

W 687

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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 $30.6 + (20 - 16) \div 2$ or 2 ft. added to $30.6 = 32.6$. For slopes of 1 on 1 $\frac{1}{2}$ see inside of back cover.

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629 80

61 30 90
59 38 0
1 92 9

551
43
8

52 30

65.90 R
74.27 L

2.5 3.431

87 55 30

88 00
176 00 30
88 00 15

175 51
87 50 30

90 24 R

71 50 R
388 L

108.42 L

54 + 17.71

53 + 70 65

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

✓ Indexed to P-49-2/1/06/MPV
 ✓ " " P-57-7/20/46 m82
 " " " 75-7/15/46 m82
 " " P-76-1/2/47 m82
 P 60961-8/5/47
 P 78-6/22/49

177 49

88

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El Monte P.h. location from Sta. 511+76.76 - West Tunnel

Grassmount

+50	90	32.29	
523	80	35.04	
+50	7	37.79	
A 20°58' Rt.	522	60	40.51
R=1500'	+50	50	43.29
L.C. 548.91	521	40	46.04
S.T. 277.55	+50	30	48.79
	520	20	51.54
	+50	10	54.29
	519	0	57.04

B.C. 518+50.18

516+19

WEST END TUNNEL 511+76.76

Note - All P.O.'s etc. are Red Head Spikes

Oct 1-45

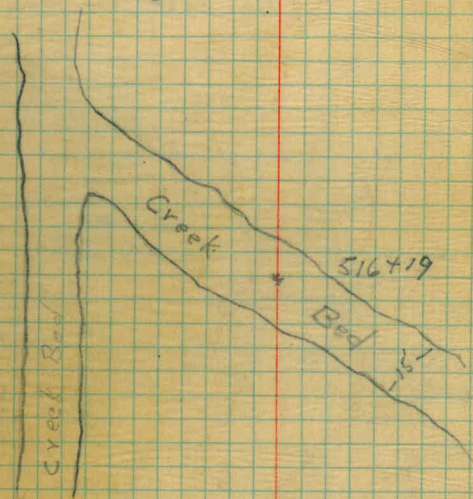
King - Hurdle
Klinger - Leonard

Very High

Portal to El Monte Filter Plant site

Grazing Land

B.C. 518+50.18



202 □ H.W.M. End of West Tunnel Portal
511+76.76

E.C. 531+21.90

P.I. 528+98.14

P.I. 528+98.14

$\Delta 26^{\circ} 05' 27''$

R-1000'

S.T. 231.48

527+75

L.C. 455.74

B.C. 526+66.66

E.C. 523+99.09

121.90 $13^{\circ} 02.56'$

531 $12^{\circ} 24.91'$

+50 $10^{\circ} 58.96'$

530 $9^{\circ} 33.01'$

+50 $8^{\circ} 07.06'$

529 $6^{\circ} 41.11'$

+50 $5^{\circ} 15.16'$

528 $3^{\circ} 49.21'$

+50 $2^{\circ} 23.26'$

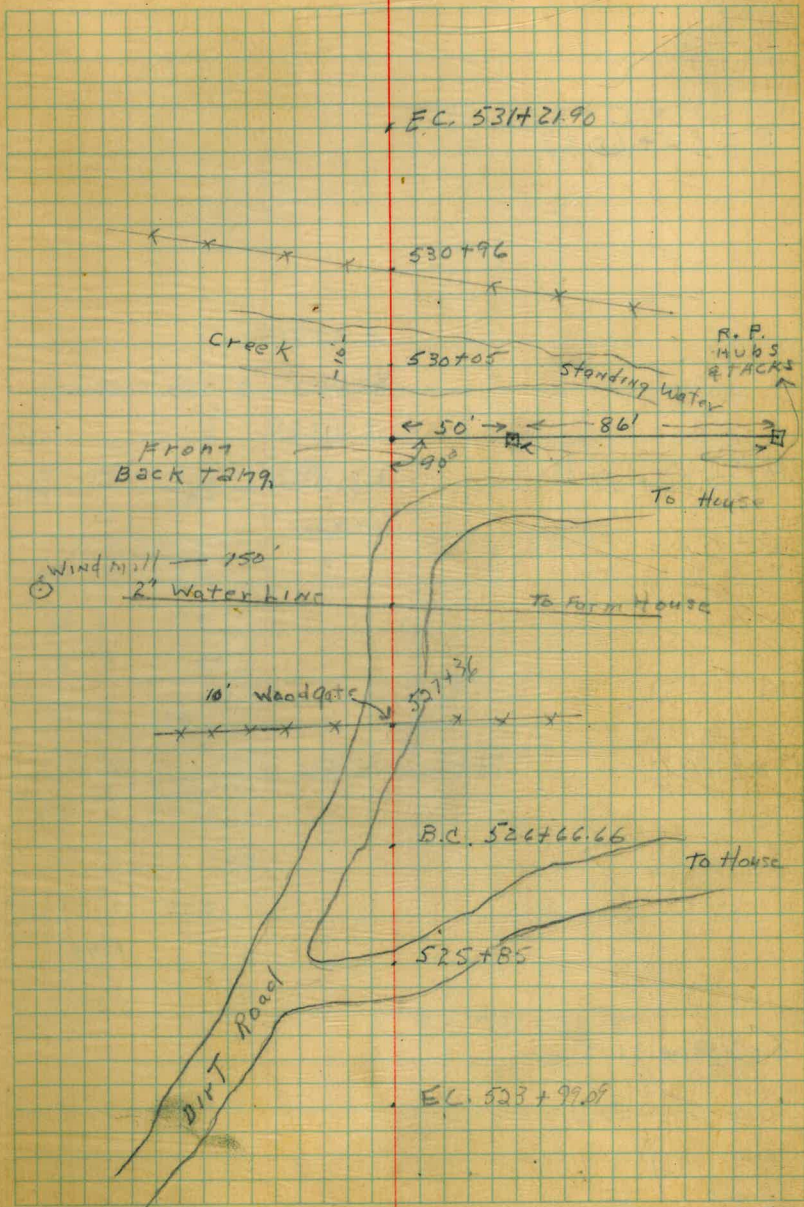
527 $0^{\circ} 57.31'$

523+99.09 $18^{\circ} 28.57'$

Reference Points
1-15-47

Meison
Leonard
Battaglia

2



E.C. 535+60.23

A 22° 21' R

R-1100'

St. 217.25

L.C. 429.08

Defl 1.522'

P.I. 533+48.90

+6023 11° 10'

+50 10° 54'

535 9° 36'

+50 8° 18'

532+51

534 7° 0'

+50 5° 42'

533 4° 24'

+50 3° 05'

532 1° 48'

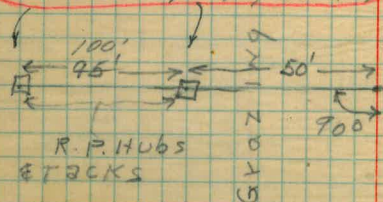
531+50 0° 29'

B.C. 531+31.15

E.C. 535+60.23

LAND

Replaced Ref. 4/16/51 empty



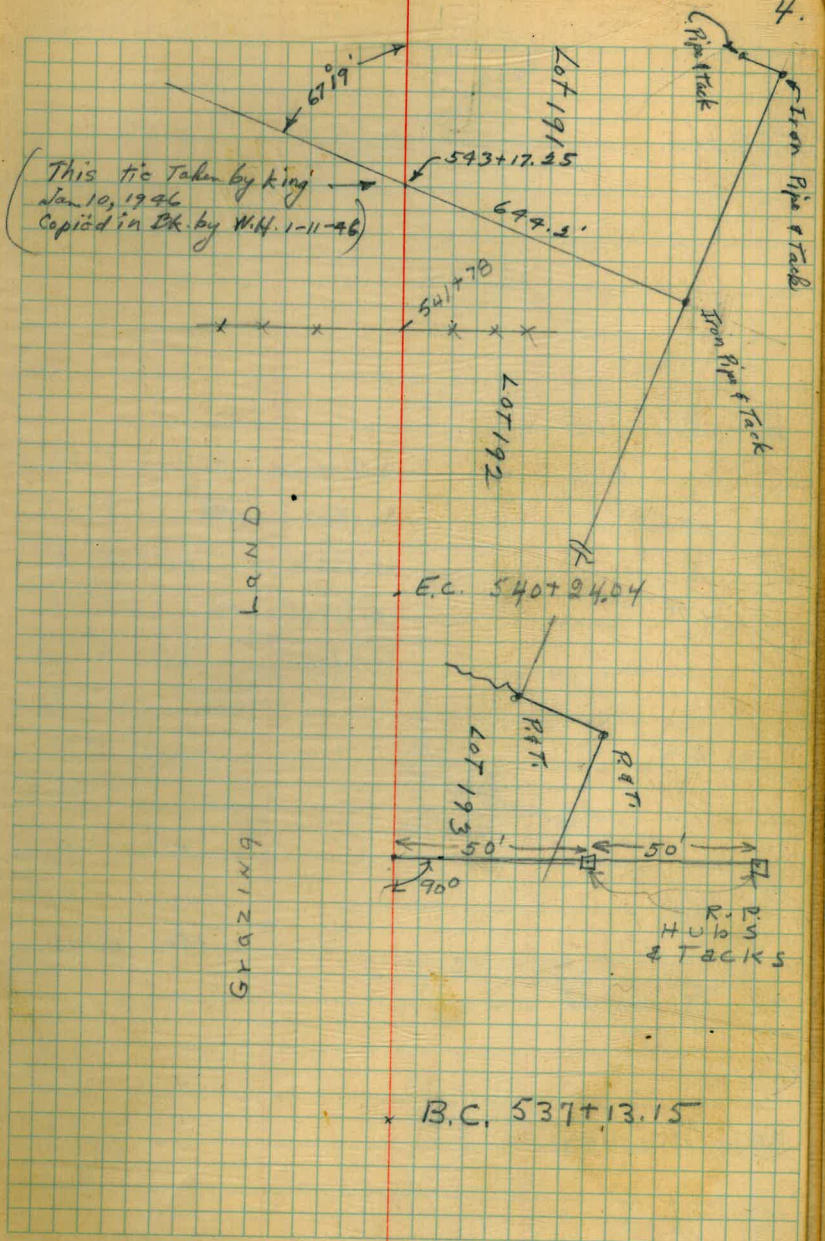
L.M. & L.G. Water SYPHON

B.C. 531+31.15

10-2-45,

Very Hot.

4.



541+78

E.C. 540+24.04

A 11°52'30" Lt.		
R-1500'	+24.04	5°56'
S.T. 165.96	540	5°28'
L.C. 31689	+50	4°31'
Defl. 1.145	537	3°34'
	+50	2°37'
	538	1°39'
	537+50	0°42'

P.I. 538+69.05

B.C. 537+13.15

B.C. 537+13.15

558+00

Mag 531W

E.C. 556+26.55

2 11.25
2 C 110
5 22.55

Δ 190° 45' Lt +26.55 9° 52.5'

R 1500' 556 9° 22'

St. 261.10 +50 8° 24'

LC 517.05 555 7° 27'

De Fl. 1.145 +50 6° 30'

554 5° 33'

+50 4° 35'

553 3° 38'

+50 2° 41'

552 1° 44'

+50 0° 46'

P.T.
553+70⁶⁰

B.C. 551+09.50

P.O.T. 550+98.91

5.

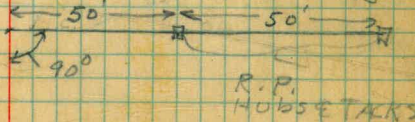
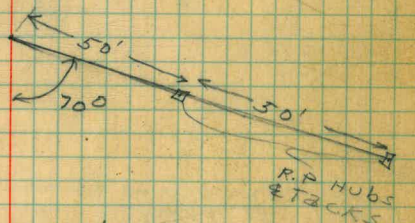
L.M. & L.G. Water Co. 12" Pipe
558+00

E.C. 556+26.55

Creek Bed
LAND

555+73

GRAZING



P.O.T. 550+98.91

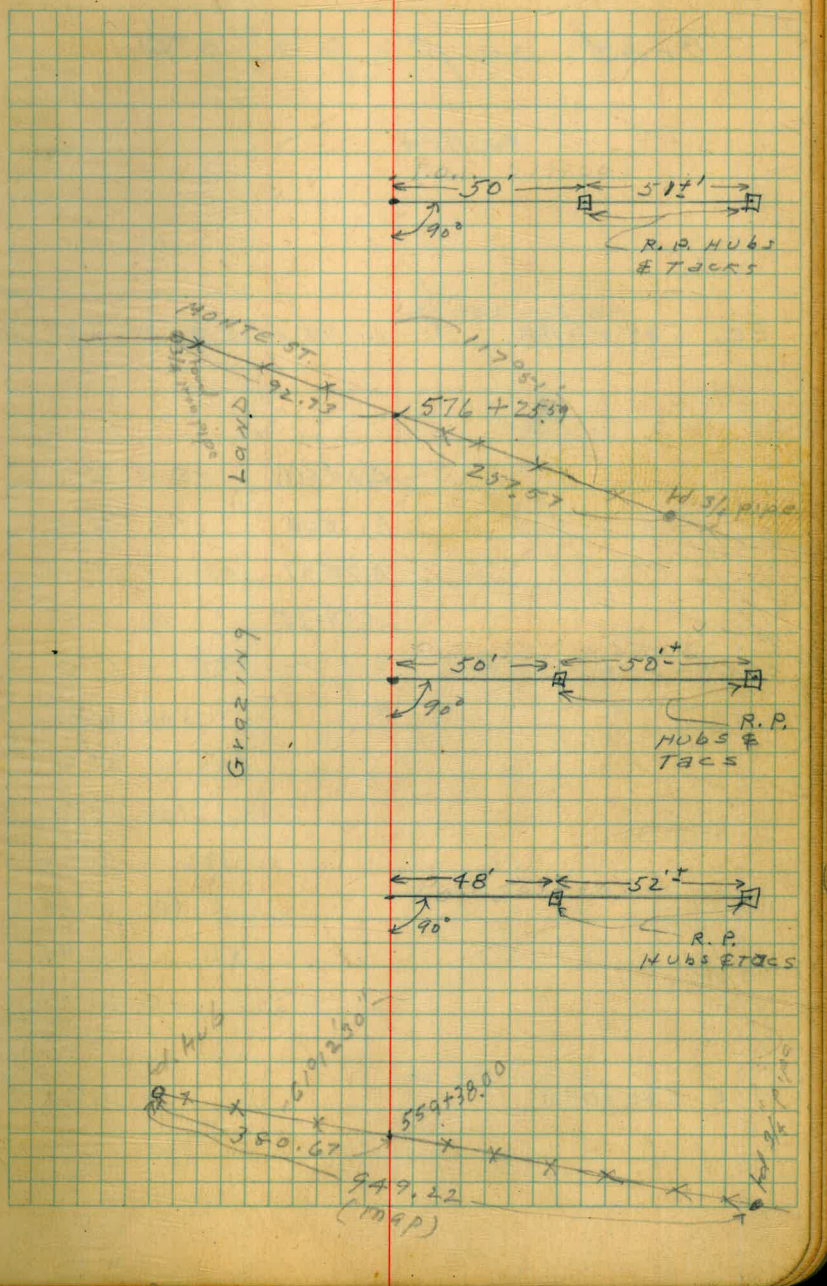
P.O.T. 579+00

576+28

P.O.T. 565+87.06

P.O.T. 563+32.20

559+38



Cont. on page 50

Mag. $55^{\circ}4'W$

EC. 585+5488 ($\Delta = 20^{\circ}49'10''R$ 12-10-57 west)

$\Delta 20^{\circ}51'R$ 454.89 $10^{\circ}25'30''$

R-1500' +50 18 19

St. 276.97 585 9° 22'

L.C. 545.85 +50 8° 25'

P.I
582+85.00

584 7° 28'

+50 6° 30'

583 5° 33'

+50 4° 31'

582 3° 39'

+50 2° 41'

581 1° 44'

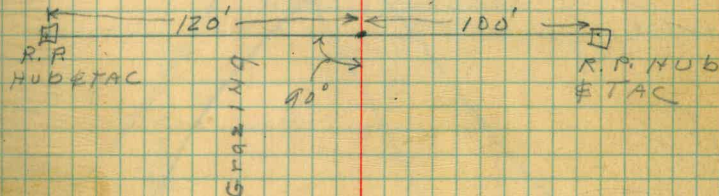
+50 0° 46'

B.C. 580+09.03

7.

EC 585+5488

LAND



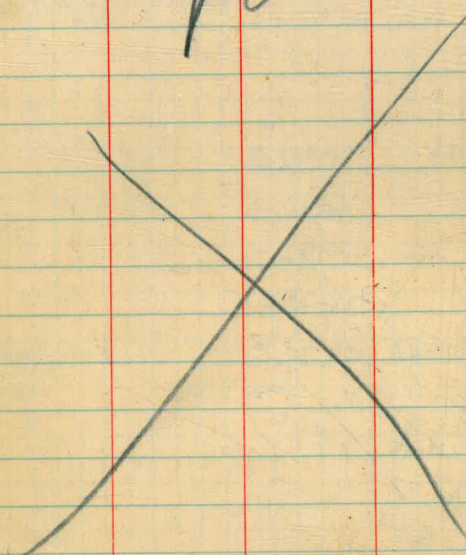
B.C. 580+09.03

P.O.T 595+31.75

Void see

594+00.0

592+25



page 50

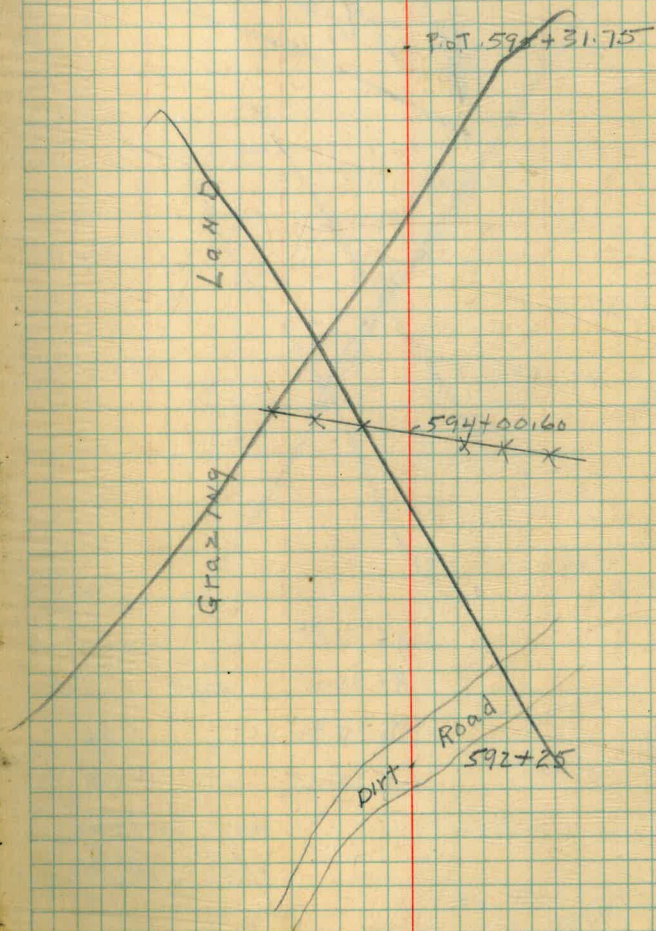
P.O.T. 595+31.75

LAND

GRAZING

594+00.60

DIRT Road
592+25



609+11.25

~~Void~~

604+75

604+57

E.C. 601+51.72

Δ 6° 21' Rt.		
R. 2006'	+51.72	3° 10.5'
S.T. 110.94	601	2° 26'
L.C. 221.16	+50	1° 43'
	600	1° 01'
	+50	0° 17'

B.C. 599+30.06

609+11.25 END this Survey for time being

~~Dirt Road 604+75~~

~~604+57~~

~~E.C. 601+51.72~~

B.C. 599+30.06

El Monte PL. 100

Boomer line on 3% Grade From 18A to El Monte

Dist. Mag Bearing Hor. L Vert. L HI Rod

5-6 279' 58° 45' W 5° 28' Rt +1° 43' 5.0 5.0

3-5 750' P.O.T +1° 43' 5.0 5.0

3-4 488' 57° 24' W 6° 57' Lt +0° 30' 5.0 5.0

18A-3 877' P.O.T +0° 46' 5.1 5.1

18A-2 544' P.O.T +0° 13' 5.1 5.1

18A-1 390' 583° W 23° 08' Rt -0° 20' 5.1 5.1

Sighting Back from 18A to 17 - See BX. 680

King-Hunley 10-3-45
Klinger-Leonard

Very Hot
+ Smokey 10

Filter Plant Site

500.1

491.8

469.3

Elev. Pt 457.5

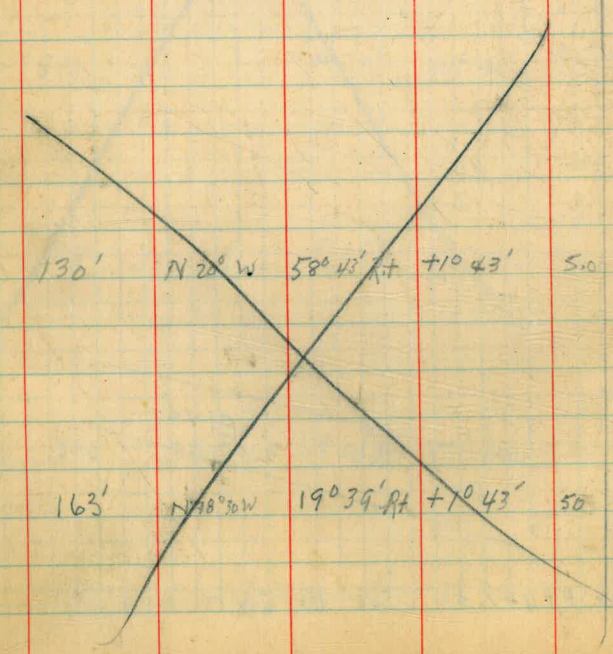
See BK 680

Void - see page 13
~~11/11~~

Baltimore Blvd.

7-8 130' N 20° W 58° 43' Rt +10 43' 50 50

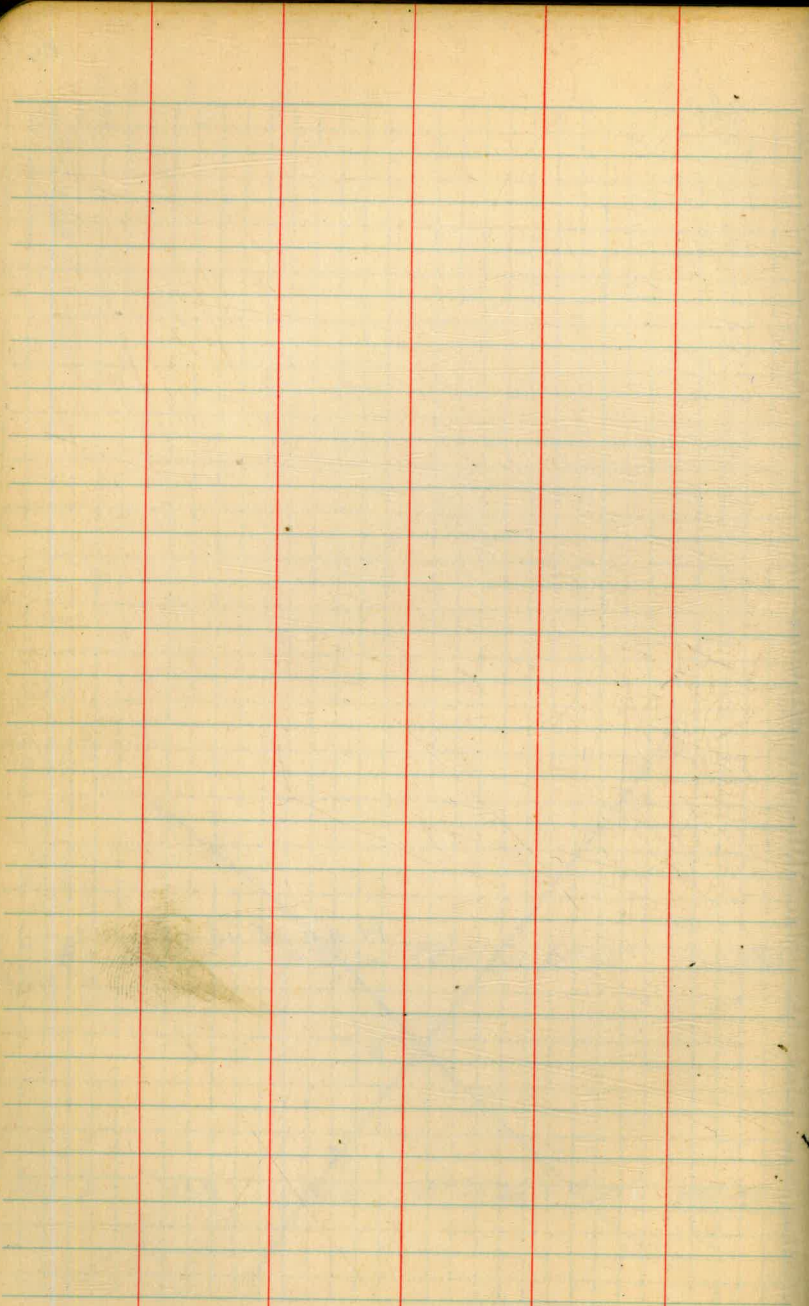
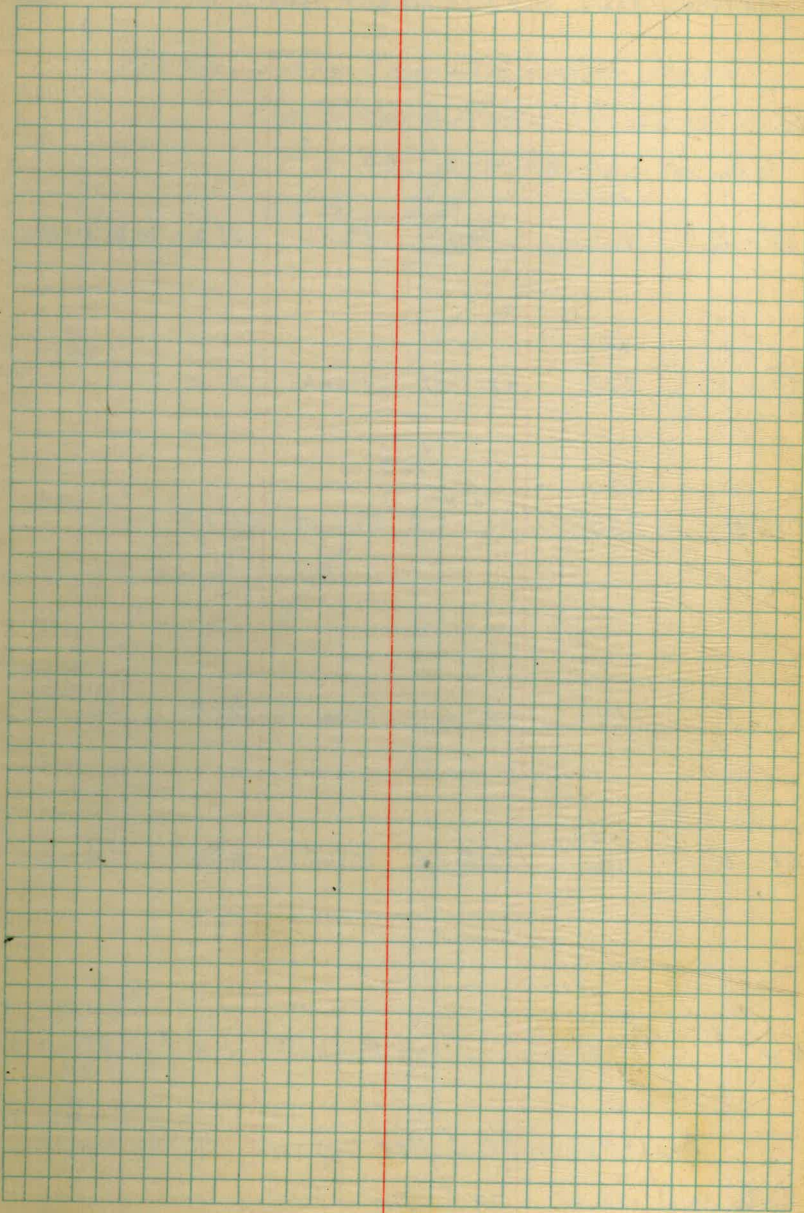
6-7 163' N 38° 30' W 19° 39' Rt +10 43' 50 50



508.8

Pt #8 End of Line

504.9



El Monte P.L. loc.

Boomer line on 3% grade going So. to P+17# 0.7

5-6	101 101'	P.O.T.	-5° 22'	51 51
π 4-5	265 265'	N 85° 30' E	55° 52' 30" Rt. -1° 43'	50 50
π 3-4	384 384'	S 40° 30' E	5° 46' Rt. -1° 43'	50 50
π 2-3	177 177'	S 35° E	7° 46' Rt. -1° 43'	50 50
π 1-2	1060 1060'	S 48° 45' E	3° 45' Rt. -1° 43'	50 50
π 0-1	394 394'		1° 49' Rt. -1° 43'	51 51

Backsite on Pt. 1 See page 15 going South

0 15' off pav. by Culmores House

King-Hunley 10-4-45
Klinger-Leonard

13

prev. stadia line - El Monte P.L. investigations

Note This line ran from pass on Baltimore Road to determine if a 3% grade could be obtained.

463.6 gmb

473.10 ✓

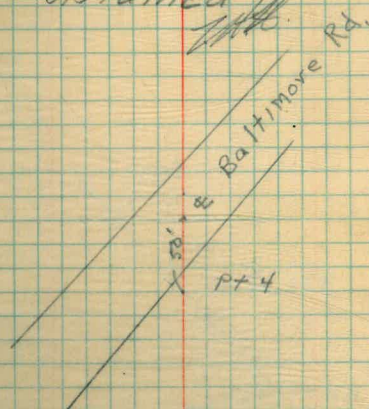
480.9 ✓

492.4 ✓

497.7 ✓

505.4 ✓

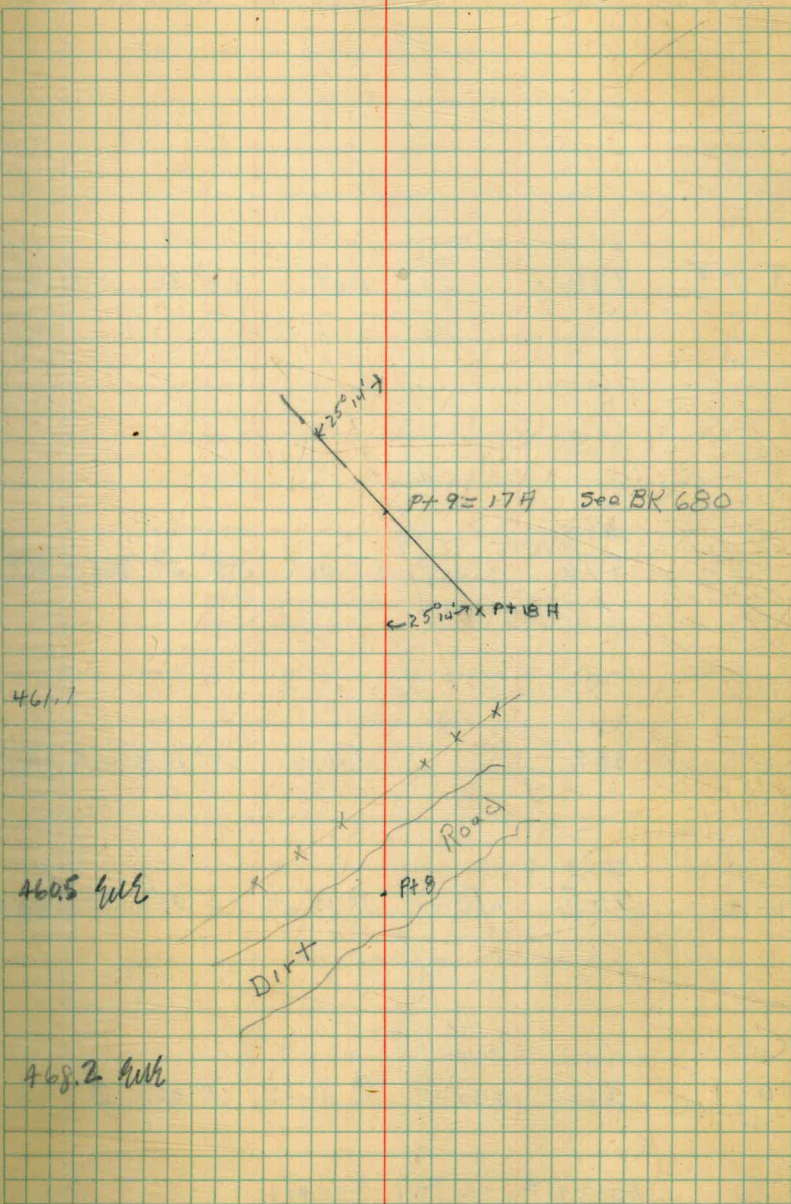
0 Elev. 541.2



5-9:17A 805
805' P.O.T. $-0^{\circ} 51' 5.1$ 5.1

5-8 494
494' P.O.T. $-1^{\circ} 27' 5.1$ 5.1

5-7 265
265' P.O.T. $-1^{\circ} 2$ 5.1 5.1



El Monte P.L. loc.

Boomer Line going North & West to El Monte Filter P

T 1-5 890'
890' P.O.T. +0° 30' 5.0 5.0

1-4 776'
776' P.O.T. +0° 34' 5.0 5.0

1-3 382'
382' P.O.T. -1° 16' 5.0 5.0

1-2 253'
255' N 82° 15' W 7° 13' Lt. -5° 43' 5.0 10.0

T 0-1 264'
264' N 74° 15' W 1° 49' Lt. -2° 05' 5.1 5.1

Back site on Pt. 1 - See page 13

King - Hunley
Klinger - Leonard

10-4-45

15

Site

539.4

539.3 Ave

Murray 231rd

523.2 Ave

501.3 Ave

531.6

Δ 9-11=360 433'
 435' $-4^{\circ} 56'$ 5.0 50

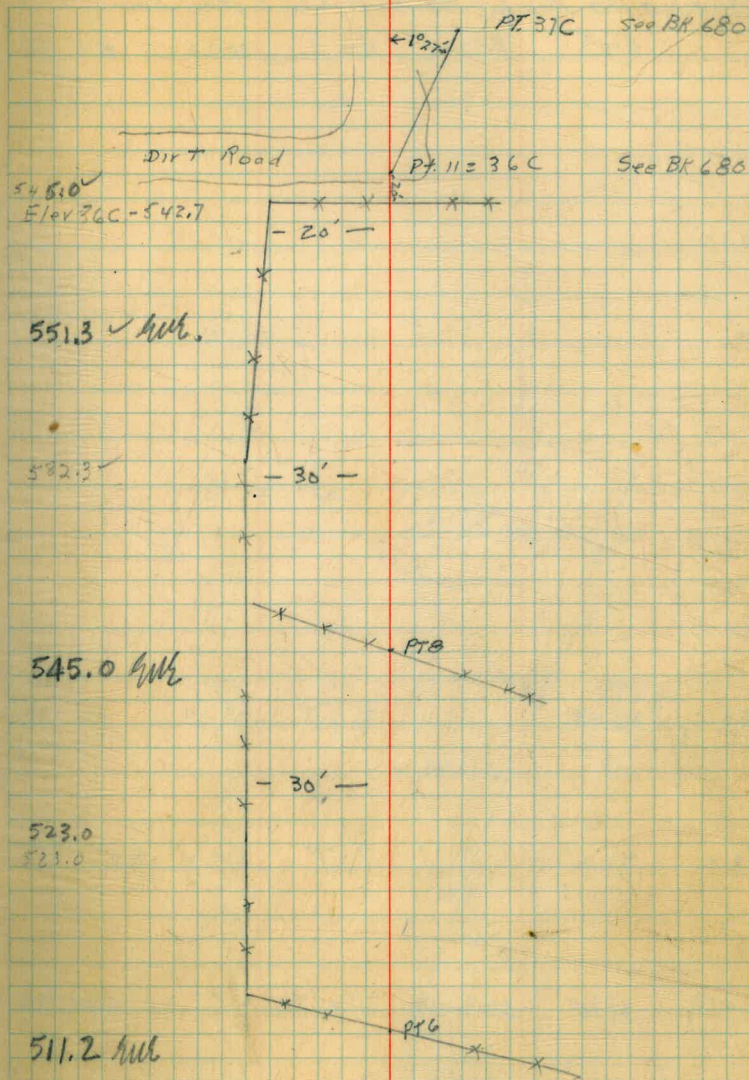
9-10 196
 200' $S 70^{\circ} W$ $10^{\circ} 53' L$ $-9^{\circ} 01'$ 5.0 50

Δ 7-9 591'
 576' P.O.T. $+50^{\circ} 45'$ 4.9 4.9

7-8 333'
 334' $S 73^{\circ} 30'$ $11^{\circ} 39' L$ $+3^{\circ} 48'$ 4.9 4.9

Δ 5-7 600
 600' P.O.T. $-1^{\circ} 34'$ 5.0 5.0

5-6 510
 510' $S 84^{\circ} 45' W$ $12^{\circ} 06' 30' L$ $-2^{\circ} 37'$ 5.0 10.0



El Monte Pk. loc

Stadia line for RR to El Monte Filter Plant Site

Dist. Bearing Hor. L. Vert. L. H.I. Rod.

AO-3R 1003' P.O.T. $-0^{\circ} 13'$ 5.0 5.0 472.5

O-2R 720' P.O.T. $-2^{\circ} 0'$ 5.0 14.0 442.2 EE

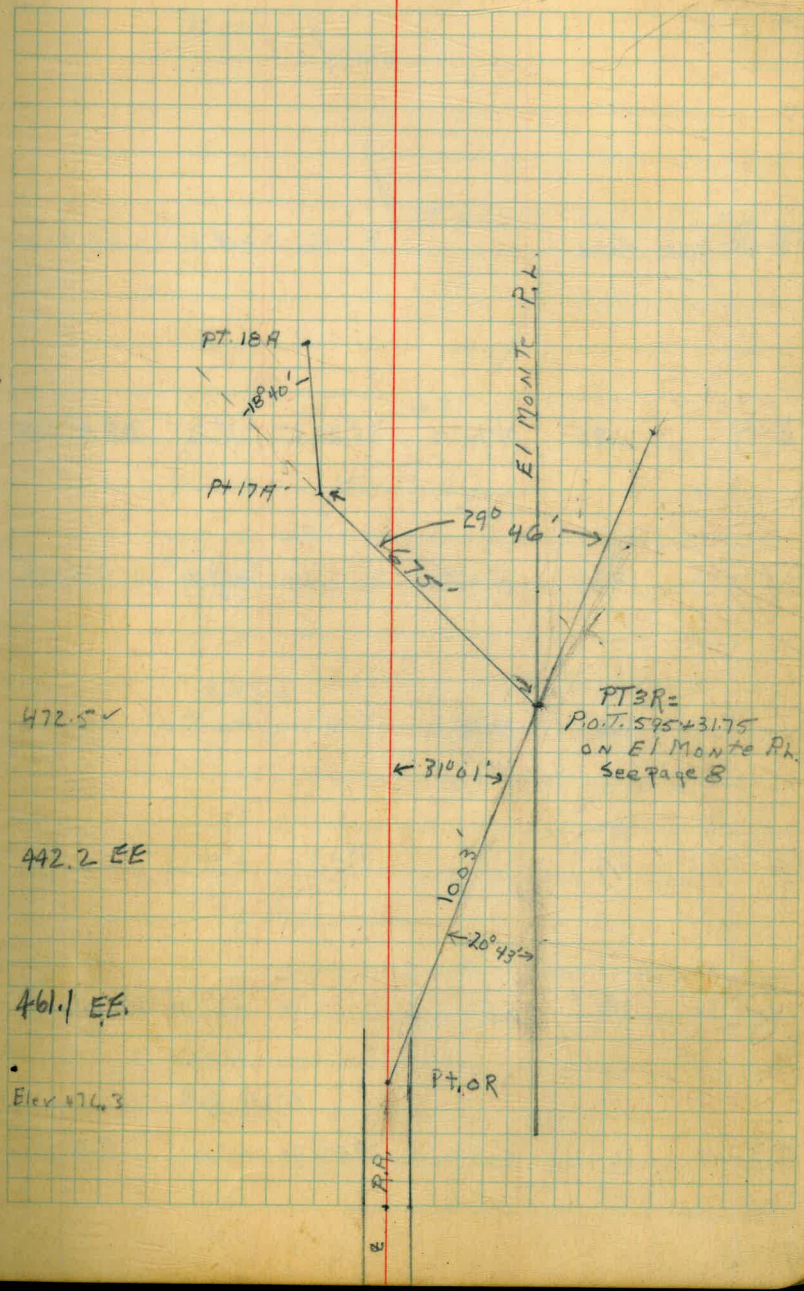
Pt.O-1R 415' $371^{\circ} 45' W$ $31^{\circ} 01' Rt.$ -7° 5.0 13.0 461.1 EE

Pt.O.R

Backsight - E.P.R.

King - Klinger - Leonard
10-24-45

17



8-18=24C 504' P.O.T. +0°51' 5.0 5.0

8-9R 85' N74°15' 31°28' RT. -2°21' 5.0 5.0

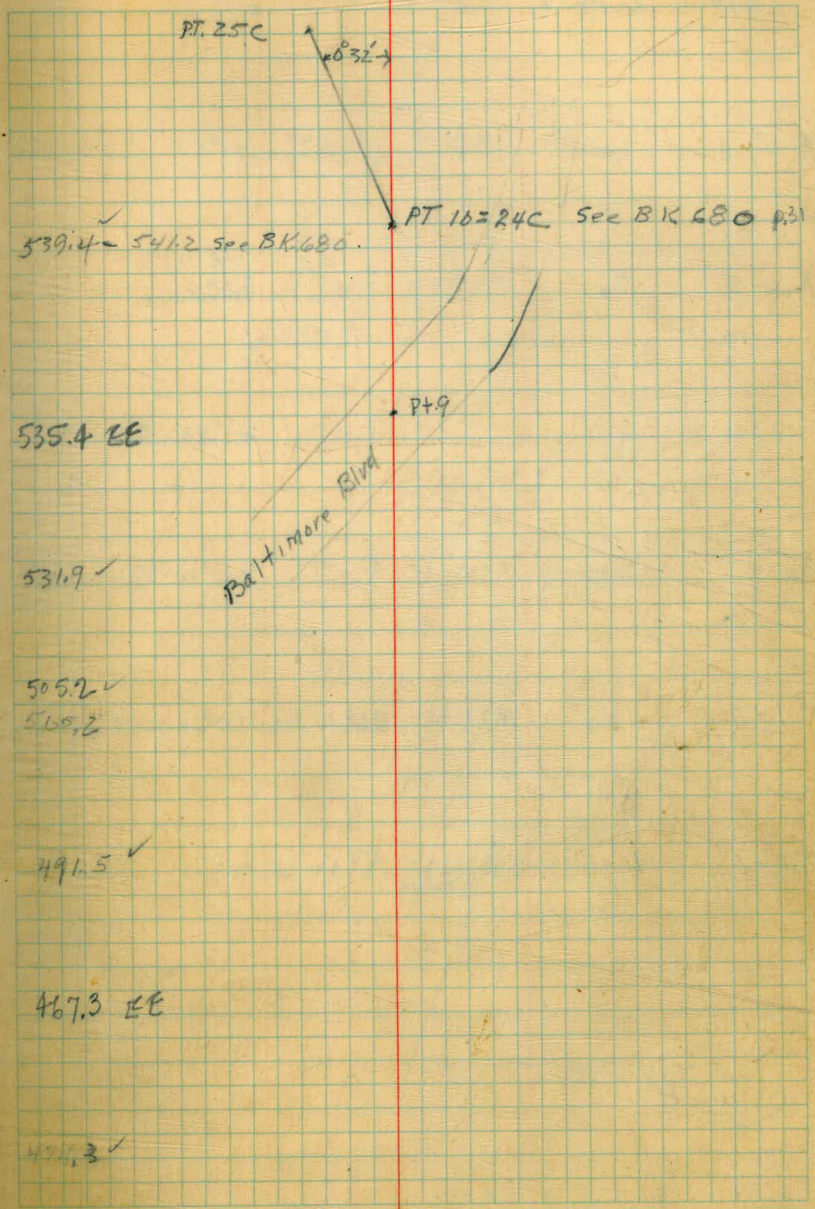
7-8R 1330 N43°W 34°18' RT +1°09' 4.9 4.9

6-7R 196' N78°W 12°50' RT. EWE +4°01' 5.0 5.0

4-6R 416' P.O.T. +2°22' 5.0 5.0

4-5R 196' S89°30'W 20°19' RT -2°03' 5.0 5.0

3-4R 1040 S67°30'W 3°57' RT. EWE +0°06' 5.0 5.0



PTL6-R1-7R 705'

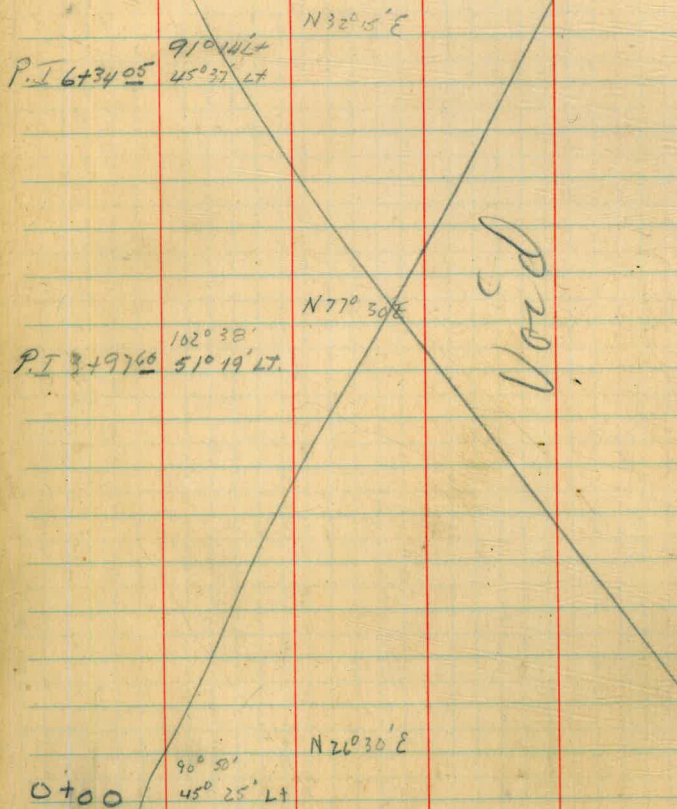
29°55' 0" 5.0 128

506.0 See page 18 ELEV 505.2

Road Survey around Murray Lake From

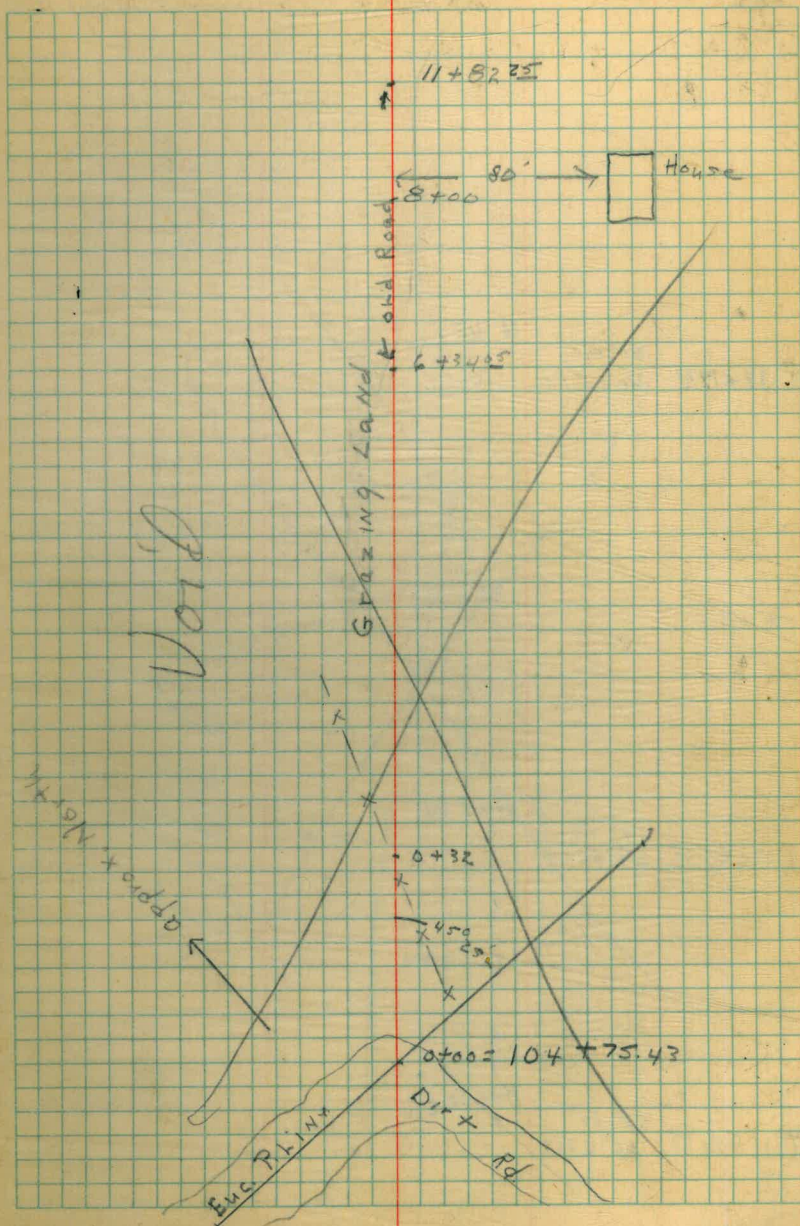
Sta. 104 + 75.43 Enc. P.L. Loc.

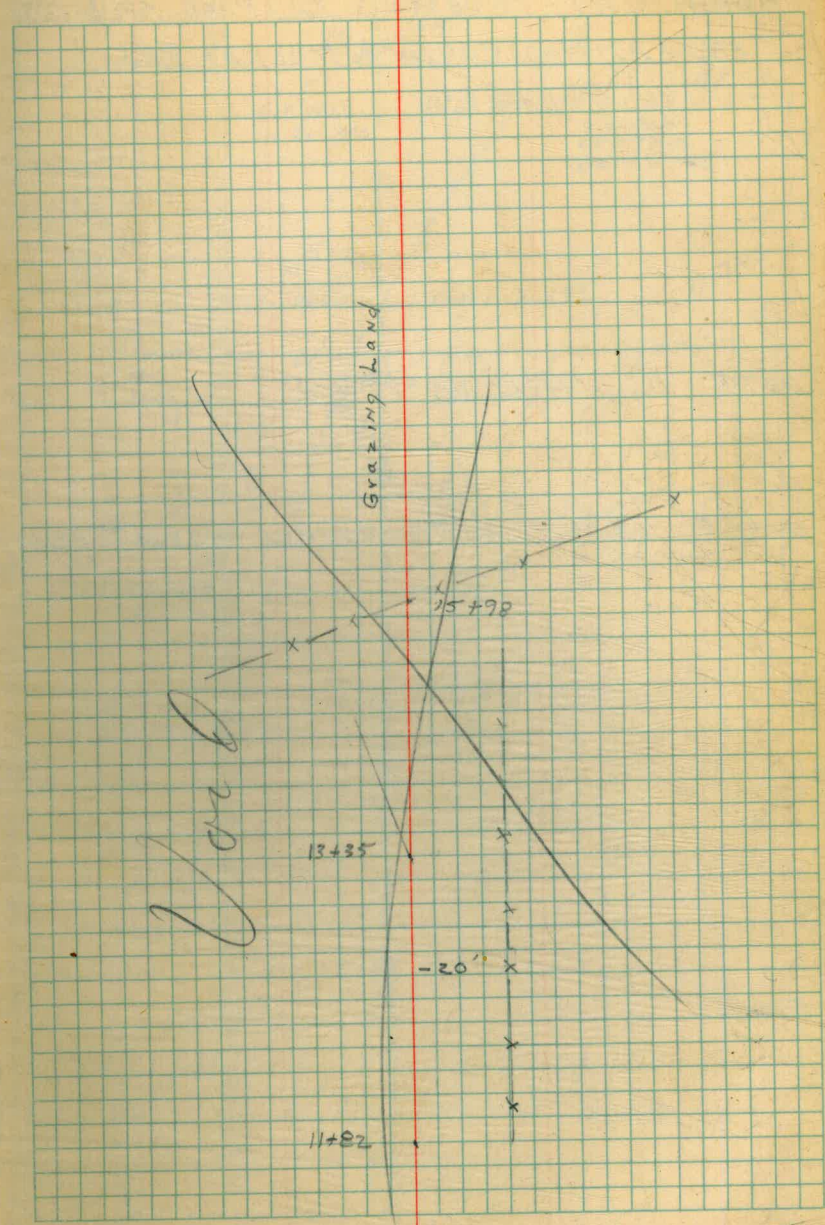
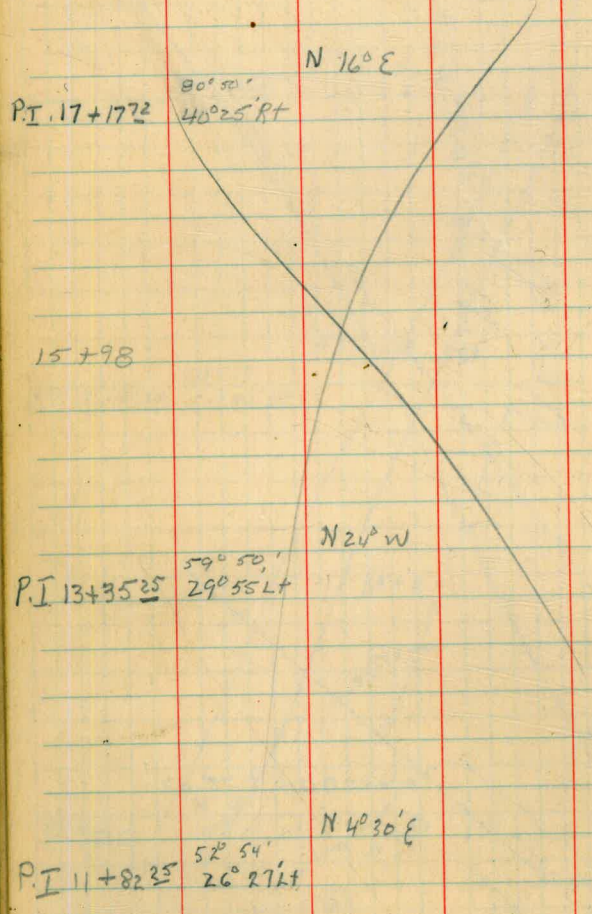
P.I. 11 + 82.25



Hill - Klinger 10-25-45
King - Leonard

21



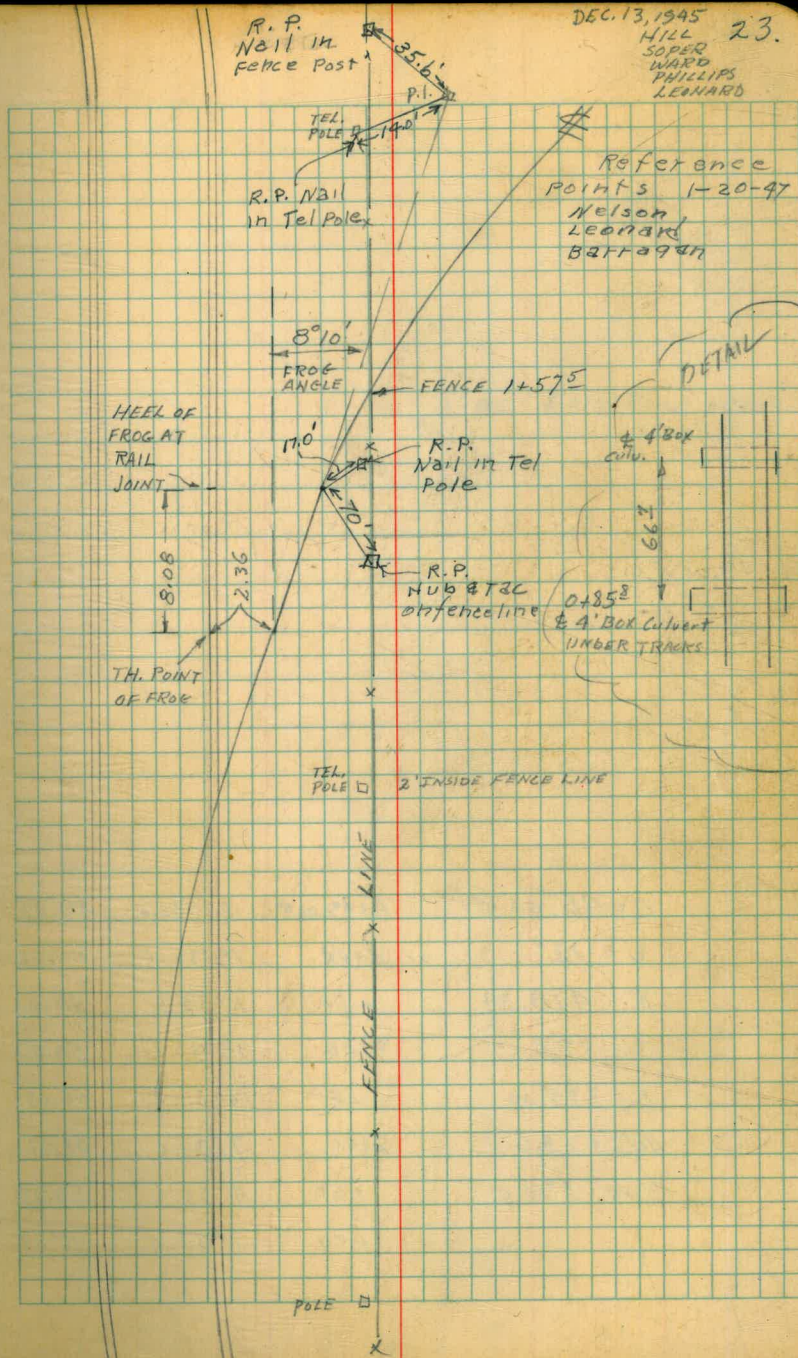


EL MONTE PL.
 ALIGNMENT- PROPOSED RAILROAD SPUR-TRACK
 FROM ALVARADO CANYON TO MURRAY RES.
 PROFILE - BOOK 696.

0+74⁰ B.C. = HEEL OF #7 FROG

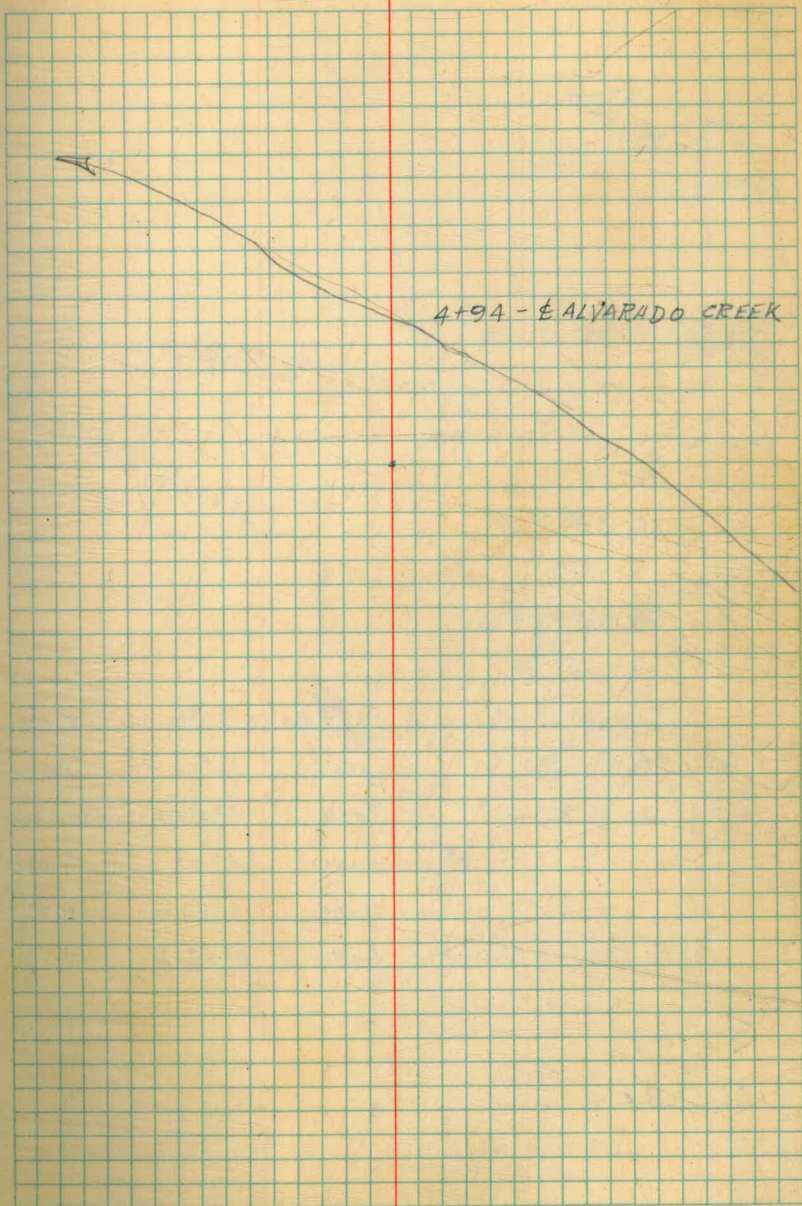
0+65.91 (2.36 FT. OF THEORETICAL POINT OF #7 FROG)

0+100



4+49.00 E.C.

$\Delta = 45^{\circ}00'RT$	4+49.00 E.C.	$22^{\circ}30.0$	49.07
$D = 12^{\circ}$	4+00	$19^{\circ}33.6$	50.07
$R = 478.34$	+50	$16^{\circ}33.6$	50.07
$T = 198.13$	3+00	$13^{\circ}33.6$	50.07
$L = 375.00$	+50	$10^{\circ}33.6$	50.07
del $i = 3.6'$	2+00	$7^{\circ}33.6$	50.07
$u50 = 3^{\circ}00.0$	+50	$4^{\circ}33.6$	50.07
	1+00	$1^{\circ}33.6$	26.04



8+88.83 E.C.

P.I. 7+65.46

$\Delta = 30^{\circ}24' LT$

$D = 12^{\circ}$

$R = 478.34$

$T = 129.96$

$L = 253.33$

Def 1' = 3.6'

Def. 50' = 3'00.0

8+88.83 E.C. $15^{\circ}12.0$ 38.88

+50 $12^{\circ}52.2$ 50.07

8+00 $9^{\circ}52.2$ 50.07

+50 $6^{\circ}52.2$ 50.07

7+00 $3^{\circ}52.2$ 50.07

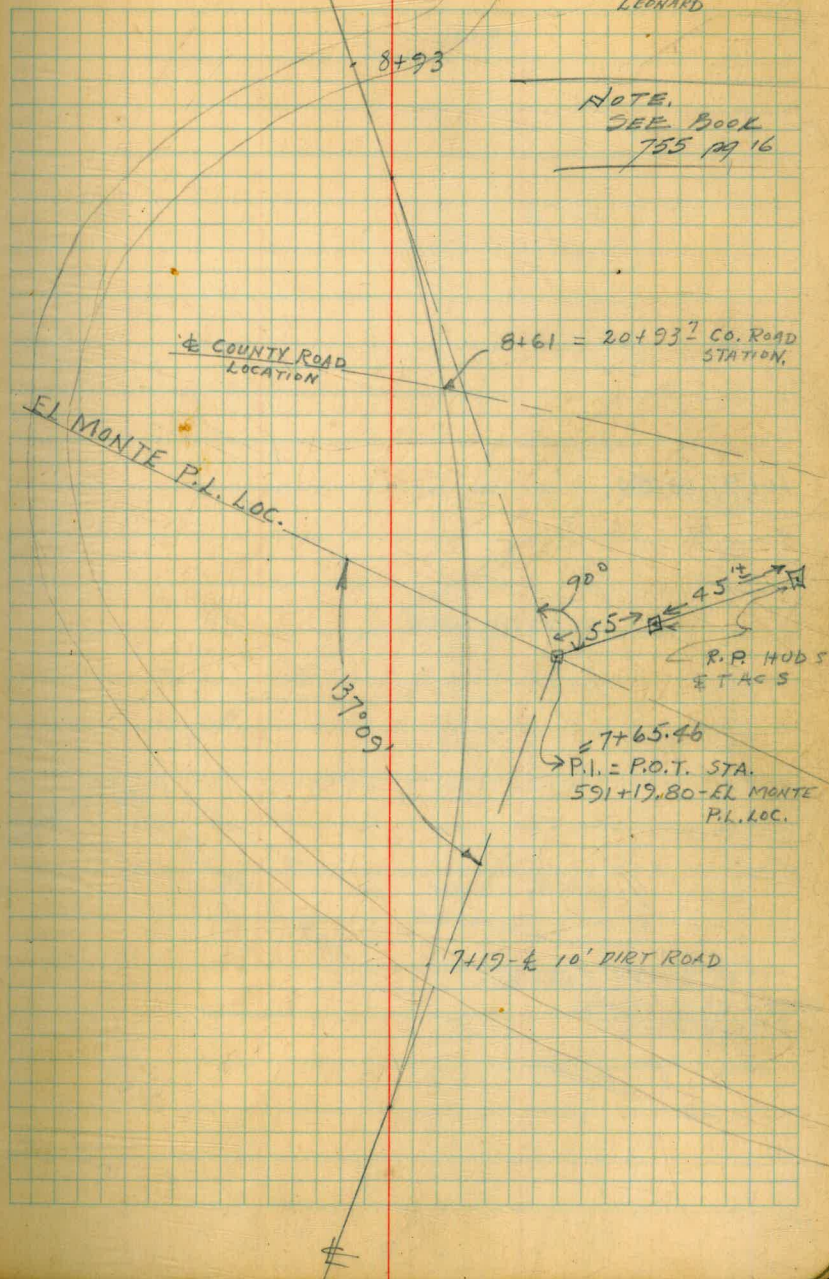
6+50 $0^{\circ}52.2$ 14.53

6+35.50 B.C.

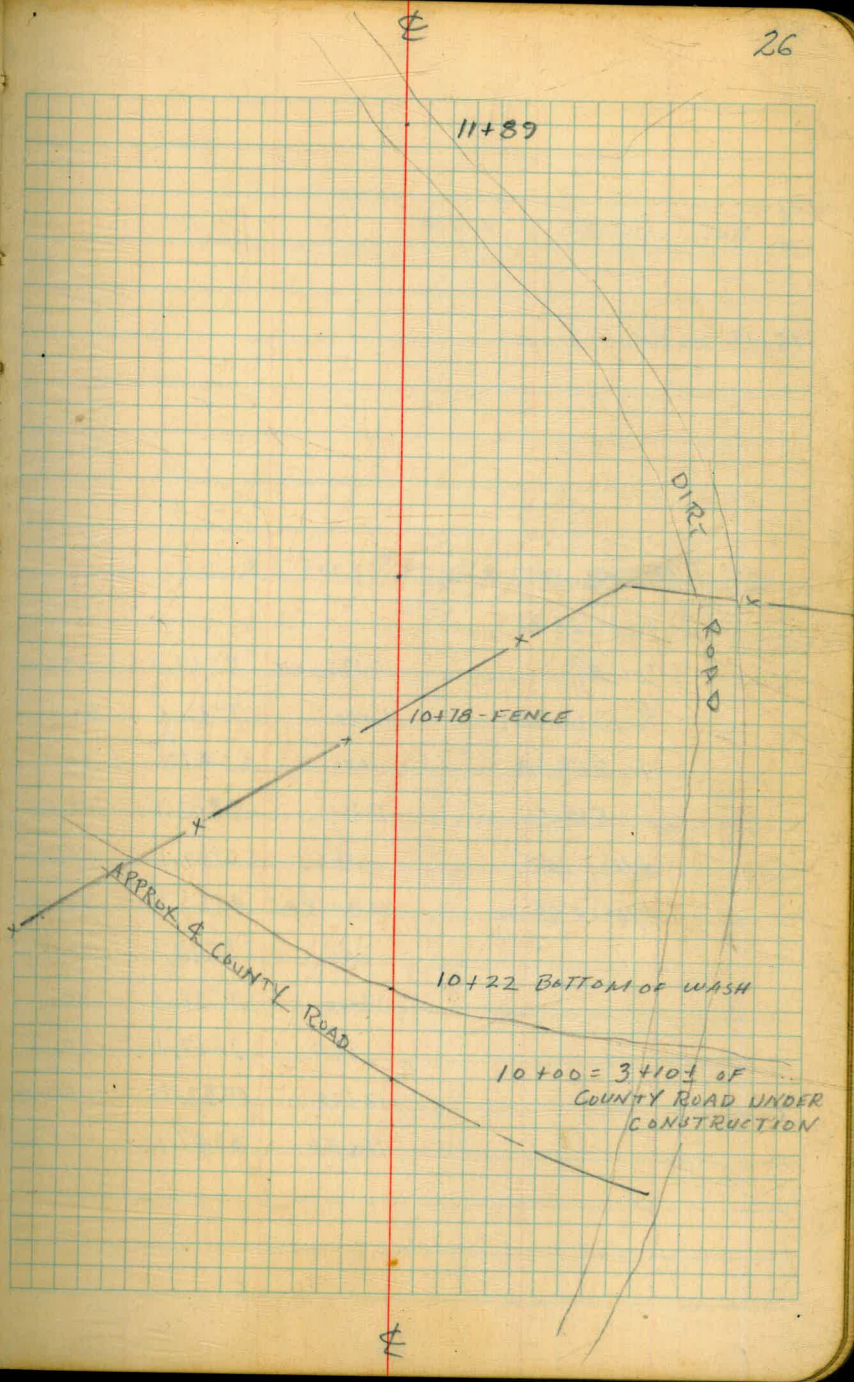
DEC. 14, 1945 25.

HILL
SOPER
WARD
PHILLIPS
LEONARD

NOTE.
SEE BOOK
755 PG 16



10+97.65 B.C.



16+13.20 E.C.

P.I. Sta. 13+57.03

$\Delta = 15^\circ 28' RT$

$D = 3^\circ$

$R = 1910.08$

$T = 259.38$

$L = 515.55$

$del' = 0.9'$

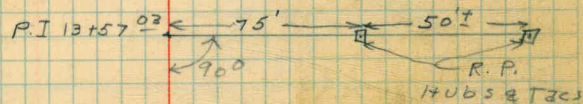
$del' 50' = 0^\circ 45.00$

16+13.20 E.C.	$7^\circ 44.0$	13.20
16+00	$7^\circ 32.1$	50.01
+50	$6^\circ 47.1$	50.00
15+00	$6^\circ 02.1$	50.00
+50	$5^\circ 17.1$	50.01
14+00 P.O.C.	$4^\circ 32.1$	50.00
+50	$3^\circ 47.1$	50.00
13+00	$3^\circ 02.1$	50.01
+50	$2^\circ 17.1$	50.00
12+00	$1^\circ 32.1$	50.00
11+50	$0^\circ 47.1$	52.56

£

27

-16+24 - £ PRIVATE ROAD 10'



£

Property 71E E

3-14-46

Nelson T Rice

Leahard Rice

Rainy (Weather)

Dec. 15, 1945 28.

HILL
50 FEET
WARD
PHILLIPS
LEONARD

GERTRUDE
MUNROE
TRACT

2 1

M&P
N 2° 21' W

20' ALLEY
436.58'

Iron
PIN
Ed

Ed.
Iron PIN 20 + 67.95
on center line

64° 20'

19485

DIRT ROAD 10'

D
O
V
D

E

20 + 03.058.6.

20 + 03.05
1 45.17
21 + 48.22

22+87.05 EC.

 $\Delta = 28^\circ 24' \text{ RT}$ $D = 10^\circ$ $R = 573.69$ $T = 145.17$ $L = 284.00$ $\text{defl} = 3.0$ $\text{defl} = 2^\circ 30'$ 22+87.05 EC. $14^\circ 12.0$ 37.09+50 $12^\circ 20.8$ 50.0522+00 $9^\circ 50.8$ 50.05+50 $7^\circ 20.8$ 50.0521+00 $4^\circ 50.8$ 50.0520+50 $2^\circ 20.8$ 46.99

65.46

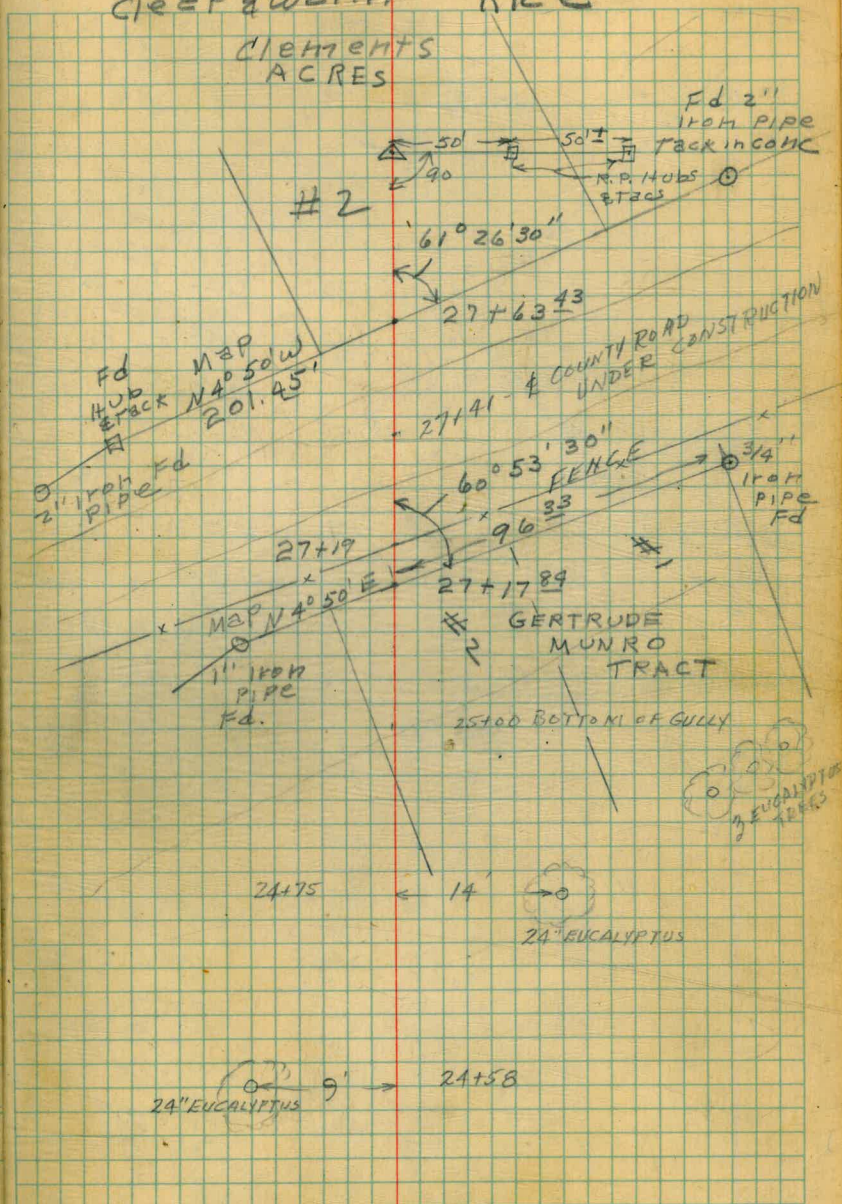
3.

 $\frac{196.58}{3^\circ 16' 24''}$ THE P.I. OF THIS CURVE
= PT #1 - R1
OR IS IT?P.I. 21798²²

28+45.80 P.O.T. (OLD LATH MARKED PT 5 R-1)

PROPERTY TIES Nelson & Leonard
3-15-96
Crest & Warren RICE

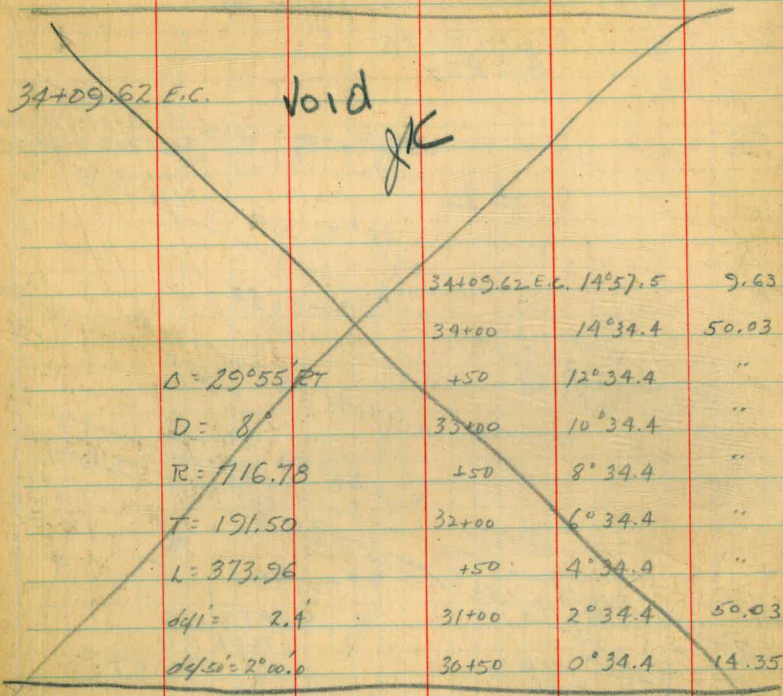
CLEMENTS
ACRES



24'' EUCALYPTUS 9' → 24+58

24'' EUCALYPTUS

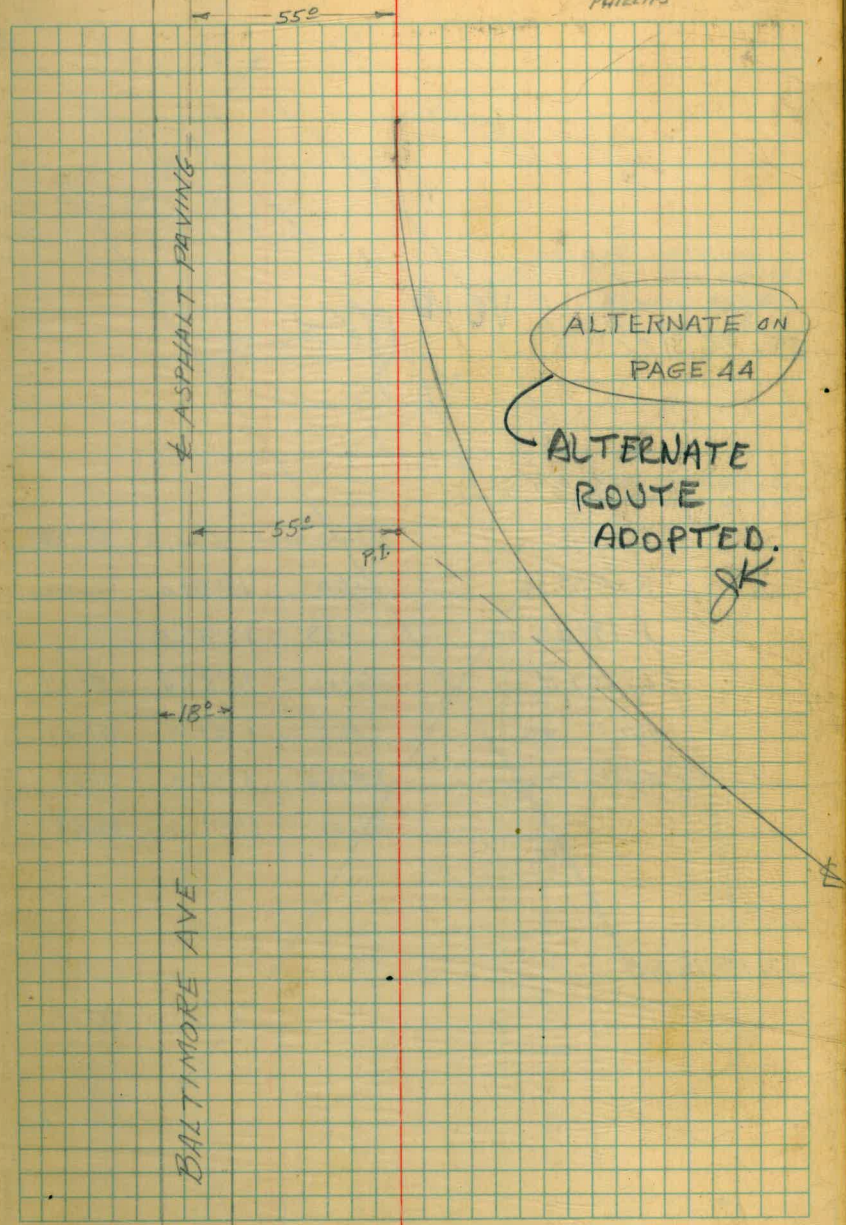
⊕



$\Delta = 29^{\circ}55'21''$
 $D = 8'$
 $R = 1116.78$
 $T = 191.50$
 $L = 373.96$
 $dq_1 = 2.1$
 $dq_2 = 2^{\circ}00.0$

CONT P. 44 JK

30+35.66 B.C.



ALTERNATE ON
 PAGE 44

ALTERNATE
 ROUTE
 ADOPTED.
 JK

ASPHALT PAVING

BALTIMORE AVE.

55'

18°

P.T.

~~39+86.31 E.C.~~

VOID JK

$\Delta = 32^{\circ}03'30''$ LT

D = 120

R = 478.34

T = 137.43

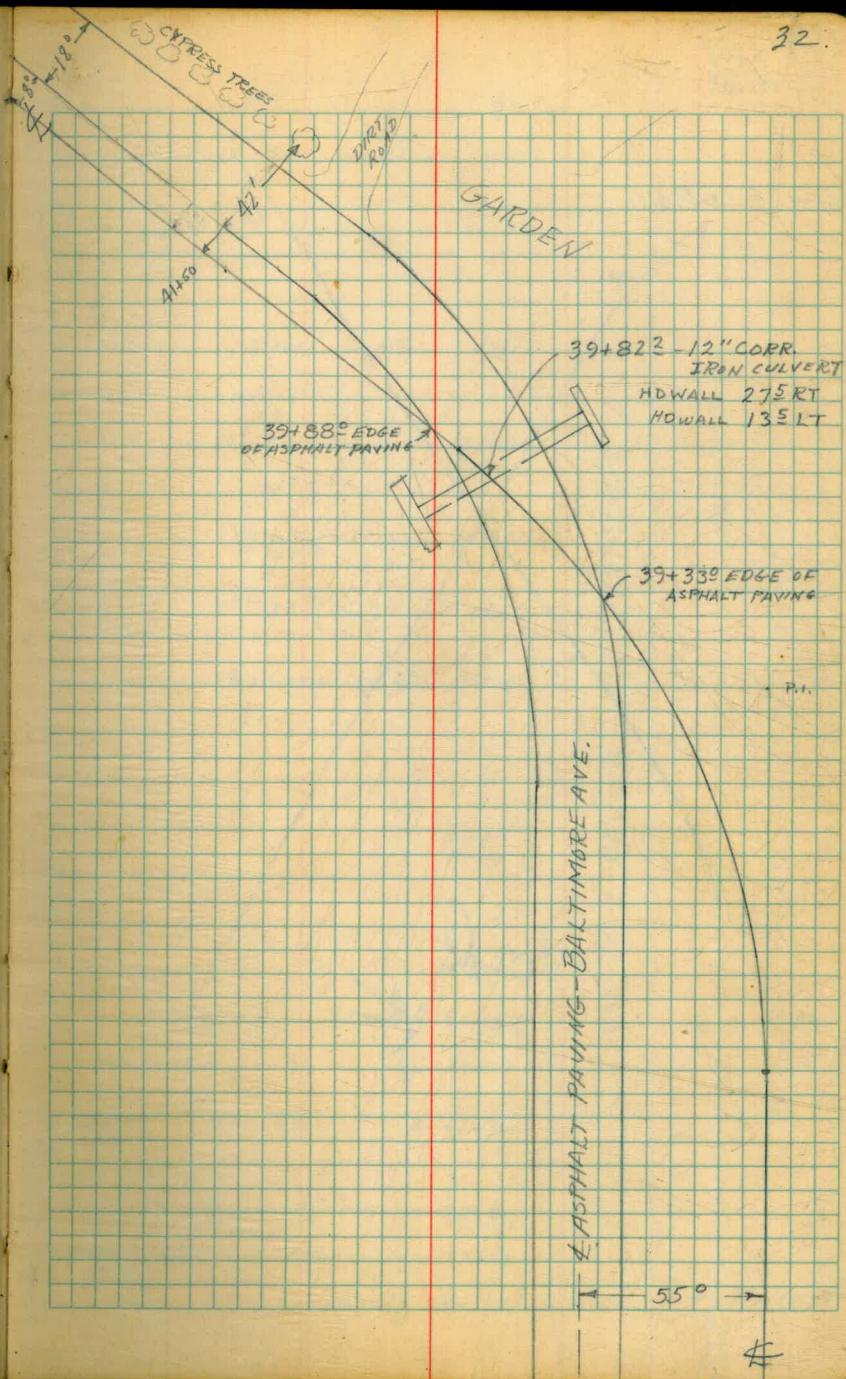
L = 267.15

def 1' = 3.6

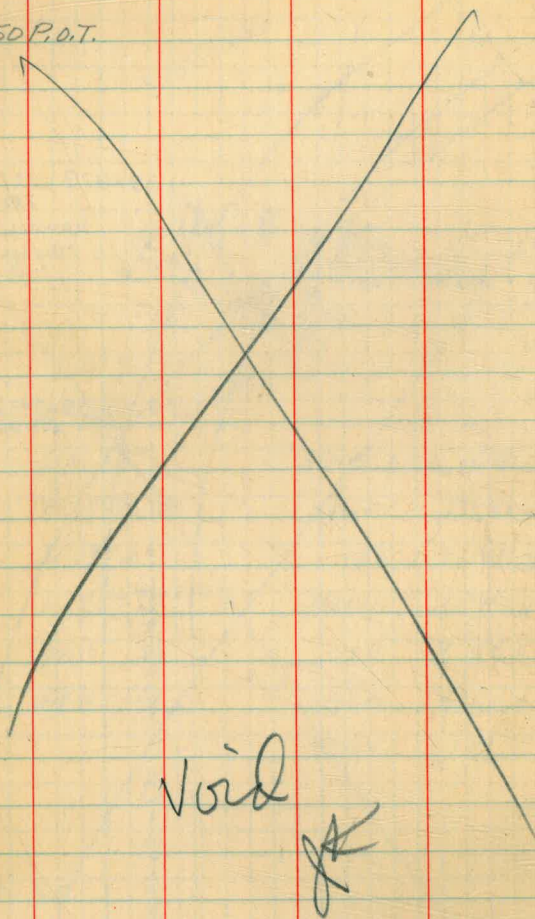
def 50' = 3'00"

39+86.31 E.C.	16°01.75	36.36
450	13°51.0	50.07
+33	12°45.9	
39+00	10°51.0	50.07
450	7°51.0	50.07
38+00	4°51.0	50.07
37+50	1°51.0	30.89

37+19.16 B.C.



44+28.50 P.O.T.

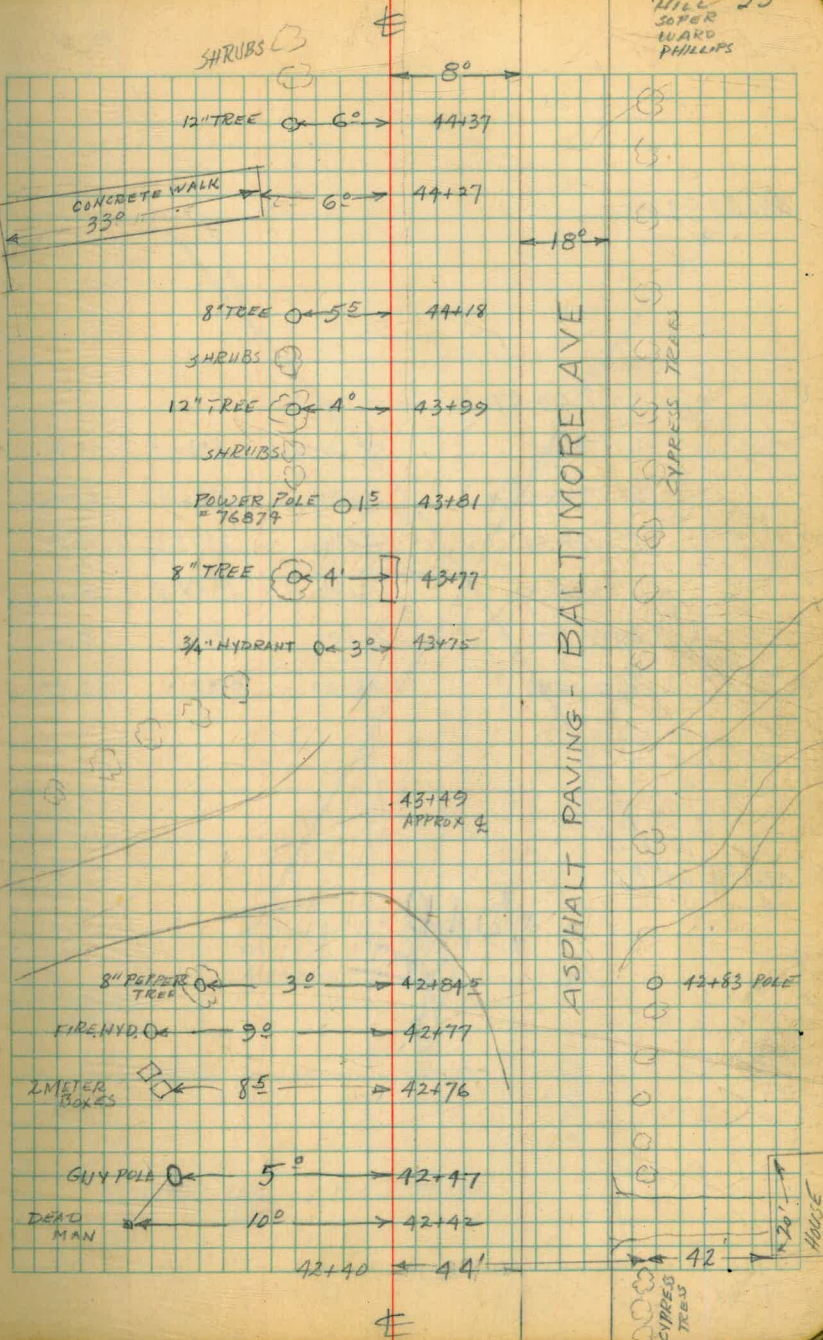


Void

[Signature]

400 SEE

Dec. 18, 1941
MILL
SOPER
WARD
PHILLIPS 33



47+62.95 E.C.

$\Delta = 7^{\circ}09' LT$

$D = 3^{\circ}$

$R = 1910.08$

$T = 119.37$

$L = 238.33$

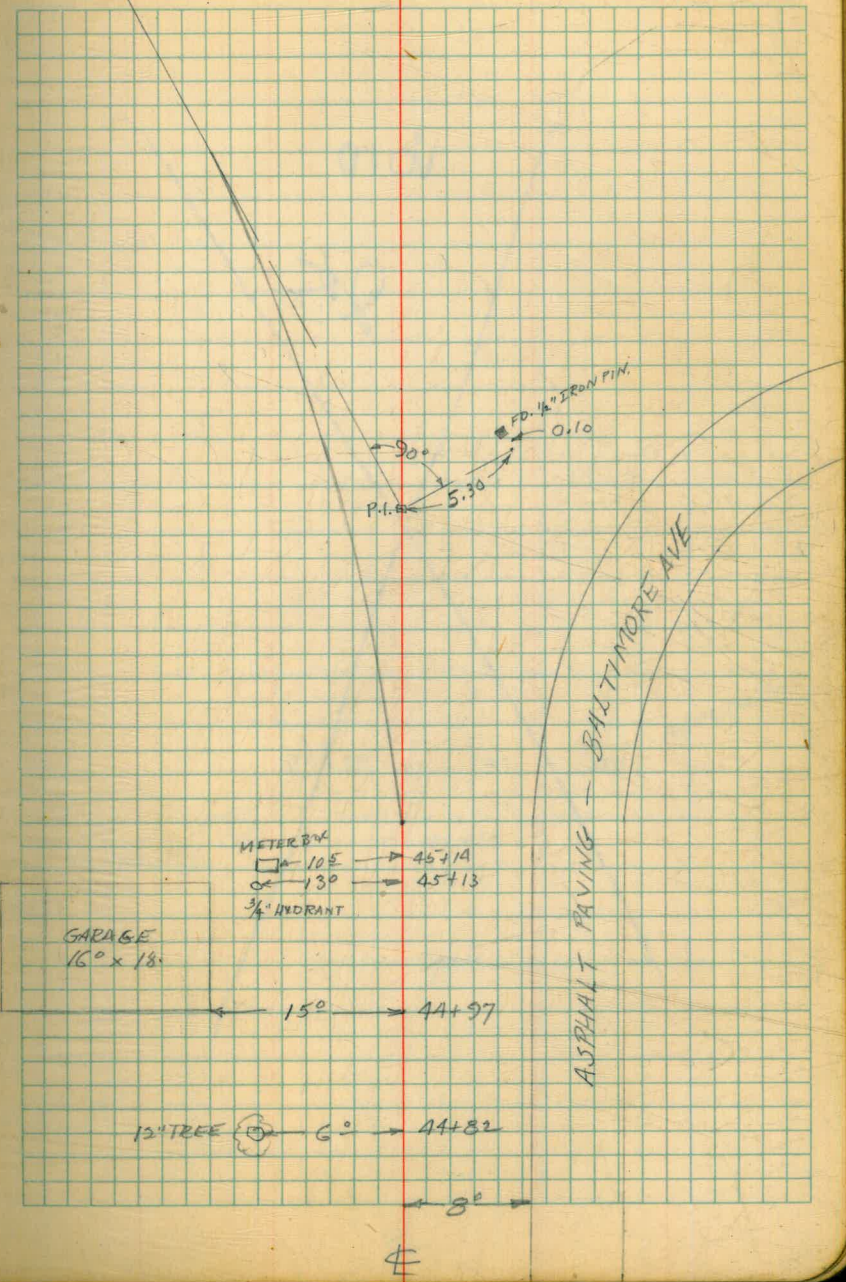
def. 1' = .9

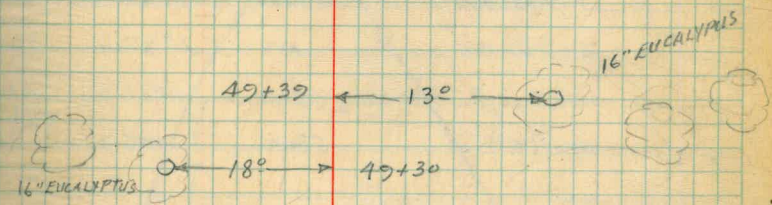
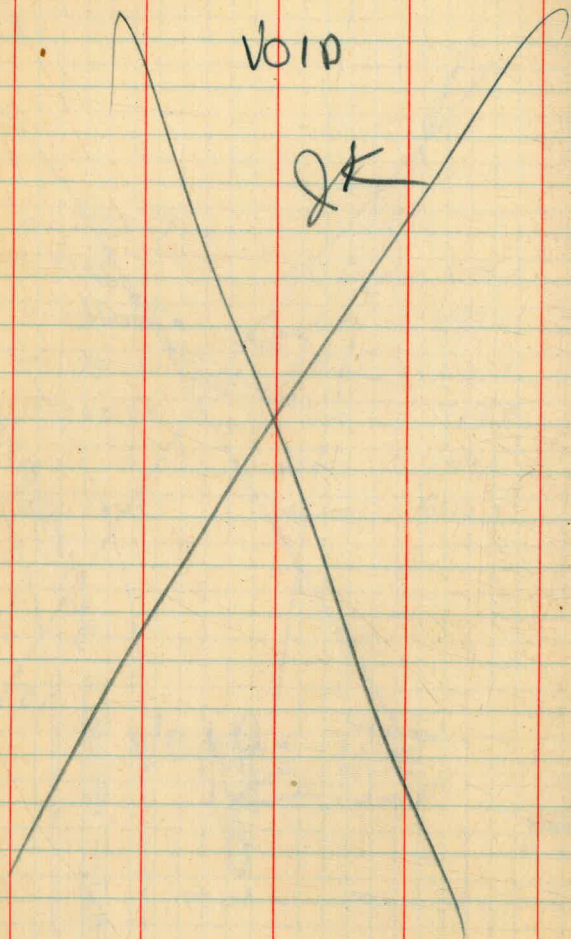
def. 50' = 0.45.0

47+62.95 E.C.	$3^{\circ}34.5$	12.95
+50	$3^{\circ}22.8$	50.00
47+00	$2^{\circ}37.8$	50.01
+50	$1^{\circ}52.8$	50.00
46+00	$1^{\circ}07.8$	50.00
45+50	$0^{\circ}22.8$	25.36

45+24.62 B.C.

VOID





48+90 - BOTTOM OF DRAW

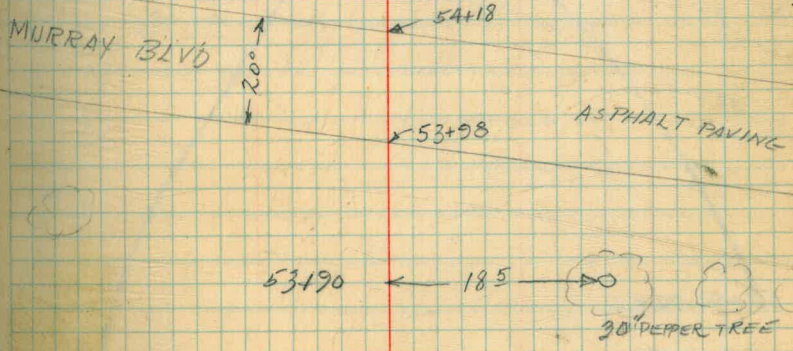
⊕

56+93.26 E.C.

VOID
JK

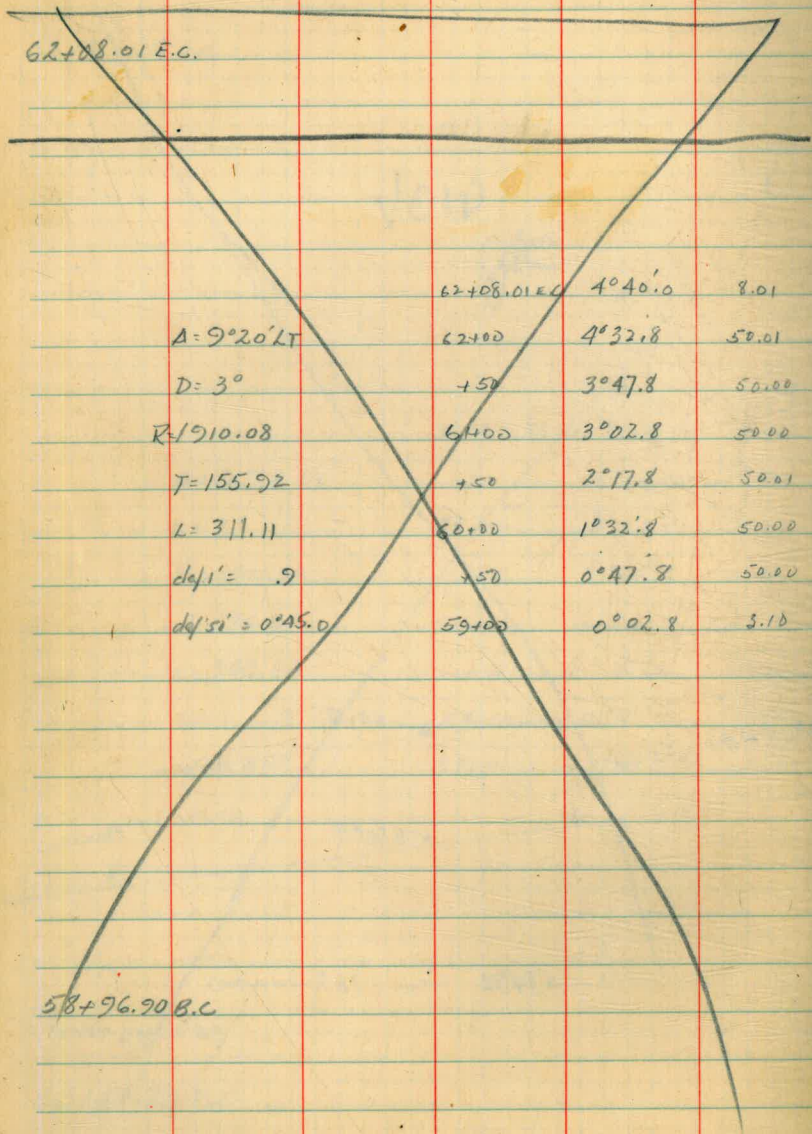
	56+93.26	5°14.0	43.26
A = 10°28 LT	+50	4°35.0	50.01
D = 3°	56400	3°50.0	50.00
R = 1910.08	+50	3°05.0	50.00
T = 174.94	55+00	2°20.0	50.01
L = 348.88	+50	1°35.0	50.00
def = .9	54400	0°50.0	50.00
Adj. = 0°45.0	53150	0°05.0	5.62

53+44.38 B.C.



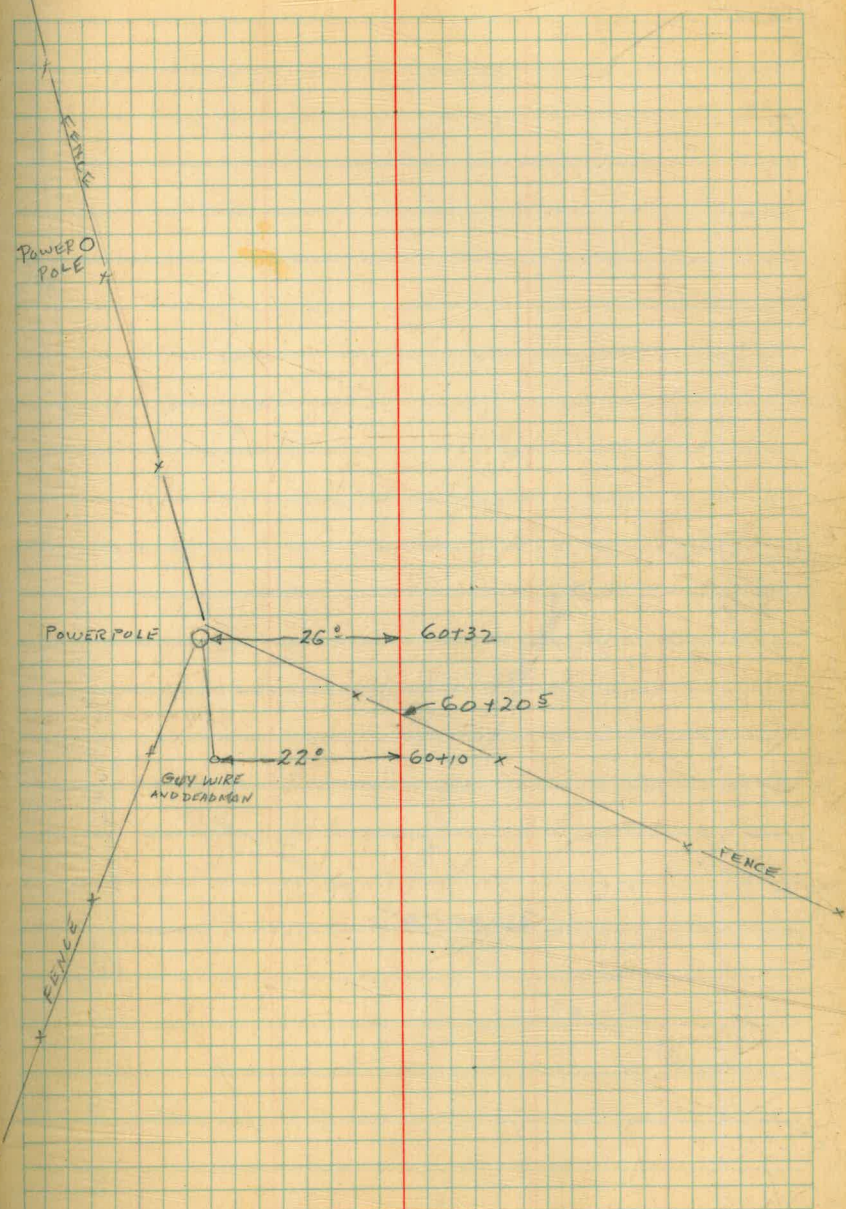
⊕

62+08.01 E.C.



	62+08.01 E.C.	4°40'.0	8.01
A = 9°20' LT	62+00	4°32.8	50.01
D = 3°	+50	3°47.8	50.00
R = 1910.08	64+00	3°02.8	50.00
T = 155.92	+50	2°17.8	50.01
L = 311.11	60+00	1°32.8	50.00
defl' = .9	+50	0°47.8	50.00
def'si = 0°45.0	59+00	0°02.8	5.10

58+96.90 B.C.



POWER POLE

POWER POLE

GUY WIRE AND DEADMAN

26°

22°

60+32

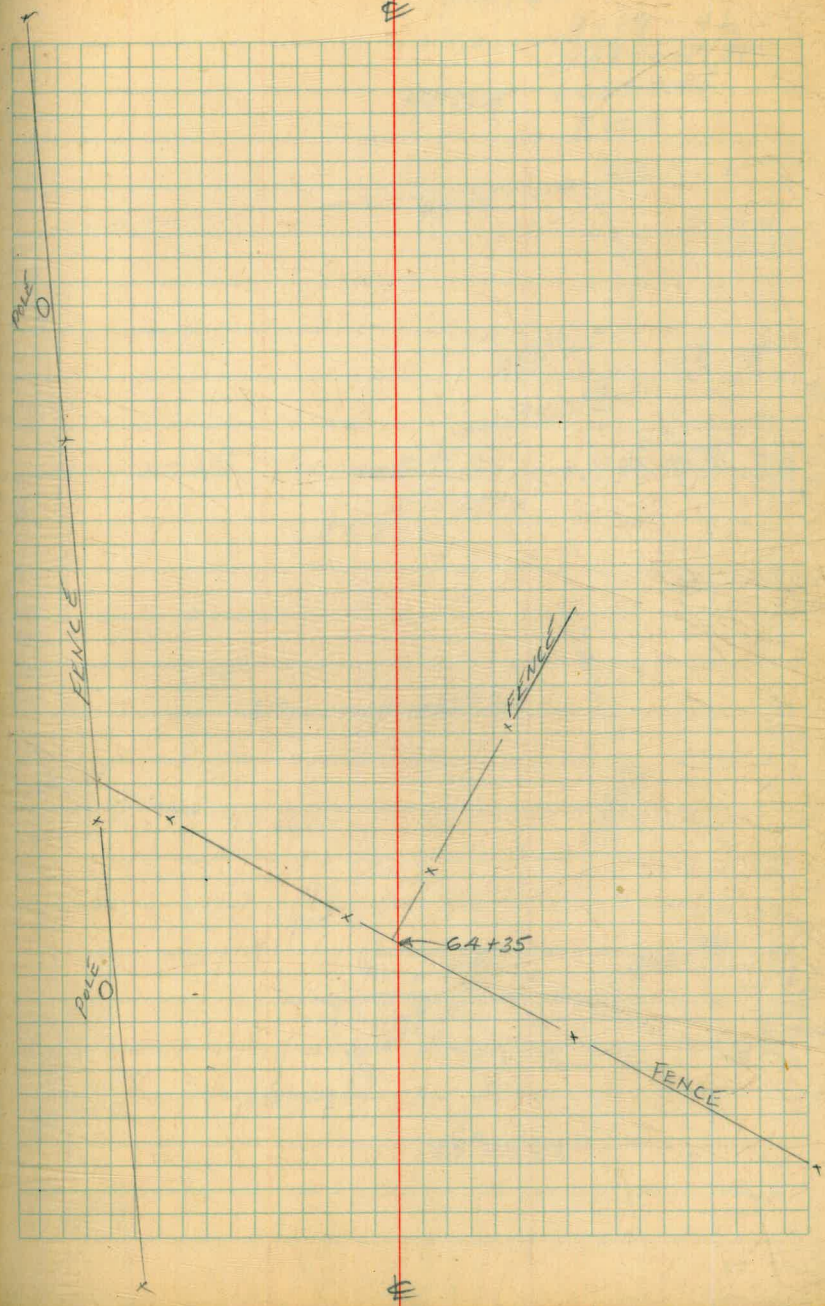
60+205

60+10

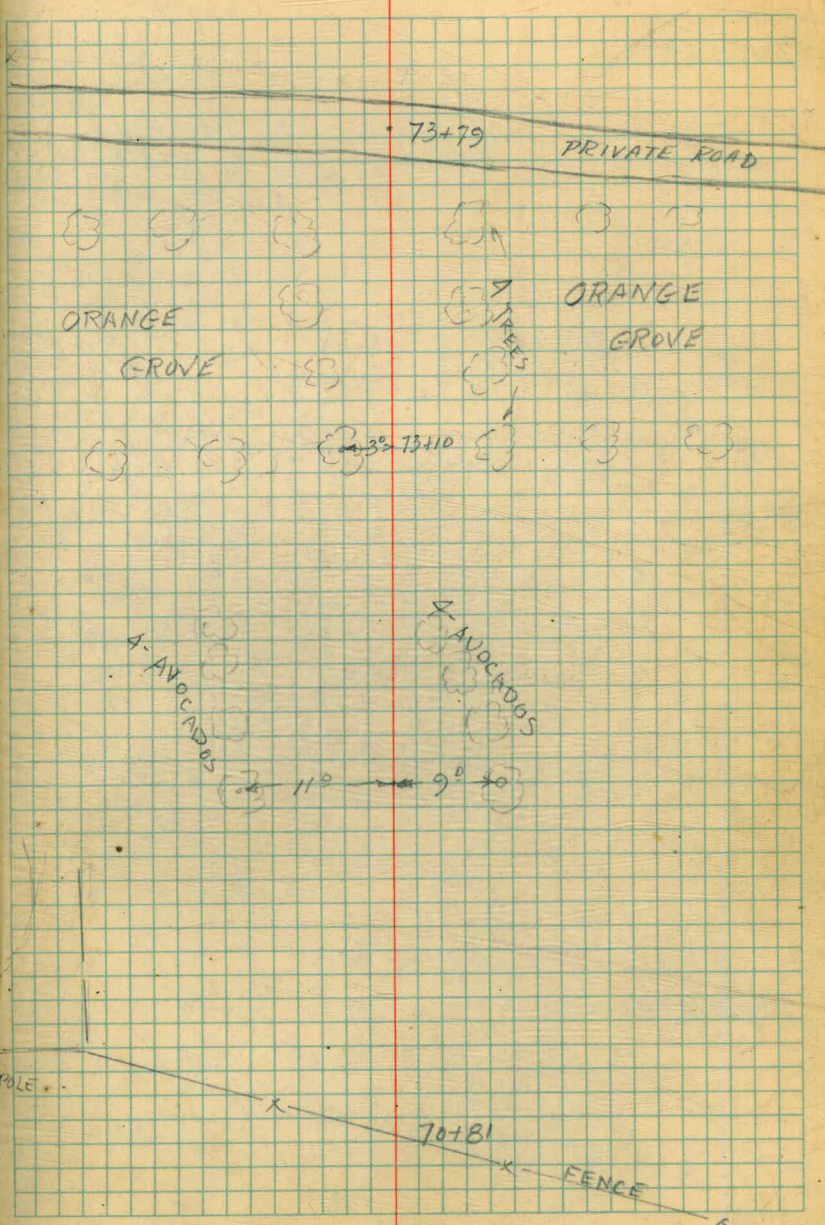
FENCE

FENCE

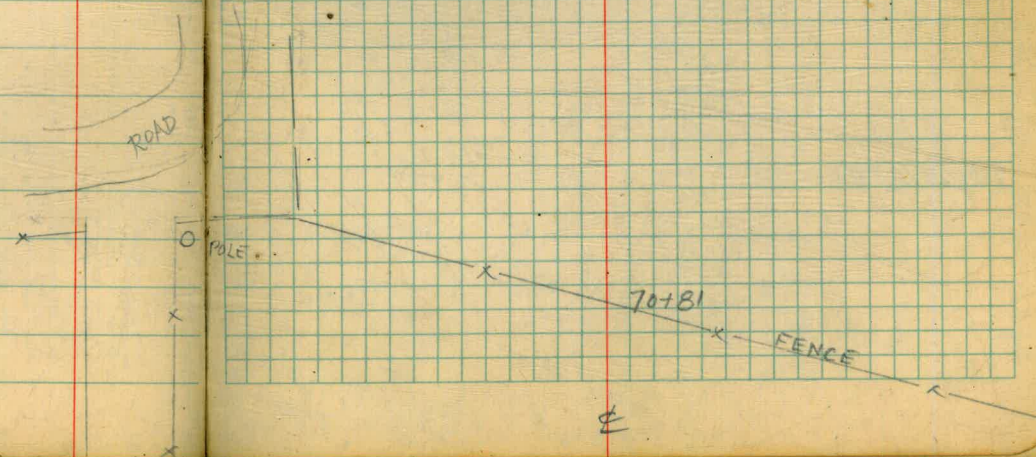
FENCE



E



72+18.47 P.O.T.



E

76+58.64 E.C.

$A = 30^{\circ} 23' LT$

$D = 12^{\circ}$

$R = 478.34$

$T = 129.88$

$L = 253.19$

$del' = 3.6$

$del_{50} = 3^{\circ} 00.0$

76+58.64 E.C. $15^{\circ} 11.5$ 8.65

+50 $14^{\circ} 40.4$ 50.07

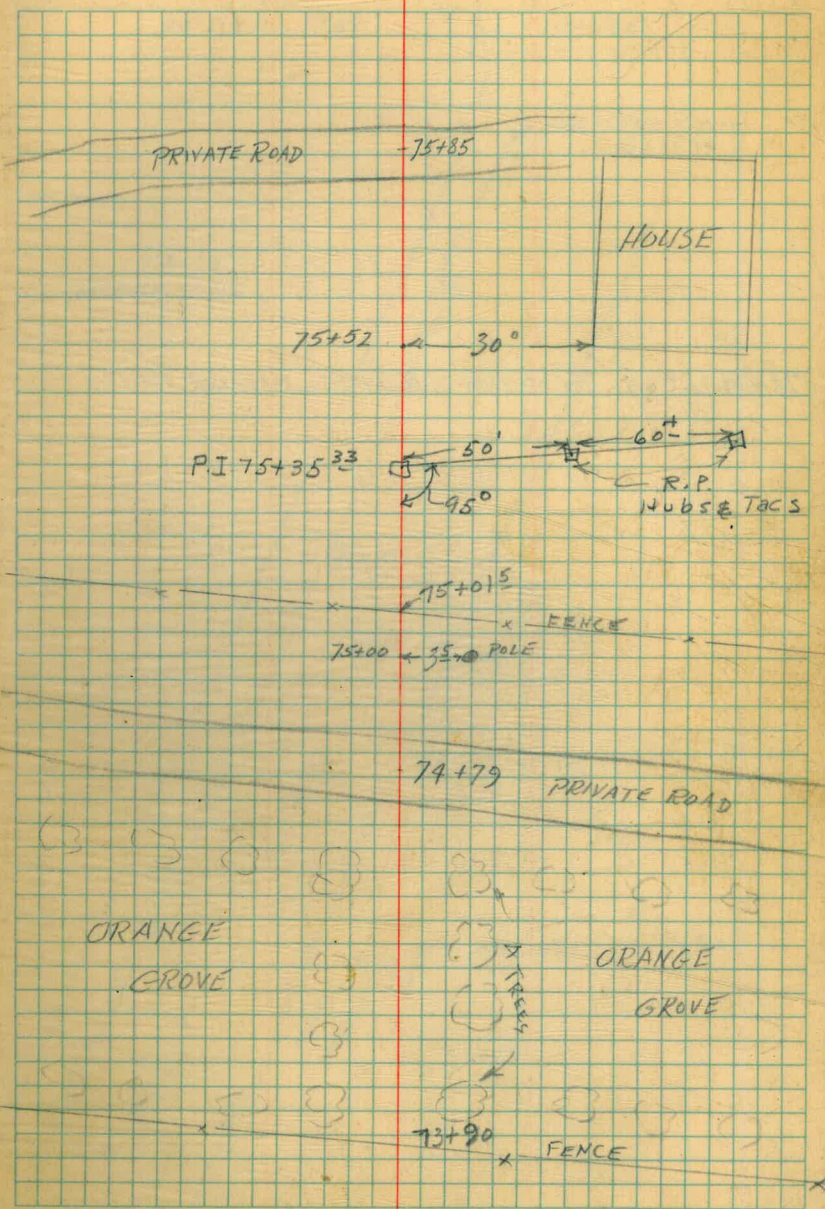
76+00 $11^{\circ} 40.4$ 50.07

+50 $8^{\circ} 40.4$ 50.07

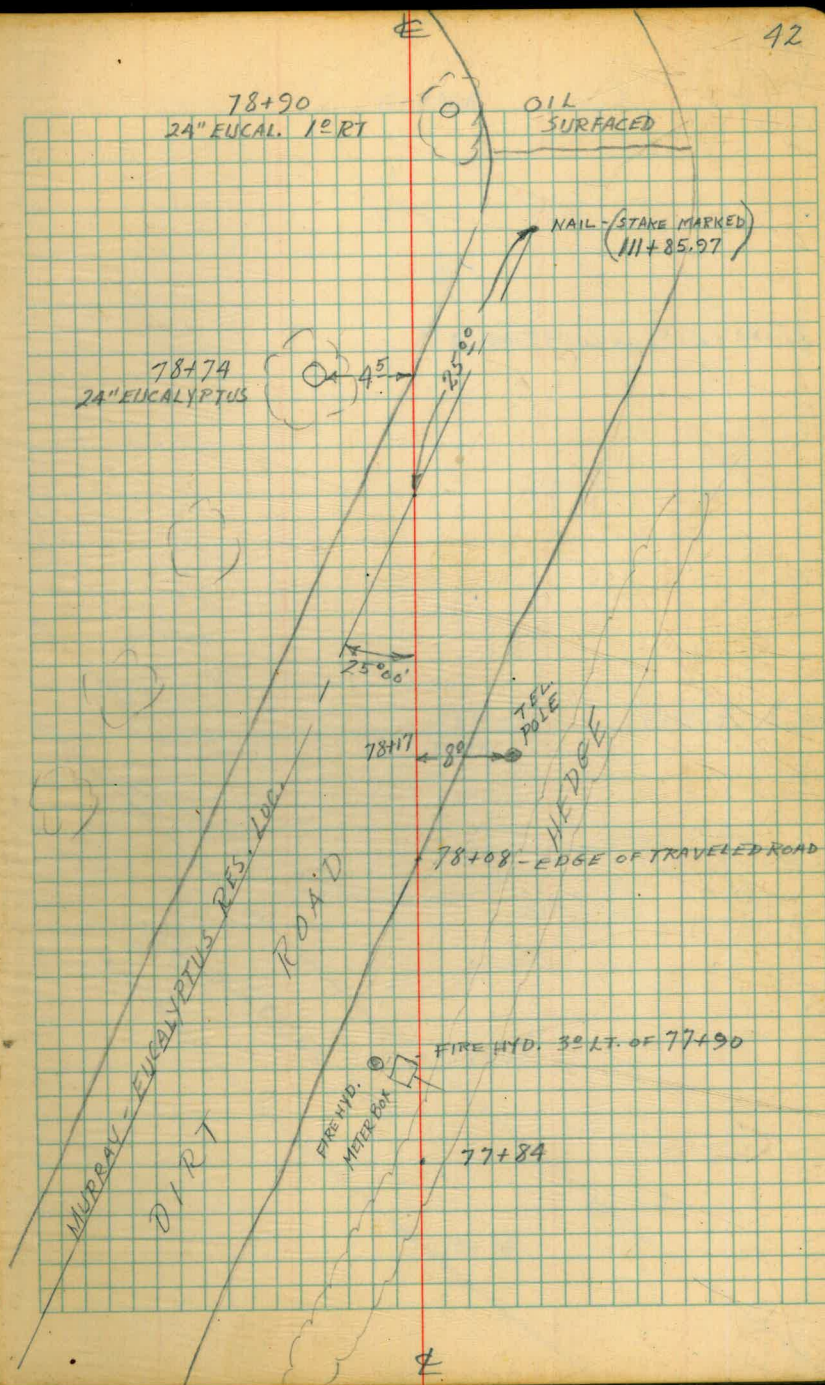
75+00 $5^{\circ} 40.4$ 50.07

74+50 $2^{\circ} 40.4$ 44.61

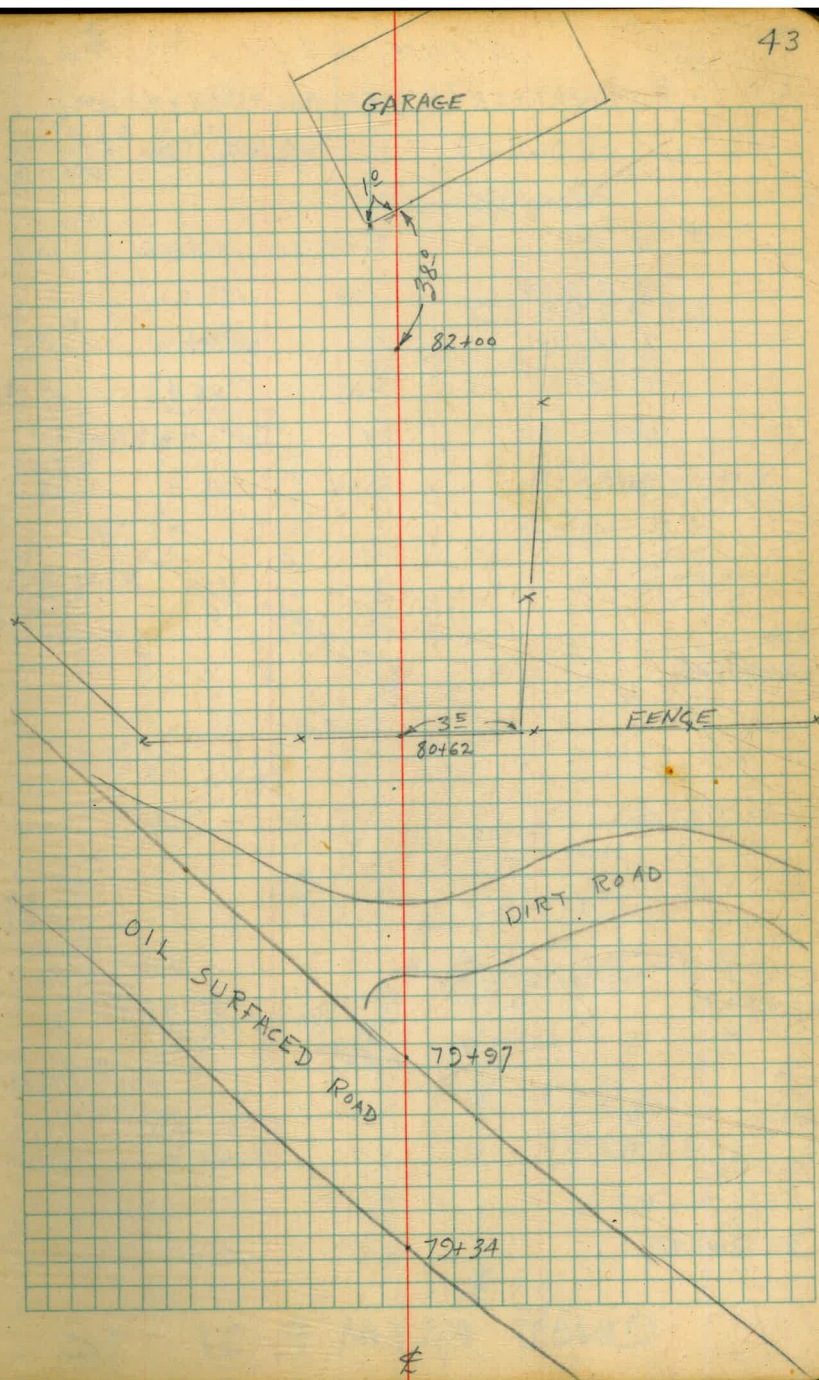
74+05.45 B.C.



78+64.70 P.O.T. ON MURRAY-EUCALYPTUS PIPELINE LOG.



82+00 - END OF LOCATION

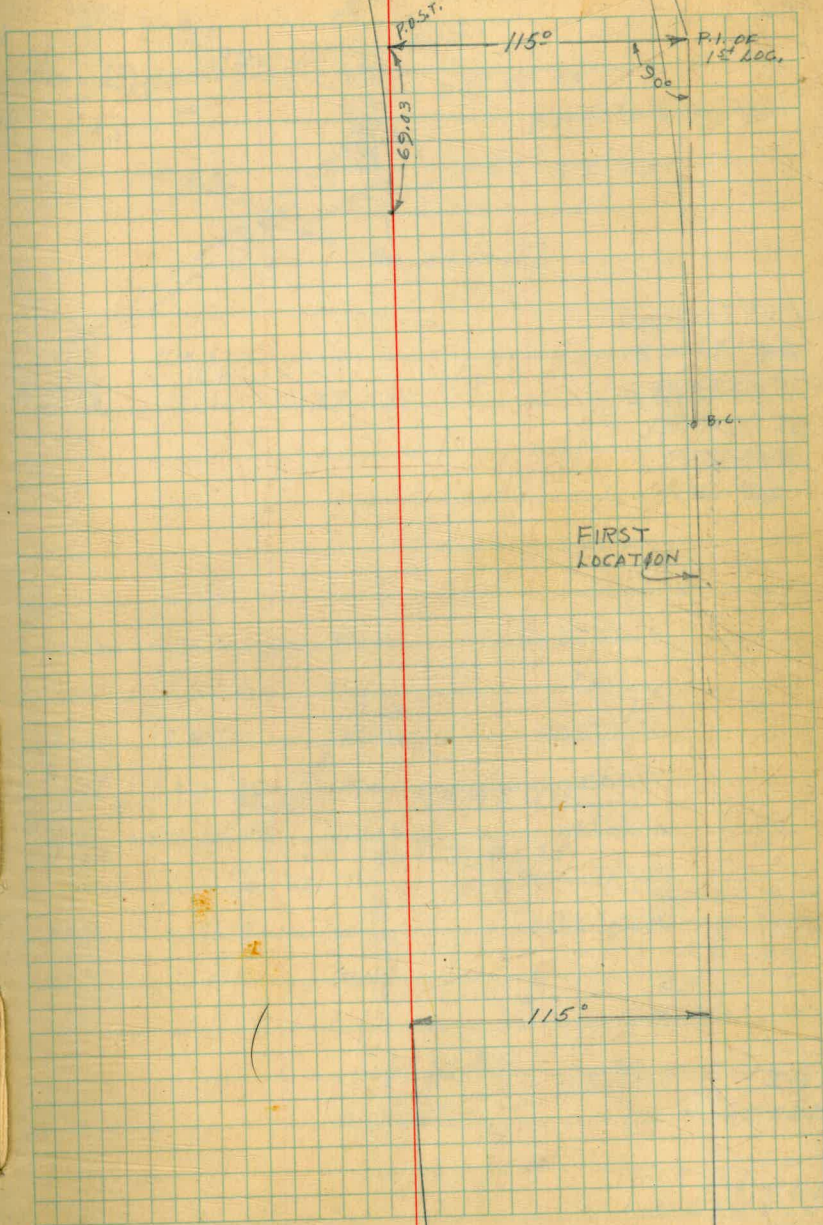


38+21.238.L.

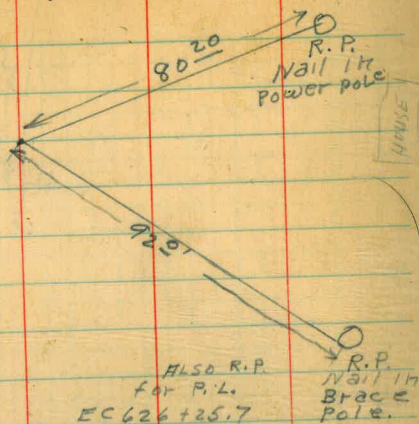
35+79.18 E.C.

DEC. 26, 1945
SOPEL
WADELL
PHILLIPS

45



42+09.00 P.O.T.

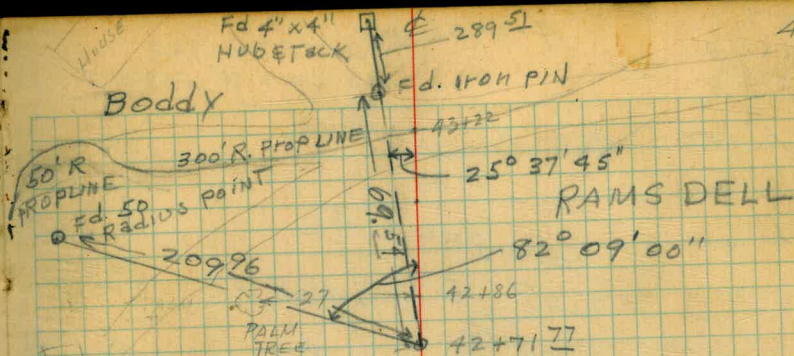


41+84.23 E.C.

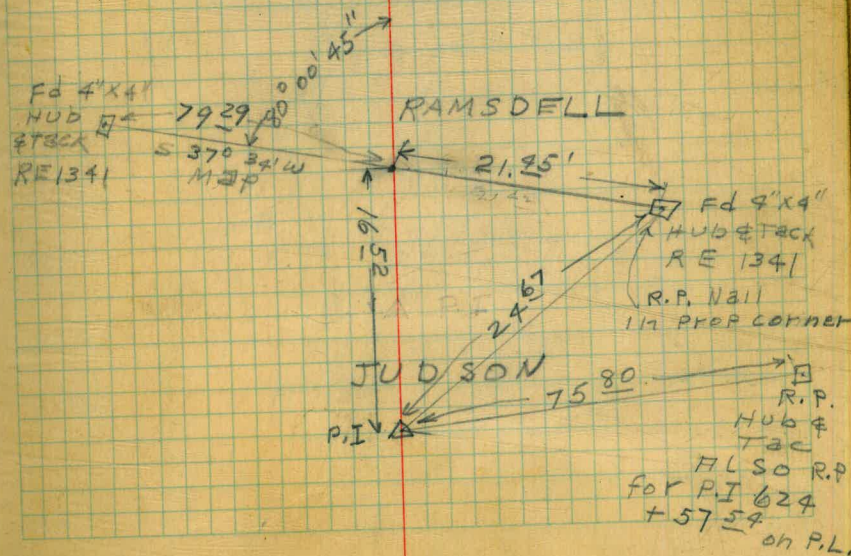
$\Delta = 36^{\circ}18'47''$	41+84.23 E.C.	$18^{\circ}09.0$	34.26
$D = 10^{\circ}$	+50	$16^{\circ}26.3$	50.05
$R = 573.69$	41+00	$13^{\circ}56.3$	50.05
$T = 188.07$	+50	$11^{\circ}26.3$	50.05
$L = 363.00$	40+00	$8^{\circ}56.3$ P.O.C.	50.05
def. 1 = 3.0	+50	$6^{\circ}26.3$	50.05
def. 50 = $2^{\circ}30.0$	39+00	$3^{\circ}56.3$	50.05
	38+50	$1^{\circ}26.3$	28.80

P.I
40+09.30

46.



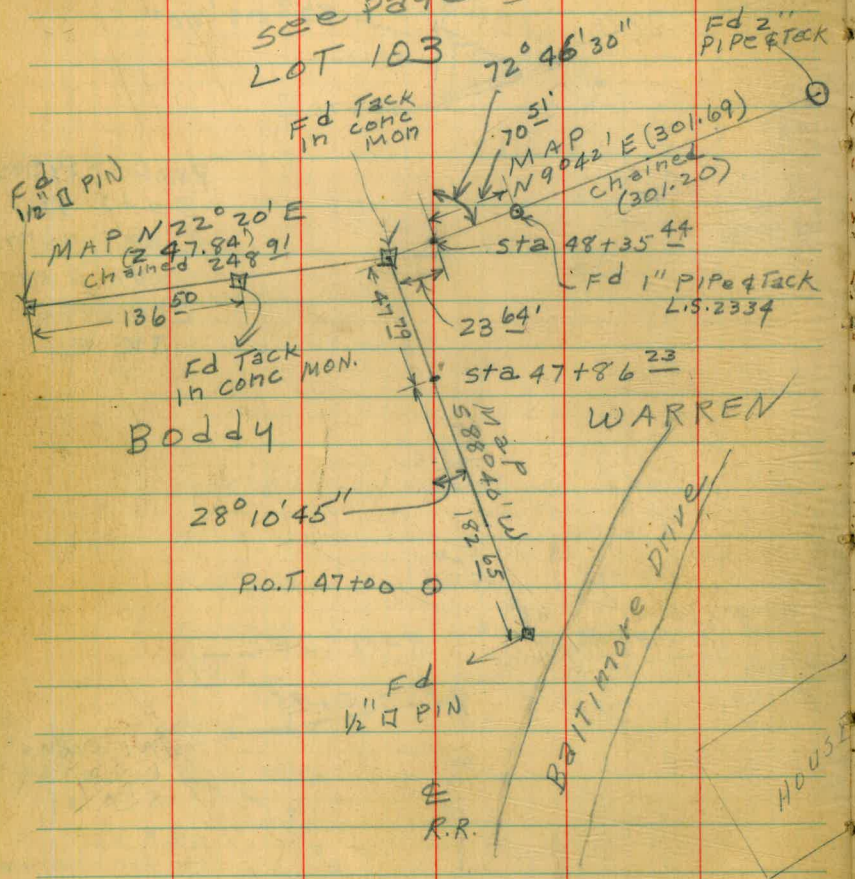
Properties
3-15-46
Clear-watm
Nelson T
Leonard
Rice



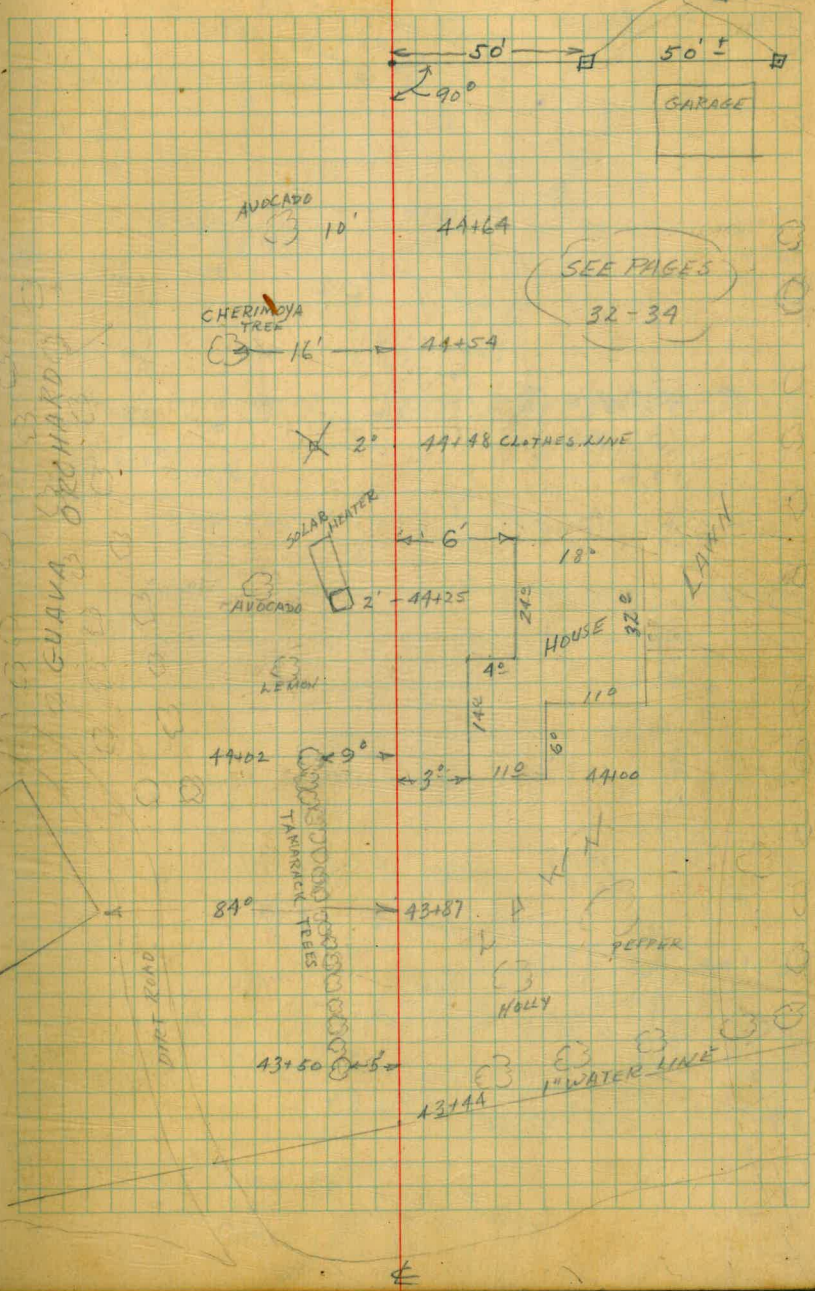
4-4-46 PROPERTY TIE
 Nelson T Notes
 Leonard
 Rice

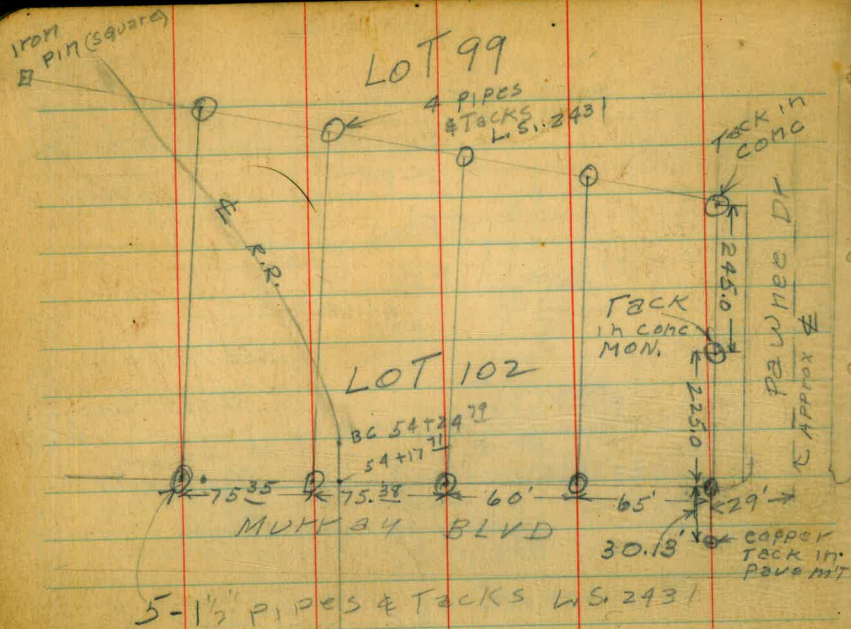
47400 P.O.T.

see page 48
 LOT 103



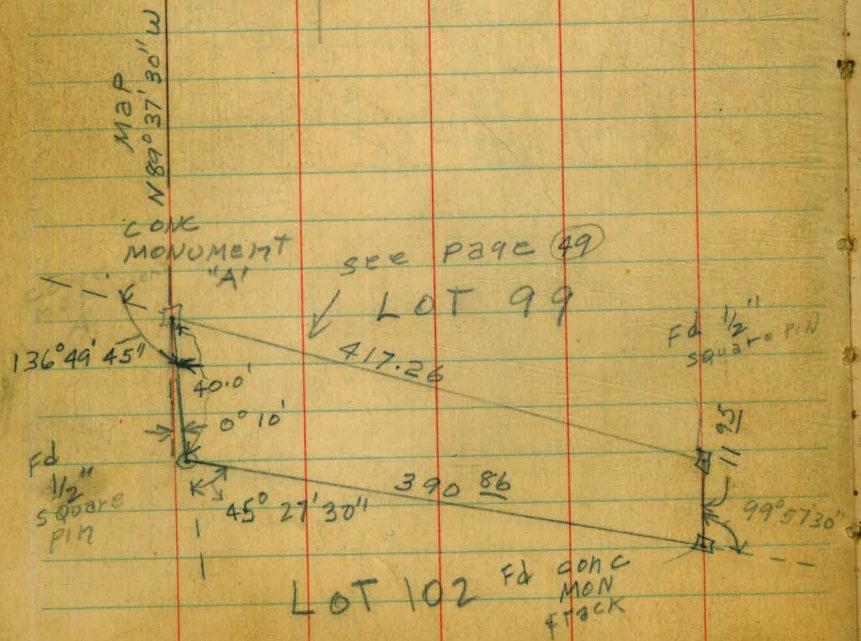
47.
 R.R. HUBS & TACKS



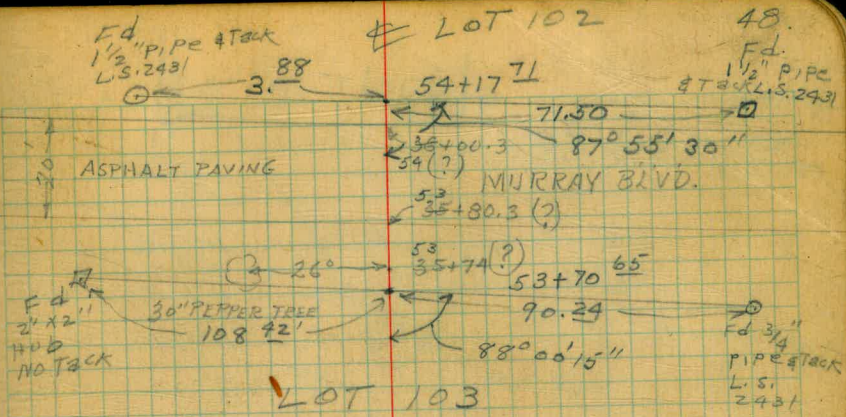


5-1/2" PIPES & TACKS L.S. 2431

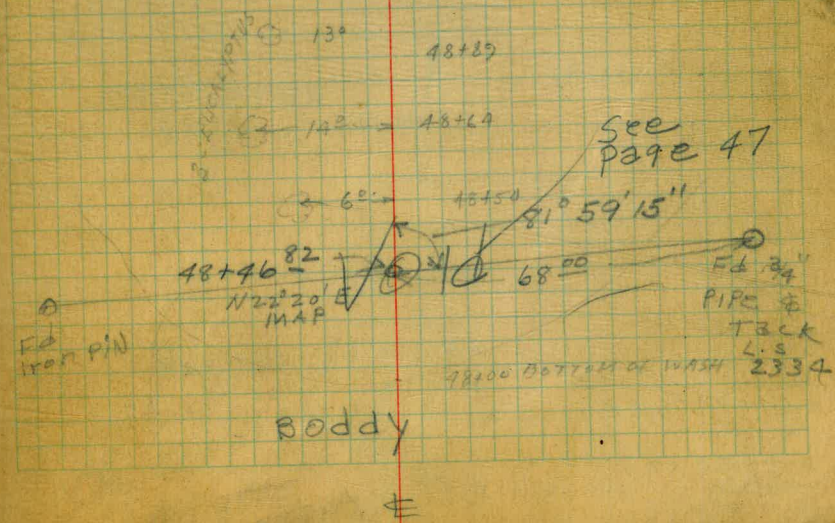
COPPER TACK IN PAVEMENT



LOT 102 Fd CONC MON TACK



Property Ties
3-18-46
NELSON &
LEONARD
RICE
Clear width



Boddy

CONT P. 38

62+09.71 P.O.T. (AHEAD)
61+82.01 E.C. (BACK)

gic

61+82.01 E.C.	11°21.50	32.01
+50	10°52.7	50.00
61+00	10°07.7	50.00
+50	9°22.7	50.01
60+00	8°37.7	50.00
+50	7°52.7	50.00
59+00	7°07.7	50.01
+50 P.O.C.	6°22.7	50.00
58+00	5°37.7	50.00
+50	4°52.7	50.01
57+00	4°07.7	50.00
+50	3°22.7	50.00
56+00	2°37.7	50.01
+50	1°52.7	50.00
55+00	1°07.7	50.00
54+50	0°22.7	25.21

$\Delta = 22^\circ 43' LT$

$D = 3^\circ$

$R = 1910.08$

$T = 383.70$

P.I. 58+08.49 $L = 757.22$

defl' = .9

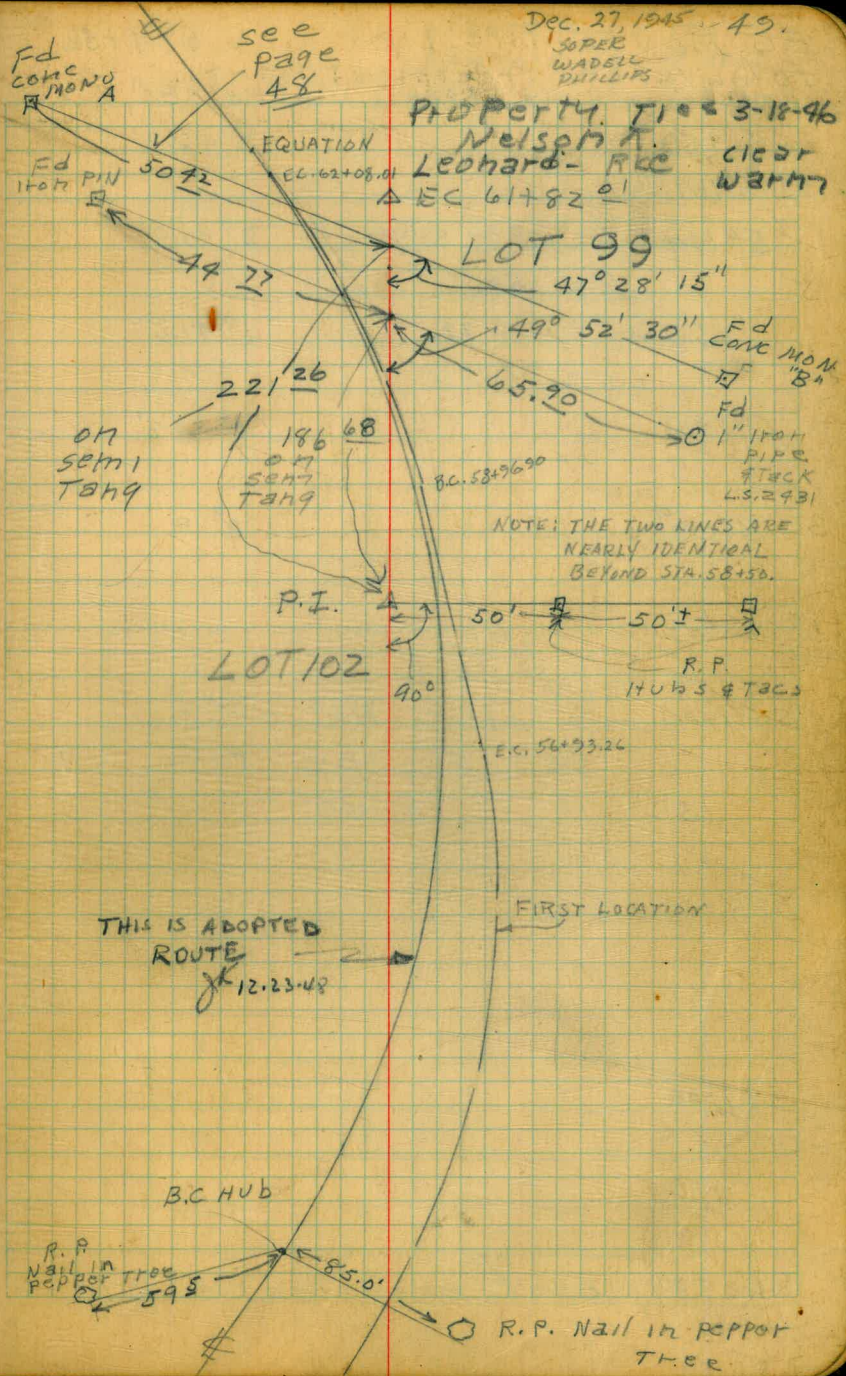
defl 5' = 0°45.0

Should be 54+27.79
3' error in Length
Nelson 1-21-47

54+24.79 B.C.

Dec. 27, 1945 - 49.

SUPER
WADSWELL
PHILLIPS



EL MONTE PIPE LINE STA 589+56⁰⁰
TO ALVARADO TREATMENT PLANT "S"
SOUTHERN LINE. STAKES MARKED "S"

+50

3° 42.2'

P.I. 591+19.80

591+00 $A = 12^{\circ} 27' 30''$ RT

2° 44.9'

$R = 1500'$

+50 ST. = 163.72

1° 47.6'

L.C. = 326.16

590+00

0° 50.3'

BC 589+56⁰⁰

0° 0'

+50

589+00

NOTE
"S" LINE NOT USED
SEE "F" LINE PAGE 69

+50

Nelson

588+00

+50

587+00

+50

586+00

cont. from page 8

2-14-46

Clear-Water

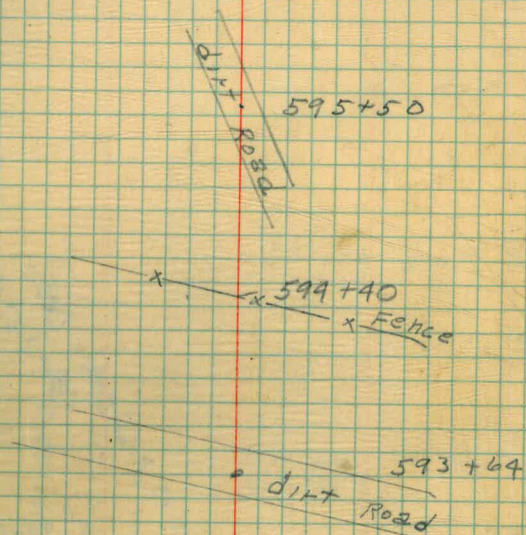
Nelson T & Notes 50

Leonard chair-head

RICE chain-tear

Note P.I. 591+19.80 = P.I. 7+65.46
on R.R. line page 25.
Same forward tangent
used to next P.I.

+50		$1^{\circ} 31.3'$
596+00		$0^{\circ} 39.0'$
86595+70 ³⁵		$0^{\circ} 0'$
+50		
595+00		
+50		
594+00		
+50		
593+00		
+50		
E.C. 592+82 ²⁴		$6^{\circ} 13.7'$
+50		$5^{\circ} 36.8'$
592+00	<	$4^{\circ} 39.5'$



Note E.C. sta 592+82²⁴
 = sta. 9+22.6 on RR
 line.

P.O.T 611+00

P.O.T 605+75 ⁷⁵

600+00

+50

599+00

MAG BEAR
S 89° 0' W

E.C. 598+62.26

+50

$\Delta = 110° 09'$ (LT)

598+00 R = 1500'

S.T. = 146.42

+50 L.C. = 291.91

P.I. 597+16.77

597+00

THIS IS RIGHT, NOT LEFT.
JK 227.46

5° 34.5'

5° 20.5'

4° 23.2'

3° 25.4'

2° 28.6'

• 609+92 = 6+97 Road Sta

fence — x — x — x — 609+69

← 607+90 dry creek

• 603+50 dirt road

• 599+83 dirt Road

69+609+00+65+85 69+69
light sage brush
heavy gravelly soil

Note P.I. sta. 597+16.77
= P.I. sta. 13+57.03 on
R.R. line

7/14/46

2-18-46

Clear-water

Nelson T. Notes 54
Leonard H. Chain
RICE R. Chain

P.O.T
638+1270

P.O.T
638+78³⁵

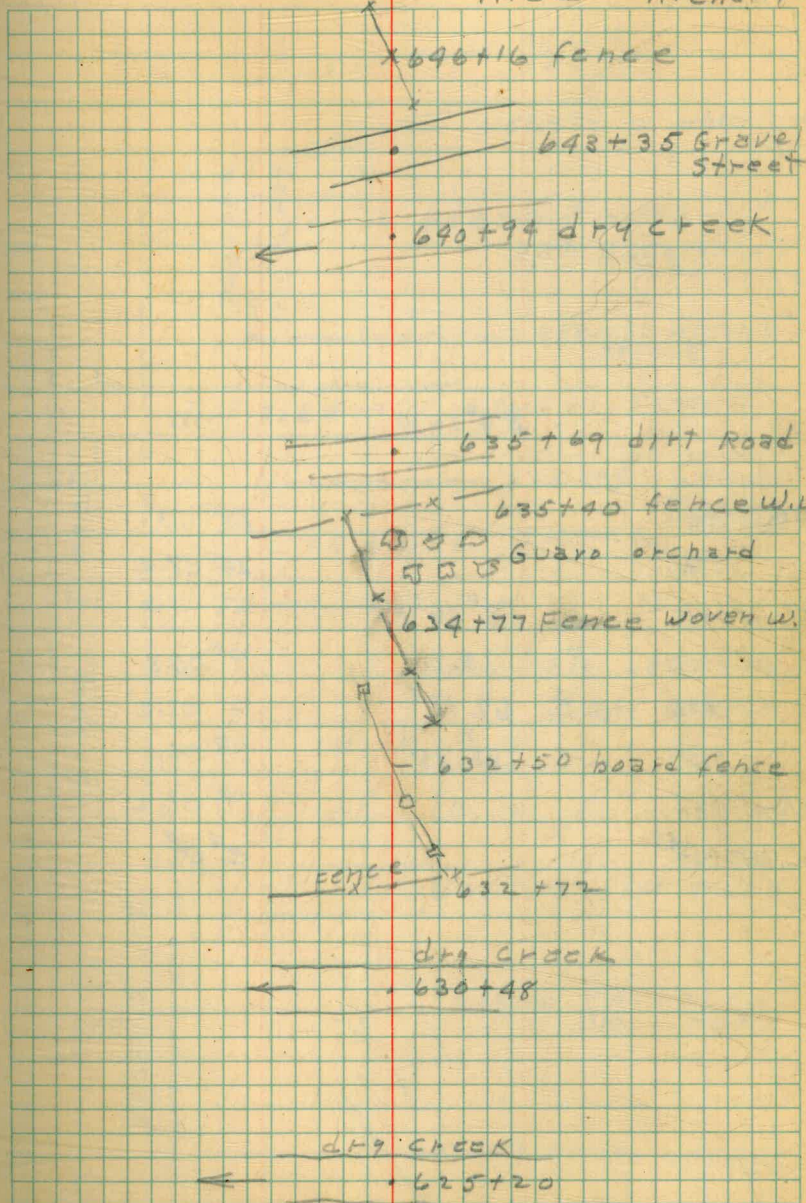
P.O.T
635+00

P.O.T
629+00

P.O.T
627+84¹⁷

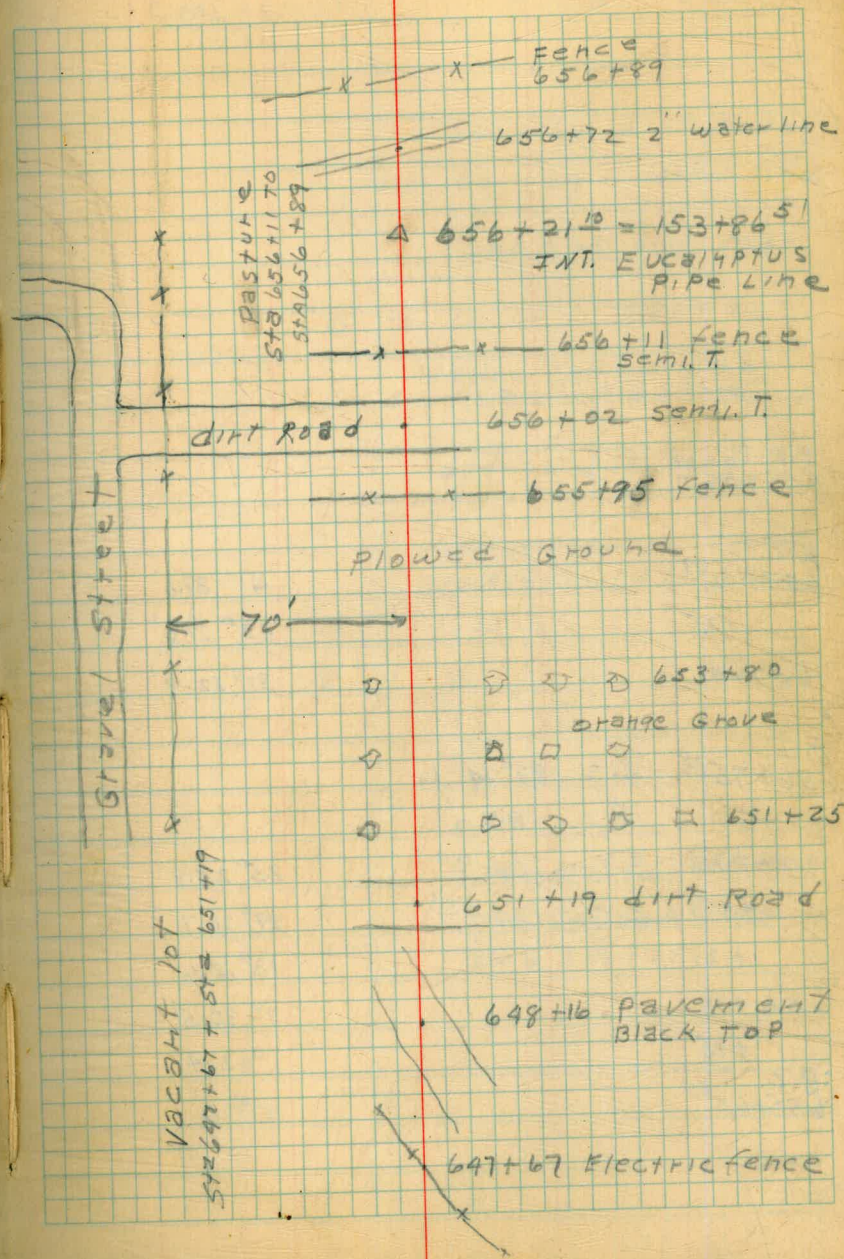
MAG BEAR

N 62° 30' W



EC. 651+42.77		29° 13'
+25		24° 58.4
P.I. 650+87.50	$\Delta = 58° 26' RT$	
651+00	$R = 120.0'$	19° 00.3'
+75	S.T. 67.11'	13° 02.2'
+50	L.C. 122.38'	7° 04.1'
+25		1° 06'
B.C. 650+20.39		0° 0'

N 4° 30' W



END P.O.T
664+68⁵²

P.O.T
662+87⁵⁵

P.O.T
662+67

E.C.
661+59⁶²

+50

+25

P.I.
661+05⁹¹

661+00

+75

+50

B.C.
660+49³²

$\Delta = 31^{\circ} 36' L$

$R = 200.0'$

S.T. = 56⁵⁹

L.C. = 110.30'

15° 48.0'

14° 25.2'

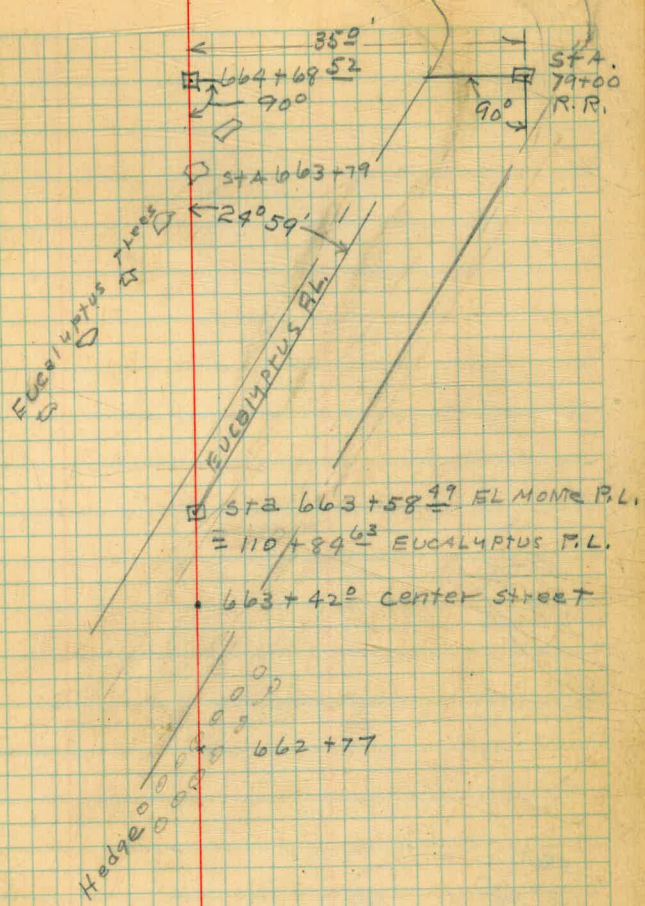
10° 50.4'

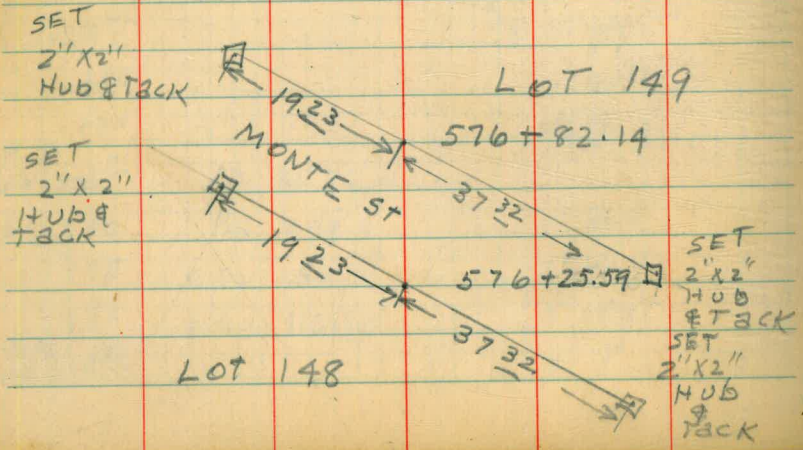
7° 15.5'

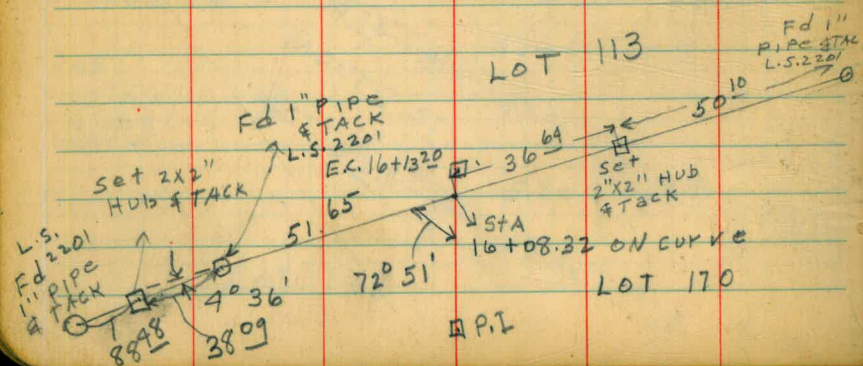
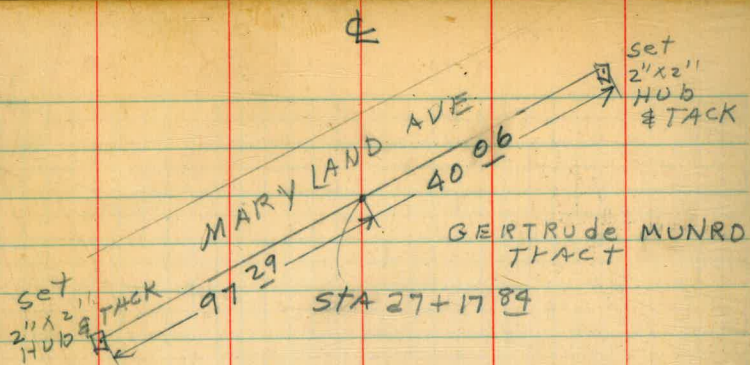
3° 40.7'

0° 05.8'

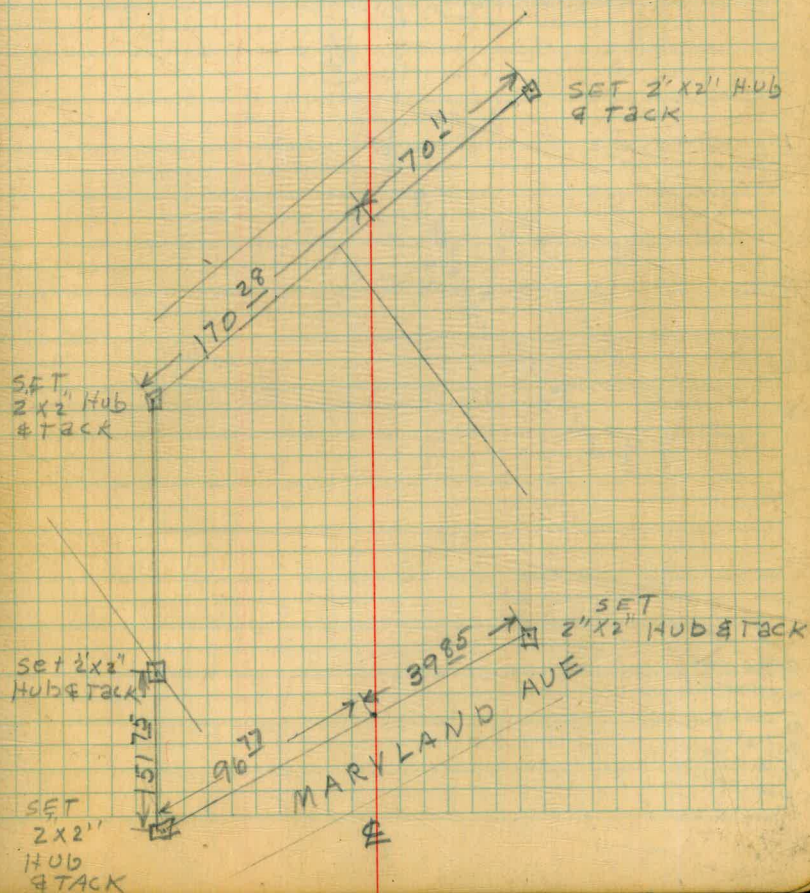
0° 0'



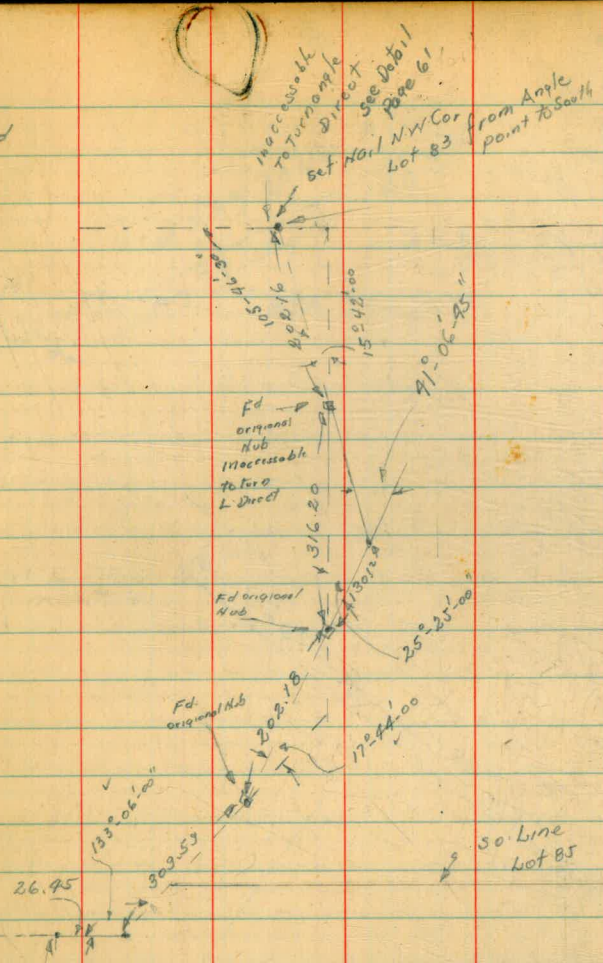




59



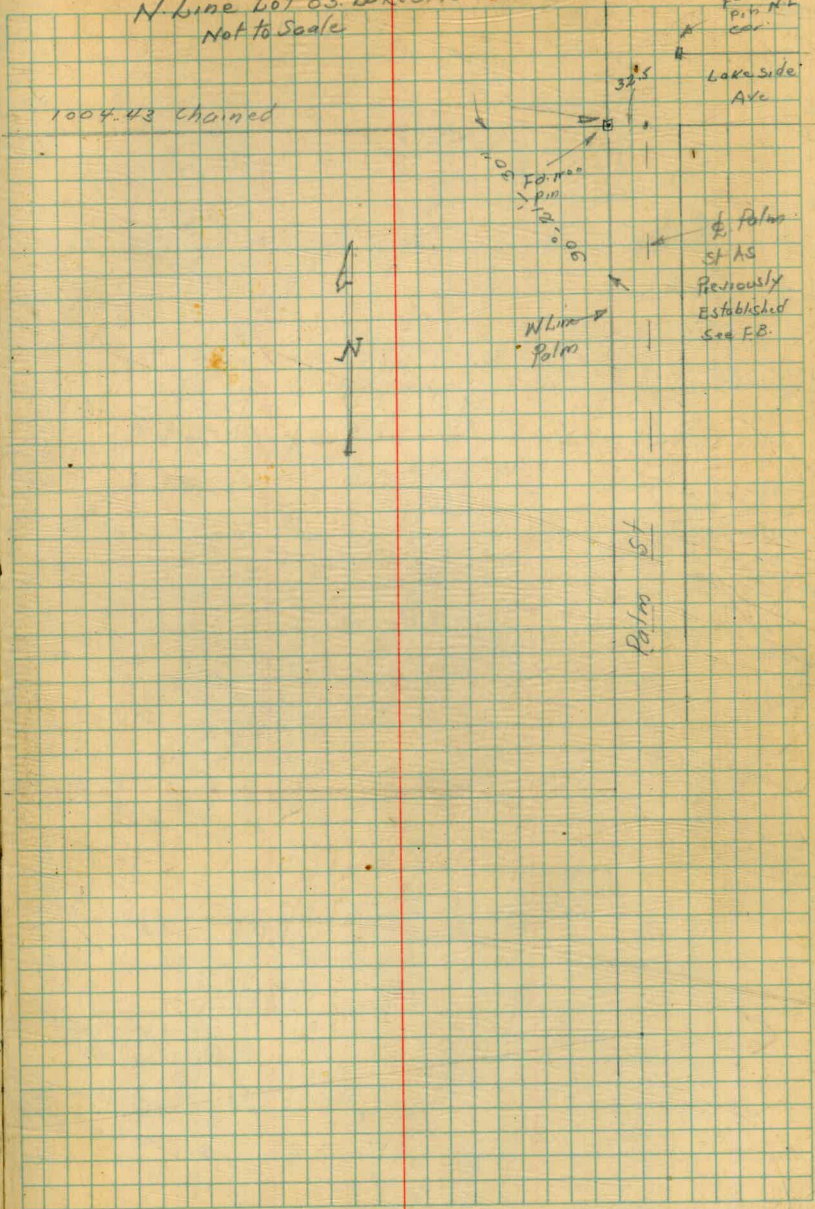
Bliss
Leonard
Phillips
Fot
5/12/47



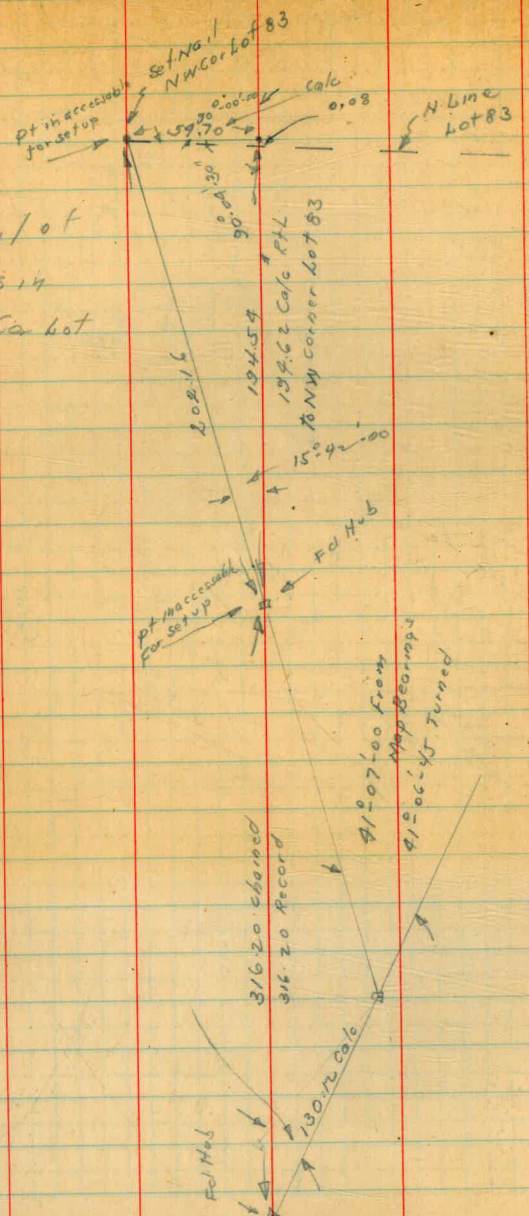
Cottonwood
as established
by chained
Dist and
Record angle
from Palm St.

Sketch of Traverse (6) Check
& Cottonwood St from Palm St along
N line Lot 83. Lakeside Farms
Not to Scale

60



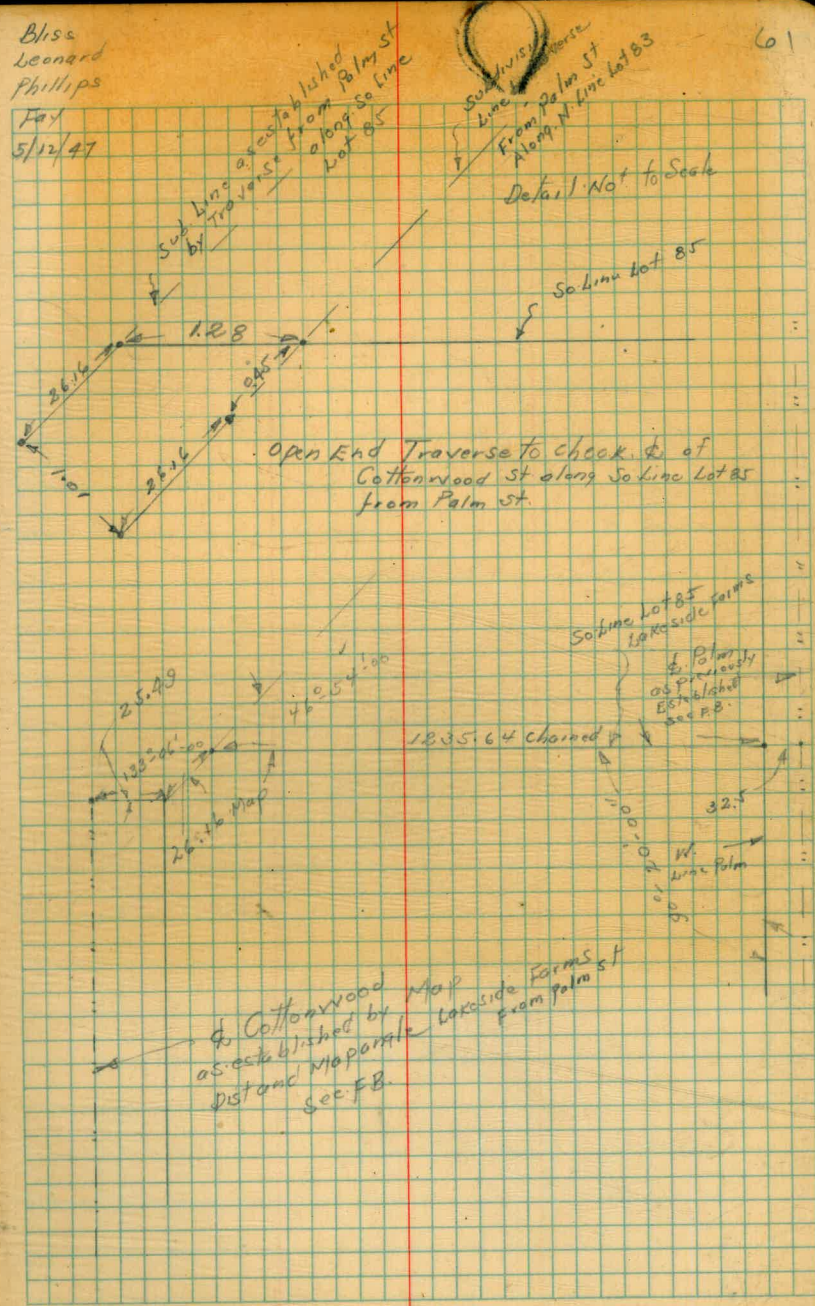
Detail of
Angles in
NW Cor Lot
83



316.20 chained
316.20 Record
13072.026
Fol Hub
41207.00 from
Map bearings
41206.45 Turned

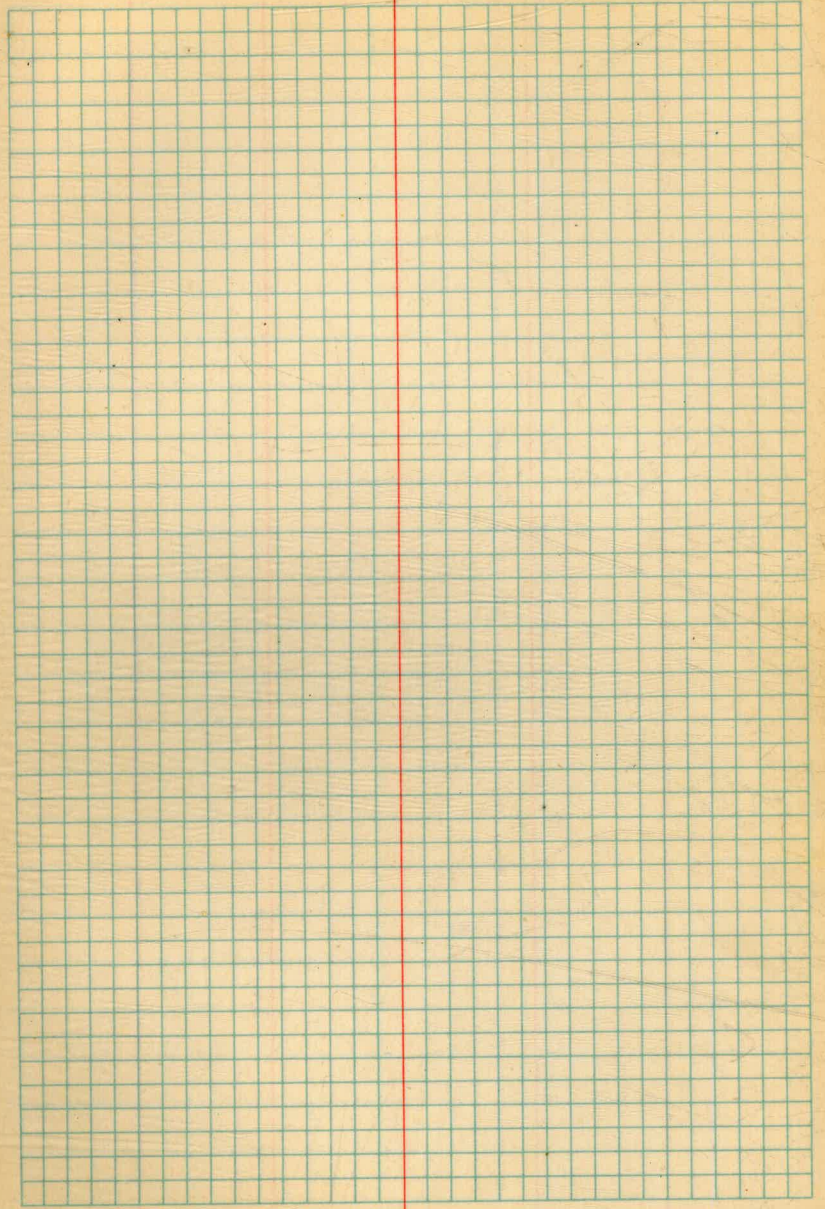
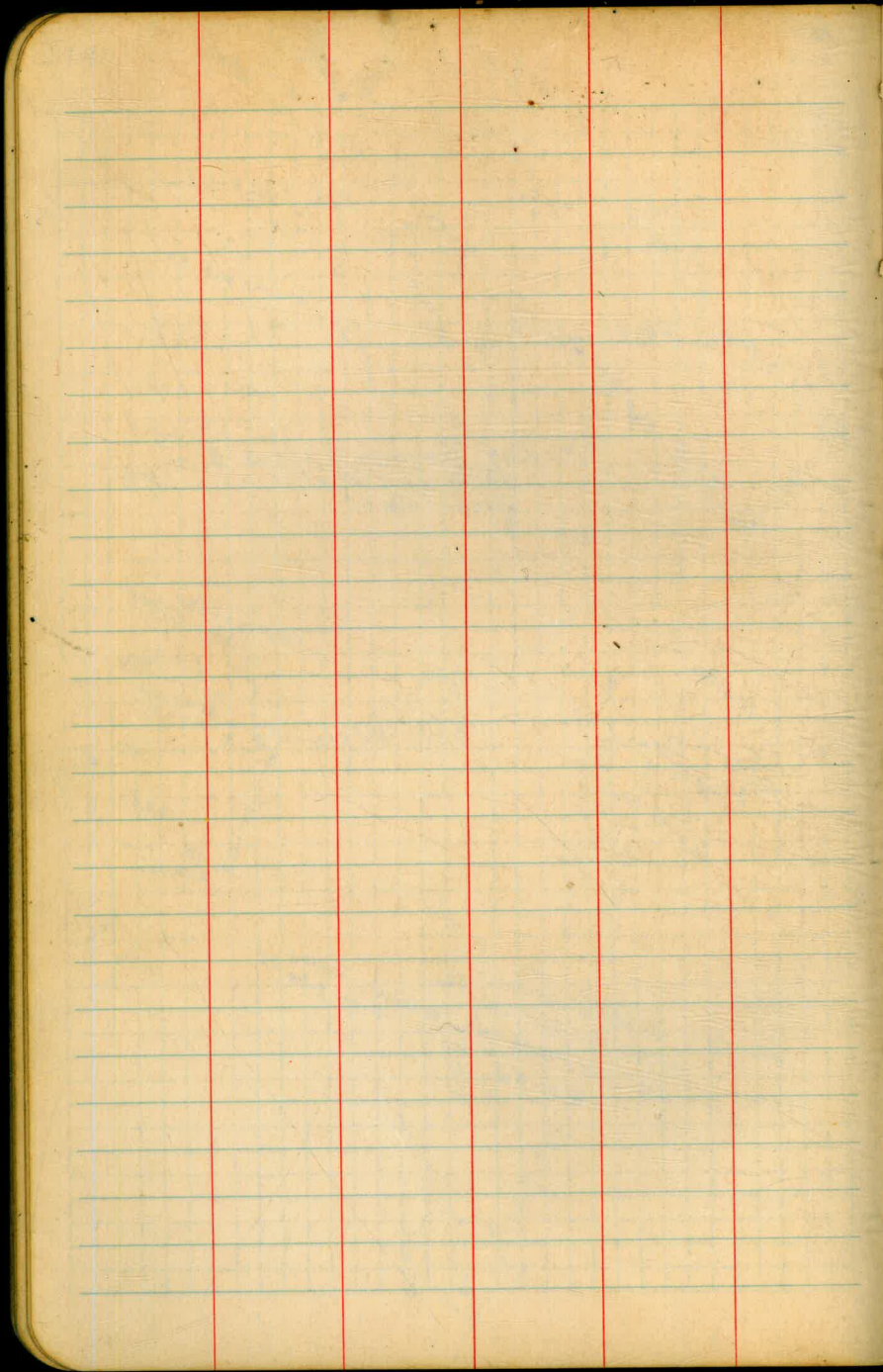
Bliss
Leonard
Phillips

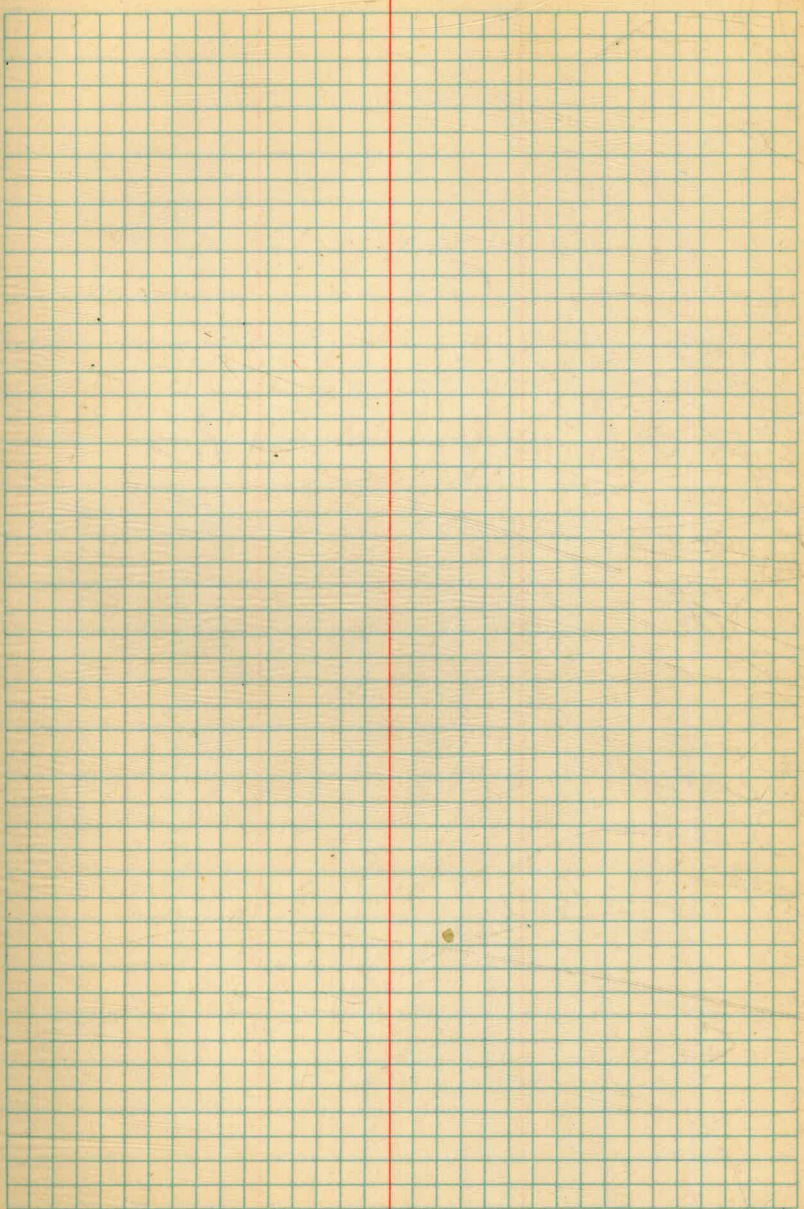
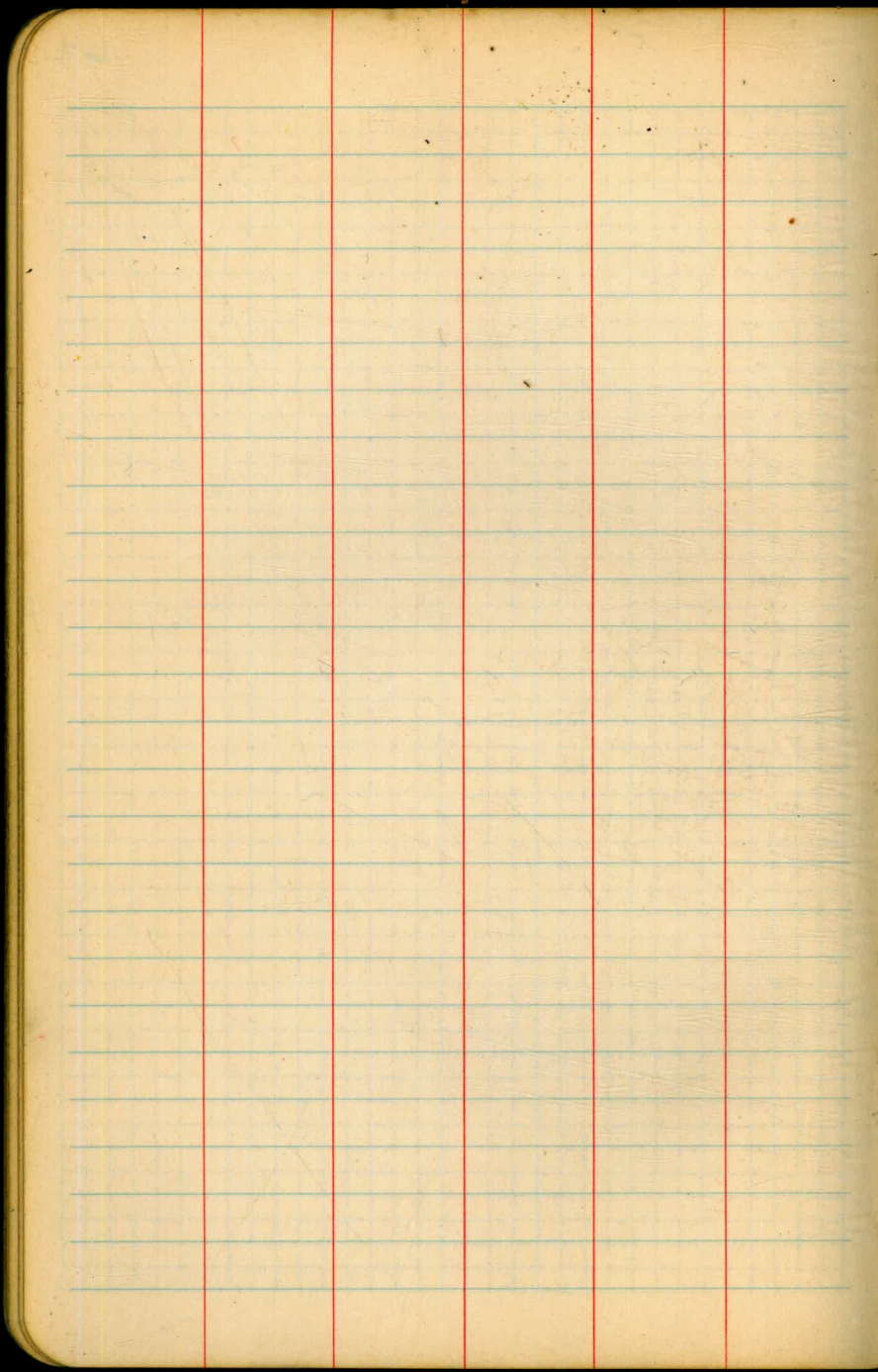
May
5/12/47

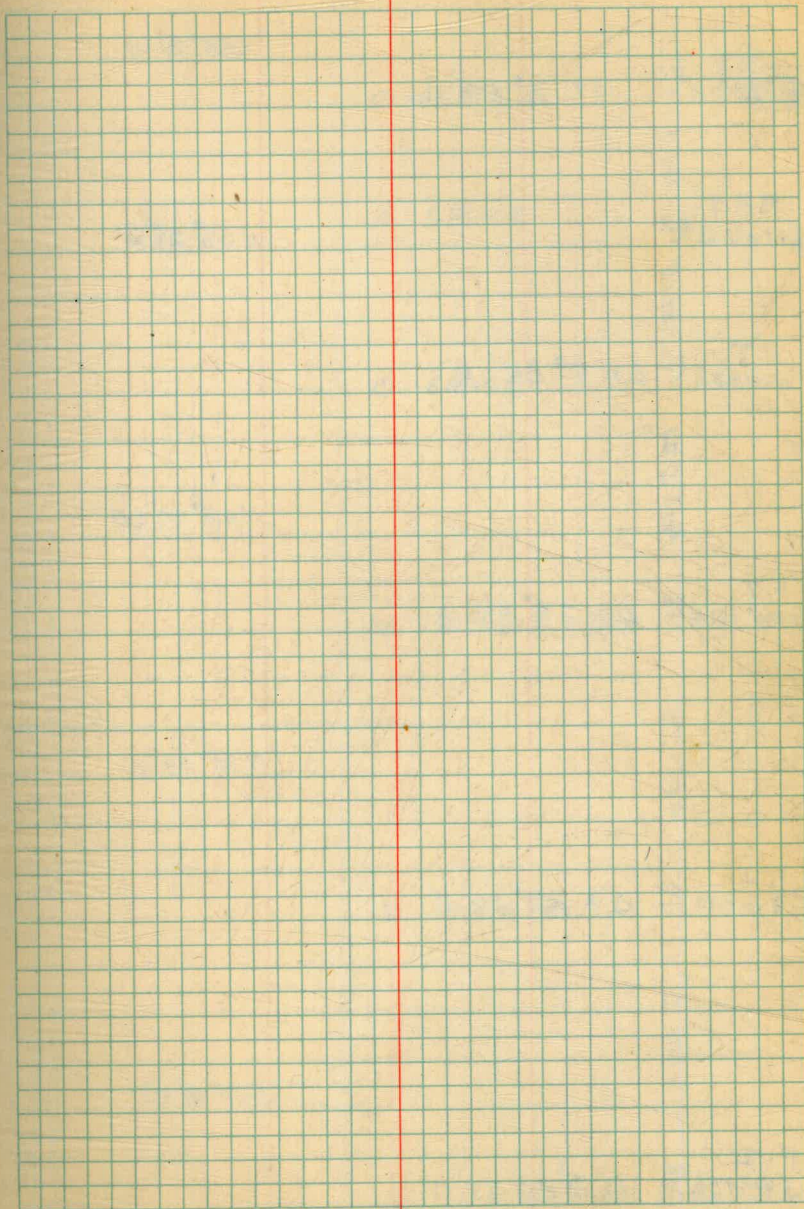
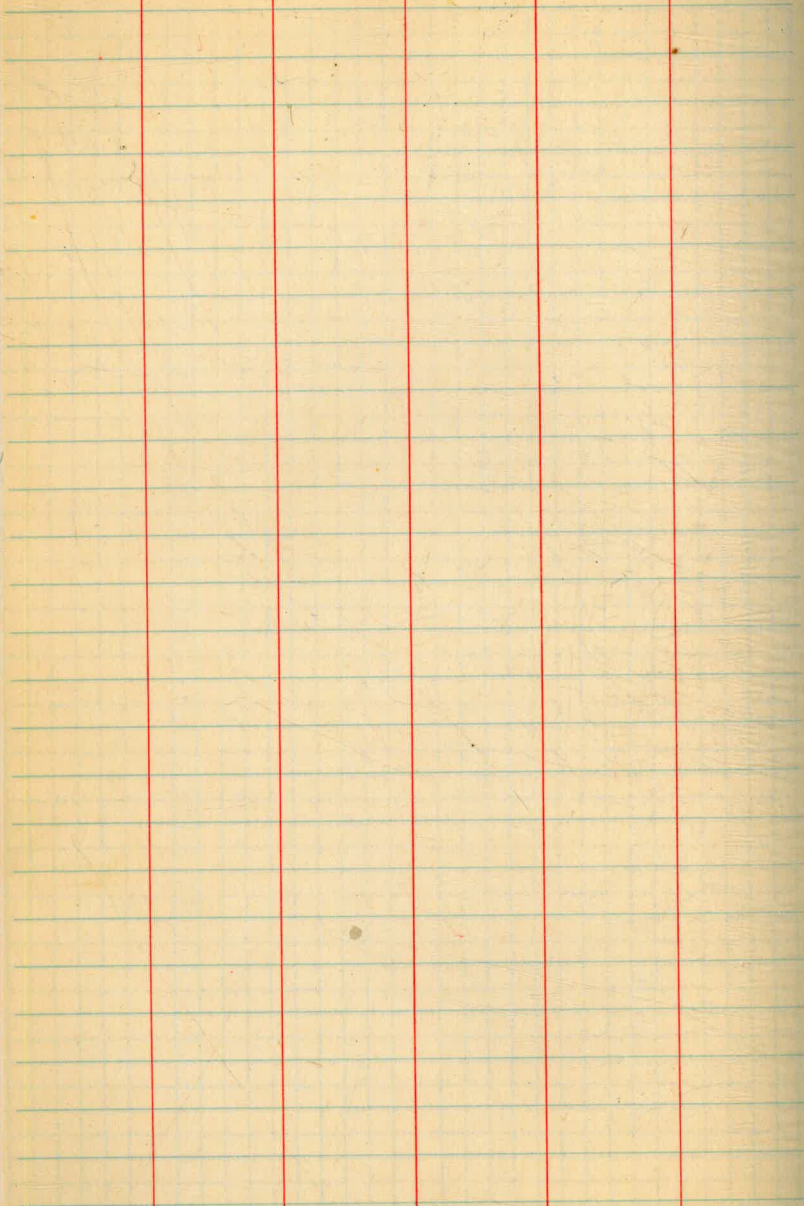


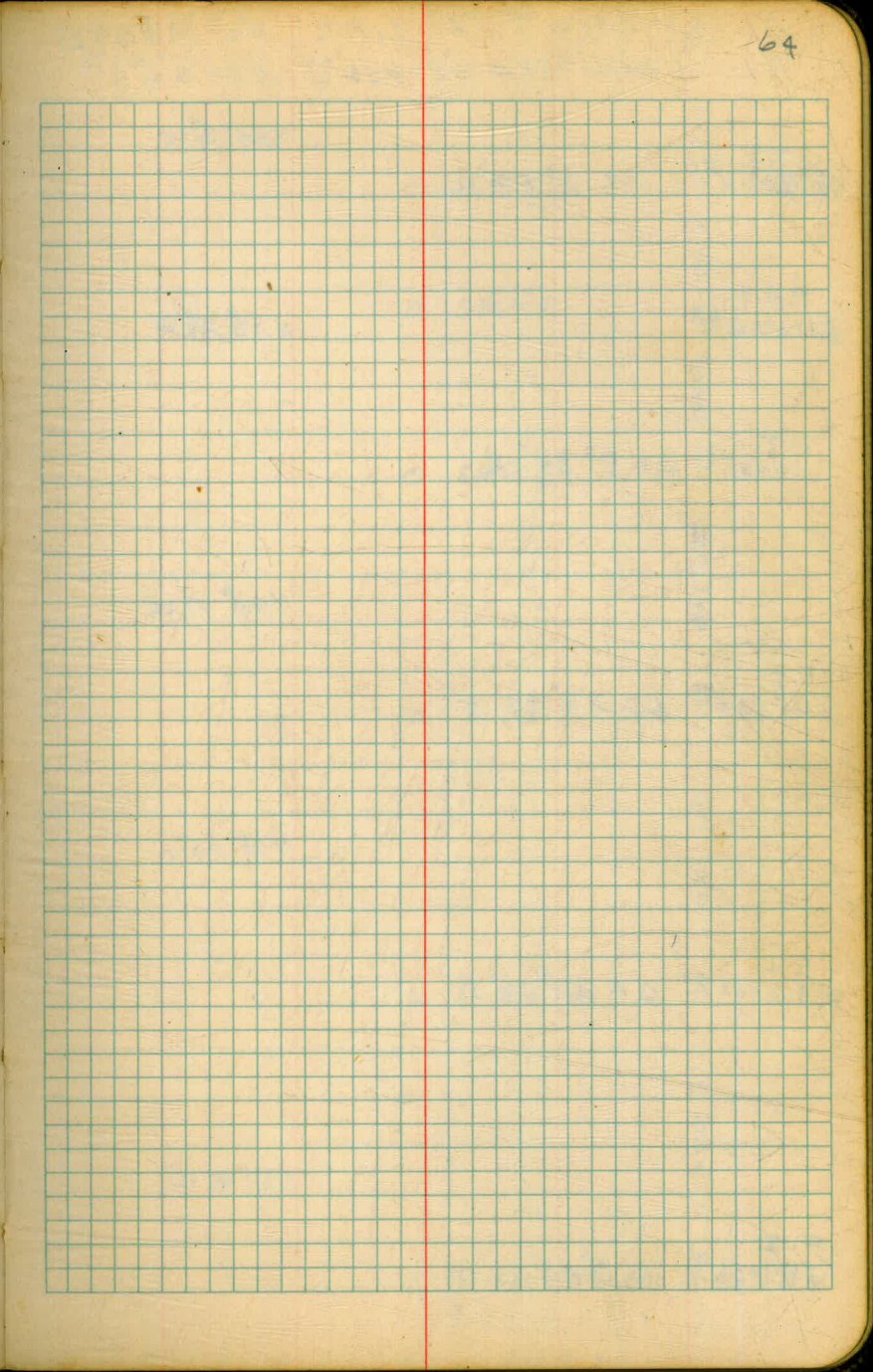
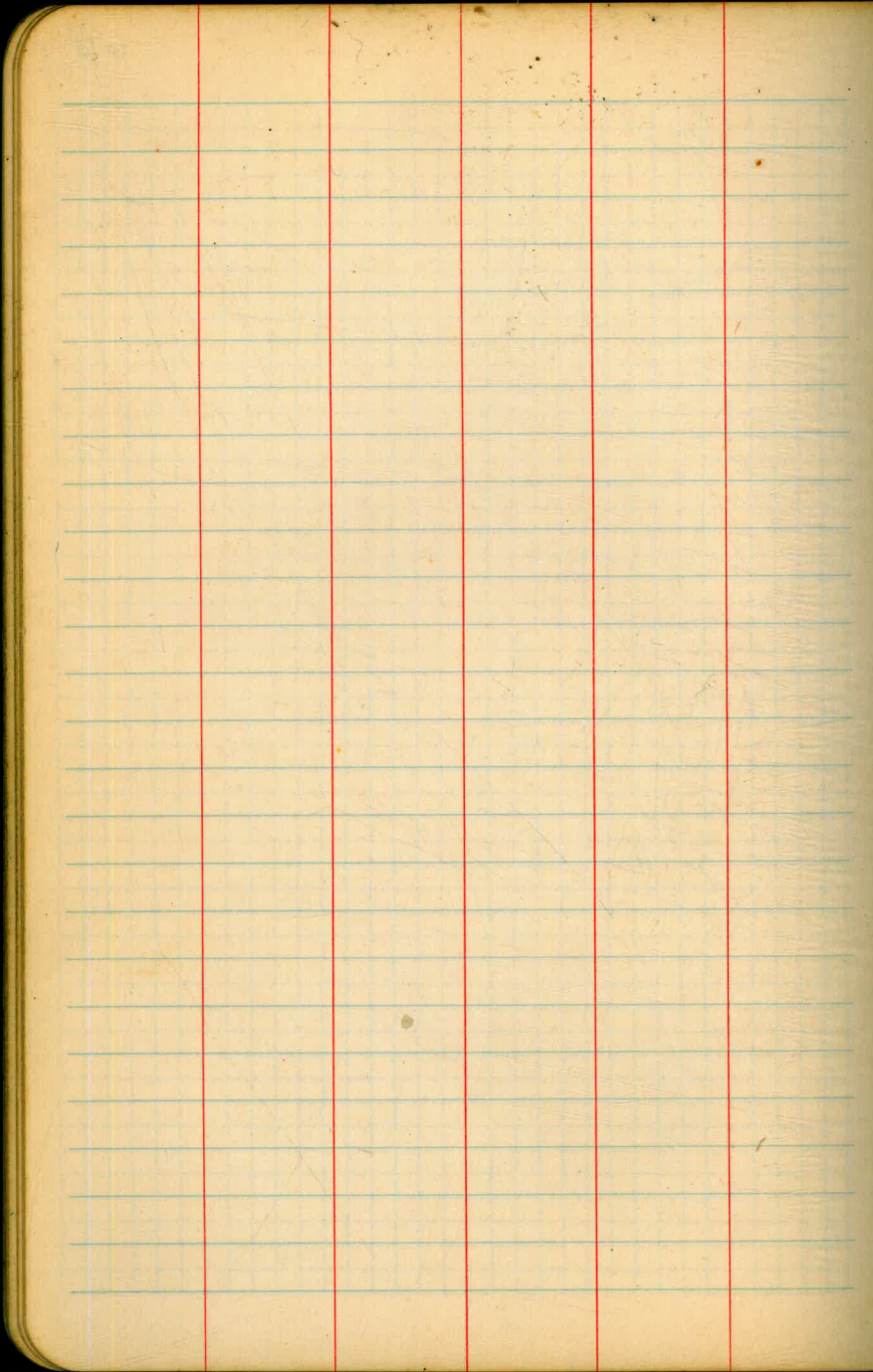
Open End Traverse to check & of
Cottonwood St along So Line Lot 85
from Palm St.

to Cottonwood Map
as established by
Map and Map side
from palm st
sec. FB.









ALIGNMENT "F" line EL MONTE
P.L. From Sta 589+56⁰⁸ Ahead

6-3-46
Clear-Hot

Nelson
Leonard 65
RICE

P.I.
X 612+46³⁴ $\Delta = 2^{\circ} 04' L$ N55° 32' W

O SPIKE

P.O.T
611+24⁶³ N53° 28' W

O SPIKE

P.I.
609+35⁵⁵ $\Delta = 8^{\circ} 39' R$

O SPIKE

411.52
N62° 07' W

P.I.
605+24¹³ $\Delta = 23^{\circ} 04' R$

▣ HUB & TACK

901.95
N85° 09' W

P.F.
596+22⁰⁸ $\Delta = 27^{\circ} 10' R$

▣ HUB & TACK

666.0'
S67° 41' W

P.I.
589+56⁰⁸ $\Delta 0^{\circ} 45' 30'' R$

▣ HUB & TACK B.C. OF
"S" line

6-5-46
Clear-Hot

Nelson
Leonard 66
Rice

A.O.T
631+13⁵⁰

105.98

N68°48'30" W

0 SPIKE

P.I
630+07⁵⁶ Δ=5°41' L

465.80

0 SPIKE

P.O.T
625+41⁷⁶

152.22

N63°07'30" W

0 SPIKE

P.I
623+89⁵⁴ Δ=36°18' L

182.63

0 SPIKE

* P.O.T
622+06⁹¹ ? A.R.

360.80

N26°49'30" W

0 SPIKE

+ P.I
619+36¹¹ 28°42'30" R

334.82

0 SPIKE

* P.O.T
616+01²⁹

314.95

0 SPIKE

6-6-46
CLEAR-HOT

Nelson, T
Leonard 67
RICE

P.I.
653+15⁸⁶ $\Delta = 7^{\circ} 59' L$

252.5

N 77° 53' W

0 SPIKE

P.I.
650+63³⁶ $\Delta = 12^{\circ} 58' R$

51.82

0 SPIKE

R.O.T
650+11⁵⁴

S 89° 09' W

0 SPIKE

P.I.
646+04¹⁶ $\Delta = 15^{\circ} 18' L$

717.50

N 75° 33' W

0 SPIKE

P.I.
638+86⁶⁶ $\Delta = 12^{\circ} 26' L$

527.89

N 63° 07' W

0 SPIKE

P.I.
633+58⁸² $\Delta = 4^{\circ} 17' L$

200.45

N 58° 50' W

0 SPIKE

P.I.
631+58³⁷ $\Delta = 9^{\circ} 58' 30'' R$

44.87

0 SPIKE

END P.O.T
664+34.64

584.11

S 63° 44' W

P.I 53
658+50 Δ = 30° 24' L

534.67

N 85° 52' W

Center point
Lay out AXIS



o SPIKE

FINAL ALIGNMENT (F LINE)
 EL MONTE P.L. FROM STA 589+56.08 AHEAD

598		2° 50.2'
+50		2° 06.8'
597		1° 23.3'
+50		0° 39.9'
P.I. 596+22.08	ORIGINAL P.I.	$\Delta = 27° 10' R$
P.C.C. 596+04.03		7° 51'

596 7° 43.3°

+50 6° 07.8'

595+00 4° 32.3'

P.I.
594+81.49 $\Delta = 15° 42' R$

+50 $R = 900$ 2° 56.8'

$T = 124.08$

594+00 $L = 246.62$ 1° 21.3'

B.C.
593+57.41

P.I.
589+56.08 $\Delta = 0° 45.30'' R$

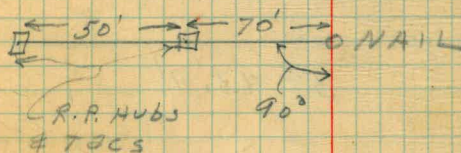
7-3-46
 CLEAR-HOT

Nelson T. 69.
 Leonard H.C.
 DAVIS R.C.

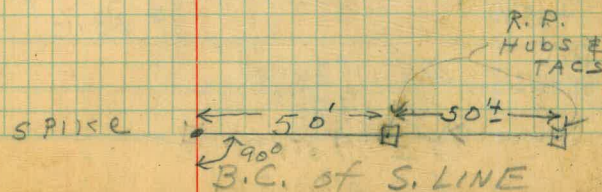
Reference Points
 1-17-47

Nelson
 Leonard
 Battayan

□ HUB & TACK
 □ HUB & TACK



□ HUB & TACK



606 9° 46.9

+50 7° 32.6'

P.I. 605+12.09 A = 23° 04' R

605 R = 640' 3° 18.3'

T = 130.60

+50 L = 257.66 3° 04'

609 0° 49.7

B.C. 603+81.49

E.C. 600+00 5° 49'

600+00 5° 43.9'

+50 5° 00.5'

599 4° 17.1'

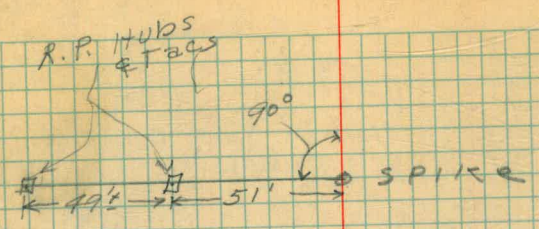
+50 3° 33.6'

P.I. 598+0282 Δ = 11028' R

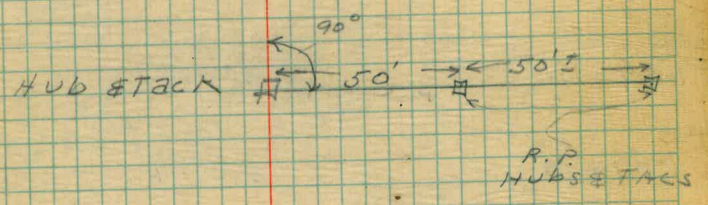
R = 1980'

T = 198.79

L = 396.26



O SPIKE



R.P. HUBS & TAGS



+50 $3^{\circ} 57.7'$

618 $1^{\circ} 34.5'$

B.C
617+67⁰²

P.O.T
615+85⁷¹

P.I. $A = 2^{\circ} 04'$ L ANGLE POINT
612+70⁷⁹

P.O.T⁹⁶
611+08

EC
609+35¹³ $4^{\circ} 19.5'$

609+25 $2^{\circ} 52.4'$

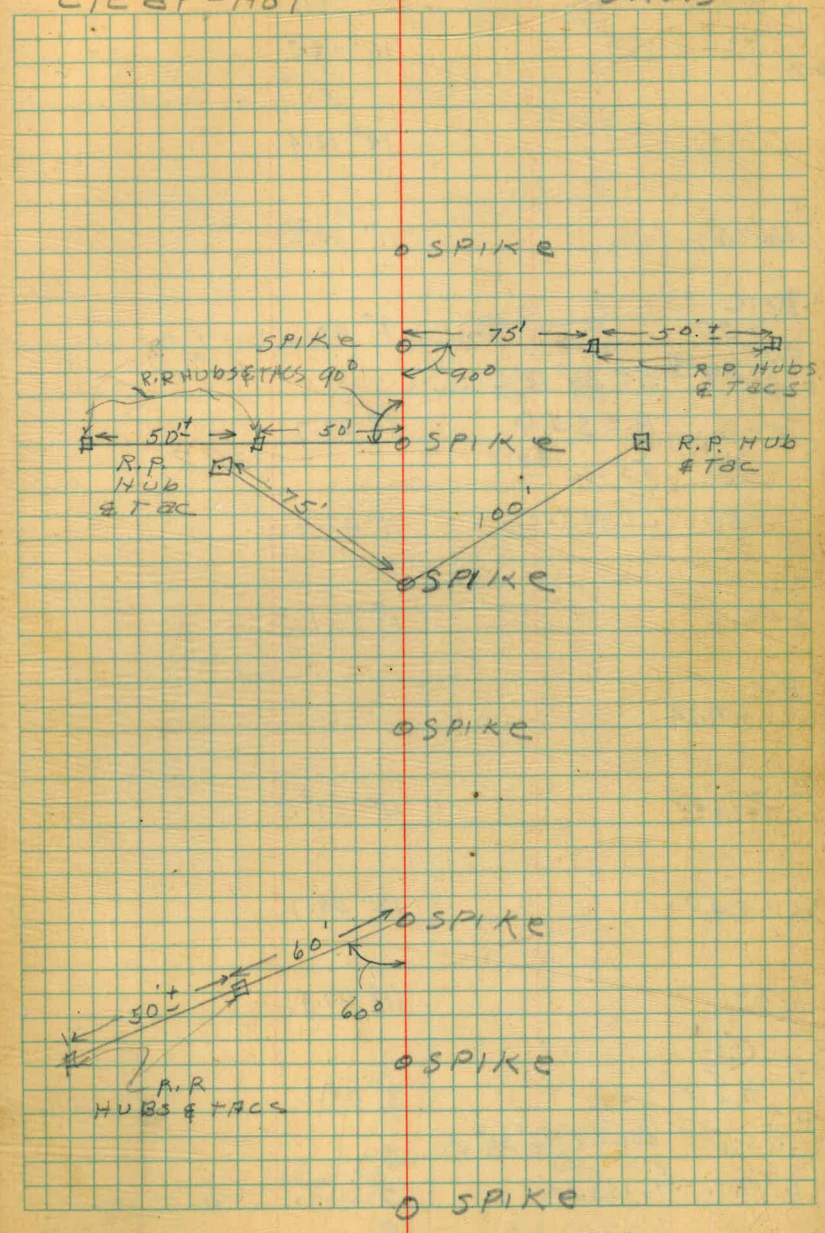
P.I. $A = 8^{\circ} 39'$ R
609+20⁰⁷
R = 200
T = 15.13
L = 30.19

B.C
609+04⁹⁹

E.C
606+39¹⁵ $11^{\circ} 32'$

7-5-46 P.M.
CLEAR-HOT

Nelson
Leonard Tl.
DAVIS



E.C.
640+07²¹

6° 13'

640

5° 52.3

P.I.
639+42³⁷

$\Delta = 12^\circ 26' L$

+50

$R = 600'$

3° 29.1

639

$T = 65.36$

1° 05.8

$L = 130.20$

B.C.

638+77⁰¹

P.O.T.

638+92⁴⁰

P.I.

634+14⁵³

$\Delta = 4^\circ 17' L$

ANGLE POINT

E.C.

632+40²⁶

4° 59' 15"

632

1° 08.6'

P.I.

632+14²¹

$\Delta = 9^\circ 58' 30'' R$

B.C.

631+88⁰³

$R = 300$

def 5.7296 per ft

$T = 26.19$

$L = 52.23$

P.O.T.

631+69³⁷

E.C.

630+78²⁹

2° 50.5

P.I.

630+63⁴²

$\Delta = 5^\circ 41' L$

+50

$R = 300$

0° 08.4'

$T = 14.89$

B.C.

630+48⁵³

$L = 29.76$

7-9-46
clear-140'

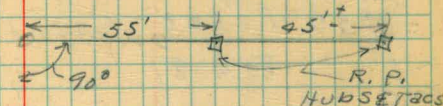
Nelson
Leonard 73
Eaton

o SPIKE

17.2

97.1

SPIKE



o SPIKE

o SPIKE

638+24⁷

3' Telephone Pole
o SPIKE (D 22285T)

EDGE BLACKTOP

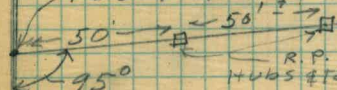
638+17.2

LAKE MURRAY BLVD

EDGE BLACKTOP

637+97.1

P.I. 634+14⁵³



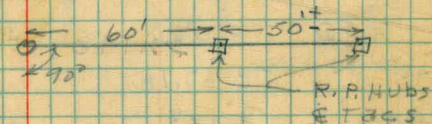
o SPIKE

SPIKE



o SPIKE

SPIKE



o SPIKE

E.C.
659+11³³ 3° 59.5'

654
P.I.
653+69⁶⁰ A=70° 59' L
+50 R=600 10° 03.8'
T=41.87

B.C.
653+27⁷³ L=83⁶⁰

E.C.
651+51²⁹ 6° 29'

+50 6° 21.7'
P.I.
651+17⁹⁹ A=12° 58' R
651- R=300 10° 35.1'
T=34.09

B.C.
650+83⁹⁰ L=67.89

P.O.T.
650+65⁶¹
E.C.
647+25⁹⁷ 7° 39'

647 6° 11.5'

P.I.
646+59¹¹ A=15° 18' L

+50 R=500 3° 19.6'

T=67.16

646 L=133.52 0° 27.7'

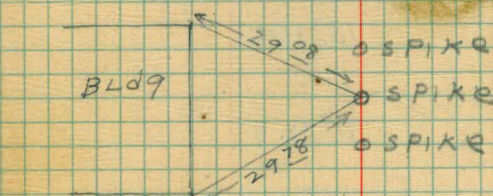
B.C.
645+91⁹⁵

7-10-46
Clear - HOT

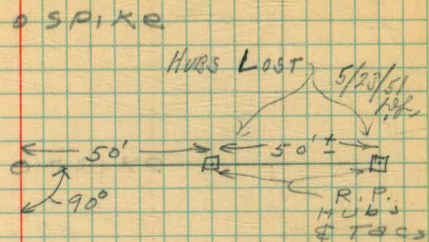
NEISON X
LEONARD 74
EATON

50 81.7
1 35.1
4 46.6
2 23.3
1 35.1
30 58.4

75
50.02
125.02



R.P. Corners
of BLD9
Blue Xes / MK



OSPIKE

OSPIKE

OSPIKE

E-UD Prop
Line Fence



OSPIKE

P.O.I
659+82

END

$\begin{cases} N 89.50 \\ E 506.71 \end{cases}$

E.C
659+78⁶⁷

15° 44.75

+75

15° 13.2

+50

11° 38.4

P.I +25

8° 03.5

659+25¹³ $\Delta = 31^{\circ} 29' 30'' L$

659 R = 200 4° 28.7

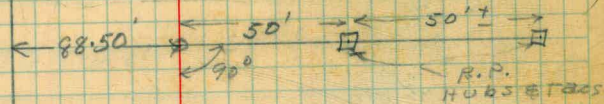
T = 56.39

+75 L = 109.93 0° 53.8

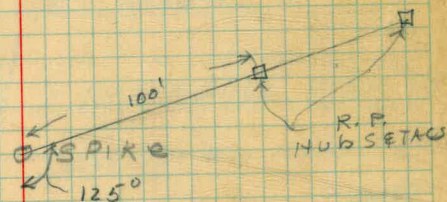
B.C
658+68^{7A}

75

E.W. Layout
AXIS FILTER plant



← 88.50' → SPIKE



○ SPIKE

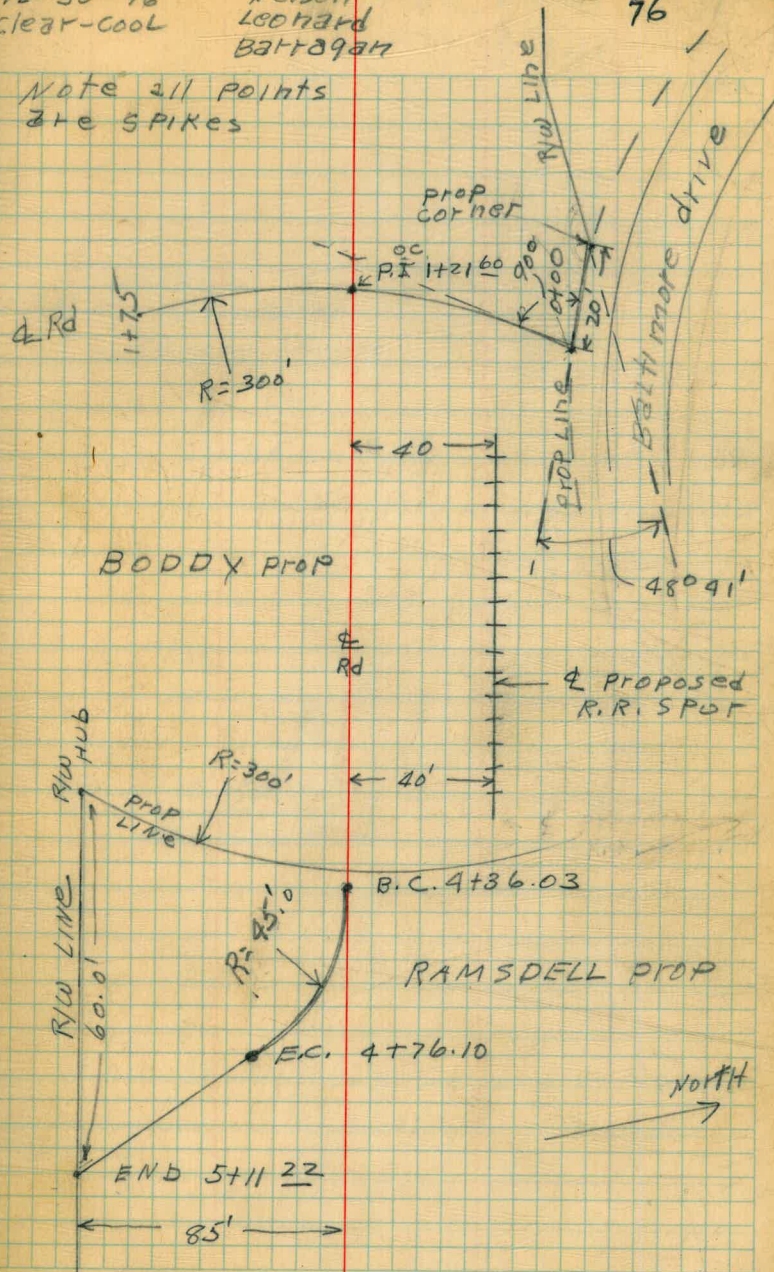
Lay out & alignment Access Rd
 TO Boddy & Ramsdell properties
 El Monte Pipe line

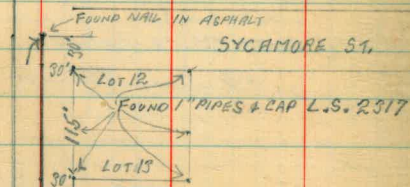
12-30-96
 Clear-Cool

Nelson
 Leonard
 Battaglin

76

Note all points
 & SPIKES





Record 130.27
(Chained 928-41)

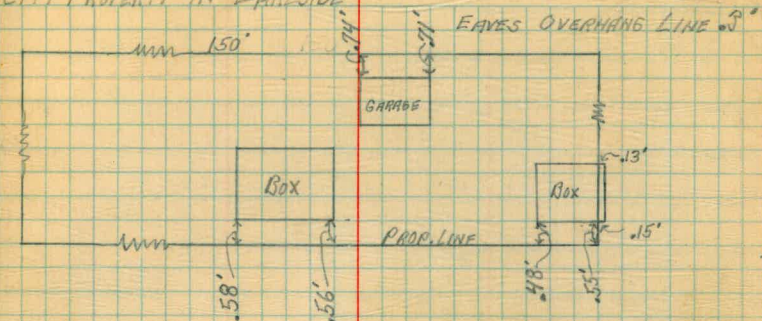
2. BENEFACT ST

FOUND CHISELED CROSS IN PYMT
BENEATH BLACK-TOP SURFACING.

NOTE: COVERED CROSS WITH WOOD BLOCK 2'x2' BEFORE
BLACK-TOP SURFACE WAS REPLACED.

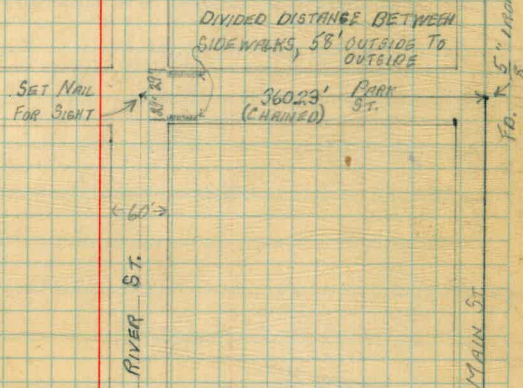
6-15-48. LEONARD
NIENOW
SHIPMAN 78.

CITY PROPERTY IN LAKESIDE



INSERT: DISTANCES OF STRUCTURES FROM PROP. LINE.

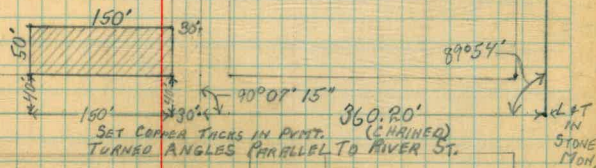
NOTE: ANGLES AND POINTS RECHECKED & CORRECTED AS
GIVEN BELOW ON JUNE 23, 1948. HILL,
LEONARD,
NIENOW.



CITY PROP. SHADED.

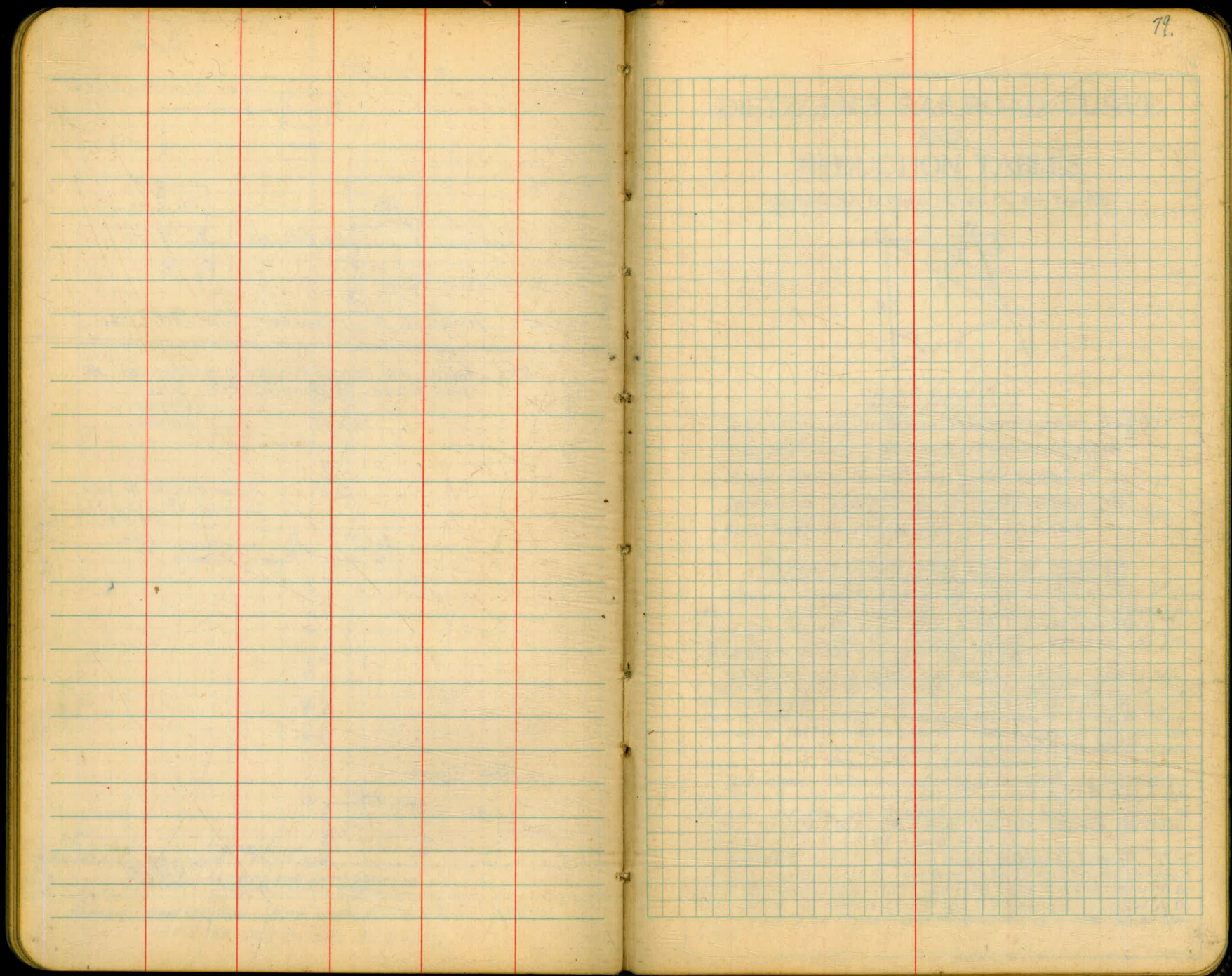
SET NAILS AT
CORNERS.

2. WOODSIDE AVE



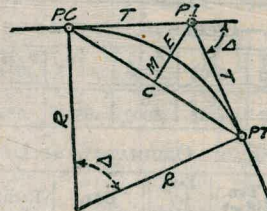
SET CORNER TACKS IN PYMT.
TURNED ANGLES PARALLEL TO RIVER ST.

SET IN
STONE
MON.



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

- Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (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) $= R \text{vers } \frac{\Delta}{2}$ (6)
 External= $E = T \tan \frac{\Delta}{4} = R \div \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec } \frac{\Delta}{2}$ (9)
 Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta =$ Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ 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 = $7.27 (54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D$ or = def. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$ and from Table V correction = .10 or $E = 115.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

26° 04' 40"

57° 09' 20"

26 04 40

25 55 30

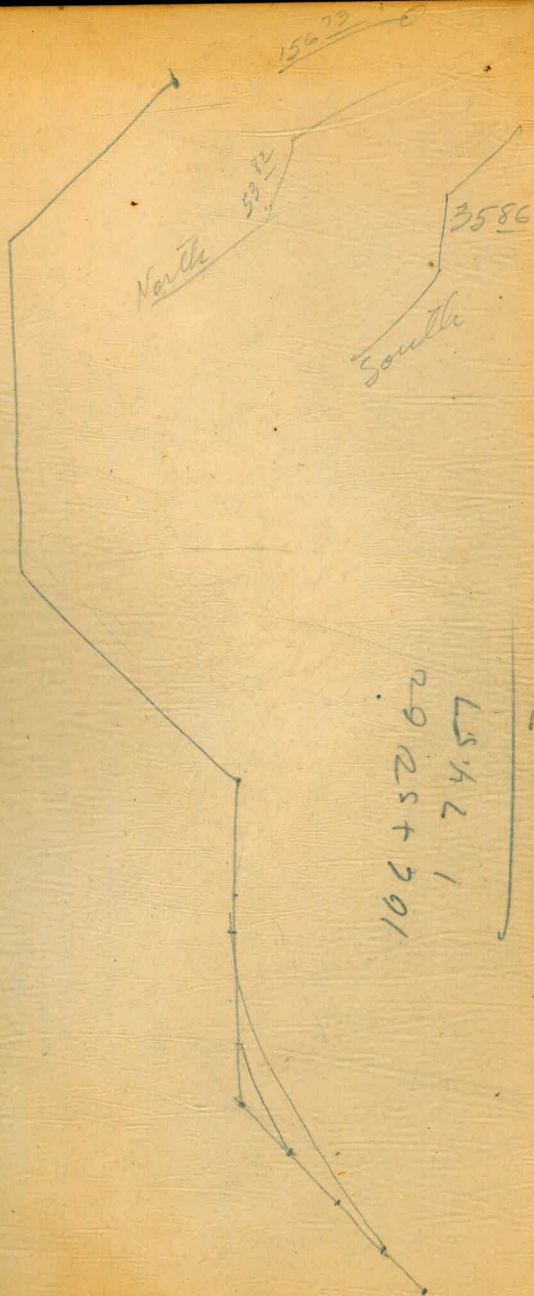
12 57

13
377
983

127
5
8.7

Enter of the
stadi
run
line
locat
the
gives
from
of +
be a
Dist
scale
5° of
is th

0
5
0



106 + 52060
1 74.57
104 + 75.43

PIPE ON WEST PROP OF BALTIMORE
AND 1/2 OF STREET SOUTH OF CULMER
HOUSE IS 52.4 NORTH OF A NAIL
AND MARKER

17R-461A

EV 861A

60' & BAL

47 28 15

50.42 L
34 58 P.I
9+22.6

100.74
21.45
79.29

406.50 407.06
198.35 198.35
208.15 208.71

RR = EC-592+82 24
612 96 34
649.77
619 46 11

42.7 128.39
2 3 51.27

0' 10' i

136 50 30
273 39 30
136.49 42

01 75 01
05 EC 271
09 65 61

472 49
541 3

24C-Culmer
25C-

224.41 186.68
28.28 34.58
221.26

274.41
330.97

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2
For Single Track Embankment.

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	26.2	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.

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