

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
YOUNGSTOWN-CONNEAUT ROAD
S.H. - NO.13 SEC.-E-D
ASHTABULA COUNTY
PIERPONT TOWNSHIP

FED. RD. DIST. NO.	STATE	PROJECT	FISCAL YEAR
10	OHIO		1938

ASHTABULA COUNTY
S.H. NO. 13 SEC. E-D

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY TO TRAFFIC.

THE RIGHT OF WAY NECESSARY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO

APPROVED Richard Sperry
DATE 5-28-38 RESIDENT DISTRICT DEPUTY DIRECTOR

APPROVED Arthur C. Lawrence
DATE 6-1-38 RESIDENT DIVISION DEPUTY DIRECTOR

APPROVED W. V. Whitman P.E. 453
DATE 8/1/38 CHIEF ENGINEER LOCATION & DESIGN

APPROVED _____
DATE _____ CHIEF ENGINEER BUREAU OF MAINTENANCE

APPROVED _____
DATE _____ CHIEF ENGINEER BUREAU OF BRIDGES

APPROVED W. V. Whitman
DATE 8-18-38 FIRST ASST. DIRECTOR & CHIEF ENGINEER

APPROVED W. V. Whitman
DATE 8-18-38 DIRECTOR OF HIGHWAYS

RECOMMENDED FOR APPROVAL _____
DATE _____ DISTRICT ENGINEER BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL _____
DATE _____ CHIEF ENGINEER BUREAU OF PUBLIC ROADS

APPROVED _____
DATE _____ CHIEF OF BUREAU

CONVENTIONAL SIGNS

LOT LINE	----
TWR LINE	----
PROPERTY LINE	---+00---
CENTER LINE	○-----○
FENCE	X-----X
DRAIN PIPE OLD	----
DRAIN PIPE NEW	----
INLETS	⊗⊗⊗⊗⊗
TREES	⊗⊗⊗⊗⊗
STUMPS	⊗⊗⊗⊗⊗
GASOLINE PUMPS	⊕⊕⊕⊕⊕
TEL. OR ELECT. POLES	⊖⊖⊖⊖⊖
SIDEWALK	----

INDEX OF SHEETS

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LINE DATA

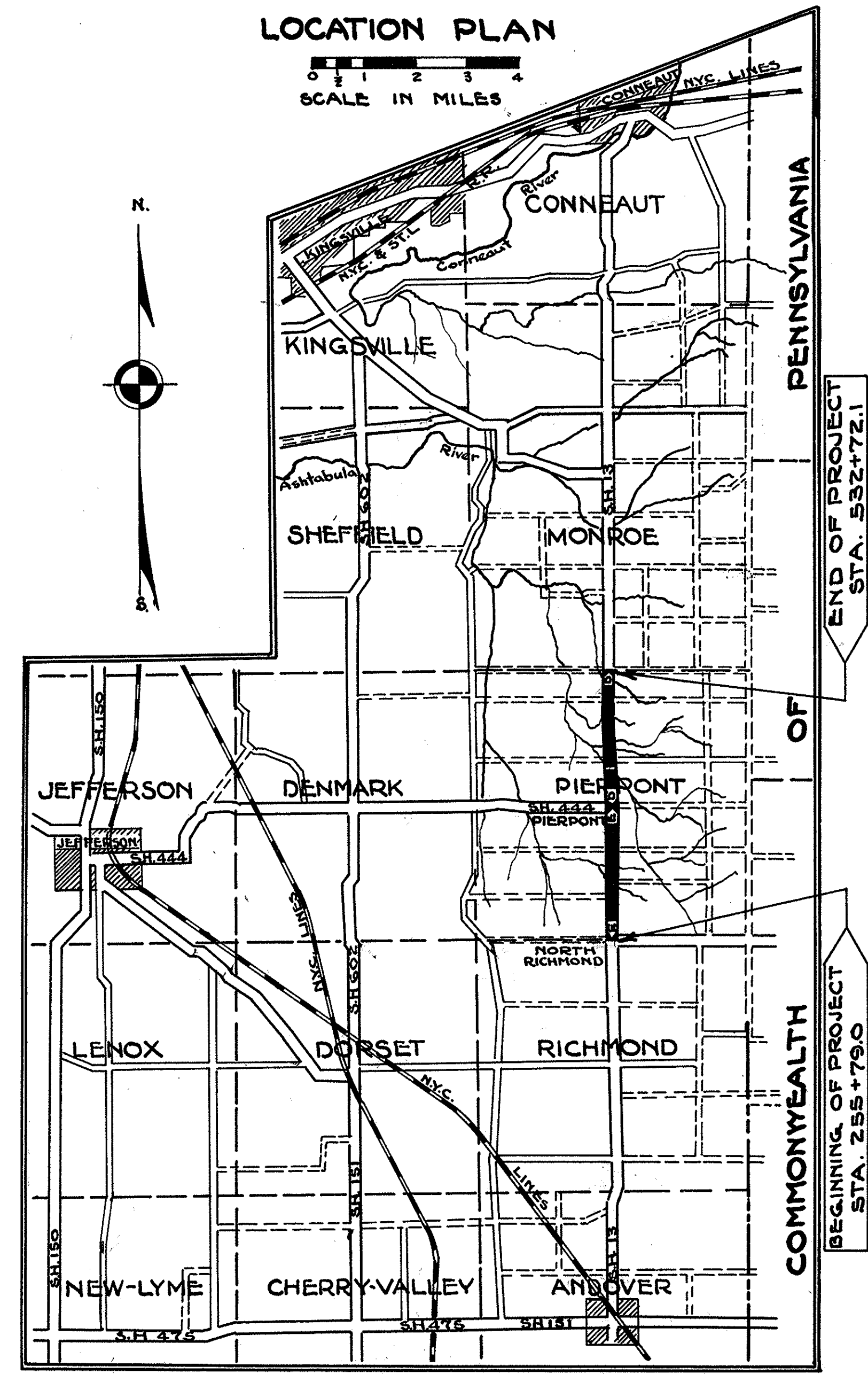
BEGINNING OF PROJECT STA.	255+79.0
END OF PROJECT STA.	532+72.1
GROSS LENGTH	276 93.1
ADD FOR LONG STATION	19.3
	277 12.4
DEDUCT FOR BRIDGE	68.0
NET LENGTH LIN. FT.	= 276 44.4
NET LENGTH MILES	= 5.235

SCALES

PLAN	1" = 100'
PROFILE VERTICAL	1" = 10'
PROFILE HORIZONTAL	1" = 100'
CROSS SECTIONS	1" = 5'

STANDARD SPECIFICATIONS CHANGES ADOPTED JUNE 7, 1938
Section G-6.05
Section E-1.11
SUPPLEMENTAL SPECIFICATIONS NONE

NET LENGTH OF PROJECT 27644.4 LIN. FT. OR 5.235 MI.



DELIVERY POINTS AND AVERAGE LENGTH OF HAUL } ANDOVER 9 3/4 MI. DORSET 10 1/2 MI. JEFFERSON 11 MI.

PORTION TO BE IMPROVED
STATE HIGHWAYS
DETOURS

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
Drwg. No.	Date	Drwg. No.	Date	Drwg. No.	Date	Drwg. No.	Date
E-5	7-12-35	I-8 C.B. No. 2	2-11-36	I-8 L. Nol	1-1-36	S-27-PC.3	1-1-36
I-1,2,3,4,5	1-1-36	I-8 C.B. No. 7	6-10-36	S-27-PC.2	4-20-36	J-27-PC.1	4-1-36
JB-35	4-25-35	SBC-34	4-21-34	JTC-34	4-21-34	G-7.07	10-1933

CONSTRUCTION BUREAU
SEP 16 1955
GROUND PHOTOLAB

FILE ASHTABULA COUNTY S.H. 13 SEC. E-D
No. DATE OF LETTING
139 CONTRACT NO.

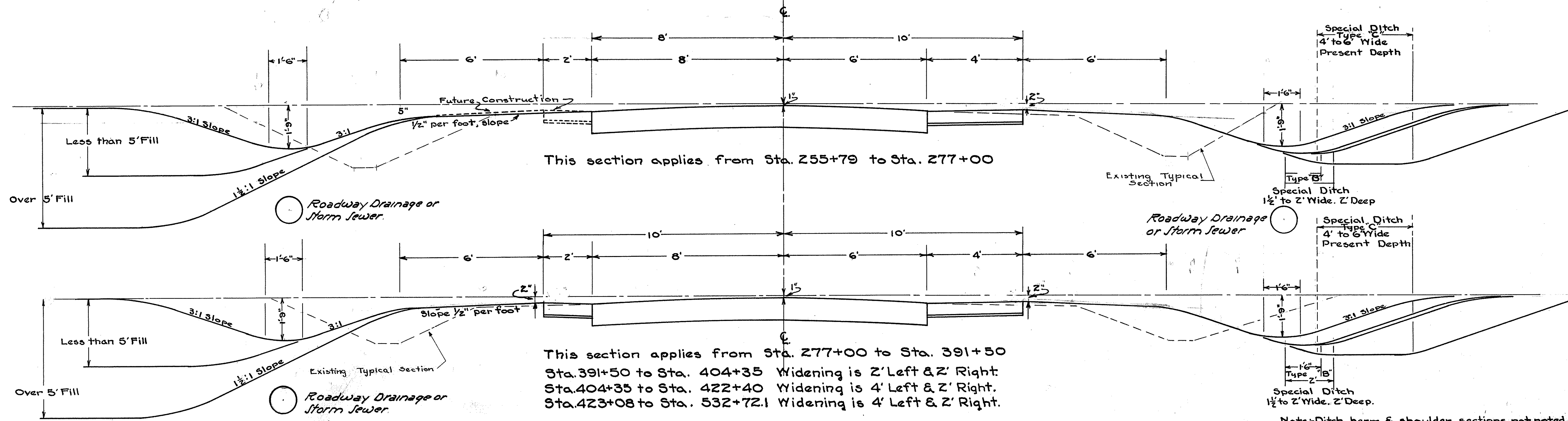
TYPICAL CROSS-SECTIONS

Scale 1" = 2'
FOR ITEM E-1 & E-4 ONLY

FED. RD. DIST. NO.	STATE	PROJECT	FISCAL YEAR
10	OHIO		1938

2
23

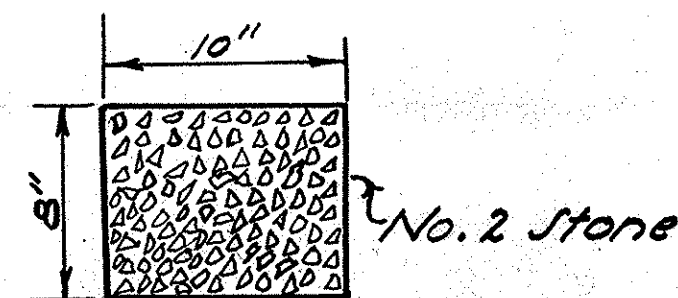
ASHTABULA COUNTY
S.H. 13 SEC. ED



Note: Ditch, berm & shoulder sections not noted below are to be constructed as indicated by the pertinent cross sections

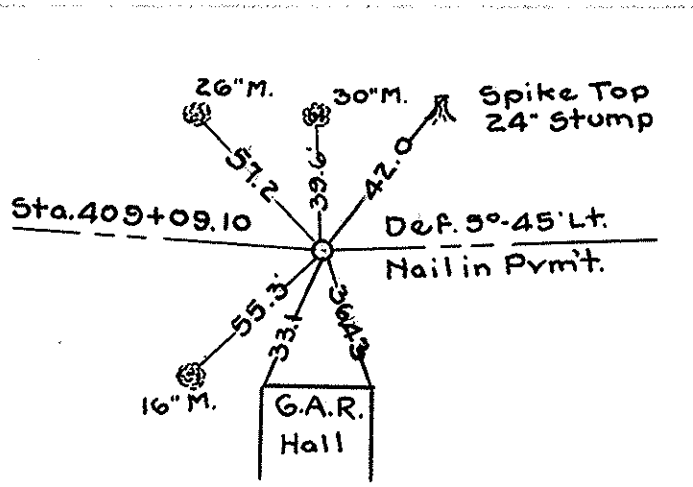
SPECIAL DITCHES					
TYPE "B" DITCH - 1 1/2' or 2' WIDE & 2' DEEP					
TYPE "C" DITCH - 4' or 6' WIDE & PRESENT DEPTH					
Width	Sta. to Sta.	Side	Width	Sta. to Sta.	Side
B 1 1/2	266+00-276+20	Rt.	C 4'	375+75-384+00	Lt.
B 1 1/2	293+00-312+36	Rt.	B 2'	464+73-470+00	Rt.
B 2'	327+00-334+00	Rt.	B 1 1/2	470+00-479+00	Rt.
C 6'	334+00-335+02	Rt.	B 1 1/2	488+00-494+00	Rt.
B 2'	357+00-365+85	Lt.	B 1 1/2	506+00-513+00	Rt.
C 4'	359+70-365+85	Rt.	B 2'	513+00-520+00	Rt.
B 1 1/2	374+00-382+50	Rt.			

NOTE: Watering embankments and density requirements as referred to in section E-1.05 of the Standard Specifications will not be required on this project.

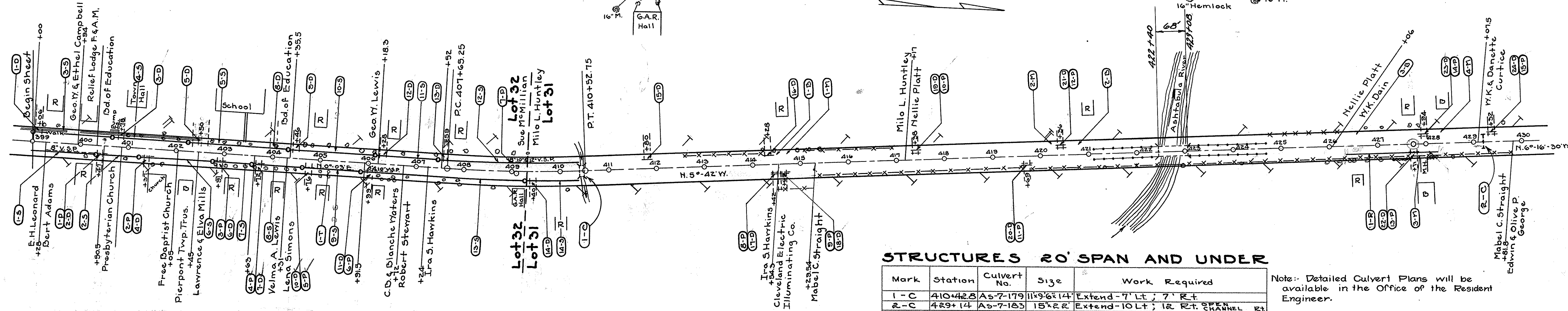
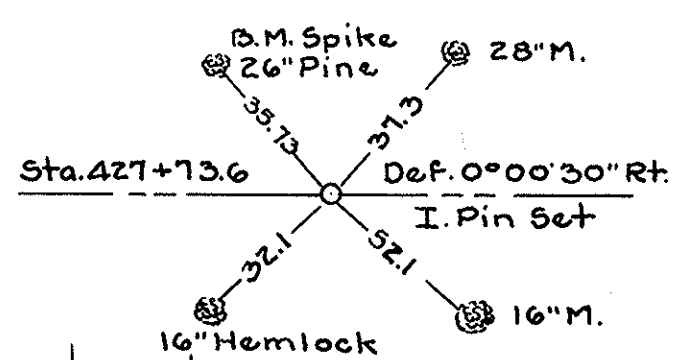
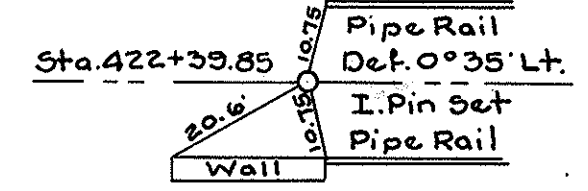


DETAILS OF NO. 2 LOOSE STONE UNDERDRAIN

**ASHTABULA COUNTY
S.H. NO. 13
SEC. E-D**



P.I. 409+09.1
 $\Delta = 5^\circ 45'$
 $D = 2^\circ 00'$
 $E = 3.6'$
 $T = 143.85'$
 $L = 287.50'$
 $P.C. = 407+65.25'$
 $P.T. = 410+52.75'$



STRUCTURES 20' SPAN AND UNDER

Mark	Station	Culvert No.	Size	Work Required
1-C	410+42.8	As-7-179	11x9x14"	Extend-7' Lt.; 7' Rt.
2-C	429+14	As-7-183	15x22"	Extend-10 Lt.; 12 Rt. CHANNEL Rt.

Note: Detailed Culvert Plans will be available in the Office of the Resident Engineer.

I-9 STONE UNDERDRAINS NO. 2 (To be Extended)

Sta.	Side	Extend Lin. Ft.	Sta.	Side	Extend Lin. Ft.
408+50	Lt.	8'	419+30	Lt.	8'
409+70	Lt.		421+60	Lt.	
410+30	Lt.		424+80	Lt.	
+75	Lt.		425+05	Lt.	
411+75	Lt.		+65	Lt.	
412+25	Lt.		426+30	Lt.	
+65	Lt.		427+05	Lt.	
413+10	Lt.		428+05	Lt.	
+75	Lt.		+25	Lt.	
416+10	Lt.		429+08	Lt.	
+70	Lt.		+95	Lt.	
417+85	Lt.				
418+50	Lt.	8'	Total = 192	Lin. Ft.	

STORM SEWERS & ROADWAY DRAINAGE

Side	Mark	Station	12" S. Pipe	18" S. Pipe	24" S. Pipe	30" S. Pipe	36" S. Pipe	Std. No. 1 P.I.	Remarks
LT	1-5	399+00	400+30	130					
RT	2-5	400+32	401+20	168					D.I. 400+31
LT	3-5	399+00	400+62	146					
LT	4-5	400+64	402+20	136					D.I. 400+63
LT	5-5	402+22	404+30	160					D.I. 402+21
LT	6-5	401+22	402+74	132					D.I. 401+21
RT	7-5	402+76	403+56	80					D.I. 402+75
RT	8-5	403+58	404+60	82					D.I. 403+57
RT	9-5	404+62	405+82	100					D.I. 404+61
LT	10-5	404+32	406+12	180					D.I. 404+31
LT	11-5	406+14	407+42	108					D.I. 406+13
LT	12-5	407+44	410+38	274					D.I. 407+43
RT	13-5	405+84	409+24	320					D.I. 405+83
RT	14-5	409+26	410+38	82					D.I. 409+25
RT	1-R	426+35	428+25		170		20	4	
Totals				1976	170	276	20	8	12

PIPE FOR DRIVES AGGREGATE FOR DRIVES & SIDE ROADS

Mark	Sta.	Side	12" Pipe	18" Pipe	24" Pipe	Agg. Cu. Yds.
1-D	399+06	Lt.				2.8
2-D	400+41	Rt.				2.8
3-D	400+78	Lt.				2.8
4-D	401+37	Rt.				2.8
5-D	402+50	Lt.				2.8
6-D	402+91	Rt.				2.8
7-D	403+72	Rt.				2.8
8-D	404+00	Lt.				8.4
9-D	404+46	Lt.				2.8
10-D	404+76	Rt.				2.8
11-D	405+99	Rt.				2.8
12-D	406+28	Lt.				2.8
13-D	407+59	Lt.				2.8
14-D	409+40	Rt.				2.8
15-D	411+80	Lt.	20			2.8
16-D	414+28	Lt.	20			2.8
17-D	414+42	Rt.	20			2.8
18-D	414+65	Rt.	x			2.8
19-D	417+38	Lt.		20		2.8
20-D	419+69	Rt.	20			2.8
21-D	420+36	Lt.			20	2.8
22-D	421+71	Rt.				2.8
23-D	421+94	Lt.	20			2.8
24-D	429+32	Lt.	20			2.8
Totals			100	20	20	78.4

PIPE REMOVED & STORED

Mark	Station	Side	Size	Lin. Ft.
1-P	399+26	400+54	Rt. 8"	128
2-P	401+29	401+45	Rt. 6"	16
3-P	402+84	402+99	Rt. 8"	15
4-P	403+64	403+80	Rt. 8"	16
5-P	404+68	404+85	Rt. 8"	17
6-P	405+91	406+45	Rt. 8x10	54
7-P	408+89	409+37	Lt. 10x12	48
8-P	414+34	414+50	Rt. 8"	16
Totals				432

MAIL BOX APPRS.

Item No.	Station	Lt. of Rt.	Cu. Yds. Appr.
1-B	414+47	Lt.	2.5
2-B	420+75	Lt.	2.5
3-B	426+50	Lt.	2.5
4-B	427+70	Lt.	2.5
Total			10.0

MILK STAND APPR.

Item No.	Station	Rt. of Lt.	Cu. Yds. Appr.
1-M	414+75	Lt.	2.5
2-M	420+15	Lt.	2.5
3-M	427+90	Rt.	2.5
4-M	428+20	Lt.	2.5
Total			10.0

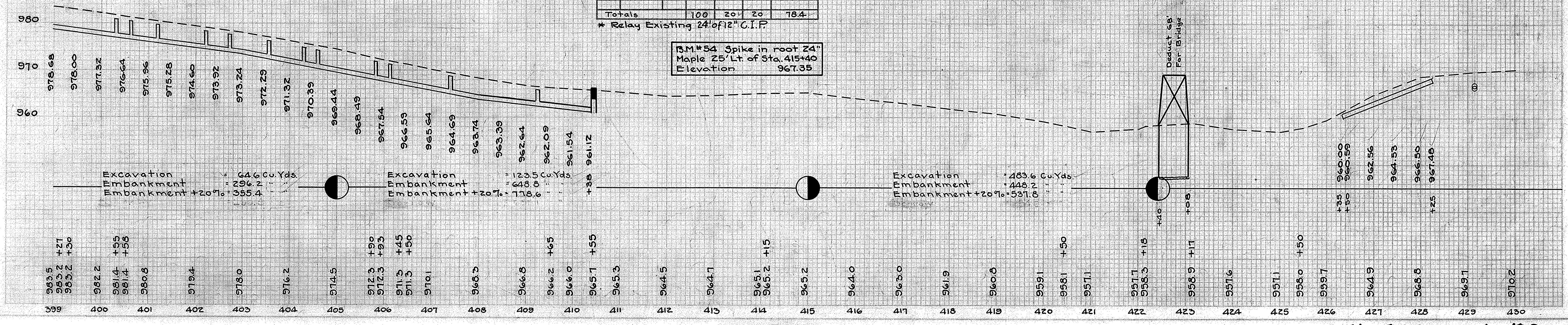
TREES & STUMPS TO BE REMOVED

Mark	Station	Side	Dist. Out.	Size	Tree or Stump
1-T	405+17	Rt.	21'	16"	Stump.

B.M. #52 X on S.W. Cor. Stepping Stone to Church 45' Rt. of Sta. 401+45
Elevation 980.46

B.M. #53 Spike in top 27" Stump 35' Left of Sta. 409+27
Elevation 968.21

B.M. #54 Spike in root 24" Maple 25' Lt. of Sta. 415+40
Elevation 967.35



ASHTABULA COUNTY
S.H. NO. 13 SEC. E-D
DETAIL OF DRIVES & SIDE ROADS

587

STRUCTURES 20' SPAN AND UNDER

Mark	Station	Culvert No.	Size	Work Required
1-C	528+78.4	As 7-202	10'x8'x4'	Extend Present Culvert 4'-0" on Left.

Note: Detailed Culvert Plans will be available in the Office of the Resident Engineer.

PIPE REMOVED & STORED

Mark	Station	Side	Size	Lin. Ft.
1-P	523+02	525+72	Rt. 15'x8'10"	270
2-P	529+33	529+49	Rt. 10'	16
Total Lin. Ft.				286'

PIPE FOR DRIVES

Mark	Station	Side	12" Pipe Lin. Ft.	Agg. Cu. Yds.
1-D	529+41	Rt.		2.8
2-D	532+42	Lt.	20'	2.8
3-D	532+72.1	Lt.		6.5
4-D	532+72.1	Rt.		6.5
Total.			20	18.6

AGGREGATE FOR DRIVES & SIDE ROADS

Mark	Station	Side	12" Pipe Lin. Ft.	Agg. Cu. Yds.
1-B	531+90	Lt.	2.5	
Total			2.5	

MILK STAND APPRS.

Item No.	Station	Rt. or Lt.	Agg. Cu. Yds.
1-M	532+20	Lt.	2.5
Total			2.5

MAIL BOX APPRS.

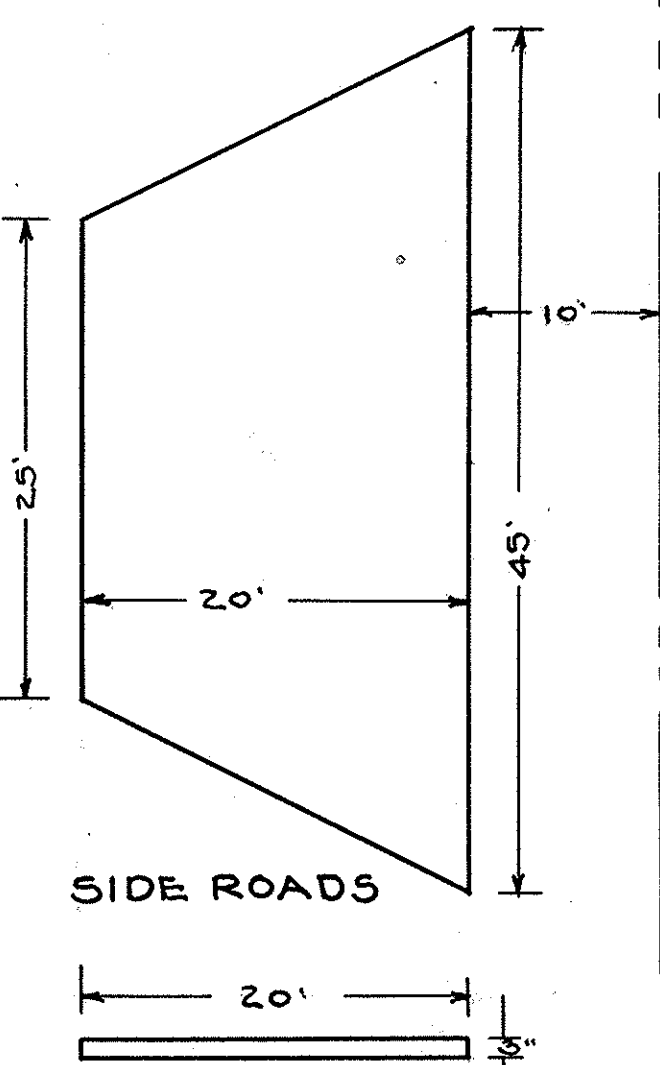
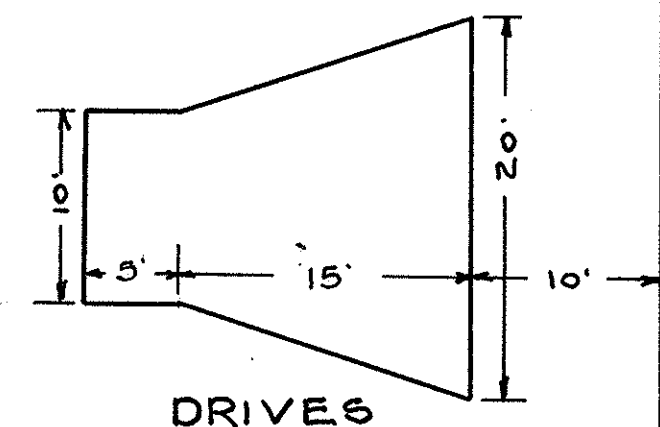
Item No.	Station	Rt. or Lt.	Agg. Cu. Yds.
1-B	531+90	Lt.	2.5
Total			2.5

ROADWAY DRAINAGE

Mark	Station		Side	Pipe - Lin. Ft.				18" #1-2 Catch Basin	12" Pipe Under Drives	Riprap Sq. Yds.
	From	To		12"	15"	18"	24"			
1-R	523+00	526+50	Rt.				350		2	
2-R	528+86	532+55	Rt.	364				1	20	
Totals				364			350		20	

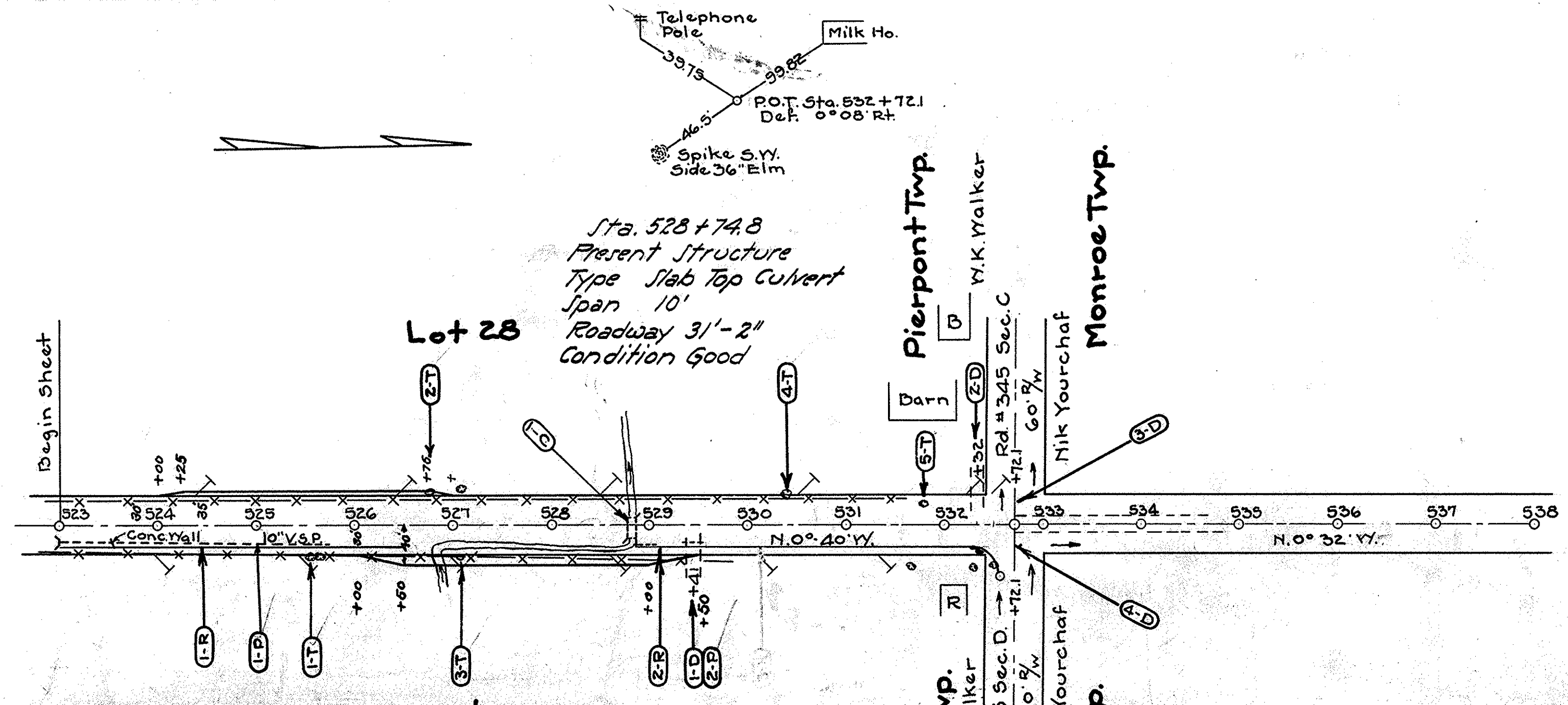
SUMMARY OF EXCAVATION & EMBANKMENT

Station From	Station To	Excavation	Embankment	Embankment +20%	Borrow	Waste
255+79	265+00	191.8	536.2	643.4		
265+00	275+00	227.8	662.0	794.4		
275+00	285+00	174.3	707.5	849.0		
285+00	295+00	398.0	624.5	749.4		
295+00	305+00	689.8	579.5	695.4		
305+00	315+00	626.2	688.4	826.1		
315+00	325+00	544.6	465.8	559.0		
325+00	335+00	626.2	629.8	755.7		
335+00	345+00	235.2	838.9	1006.7		
345+00	357+00	476.4	419.1	502.9		
357+00	375+00	749.9	1123.6	1348.3		
375+00	383+00	459.3	638.9	766.7		
383+00	394+00	306.7	295.7	354.8		
394+00	405+00	64.6	296.2	355.4		
405+00	415+00	123.5	648.8	778.6		
415+00	422+40	483.6	448.2	537.8		
422+40	434+00	448.5	679.6	815.5		
434+00	444+00	365.9	416.3	499.6		
444+00	455+00	675.1	602.1	722.5		
455+00	466+00	683.4	485.8	589.0		
466+00	477+00	407.3	631.1	757.3		
477+00	487+00	431.3	482.8	579.4		
487+00	497+00	408.7	689.1	826.9		
497+00	507+00	373.9	445.9	535.1		
507+00	517+00	277.7	719.5	863.4		
517+00	527+00	824.5	480.1	576.1		
527+00	532+72.1	195.9	313.0	375.6		
Total		11110.4	15548.4	18658.0		



SECTION

EMBANKMENT +20% = 18,658.0 CUYDS.
 EXCAVATION = 11,110.4 " "
 NET TOTAL BORROW = 7,547.6 " "



19 STONE UNDER DRAINS NO. 2 TO BE EXTENDED

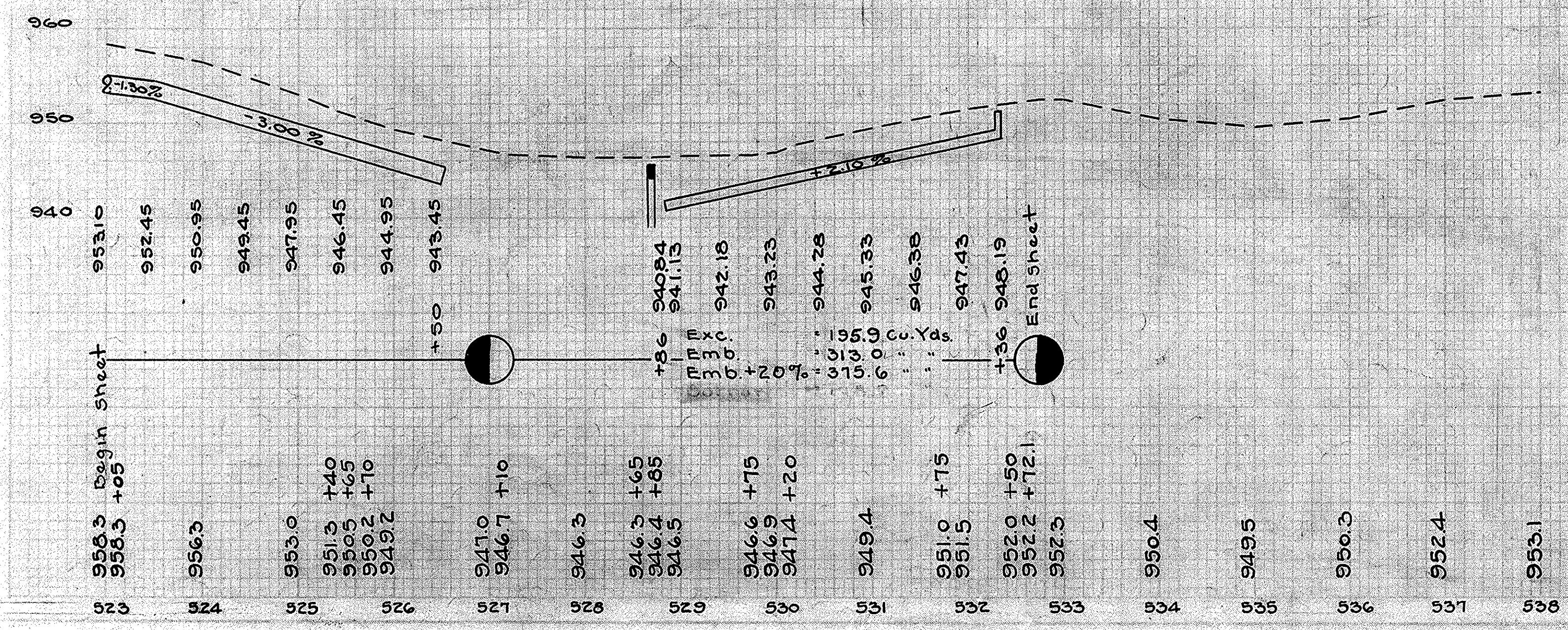
Station	Side	Lin. Ft.	Station	Side	Lin. Ft.
524+00	Lt.	8'	528+60	Lt.	8'
524+60	Lt.		529+20	Lt.	
526+20	Lt.		529+35	Lt.	
526+60	Lt.		529+50	Lt.	
527+10	Lt.		529+75	Lt.	
527+70	Lt.		530+10	Lt.	
527+90	Lt.		530+30	Lt.	
528+20	Lt.		531+75	Lt.	8'
528+80	Lt.	8'			
Total Lin. Ft.		136			

TREES & STUMPS TO BE REMOVED

Mark	Station	Side	Dist. Out.	Size	Tree or Stump
1-T	525+54	Rt.	27'	9"	Tree
2-T	526+73	Lt.	30'	7"	Tree
3-T	527+05	Rt.	30'	26"	Stump
4-T	530+35	Lt.	26'	26"	Tree
5-T	531+74	Lt.	19'	27"	Tree
Total 1 Stump 4 Trees.					

B.M. #69 X on West end S.E. Wing Culvert 15' Right of Sta. 528+73 Elevation 945.39

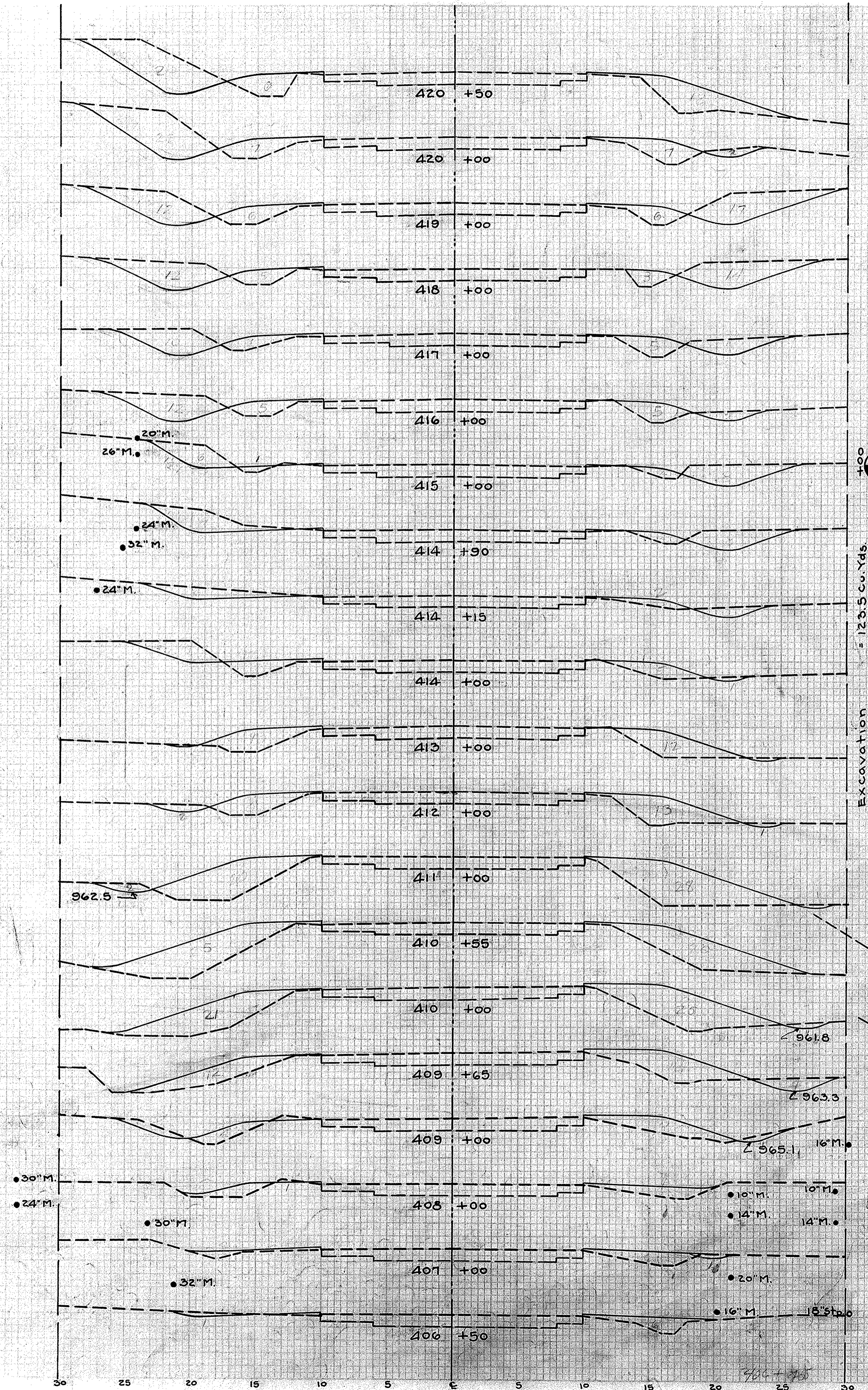
B.M. #70 X on S. End W. Headwall 14' Left of Station 535+40 Elevation 948.71



Excavation Summary Embankment Sta. 523+00 to 532+72.1

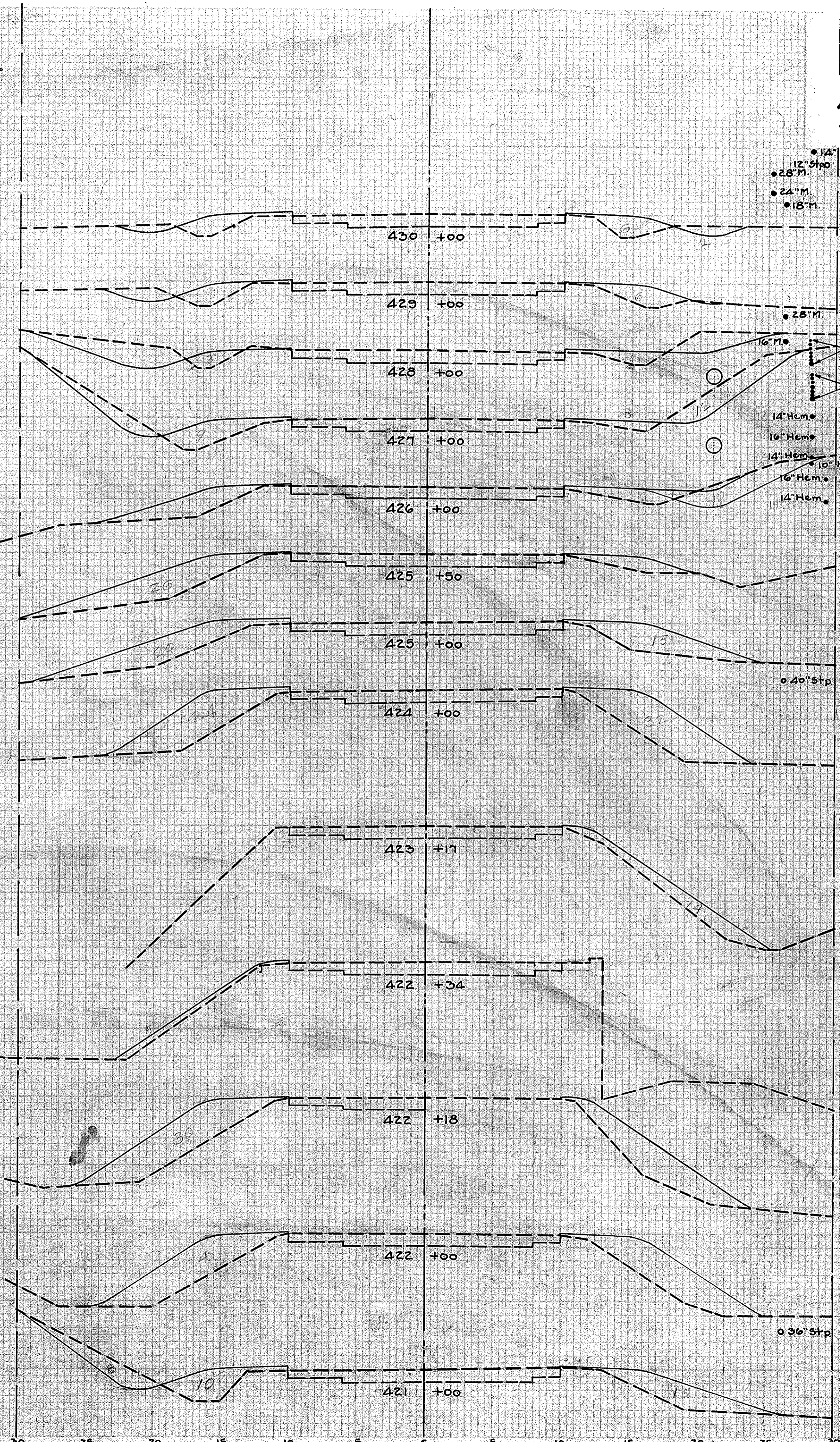
ASHTABULA COUNTY
S.H. NO. 13 SEC. E-D

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Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
23	24			
		41.2	35.2	
		4.0	1.0	+3% Dr.
26	14			
			1.0	+6% Dr.
		105.0	48.2	
29	12			
		101.8	37.0	
26	8			
		15.9	31.5	
		2.0	2.0	+3% Dr.
15	9			
		53.7	35.2	
14	10			
		51.9	24.1	
14	3			
		5.7	2.0	+5% Dr.
17	2			
		36.2	5.6	+2% Dr.
9	2			
		3.0	3.0	
8	9			
		4.7	3.1	
8	9			
		16.7	51.4	
1	22			
		7.4	19.6	
3	21			
		6.0	6.0	+8% Dr.
3	48			
		11.1	127.8	
0	45			
		2.5	77.5	
0	45			
		0	84	
0	46			
		1.3	61.3	
1	46			
		3.3	26.7	
4	26			
		8.5	46.9	
3	13			
		6.0	6.0	+4% Dr.
3	13			
		7.4	42.6	
1	10			
		3.0	3.0	+5% Dr.
1	9			
		3.7	35.2	
1	9			
		1.9	14.0	
1	6			
		0.6	0.7	

Excavation = 123.5 Cu. Yds.
Embankment = 648.8
Embankment + 20% = 778.6



Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
4	11			
			14.8	40.7
				2.0
4	11			
			38.9	33.3
17	7			
			10.0	2.0
			64.8	35.2
18	12			
			22.9	37.3
11	18			
			14.2	23.3
11	18			
			10.2	46.3
0	32			
			0	62.1
0	35			
			0	168.5
0	56			
			0	107.6
0	14			
			0	4.7
0	14			
			0	4.7
0	5			
			0	1.1
0	5			
			0	17.5
0	54			
			0	33.9
0	48			
			14.8	35.2
8	25			
			28.1	45.3

Excavation = 448.5 Cu. Yds.
Embankment = 679.6
Embankment + 20% = 815.5

Excavation = 483.6 Cu. Yds.
Embankment = 448.2
Embankment + 20% = 537.8

