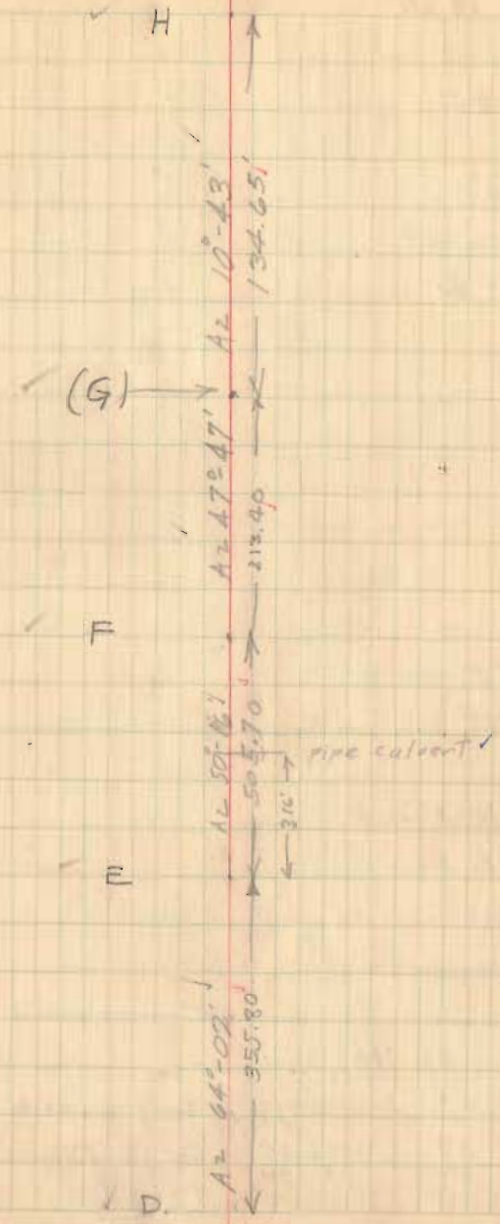
	Dist	Az	Description
Inst at (G)			
1	42'	256-10	Fence in Lt. Cor.
2	35'	218-35	Fence Rt.
3	38'	55-30	" Rt. Cor
4	90'	15-30	" Rt. cor
5	128'	2°-20'	" Lt in corner
Ex 8.0'			
Ex 1.0'			
Dist Fence Lt 23'			
Dist Fence Rt 18'			
Dist Fence Lt 27'			
Dist Fence Rt 5'			
Ex 6.6'			



Fence Rt 10'
Fence Lt 36'
Ex 4.0'

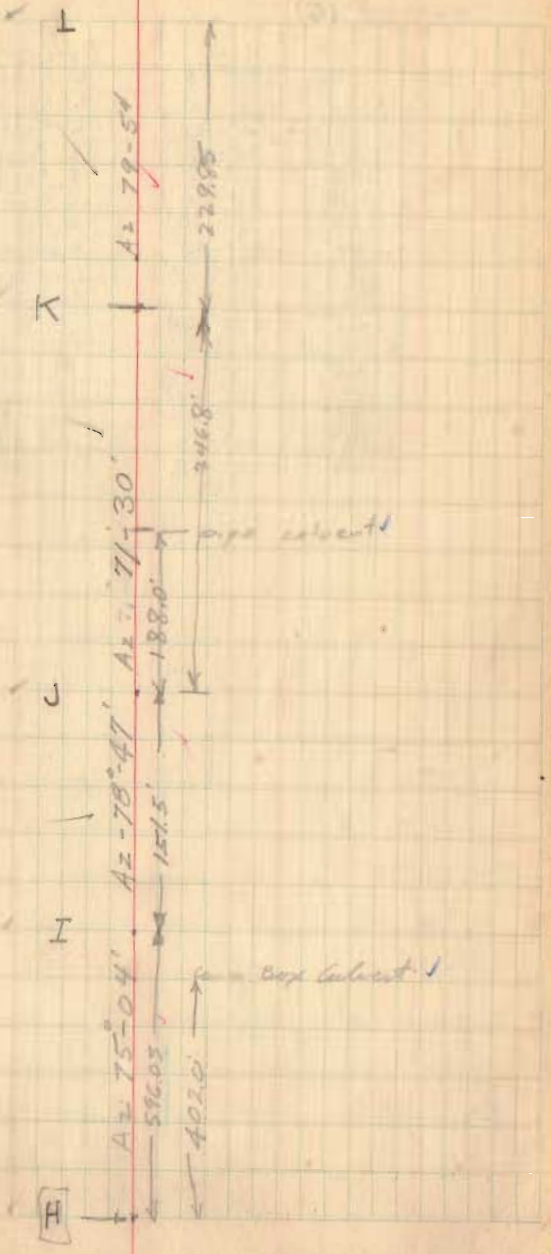
Ex 4.0'
Fence 26' Rt
Fence 8' Lt.

7' Fence Rt
26' Fence Lt
Ex. 2.0'

15' Lt to Fence
16' Rt to Fence
Ex = 0.6'

Inst. at [H]

	Dist	Az	Description
1	23	160°-10'	Cor. in fence Rt.
2	27'	103-55	Cor. in fence Rt.
3	64'	86-40	Fence Rt.
4	34'	60-10	Fence Lt.



Inst at (O)

	Dist	Az	Description	
1	62'	255°-25'	℄ Road	
2	26'	262°-15'	℄ Road	
3	12'	4°-30'	℄ Road	
4	51'	27°-30'	℄ Road	
5	82'	21°-15'	℄ Road	
6	103'	16°-40'	℄ Road	
7	138'	9°-20'	℄ Road	
8	30'	247-40'	Fence Rt.	
9	89'	36°-20'	Fence Rt.	
10	121'	21°-50'	Fence Rt.	
11	69'	271°-10'	Fence Lt.	
12	18'	342°-10'	Fence Lt.	
13	34'	13°-30'	Fence Lt.	
14	61'	21°-00'	Fence Lt.	
15	98'	12°-30'	Fence Lt.	
16	86'	203-05	Cor of House	North Cor
17	165'	241-45	Cor of Barn.	

Fence 21' Lt

Fence 26 Rt

Ex 0.5'

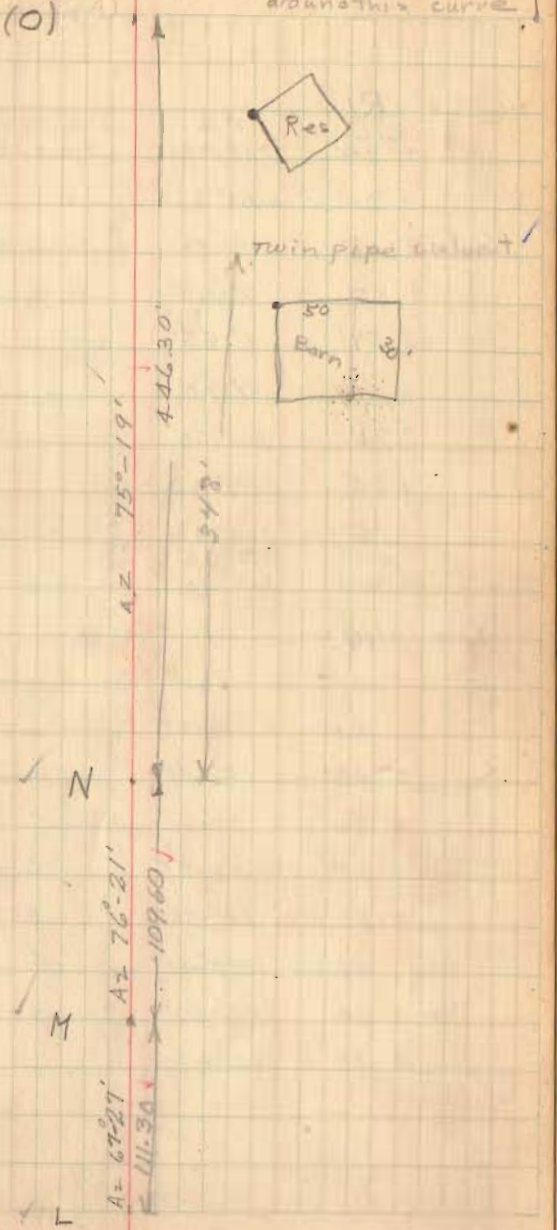
Fence Lt 20'

Fence Rt ℄

Ex 3.0

(Note - Road should be kept to Lt. of Present ℄ around this curve.)

(O)



Inst at (R)

	Dist	Az	Description
1	34'	180°-35'	Fence Right
2	30'	28°-25'	" "
3	106'	17°-50'	Corner Fence Rt.
4	105'	8°-45'	℄ Road
5	59'	6°-25'	" "
6	9'	0°-20'	" "
7	31'	201°-50'	" "
8	64'	202°-35'	
1	74'	263°-40'	Corner of Church
2	46'	275°-35'	" " "
3	70.5'	307°-10'	" " "

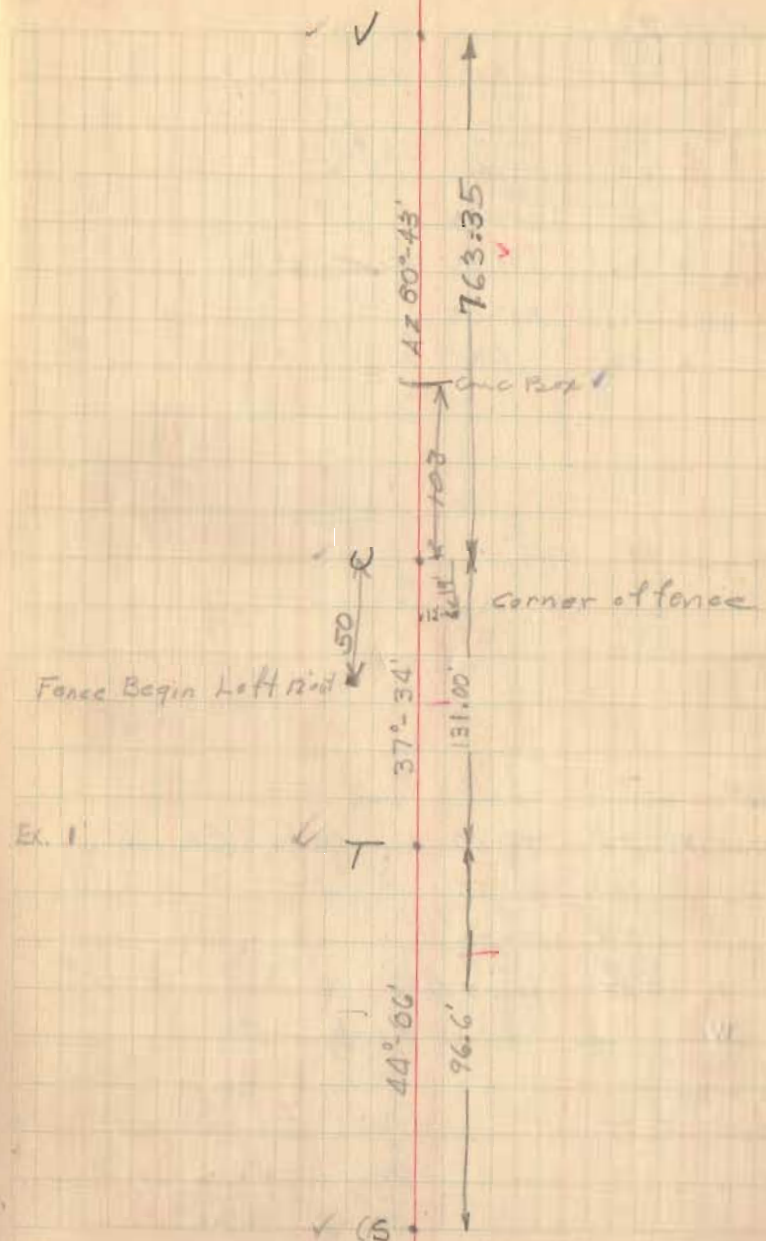
Inst at (Q)

	Dist	Az	Description
1	53'	125-35	Fence Rt.
2	40'	57-55	Fence Rt.
3	82'	33-20'	" Rt.
4	79'	22-35	℄ Road.
5	33'	24°-05	℄ Road.
6	46'	~~159°-45'~~	℄ Road.
7	34'	180°-50'	Fence Lt.
8	40'	34⅝-30'	

Fence goes straight on past South side of Ch

Ex 12'
Fence 2' E
Fence 27' Rt

Inst at	(S) Dist	AZ	Discription	
1	24'	182°-05'	℄	Road
2	9'	69°-20'	"	"
3	42'	71°-25'	Fence	Right
4	43'	162°-35'	"	"



Inst at (Z)

	Dist	Az	
1.	54	245-30'	Fence Rt
2.	19	220-30	" "
3.	98	130°-10'	" "
4.	83'	122-50	℄ Road
5.	48'	121-40	" "
6.	9'	149-20'	" "
7.	20'	249-40	" "
8.	52	272-35	Fence Lt.
9.	11	357-05	" "
10.	55	111°-30'	" "

Fence Rt 10.5'
" Lt. 15'
Ex = 1.0'

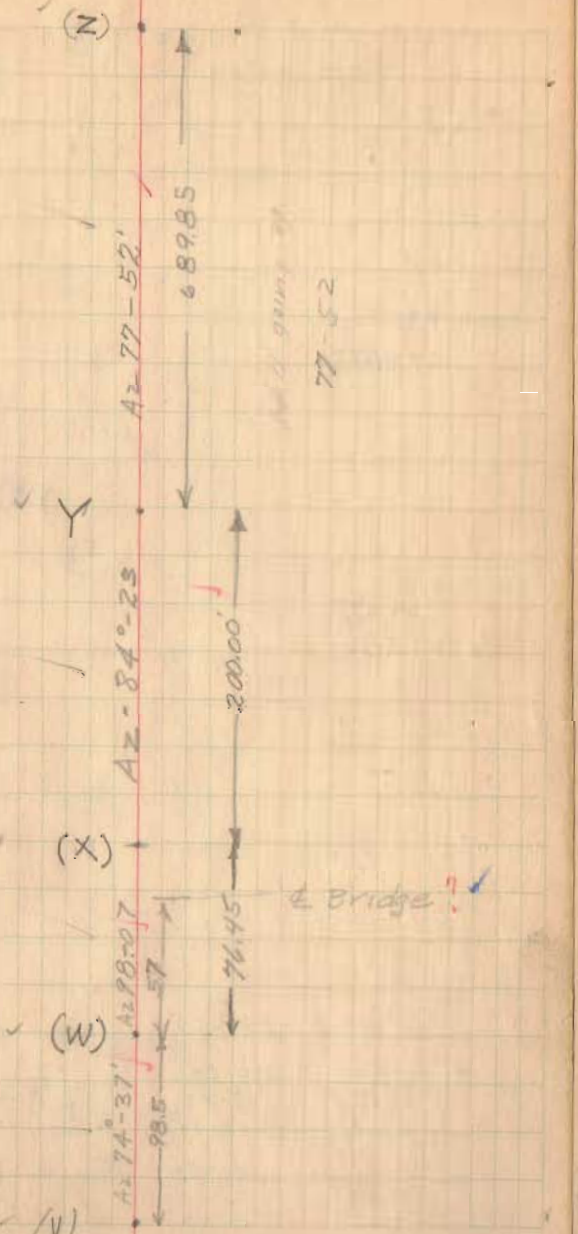
Ex 20'

	Dist	Az	Desc
Inst at (X) 1.	24	243-20	Fence Rt Beginning
2.	14.5	148-55	" Rt
3.	28'	126-25	" Lt
4.	34'	62-15	" Lt + Cor of Bridge
5.	23'	294-05	

(W)
Fence Lt 8'
Ex = 3.0'
Fence Rt. 17'

Inst at (W)

	Dist	Az	Desc
1.	29'	66°-00'	End Fence Lt
2.	29'	85°-15'	Cor Bridge
3.	26'	161-25'	



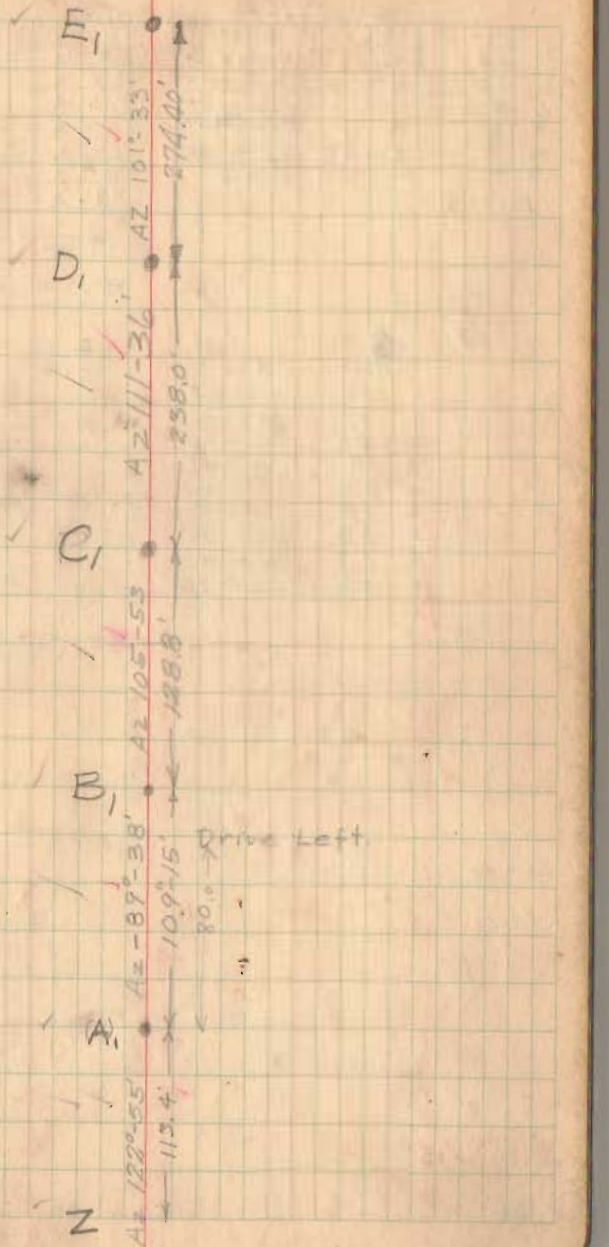
Ex = 4.0'
Fence Rt 9'
" Lt. 17

Fence Rt 17
" Lt 13
Ex = 2.0'

Inst at (A)

	1. 13'	254-50'	Fence Rt.
Ex = 6.0'	2. 24	114-55	" "
	3 12	75-00	2 Rund.
	4. 13	314-41	2 "
	5. 21	346-25	Fence Lt
	6. 43	72.45	" "
	7. 61	72.45	" "

Fence goes back on Left with Drive



Inst. at ~~H~~ I

Dist.	Az.	
1. 60'	207-35	℄ Road ✓
2. 44	232°-50	Fence Lt. ✓
3. 45'	47°-30'	℄ Road ✓
4. 45'	35-25	Fence Lt ✓
5. 57	56-30	Beg. of Fence Rt. ✓
6. 96'	53-25	Fence Rt. ✓
7. 96'	46-00	℄-Road ✓

Ex = 5.0' ✓

Inst at ~~I~~ J

Dist.		Az.	Desc.
18'	1.	227°-10'	℄ Road ✓
69'	2.	216°-50'	Fence Rt. ✓
49'	3.	243°-45'	Fence Lt. ✓
32'	4.	197°-50	Fence Rt. ✓
20'	5.	272°-55'	Fence Lt. ✓
20'	6.	206°-30'	℄ Road ✓
24'	7.	93°-5'	℄ Road ✓
59'	8.	96°-15'	Fence Rt. ✓
43'	9.	65°-15'	Fence Lt. ✓
97'	10.	78°-00	℄ Road ✓

Ex = 12.0'

Inst at ~~G~~ H

	Dist.	Az.	
1.	147	253-15 ✓	℄ Road
2.	97	252-00 ✓	"
3.	29	261-10 ✓	"
4.	27	11-45 ✓	"
5.	83	25-40 ✓	"
6.	97	10-05 ✓	Fence Lt
7.	45	275-40 ✓	" " Corner
8.	50	268-30 ✓	" "
9.	50	244-35 ✓	Fence Right
10.	29	109-15	" "

Fence Rt continues straight on (doesn't) follow Rd.

Ex = 6.0

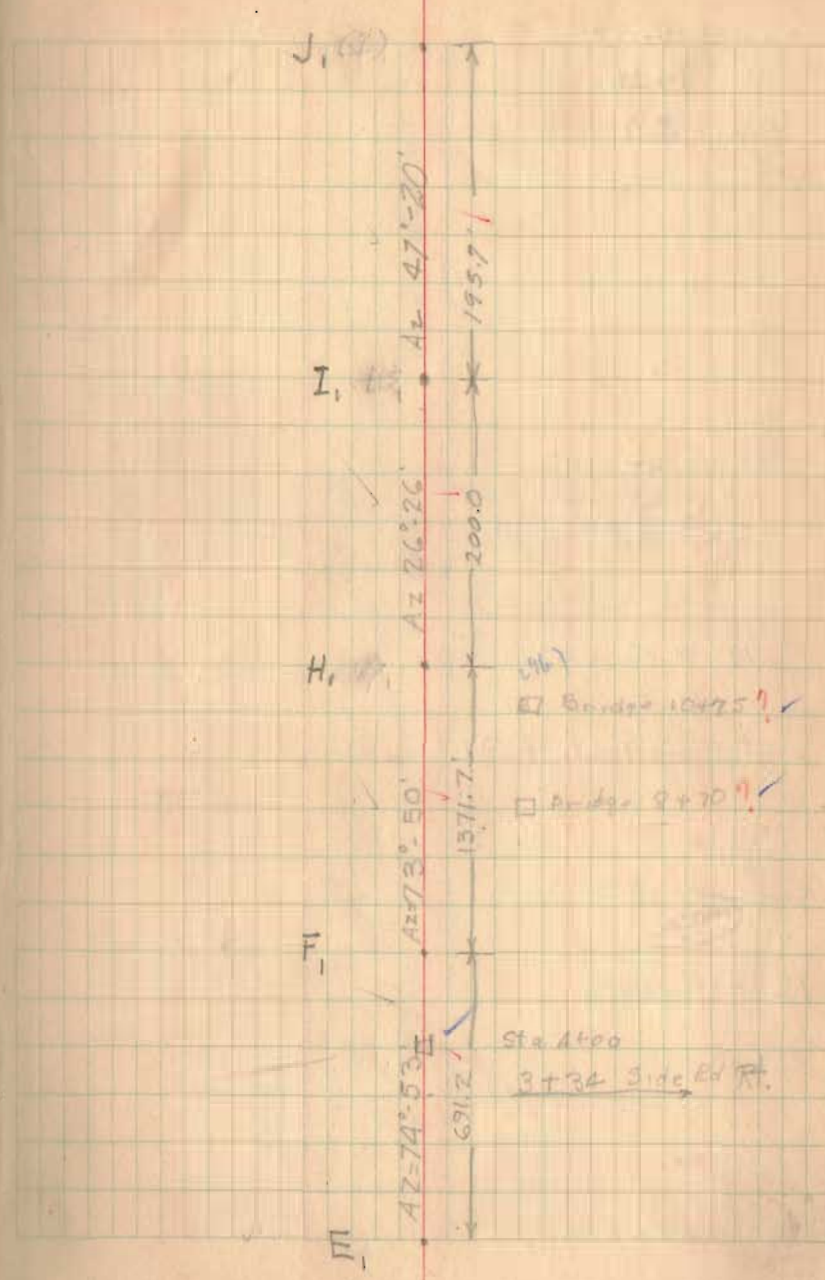
R. Fence 8'

L " 15

Ex 8'

R Fence 15

L Fence 27'

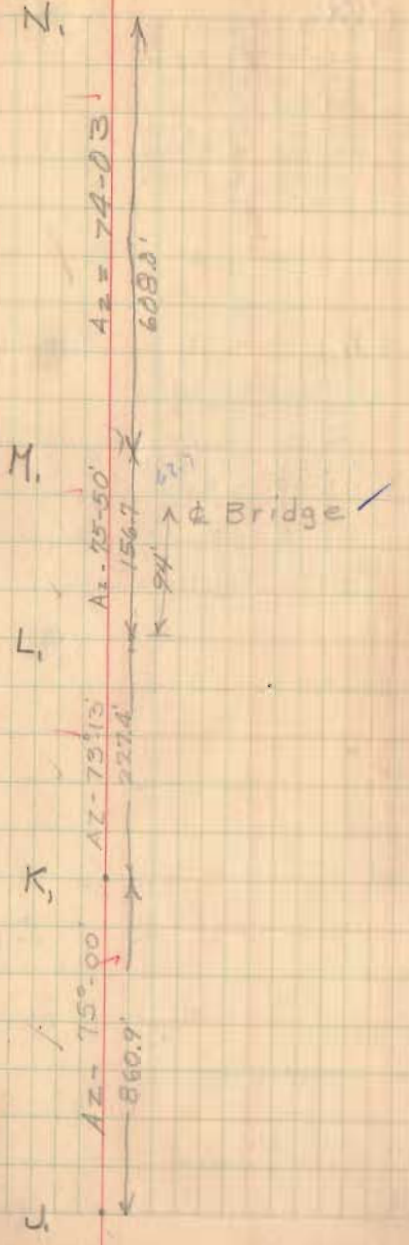


Fence 18' Rt
" 14 Lt.
Ex = 3.0'

Fence Rt 14'
" Lt 16'
Ex = 1.0'

18' Rt Fence
11 Lt. Fence
℄ Road 1' Lt. of PI.

Fence Rt 13'
" Lt. 20'
No External



Inst. at (Q)

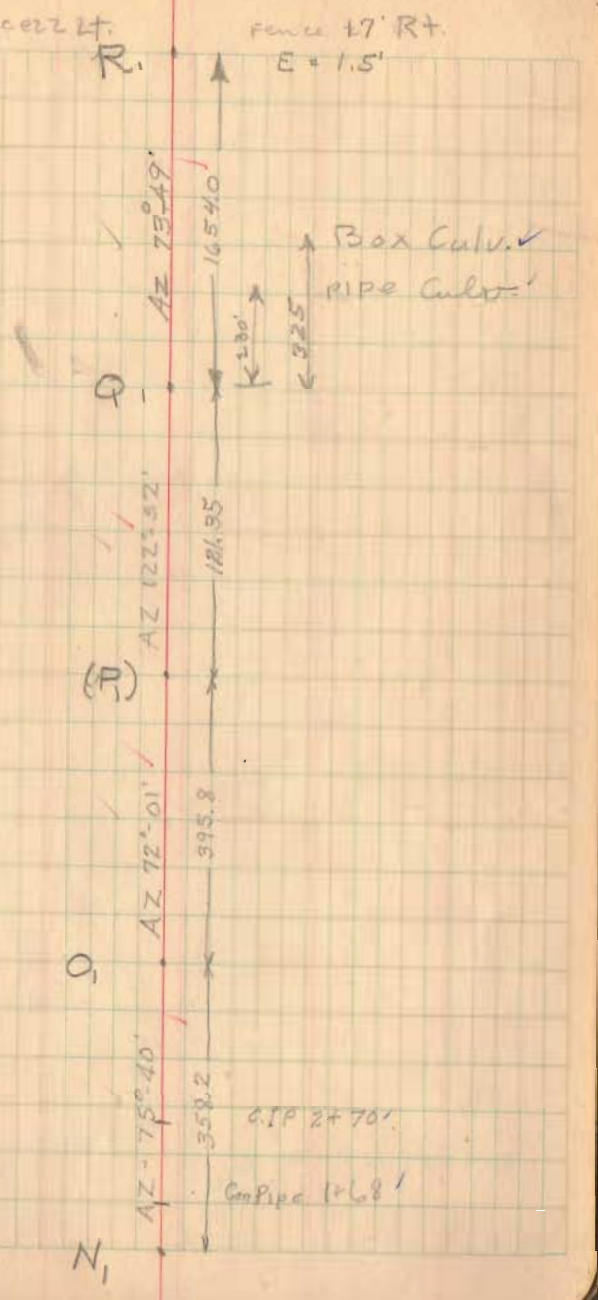
1.	90	82-20	Fence Rt.
2.	94	61-00	Fence Lt.
3.	89	69-35	℄ Road.
4.	45	64-50	℄ Road.
5.	14.5	34-00	℄ Road.
6.	13	342-00	℄ Road
7.	34	305-00	℄ Road

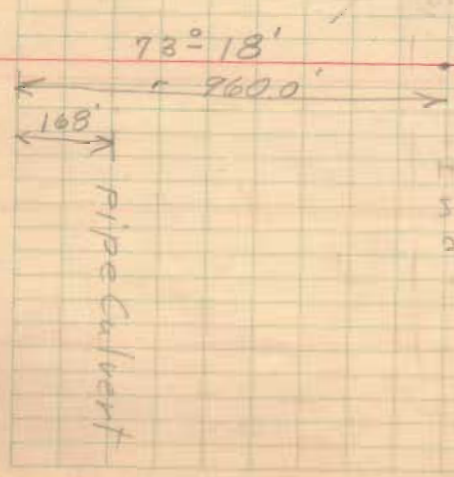
Inst. at R_1

	Dist	AZ	Desc
1.	59	251-25	℄ Road.
2.	22	339-30	℄ Road. (?)
3.	28	145-30	Cor. fence Rt.
4.	56	226-25	Fence Rt.
5.	32	125-45	℄ Road.
6.	101	156-55	Cor fence Rt
7.	120	132-05	Fence Rt
8.	109	112-10	Cor fence Lt
9.	13	21-35	Beg. fence Lt.

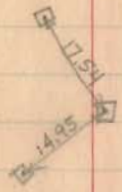
Ex 2'
R Fence 10'

Ex 2'
R. Fence 18'
L Fence 12'



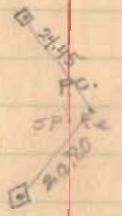

73° 18'
r 760.0'
168'
Pipeline

PI
+23.37
4



3

$\Delta = 14°42'$
$D = 5°00'$ R
$T = 147.87'$
(1) PC = 2+75.5
PI = 4+23.37
PT = 5+69.5
$L = 294.00'$



2

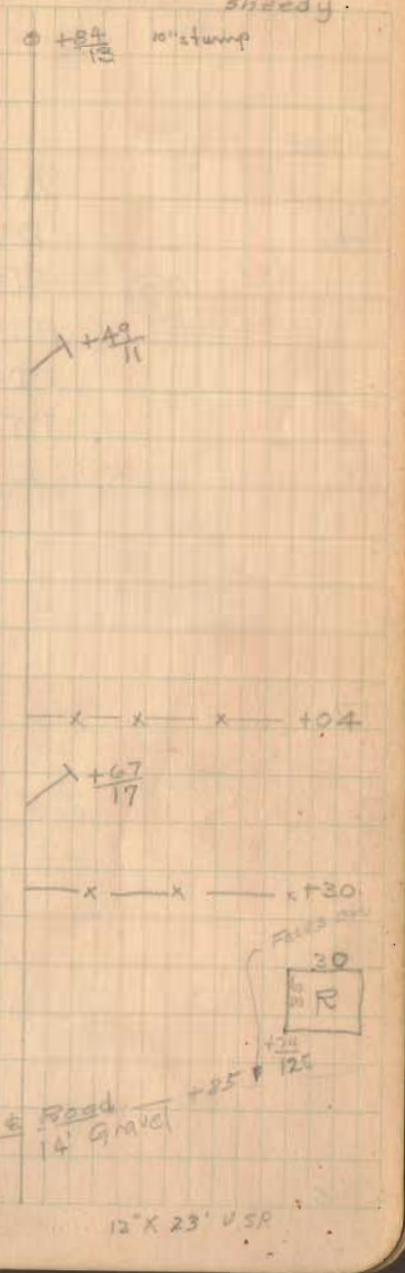
1

0+00 + on Tile

Hub Tacked Hub with Tack

3-30-36

Fultz
Howell
Gastineau
Young
Smith
Sheedy



P.I.
+45.48

19

(2)

$\Delta = 11°-28'$ Rt.
$D = 6°00'$
$T_1 = 95.88'$
P.C. = 8+49.6
P.I. = 9+45.48
P.T. = 10+40.6
$L = 191.00'$

18

17

16

15

+90 Drive — — — Drive +00

⊙ +88/15 8" stump

+79/11

8" stump +73/11 ⊙

⊙ +98/12 8" stump

+94/11

12" stump +73/16 ⊙

⊙ +71/12 8" stump

+116/11

on other page

Δ = 13°-43' L
D = 5°-00' L
T = 137.86'
L = 274.33
P.C. = 14+06.63
P.I. = 15+44.49
P.T. = 16+80.96

P.C. +06.63 spike

14

13

P.T. +88.32 spike

12

P.I. +89.09 + Hub

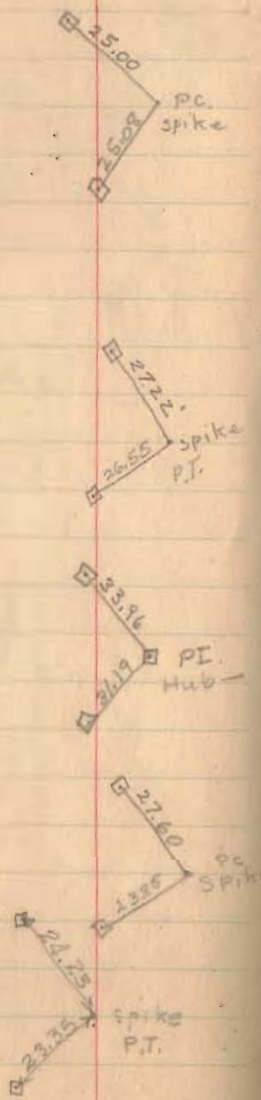
(3)

11

P.C. +89.15 spike

P.T. +40.60 spike

10



+30/15

10" stump +37/18

+93/10 15" stump.
+63/12 20" stump
+85/12 22" stump
+40/12 30" stump

+61/23

Roadway 18'-4"
4"x4'-6"x20'
Conc Box
very good.

+98
+86/14 20" stump

24" stump +14/21

19

18

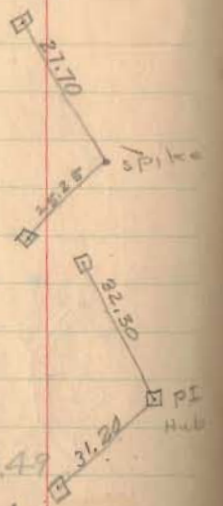
17

P.I. +80.96 spike

16

PI +44.49 Hub

15



PI 15 + 44.49

Δ = 13° 43' L

D = 5° 00'

T = 137.86

L = 274.33

PC = 14+06.63

PT = 16+80.96

④

2-12" stumps +92/19 +92/11

+85/09

0+37/19 12" stump

(Recommend 18" at least)

3' 3'

+50 12" X 16' C.M.P. Good

14" stump +15/12

10" stump +04/17

+94/10

0 +61/12 16" stump

9" Tree +13/20

+06/09

27" Tree +19/18

28" stump +05/20

29" Tree +03/19

Should be 68.47

Δ = 25°-00' R

PI = 25+86.47

24

D = 5°-00'

(5) T = 254.12'

L = 500.00'

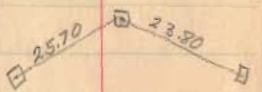
E = 27.82'

PC +14.35

23

P.C. = 23+14.35

P.T = 28+14.35



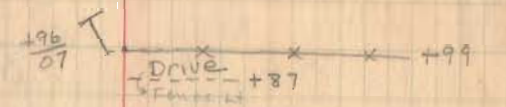
22

21

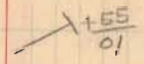
20

8-31-36

Fultz
Gastineau
Howell
Young
Smith
Sheedy



10" stump +16 21



12" stump +37 22

+88 10 16" stump

12" stump +34 12

15" stump +31 11

10" stumps +18 11

+17 11

29

P.T.+14.35 Spike

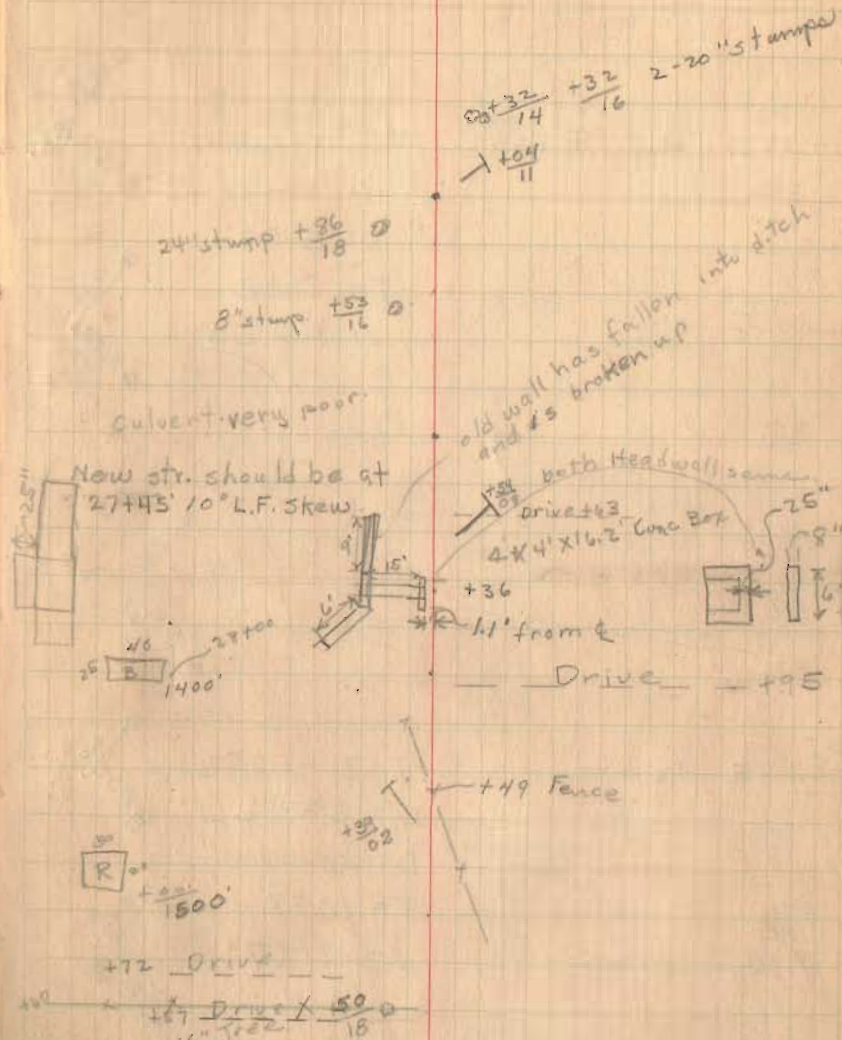
28

27

26

P.I.+(86.47)
+49.47

25

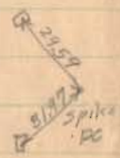


+ 11.10 P.T.
35

PI
+29.87 Hub with tack
34

PI 34+29.87
Δ = 8°-07' R
(7) D = 5°-00'
T = 81.32
L = 162.55

PC
+48.55 Spike



33

P.T.
+13.65 spike
32

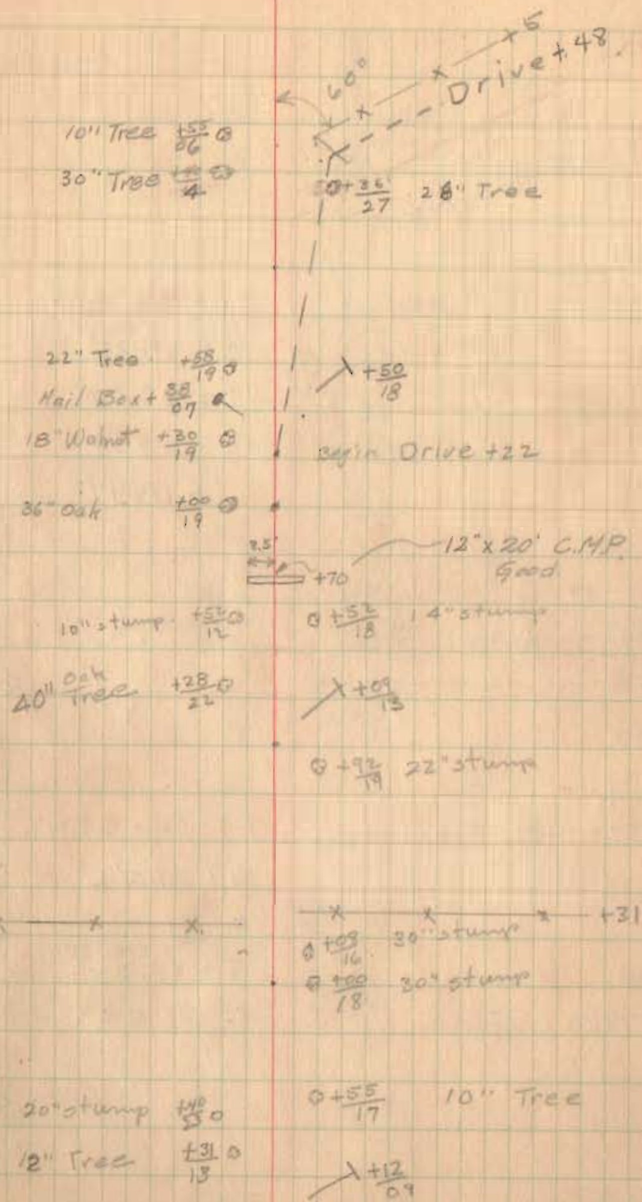
PI
+52.85 spike

PI 31+52.85
Δ = 3°-39' L
(6) D = 3°-00'
T = 60.88
L = 121.67

31
P.C.
+91.98 Spike

80

4-1-36



PT+36.50 spike

39

PI+79.30 Hub with Tack

PI = 38+79.30
Δ = 3°-26' R
D = 3°-00'
T = 57.24
L = 114.44

(9)

PC+22.06 Hub with Tack

38

PT+39.44 Hub with Tack

37

+59.40 P.I. Tack in Hub

PI 36+59.40
Δ = 8°-01' L
D = 5°
T = 80.32
L = 160.33

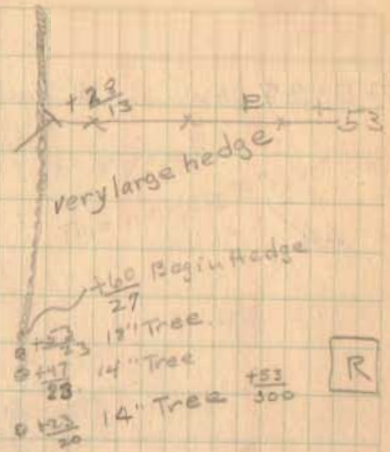
(8)

36

PC+79.08 spike

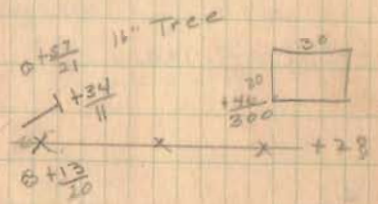
35

28" Tree +97/25



13" Tree +79/23

8" stump +59/21 +53/21



+59/18 36" stump

18" cherry +46/15

16" Tree +55/30

+33/15

P.T. 53.37 Hub with Tack

44.

43

PI-+75.75 Spike

PI 42+75.75
Δ = 65°-06' Lt.
D = 16°-00'
T = 229.32
L = 406.94

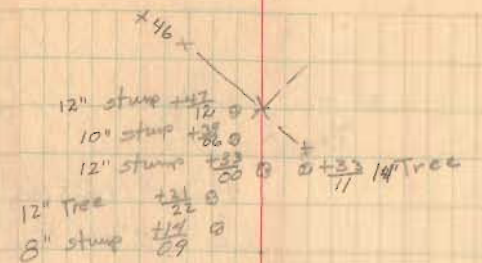
(10)

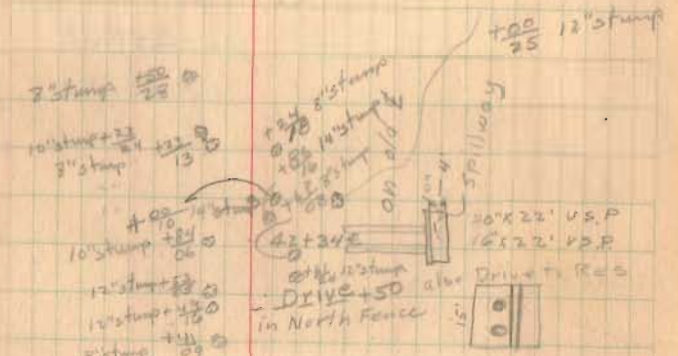
42

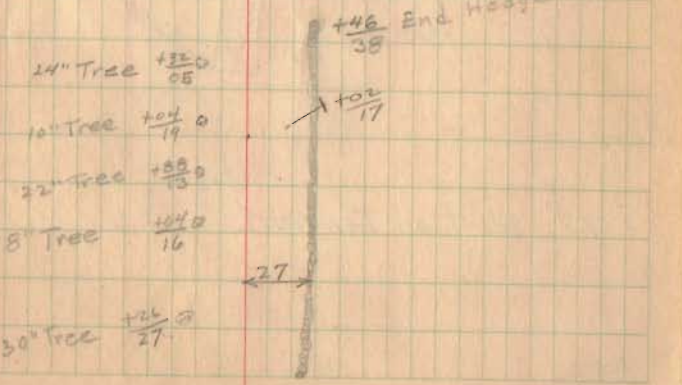
41

PC. +46.43 spike

40







PI.
+23.20 Ahab

49

PI = 49+23.20
Δ = 69°-16 R
D = 16°-00'
T = 248.15
L = 432.92

48

47

PC
+75.05

64.84
54.40
Church
O/S

46

+67.8 point on Tangent

45

31'
+77
+61
03
+52
+48
18
24" Apple
+29
25
18" Tree
+89
26
14" Apple
+14 Drive
16" Tree
Church

54

53

52

OK.

P.T. +07.97

51

50

PL

15" Tree +76 07 Q 4.5' +69 12" X 17' U.S.P.

should be larger size if

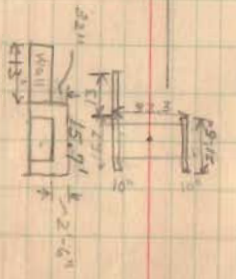
6.3'

Good.

Conc Box 10' X 4.5' X 32.3'

+80 & Br on Tangent

Rip Rap Needed



59

58

P.T. +82.73

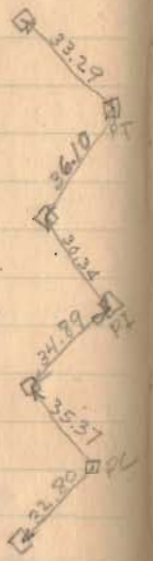
PI +38.60

57

PC +94.48

56

55



PI = 57+38.60
Δ = 4°-25' R
D = 5°-00'
T = 44.20
L = 88.33

2.3'
P.L.
Drive +30
P.L.
2- 15" Trees +28 89 89
18 Tree +96 13
see notes for site plan
PL at P.T. 14.95'
P.L. at P.C. 17.0'
PC +80
P.L.
14.8'
24" Tree +66 16

P.T.+70.97 spike

64

PI +21.13 Spike

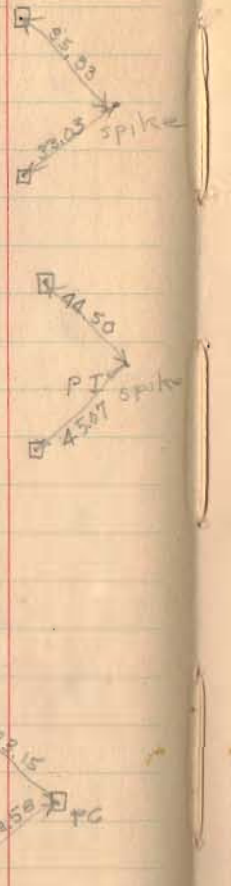
63

62

PC+70.97 Hub

61

60



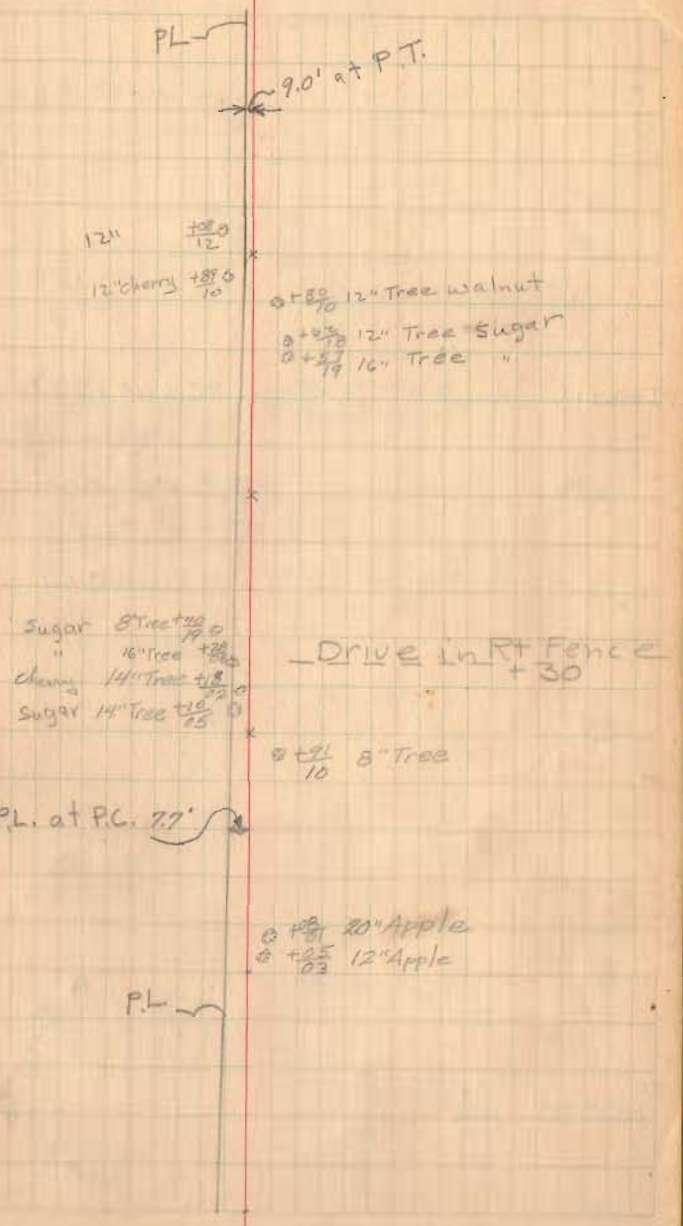
PI = 63+21.13

Δ = 6°-00' L

(13) D = 2°-00'

T = 150.16

L = 300.00'



69

PI+32.16 Hub

PI = 68+32.16

Δ = 32°-19' R

(14) D = 6°-00'

T = 276.86

L = 538.61

68

67

66

P.C.
+55.30 spike

65

+00/06 Mail Box — 0 +98/24 24" Oak

8' Gravel +67 ℄ Road

+50

12" poplar +47/01 — 0 +60/02 10" poplar

0 +41/06 12" cherry

10" Tree +94/20

+03/05 24" Tree

10" Tree +85/21

sugar 10" +87/01

Drive in Rt. Fence +80

+60/21 16" sugar

0 +55/19 12" sugar

0 +40/12 12" stump

0 +24/14 15" sugar

12" Tree +49/20

10" Tree +34/22 — 12" stump +72/06

10" sugar +88/08

12" stump +76/30

12" stump +63/26 — 0 +64/07 16" oak

24" stump +38/30

12" stump +26/25

8" stump +12/20

8" stump +07/19

0 +15/10 12" sugar

16" sugar +85/17 — 0 +92/10 16" sugar

0 +85/14 18" sugar

0 +55/14 16" sugar

0 +22/13 16" sugar

74

73

P.C. +76.30 spike

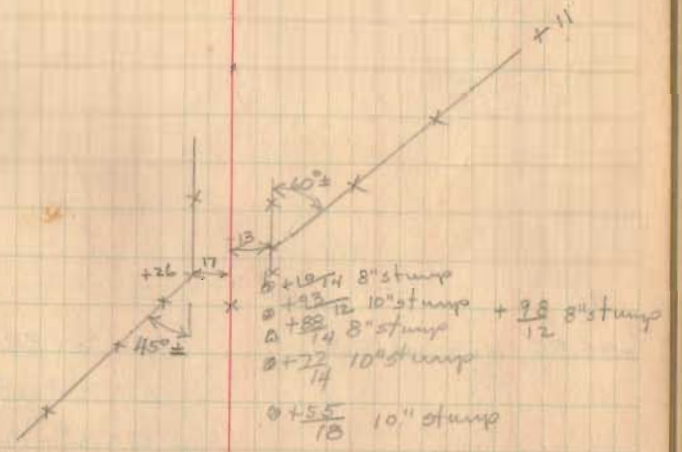
72

71

P.T. +93.91 spike

70

9" walnut +25/20



Monroe Turn

79+00.00
78+72.97
+27.03
20
7.03

79

PT +72.97 Spike

78

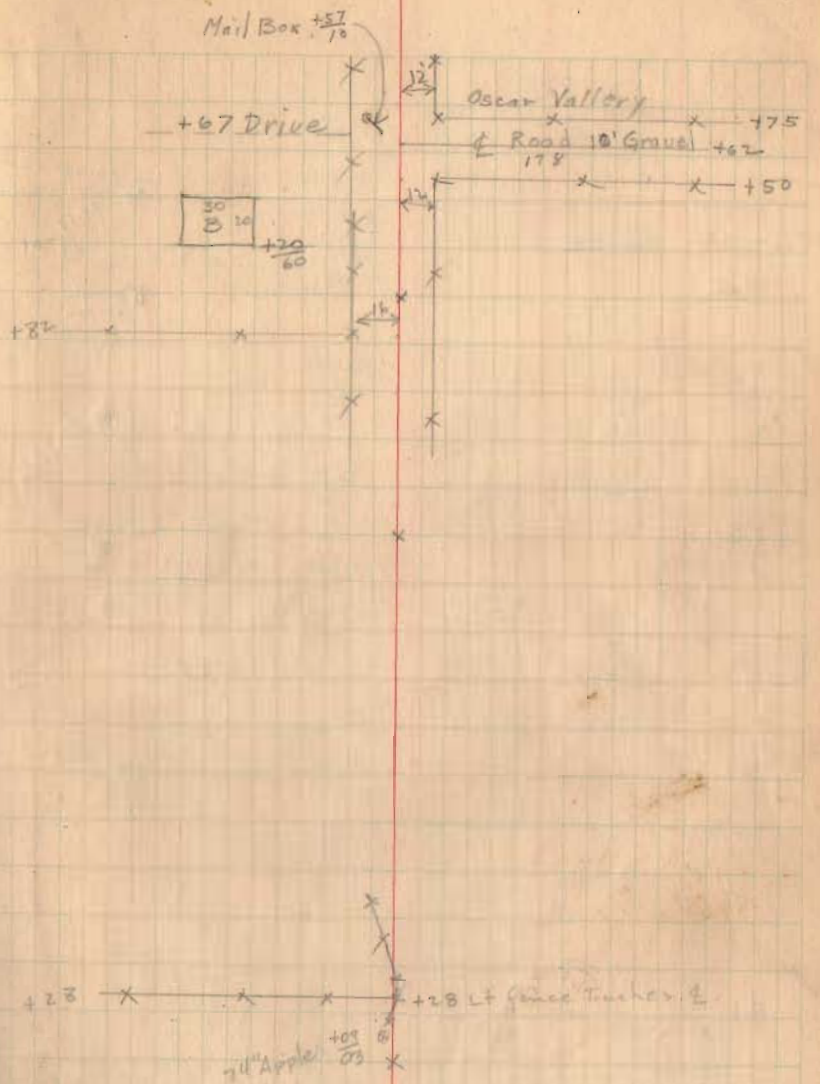
77

76

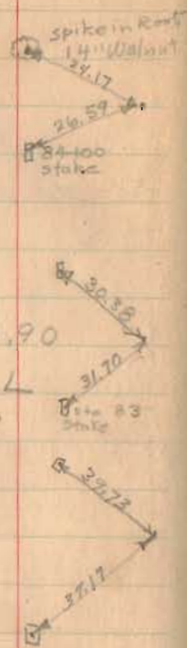
PI +84.86 Hub with Tack

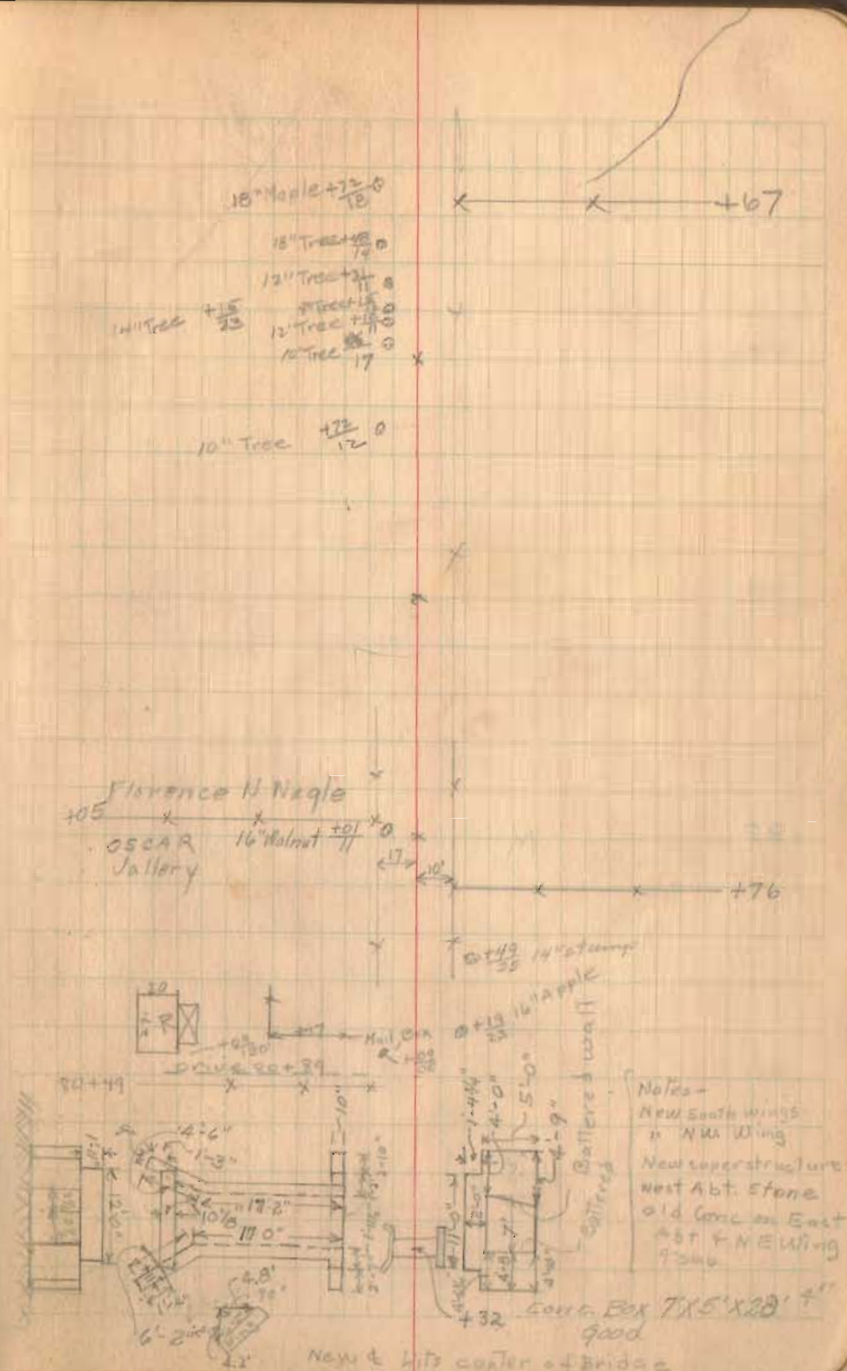
PI = 75+84.86
Δ = 35°48' L
(15) D = 6°-00'
T = 308.56
L = 596.67

75



P.T.+06.39	spike	
84		
P.I.+20.90	Hub with Tack	P.I. 83+20.90
83		$\Delta = 0°-48'$ L
		D°-0°-28'
		T = 85.71
PC +35.19	spike	L = 171.20
82		
81		
80		





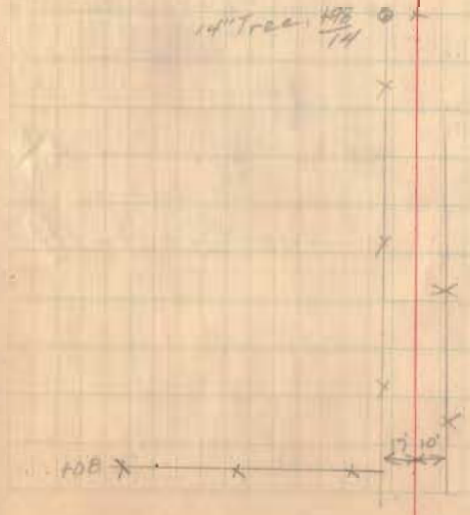
89

88

87

86

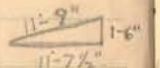
85



PC +81 62 spike
1938

94

93 +93.4 Bridge Data



Skew R.F.

clear Span 19'-5"

span along ℄ 19'-10"

Roadway between curbs 10'-6½" at Top

Length 22'-0"

93

Length of Trusses 22'-0"

Batter of Walls 3½" to Foot

Length of Abts - 14'-0"

Conc. Abt + Wings

Good Condition

92

2-9" Lower Cords 2-5" c to c

steel Beams 4-9" I Beams

South East 6'-6" Inches High 7" Bottom

S E Wing Length inside wing 3'-8" Top

1'-3" wide

skew wing 3'-3" 3'-10"

N.E. Wing High = 6.5 skew

Length Bottom = 10'-5"

Top = 8'-0"

Width = 20"

91

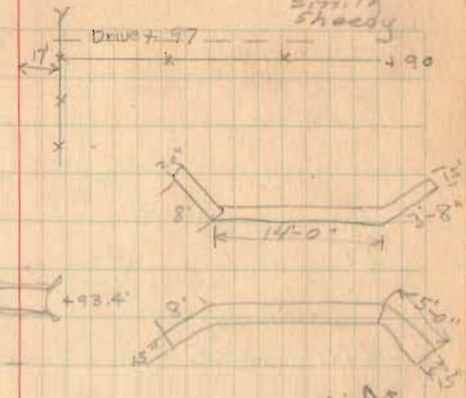
N.W.Wing skew

Plank Floor 2½" X 9"

90

cloudy cold
4-6-36

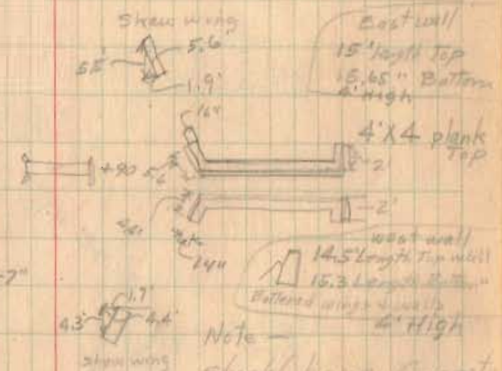
Fultz
Gautinoun
Howell
Young
Smith
Sheedy



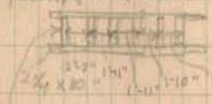
+60 — Drive

2'-0" skew 3'-6"

Mail Box +01 06



Floor
6 plank - 2¾" X 10" X 15'



6 - stringers 3¼" X 8" X 5'-7"

Concrete abts.

Note —
should have Concrete floor put in as water is washing dirt from under walls

Walls in Fair + Cond.

Batter on walls 2" To 1'

99

P.C. +64.10 spike

98

P.T. +61.10 Hub with Tack

97

PI +26.55 spike

96

PI = 96+26.55

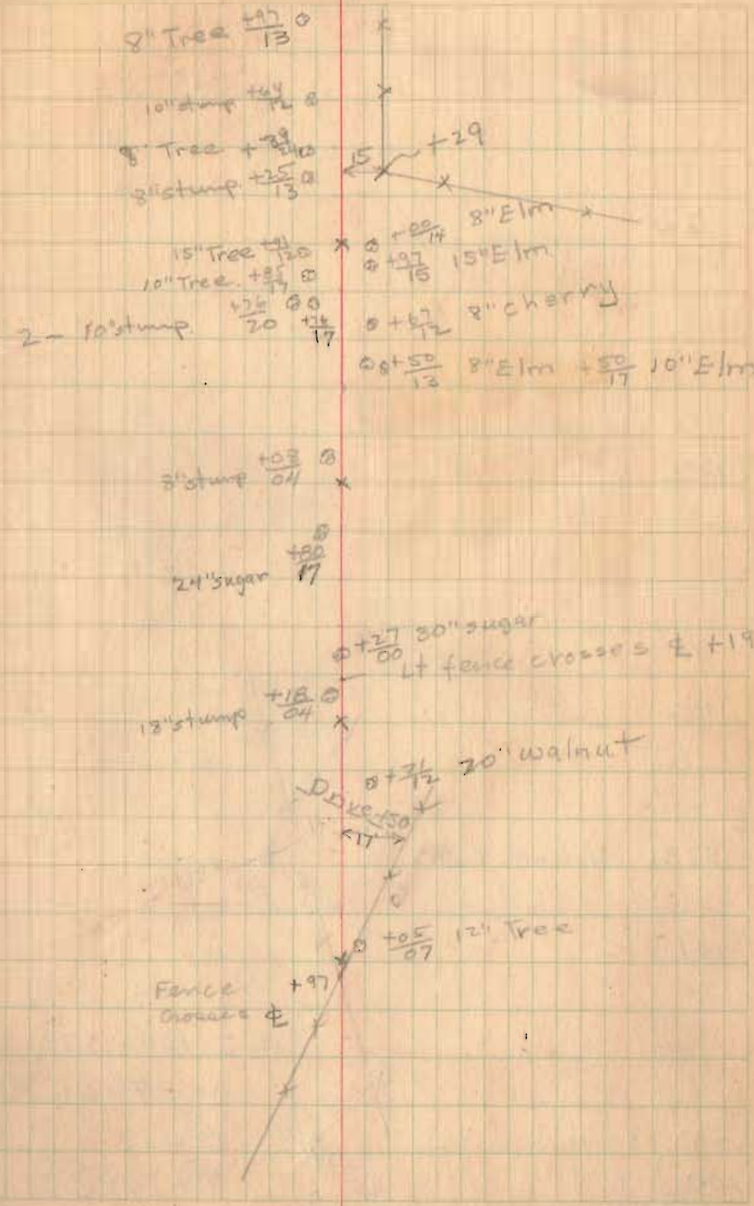
Δ = 36°-20' L

D = 13°-00'

T = 144.93 144.15

L = 279.48

95



104

103

102

P.T.
+ 52.31 Hub with Tack

101

PI + 13.73 Hub with Tack
100

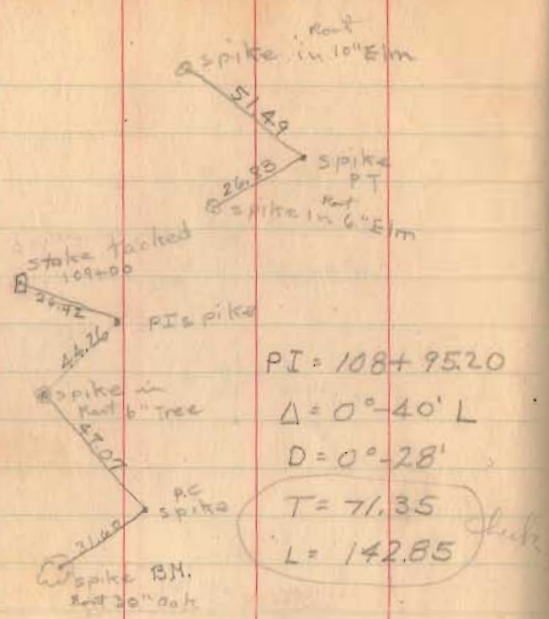
P I 100+13.73
Δ = 37°-26' R
D = 13°
T = 149.63
L = 288.21

15" Stump +7.0 / 26 ⊙
12" Walnut +23 / 22 ⊙
18" Walnut +16 / 23 ⊙
+94 36" Walnut ⊙ 23
24" Stump +30 / 25 ⊙

14" Walnut +35 / 19 ⊙

30" Walnut +25 / 17 ⊙ 12" Stump
8" Thorn +32 ⊙
+00 / 19 ⊙
10" Elm

10" Walnut +37 / 19 ⊙
Dave +2.0
12" Apple +47 / 24 ⊙
Oscar F Straight
+47
10" Tree +35 / 11 ⊙
Florence Nagle



PT + 66.70

109

PI + 95.20 spike

PC + 23.85 spike

108

107

106

105

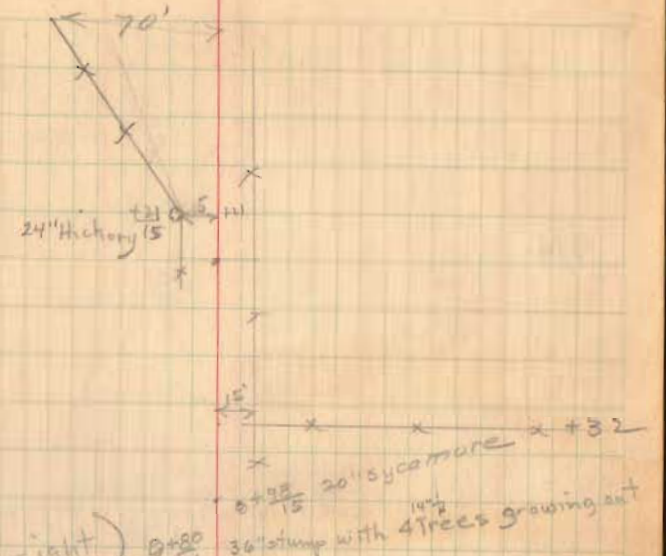
PI = 108 + 95.20

Δ = 0°-40' L

D = 0°-28'

T = 71.35

L = 142.85



114

113

+40 Bridge Data

Center Line hit. center of Br 8.5

Skew L.F.

Length 21'-0"

Length of Rail 21'-0"

Clear span 15'-00"

112 span along ℄ 18'-3"

Roadway 13.7'

Concrete spillway on Rt 15' +

Begins at end of Abt. extends 15' Rt

5-I Beam 2'-5" ctrs

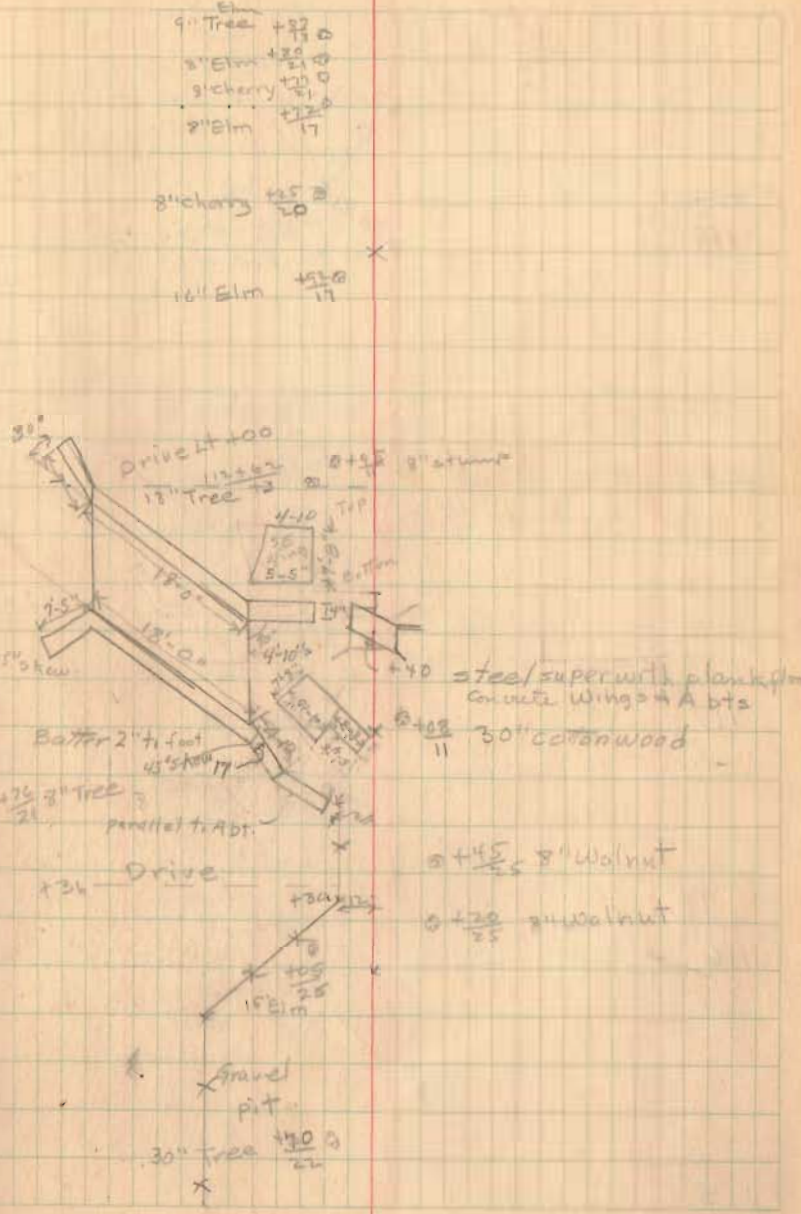
111 2-9" Lower cords

Floor plank 2½" x 8"

16:1

13.7'

110



PC=+02.01

119

118

117

116

115

12" Tree +94/17

12" Tree +88/16

2-10" stumps +86/24 +25

18" Walnut +57/25

24" stump +09/23

12" Hickory +31/22

8" Elm +15/22

12" Tree +09/25 — +58/14 18" stump

14" stump +88/23 — +96/15 24" stump

12" Tree +71/24

12" Tree +40/23

8" Elm +38/24 — +27/15 24" stump

10" Hickory +11/24

30" Beech +65/23

10" Hickory +52/24

15" Hickory +73/23

10" Tree +47/23

16" Sycamore +95/25

12" Tree +80/24

+59/21 12" stump

124

123

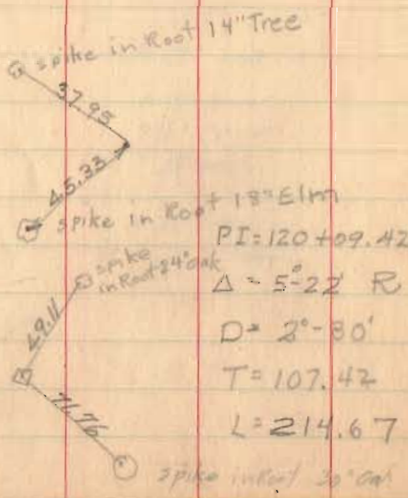
122

PT.+16.68 spike

121

PI+09.42 Hub with Tack

120



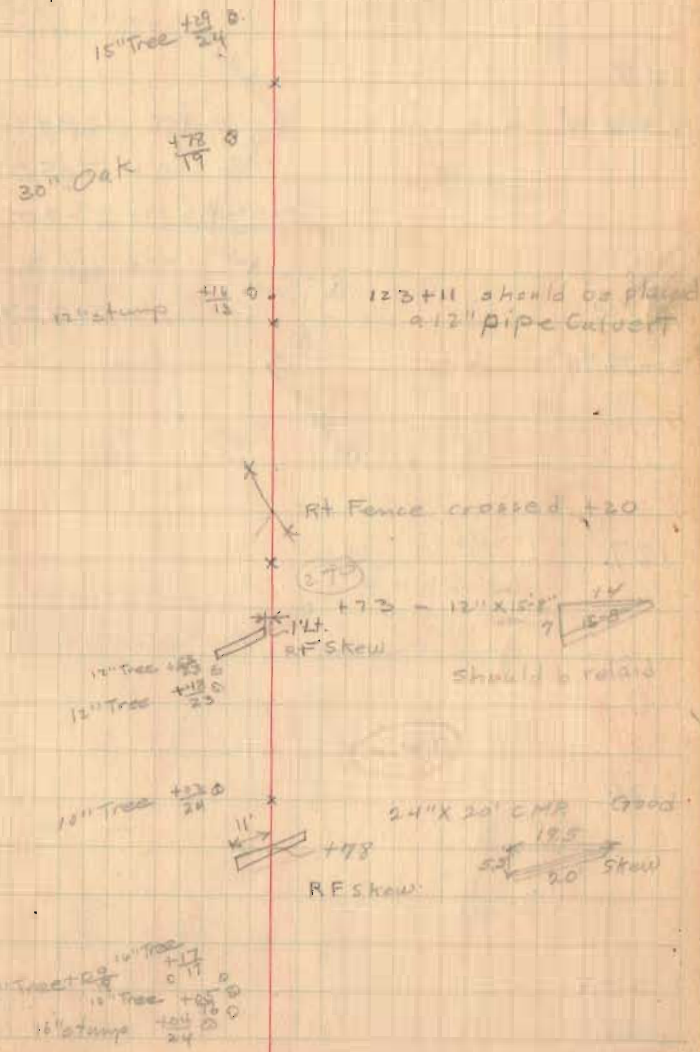
PI=120+09.42

Δ = 5°-22' R

D = 2°-30'

T = 107.42

L = 214.67



129

PI + 96.70 Hub with Tack

P.I. 128+96.70

Δ = 5°-50'

D = 2°-30'

T = 116.76

L = 233.33

128

PC = + 79.94 spike

127

126

125

14" Elm +92/18

14" Elm +97/18

16" Elm +91/17

+76 20" X 18' C.M.P.
Good

30" Elm +83/17

+59/25 30" Beech

+91/24 12" Pear

NW Mut Life Ins Co

Oscar Straight

Ben A Green

+77 Fence crosses

Oscar Vallery

134

133

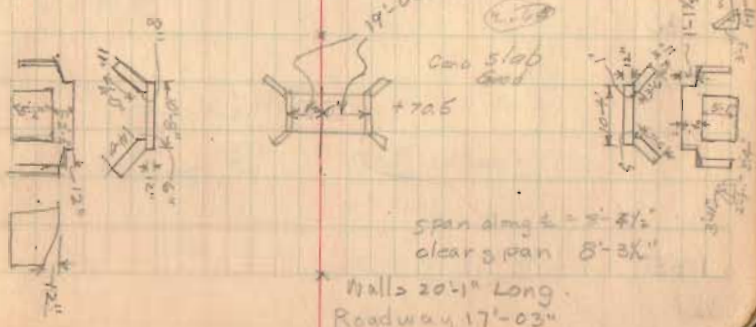
132

131

P.T.+13.27 spike

130

⊙ +14/10 8" Tree



Walls 20'-1" Long.
Roadway 17'-03"

137

138

137

136

135

B +95/15 18" Walnut

30" Oak +33/71 D

24" stump +72/25 D

24" stump +560/25

D +98/15 24" oak

D +02/13 24" oak

PT = +52.21 spike

144

PI + 98.65 Hub with Tack

PC + 45.08 spike

143

PI = 143 + 98.65

Δ = 0° - 30' L

D = 0° - 28'

T = 53.57

L = 107.13

142

141

140

8.8'

+66

Good (needs Relaying)

4' - 12" CIP on Left

10.5" 12" USP on Rt.

18" Tree +32/25

12" stump +31/31

+94/35 8" Tree

+93/32 12" Tree

+93/32 10" Tree

+98/34 10" Tree

+98/21 10" Tree

30" Beech +93/21

18" sugar +93/25

+68/25 36" Oak

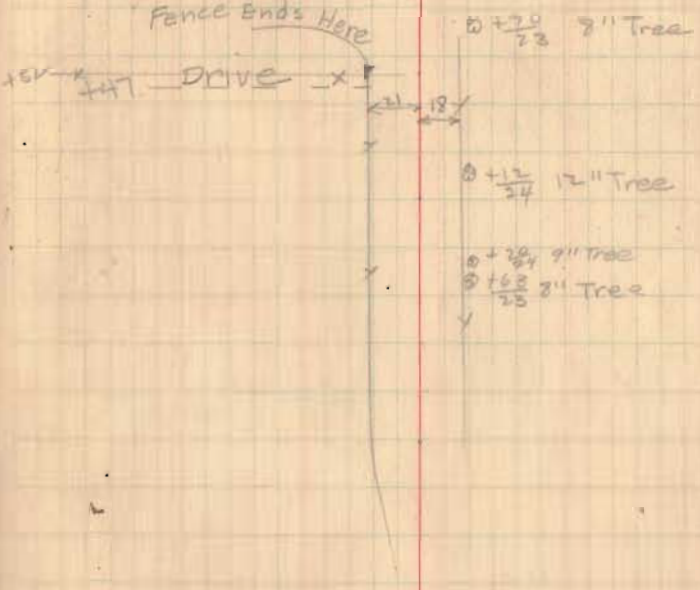
149

148

147

146

145



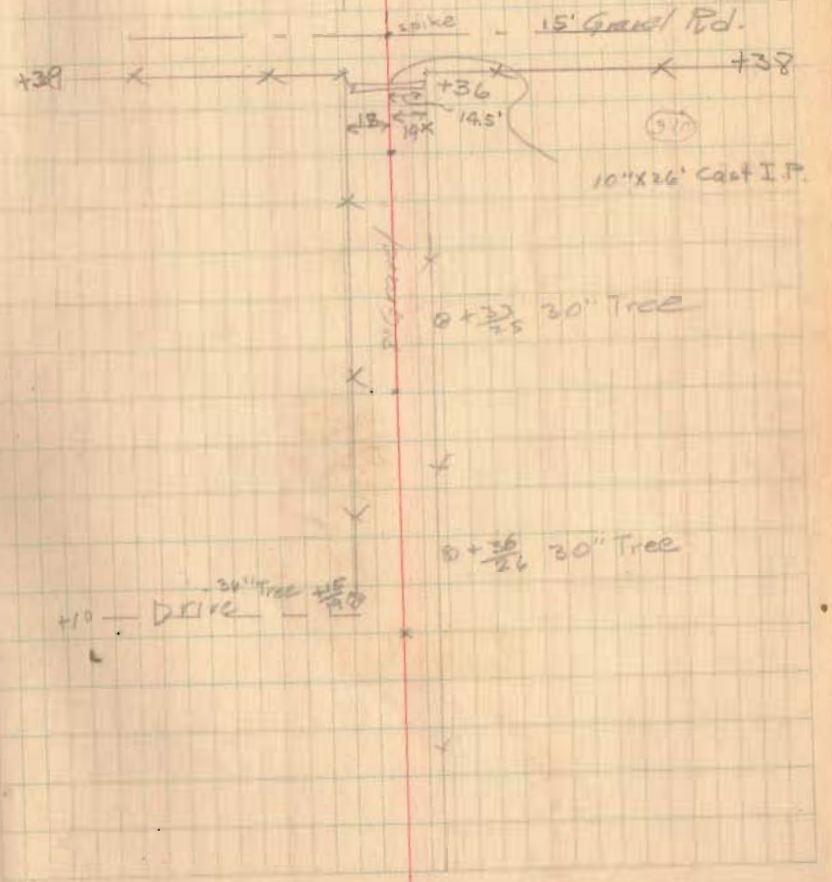
+57.50 End - spike in ℄ Roads

153

152

151

150



N.E. Cor. of survey 1099, on the waters of Meadows.

Beg. at a in the west line of said survey and in the east line of the land in the line of Walter Dunn's Survey #9878 a lot of land was run by W A Giles North 56 9° W 4th the line of said survey 101 poles to two black oaks north west cor of said survey; thence S 21° E 54 poles to a stone. Thence S 87° E 14 poles and 11 feet to a stone N E cor of grave yard lot. Thence 38 West, 10 poles to a stone Thence S 84° E 58 poles to a stone in the center of County rd. Thence N on a straight line to the place of Beginning Cont 43½ Acres

Beg at 3 hickories S E Cor. Walter Dunn survey #9878 in the line of Holland Nanney Survey 3274 thence with said Holland Nanney's line S 72° E 95 poles to County Rd thence west with said road to W J Longs S E Cor. at a Bridge over ditch crossing said road thence N 80 poles to the South line of said Dunn's Survey in the center of said line to a 50 A tract of land owned by W A Giles thence N 69 E 26 poles to the place of Beg. Cont. 27 A

Field Book 492 Page 69 Logan Co. Engineers Office.

(1) start at apparent cent road and in line old fence W at NE ∠ survey 10091 = a S. 24¾ E with public road. at 106 cross bridge over small branch creek 1568 center of road running SE & NW from this point (b) which by measurement is the SE ∠ W A Liles land.

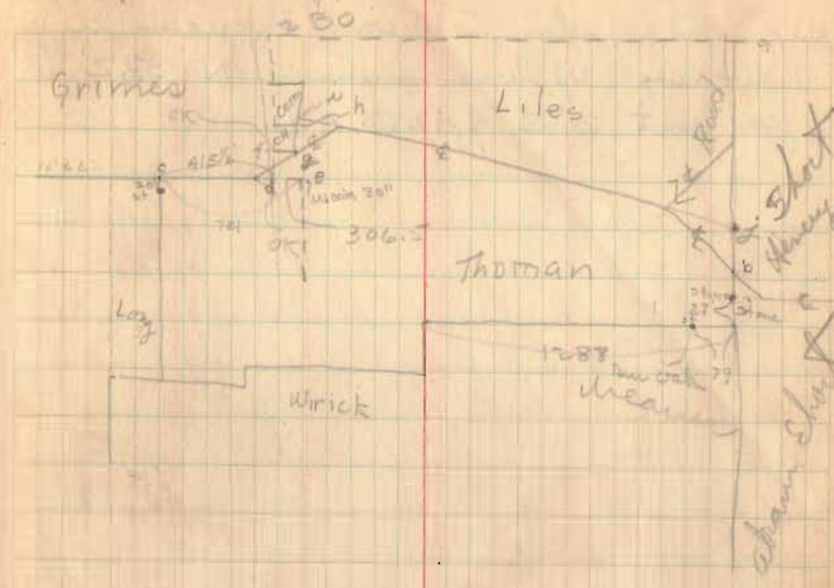
(2) start 70 N of stone in W line Thoman and at N 10 [illegible] 10' S of cent. road on top of hill and 604 ft east of [illegible] [illegible] line [illegible] = c thence N. 75¼ E with road and S line of Grimes land at 415½ set ∇ ∠ to Thoman NW & S.E. ∠ Grimes = d at 721'. W. Oak 30" dia at NE ∠ survey 4439 = e)

(3) Random start at 10' R of 415½ of (2) = d.
thence N 13¾ W at 396' post in ∇ = ∠ at wire fence SW ∠ church lot = f fall 11' E of ∇ at 396' dep. R = 1 Correct Course N 13¾ W with ∠ f = ∇ ; SW ∠ stone Ida Church NE 20'; the SW ∠ of Ch is 16' N and 11½ E (|| to south side of church) from ∠ f = ∠ Thoman and SW Cor. church lot

(4) start at ∇ 396' of 3 N 74½ E at 82½ set ∇ in pub. road = g and SE Cor. Ch. lot. wit SE Cor Ida Church = N 84½ W 4.2'

(5) start at ∇ 82½' of 4 thence with E line Ch lot N 5½ E at 216' Conc. Post at ∠ wire fence SE ∠ Cem. lot = h in W line Thoman; at 264' set ∇ SW Cor WA Liles and NW Cor John Thoman in east line Cem. lot = i

(6) Start at ∇ 264' of 5 thence with N line Thoman N 80¾ E at 200' enter public road at ℄ at 1950 center of travel road on top of hill at 2100 leave public road at 2277 set ∇ 3' S of N Line Thoman at 2296 strike line 1 at 1450 being 3' S of NE ∠ of Thoman



(7) start at ∇ 2277 of (6) and 3' S of N line of Thoman and 19' W of E line of Thoman (7 = S 25¾ E 459')
thence S 72 E at 432 post 25' E of stone S.W. Cor of Henry Short farm and N.W. Cor of Abram Short at 459 ∇ S line of Thoman and 25' W of his SE ∠

(8) start at stone SW Cor Henry Short S 25¾ E 27' to ∇ SE Cor Thoman and N 73½ E 25' from ∇ at 459 of 7

(9) Start at ∇ 27' of 8 and SE Cor Thoman in E line Survey 10091 and NE Cor Wm Weaver thence S 73½ W Correct Course S 73¼ W. at 79' small bur oak old line tree and cont to Thoman at 1288 strike R = N = 6' from Cor. post wire fence NW Cor Weaver

(10) start at stone S W cor of Thomas in Weaver W line measure N 332' to cor post 6's of 1288 of 9.

(20)

PI = 120+09.42 P.C. = 119+02.00 0-00

Δ = 5°-22 R +50 0-26

D = 2°-30' 120+00 1-14

T = 107.41 +50 1-51

L = 214.67 121+00 2-29

PC = 119+02.01 +1667 2°-41'

PT = 121+16.68

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(21)

PI = 128+96.70 PC = 127+79.94 = 0°-00'

Δ = 5°-50' L 128+00 0°-15'

D = 2°-30' +50 0-53

T = 116.76 129+00 1-30

L = 233.33 +50 2°-08'

PC = 127+79.94 130+00 2-45

PT = 130+13.27 +13.27 2-55

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(22)

PI = 142+98.65

Δ = 0°-30' L

D = 0°-28'

T = 53.57

L = 176.20

PC = 142+45.08

53.57 / .4667 / 25000 / 23336 / 16650 / 14001 / 26498 / 23336 / 3162

15

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(17)

PI = 96+26.55

Δ 36°-20'

D = 13°-00

T = 144.93

L = 279.48

PC = 94+81.62

PT = 99+61.10

PC = 94+81.62 = 0°-00'

95+00 = 1°-12'

+50 = 4-27

96 = 7-42

+50 = 10-57

97+ = 14-12'

+6.10 = 18-10

---

(18)

PI = 100+13.73

Δ = 37°-26'

D = 13°-00'

T = 149.63

L = 288.21

PC = 98+64.10

PT = 101+52.31

PC = 98+64.10 = 0°-00'

99+00 2°-20'

+50 5-35

100+ 8-50

+50 12-05

101+00 15-20

+52.31 18-44

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(19)

PI 108+15.20

Δ = 10°-40' L

D = 0°-28'

T = 71.35

L = 142.85

PC = 109+73+85

PT = 109+66.70

(20)

PI

(15) PI = 75+84.86
Δ = 35°-48' L
D = 6°-00'
T = 308.56
L = 596.67
PC = 72+76.30
PT = 78+72.97

PC 72+76.30	0°-00'
73+00	0°-43'
+50	2 -13
74+00	3 -43
+50	5-13
75+00	6 -43
+50	8 -13
76+00	9-43
+50	11-13
77+00	12-43
+50	14 -13
78+00	15-43
+50	17-13
+72.97	17-54

(16)
P.I. 83+20.90
Δ = 0°-48' L
D = 0°-28' D
T = 85.71
L = 171.20
PC = 82+35.19
P.T. 84+06.39

(13)
PI = 63+21.13
Δ = 6°-00' L
D = 2°-00'
T = 150.16
L = 300.00
PC = 61+70.97
PT = 64+70.97

PC = 61+70.97	0-00
= 62+00	0-17
PC = +50	0-47
63+00	1°-17
+50 (13')	1°-47
64+00 (43')	2-17
+50 (13')	2-47
PT +70.97	3-00

(14)
P.I. = 68+32.16
Δ = 32°-19' R
D = 6°-00'
T = 276.86
L = 538.61
PC = 65+55.30
P.T. = 70+93.91

PC = 65+55.30	0°-00'	16-10
66	1°-20	14-50
+50	2-50	13-20
67	4-20	11-50
+50	5-50	10-20
68	7-20	8-50
+50	8-50	7-20
69	10-20	5-50
+50	11-50	4-20
70	13-20	2-50
+50	14-50	1-20
70 + 93.91	16°-10'	

	B.S	H.I	F.S	Elev
B.M				1069.2

PI = 49+23.20
Δ = 69°-16'
D = 16°-00'
T = 248.15
L = 432.92
PC = 44+75.05
PT = 51+07.97

(12)

P.I. 57+38.60
Δ = 4°-25' R
T = 44.20'
L = 88.33'
P.C. 56+94.40
P.T. 57+82.73

PC 56+94.40	0°-00'
57+00	0°-08'
57+82.73	2°-12½

(10)

PI = 42+75.75
Δ = 65°-06'
T = 229.32
L = 406.94
PC = 40+46.43
PT 44+53.37

(11)

PI. 49+20.70
Δ = 68°-40' R
T = 245.35
L = 429.16
PC = 46+75.35
PT = 51+04.51

47+75.35 PC	0-0
47+00	1°-58'
+50	5-58
48	9-58
+50	13-58
49	17-58
+50	21-58
50	25-58
+50	29-58
51	33-58
+04.51	34-20 0

(9)

PI. 38+79.30

Δ = 3°-26'

T = 57.24

L = 114.44

PC = 38+22.06

P.T. = 39+36.50

1°-10'

1-43

(10)

PI = 42+75.75

Δ = 65°-06' L

D = 16°-00'

T = 229.29

L = 406.88

PC = 40+46.46

PT = 44+53.34

PC 40+46.46 0-00

+75 2-17

41 4°-17'

+50 8°-17'

+2 12°-17'

+50 16°-17

43 20°-17

+50 24°-17

44 28-17 4--16

+53.34 32-33 0

(4)

Δ = 13°-43' L

D = 5°-00'

T = 137.86

L = 274.33

PC 14+06.63

PI 15+44.49

PT 16+80.96

PC = 0-00'

15 = 2°-20

16 = 4°-50

+80.96 6-51

(5)

Δ = 25°-00' R.

PI = 25+68.47

D = 5°-00'

T = 254.12

L = 500.00'

E 27.82

PC = 23+14.35

PT = 28+14.35

PC = 0°-00

14 = 2°-08' ✓

15 = 4°-38' ✓

16 = 7°-08' ✓

17 = 9°-38' ✓

18 = 12°-08' ✓

+1435 12°30

(3)

D	6°
Δ	11°-57'
T	99.94
P.C	10+89.15
P.I	11+89.09
P.T	12+88.32
L	199.17

(8)

PI 36+59.4

Δ = 8°-01'

T = 80.32

L = 160.33

P.C. = 35+79.08

P.T. = 37+39.41

0°-31'

3°-01'

4°-00'

(6)

PI 31+52.85

Δ = 3°-39' L

D = 3°-00

T = 60.88

L = 121.67

PC = 30 +91.98

PT = 32 +13.65

0-07

1°-37'

1°-49'

(7) PI 34+29.87

Δ = 8°-07'

T = 81.32

L = 162.55

PC = 33+48.55

PT = 35 + 11.10

1°-17

3°-47'

4-03½

Curve #1
D = 5° 00'
Δ = 14°-42'
T = 147.87
PC = 2+75.5
PI = 4+23.37
PT = 5+69.5
L = 294.00'

PC 0°-00'
3°-30' 0° 32'
4°-00' 3° 07'
5° 37'
7° 21'

(2)

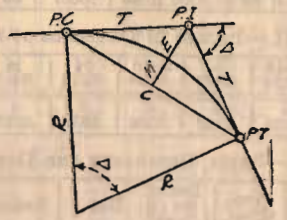
Δ 11° 28'
D 6° 00
T 95.88'
PC 8+49.6
PI 9+45.48
PT 10+40.6
L 191.00

PC 6.00
9 1°-30'
10 4°30'
406 5°-44'

8+49.6 50.4
1+41 94
10.40.6

294.00

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

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

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

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

External=E=T tan $\frac{\Delta}{4}$ (7) =R÷cos. $\frac{\Delta}{2}$—R (8)=R exsec $\frac{\Delta}{2}$ (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÷100)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÷(2 x 688.26)=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′.