

Dr. 8 - Bk. 144

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Drainage.....Survey

North of Harpenteur Ave
From Beebe Rd to East Ave

Road Acc't. No.

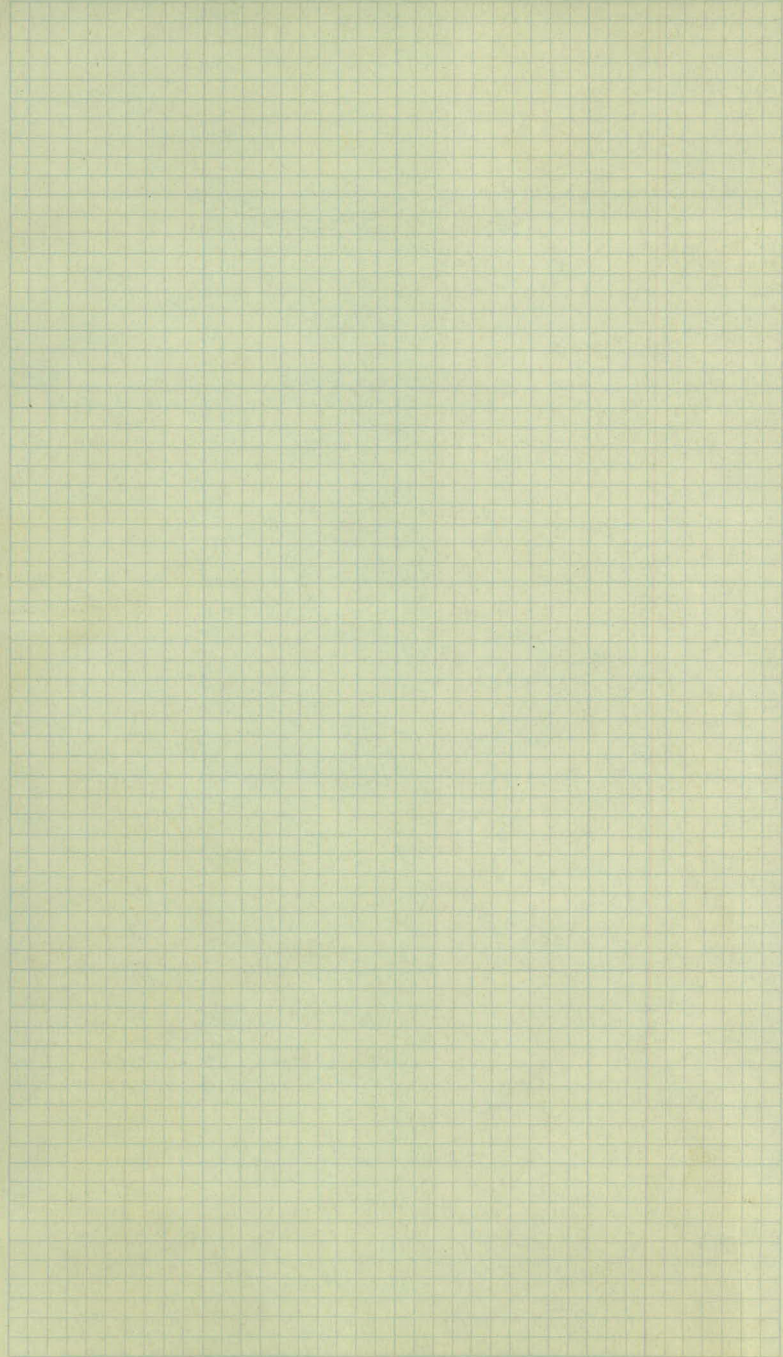
Date Filed 1938

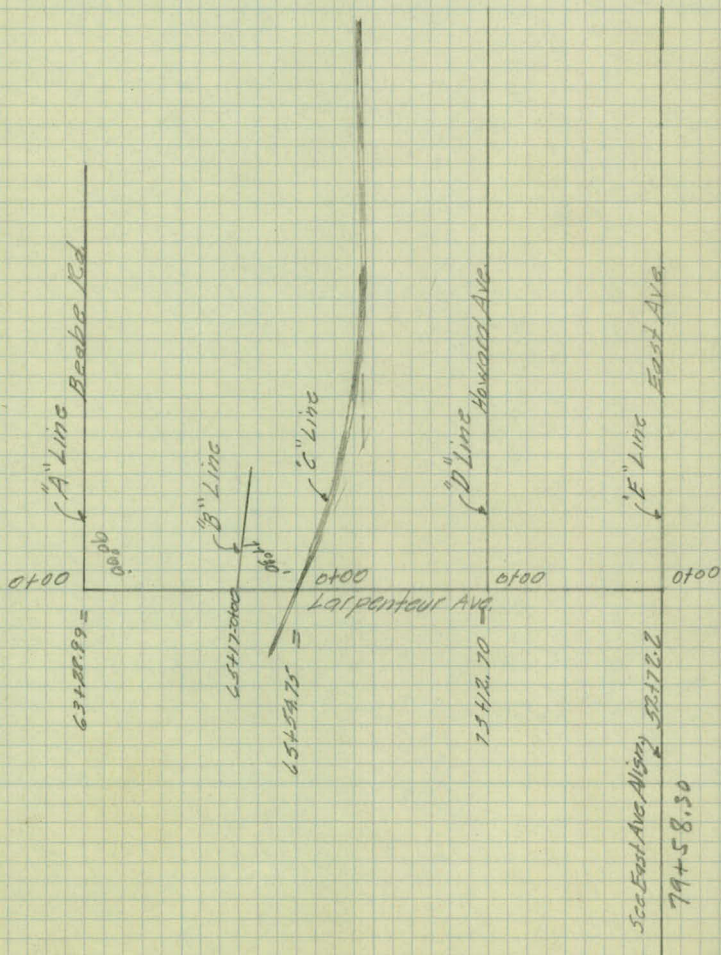
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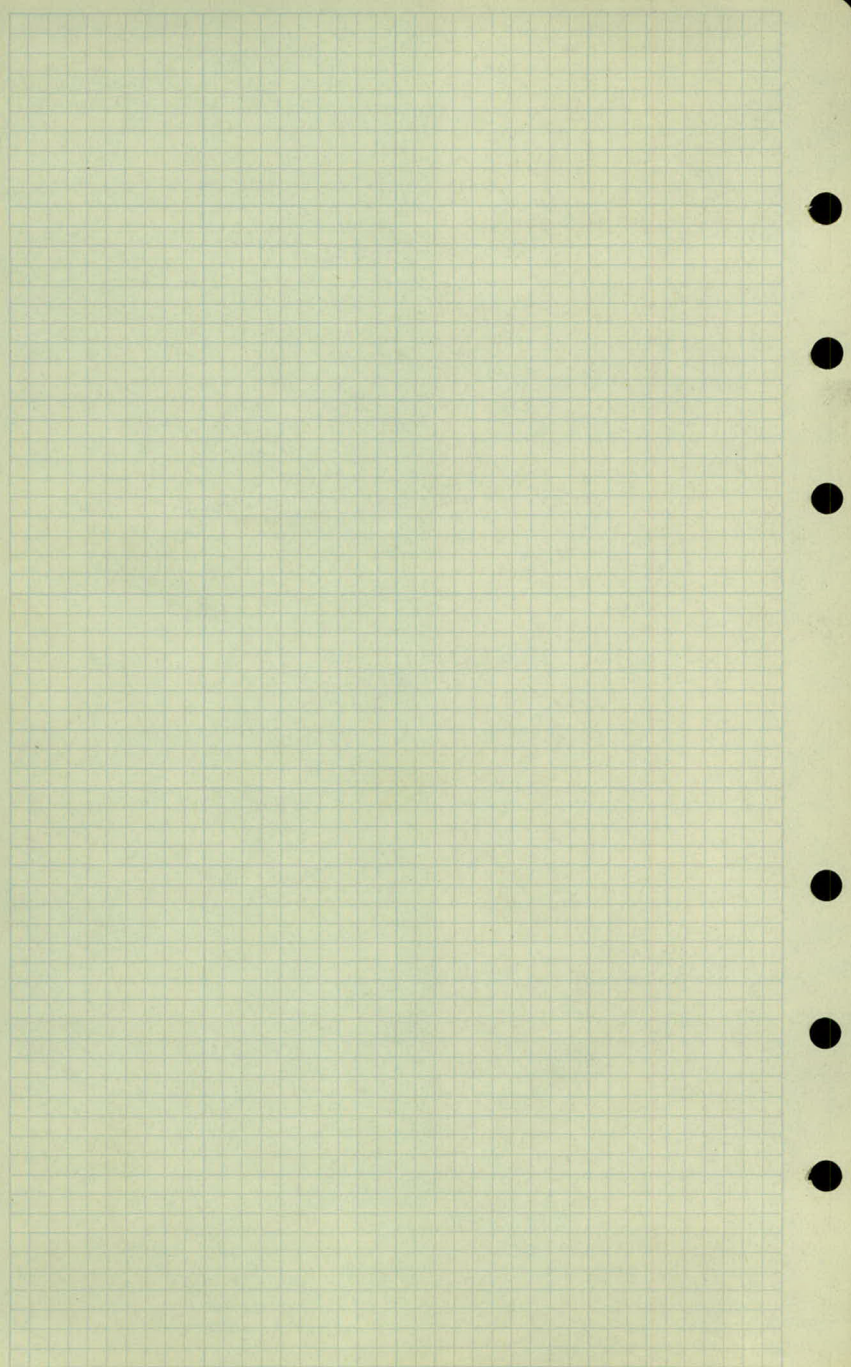
DRAINAGE SURVEY

from
Becker Rd to East Ave
No. of Carpenter Ave.

Alignment







Topography

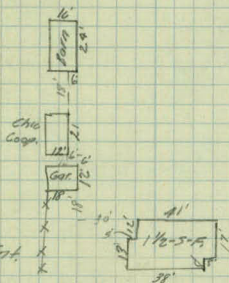
L'Appelant Ave.

Becker Rd East

100 = S.E. Cor. Hq. - 132'



121-Ent.



177-Ent.

180-S.W. Cor. Hq. 78'

159-Div. F.C. 53'

198-Div. S.H. 131.6 - 38'

103-805 Hq. 38'

197-RR R.R. 28'

180-RR R.R. 134 - 16'

121-RR R.R. 25'

170-S.H. R.R. 40'

116-E. Edge of Conc. Curve 77'

122-Cor. R.R. R.R. - 35'

113-S.W. Cor. R.R. - 32.2

119-W. Edge of Conc. Curve 84'

108-Ent.

180-S.E. Cor. Orchard - 119' N.E. Cor. - 187'

197-S.W. Cor. Hq. - 22.8'

151-S.W. Cor. Orchard - 120' N.W. Cor. 190'

192-RR 26'

76

75

74

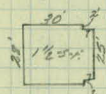
73

72

71

70

131-Ents.



192-S.W. Cor. Ha. - 73'

150-Ents.

115 E Edge of Hole - 68-155'



115 of 68

150-S.W. Cor. Ha. - 280'

123 W. Edge of Hole - 71-180'

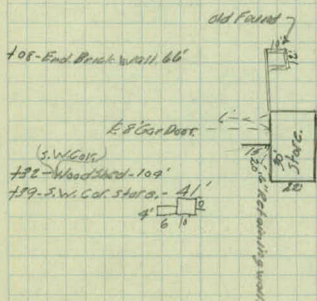
81

80

79

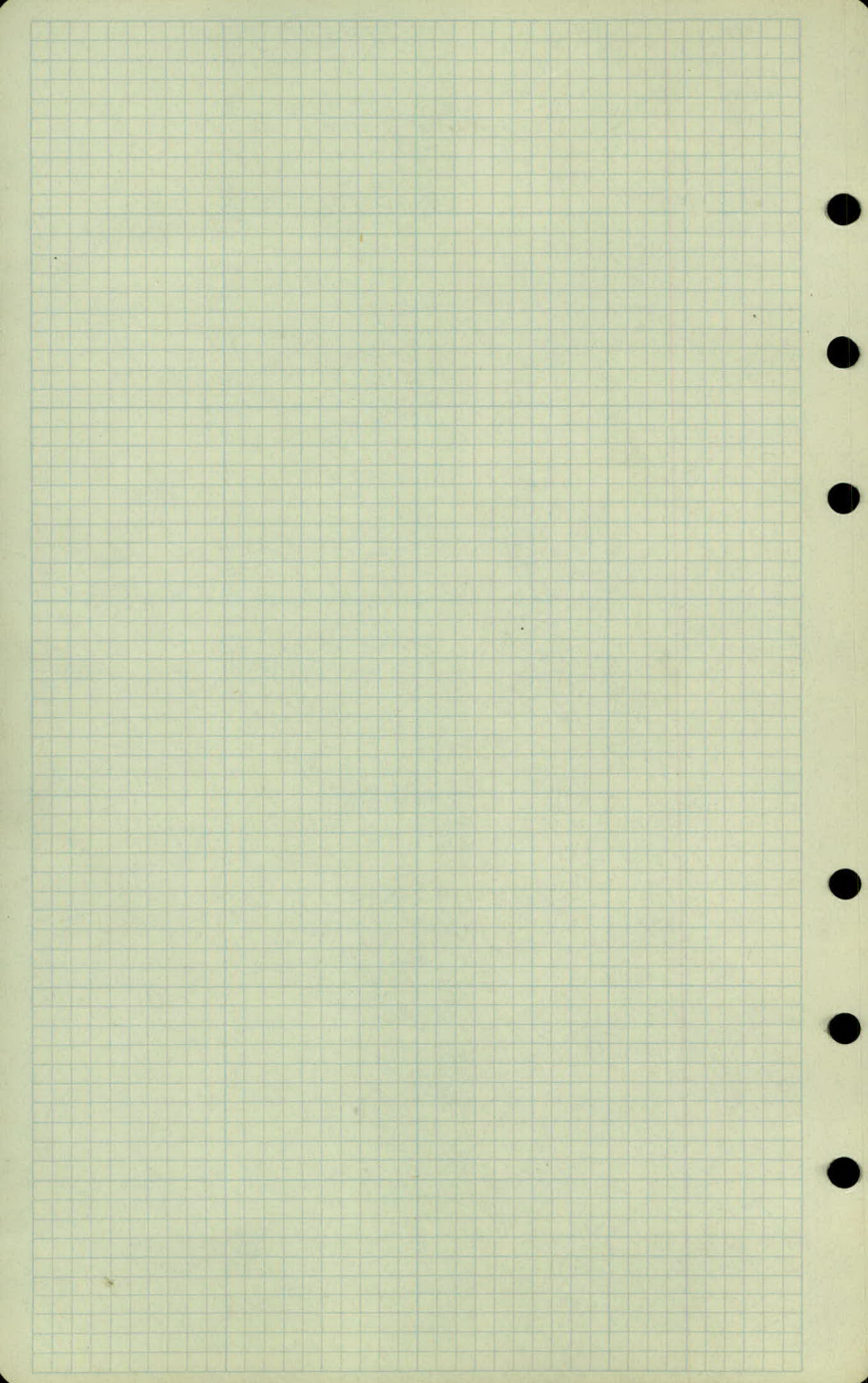
78

77



+10-Ent. -67'

-x-x-x-



Topography

East Ave.

47

46

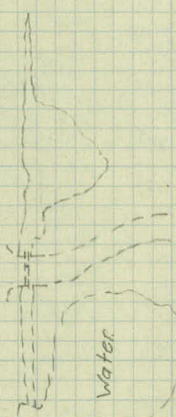
45

44

43



Water



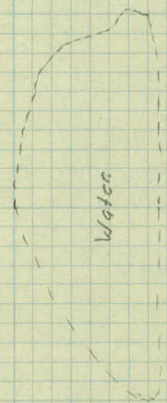
Water

148 Ent
15" 120' C.M. 25'

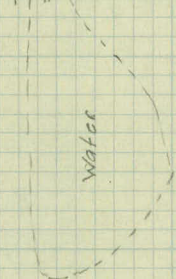
140 Ent
15" 120' C.M. 34'

Water-27'
140-Pothole-100'

135-Pothole-35'-50'



Water



Water

Pothole-27'-100'

Water-25'

Pothole-35'-50'

52

51

51

50

49

480 - 18' x 60' C.A. 7

29'

31'

48

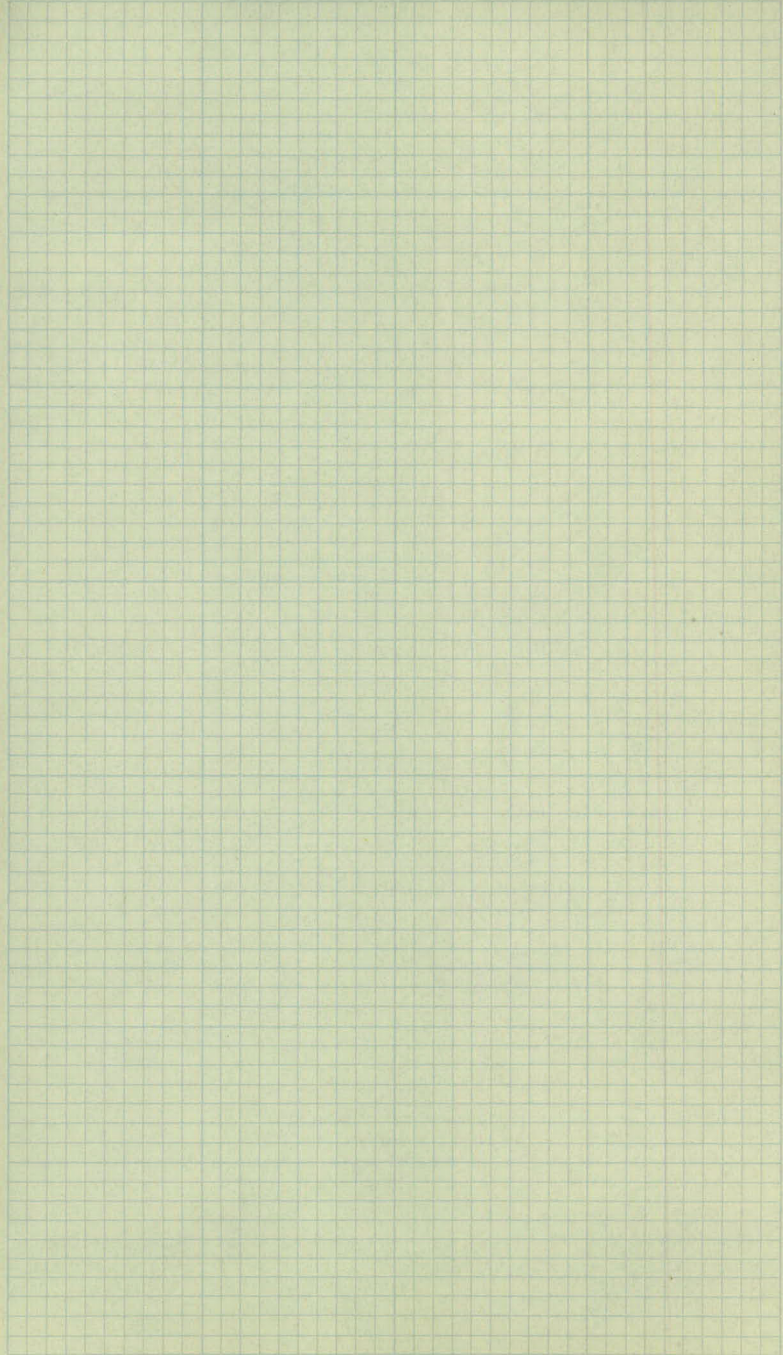
Water

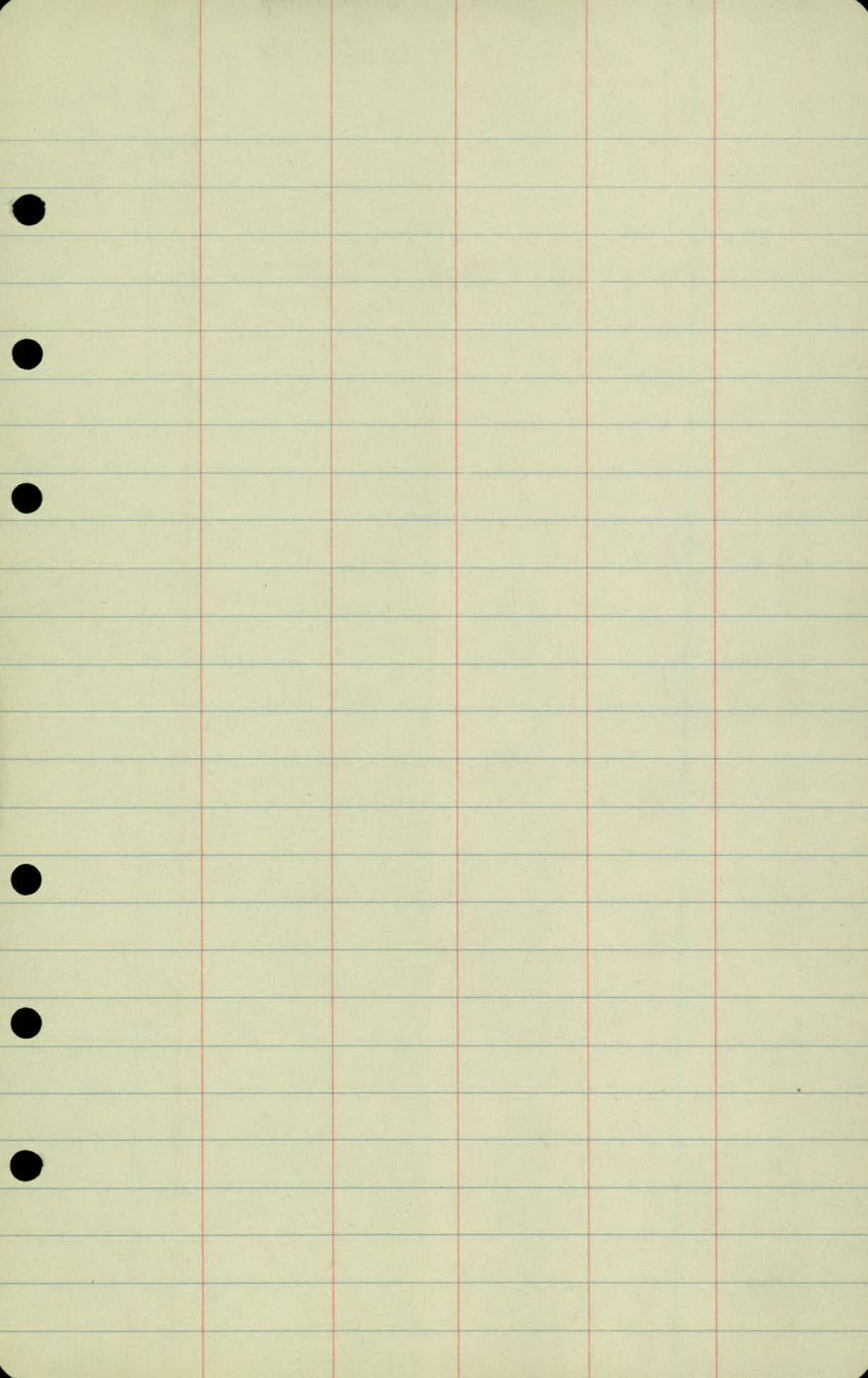
Water

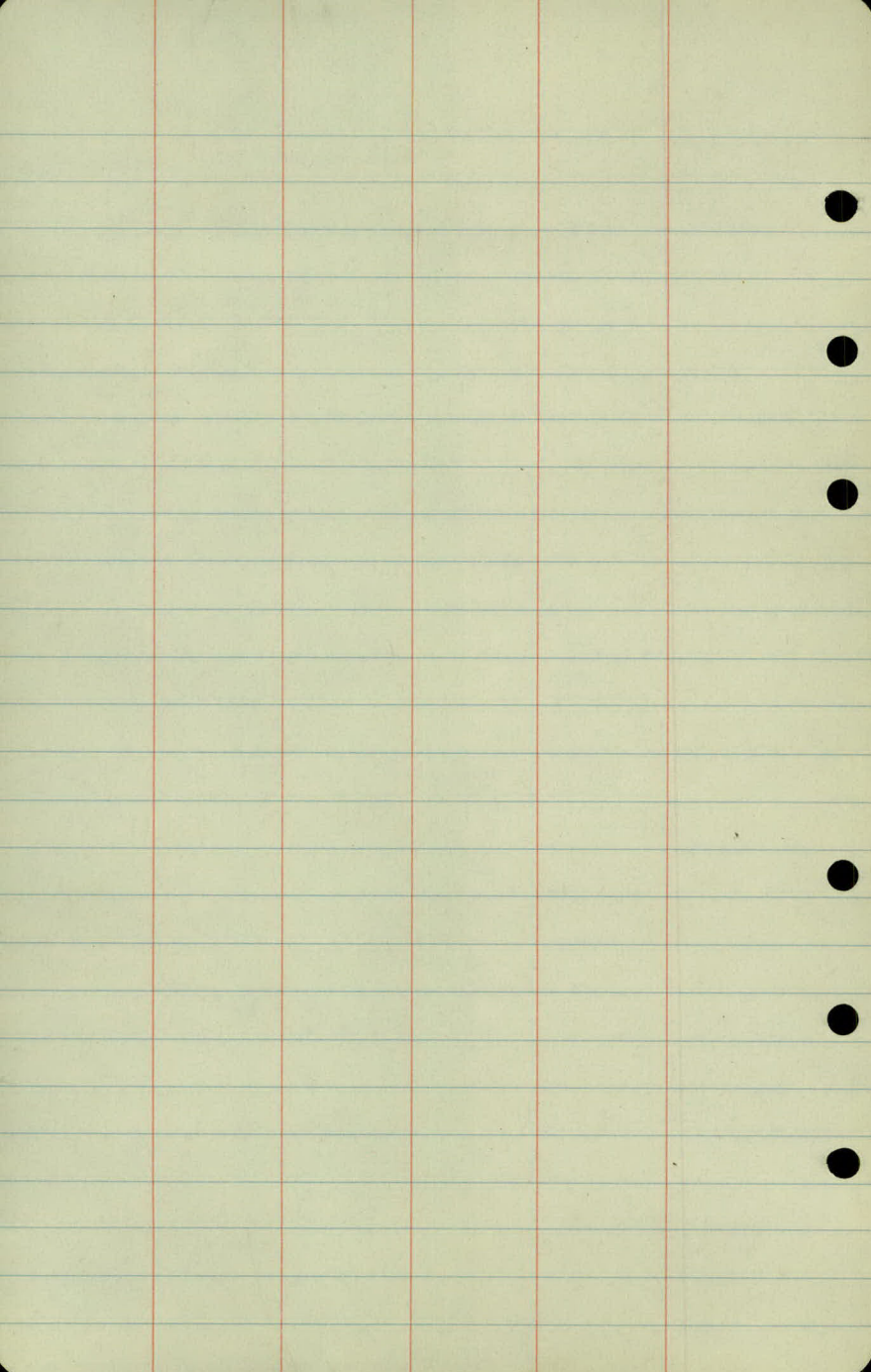
Water

24° 52' C.M.

138-5 End 24° C.M.
C.M. 52'







Topography

St. B. R. Line.

"C" Line

4

3

2

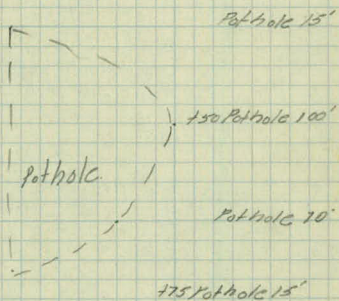
1

46.3 75" X 26" C.M.

44'

11.6'

0+00



==

12

11

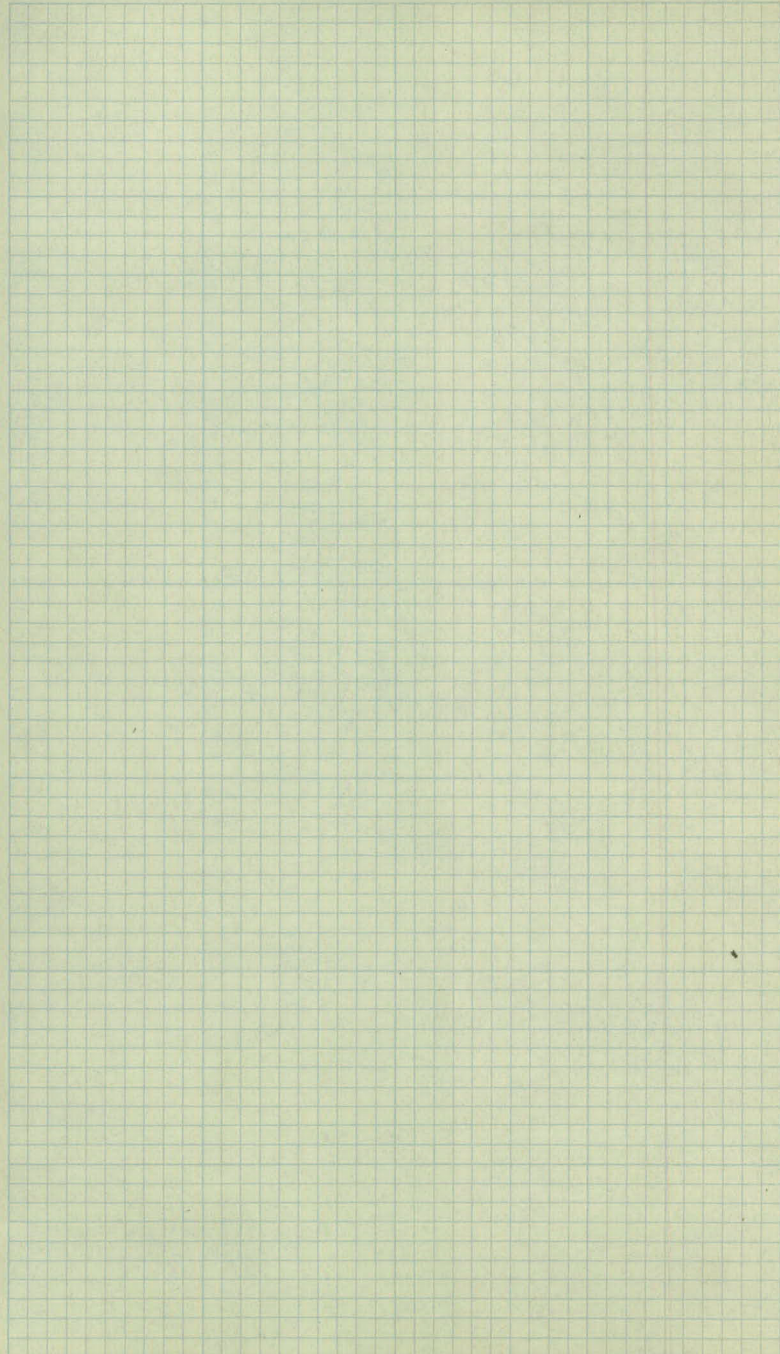
10

460-15" 1812.M. 9' 13'

7

8

==



BENCH LEVELS

Sta.	+	π	-	Elev.
B.M.	7.69	1028.68		1020.99
B.M.	7.95	1029.90	4.23	1024.45
T.P.	1.57	1028.36	13.11	1015.79
B.M.	12.57	1020.36	12.57	1007.79
B.M.	9.96	1020.36	9.96	1010.40

B.M.

1031.75

1041.75

Top Mont. Larp. & East Ave.

Top Bolt Spike Larp & Howard Ave.

Spk in SH RR TR N.W. Cor Larp

Spk in P.P. N.E. Cor Larp & Becker Rd.

Spk. in 3rd P.P. so. of Becker hdb.

Sta

+

π

-

Elev.

B.M.

R.72

1010.00

64

X sections

Larp. Ave.

Sta	+	π /	-	Elev
	2.72	1019.12		1010.40

64

+ 50

65

419 W. End Culv.

490 E. End Culv.

+ 60

66

TP	13.15	1025.09 ✓	1.18	1011.94 ✓
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+ 80

67

+ 50

LT

R

06.7	04.6	02.5	01.6	02.4	09.5	09.8
<u>6.4</u>	<u>8.5</u>	<u>10.6</u>	<u>11.5</u>	<u>10.7</u>	<u>3.6</u>	<u>3.3</u>
200	150	100	57	43	15	

99.8

13.8

FLOWLINE CURV

99.1

13.4

FLOWLINE CURV

10.5	07.3	03.8	01.3	01.3	00.3	01.8	07.5	08.8
<u>2.6</u>	<u>5.8</u>	<u>9.3</u>	<u>11.8</u>	<u>11.8</u>	<u>12.8</u>	<u>11.3</u>	<u>5.6</u>	<u>4.3</u>
200	144	100	70	49	47	45	16	

07.6	04.8	01.9	01.0	00.1	00.1	01.1	01.3	07.1	08.6
<u>5.5</u>	<u>8.3</u>	<u>11.2</u>	<u>12.1</u>	<u>13.0</u>	<u>13.0</u>	<u>12.0</u>	<u>11.8</u>	<u>6.0</u>	<u>4.5</u>
200	150	100	78	73	72	70	45	20	

00.1

13.0

Flowline

00.4

12.65

Flowline

06.5	04.8	02.9	08.6	08.6
<u>10.6</u>	<u>8.3</u>	<u>5.2</u>	<u>44.5</u>	<u>4.5</u>
65	42	23		

Top Rail

06.6	11.7	12.2	11.2	11.9
<u>6.5</u>	<u>1.4</u>	<u>0.9</u>	<u>1.9</u>	<u>1.2</u>
39	28	20	18	

21.3	20.7	18.5	18.3	17.5	17.9
<u>3.4</u>	<u>4.4</u>	<u>6.6</u>	<u>6.8</u>	<u>7.6</u>	<u>7.2</u>
63	40	31	20	18	

22.4	22.5	20.2	19.8	18.8	19.4
<u>2.7</u>	<u>2.6</u>	<u>4.9</u>	<u>5.3</u>	<u>6.3</u>	<u>5.7</u>
72	42	32	21	18	

22.7	23.7	22.8	22.4	21.8	22.2
<u>1.4</u>	<u>1.4</u>	<u>2.3</u>	<u>2.7</u>	<u>3.3</u>	<u>2.9</u>
61	33	30	20	18	

Sta + $\bar{A}$ ✓ - Elev

1025.09 ✓

TP 6.39 1029.72 1.76 1023.33 ✓

68

+ 50

69

+ 37

+ 65

T.P. 1.76 1027.59 ✓ 3.89 1025.83 ✓

70 + 02

+ 30

+ 85

71 + 20

+ 43

+ 58

Lt.

E

$$\begin{array}{r} 21.0 \\ 8.7 \\ \hline 137 \end{array} \quad \begin{array}{r} 23.0 \\ 6.7 \\ \hline 100 \end{array} \quad \begin{array}{r} 25.6 \\ 4.1 \\ \hline 50 \end{array} \quad \begin{array}{r} 26.0 \\ 4.7 \\ \hline 20 \end{array} \quad \begin{array}{r} 24.2 \\ 5.5 \\ \hline 17 \end{array} \quad \begin{array}{r} 24.6 \\ 5.2 \\ \hline \end{array}$$

$$\begin{array}{r} 21.0 \\ 8.7 \\ \hline 125 \end{array} \quad \begin{array}{r} 23.2 \\ 6.5 \\ \hline 100 \end{array} \quad \begin{array}{r} 26.6 \\ 3.1 \\ \hline 71 \end{array} \quad \begin{array}{r} 26.6 \\ 3.1 \\ \hline 21 \end{array} \quad \begin{array}{r} 26.7 \\ 4.0 \\ \hline 18 \end{array} \quad \begin{array}{r} 26.0 \\ 3.7 \\ \hline \end{array}$$

$$\begin{array}{r} 15.9 \\ 13.8 \\ \hline 181 \end{array} \quad \begin{array}{r} 19.0 \\ 10.7 \\ \hline 150 \end{array} \quad \begin{array}{r} 25.5 \\ 4.2 \\ \hline 100 \end{array} \quad \begin{array}{r} 27.1 \\ 2.6 \\ \hline 57 \end{array} \quad \begin{array}{r} 27.4 \\ 2.3 \\ \hline 21 \end{array} \quad \begin{array}{r} 26.8 \\ 2.9 \\ \hline 18 \end{array} \quad \begin{array}{r} 26.9 \\ 2.8 \\ \hline \end{array}$$

$$\begin{array}{r} 23.5 \\ 6.2 \\ \hline 145 \end{array} \quad \begin{array}{r} 25.2 \\ 4.5 \\ \hline 100 \end{array} \quad \begin{array}{r} 27.2 \\ 2.5 \\ \hline 2.9 \end{array} \quad \begin{array}{r} 26.9 \\ 2.8 \\ \hline \end{array}$$

$$\begin{array}{r} 24.2 \\ 5.5 \\ \hline 100 \end{array} \quad \begin{array}{r} 22.9 \\ 6.8 \\ \hline 85 \end{array} \quad \begin{array}{r} 19.8 \\ 8.9 \\ \hline 74 \end{array} \quad \begin{array}{r} 20.4 \\ 9.3 \\ \hline 58 \end{array} \quad \begin{array}{r} 27.1 \\ 2.6 \\ \hline 33 \end{array} \quad \begin{array}{r} 27.1 \\ 2.6 \\ \hline 21 \end{array} \quad \begin{array}{r} 26.5 \\ 3.2 \\ \hline 18 \end{array} \quad \begin{array}{r} 26.6 \\ 3.1 \\ \hline \end{array}$$

$$\begin{array}{r} 23.9 \\ 3.7 \\ \hline 200 \end{array} \quad \begin{array}{r} 23.4 \\ 4.2 \\ \hline 160 \end{array} \quad \begin{array}{r} 24.4 \\ 3.2 \\ \hline 133 \end{array} \quad \begin{array}{r} 22.3 \\ 5.3 \\ \hline 97 \end{array} \quad \begin{array}{r} 18.3 \\ 9.3 \\ \hline 6.9 \end{array} \quad \begin{array}{r} 26.6 \\ 1.0 \\ \hline 31 \end{array} \quad \begin{array}{r} 26.6 \\ 1.0 \\ \hline 21 \end{array} \quad \begin{array}{r} 26.1 \\ 1.5 \\ \hline 18 \end{array} \quad \begin{array}{r} 26.2 \\ 1.4 \\ \hline \end{array}$$

$$\begin{array}{r} 22.2 \\ 5.4 \\ \hline 230 \end{array} \quad \begin{array}{r} 17.1 \\ 10.5 \\ \hline 190 \end{array} \quad \begin{array}{r} 16.5 \\ 11.1 \\ \hline 150 \end{array} \quad \begin{array}{r} 16.5 \\ 11.1 \\ \hline 100 \end{array} \quad \begin{array}{r} 16.4 \\ 11.2 \\ \hline 70 \end{array} \quad \begin{array}{r} 26.2 \\ 1.4 \\ \hline 33 \end{array} \quad \begin{array}{r} 26.4 \\ 1.2 \\ \hline 20 \end{array} \quad \begin{array}{r} 25.7 \\ 1.9 \\ \hline 17 \end{array} \quad \begin{array}{r} 25.9 \\ 1.7 \\ \hline \end{array}$$

$$\begin{array}{r} 13.8 \\ 13.8 \\ \hline 130 \end{array} \quad \begin{array}{r} 16.6 \\ 11.0 \\ \hline 67 \end{array}$$

$$\begin{array}{r} 16.7 \\ 10.9 \\ \hline 192 \end{array} \quad \begin{array}{r} 16.5 \\ 11.1 \\ \hline 179 \end{array} \quad \begin{array}{r} 15.1 \\ 12.5 \\ \hline 156 \end{array} \quad \begin{array}{r} 16.4 \\ 11.2 \\ \hline 100 \end{array} \quad \begin{array}{r} 16.7 \\ 10.9 \\ \hline 69 \end{array} \quad \begin{array}{r} 25.2 \\ 2.4 \\ \hline 33 \end{array} \quad \begin{array}{r} 25.3 \\ 2.3 \\ \hline 21 \end{array} \quad \begin{array}{r} 24.6 \\ 3.0 \\ \hline 18 \end{array} \quad \begin{array}{r} 23.9 \\ 2.7 \\ \hline \end{array}$$

$$\begin{array}{r} 19.0 \\ 8.6 \\ \hline 140 \end{array} \quad \begin{array}{r} 20.7 \\ 6.9 \\ \hline 100 \end{array} \quad \begin{array}{r} 24.8 \\ 2.8 \\ \hline 32 \end{array} \quad \begin{array}{r} 24.4 \\ 3.2 \\ \hline 22 \end{array} \quad \begin{array}{r} 24.7 \\ 3.2 \\ \hline \end{array}$$

$$\begin{array}{r} 20.7 \\ 6.9 \\ \hline 100 \end{array} \quad \begin{array}{r} 24.5 \\ 3.1 \\ \hline 35 \end{array} \quad \begin{array}{r} 24.4 \\ 3.2 \\ \hline 2.5 \end{array} \quad \begin{array}{r} 24.7 \\ 2.9 \\ \hline \end{array}$$

Sta	+	π ✓	-	Elev
		1027.59		

+ 70

72 + 25

BM	4.61	✓ 1029.04	3.16	✓ 1024.43
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74

+ 50

75

+ 73

+ 85

TP	3.34	✓ 1027.23	5.15	✓ 1023.89
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76 + 40

+ 56

77

LT

E

25.4	25.7	17.8	20.1	19.9	18.3	19.0	24.4	24.6	24.1	24.7
<u>2.9</u>	<u>1.9</u>	<u>9.8</u>	<u>7.5</u>	<u>7.7</u>	<u>9.3</u>	<u>8.6</u>	<u>32</u>	<u>3.0</u>	<u>3.5</u>	<u>2.9</u>
243	231	175	133	100	69	59	33	21	19	
7.9	19.7		24.4	19.5	20.0	23.2	25.1	25.2	24.3	24.7
267			<u>3.2</u>	<u>8.1</u>	<u>7.6</u>	<u>4.4</u>	<u>2.5</u>	<u>2.4</u>	<u>3.3</u>	<u>2.9</u>
			184	147	100	43	32	20	17	

Top bolt spike Larp + Howard

17.7	22.0	24.7	24.8	24.0	24.6
<u>11.3</u>	<u>2.0</u>	<u>4.3</u>	<u>4.2</u>	<u>5.0</u>	<u>4.6</u>
100	44	33	20	18	
17.7	20.1	24.7	25.0	24.3	24.6
<u>11.3</u>	<u>8.9</u>	<u>4.3</u>	<u>4.0</u>	<u>4.7</u>	<u>4.4</u>
100	47	34	21	19	
21.0	23.9	25.9	25.1	25.0	24.3
<u>8.0</u>	<u>5.1</u>	<u>3.1</u>	<u>3.9</u>	<u>4.0</u>	<u>4.7</u>
100	84	36	33	21	18
15.9	17.5	24.7	25.0	24.0	24.2
<u>13.1</u>	<u>11.5</u>	<u>4.3</u>	<u>4.0</u>	<u>5.0</u>	<u>4.8</u>
100	67	40	21	18	
15.2	22.7	24.7	24.9	23.9	24.0
<u>13.8</u>	<u>6.3</u>	<u>4.3</u>	<u>4.1</u>	<u>5.1</u>	<u>5.0</u>
124	110	36	21	18	

15.2	21.7	23.6
<u>12.0</u>	<u>5.5</u>	<u>3.6</u>
130	111	36
15.4	16.5	23.6
<u>11.8</u>	<u>10.7</u>	<u>3.6</u>
100	64	34
15.1	16.3	23.0
<u>12.1</u>	<u>10.9</u>	<u>4.2</u>
100	63	34
		23.1
		22.4
		22.7
		4.5

Sta	+	π ✓	-	Elev
		1027.23		

77+50

78

+38

BM

2.75

✓
1023.74

6.25

✓
1020.98

1020.99

+20

0.20 water in Basement

79

+32

L+

E

16.0	18.0	22.4	22.5	21.8	22.3
<u>11.2</u>	<u>9.2</u>	<u>4.8</u>	<u>4.7</u>	<u>5.4</u>	<u>4.9</u>
100	55	34	21	18	

15.9	18.1	22.3	22.3	21.6	22.1
<u>11.3</u>	<u>9.1</u>	<u>4.9</u>	<u>4.9</u>	<u>5.6</u>	<u>5.1</u>
100	53	33	21	18	

15.3	16.4	20.3	20.7	21.9	22.0	21.4	22.0
<u>11.9</u>	<u>10.8</u>	<u>6.9</u>	<u>6.6</u>	<u>5.3</u>	<u>5.2</u>	<u>5.8</u>	<u>5.2</u>
100	79	63	44	39	23	17	

15.4

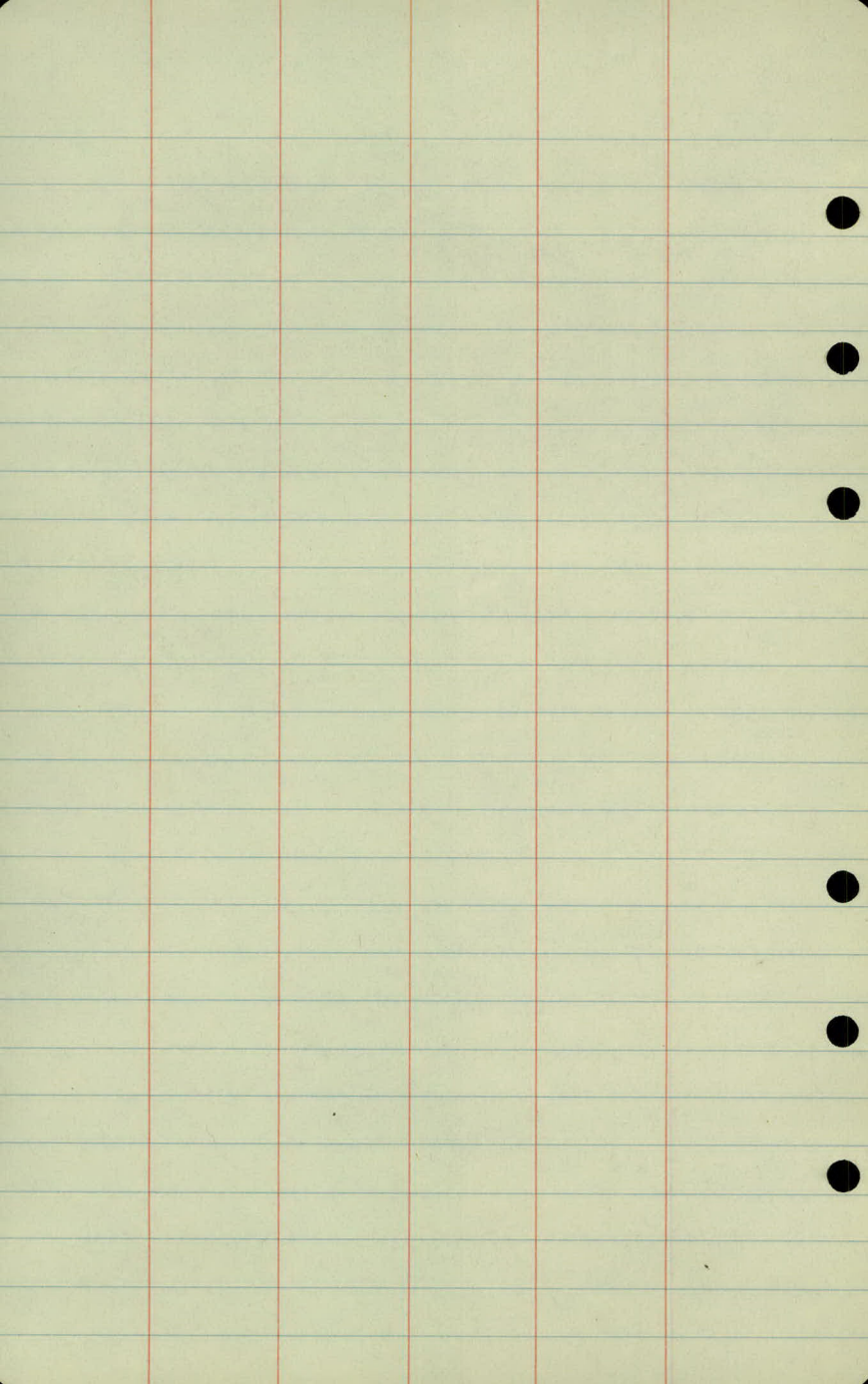
Top of Mon Larp + E. Ave

8.7	10.1	8.8	8.3	7.8	8.5	1.8
<u>119</u>	<u>117</u>	<u>114</u>	<u>100</u>	<u>64</u>	<u>64</u>	<u>18</u>

Flow Line Basement

15.7	16.9	16.8	20.2	21.2	21.6
<u>8.0</u>	<u>6.8</u>	<u>6.9</u>	<u>3.5</u>	<u>3.5</u>	<u>2.1</u>
83	82	65	65	55	

15.9	18.4	18.9	16.4	19.8	21.2
<u>7.8</u>	<u>5.3</u>	<u>4.8</u>	<u>7.3</u>	<u>3.9</u>	<u>2.5</u>
77	77	61	61	53	



x sections

Sta	+	Σ	-	Elev.
B.M.	12.77	1023.17 1033.17		1010.40

64

+ 50

65

+ 50

64 + 80

66

+ 50

67

+ 20

67 + 50

I.P.	13.56	1035.85 1045.85	0.88	1022.29 1032.29
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64

14.

4

Spt 100 P.P. N.E. Cor. Harp & Basha Rd.

12.0	10.6	09.9	13.3	13.3	10.1
<u>11.2</u>	<u>12.6</u>	<u>13.3</u>	<u>10.0</u>	<u>9.9</u>	<u>13.1</u>
523	500	443	400	355	300

20.9	21.1	10.6	14.2
<u>2.3</u>	<u>2.1</u>	<u>6.6</u>	<u>9.0</u>
400	357	300	224

14.8	19.1	19.6	21.5	15.0	13.2
<u>8.4</u>	<u>41</u>	<u>3.6</u>	<u>1.7</u>	<u>8.2</u>	<u>10.0</u>
500	484	400	360	300	225

20.4	14.8	10.4	12.7	19.8	20.4	12.6	12.0
<u>2.8</u>	<u>8.4</u>	<u>16.8</u>	<u>10.5</u>	<u>3.4</u>	<u>2.8</u>	<u>10.6</u>	<u>11.2</u>
600	570	500	400	364	342	322	300

04.3	18.0	17.4	21.1	21.4
<u>16.9</u>	<u>5.2</u>	<u>5.8</u>	<u>2.1</u>	<u>1.8</u>
444	525	470	420	400

18.0	10.8	06.5	06.1	06.4	11.4	09.9
<u>5.2</u>	<u>12.4</u>	<u>16.7</u>	<u>17.1</u>	<u>14.8</u>	<u>11.8</u>	<u>13.3</u>
600	530	500	450	410	346	300

22.0	16.2	11.2	05.6	05.7	05.8	07.5
<u>1.2</u>	<u>7.0</u>	<u>12.0</u>	<u>17.6</u>	<u>17.5</u>	<u>17.4</u>	<u>15.7</u>
600	550	500	441	400	397	500

18.8	19.6	17.1	04.8	05.3
<u>4.4</u>	<u>3.7</u>	<u>5.5</u>	<u>15.7</u>	<u>17.9</u>
575	580	480	423	400

19.0
<u>4.2</u>
500

14.4	14.4	16.6
<u>8.8</u>	<u>8.8</u>	<u>7.6</u>
600	540	500

34.7	30.0	28.1
<u>1.2</u>	<u>2.9</u>	<u>8.8</u>
654	600	570

Sta + T - Elev.

1035.85
1045.85

64+ 50

65

+50

66

+72

67

T.P

10.16

41.12
1051.12

489

1030.96
1040.96

T.P #1

13.57

1052.28

64

+45

65

+19

66

B.M.

BM

9.37

1031.75
1041.75

17

8

$$\begin{array}{r} 33.6 \\ 2.3 \\ \hline 600 \end{array} \quad \begin{array}{r} 31.2 \\ 4.7 \\ \hline 580 \end{array}$$

$$\begin{array}{r} 34.4 \\ 1.5 \\ \hline 660 \end{array} \quad \begin{array}{r} 32.4 \\ 3.5 \\ \hline 629 \end{array} \quad \begin{array}{r} 29.4 \\ 6.5 \\ \hline 600 \end{array} \quad \begin{array}{r} 24.2 \\ 11.7 \\ \hline 579 \end{array}$$

$$\begin{array}{r} 31.1 \\ 4.8 \\ \hline 700 \end{array} \quad \begin{array}{r} 30.7 \\ 5.2 \\ \hline 660 \end{array} \quad \begin{array}{r} 27.1 \\ 8.8 \\ \hline 639 \end{array}$$

$$\begin{array}{r} 28.5 \\ 7.4 \\ \hline 700 \end{array} \quad \begin{array}{r} 28.1 \\ 7.5 \\ \hline 660 \end{array} \quad \begin{array}{r} 26.5 \\ 9.4 \\ \hline 636 \end{array}$$

$$\begin{array}{r} 28.1 \\ 7.8 \\ \hline 665 \end{array} \quad \begin{array}{r} 27.9 \\ 8.0 \\ \hline 647 \end{array} \quad \begin{array}{r} 22.4 \\ 13.3 \\ \hline 600 \end{array}$$

$$\begin{array}{r} 25.8 \\ 10.1 \\ \hline 780 \end{array} \quad \begin{array}{r} 27.0 \\ 8.9 \\ \hline 670 \end{array} \quad \begin{array}{r} 20.0 \\ 15.9 \\ \hline 600 \end{array}$$

$$\begin{array}{r} 27.8 \\ 13.3 \\ \hline 800 \end{array} \quad \begin{array}{r} 31.5 \\ 2.6 \\ \hline 750 \end{array} \quad \begin{array}{r} 35.0 \\ 6.1 \\ \hline 700 \end{array}$$

$$\begin{array}{r} 26.8 \\ 15.3 \\ \hline 800 \end{array} \quad \begin{array}{r} 36.5 \\ 9.6 \\ \hline 745 \end{array} \quad \begin{array}{r} 37.2 \\ 3.9 \\ \hline 725 \end{array}$$

$$\begin{array}{r} 33.3 \\ 7.5 \\ \hline 810 \end{array} \quad \begin{array}{r} 37.4 \\ 3.7 \\ \hline 765 \end{array} \quad \begin{array}{r} 34.8 \\ 6.3 \\ \hline 700 \end{array}$$

$$\begin{array}{r} 26.5 \\ 14.6 \\ \hline 700 \end{array} \quad \begin{array}{r} 27.8 \\ 13.3 \\ \hline 865 \end{array} \quad \begin{array}{r} 32.4 \\ 8.7 \\ \hline 895 \end{array} \quad \begin{array}{r} 34.9 \\ 6.3 \\ \hline 800 \end{array} \quad \begin{array}{r} 36.0 \\ 5.1 \\ \hline 779 \end{array}$$

$$\begin{array}{r} 20.1 \\ 21.0 \\ \hline 900 \end{array} \quad \begin{array}{r} 22.7 \\ 18.4 \\ \hline 865 \end{array} \quad \begin{array}{r} 27.9 \\ 13.2 \\ \hline 800 \end{array} \quad \begin{array}{r} 29.2 \\ 11.9 \\ \hline 750 \end{array} \quad \begin{array}{r} 28.4 \\ 12.7 \\ \hline 700 \end{array}$$

5 MC in 350 PP 5 of Boobe Lake

Sta.	+	π	-	Elev.
T.P.	6.00	1028.29 1038.28		1022.29 1032.28

67+50

6P

T.P.

12.66

1015.63
1025.62

Lt.

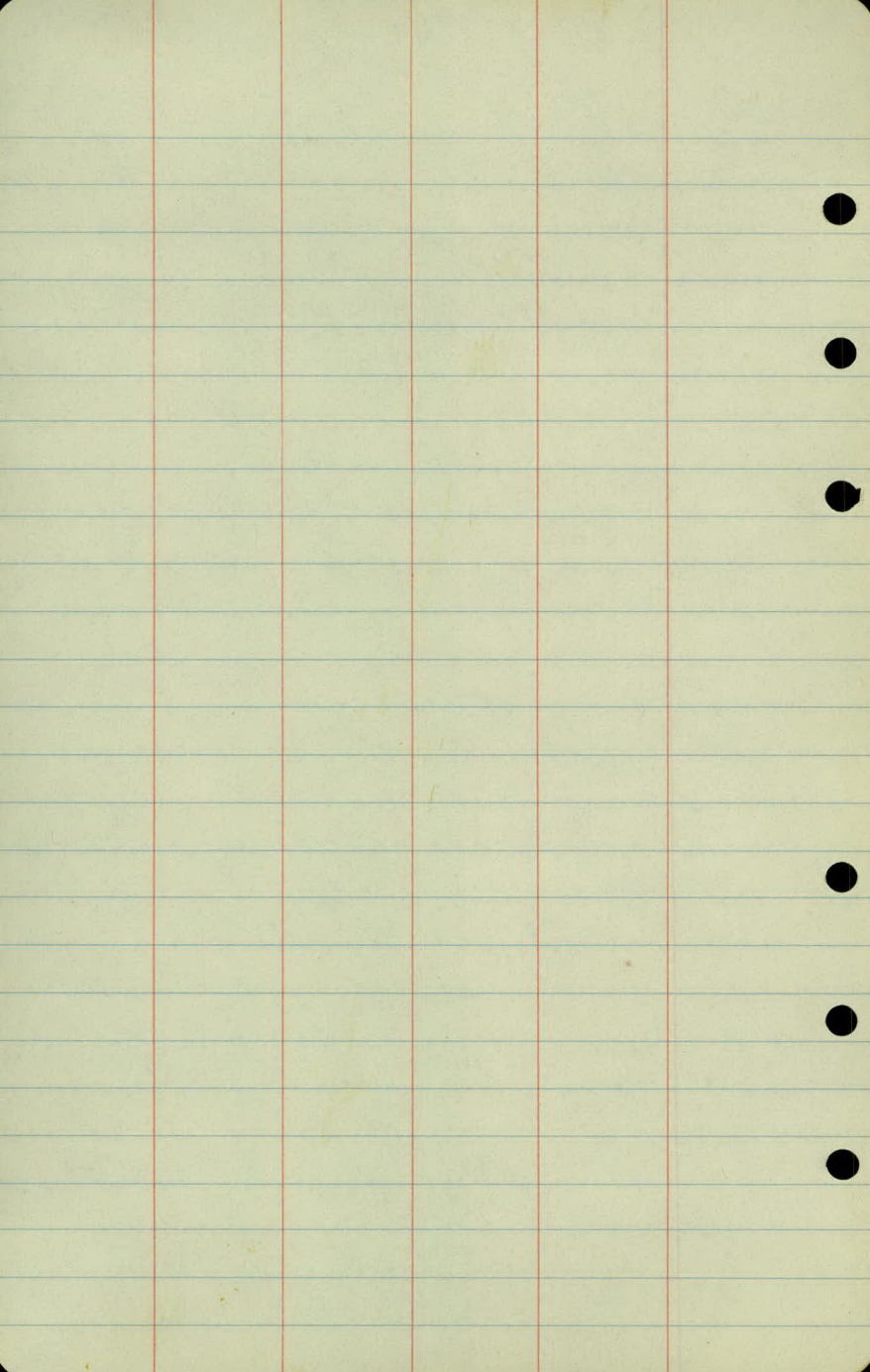
K

T.P. Marked #1

15.6	22.2	23.4	15.6	14.5	14.7	16.0
<u>127</u>	<u>61</u>	<u>49</u>	<u>127</u>	<u>188</u>	<u>186</u>	<u>123</u>
800	740	700	627	600	588	580

13.8	14.7	17.0	13.7	12.6
<u>145</u>	<u>186</u>	<u>113</u>	<u>146</u>	<u>157</u>
800	745	690	650	600

Tap Fe. Post.



xsections

B.M.	116	1025.61		1024.45
------	-----	---------	--	---------

68 +50				
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69				
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68 +50				
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69 + 50				
---------	--	--	--	--

70				
----	--	--	--	--

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

71				
----	--	--	--	--

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

T.P.	145	1018.37	1169	1013.72
------	-----	---------	------	---------

71				
----	--	--	--	--

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

70 +50				
--------	--	--	--	--

70				
----	--	--	--	--

Lt

6

Top Bolt Spike Howard & Harp

18.1 08.2
75 174
155 200

12.1 11.6 12.0 12.9 11.9 10.5
125 140 126 97 157 151
550 400 350 300 250 200

15.6 11.0
100 146
337 300

14.8 12.7 10.3 10.0 13.4 12.4 12.7 12.5 19.8
108 79 103 106 120 122 99 71 58
600 550 500 425 400 350 300 250 200

14.0 14.4 14.6 14.9 14.0 12.6 18.4 21.0
116 110 110 107 96 81 70 46
600 550 500 450 400 350 300 250

09.8 11.8 11.8 12.4 12.4 14.1 12.6 22.8
158 138 138 130 128 115 80 28
600 550 500 450 400 350 300 250

11.8 12.1 15.2 23.2 23.8
2 Ditch Ends 138 125 104 24 18
400 350 300 250 200

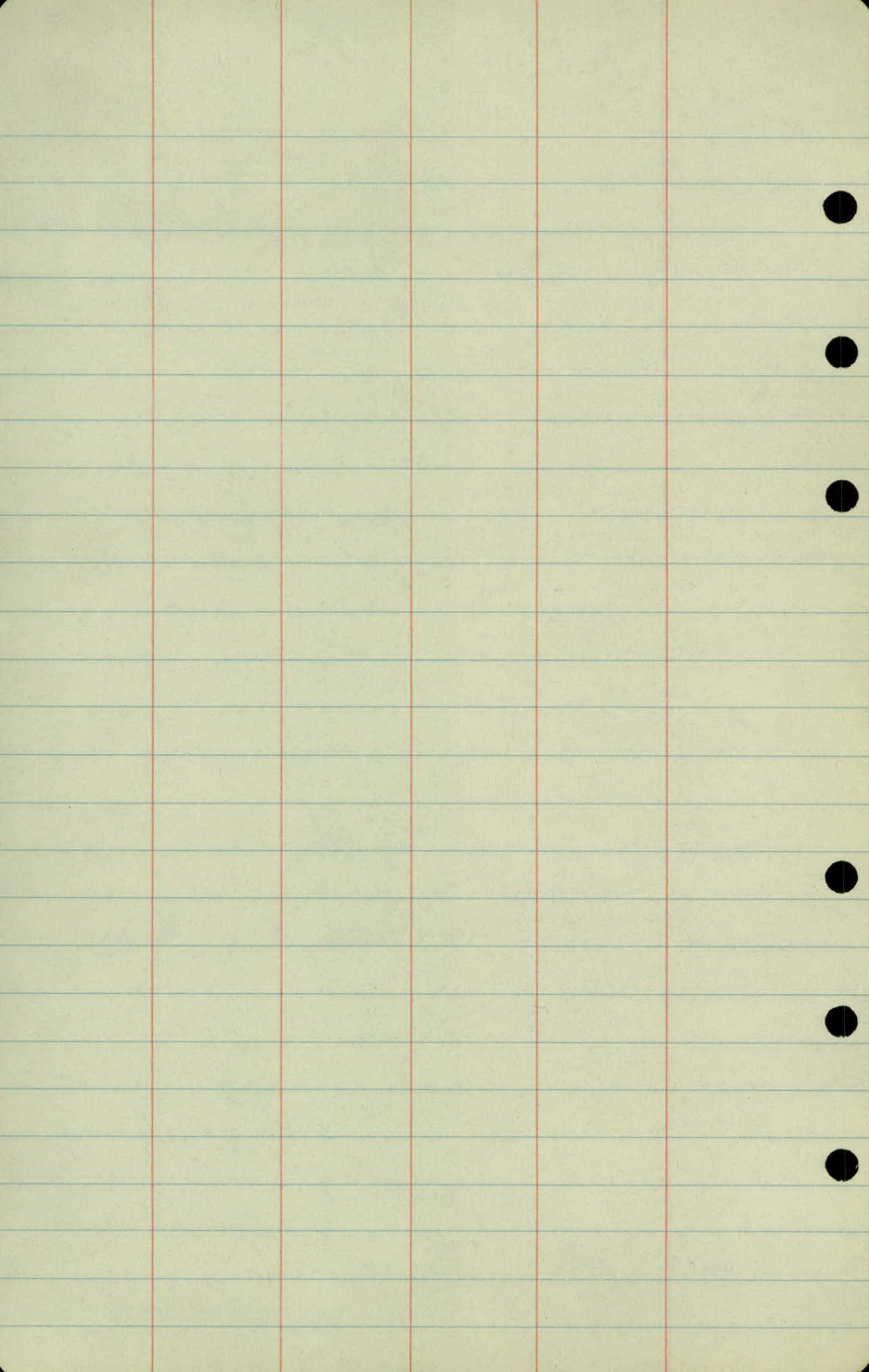
13.2 13.6 12.0 12.0 13.4 15.6 24.7 24.5
124 120 136 136 120 100 09 11
400 353 349 347 345 274 250 237

12.8 12.6 12.4 11.4 11.1 11.1
56 58 60 70 73 73
700 650 600 550 500 400

14.0 14.1
49 43
600 550

11.5 11.9
69 65
700 650

13.0 13.4 12.5
54 50 59
750 700 650



Corpenteur

Sts.	+	π	-	Elev
B.M.	0.83	1025.28		1024.45

74+00

75+00

+50

76+00

77+00

78+00

T.P.	5.85	1024.31	6.82	1018.46	OK
B.M.			3.32	1020.99	1020.99

2

Top of Best Spike Larp & Howard

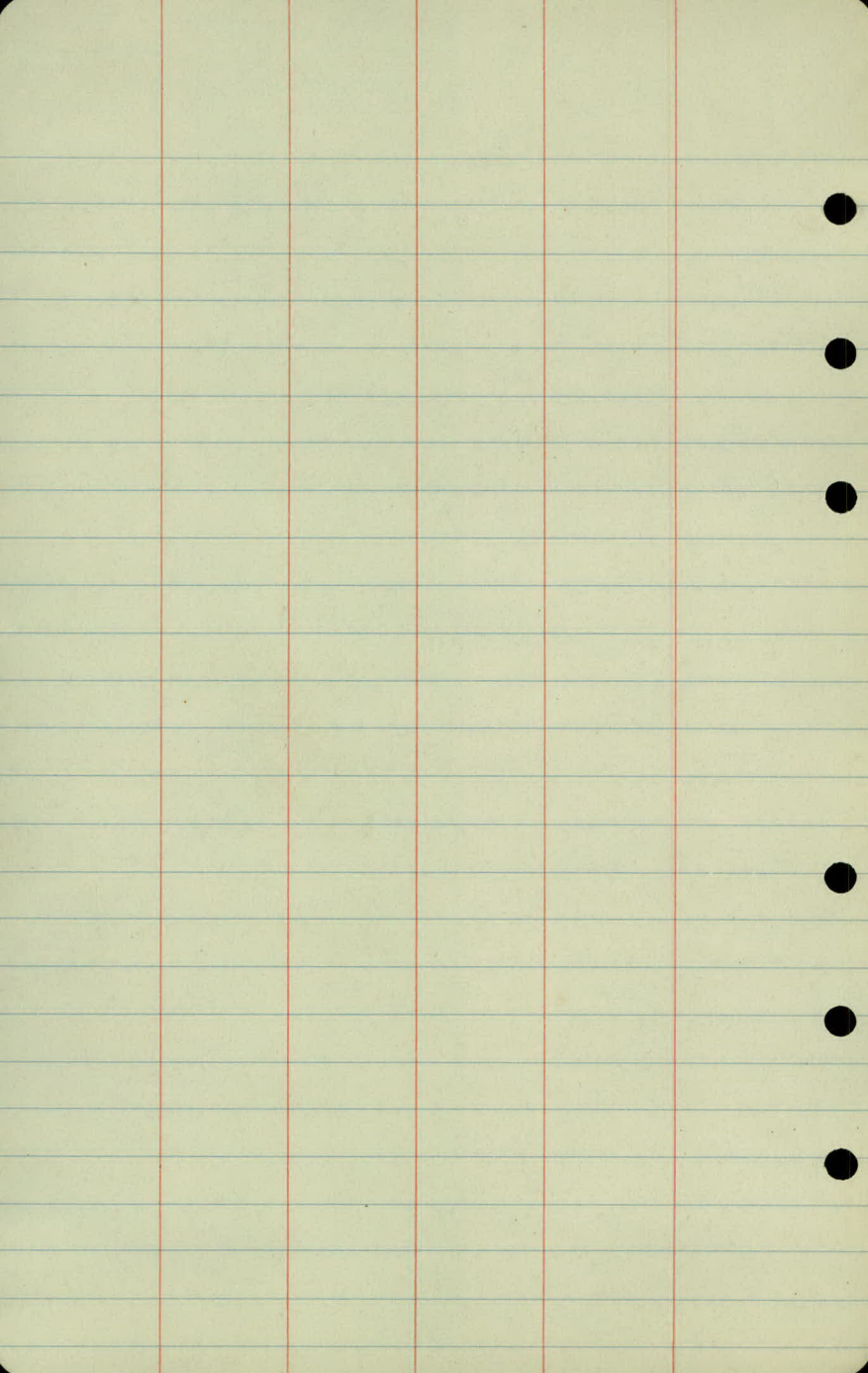
21.1	19.1	15.6	13.9	D	13.9	15.4	16.2	17.4	18.3	16.8	16.6
42	62	87	114	114	89	81	77	70	85	87	
400	359	309	307	301	301	252	233	200	184	156	
28.7	19.2	17.5	16.3	16.7	14.5	D	14.5	16.6	16.6	14.8	15.4
16	61	78	90	86	108	108	87	87	93	99	88
400	339	331	300	270	268	261	261	200	173	170	163
19.0	17.8	17.0	18.1	18.2	15.8	14.7	D	14.7	15.5	15.5	15.3
63	71	83	72	70	95	106	106	98	98	100	
400	350	346	338	300	250	248	241	242	200	150	
15.3	15.3	14.4	14.4	15.3	15.1	14.8	D	14.6	15.3	15.3	15.5
100	100	109	109	100	102	105	107	100	100	98	
289	229	228	224	223	201	204	202	202	200	125	

18.5	18.1	18.3	16.7	15.8
68	72	70	86	91
400	380	325	318	300

24.6	24.9	19.0	16.3	15.1	15.5	15.3	14.3	D	14.3	15.3	15.3	15.7
0.7	0.4	63	90	102	98	100	110	110	100	100	100	101
400	350	341	300	237	200	194	192	190	188	142	107	

24.0	25.0	23.4	23.6	17.8	17.2	15.6	15.2	14.8	15.3	14.1	D	14.1	15.3	15.3
10.7	0.3	19	17	71	81	87	101	105	100	112	112	100	100	100
100	335	300	290	250	214	211	200	177	154	153	150	149	139	

Top Mon. Larp & East Ave.



Add Xsections

Warp Ave

76+25 to 79

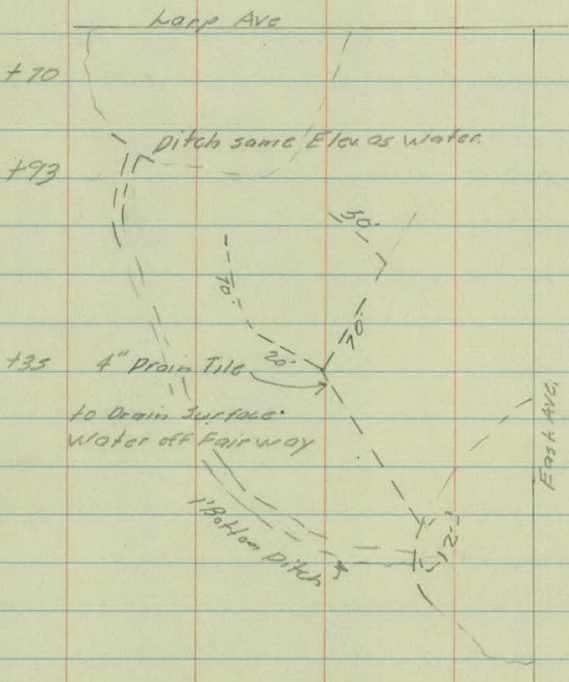
Sta	+	X	-	Elev
B.M.	7.50	1028.49		1020.99

75 +25

76

77

78



At

Rt

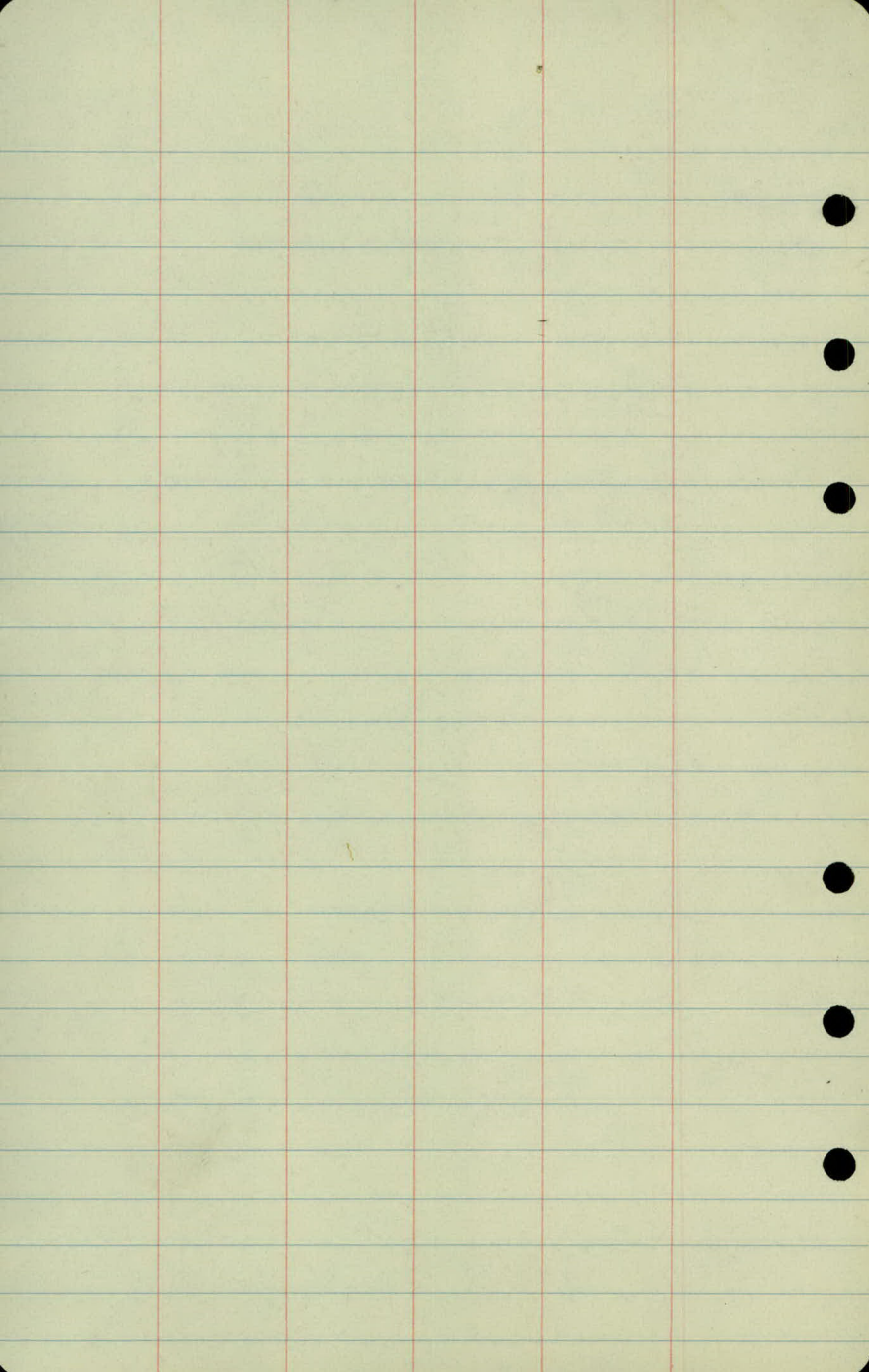
Top Mont Lappe East Ave

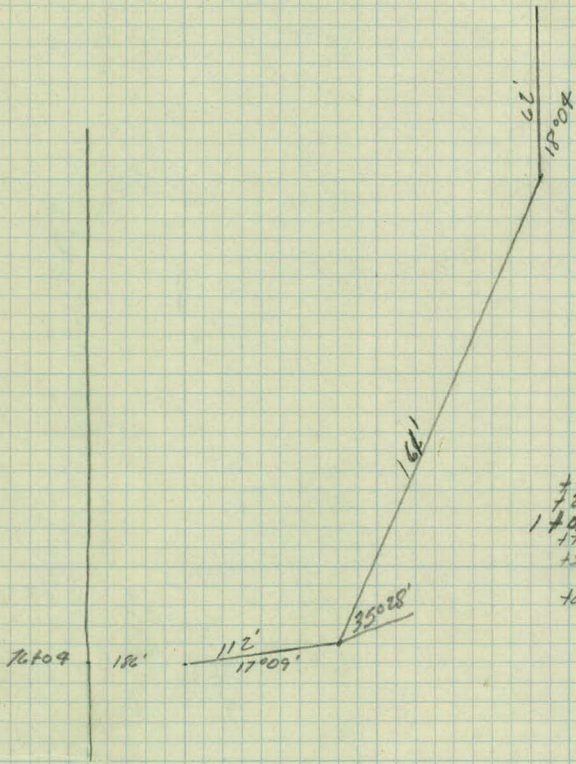
24.6	24.3	22.6	22.6	28.2	22.7	21.9	22.0	24.6
39	42	59	59	03	58	66	65	29
16	23	31	30	74	100	145	190	
23.9	23.7	19.05	16.5	16.5	19.0	18.7	27.0	
16	48	99.5	12.0	12.0	9.5	9.8	1.5	
16	35	45	16.6	18.0	29.5	33.8		
22.8	22.5	17.8	16.1	15.9	19.1	18.2	18.6	
57	60	107	12.4	12.6	9.4	10.3	9.9	
16	33	42	17.0	18.6	27.6	40.0		
22.3	22.1	19.7	18.5	17.9	19.1	18.4	18.3	102
66	64	8.8	10.0	10.6	9.4	10.1	10.4	103
16	30	35	8.5	11.2	12.7	23.0	33.5	39.4
				11.3			18.2	17.5

Int. of Drain Tiles

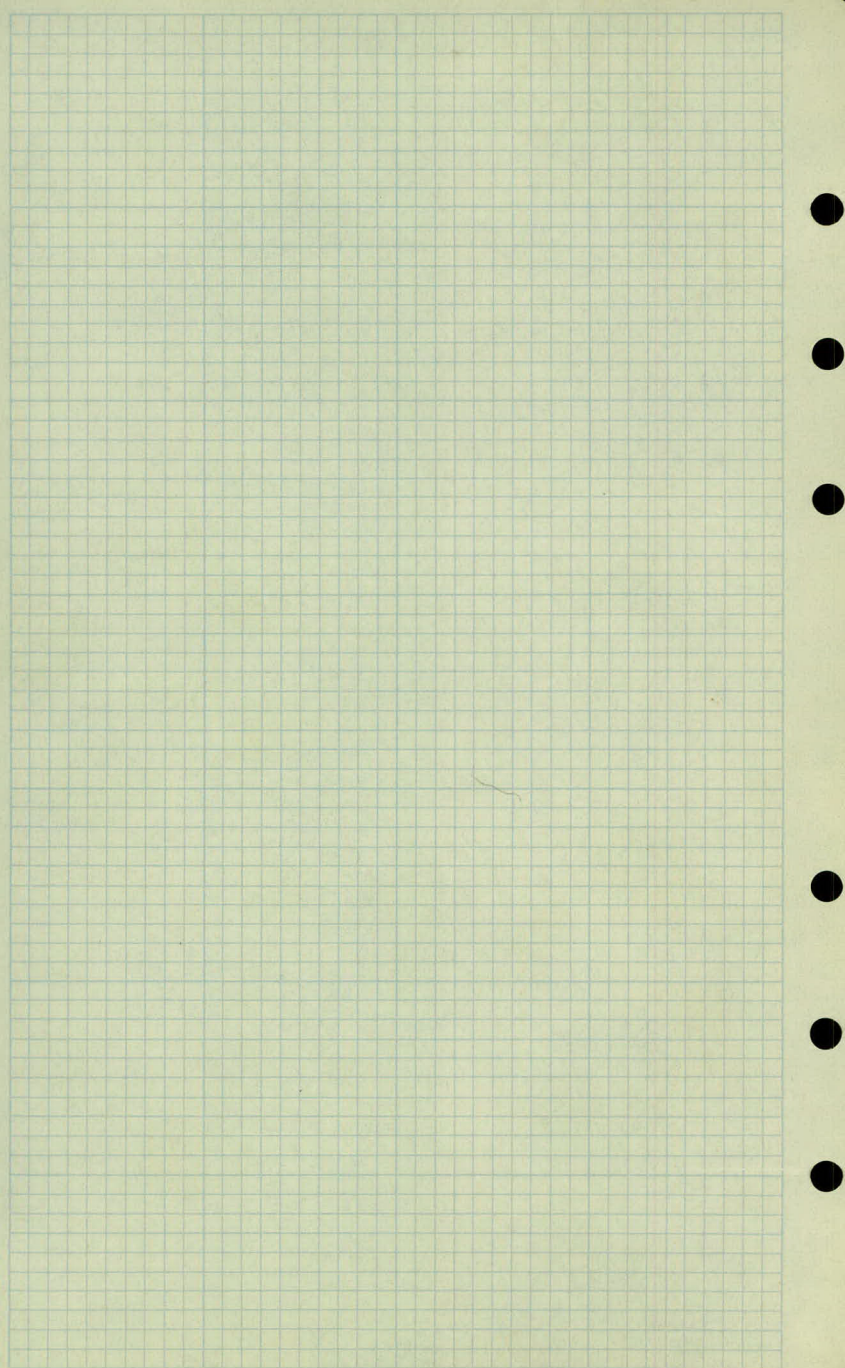
17.3
11.2
352 Flow Line Tile

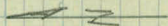
21.9	18.6	18.9	20.3	17.6	18.3	18.3	17.0	17.0	18.2	18.5
66	99	96	8.2	10.8	10.3	10.2	11.5	11.5	10.3	10.0
16	32	69	10.4	16.3	27.8	40.4	40.5	40.6	40.7	43.0
22.0	21.8	19.0	22.5	23.1	18.5	18.0	18.4			
65	67	95	6.0	5.4	10.0	10.5	10.1			
16	32	89	13.0	18.0	19.7	30.0				





$+40-28'$
 $+20-37'$
 $+40-40'$
 $+15-19'$
 $+30-6'$
 $+25-00$





Long Ave.

76+00

186'
90°00'
17°09'

6.2'
18°04'

161'

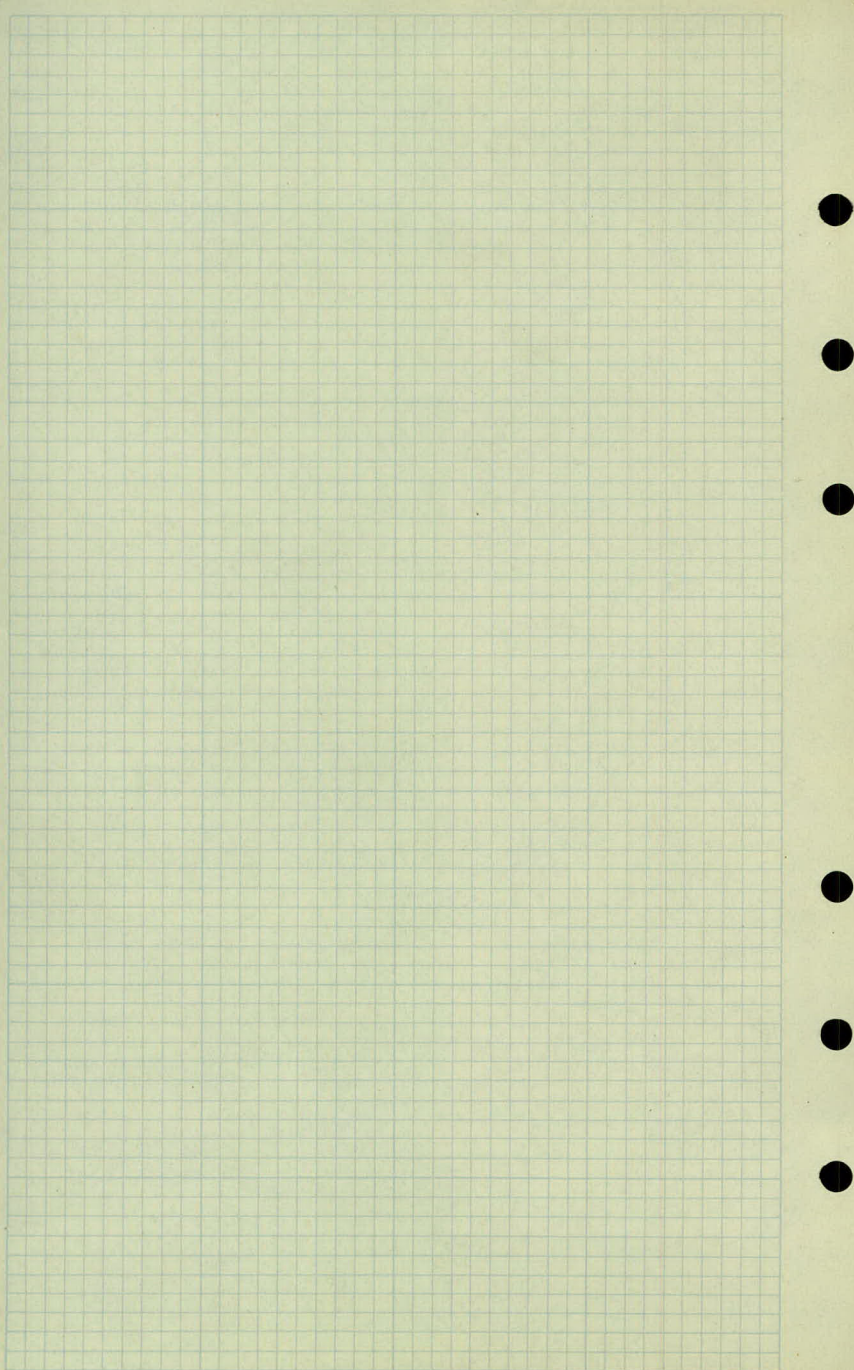
35°28'

0+00

Ditch-00

Rt1

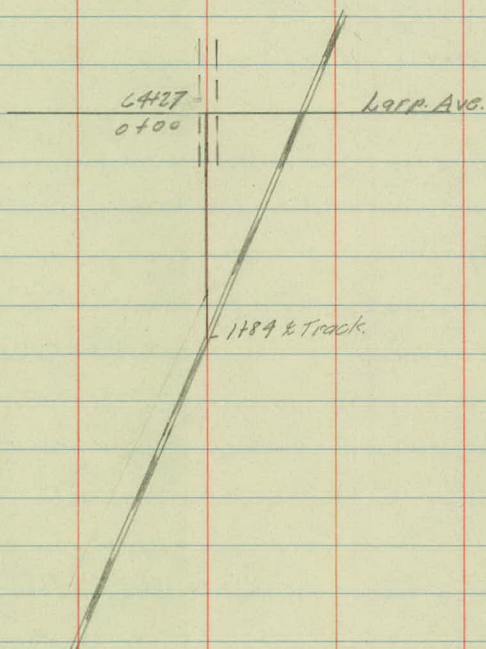
+10 Ditch-22'
+20 Ditch-37'
+100 Ditch-40'
+75 Ditch-19'
+50 Ditch-6'
+25 Ditch-00



Ditch Levels.

500' 30. Larp. Ave.

64+25



Sta	+	π	-	Elev
B.M.	2.79	1011.58		1007.79

0 +50

1

184 R.L. to Track

I.R.	1.72	1005.90	7.40	04.18
------	------	---------	------	-------

2 +50

3

+50

4

+50

135 Pot hole - 45'

Pothole - 55'

5

Pothole - 80'

+50

Pothole - 60'

6

Pothole - 50'

Sta. + A - Elev.

1005.90

6 +50

+85 Ditch Full of stones

Grad could be lowered.

Pothole - 35'

+85 Pothole - 15'

7

+50

T.P. 7.01 1013.19 1.72 1004.18

B.M. 5.39 1007.80

Lt.

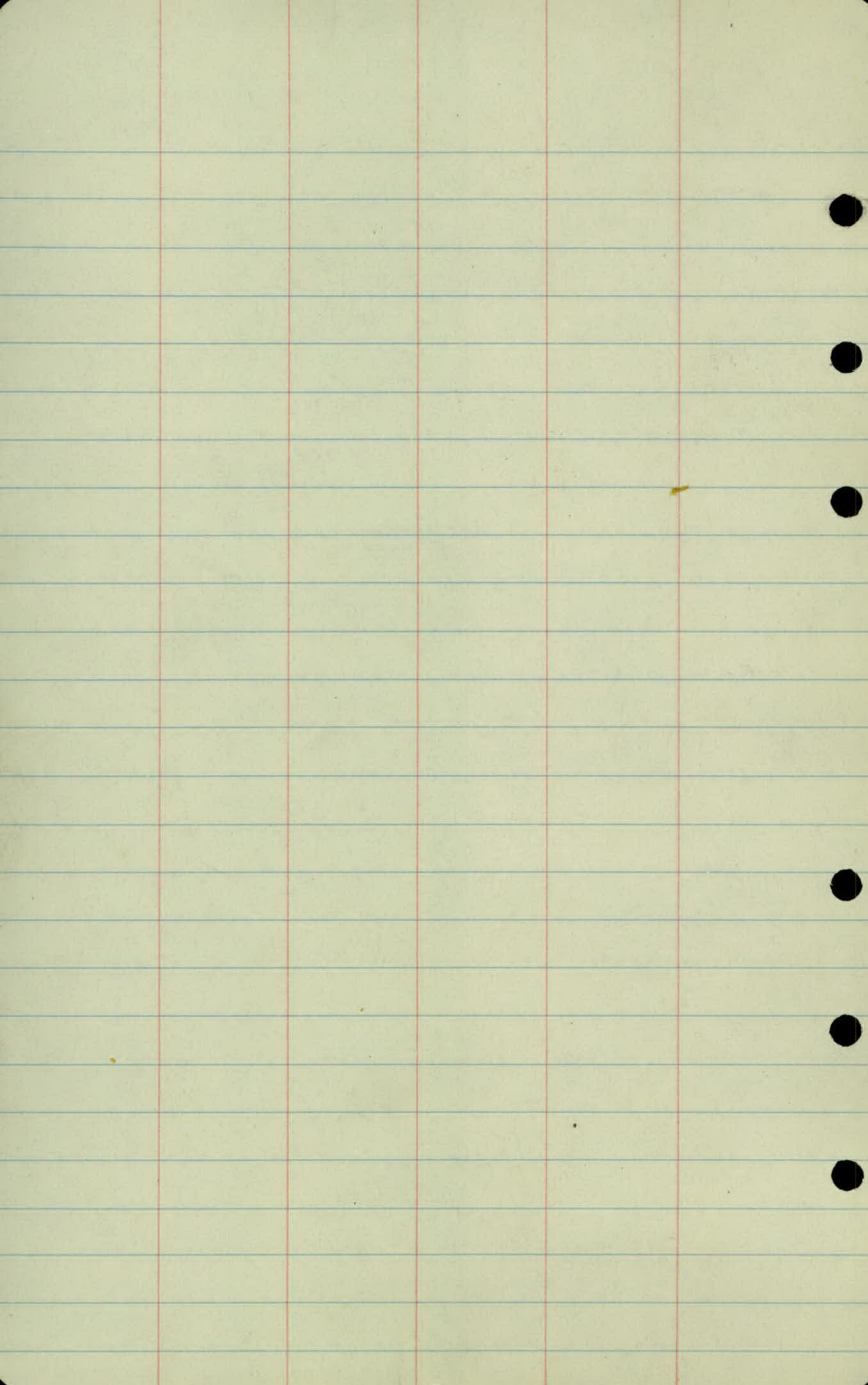
C.

Rt.

98.1	97.8	94.8	96.5	97.6
<u>18</u>	<u>8.1</u>	<u>111</u>	<u>94</u>	<u>83</u>
7	15	39	50	
97.4	97.4	94.9	96.6	
<u>85</u>	<u>8.8</u>	<u>110</u>	<u>93</u>	<u>9.3</u>
1	7	13	16	30
96.9	96.9	94.5	90.2	93.9
<u>90</u>	<u>90</u>	<u>114</u>	<u>5.7</u>	<u>20.0</u>
1	12	21	30	

Water Running So. in Ditch

L.R.T.P.



X Sections

Ent

"B" Line

Sta	+	X	-	Elev
65 +17	$\Delta 77^{\circ} 30'$ N.E.			
B.M.	4.76	1012.55		1007.79

0 +50

1

+50

2

Lt

Z

Rt

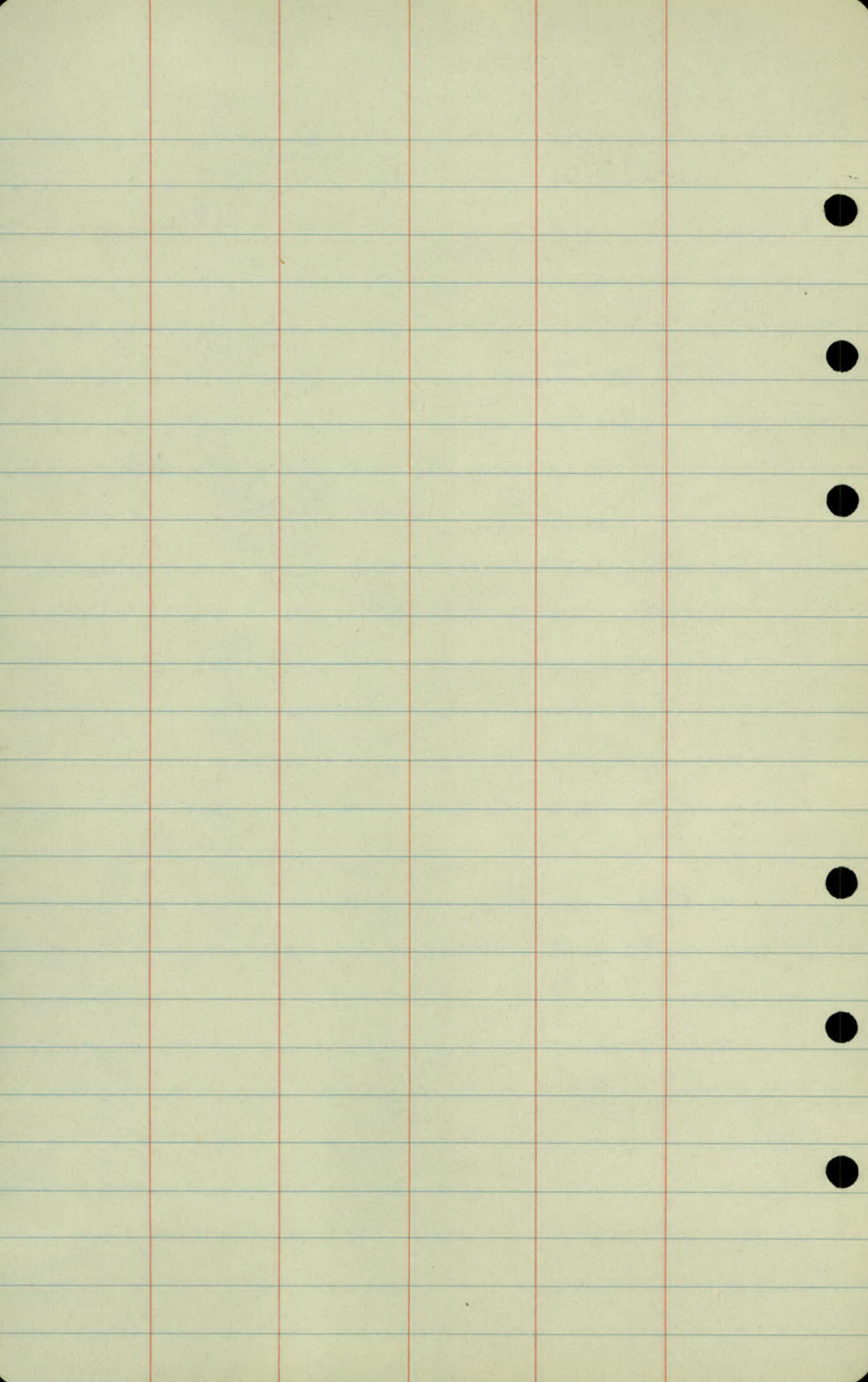
Spkst. RR, T.P

01.0	00.2	00.2	01.1	01.2	04.2	04.9
$\frac{116}{98}$	$\frac{124}{45}$	$\frac{124}{43}$	$\frac{115}{92}$	$\frac{114}{22}$	$\frac{84}{18}$	$\frac{77}{77}$

01.9	01.3	04.4	04.6	04.2	00.4	01.1
$\frac{14.7}{28}$	$\frac{11.3}{12}$	$\frac{8.2}{6}$	$\frac{80}{10}$	$\frac{54}{13}$	$\frac{12.2}{13}$	$\frac{11.5}{22}$

03.1	02.6	04.7	04.8	04.8	01.6
$\frac{9.5}{30}$	$\frac{10.0}{10}$	$\frac{7.9}{5}$	$\frac{78}{18}$	$\frac{78}{18}$	$\frac{11.0}{23}$

04.4	05.9	06.2	05.9	02.2	00.4
$\frac{8.2}{12}$	$\frac{6.7}{6}$	$\frac{6.9}{10}$	$\frac{6.7}{10}$	$\frac{10.9}{18}$	$\frac{12.2}{44}$



X sections

East Ave. 50.

Sta.	+	π	-	Elev.
B.M.	4.67	1025.66		1020.99

14

15

+22

S. Flowing Ent. Culv.

N. Flow Ent. Culv.

16

+90

18

1

+70

19

Lt. E. Rt.

Mont. Corp & East Ave.

16.6 16.4 18.3 20.4 21.3
9.2 9.1 7.4 5.3 4.4
 50 33 22 13

20.7 20.3 17.7 17.0
5.0 5.4 8.0 8.7
 17 23 69

23.0 21.9 18.4 17.2 20.0 20.8
2.7 3.8 7.3 7.5 5.7 4.9
 30 33 28 24 14

916.66
9.0
 FlowLine

916.66
9.0
 FlowLine

14.7 16.1 19.5 20.5 19.9 17.1 16.0 17.9
11.0 9.6 6.2 5.2 5.8 8.6 9.7 7.8
 35 24 15 15 23 34 46

22.8 22.3 14.5 15.5 17.3 19.8 20.4 20.2 17.3
2.9 2.4 9.2 10.2 8.9 5.9 4.9 5.5 8.4
 52 39 106 64 21 16 76 26

14.2 14.4 16.0 19.9 20.9 20.0 15.6 15.5
11.5 11.1 9.7 5.8 4.8 5.7 10.1 10.3
 84 20 27 15 15 30 73

15.06 14.96
10.6 9.0 10.7
 FlowLine 2 CUV FlowLine

16.74
8.9
 FlowLine Tile Drain 130°

18.6 18.5 16.6 16.4 20.3 21.2 20.4 17.3 16.7 15.8
7.1 7.2 9.1 9.1 5.4 4.5 5.3 8.4 10.0 9.9
 100 74 56 31 76 45 15 28 88 100

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

50			
----	--	--	--

51			
----	--	--	--

52	+39		
----	-----	--	--

	+39		
--	-----	--	--

	+56		
--	-----	--	--

Lt.

E

Rt.

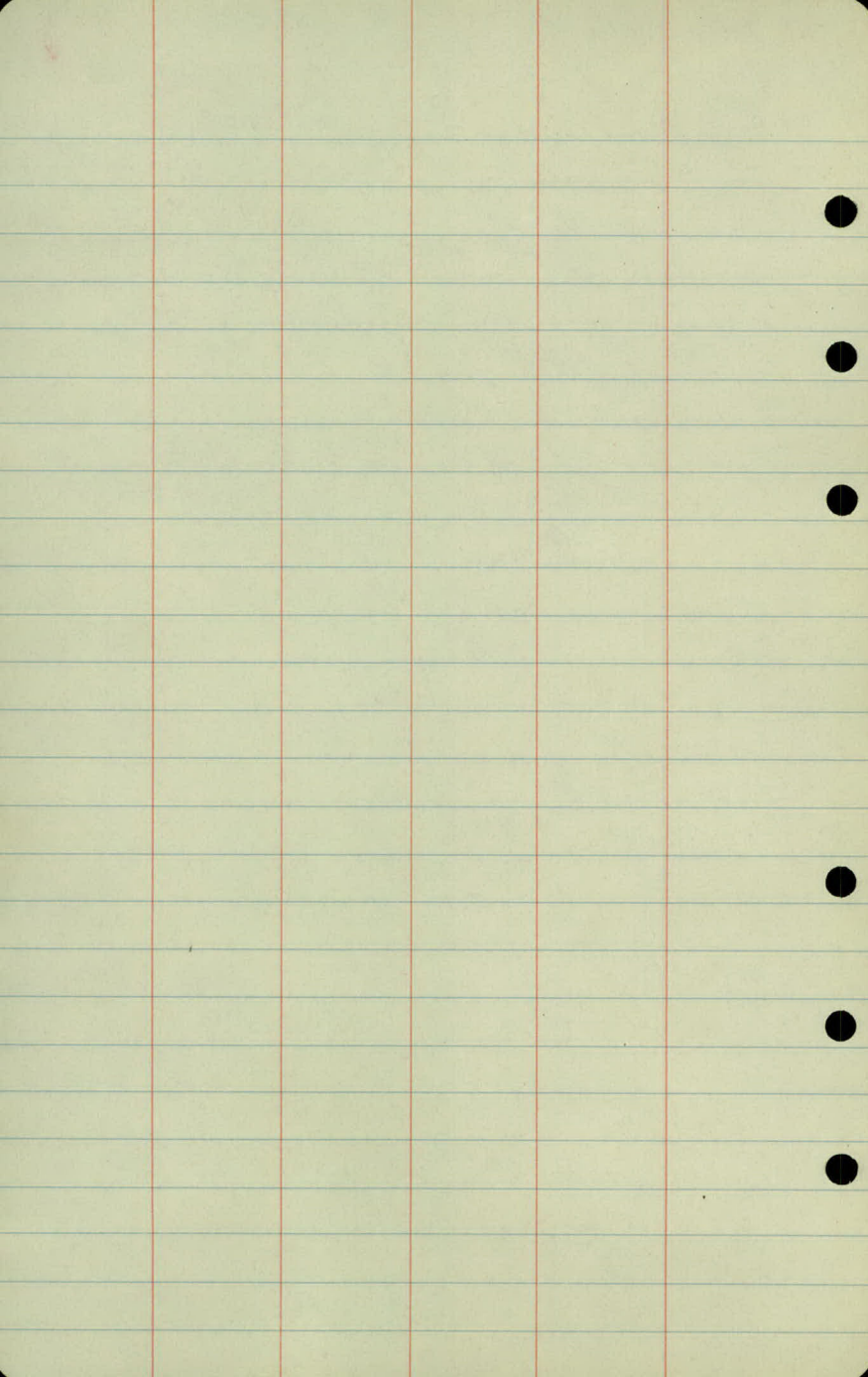
24.0 24.9 19.1 19.1 20.5 21.4 20.4 19.1 16.7 15.4 15.6
 L.O. $\frac{1.7}{50}$ $\frac{0.8}{32}$ $\frac{6.6}{22}$ $\frac{6.6}{19}$ $\frac{5.2}{15}$ $\frac{4.3}{16}$ $\frac{5.3}{20}$ $\frac{6.6}{20}$ $\frac{9.0}{36}$ $\frac{10.3}{71}$ $\frac{10.2}{100}$

23.0 19.1 19.1 20.6 21.4 20.4 17.0 15.4 15.7
 L.O. $\frac{2.7}{33}$ $\frac{6.6}{28}$ $\frac{6.6}{21}$ $\frac{5.1}{16}$ $\frac{4.3}{16}$ $\frac{5.3}{16}$ $\frac{8.7}{30}$ $\frac{10.3}{67}$ $\frac{10.0}{100}$

23.4 18.9 19.1 20.7 21.4 20.5 16.0 15.4 15.7 17.3
 $\frac{2.1}{43}$ $\frac{4.8}{31}$ $\frac{6.6}{21}$ $\frac{5.0}{15}$ $\frac{4.3}{15}$ $\frac{5.2}{15}$ $\frac{9.7}{32}$ $\frac{10.3}{44}$ $\frac{10.0}{83}$ $\frac{8.4}{100}$

20.0 19.6 19.4 20.8 21.5 20.7 16.8 15.2
 $\frac{5.7}{86}$ $\frac{6.1}{34}$ $\frac{6.1}{20}$ $\frac{4.9}{15}$ $\frac{4.2}{16}$ $\frac{5.0}{16}$ $\frac{8.9}{34}$ $\frac{10.5}{52}$ $\frac{9.8}{77}$ $\frac{16.4}{77}$

21.6 21.4 20.4
 $\frac{4.1}{60}$ $\frac{4.3}{16}$ $\frac{5.3}{56}$



1

DITCH ALIGNMENT

P.R. Lt side R.R. Tracks

0495- Pole - 19'

1456 Pole - 19'

2465 Pole - 19'

3465 Pole - 18'

4464 Pole - 19'

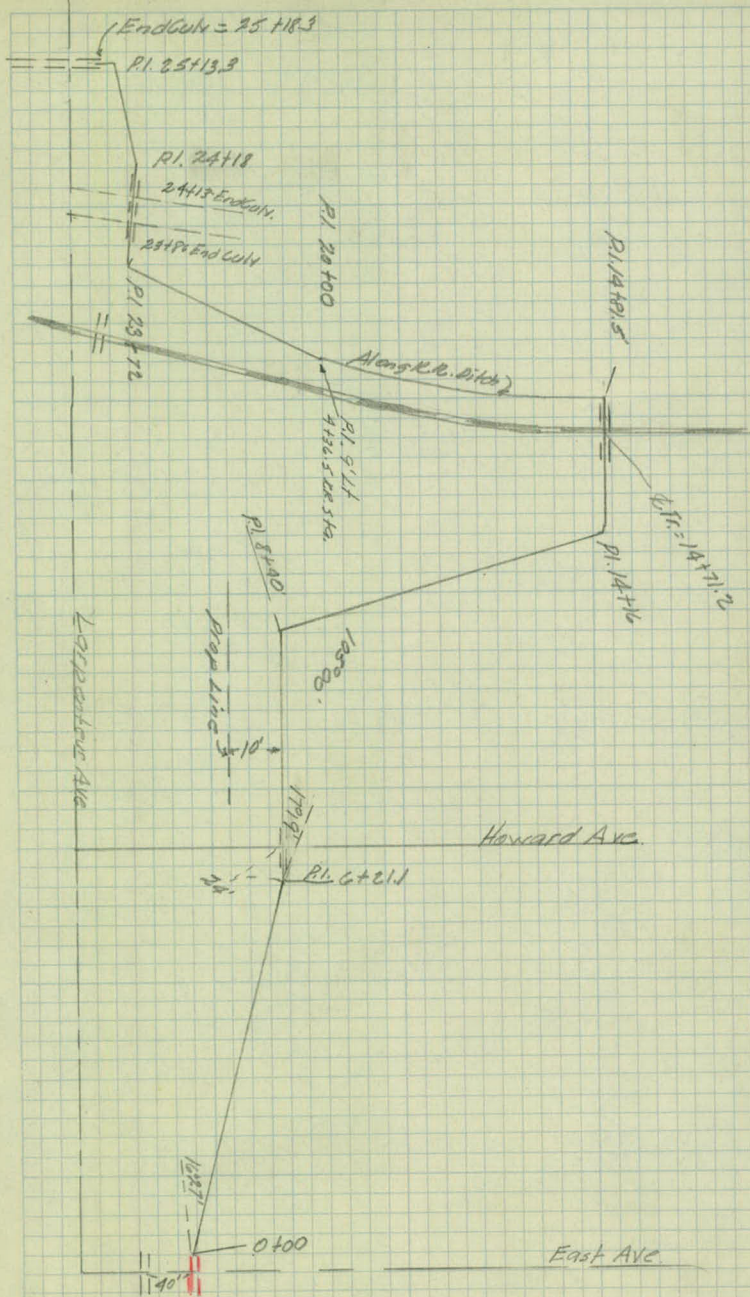
5464 Pole - 19'

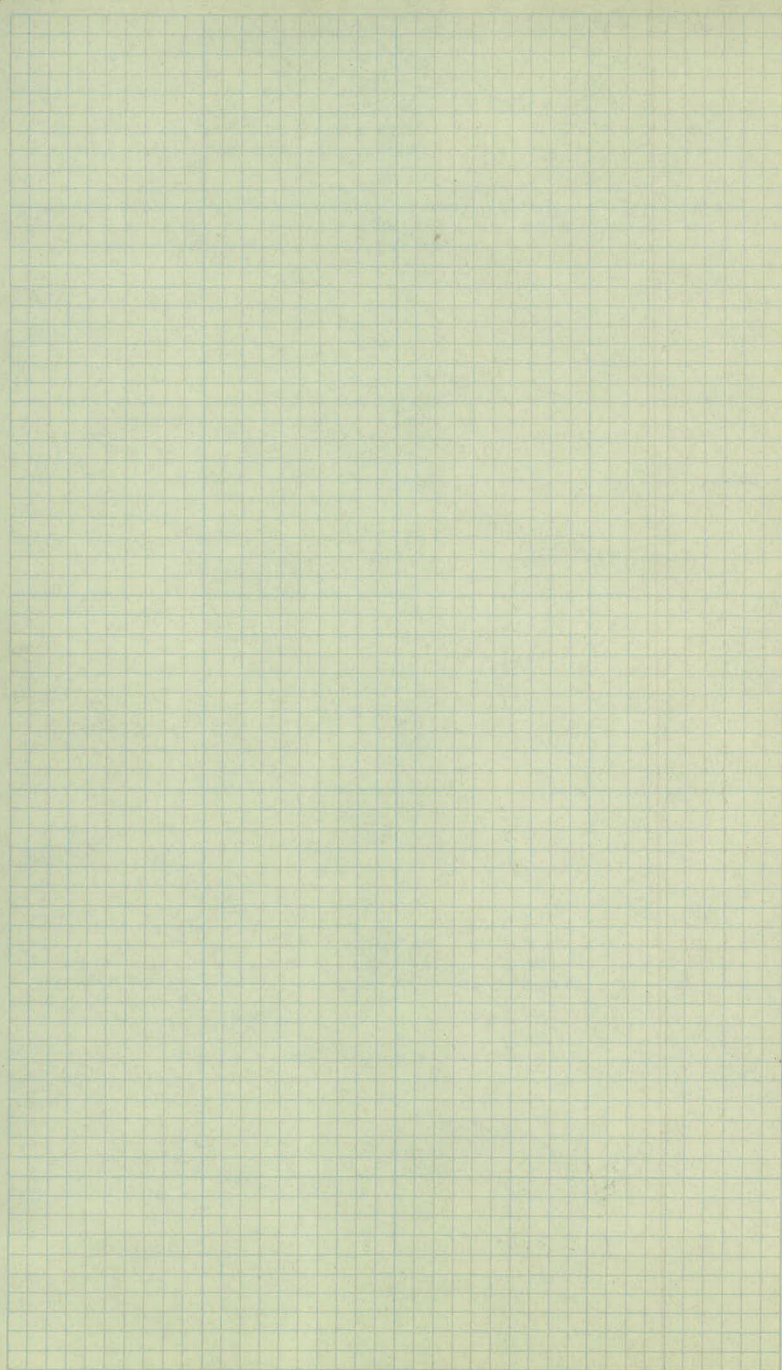
6464 Pole - 19'

7464 Pole - 19'

8464 Pole - 17.5'

9485 Pole - 19'





Ditch Levels.

Sta.	+	X	-	Elev.
B.M.	0.28	1021.27		1020.99

0	-54		54	15.9
---	-----	--	----	------

	-45		26	18.7
--	-----	--	----	------

	-27		16	19.7
--	-----	--	----	------

	-09		28	18.5
--	-----	--	----	------

D	+00		55	15.8
---	-----	--	----	------

	+28		6.3	15.0
--	-----	--	-----	------

/	+50		58	15.5
---	-----	--	----	------

/			58	15.5
---	--	--	----	------

	+50		6.3	15.0
--	-----	--	-----	------

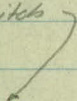
2			6.2	15.1
---	--	--	-----	------

	+50		6.1	15.2
--	-----	--	-----	------

Top Mont Lopo East Ave.

Sta	+	✓ A	-	Elev.
		1021.27		
3	+00		6.0	15.3
T.P.	507	✓ 1022.95	3.39	✓ 1017.88
	+50		7.7	15.3
4			7.2	15.8
	+07		8.7	14.3
	+83		9.9	14.6
	+50		7.2	15.8
	+71		6.4	16.6
5			8.1	14.9
	+45		8.7	14.3
	+82		5.7	17.3
6			6.0	17.0

Bottom ditch



Sta

+

T

-

Elev.

1022.95

6

+09

91

13.9

+22

87

14.3

+30

avg B
3.2

5.2

17.8

+45

4.2

18.8

+62

5.3

17.7

+65

61

16.9

+80

7.0

16.0

7

7.0

16.0

+50

2.9

15.1

8

8.4

14.6

+90

8.1

14.9

Bottom ditch

Bottom ditch

Sta	T	T [✓]	-	Elev.
		1022.95		
8	+72		9.8	13.2
	+90		10.5	12.5
9			10.8	12.2
T.P.	6.39	1018.93	10.91	1012.54
	+50		7.8	11.1
10			7.8	11.1
	+50		7.7	11.2
11			7.3	11.6
	+61		6.2	12.7
12			6.7	12.2
	+20		6.8	12.1
	+50		6.0	12.9

Sta + π - Elev.

1018.93

12 +89 5.1 13.8

13 5.7 13.2

+50 2.2 11.7

14 2.2 10.1

+16 2.6 10.3

+59.5 2.7 10.2

+64 1.9 14.0

+71.2 5.1 13.8

+87 5.8 13.1

+80 2.7 10.2

+81.5 2.3 10.6

Flow Line Gully 18" C.M. Culvert thru track.

Flow Line Gully

Sta	+	✓ 1018.93	-	Elev
15			8.0	10.9
	+50		8.3	10.6
16			8.3	10.6
	+50		8.2	10.7
17			8.3	10.6
	+50		8.6	10.3
18			8.8	10.1
	+50		9.0	09.9
19			9.8	09.1
	+50		10.5	08.4
T.P.	1.70	✓ 1018.55	7.10	✓ 1011.53
20			5.5	08.1

Sta

+

T

-

Elev.

1013.55

20 +17

6.2

07.4

+18

5.6

08.0

+50

7.0

06.6

21

9.2

04.4

+20

9.6

04.0

+50

8.1

05.5

+22

9.4

04.2

22

9.4

04.2

+50

10.4

03.2

23

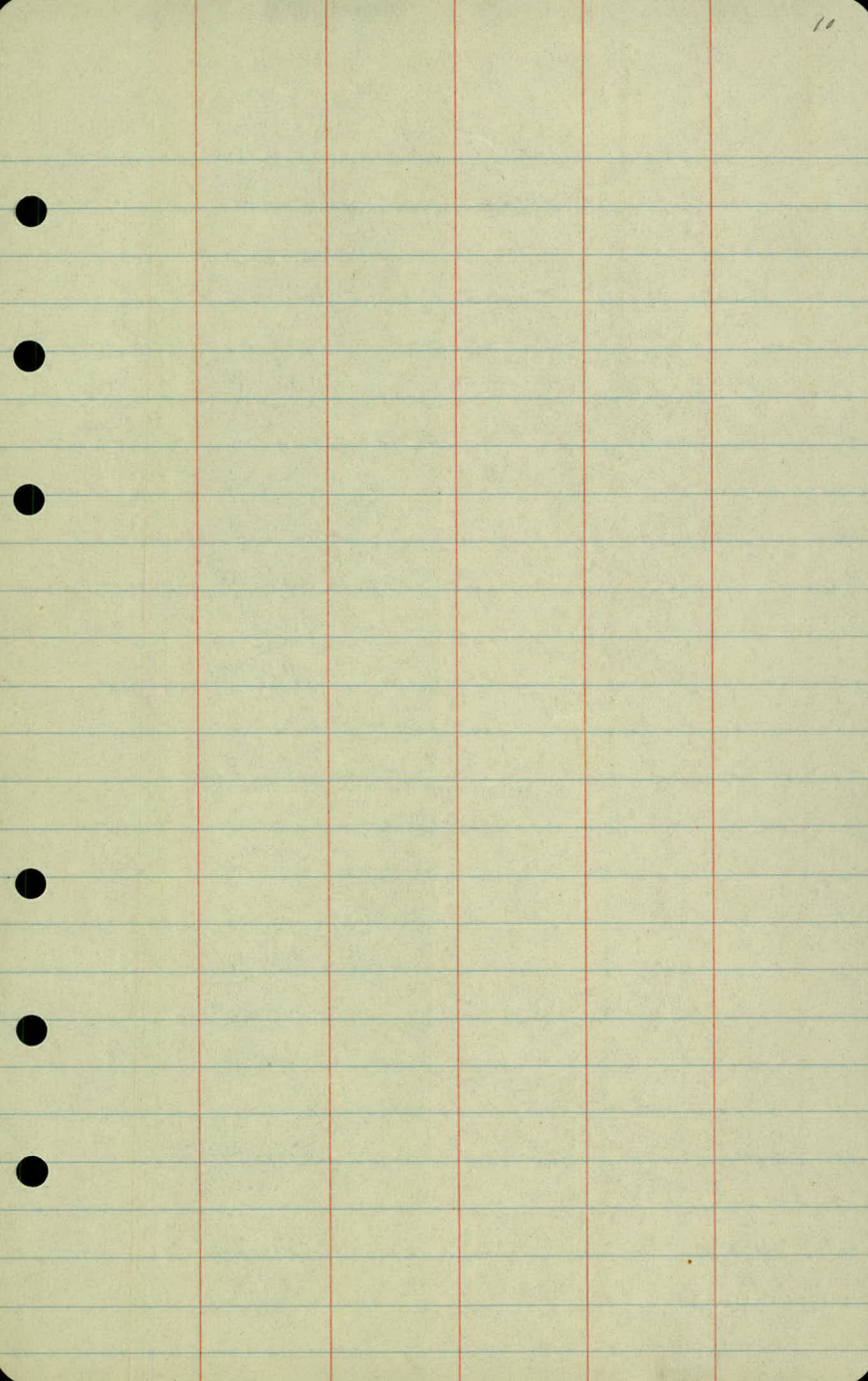
11.6

02.0

+20

12.6

01.0



Sta	+	Σ ✓ 108.55	-	Elev.
23	+93		12.5	01.1
23	+72		11.7	01.9
B.M.	1.63	✓ 1007.92	5.73	✓ 1007.82
	+86		8.92	00.5
	+90		50	04.4
	+98		45	04.9
24	+06		49	04.5
	+13		9.25	00.1
	+18		8.7	00.7
	+26		8.3	01.1
	+50		8.6	00.8
	+64		8.2	01.2

1007.79

3pt in RR T.P. NW 1/4 Sec 4 & Tracks

Flow Line Gully

Flow Line Gully

Sta

+

X

-

Elev.

1009.42

(1013.55)

24 +69

73

02.1

+75

82

01.2

25

80

01.4

+06

92

00.2

+133

93

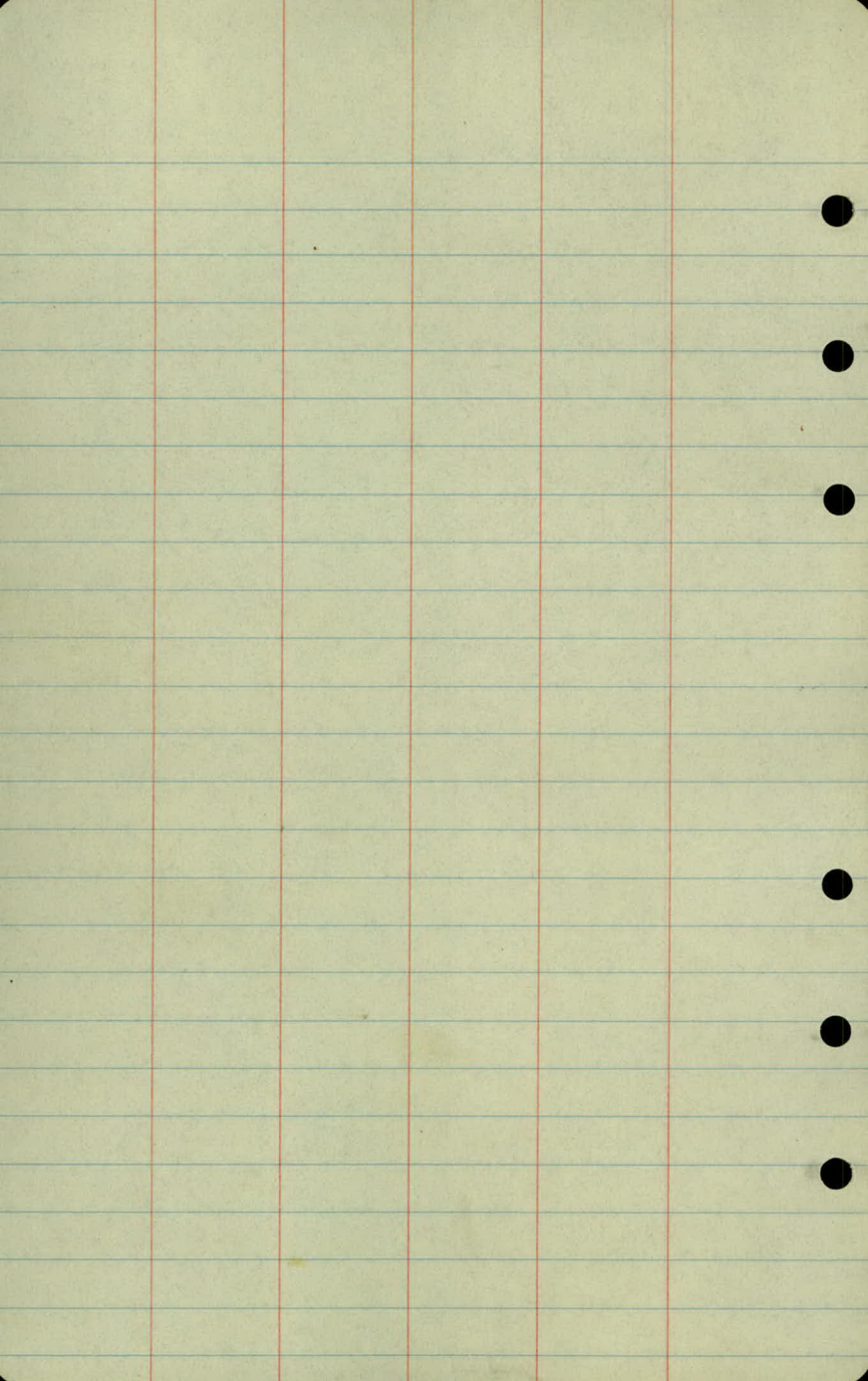
00.1

+18.3

961

999.81

Flow Line Gully.



1938

Howard Ave

"D" Line

Sta. + π - Elev.

B.M. 1.46 1025.91 1024.45

0+00

+18

+21

+34

+42

1+00

+50

2+00

+45

3+00

3+15 Sec. thro Ditch

$\frac{5}{3}$ 17' deep
2 1/2

Lt.

E

Rt.

Top of Boat Spike Camp Howard

$$\begin{array}{r} 24.7 \\ 12 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 24.4 \\ 15 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 24.5 \\ 14 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 24.3 \\ 16 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 24.3 \\ 16 \\ \hline 67 \end{array}$$

$$\begin{array}{r} 24.3 \\ 25 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 24.0 \\ 19 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 23.5 \\ 24 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 23.8 \\ 21 \\ \hline 38 \end{array}$$

$$\begin{array}{r} 23.9 \\ 20 \\ \hline 85 \end{array}$$

$$\begin{array}{r} 24.1 \\ 18 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 23.2 \\ 07 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 25.3 \\ 06 \\ \hline 72 \end{array}$$

$$\begin{array}{r} 24.9 \\ 10 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 23.2 \\ 27 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 23.9 \\ 20 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 23.4 \\ 25 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 24.4 \\ 11 \\ \hline 31 \end{array}$$

$$\begin{array}{r} 24.9 \\ 10 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 25.1 \\ 08 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 24.8 \\ 11 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 22.4 \\ 33 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 23.7 \\ 27 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 23.0 \\ 29 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 24.5 \\ 14 \\ \hline 20 \end{array}$$

$$\begin{array}{r} 24.7 \\ 12 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 23.0 \\ 29 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 23.3 \\ 26 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 22.2 \\ 37 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 23.5 \\ 24 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 22.5 \\ 34 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 21.6 \\ 43 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 20.1 \\ 58 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 19.9 \\ 60 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 20.7 \\ 52 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 20.9 \\ 50 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 20.7 \\ 52 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 20.6 \\ 53 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 21.2 \\ 47 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 22.2 \\ 37 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 21.4 \\ 45 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 19.8 \\ 61 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 17.6 \\ 83 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 19.9 \\ 60 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 20.2 \\ 57 \\ \hline 61 \end{array}$$

$$\begin{array}{r} 21.2 \\ 47 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 19.9 \\ 60 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 19.9 \\ 60 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 20.6 \\ 53 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 21.3 \\ 46 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 20.6 \\ 53 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 18.8 \\ 71 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 17.8 \\ 81 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 16.4 \\ 85 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 25.9 \\ 00 \\ \hline 71 \end{array}$$

$$\begin{array}{r} 25.7 \\ 02 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 22.2 \\ 37 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 19.1 \\ 68 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 19.1 \\ 68 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 20.0 \\ 59 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 20.4 \\ 55 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 19.6 \\ 63 \\ \hline 14 \end{array}$$

$$\begin{array}{r} 19.0 \\ 69 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 19.2 \\ 67 \\ \hline 49 \end{array}$$

$$\begin{array}{r} 18.0 \\ 28 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 20.4 \\ 55 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 18.0 \\ 79 \\ \hline 66 \end{array}$$

$$\begin{array}{r} 17.4 \\ 81 \\ \hline 38 \end{array}$$

$$\begin{array}{r} 18.1 \\ 78 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 19.0 \\ 69 \\ \hline 14 \end{array}$$

$$\begin{array}{r} 19.4 \\ 63 \\ \hline 14 \end{array}$$

$$\begin{array}{r} 19.1 \\ 68 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 18.4 \\ 71 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 18.1 \\ 78 \\ \hline 37 \end{array}$$

$$\begin{array}{r} 17.2 \\ 87 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 15.5 \\ 10 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 16.4 \\ 95 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 16.9 \\ 90 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 18.0 \\ 79 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 18.9 \\ 70 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 18.0 \\ 79 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 16.5 \\ 94 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 17.2 \\ 87 \\ \hline 51 \end{array}$$

$$\begin{array}{r} 16.7 \\ 92 \\ \hline 65 \end{array}$$

$$\begin{array}{r} 15.3 \\ 106 \\ \hline 82 \end{array}$$

$$\begin{array}{r} 13.9 \\ 120 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 13.5 \\ 12 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 13.5 \\ 12 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 17.7 \\ 82 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 18.7 \\ 72 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 17.3 \\ 81 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 13.7 \\ 12 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 13.9 \\ 12 \\ \hline 100 \end{array}$$

Runs
Good

Sta.	+	π	-	Elev
		1015.91		
3+45				
+15				
4+08				
T.P.	9.98	1030.83	5.06	1020.85
4+42				
+98				
5+02				
6+00				
7+00				
+60				
8+00				
T.P.	6.60	1024.33	13.10	1017.73

LT.

2

12+

16.0	17.3	16.4	18.0	19.0	18.0	16.4	16.1	17.3	18.0
9.9	8.6	9.5	7.9	6.9	7.9	9.5	9.8	8.4	7.9
100	44	20	15	6	16	23	32	74	100

15.5	18.2	18.8	17.2	17.1	18.4	19.1	18.3	16.7	16.2	18.2	19.2	19.5
10.4	7.7	7.1	8.7	8.8	7.5	6.8	7.6	9.2	9.7	7.7	6.7	6.4
100	98	44	31	19	14	6	15	27	42	71	87	100

16.4	18.4	19.5	20.2	19.1	19.1	20.3	20.7	20.3	19.1	19.1	20.2	20.5	22.8
9.5	7.5	6.4	5.7	6.8	6.8	5.6	5.2	5.6	6.8	6.8	5.7	5.4	3.1
100	75	47	23	20	18	15	8	15	18	20	23	51	100

16.0	21.3	21.7	20.4	20.4	21.4	21.8	21.2	20.1	20.1	24.7	25.7	25.6
14.8	9.5	9.1	10.4	10.4	9.4	9.0	9.6	10.7	10.7	6.1	5.1	5.2
125	71	24	20	18	15	9	11	18	20	30	79	100

17.0	20.8	21.5	23.0	21.3	21.3	22.5	23.1	22.4	21.3	21.3	25.4	25.6	25.8	25.8
13.8	10.0	9.3	7.8	9.5	9.5	8.8	7.7	8.4	9.5	9.5	5.4	5.2	5.0	5.0
125	115	100	25	20	18	15	7	15	18	20	30	41	80	100

16.8	20.4	22.5	24.6	26.1	21.4	21.4	22.4	23.1	22.4	21.3	21.3	25.4	25.6	25.8	25.8
14.0	10.4	9.3	6.2	4.7	9.4	9.4	8.2	7.7	8.4	9.5	9.5	5.4	5.2	5.0	5.0
125	115	105	93	31	21	18	15	7	15	18	20	30	41	80	100

22.8	24.6	25.4	21.8	21.8	22.7	23.1	22.3	21.3	21.3	22.1	22.1	22.1
8.9	6.2	5.4	9.0	9.0	8.1	7.7	8.5	9.5	9.5	8.7	8.7	8.7
100	79	30	22	18	15	7	11	18	20	24	32	100

22.4	23.5	22.9	19.6	19.6	21.2	21.7	20.8	18.2	17.4	18.6
8.4	7.3	7.9	11.2	11.2	9.6	9.1	10.0	12.6	13.4	12.2
125	100	82	21	18	14	9	15	21	27	100

18.1	22.1	18.0	17.5	19.6	20.3	19.6	17.0	17.0	18.0	17.1	17.2
12.7	8.7	12.8	13.3	11.2	10.5	11.2	13.8	13.8	12.8	13.7	13.6
150	100	46	21	14	10	11	20	23	25	69	100

16.1	18.1	18.6	17.0	16.5	18.5	19.5	18.8	16.8	16.8	18.6	16.2	15.5
14.7	12.7	12.2	13.8	14.3	12.3	11.3	12.0	14.0	14.0	12.2	14.6	15.3
150	135	100	50	21	11	11	11	14	24	26	64	100

Sta. + π - Elev.

1024.33

9+00

+65

10+00

T.P.	4.87	1023.10	6.10	1018.23	OK.
B.M.			7.47	1015.63	1014.66

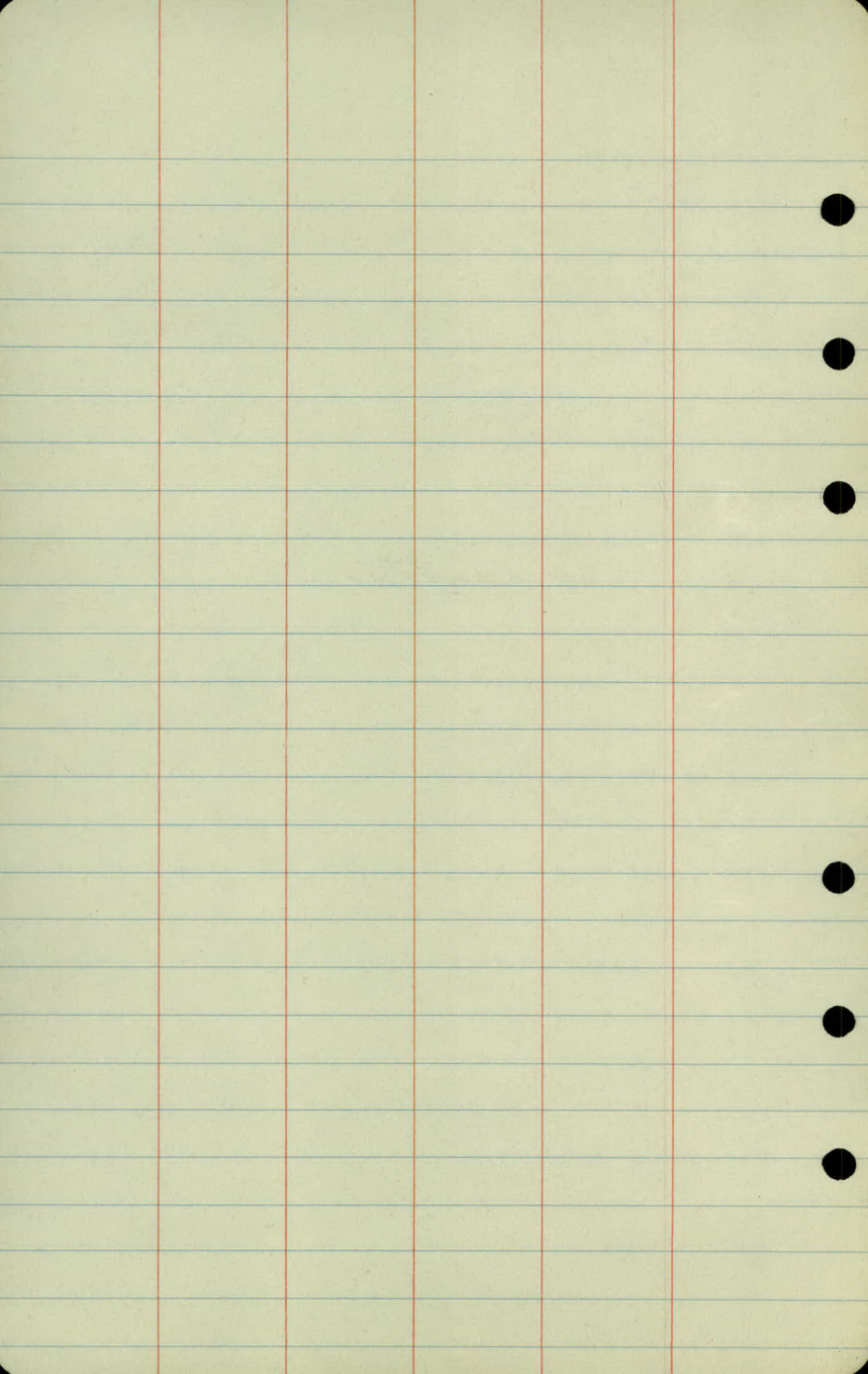
14.

2

24.

130	143	165	160	148	144	175	185	178	148	149	160
113	100	78	83	81	87	68	58	65	51	54	83
200	180	100	37	34	26	18	13	24	28	100	
147	156	134	131	145	155	190	186	202			
56	87	107	112	98	58	53	57	41			
200	149	100	63	26	12	19	19	100			
127	136	150	129	152	166	192	197	192	183	185	219
116	105	93	114	81	77	51	46	51	60	58	24
225	100	167	100	58	23	13	13	17	22	29	49
											283
											100

1721 in R.P. #7 on Lt.



East Ave.

X Sections

N. of Carpenter Ave.

"E" Line

B.M. 2.75 1023.74 ✓ 1020.99

0 +16

+37

+88

1 +40

2

+70

3 +11

+79

T.P. 5.41 1022.50 ✓ 6.65 ✓ 1017.09

4 +45

5

+36

Lat. E. R.L.

20.9 15.1
248 36 20.1
 50

20.5 19.4 16.1 14.7 15.0
32 43 76 90. 87
 17 27 50. 75

14.4 18.7 19.8 18.9 15.8 14.8 15.1
925 520 39 48 79 89 86
 28 18 16 26 27 75

14.9 15.7 18.4 19.5 18.5 15.9 15.7 15.2 15.7
88 80 53 92 52 78 80 85 89
 52 28 17 17 26 100 200 400

17.4 17.0 18.7 19.3
63 67 50 44
 100 26 16

180.
 N. of Larp.

20.6 18.9 16.8 17.0 18.4 18.8
81 48 69 67 53 49
 100 30 26 21 18

23.1 23.4 16.8 16.9 17.7 18.4
0.0 0.3 6.9 6.8 6.0 5.3
 100 34 26 20 17

24.8 23.7 16.2 16.1 17.2 18.1
1.1 0.0 7.5 7.6 6.5 5.6
 70 34 29 20 16

21.4 16.5 15.4 15.4 17.0 17.6
1.1 6.0 7.1 7.1 8.5 4.9
 64 39 28 22 17

14.8 12.2 12.0 12.4 16.5 17.5
7.7 10.3 10.5 10.6 10 50
 100 58 35 30 17

14.1 12.6 11.2 11.3 16.6 17.7 16.4 10.8 10.5
8.8 7.7 11.3 10.5 5.9 4.8 6.1 11.7 12.0
 100 73 56 32 16 17 28 100

✓
1082.50

67 00

7

T.P.

4.35

✓
1018.15

Rain

13.9

$\frac{96}{100}$

12.1

$\frac{104}{96}$

17.4

$\frac{51}{17}$

18.6

$\frac{39}{21}$

14.5

$\frac{80}{100}$

13.9

$\frac{86}{50}$

14.5

$\frac{80}{30}$

19.1

$\frac{34}{16}$

20.1

$\frac{24}{12}$

17.9

$\frac{46}{100}$

20.1

$\frac{24}{35}$

22.1

$\frac{09}{31}$

19.3

$\frac{32}{28}$

19.1

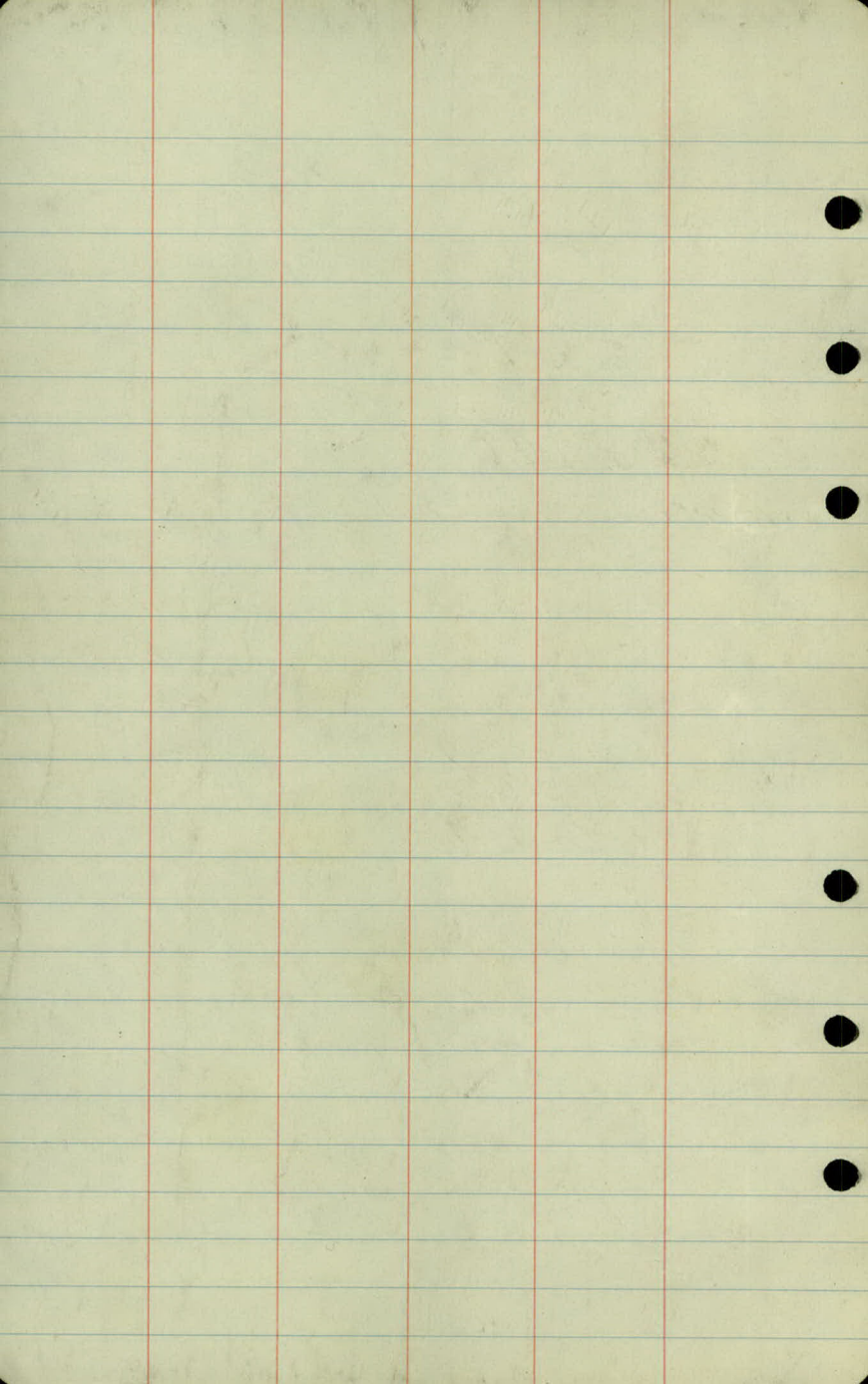
$\frac{24}{20}$

20.9

$\frac{16}{15}$

$\frac{09}{09}$

Nail in RP #5



xsections

Howard Ave

Sta 10 to 13+

Sta	+	Σ	-	Elev.
B.M.	0.11	✓ 1024.56		✓ (1024.45)
T.P.	2.50	✓ 1025.67	1.39	✓ 1023.17
B.M.			2.11	✓ 1023.56
T.P.	8.46	✓ 1028.08	6.05	✓ 1019.62

10 +50

11

+23

+50

+50

12

+20

+93

B.M. 7.10 1020.98

LT L RT

Top Bolt Spike Howard & Carpenter Ave.

Top Bolt H.W. N. End East RT Sta 5+35

149	157	178	203	196	207	212	208	199	196	203	265	281	296	302
$\frac{182}{100}$	$\frac{124}{70}$	$\frac{103}{43}$	$\frac{78}{21}$	$\frac{65}{19}$	$\frac{74}{12}$	$\frac{69}{14}$	$\frac{73}{16}$	$\frac{82}{18}$	$\frac{85}{22}$	$\frac{78}{32}$	$\frac{16}{51}$	$\frac{00}{77}$	$\frac{45}{100}$	$\frac{21}{100}$

175	183	194	219	204	207	218	223
$\frac{106}{100}$	$\frac{98}{72}$	$\frac{87}{51}$	$\frac{62}{24}$	$\frac{77}{22}$	$\frac{74}{16}$	$\frac{63}{12}$	$\frac{58}{100}$

211	219	222	231	210	212	221	226	223	215	218	263	270	273
$\frac{70}{100}$	$\frac{62}{77}$	$\frac{59}{51}$	$\frac{50}{26}$	$\frac{71}{22}$	$\frac{69}{16}$	$\frac{60}{12}$	$\frac{55}{10}$	$\frac{58}{16}$	$\frac{66}{23}$	$\frac{63}{32}$	$\frac{18}{63}$	$\frac{11}{63}$	$\frac{08}{100}$

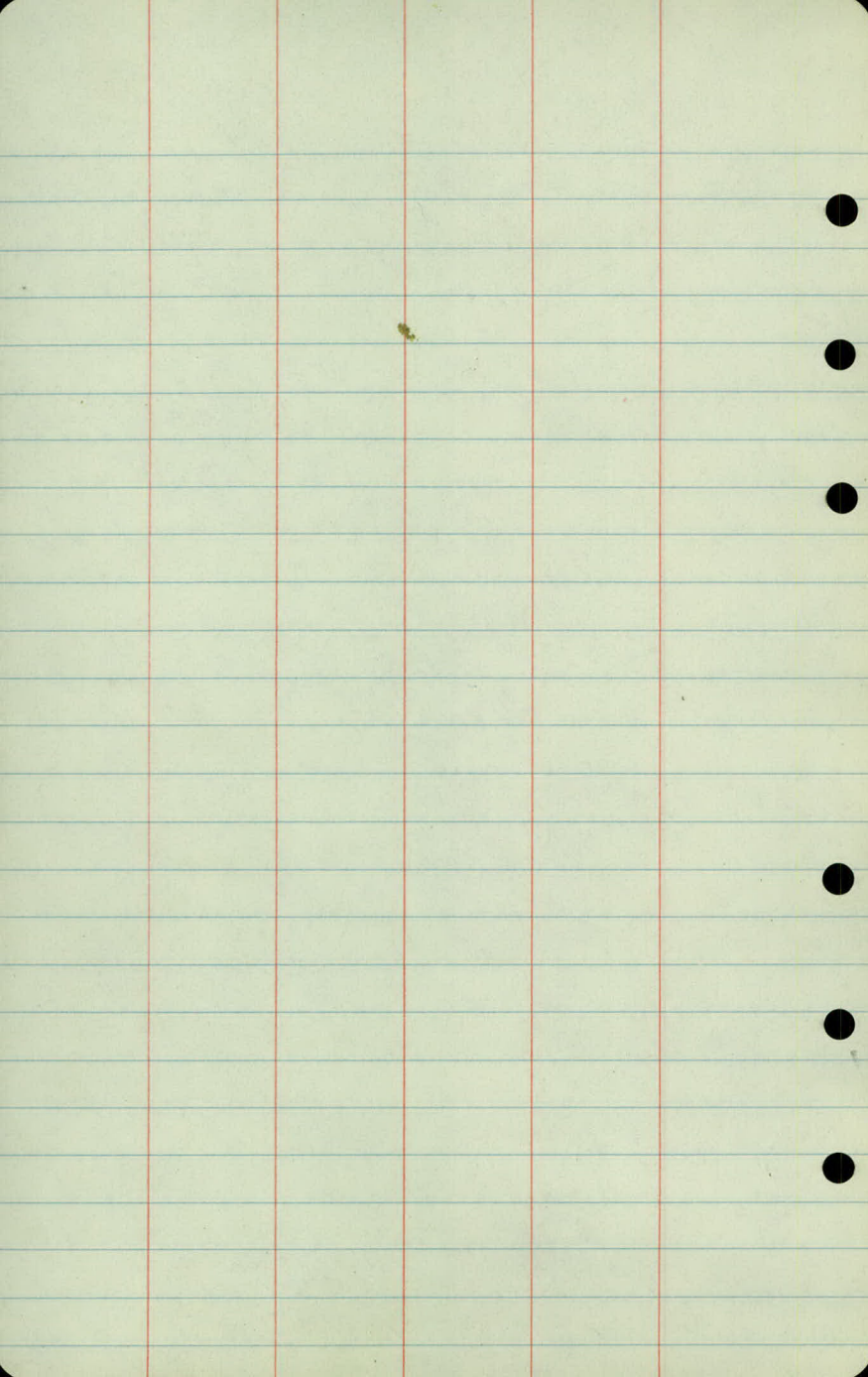
246	247	245	215	215	225	229
$\frac{35}{100}$	$\frac{34}{49}$	$\frac{36}{28}$	$\frac{66}{22}$	$\frac{66}{15}$	$\frac{56}{11}$	$\frac{52}{100}$

238	233	233	216	215	226	229	226	218	218	238	241	243	245
$\frac{93}{100}$	$\frac{48}{59}$	$\frac{48}{26}$	$\frac{65}{22}$	$\frac{66}{16}$	$\frac{55}{12}$	$\frac{52}{10}$	$\frac{55}{15}$	$\frac{68}{22}$	$\frac{63}{27}$	$\frac{43}{43}$	$\frac{40}{70}$	$\frac{38}{70}$	$\frac{36}{100}$

231	226	225	226
$\frac{50}{100}$	$\frac{55}{67}$	$\frac{56}{51}$	$\frac{55}{25}$

219	207	207	218	226	219	209	206	214
$\frac{62}{27}$	$\frac{74}{53}$	$\frac{74}{21}$	$\frac{63}{15}$	$\frac{55}{15}$	$\frac{62}{18}$	$\frac{72}{24}$	$\frac{75}{25}$	$\frac{67}{25}$

Top N. End Culv. N.E. Cor. Ripley & Howard Ave.



Xsections

Larper Avenue Stationing

Parallel to Howard & Larper Avenue

Sta.	t	X ✓	-	Elev.
B.M.	3.32	1026.88		1023.56

75

+50

76

+25

+50

+50

Lt.

6

Top Road H.W. N. End Est. Rt 5135 sec Howard Ave.

20.5	16.7	15.9	17.1	17.7	19.6	19.4	19.4	21.3	22.4	22.8	23.2
<u>6.4</u>	<u>10.2</u>	<u>11.0</u>	<u>9.8</u>	<u>9.2</u>	<u>7.3</u>	<u>7.5</u>	<u>7.5</u>	<u>5.2</u>	<u>4.5</u>	<u>4.1</u>	<u>3.7</u>
896	890	855	800	768	726	700	664	599	573	530	453

16.6	17.7	18.0	18.7	19.7	19.9	18.5	18.4	19.0	20.6	21.4	22.0	20.4
<u>10.3</u>	<u>9.2</u>	<u>8.9</u>	<u>8.3</u>	<u>7.2</u>	<u>7.0</u>	<u>8.4</u>	<u>8.5</u>	<u>7.9</u>	<u>6.3</u>	<u>5.5</u>	<u>4.9</u>	<u>6.5</u>
850	825	800	761	726	700	670	619	525	565	544	495	453

18.4	20.4	22.3
<u>8.5</u>	<u>6.5</u>	<u>4.6</u>
887	890	900

18.8	19.4	17.0	17.2	19.0	19.1	19.6	19.9	19.1	20.1	21.4	21.2	18.8
<u>8.1</u>	<u>7.5</u>	<u>9.7</u>	<u>9.7</u>	<u>7.9</u>	<u>7.8</u>	<u>7.3</u>	<u>7.0</u>	<u>7.8</u>	<u>6.8</u>	<u>5.5</u>	<u>5.7</u>	<u>8.1</u>
599	846	800	767	727	700	657	627	591	561	498	496	461

21.9	23.6
<u>5.0</u>	<u>3.3</u>
889	870

19.6	20.4	20.4	19.8	20.2	19.4	19.4
<u>7.3</u>	<u>6.5</u>	<u>6.5</u>	<u>7.1</u>	<u>6.7</u>	<u>7.5</u>	<u>7.5</u>
600	567	545	517	499	462	400

17.0	17.5	18.9	19.2	18.7	18.4	19.3	19.0	18.6	19.7	21.2	20.2	20.9
<u>8.9</u>	<u>9.4</u>	<u>8.9</u>	<u>7.7</u>	<u>6.2</u>	<u>6.1</u>	<u>7.6</u>	<u>7.9</u>	<u>8.3</u>	<u>7.2</u>	<u>5.7</u>	<u>6.7</u>	<u>6.0</u>
725	756	722	676	639	600	563	536	512	491	460	420	400

16.9	17.4	19.1	21.6	25.2	27.3	28.3
<u>10.0</u>	<u>9.5</u>	<u>7.8</u>	<u>5.3</u>	<u>1.7</u>	<u>10.4</u>	<u>1.9</u>
800	817	843	866	896	891	900

Sta. + K - Elev.

1026.88

77

T.P. 326 1027.10 304 1023.89

+50

+15

78

+29

17.

4.

18.1	16.4	12.4	17.4	17.9	17.8	17.0	16.1	16.9	19.0	22.7	24.8
$\frac{88}{800}$	$\frac{105}{764}$	$\frac{95}{735}$	$\frac{95}{700}$	$\frac{90}{666}$	$\frac{91}{625}$	$\frac{99}{600}$	$\frac{108}{564}$	$\frac{100}{524}$	$\frac{79}{496}$	$\frac{42}{474}$	$\frac{21}{459}$
21.7	26.9	29.0									
$\frac{52}{896}$	$\frac{80}{874}$	$\frac{121}{845}$									

19.5	16.8	15.4	15.8	16.4	16.1	15.3	15.8	18.2	21.6	25.0	25.6
$\frac{76}{800}$	$\frac{103}{766}$	$\frac{117}{737}$	$\frac{113}{685}$	$\frac{107}{642}$	$\frac{110}{600}$	$\frac{118}{564}$	$\frac{113}{526}$	$\frac{89}{500}$	$\frac{55}{468}$	$\frac{21}{430}$	$\frac{15}{400}$

22.3	27.3	28.8	29.7	29.7
$\frac{48}{822}$	$\frac{102}{849}$	$\frac{117}{864}$	$\frac{126}{883}$	$\frac{126}{900}$

28.6	26.2	22.1	20.1
$\frac{115}{863}$	$\frac{0.9}{897}$	$\frac{40}{820}$	$\frac{70}{800}$

17.5	15.9	15.1	15.4	15.6	14.4	14.7	15.6	17.8	22.5	25.6	26.3
$\frac{96}{777}$	$\frac{142}{753}$	$\frac{120}{725}$	$\frac{117}{700}$	$\frac{115}{650}$	$\frac{127}{600}$	$\frac{124}{565}$	$\frac{115}{530}$	$\frac{93}{500}$	$\frac{46}{460}$	$\frac{15}{430}$	$\frac{0.8}{400}$

19.4	22.4	22.8	27.1	28.5	29.3	29.5
$\frac{77}{800}$	$\frac{47}{808}$	$\frac{43}{817}$	$\frac{00}{842}$	$\frac{11.2}{852}$	$\frac{+2.2}{868}$	$\frac{12.4}{883}$

22.4	21.8	18.8
$\frac{4.7}{836}$	$\frac{53}{796}$	$\frac{83}{791}$

Sta + x - Elev.

1027.10

78 +33

+67

T.P.

9.10

✓
1039.36

1.89

✓
1025.26

74 +45

75

+50

76

+50

lt.

2

$$\begin{array}{r} 27.3 \\ 40.2 \\ 836 \end{array} \quad \begin{array}{r} 25.6 \\ 1.5 \\ 876 \end{array} \quad \begin{array}{r} 22.2 \\ 4.9 \\ 887 \end{array} \quad \begin{array}{r} 22.0 \\ 5.1 \\ 799 \end{array} \quad \begin{array}{r} 18.5 \\ 8.6 \\ 788 \end{array}$$

$$\begin{array}{r} 30.0 \\ 12.8 \\ 840 \end{array} \quad \begin{array}{r} 29.6 \\ 12.5 \\ 823 \end{array} \quad \begin{array}{r} 22.5 \\ 4.6 \\ 798 \end{array} \quad \begin{array}{r} 22.1 \\ 5.0 \\ 785 \end{array} \quad \begin{array}{r} 19.0 \\ 8.1 \\ 780 \end{array}$$

$$\begin{array}{r} 30.5 \\ 3.9 \\ 1045 \end{array} \quad \begin{array}{r} 31.0 \\ 3.4 \\ 1014 \end{array} \quad \begin{array}{r} 30.5 \\ 3.9 \\ 1000 \end{array} \quad \begin{array}{r} 29.2 \\ 5.2 \\ 972 \end{array}$$

$$\begin{array}{r} 22.3 \\ 12.1 \\ 1265 \end{array} \quad \begin{array}{r} 11 \\ 1238 \end{array} \quad \begin{array}{r} 24.6 \\ 9.8 \\ 1200 \end{array} \quad \begin{array}{r} 26.9 \\ 7.5 \\ 1147 \end{array} \quad \begin{array}{r} 28.4 \\ 6.0 \\ 1100 \end{array} \quad \begin{array}{r} 30.1 \\ 4.3 \\ 1070 \end{array} \quad \begin{array}{r} 30.3 \\ 4.1 \\ 1045 \end{array} \quad \begin{array}{r} 31.2 \\ 3.2 \\ 1000 \end{array} \quad \begin{array}{r} 30.4 \\ 4.0 \\ 956 \end{array} \quad \begin{array}{r} 30.2 \\ 4.2 \\ 934 \end{array}$$

$$\begin{array}{r} 25.9 \\ 8.5 \\ 1172 \end{array} \quad \begin{array}{r} 26.9 \\ 7.5 \\ 1130 \end{array} \quad \begin{array}{r} 27.9 \\ 6.5 \\ 1100 \end{array} \quad \begin{array}{r} 28.6 \\ 5.8 \\ 1066 \end{array} \quad \begin{array}{r} 29.6 \\ 4.8 \\ 1030 \end{array} \quad \begin{array}{r} 30.0 \\ 4.4 \\ 1000 \end{array} \quad \begin{array}{r} 30.4 \\ 4.0 \\ 969 \end{array} \quad \begin{array}{r} 30.0 \\ 4.4 \\ 933 \end{array} \quad \begin{array}{r} 28.7 \\ 3.7 \\ 936 \end{array} \quad \begin{array}{r} 26.2 \\ 8.2 \\ 926 \end{array} \quad \begin{array}{r} 22.7 \\ 11.7 \\ 906 \end{array}$$

$$\begin{array}{r} 25.0 \\ 9.4 \\ 1200 \end{array} \quad \begin{array}{r} 22.7 \\ 11.7 \\ 1265 \end{array}$$

$$\begin{array}{r} 23.1 \\ 11.3 \\ 1265 \end{array} \quad \begin{array}{r} 25.2 \\ 9.2 \\ 1200 \end{array} \quad \begin{array}{r} 26.3 \\ 8.1 \\ 1152 \end{array} \quad \begin{array}{r} 26.4 \\ 8.0 \\ 1100 \end{array} \quad \begin{array}{r} 27.0 \\ 7.4 \\ 1074 \end{array} \quad \begin{array}{r} 27.5 \\ 6.9 \\ 1042 \end{array} \quad \begin{array}{r} 29.1 \\ 5.3 \\ 1000 \end{array} \quad \begin{array}{r} 30.4 \\ 4.0 \\ 956 \end{array} \quad \begin{array}{r} 29.4 \\ 3.8 \\ 937 \end{array} \quad \begin{array}{r} 26.6 \\ 7.8 \\ 914 \end{array} \quad \begin{array}{r} 25.1 \\ 9.3 \\ 900 \end{array}$$

$$\begin{array}{r} 24.2 \\ 10.2 \\ 1265 \end{array} \quad \begin{array}{r} 25.0 \\ 9.4 \\ 1237 \end{array} \quad \begin{array}{r} 25.5 \\ 8.9 \\ 1200 \end{array} \quad \begin{array}{r} 26.4 \\ 8.0 \\ 1147 \end{array} \quad \begin{array}{r} 25.7 \\ 8.7 \\ 1130 \end{array} \quad \begin{array}{r} 26.1 \\ 8.3 \\ 1100 \end{array} \quad \begin{array}{r} 27.6 \\ 6.8 \\ 1043 \end{array} \quad \begin{array}{r} 28.7 \\ 5.7 \\ 1000 \end{array} \quad \begin{array}{r} 30.4 \\ 4.0 \\ 960 \end{array} \quad \begin{array}{r} 30.2 \\ 4.2 \\ 922 \end{array}$$

stk. + π - E/cx

1039.36

77

150.

78

B.M.

13.37

✓
1020.99

(1020.98)

B.M.

10.18

1021.18 ✓

44

4

25.0	25.4	26.2	26.3	26.9	27.8	28.1	28.4	29.2	29.0	28.6	29.5
<u>77</u>	<u>90</u>	<u>82</u>	<u>81</u>	<u>75</u>	<u>6.6</u>	<u>6.3</u>	<u>6.0</u>	<u>5.2</u>	<u>5.4</u>	<u>5.1</u>	<u>4.9</u>
1265	1200	1143	1100	1079	1032	1000	988	980	975	970	935

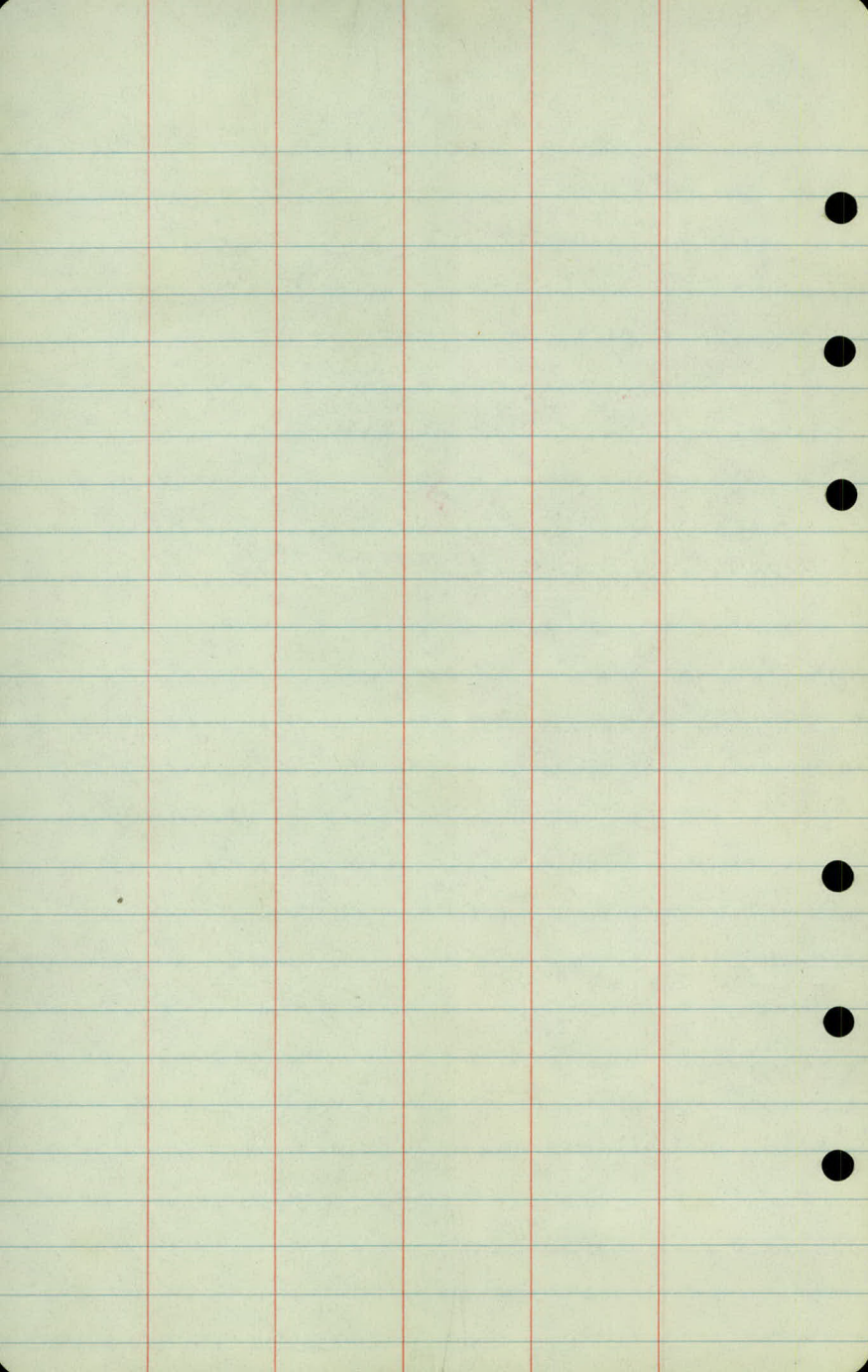
24.8	25.1	25.3	26.2	26.3	28.6	28.0	28.4	29.1	28.8	28.3	29.2	29.2
<u>96</u>	<u>93</u>	<u>91</u>	<u>82</u>	<u>81</u>	<u>68</u>	<u>69</u>	<u>60</u>	<u>53</u>	<u>56</u>	<u>61</u>	<u>52</u>	<u>5.2</u>
1265	1240	1200	1140	1100	1040	1000	989	978	973	970	950	920

24.4	25.3	25.3	25.8	25.9	27.2	27.9	29.3	28.6	28.4	28.1	28.6	29.0
<u>100</u>	<u>91</u>	<u>91</u>	<u>86</u>	<u>85</u>	<u>72</u>	<u>65</u>	<u>61</u>	<u>58</u>	<u>60</u>	<u>63</u>	<u>58</u>	<u>59</u>
1179	1136	1100	1077	1041	1000	981	980	975	970	969	959	920

24.6	24.4	24.3
<u>98</u>	<u>100</u>	<u>101</u>
1200	1240	1265

Top N. End Cul. N.E. Cor. Ripley & Howard Ave

Top S.E. Cor. Ripley & S.W. Cor. East Ave & Ripley

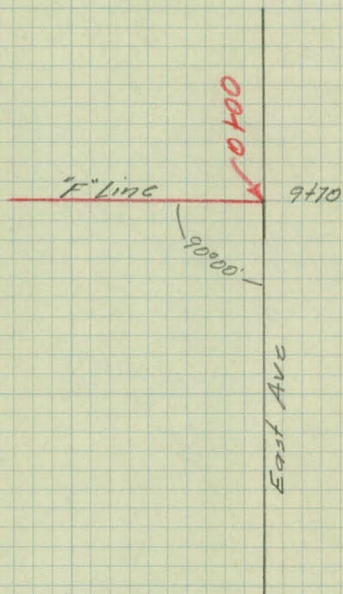


Topography

"F" Line

90° Lt. strg

East Ave No. or "E" Line



199-Fe Cor. 81'

199-Fe Cor. 69'

168 Cor Chick. Ho. - 57'

190-End. Fe. - 11'
124-Fe Cor. - 71'
122-24 Dec. - 1'

123-N.W. Cor Ho. - 16'

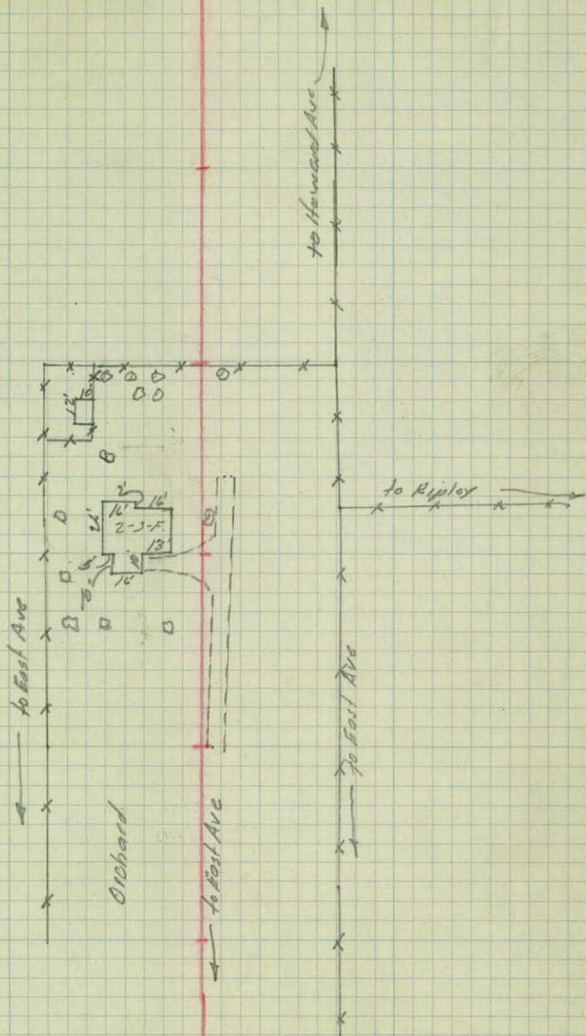
3

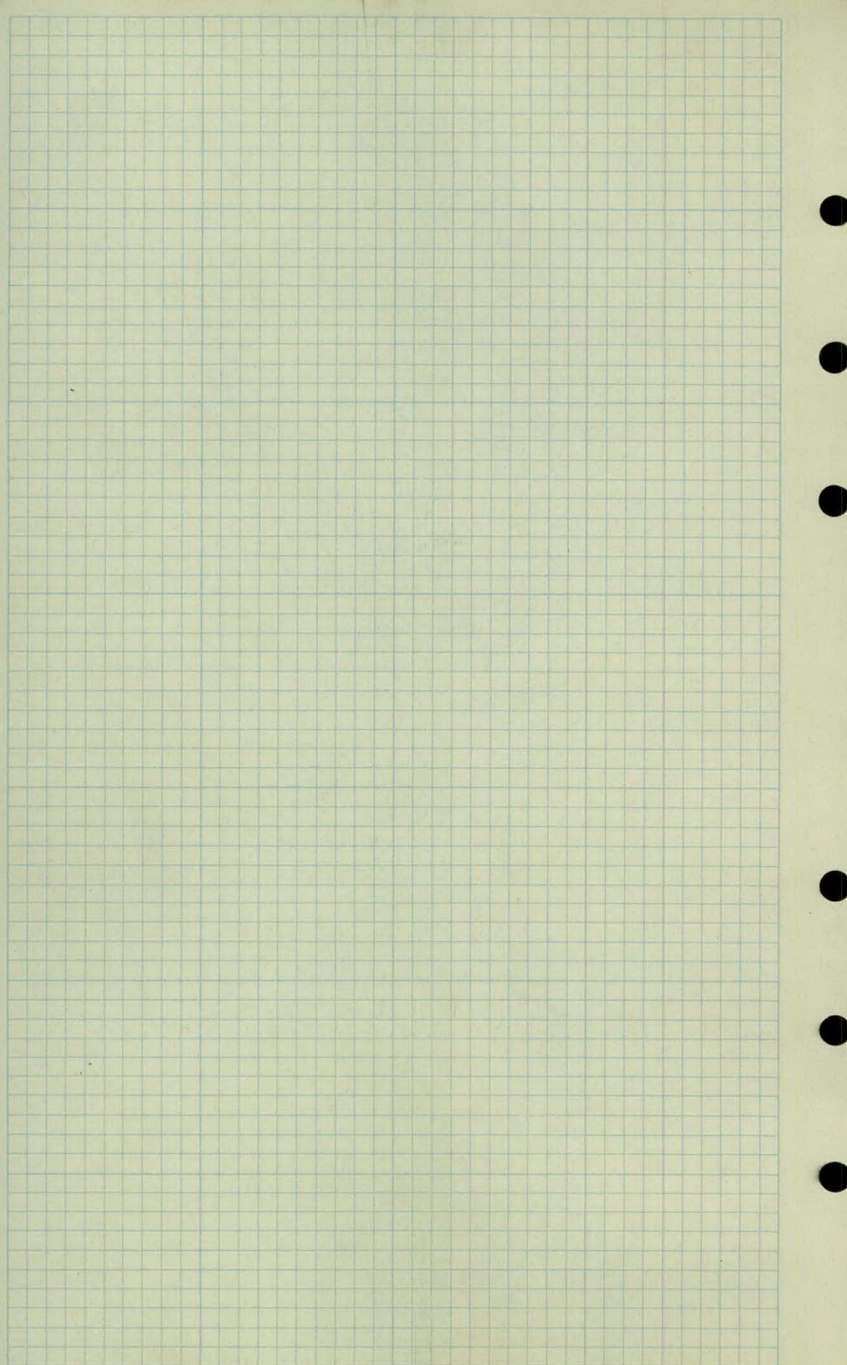
2 Fe. - 80'

End. - 5'

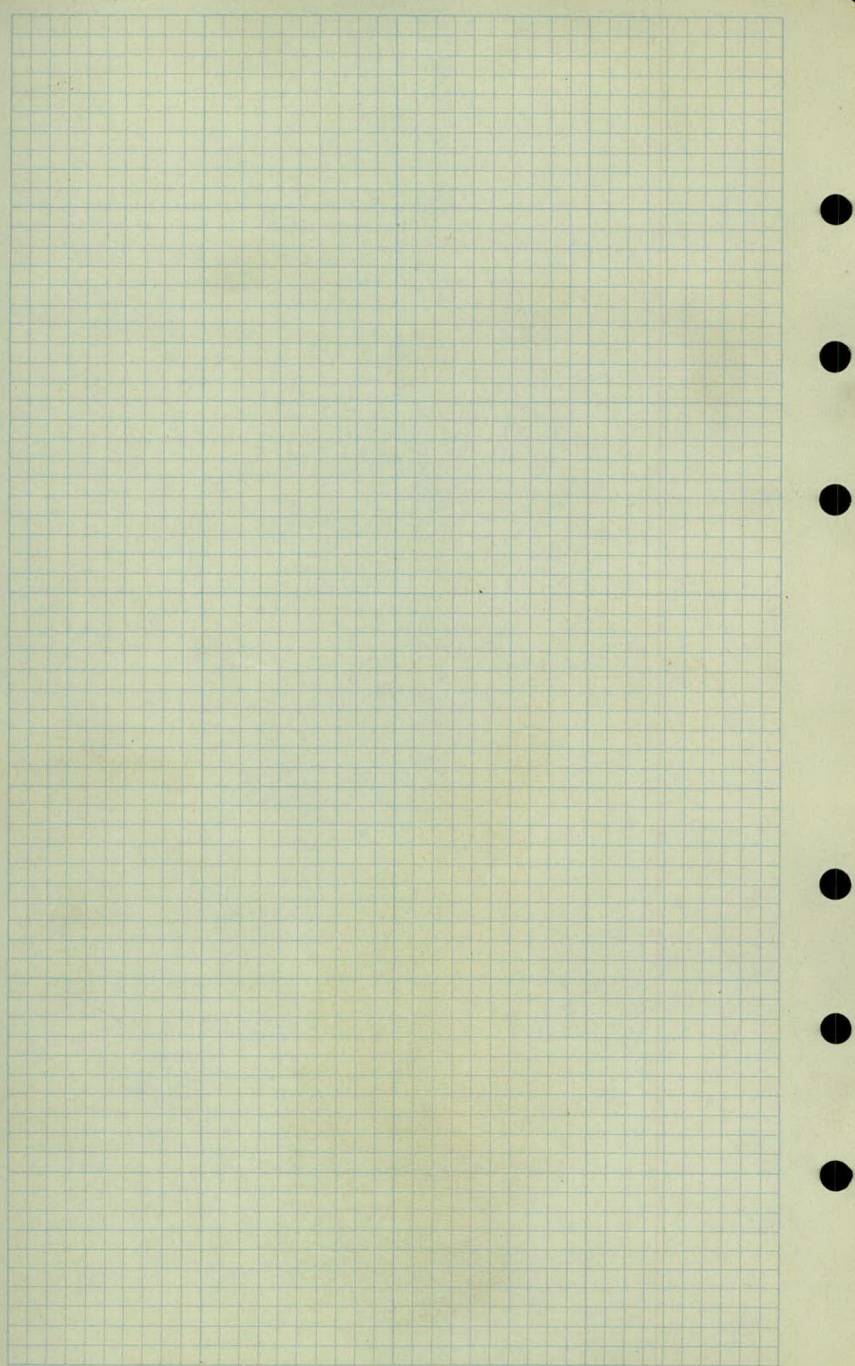
1

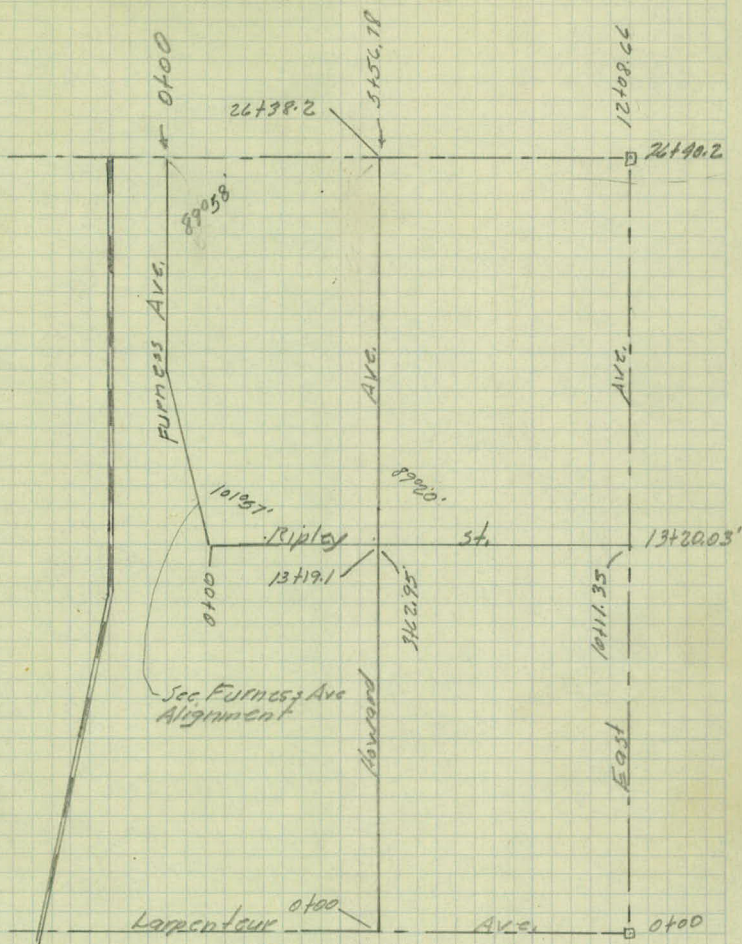
0.100

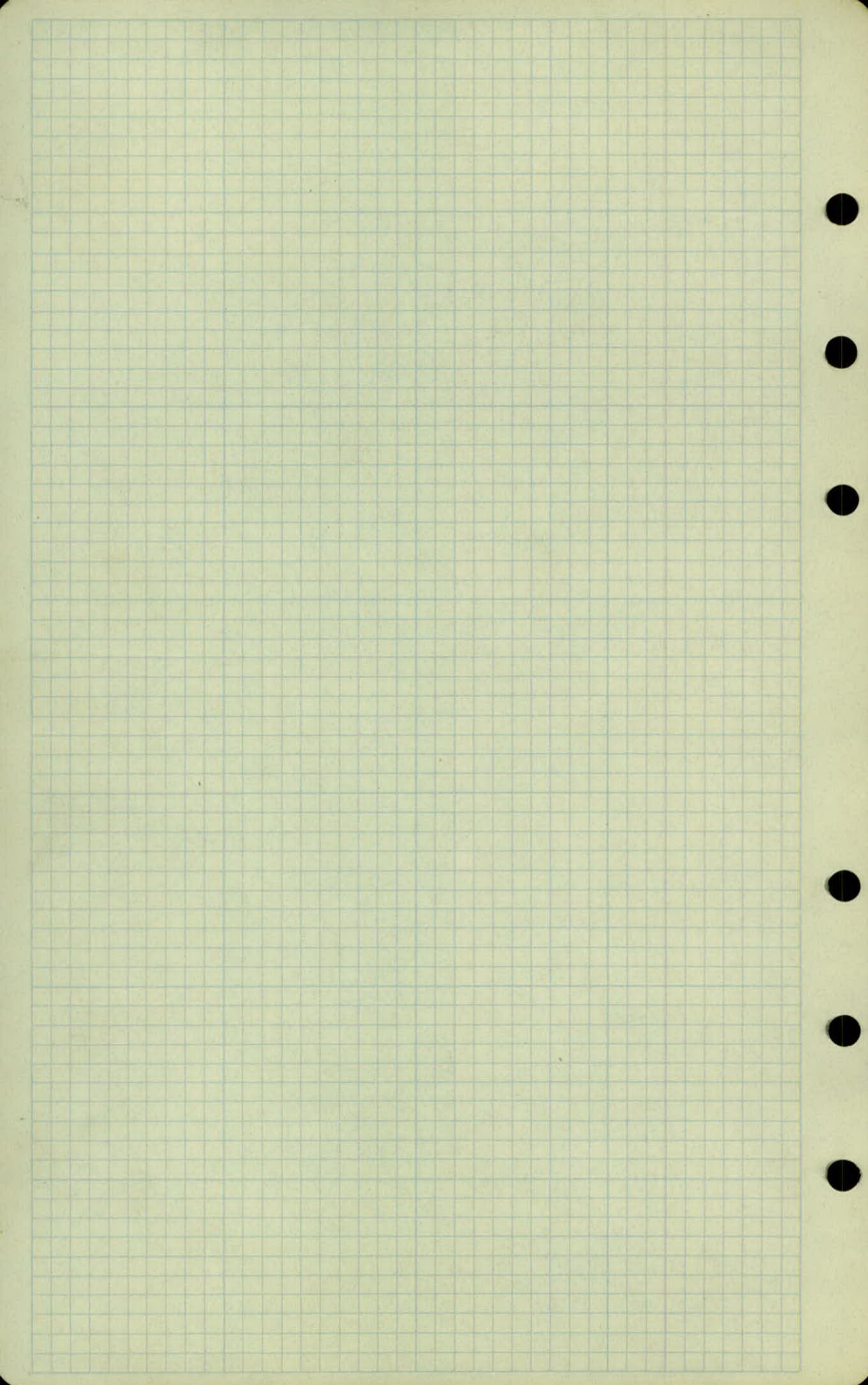




Alignment







Topography

East Ave

"E" Line

24" X 61' C.M.

5

4

3

2

1

-188-24" X 50' C.M.

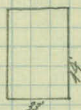
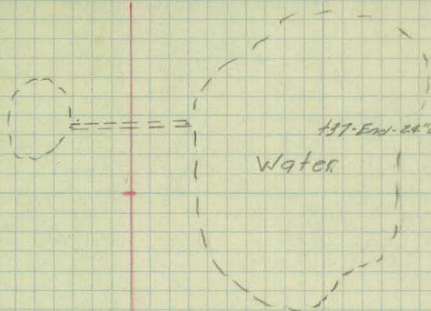
27'

27'

0+00

• 133-End-24" C.M. 32'

• 137-End-24" C.M. 29'

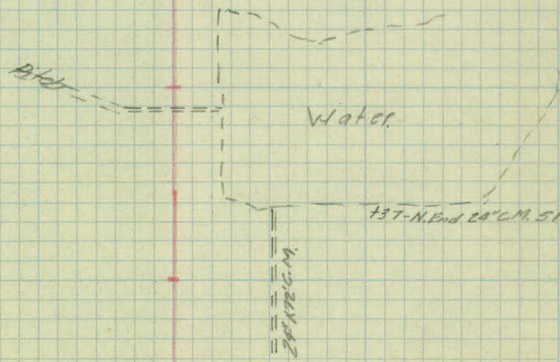


• 174-S.E. Cor. School. 70

3' x 5' • 183-End-12" C.M. 25'



• 138-S.E. Cor. Mo. 117'
• 138-End-
• 138-S.E. Cor. Co. 188'



• 138-End-14" x 16" C.M. 28'

• 137-N. End 20" C.M. 51'

+20-S.E. Cor. Ho. - 8'

+18-S.W. Ent. 10" X 6' C.M. - 24'

12

10' 9'

Fc - 34'

+67-T.P. - 28'

11

10' 10'

Fc - 34'

+37-T.P. - 28' Fc - 34'

10

10' 8'

Fc - 34'

+69-Ent. 15" X 20' C.M. - 24'

9

10' 10'

+70-T.P. - 29' Fc - 34'

Fc - 34'

+90-G.P. - 25'

+32-S.E. Cor. Ho. - 102'

8

9' 10'

Fc - 34'

+55-Ent. 15" X 20' C.M. - 24'

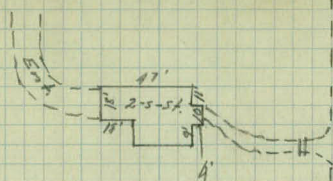
+27-T.P. - 28'

7

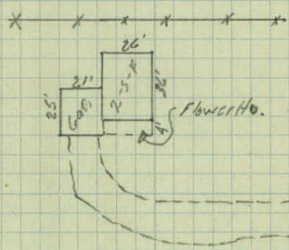
9' 10'

Fc - 33'

6



see F' line



+79-T.P.-28'
+61-Ent-15"X20" C.M.-23'

19 +62-Wall-33'

+65-Ent-15"X20" C.M.-24'
End Gutter-

+95-Ent-15"X20" C.M.-24'
+88-Wall-33' End Gutter
+58-S.E. Cor. Ho.-90'
+54-T.P.-29' E

+69-15"X20" C.M.-24'

+82-S.W. Cor. Ho.-97'

18 Gutter-28'-19'

10' 9'

+66-Rubble Wall-33'
Gutter-19'-20'

+80-Ent 15"X20" C.M.-24'

+93-S.E. Cor. Ho.-93'
+28-T.P.-28'

17 Gutter-28'-19'

11' 9'

Gutter-19'-28'
+91-S.W. Cor. Ho.-95'

+67-Ent-15"X20" C.M.-24'

+50-Ent-15"X20" C.M.-24'
+95-Cor. Garage-107'
+18-S.E. Cor. Ho.-83'
+02-T.P.-29'

16 Gutter-28'-19'

10' 9'

Gutter-19'-28'

15 +94-Ent 15"X20" C.M.-24'
+15-S.E. Cor. Garage-146'
Gutter-29'-19' S.E. Cor. Ho.-84' 11'

7

Gutter-19'-28'

+78-T.P.-29'

14 +14-S.W. Ent 15"X20" C.M.-24'
+13-S.E. Cor. Ho.-84'

10' 9'

+17-T.P.-29' Gutter-30'-19'
+40-80% R.C. Rubble Gutter-40'
+18-N. End 15" C.M.-33'

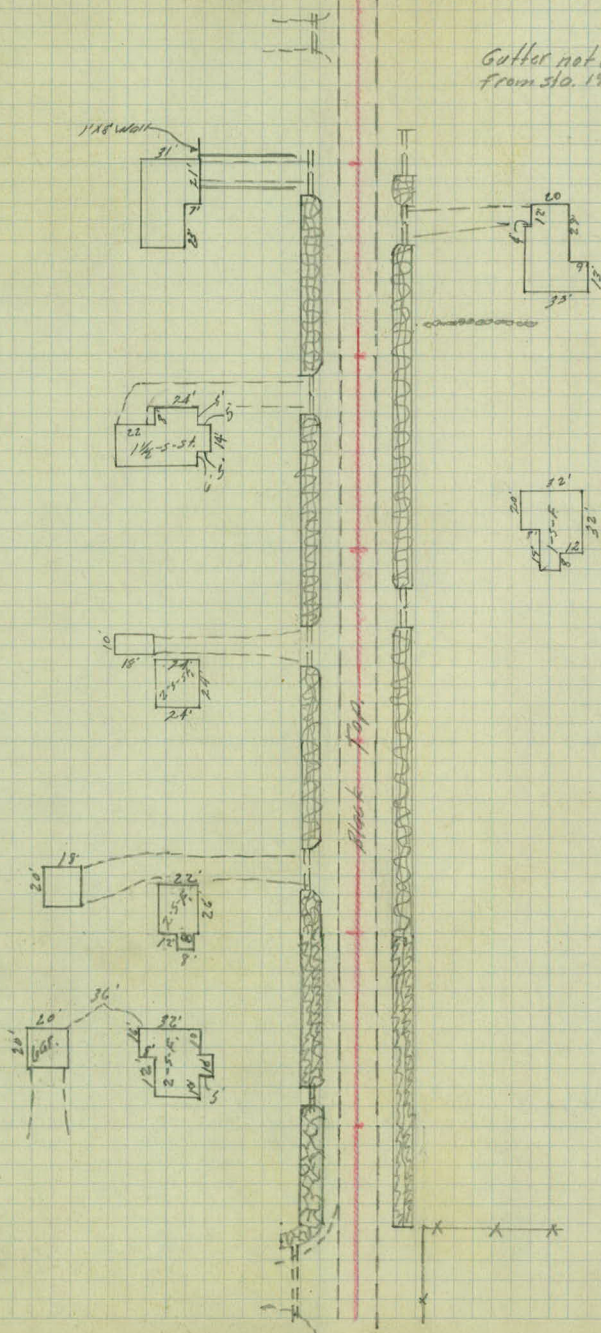
+97-Rubble Gutter-19'-28'
+97-F.C. Cor.-34'

13 - +02-S. End-15" C.M.-33'

10' 10'

Fig-34'

Gutter not completed
from sta. 19 north.



776-Fc. Cor. - 35'

26

130-Ent. - 15" X 20' CM - 24'

106-PP. - 27'

10' 10'

132-E. Rd. - 15" X 27' CM - 32'

102-Cor. Ho. - 82'

142-Neg. - 30'

124-Ent. - 15" X 20' CM - 22'

130-Cor. Garage - 128'

129-E. 2' W. 1/4 - 33'

25

190-S.E. Cor. Ho. - 82'

181-PP. - 27'

140-N. Ent. 15" CM - 22'

137-S.E. Cor. Ho. - 79'

120-S.E. Cor. Garage - 110'

24

S Ent. 15" CM - 22'

10' 10'

165-S.E. Cor. Ho. - 138'

155-T.R. - 28'

23

103-E. 24' X 98' CM,

28' 25'
10' 11'

130-T.R. - 28'

22

10' 10'

175-Cor. Rubble Wall - 37-70'

156-Ent. - 15" X 20' CM - 24'

151-Cor. Garage - 118'

21

118-Cor. Ho. - 84'

104-T.R. - 28' Rubble Wall - 33'

10' 10'

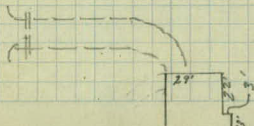
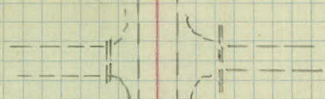
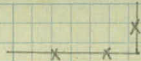
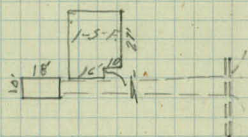
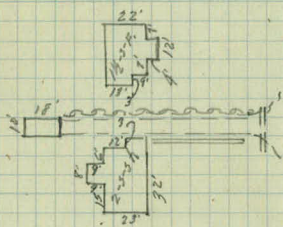
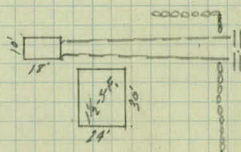
20

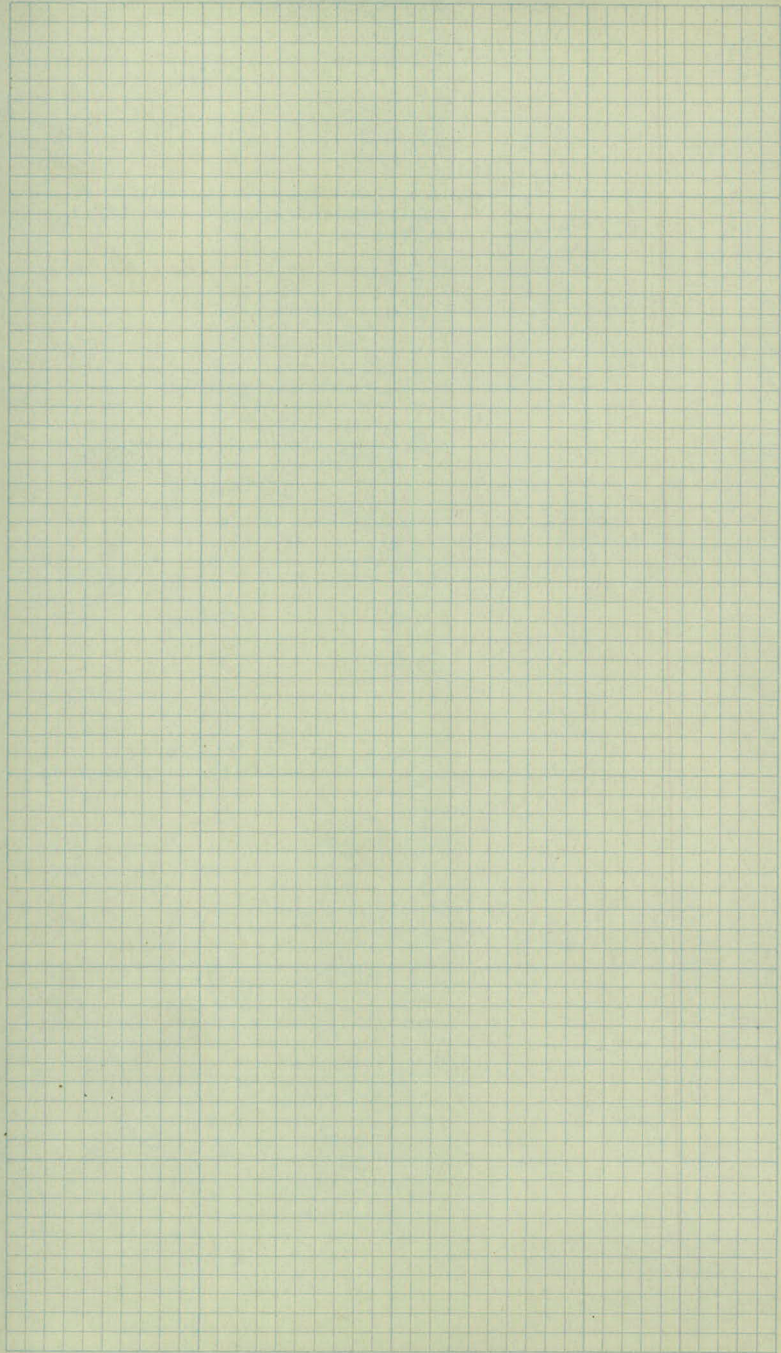
131-Ent. - 15" X 20' CM - 24'

115-N.W. Cor. Ho. - 78'

10' 10'

20'
1.55 ft
20'





Topography

Howard Ave.

5

15

15'

4

15

15'

3

28" x 48" C.M.

15

15'

2

15

15'

1

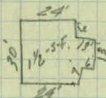
15'

15'

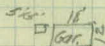
0100

410 = Edge of Top

182-Ent



139-S.E. Cor. Ho. - 73'



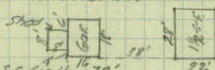
155-P.H. - 24'

140-S.E. Cor. Ho. - 73'

125-P.H. - 15' x 24' C.M. - 22'

121-S.E. Cor. Garage - 144'

198-Ent. 15' x 20' C.M. - 19'



161-S.E. Cor. Ho. - 73'

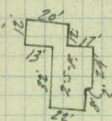
117-W. End 24' C.M. - 21'

108-P.H. - 24'

123-Ent. 12' x 20' C.M. - 20'

118-Cor. Ho.

194-Cor. Ho. - 77'



166-P.H. - 29'

Scattered Oaks

128-P.H. - 30'

24'

197-S.E. Cor. Fund - 88'

164-N.W. Cor. Gar. - 157'



167-Ent. Pict. of Fg. - 33'

128-Ent.

12' x 18' C.M. - 20'



176-S.W. Cor. Ho. - 88'

155-Fg. Cor.



112-S.W. Cor. Ho. - 128'

108-Old Pict. of Fg. - 38'

198-Ent. 15' x 20' C.M. - 20'

194-Ent. Pict. of Ho. - 33'

141-Beg. Pict. of Fg. - 33'

115-E. End 24' C.M. - 22'

197 - S. End 15" C.M. - 28'
196 - F.P. - 25'

199 - S. End 15" C.M. - 28'
194 - G.P. - 25'
187 - P.C. - 32'

121 - S. E. Cor. Ho. - 66'

128 - End - 12" x 20" C.M. - 20'

12

11' 11'

184 - S. E. Cor. Garage - 112'
162 - End - 12" x 18" C.M. - 20'
161 - S. E. Cor. Ho. - 142'

116 - P.P. - 36'

108 - End - 12" x 20" C.M. - 19'

11

15

15

10

15

15

• 110 - 24" x 46" C.M.

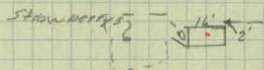
23'

23'

9

15

15



8

15

15

7

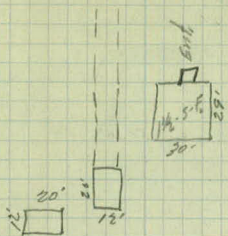
15

15

6

15

15



~~+07-FC-32'~~
~~+05-FC-110'~~

+150-Ent 12"x20" M-20'



+177-SE Cor. Ho. 148'
 +112-SE Cor. CHIC. COOR 174'
 +158-P.P.-25'



+172-Kongatic
 +135-S.W. Cor. Ho. 170'



+167-Ent 18"x15" M-19'

+196-SE Cor. Ho. 114'



+160-M.E. Cor. G.A. - 131'
 +184-SE Cor. Ho. 113'
 +187-Ent 16"x18" M-26'



+157-S.W. Cor. Ho. 115'
 +198-Ent -
 12"x18" M-21'

+176-P.P.-24'

Scot. Oaks,



+199-SE Cor. CHIC. COOR - 171'
 +100-Ent 15"x20" M-20'
 +177-SE Cor. Ho. 96'

+137-12"x20" M-20'

+102-P.P.-24'

+88-S.W. Cor. Ho. - 72'

+50-P.P. - 25'

+24-Ent. 18" X 26" C.M. - 17'

19

+66-Cor. Garage - 134'

+62-S.W. Cor. Ho. - 73'

+41-S.E. Cor. Ho. - 73'

+10-Ent. - 15" X 20" C.M. - 20'

18

11' 11'

+89-P.P. - 25'

+83-Ent. - 12" X 23" C.M. - 20'

+42-S.W. Cor. Ho. - 72'

+30-S.W. Cor. Garage - 118'

+11-Ent. - 12" X 24" C.M. - 20'

17

+78-S.W. Cor. Ho. - 72'

+22-T.P. - 25'

16

10' 11'

+80-S.E. Cor. Ho. - 87'

+94-Ent. - 12" X 18" C.M. - 20'

+91-Cor. Garage - 94'

+59-S.W. Cor. Ho. - 72'

+68-Ent. - 15" X 20" C.M. - 20'

15

11' 11'

+83-S.E. Cor. Ho. - 73'

+90-Ent. - 12" X 20" C.M. - 20'

+67-Ent. - 15" X 20" C.M. - 20'

+55-T.P. - 24'

+17-Ent. - 12" X 20" C.M. - 21'

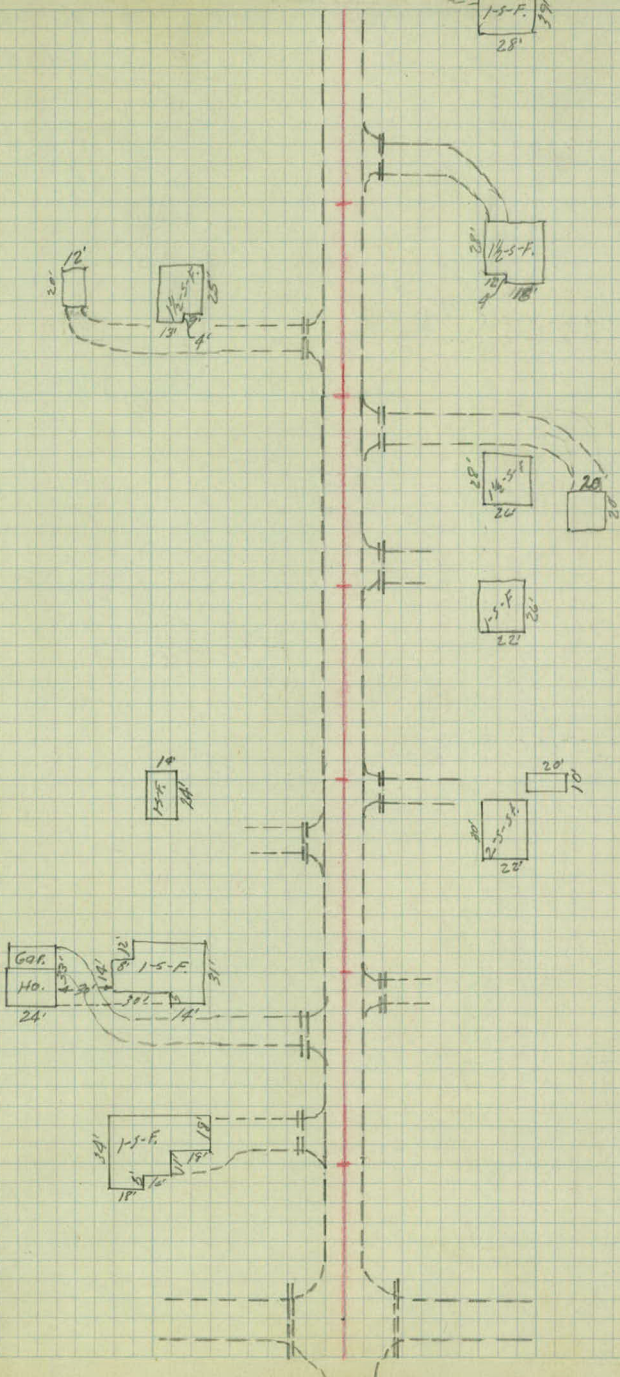
+61-S.E. Cor. Ho. - 70'

14

11' 10'

+39-N. End 15" C.M. - 28'

+40-N. End 15" C.M. - 28'



26 106- $\angle$ 15"X38" C.M.A. 16'22"
11' 13'

+51-S.E. Cor Ho - 73'
+50-Ent. - 12"X20" C.M.A. - 20'
+41-Cor Garage - 127'

25 12' 12'

+73-PP - 26'

24 Ent. - $\frac{12"X18" C.M.A.}{20'}$

+65-Ent. - 12"X20" C.M.A. - 20'
+69-S.W. Cor Ho. - 129'

+58-S.E. Cor Ho - 73'
+43-PP - 26'
+22-Ent. - 12"X20" C.M.A. - 20'
+10-S.E. Cor Ho - 149'

23 11' 12'

+69-S.W. Cor Ho. - 72'
+51-Cor Garage - 136'
+38-Ent. - 15"X20" C.M.A. - 20'

22 +11-PP - 26'
+76-Ent. - 12"X20" C.M.A. - 20' 10' 11'

+58-S.E. Cor Ho -

+52-Ent. - 12"X20" C.M.A. - 19'

+20-S.W. Cor Ho. - 72'

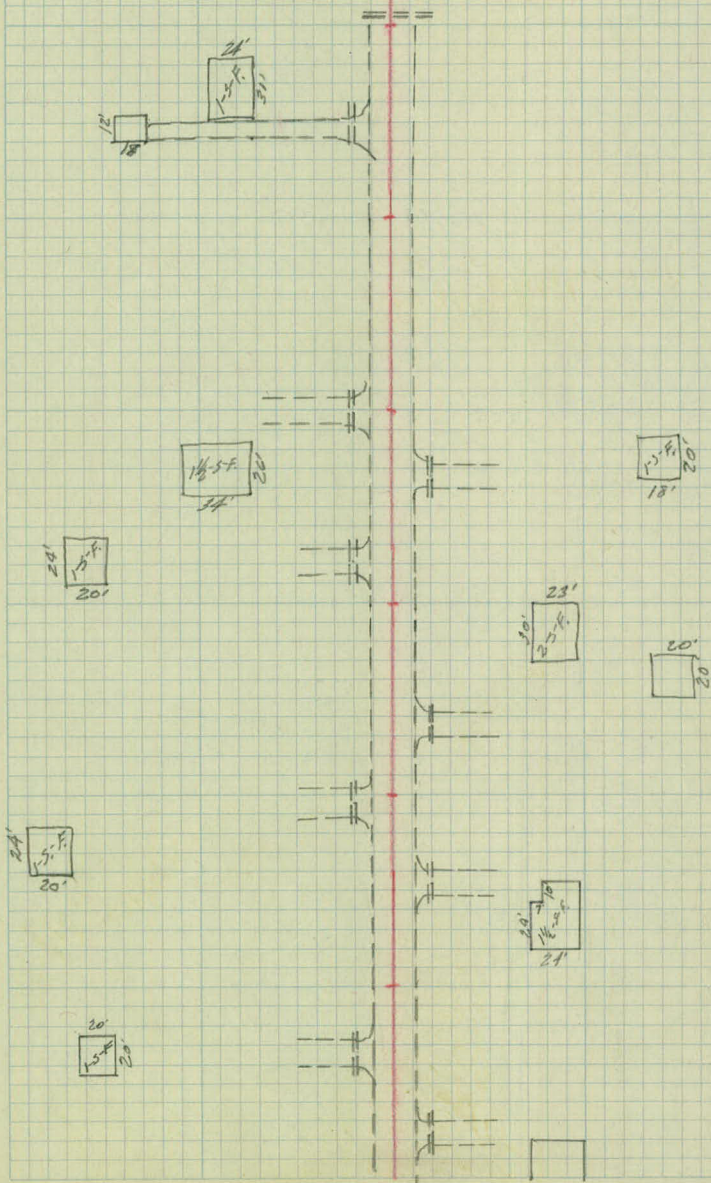
21 11' 11'

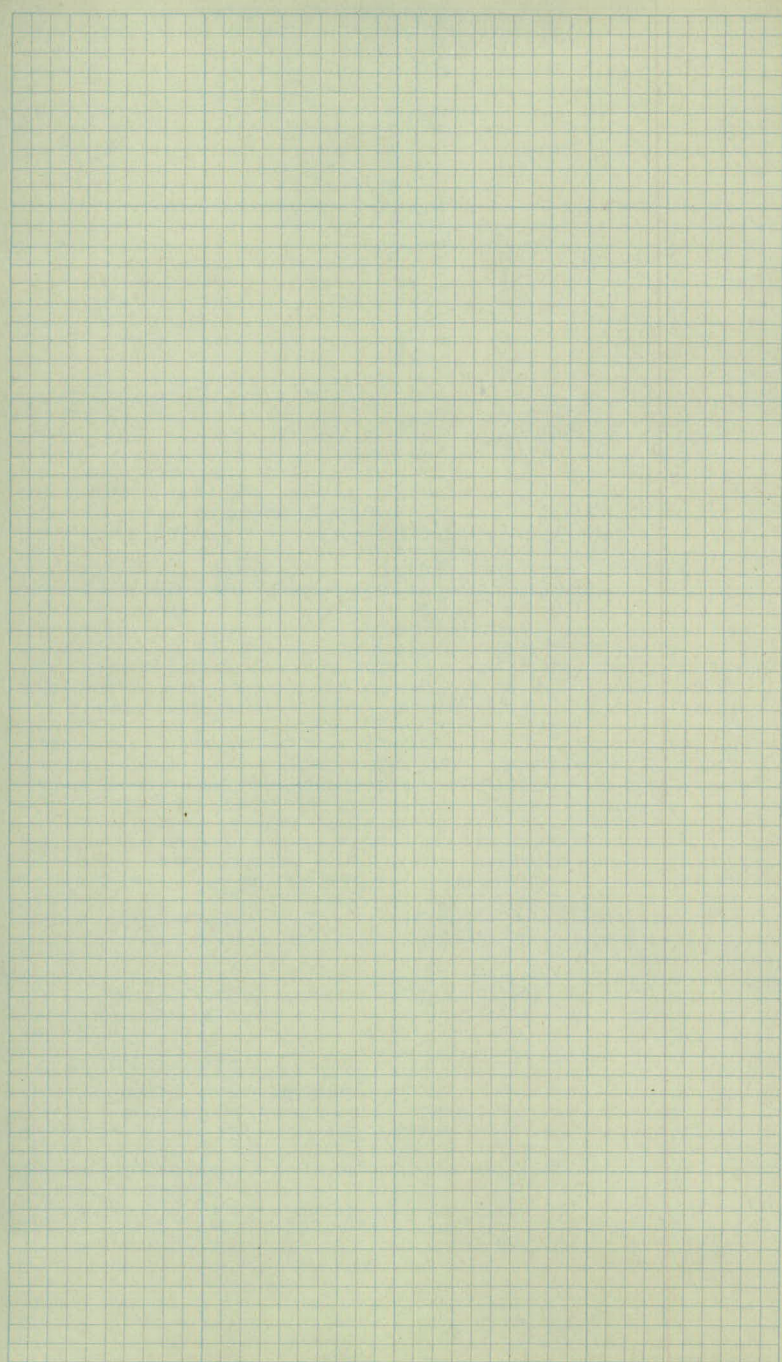
+81-PP - 25'

+66-Ent. - 12"X18" C.M.A. - 20'
+55-S.E. Cor Ho. - 144'

+22-Ent. - 12"X18" C.M.A. - 19'

20





X sections
East Ave.

Sta	+	π	-	Elev.
B.M.	1.71	1022.70		(1020.99)
I.P.	10.15	1030.17	2.68	1020.02

7 + 77

+90

8

+27

+85

+89

9 +51

+82

LT.

Top Mont. Larp. + East Ave.

$\frac{23}{100}$	$\frac{27}{62}$	$\frac{27}{33}$	$\frac{66}{27}$	$\frac{66}{19}$	$\frac{55}{16}$	$\frac{52}{10}$	$\frac{50}{1}$
27.9	27.5	27.5	25.6	25.6	24.7	25.0	23.2
$\frac{20}{100}$	$\frac{28.2}{66}$	$\frac{27.8}{32}$	$\frac{25.6}{27}$	$\frac{25.5}{19}$	$\frac{24.5}{16}$	$\frac{24.8}{10}$	$\frac{24.9}{53}$
29.2	28.1	28.6	21.7	21.8	23.0	23.8	24.1
$\frac{13}{70}$	$\frac{31}{50}$	$\frac{53}{30}$	$\frac{8.5}{26}$	$\frac{8.3}{17}$	$\frac{12}{16}$	$\frac{6.5}{10}$	$\frac{6.2}{1}$
28.9	27.1	24.9	21.7	21.9	23.0	23.7	24.0
$\frac{16}{69}$	$\frac{33}{50}$	$\frac{53}{33}$	$\frac{9.4}{25}$	$\frac{9.5}{19}$	$\frac{8.3}{15}$	$\frac{7.6}{8}$	$\frac{7.9}{1}$
28.6	26.9	24.9	20.8	20.7	21.9	22.6	22.8
$\frac{71}{30}$	$\frac{96}{25}$	$\frac{98}{19}$	$\frac{8.5}{15}$	$\frac{8.1}{8}$	$\frac{8.0}{1}$	$\frac{8.2}{1}$	$\frac{8.2}{1}$
23.1	20.6	20.4	21.7	22.1	22.2	22.2	22.2
$\frac{78}{47}$	$\frac{85}{29}$	$\frac{87}{14}$	$\frac{83}{8}$	$\frac{82}{1}$	$\frac{82}{1}$	$\frac{82}{1}$	$\frac{82}{1}$
22.4	21.7	21.5	21.9	22.0	22.0	22.0	22.0
$\frac{80}{49}$	$\frac{90}{14}$	$\frac{86}{9}$	$\frac{84}{1}$	$\frac{84}{1}$	$\frac{84}{1}$	$\frac{84}{1}$	$\frac{84}{1}$
22.2	21.2	21.4	21.8	21.8	21.8	21.8	21.8

Sta + π - E/cv.

1030.17 ✓

10 +40

11

+50

12

+50

+92

B.M.

6.00

1024.17 ✓

(1024.18)

7.31

1022.86 ✓

1.25

1021.61

$$\begin{array}{r} 25.2 \\ \hline 50 \\ 100 \end{array} \quad \begin{array}{r} 25.2 \\ \hline 50 \\ 61 \end{array} \quad \begin{array}{r} 25.4 \\ \hline 48 \\ 34 \end{array} \quad \begin{array}{r} 23.7 \\ \hline 65 \\ 28 \end{array} \quad \begin{array}{r} 23.5 \\ \hline 67 \\ 20 \end{array} \quad \begin{array}{r} 25.0 \\ \hline 52 \\ 17 \end{array} \quad \begin{array}{r} 25.3 \\ \hline 49 \\ 10 \end{array} \quad \begin{array}{r} 25.6 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 24.1 \\ \hline 61 \\ 100 \end{array} \quad \begin{array}{r} 23.7 \\ \hline 65 \\ 34 \end{array} \quad \begin{array}{r} 23.4 \\ \hline 68 \\ 26 \end{array} \quad \begin{array}{r} 23.6 \\ \hline 66 \\ 21 \end{array} \quad \begin{array}{r} 24.9 \\ \hline 53 \\ 17 \end{array} \quad \begin{array}{r} 25.4 \\ \hline 48 \\ 10 \end{array} \quad \begin{array}{r} 25.7 \\ \hline 45 \end{array}$$

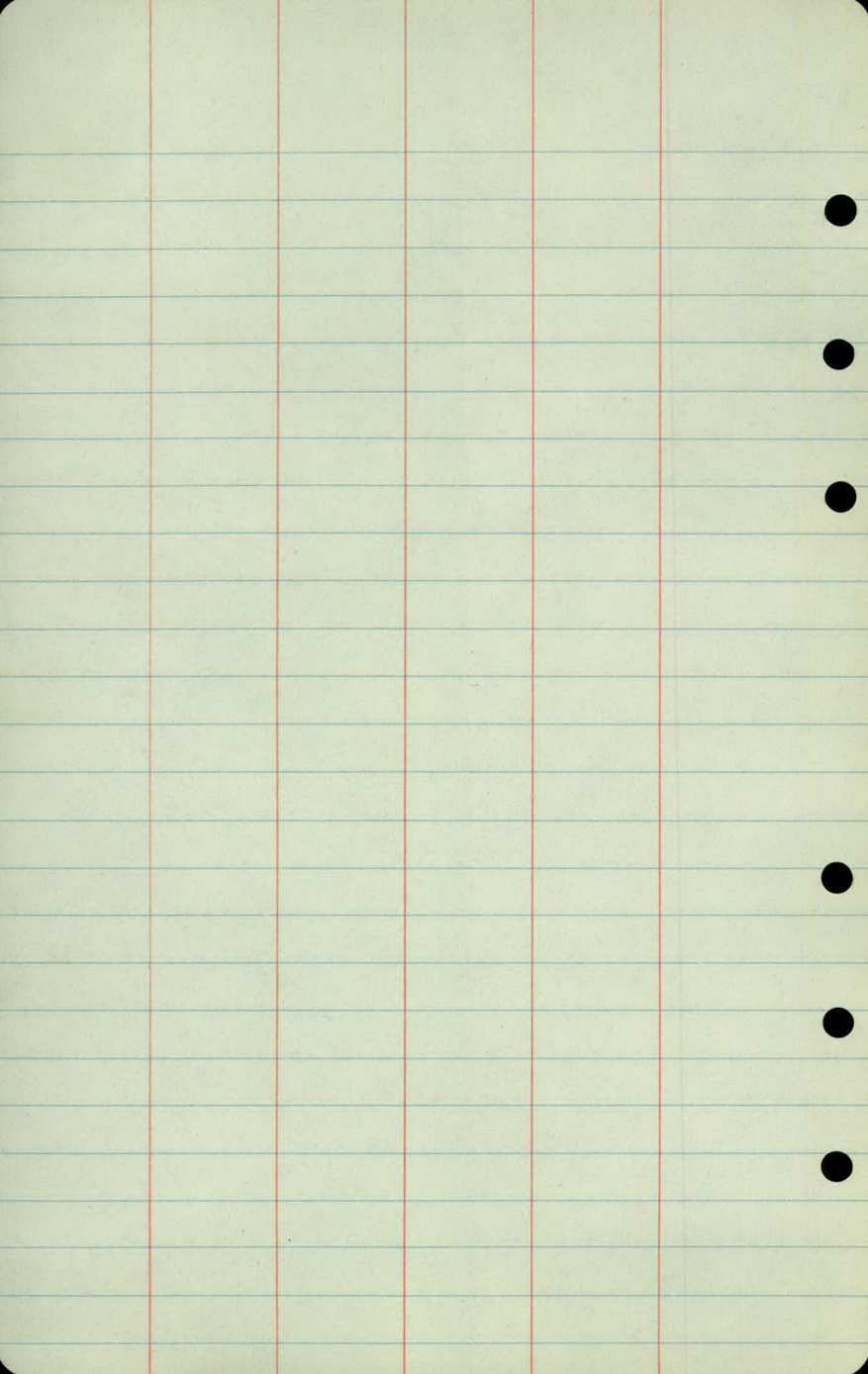
$$\begin{array}{r} 23.9 \\ \hline 63 \\ 100 \end{array} \quad \begin{array}{r} 23.7 \\ \hline 65 \\ 30 \end{array} \quad \begin{array}{r} 23.4 \\ \hline 68 \\ 26 \end{array} \quad \begin{array}{r} 23.1 \\ \hline 71 \\ 22 \end{array} \quad \begin{array}{r} 24.7 \\ \hline 55 \\ 18 \end{array} \quad \begin{array}{r} 25.1 \\ \hline 51 \\ 10 \end{array} \quad \begin{array}{r} 25.5 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 24.4 \\ \hline 58 \\ 100 \end{array} \quad \begin{array}{r} 24.4 \\ \hline 56 \\ 63 \end{array} \quad \begin{array}{r} 24.3 \\ \hline 59 \\ 34 \end{array} \quad \begin{array}{r} 22.9 \\ \hline 73 \\ 27 \end{array} \quad \begin{array}{r} 23.0 \\ \hline 72 \\ 20 \end{array} \quad \begin{array}{r} 24.3 \\ \hline 59 \\ 16 \end{array} \quad \begin{array}{r} 24.6 \\ \hline 56 \\ 10 \end{array} \quad \begin{array}{r} 25.0 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 24.5 \\ \hline 57 \\ 100 \end{array} \quad \begin{array}{r} 24.4 \\ \hline 58 \\ 56 \end{array} \quad \begin{array}{r} 24.1 \\ \hline 61 \\ 34 \end{array} \quad \begin{array}{r} 22.1 \\ \hline 81 \\ 27 \end{array} \quad \begin{array}{r} 22.2 \\ \hline 80 \\ 20 \end{array} \quad \begin{array}{r} 23.7 \\ \hline 65 \\ 16 \end{array} \quad \begin{array}{r} 24.1 \\ \hline 61 \\ 9 \end{array} \quad \begin{array}{r} 24.2 \\ \hline 60 \end{array}$$

$$\begin{array}{r} 24.1 \\ \hline 61 \\ 23 \end{array} \quad \begin{array}{r} 21.8 \\ \hline 84 \\ 29 \end{array} \quad \begin{array}{r} 22.2 \\ \hline 80 \\ 23 \end{array} \quad \begin{array}{r} 23.2 \\ \hline 70 \\ 19 \end{array} \quad \begin{array}{r} 23.4 \\ \hline 68 \\ 9 \end{array} \quad \begin{array}{r} 23.6 \\ \hline 46 \end{array}$$

Top S. End Cube S.W. Cor. Ripley & East Ave.



xsections

Ripley St.

Sta	+	x	-	Elev
B.M.	8.10	1029.08		(1020.98)
B.M.			6.91	1022.17

0 +00

+31

+70

1

+50

2 +16

Lt

4

Rt.

Top Cat. N.E. Cor. Ripley & Howard Ave.

Top Breather Pipe S.W. Cor. Ripley & Furness.

$$\begin{array}{r} 230 \\ 61 \\ \hline 9 \end{array} \quad \begin{array}{r} 230 \\ 12 \\ \hline 19 \end{array} \quad \begin{array}{r} 219 \\ 76 \\ \hline 28 \end{array} \quad \begin{array}{r} 215 \\ 66 \\ \hline 69 \end{array} \quad \begin{array}{r} 225 \\ 79 \\ \hline 102 \end{array} \quad \begin{array}{r} 212 \\ 102 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 22.2 \\ 69 \\ \hline 24 \end{array} \quad \begin{array}{r} 20.8 \\ 83 \\ \hline 18 \end{array} \quad \begin{array}{r} 22.1 \\ 70 \\ \hline 15 \end{array} \quad \begin{array}{r} 22.1 \\ 64 \\ \hline 8 \end{array} \quad \begin{array}{r} 22.8 \\ 63 \\ \hline 11 \end{array} \quad \begin{array}{r} 22.9 \\ 62 \\ \hline 11 \end{array} \quad \begin{array}{r} 21.9 \\ 78 \\ \hline 15 \end{array} \quad \begin{array}{r} 21.9 \\ 78 \\ \hline 22 \end{array} \quad \begin{array}{r} 21.9 \\ 39 \\ \hline 28 \end{array} \quad \begin{array}{r} 25.2 \\ 37 \\ \hline 52 \end{array} \quad \begin{array}{r} 25.9 \\ 47 \\ \hline 96 \end{array} \quad \begin{array}{r} 22.1 \\ 74 \\ \hline 114 \end{array} \quad \begin{array}{r} 17.4 \\ 11.7 \\ \hline 192 \end{array}$$

$$\begin{array}{r} 22.6 \\ 65 \\ \hline 11 \end{array} \quad \begin{array}{r} 22.2 \\ 69 \\ \hline 15 \end{array} \quad \begin{array}{r} 21.9 \\ 78 \\ \hline 23 \end{array} \quad \begin{array}{r} 21.3 \\ 78 \\ \hline 30 \end{array} \quad \begin{array}{r} 24.7 \\ 44 \\ \hline 38 \end{array} \quad \begin{array}{r} 25.9 \\ 38 \\ \hline 72 \end{array} \quad \begin{array}{r} 25.8 \\ 53 \\ \hline 105 \end{array} \quad \begin{array}{r} 25.4 \\ 37 \\ \hline 128 \end{array} \quad \begin{array}{r} 22.8 \\ 63 \\ \hline 153 \end{array} \quad \begin{array}{r} 19.4 \\ 97 \\ \hline 153 \end{array}$$

$$\begin{array}{r} 22.1 \\ 70 \\ \hline 100 \end{array} \quad \begin{array}{r} 22.2 \\ 69 \\ \hline 51 \end{array} \quad \begin{array}{r} 22.2 \\ 69 \\ \hline 25 \end{array} \quad \begin{array}{r} 21.1 \\ 80 \\ \hline 21 \end{array} \quad \begin{array}{r} 21.1 \\ 80 \\ \hline 17 \end{array} \quad \begin{array}{r} 22.9 \\ 68 \\ \hline 19 \end{array} \quad \begin{array}{r} 22.6 \\ 65 \\ \hline 7 \end{array} \quad \begin{array}{r} 22.9 \\ 67 \\ \hline 14 \end{array} \quad \begin{array}{r} 22.1 \\ 70 \\ \hline 17 \end{array} \quad \begin{array}{r} 20.9 \\ 82 \\ \hline 23 \end{array} \quad \begin{array}{r} 20.9 \\ 82 \\ \hline 28 \end{array} \quad \begin{array}{r} 23.5 \\ 56 \\ \hline 60 \end{array} \quad \begin{array}{r} 25.0 \\ 50 \\ \hline 100 \end{array} \quad \begin{array}{r} 25.9 \\ 41 \\ \hline 122 \end{array} \quad \begin{array}{r} 25.9 \\ 54 \\ \hline 146 \end{array} \quad \begin{array}{r} 22.4 \\ 67 \\ \hline 171 \end{array}$$

$$\begin{array}{r} 19.7 \\ 99 \\ \hline 100 \end{array} \quad \begin{array}{r} 20.5 \\ 86 \\ \hline 62 \end{array} \quad \begin{array}{r} 21.3 \\ 78 \\ \hline 23 \end{array} \quad \begin{array}{r} 20.6 \\ 88 \\ \hline 21 \end{array} \quad \begin{array}{r} 20.7 \\ 84 \\ \hline 17 \end{array} \quad \begin{array}{r} 21.9 \\ 72 \\ \hline 14 \end{array} \quad \begin{array}{r} 22.5 \\ 66 \\ \hline 13 \end{array} \quad \begin{array}{r} 22.0 \\ 71 \\ \hline 16 \end{array} \quad \begin{array}{r} 20.8 \\ 83 \\ \hline 23 \end{array} \quad \begin{array}{r} 20.7 \\ 84 \\ \hline 23 \end{array} \quad \begin{array}{r} 21.9 \\ 72 \\ \hline 25 \end{array} \quad \begin{array}{r} 22.7 \\ 64 \\ \hline 34 \end{array} \quad \begin{array}{r} 23.9 \\ 52 \\ \hline 100 \end{array} \quad \begin{array}{r} 24.9 \\ 42 \\ \hline 134 \end{array} \quad \begin{array}{r} 23.8 \\ 53 \\ \hline 174 \end{array}$$

$$\begin{array}{r} 13.9 \\ 153 \\ \hline 254 \end{array} \quad \begin{array}{r} 17.4 \\ 117 \\ \hline 217 \end{array} \quad \begin{array}{r} 22.6 \\ 65 \\ \hline 187 \end{array}$$

$$\begin{array}{r} 18.9 \\ 102 \\ \hline 100 \end{array} \quad \begin{array}{r} 19.7 \\ 94 \\ \hline 100 \end{array} \quad \begin{array}{r} 20.7 \\ 84 \\ \hline 22 \end{array} \quad \begin{array}{r} 20.4 \\ 87 \\ \hline 21 \end{array} \quad \begin{array}{r} 20.9 \\ 88 \\ \hline 17 \end{array} \quad \begin{array}{r} 21.6 \\ 75 \\ \hline 13 \end{array} \quad \begin{array}{r} 22.4 \\ 67 \\ \hline 11 \end{array} \quad \begin{array}{r} 21.8 \\ 73 \\ \hline 14 \end{array} \quad \begin{array}{r} 20.5 \\ 86 \\ \hline 17 \end{array} \quad \begin{array}{r} 20.4 \\ 87 \\ \hline 22 \end{array} \quad \begin{array}{r} 21.3 \\ 78 \\ \hline 24 \end{array} \quad \begin{array}{r} 21.5 \\ 76 \\ \hline 42 \end{array} \quad \begin{array}{r} 23.1 \\ 60 \\ \hline 100 \end{array} \quad \begin{array}{r} 24.8 \\ 43 \\ \hline 141 \end{array} \quad \begin{array}{r} 23.9 \\ 52 \\ \hline 171 \end{array} \quad \begin{array}{r} 21.9 \\ 72 \\ \hline 86 \end{array}$$

$$\begin{array}{r} 140 \\ 151 \\ \hline 300 \end{array} \quad \begin{array}{r} 152 \\ 139 \\ \hline 291 \end{array} \quad \begin{array}{r} 17.8 \\ 143 \\ \hline 213 \end{array}$$

sta. + X - Elev.

1029.08

2 +23

3

+25

B.M.

6.61

1027.59

8.10

1020.98

4

+50

5

+50

6

93	84	76	67	73	71	63	56	51	55	62	66	59	55
100	53	29	21	19	17	16	12	11	15	21	23	32	32
18.3	19.2	20.0	20.9	20.3	20.5	21.3	22.0	22.5	22.1	21.4	21.0	21.7	22.1

93	83	78	68	73	72	60	52	55	61	66	62	53	53
100	53	27	19	19	16	13	11	18	22	24	32	32	32
18.3	19.3	19.8	20.8	20.3	20.4	21.6	22.4	22.1	20.9	21.0	21.4	21.7	21.7

100	53	28	21	18	16	15	52	55	61	67	61		
17.4	18.9	19.5	20.5	19.9	20.2	21.7	22.4	22.1	20.9	20.9	21.5		

103	87	81	72	78	76	62	53	57	68	70	65	61	
100	45	26	19	17	15	13	12	17	22	25	33	33	
17.3	18.9	19.5	20.4	19.8	20.0	21.4	22.3	21.9	20.8	20.6	21.1	21.5	

74	84	84	72	61	55	53	55	60	69	70	65	62	
22	20	18	17	12	6	5	12	17	22	21	26	32	
20.2	19.2	19.2	20.4	21.5	22.1	22.3	22.1	21.6	20.7	20.6	21.1	21.4	

77	91	91	75	69	75	85	87	69					
30	25	17	13	13	13	17	22	25					
21.4	20.0	20.0	21.6	22.2	21.6	20.6	20.4	22.2					

76	76	80	92	76	71	76	85	87	71	66			
63	29	24	17	12	14	16	22	26	50				
21.5	21.5	20.1	19.9	21.5	22.0	21.5	20.6	20.4	22.0	22.5			

76	74	72	85	88	87								
108	62	29	24	19	17								
21.5	21.7	21.9	20.1	20.3	20.4								

Sta. + π - Elev.

1022.59

6 +50

7

+50

8

+65

9 +10

+77

B.M.

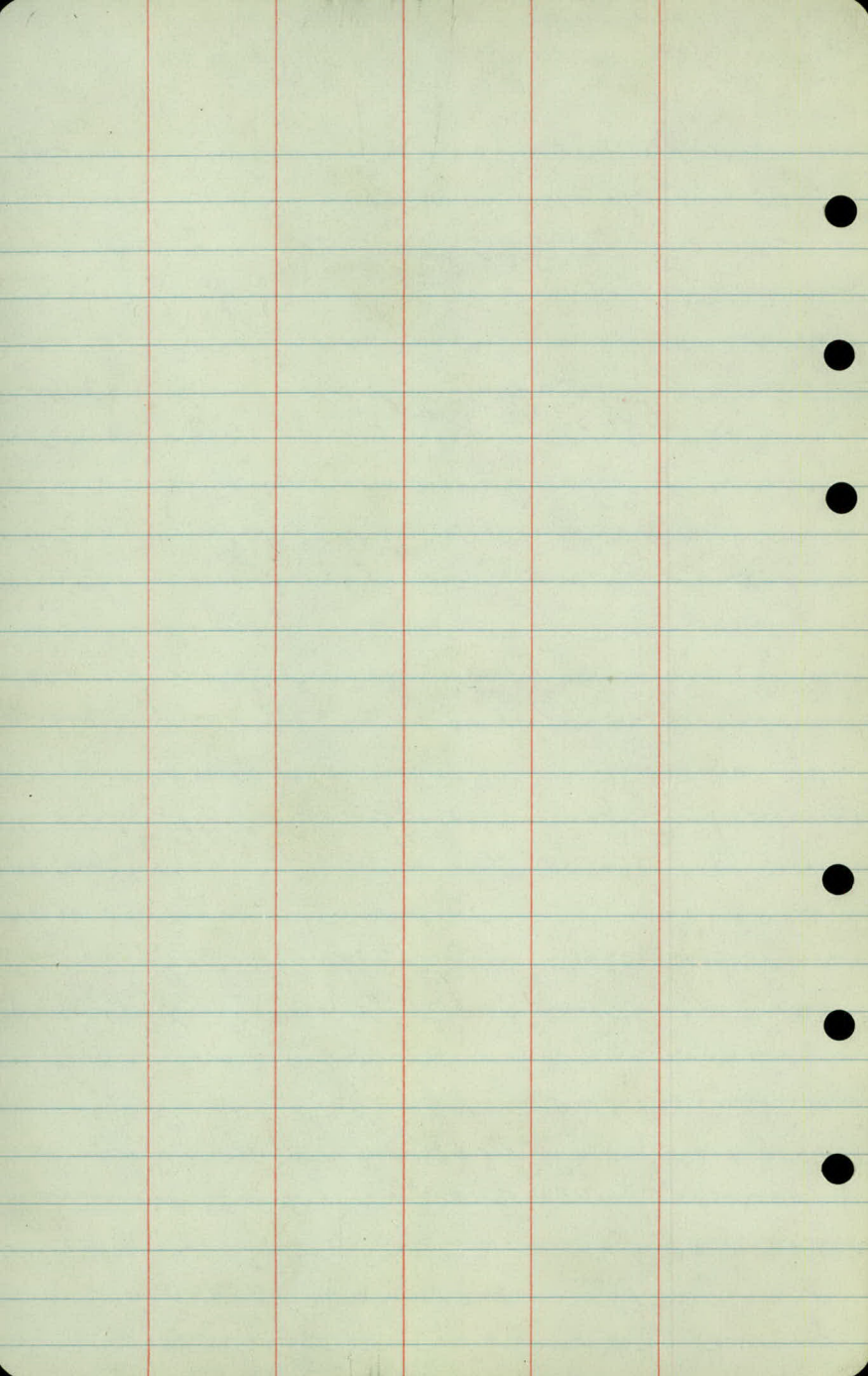
4.72

1022.87

(1022.86)

	Lt.					C.					Rt.				
19.3	83	78	75	62	69	68	63	54	48	51	62	65	54	52	
	100	62	95	20	19	18	17	11	12	12	16	21	25	32	
		20.1	20.6	21.1	21.5	21.0	21.4	22.6	23.1	22.9	21.7	21.7	22.8	23.0	
		75	70	65	61	66	60	50	45	47	59	59	48	46	
		100	67	27	21	20	16	11	11	11	16	23	25	32	
			20.9	21.8	22.4	21.6	21.7	22.9	23.5	23.2	21.9	21.9	23.8		
		67	58	52	40	58	47	41	41	49	57	57	38		
		100	54	23	21	17	12	12	11	17	22	22	26		
			22.1	22.5	23.3	21.9	22.0	23.0	23.4	23.1	22.4	22.1	24.4		
		55	51	43	57	56	46	40	45	52	53	32			
		100	29	29	21	16	12	12	11	15	22	26			
			22.3	24.0	24.7	22.3	22.3	23.0	23.7	23.5	22.4	22.4	24.3	24.4	
		43	39	36	29	53	53	46	39	41	50	52	33	32	
		100	70	47	27	22	16	11	11	14	21	21	26	50	
			23.4	24.9	25.8	22.4	22.3	23.3	23.8	23.2	22.4	22.3	24.3	24.3	
		42	27	18	52	53	43	39	49	52	53	33	33	37	
		90	50	30	23	16	12	11	11	16	22	26	30	30	
			24.5	24.1	21.1	20.3	23.4	23.4	23.4	21.5	22.2	23.9			
		31	45	65	43	40	42	61	59	31					
		30	22	18	12	12	19	18	24	31					

Top 3. End Cul. S.W. Cor. Ripley & East Ave.



Topography
Ripley St.

5

11' 9'

F2-33'

4

11' 10'

3

11' 9'

+44-Ent-12"X20'CM-20'

2

11' 9'

+99-T.P.-26'

1

+03-Ent-10"X18'CM-17'

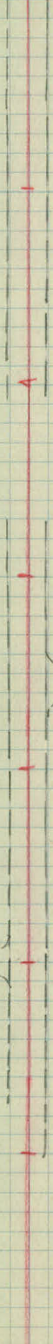
+53-Cap Ha- 7.5'

+30-T.P. 26'

0 +00

10'

x
x
x
x
x



11
11

11
11

32'
1-5-4
24'

10

9

11' 11'

+53-Ent-12"X20'G-M-20'

+53-Ent-18"X20'G-M-20'

+32-Ent. Row Pylons-23'

8

11' 10'

7

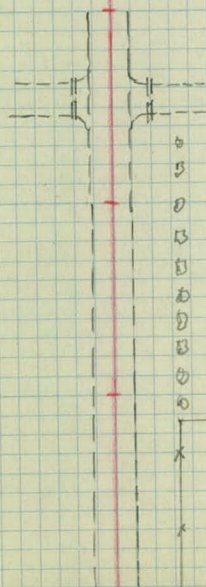
11' 10'

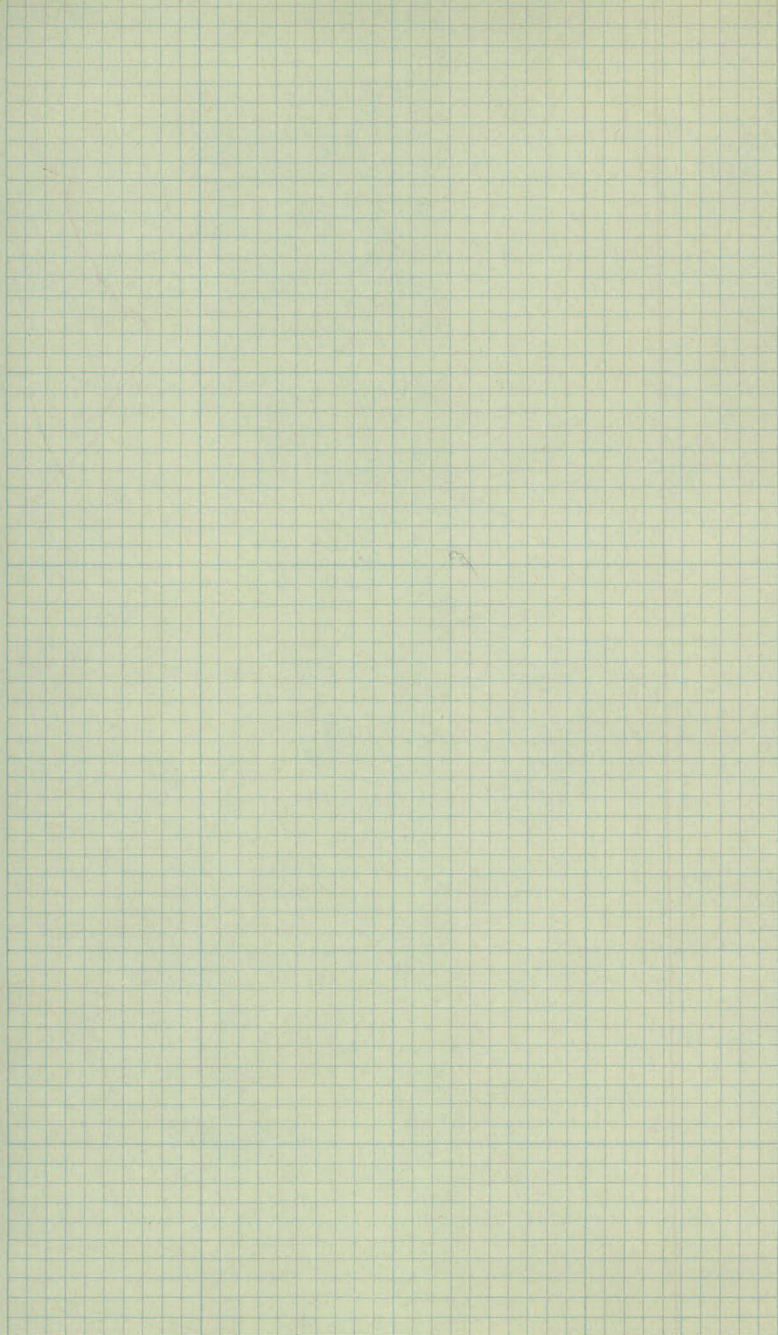
(Beg. Row Pylons-
+87-F.C. Cor. 33'

6

11' 10'

FC-33





Topography
Furness Ave.

6 Fc-35'

11' 10'

+89-Ent-12"X20' C.M.-21'
+71-PP-25'

+13-Range Tie-
+30-Cor Ho-73'

5 Fc-34'

12' 10'

+08-4 24"X42' C.M.-
4 Fc-34'

25' 19'
12' 11'

+26-PP-24'

+30-Ent-12"X20' C.M.-19'

3 Fc-33'

13' 11'

+81-PP-23'
+85-Range Tie-
+15-Sw Cor Ho-72'

2 Fc-33'

12' 11'

+98-PP-23'
+26-Range Tie Garage
+25-Ent-12"X20' C.M.-20'
Ho-Cor Garage-67'

1 Fc-33'

12' 11'

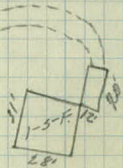
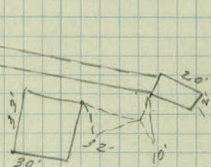
+25

12' 10'

0 +00

Fc-34'

+14



125-FC-33'

13 9' 17'

127-15" X 26' C. N. 9. - 25'

12 FC-34 11' 16'

180-S.W. Cor. Ho - 118'
178-S.W. Cor. Ho - 68'
182-PP-26'

11 FC-34' 10' 12'

182-Ent - 12" X 20' C. N. - 22'

SW.
143-Cor. Ho. - 73'

10 FC-34' 9' 13'

121-PP-24'

9' FC-34' 11' 11' 112-S.W. Ent - 12" X 16' C. N. - 20'
141-Range Ho.
195-Cor. Ho - 72'
180-Ent -
173-PP-24'

140-Range Ho.
138-Cor. Ho. - 72'

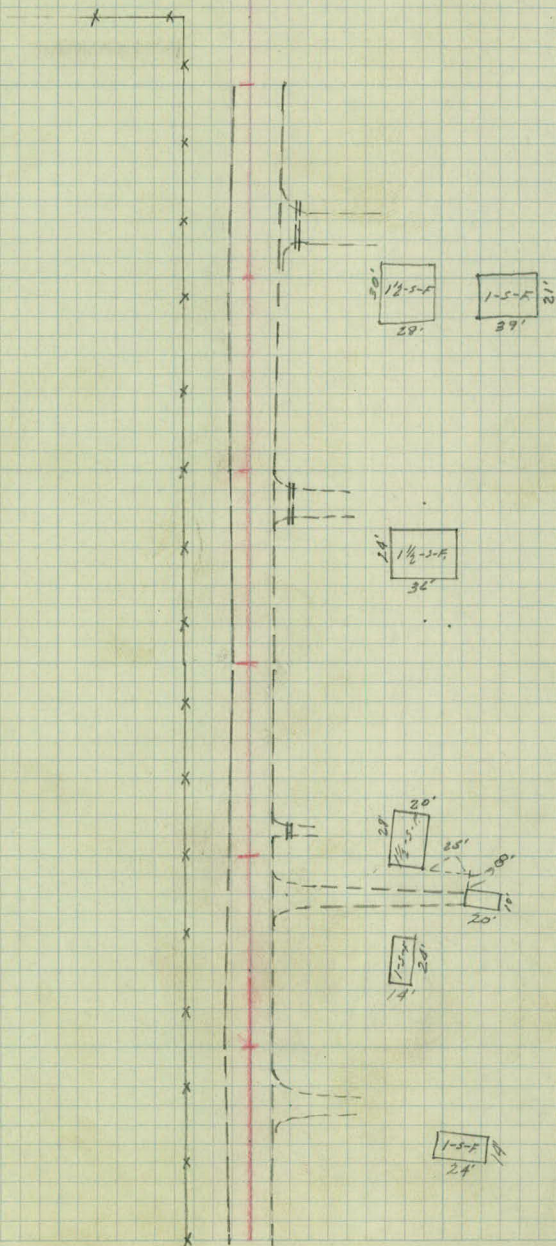
8 FC-34' 13' 11'

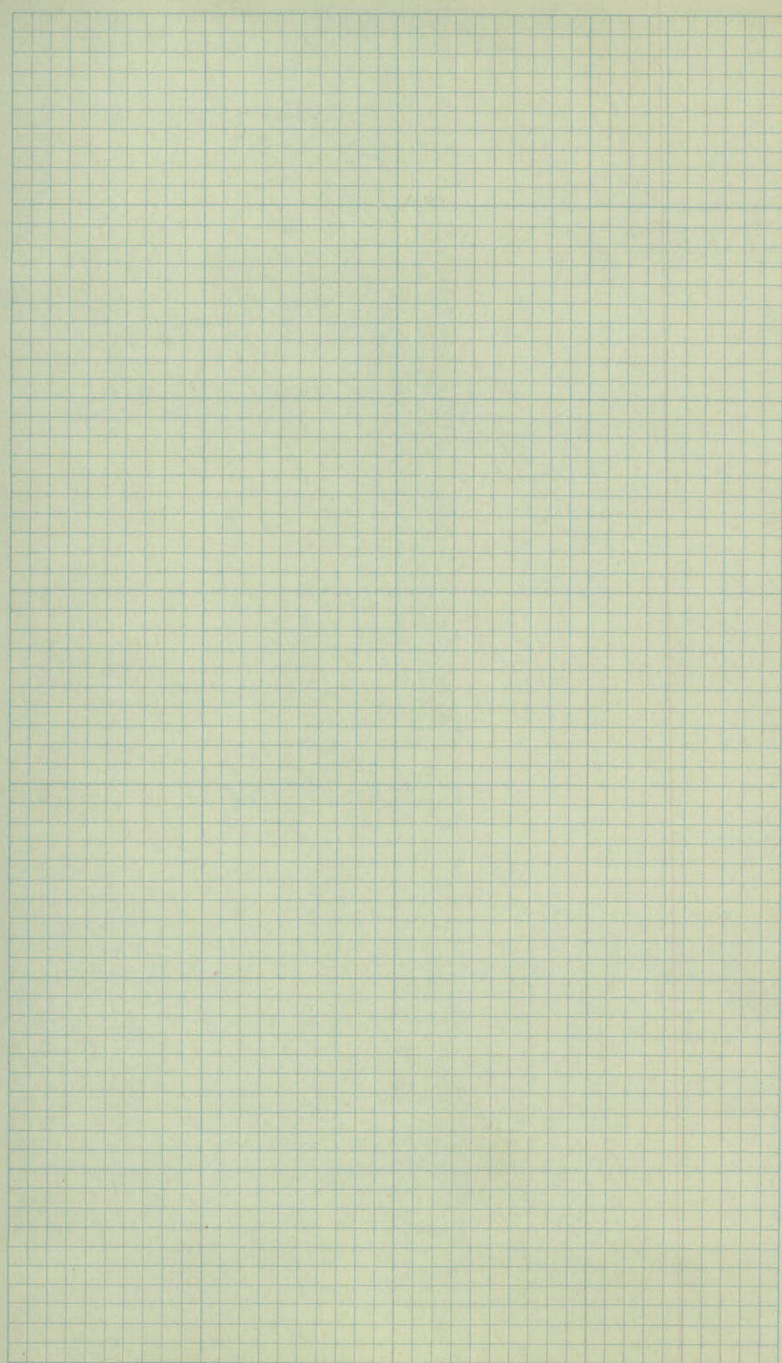
170-Ent - 12" X 20' C. N. - 20'

150-Range Ho.
143-Cor. Ho. - 95'

111-PP-24'

7 FC-34' 11' 11'





Topography
Holloway St.

5

1-16'

4

3'-16'

3

8'-19'

2

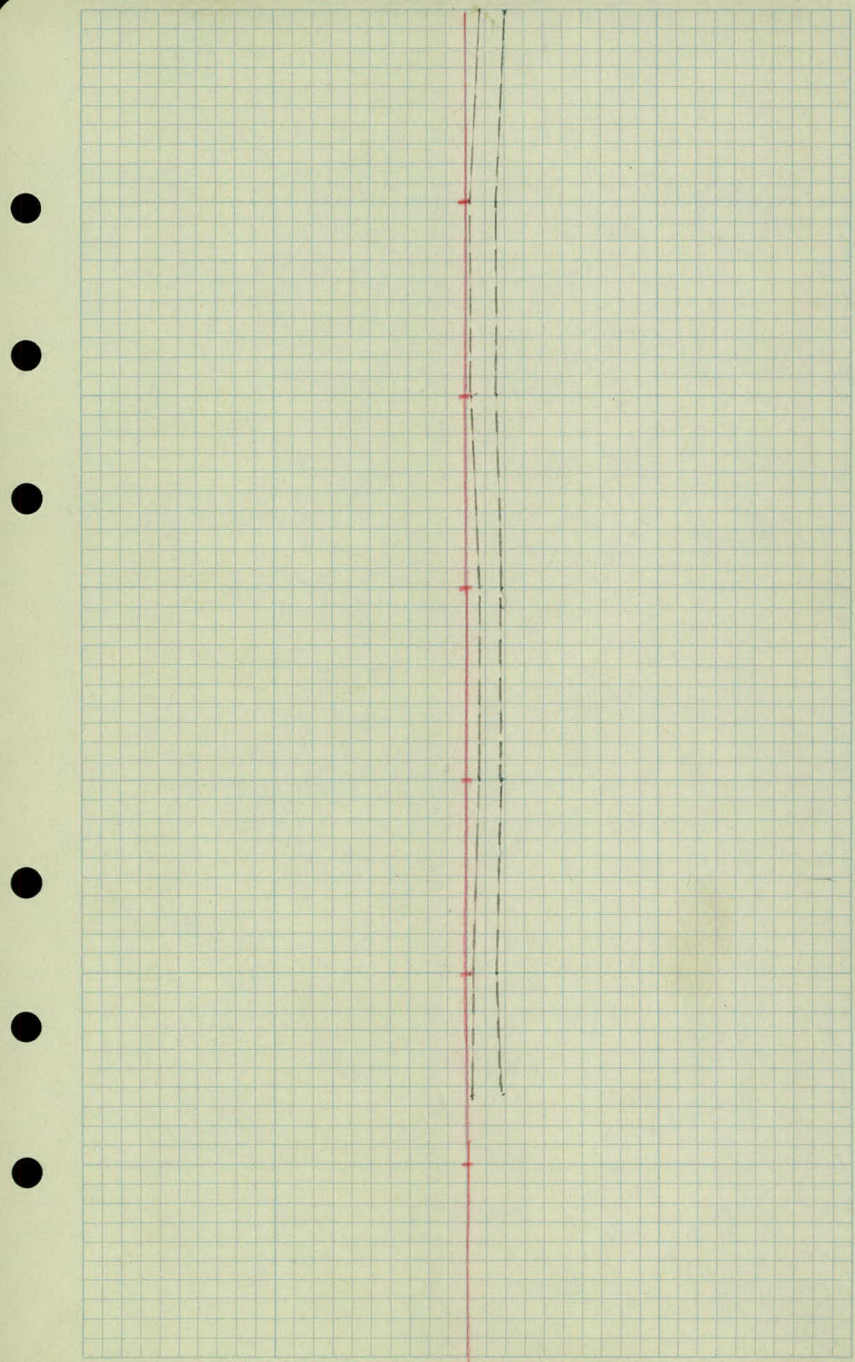
7'-17'

1

2-14'

0+00

2-18 - 135



12

11 Fe-34'

18-10'

191-NW Cor Garage-49'

10

6'-17'

126-Fe Cor-34'

139-6 1/2" C.M.P.-1'-18"

9

5'-16'

8

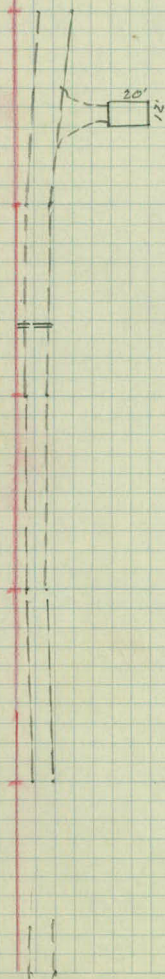
6'-15'

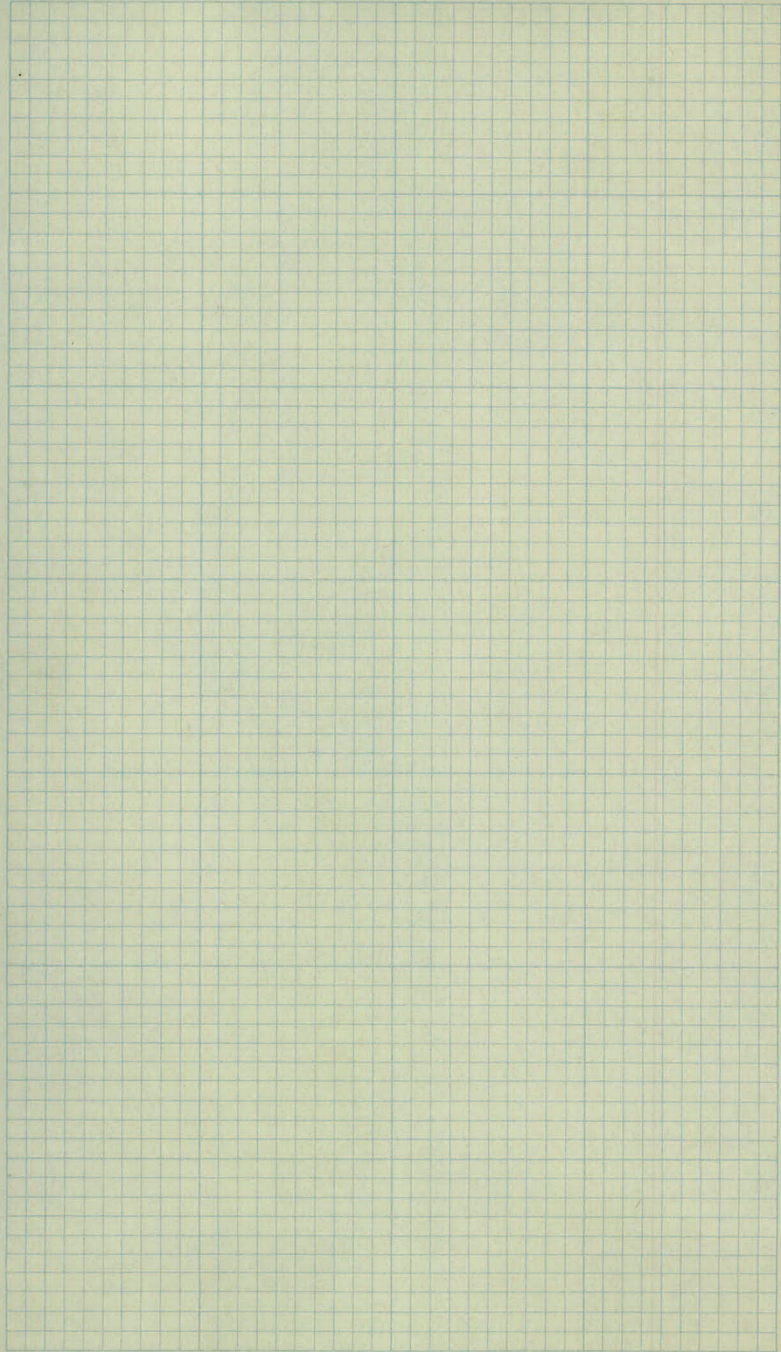
7

9'-19'

6

7'-20'





xsections

Howard Ave

sta. 13 to 26 +

Parallel to Ripley St.

Sta	+	-	Elev.
B.M.	3.19	1024.17	

1020.98

919.73

13 157

14

125

150

15

133

141

T.R.	5.81	1023.14	6.90	1017.27
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1A 2 2B

Top CUM N.E. Cor. Ripley Howard 1A

21.4 19.6 19.4 21.1 21.8 21.2 20.6 18.6 19.6 19.1
 $\frac{28}{31} \frac{46}{23} \frac{49}{18} \frac{31}{13} \frac{24}{10} \frac{30}{16} \frac{36}{20} \frac{56}{23} \frac{56}{23} \frac{51}{25}$

21.7 21.0 18.9 19.0 20.6 20.9 20.3 19.2 17.9 17.8 16.7 19.4 18.1
 $\frac{25}{76} \frac{32}{29} \frac{53}{22} \frac{52}{18} \frac{26}{12} \frac{33}{13} \frac{39}{17} \frac{50}{19} \frac{69}{21} \frac{64}{21} \frac{55}{24} \frac{58}{47} \frac{61}{69}$

21.5 21.3 20.5 19.4 18.3 19.5 19.8 20.4
 $\frac{26}{100} \frac{28}{68} \frac{37}{31} \frac{58}{22} \frac{59}{18} \frac{47}{12} \frac{44}{11} \frac{38}{10}$

19.0 18.9 18.9 19.0 18.0 18.1 19.4 20.0 19.4 17.4 17.4 18.0 17.4 16.6 16.8 17.4 16.8 16.5
 $\frac{52}{100} \frac{53}{73} \frac{53}{39} \frac{52}{25} \frac{62}{21} \frac{61}{18} \frac{48}{11} \frac{42}{13} \frac{46}{19} \frac{68}{22} \frac{68}{24} \frac{62}{48} \frac{68}{48} \frac{76}{100} \frac{74}{79} \frac{68}{176} \frac{65}{200}$

18.9 18.0 17.3 17.2 18.3 18.8 19.1 18.8 17.7 16.8 16.8 17.5 18.7 15.5 14.8 15.9 16.0
 $\frac{53}{62} \frac{62}{24} \frac{69}{21} \frac{10}{17} \frac{53}{15} \frac{59}{11} \frac{51}{11} \frac{54}{11} \frac{65}{16} \frac{74}{18} \frac{74}{21} \frac{67}{23} \frac{75}{58} \frac{87}{100} \frac{94}{151} \frac{83}{179} \frac{82}{200}$

17.3 17.9 15.4 14.2
 $\frac{67}{24} \frac{63}{48} \frac{89}{80} \frac{100}{135}$

17.6 17.0 16.7 16.5 17.5 18.1 18.5 18.1 17.6 16.4 16.3 17.4 17.7 17.0 15.2 13.5 17.0 17.3
 $\frac{66}{100} \frac{64}{25} \frac{75}{21} \frac{76}{18} \frac{67}{15} \frac{61}{11} \frac{57}{11} \frac{61}{15} \frac{66}{18} \frac{78}{21} \frac{78}{24} \frac{68}{90} \frac{65}{117} \frac{72}{125} \frac{90}{138} \frac{107}{138} \frac{73}{158}$

? 11.2 10.8
 11.4 12.0

19.8 18.6
 $\frac{109}{200} \frac{106}{186}$

Comp - K.H.
 Chock -

Sta + π - Elev.

102314

16

+04

+60

+68

+90

17 +25

129

64

2

21

17.1	16.9	17.5	17.7	14.7	16.3	17.0	16.3	13.7	13.7	17.2	17.5	18.0	16.8	11.1
$\frac{6.0}{100}$	$\frac{6.2}{55}$	$\frac{5.6}{26}$	$\frac{8.4}{27}$	$\frac{8.4}{18}$	$\frac{6.8}{14}$	$\frac{9.1}{14}$	$\frac{9.4}{18}$	$\frac{9.4}{22}$	$\frac{5.9}{25}$	$\frac{5.3}{46}$	$\frac{5.1}{74}$	$\frac{6.3}{120}$	$\frac{11.2}{140}$	

11.8
11.3
2.00

10.9
12.2
170

13.7
19.7
17.4
17.8
15.1
14.2
12.0

$\frac{9.4}{22}$ $\frac{3.4}{31}$ $\frac{3.5}{53}$ $\frac{5.3}{76}$ $\frac{8.0}{100}$ $\frac{8.9}{120}$ $\frac{11.1}{140}$

15.3	16.4	16.0	12.3	12.1	14.6	15.0	14.1	12.4	12.3	19.9	19.8	17.2	16.8	14.6
$\frac{7.8}{100}$	$\frac{6.7}{49}$	$\frac{7.1}{28}$	$\frac{10.8}{19}$	$\frac{11.0}{16}$	$\frac{8.5}{12}$	$\frac{8.0}{14}$	$\frac{9.0}{14}$	$\frac{10.7}{18}$	$\frac{10.8}{22}$	$\frac{3.2}{32}$	$\frac{3.3}{61}$	$\frac{5.9}{95}$	$\frac{6.3}{115}$	$\frac{8.5}{141}$

10.3
12.8
2.00

0.96
13.3
180

11.8
11.3
148

12.1
15.5
17.1
17.1
16.0

$\frac{11.0}{21}$ $\frac{7.6}{26}$ $\frac{6.0}{32}$ $\frac{6.0}{73}$ $\frac{7.1}{29}$

16.7	15.6	16.8	10.7	10.9	13.5	14.2
$\frac{6.4}{73}$	$\frac{7.5}{49}$	$\frac{6.3}{31}$	$\frac{12.4}{27}$	$\frac{12.3}{19}$	$\frac{9.6}{13}$	$\frac{8.9}{11}$

12.8
12.5
10.0
10.1
12.1
17.0
14.4
14.4
0.96

$\frac{10.3}{13}$ $\frac{10.6}{18}$ $\frac{13.1}{18}$ $\frac{13.0}{22}$ $\frac{7.0}{30}$ $\frac{6.1}{66}$ $\frac{6.7}{100}$ $\frac{8.7}{148}$ $\frac{13.5}{168}$

Comp - K.P.
Check -

sta + π - ELEV.

1023.19

17 +29

T.P. 4.91 1016.37 11.68 1011.96

+70

18

+49

+54

T.P. 2.28 1013.46 12.19 1004.18

LH

K

RH

11.4	11.8	12.6	13.1	13.6	13.9	14.1	14.0	13.6	14.0	13.5	11.8	07.9	07.9
117	113	105	95	135	137	110	131	9.5	8.5	9.6	11.3	15.2	15.2
100	74	47	28	21	18	12	22	28	65	138	159	183	200

Top H. End Cul. Rd 1st 25

0.29	0.28	0.3	0.28	0.28	10.2	10.6	11.1	10.8	10.5	0.2	0.3	11.0	13.6	14.5	14.0
70	66	61	86	86	62	58	58	56	59	7.2	7.1	54	28	19	24
100	55	25	20	19	15	11	10	14	17	20	29	29	58	100	117

0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.8	0.3	0.7	0.2	1.2	1.5	0.9
8.2	82	78	74	91	92	77	71	68	68	76	91	94	43	28	24
100	64	38	29	20	8	15	12	10	16	17	21	30	58	100	120

0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.8	0.3	0.7	0.2	1.2	1.5	0.9
8.2	82	78	74	91	92	77	71	68	68	76	91	94	43	28	24
100	64	38	29	20	8	15	12	10	16	17	21	30	58	100	120

0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.8	0.3	0.7	0.2	1.2	1.5	0.9
8.2	82	78	74	91	92	77	71	68	68	76	91	94	43	28	24
100	64	38	29	20	8	15	12	10	16	17	21	30	58	100	120

0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.8	0.3	0.7	0.2	1.2	1.5	0.9
8.2	82	78	74	91	92	77	71	68	68	76	91	94	43	28	24
100	64	38	29	20	8	15	12	10	16	17	21	30	58	100	120

0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.8	0.3	0.7	0.2	1.2	1.5	0.9
8.2	82	78	74	91	92	77	71	68	68	76	91	94	43	28	24
100	64	38	29	20	8	15	12	10	16	17	21	30	58	100	120

0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.8	0.3	0.7	0.2	1.2	1.5	0.9
8.2	82	78	74	91	92	77	71	68	68	76	91	94	43	28	24
100	64	38	29	20	8	15	12	10	16	17	21	30	58	100	120

Camp - K. H.
Cook -

sta + π - Elev

1012.96

18 +92

17 +03

+19

+81

+11

T.P. 5.63 1005.32 13.77 999.69

20 +18

4.

2

21

042 061 087 092 042 042 094
 $\frac{23}{21}$ $\frac{68}{36}$ $\frac{48}{52}$ $\frac{43}{73}$ $\frac{93}{74}$ $\frac{98}{86}$ $\frac{46}{92}$

037 061 083 090 000 087
 $\frac{98}{20}$ $\frac{68}{26}$ $\frac{52}{57}$ $\frac{95}{67}$ $\frac{95}{91}$ $\frac{48}{101}$

044 033 074 032 022 039 044 029 043 025 029 028 037 039 054 076
 $\frac{91}{100}$ $\frac{100}{54}$ $\frac{101}{25}$ $\frac{103}{21}$ $\frac{103}{17}$ $\frac{96}{15}$ $\frac{91}{11}$ $\frac{86}{13}$ $\frac{92}{18}$ $\frac{96}{21}$ $\frac{97}{25}$ $\frac{98}{27}$ $\frac{96}{92}$ $\frac{81}{119}$ $\frac{59}{127}$

038 048 068 081 087
 $\frac{97}{200}$ $\frac{87}{190}$ $\frac{67}{180}$ $\frac{54}{164}$ $\frac{48}{145}$

029 015 001 035 024 0000 013 018 010 041 079 089 006 019 015 018 090
 $\frac{106}{100}$ $\frac{120}{53}$ $\frac{129}{23}$ $\frac{141}{20}$ $\frac{141}{19}$ $\frac{138}{18}$ $\frac{122}{11}$ $\frac{117}{15}$ $\frac{124}{18}$ $\frac{146}{18}$ $\frac{146}{20}$ $\frac{127}{23}$ $\frac{122}{45}$ $\frac{120}{100}$ $\frac{116}{128}$ $\frac{95}{155}$

002 009 025
 $\frac{131}{200}$ $\frac{126}{194}$ $\frac{92}{169}$

006 000 083 089 028 002 011
 $\frac{130}{15}$ $\frac{125}{18}$ $\frac{152}{21}$ $\frac{137}{23}$ $\frac{133}{28}$ $\frac{124}{72}$
 $\frac{52}{14}$ $\frac{57}{22}$ $\frac{43}{44}$ $\frac{75}{72}$

Camp by K.A.
 Check

Sta.	+	π	-	Elev.
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1025.32

20 + 28

137

+55

21

T.P.	4.37	998.98	13.31	992.01
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+56

22

+50

T.P.	3.56	992.05	2.89	988.49
------	------	--------	------	--------

23

47.

4

 $R \pm$ [illegible]

Comp. by - K. H.
Checked by -

579

+

 π

-

EICK

992.05

23

+52

+87

24

+10

+19

+60

T.P.

365

989.23

6.97

985.58

25

+60

B.M.

6.28

982.95

LT

K

RT

18	30	47	59	62	58	49	43	52	64	63	54	60	65	68	72	77
100	56	26	23	20	16	12	15	17	21	22	70	100	100	180	167	200

90.2	90.0	88.0	86.9	85.3	85.6	86.2	86.3
19	41	41	53	68	65	59	58
100	70	97	26	22	18	12	

86.6	86.0	86.4	86.0	84.0	85.3	84.8	83.8	83.3	83.2
58	61	65	81	81	68	73	83	98	89
10	14	18	20	23	53	100	148	200	

88.8	88.2	86.4
33	39	57
100	74	31

87.1	86.0	85.2	84.7	84.7	85.7	86.3
50	61	69	74	74	64	58
100	58	25	24	17	9	

86.0	85.0	84.6	84.0	84.0	84.8	83.5	83.4	84.9	83.5	82.8	82.1	81.8
61	71	75	81	81	73	68	72	79	86	73	100	104
100	47	84	22	16	12	12	17	21	23	57	180	200

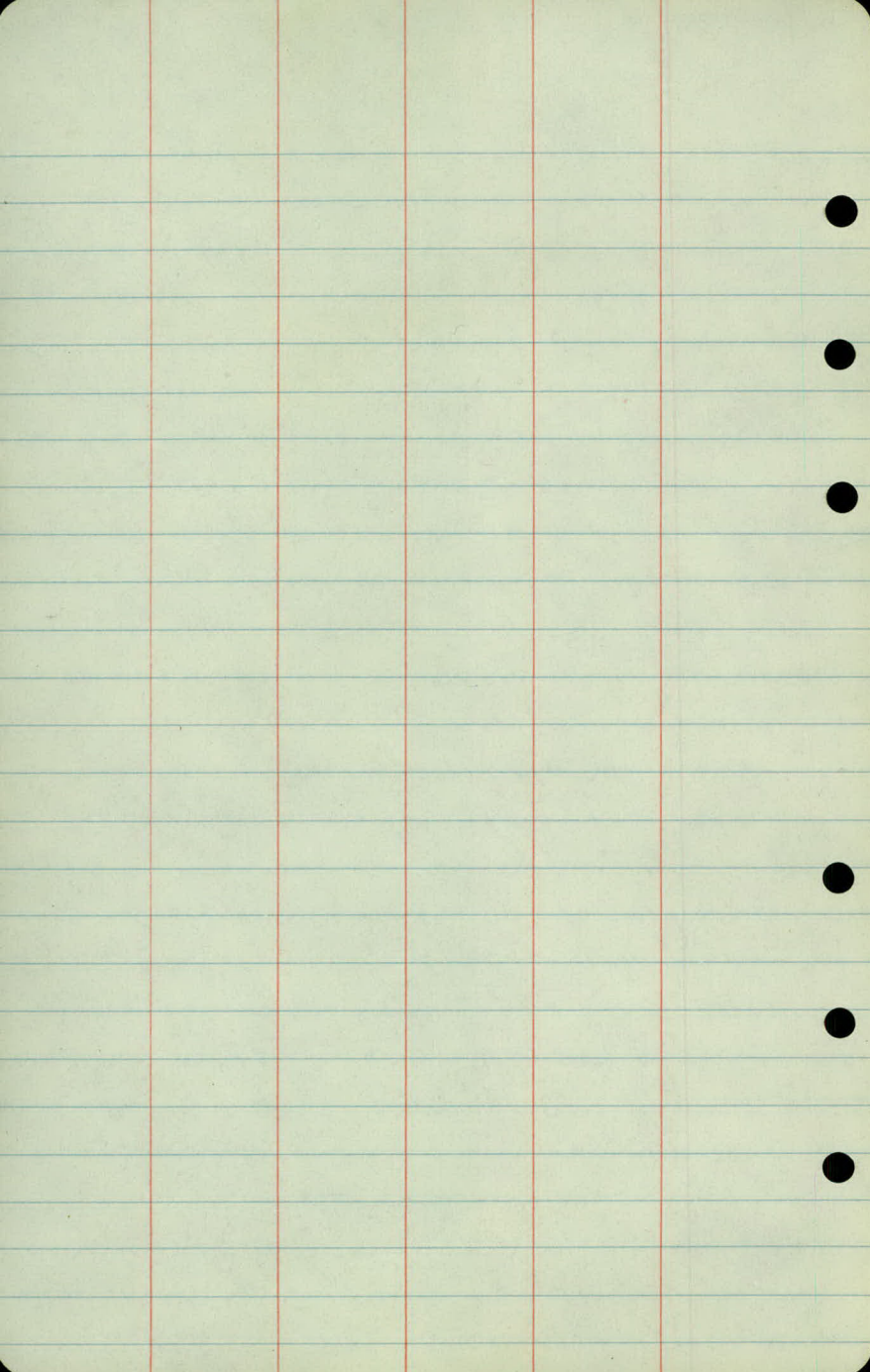
N. End Cuts L.

85.6	84.0	84.0	83.6	83.6	84.2	84.2	84.1	83.5	82.9	82.4	81.8	81.2	80.5
36	52	52	56	56	50	46	51	56	61	61	74	81	87
100	46	24	21	18	12	12	16	18	20	22	57	100	200

84.8	84.3	83.8	83.1	83.1	82.8	82.8	82.6	82.0	81.3	80.7	80.3	79.6				
44	49	54	61	61	58	54	51	58	64	64	66	72	79	85	89	96
69	37	23	22	18	17	10	51	10	15	21	34	53	100	114	153	200

Top E. End Cuts. S.W. Cor. Hollaender & Howard Ave.

Comp. by K.H.
Checked by -



X sections

Howard Ave

200' to 500' Rt.

Parallel to Ripley St.

Sta	+	π	-	Elev
B.M.	2.80	1023.78		1020.98

14 +50

15

+50

16

+50

17

+50

S.P.	0.54	1017.76	6.56	1017.22
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18

R

Rt.

Top Calh. N.E. Cor. Ripley & Howard Ave.

17.5	18.7	19.0	19.4	20.4	21.4	22.1	22.4	22.4
<u>63</u>	<u>51</u>	<u>48</u>	<u>44</u>	<u>34</u>	<u>24</u>	<u>17</u>	<u>14</u>	<u>14</u>
231	273	300	332	371	400	429	447	500

15.4	16.8	17.7	18.7	19.8	22.0	22.2	20.6	20.2
<u>84</u>	<u>70</u>	<u>61</u>	<u>51</u>	<u>40</u>	<u>18</u>	<u>16</u>	<u>32</u>	<u>34</u>
229	258	300	324	360	400	418	460	500

13.5	15.2	17.6	18.8	20.0	20.6	20.7	19.8	18.5	18.7
<u>103</u>	<u>86</u>	<u>62</u>	<u>50</u>	<u>38</u>	<u>32</u>	<u>31</u>	<u>40</u>	<u>53</u>	<u>51</u>
220	263	300	315	351	383	400	430	478	500

12.8	16.1	19.3	20.2	19.7	19.8	19.0	17.2	17.0
<u>110</u>	<u>77</u>	<u>45</u>	<u>36</u>	<u>46</u>	<u>40</u>	<u>48</u>	<u>66</u>	<u>68</u>
230	270	300	322	365	400	435	480	500

11.3	13.8	18.1	19.0	19.7	19.5	19.3	18.2	16.6	14.9
<u>125</u>	<u>100</u>	<u>57</u>	<u>48</u>	<u>41</u>	<u>43</u>	<u>45</u>	<u>56</u>	<u>72</u>	<u>89</u>
219	247	284	300	325	366	400	442	486	500

11.0	15.4	17.1	17.5	17.6	16.7	16.9	16.4	14.4	13.8
<u>128</u>	<u>84</u>	<u>67</u>	<u>63</u>	<u>62</u>	<u>71</u>	<u>69</u>	<u>74</u>	<u>94</u>	<u>100</u>
227	260	281	300	326	357	400	430	478	500

8.6	11.0	14.1	14.1	15.0	14.6	14.8	14.5	13.9	13.0
<u>152</u>	<u>128</u>	<u>97</u>	<u>97</u>	<u>88</u>	<u>92</u>	<u>90</u>	<u>93</u>	<u>99</u>	<u>108</u>
222	244	267	300	321	356	400	445	462	500

6.4	8.7	10.3	11.1	11.6	11.5	12.6	13.5	13.6	13.1	12.0
<u>114</u>	<u>91</u>	<u>75</u>	<u>67</u>	<u>62</u>	<u>63</u>	<u>53</u>	<u>43</u>	<u>42</u>	<u>47</u>	<u>58</u>
226	255	279	300	325	350	373	400	426	459	500

Comp - L. 6

Check

Sta	+	π	-	Elev.
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		1017.76		
--	--	---------	--	--

18	+33			
----	-----	--	--	--

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

19				
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I.P.	3.07	1009.74	11.09	1006.67)
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	+50			
--	-----	--	--	--

20				
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	+50			
--	-----	--	--	--

I.P.	2.24	999.56	12.42	997.32
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21				
----	--	--	--	--

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

£

Rt

7.5	9.6	10.9
<u>103</u>	<u>82</u>	<u>6.9</u>
300	325	350

3.2	4.1	4.9	6.2	9.4	11.0	12.2	11.9	10.6	10.1
<u>146</u>	<u>137</u>	<u>129</u>	<u>116</u>	<u>84</u>	<u>68</u>	<u>56</u>	<u>59</u>	<u>7.2</u>	<u>77</u>
229	269	289	300	324	353	400	439	465	500

1.8	0.6	1.5	2.1	3.6	5.5	7.3	9.3	10.4	10.2	10.2	9.2	7.4
<u>160</u>	<u>172</u>	<u>167</u>	<u>157</u>	<u>142</u>	<u>123</u>	<u>105</u>	<u>85</u>	<u>74</u>	<u>76</u>	<u>76</u>	<u>86</u>	<u>104</u>
220	239	250	274	291	300	311	329	364	400	430	470	500

99.7	99.2	00.9	00.4	3.6	5.5	07.2	07.6	07.9	07.6	05.9	04.2	02.3
<u>100</u>	<u>105</u>	<u>88</u>	<u>59</u>	<u>32</u>	<u>25</u>	<u>21</u>	<u>18</u>	<u>21</u>	<u>38</u>	<u>55</u>	<u>74</u>	
220	245	276	300	322	362	384	400	431	454	479	500	

998.9	96.9	97.1	98.9	01.4	03.0	04.1	04.9	05.3	04.3	01.9	99.6	98.6
<u>128</u>	<u>128</u>	<u>124</u>	<u>108</u>	<u>83</u>	<u>67</u>	<u>56</u>	<u>48</u>	<u>44</u>	<u>54</u>	<u>78</u>	<u>101</u>	<u>111</u>
213	229	249	272	300	320	359	407	400	425	450	475	500

97.4	94.3	94.7	97.4	99.3	99.8	00.3	99.9	98.6	97.0	96.5
<u>123</u>	<u>164</u>	<u>150</u>	<u>123</u>	<u>104</u>	<u>99</u>	<u>94</u>	<u>95</u>	<u>111</u>	<u>127</u>	<u>132</u>
220	238	270	300	325	355	400	429	486	481	500

95.1	93.3	93.2	93.9	95.7	97.6	98.0	97.9	97.4	95.5	94.7
<u>95</u>	<u>63</u>	<u>68</u>	<u>57</u>	<u>39</u>	<u>20</u>	<u>16</u>	<u>17</u>	<u>22</u>	<u>41</u>	<u>49</u>
334	356	381	300	329	365	400	425	450	475	500

94.4	93.2	91.4	91.9	93.5	94.4	95.6	95.0	93.4	92.7	92.9	94.6
<u>52</u>	<u>64</u>	<u>82</u>	<u>77</u>	<u>61</u>	<u>52</u>	<u>40</u>	<u>46</u>	<u>62</u>	<u>69</u>	<u>67</u>	<u>50</u>
216	240	243	300	327	331	358	400	420	446	472	500

Comp - 1.6

Check -

Sta. + X - Elev.

999.56

22

+50

23

I.P. 0.84 987.82 12.58 986.78

+50

24

+50

25

+60

B.M.

4.82

983.00

982.95

2

R.H.

90.3 89.6 89.5 90.4 92.1 93.4 93.4 91.8 90.2 90.0 91.8 90.6
 93 100 101 92 75 62 62 78 99 96 78 90
 222 250 275 300 328 342 371 400 420 440 478 500

88.1 88.8 87.7 89.3 88.8 89.3 88.4 87.2 86.5 85.9
 115 113 119 103 103 103 113 112 124 131 137
 225 258 272 300 322 350 400 428 456 480 500

86.6 85.9 85.9 86.1 85.2 85.6 85.6 85.8 86.4 86.1 85.2
 130 137 142 135 146 140 140 138 132 135 144
 226 264 279 300 318 340 370 400 445 475 500

84.7 84.0 84.0 83.3 83.1 83.2 83.8 84.4 84.6
 31 38 38 45 47 46 40 34 32
 231 275 300 322 364 400 429 463 500

82.4 82.3 82.3 82.0 81.8 81.6 81.7 84.1 82.9
 54 55 55 58 60 62 61 47 49
 245 275 300 352 400 428 460 475 500

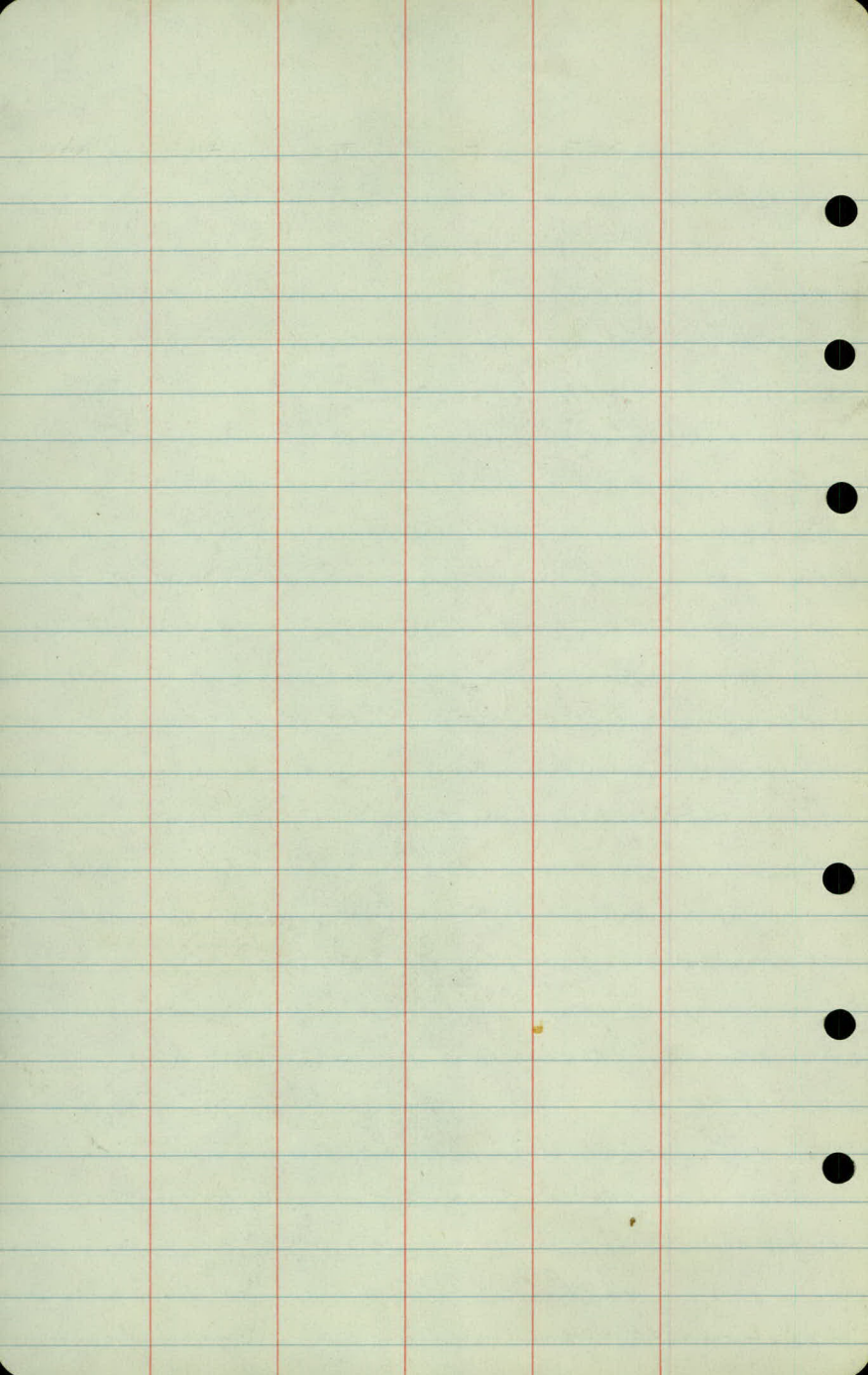
81.6 81.6 81.1 80.5 80.7 80.5 80.1 79.9 81.0 81.7
 62 68 67 73 71 73 77 79 68 61
 230 260 300 322 361 400 438 476 481 500

80.4 80.1 79.8 79.6 79.7 79.5 79.4 79.5 79.9 81.5
 74 77 80 82 81 83 84 83 79 63
 229 261 300 329 365 400 435 470 489 500

79.4 79.0 78.8 78.3 78.3 78.2 78.7 79.7 80.1
 84 88 90 95 95 96 90 81 77
 235 270 300 336 379 400 430 451 500

Top Lake S.E. Cor. Holloway & Howard Ave.

Comp - K.H.
 Chck -



7-19-39

xsections
Howard Ave
100'lt -

	Sta.	+	π	-	Elev.
B.M.	1.33		1025.31		(1020.98)

14 +50

15

+50

16

+50

17

I.P.	2.44	1018.56	9.19	1016.12
------	------	---------	------	---------

+50

18

4.

2

Top Cdn N.E. Cor Ripley & Howard Ave.

$$\begin{array}{r} 2.7 \\ 96 \\ 30 \end{array} \quad \begin{array}{r} 21.5 \\ 38 \\ 261 \end{array} \quad \begin{array}{r} 20.2 \\ 51 \\ 254 \end{array} \quad \begin{array}{r} 19.3 \\ 60 \\ 225 \end{array} \quad \begin{array}{r} 92 \\ 92 \end{array}$$

7300

$$\begin{array}{r} 20.5 \\ 48 \\ 30 \end{array} \quad \begin{array}{r} 20.1 \\ 5.2 \\ 333 \end{array} \quad \begin{array}{r} 18.3 \\ 7.0 \\ 200 \end{array} \quad \begin{array}{r} 17.8 \\ 7.5 \\ 160 \end{array}$$

300

2233

$$\begin{array}{r} 17.5 \\ 58 \\ 300 \end{array} \quad \begin{array}{r} 19.4 \\ 59 \\ 253 \end{array} \quad \begin{array}{r} 18.4 \\ 67 \\ 223 \end{array} \quad \begin{array}{r} 17.5 \\ 78 \\ 200 \end{array} \quad \begin{array}{r} 16.7 \\ 86 \\ 190 \end{array}$$

$$\begin{array}{r} 17.8 \\ 75 \\ 300 \end{array} \quad \begin{array}{r} 17.3 \\ 80 \\ 286 \end{array} \quad \begin{array}{r} 18.3 \\ 70 \\ 285 \end{array} \quad \begin{array}{r} 16.3 \\ 70 \\ 250 \end{array} \quad \begin{array}{r} 17.8 \\ 75 \\ 230 \end{array} \quad \begin{array}{r} 16.9 \\ 84 \\ 200 \end{array} \quad \begin{array}{r} 16.3 \\ 90 \\ 150 \end{array}$$

$$\begin{array}{r} 16.2 \\ 91 \\ 360 \end{array} \quad \begin{array}{r} 16.2 \\ 91 \\ 300 \end{array} \quad \begin{array}{r} 15.9 \\ 84 \\ 296 \end{array} \quad \begin{array}{r} 16.7 \\ 86 \\ 284 \end{array} \quad \begin{array}{r} 17.3 \\ 80 \\ 262 \end{array} \quad \begin{array}{r} 17.1 \\ 82 \\ 233 \end{array} \quad \begin{array}{r} 16.0 \\ 93 \\ 200 \end{array} \quad \begin{array}{r} 15.2 \\ 101 \\ 163 \end{array} \quad \begin{array}{r} 15.6 \\ 97 \\ 141 \end{array}$$

$$\begin{array}{r} 13.2 \\ 121 \\ 365 \end{array} \quad \begin{array}{r} 14.5 \\ 108 \\ 337 \end{array} \quad \begin{array}{r} 15.2 \\ 101 \\ 300 \end{array} \quad \begin{array}{r} 15.8 \\ 95 \\ 250 \end{array} \quad \begin{array}{r} 15.7 \\ 96 \\ 200 \end{array} \quad \begin{array}{r} 15.2 \\ 101 \\ 175 \end{array} \quad \begin{array}{r} 13.3 \\ 120 \\ 144 \end{array}$$

$$\begin{array}{r} 12.6 \\ 60 \\ 353 \end{array} \quad \begin{array}{r} 13.4 \\ 52 \\ 323 \end{array} \quad \begin{array}{r} 13.3 \\ 53 \\ 300 \end{array} \quad \begin{array}{r} 13.5 \\ 51 \\ 245 \end{array} \quad \begin{array}{r} 13.2 \\ 54 \\ 200 \end{array} \quad \begin{array}{r} 13.2 \\ 54 \\ 173 \end{array} \quad \begin{array}{r} 13.0 \\ 56 \\ 146 \end{array} \quad \begin{array}{r} 10.1 \\ 85 \\ 104 \end{array}$$

$$\begin{array}{r} 11.8 \\ 68 \\ 300 \end{array} \quad \begin{array}{r} 11.8 \\ 68 \\ 356 \end{array} \quad \begin{array}{r} 11.5 \\ 71 \\ 326 \end{array} \quad \begin{array}{r} 10.9 \\ 77 \\ 300 \end{array} \quad \begin{array}{r} 10.3 \\ 83 \\ 278 \end{array} \quad \begin{array}{r} 10.1 \\ 85 \\ 244 \end{array} \quad \begin{array}{r} 9.9 \\ 87 \\ 200 \end{array} \quad \begin{array}{r} 9.4 \\ 92 \\ 256 \end{array} \quad \begin{array}{r} 9.5 \\ 101 \\ 228 \end{array}$$

400

150

128

5/9 + π - E/cv.

1018.56

8 +25

+33

+60

9

+50

+65

20

+16

T.P.

6.10

1019.32

5.34

1013.22

Lt

8

$$\begin{array}{r} 12.3 \\ 6.9 \\ \hline 400 \end{array} \quad \begin{array}{r} 12.0 \\ 6.6 \\ \hline 367 \end{array} \quad \begin{array}{r} 10.9 \\ 7.7 \\ \hline 335 \end{array}$$

$$\begin{array}{r} 15.7 \\ 2.9 \\ \hline 400 \end{array} \quad \begin{array}{r} 15.1 \\ 9.5 \\ \hline 362 \end{array} \quad \begin{array}{r} 11.1 \\ 7.5 \\ \hline 345 \end{array}$$

$$\begin{array}{r} 15.8 \\ 2.8 \\ \hline 378 \end{array} \quad \begin{array}{r} 15.3 \\ 2.9 \\ \hline 367 \end{array} \quad \begin{array}{r} 12.4 \\ 6.2 \\ \hline 350 \end{array} \quad \begin{array}{r} 12.2 \\ 8.4 \\ \hline 300 \end{array} \quad \begin{array}{r} 9.1 \\ 9.5 \\ \hline 276 \end{array} \quad \begin{array}{r} 0.8.1 \\ 10.5 \\ \hline 237 \end{array} \quad \begin{array}{r} 07.0 \\ 11.6 \\ \hline 200 \end{array} \quad \begin{array}{r} 06.5 \\ 12.1 \\ \hline 168 \end{array} \quad \begin{array}{r} 07.0 \\ 11.6 \\ \hline 245 \end{array}$$

$$\begin{array}{r} 15.7 \\ 2.9 \\ \hline 381 \end{array} \quad \begin{array}{r} 14.8 \\ 3.8 \\ \hline 369 \end{array} \quad \begin{array}{r} 12.0 \\ 6.6 \\ \hline 392 \end{array} \quad \begin{array}{r} 11.3 \\ 7.3 \\ \hline 321 \end{array} \quad \begin{array}{r} 10.7 \\ 7.7 \\ \hline 300 \end{array} \quad \begin{array}{r} 09.3 \\ 9.3 \\ \hline 267 \end{array} \quad \begin{array}{r} 07.6 \\ 11.0 \\ \hline 227 \end{array} \quad \begin{array}{r} 07.0 \\ 11.6 \\ \hline 200 \end{array} \quad \begin{array}{r} 06.6 \\ 12.0 \\ \hline 170 \end{array} \quad \begin{array}{r} 05.8 \\ 12.8 \\ \hline 228 \end{array}$$

$$\begin{array}{r} 11.7 \\ 6.9 \\ \hline 400 \end{array} \quad \begin{array}{r} 12.1 \\ 6.5 \\ \hline 342 \end{array} \quad \begin{array}{r} 11.1 \\ 7.5 \\ \hline 300 \end{array} \quad \begin{array}{r} 10.1 \\ 8.5 \\ \hline 283 \end{array} \quad \begin{array}{r} 08.7 \\ 9.9 \\ \hline 249 \end{array} \quad \begin{array}{r} 06.5 \\ 12.1 \\ \hline 200 \end{array} \quad \begin{array}{r} 05.9 \\ 12.7 \\ \hline 160 \end{array} \quad \begin{array}{r} 05.3 \\ 13.3 \\ \hline 124 \end{array}$$

$$\begin{array}{r} 12.2 \\ 6.4 \\ \hline 427 \end{array} \quad \begin{array}{r} 12.1 \\ 8.5 \\ \hline 410 \end{array} \quad \begin{array}{r} 09.7 \\ 8.9 \\ \hline 400 \end{array} \quad \begin{array}{r} 10.6 \\ 8.0 \\ \hline 385 \end{array} \quad \begin{array}{r} 12.4 \\ 6.2 \\ \hline 370 \end{array}$$

$$\begin{array}{r} 11.7 \\ 6.9 \\ \hline 427 \end{array} \quad \begin{array}{r} 09.7 \\ 8.9 \\ \hline 410 \end{array} \quad \begin{array}{r} 09.7 \\ 8.9 \\ \hline 390 \end{array} \quad \begin{array}{r} 11.7 \\ 6.9 \\ \hline 380 \end{array} \quad \begin{array}{r} 12.4 \\ 6.2 \\ \hline 364 \end{array} \quad \begin{array}{r} 13.4 \\ 5.2 \\ \hline 328 \end{array} \quad \begin{array}{r} 11.9 \\ 6.7 \\ \hline 300 \end{array} \quad \begin{array}{r} 10.9 \\ 7.7 \\ \hline 264 \end{array} \quad \begin{array}{r} 09.0 \\ 9.6 \\ \hline 240 \end{array} \quad \begin{array}{r} 06.3 \\ 12.3 \\ \hline 200 \end{array} \quad \begin{array}{r} 04.8 \\ 13.8 \\ \hline 175 \end{array} \quad \begin{array}{r} 03.5 \\ 13.1 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 13.3 \\ 5.3 \\ \hline 400 \end{array} \quad \begin{array}{r} 13.7 \\ 4.9 \\ \hline 440 \end{array} \quad 340$$

Sta + X - Elev.

1017.32

2.0 +50

2.1

+50

T.P. -0.02 1012.29 7.01 1012.31

2.2

+46

+50

2.3

+50

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

		1012.29	
--	--	---------	--

24

T.P.	2.64	1002.93	13.50	995.79
------	------	---------	-------	--------

+50

+67

+72

+84

25

+50

B.M.

		5.40	997.03
--	--	------	--------

$\frac{76}{450}$ 04.7
 $\frac{90}{382}$ 03.3
 $\frac{90}{350}$ 03.3
 $\frac{103}{300}$ 02.0
 $\frac{95}{248}$ 02.8
 $\frac{115}{210}$ 00.8
 $\frac{128}{200}$ 99.5
 $\frac{169}{173}$ 95.4
 $\frac{219}{191}$ 90.4

$\frac{18}{455}$ 00.6
 $\frac{15}{400}$ 00.9
 $\frac{09}{347}$ 01.5
 $\frac{23}{300}$ 00.1
 $\frac{35}{253}$ 95.9
 $\frac{78}{200}$ 94.6
 $\frac{107}{170}$ 91.7
 $\frac{148}{126}$ 87.6

$\frac{28}{450}$ 99.6
 $\frac{18}{375}$ 00.6

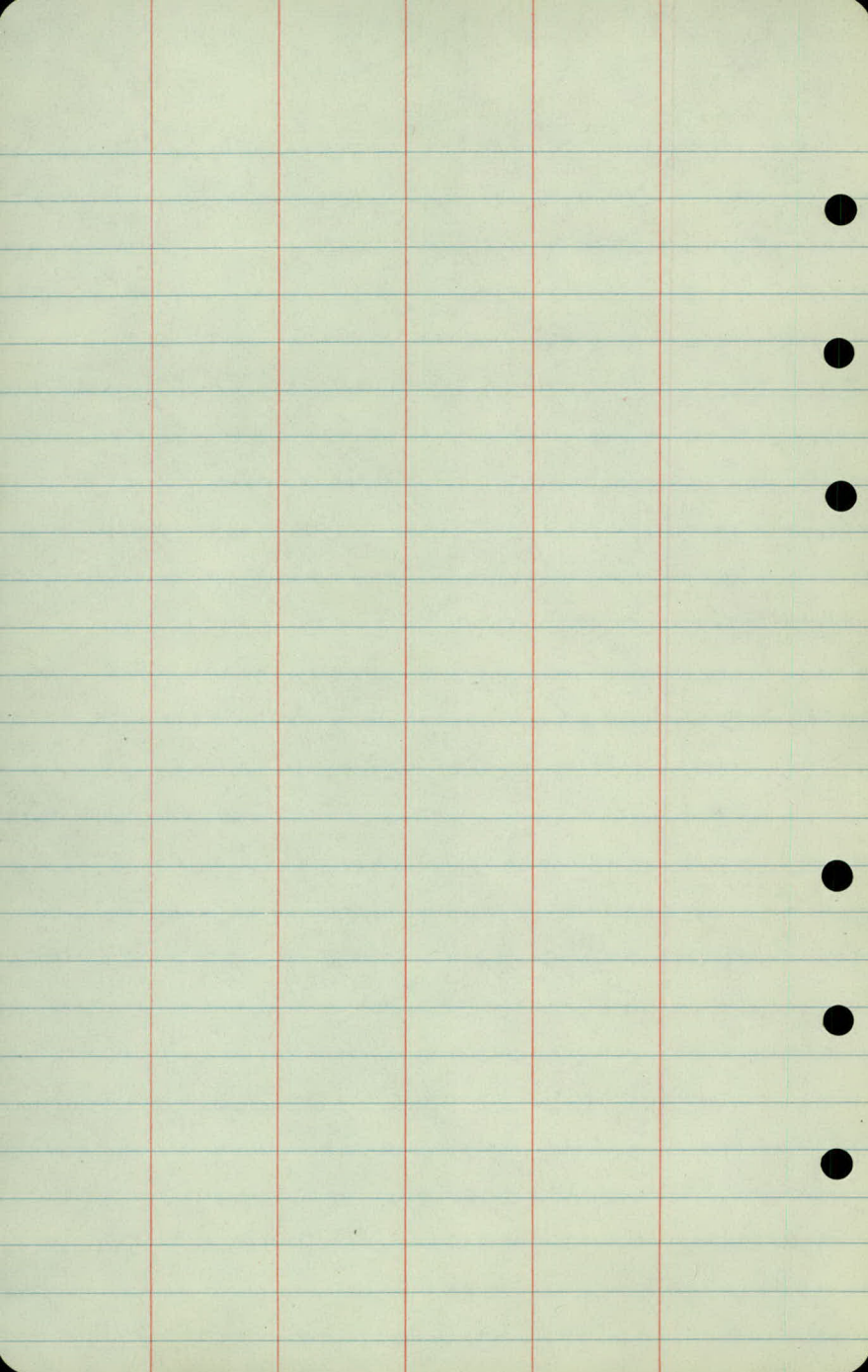
$\frac{98}{450}$ 97.6
 $\frac{51}{400}$ 97.3

$\frac{50}{400}$ 99.4
 $\frac{28}{395}$ 99.6

$\frac{47}{444}$ 97.7
 $\frac{47}{399}$ 97.7
 $\frac{48}{337}$ 97.6
 $\frac{57}{300}$ 96.7
 $\frac{72}{262}$ 95.2
 $\frac{73}{249}$ 93.1
 $\frac{75}{224}$ 92.9
 $\frac{102}{200}$ 91.7
 $\frac{150}{148}$ 89.4

$\frac{21}{450}$ 93.3
 $\frac{84}{400}$ 93.0
 $\frac{97}{350}$ 92.7
 $\frac{106}{300}$ 91.8
 $\frac{119}{254}$ 90.5
 $\frac{143}{200}$ 88.1
 $\frac{166}{146}$ 85.8

Top Rail Mount A 13435 BUSINESS AVE.



xsections
Furness Avg.

	Sta.	+	π	-	Elev.
B.M.	180		1025.78		1020.98
B.M.				3.63	1022.15

0 +00

+50

+50

2

+50

3

T.P.	6.19	1019.69	12.28	1013.50
------	------	---------	-------	---------

Lt

A

Rt

Top Culv. N.E. Cor. Ripley & Howard Ave.

Top Breather Pipe W. of 1st. Ripley & Furness Ave.

25	21.1	22.8	23.0
<u>68</u>	<u>47</u>	<u>30</u>	<u>28</u>
34	26	14	

19.7	20.2	20.2	20.8	21.3	21.6	21.1	20.0	20.0	22.1
<u>61</u>	<u>56</u>	<u>56</u>	<u>50</u>	<u>45</u>	<u>42</u>	<u>47</u>	<u>58</u>	<u>58</u>	<u>27</u>
32	21	17	16	13	15	18	20	25	

18.2	18.7	19.7	19.9	20.2	19.6	18.9	20.9	21.7
<u>76</u>	<u>71</u>	<u>61</u>	<u>59</u>	<u>56</u>	<u>62</u>	<u>69</u>	<u>79</u>	<u>41</u>
34	23	14	10	15	22	30	50	

17.1	17.0	17.5	18.4	18.8	18.0	16.9	17.0	21.5	21.6
<u>87</u>	<u>88</u>	<u>83</u>	<u>74</u>	<u>70</u>	<u>78</u>	<u>89</u>	<u>88</u>	<u>93</u>	<u>92</u>
33	22	16	13	16	19	24	32	50	

13.7	14.9	15.7	16.6	17.2	17.0	16.3	15.2	15.2	20.2	20.5
<u>121</u>	<u>109</u>	<u>101</u>	<u>92</u>	<u>86</u>	<u>88</u>	<u>95</u>	<u>106</u>	<u>106</u>	<u>56</u>	<u>53</u>
34	22	17	13	12	16	18	20	31	50	

11.4	13.2	15.3	15.9	15.3	13.8	13.8	16.7	17.8
<u>149</u>	<u>126</u>	<u>105</u>	<u>99</u>	<u>105</u>	<u>120</u>	<u>120</u>	<u>91</u>	<u>80</u>
33	22	16	15	18	20	27	60	

10.4	10.6	13.0	14.3	14.8	14.3	13.4	13.0	14.3	17.5
<u>154</u>	<u>150</u>	<u>128</u>	<u>115</u>	<u>140</u>	<u>115</u>	<u>124</u>	<u>125</u>	<u>115</u>	<u>83</u>
34	27	17	13	12	17	21	25	70	

Sta. + X - Elev.

1019.69

2 +50

4 +05 2. Culv.

+50

5 +15

+20

+50

LT

4

RT

$\frac{99}{34} 09.8$
 $\frac{82}{22} 11.5$
 $\frac{62}{14} 13.5$
 $\frac{57}{19} 14.0$
 $\frac{62}{19} 13.5$
 $\frac{78}{19} 11.9$
 $\frac{77}{21} 12.0$

$\frac{98}{33} 09.9$
 $\frac{86}{22} 11.1$
 $\frac{67}{13} 13.0$
 $\frac{41}{15} 13.6$
 $\frac{69}{21} 12.8$
 $\frac{91}{21} 10.6$
 $\frac{85}{24} 11.2$

$\frac{09.48}{10.21}$

$\frac{10.46}{9.23}$

$\frac{96}{34} 10.1$
 $\frac{90}{21} 10.7$
 $\frac{73}{15} 12.4$
 $\frac{68}{12} 12.9$
 $\frac{43}{16} 13.4$
 $\frac{73}{16} 12.4$
 $\frac{90}{20} 10.7$
 $\frac{85}{23} 11.2$

$\frac{93}{34} 10.4$
 $\frac{89}{22} 10.8$
 $\frac{66}{13} 13.1$

$\frac{13.5}{4.2} 13.5$
 $\frac{67}{14} 13.0$
 $\frac{80}{19} 11.7$
 $\frac{80}{21} 11.7$
 $\frac{69}{24} 13.3$

$\frac{78}{21} 11.9$
 $\frac{48}{29} 14.9$

$\frac{81}{34} 11.6$
 $\frac{74}{21} 12.3$
 $\frac{61}{13} 13.6$
 $\frac{58}{13} 13.9$

519

+

π

-

Elev

101969

5 192

6

150

7

150

T.P.

6.21

1022.79

3.16

1016.53

8

150

9

$$\frac{31}{210} 20.7$$

$$\frac{32}{16} 21.1$$

$$\frac{22}{55} 17.2$$

$$\frac{5}{58} 16.9$$

$$\frac{15}{50} 17.7$$

$$\frac{40}{50} 17.7$$

$$\frac{15}{58} 16.9$$

$$\frac{17}{66} 16.1$$

$$\frac{22}{69} 16.3$$

$$\frac{29}{34} 19.3$$

$$\frac{36}{92} 18.5$$

$$\frac{28}{43} 18.4$$

$$\frac{22}{54} 16.3$$

$$\frac{18}{64} 16.3$$

$$\frac{16}{56} 17.1$$

$$\frac{15}{55} 17.2$$

$$\frac{15}{62} 16.4$$

$$\frac{17}{74} 15.3$$

$$\frac{21}{74} 15.3$$

$$\frac{25}{60} 16.7$$

$$\frac{50}{58} 16.9$$

$$\frac{41}{50} 18.6$$

$$\frac{30}{53} 19.4$$

$$\frac{23}{58} 16.9$$

$$\frac{18}{58} 16.9$$

$$\frac{16}{52} 17.5$$

$$\frac{32}{52} 17.5$$

$$\frac{15}{62} 16.5$$

$$\frac{17}{68} 15.9$$

$$\frac{22}{68} 15.9$$

$$\frac{30}{50} 19.9$$

$$\frac{35}{58} 13.9$$

$$\frac{21}{47} 15.0$$

$$\frac{14}{38} 16.7$$

$$\frac{28}{38} 16.9$$

$$\frac{10}{33} 16.4$$

$$\frac{15}{37} 16.0$$

$$\frac{17}{45} 15.2$$

$$\frac{22}{46} 15.1$$

$$\frac{27}{20} 17.7$$

$$\frac{19}{50} 18.0$$

$$\frac{34}{89} 11.3$$

$$\frac{29}{25} 12.3$$

$$\frac{16}{40} 15.7$$

$$\frac{37}{37} 16.0$$

$$\frac{15}{48} 15.4$$

$$\frac{18}{59} 14.3$$

$$\frac{21}{59} 14.3$$

$$\frac{24}{44} 15.3$$

$$\frac{34}{88} 10.9$$

$$\frac{23}{77} 12.0$$

$$\frac{14}{50} 14.7$$

$$\frac{11}{43} 15.4$$

$$\frac{15}{49} 14.8$$

$$\frac{15}{52} 14.5$$

$$\frac{17}{59} 13.8$$

$$\frac{21}{61} 13.6$$

$$\frac{28}{33} 16.4$$

$$\frac{34}{89} 10.8$$

$$\frac{23}{81} 11.6$$

$$\frac{14}{55} 14.2$$

$$\frac{11}{50} 14.7$$

$$\frac{14}{56} 14.1$$

$$\frac{18}{65} 13.2$$

$$\frac{21}{65} 13.2$$

$$\frac{32}{20} 17.7$$

$$\frac{50}{37} 16.0$$

$$\frac{51}{26} 14.6$$

$$\frac{41}{50} 15.6$$

14

4

24

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

		1022.79		
--	--	---------	--	--

9	+43			
---	-----	--	--	--

9	+50			
---	-----	--	--	--

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

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

T.P.	0.17	1009.59	13.37	1009.37
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11				
----	--	--	--	--

	+30			
--	-----	--	--	--

	+66			
--	-----	--	--	--

12				
----	--	--	--	--

T.P.	4.18	1000.69	13.03	996.51
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LT	X	RT
14.6	14.1	14.3
81	86	89
13	22	30
14.7	14.7	14.9
80	90	84
28	78	24
12.4	13.7	14.9
103	90	78
22	21	24
12.4	13.7	14.9
103	90	78
19	21	24
13.1	13.7	14.9
76	90	84
16	21	30
13.1	13.7	14.9
96	90	84
13	21	30
12.7	13.7	14.9
100	90	84
13	21	30
11.4	13.7	14.9
113	90	84
15	21	30
11.4	13.7	14.9
113	90	84
20	21	30
12.4	13.7	14.9
103	90	84
23	21	30
11.9	13.7	14.9
108	90	84
50	21	30
11.6	13.7	14.9
11	90	84
55	21	30
10.8	13.7	14.9
113	90	84
26	21	30
09.0	13.7	14.9
137	90	84
22	21	30
09.0	13.7	14.9
137	90	84
18	21	30
09.8	13.7	14.9
129	90	84
16	21	30
10.0	13.7	14.9
127	90	84
16	21	30
09.4	13.7	14.9
133	90	84
16	21	30
08.3	13.7	14.9
144	90	84
18	21	30
08.3	13.7	14.9
144	90	84
21	21	30
09.5	13.7	14.9
132	90	84
24	21	30
09.5	13.7	14.9
133	90	84
50	21	30
08.7	13.7	14.9
08	90	84
13	21	30
09.3	13.7	14.9
0.2	90	84
29	21	30
05.2	13.7	14.9
43	90	84
22	21	30
05.2	13.7	14.9
43	90	84
19	21	30
05.9	13.7	14.9
36	90	84
16	21	30
06.0	13.7	14.9
35	90	84
15	21	30
05.6	13.7	14.9
39	90	84
15	21	30
04.7	13.7	14.9
48	90	84
18	21	30
04.7	13.7	14.9
48	90	84
22	21	30
07.10	13.7	14.9
24	90	84
06.5	13.7	14.9
30	90	84
50	21	30
07.3	13.7	14.9
22	90	84
13	21	30
06.1	13.7	14.9
39	90	84
28	21	30
02.6	13.7	14.9
69	90	84
27	21	30
02.6	13.7	14.9
69	90	84
18	21	30
03.4	13.7	14.9
61	90	84
15	21	30
03.6	13.7	14.9
59	90	84
01.0	13.7	14.9
85	90	84
13	21	30
00.5	13.7	14.9
90	90	84
15	21	30
98.0	13.7	14.9

Sta

+

π

-

Elev.

1000.67

12

+39

+40

13

+35.25

B.M.

370

996.99

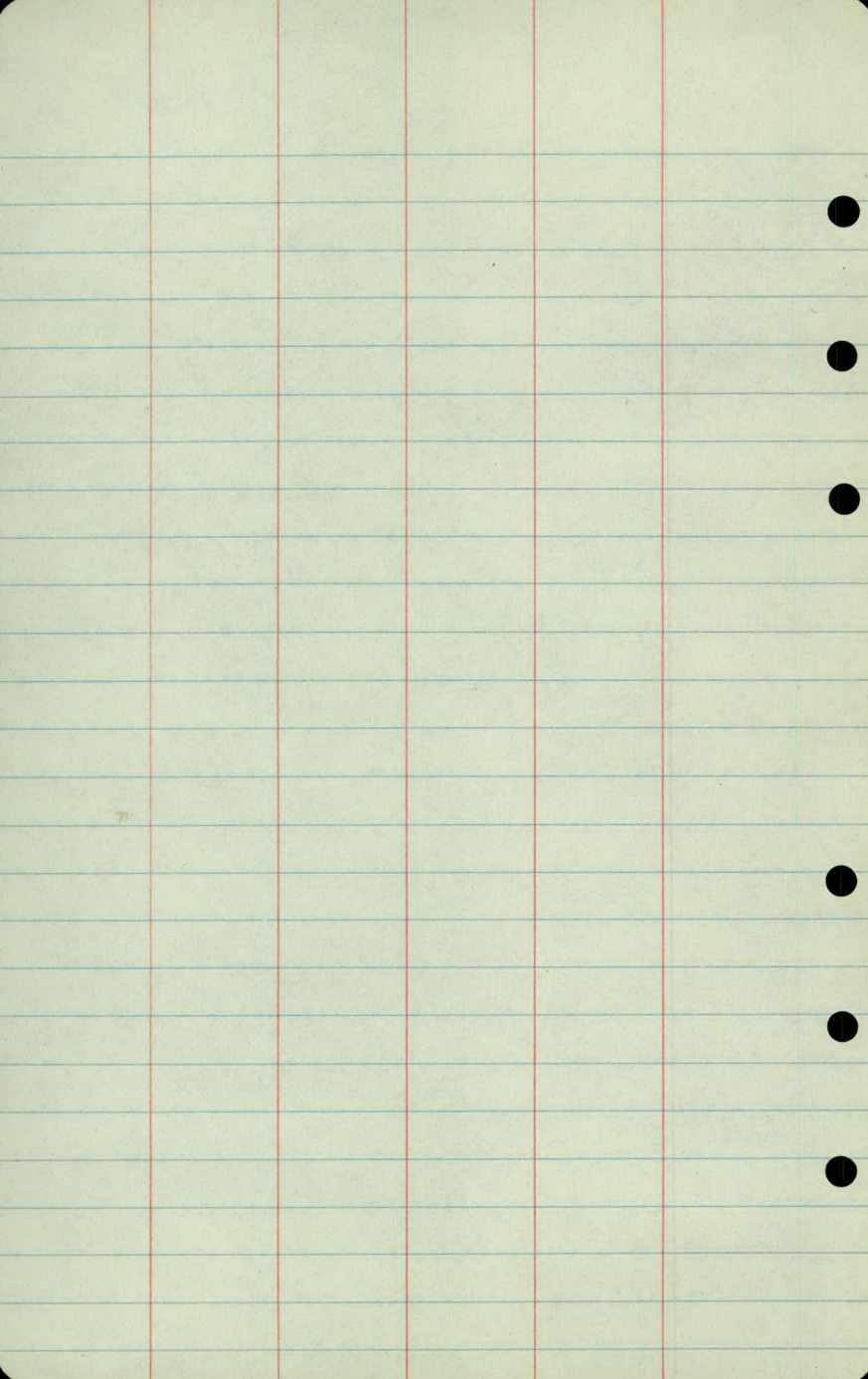
Lt

x

Rt

94.1	96.5	94.1	95.1	96.9
$\frac{51}{50}$	$\frac{42}{50}$	$\frac{51}{50}$	$\frac{56}{50}$	$\frac{38}{27}$
94.3	96.2	94.3	95.1	96.4
$\frac{51}{50}$	$\frac{45}{27}$	$\frac{51}{30}$	$\frac{56}{50}$	$\frac{43}{50}$
95.6	94.6	95.6	95.1	95.9
$\frac{51}{30}$	$\frac{41}{22}$	$\frac{51}{30}$	$\frac{56}{50}$	$\frac{45}{100}$
94.4	94.7	94.4	95.8	
$\frac{53}{22}$	$\frac{60}{17}$	$\frac{53}{22}$	$\frac{49}{18}$	
94.7	95.2	94.7	96.6	
$\frac{60}{17}$	$\frac{55}{13}$	$\frac{60}{17}$	$\frac{41}{13}$	
95.7	95.1	95.7	97.10	
$\frac{50}{9}$	$\frac{56}{51}$	$\frac{50}{9}$	$\frac{46}{17}$	
95.9	94.6	95.9	96.2	
$\frac{48}{17}$	$\frac{41}{23}$	$\frac{48}{17}$	$\frac{45}{23}$	
94.6	93.8	94.6	94.6	
$\frac{49}{23}$	$\frac{39}{24}$	$\frac{49}{23}$	$\frac{41}{23}$	
93.8	93.4	93.8	94.4	
$\frac{39}{24}$	$\frac{71}{30}$	$\frac{39}{24}$	$\frac{63}{22}$	
93.4	92.3	93.4	94.9	
$\frac{71}{30}$	$\frac{89}{50}$	$\frac{71}{30}$	$\frac{58}{28}$	
92.3		92.3	93.8	
$\frac{89}{50}$		$\frac{89}{50}$	$\frac{69}{50}$	

Tap Rail Mont Lt. 13433.25 at tub Ends



X sections
Hollaway st

Sta	+	π	-	Elev.
B.M.	3.70	1000.69		796.99

0 +00

+50

1

+50

2

+50

I.P.	0.31	988.85	12.15	988.54
------	------	--------	-------	--------

3

+50

4.

2

21.

Top East Mont. W. 0+00

94.7
6.0
100

94.2
6.5
38

95.2
5.8
38

93.6
71
100

92.1
86
50

92.1
86
20

92.5
82
20

92.1
86
25

93.1
76
100

90.1
106
50

90.7
100
17

90.5
102
17

91.6
91
50

91.9
58
100

89.2
115
56

89.4
113
16

89.6
111
16

90.4
103
36

90.7
100
50

90.5
102
100

88.1
126
40

88.7
120
30

88.7
120
30

90.0
107
50

90.1
106
100

87.9
128
53

87.8
129
24

88.4
123
31

88.2
125
31

89.4
113
50

90.1
112
100

88.9
100
69

86.9
80
30

87.4
115
34

87.7
112
34

88.7
102
50

85.9
30
100

85.9
30
66

85.8
31
30

86.0
29
1

86.6
23
32

87.4
15
50

sta. + π - Elev.

988.5

1

150

5

135

141 Culv. Rt.

157

182 Culv. Rt.

6

$\frac{17}{100}$ 81.2
 $\frac{50}{100}$ 80.9
 $\frac{19}{38}$ 81.0

$\frac{15}{41}$ 81.4
 $\frac{61}{29}$ 82.8
 $\frac{59}{29}$ 83.0
 $\frac{69}{30}$ 82.0
 $\frac{69}{32}$ 82.0
 $\frac{63}{34}$ 82.7
 $\frac{66}{50}$ 82.3

$\frac{55}{100}$ 83.6
 $\frac{50}{100}$ 83.2
 $\frac{64}{32}$ 82.5
 $\frac{76}{27}$ 81.3
 $\frac{63}{17}$ 82.6
 $\frac{57}{57}$ 83.2
 $\frac{48}{50}$ 84.1

$\frac{726}{81.59}$

$\frac{56}{100}$ 83.3
 $\frac{56}{100}$ 83.3
 $\frac{64}{35}$ 82.5
 $\frac{59}{159}$ 83.0
 $\frac{71}{28}$ 83.2
 $\frac{69}{32}$ 82.5
 $\frac{59}{50}$ 83.0

$\frac{51}{100}$ 83.8
 $\frac{47}{58}$ 84.2
 $\frac{54}{26}$ 83.5
 $\frac{56}{56}$ 83.3
 $\frac{55}{18}$ 83.4
 $\frac{56}{39}$ 83.3
 $\frac{47}{50}$ 84.2

$\frac{41}{100}$ 83.8
 $\frac{46}{33}$ 84.3
 $\frac{50}{27}$ 83.9
 $\frac{51}{51}$ 83.8
 $\frac{51}{51}$ 83.8
 $\frac{47}{47}$ 84.2

$\frac{46}{100}$ 84.3
 $\frac{49}{36}$ 84.6
 $\frac{42}{42}$ 84.7
 $\frac{47}{17}$ 85.2
 $\frac{42}{50}$ 85.7

41

8

84

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

		988.65		
--	--	--------	--	--

6	4.50			
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7				
---	--	--	--	--

	4.50			
--	------	--	--	--

8				
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T.P.	7.75	988.38	8.22	980.63
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	4.50			
--	------	--	--	--

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

	4.39	Gully Rt.		
--	------	-----------	--	--

	4.50			
--	------	--	--	--

Lt		Rt	
73.0	73.7	74.9	74.4
$\frac{139}{200}$	$\frac{141}{150}$	$\frac{135}{200}$	$\frac{140}{165}$
74.6	75.3	75.8	75.6
$\frac{138}{100}$	$\frac{131}{60}$	$\frac{126}{11}$	$\frac{128}{34}$
75.4	76.8	77.7	79.0
$\frac{130}{100}$	$\frac{116}{33}$	$\frac{107}{6}$	$\frac{94}{20}$
76.2	77.9	79.9	81.2
$\frac{107}{100}$	$\frac{97}{61}$	$\frac{80}{23}$	$\frac{67}{30}$
77.4	77.9	78.5	80.5
$\frac{115}{100}$	$\frac{110}{64}$	$\frac{104}{6}$	$\frac{84}{21}$
78.2	79.2	80.5	81.5
$\frac{107}{100}$	$\frac{97}{61}$	$\frac{80}{23}$	$\frac{67}{30}$
79.8	80.4	81.4	82.6
$\frac{91}{100}$	$\frac{87}{58}$	$\frac{82}{20}$	$\frac{64}{30}$
80.2	80.4	80.7	82.5
$\frac{87}{58}$	$\frac{85}{20}$	$\frac{82}{20}$	$\frac{64}{30}$
81.4	81.8	82.6	84.4
$\frac{75}{50}$	$\frac{71}{34}$	$\frac{63}{30}$	$\frac{51}{33}$
82.6	84.4	86.2	88.0
$\frac{63}{30}$	$\frac{51}{33}$	$\frac{39}{37}$	$\frac{30}{30}$
84.4	86.2	88.0	90.0
$\frac{51}{33}$	$\frac{39}{37}$	$\frac{30}{30}$	$\frac{27}{50}$
86.2	88.0	90.0	92.0
$\frac{39}{37}$	$\frac{30}{30}$	$\frac{27}{50}$	$\frac{24}{50}$
88.0	90.0	92.0	94.0
$\frac{30}{30}$	$\frac{27}{50}$	$\frac{24}{50}$	$\frac{21}{50}$
90.0	92.0	94.0	96.0
$\frac{27}{50}$	$\frac{24}{50}$	$\frac{21}{50}$	$\frac{18}{50}$
92.0	94.0	96.0	98.0
$\frac{24}{50}$	$\frac{21}{50}$	$\frac{18}{50}$	$\frac{15}{50}$
94.0	96.0	98.0	100.0
$\frac{21}{50}$	$\frac{18}{50}$	$\frac{15}{50}$	$\frac{12}{50}$
96.0	98.0	100.0	102.0
$\frac{18}{50}$	$\frac{15}{50}$	$\frac{12}{50}$	$\frac{9}{50}$
98.0	100.0	102.0	104.0
$\frac{15}{50}$	$\frac{12}{50}$	$\frac{9}{50}$	$\frac{6}{50}$
100.0	102.0	104.0	106.0
$\frac{12}{50}$	$\frac{9}{50}$	$\frac{6}{50}$	$\frac{3}{50}$
102.0	104.0	106.0	108.0
$\frac{9}{50}$	$\frac{6}{50}$	$\frac{3}{50}$	$\frac{0}{50}$
104.0	106.0	108.0	110.0
$\frac{6}{50}$	$\frac{3}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
106.0	108.0	110.0	112.0
$\frac{3}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
108.0	110.0	112.0	114.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
110.0	112.0	114.0	116.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
112.0	114.0	116.0	118.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
114.0	116.0	118.0	120.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
116.0	118.0	120.0	122.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
118.0	120.0	122.0	124.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
120.0	122.0	124.0	126.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
122.0	124.0	126.0	128.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
124.0	126.0	128.0	130.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
126.0	128.0	130.0	132.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
128.0	130.0	132.0	134.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
130.0	132.0	134.0	136.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
132.0	134.0	136.0	138.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
134.0	136.0	138.0	140.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
136.0	138.0	140.0	142.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
138.0	140.0	142.0	144.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
140.0	142.0	144.0	146.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
142.0	144.0	146.0	148.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
144.0	146.0	148.0	150.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
146.0	148.0	150.0	152.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
148.0	150.0	152.0	154.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
150.0	152.0	154.0	156.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
152.0	154.0	156.0	158.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
154.0	156.0	158.0	160.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
156.0	158.0	160.0	162.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
158.0	160.0	162.0	164.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
160.0	162.0	164.0	166.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
162.0	164.0	166.0	168.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
164.0	166.0	168.0	170.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
166.0	168.0	170.0	172.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
168.0	170.0	172.0	174.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
170.0	172.0	174.0	176.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
172.0	174.0	176.0	178.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
174.0	176.0	178.0	180.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
176.0	178.0	180.0	182.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
178.0	180.0	182.0	184.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
180.0	182.0	184.0	186.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
182.0	184.0	186.0	188.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
184.0	186.0	188.0	190.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
186.0	188.0	190.0	192.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
188.0	190.0	192.0	194.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
190.0	192.0	194.0	196.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
192.0	194.0	196.0	198.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$
194.0	196.0	198.0	200.0
$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$	$\frac{0}{50}$

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

		988.38		
--	--	--------	--	--

10

+50

+76

11

+50

B.M.

11.28

977.10

20 1 2 3 4

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

X Sections

East Ave.

Rt A to East Ave.

Sto 131 to 264

Sta	t	π	-	Elev
B.M.	2.86	1025.83		1022.87

13 +50

14

+50

15

+50

16

T.P.	2.92	1015.02	19.13	1012.70
------	------	---------	-------	---------

+65

17

Sta

+

A

-

Elev.

1015.02

17 +50

18

+55

+80

+88

T.P.

1.11

1003.45

12.68

1002.34

19 +10

+50

20

4.

K

10.4	08.5	06.5	04.7	03.7	03.6	05.0	05.6	05.8	06.0
$\frac{46}{100}$	$\frac{65}{69}$	$\frac{85}{33}$	$\frac{103}{27}$	$\frac{113}{25}$	$\frac{114}{21}$	$\frac{120}{17}$	$\frac{124}{15}$	$\frac{122}{8}$	$\frac{120}{90}$
07.6	07.4	07.0	05.2	01.6	00.6	00.6	03.0	07.2	07.5
$\frac{74}{100}$	$\frac{76}{89}$	$\frac{90}{65}$	$\frac{98}{37}$	$\frac{134}{27}$	$\frac{144}{25}$	$\frac{144}{21}$	$\frac{120}{15}$	$\frac{124}{10}$	$\frac{125}{15}$
				07.3	03.9	00.8	99.5		
				$\frac{77}{91}$	$\frac{111}{36}$	$\frac{142}{28}$	$\frac{155}{24}$		

9.5?
9.5%
?

02.3	01.7
$\frac{127}{82}$	$\frac{133}{32}$

Top E. Edge of N. Wall L. Sta 191.

05.8	05.5	03.3	02.0	09.2	08.2	08.2	00.5	008
$\frac{423}{100}$	$\frac{120}{91}$	$\frac{82}{80}$	$\frac{15}{37}$	$\frac{43}{27}$	$\frac{53}{25}$	$\frac{53}{21}$	$\frac{30}{15}$	$\frac{17}{17}$
01.3	09.4	08.3	06.2	06.1	08.6	08.8		
$\frac{23}{100}$	$\frac{41}{34}$	$\frac{52}{29}$	$\frac{73}{23}$	$\frac{74}{21}$	$\frac{99}{15}$	$\frac{49}{15}$	$\frac{47}{17}$	
98.0	97.2	96.1	93.9	94.0	95.6	96.2	96.5	
$\frac{55}{100}$	$\frac{63}{51}$	$\frac{74}{30}$	$\frac{76}{25}$	$\frac{95}{21}$	$\frac{99}{18}$	$\frac{12}{10}$	$\frac{1.0}{1.0}$	

sta + π - Elev

1003.45

20 +60

21

+63

I.P. 2.98 1992.73 13.70 987.15

+77

22

+50

23

+03 q. Culv.

Nail in T.R. Lt 22+

$\frac{89}{100}$ 83.8
 $\frac{76}{77}$ 83.1
 $\frac{93}{49}$ 83.4

$\frac{45}{100}$ 88.2
 $\frac{57}{69}$ 82.0
 $\frac{58}{51}$ 86.9
 $\frac{51}{31}$ 82.6
 $\frac{50}{20}$ 87.5

$\frac{19}{100}$ 84.8
 $\frac{60}{72}$ 86.7
 $\frac{77}{90}$ 85.0
 $\frac{76}{22}$ 85.1
 $\frac{60}{19}$ 86.7
 $\frac{56}{9}$ 87.1
 $\frac{59}{1}$ 87.3

$\frac{92}{21}$ 83.5
 $\frac{26}{16}$ 85.1
 $\frac{72}{9}$ 85.5
 $\frac{70}{10}$ 85.7

9.78
 FL. 982.95

10.15
 FL. 82.58

$\frac{29}{100}$ 89.8
 $\frac{28}{86}$ 89.4
 $\frac{50}{55}$ 87.7
 $\frac{45}{33}$ 88.2
 $\frac{41}{19}$ 88.6
 $\frac{35}{16}$ 89.2
 $\frac{32}{10}$ 89.5
 $\frac{30}{1}$ 89.7

$\frac{121}{100}$ 93.4
 $\frac{102}{79}$ 93.3
 $\frac{105}{41}$ 93.0
 $\frac{152}{29}$ 88.3
 $\frac{152}{21}$ 88.3
 $\frac{137}{17}$ 89.8
 $\frac{139}{8}$ 90.1
 $\frac{133}{1}$ 90.2

$\frac{72}{100}$ 94.3
 $\frac{100}{58}$ 93.5
 $\frac{116}{34}$ 91.9
 $\frac{120}{27}$ 91.5
 $\frac{128}{25}$ 90.7
 $\frac{128}{21}$ 90.7
 $\frac{114}{18}$ 92.1
 $\frac{112}{8}$ 92.3
 $\frac{109}{1}$ 92.6

$\frac{66}{100}$ 96.9
 $\frac{68}{51}$ 96.7
 $\frac{81}{33}$ 95.4
 $\frac{112}{25}$ 92.3
 $\frac{112}{21}$ 92.3
 $\frac{95}{17}$ 94.0
 $\frac{91}{1}$ 94.4

FL

FL

sta + K - Elev

1992.73

23 +50

24

+50

25

I.P. 2.99 983.59 12.13 980.60

+50

26

+19 Culvert

+21 Culv. Lt.

7.88
F.L.
15.71

896
F.L.
7463

$\frac{106}{83}$	$\frac{117}{29}$	$\frac{147}{24}$	$\frac{157}{20}$	$\frac{128}{17}$	$\frac{129}{11}$	$\frac{80.3}{80.5}$	$\frac{12.2}{80.5}$
82.1	81.0	77.0	77.0	79.9			
78.8	75.7	75.7	77.3	77.8	77.8	76.6	78.1
$\frac{48}{33}$	$\frac{19}{26}$	$\frac{19}{22}$	$\frac{6.9}{18}$	$\frac{5.8}{9}$			$\frac{35}{35}$

$\frac{100}{78}$	$\frac{101}{59}$	$\frac{108}{33}$	$\frac{145}{25}$	$\frac{145}{20}$	$\frac{112}{17}$	$\frac{110}{11}$	$\frac{108}{108}$
82.7	82.6	82.7	78.2	78.2	81.5	81.7	81.9

$\frac{97}{100}$	$\frac{101}{70}$	$\frac{101}{33}$	$\frac{120}{22}$	$\frac{106}{19}$	$\frac{108}{10}$	$\frac{96}{96}$
83.0	82.6	82.6	80.7	82.1	82.7	83.1

$\frac{79}{100}$	$\frac{104}{66}$	$\frac{105}{22}$	$\frac{88}{18}$	$\frac{86}{10}$	$\frac{83}{83}$
82.8	82.3	82.2	83.9	84.1	84.4

44

44

Sta. + π - Elev.

983.59

26 191 CULV. LT

196 CULV. RT

150

27

B.M.

6.51 977.08

LI

2

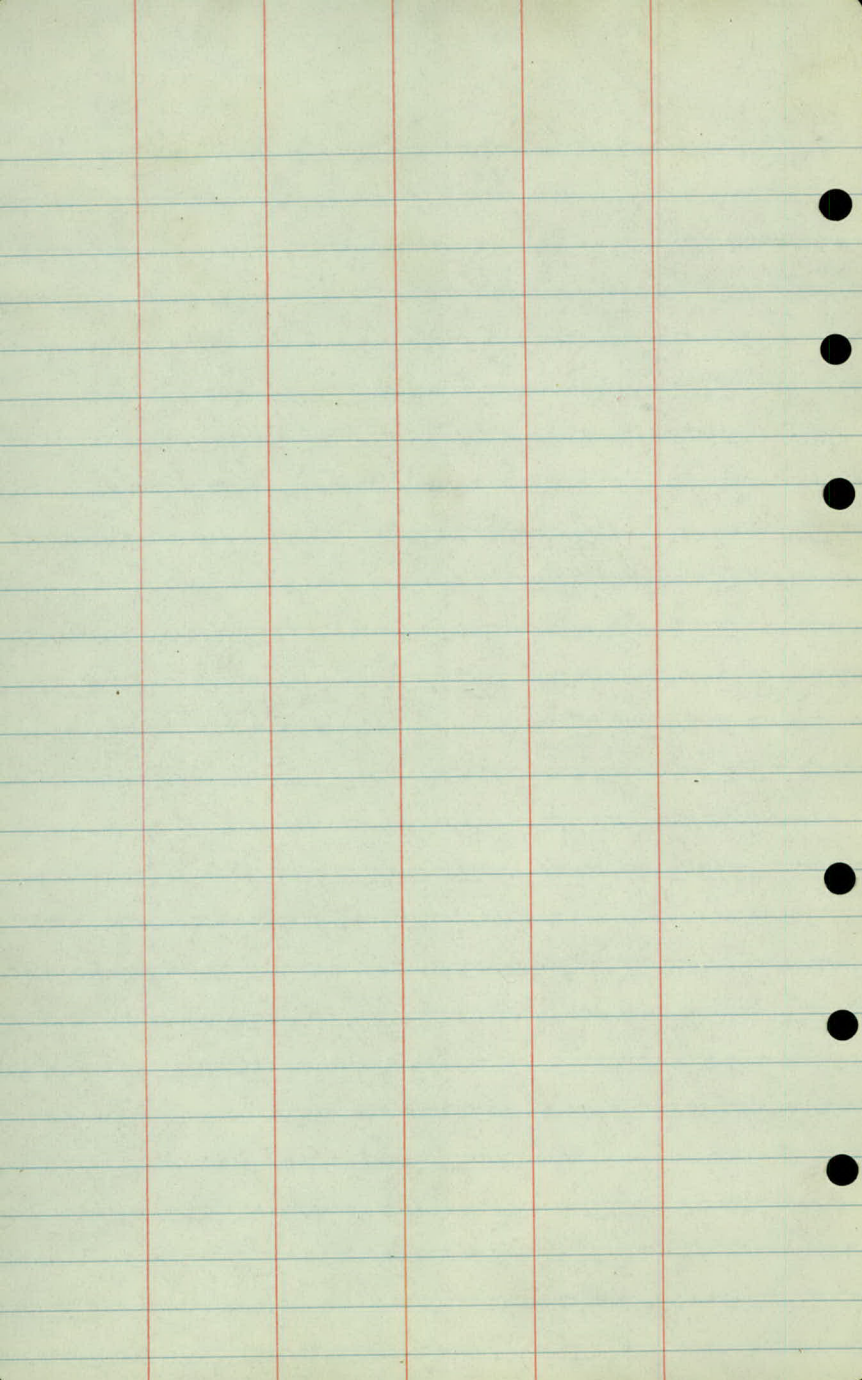
2t

$$\begin{array}{r} 75.12 \\ \hline 8.97 \\ \hline FL. \end{array}$$

$$\begin{array}{r} 74.38 \\ \hline 9.21 \\ \hline FL. \end{array}$$

76.3	75.0	74.9	76.6	76.8	77.0	76.8	76.3	74.6	74.2	75.0
$\frac{7.8}{37}$	$\frac{81}{27}$	$\frac{87}{23}$	$\frac{70}{17}$	$\frac{68}{10}$	$\frac{6.6}{1}$	$\frac{6.8}{7}$	$\frac{7.3}{16}$	$\frac{9.0}{21}$	$\frac{9.4}{33}$	$\frac{8.6}{50}$
75.1	74.4	74.4	75.4	75.8	76.0	75.9	75.4	74.0	74.0	75.2
$\frac{8.5}{35}$	$\frac{9.2}{25}$	$\frac{9.2}{22}$	$\frac{8.2}{18}$	$\frac{7.8}{10}$	$\frac{7.6}{1}$	$\frac{7.7}{8}$	$\frac{8.2}{15}$	$\frac{9.6}{22}$	$\frac{9.6}{26}$	$\frac{8.6}{31}$
										$\frac{8.4}{50}$

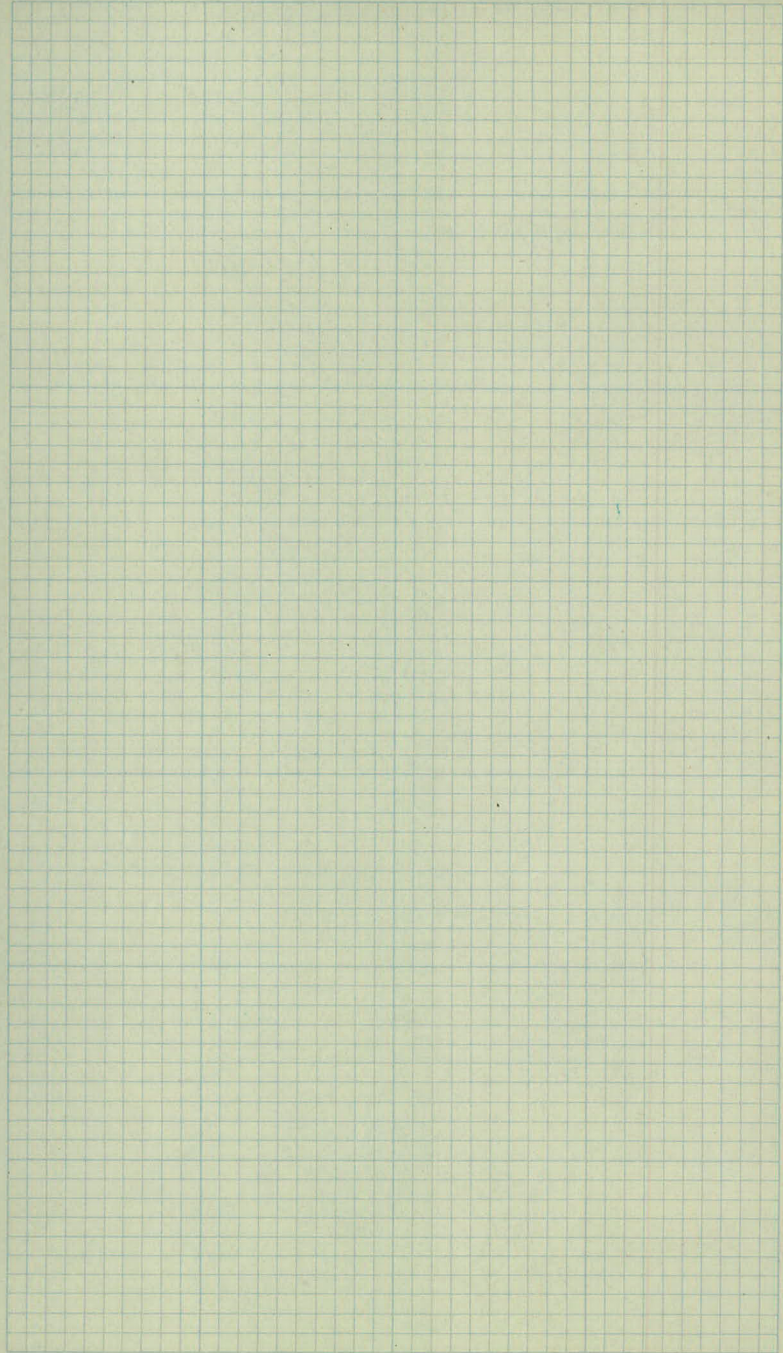
Top Mast Holloway & East Ave.

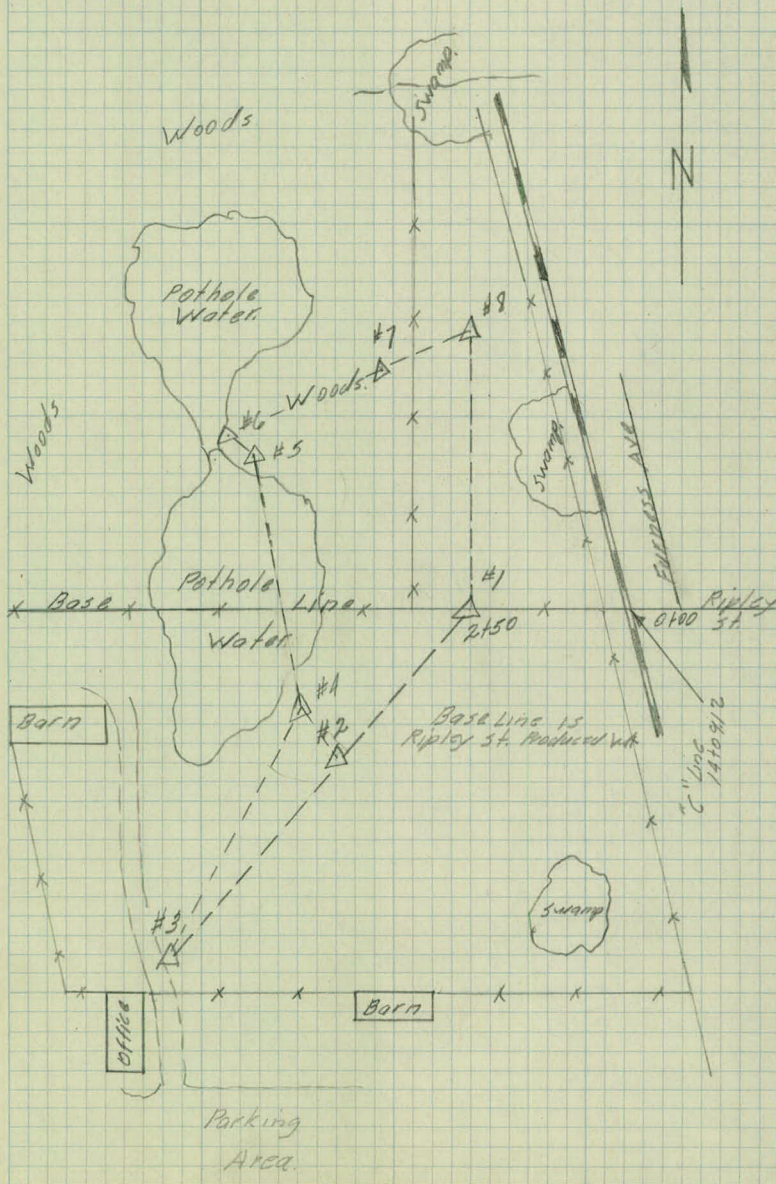


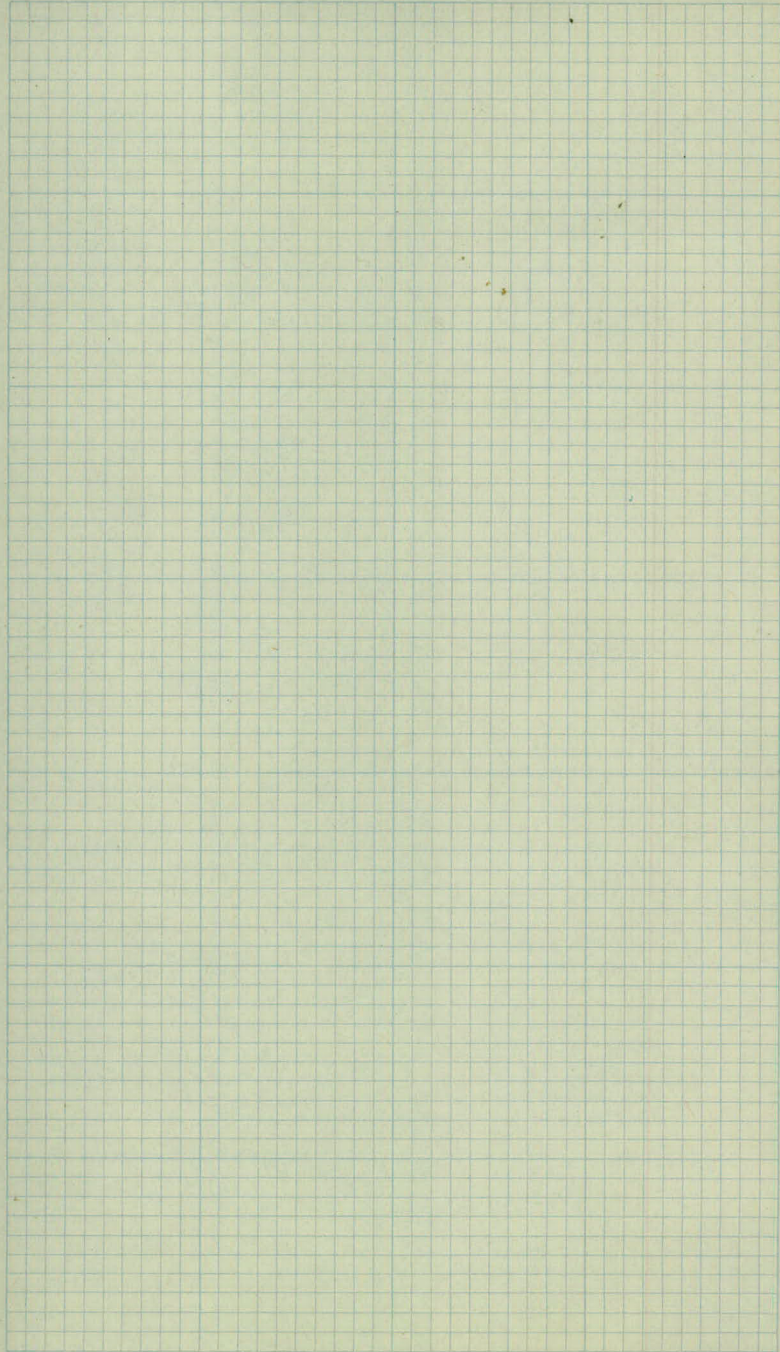
DRAINAGE SURVEY

North of Beede Lab and West of St. R.R. Tracks

Alignment







Stadia Levels.

W. of St. R.R. Tracks + N of Base Lab.

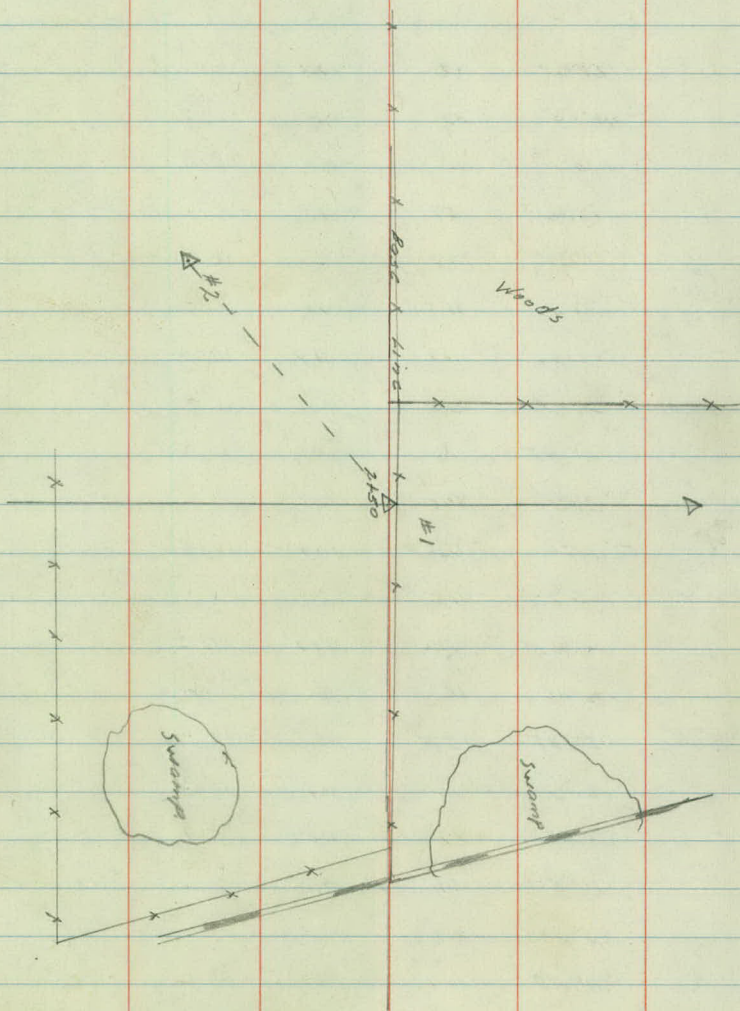
Azimuth is North + 90° to Baseline

Sta.	Azimuth	Dist.	Rod	Elev.
B.M.	2.02	1022.17		1022.15

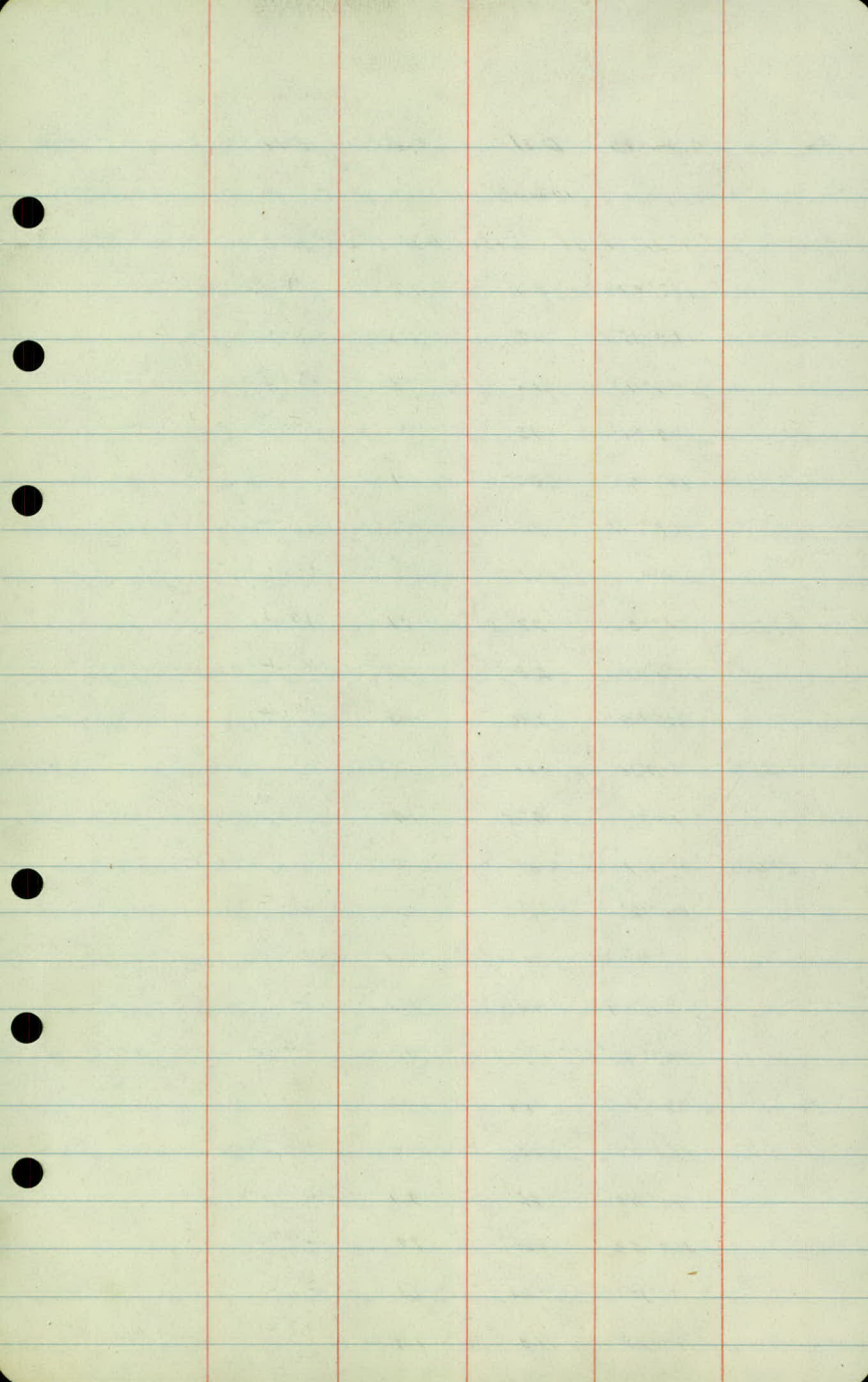
Transit at Sta 2+50 Base Line

Fe. Cor.	269°57'	32	4.5	19.7
	306°09	43	3.1	21.1
	38°16	35'	2.7	21.5
	26°40'	54'	1.5	21.5
	65°00'	75	7.7	16.5
	348°43'	113	7.9	16.3
	2°38'	123	11.8	12.4
	43°54	93	7.9	16.3
	3°23'	154	13.7	10.5
	350°55'	200'	13.0	11.2
Swamp	356°15	202	13.8	10.4
	27°40'	129'	12.9	11.3
Swamp	25°04'	142'	13.8	10.4
"	70°59'	142	13.8	10.4
"	359°48'	160'	13.8	10.4
"	358°50'	300	13.8	10.4
"	3°51'	360	13.8	10.4
	353°29	272	12.0	11.2
	4°51'	310	15.0	09.2
	4°45'	274	15.8	08.4
	4°48'	200	15.8	08.4
Δ #8	0°00	412		

Top Breather Pipe S.W. Cor. Ripley & Furness Ave.



Sta.	Azimuth	Dist	Red.	Elev.
		1024.17		
	Transit at sta 2+50 Baseline			
	112°07'	80'	9.9	14.3
	120°33'	62'	8.8	15.4
	126°43'	110'	7.9	16.3
	140°17'	93'	8.3	15.9
	142°56'	155'	11.2	13.0
Swamp.	146°48'	198'	12.8	11.4
"	143°25'	228	12.8	11.4
	148°26'	230'	14.0	10.2
Swamp	150°02'	250'	12.8	11.4
	157°43'	186'	14.0	10.2
Swamp	158°56'	305	12.8	11.4
	158°41'	226	14.0	10.2
Swamp.	165°25'	312'	12.8	11.4
"	170°18'	225'	12.9	11.3
"	167°40'	186'	12.8	11.4
	155°32'	152'	12.8	11.4
	169°50'	116'	9.7	14.5
	166°26'	77'	11.0	13.2
	166°51'	51'	9.9	14.3
Fa.	85°09'	29'	5.9	18.3
	184°58'	264'	8.0	16.2
	187°10'	200'	9.2	15.0
	189°10'	160'	7.9	16.3



Sta.	Azimuth	Dist.	Red.	Elev.
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1024.17

Transit of Sta. 2+50 Base Line

188°42'	260'	1.6	22.6
---------	------	-----	------

192°45'	219'	1.1	23.1
---------	------	-----	------

194°11'	194'	3.9	20.3
---------	------	-----	------

193°47'	145'	8.9	15.3
---------	------	-----	------

199°49'	127'	6.4	17.8
---------	------	-----	------

202°50'	79'	8.6	15.6
---------	-----	-----	------

210°35'	87'	6.1	18.1
---------	-----	-----	------

210°35'	32'	5.1	19.1
---------	-----	-----	------

235°43'	58'	3.8	20.4
---------	-----	-----	------

269°47'	50'	4.8	19.4
---------	-----	-----	------

360
241.56
118°24'

Δ #2	241°36'	152'		
------	---------	------	--	--

I.P.	7.73	1028.50	3.40	1020.77
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Transit of Point #2

86°28'	90'	7.3	21.2
--------	-----	-----	------

73°53'	56'	5.7	22.8
--------	-----	-----	------

77°44'	40'	4.3	24.2
--------	-----	-----	------

139°50'	85'	7.8	20.7
---------	-----	-----	------

155°30'	194'	4.1	24.4
---------	------	-----	------

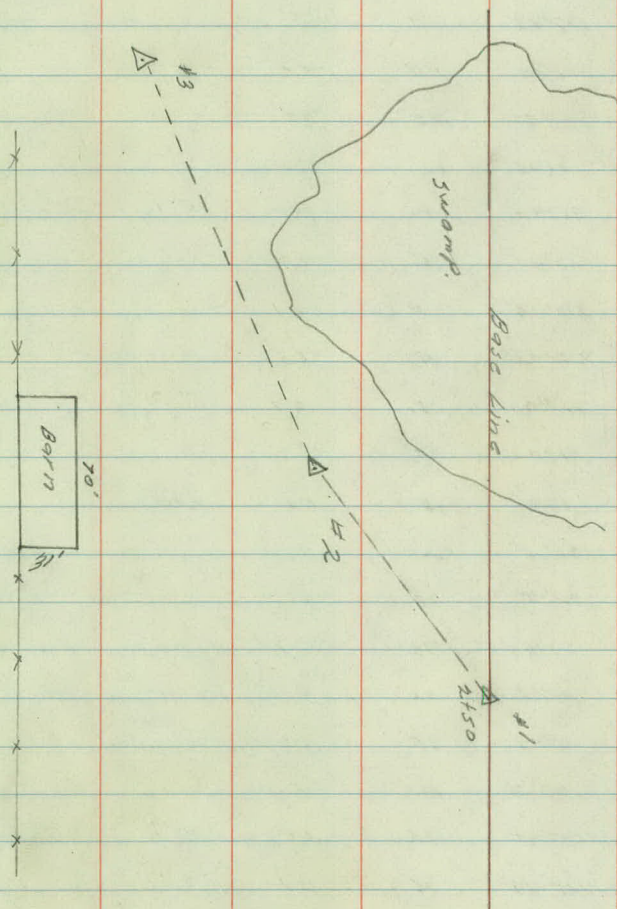
N.E. Cor. Barn	159°49'	173'	3.2	25.3
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160°43'	46'	2.7	25.8
---------	-----	-----	------

162°52'	85'	3.6	24.9
---------	-----	-----	------

171°13'	144'	3.1	25.4
---------	------	-----	------

N.W. Cor. Barn	183°28'	163'	8.6	19.9
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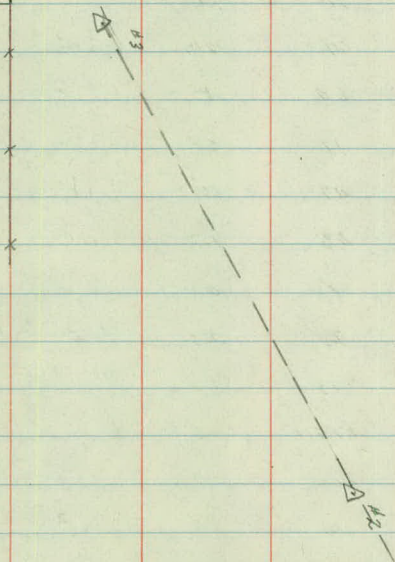
Sta.	Azimuth	Dist	Red	Elev
		1028.50		
	179°56'	162'	4.0	24.5
	179°56'	130'	5.3	23.2'
	179°56'	110'	5.5	23.0'
	179°56'	85'	7.0	21.5'
	191°15'	166'	12.3	16.2'
	198°20'	119'	12.9	15.6'
	179°50'	44'	4.0	24.5' ✓
	220°04'	60'	12.1	16.4'
	230°35'	17	7.3	21.2' ✓
	278°00'	42'	12.7	15.8'
	307°11'	43'	15.7	12.8'
	89°05'	6'	4.6	23.9' ✓
	352°00'	35'	9.2	19.3' ✓

Δ #3	241°36'	217'		
I.P.	1.91	1018.16	12.25	1016.25

Transit at Point #3

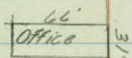
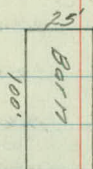
346°39'	35'	6.3	11.9' ✓
40°28'	55'	7.1	11.1' ✓
62°45'	12.8'	5.3	12.9' ✓
161°44'	6'	5.1	13.1' ✓
71°34'	28'	6.8	11.4' ✓
85°32'	72	6.9	11.3' ✓
81°03'	112'	5.0	13.2' ✓

Office



Sta	Azimuth	Dist	Red	Elev
		1018.16'		
Fc	113°55'	145'	4.4	13.8 ✓
	127°45'	97'	3.4	14.8 ✓
	159°23'	65'	4.5	13.7 ✓
	165°55'	61'	3.5	14.7 ✓
B.M.	3.29	1018.15	3.30	1014.86
N.E. Cor. Office	186°33'	60'	3.0	15.2 ✓
N.W. Cor. "	212°09'	71'	2.9	15.3 ✓
Fc Cor.	235°20'	104'	4.0	14.2 ✓
Fc.	264°45'	122'	6.1	12.1 ✓
	282°35'	79'	7.1	11.1 ✓
	283°25'	160'	4.8	13.4 ✓
	298°21'	206'	0.0	18.2 ✓
S.W. Cor. Baers	297°35'	225'	0.6	17.6 ✓
S.E. Cor. "	315°41'	153'	3.8	14.4 ✓
	321°10'	143'	4.5	13.7 ✓
Fc. Line	328°24'	208'	4.0	21.2 ✓
Fc. Line	347°20'	180'	4.9	13.3 ✓
	334°22'	153'	4.1	14.1 ✓
	349°03'	117'	5.8	12.4 ✓
F. Line	359°15'	176'	3.9	14.3 ✓
Edge Water	2°50'	144'	7.2	11.0 ✓
" "	7°46'	177'	7.3	10.9 ✓
" "	0°54'	112'	7.2	11.0 ✓

Top Conc. S.W. 1/4 E. of N. Side Beebe Lab.

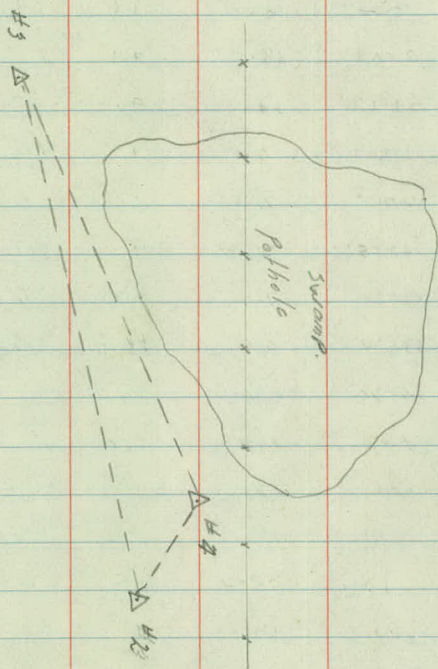


Swamp

#3

#2

Sta.	Azimuth	Dist	Red.	Elev
		1018.15		
Fc. Line	17° 45'	185'	8.2	09.4 ✓
Edge water	343° 54'	95'	7.3	10.9 ✓
" "	355° 48'	60'	7.3	10.9 ✓
Fc. Line	26° 40'	178'	7.3	08.9 ✓
	22° 08'	101'	7.2	09.0 ✓
Edge water	32° 06'	71'	7.3	10.9 ✓
" "	38° 03'	111'	7.3	10.9 ✓
" "	35° 59'	150'	7.3	10.9 ✓
	32° 21'	166'	10.2	08.0 ✓
Fc. Line	34° 28'	214'	7.1	09.1 ✓
Edge water	45° 06'	214'	7.3	10.9 ✓
" "	45° 43'	254'	7.3	10.9 ✓
Δ # 4	50° 01'	228'		
T.P.	7.31	1019.99	5.47	1012.68
	Transit of Point # 4			
Δ # 2	157° 06'	46.25		
Swamp	309° 30'	196.0	9.1	10.9 ✓
"	32° 38'	55.0	9.1	10.9 ✓
	12° 37'	63.0	11.7	08.3 ✓
Swamp	22° 22'	105.0	9.1	10.9 ✓
	10° 10'	101.0	11.4	08.6 ✓
Swamp	313° 46'	182.0	11.3	08.7 ✓
Swamp	7° 47'	182.0	9.1	10.9 ✓



Sta	Azimuth	Dist	Red	Elev
		1019.99		
Swamp	319°45'	220.0	9.1	10.9
	322°49'	208.0	11.4	08.6
	0°49'	180.0	11.6	08.4 ✓
Swamp	3°08'	218.0	9.1	10.9 ✓
"	354°17'	244.0	9.1	10.9 ✓
	352°46'	230.0	11.6	08.4 ✓
Swamp	342°53'	262.0	9.1	10.9 ✓
	342°53'	242.0	11.6	08.4 ✓
Swamp	336°48'	257.0	9.1	10.9 ✓
	336°48'	240.0	11.6	08.4 ✓
Δ #5	348°10'	268.0		
T.R.	4.74	1018.13	6.60	1018.395
Transit at point #5				
	98°1'	40.0	1.5	16.6 ✓
	55°49'	17.0	1.2	16.9 ✓
	9°12'	58.0	3.2	14.9 ✓
	301°38'	27.0	5.6	12.5 ✓
	268°28'	21.0	5.9	12.2 ✓
	249°35'	41.0	7.3	10.8 ✓
	247.18	84.0	6.2	11.9 ✓
	269°37'	50.0	9.0	09.1 ✓
	269°37'	84.0	10.4	07.7 ✓

$$\begin{array}{r} 360.00 \\ - 348.10 \\ \hline 11.90 \end{array}$$

134

228

on Point #5

Sta.	Azimuth	Dist.	Rod.	Elev.	
		1018.13			
	287°40'	66.0	11.8	06.3	✓
	347°05'	84.0	7.3	10.8	✓
	0°00'	126.0	5.7	12.4	✓
	14°30'	114.0	1.0	17.1	✓
Δ #6	310°00'	70.0			
T.P.	518	1011.72	11.59	1006.59	1006.54
	Transit at Point #6				
Swamp	221°26'	27.0	6.1	05.6	✓
"	264°21'	78.0	6.1	05.6	✓
"	349°38'	29.0	6.1	05.6	✓
	292°20'	54.0	8.4	03.3	✓
	318°17'	59.0	8.5	03.2	✓
Swamp	11°17'	102.0	6.1	05.6	✓
"	272°12'	165.0	6.1	05.6	✓
	285°53'	151.0	8.7	03.0	✓
	349°04'	107.0	8.4	03.3	✓
Swamp	289°13'	233.0	6.1	05.6	✓
"	1°08'	167.0	6.1	05.6	✓
	296°17'	207.0	8.4	03.3	✓
Swamp	304°10'	270.0	6.1	05.6	✓
	304°10'	232.0	8.5	03.2	✓
	348°01'	149.0	8.5	03.2	✓
Swamp	323°37'	254.0	6.1	05.6	✓

Top Large Rock,

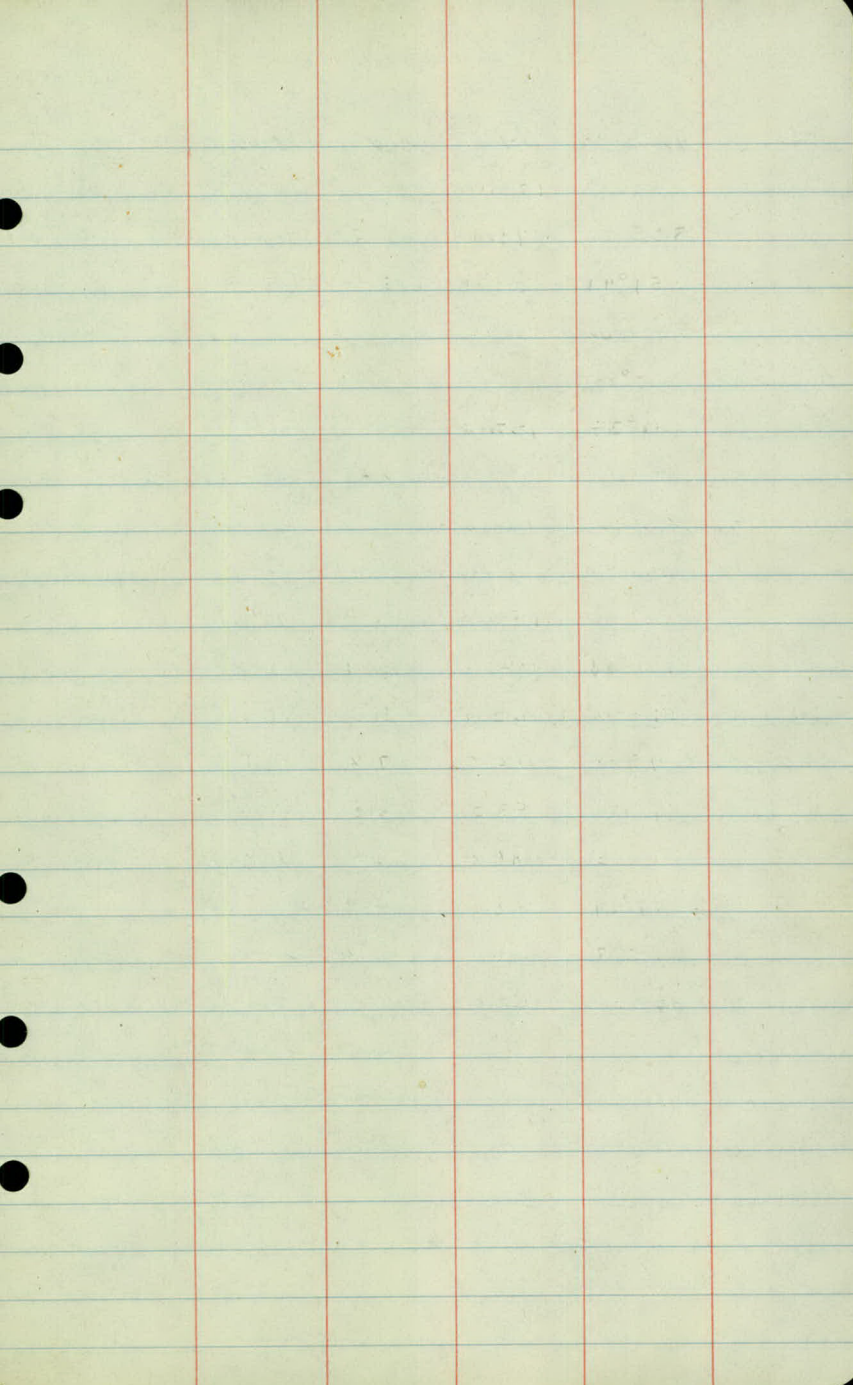
Elev. of water

Sta	Azimuth	Dist.	Red	Elev.	
		1011.72			
	314°01'	290.0	+ 1.0	12.7	
	321°03'	223.0	8.4	03.3	✓
	302°02'	300.0	5.0	06.7	✓
Swamp	333°00'	233.0	6.1	05.6	✓
	291°08'	270.0	0.4	11.3	✓
	331°42'	195.0	8.6	03.1	✓
	275°12'	103.0	0.8	10.9	✓ 03.7?
	260°50'	176.0	0.8	10.9	✓
	333°06'	251.0	4.7	07.0	✓
Swamp	343°09'	204.0	6.1	05.6	✓
	339°33'	171.0	8.4	03.3	✓
	307°45'	105'	7.7	02.0	✓
Δ #7	67°03'	148.5'			
TP	1370	1025.17	0.25	1011.47	
Transit Point #7					
	170°22'	135.0	4.5	20.7	✓
	181°04'	106.0	3.7	21.5	✓
	199°46'	105.0	5.7	19.5	✓
	223°16'	88.0	6.4	18.8	✓
	181°13'	54.0	4.4	20.8	✓
	135°53'	66.0	8.0	17.2	✓
#7			5.0	20.2	✓
	282°49'	57.0	8.2	17.0	✓
	33°31'	69.0	9.4	15.8	✓

0.335

$$\begin{array}{r} 50.5 \\ 113.0 \\ 35.0 \\ \hline 198.5 \end{array}$$

Sta	Azimuth	Dist	Red	Elev
		1025.17		
	358°20'	70.0	5.2	20.0'
	239°43'	88.0	3.8	21.4' ?
	27°24'	120.0	13.0	12.2'
	357°29'	144.0	10.6	14.6' ✓
	342°34'	122.0	7.1	18.1'
	335°06'	130.0	7.4	17.8' ✓
Ditch	335°06'	135.0	11.0	14.2' ✓
	335°06'	140.0	8.3	16.9' ✓
	351°36'	154.0	10.2	15.0' ✓
Ditch	351°36'	159.0	13.2	12.0' ✓
	351°36'	164.0	11.1	14.1'
	6°05'	192.0	13.8	11.4'
Ditch	6°05'	197.0	14.8	10.4' ✓
	6°05'	201.0	14.2	11.0' ✓
Δ #8	58°29'	145.0		
T.P.	5.20	1017.23	13.14	1012.03
Transit of Point #8				
Fc.	221°10'	37.0	4.6	12.6' ✓
"	66°56'	24.0	5.2	12.0' ✓
Fc.	326°45'	51.0	6.9	10.3' ✓
"	10°10'	64.0	7.4	09.8
Fc. Swamp	344°11'	110.0	7.8	09.4
" "	3°33'	90.0	8.0	09.2
"	349°15'	165.0	8.6	08.6



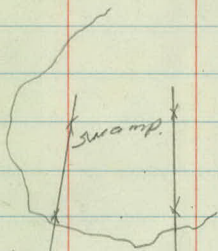
Sta.	Azimuth	Dist	Red.	Elev.
F.C.	356°17'	1017.23 170.0	8.7	08.5
"	355°12'	189.0	10.5	06.7
"	351°41'	210.0	9.9	07.3

Check on pt. *Sweep Continues*
 Δ ^{sta.} / 2450 0°00'

T.P.	11.23	1026.89	1.57	1015.66
B.M.			4.65	1022.24 (1022.15)

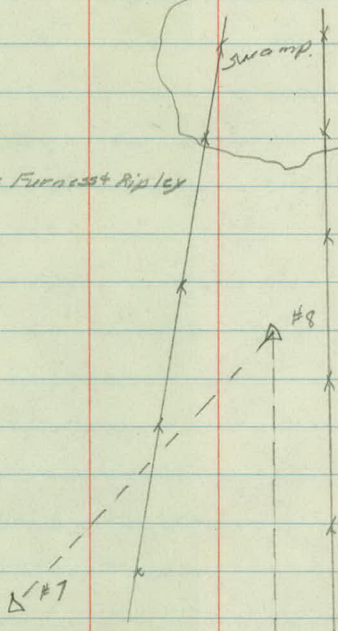
Transit at sta 3t 19 Base Line

B.M.	4.15	1026.30		(1022.15)
	3°30'	150.0	9.2	17.1 ✓
	355°03'	140.0	5.4	20.9 ✓
	351°00'	142.0	6.3	20.0 ✓
	11°10'	100.0	7.2	19.1 ✓
	1°18'	93.0	4.8	21.5 ✓
	348°12'	86.0	7.5	18.8 ✓
	15°49'	62.0	4.9	21.4 ✓
	0°55'	51.0	5.4	20.9 ✓
	345°00'	42.0	7.2	19.1 ✓
B.M.			4.15	1022.15



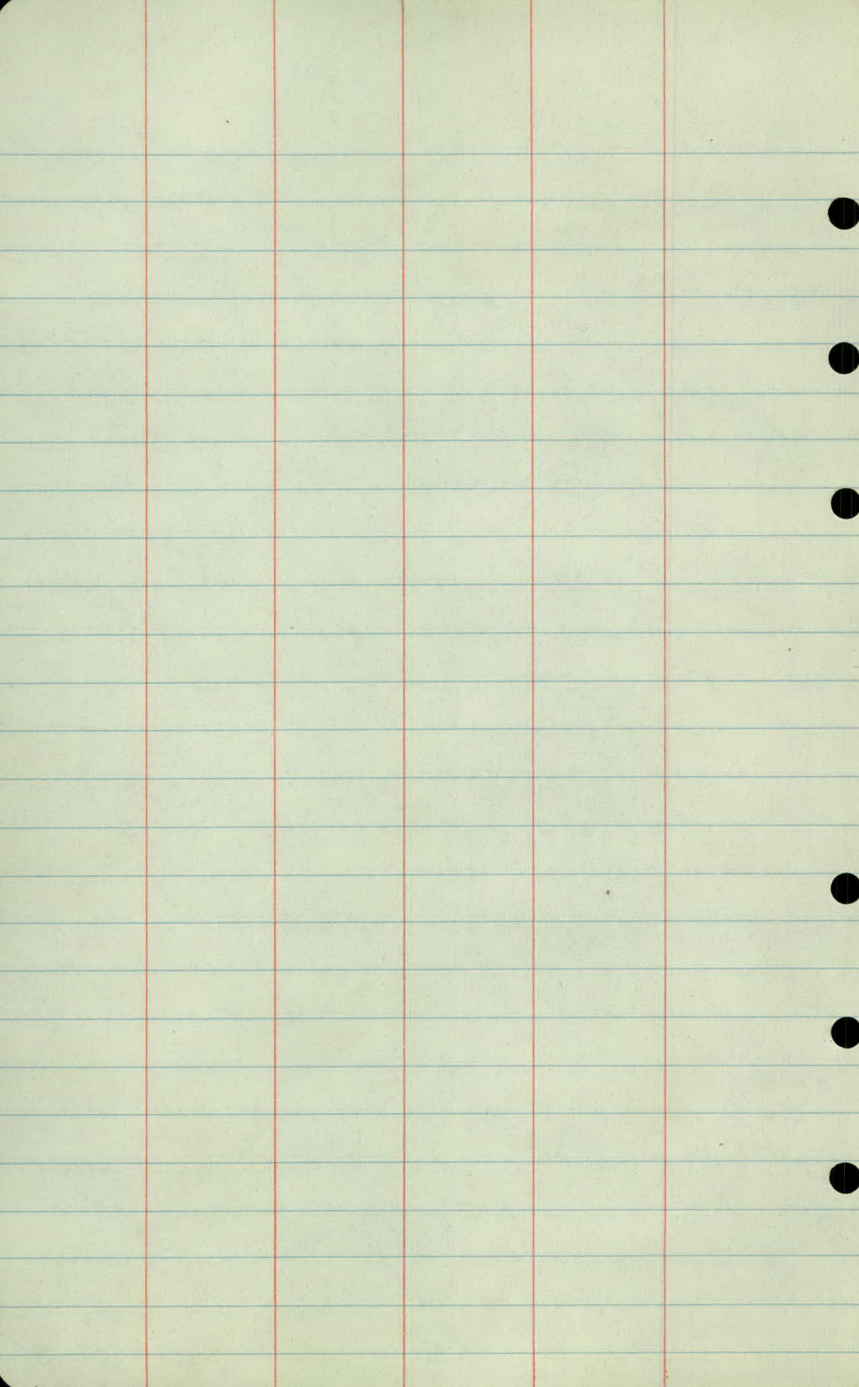
Top Breather Pipe Furness + Ripley

Top Breather Pipe



Top Breather Pipe

Δ #1



1938

Align

St R.R Trs.

"C" Line

Sta.	Point	$\Delta H.$	$\Delta R.$
------	-------	-------------	-------------

19460.66	P.T.		
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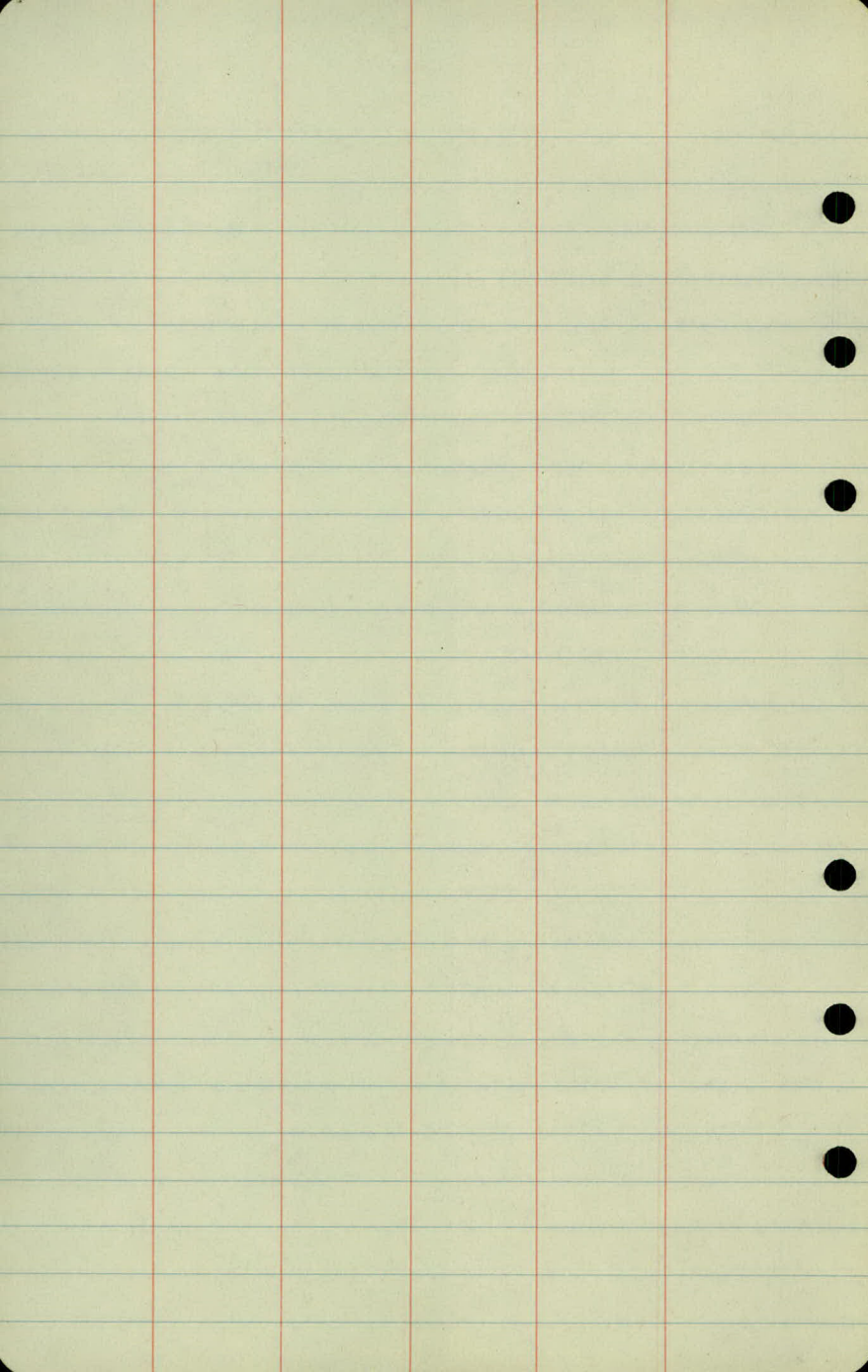
$\Delta 48^{\circ} 01'$

T-637.65-M.

1460.18	P.C.		
---------	------	--	--

$0+00 = 65+54.75 \text{ warp AVE.}$

$54^{\circ} 10'$
E. Lat. Arc.



✓
St. R.R. Track

X Sections

"C" Line

Sta	+	A	-	Elev.
B.M.	10.67	1018.46		1007.79

0 +63

1 +80

I.P.	8.34	1018.93	787	1010.59
------	------	---------	-----	---------

2 +50

3 +00

3 +50

4 +00

+50

5 +00

5+00

6 +00

I.P.	8.33	1021.30	596	1012.97
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7

8

Rain

Lt

£

Rt

Spt in T.R.N.W. Cor. Laga & R. Tracks:

02.1	02.4	08.0	08.6	07.6	03.8	03.8	05.5
16.4	16.1	10.5	9.9	11.0	14.7	14.7	18.0
30	15	6	9	12	14	15	50

01.1	04.6	08.5	09.5	08.9	05.5	05.5	08.8	10.5	20.6
1.74	1.40	1.00	9.0	9.6	13.0	13.0	9.7	20	12.0
50	26	13	7	12	13	14	24	50	

03.7	06.5	09.6	10.0	10.3	06.1	06.1	08.6	09.9	13.6
15.2	12.9	9.3	8.9	8.6	12.5	12.8	10.3	9.0	5.3
43	12	6	7	13	14	16	21	30	

10.3	10.4	06.5	05.1	03.9	08.1
8.6	8.3	12.9	13.8	15.0	14.8
6	14	17	21	15	

03.8	05.1	10.0	10.6	10.8	08.4	05.3	04.1	03.9
15.1	13.8	8.9	8.3	8.1	10.5	12.6	14.8	15.0
38	16	7	6	12	16	20	40	

05.0	07.3	10.8	11.1	11.1	06.8	06.6
13.9	11.6	8.1	7.8	7.8	12.1	12.3
50	12	7	7	15	34	

12.4	10.1	08.5	08.5	11.0	11.5	11.7	09.6	09.6	16.1	15.1
6.5	2.8	10.9	10.9	7.9	7.9	7.2	9.3	8.3	2.8	3.8
50	17	11	8	5	6	10	11	18	50	

15.6	08.5	04.5	11.5	11.9	12.0	09.5	09.8	13.3	12.1
5.4	10.4	10.4	7.9	7.0	6.9	9.1	9.1	5.6	6.8
20	10	9	6	6	10	11	16	50	

12.1	12.7	09.9	09.9	12.1	12.5	12.5	10.4	10.4	13.9	12.5	13.5
4.8	6.2	9.0	9.0	6.8	6.4	6.4	8.5	8.5	5.0	6.6	5.4
50	13	10	9	6	6	10	12	16	21	50	

15.3	11.0	10.5	10.5	12.9	13.3	13.4	12.2	12.2	20.0	19.4
6.0	3.3	10.8	10.8	8.0	7.7	7.7	9.1	9.1	1.3	1.9
50	18	10	9	6	7	10	11	24	50	

12.1	15.1	10.9	10.4	13.4	13.7	13.9	11.4	11.4	14.7	12.8
8.2	6.2	10.4	10.9	7.9	7.6	7.4	9.9	9.9	7.1	8.5
50	14	10	8	6	7	10	11	14	50	

Sta	+	X	-	Elev.
		1021.20		

0	+50			
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	+60			
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1	+00			
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T.P.	5.58	1020.22	6.96	1019.34
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4				
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12				
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B.M.			456	1015.66
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Lt

E

Rt

11.4	11.4	12.9	10.6	10.6	13.4	13.9	14.8	11.3	11.3	12.6	12.7
<u>9.9</u>	<u>9.7</u>	<u>8.4</u>	<u>10.7</u>	<u>10.7</u>	<u>7.9</u>	<u>7.4</u>	<u>7.3</u>	<u>10.0</u>	<u>10.0</u>	<u>8.7</u>	<u>8.6</u>
50	27	14	11	9	6		7	14	14	18	50

10.6	10.8	13.3	13.7	13.8	11.2	11.2	11.4	11.4
<u>10.7</u>	<u>10.5</u>	<u>8.0</u>	<u>7.6</u>	<u>7.5</u>	<u>10.1</u>	<u>10.1</u>	<u>9.9</u>	<u>9.9</u>
22	10	6		7	14	29	50	100

13.5	11.5	10.7	10.3	13.3	13.9	14.1	10.4	10.7	10.2	11.3
<u>7.8</u>	<u>9.8</u>	<u>10.6</u>	<u>11.0</u>	<u>8.0</u>	<u>7.4</u>	<u>7.2</u>	<u>10.9</u>	<u>10.6</u>	<u>11.1</u>	<u>10.0</u>
100	54	23	9	6	6	18	50	100	150	

13.1	11.2	11.1	13.5	13.9	14.3	11.2	10.1	12.2	11.9
<u>8.2</u>	<u>10.1</u>	<u>10.2</u>	<u>7.8</u>	<u>7.4</u>	<u>7.0</u>	<u>9.6</u>	<u>11.6</u>	<u>9.1</u>	<u>9.1</u>
100	50	10	7	7	11	50	Water	150	

12.3	11.4	11.1	13.6	13.9	14.1	11.2	10.4	11.0	12.0
<u>7.9</u>	<u>8.8</u>	<u>9.1</u>	<u>6.6</u>	<u>6.3</u>	<u>6.1</u>	<u>9.0</u>	<u>9.8</u>	<u>9.2</u>	<u>8.2</u>
100	50	12	6	7	10	50	100	150	

13.1	10.8	10.5	11.8	11.5	13.9	14.3	14.5	11.9	12.2	14.4	20.7
<u>7.1</u>	<u>9.9</u>	<u>9.7</u>	<u>8.4</u>	<u>8.7</u>	<u>6.3</u>	<u>5.9</u>	<u>5.7</u>	<u>8.3</u>	<u>8.0</u>	<u>5.8</u>	<u>10.5</u>
200	150	100	50	11	6	6	12	50	100	150	

RD #7 Howard Ave.

5/10

+

π

-

E/cv



X Sections

"C" Line

Sta	+	π	-	Elev.
B.M.	0.10	1022.25		(1022.15)

12 +50

13

+50

14

+50

15

+50

16

Top Breather Pipe Furness & Ripley

14		4		24	
14.0	50	13.3	27	10.5	27
12.1	12	10.2	12	13.6	8
10.2	6	9.0	6	13.2	8
10.3	14	13.0	14	10.3	14
13.7	9	13.1	9	13.7	9
13.8	15	13.8	15	13.8	15
14.0	8	14.0	8	14.0	8
13.3	6	13.3	6	13.3	6
13.7	9	13.7	9	13.7	9
14.2	11	14.2	11	14.2	11
13.3	8	13.3	8	13.3	8
14.5	18	14.5	18	14.5	18
14.7	1	14.7	1	14.7	1
13.1	9	13.1	9	13.1	9
14.8	14	14.8	14	14.8	14
14.2	22	14.2	22	14.2	22
14.8	50	14.8	50	14.8	50
16.1	50	16.1	50	16.1	50
17.8	27	17.8	27	17.8	27
15.0	16	15.0	16	15.0	16
12.3	12	12.3	12	12.3	12
14.2	8	14.2	8	14.2	8
14.5	18	14.5	18	14.5	18
14.7	6	14.7	6	14.7	6
13.4	9	13.4	9	13.4	9
16.9	13	16.9	13	16.9	13
15.9	27	15.9	27	15.9	27
17.8	50	17.8	50	17.8	50
15.0	50	15.0	50	15.0	50
15.4	15	15.4	15	15.4	15
12.8	10	12.8	10	12.8	10
14.3	6	14.3	6	14.3	6
14.4	17	14.4	17	14.4	17
14.7	6	14.7	6	14.7	6
13.6	8	13.6	8	13.6	8
15.5	13	15.5	13	15.5	13
16.4	29	16.4	29	16.4	29
19.6	50	19.6	50	19.6	50
18.5	50	18.5	50	18.5	50
13.4	50	13.4	50	13.4	50
12.8	33	12.8	33	12.8	33
13.4	13	13.4	13	13.4	13
12.3	10	12.3	10	12.3	10
13.8	6	13.8	6	13.8	6
14.2	18	14.2	18	14.2	18
14.3	6	14.3	6	14.3	6
13.6	8	13.6	8	13.6	8
15.5	13	15.5	13	15.5	13
16.4	29	16.4	29	16.4	29
19.6	50	19.6	50	19.6	50
13.6	50	13.6	50	13.6	50
12.5	23	12.5	23	12.5	23
13.2	12	13.2	12	13.2	12
12.1	9	12.1	9	12.1	9
13.8	6	13.8	6	13.8	6
14.0	8	14.0	8	14.0	8
14.0	13	14.0	13	14.0	13
13.1	10	13.1	10	13.1	10
15.6	13	15.6	13	15.6	13
15.6	28	15.6	28	15.6	28
12.9	50	12.9	50	12.9	50
12.1	28	12.1	28	12.1	28
12.8	12	12.8	12	12.8	12
11.4	10	11.4	10	11.4	10
13.3	9	13.3	9	13.3	9
13.8	15	13.8	15	13.8	15
14.0	8	14.0	8	14.0	8
13.7	9	13.7	9	13.7	9
13.0	14	13.0	14	13.0	14
15.5	19	15.5	19	15.5	19
15.1	28	15.1	28	15.1	28
14.0	14	14.0	14	14.0	14
14.6	31	14.6	31	14.6	31

Sta.	+	π	-	Elev.
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1022.25

16 450

17

T.P.	3.37	1017.83	7.79	1014.46
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17 450

18

150

19

450

20

T.P.	874	1022.43	4.14	1013.69	
B.M.			0.25	1022.18	1022.15

47.

天

RF.

$$\begin{array}{r} 8 \\ 07. \\ \hline 145 \\ 35 \end{array} \quad \begin{array}{r} 4 \\ 08. \\ \hline 138 \\ 23 \end{array}$$
$$\begin{array}{r} 13.0 \\ 2 \overline{) 26} \\ \underline{26} \\ 0 \end{array}$$
$$\begin{array}{r} 13.4 \\ 89 \overline{) 1191.2} \\ \underline{712} \\ 479 \\ 89 \overline{) 4790} \\ \underline{712} \\ 3670 \\ 89 \overline{) 3670} \\ \underline{356} \\ 110 \\ 89 \overline{) 1100} \\ \underline{89} \\ 210 \\ 89 \overline{) 2100} \\ \underline{178} \\ 320 \\ 89 \overline{) 3200} \\ \underline{316} \\ 40 \end{array}$$

09.4

$$\begin{array}{r} 14.6 \\ 21 \overline{) 07.7} \end{array}$$
$$\begin{array}{r} 08.8 \\ 13.5 \\ \hline 14 \end{array} \quad \begin{array}{r} 12.9 \\ 9.4 \\ \hline 8 \end{array} \quad \begin{array}{r} 13.4 \\ 8.9 \\ \hline \end{array}$$
$$\begin{array}{r} 13.2 \\ \times 9 \\ \hline 118 \\ 108 \\ \hline 118.8 \end{array}$$
$$\begin{array}{r} 97 \\ 17 \overline{) 1708.1} \\ \underline{154} \\ 168 \\ \underline{154} \\ 148 \\ \underline{140} \\ 81 \\ \underline{77} \\ 41 \\ \underline{40} \\ 10 \\ \underline{10} \\ 0 \end{array}$$
$$\begin{array}{r} 13.2 \\ 6 \overline{) 46} \end{array}$$

25/09.5

$$\begin{array}{r} 10.1 \\ 2.7 \\ \hline 14 \end{array} \quad \begin{array}{r} 12.9 \\ 4.1 \\ \hline 17 \end{array}$$
$$\begin{array}{r} 13.1 \\ 47 \overline{) 615} \\ \underline{91} \\ 205 \\ \underline{205} \\ 0 \end{array}$$
$$\begin{array}{r} 88 \\ 26 \overline{) 2308} \\ \underline{208} \\ 228 \\ \underline{208} \\ 200 \\ \underline{182} \\ 180 \\ \underline{182} \\ 0 \end{array}$$
$$\frac{6.2}{17} = 11.6$$
$$\begin{array}{r} 10.2 \\ 16 \overline{) 163.2} \\ \underline{160} \\ 3.2 \\ \underline{32} \\ 0 \end{array}$$
$$\begin{array}{r} 48 \\ \hline 7 \end{array} \quad \begin{array}{r} 48 \\ \hline 7 \end{array} \quad \begin{array}{r} 85 \\ \hline 15 \end{array} \quad \begin{array}{r} 83 \\ \hline 28 \end{array}$$
$$\begin{array}{r} 10.6 \\ 72 \\ \hline 20 \end{array}$$

15/10/09, 9
11/12/08

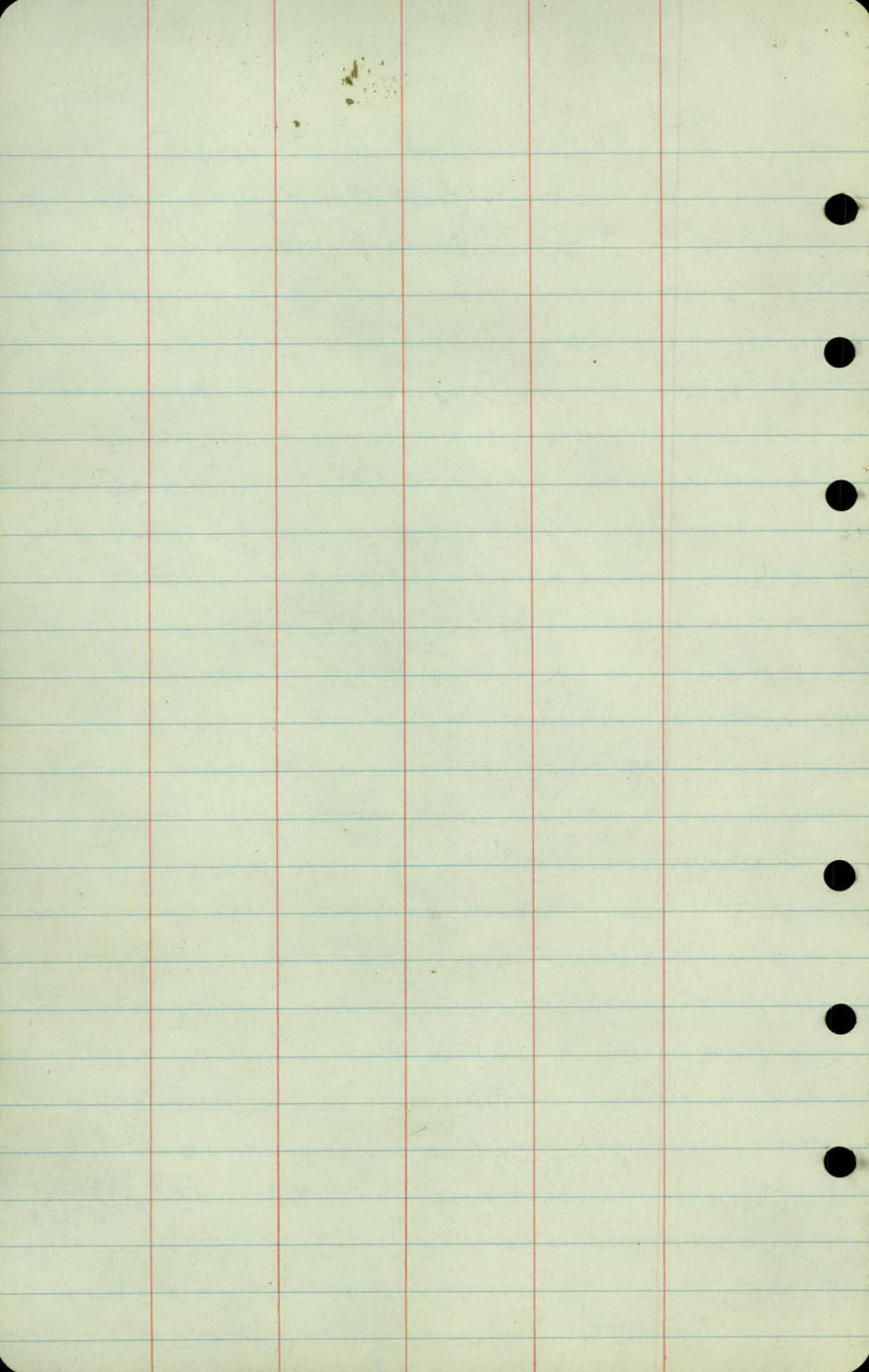
$$\begin{array}{r} 4.9 \\ \hline 9 \end{array} \quad \begin{array}{r} 12.9 \\ \hline 9 \end{array} \quad \begin{array}{r} 5.3 \\ \hline 9 \end{array} \quad \begin{array}{r} 12.5 \\ \hline 9 \end{array} \quad \begin{array}{r} 8.5 \\ \hline 14 \end{array} \quad \begin{array}{r} 09.3 \\ \hline 14 \end{array} \quad \begin{array}{r} 7.7 \\ \hline 18 \end{array} \quad \begin{array}{r} 10.10 \\ \hline 18 \end{array}$$
$$\begin{array}{r} 86 \\ 15 \overline{) 1356} \\ \underline{120} \\ 156 \\ \underline{150} \\ 60 \\ \underline{60} \\ 0 \end{array}$$
$$\begin{array}{r} 5 \overline{) 12.7} \\ 10 \\ \hline 27 \\ 25 \\ \hline 2 \end{array}$$

6.609

$$\begin{array}{r} 08.2 \\ 9.6 \\ \hline 30 \end{array}$$

$\frac{8}{14}$ 09.0
 $\frac{6}{8}$ 11.7

$$\begin{array}{r} 12.2 \\ \times 86 \\ \hline 732 \\ 976 \\ \hline 1055.2 \end{array}$$
$$\begin{array}{r} 80 \\ 15 \overline{) 1200} \\ \underline{120} \\ 0 \end{array}$$



Location of Pump Ho.

Berbe Prop.

Sta. Azimuth Dist. Elevation

Transit pt #4

I.P. 7.66 1080.39

1012.68

Cor Pump 350°02' 6' 7.6

" " 357°58' 16' 8.2

" " 140°25' 17' 7.6

" " 33°02' 7' 7.6

Top Large Rock.

