

Book # 53 - Dr. # 8

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Ditch Survey

DITCH No. 4

From..... To.....

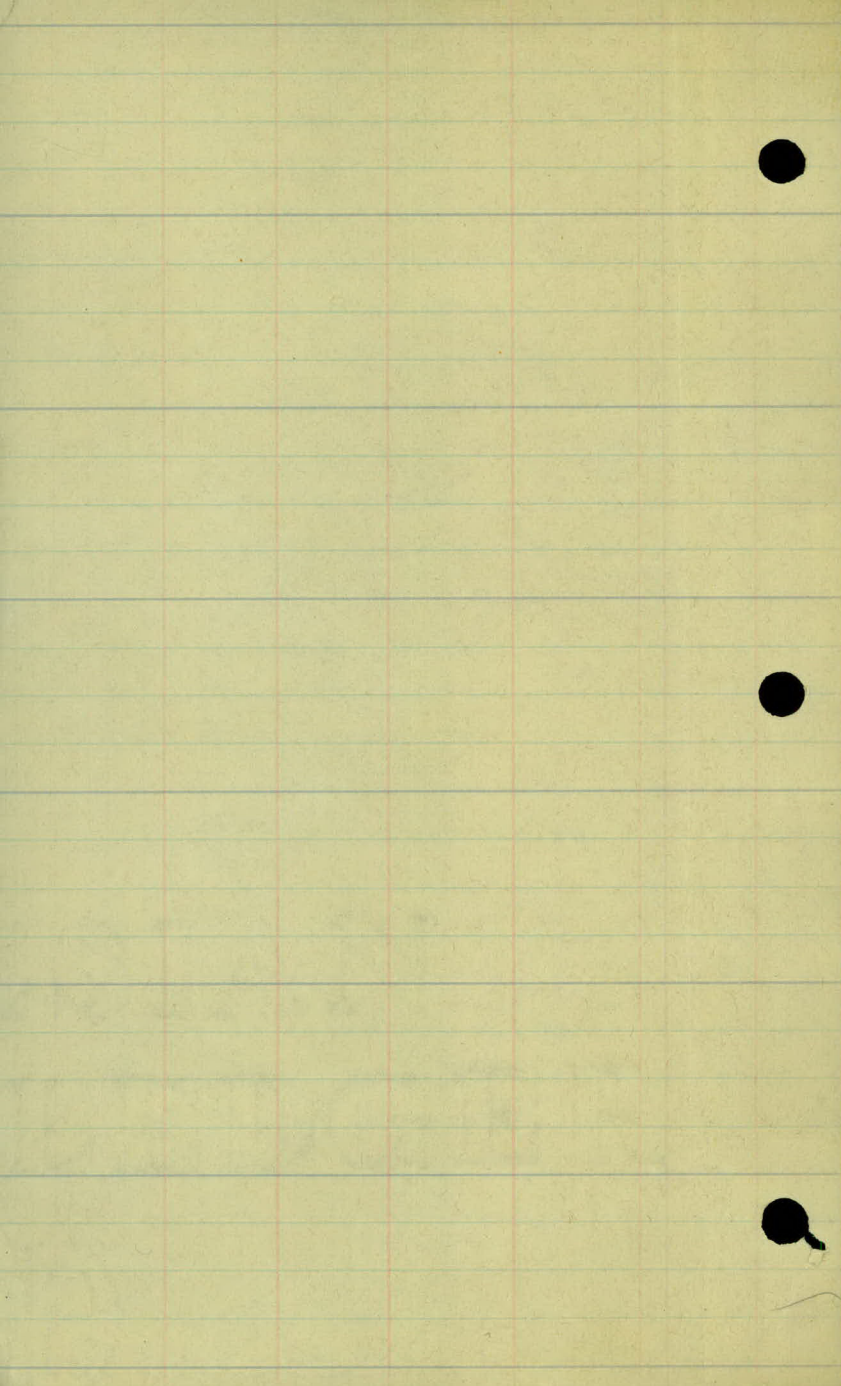
Road Acc't. No.

Date Filed 1935

File.....

7/8/35
Purtell
Bell
Goldberg

Location Ditch #4



Sec. Line 2

Mont. No. 1/4
Cor. Sec. 9

245'

1/16 Line 2

752'

Mont. Ctr. Sec. 9

1/4 Line 2

New Brighton Rd.

341'

655'

46'

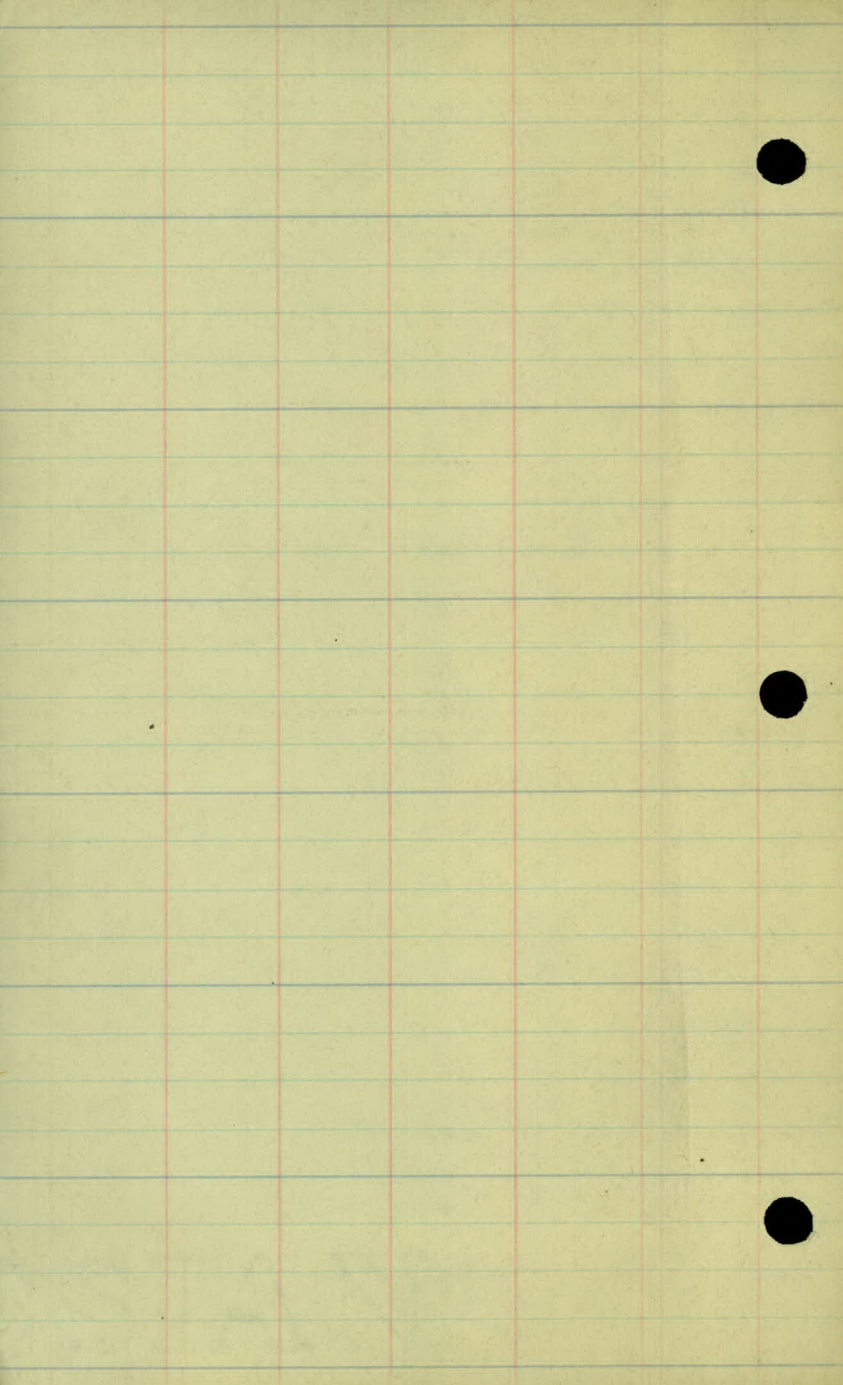
W-33 X 46' Culu

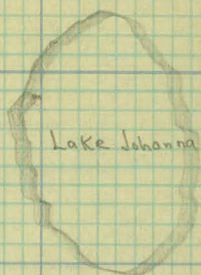
Sta 0+00 West
face Conc. Hd. Wall

1985.5'

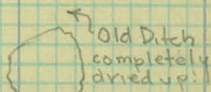
Sec. Line Co. Rd. B

3/4 Cor. Sec. 9





Lake Johanna



Old Ditch
completely
dried up!

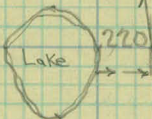
Sta 108+66
End Pt. #4

Snell Av. Cutoff

--1020'--



1/4 Line



Ditch #4

220'

-580'-

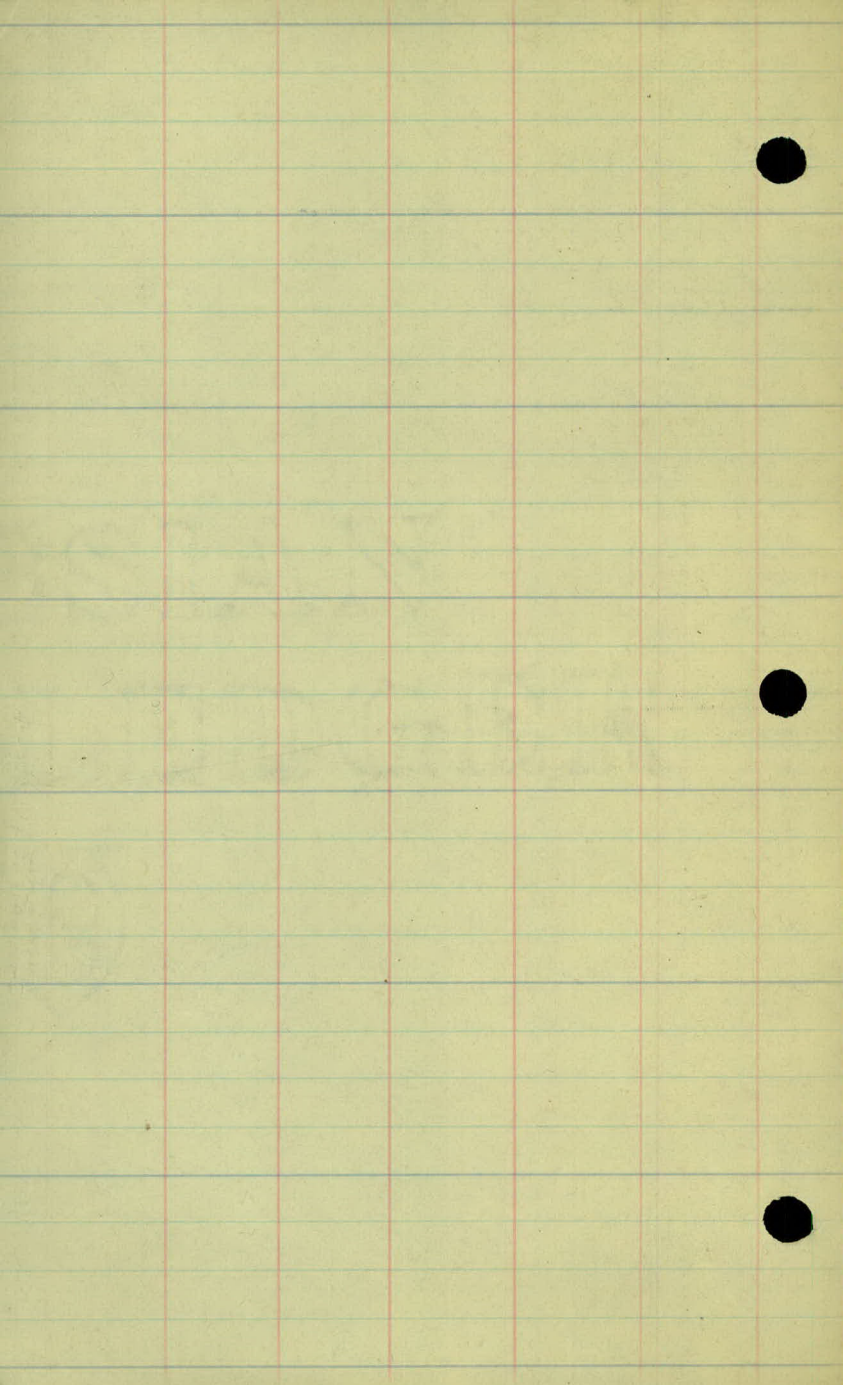
Mont. E 1/4 Cor Sec 4

New Brighton Rd

Snelling Av.

Mont - No 1/4 Cor Sec 9

245'



7/2/35

X. Sections + Levels

Ditch #4

Sta	+	π	-	Elev
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B.M.	5.74	957.97		952.23
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0+00	Inlet	3x3-46 Mono. Culv.	# 16-9	947.19
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0+23	$\pm$	Pave New Bri. Rd.		53.3
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0+46	Outlet	Culv.		46.52
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0+57	Pl.			47.0
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1+00				46.2
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2				46.2
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3				46.0
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N.W. Cor Top Headwall Sta. 0+00

10.78 EL.

4.7

11.45 EL.

11.0

$$\begin{array}{cccccccccccc} & & & R_{47} & & & & & & & & & & \\ \frac{8.2}{100} & \frac{7.0}{54} & \frac{5.0}{50} & \frac{4.82}{32} & \frac{4.7}{18} & \frac{6.3}{9} & \frac{11.7}{2} & 11.8 & \frac{11.6}{2} & \frac{10.7}{3} & \frac{7.4}{6} & \frac{5.8}{19} & \frac{7.0}{100} \end{array}$$

$$\frac{8.0}{100} \quad \frac{7.7}{54} \quad \frac{5.2}{50} \quad \frac{5.02}{33} \quad \frac{5.0}{19} \quad \frac{6.4}{6} \quad \frac{11.7}{2} \quad 11.8 \quad \frac{11.6}{2} \quad \frac{6.4}{8} \quad \frac{6.1}{50} \quad \frac{4.0}{100} \quad \frac{4.0}{110} \quad \frac{4.6}{125}$$

$$\frac{7.1}{100} \quad \frac{6.8}{54} \quad \frac{4.8}{49} \quad \frac{4.55}{34} \quad \frac{4.3}{19} \quad \frac{6.0}{9} \quad \frac{12.0}{2} \quad 12.0 \quad \frac{11.8}{2} \quad \frac{3.7}{12} \quad \frac{1.7}{37} \quad \frac{2.7}{57} \quad \frac{1.5}{100}$$

WS. 11.0 = 47.0

Sta + π - Elev

① 7.52 959.88 5.61 952.36

4 46.2

5 46.5

6 46.1

7 45.8

+10 P.I. Ditch 45.2

② 11.04 957.61 13.31 946.57

8 45.2

+47 44.8

9 44.8

10 43.8

+51 P.I. Ditch 43.9

Top Red Rock 10' Lt Sta 4+10

$\frac{6.7}{100}$ $\frac{7.4}{60}$ $\frac{6.8}{52}$ $\frac{5.8}{48}$ $\frac{5.8}{34}$ $\frac{5.8}{20}$ $\frac{7.4}{9}$ $\frac{12.4}{3}$ $\frac{13.5}{1}$ 13.7 $\frac{12.6}{1}$ $\frac{12.0}{4}$ $\frac{2.6}{17}$ $\frac{0.8}{37}$ $\frac{2.7}{100}$

$\frac{4.2}{100}$ $\frac{7.0}{59}$ $\frac{6.7}{52}$ $\frac{5.5}{49}$ $\frac{5.3}{34}$ $\frac{5.4}{19}$ $\frac{7.4}{10}$ $\frac{13.0}{2}$ 13.4 $\frac{13.0}{2}$ $\frac{6.0}{13}$ $\frac{5.0}{33}$ $\frac{5.8}{55}$ $\frac{3.2}{100}$ $\frac{4.1}{120}$

$\frac{5.8}{100}$ $\frac{7.1}{66}$ $\frac{7.1}{54}$ $\frac{5.1}{49}$ $\frac{4.9}{34}$ $\frac{5.1}{21}$ $\frac{6.0}{14}$ $\frac{13.6}{2}$ 13.8 $\frac{13.6}{2}$ $\frac{7.6}{10}$ $\frac{7.7}{41}$ $\frac{3.8}{100}$ $\frac{3.0}{115}$ $\frac{3.9}{125}$

$\frac{6.3}{100}$ $\frac{7.0}{74}$ $\frac{7.7}{53}$ $\frac{4.5}{48}$ $\frac{4.3}{33}$ $\frac{4.6}{18}$ $\frac{7.8}{10}$ $\frac{14.0}{1}$ 14.1 $\frac{13.8}{2}$ $\frac{7.0}{10}$ $\frac{8.5}{47}$ $\frac{6.3}{100}$ $\frac{5.3}{120}$

14.7

Top Rock 3' Lt Sta 8+02

$\frac{3.0}{100}$ $\frac{4.7}{60}$ $\frac{3.4}{36}$ $\frac{5.0}{12}$ $\frac{12.0}{2}$ 12.4 $\frac{12.0}{2}$ $\frac{4.5}{11}$ $\frac{5.2}{44}$ $\frac{5.5}{100}$

$\frac{3.6}{100}$ $\frac{4.3}{70}$ $\frac{3.6}{30}$ $\frac{2.3}{13}$ $\frac{12.4}{1}$ 12.8 $\frac{12.6}{1}$ $\frac{2.6}{14}$ $\frac{4.7}{48}$ $\frac{1.7}{100}$

$\frac{6.1}{100}$ $\frac{6.2}{50}$ $\frac{5.2}{12}$ $\frac{12.8}{2}$ 12.8 $\frac{12.7}{2}$ $\frac{5.1}{12}$ $\frac{6.1}{51}$ $\frac{5.5}{100}$

$\frac{10.9}{100}$ $\frac{10.8}{46}$ $\frac{10.4}{5}$ $\frac{12.9}{2}$ 13.8 $\frac{13.1}{2}$ $\frac{9.8}{5}$ $\frac{9.9}{50}$ $\frac{9.4}{100}$

13.7

Sta	+	π	-	Elev.
		957.61		

11				43.8
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①	5.84	952.45	11.00	946.61
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12				43.6
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+42	P.I. Ditch			44.4
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13				44.0
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14				43.6
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+07	F.L. Inlet 20"x17" Tile (Buried and obstructing Ditch)			42.52
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+24	Outlet 20" Tile Thru F.E.			42.66
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+54	P.I. Ditch			43.9
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15				43.5
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16				42.6
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+50	P.I. Ditch			42.5
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S.S. = Same
Slope

H.Water Mark Hi Wat. Mark

S.S. $\frac{8.8}{100}$ $\frac{10.9}{41}$ $\frac{12.6}{4}$ $\frac{13.2}{2}$ 13.8 $\frac{13.5}{2}$ $\frac{12.7}{4}$ $\frac{10.7}{64}$ $\frac{9.2}{100}$ S.S.

Top Stake Sta 12+00

H.W.M.

$\frac{3.3}{100}$ $\frac{5.5}{50}$ $\frac{7.5}{4}$ $\frac{8.3}{2}$ 8.9 $\frac{8.2}{2}$ $\frac{7.5}{4}$ $\frac{5.8}{62}$ $\frac{4.4}{100}$ S.S.

8.1

$\frac{2.5}{150}$ $\frac{3.0}{100}$ $\frac{4.7}{50}$ $\frac{5.3}{3}$ $\frac{8.0}{1.5}$ 8.5 $\frac{8.2}{1.5}$ $\frac{5.6}{3}$ $\frac{5.2}{50}$ $\frac{4.4}{100}$ S.S.

$\frac{0.8}{150}$ $\frac{1.8}{100}$ $\frac{4.3}{27}$ $\frac{4.9}{5}$ $\frac{7.2}{2}$ $\frac{8.8}{1}$ 8.9 $\frac{9.0}{1}$ $\frac{7.2}{2}$ $\frac{6.4}{4}$ $\frac{4.6}{5}$ $\frac{3.4}{49}$ $\frac{+0.3}{100}$ S.S.

9.93 F.L.

9.79 F.L.

S.S. $\frac{2.5}{100}$ $\frac{4.3}{46}$ $\frac{4.2}{9}$ $\frac{5.7}{5}$ $\frac{8.8}{2}$ 8.6 $\frac{8.1}{2}$ $\frac{3.7}{4-36}$ $\frac{0.0}{93}$

S.S. $\frac{0.6}{100}$ $\frac{2.3}{38}$ $\frac{3.4}{6}$ $\frac{9.0}{2}$ 9.0 $\frac{8.8}{2}$ $\frac{3.2}{6}$ $\frac{1.2}{48}$ $\frac{0.0}{79}$ $\frac{+2.5}{100}$

$\frac{3.6}{100}$ $\frac{4.3}{64}$ $\frac{5.1}{32}$ $\frac{5.6}{4}$ $\frac{7.5}{2}$ $\frac{9.7}{1}$ 9.9 $\frac{9.6}{1}$ $\frac{7.6}{2}$ $\frac{6.2}{4}$ $\frac{5.0}{44}$ $\frac{3.8}{64}$ $\frac{3.0}{77}$ $\frac{0.0}{100}$

10.0

Sta	+	π	-	Elev
①	9.33	953.34	8.44	944.01
16+75	Inlet	20"x20'	Tile Thru. Farm	42.25
16+95	Outlet	"	"	41.78
17				41.1
+50	P.I.	Ditch		39.8
18				38.5
①	6.75	948.62	11.47	941.87
+75	P.I.	Ditch		36.6
19				35.8
①	9.02	944.91	12.73	935.89
20				32.9
+67	S.E.	Bridge		
+82	N.E.	Wagon Bridge		

Top 20" Tile So. End

11.09 F.L.

11.56 F.L.

$\frac{2.0}{100}$	$\frac{2.5}{66}$	$\frac{4.3}{46}$	$\frac{7.2}{27}$	$\frac{8.3}{6}$	$\frac{9.9}{3}$	12.2	$\frac{12.2}{15}$	$\frac{9.8}{2}$	$\frac{8.1}{7}$	$\frac{6.8}{37}$	$\frac{4.1}{74}$	$\frac{3.8}{100}$
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13.5

$\frac{2.4}{100}$	$\frac{2.0}{88}$	$\frac{3.2}{68}$	$\frac{9.5}{19}$	$\frac{10.3}{5}$	$\frac{12.6}{3}$	$\frac{14.6}{2}$	14.8	$\frac{14.6}{2}$	$\frac{12.3}{3}$	$\frac{11.0}{8}$	$\frac{9.9}{26}$	$\frac{4.9}{64}$	$\frac{2.9}{100}$
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~~Top Stake~~ Top Rock Sta 18+75 (6' LT)

12.0

SS	$\frac{3.6}{130}$	$\frac{7.8}{100}$	$\frac{9.1}{49}$	$\frac{9.0}{15}$	$\frac{12.5}{4}$	$\frac{12.8}{2}$	12.8	$\frac{12.0}{2}$	$\frac{9.7}{3}$	$\frac{8.9}{12}$	$\frac{6.3}{39}$	$\frac{4.2}{66}$	$\frac{2.8}{100}$	SS
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N.W. Cor Deck Timber Wagon Br. Sta. 20+67



$\frac{2.4}{100}$	$\frac{4.2}{79}$	$\frac{7.0}{27}$	$\frac{7.5}{6}$	$\frac{9.6}{3}$	$\frac{12.0}{1.5}$	12.0	$\frac{12.0}{1.5}$	$\frac{9.6}{2}$	$\frac{8.0}{4}$	$\frac{7.4}{28}$	$\frac{6.2}{100}$	SS
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F.L. 13.2 = 31.7

Bottom Stringer 9.8 = 35.1

13.8 F.L. = 31.1

10.3 D SF 34.6

Sta + π -
944.91

21 30.9

22 28.6

+50 P.I. Ditch 27.5

① 3.83 936.89 11.85 933.06

23 26.6

+40 P.I. Ditch 25.7

24 23.4

① 1.12 925.45 12.56 924.33

25 21.6

26 20.5

27 19.1

+60 1/16 Line So Line Ammann Prop

+63 Inlet 20" Tile 17.82

+75 Outlet " " 17.29

$$\frac{10.9}{100} \frac{10.6}{55} \frac{9.8}{27} \frac{9.6}{7} \frac{11.8}{3} \frac{14.3}{2} 14.0 \frac{14.4}{2} \frac{11.9}{3} \frac{10.6}{5} \frac{9.6}{9} \frac{6.5}{63} \frac{6.0}{100}$$

$$\frac{11.9}{100} \frac{10.3}{65} \frac{11.6}{19} \frac{11.5}{8} \frac{14.2}{3} \frac{16.4}{2} 16.3 \frac{16.4}{2} \frac{14.4}{5} \frac{11.2}{8} \frac{11.9}{14} \frac{10.8}{39} \frac{4.8}{100}$$

$$\frac{17.4}{2} 17.4 \frac{17.4}{2} \frac{14.8}{3} \frac{12.7}{5-20} \frac{10.0}{51} \frac{4.8}{100}$$

Top Stake 1' Rt Sta 23+00

$$\frac{4.5}{100-80} \frac{2.8}{48} \frac{4.9}{13} \frac{5.7}{6} \frac{6.8}{4} \frac{10.0}{2} 10.3 \frac{10.2}{2} \frac{8.4}{3} \frac{5.3}{10-22} \frac{2.6}{52} \frac{1.8}{100}$$

$$11.2 \frac{11.2}{2} \frac{9.5}{3} \frac{7.0}{8} \frac{5.6}{13} \frac{4.5}{35} \frac{1.7}{100}$$

$$\frac{9.2}{100} \frac{6.9}{59} \frac{8.3}{33} \frac{9.0}{12} \frac{7.9}{7} \frac{10.8}{3} \frac{13.4}{2} 13.5 \frac{13.3}{2} \frac{11.0}{3} \frac{7.2}{10} \frac{6.7}{35} \frac{4.5}{100}$$

Top Stake Sta 25+00

$$\frac{+0.5}{100} \frac{0.2}{46} \frac{+0.4}{20-8} \frac{2.5}{3} \frac{3.8}{2} 3.9 \frac{3.7}{2} \frac{2.3}{3} \frac{0.6}{6} \frac{0.2}{10} \frac{1.2}{57} \frac{0.8}{100} \frac{9.9}{200}$$

$$\frac{2.0}{100-62} \frac{2.8}{21} \frac{2.2}{7} \frac{3.7}{3} \frac{4.9}{2} 5.0 \frac{4.9}{2} \frac{3.8}{3} \frac{2.9}{8} \frac{2.7}{54} \frac{3.3}{100}$$

$$\frac{2.7}{100} \frac{3.6}{65} \frac{3.9}{29} \frac{3.2}{9} \frac{4.6}{2} \frac{6.3}{1.5} 6.4 \frac{6.3}{1.5} \frac{4.9}{2} \frac{3.6}{10} \frac{5.4}{19} \frac{6.2}{56} \frac{6.6}{100}$$

7.63 FL.

8.16 FL.

Sta + π -

925.45

28 16.9

29 17.3

30 16.9

31 16.5

32 16.1

(.) 6.93 925.25 7.13 918.32

+05 Inlet 36" C.M. 15.33

+27 Outlet " " 15.42

+65 15.9

33 15.7

34 15.2

35 14.5

8.6

8.2

$\frac{8.0}{200}$ $\frac{8.1}{100}$ $\frac{8.3}{88}$ $\frac{8.7}{41}$ $\frac{8.5}{16}$ $\frac{7.9}{2}$ $\frac{8.6}{1.5}$ $\frac{7.7}{2}$ $\frac{8.8}{38}$ $\frac{8.2}{100}$

$\frac{6.6}{100}$ $\frac{7.2}{49}$ $\frac{7.7}{3}$ $\frac{9.0}{2}$ $\frac{9.0}{2}$ $\frac{7.7}{3}$ $\frac{7.2}{54}$ H.W. Mark $\frac{6.2}{100}$

9.4

Top 36" CM. Inlet Sta 32+05

9.92 F.L.

9.83

9.4

9.6

10.1

$\frac{0.4}{100}$ $\frac{2.7}{77}$ $\frac{11.2}{34}$ $\frac{8.1}{7}$ $\frac{10.8}{2}$ $\frac{10.3}{3}$ $\frac{8.2}{7}$ $\frac{7.5}{25}$ $\frac{5.4}{51}$ $\frac{0.7}{81}$ $\frac{+1.0}{100}$

Δ Lt Δ Rt

AS + 6

731

AS + 3

100 07

AS + 3

100 07

AS + 3

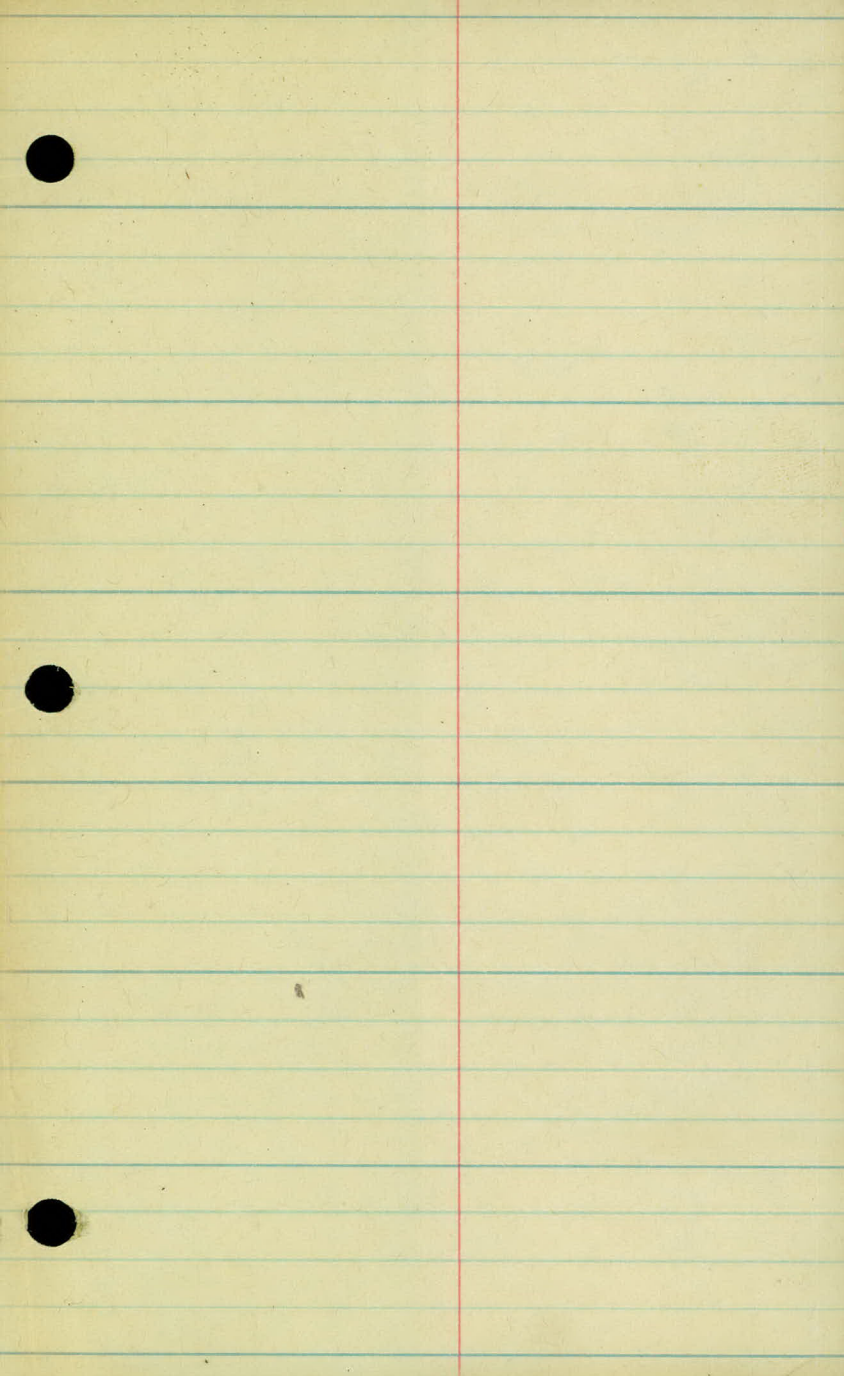
731

AS + 3

100 07

AS + 3

731



Sta	+	Σ	-
		925.25	

36			13.5
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37			11.3
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①	4.20	918.41	11.04	914.21
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38			10.7
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39			10.2
----	--	--	------

40			10.1
----	--	--	------

41			09.6
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+50

①	13.53	929.51	2.43	915.98
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B.M.			3.45	926.06
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B.M.	2.09	918.07		915.98
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07.8

42

11.8

14.0

Top Stake Sta 37+00

7.7

8.2

$\frac{60}{96}$	$\frac{1.3}{86}$	$\frac{7.4}{46}$	$\frac{7.6}{3}$	$\frac{8.4}{2}$	$\frac{8.3}{2}$	$\frac{7.6}{3}$	$\frac{8.4}{27}$	$\frac{8.7}{84}$	$\frac{8.9}{100}$
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8.8

W.S. 8.76 = 09.65

Top Rock 125' Lt Sta 43+00

Top Mont N $\frac{1}{4}$ Cor Sec 9 Elev 926.06

Top Rock 125' Lt Sta 43+00

10.3

Sta + π -
 918.07

43 07.5

44 07.0

+45 Sec Line Fce

45 09.6

+68 RR R/w Fce

+94 36" X 48' Oval RR Pipe Inlet 09.63

① 11.81 925.26 4.62 913.45

46+17 $\frac{1}{2}$ RR Track 23.7

46+41 Outlet 36" Oval RR Culv 09.25

47
 0 10.45 08.9

+36 Inlet 24" CM X

B.M. 1.18 929.26

✓ 14.49 14.77

10.6

11.1

$\frac{4.8}{100}$	$\frac{5.3}{62}$	$\frac{6.6}{50}$	$\frac{7.9}{10}$	8.5	$\frac{8.2}{10}$	$\frac{8.8}{50}$	$\frac{8.6}{100}$
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8.44 F.L.

Top Iron Rod Sta 45+94

B/Rail

11.4

16.01 F.L.

16.4

Top Culv Post Sta 47+36

SpK in 5th Pole E of New Br. Rd on Co. Rd "C" 928.08

Top Culv Post Sta 47+36

①	6.83	922.37	13.72	15.54
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47+36	24" X 68 CM. Culv Inlet	07.82
+61	± Co. Rd. "C"	19.62
48+04	" " " " Outlet	

①	5.83	916.54	11.66	910.71
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49		08.1
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+27	Pl. Ditch	07.9
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50		07.3
----	--	------

51		07.8
----	--	------

52		08.2
----	--	------

53	Pl. Ditch	07.0
----	-----------	------

54		07.6
----	--	------

55		07.3
----	--	------

56		06.8
----	--	------

①	4.84	914.71	6.67	09.87
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Top Stake on Co. Rd C. at X Culv

14.55 F.L.

2.15

14.62 F.L.

Top Stake @ Sta 49+00

8.4

8.6

$\frac{7.6}{100}$	$\frac{7.6}{13}$	$\frac{7.2}{3}$	$\frac{9.0}{1}$	9.2	$\frac{9.1}{1}$	$\frac{7.2}{3}$	$\frac{7.6}{10}$	$\frac{7.1}{70}$	$\frac{5.4}{100}$
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8.7

8.3

9.5

8.9

$\frac{4.2}{100}$	$\frac{7.9}{30}$	$\frac{8.5}{2}$	9.2	$\frac{8.9}{2}$	$\frac{8.4}{44}$	$\frac{6.4}{100}$
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9.7

Top Stake Sta 56+00

Sta + π -
914.71

57 06.8

58 06.3

59 05.7

60 05.4

+35 Lateral Ditch Lt. 05.3

61 05.7

62 06.3

0 7.82 917.16 5.37 09.34

63 06.5

64 06.4

65 06.4

66 05.9

0 7.29 916.19 8.26 08.90

67 05.2

7.9

8.4

9.0

$\frac{7.7}{100}$ $\frac{7.8}{45}$ $\frac{7.5}{6}$ $\frac{8.5}{2}$ $\frac{9.1}{1}$ 9.3 $\frac{9.1}{1}$ $\frac{8.5}{2}$ $\frac{7.6}{6}$ $\frac{7.2}{60}$ $\frac{5.9}{100}$

9.4

9.0

8.4

Top Stake Sta 62+00

10.7

10.8

$\frac{4.0}{100}$ $\frac{6.6}{47}$ $\frac{7.2}{9}$ $\frac{8.6}{4}$ $\frac{10.8}{2}$ 10.8 $\frac{10.8}{2}$ $\frac{7.4}{6}$ $\frac{8.6}{13}$ $\frac{8.2}{43}$ $\frac{8.4}{100}$

11.3

Top Stake Sta 66+00

11.0

Sta + π -
916.19

68 04.4

+11 04.12

+27 03.79

69 02.8

⊙ 9.24 912.02 13.41 02.78

70 01.2 ↑

71 99.6

72 98.5

73 96.9

⊙ 3.76 903.97 11.81 900.21

74 96.5

75 94.5

76 So. Edge Lake End Ditch #4 93.7

11.8

Inlet 15' X 16' CM

12.07 FL.

Outlet " " "

12.40 FL.

13.4

Top Stake Sta 71+00

10.8

12.4

00	5.6	9.8	10.8	10.5	11.4	13.1	13.5	13.4	11.8	11.5	11.0	11.1
100	86	49	17	7	3	1	1	1	2	8	44	100

15.1

Top Stake Sta 73+00

7.5

6.0	7.9	12.8	0.4	9.4	9.4	8.4	7.3	7.7	7.9
100	38	4	1.5	0.5	9.5	0.5	1.5	4	41

W.S. 9.45 7/5/35

8.7	9.5	10.3	9.5	10.3	10.3	9.6	10.2	10.2	9.5	9.1
100	70	25	2	1	103	1	3	25	50	80

Sta	+	π	-
		903.97	

B.M.	4.74	901.40	7.31	896.66
------	------	--------	------	--------

79+64 E. Edge Lake Beg Ditch #4

80			93.7
----	--	--	------

81			93.9
----	--	--	------

82			93.9
----	--	--	------

83			93.9
----	--	--	------

B.M.	3.85	901.17	4.08	91.32
------	------	--------	------	-------

84			93.5
----	--	--	------

85			93.1
----	--	--	------

86			92.7
----	--	--	------

87			92.7
----	--	--	------

88			92.7
----	--	--	------

Top rock on Fee Line East Side Lake

$$6.87 \text{ W.S.} = 894.53$$

$$\begin{array}{cccccccccccc} \frac{5.3}{100} & \frac{4.7}{40-8} & \frac{6.6}{2} & \frac{7.5}{1} & \frac{7.7}{1} & \frac{7.6}{1} & \frac{6.8}{2} & \frac{6.0}{5} & \frac{5.2}{11} & \frac{4.4}{52} & \frac{4.4}{100} \end{array}$$

$$7.5$$

$$7.5$$

$$7.5$$

Top Rock 10' Rt Sta 83+55

$$7.7$$

$$\begin{array}{cccccccccccc} \frac{7.2}{100} & \frac{8.3}{55} & \frac{8.1}{12} & \frac{7.5}{2} & \frac{8.0}{1} & \frac{7.8}{1} & \frac{7.5}{2} & \frac{7.7}{8} & \frac{6.6}{45} & \frac{5.6}{75} & \frac{4.2}{100} \end{array}$$

9.1 Bottom Pothole Lt.
W.S. 7.84

$$8.5$$

$$8.5$$

$$8.5$$

Sta	+	x	-
		901.17	

89			92.8
----	--	--	------

+95	Inlet 18" X 14" C.M.		92.44
-----	----------------------	--	-------

90 + 09	Outlet " "		92.58
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91			
+37	For X's Ditch		92.6

①	11.19	906.61	5.75	95.42
---	-------	--------	------	-------

92			92.9
----	--	--	------

93			92.9
----	--	--	------

94			92.8
----	--	--	------

95			92.0
----	--	--	------

96			92.2
----	--	--	------

97			91.7
----	--	--	------

B.M.		1.00	05.61	
①	8.61	903.10	12.12	894.49

8.4

8.73 FL.

8.59 FL.

$\frac{+2.0}{100} \frac{80}{84} \frac{4.7}{51} \frac{6.1}{13} \frac{5.4}{10} \frac{6.6}{4} \frac{8.4}{1} 8.6 \frac{8.6}{1} \frac{7.8}{2} \frac{6.4}{7} \frac{6.5}{40} \frac{3.6}{100}$ ^{H.W.M.}

Top Stake Sta 92+00

13.7

13.8

13.8

$\frac{+3.0}{100} \frac{80}{87} \frac{6.9}{69} \frac{10.7}{20} \frac{10.5}{9} \frac{13.0}{5} \frac{13.7}{2} \frac{14.2}{1} 14.6 \frac{14.4}{1} \frac{12.7}{4} \frac{11.0}{8} \frac{10.5}{10} \frac{9.8}{36} \frac{1.7}{100}$

14.4

14.9

Top Iron Fce Post Int. Co. Rd "D"
Top Stake Sta 97+00

Sta + π -
903.10

98 90.8

+23 Inlet 18"X177' C.M. thru Co. Rd. D-91.17

BM 217

+85 Shoulder 01.5

99 +13 & Co Rd "D" 02.4

+38 Shoulder 01.6

100 +00 Outlet 18"X177' C.M. thru Co Rd. D

+73 Shoulder Private Rd. 98.6

+90 & " " 99.3

101 +03 Shoulder " " 98.3

① 249 92.78 12.81 90.29

100 +00 Outlet 18"X177' C.M. thru Co. Rd. "D" 84.33

100 +45 Inlet 24 X 84 Conc Culv 83.01

12.3

11.93 F.L.

Top Iron Fce Post Int. Cor. Rd. "D"

1.6

0.7

1.5

4.5

3.8

4.8

Top Sta Ke Sta 10+25 - 25' Lt.

8.45

9.77

Sta	+	Σ	-
		92.78	

①	11.31	901.60	2.49	90.29
---	-------	--------	------	-------

②	3.62	892.62	12.60	89.00
---	------	--------	-------	-------

101+29	Outlet 24' x 84' Conc Culv			82.32
--------	----------------------------	--	--	-------

02				82.9
----	--	--	--	------

03				81.8
----	--	--	--	------

04				80.5
----	--	--	--	------

③	0.43	889.91	3.14	889.48
---	------	--------	------	--------

05				78.9
----	--	--	--	------

06				77.7
----	--	--	--	------

④	5.07	882.64	12.34	77.57
---	------	--------	-------	-------

08+66	End Ditch #4			
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12.60

Top Stake Sta 100+25 - 25' Lt

Top Stake Sta 101+20

10.30 F.L.

9.7

10.8

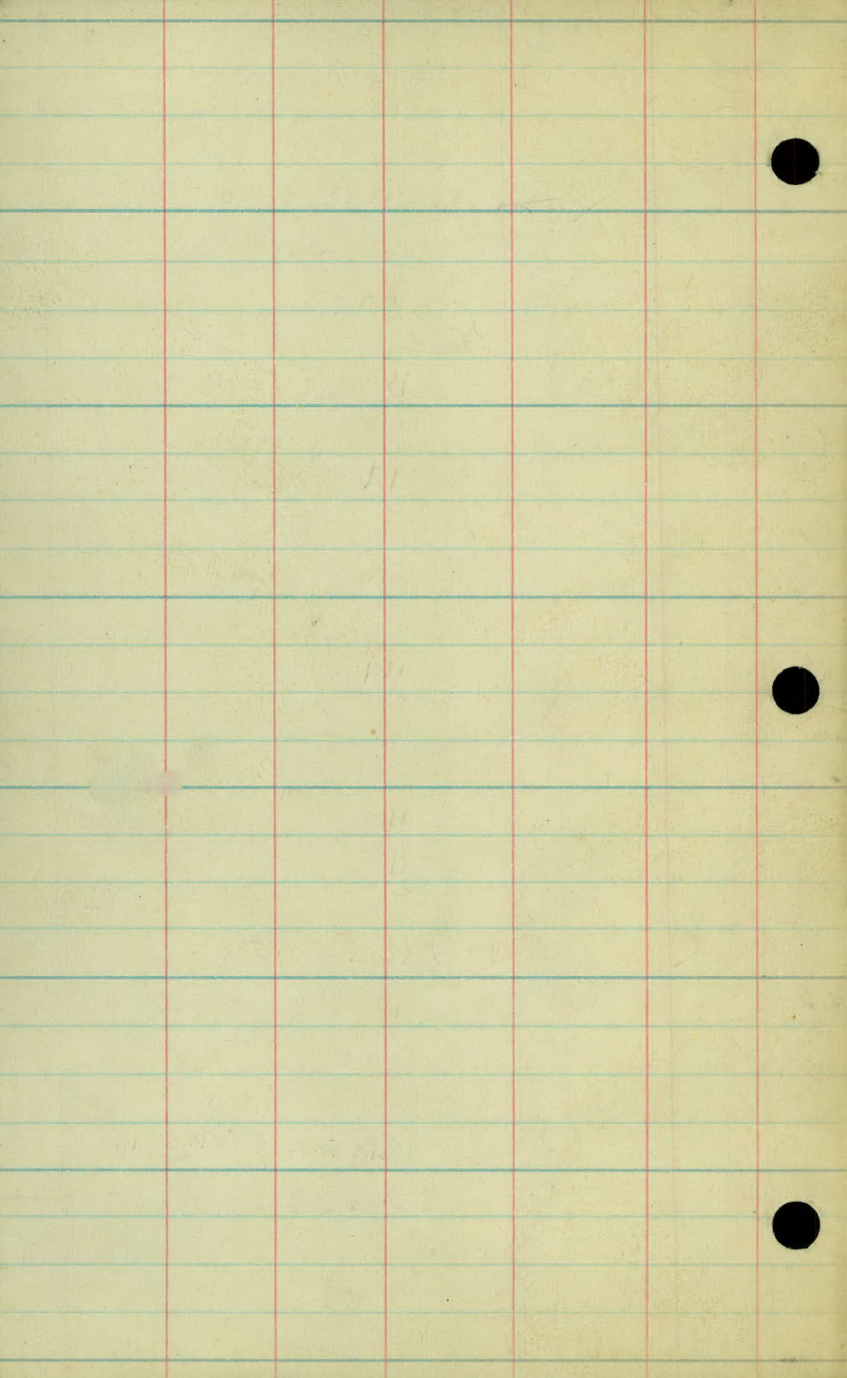
12.1

11.0

11.0

12.2

10.40 WS. = 872.24



Bench Levels.

N-Sec. Ditch #4

St.	+	K	-	Elev.
5/2.	0.58	926.29		925.71

B.M.			6.61	919.68
------	--	--	------	--------

	6.61	916.29		
--	------	--------	--	--

T.P.	4.08	917.62	12.75	912.54
------	------	--------	-------	--------

B.M.	1.44	917.62	1.44	916.18
------	------	--------	------	--------

T.P.	11.80	924.76	4.66	919.96
------	-------	--------	------	--------

B.M.	2.37	924.76	2.37	922.39
------	------	--------	------	--------

B.M.	10.50	931.03	4.23	920.53
------	-------	--------	------	--------

B.M.	9.01	939.51	0.53	930.50
------	------	--------	------	--------

T.P.	14.29	950.08	1.72	937.79
------	-------	--------	------	--------

T.P.	5.66	954.89	0.85	949.23
------	------	--------	------	--------

B.M.	9.50	954.89	9.50	945.39
------	------	--------	------	--------

T.P.	6.68	961.25	0.32	954.57
------	------	--------	------	--------

B.M.			6.15	955.10
------	--	--	------	--------

Top of Monument N. $\frac{1}{4}$ Cor. Sec. 9.
Given Elev.

Spike in Toleg Pole. 50' Lt 39+70

Spike in 24" Oak 120' Lt

Spike in Cor. F.P. 40' Lt. 25+50

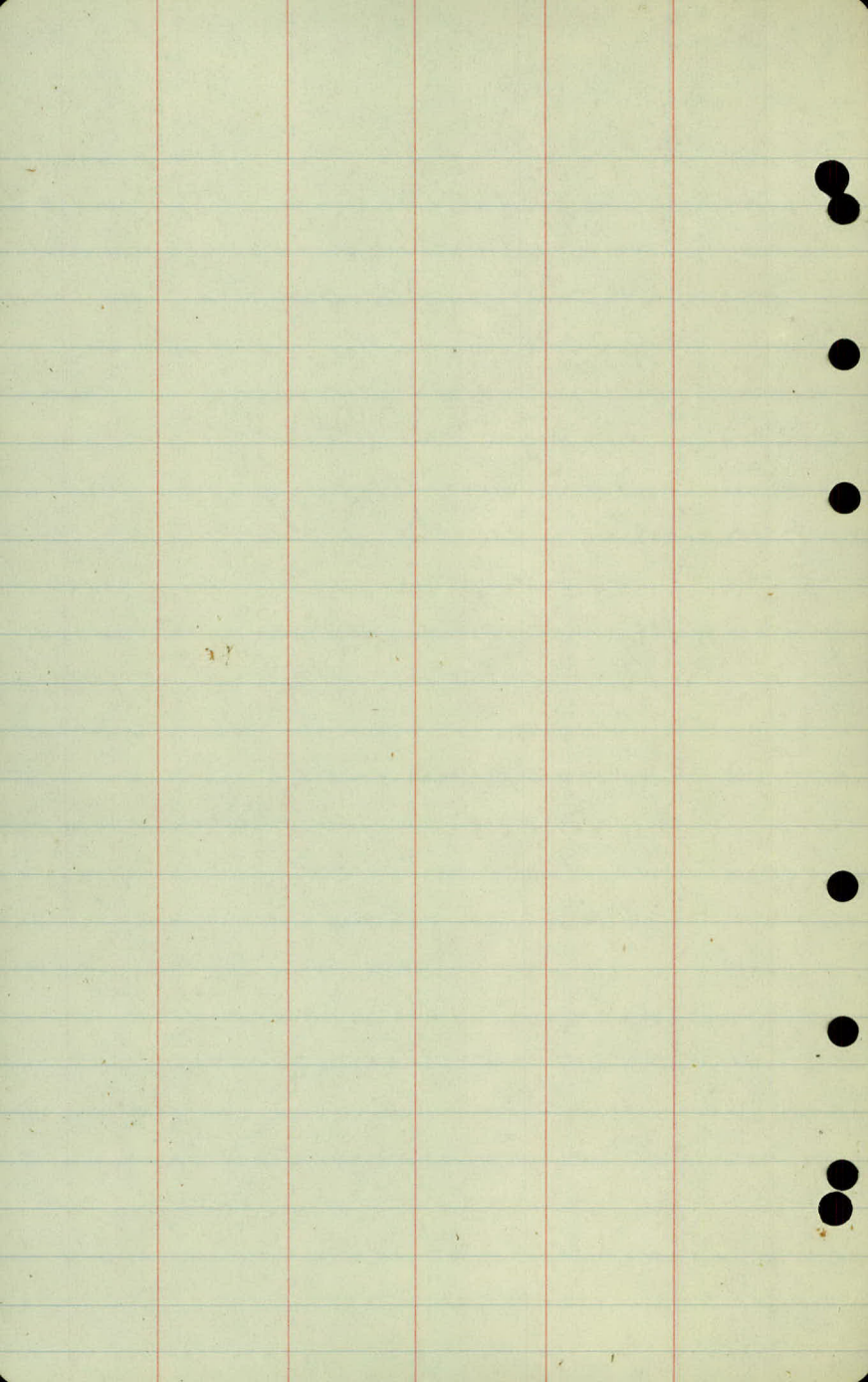
Spike in Fence Post. 21+00

Spike in 24" Cottonwood 2' Lt 17+25

Nail in Fence Post 14+07 - 20' Rt

Spike in Fence Post 5/2. 3+68 $\pm$

Top of Monument Ctr. Sec. 9.



7

Cross sections Ditch #4

Sta.	+	✓ K	-	Elev.
B.M.	2.38	957.48		955.10

0+38				45.7
------	--	--	--	------

1				45.3
---	--	--	--	------

+50				45.0
-----	--	--	--	------

2				44.6
---	--	--	--	------

+50				44.3
-----	--	--	--	------

3				44.1
---	--	--	--	------

+50				43.8
-----	--	--	--	------

B.M.	9.04	✓ 954.43	12.09	✓ 945.39
3+70				44.7
4				45.1
+50				44.8

Lt.

☐
Traverse

Rt.

8

Top of Monument Ctr. Sec. 9.

11.812.212.512.913.213.413.7

43.8

13.7

Flow line outlet Swanson Drain

Spike in Cor. Fence Post Sta. 3+68±

$\frac{7.7}{50}$	$\frac{9.4}{12}$	$\frac{9.2}{4}$	$\frac{9.7}{3}$	$\frac{10.1}{3}$	$\frac{10.7}{5}$	$\frac{10.7}{6}$	$\frac{10.0}{7}$	$\frac{9.1}{10}$	$\frac{8.5}{50}$	43.7
------------------	------------------	-----------------	-----------------	------------------	------------------	------------------	------------------	------------------	------------------	------

$\frac{7.6}{50}$	$\frac{9.1}{3}$	$\frac{9.3}{3}$	$\frac{9.7}{3}$	$\frac{10.2}{4}$	$\frac{10.6}{5}$	$\frac{10.6}{6}$	$\frac{10.0}{7}$	$\frac{9.8}{10}$	$\frac{8.6}{50}$	43.8
------------------	-----------------	-----------------	-----------------	------------------	------------------	------------------	------------------	------------------	------------------	------

$\frac{7.8}{50}$	$\frac{9.6}{3}$	$\frac{9.7}{4}$	$\frac{10.4}{4}$	$\frac{10.8}{5}$	$\frac{10.8}{4}$	$\frac{10.5}{7}$	$\frac{9.8}{8}$	$\frac{8.7}{50}$	43.6
------------------	-----------------	-----------------	------------------	------------------	------------------	------------------	-----------------	------------------	------

Sta.	+	π ✓ 954.43	-	Elev.
------	---	----------------------	---	-------

5				44.8
---	--	--	--	------

+41.5	Back Seng 134 Angle.			45.3
-------	----------------------	--	--	------

+52				45.2
-----	--	--	--	------

6				46.2
---	--	--	--	------

+60				47.7
-----	--	--	--	------

7				48.5
---	--	--	--	------

+21	20" x 17' V.T.P. - 49' Lt.			
-----	----------------------------	--	--	--

+52				49.0
-----	--	--	--	------

8				50.2
---	--	--	--	------

+50				48.0
-----	--	--	--	------

9				45.9
---	--	--	--	------

+50				45.9
-----	--	--	--	------

LH.

E

RH

9

$$\frac{77}{50} \quad \frac{86}{18} \quad \frac{93}{4} \quad \frac{96}{3} \quad \frac{98}{5} \quad \frac{107}{6} \quad \frac{107}{8} \quad \frac{99}{8} \quad \frac{87}{50} \quad 43.7$$

$$\frac{74}{50} \quad \frac{87}{4} \quad \frac{91}{2} \quad \frac{95}{5} \quad \frac{102}{6} \quad \frac{108}{7} \quad \frac{108}{8} \quad \frac{102}{10} \quad \frac{94}{10} \quad \frac{85}{50} \quad 43.6$$

$$\frac{76}{50} \quad \frac{81}{23} \quad \frac{97}{19} \quad \frac{107}{18} \quad \frac{107}{17} \quad \frac{92}{15} \quad \frac{92}{16} \quad \frac{96}{50} \quad 43.7$$

$$\frac{103}{24} \quad \frac{108}{22} \quad \frac{108}{21} \quad \frac{102}{20} \quad \frac{82}{19} \quad \frac{80}{18} \quad \frac{84}{17} \quad \frac{82}{17} \quad 43.6$$

$$\frac{72}{50} \quad \frac{75}{26}$$

$$\frac{67}{75} \quad \frac{63}{50} \quad \frac{65}{39} \quad \frac{110}{25} \quad \frac{110}{34} \quad \frac{65}{29} \quad \frac{63}{23} \quad \frac{67}{23} \quad 43.4$$

$$\frac{60}{100} \quad \frac{66}{86} \quad \frac{70}{54} \quad \frac{110}{46} \quad \frac{110}{44} \quad \frac{68}{42} \quad \frac{66}{40} \quad \frac{70}{39} \quad \frac{59}{59} \quad 43.4$$

$$\frac{1227}{122}$$

42.1

$$\frac{64}{100} \quad \frac{66}{85} \quad \frac{77}{56} \quad \frac{107}{54} \quad \frac{107}{54} \quad \frac{87}{47} \quad \frac{62}{46} \quad \frac{62}{16} \quad \frac{54}{54} \quad 42.2$$

43.7

$$\frac{42}{100} \quad \frac{49}{76} \quad \frac{54}{36} \quad \frac{117}{32} \quad \frac{117}{31} \quad \frac{54}{25} \quad \frac{42}{42} \quad 42.7$$

42.7

$$\frac{61}{50} \quad \frac{64}{24} \quad \frac{80}{21} \quad \frac{121}{19} \quad \frac{121}{17} \quad \frac{106}{16} \quad \frac{106}{15} \quad \frac{69}{13} \quad \frac{63}{9} \quad \frac{64}{64} \quad \frac{57}{26} \quad \frac{43}{50} \quad 42.3$$

42.3

$$\frac{74}{50} \quad \frac{81}{17} \quad \frac{122}{18} \quad \frac{122}{13} \quad \frac{82}{10} \quad \frac{85}{40} \quad \frac{68}{40} \quad \frac{63}{50} \quad 42.2$$

42.2

$$\frac{89}{50} \quad \frac{86}{36} \quad \frac{101}{34} \quad \frac{123}{30} \quad \frac{123}{29} \quad \frac{94}{23} \quad \frac{85}{23} \quad 42.1$$

42.1

Sta.	+	π	-	Elev.
		✓ 954.43		

10				45.3
----	--	--	--	------

+33	20" x 21" V.T.P. 12' 6".			
-----	--------------------------	--	--	--

+50				45.7
-----	--	--	--	------

T.P.	238	✓ 950.37	6.44	✓ 947.99
------	-----	-------------	------	-------------

11				43.4
----	--	--	--	------

+50				41.9
-----	--	--	--	------

12				40.4
----	--	--	--	------

B.M.	430	✓ 944.09	12.58	✓ 937.79
------	-----	-------------	-------	-------------

+40	(RT 45 Form Tang.)			39.6
-----	--------------------	--	--	------

13				38.0
----	--	--	--	------

+50				36.7
-----	--	--	--	------

14				36.5
----	--	--	--	------

+50				34.8
-----	--	--	--	------

Lt.

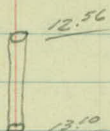
£

Rt.

10

$$\frac{8^1}{50} \quad \frac{8^5}{26} \quad \frac{10^5}{21} \quad \frac{12^3}{18} \quad \frac{12^3}{16} \quad \frac{10^3}{14} \quad \frac{9^2}{11} \quad \frac{9^1}{9} \quad \frac{8^4}{5} \quad \frac{7^6}{27} \quad \frac{7^0}{36} \quad \frac{5^0}{50}$$

42.1



41.8

$$\frac{8^5}{50} \quad \frac{9^4}{22} \quad \frac{11^5}{17} \quad \frac{13^9}{16} \quad \frac{13^9}{14} \quad \frac{11^6}{12} \quad \frac{8^7}{8} \quad \frac{8^3}{15} \quad \frac{6^6}{33} \quad \frac{4^0}{50}$$

41.3

40.5

$$\frac{5^8}{50} \quad \frac{6^6}{23} \quad \frac{8^3}{18} \quad \frac{11^9}{16} \quad \frac{11^0}{13} \quad \frac{7^4}{8} \quad \frac{7^0}{7} \quad \frac{2^9}{27} \quad \frac{1^0}{50}$$

39.4

$$\frac{3^8}{50} \quad \frac{6^7}{23} \quad \frac{8^1}{17} \quad \frac{10^4}{15} \quad \frac{12^5}{14} \quad \frac{12^5}{11} \quad \frac{10^7}{10} \quad \frac{9^4}{8} \quad \frac{8^5}{8} \quad \frac{6^5}{23} \quad \frac{1^6}{50}$$

37.9

$$\frac{5^1}{50} \quad \frac{8^0}{26} \quad \frac{9^9}{9} \quad \frac{11^4}{6} \quad \frac{13^9}{5} \quad \frac{13^9}{2} \quad \frac{10^6}{1} \quad \frac{10^0}{16} \quad \frac{9^0}{50} \quad \frac{5^0}{50}$$

36.5

Spike in Fence Post 20' Rt. Sta. 14+07

$$\frac{1^8}{50} \quad \frac{2^6}{24} \quad \frac{3^4}{20} \quad \frac{6^5}{19} \quad \frac{6^5}{18} \quad \frac{4^0}{15} \quad \frac{2^8}{12} \quad \frac{2^5}{2} \quad \frac{0^0}{50}$$

35.6

$$\frac{4^0}{50} \quad \frac{4^5}{31} \quad \frac{6^5}{30} \quad \frac{8^4}{29} \quad \frac{8^4}{25} \quad \frac{4^3}{23} \quad \frac{4^1}{4} \quad \frac{3^1}{50}$$

33.7

$$\frac{4^5}{50} \quad \frac{5^4}{35} \quad \frac{7^0}{31} \quad \frac{9^8}{30} \quad \frac{9^7}{27} \quad \frac{5^3}{25} \quad \frac{5^4}{5} \quad \frac{4^6}{50}$$

32.3

$$\frac{4^9}{50} \quad \frac{5^5}{28} \quad \frac{6^8}{23} \quad \frac{10^6}{20} \quad \frac{10^3}{18} \quad \frac{2^7}{16} \quad \frac{5^4}{13} \quad \frac{5^6}{5} \quad \frac{4^8}{50}$$

31.5

$$\frac{7^8}{50} \quad \frac{7^5}{16} \quad \frac{8^7}{14} \quad \frac{11^7}{12} \quad \frac{11^7}{8} \quad \frac{10^4}{7} \quad \frac{7^4}{2} \quad \frac{7^3}{2} \quad \frac{6^3}{13} \quad \frac{2^7}{50}$$

30.4

Sta.	+	π	-	Elev.
		942.09 [✓]		

15				33.8
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+47.3	(Rt. Ls. Back Tang)			32.6
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T.P.	2.08	935.59 [✓]	9.58	935.51 [✓]
------	------	---------------------	------	---------------------

16				32.1
----	--	--	--	------

+50				31.3
-----	--	--	--	------

+73.2 [✓]	(Rt. Ls. Back Tang)			30.8
--------------------	---------------------	--	--	------

17				30.6
----	--	--	--	------

+50				28.6
-----	--	--	--	------

B.M.	5.09	935.59	5.09	930.50 [✓]
------	------	--------	------	---------------------

T.P.	4.09	929.66 [✓]	10.02 [✓]	925.57 [✓]
------	------	---------------------	--------------------	---------------------

18				23.8
----	--	--	--	------

+50				24.7
-----	--	--	--	------

19				23.3
----	--	--	--	------

Lt

E

Rt

11

$$\frac{6.9}{50} \frac{7.9}{18} \frac{13.1}{10} \frac{13.1}{7} \frac{8.2}{3} \frac{83}{\cancel{5}} \frac{6.5}{22} \frac{3.4}{50} = 29.0$$

$$\frac{9.7}{50} \frac{10.0}{31} \frac{13.8}{26} \frac{13.8}{22} \frac{9.5}{17} \frac{9.5}{\cancel{5}} \frac{7.9}{25} \frac{6.4}{50} = 28.3$$

$$\frac{2.0}{50} \frac{3.6}{14} \frac{8.3}{8} \frac{8.3}{4} \frac{3.5}{\cancel{5}} \frac{3.4}{16} \frac{0.0}{50} = 27.3$$

$$\frac{2.6}{50} \frac{3.6}{44} \frac{4.9}{18} \frac{8.1}{15} \frac{2.1}{11} \frac{2.0}{10} \frac{4.1}{3} \frac{4.3}{\cancel{5}} \frac{4.1}{11} \frac{0.7}{50} = 26.5$$

$$\frac{2.6}{50} \frac{4.8}{18} \frac{7.1}{14} \frac{10.1}{13} \frac{10.1}{10} \frac{6.4}{7} \frac{4.7}{2} \frac{4.8}{\cancel{5}} \frac{4.7}{13} \frac{2.1}{50} = 25.5$$

$$\frac{2.4}{45} \frac{2.0}{30} \frac{5.4}{24} \frac{10.0}{19} \frac{11.3}{18} \frac{11.3}{16} \frac{8.7}{14} \frac{5.1}{7} \frac{5.0}{\cancel{5}} \frac{4.5}{7} \frac{0.7}{50} = 24.3$$

$$\frac{6.9}{50} \frac{7.7}{50} \frac{8.4}{28} \frac{7.1}{23} \frac{7.1}{20} \frac{12.4}{15} \frac{12.4}{14} \frac{8.0}{8} \frac{6.7}{6} \frac{7.0}{\cancel{5}} \frac{3.6}{50} = 23.2$$

Spike in 24" Cottonwood 2' Lt. 5 1/2, 17+25

$$\frac{3.8}{50} \frac{3.4}{16} \frac{7.1}{9} \frac{7.1}{7} \frac{5.9}{\cancel{5}} \frac{4.0}{5} \frac{2.7}{50} = 22.6$$

$$\frac{5.0}{50} \frac{4.9}{17} \frac{9.0}{13} \frac{9.0}{10} \frac{7.0}{7} \frac{5.4}{5} \frac{5.0}{\cancel{5}} \frac{5.7}{50} = 20.7$$

$$\frac{6.0}{50} \frac{6.5}{15} \frac{5.4}{11} \frac{5.4}{9} \frac{7.3}{8} \frac{6.4}{\cancel{5}} \frac{6.9}{50} = 20.3$$

Sta.	+	π ✓	-	Elev.
		929.66		

19+50				22.2
-------	--	--	--	------

20				21.6
----	--	--	--	------

+50				20.9
-----	--	--	--	------

21				19.8
----	--	--	--	------

+11	(20" x 12' V.T.P. 6' L.T.)		
-----	----------------------------	--	--

B.M.	✓ 5.06	✓ 925.59	9.13	✓ 920.53
------	-----------	-------------	------	-------------

+50				19.0
-----	--	--	--	------

22				18.1
----	--	--	--	------

+50				17.6
-----	--	--	--	------

23				17.4
----	--	--	--	------

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

24				16.9
----	--	--	--	------

Lt.

L

Rt.

12

$$\frac{21}{50} \frac{7.0}{18} \frac{8.1}{13} \frac{10.1}{11} \frac{10.1}{9} \frac{8.0}{7} \frac{7.5}{7} \frac{7.7}{50}$$

19.6

$$\frac{7.1}{50} \frac{7.5}{17} \frac{8.8}{13} \frac{10.3}{11} \frac{10.3}{9} \frac{8.6}{8} \frac{8.1}{7} \frac{9.0}{50}$$

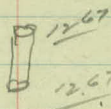
19.4

$$\frac{7.7}{20} \frac{9.4}{14} \frac{10.7}{13} \frac{10.7}{11} \frac{9.7}{9} \frac{9.2}{5} \frac{8.3}{2} \frac{8.8}{7} \frac{10.5}{10} \frac{10.8}{50}$$

19.0

$$\frac{10.0}{50} \frac{9.7}{11} \frac{10.9}{9} \frac{10.9}{4} \frac{10.0}{3} \frac{9.9}{7} \frac{10.4}{13} \frac{11.0}{50}$$

18.8



17.0

17.0

Spike in Fence Post 15' Rt. Sta. 21+00

$$\frac{7.3}{100} \frac{7.1}{71} \frac{7.1}{31} \frac{6.4}{14} \frac{7.5}{7} \frac{7.8}{6} \frac{7.8}{4} \frac{6.8}{2} \frac{6.6}{7} \frac{7.8}{24} \frac{7.8}{22} \frac{7.5}{100}$$

17.8

$$\frac{7.3}{100} \frac{8.3}{57} \frac{8.1}{15} \frac{7.4}{7} \frac{7.5}{6} \frac{8.0}{14} \frac{8.0}{3} \frac{7.5}{3} \frac{7.5}{39} \frac{8.6}{73} \frac{8.7}{100} \frac{8.6}{150}$$

17.6

$$\frac{8.1}{100} \frac{7.1}{150} \frac{8.1}{100} \frac{8.7}{41} \frac{7.8}{9} \frac{8.2}{8} \frac{8.1}{6} \frac{7.8}{5} \frac{8.0}{30} \frac{8.8}{78} \frac{9.0}{100} \frac{9.0}{150} \frac{8.8}{150} \frac{7.6}{200}$$

17.4

$$\frac{8.1}{200} \frac{8.9}{150} \frac{9.2}{100} \frac{8.9}{88} \frac{8.2}{10} \frac{8.5}{9} \frac{8.5}{7} \frac{8.3}{6} \frac{8.1}{48} \frac{2.1}{100} \frac{2.1}{100} \frac{8.1}{150}$$

17.1

$$\frac{8.8}{150} \frac{8.9}{100} \frac{8.9}{69} \frac{8.6}{11} \frac{8.8}{10} \frac{8.8}{7} \frac{8.4}{6} \frac{8.5}{24} \frac{9.2}{24} \frac{8.7}{94} \frac{8.6}{100} \frac{7.8}{150}$$

16.8

$$\frac{8.0}{100} \frac{8.8}{60} \frac{8.6}{15} \frac{7.1}{13} \frac{7.1}{11} \frac{8.6}{10} \frac{8.7}{43} \frac{8.6}{91} \frac{8.0}{100} \frac{7.7}{100}$$

16.5

Notes from
Sides of
Ditch
Ground
Bench

Sta.	+	↓ 925.59	-	Elev.
24+50				17.1
25				17.8
+50				19.4
+63	(26" x 12' C. M.) 12' Lt.			
B.M.	3.70	↓ 925.59	3.20	↓ 922.39
26				18.7
+40				18.2
27				17.1
27+34.8	(Rt. Ls. Back Tang)			18.0
28				17.5
+50				17.8
28+96.9	(Rt. Ls. Back Tang)			16.1

Lt.

 Φ
 Traverse

Rt

13

$\frac{75}{100}$	$\frac{74}{86}$	$\frac{81}{38}$	$\frac{85}{14}$	$\frac{94}{11}$	$\frac{94}{8}$	$\frac{87}{7}$	$\frac{85}{7}$	$\frac{83}{27}$	$\frac{78}{55}$	$\frac{6.3}{100}$	16.2
------------------	-----------------	-----------------	-----------------	-----------------	----------------	----------------	----------------	-----------------	-----------------	-------------------	------

$\frac{72}{50}$	$\frac{76}{15}$	$\frac{87}{11}$	$\frac{96}{10}$	$\frac{96}{7}$	$\frac{86}{6}$	$\frac{78}{7}$	$\frac{78}{32}$	$\frac{78}{50}$	$\frac{6.8}{75}$	16.0
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$\frac{50}{15}$	$\frac{61}{16}$	$\frac{82}{14}$	$\frac{97}{14}$	$\frac{97}{9}$	$\frac{85}{8}$	$\frac{71}{6}$	$\frac{63}{3}$	$\frac{62}{7}$	$\frac{63}{29}$	$\frac{60}{50}$	15.9
-----------------	-----------------	-----------------	-----------------	----------------	----------------	----------------	----------------	----------------	-----------------	-----------------	------

$\frac{10.65}{10.65}$	14.9
-----------------------	------

$\frac{10.65}{10.65}$	14.9
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Spike in Cor. Fence Post 40' Lt. 512 25 + 60

$\frac{61}{50}$	$\frac{51}{18}$	$\frac{100}{10}$	$\frac{100}{7}$	$\frac{78}{5}$	$\frac{69}{7}$	$\frac{66}{50}$	15.6
-----------------	-----------------	------------------	-----------------	----------------	----------------	-----------------	------

$\frac{61}{50}$	$\frac{62}{17}$	$\frac{99}{10}$	$\frac{99}{8}$	$\frac{88}{6}$	$\frac{74}{7}$	$\frac{64}{50}$	15.7
-----------------	-----------------	-----------------	----------------	----------------	----------------	-----------------	------

$\frac{67}{50}$	$\frac{74}{11}$	$\frac{95}{7}$	$\frac{103}{6}$	$\frac{103}{4}$	$\frac{87}{2}$	$\frac{85}{7}$	$\frac{72}{50}$	15.3
-----------------	-----------------	----------------	-----------------	-----------------	----------------	----------------	-----------------	------

$\frac{77}{50}$	$\frac{74}{23}$	$\frac{104}{17}$	$\frac{104}{13}$	$\frac{74}{9}$	$\frac{76}{7}$	$\frac{83}{16}$	$\frac{76}{50}$	15.2
-----------------	-----------------	------------------	------------------	----------------	----------------	-----------------	-----------------	------

$\frac{72}{50}$	$\frac{81}{21}$	$\frac{107}{17}$	$\frac{107}{13}$	$\frac{82}{9}$	$\frac{81}{7}$	$\frac{73}{26}$	$\frac{80}{50}$	14.9
-----------------	-----------------	------------------	------------------	----------------	----------------	-----------------	-----------------	------

$\frac{79}{50}$	$\frac{79}{34}$	$\frac{105}{26}$	$\frac{105}{19}$	$\frac{84}{16}$	$\frac{78}{7}$	$\frac{62}{23}$	$\frac{21}{50}$	15.1
-----------------	-----------------	------------------	------------------	-----------------	----------------	-----------------	-----------------	------

$\frac{80}{50}$	$\frac{94}{22}$	$\frac{112}{17}$	$\frac{112}{9}$	$\frac{102}{7}$	$\frac{95}{7}$	$\frac{85}{21}$	$\frac{70}{50}$	14.4
-----------------	-----------------	------------------	-----------------	-----------------	----------------	-----------------	-----------------	------

Sto.	+	π	-	Elev.
29		✓ 925.59		
T.P.	6.48	✓ 923.35	8.72	✓ 16.2 916.87
+50				17.6
30				15.6
+50				13.9
+84.10	(at 66 Forw Tong)			11.0
31				10.9
T.P.	2.71	✓ 915.67	10.39	✓ 914.96
+50				10.7
32				10.7
33				10.3
+75				09.9

Lt. Φ Rt

$$\frac{7.4}{50} \quad \frac{9.0}{23} \quad \frac{11.3}{19} \quad \frac{11.3}{12} \quad \frac{9.8}{9} \quad \frac{9.4}{10} \quad \frac{9.2}{29} \quad \frac{6.5}{50} \quad \frac{6.6}{50} \quad 14.3$$

$$\frac{6.1}{50} \quad \frac{6.1}{25} \quad \frac{9.4}{20} \quad \frac{9.9}{19} \quad \frac{9.9}{16} \quad \frac{6.2}{11} \quad \frac{5.7}{20} \quad \frac{4.2}{40} \quad \frac{0.0}{40} \quad 13.5$$

$$\frac{8.3}{50} \quad \frac{7.8}{28} \quad \frac{10.1}{21} \quad \frac{10.1}{16} \quad \frac{8.4}{9} \quad \frac{7.8}{41} \quad \frac{4.0}{50} \quad \frac{2.0}{50} \quad 13.3$$

$$\frac{10.0}{50} \quad \frac{9.8}{23} \quad \frac{12.2}{17} \quad \frac{12.2}{14} \quad \frac{9.7}{9} \quad \frac{9.5}{50} \quad \frac{7.9}{50} \quad 11.2$$

$$\frac{10.6}{50} \quad \frac{11.0}{6} \quad \frac{12.4}{2} \quad \frac{12.4}{3} \quad \frac{12.2}{5} \quad \frac{11.0}{50} \quad \frac{10.0}{50} \quad 11.0$$

$$\frac{10.7}{50} \quad \frac{11.0}{7} \quad \frac{12.5}{2} \quad \frac{12.5}{2} \quad \frac{12.5}{4} \quad \frac{10.9}{50} \quad \frac{10.6}{50} \quad 10.9$$

$$\frac{3.6}{50} \quad \frac{4.4}{4} \quad \frac{5.0}{3} \quad \frac{4.1}{50} \quad \frac{5.6}{71} \quad \frac{5.6}{100} \quad \frac{5.7}{100} \quad 10.7$$

↑ ← up. $\frac{3.3}{50} \quad \frac{4.1}{45} \quad \frac{4.6}{3} \quad \frac{5.0}{2} \quad \frac{4.6}{69} \quad \frac{5.8}{100} \quad \frac{6.0}{168} \quad \frac{5.5}{187} \quad \frac{3.4}{187} \quad 10.7$

$$\frac{3.1}{50} \quad \frac{4.7}{34} \quad \frac{5.1}{3} \quad \frac{5.4}{3} \quad \frac{4.8}{63} \quad \frac{6.3}{93} \quad \frac{6.4}{100} \quad \frac{6.2}{147} \quad \frac{6.1}{189} \quad \frac{5.1}{200} \quad 10.3$$

$$\frac{4.6}{50} \quad \frac{5.2}{3} \quad \frac{5.8}{3} \quad \frac{5.3}{20} \quad \frac{6.3}{25} \quad \frac{5.1}{73} \quad \frac{9.0}{100} \quad \frac{7.8}{140} \quad \frac{6.3}{161} \quad \frac{7.1}{200} \quad 09.9$$

Low Spot.

March

Sto.	+	π	-	Elev.
		✓		
		915.67		

34				10.2
----	--	--	--	------

35				08.8 ✓
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36				07.9 ✓
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37				07.9
----	--	--	--	------

38				08.5
----	--	--	--	------

T.P.	2.47	✓ 917.26	0.88	✓ 914.79
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B.M.	✓ 1.61	917.79	1.08	✓ 916.18
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38+50				09.3
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39				09.5
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+44	Inlet R.R. Culvert			09.3
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T.P.	10.90	✓ 924.09	4.60	✓ 913.19
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Lt.

L

Rt.

10.2

$\frac{40}{22}$	$\frac{50}{47}$	$\frac{54}{7}$	$\frac{55}{7}$	$\frac{54}{3}$	$\frac{63}{54}$	$\frac{65}{49}$	$\frac{68}{71}$	$\frac{70}{90}$	$\frac{69}{100}$	$\frac{65}{134}$
-----------------	-----------------	----------------	----------------	----------------	-----------------	-----------------	-----------------	-----------------	------------------	------------------

$\frac{57}{178}$	$\frac{46}{200}$	up	7
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08.8

L up.	$\frac{55}{50}$	$\frac{62}{4}$	$\frac{69}{6}$	$\frac{59}{3}$	$\frac{64}{33}$	$\frac{67}{54}$	$\frac{67}{100}$	$\frac{64}{142}$	$\frac{65}{174}$	$\frac{59}{200}$
-------	-----------------	----------------	----------------	----------------	-----------------	-----------------	------------------	------------------	------------------	------------------

26.75

07.9 240

L up.	$\frac{57}{50}$	$\frac{58}{37}$	$\frac{63}{6}$	$\frac{78}{6}$	$\frac{61}{19}$	$\frac{70}{19}$	$\frac{60}{64}$	$\frac{60}{100}$	$\frac{62}{186}$	$\frac{62}{200}$	$\frac{34}{256}$
-------	-----------------	-----------------	----------------	----------------	-----------------	-----------------	-----------------	------------------	------------------	------------------	------------------

07.9 up

up	$\frac{21}{100}$	$\frac{47}{85}$	$\frac{61}{30}$	$\frac{64}{4}$	$\frac{78}{1}$	$\frac{67}{1}$	$\frac{71}{14}$	$\frac{64}{59}$	$\frac{65}{90}$	$\frac{61}{100}$	$\frac{61}{200}$	$\frac{43}{240}$
----	------------------	-----------------	-----------------	----------------	----------------	----------------	-----------------	-----------------	-----------------	------------------	------------------	------------------

08.5

$\frac{32}{100}$	$\frac{52}{69}$	$\frac{58}{41}$	$\frac{71}{17}$	$\frac{66}{7}$	$\frac{72}{5}$	$\frac{65}{33}$	$\frac{64}{33}$	$\frac{63}{100}$	$\frac{61}{138}$	$\frac{68}{163}$	$\frac{65}{200}$	$\frac{41}{260}$
------------------	-----------------	-----------------	-----------------	----------------	----------------	-----------------	-----------------	------------------	------------------	------------------	------------------	------------------

Spike in 24" Oak 120' Lt. 572. 37±

Con

48	66	81	85	82	88	90	84	89	96	101
90	49	4	85	5	25	48	90	114	167	179

09.3

$\frac{91}{200}$	$\frac{77}{210}$	$\frac{68}{250}$	70.77
------------------	------------------	------------------	-------

09.5

$\frac{28}{20}$	$\frac{44}{10}$	$\frac{52}{30}$	$\frac{68}{23}$	$\frac{75}{8}$	83	$\frac{75}{4}$	$\frac{91}{41}$	$\frac{87}{59}$	$\frac{90}{75}$	$\frac{87}{87}$	$\frac{77}{100}$	$\frac{36}{120}$
-----------------	-----------------	-----------------	-----------------	----------------	----	----------------	-----------------	-----------------	-----------------	-----------------	------------------	------------------

08	47	33	41	51	100	82	50	09	130	09.3
40	76	75	6	2	850	2	4	11	25	

909.29

Sta. + T - Elev.

924.09

Section thru N.P.Ry Culvert 23.0

B.M. 1.51 921.19 4.41 919.68

40+23

08.6

40+95.7 = Section thru Road Culvert. 19.2

T.P. 6.64 916.08 11.75 909.44

41+50

07.7

42

07.7

+31.2

07.8

43

07.2

44

07.5

Lt.

E

Rt.

16

Outlet	Top to										Inlet
Inv.	15.25	11.87	3.4	3.1	1.4	1.1	1.3	2.9	4.7	10.76	Inv.
	23	23	10.5	8	4	1	4	8.5	14	25	14.80
908.84											909.29 ✓

Nail in Teleg. Pole 50' Lt. Sta. 39+70

40+23 = Inter section ditch with traverse line

1.1	18	99	103	90	107	12.6	12.6	12.4	10.4	8.7	8.1	00	+0.5
50	37	22	14	6	3	2	2	2	3	6	14	26	30
													+2.0
													34

Outlet
Inv.

13.82
43
907.37

118
43

110
28

26
13

2.0
2

2.6
13

11.7
25

Inlet
Inv.

13.71
25
907.48

Ditch
84
20

Ditch
84

8.3

8.5

8.6

Sta.	+	K	-	Elev.
		✓ 916.08		

45				07.8
----	--	--	--	------

+95.6				07.5
46				

47				07.4
----	--	--	--	------

48				06.9
----	--	--	--	------

T.P.	12.79	✓ 926.77	2.10	✓ 913.98
------	-------	-------------	------	-------------

B.M.			1.06	✓ 925.71
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Lt.

8

Et.

17

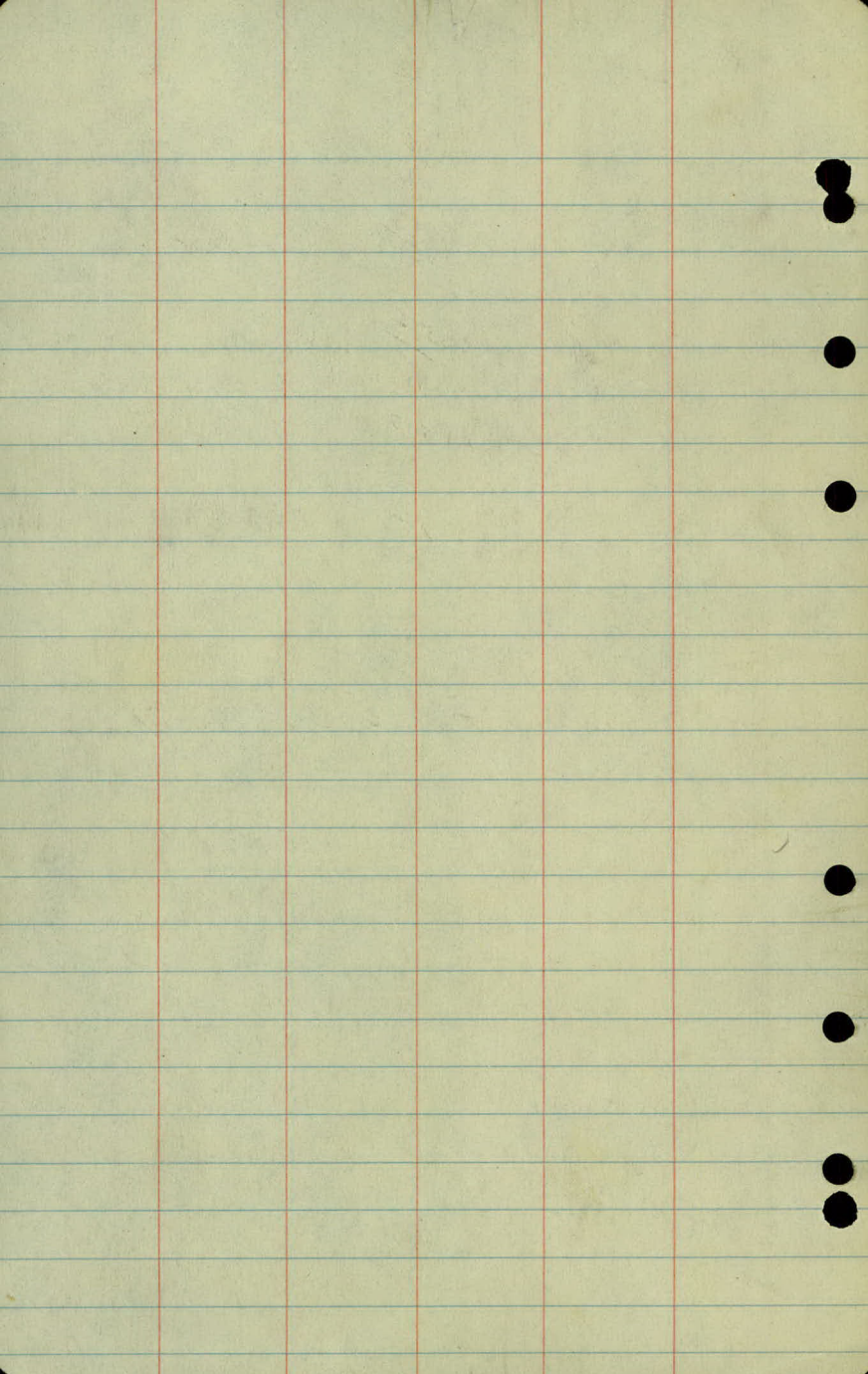
$$\begin{array}{r} 8.3 \\ \hline 907.8 \end{array}$$

$$\begin{array}{r} 8.6 \\ \hline \end{array}$$

$$\begin{array}{r} 8.7 \\ \hline \end{array}$$

$$\begin{array}{r} 9.2 \\ \hline 906.9 \end{array}$$

Top of Monument N. $\frac{1}{4}$ Cor. Sec #9



Ditch #4 Traverse Line

as base for X-secs. of

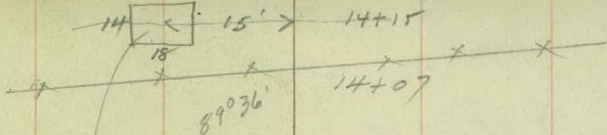
ditch Sec. 9-T29N-R23W.

See letter Mr. Schulz dated
6/18/37

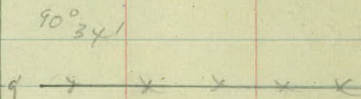
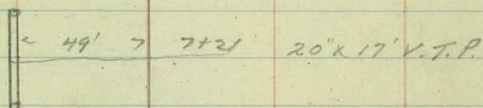
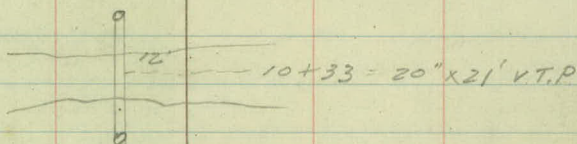
Sta.	Point	Angle	Rt.	Lt.
✓ 17+40	PI			31°23'
✓ 10+89.7	PI		40°24'	
✓ 9+65.3	PI			87°29'
✓ 5+41.5	PI		80°12'	
✓ 3+68.5	PI			90°34'
✓ 0+00	PI			89°27'

Stone Mon. Ctr. Sec
#9

Start N $\frac{1}{4}$ Cor. Sec. 9. Stone Mon.

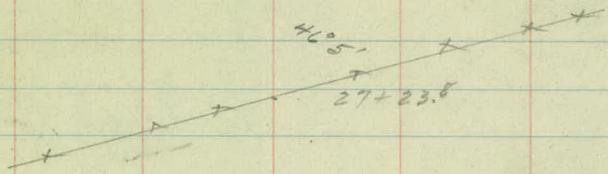


Brdg. 2" plank on 5" x 8" stringers (5)
collapsed



Angle

Sta.	Point	Rt.	Lt.
✓ 28+96.9	P.I.	70°26'	
162.1			
✓ 27+34.8	P.I.	52°52'	
113.8			
✓ 26+21.0	P.I.	61°24'	
241.0			
✓ 23+80	P.I.	13°2'	
288.5			
✓ 20+91.5	P.I.	19°14'	
418.3			
✓ 16+73.2	P.I.	43°14'	
125.9			
✓ 15+47.3	P.I.	47°28'	
307.3			

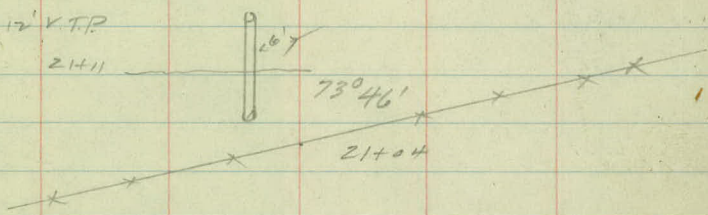


36" x 12' C.M.



20" x 12' V.T.P.

21+11



Angle

Sta.	Point	Rt.	Lt.
45+95.6	P.O.T.		
42+31.2	P.I.		58°14'

135.5

40+95.7	P.I.	10°18'
---------	------	--------

125.3

39+70.4	P.I.	72°7'
---------	------	-------

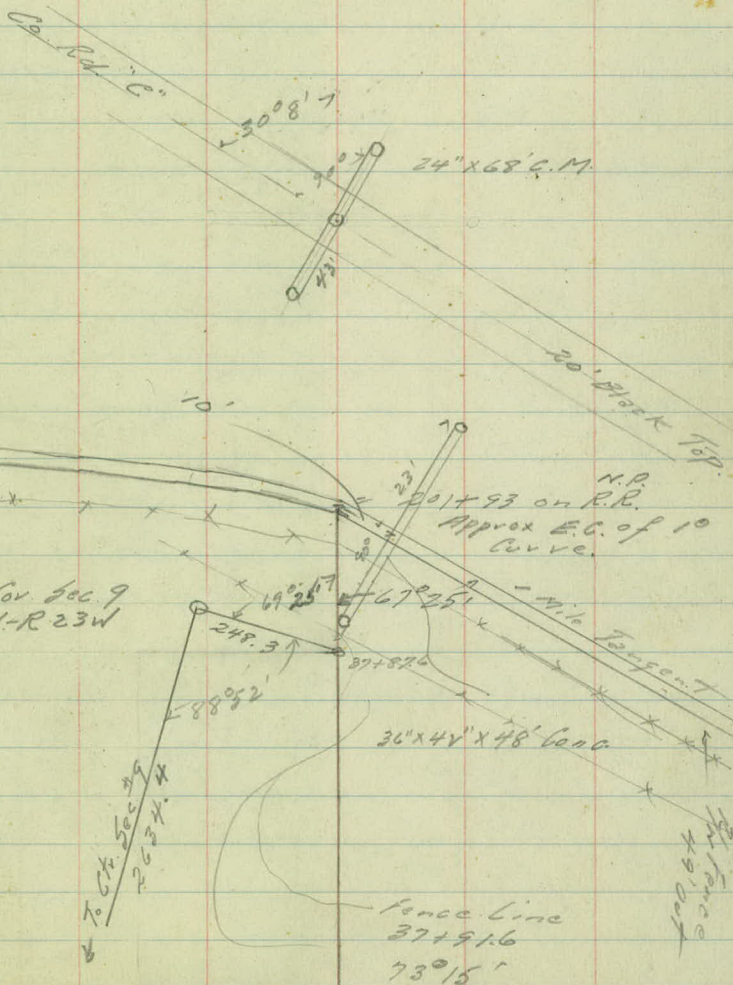
182.8

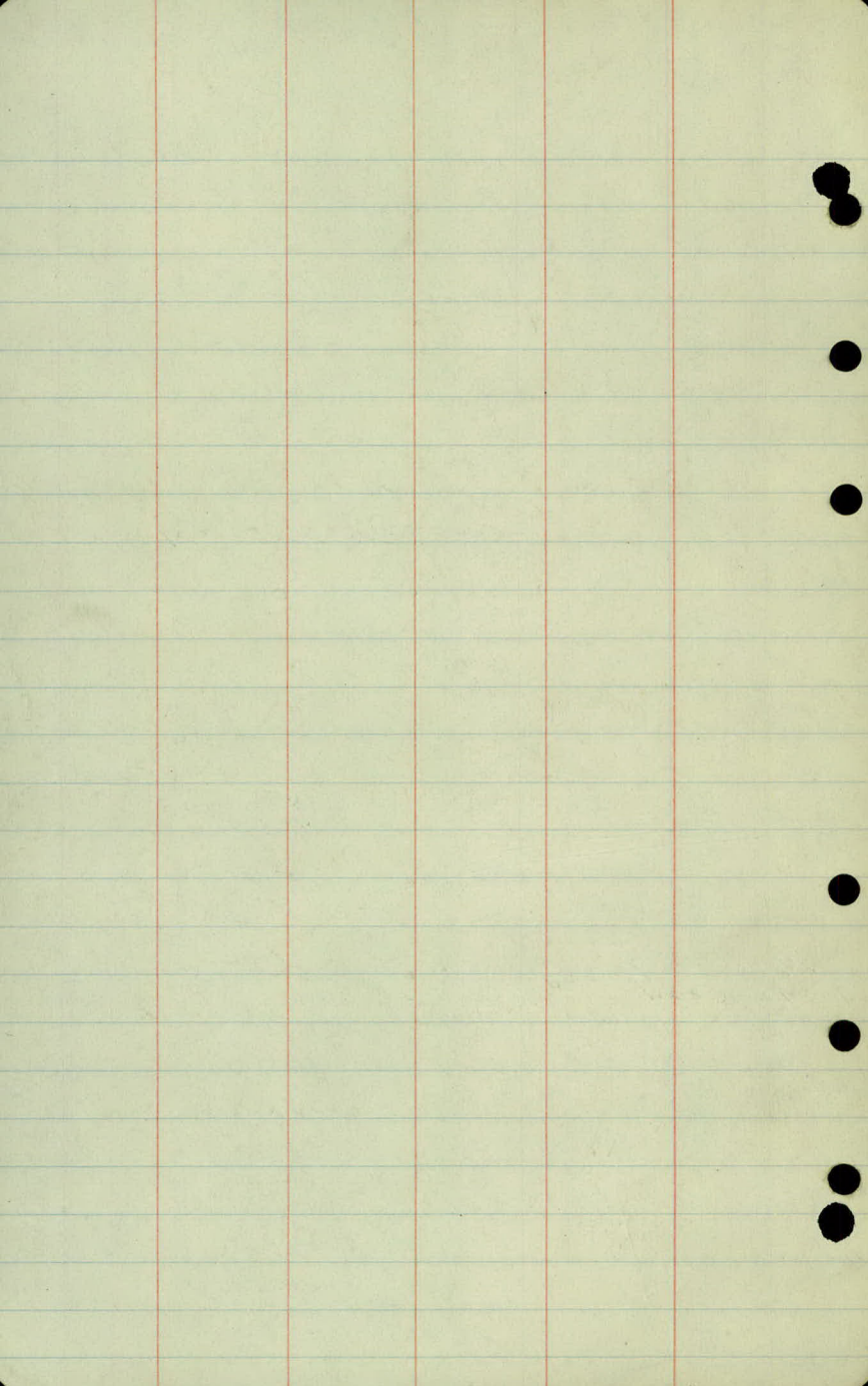
37+87.6	P.O.T.
---------	--------

703.50

30+84.1	P.I.	20°44'
---------	------	--------

187.2





Ditch 4

Drain Tile. (Near Cts. Sec 9)
Rose.

Lead
Red

Sta	+	π	-	Elev.	
B.M.	✓ 8V	10V.8V		100.00	
6+50	✓			93.2	9.62
6+75	✓			93.12	9.70
7	✓			93.04	9.78
+25	✓			92.96	9.86
+50	✓			92.89	9.93
+75	✓			92.81	10.01
8	✓			92.74	10.08
+25	✓			92.67	10.15
+50	✓		W-3	92.60	10.22
+75	✓		W-2	92.52	10.30
9	✓		W-1	92.45	10.37
+25	✓		W-1	92.37	10.45
+50	✓		W-1	92.30	10.52

Sts.

+

R

-

Elev.

9+75

2 - 4

94.22

10.60

10

1 - 1

94.15

10.67

+25

1 - 1

94.07

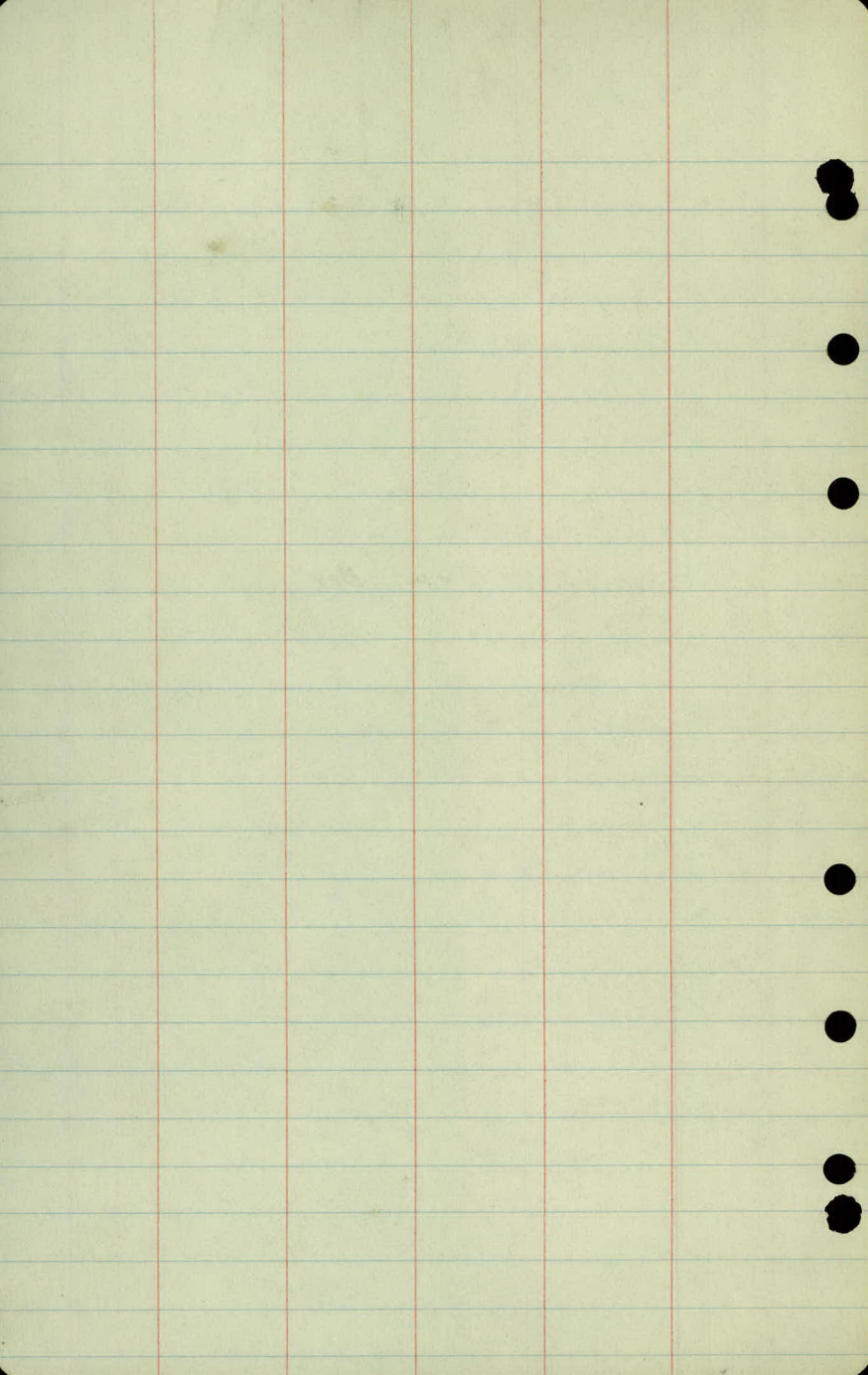
10.75

+48.50

- 1

94.0

10.82



Ditch
Culvert
Elev.
90.9

Elev
92.7

200'

Approx 200'

Stone Man.
Elev. Sec. 9

4824'

Elev.
91.0

10488
"B"

90°29'

Ditches more
or less plugged.

Low
spot
Elev.
95.1

Wet
Block
Loam
&
Clay

651'
New Brighton Road

45045'

Culvert.

Elev.
94.2
"17"

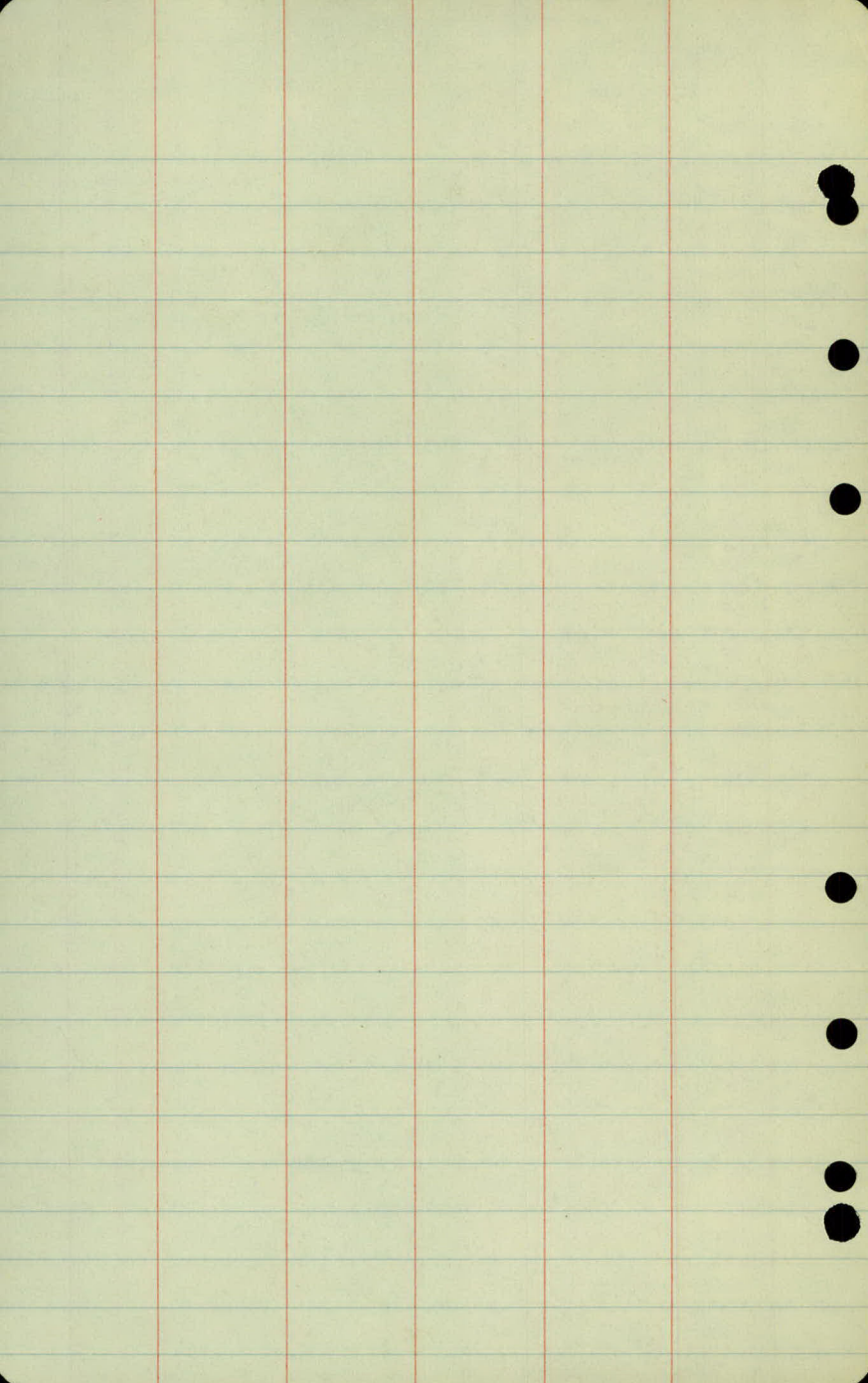
1833'

2+44

Stone Man.
Elev. Sec. 9

New Brighton Road & Co. Rd. B.

Note: Alignment follows lowest
contour of ground.



1
Alignment & Levels for estimating
cost of draining low spot
between points "A & B" as shown
on print. Sec. 9-29-23.

4/37
H.B.

As per letter County Engineer
dated 4/1/37

Ctr. Sec. 9 To Sta 0+00 $\Delta L + 90^{\circ} 29'$

10+48.50 ΔL to Mon. Ctr. Sec. 9. = $48^{\circ} 24'$

9+04.15 $\Delta L + 41^{\circ} 42' L +$

24.15

6+80 $\Delta L + 60^{\circ} 14'$

5+15.4 $\Delta L + 43^{\circ} 35'$

2+44 $\Delta L + 78^{\circ} 33'$

Levels. Sta 0+00 to 10+48⁵
betw points "A" & "B" as per
alignment page 1

Sta.	+	Δ	-	Elev.
B.M.	(Assumed Elev.)			100.00
	566	105.66		
0+00			4.6	101.1
0+16			4.9	100.5
0+18			5.9	99.8
0+24			6.5	99.2
0+27			11.5	94.2 = CULVERT
0+36			11.5	94.2
0+40			6.4	99.3
0+57			6.2	99.5
0+63			7.3	98.4
1			7.3	98.4
+50			7.9	97.8
✓			9.0	96.7

$$\begin{array}{r} 4(32) \\ 8 \end{array}$$

Sts. + π - E'er

105.66

Top West Headwall - N.E. Cor

2+44 9.2 ✓ 96.5

3 9.5 96.2

+50 10.0 95.7

4 10.0 95.7

+50 10.1 95.6

5 10.6 95.1

+15.4 10.6 95.1

+50 10.4 95.3

6 10.6 95.1

+50 10.5 95.2 ✓

+80 9.5 96.2 ✓

TP 7.96 104.70 8.9 ✓ 96.74

Sta.	+	π	-	Elev.
		104.70		
7			8.4	96.3
+150			8.7	96.0
8			8.3	96.4
9			10.4	94.3
+150			11.2	93.5
10			11.4	93.3
+48.50			12.7	92.0
{ 200' North in Ditch			12.0	92.7
{ 400' N.E. in Ditch			13.8	90.9
in Ditch opposite Ctr. Sec. 9			10.9	93.8
B.M.			4.64	100.06 <u>100.00</u>

Tool House

Floor Eled

101.55
 101.55
 100.50
 97.80
 98.4
 2.

Top Wall 99.80

101.80

Prop. Elev.

BM 3.10 103.10 100.00

687 96.23 96.29
 96.33 £
 96.31

169 101.69 100.00
 98.30

101.55
 101.55
 100.50

99.50

88.97

100.67
 3.60
 97.07
 4.98
 101.55
 3.5
 100.60
 100.5
 101.80
 100.50
 1.3

13.66 88.64

14.05 87.64

96.50
 96.50
 100.5
 97.30

97.90
 4.80
 101.90
 4.5
 .35

97.80
 97.90

93.90
 92.10

9689
367
100.56/100.5

Top Wall 101.50

102.90
78.30
45.6

563
393
170

100.55X
366

96.89
571
102.60

100.55
445
96.10
563
101.73

96.10
458
100.68

Tool House

Note - 10' Ramp in
front of North Sheds
97.80 @ No.
97.30 10' So

Top Hydrant Cor. Rise & Camp Phalen

Top City Water Main Pipe

Flow Sewer Pipe over Water Main

100.80 X

Top Floor @ Wall around Bldg

SW No 651 94.29

So 541 95.39

Top Basement Floor

Gutter 643 94.37

544 571

Bottom Basement Slab - Top Footing

Bottom Basement Footing

F.L. 10" Sewer Pipe @ So Bldg Line

Bottom Pipe 6" Sewer

Top Wall

Yard Elev

Inside Shed Elev @ So End

" " " @ N "

Bottom Wall Footing N End Sheds

