

B-18 D12

Dr. 12 - Bk. 18

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PLAN Survey

WILLOW AVE.

From Orchard Lane To Co. Rd. "E"

Road Acc't. No. W-53

Date Filed 12-28-38

File

W.B.TWP.

WILLOW AVE

Plan Survey

From West $\frac{1}{4}$ Cor. Sec. 35
(Orchard Lane) to N.W. Cor. Sec. 35
(Co. Rd. E.) White Bear Township.

10/38

Angle.

Sta. Point Lt. Rt.

26+27.4 P.O.T.

15+27.65 P.O.T.

13+19.3 P.O.T.

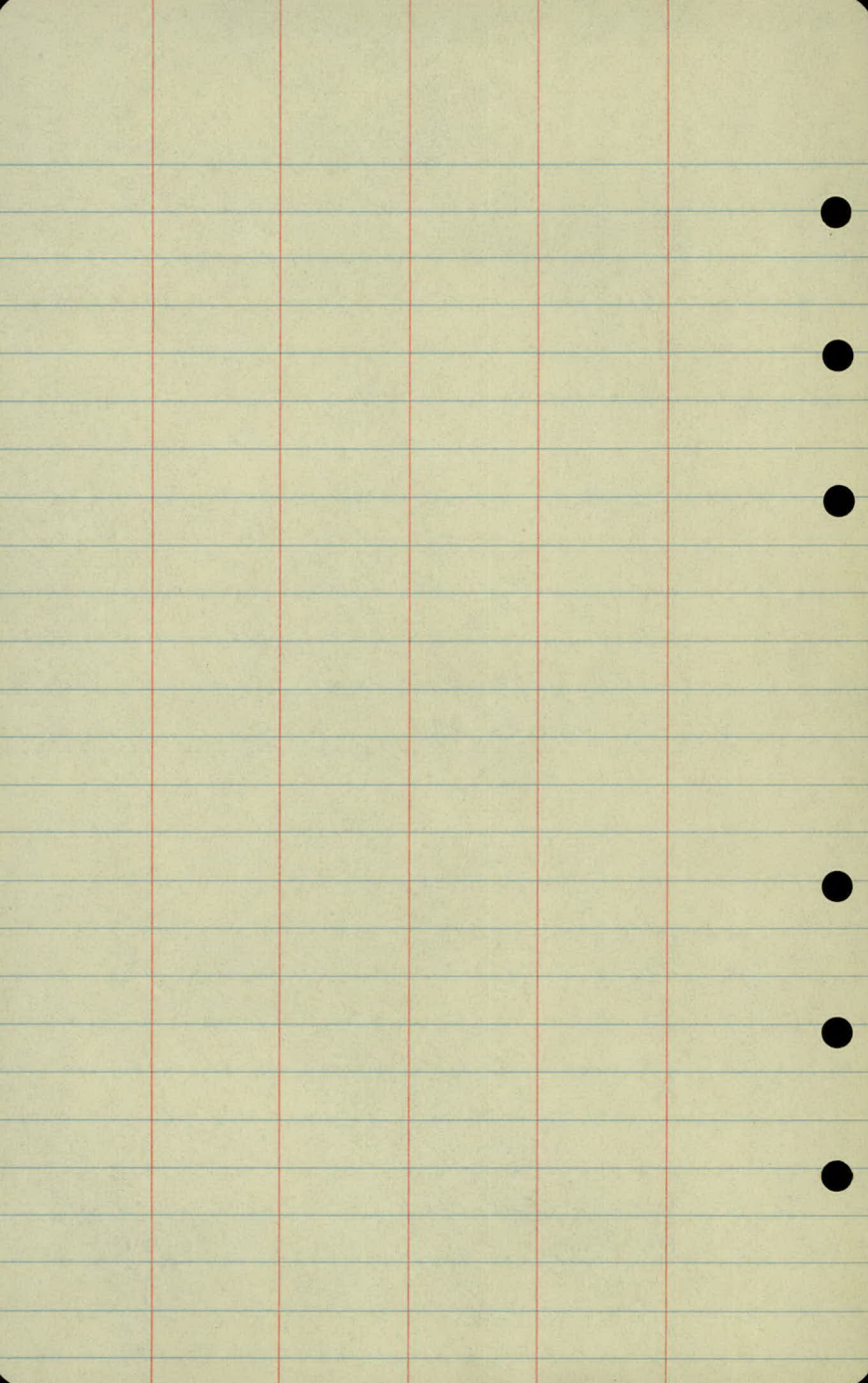
5+20.73 P.O.T.

0+00 P.O.T.

N.W. Cor. Sec. 35 - (Stone Mon)

See plan survey of Orchard
Lane Pg 3.

West $\frac{1}{4}$ Cor. Sec. 35 - 4" Round Post.



W³/₄ Cor Sec 35 To N.W. Cor Sec. 35

6

5

4

3

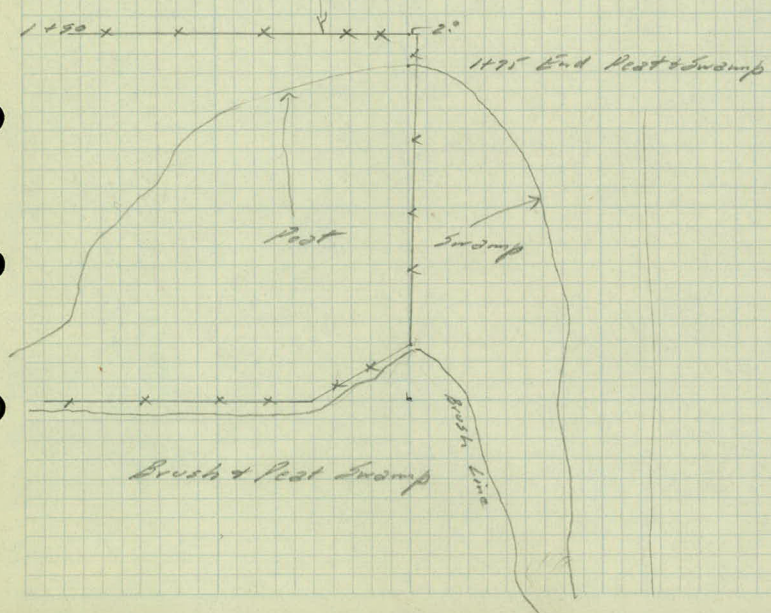
2

1

0

Cultivated

Cultivated



14

13

12

11

10

9

8

7

+85 = 6" Oak on E

18

+69 = 14" Tr Oak on E

12

+64 = 18" Oak on E

10

+57 = 17" Oak on E

12

+48 = 20" Stump on E

13

+39 = 10" Tr Oak on E

10

+88 = 15" Stump on E

12

+79 = 12" Oak on E

12

+20 = 10" Tr Oak on E

12

Collected

Collected

22

21

20

19

18

Note: From Sta 13+50 to
Co. Rd. E. Sta. 26+ on S' Wagon Trail
follows approx $\frac{1}{2}$

17

16

15

+88 = 6" Cottonwood 12'

+58 = 6" Cottonwood 12'

+33 = 4" Cottonwood 12'

Cultivated

Cultivated

+326 Co. Rd. "E"

26

25

24

23

22

20' Concrete  Paving

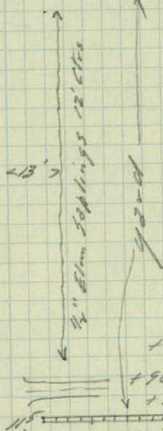
+15 = 12" x 30' C.P.

18'

+26 = 4" Tree 15.0
+59 = 3" Spruce 31.0

+77 = 2" Tree 15.0

+112 =
+176 = 1" Tree 33.0
+58 = 10" Tree 31.0



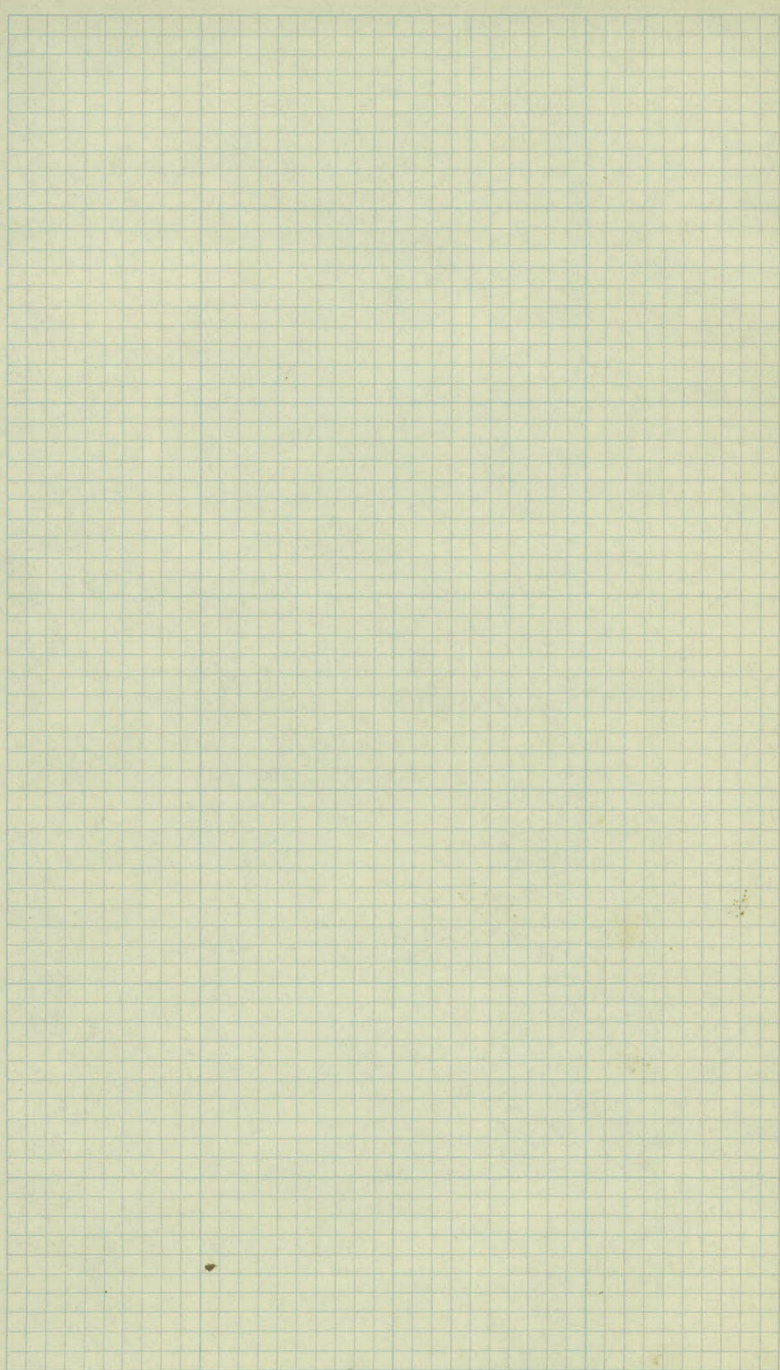
+104 = 4" Poplar 11.0

+90 = 8' Dirt Entrance

+78 = 3" Poplar 11.0

+178 = 3" wide 2' High

+37 = 4" Cottonwood 10'



101
From W. $\frac{1}{4}$ Cor. Sec. 35 (Orchard Land)
To N.W. Cor. Sec. 35 (Co. Rd. "E")
White Bear Township.

Sta.	+	π	-	Elev.
B.M.	12.89	921.77 [✓]		908.88

0+50				08.3
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0+00				08.3
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+50				08.8
-----	--	--	--	------

1+00				09.1
------	--	--	--	------

+50				09.5
-----	--	--	--	------

2				11.4
---	--	--	--	------

+50				16.1
-----	--	--	--	------

3				20.3
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T.P.	13.0 [✓]	934.09 [✓]	0.70	921.07 [✓]
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+50				27.2
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4				32.8
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T.P.	11.73	945.09 [✓]	0.73	933.36 [✓]
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+50				36.2
-----	--	--	--	------

5				39.2
---	--	--	--	------

Lt.

C

Rt.

9

Spike in Fence Post 100' Lt. Sta. 0+00

$$\frac{135}{50}$$

$$\frac{135}{50}$$

$$\frac{135}{50}$$

$$\frac{135}{50}$$

$$\frac{135}{50}$$

$$\frac{130}{50}$$

$$\frac{135}{50}$$

$$130$$

$$\frac{139}{39}$$

$$\frac{127}{50}$$

$$\frac{127}{50}$$

$$\frac{127}{50}$$

$$\frac{121}{50}$$

$$\frac{123}{50}$$

$$\frac{123}{50}$$

$$\frac{105}{50}$$

$$\frac{111}{50}$$

$$\frac{104}{50}$$

$$\frac{87}{50}$$

$$\frac{71}{50}$$

$$\frac{73}{50}$$

$$\frac{64}{50}$$

$$\frac{57}{50}$$

$$\frac{50}{50}$$

$$\frac{38}{50}$$

$$\frac{24}{50}$$

$$\frac{22}{50}$$

$$\frac{15}{50}$$

$$\frac{06}{50}$$

$$\frac{12}{50}$$

$$\frac{05}{50}$$

$$\frac{81}{50}$$

$$\frac{74}{50}$$

$$\frac{82}{50}$$

$$\frac{69}{50}$$

$$\frac{66}{50}$$

$$\frac{78}{50}$$

$$\frac{51}{50}$$

$$\frac{10}{50}$$

$$\frac{12}{50}$$

$$\frac{20}{50}$$

$$\frac{13}{50}$$

$$\frac{16}{50}$$

$$\frac{28}{50}$$

$$\frac{50}{50}$$

$$\frac{50}{50}$$

$$\frac{23}{50}$$

$$\frac{89}{50}$$

$$\frac{93}{50}$$

$$\frac{103}{50}$$

$$\frac{113}{50}$$

$$\frac{7.9}{50}$$

$$\frac{68}{50}$$

$$\frac{67}{50}$$

$$\frac{5.9}{50}$$

$$\frac{55}{50}$$

$$\frac{66}{50}$$

$$\frac{65}{50}$$

1

Sta. + K - Elev.

945.09

5+50

41.4

6

41.5

+50

39.8

7

37.9

+50

37.0

T.P.

3.3V

944.14 ✓

6.27

938.8 ✓

8

36.5

+50

37.1

9

38.0

T.P.

2.9V

941.7 ✓

2.34

938.90 ✓

+50

36.5

10

36.0

+50

36.0

11

36.3

Lt.

E

Rt

$$\frac{6.9}{50} \quad \frac{54}{29} \quad \frac{48}{8} \quad \frac{37}{7} \quad \frac{31}{7} \quad \frac{37}{10} \quad \frac{39}{50}$$

$$\frac{6.5}{50} \quad \frac{52}{28} \quad \frac{44}{7} \quad \frac{36}{5} \quad \frac{2.5}{5} \quad \frac{34}{13} \quad \frac{37}{42} \quad \frac{41}{50}$$

$$\frac{7.2}{50} \quad \frac{55}{9} \quad \frac{54}{2} \quad \frac{53}{4} \quad \frac{37}{4} \quad \frac{40}{8} \quad \frac{46}{14} \quad \frac{55}{50}$$

$$\frac{5.1}{50} \quad \frac{71}{10} \quad \frac{72}{2} \quad \frac{6.2}{2} \quad \frac{6.1}{13} \quad \frac{6.3}{50}$$

$$\frac{90}{50} \quad \frac{82}{9} \quad \frac{81}{3} \quad \frac{76}{10} \quad \frac{70}{10} \quad \frac{76}{14} \quad \frac{72}{50}$$

$$\frac{60}{50} \quad \frac{58}{10} \quad \frac{56}{4} \quad \frac{48}{4} \quad \frac{48}{12} \quad \frac{5.3}{14} \quad \frac{56}{50}$$

$$\frac{71}{50} \quad \frac{57}{14} \quad \frac{56}{3} \quad \frac{50}{3} \quad \frac{43}{3} \quad \frac{40}{12} \quad \frac{46}{14} \quad \frac{54}{50}$$

$$\frac{66}{50} \quad \frac{52}{10} \quad \frac{45}{3} \quad \frac{41}{5} \quad \frac{32}{8} \quad \frac{42}{14} \quad \frac{46}{50}$$

$$\frac{5.8}{50} \quad \frac{58}{6} \quad \frac{52}{8} \quad \frac{49}{8} \quad \frac{43}{12} \quad \frac{49}{15} \quad \frac{50}{50}$$

$$\frac{6.0}{50} \quad \frac{65}{10} \quad \frac{67}{6} \quad \frac{57}{8} \quad \frac{51}{8} \quad \frac{58}{13} \quad \frac{64}{50}$$

$$\frac{6.0}{50} \quad \frac{65}{14} \quad \frac{66}{6} \quad \frac{57}{11} \quad \frac{52}{11} \quad \frac{59}{14} \quad \frac{73}{50}$$

$$\frac{5.2}{50} \quad \frac{6.1}{8} \quad \frac{6.1}{5} \quad \frac{54}{9} \quad \frac{5.3}{9} \quad \frac{6.3}{14} \quad \frac{8.0}{50}$$

Sta.	+	π	-	Elev.
		941.72		
11+50				36.2
12				37.1
+50				39.5
T.P.	12.73	951.12	3.33	938.39
13				43.1
+50				44.3
14				47.2
+50				50.2
P.M.	8.55	958.98	0.69	950.43
15				51.6
+50				53.1
16				54.0
+50				52.2
T.P.	2.34	954.62	6.70	952.28
x79				49.4

Lt.

2

B+

$$\frac{54}{50} \quad \frac{58}{11} \quad \frac{59}{7} \quad \frac{55}{7} \quad \frac{52}{7} \quad \frac{62}{13} \quad \frac{80}{50}$$

$$\frac{55}{50} \quad \frac{48}{11} \quad \frac{45}{7} \quad \frac{46}{7} \quad \frac{45}{7} \quad \frac{51}{12} \quad \frac{71}{50}$$

$$\frac{34}{50} \quad \frac{30}{12} \quad \frac{33}{7} \quad \frac{27}{7} \quad \frac{18}{7} \quad \frac{30}{13} \quad \frac{58}{50}$$

$$\frac{51}{50} \quad \frac{54}{21} \quad \frac{100}{10} \quad \frac{82}{5} \quad \frac{80}{8} \quad \frac{78}{8} \quad \frac{54}{16} \quad \frac{106}{38} \quad \frac{118}{50}$$

$$\frac{60}{50} \quad \frac{61}{18} \quad \frac{70}{10} \quad \frac{64}{7} \quad \frac{68}{9} \quad \frac{68}{9} \quad \frac{78}{13} \quad \frac{50}{21} \quad \frac{116}{50}$$

$$\frac{26}{50} \quad \frac{30}{14} \quad \frac{40}{9} \quad \frac{39}{8} \quad \frac{38}{8} \quad \frac{64}{20} \quad \frac{86}{50}$$

$$\frac{105}{50} \quad \frac{05}{18} \quad \frac{07}{8} \quad \frac{09}{8} \quad \frac{06}{8} \quad \frac{08}{9} \quad \frac{24}{23} \quad \frac{36}{50}$$

Stake at Fence 150' Bt. 56 14+80

$$\frac{25}{50} \quad \frac{26}{11} \quad \frac{25}{7} \quad \frac{74}{4} \quad \frac{23}{4} \quad \frac{75}{16} \quad \frac{77}{50}$$

$$\frac{87}{50} \quad \frac{66}{11} \quad \frac{61}{7} \quad \frac{59}{5} \quad \frac{57}{5} \quad \frac{50}{15} \quad \frac{48}{50}$$

$$\frac{59}{50} \quad \frac{50}{5} \quad \frac{50}{17} \quad \frac{52}{20} \quad \frac{25}{20} \quad \frac{21}{50}$$

$$\frac{17}{50} \quad \frac{19}{20} \quad \frac{14}{9} \quad \frac{16}{7} \quad \frac{68}{11} \quad \frac{70}{23} \quad \frac{60}{27} \quad \frac{30}{50} \quad \frac{15}{50}$$

$$\frac{108}{50} \quad \frac{64}{11} \quad \frac{10}{10} \quad \frac{49}{7} \quad \frac{12}{5} \quad \frac{58}{11} \quad \frac{47}{30} \quad \frac{103}{38} \quad \frac{110}{50}$$

Sta.	+	π	-	Elev.
		934.6 $\checkmark$		
17				46.6
T.P.	2.45	946.29 $\checkmark$	10.78	943.84 $\checkmark$
+50				40.4
18				37.8
+50				37.0
19				37.3
+50				38.0
20				39.4
+50				41.5
21				45.2
T.P.	13.68	958.74 $\checkmark$	1.23	945.06 $\checkmark$
+50				50.3
22				52.9
+50				54.7

Lt.

E

Rt.

12

$$\frac{127}{50} \quad \frac{95}{17} \quad \frac{93}{11} \quad \frac{77}{6} \quad \frac{80}{\cancel{11}} \quad \frac{73}{29} \quad \frac{33}{37} \quad \frac{19}{50}$$

$$\frac{90}{50} \quad \frac{70}{11} \quad \frac{59}{6} \quad \frac{59}{\cancel{11}} \quad \frac{48}{13} \quad \frac{50}{24} \quad \frac{22}{50}$$

$$\frac{96}{50} \quad \frac{98}{9} \quad \frac{86}{5} \quad \frac{85}{\cancel{11}} \quad \frac{87}{6} \quad \frac{96}{10} \quad \frac{90}{50}$$

$$\frac{74}{50} \quad \frac{93}{14} \quad \frac{88}{11} \quad \frac{95}{6} \quad \frac{93}{\cancel{11}} \quad \frac{95}{6} \quad \frac{108}{11} \quad \frac{116}{50}$$

$$\frac{68}{50} \quad \frac{86}{15} \quad \frac{81}{10} \quad \frac{87}{8} \quad \frac{90}{\cancel{11}} \quad \frac{89}{3} \quad \frac{90}{5} \quad \frac{103}{11} \quad \frac{117}{50}$$

$$\frac{63}{50} \quad \frac{77}{16} \quad \frac{73}{11} \quad \frac{80}{6} \quad \frac{83}{\cancel{11}} \quad \frac{79}{2} \quad \frac{80}{6} \quad \frac{94}{11} \quad \frac{113}{50}$$

$$\frac{55}{50} \quad \frac{64}{35} \quad \frac{62}{11} \quad \frac{67}{6} \quad \frac{69}{\cancel{11}} \quad \frac{68}{3} \quad \frac{71}{7} \quad \frac{81}{11} \quad \frac{98}{50}$$

$$\frac{52}{50} \quad \frac{53}{46} \quad \frac{44}{11} \quad \frac{49}{5} \quad \frac{48}{\cancel{11}} \quad \frac{49}{6} \quad \frac{58}{9} \quad \frac{72}{50}$$

$$\frac{06}{50} \quad \frac{06}{14} \quad \frac{16}{8} \quad \frac{09}{6} \quad \frac{11}{\cancel{11}} \quad \frac{09}{8} \quad \frac{17}{11} \quad \frac{20}{50}$$

$$\frac{87}{50} \quad \frac{78}{14} \quad \frac{81}{6} \quad \frac{84}{\cancel{11}} \quad \frac{82}{3} \quad \frac{84}{9} \quad \frac{51}{11} \quad \frac{51}{13} \quad \frac{81}{15} \quad \frac{86}{23} \quad \frac{80}{40} \quad \frac{84}{50}$$

$$\frac{67}{50} \quad \frac{42}{13} \quad \frac{55}{10} \quad \frac{55}{3} \quad \frac{58}{\cancel{11}} \quad \frac{52}{4} \quad \frac{55}{11} \quad \frac{36}{10} \quad \frac{43}{24} \quad \frac{38}{36} \quad \frac{43}{50}$$

$$\frac{53}{50} \quad \frac{34}{14} \quad \frac{43}{11} \quad \frac{40}{\cancel{11}} \quad \frac{39}{4} \quad \frac{45}{11} \quad \frac{28}{15} \quad \frac{35}{20} \quad \frac{27}{37} \quad \frac{30}{50}$$

Sta.	+	π	-	Elev.
		758.74		
23				55.3
+50				56.1
T.P.	10.85	967.48	2.11	956.63
24				57.4.
+50				58.9.
25				60.2'
+50				60.6'
26				61.2'
+17				60.8'
+23				62.5
	17' C.M. Culvert			
+37.6				62.4
B.M.			5.13	967.35 ✓

Lt.

E

Rt.

$\frac{54}{50}$ $\frac{53}{33}$ $\frac{44}{13}$ $\frac{35}{7}$ $\frac{34}{/}$ $\frac{33}{3}$ $\frac{40}{10}$ $\frac{34}{12}$ $\frac{28}{37}$ $\frac{25}{15}$

$\frac{49}{50}$ $\frac{45}{21}$ $\frac{37}{14}$ $\frac{28}{8}$ $\frac{26}{/}$ $\frac{26}{6}$ $\frac{33}{11}$ $\frac{14}{50}$

$\frac{117}{50}$ $\frac{112}{17}$ $\frac{105}{14}$ $\frac{102}{5}$ $\frac{101}{/}$ $\frac{97}{9}$ $\frac{89}{18}$ $\frac{78}{15}$

$\frac{92}{50}$ $\frac{88}{30}$ $\frac{81}{13}$ $\frac{86}{11}$ $\frac{82}{3}$ $\frac{86}{/}$ $\frac{82}{3}$ $\frac{86}{8}$ $\frac{77}{14}$ $\frac{67}{50}$

$\frac{85}{50}$ $\frac{78}{30}$ $\frac{70}{14}$ $\frac{73}{/}$ $\frac{68}{6}$ $\frac{73}{9}$ $\frac{65}{11}$ $\frac{58}{50}$

$\frac{84}{50}$ $\frac{77}{34}$ $\frac{65}{10}$ $\frac{69}{/}$ $\frac{65}{4}$ $\frac{73}{9}$ $\frac{62}{11}$ $\frac{60}{50}$

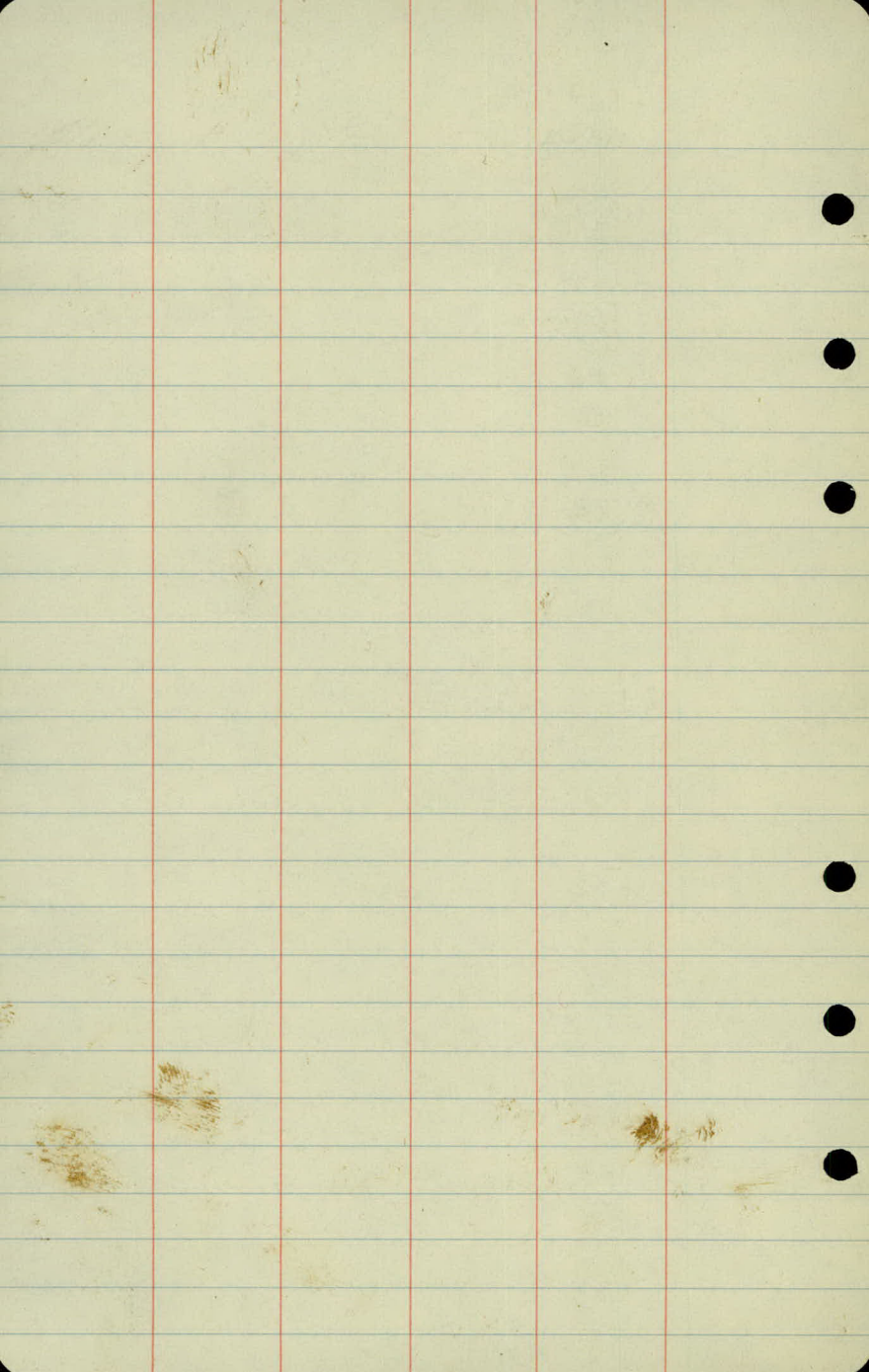
$\frac{85}{50}$ $\frac{75}{13}$ $\frac{60}{7}$ $\frac{63}{/}$ $\frac{60}{5}$ $\frac{75}{10}$ $\frac{64}{50}$

$\frac{87}{50}$ $\frac{80}{19}$ $\frac{56}{14}$ $\frac{59}{9}$ $\frac{67}{/}$ $\frac{57}{10}$ $\frac{81}{17}$ $\frac{77}{44}$ $\frac{58}{50}$

$\frac{48}{50}$ $\frac{57}{8}$ $\frac{50}{/}$ $\frac{57}{50}$

$\frac{121}{81}$ $\frac{46}{50}$ $\frac{51}{/}$ $\frac{121}{81}$ $\frac{56}{50}$

Top of Mon. N.W. Cor. Sec. 35.



Bench Levels

10/38

	+	-	Elev
B.M.	8.60	936.84	928.24
	5.58	932.02	926.44
	0.32	920.40	920.08
	4.70	917.26	912.56
	5.74	921.16	915.42
B.M.	11.77	921.16	909.39
	12.72	932.80	920.08
	7.23	939.47	932.24
	6.00	944.75	938.75
B.M.	4.54	944.75	940.21
T.P.	3.41	941.55	938.14
	8.84	950.28	941.44
B.M.	6.12	950.28	944.16
	2.60	945.98	943.38
B.M.	4.50	946.54	942.04
	9.12	955.16	946.04
	8.96	956.24	947.28
B.M.	3.82	956.24	952.42
	4.25	955.39	951.14
B.M.	4.86	955.39	950.43
	12.77	956.58	943.81
	8.15	964.33	956.21
B.M.		1.98	962.35

9

Top of Mount Sta 85+96 + 00 Rd

Top of Angle Iron 0+00

Spk in R.P. 100 Rt Sta 13+20

P.P.

Neat Top of Iron Pin & White Bear Ave Sta 26+40

Spk in Guy Pole 33' Rt. Sta 26+56

Spk in E. Post 100' Lt Sta

Stake at Fence 150' Rt Sta 280

Top of Mon. N.W. Cor. Sec 35

2

Check Levels

	+	x	-	Elev.
B.M.	10.78	920.17		909.39
	8.18	919.75	8.60	911.57
	12.12	931.80	6.07	919.68
	8.51	937.09	3.22	928.58
B.M.			8.85	928.24 (928.24)

OK

Slope Stakes

Willow Ave

From Orchard Lane to Co Rd E

Per Plat

Nov 1938

26' Top

2:1 Fill

2:1 Cut

21' to Bottom

2' Ditch

Sta	T	A	-	Elev	Grade
B.M.	11.57	920.45		908.88	

0+15				16.6	
------	--	--	--	------	--

0+50				17.1	
------	--	--	--	------	--

0+50				17.1	
------	--	--	--	------	--

1				18.0	
---	--	--	--	------	--

+50				19.3	
-----	--	--	--	------	--

T.P.	12.40	924.36	8.49	911.96	
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2				21.0	
---	--	--	--	------	--

+50				22.8	
-----	--	--	--	------	--

3				24.5	
---	--	--	--	------	--

T.P.	13.06	936.76	0.66	923.70	
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+50				26.2	
-----	--	--	--	------	--

Grade Rod

Lt

C

Rt

Spt 17 50 Post 100 Lt 50 0+00

3.9

$$\begin{array}{r} 11.5 \\ F7.6 \\ \hline 28.2 \end{array}$$

$$\begin{array}{r} 12.4 \\ F8.5 \\ \hline 28.2 \end{array}$$

$$\begin{array}{r} 11.5 \\ F7.6 \\ \hline 28.2 \end{array}$$

3.4

$$\begin{array}{r} 11.9 \\ F8.3 \\ \hline 29.6 \end{array}$$

$$\begin{array}{r} 12.1 \\ F7.7 \\ \hline 29.6 \end{array}$$

$$\begin{array}{r} 11.0 \\ F7.6 \\ \hline 28.2 \end{array}$$

3.4

$$\begin{array}{r} 11.9 \\ F8.2 \\ \hline 30.0 \end{array}$$

$$\begin{array}{r} 11.1 \\ F7.7 \\ \hline 30.0 \end{array}$$

$$\begin{array}{r} 12.0 \\ F8.6 \\ \hline 30.2 \end{array}$$

2.5

$$\begin{array}{r} 11.3 \\ F8.8 \\ \hline 30.6 \end{array}$$

$$\begin{array}{r} 11.6 \\ F9.1 \\ \hline 30.6 \end{array}$$

$$\begin{array}{r} 10.5 \\ F8.0 \\ \hline 29.0 \end{array}$$

1.2

$$\begin{array}{r} 11.3 \\ F10.1 \\ \hline 33.2 \end{array}$$

$$\begin{array}{r} 10.8 \\ F9.5 \\ \hline 30.0 \end{array}$$

$$\begin{array}{r} 7.6 \\ F8.4 \\ \hline 29.8 \end{array}$$

3.3

$$\begin{array}{r} 13.3 \\ F10.0 \\ \hline 33.0 \end{array}$$

$$\begin{array}{r} 12.8 \\ F9.5 \\ \hline 30.0 \end{array}$$

$$\begin{array}{r} 11.0 \\ F7.7 \\ \hline 28.4 \end{array}$$

1.6

$$\begin{array}{r} 9.7 \\ F8.1 \\ \hline 29.2 \end{array}$$

$$\begin{array}{r} 8.9 \\ F7.3 \\ \hline 28.0 \end{array}$$

$$\begin{array}{r} 7.2 \\ F5.6 \\ \hline 24.2 \end{array}$$

+01

$$\begin{array}{r} 4.7 \\ F4.8 \\ \hline 22.6 \end{array}$$

$$\begin{array}{r} 4.0 \\ F4.1 \\ \hline 20.0 \end{array}$$

$$\begin{array}{r} 3.5 \\ F3.6 \\ \hline 20.2 \end{array}$$

10.6
12.6

$$\begin{array}{r} 10.1 \\ 22.5 \\ \hline 26.0 \end{array}$$

$$\begin{array}{r} 10.1 \\ 20.5 \\ \hline 20.0 \end{array}$$

$$\begin{array}{r} 11.1 \\ 22.5 \\ \hline 24.0 \end{array}$$

Stg + 1 - Elev Grade

936.76

4					27.9
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T.P	9.13	945.74	0.15	936.61
-----	------	--------	------	--------

757				29-6
-----	--	--	--	------

5-				31.4
----	--	--	--	------

750					331
-----	--	--	--	--	-----

6					348	✓
---	--	--	--	--	-----	---

750					36.4
-----	--	--	--	--	------

7					37.7
---	--	--	--	--	------

750					38.8
-----	--	--	--	--	------

T.P	5.07	942.80	8.01	937.73
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Grackle Nest

4.0

6.7

2

7.2

8.9

10.9

$$\begin{array}{r} 6.9 \\ 10.9 \\ \hline 34.8 \end{array}$$

$$\begin{array}{r} 3.9 \\ 10.9 \\ \hline 35.0 \end{array}$$

$$\begin{array}{r} 6.2 \\ 10.4 \\ \hline 30.4 \end{array}$$

16.1

18.1

$$\begin{array}{r} 9.6 \\ 10.5 \\ \hline 38.0 \end{array}$$

$$\begin{array}{r} 9.7 \\ 10.4 \\ \hline 36.4 \end{array}$$

$$\begin{array}{r} 11.6 \\ 10.5 \\ \hline 34.0 \end{array}$$

14.3

16.3

$$\begin{array}{r} 8.2 \\ 10.8 \\ \hline 39.2 \end{array}$$

$$\begin{array}{r} 6.5 \\ 10.8 \\ \hline 37.8 \end{array}$$

$$\begin{array}{r} 7.0 \\ 10.3 \\ \hline 39.6 \end{array}$$

12.6

14.6

$$\begin{array}{r} 6.7 \\ 10.9 \\ \hline 36.8 \end{array}$$

$$\begin{array}{r} 4.4 \\ 10.8 \\ \hline 38.2 \end{array}$$

$$\begin{array}{r} 4.3 \\ 10.3 \\ \hline 41.6 \end{array}$$

10.9

12.9

$$\begin{array}{r} 6.2 \\ 10.7 \\ \hline 34.4 \end{array}$$

$$\begin{array}{r} 4.2 \\ 10.7 \\ \hline 36.7 \end{array}$$

$$\begin{array}{r} 4.0 \\ 10.9 \\ \hline 38.8 \end{array}$$

9.3

11.3

$$\begin{array}{r} 6.9 \\ 10.4 \\ \hline 29.8 \end{array}$$

$$\begin{array}{r} 5.7 \\ 10.6 \\ \hline 33.6 \end{array}$$

$$\begin{array}{r} 5.5 \\ 10.8 \\ \hline 32.6 \end{array}$$

8.0

10.0

$$\begin{array}{r} 8.3 \\ 10.7 \\ \hline 24.4 \end{array}$$

$$\begin{array}{r} 7.6 \\ 10.4 \\ \hline 30.4 \end{array}$$

$$\begin{array}{r} 6.8 \\ 10.3 \\ \hline 27.4 \end{array}$$

6.9

8.9

$$\begin{array}{r} 9.1 \\ 12.2 \\ \hline 17.4 \end{array}$$

$$\begin{array}{r} 8.1 \\ 11.2 \\ \hline 19.2 \end{array}$$

$$\begin{array}{r} 8.2 \\ 10.7 \\ \hline 22.4 \end{array}$$

Sta	+	π	-	Elev	Grade
-----	---	---	---	------	-------

		942.80			
--	--	--------	--	--	--

8					
---	--	--	--	--	--

				39.6	
--	--	--	--	------	--

+50					
-----	--	--	--	--	--

				40.2	
--	--	--	--	------	--

9					
---	--	--	--	--	--

				40.5	
--	--	--	--	------	--

+50					
-----	--	--	--	--	--

				40.8	
--	--	--	--	------	--

10					
----	--	--	--	--	--

				41.0	
--	--	--	--	------	--

+50					
-----	--	--	--	--	--

				41.2	
--	--	--	--	------	--

11					
----	--	--	--	--	--

				41.4	
--	--	--	--	------	--

+50					
-----	--	--	--	--	--

				41.6	
--	--	--	--	------	--

Grade Red

LH

R

PH

3.2

$$\begin{array}{r} 6.6 \\ F3.4 \\ \hline 19.8 \end{array}$$

$$\begin{array}{r} 6.3 \\ F3.1 \\ \hline \end{array}$$

$$\begin{array}{r} 5.8 \\ F2.6 \\ \hline 18.2 \end{array}$$

2.6

$$\begin{array}{r} 6.6 \\ F4.0 \\ \hline 21.0 \end{array}$$

$$\begin{array}{r} 5.6 \\ F3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.3 \\ F2.7 \\ \hline 18.4 \end{array}$$

2.3

$$\begin{array}{r} 6.2 \\ F3.9 \\ \hline 20.8 \end{array}$$

$$\begin{array}{r} 4.7 \\ F0.4 \\ \hline \end{array}$$

$$\begin{array}{r} 5.0 \\ F2.7 \\ \hline 18.4 \end{array}$$

2.0

$$\begin{array}{r} 6.6 \\ F4.6 \\ \hline 22.2 \end{array}$$

$$\begin{array}{r} 6.0 \\ F4.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.9 \\ F3.9 \\ \hline 20.8 \end{array}$$

1.8

$$\begin{array}{r} 7.2 \\ F5.4 \\ \hline 23.8 \end{array}$$

$$\begin{array}{r} 6.8 \\ F5.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.0 \\ F5.2 \\ \hline 22.2 \end{array}$$

1.6

$$\begin{array}{r} 7.2 \\ F5.6 \\ \hline 24.2 \end{array}$$

$$\begin{array}{r} 6.7 \\ F3.1 \\ \hline \end{array}$$

$$\begin{array}{r} 7.3 \\ F3.7 \\ \hline 24.4 \end{array}$$

1.4

$$\begin{array}{r} 6.8 \\ F5.4 \\ \hline 23.8 \end{array}$$

$$\begin{array}{r} 6.4 \\ F5.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.8 \\ F6.4 \\ \hline 25.8 \end{array}$$

1.2

$$\begin{array}{r} 6.7 \\ F5.6 \\ \hline 24.0 \end{array}$$

$$\begin{array}{r} 6.4 \\ F5.2 \\ \hline \end{array}$$

$$\begin{array}{r} 7.8 \\ F6.6 \\ \hline 26.2 \end{array}$$

Sta	+	π	-	Elev	Grade
		942.80			

12					41.8
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+50					42.0
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T.P	7.67	952.12	0.35	942.45	
-----	------	--------	------	--------	--

B.M	3.32	953.75	1.69	950.43	
-----	------	--------	------	--------	--

13					42.2
----	--	--	--	--	------

+50					42.4
-----	--	--	--	--	------

14					42.6
----	--	--	--	--	------

+50					42.8
-----	--	--	--	--	------

B.M	3.32	953.75	3.32	950.43	
-----	------	--------	------	--------	--

15					43.0
----	--	--	--	--	------

T.P	6.00	958.78	0.97	952.78	
-----	------	--------	------	--------	--

+50					43.2
-----	--	--	--	--	------

42.8
 43.0
 43.2

Grade Pool

LT

R

RT

1.0

$$\begin{array}{r} 5.9 \\ F4.9 \\ \hline 22.8 \end{array}$$

$$\begin{array}{r} 5.8 \\ F4.8 \end{array}$$

$$\begin{array}{r} 6.5 \\ F5.5 \\ \hline 24.0 \end{array}$$

0.8

$$\begin{array}{r} 4.2 \\ F3.4 \\ \hline 19.8 \end{array}$$

$$\begin{array}{r} 3.2 \\ F2.4 \\ \hline \end{array}$$

$$\begin{array}{r} 4.2 \\ F3.4 \\ \hline 19.8 \end{array}$$

$$\begin{array}{r} 11.6 \\ 13.2 \end{array}$$

$$\begin{array}{r} 12.1 \\ DC1.6 \\ \hline 24.0 \end{array}$$

$$\begin{array}{r} 13.5 \\ F1.9 \end{array}$$

$$\begin{array}{r} 13.4 \\ DC0.2 \\ \hline 21.4 \end{array}$$

$$\begin{array}{r} 11.4 \\ 13.4 \end{array}$$

$$\begin{array}{r} 9.0 \\ DC4.4 \\ \hline 29.8 \end{array}$$

$$\begin{array}{r} 9.5 \\ C1.9 \end{array}$$

$$\begin{array}{r} 11.8 \\ DC1.5 \\ \hline 24.2 \end{array}$$

$$\begin{array}{r} 11.2 \\ 13.2 \end{array}$$

$$\begin{array}{r} 5.4 \\ DC7.8 \\ \hline 36.6 \end{array}$$

$$\begin{array}{r} 6.5 \\ C4.7 \end{array}$$

$$\begin{array}{r} 9.6 \\ DC3.6 \\ \hline 28.2 \end{array}$$

$$\begin{array}{r} 11.0 \\ 13.0 \end{array}$$

$$\begin{array}{r} 2.2 \\ DC10.8 \\ \hline 42.6 \end{array}$$

$$\begin{array}{r} 3.5 \\ C7.5 \end{array}$$

$$\begin{array}{r} 5.9 \\ DC7.1 \\ \hline 35.2 \end{array}$$

State of E. 150' RT Sta 14+80

$$\begin{array}{r} 10.8 \\ 12.8 \end{array}$$

$$\begin{array}{r} 2.3 \\ DC10.5 \\ \hline 42.0 \end{array}$$

$$\begin{array}{r} 2.2 \\ C8.6 \end{array}$$

$$\begin{array}{r} 2.1 \\ DC10.7 \\ \hline 42.4 \end{array}$$

$$\begin{array}{r} 15.6 \\ 17.2 \end{array}$$

$$\begin{array}{r} 8.0 \\ DC9.6 \\ \hline 40.2 \end{array}$$

$$\begin{array}{r} 5.7 \\ C9.9 \end{array}$$

$$\begin{array}{r} 4.7 \\ DC12.9 \\ \hline 46.8 \end{array}$$

Sta	+	π	-	Elev	Grade
		958.78			

16					43.4
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+50					43.6
-----	--	--	--	--	------

+79					43.7
-----	--	--	--	--	------

T.P	757	954.76	11.59	949.19	
-----	-----	--------	-------	--------	--

17					43.8 V
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T.P	2.81	944.69	12.88	941.88	
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+50					44.0
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18					44.2
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+50					44.4
-----	--	--	--	--	------

19					44.9
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Grade Rec

Lt

L

Pt

$$\begin{array}{r} 15.4 \\ 17.4 \end{array}$$

$$\begin{array}{r} 8.3 \\ DC9.1 \\ \hline 39.2 \end{array}$$

$$\begin{array}{r} 47 \\ C10.7 \end{array}$$

$$\begin{array}{r} 1.8 \\ DC15.6 \\ \hline 52.2 \end{array}$$

$$\begin{array}{r} 15.2 \\ 17.2 \end{array}$$

$$\begin{array}{r} 10.0 \\ DC9.2 \\ \hline 35.4 \end{array}$$

$$\begin{array}{r} 6.6 \\ C8.6 \end{array}$$

$$\begin{array}{r} 1.3 \\ DC15.9 \\ \hline 51.8 \end{array}$$

$$\begin{array}{r} 15.1 \\ 17.1 \end{array}$$

$$\begin{array}{r} 12.4 \\ DC4.7 \\ \hline 30.4 \end{array}$$

$$\begin{array}{r} 9.2 \\ C5.9 \end{array}$$

$$\begin{array}{r} 3.1 \\ DC14.0 \\ \hline 42.0 \end{array}$$

$$\begin{array}{r} 11.0 \\ 13.0 \end{array}$$

$$\begin{array}{r} 10.6 \\ DC2.4 \\ \hline 25.8 \end{array}$$

$$\begin{array}{r} 8.1 \\ C2.9 \end{array}$$

$$\begin{array}{r} 3.0 \\ DC10.0 \\ \hline 41.0 \end{array}$$

$$\begin{array}{r} 0.7 \end{array}$$

$$\begin{array}{r} 6.5 \\ F5.8 \\ \hline 24.6 \end{array}$$

$$\begin{array}{r} 4.3 \\ F3.6 \end{array}$$

$$\begin{array}{r} 2.9 \\ F2.2 \\ \hline 17.4 \end{array}$$

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

$$\begin{array}{r} 8.3 \\ F7.8 \\ \hline 28.6 \end{array}$$

$$\begin{array}{r} 6.9 \\ F6.4 \end{array}$$

$$\begin{array}{r} 7.9 \\ F7.4 \\ \hline 27.8 \end{array}$$

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

$$\begin{array}{r} 7.5 \\ F7.2 \\ \hline 27.4 \end{array}$$

$$\begin{array}{r} 7.6 \\ F7.3 \end{array}$$

$$\begin{array}{r} 9.7 \\ F8.4 \\ \hline 31.8 \end{array}$$

$$\begin{array}{r} 10.2 \end{array}$$

$$\begin{array}{r} 6.6 \\ F6.8 \\ \hline 26.6 \end{array}$$

$$\begin{array}{r} 7.4 \\ F7.6 \end{array}$$

$$\begin{array}{r} 9.9 \\ F10.1 \\ \hline 33.2 \end{array}$$

Sta	+	π	-	Elev	Grade
		944.69			

19+50

45.6

T.P	13.18	951.73	6.14	938.55	
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20

46.4

+50

47.5

21

48.7

+50

50.0

T.P	8.99	959.93	0.79	950.94	
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T.P	5.68	964.64	0.97	958.96	
-----	------	--------	------	--------	--

22

51.3

+50

52.6

23

53.9

T.P	5.67	964.63	5.68	958.96	
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Grade Book

L+

E

R+

10.9

$$\begin{array}{r} 5.8 \\ F6.7 \\ \hline 26.4 \end{array}$$

$$\begin{array}{r} 6.6 \\ F7.5 \\ \hline \end{array}$$

$$\begin{array}{r} 8.7 \\ F9.6 \\ \hline 32.2 \end{array}$$

5.3

$$\begin{array}{r} 11.8 \\ F6.5 \\ \hline 26.0 \end{array}$$

$$\begin{array}{r} 12.4 \\ F9.1 \\ \hline \end{array}$$

$$\begin{array}{r} 14.4 \\ F9.1 \\ \hline 31.2 \end{array}$$

4.2

$$\begin{array}{r} 10.2 \\ F6.0 \\ \hline 25.0 \end{array}$$

$$\begin{array}{r} 10.2 \\ F6.0 \\ \hline \end{array}$$

$$\begin{array}{r} 11.9 \\ F7.2 \\ \hline 28.4 \end{array}$$

3.0

$$\begin{array}{r} 6.4 \\ F3.4 \\ \hline 19.8 \end{array}$$

$$\begin{array}{r} 6.5 \\ F3.5 \\ \hline \end{array}$$

$$\begin{array}{r} 7.0 \\ F4.0 \\ \hline 21.0 \end{array}$$

$$\begin{array}{r} 1.7 \\ 3.7 \end{array}$$

$$\begin{array}{r} 1.3 \\ DC2.4 \\ \hline 25.8 \end{array}$$

$$\begin{array}{r} 1.3 \\ C0.4 \\ \hline \end{array}$$

$$\begin{array}{r} 1.1 \\ DC2.6 \\ \hline 26.2 \end{array}$$

Top of No 11
13.3
15.3

$$\begin{array}{r} 11.2 \\ DC4.1 \\ \hline 29.2 \end{array}$$

$$\begin{array}{r} 11.7 \\ C1.6 \\ \hline \end{array}$$

$$\begin{array}{r} 9.8 \\ DC5.5 \\ \hline 32.0 \end{array}$$

$$\begin{array}{r} 12.0 \\ 14.0 \end{array}$$

$$\begin{array}{r} 10.2 \\ DC3.8 \\ \hline 29.6 \end{array}$$

$$\begin{array}{r} 9.9 \\ C2.1 \\ \hline \end{array}$$

$$\begin{array}{r} 8.7 \\ DC5.3 \\ \hline 31.6 \end{array}$$

$$\begin{array}{r} 10.7 \\ 12.7 \end{array}$$

$$\begin{array}{r} 10.8 \\ DC1.9 \\ \hline 24.8 \end{array}$$

$$\begin{array}{r} 9.3 \\ C1.4 \\ \hline \end{array}$$

$$\begin{array}{r} 9.2 \\ DC3.5 \\ \hline 28.0 \end{array}$$

Sta	+	π	-	Elev	Grade
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964.63

23+50

55.2

24

56.5

+50

57.8

25

59.1

+50

60.4

26

61.7

+17

62.1

+73

62.3

B.M

2.26

962.37

962.35

Grade Rod

LT

\$

PT

9.4
11.4

10.4
DC 1.0
23.0

8.4
C 1.0

8.9
DC 2.3
26.0

8.1
10.1

8.5
DC 1.5
24.2

7.2
C 0.9

5.7
DC 4.4
29.8

6.8
8.8

5.8
DC 3.0
27.0

5.6
C 1.2

4.4
DC 4.4
29.8

5.5
7.5

4.9
DC 2.6
26.2

4.5
C 1.0

3.3
DC 4.2
29.4

4.2
6.2

4.3
DC 1.9
24.8

3.9
C 0.3

3.4
DC 2.8
26.6

2.9
4.9

4.9
DC 0.0
21.3

3.4
F 0.5

4.3
DC 0.6
22.2

2.5

5.1
F 2.6
18.2

2.8
F 0.3

5.0
F 2.3
18.0

Top of Mount 26137.6

