NEWBURGH

125

DIETZGEN

TRADE MARK

ENGINEERS'

FIELD BOOK

No. 400

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

PLEASE RETURN TO
GEAUGA COUNTY ENGINEER
COURT HOUSE
CHARDON, O.
PHONE 250-X

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6 + (20—16) ÷ 2 or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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Newbury Twp

C.H. 30 Punderson Mill Easterly 1-2
Hotchkiss Road 4-5
8
C.H. 21 Chester Burton Road
C.H. 146 Music St. East of Center Rd 14
C.H. 23 Potters Cor. Southerly 22
C.H. 144 PEKIN ROAD (Potters Cs Easterly) 27
Punderson Lake Outlet on
Music St 33, 34

BASS LAKE RD. #23-A 1950
pg 35-

#30 Hotchkiss Rd - Drainage at Newbury-Burton Line 59
Hillview Rd (N. from Rt 87 / W " Cath. Chch) Newby 62
#21 Butternut Rd (Sec. F D.E) 13
#146 Music St (Topo 1971-72) 77 / 64
BASS LAKE RD SEC. A RELOCATION
1950 PG 47

1542

1826) 7710 (4 2

7304

406

1826) 5530,00 (3

5478

52

PUNDERSON MILL EASTERLY

CH #30
T.H 83

11+05.9 Δ = 0°00'

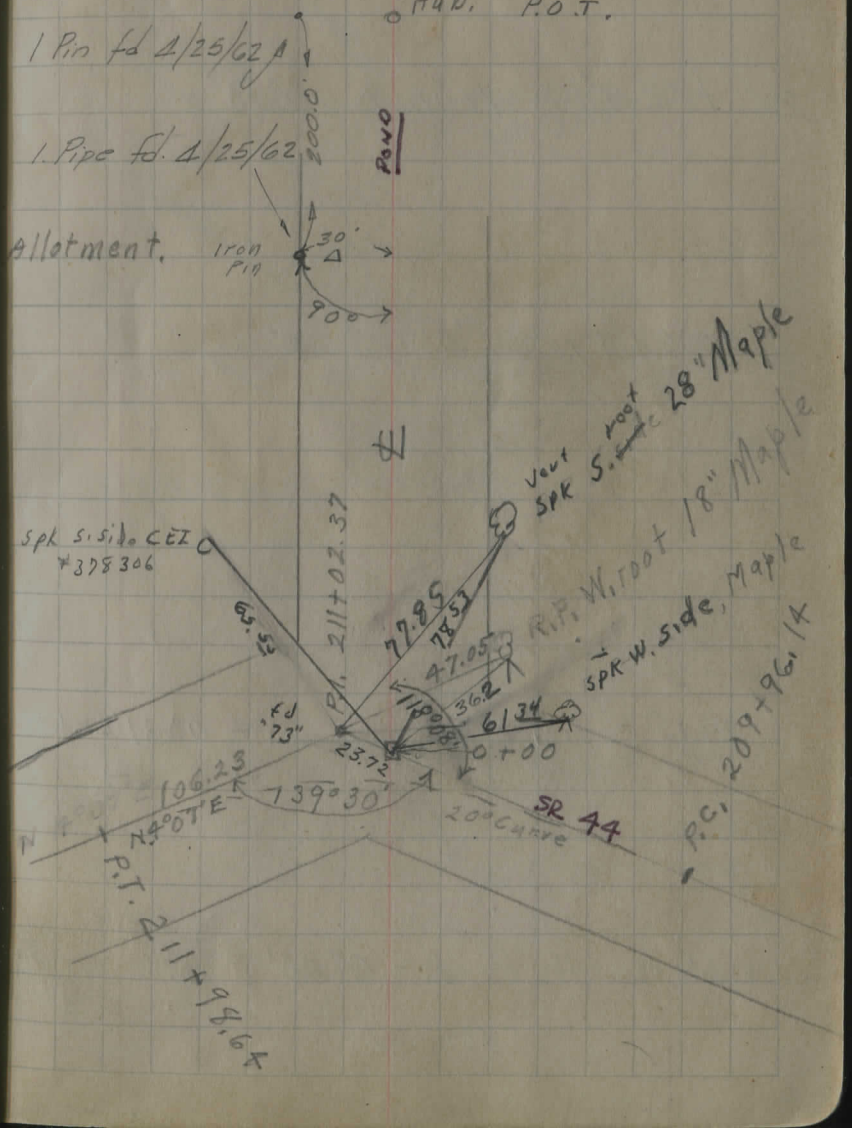
2+84.2 S.E. cor. Sublot , Punderson Lake

Allotment.

0+00 on ℄ of Punderson Mill Easterly Road (PONO ROAD?)
=210+78.65 on Semi-Tangent, Painesville-Ravenna Road.

211 02.37
23.72
210+78.65

April 8 1928 Marks. - D. Parks.
Warm, Breezy.



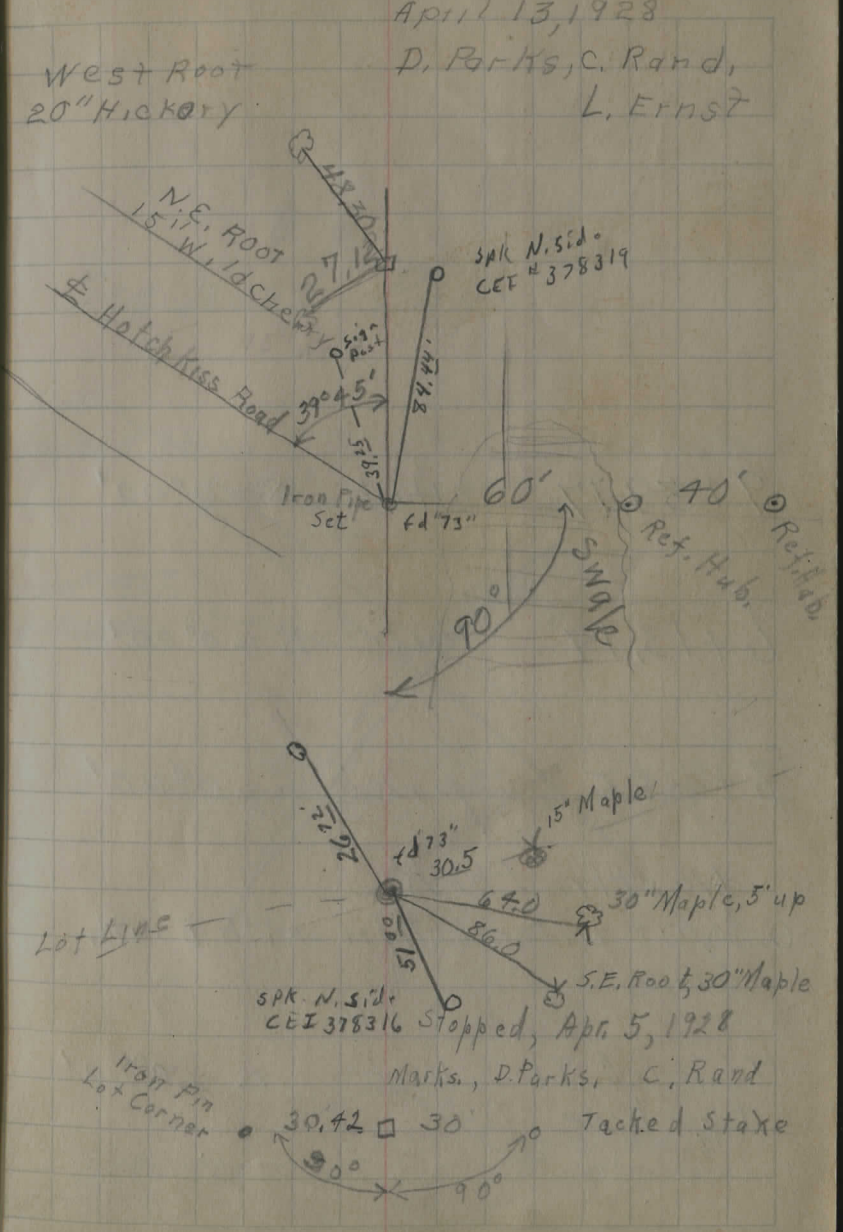
26 +72.48. Hub Δ = 0°00'

23+06.85 Iron Pipe Δ = 0°00'

18+26.15 Iron Pipe Found Δ = 0°31' Left

15+ +1.12 Hub Δ = 0°00'

April 13, 1928
D. Parks, C. Rand,
L. Ernst



9+39.17 Hub Δ = 0°00'

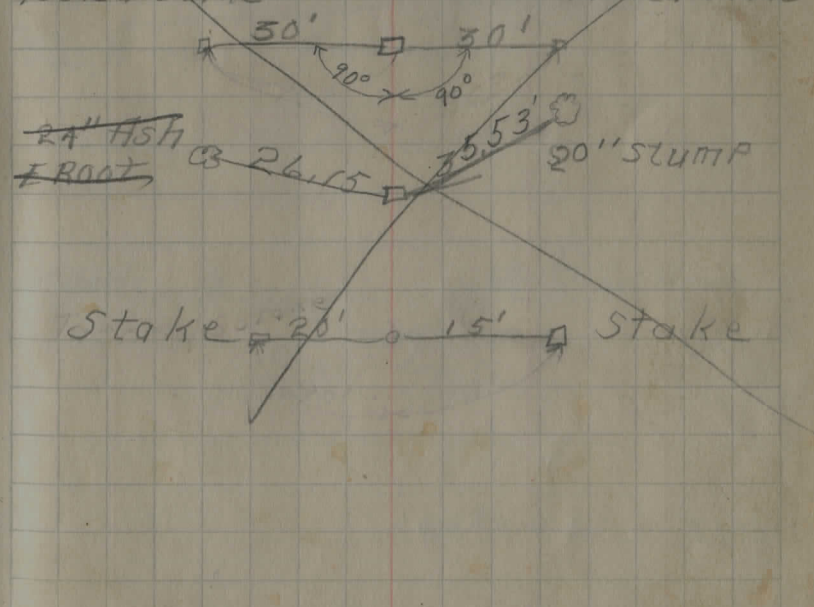
6+13.17 Hub Δ = 0°00'

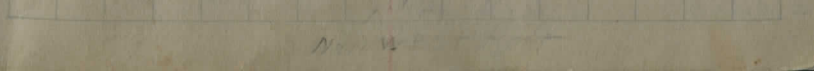
3+06.25 Spike Δ = 0°00'

No 4th. Fork
0.00 at intersection with South Line

46+60.81 Hub Δ = 0°00'
twp Line

See Next Page





HOTCHKISS ROAD

13+50 $\Delta = 0°00'$

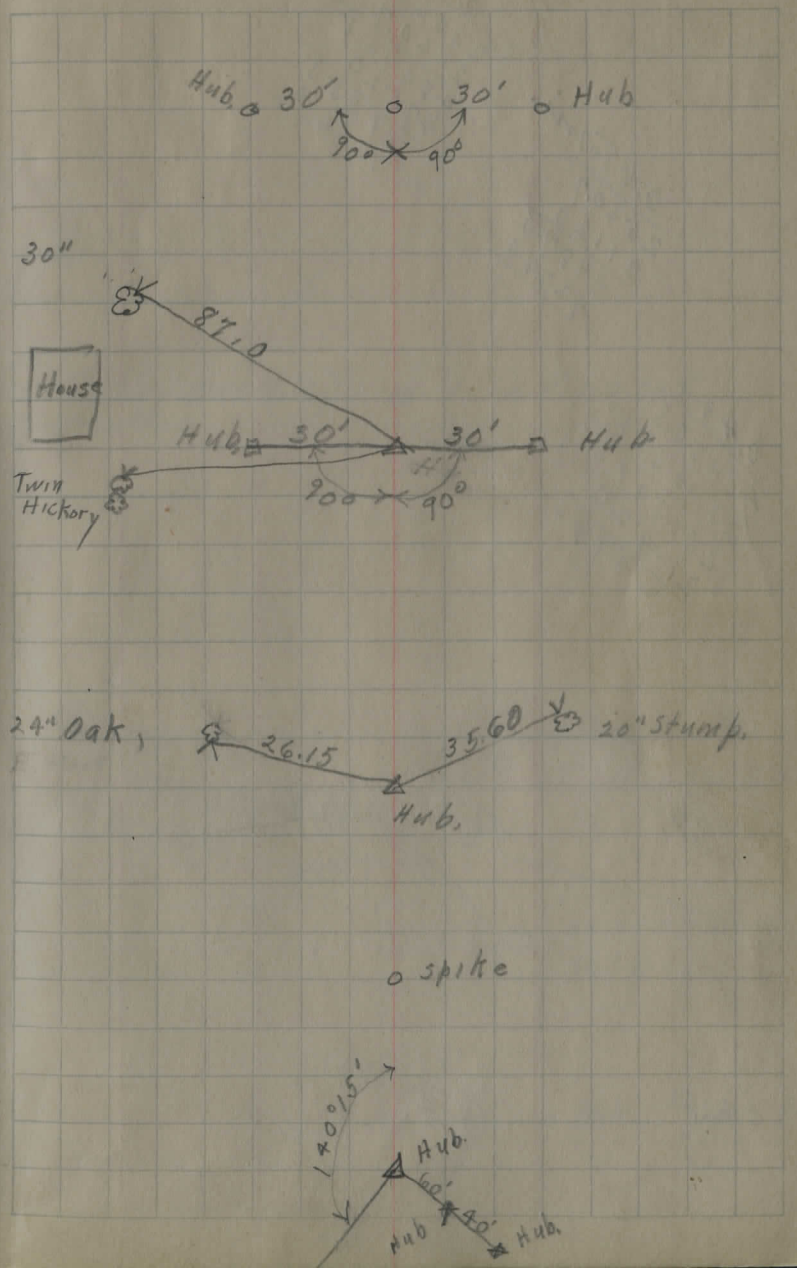
9+39.17 $\Delta = 0°00'$

6+13.17 $\Delta = 0°00'$

3+06.25 $\Delta = 0°00'$

23+06.85 of Punderson Mill Easterly Road
= 0+00 of Hotchkiss Road.

Apr. 14, 1928, W.C. Marks, D. Parks
Fair, Windy C. Rand, L. Ernst.



0.92+ mi.
2306.85
2560.7
4867.55
47520
1155.5
10560

0.48+ mi
2560.7
21120
44870
42240

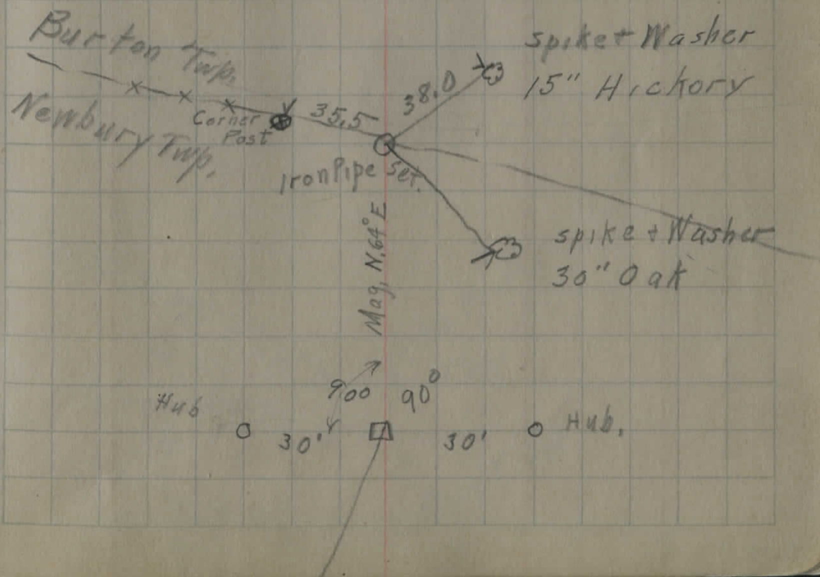
0.44+
14+60.85
23+06.85
23+53.96
21+11.20
24196

25+60.7'   Δ = 0°00'

13+42.62   Δ =

(Hotchkiss Road 8+09.3)
Burton Twp

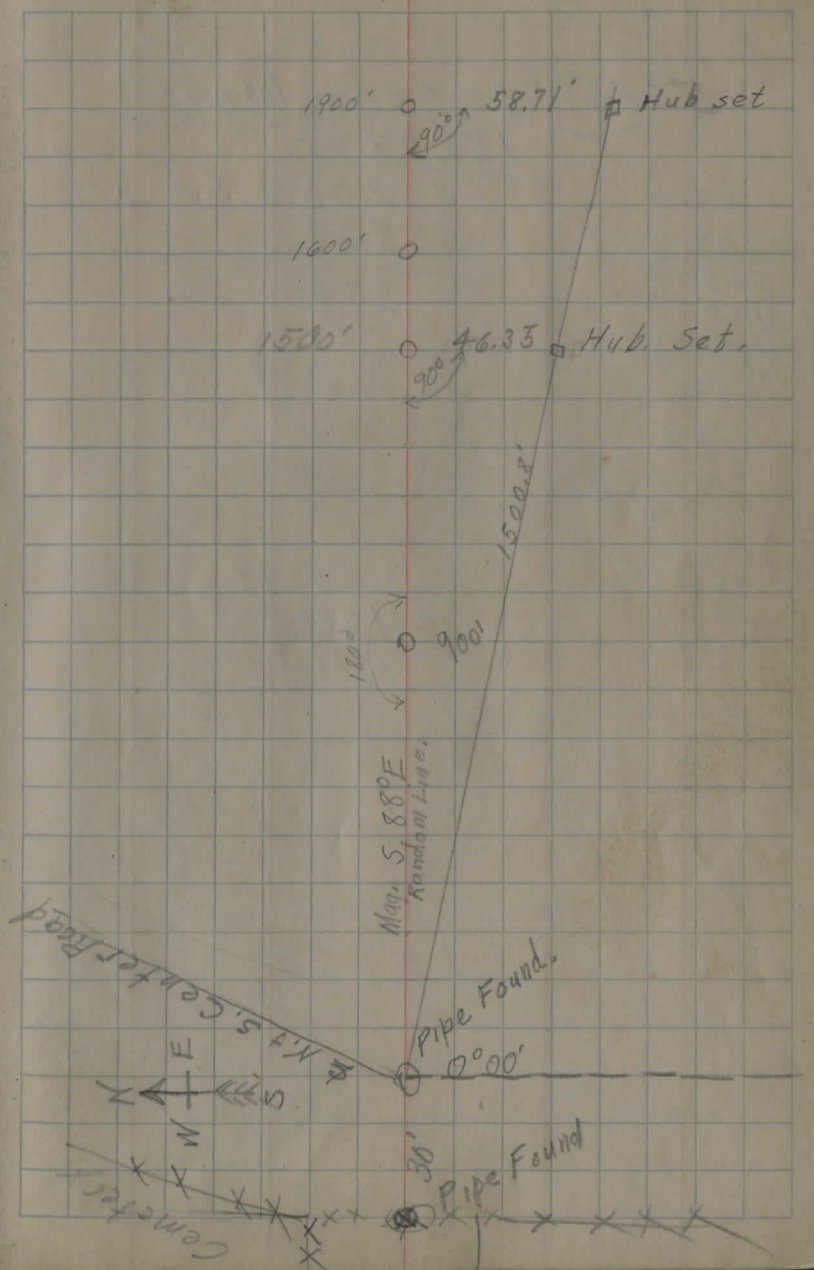
⊙ Iron Pipe set



May 29, 1928 Marks, D. Parks, Hassel
Drizzling Rain
Location of Munson-Newbury
Townships Line from Maple Hill
East

May 31, 1928, D. Parks, C. Rand, R. Hassel

June 1, 1928, W.C. Marks, D. Parks,
C, Rand, R. Hassel, G. Dietz



5096 | 157.5000 | .0309
15288
46200
45864
3360

4500
.0309
40500
1.3500
139.0500

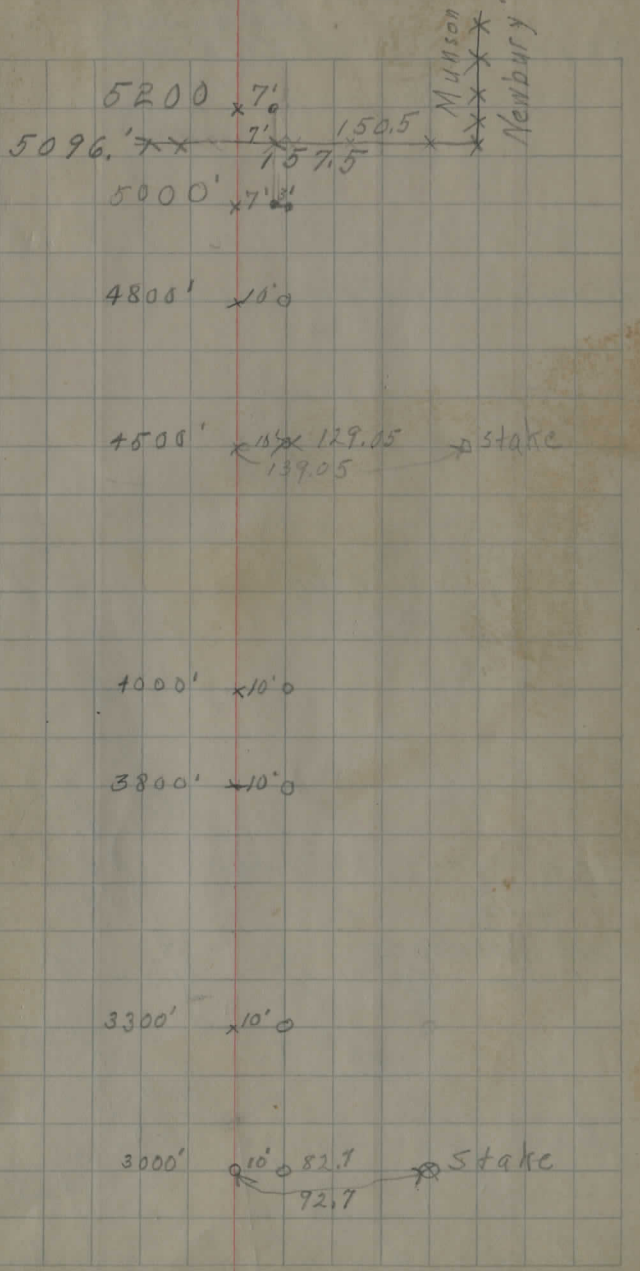
.0309
1500
154500
309
46.3500

1900
.0309
17100
5700
58.7100

.0309
3100
92.7000

46.35
46.35
5

279.15
1500.8
1779.95



CHESTER-BURTON ROAD

BUTTERNUT

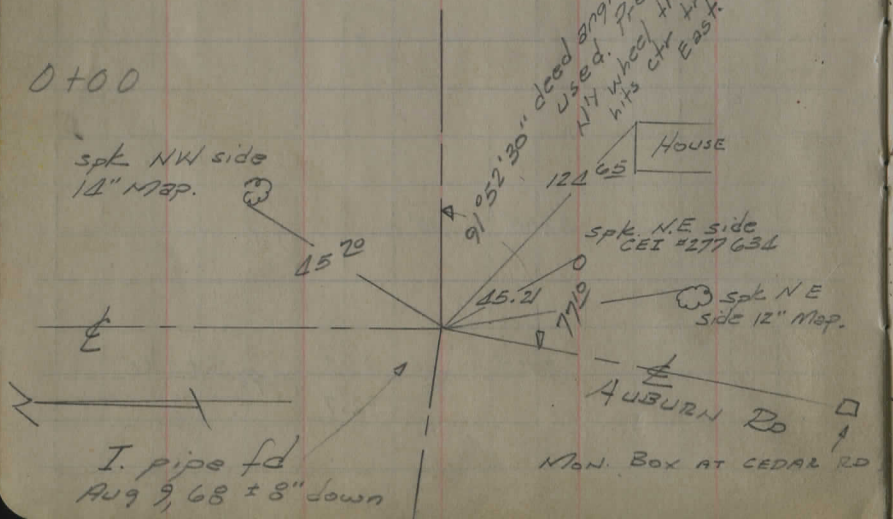
35+00

26+00 Δ = 0°00'

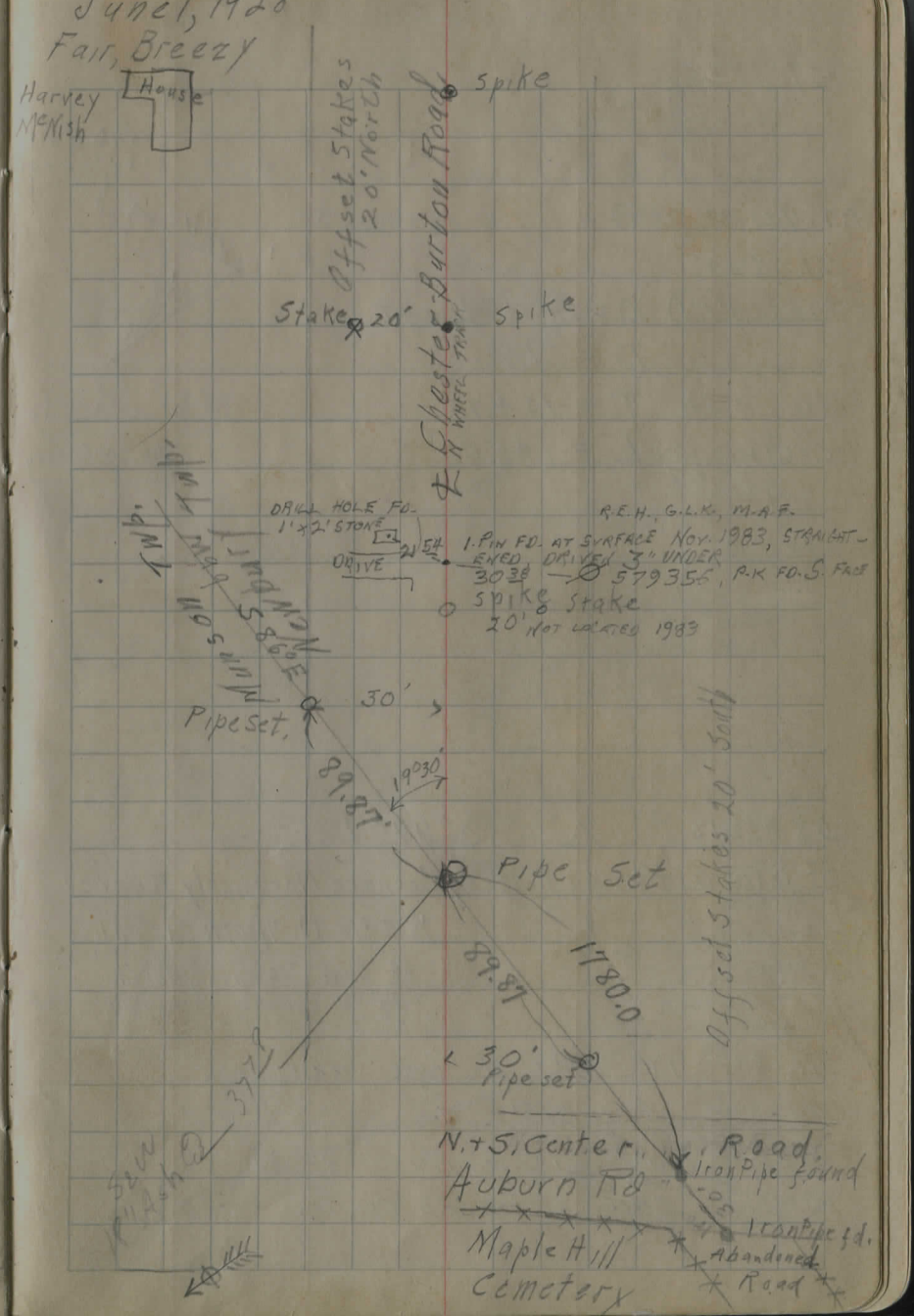
± 5+80

5+00 Δ = 0°00'

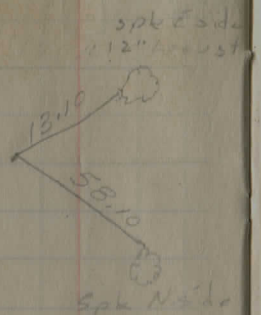
0+00



June 1, 1928
Fair, Breezy

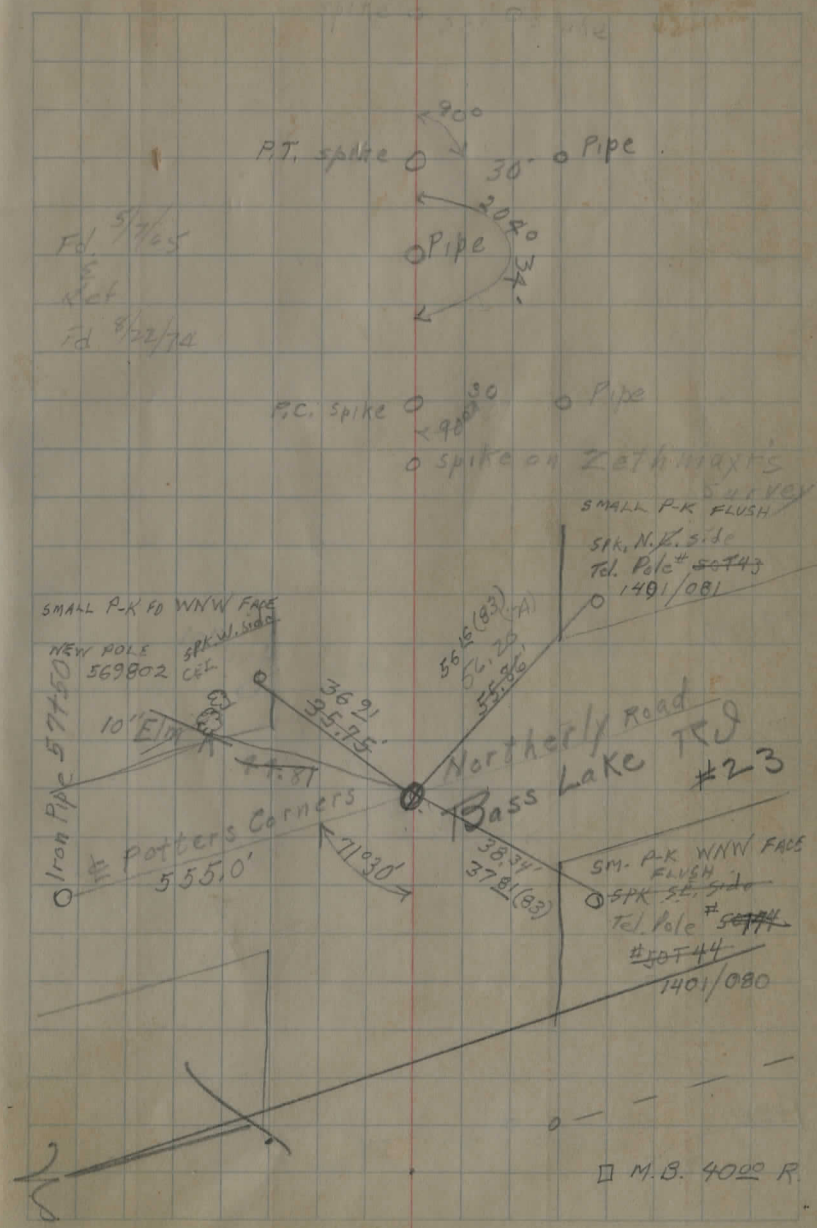


P.T. 71+478 12°17'
71 9°54'
70+26.9 (P.I.) Δ = 24°34' Left
D = 10°
70 4°54' T = 124.75
P.C. = 69+02.15 L = 245.65
2 45.65
71 47.80
67+93.6



58+22.13 Δ = 0° 17' Left
= Sta. 51+95 of Potter's Corners Northerly Survey
¼" I.P. in fd. 7/26/71 (12" under)
Fd Bent 1" I pipe 8/22/74
I.P. FD. 1' under 20 MAY 83 REH, T.A.C.

46+33 37 I.P. 31 61 L P/L GONE VIA C.E.I. CREW
44+33 37 I.P. FD. 31 61 L P/L
48+33 84 I. PIPE 31 68 R P/L
40+00 84 P.O.T. & TR 563 OAK TREE REBAR FD. 21 NOV. 83



89+00

81+00

spike ⊙ 20' ⊙ stake

spike ⊙ 20' ⊙ stake

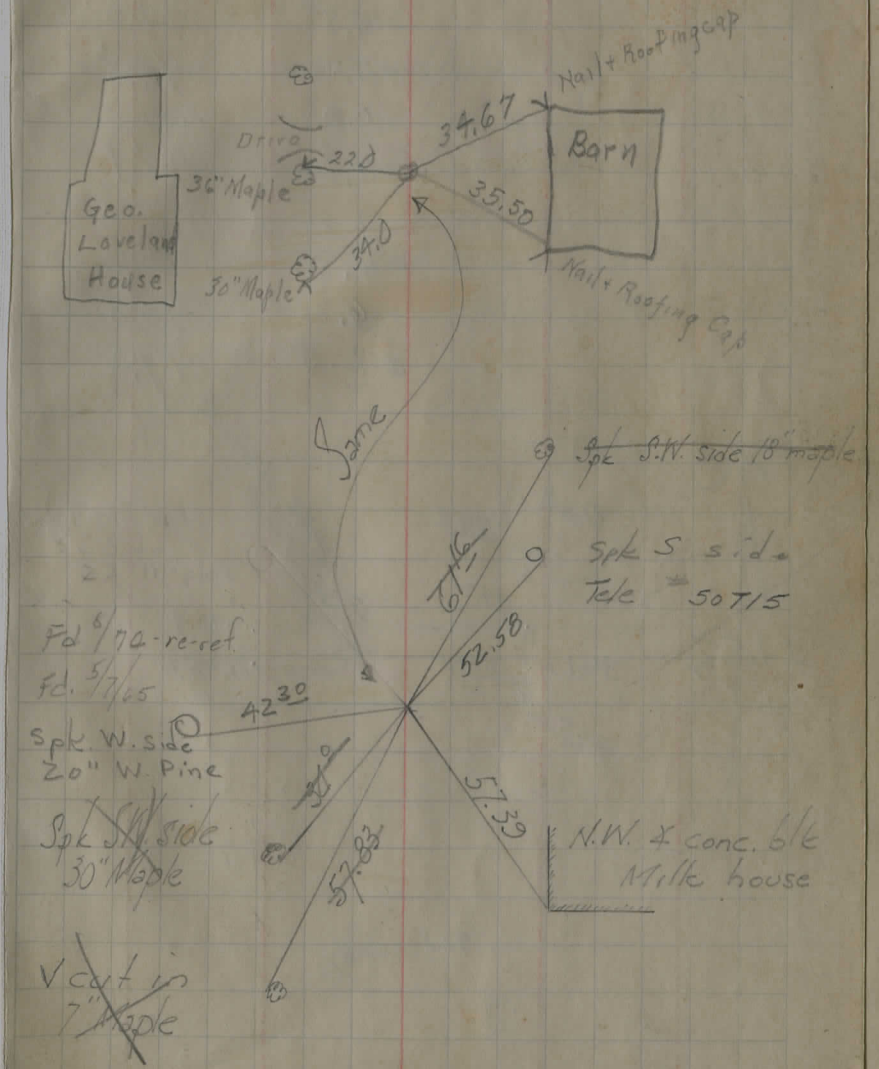
100+59.8 Δ = 0° 33' Right

Stopped June 1, 1928. Shower

100+57.8 bent I.P. fd & straightened

Sept 1950

I.P. Reset from refs 11/20/95

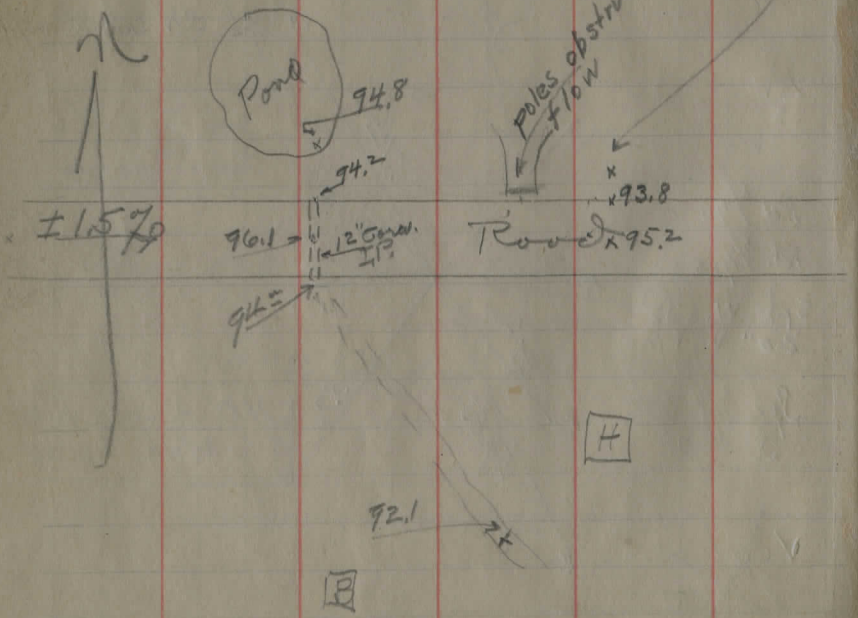


10/16/45

Rod

HI = 100 assumed

-6.00	94
-3.9	96.1
-5.8	94.2
-5.2	94.8
0.0	100
-7.9	92.1
-4.8	95.2
-6.2	93.8
±2.5	97.5



Drainage problem on Burton-Chester Rd (#21 sec. E.) front Frank Clark's

12

Flow line (outlet) S. end 12" Conc pipe ± 108+50

℄ road over " " " " "

Flow line (inlet) N end " " " " "

water level in pond at road fence N. ℄ " "

℄ road ± 105+50

low point between Clark house & barn

± 200 ft S. ℄ road ± 106+50

℄ road opposite Clark drive ± 106+50

N. ditch " ← " " ± 106+50

N. bank 5 ft N ℄

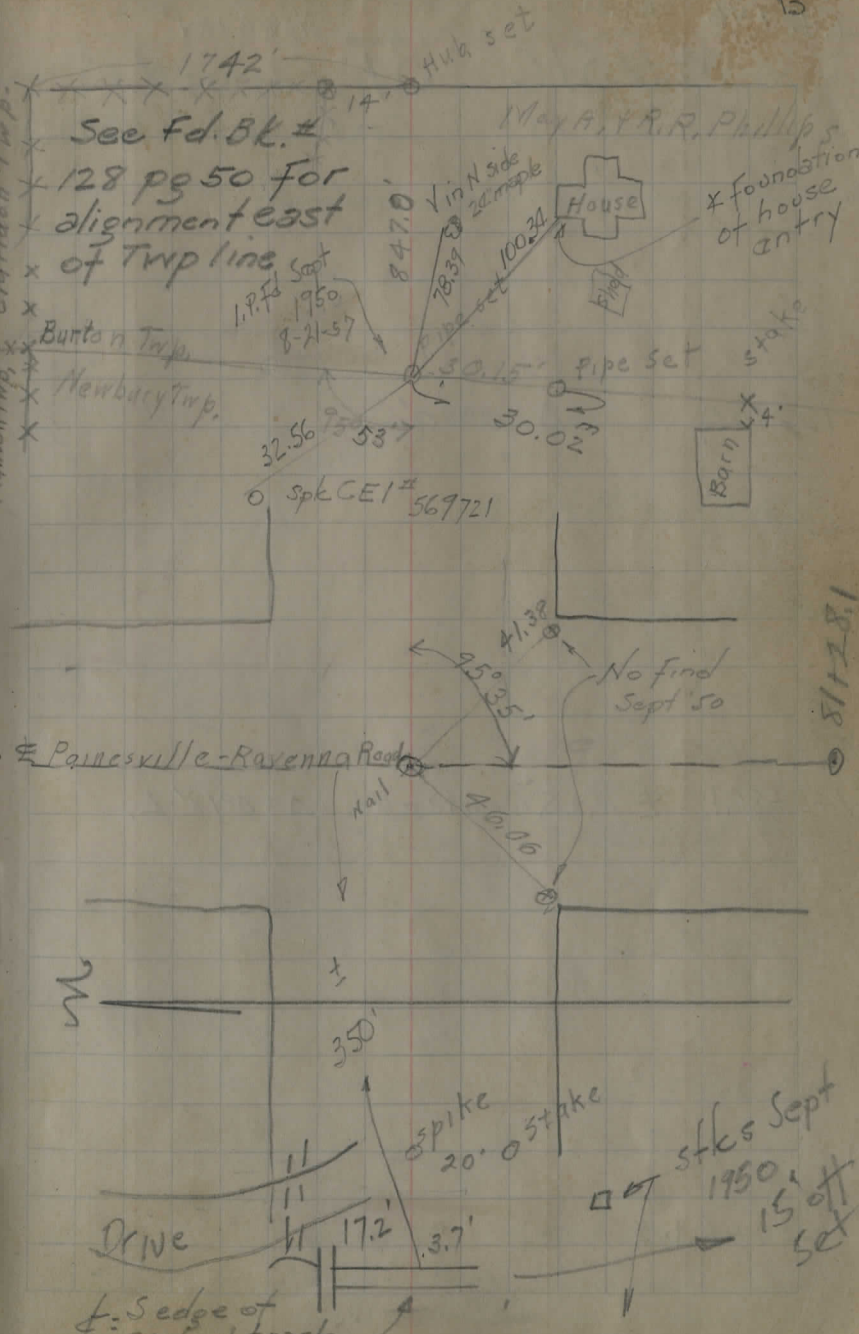
Next culvert ℄ = ± 116+50

← flows from N to S. (outlet needs cleaning)

Finished, 11 A.M. June 2, 1928
Marks, Parks, Rand & Hassel, Dietz
132+00.5 2.50 mi.

123+77.95 Δ = 0°00' { Sta 89+03.0, Painesville-Ravenna Rd. = Sta. 123+77.95 Chester-Burton Rd.

120+00
Move north end of new
culvt ± 8' West.
± 18"x16" Stone culvt
N6



T.H. 146 SEC. D.

NEWBURY

MUSIC ST., East of N. & S. Center Road to I.C.H. 324

160+00 Δ = 0°00'

145+86.1 ℄ N. & S. Center Rd. Δ = 0°18' L.

130+21.3

July 20, 1927, Marks, D. Parks, Hassel

Stakes set on 20' Offset.

14

Cen

1.958 mi.

14" Maple

29.00

Iron Pipe

E. A. Chapman

31.00

H 30" Maple

Spk NE root 16" Map.

121.10

Spk. SW side 14 Loc.

77.08

22.99

I.P. Fd Oct 1950 spk set 1" under ℄ AUBURN ℄

58.40

43.93

Spk SE side 16" catalpa

75.34.30

Spk SW side CEI #563209

Spk SW root 18" map.

38.34

24.0

Fd Oct 1950 10d nail SE side Tel. pole

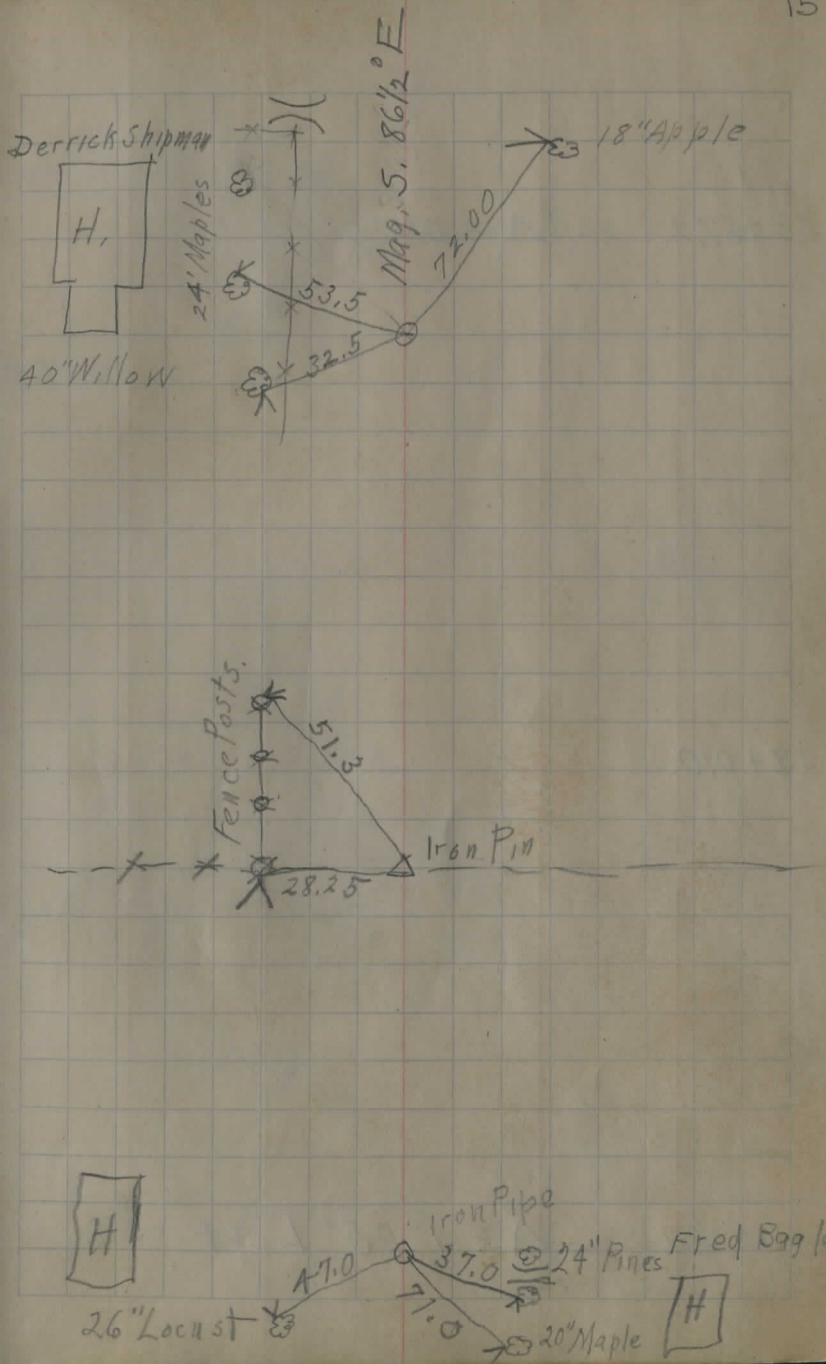
Spk. E side 2nd. map. W of drive

33.90

196+00 $\Delta = 0°00'$

185+84.8 $\Delta = 0°16\frac{1}{2}' R$

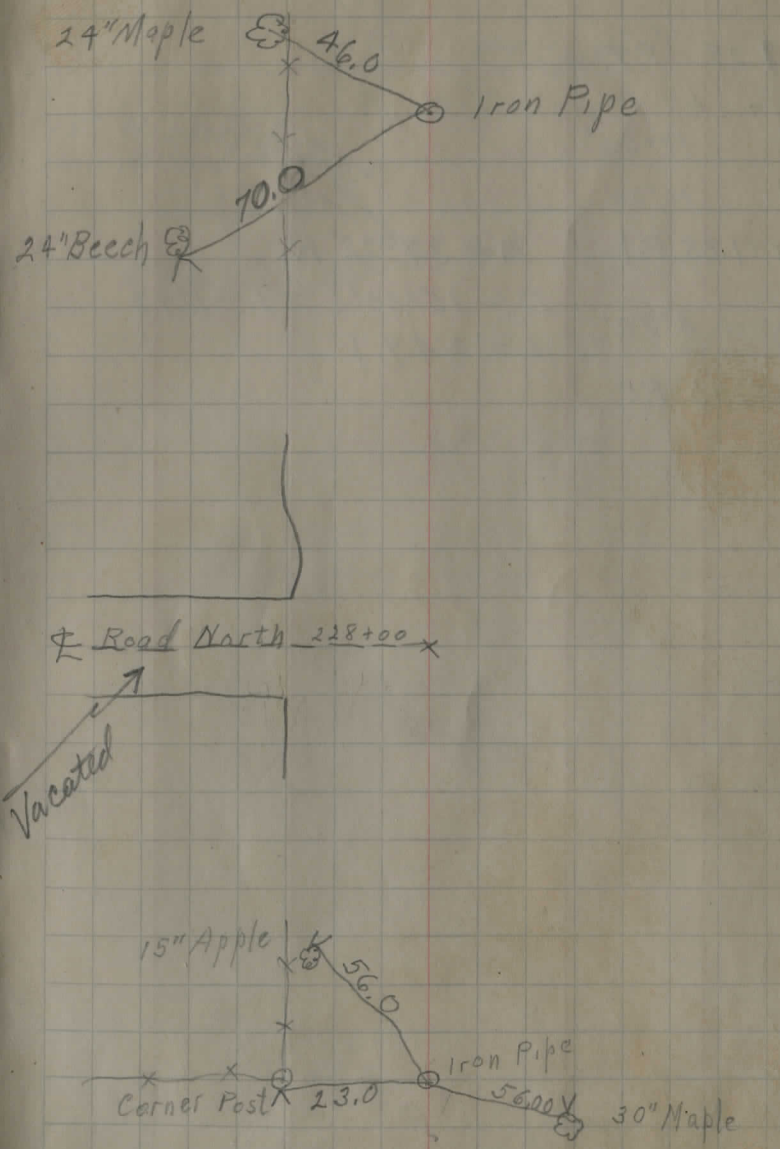
172+00 $\Delta = 0°00'$



233+67.2 $\Delta = 0°00'$

228+00

212+23.7 $\Delta = 1°05'$ Left



July 21, 1927. Marks, D. Parks, Hassel

242+11.25 18°41' P.T.

242 17°50'

241 10°20'

240+91.35 P.I $\Delta = 37°22'$ R.

$D = 15°00'$ $T = 129.2$

240 2°50' $L = 249.1$

239+62.15 P.C.

○ P.T. Spike

18" Hickory 59.5

Hub.

8" Apple 15.3

37.85
4.3
151.40
151.40
170.825

○ P.C. Spike

July 19, 1927 Marks, D. Parks, Hassel

249+24.8 Point on Semi-Tangent, I.C.H. 324-F

1.958 miles

247+29.8 9°38' P.T.

247 8°26'

246+10.6 P.I. Δ = 19°16' L.

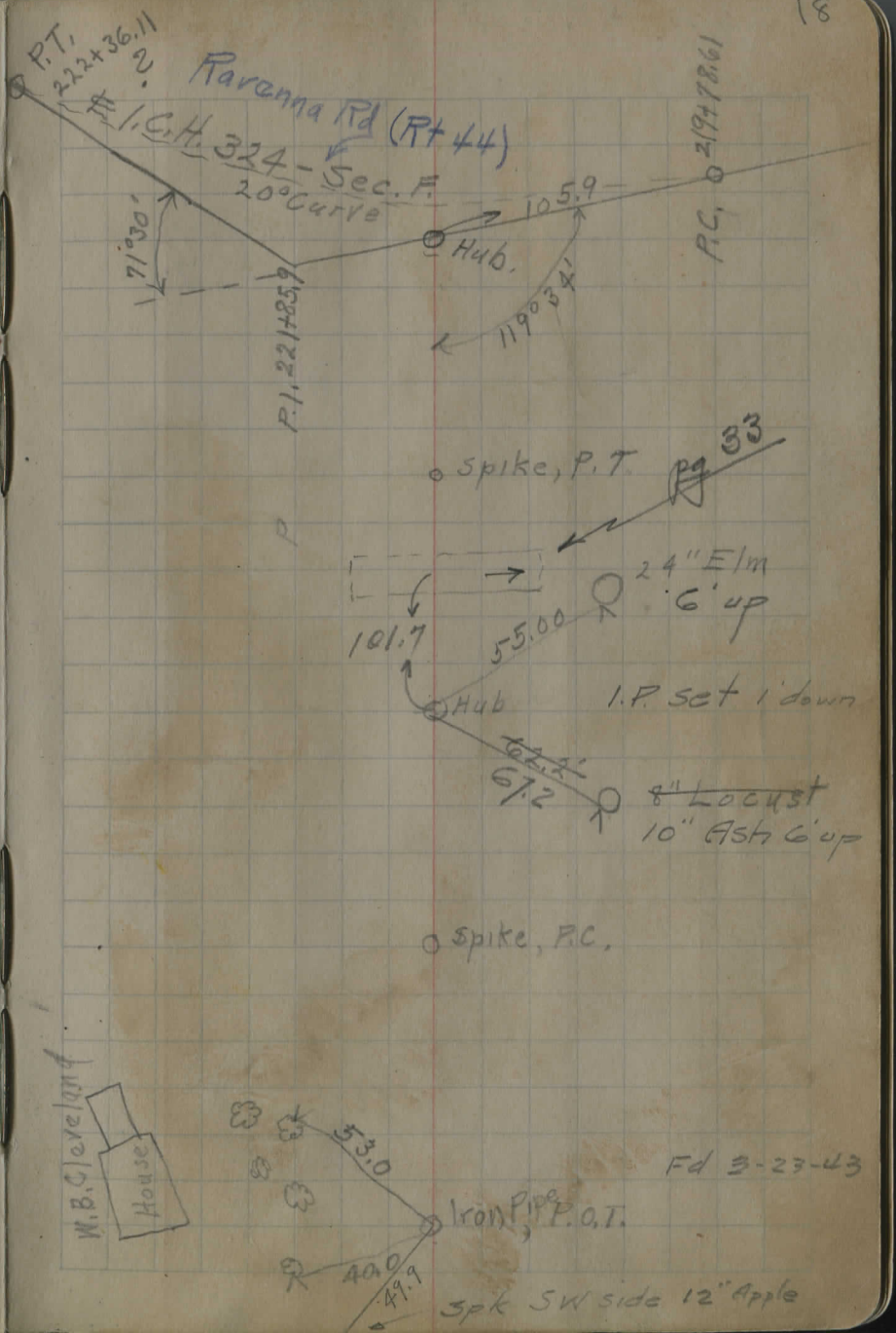
246 4°26' D = 8°00' T = 121.6'

L = 240.8'

245 0°26'

244+89.0 P.C.

243+38.28 Δ = 0°00'



~~28+13.20~~ Approximate ℄ of E and W Road

26+83.70 Hub Δ = 172° 07' R

22+51.55 Hub Δ = 7° 30' R

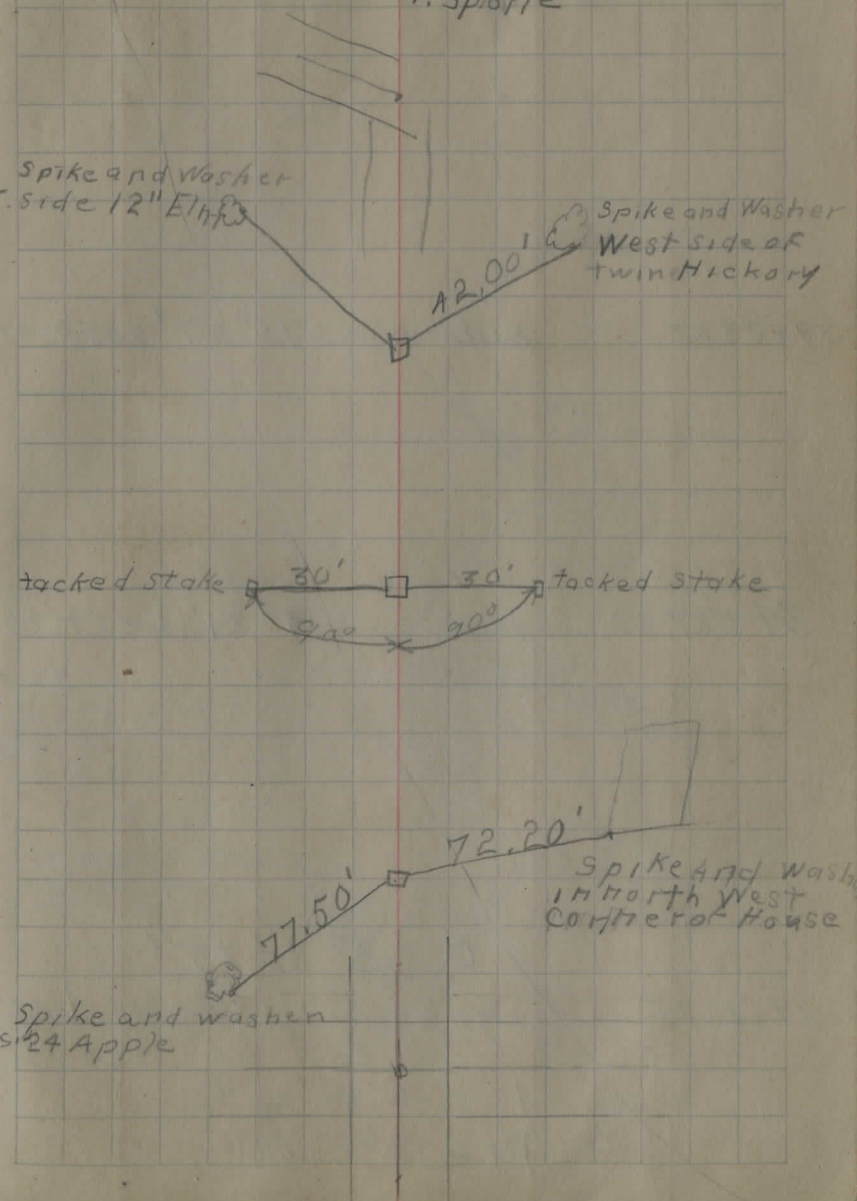
19+50 Pt of Curve

18+64.50 ~~Hub PI = 100° 58' 30"~~ L

18+00 PC of Curve

0+00 0° 11' 30" From Straight tangent R.
Iron Pipe at intersection
Starting at Potters Corners South

April 16 1928 D. Parks. C. Rand
F. Sporne



39+84.38 Hub Δ = 13° 57' 30" Left

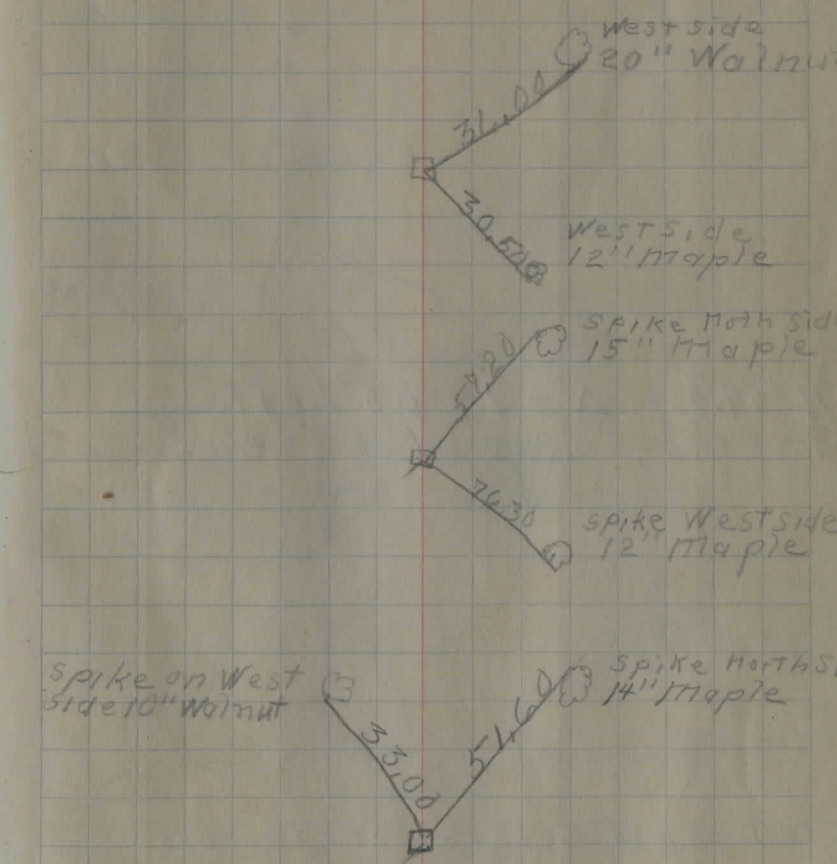
~~34+79.30 Hub Δ = 4° 21' Left~~

PC = 3° 31' 15"

29+10.95 Hub. Δ = 163° 24' Left

I = 5° 39' 45"

PT = 75° 3' 15"



Potter's Corners Southerly & S.E.ly,
to Woods School-House
C.H. #23 Bass Lake Rd

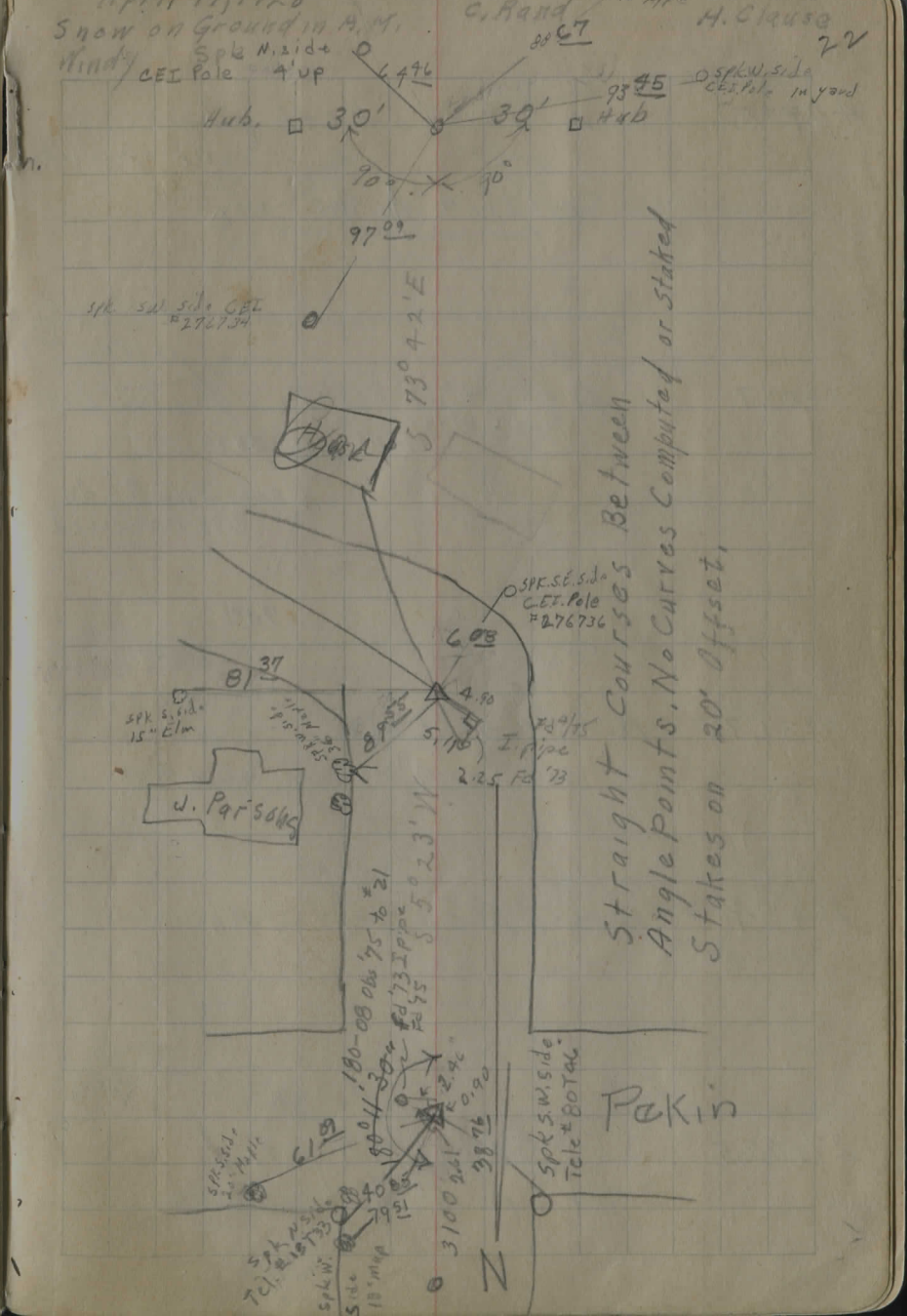
22 + 73.5 Δ = 7°47' Right
I Pin Set 4/95 4" from record

18 + 64.5 Δ = 79°05' Left
I pin set 4/95 from record

0 + 00 Iron Pipe, Potter's Corners
I pin set 6" dn 4/95 from record

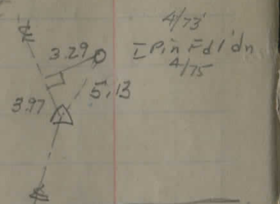
April 17, 1928
Snow on Ground in A.M.
Windy

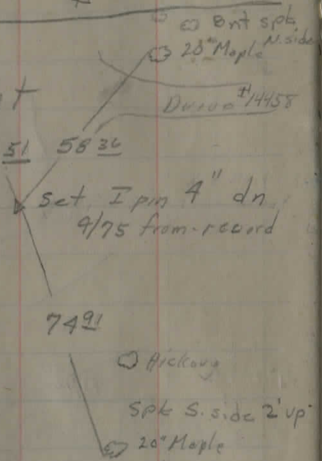
W.C. Mark C. Rand D. Parks H. Clause



304.9

40+05.6 $\Delta = 14°00'$ Left





35+00.7 $\Delta = 4°21'$ Right

Spk S. side CEI #276719

568.95

97.75

29+31.75 $\Delta = 20°15'$ Left

Set I pin 4" dn from record 4/75

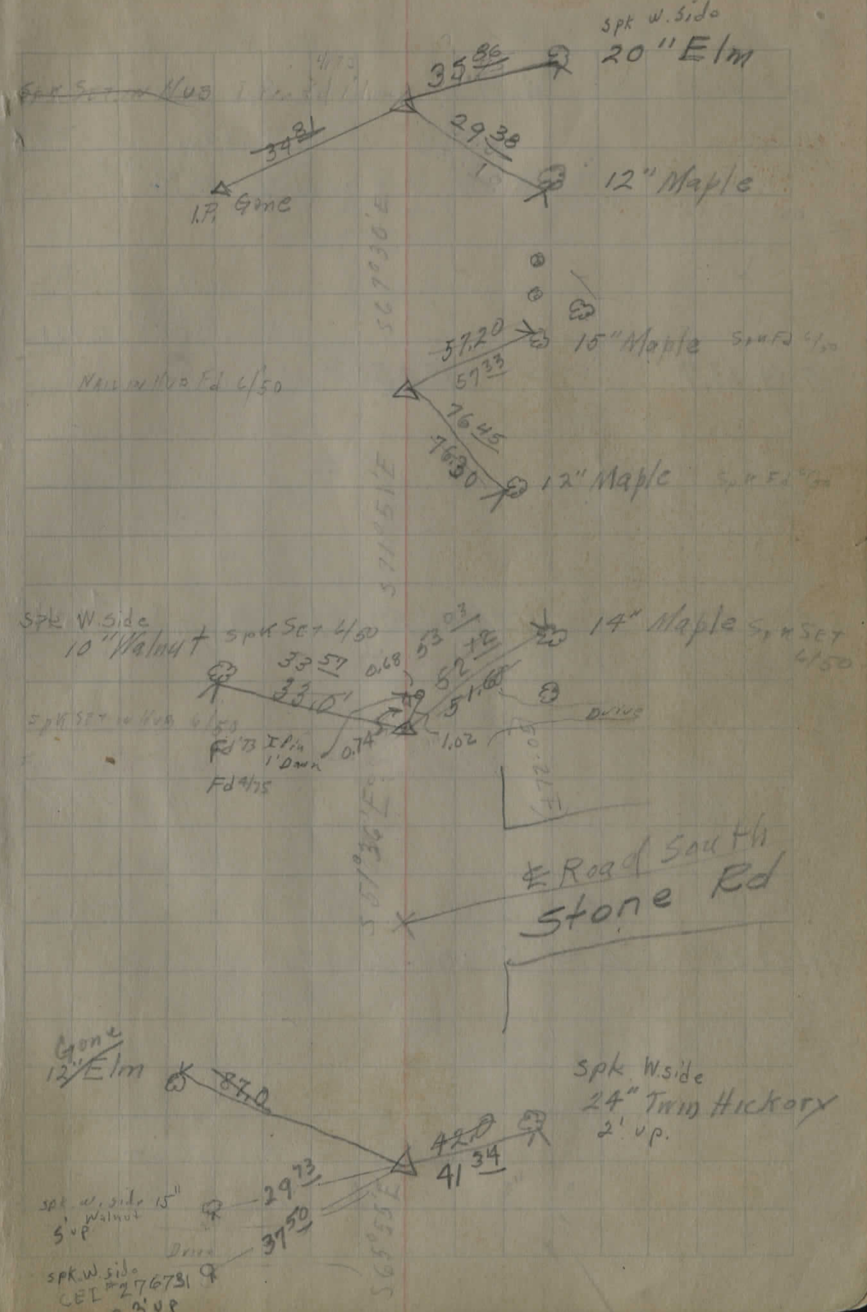
28+34 Approx. ℄ of Road South

178.5

27+05.5 $\Delta = 14°19'$ Right.

Set I pin 4" dn from Record 4/75

432.00



Apr. 18, 1928
Fair

W.C. Marks
C. Rand

D. Parks
H. Clause

4. 62+00 Δ = 3°03' Right p CEI 27672

Fd 3/75 Refs OK I.P. Fd Pipe 6" dn. — 89.45 Spk SE side 18" Hick — 32.28 — 80.85 3' off on CEI 276728

366.3

35 58+33.7 Δ = 29°25' Right

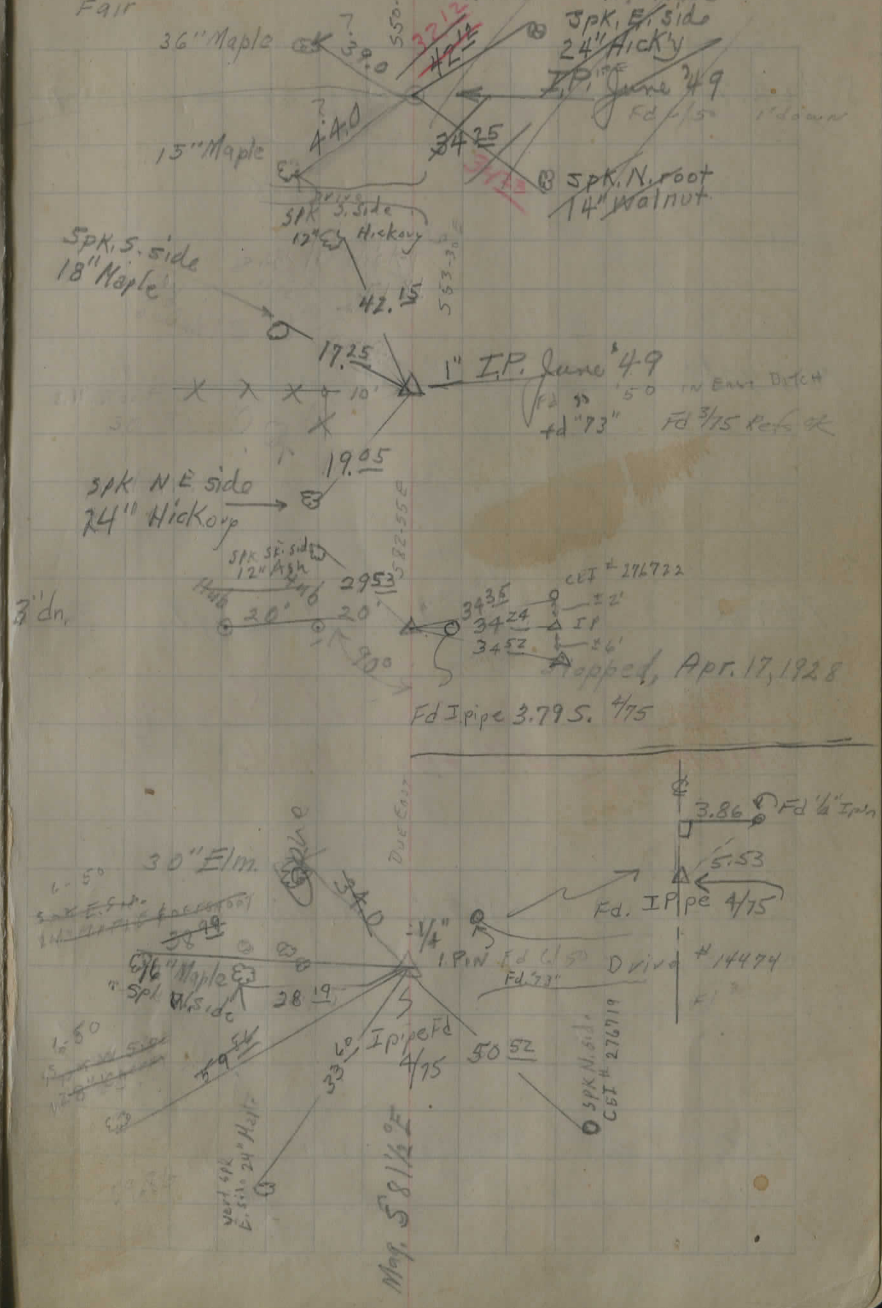
429.7

54+04.0 Δ = 7°05' Right I pin Set 4/75 from record

29

2. 49+52.25 Δ = 8°30' Left

2 946.65



36" Maple
39.0
32.12
42.5
Spk. E. side 24" Hick'y
I.P. June '49
Fd 1/75
15" Maple
44.0
34.25
Spk. N. root 14" Walnut
Spk. S. side 12" Hickory
Spk. S. side 18" Maple
42.15
17.25
1" I.P. June '49
Fd 3/75 Refs OK
19.05
Spk N E side 24" Hickory
Spk SE side 12" Ash
29.53
20'
3'dn.
34.35
34.24
34.52
CEI # 276722
Capped, Apr. 17, 1928
Fd I pipe 3.79 S. 4/75
30" Elm.
34.0
3.86
Fd 1/2" I pin
5.53
Fd. IPipe 4/75
Drive # 14474
1/4"
28.19
I pipe Fd 4/75
50.52
Spk N. side CEI # 276719
Mag. S 81 1/2 E

81+62.7 = Sta. , P.I. on L.C. H.33-D

8/2/50

165-35
331-10

76+90.16 Δ = 14°20' Left

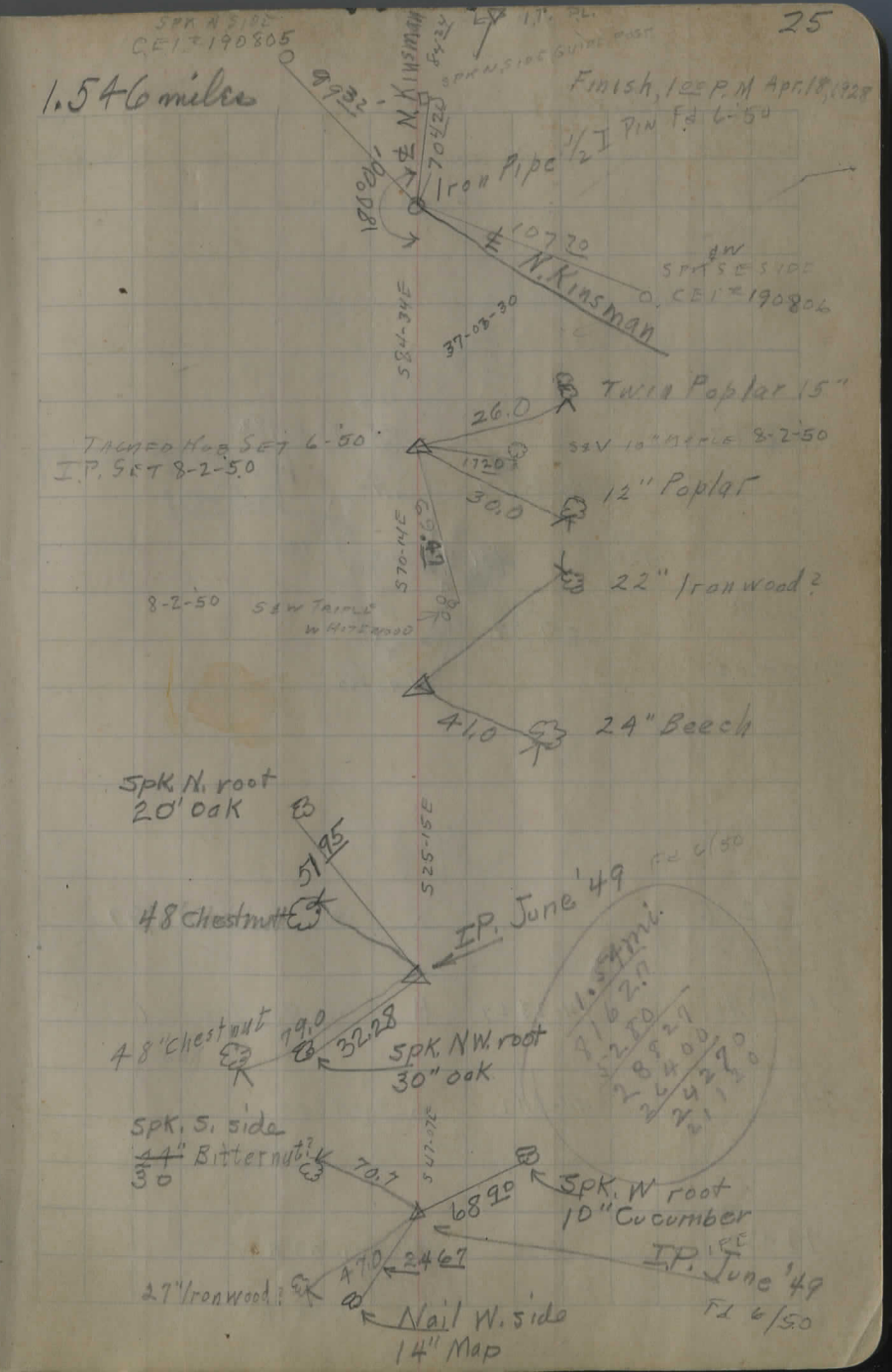
74+00 Δ = 44°59' Left.

Sts. 72+20 ahead. See relocation pg 47 this book

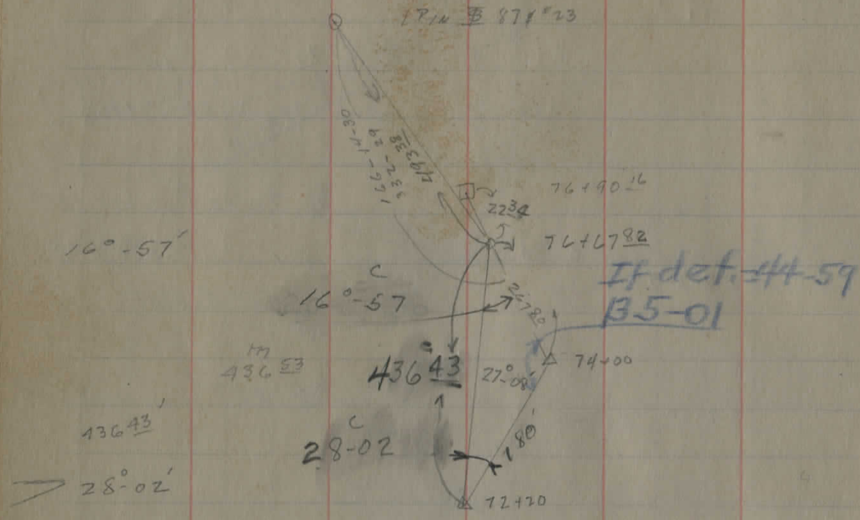
72+20 Δ = 21°52' Right

New Ref. 1977 Pg 47

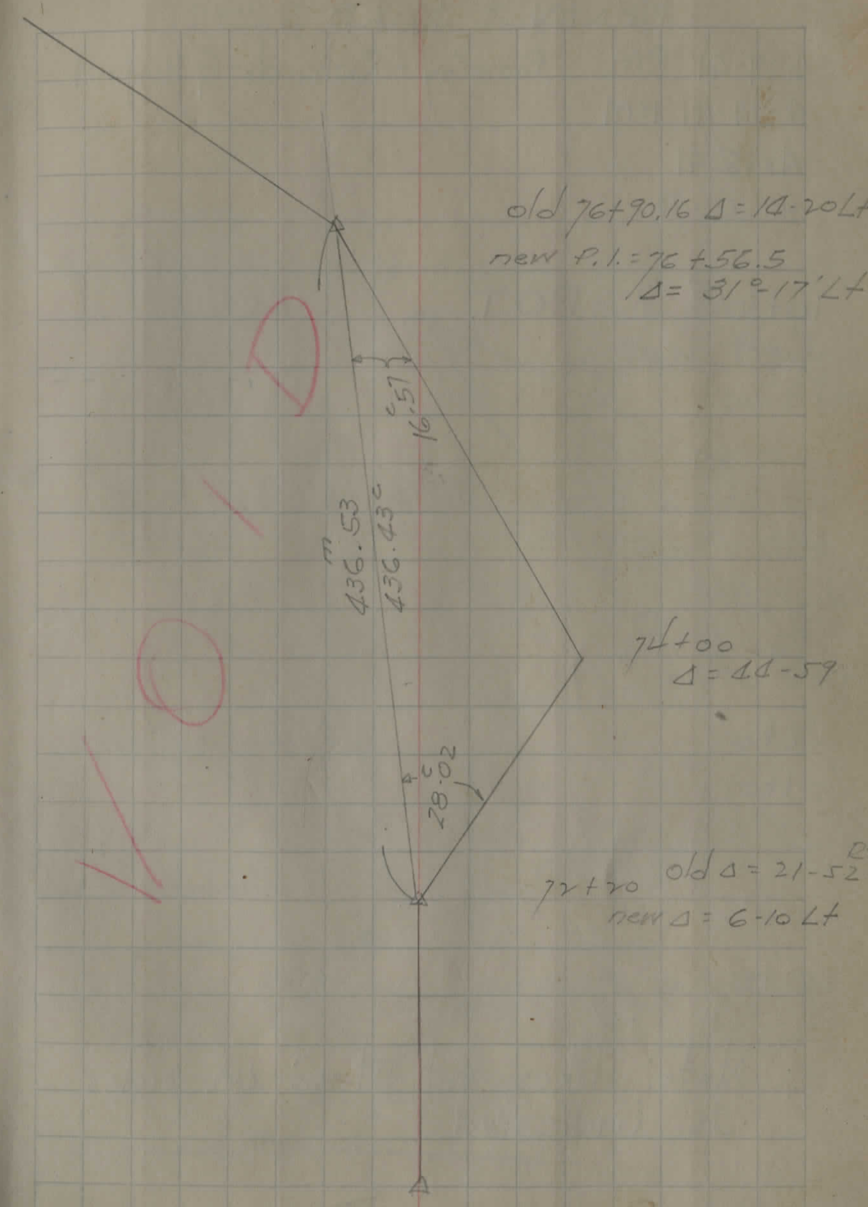
69+00 Δ = 3°20' Right



483.85 BASS LAKE #23



81+62.06		△	I.P. in [illegible] 58.87
76+90.16	14-23 Lt	□	Tack Hub Set
74+00	44-59 Lt	○	Spot Set
72+20	I.P. Fd	△	21-57 RT
69+00	I.P. Fd	△	3-20 RT



TH. #144 SEC. G.

PEKIN ROAD

4-9-41 P.M. Pomeroy - Richards - G. Hosford
4-14-41 P.M.
4-15-41
4-16-41

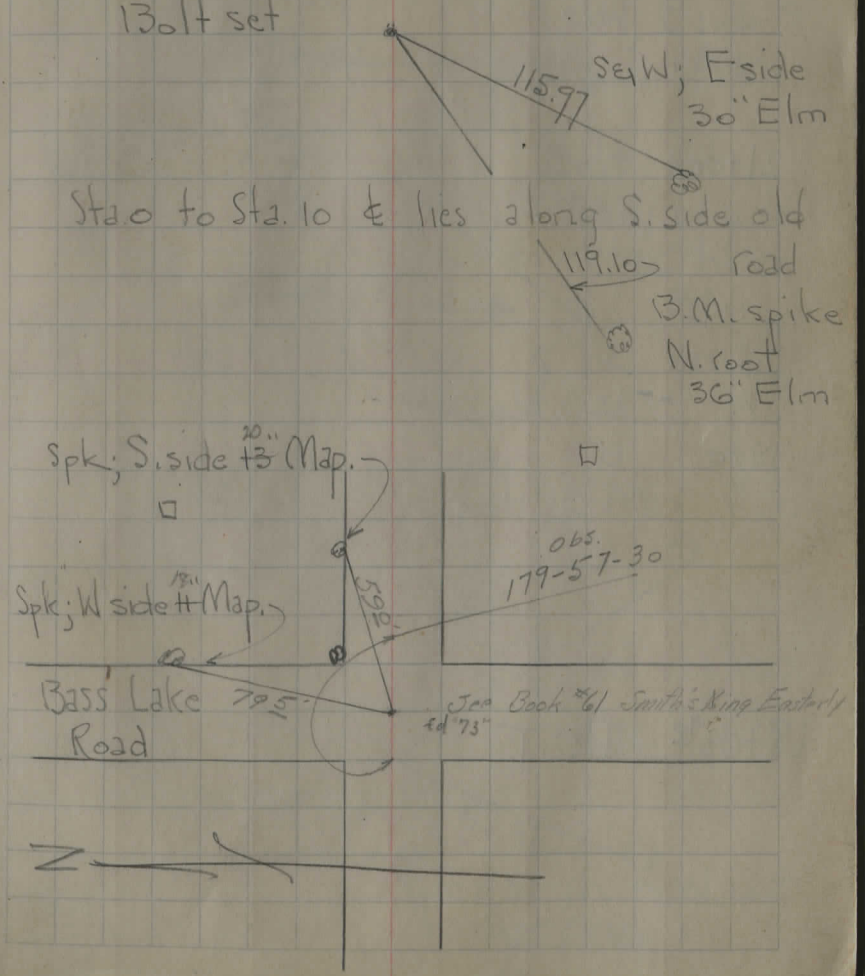
10+30 25 P.O.T.

2 to
1 to

0 to

Note: Stakes set at 30' on sides as indicated

POTTERS & E. to Route 44



24+53

21+00.

19+0

18+03 To P.O.T.

Davis

P.L. Croxton

S & W; E side 9" Ash

Zone

3/23/46

P.O.T.

21.92

Bolt set

S & W; W. side 36" twin Elm

27.90

Stump fd

Sta 19 to 25+0 ℄ lies on N. side old road

15'

29'

S & W; W. root 26" Map.

67.15

Bolt set

47.30

Spk & W. in N.W. root 18" Map.

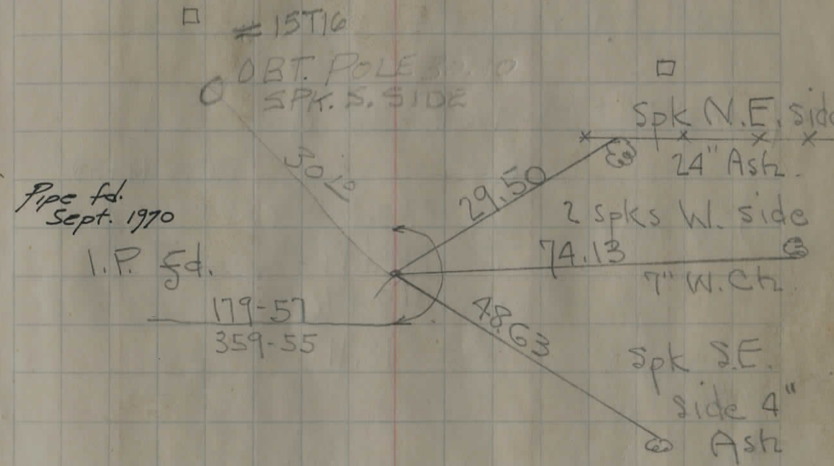
35 to

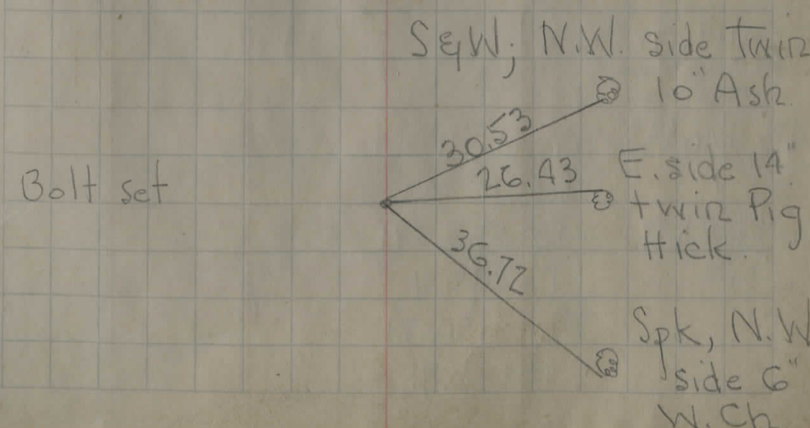
34 to

14.04

33+85[96]

28+00[00]





197.45 from P.I. to I.P. fd 0.08 S of line

Make 16 Ext

47 +03.60

Δ = 16°-58' R

R =

D = 3°-30'

T = 244.17

L = 484.76

E = 18.11

P.C. = 44+59.43

P.T. 49+44.19

+50

46

P.T. - 44+17.60

43 +40.20

P.C. = 42+61.39

Δ = 17°-11' Lt

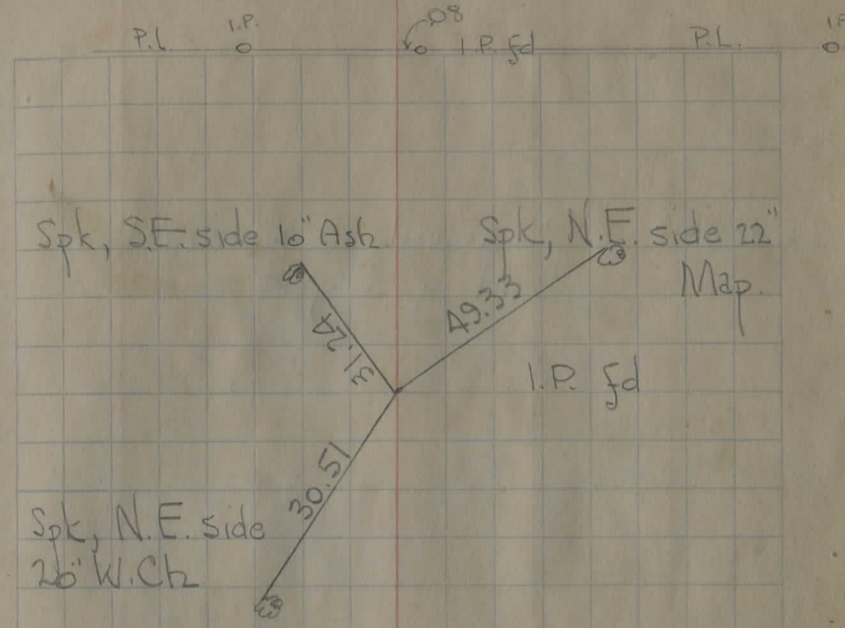
D = 11°

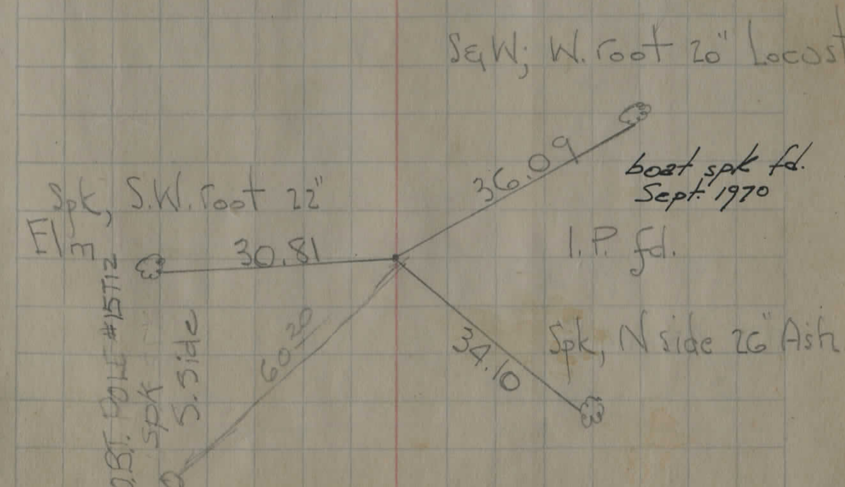
R = 520.871

T = 78.81

L = 156.21

E = 5.91

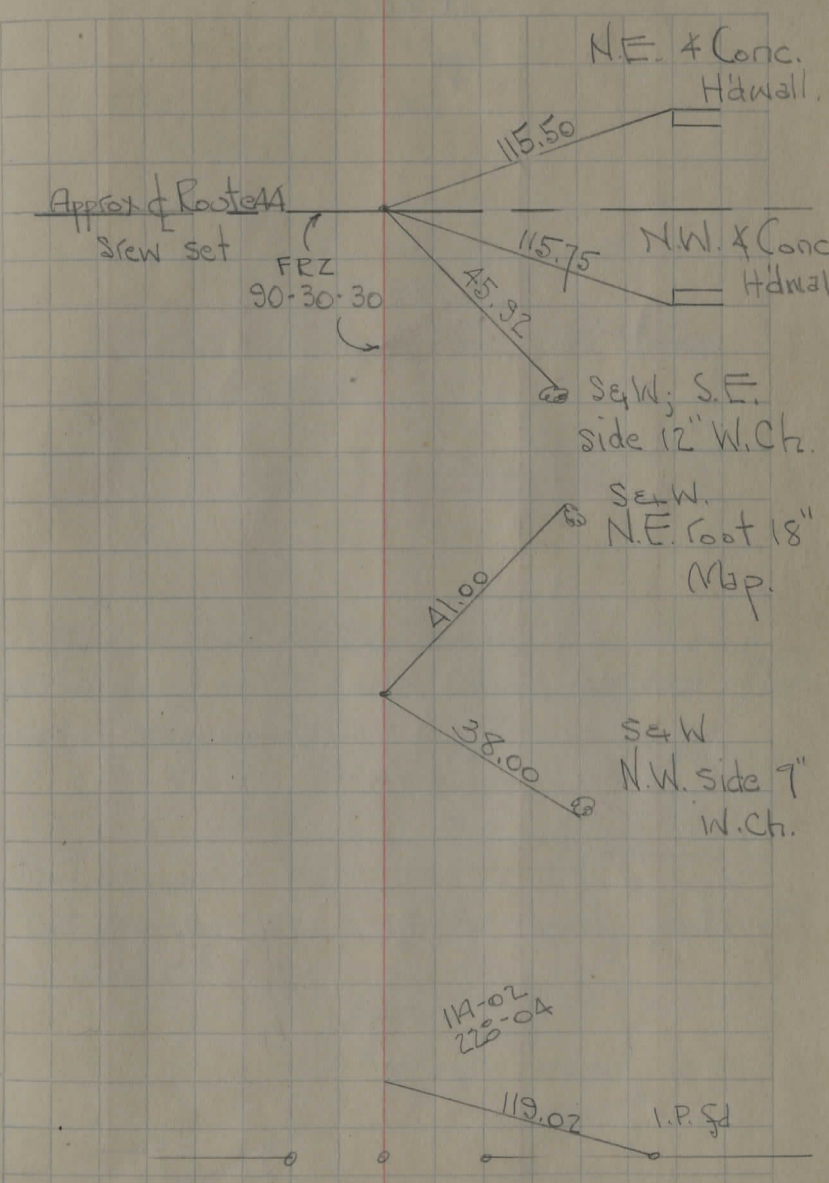




65 to 58 Painesville - Ravenna Road
End of Project.

59+10.00 P.O.T. Bolt set

55.81
P.T. 49+44.19

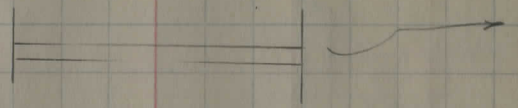


3+90
10" Pipe reqd →

49+78

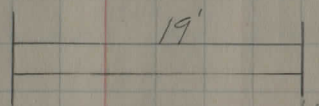
15"x16 V.S.P. 16'
N.G.

44+32.60
2.5'x2.5'x16 Stone box 13' R'dway.
Cond. = Fair



5/23/46 = ±40 ft 36" cons in place
H_2O in pond on N. side of highway = ± 1 ft higher than road (20+29)

3x3x19 Stone box Culvt

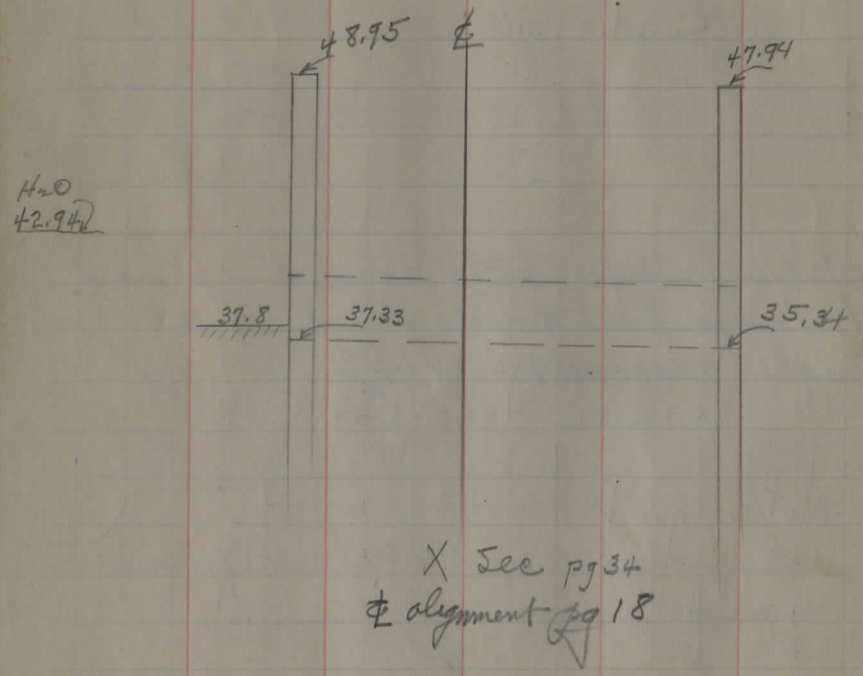


Not so good
Est. drainage area = 140 Ac mostly pasture & woods

8+94
8" pipe reqd →

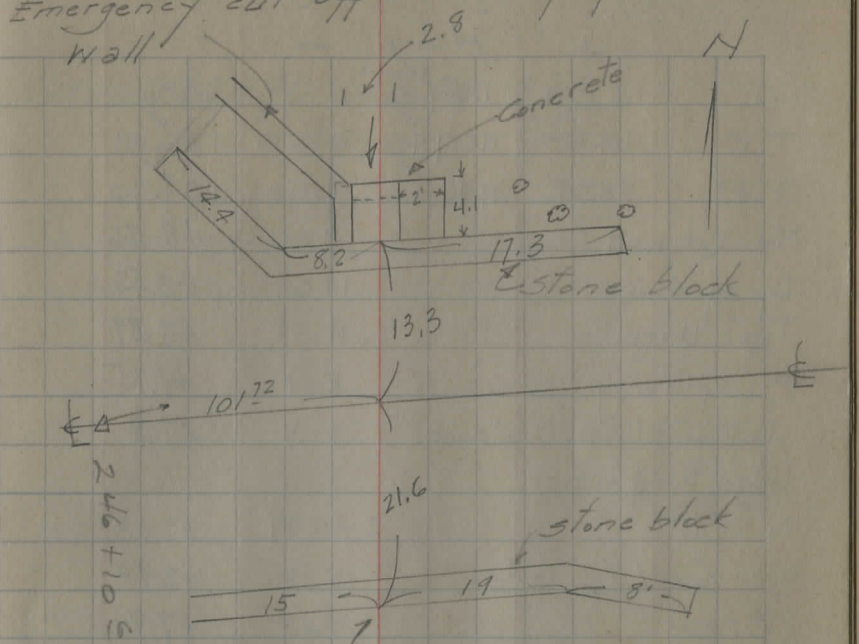
Culvert over Pundersons Lake outlet on Music St.

3-23-43
Pom Hall Randles



X See pg 34
℄ alignment pg 18

3/23/43 33



36" ϕ = 7.07 sq ft
30" ϕ = 4.91 " "
{ op. = 1.9 wide
" = 3.1 high } = 5.89 sq ft.
skip plank floor

So. Hdwl out of plumb (out at top)
W side 13"
Ctr 6"
E side 3"

Levels — Punderson Lake

	+	H.I.	−	
BM.	8.04	1157.06		1149.02
T.P.	10.59	1167.40	0.25	1156.81
T.P.	0.32	1158.22	9.50	1157.90
No. Ret. wall (top)			9.26	48.96
Top of sluice			14.69	43.53
Top Union			14.33	43.89
" Spillway			16.47	41.75
Bottom sluice (± 2' conc. ledge S of weir.)			20.4	37.8
N FL			± 20.89	37.33
H_2O level in lake			15.28	42.94
S Ret wall			10.28	47.94
F.L. So.			22.58	35.34
BM. Set			7.70	1150.52

Outlet

1.88

Sta. 228+90 SR = 44 13.24
2.04
15.28

22.88
16.47
6.41

20.9
16.5
5.4

S root 18" Maple N side Music St
± 150' W of Painesville - Ravenna Rd

Nov 28 1960

LEVELS Northerly on Stone Rd from S.R.87

	+	H.I.	−	Elv
B.M.				1172.46
	7.41	1179.87	0.24	1179.63
	12.94	1192.57	0.10	1192.47
	2.68	1195.15	12.88	1182.27
	0.27	1182.54	0.70	1181.84
	12.74	1194.58	0.43	1194.15
	11.85	1206.00	1.53	1204.47
	1.40	1205.87	0.82	1205.05
	12.46	1217.51	0.56	1216.95
	5.81	1222.76	5.39	1217.37
	2.63	1220.00	0.20	1219.80
	4.88	1224.68	9.60	1215.08

Spk S E Root 48" Oak on N W E Stone Rd & R-87

See page 50

STONE ROAD = ± 28+34

B.M. Spk SET 14" ELM N SIDE BASS LAKE Rd ± 29+73.75

PROFILE Bass Lake Rd 6-28-50

	+	HI	−	Elev.
B.M.				1215.08
Sta 30+00±	7.55	1222.63	3.90	1218.73
Sta 31+00±	4.32	1223.05	4.51	1218.54
Sta 32+00±			3.30	1219.75
" 33+00±			0.80	1222.25
"(28+34±			7.2	1215.9)
"(28+59±			5.5	1217.6)
"(28+89±			4.1	1219.0)
"(29+31			3.9	1219.2)
T.P.	11.72	1231.48	3.29	1219.76
Sta 34+00	11.72	1231.48	5.2	1226.3
Sta 35+00			1.2	1230.3
Sta 36+00			2.8	1228.7
Sta 37+00			3.8	1227.7
T.P.	8.48	1236.11	3.85	1227.63
Sta 38+00			8.8	1227.3
39+00			8.4	1227.7
40+00			7.3	1228.8
41+00			3.1	1233.0
42+00			0.1	1236.0
T.P.	9.09	1245.05	0.15	1235.96
43+00	9.09	1245.05	8.1	1237.0

(more)

℄

Corrected elev = 1214.08 See pg 50,51

14" Elm N. side Bass Lake Rd. ± 29+73.75

APP. ℄ SLOPE ROAD

Note: All elev. = 1.00 to high

See pgs. 50 051

	+	HI	−	Elev	
		1245.05			
44+00			6.4	1238.7	
45+00			3.6	1241.5	
T.P.	10.65	1255.40	0.30	1244.75	
B.M.			6.42	1248.98	± 45+84 in twin hickory - N. side of Rd.
46+00			9.1	1246.3	
47+00			4.1	1251.3	
T.P.	12.30	1267.47	0.23	1255.17	
48+00			11.5	1256.0	
49+00			4.8	1262.7	
49+52			4.5	1263.0	
BM			2.47	1265.00	± 49+52 in 12" maple N side of Rd. - 30' E of I.P.
6-30-50 TP	2.15	1267.15			
50+00			4.65	1262.5	
51+00			4.1	1263.1	
52+00			3.7	1263.5	
53+00			2.7	1264.5	
T.P.	8.14	1272.60	2.69	1264.46	
54+00			6.5	1266.1	
55+00			4.9	1267.7	
56+00			4.5	1268.1	
57+00			6.5	1266.1	
58+00			6.1	1266.5	
59+00			5.8	1266.8	
		(mm)			

	+	HI	−	Elev
~~B.P.~~		1272.60		
T.P.	11.23	1278.09	5.74	1266.86
BM			8.24	1269.85
60+00			10.2	1267.9
61+00			7.0	1271.1
62+00			2.0	1276.1
63+00			1.6	1276.5
64+00			1.6	1276.5
T.P.	4.00	1281.75	0.34	1277.75
65+00			3.6	1278.2
66+00			4.9	1276.9
BM			5.41	1276.34
67+00			5.0	1276.8
68+00			2.8	1279.0
68+54			2.4	1279.4
69+00			3.1	1278.7
70+00			10.8	1271.0
T.P.	0.80	1271.92	10.63	1271.12
71+00			11.2	1260.7
T.P.	0.21	1259.43	12.70	1259.22
72.00			6.1	1253.3
B.M.			4.02	1255.41
B.M.			8.61	1250.82
73+00			12.0	1247.4
T.P.	2.37	1249.77	12.03	1247.40
73+75			4.2	1245.6

(more)

24" Maple, Spk W side of Rd ± Sta 59+42

S. root twin Ash — N. side Rd ± 66+26

Spk in W root 28" Oak } ref spks. for
Spk in W of W. root 14" Oak } 72+20

	+	1249.77 HI	-	Elv
74+00			4.7	1245.1
75+00			5.3	1244.5
76+00			7.9	1241.9
77+00			11.9	1237.9
T.P.	2.85	1240.74	11.88	1237.89
78+00			5.3	1235.4
78+41			5.5	1235.2
B.M.			5.44	1235.30
79+00			5.4	1235.3
80+00			4.5	1236.2
81+00			1.8	1238.9
81+30			0.3	1240.4

HI

±78+93 E root soft maple dump S. side Rd

Edge of pavement (87)

6-30-50 CROSS SEC BASS LAKE RD # 23

46+52 to 52+57 SIDESHOTS 30' on North UNLESS NOTED

	+	HI	−	Elev
BM				1248.98
	8.51	1257.49 ~~1257.50~~		
46+52				
47+02				
47+36				
47+52				
47+93				
48+02				
47+70				
47+82				
TP	9.93	1267.11	0.31	1257.18
47+96				
48+02				
48+46				
48+46				
48+52				
48+70				
48+84				

All elev. = 1.0 high (tops 46)

(more)

S ℄ N

Spk S Root Twin Hickory ± 45+84

52.6: 4.9/30.0 · 52.6: 4.9/20.0 · 49.1: 8.4/9.0 · 47.8: 9.7/7.0 · 49.5: 8.9/5.0 · 1249.0: 8.48 · 49.0: 8.55/14.0' · 48.6: 8.91/16.0' · 50.8: 6.70/20.5 · 49.9: 7.6/30.0

53.1: 4.4/30.0 · 51.9: 5.6/13.5 · 49.7: 7.8/8.0 · 51.0: 6.5/5.0 · 51.4: 6.1 · 50.6: 6.9/15.0 · 50.8: 6.7/17.0 · 49.1: 8.4/30.0

CE1 ↕ ON MARGIN 52.6: 4.9/30.0 · 52.5: 5.0/15.0 · 51.1: 6.4/14.0 DITCH · 52.4: 5.1/13.0 · 52.8: 4.7/9.0 · 53.6: 4.0 · 52.5: 5.0/13.0 DITCH · 52.6 42" Elm 19.0: 4.9/14.0 · 52.0: 5.5/18.0 · 51.8: 5.7/30.0 EASY SLOPE DOWN

54.6: 2.9/33.0 · 53.9: 3.6/30.5 DITCH · 54.4: 3.1/30.0 · TWIN 6" OAKS 18.0 · 54.6: 2.9/24.0 · 55.5: 2.0/9.0 BURM · 56.2: 1.3 · 55.1: 2.4/10.0

TWIN OAKS 20.0

14" ASH 20.0

8" HICKORY 20.0

60.3: 6.8/19.0 · 61.6: 5.5/30.0 · 60.6: 6.5/40.0

59.4: 7.7 · 58.4: 8.7/9.5 DITCH · 64.2: 2.9/25.0 · 28" BEECH 28.0 · 63.8: 3.3/36.0 · 26" BEECH 38.0 · 63.3: 3.8/40.0 SLOPE DOWN

LEVEL 56.5: 10.6/33.0 · 56.0: 11.1/31.0 DITCH · 56.4: 10.7/30.0 · 59.1: 8.0/11.0 · 59.9: 7.2 · 59.0: 8.1/10.0 DITCH · 59.7: 7.4/19.0 RUBBISH HEAP · 60.7: 6.4/27.0 · 63.5: 3.6/30.0 · 64.6: 2.5/40.0 SLOPE DOWN

DIRT REMOVED LEVEL TO ± 28' OFF ℄

62.2: 4.9 · 61.3: 5.8/16.5 · 67.1: 0.0/22.0 · 72.6: −5.5+/40.0 SLOPE ON UP

1267.11

	+	HI	−	Elev	
T.P.	2.15	1267.15 ✓	2.11	1265.00 ✓	B.M.
49+10 ✓					
49+25					
49+52					
49+62 ✓					
49+68					
49+75					
49+75					
50+02					
50+10					
50+23					
50+52 ✓	STAKE SOUTH				
50+52					
50+72					
50+86					
50+93					
51+35					
51+52 ✓	STAKE SOUTH				

#

S ℄ N

Spk ±49+52 in 12" maple N. side of Rd ±30.8 N of I.P.

±LEVEL — CE I 28.0; 59.5 7.7/30.0; 58.8 8.4/28.0 DITCH; 59.9 7.3/24.0; 62.4 4.8/9.5; 63.0 4.2; 62.4 4.8/12.0; 66.9 0.5/22.0; 70.2 3.5/40.0 — SLOPE ON UP

30" maple 29.5; 24" maple 33.0

SAME ON OUT — 30.1; 60.2 7.0/22.0; 59.7 7.5/17.0; 60.8 6.7/16.0; (mailbox 9.0); 61.9 5.3/7.0; 62.7 4.5; 61.9 5.3/14.0 — Same on out

12" maple 25.0; 25.0; 25.0; 20.0

19.0; 18.0; 18.0

FLAT OUT — 60.4 6.8/30.0; 61.3 5.9/15.0 DITCH; 62.2 5.0/11.0; 62.7 4.5; 17.0; 61.6 5.6/10.5 DITCH; 62.3 4.9/14.0 — FLAT ON OUT IN P. IVY

CE I 29.0

19.0

25.0

MAILBOX 14.5; 18.0; 30.0

LEVEL ON OUT — 61.9 5.3/30.0; 61.9 5.3/17.0 DITCH; 62.8 4.4/12.0; 63.3 3.9; 62.5 4.7/8.0 DITCH; 63.3 3.9/9.0 — Flat on out P. IVY

JULY 5th 1950 CROSS SEC. #23 SEC. 4 67+00 to

Sta.	+	H.I.	−	ELEV.	
69+00					
68+50 (7-6-50)	3.54	1283.84			
+99					
+88					
+55					
+42					
+09					
T.P.	7.03	1287.33	1.43	1280.30	HUB TP
68+00					
T.P.	7.03				
+63					
67+50					
+[illegible]					
+49					
+44					
+36					
+32					
67+30					
+14					
+00					
67+00					
BM	5.39	1281.73		1276.34	

N — ℄ — S

Easy Down Out: 82.9 0.9/30.0 · 83.5 1.3/20.0 · 78.7 5.1/11.0 · 77.5 6.3/8.0 · 78.5 5.3 (℄) · 77.8 6.0/14.0 · 78.3 5.5/15.0 · 77.5 6.3/22.0

Down out: 77.0 6.8/30.0 · 81.5 2.3/18.0 · 79.0 4.8/11.0 · 78.4 5.4/10.0 · 79.2 4.6 (℄) · 78.2 5.6/14.0 · 78.7 5.1/15.0 · 77.1 6.7/26.0

12" MAPLE 25'

30' 8" POPLAR

CLUMP CUMB 8" — 29' —

±30' BRUSH

12" MAPLE — 38' —

12" ASH — 30' —

(H.I. - 1287.33)

DOWN OUT: 81.2 6.1/40.0 · 81.8 5.5/30 · 82.4 4.9/26.0 · 84.3 3.0/22.0 | 2.8/12.0 78.9 · 3.8/10.0 77.9 · 2.8 (℄) 78.9 · 3.6/13.0 78.1 · 3.4/14.0 78.3 · 3.7/22.0 78.0 · 4.1/26.0 77.6 | (H.I. - 1287.33) 9.0/29.0 78.3 · 3.5/38.0 73.8

Sharp down out

6" HICKORY — 25' —

±30' BRUSH

Down N.E: 79.2 2.5/32.0 · 81.7 0.01/20.0 · 78.2 3.5/12.0 · 77.2 4.5/10.0 · 78.0 3.7 (℄) · 77.4 4.3/11.5 · 78.0 3.7/15.0 · 77.85 3.9/19.0 · 79.6 2.1/30 Down to South

— 30' — CEI 587150

TWIN HICKORY 9" — 22' —

GUY POLE CEI 587151 25' — +43 ——— +43

24" MAPLE — 22' —

DRIVE

Slope down to N.E.: 75.3 6.4/30.0 · 76.4 5.3/21.0 · 76.4 5.3/11.5 · 77.6 4.1 (℄) · 77.1 4.6/15.0 · 75.9 5.8/30.0 ——— +26

24" MAPLE — 25' —

12" WALNUT — 27' —

— 20' —

67+05 30" MAPLE

Slope down on out: 9.2/30.0 72.5 · 7.4/16.0 74.3 · 6.2/13.0 75.5 · 5.0 (℄) 76.7 76.7 · 6.1/10.0 75.6 · 7.0/17.0 74.7 · 8.2/30.0 73.5

±66+26 5PH 58007 TWIN ASH N. SIDE RD

10.14 For turn

Station	+	HI	−	Elev
	12.50 2.70			
T. P.			12.05	1266.30 ✓
70+83				
70+50				
+46	E. END DRIVE PIPE			
+42				
+25	W. END DRIVE PIPE			
+20				
+13				
70+00				
T. P.	4.65	1278.35 ✓	10.14	1273.70 ✓
+95				
+92				
+82				
+75				
+66				
+50				
69+00				
68+50	15.20	1295.50 ✓		1280.30
69+50		1283.84		

73.6 — 4.8 / 30.0 ; 73.6 — 4.8 / 20

69.3 — 9.1 / 30.0 ; 68.8 — 9.4 / 23.0 ; 64.7 — 13.7 / 10.0 ; 65.4 — 13.0 ; 64.2 — 14.2 / 9.0 ; 64.8 — 13.6 / 12.0

Elv 1265.3 — 13.1 ; OUTLET DRIVE PIPE 12.0

Maple-8" / 32.0

Drive edge / 12.0

30" pig hick / 26.0

Ctl Loop / 28.0 (587154)

Level Out: 4.1 / 30.0 (74.3) ; 4.1 / 24.0 (74.3) ; 8.7 / 14.0 (69.7) ; 8.2 / 10.0 (70.2) ; 7.4 (71.0) ; 8.4 / 10.0 (70.0) ; 7.6 / 11.0 (70.8) ; 8.0 / 16.0 (70.4) ; 6.5 / 28.5 (71.9) ; 8.8 / 32.0 (69.6) — Down sharp S. W.

90.4 — 5.1 / 42.0

89.9 — 5.6 / 42.0

Down Sharp For 10': 2.7 / 19.0 (81.1) ; 7.7 / 11.0 (76.1) ; 9.0 / 9.0 (74.8) ; 15.8 — 8.0 (75.8) ; 8.9 / 10.5 (74.9) ; 7.8 / 12.0 (76.0) ; 9.6 / 24.0 (74.2) ; 9.0 / 30.0 (74.8) ; 4.3 / 39.0 (79.5) — Up, Out

	+	HI	−	Elev	
B.M.			9.29	1240.72 ✓	
			11.10	1238.91	
76+00 proposed				1239.7	
75+00 proposed				1242.4	
74+00 proposed				1237.61	
73+00 proposed				1242.7	
T.P.	1.08	1250.01 ✓	11.53	1248.93 ✓	
72+30					
B.M			5.03	1255.43	(1255.41)
T.P.	1.24	1260.46 ✓	11.83	1259.22 ✓	
71+00					
+90					
70+83					
70+50	4.75	1271.05 ✓		1266.30	

7-6-1950

N 5

Spk in South root quad maple on N. Side Swamp Outlet

Natural low point Swamp outlet

10.3 (present North ditch)

7.6

± Swamp low point 12.4

7.3

51.9
8.6
Road at 7.11

Spk EV W root 28" Ok- North ref spk for 72+30

	70.1	61.4	59.9	60.4	60.7	59.9	59.5	64.3	64.5	
Easy	1.0	9.7	11.2	10.7	10.4	11.2	11.6	6.8	6.6	Easy Down Out
Up North	49.0	12.0	10.0	8.0		7.0	8.0	14.0	21.0	
			59.9 49.0							
	8.4	10.0	9.6	9.4	10.3	10.7	5.7	6.1	6.1	
	12.0	11.0	8.0		6.0	8.0	13.0	21.0	30.0	
	62.7	61.1	61.5	61.7	60.8	60.4	65.4	65.0	65.0	

63.7	63.0	62.3
7.4	8.1	8.8
14.0	19.0	30.0

	+	H.I.	-	Elev
B.M.			7.63	1255.41
72+00				
T.P.	9.56	1263.04	6.54	1253.48
71+80				
71+50				
	4.61	1260.02		
B.M.				1255.41
66+00				
E.I.				
65+00				
	6.28	1282.57		
B.M.				1276.29

7-15-58

N ℄ 5

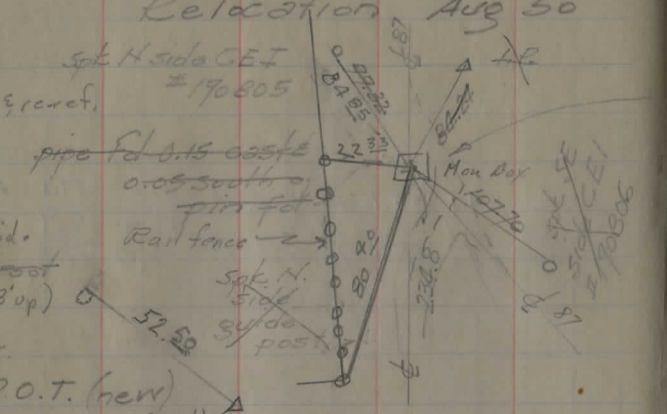
		54.1	55.1	51.8	52.8	51.6	57.1	60.1		
Easy Down Out		8.9 / 30.0	7.9 / 19.0	11.7 / 10.0	10.2	11.4 / 11.0	5.9 / 17.5	2.9 / 30.0	Slope UP S.E.	
		55.2	55.5	53.2	54.1	53.	50.4	58.9		
Level out		4.8 / 30.0	4.5 / 16.0	6.8 / 7.5	5.9	7.0 / 11.0	2.6 / 18.5	1.1 / 30.0	Slope UP S.E.	
		59.2	59.1	55.1	55.9	54.9	59.3	58.5	58.8	
Level out		0.8 / 30.0	0.9 / 19.0	4.9 / 10.0 DITCH	4.1	5.1 / 10.0 DITCH	0.7 / 17.0	1.6 / 23.0	1.2 / 30.0	

Spk ∉ V. W. root + 28" Oak (MOST WAY OAK) not spk for 72+20

		78.3	78.6	76.9	75.7	76.2	76.8	75.9	74.5	74.	73.8	
Level out		4.3 / 33.0	4.0 / 21.0	5.7 / 15.0	6.9 / 11.5 DITCH	6.4 / 10.0	5.8	6.7 / 10.0	8.1 / 13.5	8.6 / 25.0	8.8 / 36.0	Level out
			76.6	76.9	77.7	77.4	78.2	77.4	79.3	80.		
Easy Down Out			6.0 / 30.0	5.7 / 21.0	4.9 / 17.5	5.2 / 10.0 DITCH	4.4	5.2 / 11.5 DITCH	3.3 / 19.5	2.6 / 30.0	Level 40.0	

± 66+26 Spk S. root Twin Ash N side Rd.

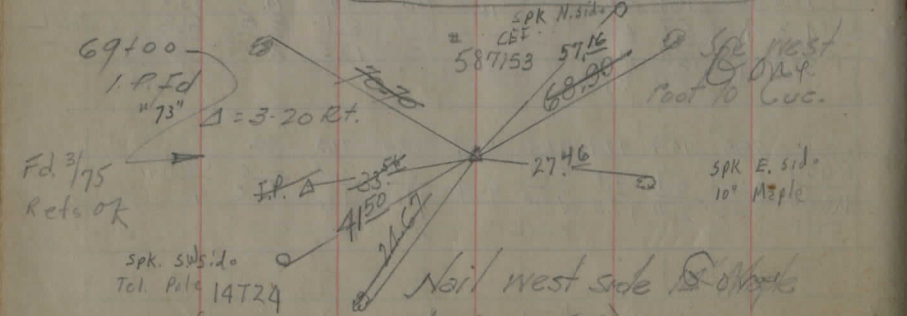
BASS LAKE ROAD Sec A(pt)
Relocation Aug '50

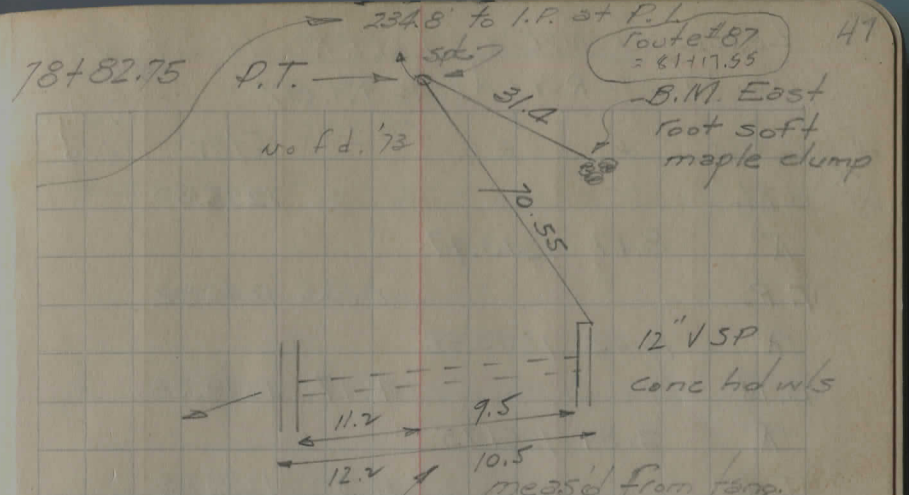


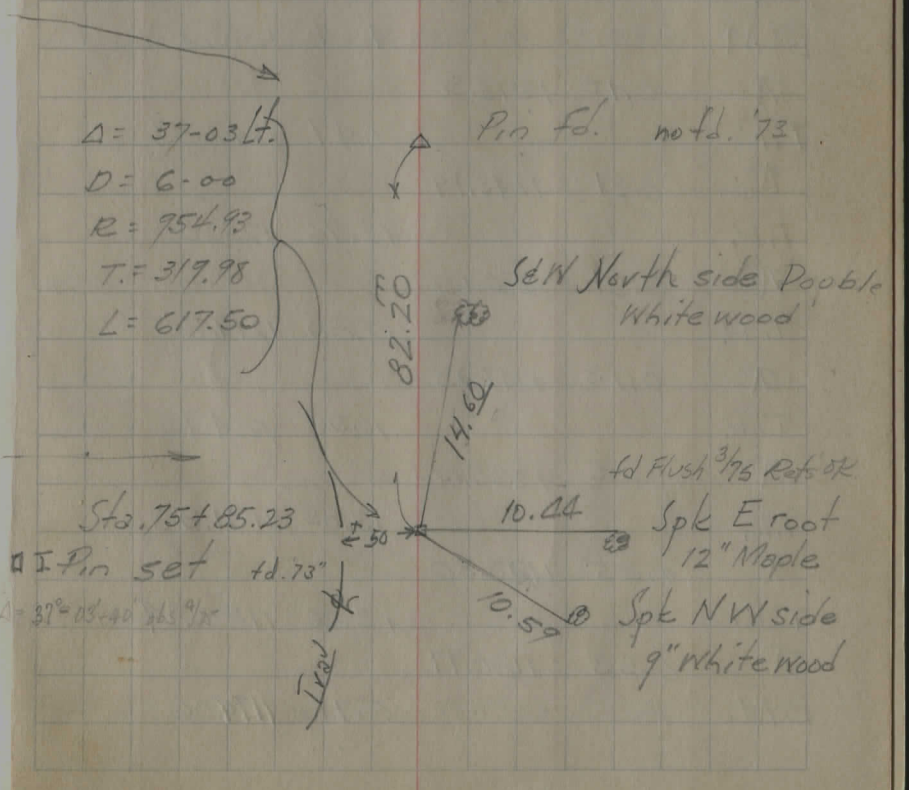
	forwards	back
P.C 72+16.5.25		18-31-20
73+0	1-02-40	17-28-50
+50	2-32-40	15-58-50
74+0	4-02-40	14-28-50
+50	5-32-40	12-58-50
75+0	7-02-40	11-28-50
+50	8-32-40	9-58-50
76+0	10-02-40	8-28-50
+50	11-32-40	6-58-50
77+0.	13-02-40	5-28-50
+50	14-32-40	3-58-50
78+0	16-02-40	2-28-50
P.T. +82.75	18-31-30	

72+20 P.O.T. (new)
I.P. Fd Δ = 21-52 Rt (old)
Fd "73"

Spk South side 30" Oak Root







Levels From Bass Lake Rd. To Stone Rd. Westerly Along Rt. 87

Wedge Ford

July 19, 1950	+	H.I.	−	Elev.
start B.M.				1235.30
℄	8.17	1243.47		
T.P.			0.55	1242.92
℄	10.63	1253.55		
B.M.			4.17	1249.38
℄	2.37	1251.75		
T.P.			11.90	1239.85
℄	7.89	1247.74		
B.M.			4.54	1243.20
℄	0.10	1243.30		
T.P.			0.47	1242.83
℄	0.31	1243.14		
T.P.			12.76	1230.38
℄	0.31	1230.69		
T.P.			12.89	1217.80
℄	0.13	1217.93		
T.P.			12.98	1204.95
℄	0.05	1205.00		
T.P.			13.05	1191.95
℄	1.35	1193.30		
T.P.			13.06	1180.24
℄	0.53	1180.77		
B.M.			6.71	1174.06

Note: All elev. = 1ᵉ too high

on pg. 48-49

→ Corr.-elev. = 1234.30

±78+98 E. root of soft maple clump S. side Rd

Spk. in CEI (190811) N. side on S. side Rt. 87

Spk. in V 18" maple, S. root on N. side Rt. 87

Bent Spk. in 24" maple, S. root on N. side Rt. 87

LEVELS WESTERLY ALONG 87 (cont'd)

	+	H.I.	−	Elev	
℄	0.91	1174.97			
T.P.			12.93	1162.04	
℄	2.44	1164.48			
T.P.			0.07	1164.41	
℄	11.40	1175.81			
T.P.			11.63	11.64.18	
℄	0.60	1164.78			
B.M.			2.185	1162.595	Spk in 12" Cherry Stroot N. side Rt. 87
T.P.			12.76	1152.02	
℄	9.18	1161.20			
T.P.			0.22	1160.98	
℄	12.25	1173.23			
			0.23	1173.00	
	3.78	1176.78			
			3.28	1173.50	(1172.46) (1.04 error) Spk in SE root 48" Oak on N W ⊕ Stone Rd ℄ 87

July '50

LEVELS NORTHERLY ON Stone RD. FROM S.R. 87 (Correction of values on pg. 35)

July 11, 1950	+	H I	−	Elev	WEDGE FORD TEMPLE
B.M				1172.46	
⊼	5.33	1177.79			
T.P.			1.08	1176.71	
⊼	12.99	1189.70			
T.P.			0.47	1188.23	
⊼	6.01	1194.24			
B.M.			1.28	1192.96	
T.P.			12.51	1181.73	
⊼	4.80	1186.53			
T.P.			0.61	1185.92	
⊼	11.38	1197.30			
T.P.			0.03	1197.27	
⊼	8.62	1205.89			
B.M			2.27	1203.52	
⊼	5.22	1208.84			
T.P.			12.85	1195.99	
⊼	0.42	1196.41			
T.P.			11.83	1184.58	
⊼	12.55	1197.13			
T.P.			0.56	1196.57	
⊼	12.39	1208.96			
T.P.			0.06	1208.90	
⊼	12.86	1221.76			

Spk in S. root 48" Oak on NW Stone Rd & 87

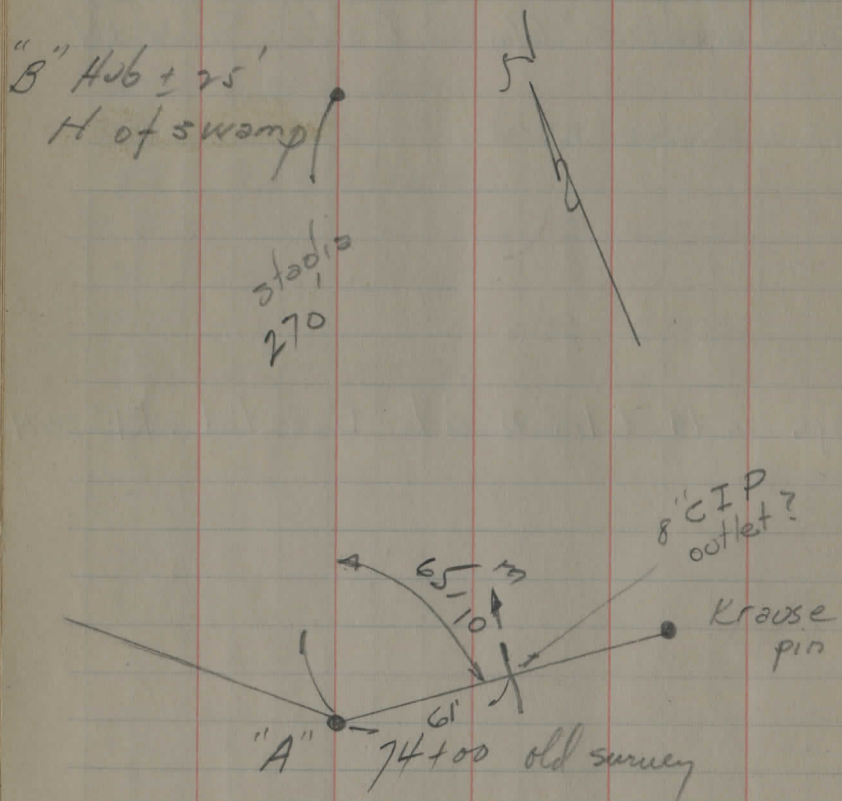
Spk on W side CEI (564176) E side Stone Rd.

Spk W side 34" maple E side Stone Rd.

Levels Northerly On Stone Rd. (Cont.)

	+	H.I.	−	Elev.	
B.M.			3.94	1217.82	Spk S. root 10" Elm on W side Stone Rd.
T	2.85	1220.67			
T.P.			4.00	1216.67	
T	5.03	1221.70			
B.M.			1.56	1220.14	Spk S.W. root 36" Elm on E side Stone Rd.
T	1.31	1221.45			
T.P.			4.78	1216.67	
T	1.65	1218.32			
T.P.			11.12	1207.20	
T	12.05	1218.25			
T.P.			0.39	1217.86	
T	4.63	1223.41			
B.M.			9.39	1214.10	Spk on 14" Elm N. side Bass Lake Rd ± 29.74

Swamp drainage ± 74+0



Bass Lake Rd Sec A

See levels next pg.

Set on	BS	(to left) Ang	Stadia	Rod	
BM	4.62	1244.34		1239.72	
B	A	0°00'	58.0	7.7	0.7 H_2O
		18°28'	36.0	7.8	0.8 H_2O
		18°28'	26.0	7.0	0.0 H_2O
		113°20'	58.0	7.7	
				6.2	
		147°30'	47.0	7.0	
		128°30'	95.0	9.7	dry
		128°30'	240.0	13.9	
		153°07'	142.0	11.5	

Spt E road quad map. N end swamp
25' in swamp N. end
Man-made outlet at N. end swamp
Natural outlet channel
Man-made channel
Banks 4' each side last shot

Man-made channel
Banks 2' high 4' each side last shot
Natural channel

20' N. of Natural Channel ±.8 higher

MAY 16 1951 BENDER & MAYNARD C.H. 23 SEC A

Boss Lake Rd

BM.	6.84	1282.18		1275.34	Corrected Elev per P.G. #1
64+00					
64+50					
65+00					
65+50					
66+00					
66+50					
T.P.	6.86	1282.01	7.03	1275.15	
67+00					
67+50					
68+00					
T.P.	8.71	1286.95	3.77	1278.24	
68+00					
Hub 68+50 #3.0			7.65	1279.30	
68+50					
69+00					

MARGIN STAKES ALL 30' FROM ℄ UNLESS NOTED

54

Top Stake	S GD	℄	N GD	Top Stake
Vert Spr S. Roof Twin Asst 27' N Sta 66+26±				
		75.51 6.67	71.8 10.4	73.98 8.2
75.48 6.7	77.43 9.75			
81.44 0.74	78.6 3.65	76.3 ✓ 5.86	73.5 8.72	76.17 6.06
81.08 1.10	78.96 3.22	77.18 5.0	75.6 6.57	78.97 3.21
79.09 3.09	76.5 5.67	76.95 5.23	77.4 4.80	79.38 2.80
75.33 6.85	72.7 9.50	75.83 6.35	77.4 4.77	79.34 2.84
73.66 8.52	71.0 11.82	75.7 ✓ 7.0	73.2 9.0	75.63 4.55
76.01 6.0	73.1 8.89	75.7 6.3	71.5 10.53	73.88 8.13
80.38 1.63	c℄ pole 78.8 3.17	77.0 5.02	78.4 3.57	79.73 2.28
79.35 2.66	77.80 4.21	77.9 4.15		
			81.0 5.84	83.06 3.89
		78.7 ✓ 8.73	75.9 11.05	78.33 8.42
			81.9 5.02	84.50 2.45

						S Top Stk	S Gd	℄	N Grd	N Top Stk
		1286.95								
69+50					N. Stake 32.5				1278.5 8.43	80.6 6.33
70+0					N. Stake 35'				73.2 13.77	75.23 11.72
May 17th	Bender & Maynard 2.35									
Hub 68+50 N Side		1281.65		1279.30						
68+50						77.8 3.86	77.1 4.56			
69+0						81.1 0.53	79.5 2.18	77.6 4.04		
68+50					N Stake 32.5	75.9 5.76	cut ditch 73.8 7.87	75.0 6.62		
70+0					N Stake 35'	72.1 9.59	69.8 11.90	69.9 11.72		
70+50					N Stake 37.6				69.4 12.27	71.2 10.50
71+0					N Stake 40'				73.0 8.65	74.7 7.00
T.P.	0.89	1269.79	12.75	1268.90						
70+50					N Stake 30'	63.3 6.50	61.2 8.55	1264.3 5.54		
71+0						64.4 5.38	62.7 7.13	59.6 10.20		
71+50						60.1 9.68	57.9 11.90		61.5 8.27	63.5 6.29
T.P.	2.84	1259.71	12.92	1256.87						
71+50								55.7 4.06		

1259.71 ✓

72+0						
BM				5.28	1254.43 ✓	
72 +65.25 T.C.						
BM				9.87	1249.84 ✓	
T.P.		1.19	1247.78 ✓	13.12	1246.59 ✓	
73+0						
+50						
74+0						
+50						
75						
+50						
76						
+50						
77						
T.P.		0.71	1240.27 ✓	8.22	1239.56 ✓	
+50						
78						
T.P.		4.98 ✓	1239.29	5.96	1234.31 ✓	BM 4.92 1234.37 ✓ Maple stump

S N

	Top St	GD		Top Stk ℄	℄		G d	Top Stk
−	60.1 0.36	58.4 1.30			1252.3 7.44		53.7 5.98	55.8 3.95
W'ly der		top pitch 13.16						
	49.2 10.47			50.1 9.57	47.8 11.92 Gd		47.2 12.49	48.9 10.78
E'ly der								
L ℄ old rd		46.2 1.63		45.5 2.25	℄ Gd 47.9 4.85		41.8 5.96	44.0 3.75
	46.1 1.65	Rubbish 43.7 4.10		40.2 7.61	37.8 9.95		38.3 9.48	41.2 6.55
	41.3 6.53	Rubbish 39.5 8.27		39.1 8.73	37.3 10.47		37.0 10.78	38.1 9.66
	42.3 5.50	40.3 7.50		42.0 5.74	39.7 8.08		39.2 8.54	40.5 7.24
	44.5 3.25	42.4 5.36		43.9 3.85	41.5 6.26		40.8 7.00	42.1 5.70
		41.2 6.60		42.4 5.34	40.3 7.50		39.6 8.19	42.0 5.80
		39.7 8.07		40.9 6.85	39.4 8.40		37.9 9.92	39.3 8.51
		36.8 11.00		7.90	37.9 9.91		37.3 10.46	38.9 8.87
		36.1 11.72		38.0 9.82	35.3 12.52		35.1 12.68	37.5 10.31
					34.11 6.16		9.13	6.57
					34.3 6.0		8.36	5.70

MAY 16TH 1951 BENDER & MAYNARD CH#23 SEC A

B.M.	10.72	1258.70		1247.98	ELV. PER Pg 4_
47+0					
+50					
48+0					
T.P.	8.84	1266.82	0.72	1257.98	
48+0					
48+50					
49+0					
49+50					
B.M.			2.88	1263.94	
50+0					
+50					
51+0					
+50					
T.P.	4.13	1266.40	4.55	1262.27	
51+50					
BM 49+50	9.02	1272.96		1263.94	
49+0					

Spk S Root Twin Hickory ±33' N of 45+84 ±

TOP S STK	30' Gd AT STK	℄		Gd AT STK N	30' TOP STK
53.8 / 4.89	52.1 / 6.61	50.3 / 8.42		48.4 / 10.28	50.0 / 8.70
	51.6 / 7.05	52.3 / 6.43	(52.8)	50.4 / 8.25	53.0 / 5.67
55.8 / 2.91	53.1 / 5.55	55.1 / 3.63	(55.0)		
				60.5 / 6.25	61.9 / 4.88
	55.3 / 11.47	58.6 / 8.15	(56.9)	62.3 / 4.45	64.8 / 1.95
60.0 / 6.82	57.6 / 9.18	61.6 / 5.24	(58.5)		
Drive Elev	59.1 / 7.70	61.8 / 5.00	(59.8)	63.8 / 3.00	66.1 / 0.73
VERT Spk Sly Side 12" Map 30' N P.I. at 49+52.75					
61.2 / 5.61	59.2 / 7.61	61.4 / 5.39	(60.7)	Pvmt 60.0 / 6.75	61.9 / 4.88
62.3 / 4.48	59.2 / 7.60	61.6 / 5.20	(61.3)	Pvmt 60.8 / 6.17	62.4 / 4.42
	60.2 / 6.58	61.9 / 4.87		61.5 / 5.25	63.0 / 3.8
E. Edge Drive	60.7 / 6.06	62.1 / 4.66			
→				62.9 / 3.46	64.8 / 1.58
				68.3 / 4.68	70.2 / 2.81

MAY 22d '51 BENDER & MAYNARD
& CTL LEVELS CH. "23" SEC. A STA. 71 TO 72

	+	H.I.	−	Elv	
B.M.	8.20	1262.63		1254.43	corrected Elv
71+0			3.06	1259.57	
+50			6.98	1255.65	
72+0			10.36	1052.27	
B.M.			8.20	1054.43	

Mostly 28" Oak Rep Sp For 72+20 I.P.

5-22-52 Hotchkiss Rd Drainage From Newbury T.L. Easterly 1400'

T.H. 30

B.M. Set	3.27	103.27		100.00
Stadia		angle		

SET on N. Edge Pave. Sta 2+48, BS Wly in N Edge Pave

0+0				
1+0				
2+0				
160'		23-03 Rt	5.4	97.9
215'		" "	3.7	99.6
145'		60-54 "	2.6	100.7
180'		118-00 "	4.1	99.2
2+48				10" C.I. culvert
3+0				
4+0				
5+0				
T.P.	7.80	108.42 ✓	2.65	100.62 ✓

SET on P.I. BS Wly on ℄ (± Sta 8+04, 30" S of N Edge Pave. = P.I.)

5+0 I.P. Fd flush in pvt

N ℄ S

Spt in NW side 20" Hick S side Rd ± 30' E of Twp line

0 = ± same as 25+60.7 pg 5

98.7	99.6	98.6
4.6	3.7	4.7
N. Ditch		S ditch
97.2	98.5	97.3
6.1	4.8	6.0
96.8	98.1	96.5
6.5	5.2	6.8
Woods		
"		
"		
"		
96.73	98.1	96.44
6.54	5.2	6.83
I.L. FL.		O.L. FL.
96.9	98.1	96.2
6.4	5.2	7.1
97.2	98.3	96.1
6.1	5.0	7.2
	98.5	97.4 96.2
	4.8	5.9 7.1
		50' (SWALE)

108.42

6+00

7+00

+60

8+00

130'	77+18 Lt	9.1	99.3	draw
223'	51-28 Lt	13.25	95.17	
287'	68-42 Lt	14.1	94.3	
104'	104-10 Lt	7.7	100.7	

9+00

10+00

+70

T.P. 6.39 108.26 6.55 101.87

SE Top N Edge Pave 12+32 B.S. on N. Edge Wy

11+00

12+00

13+00

14+00

N

60

℄

100.6	101.6	99.8
7.8	6.8	8.6
N. DITCH		S. DITCH
100.8	102.9	101.2
7.6	5.5	7.2
101.0	103.44	101.7
7.4	4.98	6.7
101.1	103.2	101.7
7.3	5.2	6.7

± OUTLET From CULVERT 2+48

Sta ℄ Stalte Lane

100.9	102.0	100.7 101.4
7.5	6.4	7.7 7.0 Lawn
100.9	101.8	100.8 101.0
7.5	6.6	± 7.6 ± 7.4 Lawn
100.8	102.0	
Pr Pipe 7.6	6.4	Stalte Dr.
101.3	102.1	101.6
7.0	6.2	± 4.7
102.5	102.7	101.6
5.8	5.6	6.7
103.4	104.0	102.2
4.9	4.3	6.1
105.1	105.1	103.1
Strop Dr 3.2	3.2	5.2 No ditch here

	108.26		
STAT of STADIA	ANG		
80'	15-00 LT	7.3	101.0
"	22-30 LT	6.9	101.4
185	63-50 LT	9.7	98.6
280	55-46 LT	11.2	99.1
420	59-48 LT	13.2	95.1
146	101-00 LT	10.9	97.4
B.M. SET		5.49	102.77

SMALL VALLEY FROM N.E.

12' NE of N.E. & CHIX HSE

TILLED, NO WASH

LOW HOLE

Vert Spk NE. Root down big MAPLE 40' EAST of STOLTE-ELLIOT drive SOUTH SIDE ROAD ± 1140 EAST of Town Line

8/29/55 Drainage Problem — S. end Newbury Hillview Rd (N. of Rt. 87)

	+	HI	−	elev
B.M. @	2.44	102.44		100.0
int 0+0			4.86	97.58
0+50			6.12	96.32
1+0			8.42	94.02
1+50			8.65	93.79
ditch 1+50 E			10.90	91.5
" ± 2+0 E			9.30	93.1
± 2+20			9.15	93.3
± 2+30			8.90	93.5
12" corr culvt 28.5' 1+90			F.L.E. 11.01	91.43
			F.L.W. 11.52	90.92
T.P.	5.07	98.91	8.60	93.84
2+0			5.04	93.87
2+50			4.51	94.40
3+0			4.05	94.86
3+50			4.55	94.36
12" corr culvt 30' 3+65			F.L.E. 6.90	92.01
			F.L.W. 7.85	91.06
4+0			4.63	94.28
4+50			4.18	94.73
5+0			2.84	96.07
18" V.S. 4+80 — 24×24 Grate top inlet in E. ditch				
Temp BM.			4.79	94.12

Nelson

(Hor. spk road face CEI. # House pole N side Rt 87, ± 100' E. Hillview Rd.

5 +80 = 18"

+65 = 12"

3

2

+50
+40 = 12" C.P.

+00

0+00

85 90 95 100

	+	HI	−	elev
T.P.	9.04	102.34	5.60	93.31
B.M.(a)			2.34	100.0

H. Patterson
S. Baker
D. Collura

1-5-72 Music St.

showing 30° Topo (Newbury twp. E. to Mount Rd.)

	N	℄	S.
7+44	end Pavement	21 9'	
	rail fence	~~19~~	
+88	Dead Man	15' 21	
+88	End fence	19	
+88	CEI	23'	
8+00	Rd. width	6.5	11.5
+10	7-12" Trees Willow	32'	
+45			24.5' Tel. Pole
+72	2'x2' Conc Box X Culv.	13'	~~2'~~
+81			21' 1.5' x 6' stone Hd walls
+80			28' 12" CMP Pond Drain
+84	4-15" Willows	11.5'	
+98	12" Elm	21'	
9+0	Rd. width	5'	13'
9+0	Beg Brush High	15'	
+71	12" cherry	20'	
+72	18" "	20'	
+75	Trip 12" "	19'	
+52	12"	20'	
+82	Brush	10'	
+99			20' Trip 8" cherry
10+00	Rd width	4'	13'
+07			26' 6" cherry
+05			22' Tel. Pole
+16			26' 6" cherry

(See FB 324 pg. 1 for x secs '72)

	N.		S.
10+18	18" Dead Elm	14'	
+37	8" ~~Elm~~ cherry	11.5	
+41			26' 48" Maple
+45			31.5' Beg wire fence
+52	8" Elm	15'	
+55	3-10" Trees	21'	
+63	10" Elm	19'	
+72	40" cherry	20'	
+81	8" Maple	19'	
+93	12" "	25'	
+97			25' 40" Maple
+99			32' wire fence
11+0	Rd. width	3'	13' 6" Maple
+07			20' 10" "
+13			24' Doub 6" "
+15	N. side		
+32			13' 48" Stump
+45			16' 12" "
+99	End Brush	15'	19' 12" "
+56	Beg rail fence	29	23 T.P.
+68	12" cherry	13.5	26' 24" cherry
+23			15' 12" CMP Dr. Pipe
+26	end rail fence	28'	
+81	℄ 10' Asph. Dr.		
12+0	Rd. width	2'	13'

		N.	S.
12+03			18.5 12" CMP.
+07	Wood light Post in conc 15.5		
+07	Bush	25.5	
+16	6" Cherry	20'	
+20	8" "	18'	
+33	C.E.I.	22'	
+36	12" Cherry	32'	
+41	60" Elm	15'	
+54	10" Cherry	11.5	
+57	12" Maple	28.5	
+68	10" cherry	9'	
+65	12" cherry	25.5	
+71	12" Maple	31'	
+72	8" Cherry	16.5	
+75	6" "	27'	
+86	6" Elm	16.5	
+92	12" Tulip	9'	
+96	Lilac Bush	27'	
+98	12" Maple	14'	
13+0	Rd. width	45	12.5
+09	Lt. Bush	10.5	
+13	" "	10.5	
+16	" "	10	22' Tel Pole
+15	" "	10	
+45			26.5 48" Pine
+49			13'9 15' 15" Conc Block Step

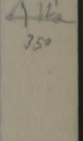
		N.	S.
+55			16 & 19 2 - Bushes
+64			16 & 20 2 - Bushes
+63	& 10' Hyp. Dr.		
+73			21 Bush
+77	Lg. Bush	25'	
+78	C.E.I.	22'	
+84	Lg. Bush	19'	
+81.			27 36" Maple & Beg Wire fence
+80			30
+99	Lg. Bush	15'	
14+0	Rd width	8'	8'
+04			28' 36" Maple
+06	Lt. Bush	30 & 19'	
+07	" Row	30' 19' & 16'	
+39	Tree	30'	
+73	End Bush Row	16-19-29'	
+75	12" Walnut	20'	
+91			23' Tel Pole
+85			25' 8" Elm
+90			28' 6" Maple
15+0	Rd. width	10'	7'
+14			28' 6" Maple
+23			27' 12" Apple
+20	C.E.I.	27'	
+23	18 Walnut	28'	
+62	12" "	23	

		N	S	
15+61	10" Elm	30'		
+75	18" CMP x Colvt	28'	28	
+78	Boy wire fence	27		
+89	2-10" Locust	23'		
16+00	Rd. width	11'	7'	
+08	18" Dead Apple & end fence	26		
+32	* Twin 10" Chevvy	24		
+38	Fence	24'		
+39			25'	Tel Pole
+45	Quad 6" Chevvy	25		
+58	7-6" chevvy stump	24		
+69	10" Locust	26'		
+70	CEI.	21'		
+73	Doub 10" Chevvy	26'		
17+00	Rd. width	11'	7'	
+01	Dead horse	12'	30'	fence
+43	8" Maple	22'	11'	Mail Box
+46	2-10" chevvy	22'	29'	36" Maple
+48			30'	End fence
+46			32'	12" Elm
+49			11'	Mail Box
+55	8" chevvy	22'	12'	Mail Box
+60	8" Elm	21'	12'	" "
+61	2-6" Elms	19'		
+67			14'	36" chevvy
+69			11'	12" CMP Dr Pipe
+84				& 12' Gravel Dr.
+95			11'	12" CMP Dr.

		N	S	
18+0	Rd. width	11'	8'	
+05			30'	4" Evergreen
+13	12" Elm	26'		
+21	C.E.I.	24'	24'	Tel. Pole
+31	6" Elm	23'		
+58	15" Stump	21'		
+92	8" Elm	18		
+94	10" Elm	28'		
+95	10" Elm	28'		
+98	8" Elm	29'		
19+0	Rd. width	9'	9'	
+25	30" ~~Locust~~ Ash	24'		
+29	12" Ash	30'		
+37	6" chevvy	18"		
+59	8" chevvy	24.5'	24.5'	Tel. Pole
+62	10" chevvy	24.5'		
+64	2-6" "	27'		
+67	C.E.I.	24'		
+74	6" chevvy	22		
+74	8" "	29'		
+74	2-6" "	24'		
+85	8" & 6" "	26'		
+93	Twin 10" "	24'		
20+0	Rd. width	9'	9'	
+21	2-12" & 1-8" chevvy	25.5		

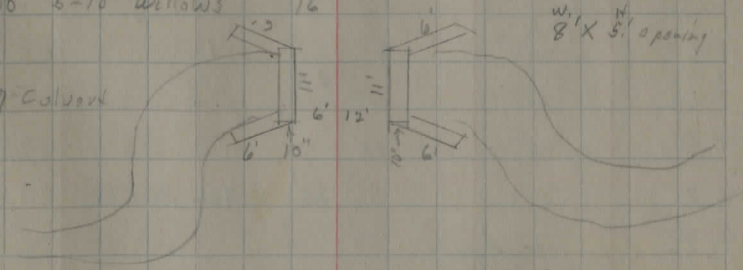
	N.		S.	
20+34	8" chevvy	22'		
+50	12" Ash	25'		
+51	10" chevvy	27'		
+52	5" "	26'		
+69	12" Ash	27'		
+85	2-8" chevvy	28'		
+87	8" "	25'		
+99	2-8" "	25'		
21+00	Rd. Width	10	8'	
+13	6" chevvy	24'		
+15	C.E.I.	27'	26'	Tel Pole
+18	Trip 8" chevvy	24'		
+34	12" chevvy	23		
+42	8" "	27'		
+43	6" "	22'		
+49	6" "	24'		
+61	6" "	24		
+66	8" "	21'		
+77	15" Ash	22'		
+93	8" chevvy	21'		
+93	8" "	22'		
+94	8" "	24'		
+97	8" "	21'		
22+00	Rd. width	10'	8'	
+02	6" chevvy	14.5'		

	N.		S.	
+16	Quad 10" chevvy	22'		
+17	15" Stump	21'		
+26	10" Elm	22'		
+38	12" Stump	20'		
+43	3-8" Stumps	13'		
+43	4" chevvy	24'		
+48	Twin 12" Pine	30'		
+60	5-4" chevvy	19'		
+64	C.E.I.	23'		
+75	16" Elm	23'		
+76	8" chevvy	26'		
+79	10" Maple	24'		
+90	13" Stump	22'		
+96	15" Maple	21'		
+99			11.1'	12" Conc. Pipe
23+00	Rd. Width	10	9.5'	
+01			21	4" Pine
+02	12" Maple	22	26'	Tel. Pole
+02			30.5	Rail fence
+14	14" Maple	22.5'		
+15				℄ 12' Gravel Dr.
+24			20 & 25	Evergreen
+26			20 & 27	
+27			12'	12 Conc Pipe
+30			38'	Rail Fence
+32			18	4x4" wood Post
+35	Trip 8" Chevvy	25		
+41	10" Maple	24'		



23+44	12" Maple	21'		
+52	12" Pig Hickory	23'		
24+00	6" Apple	225'		
24+00	Rd. Width	10'	8'	
+00			30'	rail fence
+02	Trip 6" Apple	225'		
+18	C.E.I.	22'		
+22	6" Cherry	21'		
+24	Trip 8" Maple	23'		
+40	6" Cherry	20'		
+42	6" Oak	22'		
+44	10" Maple	22'		
+47	6" Maple	20'		
+48	6" "	22'		
+49	15" Stump	23'		
+58	6" Maple	20'		
+71	12" "	24'		
+75	8" "	24'		
25+00			30'	rail fence
+00	Rd width	9'	9'	
+05	Trip 12" willow	21'	28'	Tel Pole
+13	2-15" "	185'		
+22			17'	12" CMP field Dr.
+22			30'	end rail fence
+29			&	12' Grass Dr.

25+36	8" & 15" Maple	185'		
+37			17'	12" CMP. Pipe
+67	C.E.I.	225'		
+87	15" Dead Elm	19'		
26+00	Road width	8'	10'	
+04	Quad 12" Cherry	21'		
+42	2-12" Cherry	21'		
+43	12" Hickory	27'		
+69			205'	Tel. Pole
27+00	~~C.E.I.~~ Rd. Width	7'	10'	
+05	C.E.I.	21'		
+25	30" Walnut	17'		
+77	&		30	6" Hickory
+83	10" Dead Tree	16'	27	10" Cherry
+93	& Creek 6' wide	35'	32	& Creek (6' wide)
28+00	Rd width	5'	10'	
+00	5-10" willows	16'		
&				
+19	Culvert			



+39	Rail Fence	29'	21'	Tel Pole
+52	" "	21'		
+66	C.E.I.	19'	28'	C.E.I.
29+00	Rd. width	3'	13'	

29+43			33'	12" Apple	
+54			27	Fence Bey	
+74			32	12" Apple	
+99			32	8' cherry	
~~29+99~~			23	Tel Pole	
30+00	Rd. width	3'	15'		
+14	rail fence	21'			
+20	C.E.I.	19'			
+28	8" conc. Dr. Pipe	8'1			
+33	end fence	26			
+45	Gravel Drive 10'		38'	Lg Bush	
+46	beg rail fence	26'			
+54	8 CMP. Dr. "	8'			
+60	" "	21			
31+00	Rd. width	2'	16'		
+10			33'	12" Locust ~~Walnut~~	
+16			22'	12" stump	
+30			26'	12" "	
+40			23'	12" "	
+48			25	12" "	
+62	C.E.I.	19'			
+63	15" Locust	12'			
+70			25'	Tel Pole	
+75	15" Apple	20'			
+82	6" Locust	15			
+87			28'	15" stump	
+85	6" Locust	15'			
+88	2-6" Locust	15'			
+89	6" "	15'			
32+00	rail fence	22			

32+0	Rd. width	2'	15'		
+14	15" Locust	9'			
+21	10" stump	7.5'			
+30	12" Locust	13'			
+32	15" "	10'			
+46	10" "	20'			
+51	12" "	21			
33+00	Rd. width	2.5'	13.5'		
+20	C.E.I.	19			
+23			33'	15" Locust	
+30			24	Tel. Pole	
+93			30'	end wire fence	
34+00	Rd. width	2'	14'		
+01	2-12 Locust	11'			
+03	8" "	8'			
+04	6" "	7'			
+05			32'	12" Pine	
+24	6" Locust	17'			
+32	Shrub	11'			
+37	48" stump	20'			
+39	Shrub	12'			
+43	end rail fence	21'			
+60	15" Maple	23'			
+62			30'	15" Pine	
+66	C.E.I.	30'			

34+71	20" Maple	23'		
+93	15" "	25'	24'	Tel Pole
35+00	Rd. Width	2'	14'	
+07	shrub Beg	20	10 38'	12" Elm
+32	" End	20	10 30'	12" stump & shrub
+40	shrub	10	30'	shrub
+44	"	115		
+47	48" Elm	25'		
+51	6" wood Post	17	30	12" Maple
+50	10" Storm Sewer Inlet Do not see wi end	9'		
+61			29'	12" Maple
+62			18'	10" V.C.P Dr. pipe
+69			29	30" "
+74	2 12' Asp. Dr.			
+78				2 10' Gravel Dr.
+89	24" Elm	22'		
+97	Inlet + Basin Storm Sewer	9'		
36+00			18'	10" V.C.P.
36+0	Rd. width	3	15'	
+04	30" Elm	23		
+15	C.E.I.	18'		
+21	24" Elm	23		
+52			25'	3-15" Maples
+54			25	Tel. Pole
+61	30" Maple	24'		
+62	Beg wood fence	30		

+95	30" Maple	23		
37+0	Rd. width	5'	12'	
+01			31'	12" Maple
+18	end wood ~~Rail~~ fence	29'		
+20	Beg rail fence	20'		
+36	36" Maple	22'		
+55	C.E.I.	19'		
+70	30" Maple	23'	32'	8" Maple
+88			32'	12" Chevvy
+90			32'	8" Chevvy
38+00	Rd. width	6'	12'	
+02			32'	1-12" 12-8" Chevvy
+05	40" Maple	23'		+
+08			31'	12" Chevvy
+16			25'	Tel. Pole
+36	30" Maple	23'	39'	8" Chevvy
+41			31'	10" "
+47			31'	8" "
+67	36" Maple	22'	31'	12" "
+86	C.E.I.	18'	31	2-12 "
39+00 +95	Rd. width	6'	32' 12'	10" "
+02	15" Chevvy	16'		
+09	end rail fence	20'		
+15	Beg wire fence	20'		
+34			24'	12" stump

39+78			24'	Tel. Pole
+94	30" Apple	24'		
40+00	Rd. Width	65'	12.5'	
+13	CEI	20'		
+14	6" cherry	24'		
+15	2-6" Locust	16'		
+16	8" "	15'		
+18	6" "	15'		
+23	12" Stump	25'		
+36	6" Maple	20'		
+38	10" Maple	20'		
+42			30'	12" cherry
+45	6" Cherry	17.5'		
+53	6" "	16'	10" "	
+57	10" "	21'	8" "	
+62	6" "	24'		
+63	8" Elm	20'		
+71	6" cherry	25'		
+72	8" "	21'		
+81	30" Apple	25'		
+84	12" Cherry	21'		
+95			28'	8" stump
+97			32'	12" Elm
41+00			30'	13" cherry 18" cherry
+00	Rd. Width	7.5	11.5	

41+01	30" stump	27'		
+38			24'	Tel. Pole
+43			30'	5" cherry
+44			30'	10" "
+46			30'	12" Cherry
+65	CEI.	20'		
+82	14" Locust	22'		
+87	10" "	26'		
42+00	Rd width	7'	11'	
+01	fence	26'		
+21	270" Locust & fence	22'		
+24	10" Maple	20'		
+27	24" Locust	22'		
+31	15" "	24'		
+32	8" cherry	27'		
+33	6" "	26'		
+56	36" Maple & fence	33'		
+81	36" " "	30'		
+98			30'	8" Locust
+99			24'	Tel. Pole
43+00	Rd. width	7'	9'	
+10			26'	18" cherry
+15	CEI.	23'		
+42	36" Maple	27'		
+74	36" " & fence	29'		

43+75	6" cherry ← fence	23'		
+81	6" "	23'		
44+00	end fence	30'		
44+00	Rd. width	7'	9'	
+14	36" Maple	30'		
+51	36" "	30'		
+60			25'	Tel. Pole
+67	CEI	23'		
+74	20" Maple	30'		
45+00	Rd. width	25'	9.5'	
+57	6" cherry	16'		
+94	10" "	19'		
+95	CEI	25'		
46+00	Rd. width	9'	8'	
+04	12" cherry	27'		
+14	Bush's	22' & 27'		
+18	3" Evergreen	23'		
+21	" Shrub	28'		
+22			25'	Tel Pole
+26	Shrub	24'		
+40			23'	36" Maple & Brush
+58	24" Maple	29'		
+80	Paved Dr. App.			
+92				10" Elm
+96	℄ Paved to Dr.	10'		
47+00	Rd. width	10'	7'	

N S

+14		23'	40" Maple End Brush
+21	Paved Dr. App.	11'	
+46	CEI	24'	
+47	Bush	33'	
+56		25'	30" Maple
+62		20'	6" cherry
+65	℄ 12' Gravel Dr.		
+79		19'	5" Pine
+87		24'	6" Maple
+89		15	Bush
+89		24'	Bush
+96		24	Tel Pole
+98		22	8" Pine
48+00	Rd. width	11'	5'
+12	[redacted]	[redacted]	→ 4/11 Pine, Beg Brush
+13	36" Elm	23	
+52		15'	End Brush
+64		24	12" Maple
+71		15	SHRUB
+88		19 28	SHRUB 12" MAPLE
+95		11	MAILBOX
+98		29	12" MAPLE
+96	Tel Pole	23	
+97	Stump	23	
49+		15	4

OK
H.L.P.

S ← → N

Station	S	Dist.	N
49+05	E Dr		
+18	3" Maple	25	
+18	Brush	29	
+43	4" Pine	18	
+58	12" Pine	18	
+72	12 Pine	20	
+75	tel Pole	23	
+84	12 Pine	19	
+97	12 Pine	19	
+98	End Brush	35	
+85		30	36' Maple
50+00		12 6	
+13	12" Pine and	19	Pine Row South
+22			
+35		23	14' E Dr 8" Dr tile En
+44	12" Pine	18	
+46		30	2-12" ~~6" ...~~ Cherry
+47	l	24	~~tel Pole~~ CEI
+52			14' 8" Dr tile End
+60		30	5" Cherry
+63		32	10" "
+67		31	8" "
+71		33	5" Maple
+74	12 Pine	31	12" Cherry
+77		21 30	10" Cherry
+80		29	10" "
+81		30	" "
+84		31	" "

Station	N	Dist.			S
+98	12" ~~8"~~ Cherry	30			
51+00		11	7		
+02			19	12	Pine
+07	3" Evergreen	30'			
+10	10" Cherry	31			
+13	12 cherry	30			
+22	2-10" ~~4~~ Cherry	31			
+32	12" " "	31			
+40	4" Pine	31			
+49	10" ~~12"~~ Cherry	31			
+64	2-10 Elm ~~Beech~~	27			
+67	2" Pine	33			
+73	12" Cherry ~~Beech~~	31			
+88	6" Pine	32			
+98	CEI	23			
+28	tel Pol	23			
+33	twin Elm	33			
+40	12" Cherry	26			
+56	twin 12"	29			
+64	stump	26			
+76	8" Cherry	26			
+77	2" "	27			
87	twin 8 cherry	26			
+94	8" cherry	28			
+98	6" "	28			
52+01	4" Pine	38			
+02					4" twin cherry 28'

South side Rd.

S.C.

	N		S	
52+06			5" thyme cherry	29'
07	24" cherry	27'		
07			6" cherry	28'
16	3" pine	33'		
18			6" cherry	28'
19	10" Three cherry	27'		
24			8" cherry	27'
25	12" cherry	29'		
27	10" cherry	29'		
31			O.B.T.	26'
33			8" cherry	27'
36			6" cherry	31'
37	6" pine	33'		
49			8" cherry	29'
50	8" cherry	24'		
57			6" cherry	29'
75	6" Elm	15'	24" maple	28'
79			18" maple	27'
53+00		7' 9'		
01	BEGIN BRUSH 18'-33'			
16			6" cherry	32'
17			6" cherry	31'
33			30" maple	29'
45	C.E.I.	25'		
58			5" cherry	31'

	N		S	
53+80			O.B.T.	25'
+91	6" cherry	27'		
54+00	continue brush	18'-33'		
+00	IR, VR.	7' 9'		
04	FENCE	33'		
15			Evergreen SHRUB 10' DIAMETER	25'
+18	8" cherry	12'		
+20	8" cherry	24'		
+41	12" cherry	27'		
+63	END BRUSH 28'-33' END FENCE	30'	36" stump	31'
+82	CEI	24'		
55+00		8' 9'		
+20	START BRUSH	18'-28'		
+46	END BRUSH			
72			O.B.T.	25'
89			12" PINE	23'
94			6" PINE	26'
98			4" PINE	27'
96	℄ DRIVE			
56+00		9' 8'		
14			℄ DRIVE	
17	CEI	22'	STUMP	31'
57+00		9' 8'		
63			O.B.T.	24'
84	CEI	23'		

C	N		S
58+00		9'	8'
+37	8" APPLE	35'	
+68	10" APPLE	35'	
+96	10" APPLE	35'	
59+00		9'	9'
14	twin 6" PINE	33'	
18	8" PINE	33'	
22	triple 6" PINE	31'	
25			O.B.T. 25'
36	C.E.I.	22'	
49	30" double ELM	30'	
+60 +75 60+07 +80		9'	7' 15' 15" CMP. Dr. pipe & 10' Gravel Dr. 15' 15" CMP.
+01	18" Elm	33'	
+03	12" steel Pipe	15'	
+27	& 10' Gravel Dr.		
+38	12" steel Pipe	14'	
+60			29'
+63			16' 15" CMP. w/4' conc. Block Dr. pipe Headwall
+67	wood vane N.	23'	
+72			& 10' Gravel Dr.
+79			16' 15" CMP. w/4' conc. Block Headwall
+84			26' O.B.T.
+95	C.E.I.	22'	
+99 61+00	10" stump Rd. Width	24' 10'	6'
+03	15" Locust	28'	

61+44	18" Locust	24'		
+23			7'	1'x4' stone Culv.
+34	1'x4' stone Culv.	13'		with 15"x8' stone wall
+34	Twin 8" Locust	21'		
+39	12" "	27'		
+78			28'	3-6" Ash & Hog wire fence
+88	6" Locust	26'		
+89	10" "	28'		
62+0			24'	O.B.T.
62+0	Rd. width	10'	8'	
+07	15" CMP	15'	27'	18" walnut
+08	Twin 10" Locust	24'		
+20	& 10' Gravel Dr.			
+28	15" CMP	15'		
+33			27'	15" Maple & fence
+42	10" Locust	28'	27	15" "
+46	C.E.I.	22		
+49			27'	15" Walnut
+54			27'	Twin 8" cherry
+62	6" Locust	31'		
+73			26'	15" Maple
+81			25	12" "
+85	2-10" Elm	16'		
+86	12" Cherry	27'		
+96	4-6" "	20'		
+96	2-6" "	24'		

62+97			30'	15" Maple
63+0	Rd. width	8'	9'	
+05	6" cherry	19'	30	20" Maple
+07	8" Stump	14'		
+08	8" Elm	22		
+09	Twin 10" Cherry	26'		
+15	10" Elm	20'		
+27			29'	end wire fence
+40			15	12" Steel Pipe Dr.
+45			26'	2" Evergreen shrub
+46			22	6" Root wood
+60				℄ 12' Gravel Dr.
+69			23'	C.E.T.
+70			31'	Beg rail fence
+80			28'	36" Maple
+91			15'	12" Steel Pipe
64+0	Rd. width	5'	12'	
+00	6" Maple & beg wire fence	22'		
+03	10" cherry	17'		
+21	8" Maple	22'		
+22	10" "	21'		
+25	6" "	21'		
+30	8" "	21'		
+35	6" "	21'		
+38	8" " & end fence	21'	27	36" Maple
+52	8" cherry	14'		

64+62	18" V.T. Storm sewer	10'		
+68			27'	36" Maple
+74	36" Maple	27'		
+88			33'	end rail fence
+91	30" Maple	28'		
65+0			27'	36" Maple
+00	Rd. width	4'	14'	
+05	15" Maple	29'		
+16			22.5	C.E.T.
+18	24" Maple	29'		
+41	30" "	31'		
+54	20" "	32'		
+72			27	6" Sign Post
66+00	Rd. width	6.5'	11.5'	
+01	20" Maple	29'	27'	36" Maple
+12	Beg Asp. Approach	4'	11'	
+29	20" "	26'	16'	12" Steel Pipe
+42				℄ 10' Gravel Dr
+42			16'	12" Steel Pipe
+45	24" Maple	26'		
+60	Start Turnout Pavement			
+75			18'	1'x1' stone Culvt w/ 1'x5' Hdwall
~~+75~~				
+75			23'	CET
+77			22	Sign Post
+97	Pavmt Turnout	40'	18'	

Music Street

		N.	S.	
6+88	4 in rail fence	23'		
6+82	4 in " "	32'	25'	Tel. Pole
6+72	End rail fence	38'		
6+62	℄ 10' Grav. Dr.			℄ 10' Grav. Dr.
6+55	Beg rail fence	32'		
6+44	4 in " "	31'		
6+34	4 " " "	23'		
6+15	CEI	26'		
6+00	4" Chevy	26' 9' 9'		
5+89	End fence	20'		
5+80	Beg Guard rail	13'	26'	Big Wire fence
5+57			14'	Beg Guard rail
5+41			28'	Tel Pole
5+00	Guard rail	12'	15'	Guard rail
700	Rd width	8'	10'	

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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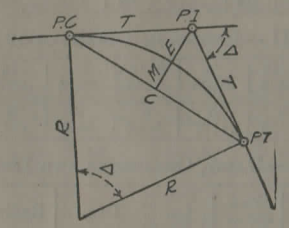


CURVE FORMULAS

Radius=R=$\frac{50}{\sin. D/2}$ (1) Degree of Curve=D and sin. $\frac{D}{2}=\frac{50}{R}$ (2)

Tangent=T=Rtan$\frac{\Delta}{2}$ (3) Length of Curve=L=100$\frac{\Delta}{D}$ (4)

Middle ordinate=M= R(1—cos. $\frac{\Delta}{2}$) (5) =Rvers $\frac{\Delta}{2}$ (6)

External=E=Ttan$\frac{\Delta}{4}$ (7) =R÷cos.$\frac{\Delta}{2}$—R (8)=Rexsec$\frac{\Delta}{2}$ (9)

Long Chord=C=2 R sin.$\frac{\Delta}{2}$ (10) Δ=Central Angle

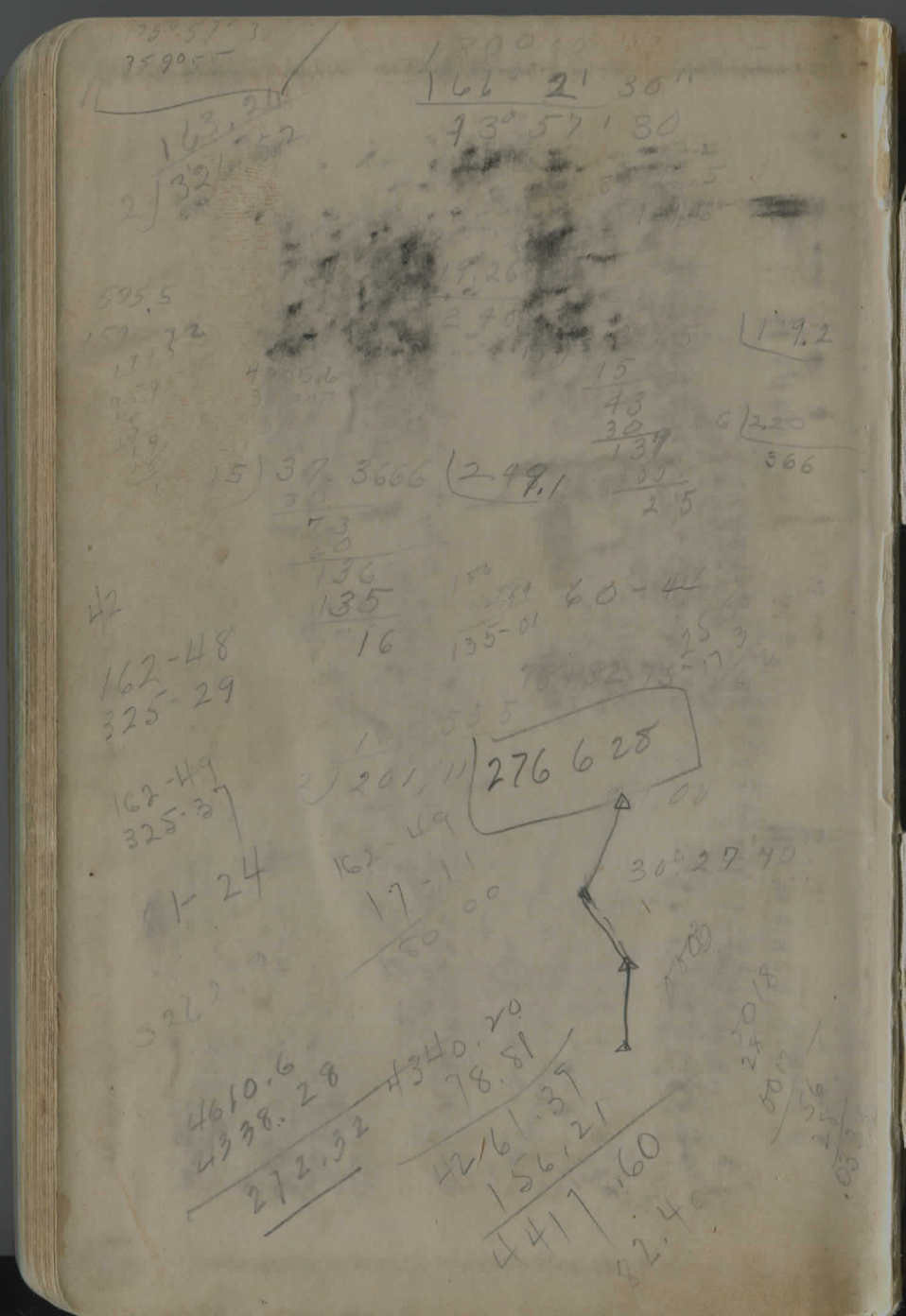
EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and÷8⅓=414.49 ft. From Table V correction=.36 or T=414.85 ft. P. C.=Sta. P.I.—T=157+45.50. Also from (4) L=746.00 and P. T.=Sta. P. C.+L=164+91.50.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 $(54.50\div100)^2$=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2\div(2\times688.26)$=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′+8° 20′÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6÷8⅓=91.27 and from Table V correction=.10 or E=91.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and÷42=5.5 or D=5° 30′.



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide — Side Slopes 1 on 1½.

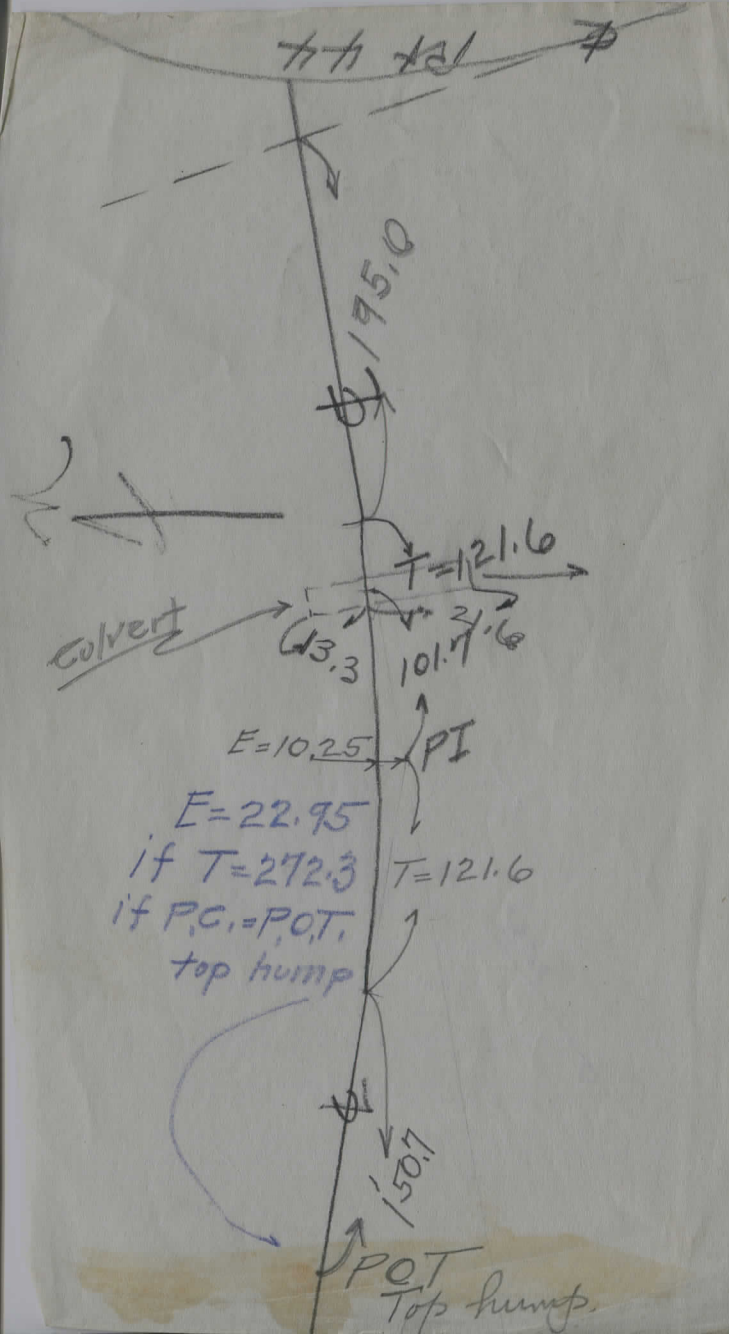
For Single Track Embankments.

PLEASE RETURN TO
GEAUGA COUNTY ENGINEER
COURT HOUSE
CHARDON, O.
PHONE 250-X

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9 + (20—16) ÷ 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

Made in Germany.


195.0
T=121.6
Culvert
C3.3
101.7
E=10.25
PI
E=22.95
if T=272.3
if P.C.=P.O.T.
top hump
T=121.6
150.7
P.O.T
Top hump.