

Dr. 12-BK. 14 K. 14

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PLAN

Survey

Short St. & East Co. Line Rd.

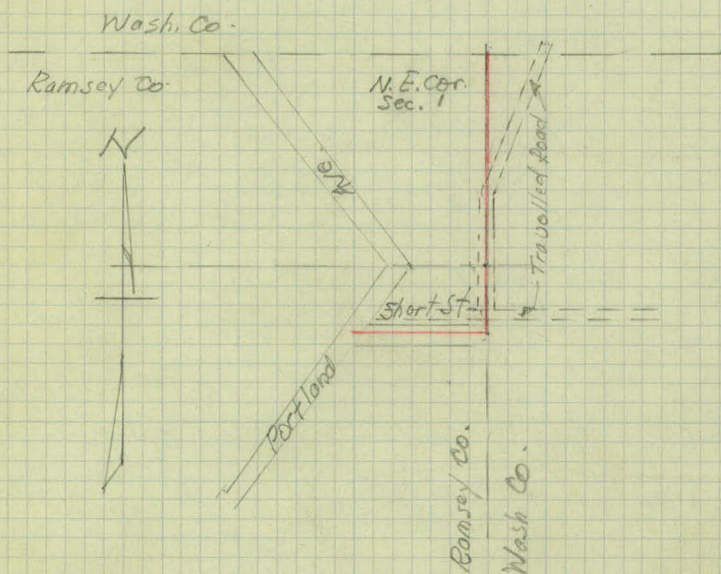
From Portland Ave. To No. Co. Line

Road Acc't. No.

Date Filed. 1937

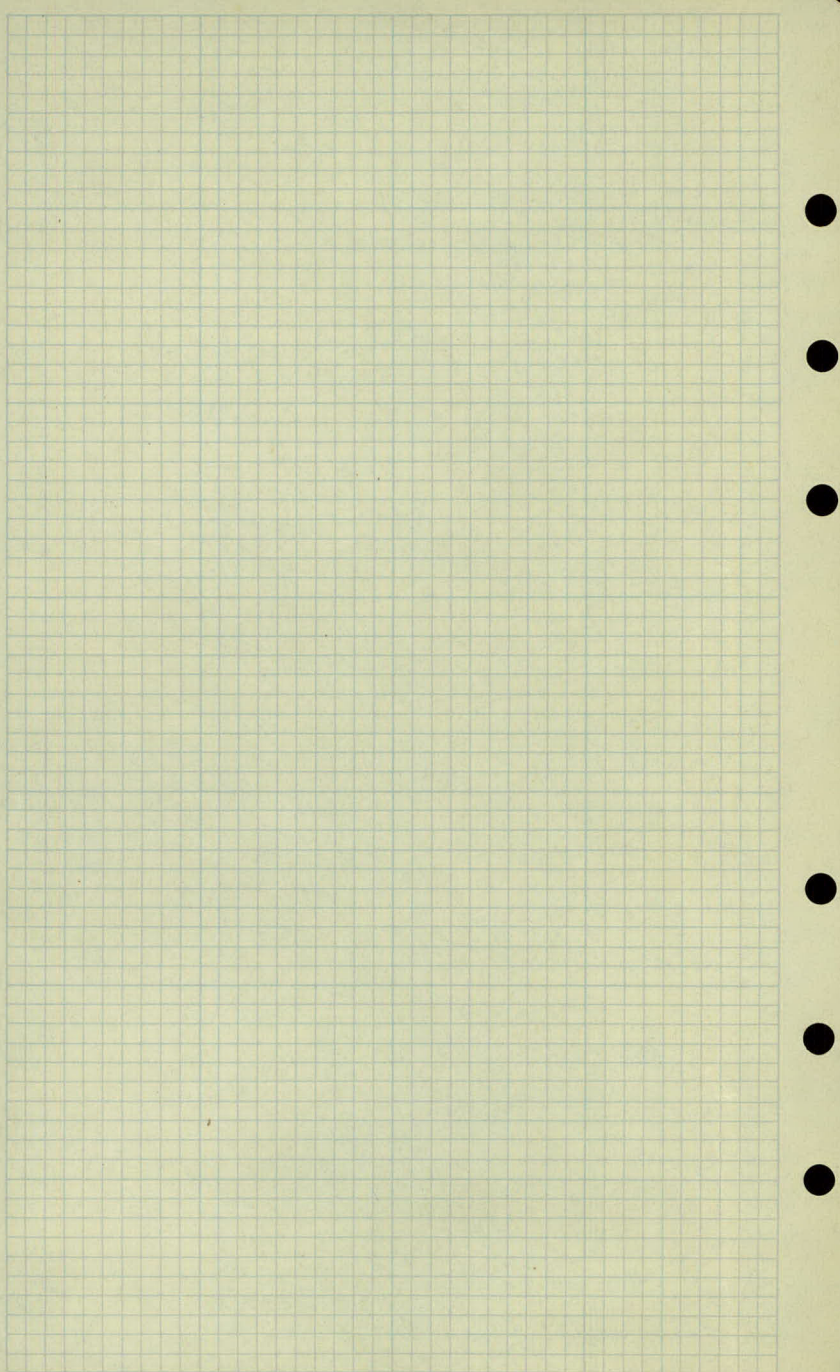
File

Plan Survey.
 Short St. & E. Co Line Rd.
 Portland Ave to N. Co. Line.



Index	
Alignment	1-3
Topography	4-8
Cross sections.	9-14
Soundings.	15-16
Recom.	15

W. H. Carlson
 Sept. 10, 1937



1

Alignement.

Station	Point	Angle	
		Lt	Rt

5+26.82	P.M.T. Stone Man.		
---------	-------------------	--	--

3+29.42	P.I.	90°38'	
---------	------	--------	--

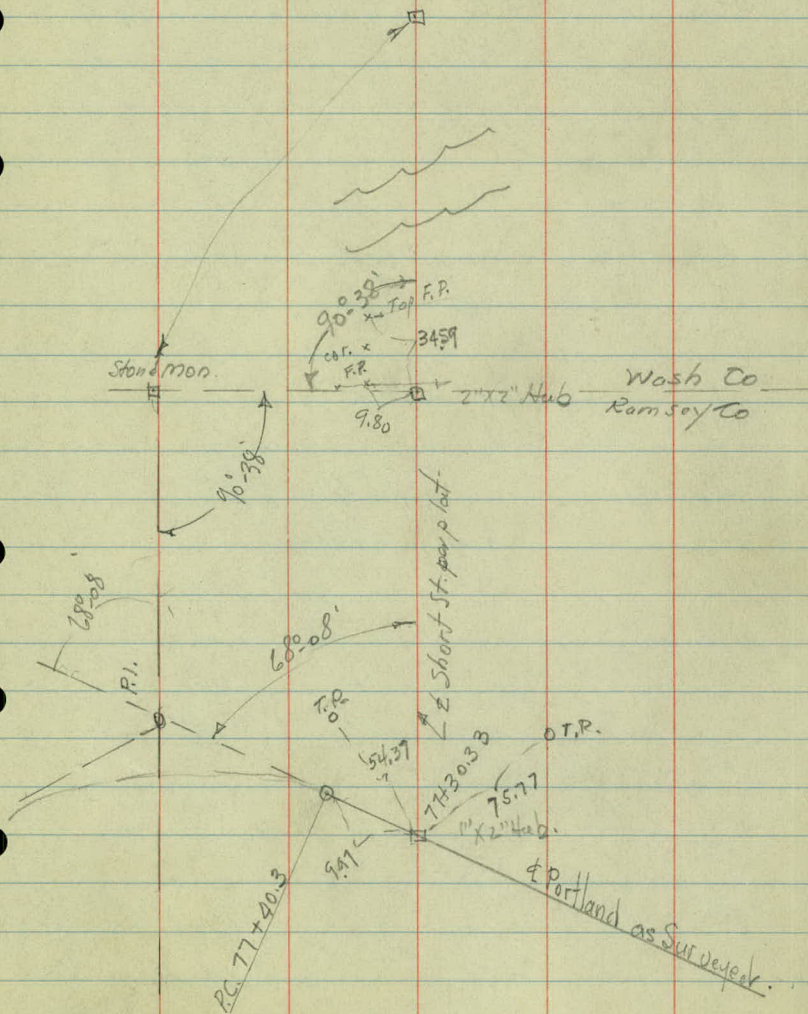
0+00			
------	--	--	--

W. H. C.

K.A. Sept. 2, 1937

L. B. A.

A.M.



Sta	Point	Angle Lt Rt
-----	-------	----------------

21+34.69	Mora.	
----------	-------	--

15+82.33	P.O.T.	
----------	--------	--

9+23.90	P.O.T.	
---------	--------	--

Wash Co.

Ramsay Co.

90°28'



1 X 2

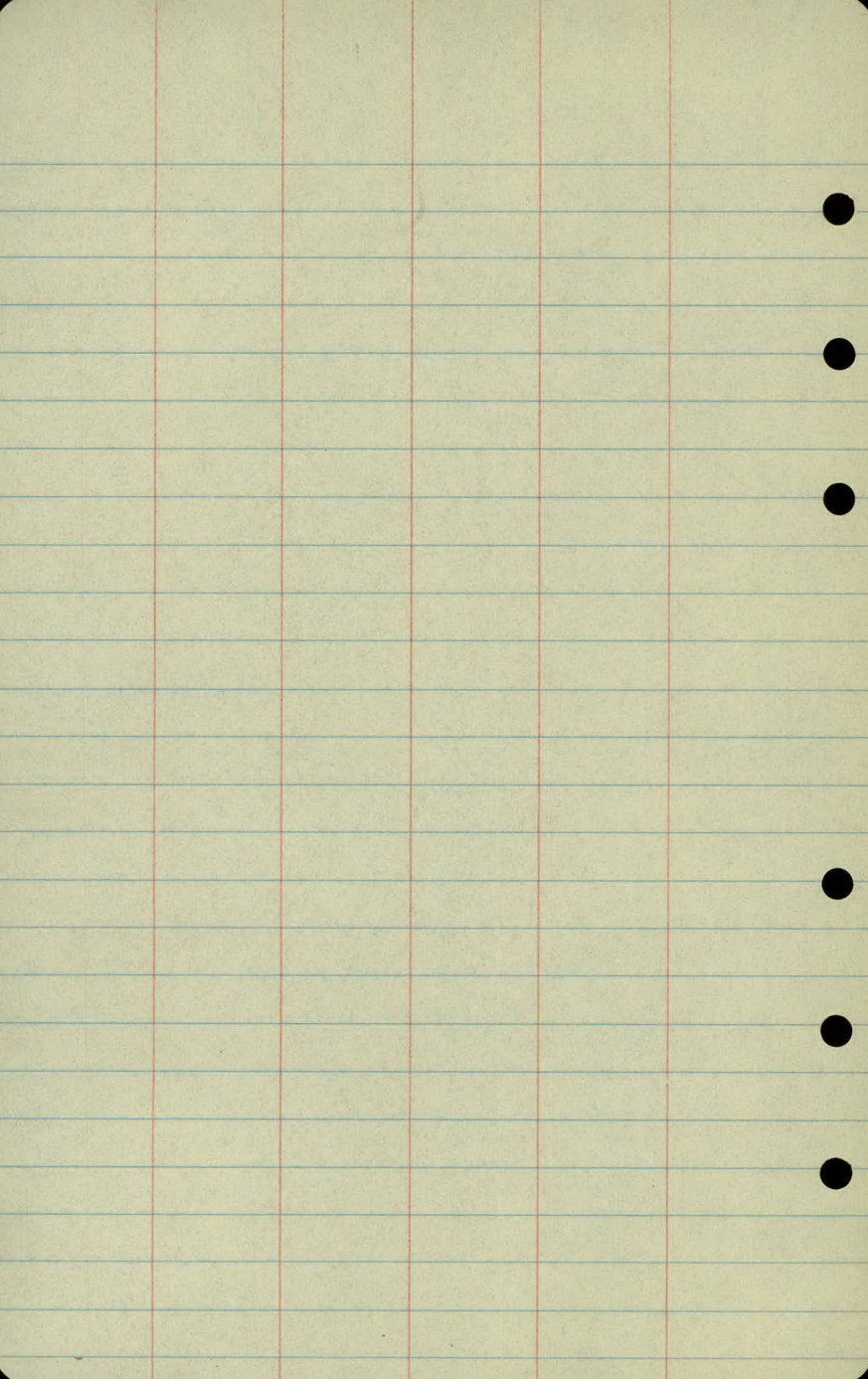
FR

28.19

FR

17.71

2" x 2" 4x6



Topography.

+29.42 R.I. 90°-38' 15"

3 54-34' -

+50-55'-40'

2 58'-41' -

+50 58-41'

1 59-43' -

0+45-Rd-57'-35'

0+33-22' +m-shld.o

+av shld.o

0

W.H.C.
K.O.
L.B.K.
A.M.
Sept. 7, 1937

See next page

← contd

Wash Co.
Barnsey Co.

+07-F.Corr. 65'
+11-F.Corr. 32'

+97-529 F-35'

+71-T.P. 65'

+50-F-65'

+42-R.P. 22'

F-65'

+50-F-65'

+16-T.P. 64'
F-65'

+068-T.P. 30'

+050-R.P. 21'

+045-F.Corr. 65'

+14-F. crosses &

Pasture

Cult.

See Portland Notes
for Topog.

8

8 - 6'

+50-10-4

7

8.7'

6

6' - 8'

+76.82 Stone-mon.

5

5' 9'

+75-Bd-5

+101-5

+99-12"x30' C.M. 12'-8'

3179.42

136-12" Oak 13'
104-12" Oak-16'
F 16'

F-20°

+82-6 "Oak-22"

+40-6" Tw. Oak-18'
+21-6" Oak Tw. 18'
F-20'

441-12' BxEl 20

F-15'

$$F_{19'}$$

F-13

F-18

733-△ F-4'

401-Cu/V. 13'

496-F Cor. 23

462-Fi Cor. 17

$\text{Arg} = 15^\circ$

+98-1309 F-19
+97-Cu 10. 17

181

#66

$$+GO \sim E, F, I'$$

+84-F-Conv
+79-F-3'

cut.

47'-63'

15

20'-36'

14

7'-20'

13

1'-15'

12

1'-14'

11

2'-13'

10

3'-12'

9

5'-11'

F-5'
Timber 20

Timber 20 7

Scattered
Oaks
Small

F-7'

Cult.

+83-12"Oak-8'

6-12"
Small
Oaks

F-9'

+101-18"Oak-31'

+70 Timber Line-20'

Scatt
Oaks

+100-Field Ent
+95 F-9or. 9

+99-End F. 28'

+86-12"Oak-11'

+41-4"Oak 11'

F-11'

F-24'

+31-F. Cor. 11'

Cult.

F-13'

F-22'

Gravel Road.

F-17'

Cult.

F-22'

Barren

F-17

F-21

+34.69 - No. Co. Line

21

Rd # 217¹/₂ - 1¹/₄ wide

20

19

18

17

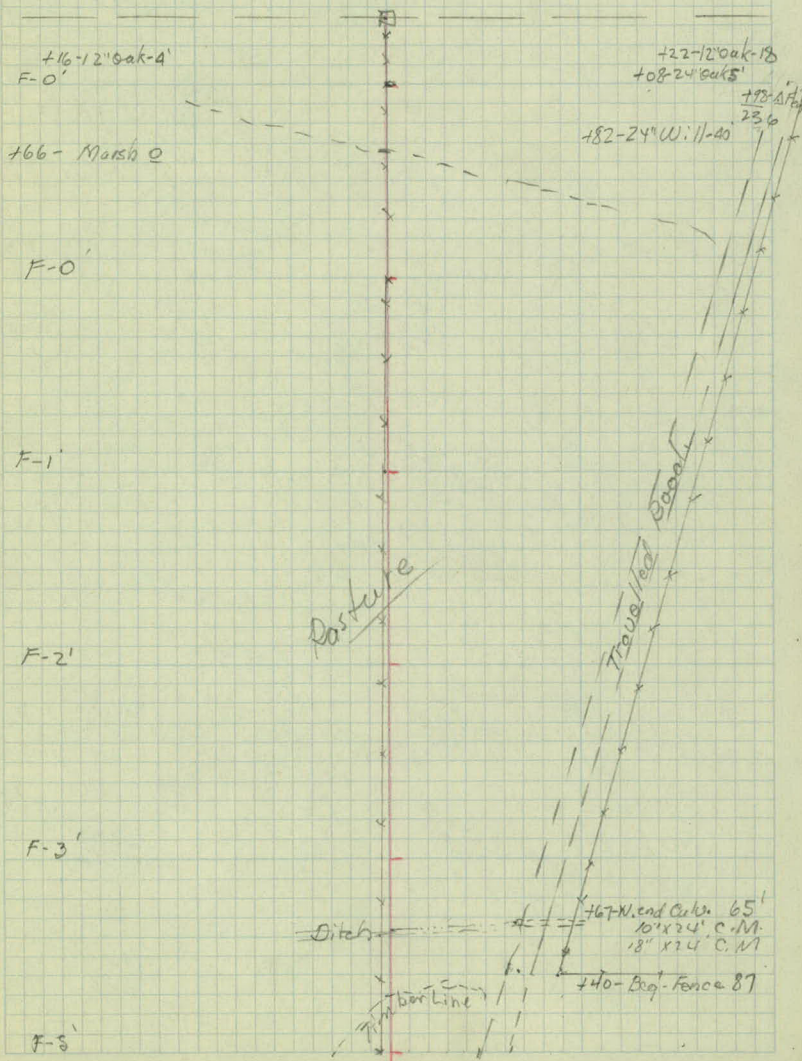
g-10" above ~
-18"

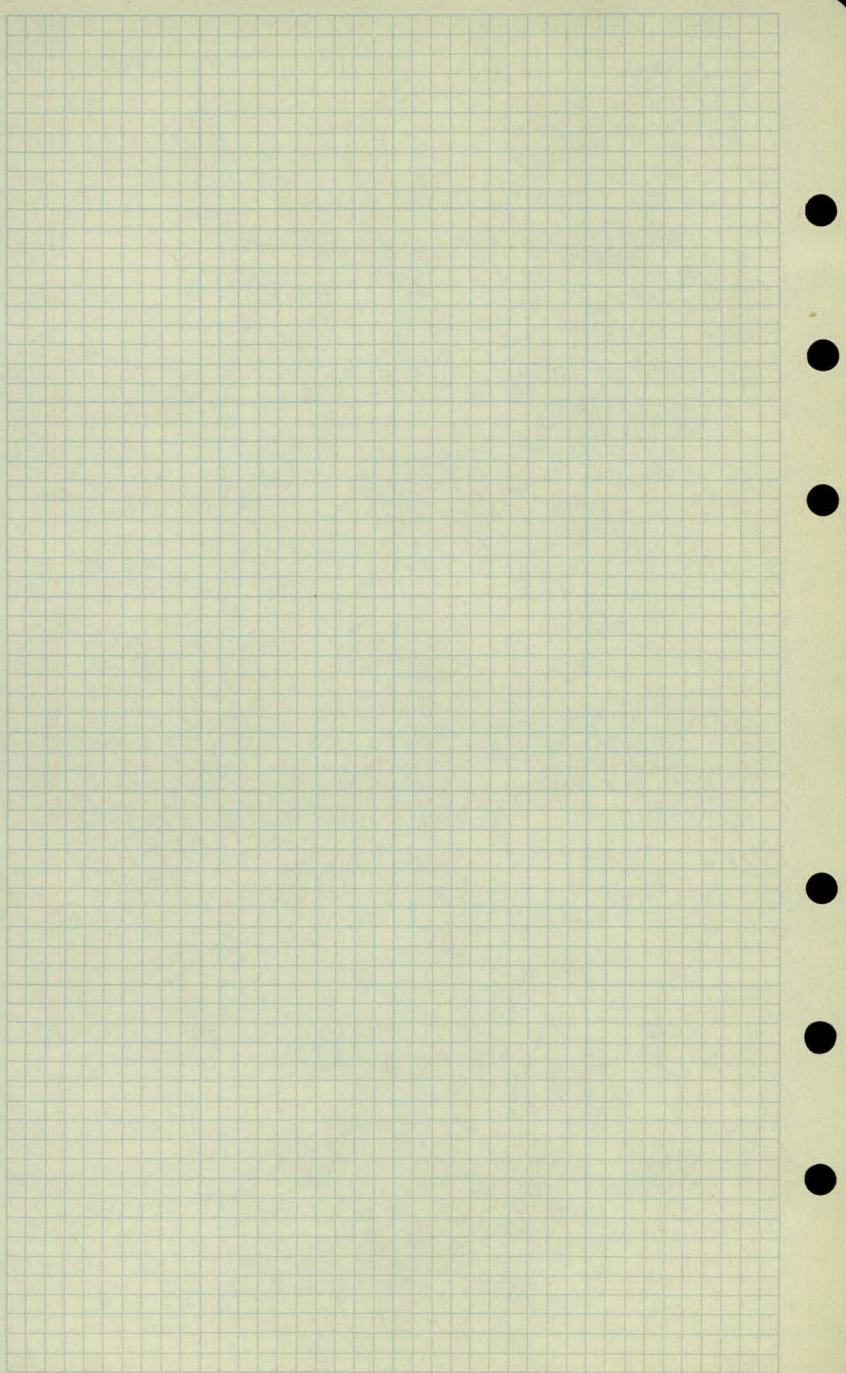
+63 - of Ditch - Beg marsh

+40 - of Rd 68

16

Deo N. Co. Line Survey.





Cross Sections.

East To Line Rd.

Sta.	+	-	Elev.
B.M.	0.74	937.99	937.25
0+00			933.0
0+05 - 50' h.			31.2
0+15 = 2 Port			31.6
0+27			30.8
0+35			31.9
0+50			31.3
H0			29.5
1+50			28.0
2+0			29.3
2+90			30.4
3+0	Dj.	18" C.M. Drain Sw.	27.8
3+74.2	P.1		26.1

H. E. BH

Spike 24" in 60 of Jan. 0505- See Portland.
(7938.0)

50

68

 $\frac{71}{50} = 2 \text{ Port.}$ shldr = $\frac{6.2}{50}$

6.4

 $\frac{6.9}{21}$ $\frac{7.7}{50} = \text{shldr.}$ $\frac{6.2}{50}$ $\frac{5.8}{35} = 4$ $\frac{6.6}{14}$ $\frac{7.2}{5}$ $\frac{6.5}{5}$ $\frac{5.7}{26}$ $\frac{4.6}{50}$ $\frac{5.4}{80}$ $\frac{5.4}{65}$ $\frac{5.9}{39}$ $\frac{7.0}{24}$ $\frac{5.7}{21}$ $\frac{6.1}{11}$ $\frac{6.0}{11}$ $\frac{4.8}{37}$ $\frac{5.1}{50}$

E

 $\frac{4.6}{80}$ $\frac{4.6}{65}$ $\frac{4.9}{60}$ $\frac{5.8}{57}$ $\frac{5.6}{47}$ $\frac{6.7}{36}$ $\frac{5.2}{33}$ $\frac{5.5}{21}$

63

 $\frac{6.4}{7}$ $\frac{5.3}{27}$ $\frac{5.2}{50}$ $\frac{4.3}{82}$ $\frac{4.6}{65}$ $\frac{5.5}{58}$ $\frac{5.3}{51}$ $\frac{5.7}{45}$ $\frac{8.0}{20}$ $\frac{8.5}{27}$ $\frac{8.8}{27}$ $\frac{8.7}{50}$

E

 $\frac{3.4}{80}$ $\frac{3.9}{62}$ $\frac{5.0}{59}$ $\frac{4.7}{50}$ $\frac{5.4}{41}$ $\frac{8.7}{20}$

10.0

 $\frac{11.0}{27}$ $\frac{11.5}{50}$

E

 $\frac{2.9}{80}$ $\frac{3.8}{62}$ $\frac{4.7}{60}$ $\frac{4.5}{49}$ $\frac{4.8}{35}$

8.7

 $\frac{10.1}{24}$ $\frac{10.5}{50}$

E

 $\frac{6.5}{80}$ $\frac{6.6}{60}$ $\frac{8.6}{58}$ $\frac{8.2}{48}$ $\frac{8.2}{39}$ $\frac{6.8}{38}$ $\frac{6.4}{19}$

7.6

 $\frac{9.4}{20}$ $\frac{11.9}{50}$

E

 $\frac{8.0}{80}$ $\frac{7.4}{61}$ $\frac{10.1}{58}$ $\frac{9.5}{40}$ $\frac{9.8}{39}$ $\frac{9.0}{36}$ $\frac{9.1}{19}$

10.2

 $\frac{11.2}{22}$ $\frac{12.8}{50}$

E

 $\frac{9.8}{65}$ $\frac{11.1}{44}$

11.9

 $\frac{12.4}{25}$ $\frac{12.8}{50}$

Sta.	+	-	Elev.
------	---	---	-------

937.99

33' S. of 3179.42 =
E. S. Line

25.4

3179.42 R.I.

26.1

3175 E.R.W. E. & W.

26.8

187

27.6

110

28.3

150

28.0

510

31.3

150

32.1

T.P.

9.19

900.52

2.66

935.33

610

35.0

140

36.9

710

37.1

4

4

121

7 38.0

$$\begin{array}{r} 11.1 \\ 50 \end{array}$$

17.6

$$\begin{array}{r} 13.2 \\ 21 \end{array}$$

$$\begin{array}{r} 13.7 \\ 50 \end{array}$$

4.

$$\begin{array}{r} 8.3 \\ 50 \end{array}$$

$$\begin{array}{r} 10.2 \\ 50 \end{array}$$

$$\begin{array}{r} 11.2 \\ 16 \end{array}$$

14.9

$$\begin{array}{r} 12.1 \\ 4 \end{array}$$

$$\begin{array}{r} 13.2 \\ 24 \end{array}$$

$$\begin{array}{r} 14.2 \\ 50 \end{array}$$

EGST

$$\begin{array}{r} 8.5 \\ 50 \end{array}$$

$$\begin{array}{r} 9.5 \\ 27 \end{array}$$

$$\begin{array}{r} 11.2 \\ 1 \end{array}$$

$$\begin{array}{r} 12.8 \\ 50 \end{array}$$

$$\begin{array}{r} 8.8 \\ 50 \end{array}$$

$$\begin{array}{r} 10.0 \\ 32 \end{array}$$

$$\begin{array}{r} 9.8 \\ 13 \end{array}$$

$$\begin{array}{r} 10.4 \\ 1 \end{array}$$

$$\begin{array}{r} 11.4 \\ 16 \end{array}$$

$$\begin{array}{r} 12.8 \\ 27 \end{array}$$

$$\begin{array}{r} 13.4 \\ 50 \end{array}$$

$$\begin{array}{r} 6.5 \\ 50 \end{array}$$

$$\begin{array}{r} 8.4 \\ 50 \end{array}$$

$$\begin{array}{r} 10.4 \\ 15 \end{array}$$

$$\begin{array}{r} 9.7 \\ 1 \end{array}$$

$$\begin{array}{r} 10.2 \\ 8 \end{array}$$

$$\begin{array}{r} 12.6 \\ 21 \end{array}$$

$$\begin{array}{r} 13.3 \\ 50 \end{array}$$

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

$$\begin{array}{r} 8.6 \\ 31 \end{array}$$

$$\begin{array}{r} 8.8 \\ 10 \end{array}$$

$$\begin{array}{r} 8.6 \\ 7.50 \end{array}$$

$$\begin{array}{r} 9.0 \\ 1 \end{array}$$

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

$$\begin{array}{r} 10.2 \\ 11 \end{array}$$

$$\begin{array}{r} 10.1 \\ 19 \end{array}$$

$$\begin{array}{r} 11.2 \\ 32 \end{array}$$

$$\begin{array}{r} 11.7 \\ 50 \end{array}$$

$$\begin{array}{r} 8.5 \\ 33 \end{array}$$

$$\begin{array}{r} 8.2 \\ 11 \end{array}$$

$$\begin{array}{r} 8.6 \\ 8 \end{array}$$

$$\begin{array}{r} 7.9 \\ 5 \end{array}$$

$$\begin{array}{r} 7.7 \\ 1 \end{array}$$

$$\begin{array}{r} 7.8 \\ 8 \end{array}$$

$$\begin{array}{r} 8.5 \\ 14 \end{array}$$

$$\begin{array}{r} 7.5 \\ 20 \end{array}$$

$$\begin{array}{r} 7.9 \\ 33 \end{array}$$

$$\begin{array}{r} 6.1 \\ 33 \end{array}$$

$$\begin{array}{r} 6.1 \\ 21 \end{array}$$

$$\begin{array}{r} 5.9 \\ 9 \end{array}$$

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

$$\begin{array}{r} 6.0 \\ 5 \end{array}$$

$$\begin{array}{r} 5.9 \\ 1 \end{array}$$

$$\begin{array}{r} 6.2 \\ 8 \end{array}$$

$$\begin{array}{r} 6.7 \\ 11 \end{array}$$

$$\begin{array}{r} 4.9 \\ 16 \end{array}$$

$$\begin{array}{r} 3.6 \\ 20 \end{array}$$

$$\begin{array}{r} 3.3 \\ 33 \end{array}$$

Strike at 54.5-80

$$\begin{array}{r} 8.5 \\ 33 \end{array}$$

$$\begin{array}{r} 8.2 \\ 20 \end{array}$$

$$\begin{array}{r} 7.2 \\ 14 \end{array}$$

$$\begin{array}{r} 10.0 \\ 7 \end{array}$$

$$\begin{array}{r} 9.8 \\ 5 \end{array}$$

$$\begin{array}{r} 9.5 \\ 1 \end{array}$$

$$\begin{array}{r} 9.7 \\ 10 \end{array}$$

$$\begin{array}{r} 10.1 \\ 12 \end{array}$$

$$\begin{array}{r} 7.0 \\ 18 \end{array}$$

$$\begin{array}{r} 8.0 \\ 33 \end{array}$$

$$\begin{array}{r} 3.7 \\ 33 \end{array}$$

$$\begin{array}{r} 3.3 \\ 22 \end{array}$$

$$\begin{array}{r} 2.5 \\ 16 \end{array}$$

$$\begin{array}{r} 8.0 \\ 8 \end{array}$$

$$\begin{array}{r} 7.6 \\ 1 \end{array}$$

$$\begin{array}{r} 8.0 \\ 11 \end{array}$$

$$\begin{array}{r} 5.0 \\ 16 \end{array}$$

$$\begin{array}{r} 5.8 \\ 22 \end{array}$$

$$\begin{array}{r} 7.6 \\ 33 \end{array}$$

$$\begin{array}{r} 1.0 \\ 33 \end{array}$$

$$\begin{array}{r} 1.7 \\ 21 \end{array}$$

$$\begin{array}{r} 7.8 \\ 13 \end{array}$$

$$\begin{array}{r} 8.4 \\ 10 \end{array}$$

$$\begin{array}{r} 7.8 \\ 7 \end{array}$$

$$\begin{array}{r} 7.4 \\ 1 \end{array}$$

$$\begin{array}{r} 8.1 \\ 7 \end{array}$$

$$\begin{array}{r} 10.0 \\ 13 \end{array}$$

$$\begin{array}{r} 11.7 \\ 24 \end{array}$$

$$\begin{array}{r} 12.1 \\ 33 \end{array}$$

Sta.	+	Σ	-	Elev.
		944.52		
7+55				36.4
8+0				37.1
T.P.	9.88	948.77	563	938.89
+50				39.3
9+0				40.4
+55				40.1
10+0				38.8
+50				37.0
T.P.	3.22	939.18	12.81	935.96
11+0				34.3
+65				32.7
12+0				32.6
+50				32.0

4.

2

24.

6.8	7.3	9.5	9.5	8.3	8.1	8.5	12.1	12.6
33	28	21	14	10	—	5	12	33

8.1	8.1	9.0	8.5	7.7	7.4	7.7	9.8	10.4	11.0
33	27	20	13	7	—	6	11	19	33

(7 48.8)

10.7	10.3	8.9	8.4	10.1	9.5	10.0	10.6	9.7	8.7	10.5
33	26	19	13	9	—	9	72	15	22	33

7.0	6.4	4.7	4.0	9.4	8.6	8.4	8.7	8.3	9.0
33	28	22	17	8	5	—	18	22	33

5.0	4.4	2.7	9.7	8.8	8.7	8.5	9.0	8.4	9.1
33	25	17	6	4	—	8	13	23	33

7.5	6.6	5.1	10.9	10.1	10.0	9.8	10.3	9.8	10.7
33	25	16	7	3	—	8	19	23	33

14.3	13.4	11.8	11.8	11.8	12.2	11.0	11.4
33	23	13	—	8	14	22	23

11.3	10.6	9.2	6.0	6.1	5.0	4.9	5.0	4.8	2.8
33	23	13	7	5	2	—	12	15	24

11.7	10.8	7.6	7.7	6.6	6.5	6.7	7.2	4.7	4.6
33	12	6	4	2	—	12	15	25	33

10.0	9.5	7.4	7.6	6.7	6.6	6.8	7.5	3.8	3.3
33	19	8	4	1	—	13	15	22	33

6.3	4.6	3.9	7.6	7.2	7.2	7.8	8.6	6.1	7.4
33	18	10	4	—	12	16	20	26	33

St.	+	-	Elev.
		939.18	
13			30.1
+60			27.0
T.P.	5.19	932.57	11.60
			92 7.38
14			26.1
+50			27.7
15			25.2
+25			25.4
+65			27.9
16			29.0
	7.20	929.80	9.97
			92 2.60
+50			22.0
+63	± Drdch		20.9
17			21.7

41.

2

121.

$\frac{8.8}{33}$ $\frac{9.1}{24}$ $\frac{8.4}{14}$ $\frac{8.4}{6}$ $\frac{9.2}{3}$ $\frac{9.1}{-}$ $\frac{8.7}{8}$ $\frac{9.0}{13}$ $\frac{10.0}{17}$ $\frac{9.1}{20}$ $\frac{9.6}{28}$ $\frac{10.4}{33}$

$\frac{11.2}{33}$ $\frac{12.2}{10}$ $\frac{12.2}{-}$ $\frac{11.1}{3}$ $\frac{11.0}{10}$ $\frac{11.3}{16}$ $\frac{13.1}{20}$ $\frac{13.5}{33}$

$\frac{6.8}{33}$ $\frac{6.8}{10}$ $\frac{6.5}{-}$ $\frac{5.3}{6}$ $\frac{5.3}{14}$ $\frac{5.7}{19}$ $\frac{6.6}{20}$ $\frac{6.4}{33}$

$\frac{6.8}{33}$ $\frac{5.7}{8}$ $\frac{4.9}{0}$ $\frac{5.7}{6}$ $\frac{5.7}{13}$ $\frac{6.0}{27}$ $\frac{6.2}{29}$ $\frac{3.4}{33}$

$\frac{7.4}{33}$ $\frac{7.5}{7}$ $\frac{7.4}{-}$ $\frac{6.2}{19}$ $\frac{5.8}{29}$ $\frac{6.3}{33}$

$\frac{6.0}{33}$ $\frac{6.7}{6}$ $\frac{7.2}{-}$ $\frac{7.7}{6}$ $\frac{6.8}{16}$ $\frac{6.0}{21}$ $\frac{5.9}{33}$

$\frac{4.3}{33}$ $\frac{4.5}{10}$ $\frac{4.7}{-}$ $\frac{5.1}{14}$ $\frac{7.6}{19}$ $\frac{7.2}{28}$ $\frac{6.5}{29}$ $\frac{6.8}{33}$

$\frac{5.5}{33}$ $\frac{4.1}{26}$ $\frac{3.6}{-}$ $\frac{3.8}{25}$ $\frac{8.0}{33}$

$\frac{7.8}{33}$ $\frac{7.8}{-}$ $\frac{7.6}{33}$

Place 24th C.M. Culv.

$\frac{10.0}{8.9}$

Dr. East.

$\frac{8.5}{10.0}$

$\frac{8.2}{33}$

81

$\frac{8.4}{33}$

Sto.

+

A

-

Elev.

92980

18

20.2

19

20.3

20

22.1

+65

21.9

21

26.6

+34.69

1.75

928.05

d/-

e

121.

$$\frac{9.9}{33}$$

$$96$$

$$\frac{9.3}{33}$$

$$\frac{10.0}{33}$$

$$9.5$$

$$\frac{9.5}{33}$$

$$\frac{8.2}{33}$$

$$7.7$$

$$\frac{8.2}{33}$$

$$\frac{7.6}{33}$$

$$7.9$$

$$\frac{7.9}{33}$$

$$\frac{36}{50}$$

$$\frac{3.1}{14}$$

$$32$$

$$\frac{3.8}{28}$$

$$\frac{4.8}{50}$$

Dec W. Bodwin

Recommendations.

End grading @ Sta. 21+01.7 See N. Co Line.

Place 100' Rad. Lt. & Rt.

Sta. 0+77 No culv. Degd.

Sta. 3+00 Pl. 18" Drains So.

Sta. 16+63 Pl. 24" " East.

Soundings.
East Co. Line Road.

5th.

20th 5.

150

20th 0

+

19

18

17

16th 50

16th 40

Lt.

Z

Rt.

00 Peat

$$\frac{5.0}{20}$$

$$\frac{4.0}{0}$$

$$\frac{3.0}{20}$$

$$\frac{8.0}{20}$$

$$\frac{8.0}{0}$$

$$\frac{2.0}{20}$$

No Bottom @ 14'

$$\frac{\text{No Bottom @ 14'}}{20}$$

Peat

$$\frac{\text{No Bottom @ 14'}}{20}$$

$$\frac{\text{No Bottom @ 14'}}{20}$$

$$\frac{7.0}{20}$$

$$6.0$$

$$\frac{6.0}{20}$$

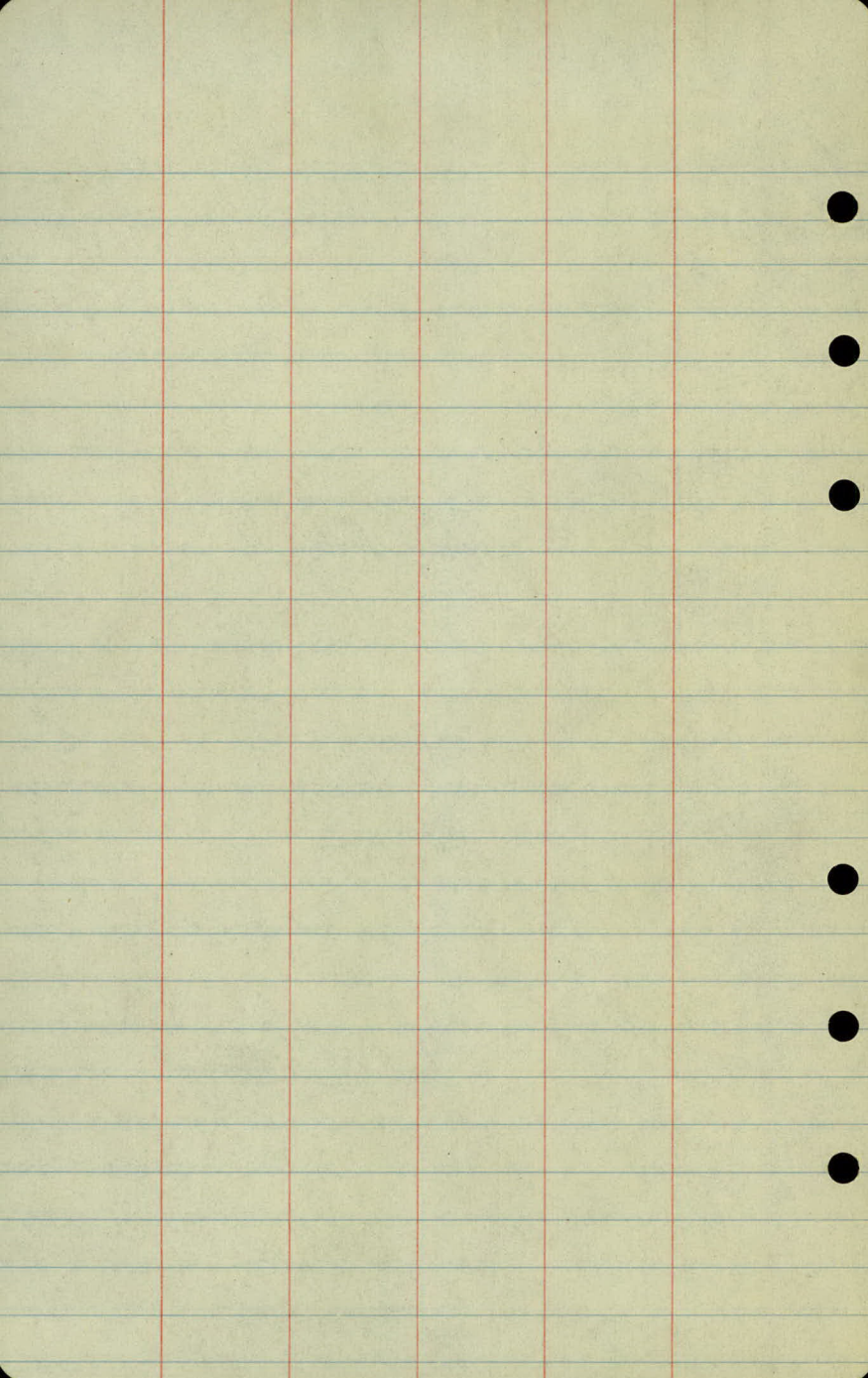
$$\frac{4.0}{20}$$

$$3.0$$

$$\frac{6.0}{20}$$

Dry Firm

00 Peat



1
Short St

Portland Ave to E. Co. Line

N

63.81

Washington Co. Line
Sta 3704.55

68.83

90.8

N. B. W. Line
Plotted

8842

90.8

FA
KP
AB

March 14 1958
Overcast 25° 2

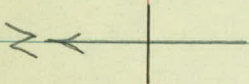
NE. Cor Sec. 17

E 1/4 Cor Sec. 17

1771.75
1761.63

90° 38'

88° 17'



Washington Co. Line

Plotted
N.R.W. Line Short St.

