
FIELD BOOK

740

TABLE FOR REDUCING PERCHES TO FEET AND INCHES.

RETURN TO
COUNTY ENGINEER
COURT HOUSE, CHARDON

PERCH	FEET.	PERCH.	FEET.	PERCH.	FEET.	PERCH.	FEET.	PERCH.	FEET.
1	16.6 in.	21	3.46 6 in.	41	6.76 6 in.	61	10.06 6 in.	81	13.36 6 in.
2	33.0	22	3.63.0	42	6.93.0	62	10.23.0	82	13.53.0
3	49.6	23	3.79.6	43	7.09 6	63	10.39 6	83	13.69.6
4	66.0	24	3.96.0	44	7.26.0	64	10.56.0	84	13.86.0
5	82.6	25	4 12.6	45	7.42.6	65	10.72.6	85	14.02.6
6	99.0	26	4.29.0	46	7.59.0	66	10.89.0	86	14.19.0
7	1.15.6	27	4.45.6	47	7.75.6	67	11.05.6	87	14.35.6
8	1.32.0	28	4.62.0	48	7.92.0	68	11.22.0	88	14.52.0
9	1.48.6	29	4.78.6	49	8.08.6	69	11.38.6	89	14.68.6
10	1.65.0	30	4.95.0	50	8.25.0	70	11.55.0	90	14.85.0
11	1.81.6	31	5 11.6	51	8.41.6	71	11.71.6	91	15.01.6
12	1.98.0	32	5.28.0	52	8.58.0	72	11.88.0	92	15.18.0
13	2.14.6	33	5.44.6	53	8.74.6	73	12.04.6	93	15.34.6
14	2.31.0	34	5.61.0	54	8.91.0	74	12.21.0	94	15.51.0
15	2.47.6	35	5.77.6	55	9.07.6	75	12.37.6	95	15.67.6
16	2.64.0	36	5.94.0	56	9.24.0	76	12.54.0	96	15.84.0
17	2.80.6	37	6.10.6	57	9.40.6	77	12.70.6	97	16.00.6
18	2.97.0	38	6.27.0	58	9.57.0	78	12.87.0	98	16.17.0
19	3.13.6	39	6.43.6	59	9.73.6	79	13.03.6	99	16.33.6
20	3.30.0	40	6.60.0	60	9.90.0	80	13.20.0	100	16.50.0

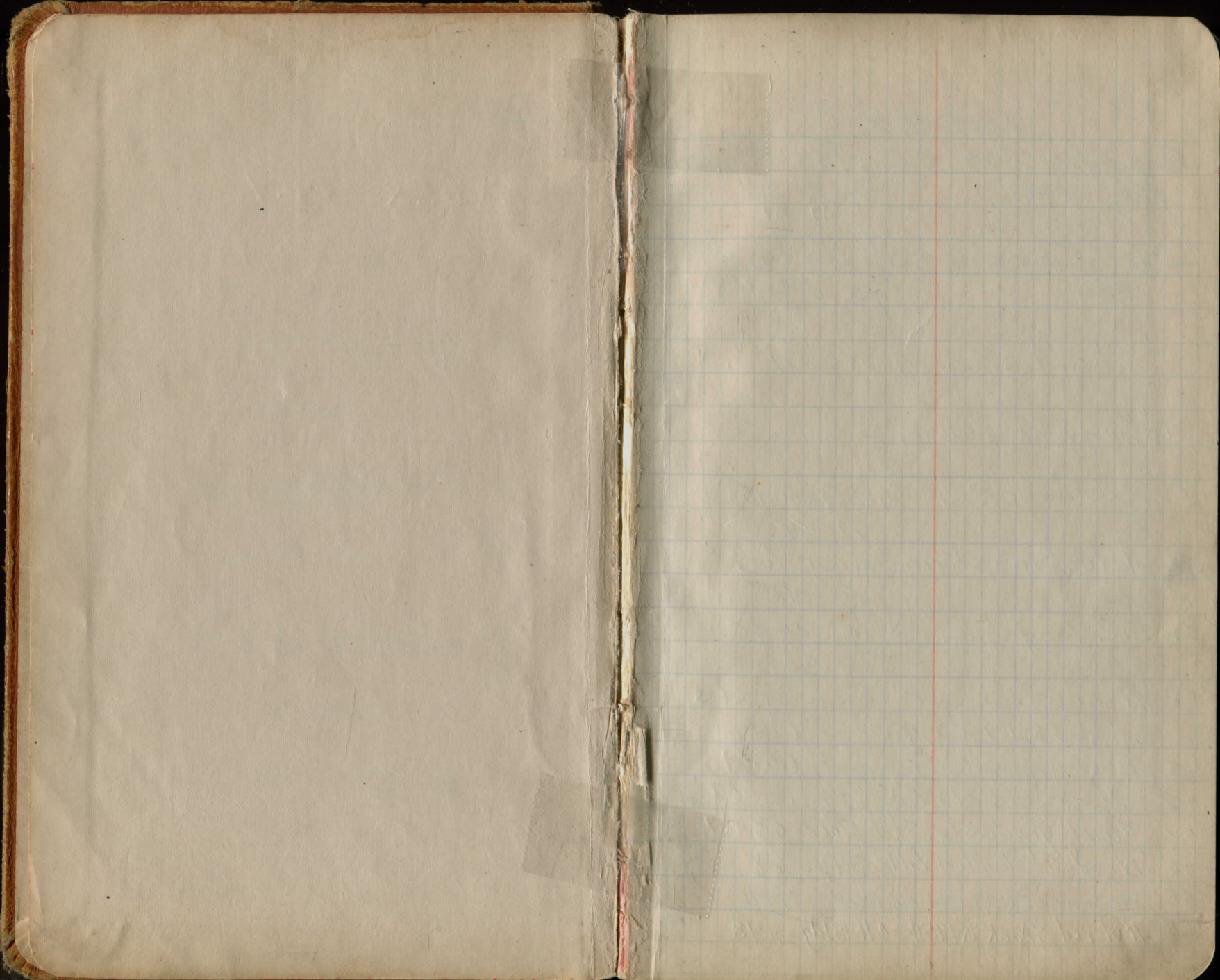
B. K. ELLIOTT COMPANY, PITTSBURG, PA.

DRAWING MATERIALS AND SURVEYING INSTRUMENTS

JHAY

INDEX pg. 1

2837
1936
2837



INDEX

Goodwin Ave & Burton-Windsor
Rd 1922 Pgs 2-26 ✓
49-52

South Cheshire St. Burton Vill.
1920 Pgs. 39-48 ✓

¹⁹⁵¹ FAIRGROUND LOCATIONS Pgs 54-¹⁹⁵² 27 ✓

¹⁹⁵¹ ROBINSON Rd. H.* 76 Pg 55 ✓

'52 ENTRANCE C FAIR GROUNDS ✓
27-29

'52 Actual 10" storm sewer loc ✓
30-31

'52 Loc lamp-holes to 10" sewer ✓
53

'52 1/2 mi. stock car track grades ✓
58, 59, 62, 63

'52 levels inside G Stand 60-61 ✓

'52 drainage NW 1/2 mi 64 ✓

'52 Final grades G. Std floor 65-67 ✓

'52 West St Burton Vill & Twp 68 ✓

'55 San. Sewer Ext. (S. end old track) pg. 71 ✓

'55 Hot-rod track & 1954-4H Bldg " 73 ✓

RAINS
KENNEY

GOODWIN AVE. TRANSIT NOTES
FROM N. CHESHIRE ST. TO
CORPORATION LINE

7

+68.1 P.O.T. TACKED HUB

6

5

4

3

2

+53.4 TACKED HUB - ANGLE 1°6' RIGHT

1

0 TACKED STAKE - OFFSET - 18'

ALL STAKES SET 18' NORTH OF
C OF ROAD

2

TACK ON CHERRY

x 5'10"
ON WALK

18'

6+67

HICKOX ST.

6+17

18' — +

+ 16'

F.C. WOODARD

15' — +

RALPH HINCKLEY

4+60 PL.

15' — +

NEAL OSBORNE

3+95

15' — +

3+70 PL

H.E. LEACH

3+29 PL

17' — +

FRANK BATES

II. OSBORNE

2+91

2+39 - PL

17' — +

x 2'1 1/2"
ON WALK

46' 5 1/2"

VARNER
BORN

17' — +

0+00 PL

0+06 PL

18'

x on walk 240-005

10'10'
Curve

Curve

0-20

18'

check 10'

15

East Cox Cem. Block
Post 8" from Ground.

14

43.9
22.35
22.15
11.65
Iron upright
bar nearest
Angle iron
Fence Erected
with full length
Large headed Tack in S.S.
Small Nail
Large Heavy Tack
Tel Pole
N.S.

Extremal should not be over 6'

13

+ 16.6 P.S.

+ 14.8 TACKED HUB $\angle 34^{\circ} 30' L$

12

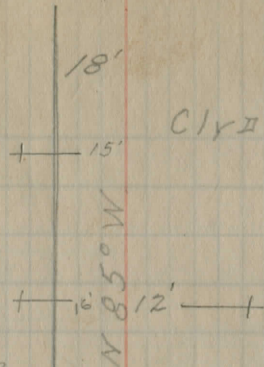
P Scherrel $34^{\circ} 14'$ used Hanna's
Line from Cemetery Easterly
& made intersection

11

10

9

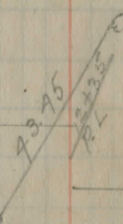
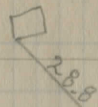
8



CLYDE TRASK

EXTREME TOP
COR. CONCRETE POST

12+27



TACK ON APPLE TREE

BEN OWEN

12+17 P.L.

CEMETERY

WARNER BARBER

9+70 P.L.

J. PARKER

18'

24

PL 23+305

18'

H. ALEXANDER

22+62 P.L.

23

PL 22+56

C. & E. R. R.

C. & E. R. R.

PL 22+26

22+12 P.L.

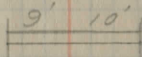
22

R. L. SMITH

JENNY FINNEY

21

STA 20+10



3x4 S. CULVERT

TACK ON COR. POST

20

using Hanna's
P. Scherrer 1° 14' observed. offset stake



+53.3 TACKED HUB. L 1° 25' RIGHT

23.0'

TACK ON APPLE TREE
50.93'

TACK ON STUMP

19

+ 16'

18

+ 16'

17

16+41 P.L.

+ 16' 15' +

16

18' CLYDE TRASK

Sept 14, 1922 $\frac{17.2}{21.2}$

Δ at Cemetery $34^{\circ}14'$

Use 36° Curve $R = 161.803$ $\text{Log } R = 2.208988$
 $\text{Log } \tan 17^{\circ}07' = 2.478972$

$\frac{1}{2} \Delta = 17^{\circ}07'$

$\frac{1.697480}{49.83}$

ex. $\Delta = 17^{\circ}07' = 0.04635$

$\frac{161.803}{13905}$
 $\frac{370800}{6350}$
27810
 $\frac{4635}{7.49956905}$

$18^{\circ} - 100$
 $9^{\circ} - 50$
 $17^{\circ}30'$

$\frac{2.208988}{2.666006}$
 $\frac{0.874994}{7.4989}$

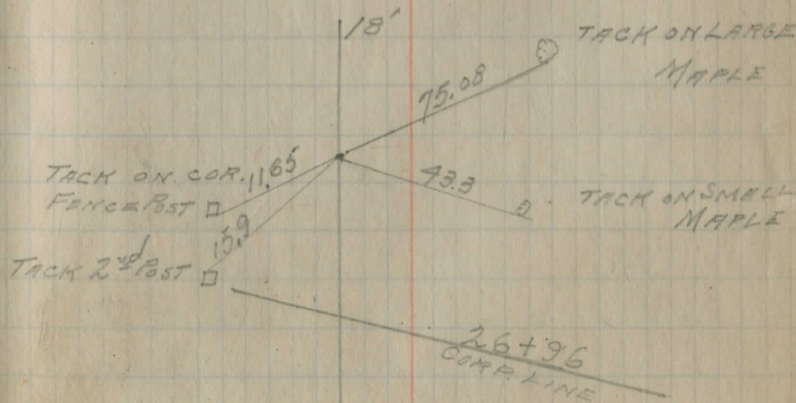
+17.2 TACKED HUB P.O.T.

27

26

25

NOTE! NO TREES WITHIN 20' OF Δ
WITHIN CORPORATION



H. JOHNSON

JENNY FINNEY

GOODWIN AVE. BENCH NOTES

B.M.	F.S.	B.S.	ELEV.
B.M.			1338.00
H.I.		0.65	1338.65
T.P.	2.94		1335.71
H.I.		0.38	1336.09
T.P.	9.54		1326.55
H.I.		1.42	1327.97
B.M.	486		1323.11
T.P.	11.00		1316.97
H.I.		0.39	1317.36
B.M.	270		1314.66
T.P.	10.65		1306.71
H.I.		0.20	1306.91
B.M.	810	8.10	1298.81
H.I.		0.12	1298.93
T.P.	9.48		1289.45
H.I.		0.92	1290.37
B.M.	6.07	6.07	1284.30
T.P.	8.36		1282.01
H.I.		1.21	1283.22
T.P.	9.94		1273.28
H.I.		4.60	1277.88
B.M.	0.93		1276.95

ON TOWN HALL

N.W. COR. OF M TOLLES STONE STEP
50' OF 0+50

BASE OF S.E. COR. BOARD OF BATES HOUSE

N.E. COR. OF WATERING TROUGH

X ON FOUNDATION OF EAST DRIVEWAY PILLAR

BASE OF S.E. COR. BOARD - J. FINNEY HOUSE

	F. S	B. S.	ELEV.
T.P.	11.85		126603
H.I.		0.37	126640
T.P.	10.10		125630
H.I.		0.57	125687
B.M.	3.57		125330
T.P.	9.67		124720
H.I.		0.94	124814
B.M.	5.80		124234
T.P.	1.80		124634
H.I.		8.86	125520
B.M.	1.78		125342

BASE OF N.W. COR. BOARD SMITH HOUSE

X ON EAST END OF SOUTH PARAPET
C&E RAIL ON E

BASE OF S.E. COR. BOARD OF ALEXANDERS

Total	<u>105.21</u>	<u>20.63</u>
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1338.00
 105.21
 1232.79
 20.63
 1253.42

GOODWIN AVE - CROSS-SECTION NOTES

STA.	B.S.	H	I	F.S.	ELEV.
B.M.	345	1326	56		1323.11
0-40				6.4	
0-41				5.3	1321.26
0					1320.9
1				3.8	1321.3
				2.2	
2				3.3	1319.4
+50					1316.8
T.P.	1.77	1317	89	10.44	1316.12
3					1313.7
B.M.				3.25	1314.64
T.P.	0.95	1308	82	10.52	1307.37
4					1306.4
				2.5	

N.

E

S.

10

N.W. COR. OF M. TOLLES FRONT STONE STEP
 CENTER LINE N. CHESHIRE ST.
 EAST END OF PAVEMENT APPROACH - GOODWIN ST.

4.7	4.6	5.4	5.7	5.7	5.2	4.1	2.0	2.7
20.0	18.0	13.0	8.0	0.0	8.0	15.0	20.0	25.0

3.7	4.3	6.0	5.4	5.3	5.2	5.5	3.4	1.5
20.0	18.0	14.0	11.0	0.0	5.0	10.0	17.0	24.0

1+10 DRIVE

DRIVE 1+50

6.1	7.0	7.9	7.4	7.2	7.2	7.0	7.3	4.4	3.8
20.0	18.0	14.0	11.0	5.0	0.0	7.0	10.0	14.0	20.0

1+85 - BARN ENTRANCE

8.3	9.1	10.0	9.8	9.7	9.8	9.5	9.4	9.7	7.0	6.4
20.0	18.0	13.0	9.0	4.0	0.0	6.0	9.0	12.0	16.0	23.0

2.7	3.2	5.5	4.1	4.2	4.3	3.9	4.5	2.8	1.0
22.0	18.0	14.0	9.0	0.0	4.0	7.0	11.0	15.0	21.0

BASE OF S.E. COR. BOARD - BATES HOUSE AT 3+90

0.6	2.6	2.9	2.0	1.9	1.8	2.6	1.4	0.0
25.0	18.0	13.0	9.0	0.0	9.0	13.0	16.0	22.0

DRIVE 4+50

STA B.S. H. I F. S. ELEV.
 1308 32 1301.0

5

6

B.M. 0.70 1299 18

58

1297.6

9.54 1298.78

2.8

6.3

1.8

7

1294.9

5.2

8

1291.4

6.8

T.P. 1.65 1291 68

9.15 1290.03

9

1288.4

3.7

N.

E

S.

$\frac{6.6}{24.0}$ $\frac{7.6}{18.0}$ $\frac{8.5}{14.0}$ $\frac{7.9}{10.0}$ $\frac{7.3}{0.0}$ $\frac{7.0}{8.0}$ $\frac{8.0}{12.0}$ $\frac{7.1}{17.0}$ $\frac{5.6}{22.0}$

DRIVE 5+15

$\frac{11.2}{24.0}$ $\frac{11.5}{18.0}$ $\frac{11.6}{13.0}$ $\frac{11.1}{9.0}$ $\frac{10.7}{0.0}$ $\frac{10.3}{6.0}$ $\frac{10.6}{12.0}$ $\frac{11.6}{15.0}$ $\frac{9.8}{23.0}$

N.E. COR OF WATERING TROUGH - 6+25

CENTER OF HICKOX ST 6+50 on E

" " " 100' N.

" " " 100' S.

$\frac{4.7}{22.0}$ $\frac{5.5}{18.0}$ $\frac{5.6}{15.0}$ $\frac{4.4}{12.0}$ $\frac{4.3}{0.0}$ $\frac{4.3}{15.0}$ $\frac{6.0}{20.0}$ $\frac{4.7}{23.0}$

DRIVE 7+50

$\frac{5.4}{23.0}$ $\frac{7.0}{18.0}$ $\frac{8.1}{15.0}$ $\frac{7.8}{13.0}$ $\frac{7.8}{0.0}$ $\frac{7.6}{9.0}$ $\frac{6.8}{17.0}$ $\frac{8.2}{21.0}$ $\frac{6.8}{23.0}$

DRIVE 8+10

$\frac{1.1}{23.0}$ $\frac{2.6}{18.0}$ $\frac{4.0}{15.0}$ $\frac{3.3}{12.0}$ $\frac{3.3}{0.0}$ $\frac{3.1}{15.0}$ $\frac{3.5}{18.0}$ $\frac{2.3}{22.0}$

DRIVE 9+80

Note: The last reading on Right is on outer edge of sidewalk from 0 to Sta. 6

N. £ S.

S STA. BS. H. I. FS ELEV.

10 1286.5

$\frac{4.2}{25.0} \frac{5.2}{18.0} \frac{6.0}{16.0} \frac{5.2}{11.0} \frac{5.2}{0.0} \frac{5.5}{9.0} \frac{5.3}{15.0} \frac{6.7}{19.0} \frac{5.7}{22.0}$

+60 1285.0

$\frac{6.0}{25.0} \frac{6.6}{18.0} \frac{7.9}{15.0} \frac{6.9}{12.0} \frac{7.1}{6.0} \frac{6.7}{0.0} \frac{6.7}{10.0} \frac{7.0}{17.0} \frac{7.4}{20.0} \frac{7.0}{23.0}$

11 1282.6

$\frac{8.5}{26.0} \frac{7.5}{18.0} \frac{9.4}{15.0} \frac{9.1}{11.0} \frac{9.1}{0.0} \frac{9.3}{11.0} \frac{8.9}{15.0} \frac{9.0}{18.0} \frac{8.5}{22.0}$

Note BM 202 1284.26 7.44 1284.24

X ON FOUNDATION EAST PILLAR CEMETERY DRIVE

12 1278.7

$\frac{1.7}{23.0} \frac{2.0}{20.0} \frac{5.3}{15.0} \frac{5.8}{13.0} \frac{5.6}{0.0} \frac{5.2}{6.0} \frac{5.6}{8.0} \frac{4.0}{12.0} \frac{4.5}{20.0}$

Note The last reading on left at each station from 8 to 12 is outer edge on side walk

13 1274.7

$\frac{6.2}{20.0} \frac{7.4}{18.0} \frac{9.1}{15.0} \frac{10.0}{12.0} \frac{9.5}{9.0} \frac{9.6}{0.0} \frac{9.6}{8.0} \frac{10.0}{9.0} \frac{9.5}{17.0}$

T.P. 1.15 1275.70 9.69 1274.55

14 1271.0

$\frac{2.4}{20.0} \frac{2.6}{18.0} \frac{4.1}{15.0} \frac{4.7}{13.0} \frac{4.7}{0.0} \frac{4.7}{9.0} \frac{3.9}{11.0} \frac{4.0}{17.0}$

15 1268.2

$\frac{2.9}{20.0} \frac{6.6}{12.0} \frac{7.8}{10.0} \frac{7.3}{8.0} \frac{7.5}{0.0} \frac{7.6}{5.0} \frac{8.9}{8.0} \frac{6.5}{15.0} \frac{6.7}{20.0}$

5.8

DRIVE 15+30

B.M. 1.03 1279.69

BASE OF N.E. COR BOARD TRASH HOUSE

N.

£

S.

STA. B.S. H. I. F.S. ELEV.

T.P. 0.48 1266.40 9.78 1265.92

16 1262.4

17 1258.4

T.P. 2.30 1257.76 10.94 1255.46

18 1253.7
7.0

+50 1250.6

B.M. 452 1253.24

T.P. 3.52 1252.28 9.00 1249.76

19. 1246.7

B.M. 4.18 1246.45 10.01 1242.27

20 1242.5

20+10 Culvert 1242.0

(-1.8) 0.0 3.6 7.5 4.2 4.0 4.1 5.0 4.5 2.0 1.8
21.0 18.0 11.0 10.0 6.0 0.0 7.0 12.0 14.0 17.0 20.0

4.3 5.7 7.8 8.6 8.3 8.0 8.1 9.9 8.5 6.8
20.0 18.0 14.0 11.0 7.0 0.0 9.0 13.0 16.0 20.0

1.1 2.5 4.4 6.0 4.5 4.1 4.1 4.9 4.0 2.9
21.0 18.0 13.0 12.0 8.0 0.0 9.0 13.0 15.0 20.0

DRIVE 18+50

2.2 5.4 7.2 8.3 7.0 7.2 6.7 7.5 3.8
23.0 18.0 15.0 13.0 9.0 0.0 9.0 15.0 20.0

BASE OF N.W. COR. BOARD - SMITH HOUSE STA 19

(-2.0) 3.9 6.4 5.5 5.6 5.5 6.3 1.7
24.0 18.0 14.0 13.0 0.0 9.0 13.0 20.0

X ON E. END OF S. PARAPET

6.0 6.8 4.9 4.3 4.0 4.0 6.5 7.8
21.0 18.0 12.0 8.0 0.0 10.0 14.0 22.0

11.3 4.4 4.4 4.4 11.4
10.0 9.0 0.0 10.0 11.0

STA B.S. H.T. F.S. ELEV.

21 1241.0

22 1243.5

22+35 1246.4

T.P. 7.52 1253.81 0.16 1246.29

22+50 1246.5

23 1246.2

B.M. 0.44 1253.37

24 1248.2

T.P. 10.62 1259.80 7.63 1249.18

24+30 13.0

N. ♀ S

$\frac{4.6}{20.0}$ $\frac{4.5}{18.0}$ $\frac{5.6}{15.0}$ $\frac{5.5}{0.0}$ $\frac{5.6}{15.0}$ $\frac{6.6}{17.0}$ $\frac{6.6}{20.0}$

$\frac{2.1}{20.0}$ $\frac{2.5}{18.0}$ $\frac{2.7}{15.0}$ $\frac{3.0}{11.0}$ $\frac{3.0}{0.0}$ $\frac{3.2}{11.0}$ $\frac{5.5}{15.0}$ $\frac{5.1}{20.0}$

$\frac{0.1}{20.0}$ $\frac{0.1}{0.0}$ $\frac{0.1}{20.0}$

C & E RAIL

$\frac{8.6}{20.0}$ $\frac{9.9}{14.0}$ $\frac{7.7}{9.0}$ $\frac{7.3}{0.0}$ $\frac{7.7}{11.0}$ $\frac{9.0}{14.0}$ $\frac{9.7}{20.0}$

$\frac{7.1}{20.0}$ $\frac{7.6}{16.0}$ $\frac{8.2}{13.0}$ $\frac{7.7}{9.0}$ $\frac{7.6}{0.0}$ $\frac{7.7}{9.0}$ $\frac{9.5}{13.0}$ $\frac{9.1}{16.0}$ $\frac{8.6}{20.0}$

BASE OF S.E. COR. BOARD - ALEXANDERS

$\frac{6.2}{20.0}$ $\frac{6.2}{13.0}$ $\frac{5.4}{9.0}$ $\frac{5.6}{0.0}$ $\frac{5.8}{7.0}$ $\frac{6.8}{12.0}$ $\frac{7.7}{15.0}$ $\frac{7.0}{20.0}$

12" SEWER PIPE
30'

STA B.S. H T F.S. ELEV.

1259.80

25 1251.4

26 1256.9

I.P. 8.78 1266.80 1.78 1258.02

27 1262.0

28 0.8 1266.0
4.9

N. C S.

$\frac{8.4}{20.0}$ $\frac{8.5}{18.0}$ $\frac{9.4}{13.0}$ $\frac{8.5}{9.0}$ $\frac{8.4}{0.0}$ $\frac{8.4}{7.0}$ $\frac{9.4}{11.0}$ $\frac{8.7}{15.0}$ $\frac{8.0}{20.0}$

$\frac{3.4}{20.0}$ $\frac{3.2}{18.0}$ $\frac{3.0}{14.0}$ $\frac{2.7}{10.0}$ $\frac{2.9}{0.0}$ $\frac{2.5}{8.0}$ $\frac{4.2}{12.0}$ $\frac{3.5}{20.0}$

$\frac{5.4}{18.0}$ $\frac{5.3}{15.0}$ $\frac{6.2}{12.0}$ $\frac{4.8}{8.0}$ $\frac{4.8}{0.0}$ $\frac{4.8}{8.0}$ $\frac{6.0}{13.0}$ $\frac{4.6}{28.0}$

100' S. ON CORP. ROAD

should be pipe at ditch line 16" x 20'
S. side at 27+20

Should be a 20' x 16" iron pipe - crossing this road
Lots of water on this side

CORP LINE ROAD
55° 30'

24+30 →

30' of 12" sewer pipe
now in at 24+30
should be replaced
with iron pipe
100'

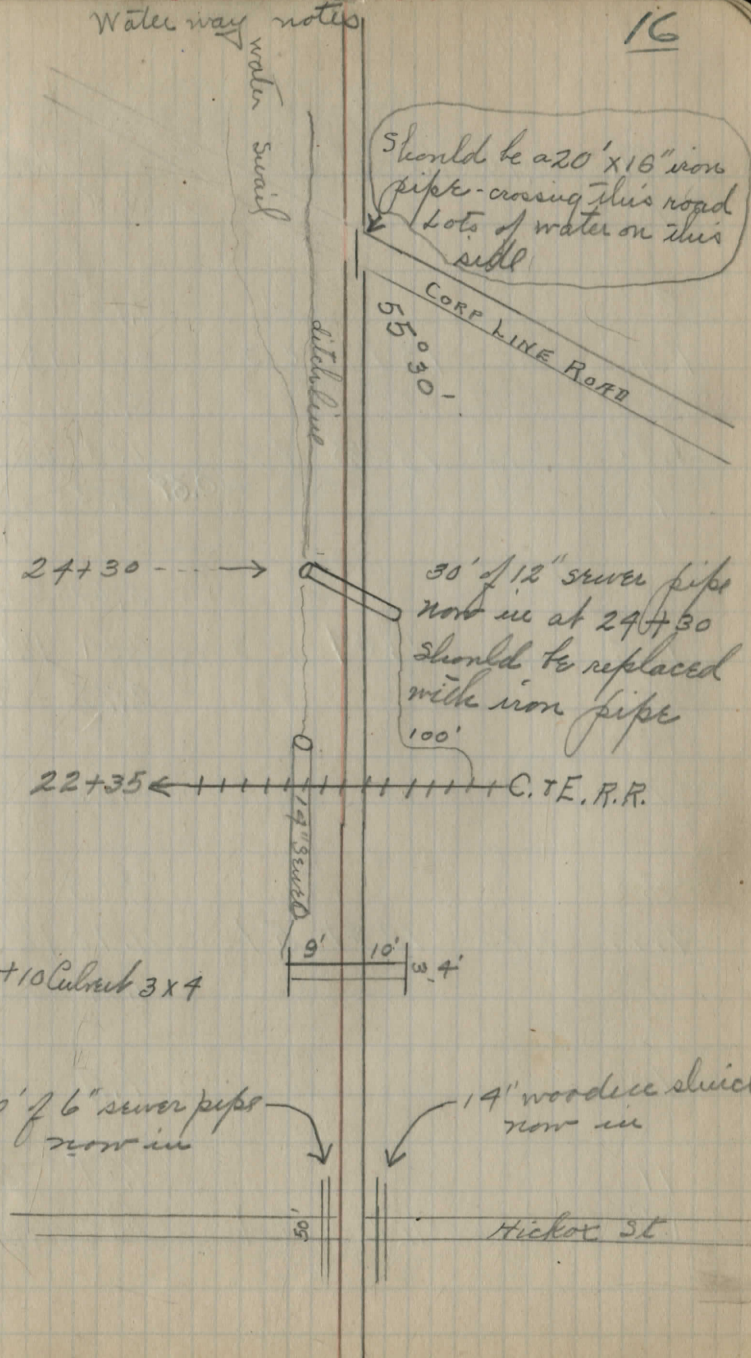
22+35 ← C.T.F.R.R.

20+10 Culvert 3x4

60' of 6" sewer pipe
now in

14' woodice sluice
now in

Hickox St



8-3-'22 Fair
Hot

Hanna
Sperry
Walter

B.M.	3.44	1326	57		1323.11
1				5.87	20.7
2				7.17	19.40
T.P.	0.68	1317	63	9.62	1316.35
3				3.73	13.90
T.P.	2.70	1308	49	11.84	1305.79
4				10.89 9.53	08.10
5				5.69	02.80
T.P.	2.08	1301	23	9.34	1299.15
6				2.73	98.50
7				6.03	95.20
8				8.83	92.40
T.P.	1.76	1291	51	11.48	1289.75
9				1.91	89.60
10				4.71	86.80
11				7.81	83.70
T.P.	0.88	1283	41	8.98	1282.53

Grades set 1' out 17

Toles front step

slope stake

$\frac{5.87}{2.17}$ $\frac{3.70}{0.3}$	F0.3 14.7	Ground F0.3 13.7	0.0 14.0	C0.2 15.0	$\frac{5.87}{5.16}$ $\frac{0.71}{0.2}$
$\frac{7.17}{7.97}$ $\frac{0.80}{0.8}$	F0.8	F0.8 13.7	C3.0 17.0	C3.2 18.0	$\frac{7.17}{3.97}$ $\frac{3.20}{3.4}$
$\frac{3.73}{3.43}$ $\frac{0.30}{0.3}$	C0.3	C0.2 14.2	C1.1 15.1	C1.4	$\frac{3.73}{2.13}$ $\frac{1.60}{1.6}$
5.87 $\frac{0.61}{2.17}$ $\frac{2.17}{0.3}$	F2.3	F2.8 14.8	F2.0 12.0	F1.9	$\frac{0.61}{2.17}$ $\frac{1.53}{1.1}$
$\frac{5.69}{8.69}$ $\frac{3.00}{3.0}$	F3.0	F3.2 15.4	F2.0 13	F2.0	$\frac{5.69}{7.67}$ $\frac{2.00}{2.0}$
$\frac{2.73}{4.13}$ $\frac{1.40}{1.4}$	F1.4	F1.4 12.8	F0.9 13.1	F1.0	$\frac{2.73}{3.73}$ $\frac{1.00}{1.0}$
$\frac{6.03}{7.83}$ $\frac{1.80}{1.8}$	F1.5	F1.5 12.5	F0.9 13.1	F0.9	$\frac{6.03}{6.93}$ $\frac{0.90}{0.9}$
$\frac{8.83}{9.19}$ $\frac{0.36}{1.1}$	F1.1	F1.3 12.7	F0.5 13.5	F0.5	$\frac{8.83}{9.19}$ $\frac{0.36}{0.5}$
$\frac{1.91}{3.01}$ $\frac{1.10}{1.7}$	F1.7	F1.7 12.3	F1.6 12.4	F1.7	$\frac{1.91}{3.01}$ $\frac{1.10}{1.7}$
$\frac{4.71}{5.71}$ $\frac{1.00}{1.0}$	F1.0	F0.8 13.2	F1.5 12.5	F1.5	$\frac{4.71}{5.71}$ $\frac{1.00}{1.5}$
$\frac{7.81}{9.11}$ $\frac{1.30}{1.3}$	F1.3	F0.9 13.1	F1.1 12.9	F1.3	$\frac{7.81}{9.11}$ $\frac{1.30}{1.3}$

128341

12 3,41 1280,00

+30 4,61 78,80

13 7,41 76,00

T.P. 1,84 1274 12 11,13 1272,28

14 2,12 72,00

15 6,18 67,94

16 1072 63,40

T.P. 1,78 1264 18 11,72 1262,40

17 5,84 58,34

T.P. This spike should be 1259,79 4,51 1259,67

8/9/22 B.S. Continued Aug 9, 1922.
H.I. Scherrey cool
Walter Voloudy
F.S.

T.P. 0,24 1259,91 1259,67

18 Grade 1252,80 Grade Rod 7,11

T.P. 1,84 1250,31 1144 1248,47

19 1247,21 3-00 (242 24 before)

Test B.M. on Culvert Wall 8,11 1242,20

20 1243,15 7,16

21 1243,31 7,00

T.P. & B.M. 11-27 1253,47 8,11 1242,20

22 1245,75 7,72

$\frac{341}{251}$ $\frac{251}{4}$ $\frac{F2,2}{13,4}$ $\frac{F2,0}{12,0}$ $\frac{F0,2}{}$ $\frac{341}{251}$ $\frac{251}{4}$ $\frac{341}{251}$ $\frac{251}{4}$ $\frac{341}{251}$ $\frac{251}{4}$

$\frac{461}{151}$ $\frac{151}{17}$ $\frac{F1,9}{}$ $\frac{F2,0}{12,0}$ $\frac{F0,4}{13,6}$ $\frac{F0,2}{}$ $\frac{461}{151}$ $\frac{151}{17}$ $\frac{461}{151}$ $\frac{151}{17}$ $\frac{461}{151}$ $\frac{151}{17}$

$\frac{741}{311}$ $\frac{311}{8}$ $\frac{F0,8}{}$ $\frac{F1,2}{12,8}$ $\frac{F0,8}{13,2}$ $\frac{F0,5}{}$ $\frac{741}{311}$ $\frac{311}{8}$ $\frac{741}{311}$ $\frac{311}{8}$ $\frac{741}{311}$ $\frac{311}{8}$

$\frac{212}{142}$ $\frac{142}{87}$ $\frac{C0,7}{}$ $\frac{F0,2}{13,8}$ $\frac{F0,3}{13,7}$ $\frac{F0,2}{}$ $\frac{212}{142}$ $\frac{142}{87}$ $\frac{212}{142}$ $\frac{142}{87}$ $\frac{212}{142}$ $\frac{142}{87}$

$\frac{618}{128}$ $\frac{128}{490}$ $\frac{C4,9}{}$ $\frac{C4,6}{18,6}$ $\frac{C1,8}{15,8}$ $\frac{C1,9}{}$ $\frac{618}{128}$ $\frac{128}{490}$ $\frac{618}{128}$ $\frac{128}{490}$ $\frac{618}{128}$ $\frac{128}{490}$

$\frac{1072}{522}$ $\frac{522}{55}$ $\frac{C5,5}{}$ $\frac{C5,2}{19,2}$ $\frac{F1,4}{12,6}$ $\frac{F0,9}{}$ $\frac{1072}{522}$ $\frac{522}{55}$ $\frac{1072}{522}$ $\frac{522}{55}$ $\frac{1072}{522}$ $\frac{522}{55}$

$\frac{584}{314}$ $\frac{314}{24}$ $\frac{C2,4}{}$ $\frac{C1,5}{15,5}$ $\frac{F1,1}{12,9}$ $\frac{F1,1}{}$ $\frac{584}{314}$ $\frac{314}{24}$ $\frac{584}{314}$ $\frac{314}{24}$ $\frac{584}{314}$ $\frac{314}{24}$

Spike in N.W. side T.P. sta 17+35 Lt.
N. West Side

Spike in NW side of T.P. Actual R.R. 6,81 $\frac{F0,5}{13,5}$ $\frac{C2,0}{16,0}$ $\frac{C2,4}{}$ Actual R.R. 2,4 $\frac{7,11}{4,71}$ $\frac{2,40}{2,40}$

4,0 $\frac{F1,0}{13,2}$ $\frac{C2,7}{16,7}$ $\frac{C3,0}{}$ 00

7,96 $\frac{F0,8}{10,7}$ $\frac{F1,5}{11,35}$ $\frac{F1,8}{}$ 3,96 $\frac{8,96}{7,16}$ $\frac{1,80}{1,80}$

9,30 $\frac{F2,3}{13,2}$ $\frac{F2,8}{13,2}$ $\frac{F2,8}{}$ 9,80

on Cross on S. Culvert Wall East End $\frac{1052}{772}$ $\frac{772}{288}$ 10,52 $\frac{F2,9}{13,35}$ $\frac{F5,3}{17,0}$ $\frac{F4,8}{}$ 12,52 $\frac{12,52}{7,72}$ $\frac{4,80}{4,80}$

1253.47

23		1247.19	6.28		
Test B.M. SE. cor. Alexander's House Bott. Cor. Board					
	0.20	1253.27			
24		1249.50	3.97		
TP	11.70	1260.24		4.93	1248.54
25		1252.36	7.88		
26		1257.40	2.84		
TP Rock 10.49					
		1270.36		0.37	1259.87
27		1062.80	7.56	£ 6.60	1261.76
28			£ 4.5		1265.86
Set TP Sta 28+00					
			3.57		1266.79

Checking B.M.'s Goodwin Ave.

B.M.	4.42	1327.53			1323.11
2+00			1319.40	8.13	
TP	1.14	1317.07		11.60	1315.93
B.M.				2.36	1314.71
TP	0.74	1306.56		11.25	1305.82 (1298.81 bef.)
B.M. & TP	0.34	1299.18		7.72	1298.84
TP	0.20	1287.21		12.17	1287.01 (1284.30 bef.)
B.M.				2.88	1284.33
TR	0.74	1270.36		11.59	1275.62
TP	0.64	1264.91	12.09		1264.77
B.M.				5.12	1259.79
TP	0.07	1253.69	11.29		1253.62
B.M.			11.34		1242.35

26+00 $\frac{4.2}{2.90}$
 25+00 $\frac{1256.00}{1250.80}$

8.18	$\frac{F2.0}{120}$	$\frac{F2.0}{120}$	Set $\frac{F2.0}{12.0}$	Actual 8.38	
6.17	$\frac{F2.2}{12.4}$	$\frac{F2.3}{12.4}$	$\frac{F3.2}{13.8}$	$\frac{F2.9}{12.0}$	6.87 $\frac{4.87}{2.97}$ 2.70
Stone					
$\frac{9.72}{7.83}$ 1.9	9.78	$\frac{F1.9}{12.0}$	$\frac{F2.0}{12.0}$	$\frac{F1.9}{12.0}$	9.78
4.44	$\frac{F1.6}{11.2}$	$\frac{F1.4}{11.2}$	$\frac{F1.9}{11.9}$	$\frac{F1.9}{11.9}$	4.74 $\frac{4.74}{1.9}$
9.76	$\frac{F2.2}{12.45}$	$\frac{F2.3}{12.45}$	$\frac{F1.3}{11.1}$	$\frac{F1.8}{11.1}$	9.36

Should be 1266.95

N.W. cor. M. Toller Front Step Stone
9.03 $\frac{F0.8}{13.2}$ Reset.

Base Cor Board SE. cor Bates house

N. cor. watering trough

x on foundation of East Driveway Pillar to Cemetery

Spike in Tel. P. 17+35 N.W. Side

x on S Culvert Wall East Side

Aug 10, 1922
 P. Scherrer
 H. Walter
 G. G. G. G.

± Levels Goodwin Ave. to rail

BM.	144	<u>1251.78</u>		1242.34
20+50			10.2	1241.6
21			10.7	1241.1
21+50			10.2	1241.6
22			2.8	1243.0
22+42	W. Rail		5.47	1246.31
22+48	E. Rail		5.31	1246.47
22+50			5.4	1246.4
23			5.5	1246.3
23+50			4.8	1247.0
24			3.8	1248.0
24+50			2.4	1249.4
25			0.8	1251.0
T.P.	12.15	1262.86	1.07	1250.71
25+50			9.7	1253.2
26			6.7	1256.2
26+50			3.2	1259.66
26+96	Corp. Line		11	1261.8
T.P.	9.83	<u>1272.12</u>	0.57	1262.29
Test B.M.		<u>Slope Stakes</u>	5.17	1266.95
28		1267.10	5.02	
29		1271.10	1.02	
T.P.	10.52	1282.39	0.25	1271.87

X on S Wall of Culvert toward East End.

	North side		S. Side	
Sta 28.000	Actual	5.12	Wrong. Stake (1266.79) before	.16 off before
		<u>F0.1</u>	F0.2 1261.0	F1.8 17.0
			19.5	6.1
			<u>F0.1</u>	<u>F1.0</u>
0.92	<u>Coil</u>		Co. 2 1270.2	F1.4 17.7
			20.1	1.9
				2.02

Set for 2' high

	H.I.	Grade	Grade Rod	
30+00	1282.39	1274.10	8.29	
31+00		1276.10	6.29	
32+00		1278.10	4.29	
33+00		1281.60	0.79	
T.P.	11.35	1293.67	0.07	1282.32
34		1286.60	7.07	
35		1291.23	2.44	
T.P.	10.49	1303.55	0.61	1293.06
36		1293.97	9.58	
37		1298.60	4.95	
T.P.	9.93	1313.12	0.36	1303.19
38		1303.60	9.52	
39		1307.20	5.92	
40		1309.40	3.72	
T.P. Sta 41 Hub			0.24	1312.88

702 1319.90 Cont In other Book

	N. S.			S. S.
	8.69	F0.4	$\frac{F0.4}{19.15} \frac{1273.0}{9.4}$	$\frac{F1.0}{18.25}$ F0.7 8.99
	6.49	F0.2	$\frac{F0.2}{19.3} \frac{1275.0}{7.4}$	$\frac{C0.8}{21.0}$ C0.9 5.39
	3.99	C0.3	$\frac{C0.2}{20.0} \frac{1277.2}{5.1}$	$\frac{C1.3}{21.7}$ C1.3 2.99
	1.69	F0.9	$\frac{F0.8}{12.6} \frac{1279.9}{2.5}$	$\frac{0.0}{19.75}$ C0.3 0.49
	8.57	F1.5	$\frac{F1.4}{17.7} \frac{1285.07}{8.6}$	$\frac{F0.2}{19.5}$ 0.0 7.07
	3.54	F1.1	$\frac{F1.1}{18.1} \frac{1290.17}{3.5}$	$\frac{F0.2}{19.5}$ F0.3 2.74
	10.58	F1.0	$\frac{F1.1}{16.1} \frac{1293.0}{10.6}$	$\frac{F0.4}{17.15}$ F0.3 9.28
	6.45	F1.5	$\frac{F1.5}{15.5} \frac{1297.75}{5.8}$	$\frac{F0.4}{17.15}$ F0.4 5.35
	11.42	F1.9	$\frac{F1.9}{14.9} \frac{1302.3}{10.2}$	$\frac{F0.3}{17.3}$ F0.3 9.82
	6.12	F0.2	$\frac{F0.3}{17.3} \frac{1306.82}{6.3}$	$\frac{C0.8}{19.0}$ C0.3 5.12
	3.92	F0.2	$\frac{F0.2}{17.3} \frac{1308.42}{4.7}$	$\frac{F1.5}{15.5}$ F1.5 5.22

Set for 2' Ditch

Set for V Ditch


E.


ROAD FROM BURTON VILLAGE CORP.
LINE TO EAST LINE OF BURTON TP.
VIA BURTON STA.

STA.	OFFSET	RT.
75+50	ANG	LT.
75	20'	
74+15	CULVERT	
70	20'	
65	20'	
60	20'	= 150' E. EDGINGTON'S
55	25'	
50	15'	TOP OF HILL
45	20'	ON RUSSELL LAWN
40	OFFSET	18'
38	3X3X24'	STONE CULVERT
35	OFFSET	15' = 75' E. BUNDY BARN
30	OFFSET	15'
25	OFFSET	20'
20	OPPOSITE	FERRY'S MAIL BOX
16	ANG.	RT.
15	OFFSET	20'
10	"	20'
5	"	25'
2	L 1°	R.
0		

22

STONE  P.I.

 24' ROAD

STONE  P.I.

STA 16

CORP. LINE = STA 26+96 ON GOODWIN AVE LINE

STA

OFFSET RT.

95

20'

94+10

WOODEN BRIDGE

90

15'

88+75

88+40

ANG. LT

87+10

85

20'

84

ANG. RT.

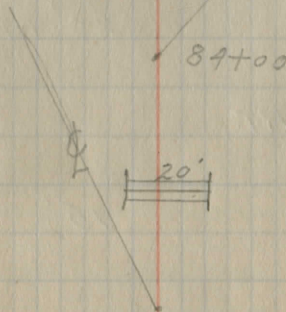
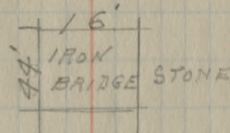
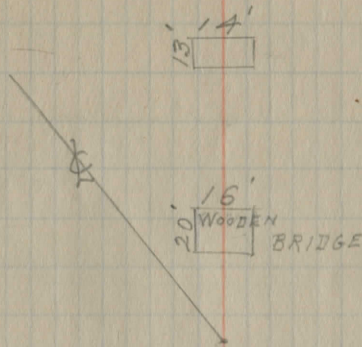
83+00

CULVERT-DOUBLE (3 1/2 x 3 1/2) (3 1/2 x 3 1/2)

81+25 ANG. LT.

80

20'



STA OFFSET

110

108+50

105

20' RT

102+50 ANG. RT.

100

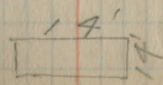
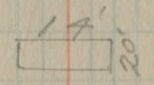
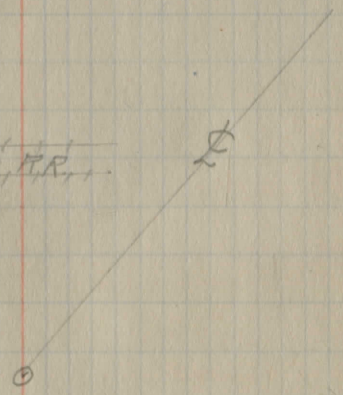
15'

99+80 IRON BRIDGE

96+60 WOODEN BRIDGE

RAIL TR. LINE 111+30

108+30 - BY O. R.R.



THIS CULVERT
MOVED N. 20'

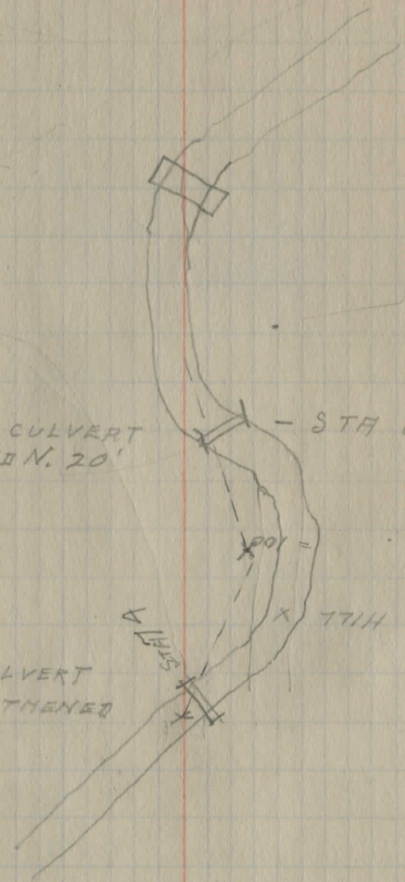
- STA 84

X 100' =

STA 74

X HILL

THIS CULVERT
LENGTHENED



Clear. Hot & Dry.

8/14/22 P. Scherrov
H. Waller GOODWIN AVE Slope Stakes
After Grade changed.

B.M.	8.27	1250.61		1242.34
20+50		1242.70	7.91	
21+00		1243.19	7.42	
21+50		1244.25	6.36	
22+00		1245.38	5.23	
23+00		1247.43	3.18	
24		1249.26	1.35	
T.P.	11.73	1252.27	0.07	1250.54
25		1252.14	10.13	
26		1257.10	5.17	
+50				
27		1262.70	70.43	
T.P.	7.44	1268.48	1.23	1261.04
Check B.M.			1.50	1266.98

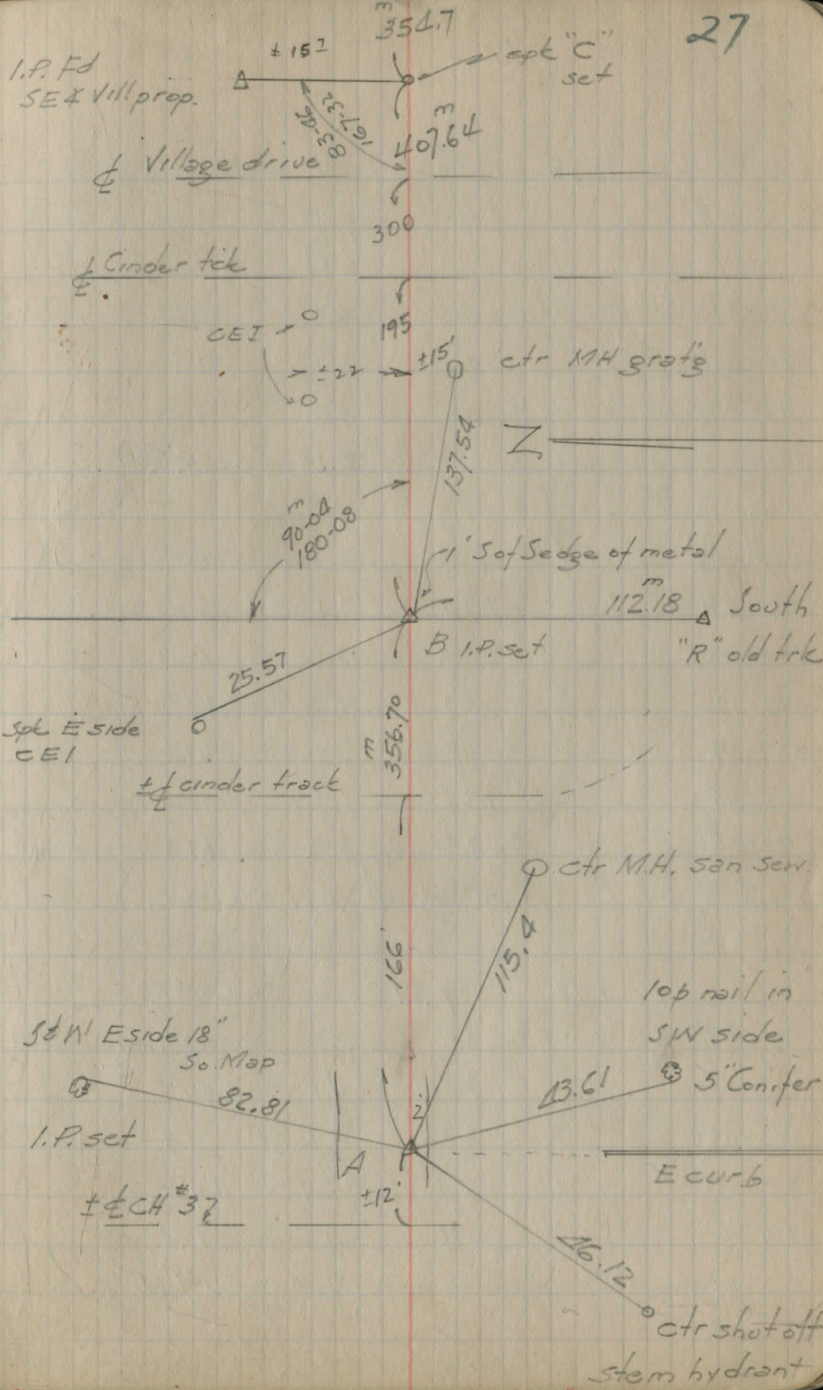
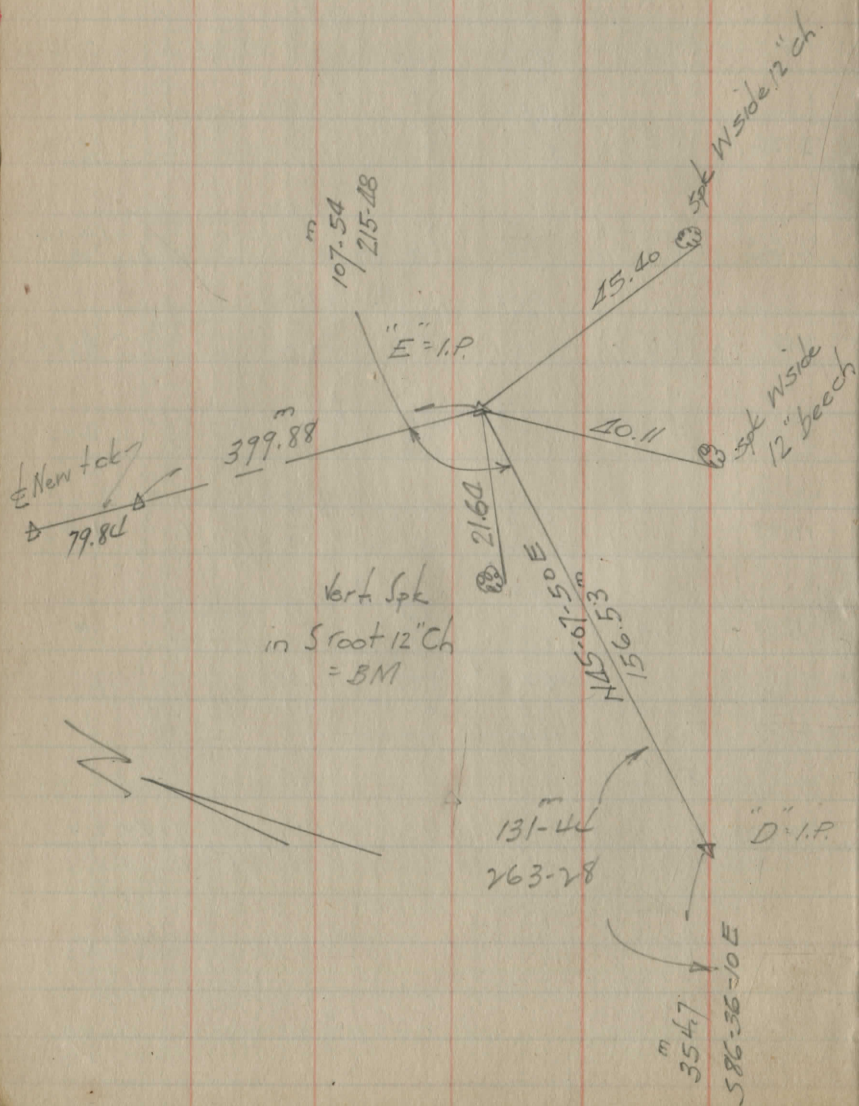
E End S. Culvert Head Wall -						
10.31	F2.4	$\frac{F2.4}{12.6}$	$\frac{1241.5}{9.7}$	$\frac{10.51}{F2.6}$ $\frac{12.9}{12.9}$	F2.80	10.71
9.82	F2.4	$\frac{F2.6}{12.9}$	$\frac{10.02}{10.02}$	$\frac{9.82}{F2.4}$ Filled Spine	F2.5	9.92
9.26	F2.9	$\frac{9.56}{F3.2}$ 13.8	$\frac{1241.6}{9.0}$	$\frac{10.96}{F4.6}$ 15.9	F4.6	10.96
7.63	F2.4	$\frac{7.63}{F2.4}$ 12.5	$\frac{1242.9}{7.7}$	$\frac{10.73}{F5.0}$ 15.5	F4.9	10.13
5.18	F2.0	$\frac{5.28}{F2.1}$ 12.1	$\frac{1246.3}{4.3}$	$\frac{5.18}{F2.0}$ 12.0	F2.2	5.38
3.25	F1.9	$\frac{3.25}{F1.9}$ 12.1	$\frac{1248.0}{2.6}$	$\frac{4.05}{F2.7}$ 13.05	F2.6	3.95
11.83	F1.7	$\frac{11.83}{F1.7}$ 12.3	$\frac{1251.0}{11.3}$	$\frac{11.83}{F1.7}$ 12.3	F1.6	11.73
6.57	F1.4	$\frac{6.57}{F1.4}$ 12.6	$\frac{1256.1}{6.0}$	$\frac{6.67}{F1.5}$ 12.5	F1.5	6.67
1.57	F2.0	$\frac{1.57}{F2.0}$ 12.0	$\frac{1259.40}{2.87}$ $\frac{1260.80}{0.47}$	$\frac{1.27}{F1.7}$ 12.3	F1.7	1.27

Nail in W. Root of 1st Maple East of Corp. Rd. 27+70

5-6-52

FAIR GROUNDS

ENTRANCE C



Levels Fair Gds

56.5 ^m		171		Flv
B.M.	4.55	1277.68		1273.13
L to rt.		stad	rod	
0-0			6.26	1271.42
05-14	1	240'	6.4	71.3
23-52	✓	145'	6.2	71.5
71-00	3	102'	5.5	72.2
B.M.			2.15	1275.53
175-57	4	83'	3.8	73.9
239-38	5	130'	7.1	70.6
254-00	6	200'	11.0	66.7
273-37	7	123'	9.8	67.9
337-54	8	47'	8.1	69.6
01-55	9	132'	7.2	70.5
42-25	10	68'	8.3	69.4

Set at E b s on \pm new trk north

B.M.	3.78	1279.31		1275.53
0-0		28'	6.8	72.5
0-0		14'	4.1	75.2
83-05		89'	9.6	69.7
89-35		166'	14.9	64.4
88-56		240'	17.5	61.8
			7.8	1271.5

Cont'd next sheet

Entrance "C" etc

28

Spr Elm SE of NE Well House

Set at D BS on B

Roadway PROPOSED 50'-CALLED 25' cleared & partially graded

" " " " " "

" " " " " "

D.M. SET V. Spr 10" Cherry 21.64' S.W. of I.P. on Sly Pooling station & NEW TRACK

high & dry

lower but dry

CHAN'L

" 15' bank

Chan'l Jct NW & NWly ditches

 \pm SOURCE END NWly Chan'l

4' SOUTH of SOURCE END NWly Chan'l 4' bank

 \pm \pm roadway (ent. "C")

Vert Spr 10" Cherry Noted above

Roadway PROPOSED

" " S. bank

" " "

" " "

" TOP 36" TILE

= ground over 10" sewer blockade
(WRONG)

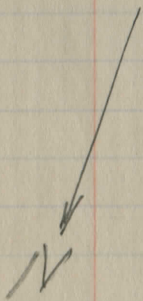
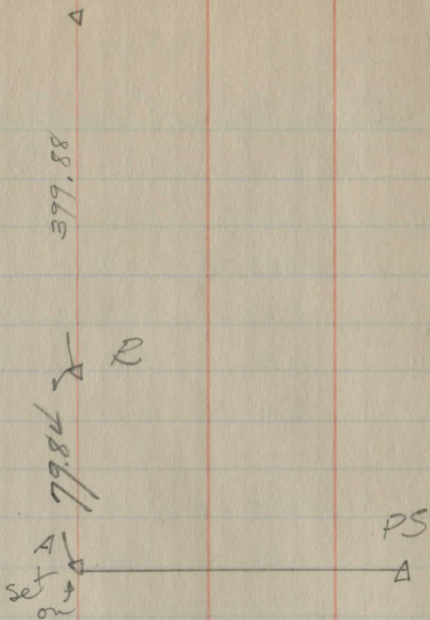
Levels on Entrance "C"
Cont'd

BM	7.12	1280.25	1273.13
	7.1		73.2
	5.7		74.6
	5.6		74.7
	6.0		74.3
	5.7		74.6
	5.8		74.5
	7.3		73.0
	6.8		73.5
	6.4		73.9
	7.2		73.1
	8.6		71.7

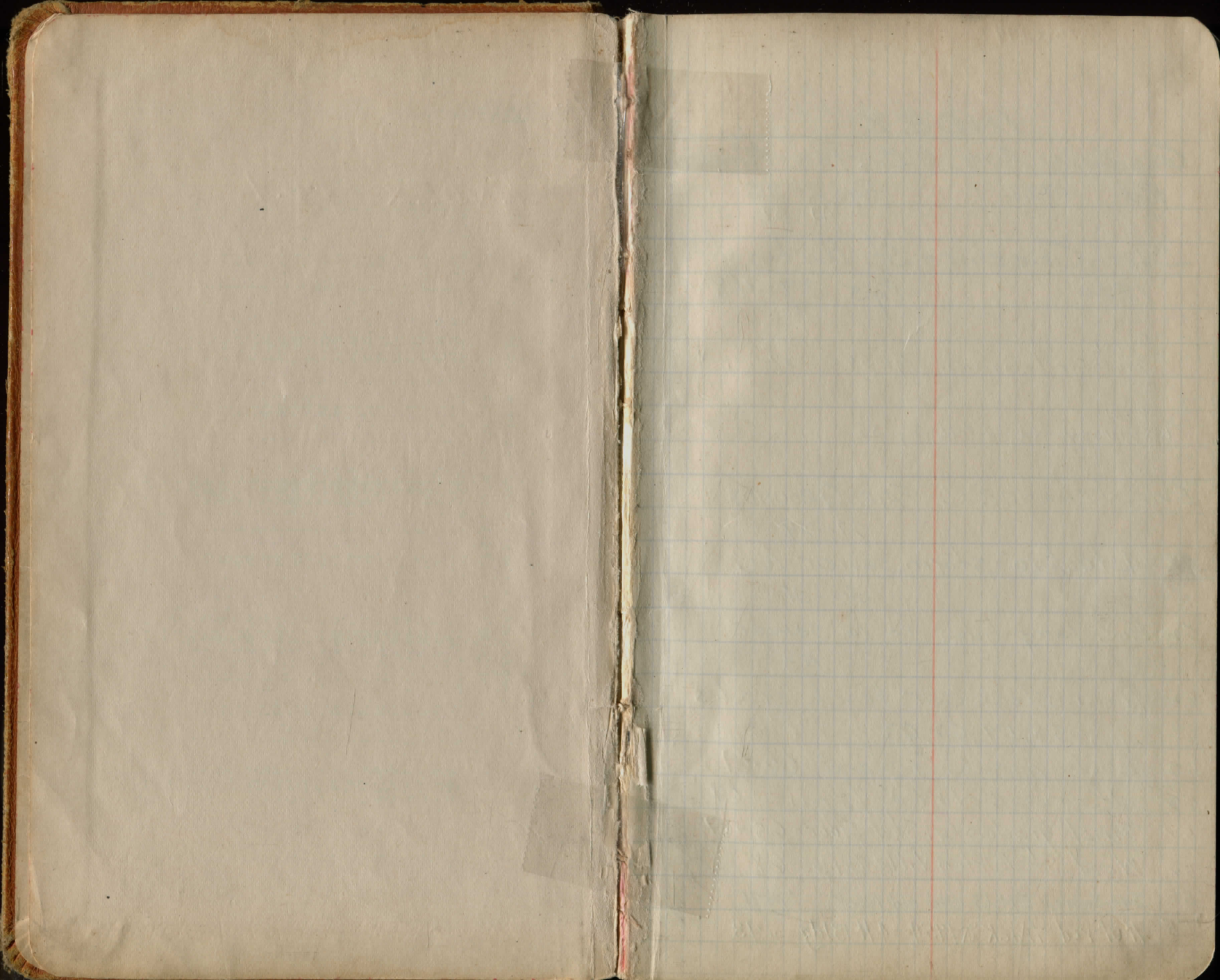
Elm SE of pump house
Edge of part #3 ~~4~~ "ent" "c"
100' E of " " "
↳ CINDER WEST.
200'
300'
400'
500'
↳ CINDER EAST
600'
↳ Village Drive
713' Swamp

Notes: Readings
taken on \pm as
graded

5-10-52
10" Main Sewer
see next sheet



New track



6.4
5.6 - 560' 30° 10' to 10 ft

Set on "A" bs S Ely on E prolongation
& see preceding pg

T.P. 8.82 1279.05 1270.23 B.M.

Stadia Ang

232' 354-12 RT 15.75 1263.30

195' 41-36 RT 14.38 1264.67

223' 84-02 RT 12.25 1266.80

560' 30-10 Lt 1258.91 (Pg 34 FB. 43)

234

5-10-52
Loc & Elev.
10" Sewer Co Fair
Rds Actual ³¹

NW & Conc C.B. S Ely & track

10" tile Fd dist 232' > 354-12

" " " 195' 41-36

" " " 223' 84-02

outlet 10" tile
to PS (check stadia 235.53')

11-4, 5-5
 Pom - J. May

PROPOSED TILE DRAIN
 OUTSIDE OF FAIR
 GDS GRAND STD

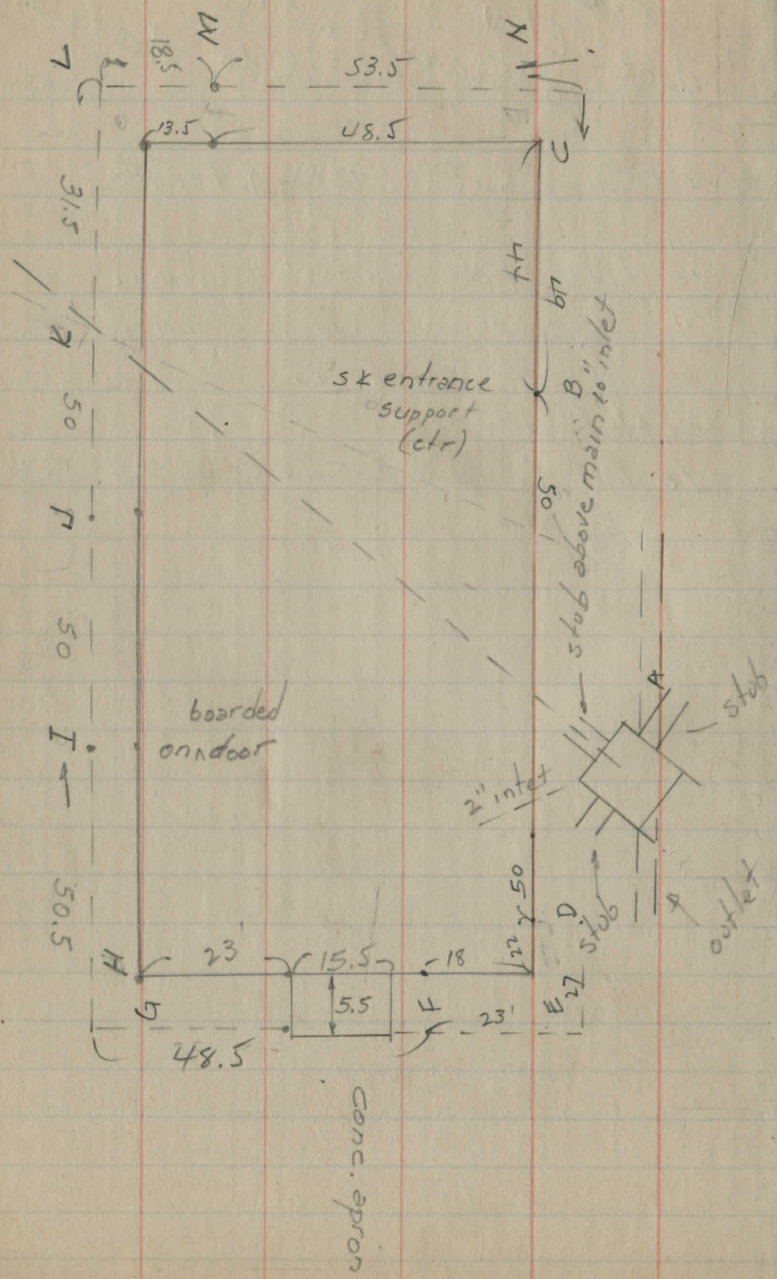
See grades
 this book, pgs
 35, 36

above 10" or 12" inlet

FL all stubs 4.50 below grating top

ctr of CB = G' E of G.S. wall

7.5' N of Nedge 4" round
 pipe post of 2nd
 stair way from S
 end G.S.



11-4-5 ✓

BM 8.55 1278.78 1270.23
 thru South turn 156.6
 dist out from
 f" R"

50' E 124.1

100' E 126.6

150' E 128.8

200' E 128.5

50' W 157.5

100' W 159.9

150' W 158.8

160' RP. 1.P.

4.91

Grades for
 draining soup
 holes south
 and HOT-ROD
 1/4 mi. Track

50' chords

33

Gd

57K

NW 4 Conc CB SE 1/2 mi

H 5.8 3.29 - 75.49
 73.0 75.49 68.75 G
 C 6.74 = 6'-9"

I 6.2 3.24 - 75.54
 72.6 69.00 G
 C 6.54 = 6'-6"

J 6.7 4.01 - 74.77
 72.1 69.25 G
 C 5.52 = 5'-6"

K 6.9 5.00 - 73.78
 71.9 69.50 G
 C 4.28 = 4'-3"

L 7.1 4.40 - 74.38 - 69.75 = 4.63 = 4'-8"
 71.7 71.9
 250' E Gd 6.9

G 5.9 2.68 300' E Gd 6.5 72.3
 72.9 76.10
69.00
 C 7.10 = 7'-1"

F 5.9 3.26 75.52
 72.9 69.25
 C 6.27 = 6'-3"

E 6.1 3.33 75.45
 72.7 69.50
 5.95 = 5'-11"

700' 155.4W

750 157.8 W

300' 167.5

350

400

±46'

±41

±240 = C.B.

Fl. 10" stub (end = ±5' NW of C.B)

GL STK

D	6.8	3.60	75.18	
	72.0		69.75	
			5.43	= 5'-5"

C	7.1	4.45	74.33	
	71.7		70.00	
			4.33	= 4'-4"

B	7.0	4.22	74.56	
	71.8		70.25	
			4.31	= 4'-4"

A	7.0			
	71.8			

	6.4			
	72.4			

	3.3	TOP OF 7/30W		
	75.5			

	5.7			
	73.1			

	12.06	66.73		
--	-------	-------	--	--

B.M. 6.50 79.63 1273.13

6.20
4.5
10.70 = FL stubs

4.5

4.7

5.2

7.6

7.4 72.2

T.P. 3.64 75.66 7.61 72.02

5.5 70.2

4.2

4.4

4.6

7.82

4.7

4.7

2.7

7.06 68.6

T.P. 1.76

T.P. 5.65 79.55 1.76 73.90

Splk N root Elm

top grating

down 5 parts
on 3^d column
from each
end

ground at C.B. "A"

" D 10.20 G 3.20 rod C 7.0

" E 9.93 G 2.93 " C 7.0

" F 9.70 G 5.70 " C 4.0

" G 9.22 G 5.22 " C 4.0

F/L San sewer SW & GS 4" tile

ground I 6.82 1.82 rod C 5.0

" J 7.32 G 2.32 " C 5.0

" K

F/L K Main 7.82 G

ground L 7.51 G 2.51 " C 5.0

" M 7.32 G 2.32 " C 5.0

" N 6.8 G 1.8 " C 5.0

F/L 4" old track drain HW & GS

H 6.32 G 1.32 " C 5.0

6.10	
<u>4.50</u>	
10.60	68.95 (68.93)

11-12-52 Pom-Rossiter

£	3.16	78.65	75.49
---	------	-------	-------

A	3.25	75.40
---	------	-------

M	4.43	74.22
---	------	-------

50'S £	1.35	77.30
--------	------	-------

100'S £	4.51	74.14
---------	------	-------

top grading CB A

ground B	5.0	10.1 G	3.10 G	C 7.0
----------	-----	--------	--------	-------

" C		9.6 G	2.6 G	C 7.0
-----	--	-------	-------	-------

75.40
<u>70.50</u>
C 4.90 = 4'11"

74.22
<u>70.00</u>
C 4.22 = 4'3"

77.30
<u>68.50</u>
C 8.80 = 8'10"

74.14
<u>68.25</u>
C 5.89 = 5'11"

7.06

F/L 10" main at loc MH (8' W of Wedge
G.S.)

7.07 67.84

" " " in hole 2' W of wedge GS

74.91

"J"

HI = 19" above C 5.0 50' S of 10" main

6.85 68.06

$$\begin{array}{r} 68.34 \\ 06 \\ \hline .28 \text{ low} \end{array}$$

trench 50' S 10" main

4" tile x trench \pm 44' S main 10"
 \pm 7.2 67.7 68.09 G
.39 low
 \pm 25' S 10" main

SOUTH CHESHIRE & CONTINUATION TO
SOUTH CORPORATION LINE - BURTON VILLAGE

+69.4 P.I. ANG. $56^{\circ}55' L.$ - 2 OFFSET STAKES

7

USE 12' EXTERNAL

6.

+01.3 IRON PIN ON \odot -TACKED HUB 20' OFFSET R.

5

4

3

2

1

NOTE: TWO OFFSET STAKES TACKED AT
ALL P.I.'S SET 20' R OF EACH TANGENT

+47.0 IRON PIN ON \odot -TACKED HUB 20' OFFSET R.

\odot = SOUTH END OF PRESENT IMPROVEMENT

ANG. $0^{\circ}45' R.$

5-21-20

REF. ARE

DIRECT MEASUREMENT

S. CONANT

P.L. 6+49

MRS CONANT

+21'

IRON PIN

+21'

3+81 PL.

H. HAINES

J. KINNEY

3+05 PL.

NEWNES

2+14 PL.

FINN CHURCH

1+64

W. AKINS

TACKED STAKE 7.5 E
OF X ON WALK

0+38 PL

CARLTON
STREET

20'

39

TACKED STAKE

TACK ON
PLUM

TACKED STAKE

26' \odot

27.5' \odot

P.L. 6+58

26' \odot TACK ON
F. STANTON CHERRY

P.L. 5+19

E. MARDORF

PL. E. QUINN } 4+02

TACKED STAKE
175° EAST OF X ON WALK

F. KACHUSKY

CHAS. PL. 31' \nearrow
HUFF ST.

IRON PIN

15

+44.0 P.I. ANG 57° R.

14

USE 12' EXTERNAL

13

12

+280 P.I. ANG. 32° 24' L.

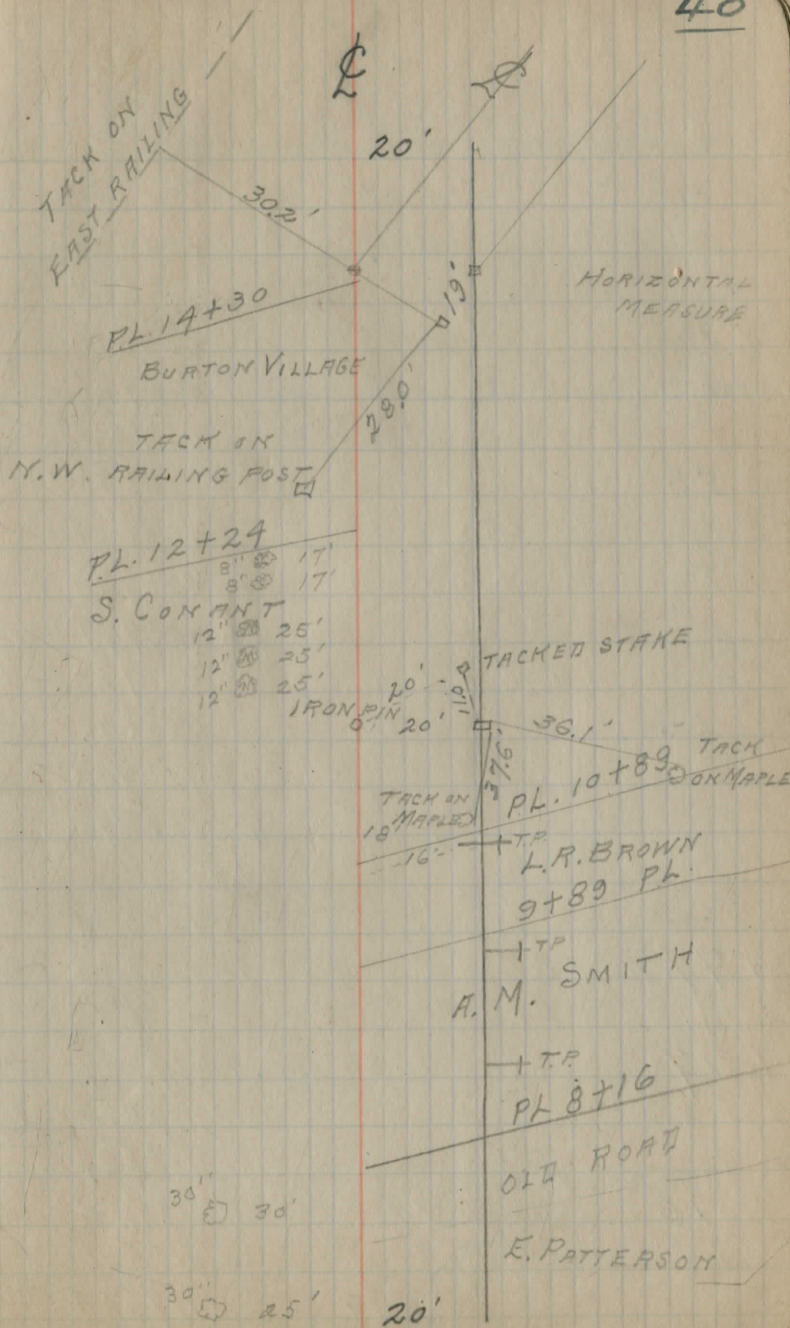
11

USE 10' EXTERNAL

10

9

8



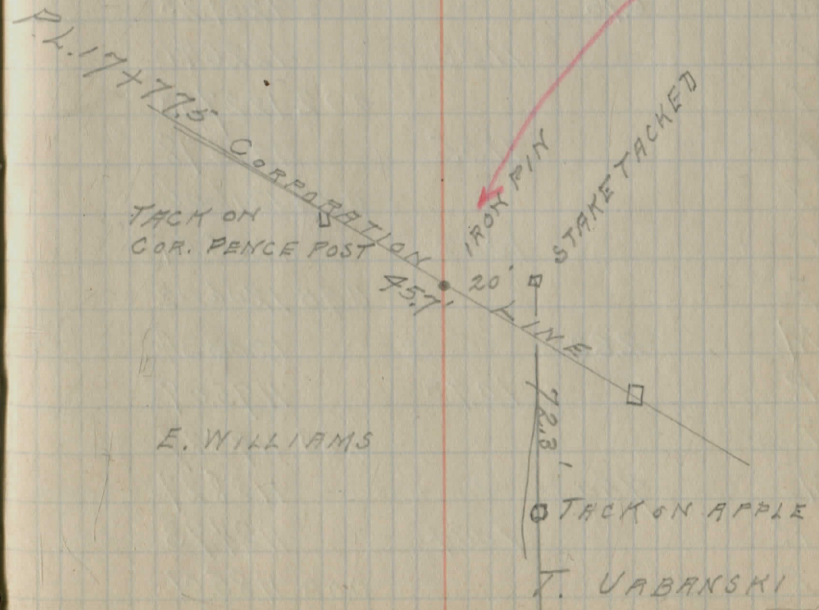
17+77.5 - Ref points - direct measurement
 14+74.0 " " Horizontal "
 11+28.0 " " direct "
 7+69.4 " " " "
 0+47.0 " " Horizontal "

Note - Center line is one foot East of
 pins at 17+77.5 - Corp. line

+77.5 P.O.T.

17

16



SOUTH CHESHIRE BENCH NOTES

B.M.	F.S.	B.S.	ELEV.
B.M.	2.75	0.40	1268.24
B.M.	2.19		1265.95
H.I.		2.57	1268.64
T.P.	10.43		1258.21
H.I.		1.07	1259.28
T.P.	10.98		1248.30
H.I.		0.46	1248.76
B.M.	2.55		1246.21
T.P.	11.03		1237.73
H.I.		0.26	1237.99
B.M.	6.76		1231.23
T.P.	11.58		1226.41
H.I.		0.92	1227.33
T.P.	11.55		1215.78
H.I.		0.28	1216.06
T.P.	10.52		1205.54
H.I.		0.48	1206.02
B.M.	2.68		1203.34
T.P.	10.93		1195.09
H.I.		0.68	1195.77
B.M.	7.50		1188.27
T.P.	10.84		1184.93
H.I.		0.08	1185.01
T.P.	9.94		1175.07

N.W. COR. OF W. HINKS FRONT STEP
X ON PARAPET

← 200' R. STA 0+50

BASE OF S.E. COR. BOARD - E. MARDOFFS HOUSE

← 30' R. STA 4+60

BOTTOM OF BASE-BAY WINDOW - PATTERSONS

← 40' R. STA 7

ON N.E. COR. WELL FOUNDATION - SMITHS

← 60' R. STA 8+80

BASE N.W. COR. BOARD - BROWNS HOUSE

← 60' R. STA 10+40

SOUTH CHESHIRE & CONTINUATION TO
 CORP. LINE - BURTON VILLAGE
 BENCH NOTES CONTINUED

STATION	BM	F.S.	B.S.	ELEV
H.I.			1.18	1176.25
BM	7.79			1168.46
T.P.		10.05		1166.20
H.I.			2.31	1168.51
BM	7.23			1161.28
T.P.		11.65		1156.86
H.I.			0.21	1157.07
T.P.		11.22		1145.85
H.I.			0.19	1146.04
BM	5.80			1140.24

LT.

2

RT.

BASE OF N.E. COR. BOARD - URBANSKI'S HOUSE

60' R. STA 11+75

TOP OF N. END OF W. WING (HIGHEST WING)

30' L. OF STA 14+20

NAIL IN 8" LIME STUB OF APPLE

21' R. OF STA 17+05

SOUTH CHESHIRE & CONTINUATION TO
CORRALINE BURTON VILLAGE - CROSS-SECTIONS

STA	BS	H.I.	F.S.	ELEV
B.M.	0.94	1266.89		1265.95
0-200				
0-100			0.0	1266.9
			8.4	1258.5
0			3.5	1263.4
0+05.				1261.9
0+50				1259.5
1				1255.1
T.P.	0.73	1256.19	11.93	1255.46
2				1253.3
3				1249.9
4				1245.0
T.P.	0.18	1245.24	11.13	1245.06

LT

2

Rt

NOTE LAST READING ON RT. IS
NEAREST EDGE OF WALK

X ON N. PARAPET STATION STOP

100 FT SE. ON HUFF ST

$\frac{8.0}{23.0}$	$\frac{5.6}{19.0}$	$\frac{5.0}{0.0}$	$\frac{3.2}{20.0}$							
		$\frac{7.3}{20.0}$	$\frac{7.4}{0.0}$	$\frac{7.4}{9.0}$	$\frac{7.4}{12.0}$	$\frac{7.8}{16.0}$	$\frac{8.3}{20.0}$	$\frac{8.3}{22.0}$	$\frac{8.3}{24.0}$	$\frac{6.3}{2.9}$
$\frac{11.0}{24.0}$	$\frac{11.6}{19.0}$	$\frac{10.9}{16.0}$	$\frac{10.1}{12.0}$	$\frac{10.0}{9.0}$	$\frac{9.8}{0.0}$	$\frac{9.9}{8.0}$	$\frac{10.2}{14.0}$	$\frac{10.4}{20.0}$	$\frac{9.1}{23.0}$	$\frac{8.2}{26.0}$
$\frac{2.2}{20.0}$	$\frac{4.2}{16.0}$	$\frac{5.4}{14.0}$	$\frac{4.0}{12.0}$	$\frac{3.7}{10.0}$	$\frac{2.9}{7.0}$	$\frac{2.9}{0.0}$	$\frac{2.6}{12.0}$	$\frac{4.3}{16.0}$	$\frac{2.5}{19.0}$	$\frac{1.9}{23.0}$
$\frac{6.0}{23.0}$	$\frac{7.0}{16.0}$	$\frac{8.1}{14.0}$	$\frac{7.4}{12.0}$	$\frac{6.3}{9.0}$	$\frac{6.3}{0.0}$	$\frac{6.3}{10.0}$	$\frac{7.4}{13.0}$	$\frac{8.5}{15.0}$	$\frac{6.3}{19.0}$	$\frac{6.0}{23.0}$
$\frac{8.0}{15.0}$	$\frac{9.3}{20.0}$	$\frac{11.1}{16.0}$	$\frac{11.7}{13.0}$	$\frac{11.6}{11.0}$	$\frac{11.2}{8.0}$	$\frac{11.2}{0.0}$	$\frac{11.0}{10.0}$	$\frac{11.5}{12.0}$	$\frac{12.1}{14.0}$	$\frac{11.0}{16.0}$
										$\frac{9.6}{22.0}$

LT

Q

RT

STA B.S. H.I. F.S. ELEV

5 1240.1

T.P. 0.28 1237.71 7.81 1237.43

6 1232.2

B.M. 0.51 1231.77 6.45 1231.26

7 1223.8

+30

T.P. 5.43 1225.53 11.67 1220.10

7+70 1216.7

T.P. 3.37 1218.34 10.56 1214.97

8 1212.6

T.P. 0.37 1208.00 10.71 1207.63

B.M. 2.17 1205.52 4.65 1203.35

9 1202.5

T.P. 0.04 1195.13 10.43 1195.09

B.M. 6.86 1188.27

10 1192.4

T.P. 2.59 1186.69 11.03 1184.10

11 1183.4

1.5 2.3 4.0 5.6 5.1 4.7 5.1 4.8 5.2 6.5 4.6 3.6
25.0 20.0 15.0 11.0 10.0 7.0 0.0 12.0 15.0 17.0 19.0 21.0

0.0 0.0 5.8 6.3 5.6 5.5 5.5 5.5 2.8 1.8
30.0 25.0 15.0 12.0 7.0 0.0 12.0 15.0 20.0 22.0

BOTTOM OF BASE-BAY WINDOW - PATTERSONS
2.6 5.2 7.6 8.8 7.8 8.0 7.2 8.0 3.4
27.0 14.0 12.0 10.0 7.0 0.0 13.0 15.0 22.0

DRIVE SAME AS Q

4.1 4.1 10.2 8.9 8.8 8.2 9.6 10.3
30.0 25.0 15.0 12.0 0.0 10.0 24.0 30.0

nailed 0.0 6.4 5.0 5.0 5.7 5.9 6.8 7.8 7.2 7.0 6.8
28.0 16.0 13.0 11.0 0.0 8.0 11.0 14.0 16.0 22.0 25.0

ON N.E. COR. WELL FOUNDATION - SMITHS

0.0 3.7 3.1 2.5 3.0 3.2 4.1 2.7 2.7 2.4
22.0 15.0 13.0 11.0 0.0 7.0 12.0 15.0 20.0 30.0

3.2 3.2 3.4 3.0 2.3 2.7 2.6 2.7 3.5 2.5 2.7
30.0 25.0 14.0 12.0 10.0 0.0 7.0 11.0 13.0 15.0 25.0

0.0 4.3 3.3 3.3 3.5 5.1 4.8 3.2
24.0 16.0 13.0 0.0 6.0 11.0 15.0 22.0

LT.

♀

RT.

STA	BS	H.I.	FS	ELEV.
		118669		
11+10				11825
11+28		1180.6		1180.6
T.P.	285	1177.90	11.64	1175.05
B.M.			943	1168.47
12				1173.6
B.M.	344	1171.91		1168.47
12+50				1168.7
13				1166.0
T.P.-B.M.	424	1165.51	10.64	1161.27
14				1163.5

sawt

0.2	5.2	4.3	4.2	4.7	6.3	7.2
250	16.0	13.0	0.0	5.0	12.0	250

0.6	1.4	7.2	5.8	6.1	6.2	8.1	7.8	9.0
250	19.0	11.0	9.0	0.0	10.0	16.0	20.0	30.0

BASE NE COR. BOARD - URBANSKIS

7.0	0.5	4.9	3.7	4.3	5.2	6.1	6.0	4.7
250	21.0	11.0	7.0	0.0	14.0	19.0	22.0	25.0

BASE NE COR. BOARD URBANSKIS

0.0	2.7	2.8	2.7	3.2	3.4	5.4	4.0
250	16.0	12.0	7.0	0.0	13.0	20.0	26.0

7.0	5.2	5.7	5.9	5.5	9.0	9.1
28.0	22.0	12.0	0.0	9.0	20.0	25.0

TOP OF WING

8.7	5.5	6.0	5.0	2.2	2.0	2.4	9.5	13.0
24.0	22.0	20.0	15.0	7.0	0.0	8.0	25.0	50.0

22.5 FROM ♀ TO WING WALL OF CULVERT
3X3 CULVERT APPROX. WITH DITCH LINE

LT.

£

RT.

STA. B.S. H.I. F.S. ELEV.

14+44.0 1169.1

100 6.5 0.8 1.6 22 14 1.4 11.2 12.0 13.0
400 320 21.0 17.0 7.0 0.0 4.0 220 24.0 50.0

15 1157.1

17.0 14.0 9.0 8.4 8.5 16.9 17.0
25.0 20.0 13.0 0.0 12.0 24.0 50.0

T.P. 1.03 1156.21 10.33 1155.18

16 1146.5

same 14.0 9.2 9.7 9.0 13.3 13.0
20.0 11.0 0.0 9.0 17.0 24.0 same

T.P. 0.84 1146.25 10.80 1145.41

B.M. 5.95

NAILED ON 8" LIMB STUB - OF APPLE

17 FILL TO 4' HERE 1136.5

12.6 12.6 9.4 9.8 9.2 11.4 11.0 10.5
25.0 19.0 12.0 0.0 9.0 15.0 20.0 30.0

T.P. 0.30 1135.26 11.29 1134.96

17+77.5 1131.8

3.6 3.8 3.4 3.5 4.1 3.9 3.6
25.0 20.0 12.0 0.0 7.0 20.0 30.0

18 1132.8

4.7 4.7 4.5 5.0 5.9 4.6 5.0
25.0 20.0 0.0 8.0 11.0 16.0 25.0

19 1128.2

6.8 7.3 7.1 7.2 7.8 7.0 7.2
25.0 14.0 0.0 4.0 10.0 14.0 25.0

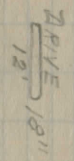
20 1126.7

8.6
0.0

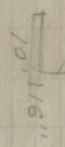
SOUTH CHESHIRE DRAINAGE NOTES

18" PIPE AT CARLTON SHOULD

STA 2



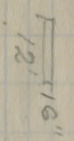
STA 3



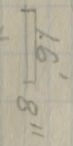
3+75



4+20



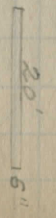
5+20 - TOO SMALL



5+10 =

18" SEWER PIPE ACROSS
TO GULLY ON RIGHT
SHOULD HAVE HEADER
WALL

7+25 . TOO SMALL



Aug 11, 1922 GOODWIN AVE ROAD BED Stakes.

P. Scherrer
L. Walter

	Grade	Grade Rod		
B.M. 257	1325.68		N	5 1323.11
0+50	1320.85E			
	1320.60 Side	5.08		
	1320.61E			
1+00				
	1320.20E			
1+50				
	1319.40E			
2	1319.15	6.53 OK.	OK	
	1316.80E			
2+50	1316.55 Side	9.13		
	1312.90E			
3				
T.P. 1.08	1315.02		11.74	1313.94
3+50	1311.00			
4+00	1308.10			
4+50	1305.32			
5+00	1302.80			
T.P. 1.08	1302.81		12.29	1302.73
5+50	1300.52			
6	1298.50			
6+50	1296.72			
7	1295.20			
7+50	1293.80			
8	1292.40			
8+50	1291.00			
T.P. Wat. Trough		4.91		1298.90

N.W. Cor. Tallas Front Step.

Subgrade

1320.18
1319.96
1319.53
1318.73
1316.13
1313.23
1310.33
1307.43
1304.65
1302.13
1299.85
1297.83
1296.05
1294.53
1293.13
1291.73
1290.33

Ground Readings.

1321.13
4.55
1320.84
4.84
1319.98
5.70
1318.78
6.90
1316.48
9.20
1314.03
11.65
1312.97
4.05
1307.40
7.62
1304.70
10.32
1301.92
13.70
1299.94
3.87
1297.81
6.0
1296.31
7.50
1295.50
8.80
1293.3
10.50
1291.84
11.97
1290.31
13.50

0+00 - $\frac{1321.28}{4.40}$ on Pav.

GOODWIN AVE ROAD BED STAKES

Aug 19, 1922
Warmed Windy H.I.

P. Scharrer
H. Walter

	grade	9'	9'
B.M. 2.46	1325.57		S 1323.11
0+50	1321.70 side 1321.55 E	3.87 OK	OK
1+00	1321.30 1320.62 E	4.27 OK	OK
1+50	1320.37 1319.22 E	5.20 OK	OK
2+00	1318.97 1316.80 E	6.60 OK	OK
2+50	1316.55 1313.90 E	9.02 OK	OK
3+00	1313.65	11.92 OK	OK
T.P. 0.20	1314.10	11.67	1313.90
3+50	1311.00 E 1310.75 1308.10 E	3.35 OK	OK
4+00	1307.85 1305.32 E	6.25 OK	OK
4+50	1305.07 1302.80 E	9.03 OK	OK
5+00	1302.55	11.55 OK	
T.P. 0.70	1301.92	12.88	1301.22
5+50	1300.52 1300.27 1298.50	1.65 OK	OK
6+00	1298.25 1295.20	3.67 OK	OK
7+00	1294.95	6.97 OK	OK
Check B.M.		3.08	1298.84
7+50	1293.80 E 1293.55 1292.40	8.37 OK	OK
8	1292.15	9.77 OK	OK
T.P. 1.85	1294.45	9.32	1292.60
8+50	1290.00 1290.75 1289.60	3.70 OK	OK
9+00	1289.35 1288.20	5.10 OK	OK
9+50	1287.95 1286.80	6.50 OK	OK
10+00	1286.55	7.90 OK	
T.P. 331	1288.98	8.78	1285.67

Stakes set 9' N & S of \pm 3" = .25 below Plan grade
 \pm Grade changed from 0 to 200
Ground G.S.

N.W Cor. Tolles Front Step.

Rock

1318.77	
6.80	
1316.52	
9.05	
1114.05	
11.53	
1310.82	
3.28	
1307.35	
6.75	
1304.62	
0.48	
1301.87	
12.23	
1299.92	
2.0	
1297.72	
4.14	
1294.92	
7.00	
1298.72	
1298.84 before	
1293.27	
8.65	
1391.82	
10.10	
1290.25	
4.20	
1288.75	
5.70	
1287.45	
7.00	
1286.30	
8.15	

on Wat. Trough. - 1298.84 before 1298.81

H.I.
1288.98 1285.22 N S

10+50 1285.07 3.91 OK OK
11+00 1282.70
1283.45 5.53 OK OK
1281.92
11+50 1281.67 7.21 OK OK

Check B.M. Road Bed Stakes 4.68 1284.30
Sept 15, 1922 - P Schermer & Ketchum

B.M. 2.33 1286.63 1284.30

11 1283.70 2.93
2.71 N S
11+50 1281.92 4.96 OK OK
5.63 Raised 0.3
11+75 1281.00 5.88 OK OK 5.58
6.63 Raised 0.7
12+00 1280.00 6.88 OK OK 1.8
7.63 Raised 0.3
12+25 1279.00 7.88 OK OK 7.08
8.63 Raised 0.4
12+50 1278.00 8.81 OK OK 8.48
10.63
13 1276.00 10.82 OK OK
17.63

T.P. 0.94 1276.70 10.87 1275.76

13+50 1274.00 2.70
2.95 OK OK
4.70
14 1272.00 4.91 OK OK
6.70
14+50 1270.00 6.91 OK OK
8.77
15 1267.93 9.02 OK OK
10.97
15+50 1265.73 11.22 OK OK

T.P. 0.77 1266.23 11.24 1265.46

16 1263.40 2.83
3.28 OK OK
5.30
16+50 1260.93 5.35 OK OK
7.90
17 1258.33 8.15 OK OK
10.67
17+50 1255.60 10.88 OK OK

1284.78

4.20
1283.11
5.27

1281.08
7.90

X on Cemetery East Pillar Foundation. 1284.24 1284.33
1284.30

X on Cemetery East Pillar Foundation

Sta 13 S.S. Top Stake

Sta 15+50 S.S

27%
1.83%
87
44 -11

16/ 4.17 26
22
9.7
96
4/ 4.17 1.04
4/ 100 26

		N	S
	1266.23		
T.P. 1.08	1256.41		
		3.61	10.90
18	1252.80	2.86	OK OK
18+50	1250.00	6.41	
		6.66	OK OK
19	1247.31	9.35	OK OK
19+50	1244.85	11.81	OK
T.P. 3.82	1248.41		
		5.27	11.82
20	1243.14	5.52	OK OK
20+50	1242.70	5.76	OK OK
Check on B.M.		6.11	1242.30
21	1243.19	5.47	OK OK
21+50	1244.25	4.41	OK OK
22	1245.49	3.17	OK OK
East Rail & Road.		1.92	1246.49
23	1247.43	1.23	OK OK
23+50	1248.34	0.32	OK OK
T.P. 11.57	1259.65		
		10.39	0.33
24+00	1249.26	10.64	OK OK
24+50	1250.43	9.47	OK OK
25	1252.14	7.76	OK OK
25+50	1254.36	5.58	OK OK
26	1257.10	2.80	OK OK
T.P. 8.42	1265.27		
		5.17	2.80
26+50	1260.10	5.47	OK OK
26+94 = 27+05 + Raised 0.20 on post extra length	1262.90	2.62	OK OK

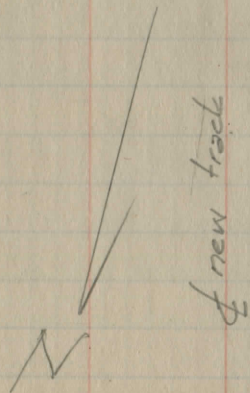
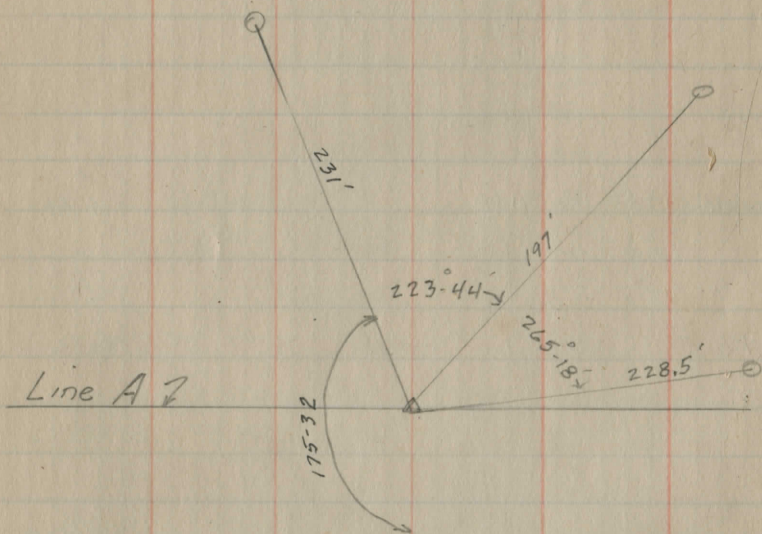
Stake 19+50 S. Side

X on East End So. Parapet 1242.34 before

Sta 23+50 S.S.

Sta 26+00. Top Stake S.S.

Lamp-holes into 10" tile xing
 sly end $\frac{1}{2}$ mi track
 6-6-54



MAY 18TH S. MAYNARD & BENDER

FAIR GROUNDS LOCATION'S



4 MH. IN line SW & GS. + NW C.E.I. ^{M.H.} 94' to GS 103' to SW & GS from NW C.E.I.

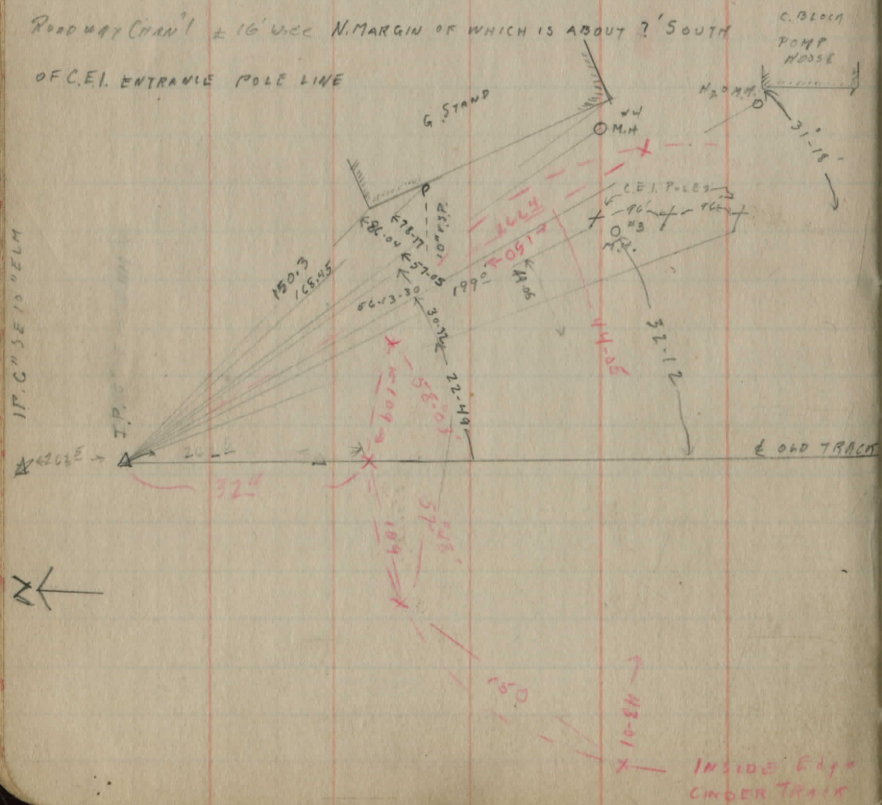
M.H. 3 to M.H. 4 = 113.5 M.H. 3 to SW & GS = 121'

M.H. 3 to H₂O H.H. = 221.8 M.H. 4 to H₂O H.H. = 235.5

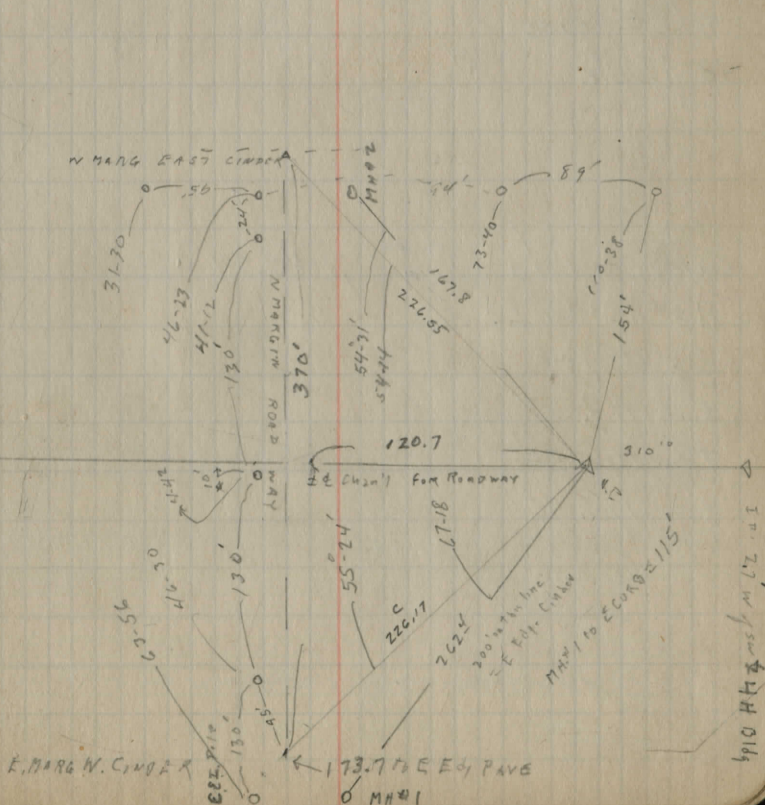
H₂O H.H. = 7' WEST OF M.H. & CONC. BIK PUMP HOUSE

ROADWAY CHAN' ± 16' WIDE N. MARGIN OF WHICH IS ABOUT 7' SOUTH

OF C.E.I. ENTRANCE POLE LINE

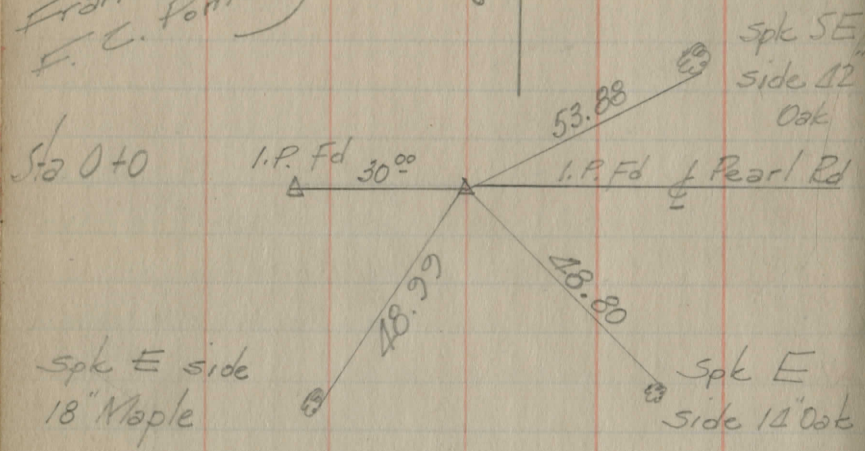
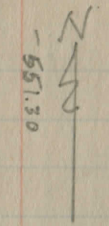


To Channel Rdwy E = 112.18 from old 5/4 RD



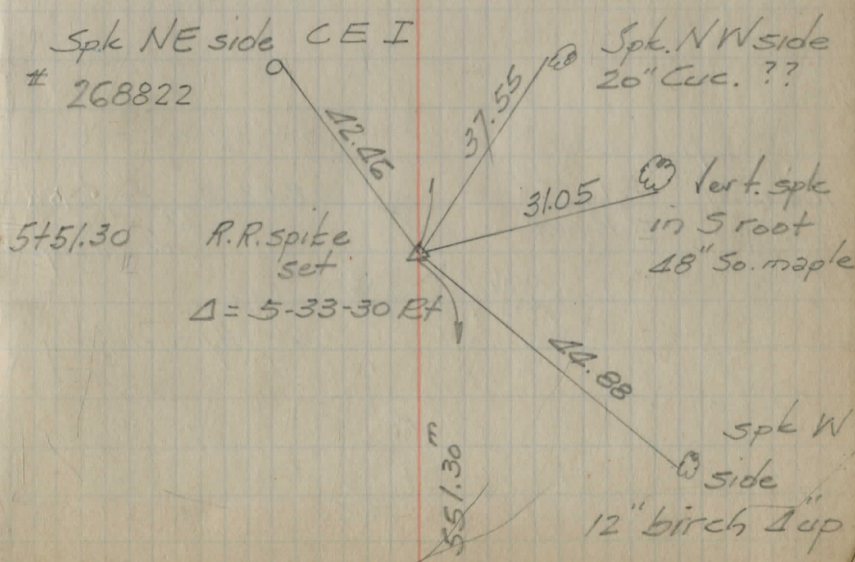
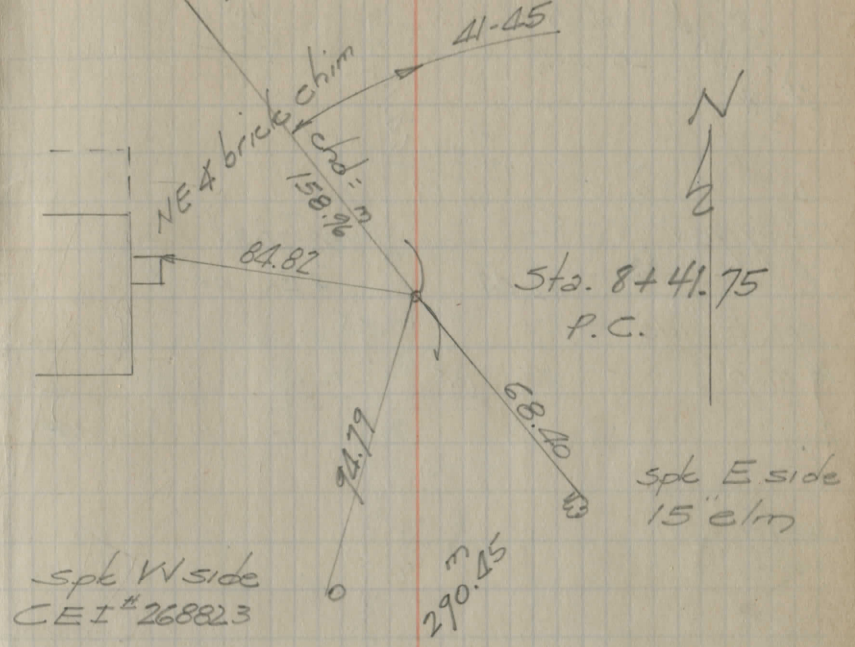
ROBINSON RD (Pearl rd.)

11-10-51
 Jack Maynard
 Frank Lewis
 F. C. Pomeroy

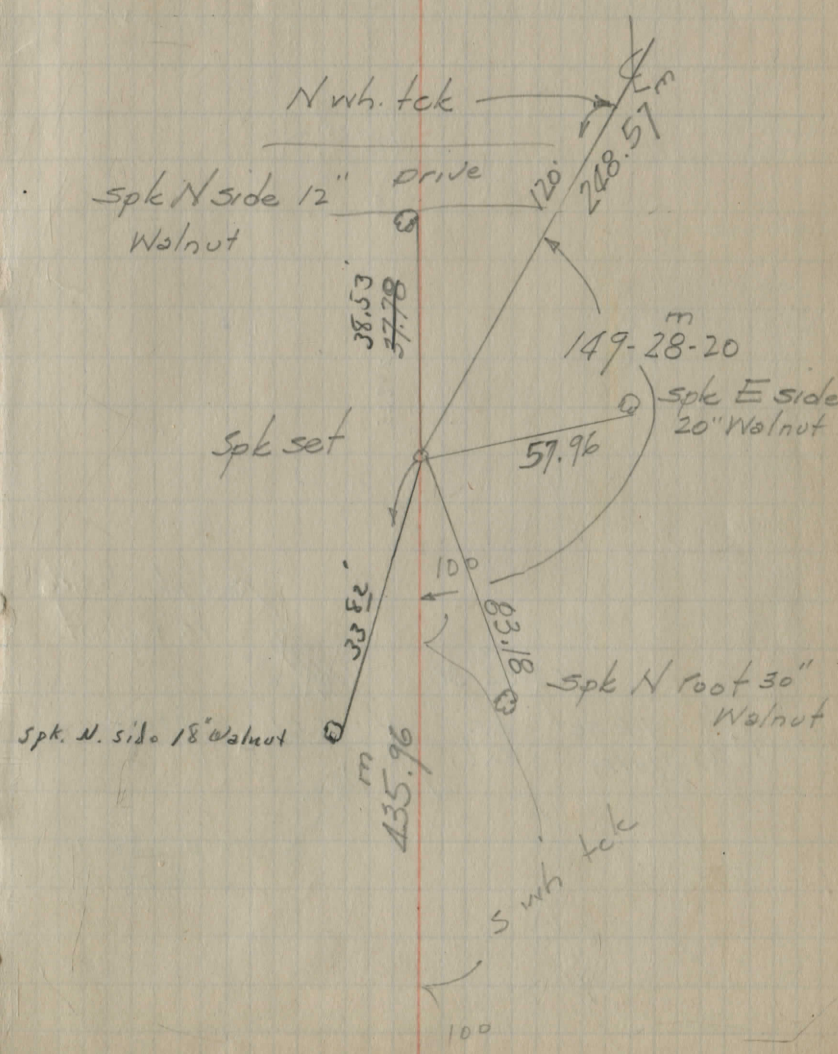
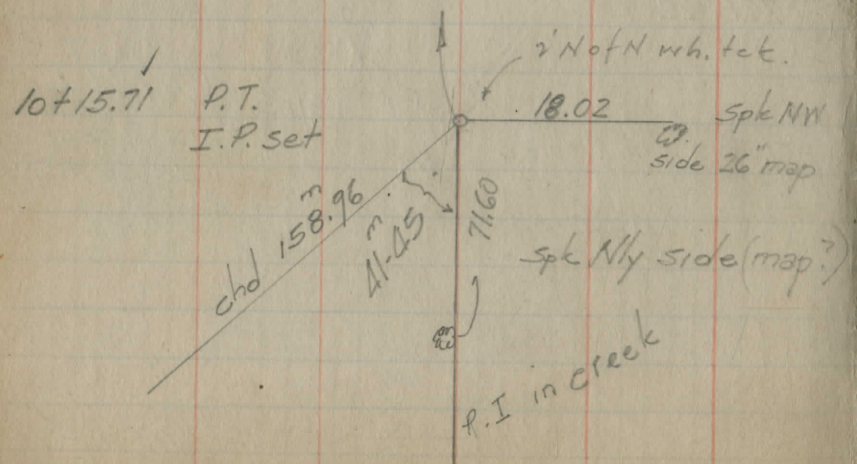
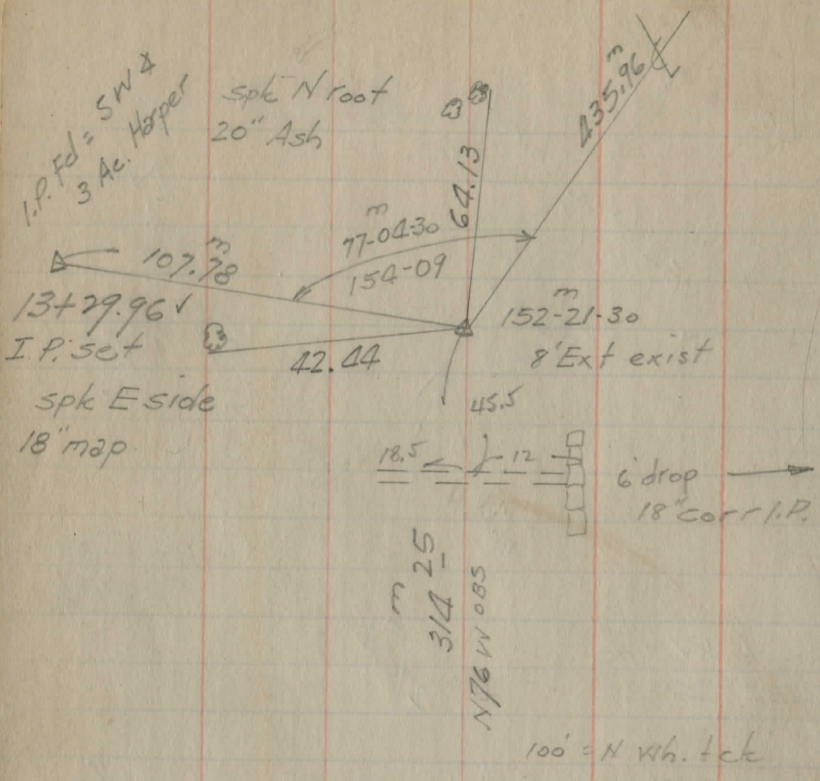


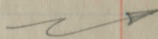
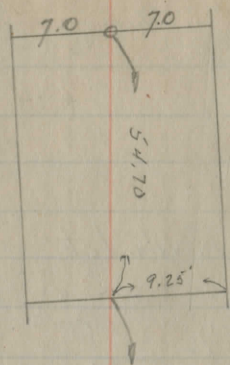
Curve data P.I = 94 48.79 ✓
 $\Delta = 83-30$ Lt.
 $D = 48-00$
 $R = 119.37$
 $T = 106.54$
 $L = 173.96$

northerly

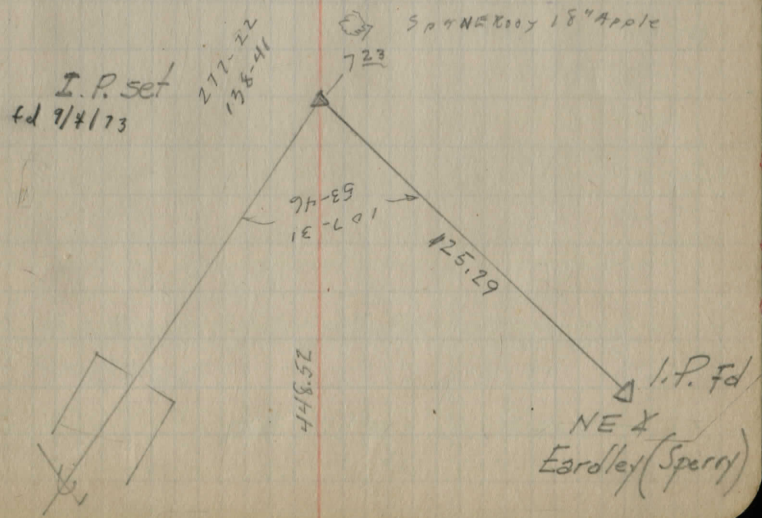
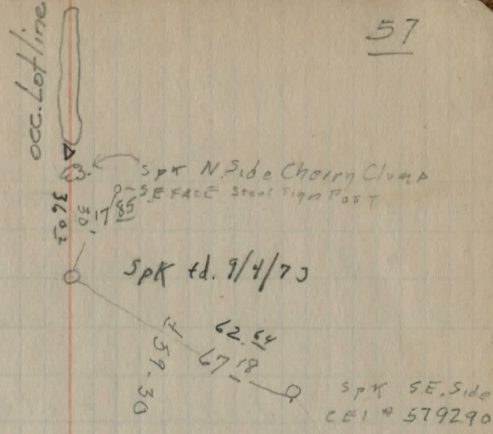
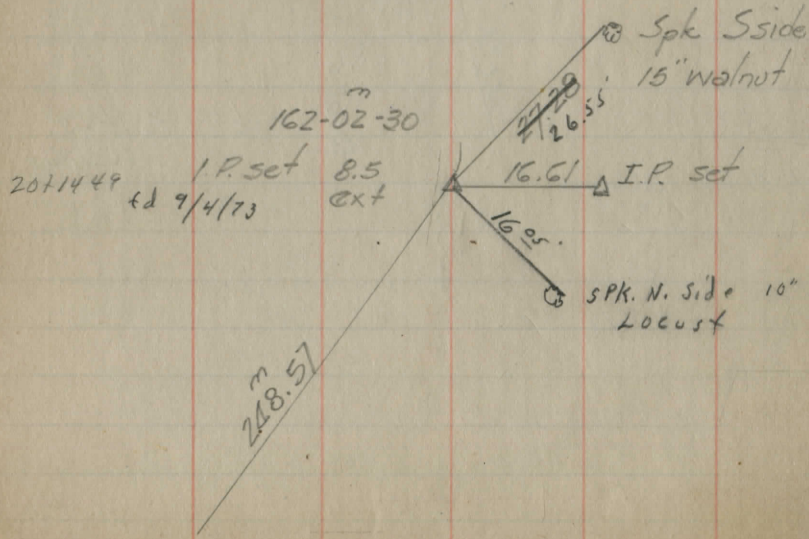


spk W side CEI # 268823
 spk NE side CEI # 268822
 spk NW side 20" Cuc. ??
 vert. spk in S root 48" So. maple
 spk W side 12" birch sap
 $\Delta = 5-33-30$ Rt.
 Sta. 8+41.75 P.C.





P. 1, 76, 448.52 FI
28725



5-6-52

HOT ROD TRACK
Burton Fair Gds

B.M. 5.73 1278.86 1273.13

5a

	Ground Inside	Ground Outside		
	72.5	72.7	78.86	
5.46 r	6.34	6.61	1272.4	5.46 r
C1-0			6.46	C1-0

5b

Unless noted "top stk",
grades are to keel mark

	72.5	72.3	78.86	
4.83 r	6.33	6.52	1273.03	4.83 r
C1-0			5.83	C1-0

5c

	73.1	72.4	78.86	
4.20 r	5.72	6.43	1273.66	4.20 r
C1-0			5.20	C1-0

5d

	73.4	73.2	78.86	
3.57 r	5.46	5.67	1274.29	3.57 r
C1-0			4.57	C1-0

5e

	73.6	73.4	78.86	
2.94 r	5.27	5.43	1274.92	2.94 r
C1-0			3.94	C1-0

5f

	73.5	73.5	78.86	
2.31 r	5.35	5.40	1275.55	2.31 r
✓ Top stk C1-0			3.31	top stk C1-0

5g

	73.7	73.4	78.86	
1.68	5.14	5.50	1276.18	2.68 r
top C1-0			2.68	top stk G

5h

	73.8	73.3	78.86	
2.16 top	5.04	5.56	1276.70	2.16 r
G			2.16	top G

58

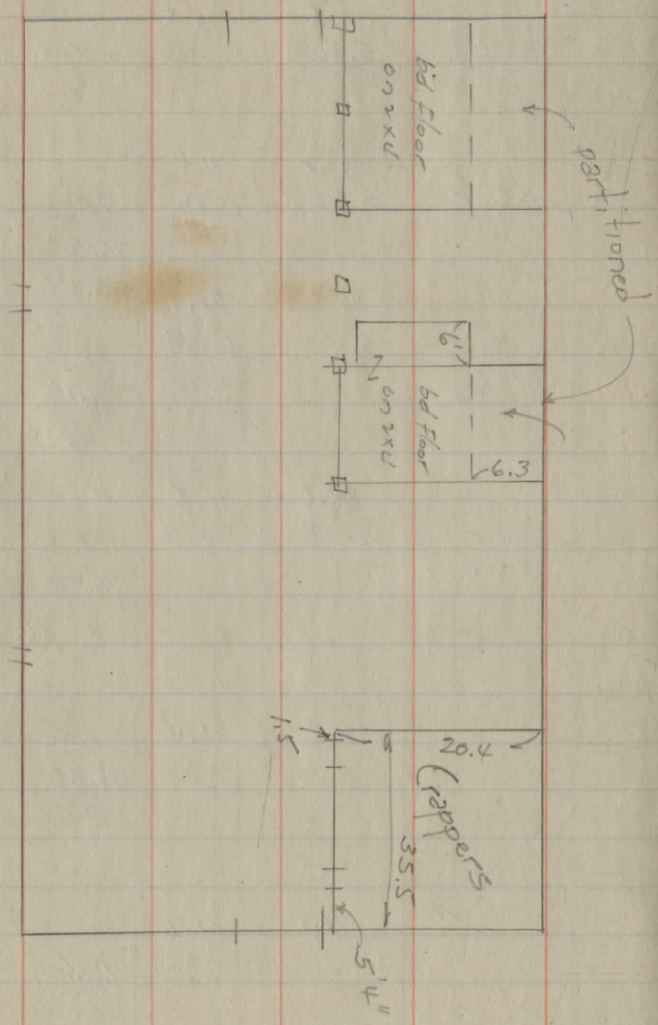
1278.86

57

		Ground in	Ground out		✓ top
Si	2.76 top G	73.5 5.36	72.8 6.08	78.86 1276.10 2.76	2.76 r G
Sj	top 2.46 r C1-0	73.2 5.66	71.6 7.26	78.86 75.40 3.46	top 3.46 G
Sk	top 3.16 r C1-0	72.9 6.00	72.1 6.75	78.86 74.70 4.16	top 4.16 r G
Sl	top 3.86 r C1-0	72.6 6.29	71.5 7.40	78.86 74.00 4.86	top 4.86 r G
Sm	top 4.56 r C1-0	72.8 6.10	71.4 7.50	78.86 73.30 5.56	top 4.56 r C1-0
Sn	5.26 r C1-0	72.8 6.04	71.6 7.22	78.86 72.6 6.26	5.26 r C1-0
T.P.	3.61	1275.25			
I.P. ± 1/4 mi track line I					

Inside G.S. Burton

6



6-8-5 ✓

Levels inside G.S.

3.58

76.71

1273.13

4.79 71.92

4.83 71.88

4.65 72.06

4.58 72.13

2.78 73.93

3.04 73.67

4.79 71.92

4.85 71.86

4.58 72.13

2.8 73.91

4.78 71.93

5.26 71.45

5.45 71.26

5.20 71.51

5.21 71.50

5.12 71.59

4.97 71.74

5.38 71.33

61

SW ✕

S entrance

Floor S toilet Men

" N " Ladies

Exit AB

" BC

1st pier N of exit BC 8.3' E edge3^d " " " " " "1st " S " " CD " "

Exit DE " "

8th " " " "

N entrance

NW ✕

Etr pier West

" piers & entrances

Steel pier plate ctr row N & S 1st E of

S gate W side W side

N " " "

6-9-52

More of Hot Rods

T.P.	4.51	1279.76	1275.25
Na			
Nb			
Nc			
Nd			
Ne			
Nf			
Ng			
Nh			

62

E I.P. line I & 1/2 mi track

		Ground out	Ground in		
	486 r	73.8	73.8	79.76	4.86 r
	C1-0	5.95	6.0	<u>73.90</u>	C1-0
				5.86	
	4.06 r	74.2	74.2	79.76	top
	C1-0	5.60	5.55	<u>74.70</u>	4.06 r
				5.06	C1-0
		74.7	74.8		
	3.26	5.10	5.0	79.76	3.26
	C1-0			<u>75.50</u>	C1-0
				4.26	
		75.4	75.4		
	top 2.46 r	4.36	4.37	79.76	blue
	C1-0			<u>76.30</u>	2.46 r
				3.46	C1-0
		75.8	75.6		
	top 1.66 r	4.0	4.11	79.76	top
	C1-0			<u>77.1</u>	1.66 r
				2.66	C1-0
		75.6	75.6		
	top 1.86 r	4.2	4.16	79.76	top
	G			<u>77.9</u>	1.86 r
				1.86	G
		75.9	75.7		
	top 0.56 r	3.84	4.03	79.76	top
	G			<u>78.7</u>	0.56 r
				0.56	G
		75.6	75.5		
	top 1.18 r	4.2	4.3	79.76	top
	G			<u>78.08</u>	1.18 r
				1.18	G

Ni

Nj

Nk

Nl

Nm

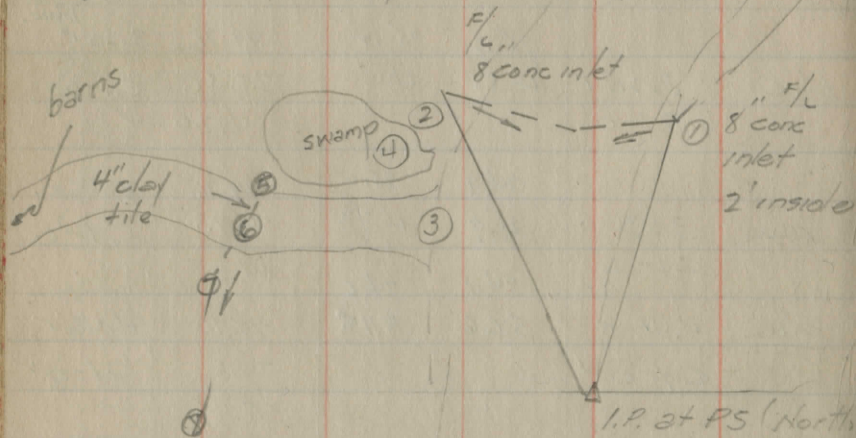
Nn

52.17 south
 104.34 "
 156.51 "
 52.17 N to S
 104.34 " "
 156.5 " "

} E straightaway
 } W "

		Ground out	Ground in		
top	1.31 r C1-0	75.3 4.45	75.2 4.57	79.76 <u>77.45</u> 2.31	1.31 top C1-0
blue ✓	1.94 r C1-0	75.2 4.56	75.1 4.65	79.76 <u>76.82</u> 2.94	1.94 top C1-0
top	1.57 r C2-0 ✓	75.3 4.43	75.2 4.56	79.76 <u>76.19</u> 3.57	1.57 top C2-0 ✓
blue ✓	3.20 r C1-0	75.2 4.55	75.4 4.4	79.76 <u>75.56</u> 4.20 ✓	3.20 blue C1-0 ✓
blue	3.83 C1-0	74.9 4.9	75.0 4.73	79.76 <u>74.93</u> 4.83	3.83 r C1-0
blue	4.46 r C1-0 ✓	74.1 5.66	74.6 5.15	79.76 <u>74.3</u> 5.46	blue 4.46 r C1-0 ✓
		73.3	6.42	5.86	73.9
		74.6	7.20	6.52	73.2
		74.4	7.35	6.77	73.0
		74.9	6.85	6.45	73.3
		74.8	6.94	7.0	74.8
		74.5	7.23	7.0	74.8

T.P.	3.95	79.20	1275.25
	Stadia	L	rod
#1	172	171-51L	5.96 73.24
#2	242	189-37L	4.80 74.40
#3	115	228-03L	1.76 77.44
#4	169	222-52	6.05 73.15
#5			5.35 F/L 73.85
#6	194	238-13	5.20 74.00
#7	201	242-49	6.77 F/L 72.43
#8	207	251-13	7.18 Ground 72.02



Back Sight
 Home stretch
 1/2 mi tick
 I.P. at PS (South)

#9 158-13L 243' 7d.14
 5.07 ditch leading
 to 8" pipe
 inside of track

(Centerfield side) rail

8-1-5 ✓ FINAL GRADES FOR
GRAND STAND FLOOR

B.M. 3.53 76.66 ✓ 1273.13

1 ✓ 73.1

2 ✓ 73.08

3 ✓ 73.05

4 ✓ 73.05

5 ✓ 73.05

6 ✓ 73.05

7 ✓ 72.90

8 ✓ 72.90

9 ✓ 72.90

76.66
73.10
3.56

76.66
3.08
3.58

76.66
3.05
3.61

3.61

3.61

3.61

76.66
72.90
3.76

3.76

76.66
72.90
3.76 ✓

76.70
73.10
3.60

76.66
4.57
2.09

8-9-5 ✓ All grades
raised 2" (.17') ex.
at sills of toilets
= 10" cut from yellow
marks

10	72.90	Cut 1.0	3.76 ✓
11	72.90	"	3.76 ✓
12	^{used} 73.09 73.06	"	76.66 3.57 73.09 S side
13	73.13	"	76.66 4.51 72.15 } 76.66 x side 3.53 4.53 72.13
14	✓ 73.00		76.66 73 3.66
15	72.90		3.76
16	72.90		3.76
17	72.90		3.76

18 75.00 Cut 1' 76.66
75.00 1.66 ≠ 1.66

19 73.05 " 76.66
73.05 3.61

20 73.05 " 3.61

21 73.05 " 3.61

22 75.00 " 1.66 = 1.66

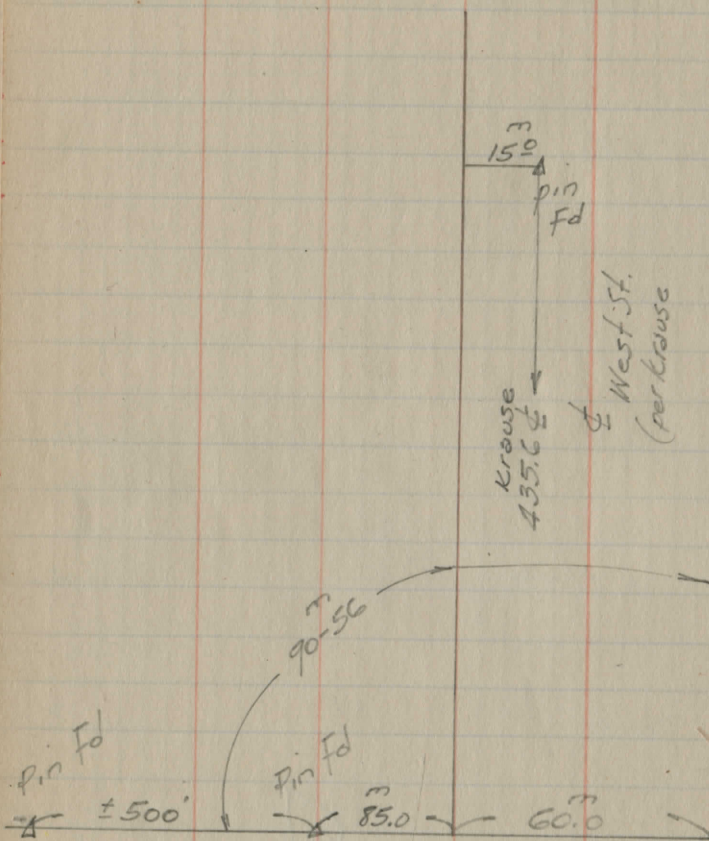
23 73.05 " 3.61

√ 24 73.05 " 3.61

See p 369

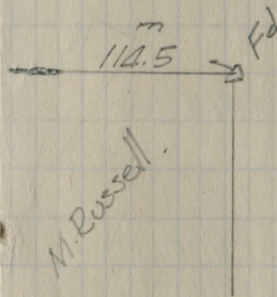
8-1-52

WEST STREET
Burton Vill & Twp



Route 87

68



GRANDSTAND FLOOR Grades

8-9-52

F.n.
Floor

BM	3.52	1276.65	1273.13
N inlet (#1)			71.7 - 1/2" =
N High (#2)			71.8
inlet (#3)			71.7
High (#4)			71.8
inlet (#5)			71.75
High (#6)			71.85
South inlet (#7)			71.80

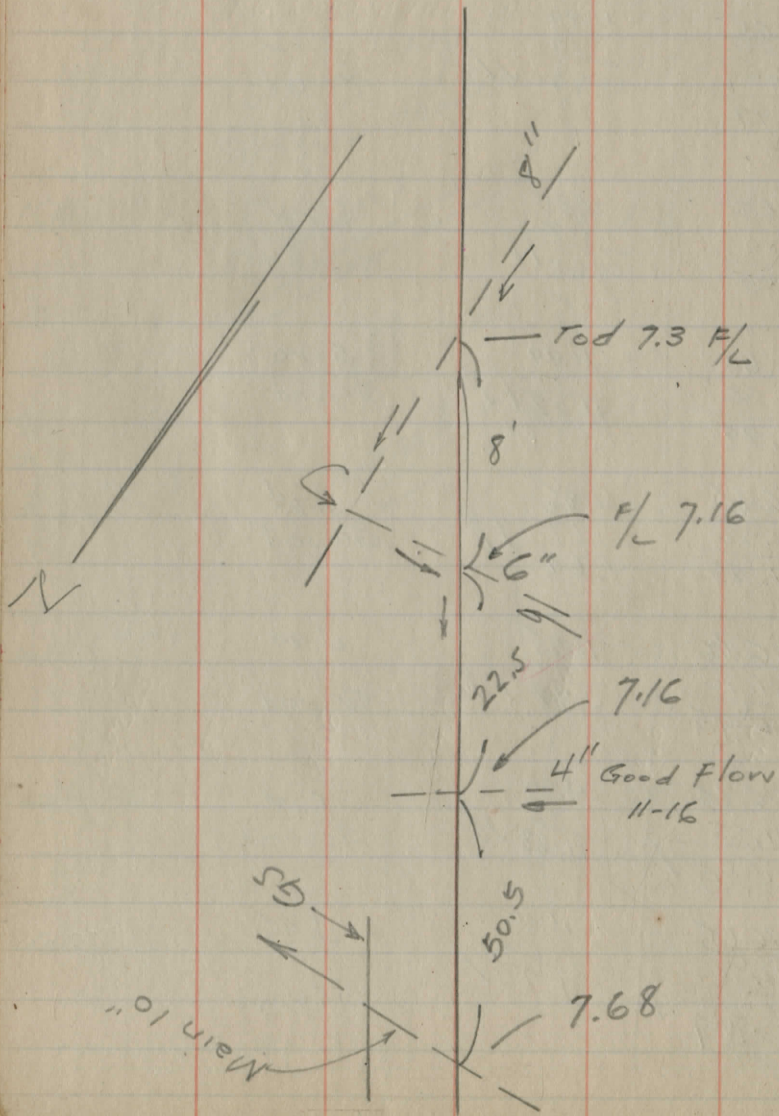
inlets dropped
1/2" from grade
of floor

all grades
raised 2" (.17)

Note All grades shown on plans raised 2" (.17)

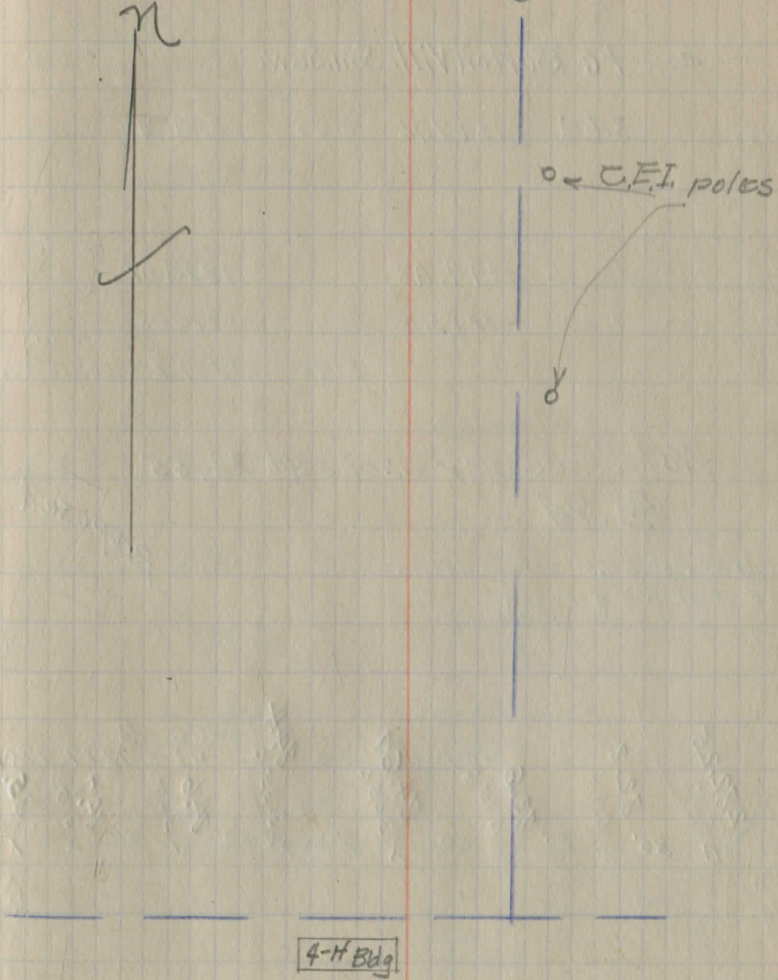
	76.65	4.99	5.12
	71.66	.17	ground
	4.99	4.82 ✓	
	76.65	4.85	5.22
	71.80	.17	Ground
	4.85	4.68 ✓	
	76.65	4.99	5.20
	71.66	.17	Ground
	4.99	4.82 ✓	
	76.65	4.85	5.22
	71.80	.17	Ground
	4.85	4.68 ✓	
	76.65	4.95	4.99
	71.70	.17	Ground
	4.95	4.78 ✓	
	76.65	4.80	5.02
	71.85	.17	Ground
	4.80	4.63 ✓	
	76.65	4.89	4.95
	71.76	.17	Ground
	4.89	4.72 ✓	

FL 10" Main 7.68



7/26/55 70

6" asbestos
San. sewer
flow 0.35%
MH

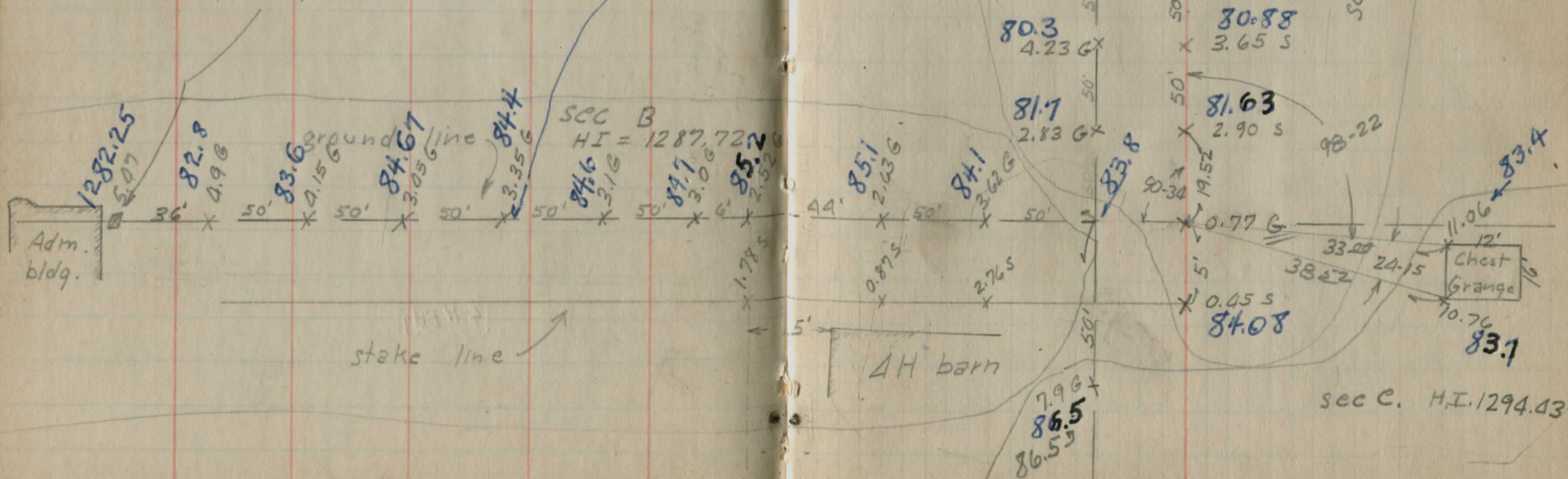


'55 Ext. San. sewer (sthy thru old track & wstly to office)
 7/26/55
 see pg 70 for sketch

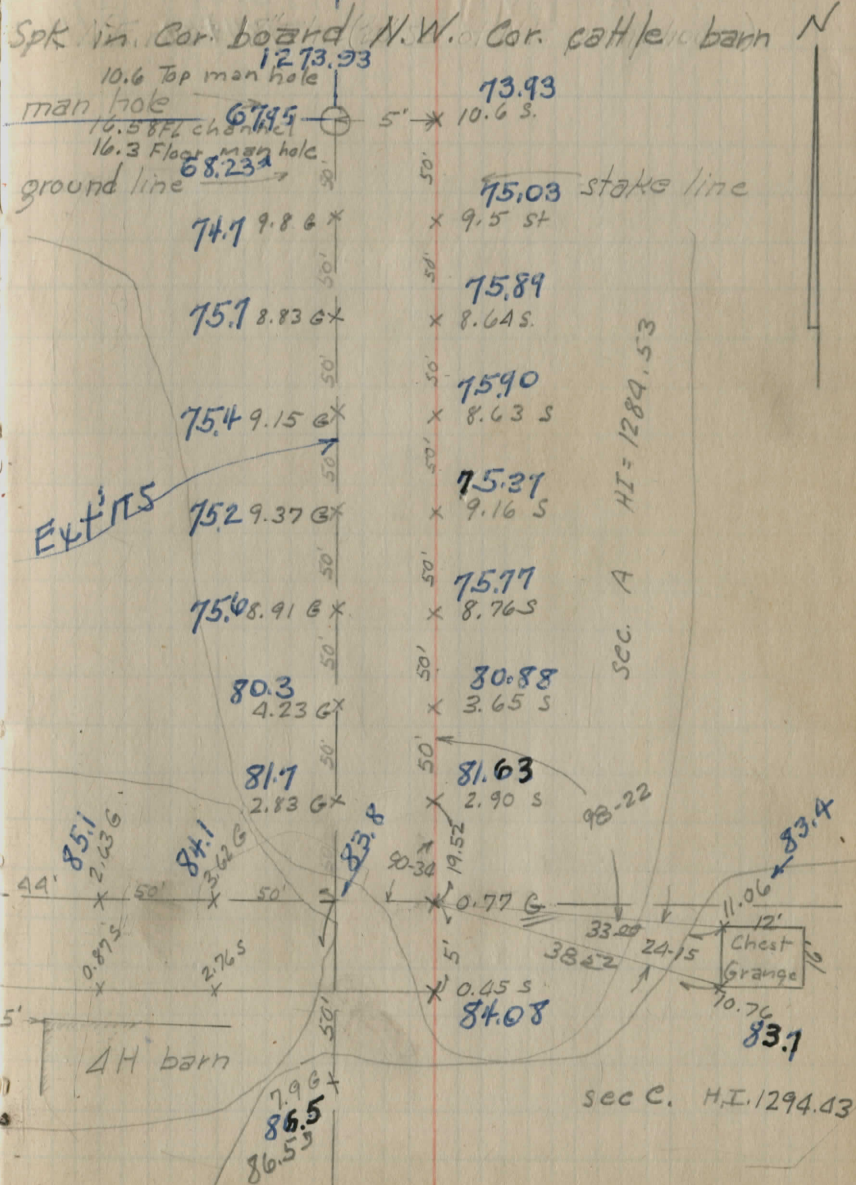
B.M.	5.31	1284.53	-	1279.22
← to Burton Vill. San. Sew. ←				
T.P. (x)	3.64	1287.72	0.45	1284.08
T.P. (x)	10.35	1294.43		1284.04
T.P. (x)	1.10	1285.18		1284.08
B.M.		5.98		1279.20

Note see elev. as of sept. 22, '55
 Pg. 74

wooden stake .5' E foundation
 & 3.55' S of NE & board



Existing 6" asbestos
 San. Sewer from Grandstand
 Elev'ts = ink

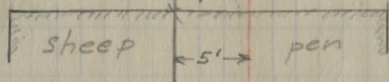
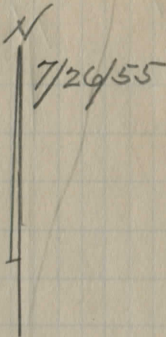


9/21/55 Check "Top of Stake" Elev's
for Sanitary Sewer Extensions

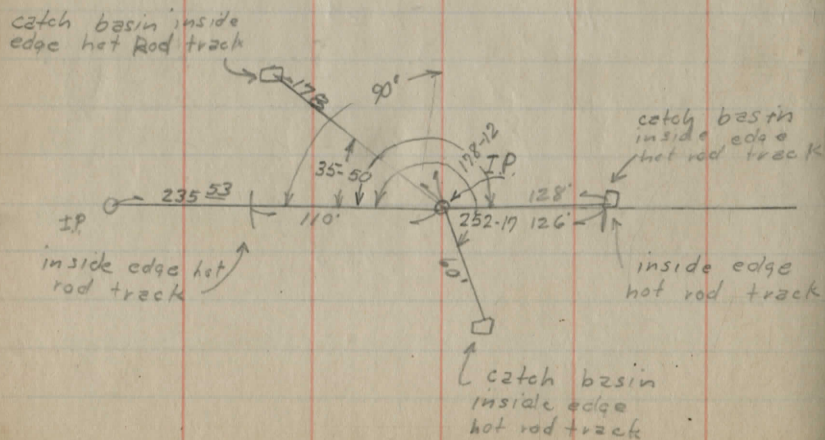
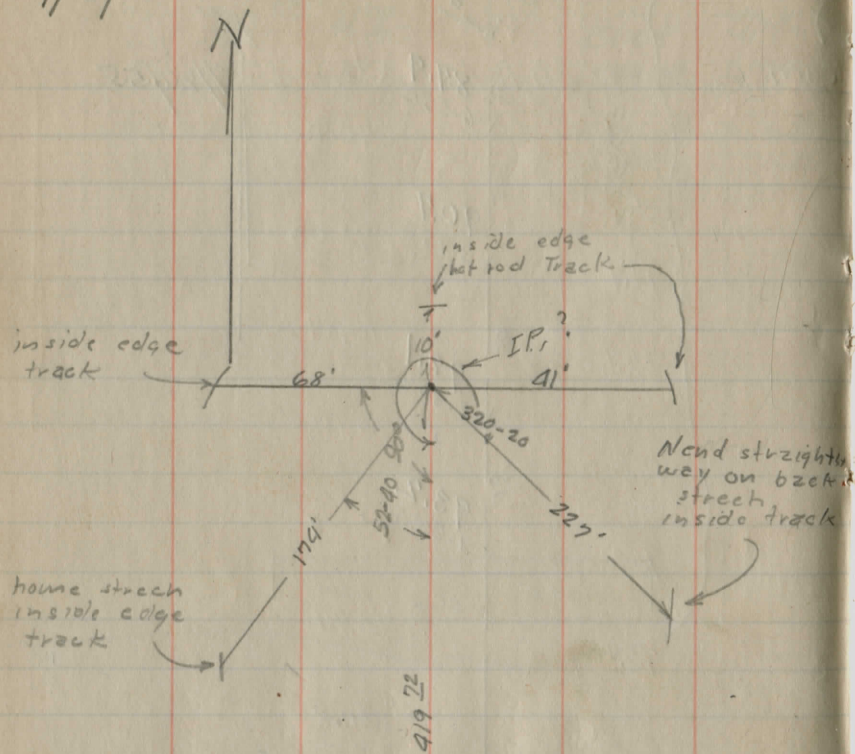
+	HI	-	Elev	Spk. No	*
			1279.22	Cattle Pen	

H.I. 1294.03

50' 86.5
 50' 87.9
 50' 86.55G
 50' 90.7
 50' 3.75G
 50' 92.1
 50' 2.30G
 43' 93.2
 1.25G



Location catch basins hot rod track
7/26/55

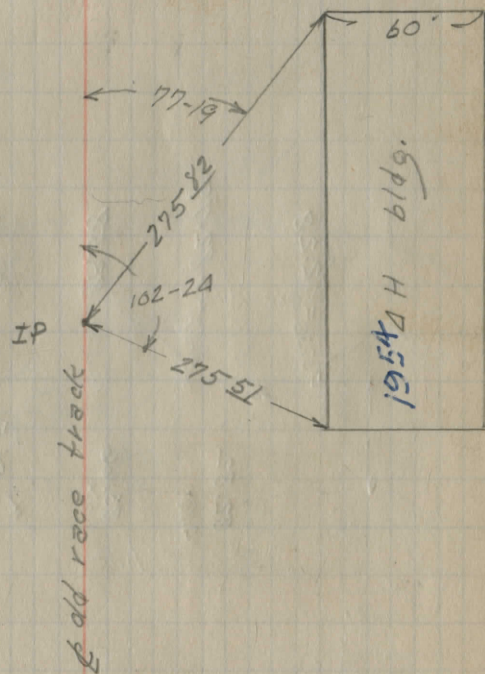


Location 4H barn at SE 4
Old Race track

73

I.P. •

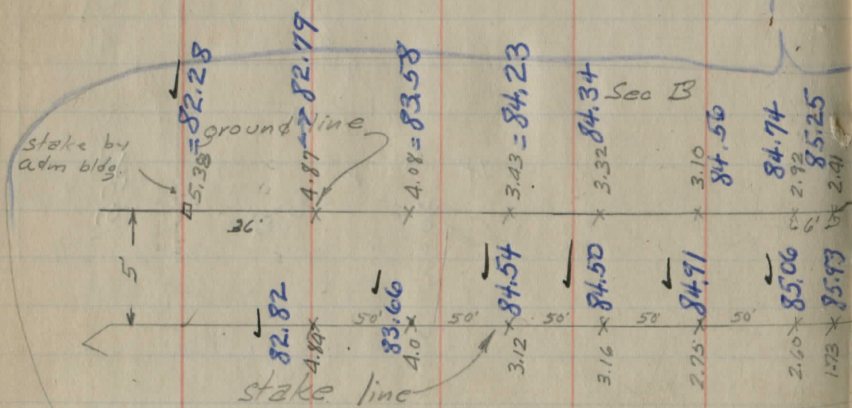
N 7/26/55



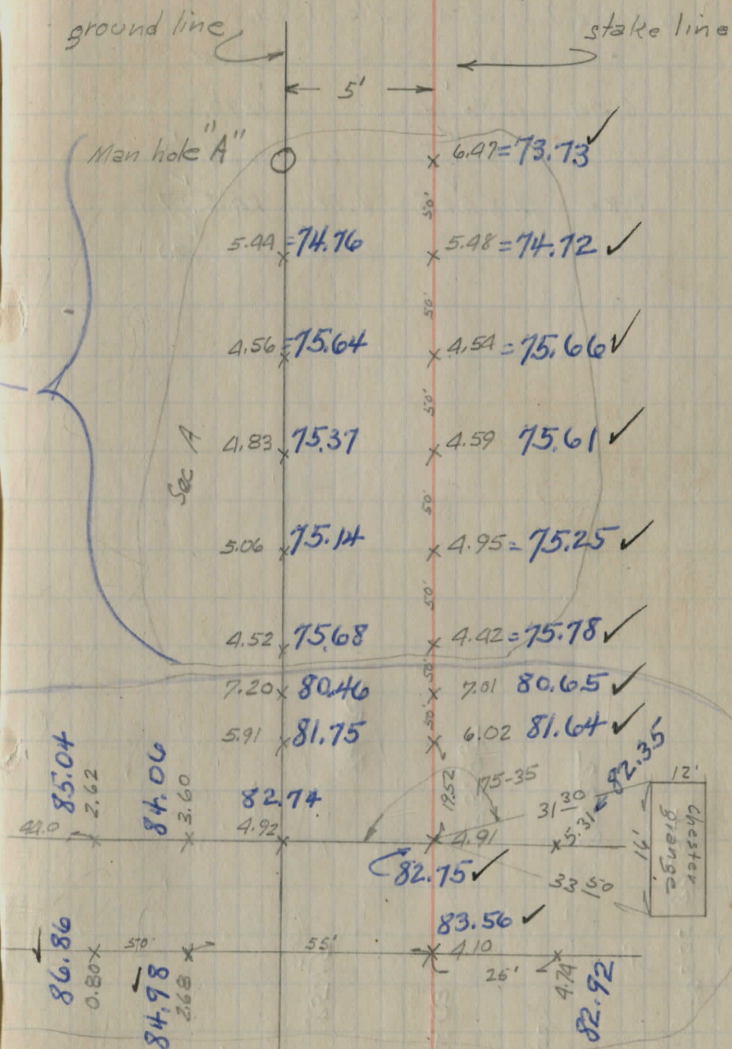
Sept. 22, 55 Fairgrounds Sewer

Spt in 4 board NW of cattle barn

	+	HI	-	elev
BM	0.98	(1280.20)		1279.22
Sec A = N & S part				
T.P.	8.36	(1287.66)	0.90	1279.30
Sec B = E & W part				
BM			8.44	1279.22



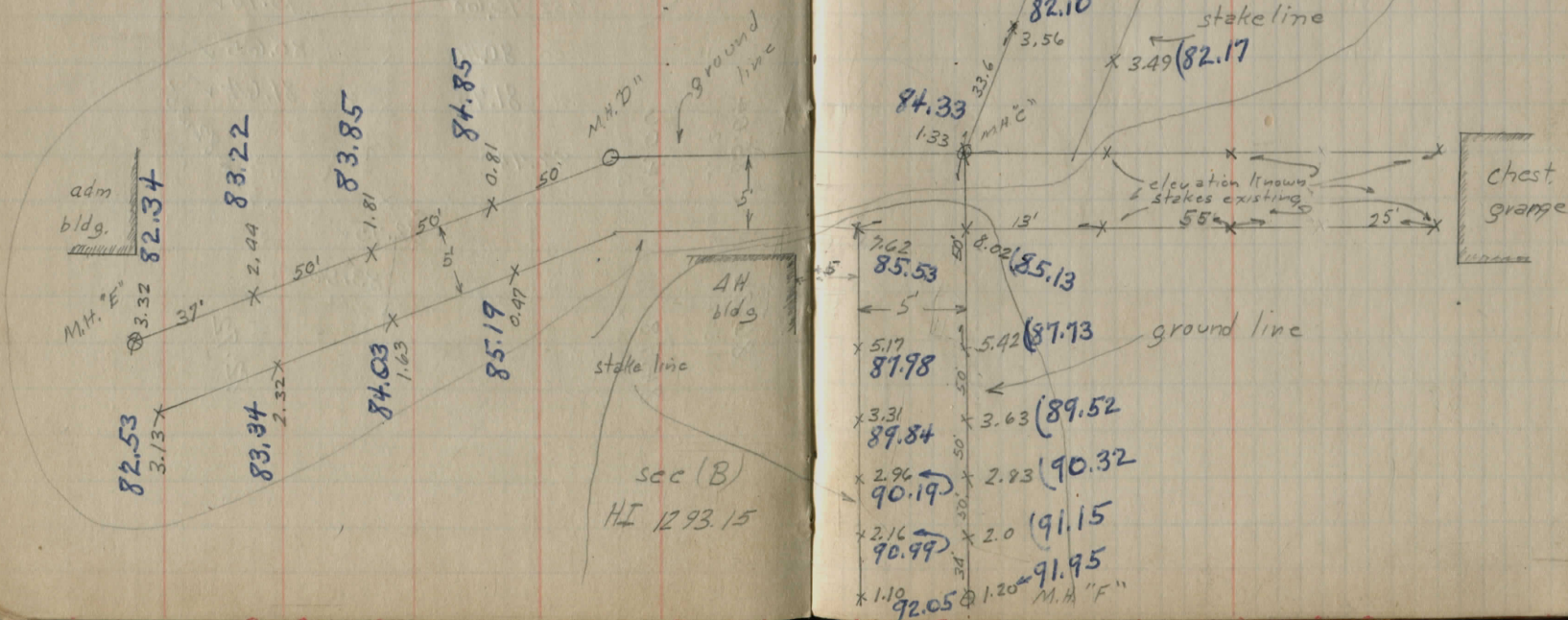
Pencil = Rod readings
 Ink = Elevations



proposed
Relocation sewer line (Fair grounds)
Oct. 3, 55

spk in 4 board NW of cattle barn

	+	HI	-	elev
BM	6.44	1285.66		1279.22
T.P.	8.17	1293.15	0.68	1284.98
T.P.	0.88	1285.85	8.18	1284.97
BM			6.65	1279.20



Time & expense on Goodwin Ave
survey - Burton Village

May 10	To Chardon & returns		1.18
" 10	Bliss $\frac{1}{2}$ day	field	2.00
" 10	Kennedy 1 "	"	6.00
" 11	N. Atkins 1 "	"	4.00
" 11	Kennedy 1 "	"	6.00
" 12	Akins 1 "	"	4.00
" 12	Kennedy 1 "	"	6.00
" 13	G. Matthews 1 "	Pl. RR	4.00
" 13	Kennedy 1 "	"	6.00
" 14	Matthews $\frac{1}{2}$ "	Pl. RR	2.00
" 14	Kennedy 1 "	"	6.00
" 15	expense to Chardon & returns		1.68
" 15	Kennedy office 1 day		6.00
" 17	expense - dinner		.50
" 17	Kennedy 1 day	office	6.00
" 18	expense - meals & RR		1.59
" 18	Kennedy 1 day	office	6.00
" 19	expense meals & RR		1.59
" 19	Kennedy 1 day	office	6.00

Time & expense on S. Chestnut St
survey - Burton Village

May 21	E. B. Bliss $\frac{1}{2}$ day	field	2.00
" 21	E. Wardorf $\frac{1}{2}$ "	"	2.00
" 21	Kennedy 1 "	"	6.00
" 22	E. Wardorf 1 "	"	4.00
" 22	Kennedy 1 "	"	6.00
" 24	E. Wardorf 1 "	"	4.00
" 24	Kennedy 1 "	"	6.00
" 25	E. Wardorf 1 "	"	4.00
" 25	Kennedy 1 "	"	6.00
" 27	" 1 "	office	6.00
" 27	expense dinner		.40
" 28	" 1 "	D & S.	.80
" 28	Kennedy 1 "	office	6.00
" 29	" 1 "	"	6.00
" 29	expense L. B. & RR		1.39

BURTON STA. T.P. PORTION

May 26	$\frac{1}{2}$ Akins	field	4.00
" 26	E. Wardorf		4.00
" 26	Kennedy		6.00

4.89

4.85

4.50

35

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope from face of shoulder
rate for any width roadway, slope 1 1/2 to 1.
If ground is nearly level, the cut or fill at side
is to be taken for the double width roadway.
left column and top row. — 1 inch equals 10 feet.

IMPROVED TABLES

AND

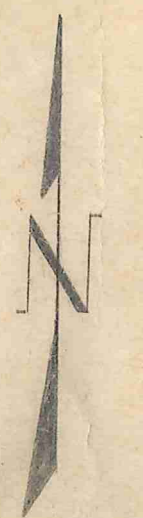
INFORMATION

necessary.

TABLE No. 2.

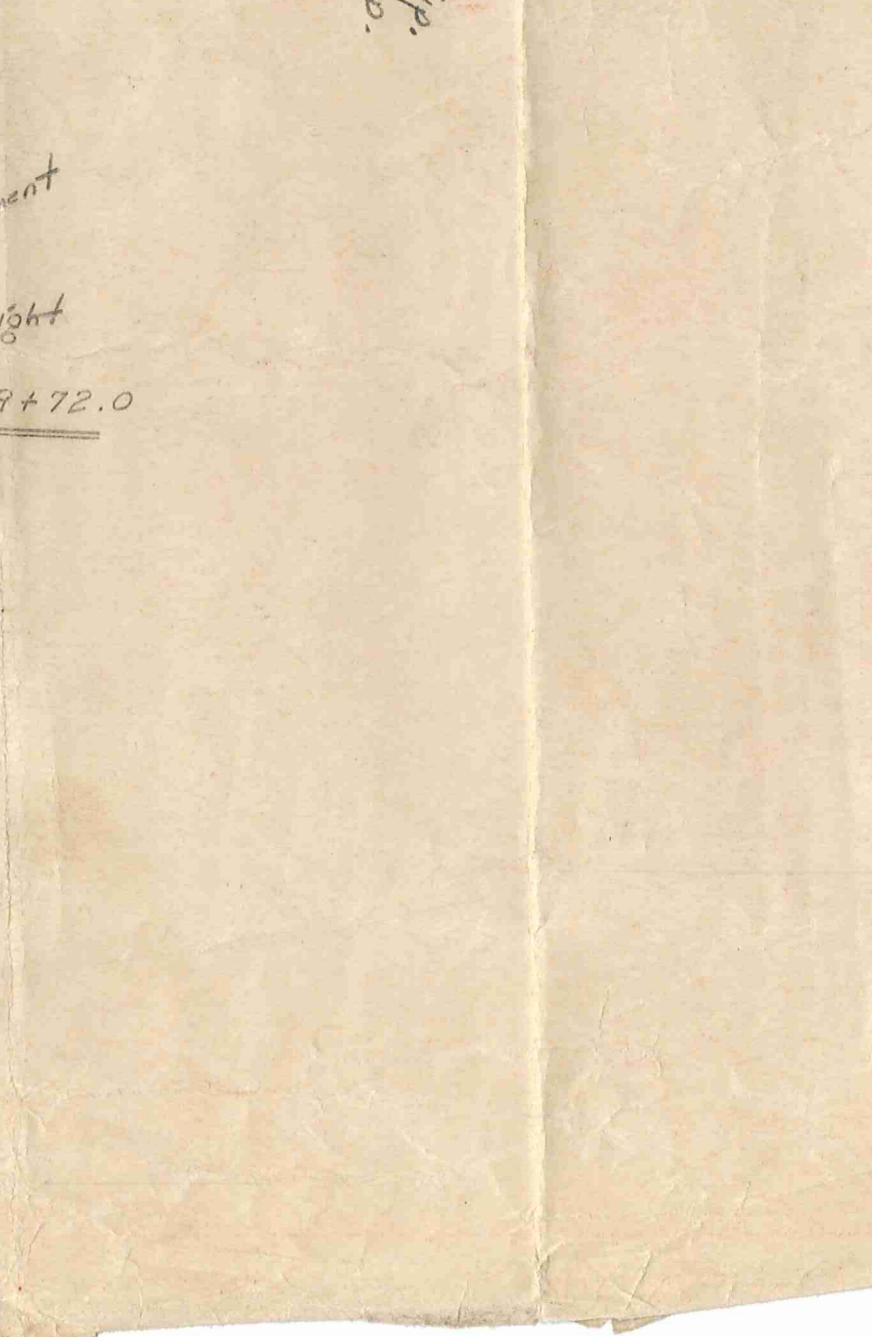
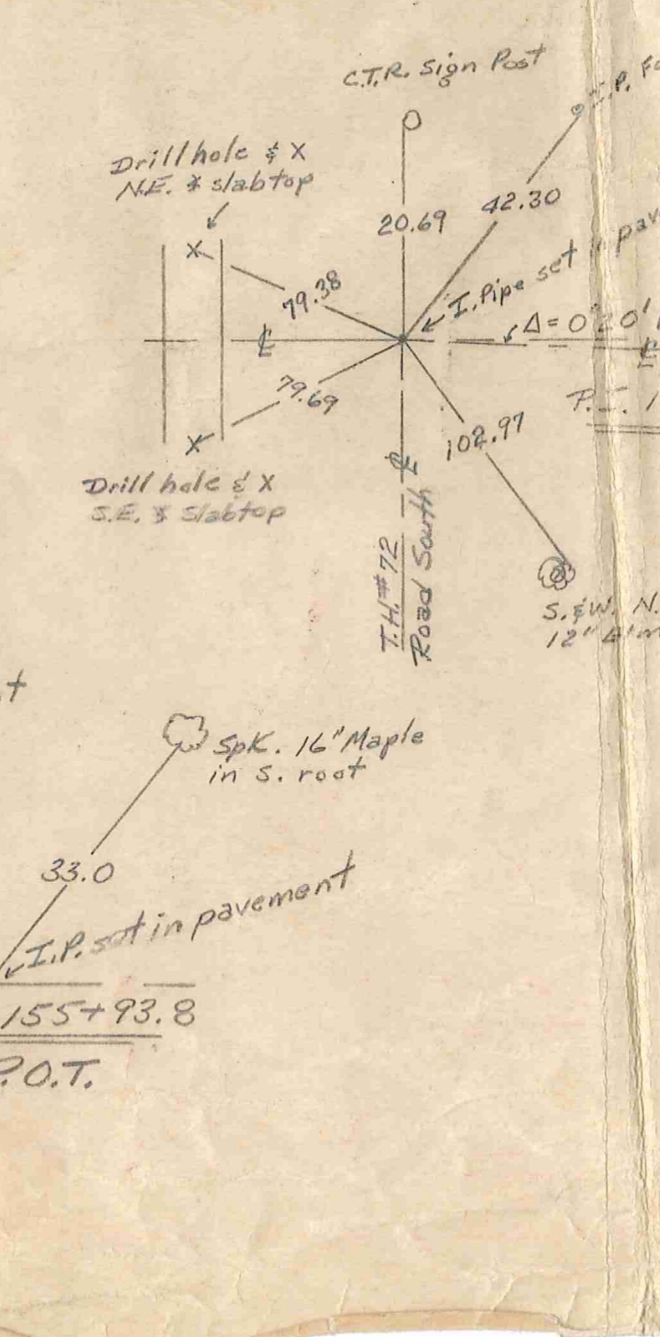
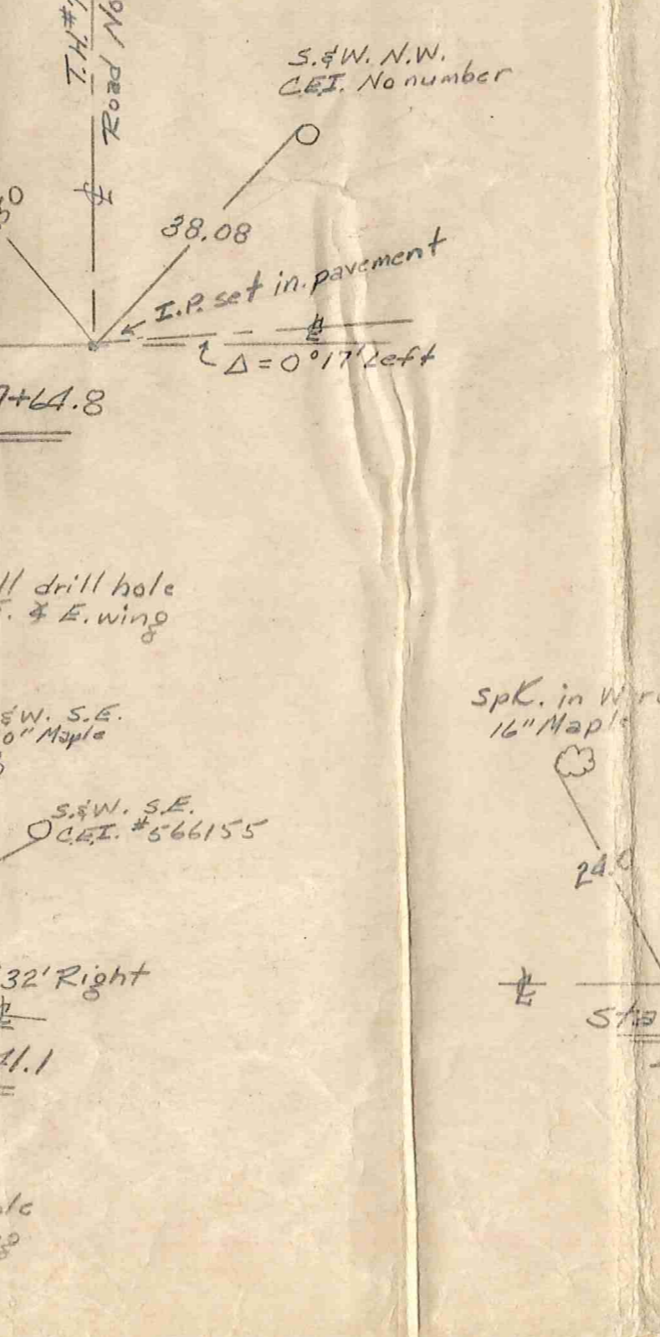
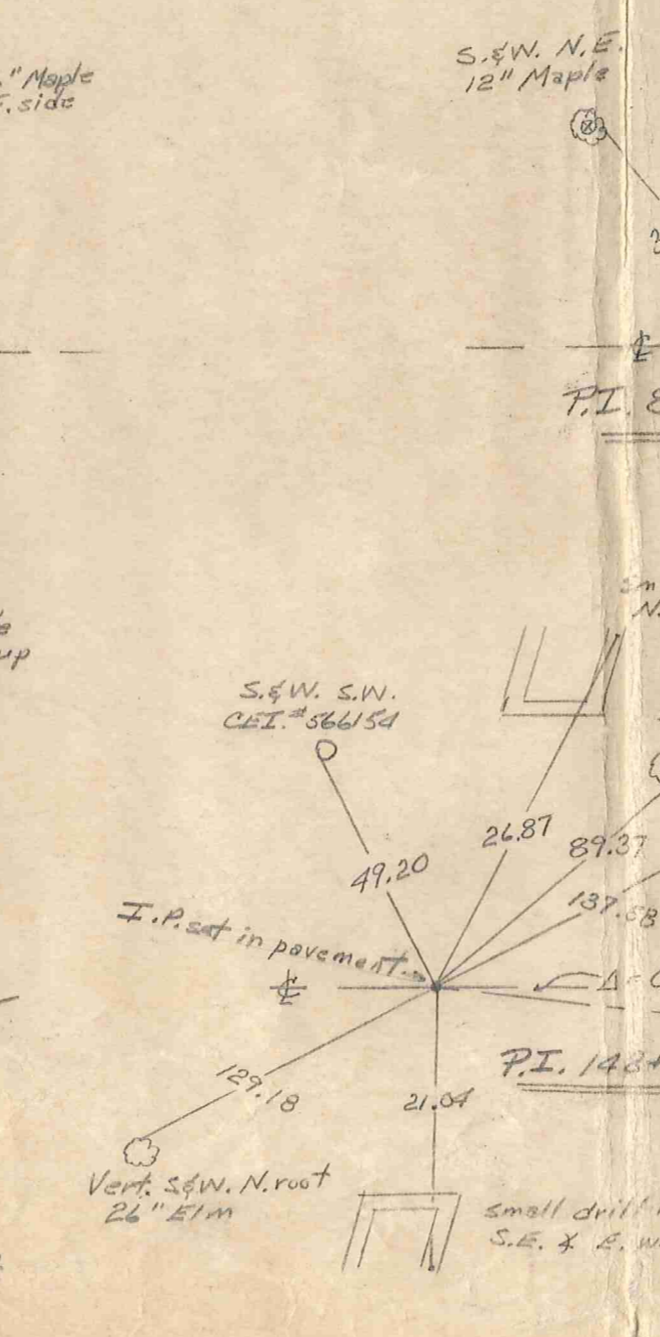
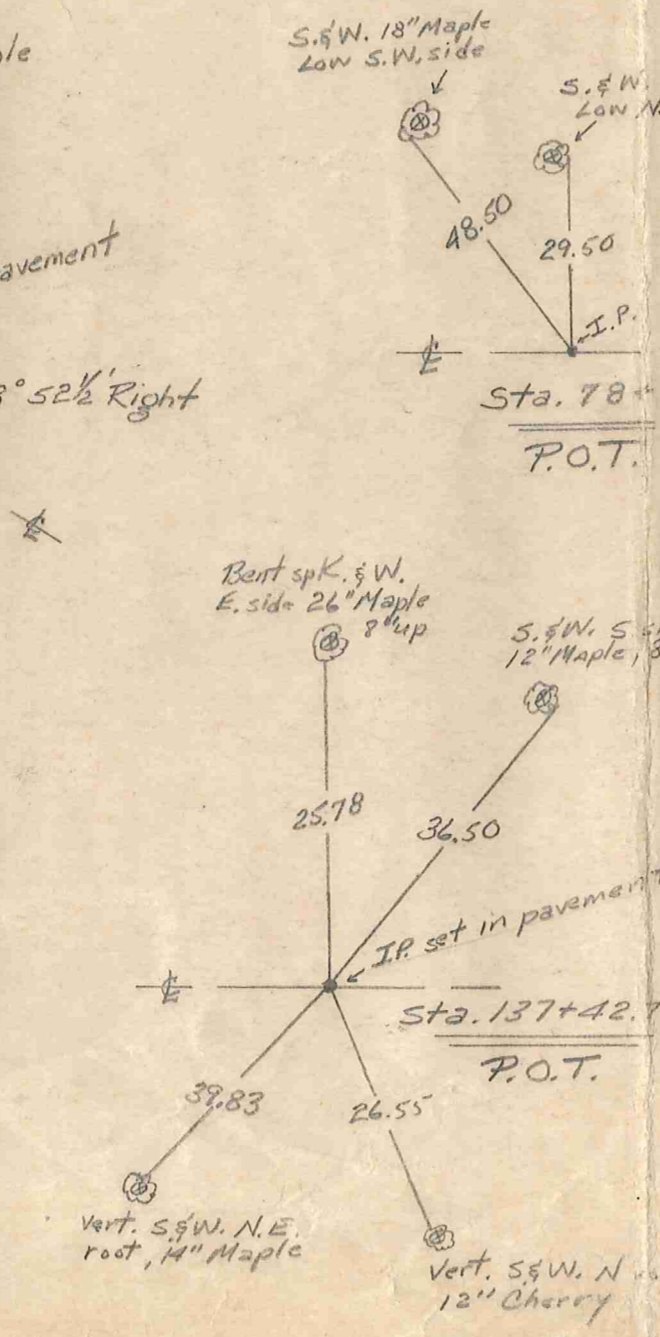
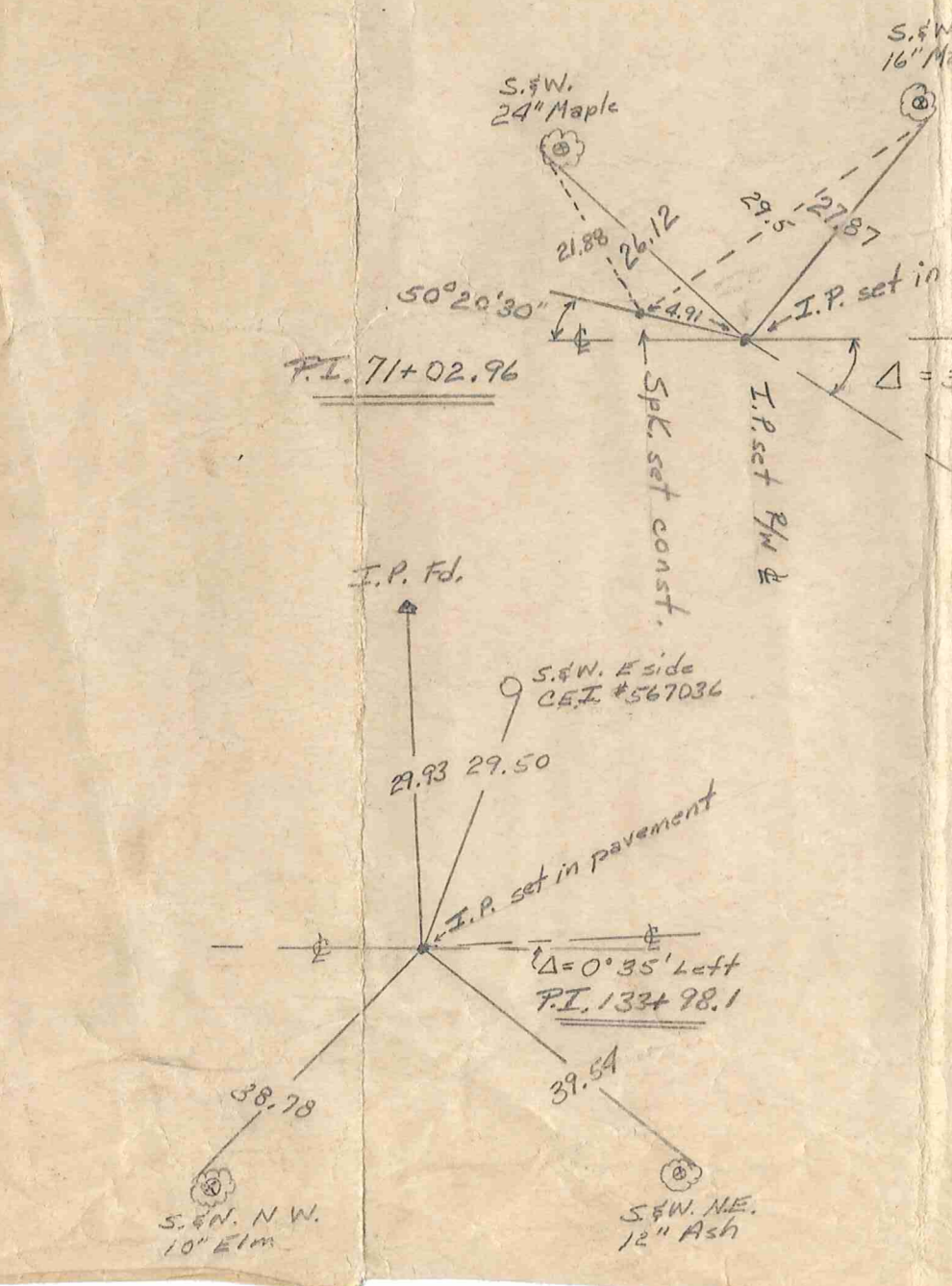
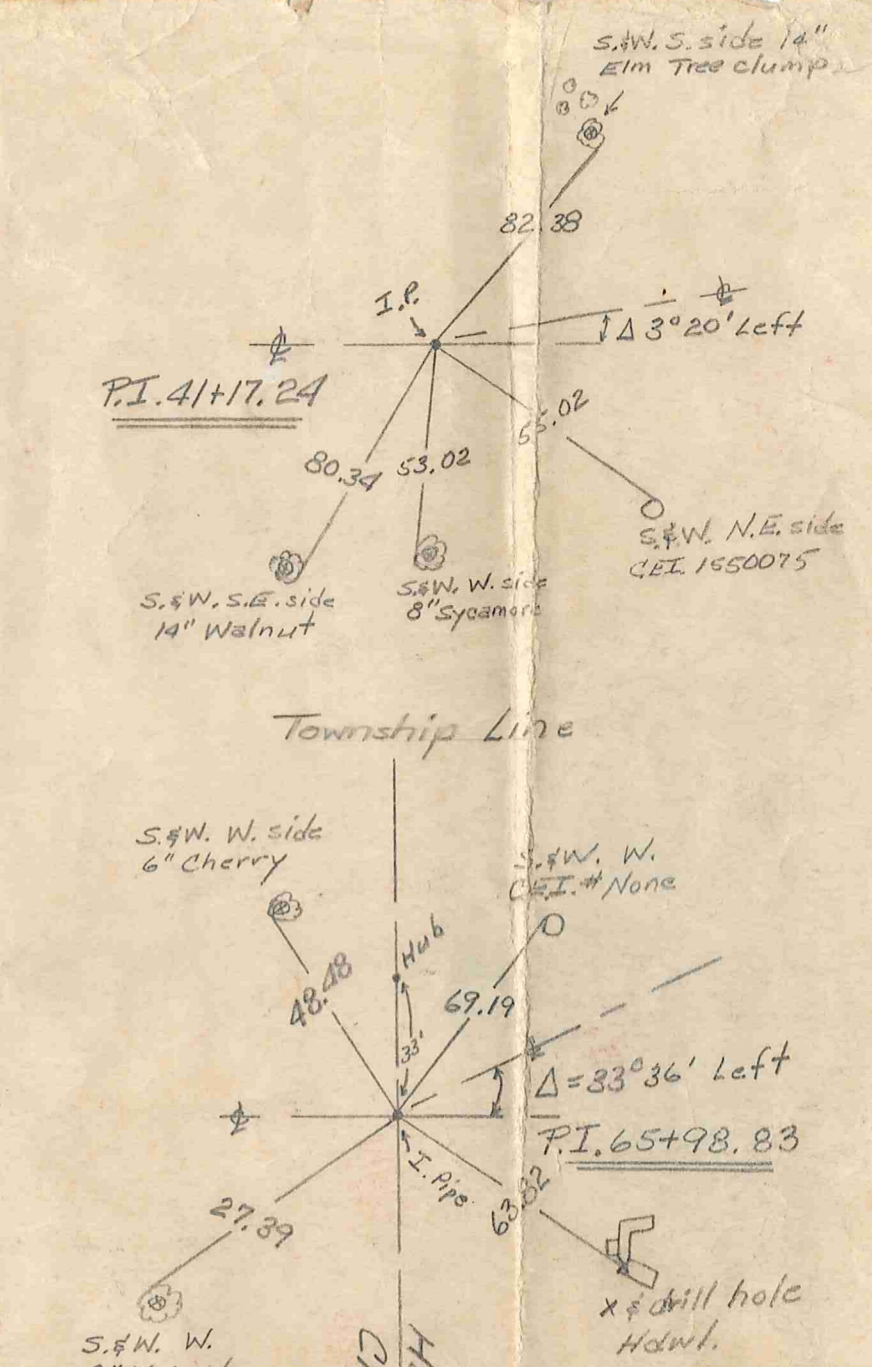
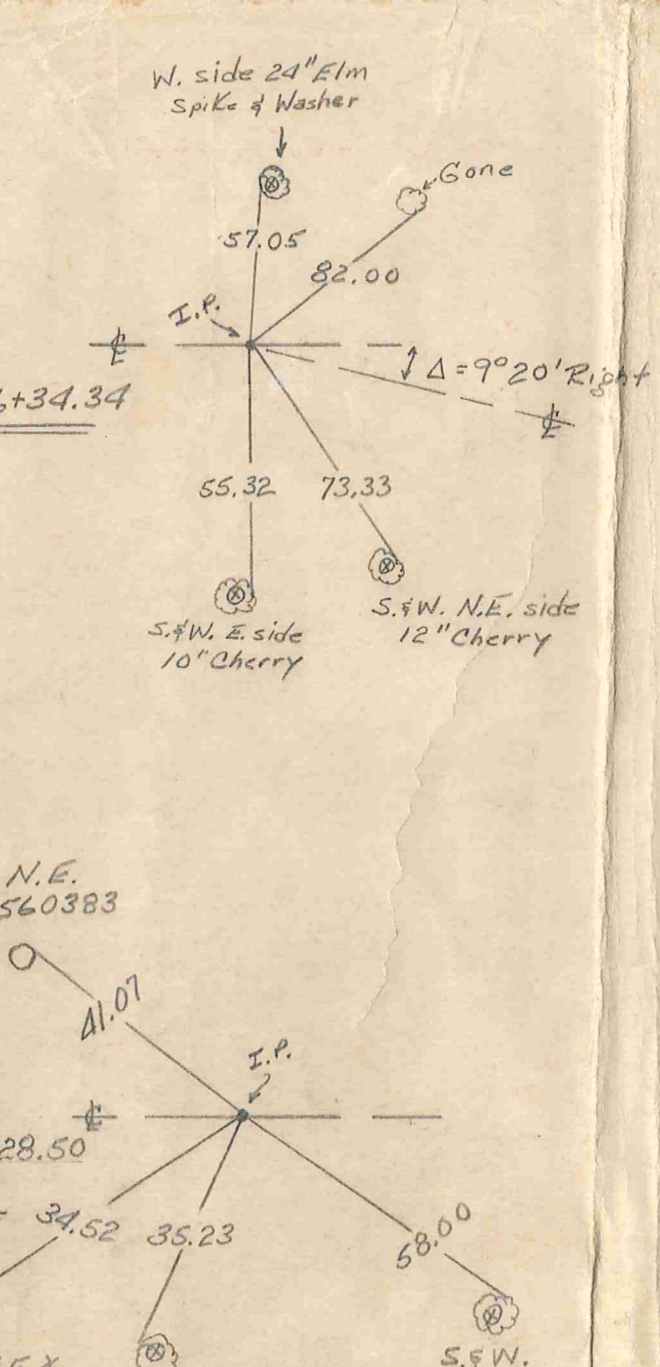
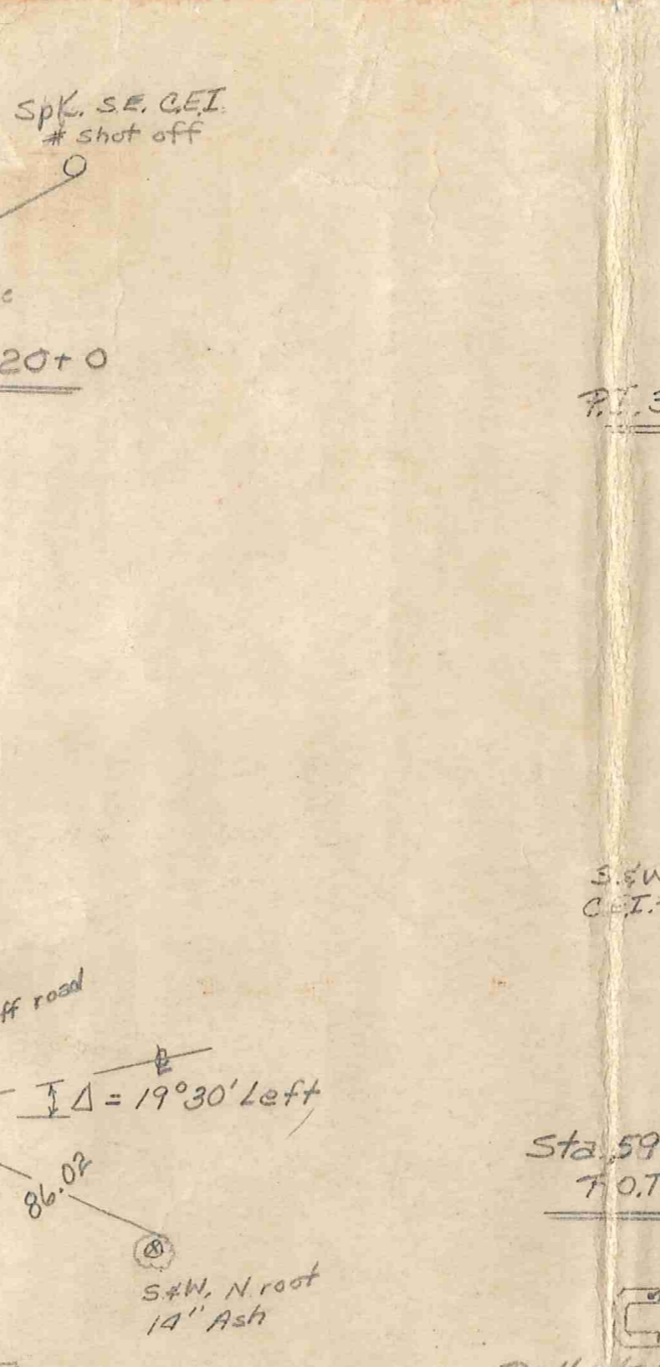
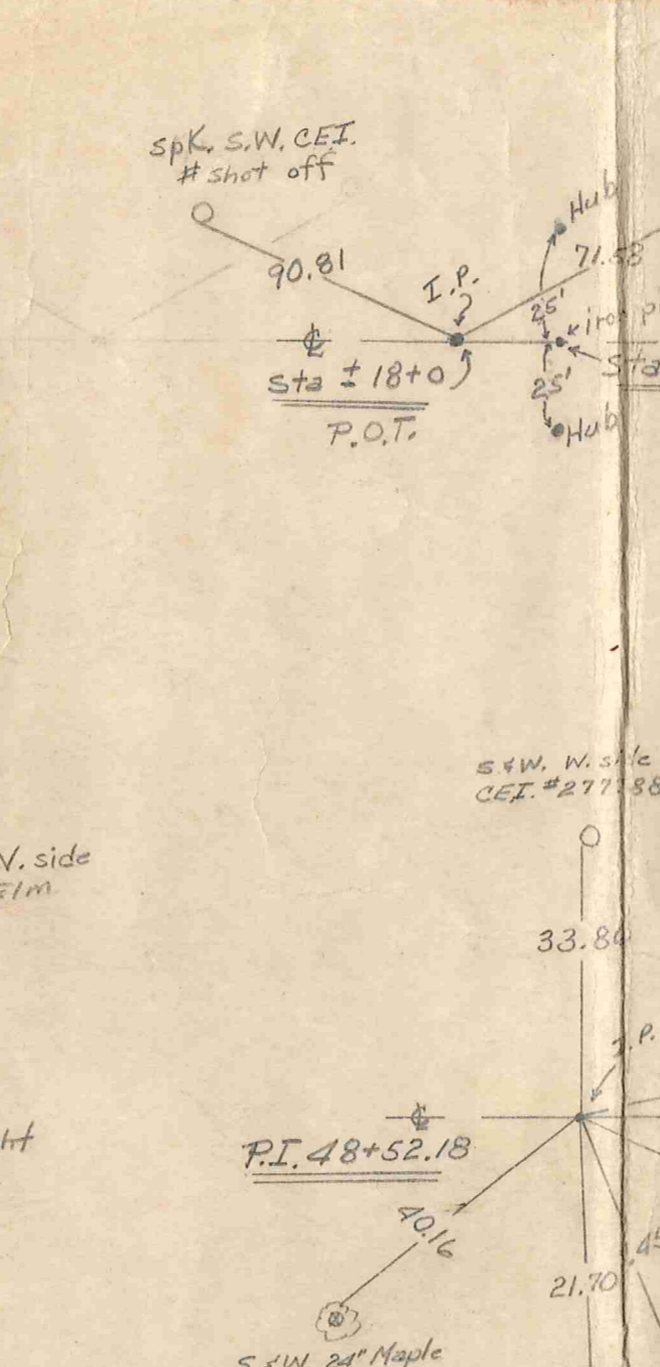
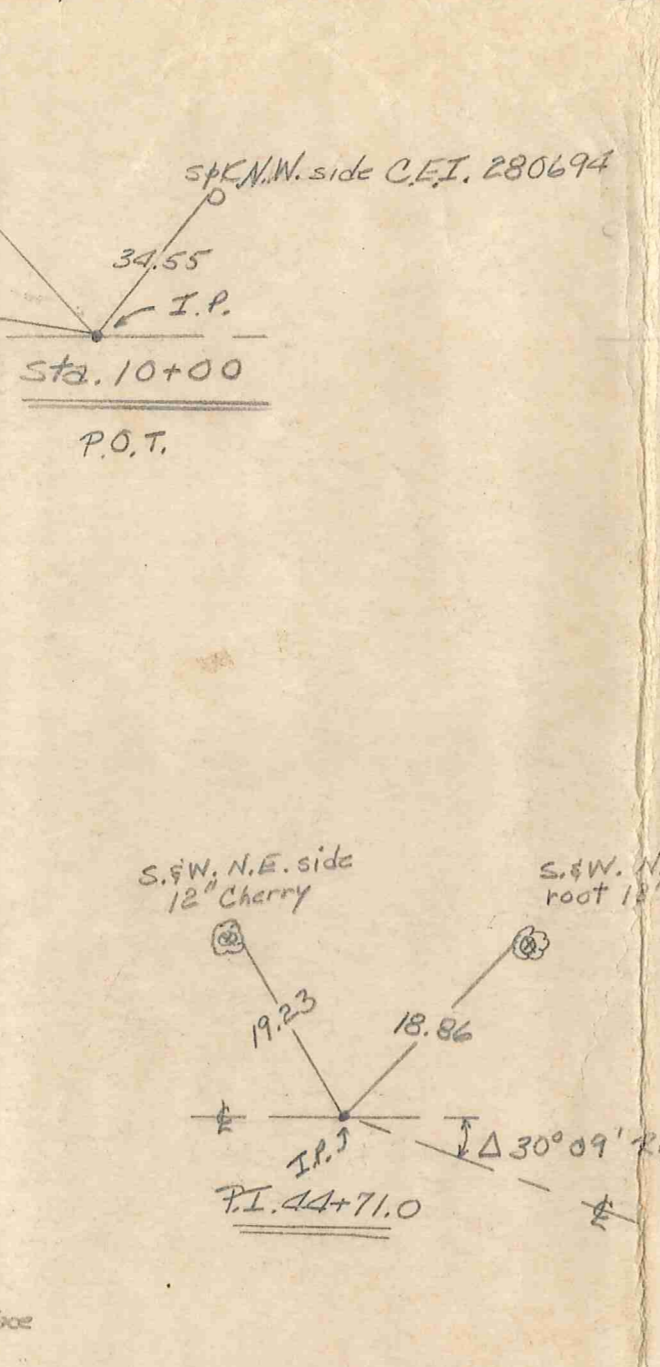
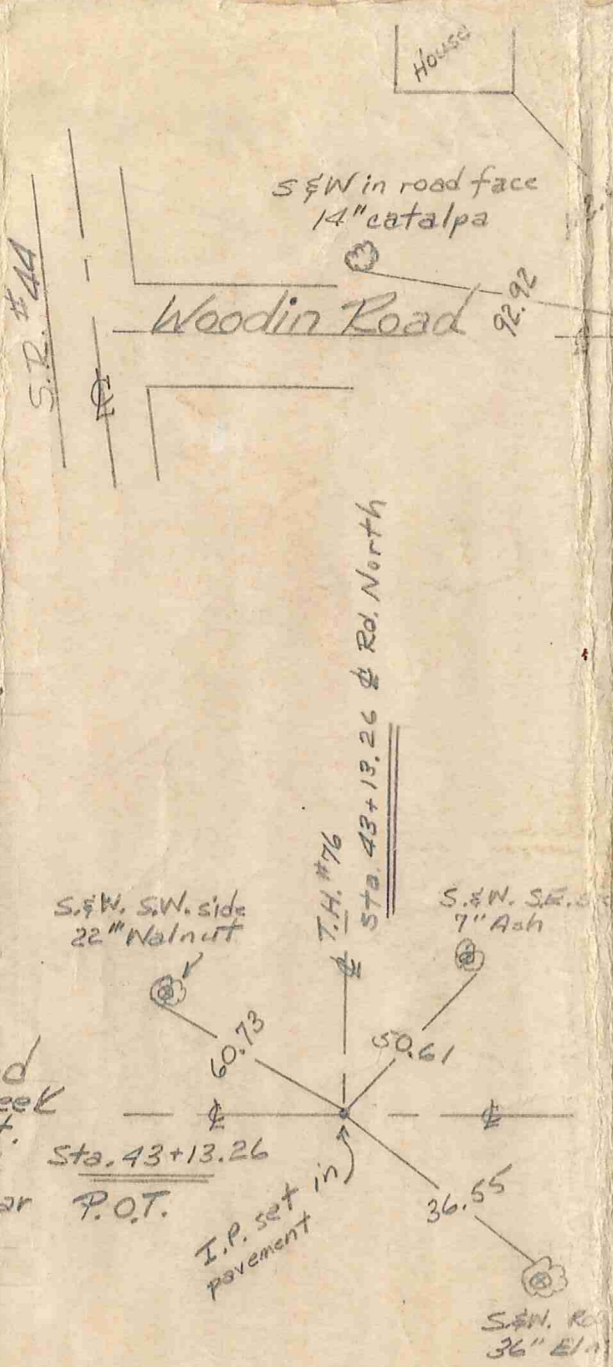
To find Tangent and External for curve of
any other degree, divide by degree of curve and
add correction found in column of correction.
The Degree of curve with a given L may be found
by dividing tangent (or external), opposite L by
given tangent (or external).

The distance from a point on the tangent to
the curve is very nearly the square of the tangent
length divided by twice the radius of the curve.



Center Line Reference to 1957

Notes: Woodin Road Bridge over Big Creek built in 1958. 55 ft. overall length of trusses. 24 ft clear roadway. Skew of 20° R.F.



DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope $1\frac{1}{2}$ to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

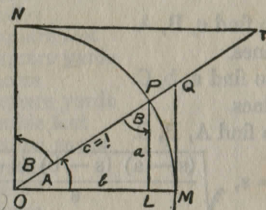


TABLE II
TRIGONOMETRIC FORMULÆ.

$$\angle A = \angle MOP \quad \angle B = \angle PON = \angle OPL$$

$$R = OB = c = 1$$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$$

$$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$$

$$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$$

$$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B \#$$

$$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$$

$$\text{exsec } A = PQ = \text{coexsec } B$$

$$\text{coexsec } A = PT = \text{exsec } B$$

$$\sin \frac{1}{2} A = \sqrt{\frac{1 - \cos A}{2}} \quad \cos \frac{1}{2} A = \sqrt{\frac{1 + \cos A}{2}}$$

$$\sin 2A = 2 \sin A \cos A \quad \cos 2A = \cos^2 A - \sin^2 A$$

$$\text{Law of Lines} \quad \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C}$$

$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$$

TABLE II—Continued
TRIGONOMETRIC FORMULAE (continued)

In any triangle:

Given a, b, C; to find c, B, A.

Use Law of Lines.

Given A, B, c; to find a, b, C.

Use Law of Lines.

Given a, b, c; to find A, B, C.

$$\text{Let } \frac{a+b+c}{2} = s, \sqrt{\frac{(s-a)(s-b)(s-c)}{s}} = r$$

$$\cos \frac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$$

$$\tan \frac{1}{2} A = \frac{r}{s-a}$$

$$\tan \frac{1}{2} B = \frac{r}{s-b}$$

$$\tan \frac{1}{2} C = \frac{r}{s-c}$$

Area of a triangle:

$$\text{Area} = \frac{1}{2} ab \sin C$$

$$\text{Area} = \sqrt{s(s-a)(s-b)(s-c)}$$

PRISMOIDAL FORMULA.

$$\text{Vol.} = \frac{h}{6} (B+b+4M)$$

h = altitude; b, B = bases; M = midsection

TABLE III
INCHES AND FRACTIONS OF AN INCH IN DECIMALS OF A FOOT

	0	1	2	3	4	5	6	7	8	9	10	11
$\frac{1}{16}$	.0052	.0885	.1719	.2552	.3385	.4219	.5052	.5885	.6719	.7552	.8385	.9219
$\frac{1}{8}$	.0104	.0938	.1771	.2604	.3438	.4271	.5104	.5938	.6771	.7604	.8438	.9271
$\frac{3}{16}$	.0156	.0990	.1823	.2656	.3490	.4323	.5156	.5990	.6823	.7656	.8490	.9323
$\frac{1}{4}$	.0208	.1042	.1875	.2708	.3542	.4375	.5208	.6042	.6875	.7708	.8542	.9375
$\frac{5}{16}$	.0260	.1094	.1927	.2760	.3594	.4427	.5260	.6094	.6927	.7760	.8594	.9427
$\frac{3}{8}$	.0313	.1146	.1979	.2813	.3646	.4479	.5313	.6146	.6979	.7813	.8646	.9479
$\frac{7}{16}$	.0365	.1198	.2031	.2865	.3698	.4531	.5365	.6198	.7031	.7865	.8698	.9531
$\frac{1}{2}$	.0417	.1250	.2083	.2917	.3750	.4583	.5417	.6250	.7083	.7917	.8750	.9583
$\frac{9}{16}$	.0469	.1302	.2135	.2969	.3803	.4635	.5469	.6302	.7135	.7969	.8802	.9635
$\frac{5}{8}$	.0521	.1354	.2188	.3021	.3854	.4688	.5521	.6354	.7188	.8021	.8854	.9688
$\frac{11}{16}$	.0573	.1406	.2240	.3073	.3906	.4740	.5573	.6406	.7240	.8073	.8906	.9740
$\frac{3}{4}$	.0625	.1458	.2292	.3125	.3958	.4792	.5625	.6458	.7292	.8125	.8958	.9792
$\frac{7}{8}$	.0677	.1510	.2344	.3177	.4010	.4844	.5677	.6510	.7344	.8177	.9010	.9844
$\frac{15}{16}$	.0729	.1563	.2396	.3229	.4063	.4896	.5729	.6563	.7396	.8229	.9063	.9896
$\frac{1}{1}$	.0781	.1615	.2448	.3281	.4115	.4948	.5781	.6615	.7448	.8281	.9115	.9948
	.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167	1.0000
	0	1	2	3	4	5	6	7	8	9	10	11

TABLE IV
USEFUL RELATIONS.

Lineal feet	×.00019	= miles
Lineal yards	×.0006	= miles
Square inches	×.007	= square feet
Square feet	×.111	= square yards
Square yards	×.0002067	= acres
Acres	×4840	= square yards
Cubic inches	×.00058	= cubic feet
Cubic feet	×.03704	= cubic yards
Links	×.22	= yards
Links	×.66	= feet
Feet	×1.5	= links
360° = 21600' = 1296000"		
Radius = arc of 57.2957790°		
Arc of 1° (radius = 1) = .017453292		
Arc of 1' (radius = 1) = .000290888		
Arc of 1" (radius = 1) = .000004848		

$$\pi = 3.141592654 \quad \sqrt{\frac{1}{4}} = 0.564190$$

$$\frac{\pi}{4} = 0.785398163 \quad \sqrt[3]{\frac{6}{\pi}} = 1.240700982$$

$$\frac{\pi}{6} = 0.523598776 \quad \pi^2 = 9.869604401$$

$$\sqrt{\frac{4}{\pi}} = 1.128379167 \quad \frac{1}{\pi^2} = 0.101321184$$

$$\frac{\pi}{6} = 0.523598776 \quad \sqrt{\pi} = 1.772453851$$

$$\frac{4\pi}{3} = 4.188790205 \quad \frac{1}{\pi} = 0.3183099$$

Curvature of Earth's surface = about 0.7 feet in 1 mile

Curvature in feet = 0.667 (Dist. in miles)²

Difference between arc and chord length, 0.05 feet in 11½ miles

$$\text{Probable error of a single observation} = 0.6754 \sqrt{\frac{Mv^2}{n-1}}$$

Error in chaining of 0.01 feet in 100 feet:

Due to—

1. Length of tape error of 0.01 feet
2. Alignment. One end 1.4 feet out of line
3. Sag of tape at centre of 0.61 feet.
4. Temperature difference of 15°
5. Difference of pull of 15 lbs.

STADIA REDUCTION FORMULAE.

Horizontal Distance = R — R sin² a + C cos a

Vertical Distance = R ½ sin 2 a + C sin a

R = Reading × $\frac{\text{distance from Object glass to cross hairs}}{\text{distance between cross hairs}}$

C = distance from Object glass to cross hairs + distance from Object glass to center of instrument.

a = angle of elevation for mid Reading

TABLE X.
MIDDLE ORDINATES OF RAILS
Length of Rail (feet)

C	R	30	28	26	24	22	20	C	R	30	28	26	24	22	20
o /	Feet	Inch	Inch	Inch	Inch	Inch	Inch	o	Feet	Inch	Inch	Inch	Inch	Inch	Inch
0-20	17189	.08	.07	.06	.05	.04	.03	8	716.8	1.88	1.64	1.42	1.20	1.01	.84
0-40	8594	.16	.14	.12	.10	.08	.07	9	637.3	2.12	1.84	1.60	1.35	1.14	.94
1-0	5730	.24	.20	.18	.15	.13	.10	10	573.7	2.36	2.05	1.78	1.50	1.27	1.04
1-20	4297	.31	.27	.23	.20	.17	.13	11	521.7	2.59	2.26	1.95	1.65	1.39	1.15
1-40	3438	.39	.34	.29	.25	.21	.17	12	478.3	3.83	2.47	2.15	1.81	1.54	1.26
2-0	2865	.47	.41	.35	.30	.25	.20	13	441.7	3.05	2.66	2.30	1.96	1.66	1.36
2-20	2456	.55	.48	.41	.35	.29	.23	14	410.3	3.30	2.87	2.48	2.10	1.78	1.46
2-40	2149	.63	.55	.47	.40	.33	.27	15	383.1	3.54	3.08	2.68	2.26	1.91	1.57
3-0	1910	.71	.62	.53	.45	.38	.31	16	359.3	3.76	3.28	2.83	2.40	2.04	1.67
3-20	1719	.78	.68	.59	.50	.42	.35	17	338.3	4.00	3.48	3.02	2.57	2.16	1.78
3-40	1563	.86	.75	.65	.55	.46	.38	18	319.6	4.21	3.67	3.18	2.70	2.28	1.87
4-0	1433	.94	.82	.71	.60	.50	.42	19	302.9	4.45	3.89	3.36	2.86	2.41	1.98
4-20	1323	1.02	.89	.77	.65	.55	.45	20	287.9	4.70	4.09	3.55	3.00	2.54	2.09
4-40	1228	1.10	.96	.83	.70	.59	.48	22	262.0	5.16	4.44	3.84	3.30	2.80	2.29
5	1146	1.18	1.03	.89	.75	.63	.52	24	240.5	5.64	4.92	4.20	3.59	3.04	2.50
6	955.3	1.41	1.23	1.06	.90	.76	.62	26	222.3	6.07	5.29	4.58	3.88	3.29	2.70
7	819.0	1.65	1.44	1.24	1.05	.89	.73								

TABLE XI.
SHORT RADIUS CURVES

Radius Feet	Chord Feet	Central Angle	Deflection Angle	Deflection for 1 Foot
35	10	16-26	8-13	49.3
45	10	12-46	6-23	38.3
50	15	17-16	8-38	34.5
60	15	14-22	7-11	28.8
75	15	11-30	5-45	23.0
100	20	11-30	5-45	17.3
120	20	9-34	4-47	14.3
150	20	7-39	3-49	11.5
190	25	7-32	3-46	9.15
200	25	7-10	3-35	8.6
225	25	6-25	3-12	7.7
240	25	5-58	2-59	7.2
250	25	5-44	2-52	6.9
275	25	5-12	2-36	6.2
288	50	9-58	4-59	6.0
300	50	9-32	4-46	5.7
350	50	8-12	4-06	4.9
376	50	7-40	3-50	4.6
400	50	7-10	3-35	4.3
410	50	7-00	3-30	4.2

To find length of curve divide angle from P. C. to P. T. by central angle of chord and multiply by length of chord.

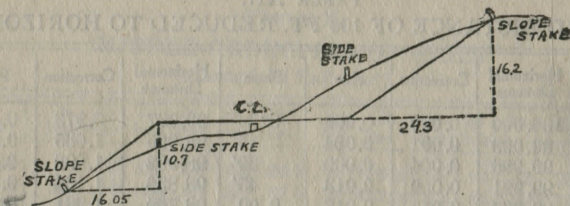
TABLE XII.
INCLINED DISTANCE OF 100 FT. REDUCED TO HORIZONTAL

Slope	Horizontal Distance	Correction	Rise	Slope	Horizontal Distance	Correction	Rise
0°00'	100.000	0.000	0.000	8°00'	99.027	0.973	0.139
15'	99.999	0.001	0.004	15'	98.965	1.035	0.143
30'	99.996	0.004	0.009	30'	98.902	1.098	0.148
45'	99.991	0.009	0.013	45'	98.836	1.164	0.152
1 00	99.985	0.015	0.017	9 00	98.769	1.231	0.156
15	99.976	0.024	0.022	15	98.700	1.300	0.161
30	99.966	0.034	0.026	30	98.629	1.371	0.165
45	99.953	0.047	0.031	45	98.556	1.444	0.169
2 00	99.939	0.061	0.035	10 00	98.481	1.519	0.174
15	99.923	0.077	0.039	15	98.404	1.596	0.178
30	99.905	0.095	0.044	30	98.325	1.675	0.182
45	99.885	0.115	0.048	45	98.245	1.755	0.187
3 00	99.863	0.137	0.052	11 00	98.163	1.837	0.191
15	99.839	0.161	0.057	15	98.079	1.921	0.195
30	99.813	0.187	0.061	30	97.992	2.008	0.199
45	99.786	0.214	0.065	45	97.905	2.095	0.204
4 00	99.756	0.244	0.070	12 00	97.815	2.185	0.208
15	99.725	0.275	0.074	15	97.723	2.277	0.212
30	99.692	0.308	0.078	30	97.630	2.370	0.216
45	99.657	0.343	0.083	45	97.534	2.466	0.221
5 00	99.619	0.381	0.087	13 00	97.437	2.563	0.225
15	99.580	0.420	0.092	15	97.338	2.662	0.229
30	99.540	0.460	0.096	30	97.237	2.763	0.233
45	99.497	0.503	0.100	45	97.134	2.866	0.238
6 00	99.452	0.548	0.105	14 00	97.030	2.970	0.242
15	99.406	0.594	0.109	15	96.923	3.077	0.246
30	99.357	0.643	0.113	30	96.815	3.185	0.250
45	99.307	0.693	0.118	45	96.705	3.295	0.255
7 00	99.255	0.745	0.122	15 00	96.593	3.407	0.259
15	99.200	0.800	0.126	15	96.479	3.521	0.263
30	99.144	0.856	0.131	30	96.363	3.637	0.267
45	99.087	0.913	0.135	45	96.246	3.754	0.271

For each foot take one one-hundredth of each reading.

TABLE XIII.
MINUTES IN DECIMALS OF A DEGREE.

0 30"	.00833	10' 30"	.17500	20' 30"	.34167	30' 10"	.50833	40' 30"	.67500	50' 10"	.84167
1 00	.01667	11 00	.18333	21 00	.35000	31 00	.51667	41 00	.68333	51 00	.85000
30	.02500	30	.19167	30	.35833	30	.52500	30	.69167	30	.85833
2 00	.03333	12 00	.20000	22 00	.36667	32 00	.53333	42 00	.70000	52 00	.86667
30	.04167	30	.20833	30	.37500	30	.54167	30	.70833	30	.87500
3 00	.05000	13 00	.21667	23 00	.38333	33 00	.55000	43 00	.71667	53 00	.88333
30	.05833	30	.22500	30	.39167	30	.55833	30	.72500	30	.89167
4 00	.06667	14 00	.23333	24 00	.40000	34 00	.56667	44 00	.73333	54 00	.90000
30	.07500	30	.24167	30	.40833	30	.57500	30	.74167	30	.90833
5 00	.08333	15 00	.25000	25 00	.41667	35 00	.58333	45 00	.75000	55 00	.91667
30	.09167	30	.25833	30	.42500	30	.59167	30	.75833	30	.92500
6 00	.10000	16 00	.26667	26 00	.43333	36 00	.60000	46 00	.76667	56 00	.93333
30	.10833	30	.27500	30	.44167	30	.60833	30	.77500	30	.94167
7 00	.11667	17 00	.28333	27 00	.45000	37 00	.61667	47 00	.78333	57 00	.95000
30	.12500	30	.29167	30	.45833	30	.62500	30	.79167	30	.95833
8 00	.13333	18 00	.30000	28 00	.46667	38 00	.63333	48 00	.80000	58 00	.96667
30	.14167	30	.30833	30	.47500	30	.64167	30	.80833	30	.97500
9 00	.15000	19 00	.31667	29 00	.48333	39 00	.65000	49 00	.81667	59 00	.98333
30	.15833	30	.32500	30	.49167	30	.65833	30	.82500	30	.99167
10 00	.16667	20 00	.33333	30 00	.50000	40 00	.66667	50 00	.83333	60 00	1.00000



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

