STATE OF OHIO

DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS

DIVISION OF HIGHWAYS

BUREAU OF CONSTRUCTION

DELAWARE — MARYSVILLE ROAD

I.C.H. No. 238 SEC. C. AND MARYSVILLE
PET. No. 4979

UNION COUNTY

PARIS TOWNSHIP
DOVER TOWNSHIP

MARCH 1924

File F-3

I.C.H. No. 238 SEC. C. AND MARYSVILLE
UNION COUNTY

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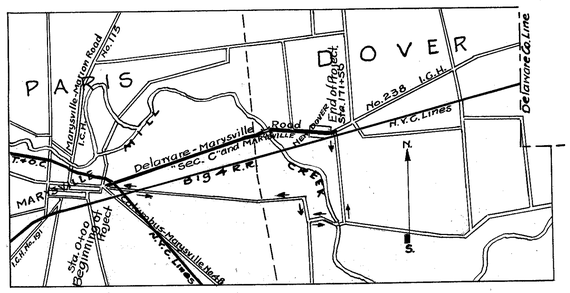
CONVENTIONAL SIGNS

State line	
County line	
Township line	
Section line	
Property line not fenced	
Center line	
City or Village line	
Fence	
Telephone or Light	T T T T
Steam Railroad	



LOCATION PLAN

SCALE OF MILES

PORTION TO BE IMPROVED

DETOURS SHOWN THUS

SCALES

PLAN	1" = 100'
PROFILE (vertical)	1" = 10'
PROFILE (Horizontal)	1" = 100'
CROSS SECTIONS	1" = 5'

The Standard Specifications of the State of Ohio Division of Highways in force on date of contract will govern this improvement.

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 shown on the plan and estimates.

Approved. Alvi Graham
Date. 4-14-24 Resident Engineer.

Approved. G. C. Snyder
Date. 4-15-24 Division Engineer.

Approved. G. F. Ahlesinger
Date. 4-15-24 State Highway Engineer.

Approved. L. A. Boulay
Date 4-15-24 Director of Highways and Public Works.

CONSTRUCTION BUREAU
MAY 17 1956
GROUND PHOTOLAB

We, the Commissioners of Union County, hereby approve these plans and certify that the right of way 60 ft. wide is available for the construction, maintenance, and repair of the above highway

L. O. Maper

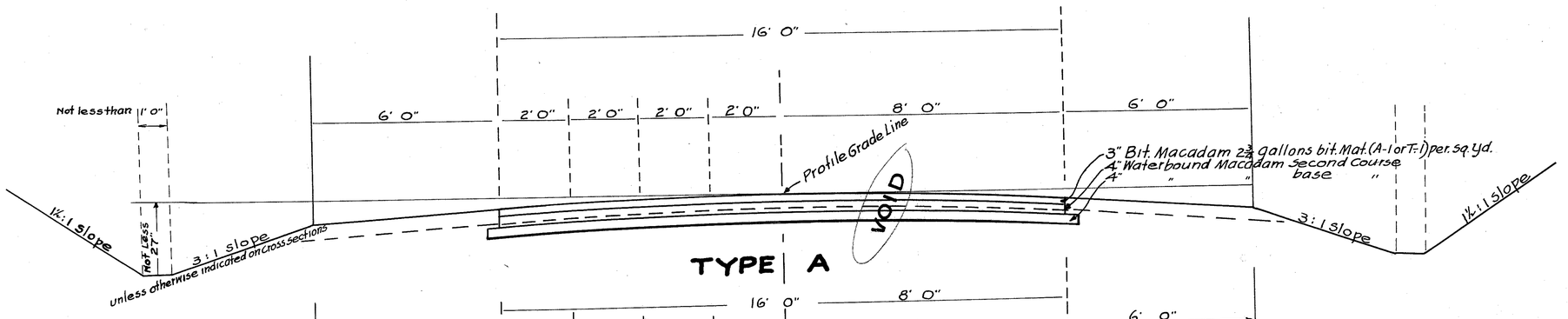
M. M. Cameron

W. M. Staley

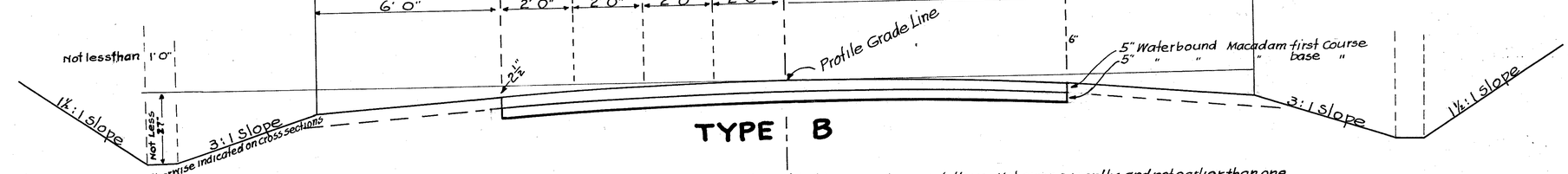
DATE. 4-14-24 COUNTY COMMISSIONERS.

I.C.H. 238 SEC. C. & MARYSVILLE
UNION COUNTY

TYPICAL SECTIONS



TYPE A



TYPE B

NOTE : The Bituminous surface treatment for Type B shall consist of two operations as follows : Not over 3 months and not earlier than one month after the top course is under travel it shall be given an application of Bit. Mat. C.T. (Sec. 5.14) according to Item T-18 at the rate of ¼ gallon per square yard, no covering material being used. If conditions will not permit the completion of this operation before May 1st it shall be postponed until after May 1st of the next year. As soon as the treatment above described is dry, except as hereinafter noted, but not earlier than one week after its application, the surface shall be given a treatment of Bit. Mat. H.O. (Sec. 5.3) according to Item T-18 at the rate of ½ gallon per square yard. Covering material shall be #4 stone chips, applied uniformly at the rate of 88# per gallon H.O. If this operation cannot be completed before October 1st it shall be postponed until June 1st of the next year. Within 24 hours after the application of covering the surface shall be finished by lightly rolling with a roller weighing not less than five tons.

Note : Rough grading will be completed to the cross sections indicated by dash lines. Pavement trench will be excavated and shoulders built immediately preceding placing of pavement.

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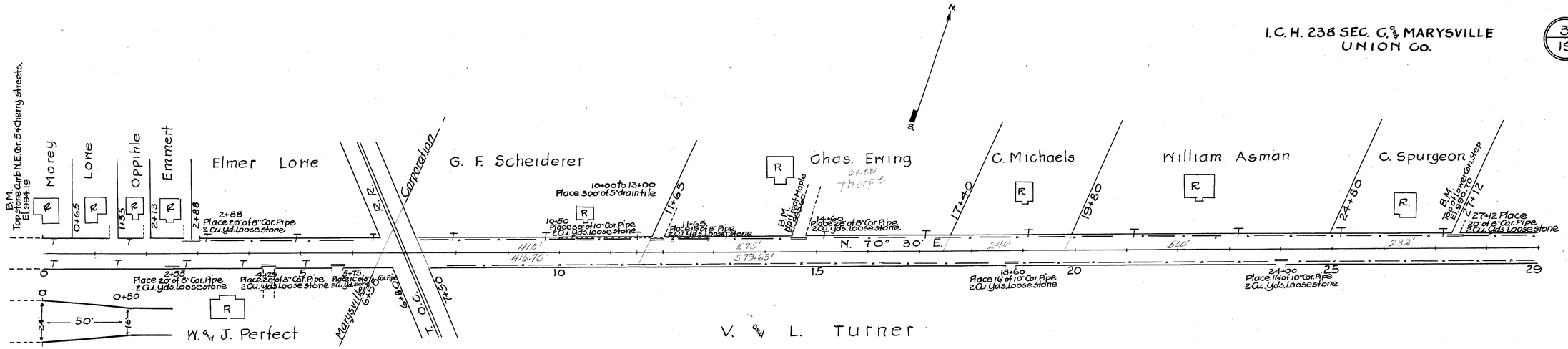
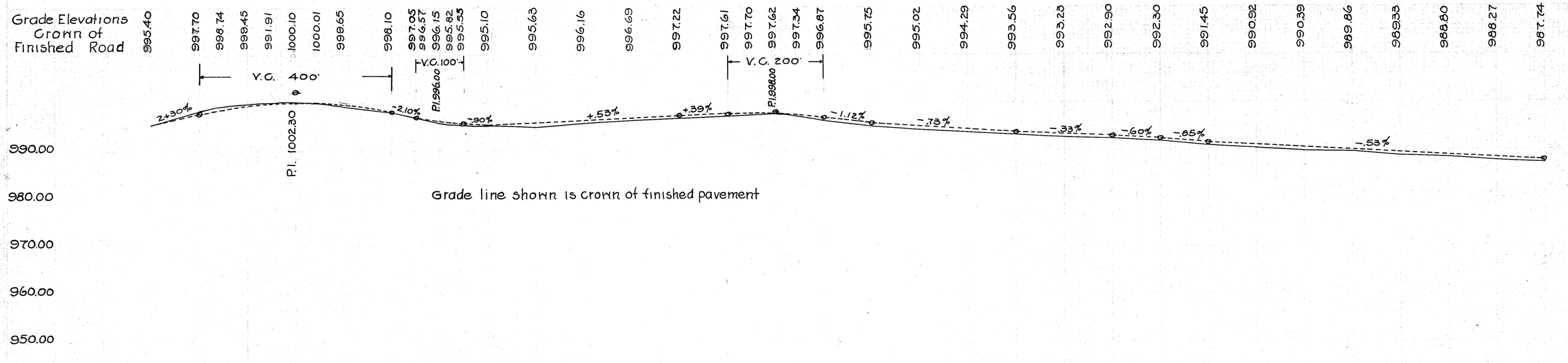


Detail of junction with pavement.
Extra Pavement 22.2 Sq. Yds.



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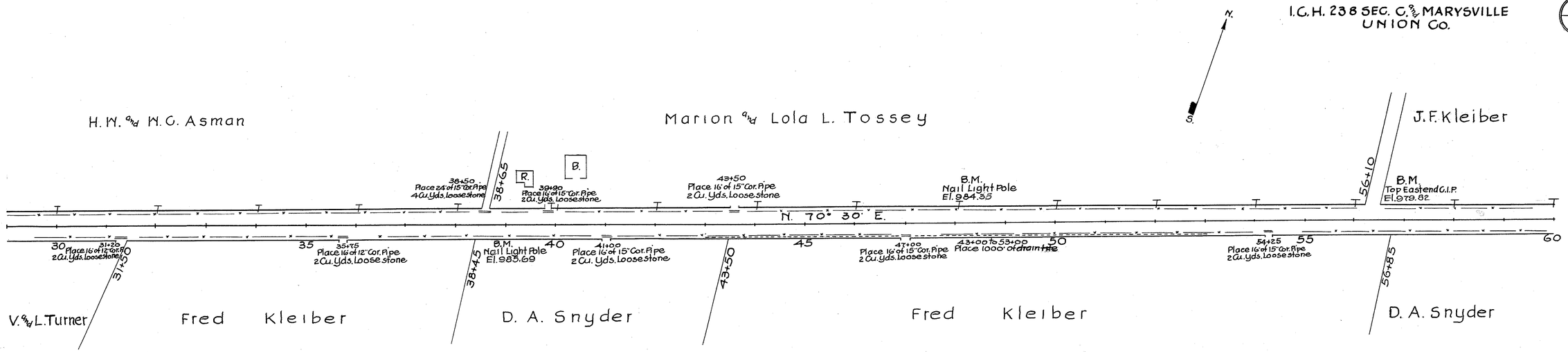

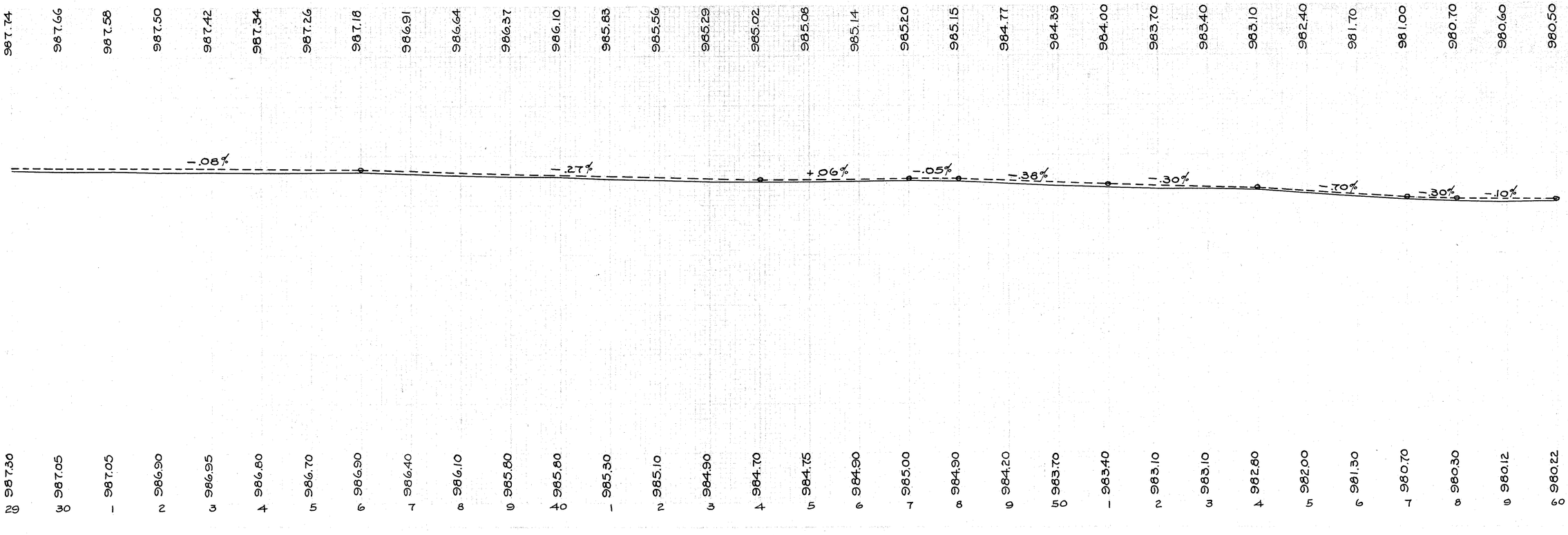

987.74	987.66	987.58	987.50	987.42	987.34	987.26	987.18	986.91	986.64	986.37	986.10	985.83	985.56	985.29	985.02	985.08	985.14	985.20	985.15	984.77	984.39	984.00	983.70	983.40	983.10	982.40	981.70	981.00	980.70	980.60	980.50
987.30	987.05	987.05	986.90	986.95	986.80	986.70	986.90	986.40	986.10	985.80	985.80	985.30	985.10	984.90	984.70	984.75	984.90	985.00	984.90	984.20	983.70	983.40	983.10	983.10	982.80	982.00	981.30	980.70	980.30	980.12	980.22
29	30	–	2	3	4	5	6	7	8	9	40	–	2	3	4	5	6	7	8	9	50	–	2	3	4	5	6	7	8	9	60

I.C.H. 238 SEC. C, 2nd MARYSVILLE
UNION CO.

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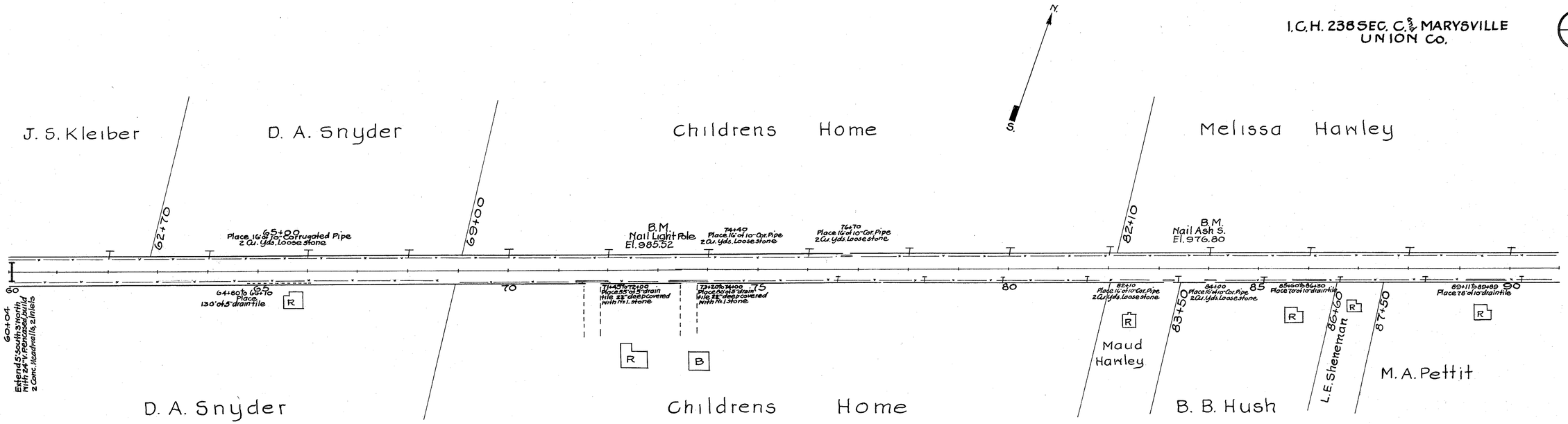

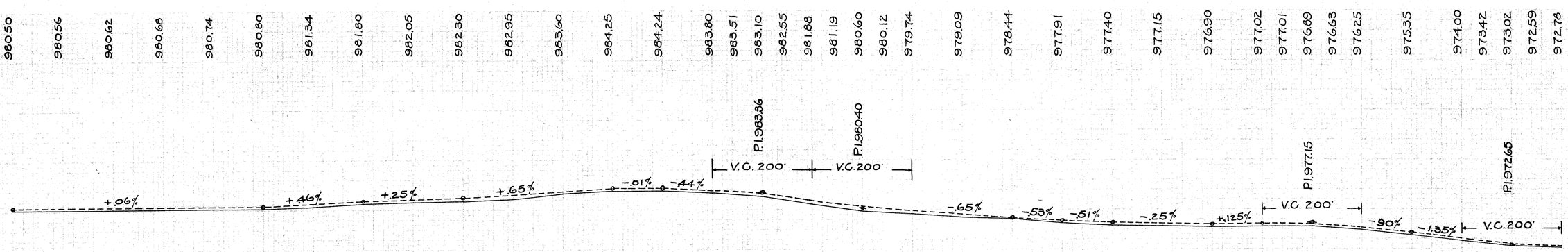

I.C.H. 238 SEC. C, No. 9 MARYSVILLE
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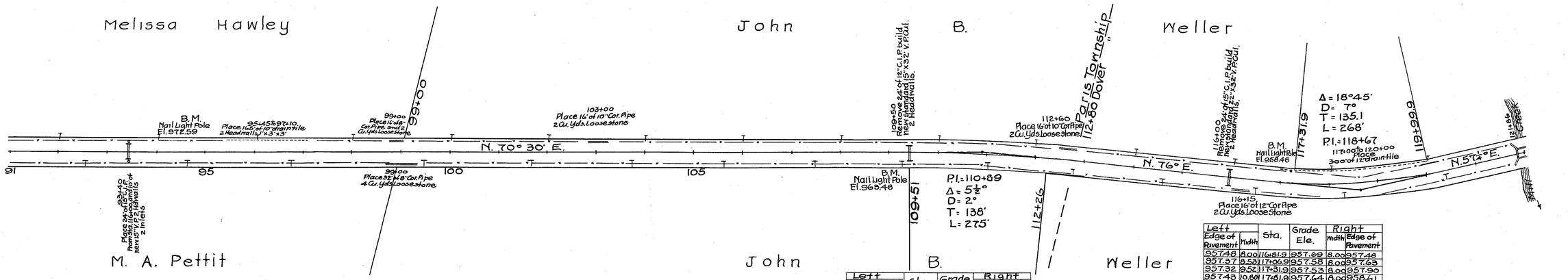
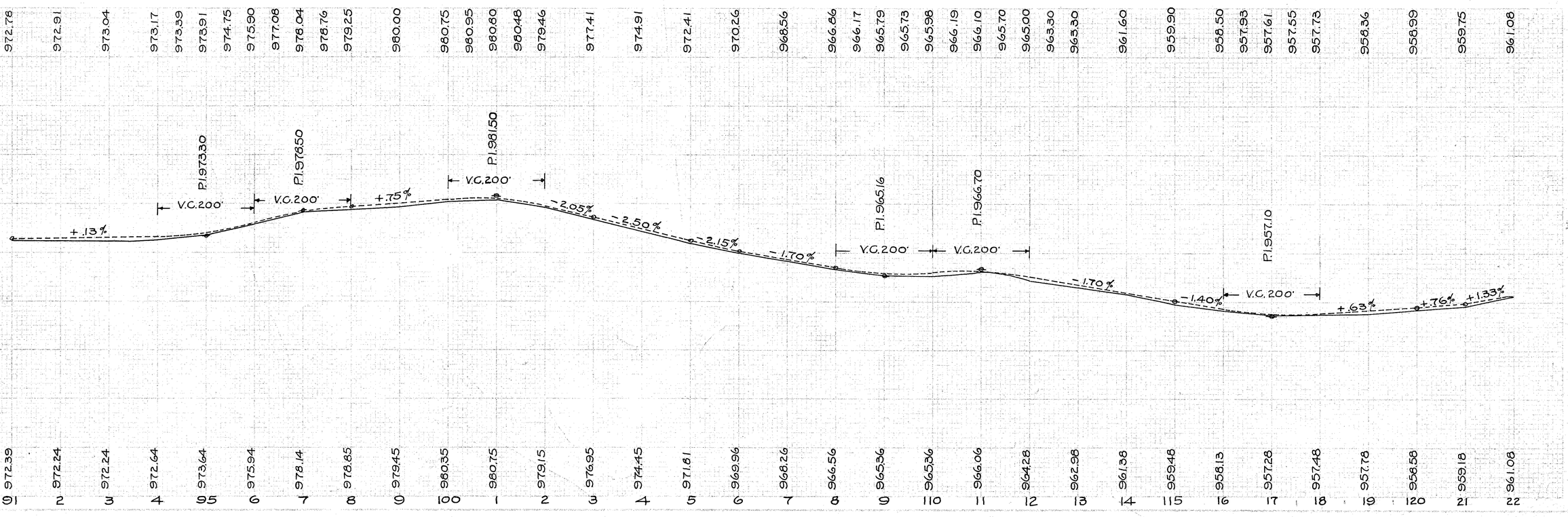


Left Edge of Pavement	Width	Sta.	Grade Ele.	Right Width	Right Edge of Pavement
965.58	8.00	103+01	965.79	8.00	965.58
965.71	8.00	103+26	965.72	8.00	965.51
965.92	8.00	103+51	965.73	8.00	965.52
966.37	8.00	110+01	965.98	8.00	965.77
966.78	8.00	110+50	966.19	8.00	965.98
966.69	8.00	111+00	966.10	8.00	965.89
966.29	8.00	111+50	965.70	8.00	965.49
965.97	8.00	111+76	965.38	8.00	965.17
965.59	8.00	112+01	965.00	8.00	964.79
964.73	8.00	112+26	964.56	8.00	964.35
964.14	8.00	112+50	964.15	8.00	963.94
963.51	8.00	112+75	963.73	8.00	963.51

Extra Pavement None

Left Edge of Pavement	Width	Sta.	Grade Ele.	Right Width	Right Edge of Pavement
957.48	8.00	116+81.9	957.69	8.00	957.48
957.27	8.53	117+06.9	957.58	8.00	957.05
957.32	9.52	117+31.9	957.53	8.00	957.90
957.43	10.80	117+61.9	957.64	8.00	958.61
957.52	10.80	118+00	957.73	8.00	958.70
957.83	10.80	118+48.9	958.04	8.00	959.01
958.15	10.80	118+99.9	958.36	8.00	959.33
958.47	10.80	119+49.9	958.68	8.00	959.65
958.78	9.52	119+999	958.99	8.00	959.35
958.97	8.55	120+24.9	959.18	8.00	959.23
959.16	8.00	120+49.9	959.37	8.00	959.16

Extra Pavement 82.36 Sq Yds.



I.C.H. 238 SEC. C, 2003 MARYSVILLE
UNION CO.

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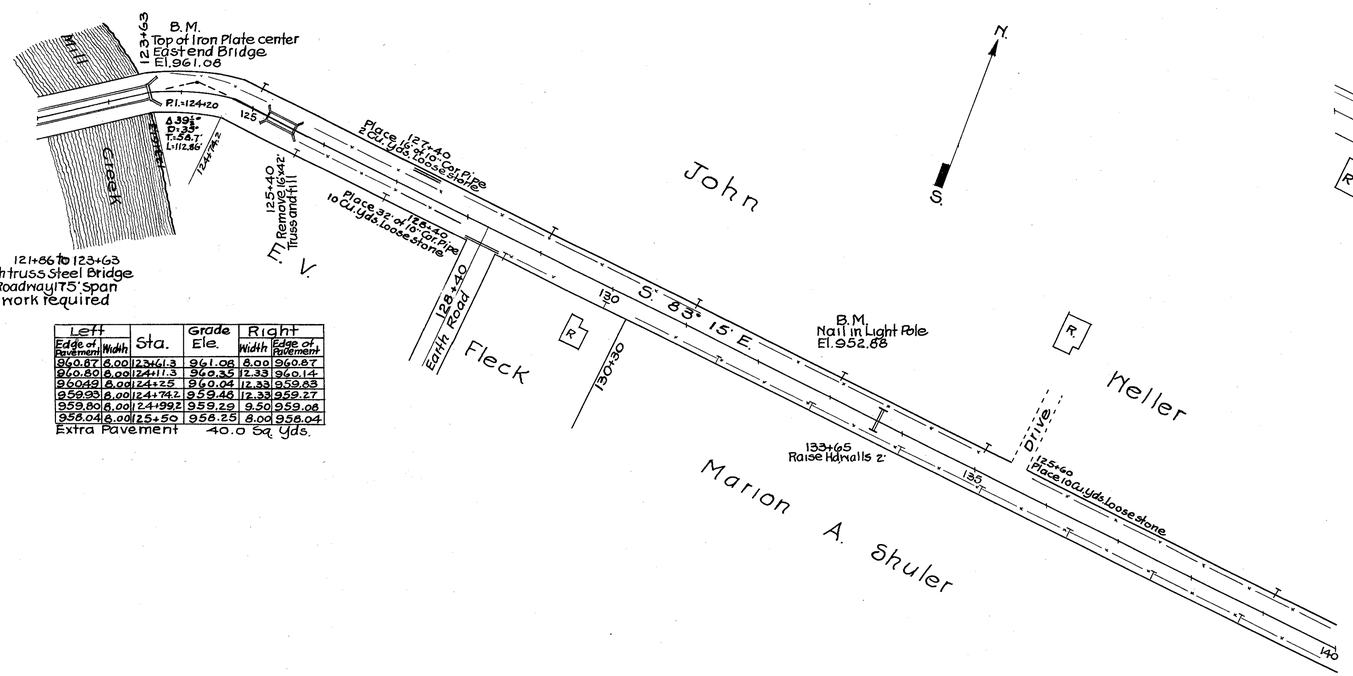
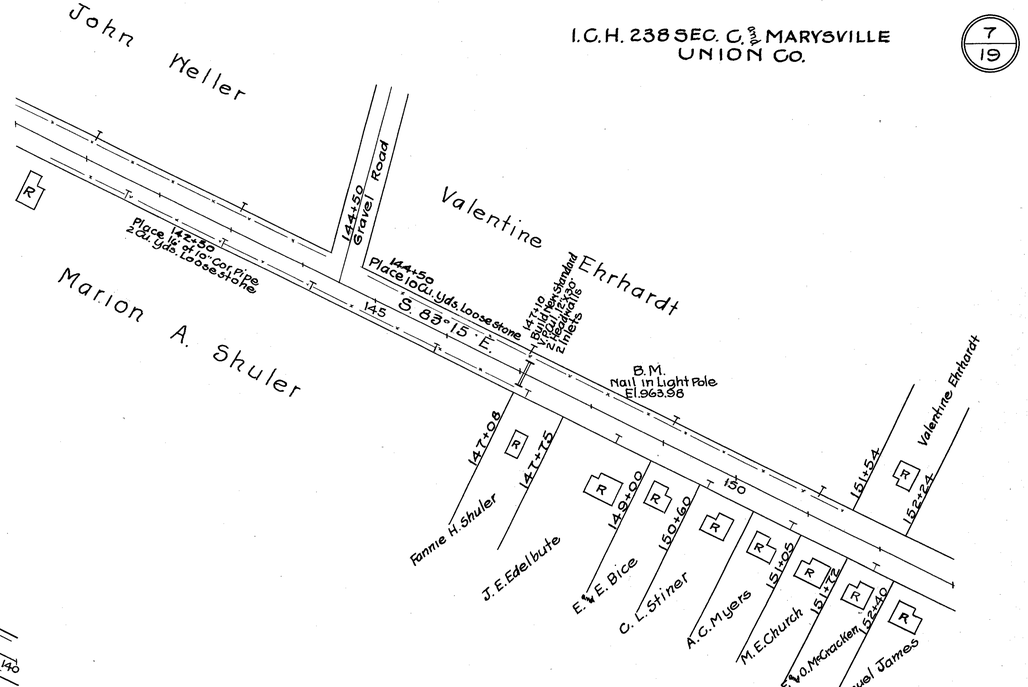
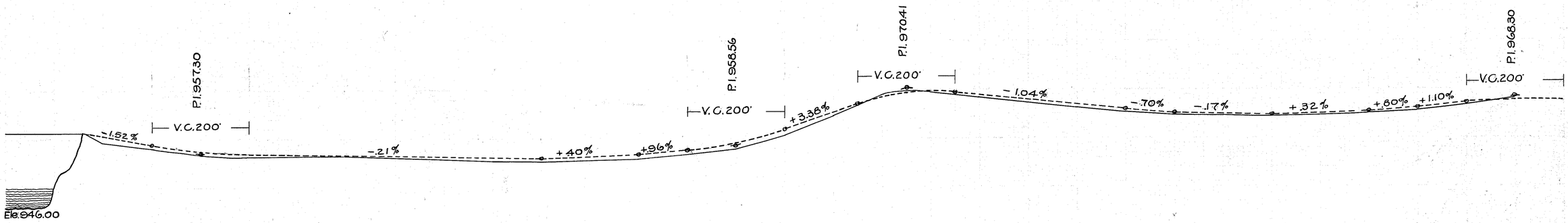


Left		Sta.	Grade Ele.	Right	
Edge of Pavement	Width			Width	Edge of Pavement
960.87	8.00	123+61.3	961.08	8.00	960.87
960.80	8.00	124+11.3	960.35	12.33	960.14
960.49	8.00	124+25	960.04	12.33	959.83
959.93	8.00	124+74.2	959.46	12.33	959.27
959.80	8.00	124+99.2	959.29	9.50	959.08
958.04	8.00	125+50	958.25	8.00	958.04

Extra Pavement 40.0 Sq. Yds.





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I.C.H. 238 SEC. C. MARYSVILLE
UNION CO.

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Left Edge of Pavement	Width	Sta.	Grade Ele.	Right Width	Right Edge of Pavement
969.69	8.0	166+73.6	969.41	8.0	969.69
969.17	8.4	167+98.6	969.38	8.0	969.97
969.01	10.0	167+22.6	969.22	8.0	969.63
968.71	11.80	167+73.6	969.03	8.0	969.85
968.57	11.80	168+00	968.78	8.0	969.61
968.27	11.80	168+50	968.48	8.0	969.51
967.98	11.80	169+00	968.19	8.0	969.22
967.79	10.00	169+42	968.00	8.0	968.61
967.69	8.4	169+67	967.90	8.0	968.90
967.58	8.00	169+92	967.79	8.0	967.58

Extra Pavement 90.64 Sq. yds.

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
11.50	6.25		
		28.7	26.4
4.00	8.00		
		28.2	15.7
11.25	.50		
		37.0	3.2
8.75	1.25		
		37.0	2.3
11.25	0.00		
		32.4	19.9
6.25	10.75		
		37.0	23.6
13.75	2.00		
		64.8	7.4
21.25	2.00		
		101.4	6.0
33.5	1.25		
		85.2	4.2
12.5	1.00		

Waste 325 Cu. Yds.
Fill + 20% Exc. 486.0 Cu. Yds.
161.0

996.16
9+00
995.95

995.63
8+00
994.95

995.10
7+00
995.20

996.00
6+00
995.90

998.10
5+00
998.10

999.65
4+00
999.20

1000.10
3+00
1000.20

999.45
2+00
999.90

997.70
1+00
998.45

995.40
0+00
995.40

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
0+00	8.75		
		13.00	24.5
7.00	4.50		
		22.2	18.5
5.00	5.50		
		9.3	41.7
0.00	17.00		
		.9	53.7
.50	12.00		
		15.7	30.6
8.00	4.50		
		58.8	8.3
23.75	0.00		
		64.8	7.00
11.25	3.75		
		29.2	27.7
4.50	11.25		
		21.3	34.7
7.00	7.50		
		34.3	25.5

Borrow 82.6 Cu. Yds.
Fill + 20% Exc. 246.8
329.4

993.23
19+00
992.60

993.56
18+00
993.15

994.29
17+00
993.75

995.02
16+00
994.25

995.75
15+00
995.00

996.87
14+00
996.25

997.62
13+00
997.75

997.61
12+00
997.25

997.22
11+00
996.75

996.69
10+00
996.30

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
7.50	3.00		
		24.1	18.5
5.50	7.00		
		32.4	18.5
12.00	3.00		
		33.3	17.1
6.00	6.25		
		22.0	21.8
6.00	5.50		
		23.1	16.7
6.50	3.50		
		21.3	14.8
5.00	4.50		
		19.4	19.9
5.50	6.25		
		21.3	30.1
6.00	10.00		
		22.7	30.1
6.25	6.25		
		11.6	27.8

Borrow 2.8 Cu. Yds.
Cu. Yds.
Exc. 242.7
Fill + 20% 245.5

987.74
29+00
987.30

986.27
28+00
987.80

988.80
27+00
988.50

989.33
26+00
988.85

989.86
25+00
989.60

990.39
24+00
989.80

990.92
23+00
990.40

991.45
22+00
990.95

992.30
21+00
991.80

992.90
20+00
992.40

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
10.00	11.25		
		38.0	37.0
10.50	8.75		
		38.0	35.7
10.00	10.50		
		38.9	28.7
11.00	5.00		
		32.4	20.8
6.50	6.25		
		24.1	21.8
6.50	5.50		
		25.0	24.1
7.00	7.50		
		24.5	31.5
6.25	9.50		
		24.5	33.3
7.00	8.50		
		22.0	27.3
5.00	6.25		
		23.1	17.1

Borrow 54.0 Cu. Yds.
Cu. Yds.
Exc. 304.4
Fill + 20% 358.4

986.37
39+00
985.80

986.64
38+00
986.10

986.91
37+00
986.40

987.18
36+00
986.90

987.26
35+00
986.70

987.34
34+00
986.80

987.42
33+00
986.95

987.50
32+00
986.90

987.58
31+00
987.05

987.66
30+00
987.05

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
9.25	7.00		
		36.6	23.1
10.5	5.50		
		37.0	18.5
9.50	4.50		
		31.5	22.2
7.50	7.50		
		25.0	23.1
6.00	5.00		
		20.4	17.6
5.00	4.50		
		20.8	25.0
6.25	9.00		
		28.2	30.6
9.00	7.50		
		35.2	31.5
10.00	9.50		
		37.0	38.4

Fill + Exc. 20% 2944 / 3180 Cu. Yds. Borrow 15.6 Cu. Yds.

985.15
48+00
984.90

985.20
47+00
985.00

985.14
46+00
984.90

985.08
45+00
984.75

985.02
44+00
984.70

985.29
43+00
984.90

985.56
42+00
985.10

985.83
41+00
985.30

986.10
40+00
985.80

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
6.00	8.50		
		28.2	28.7
7.25	7.00		
		32.0	29.2
10.00	8.75		
		34.3	29.2
8.50	7.00		
		31.5	24.5
8.50	6.25		
		27.3	22.7
6.25	7.00		
		28.2	26.8
9.00	7.50		
		31.5	32.4
8.00	10.00		
		28.7	36.1
7.50	9.50		
		31.0	30.6

Fill + Exc. 20% 270.4 / 294.4 Cu. Yds. Borrow 24.0 Cu. Yds.

981+00
57+00
980.70

981.70
56+00
981.30

982.40
55+00
982.00

983.10
54+00
982.80

983.40
53+00
983.10

983.70
52+00
983.10

984.00
51+00
983.40

984.39
50+00
983.70

984.77
49+00
984.20

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
4.50	7.00		
		36.1	15.7
15.00	1.50		
		44.9	36.1
9.25	4.50		
		28.2	21.3
6.00	7.00		
		24.1	21.3
7.00	4.50		
		25.9	18.5
7.00	5.50		
		28.7	18.5
8.50	4.50		
		29.6	34.3
7.50	14.00		
		26.7	39.8
8.00	7.50		
		28.7	25.0
7.50	6.00		
		28.7	26.8

Borrow 35.0 Cu. Yds.
Fill + Exc. 20% 279.6 Cu. Yds. 314.6

981.80
67+00
981.22

981.34
66+00
980.82

980.80
65+00
980.32

980.74
64+00
980.32

980.68
63+00
980.32

980.62
62+00
980.32

980.56
61+00
980.22

980.50
60+00
980.22

980.60
59+00
980.12

980.70
58+00
980.30

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
5.00	9.50		
		17.6	33.3
4.50	8.50		
		17.6	27.8
5.00	6.50		
		25.0	15.7
8.00	2.00		
		28.7	6.00
7.50	1.25		
		26.8	7.00
7.00	1.50		
		22.2	14.4
5.00	6.25		
		20.8	25.5
6.25	7.50		
		19.9	30.1
4.50	8.75		
		16.7	30.1
4.50	7.50		
		16.7	26.8

Borrow 13.0 Cu Yds.
Fill + Exc. 20% 178.6 Cu Yds. 191.6

980.40
77+00
979.87

981.88
76+00
981.07

983.10
75+00
982.77

983.80
74+00
983.37

984.24
73+00
983.87

984.25
72+00
983.87

983.60
71+00
983.17

982.95
70+00
982.27

982.30
69+00
981.77

982.05
68+00
981.52

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
4.50	9.50		
		21.3	28.7
7.00	6.00		
		25.9	17.6
7.00	3.50		
		22.2	20.4
5.00	7.50		
		18.5	20.8
5.00	3.75		
		20.8	15.3
6.25	4.50		
		25.5	13.9
7.50	3.00		
		23.1	18.5
5.00	7.00		
		25.00	22.2
8.00	5.00		
		25.0	23.5
5.00	7.50		
		23.1	25.5
7.50	6.25		
		23.1	29.2

Exc. 184.1 Cu.Yds. Borrow 18.0 Cu. Yds.
Fill + 20% 202.1

975.35
88+00
974.85

976.25
87+00
975.95

976.89
86+00
976.65

977.02
85+00
976.55

976.90
84+00
976.45

977.15
83+00
976.75

977.40
82+00
976.85

977.91
81+00
977.45

978.44
80+00
978.15

978.97
79+00
978.47

979.50
78+00
979.17

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
5.00	8.00		
		30.1	18.50
11.25	2.00		
		44.0	6.5
12.50	1.50		
		34.7	11.1
6.25	4.50		
		19.0	19.9
4.00	6.25		
		21.3	20.8
7.50	5.00		
		19.4	22.2
3.00	7.00		
		14.8	25.0
5.00	6.50		
		24.1	16.5
8.00	3.50		
		26.4	18.0
6.25	6.25		
		19.9	29.2

Exc. 257.3 Cu. Yds. Waste 37.0 Cu. Yds.
Fill + 20% 220.3

Exc. 154.6 Cu.Yds. Borrow 34.0 Cu.Yds.
Fill + 20% 188.6

979.25
98+00
978.65

978.04
97+00
978.14

975.90
96+00
975.94

973.91
95+00
973.64

973.17
94+00
972.64

973.04
93+00
972.24

972.91
92+00
972.24

972.78
91+00
972.39

973.02
90+00
972.75

974.00
89+00
973.65

End Area		Cu. Yds.		
Cut	Fill	Cut	Fill	
7.00	6.50			
		25.9	20.4	
7.00	4.50			
		24.1	20.8	
6.00	6.75			
		16.7	25.00	
3.00	6.75			
		14.8	27.3	
5.00	8.00			
		20.4	21.8	
6.00	3.75			
		21.3	15.3	
5.50	4.50			
		25.0	13.9	
8.00	3.00			
		23.1	18.5	
4.50	7.00			
		19.9	25.0	
6.25	6.50			
		20.8	26.8	

Fill + Exc. 20% 283.0 Cu. Yds. Waste 6.8 Cu. Yds.

966.86
108+00
966.56

968.56
107+00
968.26

970.26
106+00
969.96

972.41
105+00
971.81

974.91
104+00
974.45

977.41
103+00
976.95

979.46
102+00
979.15

980.80
101+00
980.75

980.75
100+00
980.35

980.00
99+00
979.45

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
8.00	17.50		
		26.4	50.9
6.25	10.00		
		28.2	32.4
9.00	7.50		
		47.2	16.2
16.50	1.25		
		42.1	13.9
6.25	6.25		
		21.8	19.9
5.50	4.50		
		61.1	8.3
27.50	0.00		
		60.2	25.5
5.00	13.75		
		20.8	42.1
6.25	9.00		
		24.5	28.7

957.61
117+00
957.28

958.50
116+00
958.13

959.90
115+00
959.48

961.60
114+00
961.38

963.30
113+00
962.98

965.00
112+00
964.28

966.10
111+00
966.06

965.98
110+00
965.36

965.79
109+00
965.36

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
15.00	31.25		
		0.00	0.00
10.00	37.50		
		35.0	112.0
12.50	33.75		
		37.0	112.7
7.50	32.50		
		22.0	81.0
16.25	55.00		
		26.6	113.0
12.50	67.50		
		20.8	108.0
10.00	50.00		
		18.5	81.0
10.00	37.50		
		33.3	101.9

Exc. 358.9 Cu. Yds. Borrow 637.0 Cu. Yds.
Fill+20% 1193.9

961.08
123+63
961.08

961.08
121+86
961.08

959.75
121+00
959.18

958.99
120+00
958.58

958.65
119+50
957.98

958.36
119+00
957.78

958.04
118+50
957.58

957.73
118+00
957.48

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
1.25	46.25		
		4.00	71.0
4.50	50.00		
0.00	132.50		
		0.00	180.0
0.00	112.5		
7.00	50.0		
		51.0	142.0
32.5	60.0		
		67.00	105.0
40.0	53.75		
		37.0	58.0

Exc. 1469.9 Cu. Yds. Borrow 637.0 Cu. Yds.
Fill+20% 783.9

957.63
126+00
956.93

956.01
125+60
957.78

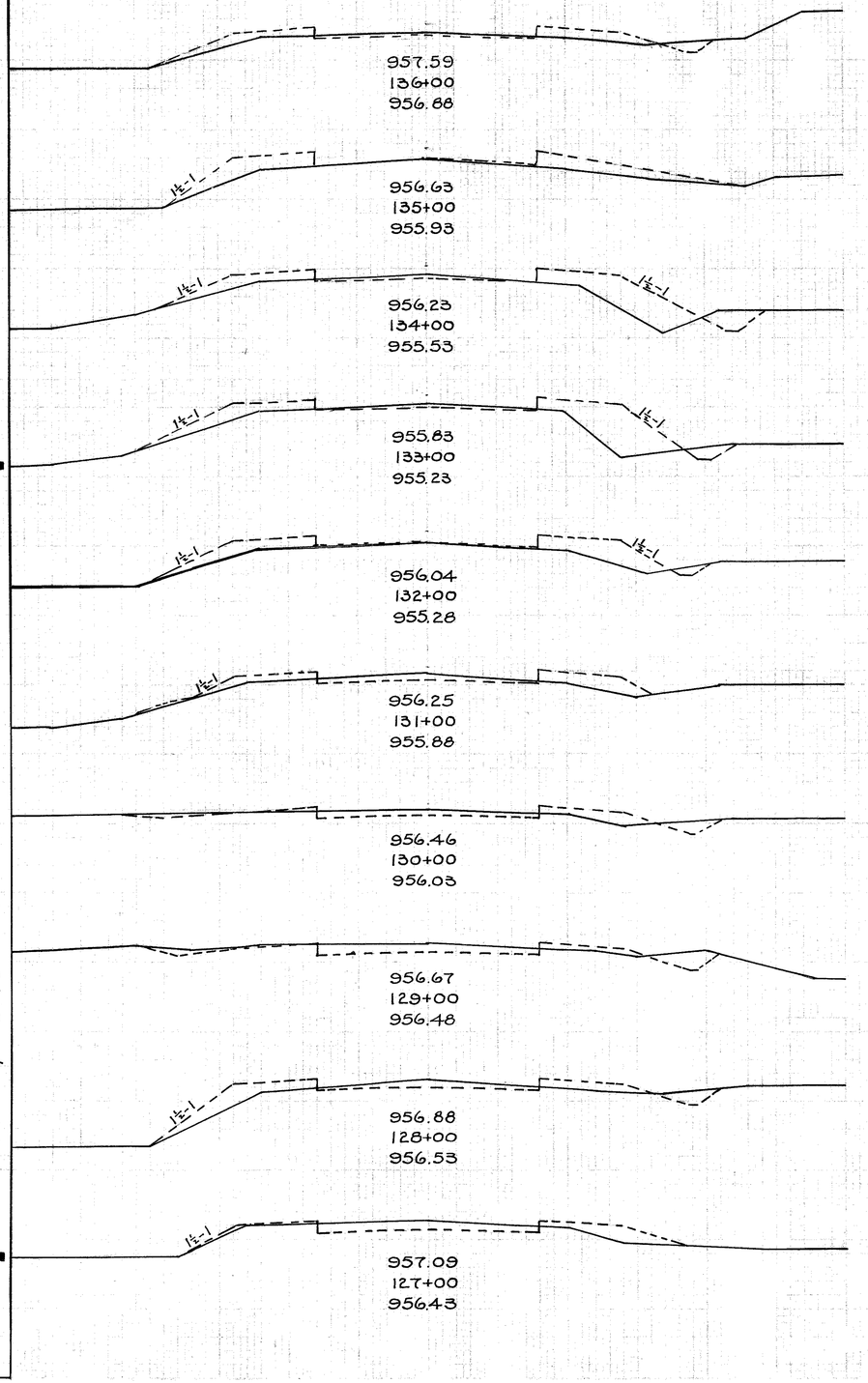
956.60
125+20
957.78

959.76
124+50
956.68

960.52
124+00
959.33

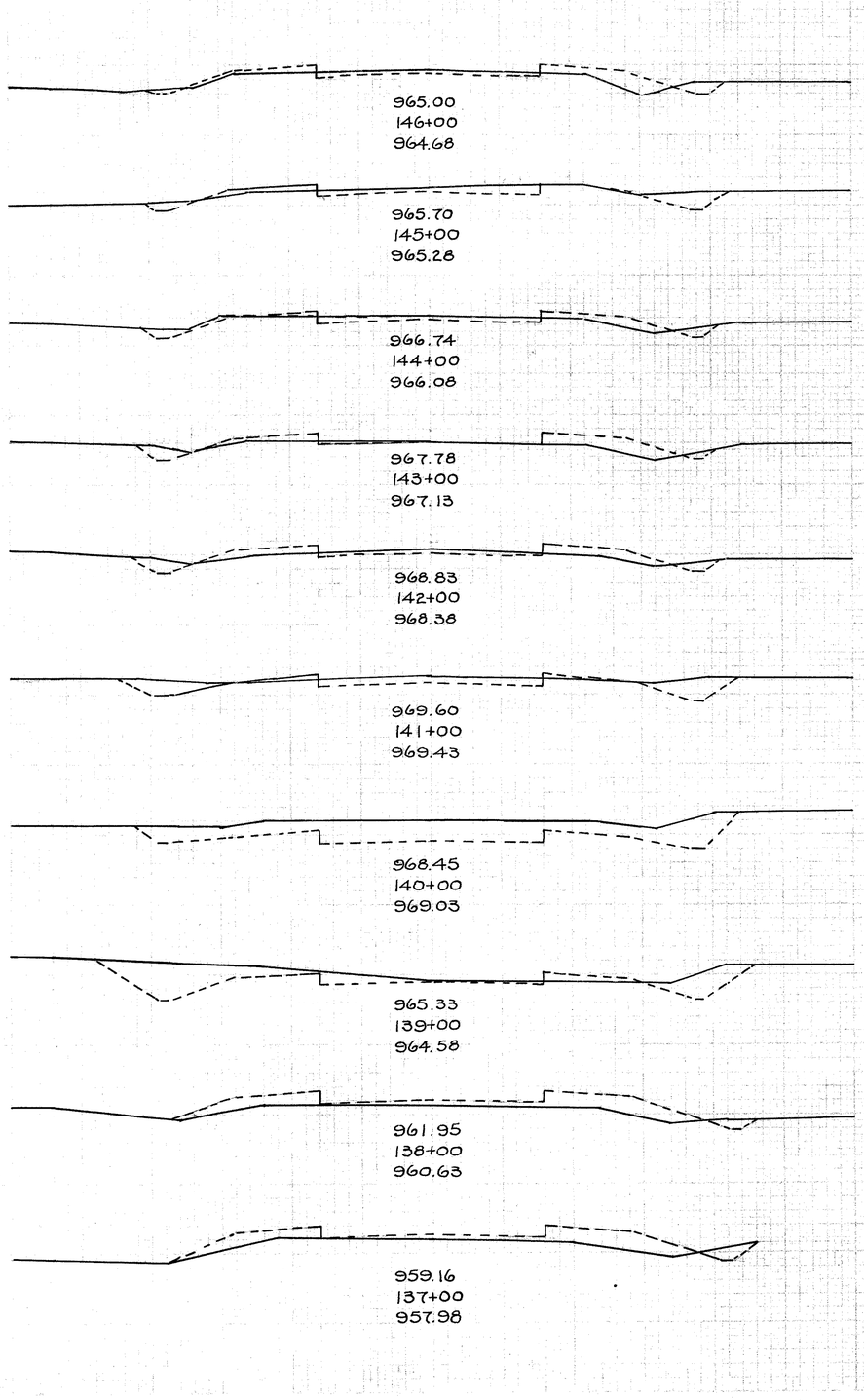
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
5.00	12.50		
		11.50	60.2
1.25	20.00		
		13.9	81.0
6.25	23.75		
		20.8	88.0
5.00	23.75		
		17.6	74.1
4.50	16.25		
		19.4	44.0
6.00	7.50		
		25.0	23.1
7.50	5.00		
		37.0	12.0
12.50	1.50		
		37.00	22.2
7.50	10.50		
		31.5	31.0
9.50	6.25		
		19.9	97.2

Fill + 20% Exc. 1677.5 Cu. Yds. Borrow 80.0 Cu. Yds. 2477.5



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
6.50	9.00		
		32.9	23.6
11.25	3.75		
		34.7	19.0
7.50	6.50		
		26.8	30.6
7.00	10.00		
		26.8	33.3
7.50	8.00		
		46.3	20.4
17.50	3.00		
		120.4	5.6
47.50	0.00		
		148.1	4.6
32.50	2.50		
		62.4	44.0
1.25	21.25		
		5.1	78.7
1.50	21.25		
		12.00	62.5

Fill + 20% Exc. 467.3 Cu. Yds. Borrow 106.0 Cu. Yds. 573.3



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
6.00	12.00		
		21.3	37.0
5.50	8.00		
		19.4	22.2
5.00	4.00		
		30.6	10.2
11.50	1.50		
		28.7	16.7
4.00	7.50		
		16.7	27.8
5.00	7.50		
		23.1	28.7
7.50	8.00		
		27.8	31.0
7.50	8.75		
		31.5	29.2
9.50	7.00		
		32.4	27.8
8.00	8.00		
		26.8	31.5

Fill + 20% Exc. 281.4 Cu. Yds. Borrow 37.0 Cu. Yds.
318.4

966.10
156+00
965.63

966.60
155+00
966.13

967.45
154+00
966.88

967.82
153+00
968.13

967.20
152+00
966.88

966.10
151+00
965.58

965.30
150+00
965.03

964.98
149+00
964.63

964.66
148+00
964.38

964.83
147+00
964.63

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
4.50	8.00		
		17.6	20.4
5.00	3.00		
		30.1	5.6
11.25	0.00		
		30.1	3.7
5.00	2.00		
		18.5	7.4
5.00	2.00		
		18.5	9.3
5.00	3.00		
		20.8	17.6
6.25	6.50		
		26.4	25.9
8.00	7.50		
		29.6	31.5
8.00	9.50		
		25.9	39.8

Fill + 20% Exc. 241.1 Cu. Yds. Borrow 4.0 Cu. Yds.
245.1

970.00
165+00
969.33

971.00
164+00
970.43

971.30
163+00
971.18

970.20
162+00
969.48

968.40
161+00
967.58

966.93
160+00
966.43

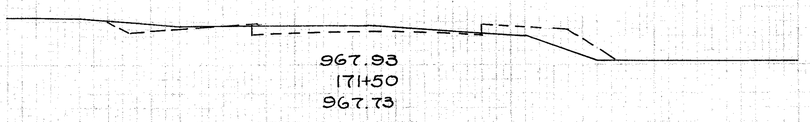
966.10
159+00
965.53

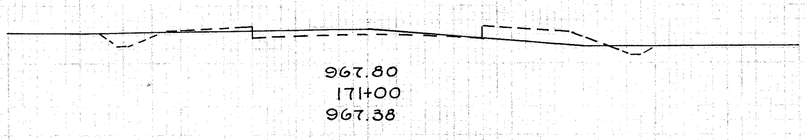
965.60
158+00
965.13

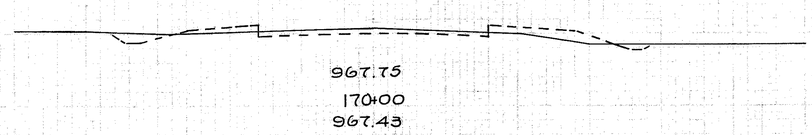
965.75
157+00
965.33

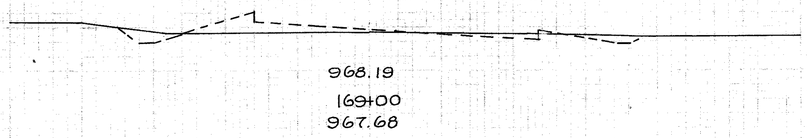
End Area		Cu. Yds.		
Cut	Fill	Cut	Fill	
7.00	8.25			
		11.1	14.6	
5.00	7.50			
		19.4	25.0	
5.50	6.00			
		16.7	17.6	
3.50	3.00			
		15.7	12.0	
5.00	3.50			
		16.2	13.4	
3.75	3.75			
		16.2	13.4	
5.00	3.50			
		17.6	21.3	

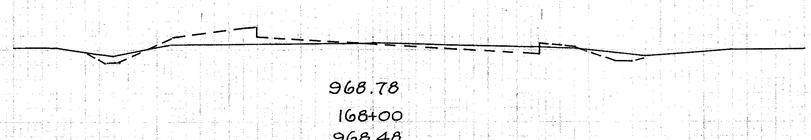
Fill + Exc. 20% 160.6 171.6 Cu. Yds. Borrow 11.0 Cu. Yds.

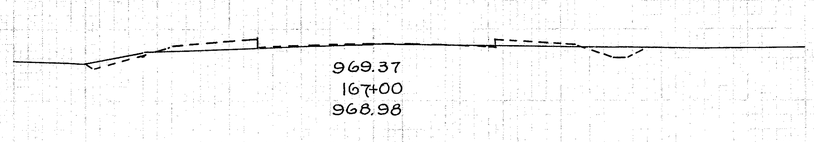


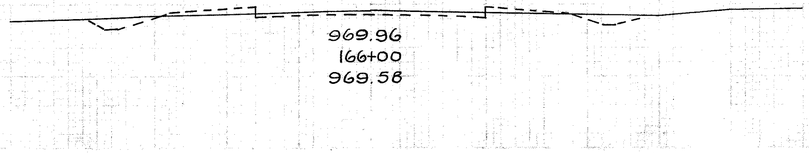












SUMMARY of QUANTITIES

I.C.H. 238 SEC. C. and MARYSVILLE UNION CO.

19/19

STRUCTURES UNDER 20 FEET

Station	Type	Size	Length	Excavation Cu yd	Concrete 1-2-4 Cu yd	Concrete 1-3-6 Cu yd	Steel Lbs	Vitrified Pipe 12" Lin. ft.	Vitrified Pipe 15" Lin. ft	Vitrified Pipe 22" Lin. ft	Vitrified Pipe 24" Lin. ft.	C.I.P. Relaid 15" Lin. ft.	Limestone Cu. yd
60+04	V. P. Encased	24"	8' 0"	8	3.50	1.64	75				8		1
93+40	V.P.Encased-C.I.P	15"	34' 0"	20	2.30	1.30	50		10			24	1
109+50	V. P.Encased	15"	32' 0"	16	2.30	4.20	50		32				
116+00	" " "	22"	32' 0"	16	3.20	6.10	70			32			
133+65	Headwalls (2)	2' x 1'x 14'	14' 0		2.07		285						
147+10	V. P Encased	12"	30' 0"	14	2.00	3.20	45	30					1
157+15	" " "	15"	30' 0"	15	2.30	3.90	50		30				
TOTALS				89	17.67	20.34	625	30	72	32	8	24	3

Standard Plan Extend 5' on South and 3' on North using 36" V.P.encased-2 Conc. Headwalls, and 2 stone inlets.
" " Remove 2'X 18"X 26' Stone box Culvert, place 24' of 15" C.I.P. from Sta. 116+00, and 10 new V.P.Enc, and 2 Headwalls.
" " " 24' of 12" C.I.P. build new 15" V. P. Culvert - 2 Headwalls.
" " " 24' " 15" C.I.P. " " 22" " " " 2 "
Raise Headwalls 1'x2'x14' one each side - Steel 4-$\frac{3}{8}$" ϕ bars 13'6" long 14-$\frac{1}{2}$" ϕ bars 2' 0" long
Standard Plan New V.P.Encased Cul. 12"x30' - 2 Headwalls, 2 stone Inlets
" " " " " " 15"x30' and 2 Headwalls, Remove old 15" V.P.

STRUCTURES FOR PRIVATE DRIVES

		Size	Length	Size	Length	Size	Length	Size	Length	Loose Stone Cu. yd.
2+55 Right	Corrugated 1. P	8"	20'							2
2+88 Left	" 1. P	8"	20'							2
4+25 Right	" 1. P	8"	20'							2
5+75 "	" 1. P	8"	16'							2
10+50 Left	" 1. P			10"	30'					2
11+65 "	" 1. P	8"	16'							2
14+60 "	" 1. P	8"	28'							2
18+60 Right	" 1. P			10"	16'					2
24+00 "	" 1. P			10"	16'					2
27+12 Left	" 1. P	8"	20'							2
31+20 Right	" 1. P					12"	16'			2
35+75 "	" 1. P					12"	16'			2
38+50 Left	" 1. P							15"	24'	4
39+90 "	" 1. P							15"	16'	2
41+00 Right	" 1. P							15"	16'	2
43+50 Left	" 1. P							15"	16'	2
47+00 Right	" 1. P							15"	16'	2
54+25 "	" 1. P							15"	16'	2
65+00 Left	" 1. P			10"	16'					2
74+40 "	" 1. P			10"	16'					2
76+70 "	" 1. P			10"	16'					2
82+10 Right	" 1. P			10"	16'					2
84+00 "	" 1. P			10"	16'					2
99+00 "	" 1. P	8"	32'							4
99+00 Left	" 1. P	8"	16'							2
103+00 "	" 1. P			10"	16'					2
112+60 "	" 1. P			10"	16'					2
116+15 Right	" 1. P					12"	16'			2
127+40 Left	" 1. P			10"	16'					2
128+40 Right	" 1. P			10"	32'					10
125+60 Left	" 1. P									10
142+50 Right	" 1. P			10"	16'					2
144+50 Left	" 1. P									10
TOTALS			188'		238'		48'		104'	94

Station	Size	Length	Size	Length	Size	Length	Size	Length	Exc. Cu. yds	Conc. 1-2-4	Loose Stone Cu. yds.
10+00 to 13+00	5"	300'							30.0		
43+00 - 53+00			8"	1000'					115.0		
64+80 - 66+10	5"	130'							14.0	.6	
71+45 - 72+00	5"	55							4.5	.3	3.0
73+20 - 74+00	5"	80'							6.5	.3	4.0
85+60 - 86+30					10"	70'			8.0	1.0	
89+11 - 89+89					10"	78'			9.0	1.0	
95+45 - 97+10					10"	165'			20.0	1.0	
117+00 - 120+00							12"	300'	35.0	.8	
TOTALS	5"	565'	8"	1000'	10"	313'	12"	300'	242.0	5.0	7.0

TYPE "E" GUARD RAIL

North Side
Sta. 117+00 to Sta. 127+00 - 184' for Bridges = 816 Lineal Feet
South Side
Sta. 117+00 to Sta. 128+00 - 188' for Bridges = 912 " "
Total 1728 " "

ESTIMATED QUANTITIES

Excavation	7003.4	Cu. Yds.
Top Course	30411.2	Sq. "
Base "	30411.2	" "

Finishing Shoulders, Ditches 16974 Lin. Feet
Remove Bridge 16' Roadway 40' span Sta. No. 125+40
Borrow Exc. 1991.00 Cu. Yds.