

Dr. 8- BK. 158

CONSTRUCTION SURVEY
LOWER SIBLEY MEMORIAL HWY.
ROAD $\frac{1}{2}$ N^o 89

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

Date Filed 10-8-23

File No. 2

Transit Notes.

Rd. #89

10-5-23

Corley - Transit
Persons - Rod
Briggs - Head-chain
Eck - Rear-chain

Sheets 1-2

#3

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

Date Filed 10-8-23

File No. 2

Sta. Point Δ RT Δ LT

25+77° = 24+30 on 2nd Line

24+92.25

20°-16'

15+47 P.T.

13+98.4 P.I. 70°-24'

11+95° P.C.

9+36.3 P.T.

7+91.4 P.I. 67°-22'

5+99.63 P.C.

3+91.8 P.T.

2+94.2 P.I. 41°-30'

1+84.3 P.T.

0+00 P.I.

Sta - Def.
 24+40.8 - 0.0
 25+00 - 50°-55'
 25+42.4 - 10°-08'



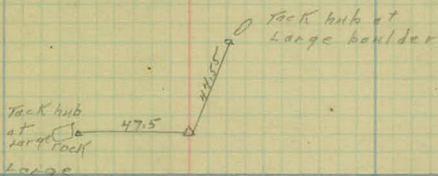
$\Delta = 200 - 16' \text{ RT}$
 $D = 20'$
 $S.T. = 51.5'$
 $L = 101.35'$
 $P.C. = 24+40.8$
 $P.T. = 25+42.4$

Sta - Def.
 11+95 - 0+0
 12+00 - 0°-30'
 13+00 - 100°-30'
 14+00 - 20°-30'
 15+00 - 30°-30'
 15+47 - 35°-12'



$\Delta = 70° - 24'$
 $D = 20'$
 $S.T. = 203.1'$
 $L = 352.0'$
 $P.C. = 11+95.0$
 $P.T. = 15+47.0$

13+72 - 16°-36' Intersection
 Minneapolis



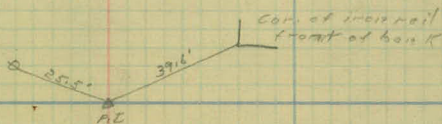
Sta - Def.
 5+99.62 - 0.0
 7+00 - 10°-02'
 8+00 - 20°-02'
 9+00 - 30°-02' 3"
 9+35.29 - 33°-40' Box Elder

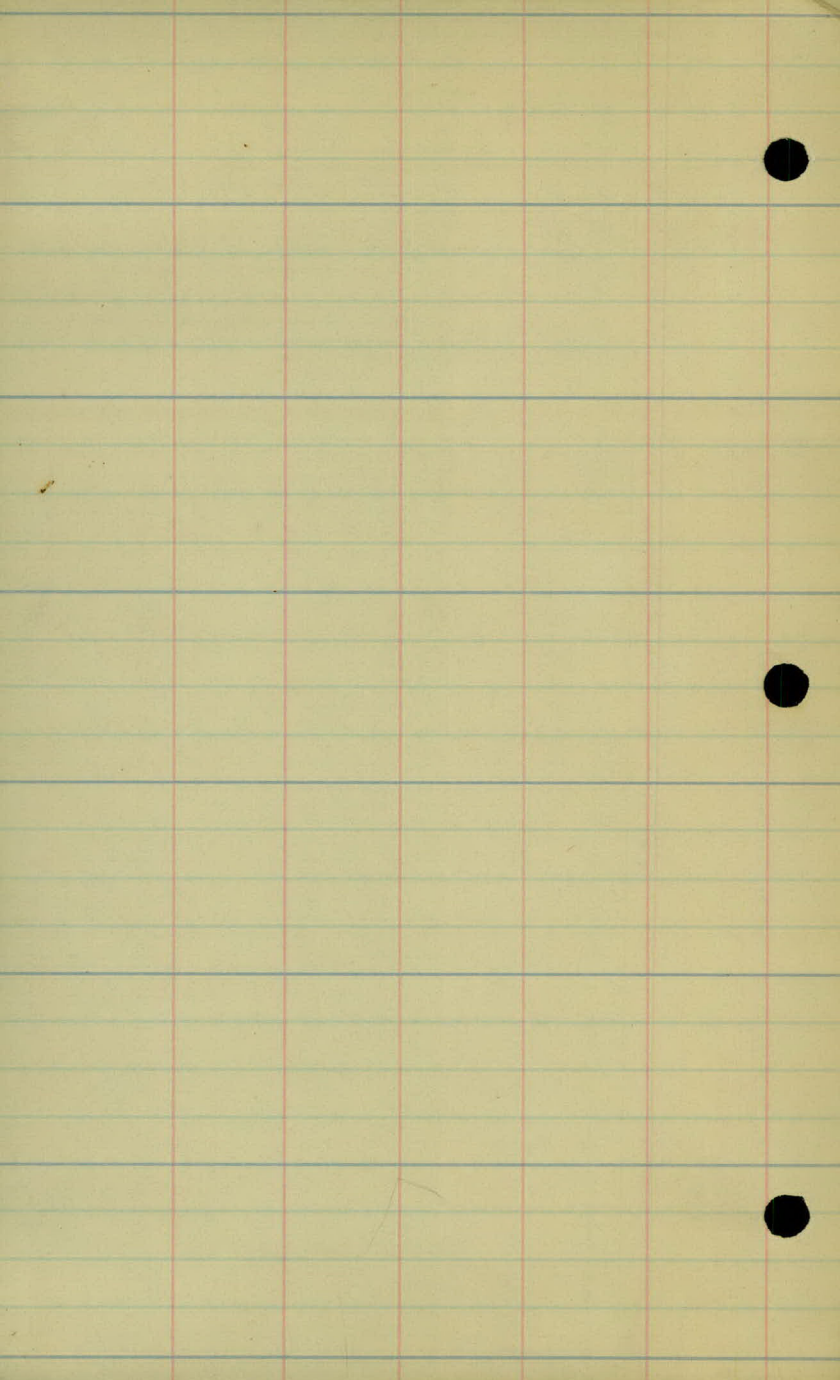
$\Delta = 67° - 20' \text{ RT}$
 $D = 20'$
 $S.T. = 191.78'$
 $L = 336.66'$
 $P.C. = 5+99.62$
 $P.T. = 9+36.3$

Sta - Def.
 1+84.3 - 0.0
 2+00 - 10°-34.5'
 3+00 - 11°-34.5'
 3+91.8 - 20°-45'



$\Delta = 41° - 30' \text{ RT}$
 $D = 20'$
 $S.T. = 109.07'$
 $L = 207.5'$
 $P.C. = 1+84.3$
 $P.T. = 3+91.8$





Topography

10-8-23 Rd. #89

3rd Line,

Carley,
Persons,
Briggs,
Eck,

sheets 3-6

5+01

9+00

8+56

8+00

7+00

6+00

5+00

4+00

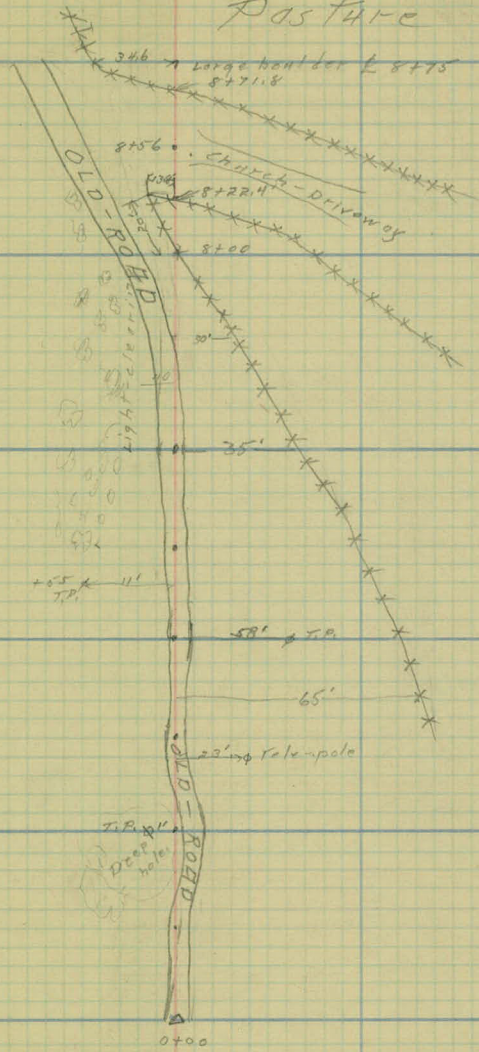
3+00

2+00

1+00

0+00

PASTURE



Sta

23

22

18

17

16

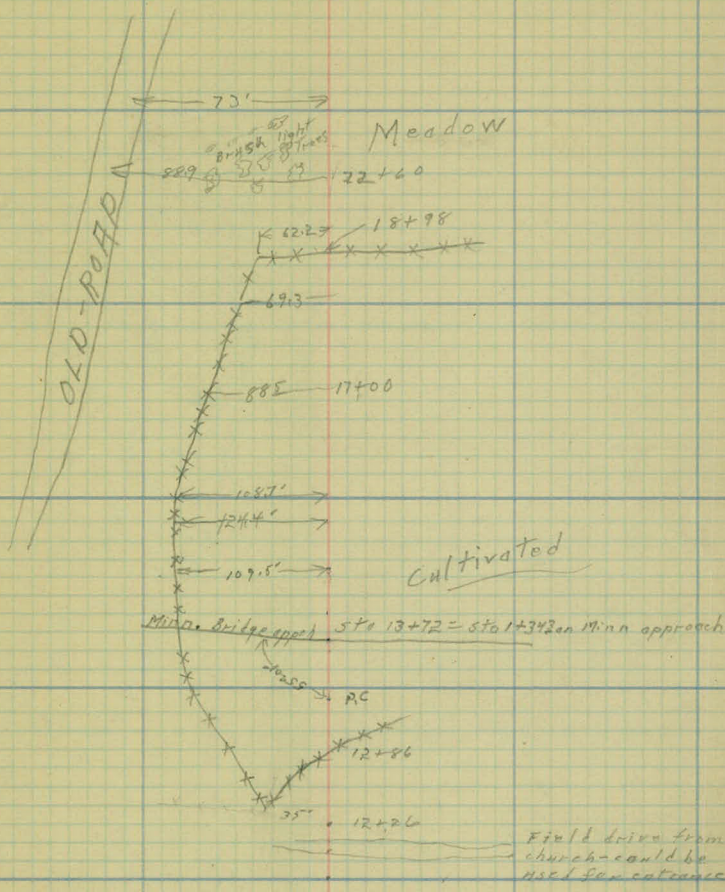
14

13

12

10

Sheet #5 of 15 sheets
 Lt Rt

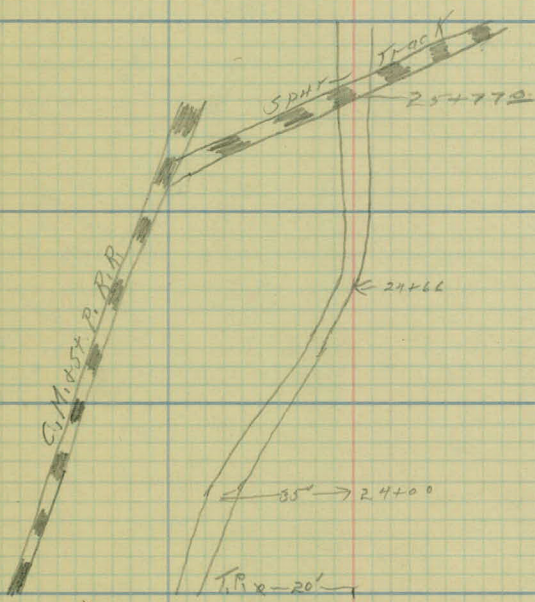


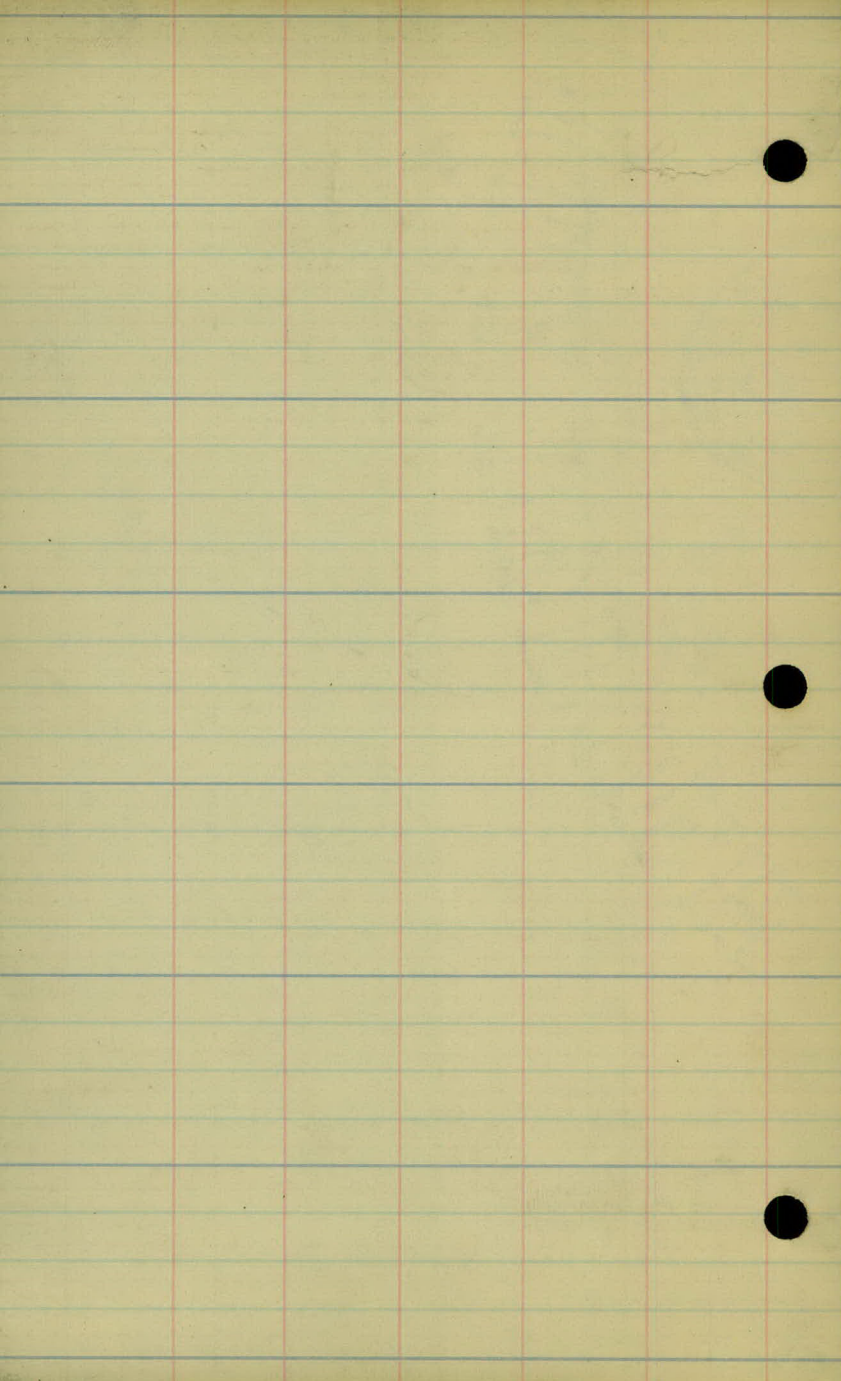
9+75 - 32' Large boulder

sta

23+79

LT # RT





Levels 3rd Line.

Rd. #89 - 10-6-23

Corley - Recording

Persops - Level

Eck - Rd.

Briggs - Tape

sheets 7-10

Sta	+	H.I.	-	Red	Elev
B.M.	6.94	119.32 ✓			112.38
25 + 42.4 P.T.				6.05	112.8
25				6.2	13.1
24 + 63				6.4	12.9
24 + 53				7.0	12.3
24 + 40.8 P.C.				7.8	11.5
+ 22				9.0	10.3
24				8.6	10.7
+ 85				7.9	11.4
+ 73				6.4	12.9
+ 64				8.6	10.7
+ 59				6.4	12.9
+ 50				8.9	10.4
23				9.8	09.5
22				10.8	08.5
21				12.0	07.3
T.P.	4.22	112.40 ✓	11.14		108.18 ✓
20				6.6	05.8
19				7.3	05.1
18 + 98.0				7.2	05.2
18				7.9	04.5
17				8.8	03.6
+ 47 A.E.				11.1	01.3
16	11.14		112.38	11.2	01.2
	6.94		108.18		
	<u>4.20</u>		<u>4.20</u>		

m.w.c.

L1 & R1

25+90

On derail post Rt of sta 70+20 on 1st Line.

Edge of road

Ground Level R+L

1 fence

Sta + H.I. - Rod Elev

4.22 112.40

T.P. 9.55 111.25 ✓ 10.70 101.70 ✓

15 10.1 01.2

14 9.5 01.8

13 + 72.0 9.4 01.9

13 8.8 02.5

12 + 86.0 8.8 02.5

12 7.1 04.2

11 + 95.0 AC, 7.0 04.3

11 4.1 07.2

T.P. 7.62 117.96 ✓ 0.91 110.34 ✓

10 21.39 6.5 11.5

9 + 36.3 P.T. 5.1 12.9
14.9

9 6.8 11.2

+ 70 7.3 10.7

B.M. 5.50 112.46
112.44

8 + 53.1 7.4 10.6

+ 23 7.4 10.6

8 7.7 10.3

+ 83 8.1 09.9

T.P. 1.67 107.61 ✓ 12.02 105.94 ✓

+ 63 23.63 5.4 02.2

7 9.1 98.5

23.63 108.18

21.39 105.94

2.24 2.24

inverted

Intersection with Minneapolis approach.

X fence

X fence

Top of large boulder at fence corner - Rt of old 54+55 old line
 " " " " " " " ~~1st~~ " " 8+35 New line

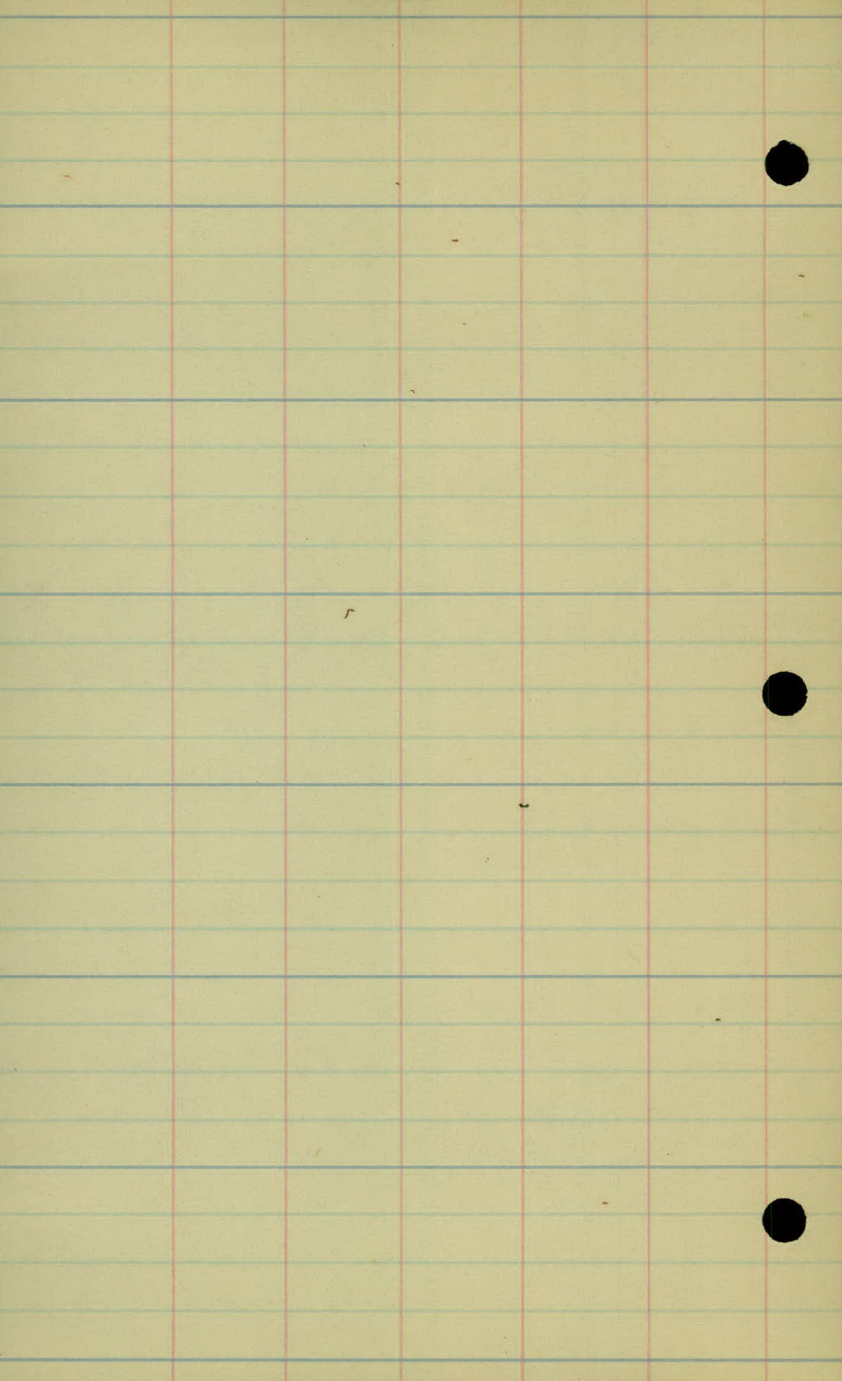
Drive way right $\rightarrow \left(\frac{6.7}{25} \quad \frac{5.6}{50} \quad \frac{3.9}{75} \quad \frac{3.0}{100} \right)$

X fence

X fence

5th	+	H.I.	-	Rad	E10V1
		1.67	107.61		
T.P.		0.71	X 96.46	11.86	095.75
6 + 50				11.4	95.1
6				5.0	91.5
+ 99.6 P.G.					
+ 50				8.0	88.5
5				11.0	85.5
T.P.		0.51	084.91 ✓	12.06	084.40 ✓
+ 50				3.3	81.6
4				7.2	77.7
3 + 91.5 P.G.				8.1	76.8
+ 50				10.7	74.2
T.P.		0.91	074.10 ✓	11.72	073.19 ✓
3				4.1	70.0
+ 50				7.8	66.3
2				10.7	63.4
1 + 84.3 P.G.				12.1	62.6
T.P.		4.86	067.06 ✓	11.90	062.20 ✓
1 + 50				6.1	61.0
1				8.3	58.8
0 + 00				8.2	58.9
T.P.		7.61	073.68 ✓	0.99	066.07 ✓
B.M.		16.27		3.31	70.37 ✓
				51.84	70.35
- 1 to 0			105.94		63.5
- 2 to 0		51.84			67.0
		16.27	70.37		
		35.57	35.57		

Tele. pole Lt of 40+00 on 1st line



Xsections Rd #89

10-8-23

Carley - Recording

Persons - Hand-Level

Briggs - Tape

Eck - Rod

Line #3

sheets 10-15

Sta.

Elev.

25 + 42.4 P.T.

112.5

25

13.1

+63

12.9

+53

12.3

+40 S.P.C.

11.5

+32

10.3

24

10.7

+85

11.4

+73

12.9

+64

10.7

+59

12.9

+50

10.4

LT

Sheet #12 of 15 sheets

RT

$$\begin{array}{r} +1.5 \\ 31 \end{array} \quad \begin{array}{r} -1.2 \\ 28 \end{array} \quad \begin{array}{r} -0.7 \\ 10 \end{array} \quad \begin{array}{r} -1.3 \\ 13 \end{array} \quad \begin{array}{r} -3.0 \\ 20 \end{array} \quad \begin{array}{r} -3.9 \\ 33 \end{array}$$

$$\begin{array}{r} 0.0 \\ 30 \end{array} \quad \begin{array}{r} 0.0 \\ 24 \end{array} \quad \begin{array}{r} -0.5 \\ 16 \end{array} \quad \begin{array}{r} -0.6 \\ 5 \end{array} \quad \begin{array}{r} -3.3 \\ 16 \end{array} \quad \begin{array}{r} -3.5 \\ 29 \end{array} \quad \begin{array}{r} -3.0 \\ 33 \end{array}$$

$$\begin{array}{r} 0.0 \\ 33 \end{array} \quad \begin{array}{r} -0.2 \\ 18 \end{array} \quad \begin{array}{r} -0.9 \\ 5 \end{array} \quad \begin{array}{r} -2.5 \\ 14 \end{array} \quad \begin{array}{r} -3.0 \\ 26 \end{array} \quad \begin{array}{r} -2.5 \\ 33 \end{array}$$

$$\begin{array}{r} +0.3 \\ 34 \end{array} \quad \begin{array}{r} +0.5 \\ 25 \end{array} \quad \begin{array}{r} -2.1 \\ 9 \end{array} \quad \begin{array}{r} -2.2 \\ 22 \end{array} \quad \begin{array}{r} -1.5 \\ 28 \end{array} \quad \begin{array}{r} -2.5 \\ 34 \end{array}$$

$$\begin{array}{r} +1.5 \\ 33 \end{array} \quad \begin{array}{r} +1.5 \\ 31 \end{array} \quad \begin{array}{r} +1.8 \\ 10 \end{array} \quad \begin{array}{r} -1.7 \\ 8 \end{array} \quad \begin{array}{r} -1.4 \\ 18 \end{array} \quad \begin{array}{r} -1.1 \\ 23 \end{array} \quad \begin{array}{r} -2.0 \\ 33 \end{array}$$

$$\begin{array}{r} +3.0 \\ 36 \end{array} \quad \begin{array}{r} +3.0 \\ 17 \end{array} \quad \begin{array}{r} +2.0 \\ 8 \end{array} \quad \begin{array}{r} -0.2 \\ 15 \end{array} \quad \begin{array}{r} 0.0 \\ 23 \end{array} \quad \begin{array}{r} +2.0 \\ 35 \end{array}$$

$$\begin{array}{r} +3.1 \\ 35 \end{array} \quad \begin{array}{r} +2.7 \\ 19 \end{array} \quad \begin{array}{r} +0.8 \\ 16 \end{array} \quad \begin{array}{r} +0.3 \\ 8 \end{array} \quad \begin{array}{r} +1.0 \\ 18 \end{array} \quad \begin{array}{r} +2.0 \\ 28 \end{array} \quad \begin{array}{r} +2.0 \\ 33 \end{array}$$

$$\begin{array}{r} +2.5 \\ 35 \end{array} \quad \begin{array}{r} +2.0 \\ 23 \end{array} \quad \begin{array}{r} -0.4 \\ 16 \end{array} \quad \begin{array}{r} -0.5 \\ 12 \end{array} \quad \begin{array}{r} +1.0 \\ 24 \end{array} \quad \begin{array}{r} +3.5 \\ 35 \end{array}$$

$$\begin{array}{r} +1.0 \\ 36 \end{array} \quad \begin{array}{r} +0.9 \\ 30 \end{array} \quad \begin{array}{r} -1.5 \\ 23 \end{array} \quad \begin{array}{r} -2.3 \\ 8 \end{array} \quad \begin{array}{r} 0.0 \\ 9 \end{array} \quad \begin{array}{r} -0.5 \\ 33 \end{array}$$

$$\begin{array}{r} +2.5 \\ 30 \end{array} \quad \begin{array}{r} +1.0 \\ 27 \end{array} \quad \begin{array}{r} 0.0 \\ 12 \end{array} \quad \begin{array}{r} -0.6 \\ 15 \end{array} \quad \begin{array}{r} -0.3 \\ 24 \end{array} \quad \begin{array}{r} +1.0 \\ 33 \end{array}$$

$$\begin{array}{r} +0.5 \\ 33 \end{array} \quad \begin{array}{r} -0.5 \\ 29 \end{array} \quad \begin{array}{r} -1.6 \\ 17 \end{array} \quad \begin{array}{r} -0.1 \\ 12 \end{array} \quad \begin{array}{r} -0.3 \\ 15 \end{array} \quad \begin{array}{r} -0.8 \\ 33 \end{array}$$

$$\begin{array}{r} +2.0 \\ 35 \end{array} \quad \begin{array}{r} +0.5 \\ 19 \end{array} \quad \begin{array}{r} +0.8 \\ 7 \end{array} \quad \begin{array}{r} +3.0 \\ 14 \end{array} \quad \begin{array}{r} +4.0 \\ 26 \end{array} \quad \begin{array}{r} +3.5 \\ 34 \end{array}$$

Sta	$\frac{L}{\text{Elev}}$	
23	09.5	
22	08.5	
21	07.3	
20	05.8	
19	05.1	
18	04.5	
17	03.6	
+47 P.T.	01.3	
16	01.2	
15	01.2	
14	01.8	
13 +720	01.9	Intersection

$$\frac{+1.5}{34}$$

$$\frac{-1.5}{31}$$

$$\frac{0.0}{33}$$

$$\frac{+1.0}{33}$$

$$\frac{-1.5}{33}$$

$$\frac{+1.0}{33}$$

$$\frac{-0.7}{33}$$

$$\frac{+1.0}{33}$$

$$\frac{-0.5}{33}$$

$$\frac{+0.5}{33}$$

$$\frac{-0.3}{33}$$

$$\frac{+0.5}{33}$$

$$\frac{-0.5}{33}$$

$$\frac{+0.4}{33}$$

$$\frac{-2.0}{33}$$

$$\frac{+1.0}{33}$$

$$\frac{-1.0}{33}$$

$$\frac{+0.5}{33}$$

$$\frac{0.0}{33}$$

$$\frac{+0.5}{33}$$

$$\frac{-0.5}{33}$$

$$\frac{0.0}{33}$$

$$\frac{-0.3}{33}$$

5th

~~5~~
E14V

13

02.5

12

04.2

11

07.2

1

10

11.5

+36 ZPT.

12.9

14.9

9

11.2

+70

10.7

+53

10.6

+23

10.6

8

10.3

+88

09.9

$$\frac{+1.0}{33} \quad | \quad \frac{-1.0}{33}$$

$$\frac{+0.5}{33} \quad | \quad \frac{-0.5}{33}$$

$$\frac{0.0}{33} \quad | \quad \frac{-1.0}{33}$$

$$\frac{0.0}{33} \quad | \quad \frac{-0.5}{33}$$

$$\frac{-1.5}{33} \quad | \quad \frac{+0.7}{33}$$

$$\frac{-0.5}{33} \quad | \quad \frac{+1.4}{17} \quad \frac{+1.5}{29} \quad \frac{+2.0}{34}$$

$$\frac{0.0}{33} \quad | \quad \frac{+0.7}{33}$$

$$\frac{0.0}{33} \quad | \quad \frac{+0.2}{33}$$

$$\frac{-3.0}{35} \quad \frac{-3.0}{22} \quad \frac{7.2}{9} \quad | \quad \frac{-1.5}{16} \quad \frac{-1.5}{26} \quad \frac{-0.5}{36}$$

$$\frac{-4.5}{33} \quad \frac{-5.0}{19} \quad \frac{-4.5}{11} \quad \frac{+0.4}{3} \quad | \quad \frac{-0.3}{17} \quad \frac{0.0}{33}$$

$$\frac{-5.1}{33} \quad \frac{-5.4}{20} \quad \frac{-6.5}{8} \quad | \quad \frac{0.0}{18} \quad \frac{+0.3}{35}$$

Sta

Elev.

7 + 63

92.2

7

98.5

+50

95.1

6

91.5

+50

88.5

5

85.5

+50

81.6

4

77.7

+50

74.2

3

70.0

+50

66.3

2

63.4

+843 P.C.

+50

61.0

1

58.8

0 + 00

58.9

$$\begin{array}{r} +1.1 \\ 35 \end{array} \quad \begin{array}{r} +0.5 \\ 12 \end{array} \quad \begin{array}{r} -0.2 \\ 6 \end{array} \quad \begin{array}{r} +5.0 \\ 9 \end{array} \quad \begin{array}{r} +7.6 \\ 12 \end{array} \quad \begin{array}{r} +7.7 \\ 36 \end{array}$$

$$\begin{array}{r} +0.5 \\ 34 \end{array} \quad \begin{array}{r} +0.1 \\ 22 \end{array} \quad \begin{array}{r} -0.5 \\ 11 \end{array} \quad \begin{array}{r} +5.0 \\ 19 \end{array} \quad \begin{array}{r} +9.1 \\ 25 \end{array} \quad \begin{array}{r} +11.5 \\ 25 \end{array} \quad \begin{array}{r} +11.5 \\ 33 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33 \end{array} \quad \begin{array}{r} -0.2 \\ 18 \end{array} \quad \begin{array}{r} +0.1 \\ 4 \end{array} \quad \begin{array}{r} -1.1 \\ 8 \end{array} \quad \begin{array}{r} -0.4 \\ 16 \end{array} \quad \begin{array}{r} +2.6 \\ 18 \end{array} \quad \begin{array}{r} +5.0 \\ 24 \end{array} \quad \begin{array}{r} +8.8 \\ 30 \end{array} \quad \begin{array}{r} +16.1 \\ 30 \end{array}$$

$$\begin{array}{r} -3.1 \\ 33 \end{array} \quad \begin{array}{r} -1.5 \\ 26 \end{array} \quad \begin{array}{r} -0.1 \\ 9 \end{array} \quad \begin{array}{r} 0.0 \\ 4 \end{array} \quad \begin{array}{r} -0.5 \\ 8 \end{array} \quad \begin{array}{r} +0.4 \\ 12 \end{array} \quad \begin{array}{r} +2.7 \\ 14 \end{array} \quad \begin{array}{r} +9.9 \\ 25 \end{array} \quad \begin{array}{r} +17.7 \\ 26 \end{array} \quad \begin{array}{r} +17.9 \\ 33 \end{array}$$

$$\begin{array}{r} -3.7 \\ 33 \end{array} \quad \begin{array}{r} -2.6 \\ 25 \end{array} \quad \begin{array}{r} 0.0 \\ 18 \end{array} \quad \begin{array}{r} -0.1 \\ 4 \end{array} \quad \begin{array}{r} -0.9 \\ 8 \end{array} \quad \begin{array}{r} +0.1 \\ 12 \end{array} \quad \begin{array}{r} +2.6 \\ 14 \end{array} \quad \begin{array}{r} +9.9 \\ 25 \end{array} \quad \begin{array}{r} +19.0 \\ 29 \end{array} \quad \begin{array}{r} +19.0 \\ 33 \end{array}$$

$$\begin{array}{r} -1.2 \\ 33 \end{array} \quad \begin{array}{r} +1.0 \\ 28 \end{array} \quad \begin{array}{r} -1.0 \\ 18 \end{array} \quad \begin{array}{r} -0.4 \\ 13 \end{array} \quad \begin{array}{r} 0.0 \\ 8 \end{array} \quad \begin{array}{r} -0.7 \\ 12 \end{array} \quad \begin{array}{r} -0.4 \\ 19 \end{array} \quad \begin{array}{r} +2.7 \\ 22 \end{array} \quad \begin{array}{r} +9.8 \\ 33 \end{array} \quad \begin{array}{r} +21.0 \\ 39 \end{array}$$

$$\begin{array}{r} -5.7 \\ 33 \end{array} \quad \begin{array}{r} -5.0 \\ 30 \end{array} \quad \begin{array}{r} -0.1 \\ 20 \end{array} \quad \begin{array}{r} -1.1 \\ 15 \end{array} \quad \begin{array}{r} -0.4 \\ 14 \end{array} \quad \begin{array}{r} -0.8 \\ 25 \end{array} \quad \begin{array}{r} +5.0 \\ 34 \end{array} \quad \begin{array}{r} +7.1 \\ 35 \end{array}$$

$$\begin{array}{r} -9.1 \\ 31 \end{array} \quad \begin{array}{r} -7.0 \\ 26 \end{array} \quad \begin{array}{r} -7.2 \\ 20 \end{array} \quad \begin{array}{r} -5.0 \\ 16 \end{array} \quad \begin{array}{r} -0.1 \\ 8 \end{array} \quad \begin{array}{r} +0.4 \\ 20 \end{array} \quad \begin{array}{r} -2.1 \\ 25 \end{array} \quad \begin{array}{r} -3.1 \\ 42 \end{array}$$

$$\begin{array}{r} -15.0 \\ 33 \end{array} \quad \begin{array}{r} -10.0 \\ 25 \end{array} \quad \begin{array}{r} -5.0 \\ 19 \end{array} \quad \begin{array}{r} -0.1 \\ 9 \end{array} \quad \begin{array}{r} +0.4 \\ 20 \end{array} \quad \begin{array}{r} -3.6 \\ 28 \end{array} \quad \begin{array}{r} -5.0 \\ 40 \end{array}$$

$$\begin{array}{r} -27.0 \\ 45 \end{array} \quad \begin{array}{r} -15.0 \\ 34 \end{array} \quad \begin{array}{r} -10.0 \\ 28 \end{array} \quad \begin{array}{r} -5.0 \\ 20 \end{array} \quad \begin{array}{r} -0.6 \\ 12 \end{array} \quad \begin{array}{r} +0.5 \\ 22 \end{array} \quad \begin{array}{r} -5.0 \\ 31 \end{array} \quad \begin{array}{r} -5.1 \\ 33 \end{array}$$

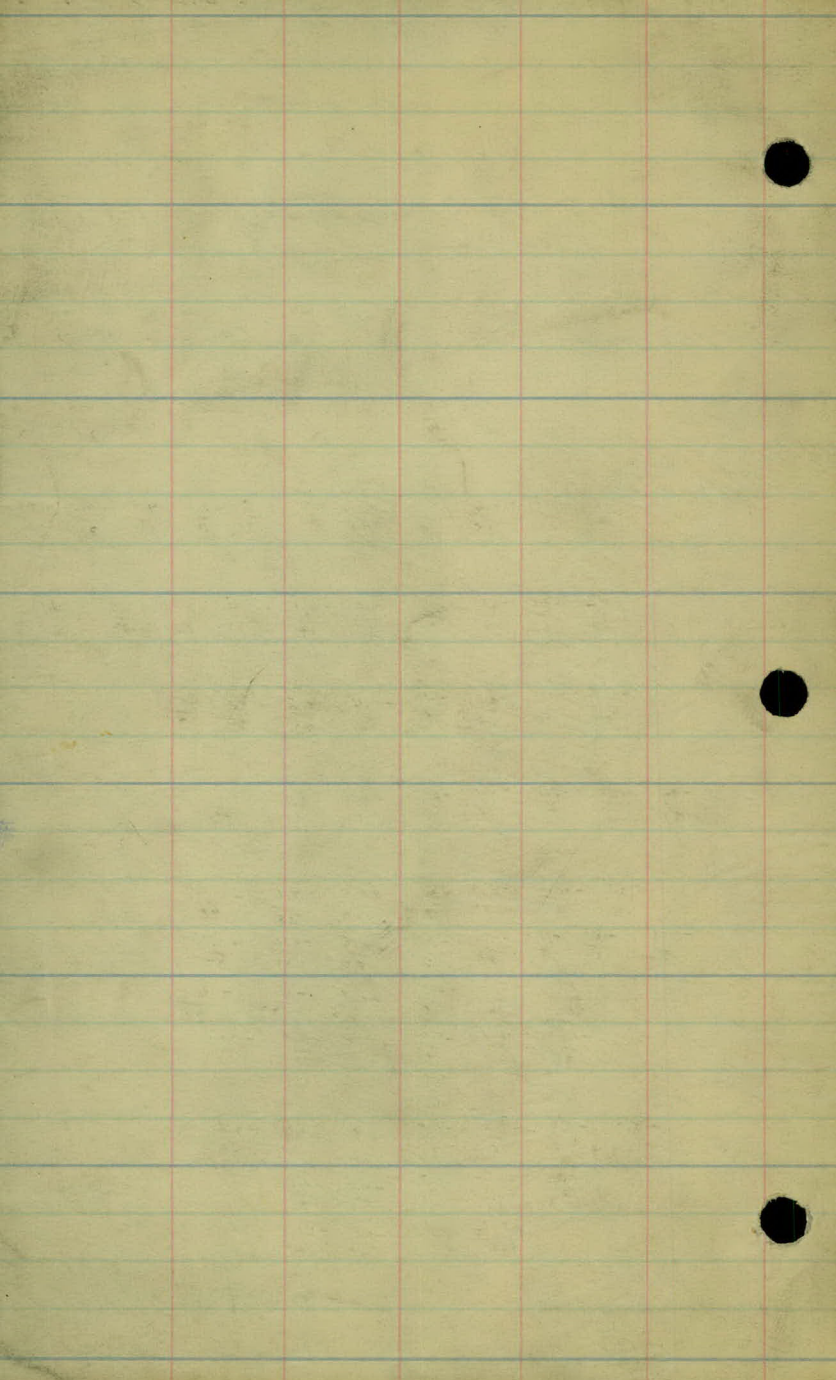
$$\begin{array}{r} -27.0 \\ 40 \end{array} \quad \begin{array}{r} -5.1 \\ 18 \end{array} \quad \begin{array}{r} -0.2 \\ 10 \end{array} \quad \begin{array}{r} +0.6 \\ 22 \end{array} \quad \begin{array}{r} -5.0 \\ 33 \end{array} \quad \begin{array}{r} -10.0 \\ 41 \end{array}$$

$$\begin{array}{r} -15.0 \\ 33 \end{array} \quad \begin{array}{r} -15.0 \\ 24 \end{array} \quad \begin{array}{r} -5.0 \\ 9 \end{array} \quad \begin{array}{r} +0.5 \\ 26 \end{array} \quad \begin{array}{r} -5.0 \\ 33 \end{array} \quad \begin{array}{r} -20.0 \\ 40 \end{array}$$

$$\begin{array}{r} -5.8 \\ 33 \end{array} \quad \begin{array}{r} -5.8 \\ 13 \end{array} \quad \begin{array}{r} -4.8 \\ 10 \end{array} \quad \begin{array}{r} -0.4 \\ 3 \end{array} \quad \begin{array}{r} -0.6 \\ 26 \end{array} \quad \begin{array}{r} -4.6 \\ 33 \end{array} \quad \begin{array}{r} -5.1 \\ 33 \end{array}$$

$$\begin{array}{r} +2.0 \\ 28 \end{array} \quad \begin{array}{r} -1.4 \\ 16 \end{array} \quad \begin{array}{r} -0.2 \\ 11 \end{array} \quad \begin{array}{r} -0.7 \\ 27 \end{array} \quad \begin{array}{r} -4.0 \\ 35 \end{array} \quad \text{S.W.}$$

$$\begin{array}{r} +5.0 \\ 36 \end{array} \quad \begin{array}{r} 0.0 \\ 11 \end{array} \quad \begin{array}{r} -1.0 \\ 20 \end{array} \quad \begin{array}{r} -1.6 \\ 29 \end{array} \quad \begin{array}{r} +0.6 \\ 29 \end{array}$$



Rd. #89

Transit Notes

Mr. W. Carley
Al. Persons
McEck
H. G. Briggs.

✓

Sheets 1-2

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

Date Filed 10-3-23

File No. 2

Sta Point ART

ΔL

23+00 P.I. 60-38'

15+00 P.I.

10°-12'

12+733 = Sta 4+00 on Minneapolis bridge approach

10+99.5 P.I.

230-57'

9+190 P.I. 50-49'

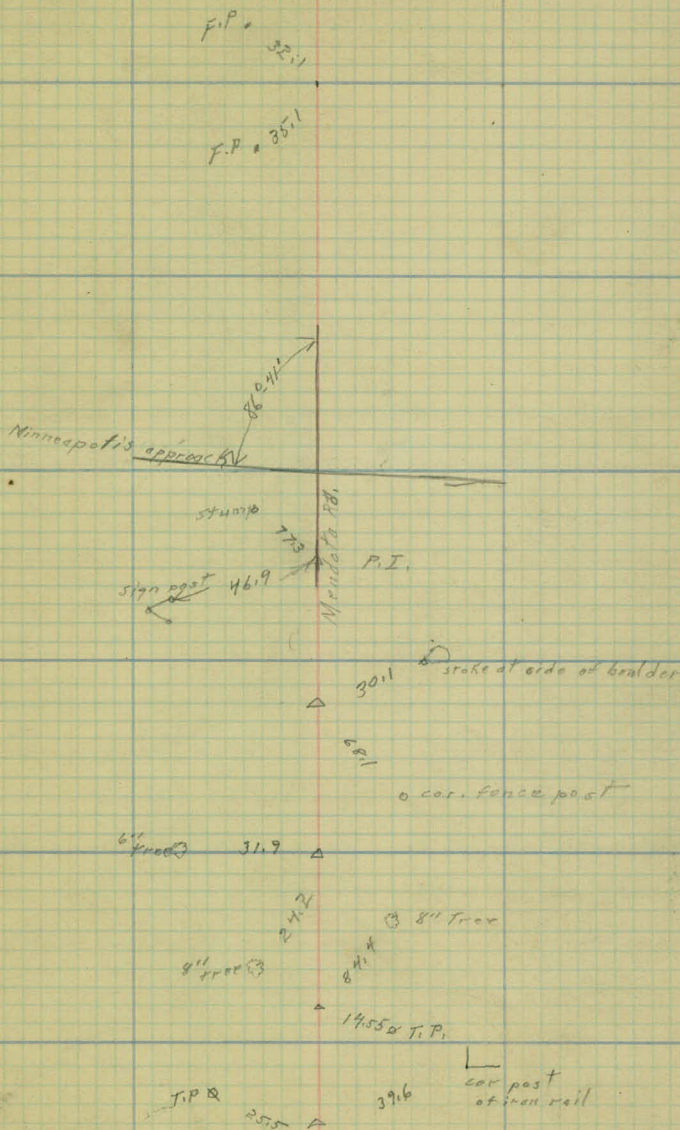
7+48.7 P.I. 410-25'

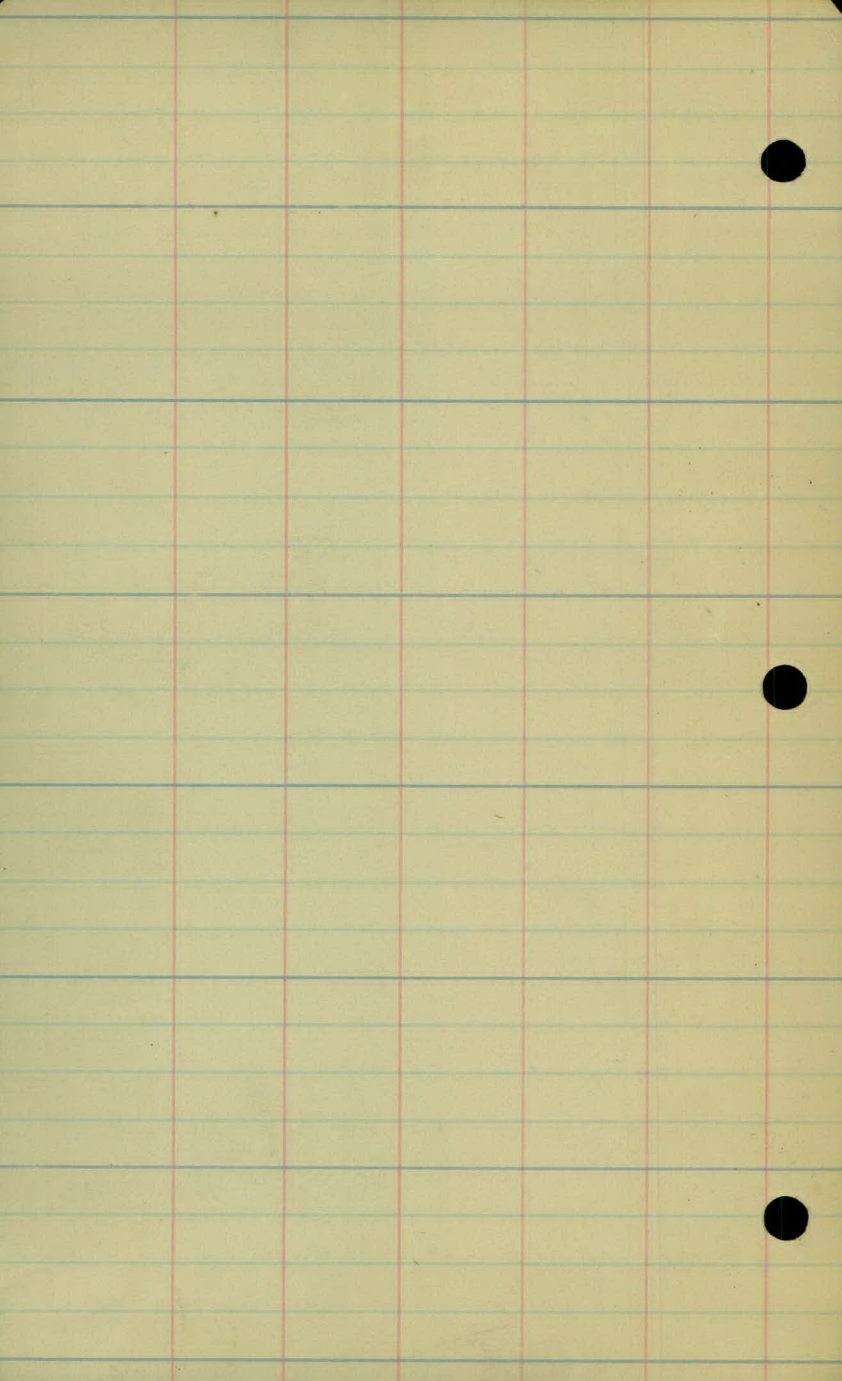
2+94.0 P.I.

430-14'

0+00 P.I.

70-26'





Topography

M. W. Carleif
H. G. Briggs.

Rd. #89.

Sheets 3-6

5401

10+00

9+590

9+190 P.I.

7+482 AI

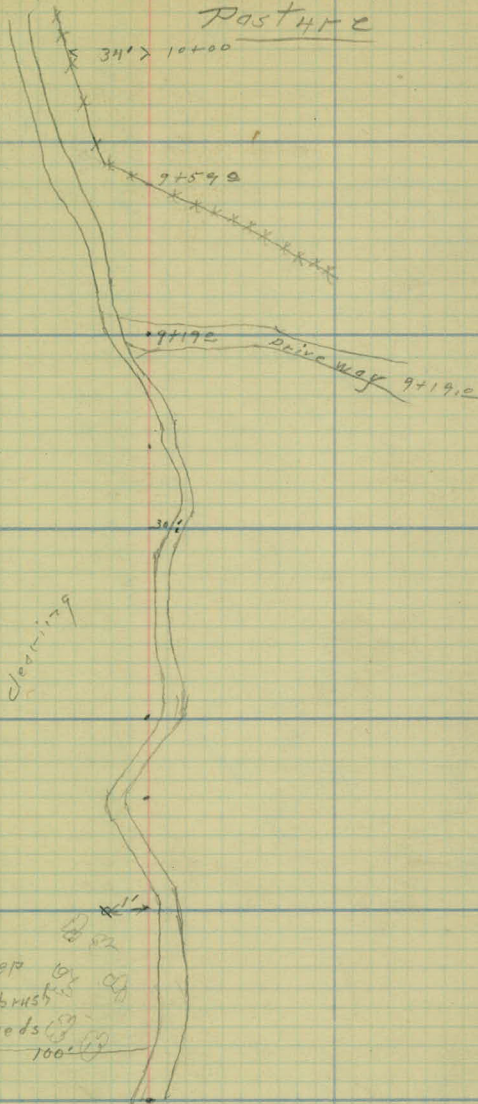
4+00

3+00

2+00

0+00

Pasture



5+0,

18+00

16+77

16+38

16+00

15+20

15+00 P.F.

14+00

13+00

12+73.3

12+60

10+99.5 P.F.

54' → 19+00

T.B. 31' → 18+00
68'

stubble field

OLD ROAD

XXXXXX
16+77

PASTURE

16+38 22' → 16" oak

76' → 16+00

1.00K 52' → 15+20

890' → 15+00 P.I.

T.P. 55' → 14+00

832' → 13+00

OLD ROAD

86' 41'

• 12+733 Intersection Sta 4+00
at Minneapolis
approach line

T.P. 44' → 12+60

77' → 10+99.6

sta,

24+30

23+00

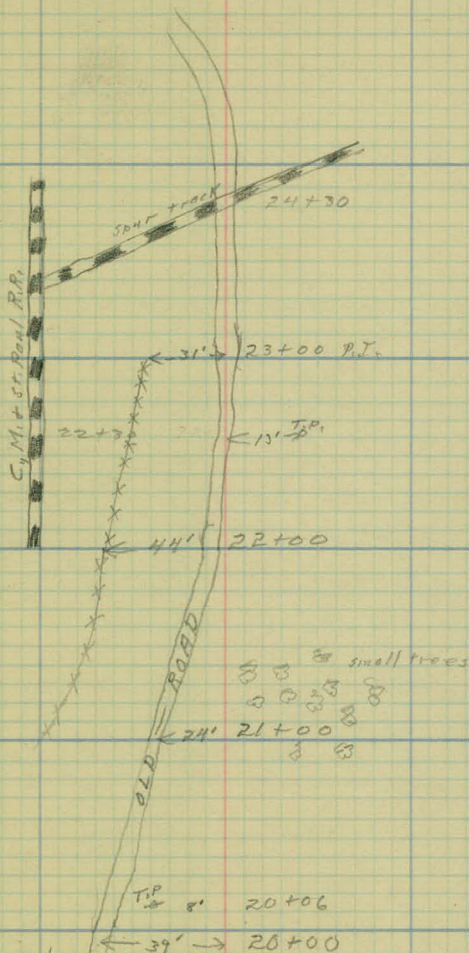
22+30

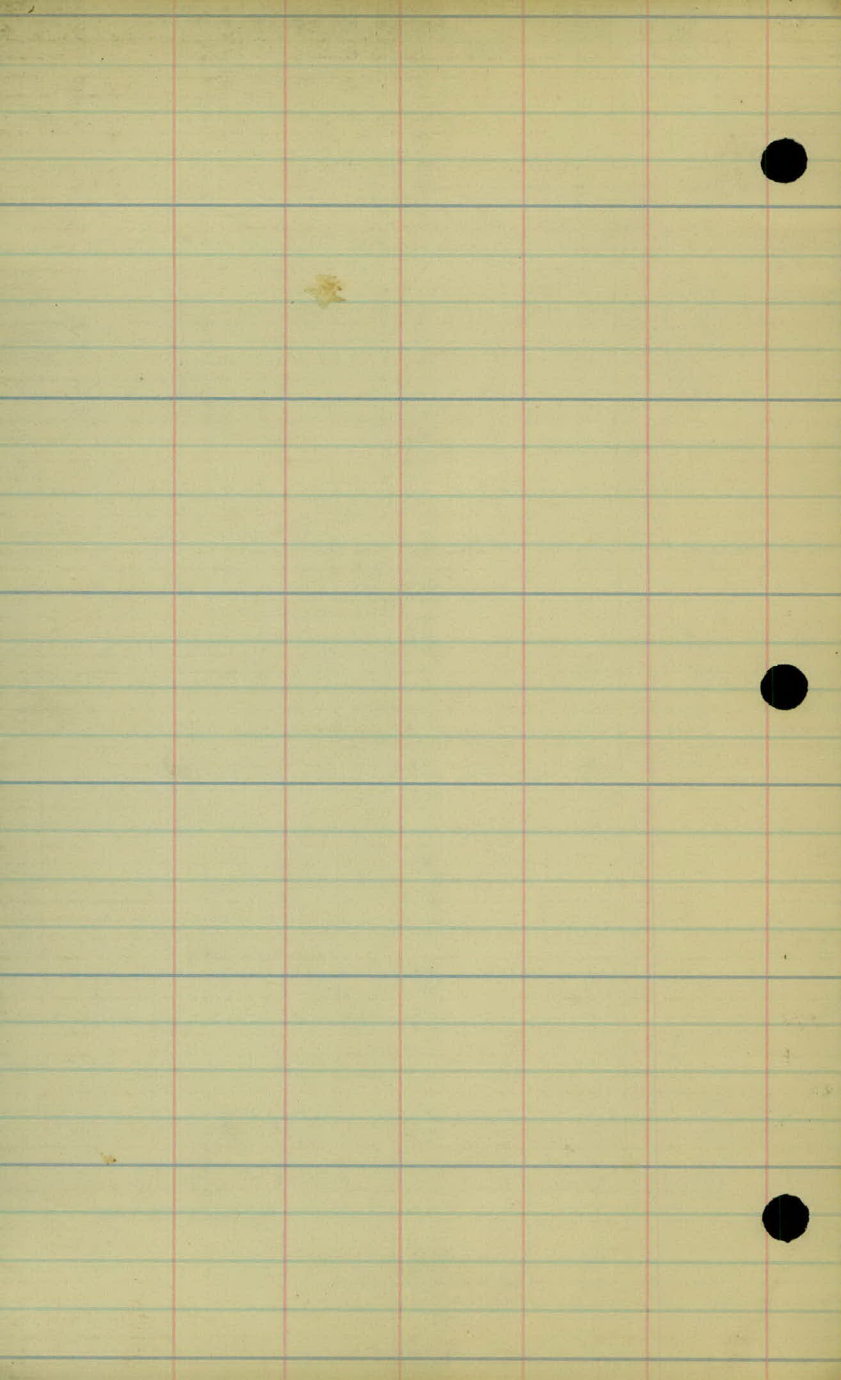
22+00

21+00

20+06

20+00





E Levels Rd # 89

10-2-23

Carley

Persons

Eck

Briggs

sheets 7-10

1752

1743

1750

1751

1752

Sta	+	H.I.	-	Rod	Elev
B.M.	6.58	118.96			112.38
24+30. =70+06				6.5	12.5
23	P.I.			5.3	13.7
22				4.9	14.1
21+40				5.0	14.0
21				6.0	13.0
20				4.9	14.1
19				5.8	13.2
T.P.	3.52	117.78	4.70		114.26
18				4.9	12.9
17				5.3	12.5
16				5.4	12.4
15	P.I.			5.2	12.6
14				5.0	12.8
	6.58	114.26			
	4.70	112.38			
	<u>1.88</u>	<u>1.88</u>			

On derail sign post to +20 RT

Rail road track

Sta.	+	HI	-	Pod	ELEV
13.	31.52	117.78		5.1	121.7
+73.3				5.1	121.7
12				5.8	121.0
11.				6.0	111.8
T.P.	3.42	115.62	5.58		112.20
10				4.6	111.0
9 + 19. P.I.				4.6	111.0
9.				5.2	101.4
BM.				3.24	112.41
8.				11.9	103.7
T.P.	0.37	104.61	11.38		104.24
7 + 48.7 P.I.				5.0	99.6
7.				7.4	97.2
T.P.	0.27	93.05	11.83		92.78
6				2.4	90.6
5	0.24 7.82	81.70	11.59	8.4	81.46
4.				5.0	76.7
3.				11.6	70.1
2 + 94. P.I.				11.7	70.0
T.P.	0.42	70.13	11.39 51.77		70.31
	51.77 7.82 43.95	114.26 70.31 43.95			

Xing bridge approach line

Sta 8+75
Sta 8+70
Level

^{110.8}
4.8. to Rt. drive

Top of boulder Rt of Sta 8+55
Error .03 10-2-23 m.w.c, New line 8+55-

$$\begin{array}{r} -3.0 \\ 45 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 30 \\ \hline \end{array} \quad \begin{array}{r} +7.0 \\ 35 \\ \hline \end{array} \quad \begin{array}{r} +7.0 \\ 40 \\ \hline \end{array}$$

$$\begin{array}{r} +4.0 \\ 33 \\ \hline \end{array} \quad \begin{array}{r} +4.0 \\ 14 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 16 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 35 \\ \hline \end{array} \quad + \quad \begin{array}{r} 15 \\ 40 \\ \hline \end{array}$$

$$\begin{array}{r} -4.0 \\ 33 \\ \hline \end{array} \quad \begin{array}{r} -4.0 \\ 15 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 16 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 18 \\ \hline \end{array} \quad + \quad \begin{array}{r} +20.0 \\ 30 \\ \hline \end{array} \rightarrow \text{Level}$$

$$\begin{array}{r} -24.0 \\ 50 \\ \hline \end{array} \quad \begin{array}{r} +3.0 \\ 23 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 13 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 25 \\ \hline \end{array} \quad + \quad \begin{array}{r} +20.0 \\ 33 \\ \hline \end{array} \rightarrow \text{Level}$$

$$\begin{array}{r} -50.0 \\ 50 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 22 \\ \hline \end{array} \quad \begin{array}{r} -5.0 \\ 27 \\ \hline \end{array} \quad \begin{array}{r} -5.0 \\ 33 \\ \hline \end{array} \quad + \quad \begin{array}{r} +10.0 \\ 40 \\ \hline \end{array}$$

$$\begin{array}{r} -25.0 \\ 45 \\ \hline \end{array} \quad \begin{array}{r} 0.0 \\ 25 \\ \hline \end{array} \quad - \quad \begin{array}{r} 12.0 \\ 10 \\ \hline \end{array} \quad - \quad \begin{array}{r} 16.0 \\ 33 \\ \hline \end{array}$$

STA	+	HI	-	Pod	ELEV.
2,	0.42	70.73		7.5	63.2

1.				12.0	58.7
----	--	--	--	------	------

T.P.	11.92	71.43	11.22		59.51
------	-------	-------	-------	--	-------

B.M.			1.10		
------	--	--	------	--	--

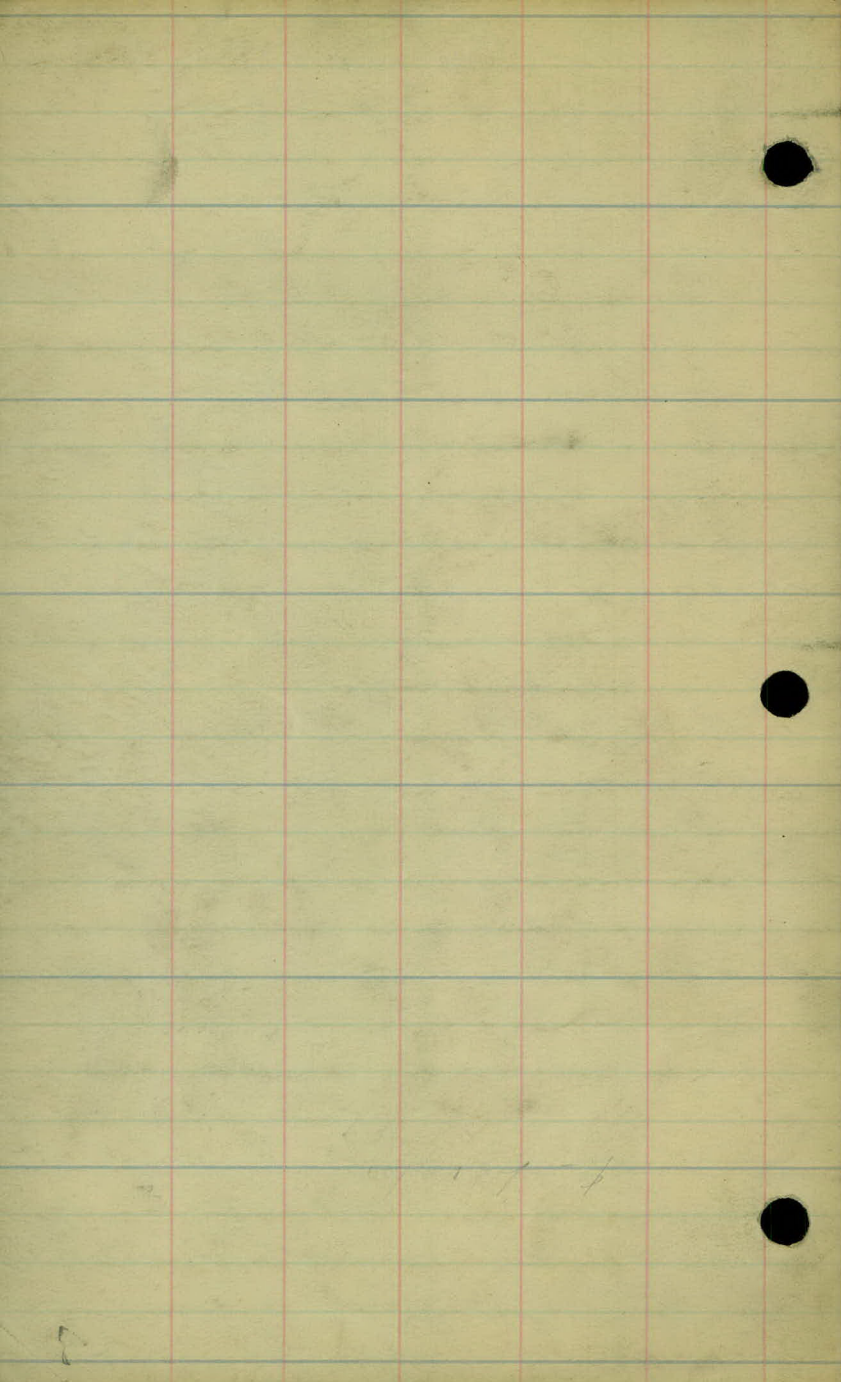
$\frac{170.33}{170.35}$

12.34	70.33
<u>12.32</u>	<u>70.31</u>
.02	.02

Level $\frac{L+}{25.0}$ $\frac{R+}{20.0}$ Sheet #10 of 10 sheets
 $\frac{0.0}{25} - \frac{20.0}{39}$

Level

Error = .02 B.M. on old line Lt. of sta 40 + 00



-Compromise Line -

Line Revision Sta 43 to sta 73+37.2

Transit Notes

9/18/23

Carley = Transit

Persons = Level-Rod

Briggs = Head-chain

Eck = Rear-chain

Job #89.

Lower Sibley Memorial

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

Date Filed 9/21/23

File No. "2"

Compromise Line
Sibley Memorial Highway

Sta

Δ RE

Δ LE

$-73 + 37.9$ old-sta.
 $-73 + 34.8$ P.T. New sta.

$72 + 05.3$ P.I

$40^{\circ} - 39'$

$70 + 62.8$ P.C

$66 + 97.2$ P.T.

$64 + 56.3$ P.I

$24^{\circ} - 30'$

$62 + 07.2$ P.C.

$56 + 50$ P.T.

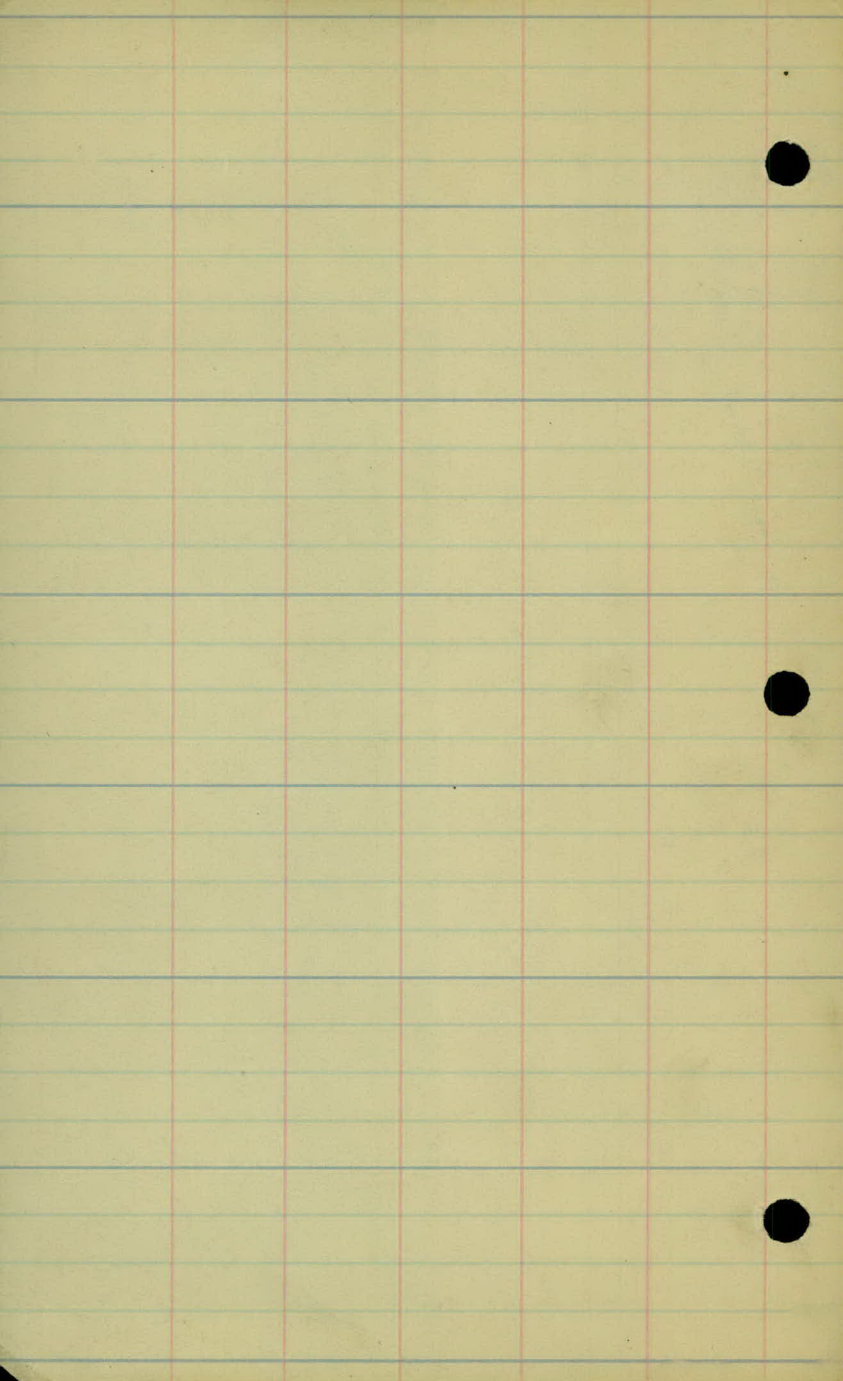
$49 + 87.8$ P.I

$27^{\circ} - 00'$

$43 + 00$ B.C.

L+ ~~L~~ R+

$$66 + 97 = 120 - 15'$$
$$56 + 59 = 115$$



9/19/23

± Levels.

Lower Sibley Memorial

Job #89

Carley - Recording

Persons - Level

Eck - Rod.

Briggs - Chain

Sta	+	H.I.	-	Pod	E Elev
BM. 44+35	0.50	213.13 ✓			<u>212.63</u>
43 - P.C.			1.7	1.7	211.4.
44				4.3	208.8.
45				6.7	206.4.
46				9.5	203.6.
+35				10.5	202.6.
T.P.	1.06	202.52 ✓	11.67		201.46 ✓
47				1.9	200.6.
48				5.6	196.9.
49				9.0	193.5.
50				11.0	191.5.
T.P.	<u>1.08</u>	191.57 ✓	12.03		190.49 ✓
50 + 50	2.64			1.9	189.7.
50 + 75				2.3	189.3.
51				3.4	188.2.
51 + 50				7.0	184.6.
52				9.1	182.5.
52 + 60				12.0	179.6.
T.P.	0.96	180.51 ✓	<u>12.02</u>		179.55 ✓
53			35.72	3.0	177.5.
53 + 54				4.4	176.1.
+ 55				5.6	174.9.
54	35.72		212.63	5.4	175.1.
	<u>2.64</u>		<u>179.55</u>		
	33.08		33.08		

N.E. corner top of conc. step of school house

off to the ditch on Lt

Sta	+ H.I.	- Rod	Elev
	0.96	180.51	
55		9.3	71.2
+50		11.7	68.8
T.P.	5.00	175.13 ✓	10.38
			170.13 ✓
56		7.4	67.7
P.T. +50		5.0	70.1
+60		4.6	70.5
B.M.	3.62	175.21 ✓	3.62
			171.51 ✓
			171.59 ✓
57		4.2	171.0
58		5.2	170.0
+70		4.6	170.6
59		4.0	171.2
60		1.5	173.7
+45		2.0	173.2
61		4.0	171.2
+90		9.8	165.4
62 + 07.9 B.C.		9.2	166.0
+20		7.1	168.1
T.P.	5.22	171.43 ✓	9.00
	14.80		166.21 ✓
63		10.0	161.4
T.P.	0.23	160.44 ✓	11.22
			160.21 ✓
63 + 50		34.22	3.8
			156.6
64		9.7	150.7
	34.22	179.55	
	14.80	160.21	
	19.42	19.34	

Difference of .08
due to correction 0.17 B.M.

Farm entrance on Lt

Nail in 8" Box elder on Lt. at cor of fence (^{old} 8 Mi.)

deep gulley on Lt

Sta	+	H.I.	-	Red	Elev
	0.23	160.44			
T.P.	0.16	149.79 ✓	10.61		149.83 ✓
64+50				4.6	145.4 ✓
65				8.1	141.9 ✓
T.P.	0.47	143.21 ✓	7.25		142.74 ✓
65+50				1.8	141.4 ✓
66				3.8	139.4 ✓
66+50				5.3	137.9 ✓
66+73				5.9	137.3 ✓
67				6.4	136.8 ✓
68				7.5	135.7 ✓
+50				7.0	136.2 ✓
69				7.3	135.9 136.9
T.P.	<u>1.40</u>	137.91 ✓	6.70		136.51 ✓ 134.9 134.0
70				3.0	134.0
70+63 ± B.C.				5.2	132.7 ✓
71				6.5	131.4 ✓
71+50				7.0	130.9 ✓
72				7.9	130.0 ✓
72+50				8.7	129.2 ✓
73				9.2	128.7 ✓
T.P.	<u>6.40</u>	135.27 ✓	9.04		128.87 ✓
B.M.	8.66		<u>6.48</u>	128.79	128.79 ✓
	40.08	160.21	<u>40.08</u>		
	<u>8.66</u>	128.79			
	31.42 =	31.42			

Lane on Rt. Entrance

Nail in 18" oak Rt of sta 71+20 (old B.M.)

Sta + H.I. - Rod Elev

6.40 133.527

TP 5.03 133.90 ✓ 6.40 128.87 ✓
 73+34.8 =
 73+37.9 P.T.

6.0 127.9 •

74 8.0 125.9 •

74 +60 9.6 124.3 •

75 8.8 125.1 •

76 4.8 129.1 •

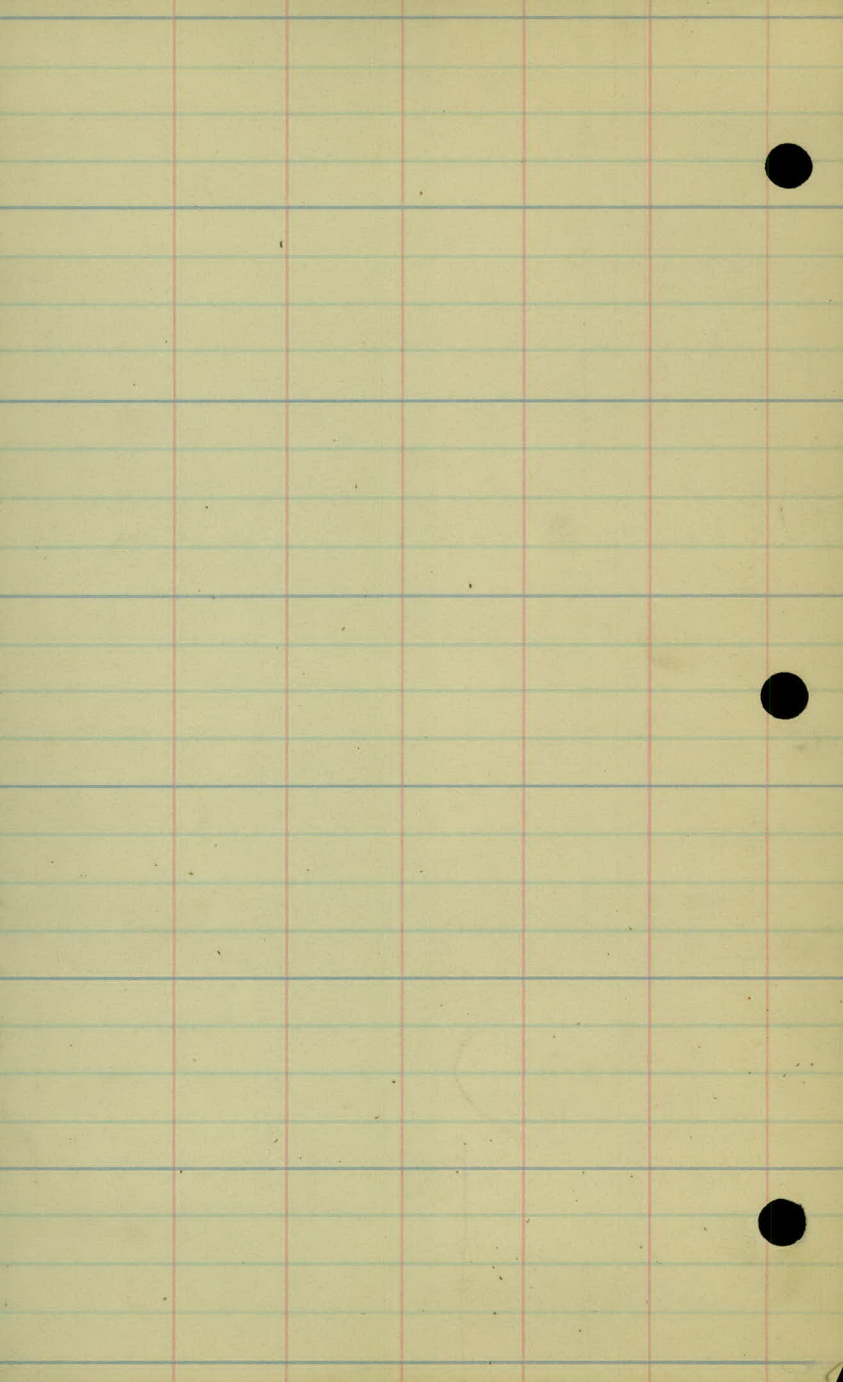
77 2.6 131.3 •

78 1.6 132.3 •

79 0.6 133.3 •

X fence on RY Property Line

} Finished grade



7/19/23

Xsections

Change of Alignment
Lower Sibley Memorial
Job #89

Carley - Recording
Petersen - Hand - Level
Eck - Rod
Briggs - Tape

Sta	$\frac{1}{2}$ Elev.	
79	133.3	
78	132.3	
77	131.3	
76	129.1	
75	125.1	X fence Rt P.L.
74 + 60	124.3	
74	125.9	
73 + 34.8 = old chain, 73 + 37.9 New chain	127.9	Equation station
73	128.7	
72 + 50	129.2	
72	130.0	
71 + 50	130.9	

LT E RT

$$\begin{array}{r} +2.0 \\ 33 \end{array} \quad \begin{array}{r} -0.7 \\ 28 \end{array} \quad \begin{array}{r} -1.5 \\ 18 \end{array} \quad \begin{array}{r} -0.4 \\ 15 \end{array} \quad \begin{array}{r} -0.5 \\ 14 \end{array} \quad \begin{array}{r} -5.0 \\ 24 \end{array} \quad \begin{array}{r} -5.3 \\ 33 \end{array}$$

$$\begin{array}{r} +2.5 \\ 35 \end{array} \quad \begin{array}{r} -0.4 \\ 32 \end{array} \quad \begin{array}{r} -1.0 \\ 28 \end{array} \quad \begin{array}{r} -0.2 \\ 16 \end{array} \quad \begin{array}{r} -0.6 \\ 15 \end{array} \quad \begin{array}{r} -2.5 \\ 19 \end{array} \quad \begin{array}{r} -4.0 \\ 33 \end{array}$$

$$\begin{array}{r} -4.5 \\ 33 \end{array} \quad \begin{array}{r} -4.0 \\ 24 \end{array} \quad \begin{array}{r} -0.5 \\ 15 \end{array} \quad \begin{array}{r} -1.0 \\ 12 \end{array} \quad \begin{array}{r} -2.6 \\ 18 \end{array} \quad \begin{array}{r} -5.0 \\ 33 \end{array}$$

$$\begin{array}{r} -5.0 \\ 26 \end{array} \quad \begin{array}{r} -0.5 \\ 17 \end{array} \quad \begin{array}{r} -0.5 \\ 11 \end{array} \quad \begin{array}{r} -12.0 \\ 33 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33 \end{array} \quad \begin{array}{r} 0.0 \\ 24 \end{array} \quad \begin{array}{r} +1.5 \\ 19 \end{array} \quad \begin{array}{r} +2.2 \\ 3 \end{array} \quad \begin{array}{r} -6.0 \\ 10 \end{array} \quad \begin{array}{r} -8.5 \\ 28 \end{array}$$

$$\begin{array}{r} 0.0 \\ 33 \end{array} \quad \begin{array}{r} -0.5 \\ 29 \end{array} \quad \begin{array}{r} +0.5 \\ 25 \end{array} \quad \begin{array}{r} +2.0 \\ 4 \end{array} \quad \begin{array}{r} -3.1 \\ 5 \end{array} \quad \begin{array}{r} -3.5 \\ 30 \end{array}$$

$$\begin{array}{r} +4.6 \\ 33 \end{array} \quad \begin{array}{r} -0.7 \\ 25 \end{array} \quad \begin{array}{r} 0.0 \\ 18 \end{array} \quad \begin{array}{r} -2.5 \\ 12 \end{array} \quad \begin{array}{r} -5.0 \\ 33 \end{array}$$

$$\begin{array}{r} +5.5 \\ 33 \end{array} \quad \begin{array}{r} +2.0 \\ 29 \end{array} \quad \begin{array}{r} +0.5 \\ 18 \end{array} \quad \begin{array}{r} -0.5 \\ 12 \end{array} \quad \begin{array}{r} -1.9 \\ 15 \end{array} \quad \begin{array}{r} -4.5 \\ 33 \end{array}$$

$$\begin{array}{r} +9.5 \\ 33 \end{array} \quad \begin{array}{r} +6.8 \\ 26 \end{array} \quad \begin{array}{r} +5.0 \\ 26 \end{array} \quad \begin{array}{r} +1.0 \\ 24 \end{array} \quad \begin{array}{r} -0.8 \\ 15 \end{array} \quad \begin{array}{r} -0.5 \\ 10 \end{array} \quad \begin{array}{r} -1.3 \\ 20 \end{array} \quad \begin{array}{r} -4.0 \\ 33 \end{array}$$

$$\begin{array}{r} +6.7 \\ 33 \end{array} \quad \begin{array}{r} +6.0 \\ 31 \end{array} \quad \begin{array}{r} +4.0 \\ 28 \end{array} \quad \begin{array}{r} +1.0 \\ 24 \end{array} \quad \begin{array}{r} 0.0 \\ 15 \end{array} \quad \begin{array}{r} -0.5 \\ 14 \end{array} \quad \begin{array}{r} -1.0 \\ 23 \end{array} \quad \begin{array}{r} -2.5 \\ 33 \end{array}$$

$$\begin{array}{r} +7.7 \\ 33 \end{array} \quad \begin{array}{r} +7.0 \\ 30 \end{array} \quad \begin{array}{r} +5.0 \\ 29 \end{array} \quad \begin{array}{r} 0.0 \\ 22 \end{array} \quad \begin{array}{r} -0.5 \\ 14 \end{array} \quad \begin{array}{r} -0.5 \\ 13 \end{array} \quad \begin{array}{r} -3.0 \\ 28 \end{array} \quad \begin{array}{r} -3.5 \\ 33 \end{array}$$

$$\begin{array}{r} +5.0 \\ 33 \end{array} \quad \begin{array}{r} +3.1 \\ 24 \end{array} \quad \begin{array}{r} -0.5 \\ 31 \end{array} \quad \begin{array}{r} 0.0 \\ 15 \end{array} \quad \begin{array}{r} -0.1 \\ 6 \end{array} \quad \begin{array}{r} -3.0 \\ 15 \end{array} \quad \begin{array}{r} -4.0 \\ 33 \end{array}$$

5 + 0

 $\frac{2}{Elev}$

71

131.4.

70 + 63 E.B.C

132.7.

70

134.9

134.0

69

135.9

136.9

+50

136.2. Lane on RT

68

135.7.

67

136.8.

+73

137.3.

+50

137.9.

66

139.4.

+50

141.4.

L+LR+

$$\begin{array}{r} +2.5 \\ 33 \end{array} \quad \begin{array}{r} +2.0 \\ 28 \end{array} \quad \begin{array}{r} 0.0 \\ 20 \end{array} \quad \begin{array}{r} -0.4 \\ 5 \end{array} \quad \begin{array}{r} +2.0 \\ 10 \end{array} \quad \begin{array}{r} -4.0 \\ 33 \end{array}$$

$$\begin{array}{r} +3.0 \\ 33 \end{array} \quad \begin{array}{r} +2.5 \\ 29 \end{array} \quad \begin{array}{r} +1.2 \\ 25 \end{array} \quad \begin{array}{r} 0.0 \\ 16 \end{array} \quad \begin{array}{r} -0.3 \\ 5 \end{array} \quad \begin{array}{r} -2.0 \\ 11 \end{array} \quad \begin{array}{r} -2.5 \\ 18 \end{array} \quad \begin{array}{r} -4.0 \\ 33 \end{array}$$

$$\begin{array}{r} +4.0 \\ 33 \end{array} \quad \begin{array}{r} -0.3 \\ 25 \end{array} \quad \begin{array}{r} -0.5 \\ 18 \end{array} \quad \begin{array}{r} +0.2 \\ 6 \end{array} \quad \begin{array}{r} -1.0 \\ 16 \end{array} \quad \begin{array}{r} -3.0 \\ 33 \end{array}$$

$$\begin{array}{r} -0.6 \\ 33 \end{array} \quad \begin{array}{r} -0.5 \\ 18 \end{array} \quad \begin{array}{r} -1.0 \\ 13 \end{array} \quad \begin{array}{r} -1.1 \\ 33 \end{array}$$

$$\begin{array}{r} 0.0 \\ 33 \end{array} \quad \begin{array}{r} -0.4 \\ 15 \end{array} \quad \begin{array}{r} -0.5 \\ 33 \end{array}$$

$$\begin{array}{r} +1.0 \\ 33 \end{array} \quad \begin{array}{r} 0.0 \\ 16 \end{array} \quad \begin{array}{r} +1.0 \\ 14 \end{array} \quad \begin{array}{r} 0.0 \\ 18 \end{array} \quad \begin{array}{r} -0.3 \\ 33 \end{array}$$

$$\begin{array}{r} -2.0 \\ 33 \end{array} \quad \begin{array}{r} -2.0 \\ 20 \end{array} \quad \begin{array}{r} -0.3 \\ 10 \end{array} \quad \begin{array}{r} -0.5 \\ 6 \end{array} \quad \begin{array}{r} -2.5 \\ 17 \end{array} \quad \begin{array}{r} -2.5 \\ 33 \end{array}$$

$$\begin{array}{r} -2.1 \\ 33 \end{array} \quad \begin{array}{r} -2.0 \\ 20 \end{array} \quad \begin{array}{r} 1.0 \\ 14 \end{array} \quad \begin{array}{r} 0.5 \\ 5 \end{array} \quad \begin{array}{r} -2.2 \\ 12 \end{array} \quad \begin{array}{r} -2.3 \\ 33 \end{array}$$

$$\begin{array}{r} -2.6 \\ 33 \end{array} \quad \begin{array}{r} -2.5 \\ 22 \end{array} \quad \begin{array}{r} -2.0 \\ 16 \end{array} \quad \begin{array}{r} -0.5 \\ 11 \end{array} \quad \begin{array}{r} -0.5 \\ 7 \end{array} \quad \begin{array}{r} -2.1 \\ 11 \end{array} \quad \begin{array}{r} -2.5 \\ 17 \end{array} \quad \begin{array}{r} -2.6 \\ 33 \end{array}$$

$$\begin{array}{r} -2.5 \\ 33 \end{array} \quad \begin{array}{r} -2.0 \\ 17 \end{array} \quad \begin{array}{r} -0.2 \\ 12 \end{array} \quad \begin{array}{r} -0.3 \\ 5 \end{array} \quad \begin{array}{r} -2.2 \\ 12 \end{array} \quad \begin{array}{r} -2.5 \\ 20 \end{array} \quad \begin{array}{r} -3.0 \\ 33 \end{array}$$

$$\begin{array}{r} -2.5 \\ 33 \end{array} \quad \begin{array}{r} -1.8 \\ 22 \end{array} \quad \begin{array}{r} -0.3 \\ 17 \end{array} \quad \begin{array}{r} -1.2 \\ 4 \end{array} \quad \begin{array}{r} -2.2 \\ 13 \end{array} \quad \begin{array}{r} -2.3 \\ 33 \end{array}$$

Sta $\frac{1}{2}$
Elev

65 141.9.

+50 145.4.

64 150.7.

+50 156.6.

63 161.4.

62 +20 168.1.

62 +07.9 B.C. 166.0.

61 +90 165.4.

61 171.2.

+45 173.2.

60 173.7.

59 171.2.

L+ ~~4~~ R+

$$\begin{array}{ccccccc} \frac{0.0}{33} & \frac{0.0}{26} & \frac{+1.0}{22} & \frac{+1.6}{7} & \frac{-0.5}{9} & \frac{-1.0}{19} & \frac{-2.0}{31} \end{array}$$

$$\begin{array}{ccccccc} \frac{0.0}{33} & \frac{+0.5}{15} & \frac{-0.8}{4} & \frac{0.0}{3} & \frac{-0.7}{10} & \frac{-0.6}{18} & \frac{-1.5}{30} \end{array}$$

$$\begin{array}{ccccccc} \frac{-2.5}{33} & \frac{-2.5}{22} & \frac{-2.0}{17} & \frac{0.0}{11} & \frac{+0.2}{11} & \frac{-0.3}{22} & \frac{-1.0}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{-3.0}{33} & \frac{-3.5}{22} & \frac{-3.8}{16} & \frac{-1.0}{12} & \frac{-0.1}{5} & \frac{-1.0}{33} & \end{array}$$

$$\begin{array}{ccccccc} \frac{-4.0}{33} & \frac{-3.5}{18} & \frac{-4.0}{13} & \frac{+0.3}{3} & \frac{-0.5}{15} & \frac{-0.5}{33} & \end{array}$$

$$\begin{array}{ccccccc} \frac{-4.5}{33} & \frac{-5.0}{25} & \frac{-5.0}{9} & \frac{-4.1}{4} & \frac{+1.8}{6} & \frac{+1.0}{14} & \frac{+1.0}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{+2.0}{33} & \frac{-2.0}{24} & \frac{-2.0}{7} & \frac{-1.7}{2} & \frac{+2.6}{2} & \frac{+4.0}{8} & \frac{+4.2}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{+3.0}{33} & \frac{+2.5}{25} & \frac{-0.5}{21} & \frac{+3.8}{4} & \frac{+4.5}{6} & \frac{+6.0}{12} & \frac{+6.5}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{+4.5}{33} & \frac{+4.0}{23} & \frac{+3.5}{18} & \frac{+2.0}{16} & \frac{-0.4}{11} & \frac{-0.5}{9} & \frac{+3.0}{14} & \frac{+5.0}{20} & \frac{+7.8}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{+3.2}{33} & \frac{+3.2}{22} & \frac{+3.0}{14} & \frac{-0.3}{10} & \frac{-0.4}{12} & \frac{-0.5}{17} & \frac{+2.0}{21} & \frac{+4.0}{26} & \frac{+3.5}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{+1.5}{33} & \frac{+1.5}{11} & \frac{0.0}{8} & \frac{-0.5}{15} & \frac{-1.2}{21} & \frac{+1.5}{24} & \frac{+2.2}{28} & \frac{+3.0}{33} \end{array}$$

$$\begin{array}{ccccccc} \frac{-2.0}{33} & \frac{-2.0}{28} & \frac{-1.0}{19} & \frac{0.0}{16} & \frac{+2.0}{38} & \end{array}$$

370

Elev.

58+70

17016.

58

17010.

57

17110.

+60

17013.

Drive way Lt

+50

17011.

56

16717.

+50

16818.

55

17112.

54

17511.

+65

17419.

+54

1761.

LT RT

$$\begin{array}{r} -3.5 \\ 33 \end{array} \quad \begin{array}{r} -3.0 \\ 24 \end{array} \quad \begin{array}{r} -2.0 \\ 18 \end{array} \quad \begin{array}{r} -1.2 \\ 9 \end{array} \quad \begin{array}{r} 0.0 \\ 17 \end{array} \quad \begin{array}{r} +0.6 \\ 33 \end{array}$$

$$\begin{array}{r} -4.0 \\ 33 \end{array} \quad \begin{array}{r} -1.0 \\ 16 \end{array} \quad \begin{array}{r} -0.8 \\ 8 \end{array} \quad \begin{array}{r} 0.0 \\ 13 \end{array} \quad \begin{array}{r} 0.0 \\ 33 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33 \end{array} \quad \begin{array}{r} -0.5 \\ 22 \end{array} \quad \begin{array}{r} -0.5 \\ 17 \end{array} \quad \begin{array}{r} -0.1 \\ 6 \end{array} \quad \begin{array}{r} -1.0 \\ 8 \end{array} \quad \begin{array}{r} +1.5 \\ 14 \end{array} \quad \begin{array}{r} +1.0 \\ 26 \end{array} \quad \begin{array}{r} +1.0 \\ 33 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33 \end{array} \quad \begin{array}{r} -0.4 \\ 17 \end{array} \quad \begin{array}{r} -0.5 \\ 7 \end{array} \quad \begin{array}{r} +0.6 \\ 8 \end{array} \quad \begin{array}{r} 0.0 \\ 25 \end{array}$$

$$\begin{array}{r} 0.0 \\ 33 \end{array} \quad \begin{array}{r} 0.0 \\ 18 \end{array} \quad \begin{array}{r} -0.4 \\ 6 \end{array} \quad \begin{array}{r} +0.5 \\ 7 \end{array} \quad \begin{array}{r} 0.0 \\ 33 \end{array}$$

$$\begin{array}{r} +2.0 \\ 33 \end{array} \quad \begin{array}{r} +2.3 \\ 10 \end{array} \quad \begin{array}{r} -1.1 \\ 15 \end{array} \quad \begin{array}{r} -2.0 \\ 29 \end{array} \quad \begin{array}{r} -2.1 \\ 33 \end{array}$$

$$\begin{array}{r} +0.5 \\ 33 \end{array} \quad \begin{array}{r} +1.0 \\ 11 \end{array} \quad \begin{array}{r} -1.1 \\ 5 \end{array} \quad \begin{array}{r} +1.4 \\ 7 \end{array} \quad \begin{array}{r} +0.4 \\ 17 \end{array} \quad \begin{array}{r} -2.0 \\ 21 \end{array} \quad \begin{array}{r} -3.0 \\ 33 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33 \end{array} \quad \begin{array}{r} -1.0 \\ 18 \end{array} \quad \begin{array}{r} -0.9 \\ 6 \end{array} \quad \begin{array}{r} +0.5 \\ 17 \end{array} \quad \begin{array}{r} -2.0 \\ 21 \end{array} \quad \begin{array}{r} -2.0 \\ 33 \end{array}$$

$$\begin{array}{r} -6.0 \\ 33 \end{array} \quad \begin{array}{r} -3.5 \\ 21 \end{array} \quad \begin{array}{r} -3.0 \\ 7 \end{array} \quad \begin{array}{r} -0.5 \\ 17 \end{array} \quad \begin{array}{r} -6.4 \\ 33 \end{array}$$

$$\begin{array}{r} -5.0 \\ 33 \end{array} \quad \begin{array}{r} -5.0 \\ 26 \end{array} \quad \begin{array}{r} -1.5 \\ 18 \end{array} \quad \begin{array}{r} -1.2 \\ 3 \end{array} \quad \begin{array}{r} +1.1 \\ 3 \end{array} \quad \begin{array}{r} +1.0 \\ 15 \end{array} \quad \begin{array}{r} -5.5 \\ 29 \end{array} \quad \begin{array}{r} -5.5 \\ 33 \end{array}$$

$$\begin{array}{r} -4.5 \\ 33 \end{array} \quad \begin{array}{r} -4.0 \\ 24 \end{array} \quad \begin{array}{r} -0.5 \\ 17 \end{array} \quad \begin{array}{r} +1.5 \\ 4 \end{array} \quad \begin{array}{r} +1.0 \\ 19 \end{array} \quad \begin{array}{r} -5.0 \\ 29 \end{array} \quad \begin{array}{r} -5.1 \\ 33 \end{array}$$

570

 $\frac{E}{E/ev}$

53

177.5

+60

179.6

52

182.5

+50

184.6

51

188.2

+75

189.3

+50

189.7

50

191.5

49

193.5

48

196.9

47

200.6

LT

±

RT

$$\begin{array}{r} -5.1 \\ 33 \end{array} \quad \begin{array}{r} -5.0 \\ 26 \end{array} \quad \begin{array}{r} -1.0 \\ 18 \end{array} \quad \begin{array}{r} -0.9 \\ 7 \end{array} \quad \begin{array}{r} 0.0 \\ 20 \end{array} \quad \begin{array}{r} -4.0 \\ 25 \end{array} \quad \begin{array}{r} -4.1 \\ 33 \end{array}$$

$$\begin{array}{r} -3.0 \\ 33 \end{array} \quad \begin{array}{r} -3.0 \\ 31 \end{array} \quad \begin{array}{r} -2.0 \\ 24 \end{array} \quad \begin{array}{r} -0.5 \\ 18 \end{array} \quad \begin{array}{r} +0.5 \\ 6 \end{array} \quad \begin{array}{r} 0.0 \\ 20 \end{array} \quad \begin{array}{r} -1.5 \\ 31 \end{array} \quad \begin{array}{r} -1.6 \\ 33 \end{array}$$

$$\begin{array}{r} -0.0 \\ 33 \end{array} \quad \begin{array}{r} -2.0 \\ 25 \end{array} \quad \begin{array}{r} -1.0 \\ 19 \end{array} \quad \begin{array}{r} -1.0 \\ 13 \end{array} \quad \begin{array}{r} +2.5 \\ 11 \end{array} \quad \begin{array}{r} +2.0 \\ 20 \end{array} \quad \begin{array}{r} +3.0 \\ 24 \end{array} \quad \begin{array}{r} +2.0 \\ 33 \end{array}$$

$$\begin{array}{r} +1.0 \\ 33 \end{array} \quad \begin{array}{r} +1.0 \\ 26 \end{array} \quad \begin{array}{r} 0.0 \\ 23 \end{array} \quad \begin{array}{r} -2.2 \\ 15 \end{array} \quad \begin{array}{r} 0.0 \\ 12 \end{array} \quad \begin{array}{r} +0.2 \\ 4 \end{array} \quad \begin{array}{r} +3.2 \\ 10 \end{array} \quad \begin{array}{r} +2.5 \\ 33 \end{array}$$

$$\begin{array}{r} 0.0 \\ 33 \end{array} \quad \begin{array}{r} 0.0 \\ 32 \end{array} \quad \begin{array}{r} -1.5 \\ 27 \end{array} \quad \begin{array}{r} -1.0 \\ 19 \end{array} \quad \begin{array}{r} -0.7 \\ 1 \end{array} \quad \begin{array}{r} +1.5 \\ 4 \end{array} \quad \begin{array}{r} +0.5 \\ 28 \end{array} \quad \begin{array}{r} +5.0 \\ 33 \end{array}$$

$$\begin{array}{r} -2.0 \\ 33 \end{array} \quad \begin{array}{r} -0.5 \\ 27 \end{array} \quad \begin{array}{r} -1.0 \\ 24 \end{array} \quad \begin{array}{r} -0.5 \\ 18 \end{array} \quad \begin{array}{r} +1.6 \\ 4 \end{array} \quad \begin{array}{r} +1.0 \\ 29 \end{array} \quad \begin{array}{r} +5.1 \\ 32 \end{array} \quad \begin{array}{r} +5.1 \\ 33 \end{array}$$

$$\begin{array}{r} -2.7 \\ 33 \end{array} \quad \begin{array}{r} -2.5 \\ 32 \end{array} \quad \begin{array}{r} -0.5 \\ 21 \end{array} \quad \begin{array}{r} -0.7 \\ 18 \end{array} \quad \begin{array}{r} +1.0 \\ 7 \end{array} \quad \begin{array}{r} +1.0 \\ 30 \end{array} \quad \begin{array}{r} +5.1 \\ 33 \end{array}$$

$$\begin{array}{r} -2.3 \\ 33 \end{array} \quad \begin{array}{r} -2.0 \\ 31 \end{array} \quad \begin{array}{r} -1.2 \\ 20 \end{array} \quad \begin{array}{r} 0.0 \\ 12 \end{array} \quad \begin{array}{r} +0.5 \\ 25 \end{array} \quad \begin{array}{r} +5.1 \\ 31 \end{array} \quad \begin{array}{r} +5.1 \\ 33 \end{array}$$

$$\begin{array}{r} -3.5 \\ 33 \end{array} \quad \begin{array}{r} -3.0 \\ 32 \end{array} \quad \begin{array}{r} -0.5 \\ 21 \end{array} \quad \begin{array}{r} 0.0 \\ 13 \end{array} \quad \begin{array}{r} 0.0 \\ 25 \end{array} \quad \begin{array}{r} +5.2 \\ 33 \end{array}$$

$$\begin{array}{r} -1.5 \\ 33 \end{array} \quad \begin{array}{r} -1.0 \\ 26 \end{array} \quad \begin{array}{r} -1.0 \\ 18 \end{array} \quad \begin{array}{r} 0.0 \\ 11 \end{array} \quad \begin{array}{r} +0.5 \\ 24 \end{array} \quad \begin{array}{r} +5.0 \\ 32 \end{array} \quad \begin{array}{r} +5.1 \\ 33 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33 \end{array} \quad \begin{array}{r} 0.0 \\ 26 \end{array} \quad \begin{array}{r} -0.8 \\ 17 \end{array} \quad \begin{array}{r} -0.4 \\ 6 \end{array} \quad \begin{array}{r} +0.5 \\ 23 \end{array} \quad \begin{array}{r} +2.1 \\ 27 \end{array} \quad \begin{array}{r} +2.1 \\ 33 \end{array}$$

570

~~E~~ 12V

46 + 35

202.6

46

203.6

45

206.4

44

208.8

43 - B.C.

211.4

LT ± RT

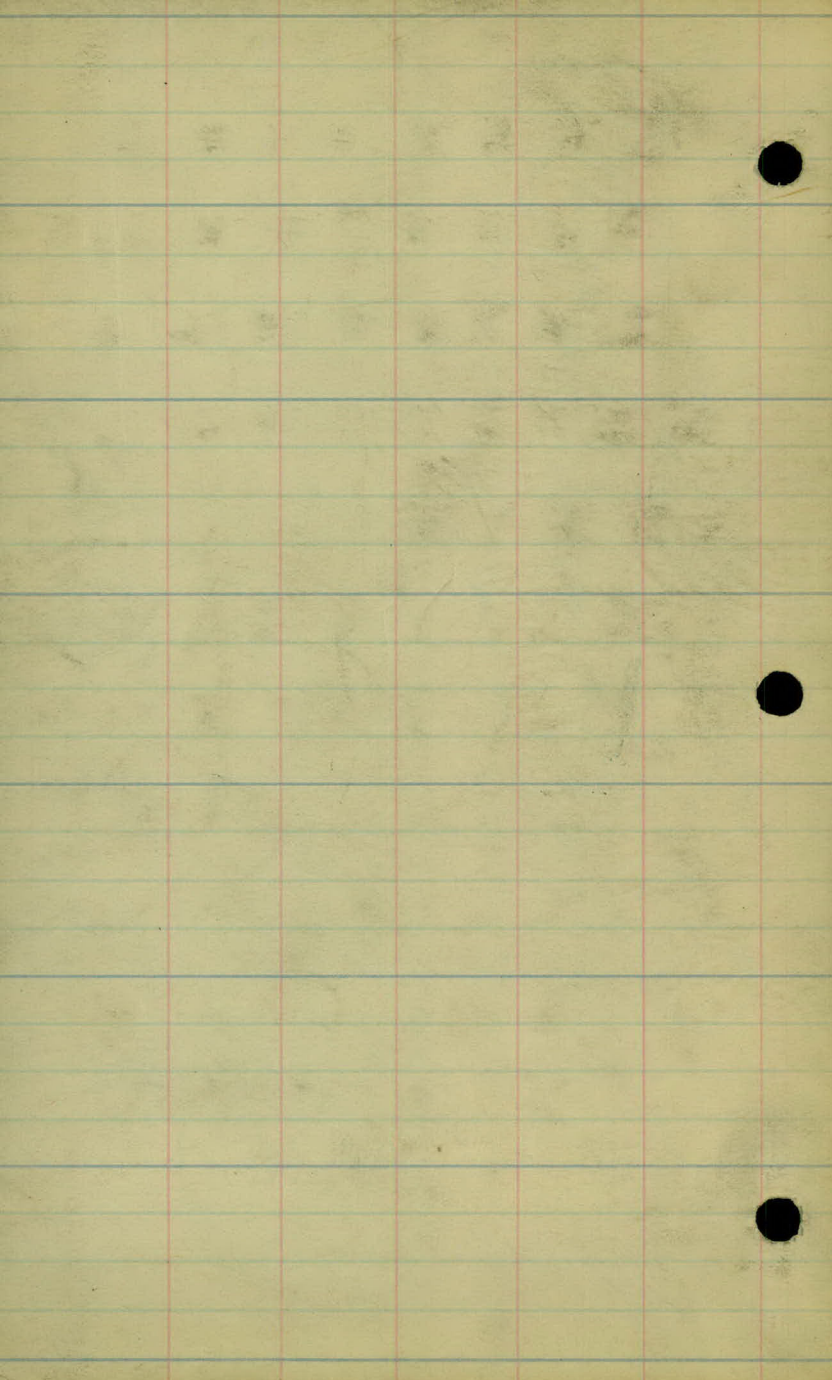
$$\frac{-1.0}{33} \quad \frac{-0.1}{23} \quad \frac{-0.4}{13} \quad \frac{0.0}{15} \quad \frac{0.0}{21} \quad \frac{0.0}{33}$$

$$\frac{0.0}{33} \quad \frac{-0.5}{24} \quad \frac{-0.5}{14} \quad \frac{0.0}{11} \quad \frac{-1.0}{16} \quad \frac{-2.0}{33}$$

$$\frac{-1.0}{33} \quad \frac{-2.0}{22} \quad \frac{-1.0}{16} \quad \frac{-0.6}{14} \quad \frac{-2.0}{20} \quad \frac{-2.0}{33}$$

$$\frac{0.0}{33} \quad \frac{+0.5}{26} \quad \frac{-1.0}{24} \quad \frac{-1.5}{21} \quad \frac{0.0}{16} \quad \frac{-0.5}{13} \quad \frac{-1.0}{21} \quad \frac{-0.4}{33}$$

$$\frac{-1.0}{34} \quad \frac{-1.0}{27} \quad \frac{-2.0}{24} \quad \frac{-2.0}{21} \quad \frac{-0.5}{18} \quad \frac{-0.5}{15} \quad \frac{-1.0}{23} \quad \frac{-1.0}{33}$$



Road #89

£ Levels

A Line Sibley Memorial

9/26/23

Carley - Level

Persons - Level - Rod

Briggs - Lead-chain

Eck - Rear-chain

Sheets 1 to 7

Sta	+	Hi.I.	-	Rod	Elev
B.M.		728 132.83			<u>125.55</u>

0+00			4.8	28.0
------	--	--	-----	------

1			5.3	27.5
---	--	--	-----	------

2			6.7	26.1
---	--	--	-----	------

3			7.5	25.3
---	--	--	-----	------

4			8.1	24.7
---	--	--	-----	------

5			5.7	27.1
---	--	--	-----	------

T.P.	3.17	129.91	6.09	126.74
+35	10.95		2.1	27.8

6			2.1	27.8
---	--	--	-----	------

7			2.9	27.0
---	--	--	-----	------

8			3.7	26.2
---	--	--	-----	------

9			4.7	25.2
---	--	--	-----	------

10			7.5	22.4
----	--	--	-----	------

B.M.			8.62	121.29
+58			9.3	20.6

11			11.1	18.8
----	--	--	------	------

7.28	126.74
<u>6.09</u>	<u>125.55</u>
1.19	1.19

B.M. Lowered 10' acct. error in orig. survey,
Spike in tele. pole Rt at sta 173+70 Proj-23-61

End of proj. #23-61

Nail in tele pole Rt 10+58

Sta + H.I. - Rod Elev

3.17 129.91

T.P. 0.13 118.77 ✓ 11.07 118.84 ✓

12 5.3 113.7 ✓

13 9.6 109.4 ✓

T.P. 0.91 108.42 ✓ 11.46 107.51 ✓

14 3.8 09.6 ✓

15 7.9 00.5 ✓

+50 9.6 98.8 ✓

16 T.P. 0.69 97.52 ✓ 11.59 96.83 ✓

16 2.2 95.3 ✓

17 +88 6.3 91.2 ✓

17 6.9 90.6 ✓

18 11.2 86.3 ✓

T.P. 0.72 86.57 ✓ 11.67 85.85 ✓

19 5.6 81.0 ✓

20 12.0 74.6 ✓

T.P. 1.38 76.47 ✓ 11.48 75.09 ✓

21 7.00 70.5 ✓

+37 7.09 69.4 ✓

+45 7.05 68.9 ✓

B.M. 9.26 67.21 ✓

22 10.5 66.0 ✓

T.P. 5.58 70.10 ✓ 11.75 64.52 ✓

69.22 126.74

7.00 64.52

62.22 62.22

69.22

Beginning B Line

East rail }
West " } SPT Milw.

Spike in T.P. RT 21+90

Sta + H.I. - Rsd. Elev

5.58 70.10

23 7.3 62.8 ✓

24 6.6 63.5 ✓

25 2.9 67.2 ✓

T.P. 7.79 76.06 ✓ 1183 68.27 ✓

26 13.37 4.2 71.9 ✓

+24 1.71 74.35 ✓

+29 1.88 74.18 ✓

+45 3.10 72.96 ✓

+51 3.42 72.64 ✓

27 4.8 71.3 ✓

28 5.3 70.8 ✓

29 5.4 70.7 ✓

30 4.6 71.5 ✓

B.M. 2.90 75.28 ✓ 3.68 72.38 ✓

31 5.51 2.0 73.3 ✓

32 2.13 73.0 ✓

33 3.9 71.4 ✓

34 4.9 70.4 ✓

35 5.1 70.2 ✓

36 5.3 70.0 ✓

37 5.8 69.5 ✓

38 6.1 69.2 ✓

13.37 72.38

5.51 64.52

7.86 7.86

Rail

"

"

"

Top corner of side walk - ME. 29483

Side walk begins ~~at~~ ^{at} 29483

Sta	+	H.I	-	Red Elev
	2.90	75.28		
T.P.	3.72	72.76 ✓	6.24	69.07 ✓
39				3.8 69.0 ✓
40				4.3 68.5 ✓
R.M.				2.41 70.35 ✓
41				4.3 68.5 ✓
42				4.3 68.5 ✓
43				4.0 68.8 ✓
44				5.6 67.2 ✓
45				9.4 63.4 ✓
T.P.	3.97	65.39 ✓	11.34	61.42 ✓
46				5.7 59.7 ✓
+75				7.0 58.4 ✓
47				6.8 58.6 ✓
48				3.4 62.0 ✓
T.P.	11.44	76.56 ✓	0.27	65.12 ✓
49				8.3 68.3 ✓
50				0.9 75.7 ✓
T.P.	<u>11.70</u>	87.89 ✓	0.37	76.19 ✓
51	33.73			4.4 83.5 ✓
T.P.	10.90	98.58 ✓	<u>0.21</u> 18.43	87.68 ✓
52				9.2 89.4 ✓
53				2.2 96.4 ✓
	33.73		87.68	
	<u>18.43</u>		<u>72.38</u>	
	15.30		15.30	

Nail in T.P. $\pm 40 + 100$

70+50 Xstr

Approximate end of houses & side walks

Sta + H.I. - Rod Elev

10.90 98.58

T.P. 11.71 109.72 ✓ 0.57

198.01 ✓

54

6.6 03.1 ✓

T.P. 8.70 118.24 ✓ 0.18

109.54 ✓

55

8.4 09.8 ✓

B.M.

5.80 112.44 ✓

56

5.4 12.8 ✓

57

3.6 14.6 ✓

58

0.6 17.6 ✓

T.P. 6.00 123.45 ✓ 0.79

117.45 ✓

+83 37.31

3.7 19.7 ✓

59

4.0 19.5 ✓

60

5.8 17.7 ✓

61

6.7 16.8 ✓

62

7.7 15.8 ✓

63

8.1 15.4 ✓

64

7.8 15.7 ✓

65

6.7 16.8 ✓

T.P. 2.77 119.19 ✓ 7.03

116.42 ✓

66

8.57 2.8 16.4 ✓

67

4.1 15.1 ✓

68

4.6 14.6 ✓

69

5.8 13.4 ✓

37.31

116.42

8.57

87.68

28.74

28.74

Farm entrance RT

Top of boulder at fence cor. 54+55 RT

Xroad LT

Sta + H.I. - Rod Elev

2.77 119.19

70

6.5 112.7 ✓

+06

6.72 112.47 ✓

+17

6.76 112.43 ✓

BM₁

6.81 112.38 ✓

6.81

116.42

2.77

112.38

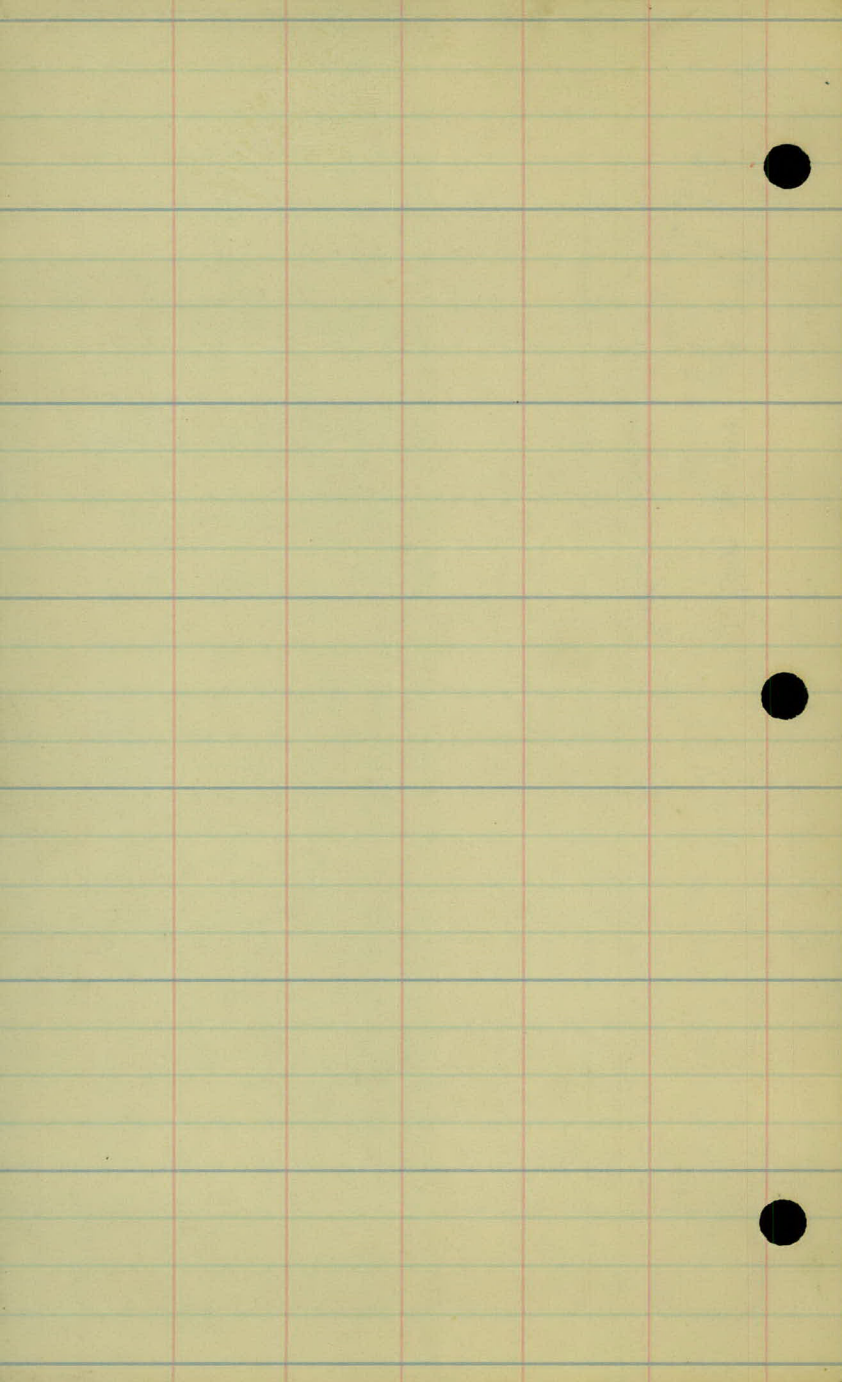
4.04

4.04

Rail

"

On derail sign post. 70+20 Rt



Sibley - Memorial

E - Levels

B - Line

9/26/23

Carley - Level

Persons - Rod

Briggs - H. Chain

Eck - R. Chain

Sheets 1 to 4

Sta	+	H.I.	-	Rod	Elev
B.M.	11.63	78.84 ✓			67.21 ✓

B.M.	10.56			68.28 ✓
------	-------	--	--	---------

T.P.	10.39	88.61 ✓	0.62	78.22 ✓
T.P.	6.29	94.25 ✓	0.65	87.96 ✓

17+00 - A Line = 17+00 - B Line	3.6			90.7 ✓
+13	4.4			89.9 ✓

B.M.	4.07	72.35 ✓		68.28 ✓
------	------	---------	--	---------

17 +06	2.9			69.5 ✓
+87	3.84			68.51 ✓
+96	4.10			68.25 ✓

18	4.7			67.7 ✓
+11	4.70			67.65 ✓
+18	4.80			67.55 ✓
+31	6.4			66.10 ✓

T.P.	2.92	64.29 ✓	10.98	61.37 ✓
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+55	12.3			52.0 ✓
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+91	16.0			48.3 ✓
-----	------	--	--	--------

19 +38	4.5			59.8 ✓
--------	-----	--	--	--------

+64	4.06			60.23 ✓
-----	------	--	--	---------

10.98	68.28
<u>4.07</u>	<u>61.37</u>
6.91	6.91

Mail in tele pole Bt at 21+90 - H-line,

B.M. on switch plank on B-line

Starting at bottom of bank from

B.M. on switch.

Top of rail } Main track
" "

Rail

Rail

Top of rail

Sta	+	H.I	-	Red	Flow
	2.92	64.29			
19 + 80				4.08	60.21 ✓
20				5.1	59.2 ✓
+08				4.60	59.69 ✓
+27				4.95	59.34 ✓
+71				5.9	58.4 ✓
21	1.8			10.2	54.1 ✓
22				20.7	43.4 ✓
23				19.1	45.2 ✓
24				11.0	53.3 ✓
T.P.	<u>3.42</u>	60.66 ✓	7.05		57.24 ✓
+44	6.34			4.6	56.1 ✓
+66				4.00	56.66 ✓
+87				3.84	56.82 ✓
25				4.3	56.4 ✓
+73				4.1	56.6 ✓
+86				0.8	59.9 ✓
T.P.	<u>9.68</u>	70.02 ✓	0.32		60.34 ✓
+91			<u>7.37</u>	9.6	60.4 ✓
26				6.1	63.9 ✓
+22				4.5	65.5 ✓
+41				8.6	61.4 ✓
+57				7.6	62.4 ✓
	7.37		61.37		
	<u>6.34</u>		<u>60.34</u>		
	1.03		1.03		

Top of rail

Top rail

{ Elev found from different setups

Rail

"

Sta.	+	H.I.	-	Rad	Elev
		9.68	70.02		
26 + 65				2.9	67.1 ✓
+ 84				2.1	67.9 ✓
7.11	7.158	75.63 ✓	1.97		68.05 ✓
27	17.26			5.7	69.9 ✓
+ 27				4.4	71.2 ✓
27 + 59				4.3	71.3 ✓
B.M.			3.30		72.33 ✓
			5.27		<u>72.38</u>

Equation 27 + 59 on B Line =
29 + 83 "A Line"

17.26	72.33
<u>5.27</u>	<u>60.34</u>
11.99	11.99

Edge of old road

N.E. cor. of sidewalk Sta 29+83 LT Error = 0.05

