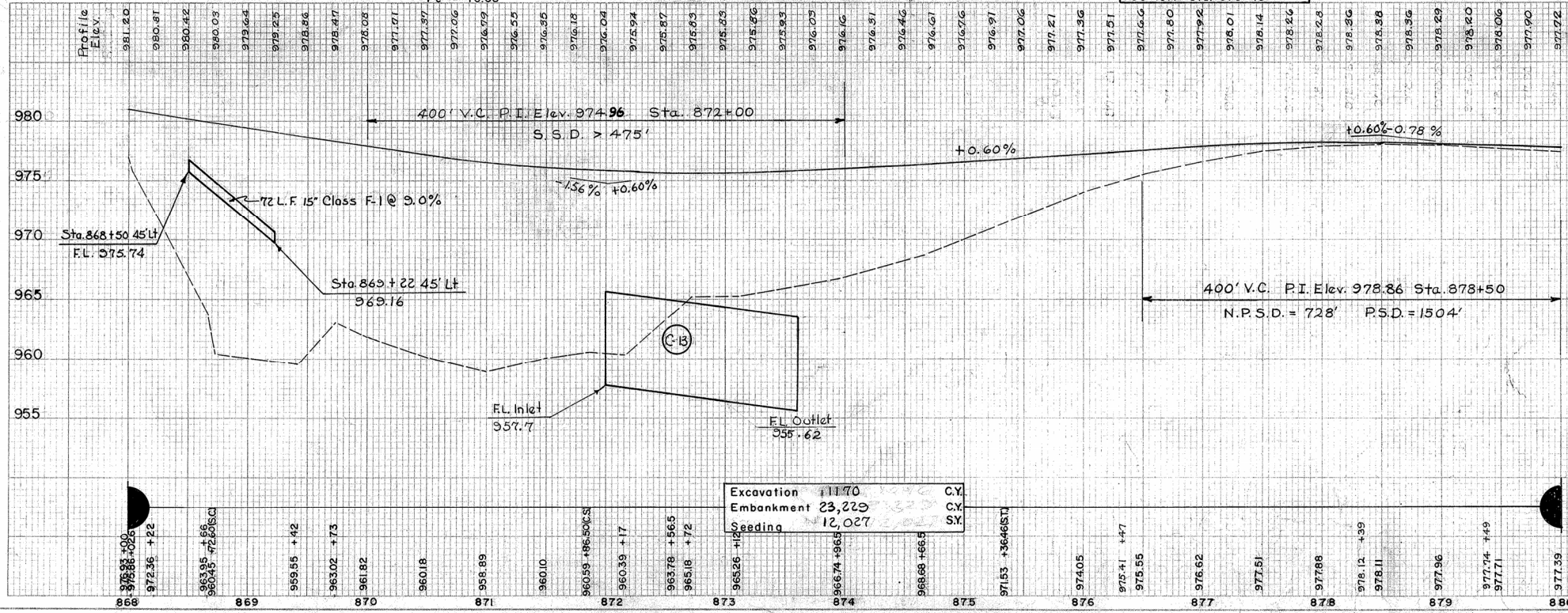
DRIVES & APPROACHES

MARK	STATION	TYPE	SIDE	LGTH	T-35	T-30	B-19	I-1		
					2-1" Courses	Prime	5"	8"	Class 12" L.F.	Class 15" L.F.
D-1	868+74	Comb	Lt	90	4.6	33.3	11.6	20.7		
D-2	876+47	Comb	Lt	34	4.6	33.3	11.6	4.1		
D-3	878+39	Comb	Lt	22	4.6	33.3	11.6	0.6		
D-4	879+49	Comb	Lt	23	4.9	35.0	12.1	0.9		
TOTALS					19	135	47	26	68	72

REMOVAL QUANTITIES

STATION	FROM	TO	5' Pipe	12' Pipe	8' Pipe	Removal	Removal
			15' Cond.	15' Cond.	15' Cond.	Evil Part	Evil Part
868+10	869+10	Lt	136				
	876+47	Lt	18				
	878+39	Lt	16				
868+00	871+86	Lt		450			
875+36	877+25	L&R		210			
TOTALS			170	660			

B.M. No 11 Elev. 976.919
S.E. Corner 1st. Conc. Step
90' left Sta. 876+15



DRAINAGE QUANTITIES

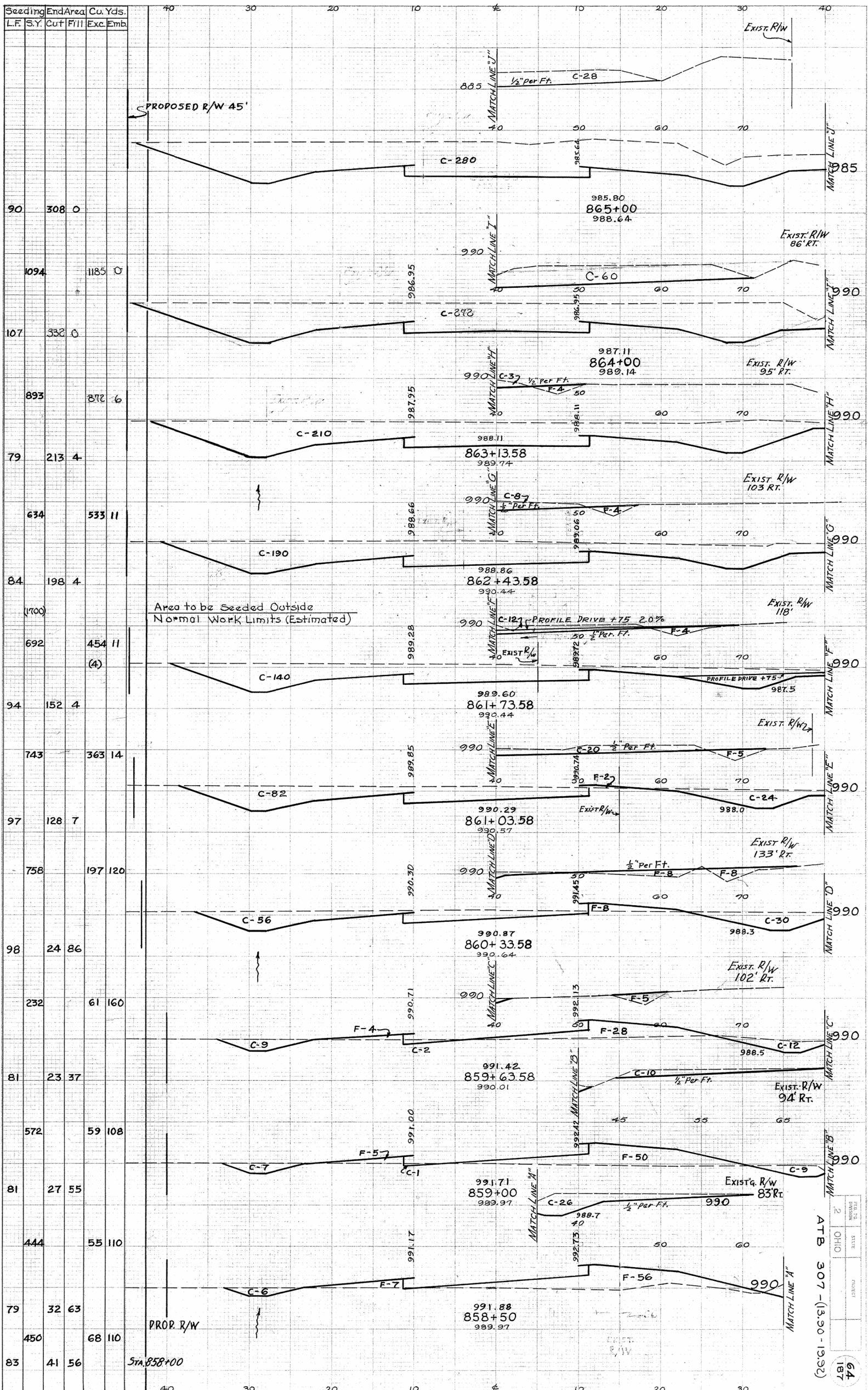
MARK	STATION	TYPE	SIZE	LENGTH	QUANTITY
R-1	868+99	875+36.5	Lt	637.5	
R-2	868+00	874+32.5	Rt	632.5	
R-3	868+00	875+00	Rt	11.5	
R-4	872+00	873+75	Rt	34.5	
TOTALS					1270.0

GUARD RAIL

MARK	STATION	TYPE	SIZE	LENGTH	QUANTITY
R-1	868+99	875+36.5	Lt	637.5	
R-2	868+00	874+32.5	Rt	632.5	
R-3	868+00	875+00	Rt	11.5	
R-4	872+00	873+75	Rt	34.5	
TOTALS					1270.0

STRUCTURES 20' SPAN & UNDER

MARK	STATION	TYPE	SIZE	Sheet No.
C-13	872+79	Class A S.C.M.P.A. Sec 146.4(a)	12'-6" x 7'-11" x 206'-0"	140



CROSS SECTIONS STA. 858+50 TO STA. 865+00

PROJECT NO. 2
STATE OHIO
PROJECT ATB 307 - (13.30 - 13.32)

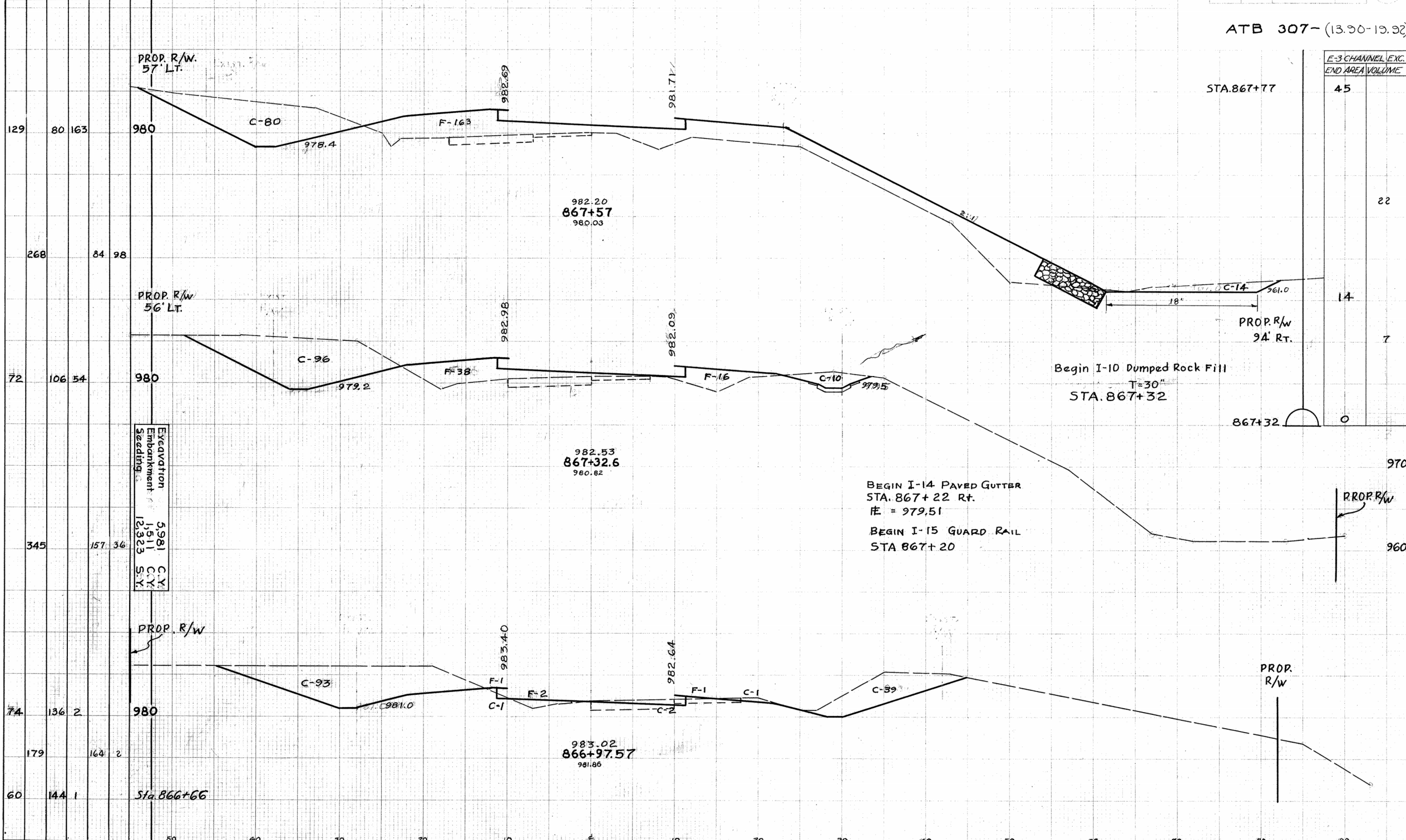
64
157

See also
L.F. SY Cut Fill Exc Emb



CROSS SECTIONS STA 865+22.57 TO STA 866+66

Seeding	End Area	Cu. Yds.
LF SY	Cut Fill	Exc Emb



Excavation	5981
Embankment	1511
Seeding	12323
C.Y.	
C.Y.	
S.Y.	

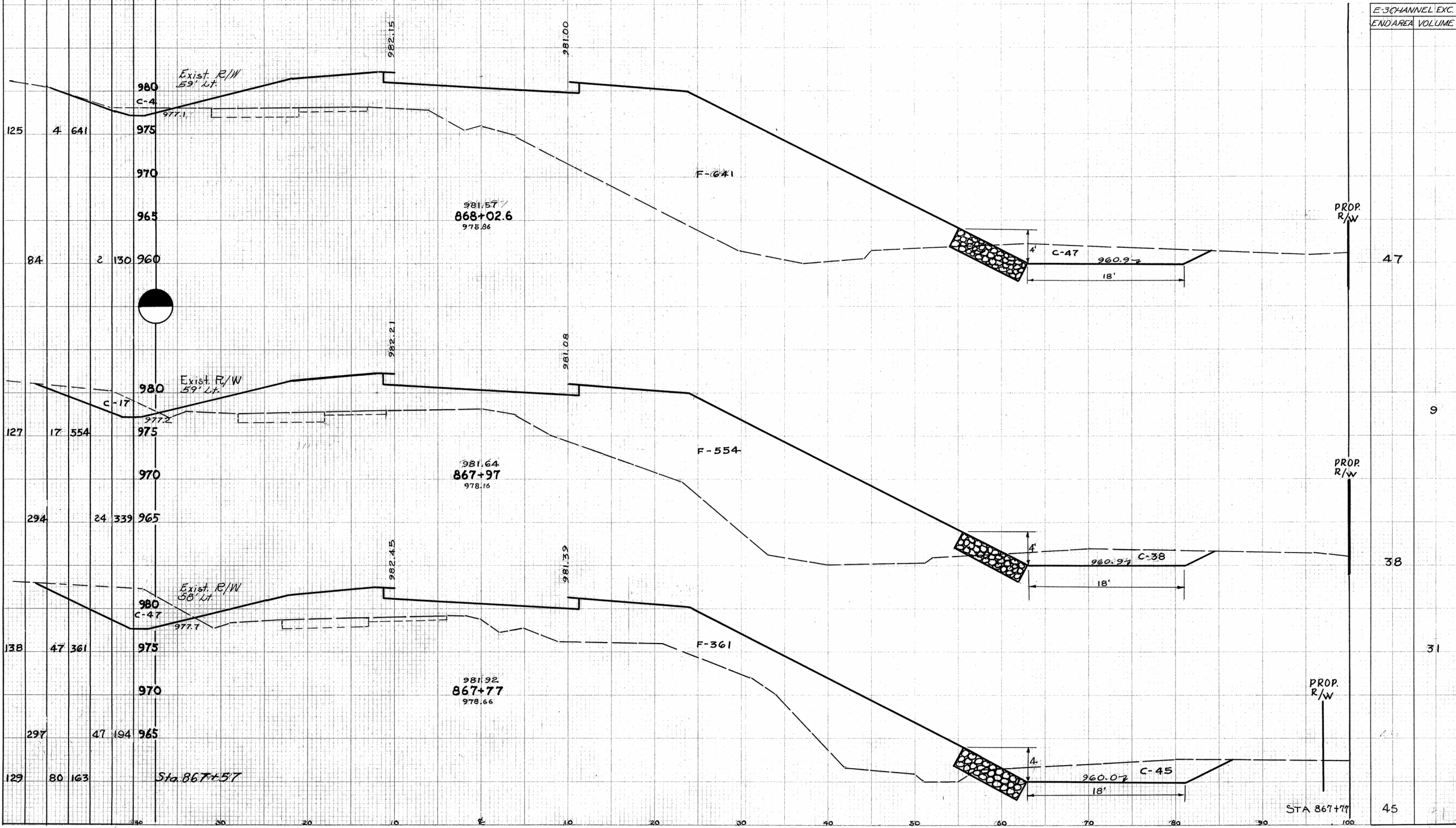
E-3 CHANNEL EXC.	END AREA VOLUME
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45	22
14	7
0	970
	960

CROSS SECTIONS STA. 866+90 TO STA. 867+57

Seeding	End Area	Cu. Yds.
LF SY	Cut/Fill	Exc. Emb.

ATB 307-(13.00-13.02)



E-3 CHANNEL EXC.
END AREA VOLUME

Seeding	End Area	Cu. Yds.
LF SY	Cut/Fill	Exc. Emb.
125	4 641	975
84	2 130	960
127	17 554	975
294	24 339	965
138	47 361	975
297	47 194	965
129	80 163	965

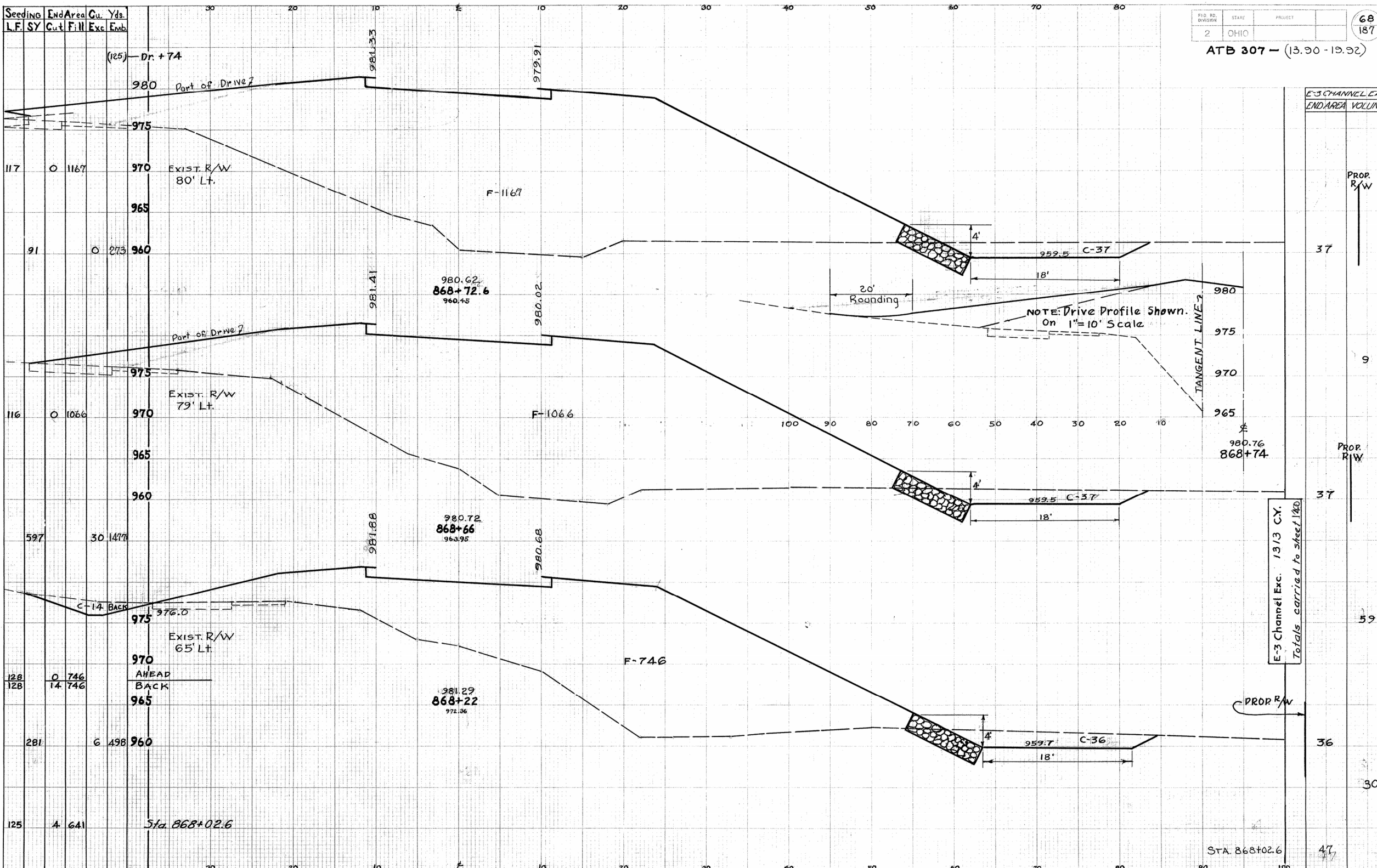
47
9
38
31
45

CROSS SECTIONS STA. 867+77 TO STA. 868+02.6

Seeding	End Area	Cu. Yds.
L.F. SY	Cut Fill	Exc. Emb.

FED. RD. DIVISION	STATE	PROJECT	68 187
2	OHIO		

ATB 307 - (13.30 - 13.32)



E-3 CHANNEL EXC.	END AREA	VOLUME
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			37	9	37	59	36	30	47
Totals carried to sheet 140									

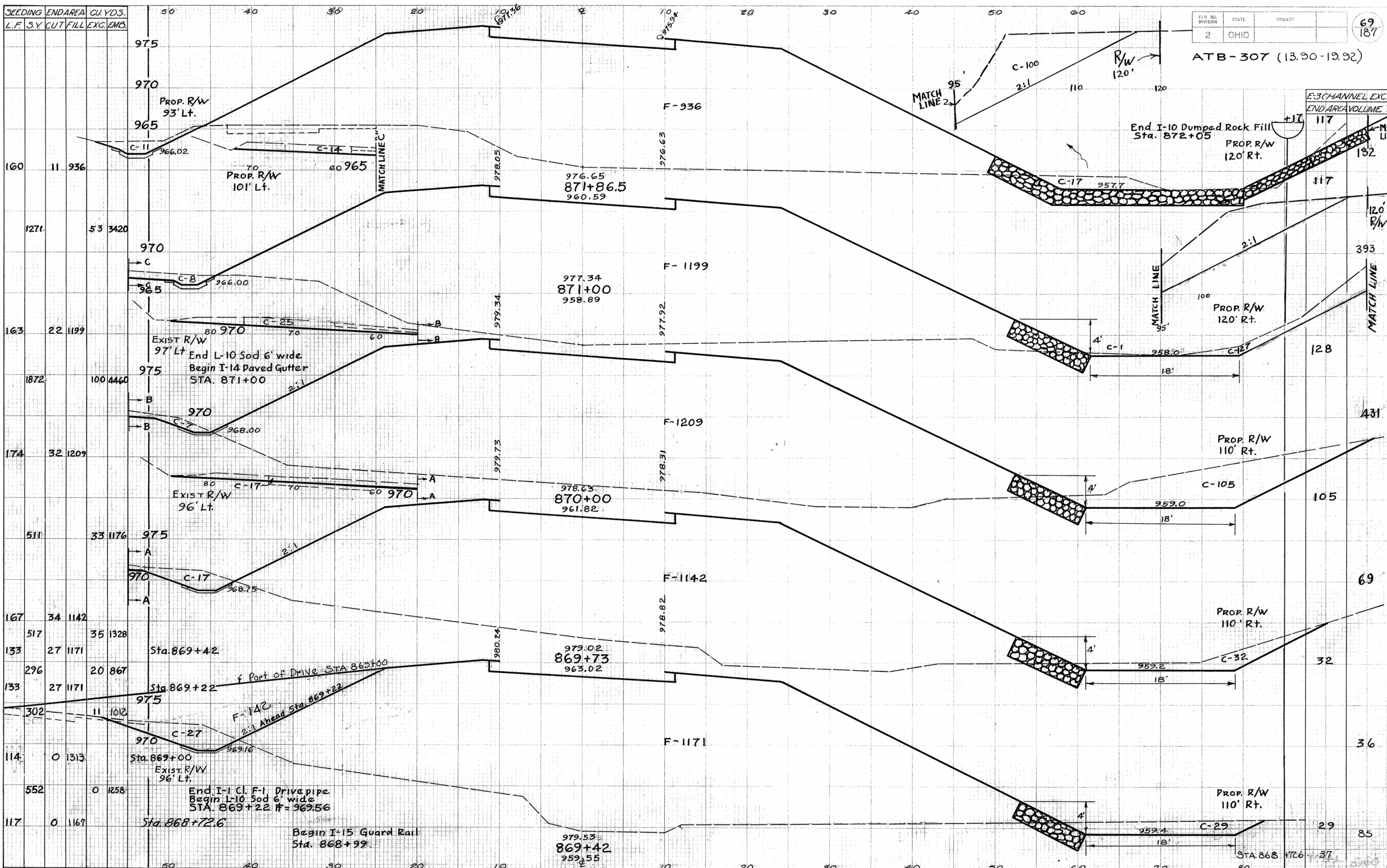
CROSS SECTIONS STA. 868+22 TO STA. 868+72.6

SEEDING	END AREA	CU. YDS.			
L.F.	S.Y.	CUT	FILL	EXG.	EMB.
160	11	936			
1271	53	3420			
163	22	1199			
1872	100	4460			
174	32	1209			
511	33	1176			
167	34	1142			
517	35	1328			
133	27	1171			
296	20	867			
133	27	1171			
302	11	1012			
114	0	1313			
552	0	1258			
117	0	1167			

FILE NO.	STATE	PROJECT
2	OHIO	

69
187

ATB-307 (13.90-19.92)

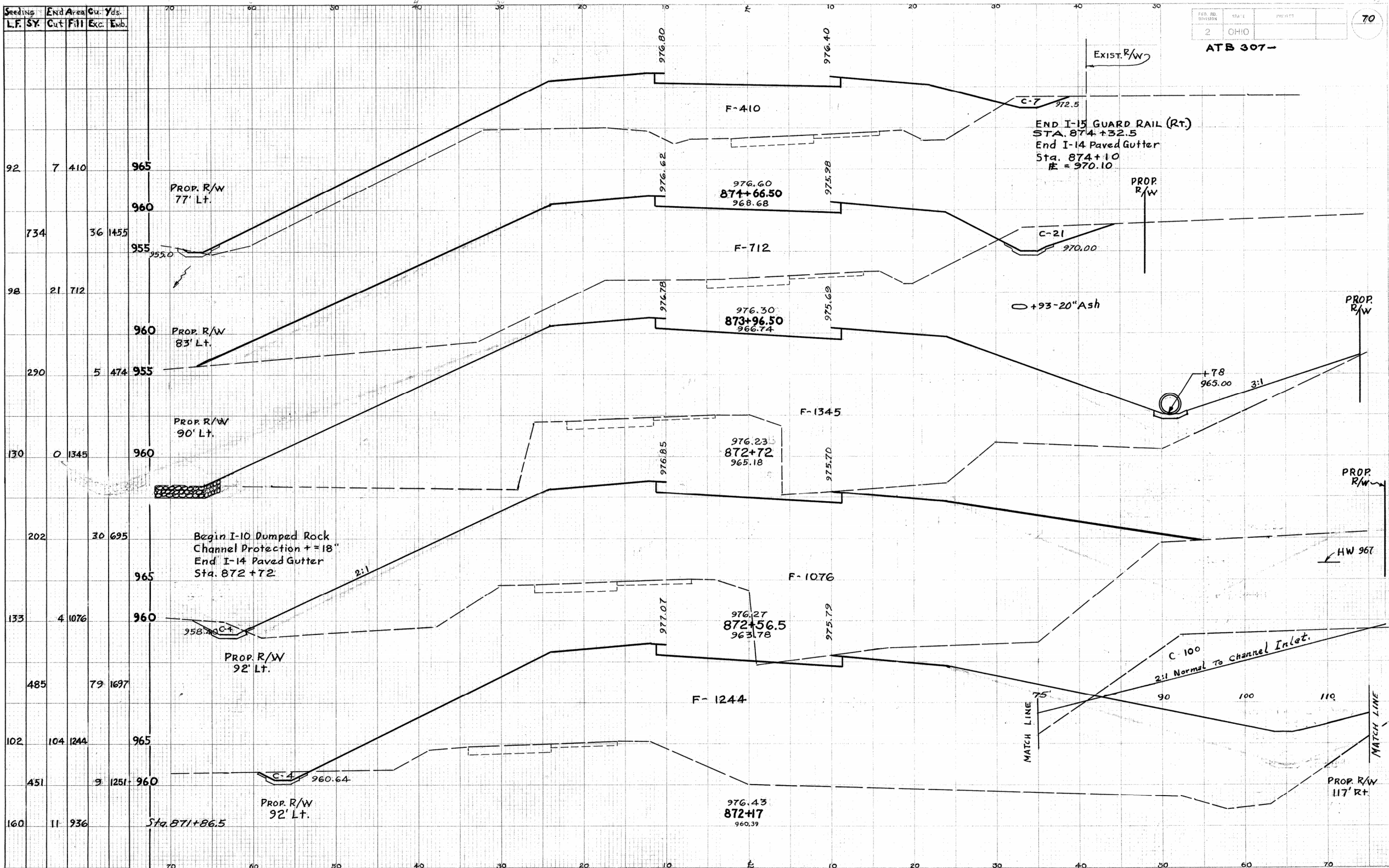


CROSS-SECTIONS STA 869+42 TO STA 871+86.5

Seeding	End Area	Cu. Yds.
L.F. SY.	Cut Fill	Exc. Emb.

FED. RD. DIVISION	STATE	PROJECT	70
2	OHIO		

ATB 307-



CROSS SECTIONS STA. 872+17 TO STA. 874+66.5

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JUL 27 1983

STRUCTURE NO C-13

ATB-307-1657

STA. 872+79

SCALE: 1"=20'

DATE	STATE	PROJECT	NO.
2	OHIO		140 187

ATB-307-(1390-1992)

EXISTING STRUCTURE
TYPE: Twin Span Concrete Slab
SIZE: 1 @ 6'x5' @ 6.5x5' WIDTH: 32'-6"

PROPOSED STRUCTURE
DRAINAGE AREA: 1702 Acres; $Q_{25} = 750$ c.f.s.; $HW = 8.9$ feet
TYPE: Sectional Corrugated Metal Pipe Arch, Sec. M-6.4(g)
SIZE: 12'-6" x 7'-11" LENGTH: 208 L.F.; SKEW: 50°-30' L.F.
ROADWAY: 44' Between Guard Rails
STANDARD DRAWING: SP-53 revised 6-30-61 except ends shall remain square as noted.

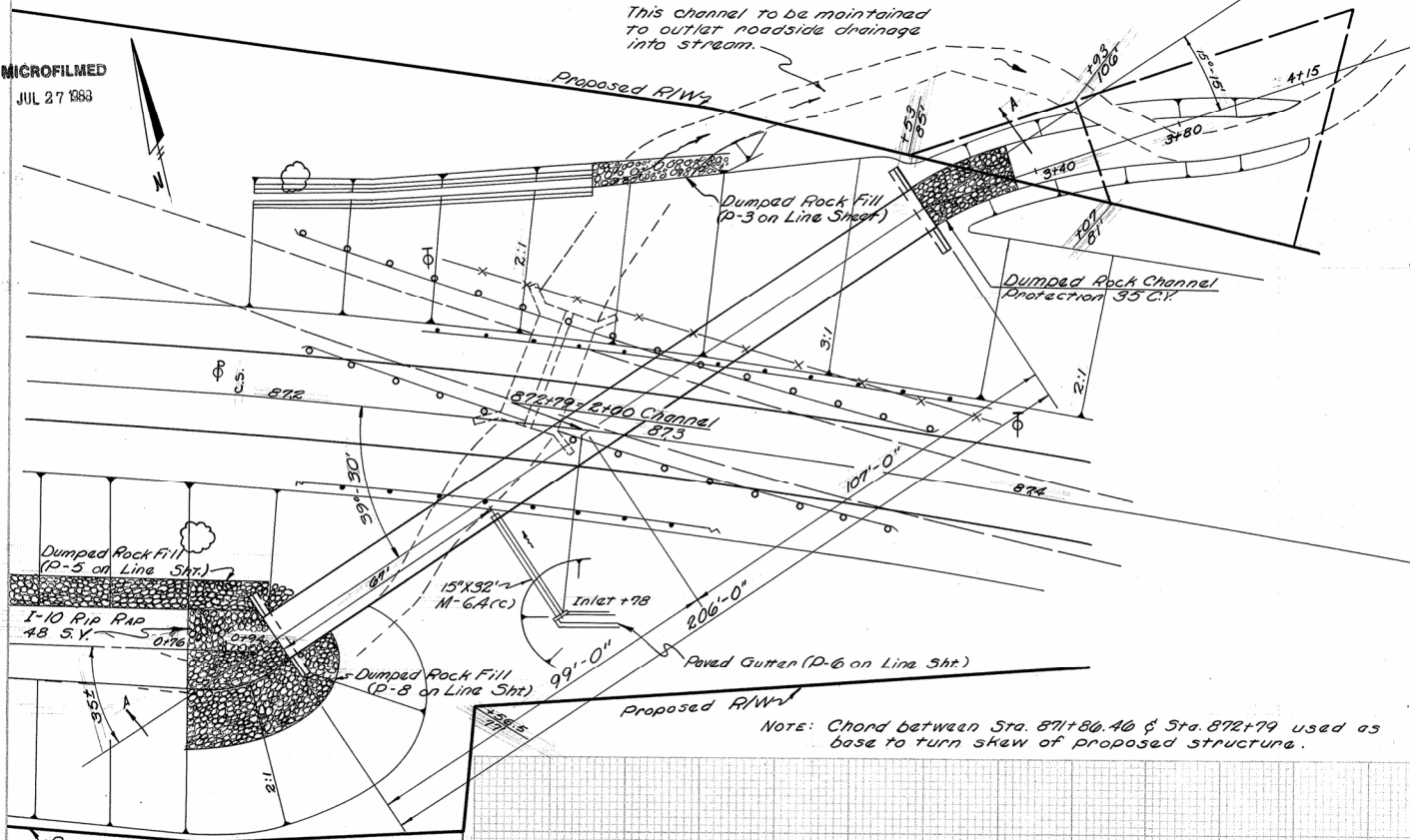
WORK REQUIRED: The existing structure shall be removed and replaced with a pipe arch and endwalls as shown. Excavate outlet channel and place Dumped Rock Channel Protection 3ft. thick for a distance of 25 ft. downstream. Details for the inlet channel excavation are carried on roadway cross-section sheets and dumped rock fill (P-5 and P-8) are listed on line sheet. Quantities for channel excavation are carried below. Note continued below.

ESTIMATED QUANTITIES

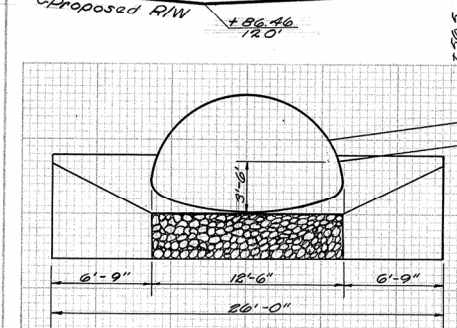
E-3 Channel Excavation	1341 C.Y.
S-24 Removal of Existing Structure	LUMP
I-1 Pipe Culvert, Class G-1, 12'-6" x 7'-11" Sectional Corrugated Metal Pipe Arch, Sec. M-6.4(g) Gage 5-3, as per plan	206 L.F.
I-2 Concrete Endwalls, Class "E" Concrete	175 C.Y.
I-10 Dumped Rock Channel Protection	35 C.Y.
I-10 Rip Rap (6" Reinforced Concrete Slab)	48 C.Y.
I-1 Pipe for Roadway Drainage, Class D-1 15" Bituminous Coated Corrugated Metal Pipe, Sec. M-6.4(c)	32 L.F.
I-2 Concrete Endwall, Class "C" Concrete (Std. Drwg. HW-E)	26 C.Y.

Connection of proposed 15" C.M.P. to the proposed corrugated metal structure shall be by means of a shop fabricated or field welded stub on the structure. The stub shall meet the requirements of Section M-6.4 and have a minimum length of two feet and a minimum gage of 14. Location and elevation of the stub are to be considered approximate and may be adjusted by the Engineer to avoid cutting through joints in the structure. The field welded joint, if used, shall be painted on the inside and outside with two coats of red lead, Section M-9.9, and two coats of graphite paint, Section M-9.11. Payment for cutting into the structure and providing the connection described shall be included in the unit price bid for Item I-1, 12'-6" x 7'-11" Sectional Corr. Metal Arch Structure, Class G-1.

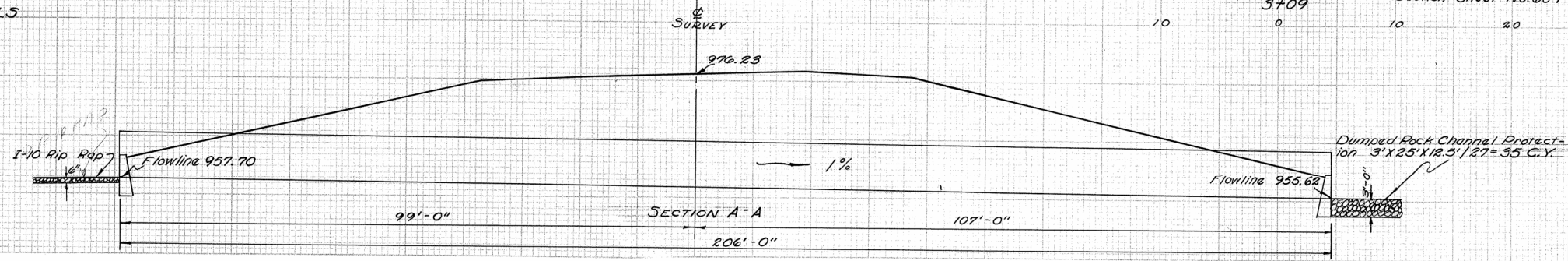
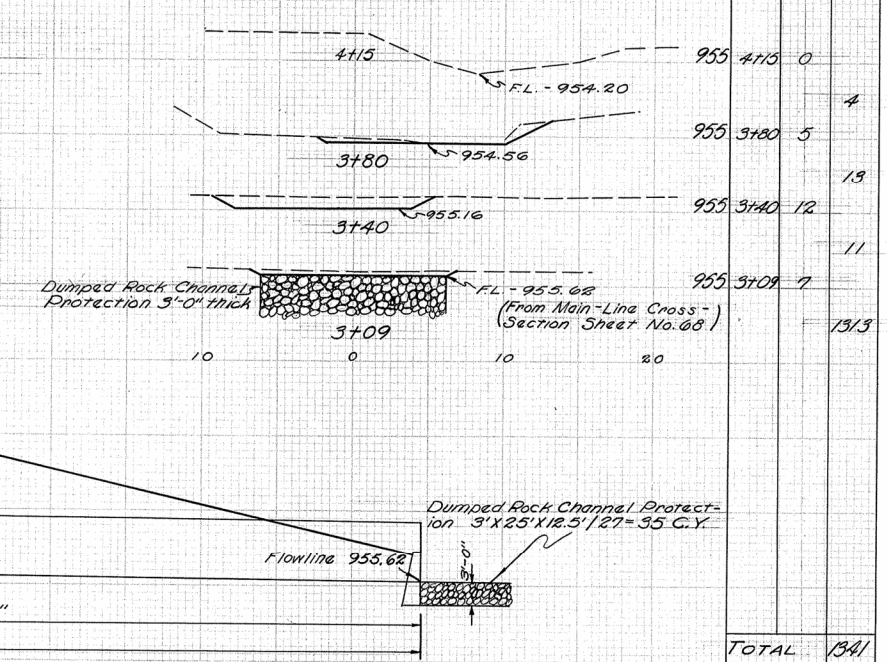
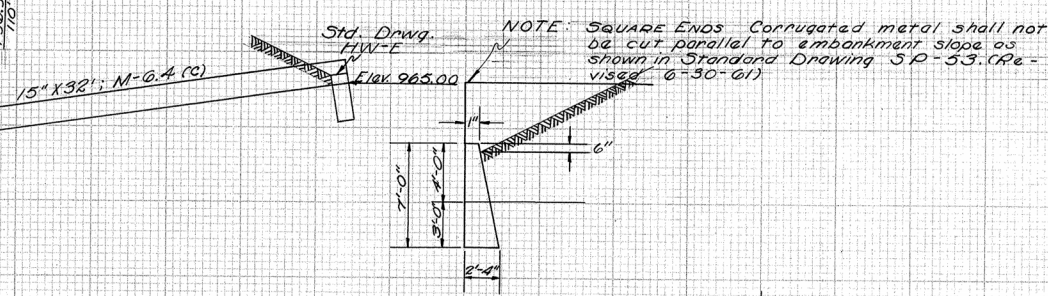
E-3 CHANNEL EXCAVATION		
STA.	END AREA	C.Y.
	955 4715 0	4
	955 3480 5	13
	955 3140 12	11
	955 3109 7	13/3
TOTAL		1341



NOTE: Chord between Sta. 871+86.46 & Sta. 872+79 used as base to turn skew of proposed structure.



ENDWALL DETAILS



SECTION A-A