PLANS SURVEY

SO. ROBERT ST. CONN.

From S.T.H. Nº 1

To Territorial Road

CO. PROJ. 25-54

RD. % Nº 88

ALIGNMENT

Proj - 23 - 6K

Connection with M.T.H. No. 1

March - 1924

F.M.C.

Sta	Point	Lt △ Rt	Calc.
			N36°-19'E
18+37.5	P.T.	23-30	
18		20-30	
+50		16-30	PI = 17+00 ±
17		12-30	Δ = 47°-00'
+50		8-30	D = 16°-00 Lt
16		4-30	T = 156 = ✓
+50		0-30	L = 293 = ✓
15+43.8	P.C.	00	

Void

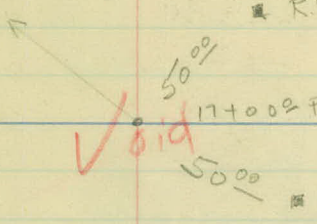
Revision - See Page 39

7+70 P.O.T.

7+68.3

N83°-19E

0+00 MTH No.1 Beginning of location



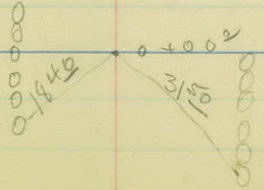
7+70.82 POT

45.95

75.90

10" Oak

8" Oak



Sta	Point	Lt ∠	Rt.	Calc.
				N54°-57'E
34+08.6 ✓	P.T.	11-00		
34		10-34		PI = 33+00
+50		8-04		Δ = 22°-00'
33		5-34		D = 10°-00' Lt
+50		3-34		T = 111.4 ✓
32		0-34		L = 220.0 ✓
31+88.6 ✓	P.C.	00		
29+77.6	P.O.T.			
24.0				
				N 76°-52'-E.
				~~N 76°-47'E~~
				PI = 22+31.=
				Δ = 40°-30'
Void. — See Revision				D = 16°-00' Rt.
				T = 132.5 ✓
23+71.6 ✓	PT	20-15		L = 253.1 ✓
+50		18-31		
23		14-31		
+50		10-31		
22		6-31		
+50		2-31		
21+18.6 ✓	PC	00		
				N 36°-19'E

10" Oak.

33 22

18" Oak

PI 33+00

24 56

32 42

8" oak.

29+77 6 POT

5 2 20

8" oak

RP - RR Spike

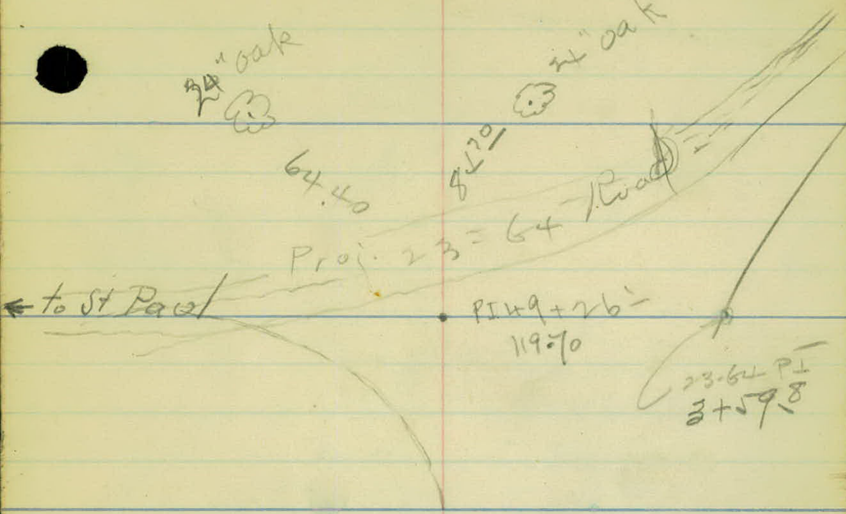
10 05

22+51 0 PI

50 00

R.P. hub

Sta.	Point	∠	Δ Rt	Calc.
50+83.3	P.T.	38-55		~~N0° 55'E~~ N1°01'E.
+50		35-38½		PI = 49+26±
50		30-38½		Δ = 77-50
+50		25-38½		D = 20°00' Lt.
49		20-38½		T = 232.5
+50		15-38½		L = 389.2
48		10-38½		
+50		5-38½		
47		0-38½		
46+93.6	P.C.	00		N78°~~58~~ E
Equation	42+12.8 PT = 42+61.9			
42+61.9	PT			
42+12.8	PT			PI = 41+09±
42				Δ = 12-29
+50				D = 6°00 Rt
41				T = 104.4
+50				L = 208.0
40+04.8	P.C.	00		N66°22'E
Equation	36+88.9 PT = 36+96.5			
				PI = 35+93±
36+96.5	PT			Δ = 11°30'
36+88.9	PT	5-45		D = 6°00' Rt.
+50		4-34		T = 96.2
36		3-04		L = 191.7
+50		1-34		
35		0-04		
34+97.2	PC	00		N54°49'E



41+09±/PI

42 a

5 4 00

15" Oak

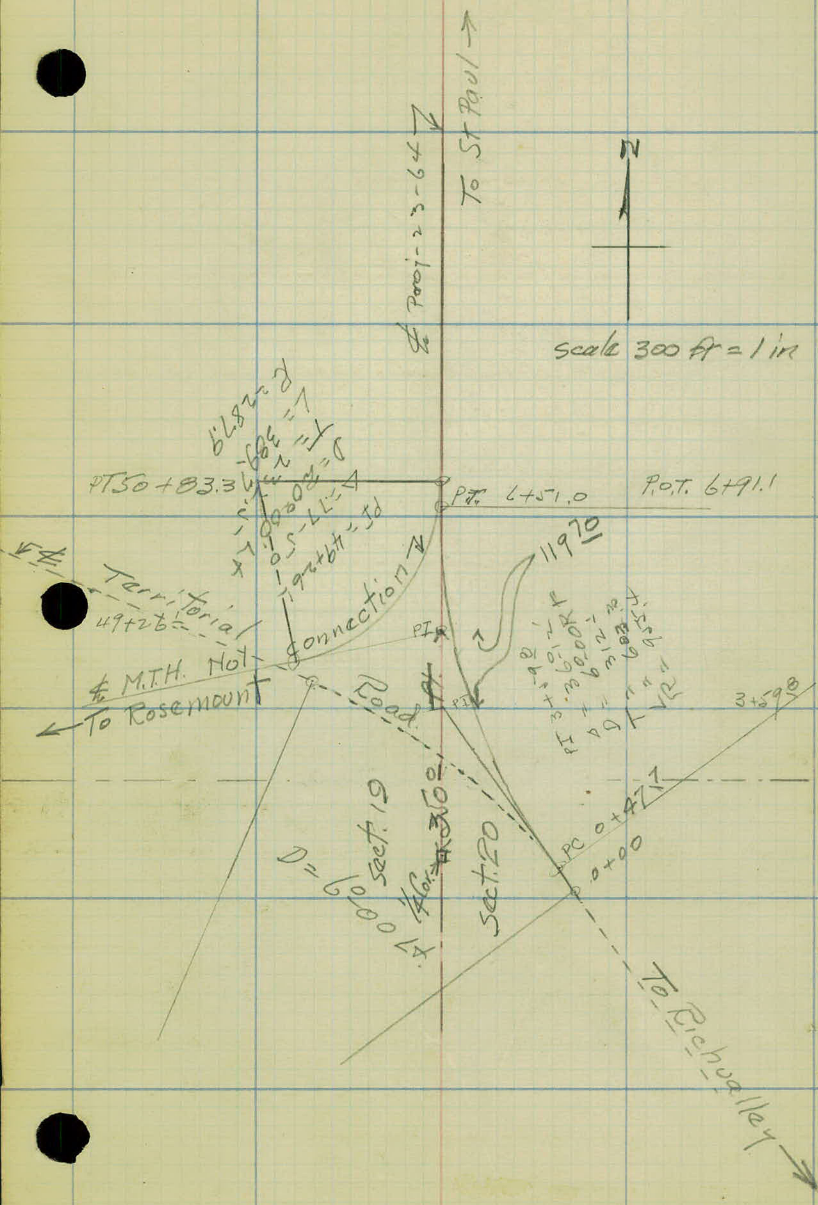
10" oak

11 50

PI 35+93±

17 40

6" oak


To St Paul →
℄ Proj-2-3-64
N
scale 300 ft = 1 in
PT 50+83.3
P.T. 6+51.0
P.O.T. 6+91.1
119 70
℄ Territorial
49+26
Connection
℄ M.T.H. Hoy
To Rosemount
Road
PI
Sect. 19
Sect. 20
D = 6°00'
¼ Cor.
350'
PC 0+47.1
0+00
3+59.8
To Richvalley

20°F
Snow on Ground Cloudy

12/14/24

Plans-in-hand Inspection - Proj. 25-54

E.G.G.
R.J.W.

P. 2 - 18" P. 3 Culv. where 25-54 crosses Territorial Road

47 — 48 Cl. & Gr. & trees

Figure grand tail for project at Territorial Rd & St. Rte 6

43+50 F.E.R. & L P. 2 - 15" CM.

42+00 - 41+00
14 trees Cl. & Gr.

39 - 41
30 trees Cl.
10 stump. Gr.

33+50 — 42+00
Cl. & Gr. full width of R/W. mainly

33+00 - 35+00
Typical detail right

34+00 - 31+00 Cl. & Gr. Rt. 1/2 width of R/W on Rt. -

31+00 — 29+00 Cl. & G. full with R/W

25-54

Proj - ~~23-64~~

Connection With S.T.H. No. 1

March - 1924

	Page	to	Page
Alignment Notes	1	—	5
Profile Level "	6	—	13
X Section "	14	—	23
Art. Topog "	24	—	33
Drainage "	34	—	38

℄ Level Notes

Proj - 23 - 64
Connection with MTH No. 1
March - 1921
F.M.C.

Sta	+	HI	−	El.
B.M.	2.40	876.74		874.34
T.P.	1.38	873.77	4.35	872.39
0+00			2.2	71.6
1			3.5	70.3
2			4.9	68.9
+63			5.3	68.5
+75			5.6	68.2
3			7.2	66.6
T.P.	0.71	561.81	12.67	861.10
+50			7.5	54.3
T.P.	1.2	850.78	12.15	849.66
+85			6.2	44.6
4			8.1	42.7
+30			11.8	39.0
5			12.0	38.8
6			12.9	37.9
+20			12.8	38.0
+40			8.6	42.2
T.P.	12.29	854.45	8.6	841.16
+50			7.8	46.7
T.P.	12.01	865.79	0.67	853.78
+75			12.1	53.7
7			3.3	62.5
T.P.	11.59	876.75	0.63	865.16
+75			8.3	68.4
B.M.			8.25	868.50
+50			3.7	73.0

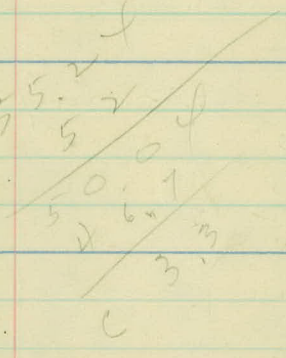
(7)

R.R. spike in North pile of bent on Lt. beyond edge of pavement.

edge of Pavement

60 ft. Lt Sta 7+75 - 14" oak.

Sta	+	HI	−	El.
7+60		876.75	2.4	74.3
+70			2.5	74.2
8			5.4	71.4
T.P.	0.96	870.63	7.06	869.69
+40			4.9	65.7
9			11.0	59.6
T.P.	1.24	858.88	12.99	857.64
9+50			3.8	55.1
+60			4.1	54.8
10			8.4	50.5
T.P.	1.29	847.43	12.74	846.14
+50			4.3	43.1
+90			9.6	37.8
+95			10.4	37.0
11			9.9	37.5
+10			9.2	38.2
+60			12.1	35.3
12			11.0	36.4
+10			11.4	36.0
T.P.	12.90	855.24	5.09	842.34
13			12.9	42.3
14			5.2	50.0
+20			2.2	53.0
+25			4.4	50.8
+30			4.4	50.8
T.P.	12.29	866.04	1.49	853.75
+40			12.4	53.6



Sta	+	HI	−	El.	
14+50		866.04 ✓	9.6	56.4 ✓	
15			7.6	58.4 ✓	
+43.8	P.I.		4.3	61.7 ✓	
T.P.	0.30	863.28 ✓	3.06	862.98 ✓	
16			0.7	62.6 ✓	
~~+50~~			2.2	61.1 ✓	
17			3.5	59.8 ✓	
+50	Void - See Rev. Sta.		3.5	59.8 ✓	
18	Page 43		5.9	57.4 ✓	
+37.5	P.I.		7.2	56.1 ✓	
19			12.7	50.6 ✓	
T.P.	4.92	856.57 ✓	11.63	851.65 ✓	
+30			10.9	45.7 ✓	
+50			10.4	46.2 ✓	
+75			6.9	49.7 ✓	
20+50			5.6	51.0 ✓	
21			4.4	52.2 ✓	
+18.5	P.C.		5.4	51.2 ✓	
+50			4.9	51.7 ✓	
T.P.	2.04	857.85 ✓	3.5	53.1 ✓	
22			2.76	855.81 ✓	
+50			2.8	55.1 ✓	
23			2.3	55.6 ✓	
+50			3.8	54.1 ✓	
+71.6	P.I.		8.0	49.9 ✓	
24			9.4	48.5 ✓	
T.P.	0.99	848.34 ✓	11.4	45.5 46.5 ✓	
			10.50	847.35 ✓	

Sta	+	HI ✓	−	El.	
+50		848.34	4.4	43.9 ✓	
25			8.0	40.3 ✓	
+30 Void			10.6	37.7 ✓	
T.P.	0.35	835.70 ✓	12.99	835.35 ✓	
+50 See Revision			1.4 Page 45	54.3 ✓	
+80			10.0	25.7 ✓	
26			12.6	23.1 ✓	
+25			14.7	21.0 ✓	
+50			14.5	21.2 ✓	
27			13.8	21.9 ✓	
T.P.	5.10	828.04 ✓	12.76	822.94 ✓	
28			5.3	22.7 ✓	
+50			5.3	22.7 ✓	
29			4.0	24.0 ✓	
29+76.7 POT			2.5	25.5 ✓	
30			1.4	26.6 ✓	
+50			2.9	25.1 ✓	
31			11.9	16.1 ✓	
T.P.	1.12 ✓	818.38 ✓	10.78	817.26 ✓	
B.M.			2.31	816.07 ✓	
31+88.6 P.C.			6.4	12.0 ✓	
32			6.4	12.0 ✓	
+50			6.7	11.7 ✓	
33			5.2	13.2 ✓	
+50			2.0	16.4 ✓	
+80			0.6	17.8 ✓	
34			1.1	17.3 ✓	

30+25 - 12" Birch 50ft Lt.

Sta	+	HI	−	El.	
		818.38 ✓			
T.P.	13.06	830.45 ✓	0.99	817.39 ✓	
+08.6	P.T.		13.0	17.4 ✓	
+40			12.0	18.4 ✓	
+97.5	P.C.		6.5	24.0 ✓	
35			5.8	24.6 ✓	
+25			2.6	27.8 ✓	
T.P.	10.69	840.67 ✓	0.47	829.98 ✓	
+50			8.9	31.8 ✓	
+75			4.1	36.6 ✓	
+90			3.8	36.9 ✓	
36			5.1	35.6 ✓	
+25			8.3	32.4 ✓	
+40			7.4	33.3 ✓	
+50			5.5	35.5 35.2 ✓	
T.P.	2.99	843.52 ✓	0.14	840.53 ✓	
36+88.9	PT = 36+96.5		2.4	41.1 ✓	
37			2.3	41.2 ✓	
+50		✓	4.6	38.9 ✓	
T.P.	2.87	837.28	9.11	834.41 ✓	
38			3.1	34.2 ✓	
+20			6.7	30.6 ✓	
+60			10.4	26.9 ✓	
39			9.7	27.6 ✓	
T.P.	12.90	846.92 ✓	3.26	834.02 ✓	
40			10.4	36.5 ✓	
T.P.	11.76	856.82 ✓	1.86	845.06 ✓	

Equation

Sta	+	HI	−	El.
T.P.		856.82 ✓		
40+50			9.2	47.6 ✓
41			3.6	53.2 ✓
+50			3.1	53.7 ✓
42			4.9	51.9 ✓
42+12.8	P.T. = 42+61.9	✓	5.4	51.4 ✓
BM	8.78	857.12 ✓	8.48	848.34 ✓
43			7.4	49.7 ✓
+50			2.1	55.0 ✓
T.P.	1+90	869.45 ✓	10.57	856.55 ✓
44			5.7	63.7 ✓
+15			3.1	66.3 ✓
T.P.	3.78	873.15 ✓	0.08	869.37 ✓
45			1.7	71.4 ✓
+35			1.0	72.1 ✓
+50			1.2	72.0 ✓
46			2.7	70.5 ✓
+08			3.4	69.8 ✓
+15			7.9	65.3 ✓
+25			8.1	65.1 ✓
+30			7.0	66.2 ✓
+50			6.8	66.4 ✓
+75			7.5	65.7 ✓
+80			8.1	65.1 ✓
+93			8.3	64.9 ✓
47			6.9	66.3 ✓
+50			9.6	63.7 ✓ 63.6 ✓

Equation
R.R. Spike 12" Oak 50 Ft. Pt. 41+50

Sta	+	HI	−	El.	
48		873.15	8.1	65.1	x
+50			5.8	67.4	x
49			4.7	68.4	x
+25			5.6	67.6	x
+50			7.4	65.8	x
+75			8.5	64.7	x
50			6.2	67.0	x
+50			5.5	67.7	x
+83.3 P.T.			4.6	68.6	x
B.M.			2.95	870.20	x ✓

Checked RJH 3-25-24

(13)

R.R. spike in 30" Oak 80 ft Lt S/Q. 1+50

X-Sections
Proj 23-64
Connection with M.I.H. No.1
March - 1924
F.M.C.

Sta	Surf El.	
0+00	71.6	✓
1+00	70.3	✓
1+25	70.2	✓
2+00	68.9	✓
2+50	68.6	✓
3	66.6	✓
3+50	54.3	✓
4	42.7	✓
4+50	38.9	
5	38.8	✓
6	37.9	✓
6+25 +2.8	40.7	✓
6+50	46.7	✓

Lt

+3.8 +0.3 00 +0.7 +0.5
27 14 25 2 06

+0.7 00
33 13

-1.6 -1.8 -0.3 00 -0.2
33 27 18 13 13

-4.2 -2.6 00 00 -0.5
33 25 19 13 13

-5.0 -0.7 -0.8
36 24 19

+1.0 +1.0 +0.3 +1.3
29 29 29 9

+11.6 +11.8 +11.5 +12.7 +12.5
51 47 46 27 20

+21.8 +21.4 +22.8 +22.3 +0.4
68 68 48 40 5

+20.0 +3.0
58 27

+3.6
+3.9
toe of Emb. 60

+5.0 +2.8 +0.4
55 43 21

+5.0 +4.6 +2.5
59 36 20

+6.7
50 +3.4
46

Rt

+0.6 00 +0.2 +0.5 +0.5
2 25 14 14 18

+0.5 +0.8 +0.5 -2.8
13 18 23 31

+0.5 +0.6 -0.6 -6.0
13 21 26 36

+0.7 00 -9.0 -10.8
11 16 30 37

+0.4 -0.3 -11.6 -14.2 -16.7
4 11 27 35 40

-14.6 -21.0
22 44

-7.3 -10.0 -13.3 -15.3
13 22 38 58

-2.2 -3.3 -3.8 -4.3
11 23 50 60

-1.2 -1.0
36 60

-0.4
60

00
60

-1.7 -2.0 -2.0
21 41 60

-2.8 -5.0 -6.0 -6.0
13 26 37 60

Sta	50-F.E.
7	62.5 ✓
+25	68.4 ✓
+50 ≤ 73.0 ✓	
+60 (+2.0)	75.0 ✓ 74.3
8 ←	71.4 ✓
+50 (-6.0)	65.4 ✓
9	59.6 ✓
+50	55.1 ✓
10	50.5 ✓
+50	43.1 ✓
11 ←	37.5 ✓
+50 (-1.4)	36.1 ✓
12 ←	36.4 ✓
+50 (+2.3)	38.7 ✓
13	42.3 ✓

Lt	Rt
+2.2 +1.8 +1.0 50 37 31	-3.0 60
-1.2 -1.2 -0.5 50 38 23	-1.4 -1.2 35 60
-5.0 -4.2 -1.7 -0.7 0 40 15 10	-0.3 -1.6 -1.6 10 27 60
-4.2 -2.5 50 27	+0.6 00 33 50
00 50	+0.3 +0.7 +0.4 20 43 50
+2.0 +1.6 -0.3 +0.1 50 42 36 29	-1.2 -1.8 -2.4 28 45 50
+4.8 +3.2 50 34	-3.2 -4.8 -6.0 23 40 50
+4.5 +3.0 50 30	-3.2 -5.0 -7.6 24 37 50
+7.0 +3.0 +1.0 +3.6 65 60 48 38	-4.3 -9.0 25 50
+10.0 +5.0 +1.3 50 28 12	-3.8 -5.8 36 50
+7.0 50	-2.4 -3.0 -3.0 -4.2 18 28 34 50
+3.8 +1.8 50 28	00 -3.0 -4.2 5 26 50
+8.0 50	-3.8 -6.8 27 50
+9.0 50	-2.4 -4.0 18 50

Sta. 13+00		Surf. Elev.
13+50	+4.0	46.3 ✓
14		50.0 ✓
+50		56+ ✓
15		58.4 ✓
+43.8 PC	Void —	
+50	+4.0	62.4 ✓
	See Page 43	
+75	+1.0	63.6 ✓
16		62.6 ✓
+50		61.1 ✓
17		59.8 ✓
+50		57.8 ✓
18		57.4 ✓
+37.5 PT.		56.1 ✓
19		50.6 ✓
+30		45.7 ✓

Lt	Rt
+9.5 50	-7.8 50
+9.5 40	-6.8 50
+6.5 40	-9.0 50
+7.0 40	-4.8 -9.0 25 50
+3.2 40	-3.6 -4.0 37 50
+1.8 50	-1.0 -1.0 40 50
+3.2 50	+0.3 50
+4.2 50	-1.1 50
+4.0 50	-3.0 -4.8 39 50
+5.0 50	-6.0 50
+4.2 +3.0 50 21	-6.2 50
+2.2 50	-4.5 47
+3.0 50	-0.7 -2.6 -3.7 25 38 50
+6.7 +5.4 +4.5 +1.4 50 39 26 11	-3.4 50

Sta.	Surf El.
+50	46.2 ✓
20	51.0 ✓
+50	52.2 ✓
21	51.2 ✓
+50	53.1 ✓
22	55.1 ✓
+50	55.6 ✓
23	54.1 ✓
+50	49.9 ✓
24	45.5 46.5 ✓
+50	43.9 ✓
25	40.3 ✓
+50	Void — 34.3 ✓

Lt	Rt
+4.5 / 50; -1.8 / 26 (circled; corrected in red: +1.8 / 26)	-1.1 / 16; -3.4 / 35; -3.4 / 50
+1.0 / 50	-1.3 / 24; -0.8 / 33; -0.8 / 50
+1.3 / 50	-1.3 / 50
+2.0 / 50	+1.4 / 50
+1.2 / 50	+0.8 / 16; +3.0 / 50
-1.6 / 50	+2.2 / 50
-1.0 / 50	+1.5 / 50
-1.0 / 50; +0.4 / 20	0.0 / 50
+2.0 / 50	-1.3 / 50
+3.0 / 50	-2.8 / 50
+4.4 / 50	-3.6 / 35; -4.0 / 50
+5.0 / 50	-2.0 / 36; -4.8 / 44
+4.4 / 50; +3.7 / 29; +2.1 / 16; +0.8 / 4	-5.0 / 20; -10.0 / 33; -16.0 / 57

Sta	surf El.	
26	23.1 ✓	
+50	21.2 ✓	
27	21.9 ✓	
+50 +1.3	23.2 ✓	
28	22.7 ✓	
+50	22.7 ✓	
29	24.0 ✓	
+50 +2.3	26.3 ✓	
29+76.7 POT	25.5 ✓	
30	26.6 ✓	
+50	25.1 ✓	
31	16.1 ✓	
+50 -2.8	(18.9) 13.3 ✓	
32 ✓	12.0 ✓	

LT	RT
+4.8 +3.5 +0.7 50 29 12	-8.8 50
+5.0 +1.7 50 12	-5.0 -10.0 28 52
+12.5 +10.0 +5.0 +1.8 50 26 14 6	-5.0 -10.0 19 44
+20.0 +15.0 +10.0 +5.0 55 40 29 13	-5.0 -7.4 -11.4 16 27 65
+11.5 +9.0 +5.0 51 34 17	-3.0 -6.2 -9.5 15 30 50
+12.5 +9.3 +5.0 +1.9 51 39 20 9	-7.4 50
+10.0 +5.0 50 26	-4.8 41
+4.0 50	-1.7 -2.8 17 50
-4.5 -1.6 -0.4 39 13 7	+0.8 50
-6.0 -5.0 42 27	+5.4 47
-15.0 -10.0 -4.4 52 31 14	+2.8 +2.8 +5.0 +9.0 9 12 21 57
-8.0 -6.0 -3.4 50 25 10	+5.0 +10.0 +13.6 +15.0 +20.0 12 25 31 36 54
-6.0 -3.7 50 18	+5.0 +7.5 +13 +18 14 21 37 43
-5.0 -3.6 50 25	+5.0 +7.8 +10.0 +15.0 16 26 36 42

Sta	Surf El.	
32+50	11.7 ✓	
33	13.2 ✓	
+50	16.4 ✓	
34	17.3 ✓	
+50 +1.0	18.3 ✓	
35	24.6 ✓	
+50	31.8 ✓	
+75	36.6 ✓	
36	35.6 ✓	
+25	32.4 ✓	
+50	35.5	35.2 ✓

Equation 36+88.9 = 36+96.5

Lt.	Rt.
-4.8 -3.6 50 25	+5.0 +8.2 +10.0 24 36 48
-6.0 -4.7 50 32	+8.0 46
-7.5 50	+5.0 +10.0 +15.0 28 44 59
-7.0 50	+7.0 50
-2.5 -4.4 50 27	+3.2 +9.0 17 50
-10.0 -7.2 -4.2 50 33 15	+5.0 +10.0 17 50
-10.0 50	+3.5 +7.8 20 42
-10.0 -5.0 43 28	+6.0 45
-8.3 -5.0 -2.8 50 36 20	+5.0 42
-6.5 -4.0 46 37	+4.6 46
-7.0 -4.6 -3.8 43 30 22	+5.0 42

Sta	Surf El.
37	41.✓ ✓
+50	38.9 ✓
38 ←	34.2 ✓
+50 (-6.0)	28.2 ✓
39 ←	27.6 ✓
+43 (+1.0)	28.6 ✓
40	36.5 ✓
40+50	47.6 ✓

Lt Lt. & Rt Rt (21)

-7.6	-5.0	+5.0	+6.4	
40.0	20.0	31.0	50.0	
	-11.6	-3.4	+12.6	
	50.0	14.0	50	
-11.6	-10.6	+3.3	+13.2	
40.0	33.0	9.0	50.0	
-4.4	-3.0	+4.0	+13.0	
50.0	19.0	17.0	50.0	
-1.5	-1.0	-1.2	+4.0	+6.4
50.0	40.0	16.0	30.0	5.0
+0.3	+0.3	-0.3	+0.5	+6.5
50.0	15.0	5.0	12.0	50.0
+0.7	+0.4	-0.3	0.00	-0.8
44.0	36.0	9.0	30.0	40.0
+7.6	+3.0	-3.0		
50.0	20.0	40.0		

Sta	Surf. El.
41+00	53.7 ✓
41+50	53.7 ✓
42+00	51.9 ✓
Equation 42+12.8 =	42+61.8
43+00	49.7 ✓
43+50	55.0 ✓
44+00	63.7 ✓
44+50 +6.0	69.7 ✓
45+00	71.4 ✓
45+50	72.0 ✓
46+00	70.5 ✓
46+50	66.4 ✓
47+00	66.3 ✓
47+50	63.7 63.6 ✓
48+00	65.1 ✓
48+50	67.4 ✓
48+75 +1.4	68.8 ✓

Lt.	℄	Rt.
	+6.4 -3.0 -6.4	(22)
	50.0 19.0 44.0	
	+7.0 -7.0	
	50.0 45.0	
	+6.6 -4.4 -5.0	
	50.0 34.0 40.0	
+7.6 +7.4 +2.6 -2.4		
50.0 42.0 21.0 45.0		
	+5.6 +2.0 -3.0	
	45.0 14.0 45.0	
+4.4 +2.4 +0.7 -0.2 -1.7 -3.0 -4.4		
45.0 11.0 5.0 4.0 7.0 22.0 45.0		
	+0.2 -0.4 -1.2 -1.0	
	45.0 14.0 27.0 45.0	
	+0.5 +1.0	
	50.0 50.0	
	-0.6 -0.3 +0.6	
	50.0 17.0 50.0	
-4.0 -4.0 -5.0 0.0	0.0 -0.8 -0.6	
45.0 30.0 22.0 6.0	11.0 35.0 45.0	
+4.0 -1.0 -1.0 +0.6	-0.2 -1.8 -1.8 +1.0 +1.4	
40.0 33.0 29.0 22.0	12.0 17.0 2.0 25.0 43.0	
	+1.7 -2.0 -2.4 -0.6 -0.6	
	50.0 3.0 11.0 19.0 50.0	
	+3.4 +2.0 -3.0	
	50.0 20.0 50.0	
	+2.6 -6.2	
	50.0 45.0	
	+0.6 -1.0	
	45.0 45.0	
	-4.0 -2.0 +0.4	
	50.0 25.0 50.0	

Sta	Surf. El.
19+00	68.4 ✓
49+50	65.8 ✓
50+00	67.0 ✓
50+50	67.7 ✓
50+83⅓	68.6 ✓

Lt ℄ Rt

-4.4 -2.0 +0.4
45.0 25.0 45.0

23

-4.0 -1.4 +0.4 -0.7 -0.7 +1.0 -0.2
45.0 14.0 11.0 12.0 16.0 20.0 45.0

-4.0 -4.6 -1.0 -2.0
+0.0 11.0 33.0 42.0

-2.6 -3.0 +0.4 -0.6 -5.6
38.0 24.0 15.0 21.0 31.0

-3.2 -3.2 +0.4 00 -3.0 -3.6
34.0 21.0 14.0 16.0 23.0 33.0

(34)

Art. Topog.

Proj 23-64

Connection M.I.T. H. No. 1

March 1924

FMC

5

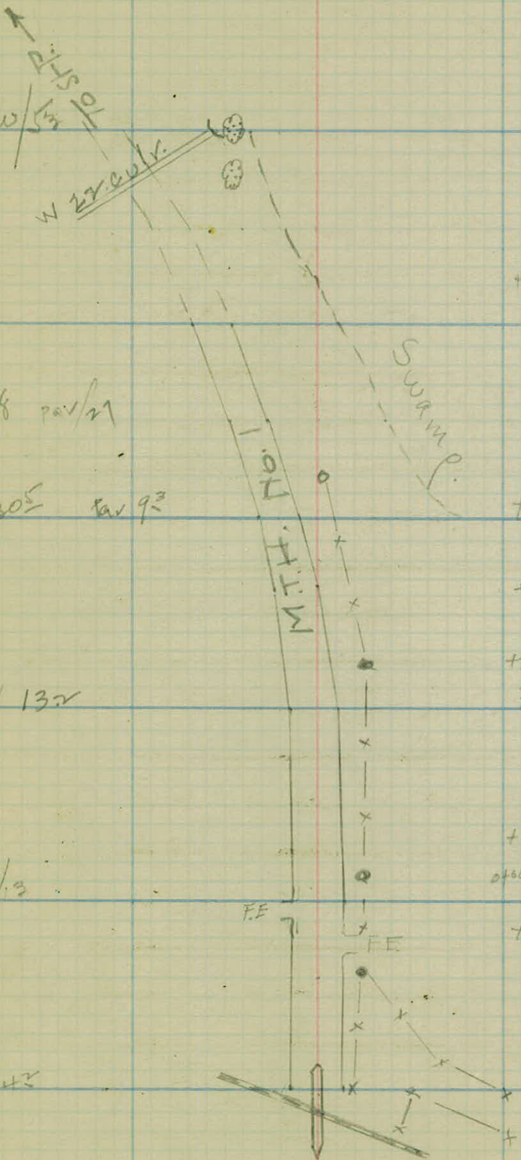
4

3

2

1

0



5 ulv/5³ 10

+22 swamp

4

+50 Pav/48 pav/27

3 Pav. 30⁵ Pav 9³ +20 TP/2

+63 Pav 02

+22 T.P. 22
Pav 10⁴

2 Pav 13²

+14 TP 23
0+60 pav. 13
+84 F 23
+61 FC 21⁶ TP

1 Pav/13

0 Pav/14²

Pav 13⁶ F/17

0-1

11

10

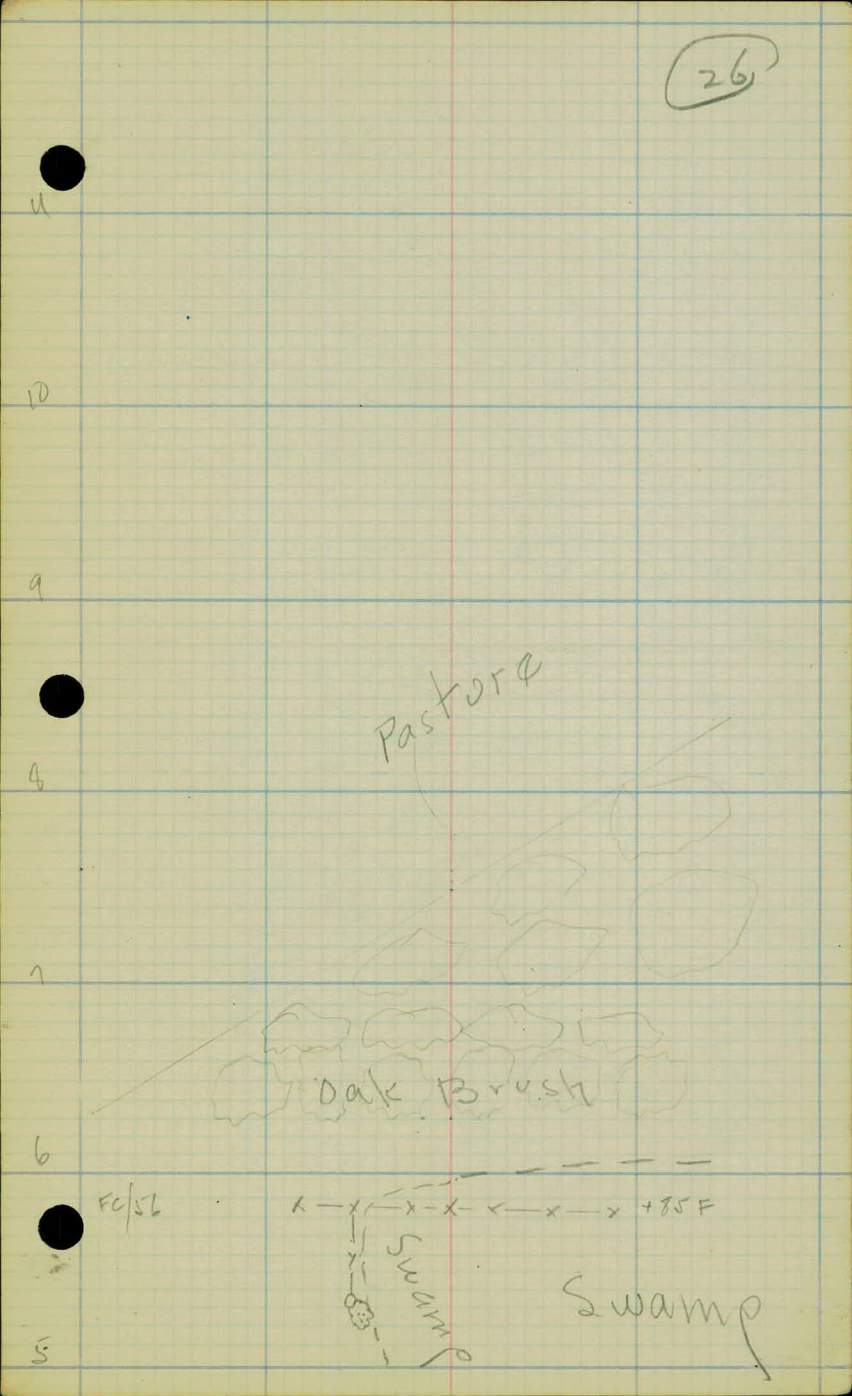
9

8

7

6

5


Pasture
Oak Brush
FC/SL
+85 F
Swamp
Swamp

17

16

15

14

13

12

11

17

Pasture

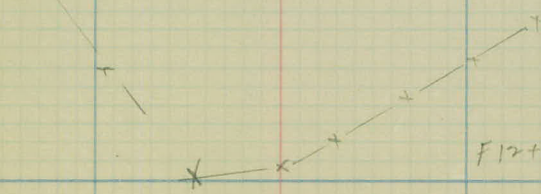
16

15

14

Pasture

13



12

Pasture

11

23

22

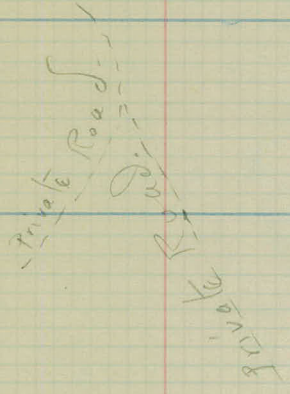
21

20

19

18

17



Pasture

29

28

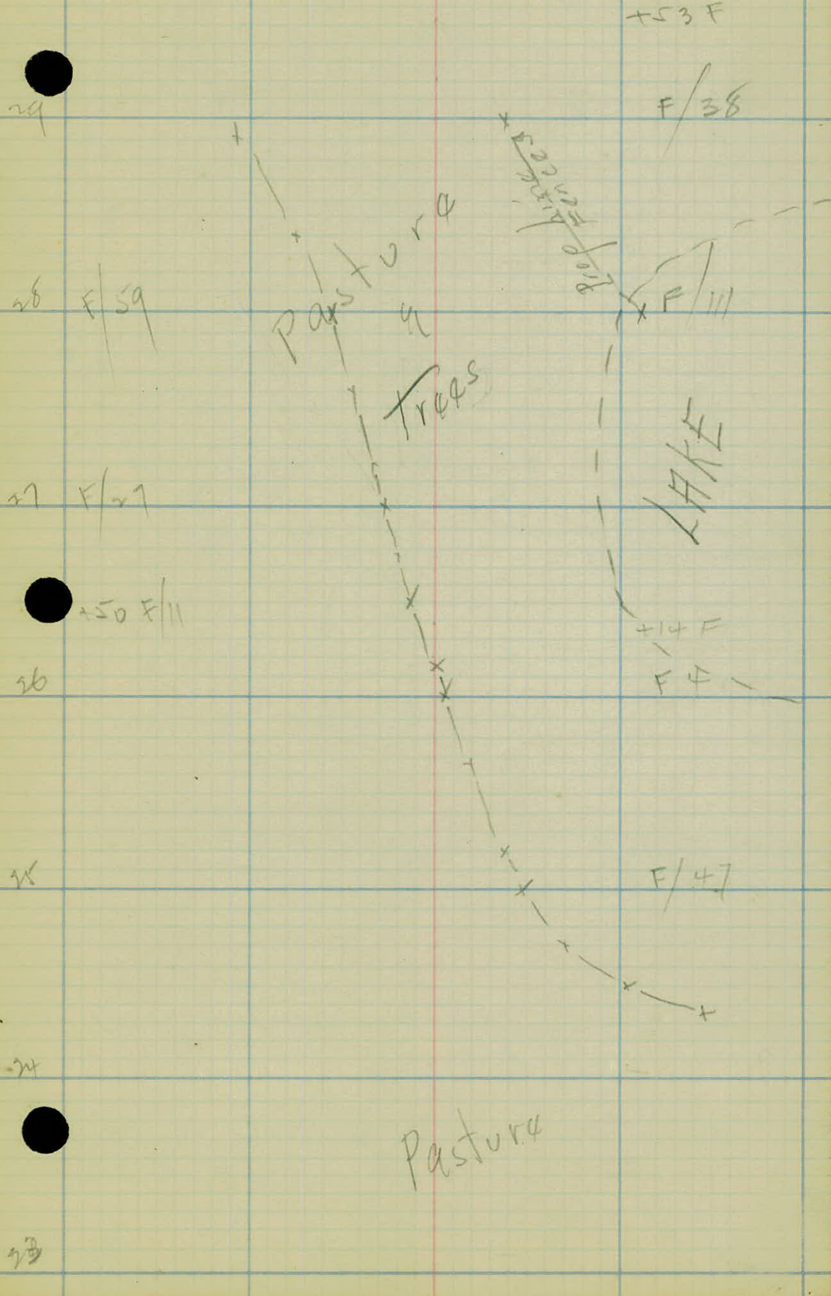
27

26

25

24

23


+53 F
F/38
29
Pasture
28
F/59
F/111
Trees
LAKE
27
F/27
+50 F/11
+14 F
F4
26
25
F/47
24
Pasture
23

35

34

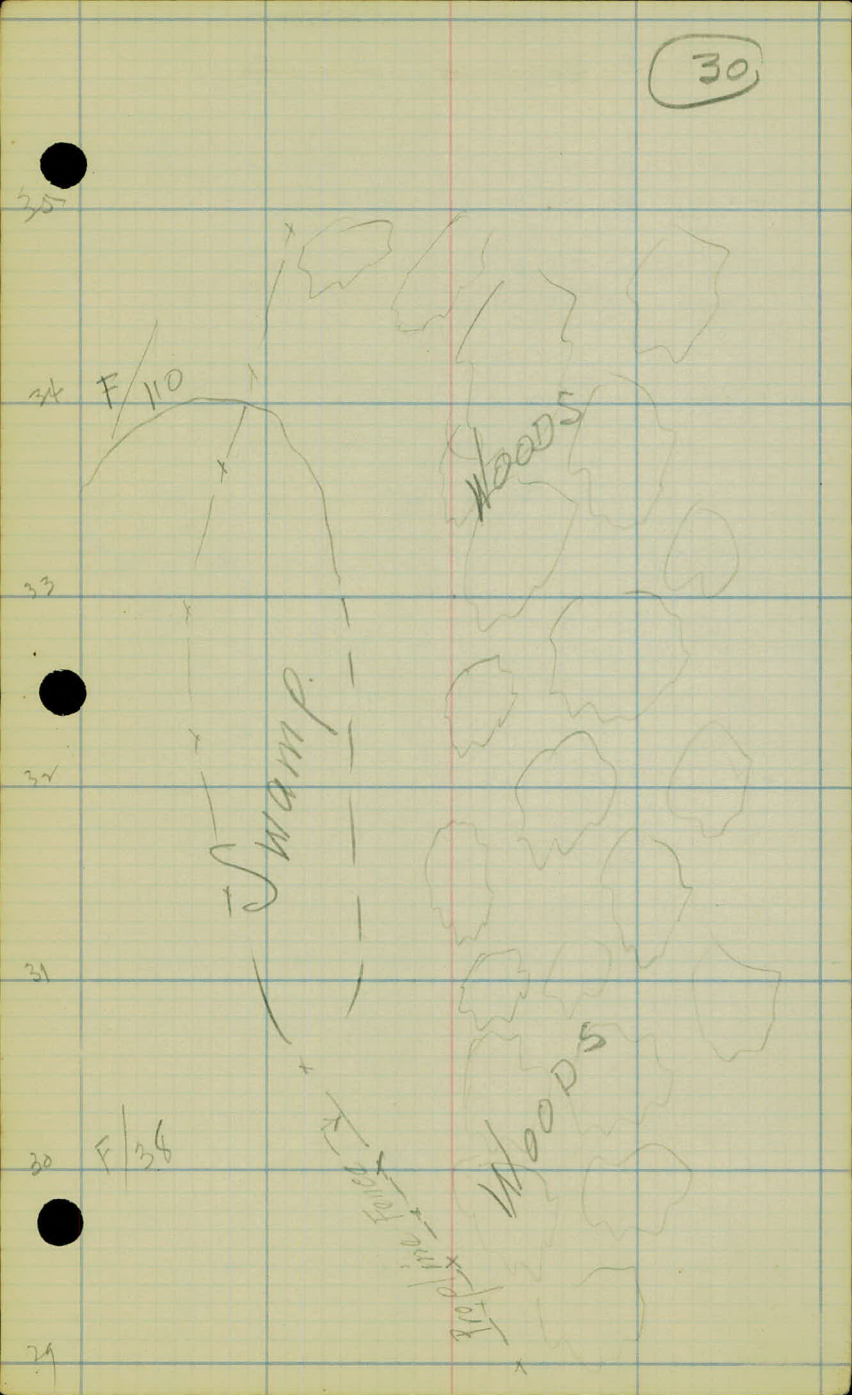
33

32

31

30

29


F/10
Woods
Swamp
F/38
Woods

41

40

39

38

37

36

35

41 F/87

Pasture

40

39

Woods

38

39

36

+50 FC/2B

Woods

35

47

46

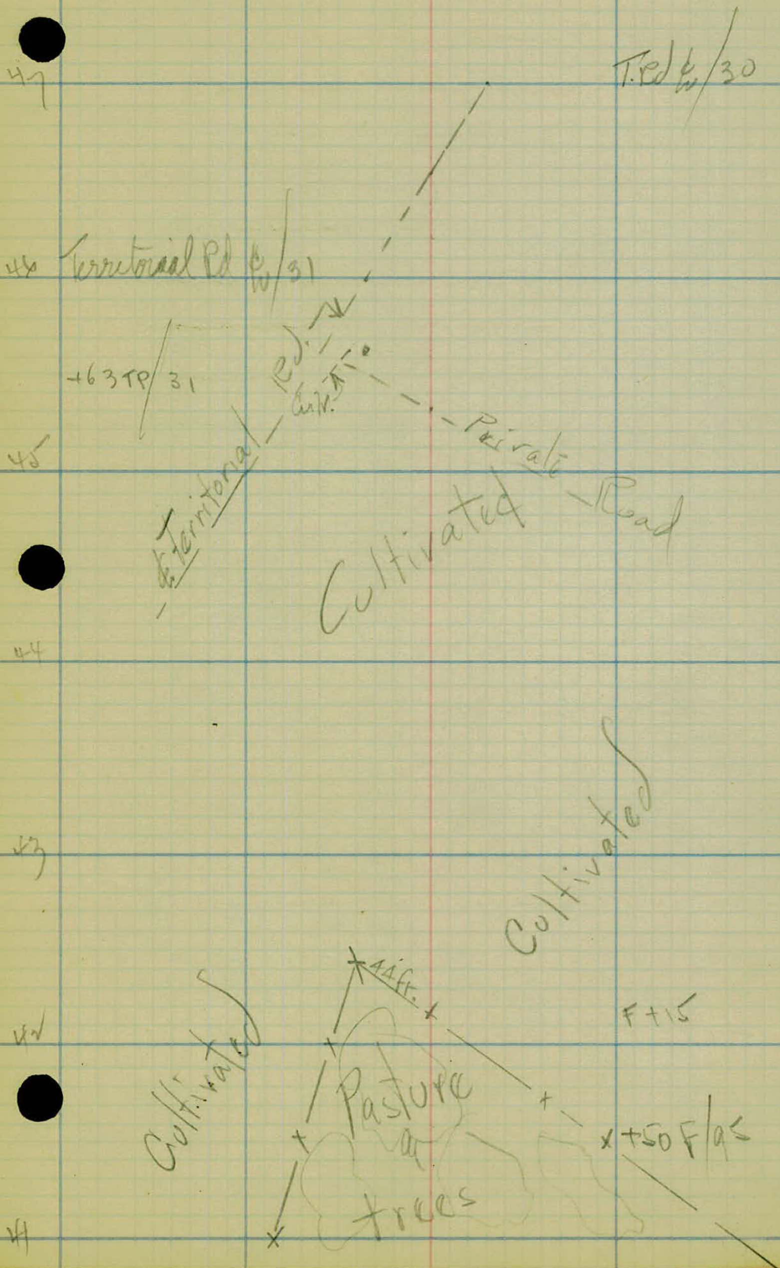
45

44

43

42

41


T. Rd ℄/30
47
46
Territorial Rd ℄/31
+63 TP/31
Territorial Rd.
Private Road
Cultivated
45
44
43
Cultivated
44 ft.
F+15
42
Cultivated
Pasture & trees
+50 F/95
41

51

50

49

48

47

51

⊙ & So. Roberts St.

50

+50 F

49

F/45

Pasture

48

Road.

Territorial

+29 F 9TR/26

47

+04 F

Drainage Notes

Proj - 23 - 64
Connection with M.T.H. No. 1
March - 1924
FMC

Sizes of culv. are subject to corrections for Standards
Any W46 added will be
by R.O.W. man.

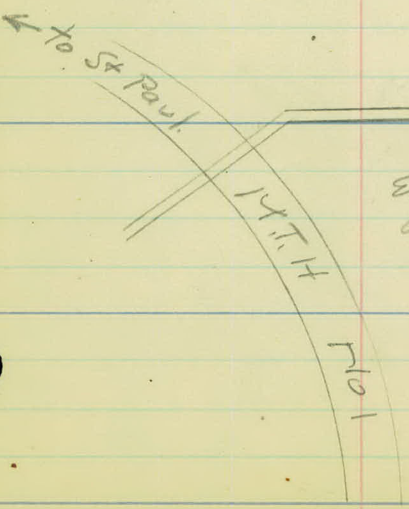
Sta 19+50
P 18" Culv.

14+25

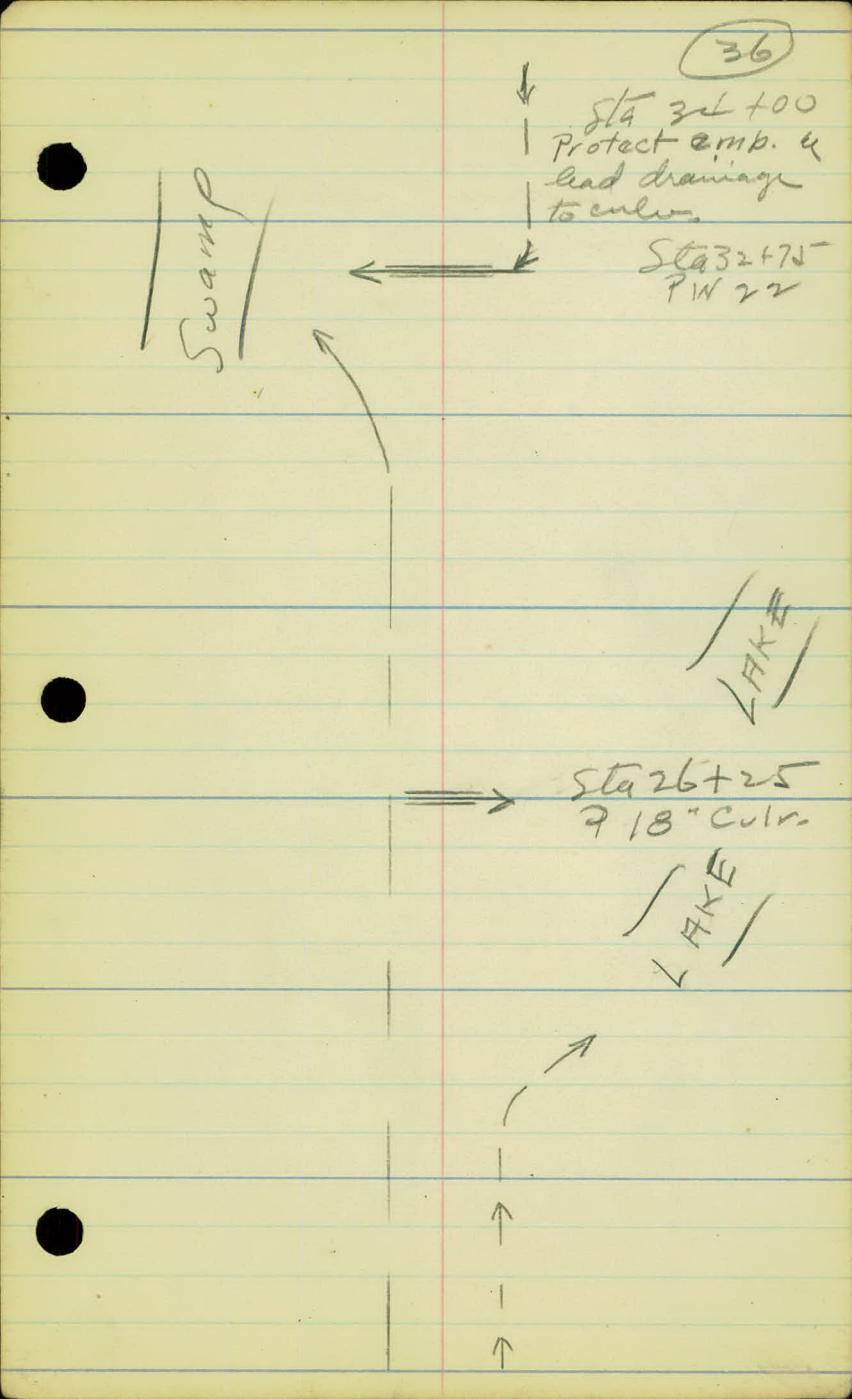
at Sta 10+90
& 14+25
Protect Emb
and lead
drainage to 11+80
with grades
favorable.

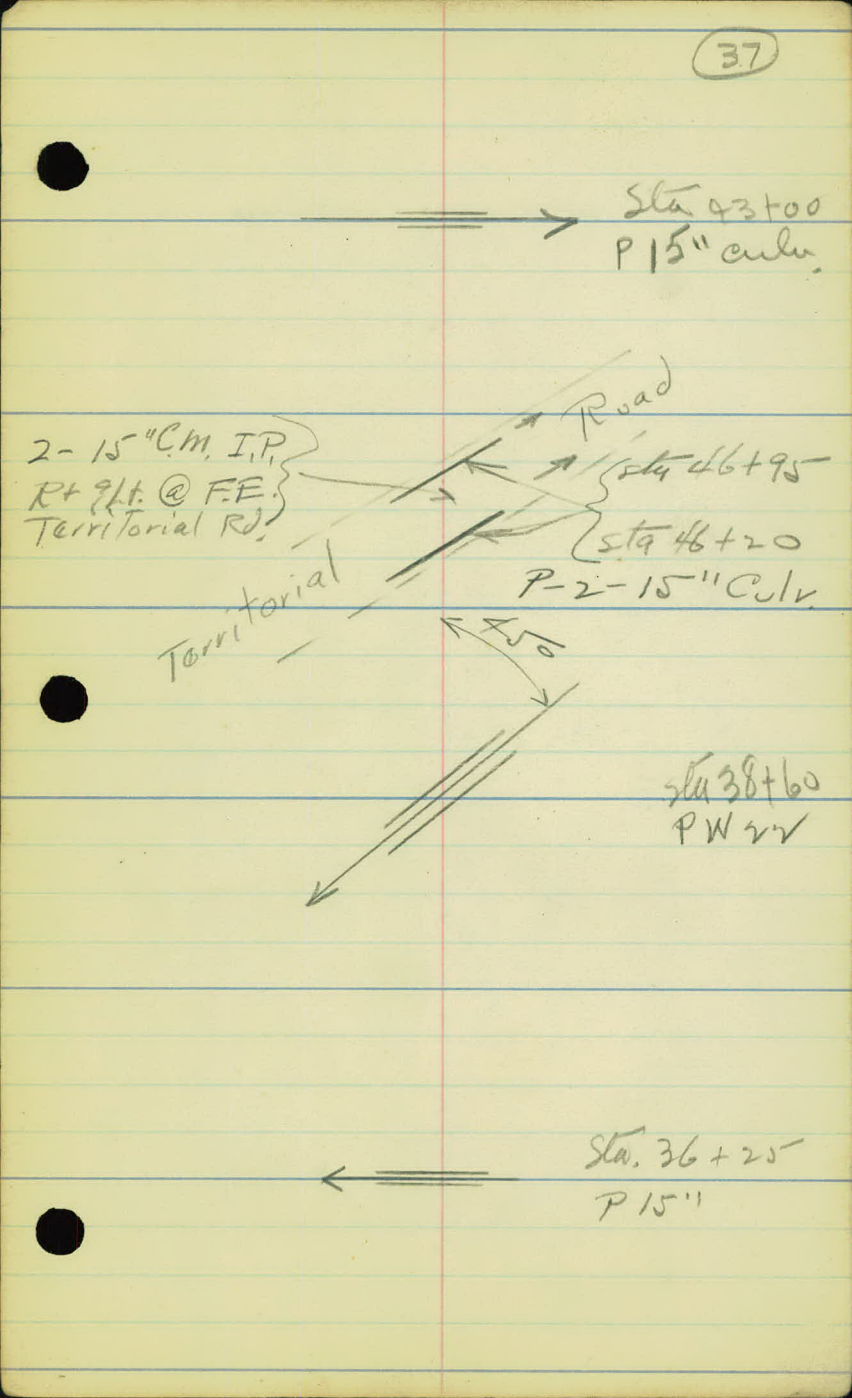
Sta 11+80
PW 22

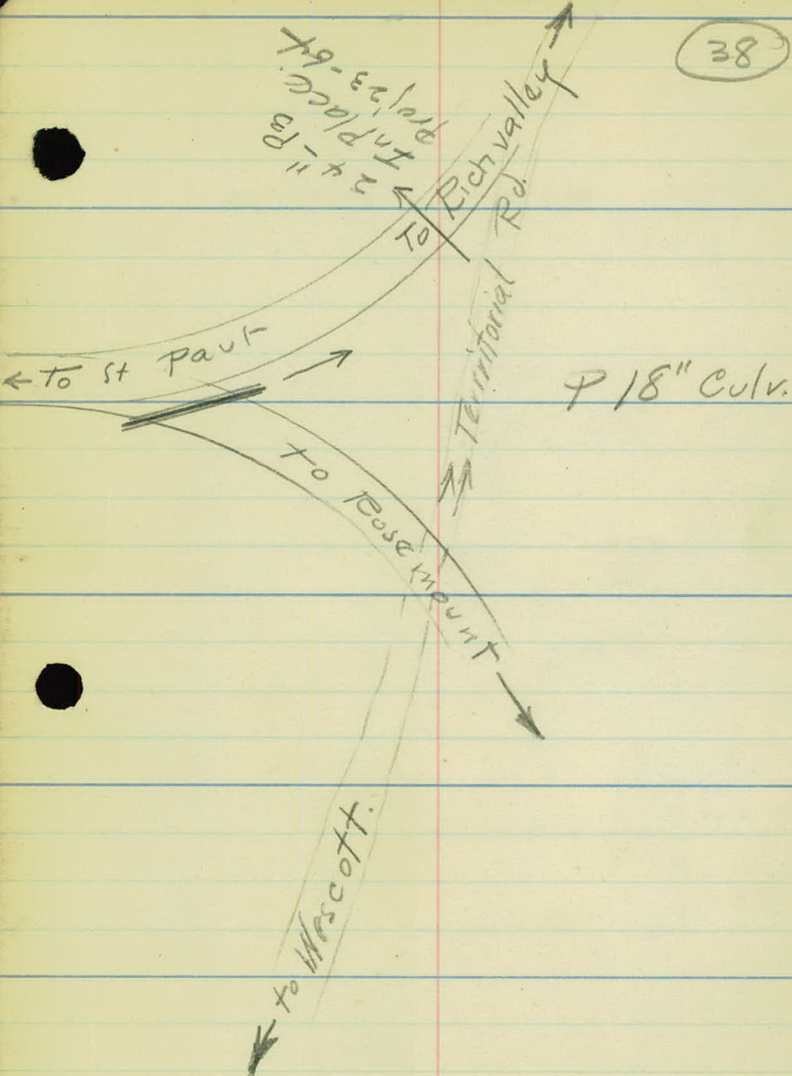
10+90



Sta 5+00
Ext. W 22
across emb.


Sta 32+00
Protect emb. & lead drainage to culv.
Sta 32+75
PW 22
Swamp
LAKE
Sta 26+25
7 18" Culv.
LAKE


Sta 43+00
P 15" culv.
Road
2-15" C.M. I.P.
R+ & L.t. @ F.E.
Territorial Rd.
Sta 46+95
Sta 46+20
P-2-15" Culv.
Territorial
45°
Sta 38+60
P W 2 V
Sta. 36+25
P 15"



Inplace
To Rich valley
Territorial Rd.
← To St Paul
P 18" Culv.
to Rosemount
to Wescott.

26.1
3
78.3

39

25-54

Line Revision.

Alignment

11/25/24

Corley
Crane
Mahoney
Bartheaum

Office of Ramsey Co. Engineer
ST. PAUL, MINN.

Date Filed 11-28-24

File No. "8"

Sta. Point. ΔRt. ΔLt.

To Page 3

= 25+94.5

25+63.09 ✓ P.T.

24+23.32 P.I. 28°36' Rt.

22+77.09 ✓ P.C.

N. 48°16' E.

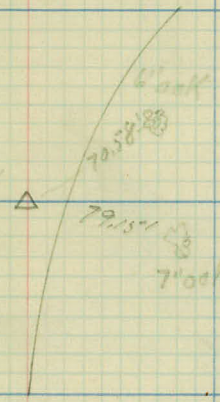
18+38.16 P.T.

16+68.82 P.I. 35°03' L.

14+87.66 ✓ P.C.

Def.

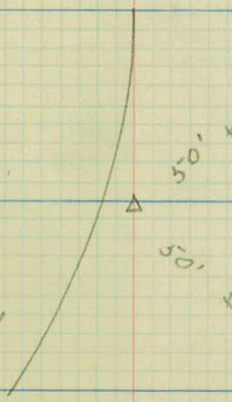
23 - 1°09'
+50 - 3°39'
24 - 6°09'
+50 - 8°39'
25 - 11°09'
+50 - 13°39'
+63.9 - 14°18'



10° Curve Rt.
Δ = 28°36'
T = 146.23
L = 286.0

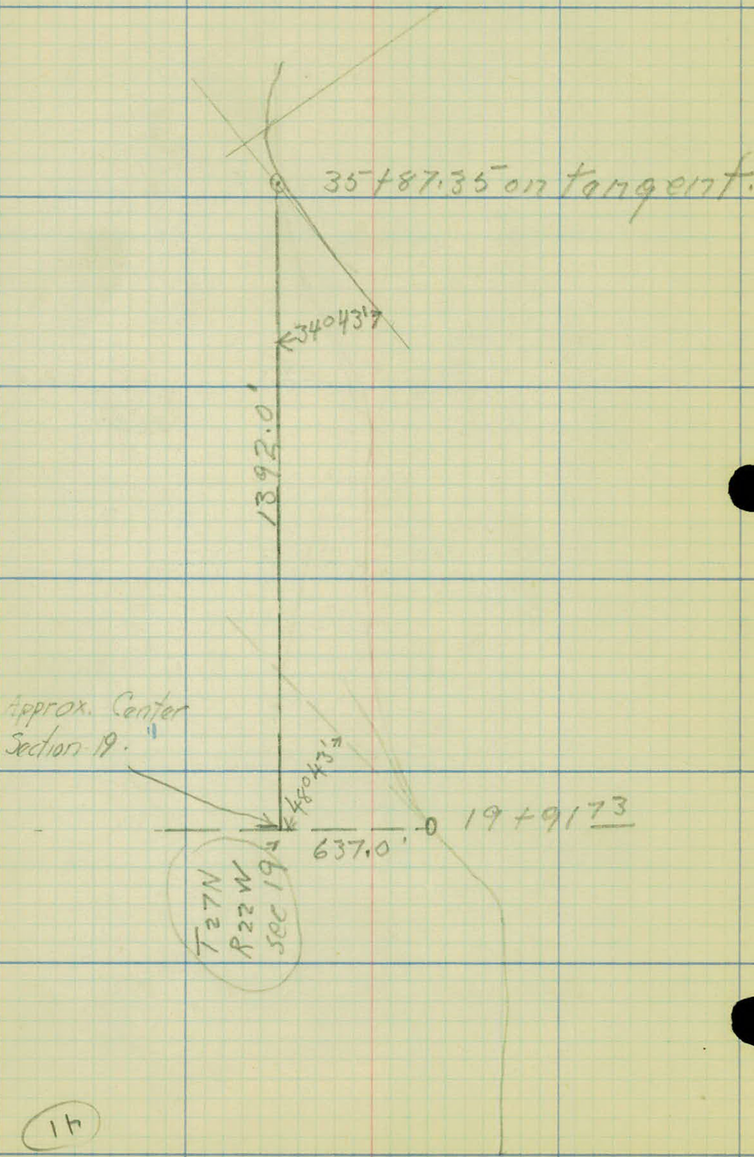
Def.

15 - 0°37'
+50 - 3°07'
16 - 5°37'
+50 - 8°07'
17 - 10°37'
+50 - 13°07'
18 - 15°37'
+38.16 - 17°31.5'



10° Curve Lt.
Δ = 35°03'
T = 181.16
L = 350.5

Land ties.


35+87.35 on tangent.
34°43'
1392.0'
Approx. Center
Section 19.
48°43'
19+91.73
637.0'
T27N
R22W
Sec 19

Xsections

Sta	+	H.I.	-	R.R.	Elev.
B.M.	5.01	873.51			868.50
T.P.	8.50	869.57	12.44		861.07
T.P.	7.35	865.54	11.38		858.19
14+87.00 P.C.				7.5	58.0
15				7.1	58.4
+50				3.2	62.3
16				2.8	62.7
+50				4.4	61.1
17				5.4	60.1
+50				7.7	57.8
T.P.					
18				9.2	56.3
T.P.	0.96	857.76	8.74		856.80
+38.16				3.3	54.5
19				8.7	49.1

Lt. & Rt.

14" oak 60' Lt 5 to 7 + 20⁻

0.0/39	1.0/33	3.3/21	7.5	12.4/22	13.7/33	
0.0/38	0.9/33	3.2/20	7.1	13.7/33		
0.0/36	0.5/33	1.5/21	3.2	3.5/4	4.9/14	5.9/33	5.8/50
0.3/50	0.8/33	1.8/20	3.8	3.7/24	3.7/33	3.9/50	
0.4/50	2.1/33	3.1/21	4.4	5.3/22	5.3/33	6.1/50	
2.3/50	3.3/33	4.1/15	5.4	7.7/23	8.5/33	10.3/50	
3.0/50	4.3/33	4.9/27	7.1	10.2/18	12.7/33	14.9/50	
5.4/50	5.6/33	5.8/25	7.6/12	9.2	11.4/13	13.4/33	15.8/50
1.0/50	1.1/35	1.7/16	3.3	5.4/22	6.5/33	8.7/50	
7.4/50	7.3/28	8.1	10.6/24	13.1/50		

Sta	+	H.I. 857.76	−	Elev	
T.P.	6.44	852.06	12.14		845.62
19+34				9.3	42.8
+67				8.0	44.1
20				3.1	49.0
+50				2.6	49.5⁻
T.P.	11.50	861.18	2.38		849.68
21				7.9	53.3
+50				4.0	57.2
22				3.6	57.6
+50				4.4	56.8
23				11.0	50.2
T.P.	0.90	849.93	12.15⁻		849.03
+50				4.4	45.5⁻
24				7.4	42.5⁻

Lt			℄	Rt		
5.0/50	6.0/40	8.1/18	(9.3)	10.2/24	11.9/40	12.7/50
1.9/50	2.7/38	7.3/5	(8.0)	7.8/17	8.4/29	10.8/50
1.1/50	3.1/32	2.7/12	(3.1)	5.5/29	7.5/50	
	0.5/50	2.4/11	(2.6)	2.5/14	3.4/21	4.6/50
	9.8/50	9.3/39	(7.9)	7.2/39	6.3/50	
	6.4/50	6.1/31	(4.0)	3.8/22	2.8/33	
	4.8/50	4.3/32	(3.6)	3.7/16	2.8/32	3.1/50
5.5/50	4.9/31	5.1/14	(4.4)	4.2/26	4.3/50	
9.0/50	9.0/40	11.3/11	(11.0)	11.8/23	11.1/50	
1.2/50	2.9/24	3.5/10	(4.4)	7.2/28	7.4/37	8.9/50
	3.2/50	3.8/29	(7.4)	10.1/25	12.3/50	

Sta	+	Hit	−	Elev.	
		849.93			
24+50				9.5	40.4
T.P.	0.11	837.98	12.06		837.87
25				0.7	37.3
T.P.	6.98	844.85	0.11		837.87
25					
T.P.	5.01	838.07	11.79		833.06
+27				7.0	31.1
T.P.	0.13	833.19	5.01		833.06
+27					
+50				7.5	25.7
25 +63°° P.T.				9.7	23.5
T.P.	3.78	827.39	9.58		823.61
25 +50					
+63°°					
Equation. 25+63°° = 25+94.5					
T.P.	3.19	827.88	2.70		824.69
B.M.			11.78		816.10

— To Page 10 —
& Page 19 —

Lt ℄ Rt

16.2/50

4.3/50 5.3/38 (9.5) 11.2/19 11.9/31 12.6/37 14.3/41

(0.7) 2.2/11 4.9/20 7.1/26 13.8/41 15.0/50

3.0/50 4.5/30 (7.6)

0.9/50 3.2/25 (7.0)

(2.1) 3.6/11 5.7/19 9.2/27 10.6/39 14.9/50

2.5/50 3.3/27 6.3/12 (7.5)

4.6/50 5.4/31 9.2/11 (9.7)

(1.7) 2.4/5 3.8/9 5.5/20 7.6/27 13.0/50

(3.9) 5.9/12 8.6/23 9.6/30 13.5/50

R.R. spike in 12" Birch 50' Lt of sta 30+25
El. 816.07