

Bk. 21 Dr. 12

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

_____ Plan _____ Survey

_____ BIRCH ST. _____

From Linden St. _____ To White Bear Ave

Road Acc't. No. W-61 _____

Date Filed 10-26-39 _____ File. _____

Transit Notes

Birch St.
from Linden St. to White Bear Ave.

R. O. Pease
H. Wilke
A. Moeschter
L. Goldberg

} Party.

Notes Complete 4/27/39

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Received
4/28/39
H. Crampton

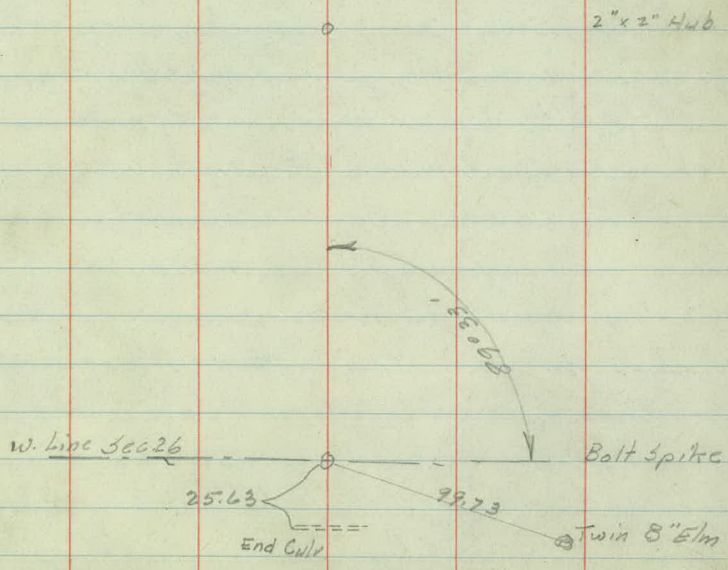
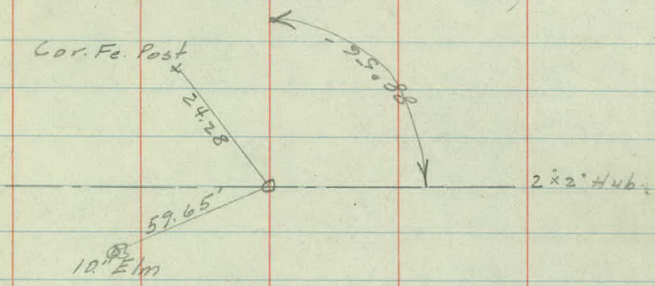
12188.55 P.O.T.

£ Highland Ave.

6+00 P.O.T.

0+00 P.O.T.

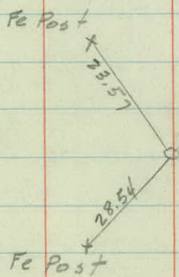
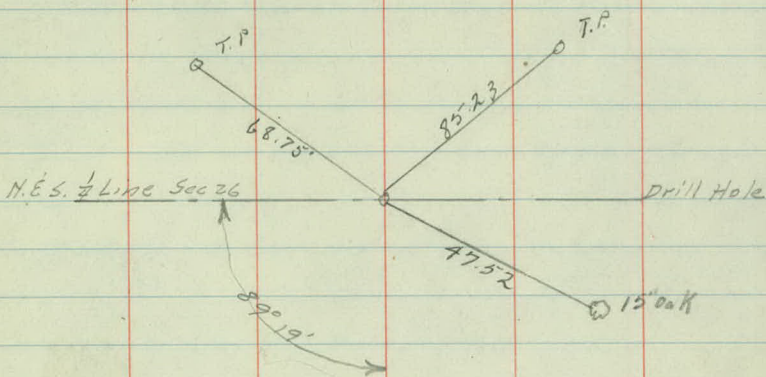
£ Linden St.



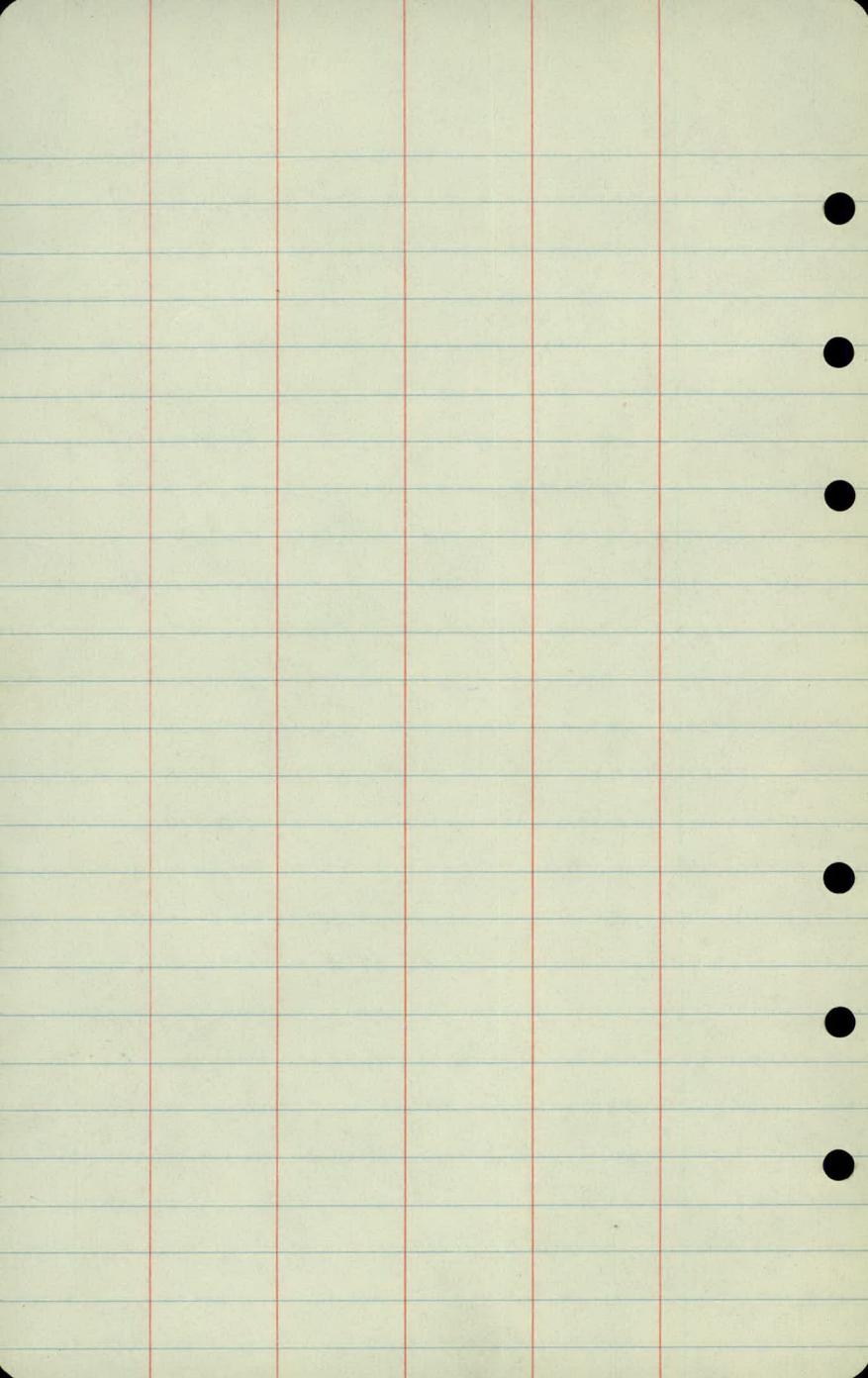
26+34.45 P.O.T.

E White Bear Ave.

16+19.76 P.O.T.



2" x 2" Hub.



Topography

Birch 34.

6

5

4

3

2

1

0

+04 Eelgc Rd X 5 d

Cultivated

Cultivated

+59 10" Elm - 26'

o

+18-15" Elm - 29'

o

Linden St. 12' Oiled Surface

13

+95 Fe X $\frac{1}{2}$

+68 Pot hole

12

11

10

150'

+28 Pot hole

200

9

8

7

Cult

Pasture

+95 Fe. Cor. 26

Wilke's
Waterloo ?

+60 14" Elm-25

Cultivated

+90 14" Elm-26

pot hole
standing
Water.

Cultivated

90'

+57 -4" Elm-26

20

19

+94 Fe x + d

18

17

16

15

14

14

Fe. 18

Pasture

+94 Fe. Cor. 18

+59 6" E/m - 26'

Fe 20

Cultivated

Fe. 21

Pasture

Fe. 22'

Fe. - 22'

+13 6" E/m - 24
Fe. 24

26

+24 Edge Par't.
Fe. x 5 1/2

25

24

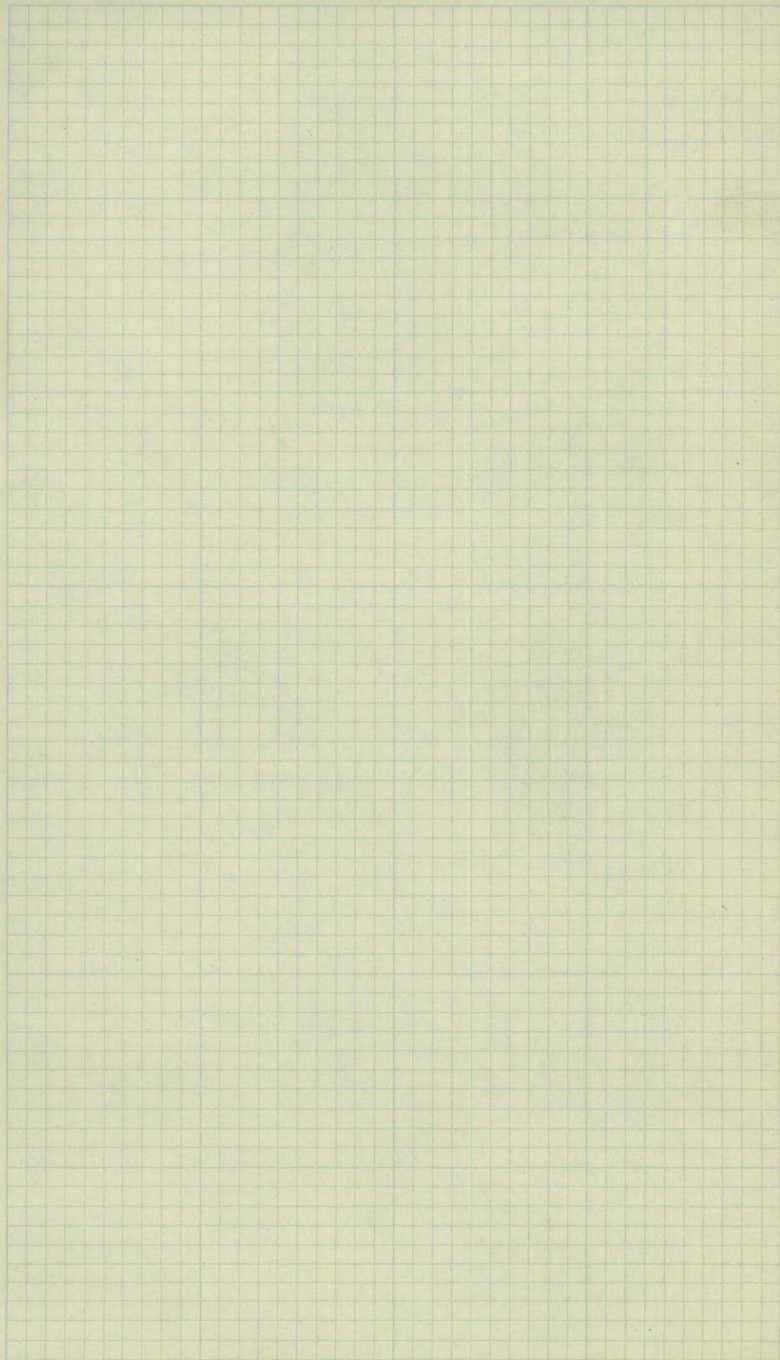
23

22

+66 Pot hole

21

+00 Pot hole



Cross sections

Birch St.

Sta	+	Σ	-	Elev.
B.M.	0.17	943.69		943.52
0+00			5.0	38.7
+ 14			6.3	37.4
+41			5.7	38.0
+72			6.1	37.6
1			7.8	35.9
+50			12.0	31.7
2			12.9	30.8
+50			12.7	31.0
3			9.9	33.8
+50			4.9	38.8
T.P.	12.32	955.98	0.03	943.66
4			12.8	43.2
+50				
+50			10.6	45.4

Spikes in Twin 8" Elm S. W. Cor. Birch & Linden

$\frac{4.9}{50}$ 5.0 $\frac{4.6}{50}$

$\frac{8.4}{50}$ $\frac{8.4}{42}$ $\frac{7.4}{28}$ $\frac{6.5}{24}$ 6.3 $\frac{6.0}{50}$

$\frac{8.1}{50}$ $\frac{7.4}{33}$ $\frac{6.8}{30}$ $\frac{6.4}{12}$ 5.7 $\frac{5.6}{21}$ $\frac{6.1}{50}$

$\frac{8.5}{50}$ $\frac{7.4}{37}$ $\frac{6.1}{28}$ 6.1 $\frac{6.5}{9}$ $\frac{6.7}{50}$

$\frac{10.4}{50}$ $\frac{8.3}{31}$ $\frac{8.0}{25}$ 7.8 $\frac{7.9}{22}$ $\frac{8.3}{50}$

$\frac{13.0}{50}$ $\frac{12.0}{31}$ 12.0 $\frac{11.4}{50}$

Suggest E. Culv. 165 Drain N.

$\frac{13.5}{50}$ $\frac{13.1}{30}$ 12.9 $\frac{12.3}{19}$ $\frac{11.1}{50}$

$\frac{12.8}{50}$ $\frac{12.5}{31}$ $\frac{13.3}{23}$ 12.7 $\frac{12.6}{15}$ $\frac{10.9}{50}$

$\frac{11.0}{50}$ $\frac{10.3}{32}$ $\frac{9.4}{26}$ 9.9 $\frac{9.8}{21}$ $\frac{10.4}{50}$

$\frac{5.9}{50}$ $\frac{4.1}{28}$ $\frac{4.3}{20}$ 4.9 $\frac{6.5}{50}$

$\frac{13.9}{50}$ $\frac{13.3}{37}$ $\frac{12.0}{28}$ $\frac{12.4}{24}$ 12.8 $\frac{13.6}{10}$ $\frac{14.5}{30}$ $\frac{15.5}{50}$

$\frac{10.1}{50}$ $\frac{10.1}{36}$ $\frac{9.4}{26}$ $\frac{9.7}{24}$ 10.6 $\frac{11.6}{10}$ $\frac{12.4}{31}$ $\frac{13.2}{50}$

Sta + π - Elev

955.98

5 6.8 49.2

+50 4.0 52.0

6 2.5 53.5

+50 3.6 52.4

7 5.5 50.5

+50 7.2 48.8

T.P. 1.99 948.55 9.42 946.56

8 4.1 44.5

+50 8.0 40.6

9 13.3 35.3

B.M. 3.67 939.09 13.15 935.40 935.42

+50 6.5 32.6

10 6.9 32.2

+50 6.7 32.4

$\frac{6.1}{50}$ $\frac{6.1}{35}$ $\frac{5.3}{29-27}$ $\frac{6.2}{20}$ 6.8 $\frac{7.4}{10}$ $\frac{8.0}{31}$ $\frac{8.8}{50}$

$\frac{3.9}{50}$ $\frac{3.7}{35}$ $\frac{3.0}{29-27}$ $\frac{3.4}{23}$ 4.0 $\frac{4.5}{9}$ $\frac{5.3}{30}$ $\frac{6.3}{50}$

$\frac{2.8}{50}$ $\frac{2.6}{39}$ $\frac{1.8}{29-26}$ $\frac{2.4}{22}$ 2.5 $\frac{3.1}{25}$ $\frac{4.7}{50}$

$\frac{3.5}{50}$ $\frac{3.4}{38}$ $\frac{2.9}{32-30}$ $\frac{3.5}{24}$ 3.6 $\frac{4.1}{24}$ $\frac{5.4}{50}$

$\frac{6.0}{50}$ $\frac{5.3}{35}$ $\frac{4.7}{27}$ 5.5 $\frac{6.4}{30}$ $\frac{6.5}{50}$

$\frac{9.5}{50}$ $\frac{8.2}{36}$ $\frac{6.7}{24}$ $\frac{7.1}{18}$ 7.2 $\frac{7.0}{20}$ $\frac{7.6}{50}$

$\frac{6.7}{50}$ $\frac{4.2}{24}$ $\frac{4.7}{14}$ 4.1 $\frac{3.9}{20}$ $\frac{4.2}{50}$

$\frac{7.6}{50}$ $\frac{8.0}{26}$ $\frac{8.6}{17}$ 8.0 $\frac{7.3}{21}$ $\frac{7.5}{50}$

$\frac{13.5}{50}$ $\frac{12.7}{29}$ 13.3 $\frac{13.2}{22}$ $\frac{13.3}{50}$

Spike in 10" Elm 30' Lt. Sta. 13+75 (Highland)

$\frac{6.6}{50}$ $\frac{5.8}{31}$ $\frac{6.1}{23}$ 6.5 $\frac{6.0}{17}$ $\frac{6.5}{50}$

$\frac{7.0}{50}$ $\frac{7.0}{30}$ $\frac{6.4}{23}$ 6.9 $\frac{6.7}{18}$ $\frac{7.0}{50}$

$\frac{6.4}{50}$ $\frac{6.4}{23}$ 6.7 $\frac{6.5}{24}$ $\frac{6.6}{50}$

Sta + π - Elev

939.09

11 7.2 31.9

+50 8.0 31.1

12 7.3 31.8

+50 5.7 33.4

B.M. 7.29 942.71 3.67 935.42

13 7.9 34.8

+50 6.0 36.7

14 4.0 38.7

+70 2.0 40.7

T.P. 12.73 954.99 0.45 942.26

15 11.6 43.4

+50 6.7 48.3

16 50.6

+50 5.2 49.8

$$\begin{array}{r} 6.3 \\ 50 \end{array} \quad \begin{array}{r} 6.6 \\ 31 \end{array} \quad \begin{array}{r} 6.9 \\ 19 \end{array} \quad 7.2 \quad \begin{array}{r} 7.8 \\ 15 \end{array} \quad \begin{array}{r} 7.6 \\ 36 \end{array} \quad \begin{array}{r} 7.0 \\ 50 \end{array}$$

$$\begin{array}{r} 6.1 \\ 50 \end{array} \quad \begin{array}{r} 6.5 \\ 32 \end{array} \quad \begin{array}{r} 6.8 \\ 26 \end{array} \quad 8.0 \quad \begin{array}{r} 7.8 \\ 19 \end{array} \quad \begin{array}{r} 6.6 \\ 50 \end{array}$$

$$\begin{array}{r} 5.2 \\ 50 \end{array} \quad \begin{array}{r} 5.8 \\ 39 \end{array} \quad \begin{array}{r} 6.3 \\ 22 \end{array} \quad \begin{array}{r} 6.8 \\ 10 \end{array} \quad 7.3 \quad 17 \quad \begin{array}{r} 6.7 \\ 30 \end{array} \quad \begin{array}{r} 6.7 \\ 50 \end{array}$$

$$\begin{array}{r} 4.8 \\ 50 \end{array} \quad \begin{array}{r} 5.2 \\ 26 \end{array} \quad \begin{array}{r} 5.8 \\ 20 \end{array} \quad 5.7 \quad \begin{array}{r} 6.1 \\ 27 \end{array} \quad \begin{array}{r} 5.7 \\ 50 \end{array}$$

Spike in 10" Elm 30" Lt Sta 13+75 (Highland)

$$\begin{array}{r} 8.1 \\ 50 \end{array} \quad 7.9 \quad \begin{array}{r} 7.9 \\ 50 \end{array}$$

$$\begin{array}{r} 7.0 \\ 50 \end{array} \quad \begin{array}{r} 7.2 \\ 40 \end{array} \quad 6.0 \quad \begin{array}{r} 5.3 \\ 50 \end{array}$$

$$\begin{array}{r} 5.4 \\ 50 \end{array} \quad \begin{array}{r} 4.4 \\ 25 \end{array} \quad 4.0 \quad \begin{array}{r} 3.4 \\ 50 \end{array}$$

$$\begin{array}{r} 4.2 \\ 50 \end{array} \quad \begin{array}{r} 3.7 \\ 38 \end{array} \quad \begin{array}{r} 2.6 \\ 25 \end{array} \quad 2.0 \quad \begin{array}{r} 0.8 \\ 50 \end{array}$$

$$\begin{array}{r} 15.6 \\ 50 \end{array} \quad \begin{array}{r} 13.7 \\ 27 \end{array} \quad \begin{array}{r} 13.0 \\ 24 \end{array} \quad 11.6 \quad \begin{array}{r} 9.8 \\ 50 \end{array}$$

$$\begin{array}{r} 12.3 \\ 50 \end{array} \quad \begin{array}{r} 10.0 \\ 31 \end{array} \quad \begin{array}{r} 8.7 \\ 24 \end{array} \quad 6.7 \quad \begin{array}{r} 5.3 \\ 17 \end{array} \quad \begin{array}{r} 3.7 \\ 50 \end{array}$$

$$\begin{array}{r} 8.0 \\ 50 \end{array} \quad \begin{array}{r} 6.3 \\ 28 \end{array} \quad \begin{array}{r} 5.9 \\ 24 \end{array} \quad 4.4 \quad \begin{array}{r} 3.2 \\ 21 \end{array} \quad \begin{array}{r} 1.6 \\ 50 \end{array}$$

$$\begin{array}{r} 7.2 \\ 50 \end{array} \quad \begin{array}{r} 6.3 \\ 29 \end{array} \quad \begin{array}{r} 5.5 \\ 26 \end{array} \quad 5.2 \quad \begin{array}{r} 4.4 \\ 22 \end{array} \quad \begin{array}{r} 3.3 \\ 50 \end{array}$$

Sta	+	⌞	-	Elev.
		954.99		
17			6.8	48.2
+50			9.1	45.9
18			12.4	42.6
T.P.	1.53	944.84	11.68	943.31
+50			6.4	38.4
19			8.0	36.8
+50			8.4	36.4
20			10.6	34.2
+50			13.4	31.4
T.P.	3.61	935.15	13.30	931.54
21			8.2	27.0
+50		Sec. thru Pothole	8.8	26.4
22			5.9	29.3
+50			5.2	30.0

$$\begin{array}{r} 9.0 \\ 50 \end{array} \quad \begin{array}{r} 8.5 \\ 28 \end{array} \quad \begin{array}{r} 7.7 \\ 24 \end{array} \quad 6.8 \quad \begin{array}{r} 5.8 \\ 21 \end{array} \quad \begin{array}{r} 3.7 \\ 50 \end{array}$$

$$\begin{array}{r} 10.6 \\ 50 \end{array} \quad \begin{array}{r} 10.0 \\ 26 \end{array} \quad \begin{array}{r} 9.3 \\ 23 \end{array} \quad 9.1 \quad \begin{array}{r} 8.5 \\ 14 \end{array} \quad \begin{array}{r} 5.9 \\ 50 \end{array}$$

$$\begin{array}{r} 13.0 \\ 50 \end{array} \quad \begin{array}{r} 12.2 \\ 26 \end{array} \quad \begin{array}{r} 11.8 \\ 23 \end{array} \quad 12.4 \quad \begin{array}{r} 12.4 \\ 14 \end{array} \quad \begin{array}{r} 10.2 \\ 50 \end{array}$$

Top 18

$$\begin{array}{r} 5.6 \\ 50 \end{array} \quad \begin{array}{r} 5.6 \\ 28 \end{array} \quad \begin{array}{r} 5.2 \\ 25 \end{array} \quad 6.4 \quad \begin{array}{r} 6.8 \\ 20 \end{array} \quad \begin{array}{r} 6.3 \\ 50 \end{array}$$

$$\begin{array}{r} 7.7 \\ 50 \end{array} \quad \begin{array}{r} 7.1 \\ 31 \end{array} \quad \begin{array}{r} 7.4 \\ 22 \end{array} \quad \begin{array}{r} 6.7 \\ 19 \end{array} \quad 8.0 \quad \begin{array}{r} 9.3 \\ 22 \end{array} \quad \begin{array}{r} 9.6 \\ 50 \end{array}$$

$$\begin{array}{r} 10.3 \\ 50 \end{array} \quad \begin{array}{r} 8.8 \\ 21 \end{array} \quad \begin{array}{r} 8.2 \\ 19 \end{array} \quad 8.4 \quad \begin{array}{r} 10.0 \\ 32 \end{array} \quad \begin{array}{r} 10.8 \\ 50 \end{array}$$

$$\begin{array}{r} 13.2 \\ 50 \end{array} \quad \begin{array}{r} 12.1 \\ 31 \end{array} \quad \begin{array}{r} 12.6 \\ 20 \end{array} \quad \begin{array}{r} 10.9 \\ 18 \end{array} \quad 10.6 \quad \begin{array}{r} 10.4 \\ 74 \end{array} \quad \begin{array}{r} 9.3 \\ 32 \end{array} \quad \begin{array}{r} 9.3 \\ 50 \end{array}$$

$$\begin{array}{r} 16.0 \\ 50 \end{array} \quad \begin{array}{r} 15.3 \\ 26 \end{array} \quad \begin{array}{r} 15.7 \\ 21 \end{array} \quad \begin{array}{r} 14.1 \\ 19 \end{array} \quad 13.4 \quad \begin{array}{r} 12.6 \\ 34 \end{array} \quad \begin{array}{r} 12.9 \\ 50 \end{array}$$

$$\begin{array}{r} 8.7 \\ 50 \end{array} \quad \begin{array}{r} 8.8 \\ 19 \end{array} \quad \begin{array}{r} 8.0 \\ 18 \end{array} \quad 8.2 \quad \begin{array}{r} 7.7 \\ 37 \end{array} \quad \begin{array}{r} 7.5 \\ 50 \end{array}$$

$$\begin{array}{r} 9.2 \\ 50 \end{array} \quad \begin{array}{r} 13.0 \\ 26 \end{array} \quad \begin{array}{r} 8.8 \\ 21 \end{array} \quad 8.8 \quad \begin{array}{r} 8.1 \\ 78 \end{array} \quad \begin{array}{r} 7.2 \\ 50 \end{array}$$

$$\begin{array}{r} 9.2 \\ 125 \end{array}$$

$$\begin{array}{r} 8.8 \\ 50 \end{array} \quad \begin{array}{r} 7.6 \\ 24 \end{array} \quad \begin{array}{r} 8.3 \\ 23 \end{array} \quad \begin{array}{r} 7.4 \\ 20 \end{array} \quad \begin{array}{r} 7.3 \\ 18 \end{array} \quad 11 \quad 5.9 \quad \begin{array}{r} 5.4 \\ 28 \end{array} \quad \begin{array}{r} 4.3 \\ 50 \end{array}$$

$$\begin{array}{r} 6.9 \\ 50 \end{array} \quad \begin{array}{r} 6.3 \\ 21 \end{array} \quad \begin{array}{r} 6.6 \\ 17 \end{array} \quad \begin{array}{r} 6.0 \\ 15 \end{array} \quad \begin{array}{r} 5.9 \\ 8 \end{array} \quad \begin{array}{r} 5.3 \\ 5 \end{array} \quad 5.2 \quad \begin{array}{r} 4.4 \\ 30 \end{array} \quad \begin{array}{r} 3.4 \\ 50 \end{array}$$

Sta	+	π	-	Elev.
		935.15		
23			5.0	30.2
	+50		3.5	31.7
24			2.1	33.1
T.P.	10.73	944.37	1.51	933.64
	+50		10.0	34.4
25			9.8	34.6
	+50		8.7	35.7
26			4.9	39.5
	+13		4.1	40.3
	+20		2.0	42.4
	+34	$\frac{1}{2}$ White Bear	1.86	42.51
B.M.			1.86	942.51 (942.56)

$\frac{4.9}{50}$ $\frac{4.8}{20}$ $\frac{5.2}{18}$ $\frac{5.5}{4}$ $\frac{5.0}{3}$ 5.0 $\frac{4.9}{28}$ $\frac{4.6}{50}$

$\frac{1.6}{50}$ $\frac{3.0}{17}$ $\frac{2.8}{14}$ 3.5 $\frac{4.4}{29}$ $\frac{4.0}{50}$

$\frac{10.5}{50}$ $\frac{1.3}{15}$ 2.1 $\frac{3.5}{26}$ $\frac{3.7}{50}$

$\frac{6.3}{50}$ $\frac{8.7}{18}$ $\frac{9.0}{12}$ 10.0 $\frac{11.9}{50}$

$\frac{4.0}{50}$ $\frac{8.3}{18}$ $\frac{7.4}{11}$ 9.8 $\frac{10.9}{50}$

$\frac{5.8}{50}$ $\frac{7.3}{18}$ $\frac{8.0}{15}$ 8.7 $\frac{9.7}{50}$

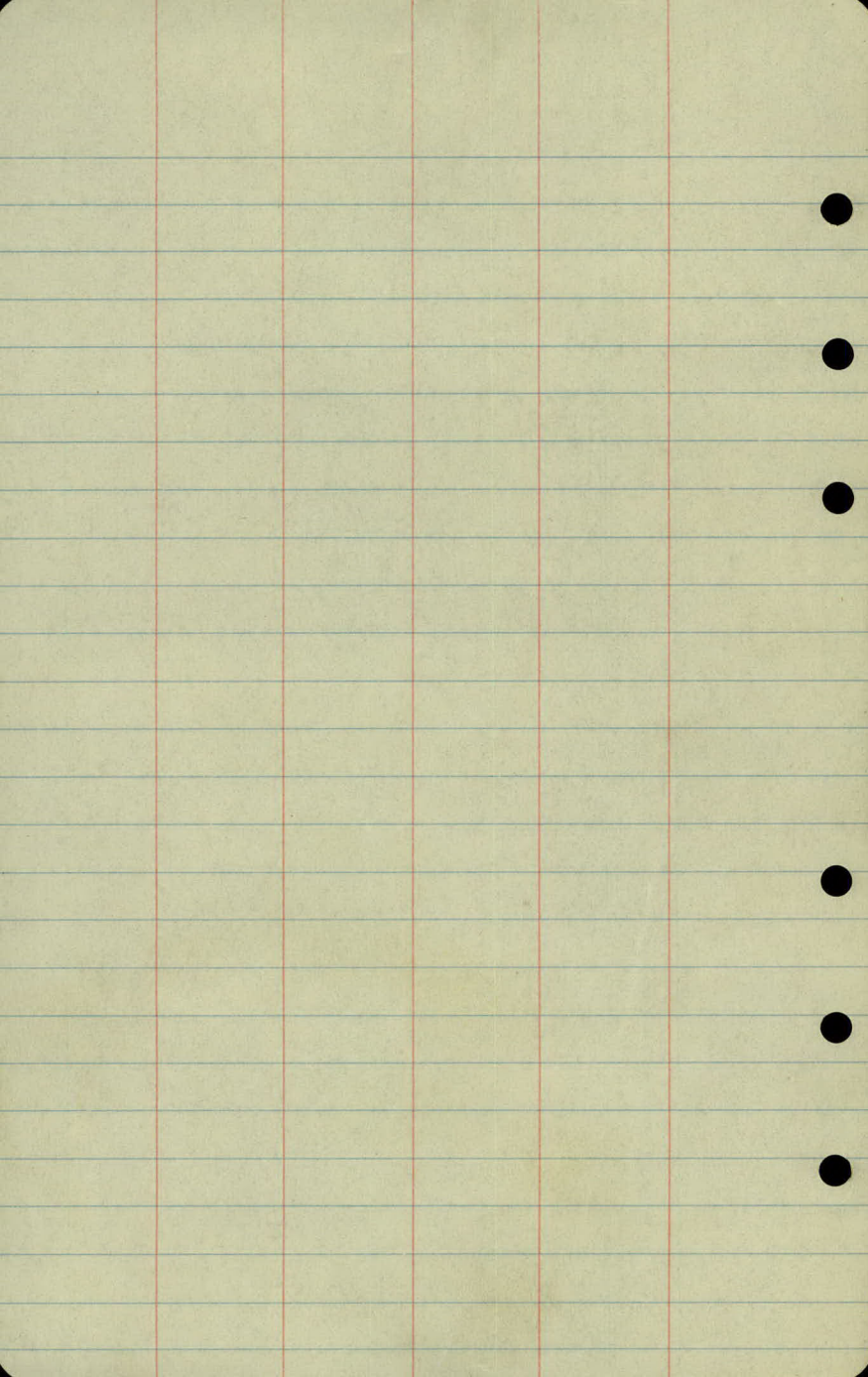
$\frac{4.3}{50}$ $\frac{5.1}{21}$ 4.9 $\frac{4.6}{32}$ $\frac{4.5}{50}$

$\frac{4.8}{50}$ 4.7 $\frac{3.6}{30}$ $\frac{3.2}{50}$

$\frac{2.8}{50}$ 2.0 $\frac{1.3}{50}$

$\frac{2.60}{50}$ 1.86 $\frac{1.12}{50}$

Toys Drill Hole White Bear & Birch



slope stakes

Birch Ave.

Sta.	+	π	-	Grade
B.M.	0.93	944.45		943.52

0	+00			938.8
---	-----	--	--	-------

	+41			38.3
--	-----	--	--	------

	+72			37.9
--	-----	--	--	------

1				37.5
---	--	--	--	------

	+50			37.1
--	-----	--	--	------

2				37.2
---	--	--	--	------

	+50			37.7
--	-----	--	--	------

3				38.7
---	--	--	--	------

	+50			40.2
--	-----	--	--	------

4				42.2
---	--	--	--	------

T.P.	12.30	956.20	0.55	943.90
------	-------	--------	------	--------

	+50			44.4
--	-----	--	--	------

1931/39
K. H.
L. G.
M. G.
M. B.

Gr Rod.

Lt.

R.

Rt.

Spt. in 8" Tr. Elm S.W. Cor. Birch + Linden

5.7

$$\begin{array}{r} 6.22 \\ 2 \overline{) 13.4} \\ \underline{12.4} \\ 1.0 \end{array}$$

$$\begin{array}{r} 6.5 \\ + 0.3 \end{array}$$

$$\begin{array}{r} 6.7 \\ 15 \overline{) 100.5} \\ \underline{90} \\ 10.5 \end{array}$$

$$\begin{array}{r} 6.6 \\ 2 \overline{) 13.2} \\ \underline{12.2} \\ 1.0 \end{array}$$

$$\begin{array}{r} 6.8 \\ + 0.2 \end{array}$$

$$\begin{array}{r} 7.1 \\ 15 \overline{) 106.5} \\ \underline{105} \\ 1.5 \end{array}$$

$$\begin{array}{r} 7.0 \\ 2 \overline{) 14.0} \\ \underline{12.0} \\ 2.0 \end{array}$$

$$\begin{array}{r} 8.7 \\ + 1.7 \end{array}$$

$$\begin{array}{r} 8.6 \\ 24 \overline{) 208.8} \\ \underline{192} \\ 16.8 \end{array}$$

$$\begin{array}{r} 7.4 \\ 23 \overline{) 172.2} \\ \underline{138} \\ 34.2 \end{array}$$

$$\begin{array}{r} 12.8 \\ + 5.4 \end{array}$$

$$\begin{array}{r} 12.5 \\ - 5.1 \end{array}$$

$$\begin{array}{r} 7.3 \\ 2 \overline{) 14.6} \\ \underline{12.6} \\ 2.0 \end{array}$$

$$\begin{array}{r} 13.7 \\ + 6.4 \end{array}$$

$$\begin{array}{r} 13.1 \\ - 5.8 \end{array}$$

$$\begin{array}{r} 6.7 \\ 4 \overline{) 26.8} \\ \underline{20} \\ 6.8 \end{array}$$

$$\begin{array}{r} 13.5 \\ + 6.8 \end{array}$$

$$\begin{array}{r} 12.8 \\ - 6.1 \end{array}$$

$$\begin{array}{r} 5.7 \\ 23 \overline{) 131.4} \\ \underline{115} \\ 16.4 \end{array}$$

$$\begin{array}{r} 10.7 \\ + 5.0 \end{array}$$

$$\begin{array}{r} 11.1 \\ - 5.4 \end{array}$$

$$\begin{array}{r} 4.3 \\ 2 \overline{) 8.6} \\ \underline{8.6} \\ 0.0 \end{array}$$

$$\begin{array}{r} 5.7 \\ + 1.4 \end{array}$$

$$\begin{array}{r} 6.3 \\ 20 \overline{) 126} \\ \underline{120} \\ 6.0 \end{array}$$

$$\begin{array}{r} 2.3 \\ 2 \overline{) 4.6} \\ \underline{4.6} \\ 0.0 \end{array}$$

$$\begin{array}{r} 1.3 \\ + 1.0 \end{array}$$

$$\begin{array}{r} 2.6 \\ 17 \overline{) 44.2} \\ \underline{34} \\ 10.2 \end{array}$$

$$\begin{array}{r} 11.8 \\ 2 \overline{) 23.6} \\ \underline{23.6} \\ 0.0 \end{array}$$

$$\begin{array}{r} 10.9 \\ + 0.9 \end{array}$$

$$\begin{array}{r} 12.3 \\ 15 \overline{) 184.5} \\ \underline{150} \\ 34.5 \end{array}$$

Sta	+	π	-	Grade
		956.20		
5				46.2
	+50			47.4
6				47.8
T.P.	2.56	956.00	2.76	953.44
	+50			47.6
7				46.7
	+25			45.9
	+50			45.0
8				43.0
	2.01	944.80	13.21	942.79
	+35			41.6
	+75			40.0
9				39.2
	+50			38.0
10				37.2
	+12	Proposed Culv	Elev. =	32.0

60 Rod

11

9.

21

$$10.0 \quad \begin{array}{r} 32 \overline{) 6.1} \\ + 3.9 \end{array}$$

$$\begin{array}{r} 7.1 \\ + 2.9 \end{array}$$

$$+ \begin{array}{r} 8.3 \\ 1.7 \overline{) 8.4} \end{array}$$

$$8.8 \quad \begin{array}{r} 33 \overline{) 3.8} \\ + 5.0 \end{array}$$

$$\begin{array}{r} 4.3 \\ + 4.5 \end{array}$$

$$+ \begin{array}{r} 5.7 \\ 3.1 \overline{) 21.2} \end{array}$$

$$8.4 \quad \begin{array}{r} 33 \overline{) 2.6} \\ + 5.8 \end{array}$$

$$\begin{array}{r} 2.8 \\ + 5.6 \end{array}$$

$$+ \begin{array}{r} 4.1 \\ 4.3 \overline{) 33.0} \end{array}$$

$$8.4 \quad \begin{array}{r} 34 \overline{) 3.2} \\ + 5.2 \end{array}$$

$$\begin{array}{r} 3.6 \\ + 4.8 \end{array}$$

$$+ \begin{array}{r} 4.5 \\ 3.9 \overline{) 22.8} \end{array}$$

$$9.3 \quad \begin{array}{r} 33 \overline{) 4.9} \\ + 4.4 \end{array}$$

$$\begin{array}{r} 5.3 \\ + 4.0 \end{array}$$

$$+ \begin{array}{r} 5.7 \\ 3.6 \overline{) 22.2} \end{array}$$

$$10.1 \quad \begin{array}{r} 33 \overline{) 5.6} \\ + 4.5 \end{array}$$

$$\begin{array}{r} 5.6 \\ + 4.5 \end{array}$$

$$+ \begin{array}{r} 5.8 \\ 4.3 \overline{) 33.0} \end{array}$$

$$11.0 \quad \begin{array}{r} 31 \overline{) 7.6} \\ + 3.4 \end{array}$$

$$\begin{array}{r} 7.2 \\ + 3.8 \end{array}$$

$$+ \begin{array}{r} 7.3 \\ 3.7 \overline{) 32.4} \end{array}$$

$$13.0 \quad \begin{array}{r} 26 \overline{) 12.1} \\ + 0.9 \end{array}$$

$$\begin{array}{r} 11.5 \\ + 1.5 \end{array}$$

$$+ \begin{array}{r} 11.2 \\ 1.8 \overline{) 28.6} \end{array}$$

$$3.2 \quad \begin{array}{r} 45 \overline{) 3.2} \\ + 0.0 \end{array}$$

$$\begin{array}{r} 2.7 \\ + 0.5 \end{array}$$

$$+ \begin{array}{r} 2.2 \\ 1.0 \overline{) 21.0} \end{array}$$

$$4.8 \quad \begin{array}{r} 21 \overline{) 6.8} \\ + 0.0 \end{array}$$

$$\begin{array}{r} 7.1 \\ - 2.3 \end{array}$$

$$+ \begin{array}{r} 6.8 \\ 0.0 \overline{) 21.0} \end{array}$$

$$5.6 \quad \begin{array}{r} 20 \overline{) 9.2} \\ + 3.6 \end{array}$$

$$\begin{array}{r} 9.6 \\ - 4.0 \end{array}$$

$$+ \begin{array}{r} 9.4 \\ 3.8 \overline{) 20.6} \end{array}$$

$$6.8 \quad \begin{array}{r} 23 \overline{) 11.9} \\ + 5.1 \end{array}$$

$$\begin{array}{r} 12.2 \\ - 5.4 \end{array}$$

$$+ \begin{array}{r} 11.9 \\ 5.1 \overline{) 23.2} \end{array}$$

$$7.6 \quad \begin{array}{r} 21 \overline{) 12.3} \\ + 4.7 \end{array}$$

$$\begin{array}{r} 12.5 \\ - 4.9 \end{array}$$

$$+ \begin{array}{r} 12.6 \\ 5.0 \overline{) 23.0} \end{array}$$

23'

23'

Sta.	+	π	-	Grade	
		944.80			
10	+50			37.0	
11				37.0	
T.P.	7.29	942.02	12.07	932.73	
	+50			37.0	
12				37.0	
	+50			37.0	
B.M.	6.65	942.07	6.65	935.37	(935.42)
13				37.0	
	+50			37.3	
14				38.1	
	+35			39.0	
T.P.	19.52	954.16	1.43	940.64	
	+70			40.2	
15				41.4	

Gr Rod

Lt

R

Rt

$$7.8 \quad 21.6 / 12.1 \\ -4.3$$

$$12.2 \\ -4.4$$

$$12.2 / 4.4 \\ 21.8$$

$$7.8 \quad 21.8 / 12.2 \\ -4.4$$

$$12.9 \\ -5.1$$

$$13.0 / 5.2 \\ 23.4$$

$$5.0 \quad 22.8 / 9.9 \\ -4.9$$

$$10.9 \\ -5.9$$

$$10.9 / 5.9 \\ 23.6$$

$$5.0 \quad 21.8 / 9.4 \\ -4.4$$

$$9.6 \\ -4.6$$

$$9.6 / 4.6 \\ 22.2$$

$$5.0 \quad 19.6 / 8.3 \\ -3.3$$

$$8.5 \\ -3.5$$

$$8.7 / 3.7 \\ 20.4$$

Spt. in 10" Elm NW Cor. Bigby & Highland

$$5.1 \quad 19.2 / 7.2 \\ -2.1$$

$$7.2 \\ -2.2$$

$$7.2 / 2.2 \\ 17.2$$

$$4.8 \quad 22.8 / 5.9 \\ -10.9$$

$$5.3 \\ -0.5$$

$$5.1 / 10.7 \\ 24.4$$

$$4.0 \quad 25.4 / 3.8 \\ -10.2$$

$$3.3 \\ -0.7$$

$$2.9 / 11.1 \\ 27.2$$

$$3.1 \quad 25.2 / 3.0 \\ -10.1$$

$$2.5 \\ -0.6$$

$$1.9 / 11.2 \\ 27.4$$

$$14.0 \quad 24.2 / 10.4 \\ -10.6$$

$$10.4 \\ -0.6$$

$$12.2 / 11.8 \\ 28.6$$

$$12.8 \quad 25.0 / 12.4 \\ -10.7$$

$$10.7 \\ -0.1$$

$$9.3 / 13.5 \\ 32.0$$

Sta.	+	π	-	Grade.
		959.16		
15	+50			43.2
16				44.2
	+50			44.4
17				43.8
	+50			42.4
18				40.6
T.P.	0.39	943.49	11.06	943.10
	+50			38.8
19				37.0
	+50			35.2
20				33.4
	+50			31.6
T.P.	6.26	936.85	12.90	930.59

Gr. Rod.

Lt.

R.

Rt

11.0

$$29.4' / \frac{8.8}{12.2}$$

$$\frac{5.8}{15.2}$$

$$\frac{3.2}{17.8/33.0'}$$

10.0

$$33.0' / \frac{5.9}{14.1}$$

$$\frac{3.5}{16.5}$$

$$\frac{1.5}{18.5/33.0}$$

9.8

$$33.0' / \frac{5.6}{14.3}$$

$$\frac{4.9}{15.5}$$

$$\frac{3.0}{16.8/33.0'}$$

10.4

$$30.6' / \frac{7.6}{12.8}$$

$$\frac{6.0}{14.4}$$

$$\frac{2.9}{16.5/33.0'}$$

11.8

$$30.4' / \frac{7.1}{12.7}$$

$$\frac{8.2}{13.6}$$

$$\frac{6.4}{15.4/33.0'}$$

13.6

$$29.2' / \frac{11.1}{12.1}$$

$$\frac{11.6}{12.0}$$

$$\frac{10.6}{19.0/31.0'}$$

B. Stalk 18400

4.7

$$26.4' / \frac{4.0}{10.7}$$

$$\frac{4.9}{-0.2}$$

$$\frac{5.4}{21.3/22.6'}$$

6.5

$$25.8' / \frac{6.1}{10.4}$$

$$\frac{6.7}{-0.2}$$

$$\frac{7.8}{20.7/22.4'}$$

8.3

$$26.6' / \frac{7.5}{10.8}$$

$$\frac{7.1}{11.2}$$

$$\frac{8.4}{21.9/24.8'}$$

10.1

$$23.2' / \frac{11.0}{12.1}$$

$$\frac{9.2}{10.9}$$

$$\frac{8.0}{12.1/29.2'}$$

11.9

$$19.3' / \frac{12.9}{10.0}$$

$$\frac{11.9}{10.0}$$

$$\frac{11.4}{10.5/26.0'}$$

Sta	+	π	-	Grade
		936.85		
21				30.2
	+50	24" X 26" 6.17.		29.5
22				29.6
	+50			30.5
23				31.7
	+50			33.4
24				35.2
T.P.	11.11	949.57	1.39	33.46
	+50			37.1
25				39.1
	+50			40.9
26				42.0
	+50			42.9
B.M.			207	942.50
				(942.56)

11/1/39
K.A.
L.C.
M.D.G.
M.D.

Gr. Rod Lt. 9 Lt.

$$6.7 \quad 206' \frac{10.5}{-3.8} \quad \frac{10.0}{-3.9} \quad \frac{9.5}{-2.8/10.6'}$$

$$7.4 \quad 208' \frac{11.3}{-3.9} \quad \frac{10.4}{-3.0} \quad \frac{9.8}{-2.9/17.8'}$$

$$7.3 \quad 18.7' \frac{9.3}{20.0} \quad \frac{7.7}{-0.4} \quad \frac{7.1}{10.2/27.9'}$$

$$6.4 \quad 21.0' \frac{8.4}{20.0} \quad \frac{6.9}{-0.5} \quad \frac{6.1}{10.3/25.6'}$$

$$5.2 \quad 22.7' \frac{6.6}{20.0} \quad \frac{6.8}{-1.6} \quad \frac{6.8}{10.9/21.8'}$$

$$3.5 \quad 22.8' \frac{4.6}{20.9} \quad \frac{5.2}{-1.7} \quad \frac{5.8}{-2.3/17.6'}$$

$$1.7 \quad 23.4' \frac{5.5}{21.2} \quad \frac{3.8}{-2.1} \quad \frac{4.8}{-3.1/19.2'}$$

$$7.5 \quad 22.0' \frac{8.5}{21.0} \quad \frac{10.2}{-2.7} \quad \frac{11.3}{-3.8/20.6'}$$

$$5.5 \quad 18.8' \frac{8.4}{-2.9} \quad \frac{10.0}{-0.5} \quad \frac{10.8}{-5.3/23.6'}$$

$$3.7 \quad 20.6' \frac{7.5}{-3.8} \quad \frac{6.8}{-3.1} \quad \frac{9.8}{-6.1/25.2'}$$

$$2.6 \quad 18.4' \frac{5.3}{-2.7} \quad \frac{5.1}{-2.5} \quad \frac{4.9}{-2.3/17.6'}$$

Top Drill Hole 4 Birch & W. 2000 Ave.

