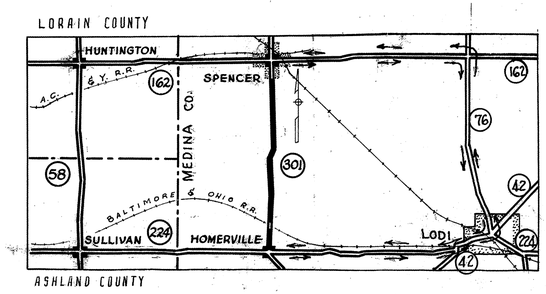
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
MED-301-(2.60) (3.47)
MEDINA COUNTY
HOMER AND SPENCER TOWNSHIPS

S-199 (3)

FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199 (3)	F.A.

MED-301-(2.60)(3.47)

1/74



DETOUR MAP
Scale: 1" = 2 Mi.

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line
Fence Line
Center Line
Telephone or Power Line
Steam Railroad
Guard Rail

INDEX OF SHEETS

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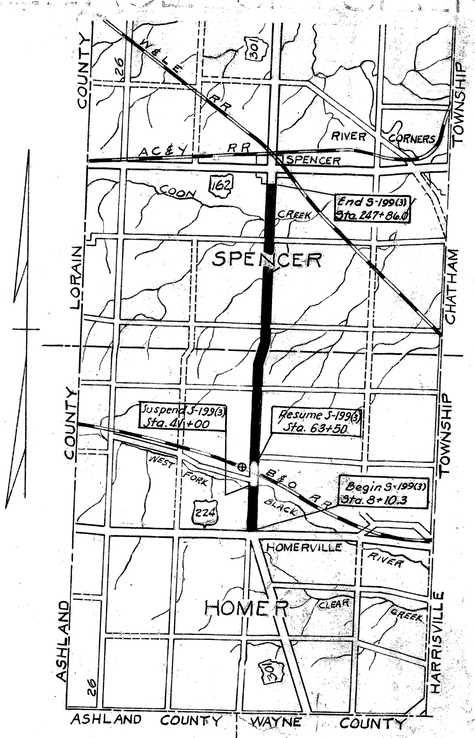
LINE DATA

	PROJECT	WORK
Begin Sta.	8+10.3	8+10.3
End Sta.	247+86.0	247+86.0
Gross Length	23,975.7 Lin.Ft.	23975.7 Lin.Ft.
Deduct For Project Sta.41+00 to Sta.63+50	2250 Lin.Ft.	
Deduct For Work Sta.48+00 to Sta.52+81		481.0 Lin.Ft.
Net Length	21,725.7 Lin.Ft. or 4.114 Miles	23494.7 Lin.Ft. or 4.449 Miles

SUPPLEMENTAL SPECIFICATIONS	
B-117	Rev. 3-19-53
10	Rev. 7-6-53
CE-107	5-21-53
T-171.19	Rev. 3-19-53
M-101.7	1-24-53

FILE NO.	MEDINA COUNTY MED-301-(2.60)(3.47)
15-M	DATE OF LETTING _____
	CONTRACT NO. _____



⊕ Delivery Point = Homerville Station

Average Haul = 1.5 Miles

LOCATION PLAN

SCALE OF MILES

Portion to be improved
State Highways
Other Roads
Detours

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 closing to traffic of the highway and that detours will be provided as indicated on the plans.

Approved _____ Deputy Director of Division
Date 7-1-52

Approved _____ Deputy Director, Division of Planning and Programming
Date 1-4-54

Approved _____ Engineer of Bridges
Date 10-23-53

Approved _____ Engineer of Location and Design
Date 1-4-54

No RR Approved _____ Deputy Director, Division of Design and Construction
Date 1-4-54

Approved _____ First Assistant Director & Chief Engineer
Date 1-5-54

Approved _____ Director of Highways
Date 1-5-54

* Accepted by B.P.R.

STANDARD CONSTRUCTION DRAWINGS			
DRAWING NO.	DATE	DRAWING NO.	DATE
* C-7.07	1-2-53	*T-35	10-1-52
* I-15 No. 2	2-2-53	*I-14G	1-22-52
* I-15 No. 1	2-2-53	CS-1-47	1-20-48
* I-12	1-25-52		
* I-8 C.B. No. 16	5-1-52		
* I-8 C.B. 2-2-A&B	5-1-52		
I-1, 2, 3, 4, & 5	2-20-45		
S-27 P.C. 3	2-20-45		
L-3-A	4-1-50		
L-3	4-1-50		
SB-1-47	1-20-48		
As-3-47, AS-4-47	7-27-49		
SD-53	7-21-53		
L-1	4-1-50		
* RI-1	6-1-53		

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED FOR APPROVAL

CONSTRUCTION BUREAU
FEB 20 1957
GROUND PHOTOLAB

DISTRICT ENGINEER DATE

FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199 (3)	

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MED.-301-(2.60)(3.47)

TYPICAL SECTIONS

T-35 on B-117

SALVAGE PAVEMENT

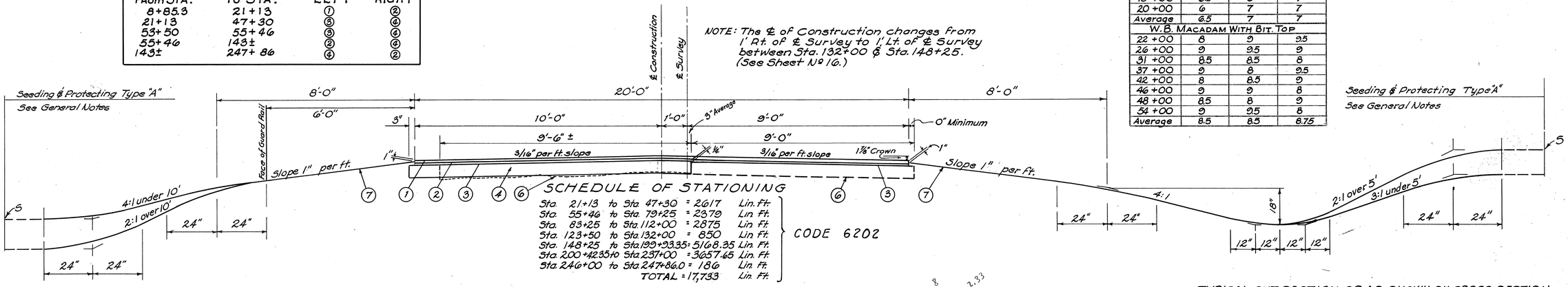
EXISTING PAVEMENT TYPES

1. 9.5'± Traffic Bound with Bit. Top
2. 9' 6" Concrete with Bit. Top
3. 9.5'± W.B. Macadam with Bit. Top
4. 9.5'± Traffic Bound

From STA.	To STA.	LEFT	RIGHT
8+85.3	21+13	1	2
21+13	47+30	3	4
53+50	55+46	3	4
55+46	143±	2	4
143±	247+86	4	2

PAVEMENT THICKNESS - INCHES			
STATION	9' Lt.	- 4.5 Lt.	℄ Survey
TRAFFIC BOUND WITH BIT. TOP			
9+00	7	8	8
10+00	6.5	6.5	7
13+00	6	7.5	7
18+00	6	7	6
19+00	6.5	6	7
20+00	6	7	7
Average	6.5	7	7
W.B. MACADAM WITH BIT. TOP			
22+00	8	9	9.5
26+00	9	9.5	9
31+00	8.5	8.5	8
37+00	9	8	9.5
42+00	8	8.5	9
46+00	9	9	8
48+00	8.5	8	9
54+00	9	9.5	8
Average	8.5	8.5	8.75

NOTE: The ℄ of Construction changes from 1' Rt. of ℄ Survey to 1' Lt. of ℄ Survey between Sta. 132+00 & Sta. 148+25. (See Sheet No 16.)



TYPICAL FILL SECTION OR AS SHOWN ON CROSS SECTION

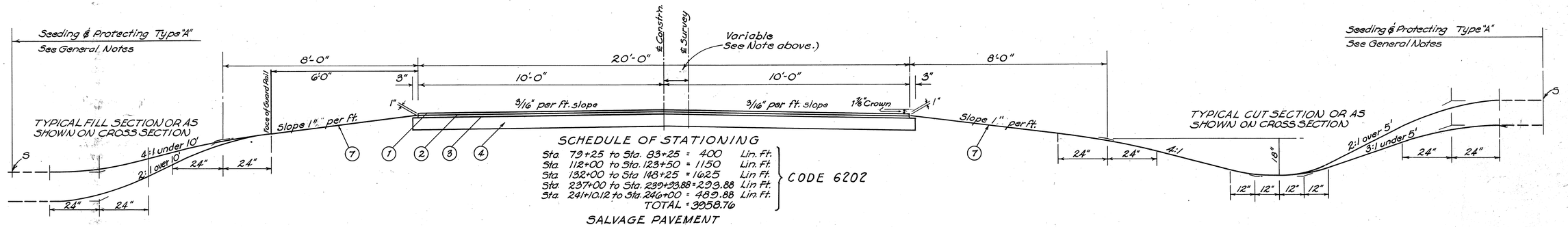
TYPICAL CUT SECTION OR AS SHOWN ON CROSS SECTION

SCHEDULE OF STATIONING

Sta. 21+13	to	Sta. 47+30	= 2617	Lin. Ft.
Sta. 55+46	to	Sta. 79+25	= 2379	Lin. Ft.
Sta. 83+25	to	Sta. 112+00	= 2875	Lin. Ft.
Sta. 123+50	to	Sta. 132+00	= 850	Lin. Ft.
Sta. 148+25	to	Sta. 199+93.35	= 5168.35	Lin. Ft.
Sta. 200+42.35	to	Sta. 237+00	= 3657.65	Lin. Ft.
Sta. 246+00	to	Sta. 247+86.0	= 186	Lin. Ft.
		TOTAL	= 17,733	Lin. Ft.

CODE 6202

NEW CONSTRUCTION



TYPICAL FILL SECTION OR AS SHOWN ON CROSS SECTION

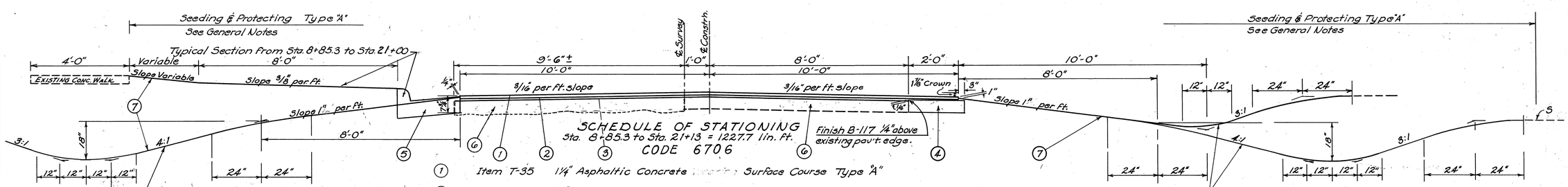
TYPICAL CUT SECTION OR AS SHOWN ON CROSS SECTION

SCHEDULE OF STATIONING

Sta. 79+25	to	Sta. 83+25	= 400	Lin. Ft.
Sta. 112+00	to	Sta. 123+50	= 1150	Lin. Ft.
Sta. 132+00	to	Sta. 148+25	= 1625	Lin. Ft.
Sta. 237+00	to	Sta. 239+93.88	= 293.88	Lin. Ft.
Sta. 241+10.12	to	Sta. 246+00	= 489.88	Lin. Ft.
		TOTAL	= 3958.76	

CODE 6202

SALVAGE PAVEMENT



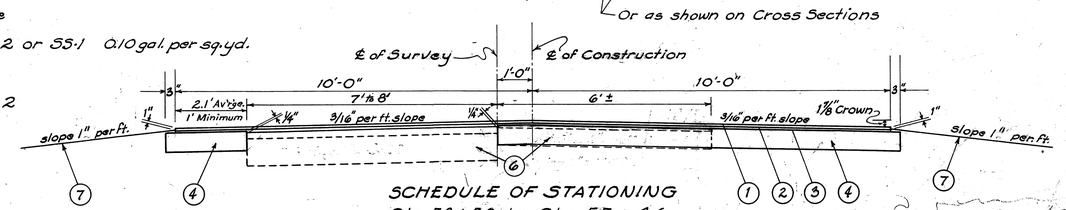
SCHEDULE OF STATIONING

Sta. 8+85.3 to Sta. 21+13 = 1227.7 lin. ft.

CODE 6706

Finish B-117 1/4" above existing pav't. edge.

1. Item T-35 1 1/4" Asphaltic Concrete Surface Course Type "A"
2. Item B-35 3/4" Min. Asphaltic Concrete Leveling Course
3. Item T-30 Bituminous Tack Coat Sec. M5.5, MS-2 or SS-1 0.10 gal. per sq. yd.
4. Item B-117 6" Cement Treated Base
5. Item I-12 Combination Concrete Curb & Gutter Type 2
6. See: Table above for Existing Pavement Types
7. Item L-9 Seeding & Protecting Type "A"



SCHEDULE OF STATIONING

Sta. 53+69 to Sta. 55+46

··GRADING SECTION SAME AS ABOVE··

CODE 6202

Typical section approved
E. L. Johnson Asst. Engr. 2/58

· GENERAL NOTES ·

DESIGN SPEED: 50 miles per hour.

UTILITIES: Any & all work required for the adjustment of public or private utilities shall be done by and at the expense of their respective owners unless otherwise noted on the plans.

FIELD OFFICE: The contractor shall provide a field office in accordance with Sec. S-0.01(b) of the specifications. This field office shall contain a minimum of 150 sq. ft. floor space & shall be equipped with a telephone.

EXISTING PIPE: Where plans indicate pipe to remain in place or not to be disturbed, it will be the responsibility of the contractor to protect the pipe from breakage. If during the 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.
Where plans indicate the removal & disposal of existing pipe, the contractor may, in lieu of pipe removal, uncover the pipe, break it down & compact backfill as specified under E-1.08.
Where plans indicate that pipe be abandoned, the pipe if in fills shall remain in place & be plugged if directed by the Engineer. If in cuts, the pipe shall be removed along with E-1. The cost for plugging & removal shall be included with Item E-1, Roadway Excavation.

EXISTING GUARD RAIL:- Item I-15, Guard Rail Removed and Stored shall consist of the removing and storing of existing steel plate type guard rail. Included in the unit price bid per lin. ft. of Item I-15 shall be the removal and storage of the steel plate and salvageable hardware, and the disposal of the wood posts by the contractor.
The existing plank and cable type guard rail shall become the property of the contractor and be disposed of by him. Cost of removal and disposal included in Item E-1, Roadway Excavation for payment. Guard rail to be removed and stored shall be stored on the Right of Way as directed by the Engineer.

CURB HEIGHT: The type 2 concrete curb & gutter shall taper from full height to 2" height in 10' at ends. Where curb is dropped at drives it shall not be tapered in height.

FILLING MAJOR DEPRESSIONS: Major depressions in the existing pavement shall be filled & compacted with bituminous concrete leveling material in advance of the placing of the regular leveling course. These depressions shall be filled in layers not to exceed 3" in depth when compacted.

PLANK CROSSINGS: All plank crossings over existing ditches shall become the property of the contractor & shall be removed. The cost of removal shall be included in the unit price bid for Item E-1, Roadway Excavation.

BERM SLOPES:- This project shall be constructed using the berm slopes as indicated on the typical sections in lieu of the berm slopes shown on the cross sections. Any necessary adjustments that will be required in the drainage system or in determining earthwork quantities will be made at the time of construction.

T-30 TACK COAT: In event the cement treated base is cured with bituminous material, all or part of the proposed T-30 tack coat may be non-performed at the direction of the Engineer.

SEEDING: Item L-9, Seeding & protecting shall be "Type A" & the seeding formula for the entire area shall consist of 75% Alta Fescue, 20% Kentucky Bluegrass, 5% Alsike Clover. Although quantities for seeding are calculated for the earth areas within the limits shown by the symbol ----^{E} on the cross sections and typical sections, the actual quantities for Item L-9 shall be for the soil areas between the construction limits only and shall be determined by final measurement. Seed mixture shall be applied at the rate of three (3) pounds per 1000 Sq. Ft.
SCALPING: Within the areas where excavation or embankment will be made, the sod & topsoil from scalping operations shall be salvaged & shall be incorporated in the upper 2" of the finished shoulders, slopes & ditches. The cost of this operation shall be included in the price bid for Item E-1, Roadway Excavation.

CISTERNS-WELLS & BASEMENTS, ETC., appearing wholly or partly within the R/W limits shall be filled and compacted in accordance with the requirements of Sec. E-1.08 of the specifications. Payment for this work is included in unit price bid for E-1 Excavation.

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

EXISTING MASONRY SLABS resulting from building removal etc., which lie wholly or partly within the R/W limits shall be disposed of as follows: Slabs which will be covered by embankments in excess of 2' depth may be left in place undisturbed. Slabs which will be wholly covered by embankments of less than 2' depth may be broken into pieces of 3 sq. ft. area - or less - and left in place; - or be removed. Slabs which will be left exposed by construction operations shall be removed. Payment for above operations shall be included in unit price bid for E-1 Excavation.

PAVEMENT REMOVAL: The quantity as set forth in Summary includes the necessary removal of rigid type pavement. It also includes the removal of non-rigid type pavement where defective areas are to be replaced with B-117. The necessary removal of any other non-rigid type pavement shall be classed & paid for as Item E-1 Roadway Excavation.
At locations determined by the Engineer, defective areas - where existing pavement is to be resurfaced - shall be removed & replaced with 6" B-117.
Est. Pavement Removal = 1500 sq. yds. Est. 6" B-117 = 1500 sq. yds.

COMPACTED SUBGRADE:- In lieu of the requirements of Sec. E-1.09(a), the subgrade under widening having a base width less than six feet, shall be compacted for a depth of six (6) inches to the density requirements in Table III, Item E-1. Payment for subgrade compaction under widening as specified above shall be included in the unit price bid for Item E-1, Roadway Excavation.

MISCELANEOUS ITEMS

From Sheet No:	E-8 Square Yards	6" B-117 Square Yards	B-35 Level. Sq. Yds.	T-35 Square Yards	T-30 Tack Gals.	Exist Paved Turnouts Sq. Yds.-	Appr. Slabs Sq. Yds.	T-35 Cubic Yards	I-12 Curb & Gutter
3	1500	1500							
6	6		360	360	36				98
8	23	23							
9		65	140	140	14				
10	17	151	131	131	13				
11	9	9							
13	7	7							
16	18	18							
18	60	60				68			
19	7	7				62			
20						62			
21	12	12				62			
22	7	7			7	37	66.7	4.6	
24	28	28				125			
25					7		66.7	4.6	
27		199	198	198	20				
28		149	144	144	15				
29		649	647	647	65				
30		411	410	410	41				
31		343	335	335	34				
68								4.8	
TOTALS	1694	3638	2365	2365	252	416	133.4	14.0	98

LINE	CALCULATIONS				QUANT.	UNITS
1	B-117 6" CEMENT TREATED BASE					
2	From Sheet 2 17,733 X 11.5 ÷ 9	= 22,658.83	Sq. Yds.			
3	From Sheet 2 3,958.76 X 20.5 ÷ 9	= 9,017.18	Sq. Yds.			
4	From Sheet 2 1227.7 X 2.25 ÷ 9	= 306.93	Sq. Yds.			
5	From Sheet 2 177 X 13.35 ÷ 9	= 262.55	Sq. Yds.			
6	From Table Above	3,638.00	Sq. Yds.			
7	From Table Above (Deduct for paved turnouts)	- 416.00	Sq. Yds.			
8	Total	35,467.40	Sq. Yds.	Use	35,468	Sq. Yds.
9						
10						
11	B-117 PORTLAND CEMENT (Calc. @ 1 Bbl. per Cu. Yd.)					
12	From Line 8 35,467.40 X 6 ÷ 36		5,911.25	Barrels Use	5,912	Bbls.
13						
14						
15	T-35 1¼" ASPHALTIC CONCRETE SURFACE COURSE					
16	From Sheet 2 23,096.46 X 20 ÷ 9	= 51,325.47	Sq. Yds.			
17	From Table Above	2,365.00	Sq. Yds.			
18	Total	53,690.47	Sq. Yds.			
19	From Line 18 53,690.47 X 1.25 ÷ 36	=	1864.25	Cu. Yds.		
20	From Table Above		14.00	Cu. Yds.		
21	Total Volume		1878.25	Cu. Yds Use	1,879	Cu. Yds.
22						
23						
24	B-35 ¾" Min. ASPHALTIC CONCRETE LEVELING COURSE					
25	From Line 18 53,690.47 X .75 ÷ 36	=	1118.55	Cu. Yds.		
26	Add for Correction of crown & base irregularities					
27	Est. 200 Cu. Yds. per mile = 4.419 X 200 =		883.80	Cu. Yds.		
28	Total Volume		2002.35	Cu. Yds. Use	2003	Cu. Yds.
29						
30						
31	T-30 BITUMINOUS TACK COAT					
32	From Line 16, 51,325.47 X 0.10	=	5133	Gals.		
33	From Table Above		252	Gals.		
34	Total		5385	Gals. Use	5385	Gals.
35						
36						
37	E-11 WATER					
38	From Sheet 4, Emb + 30% X 5; 30511 X 5	=	152.6	M. Gals.	[illegible]	M. Gals.
39	Add for SS-10 595 X 5	=	3.1	M. Gals	156	M. Gals.
40	L-9 SEEDING					
41	From Calculations on File in Division Office		173,200	Sq. Yds.	173,200	Sq. Yds.
42	L-9 COMMERCIAL FERTILIZER					
43	173,200 (L-9 Seeding) + 3114 (L-10 Sodding) = 176,314 X 9 ÷ 1000 X .01	=	15.87	Tons	15.87	Tons
44	SS-10 MAILBOX APPROACHES 22 @ 6 Cu. Yds.	=	132	Cu. Yds	132	Cu. Yds.

FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	

MED-301-(2.60)(3.47)

SUPERELEVATION TABLES

	℄ Construction Station	Lt. Edge Grade	Pavt. Width Lt.	Profile Grade	Pavt. Width Rt.	Rt. Edge Grade	Curve Deflection
	133 + 25	994.65	10'	994.80	10'	994.65	
T.S.	+40.67						
	+50	994.34		994.45		994.30	0° - 00'
	+75	994.10		994.11		993.96	0° - 03'
	134 + 00	993.91		993.78		993.63	0° - 10'
	+25	993.73		993.46		993.31	0° - 20'
	+50	993.56		993.15		993.00	0° - 33'
	+75	993.40		992.85		992.70	0° - 50'
	135 +00	993.24		992.56		992.41	1° - 11'
	+25	993.09		992.27		992.12	1° - 35'
	+50	992.96		992.00		991.85	2° - 03'
	+75	992.83		991.73		991.58	2° - 34'
S.C.	+90.67						2° - 55'
	136 +00	992.72		991.48		991.33	6° - 10'
	+25	992.61		991.23		991.08	7° - 02'
	+50	992.45		990.98		990.83	7° - 55'
	+75	992.24		990.73		990.58	8° - 47'
	137 +00	991.99		990.48		990.33	9° - 40'
	+25	991.70		990.23		990.08	10° - 32'
	+50	991.36		989.98		989.83	11° - 25'
	+75	990.97					12° - 17'
C.S.	+75.67	990.97		989.73		989.58	12° - 18' - 30" / 2° - 55'
	138 +00	990.58		989.48		989.33	2° - 23'
	+25	990.19		989.23		989.08	1° - 53'
	+50	989.80		988.98		988.83	1° - 26'
	+75	989.41		988.73		988.58	1° - 04'
	139 +00	989.03		988.48		988.33	0° - 44'
	+25	988.64		988.23		988.08	0° - 28'
	+50	988.25		987.98		987.83	0° - 16'
	+75	987.86		987.73		987.58	0° - 07'
	140 +00	987.47		987.48		987.33	0° - 02'
	+25	987.12					0° - 00'
S.T.	+25.67	987.12		987.23		987.08	
	+50	986.83	10'	986.98	10'	986.83	

	℄ Construction Station	Lt. Edge Grade	Pavt. Width Lt.	Profile Grade	Pavt. Width Rt.	Rt. Edge Grade	Curve Deflection
	141 + 00	986.33	10'	986.48	10'	986.33	
T.S.	+16.70						
	+ 25	986.08		986.23		986.12	0° - 00'
	+ 50	985.83		985.98		985.97	0° - 03'
	+ 75	985.58		985.73		985.86	0° - 10'
	142 + 00	985.33		985.48		985.75	0° - 19'
	+ 25	985.07		985.22		985.63	0° - 33'
	+ 50	984.78		984.93		985.49	0° - 50'
	+ 75	984.48		984.63		985.31	1° - 10'
	143+00	984.15		984.30		985.12	1° - 34'
	+25	983.80		983.95		984.91	2° - 01'
	+50	983.42		983.57		984.67	2° - 32'
S.C.	+66.70						2° - 55'
	+ 75	983.03		983.18		984.42	6° - 07'
	144+00	982.61		982.76		984.14	7° - 00'
	+ 25	982.17		982.32		983.79	7° - 52'
	+ 50	981.70		981.85		983.36	8° - 45'
	+ 75	981.22		981.37		982.88	9° - 37'
	145+00	980.71		980.86		982.33	10° - 30'
	+ 25	980.18		980.33		981.71	11° - 22'
	+ 50	979.62		979.77		981.01	12° - 15'
C.S.	+53.13						12° - 18' - 30" / 2° - 55'
	+75	979.05		979.20		980.30	2° - 26'
	146+00	978.45		978.60		979.56	1° - 56'
	+ 25	977.87		978.02		978.84	1° - 28'
	+ 50	977.34		977.49		978.17	1° - 06'
	+ 75	976.86		977.01		977.56	0° - 46'
	147+00	976.44		976.59		977.00	0° - 30'
	+ 25	976.07		976.22		976.49	0° - 17'
	+ 50	975.76		975.91		976.04	0° - 08'
	+ 75	975.50		975.65		975.64	0° - 02'
	148+00	975.29		975.44		975.33	0° - 00'
S.T.	+03.13						
	+ 25	975.11	10'	975.26	10'	975.11	

CALCULATIONS FOR COMPACTED SUBGRADE

From Sheet 2	17733 × 11.25 ÷ 9	=	2216.25 Sq. Yds
From Sheet 2	3958.76 × 20 ÷ 9	=	8797.24 Sq. Yds.
From Sheet 2	177 × 11 ÷ 9	=	216.33 Sq. Yds.
From Sheets 8, 9, 10 & 27 to 31 Incl.		=	1968.06 Sq. Yds.
From Approach Slabs		=	134.00 Sq. Yds.
Deduct for Turnouts		=	− 416.00 Sq. Yds.
Total E-1 Compacted Subgrade		=	32,865.88 Sq. Yds. Use 32866 Sq. Yds.

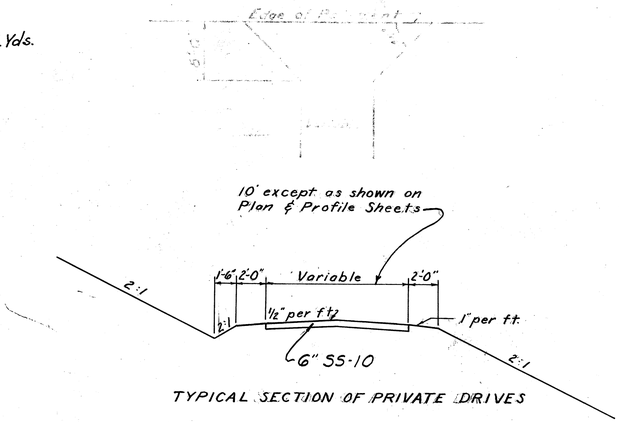
EARTHWORK TABLES

SHEET NO.	EXCAVATION	EMBANKMENT	EMBANKMENT + 30 %		
6	501	214	278		
7	1490	531	690		
8	2943	757	984		
9	1019	296	385		
10	2399	606	788		
11	2491	532	692		
12	3262	203	264		
13	2576	441	573		
14	2907	590	767		
15	2265	11088	14414		
16	2565	620	806		
17	2257	1053	1369		
18	2986	790	1027		
19	1539	304	395		
20	1637	297	386		
21	2532	538	699		
22	2314	856	1113		
23	2912	335	436		
24	2694	367	477		
25	1533	2912	3786		
26	380	1140	1482		
TOTAL	45,192	23,470	30,511	30,135	

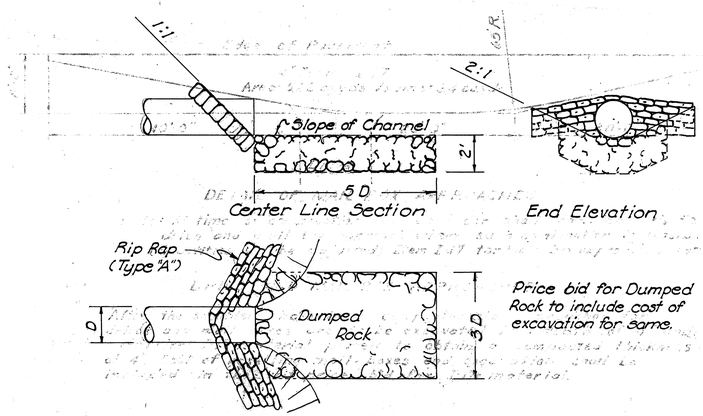
" Borrow is not to be considered as a pay item.

TREES AND STUMPS - The lump sum bid for tree and stump removal covers the approximate number and sizes listed below. Trees under 12" not listed.

SIZE	12"-18"	18"-24"	24"-30"	30"-36"	36"-42"	42"-48"	OVER 48"
TREES	21	11	10	2			
STUMPS	9	10	7	2	1		



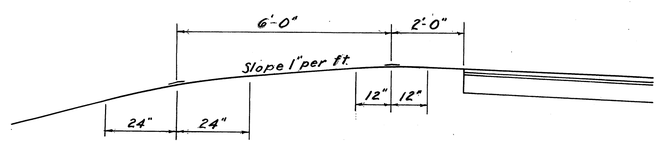
TYPICAL SECTION OF PRIVATE DRIVES



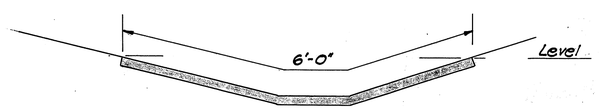
Price bid for Dumped Rock to include cost of excavation for same.

Dumped Rock and Rip Rap to be used only if called for on Plans

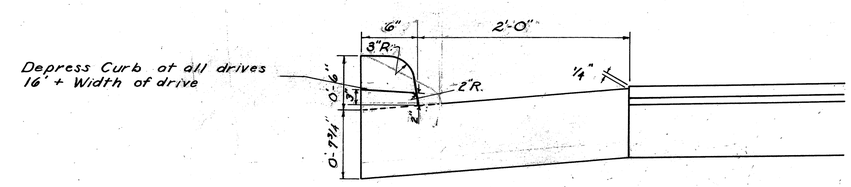
DETAIL OF CULVERT ENDS



SHOULDER ON HIGH SIDE OF SUPERELEVATED CURVE



SODDED DITCH DETAIL



COMBINATION CONCRETE CURB AND GUTTER

TYPE NO. 2

SUMMARY OF QUANTITIES

FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199 (3)	

MED-301-(2.60) (3A7)

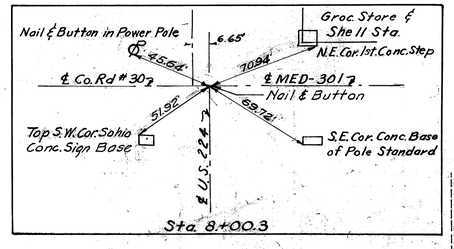
CARRIED FROM SHEET NOS. 3	4	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	68	ITEM	GRAND TOTAL	UNIT	DESCRIPTION	S-199(3) CODE 6202	CODE 6706	TOTAL	NO FEDERAL PART.
																											ROADWAY				
	45192																							E-1	45192	Cu. Yds.	Roadway Excavation as per plan	41195	910	42105	3087
1604								400		100	417	571	1249					64			642	100		E-8	5237	Sq. Yds.	Removal & Disposal of Existing Pavement	5057	80	5137	100
	32866																							E-1	32866	Sq. Yds.	Compacted Subgrade	30458		30458	2408
	Lump																							E-9	Lump	Lump	Removal of Trees & Stumps	Lump	Lump	Lump	Lump
156																								E-11	156	M.Gals.	Water	147	2	149	7
											15													L-7	15	Sq. Yds.	Rip Rap for Tree Protection	15		15	
173200																								L-9	173200	Sq. Yds.	Seeding & Protecting, Type "A" as per plan	152154	9146	161300	11300
15.87																								L-9	15.87	Tons	Commercial Fertilizer (10-6-4)	13.37	0.82	14.79	1.08
			10			1040			580	1269	82							153						L-10	3114	Sq. Yds.	Sodding	3062	10	3072	42
																		112			177.52			I-15	289.52	Lin. Ft.	Guard Rail Steel Beam Type (Deep)	289.52		289.52	
														162										I-15	162	Lin. Ft.	Guard Rail Removed & Stored	162		162	
132		38	10		21	52	10	12	14	48	14	20	46	23	33	23		11	23	33	28	26		SS-10	617	Cu. Yds.	Stabilized Crushed Aggregate Shoulders and Approaches	518	38	556	61
																											DRAINAGE				
					28							56	28	28		28				28		28		I-1	224	Lin. Ft.	8" Pipe for Driveways	196		196	28
		28	56				28	28	28	28	56			28	28	28		28	168		84	28		I-1	644	Lin. Ft.	12" Pipe for Driveways	560	84	644	
				80						84							28							I-1	192	Lin. Ft.	15" Pipe for Driveways	192		192	
																		30						I-1	30	Lin. Ft.	24" Pipe for Driveways	30		30	
													30											I-1	30	Lin. Ft.	36" Pipe for Driveways	30		30	
													56											I-1	56	Lin. Ft.	36" Span x 22" Rise Corrugated Metal Arch With Integral Base, Sec. M [redacted] Gage For Driveways	56		56	
													30											I-1	30	Lin. Ft.	65" Span x 40" Rise Corrugated Metal Arch With Integral Base, Sec [redacted] 0 Gage For Driveways	30		30	
																		30						I-1	30	Lin. Ft.	72" Span x 44" Rise Corrugated Metal Arch With Integral Base, Se [redacted]) For Driveways	30		30	
		38			80																			I-2	118	Lin. Ft.	8" Storm Sewers		38	38	80
					30	44			142	397	70	72	130			206					90			I-2	1181	Lin. Ft.	12" Storm Sewers	1107		1107	74
											230									144				I-2	374	Lin. Ft.	15" Storm Sewers	374		374	
						80																		I-2	80	Lin. Ft.	24" Storm Sewers				80
													80											I-2	80	Lin. Ft.	30" Storm Sewers	80		80	
					20																			I-2	20	Lin. Ft.	8" Storm Sewers Under Pavement				20
									20			20	20			40					20			I-2	120	Lin. Ft.	12" Storm Sewers Under Pavement	120		120	
											50									40				I-2	90	Lin. Ft.	15" Storm Sewers Under Pavement	90		90	
													20											I-2	20	Lin. Ft.	30" Storm Sewers Under Pavement	20		20	
				126																				I-3	126	Lin. Ft.	4" Roadway Drainage	126		126	
			162																					I-3	162	Lin. Ft.	10" Roadway Drainage	162		162	
		20																						I-3	20	Lin. Ft.	6" Outlets for Roadway Drainage		20	20	
																						20		I-3	20	Lin. Ft.	8" Outlets for Roadway Drainage	20		20	
			20																					I-3	20	Lin. Ft.	10" Outlets for Roadway Drainage		20	20	
		2																						I-5	2	Each	8" Pipe Specials for Storm Sewers		2	2	
										2	1													I-8	3	Each	Standard No. 2-2A Catch Basins	3		3	
		3																						I-8	3	Each	Standard No. 16 Catch Basins		3	3	
				22	10	5	3				19	16	6	48	3					68			16	I-10	216	Sq. Yds.	Rip Rap - Type "A" Grouted	201		201	15
						8					25													I-10	33	Cu. Yds.	Dumped Rock Fill as per plan	25		25	8
		1																						I-16	1	Each	Catch Basin: Abandoned		1	1	
				92	2	37	13				290	42	23	318	11					114			100	E-2	1042	Cu. Yds.	Excavation for Structures	1014		1014	28
				70							32			413	45					70			90	E-3	720	Cu. Yds.	Channel Excavation	720		720	
				15					16	313	16	18	147	63		177	17	55	32	20	47	20		E-12	956	Lin. Ft.	Pipe Removed (15" & Under)	956		956	
				20		36			24											60				E-12	140	Lin. Ft.	Pipe Removed for Storage (15" & Under)	140		140	
						108					40	29	36											E-12	213	Lin. Ft.	Pipe Removed for Storage (Over 15")	105		105	108
					2																		23.3	S-1	25.3	Cu. Yds.	Concrete for Structures, Class "C", Superstructure	23.3		23.3	2.0
																							35.2	S-1	35.2	Cu. Yds.	Concrete for Structures, Class "E", Footers	35.2		35.2	
																							42.4	S-1	42.4	Cu. Yds.	Concrete for Structures, Class "E", Walls	42.4		42.4	
																							70	S-3	70	Sq. Yds.	Waterproofing, Type "C"	70		70	
					158																		7780	S-4	7938	Lbs.	Reinforcing Steel	7780		7780	158
																							16	S-9	16	Sq. Ft.	½" Premolded Expansion Joint Filler	16		16	
																							38	S-14	38	Lin. Ft.	Railing (Type 1-15.13 with Steel Posts)	38		38	
						3					1		5											S-22	9	Cu. Yds.	Removal of Portions of Existing Structures	6		6	3
					6																			S-23	6	Lin. Ft.	Dowel Holes				6
				Lump(1)			Lump(1)				Lump(1)		Lump(1)	Lump(2)	Lump(1)		Lump(1)	Lump(1)		Lump(1)			Lump(1)	S-24	Lump	Lump	Removal of Existing Structures	Lump		Lump	
						56								40	46					54				S-27	196	Lin. Ft.	15" Pipe for Roadway Culverts	196		196	
							56																	S-27	56	Lin. Ft.	18" Pipe for Roadway Culverts	56		56	
																				4				S-27	4	Lin. Ft.	21" Pipe for Roadway Culverts	4		4	
					4	56																		S-27	60	Lin. Ft.	24" Pipe for Roadway Culverts				60
					16																			S-27	16	Lin. Ft.	30" Pipe for Roadway Culverts				16
											164													S-27	164	Lin. Ft.	60" Pipe for Roadway Culverts	164		164	
													62											S-27	62	Lin. Ft.	29" Span x 18" Rise Bitum. Coated Corr. Metal Arch With Integral Base, Sec. M-6.4(1)(c) For Roadway Culverts	62		62	
												54												S-27	54	Lin. Ft.	36" Span x 22" Rise Bitum. Coated Corr. Metal Arch With Integral Base, Sec. M-6.4(1)(c) 12 Gage For Road. Culv.	54		54	
				64										104						104				S-27	272	Lin. Ft.	58" Span x 36" Rise Bitum. Coated Corr. Metal Arch With Integral Base, Sec. M-6.4(1)(c) For Roadway Culverts	272		272	
														112										S-27	112	Lin. Ft.	72" Span x 44" Rise Bitum. Coated Corr. Metal Arch With Integral Base, Sec. M-6.4(1)(c) for Roadway Culverts	112		112	
																							23	S-29	23	Cu. Yds.	Porous Backfill	23		23	
																							15	S-3	15	Lin. Ft.	Waterproofing Premolded Sealing Strip, 13" x ¾"	15		15	
																											PAVEMENT				
5912																								B-117	5912	Bbls.	Portland Cement	5451	65	5516	396
35468																								B-117	35468	Sq. Yds.	6" Cement Treated Base	32706	387	33093	2375
2003																								B-35	2003	Cu. Yds.	Asphaltic Concrete Leveling Course (85-100)	1749	112	1861	142
1879																								T-35	1879	Cu. Yds.	Asphaltic Concrete Surface Course, Type "A" (85-100)	1637	108	1745	134
134																								I-7	134	Sq. Yds.	Reinforced Concrete Approach Slabs	134		134	
98		1215																						I-12	1313	Lin. Ft.	Standard Type No 2 Combination Curb & Gutter		1313	1313	
5385																								T-30	5385	Gals.	Bituminous Tack Coat, Sec. M-5.5, MS-2 or SS-1	4691	309	5000	385

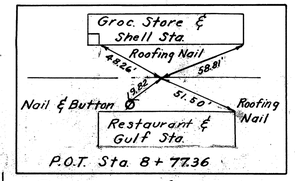
STRUCTURES OVER 20 FT. SPAN.

SEE SHEET 71 FOR QUANTITIES FOR STR. NO. ME-301-70

REG. NO.	STATE	F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-199(3)		6 / 74

MED-301-(2.60)(347)

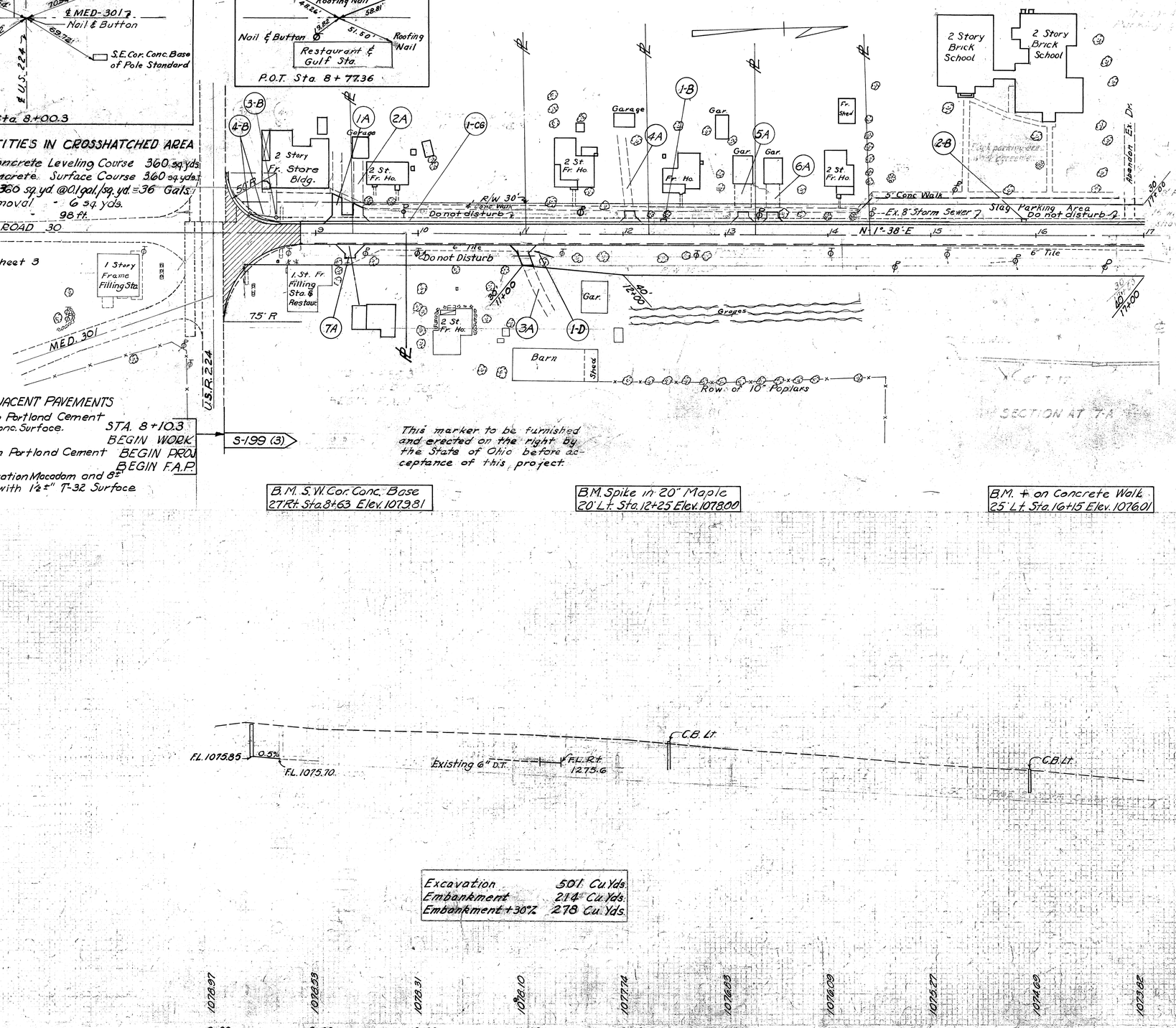




*ESTIMATED QUANTITIES IN CROSSHATCHED AREA

B-35 1¼" Bituminous Concrete Leveling Course 360 sq. yds.
T-35 ¾" Min. Bituminous Concrete Surface Course 360 sq. yds.
T-30 Tack Coat 360 sq. yd. @ 0.1 gal./sq. yd. = 36 Gals.
Pavement Removal - 6 sq. yds.
Curb & Gutter - 98 ft.

*Carried to table on Sheet 3



TYPICAL SECTIONS OF ADJACENT PAVEMENTS

SR. 224 EAST: 20' Width Portland Cement Concrete with 2±" Bit. Conc. Surface. 6± Berms.

SR. 224 WEST: 24' Width Portland Cement Concrete. 10± Berms

SR. 301 SOUTH: 10± Pentration Macadam and 8± Traffic Bound Surfaced with 1½±" T-32 Surface 6± Berms.

STA. 8+10.3 BEGIN WORK
BEGIN PROJ
BEGIN F.A.P.

This marker to be furnished and erected on the right by the State of Ohio before acceptance of this project.

B.M. S.W. Cor. Conc. Base 27' Rt. Sta. 8+63 Elev. 1073.81

B.M. Spike in 20" Maple 20' Lt. Sta. 12+25 Elev. 1078.00

B.M. + on Concrete Walk 25' Lt. Sta. 16+15 Elev. 1076.01

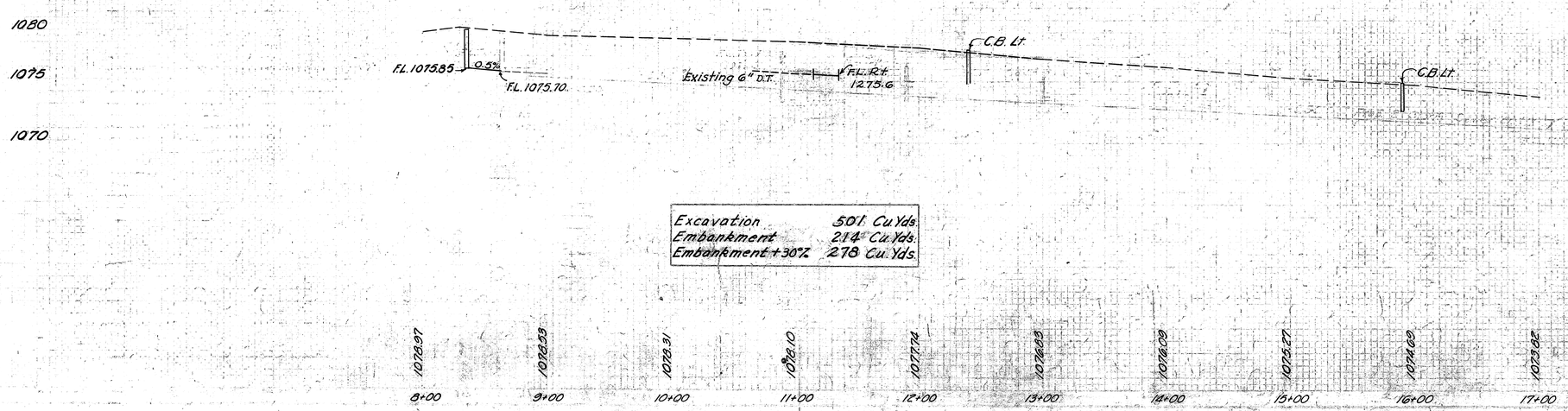
DRIVES & APPROACHES (A)				
ITEM NO.	STATION	SIDE	SS-10 CU. YDS.	12" PIPE FOR DRIVEWAYS
1-A	9+25	Lt.	6	
2-A	9+42	Lt.	5	
3-A	11+02	Rt.	6	28
4-A	12+08	Lt.	5	
5-A	13+18	Lt.	5	
6-A	13+45	Lt.	5	
7-A	9+40	Rt.	6	
	Total		38	28

DRAINAGE (D)				
ITEM NO.	STATION FROM	STATION TO	SIDE	Roadway Dr. Outlet 6"
1-D	11+15	11+35	Rt.	20
Total				20

CATCH BASINS (B)					Storm Sewer		I-16
ITEM NO.	STATION	SIDE	CATCH BASINS Std. 16		8"-8" Wye	8" Pipe	C.B. Abnd.
1-B	12+40	Lt.		1	1	4	
2-B	15+90	Lt.		1	1	4	
3-B	18+62	Lt.	Abandon				1
4-B	8+35-8+64	Lt.		1		30	
		Lt.					
TOTAL				3	2	38	1

Connect proposed C.B.s to existing 8" Storm Sewer. F.L. of C.B.s to be determined in the Field.

CURB & GUTTER (CG)				
ITEM NO.	STATION FROM	STATION TO	SIDE	Lin. Ft.
1-CG	8+85.3	21+00	Lt.	1214.7
TOTAL				1215

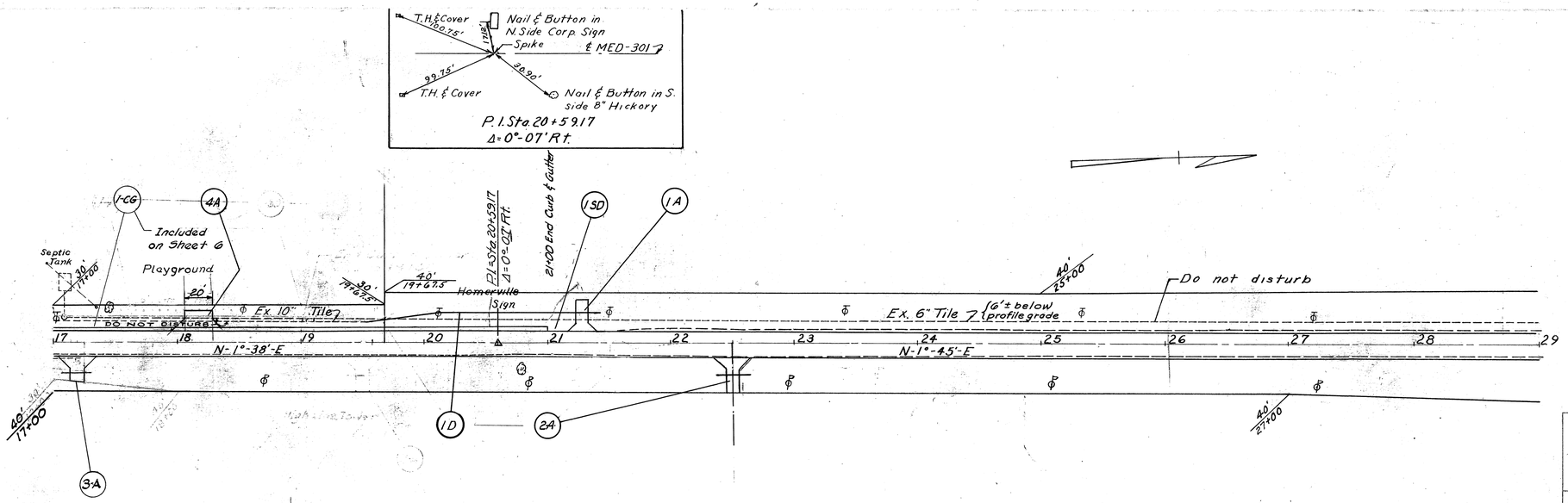


Excavation	501 Cu. Yds.
Embankment	214 Cu. Yds.
Embankment +30%	278 Cu. Yds.

STA. 8+00 to STA. 17+00

FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	7
2	OHIO	S-199(3)	FDOT WAR	74

MED-301-(2.60)(3.47)

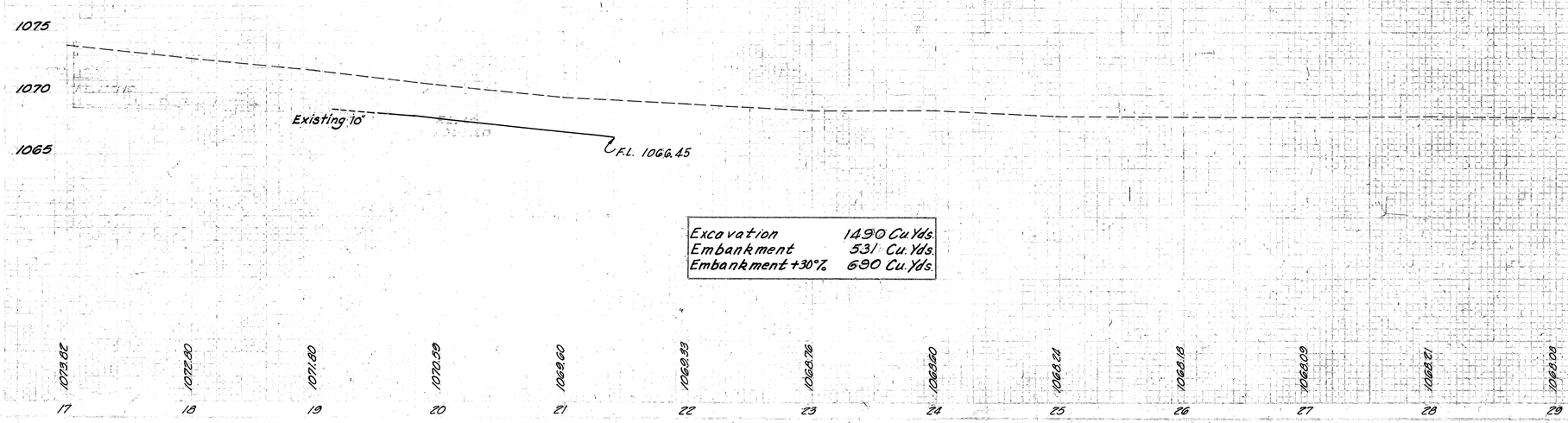


I-3 DRAINAGE (D)					
ITEM NO.	STATION FROM	STATION TO	SIDE	Outlet Pipe 10"	10"
1D	19+58	21+40	Lt.	20'	162
		TOTAL		20'	162

	STATION	SS 1:10 Cu.Yd.	Pipe For Driveways Lin.Ft. 12"			Sod Sq.Yd.	
1-A	21+27 Lt.						
2-A	22+50 Rt.		28				
1-SD	21+00-21+09 Lt.					10	
3-A	17+14 Rt.		28				
4-A	18+15 Lt.	10					
	TOTALS	10	56			10	

B.M. Spike in 8" Hickory 23' Rt. Sta. 20+80 Elev. 1070.08

B.M. Spike in Tel. Pole 24' Lt. Sta. 27+21 Elev. 1067.33

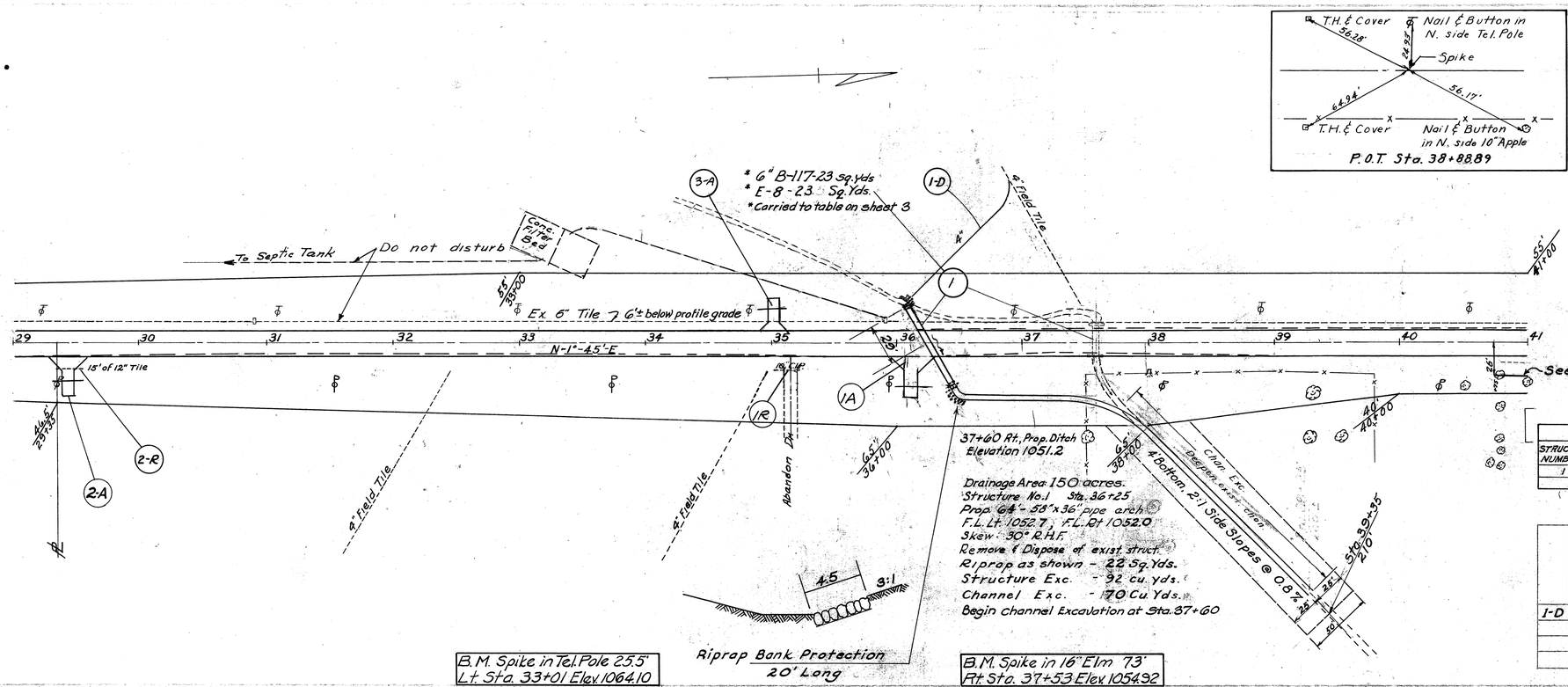


Excavation	1490 Cu.Yds.
Embankment	531 Cu.Yds.
Embankment +30%	690 Cu.Yds.

STA. 17+00 to STA. 29+00

FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	8 / 74
2	OHIO	S-199(3)		

MED-301-(2.60)(3.47)

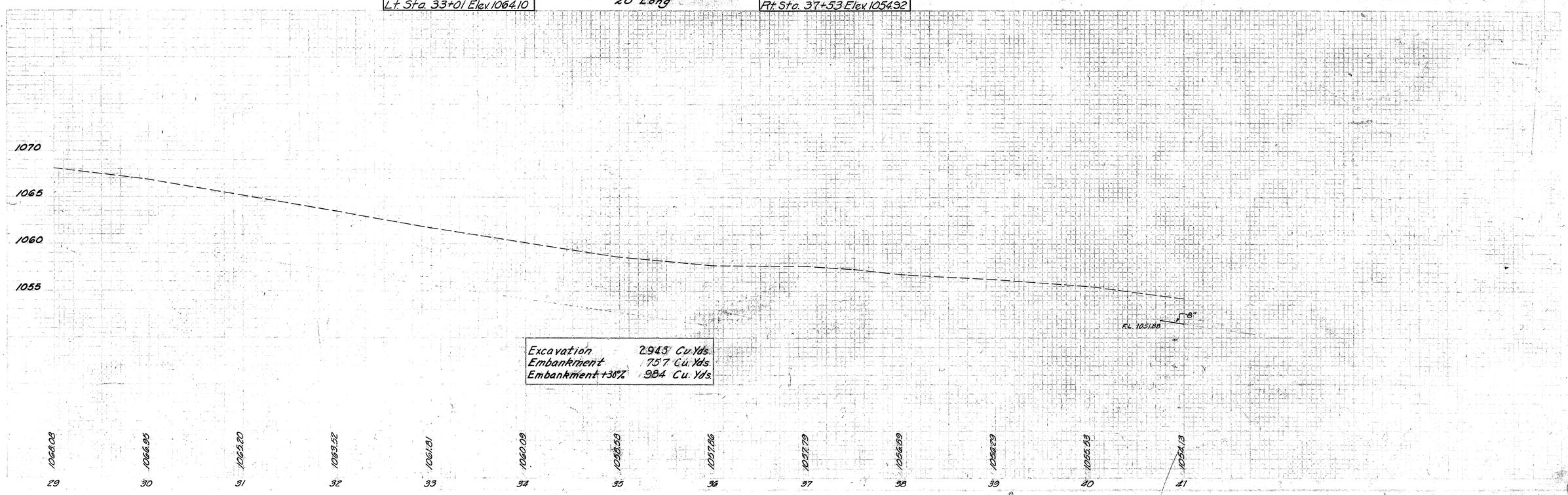


DRIVES & APPROACHES (A)				
ITEM NO.	STATION	SIDE		15" PIPE FOR DRIVEWAYS
1-A	36+10	Rt		28
2-A	29+44	Rt		28
3-A	35±	Lt		24
Total				80

PIPE REMOVAL (R)					
ITEM NO.	STATION FROM	STATION TO	SIDE	REMOVE & STORED 15" & UNDER Lin. Ft.	REMOVED & DISPOSED 15" & UNDER Lin. Ft.
1-R	35+04	35+24	Rt	20'	
2-R	29+37	29+52	Rt		15'
Total				20'	15'

STRUCTURES 20FT SPAN & UNDER								
STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH	OPTIONAL CHANNEL
1	36+25	STONE BOX	4'X3.5'	21.7	PIPE ARCH	58"X36"	64	

	STATION		I-3 Roadway Drainage 4" Lin. Ft.			
I-D	36+10-36+95 Lt.		126			
	Total		126			

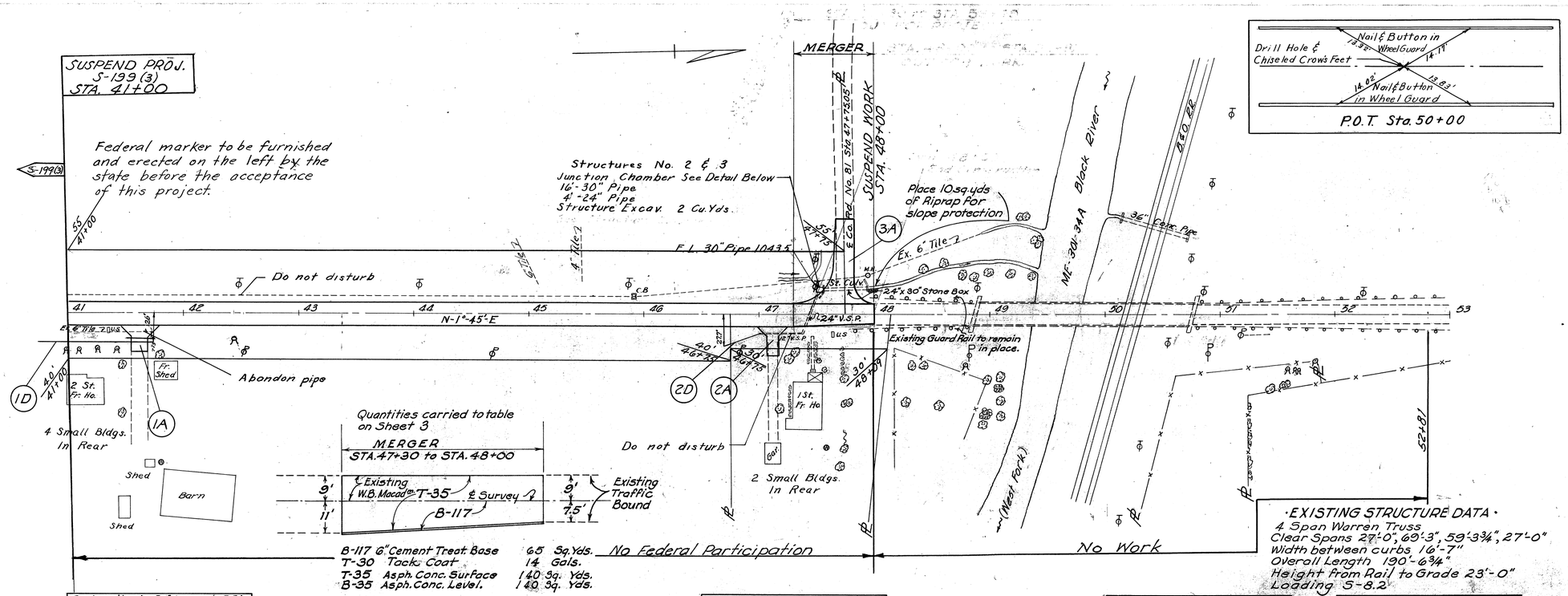


Excavation	2943 Cu. Yds.
Embankment	757 Cu. Yds.
Embankment +30%	984 Cu. Yds.

STA. 29+00 to STA. 41+00

FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS	9 / 74
2	OHIO	S-199(3)		

MED-301-(2.60)(3.47)

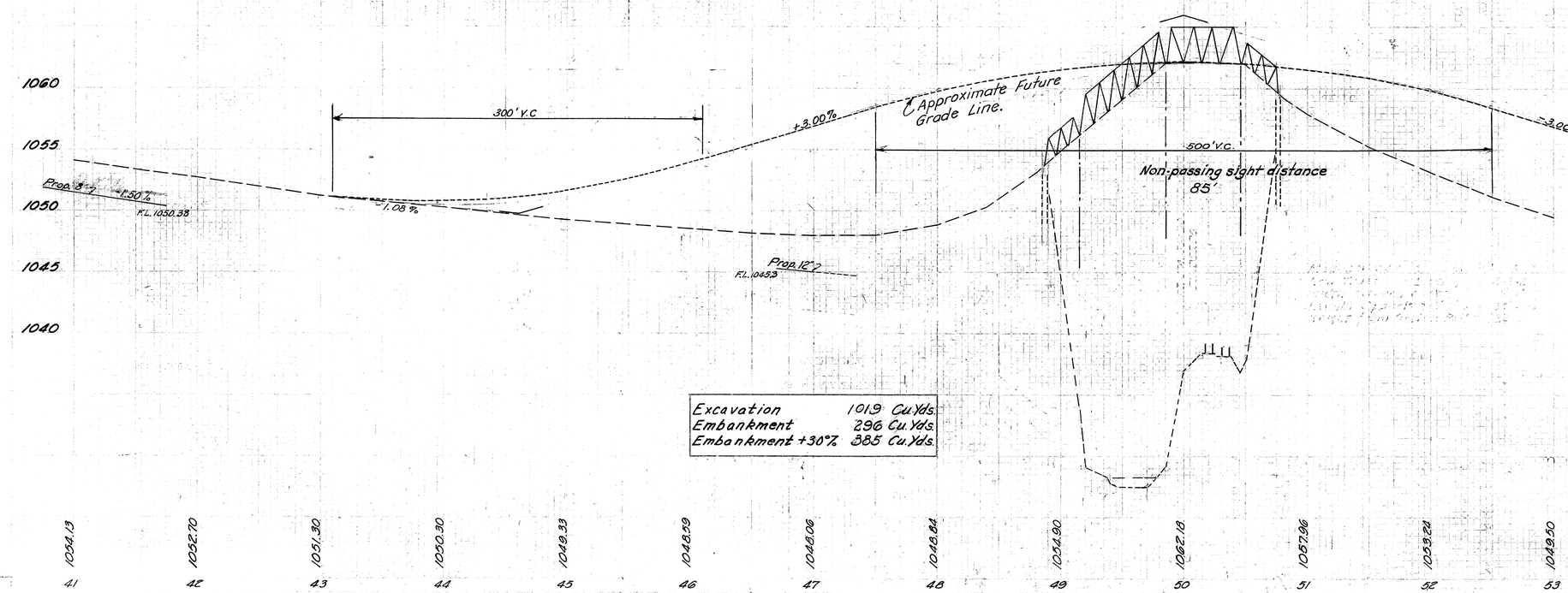


DRIVES & APPROACHES (A)					
ITEM NO.	STATION	SIDE	SS-10 CU. YDS.	8" PIPE FOR DRIVEWAYS	DETAIL SHEET
1A	41+62	Rt.	10	28	
2A	47+12	Rt.	11		
3A	47+76.05	Lt.			27
Total			21	28	

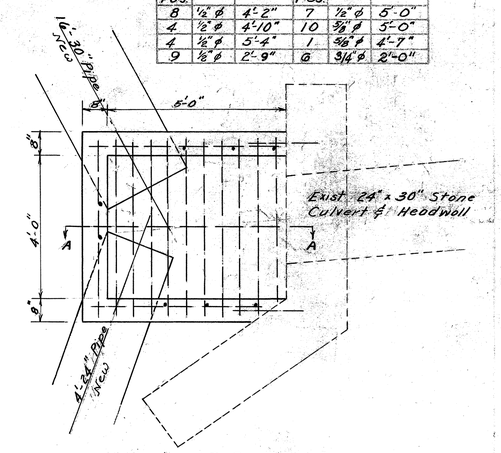
DRAINAGE (D)						
ITEM NO.	STATION FROM	STATION TO	SIDE	STORM SEWER 8"	8" UNDER PAVT.	12"
1D	40+75	41+75	Rt.	80	20	
2D	46+72.5	47+00.5	Rt.			30
Total				80	20	30

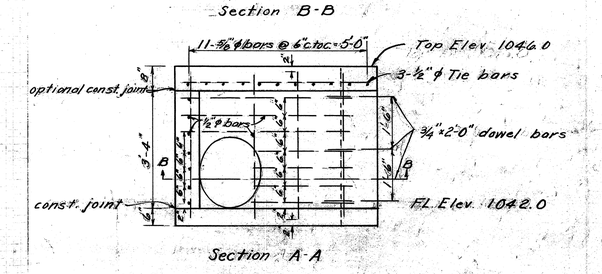
SUMMARY QUANTITIES FOR JUNCT. CH.	
ITEM	DESCRIPTION
S-23	6 lin. ft. Dowel Holes
S-4	158 lb. Reinf. Steel
S-1	2 cu. yd. Class "C" Conc.
S-27	16 lin. ft. 30" Pipe
S-27	4 lin. ft. 24" Pipe

REINFORCING STEEL					
NO. PCS.	SIZE	LENGTH	NO. PCS.	SIZE	LENGTH
8	½" ϕ	4'-2"	7	½" ϕ	5'-0"
4	½" ϕ	4'-10"	10	⅝" ϕ	5'-0"
4	½" ϕ	5'-4"	1	⅝" ϕ	4'-7"
9	⅝" ϕ	2'-9"	6	3/16" ϕ	2'-0"



Excavation	101.9 Cu. Yds.
Embankment	296 Cu. Yds.
Embankment +30%	385 Cu. Yds.

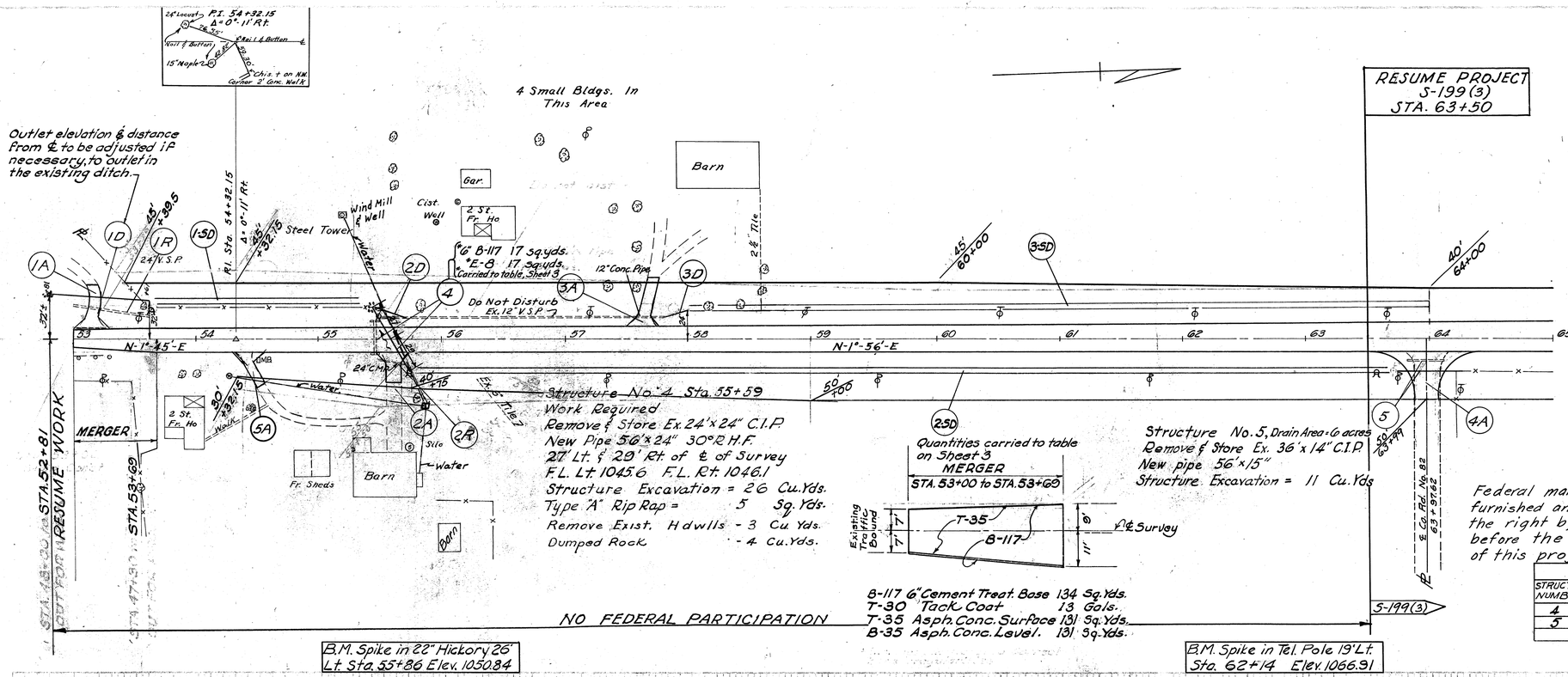




STA. 41+00 to STA. 53+00

FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-199 (3)		10 T4

MED-301-(2.60)(3.47)



Federal marker will be furnished and erected on the right by the state before the acceptance of this project.

DRIVES & APPROACHES (A)

ITEM NO.	STATION	SIDE	55-10 CU. YDS.	12" PIPE FOR DRIVEWAYS	DETAILS ON SHEET
1A	53+08	Lt.	13		
2A	55+60	Rt.	11		
3A	57+66	Lt.	16		
4A	63+97.62	Rt.			28
5A	54+35	Rt.	12		
Total			52		

DRAINAGE (D)

ITEM NO.	STATION FROM	STATION TO	SIDE	STORM SEWER 12"	STORM SEWER 24"	Dump Rock Cu. Yds.	
1D	52+81	53+61	Lt.		80	4	
2D	55+45	55+65	Lt.	24			
3D	57+81.5	57+99.5	Lt.	20			
Total				44	80	4	

PIPE REMOVAL (R)

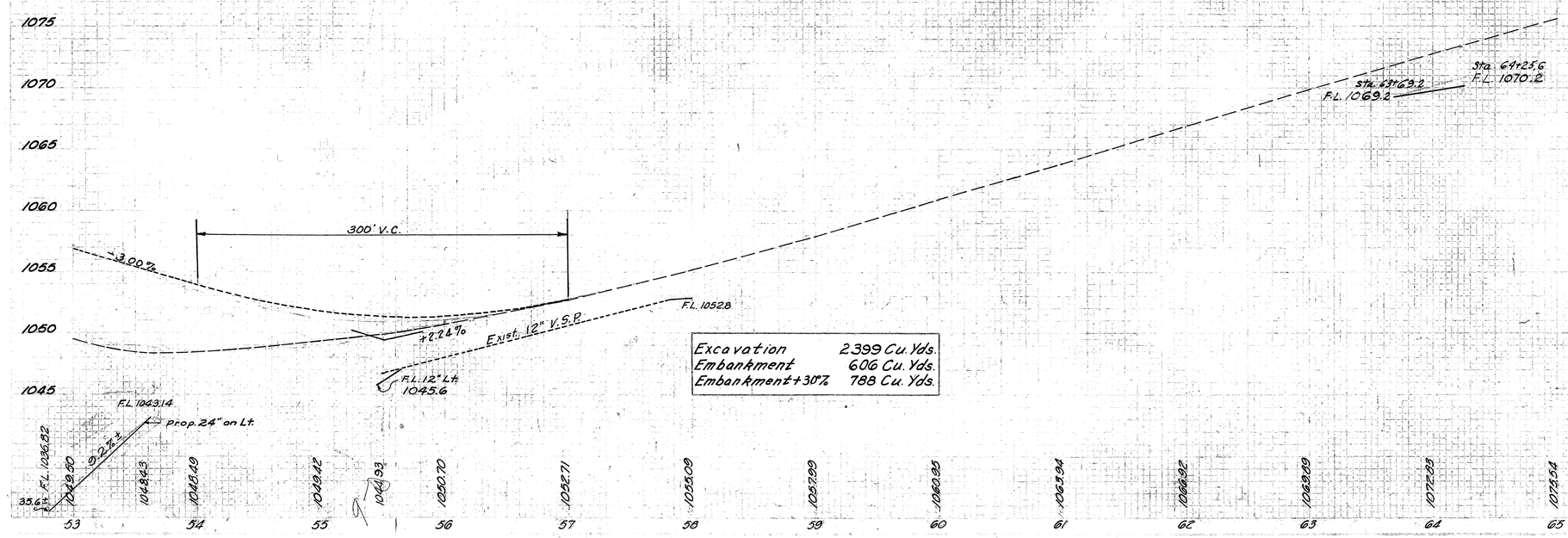
ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED & STORED Over 15"	
1R	53+00	53+61	Lt.	60	
2R	55+47	55+71	Rt.	24	
Total				84	

STRUCTURES 20 FT SPAN & UNDER

STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	PRESENT STRUCTURE SIZE	PRESENT STRUCTURE LENGTH	PROPOSED STRUCTURE TYPE	PROPOSED STRUCTURE SIZE	PROPOSED STRUCTURE LENGTH	
4	55+59	PIPE	24"	24	PIPE	24"	56	
5	63+97.62	PIPE	14"	36	PIPE	15"	56	

SOD (SD)

Item No.	STATION From	STATION To	SIDE	Sq. Yds.
1-SD	53+61	55+36	Lt.	110
2-SD	55+74	63+69	Rt.	530
3-SD	58+00	64+00	Lt.	400
TOTAL				1040

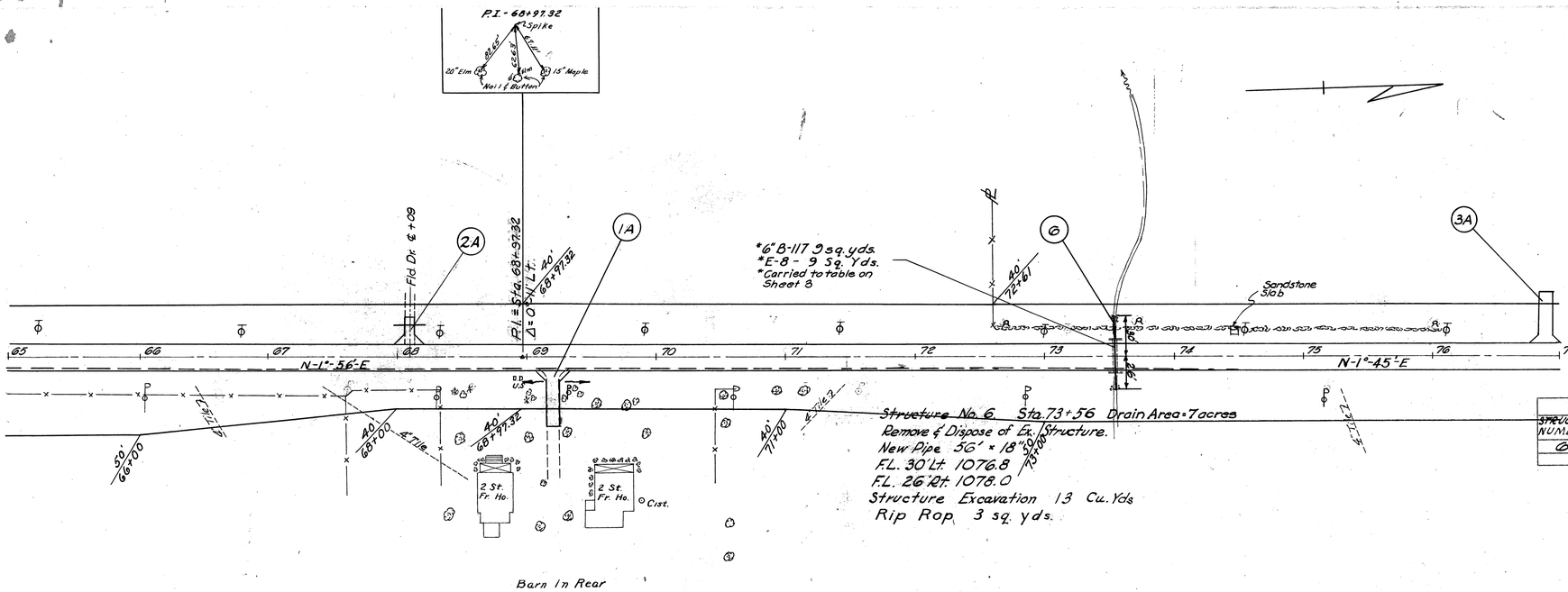


Excavation	2399 Cu. Yds.
Embankment	606 Cu. Yds.
Embankment + 30%	788 Cu. Yds.

STA. 53+00 to STA. 65+00

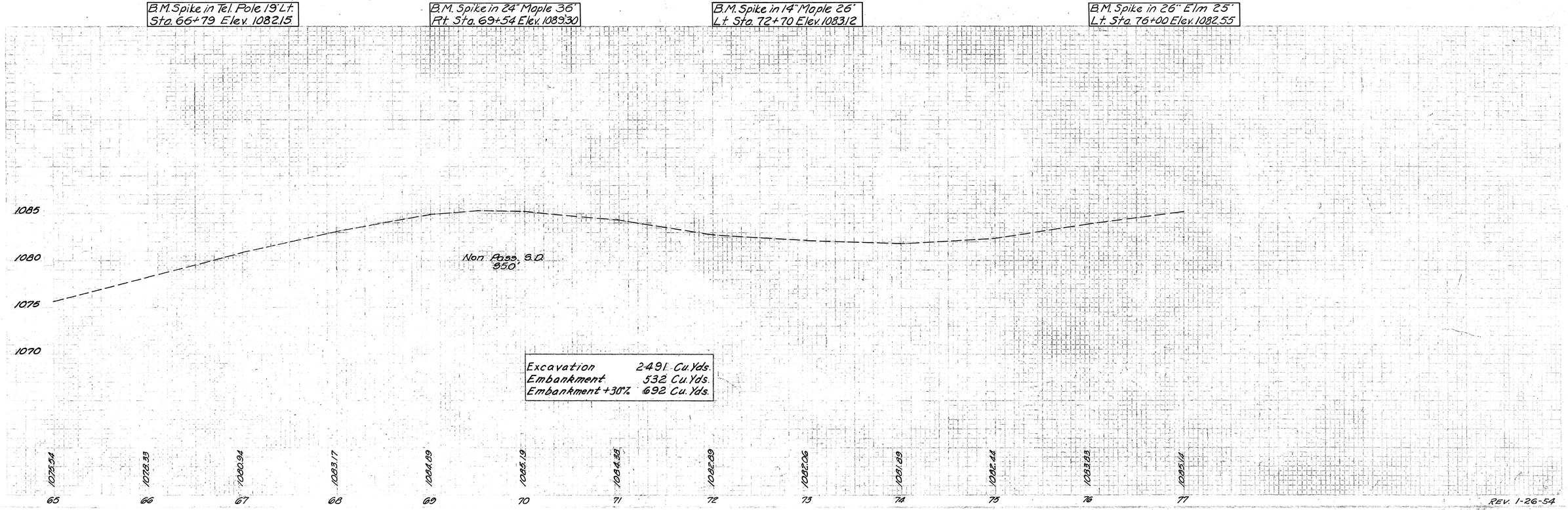
		F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-199(3)	POST WAR	11/74

MED-301-(2.60)(3.47)



DRIVES & APPROACHES (A)				
ITEM NO.	STATION	SIDE	SS-10 CU.YD	12" Pipe For Drives
1-A	69+20	Rt	10	
2-A	68+09	Lt.		28
3-A	76+90	Lt.		
	TOTAL		10	28

STRUCTURES 20 FT. SPAN & UNDER								
STRUCTURE NUMBER	STATION	PRESENT STRUCTURE			PROPOSED STRUCTURE			DETAILS ON SHEET
		TYPE	SIZE	LENGTH	TYPE	SIZE	LENGTH	
6	73+56	STONE	3'×2.5'	25'	PIPE	18"	56'	

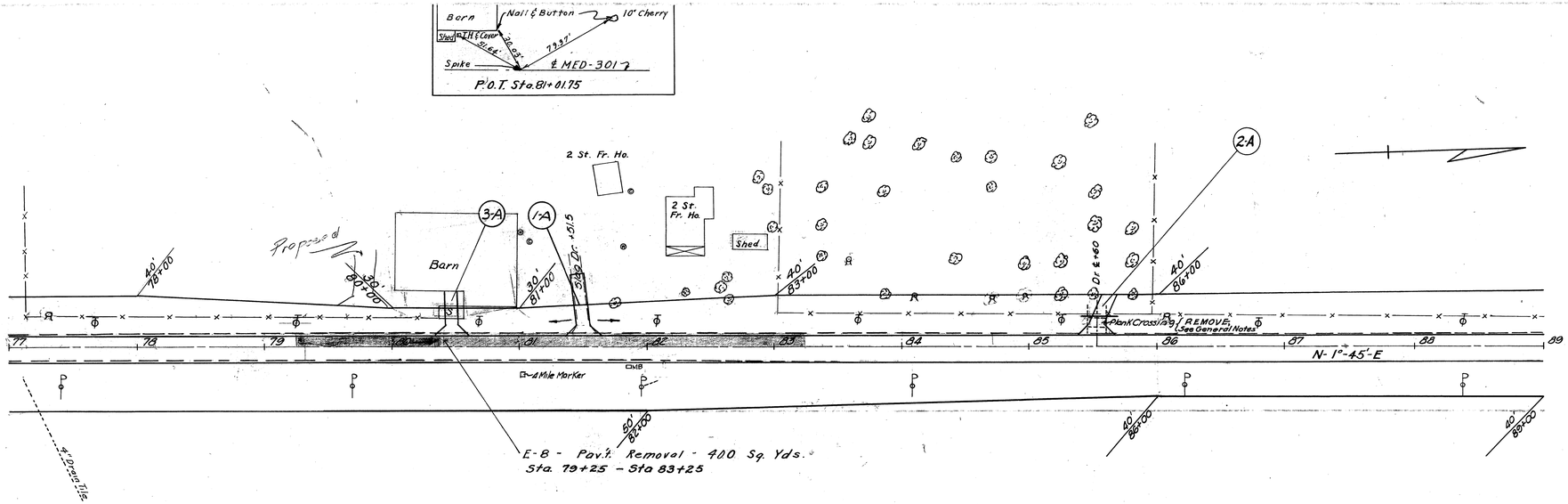


REV. 1-26-54

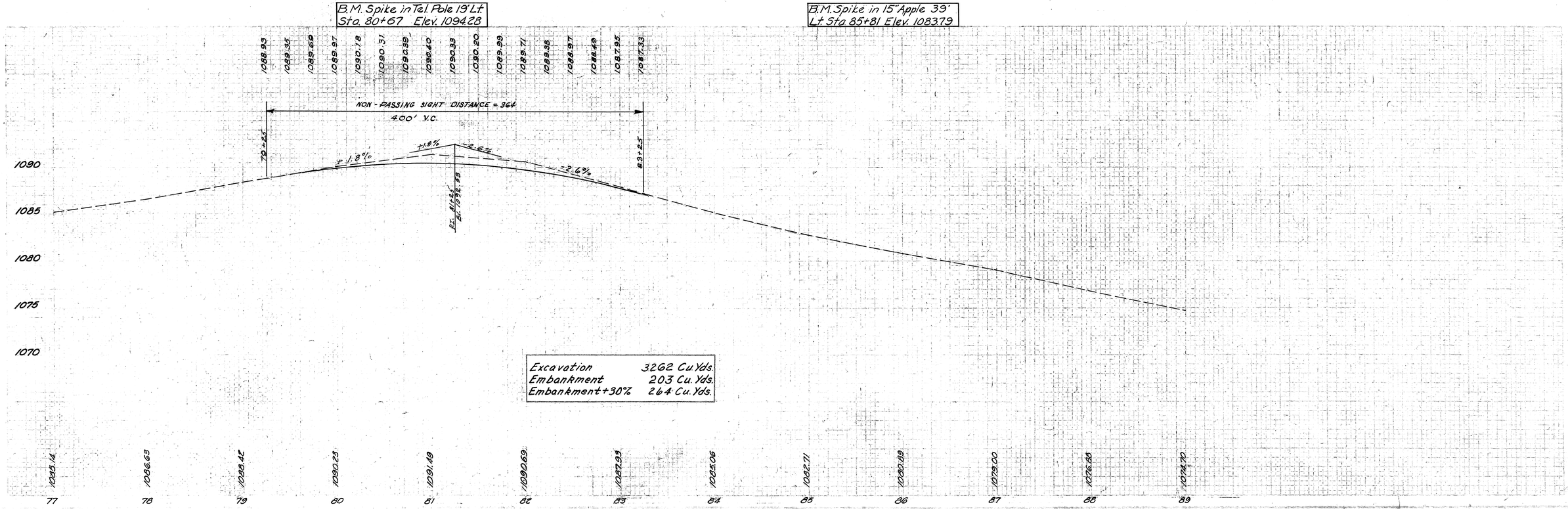
STA. 65+00 to STA. 77+00

FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-193(3)		12 / 74

MED-301-(2.60)(3.47)



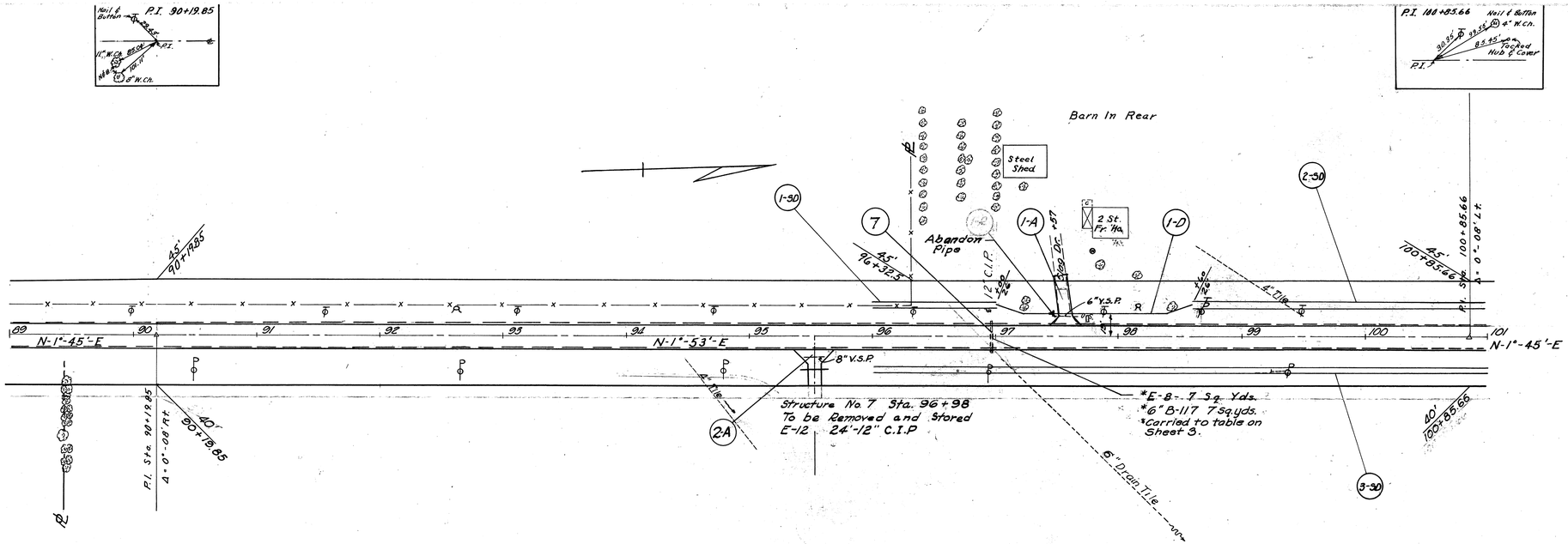
DRIVES & APPROACHES (A)				
ITEM NO.	STATION	SIDE	SS-10 CU.YD	12" Pipe For Drives
1A	81+51.5	Lt.	12	
2-A	85+60	Lt.		28
3-A	80+46	Lt.		
	TOTAL		12	28



STA. 77+00 to STA. 89+00

STATE	F.A. PROJECT	TYPE FUNDS
OHIO	S-199 (3)	

MED-301-(2.60)(3.47)



DRIVES & APPROACHES (A)					
ITEM NO.	STATION	SIDE	Sf-10 CU. YDS.	12" Pipe For Dr.	Pipe Removal & Disposal 12" & Under
1-A	97+57	Lt	14		
2-A	95+55	Rt		28	16
TOTAL			14	28	16

ROADWAY DRAINAGE (D)					
ITEM NO.	STATION FROM	STATION TO	SIDE	Storm S. L.I.P. Ft. 12"	Storm S. L.I.P. Ft. 12" Under Pav't
1-D	97+00	98+60	Lt	142	20
TOTAL				142	20

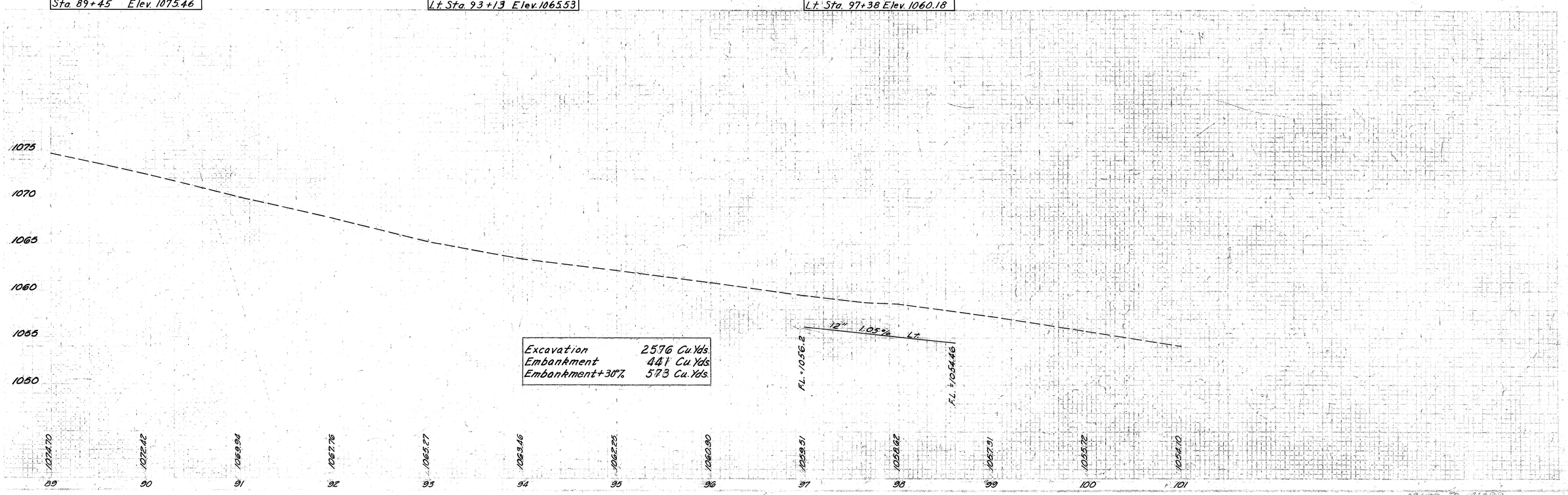
SOD (SD)				
ITEM NO.	STATION FROM	STATION TO	SIDE	Sq. Yds.
1-SD	96+00	97+00	Lt	67
2-SD	98+60	101+00	Lt	160
3-SD	96+00	101+00	Rt	333
TOTAL				560

STRUCTURES 20 FT. SPAN AND UNDER							
STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH
7	96+98	C.I.P.	12"	24'	Culvert to be removed		

B.M. Spike in 11" W. Cherry 39' Rt.
Sta. 89+45 Elev. 1075.46

B.M. Spike in Tel. Pole 20'
Lt. Sta. 93+13 Elev. 1065.53

B.M. Spike in 14" Walnut 24'
Lt. Sta. 97+38 Elev. 1060.18



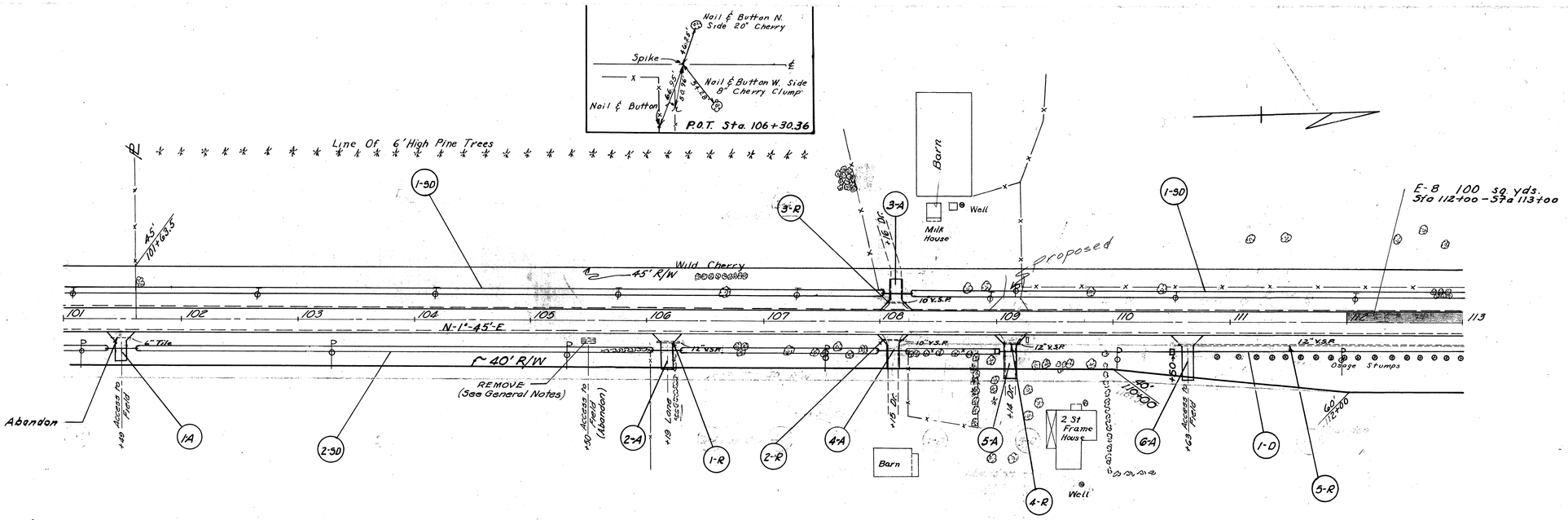
Excavation	2576 Cu. Yds.
Embankment	441 Cu. Yds.
Embankment + 30%	573 Cu. Yds.

STA. 89+00 to STA. 101+00

	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	

MED-301-(2.60)(3.47)

14
74

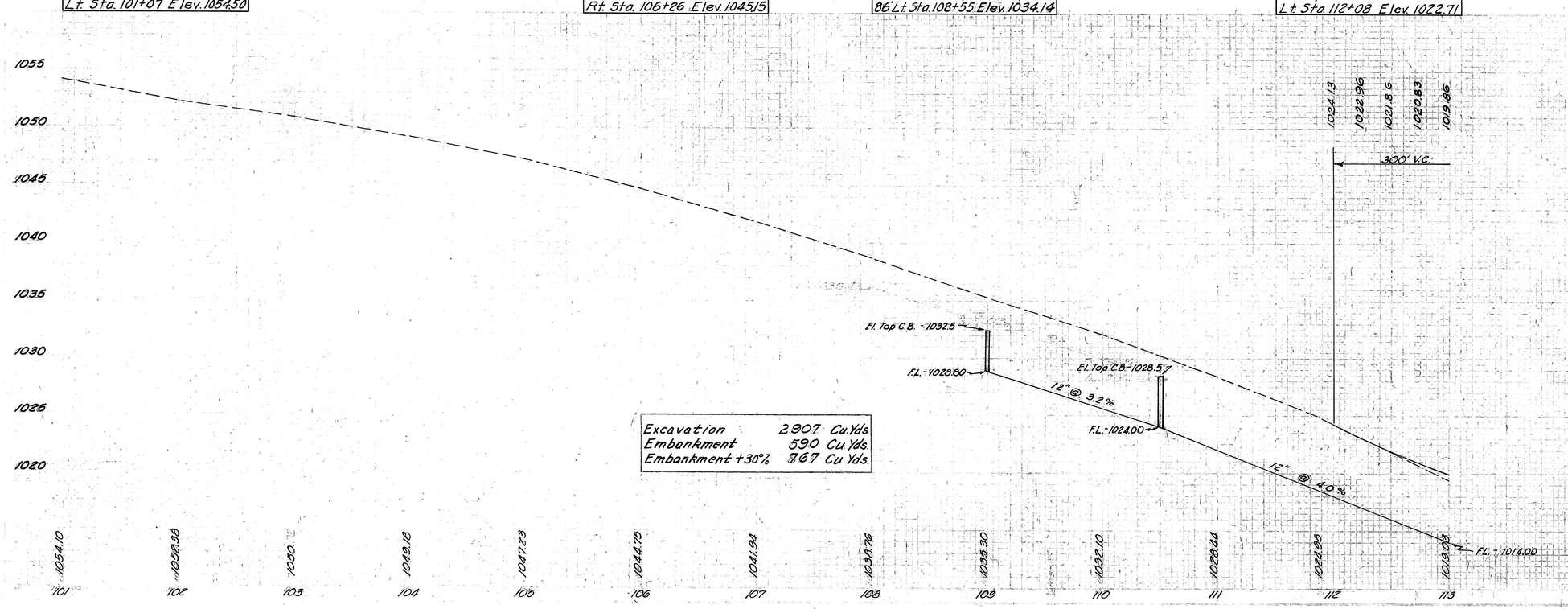


DRIVES & APPROACHES (A)						
ITEM NO.	STATION	SIDE	SSID CU. YDS	Pipe for Drives 12"	15"	18"
1-A	101+49	Rt.		28'		
2-A	106+19	Rt.	12		28'	
3-A	108+16	Lt.	11		28'	
4-A	108+12	Rt.	12		28'	
5-A	109+14	Rt.	13		28'	
6-A	110+63	Rt.			28'	
TOTAL			48	28'	84'	

DRAINAGE (D)					
ITEM NO.	STATION FROM	STATION TO	SIDE	I-2 12" I-2-A	I-6 I-2-A
				Lin Ft.	Unit
1-D	109+00	113+00	Rt.	397	2
TOTAL				397	2

PIPE REMOVAL (R)				
ITEM NO.	STATION	SIDE	PIPE REMOVED & DISPOSED OF 15" UNDER	
1-R	106+19	Rt.	18	
2-R	108+15	Rt.	18	
3-R	108+16	Lt.	16	
4-R	109+12	Rt.	16	
5-R	110+55-113+00	Rt.	245	
TOTAL			313	

SOD (SD)				
ITEM NO.	STATION FROM	STATION TO	SIDE	SQ. YDS.
1-SD	101+00	113+00	Lt.	784
2-SD	101+00	109+00	Rt.	485
TOTAL				1269



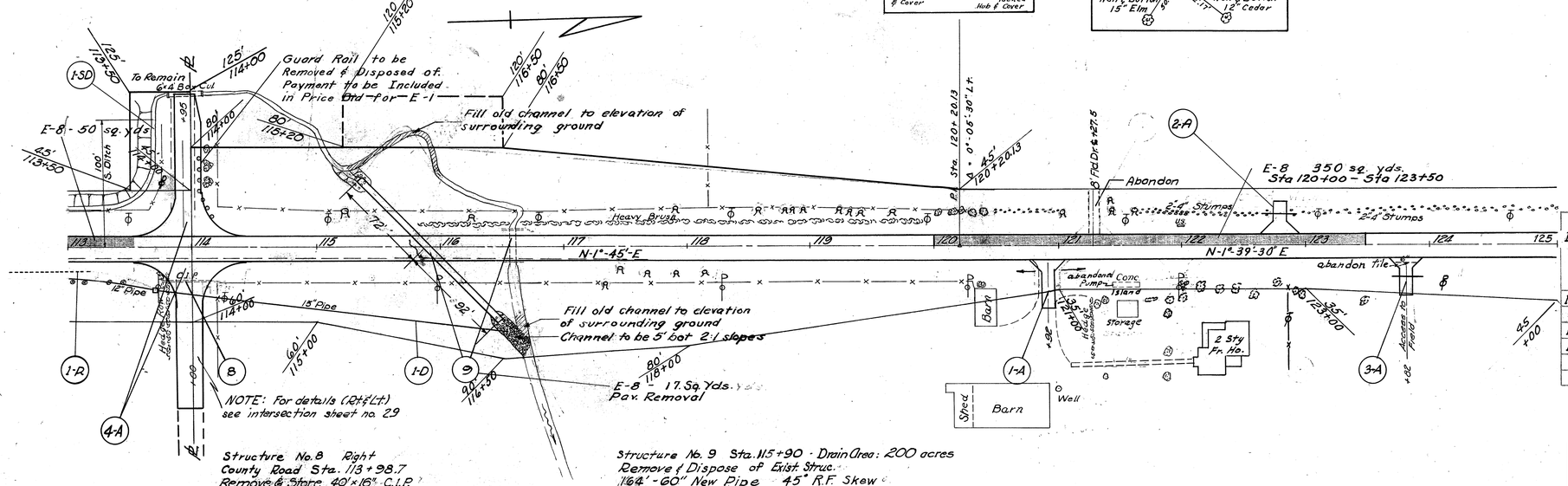
Excavation	2907 Cu. Yds.
Embankment	590 Cu. Yds.
Embankment +30%	767 Cu. Yds.

STA. 101+00 to STA. 113+00

FED. ROAD DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	FAS

15
74

MED-301-(2.60)-(3.47)



Structure No. 8 Right
County Road Sta. 113+98.7
Remove & Store 40'x16" C.I.P.
Remove Exist. Headwall 1 Cu. Yds.

Structure No. 9 Sta. 115+90 · Drain Area: 200 acres
Remove & Dispose of Exist. Struc.
164'-60" New Pipe 45° R.F. Skew

El. Lt. 1000.0 FL. El. Rt. 997.0
Excavation: Channel 32 C.Y. Struct. 290 C.Y.
I-10 Rip Rap 19 sq. yd.
I-10 Dumped Rock 25 Cu. Yds.

B.M. Spike in Power Pole 52' Lt Sta. 113+73 Elev. 1011.41

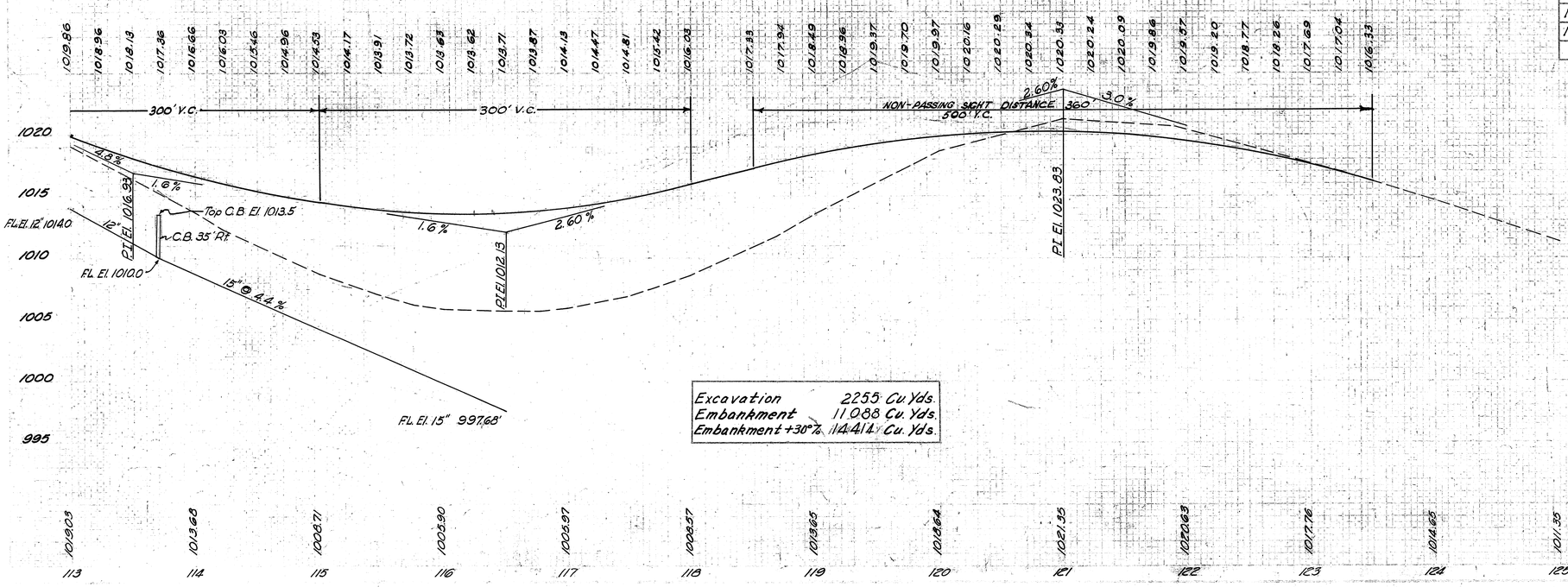
B.M. Spike in 18" Ash 28' Lt. Sta. 115+24 Elev. 1003.47

B.M. + on N. End E. Head Wall STR. MED-301-47 Elev. 1006.38

B.M. Spike in 30" Ash 26' Lt. Sta. 118+58 Elev. 1012.66

B.M. + on Conc. Island 31' Rt. Sta. 121+46 Elev. 1021.59

B.M. Spike in 20" Apple 43' Rt. Sta. 123+50 Elev. 1018.54



Excavation	2255 Cu. Yds.
Embankment	11,088 Cu. Yds.
Embankment +30%	14,414 Cu. Yds.

DRIVES & APPROACHES (A)

ITEM NO.	STATION	SIDE	SS-10 CU. YDS	Pipe For Drives 12" Lin. Ft.	8"	DETAIL SHEET
1-A	120+92	RT.	14			
2-A	122+80	Lt		28		
3-A	123+82	RT.		28'		
4-A	113+98.7	Lt & Rt.				29
TOTAL			14	56		

Item No.	Station	Storm Sewer Lin. Ft. 12"	15"	S. Sewer Und. Rem. Lin. Ft. 15"	Catch Basin 2-2-A Units	Sod Sq. Yds.	Pipe Rem. & Dis. 15" & Und. Lin. Ft.		
1-SD	113+00 - See Plans					82			
1-R	113+00-113+16 Rt.						16		
1-D	113+00-116+50	70	230	50	1				
	Totals	70	230	50	1	82	16		

STRUCTURES 20 FT. SPAN & UNDER

STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH
8	114+00 RT	C.I. PIPE	16"	40	Culvert to be Removed		
9	115+90	STONE	5.5'x6'	24	PIPE	60"	164'

L-7 TREE PROTECTION

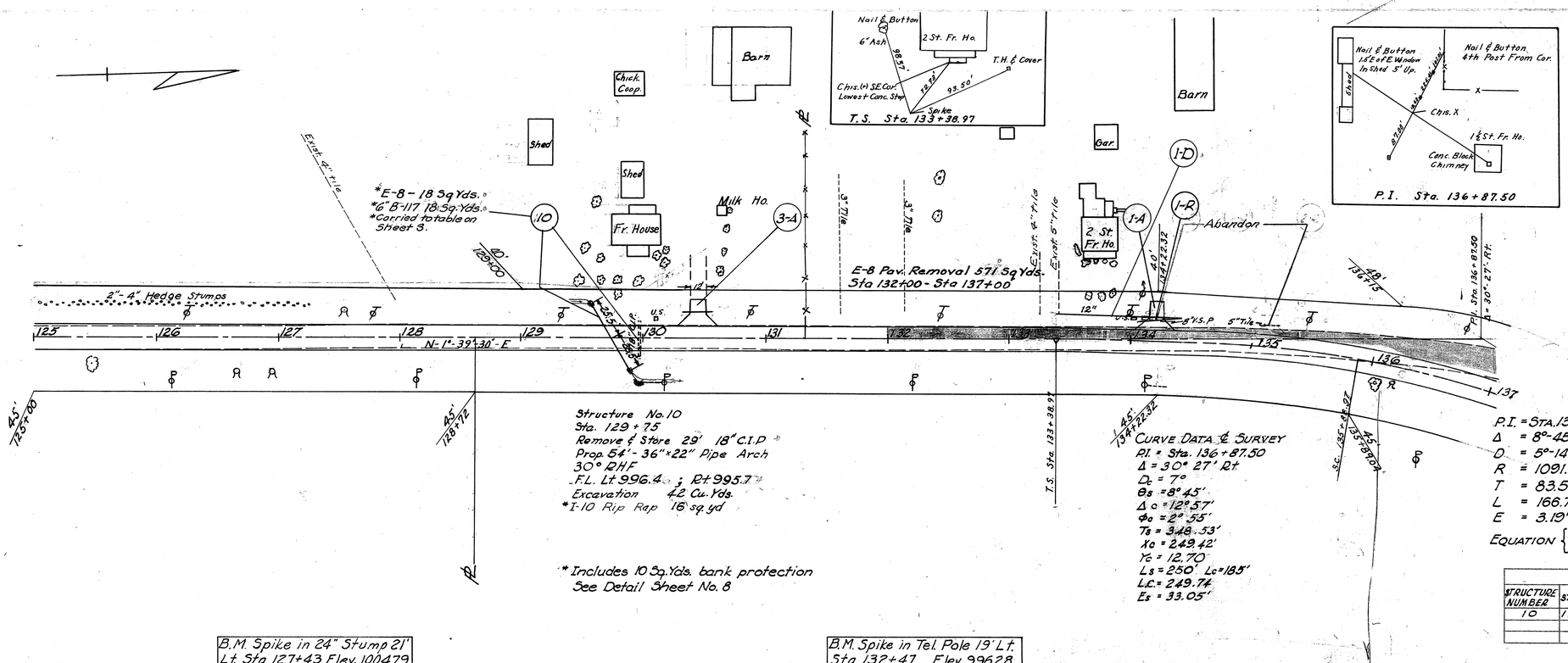
STA.	SIDE	DIST.	SIZE & TYPE	SQ. YDS.
122+13	RT.	33	14" CEDAR	4
122+29	RT.	32	14" CEDAR	4
122+45	RT.	32	8" SPRUCE	3
122+76	RT.	32	14" SPRUCE	4
TOTAL				15

STA. 113+00 to STA. 125+00

SHEET NO.	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	F.A.P.G.R. FUNDS

16
74

MED-301-(2.60)(3.47)



DRIVES & APPROACHES (A)

ITEM NO.	STATION	SIDE	CU. YD	12" PIPE FOR DRIVEWAYS
1-A	134+18	LT.	10	8" 12"
3-A	130+47	LT.	10	28
TOTALS			20	56

PIPE REMOVAL (R)

ITEM NO.	STATION	SIDE	PIPE REMOVED & DISPOSED OF 15" & UNDER	
1-R	134+18	LT.	18	
TOTALS			18	

CURVE DATA & RIGHT OF WAY

	P.I. = STA. 135+05.84	P.I. = STA. 136+81.94	P.I. = STA. 138+57.56
Δ	= 8°-45' Rt.	= 12°-57' Rt.	= 8°-45' Rt.
D	= 5°-14'-54"	= 7°-00'	= 5°-14'-54"
R	= 1091.67'	= 818.51'	= 1091.67'
T	= 83.52'	= 92.90'	= 83.52'
L	= 166.72'	= 185.00'	= 166.72'
E	= 3.19'	= 5.25'	= 3.19'

EQUATION { P.T. STA. 139+40.76 BACK = P.T. STA. 139+40.62 AHEAD } R/W ONLY

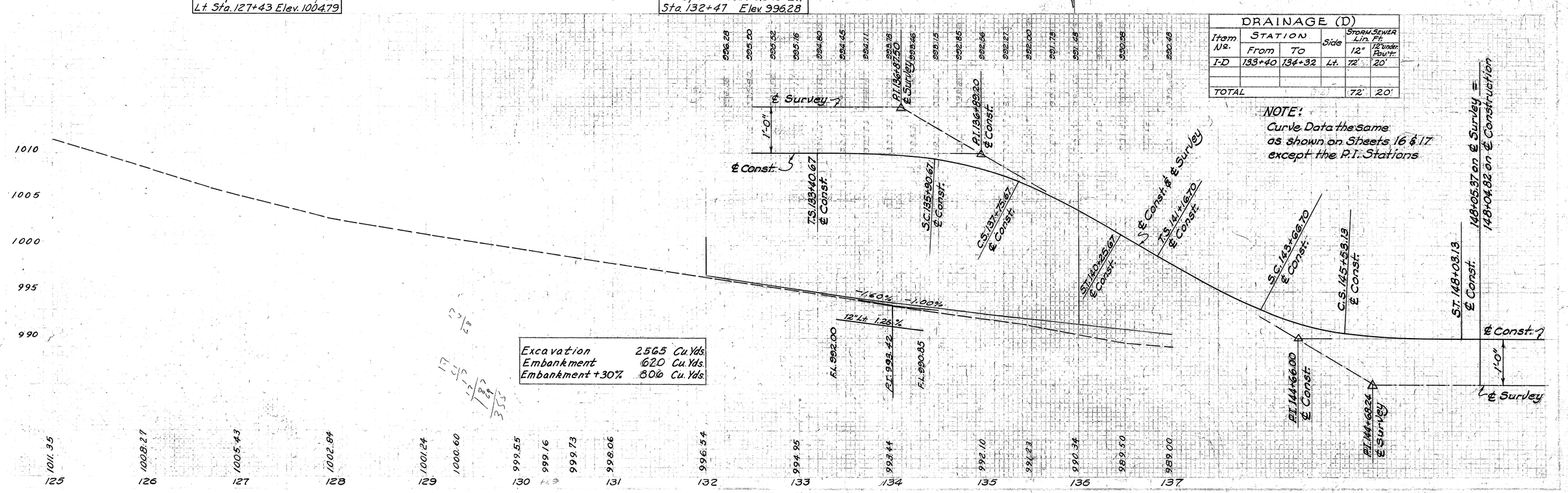
STRUCTURES 20 FT. SPAN & UNDER

STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH	
10	129+83	C.I. PIPE	18"	29'	PIPE ARCH	36"×22"	54	

DRAINAGE (D)

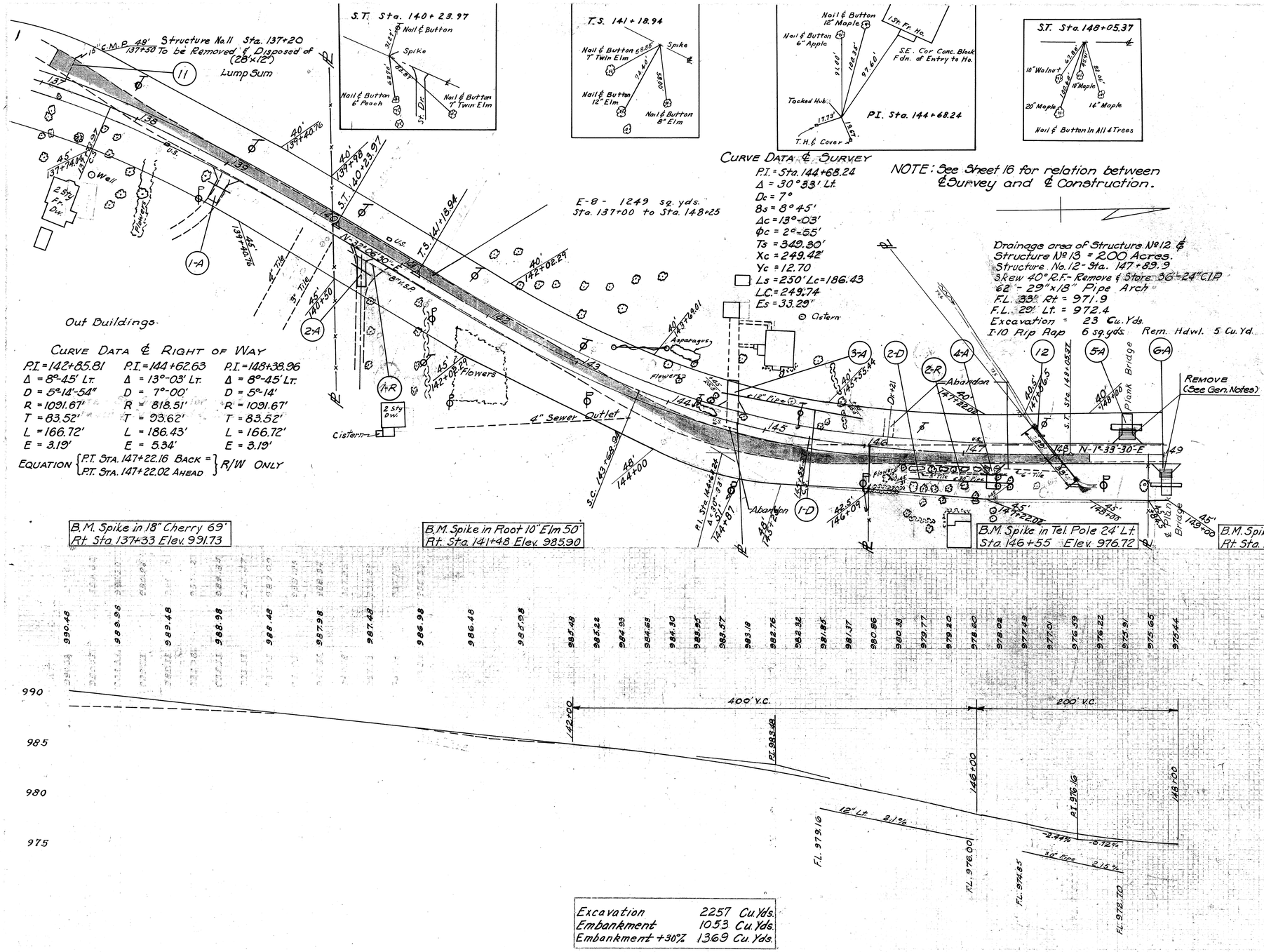
Item No.	STATION From	STATION To	Side	STORM SEWER Lin. Ft. 12"	12" Under Pav't.
I-D	133+40	134+32	Lt.	72'	20'
TOTAL				72'	20'

NOTE:
Curve Data the same as shown on Sheets 16 & 17 except the P.I. Stations



FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-199(3)		17 / 74

MED-301-(2.60)(3.47)



Curve Data & Survey

P.I. = Sta. 144+68.24
Δ = 30°33' Lt.
Dc = 7°
δs = 8°45'
Δc = 13°-03'
φc = 2°-55'
Ts = 349.30'
Xc = 249.42'
Yc = 12.70
Ls = 250' Lc = 186.43
L.C. = 249.74
Es = 33.29'

E-8 - 1249 sq. yds.
Sta. 137+00 to Sta. 148+25

NOTE: See Sheet 16 for relation between ℄ Survey and ℄ Construction.

Drainage area of Structure No. 12 ℄ Structure No. 13 = 2.00 Acres.
Structure No. 12 - Sta. 147+89.9
Skew 40° R.F. - Remove & Store 36'-24" C.I.P.
62' - 29"x18" Pipe Arch
F.L. 33' Rt = 971.9
F.L. 20' Lt. = 972.4
Excavation = 23 Cu. Yds.
I-10 Rip Rap 6 sq. yds. Rem. Hdwl. 5 Cu. Yd.

Curve Data & Right of Way

P.I. = 142+85.81	P.I. = 144+62.63	P.I. = 148+38.96
Δ = 8°-45' Lt.	Δ = 13°-03' Lt.	Δ = 8°-45' Lt.
D = 5°-14'-54"	D = 7°-00'	D = 5°-14'
R = 1091.67'	R = 818.51'	R = 1091.67'
T = 83.52'	T = 93.62'	T = 83.52'
L = 166.72'	L = 186.43'	L = 166.72'
E = 3.19'	E = 5.34'	E = 3.19'

Equation { P.T. Sta. 147+22.16 Back = P.T. Sta. 147+22.02 Ahead } R/W Only

DRIVES AND APPROACHES (A)

Item No.	Station	Side	SS-10 Cu. Yds.	Drive Pipe 6"	Drive Pipe 36"	Pipe Arch 36"x22"	Pipe Arch 65"x40"
1-A	139+05	Rt.	11			28'	
2-A	140+54	Rt.	12			28'	
3-A	144+65	Lt.	12				
4-A	147+29	Rt.	11	28			
5-A	148+63	Lt.					30'
6-A	149+02	Rt.			30'		
TOTAL			46	28	30	56	30'

See Cross Sections

DRAINAGE (D)

Item No.	Station	12" Storm S.	36" Storm S.	Under Dr. 12"	Under Dr. 36"
1-D	144+45-145+95	130'		20'	
2-D	146+45-147+45		80'		20'
TOTAL		130'	80'	20'	20'

PIPE REMOVAL (R)

Item No.	Station	Dispose 15' Under	Side	
1-R	140+54	50	Rt.	
2-R	146+48-144+45	97	Rt.	
TOTAL		147		

STRUCTURES 20 FT. SPAN AND UNDER

STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH
12	147+89.9	C.I.P.	24"	36'	Pipe Arch	29"x18"	62
11	137+200	C.M.P.	12"	28'	Culvert to be removed		

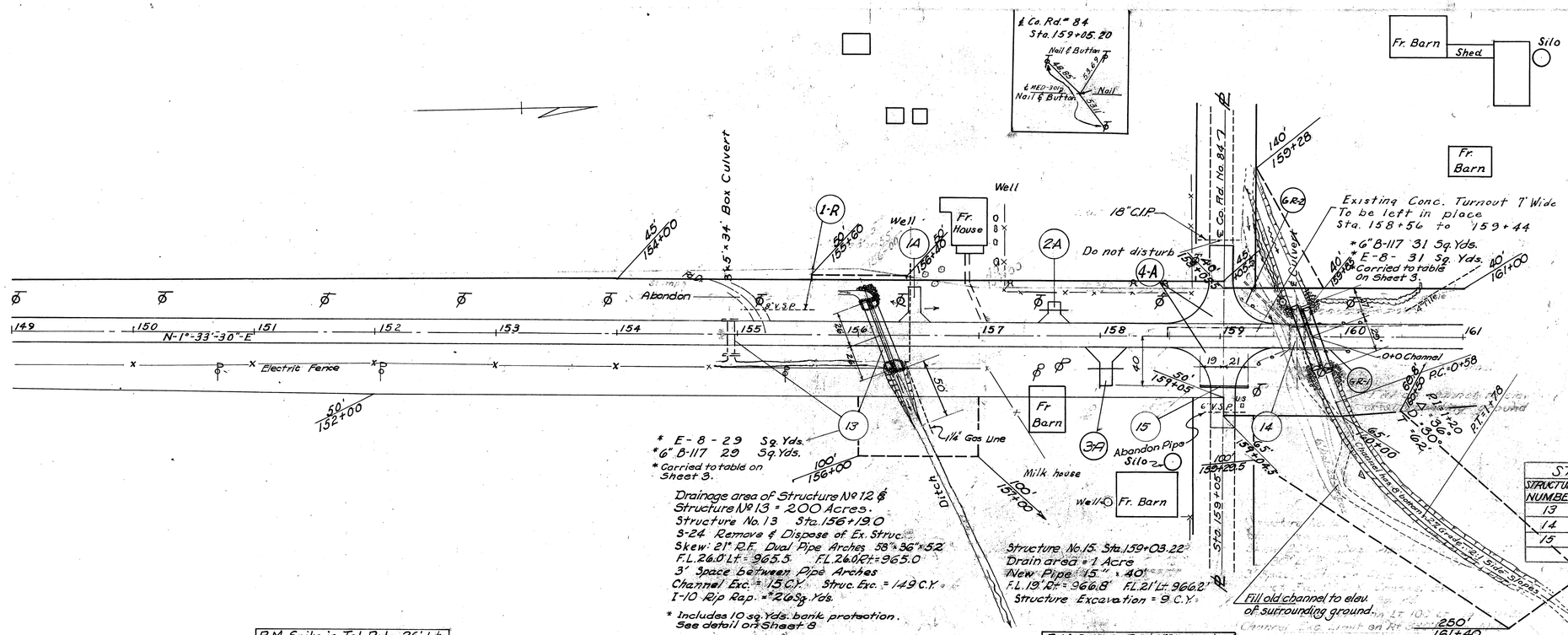
Excavation	2257 Cu. Yds.
Embankment	1053 Cu. Yds.
Embankment +30%	1369 Cu. Yds.

STA. 137+00 to STA. 149+00

		F.A.	TYPE FUNDS
2	OH10	S-199(3)	FED. AID WAYS

MED-301-(2.60)(3.47)

18
74



DRIVES & APPROACHES (A)

Item No.	Station	Side	55-10 Cu. Yds.	8" Drive Pipe	12" Drive Pipe	DETAIL SHEET
1-A	156+47	Lt.	12			
2-A	157+61	Lt.		28'		
3-A	158+04	Rt.	11		28	
4-A	159+05	Rt. & Lt.				30
TOTAL			23	28'	28	

PIPE REMOVAL (R)

Item No.	Station	Side	Dispose 15" Pipe	
1-R	155+01-155+64	Lt.	63	
TOTAL			63	

STRUCTURES 20 FT. SPAN AND UNDER

STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH
13	156+19.0	Stone Box	3'x5'	34'	Pipe Arch	58"x36"	62' Dual
14	159+75.0	STEEL BEAM	9.4' Clear	Span	Pipe Arch	72"x44"	56' Dual
15	159+03.22	V.S.P.	6"	32.5'	Pipe	15"	40'

105'
162+00

GUARD RAIL REMOVED & STORED

Item	Station to Station	Side	Lin. Ft.
GR-1	159+30 - 160+00	Rt.	70
GR-2	159+19 - 160+11	Lt.	92
	Total		162

Existing Guard Rail is Steel Plate Type - See General Notes

DRAINAGE AREA = 400 ACRES
STRUCTURE No. 14 STA. 159 + 75

S-24 Remove & Dispose of Exist. Structure.
Skew 20° R.F. Dual Pipe Arches 72"x44"x56'
F.L. 27' Lt. 963.4 F.L. 20' Rt. 963.00
3' Space between Pipe Arches
Struct. Exc. = 160 Cu. Yds. Channel Exc. = 398 Cu. Yds.
I-10 Riprap = 22 sq. Yds.
Channel Exc. Limit on Lt. 125' Lt. Sta. 159+23
Channel Exc. Limit on Rt. 210' Rt. Sta. 161+85

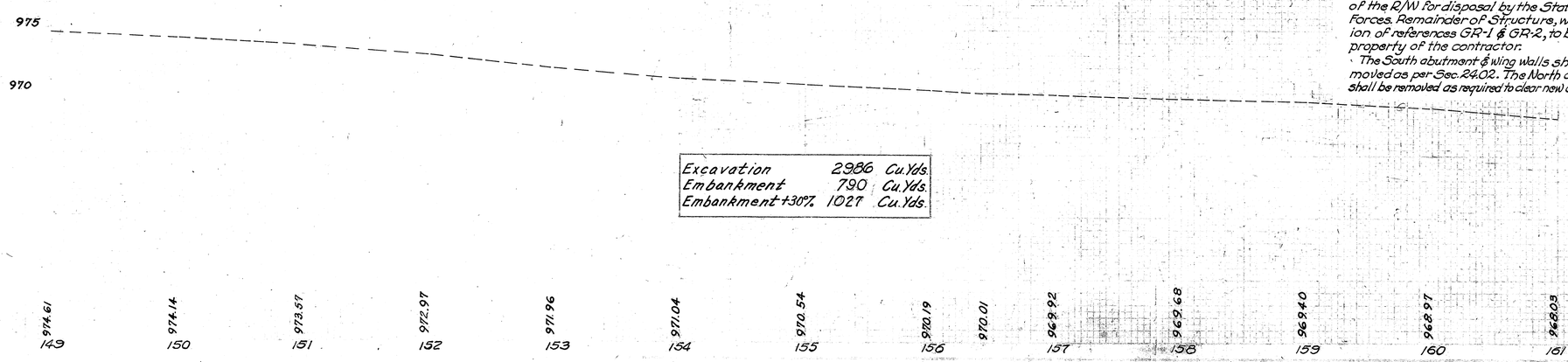
MED 301 0548

EXISTING STRUCTURE

Steel Beam, Clear Span 9'-4"
Length % 12'-6", Width % 21'-4"
Stone Abutments
Condition of Structure: Fair

Steel beams to be stored within the limits of the R/W for disposal by the State Forces. Remainder of Structure, with exception of references GR-1 & GR-2, to become the property of the contractor.

The South abutment & wing walls shall be removed as per Sec. 24.02. The North abutment shall be removed as required to clear new construction.

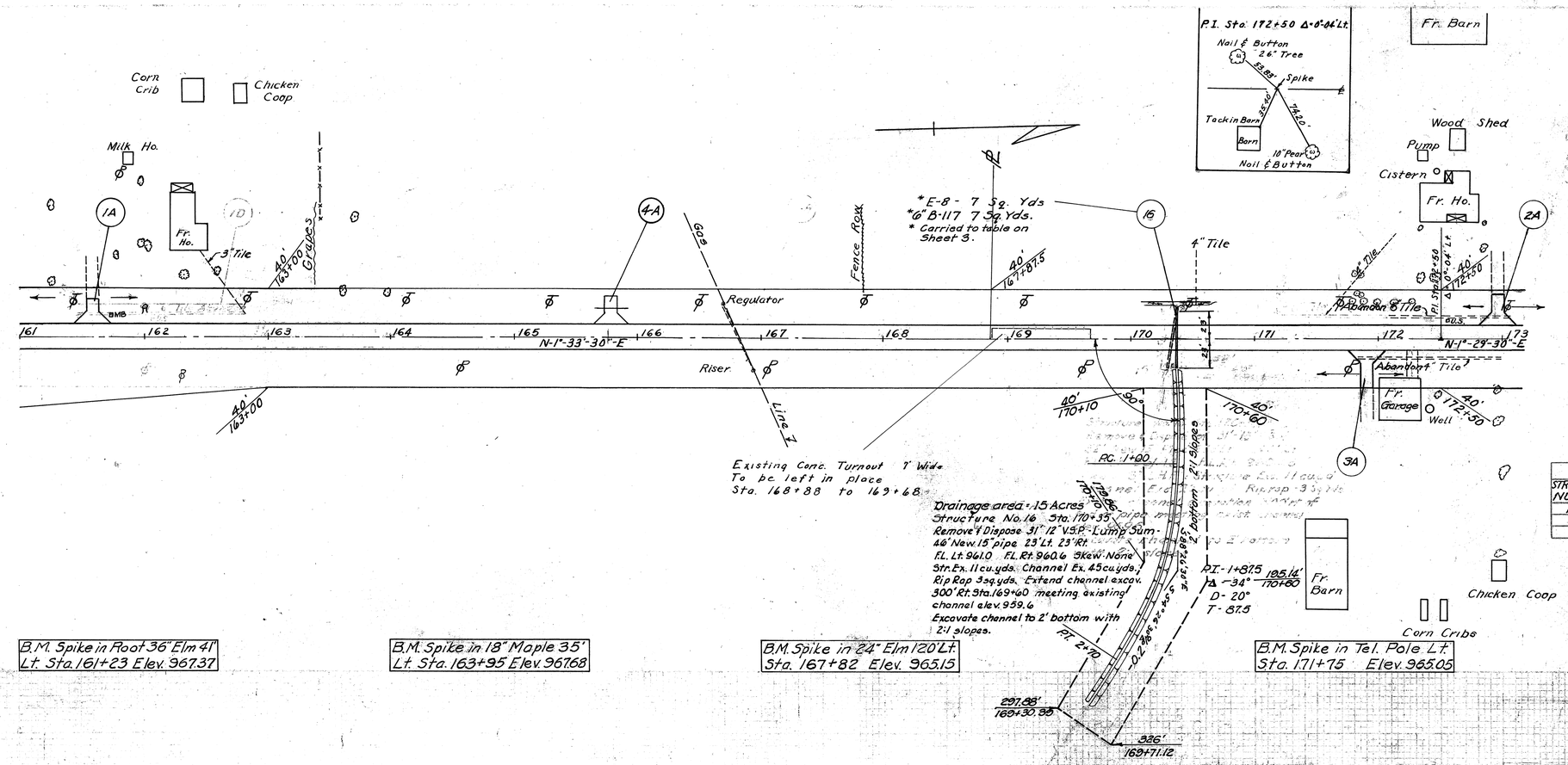


Excavation	2986	Cu. Yds.
Embankment	790	Cu. Yds.
Embankment +30%	1027	Cu. Yds.

STA. 149+00 to STA. 161+00

FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	19 / 74
2	OHIO	S-199(3)	POST WAR	

MED-301-(2.60)(3.47)



DRIVES & APPROACHES (A)				
ITEM NO	STATION	SIDE	$5-10 CU. YD	12" PIPE FOR DRIVEWAYS
1A	161+59	Lt.	10.	
2A	172+97	Lt.	11.	
3A	171+92	Rt	12.	
4A	165+75	Lt.		28
			33.	28

DRAINAGE (D)					
ITEM NO.	STATION FROM	STATION TO	SIDE	STORM SEWER 8"	STORM SEWER 8" UNDER PAV'T.
1D	161+47	162+30	Lt	113	20
		TOTAL		113	20

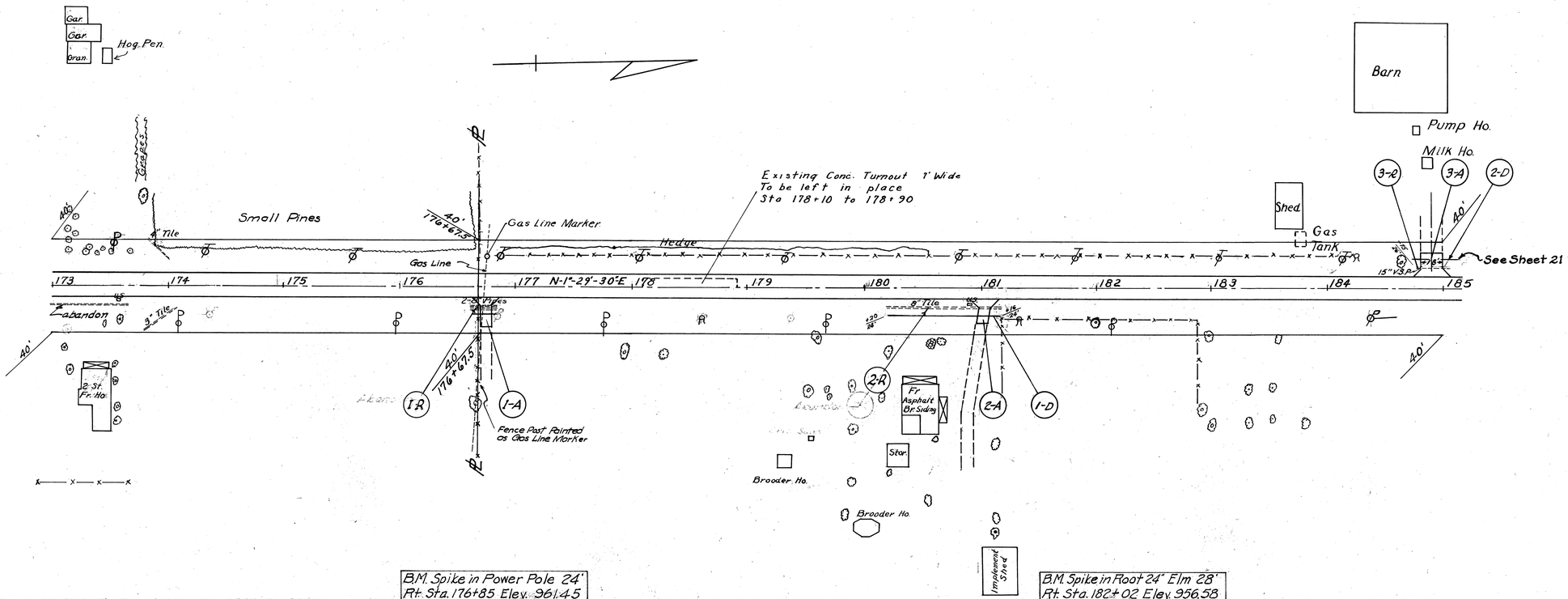
STRUCTURES 20 FT. SPAN AND UNDER							
STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	PRESENT STRUCTURE SIZE	PRESENT STRUCTURE LENGTH	PROPOSED STRUCTURE TYPE	PROPOSED STRUCTURE SIZE	PROPOSED STRUCTURE LENGTH
16	170+32.7	V.S.P.	12"	31'	Pipe	15"	46'

Excavation	1539	Cu. Yds.
Embankment	307	Cu. Yds.
Embankment +30%	399	Cu. Yds.

STA. 161+00 to STA. 173+00

FED. RD. SECTION	STATE	F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-199(3)	FED. AID	20 / 74

MED-301-((2.60)(3.47))



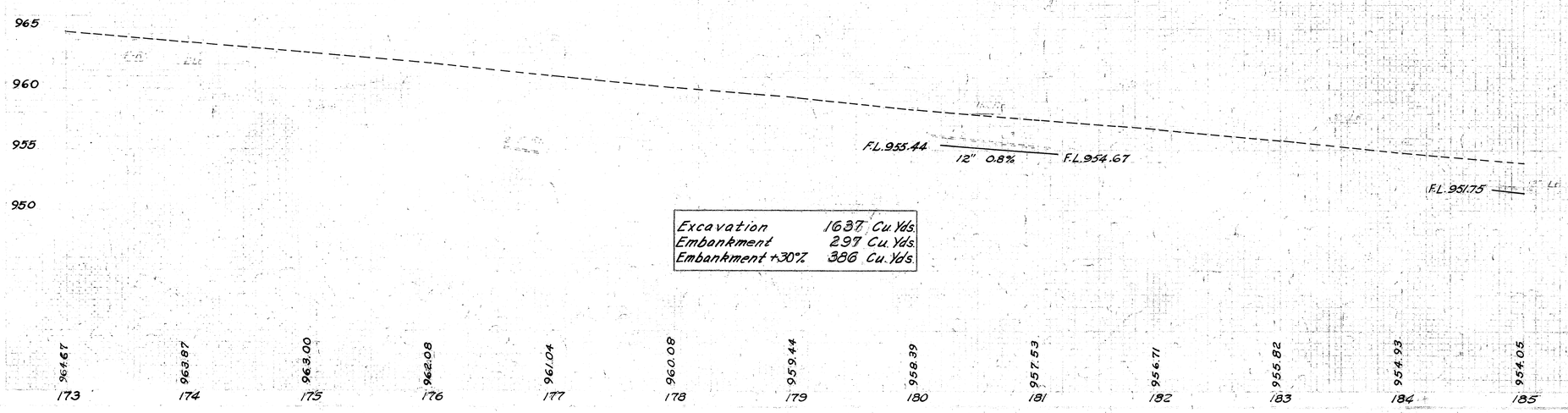
B.M. Spike in Power Pole 24' Rt. Sta. 176+85 Elev. 961.45

B.M. Spike in Root 24" Elm 28' Rt. Sta. 182+02 Elev. 956.58

DRIVES & APPROACHES (A)					
ITEM NO.	STATION	SIDE	55-10 CU. YD.	Pipe For Driveways 12 Inch	" 8 Inch
1-A	176+76	R.T.		28	
2-A	181+08	R.T.	10		28
3-A	184+91	L.T.	13		
TOTAL			23	28	28

DRAINAGE (D)						
ITEM NO.	STATION FROM	STATION TO	SIDE	STORM SEWER 10"	12"	Under 60" x 12
1-D	180+20	181+16	R.T.		76	20
2-D	184+75	186+25	L.T.		130	20
TOTAL					206	40

PIPE REMOVAL (R)					
ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED & DISPOSED OF 15" UNDER	
1-R	176+67	176+85	R.T.	48	
2-R	180+18	181+18	R.T.	100	
3-R	184+77	185+06	L.T.	29	
TOTAL				177	



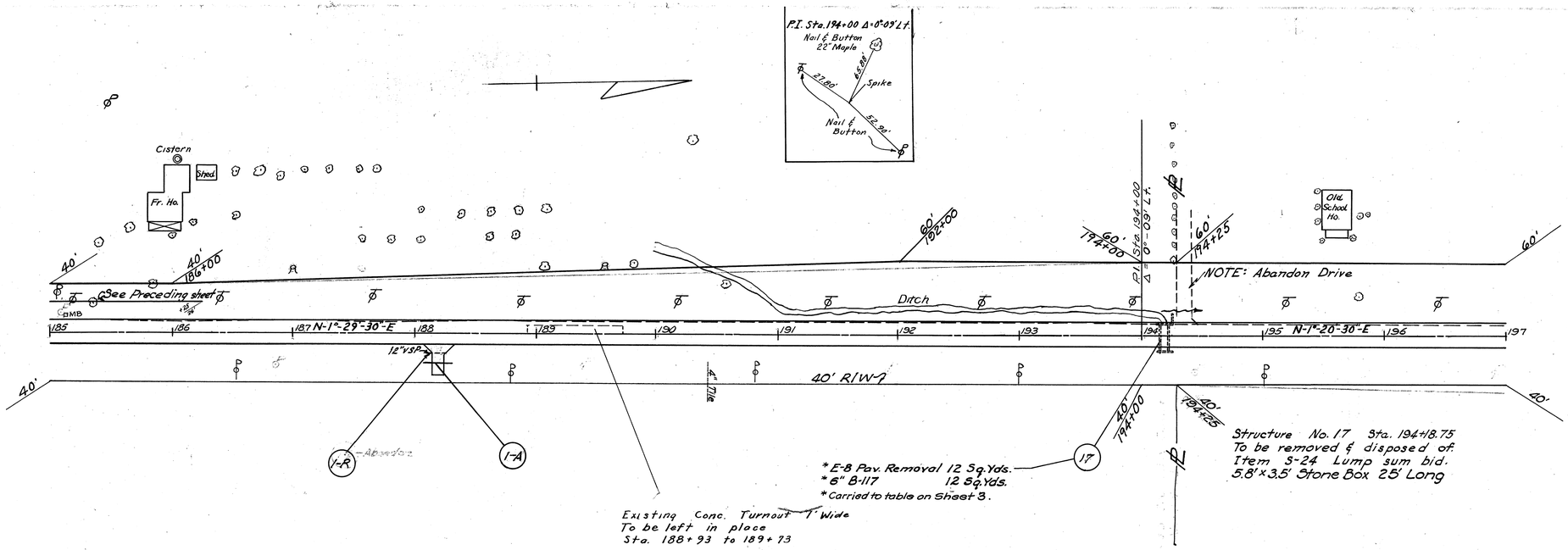
Excavation	1637 Cu. Yds.
Embankment	297 Cu. Yds.
Embankment +30%	386 Cu. Yds.

STA. 173+00 to STA. 185+00

SHEET NO.	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	FASTP FMAB

21
74

MED-301-(2.60)(3.47)



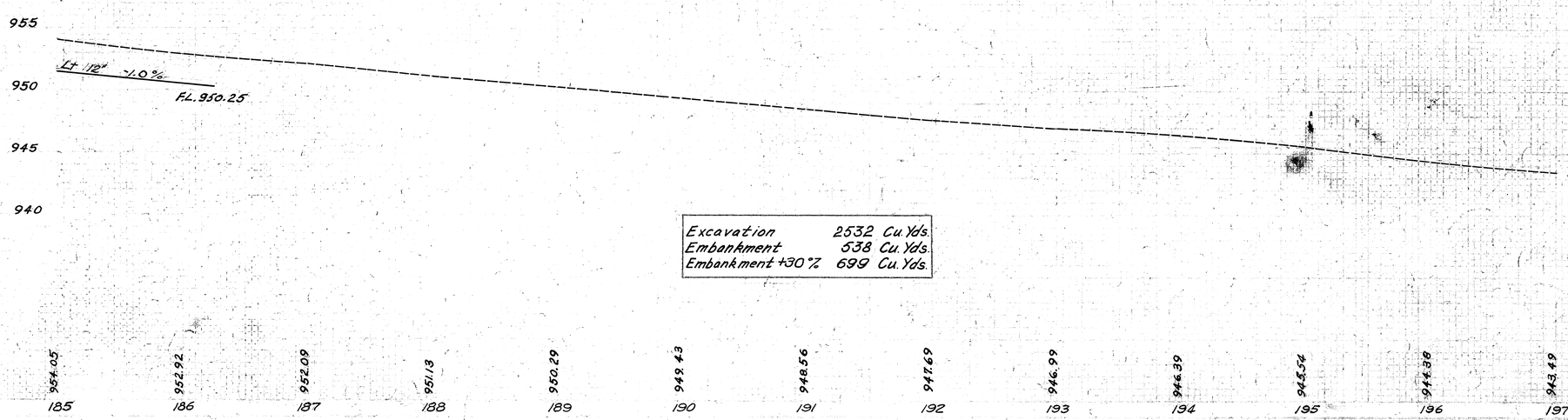
DRIVES AND APPROACHES (A)				
ITEM NO.	STATION	SIDE	[illegible]	15" PIPE FOR DRIVEWAYS
1-A	188+19	RT.		28
TOTAL				28

PIPE REMOVAL (R)					
ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED & DISPOSED OF 15" UNDER	
1-R	188+11	188+28	RT.	17	
TOTAL				17	

B.M. Spike in 15" Apple 50' Lt. Sta. 187+60 Elev. 953.00

B.M. Spike in 24" Elm 39' Lt. Sta. 190+58 Elev. 948.81

B.M. Spike in 24" Ash 60' Lt. Sta. 194+30 Elev. 946.99



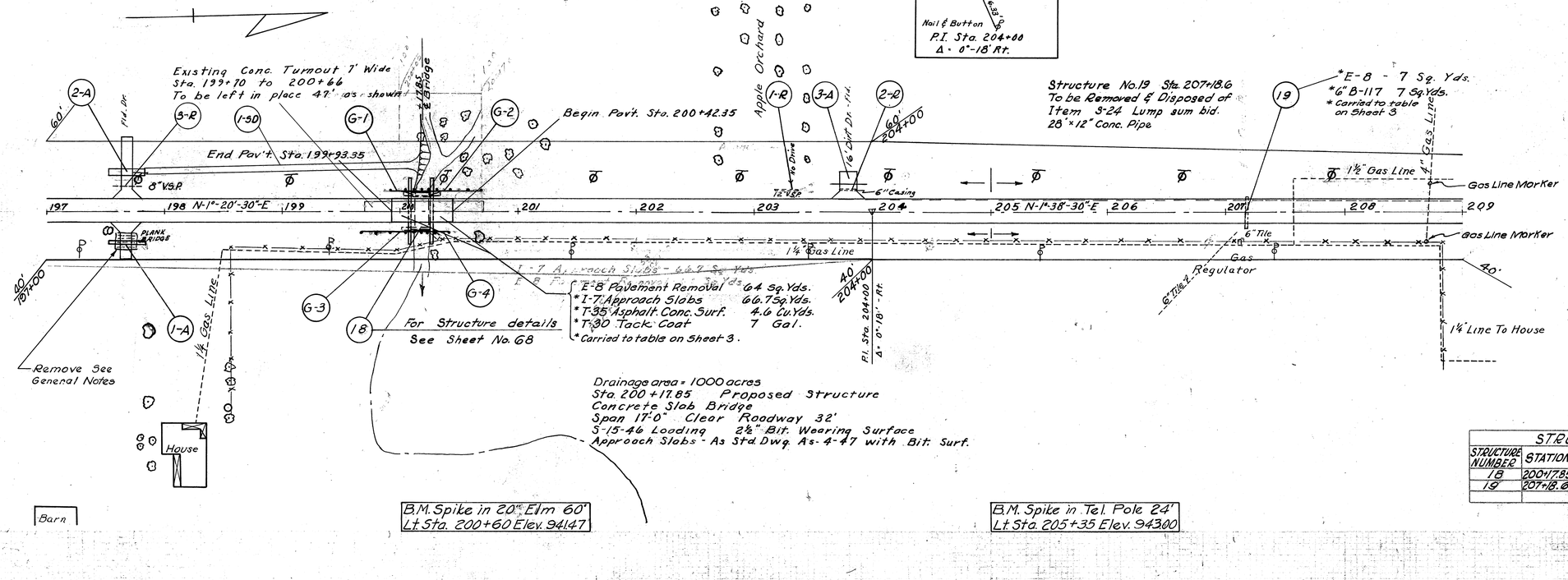
Excavation	2532 Cu. Yds.
Embankment	538 Cu. Yds.
Embankment +30%	699 Cu. Yds.

STA. 185+00 to STA. 197+00

	F.A.	TYPE FUNDS
2	OHIO S-199(3)	22 / 74

MED-301-(2.60)(3.47)

Sta 200 + 17.85 - Existing Structure
Superstructure - 12' Span steel beam with lattice railings
Substructure - Stone abutments (poor)
Drainage Area - 1015 Acr. Waterway opening - 70 sq. ft.
Loading S-10



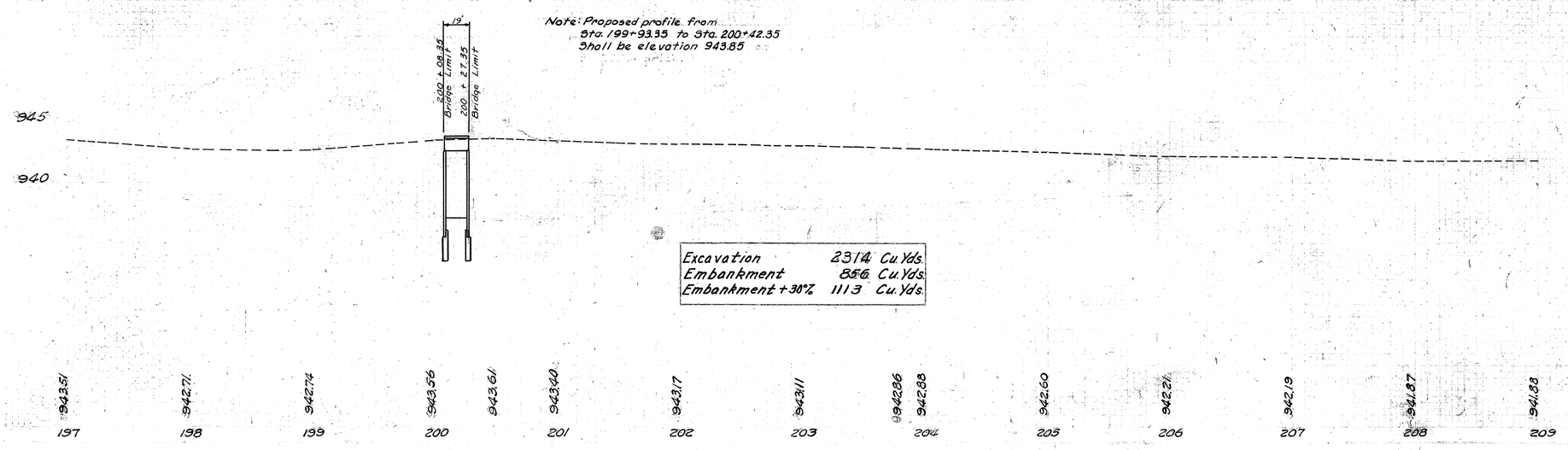
DRIVES AND APPROACHES (A)						
ITEM NO.	STATION	SIDE	S-S10 CU. YDS.	PIPE FOR DRIVES 12"	24"	Pipe Arch 72" × 44"
1-A	197+66	Rt.	11		30	
2-A	197+68	Lt.	—			30'
3-A	203+77	Lt.	—	28		
TOTAL			11	28	30	30'

PIPE REMOVAL (R)				
ITEM NO.	STATION FROM	TO	SIDE	PIPE REMOVED & DISPOSED OF 15" & UNDER
1-R	203+19	203+35	Lt.	16
2-R	203+70	203+91	Lt.	21
3-R	197+60	197+78	Lt.	18
TOTAL				55

GUARD RAIL I-15			
Item	Sta to Sta	Side	Lin. Ft.
G-1	199+92.85-200+08.35	Lt.	15.5'
G-2	200+27.35-200+67.85	Lt.	40.5'
G-3	199+67.85-200+08.35	Rt.	40.5'
G-4	200+27.35-200+42.85	Rt.	15.5'
TOTAL			112'

STRUCTURES 20 FT. SPAN & UNDER							
STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH
18	200+17.85	Bridge			Conc. Slab	32' Rdwy.	17'-0" Span
19	207+18.6	Conc. Pipe	12"	28'	(Remove and dispose of)		

SOD (SD)				
Item No.	STATION FROM	TO	SIDE	Sq. Yds.
1-SD	197+83	200+13	Lt.	153
TOTAL				153



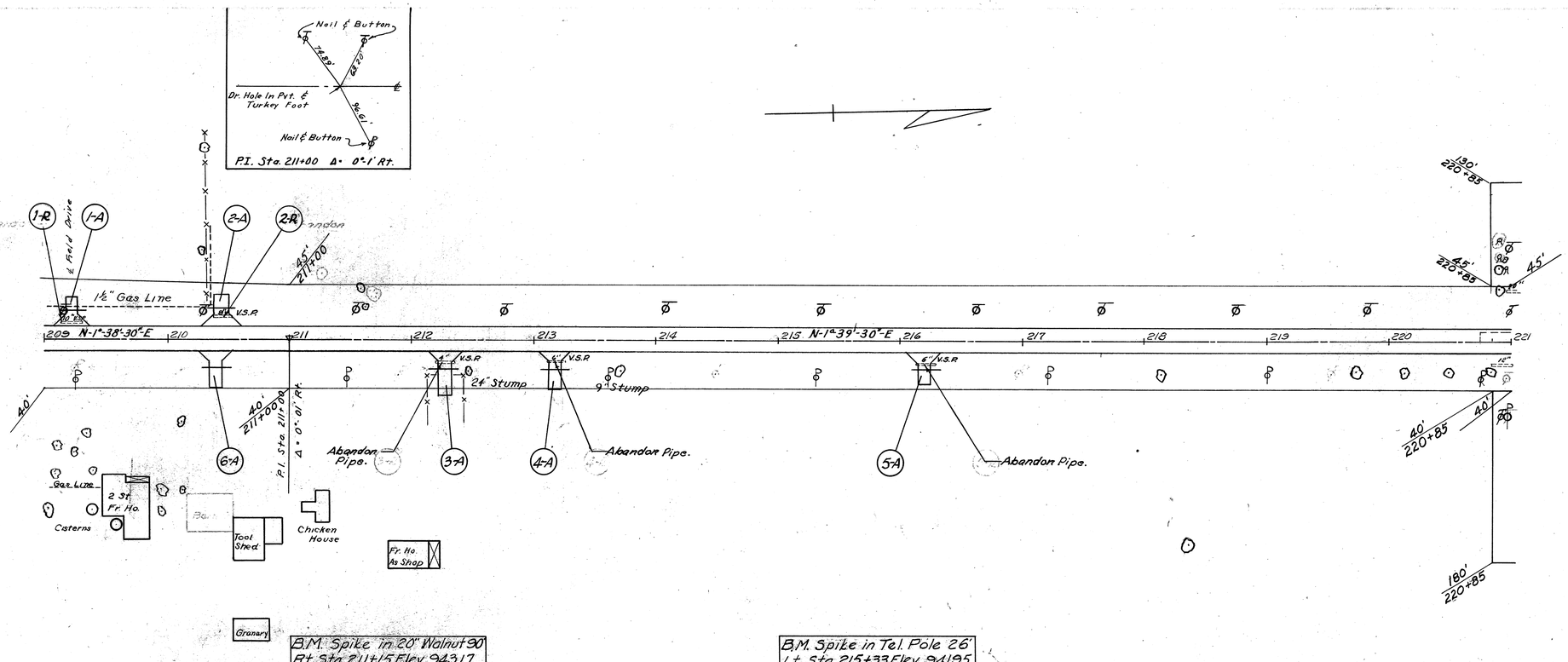
Excavation	2314	Cu. Yds.
Embankment	856	Cu. Yds.
Embankment + 30%	1113	Cu. Yds.

STA. 197+00 to STA. 209+00

STATE	F.A. PROJECT	TYPE FUNDS
OHIO	S-199(3)	POST WAR

23
74

MED-301-(2.60)(3.47)



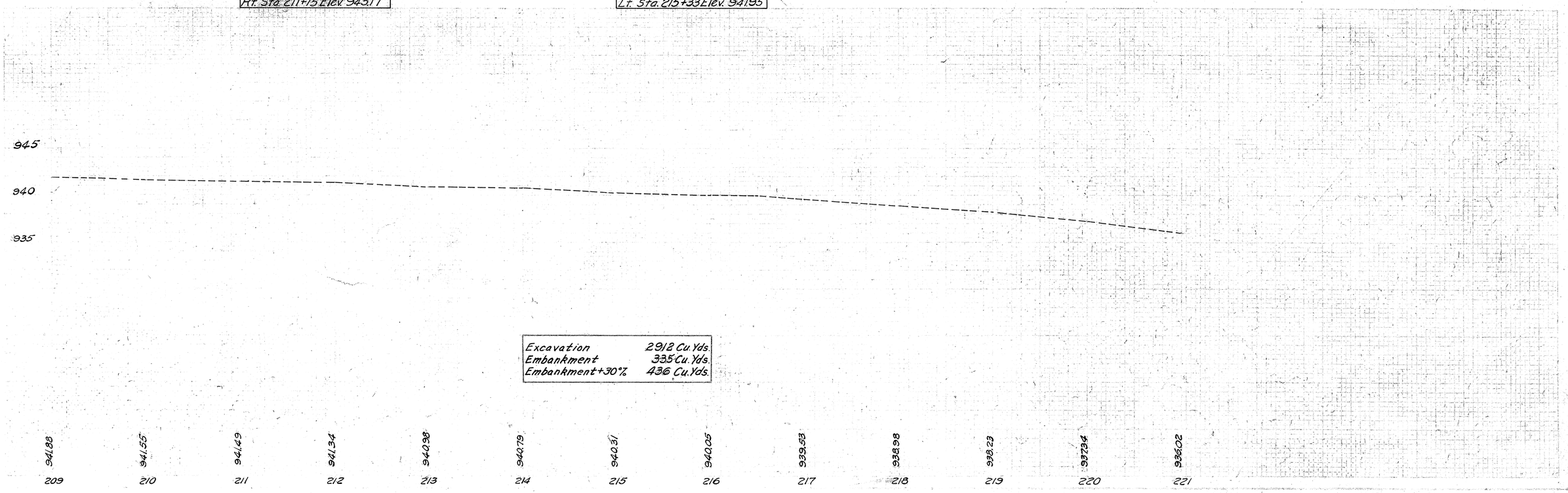
Granary

B.M. Spike in 20" Walnut 90' Rt. Sta. 211+15 Elev. 943.17

B.M. Spike in Tel. Pole 26' Lt. Sta. 215+33 Elev. 941.95

DRIVES AND APPROACHES (A)					
ITEM NO.	STATION	SIDE	SS-10 CULVS	Pipe for Driveways 12 inch	18 inch
1-A	209+23	Lt.	—	28	
2-A	210+43	Lt.	4	28	
3-A	212+29	Rt.	512	28	
4-A	213+17	Rt.	5	28	
5-A	216+22	Rt.	6	28	
6-A	210+40	Rt.	511	28	24'
TOTAL			23	168	

PIPE REMOVAL (R)					
ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED AND DISPOSED 15" UNDER	
1-R	209+16	209+35	Lt.	14	
2-R	210+37	210+55	Lt.	18	
3-R	212+22	212+36	Rt.	14	
4-R	213+10	213+[illegible]	Rt.	14	
5-R	216+14	216+30	Rt.	16	
TOTAL				32	



Excavation	2912 Cu. Yds.
Embankment	335 Cu. Yds.
Embankment +30%	436 Cu. Yds.

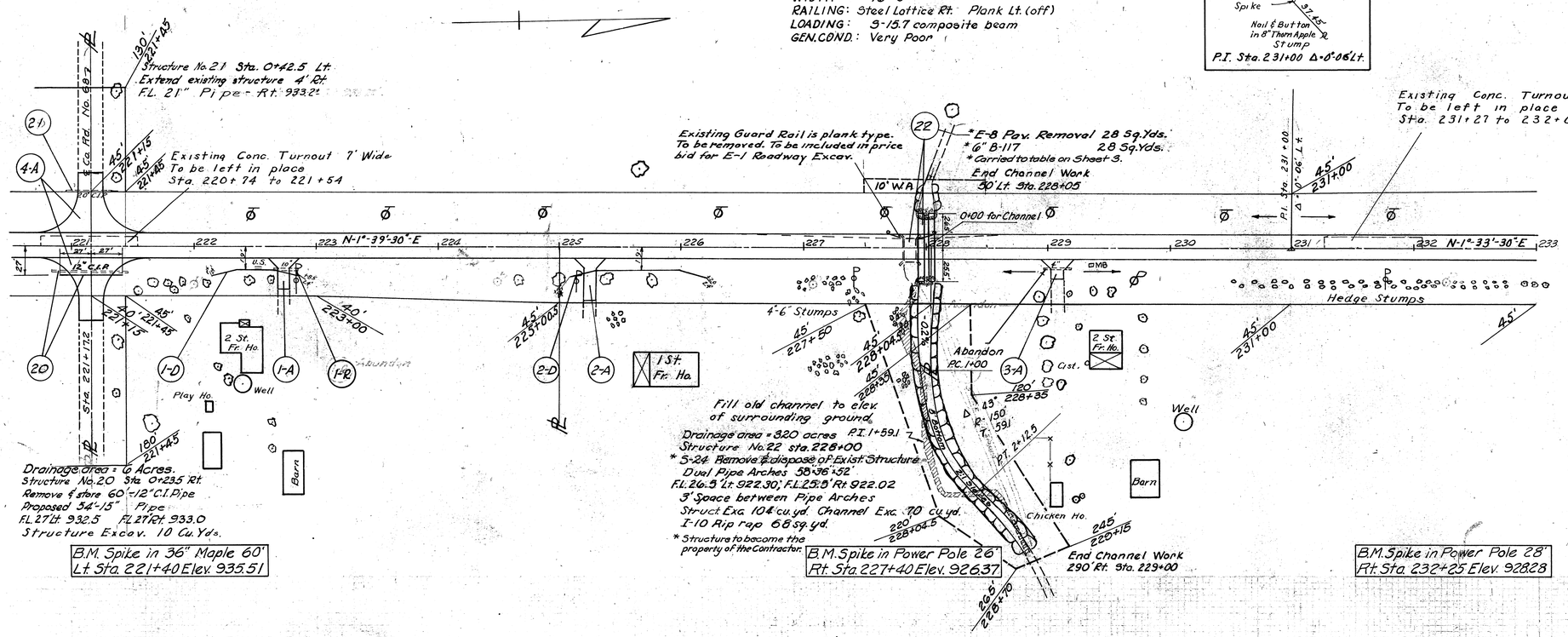
STA. 209+00 to STA. 221+00

DISTRICT	STATE	F.A. PROJECT	TYPE FUNDS	
2	OHIO	S-199(3)	POST W.A.	24 / 74

MED-301-(260)(3.47)

EXISTING STRUCTURE

TYPE: Steel Beam
SPAN: 7'-2"
LENGTH: 9'-11" out to out
WIDTH: 16'-0"
RAILING: Steel Lattice Rt. Plank Lt. (off)
LOADING: S-15.7 composite beam
GEN. COND.: Very Poor



DRIVES AND APPROACHES (A)

ITEM NO.	STATION	SIDE	S-15 CU. YDS.	DRIVE 8"	PIPE	DETAIL SHEET
1-A	222+73	RT.	11	28		
2-A	225+25	RT.	13			
3-A	229+08	RT.	9			
4-A	221+17.2	Rt. & Lt.				31
TOTAL			33	28		

PIPE REMOVAL (R)

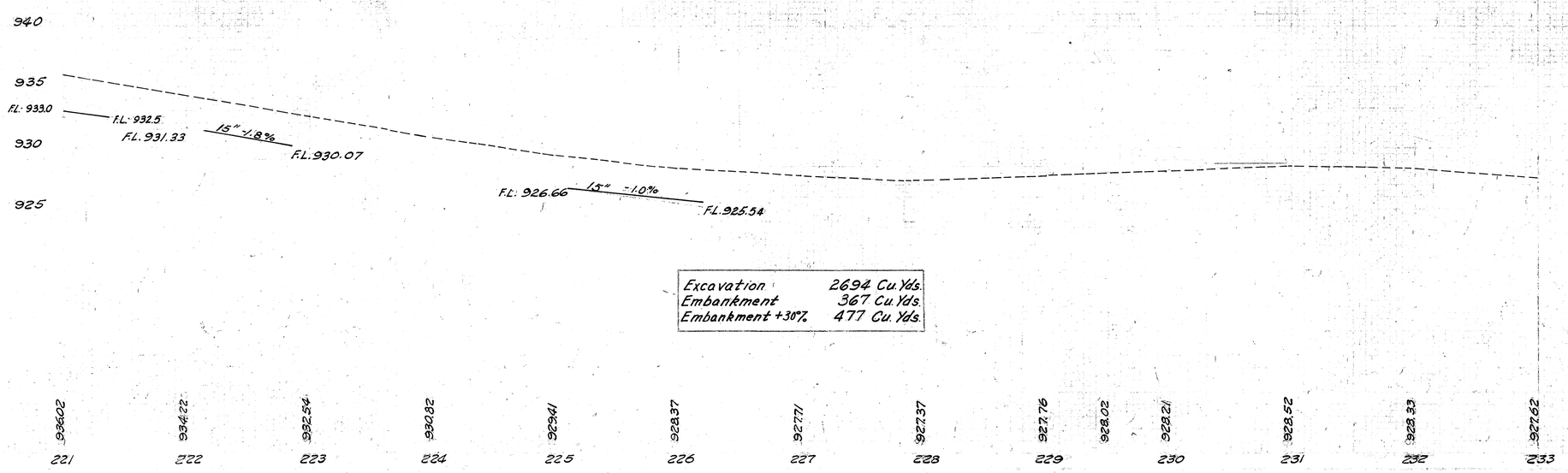
ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED & DISPOSED OF 15" & UNDER	
1-R	222+65	222+85	RT.	20	
[illegible]	[illegible]	229+18	RT.	[illegible]	
TOTAL				20	

DRAINAGE (D)

ITEM NO.	STATION FROM	STATION TO	SIDE	STORM SEWER 15"	STORM SEWER Under 15"
1-D	222+15	222+85	RT.	52	20
2-D	225+10	226+20	RT.	192	20
TOTAL				244	40

STRUCTURES 20 FT SPAN AND UNDER

STRUCTURE NUMBER	STATION	PRESENT STRUCTURE TYPE	SIZE	LENGTH	PROPOSED STRUCTURE TYPE	SIZE	LENGTH
20	221+172 Rt.	C.I. Pipe	12"	60'	Pipe	15"	54'
21	221+172 Lt.	C.I. Pipe	20"	38'	Pipe Exten.	20"	4' Exten.
22	227+88.2	Bridge	7.2' clear	span	Pipe Arch	58"x36"	52' Dual



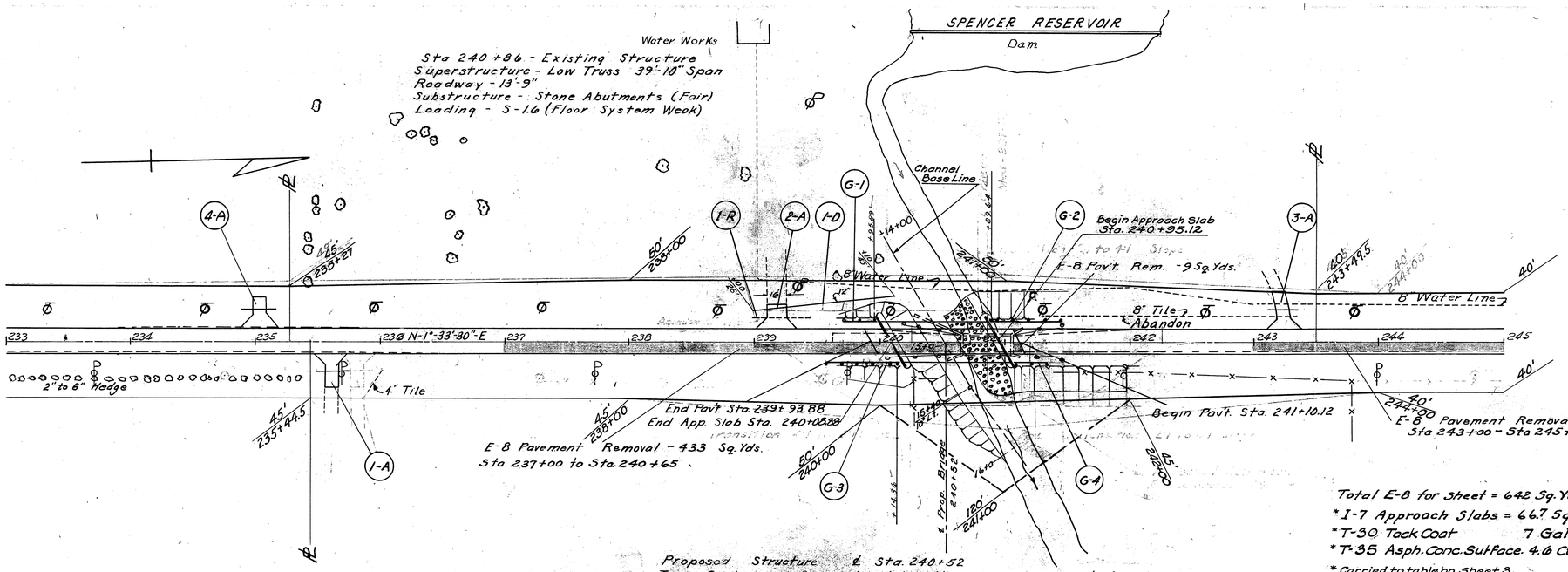
Excavation	2694 Cu. Yds.
Embankment	367 Cu. Yds.
Embankment +30%	477 Cu. Yds.

STA. 221+00 to STA. 233+00

		F.A.		TYPE FUNDS
2	OHIO	S-199 (3)		POST WAR

25
74

MED-301-(2.60)(3.47)



Proposed Structure ℄ Sta. 240+52
Type - Continuous Concrete slab with concrete substructure
Span - 26' - 32.5 - 26' c/c Brgs. Roadway 32' f/f guard rails
Skew - 30° Rt. Fwd. Loading - S-15-46
Surface course - Bituminous
Approach Slabs - AS-4-47

Total E-8 for Sheet = 642 Sq. Yds.
*I-7 Approach Slabs = 66.7 Sq. Yds.
*T-30 Tack Coat 7 Gal.
*T-35 Asph. Conc. Surface. 4.6 Cu. Yds.
* Carried to table on Sheet 3.

Existing Guard Rail of Existing Bridge is plank & cable type
Contractor to remove. To be included in price bid for E-1
Roadway Excavation

B.M. Spike in Power Pole 28' Rt. Sta. 237+25 Elev. 925.02

B.M. + on S.E. Cor. S.W. Wing Wall 20' Lt. Sta. 240+27 Elev. 914.71

B.M. Spike in Power Pole 25' Rt. Sta. 244+76 Elev. 915.53

DRIVES & APPROACHES (A)

ITEM NO.	STATION	SIDE	S-10 CU.YD	12" PIPE FOR DRIVEWAYS
1-A	235+61	Rt.	4	28
2-A	239+18	Lt.	17	
3-A	243+23	Lt.	11	28
4-A	235+03	Lt.		28
TOTAL			28	84

DRAINAGE (D)

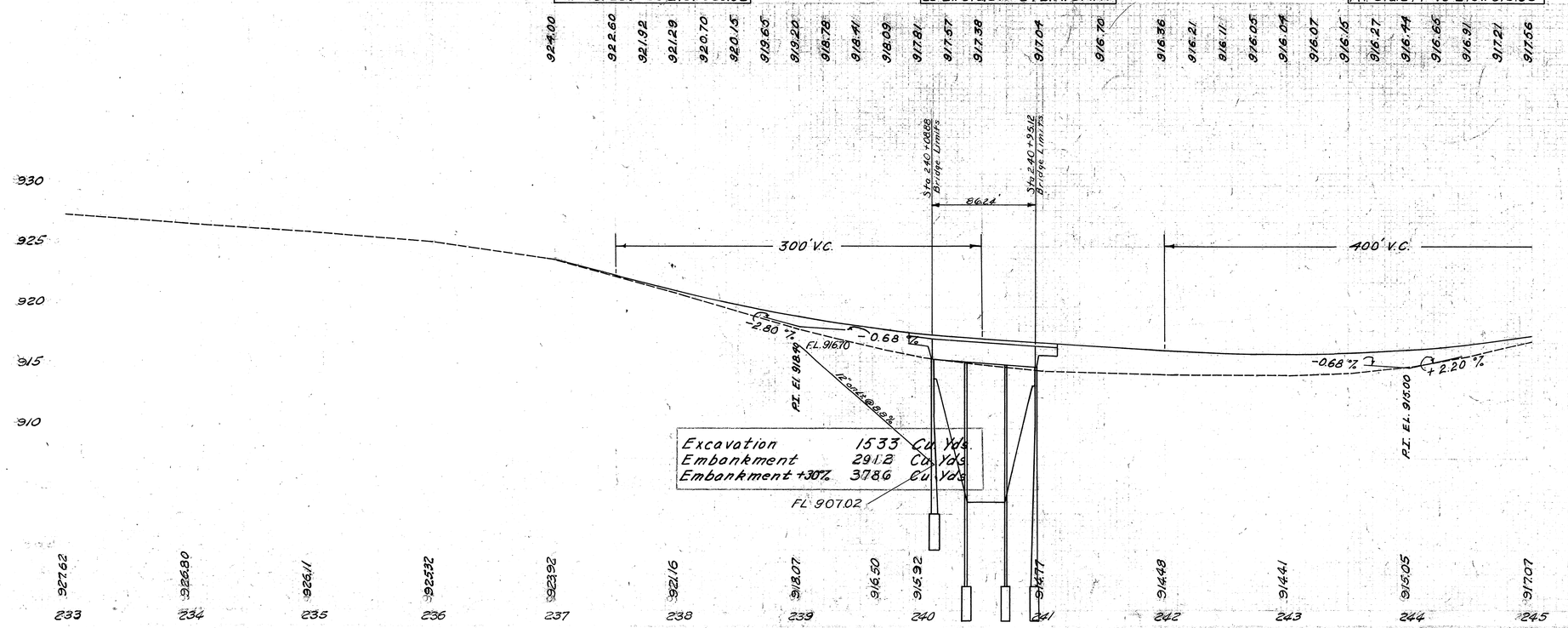
ITEM NO.	STATION FROM	STATION TO	SIDE	STORM SEWER 12"	STORM SEWER Under Fill 12"
1-D	239+00	240+10	Lt.	90	20
TOTAL				90	20

PIPE REMOVAL (R)

ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED & DISPOSED OF 15" & UNDER
1-R	238+99	239+46	Lt.	47
TOTAL				47

GUARD RAIL I-15 (G)

Item	Sta. to Sta.	Side	Lin. Ft.
G-1	239+70.89 - 239+99.64	Lt.	28.75
G-2	240+85.88 - 241+45.89	Lt.	60.01
G-3	239+58.11 - 240+18.12	Rt.	60.01
G-4	241+04.36 - 241+33.11	Rt.	28.75
TOTAL			177.52

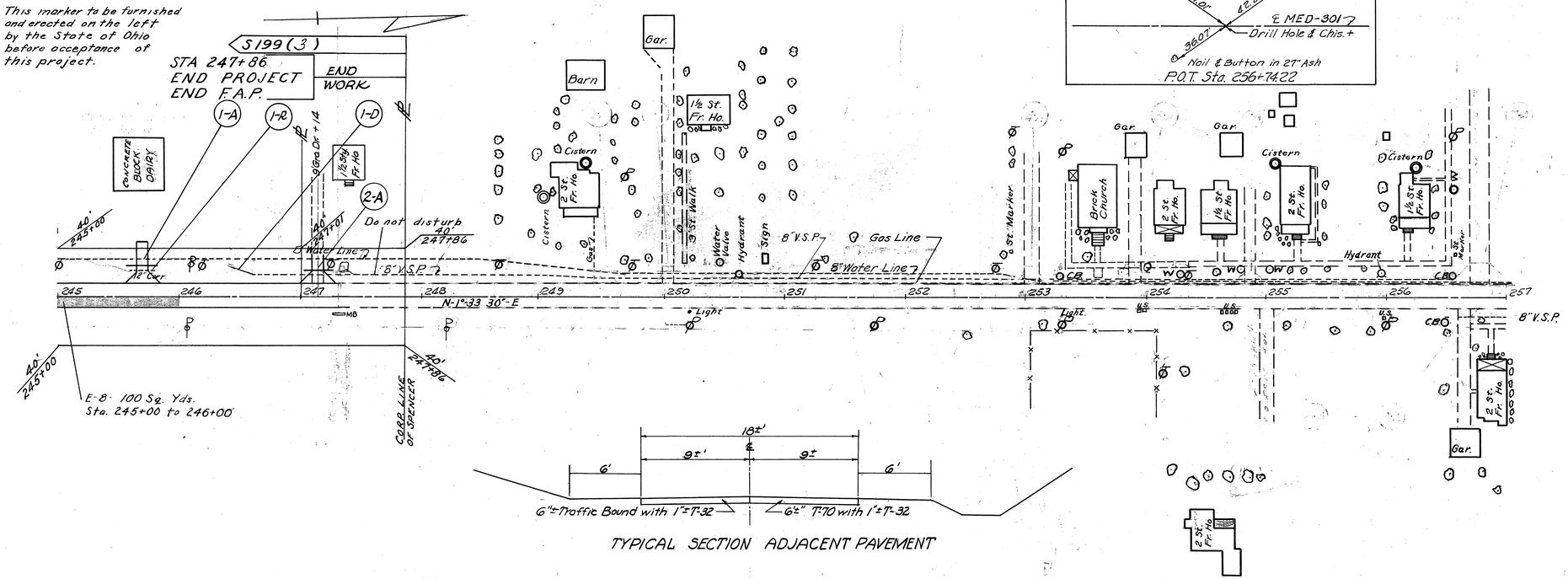


STA. 233+00 to STA. 245+00

		F.A.	TYPE FUNDS	26
2	OHIO	S-199(3)		74

MED-301-(2.60)(3.47)

This marker to be furnished and erected on the left by the State of Ohio before acceptance of this project.



TYPICAL SECTION ADJACENT PAVEMENT

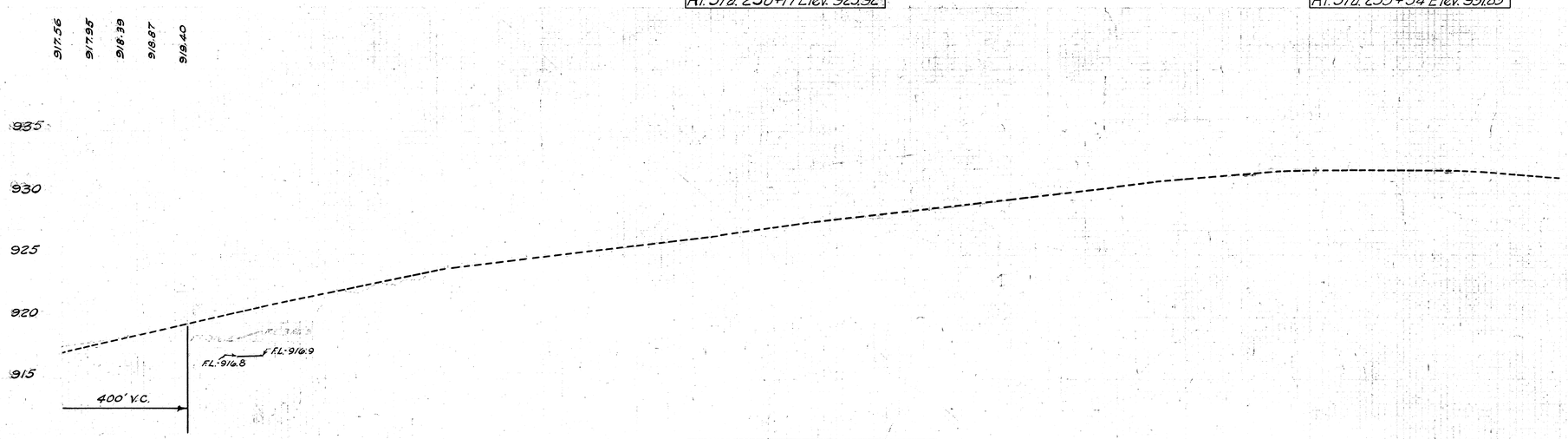
DRIVES & APPROACHES (A)					
ITEM NO.	STATION	SIDE	SS-10 CU YDS	Pipe For Driveways 12 Inch	8 Inch
1-A	245+71	Lt.	13	28	
2-A	247+14	Lt.	13		28
TOTAL			26	28	28

DRAINAGE (D)				
ITEM NO.	STATION FROM	STATION TO	SIDE	8" Outlet For RDWY DRAIN.
1-D	246+41	246+60	Lt.	20'
TOTAL				20'

PIPE REMOVAL (R)				
ITEM NO.	STATION FROM	STATION TO	SIDE	PIPE REMOVED & DISPOSED OF 15" & UNDER
1-R	245+62	245+82	Lt.	20'
TOTAL				20'

B.M. Spike in Power Pole 25' Rt. Sta. 250+17 Elev. 925.92

B.M. Spike in 18" Maple 27' Rt. Sta. 255+54 Elev. 931.83

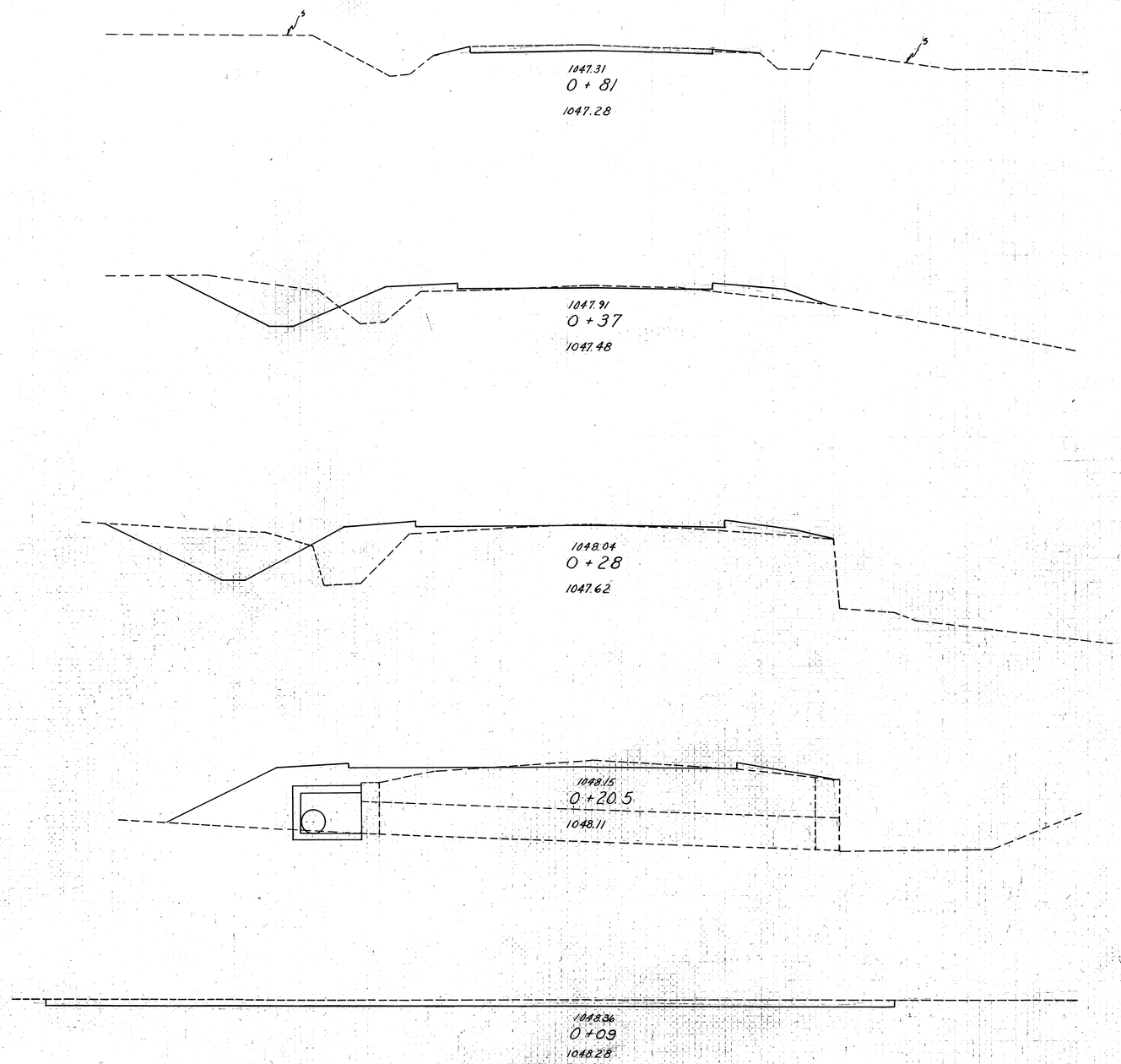


Excavation	380	Cu. Yds.
Embankment	140	Cu. Yds.
Embankment +30%	182	Cu. Yds.

STA. 245+00 to STA. 257+00

	F.A.		TYPE FUNDS	27
2	OHIO	S-199(3)	POST WAR	74

MED-301-(2.60)(3.47)

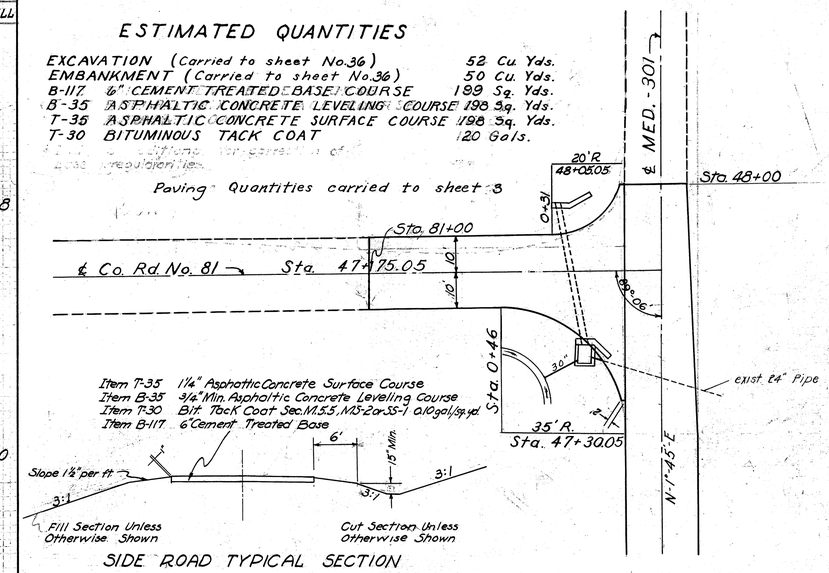


END AREA CUT	END AREA FILL	CU. YDS. CUT	CU. YDS. FILL
5	1		
		29	18
31	21		
		12	10
40	39		
		6	12
6	46		
		5	10
18	0		
TOTAL		52	50

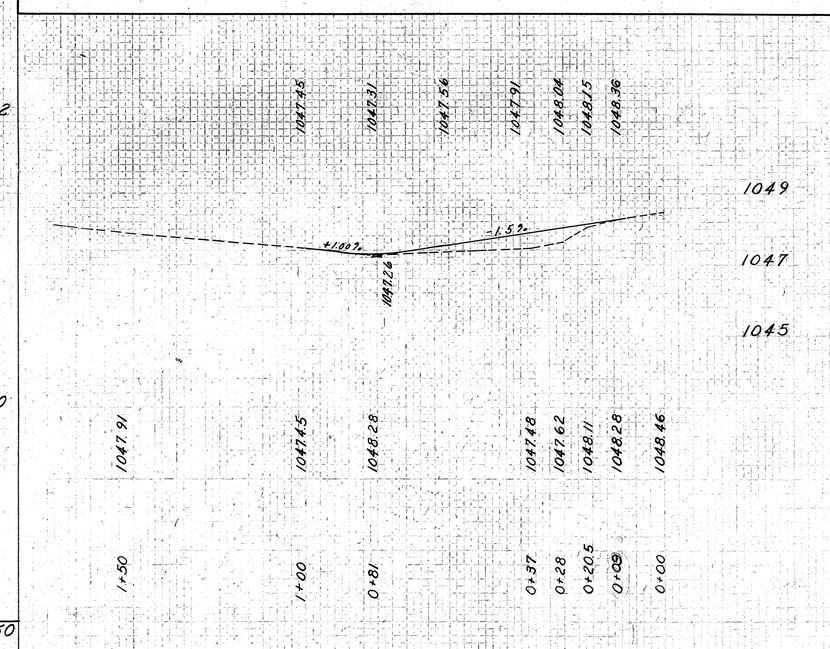
ESTIMATED QUANTITIES

EXCAVATION (Carried to sheet No.36)	52	Cu. Yds.
EMBANKMENT (Carried to sheet No.36)	50	Cu. Yds.
B-117 6" CEMENT TREATED BASE COURSE	189	Sq. Yds.
B-35 ASPHALTIC CONCRETE LEVELING COURSE	198	Sq. Yds.
T-35 ASPHALTIC CONCRETE SURFACE COURSE	198	Sq. Yds.
T-30 BITUMINOUS TACK COAT	120	Gals.

Paving Quantities carried to sheet 8



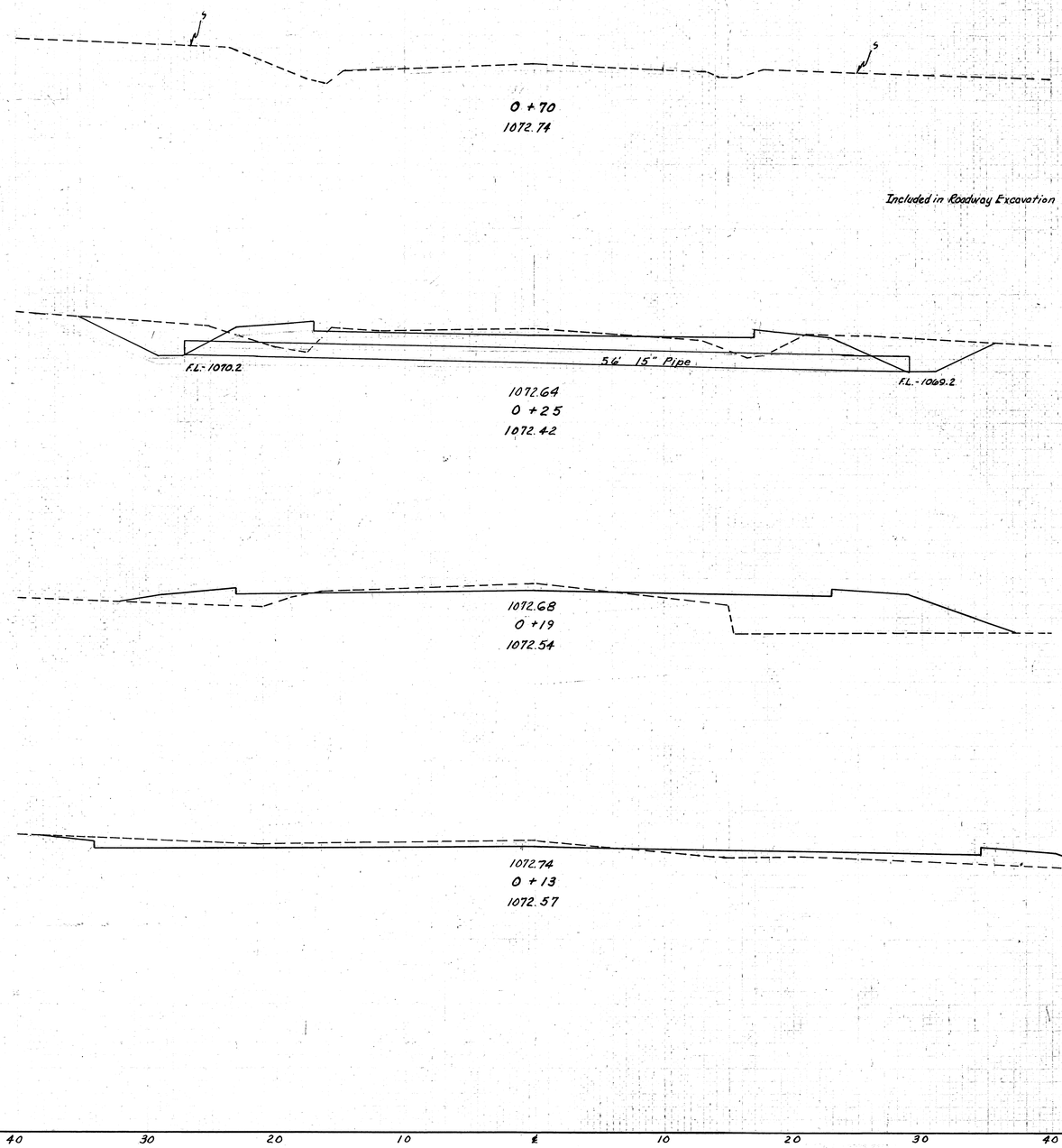
SIDE ROAD TYPICAL SECTION



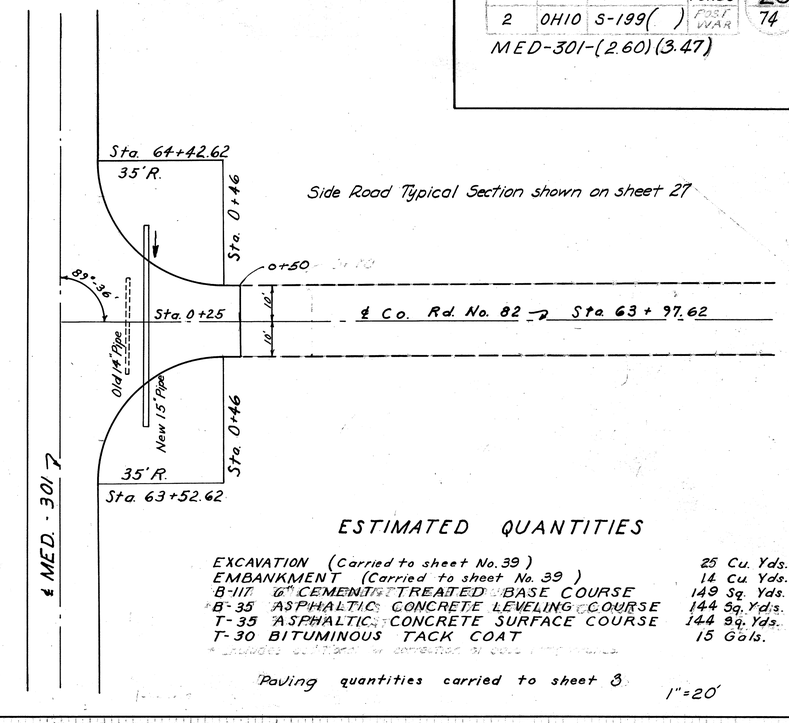
Intersection At Co. Road No. 81
Lt. Sta. 47 + 75.05

		F.A. PROJECT	TYPE FUNDS	28
2	OHIO	S-199( )	FED. WAR	74

MED-301-(2.60)(3.47)



	END AREA		CU. YD.	
	CUT	FILL	CUT	FILL
0+50	10	10	25	14
0+25	44	19		
0+00				

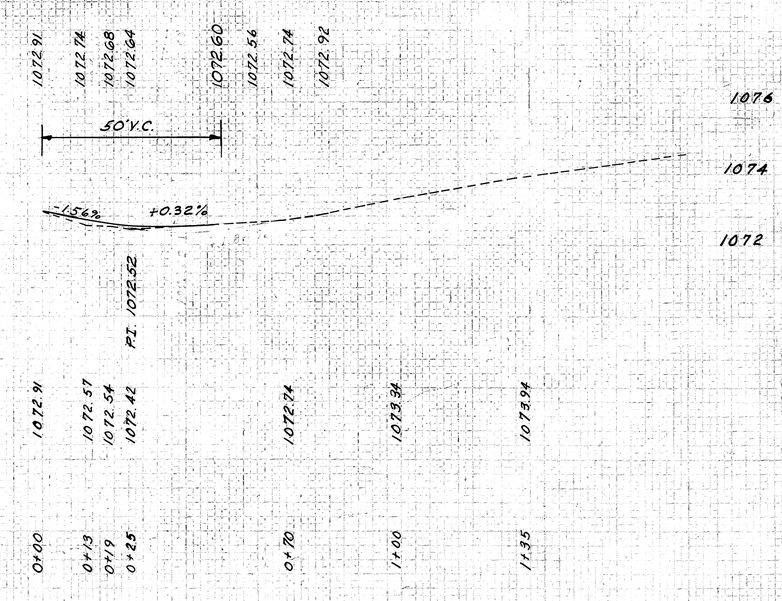


ESTIMATED QUANTITIES

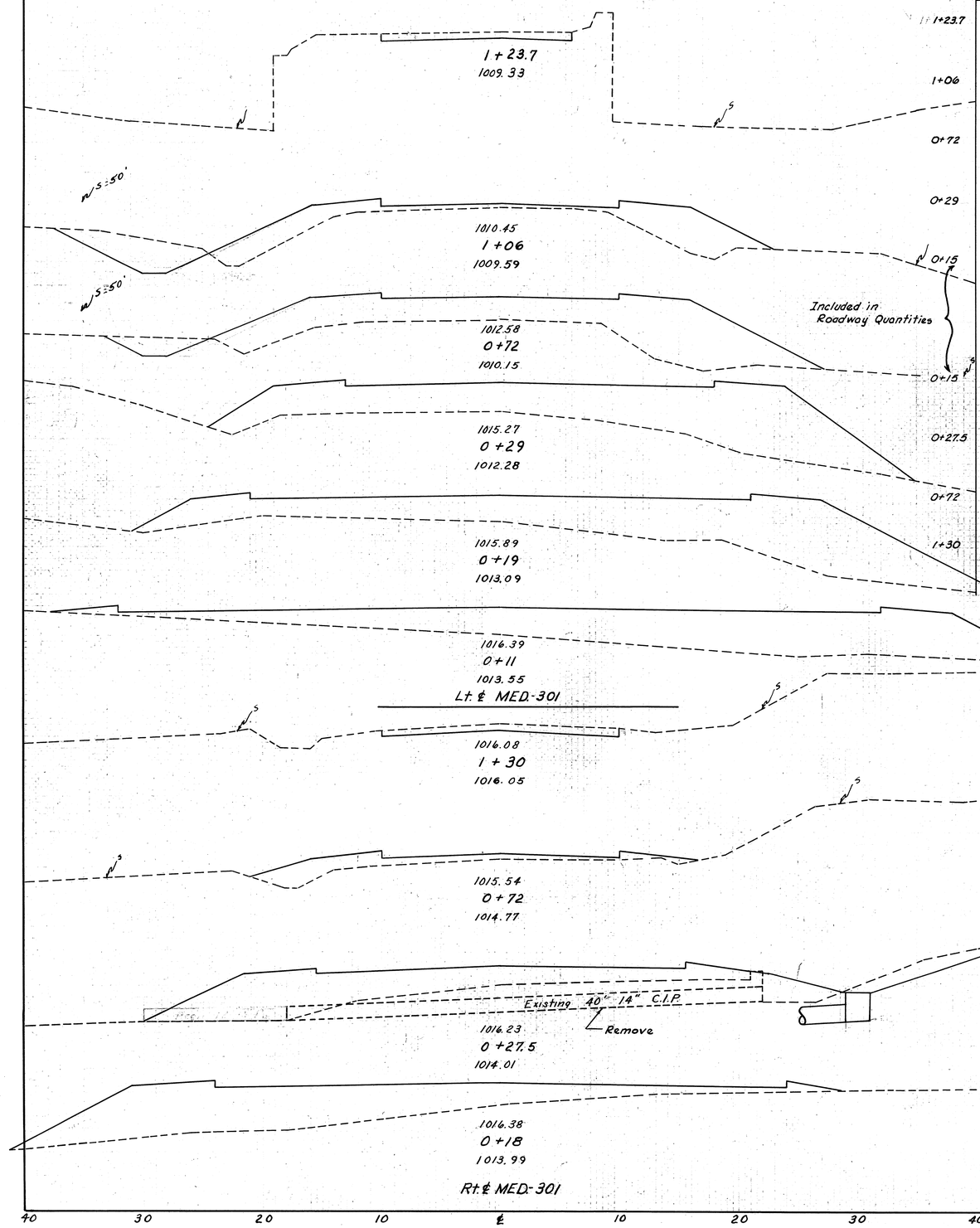
EXCAVATION (Carried to sheet No. 39)	25 Cu. Yds.
EMBANKMENT (Carried to sheet No. 39)	14 Cu. Yds.
B-117 6" CEMENT TREATED BASE COURSE	149 Sq. Yds.
B-35 ASPHALTIC CONCRETE LEVELING COURSE	144 Sq. Yds.
T-35 ASPHALTIC CONCRETE SURFACE COURSE	144 Sq. Yds.
T-30 BITUMINOUS TACK COAT	15 Gals.

Paving quantities carried to sheet 8.

1"=20'

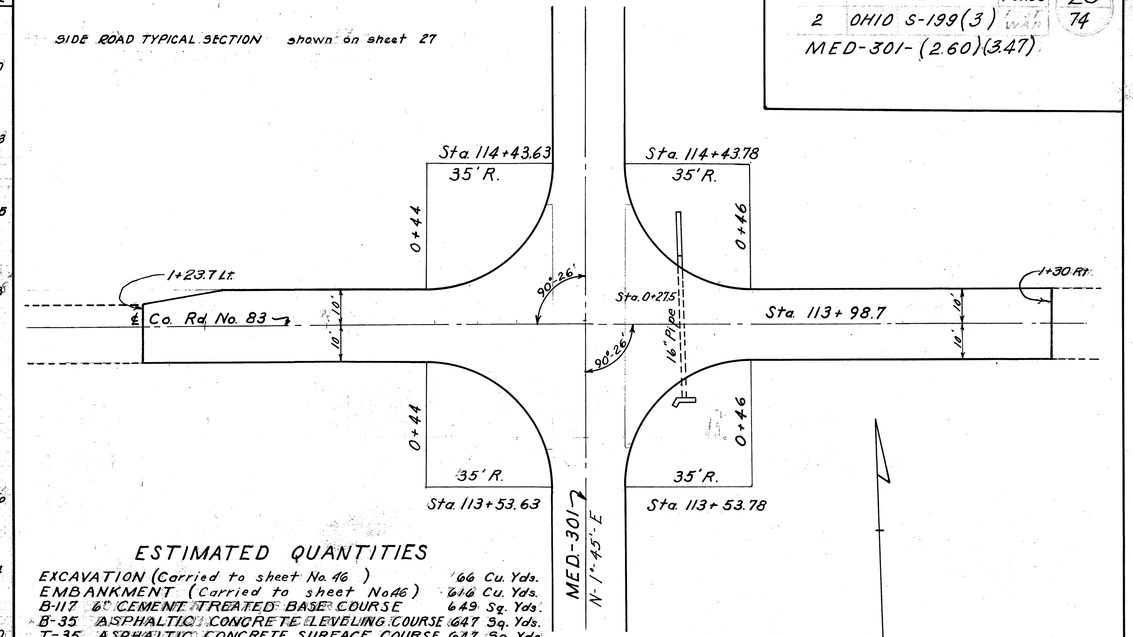


Intersection At Co. Road No. 82
Rt. Sta. 63 + 97.62



	END AREA		CU. YD.	
	CUT	FILL	CUT	FILL
1+23.7	11	0		
			11	20
1+06	23	60		
			20	123
0+72	9	135		
			9	255
0+29	0	185		
			0	46
0+15	0	0		
0+15	0	0		
			3	26
0+27.5	14	110		
			12	114
0+72	0	28		
			13	30
1+30	12	0		

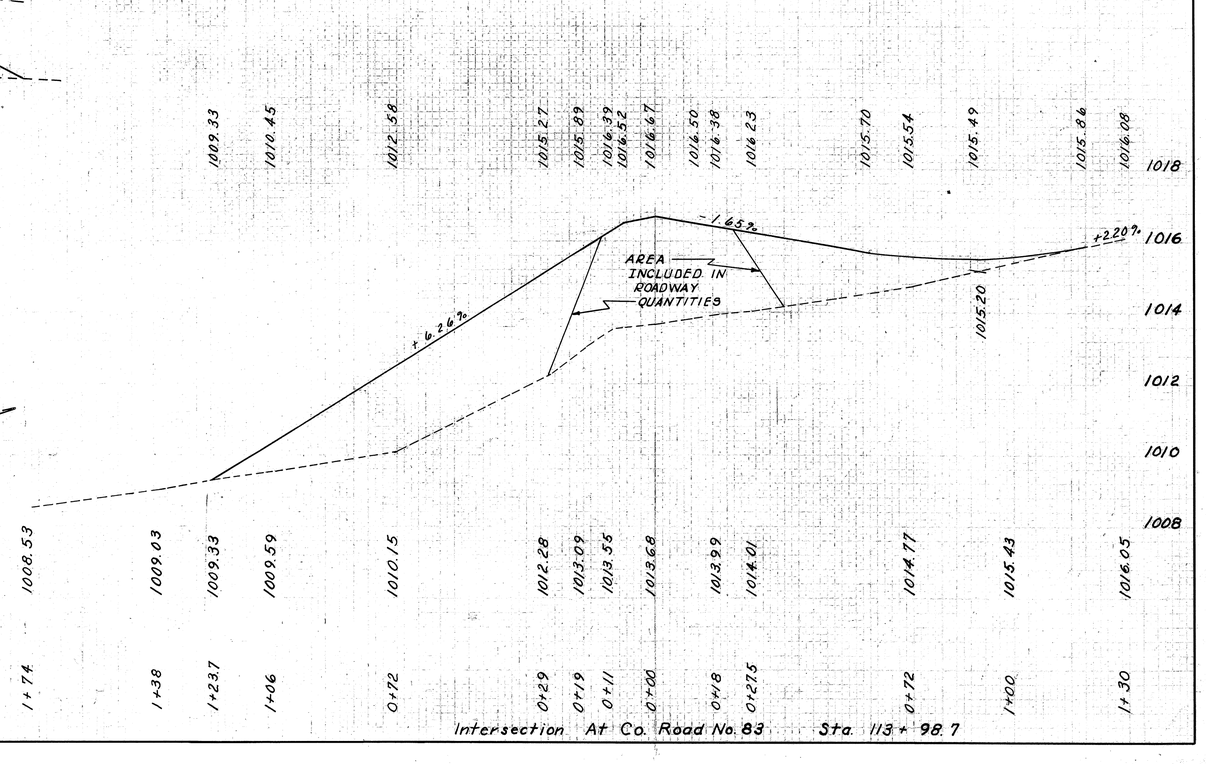
SIDE ROAD TYPICAL SECTION shown on sheet 27



ESTIMATED QUANTITIES

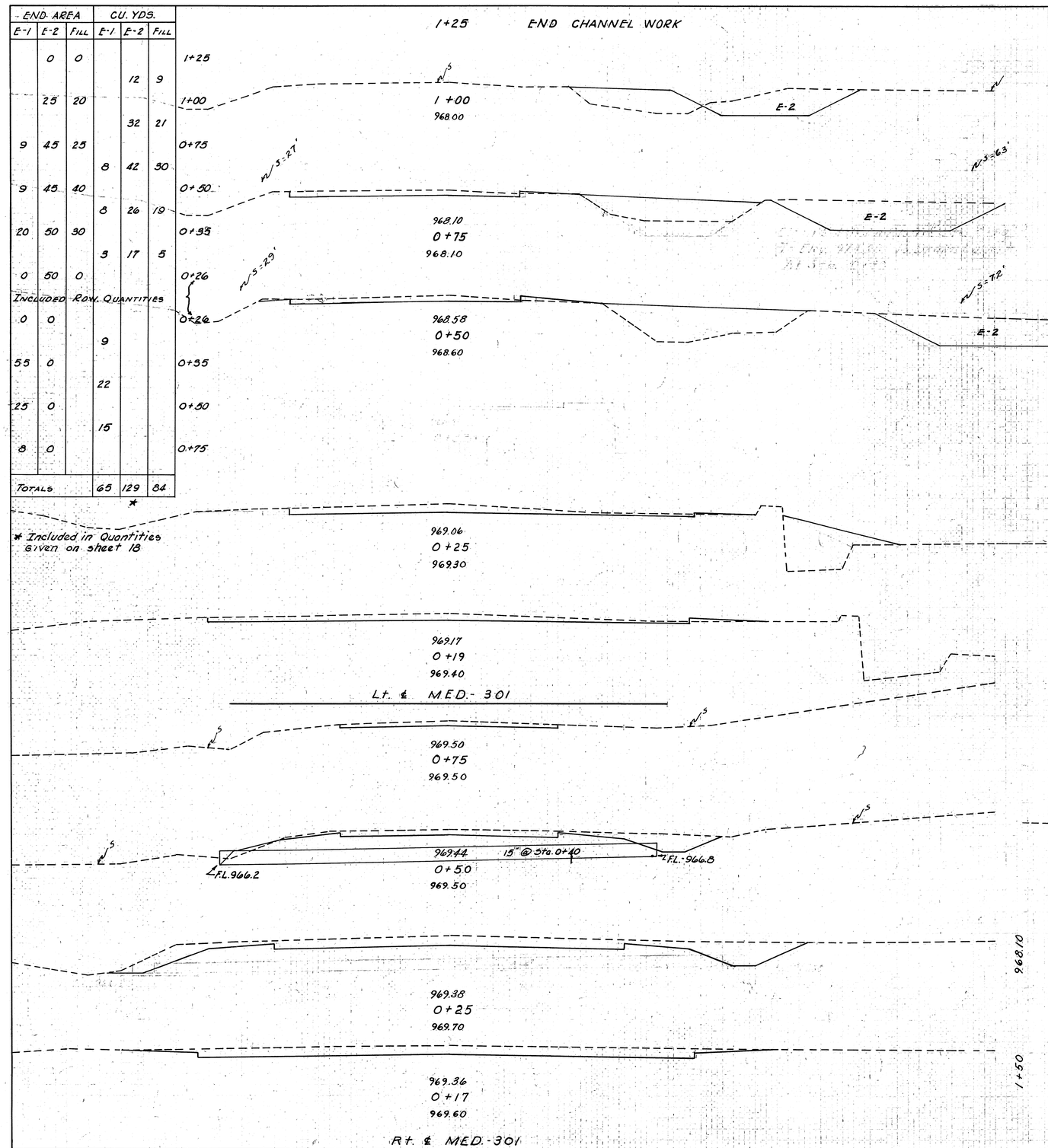
EXCAVATION (Carried to sheet No. 46)	66 Cu. Yds.
EMBANKMENT (Carried to sheet No. 46)	616 Cu. Yds.
B-117 6" CEMENT TREATED BASE COURSE	649 Sq. Yds.
B-35 ASPHALTIC CONCRETE LEVELING COURSE	647 Sq. Yds.
T-35 ASPHALTIC CONCRETE SURFACE COURSE	647 Sq. Yds.
T-30 BITUMINOUS TACK COAT	65 Gals.

Paving quantities carried to sheet 3



END AREA			CU. YDS.			
E-1	E-2	FILL	E-1	E-2	FILL	
	0	0				1+25
				12	9	
	25	20				1+00
				32	21	
9	45	25				0+75
			8	42	30	
9	45	40				0+50
			8	26	19	
20	50	30				0+35
			3	17	5	
0	50	0				0+26
INCLUDED ROW. QUANTITIES						
0	0					0+26
			9			
55	0					0+35
			22			
25	0					0+50
			15			
8	0					0+75
TOTALS			65	129	84	

* Included in Quantities Given on sheet 18



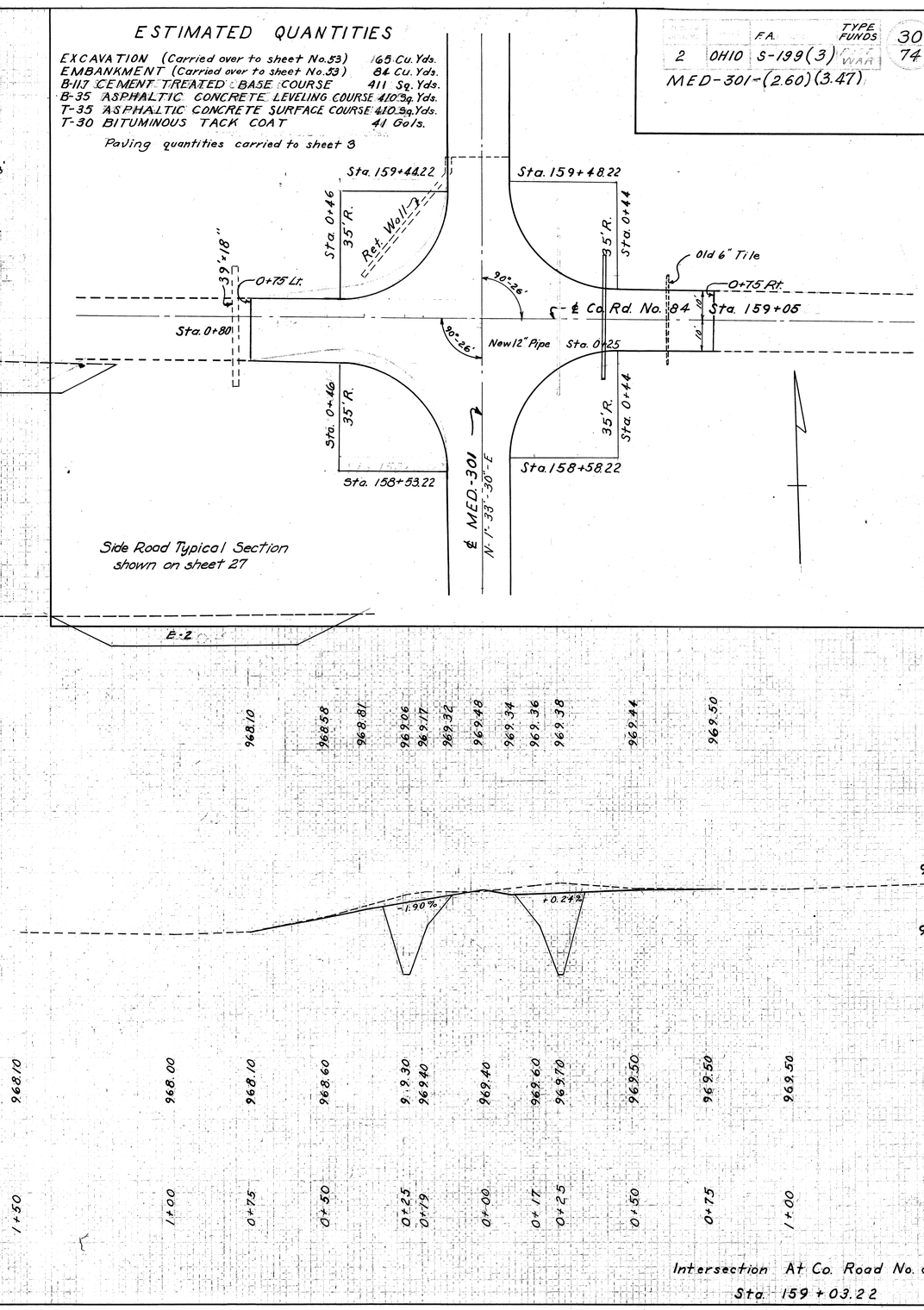
ESTIMATED QUANTITIES

EXCAVATION (Carried over to sheet No. 53)	165 Cu. Yds.
EMBANKMENT (Carried over to sheet No. 53)	84 Cu. Yds.
B-117 CEMENT TREATED BASE COURSE	411 Sq. Yds.
B-35 ASPHALTIC CONCRETE LEVELING COURSE	410 Sq. Yds.
T-35 ASPHALTIC CONCRETE SURFACE COURSE	410 Sq. Yds.
T-30 BITUMINOUS TACK COAT	41 Gals.

Paving quantities carried to sheet 3

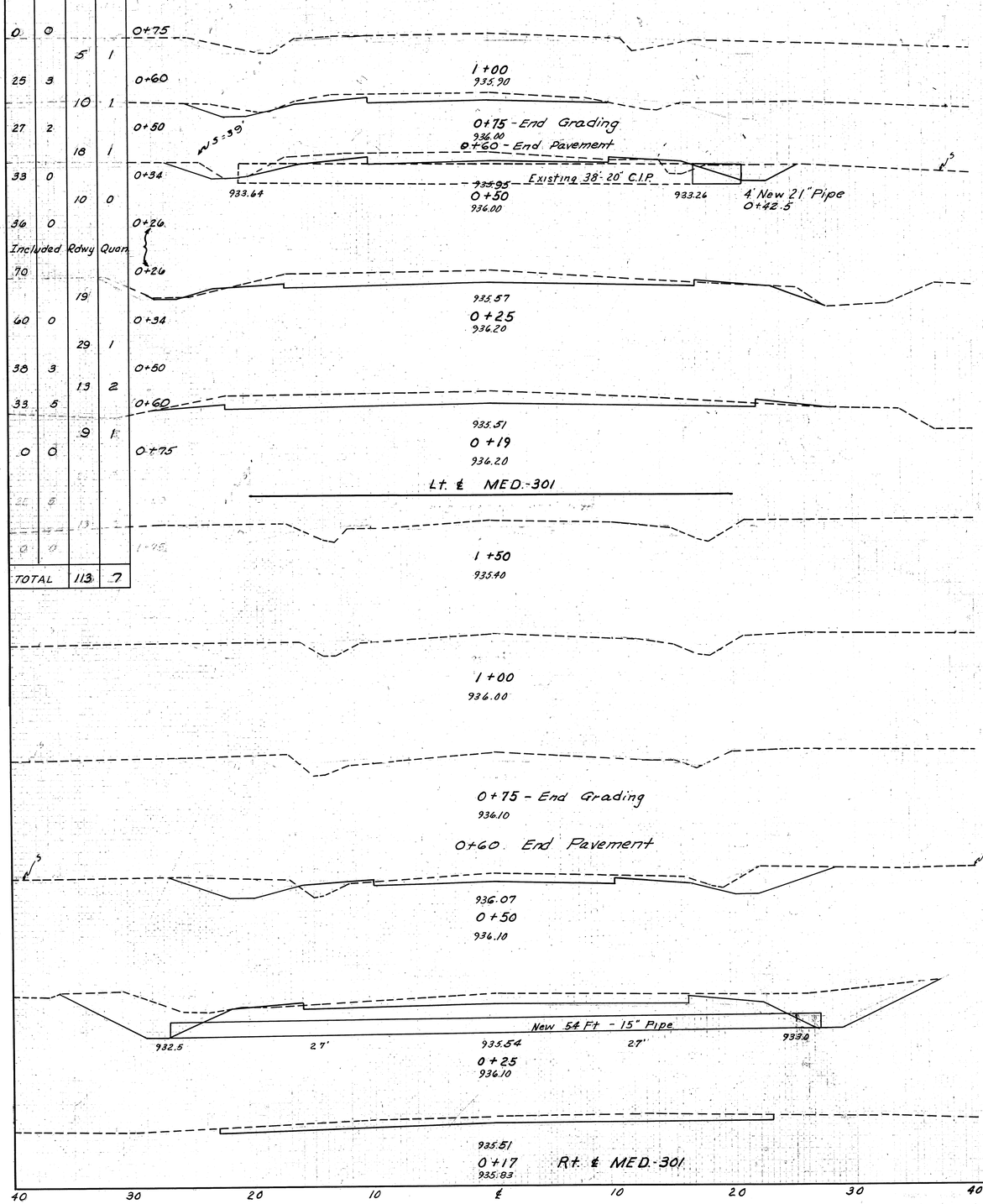
		F.A.	TYPE FUNDS	
2	OHIO	S-199(3)	WAR	30 / 74

MED-301-(2.60)(3.47)



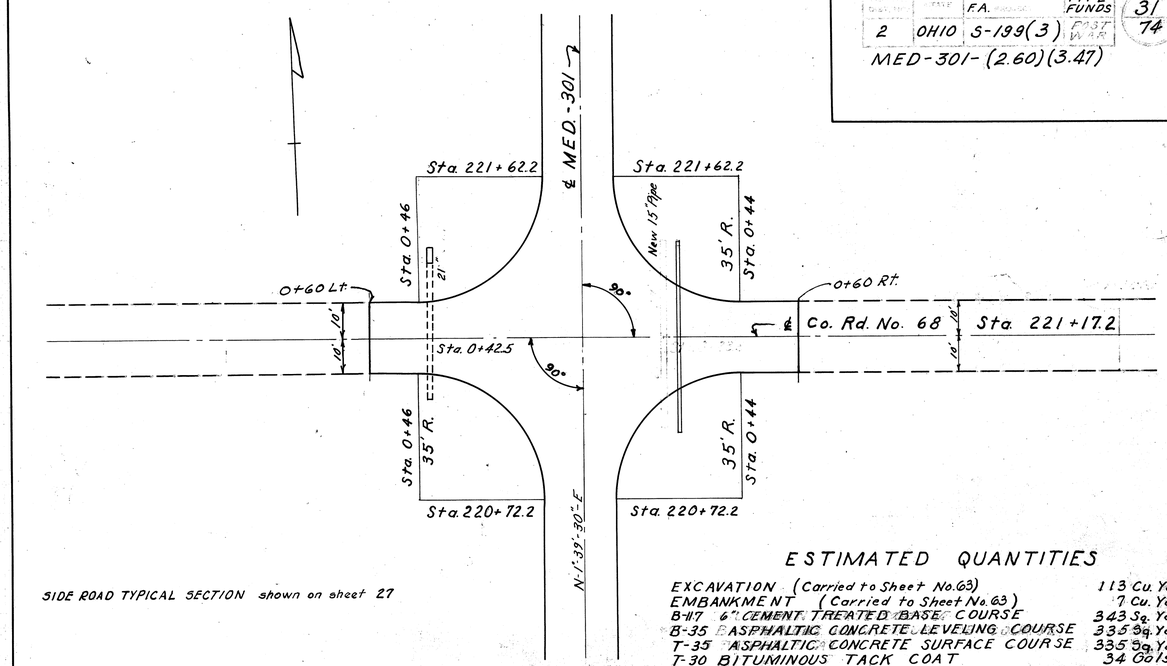
Intersection At Co. Road No. 84
Sta. 159 + 03.22

END AREA CUT	END AREA FILL	CU. YDS. CUT	CU. YDS. FILL	
0	0			0+75
		5	1	
25	3			0+60
		10	1	
27	2			0+50
		18	1	
33	0			0+34
		10	0	
36	0			0+26
Included Rdwy Quan				
70				0+26
		19		
60	0			0+34
		29	1	
38	3			0+50
		13	2	
33	5			0+60
		9	1	
0	0			0+75
TOTAL		113	7	



		F.A.	TYPE FUNDS	31/74
2	OHIO	S-199(3)	FAST WAY	

MED-301-(2.60)(3.47)

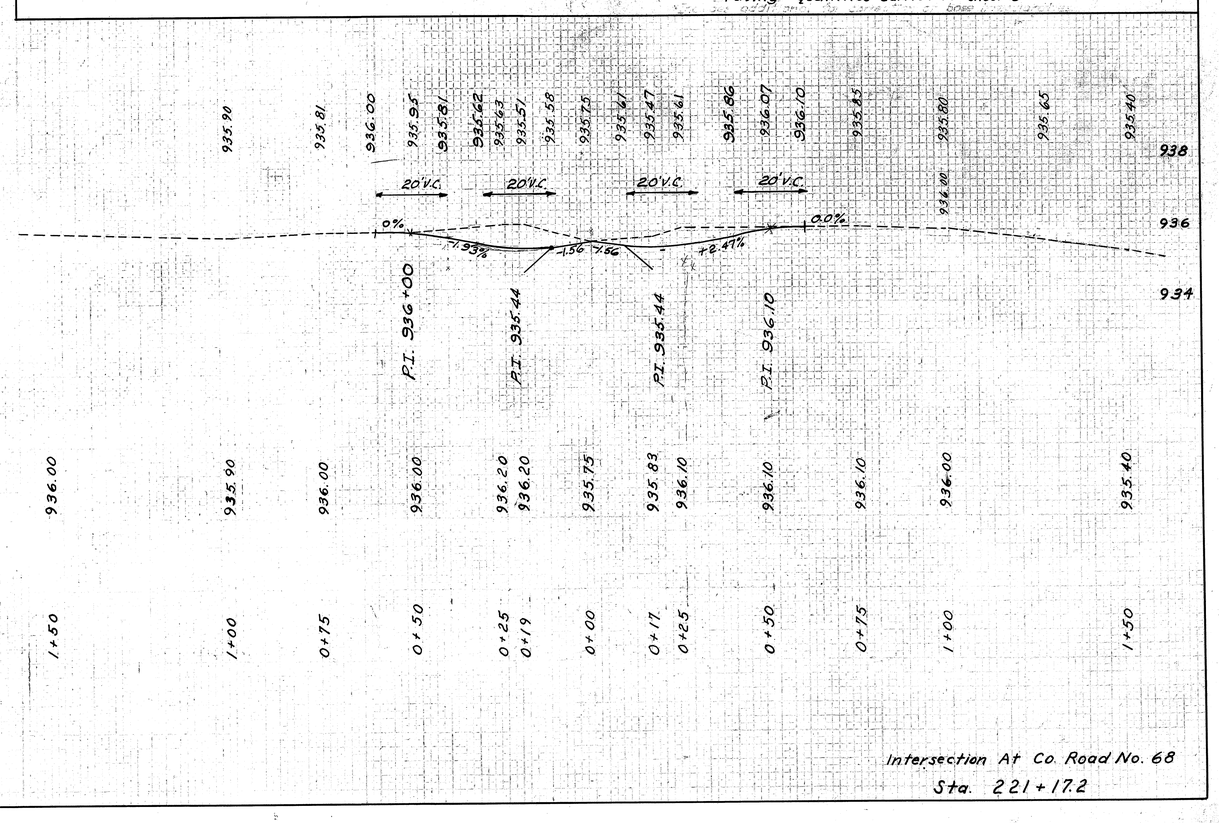


SIDE ROAD TYPICAL SECTION shown on sheet 27

ESTIMATED QUANTITIES

EXCAVATION (Carried to Sheet No. 63)	113 Cu. Yds.
EMBANKMENT (Carried to Sheet No. 63)	7 Cu. Yds.
B-117 6" CEMENT TREATED BASE COURSE	343 Sq. Yds.
B-35 ASPHALTIC CONCRETE LEVELING COURSE	335 Sq. Yds.
T-35 ASPHALTIC CONCRETE SURFACE COURSE	335 Sq. Yds.
T-30 BITUMINOUS TACK COAT	34 Gals.

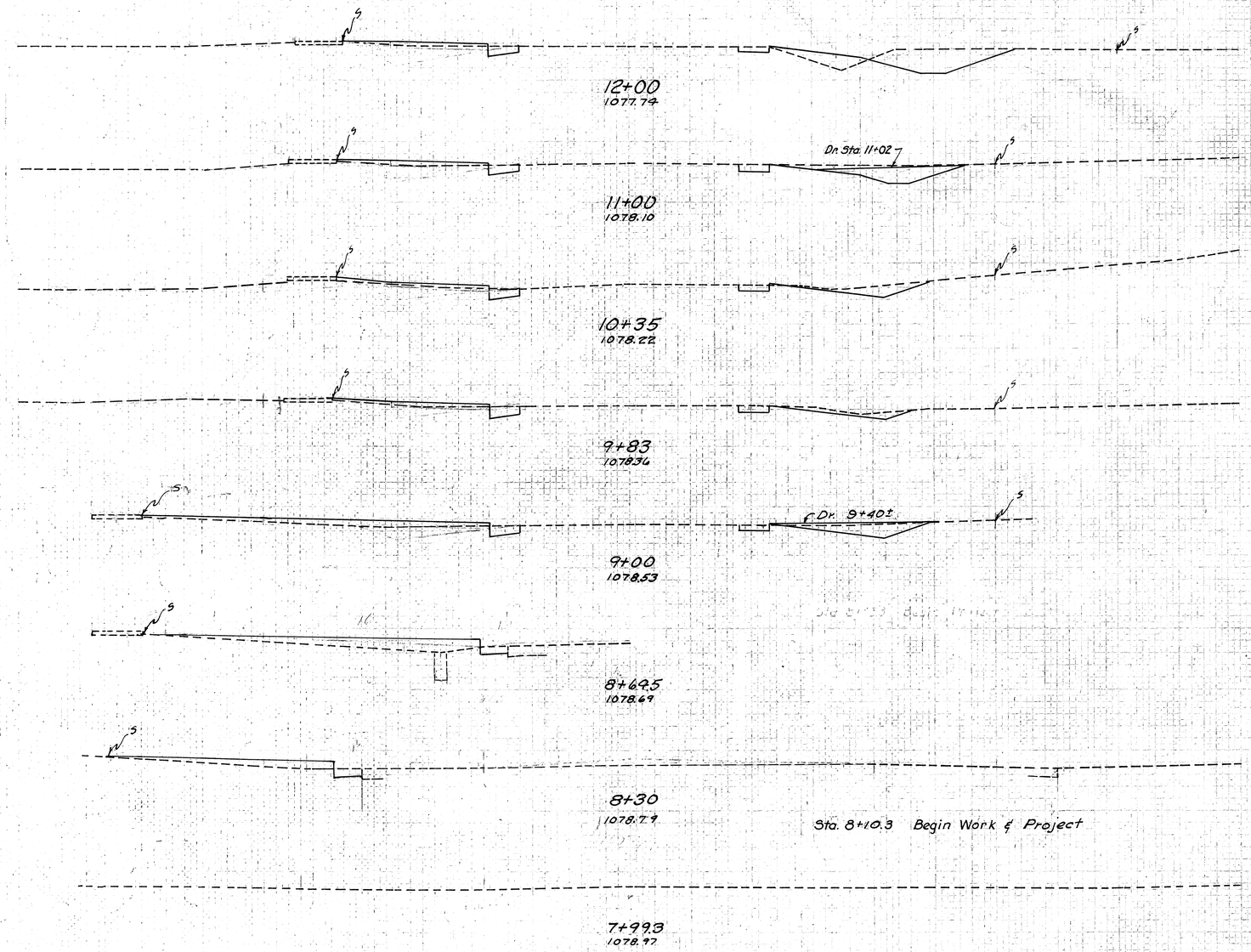
Paving quantities carried to sheet 3



Intersection At Co. Road No. 68
Sta. 221+17.2

DISTRICT	STATE	F.A. PROJECT	TYPE FUNDS	32
2	OHIO	S-199(3)	COST WAR	74

MED-301-(2.60)(3.47)



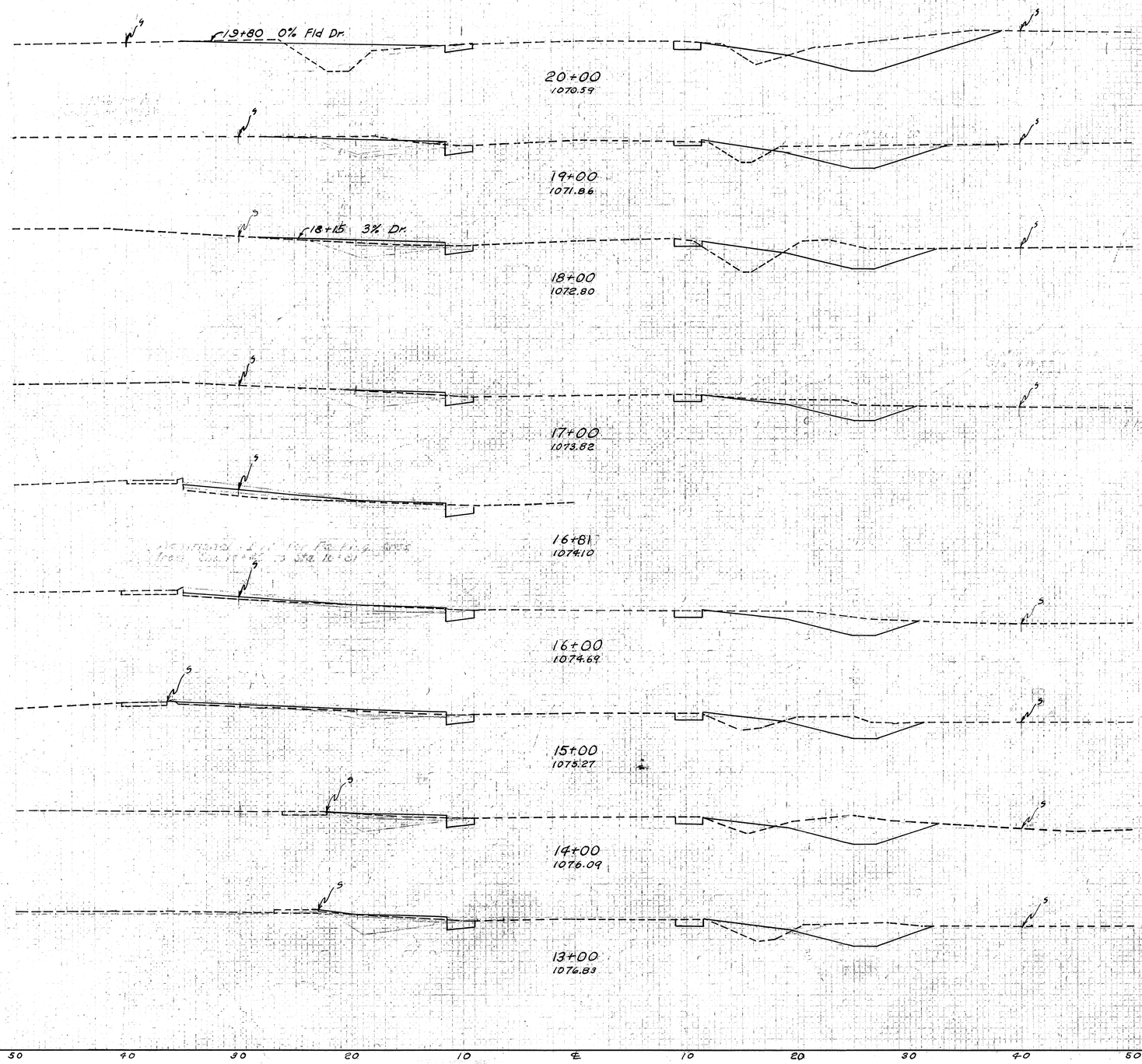
	End Area Cut	End Area Fill	Cu Yds. Cut	Cu Yds. Fill
	18	9		
			61	24
	15	4		
			28	10
	8	4		
			15	7
	7	3		
			25	23
	9	12		
			7	18
Sta. 8+10.3	1	8		
	1	16		
			2	15
	2	8		
			1	6

50 40 30 20 10 ℄ 10 20 30 40 50

STA. 7+99.3 to STA. 12+00

	F.A.	TYPE FUNDS	
2	OHIO S-199(3)	R.I.T. W.R.	33 / 74

MED-301-(2.60)(3.47)



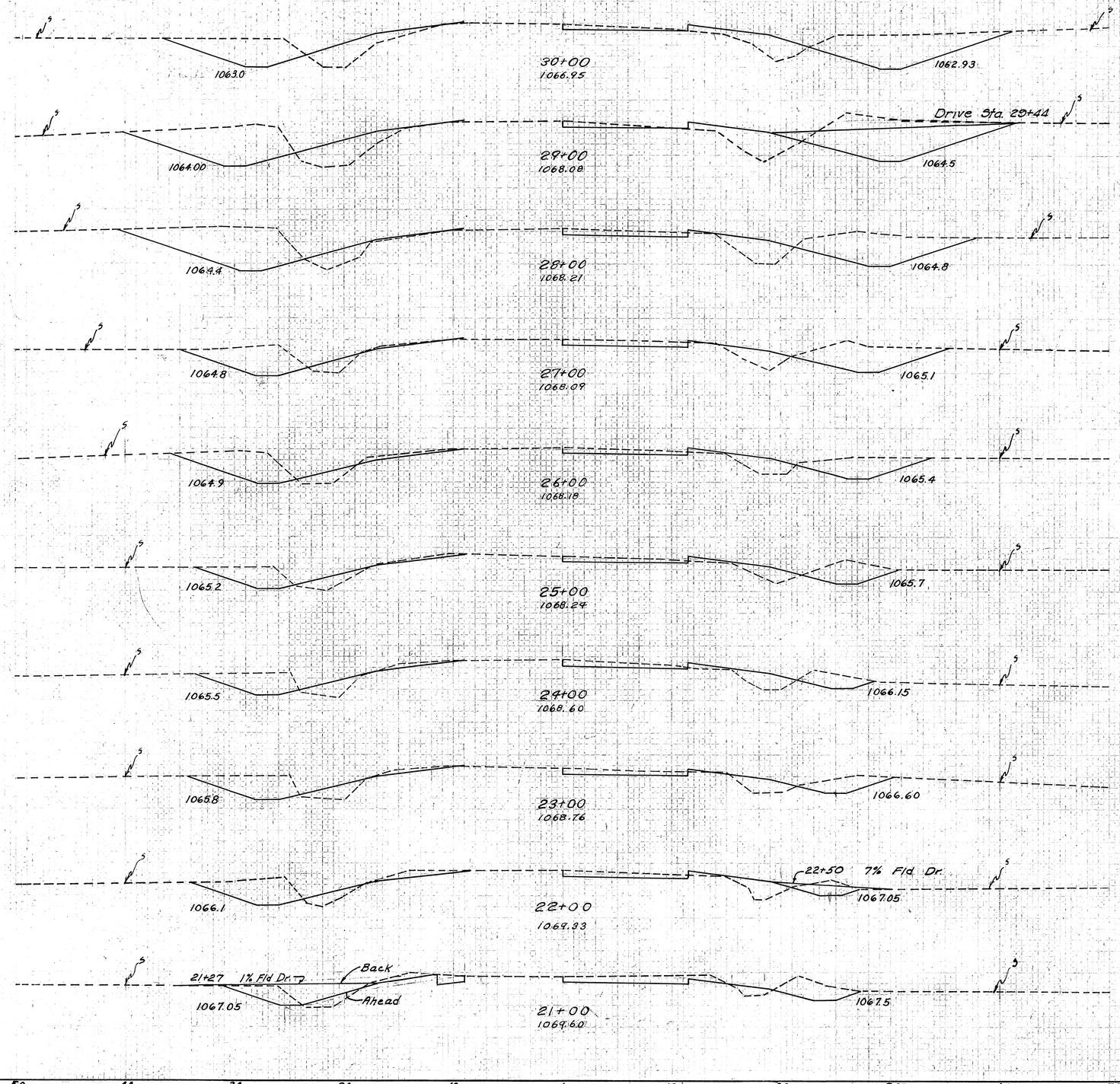
End Area		Cu Yds.	
Cut	Fill	Cut	Fill
36	23		
		117	52
27	5		
		93	31
23	12		
		74	24
17	1		
		67	9
19	2		
		67	26
17	10		
		78	26
25	4		
		81	20
19	7		
		69	30
18	9		

STA. 12+00

STA. 13+00 to STA. 20+00

FED. RD. DIST. NO.	STATE	F.A. PROJECT	TYPE FUNDS	34
2	OHIO	S-199(3)	FAP	74

MED-301-(2.60)(3.47)

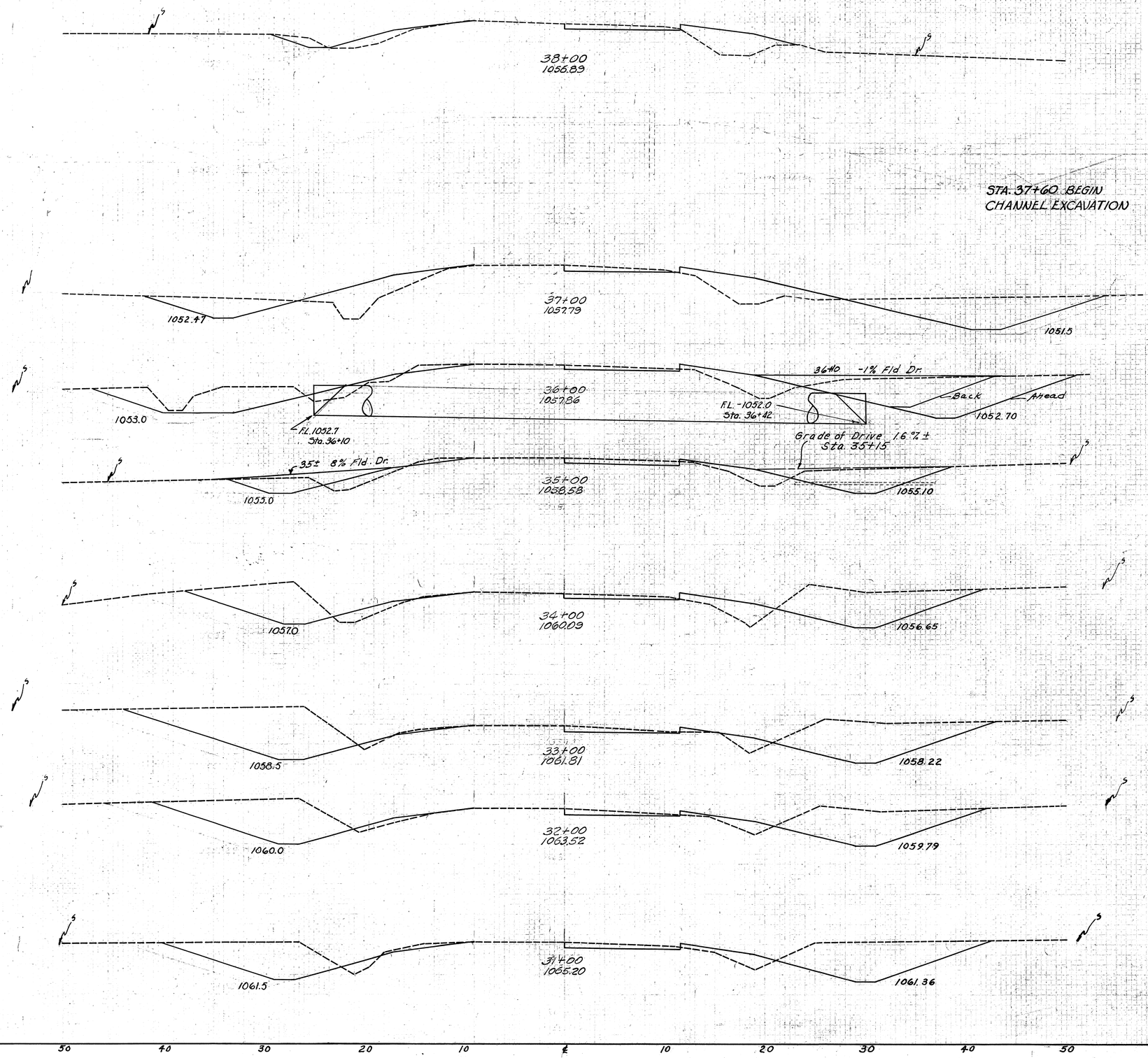


	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	55	22		
			256	94
	83	29	0	0
			194	85
	76	17		
			222	48
	44	9		
			152	37
	38	11		
			119	39
	26	10		
			94	39
	25	11		
			98	41
	28	11		
			106	39
22+50 Fld Dr. Rt.	29	10	7	1
			109	28
Ahead	30	5		
Back	24	13		
			111	67
STA. 20+00	36	23		

STA. 21+00 to STA. 30+00

F.A. 2 OHIO S-199(3)
MED-301-(2.60)(3.47)

TYPE FUNDS 35 74



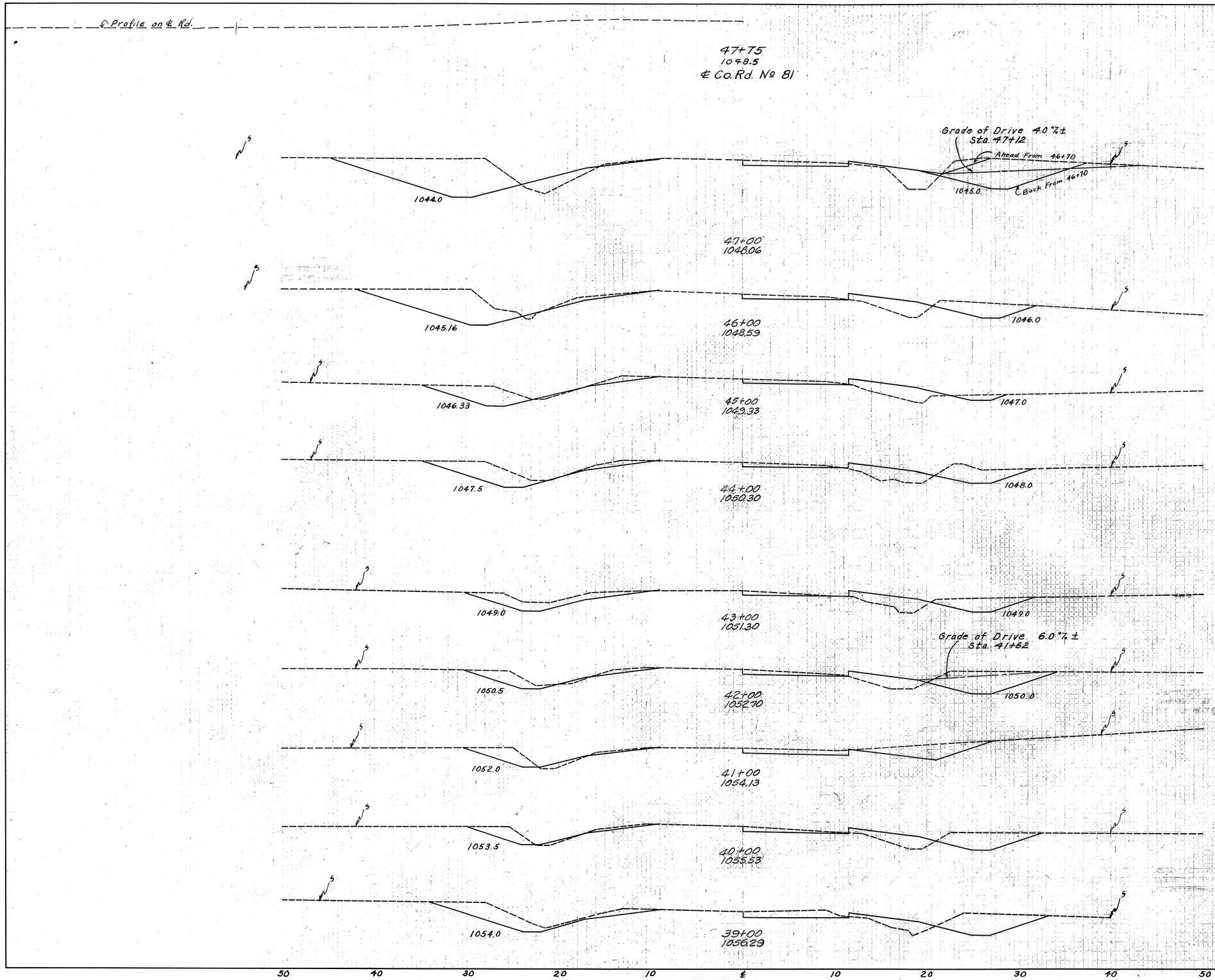
End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill	
10	23			
		143	126	
67	45			
		302	122	
96	21			
		252	65	Drive Sta. 36+10 Rt
			17	
40	14			Dr. Sta. 35± Lt.
			3	
		230	57	
84	17			
		389	43	
126	6			
		413	28	
97	9			
		356	35	
95	10			
		278	59	
65	22			STA. 30+00

STA. 31+00 to STA. 38+00

F.A. 2 OHIO S-199(3) MED-301-(260)(3.47)

TYPE FUNDS FAST LANE

36 / 74



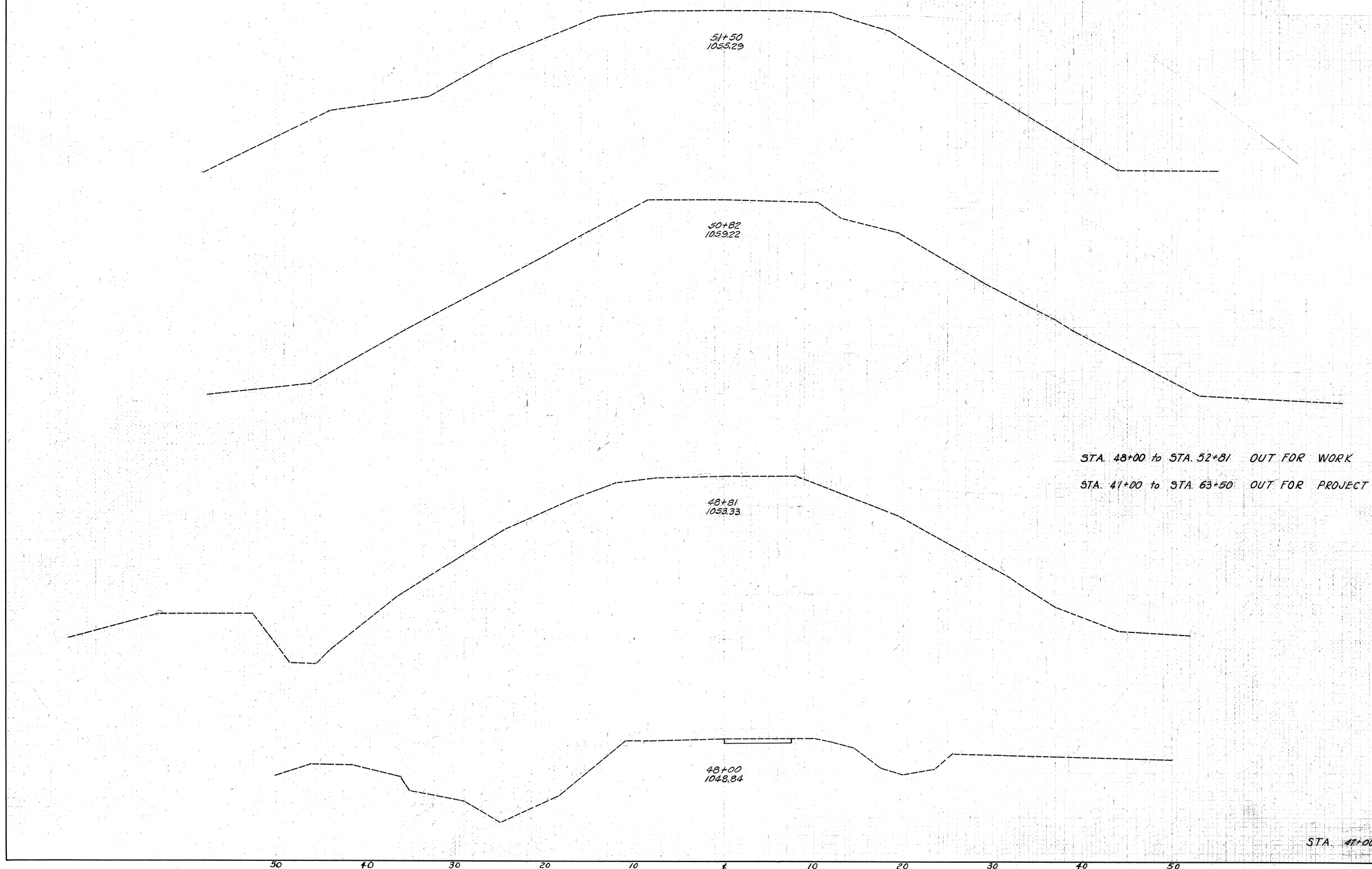
	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
Approach Sta. 47+75 05 Lt			52	50
Drive Sta 47+12 Rt			5	
47+00	59	10		
			66	11
STA. 46+70 Ahead	39	10		
STA. 46+70 Back	89	10		
			186	27
	54	11		
			143	41
	23	11		
			107	39
	35	10		
			113	37
	26	10		
			109	33
Drive Sta. 41+62 Rt.	33	8		11
			111	19
	27	2		
			98	20
	26	9		
			128	31
	43	8		
			98	57
STA. 38+00	10	23		

STA. 39+00 to STA. 47+75

F.A. TYPE FUNDS

2 OHIO S-199(3)

MED-301-(2.60)(3.47)



STA. 48+00 to STA. 52+81 OUT FOR WORK

STA. 41+00 to STA. 63+50 OUT FOR PROJECT

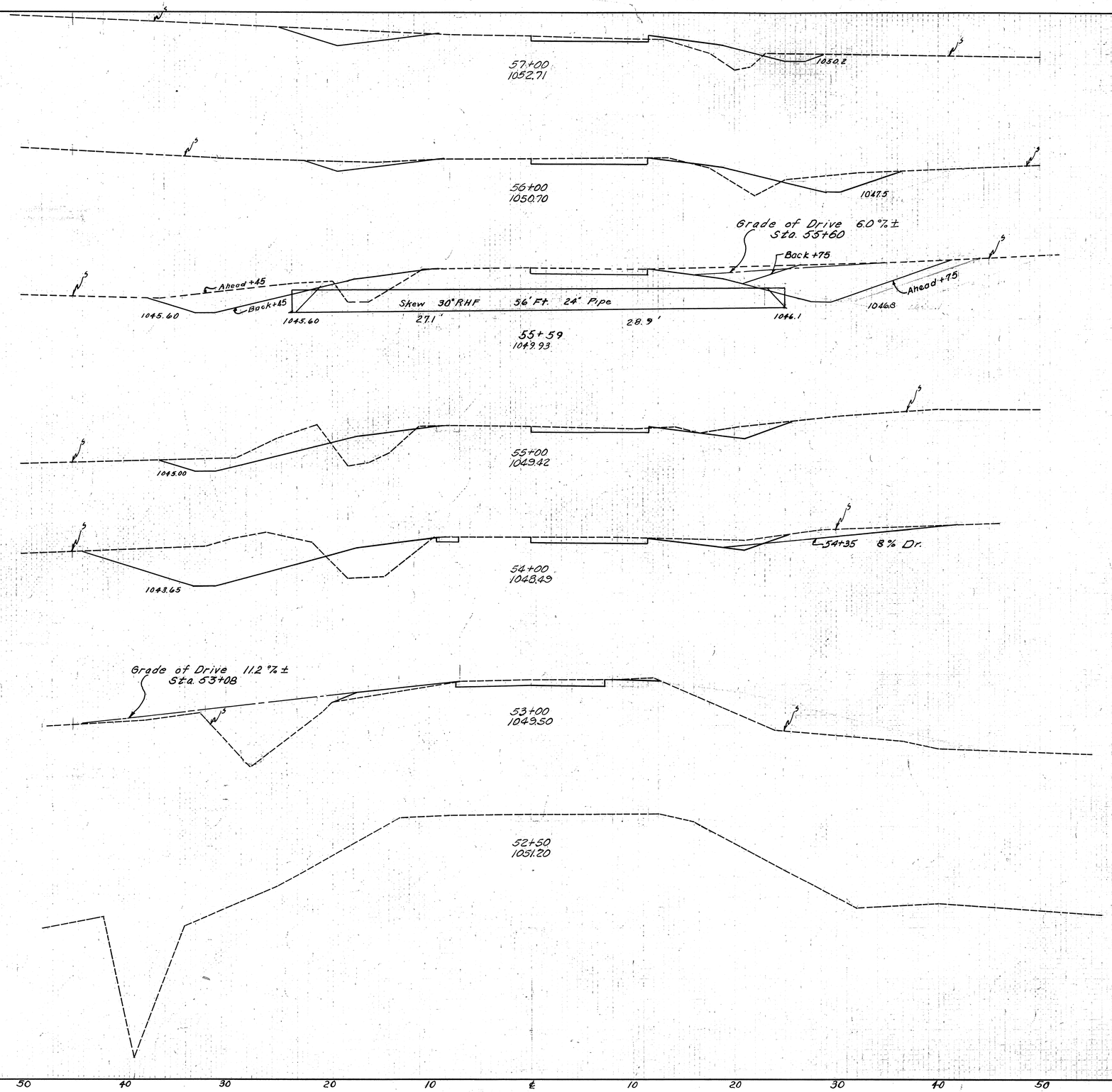
	End Area		Cu Yds.	
	Cut	Fill	Cut	Fill
	0	0		
			0	0
	0	0		
			0	0
	0	0		
			6	0
	4	0		
			117	25
STA. 41+00	59	10		

STA. 48+00 to STA. 51+50

F.A. 2 OHIO S-199(3) MED-301-(2.60)(3.47)

TYPE FUNDS FAP WAP

38 / 74

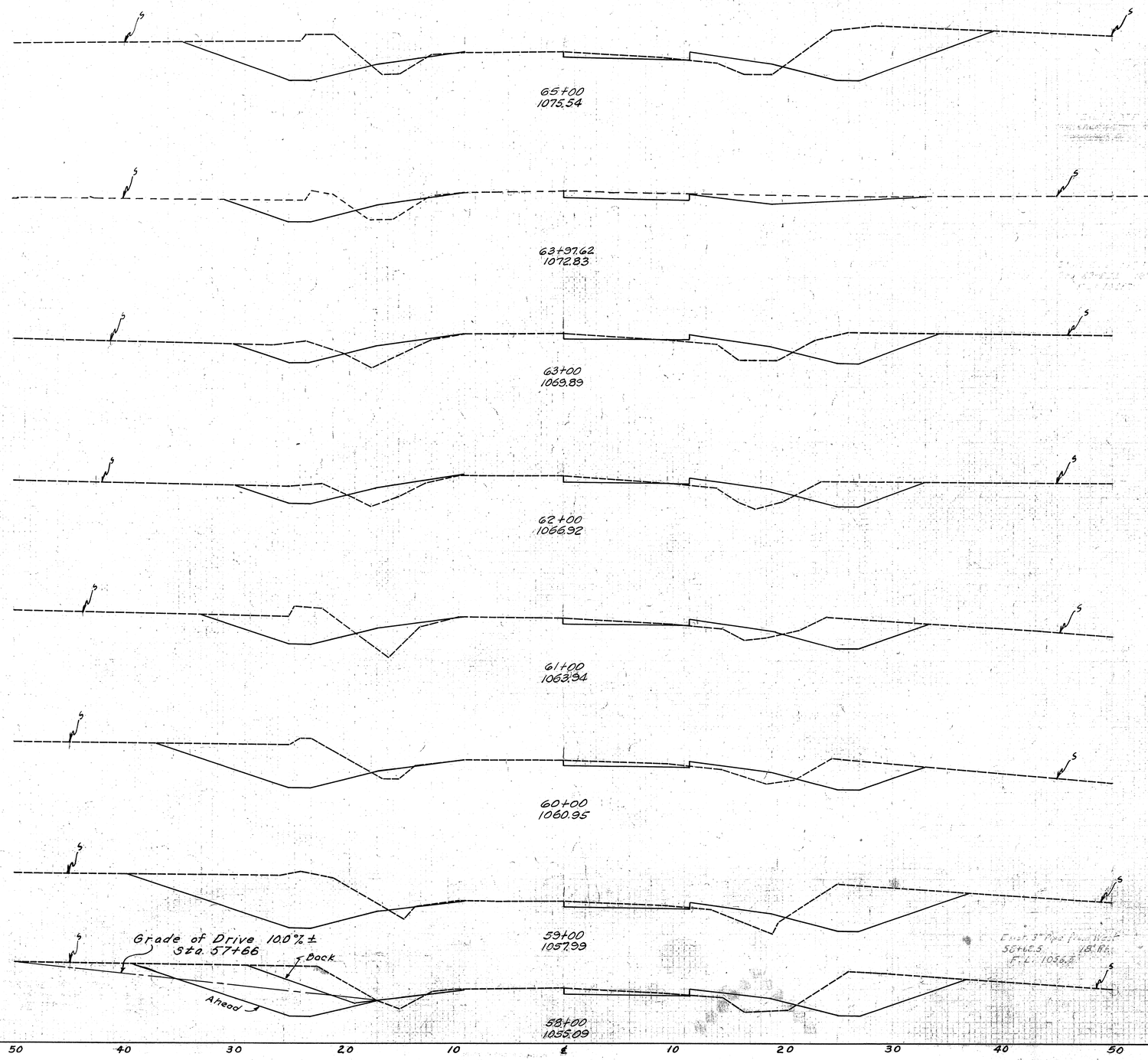


	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	22	11		
			89	35
	26	8		
			176	15
Drive Sta. 55+60 Rt.			1	54
Ahead	69	12		
Back	42	12		
			135	30
	31	15		
			207	67
	81	21		
Dr. 54+35 Rt.			4	
			159	46
Drive Sta. 53+08 Lt.				46
	5	4		
			4	3
	0	0		
			0	0
STA. STA 51+50	0	0		

STA. 52+50 to STA. 57+00

	F.A.		TYPE FUNDS	39
2	OHIO	S-199(3)	POST WAR	74

MED-301-(2.60)(3.47)



Sta. 53+00 to 65+00

Approach Sta. 63+97.62 Rt.

Drive Sta. 57+66 Lt

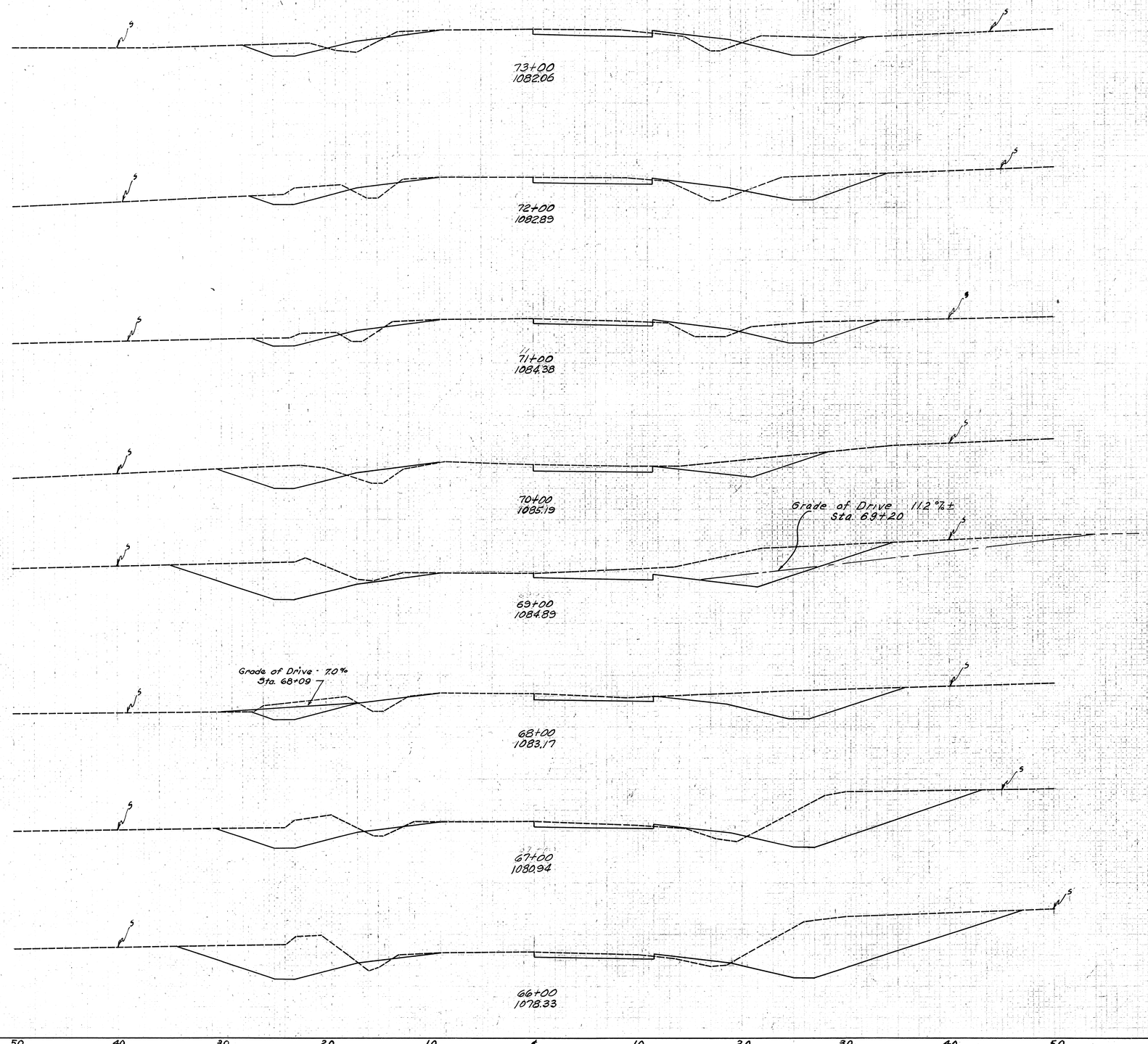
STA. 57+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
95	12		
		242	34
		25	14
33	6		
		123	44
35	19		
30	18		
		150	69
51	17		
		224	46
70	8		
		331	31
109	9		
		376	35
		20	1
94	10		
52	10		
		137	39
22	11		

STA. 58+00 to STA. 65+00

		F.A.	TYPE FUNDS	
2	OHIO	S-199(3)		40 / 74

MED-301-(2.60)(3.47)



Drive Sta. 69+20 Rt.

Drive Sta. 68+09 Lt.

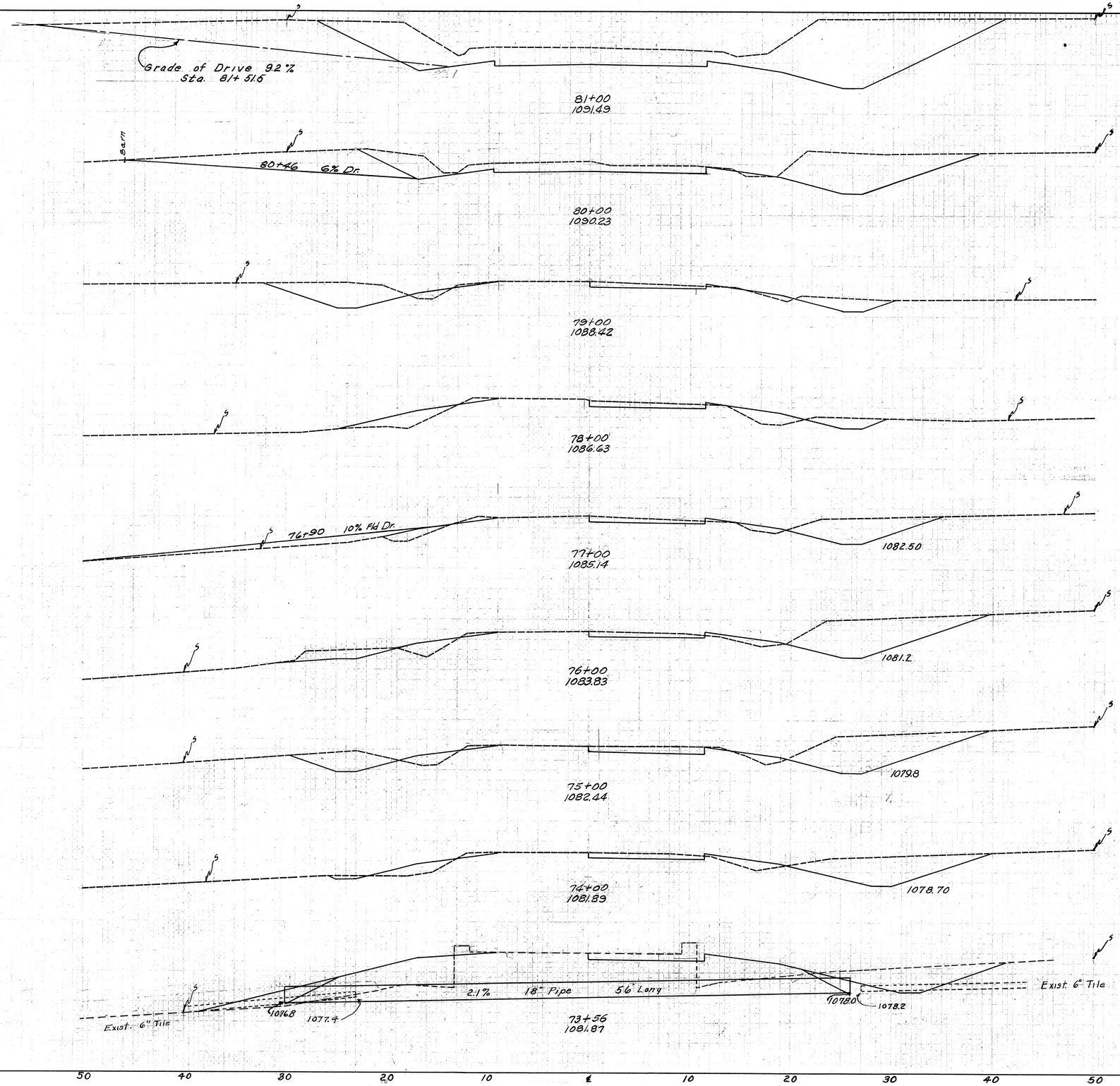
STA. 65+00

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
26	8		
		107	33
32	10		
		107	35
26	9		
		113	26
35	5		
		243	9
		16	4
96	0		
		272	6
		0	3
51	3		
		250	15
84	5		
		387	17
125	4		
		407	30
95	12		

STA. 66+00 to STA. 73+00

F.A. 2 OHIO S-199(3)
MED-301-(2.60)(3.47)

TYPE FUNDS 41 74

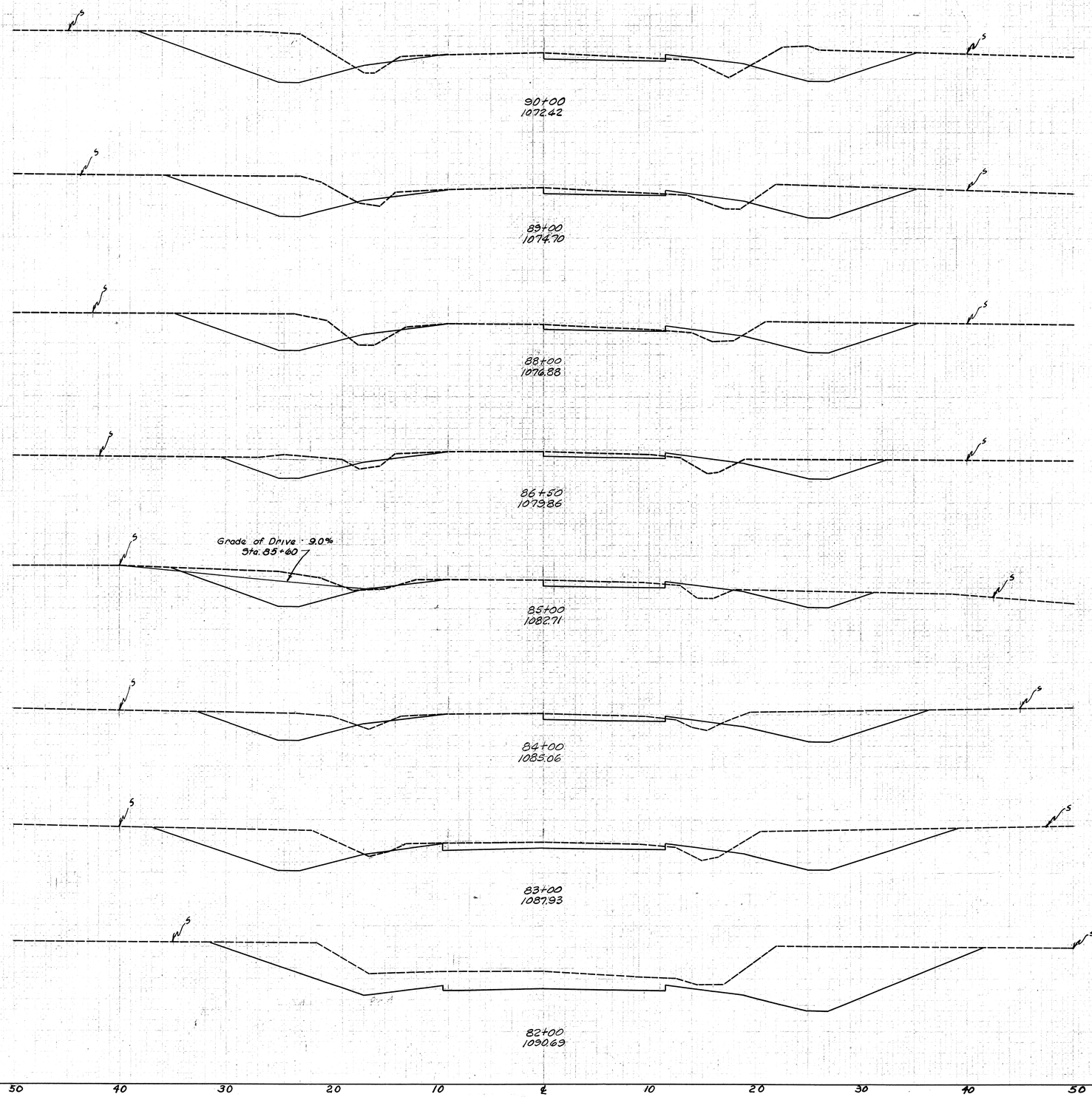


	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
Drive Sta. 81+51.5 Lt.	159	0	56	1
Dr. Lt.			25	
			444	0
	81	0		
			215	6
	35	3		
			87	33
	12	15		
			76	39
	29	6		
Dr. Lt.				8
			154	28
	54	9		
			169	74
	37	31		
			143	80
	40	12		
			59	75
	36	80		
			64	89
STA. 73+00	26	8		

STA. 73+56 to STA. 81+00

F.A.			TYPE FUNDS	42
2	OHIO	S-199(3)		74

MED-301-(260)(3.47)



Drive Sta. 85+60 Lt.

STA. 81+00

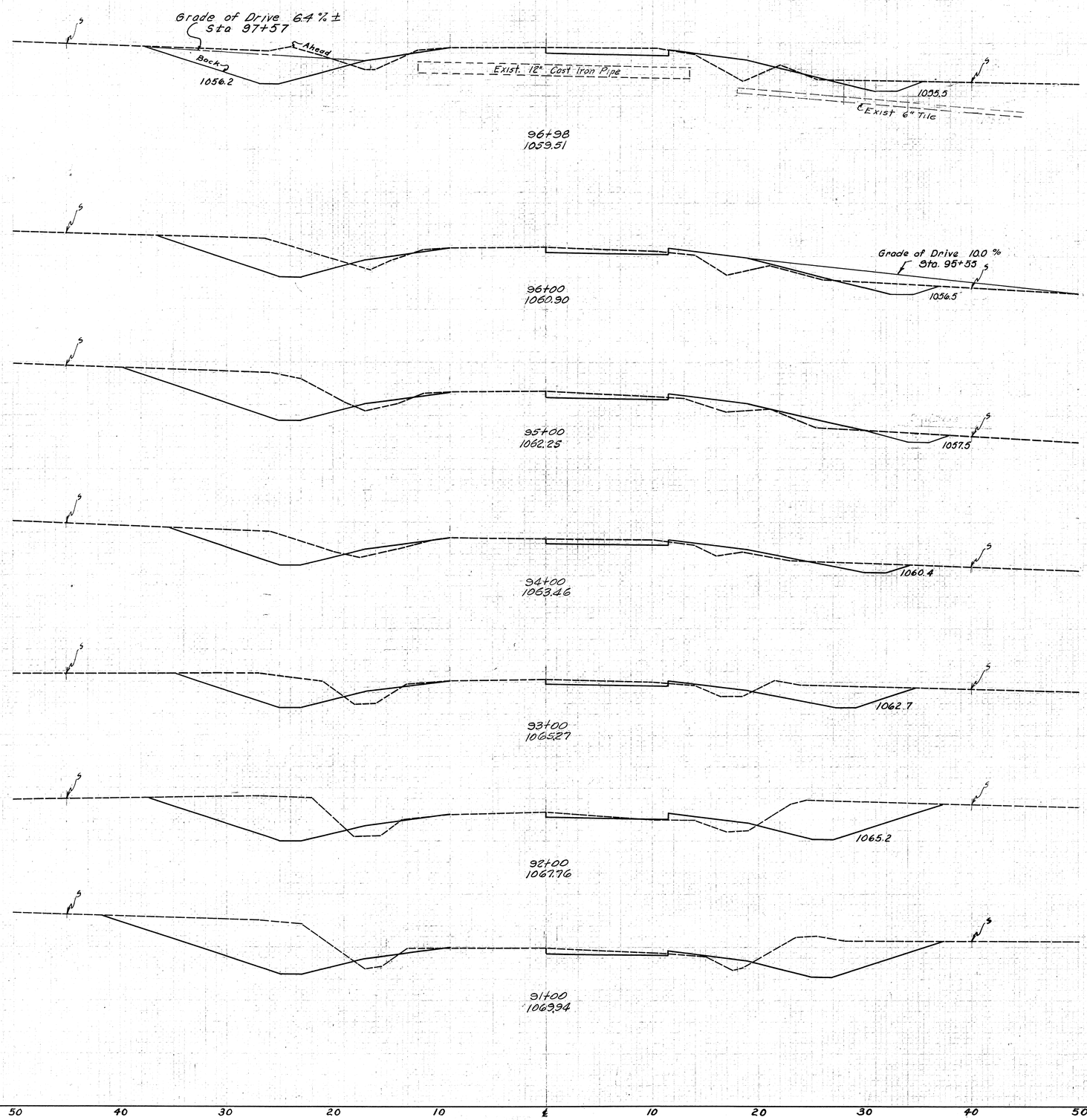
End Area		Cu Yds.	
Cut	Fill	Cut	Fill
87	6		
		294	22
72	6		
		254	26
65	8		
		277	39
35	6		
		228	29
		3	
47	4		
		202	13
62	3		
		309	11
105	3		
		493	6
161	0		
		593	0
159	0		

STA. 82+00 to STA. 90+00

F.A. TYPE FUNDS 43

2 OHIO S-199(3) 74

MED-301-(2.60)(3.47)



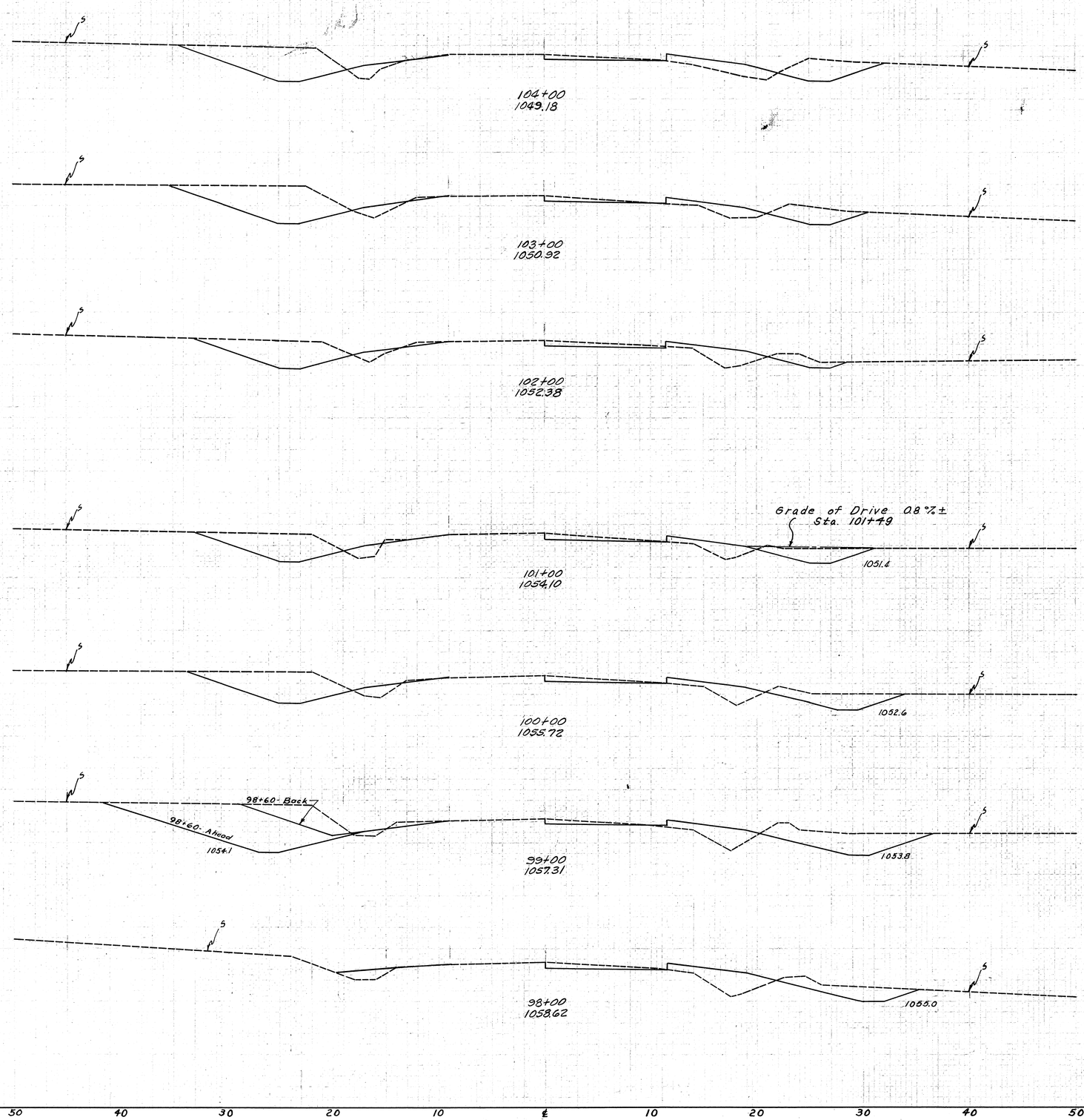
	End Area Cut	End Area Fill	Cu. Yd's. Cut	Cu. Yd's. Fill
Drive Sta. 97+57 Ahead	15	11	4	1
Back	49	11		
			172	42
	44	12		
Drive Sta. 95+55				14
			185	43
	56	11		
			172	39
	37	10		
			167	35
	53	9		
			254	35
	84	10		
			350	31
	105	7		
			356	24
STA. 90+00	87	6		

STA. 91+00 to STA. 96+98

F.A. 2 OHIO S-199(3) MED-301- (2.60)(3.47)

TYPE FUNDS COST WAY

44 / 74

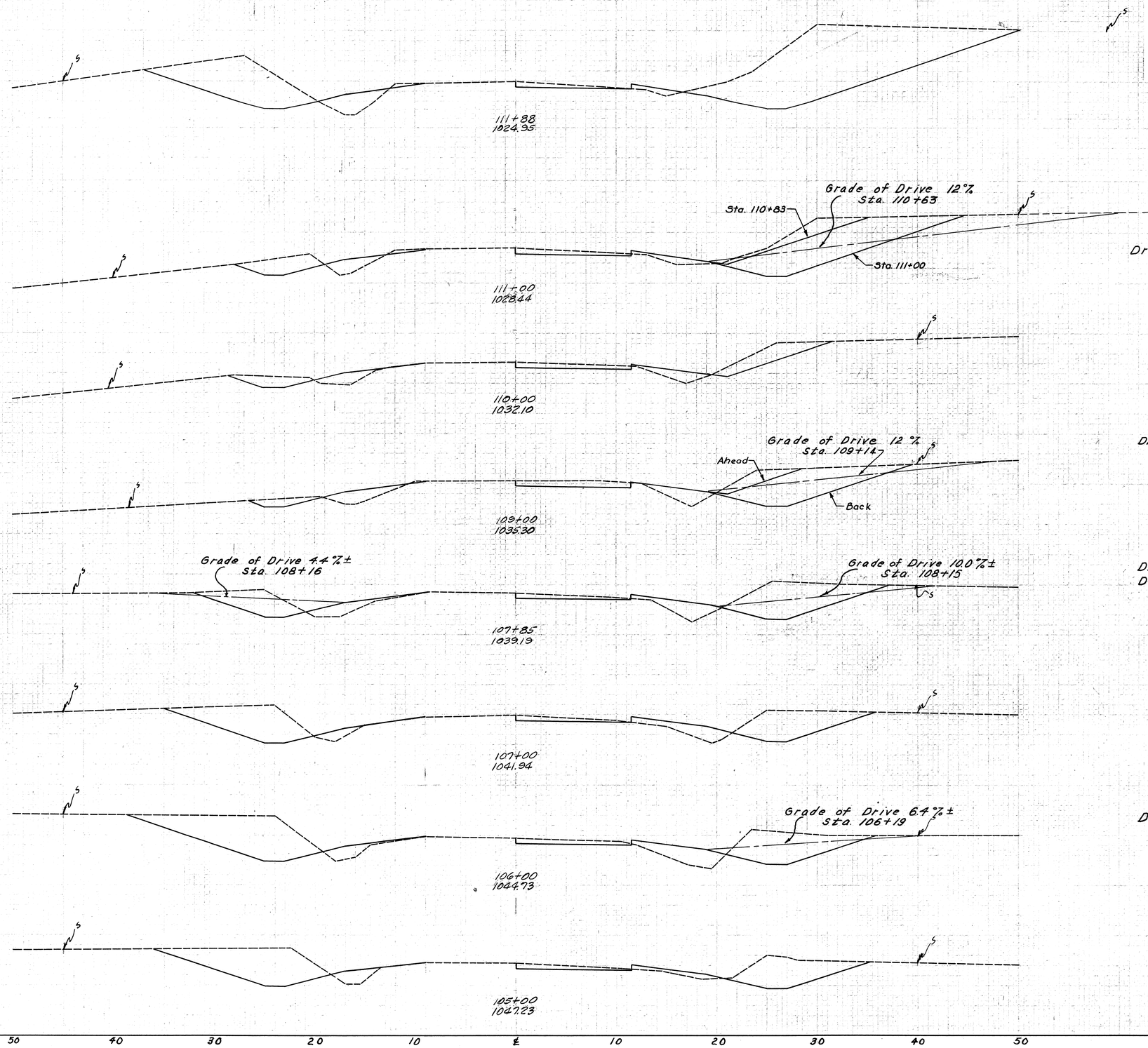


	End Area Cut	End Area Fill	Cu. Yd's. Cut	Cu. Yd's. Fill
	45	12		
			174	41
	49	10		
			148	37
	31	10		
			124	35
Drive Sta. 101+49 Rt.				5
	36	9		
			148	37
	44	11		
			235	41
STA. 99+00	83	11		
STA. 98+60 - Ahead	83	11	123	16
STA. 98+60 - Back	37	11		
			59	17
	16	12		
			57	44
STA. 96+98	15	11		

STA. 98+00 to STA. 104+00

2 OHIO F.A. S-199(3) TYPE FUNDS 45 74

MED-301-(2.60)(3.47)



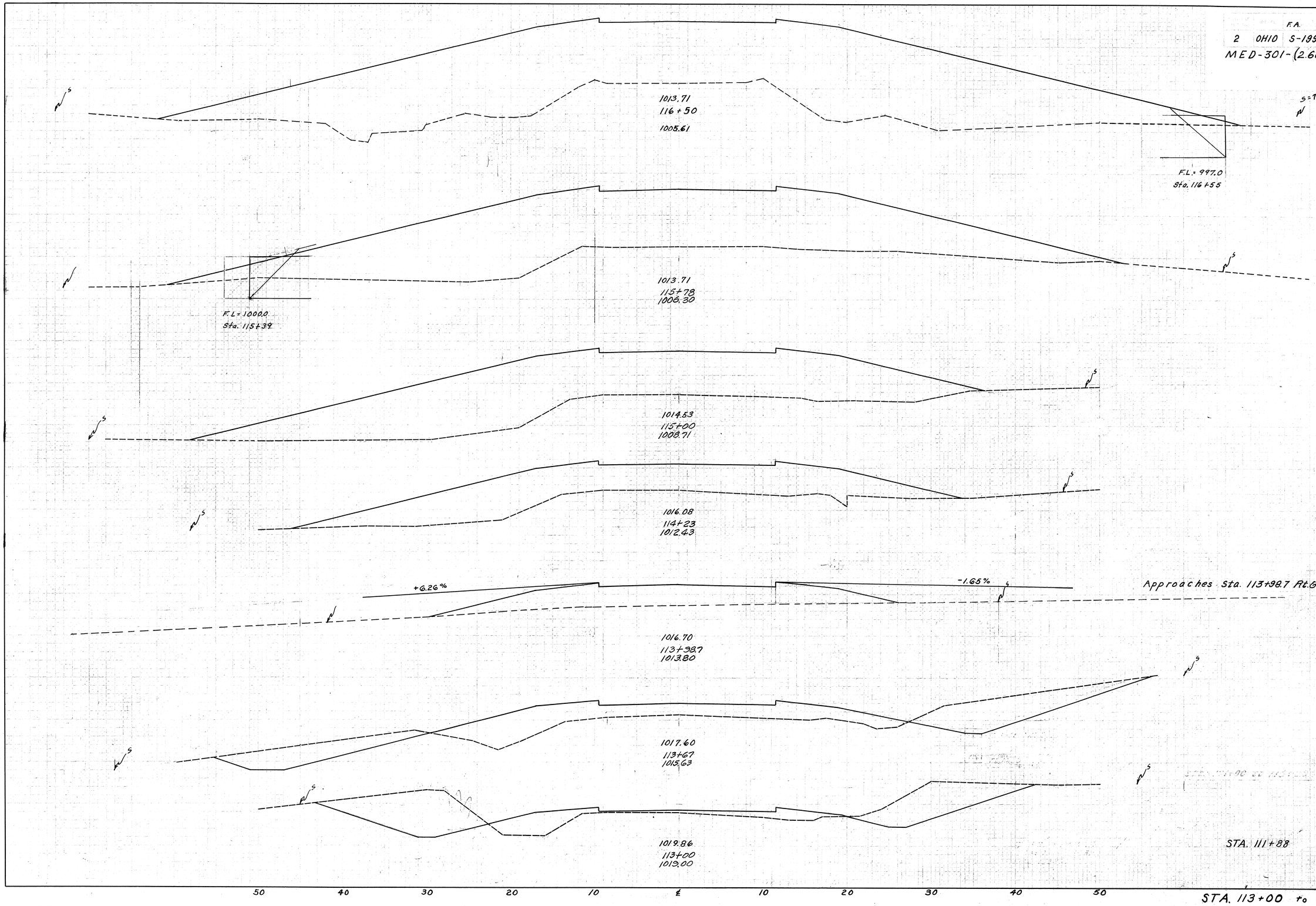
	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	180	12		
			419	36
Sta. 111+00	77	10		
Sta. 110+83	26	10	32	6
Drive Sta. 110+63 Rt.			41	0
			77	31
	24	10		
			80	37
Drive Sta. 109+14 Rt.			15	2
Ahead	19	10		
Back	54	10		
			232	53
Drive Sta. 108+16 Lt.			1	9
Drive Sta. 108+15 Rt.			1	10
	55	15		
			181	43
	60	12		
			263	52
Drive Sta. 106+19 Rt.			1	10
	82	16		
			278	44
	68	8		
			209	37
STA. 104+00	45	12		

STA. 105+00 to STA. 111+88

F.A. TYPE FUNDS

2 OHIO S-199(3) 46

MED-301-(2.60)(3.47) 74

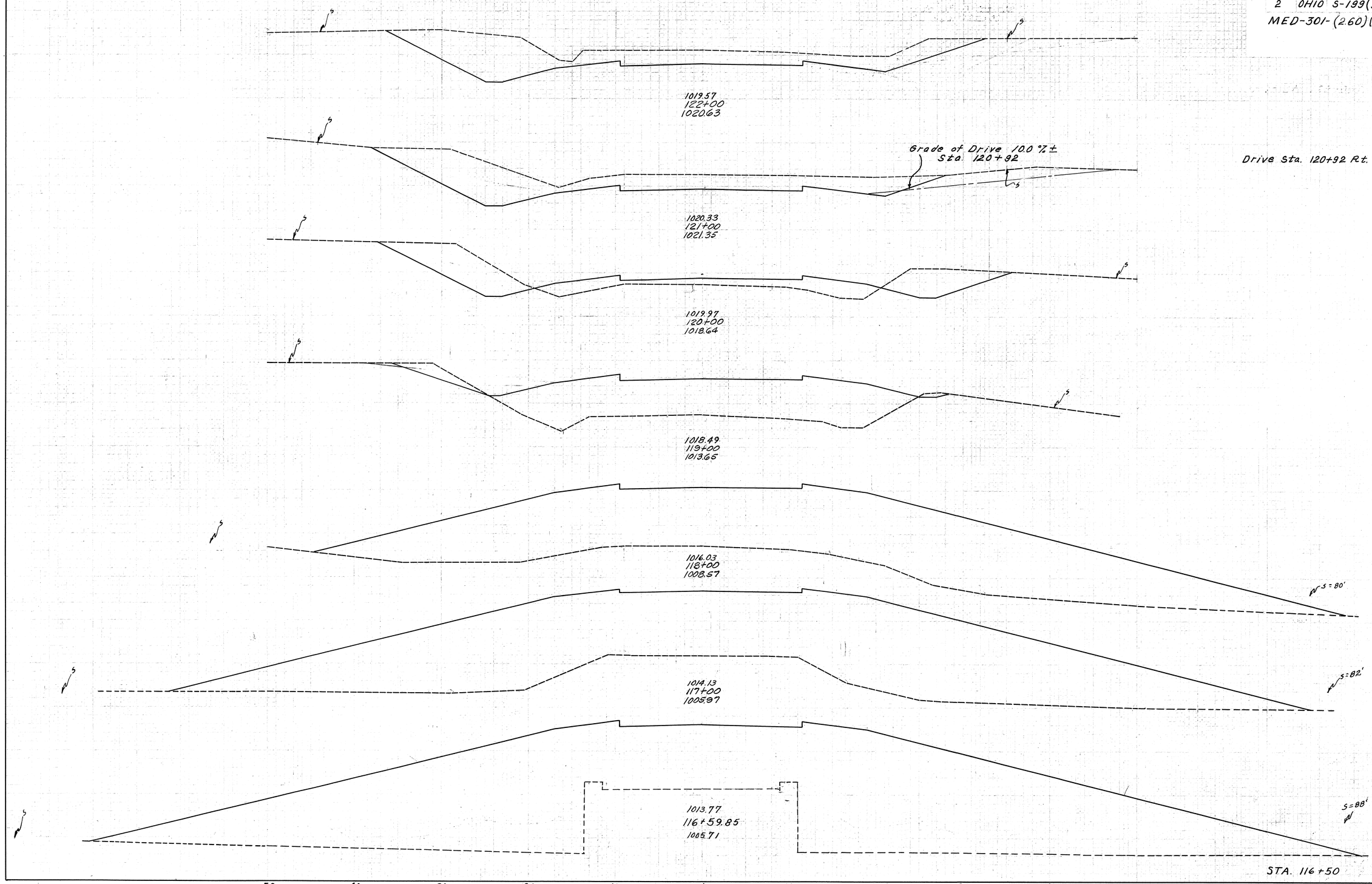


End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
0	843		
		0	1027
0	584		
		0	1127
0	452		
		0	1036
0	239		
		0	156
		66	616
0	107		
		60	122
105	106		
		284	177
124	37		
		631	102
180	12		

STA. 113+00 to STA. 116+50

F.A.	TYPE FUNDS	
2 OHIO S-199(3)		47 / 74

MED-301-(2.60)(3.47)



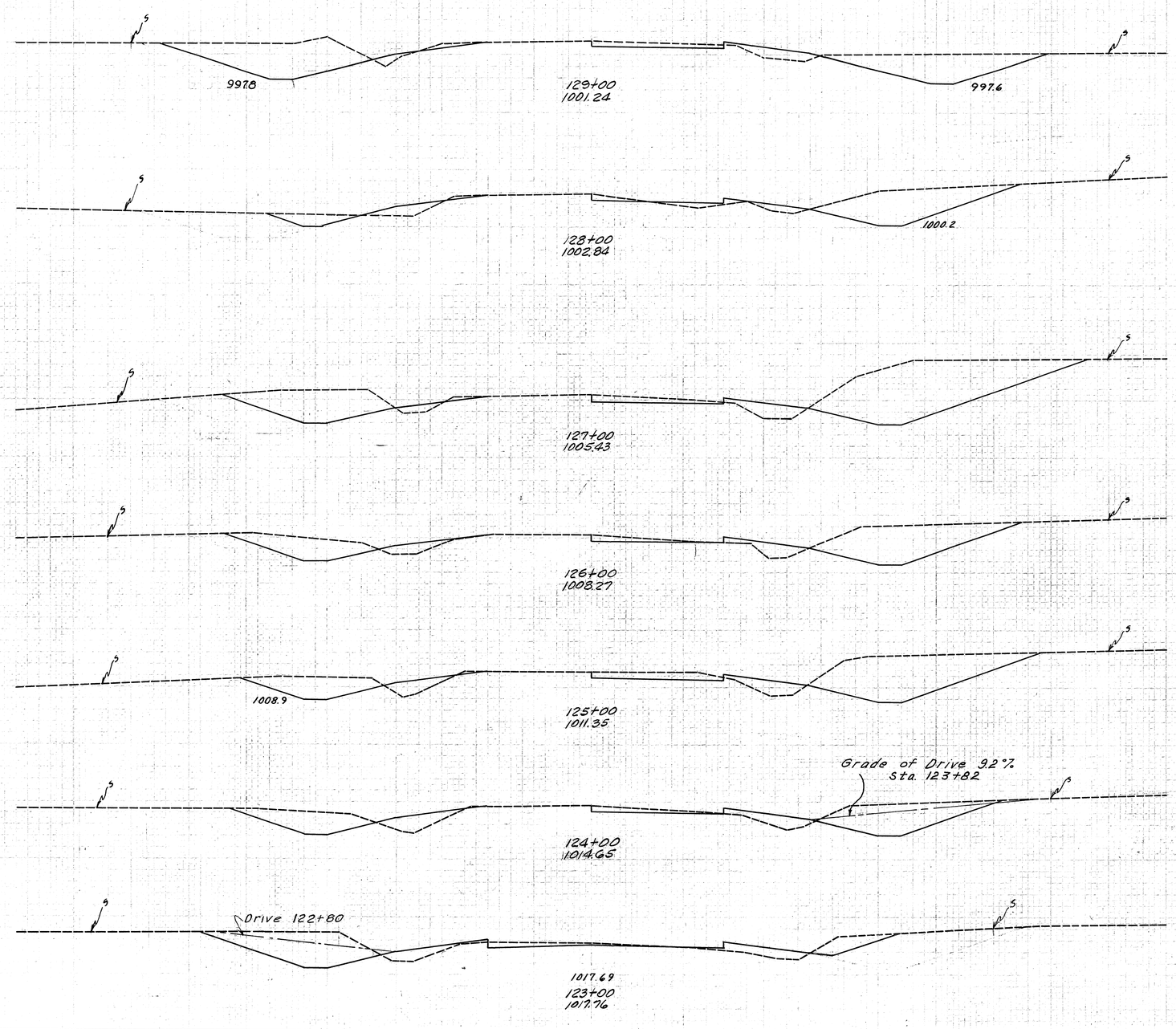
Drive Sta. 120+92 Rt.

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
144	0		
		517	0
		12	2
135	0		
		387	74
74	40		
		156	439
10	197		
		19	1598
0	666		
		0	2789
0	840		
		0	1468
0	1134		
0	843	0	331

STA. 116+50

STA. 116+59.85 to STA. 122+00

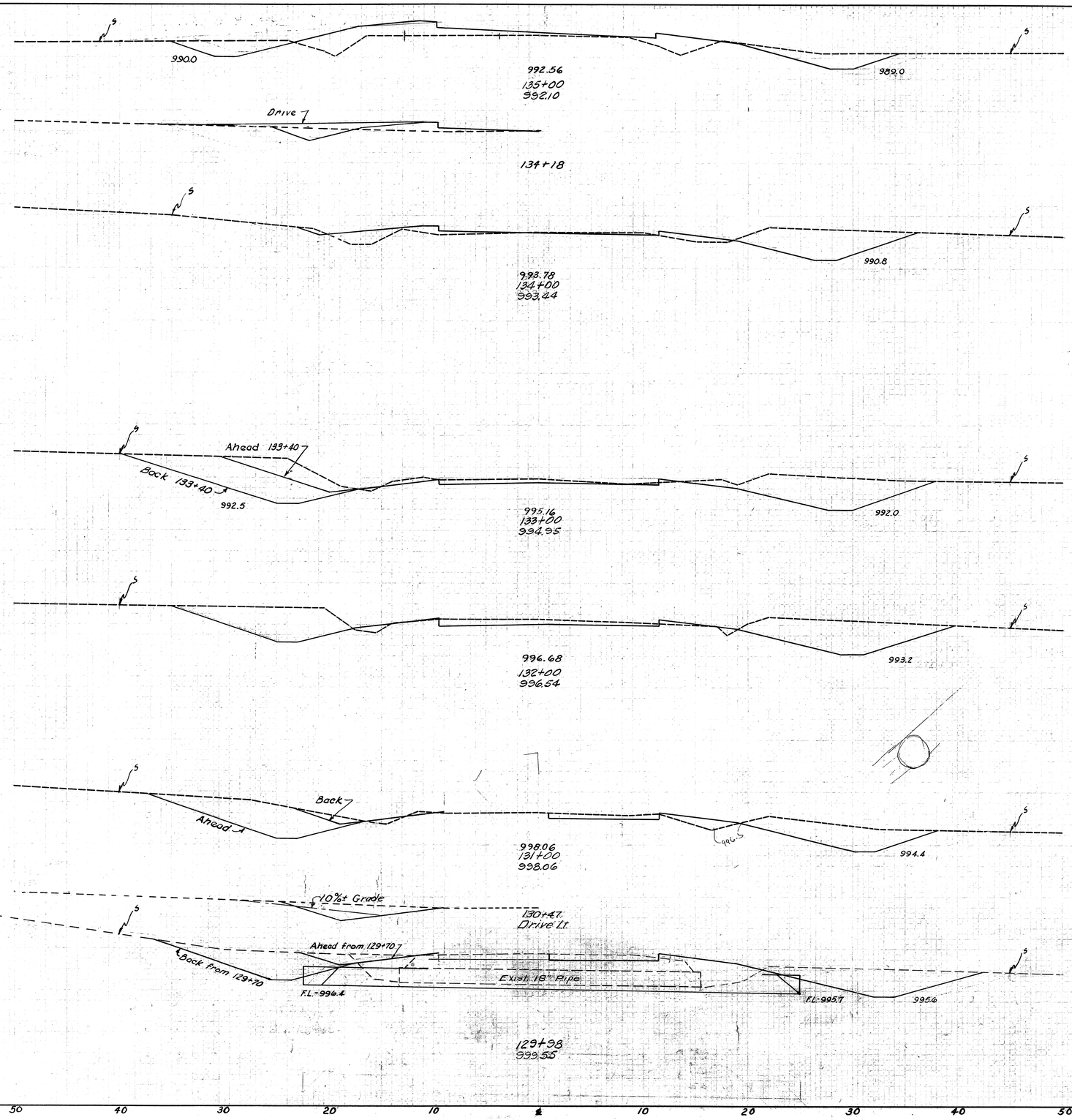
F.A. TYPE FUNDS 48
2 OHIO S-199(3) 74
MED-301-(2.60)(3.47)



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	67	5		
			196	24
	39	8		
			265	30
	104	8		
			296	33
	56	10		
			235	41
	71	12		
			215	44
Drive Sta. 123+82 Rt.	45	12		11
			178	41
Drive Sta. 122+80 Lt.	51	10	361	11 19
STA. 122+00	144	0		

STA. 123+00 to STA. 129+00

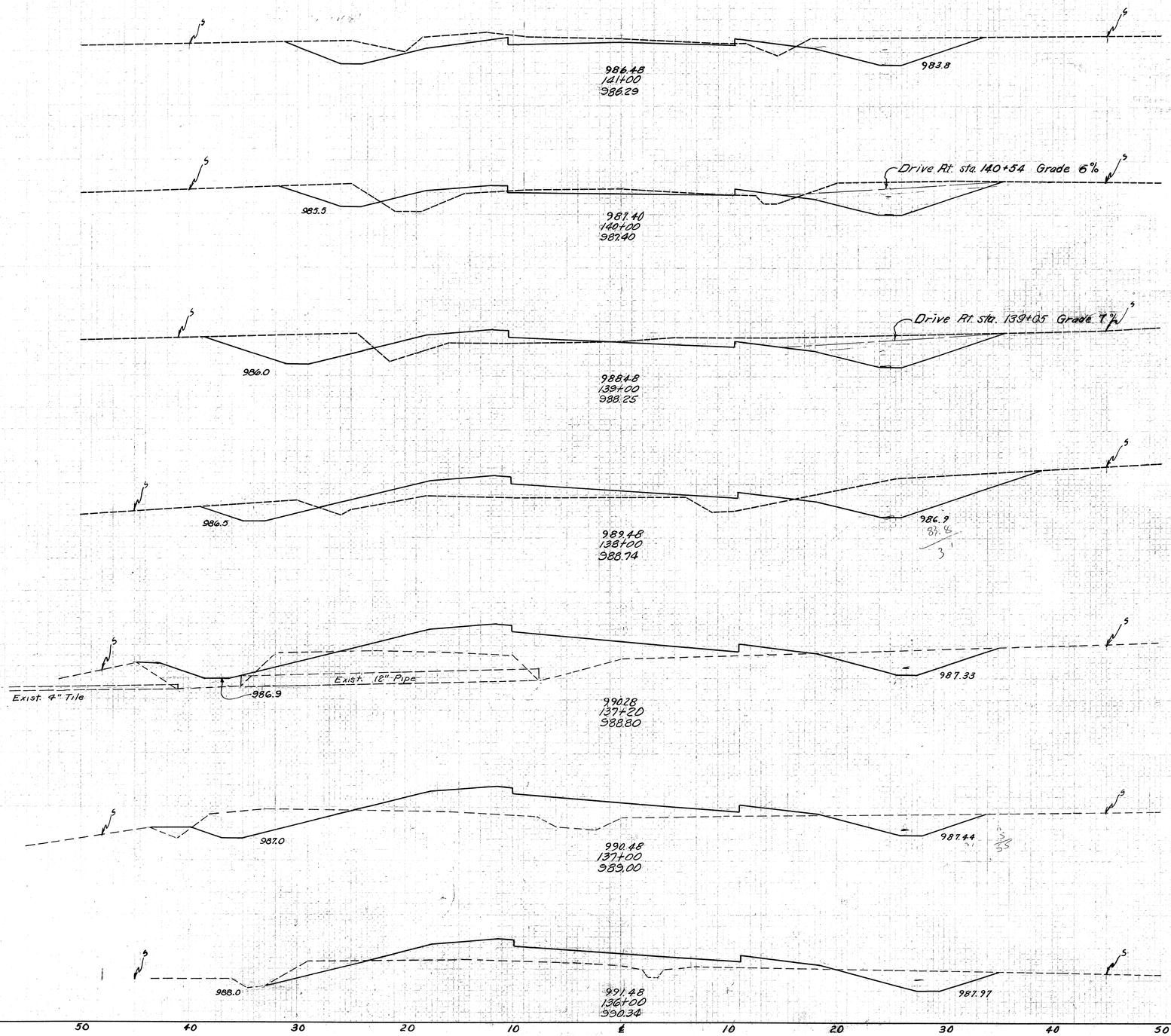
F.A. TYPE FUNDS 49
2 OHIO 5-199(3) 74
MED-301-(2.60)(3.47)



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	56	19		
Drive Sta. 134+18				1
			130	59
	34	13		
			103	14
Ahead Sta. 133+40	59	0		
Back Sta. 133+40	96	0		
			142	0
	96	0		
			335	2
	85	1		
			285	9
STA. 131+00 Ahead	69	4		
STA. 131+00 Back	35	4		
			183	40
Drive Lt. Sta. 130+47			1	
STA. 129+70 Ahead	41	13		
STA. 129+70 Back	69	21		
			174	34
STA. 129+00	67	5		

STA. 129+98 to STA. 135+0

F.A. TYPE FUNDS 50
2 OHIO S-199(3) 74
MED-301-(2.60)(3.47)

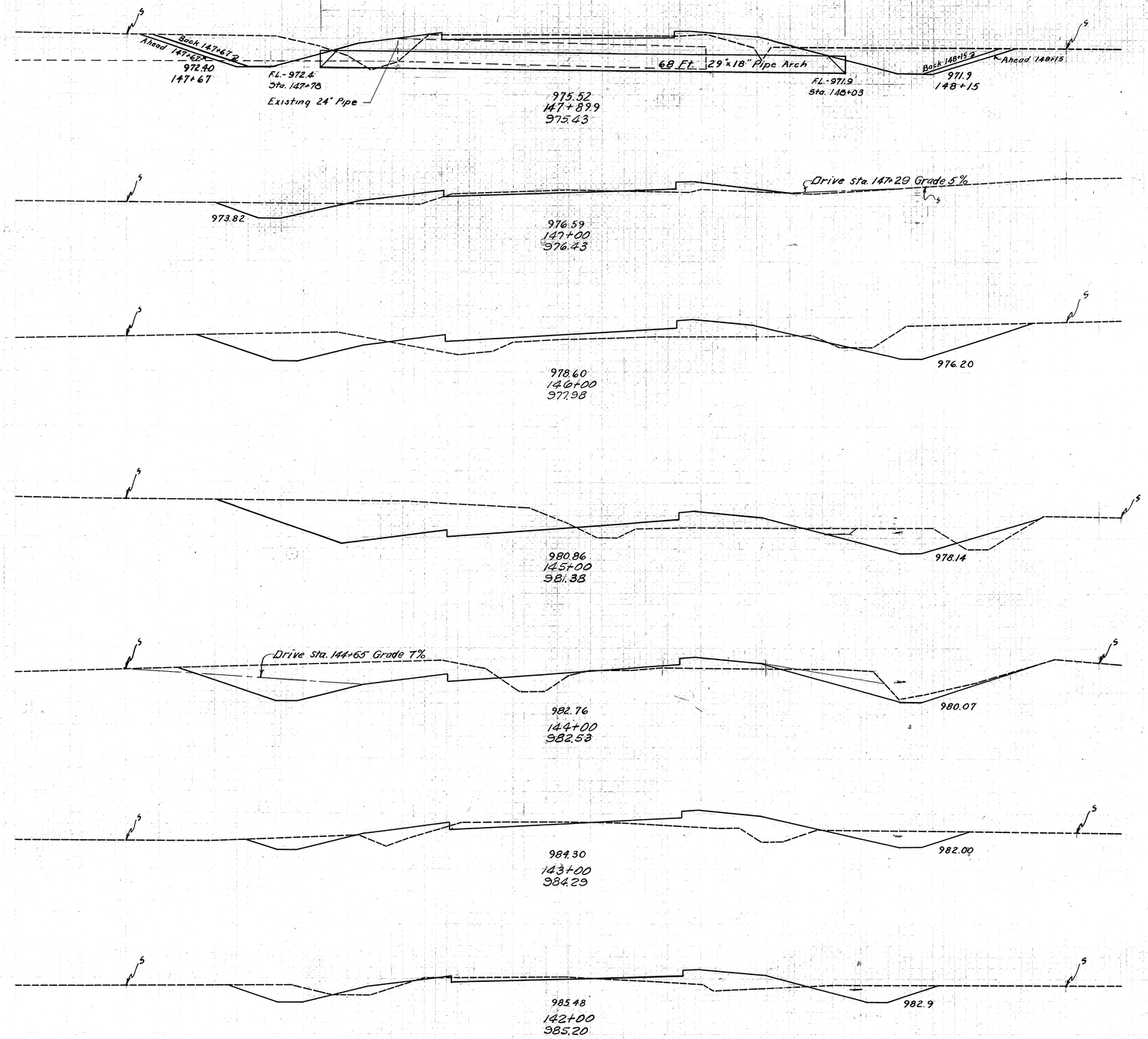


	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	52	4		
			192	37
Drive Rt. sta 140+54				
	51	16		
			226	63
Drive Rt. sta. 139+05	71	18	1	
			233	117
	55	45		
			120	207
	26	95		
			24	59
	39	63		
			113	207
	22	49	107	126
STA. 135+00	36	19		

STA. 136+00 to STA. 141+00

F.A. 2 OHIO S-199(3)
MED-301-(2.60)(3.47)

TYPE PONDS 51
74



	End Area Cut	End Area Fill	Cu.Yds. Cut	Cu.Yds. Fill
Ahead	68	21		
Back	63	21		
			123	55
Drive Rt. sta. 147+29	11	11		1
			117	76
	52	30		
			272	102
	95	25		
			261	69
Drive Lt. sta. 144+65				2
	46	12		
			130	76
	24	29		
			89	89
	24	19		
			141	43
STA. 141+00	52	4		

50 40 30 20 10 ℄ 10 20 30 40 50

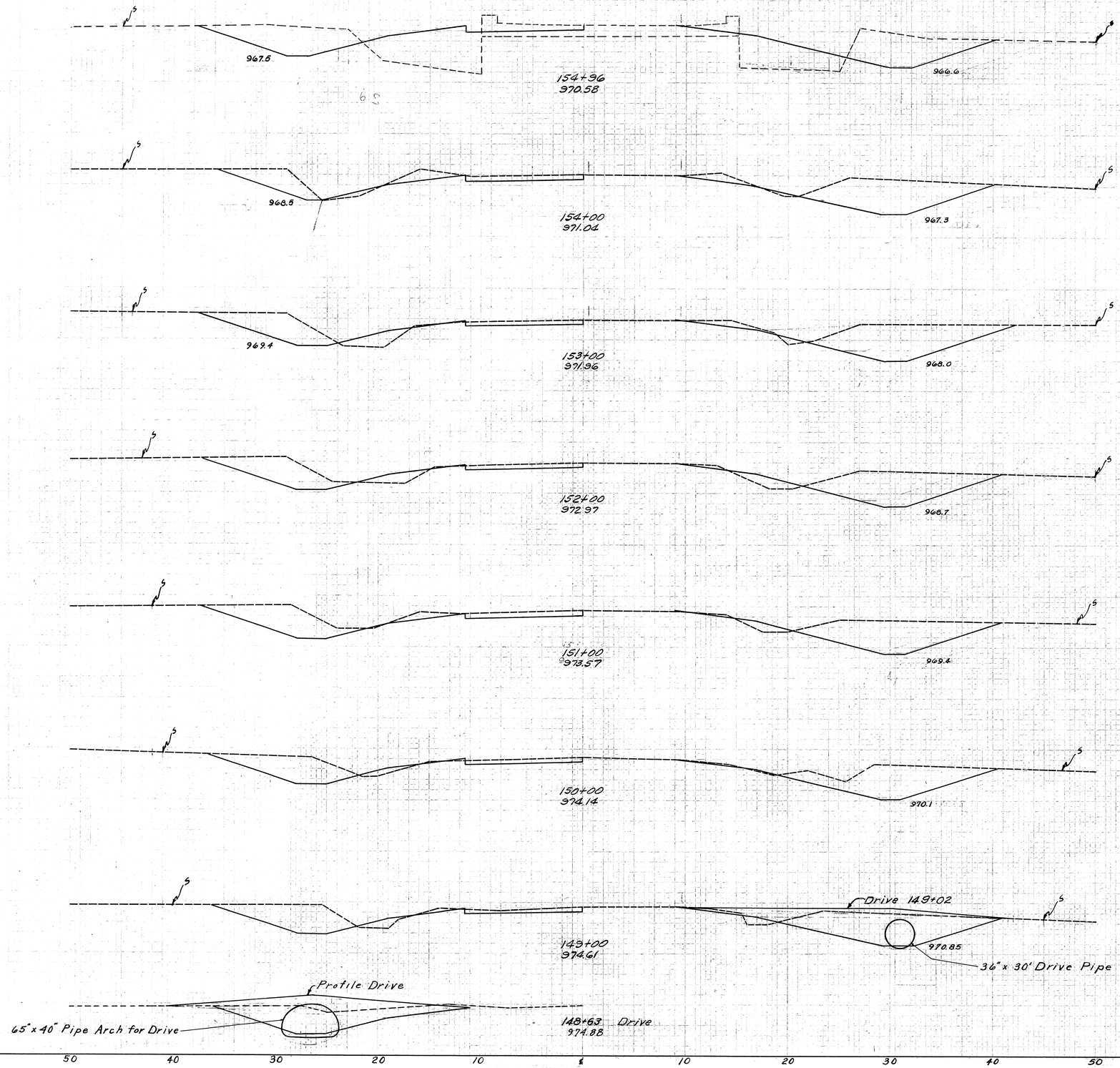
STA. 142+00 to STA. 147+77

F.A. TYPE FUNDS

2 OHIO S-199(3)

MED-301-(2.60)(3.47)

52
74



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
67	61		
		240	112
68	2		
		257	15
71	6		
		250	30
64	10		
		248	24
70	3		
		243	9
61	2		
		250	13
74	5		
		2	
		323	59
68	21		

Drive 148+63 Lt.

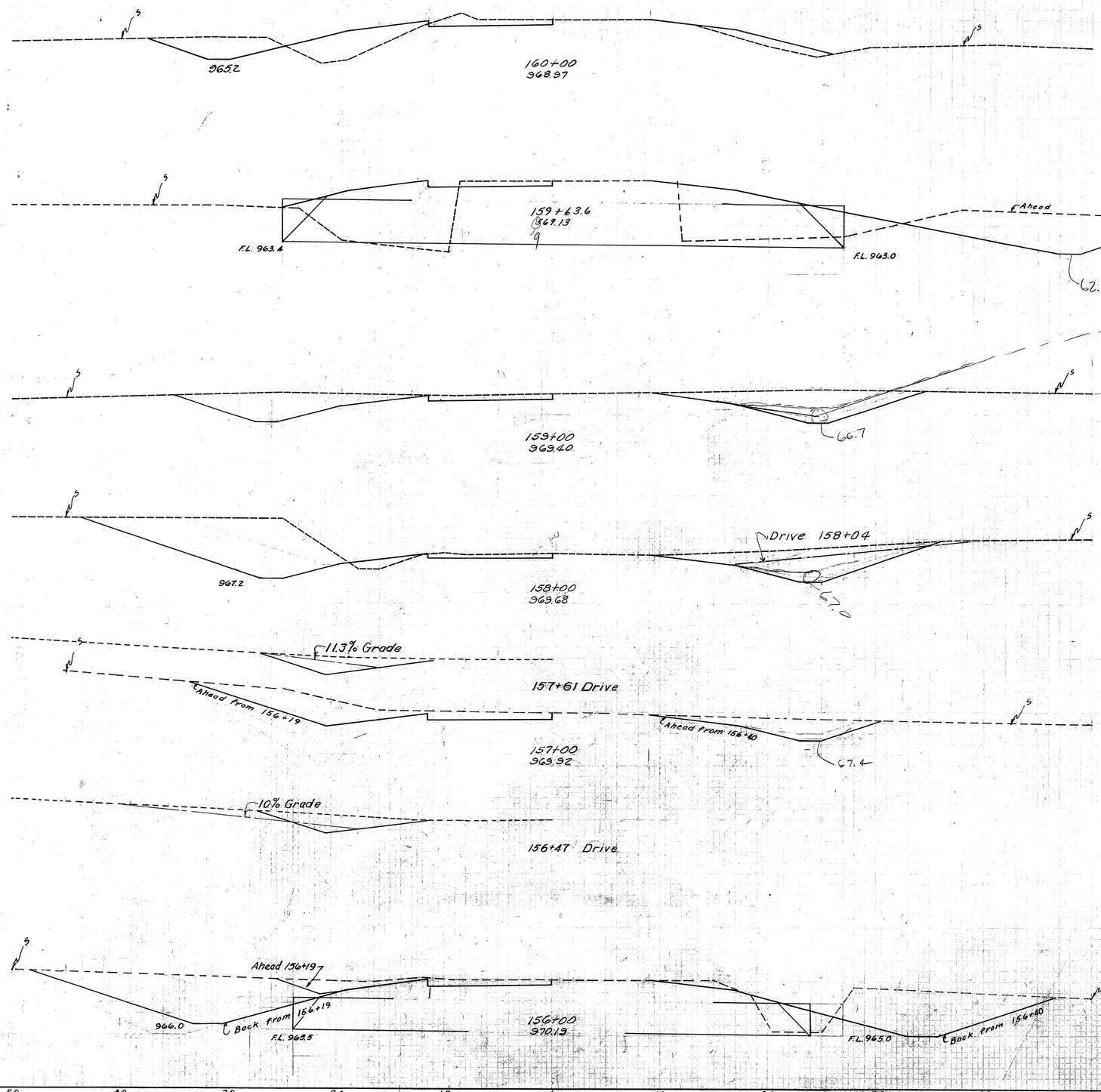
STA. 147+77

STA. 149+00 to STA. 154+96

F.A. 2 OHIO S-199(3) TYPE FUNDS PART WAR

MED-301-(2.60)-(3.47)

53
74



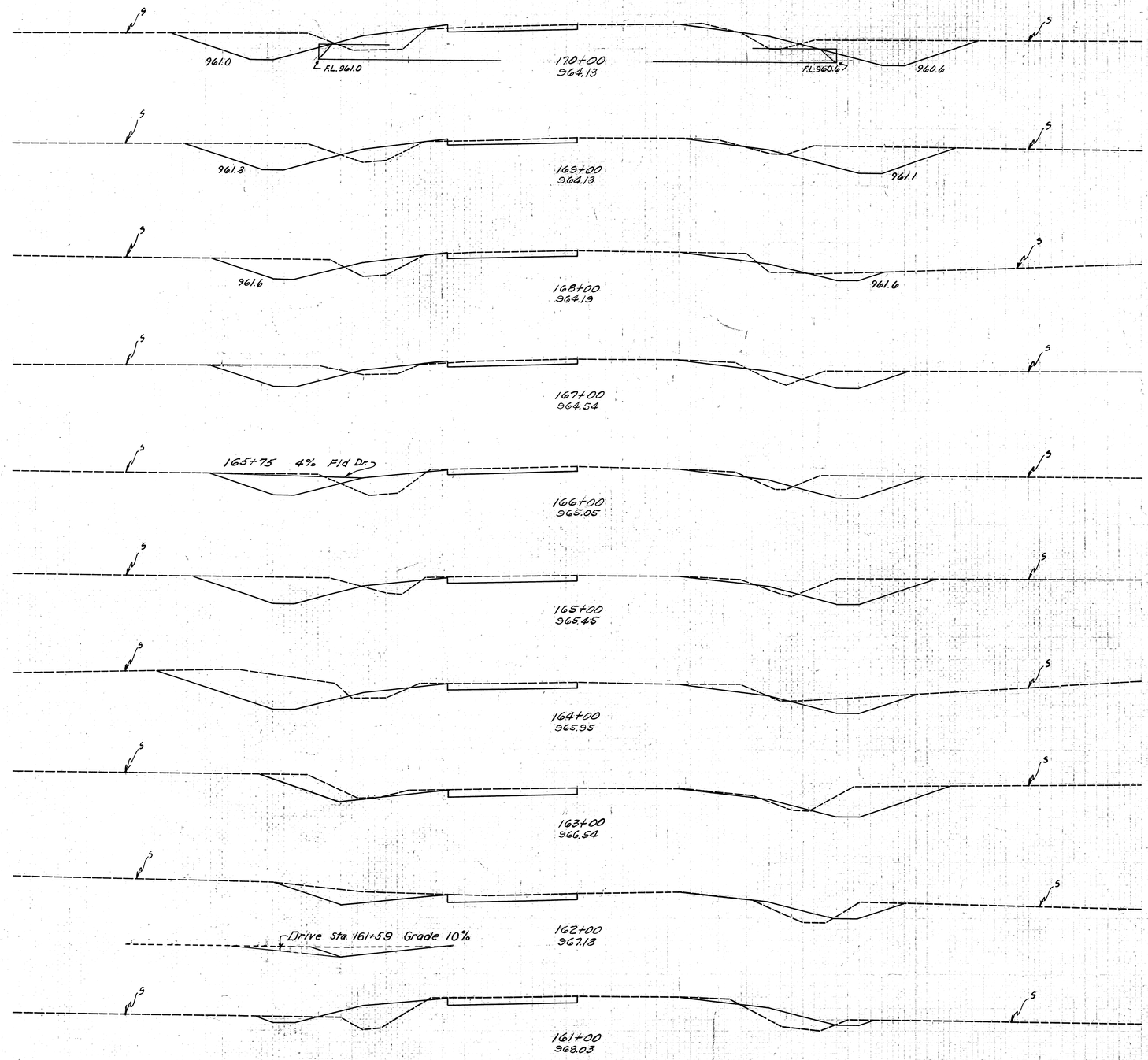
	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	24	28		
			19	112
Ahead	4	139		
Back	63	139		
			106	112
Sta. 159+20	68	0		
Approaches Sta. 159+03.22 Rt & Lt.			27	0
			65	84
	6	0		
			27	0
Sta. 158+80	68	0		
			265	6
Drive Sta. 158+04 Rt.				11
	111	4		
			304	7
	53	0		
			82	0
Drive Lt. sta. 156+47			3	
Sta. 156+40 Ahead	21	0		
Back	71	15		
			55	12
Sta. 156+19 Ahead	71	15		
Back	147	15		
			103	11
Sta. 156+00	147	15		
			412	147
STA. 154+96	67	61		

STA. 156+00 to STA. 160+00

F.A. | TYPE FUNDS | 54 / 74

2 OHIO S-199(3)

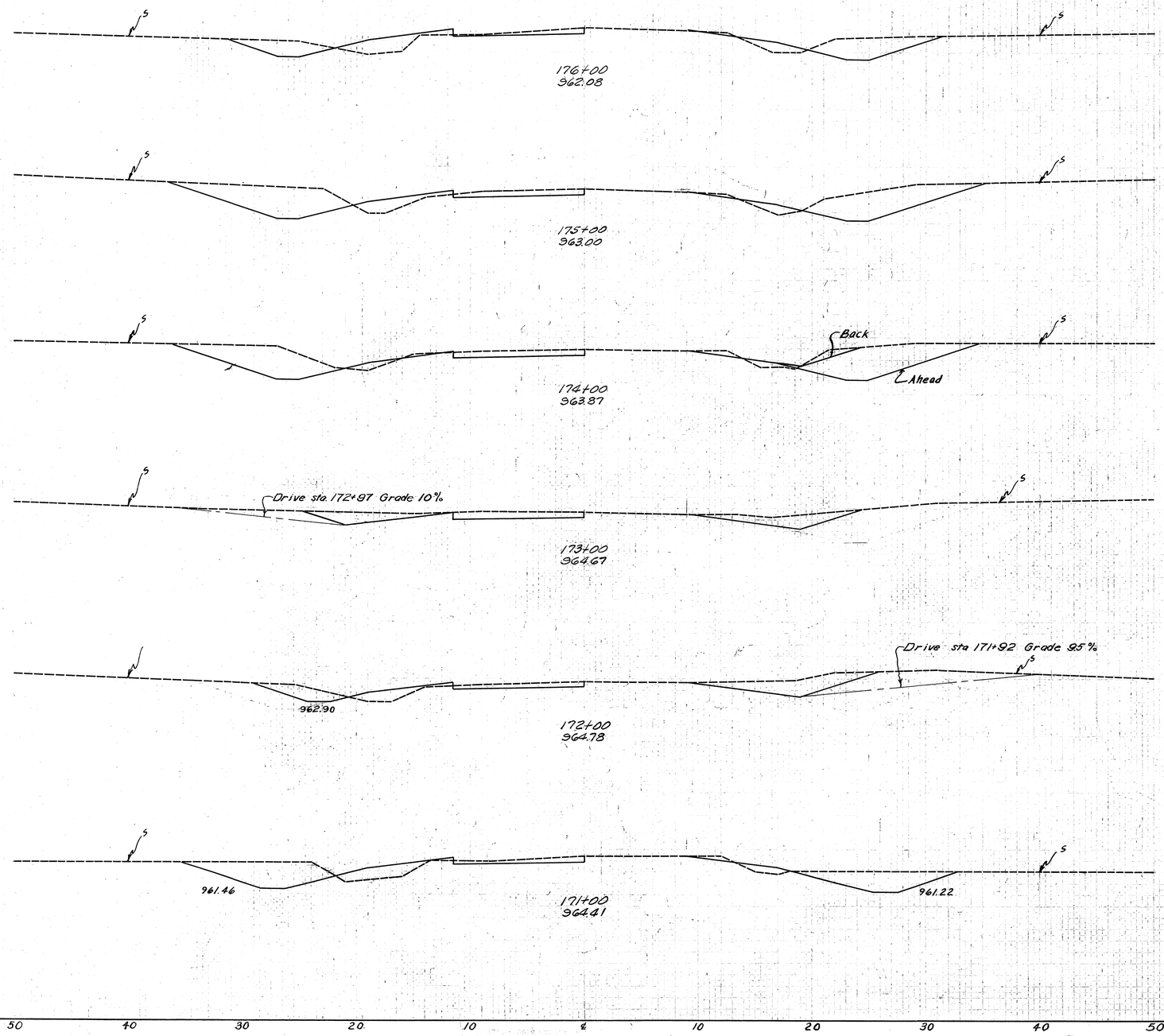
MED-301-(2.60)(3.47)



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	46	13		
			170	37
	46	7		
			131	26
	25	7		
			100	24
Drive Sta. 165+75 Lt.				7
	29	6		
			117	30
	34	10		
			148	28
	46	5		
			178	15
	50	3		
			156	9
	34	2		
			106	11
	23	4		
Drive Lt. sta. 161+59				2
			63	41
	11	18		
			30	85
STA. 160+00	5	28		

50 40 30 20 10 ℄ 10 20 30 40 50

STA. 161+00 to STA. 170+00



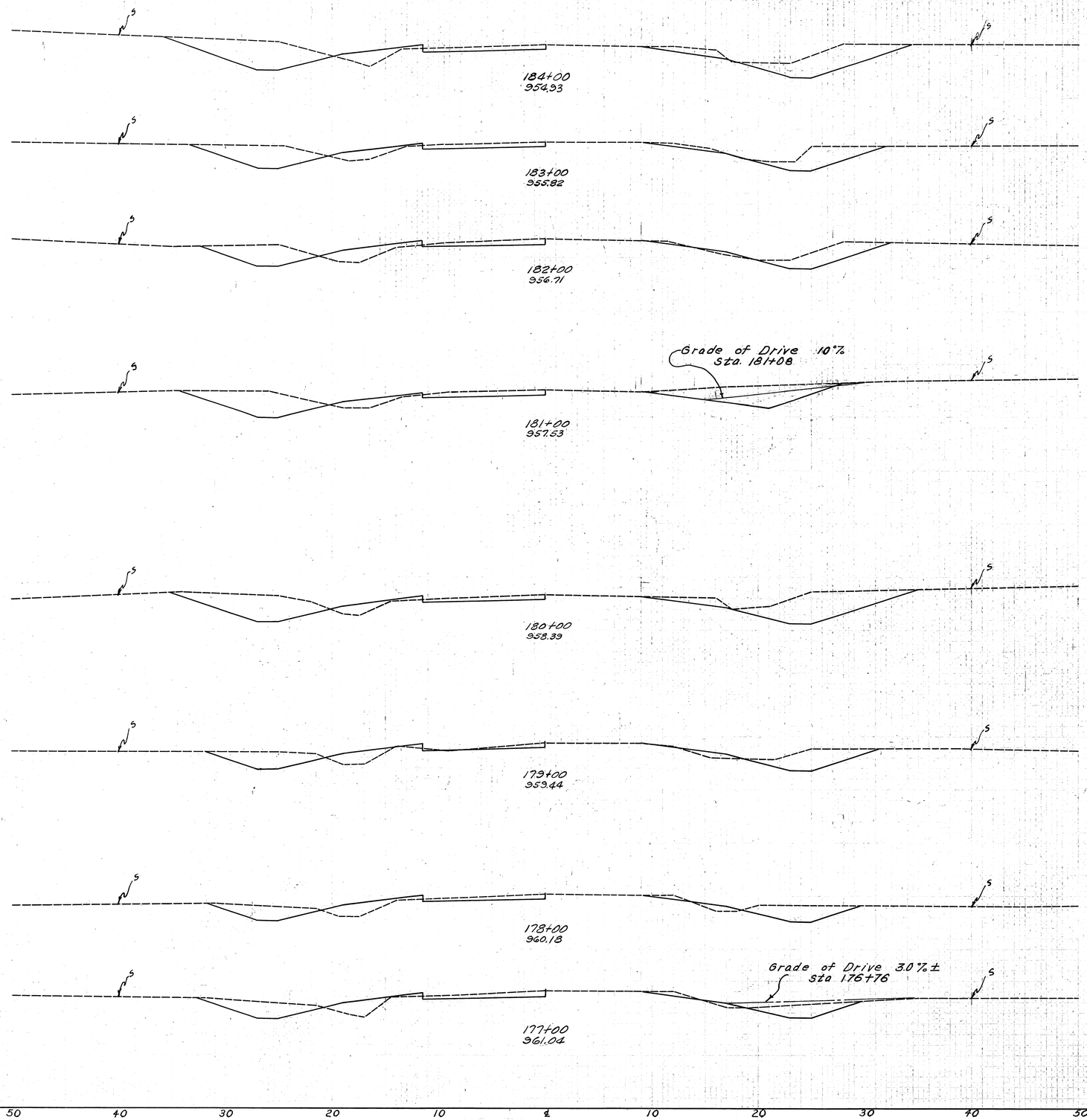
	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	24	12		
			152	39
	58	9		
			217	24
Ahead	59	4		
Back	33	5		
			98	9
	20	0		
Drive Lt. sta. 172+97			2	
			81	9
	24	5		
Drive Rt. sta. 171+92			4	
			120	26
	41	9		
			161	41
STA. 170+00	46	13		

STA. 171+00 to STA. 176+00

F.A. 2 OHIO S-199(3) MED-301-(2.60)(3.47)

TYPE FUNDS FAST IVAN

56 / 74

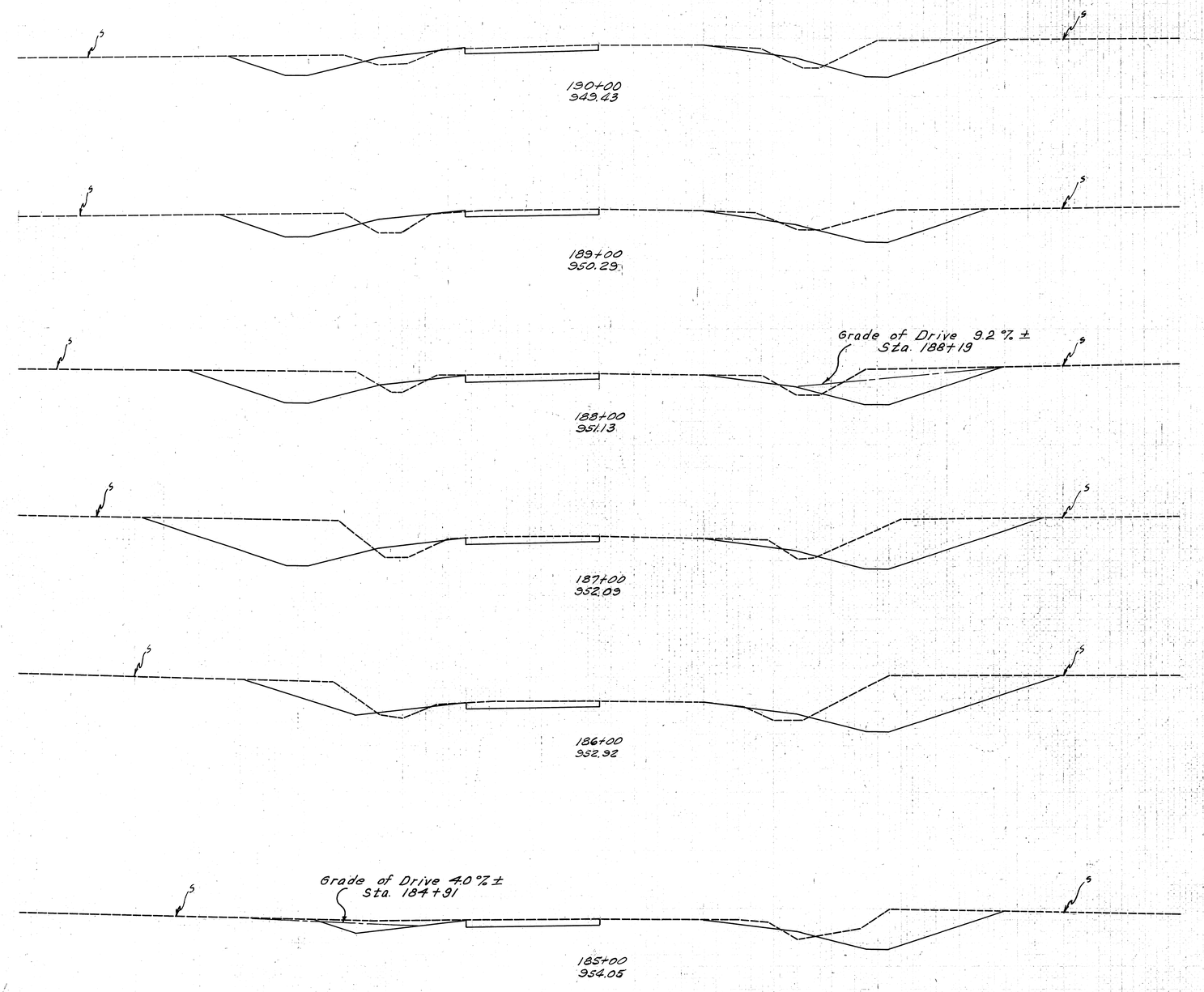


	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	56	6		
			172	20
	37	5		
			122	22
	29	7		
			122	22
Drive Sta. 181+08 Rt.				7
	37	5		
			180	17
	60	4		
			159	20
	26	7		
			93	30
	24	9		
			87	30
	23	7		
			87	35
STA. 176+00	24	12		
Drive Sta. 176+76 Rt.				7

STA. 177+00 to STA. 184+00

F.A. 2 OHIO S-199(3) MED-301-(2.60)(3.47)

TYPE FUNDS



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	43	6		
			157	22
	42	6		
			191	17
Drive Sta. 188+19 Rt.				13
	61	3		
			287	17
	94	6		
			317	20
	77	5		
			224	11
	44	1		
Drive Sta. 184+91 Lt				2
			148	13
STA. 184+00	36	6		

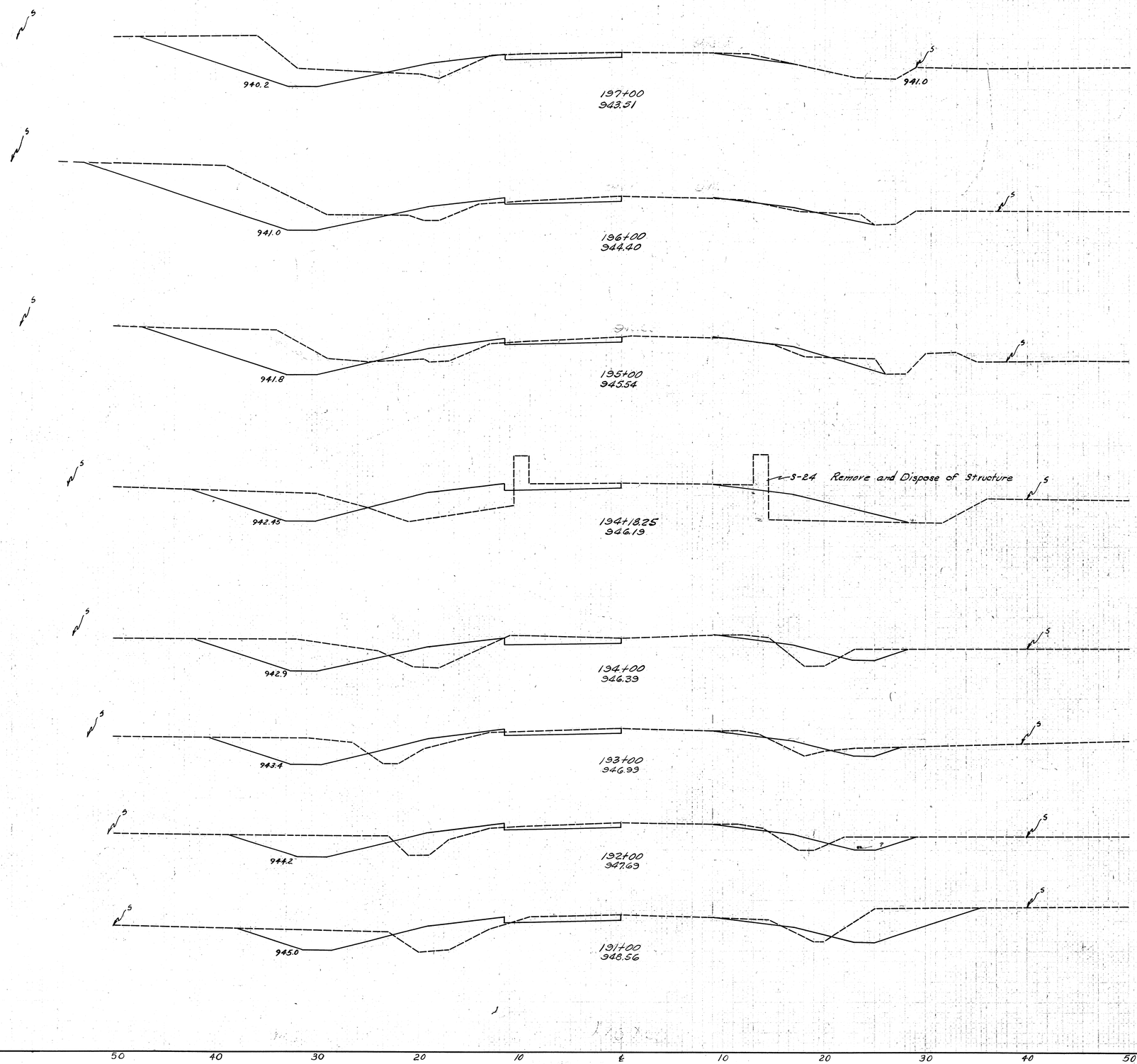
50 40 30 20 10 ℄ 10 20 30 40 50

STA. 185+00 to STA. 190+00

F.A. TYPE FUNDS

2 OHIO S-199(3) 58 / 74

MED-301-(2.60)(3.47)

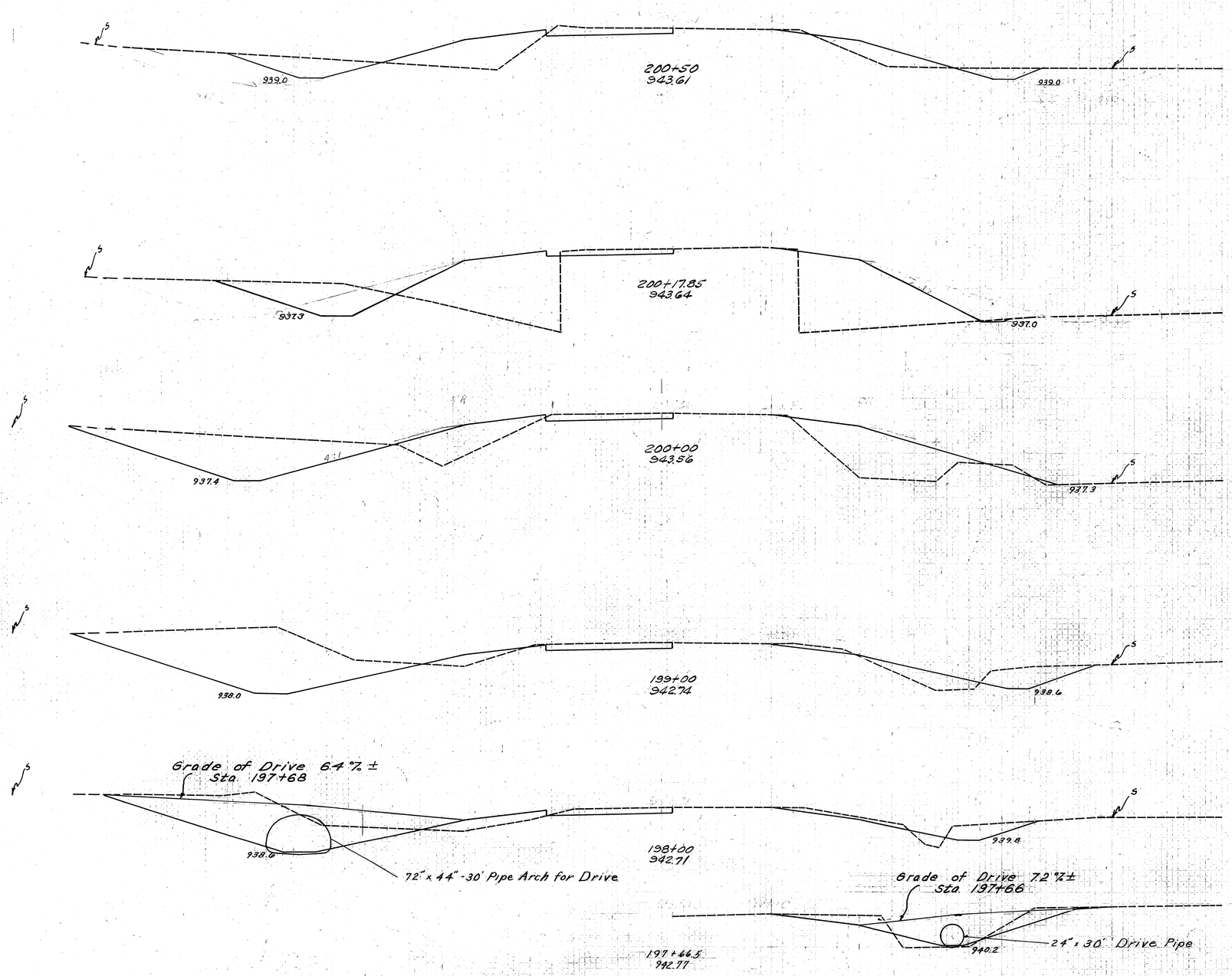


	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
	51	8		
			231	33
	74	10		
			235	43
	53	13		
			147	97
	45	51		
			32	24
	49	20		
			200	65
	59	15		
			174	57
	35	16		
			161	69
	52	21		
			176	50
STA. 190+00	43	6		

STA. 191+00 to STA. 197+00

	F.A.	TYPE FUNDS	
2 OHIO S-199(3)		POST WAR	59 / 74

MED-301-(2.60)(3.47)



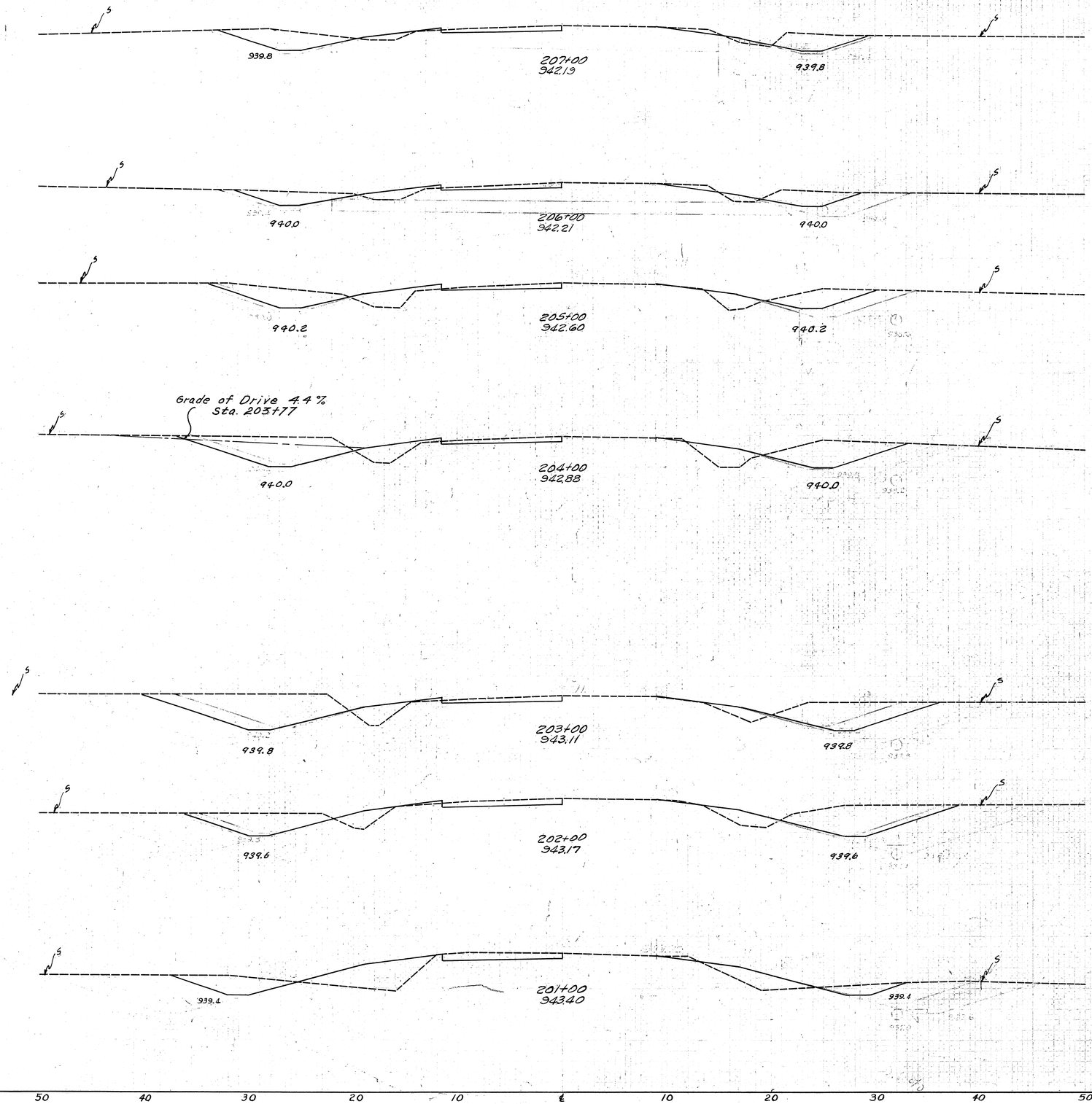
	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	26	36		
			35	79
Deduct 20' for structure	34	143		
			16	32
	71	71		
			348	161
	117	16		
			370	50
	83	11		
			248	35
Drive Sta. 197+68 Lt.				75
Drive Sta. 197+66 Rt.				24
STA. 197+00	51	8		

50 40 30 20 10 ℄ 10 20 30 40 50

STA. 197+66.5 to STA. 200+50

F.A.		TYPE FUNDS	
2	OHIO S-199(3)	POST WAR	60 / 74

MED-301-(2.60)(3.47)



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	32	3		
			109	17
	27	6		
			113	31
	34	11		
			165	50
	55	16		
Drive Sta. 203+77 Lt			1	39
			231	50
	70	11		
			244	43
	62	12		
			161	81
	23	32		
			47	63
STA. 200 + 50	26	36		

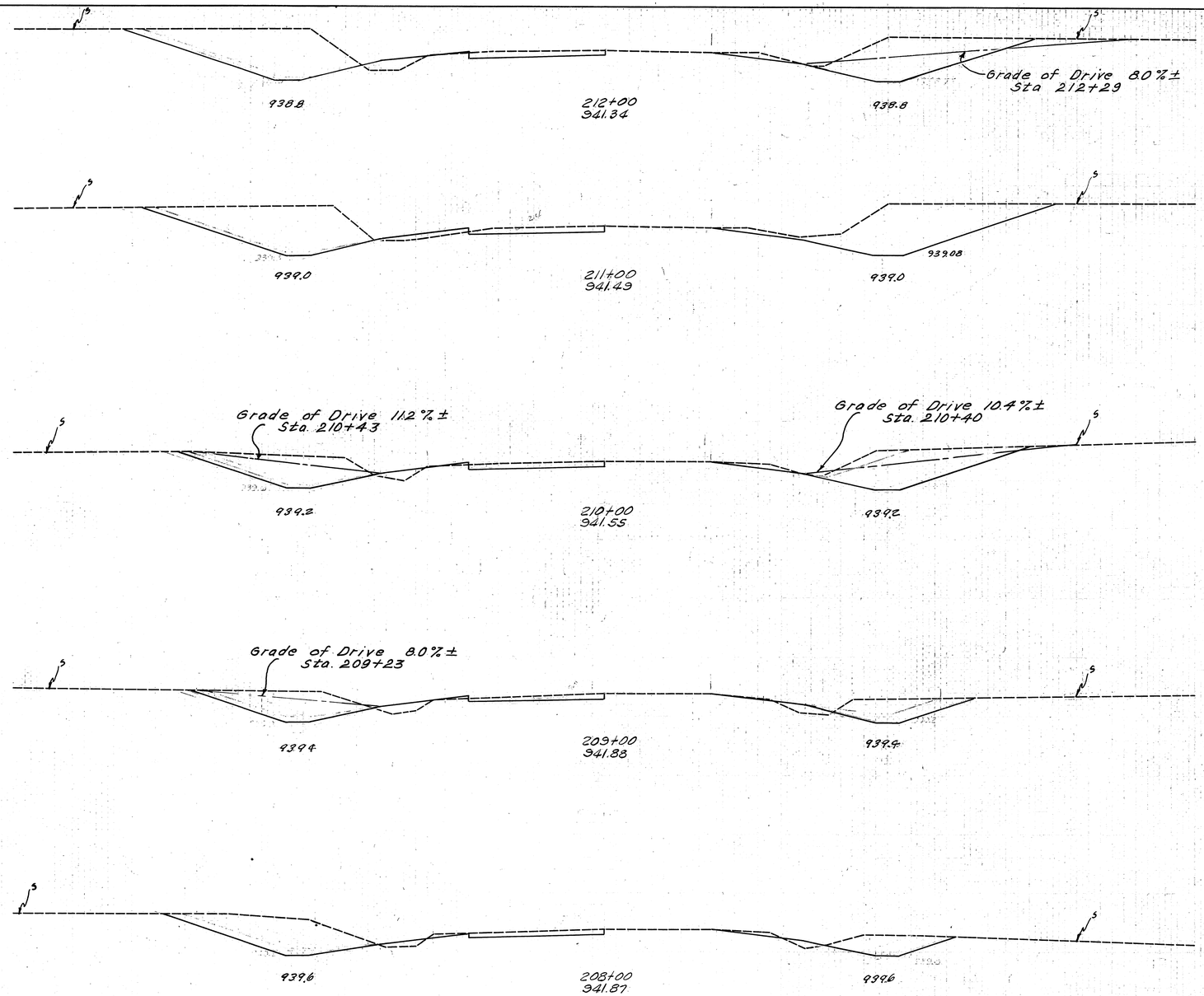
STA. 201+00 to STA. 207+00

F.A. TYPE FUNDS

2 OHIO S-199(3)

MED-301-(2.60)(3.47)

61
74



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
Drive Sta. 212+29 Rt.	9.8	4	2	13
			376	13
	105	3		
			331	9
Drive Sta. 210+43 Lt.				7
Drive Sta. 210+40 Rt.			7	1
	74	2		
			222	13
Drive Sta. 209+23 Lt.				5
	46	5		
			176	15
	49	3		
			50	11
STA. 207+00	32	3		

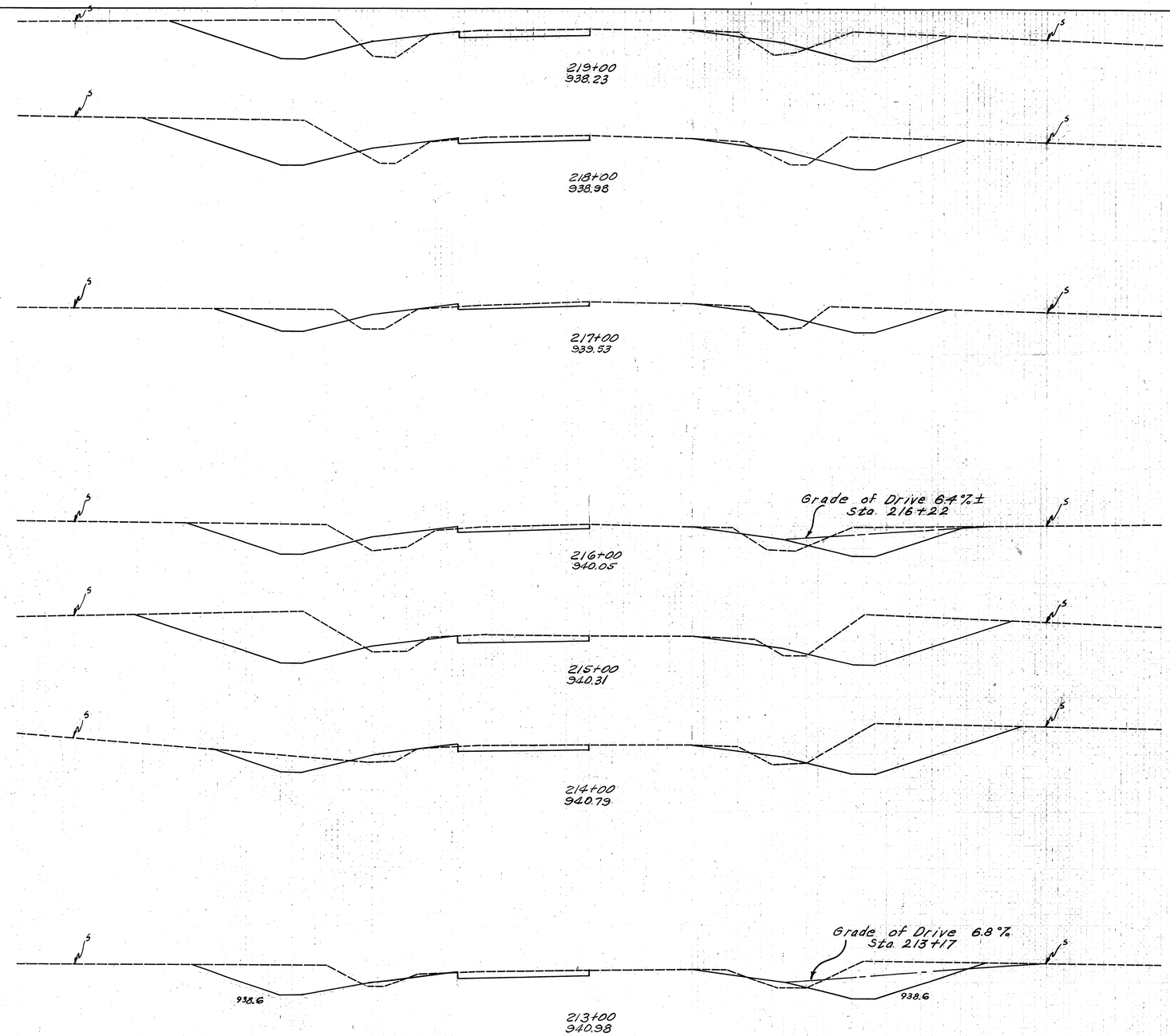
50 40 30 20 10 ℄ 10 20 30 40 50

STA. 208+00 to STA. 212+00

F.A. TYPE FUNDS 62 74

2 OHIO S-199(3) POST WAR

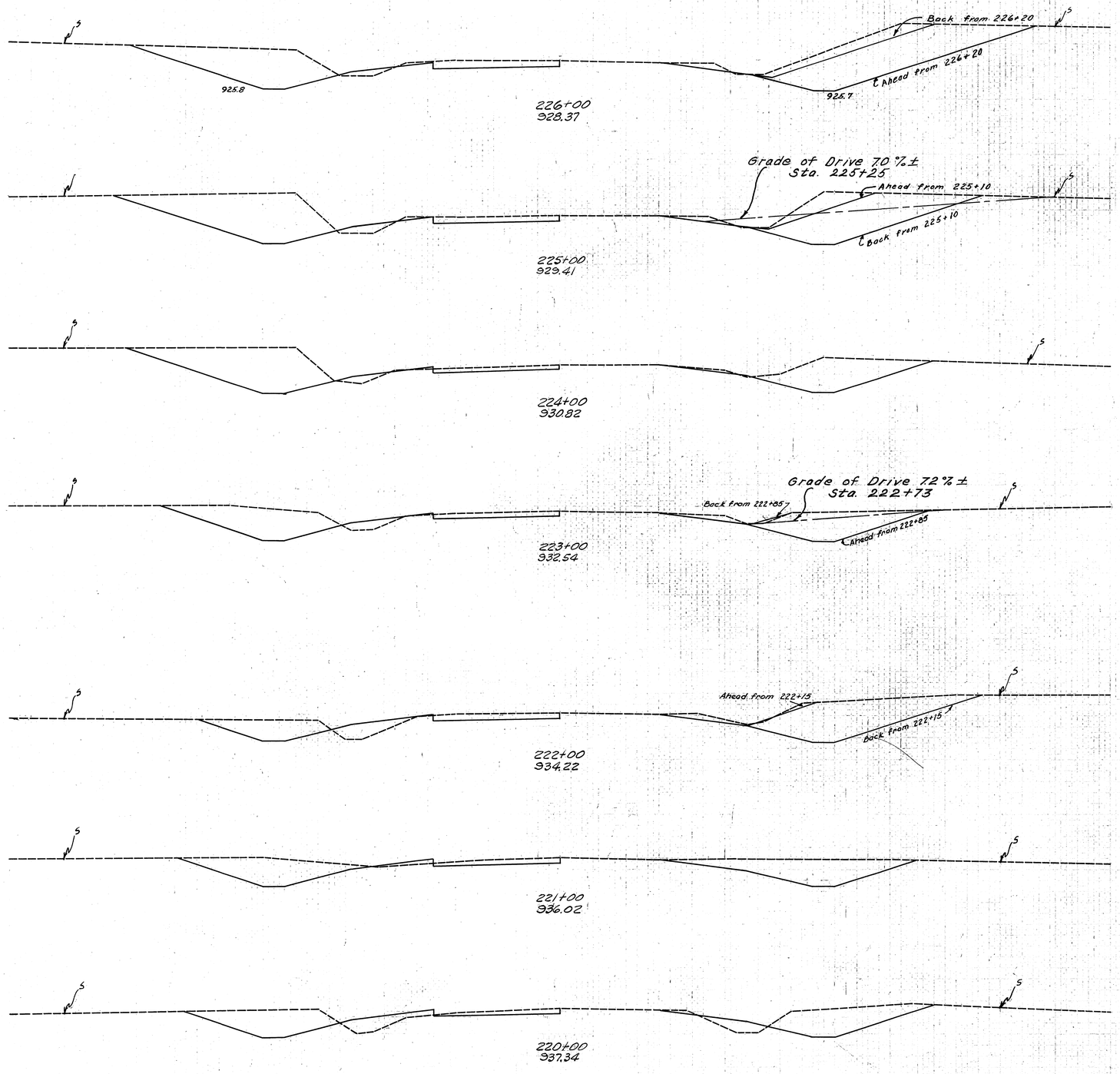
MED-301-(2.60)(3.47)



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	60	12		
			241	39
	70	9		
			200	35
	38	10		
			161	39
Drive Sta. 216+22 Rt.				9
	49	11		
			230	30
	75	5		
			244	19
	57	5		
			215	15
Drive Sta. 213+17 Rt.			1	10
	59	3		
			291	13
STA. 212+00	98	4		

50 40 30 20 10 ℄ 10 20 30 40 50

STA. 213+00 to STA. 219+00

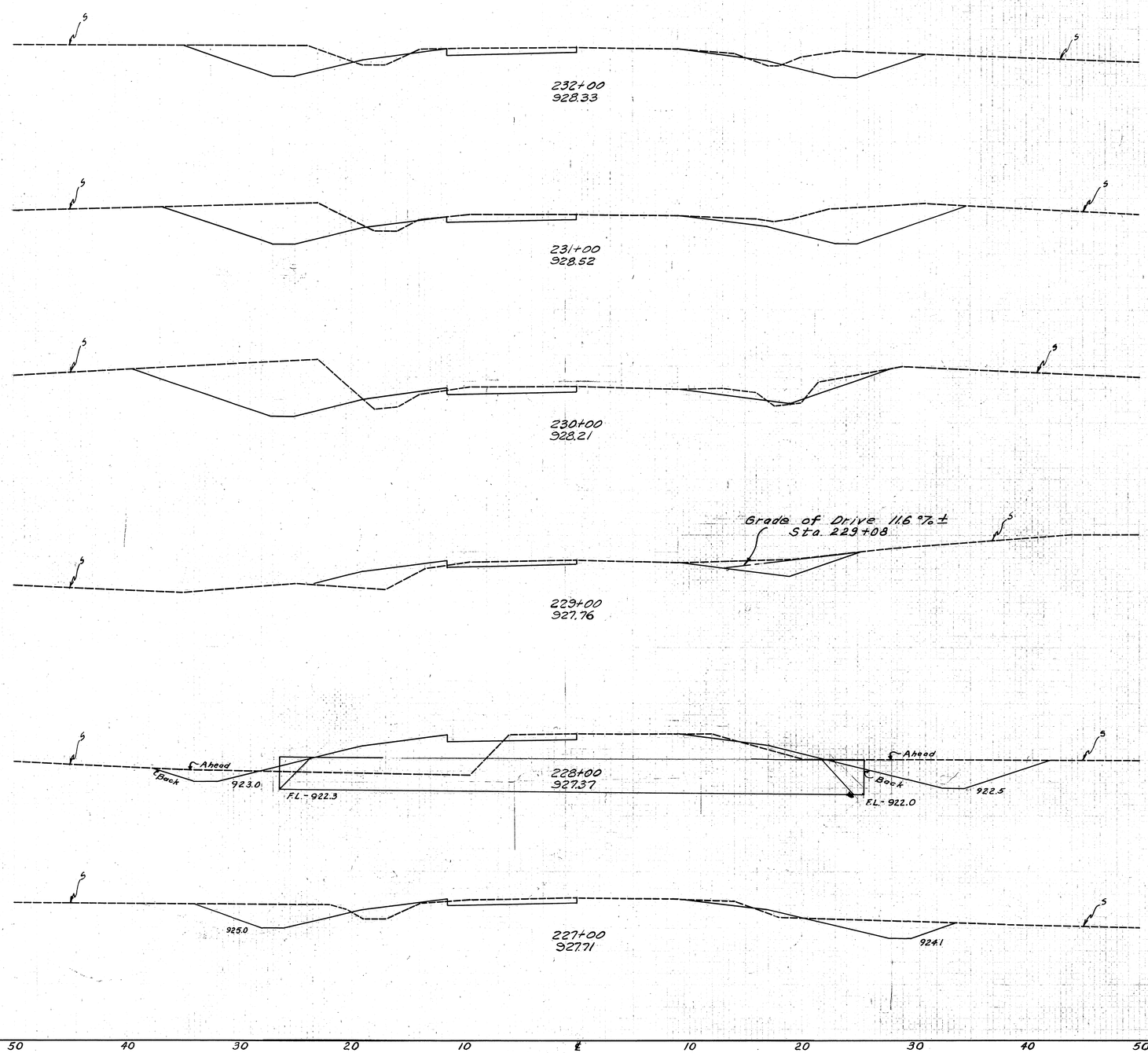


	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
STA. 226+20 Ahead	108	2		
STA 226+20 Back	59	2		
Drive Sta. 225+25 Rt.			13	3
			265	10
STA. 225+10 Ahead	71	3		
STA. 225+10 Back	112	3		
			387	10
	78	2		
			296	13
Drive Sta. 222+73 Rt.				10
STA. 222+85 Ahead	61	4		
STA. 222+85 Back	36	4		
			78	14
STA. 222+15 Ahead	24	7		
STA. 222+15 Back	67	7		
			260	12
Approaches Sta. 221+17.2 Rt & Lt.			113	7
	55	1		
			191	22
	48	11		
			200	43
STA. 219+00	60	12		

STA. 220+00 to STA. 226+00

F.A.			TYPE FUNDS	64
2	OHIO	S-199(3)	STATE FUNDS	T4

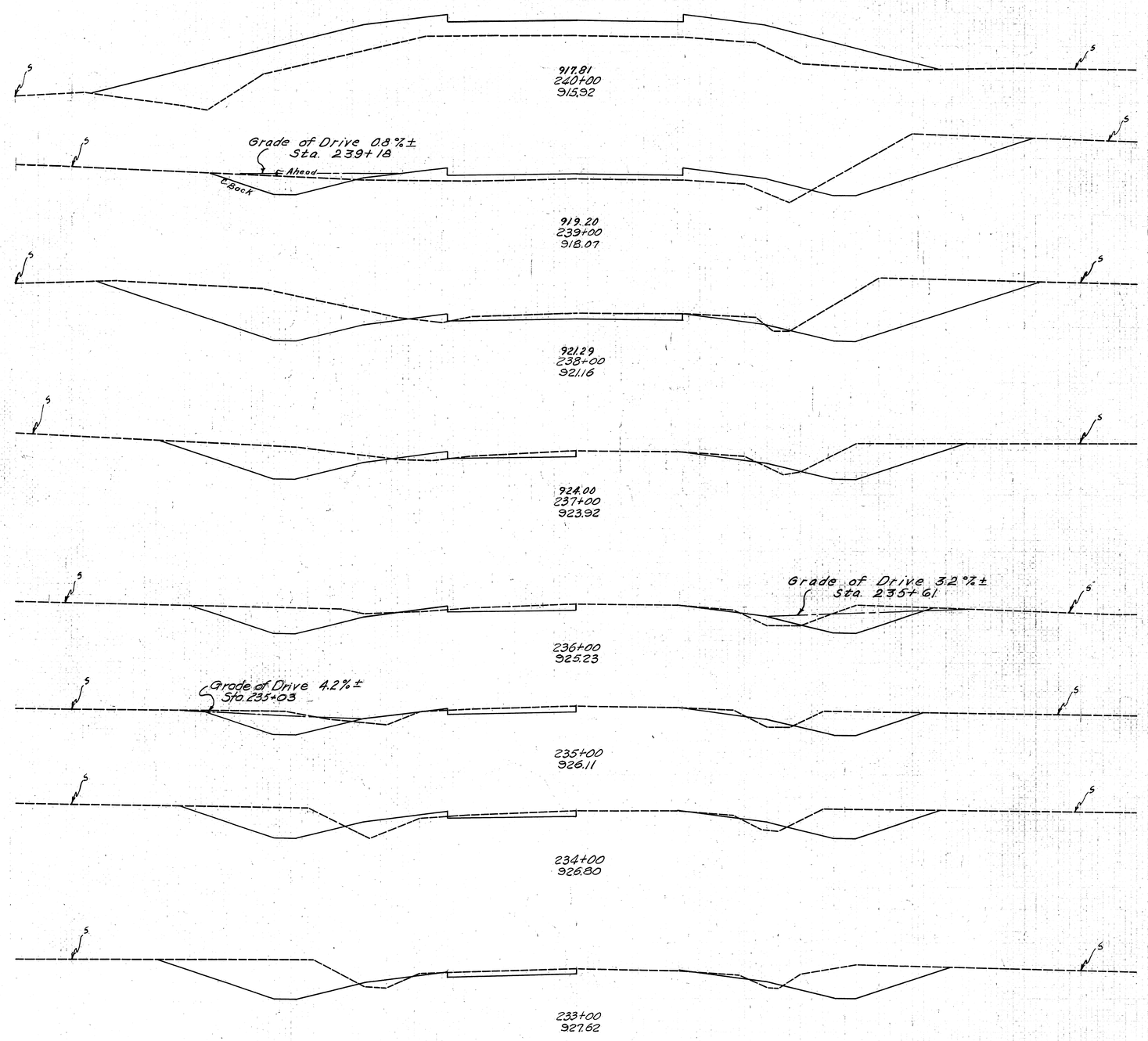
MED-301-(2.60)(3.47)



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	46	2		
			239	7
	83	2		
			287	11
	72	4		
			163	30
Drive Sta. 229+08 Rt.	16	12		5
			37	109
Ahead	4	47		
Back	36	47		
			131	98
	35	6		
			212	12
STA. 226+20	108	2		

STA. 227+00 to STA. 232+00

DEDUCT FOR STRUTURE
From sta 240+08.88 to sta 240+95.12



	F.A.	TYPE FUNDS	65
2	OHIO S-199(3)		74

MED-301-(2.60)(3.47)

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
	0	136		
			80	398
Ahead	43	25		
Back	54	25		
Drive Sta. 239+18 Lt.				2
			357	27
	139	2		
			370	11
	61	4		
			193	13
	43	3		
Drive Sta. 235+61 Rt.				30
			148	13
Drive Sta. 235+03 Lt.				30
	37	4		
			159	26
	49	10		
			219	26
	69	4		
			213	11
STA. 232+00	46	2		

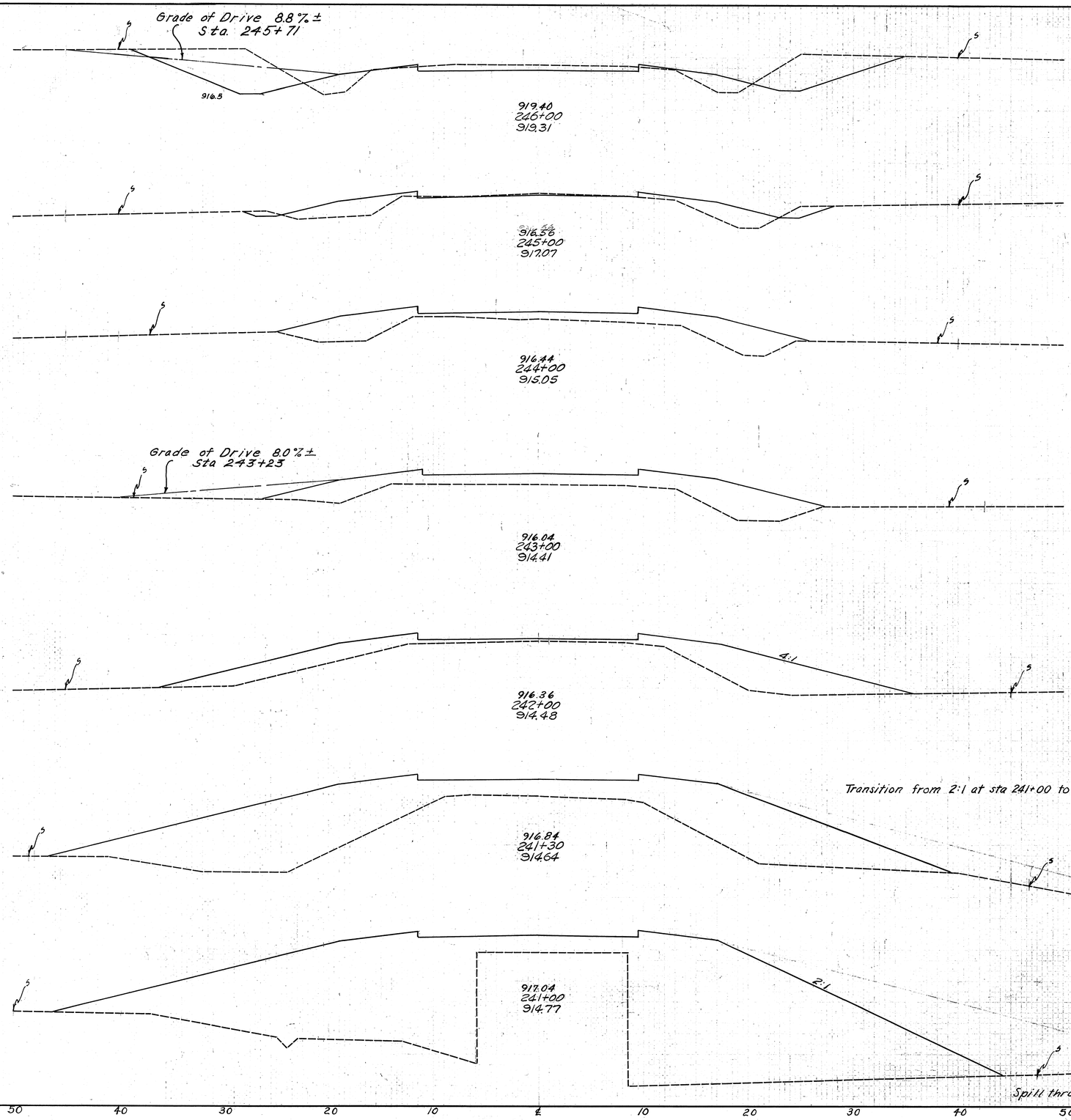
STA. 233+00 to STA. 240+00.

F.A. TYPE FUNDS

2 OHIO S-199(3) POST-WAR

MED-301-(2.60)(3.47)

66
74



	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
Drive Sta. 245+71 Lt.	78	16	3	18
			152	83
	4	29		
			7	180
	0	68		
			0	278
Drive Sta. 243+23 Lt.				7
	0	82		
			0	322
	0	92		
			0	517
	0	307		
			0	516
	0	622		
STA. 240+00	0	156	0	196
Spill through embankment for structure				320

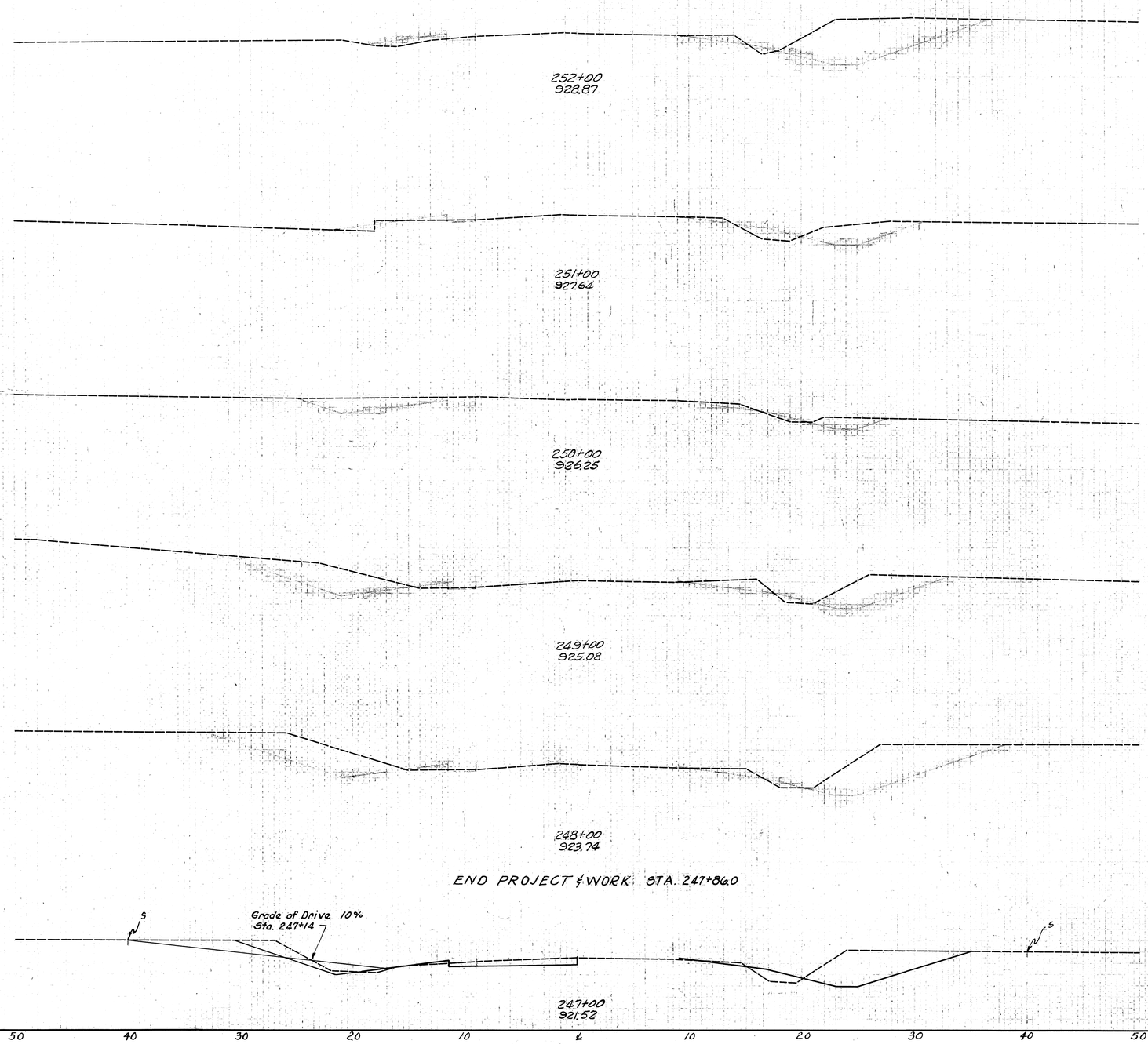
STA. 241+00 to STA. 246+00

F.A. TYPE FUNDS

2 OHIO S-199(3)

MED-301-(260)(3.47)

67
74



	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 247+86.0	5	0		
Drive Sta. 247+14 Lt.			19	2
	33	4		
			206	37
STA. 246+00	78	16		

STA. 247+00 to STA. 252+00

FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	

68
74

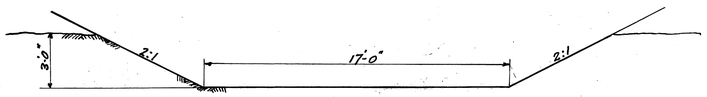
MED-301-(2.60)(3.47)

Existing Structure

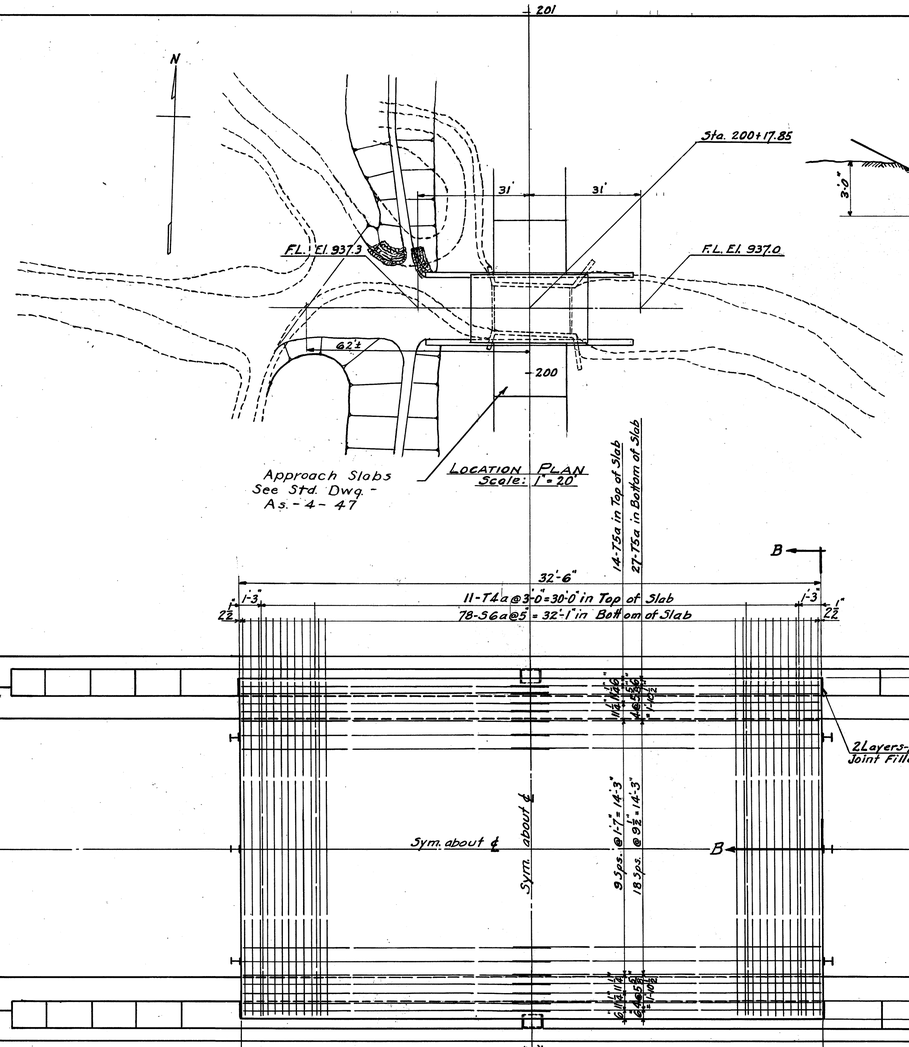
Stone Abutments - Poor - Unstable.
Steel Beam Bridge - Fair - Temporary shoring.
Lattice Railing - Rt. damaged by traffic.
Loading - S-10
Waterway - 70± Sq. Ft.

* Removal of Existing Structure

The Existing Structure shall become the property of the Contractor. Abutments shall be removed to 6" below finished ground line, and where necessary to clear New Construction. Suitable waste masonry may be used as Riprap.



TYPICAL CHANNEL SECTION



LOCATION PLAN
Scale: 1" = 20'

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

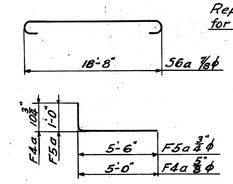
ESTIMATED QUANTITIES

* S-24	Removal of Existing Structure.	Lump Sum	
E-3	Channel Excavation.	90	Cu. Yds.
E-2	Excavation for Structure.	100	Cu. Yds.
S-4	Reinforcing Steel.	7780	Lbs.
S-1	Concrete for Structure. Footers Class "E"	35.2	Cu. Yds.
S-1	Concrete for Structure. Walls Class "E"	42.4	Cu. Yds.
S-1	Concrete for Structure. Slab Class "C"	23.3	Cu. Yds.
S-29	Porous Backfill	23	Cu. Yds.
S-3	Waterproofing - Premolded Sealing Strip, 13" x 3/4"	15	Lin. Ft.
S-9	Structural Expansion Joint. (1/4" Premolded)	16	Sq. Ft.
S-14	Railing - Type - Steel Beam (Deep)	38	Lin. Ft.
I-10	Riprap (Type "A" Grouted)	16	Sq. Yds.
S-3	Type C Waterproofing	70	Sq. Yds.
⊙ T-35	Asphaltic Concrete Surface Course (Type "A")	4.8	Cu. Yds.

⊙ Carried to Table on Sheet 3

REINFORCING STEEL

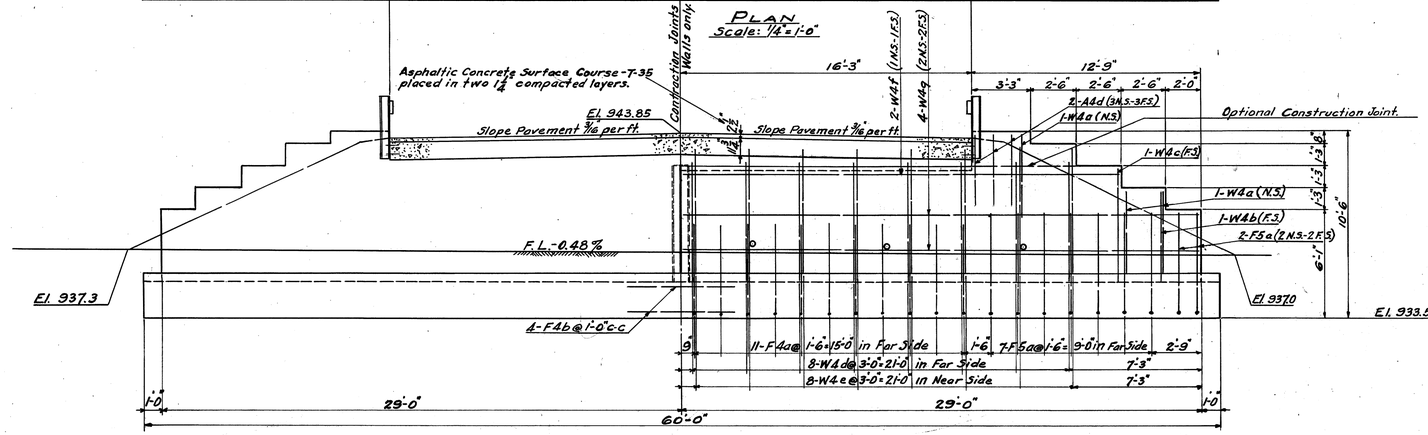
No.	Mark	Size	Shape	Length	Weight
78	S6a	7/8 ϕ	Bt.	20'-4"	3242#
82	T5a	3/4 ϕ	St.	17'-4"	2135
44	F5a	3/4 ϕ	Bt.	6'-4"	419
11	T4a	5/8 ϕ	St.	18'-6"	212
44	F4a	5/8 ϕ	Bt.	5'-9"	264
16	F4b	5/8 ϕ	St.	6'-0"	134
12	W4a	5/8 ϕ	St.	4'-6"	56
4	W4b	5/8 ϕ	St.	5'-0"	21
4	W4c	5/8 ϕ	St.	6'-4"	26
32	W4d	5/8 ϕ	St.	6'-9"	225
32	W4e	5/8 ϕ	St.	7'-0"	234
8	W4f	5/8 ϕ	St.	24'-3"	202
16	W4g	5/8 ϕ	St.	28'-9"	480
24	A4d	5/8 ϕ	St.	4'-0"	100
Replacement Bars for Test Samples					
1	R6a	7/8 ϕ	St.	6'-11	14
1	R5a	3/4 ϕ	St.	6'-6"	10
1	R4a	5/8 ϕ	St.	6'-1"	6
				Total	7780#



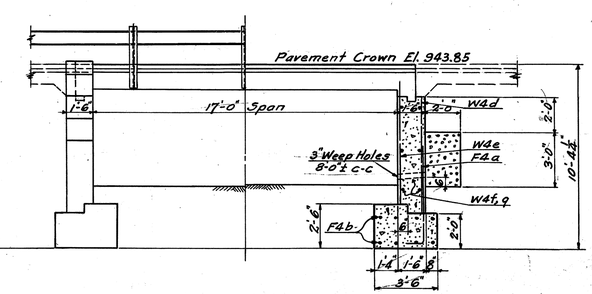
NOTE: Bar Size designations shown do not correspond with size designations given in Jan 1, 1953 edition of Const. & Mtl. Specifications. Refer to Std. Slab Bridge Dwg. SB-1-47 (Rev. 1-20-48) S-15-46 Loading, for Std. Details not shown on this sheet.

MED 301 0624

Size, Type & preliminary design approved by Paul Stilwell 4-26-51.
Do not ink



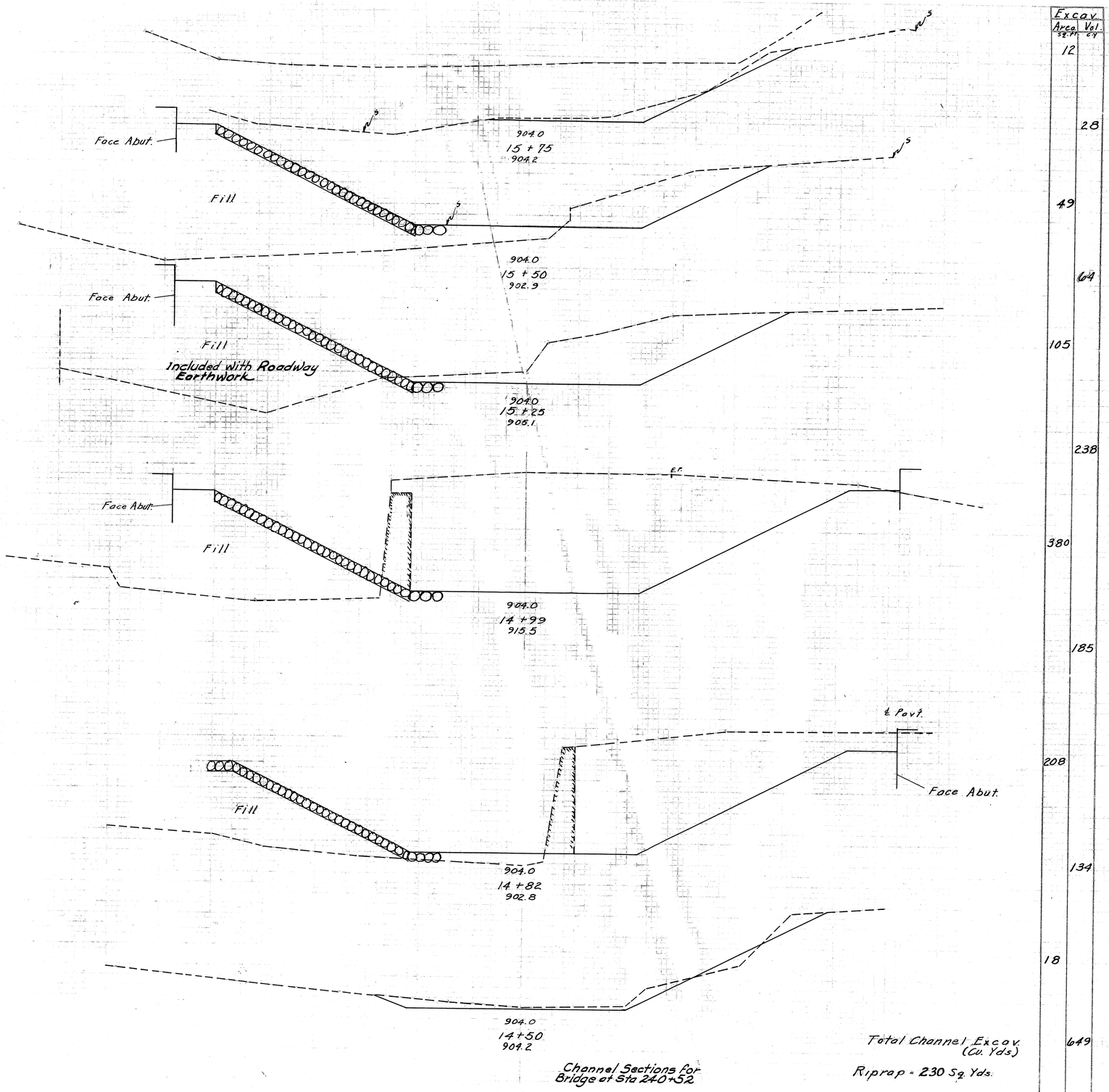
ELEVATION OF NORTH ABUTMENT A-A
SOUTH ABUTMENT - OPPOSITE HAND



HALF END VIEW

HALF SECTION B-B
Showing Steel in Abutments

F.A. TYPE FUNDS 69
2 OHIO S-199(3) 74
MED.-301-(2.60)(3.47)



Channel Sections for Bridge at Sta 24.0+52

Excav. Area Sq. Ft.	Excav. Vol. Cu. Yd.
12	
	28
49	
	64
105	
	238
380	
	185
208	
	134
18	
	649

Total Channel Excav. (Cu. Yds)

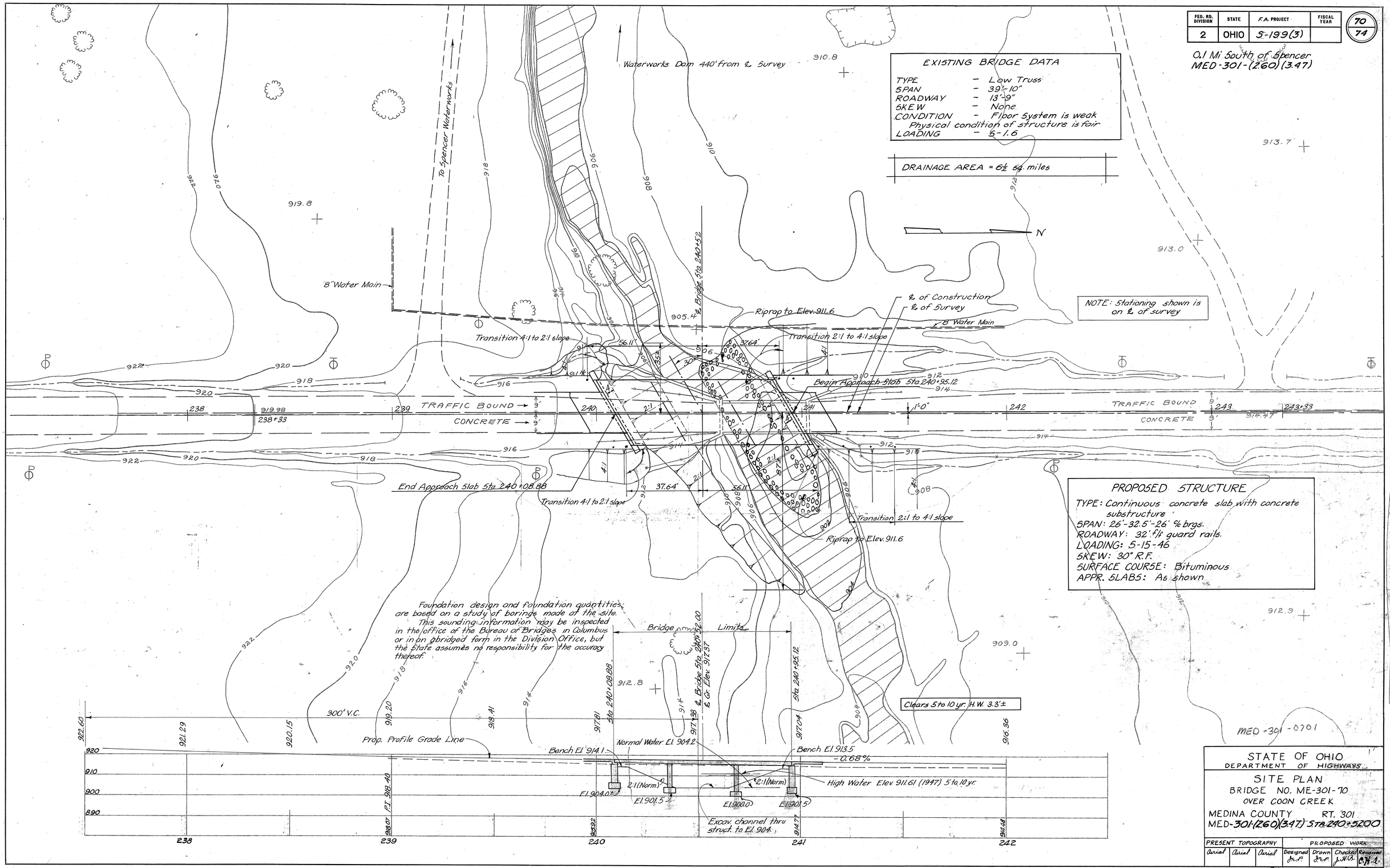
Riprap = 230 Sq. Yds.

CHANNEL SECTIONS
Sta. 24+52 (Bridge)

FED. RD. DIVISION	STATE	F.A. PROJECT	FISCAL YEAR
2	OHIO	S-199(3)	

70
74

0.1 Mi South of Spencer
MED-301-(2.60)(3.47)



STATE OF OHIO
DEPARTMENT OF HIGHWAYS

SITE PLAN
BRIDGE NO. ME-301-70
OVER COON CREEK
MEDINA COUNTY RT. 301
MED-301-(2.60)(3.47) Sta. 240+52.00

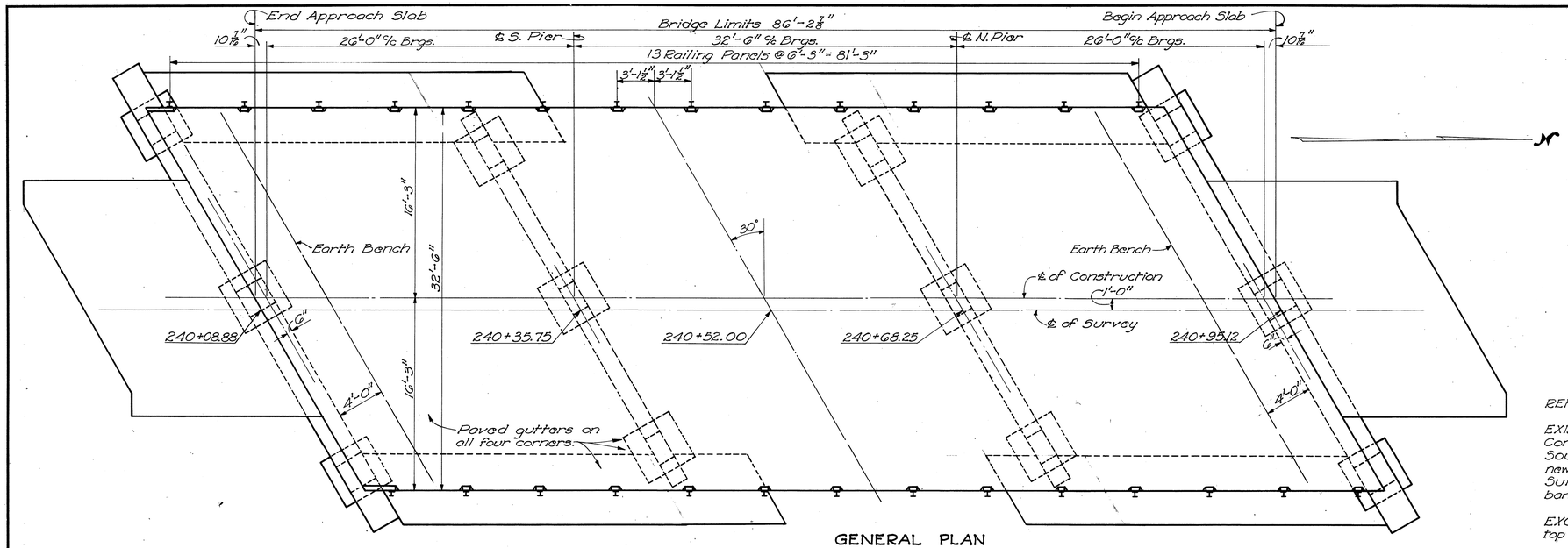
PRESENT TOPOGRAPHY			PROPOSED WORK			
Aerial	Aerial	Aerial	Designed J.E.P.	Drawn J.E.P.	Checked J.H.O.	Reviewed C.H.L.

BFG W.H.C. 1-29-52

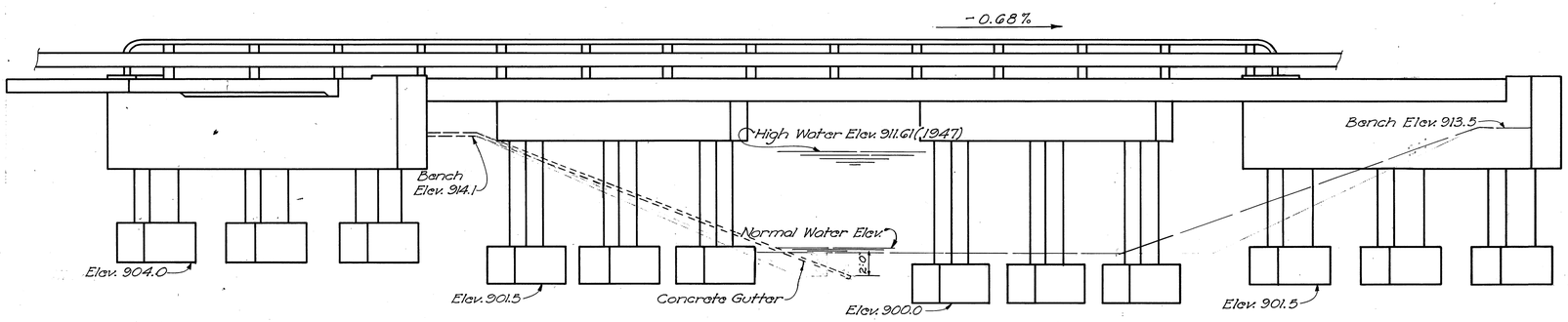
FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	

71
74

MED-301-(260)(3.47)



GENERAL PLAN



GENERAL ELEVATION

GENERAL NOTES

REFERENCE shall be made to Standard Drawing CS-1-47, revised 1-20-48.

EXISTING STRUCTURE shall be removed and become the property of the Contractor.
South abutment shall be removed to Elev. 904 and as required to clear new construction. North abutment shall be removed as per Sec. S-24.02. Suitable waste masonry may be used for riprap or disposed of as bank protection as directed by the Engineer.

EXCAVATION QUANTITY includes the removal of fill material between top of earth bench and bottom of abutment crossbeams.

FOOTINGS shall extend to a minimum of 6" into solid rock, but elevations of base of footing shall not be higher than those shown.

SURFACE FINISH OF CONCRETE: Fascia of deck slab shall receive a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item S-1.

WEARING SURFACE shall be 2½" asphaltic concrete surface course, Item 7-35, laid in two 1¼" courses.

CONCRETE GUTTERS shall be 6 ft. wide and 6 in. thick, and shall be depressed 6 in. at the center. They shall extend from face of abutment down to elevation 902.2 and shall be centered under edge of deck. Reinforcing bars ½"φ @ 1'-6" centers, both directions, included in price per linear ft.

[illegible]

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS.	PIERS	SUPERSTR.	GENERAL	As Built	
E-2	Lump	Sum	Cofferdams cribs and sheeting				Lump		
E-2	~~148~~	Cu.Yd.	Unclassified excavation, including rock	106	42			C-3 +10.85	158.85
E-3	~~649~~	Cu.Yd.	Channel excavation				~~649~~	C-1, C-2 +1160	1809
S-1	123	Cu.Yd.	Class "C" concrete, superstructure			123			
S-1	~~72~~	Cu.Yd.	Class "C" concrete, abutments & piers above footings	52	20			C-3 +1.53	73.53
S-1	28	Cu.Yd.	Class "E" concrete, footings	14	14				
S-3	312	Sq.Yd.	Type "C" waterproofing			312			
S-4	~~44,257~~	Lb.	Reinforcing steel	6,942	7,360	29,780	175	C-3 +855	4-5112
S-9	12.5	Sq.Ft.	½" Premolded expansion joint filler			12.5			
S-14	172.48	Lin.Ft.	Railing (Type I-15.13 with top rail and steel posts)			172.48			
[illegible]			[illegible]				[illegible]		
S-24	Lump	Sum	Removal of existing structure				Lump		
T-35	22	Cu.Yd.	Asphaltic concrete surface course, Type "A" or "C" (85-100)			22			
I-10	230	Sq.Yd.	Type "A" riprap				230		
I-14	138	Lin.Ft.	Concrete gutter				138		

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

GENERAL PLAN & ELEVATION, NOTES AND ESTIMATED QUANTITIES

BRIDGE NO. ME-301-70 OVER COON CREEK

MEDINA COUNTY
SEC. MED-301-(260)(3.47) STA. 240+52

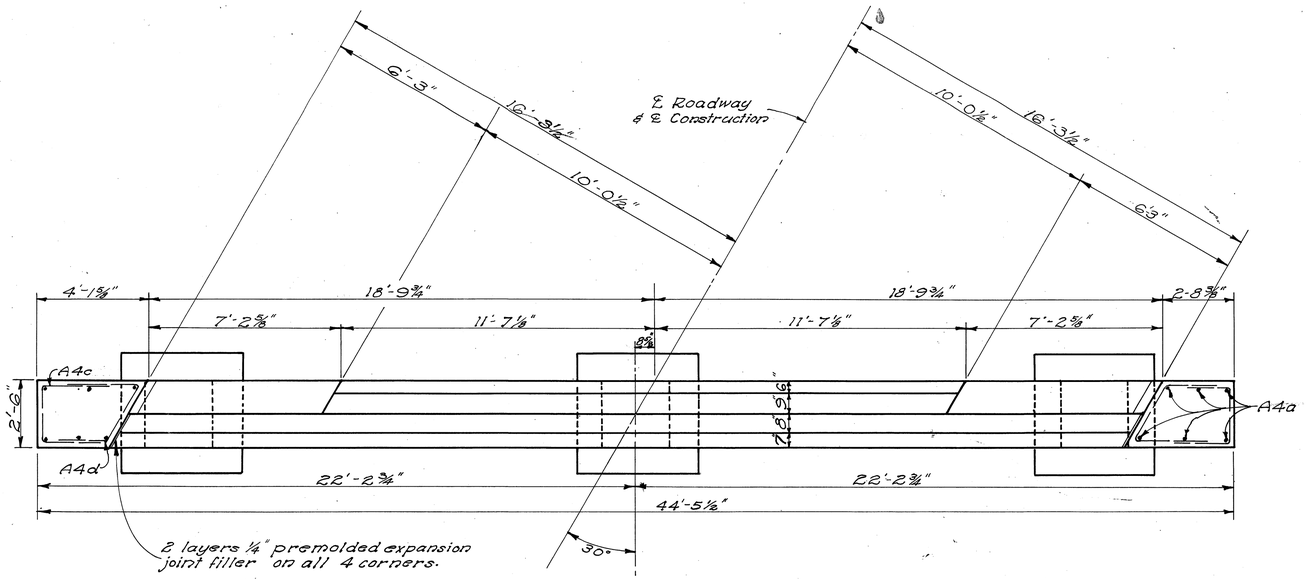
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RHN	RHN	BEH	RJC	BFG WHC	1-29-52	

Revised As-Built P.G. 7/1/55

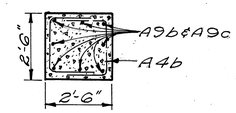
FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	

72
74

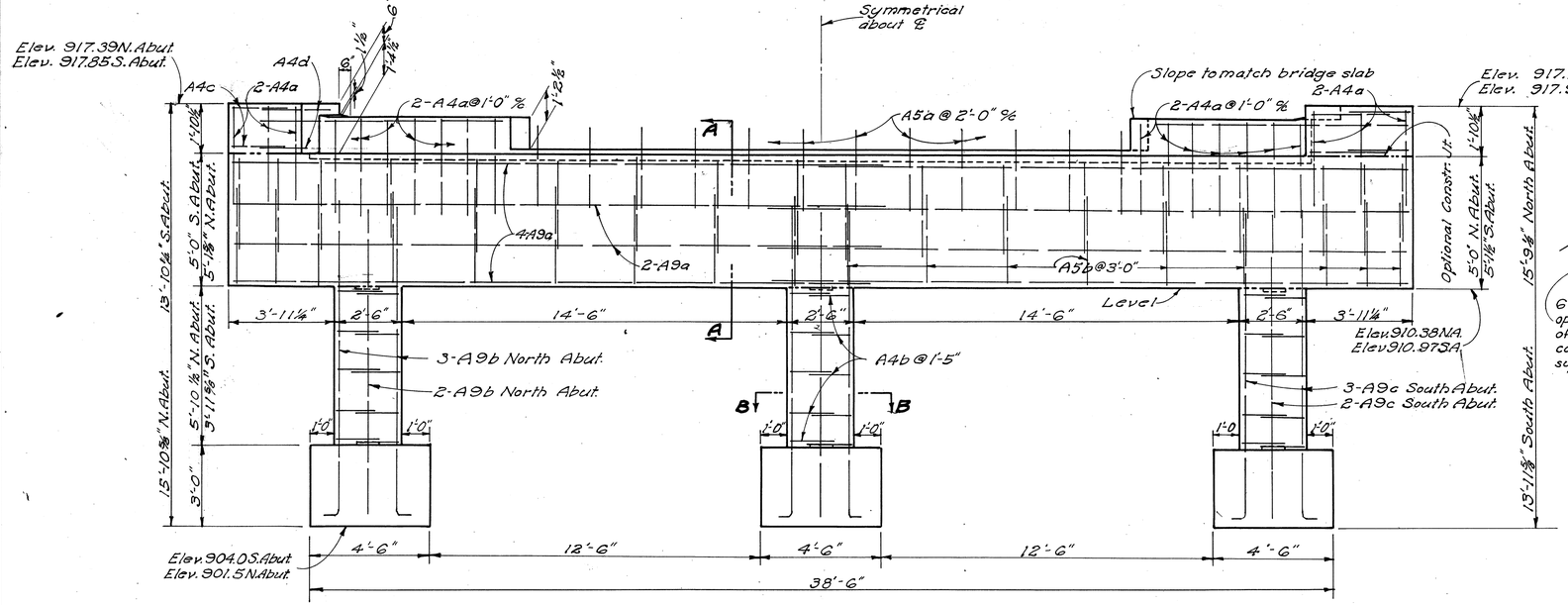
MED-301-(2.60)(3.47)



PLAN

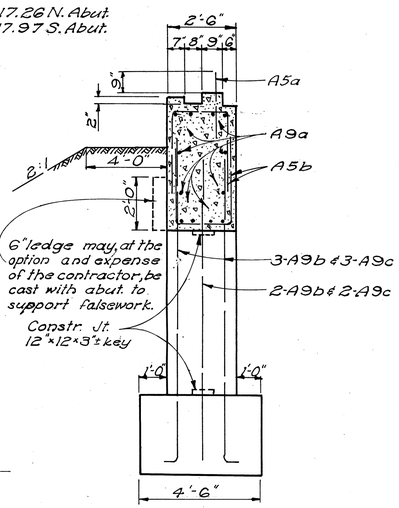


SECTION B-B



ELEVATION

NOTE: Reinforcement same for all columns.



SECTION A-A

NOTE: All reinforcement shall be 2" clear from concrete surface except as shown. After pedestals are placed, all earth fill shall be made full height of earth bench, and excavation made for cross-beam. If bottom forms for cross-beams are used, they shall be left in place.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

ABUTMENT DETAILS

BRIDGE NO. ME-301-70 OVER COON CREEK

Medina County
Sec Med-301-(2.60)(3.47) Sta 240+52

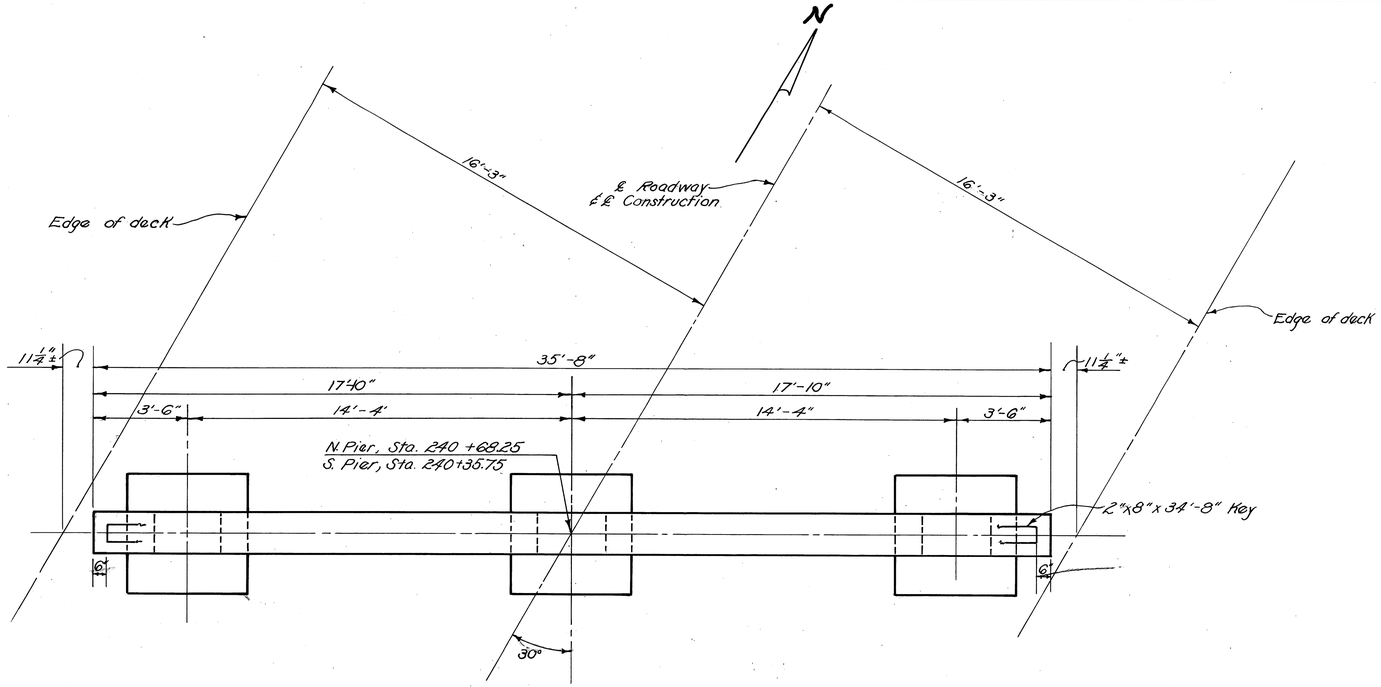
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RHN	RHN	JNP	RJC	BFG W4R	1-29-52	

DIETZGEN CO. PRINTED ON NO. 310 IMPERIAL TRACING CLOTH FORM NO. 305 B

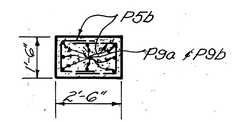
FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199(3)	

73
74

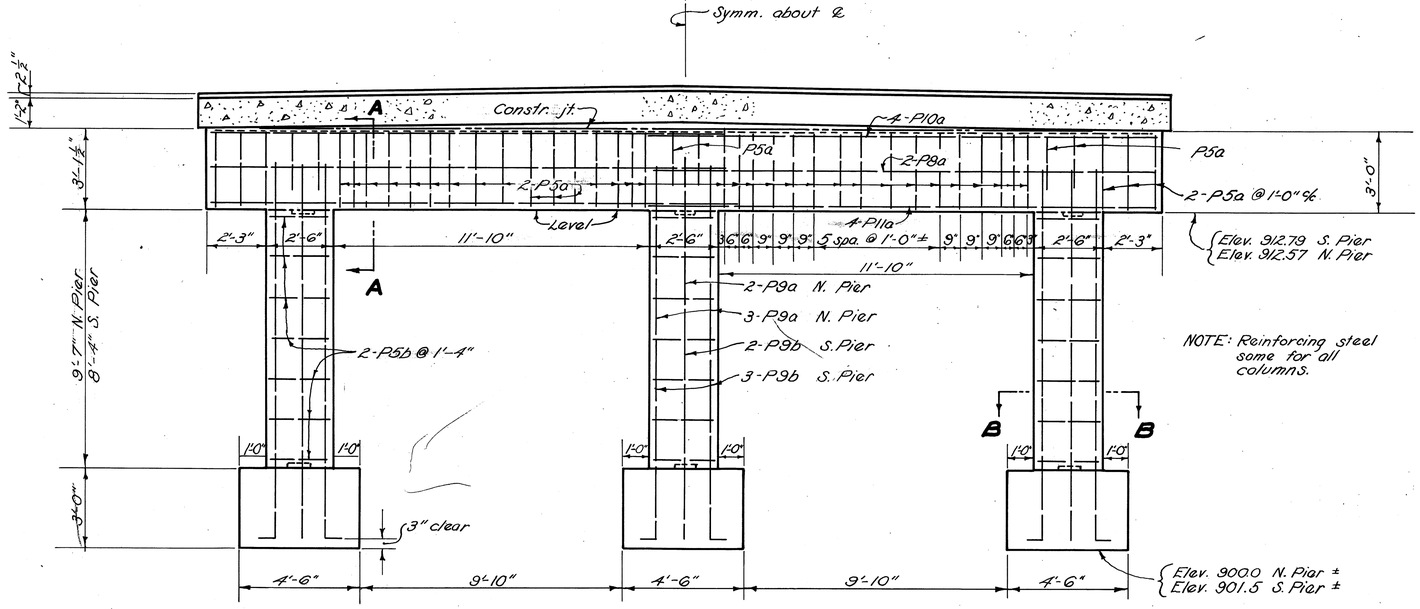
MED-301-(2.60)(3.47)



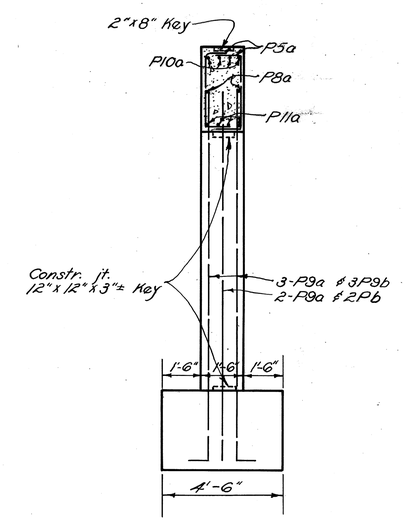
PLAN



SECTION B-B



ELEVATION



SECTION A-A

NOTE: All reinforcement shall be 2" clear from surface of concrete except as shown.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

PIER DETAILS
BRIDGE NO. ME-301-70
OVER COON CREEK

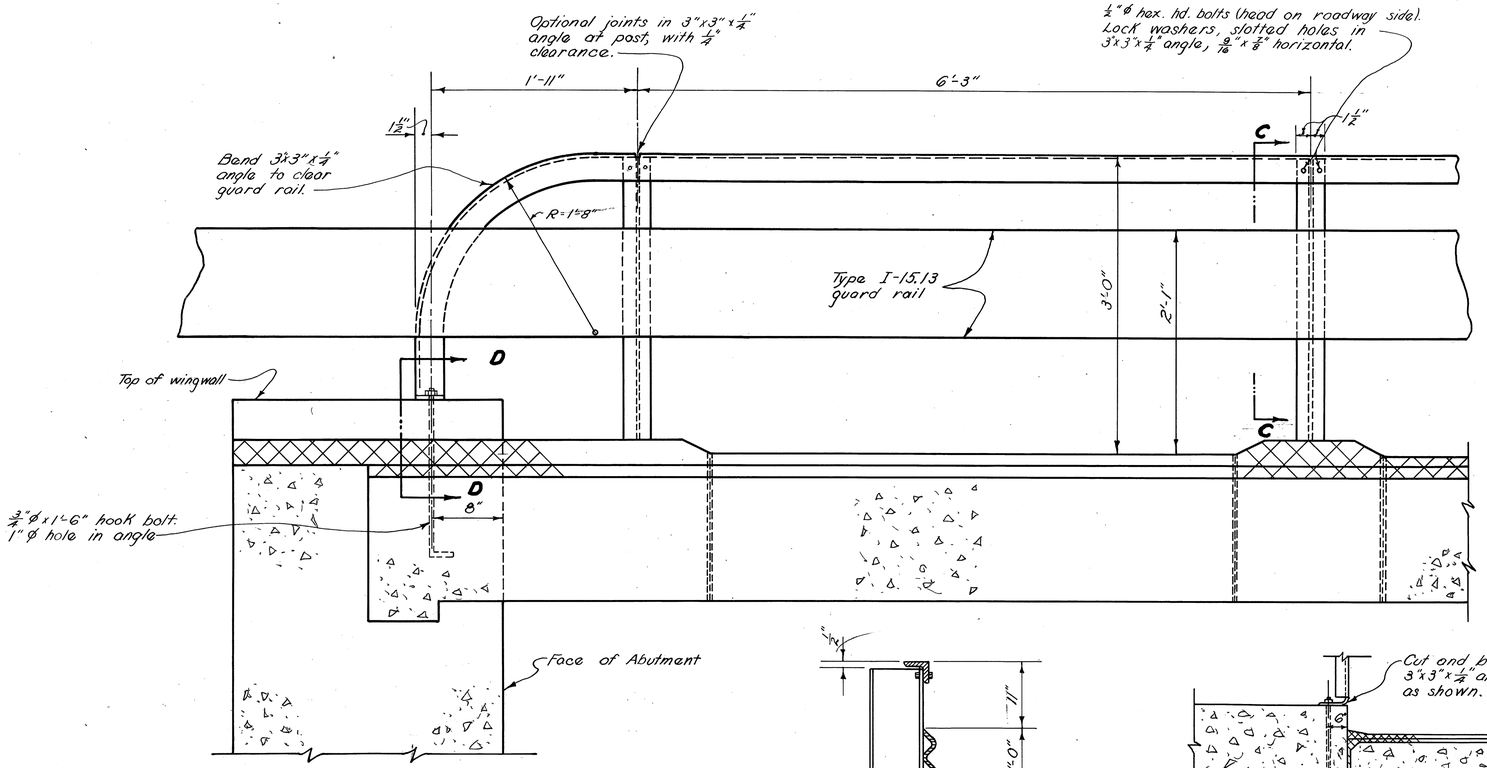
MEDINA COUNTY
SEC. MED-301-(2.60)(3.47) STA-240+52

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.H.N.	R.H.N.	W.J.R.	R.J.C.	BFG W.H.R.	1-29-52	

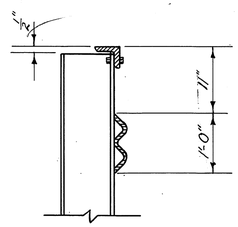
FED. RD. DIVISION	STATE	F.A. PROJECT	TYPE FUNDS
2	OHIO	S-199 (3)	

74
74

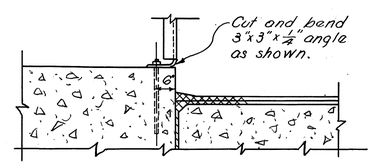
MED-301-(2.60)(3.47)



ELEVATION



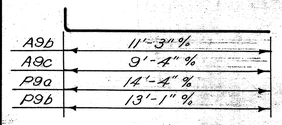
SECTION C-C

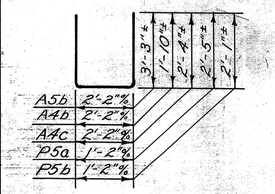


SECTION D-D

REINFORCING STEEL LIST

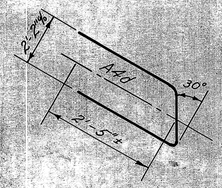
Mark	Size	No.	Length	Weight	Shape
ABUTMENTS					
A9a		48	24'-0"	3920	S
A9b		24	12'-5"	1012	B
A9c		24	10'-6"	856	B
A5a		24	3'-0"	75	S
A5b		72	8'-6"	638	B
A4a		80	3'-6"	187	S
A4b		48	5'-8"	182	B
A4c		8	6'-8"	35	B
A4d		8	6'-10"	37	B
PIERS					
P11a		16	20'-0"	1700	S
P10a		16	20'-0"	1380	S
P9a		24	15'-6"	1265	B
P9b		24	14'-3"	1162	B
P8a		8	19'-4"	412	S
P5a		164	5'-10"	996	B
P5b		84	5'-1"	445	B





NOTE: In the reinforcing steel bar marks, the numeral following the first letter is the bar number which indicates the size of the bar.

Mark	Size	No.	Length	Weight	Shape
SUPERSTRUCTURE					
A	1"□	75	30'-9"	7841	S
B	1"□	24	22'-9"	1860	B
C	1"□	24	20'-1"	1640	B
D	1"□	12	20'-3"	825	S
E	1"□	12	17'-0"	695	S
F	1"□	66	23'-6"	5273	S
G	1"□	32	13'-6"	1471	S
H	1"□	32	10'-9"	1172	S
J	3/4"Ø	32	19'-0"	912	S
K	3/4"Ø	16	18'-9"	450	S
L	3/4"Ø	82	36'-11"	4541	S
M	3/4"Ø	56	36'-11"	3100	S
REPLACEMENT BARS					
RE11	1 1/4"□	1	8'-8"	46	S
RE10	1 1/8"□	1	8'-3"	35	S
RE9	1"□	2	7'-9"	53	S
RE8	1"Ø	1	7'-4"	20	S
RE6	3/4"Ø	1	6'-6"	10	S
RE5	3/8"Ø	1	6'-1"	7	S
RE4	1/2"Ø	1	5'-8"	4	S



NOTE: The bar size designations shown above do not correspond with the size designations given in the January 1, 1953 edition of the Construction and Material Specifications.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

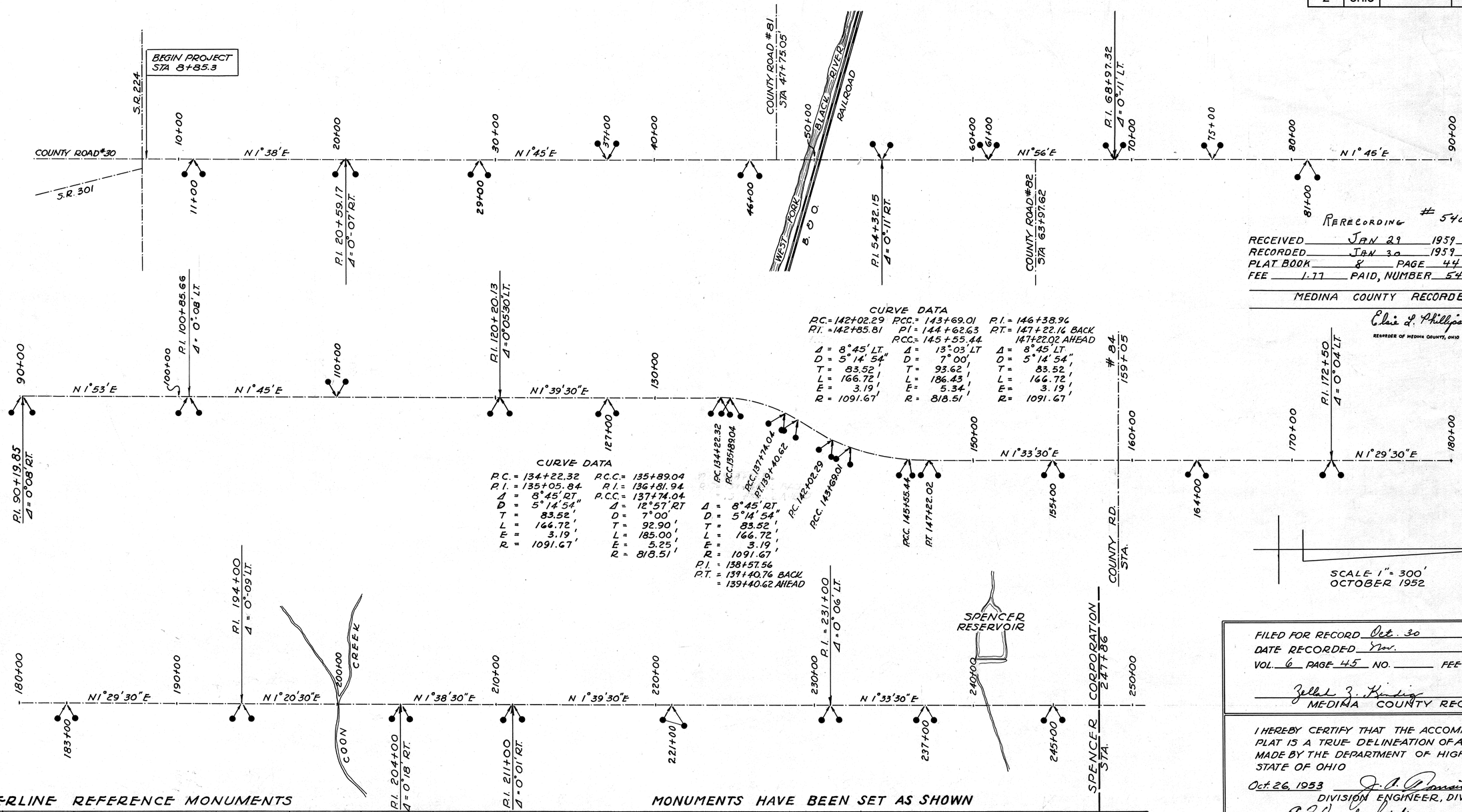
RAILING DETAILS
REINFORCING STEEL LIST
BRIDGE NO. ME-301-70
OVER **COON CREEK**

MEDINA COUNTY
SEC. MED-301-(2.60)(3.47) STA. 240+52

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RHN	RHN	R.W.T.	R.J.C.	BFG W&R	1-29-52	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

1/1



CURVE DATA

P.C. = 142+02.29	P.C.C. = 143+69.01	P.I. = 146+38.96
P.I. = 142+85.81	P.I. = 144+62.63	P.T. = 147+22.16 BACK
	P.C.C. = 145+55.44	147+22.02 AHEAD
Δ = 8°45' LT.	Δ = 13°03' LT	Δ = 8°45' LT.
D = 5°14'54"	D = 7°00'	D = 5°14'54"
T = 83.52'	T = 93.62'	T = 83.52'
L = 166.72'	L = 186.43'	L = 166.72'
E = 3.19'	E = 5.34'	E = 3.19'
R = 1091.67'	R = 818.51'	R = 1091.67'

CURVE DATA

P.C. = 134+22.32	P.C.C. = 135+89.04	
P.I. = 135+05.84	P.I. = 136+81.94	
Δ = 8°45' RT	P.C.C. = 137+74.04	
D = 5°14'54"	Δ = 12°57' RT	Δ = 8°45' RT
T = 83.52'	D = 7°00'	D = 5°14'54"
L = 166.72'	T = 92.90'	T = 83.52'
E = 3.19'	L = 185.00'	L = 166.72'
R = 1091.67'	E = 5.25'	E = 3.19'
	R = 818.51'	R = 1091.67'
		P.I. = 138+57.56
		P.T. = 139+40.76 BACK
		= 139+40.62 AHEAD

SCALE 1" = 300'
OCTOBER 1952

RERECORDING # 54030

RECEIVED JAN 29 1959
RECORDED JAN 30 1959
PLAT BOOK 8 PAGE 44
FEE 1.77 PAID, NUMBER 54030

MEDINA COUNTY RECORDER

Elsie L. Phillips
RECORDER OF MEDINA COUNTY, OHIO

FILED FOR RECORD Oct. 30 1953
DATE RECORDED Nov. 1953
VOL. 6 PAGE 45 NO. FEE 1.76

Zellet Z. Kinsley
MEDINA COUNTY RECORDER

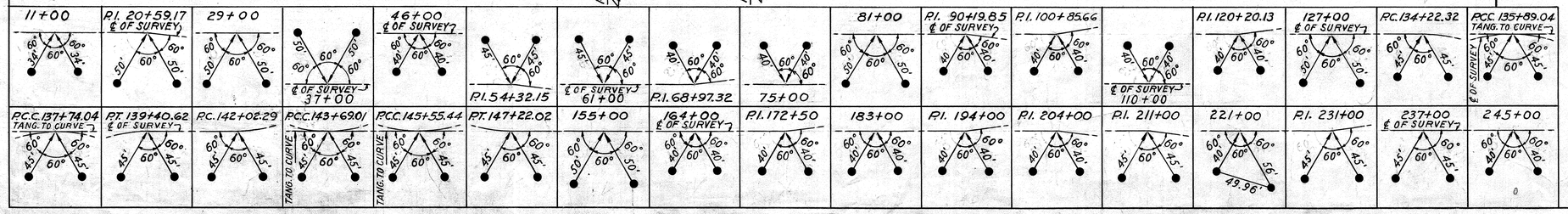
I HEREBY CERTIFY THAT THE ACCOMPANYING PLAT IS A TRUE DELINEATION OF A SURVEY MADE BY THE DEPARTMENT OF HIGHWAYS, STATE OF OHIO

Oct. 26, 1953 J. A. Comia
DIVISION ENGINEER, DIVISION 3

BY A. F. Vonderhide NO. 2548
REGISTERED SURVEYOR

CENTERLINE REFERENCE MONUMENTS

MONUMENTS HAVE BEEN SET AS SHOWN



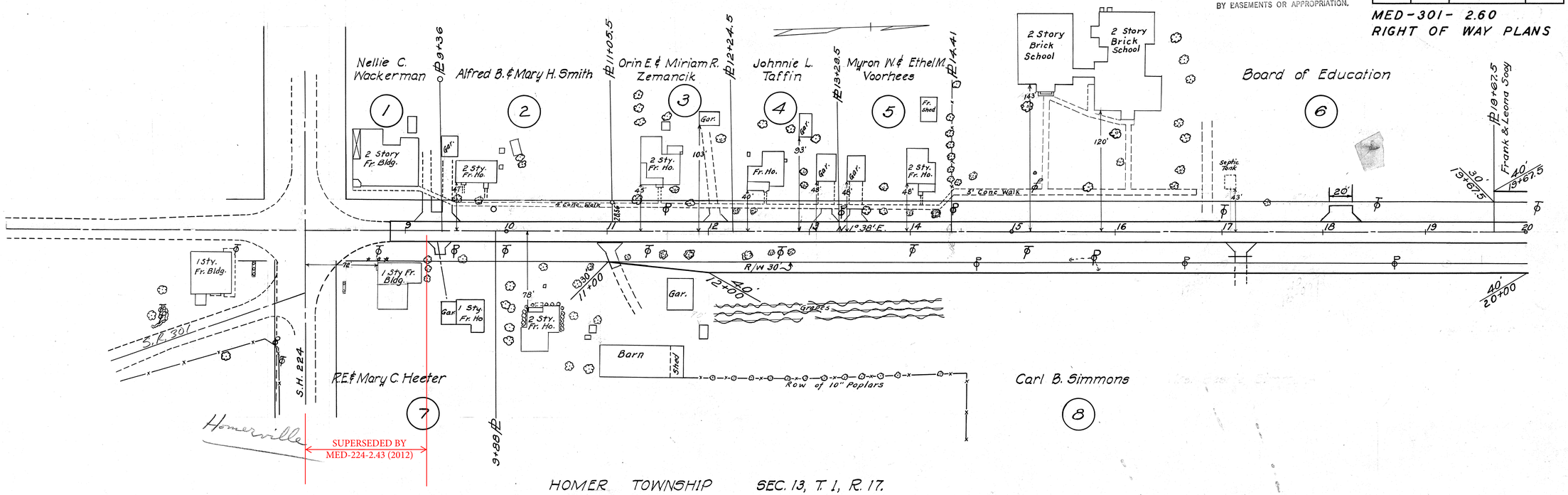
LOCATION PLAN
MED 301 - [2.60 - 7.15]
HOMER TOWNSHIP - SECT. 13-18-23
SPENCER TOWNSHIP - SEC. 11-12
T-2-N R-17-W
MEDINA COUNTY OHIO

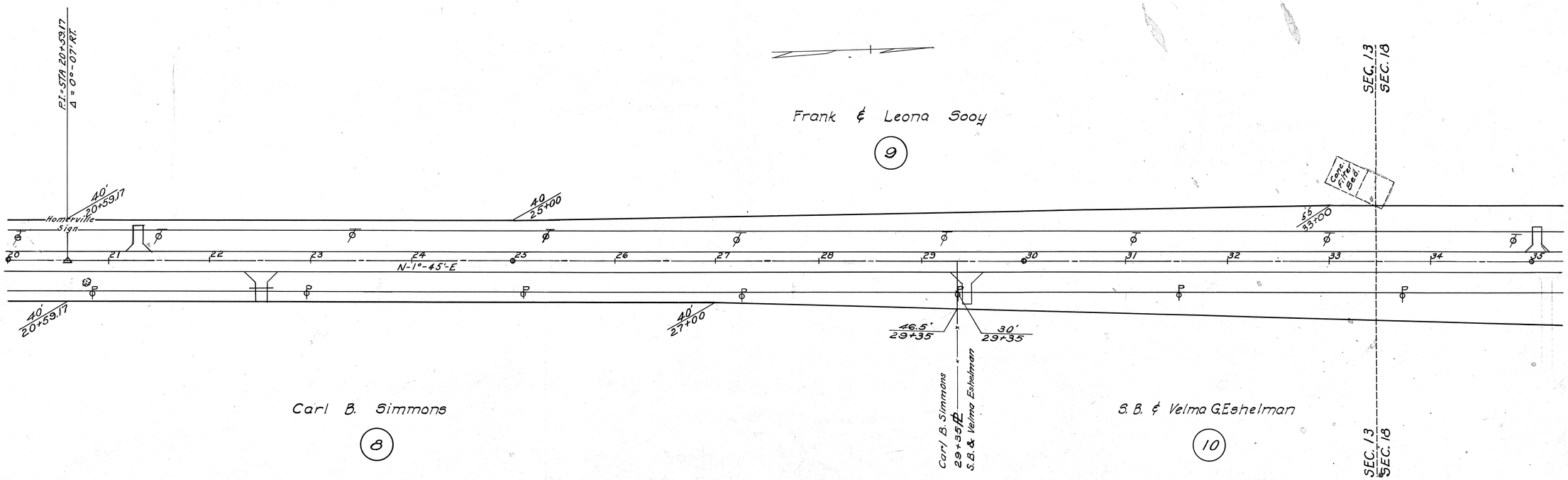
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

1/9

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

MED-301- 2.60
RIGHT OF WAY PLANS





MED-301- 2.60 R/W PLANS

9-2-52 9-9-52 8-6-52

SR-224 to Carpenline Spencer

1/9

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

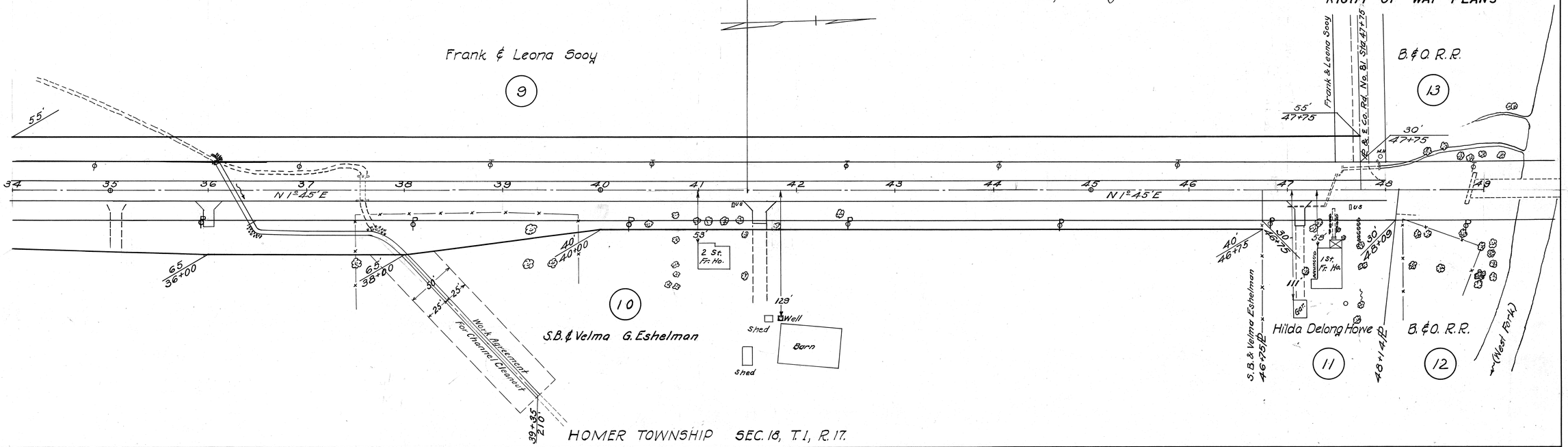
2/9

THIS SECTION OF ROAD SUPERCEEDED BY PLAN MED-301-3.24 (1960)

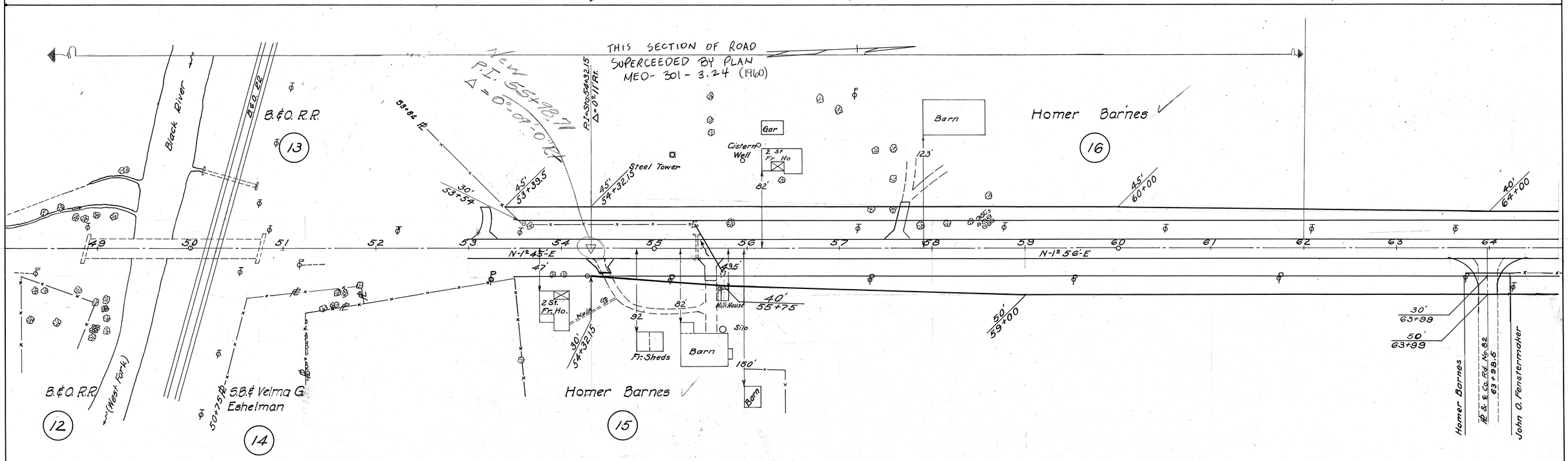
R/W SHOWN ON THIS PLAN SECURED BY EASEMENTS OR APPROPRIATION

MED-301-2.60

RIGHT OF WAY PLANS



HOMER TOWNSHIP SEC. 18, T. 1, R. 17.



MED-301-2.60 R/W PLANS

HOMER TOWNSHIP SEC. 18, T. 1, R. 17.

9-2-52 9-9-52 8-6-52

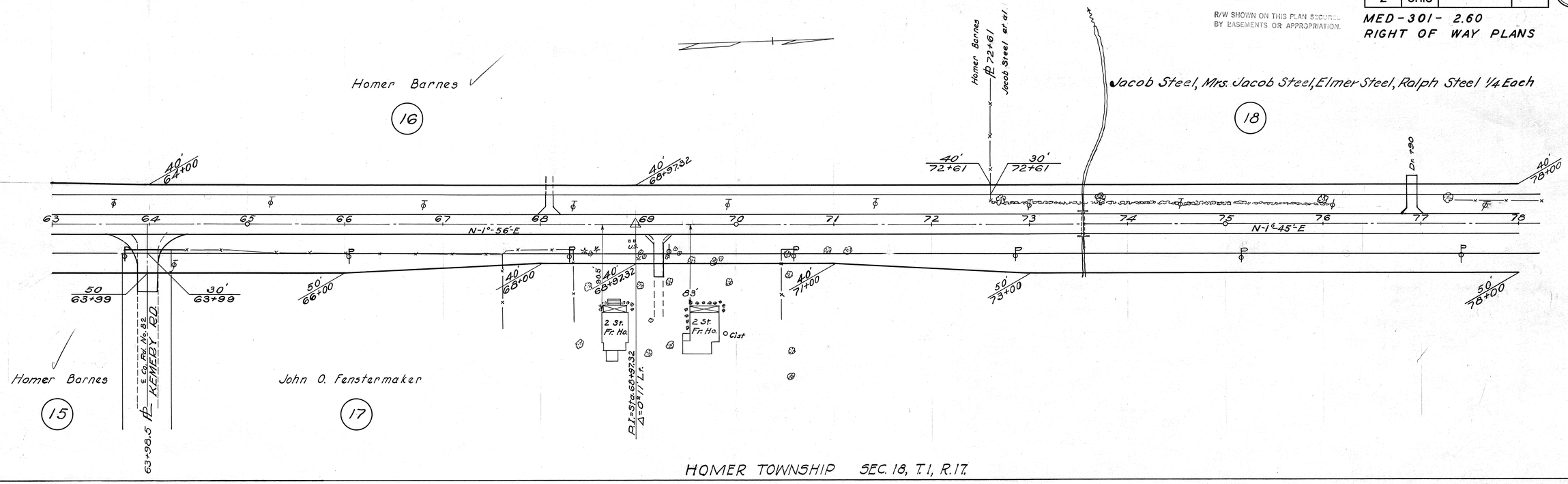
2/9

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

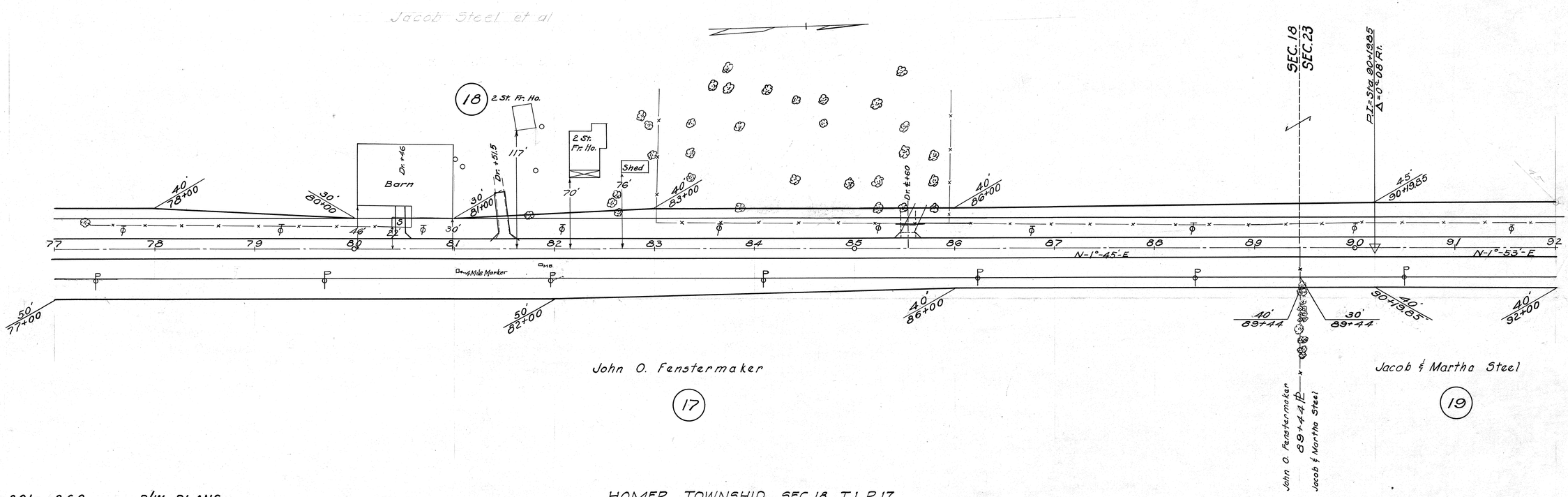
3/9

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

MED-301- 2.60
RIGHT OF WAY PLANS



HOMER TOWNSHIP SEC. 18, T. 1, R. 17.



MED-301- 2.60 R/W PLANS

HOMER TOWNSHIP SEC. 18, T. 1, R. 17.

9-2-52 9-9-52 8-6-52

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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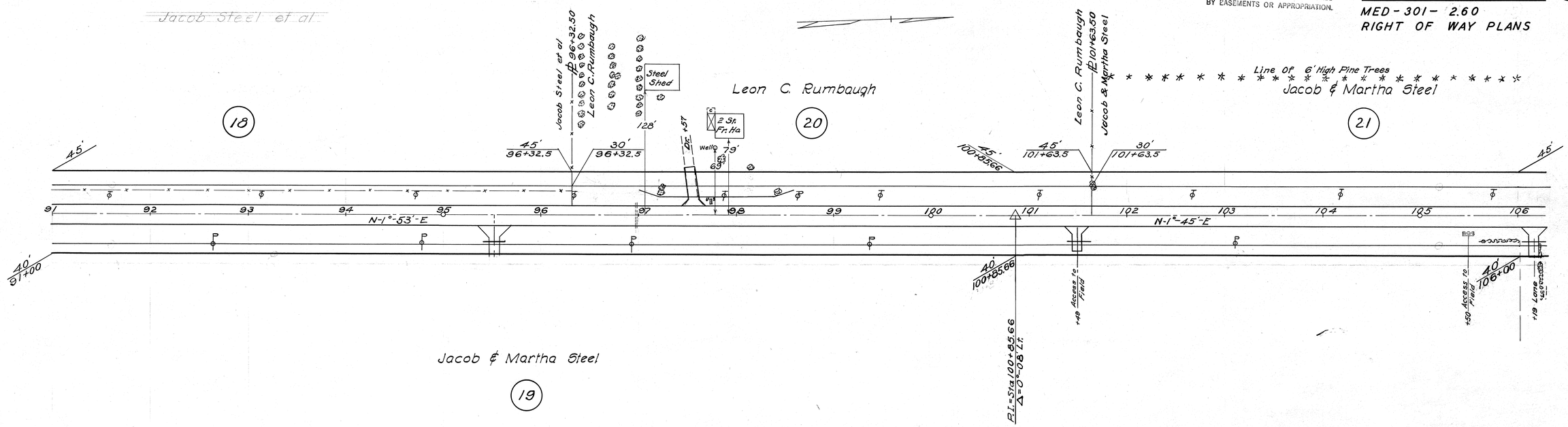
R/W SHOWN ON THIS PLAN SECURED BY EASEMENTS OR APPROPRIATION.

MED-301- 2.60
RIGHT OF WAY PLANS



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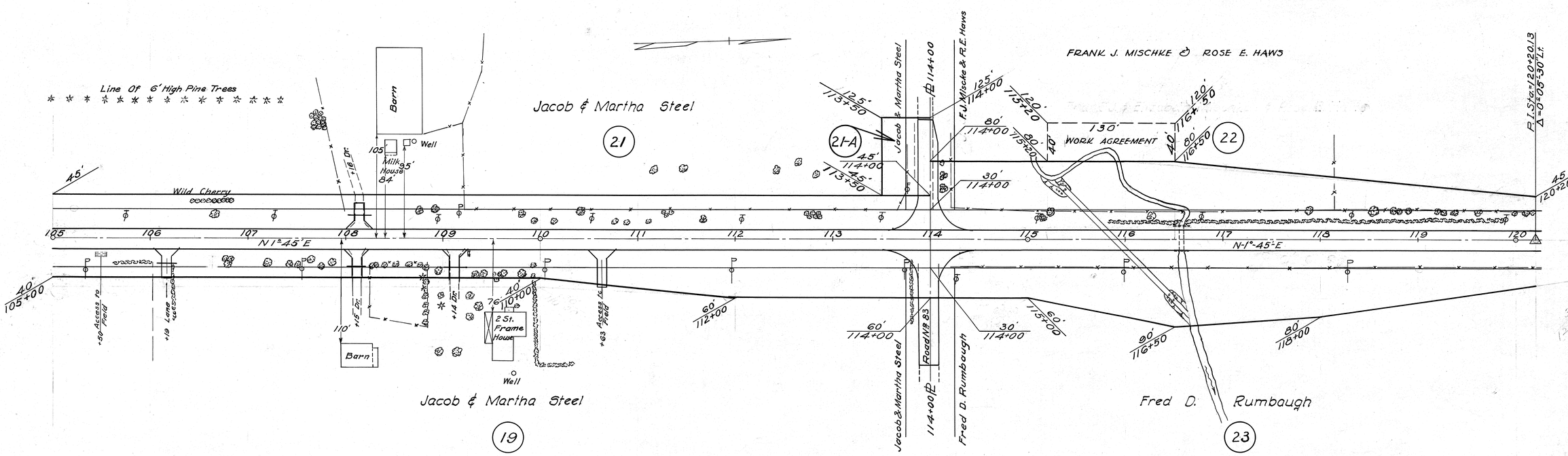

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HOMER TOWNSHIP SEC. 23, T. 1, R. 17.

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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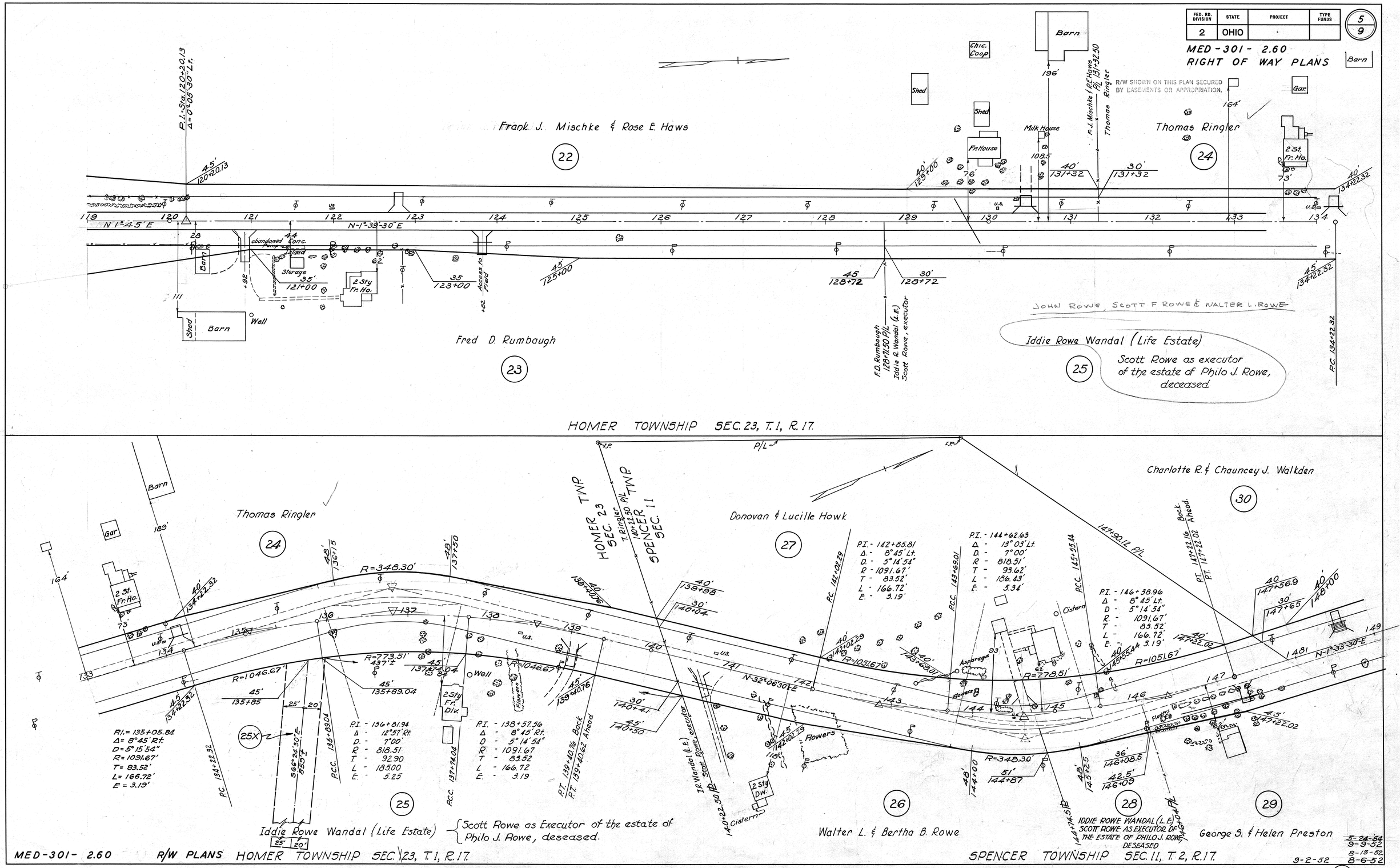
MED-301-2.60
RIGHT OF WAY PLANS

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



HOMER TOWNSHIP SEC. 23, T. 1, R. 17.

MED-301-2.60 R/W PLANS HOMER TOWNSHIP SEC. 23, T. 1, R. 17. SPENCER TOWNSHIP SEC. 11, T. 2, R. 17.

9-2-52 5-24-54 9-3-52 8-13-52 8-6-52

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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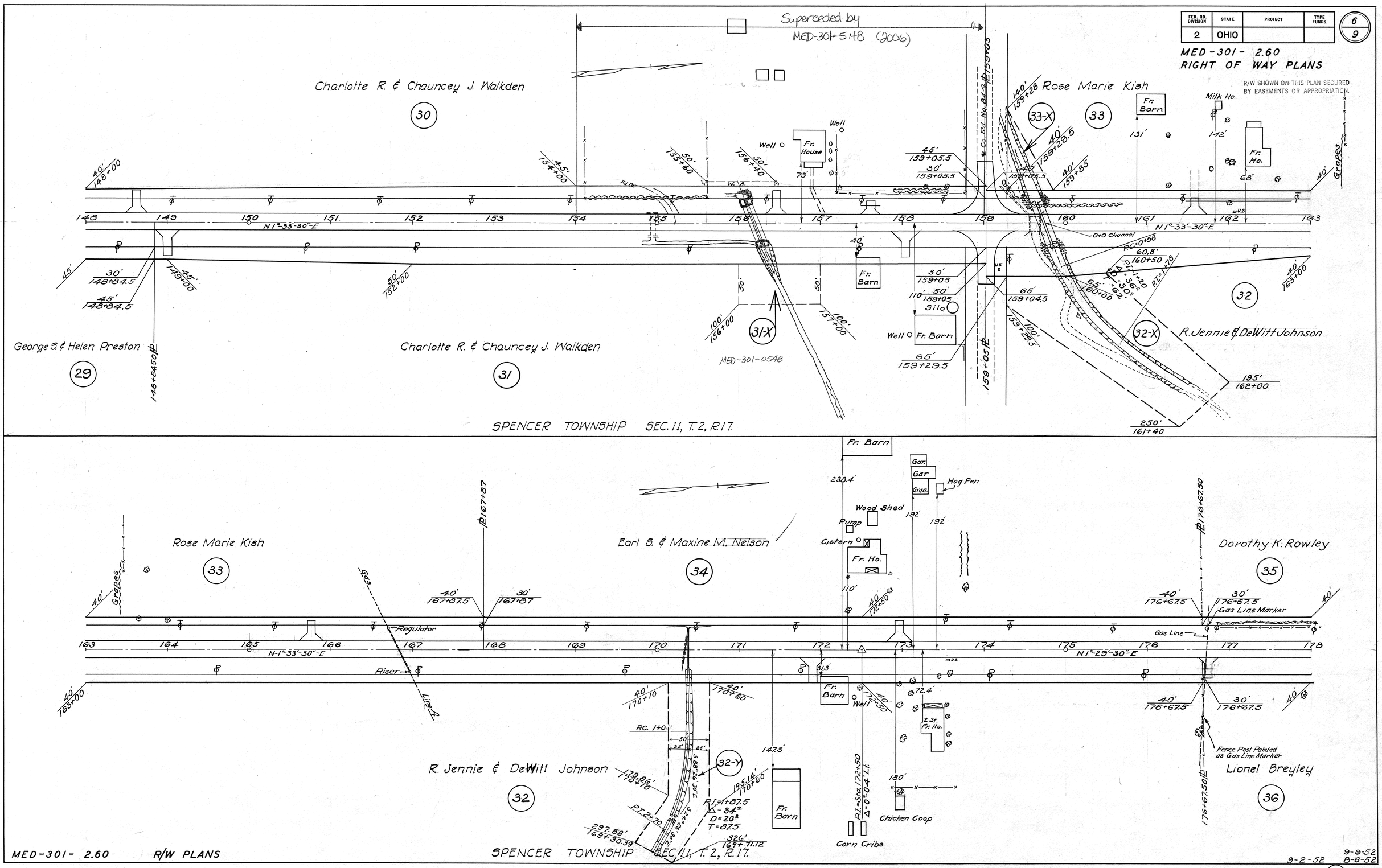
MED-301- 2.60
RIGHT OF WAY PLANS

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



MED-301- 2.60 R/W PLANS

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9-2-52
8-6-52

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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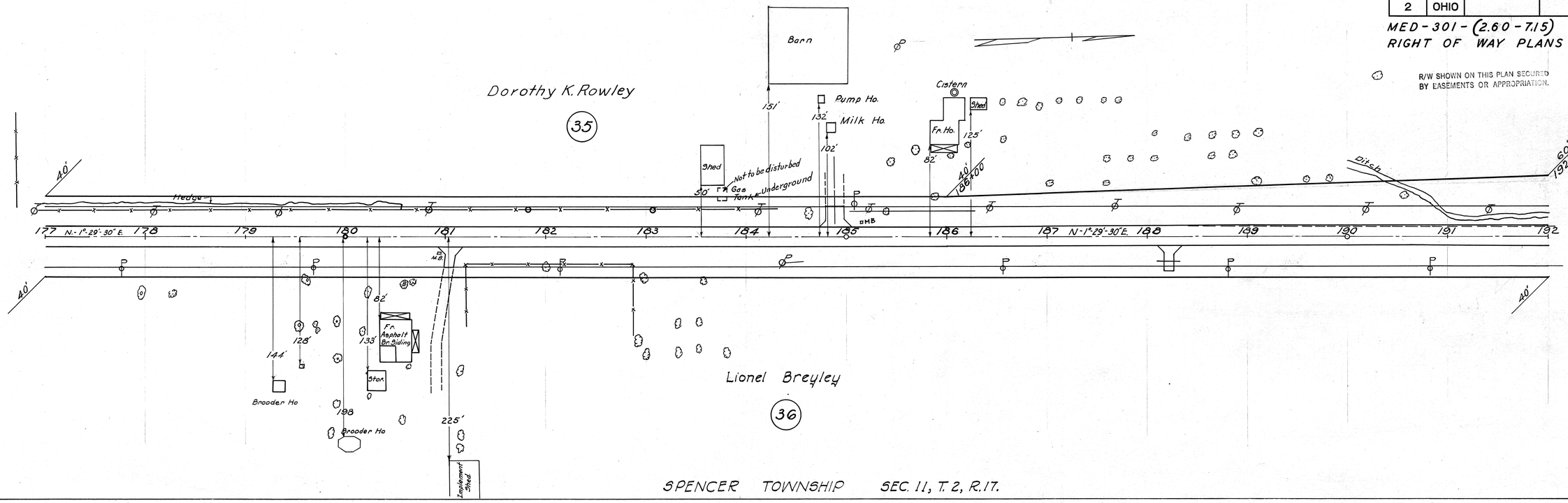
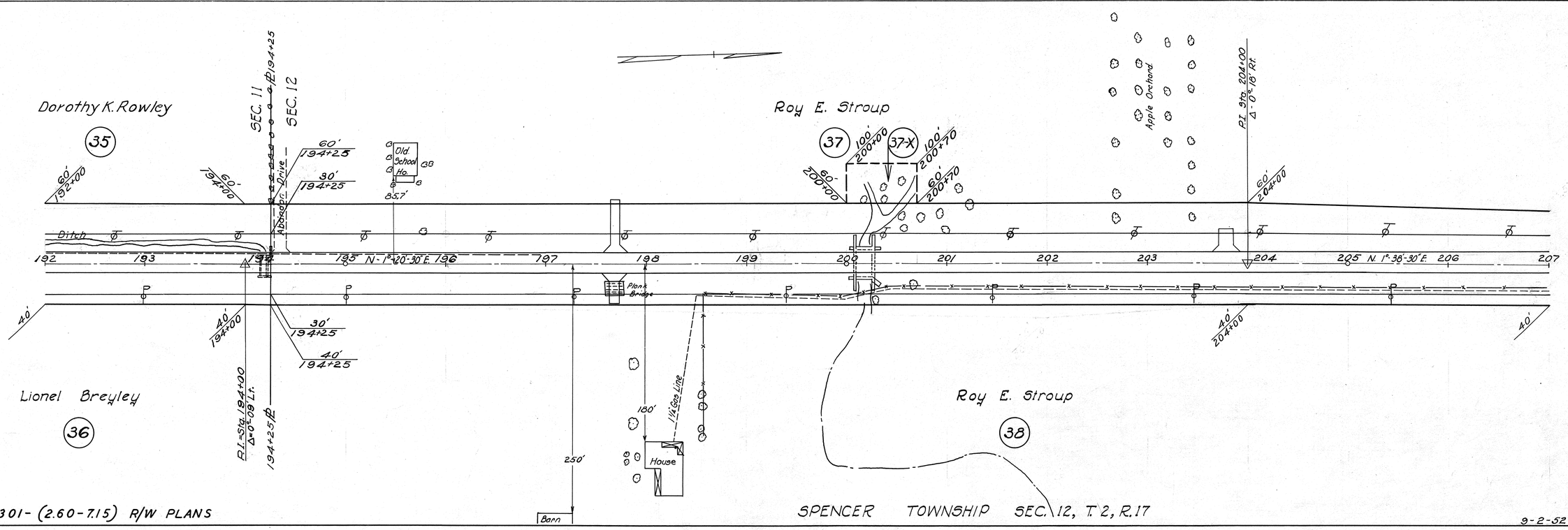
MED-301-(2.60-7.15)
RIGHT OF WAY PLANS

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





MED-301-(2.60-7.15) R/W PLANS

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9-2-52 8-6-52

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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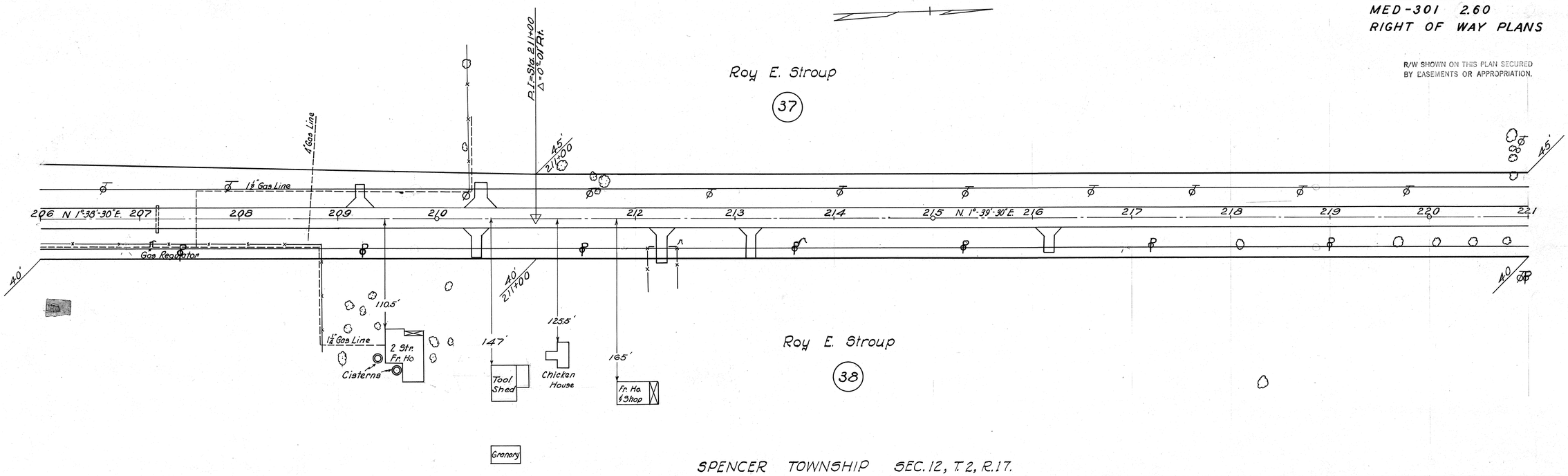
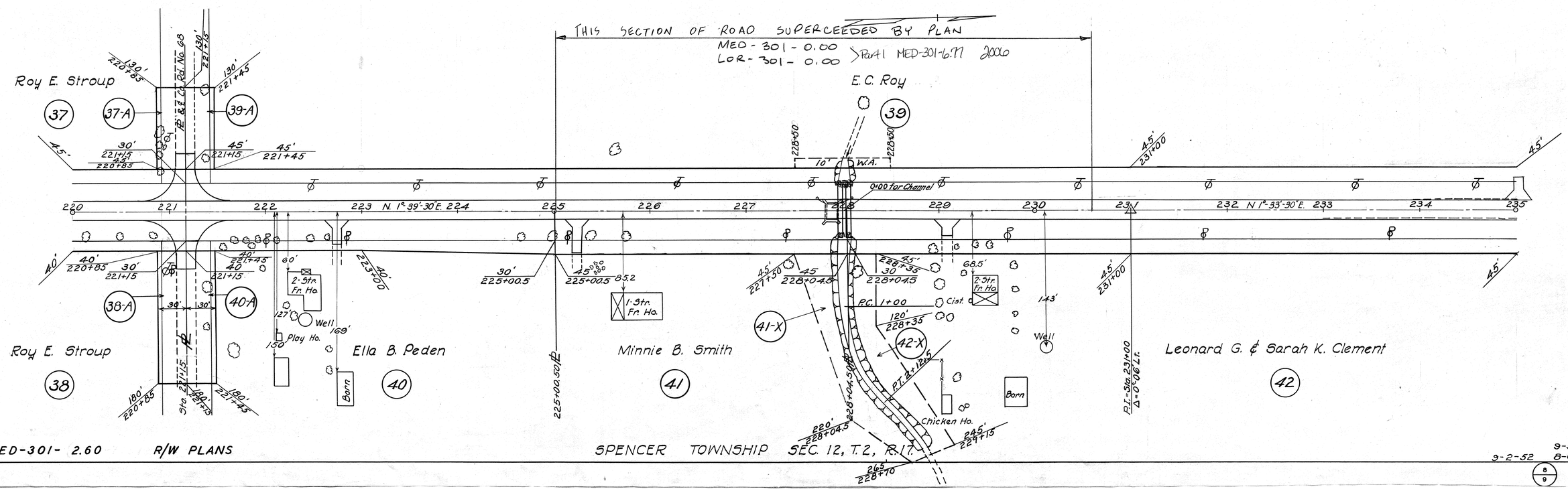
MED-301 2.60
RIGHT OF WAY PLANS

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



SPENCER TOWNSHIP SEC. 12, T. 2, R. 17.



MED-301- 2.60 R/W PLANS

SPENCER TOWNSHIP SEC. 12, T. 2, R. 17.

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9-2-52 8-6-52

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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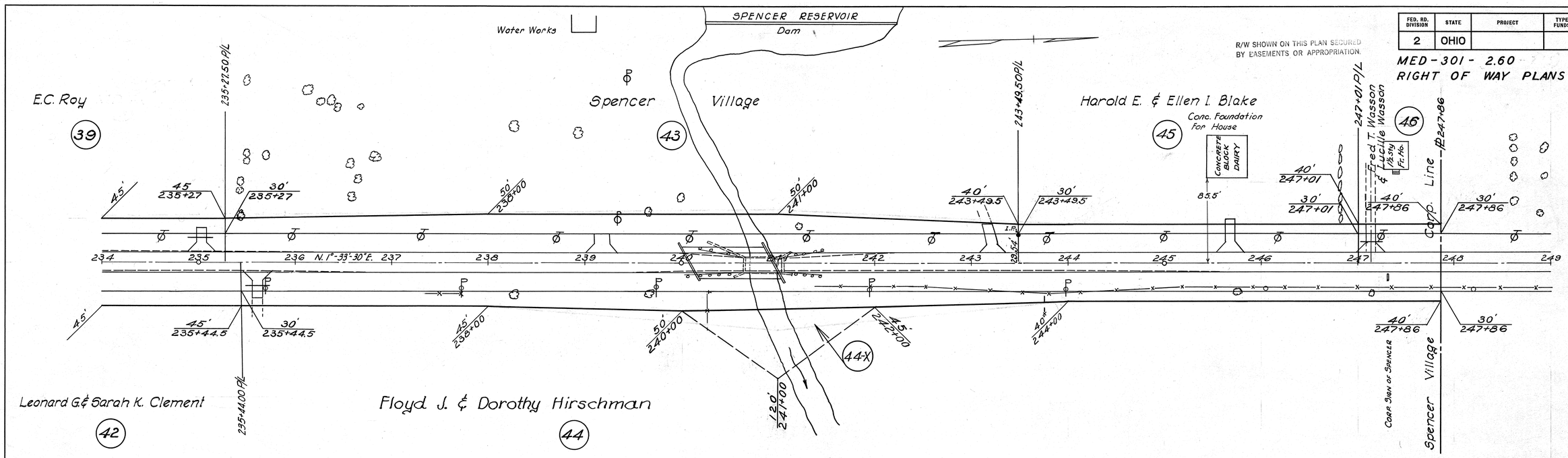
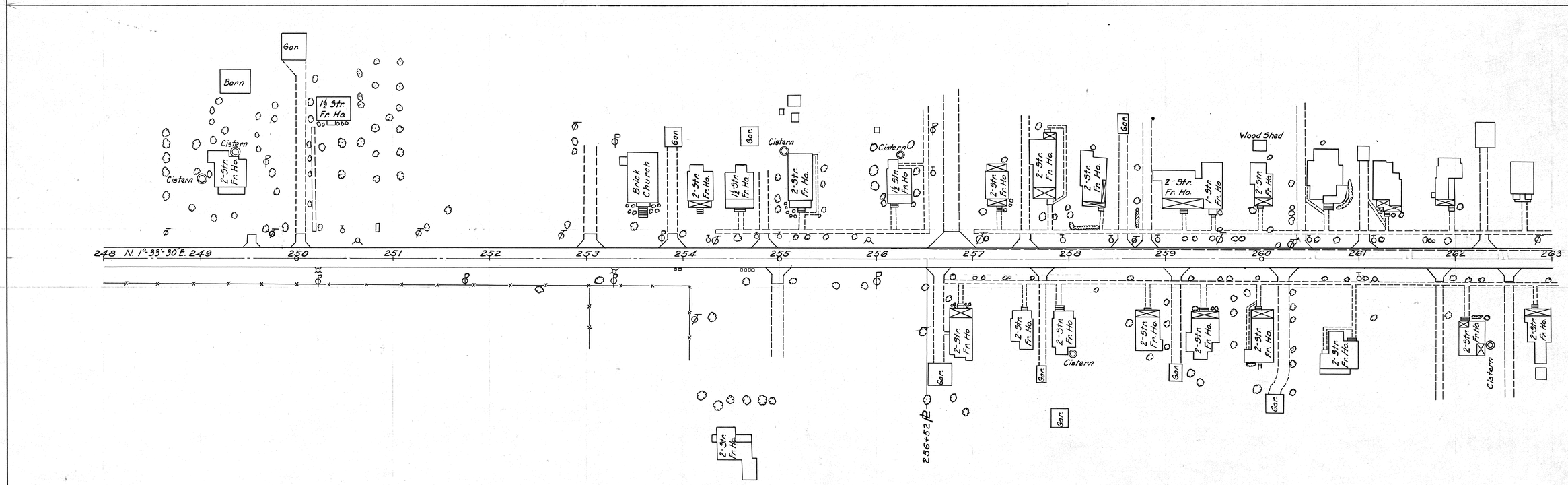
R/W SHOWN ON THIS PLAN SECURED BY EASEMENTS OR APPROPRIATION.

MED-301-2.60
RIGHT OF WAY PLANS



SPENCER TOWNSHIP SEC. 12, T. 2, R. 17.



MED-301-2.60 R/W PLANS

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9-2-52

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