

Book # 83 Dr. # 8

MAINT. SURVEY.
LAKE JOHANNA BLVD.

From Co. Rd D.

To Co. Rd. E.

RD % N^o 6

6-11-24

"13"

Alignment

Lake Johanna Blvd
Road #6

From Co. Rd 'D', North
around Lake

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

Date Filed 6-11-24

File No. 73"

Rd # 6

Station Pt L Rt.

N 83° 04' E ✓

26+10.3

82° 40'

N 0° 24' E ✓

21+02.0

1° 00'

N 0° 36' W ✓

18+60.5

P.I.

0° 43'

N 0° 07' E ✓

14+72.6

P.I.

0° 15'

N 0° 22' E ✓

6+00

Mon.

center Sec. 33

82°40'

26+73

26+75

10+47

10+75

11.5

20

35.25

27.1

19.40

15.62

4

4" oak

Nail in 4" oak @

Nail in 6" Oak

Nail in P.O.P.

Nail in 24" Oak

Nail in 12" Oak

Nail in 24" Oak

Nail → R.R. Spike

Nail in 6' Oak

Mon. set in Pavement.

W.H.C.
M.C.E.
T.F.
A.B.

May, 1924

Station

H

L

R

N 25° 46' W

35+63.14 ✓

9° 25'

35

7° 31.4'

6° C.L.

+50

6° 01.4'

Δ 18° 50'

34

4° 31.4'

P.I. 34+07.7

+50

3° 01.4'

S.T. 158.45 ✓

33

1° 31.4'

C.L. 313.89 ✓

32+49.25 ✓

0° 00'

R. 955.34

N 6° 56' W

32+20

P.T. ✓ 11° 00'

32+00

9° 54'

11° C.L.T

+50

9° 09'

Δ 22° 00'

31+00

4° 24'

P.I. 31+27.40

+50

1° 39'

S.T. 101.40 ✓

30+20

P.C. ✓ 0° 00'

C.L. 200.20 ✓

R. 521.67

N 15° 04' E

28+71.72 ✓ P.T. ✓ 34° 00'

+50

27° 42'

Δ 68° L.

+25

20° 27'

58° C.

28+00

13° 12'

P.I. 28+23.25

+75 -1.02

5° 51'

S.T. 69.27 ✓

27+54.84 ✓ P.C. ✓

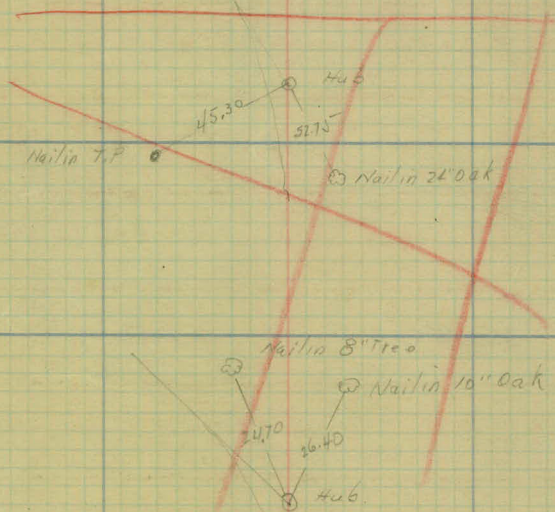
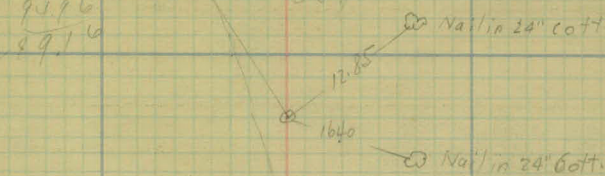
C.L. 117.24 ✓

N 8° 00' E

35.75
15.44
91.96
289.16

32.407.7
14.55.45
32.49.25
11.55.11
33.75

2



Station	Pt.	L	R	
45+31.13	P.T. ✓		7°25'	N 50° 01' E ✓
45			6°10.3'	8° C.R.
+50			4°10.3'	Δ 14°50'
44			2°10.3'	P.I. 44+39'
43+45.7	P.C. ✓		0°00'	S.T. 93.3 ✓
				L.C. 185.42 ✓
				R. 716.78' ✓
42+47.84	P.T. ✓		15°00'	N 35° 01' E ✓
				20° C.R.
42+00			10°13'	Δ 30°00'
46+50			5°13'	P.I. 41+75
46+00			0°13'	S.T. 77.16 ✓
40+97.85	P.C. ✓		0°00'	L.C. 150.32 ✓
				R. 287.94' ✓
+42.22	P.T. ✓		10°00'	N 50° 14' E ✓
40			8°06'	9° C.R.
+50			5°51'	Δ 20°00'
39			3°36'	P.I. 39+32.37
+50			1°21'	S.T. 112.37 ✓
38+20	P.C.I.C. ✓		0°00'	C.L. 222.22 ✓
			5°30'	✓ R. 637.28' ✓
38			5°00'	N 140° 46' W
+50			3°15'	5° C.R.
				Δ 11°00'
37			2°30'	P.I. 37+10.37
+50			1°15'	S.T. 110.37 ✓
36+00	P.C. ✓			N 25° 04' 16' W
				G.L. 220.32 ✓
				R. 1146.28' ✓

Nail in T.P. 22.50



23.15

Nail in 24" Tree

41.35

30.15

Nail 8" E/m.

Nail in 30" Cott.

33.65

P.I. 29+32.37

34.05

Nail in 8" Tree

Nail in 24" Dr. H

287

53.15

Nail in 5" Tree

Station

Pt.

L

R.

$$\begin{array}{r} 180.00 \\ - 21.95 \\ \hline 58.05 \\ - 5.15 \\ \hline 52.90 \end{array}$$

581006'E

✓

54+89.10 P.T. ✓ 6°-50'

+50 5°-27.9'

7° C.L.

54 3°-42.9'

Δ 13°-40'

+50 1°-57.9'

P.I. 53+92

53 0°-12.9'

S.T. 98.14' ✓

52+93.86 P.C. ✓ 0°-00'

L.C. 195.24' ✓

R-819.02'

+64.91 P.T. ✓

15°-35'

567026'E

✓

51 10°-08.5'

17° C.R.

+50 5°-53.5'

Δ 31°-10'

50 1°-38.5'

P.I. 50+75

49+80.68 P.C. ✓ 0°-00'

S.T. 94.32' ✓

L.C. 183.33' ✓
R-338.24'

+65.76 P.T. ✓

15°-40'

H-810211'E

✓

14° C.R.

48 11°-03.8'

Δ 31°-20'

+50 7°-33.8'

P.I. 47+57

47 4°-03.8'

S.T. 115.05' ✓

46+41.95 P.C. ✓ 0°-00'

L. 223.81' ✓

R-410.28'

N-500411'E

Nail in T.P.

Nail in Po.P.

54.10

23.95

Nail in Guy Po.

25.9

35.05'

Nail in P.P.

Nail Lt. Pole

25.4

Nail in T.P.

35.4

Station	Pt.	L	R
63+29.45	P.T. ✓	30°-00'	N 33° 02' 41" E
63		26°-10.3	26°-C.L.H.
+50		19°-40.3	Δ 60°-00'
62		13°-10.3	P.I 62+27'
+50		6°-40.3	S.T. 128.32 ✓
61		0°-10.3	C.L. 230.17 ✓
60+98.68	P.C. ✓	0°-00'	R. 222.27'
			S 58° 26' E
59+87.79	P.T. ✓	11°-50'	22° C.R.
59+50		7°-41.2	Δ 23°-40'
59		2°-11.2	P.I 59+35
58+80.12	P.C. ✓	0°-00'	S.T. 54.88 ✓
			C.L. 107.57 ✓
			R. 262.04'
			N 69° 44" E
58+80	P.T. ✓		7230'
+50			6°-00'
58			10° C.R.
+50			Δ 15°-00'
57+30	P.C. ✓		3°-30'
			P.I 58+05.53
			1200'
			S.T. 75.53 ✓
			C.L. 150.98 ✓
			R. 573.69'
			N 64° 04" E
57+03.74	✓	22°-05'	350 C.L.
+50		12°-40.7	Δ 44°-10'
56		3°-55.7	P.I 56+45
55+77.55	✓	0°-00'	S.T. 67.45 ✓
			L.C. 126.19 ✓
			R. 166.28'
			S 81° 06" E

Nail in Ear.F.P. • 9.03 • ①

27.7

② Iron Fence Post.

• Nail in P.D.

69.40

52.85

Nail in P.D.

33.3

49.5

Nail in T.P.

Nail in Fo.P.

19.15

③ Nail in 14" Oak.

31.25

Nail in Fo. P.

Station. Pt. L R

69+79.1 P.O.T.

N 76° 04' E

67+77.94 P.T. ✓

13°-10' 15°-0' R.

+50

11° 03' Δ 260.20' Rt.

67

7018.2' P.I. 66+92

+50

3233.2 S.T. 89.61
C.L. 175.55

66+02.39 P.C. ✓

02-00' R. 383.07'

N 49° 04' E

+29.03 P.T. ✓

8°-10'

65

6°-51.6' 92° 0' R

+50

4236.6' Δ 160°-20'

64

2221.6' P.I. 64+39

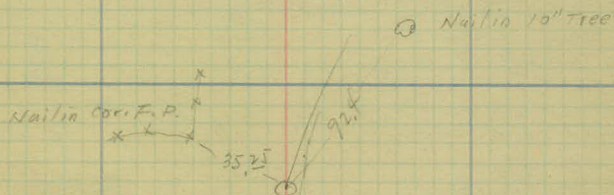
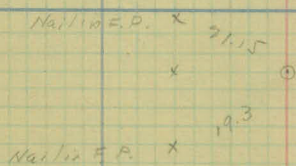
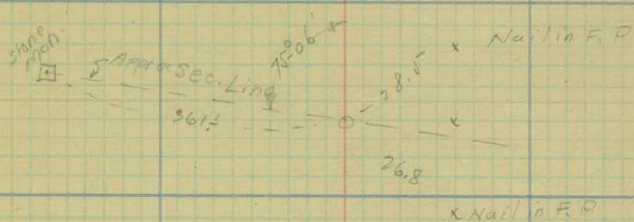
63+47.55 P.C. ✓

S.T. 91.45

C.L. 181.48

R. 637.28'

N 33° 24' E



B.M.

172.77 - 0.0 G. Bd.

Bench & $\angle$ Levels

Lake Johanna Blvd.

	+	H.I.	-	Elev.
B.M.	10.33	883.10		872.77
B.M.	4.56	885.45	2.21	880.89
T.P.	9.66	894.11	1.00	884.45
B.M.	0.67	889.40	5.38	888.73
T.P.	4.75	889.44	4.71	884.69
B.M.	5.98	891.30	4.12	885.32
T.P.	11.43	901.08	1.65	889.65
T.P.	10.25	911.03	0.30	900.78
B.M.	2.46	912.76	0.73	910.30
T.P.	11.93	923.95	0.74	912.02
T.P.	2.71	925.69	0.97	922.98
T.P.	8.81	931.38	3.12	922.57
B.M.			4.33	927.05
	<u>23.54</u>		<u>29.26</u>	- 872.77
	29.26			54.28
	54.28			

Levels

B.M.	4.33	931.38		927.05
0+00			3.12	928.28
+66			4.53	26.85
1			4.4	27.0
2			3.8	27.6
+50			3.7	27.7
3			4.1	27.3
4			4.7	26.7
5			6.1	25.3
6			7.6	23.8

W.H.C.
M.C.E. | June 9
M.A.G. | 1924
T.F.

o.o Gauge Board Rt. Station 62+90

R.R. spike in 10" Oak Rt. Sta. 63+05

Nail in I.P.

R.R. spike in 12" Maple Lt. Sta. 52+00

R.R. spike in 10" Elm Rt. Sta. 37+50

T.P.

Nail in 6" Maple, 45' Rt. Sta. 25+62

C. of Stone Mon. set in Pavement. 0+00

C. of Stone Mon. 0+00

End of Pavement

Lt. & Rt.

∇ = Crown & ϕ , present Rd.

4.6
3
5.9
4
7.4
5

Station	+	H.I. ✓	-	Elev.
		931.38		
7			8.5	922.9
T.P.	225	925.57 ✓	8.06	923.32 ✓
8			3.3	22.3
9			4.0	21.6
10			4.7	20.9
11			4.4	21.2
12			3.6	22.0
13			2.8	22.8
14			2.1	23.5
T.P.	159	926.41 ✓	1.75	923.82 ✓
15			3.3	23.1
16			3.8	22.6
B.M.			3.56	922.85 ✓
17			6.0	20.4
18			8.4	18.0
19			11.3	15.1
T.P.	601	915.54 ✓	10.91	915.50 ✓
20			3.0	12.5
21			6.2	09.3
22			7.9	907.6
23			8.1	06.4 07.4
24			7.9	07.6
T.P.	581	913.66 ✓	7.75	907.79 ✓
25			5.5	08.2
B.M.	469	914.99 ✓	3.36	910.30 ✓

Lt. R. Rt.

$\frac{8.3}{6}$ - Crown & present Rd.

$\frac{3.3}{7}$

$\frac{3.8}{7}$

$\frac{4.6}{7}$

$\frac{4.1}{7}$

$\frac{3.4}{7}$

$\frac{2.2}{8}$

$\frac{1.8}{9}$

$\frac{2.9}{10}$

$\frac{3.2}{10}$

R.R. spike in 6" Oak 30' R. 16 + 30

$\frac{5.3}{11}$

$\frac{7.7}{12}$

$\frac{10.4}{11}$

$\frac{2.5}{10}$

$\frac{5.4}{9}$

$\frac{7.5}{8}$

$\frac{7.4}{9}$

$\frac{2.1}{12}$

$\frac{4.6}{11}$

Nail in 6" Maple 45' Rt. 25 + 62

Station	+	H.I. ✓	-	Elev.
		914.99		
25+44			6.4	908.6.
+75			6.2	08.8.
26			5.5	09.5.
+25			5.8	09.2.
+45			4.1	10.9.
+50			1.0	14.0.
27			4.2	10.8.
+55			6.2	08.8.
28			6.9	08.1.
+50			8.9	06.1.
29			10.0	05.0.
+62			11.5	03.5.
T.P.	1.23	904.91 ✓	11.31	903.68 ✓
30			2.8	02.1.
+10			4.0	900.9.
+18			9.4	895.5.
+30			10.6	894.3.
+50			9.8	95.1.
31+00			11.0	93.9.
Eq 31+38 = 32+135			12.0	92.9.
T.P.	0.39	893.52 ✓	11.78	893.13 ✓
33			2.7	90.8.
34			4.7	88.8.
35			5.7	87.8.
36			6.4	87.1.

W.H.C.

M.C.E.

M.A.C.

T.F.

6-14-14

Station	+	H.I.	-	Elev.
		893.52 ✓		
37			6.6	886.9 ✓
B.M.	5.80	891.12 ✓	8.20	885.32 ✓
38			4.4	86.7 ✓
39			5.0	86.1 ✓
40			5.0	86.1 ✓
41			5.1	86.0 ✓
T.P.	3.40	889.48 ✓	5.04	886.08 ✓
42			4.1	85.4 ✓
43			4.7	84.8 ✓
44			4.9	84.6 ✓
45			5.1	84.4 ✓
46			5.0	84.5 ✓
T.P.	3.70	888.16 ✓	5.02	884.46 ✓
47			3.4	84.8 ✓
48			3.4	84.8 ✓
49			3.6	84.6 ✓
50			3.1	85.1 ✓
51			1.8	86.4 ✓
T.P.	4.33	895.08 ✓	2.41	885.75 ✓
52			2.0	88.1 ✓
B.M.			6.33	888.75 ✓
53			4.9	90.2 ✓
54			3.6	91.5 ✓
55			4.6	90.5 ✓

June - 16, 1924

R.R. spike in 10" Elm Rt. Sta 37+50

R.R. spike 12" Maple Lt. Sta. 52+00

+

H. I

—

E/cy.

X-Sections

Lake Johanna Blvd.

Station

Elev

7

922.9.

+45

-0.6

923.2.

6

928.8.

+50

-0.6

924.7.

5

925.3.

+65

-0.7

926.0.

4

926.7.

3

927.3.

+36

-0.1

927.5.

2

927.6.

+65

+0.4

927.4.

1+00

927.0.

0+66

926.85. End of Pave.

$$\begin{array}{cccccc} & Lt. & & R. & & Rt. \\ +1.1 & +0.6 & +1.6 & +1.4 & -0.7 & -0.2 & 44 & -0.2 & -0.6 & -4.0 & -4.5 \\ 33 & 14 & 12 & 10 & 6 & 3 & & 15 & 19 & 26 & 33 \end{array}$$

$$\begin{array}{cccccc} -0.4 & -1.7 & -1.9 & -0.8 & -0.2 & & 42 & -0.2 & -0.6 & -5.6 & -6.7 \\ 33 & 14 & 11 & 8 & 3 & & & 14 & 18 & 27 & 33 \end{array}$$

$$\begin{array}{cccccc} +1.4 & -0.2 & +1.6 & +1.6 & -0.7 & -0.2 & 36 & -0.1 & -0.4 & -5.0 & -6.6 \\ 33 & 14 & 12 & 11 & 8 & 4 & & 13 & 16 & 24 & 33 \end{array}$$

$$\begin{array}{cccccc} +1.7 & +0.3 & +1.1 & -0.8 & -0.2 & & 28 & -0.5 & +1.4 & -2.9 & -4.2 & -5.2 \\ 33 & 14 & 12 & 8 & 4 & & & 14 & 18 & 23 & 28 & 33 \end{array}$$

$$\begin{array}{cccccc} +1.9 & +1.5 & -1.0 & -0.8 & -0.2 & & 22 & -0.3 & -1.1 & -1.1 & -2.0 & -2.8 & -3.4 \\ 33 & 14 & 11 & 7 & 4 & & & 13 & 17 & 19 & 21 & 26 & 33 \end{array}$$

X

$$\begin{array}{cccccc} +0.7 & +0.3 & -1.0 & -0.9 & -0.4 & & 61 & -0.5 & -1.2 & -2.6 & -2.9 \\ 33 & 13 & 11 & 8 & 5 & & & 13 & 17 & 21 & 32 \end{array}$$

$$\begin{array}{cccccc} -0.1 & -0.6 & -1.4 & -0.3 & & & 54 & -0.4 & -1.2 & -2.5 & -1.8 \\ 33 & 14 & 11 & 5 & & & & 13 & 18 & 21 & 33 \end{array}$$

$$\begin{array}{cccccc} +0.5 & 0.0 & -0.8 & -0.8 & -0.2 & & 48 & -0.4 & -1.4 & -1.4 \\ 33 & 13 & 12 & 10 & 5 & & & 11 & 17 & 33 \end{array}$$

$$\begin{array}{cccccc} +0.2 & +0.4 & -0.9 & -0.9 & -0.2 & & 44 & -0.2 & -1.1 & -0.3 & 0.0 \\ 33 & 14 & 12 & 10 & 6 & & & 11 & 16 & 20 & 33 \end{array}$$

$$\begin{array}{cccccc} +0.3 & 0.0 & -1.1 & -0.1 & & & 45 & -0.3 & -1.0 & -1.1 \\ 33 & 24 & 10 & 6 & & & & 12 & 16 & 33 \end{array}$$

$$\begin{array}{cccccc} +1.1 & -0.6 & -0.1 & & & & 46 & -0.2 & -1.0 & -0.7 \\ 33 & 11 & 6 & & & & & 10 & 15 & 33 \end{array}$$

$$\begin{array}{cccccc} +0.1 & -0.5 & -0.4 & & & & 50 & -0.4 & -1.0 & -0.8 \\ 33 & 12 & 8 & & & & & 10 & 15 & 33 \end{array}$$

$$\begin{array}{cccccc} +0.3 & -0.4 & -0.5 & -0.5 & & & 55 & -0.3 & -1.2 \\ 33 & 15 & 10 & & & & & 15 & 33 \end{array}$$

W.H.C.
M.C.E.
M.A.S.
T.F.

6-16-24

station

E/cv.

+50

+0.8

923.1

13

922.8

+75

-0.2

922.6

+35

-0.2

922.4

12

922.0

+50

+0.3

921.5

11

921.2

+45

0.0

920.9

10

920.9

+60

+0.2

921.1

9

921.4

8

922.3

+50

+0.3

922.6

$$\begin{array}{ccccccc}
 Lf. & & & & R & & Rf. \\
 +5.8 & +4.1 & -0.4 & 13.4 & +0.4 & -0.1 & -0.9 & +0.6 & -0.1 \\
 \hline 33 & 16 & 10 & 7.0 & 7 & 17 & 23 & 26 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +6.2 & +5.1 & -0.3 & 7.3 & +0.1 & -1.0 & +0.4 & 0.0 \\
 \hline 33 & 17 & 10 & - & 16 & 23 & 30 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +5.8 & +4.0 & -0.5 & 7.5 & -0.1 & -0.6 & -1.0 & -0.2 & -1.0 \\
 \hline 33 & 14 & 8 & - & 16 & 21 & 23 & 28 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +4.6 & +3.9 & -1.2 & -0.4 & 2.7 & -0.3 & -1.1 & -1.8 & -2.8 \\
 \hline 33 & 16 & 10 & 6 & - & 16 & 21 & 24 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +3.9 & +2.2 & -1.4 & -1.2 & -0.4 & 4.0 & -0.1 & -0.9 & -3.1 \\
 \hline 33 & 15 & 11 & 9 & 6 & - & 16 & 20 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +2.6 & +1.7 & +0.4 & -1.7 & -1.5 & -0.5 & 4.6 & -0.4 & -3.6 & -4.6 \\
 \hline 33 & 24 & 15 & 12 & 9 & 5 & - & 20 & 30 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +1.3 & -0.7 & -2.0 & -0.6 & 4.7 & -0.2 & -5.1 & -6.6 \\
 \hline 33 & 17 & 13 & 7 & - & 19 & 21 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 -0.9 & -2.2 & -2.2 & -0.2 & -0.1 & 5.1 & -0.2 & -0.6 & -6.0 & -8.2 \\
 \hline 33 & 18 & 11 & 7 & 4 & - & 15 & 18 & 26 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 -2.5 & -3.7 & -3.2 & -0.3 & -0.2 & 5.1 & -0.3 & -0.9 & -1.4 & -1.9 \\
 \hline 33 & 17 & 11 & 6 & 3 & - & 15 & 19 & 30 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 -2.3 & -3.5 & -2.8 & -0.4 & 0.0 & 4.9 & -0.3 & -0.8 & -6.3 & -1.2 \\
 \hline 33 & 18 & 11 & 6 & 3 & - & 14 & 18 & 28 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +2.6 & +0.6 & -1.3 & -1.3 & -0.7 & -0.4 & 5.8 & +0.1 & -0.2 & -0.7 & -4.3 & 4.7 \\
 \hline 33 & 13 & 11 & 9 & 6 & 2 & - & 7 & 16 & 19 & 28 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +2.1 & +1.3 & -1.3 & -0.7 & -0.2 & 5.1 & -0.3 & -0.7 & -3.2 & -3.0 \\
 \hline 33 & 14 & 11 & 6 & 3 & - & 16 & 19 & 24 & 33
 \end{array}$$

$$\begin{array}{ccccccc}
 +2.3 & -1.4 & -1.4 & -0.6 & -0.2 & 4.8 & -0.2 & -0.6 & -3.2 & -1.1 \\
 \hline 33 & 14 & 11 & 6 & 3 & - & 15 & 19 & 24 & 33
 \end{array}$$

Station

Elev.

+31

-0.8

911.7

20



912.5

+35

+1.6

914.1

19

915.1

+60

-1.6

916.4

18



918.0

+50

+1.3

919.3

17

920.4

+37

-0.5

922.1

16



922.6

15

923.1

+50

-0.2

923.7 923.3

14



923.5

		Lt		Rt					
+6.7	+6.0	+2.5	.00	-1.4	-0.6		+0.3	.00	-0.8 - .04
33	23	21	18	7	3	89	12	19	79 33

$$\begin{array}{cccccccccccccccc} \frac{1140}{40} & \frac{140}{33} & \frac{138}{28} & \frac{65}{21} & \frac{11}{8} & \frac{11}{6} & 8.1 & \frac{0.4}{11} & \frac{00}{19} & \frac{-0.4}{25} & \frac{+3.4}{31} & \frac{+12.3}{39} & \frac{+12.7}{52} \end{array}$$
$$\frac{15.1}{33} + \frac{4.5}{12} - \frac{0.8}{7} = 109 \quad \frac{10.6}{10} - \frac{10.4}{18} - \frac{0.6}{27} + \frac{5.6}{37}$$
$$\begin{array}{r} +5.2 \\ 33 \end{array} \quad \begin{array}{r} +3.7 \\ 10 \end{array} \quad \begin{array}{r} -0.4 \\ 5 \end{array} \quad 9.7 \quad \begin{array}{r} +0.5 \\ 10 \end{array} \quad \begin{array}{r} +0.5 \\ 19 \end{array} \quad \begin{array}{r} 0.0 \\ 30 \end{array} \quad \begin{array}{r} +2.8 \\ 34 \end{array}$$
$$\begin{array}{cccccccc} +5.6 & +4.7 & -0.4 & 81 & +0.6 & +0.2 & -0.7 & +4.2 \\ \hline 33 & 12 & 6 & & 11 & 20 & 27 & 33 \end{array}$$
$$\begin{array}{cccccccc} +4.3 & +3.9 & -0.4 & 4.7 & +0.3 & 0.0 & -0.8 & +1.9 & +1.8 \\ \hline 33 & 12 & 6 & 47 & 10 & 18 & 25 & 29 & 32 \end{array}$$
$$\begin{array}{r} +3.6 \\ \hline 33 \end{array} \quad \begin{array}{r} +7.8 \\ \hline 10 \end{array} \quad \begin{array}{r} 0.0 \\ \hline 6 \end{array} \quad 98 \quad \begin{array}{r} +0.6 \\ \hline 9 \end{array} \quad \begin{array}{r} +0.5 \\ \hline 18 \end{array} \quad \begin{array}{r} -0.2 \\ \hline 24 \end{array} \quad \begin{array}{r} +1.1 \\ \hline 28 \end{array} \quad \begin{array}{r} +0.8 \\ \hline 33 \end{array}$$
$$\begin{array}{r} +2.3 \\ \hline 35 \end{array} \quad \begin{array}{r} +1.8 \\ \hline 8 \end{array} \quad \begin{array}{r} 0.0 \\ \hline 6 \end{array} \quad \begin{array}{r} 8.1 + 0.2 + 0.0 \\ \hline 10 \quad 18 \end{array} \quad \begin{array}{r} -0.5 \\ \hline 22 \end{array} \quad \begin{array}{r} -0.9 \\ \hline 26 \end{array} \quad \begin{array}{r} +0.2 \\ \hline 28 \end{array} \quad \begin{array}{r} +0.1 \\ \hline 33 \end{array}$$
$$\begin{array}{cccccccc} +0.6 & +0.6 & -0.5 & -0.1 & 7.6 & +0.3 & -0.3 & -0.7 & -0.9 \\ \hline 33 & 7 & 6 & 4 & & 18 & 21 & 26 & 33 \end{array}$$
$$\begin{array}{cccccccccccc} +1.9 & +1.6 & +0.7 & -0.3 & 7.0 & +0.3 & 0.0 & -0.9 & -2.3 & -2.8 \\ -33 & 25 & 7 & 6 & - & 10 & 18 & 22 & 27 & 33 \end{array}$$
$$\begin{array}{cccccccc} +3.2 & +2.4 & +1.0 & -0.3 & 7.0 & +0.1 & -1.0 & -0.7 \\ \hline 33 & 14 & 9 & 6 & & 8 & 23 & 32 \end{array}$$
$$\begin{array}{r} +45 \\ \underline{33} \end{array} \quad \begin{array}{r} +34 \\ \underline{12} \end{array} \quad \begin{array}{r} -0.4 \\ \underline{7} \end{array} \quad \begin{array}{r} 68 \\ \underline{} \end{array} \quad \begin{array}{r} +0.4 \\ \underline{7} \end{array} \quad \begin{array}{r} +0.2 \\ \underline{18} \end{array} \quad \begin{array}{r} -1.1 \\ \underline{24} \end{array} \quad \begin{array}{r} -0.3 \\ \underline{26} \end{array} \quad \begin{array}{r} -1.2 \\ \underline{33} \end{array}$$

Station

Elev.

26

909.5

+55

+0.4

908.6

25

908.2

+45

+0.4

908.0

24

907.6

+50

0.0

908.4

907.4

23

908.4

907.4

22 + 80

-0.1

907.3

+42

-0.2

907.4

22

907.6

+50

-1.0

908.3

21

909.3

20 + 61

+1.1

910.4

$$\begin{array}{cccccccc} +4.6 & 4.4 & +0.9 & 9.0 & -0.4 & -1.0 & -1.5 & +1.2 \\ \hline 33 & 17 & 12 & & 17 & 25 & 29 & 33 \end{array}$$

$$\begin{array}{cccccccccc} +5.3 & +4.1 & 0.0 & 5.1 & +0.4 & +0.6 & +0.2 & -0.2 & 0.0 & +1.9 \\ \hline 33 & 5 & 2 & & 5 & 14 & 22 & 25 & 31 & 34 \end{array}$$

$$\begin{array}{cccccccccc} +3.6 & +2.2 & +1.1 & -0.4 & 5.5 & +0.7 & +0.5 & 0.0 & 0.0 & +1.0 \\ \hline 33 & 10 & 6 & 3 & & 11 & 22 & 24 & 28 & 33 \end{array}$$

$$\begin{array}{cccccccc} +3.3 & +3.6 & -0.5 & 5.7 & +0.6 & 0.0 & -0.3 & -0.1 \\ \hline 33 & 9 & 5 & & 10 & 21 & 25 & 33 \end{array}$$

$$\begin{array}{cccccccc} +4.3 & +2.9 & -0.5 & 6.1 & +0.8 & +0.4 & -0.2 & +0.5 \\ \hline 33 & 8 & 6 & & 13 & 21 & 28 & 33 \end{array}$$

X

$$\begin{array}{cccccccc} +3.0 & +1.8 & -0.6 & 5.1 & +0.8 & +0.7 & 0.0 & -0.4 \\ \hline 33 & 8 & 6 & & 12 & 19 & 25 & 33 \end{array}$$

$$\begin{array}{cccccccc} +0.2 & -0.4 & -2.3 & -0.5 & 5.1 & +0.6 & +0.3 & -3.9 & -3.6 \\ \hline 33 & 16 & 7 & 2 & & 11 & 22 & 29 & 33 \end{array}$$

$$\begin{array}{cccccccc} -2.0 & -3.4 & -3.4 & -0.5 & 4.9 & +0.2 & -0.4 & -6.4 & -6.6 \\ \hline 33 & 17 & 8 & 2 & & 10 & 20 & 30 & 33 \end{array}$$

$$\begin{array}{cccccccc} -6.9 & -7.7 & -5.5 & -0.2 & 5.0 & +0.3 & -0.4 & -10.8 \\ \hline 33 & 21 & 10 & 2 & & 9 & 18 & 34 \end{array}$$

$$\begin{array}{cccccccc} -11.1 & -8.8 & -3.9 & 4.8 & +0.2 & -0.4 & & -11.2 \\ \hline 33 & 16 & 8 & & 7 & 17 & & 36 \end{array}$$

$$\begin{array}{cccccccc} -10.9 & -10.0 & -4.6 & -0.4 & 4.1 & +0.4 & +0.1 & -12.9 \\ \hline 33 & 17 & 8 & 3 & & 8 & 19 & 38 \end{array}$$

$$\begin{array}{cccccccc} -7.0 & 5.1 & -5.9 & -5.7 & -0.1 & +0.7 & +0.3 & -5.2 \\ \hline 33 & 36 & 16 & 10 & 2 & 10 & 20 & 33 \end{array}$$

$$\begin{array}{cccccccc} -1.9 & -2.6 & -2.5 & -0.2 & 2.0 & +0.3 & 0.0 & -2.7 & -1.2 \\ \hline 33 & 22 & 9 & 3 & & 10 & 18 & 23 & 33 \end{array}$$

station

Elev.

+50

895.1 •

+18

895.5 •

30

902.1 •

+62

903.5 •

29

905.0 •

+50

906.1 •

28

908.1 •

+55

908.8 •

27

910.8 •

+75

-1.2

912.8 •

+50

914.0 •

+35

+0.3

909.5 •

26+25

909.2 •

$$\begin{array}{r} \text{Lt.} \\ +5.5 \\ 33 \\ +4.6 \\ 18 \\ +1.1 \\ 11 \\ -1.0 \\ 7 \\ 0.0 \\ 5 \end{array} \quad \begin{array}{r} \text{Rt.} \\ 8.4 \\ +0.8 \\ 14 \\ +0.4 \\ 33 \end{array}$$

$$\begin{array}{r} +5.7 \\ 33 \\ +4.4 \\ 7 \end{array} \quad \begin{array}{r} 7.1 \\ -1.2 \\ 6 \\ -0.3 \\ 11 \\ +0.6 \\ 23 \\ +0.7 \\ 33 \end{array}$$

$$\begin{array}{r} +0.8 \\ 33 \end{array} \quad \begin{array}{r} 8.6 \\ -0.4 \\ 2 \\ -0.2 \\ 15 \\ -4.4 \\ 33 \end{array}$$

$$\begin{array}{r} +0.9 \\ 33 \end{array} \quad \begin{array}{r} 7.2 \\ -0.8 \\ 24 \\ -6.0 \\ 33 \end{array}$$

$$\begin{array}{r} +0.7 \\ 33 \end{array} \quad \begin{array}{r} 5.6 \\ -1.8 \\ 33 \end{array}$$

$$\begin{array}{r} +0.8 \\ 33 \end{array} \quad \begin{array}{r} 4.4 \\ -1.0 \\ 33 \end{array}$$

$$\begin{array}{r} +1.5 \\ 33 \end{array} \quad \begin{array}{r} 2.5 \\ -1.4 \\ 33 \end{array}$$

$$\begin{array}{r} +3.3 \\ 33 \end{array} \quad \begin{array}{r} 9.9 \\ -0.8 \\ 33 \end{array}$$

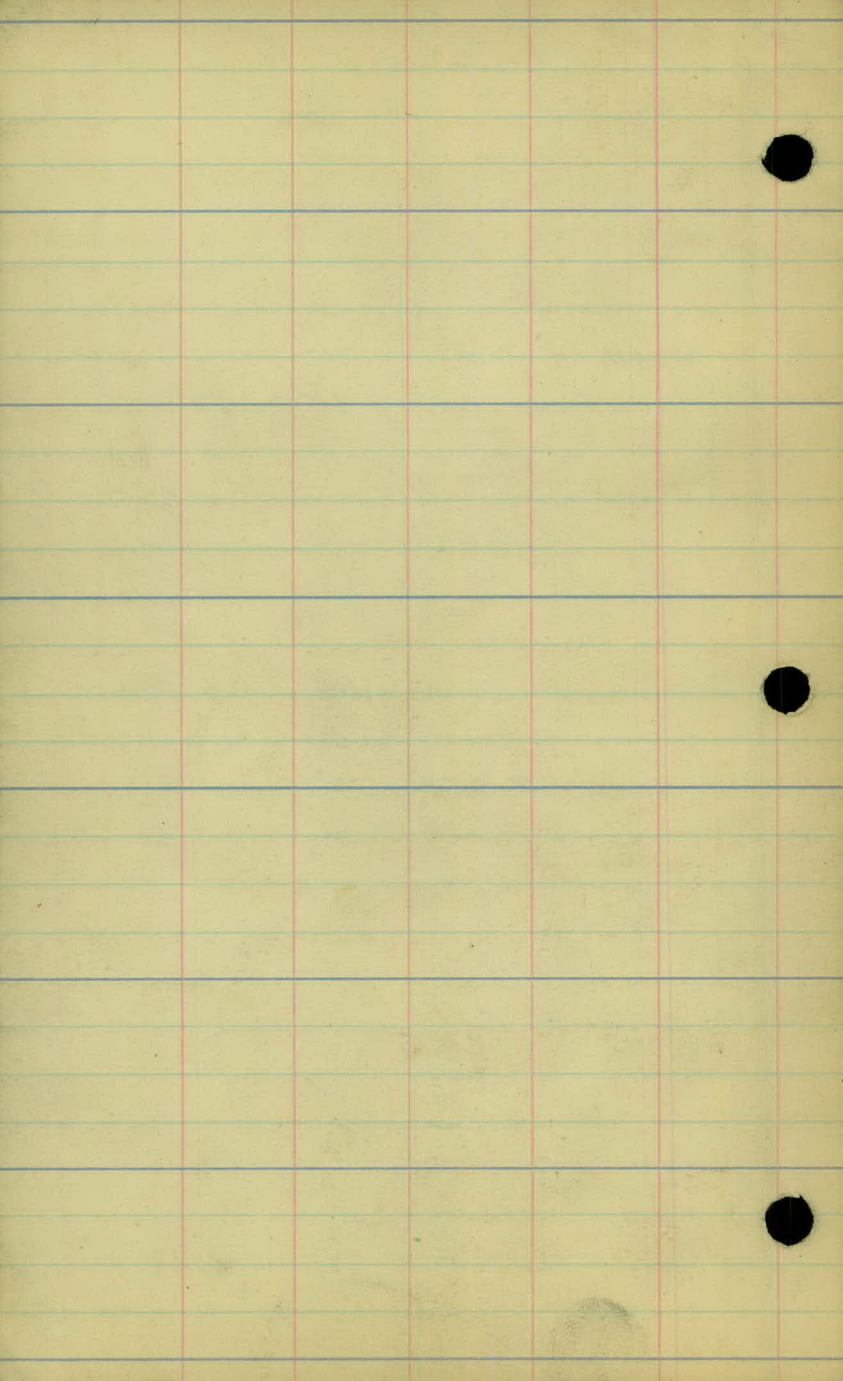
$$\begin{array}{r} +1.3 \\ 33 \end{array} \quad \begin{array}{r} 7.7 \\ -1.4 \\ 33 \end{array}$$

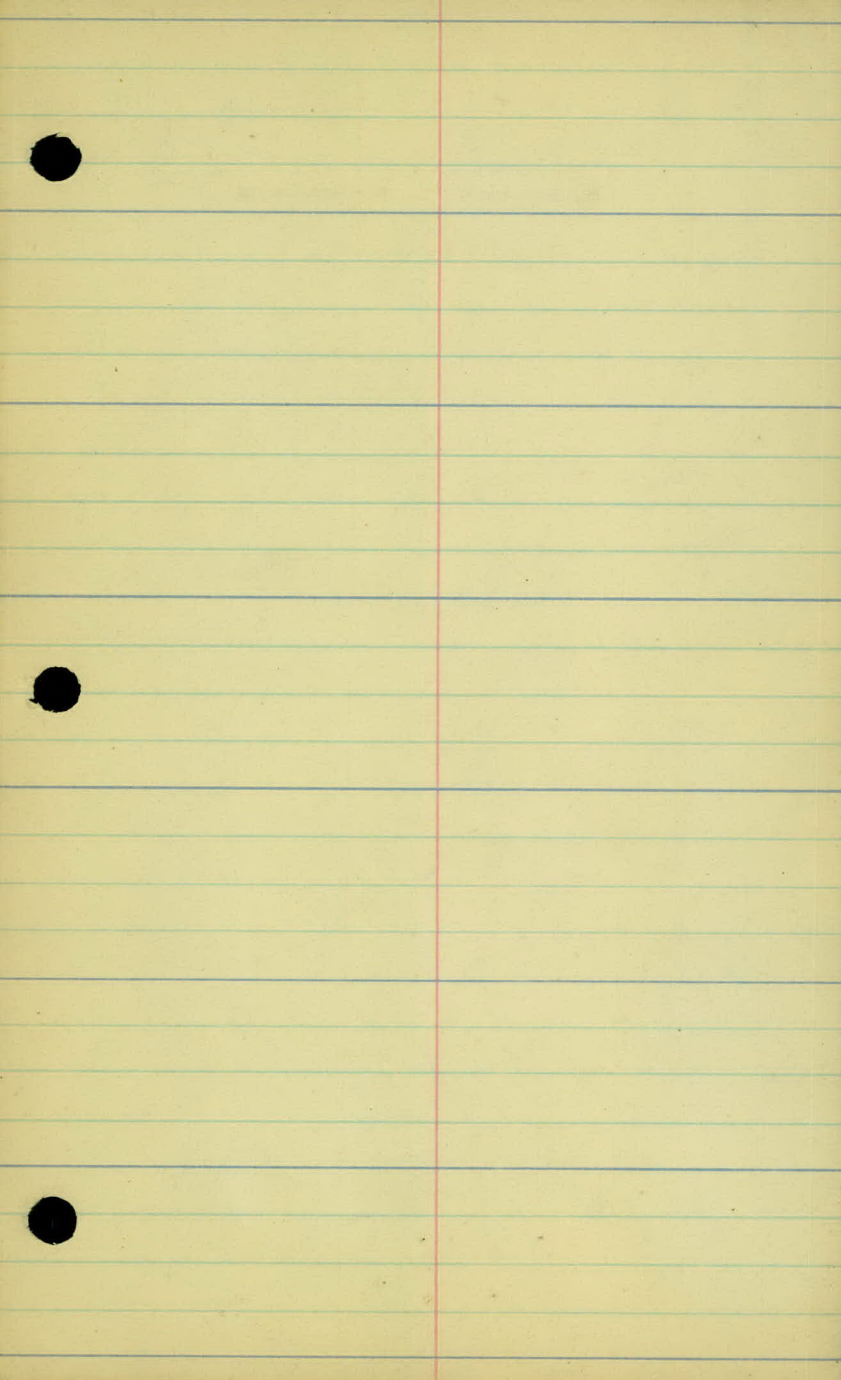
$$\begin{array}{r} +0.8 \\ 33 \end{array} \quad \begin{array}{r} -5.7 \\ -2.0 \\ 33 \end{array}$$

$$\begin{array}{r} -1.2 \\ 33 \\ -2.8 \\ 19 \\ -4.0 \\ 6 \end{array} \quad \begin{array}{r} 11.5 \\ -1.4 \\ 17 \\ -1.7 \\ 23 \\ -6.6 \\ 33 \end{array}$$

$$\begin{array}{r} +5.1 \\ 33 \\ +4.3 \\ 30 \\ +0.9 \\ 23 \end{array} \quad \begin{array}{r} 9.4 \\ -0.3 \\ 8 \\ -1.1 \\ 18 \\ -1.0 \\ 33 \end{array}$$

$$\begin{array}{r} +6.6 \\ 36 \\ +1.8 \\ 29 \\ +1.1 \\ 17 \end{array} \quad \begin{array}{r} 9.4 \\ -0.4 \\ 18 \\ -0.1 \\ 25 \\ -0.7 \\ 33 \end{array}$$





Fler.

30 + 50

895.1.

+ 75

- 0.5

94.6.

31 + 00

93.9.

31 + 39 =

32 + 13.5

32 + 25

93.5.

32 + 64.0

92.7.

33 + 00

90.8.

+ 50

- 1.0

89.8.

34 + 00

88.8.

+ 50

- 0.5

88.3.

35 + 00

87.8.

+ 63

- 0.5

87.3.

36 + 00

↑

36 + 13

0.0

87.1.

4

R.

ht
Austin
Skoglan.
Bernadine
Schmidt } Party.

<u>+6.2</u>	<u>+5.0</u>	<u>+4.5</u>	<u>-1.5</u>	<u>-1.0</u>	<u>+0.3</u>	<u>+0.3</u>	<u>-0.7</u>	<u>-5.0</u>	<u>-7.0</u>	<u>-8.5</u>
23.0	24.0	17.5	13.0	8.0	25.0	14.0	18.5	24.0	29.0	33.0

9

$\frac{+6.0}{33.0}$	$\frac{+5.0}{23.5}$	$\frac{-2.0}{16.0}$	$\frac{-1.0}{12.0}$	$\frac{0.0}{12.0}$	$\frac{-0.7}{17.0}$	$\frac{-5.0}{22.0}$	$\frac{-10.0}{30.5}$	$\frac{-11.0}{33.0}$
---------------------	---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	----------------------	----------------------

$\frac{+3.2}{33.0}$	$\frac{+3.0}{29.5}$	$\frac{+0.0}{20.5}$	$\frac{-1.2}{17.5}$	$\frac{-1.5}{12.5}$	$\frac{-0.5}{7.0}$	$\frac{0.0}{10.0}$	$\frac{-0.5}{15.5}$	$\frac{-5.0}{22.5}$	$\frac{-6.5}{15.5}$	$\frac{-9.0}{33.0}$
---------------------	---------------------	---------------------	---------------------	---------------------	--------------------	--------------------	---------------------	---------------------	---------------------	---------------------

$\frac{+2.5}{33.0}$	$\frac{+0.4}{28.5}$	$\frac{-1.5}{19.0}$	$\frac{-1.0}{14.0}$	$\frac{-0.5}{8.0}$	$\frac{-0.5}{11.0}$	$\frac{-1.0}{17.5}$	$\frac{-5.0}{25.0}$	$\frac{-7.5}{29.5}$	$\frac{-9.0}{33.0}$
---------------------	---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------	---------------------	---------------------

$+3.0$	$+1.5$	-0.7	-2.0	-1.2	-0.3	-0.5	-1.5	-5.0	-7.2	-8.5
33.0	24.0	23.0	19.0	10.0	6.5	10.5	14.0	21.0	27.5	33.0

$\frac{+9.0}{33.0}$	$\frac{+5.0}{22.5}$	$\frac{+1.0}{19.5}$	$\frac{-1.3}{15.0}$	$\frac{-1.0}{11.0}$	$\frac{-0.3}{7.0}$	$\frac{0.0}{10.5}$	$\frac{-0.5}{15.5}$	$\frac{-5.0}{21.5}$	$\frac{+9.5}{29.5}$	$\frac{-10.0}{33.0}$
---------------------	---------------------	---------------------	---------------------	---------------------	--------------------	--------------------	---------------------	---------------------	---------------------	----------------------

+8.8	+7.3	+5.0	+4.3	-1.0	-0.7	-0.2	-0.3	-0.7	-5.0	-7.5	-9.5
98.0	76.0	24.0	23.0	15.5	10.5	6.0	12.0	16.0	23.0	29.5	37.0

<u>+9.0</u>	<u>+7.3</u>	<u>+5.0</u>	<u>-1.5</u>	<u>-1.0</u>	<u>-0.2</u>	<u>0.0</u>	<u>-1.0</u>	<u>-5.0</u>	<u>-6.8</u>	<u>-8.5</u>
33.0	24.5	22.5	15.0	10.5	6.0	8.0	16.0	24.0	28.0	33.0

+10.9	+12.0	+9.7	+5.0	0.0	-1.4	-0.4	-0.5	-0.1	-5.0	-7.5	-8.5
33.0	30.0	25.0	22.0	16.5	12.0	9.0	10.0	17.5	22.5	24.5	32.0

$\frac{+10.0}{23.0}$	$\frac{+5.0}{27.5}$	$\frac{-1.5}{20.0}$	$\frac{-2.7}{16.0}$	$\frac{-0.5}{10.5}$	$\frac{-0.7}{9.8}$	$\frac{-1.2}{14.0}$	$\frac{-5.0}{21.0}$	$\frac{-6.5}{30.5}$	$\frac{7.3}{93.0}$
----------------------	---------------------	---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------	--------------------

$$\begin{array}{cccccc|cccccc} \frac{47.0}{26.0} & \frac{45.0}{26.5} & \frac{41.0}{19.8} & \frac{-1.0}{17.0} & \frac{-0.7}{13.0} & \frac{0.0}{8.0} & \frac{-0.4}{9.0} & \frac{-0.8}{16.5} & \frac{-5.0}{23.0} & \frac{-7.0}{27.0} & \frac{-7.5}{33.0} \\ \hline \frac{+10.0}{31.0} & \frac{+11.5}{33.0} & & & & & & & & & \end{array}$$

Elev.

36 + 00
36 + 50
+ 60

0.0
0.0

87.1.

87.1.

87.1.

+ 75

0.0

86.9.

37 + 00
+ 50

0.0
0.0

86.9.

86.9.

38 + 00
+ 50

-0.2

86.7.

86.5.

39 + 00
+ 50

0.0

86.1.

86.1.

40 + 00
+ 50

-0.2

86.1.

85.9.

41 + 00
+ 20

-10.1

86.0.

86.1.

14.

15.

16. 6-23-24

+3.0	-1.0	-0.5	-0.2	-1.2	-0.2	-0.5	-0.8	-4.5	-5.0	-6.0
26.0	19.5	18.5	15.5	13.5	10.0	10.5	19.0	28.0	27.0	33.0
+5.0	+7.4	+9.0								
28.5	30.0	33.0								
+4.0	+7.0	+1.0	+0.4	-1.0	0.0	-0.6	-0.9	-0.5	-1.0	-1.5
33.0	24.5	22.5	16.0	13.0	9.5	11.5	14.0	17.0	19.0	27.5
										33.5

+5.0	+2.0	+1.0	+0.5	-0.4	-1.0	-0.2	+0.1	-0.2	-0.5	-0.5	-2.5	-4.0
26.5	24.0	19.0	18.5	15.5	14.0	9.0	6.5	7.0	15.0	17.0	28.5	33.0
+6.3	+8.5											
29.0	33.0											
+4.3	+3.5	+3.0	+2.0	+0.5	0.0	-1.0	-0.5	0.0	-0.5	0.0	-1.0	-5.0
26.0	24.0	23.5	21.0	18.5	16.5	14.5	10.0	7.5	13.5	16.0	21.0	27.0
												28.0
												33.0
+5.0	+9.5											
27.0	33.0											

+9.5	+5.0	+0.5	-0.6	-0.8	0.0	-0.2	-0.5	-2.2	-5.0	-6.5	-8.2
33.0	26.0	18.0	16.5	11.5	9.0	9.0	12.0	16.5	19.5	21.5	33.0

+7.5	+5.0	+3.5	-1.0	-0.2	+0.2	-0.2	-0.9	-3.5	-5.0	-7.8	-9.0
33.0	27.5	24.0	9.0	15.5	9.0	9.0	13.0	15.5	18.0	24.0	33.0

+2.0	+1.5	0.0	-0.5	-2.0	-1.0	0.0	-0.2	-1.0	-5.0	-6.3	-6.8	-7.5	-8.3
27.5	25.5	22.0	21.5	18.5	14.5	10.0	9.0	14.5	21.0	24.5	27.0	28.5	33.0
+5.5													
33.0													

6-24-24

+4.5	+2.0	+0.9	-1.7	-4.7	-0.5	0.0	-0.2	-1.1	-5.0	-6.7	-7.5
24.5	20.0	19.0	14.5	12.0	9.0	5.0	8.0	15.0	23.5	27.0	33.0
+8.2	+10.5										
27.0	33.0										

+5.0	+1.7	-0.3	-1.0	-1.0	-0.5	0.0	-0.1	-0.5	-5.0	-6.8	-8.5
24.0	17.0	15.5	14.0	11.0	10.0	5.5	6.5	12.0	17.0	20.5	33.0
+8.3	+10.0	+11.5									
27.0	29.5	33.0									

+5.0	+4.0	+2.8	-1.0	-1.2	-0.2	+0.2	-0.2	-0.7	-4.0	-5.0	-8.0	-8.8
21.0	19.0	18.5	14.0	11.5	10.0	5.5	6.5	12.0	16.5	19.0	24.0	33.0
+10.0	+13.0											
30.0	33.0											

+13.0	+10.0	+5.0	-1.3	-1.0	-0.1	+0.3	-0.1	-0.9	-5.0	-6.8	-8.4
33.0	30.0	24.0	17.0	14.0	13.0	7.0	5.0	13.5	19.5	24.5	33.0

+1.0	+0.3	-0.5	-0.5	0.0	+0.3	-0.1	-0.7	-5.0	-6.5	-7.5
23.0	14.0	15.5	13.5	12.0	7.0	7.5	14.0	22.0	25.0	33.0
+4.6	+6.0	+10.0								
27.5	28.0	33.0								

+3.2	+2.0	0.0	+0.2	4.0	-0.4	-1.0	-5.0	-7.0
33.0	30.0	16.0	10.5	6.5	11.0	18.5	24.0	33.0

Flev.

86.0.

41 + 00

+ 50

0.0

86.0.

42 + 00

+ 50

-0.1

85.4.

85.3.

43 + 00

+ 50

0.0

84.8.

84.8.

44 + 00

+ 50

+0.1

84.6.

84.7.

45 + 00

84.4.

46 + 00

+ 45

+0.2

84.5.

84.7.

47 + 00

+ 50

+0.2

84.8.

85.0.

47

L

77

$$\begin{array}{r} -0.5 \quad 0.0 \quad +0.4 \\ \hline 33.0 \quad 14.0 \quad 8.0 \end{array} \quad \begin{array}{r} -0.3 \quad -0.7 \quad -5.0 \\ \hline 9.5 \quad 15.5 \quad 23.0 \end{array} \quad \begin{array}{r} -6.8 \\ \hline 33.0 \end{array}$$

Contract Wall

$$\begin{array}{r} +2.7 \quad +3.2 \\ \hline 33.0 \quad 25.0 \end{array} \quad \begin{array}{r} +10.8 \quad 0.0 \quad +0.3 \\ \hline 25.0 \quad 15.0 \quad 7.5 \end{array} \quad \begin{array}{r} -0.2 \quad -1.5 \quad -2.8 \quad -4.0 \quad -4.7 \\ \hline 8.5 \quad 14.5 \quad 21.5 \quad 30.5 \quad 33.0 \end{array}$$

$$\begin{array}{r} -0.4 \quad -0.3 \quad +0.1 \\ \hline 33.0 \quad 13.0 \quad 9.5 \end{array} \quad \begin{array}{r} 0.0 \quad -0.3 \quad -1.2 \quad -2.0 \quad -4.0 \quad -4.0 \\ \hline 6.0 \quad 9.5 \quad 13.5 \quad 16.5 \quad 30.5 \quad 33.0 \end{array}$$

$$\begin{array}{r} -0.5 \quad -0.5 \quad +0.1 \\ \hline 33.0 \quad 15.5 \quad 9.5 \end{array} \quad \begin{array}{r} 0.0 \quad -0.6 \quad -2.0 \quad -3.3 \quad -3.7 \\ \hline 6.0 \quad 10.0 \quad 18.0 \quad 25.0 \quad 33.0 \end{array}$$

$$\begin{array}{r} -1.2 \quad -1.1 \quad -0.2 \\ \hline 33.0 \quad 15.5 \quad 11.5 \end{array} \quad \begin{array}{r} 0.0 \quad -0.5 \quad -1.8 \quad -3.7 \\ \hline 7.0 \quad 11.5 \quad 17.0 \quad 33.0 \end{array}$$

Both H₂

Con. Wall

$$\begin{array}{r} 0.6 \\ \hline 27.5 \end{array} \quad \begin{array}{r} -0.6 \quad -0.5 \quad 0.0 \\ \hline 22.5 \quad 17.0 \quad 10.5 \end{array} \quad \begin{array}{r} 0.0 \quad -0.3 \quad -1.7 \quad -3.6 \\ \hline 6.5 \quad 11.0 \quad 18.0 \quad 33.0 \end{array}$$

$$\begin{array}{r} -0.4 \quad -0.8 \quad -0.6 \quad -0.2 \\ \hline 33.0 \quad 23.5 \quad 15.5 \quad 10.0 \end{array} \quad \begin{array}{r} -0.2 \quad -1.0 \quad -3.5 \\ \hline 7.5 \quad 13.0 \quad 33.0 \end{array}$$

$$\begin{array}{r} -0.1 \quad -0.5 \quad -0.7 \quad -0.3 \\ \hline 33.0 \quad 25.0 \quad 14.0 \quad 10.0 \end{array} \quad \begin{array}{r} -0.2 \quad -0.6 \quad -1.0 \quad -2.2 \quad -2.7 \\ \hline 8.0 \quad 12.5 \quad 22.5 \quad 23.5 \quad 33.0 \end{array}$$

$$\begin{array}{r} 0.0 \quad -0.7 \quad -0.3 \\ \hline 33.0 \quad 13.0 \quad 9.0 \end{array} \quad \begin{array}{r} +0.2 \quad 0.0 \quad -0.5 \quad -1.0 \quad -2.5 \quad -3.0 \\ \hline 6.5 \quad 9.0 \quad 12.0 \quad 24.0 \quad 25.0 \quad 33.0 \end{array}$$

$$\begin{array}{r} 0.0 \quad -0.2 \quad -0.6 \quad -0.3 \\ \hline 33.0 \quad 27.5 \quad 13.0 \quad 7.5 \end{array} \quad \begin{array}{r} +0.3 \quad -0.2 \quad -1.0 \\ \hline 7.5 \quad 14.0 \quad 33.0 \end{array}$$

$$\begin{array}{r} -0.5 \quad -0.7 \quad -0.7 \\ \hline 33.0 \quad 13.5 \quad 6.0 \end{array} \quad \begin{array}{r} 0.0 \quad -0.5 \quad -1.0 \quad -3.5 \\ \hline 6.5 \quad 13.5 \quad 24.0 \quad 33.0 \end{array}$$

$$\begin{array}{r} -0.5 \quad -1.1 \quad -0.8 \quad 0.0 \\ \hline 33.0 \quad 24.5 \quad 15.5 \quad 8.0 \end{array} \quad \begin{array}{r} -0.1 \quad -0.6 \quad -1.0 \quad -3.5 \quad -3.9 \\ \hline 5.5 \quad 14.0 \quad 22.0 \quad 28.0 \quad 33.0 \end{array}$$

Elev.
84.8.

48+00

+50

0.0

84.8.

49+00

+50

+0.3

84.6.

84.9.

50+00

85.1.

$$\frac{-6.5}{33.0} \quad \frac{-0.5}{18.5} \quad \frac{+0.0}{12.0}$$

$$\frac{-0.2}{4.0} \quad \frac{-0.7}{10.0} \quad \frac{-1.2}{20.5} \quad \frac{-4.0}{26.5} \quad \frac{-4.5}{33.0}$$

$$\frac{-0.6}{33.0} \quad \frac{-1.3}{28.0} \quad \frac{-0.1}{17.0} \quad \frac{0.0}{9.0}$$

$$\frac{-0.1}{4.5} \quad \frac{-0.6}{10.0} \quad \frac{-0.8}{18.0} \quad \frac{-3.6}{24.5} \quad \frac{-4.5}{33.0}$$

$$\frac{-1.0}{33.0} \quad \frac{-0.5}{29.5} \quad \frac{-1.5}{22.5} \quad \frac{-1.6}{17.0} \quad \frac{-1.0}{13.5} \quad \frac{+0.1}{7.0}$$

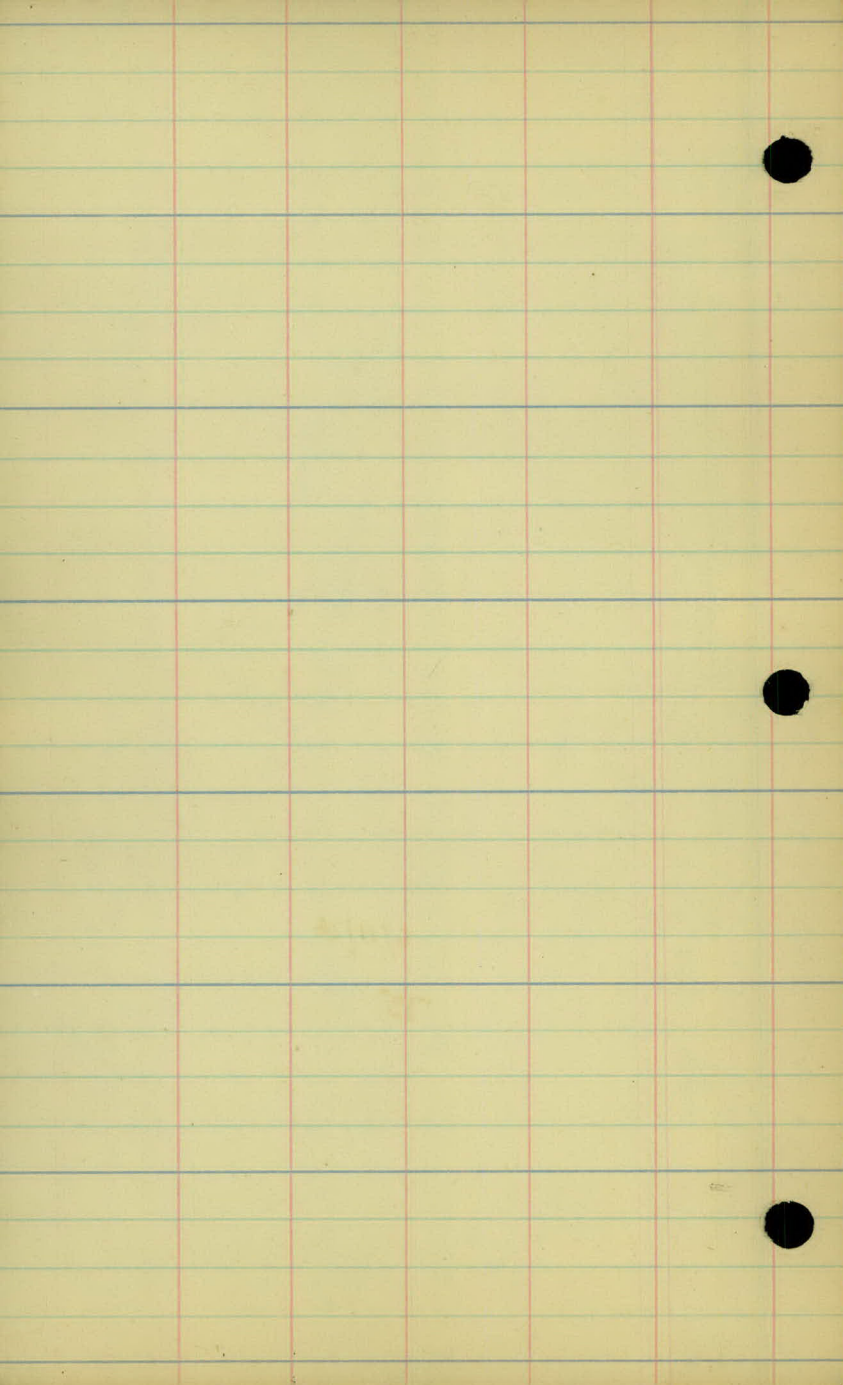
$$\frac{0.0}{6.0} \quad \frac{-0.3}{10.0} \quad \frac{-0.8}{18.5} \quad \frac{-3.8}{24.5} \quad \frac{-4.0}{33.0}$$

$$\frac{-1.5}{33.0} \quad \frac{-1.5}{15.0} \quad \frac{-0.6}{10.0} \quad \frac{0.0}{6.0}$$

$$\frac{0.0}{5.5} \quad \frac{-0.7}{12.0} \quad \frac{-2.0}{18.5} \quad \frac{-5.0}{33.0}$$

$$\frac{-2.0}{33.0} \quad \frac{-2.0}{24.0} \quad \frac{-1.0}{11.5} \quad \frac{-0.1}{6.0}$$

$$\frac{0.0}{5.0} \quad \frac{-0.5}{10.0} \quad \frac{-2.5}{17.0} \quad \frac{-4.0}{26.0} \quad \frac{-5.0}{27.5} \quad \frac{-6.7}{33.0}$$



LAKE JOHANNA BLVD.

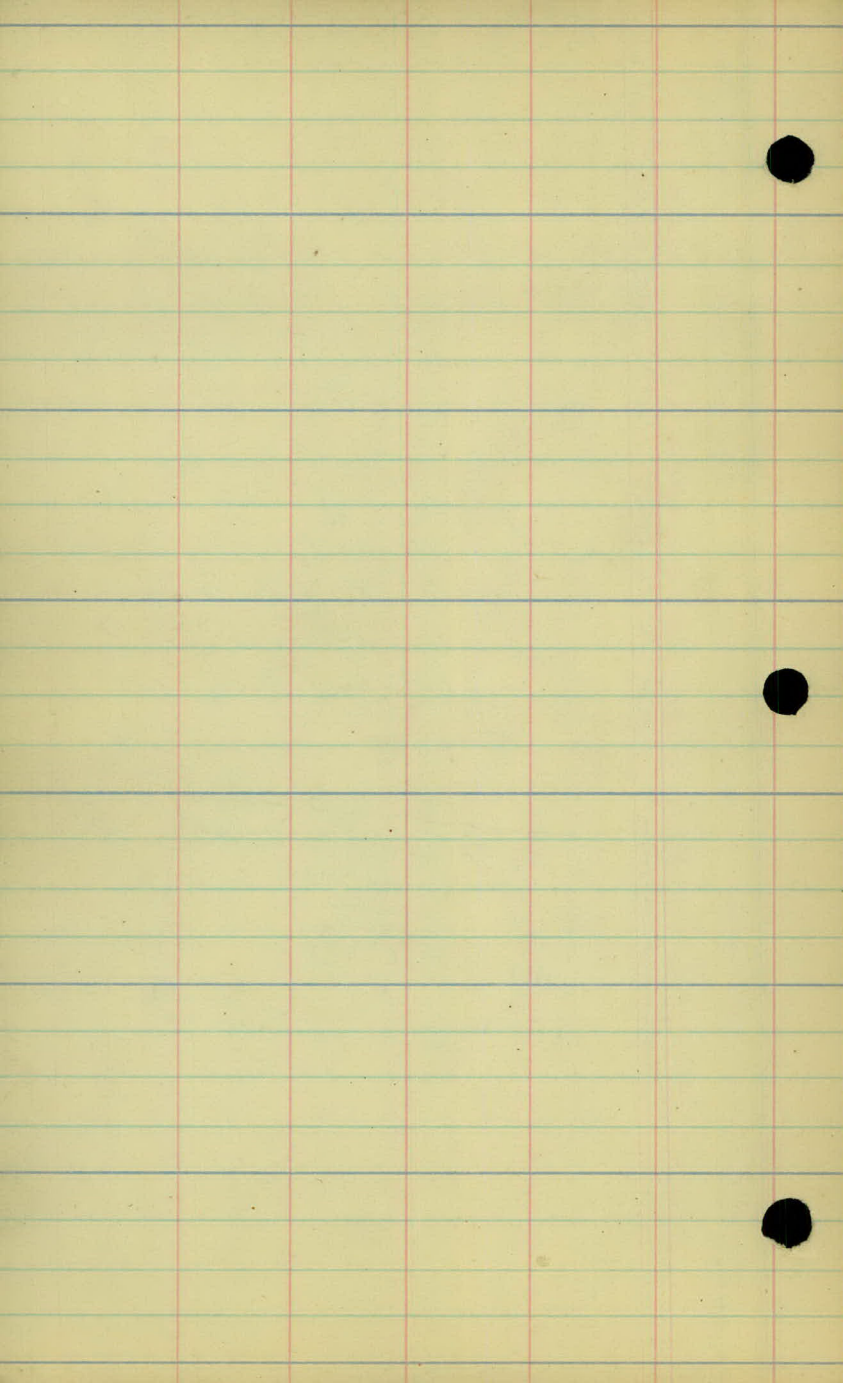
ROAD #6

From County Road "D" north
around Lake

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

Date Filed 6/11/24

File No. "13"



Alignment Revision

Lake Johanna Blvd.

Sta. $25+44.57 - 32+13.5$

June 14-1924

Station Pt. L. R.

N. 6° 56' W.

Eq. ✓

31 + 38 = 32 + 135 P.T. 25° 26.5'

31 14° 58.9'

29° C.L.

+75 16° 18.4'

Δ 50° 53'

+50 12° 40.9'

P.I. 30 + 57.5

+25 9° 03.4'

S.T. 94.96 ✓

30 5° 25.9'

L. 175.46 ✓

29 + 62.54 ✓ P.C.

N. 43° 57' E.

26 + 96.96 ✓ P.T.

21° 58'

+75 18° 54.7'

29° C.R.

+50 15° 17.2'

Δ 43° 56'

+25 11° 39.7'

P.I. 26 + 25.1

26 8° 02.2'

S.T. 80.53 ✓

+75 4° 24.7'

L. 151.49 ✓

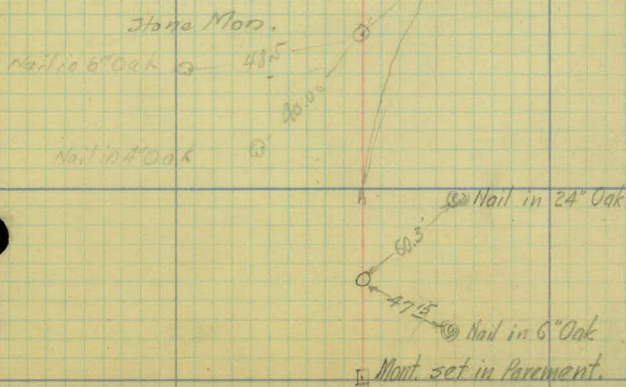
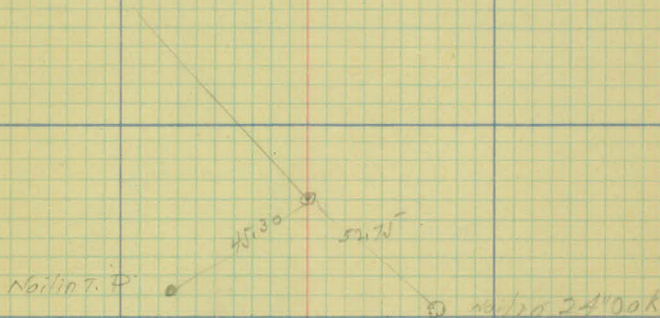
25 + 44.51 ✓ P.C.

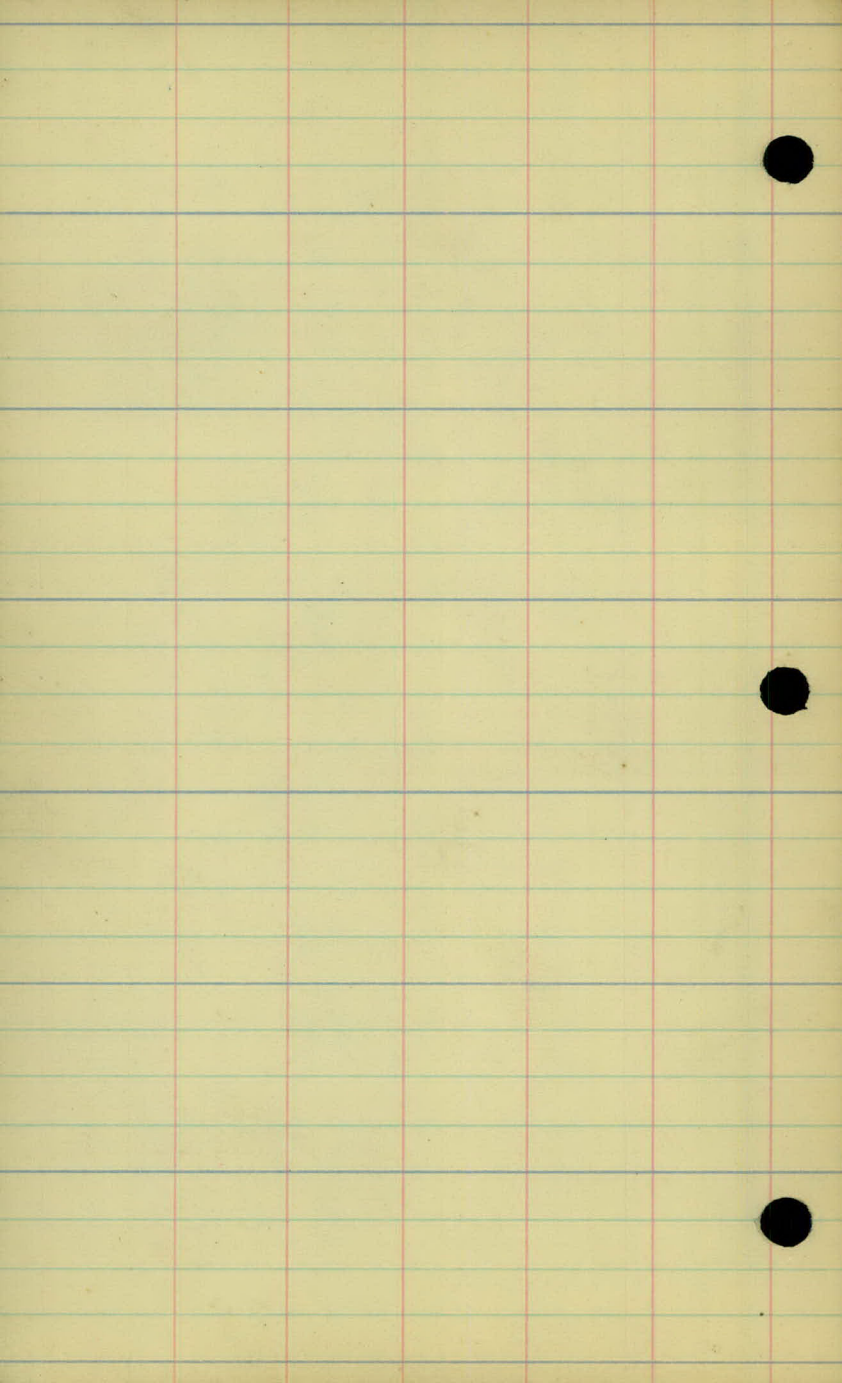
14 + 71.9 P.O.T.

N. 0° 01' E.

0 + 00 Mon

W.H.C.
M.C.E.
M.A.G. } June 14, 24
T.F.





Alignment Revision

Lake Johanna Blvd.

Sta. 0+00 to Sta 30+2.0

June 9, 1924.

Station Point Lt. Rt.

$\tan = N. 15^{\circ} 04' E.$

Equation.

$29 + 83.85 = 30 + 20$

+50

29

28 + 57.6

P.C.

$25^{\circ} 5'$

$18^{\circ} 28.8'$

$8^{\circ} 28.8'$

$0^{\circ} 00'$

$40^{\circ} C.L.$

$\Delta 50^{\circ} 30'$

PI 29 + 26.54

S.T. 68.94

C.L. 126.25
R. 146.19

$(N. 65^{\circ} 34' E.)$

27 + 14.85

P.T.

27

+50

26

25 + 83.65

P.C.

$32^{\circ} 48'$

$25^{\circ} 15.3'$

$16^{\circ} 25.3'$

$4^{\circ} 05.8'$

$0^{\circ} 00'$

$50^{\circ} C.R.$

$\Delta 65^{\circ} 36'$

PI 26 + 59.9

S.T. 76.25

C.L. 131.20
R. 118.31

14 + 71.9

P.O.T.

$(N. 0^{\circ} 02' W.)$

0 + 00

Mon.

W.A.C.
M.C.E. } June 9, 24
M.A.B.
T.F.

OAI 3421.46

P.O. 29485.85 = 36720
P.T. Nail in 10" Oak

19.5
22.5 Nail in 8" Oak

None Mon.

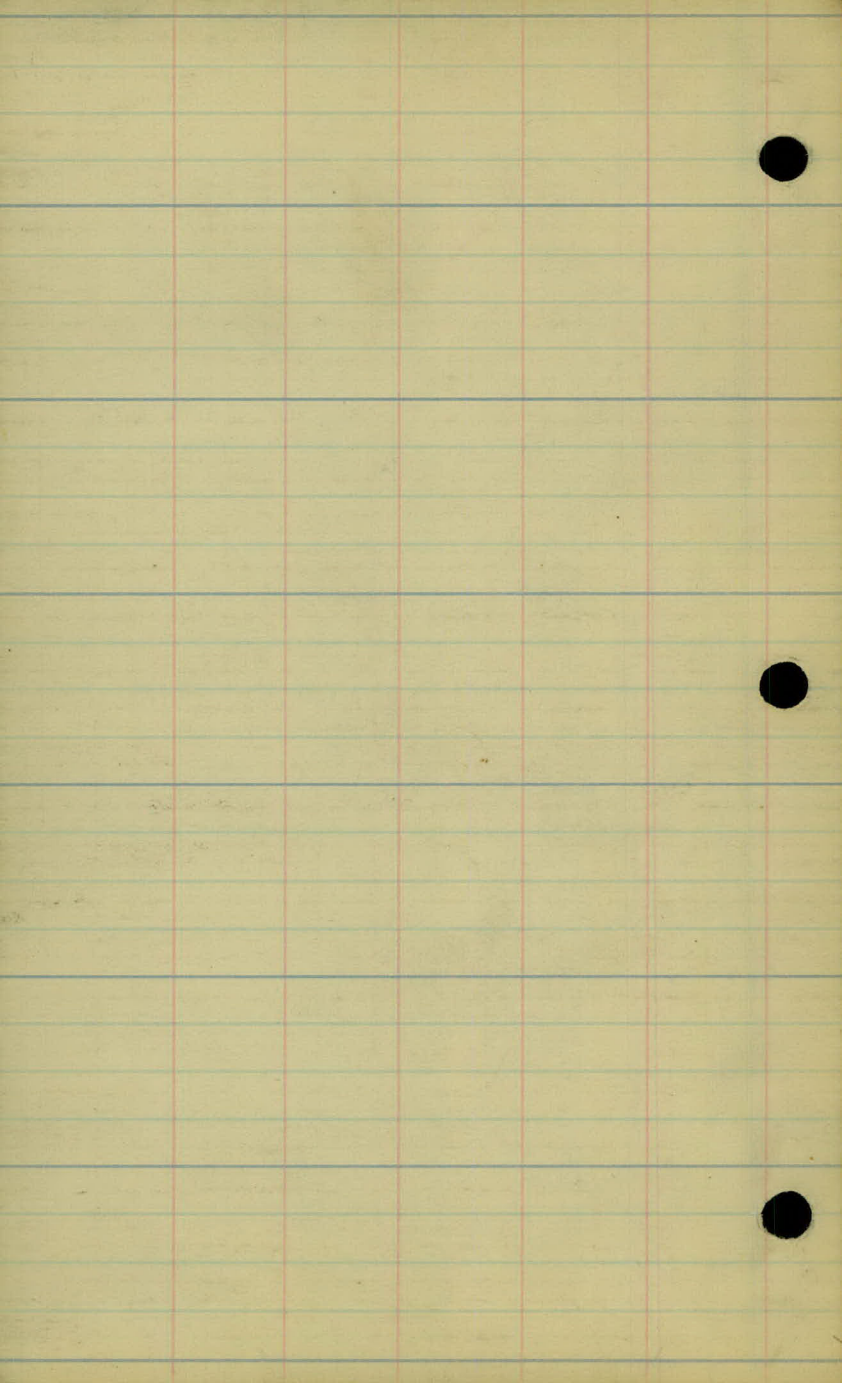
Nail in 6" Oak.

Nail in 4" Oak.

Nail in 24" Oak

Nail in 6" Oak

Mon set in Pavement.



Art. Topog.

Lake Johanna Blvd.

4400

+80-~~2~~ Res. 51' Lt. 16x24'

13400

2400

1400

+66 End of Pavement.

6400

Stone Mon. A Co. Rd 'D'

+86-10" Oak 20'
 +83-10" Oak 20'
 +77-12" Oak 26'
 Oak.
 +62-16" T.N. - 32'

+24-T.P. 15'

+17-P.O.P. 22'

+94-10" Oak 33'

+82-24" Oak 23.5'

+27-8" Oak 23'

+15-12" Oak 25'

+95-T.P. 16'

+92-P.O.P. 22'
 +73-14' P.O.P. 25'

+60
 store
 +31

18'

18'

5' Con. V. 6' 1/2 + 40- Sch.
 FINE
 School

+01- Cor. Sch. 54'

+72-14" Oak 27'
 +72-T.P. 16'
 +60 Guy Wire 17'



+57-B.P. 20'

+32-15 Mai Bx. 17'

+27-(3) In. Rd. Steps 14'

W.H.G.
 M.C.E. 6-17-24
 M.A.G.
 T.F.

10400

9100

8100

7100

6100

5100

4100

+98 T.P. 13' h

11400

+53 T.P. 26.5 R
+48 E.P. 27' R

10400

+69 T.P. 14' h

Timber

+61 E.P. 27' R

9400

+40 T.P. 14' h

8400

+11 T.P. 14' h

+56 E.P. 26' R

7400

+85 T.P. 14' h

+18 E.P. 25' R

6400

+54 T.P. 15' h

+65 E.P. 23.4 R

5400

+17 For. Coy.

4400

16100

15100

14100

13100

12100

11100

18+00

+84 Tree 15.5h

+61 Tree 24.5h

+35 T.P. 9.5h

+29 Tree 22.5h

W 6

+54 F.P. 26.0

W

W

17+00

+65 Tree 23'h

+39 Tree 25'h

+16 Tree 17'h

+68 T.P. 9.5h

+29 Drive

+20 Drive

+10 F.P. 25.5P

16+00

+80 End. Fence

X X X X

W

W

W

W

W

W

W

W

W

15+00

+86 T.P. 10.5h

W

W

10.5

W

W

W

W

W

W

W

W

W

W

W

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W

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W

W

W

W

W

W

14+00

+56 T.P. 12'h

Timber

Timber

+56 Tree 29'P

+42 E.P. 26'P

13+00

+13 Drive

+28 T.P. 13.5h

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

18'

11'

11'

11'

11'

11'

11'

11'

11'

11'

Meadow

+93 E.P. 26.5P

12+00

11+00

22+00

21+00

20+00

19+00

18+00

17+00

25+00

+95 E.P. 27' R

Roller
Curt

+275
+48 Drive

+34 Drive

1000

House Rock
Curb

+28 T.P. 27' R

24+00

+93

+46 Drive

+29 E.P. 25.5

+14 T.P. 25.5 R

23+00

+01 End Gd. Rail

+90 T.P. 3.5 h

Timber

22'

22+00

+88 End Gd. Rail

20'

+64 E.P. 19' R
+

+39 T.P. 5' h

+82 Beg. Gd. Rail

+01 E.P. 27' R

21+00

+86 Drive

+76 Beg. Gd. Rail

23'

→ T.H. & K.

Hedge



Garage 16 x 19

+46

+26 Beg 18" C.M. R

+05 T.P. 6' h

+02 E.P. 27' R

20+00

19+00

(12" x 24" C.M. R)

27.3 R

+87 E.P. 20.5 R

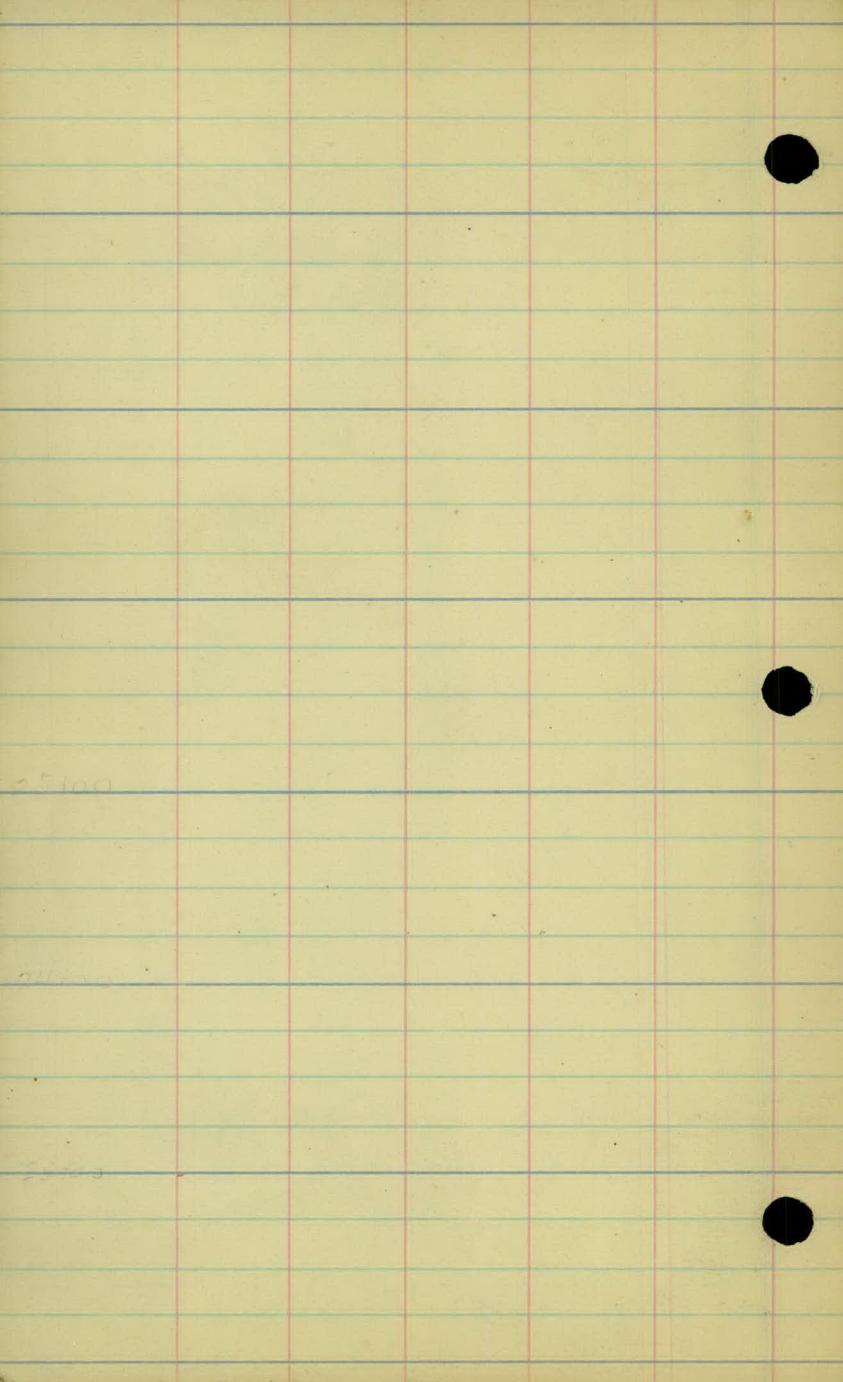
+72 Drive

+40 E.P. 26' R

+66 T.P. 07.5 h
+56 Tree 29.2

Timber

18+00



37+00

$$\text{Equation } 31.38 = 32 + 13.5$$

34+00

+10 T.P. 8' R4.

30+00

29+00

28+00

Small
Trees

Small
Trees

27+00

+58 Tree 10' h

+57 Tree 13' R
+47 E.P. 4' R
+36 T.P. 26' R

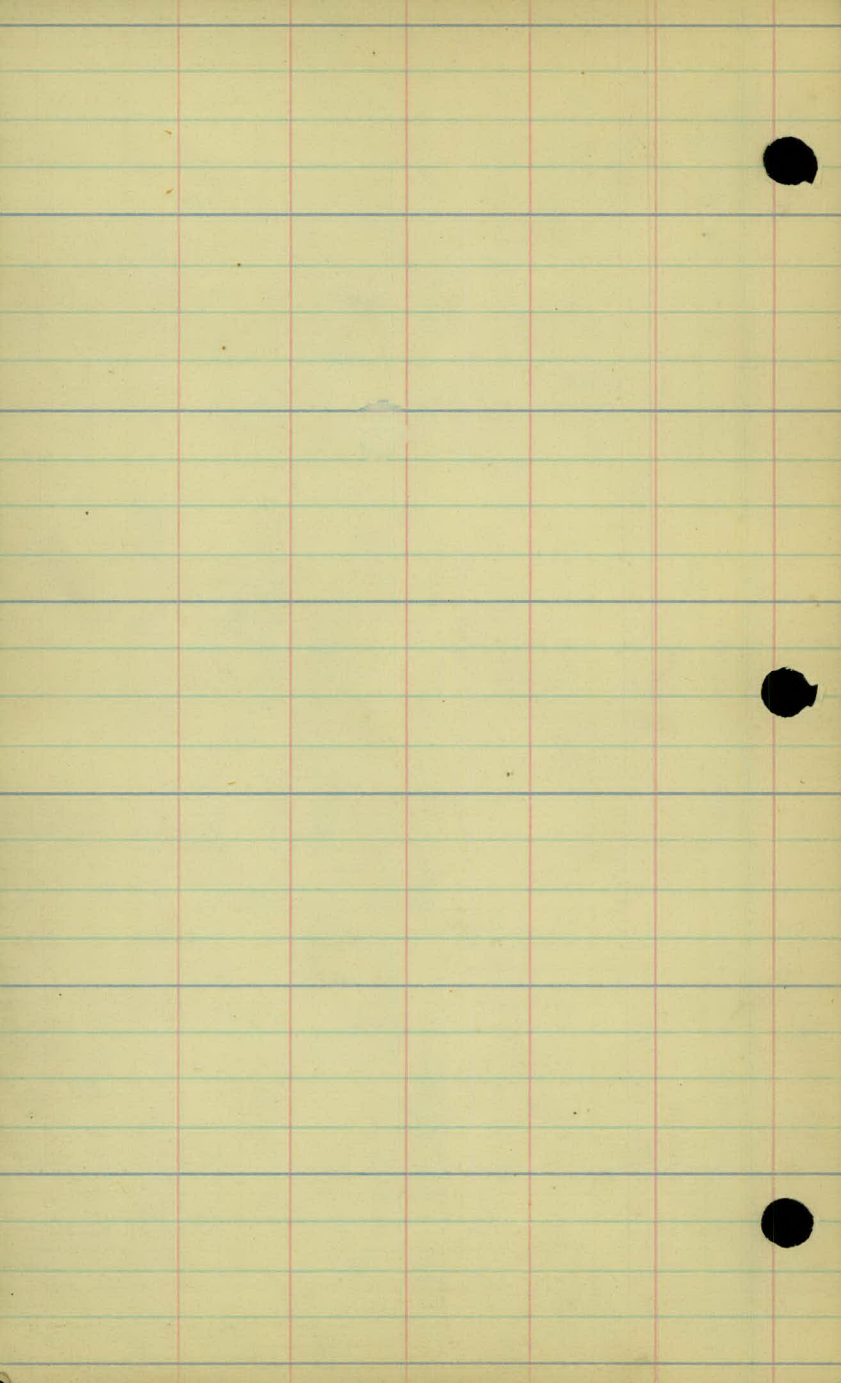
+14 Drive

+11 Old Road

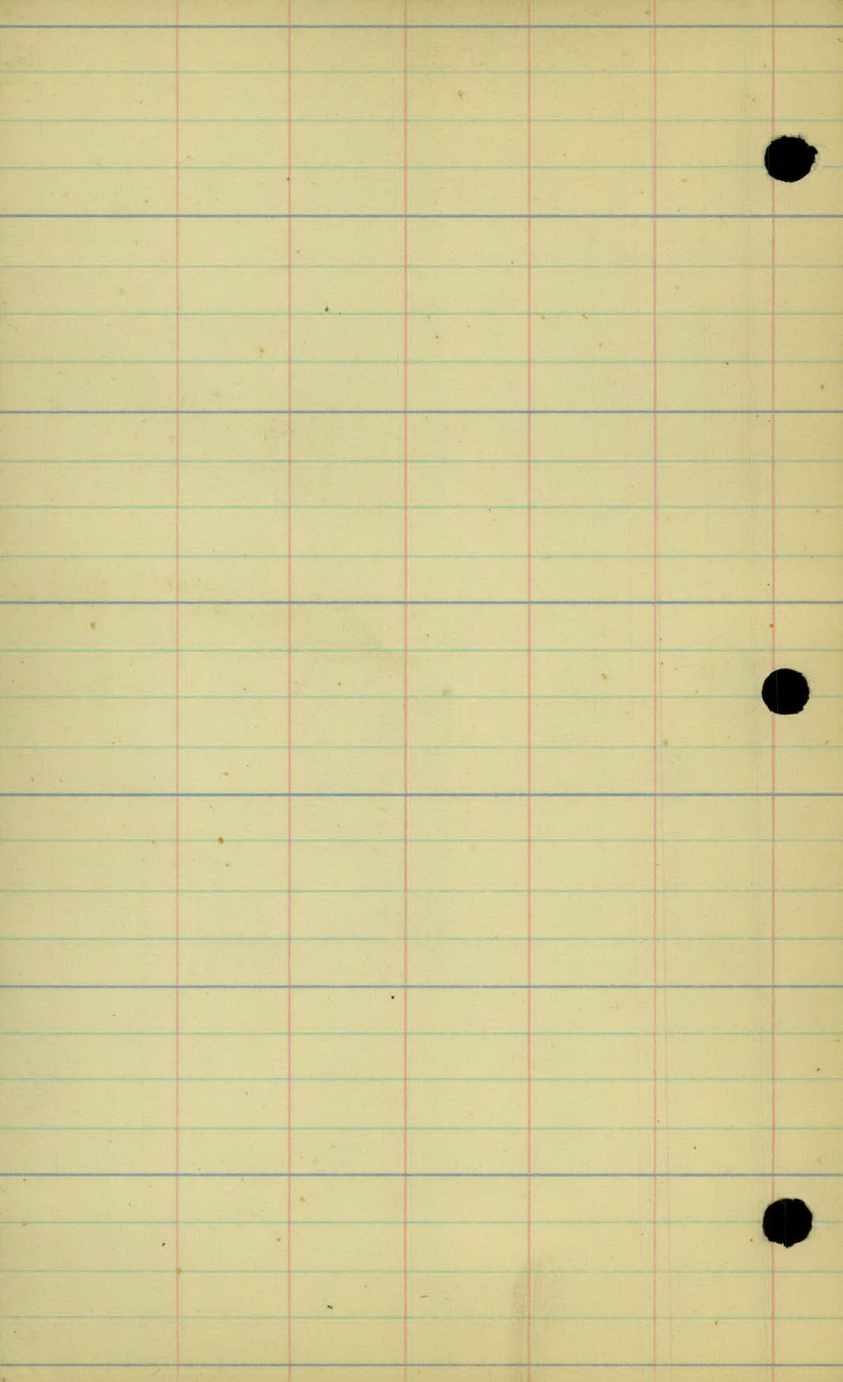
26+00

+64 T.P. 3.5 h

25+00



417 70/16.8 3200



+91 Tacc 32'
+75 T.P. 29' ht

25'

105

46000

+70 R.P. 28' R

+58 Tacc 27'

+37 Tacc 27'

+21 T.P. 24'

+11 F.P. 26'

+02 T.P. 26'

45000

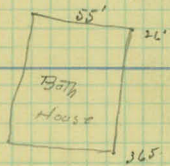
+90 Tacc 18' R

+86 Tacc 26.5'

+60 T.P. 22' R1

Bag. Cribbing

+36 T.P. 29' 5ht



105

44000

+R T.P. 18.5

+77 Tacc 32' R

+67 T.P. 17.5 R

+48 Tacc 25' R

+18 Tacc 24.5

+05 Tacc 23.5

43000

+94 Tacc 23' R

+62 Tacc 21' R

+69 Tacc 20'

+58 Tacc 19' R1

+57 T.P. 14'

+33 Tacc 17.5

+08 Tacc 14' 42000

+58 Tacc 19.5

+55 Tacc 17.5

+41 Tacc 16.5

+26 Tacc 15' R

+00 Tacc 15.5 44000

+93 Tacc 15.5 R1

+73 Tacc 15' R1

+47 T.P. 21.5

+34 Tacc 16.5

(36")
+05 Tacc 15.5 40000

+58 (36" Tree) 12.5 R1

+10 Tacc 18' R1 39000

+94 Tacc 17.5

+75 Tacc 15.5

+65 Tacc 19'

+47 Tacc 21.0

+94 T.P. 21' 0

+67 Tacc 21' ht

+47 T.P. 15.5

+05 Tacc 25' ht

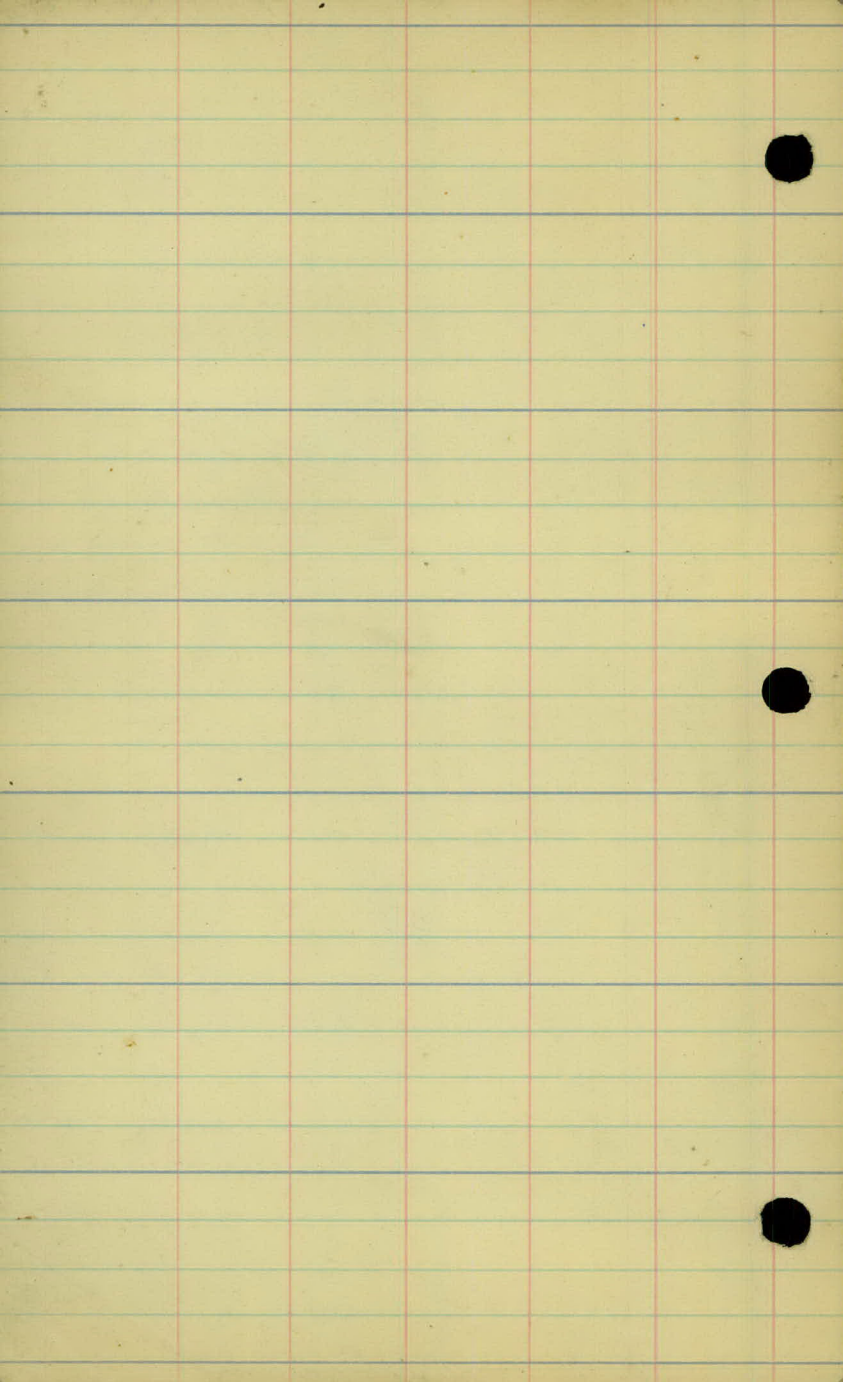
75'

108'

50'

77'

Brush



Drive

107

50+00

+87 Tree 20'
+73 Tree 18.5'

+74 Tree 18.5'
+67 Tree 20.5'
+58 Tree 22'

+36 Tree 21.5'
+34 T.P. 11' ht

+35 E.P. 15.5'

+18 Tree 10' ht

+10 Tree 27' ht

49+00

+70 T.P. 17' ht

+58 Tree 29' ht

+55 Tree 23' ht

+09 E.P. 35.5'

48+00

+65 Tree 38' ht

+22 T.P. 25' ht

② 25 - 15.5 ft

215'

47+00

+69 E.P. 23.5'

+43 E.P. 32.5'
+38 Pole 32.5'

25'

+00 Eng. Chisling

165'

46+00

22. 2
 23. 2
 24. 2
 25. 2
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 97. 2
 98. 2
 99. 2
 100. 2

Road #6

Final X-sections

Sta. 0+66 To 42+00.

Aug - 18 - 1924

Austin	} Ponty.
Skoglen	
Berthoume	
Schmidt.	

LAKE JOHANNA BLVD.

Office of Ramsey Co. Engineer
ST. PAUL, MINN.
Date Filed 8/21/24
File No. "13"

Rd #6

Station + HI - Rod Elev.

B.M. 4.08 931.13. 927.05

0 + 66 End. Pav.

1 + 00

+ 65

2 + 00

+ 36

3 + 00

4 + 00

+ 65

5 + 00

+ 50

6 + 00

+ 45

T.P. 2.20 926.70. 6.63 924.50

Left

±

Right

ctr. Stone Mont. 549 0 + 00

<u>4.1</u>	<u>4.5</u>	<u>4.2</u>	<u>4.4</u>	<u>4.40</u>	(42)	<u>4.37</u>	<u>4.5</u>	<u>5.4</u>	<u>5.5</u>
33.0	28.6	22.4	15.5	10.0	4.27	10.0	11.7	7.8	33.0

<u>4.0</u>	<u>4.0</u>	<u>4.2</u>	<u>4.0</u>	(41)	<u>4.3</u>	<u>4.6</u>	<u>5.1</u>	<u>4.7</u>
33.0	20.5	16.0	11.0	4.2	7.7	14.0	16.4	33.0

<u>2.5</u>	<u>2.7</u>	<u>2.6</u>	(37)	<u>3.7</u>	<u>4.0</u>	<u>4.6</u>	<u>4.8</u>	<u>4.4</u>
33.0	14.6	9.7	3.6	6.0	11.2	15.3	19.8	33.0

<u>3.4</u>	<u>3.4</u>	<u>3.8</u>	<u>3.8</u>	<u>3.6</u>	(35)	<u>3.8</u>	<u>4.2</u>	<u>4.7</u>	<u>4.8</u>
33.0	24.5	20.5	15.5	11.0	3.6	10.1	13.0	17.0	33.0

<u>3.4</u>	<u>3.4</u>	<u>3.9</u>	<u>3.6</u>	<u>3.5</u>	(34)	<u>3.7</u>	<u>4.7</u>	<u>4.0</u>	<u>3.4</u>	<u>3.5</u>
33.0	26.0	19.0	15.5	10.5	3.5	11.0	16.5	20.5	31.0	33.0

<u>3.4</u>	<u>3.6</u>	<u>4.2</u>	<u>4.2</u>	<u>3.9</u>	<u>3.7</u>	(38)	<u>4.3</u>	<u>5.2</u>	<u>5.7</u>	<u>5.3</u>	<u>5.4</u>
33.0	25.5	24.0	21.5	17.5	11.0	3.9	11.0	16.0	19.5	23.0	33.0

<u>4.6</u>	<u>4.6</u>	<u>4.8</u>	<u>4.5</u>	<u>4.4</u>	(44)	<u>4.8</u>	<u>5.5</u>	<u>6.9</u>	<u>7.1</u>	<u>6.8</u>	<u>6.5</u>
33.0	25.0	23.5	15.0	7.5	4.4	12.0	16.5	20.5	22.0	26.0	33.0

<u>4.4</u>	<u>4.5</u>	<u>6.2</u>	<u>6.7</u>	<u>6.3</u>	<u>5.2</u>	<u>5.2</u>	(51)	<u>5.6</u>	<u>5.9</u>	<u>6.3</u>	<u>6.8</u>	<u>8.2</u>	<u>8.1</u>
33.0	26.0	23.5	20.0	16.0	13.0	7.0	0.2	12.5	14.5	17.0	19.0	22.0	33.0

<u>4.3</u>	<u>4.3</u>	<u>6.4</u>	<u>7.0</u>	<u>6.8</u>	<u>6.0</u>	<u>5.7</u>	(58)	<u>6.2</u>	<u>7.0</u>	<u>9.2</u>	<u>9.4</u>
33.0	26.5	24.5	22.0	16.5	15.0	12.5	5.7	11.5	18.0	26.0	33.0

<u>4.9</u>	<u>4.8</u>	<u>7.6</u>	<u>8.0</u>	<u>7.6</u>	<u>6.5</u>	<u>6.5</u>	(64)	<u>6.8</u>	<u>7.4</u>	<u>8.1</u>	<u>8.8</u>	<u>10.3</u>	<u>11.3</u>
33.0	27.0	24.5	20.5	16.5	15.0	10.5	6.5	11.0	15.5	18.5	21.0	25.0	33.0

<u>6.0</u>	<u>6.5</u>	<u>8.2</u>	<u>8.4</u>	<u>8.2</u>	<u>7.2</u>	<u>7.2</u>	(73)	<u>7.4</u>	<u>7.7</u>	<u>8.4</u>	<u>12.4</u>	<u>13.7</u>
33.0	27.0	25.0	20.5	16.0	15.0	7.0	7.3	12.0	15.5	18.0	25.0	33.0

<u>8.3</u>	<u>8.8</u>	<u>9.0</u>	<u>9.1</u>	<u>8.8</u>	<u>7.9</u>	<u>7.8</u>	(79)	<u>8.0</u>	<u>8.5</u>	<u>13.3</u>	<u>14.3</u>
33.0	26.5	25.0	19.5	17.0	14.0	5.5	7.8	12.0	16.0	27.0	33.0

Station + H.I. - Rod Elev.
926.70

7 + 00

+ 50

8 + 00

9 + 00

+ 60

10 + 00

+ 45

11 + 00

+ 50

12 + 00

+ 35

+ 75

T.P. 11.00 932.00. 5.70. 921.00.

500

R. 9/11

2.6	2.7	4.7	5.2	4.9	3.7	(3.8)	4.0	4.2	5.8	7.5	8.0	8.0
33.0	26.0	24.0	20.5	17.0	15.0	5.6	14.0	16.0	21.0	25.0	29.0	33.0

0.6	1.2	4.7	5.3	5.0	4.0	3.8	(4.1)	4.2	4.7	7.2	7.8	7.1
33.0	26.0	23.0	19.0	15.5	14.0	10.0	4.0	12.5	19.0	25.0	29.5	33.0

2.4	2.7	3.5	6.0	5.8	4.6	4.2	(4.4)	4.6	5.0	7.3	8.3	8.3
33.0	26.0	23.0	20.0	17.0	15.0	13.5	4.3	13.0	19.0	23.0	27.0	33.0

3.5	3.8	6.2	6.6	6.4	4.4	4.5	(5.1)	5.2	5.7	9.0	10.2	
38.0	26.5	24.5	21.0	17.5	14.0	7.0	4.9	13.5	19.0	26.0	33.0	

7.5	8.5	8.4	4.7	4.8	(5.6)	5.9	6.3	11.6	12.6			
33.0	23.5	20.0	15.0	7.0	5.2	16.0	19.0	28.5	33.0			

8.3	9.3	8.9	5.0	5.3	(5.8)	6.2	12.9	13.5				
33.0	23.0	20.0	15.0	6.0	5.6	19.0	30.0	33.0				

6.5	6.7	7.1	7.7	7.7	4.7	5.1	(5.8)	6.4	12.0	13.1		
33.0	29.5	25.0	23.0	20.5	16.0	8.0	6.5	20.0	27.5	33.0		

4.7	5.2	6.1	6.0	5.1	5.1	(5.5)	5.7	10.3	11.7			
33.0	25.5	24.0	20.0	17.0	8.5	5.2	20.5	26.5	33.0			

2.9	3.2	3.6	5.3	5.7	5.6	4.6	4.6	(5.2)	5.3	5.8	7.3	8.6	7.8
33.0	28.5	26.0	24.5	21.5	19.0	17.0	7.0	4.8	14.0	22.5	25.0	28.0	33.0

2.9	1.2	4.4	5.0	4.8	4.6	4.2	(4.7)	4.7	5.4	6.4	7.7		
33.0	25.5	23.0	20.5	16.0	17.0	15.0	4.2	14.5	20.0	23.5	33.0		

927.2	3.0	3.5	4.2	4.1	5.4	3.6	(4.3)	4.3	4.9	5.9	6.4		
33.0	26.5	23.5	20.5	16.0	16.5	8.5	3.9	15.0	22.0	24.0	33.0		

928.6	0.0	2.9	3.7	3.7	2.9	3.1	(4.1)	3.8	4.2	4.5	4.1	4.5	
33.0	26.0	22.5	19.5	17.0	15.5	11.0	3.5	15.0	22.5	25.5	29.0	33.0	

Station + H.I. - Rod Elev.
932.00

13 + 00

+ 50

14 + 00

+ 50

B.M. 242 925.30 9.12 922.88 (922.85)

15 + 00

16 + 00

+ 37

17 + 00

+ 50

18 + 00

+ 60

19 + 00

Right.

5.2	5.0
<u>29.5</u>	<u>33.0</u>

Station + H.I. - Rod. Elev.
925.30.

19 + 35

20 + 00

T.P. 0.36 914.27 11.39 913.91

+ 31

+ 67

21 + 00

+ 50

22 + 00

+ 42

+ 80

23 + 00

+ 50

24 + 00

T.P. 6.50 915.92 4.85 909.42

Left.

Left.

Right.

11.1	11.7	11.7	16.4	10.5	10.3	11.2	10.3	10.6	11.3	10.8	9.0	11.3	6.7
23.5	22.0	18.0	16.5	15.0	12.0	10.4	9.5	7.0	24.5	26.5	28.0	31.0	32.5
2.4	2.4												
29.5	27.0												0.0
													37.0
92.3	5.0	12.0	13.3	13.0	12.0	12.8	12.2	12.4	13.0	13.0	12.5	3.2	0.6
33.0	29.0	25.0	21.0	18.0	15.5	12.1	13.0	16.5	22.0	24.0	26.5	32.5	37.0

Top Grand Rail Post.

94.5	74.5	2.9	3.5	3.2	2.2	1.9	1.8	2.1	2.5	3.4	3.3	
33.0	32.5	28.5	23.5	20.5	18.5	16.0	10.0	1.9	13.5	19.0	27.0	33.0

5.3	5.0	3.3	3.0	2.9	3.7	3.3	4.2	4.7	5.0
33.0	25.5	21.0	16.0	8.0	5.1	12.0	21.0	26.0	33.0

11.6	10.6	4.2	3.9	5.0	3.8	5.1	10.0	11.1
33.0	28.5	20.5	12.5	3.7	18.0	24.5	29.0	33.0

15.8	15.8	5.1	6.0	4.9	8.7	18.0
33.0	31.0	18.5	4.7	17.5	22.5	35.0

16.9	16.7	13.0	5.6	5.7	6.7	5.5	6.2	17.4
33.0	31.5	25.5	17.0	9.5	5.3	14.0	18.0	33.5

13.5	13.6	13.0	5.6	5.8	6.9	5.7	6.1	13.0	16.8
33.0	28.0	27.0	17.5	12.0	5.7	16.0	19.0	26.5	33.0

8.7	9.2	8.5	5.7	5.9	7.0	5.9	6.4	7.2	12.7	13.0
33.0	25.5	22.0	18.0	10.5	5.7	10.5	19.0	21.0	30.0	33.0

6.5	6.9	9.5	7.5	7.1	6.2	6.9	6.1	6.6	8.6	10.1
33.0	26.5	25.5	21.5	19.0	16.5	5.8	13.5	21.5	25.0	33.0

4.1	4.1	7.1	7.5	7.1	6.4	6.9	5.9	6.2	7.0	7.3
33.0	28.0	26.0	22.0	18.0	16.0	6.0	14.0	18.5	25.0	33.0

2.2	2.5	6.4	7.1	6.8	6.3	5.9	6.7	5.7	6.1	6.5	6.8	6.5	6.0
33.0	28.5	25.0	20.5	16.5	15.5	8.0	5.7	9.5	19.0	25.0	27.0	28.5	33.0

Nail in T.P. left. 14 + 90

Station + H.I. - Rod. Elev.
915.92.

24 + 45

25 + 00

+ 55

26 + 00

+ 25

+ 35

+ 50

+ 75

27 + 00

+ 55

T.P. 0.22 910.56. 5.58 : 910.34.

28 + 00

+ 50

Left

L

Right

4.2 7.9 8.4 8.1 7.4 7.1
27.5 24.0 19.0 14.5 14.5 7.0

(7.9)

7.0 7.2 7.7 8.2 8.0 8.0
10.0 20.5 25.5 27.5 33.0

3.2 2.8
29.5 33.0

2.8 4.6 6.9 7.5 7.4 6.6
33.0 25.0 22.5 18.0 15.0 14.0

(7.7)

6.6 6.9 7.1 7.3 7.7 7.7 6.8 6.6
12.0 19.0 22.0 25.0 27.5 30.0 33.0

1.9 2.3 6.2 6.6 6.4 5.9 6.4
33.0 23.0 7.5 16.5 14.5 13.5 8.0

(7.3)

6.4 6.7 7.0 7.5 7.1 5.4
15.0 21.0 26.0 31.0 34.5

2.5 2.6 5.1 5.4 5.0 5.6
33.0 30.0 27.0 24.0 23.0 10.0

(6.1)

6.2 6.7 7.5 8.1 8.0
17.0 27.0 31.0 33.0

0.0 0.0 3.9 5.3 5.9 6.1
33.0 32.0 30.5 27.0 22.0 11.0

(6.7)

6.4 6.9 6.9 7.3 7.0 7.3
9.5 10.5 20.5 24.0 33.0

1.0 4.1 4.9 6.0 6.2
34.0 32.0 30.0 21.5 14.5

(6.4)

6.6 7.2 7.9 7.7 5.0 5.0 6.9 7.7
10.0 11.5 13.0 17.0 18.0 21.5 25.5

7.9 6.2
33.0 29.0

1.4 3.4 5.2 6.2 6.5
34.5 31.5 29.5 24.0 13.5

(1.9)

7.2 7.6 9.2 9.3 3.2 3.7 4.7 7.0
10.0 12.5 14.0 20.0 26.0 29.5 33.0

2.0 2.3 8.5 9.0 8.5 8.1
33.0 27.0 20.5 17.0 16.0 8.5

(3.1)

8.3 9.2 10.4 10.3 4.8 5.4
13.5 15.5 18.0 23.5 33.0

3.8 3.9 3.6 10.4 10.4 10.0 9.4
33.0 30.5 27.5 19.5 16.0 15.0 6.5

(5.1)

9.3 9.6 10.1 11.1 10.9 6.0 6.3
7.0 14.5 16.0 19.0 24.5 33.0

3.7 4.3 12.3 12.3 11.5 11.2
33.0 27.5 18.5 16.5 12.0 8.5

(7.1)

11.1 11.5 12.2 13.3 13.2 8.0 8.1
6.0 15.5 17.0 20.0 26.0 33.0

0.6 0.8 8.5 8.5 7.7 7.4 7.2
33.0 27.5 17.0 17.0 15.0 13.5 10.0

(2.5)

7.1 7.4 7.7 9.0 8.9 3.8 3.9
6.0 15.5 17.0 20.5 26.0 33.0

3.0 2.8 9.9 9.9 8.8 8.7
33.0 27.0 20.0 17.0 15.5 8.0

(4.5)

8.8 9.1 9.4 10.5 10.4 5.2 5.5
7.0 16.5 17.5 21.0 26.5 33.0

Station + H.I. - Rod Elev.
910.56

29+00

+50

+62

T.P. 0.52 904.27 6.81 903.75

30+00

+18

+50

+75

31+00

31+38.0 = }
32+13.5 }

32+25

T.P. 3.45 894.91 12.91 891.46

+64

33+00

+50

Left.

4

Right.

4.7	4.6	11.2	11.2	10.3	10.2	(5.1)	10.4	10.4	11.6	11.7	6.1	7.2
33.0	27.0	21.0	18.5	17.0	9.0	10.2	8.0	16.0	16.0	21.0	26.0	33.0

6.3	6.2	12.9	13.2	12.3	11.9	7.1	12.1	12.0	12.3	13.0	12.9	7.3	7.6
33.0	28.0	22.5	19.0	18.0	12.0	11.9	9.0	16.5	18.0	18.5	21.0	25.7	33.0

6.5	6.5	13.4	13.4	12.6	12.3	(7.1)	12.2	12.4	12.3	12.7
33.0	28.5	23.0	19.0	18.0	12.5	12.1	8.0	16.0	25.0	33.0

Nail in T.P. 61 Sta 30+00 No. 5 side

1.2	1.2	8.0	8.1	7.2	(2.2)	7.0	7.0	6.9
33.0	27.0	22.0	19.0	17.5	7.0	6.0	19.0	33.0

2.0	2.0	8.8	9.0	9.2	7.9	(8.8)	7.6	7.8	7.5	7.6	7.6
33.0	27.5	22.5	19.0	17.5	13.0	7.8	5.0	14.0	28.0	31.5	33.0

3.2	3.9	9.8	10.2	9.4	9.0	(9.2)	8.6	8.8	8.4
33.0	26.5	21.0	17.5	16.0	5.5	8.9	9.5	19.0	33.0

3.0	3.5	10.5	10.7	10.3	9.8	(9.7)	9.8	9.5	9.3	7.9
33.0	27.0	20.0	16.0	15.0	5.0	9.6	8.5	15.0	28.5	33.0

4.0	5.0	11.5	11.6	11.0	10.8	10.4	(10.4)	10.0	10.4	10.4	13.0	25.5
33.0	26.5	19.5	18.5	15.0	7.0	3.5	10.2	5.5	15.5	25.0	29.0	44.0

9.0	11.1	13.1	13.3	12.7	12.1	(10.8)	11.5	11.9	11.6	13.0	21.2
33.0	21.0	19.5	15.5	15.0	6.0	11.6	6.0	11.0	22.0	25.0	35.5

1.5	2.3	4.2	4.8	4.9	4.2	3.9	(2.7)	3.4	3.7	3.4	12.7
33.0	27.0	20.5	19.5	16.5	15.0	8.5	3.2	6.0	11.0	21.5	34.5

0.9	2.6	4.3	5.5	6.0	6.0	5.5	4.6	(4.1)	4.2	4.5	4.1	4.3	12.4
33.0	24.0	23.5	20.5	19.5	16.0	15.0	9.0	4.0	5.5	9.0	15.0	20.5	33.0

5.0	6.6	6.6	6.4	6.1	5.3	(5.1)	5.1	5.3	5.0	13.3	15.3
17.5	15.5	13.0	12.0	10.0	3.0	5.2	5.5	11.0	22.0	32.5	35.5

4.5
19.5)

Station	+	H.I.	-	Rob. Elev.
		894.91		

34 + 00

+ 50

35 + 00

T.P.	4.46	891.63	7.74	887.17
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+ 63

~~36 + 00~~

+ 13

+ 50

+ 60

+ 75

37 + 00

+ 50

B.M.	5.41	890.79	6.25	885.38	885.37
------	------	--------	------	--------	--------

38 + 00

1054

Ripst

(6.1)

$\frac{2.1}{23.0} \frac{4.8}{20.0} \frac{7.5}{15.5} \frac{7.6}{13.5} \frac{7.1}{12.0} \frac{6.8}{8.0} \frac{6.4}{6.5} \frac{6.1}{6.0} \frac{6.5}{14.0} \frac{6.8}{24.0} \frac{14.8}{34.0}$

(6.6)

$\frac{2.0}{22.5} \frac{5.3}{18.5} \frac{6.7}{17.5} \frac{8.4}{13.0} \frac{7.5}{10.5} \frac{6.8}{6.0} \frac{6.5}{6.5} \frac{7.0}{5.5} \frac{6.7}{12.0} \frac{6.6}{16.5} \frac{15.7}{25.0} \frac{15.7}{37.0}$

(7.1)

$\frac{2.3}{22.0} \frac{7.1}{17.0} \frac{8.0}{14.0} \frac{8.5}{13.0} \frac{8.5}{12.0} \frac{7.3}{7.5} \frac{7.1}{7.1} \frac{7.5}{5.0} \frac{7.2}{11.0} \frac{15.8}{25.0} \frac{15.8}{36.0}$

(4.3)

$\frac{8.9}{27.5} \frac{13.0}{20.0} \frac{6.0}{16.0} \frac{7.2}{11.5} \frac{5.0}{4.5} \frac{4.3}{4.4} \frac{4.5}{5.0} \frac{4.8}{9.0} \frac{4.4}{22.0} \frac{4.9}{27.5} \frac{12.4}{38.0}$

(4.5)

$\frac{3.6}{19.5} \frac{4.9}{18.5} \frac{5.9}{17.0} \frac{5.9}{14.5} \frac{5.1}{12.0} \frac{4.4}{4.0} \frac{4.5}{4.5} \frac{5.1}{12.5} \frac{4.8}{22.0} \frac{5.0}{28.5} \frac{12.7}{39.5}$

(4.5)

$\frac{1.8}{26.0} \frac{3.8}{19.5} \frac{5.1}{18.5} \frac{4.9}{15.5} \frac{5.7}{14.0} \frac{5.7}{11.5} \frac{4.9}{10.0} \frac{4.5}{4.5} \frac{4.8}{6.0} \frac{5.2}{11.5} \frac{4.7}{22.0} \frac{4.4}{29.5} \frac{12.0}{39.0}$

(4.5)

$\frac{3.6}{22.5} \frac{4.6}{17.0} \frac{4.3}{15.5} \frac{5.6}{13.0} \frac{5.7}{11.5} \frac{4.8}{9.5} \frac{4.5}{3.0} \frac{4.6}{4.6} \frac{4.8}{6.0} \frac{5.3}{14.0} \frac{4.6}{22.0} \frac{5.0}{30.0} \frac{12.0}{40.5}$

(4.7)

$\frac{3.0}{24.0} \frac{3.8}{19.0} \frac{4.4}{18.5} \frac{5.2}{15.0} \frac{5.8}{14.0} \frac{5.9}{12.5} \frac{4.9}{9.5} \frac{4.6}{6.0} \frac{4.6}{4.6} \frac{5.2}{7.2} \frac{4.7}{20.5} \frac{4.3}{30.5} \frac{11.8}{40.0}$

(4.7)

$\frac{4.8}{18.5} \frac{4.7}{16.5} \frac{5.7}{15.0} \frac{6.0}{14.0} \frac{6.0}{12.5} \frac{5.0}{9.0} \frac{4.6}{4.5} \frac{4.7}{4.6} \frac{5.0}{7.5} \frac{5.0}{12.0} \frac{4.5}{21.0} \frac{4.6}{28.5} \frac{12.2}{39.5}$

(4.7)

$\frac{4.5}{18.0} \frac{5.5}{16.0} \frac{5.7}{14.0} \frac{5.3}{12.5} \frac{5.0}{8.5} \frac{4.8}{4.8} \frac{5.1}{9.0} \frac{5.4}{12.0} \frac{5.1}{19.0} \frac{5.2}{24.5} \frac{13.3}{36.0}$

Sp in 10" Film Rt. Sta 37+50

$\frac{0.8}{24.0} \frac{5.0}{19.5} \frac{5.3}{17.0} \frac{4.4}{12.5} \frac{4.2}{9.0} \frac{4.1}{4.2} \frac{4.3}{4.0} \frac{4.9}{14.0} \frac{4.5}{22.5} \frac{13.3}{34.5}$

Station + H.I. - Rod Elev.
890.79.

38 + 50

39 + 00

+ 50

40 + 00

+ 50

41 + 00

T.P. 3.54. 890.39. 3.94. 886.85.

+ 20

+ 50

42 + 00

T.P. 3.67. 890.52. 3.54. 886.85.

B.M. 5.14. 885.39.

Left.

L

Right.

2.8	6.5	6.5	5.5	4.7	4.3
25.5	17.5	16.5	14.0	10.5	6.5

4.3

4.7	5.0	4.4	4.8	12.4
9.0	14.0	23.0	26.0	36.5

4.7

2.7	5.5	6.4	6.2	5.3	4.7
20.0	16.0	13.0	11.5	10.5	4.0

4.7

4.9	5.2	5.3	5.2	12.1
8.0	11.0	14.5	26.0	36.5

3.2	3.6	5.0	5.9	6.1	5.4	4.8
17.0	16.0	15.0	13.0	10.5	7.5	3.0

4.7

4.9	5.1	4.9	5.0	13.3
7.0	10.0	14.0	24.0	26.0

4.7

1.1	5.4	5.9	4.8	4.5
18.5	14.0	12.0	9.5	5.0

4.9

4.8	5.2	4.8	13.6
6.0	10.5	22.5	37.0

5.1	5.8	5.7	4.8	4.5
17.0	15.5	14.0	11.5	6.0

4.6

5.0	5.6	5.5	12.8
4.5	12.5	26.5	37.5

3.6	4.6	5.3	5.3	4.7	4.6
23.0	16.5	10.5	13.0	12.0	6.5

4.6

4.8	5.1	4.3	12.6
5.5	11.5	27.0	38.5

4.7

1.6	2.5	4.4	4.1	4.0
33.0	31.0	17.5	11.5	6.0

4.8

4.4	4.6	4.4	12.0
7.5	12.0	27.0	38.0

3.2	4.5	4.4	4.0	3.9	4.0
33.0	29.0	22.0	17.0	12.5	6.0

4.8

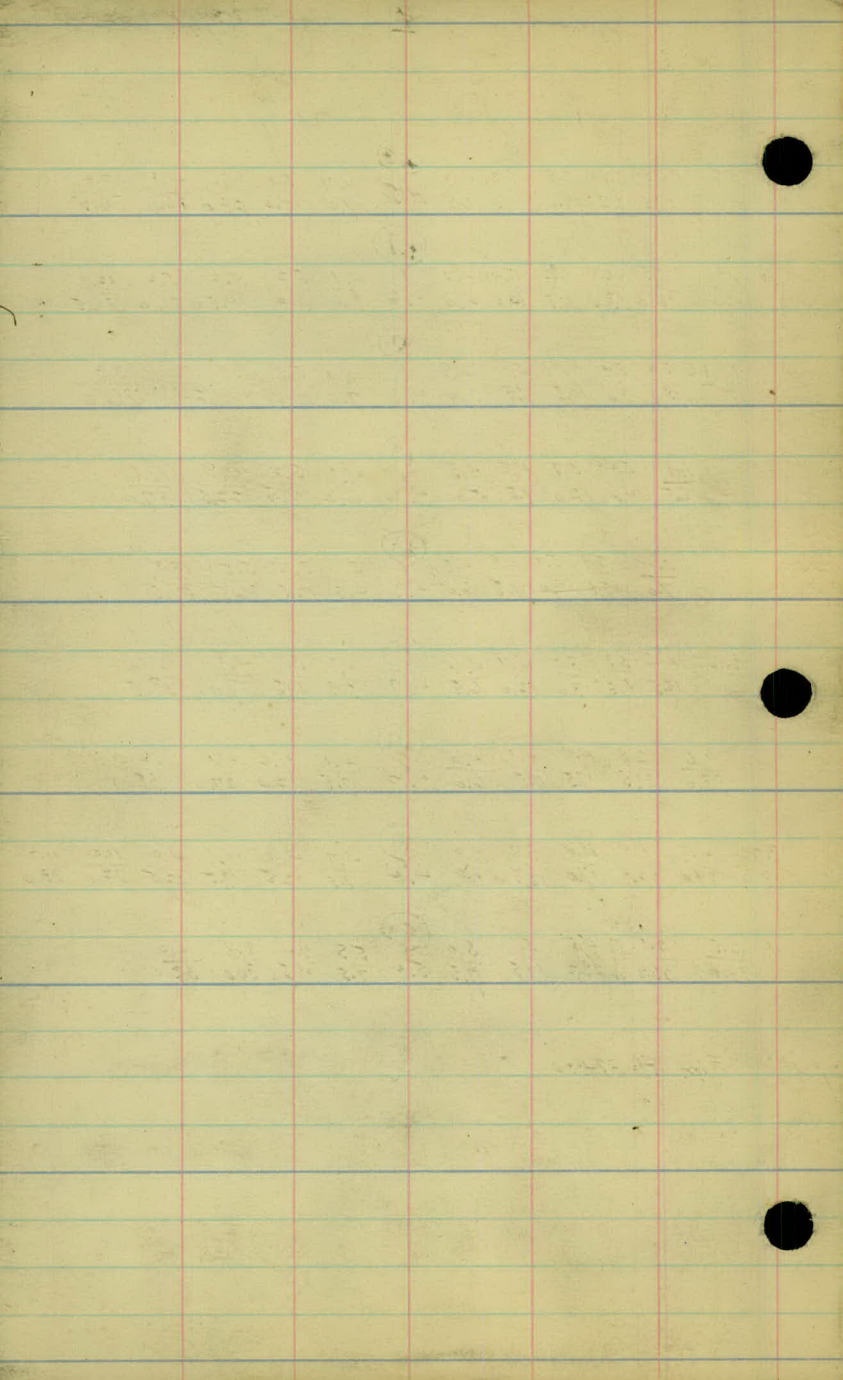
4.7	4.8	4.1	4.0	11.0	11.2
7.5	12.5	17.5	22.5	32.0	33.0

2.5	2.1	4.5	5.1	5.0
33.0	25.2	25.2	14.5	7.5

5.4

5.5	7.4	8.9	10.0
7.5	18.5	30.0	32.0

Sp. in 10" Film RT 37+50



Road # 6.

7-21-24

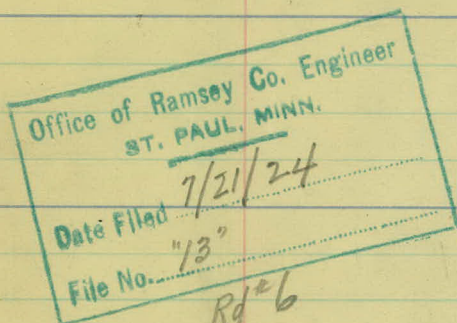
Lake Johanna Blvd.
Construction Notes

Inst. - P.J. Crane

Rd - Persons

Rd - Mahoney

" " Martin



Sta.	+	H.I.	-	Elev	Gr. Ref.
B.M.	0.81	923.66		922.85	
T.P.	5.57	917.86	11.37	912.29	
B.M.			3.13	914.73	
24				908.4	9.5
+30				908.3	9.4
+50				908.3	9.4 9.1
27				907.9	10.0
T.P.	4.49	914.85	2.50	910.36	
+50				907.3	7.4
28				906.4	8.5
+50				905.3	9.4
29				903.9	11.0
+50				902.4	12.5
T.P.	1.58	905.81	10.62	904.23	
30				900.9	4.9
+10					
+14					

14.

27.

R.R. Spk. in C" Cap. 30' M. Sta. 16430,

R.R. Spk. in Tree Lt. Sta. 26400

-12 S.E. 5700 E.W.

33/5.9 +0.9 S.E. 15/7.5 8.4 13/8.6 29/7.9 33/7.2

+0.9 S.E.

-12 S.E. x 500 E.W.

33/7.0 25/2.7 15/8.1 12/8.3 8.0 13/2.4 15/7.5 29/2.2 33/2.4

+0.9 S.E.

-12 S.E. 500 E.W.

34/3.5 30/5.3 26/6.0 15/7.1 3/7.7 4.0 15/5.3 20/5.5 25/5.4 33/5.5

+0.4

-0.75 2.5 E.W.

33/5.7 11/5.7 23/5.7 15/6.5 11/6.2 2.1 10/2.0 15/2.8 22/2.1 33/2.7

+0.4 S.E.

-0.4 S.E.

33/3.1 26/3.8 15/4.6 7/5.9 5.8 15/6.3 23/6.5 33/7.3

+0.12 S.E.

-0.12 S.E.

33/5.2 26/5.4 15/6.1 6.8 15/7.2 29/8.3 33/8.2

-0.12

+0.08

33/2.2 25/2.2 15/2.2 8.7 15/9.3 29/9.4 33/9.7

-0.34 S.E.

+0.34

33/9.2 24/9.3 15/9.5 10.0 15/10.2 23/10.4 33/10.5

20 K.W.

-0.7 S.E.

+0.6

33/10.2 26/10.7 12/11.0 11.2 15/11.1 29/11.2 33/11.2

5.00 K.W. -1.2 S.E.

+0.9 S.E.

33/5.0 27/5.0 20/5.0 11/2.9 3.9 5/5.7 5/5.9 13/10.3 23/8.9 33/8.5

33/3.5 15/3.5 4.9 13/10.6 29/9.0 33/8.8

33/4.0 15/5.3 9.2 5/10.5 6/11.1 10/10.3 29/9.2 33/9.1

Sta.	T	H.F.	Elev	Gr. Rod
		905.81		

T.P.	6.06	901.30	10.57	895.44	
+50				899.4	1.9

3)				892.9	3.4
T.P.			8.30	893.00	

L.P.

Rt.

$$\begin{array}{r} 59/1.0 \\ 290/0.9 \\ +1.0 \end{array}$$

-1.2 S.E. 5.0 E.W.

+0.9 S.E.

$$\begin{array}{r} 20/1.7 \\ 20/1.4 \end{array} \quad \begin{array}{r} 12/2.2 \\ 11/0.2 \end{array} \quad \begin{array}{r} 8/2.5 \\ 4/6.6 \end{array} \quad \begin{array}{r} 6.5 \\ -4.6 \end{array} \quad \begin{array}{r} 10/3.8 \\ 20/6.3 \end{array} \quad \begin{array}{r} 29/6.2 \\ -5.2 \end{array} \quad \begin{array}{r} 27/6.7 \\ 33/10.6 \end{array}$$

$$\begin{array}{r} 59/1.1 \\ 50/1.3 \\ 42.1 \times \end{array}$$

-1.2 S.E. 5.0 E.W.

+0.9 S.E.

$$\begin{array}{r} 20/2.3 \\ 20/0.5 \end{array} \quad \begin{array}{r} 16/9.0 \\ 10.1 \end{array} \quad \begin{array}{r} 13/9.2 \\ 7.5 \end{array} \quad \begin{array}{r} 12/8.7 \\ -4.1 \end{array} \quad \begin{array}{r} 11/7.6 \\ 17/8.0 \end{array}$$

Nail in T.P. Rt. Sta. 52+18.

