

1808

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

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to page #4763

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 $30.6 + (20 - 16) \times 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

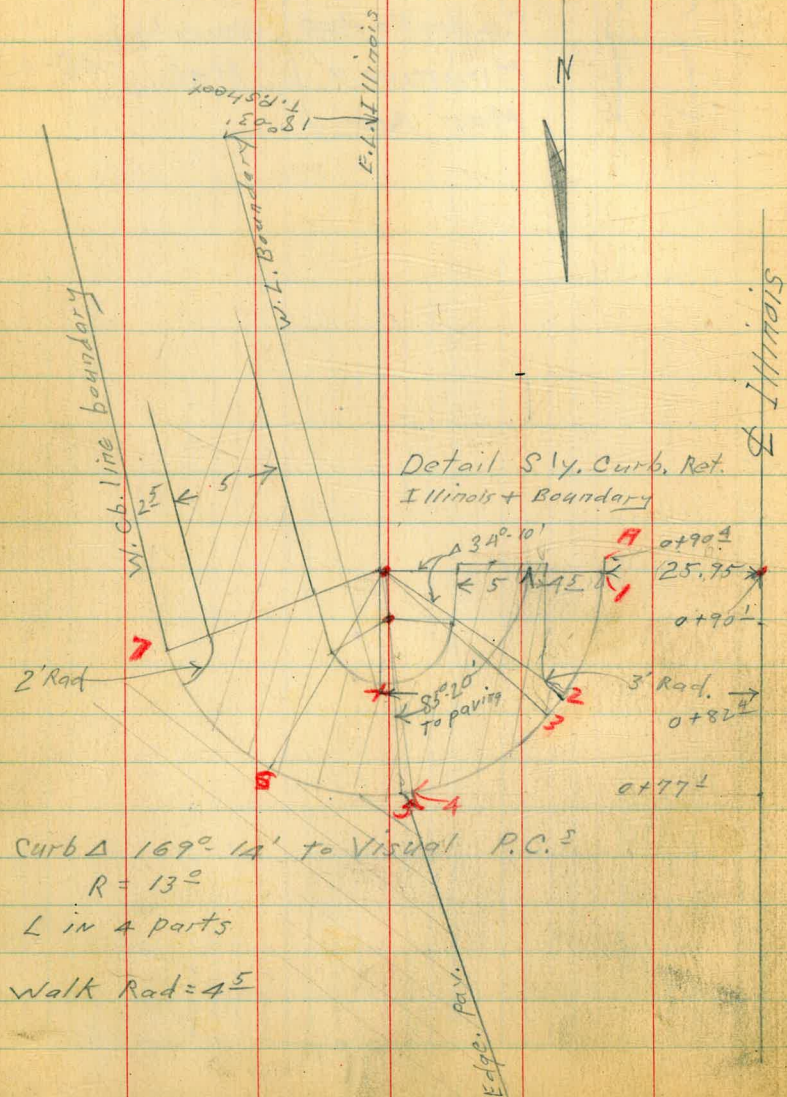
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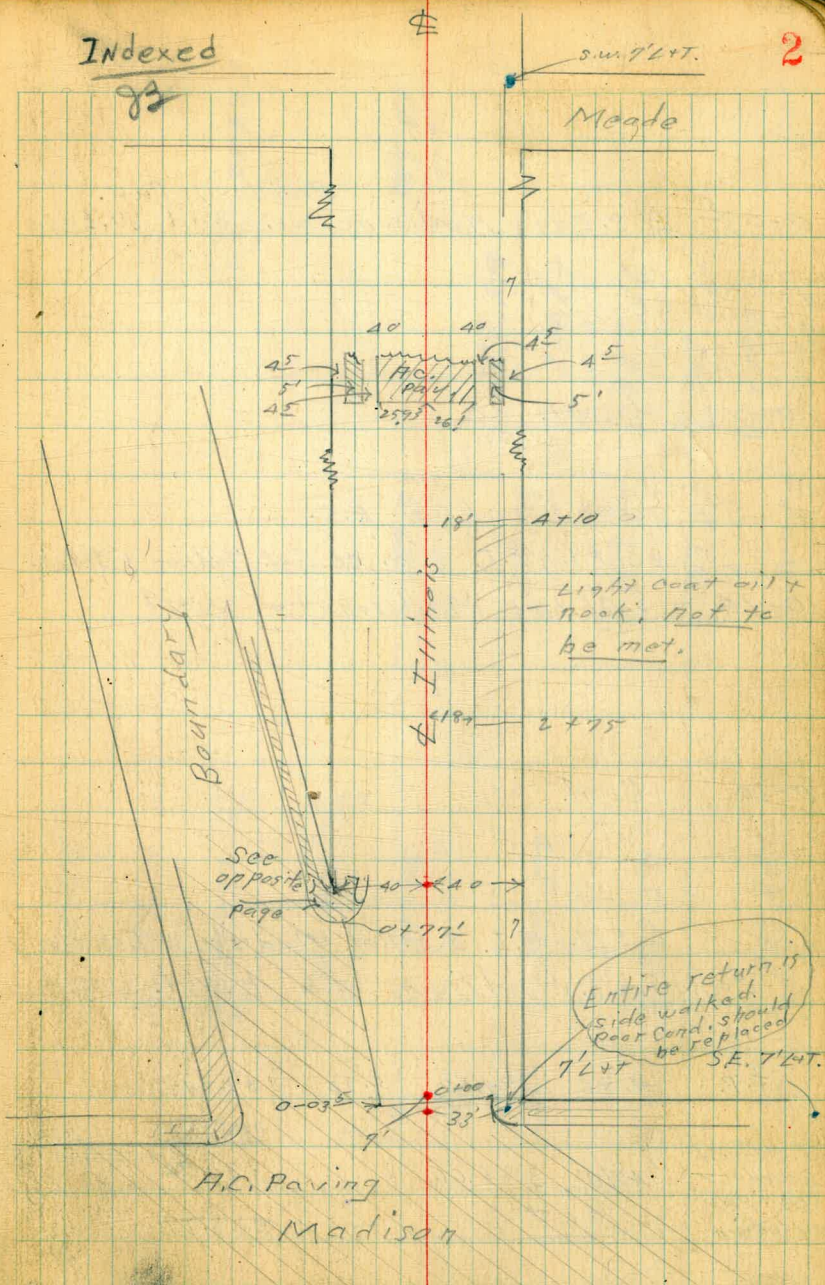
Made in U. S. A.

Cross Sec.	Illinois	Madison	2-13
"	"	South	
		INGELW	^{scott to} Rosecrans 22-28
} }		RHoda Dr.	} Beverly } Hqts } 48-63
} }		Cabrillo Ave	
} }		Miramar "	
} }		Mar Ave	

INDEXED



Indexed



2

0-03⁵ Δ S. Edge Madison Pav. ^{Boundary Pav.} and W. Edge

0-1A Cont.

36' Rt. = Curb Ret. E.C.

26' Rt. = P.I. S.W. Ct. Ret. Madison + Illinois

0-14 = S. Ct. line Madison to west

0-20 Cont.

62' Lt. = P.I. S.E. Ret. Madison + Boundary

0-20 = S. Ct. Madison to East.

T.P. 4.86 394.60 - 5.92 389.74

SE Adams + Boundary A.70 395.66

SE BR Ohio + Madison Out - 388.77

391.12

SE B.A *

see page 13

389.37
5.23
15.9
A

389.47
5.13

389.29	5.26	389.39	5.16	389.49	5.26	389.52	5.08	389.52	5.10	389.48	5.12
389.63	40	389.78	13	389.83	26	389.84	73	389.91	20	389.87	40
389.73	40	389.83	13	389.83	26	389.84	73	389.91	20	389.87	40
389.16	90	389.34	26	389.34	26	389.34	26	389.34	26	389.34	26
389.51	ok	389.73	36	389.73	36	389.73	36	389.73	36	389.73	36
389.68	140	389.28	74	389.28	74	389.28	74	389.28	74	389.28	74
389.93	ok	389.68	ok	389.68	ok	389.68	ok	389.68	ok	389.68	ok
389.32	ok	389.68	ok	389.68	ok	389.68	ok	389.68	ok	389.68	ok

388.76	5.84	389.45	5.15	389.45	5.08	389.52	5.10	389.48	5.12
389.15	62.5	389.84	73	389.84	73	389.84	73	389.84	73
389.20	40	389.84	73	389.84	73	389.84	73	389.84	73
389.59	40	389.84	73	389.84	73	389.84	73	389.84	73
389.37	26	389.84	73	389.84	73	389.84	73	389.84	73
389.76	13	389.84	73	389.84	73	389.84	73	389.84	73
389.42	13	389.84	73	389.84	73	389.84	73	389.84	73
389.81	13	389.84	73	389.84	73	389.84	73	389.84	73
389.45	5.15	389.84	73	389.84	73	389.84	73	389.84	73
389.52	5.08	389.84	73	389.84	73	389.84	73	389.84	73
389.50	5.10	389.84	73	389.84	73	389.84	73	389.84	73
389.48	5.12	389.84	73	389.84	73	389.84	73	389.84	73

394.60

Illinois

3+65 39⁰ Rt. End same
 39⁵ Rt. = start picket fence
 0+0 3+60⁵ 39² Rt. = End oil pav. service
 T.P. 3.68 393.28 5.00 389.60

0+50 Cont

0+50 41' Lt. = Approx W. Ct. Boundary Produced

0-20 Service Station yard
 0+00 39⁵ Rt. = start oil pav.

0-2 = S.W. Cor. Intersection
 0+00 = 90° to S.L. Madison + W.L. Illinois

SE Adja
 Bound
 SEBR 0
 + Modis
 0+02⁵ = Edge Pav.

394.60

389.2
 389.6
 389.7
 391.3
 391.3
 390.3

5.71 388.89
 80 389.28
 80 388.78
 80 388.41
 80 388.59
 80 388.72
 393.28

5.76 388.84
 41 388.74
 5.72 388.88
 30.5 389.27
 Edge 389.27
 pav
 5.7 388.90
 13 388.90
 5.4 389.20
 4 389.51
 5.1 389.50
 13 389.1
 4.9 389.70
 26 389.83
 4.4 390.20
 39.5 390.30
 oil 390.20
 pav 390.20
 4.4 390.33
 10 390.20
 390.17

5.33 389.27
 389.66
 5.33 389.27
 389.66
 6.00 388.60
 28 388.73
 Out
 4.90 389.70
 20 389.83
 Ob. end
 4.7 389.90
 39.5 390.03
 oil
 4.75 389.85
 40 389.98
 walk

5.64 389.96
 46 389.35
 5.33 389.27
 389.66
 5.20 389.40
 16 389.79
 pav 389.50
 Edje
 5.1 389.50
 13 389.89
 5.2 389.90
 13 389.79
 5.1 389.20
 23 389.51
 5.0 389.60
 20 389.73
 5.1 389.05
 20 389.18
 pav

389.47
 389.60
 5.18

382.83

394.60

INSE BM. 16

in curb so 2 shots on top of curb
At #7 Curb is raised or sunk at break

at break in curb so is 2 shots on top
At #2 Curb has raised or lowered

on sketch page 2
Following rods by number as
See page 2.

0+90^l 38.95 Lt. = Curb. Ret. Radius Pt.

sketch, Page 2

0+77^l 37.9 Lt. = Junction Pav. + Cb. See

0+64 40' Rt. = 2' wide Conc. Walk

393.28

4.72 #6 pav	388.56 388.69	4.15 #6 top cb	389.13 389.26	4.75 #7 pav	388.53 388.65	4.24 #7 low cb. top	389.04 389.17	4.17 #7 top High cb.	389.11 389.24
4.34 #1 top cb.	388.99 389.07	4.5 #2 Grd	388.8 389.9	4.30 #2 top low cb.	389.0 389.1	4.21 #2 top High cb.	389.07 389.20	4.5 #4 Grd	388.8 388.9
4.3 38.95	389.0 389.11	4.34 25.85 top cb.	388.94 389.07	4.8 25.8 Grd	388.5 388.6	4.7 13	388.6 388.7	4.5 #4 Grd	388.8 388.9
4.12 37.9 cb.	389.16 389.29	4.15 37.9 pav	388.58 388.71	4.5 37.9 Grd	388.8 388.9	4.6 13	388.7 388.8	4.3 #3 pav	389.0 389.1
4.15 34.5 Edge pav	388.75 388.88	4.5 26	388.8 388.9	4.5 13	388.8 388.9	4.3 #3	389.1 389.2	3.8 13	389.5 389.6
								3.6 26	389.7 389.8
								3.27 #0 walk Grd	390.11 390.24

393.28

2408 40[±] Rt. = 3' wide Conc walk

2400

1476 40[±] Rt. = start picket fence

1450

1444 42[±] Rt. = 3' wide Conc. walk

0494 40' Rt. = 3' Conc. walk

Sketch - Page 2

0490³ 25⁹⁵ Lt. = End Exist Cl. = "A" on

393.28

389.12
416 389.25
35.5
East Edge
Walk
389.03
425 389.16
30.8
W. edge
walk
389.94
434 389.07
25.97
Ct.

393.28

6

~~388.7~~
388.4

4.9
40

~~388.5~~
388.6

4.8
40

~~388.3~~
388.4

5.0
26

~~388.4~~
388.5

4.9
26

~~388.2~~
388.3

5.1
13

~~388.3~~
388.4

5.0
13

~~388.0~~
388.1

5.3
0

~~388.3~~
388.4

5.0
0

~~388.2~~
388.3

5.1
13

~~388.4~~
388.5

4.9
13

~~388.5~~
388.6

4.8
26

~~388.7~~
388.8

4.6
26

~~388.9~~
389.0

4.9
40

~~389.0~~
389.1

4.3
40

~~389.0~~
389.1

4.3
40

~~388.6~~
388.7

4.7
26

~~388.5~~
388.6

4.8
13

~~388.7~~
388.8

4.6
6

~~389.3~~
389.4

4.0
13

~~389.4~~
389.5

3.9
26

~~389.5~~
389.6

3.8
40

~~389.7~~
389.8

3.49
40

End of walk
389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

389.22
42.2
walk

T.P. 4.05 392.13 5.20 388.08

3+39 45' Rt. = 6' wide Conc. Drive

3+13 40³ Rt. = 5' wide Conc. Walk

3+00

2+75 40² Rt. = End picket fence

2+66 39⁴ Rt. = 2' wide Conc. Walk.

2+50

2+25

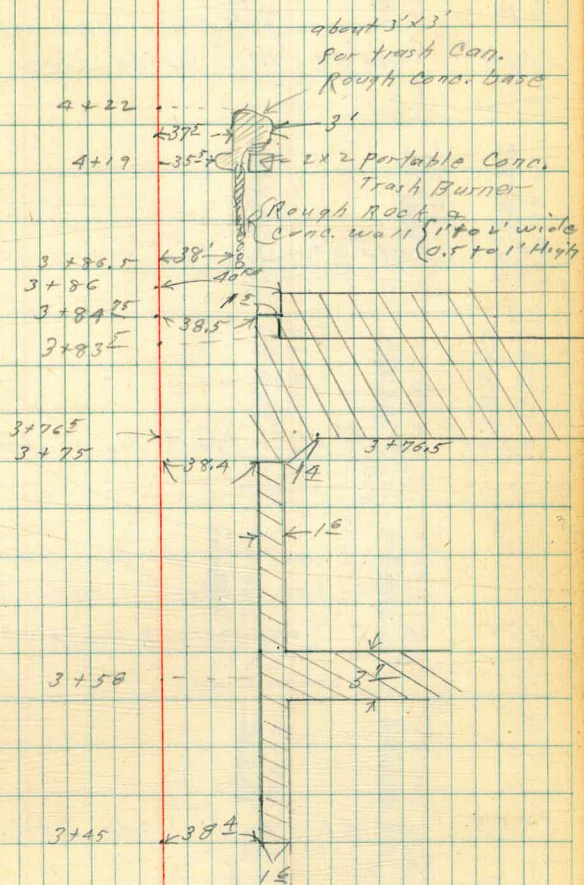
393, 28

5.7 40	387.6 387.7	5.7 26	387.5 387.6	5.8 13	387.5 387.6	5.8 13	387.5 387.6	5.7 14	387.5 387.6	5.6 17	387.5 387.6	5.4 40	387.5 388.0	5.55 40	387.5 388.0	5.77 Bar Floor 90	387.5 387.6
5.5 40	387.8 387.9	5.5 26	388.0 388.1	5.7 13	387.6 387.7	5.7 14	387.6 387.7	6.0 14	387.3 387.4	5.6 18	387.7 387.8	5.4 40	387.9 388.0	5.4 40	387.9 388.0	5.4 40	387.9 388.0
5.4 40	387.9 388.0	5.5 26	388.0 388.1	5.5 13	387.8 388.9	5.5 14	387.8 388.9	5.7 15	387.6 387.7	5.1 18	388.2 388.3	5.1 39.4 Ord	388.2 388.3	5.1 39.4 Ord	388.2 388.3	5.1 39.4 walk	388.2 388.3
5.2 40	388.1 388.4	5.1 26	388.2 388.3	5.4 13	387.9 388.0	5.4 15	387.9 388.4	5.4 15	387.9 388.1	4.9 19	388.4 388.8	4.9 19	388.4 388.8	4.9 19	388.4 388.8	4.9 19	388.4 388.8
5.2 40	388.3 388.4	5.1 26	388.3 388.7	5.2 13	388.1 388.2	5.2 16	388.1 388.2	5.2 16	388.1 388.2	4.6 20	388.7 388.8	4.6 20	388.7 388.8	4.6 20	388.7 388.8	4.6 20	388.7 388.8
5.2 40	388.1 388.2	5.1 26	388.1 388.6	5.2 13	388.1 388.2	5.2 16	388.1 388.2	5.2 16	388.1 388.2	4.6 20	388.7 388.8	4.6 20	388.7 388.8	4.6 20	388.7 388.8	4.6 20	388.7 388.8

393, 28

considered in improvement of street.
 is very rough + should not be
 Rough Conc. work (3+865 to 4+22)

392.13



also 38th Rt. + End apron
 3+84²⁵ = 40' Rt = \pm 2⁵ Wide Conc. E+W, walk

3+83² 41st Rt. = S. Edge Main drive

3+76.5 41st Rt. = Start Main drive + walk.

Comb walk + Drive. see page 8.
 38th Rt also = start Conc. Apron to

3+75 End 1st wide N. + S. walk = 38th Rt.

3+58 40' Rt. = \pm 3² Wide E+W. Conc. Walk.

3+45 38th Rt. = start 1st wide N. + S. Conc. Walk

392.13

388.21
 388.34
 3.92
 38.4
 End apron

388.01
 388.14
 4.12
 38.4
 Apron

387.97
 388.16
 4.16
 38.4
 Apron

388.73
 388.26
 4.00
 38.4
 walk + drive

387.96
 388.09
 4.17
 39.2
 \pm N+S
 walk

388.0
 388.1
 4.13
 38.4
 walk

388.22
 388.45
 3.91
 40
 walk

388.11
 388.24
 4.02
 41.4
 Drive

388.07
 388.20
 4.06
 41.4
 start
 drive

388.74
 388.27
 3.99
 40
 walk
 + driving

388.03
 388.16
 4.10
 40
 Edge
 E+W walk

388.0
 388.1
 4.11
 40
 walk

387.93
 388.06
 4.20
 50
 walk

387.90
 388.03
 4.23
 50

387.87
 388.00
 4.26
 50
 on drive
 Edge

392.13

4+75 29' Lt. = Ctr. Pole # 4529

4+57 Cont.

4+57 47⁵ Rt. = ~~4~~ 4' wide conc. steps to house porch

4+42 47³ Rt. = ~~4~~ 4' wide conc. steps to house porch

4+22 38' Rt. = End rough wall. see page 8 paving. see page 2

4+10 18' Rt. = End rough oil + rock

3+86⁵ 38' Rt. = start rough Rock + conc. wall. (see page 8)

3+85

392.13

387.2	387.1	387.0	386.8	386.9	387.1	388.0	388.1	388.2
388.3	387.1	387.0	386.9	386.9	387.1	388.0	388.1	388.2
4.9	5.0	5.1	5.3	5.1	5.1	5.0	5.2	5.2
40	26	13		20	26	40	47	47
				387.0	387.3	387.10	388.24	388.24
				387.4	387.10	387.10	388.24	388.24
				5.1	4.8	4.8	3.89	3.89
				47.2	47.3	47.3	493	493
				ord	Bottom	stop	perch	floor
				387.7	387.3	387.5	387.5	387.5
				388.8	387.4	387.5	387.5	387.5
				387.6	387.4	387.5	387.5	387.5
				387.7	387.4	387.5	387.5	387.5
				387.1	387.4	387.5	387.5	387.5
				387.2	387.4	387.5	387.5	387.5
				387.3	387.4	387.5	387.5	387.5
				387.1	387.4	387.5	387.5	387.5
				387.12	387.4	387.5	387.5	387.5
				387.0	387.4	387.5	387.5	387.5
				387.1	387.4	387.5	387.5	387.5
				387.7	387.4	387.5	387.5	387.5
				387.8	387.4	387.5	387.5	387.5
				388.1	387.4	387.5	387.5	387.5
				388.2	387.4	387.5	387.5	387.5
				388.22	387.4	387.5	387.5	387.5
				388.35	387.4	387.5	387.5	387.5
				4.7	4.4	4.0	3.91	3.91
				40	26	35	40	40
							walk	walk
							487-d.	487-d.

392.13

8+47^{ol} = Nail on E=Post. 6.53 384.59
 16
 384.75

8+47 Cont.

8+47 Start H.C. Paving, Curbs, + walks

8+43

8+28

8+00

7+50

391.12

4.9 40	386.2 386.5	5.3 40	385.8 386.2	5.7 40	385.4 385.7	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
5.3 30	386.1 386.5	5.2 30	385.9 386.3	5.8 30	385.6 386.0	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
5.4 26	385.8 386.1	5.4 26	385.7 386.1	5.1 26	385.5 385.9	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
5.3 13	385.8 386.2	5.4 13	385.7 386.1	5.1 13	385.5 385.9	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
5.2 17	385.9 386.4	5.2 17	385.9 386.3	5.6 17	385.5 385.9	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
5.0 17	386.1 386.5	5.4 17	385.7 386.1	5.8 17	385.3 385.7	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
4.8 26	386.3 386.7	5.4 26	385.7 386.1	5.8 26	385.3 385.7	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95
4.9 40	386.2 386.5	5.1 40	386.0 386.4	5.7 40	385.4 385.8	6.38 25.93 Top of	384.74 384.87	5.28 40	385.3 385.4	6.30 30.43 N.W. Cor walk	384.82 384.95

391.12

SE. Boundary + Adams. Orig B.M. 4.25 390.98 (390.96)
 5.78 395.23 3.95 389.45
 T.P. 6.42 393.40 4.33 386.98
 T.P. 7.78 391.31 1.49 383.33
 N.W. B.P. 1000 + Heads SS 2.38 382.44 (382.83)
 T.P. 1.49 384.82 7.79 383.33

9+50

9+00

8+50

on page

391.12

B.M. El. 382.60 used on 7049-L

382.53

384.14 6.98 Top of	384.52 6.80 top of	384.74 6.38 top of	384.27 7.57 Butt	383.90 7.22 Butt	384.34 6.78 13	384.47 6.72	384.20 6.72	383.99 7.13 13	383.15 7.50 13	383.62 7.97 Butt	383.66 7.46 top of
384.63 384.187	384.63 384.187	384.67 384.187	383.68 383.179	384.03 384.12	384.47 384.33	384.47 384.33	384.20 384.33	384.12 384.12	383.76 383.58	383.76 383.58	383.79 383.79
384.79 384.187	384.79 384.187	384.79 384.187	384.84 384.187	384.35 384.12	384.84 384.12	384.84 384.12	384.80 384.12	384.87 384.12	383.62 383.62	383.62 383.62	383.62 383.62
384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13	384.67 6.95 13

391.12

Additional Ties to \pm of Montezuma Rd.

Alignment - Sec Books - 1669 - P. 1
1638 - P. 41

W.O. 27129

2 - 48

7.0

Ang. of $0^{\circ} 00' 40''$ Rt. from $0+48.58$ to B.C. $\pm = 9+48.42$

$0+48.58 =$ Hub. on E.L. of College Park - unit #3+4
 $0+37.50$

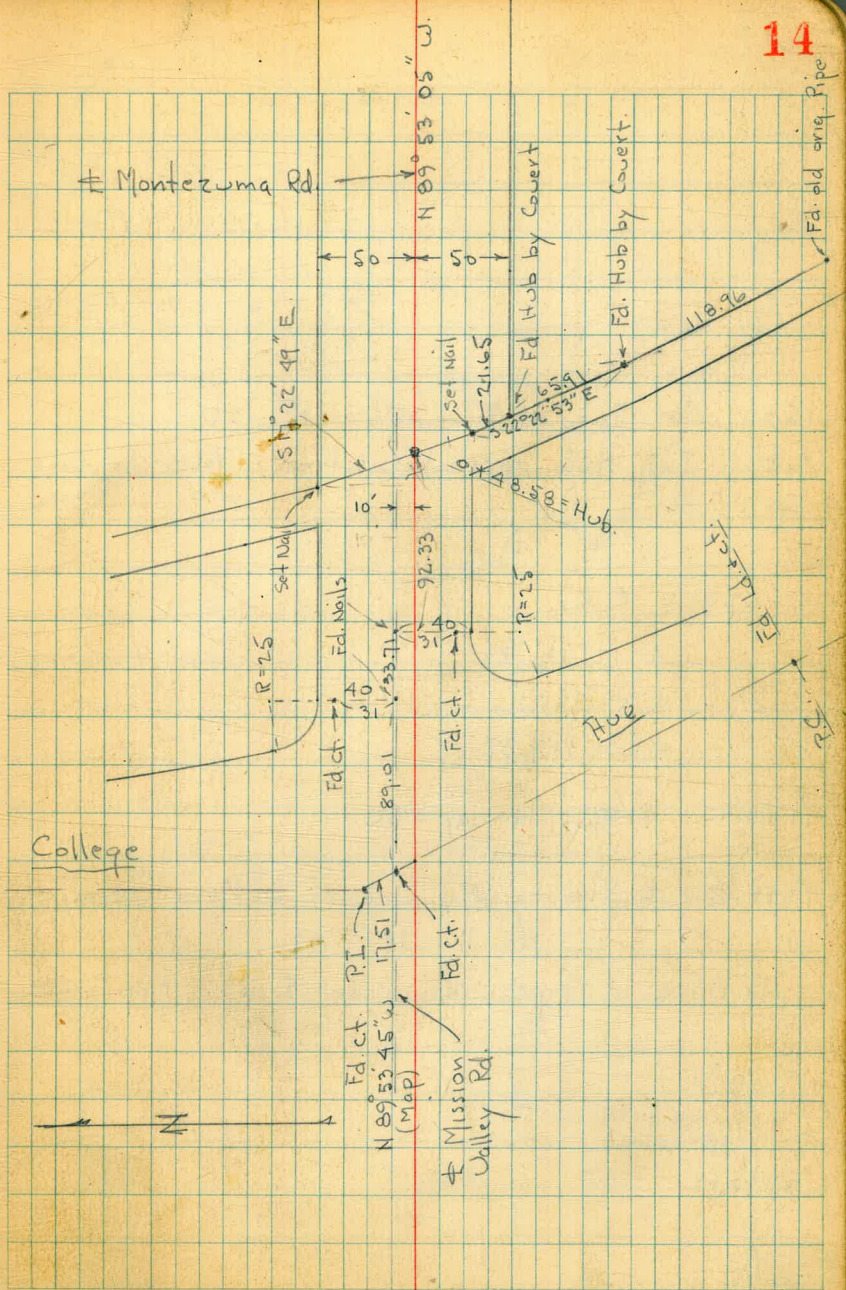
Note: Made the Stations match the new
 \pm sta. of the B.C. = $9+48.42$

INDEXED
FEB 10 1948

Grades for Construction

9 247

E.C. J. FALD + ct



15+07.02 = Int of Φ + w.L. 63rd st.
 Actual Int. Made on 2' offset line - Poles on Line

12+67.81 = E.C.

$\Delta = 12^\circ 12'$ Rt.

$\Phi R = 1500$

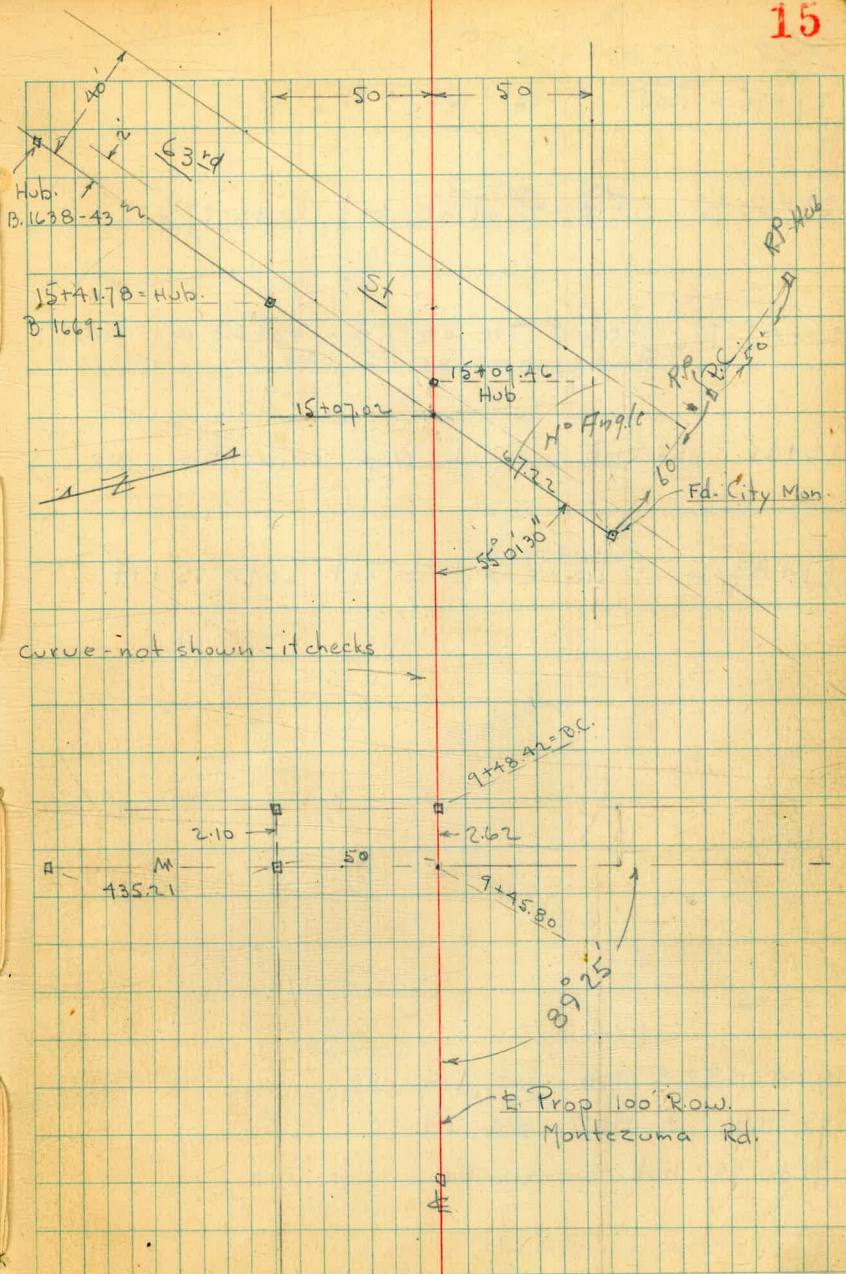
$\Phi L = 319.39$

9+48.42 = 9+37.77 (old sta) = B.C.

9+45.80 = Φ Tic to wly. line of La Mesa Colony
 see B.1638-P.42

No trace of pipes shown on R.O.S. - Map # 1183

5+90.68 = P.O.T. $57^\circ 20''$



27+25 = P.O.T. - Hubs - N.L. + E

23+53.95 = Tie - E + Line bet. Lots 27 + 15

23+02.76 - checked Tie on N.L. + Line of Lot 27
Point gone - seems O.K.

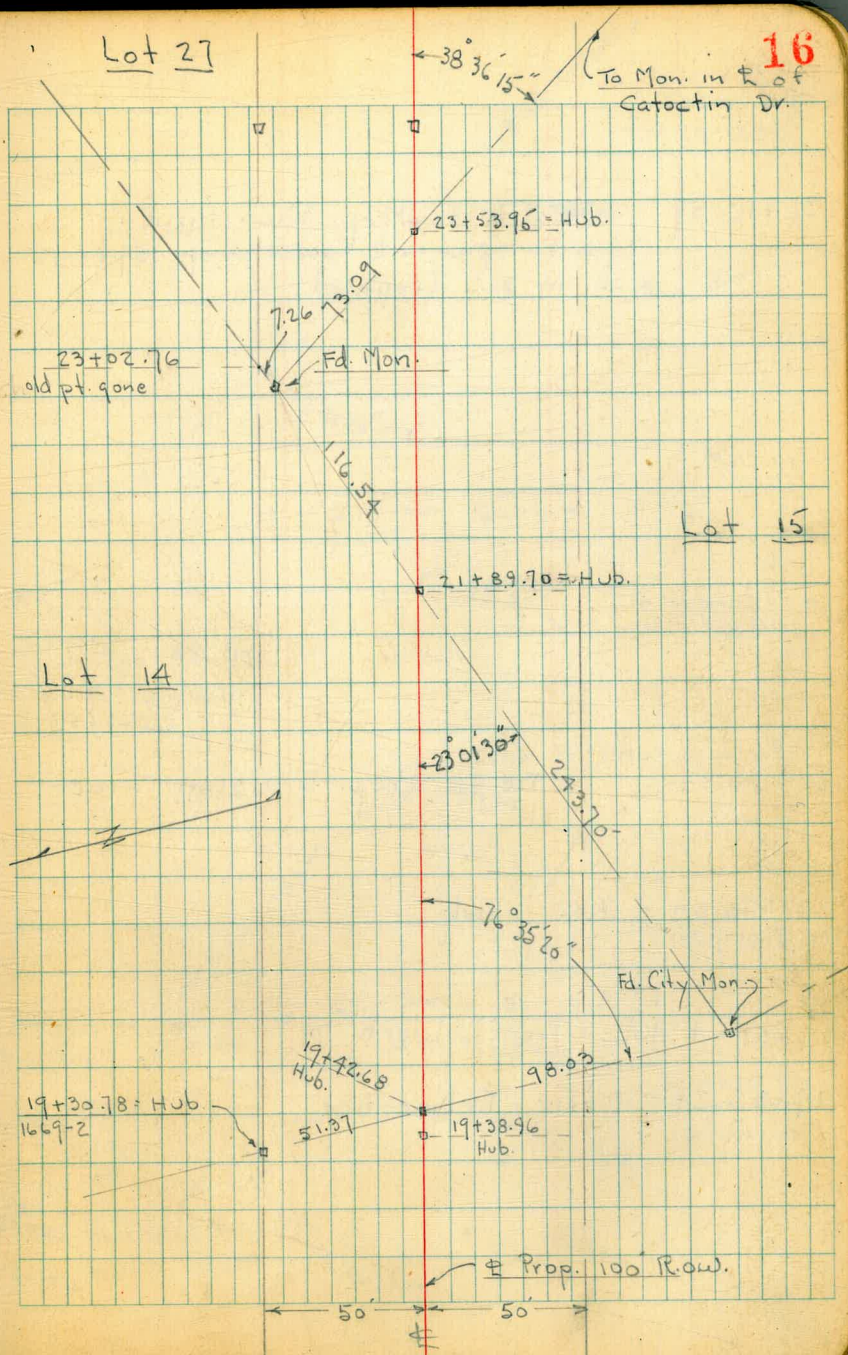
22+85 - checked Loc. of Prop. culvert - O.K.

21+89.70 = Tie - E + Line bet. Lots 15 + 14

19+42.68 = E Hub - Int Lot line

19+38.96 = E P.O.T. Hub - fd.

19+30.78 = Hub - on N.L. Row. + Lot line



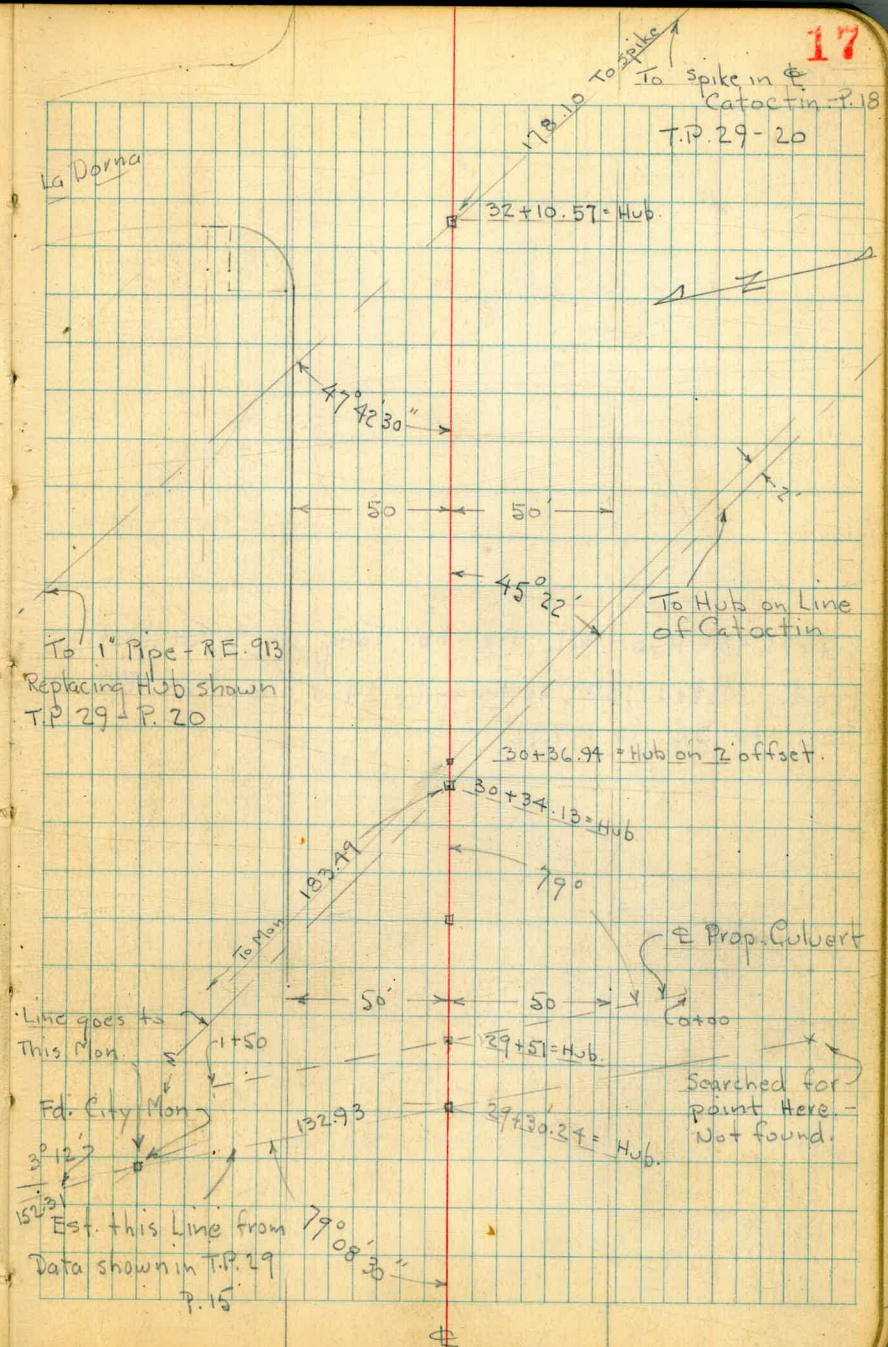
32+10.57 = Φ Tie to Prop. Div. Line
 178.10 to spike in Φ Cactactin or 157.80 to
 Hub on N.L. (replaced)

30+34.13 = Φ Tie to Prop. Division line

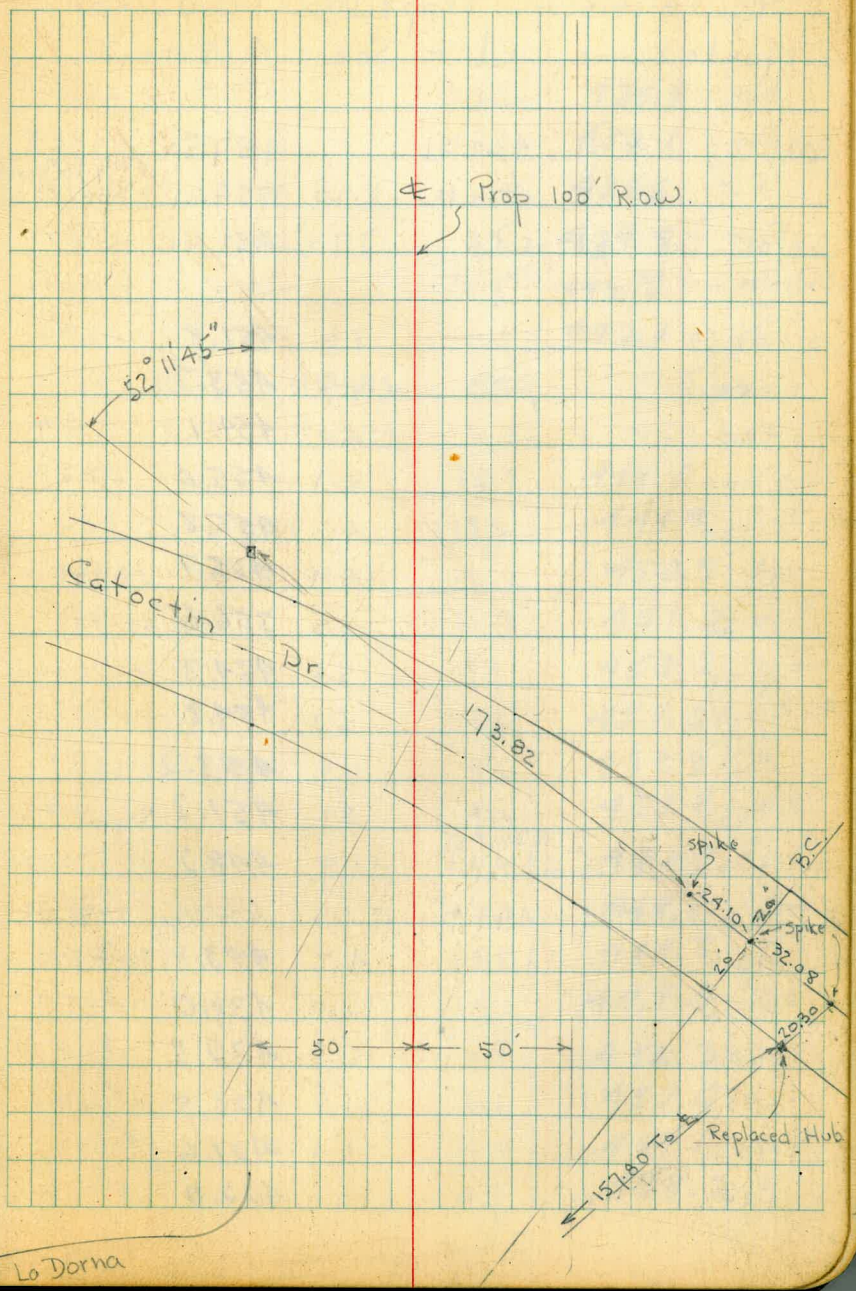
31+70.84 = P.O.T. - Hub.

29+51 = Φ Hub. = Prop. Culvert 79°

29+30.24 = Φ Tie - To line bet. Lots 27 + 28



$34 + 71.43 = \text{Hub.} = \text{N.L. Tie to Tang. of } \# \text{ Catoctin}$
 $\text{Prod.} - \text{Note: } 173.82 \text{ is to spike } 24.10 \text{ ahead of B.C.}$
 $\text{Dist. to B.C. is } 197.92$



± Levels - Prop. 100' R.O.W. for
Montezuma Rd. - See - P. 14 to 18

B.M.	5.01	462.51		457.50	
	2.81	460.12	5.20	457.31	+w/ly. La Mesa Cal. = Pipe-on sl.
Set B.M. Top Hyd. S.E. Cor College Ave & Mission Valley Rd.			7.70	452.42	
o + 48.58 = EL Sub.			4.3	451.8	
1 + 00			6.4	453.7	
+ 50			6.0	454.1	
2 + 00			5.1	455.0	
+ 50			4.3	455.8	
3 ~			4.4	455.7	
+ 50			3.5	356.6	
4 ~			5.8	454.3	
+ 50			5.3	454.8	
5 ~			6.9	453.2	
+ 50			8.9	451.2	
+ 85.6 = 5 + 75 old line			11.9	448.2	-2
T.P.	0.49	447.95	12.66	447.46	Hub. 5 + 90.68
6 + 10.6 = 6 + 00 old.			4.2	443.8	-2
+ 35.6 = 6 + 25			10.0	438.0	-8
+ 60.6 = + 50			15.5	432.5	-1
+ 85.6 = + 75			21.5	426.5	✓
7 + 10.6 = 7 + 00			26.4	421.6	+5
+ 35.6 = 7 + 25			26.0	422.0	+1

447.95

7 + 60.6 = 7 + 50	22.1	425.9	+4
7 + 95.6 = 7 + 75	15.9	432.1	+7
8 + 10.6 = 8 + 00	11.4	436.6	-2
+ 35.6 = + 25	8.5	439.5	-2
+ 60.6 = + 50	5.8	442.2	✓
+ 90.6 = + 80	0.9	447.1	✓
T.P.	12.16	459.82	0.29
T.P.	5.80	463.11	2.51
9 + 10.6 = 9 + 00	15.1	448.0	✓
+ 35.6 = 9 + 25	13.2	449.9	+1
+ 49.42 = B.C. = 37.77 old.	12.6	450.5	✓
+ 84.45 = 7 + 75	11.9	451.2	-8
10 + 08.64	9.9	453.2	-2
+ 32.83	9.5	453.6	-5
+ 57.03	9.2	453.9	✓
+ 81.22	9.3	453.8	+1
11 + 05.41	10.6	452.5	+1.1
+ 29.61	13.3	449.8	+2.6
+ 53.80	18.8	447.3	+2
+ 78	14.1	449.0	-6
12 + 03	6.8	456.3	-1
+ 26.38	6.1	457.0	-1
+ 50.57	4.0	459.1	-2
+ 67.81 = E.C.	4.9	458.2	✓

463.11

on Hub				
13+00		4.6	458.5	-.2
+50		5.3	457.8	+1.3
14~		6.2	456.9	✓
+50		6.6	456.5	+1
15~		6.4	456.7	-.1
+50		6.5	456.6	-.1
16~		6.2	456.9	+1
+50		5.8	457.3	-.2
17~		5.2	457.9	✓
+50		5.1	458.0	✓
18~		5.4	457.7	✓
+50		5.5	457.6	+1.2
19~		5.5	457.6	-.1
T.P.	0.96	5.61	457.50	Hub.
+50		1.1	457.9	-.1
Set BM. on Mon. 95 Rt -19+50		1.27	457.19	
20~		2.0	456.5	-.1
+50		2.6	455.9	✓
21~		3.8	454.7	-.2
+50		5.2	453.3	-.1
21+89.70		7.27	451.19	on Hub.
22~		7.8	450.7	-.1
+11		8.6	449.9	-.1
+25		15.3	443.2	-1.0

458.46

20

22+50		20.1	438.4	+1
+75		19.2	439.3	-.6
23+00		13.7	444.8	+1.9
+30		9.5	449.0	+1.6
+50		9.1	449.4	+1.9
T.P.	4.03	9.20	449.26	Hub. -23+53.95
+80		4.5	448.8	+1.2
24+10		4.0	449.3	✓
+50		3.0	450.3	+1
25~		2.0	451.3	-.1
+50		2.0	451.3	✓
26~		2.5	450.8	-.1
+50		2.4	450.9	+1
27~		2.1	451.2	✓
+25 = BM on Hub.		2.57	450.72	
+50		3.5	449.8	-.2
28~		6.8	446.5	✓
+50		10.8	442.5	-.3
T.P.	2.99	12.33	440.96	
29~		4.8	439.2	+1.6
+25		6.9	437.1	✓
29+30.24		7.03	436.92	on Hub
+50		7.6	436.4	-.3
29+51 = Prop. Culvert		7.46	436.49	on Hub

Levels on Prop. Culvert at $29+51$

See sketch for Angle

443.93 - P. 20

0+00 = upstream end.	4.7	439.3
10 Lt.	3.9	440.1
10 Rt.	4.5	439.5
0+25 = approx. S.L. - \oplus	5.8	438.2
10 Lt.	5.7	438.3
10 Rt.	4.9	439.1
0+75 = \oplus Row	7.4	436.6
1+25 = \oplus	9.0	435.0
10 Lt.	9.2	434.8
10 Rt.	8.5	435.5
1+50 = \oplus = end	9.9	434.1
10 Lt.	10.1	433.9
10 Rt.	9.4	434.6

Req. Req. \oplus Profile

30+00	3.2	440.8	-2
T.P.	10.41	454.21	0.15
30+50	8.6	445.6	-3
31~	5.5	448.7	-2
31+50	4.2	450.0	-1
32~	4.0	450.2	✓

32+50	4.8	449.4	+1
33~	4.9	449.3	-2
+50	4.1	450.1	✓
34+00	2.8	451.4	+1
34+18 = \oplus Road. Coldlay Catactin	2.3	451.9	+2
check Hub.	6.00	448.21	✓

448.21
669-P.18

X-Sec. Ingelow.

Scott to Rosecrans

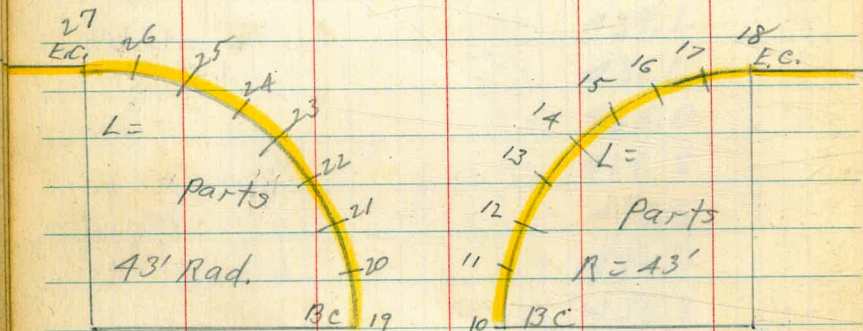
6-30-48

W.D. 25001

Sommermeier
E.L. Melton
F. Finney
W. Duncan

INDEXED

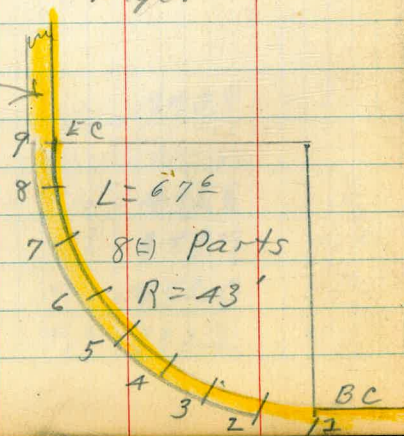
(W) = water meter box



S. Ely. Ret Rosecrans
+ Ingelow.
Levels by # on
page

2 1/2 wide conc. gutter

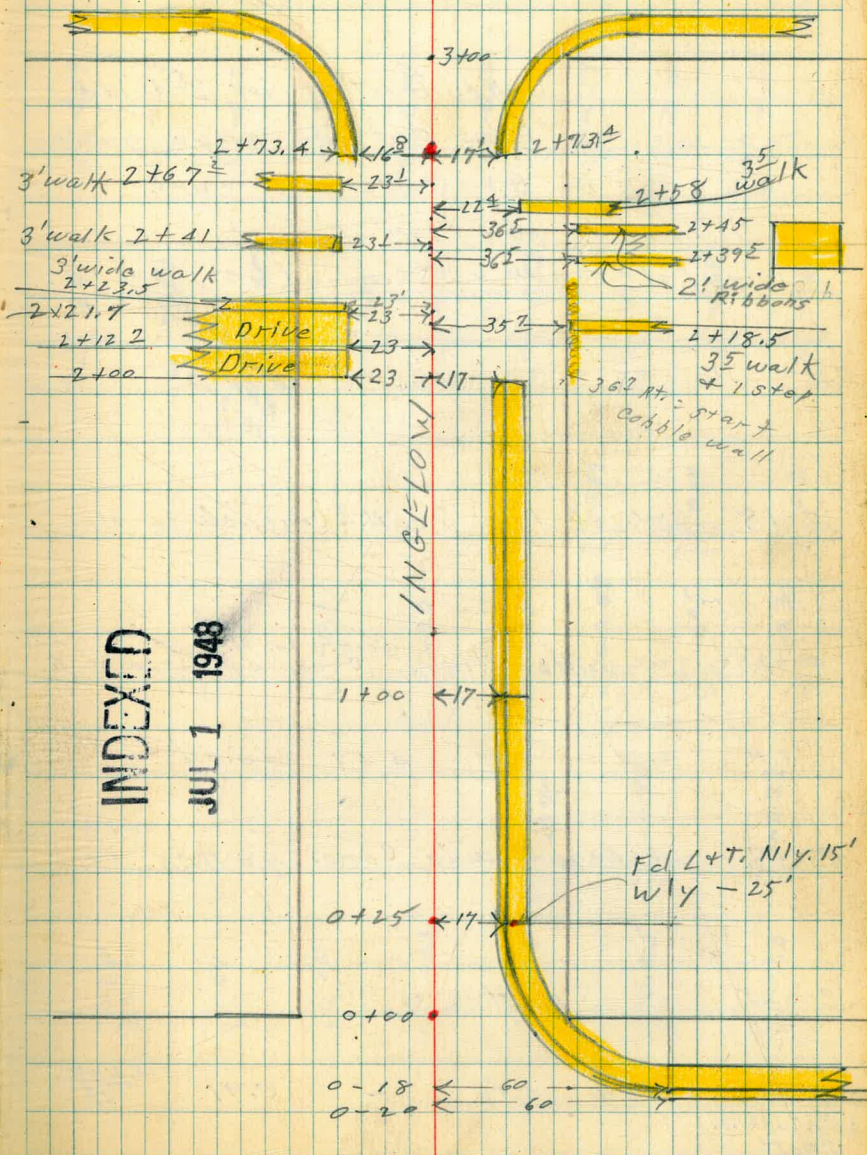
Newly Return
Scott & Ingelow.
Levels by # on
page



Fd. L+Disk

Rosecrans

22



INDEXED

JUL 1 1948

Scott

S.W. 154 7/ Disk
ING @ 100 + Rosecrans -

INGELON ST.

5.60 3.35

(3.134)

by number. See page 22

S. Ely. Rot. Rosecrans + Ingelou

by number. See page 22

N. Ely. Rot. Rosecrans + Ingelou

3+16^L Ely. gutter Rosecrans

3+16 Ely. Ch. Rosecrans

3.86	3.27	3.83	3.30	3.86	3.24	3.82	3.20
5.09	5.68	5.02	5.65	5.09	5.71	5.13	5.75
24	24	25	25	26	26	27	27
06	06	06	06	06	06	06	06
2.83	2.24	3.02	2.42	3.26	2.65	2.92	3.22
6.12	5.71	5.95	6.53	5.69	6.30	5.42	5.23
19	19	20	20	21	22	22	23
06	06	06	06	06	06	06	06
3.36	4.16	3.53	4.22	3.59	4.29	3.64	4.37
5.59	4.79	5.42	4.73	5.36	4.66	5.31	4.58
14	15	15	16	16	17	17	18
06	06	06	06	06	06	06	06
3.00	2.41	3.34	2.69	3.55	2.94	3.78	3.16
5.95	6.54	5.61	6.26	5.40	6.01	5.17	5.79
10	10	11	11	12	12	13	13
06	06	06	06	06	06	06	06
3.00	3.11	3.19	3.41	3.63	3.70	3.75	4.05
5.25	5.84	5.76	5.54	5.32	5.25	5.20	4.90
150	100	60	35		35	60	112
3.60	3.70	3.82			4.37	4.65	4.91
5.35	5.25	5.13			4.58	4.30	4.04
150	100	60			60	112	160

8.95

x sec Low St Cass to Exarts
for any new improvements

See Sketch 1765-32

0496 9 75 Con. drive (new)

INDEXED
W.K.

0473 9 New 3' Con walk AUG 25 1948

0100 = E.L. Dawes

Use this

SET B.M. Top of Lower Strip
Chisel Cross NW Cor. of 278 77.96
Low 4 Dawes
T.P. 672 80.74 1.38 7402

2467 9 3' Con. walk (old walk)
2172
1675-42

1119 9 3' Con. walk (new)

0467.5 Con. old Con. do. 1765-40

0400 E.L. Cass St

B.M.
SW BP 9.00 75.40 66.40 Cass and Low
1765-36

Moore
Shannon
Bunch
8-24-48

W.O. 31569

79.28
1.46
39.5

76.19
2.55
39.5

80.74

72.31
3.09
39.7

69.65
5.75
210

69.69
5.71
50

68.18
2.22
con. do.

75.40

check B.M.^s

Lavi

L

E

P

30

BM. 9.83 72.01 62.18 Spike P.P. N.E. Cor. Missouri & Dawes

T.P. 7.91 78.71 1.21 70.80

check to BM. chisel cross 0.82 77.89 ^{0.07} 77.96 P.29 Top Lower step NW Cor Lavi & Dawes

Check B.M.^s from P.29

BM. SW BP 8.75 75.15 66.40

Lavi & Cass (F.B. 1765-36)

T.P. 6.28 79.04 2.39 72.76

check to BM. chisel cross 1.075 77.965 ^{P.29} 77.96 _{0.005} Use this Top Lower step NW Cor. Lavi & Dawes

Lavi St

41131 W.L. North Shore Highlands

84.81
3.47
2.0
6

83.85
4.43
2.0
6

T.P. 7.81 88.28 0.27 80.47

88.28

80.74

80.74

Set B.M.S for Dawes
and Wilbur Sts.

B.M. Chisel Cross 6.14 84.10 77.96 ✓

T.P. 10.50 94.41 0.19 83.91 ↓

T.P. 5.48 99.28 0.61 93.80

Set B.M. 2.77 96.51 ↑

T.P. 9.51 108.11 0.68 98.60

Set B.M. 4.41 103.70 ↓

T.P. 0.70 101.35 7.46 100.65

T.P. 1.25 93.72 8.88 92.47

Set B.M. 3.26 90.46 ↓

T.P. 2.36 84.68 11.40 82.32

T.P. Set B.M. 2.86 81.82 ↓

Top Lower Step NW. Cor. Law & Dawes ✓

Set B.M. NW 7' dist Beryl & Dawes ✓

B.M. Chisel Cross NW. Cor. Con. Porch
on S.E. Cor. of Dawes & Wilbur ✓

chisel square & Return SW. Cor. boring
and Dawes ✓

chisel square & SE Return boring & Cass ✓

chisel square & S.E. Return Wilbur & Cass.

D. Smith
W. Moore
J. Clark
F. Acuna

X Sec Alley Imig Park 2
Between 47th & 48th

WO# 25001

May 23 1949

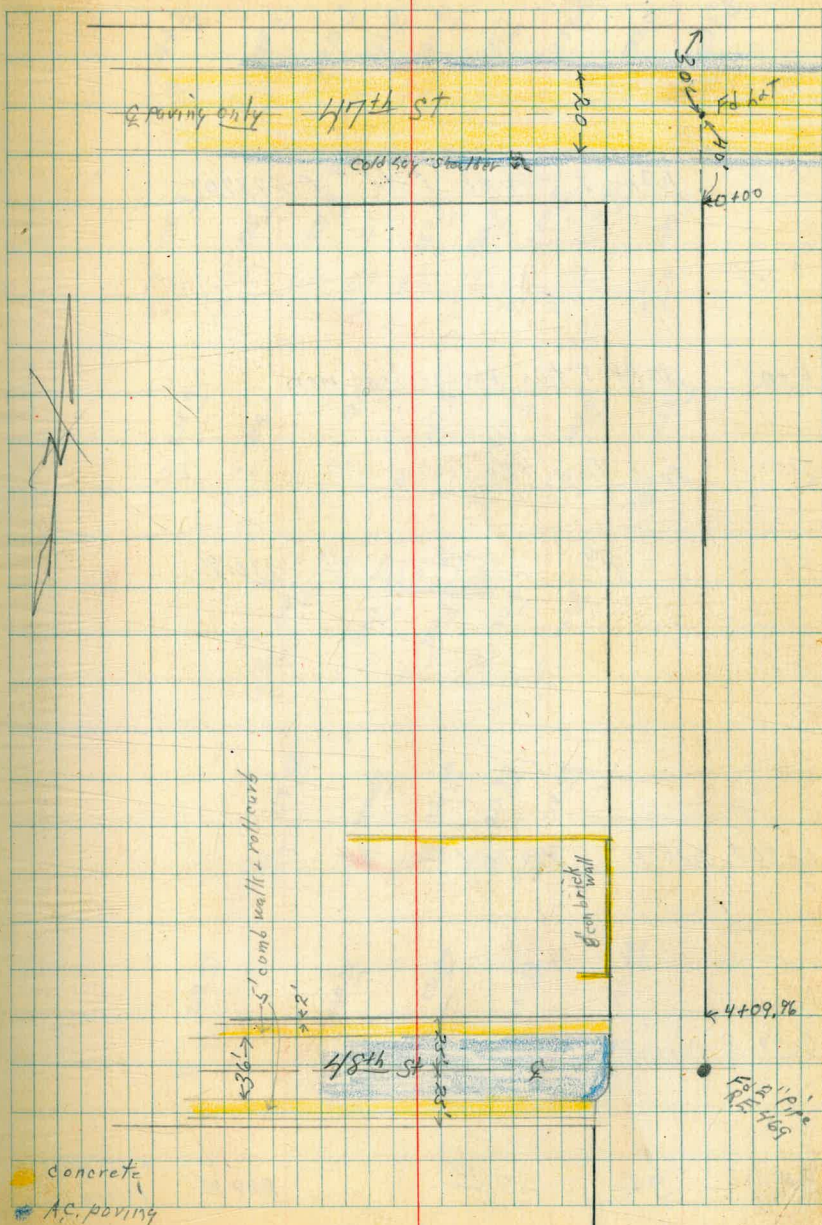
32

INDEXED

W.K.

MAY 24 1949

notes Transcribed 6/10/49
M'Claren
Plotted 6-10-49
Seen Profile # 3845



X Sec Alley Imig Park 2
 btw. 47th & 48th

0+50

0+26 103ft E Power Pole # P 273707

0+25

0+05 10RT E two anchor dead men

0+00 East Prop 47th St

TP 8th 238⁵² 0th 230¹⁴

0-20

0-30 E Ed Edge con paving 47th

0-40 E paving 47th St

BM 3rd 231¹⁴

229⁰⁵ 814T 47th +
 Federal

LT=North

E

RT=South

33

234.8	235.5	233.1	232.6	230.9	231.7	232.0	232.0	232.0
38	31	56	60	72	68	66	66	66
50	25	10	5		5	10	25	50

235.9	235.3	232.4	231.7	229.7	230.7	230.2	230.9	230.4
22	33	63	69	82	72	84	72	82
50	25	10	5		2	10	25	50

235.9	234.8	231.5	227.6	223.9	223.4	223.9
27	38	72	110	142	152	142
50	25	10		10	25	50

218.7	238.57		220.4	221.8
124	112	108	107	93
50	10	10	10	50

219.38	220.67	221.00	221.30	222.42
1176	1097	1074	988	872
50	10	10	10	50

219.49	220.72	221.04	221.33	222.44
1165	1042	1010	911	872
50	10	10	10	50

231¹⁴

cont

3105 96 RT & Power Pole #P273708

3110 10' RT Begin 4 1/2' high 8" wide con brick wall

311

3100

2150

2100

1768 96R E Power pole #JP278399

1750

1700

LT

R

RT

230.1	229.2	229.7	222.1	232.5	232.5	232.5	232.2	232.2
50	54	69	65	61	61	60	54	54
50	37	22	10	5	61	10	25	50
232.8	231.2	232.4	232.6	232.5	232.6	233.0	233.2	233.1
98	74	63	60	61	60	56	54	54
50	28	25	10		10	20	50	50
232.5	232.2	233.5	233.8	233.2	232.6	232.9	233.3	233.1
60	64	54	48	53	60	52	56	56
50	30	20	13	10	60	10	20	50
232.5	232.6	234.0	233.1	232.5	232.2	232.5	232.7	232.7
61	53	46	55	61	64	61	58	58
50	40	16	10	5	10	10	25	50
234.0	234.9	233.4	232.1	232.3	232.3	232.3	232.2	232.2
46	32	52	65	63	63	64	64	64
50	19	10		10	25	50	50	50

23857

cont

BM

482

230.72

230.80 ✓
SE T.P. Hyd
48th Federal

413496 E 48th St

411626 West curbline 48th St

41105 11° RT E Power Pole # 273710

410996 West prop 48th St

4100

3195 10' RT End 8" con-brick wall

3150

TP₂

303

235.61

592

232.58

Lt E RT

229.6	230.5	229.92	230.3	230.2	230.98	230.71	231.29
60 30	51 33	50 10	53 10	54	53 10	490 25	432 50
228.7	229.5	230.4	230.3	230.44	231.12	230.59	230.89
60 30	61 25	52 20	53 10	57 10	449 10	502 25	422 25
229.8	230.7	230.8	230.8	230.8	230.9	231.7	
58 50	49 10	48	48 10	42 10	42 20	39 50	
229.9	230.9	231.2	231.6	232.2	232.6		
57 50	47 10	44	40 10	34 20	30 50		
229.4	229.9	231.1	231.8	232.4	232.8	231.7	234.00
68 50	58 22	45 17	38 10	33	20 10	43 10	161 10

235.61

CROSS SECTIONS - Proposed ^{Garbage} Hopper Road

"A" Line - sketch p. 37

Cont. p. 39

1+82.5

INDEXED

W.K.

JUL 12 1949

1+40

0+93.35 = P.O.T. "A" Line

0+50

0+17.32 = P.O.T. "A" Line = BC on "B" Line

0+00 = NWLY Line Sherman

T.P. 511 12.57 499 746

6.01 13.95 644

61.

61

57

36

^{1.6} 5.0 100	^{1.3} 5.3 86	^{1.3} 5.3 50	^{1.6} 5.0 75	^{1.4} 5.2	^{1.6} 5.0 75	^{1.4} 5.2 20
------------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------	-----------------------------	-----------------------------

^{1.4} 5.7 100	^{1.0} 5.6 75	^{1.4} 5.2 50	^{1.6} 5.0 20	^{1.4} 5.2 75	^{1.3} 5.3	^{1.5} 5.1 75	^{1.3} 5.3 20
------------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------	-----------------------------	-----------------------------

^{1.4} 5.7 75	^{1.1} 5.5 50	^{1.6} 5.0 20	^{1.5} 5.1 75	^{1.35} 5.19 on Hub	^{1.4} 5.2 75	^{1.1} 5.5 20
-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------------	-----------------------------	-----------------------------

^{1.2} 5.4 20	^{1.4} 5.2 75	^{1.5} 5.1	^{1.5} 5.1 75	^{1.1} 5.5 20
-----------------------------	-----------------------------	-----------------------	-----------------------------	-----------------------------

^{1.8} 5.8 125	^{1.9} 5.7 225	^{1.4} 5.7 15	^{1.5} 5.8 75	^{1.5} 5.8	^{1.2} 5.4 75	^{1.9} 5.7 20
------------------------------	------------------------------	-----------------------------	-----------------------------	-----------------------	-----------------------------	-----------------------------

^{1.5} 5.1 125	^{1.4} 5.2 225	^{1.2} 5.4 75	^{1.25} 5.32 on Hub	^{1.2} 5.4 75	^{1.9} 5.7 20
------------------------------	------------------------------	-----------------------------	-----------------------------------	-----------------------------	-----------------------------

12.57 ✓

B.M. on Conc. Mon F.B. 1693

37

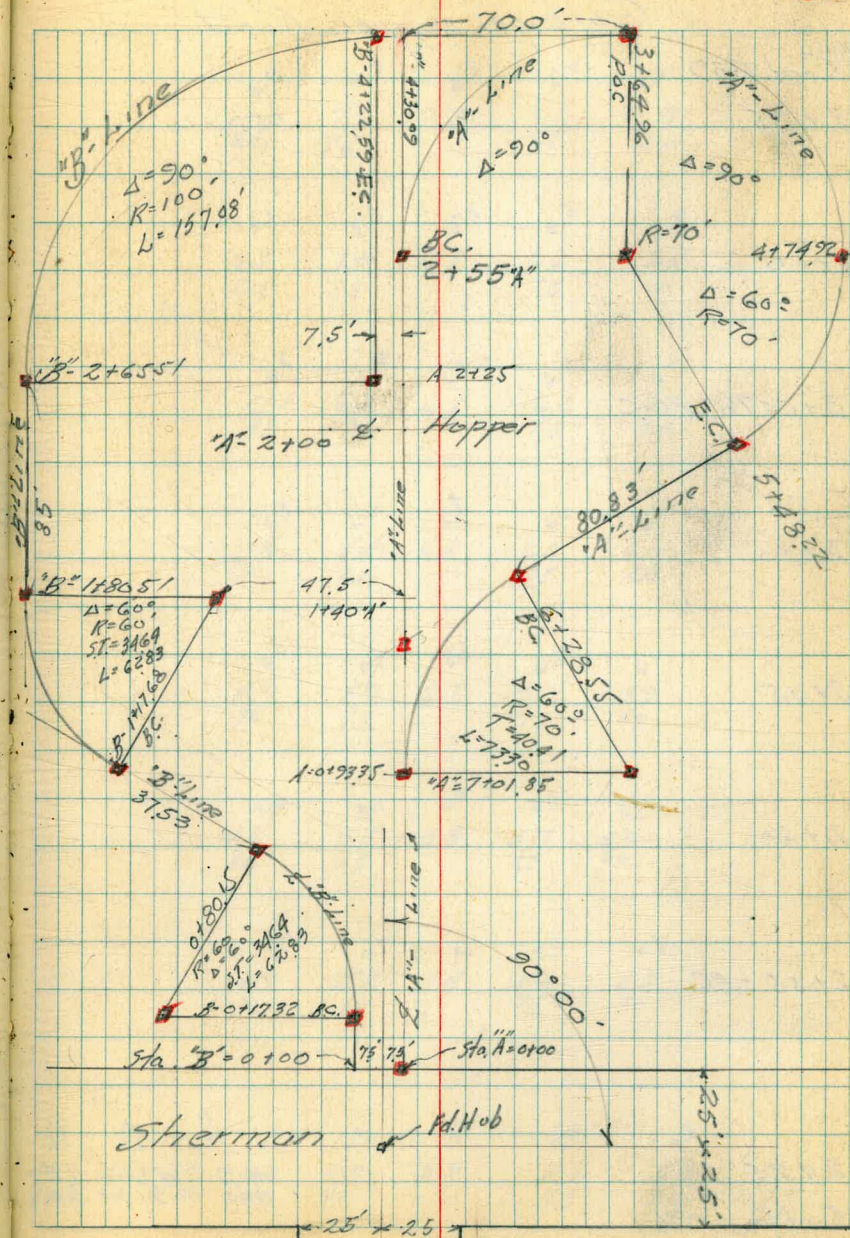
Walker
Johnson
Pope
Crowford
7-11-49

Alignment for Proposed Garbage Hopper Road

□ = Set 2" x 2" x 10" Redwood Hub

(Cross Sections P. 36-43)

Old W.O. 60357
New - 20456



"A" Line Cross Sections
Garbage Hopper Road

Cont. P39

4+25

4+00

3+6496 = P.O.C

3+30

3+05

2+80

2+55 = B.C.

2+25

Cont. from P36

12.57

4.9
100

4.9
91

5.5
88

4.9
84

4.5
64

4.7
50

4.9
33

5.3
75

5.5

5.2
75

5.3
20

2.6
10.0
20

2.7
7.9
7.5

2.9
7.7

5.0
7.6
7.5

6.0
6.3
20

3.1
9.5
20

5.3
7.3
7.5

5.9
6.7

6.0
6.6
7.5

6.4
6.2
20

6.1
30

6.4
7.5

6.5
6.1

6.4
6.2
7.5

6.4
6.2
20

6.8
3.8
30

6.2
6.4
7.5

5.8
6.8

6.1
6.5
7.5

6.6
6.0
20

6.9
5.7
30

6.7
5.9
7.5

6.3
6.1

6.9
5.7
7.5

6.1
5.9
20

7.6
4.8
30

7.1
5.5
7.5

6.8
5.8

6.9
5.7
7.5

6.1
5.9
20

7.7
4.9
30

7.4
5.2
7.5

7.1
5.5

7.3
5.3
7.5

7.5
5.3
20

12.57

A^c Line Cross Sections
Garbage Hopper Road

Lt.

L.

Rt.

39

Cont. P. 40

6+50

6+28.55 = B.C.

5+90

5+48.22 F.G.

5+25

5+00

4+74.92 = P.O.C

4+50

^{6.9} 5.7 20	^{7.0} 5.6 7.5	^{7.4} 5.2	^{7.5} 5.1 7.5	^{7.7} 4.9 20
^{7.0} 5.6 20	^{6.8} 5.8 7.5	^{6.9} 5.7	^{6.5} 5.7 7.5	^{7.1} 5.4 20
^{7.2} 5.3 20	^{7.2} 5.4 7.5	^{7.0} 5.6	^{7.1} 5.5 7.5	^{6.4} 6.2 20
^{6.7} 5.9 20	^{6.4} 6.2 7.5	^{6.5} 5.8	^{7.1} 5.5 7.5	^{7.0} 5.6 20
^{6.2} 6.4 20	^{6.1} 6.5 7.5	^{6.0} 6.6	^{6.1} 6.5 7.5	^{6.6} 6.1 20
^{5.9} 6.8 20	^{6.1} 6.4 7.5	^{6.4} 6.2	^{6.0} 6.6 7.5	^{5.9} 6.7 20
^{5.3} 7.8 20	^{5.4} 7.2 7.5	^{6.2} 6.4	^{6.1} 6.5 7.5	^{5.8} 6.8 20
^{5.3} 6.9 20	^{5.5} 7.1 7.5	^{6.0} 6.6	^{5.7} 6.9 7.5	^{6.0} 6.6 20

12.57

"A" line - Cross Sections
Garbage Hopper Road

Lt.

L

Rt.

40

7+01.85 see 0+93.35

G+75

7.3
5.3
20

8.1
4.5
7.5

8.1
4.5

7.6
5.0
7.5

7.9
4.7
20

12571

Walker Johnson
 Pope
 Grand Proposed Garbage Hopper Road
 7-11-49 Location P-37

2+23.01 = opp 1+82.5 on "A" line

1+80.51 = E.C.

1+49.10

1+17.68 = B.C. R.H.

0+80.18 = E.C.

0+48.74 = Curve

0+17.32 } see "A" line Cross Sections
 5+00 }

11

2

Rt.

41

6.3 20	5.7 7.5	5.5	5.0 7.5	
5.9 20	5.7 7.5	5.6	5.5 7.5	6.0 20
4.6 20	4.8 7.5	5.3	5.6 7.5	5.8 20
5.7 20	5.7 7.5	5.8	5.8 7.5	5.8 20
5.3 20	5.6 7.5	5.4	5.3 7.5	5.2 20
5.5 20	5.3 7.5	5.2	5.1 7.5	5.4 20

1257

"B" Line
Garbage Hopper Road
Cross Sections.

4100

3+75

3+50

3+25

3+00

2+65.51 = B.C.

^{1.4} 5.2 20	^{1.4} 5.2 7.5	^{1.3} 5.3	^{1.4} 5.2 7.5	^{1.2} 5.3 20
-----------------------------	------------------------------	-----------------------	------------------------------	-----------------------------

^{8.3} 4.3 20	^{8.1} 4.5 7.5	^{1.3} 5.3	^{6.9} 5.7 7.5	^{1.8} 4.8 13	^{1.9} 4.7 20
-----------------------------	------------------------------	-----------------------	------------------------------	-----------------------------	-----------------------------

^{7.8} 4.8 20	^{8.0} 4.6 7.5	^{1.5} 4.8	^{1.4} 4.7 7.5	^{8.1} 3.9 20	^{7.1} 4.9 24
-----------------------------	------------------------------	-----------------------	------------------------------	-----------------------------	-----------------------------

^{1.1} 4.9 20	^{7.6} 5.0 7.5	^{8.0} 4.6	^{1.5} 5.1 7.5	^{1.9} 4.7 7.5	^{1.8} 4.8 20
-----------------------------	------------------------------	-----------------------	------------------------------	------------------------------	-----------------------------

^{7.3} 5.3 20	^{7.6} 5.0 7.5	^{7.7} 4.9	^{1.5} 4.7 7.5	^{8.1} 4.8 12	^{7.4} 5.2 15	^{1.8} 4.8 20
-----------------------------	------------------------------	-----------------------	------------------------------	-----------------------------	-----------------------------	-----------------------------

^{6.7} 5.9 20	^{6.4} 5.7 7.5	^{7.4} 5.4	^{7.7} 4.9 7.5
-----------------------------	------------------------------	-----------------------	------------------------------

"B" Line
Garbage Hopper Road
Cross Sections

Check Starting BM 6.13 6.44

5+00.00 = End "B" line See 3+64.96 "A" line for Section

4+65

4+30.09 = P.O.T.

4+22.59 = E.C.

Lt.

Rt.

177.

43

Notes Reduced. 7.13.59

6.1 20	6.2 7.5	6.6 50	6.9 7.5	6.3 20
6.1 20	6.2 7.5	6.1 50	6.0 7.5	5.8 20
6.1 20	5.9 7.5	5.9 50	5.6 7.5	5.5 20

12.57 ✓

Cross Section Montezuma Road.
East of College Hill
Sketch Page 44

0-65.5

0-76.8

0-87 = Cb E.C. on Lt.

0-94.5 $\frac{1}{2}$ = 8' Gate Valve Cover 448.81 Top

0-98

0-109

0-109 = East Curb Line College Hill on Diagonal

BM 2.76 455.27

452.57

SFT Top H/O
Montezuma
College Hill

Lt. N

S

Rt. S

45

449.83 5.44 17.5 17.5 Gut	449.62 5.65 17.5 17.5 Gut	449.02 6.35 17.5 17.5 Gut	449.56 5.71 17.5 17.5 Gut	449.41 5.86 17.5 17.5 Gut	449.06 6.19 17.5 17.5 Gut	449.71 5.56 17.5 17.5 Gut	449.81 5.46 17.5 17.5 Gut	449.6 5.7 17.5 17.5 Gut	449.2 6.1 17.5 17.5 Gut
449.75 5.53 17.5 17.5 Gut	449.54 5.72 17.5 17.5 Gut	448.95 6.02 17.5 17.5 Gut	449.36 5.89 17.5 17.5 Gut	449.15 5.13 17.5 17.5 Gut	448.94 6.23 17.5 17.5 Gut	448.82 6.45 17.5 17.5 Gut	449.38 5.89 17.5 17.5 Gut	449.38 5.89 17.5 17.5 Gut	449.4 5.9 17.5 17.5 Gut
449.71 5.56 17.5 17.5 Gut	449.51 5.76 17.5 17.5 Gut	448.97 6.20 17.5 17.5 Gut	449.16 5.11 17.5 17.5 Gut	448.91 6.36 17.5 17.5 Gut	448.71 6.56 17.5 17.5 Gut	448.46 6.81 17.5 17.5 Gut	449.13 6.14 17.5 17.5 Gut		
449.60 5.67 17.5 17.5 Gut	449.40 5.87 17.5 17.5 Gut	448.80 6.47 17.5 17.5 Gut	448.97 6.20 17.5 17.5 Gut	448.79 6.48 17.5 17.5 Gut	448.61 6.66 17.5 17.5 Gut	448.40 6.87 17.5 17.5 Gut			
449.76 5.51 17.5 17.5 Gut	449.38 5.89 17.5 17.5 Gut	448.84 6.43 17.5 17.5 Gut	448.90 6.37 17.5 17.5 Gut	448.73 6.54 17.5 17.5 Gut					
449.74 5.63 17.5 17.5 Gut	449.13 6.4 17.5 17.5 Gut	448.88 6.39 17.5 17.5 Gut	448.82 6.45 17.5 17.5 Gut	448.78 6.54 17.5 17.5 Gut	448.54 6.72 17.5 17.5 Gut	448.37 6.90 17.5 17.5 Gut	448.10 7.17 17.5 17.5 Gut	448.66 6.61 17.5 17.5 Gut	

433.27

0+586 = C6.F.C. Rt.

0+557 = Sky Curb Return on Rt.

0+257 = Sky Alley Return on Rt.

0+16.7 = C6.B.C. on Rt.

45527

Lt

Rt

Rt

47

453.6	451.8	451.8	452.0	451.8	451.8	451.83	451.88
12 50	33	35	33	35	35	34 35	33 35

Sky Curb
Walk

452.7	452.6	451.8	451.7	451.8	451.7	451.8	451.8	451.94
26 50	27 48	30 33	31 35	35	36 38	40 33	38 30	33 30

Sky Curb
Return

453.3	451.9	451.8	451.0	451.0	451.2	451.0	450.9	451.64	451.2
30 50	34 45	35 38	33 38	33 35	41	43 36	44 30	36 30	41 30

Sky Curb
Return

451.0	450.8	450.8	451.0	451.0	450.75	451.44	451.54	451.3
33 50	35 38	35 35	43 35	43	45 35	38 35	33 35	40

Sky Curb
Return

45527

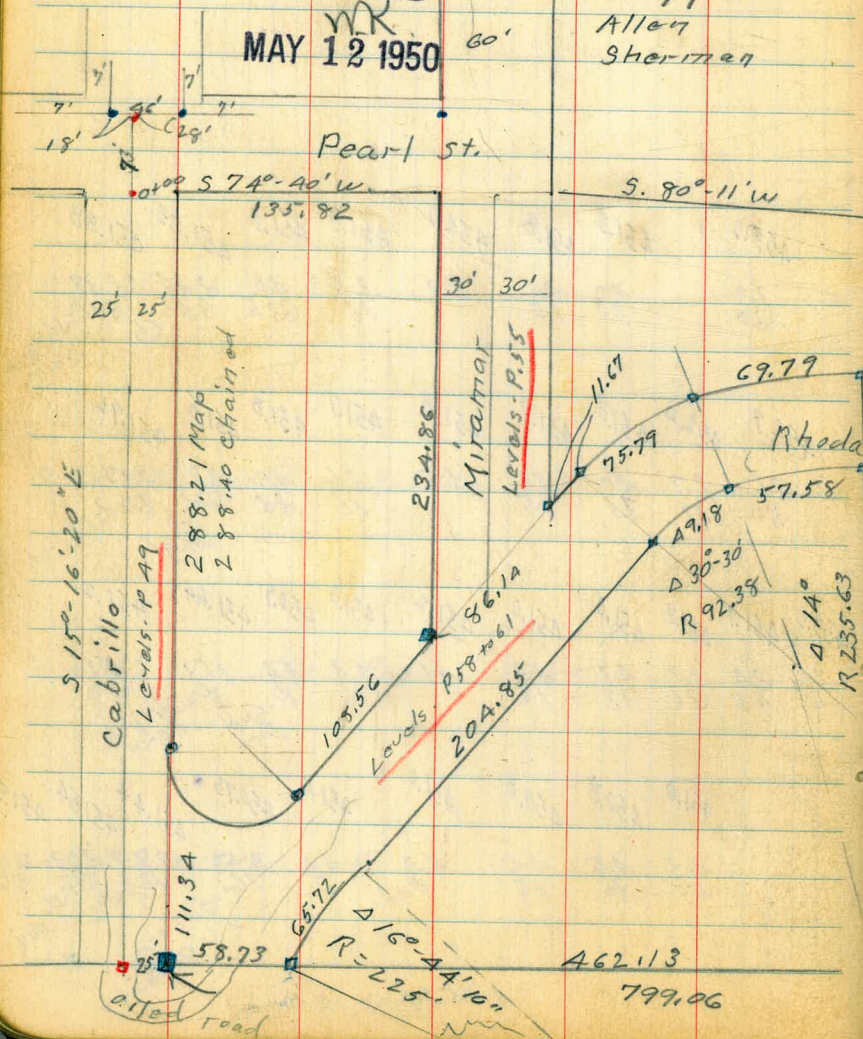
RHODA Drive
 CABRILLO AVE } IN
 MIRAMAR AVE } Beverly Hgts.
 MAR AVE }

X-Sec. for grade Est't. 5/8/50

INDEXED

MAY 12 1950

Sommermeyer
 Begg
 Allen
 Sherman



2243 B
 255 M
 1965 B

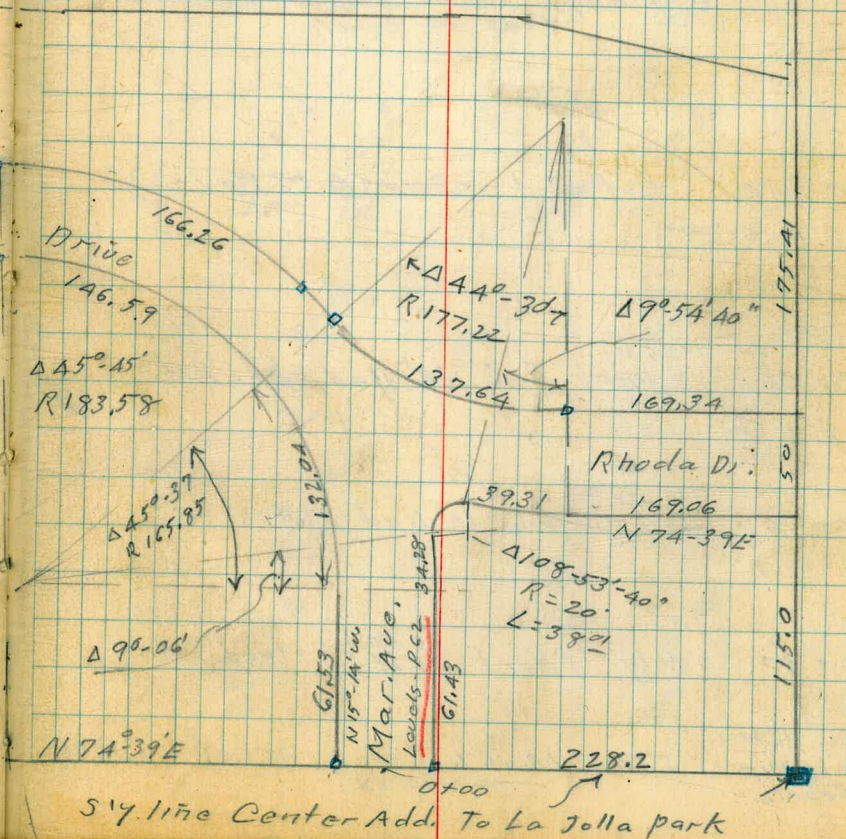
48

- = Fd conc. Mon
- = Fd iron pin
- = Fd. L+T.
- = Fd. pipe
- = set 1/2 x disk
- = Nail

Field Books
 #1883-48

Data from Map # 2129 + 915
 Tie sheet # 2158

Prep not tie painted (pins + pipes do not all) ^{check}



Cabrillo.

0+51 28' Lt. = start 9' High Conc. wall.
 T.P. 6.12 163.29 3.50 157.17

161.4
 $\frac{1.9}{28}$
 Base of wall
 162.7
 $\frac{0.8}{28}$
 161.6
 $\frac{1.7}{25}$
 157.0
 $\frac{6.3}{20}$
 6.1
 157.2
163.29
 156.5
 $\frac{6.8}{25}$

0+49 20' Lt. = 3' wide conc. + rock steps

165.2
 $\frac{15.0}{35}$
 160.3
 $\frac{0.4}{25}$
 158.0
 $\frac{2.7}{20}$
 Bottom step

0+00 Cont.

160.7
 $\frac{0.0}{35}$
 157.13
 $\frac{3.54}{32}$
 S.E. Cor. walk
 156.1
 $\frac{4.6}{25}$
 155.81
 $\frac{4.9}{35}$

25' Lt. }
 15' Rt. } = End curb.

0+00 = Sly. line Pearl.

157.05
 $\frac{3.62}{27}$
 S.W. Cor. walk
 156.97
 $\frac{3.70}{25}$
 00
 156.4
 $\frac{4.3}{25}$
 4.5
 156.2
 5.1
 $\frac{5.1}{15}$
 155.6
 4.70
 $\frac{4.70}{15}$
 00
 155.97
 4.65
 $\frac{4.65}{17}$
 S.E. Cor. walk
 156.02
 4.55
 $\frac{4.55}{22}$
 S.W. Cor. walk
 156.12

0-04 25' Lt. }
 15' Rt. } = B.C. 10' Rad. cb. ret.

156.94
 $\frac{3.73}{30}$
 00
 156.96
 $\frac{3.71}{25}$
 B.C.
 156.04
 $\frac{4.63}{30}$
 G
 155.97
 $\frac{4.70}{25}$
 155.95
 $\frac{4.72}{15}$
 B.C.
 155.27
 $\frac{5.40}{15}$
 155.07
 $\frac{5.60}{20}$
 G
 155.92
 $\frac{4.75}{20}$
 00

0-13 Center part covered with rock
 Sly. edge Conc. gutter

160.67

1+50?
~~1+50~~

also ± 4' Conc. walk

1+34 30⁵ Lt. = top of steps

3' wide

1+25 23⁰ Lt. = bottom of conc. steps.

1+20 2A⁴ Rt. = 2' wide flag + Conc. walk

1+00 Lt. = end 9' high Conc. wall.

0+89 21² Rt. = 7' wide Conc. Dr.

0+53 27² Rt. = 2' wide Conc. walk

165¹ 162⁴ 158⁵ 158² 157² 155⁹
 $\frac{+2.4}{35}$ $\frac{0.9}{25}$ $\frac{4.8}{22}$ 5.1 $\frac{6.1}{25}$ $\frac{8.0}{35}$

163³
 $\frac{+1.0}{305}$
 steps + walk
 159.3⁹
 $\frac{3.90}{23}$
 Bottom step

156.85 156.79 155.28
 $\frac{6.44}{244}$ $\frac{6.50}{25}$ $\frac{8.01}{35}$

161¹ 162¹ 161¹ 158⁴ 157⁴ 157⁰ 155⁹
 $\frac{1.6}{29}$ $\frac{0.6}{28}$ $\frac{2.1}{25}$ $\frac{4.9}{22}$ 5.7 $\frac{6.3}{25}$ $\frac{7.4}{50}$
 Base of wall

156.81 157.10 156.70
 $\frac{6.42}{218}$ $\frac{6.19}{25}$ $\frac{6.59}{35}$

156.58 156.13
 $\frac{6.71}{274}$ $\frac{7.16}{35}$
 walk -

T.P. 7.62 169.17 1.74 161.55

2+50

2+00

1+95 33^E Rt. = end walk thru. wall ^{+ steps}

1+85 25 Rt. on walk

1+82 19^E Rt. = start Brick + Conc. walk ^{+ stops.}

1+57 26^E Rt. = 4' wide walk

1+55 33^E Rt. = start Conc. + rock wall

164.2
+1.4
25

161.2
2.2
20

161.2
2.2

160.1
2.6
22

159.0
5.3
28

165.0
+1.7
35

161.7
1.6
25

159.4
3.9
22

159.2
4.1

157.4
5.9
25

156.8
6.5
33^E
top of wall
+ end

154.4
8.9
34
end

154.72
8.57
33^E

157.03
6.26
25

157.83
5.46
19^E

156.99
6.30
26^E
walk

steps west of wall

156.8
6.5
33
end

156.4
6.55
33^E
top of wall

152.3
9.0
34
end at inside of wall

163.29

3+59 24^E Rt. = \pm 3^E wide flag + Conc. Steps

3+25

2+88^{AE} 25' Lt. = Prop. B.C. Lt.

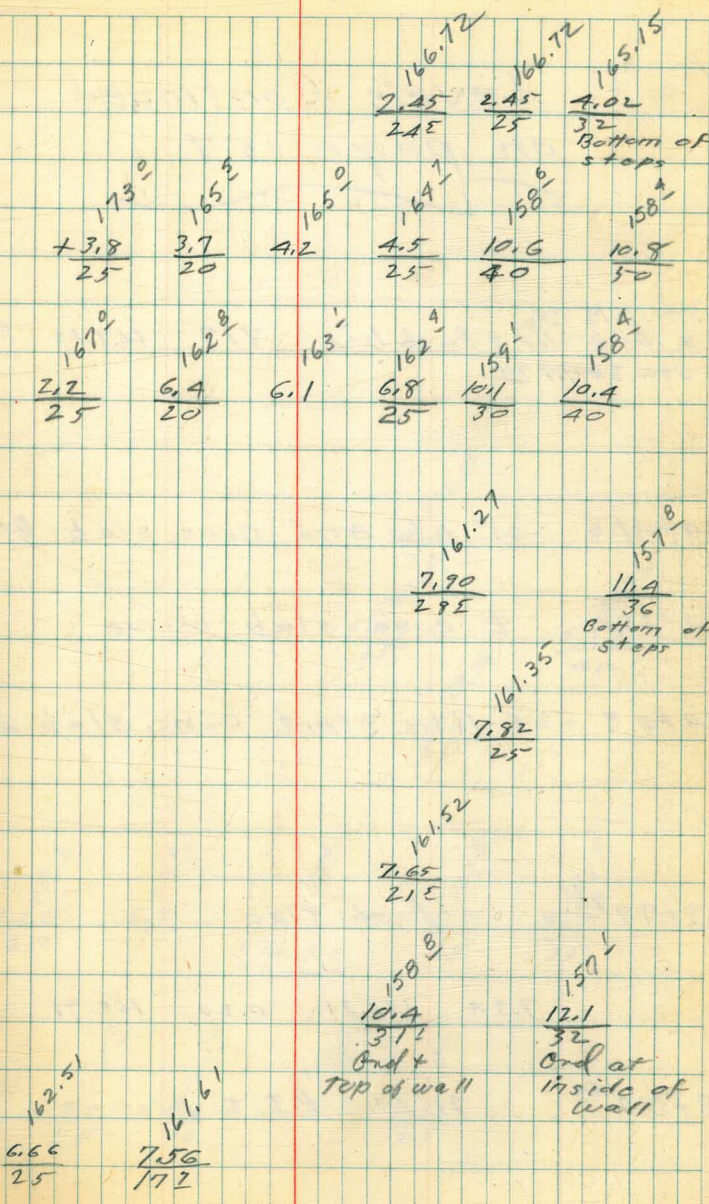
2+73^E 28^E Rt. = \pm walk at top of steps.

2+71 25' Rt. on walk \pm

2+68 21^E Rt. = \pm ^{start of 4' wide} ~~end~~ of Conc. + brick walk.

2+62 31^L Rt. = end Conc. + rock wall

2+60 17^L Lt. = \pm 9' wide Conc. Dr.



169.17

Levels Continued
on page 57

Set B.M. $\frac{1}{4}$
at Cabrillo + Pueb. line 7.17 169.14 BM#2.
Sta 3+99.74

A+1.6 25' Lt. = end conc. slab drive

A+25.2 $\frac{1}{2}$ conc. slab drive

A+09 - 25' Lt. = start conc. slab drive

3+99.74 Pueb. line
7.34 176.31 0.20 168.97

3+74.66 25' Lt. = P.I. to prop.

172.19
4.12
2.17
5.17
2.17
6.00
2.17
170.72
5.59
40

180.5
4.0
2.5
170.5
5.7
11
169.4
6.9
176.31
169.5
6.7
2.5
167.6
8.7
3.5

177.2
8.0
2.5
168.9
0.6
16
168.0
1.2
168.0
1.2
2.5

169.17

Miramar Ave

T.P. 11.05 193.63 0.85 182.58
 0+08 15' Lt. = 8' cold lay drive

0+00 = sly line Pearl St.

0-04.5 30' Rt. = S.E. Cor. walk

0-09.5 30' Rt. = N.E. Cor. Conc. walk

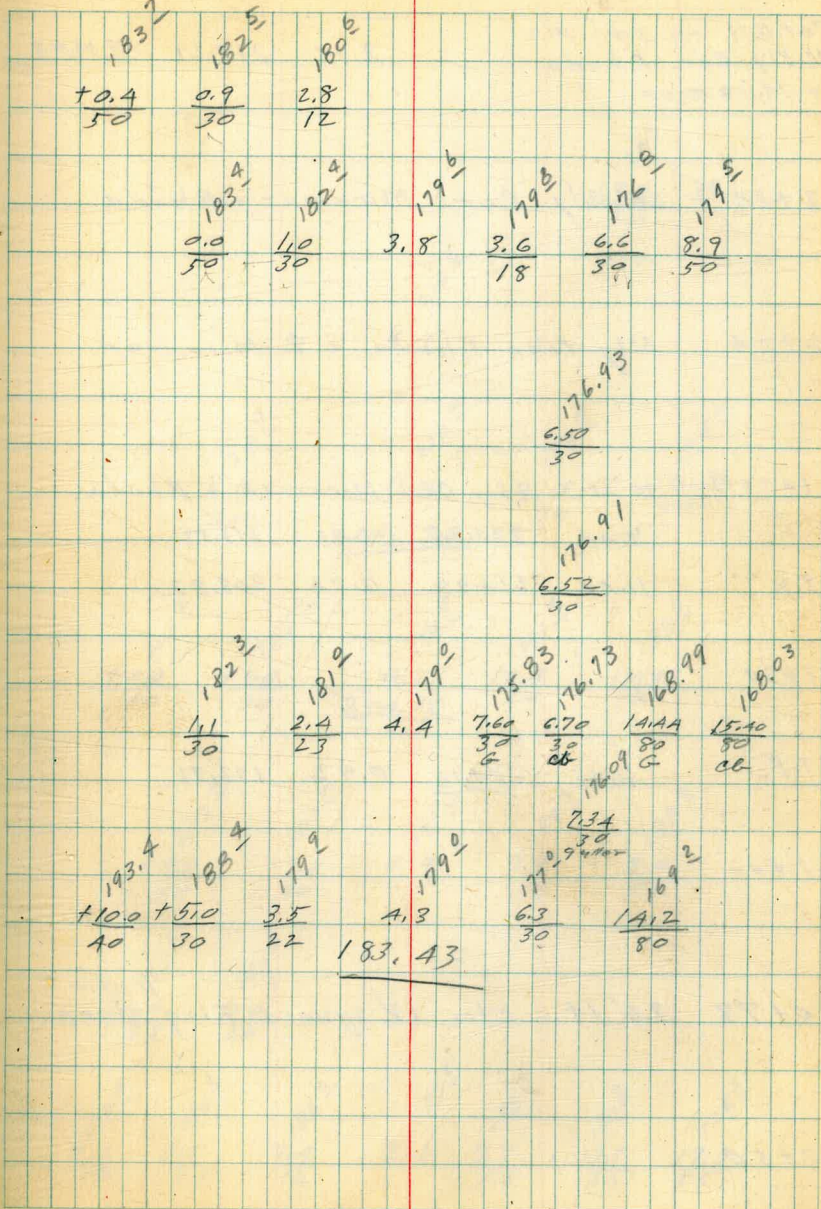
0-14 sly Cl. Pearl - 30' Rt. = Fly and curb

0-17 30' Rt. = N.E. Cor. Conc. gutter

0-40 = 8 Pearl

Set B.M. on Lt.
 N.P. line West Prop.
 Miramar + Pearl. 5.37 178.06 B.M. #2

TP 6.89 183.43 0.75 176.54
 T.P. 12.42 177.29 0.13 164.87
 N.W. 7' Lt.
 Cabrillo + Pearl 9.99 165.00 - 155.01 B.M. #1
 P29



Set B.M. on Iron pin
N. Ely. Cor. Rhoda + Miramar 2.75 218.21 = B.M. #3

2+34⁸⁶ = N. Wly Cor. Miramar + Rhoda

2+04 = Nly line Rhoda + \neq Miramar

1+73¹⁴ 30' Lt. = N. Ely. Cor. Miramar + Rhoda.
7.44 220.96 1.46 213.52

T.P. 11.66 214.98 0.84 203.32

1+20

T.P. 11.45 204.16 0.92 192.71

1+00

0+78 26' Lt. = ctr. 12' square Flag stone ^{Ratio}

0+50

Handwritten calculations on graph paper:

2071
13.3
30

2145
6.5

A
2081
2.6
30

2101
11.0

1995
21.5
30

1940
27.0
50

2062
4.0
50

2052
4.0
30

1999
4.3

1914
12.8
30

1889
15.3
50

2024
7.0
50

2006
7.0
30

1911
1.9

1898
3.8
30

1856
8.0
50

1936
0.0
26

1936
0.0
20

1935
0.0
50

1901
3.5
30

1862
7.4
12

1855
8.1

1859
7.7
14

1805
13.1
30

1746
17.0
55

193.63

88
Cabrillo Ave
Continued from Page 54

on Conc. Mon.
set B.M. Sly line Beverley H975
Ely. line Cabrillo 11.87 180.11 B.M. #4

T.P 12.76 191.98 0.15 179.22

3715

5' Lt. = edge oiled road
4705 = Sly edge of oiled road

25' Lt. = Ely. edge oiled road
19' Lt. = E oiled road
4785 8' Lt. = Nly edge of turn in oiled road

4750 35' Lt. = Ely edge oiled road
22 Lt. = wly edge oiled road

B.M. #2
P.54 1023 179.37 — 169.14

186.2
+7.5
40

184.4
+5.0
30

178.1
0.7

177.1
1.7
30

175.2
4.2
40

185.6
+6.2
40

183.9
+4.5
26

180.1
+0.7
21

179.1
0.3
5

178.6
0.8

177.6
1.8
20
wly edge
oiled road

177.0
2.4
30

185.1
+6.0
40

186.7
+7.3
34

181.4
+2.0
25

181.0
+1.6
19

178.6
0.8

176.1
3.3

175.1
3.9
30

173.1
6.0
40

192.4
+13.0
42

183.7
+4.3
35

183.6
+4.4
22

173.2
6.2
5

172.2
6.7

172.2
6.7
30

179.37

0+98⁴⁴ 25' RT. = Prop E.C. Rhoda Dr.

0+96⁹² 25' Lt. = Prop. E.C. Rhoda Dr.

T.P. 11.74 203.63 0.09 191.89

0+33⁶⁴ 34⁵³ RT. = S. Ely line Rhoda + P.L.

0+10⁶⁷ 25' Lt. = Ely line Cabrillo

Road = $\frac{1}{2}$ 11' wide oiled road

0+00 = $\frac{1}{2}$ Rhoda + Sly line Beverley Hgts

0-07³² 7⁵² Lt. = P.L. Mon.

B.M. 4
P. 57 11.87 191.98 - 180.11

$$\begin{array}{r} 186^4 \\ \hline 172 \\ 40 \end{array}$$

$$\begin{array}{r} 186^6 \\ \hline 170 \\ 25 \end{array}$$

$$\begin{array}{r} 196^5 \\ 7.1 \end{array}$$

$$\begin{array}{r} 196^1 \\ \hline 6.9 \\ 5 \\ \text{Road} \end{array}$$

$$\begin{array}{r} 196^6 \\ \hline 7.0 \\ 16 \end{array}$$

$$\begin{array}{r} 202^6 \\ \hline 1.0 \\ 25 \end{array}$$

$$\begin{array}{r} 202^8 \\ \hline 0.8 \\ 25 \end{array}$$

$$\begin{array}{r} 206^8 \\ \hline 3.2 \\ 35 \end{array}$$

203.63

$$\begin{array}{r} 184^6 \\ \hline 2.4 \\ 25 \end{array}$$

$$\begin{array}{r} 189^8 \\ \hline 2.2 \\ 12 \end{array}$$

$$\begin{array}{r} 189^9 \\ 2.1 \end{array}$$

$$\begin{array}{r} 189^9 \\ \hline 2.1 \\ 11 \\ \text{Road} \end{array}$$

$$\begin{array}{r} 190^0 \\ \hline 2.0 \\ 16 \end{array}$$

$$\begin{array}{r} 193^8 \\ \hline 1.8 \\ 25 \end{array}$$

$$\begin{array}{r} 199^3 \\ \hline 1.73 \\ 34^53 \end{array}$$

$$\begin{array}{r} 178^8 \\ \hline 13.2 \\ 25 \end{array}$$

$$\begin{array}{r} 189^0 \\ 3.0 \end{array}$$

$$\begin{array}{r} 187^9 \\ \hline 4.1 \\ 16 \\ \text{road} \end{array}$$

$$\begin{array}{r} 187^6 \\ \hline 4.4 \\ 25 \end{array}$$

$$\begin{array}{r} 195^0 \\ \hline 1.30 \\ 35 \end{array}$$

$$\begin{array}{r} 196^5 \\ \hline 1.5 \\ 40 \end{array}$$

$$\begin{array}{r} 179^6 \\ \hline 12.4 \\ 13 \end{array}$$

$$\begin{array}{r} 186^9 \\ 5.1 \end{array}$$

$$\begin{array}{r} 188^0 \\ \hline 4.0 \\ 6 \end{array}$$

$$\begin{array}{r} 186^4 \\ \hline 5.6 \\ 25 \\ \text{Road} \end{array}$$

$$\begin{array}{r} 180.11 \\ \hline 11.87 \\ 7.22 \\ \text{Pub} \\ \text{Mon.} \end{array}$$

$$\begin{array}{r} 184^2 \\ 7.8 \end{array}$$

191.98

T.P. 12.89 243.27 0.36 230.38

3+65.77 P.C.C. Def. = 15° 15' Rt.

3+34.53 Mid curv. Chord = 31.12
Def. = 7° 37' 30" Rt.

3+03.29 B.C. Pt. Rad. = 117.38 rate = 11.6000'

T.P. 12.51 230.74 1.46 218.23 B.M. #3 P.56 (218.21)

2+91.62 25' Lt. = Nly Cor. Miramar + Rhoda

2+48.55 25' Lt. = \pm Miramar

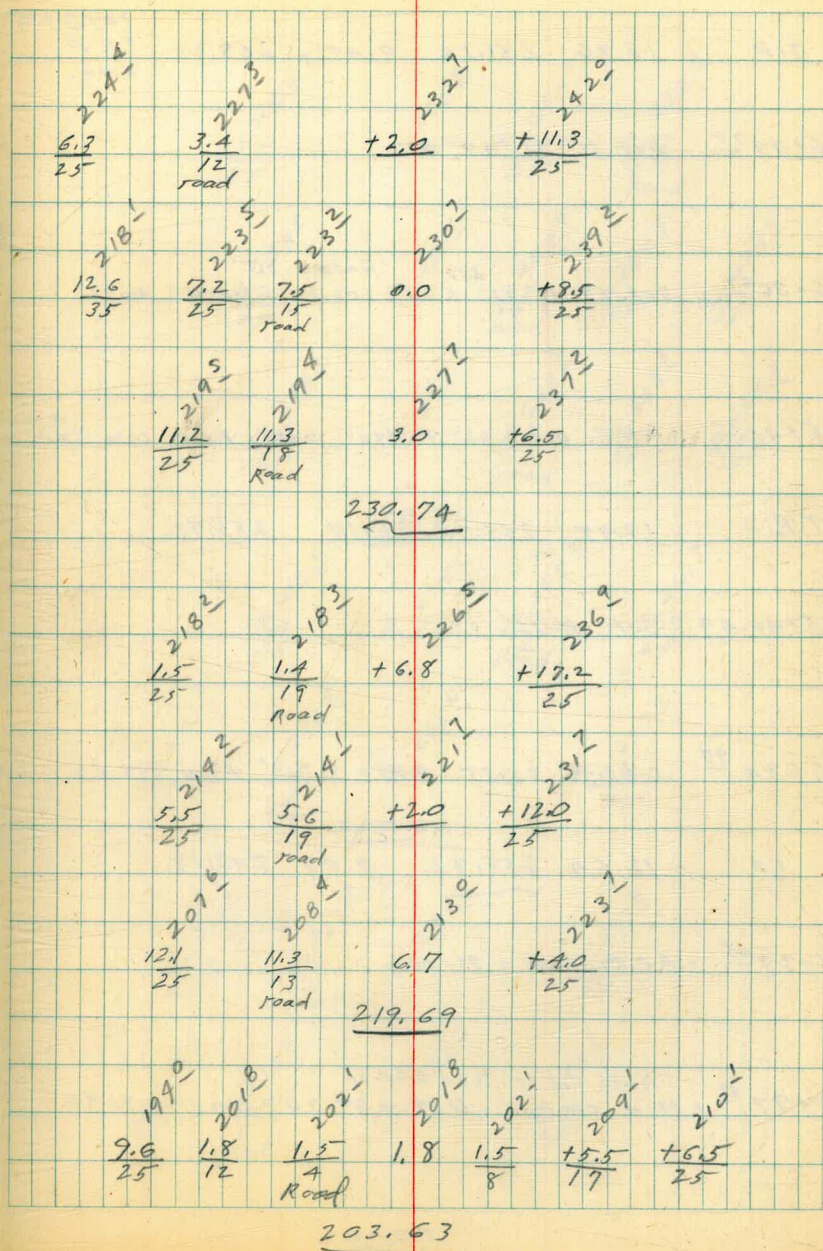
2+05.48 25' Lt. = wly Cor. Miramar + Rhoda

T.P. on I.P. Miramar + Rhoda.
Nly Prop. Cor. 11.91 219.69 6.55 207.78

T.P. 11.43 214.33 0.73 202.90

1+50

road = \pm 12' to 14' road. (cited)



Temp. & M.
T.P. "A"
Root.

T.P. 12.86 281.16 0.40 268.30

3 6+77³⁹ Def 11°-31'-47" Lt.6+36⁶⁹ Lt. Rate = 8.5'
Def. 5°-45'-53" Rad = 202.22 Chord = 40.525+96⁰⁰ P.R.C. Def. = 22°-52'-30" also = P.C.C. into Mar. ^{Ave.}

T.P. 12.98 269.70 0.10 255.72

5+40.49 Def. 15°-15' Rt.

4+84⁹⁷ Chord 55.35 Rate 8.241' Rad 209.58

T.P. 12.64 255.82 0.09 243.18

2 4+29⁴⁵ = P.C.C. Def. = 7°-00'3+97⁶¹ Rate 6.595' Rad 260.63
= Mid curve Def. = 30°-30' Chord 31.822555²
13.5
252629
5.82701
42.0
252701⁶
+1.9
29
Road2530
15.7
252609
7.82654
3.3
19
road2645
4.2
252709
+2.2
352485
20.1
252579
10.82609
2.8
13
road2633
5.7
252687
0.0
35

268.70

2454
10.4
252551
0.72552
0.6
2
road2611
+5.9
252416
14.2
252469
8.9
2
Road2468
9.02570
+1.2
25

255.82

2303
13.0
252373
6.0
3
road2372
6.12378
5.5
252298
13.5
252329
10.5
8
road2320
11.32433
0.0
25

243.27

Set B.M. on Conc. Mon.

S. Ely. cor Beverley Hgts 1.92 296.12 = B.M. #5

7+22²⁶ = Ely. line Beverley Hgts

7+00

8+50

T.P. 5.56 298.04 0.67 292.48

8+00

7+53.06 End of oil road
E.C. Def 22'-15" ht. chert 34.97T.P. 12.46 293.15 0.47 280.697+18.08 Def 17'-17" 40" ht.
25' Rt. = Prop. E.C. from Main Ave

$$\begin{array}{r} 296.7 \\ 1.3 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 296.1 \\ 1.9 \\ \hline \end{array}$$

$$\begin{array}{r} 295.5 \\ 2.5 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 296.12 \\ 1.92 \\ \hline 140 \\ \text{Mon} \end{array}$$

$$\begin{array}{r} 296.4 \\ 1.5 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 294.8 \\ 3.2 \\ \hline \end{array}$$

$$\begin{array}{r} 294.4 \\ 3.6 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 293.4 \\ 4.6 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 292.5 \\ 5.5 \\ \hline 298.04 \end{array}$$

$$\begin{array}{r} 291.9 \\ 6.1 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 290.2 \\ 2.5 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 288.9 \\ 7.3 \\ \hline \end{array}$$

$$\begin{array}{r} 288.0 \\ 1.6 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 277.2 \\ 16.0 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 281.1 \\ 12.1 \\ \hline 293.15 \end{array}$$

$$\begin{array}{r} 281.3 \\ 11.7 \\ \hline 9 \\ \text{Road} \end{array}$$

$$\begin{array}{r} 279.9 \\ 13.3 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 287.2 \\ 5.5 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 287.2 \\ 5.5 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 265.1 \\ 16.1 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 271.5 \\ 9.7 \\ \hline \end{array}$$

$$\begin{array}{r} 276.0 \\ 5.2 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 275.1 \\ 5.8 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 280.1 \\ 1.0 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 281.2 \\ 0.0 \\ \hline 80 \end{array}$$

281.16

Mar Ave.
 sketch p 48

1+32³³ Def. = 10°-38'-10" Lt. Chord 40.45

T.P. 1.82 275.81 12.94 273.99

Q+91⁷⁹ 25' Rt. = P.R.C. into Rhoda.
 Def. = 4°-33' Lt.

Chord 30.25

0+61⁴⁹ = B.C. Rad 190.85 Rate 9,006 Min.

0+10 12' Lt. = \pm 12' wide plant mix ^{drive}

aprox. \pm Mar ave.
 10-12' wide rock + oil out

0+00 = skyline Beverley Hqts

T.P. 2.49 286.93 12.25 284.44
 BM#5
 P.61 0.57 296.69 — 296.12

276⁶¹
 $\frac{+0.8}{25}$

269²¹
 6.2
 Road

265⁵¹
 $\frac{10.3}{25}$

275.81

279⁹¹
 $\frac{7.9}{25}$

273³¹
 13.1
 Road

277⁷¹
 $\frac{9.0}{25}$

281⁵¹
 $\frac{5.4}{25}$

279²¹
 7.7
 Road

282⁴¹
 $\frac{4.5}{25}$

283⁸¹
 $\frac{3.1}{25}$

283²¹
 $\frac{3.2}{12}$

283⁸¹
 $\frac{3.1}{25}$

284⁵¹
 2.4
 Road

285¹⁶¹
 $\frac{1.3}{25}$

286.93

REDUCED 5-12-50
P.V.S.

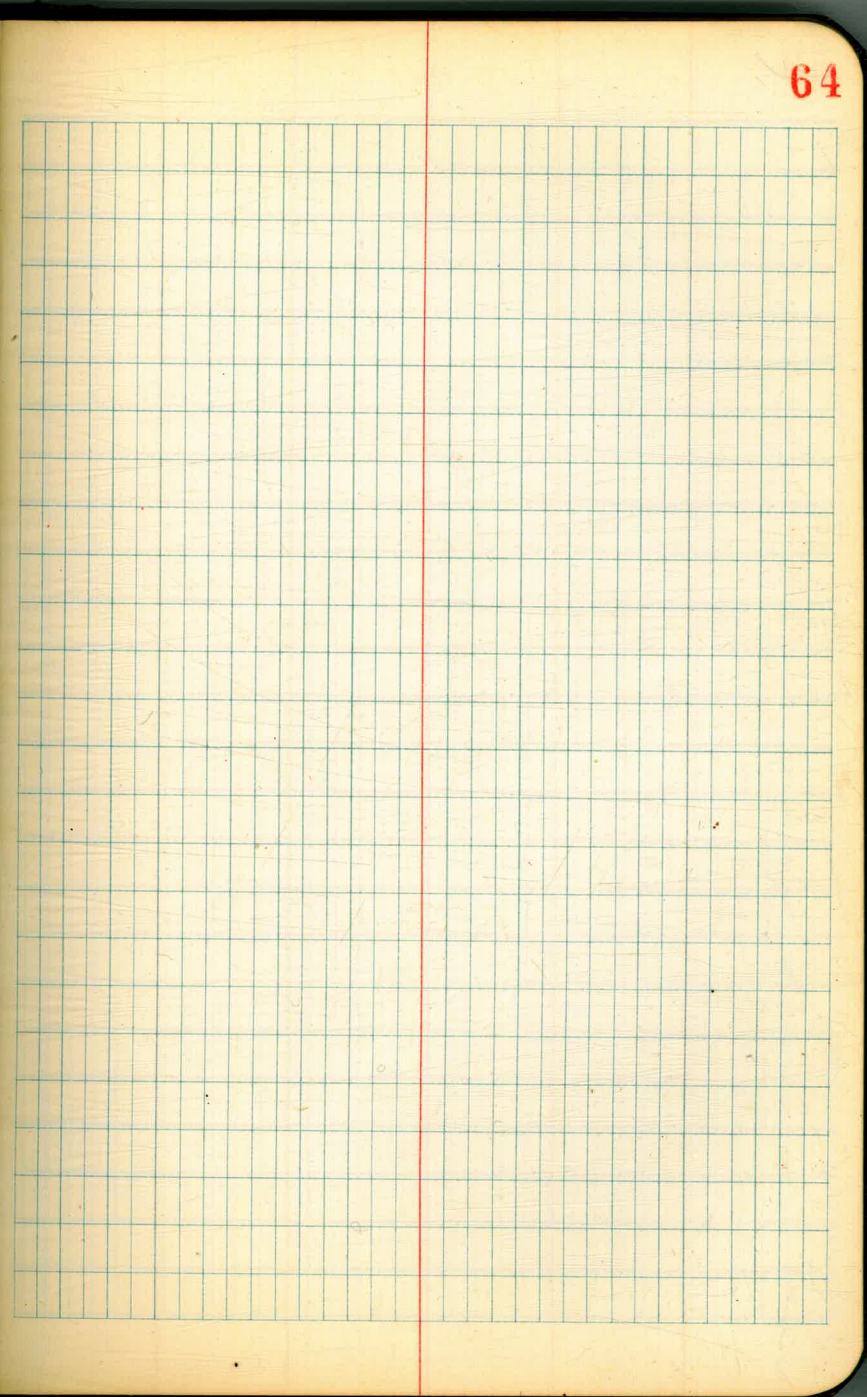
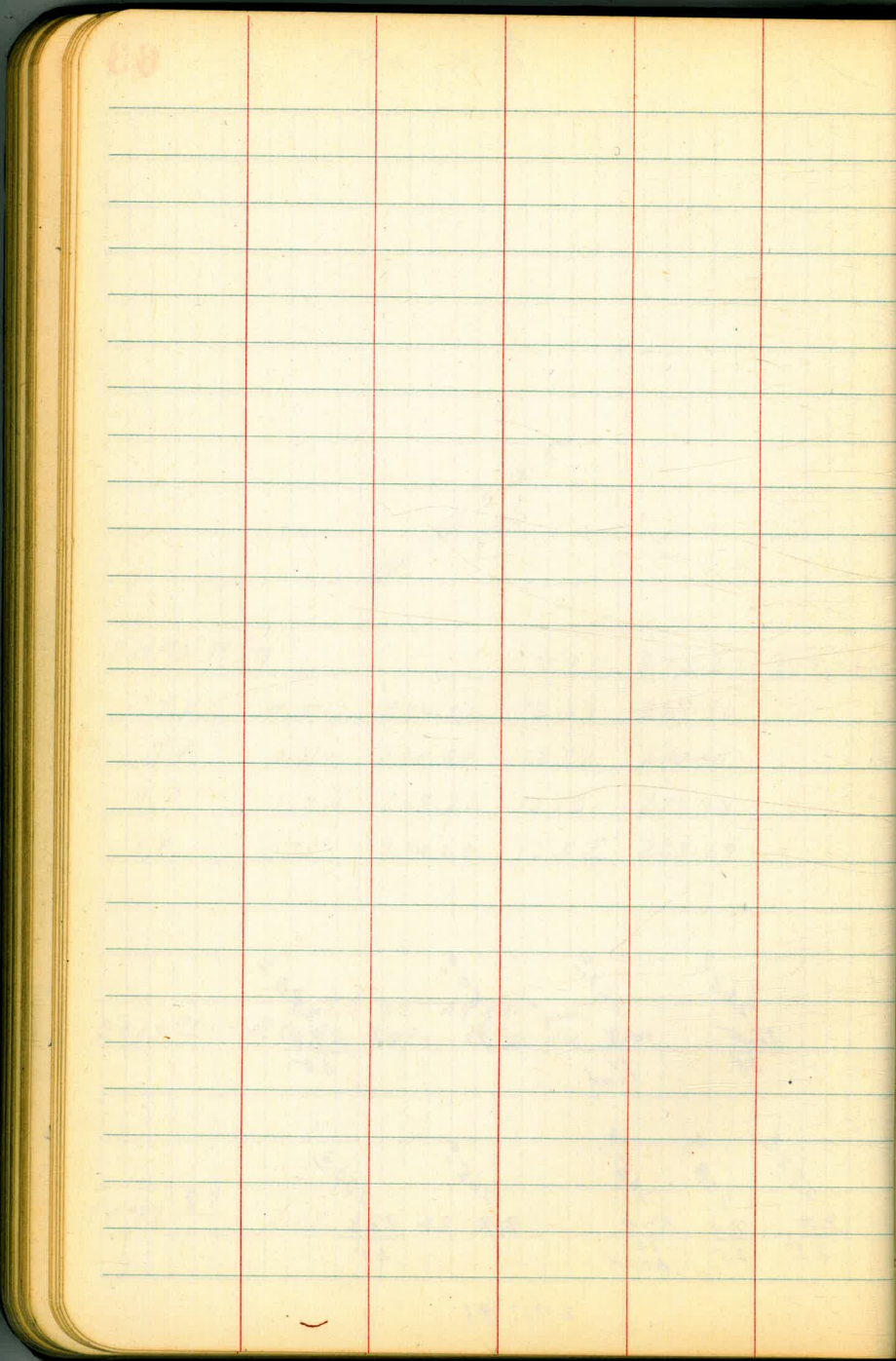
B.M. #3 P. 59			9.95	218.27	(218.23)
T.P.	0.51	228.22	12.89	227.71	
T.P.	0.20	240.60	12.82	240.40	
T.P.	1.24	253.22	12.26	251.98	
T.P.	0.95	264.24	12.52	263.29	

2+13.41 = P.C.C. Into Rhoda Dr.
Def. = 22°-48'-30" Lt.

1+72.87 Def. 16°-43'-20"

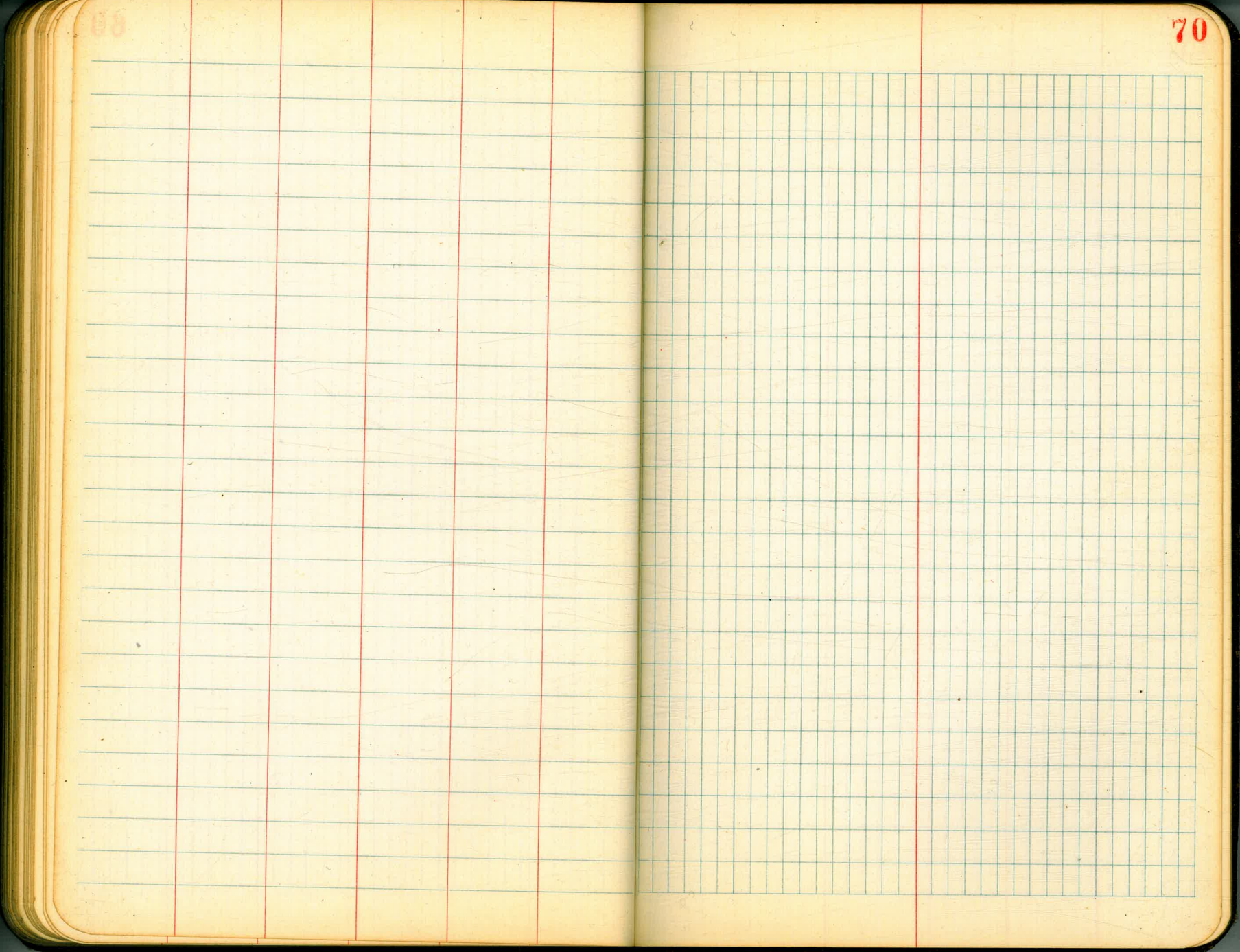
$\begin{array}{r} 263.3 \\ 12.5 \\ \hline 25 \end{array}$	$\begin{array}{r} 261.0 \\ 14.8 \\ \hline 13 \\ \text{road} \end{array}$	$\begin{array}{r} 259.0 \\ 16.8 \end{array}$	$\begin{array}{r} 248.5 \\ 27.3 \\ \hline 25 \end{array}$
$\begin{array}{r} 272.8 \\ 3.0 \\ \hline 35 \end{array}$	$\begin{array}{r} 268.4 \\ 7.4 \\ \hline 25 \end{array}$	$\begin{array}{r} 265.4 \\ 10.4 \\ \hline 12 \\ \text{road} \end{array}$	$\begin{array}{r} 259.9 \\ 9.9 \end{array}$
			$\begin{array}{r} 254.3 \\ 21.6 \\ \hline 25 \end{array}$

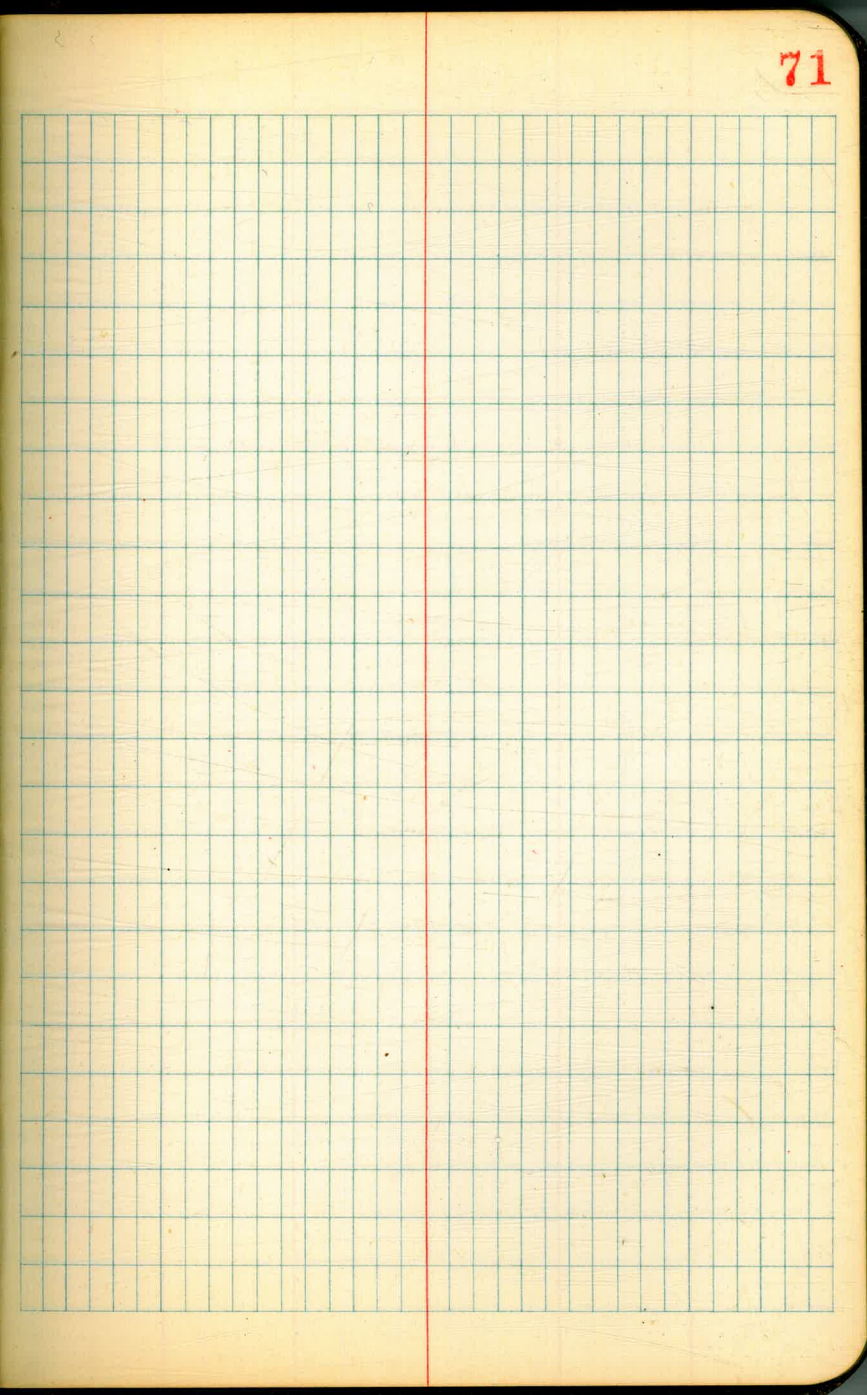
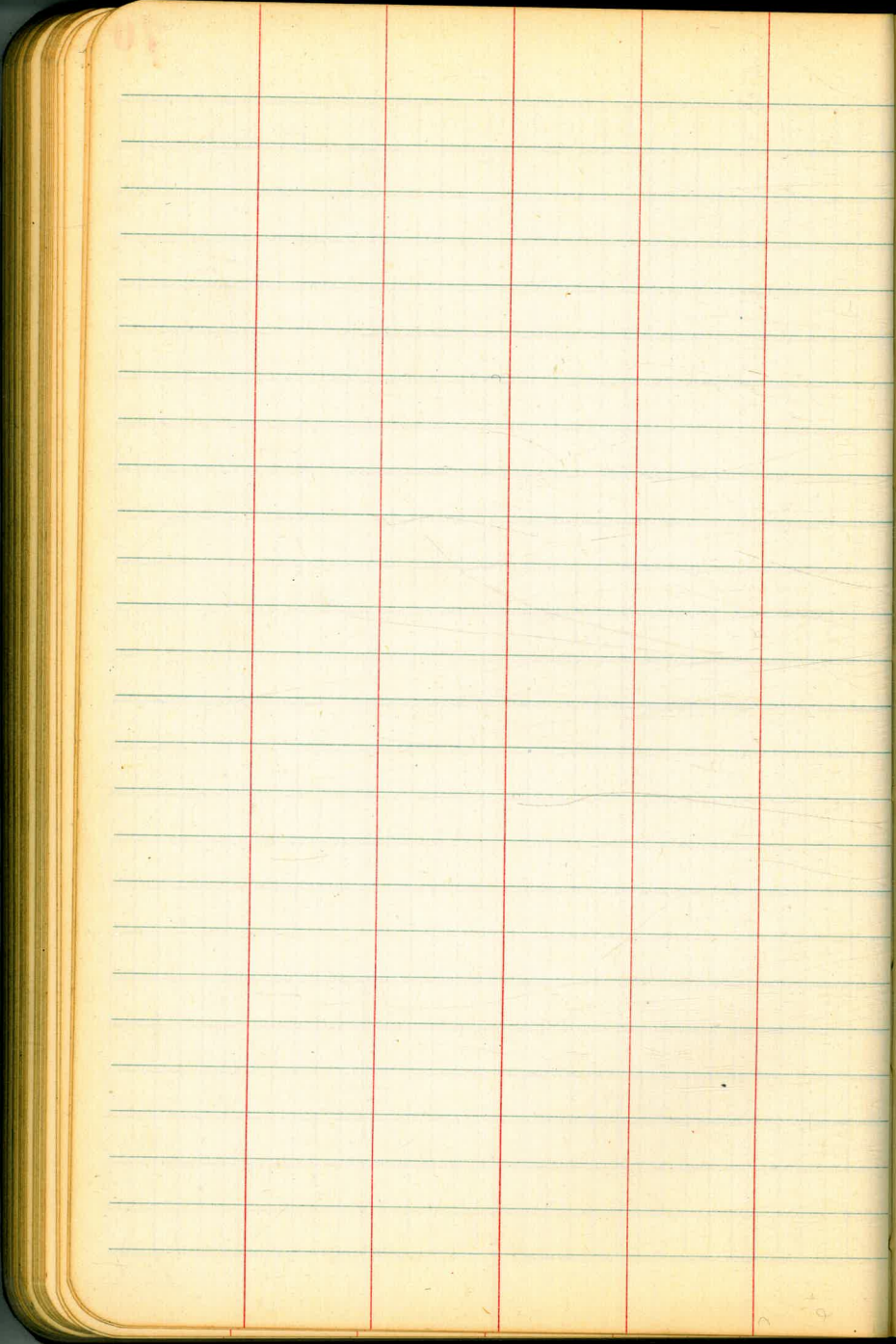
275.81



A ledger page with horizontal blue lines and four vertical red margin lines. The page is blank.

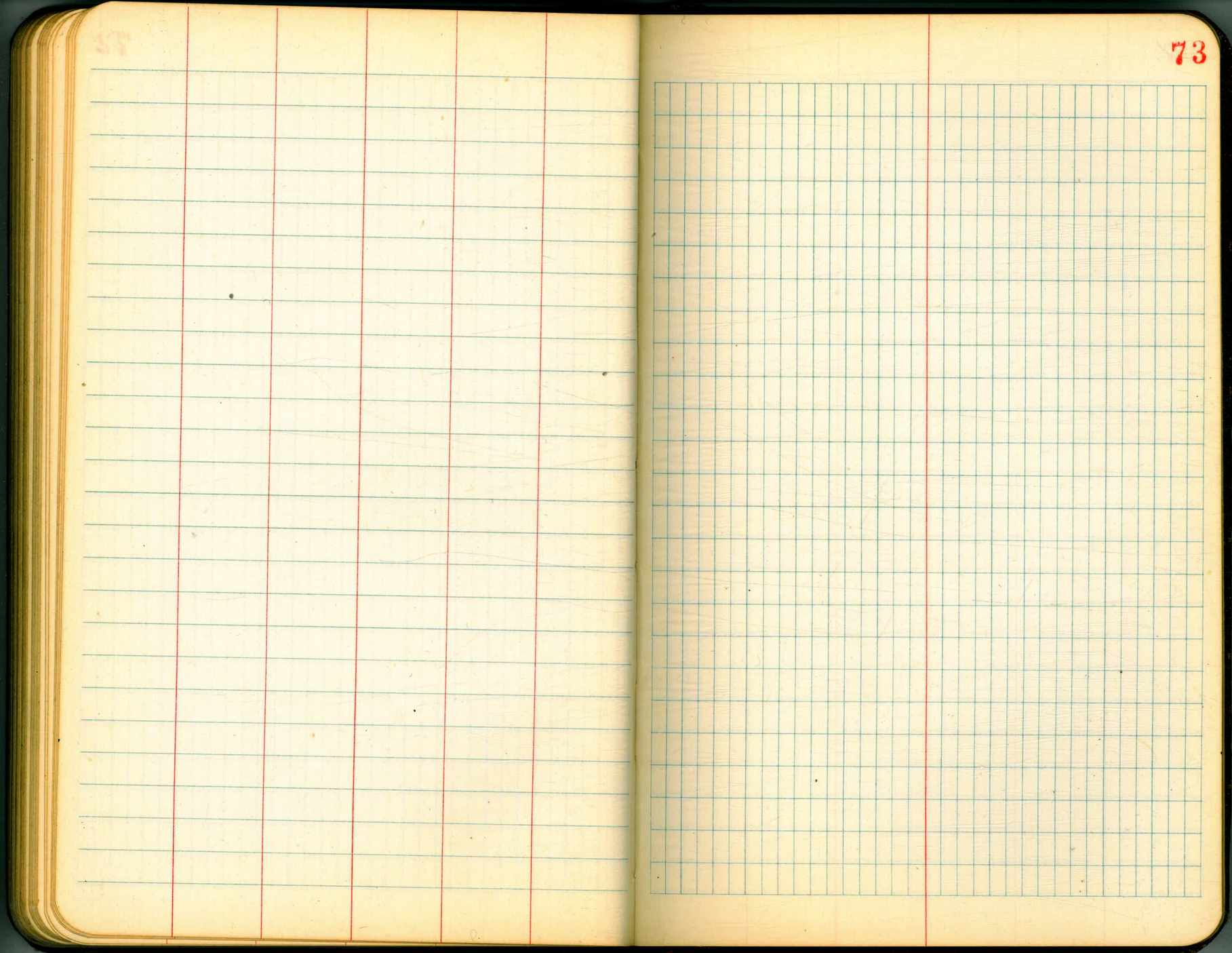
A grid page with a vertical red margin line and a green grid pattern. The page is blank.

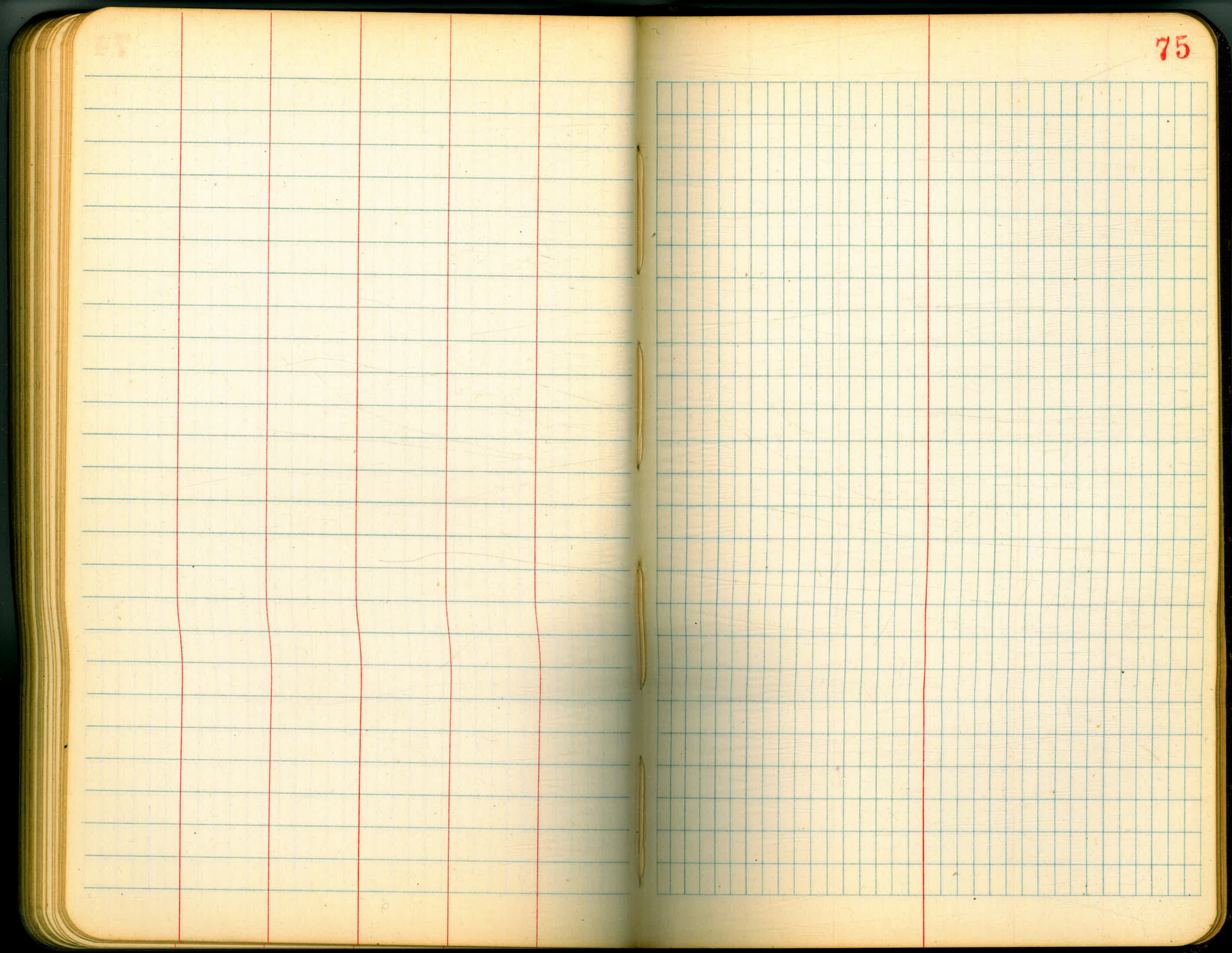


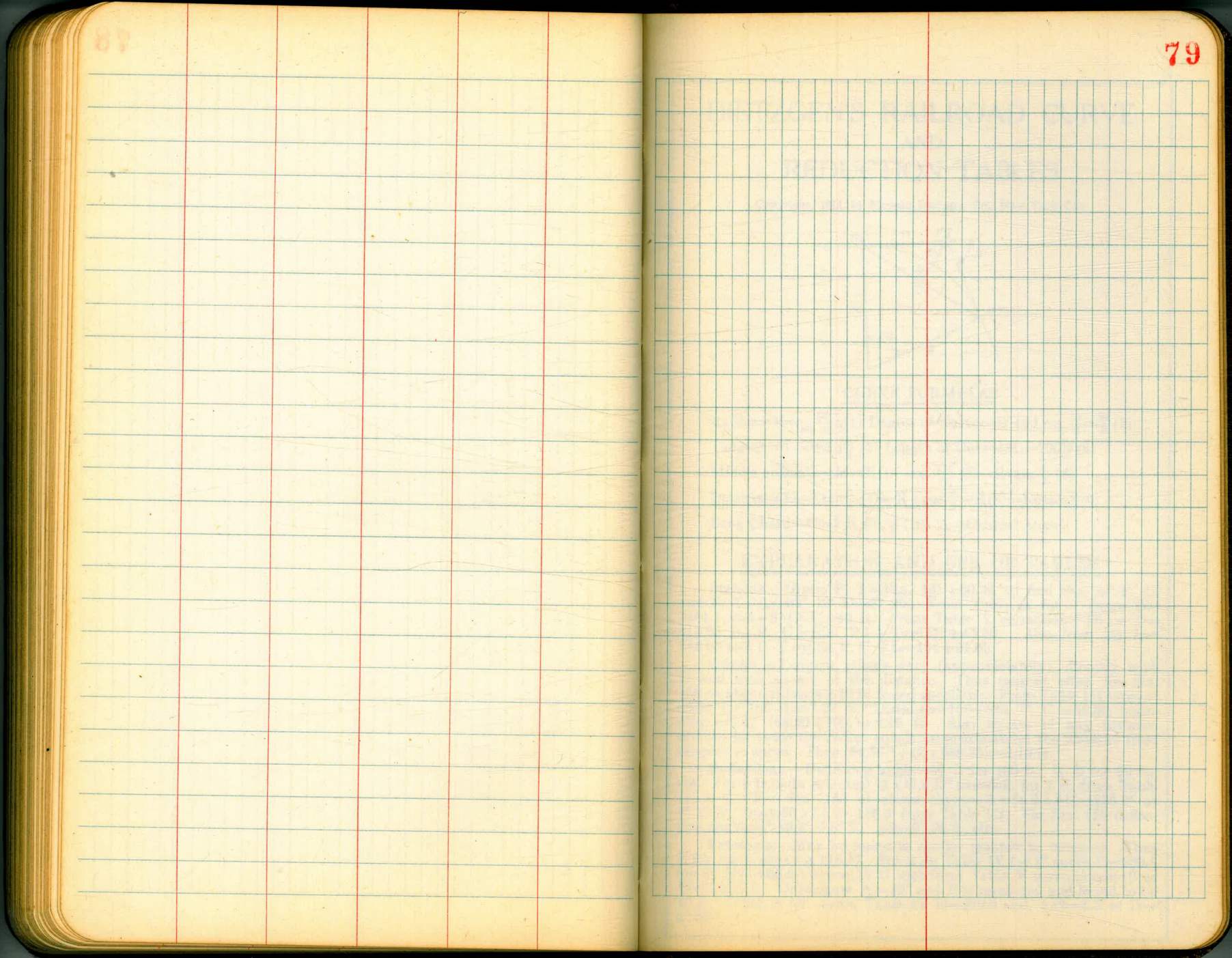


A ledger page with 4 vertical red lines and horizontal blue lines. The page is divided into 5 columns of varying widths. The columns are approximately 15%, 25%, 25%, 20%, and 15% of the page width from left to right. The page is otherwise blank.

A ledger page with 1 vertical red line and a grid of blue lines. The page is divided into 2 columns by a single vertical red line. The right column is further subdivided by a grid of 20 vertical blue lines, creating 21 narrow columns. The page is otherwise blank.

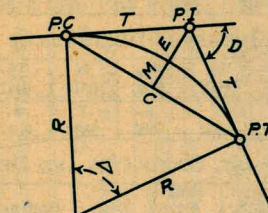






DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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= $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos. \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)

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

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= $158 - \text{Sta. P. C.} = 54.50$, 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) $.3 \times C \times D^\circ$ or=defl. 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 $D=5^\circ 30'$.

59.82

45.66

14.16

612.78
 19
 598.78
 124.95
 473.95

0.920.0
 473.95
 60.0
 9.55

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.