

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 1½ see inside of back cover.

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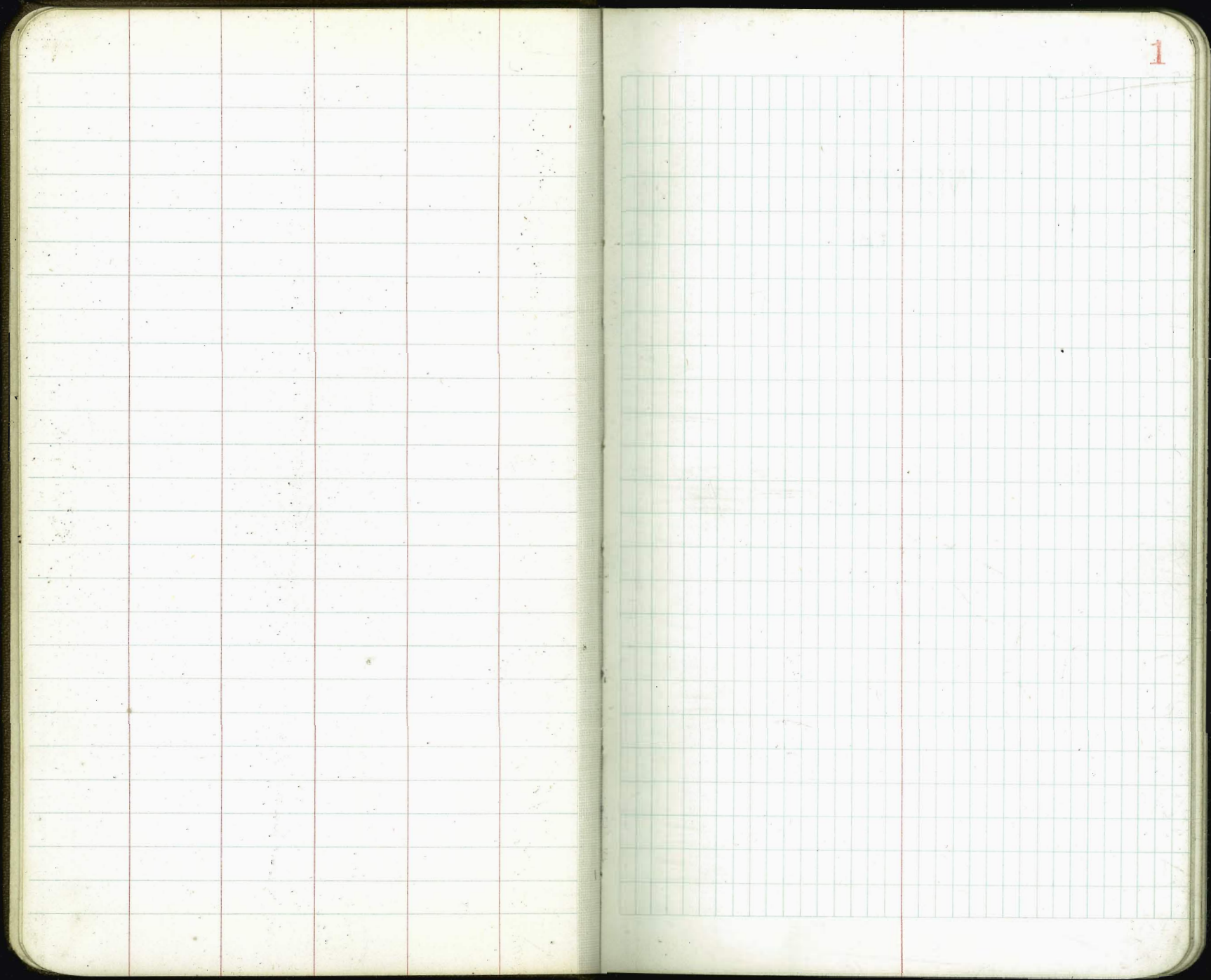
G-234

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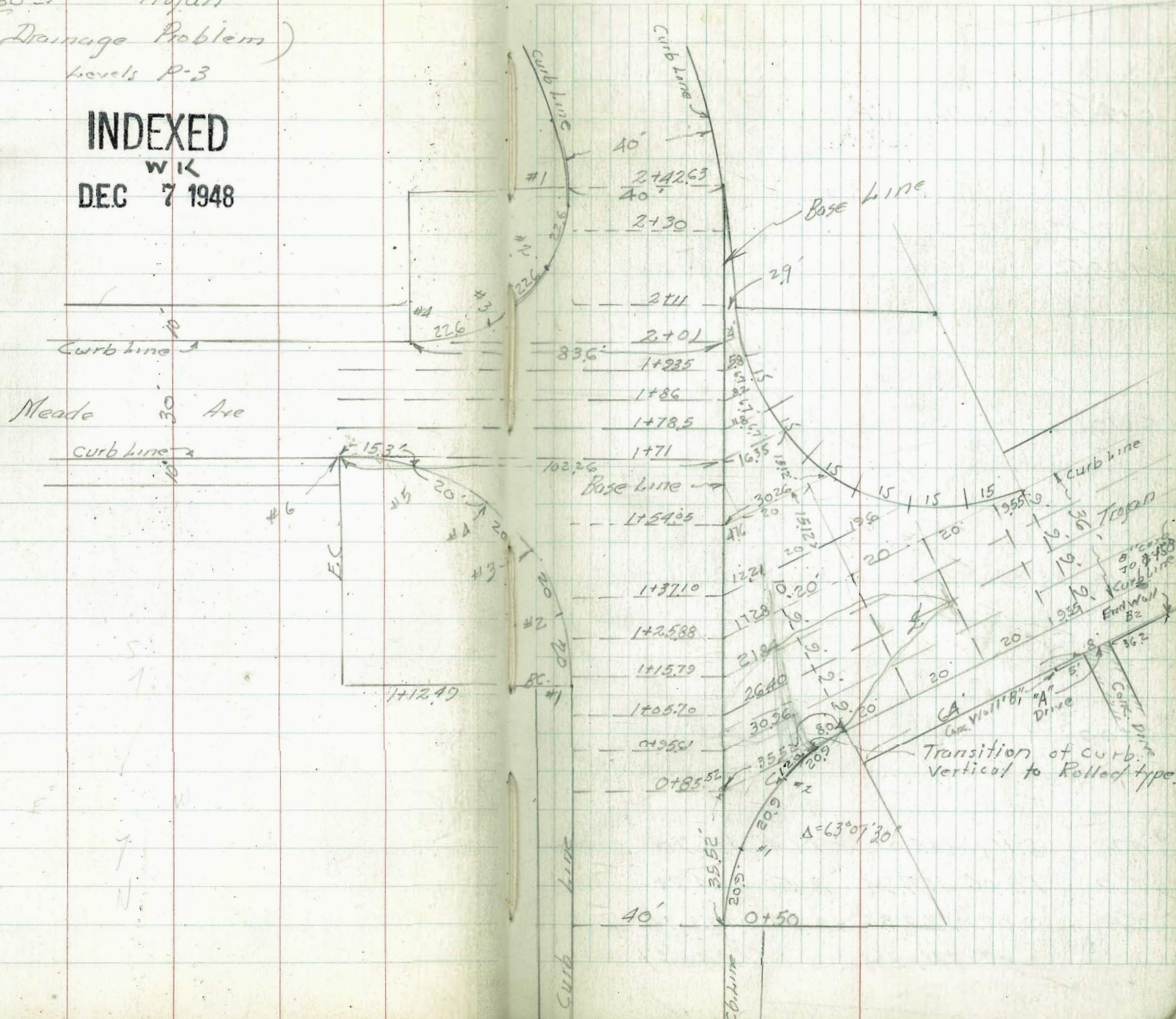


Walker
Heidrich
Secker
Johnson
6-47

Levels on Existing Paving
60th and Trojan
(Drainage Problem)
Levels P-3

INDEXED
WIK
DEC 7 1948

2



60th ^{Mid} Trojan Paving Levels
Sketch P. 2

0+90.52 = L Sewer MH

0+85.52

0+70

0+50 = BC. cb Return

0+00

TP	8.11	445.01	1.04	436.90
TP	13.06	437.94	3.50	424.88
TP	0.02	428.38	12.98	428.36
	0.87	441.34		440.47

LT

Base Line
West cb 60th

Rt.

3

600
20
on Rim MH

438.69	438.74	438.62	437.97	437.13	436.37	436.00	436.60
6.32	6.27	6.37	7.04	7.88	8.64	9.01	8.41
40	30	20	10		8	13.8	14
Gut in drive					Gut on Return		
					At Angles to Base		

438.15	437.60	437.57	437.50	436.72	435.95	435.58	436.26
6.86	7.41	7.44	7.51	8.29	9.06	9.43	8.15
40	40	30	20	10	0	44	44
Gut						on cb Return	

436.76	436.18	436.14	436.02	435.51	434.98	435.66
8.25	8.83	8.87	8.99	9.50	10.03	9.35
40	40	30	20	10		cb

433.35	432.72	432.67	432.52	432.31	431.89	432.39
11.66	12.29	12.34	12.49	12.70	13.12	12.52
40	40	30	20	10		01
445.01						cb

BM Nail in Lid.
Cross Ptg East cb 60th 0+53

BM Nail in Pole
West side 60th at Bradford St. Grd. 233
10

Tryon & 60th

O+ 25.61

O+ TR 10.46 447.36 8.11 436.90

O+ 85.52 Cont

O+ 85.52 Section to Rt. of Base Line

Along North
Curb Line of
Tryon Ave

NW Cb Return

445.01

Lt.

E. Base Line
-W cb 60th

Rt.

4

439.95	439.41	439.51	439.35	438.80	438.08	437.73	437.41	437.19	437.17	437.12	437.11
7.41	7.95	7.85	8.01	8.56	9.28	9.63	9.95	10.17	10.19	10.24	10.25
40	40	30	20	10		15	31	51	71	91	100.51
cb											

447.36

436.24	437.53	437.64	437.39
6.77	7.08	5.37	5.62
198.24	198.24	218.24	218.24
cb.	Gut.	cb.	Gut.

437.21	436.93	437.33	437.03	437.69	437.39
7.80	8.08	7.68	7.98	7.98	7.62
138.24	138.24	158.24	158.24	178.24	178.24
cb.	Gut.	cb.	Gut.	cb.	Gut.

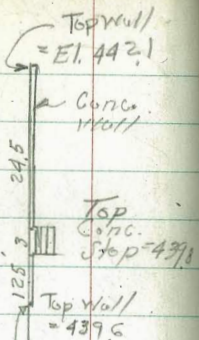
436.95	436.65	437.05	436.75	437.11	436.81
8.06	8.36	7.96	8.26	7.90	8.20
75.2	75.2	95.52	95.52	118.24	118.24
cb.	Gut.	cb.	Gut.	cb.	Gut.

436.26	436.44	436.75	436.85	436.54
8.55	8.57	8.26	8.16	8.47
20	35.52	35.52	5.55	5.55
	Gut.	cb.	cb.	Gut.

436.26	435.58	436.65	436.05	436.44	436.75
8.75	9.49	8.36	8.98	8.57	8.26
#1 on cb	Gut.	#2	#2	Gut.	cb.
		on cb.	Gut.	EC.	EC.

445.01

Trojan & 60th



1405.7

on Conc. Steps

on Wall at B2 and B1

on Conc. Drive at Point A

El. = 3375
Top of Drive

0+8552 Additional Shot

0+9561 Cont.

North Corb. Trojan

11.

Base Line
West cb. 60th

5

667	725	714	723	773	827	875	932	959	974	982	991
40	40	30	20	10	26.4	46.4	66.4	86.4	95.95	109.12	
440.69	440.11	440.22	440.13	439.68	439.09	438.61	438.04	437.77	437.62	437.54	437.45

437.20	10.16	on Conc. Steps
437.61	2.75	on Conc. Wall
437.78	2.58	on West end Conc. Wall
437.15	10.21	on Conc. Drive "A" - 11.
435.38	11.98	on Drive "A" 10' W. 11.
436.77	10.59	Gut
437.07	10.29	cb.
437.14	10.22	113.68
437.23	10.13	133.68
437.36	10.00	153.7
437.69	9.67	173.7
438.50	8.84	193.7
439.71	7.65	213.7

441.36

Trojan 0 60th

Lt.

Base Line
West of 60th

Rt.

6

172588 Cont.

437.64	437.99	437.78	438.97	438.04	438.32
972	937	958	929	932	904
120	120	140	140	160	160
Out	cb	Out	cb	Out	cb

172588 Cont.

439.30	438.33	437.89	438.22	437.68	437.98
866	903	947	914	968	938
5728	7728	8683	8883	100	100
		Out	Top cb	Out	cb

172588

441.64	441.63	441.54	441.23	440.71	440.64	440.89	441.10	441.13	440.78	440.29
575	573	582	613	665	672	647	626	623	658	707
40	30	20	10		35	5	13	17.28	27.28	37.28
					Valley	Out				

171579 Cont.

437.74	438.17	438.85	440.02
962	919	851	734
144.56	164.56	184.56	204.56

171579

438.51	438.02	437.81	437.66	437.58
885	934	955	970	978
6184	8184	9139	10456	12456

170597 Cont.

440.90	440.93	440.79	440.50	439.94	439.98	440.09	439.96	439.70	439.12
646	643	657	686	742	738	727	740	766	824
40	30	20	10		55	12.5	21.84	29.84	41.84
					Valley	Out			

437.45	437.64	437.97	438.71	439.94
931	972	939	865	742
142.12	149.12	169.12	189.12	209.12

441.46

Troyon 7 60th

1+935 Cont.

1+935

1+86 Cont.

1+86

1+78.5

1+71 Cont.

455.46
 0.31 507 5.24 8.49
 15226 10226 836 68

446.74 445.99 445.59 445.36 445.25 445.10 444.87 444.89 444.58
 923 298 1038 1061 1072 1087 1110 1108 1099
 60 25 40 30 20 10 4 5.71
 Get at Ret

455.08 450.72 448.63 446.04
 0.40 525 7.34 993
 15226 10226 836 60

445.50 445.16 444.94 444.87 444.86 444.70 444.50 444.59 444.62
 1047 1081 1103 1110 1111 1127 1147 1138 1135
 53 47 40 30 20 10 5 82
 Run M Get at Ret

445.18 440.32 442.31 442.86 444.52 444.60 444.63 444.36 444.09 444.19 444.23
 979 58 7.66 1011 1145 1137 1134 1161 1188 1178 1174
 15226 10226 836 20 40 30 20 10 7 11.8
 Get at cb Ret.

455.33 454.87 450.33 449.91 447.61
 0.44 110 564 6.06 8.94
 15226 15116 10226 10226 80
 Get. Get. Get. Get.
 El. cb Ret. 455.97

Trojan * 60th

S.F. Ref.

2+12.63

2+30

2+11

2+01. Cont.

2+01

14.

H. Bosc hirie

9

449.80	449.34	448.39	448.07	447.98	448.29	448.81	448.52
617	663	758	790	799	768	716	745
#1	#1	#3	#3	#2	#2	#1	#1
cb	cut	cb	cut	cut	cb	cb	cut
448.52	448.34	448.09	447.50	447.13	447.40		
743	763	788	847	884	857		
39.8	30	20	10	cut	1		
cut				of cb	cb		
448.14	448.05	447.80	447.46	446.97	446.68	446.61	
783	792	817	851	800	829	836	
42.5	40	30	20	10	2	2	
cut							
447.92	447.72	447.02	446.64	446.39	446.07	445.81	445.79
805	835	895	933	958	990	1016	1018
56	50	40	30	20	10		29
cut							cut, of Ref.
455.96	455.42	451.54	451.05	449.80	449.33	448.19	
601	655	443	492	617	664	778	
1526	1526	1026	1026	896	896	70	
cb	cb	cb	cut	cb	cut		
447.41	446.63	446.22	445.96	445.76	445.52	445.27	445.29
856	934	975	1001	1021	1045	1070	1068
60	48	40	30	20	10		4
							cut of ch tab

455.97

Trefun & Goth
 Poring Levels

Check Starting BM. $\begin{matrix} 0.04 \\ 440.47 \\ \hline 440.51 \end{matrix}$ Long shot

T.P. 5.26 448.22 13.01 442.96

N.E. Ref. Meade to Goth

455.97

$\begin{matrix} 441.23 \\ 6.99 \\ \hline 440.64 \end{matrix}$
 Cb. #1
 Gut. #1

448.22

448.91	450.83	448.26	448.72	446.26	446.66	444.08	444.56	442.77	442.27
606	564	771	725	971	981	1189	1181	1320	1370
cb	Gut	Gut.	cb	Gut	cb	Gut	cb	cb.	Gut
#6	#6	#3	#5	#1	#1	#3	#3	#2	#2

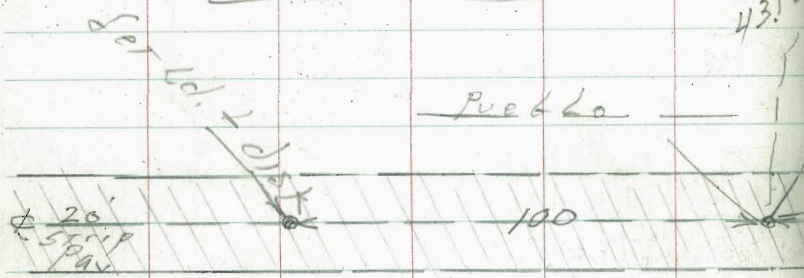
455.97

Grades on Trunk Sewer #2

Moore Pacific and Balboa
 5099
 Green W.O. 60057
 Robert 60208
 12-24-47
 3305 B

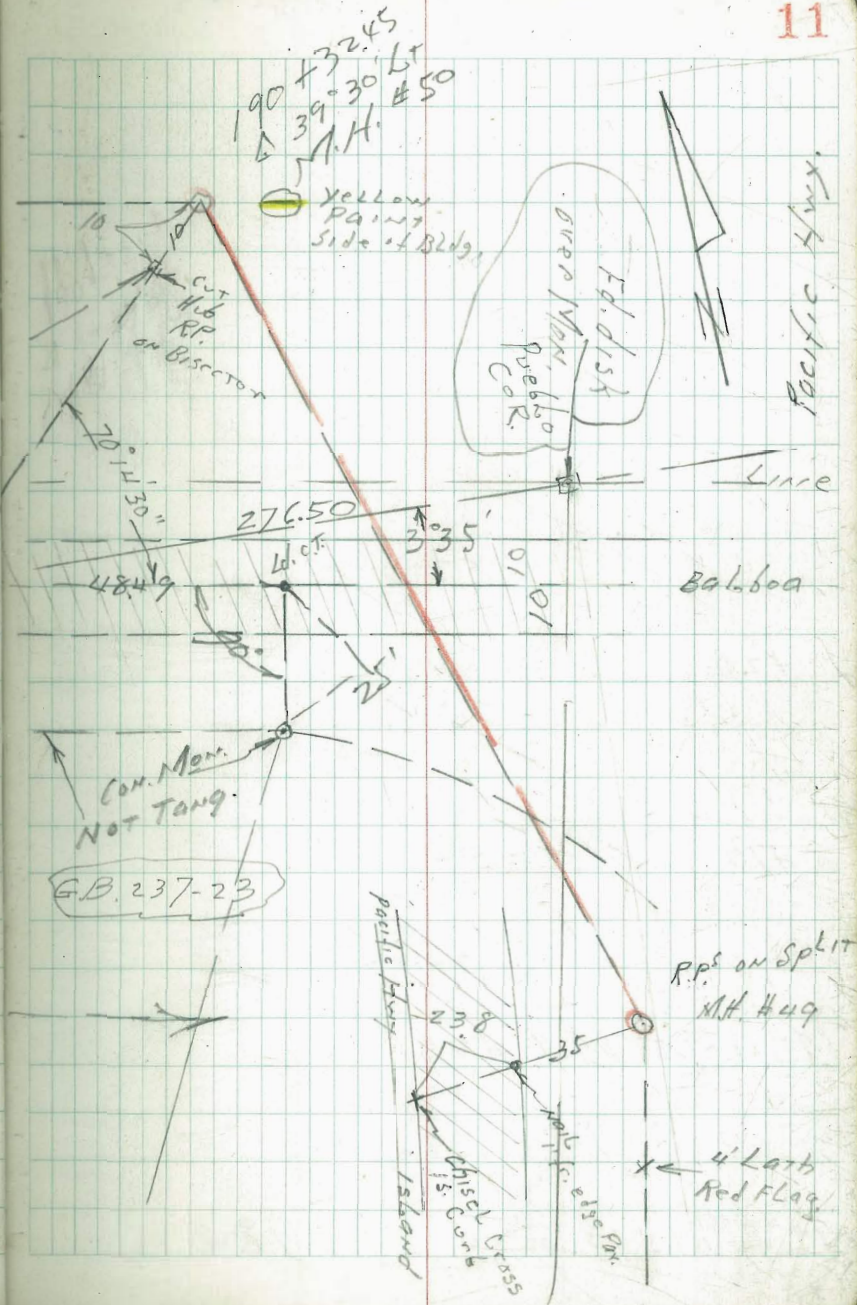
Indexed
 PB

Cut stakes 10' Lt.



S.L. Balboa Ave

185 to 6.5 Lt. 39° or' M.H. Hug



+50

$$\begin{array}{r} 6.11 \\ 17.30 \\ 6.79 \\ \hline C 10.51 \checkmark \end{array}$$

+40

$$\begin{array}{r} 6.10 \\ 17.31 \\ 6.98 \\ \hline C 10.33 \checkmark \end{array}$$

+30

$$\begin{array}{r} 6.09 \\ 17.32 \\ 7.15 \\ \hline C 10.17 \checkmark \end{array}$$

+20

$$\begin{array}{r} 6.09 \\ 17.32 \\ 7.23 \\ \hline C 10.09 \checkmark \end{array}$$

+10

$$\begin{array}{r} 6.08 \\ 17.33 \\ 6.91 \\ \hline C 10.22 \checkmark \end{array}$$

185+0065 M.H. #49

$$\begin{array}{r} 6.07 \\ 17.34 \\ 7.92 \\ \hline C 10.32 \checkmark \end{array}$$

□ Bolt
B.M. gas. ls, 513 23.41
N.W. Cor.

1828

+10

570 2398 1828

186

+90

+80

+70

185+60

2341

6.14
17.82
6.11.02 ✓
23.98

6.15
17.26
6.20
C 11.06

17.83
6.79
C 11.06 ✓

6.14
17.27
6.28
C 10.99 ✓

6.13
17.28
5.65
C 11.63 ✓

6.13
17.28
6.43
C 10.85 ✓

6.12
17.29
6.67
C 10.67 ✓

+70

$$\begin{array}{r} 6.21 \\ 17.77 \\ \hline 8.01 \\ C 9.76 \end{array} \checkmark$$

+60

$$\begin{array}{r} 6.20 \\ 17.78 \\ \hline 7.89 \\ C 9.89 \end{array} \checkmark$$

+50

$$\begin{array}{r} 6.19 \\ 17.79 \\ \hline 7.47 \\ C 10.32 \end{array} \checkmark$$

+40

$$\begin{array}{r} 6.18 \\ 17.80 \\ \hline 7.25 \\ C 10.55 \end{array} \checkmark$$

+30

$$\begin{array}{r} 6.17 \\ 17.80 \\ \hline 7.03 \\ C 10.77 \end{array} \checkmark$$

186+20

$$\begin{array}{r} 6.17 \\ 17.81 \\ \hline 6.29 \\ C 11.02 \end{array} \checkmark$$

2398

175

$$\begin{array}{r} 6.29 \\ 17.69 \\ 8.93 \\ \hline C 8.76 \checkmark \end{array}$$

150

$$\begin{array}{r} 6.27 \\ 17.71 \\ 8.82 \\ \hline C 8.89 \checkmark \end{array}$$

125

$$\begin{array}{r} 6.25 \\ 17.73 \\ 8.58 \\ \hline C 9.20 \checkmark \end{array}$$

187

$$\begin{array}{r} 6.23 \\ 17.75 \\ 8.24 \\ \hline C 9.41 \checkmark \end{array}$$

+ 90

$$\begin{array}{r} 6.22 \\ 17.76 \\ 8.31 \\ \hline C 9.45 \checkmark \end{array}$$

186 + 90

$$\begin{array}{r} 6.21 \\ 17.77 \\ 8.30 \\ \hline C 9.47 \checkmark \end{array}$$

23.98

110

T.P. 4.69 18.44 10.23 13.75

189

175

150

125

188100

23.98

6.40
12.104
4.95
C 7.89 ✓
18.44 ✓

6.39
17.59
10.23
C 7.36 ✓

6.37
17.61
10.38
C 7.23 ✓

6.35
17.63
10.32
C 7.31 ✓

6.33
17.65
9.97
C 7.68 ✓

6.31
17.67
9.20
C 8.47 ✓

+70

$$\begin{array}{r} 18.00 \\ 6.45 \\ \hline 11.99 \end{array}$$

$$\begin{array}{r} 6.45 \\ 11.99 \\ \hline 4.22 \\ \hline C 7.77 \end{array} \quad ?$$

+60

$$\begin{array}{r} 6.44 \\ 12.00 \\ \hline 4.72 \\ \hline C 7.28 \end{array} \quad \checkmark$$

+50

$$\begin{array}{r} 6.43 \\ 12.01 \\ \hline 4.78 \\ \hline C 7.23 \end{array} \quad \checkmark$$

+40

$$\begin{array}{r} 6.42 \\ 12.02 \\ \hline 4.80 \\ \hline C 7.22 \end{array} \quad \checkmark$$

+30

$$\begin{array}{r} 6.41 \\ 12.02 \\ \hline 4.805 \\ \hline C 7.22 \end{array} \quad \checkmark$$

189+20

$$\begin{array}{r} 6.41 \\ 12.03 \\ \hline 4.85 \\ \hline C 7.18 \end{array} \quad \checkmark$$
18.44

190+22x5 Δ 39°36'67 M.H. #50

+20

+10

190+00

+90

189+80

1844

$$\begin{array}{r} 6.50 \\ 11.94 \\ 5.47 \\ \hline C 7.47 \checkmark \end{array}$$

$$\begin{array}{r} 6.49 \\ 11.95 \\ 5.36 \\ \hline C 6.59 \end{array}$$

$$\begin{array}{r} 6.48 \\ 11.96 \\ 4.66 \\ \hline C 7.30 \checkmark \end{array}$$

$$\begin{array}{r} 6.47 \\ 11.97 \\ 4.61 \\ \hline C 7.38 \checkmark \end{array}$$

$$\begin{array}{r} 6.46 \\ 11.98 \\ 4.77 \\ \hline C 7.21 \checkmark \end{array}$$

$$\begin{array}{r} 18.44 \\ 6.45 \\ \hline 11.99 \\ 4.90 \\ \hline 7.07 \end{array}$$

$$\begin{array}{r} 6.45 \\ 11.98 \\ 4.90 \\ \hline C 7.08 \checkmark \end{array}$$

Check out on Levels

H.I. P18

1844

T.P.	728	2245	327	1517
			4165	18285
				7828

Transfer B.M. at NW1 Pacific & Balboa

2 Bolt B.M. Conn. Base	5.70	23.98	18.28	STATE & CITY
5. end gas pump Mobile gas Co.		2.96	21.02	

to B.M. Brass Plug on S. end Con. Base
gas pump island. UNION OIL Co. Sta

← NW1 Con Balboa & Pacific
Post THIS

Indexed
JP

Curb Grades - Trojan + 60th
 North West Return
 + North Side Trojan
 Sketch P-20

INDEXED

WK
 DEC 7 1948

		F.I. Grade Top cb		Cuts & Fills
188.24 - End Transition	670	437.76	437.88	-0.12
158.24 R - Beg. Transition	731	437.15	437.70	-0.55
138.24	7.42	437.04	437.60	-0.56
118.24 R	7.55	436.91	437.50	-0.59
108.07 R	7.58	436.88	437.44	-0.56
98.52 R	7.60	436.86	437.39	-0.53
75.52 R	7.68	436.78	437.29	-0.51
58.52 R	7.72	436.74	437.19	-0.45
35.52 R	7.71	436.75	437.09	-0.34
0+62.7 = E.C.	7.91	436.55	437.04	-0.49
+52.25	8.10	436.36	436.87	-0.51
+41.8	8.29	436.17	436.69	-0.52
+31.35	8.56	435.90	436.39	-0.49
+20.9	8.97	435.49	436.08	-0.59
0+10.45	9.30	435.16	435.66	-0.50
B.C. 0	7.56	444.46	436.90	

BM. B.P. 0153 E cb Trojan P-3

Loma Alta #2
Sewers

W. PT. LOMA Blvd
Famosa July

INDEXED

WIK

DEC 7 1948

MOORE
Bc 99
Green 1-23-48
Roberts

2 + 10

1 + 75

offset C' PT.

00 to M.H. #5

1 + 40

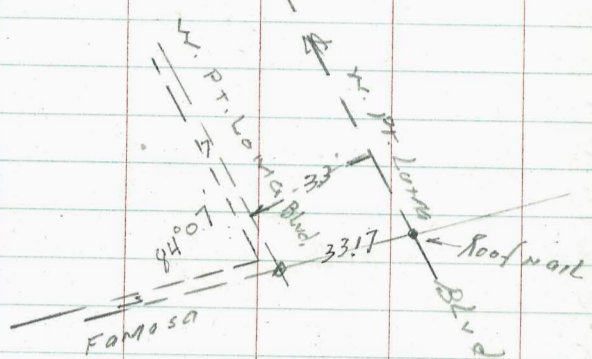
1 + 05

0 + 70

0 + 35

0 + 00 Ev. M.H. at Famosa Blvd.

Spike B.M.
Pole S.E. 4.94 8.02 308
Famosa
W. PT. LOMA



W031169

2
Inv

22

- 1.33
9.35
4.90
C 4.45

- 1.57
9.59
5.22
C 4.37

- 1.82
9.84
5.30
C 4.54

- 2.06
10.08
5.42
C 4.66

- 2.31
10.33
5.82
C 4.51

- 2.55
10.77
6.00
C 4.77

- 2.80
10.82
6.75
C 4.07

4 + 85

4 + 50

4 + 30.85 MH. #1 & Rialto
R.P. nails 20 and 40 Rt.
on Pav.

4 + 20

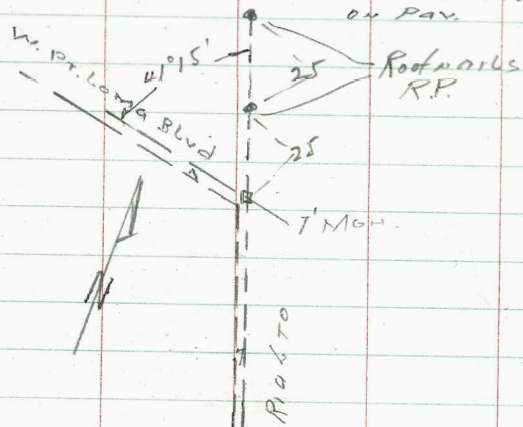
3 + 85
35

3 + 50

3 + 15

2 + 80

2 + 45



8.02

1.50
12.25
7.54
C 4.71

0.67
7.308
8.67
C 4.41

+ 0.22
13.53
8.95
C 4.58

+ 0.14
13.61
9.02
C 4.59

8.02
2.91
5.11 = T.P.
8.64
13.75 = H.1

- 0.10
8.12
2.91
C 5.21

- 0.35
8.37
3.68
C 4.69

- 0.60
8.62
11.01
C 4.61

- 0.84
8.86
4.45
C 4.41

- 1.08
9.10
4.57
C 4.53

7 + 70

T.P.	958	23.10	0.23	13.52
------	-----	-------	------	-------

7 + 35

7 + 00

6 + 65

6 + 41.77	M.H. H ₂	R.P. Nails	20 and 40 RT	ON PAY
-----------	---------------------	------------	--------------	--------

6 + 25

5 + 90

5 + 55

5 + 20

13.75

6.48
1662
852
C 8.10
23.10

6.13
7.62
9.23
C 7.39

5.78
7.97
2.42
C 5.55

5.43
8.32
2.72
C 5.60

5.20
8.55
3.59
C 4.96

4.80
8.95
4.30
C 4.65

3.98
9.77
5.36
C 4.41

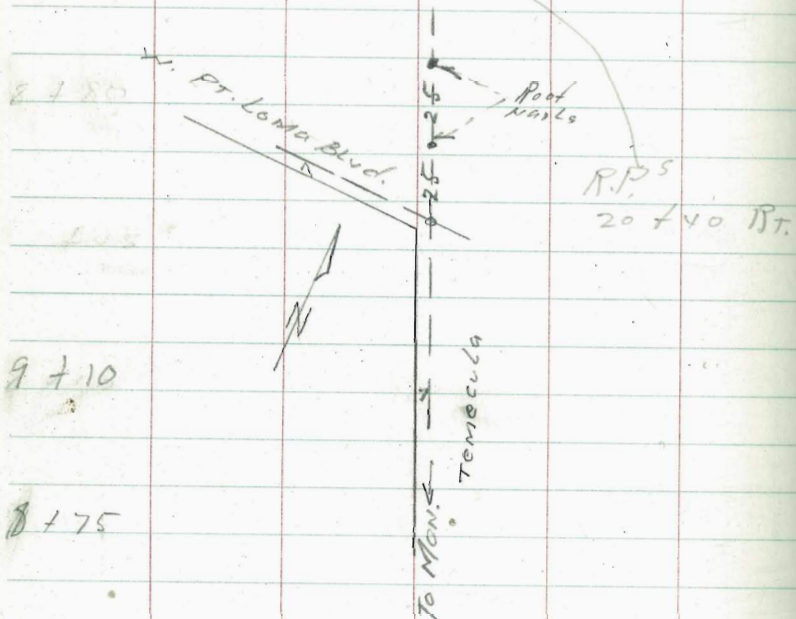
3.15
10.60
7.30
C 3.30

2.32
11.43
7.54
C 3.89

9 + 95

9 + 60

9 + 23.13 M.H. #3 9 Temecula



9 + 10

8 + 75

8 + 40

8 + 05

8310

8.30
14.80
3.77
C 12.03

8.16
14.94
3.67
C 11.27

8.01
15.09
4.25
C 10.67

7.88
15.22
4.55
C 10.67

7.53
15.57
4.68
C 10.89

7.18
15.92
5.77
C 10.15

6.83
16.27
7.53
8.74
83.10

12 + 69.69 chimney

+35

12

11 + 69.69 M.H. #4 in alley (chimney)

11 + 30

10 + 95
35C.T. Limonly
Window sill

33

Roof
Nail in par
B.C.

10 + 60

10 + 23.13 chimney
3523.10

$$\begin{array}{r} 9.40 \\ 17.87 \\ 4.96 \\ \hline C 12.46 \end{array}$$

$$\begin{array}{r} 9.26 \\ 17.56 \\ 5.25 \\ \hline C 12.31 \end{array}$$

$$\begin{array}{r} 9.12 \\ 17.70 \\ 5.49 \\ \hline C 12.21 \end{array}$$

$$\begin{array}{r} 9.00 \\ 17.82 \\ 6.32 \\ \hline C 11.50 \end{array}$$

$$\begin{array}{r} 8.84 \\ 17.98 \\ 5.71 \\ \hline C 12.27 \end{array}$$

$$\begin{array}{r} 23.10 \\ 2.47 \\ \hline 25.57 \\ 6.19 \\ \hline 26.82 \end{array}$$

$$\begin{array}{r} 8.70 \\ 14.40 \\ 2.47 \\ \hline C 11.93 \end{array}$$

$$\begin{array}{r} 8.56 \\ 14.54 \\ 2.54 \\ \hline C 12.00 \end{array}$$

$$\begin{array}{r} 8.42 \\ 14.68 \\ 2.68 \\ \hline C 12.00 \end{array}$$
23.10

15 + 29.26 = CHIMNEY

15 + 07.26

14 + 84.26 Δ 60° 43' 30" LT. M.H. #6
12' + 24' RP^s SLY
on PAVING

14 + 43.36 E BLVD

14 + 15.36 Δ 41° 20' RT. M.H. #5
Beg. offsets
to LT.

14 + 00

+ 70

+ 35

13 + 00

26.82

27

10.44
19.56
670
C 12.86

10.35
19.65
679
C 12.86

BM spike

24.06
5.94
30.00

10.26
19.74
678
C 12.96

26.82
27.4
24.08 = BM,
SE spike
MONTONE
+
BLVD
24.06

10.09
16.73
327
C 13.46

9.98
16.84
4.49
C 12.35

9.93
16.89
4.17
C 12.72

9.81
17.01
4.79
C 12.22

9.67
17.15
5.17
C 11.98

9.53
17.29
4.45
C 12.84

T.P. 8.60 23.12 5.48 24.52
18+16
25.21

17+91
25

17+56
35

17+20.76
35.24

Chimney

16+95.76
25

16+70.76 Δ 11°10' Lt. D.M.H. #7

16+34.26

15+99.76 Chimney
35

15+64.26
35

30.00 Fwd.

28

14.39
15.61
5.09
C 10.52

Cuts to Left

13.80
16.20
5.21
C 10.99

12.98
17.02
5.37
C 11.65

12.17
17.83
5.60
C 12.23

11.59
18.41
5.49
C 12.92

P. 297
From alley → 17.50

11.01
18.99
6.79
C 12.20

Cut state
7' wly
R.P. 30 "

10.90
19.10
6.19
C 12.91

10.70
19.30
6.29
C 13.07

10.57
19.43
6.43
C 13.00

Sewer STUB 6 IN ALLEY
Bet. MONTELUVO & MENTONE
AT W. Pt. LOMA Blvd

0+90 = D.E.

Block 30
LOMA ALTANA 2

0+70

INDEXED

WK

DEC 7 1948

0+35

D.M.H. #7 - 0+00

3000 Fwd

W. Pt. LOMA Blvd Trunk

18+91.86 = D.E. Sewer on W. Pt. LOMA Blvd

18+66.86
25

18+41.86 Δ 4° 57' LT M.H. #8
25

33.12

18.4
11.60
4.50
C 7.10

D.E. offset L'LT

18.20
11.80
6.30
C 5.50

17.85
12.15
5.21
C 6.94

17.50
12.50
6.79
C 5.71

15.38
17.74
9.66
C 8.08

15.18
17.94
9.16
C 8.78

14.98
18.14
6.25
C 11.89

Montabro St Sewer
W. Pt. Loma to Ely

2 + 25

30.10
14.62
4.64
C 9.98

31.26
1 + 93.34 Break

29.40 ✓
15.32
7.03
C 8.29

1 + 75

28.04
16.68
8.29
C 7.69

T.P. 12.73 44.72 1.13 31.99

1 + 40

25.42
7.70
1.13
C 6.57

1 + 05

22.81
10.31
4.70
C 5.61

0 + 70

20.20
12.92
7.90
C 5.02

0 + 35

17.59
15.53
8.00
C 7.49

0 + 00 M.H. # 8

14.98
18.14
6.35
C 11.89

33.12

4 + 80.15 = CHIMNEY

30

Montalvo
wily Line

4 + 45.15

35

4 + 10.15

35

3 + 80.15 CHIMNEY

3 + 55.15

T.P. 6' L 49.11 1.77 42.95 2' Stub
M.H. #10

3 + 30.15 M.H. #10

3 + 00

2 + 80.15 = CHIMNEY

2 + 60

44.72

34.11
15.00
5.11

C 9.89

33.75
15.36
5.23

C 10.03

33.38
15.73
5.55

C 10.18

33.02
16.09
5.73

C 10.36

32.76
16.35
5.95

C 10.40

32.50
12.23
1.77

C 10.45

offsets
6' L T.

31.81
12.91
2.03

C 10.88

31.35
13.37
2.42

C 10.95

30.90
13.82
3.08

C 10.74

T.P. 1272 59.00 277 #L34

Montalvo
w/ly line

7+35

7+00

6+66.34 M.H. #11

6+33.17

6+00

5+80.15 chimney

5+45.15
35

5+10.15
35

4911

32

40.18
8.93
2.77
C 6.16

38.05
17.06
3.59
C 7.47

36.00
13.77
4.02
C 9.09

35.67
13.44
4.34
C 9.10

35.34
13.77
4.46
C 9.31

35.14
13.97
4.56
C 9.41

34.79
14.32
4.73
C 9.59

34.42
14.69
4.91
C 9.78

T.P. 127 ~ 59.04 277 #6.34

Montalvo
w/ly line

32

7+35

40.18
8.93
2.77
C 2.16

7+00

38.05
11.06
3.59
C 7.47

6+66.34 R.H. # 11

36.00
13.71
4.02
C 9.09

6+33.17

35.67
13.44
4.32
C 9.10

6+00

35.34
13.77
4.46
C 9.31

5+80.15 CHIMNEY

35.14
13.97
4.56
C 9.41

5+45.15
35

34.79
14.32
4.73
C 9.59

5+10.15
35

34.42
14.69
4.91
C 9.73

49.11

10 + 25

35-

9 + 9000

T.P. 6.49 70.48 494 C398 C399

9 + 5434 M.H. #12 (Cloris St)

9 + 3217

3217

9 + 10

3217

T.P. 11.08 C892 1.22 57.84

8 + 75

8 + 40

8 + 05

7 + 70

59.06

57.22

11.36

3.61

C 7.65

56.40

14.08

5.71

C 8.37

spike B.M.
check to SE Montalvo

53.50

15.42

5.96

C 9.46

52.16

16.76

7.28

C 9.48

50.81

18.11

9.06

C 9.05

48.69

10.37

2.56

C 7.81

46.56

12.50

5.98

C 6.52

44.44

14.62

8.94

C 5.68

42.31

16.75

11.30

C 5.45

1110134 = D.E. wly end Montalvo

10+90

10+60

70.48

65.41
 5.07
 0.05
 C 5.02

64.50
 5.98
 0.45
 C 5.53

62.06
 8.42
 1.77
 C 6.65

Sewer thru Blk. 3.
Montalvo to Valera
via 10" Path

2 + 25

INDEXED

WK
DEC 7 1948

1 + 90

T.P. 576 $\frac{50.40}{49.40}$ 5.25 $\frac{46.6x}{45.6x}$

1 + 57.30 = $\Delta = 2' 36" \text{ Fr.} = \text{Valera ST.}$

1 + 23.28

0 + 88 = Chimney

0 + 60

0 + 30

0 + 00

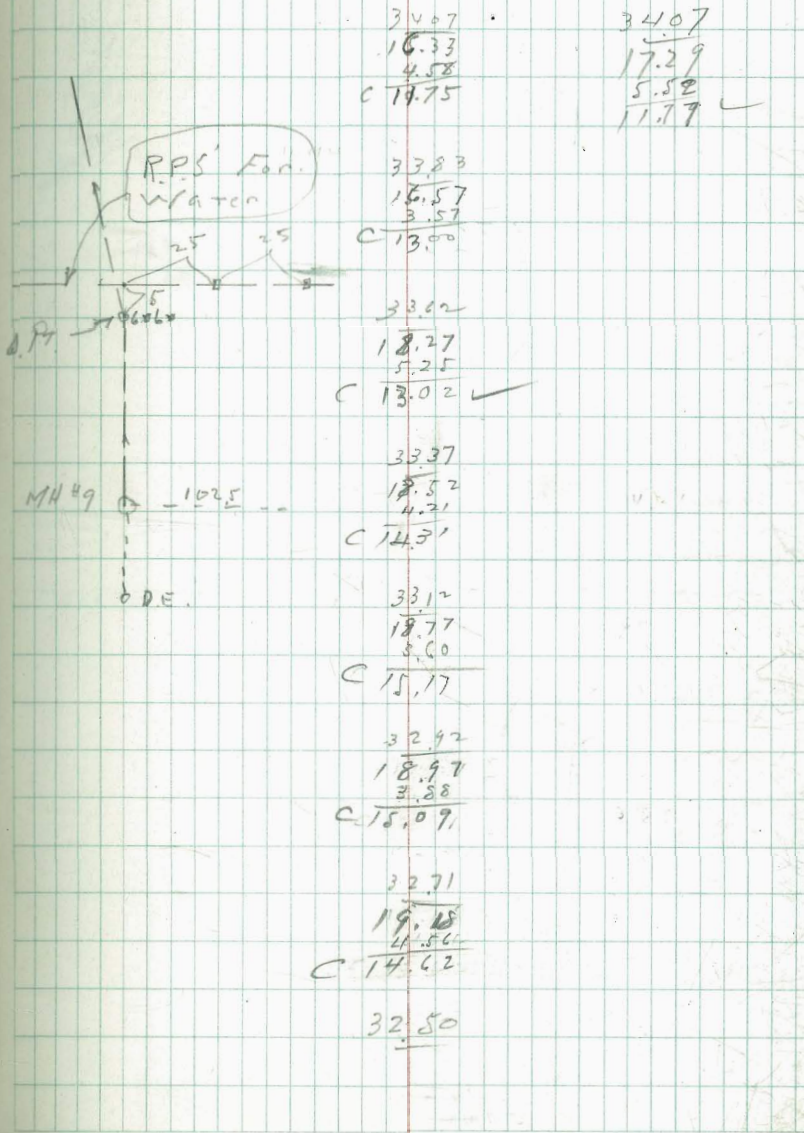
M.H. #10 ON Me

Set B.M.
on 6" L.T.
cut stub
M.H. #10.

8.94 $\frac{57.89}{50.89}$ 177 42.95

44.72 = H.I.P. 31

(31)?



Lateral of 10' Path
S of Valota

1402.5 = D.E.

0470

T.P. 387 $\frac{47.82}{46.82}$ 6.45 $\frac{43.95}{42.95}$

0435

0400
2+2436 = M.H. #9 Δ 90° LT

3122 = D.E. S. end path ^{10'}

3400

2+6436 = M.H. #9

$\frac{50.40}{99.00}$

$\frac{22.95}{8.91}$
 $\frac{1.80}{3.42}$ X
 $\frac{10.44}{4.21}$
 $\frac{5.65}{6.91}$ X
~~46.44~~

$\frac{35.06}{12.76}$
 $\frac{5.95}{6.81}$

$\frac{34.85}{12.97}$
 $\frac{5.15}{7.82}$

$\frac{34.60}{15.80}$
 $\frac{6.45}{7.35}$

$\frac{34.35}{15.05}$
 $\frac{4.07}{10.03}$ ✓

B.M. P.P. #4451

$\frac{47.69}{3.67}$
51.36

$\frac{34.75}{15.65}$
 $\frac{8.74}{7.41}$

$\frac{34.60}{15.80}$
 $\frac{7.79}{8.01}$

$\frac{34.35}{17.01}$
 $\frac{6.01}{11.0}$

$\frac{34.35}{15.05}$
 $\frac{4.07}{10.03}$ LOST

36
 $\frac{46.44}{8.65}$ X
 $\frac{46.77}{7.71}$ T.P.
 $\frac{50.44}{2.98}$ X
 $\frac{49.50}{3.62}$
50.92

~~34.40~~
~~15.80~~
~~6.45~~
~~7.35~~
~~34.35~~
~~15.05~~
~~4.07~~
~~10.03~~
47.69

$\frac{50.40}{2.71}$
47.69

Spike B.M.
P.P. 44.51

Sewer Grades
 Ely end of Montalvo

39.57

1+40 (CONST. CHIMNEY)

1+06
 39

0+73

T.P. 1+2 28.79 12.20 27.37
 CONST.

0+40 Break (CHIMNEY)

0+20

T.P. 0.58 16.51 12.86 15.93 ✓ old R.P. 5706

0+00 Ex. M.H. at FAMOSA

Inv.

19.84
 19.73
 2.07
 C 12.26

16.83
 22.74
 9.62
 C 13.12

13.91
 25.66
 12.20
 C 13.46

10.99
 15.80
 5.44
 C 12.36

6.92
 21.87
 12.86
 C 9.01

Main Line

246

14.05

14.11

0.06 Low

2.80
 13.65
 8.59
 C 4.96

51.60 East Montalvo

140

Break

120

3400

M.H. #14

270

240

(CONST. CHIMNEY)

T.P.

0.54

39.57

12.57

39.03

✓ old
STUB

2106

173

33

\$
INV.

38

41.02
15.58
2.43
C 8.15

37.51
14.09
3.84
C 10.25

34.00
17.40
5.52
C 12.08

31.32
20.24
7.79
C 12.47

28.69
22.91
10.67
C 12.24

25.68
13.89
2.25
C 11.64

22.76
16.81
4.96
C 11.85

5+70	6.25	68.80	62.55
Suspense	0.02	62.57	62.55

435

5+00

4+65

4+32.5

Const.
Chimney

4+00

3+70

T.P.	0.72	51.60	11.69	50.88
------	------	-------	-------	-------

Grades
Backed
in

Inv.

39

5124
17.52
7.24
<u>110.32</u>

49.69
12.88
1.63
<u>111.25</u>

48.12
12.00
3.84
<u>10.50</u>

46.58
15.99
2.18
<u>9.81</u>

45.12
17.44
7.94
<u>9.50</u>

43.68
18.89
9.79
<u>9.10</u>

42.35
20.22
11.69
<u>8.53</u>

7+75

$$\begin{array}{r} 59.18 \\ 9.62 \\ 3.77 \\ \hline C 58.57 \end{array}$$

5 7+40

$$\begin{array}{r} 58.16 \\ 10.64 \\ 4.34 \\ \hline C 63.36 \end{array}$$

7+00

M.H. #13

$$\begin{array}{r} 57.00 \\ 11.80 \\ 4.94 \\ \hline 6.86 \end{array}$$

C+65

$$\begin{array}{r} 55.45 \\ 13.35 \\ 5.25 \\ \hline C 81.10 \end{array}$$

C+30

$$\begin{array}{r} 53.91 \\ 14.89 \\ 5.73 \\ \hline C 9.16 \end{array}$$

7+97

CONST. CHIMNEY

$$\begin{array}{r} 52.44 \\ 16.36 \\ 6.50 \\ \hline C 9.86 \end{array}$$
68.80

P.P.
 Check to spk to S.E. Cor.
 Mantolova & Clavis 1278 6399 6399

9+55 D.E.

64.40
 11.37
 4.63
 C 6.74

9+15

63.24
 12.53
 5.60
 C 6.93

8+80

62.22
 13.55
 7.11
 C 6.44

T.P. 859 75.77 162 67.18
~~14.89~~

8+45

61.20
 7.60
 1.60
 C 5.98

8+10

60.19
 8.61
 2.88
 C 5.73

6880

Sewer Grades
Wly end MENTONE

1 + 30

1 + 00

0 + 70

0 + 40

0 + 20

8.72%

Break

M.H. #5 = 0 + 00 in W. Pt. LOMA Blvd.

SE SPIKE
MENTONE 9.82
+
W. PT. LOMA Blvd

33.88

24.06

100

42

26.20 ✓
7.68
0.88
C 6.80

23.70 ✓
10.18
3.50
C 6.68

31.20 ✓
12.68
6.36
C 6.42

18.70
15.18
9.08
C 6.10

14.30
17.58
11.22
C 8.36

9.98

3+10

T.P.

12.20

57.28

0.21

45.08

2+80

2+50

2+20

1+90

1+60

T.P.

12.49

215.49

0.88

33.00

Fwd- 33.88

41.20 ✓
 $\frac{16.08}{10.32}$
 C 5.76

38.70 ✓
 $\frac{6.79}{0.41}$
 C 6.38

36.20 ✓
 $\frac{9.29}{2.41}$
 C 6.88

33.70 ✓
 $\frac{11.79}{4.70}$
 C 7.09

31.20 ✓
 $\frac{14.29}{7.12}$
 C 7.17

28.70
 $\frac{16.79}{10.05}$
 C 6.74

WILY MENTONE

5+00

4+70

4+40

4+10

3+80

3+50

3+1977

M.H. #7

5728

3.08%

WV.

44

47.50
9.74
3.74
C 6.00

46.02
10.00
4.59
C 6.07

45.09
11.59
1.45
C 6.14

44.74
12.54
6.28
C 6.26

43.85
13.43
7.09
C 6.34

42.92
14.36
8.28
C 6.08

42.00
15.28
9.77
C 5.51

WLy. Mentone

Inv.

45

check to BM.

2.20

62.25

62.32

SE Spike P.P.

Mentone

Clovis

6+7777 D.E.

$$\begin{array}{r} 53.03 \\ 11.42 \\ 5.31 \\ \hline C 6.71 \end{array}$$

6+50

$$\begin{array}{r} 52.16 \\ 15.29 \\ 2.38 \\ \hline C 5.91 \end{array}$$

T.P.

7.39

64.15

0.22

57.06

6+20

$$\begin{array}{r} 51.24 \\ 6.04 \\ 9.22 \\ \hline C 5.82 \end{array}$$

5+90

$$\begin{array}{r} 50.31 \\ 6.97 \\ 1.33 \\ \hline C 5.64 \end{array}$$

5+60

$$\begin{array}{r} 49.29 \\ 7.89 \\ 2.16 \\ \hline C 5.73 \end{array}$$

5+30

$$\begin{array}{r} 48.46 \\ 8.82 \\ 2.98 \\ \hline C 5.84 \end{array}$$

1+40

T.P. 12.15 34.77 0.62 42.12

1+10

5.47
5.43
2%

0+80

0+50.34

Break

T.P. 10.80 24.02 1.73 13.22

0+25.17

T.P. 1.73 14.95 3.29 13.22
7.81 ~~23.24~~ ~~12.43~~ error

T.P. old hole 0.79 16.72 15.93 P.37

THIS IS OK.

0+00 Ex. M.H. at Famosa Blvd.

Note!

M.H. as built by Navy is 1.7 to far S. Ely.

14.87
17.90
11.46
C 8.44

13.24
19.50
1.85
C 8.15

11.61
11.43
3.23
C 8.40

10.00
14.02
5.14
C 8.88 ok.

5.63
18.39
5.95
C 12.14 ok.

14.95
13.69
1.26

1.26 = el. stop ok.
13.69
18.69

RIM 6.26

C 5.00 on R.I.M.

from here
to D.E. CUTS
raised 0.21

Ely Mentone

10.92%

3+08

3+06.34 M.H. #15 at Camulos St.
A = 0° 06' 30" Lt.

2+95

2+65

T.P. 8.37 43.02 0.12 34.65

2+35

2+05.34 (CONST. chimney)

1+70

34.77

5.47%

Inv.

Mentone

90' at Camulos St.
Sewer

2+90 M.H. #15 $\frac{24.00}{19.02}$ $\frac{24.00}{19.02}$
4.95
C 14.07

0+60 $\frac{24.33}{18.69}$ $\frac{24.33}{18.69}$
5.64
C 11.71

0+30 $\frac{24.67}{18.35}$ $\frac{24.67}{18.35}$
6.32
C 10.19

0+00 D/E $\frac{25.00}{18.02}$ $\frac{25.00}{18.02}$
6.98
C 14.42

$\frac{20.03}{14.74}$
5.29
C 14.07

$\frac{18.42}{16.35}$ $\frac{18.42}{16.35}$
2.07
C 12.82

$\frac{16.50}{18.27}$ $\frac{16.50}{18.27}$
1.77
C 10.65

Connection
Raise cuts
0.21

5+00

$$\begin{array}{r} 34.86 \\ 15.83 \\ 5.33 \\ \hline C 10.50 \end{array}$$

Paise Cuts

0.21

4+67.0
33

CON'ST. CHIMNEY

$$\begin{array}{r} 34.65 \\ 18.04 \\ 6.76 \\ \hline C 11.28 \end{array}$$

4+33

$$\begin{array}{r} 32.36 \\ 40.33 \\ 8.00 \\ \hline C 12.33 \end{array}$$

4+00

$$\begin{array}{r} 30.15 \\ 23.54 \\ 9.21 \\ \hline C 13.33 \end{array}$$

T.P.

1075 52.69 108 41.9x

3+67.00

(CONST. CHIMNEY)

$$\begin{array}{r} 27.95 \\ 15.07 \\ 1.08 \\ \hline C 13.99 \end{array}$$

3+31.34

$$\begin{array}{r} 25.56 \\ 17.46 \\ 3.14 \\ \hline C 14.32 \end{array}$$
43.02

6 + 94

3.83 %

6 + 62

6 + 32.0

(Break)

6 + 12.0

5 + 92.00 M.H. #10

T.P. 12.99 64.34 1.34 51.35

5 + 67.00 CONST. M.H.

5 + 33.34

52.69

49.84
 $\frac{14.50}{5.23}$
 C 8.87

48.69
 $\frac{15.65}{2.75}$
 C 8.90

47.54
 $\frac{14.80}{8.37}$
 C 8.43

45.27
 $\frac{19.07}{9.65}$
 C 9.42

43.00
 $\frac{21.34}{11.15}$
 C 10.19

41.35
 $\frac{17.34}{1.34}$
 C 10.00

39.07
 $\frac{13.63}{3.63}$
 C 9.99

Paise CUTS
 0.21

Ely Mentone

Inv.

50

			478	6255	62.30
T.P.	538	6733	239	61.95	0223
					error

8479.00 D.E.

8742

8712

7782
30

7750

7722

64.30

$$\begin{array}{r} 57.00 \\ 7.34 \\ 2.39 \\ \hline C 4.95 \\ 21 \\ \hline C 4.74 = OK \end{array}$$

$$\begin{array}{r} 55.85 \\ 8.69 \\ 1.90 \\ \hline C 6.79 \end{array}$$

Raise Curs
0.21

$$\begin{array}{r} 54.48 \\ 9.86 \\ 1.94 \\ \hline C 7.92 \end{array}$$

$$\begin{array}{r} 53.36 \\ 11.03 \\ 2.58 \\ \hline C 8.45 \end{array}$$

$$\begin{array}{r} 52.16 \\ 12.18 \\ 3.50 \\ \hline C 8.68 \end{array}$$

$$\begin{array}{r} 51.00 \\ 13.34 \\ 4.50 \\ \hline C 8.84 \end{array}$$

Sewer, Wlyend Tomacula

(44.57)

1 + 50

T.P. 0.99 32.48 12.08 32.49

1 + 15

0 + 80

0 + 49.9 = Break

0 + 24.95

0 + 00 = Ex. M.H. #3 at W. Pt. Loma Blvd.

Inv.

51

25.16

19.41

10.81

C 8.60

22.58

10.90

3.13

C 7.77

20.00

13.48

7.00

C 6.48

17.79

15.69

10.50

C 5.19

12.90

20.58

12.98

C 7.60

8.01

75.47

14.84

C 10.63

$$\begin{array}{r} 44.57 \\ 19.2 \\ \hline 25.37 \end{array} = \text{Floor elev. Drilling}$$

N of DMH. #18

Cuts Backed in.

B.M.
SE. Spike P.P. 0.78 44.57 43.79

2482.9 D.E.

2455

2420

1485
55

Terracotta + Clovis

$$\begin{array}{r} 34.94 \\ 9.63 \\ 4.52 \\ \hline 5.11 \end{array}$$

$$\begin{array}{r} 32.88 \\ 17.69 \\ 5.15 \\ \hline 6.54 \end{array}$$

$$\begin{array}{r} 30.31 \\ 18.26 \\ 6.24 \\ \hline 8.02 \end{array}$$

$$\begin{array}{r} 27.73 \\ 16.84 \\ 7.98 \\ \hline 8.86 \end{array}$$

Sewer Grades
Ely end on Temecula

V.L.O. 31169 Inv.

53

1+50

4.32 ✓
7.58
2.10
C 5.48

1+18.54 M.H. #20

31.46

1.49
10.41
3.64
C 2.77

0+90

1.01
10.89
3.45
C 7.44

0+60

0.51
11.39
7.20
C 4.19

0+30

+ 0.01
11.89
11.61
C 0.28

0+00 = Ex. M.H. on Famosa Blvd.

- 0.49
12.39
7.24
C 5.15

11.90
12.39
- 0.49
↗
STUB
at MH

T.P.	3.45	<u>11.90</u>	12.21	8.45
T.P.	0.81	20.66	12.60	19.85
T.P.	0.81	32.45	12.95	31.64
SE SPIKE CLOVIS Temecula	0.80	44.59		43.79

3 + 68.54 = M.H. #19

3 + 50

3 + 25

2 + 90

T.P. 12.14 34.96 0.94 22.82

2 + 55

35

2 + 20

1 + 85

35

T.P. ↑ 12.00 23.76 0.14 11.76

11.90 Fwd.

54

23.94
11.02
5.22
C 5.80

22.28
12.68
6.31
C 6.37

20.03
14.73
7.82
C 7.11

16.89
18.07
10.21
C 7.86

13.75
10.01
1.57
C 8.44

10.60
13.10
5.06
C 8.10

7.46
16.30
10.44
C 5.86

6+14.75 = Chimney

5+80

5+45

5+14.75 = Chimney

4+75

T.P. 11.40 45.18 1.18 33.78

4+35

4+00

3496

Inv.

55

28.05
17.13
5.19
C 11.94

27.47
17.71
5.70
C 12.01

26.89
18.29
16.51
C 11.78

26.38
18.50
7.65
C 10.15

25.72
19.46
9.30
C 10.14

25.05
9.91
1.18
C 8.73

24.47
10.49
3.34
C 7.15

8 + 20.75

7 + 90.75

T.P. 1202 55.61 1.59 43.59

7 + 60.75

7 + 30.75 D.M.H. A 90° LT. #18
Clovis + Tenacula

7 + 15

6 + 80

6 + 45

35

45.18

INV

56

42.25
13.36
7.81
C 5.55

110.00
15.61
10.70
C 4.91

37.75
7.43
2.50
C 4.93

35.50
7.68
3.50
C 6.18

30.00
75.18
3.50
C 11.68

45.18
1.01
43.77 check
to 811
43.75

29.73
15.45
3.64
C 11.81

29.14
10.04
4.45
C 11.59

28.55
10.63
5.05
C 11.58

9 + 10.75 D.E. on CLAVIS ST
 Betw. Mentone
 and Tempecula

49.00
 1.61
 0.19
 C 6.42

8 + 80.75
 30

46.75
 8.86
 2.37
 C 2.49

8 + 50.75

44.50
 11.11
 4.63
 C 2.28

55.6

Sewer on Wdy end of Rio Lito

1+70 D.E.

Void

1+40

See P. 61

1+05

5.55%

0+70

0+35

0+00 M.H. #1 on W. Pt. Loma Blvd.

10.6

10.6

+ 0.22

Senior, Ely and Righto
No. 31169

59

1775
35

8.04
10.41
2.19
C 8.22

1740

6.73
17.72
3.33
C 8.39

1705

3.7 x %

5.42
13.03
4.97
C 8.06

0770

4.11
14.34
7.20
C 7.14

0735

2.80
15.65
9.37
C 6.38

0700 Ex. M.H. at Famosa Blvd
T.P. 1.04 18.45 0.15 17.41
17.56 - 1.96 Bot. M.H.
H.H. from
P. 61

10.88 Rim
+9.57
20.45

- 2.0
- 1.96
0.04

1.49
16.96
10.88
C 6.08

check + his chimney

2 + 70 D.E.

2 + 45

2 + 10

18.45

11.59
 6.86
 1.04
 C 5.82

10.66
 7.79
 0.98
 C 2.81

9.35
 9.10
 1.30
 C 7.80

1+70 D.E.

10.16
 7.40
 2.28
 C 5.12

1+36

8.17
 9.39
 3.35
 C 2.04

1+02

6.18
 11.38
 5.44
 C 5.94

+ 68

5.85%

4.19
 13.37
 8.21
 C 5.16

+ 34

2.20
 15.36
 10.58
 C 4.78

0+00

#1
 M.H. W Point Blvd

T.P.	8.53	<u>17.56</u>	11.46	9.03
T.P.	0.92	20.49	12.68	19.57
T.P.	0.31	32.25	12.64	31.94
SE SPIRE B.M.	0.79	44.58		43.79
CLAVIS +				
TERRA LA				

0.22

17.34
 12.78
 C 4.56

C 4.58

curb grade
SW Con. WOLLS
& TENNYSON

B.M.
SW Mon 4.50 11.42 106.92

PL
10' R
WOLLS
&
TENNYSON

INDEXED
WIK
DEC 7 1948

curb grade 10C.V5

4.97
v.v7
C
0.50

3-29-48

McPHEE
Pegg
Green

NW 20th R Ret.

Wells and Tennyson

Moore

BC99

Sheehan 10-18-48

Bunch

RAIN

Sw. Man

Tennyson

Wells

41x

111.06

106.92

105.50

5.56

105.00

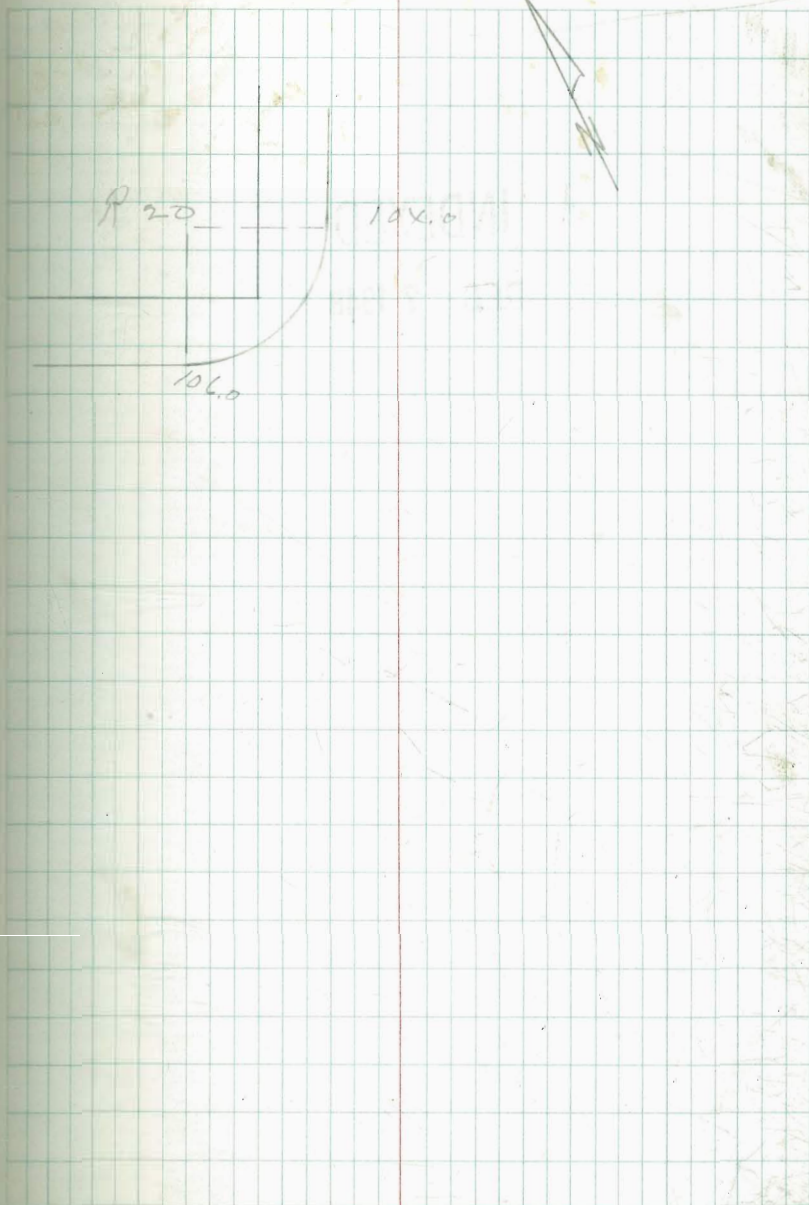
7.06

104.50

6.56

104.0

7.06



Alley grades

BLK 2 Sunset Grove

WO 21001

10-28-48

Moore
Boyer
Sherman
Sunot
Gregory

INDEXED

WIK
DEC 7 1948

1420

1490

1470

1450

1430

1410

0400 a.m. Longbranch

Top curb
0400
on EAST

118

14224

14106

LT.

RT.

64

127.72
14.52
12.85
C 7.67

13056
17.68
9.39
C 2.29

13258
9.26
7.82
C 1.84

13480
7.00
3.94
C 3.50

13724
5.00
1.27
C 3.73

13988
2.36
0.29
C 2.07

14120
1.04
0.89

Pay 0.15 High

14082
1.36
Pay.

12721
15.03
14.55
C 0.48

13005
12.19
14.08
C 7.77

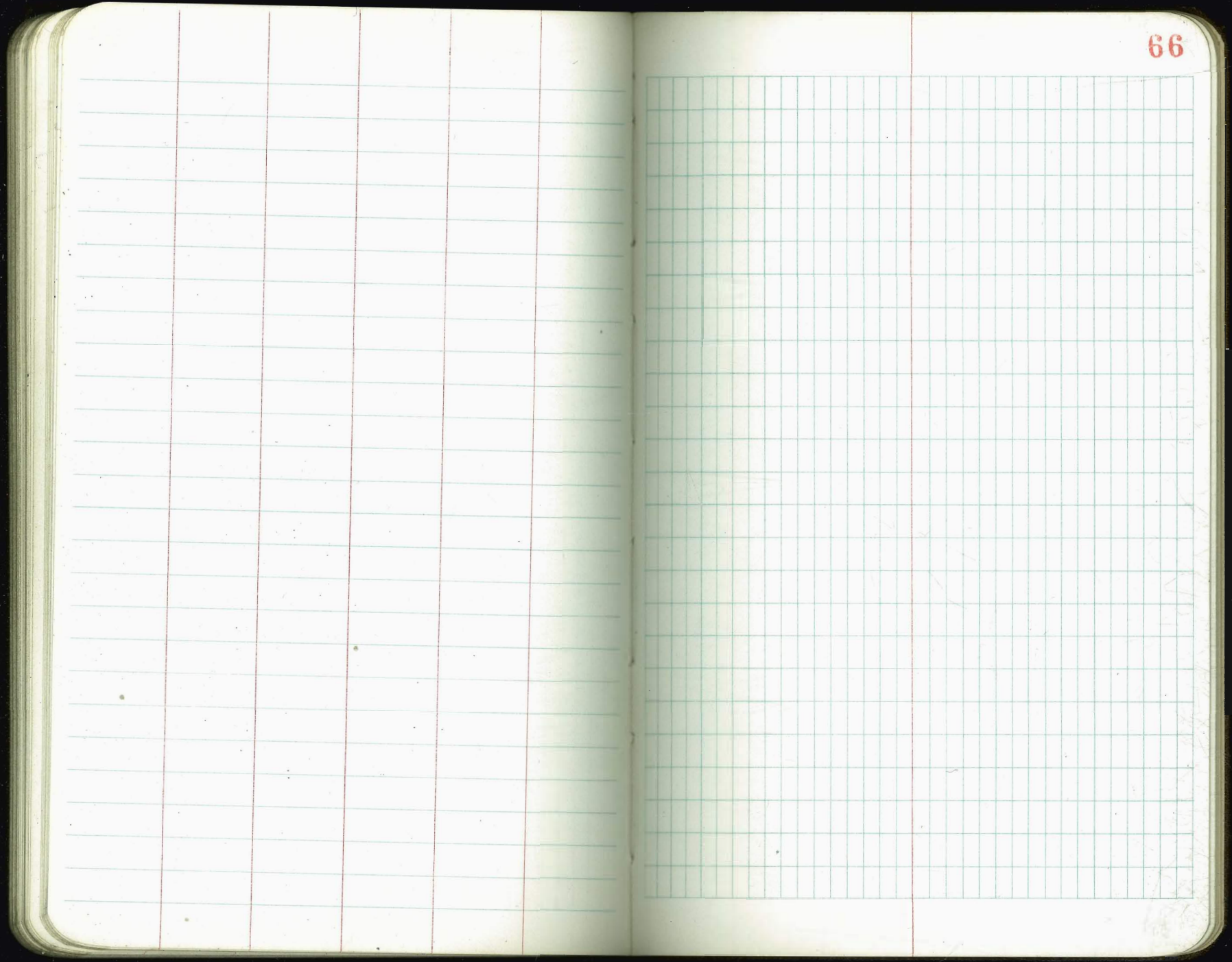
13207
10.17
19.97
C 0.20

13429
7.95
9.64
F 1.69

13673
5.51
4.19
C 1.32

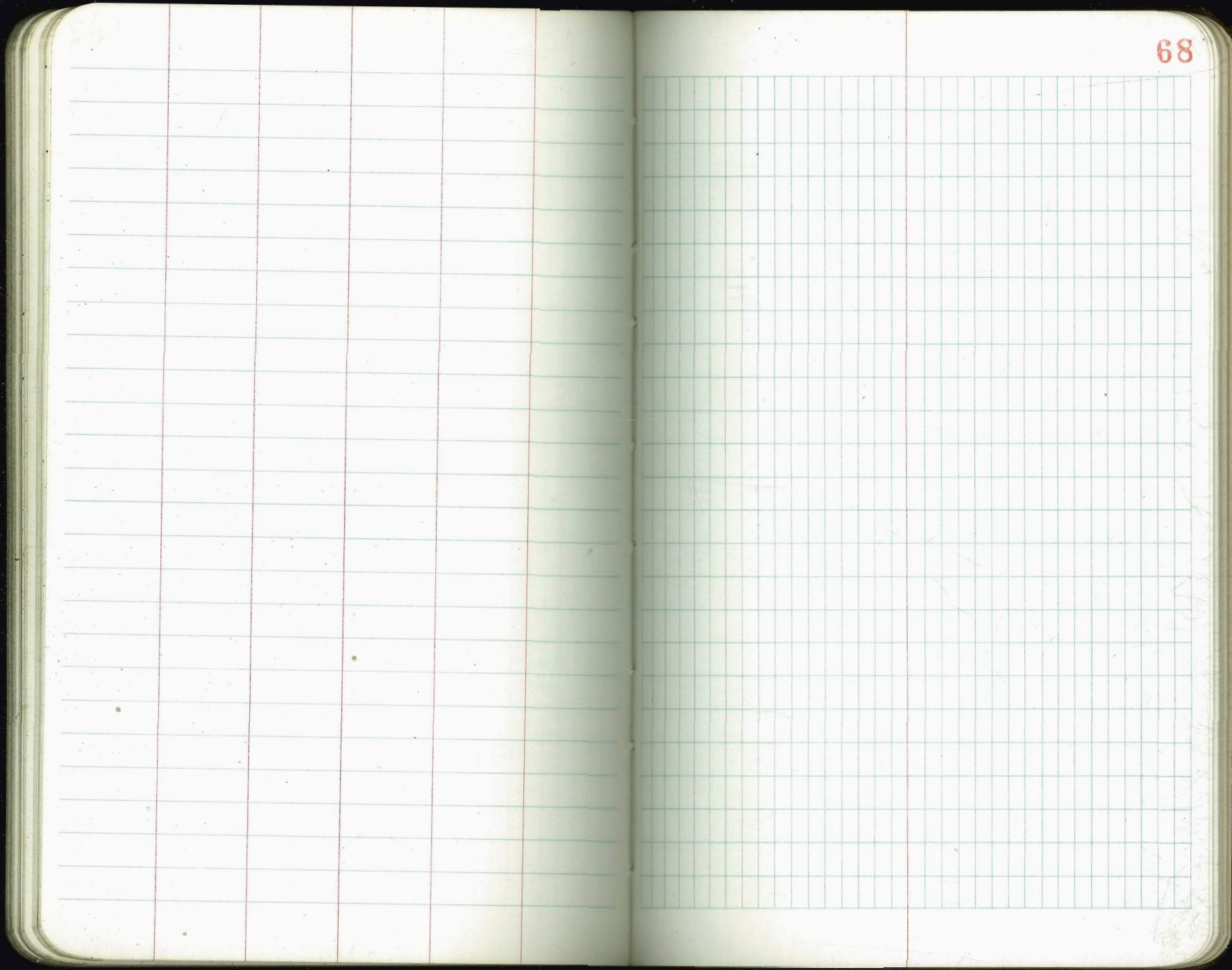
13937
2.87
1.78
C 1.09

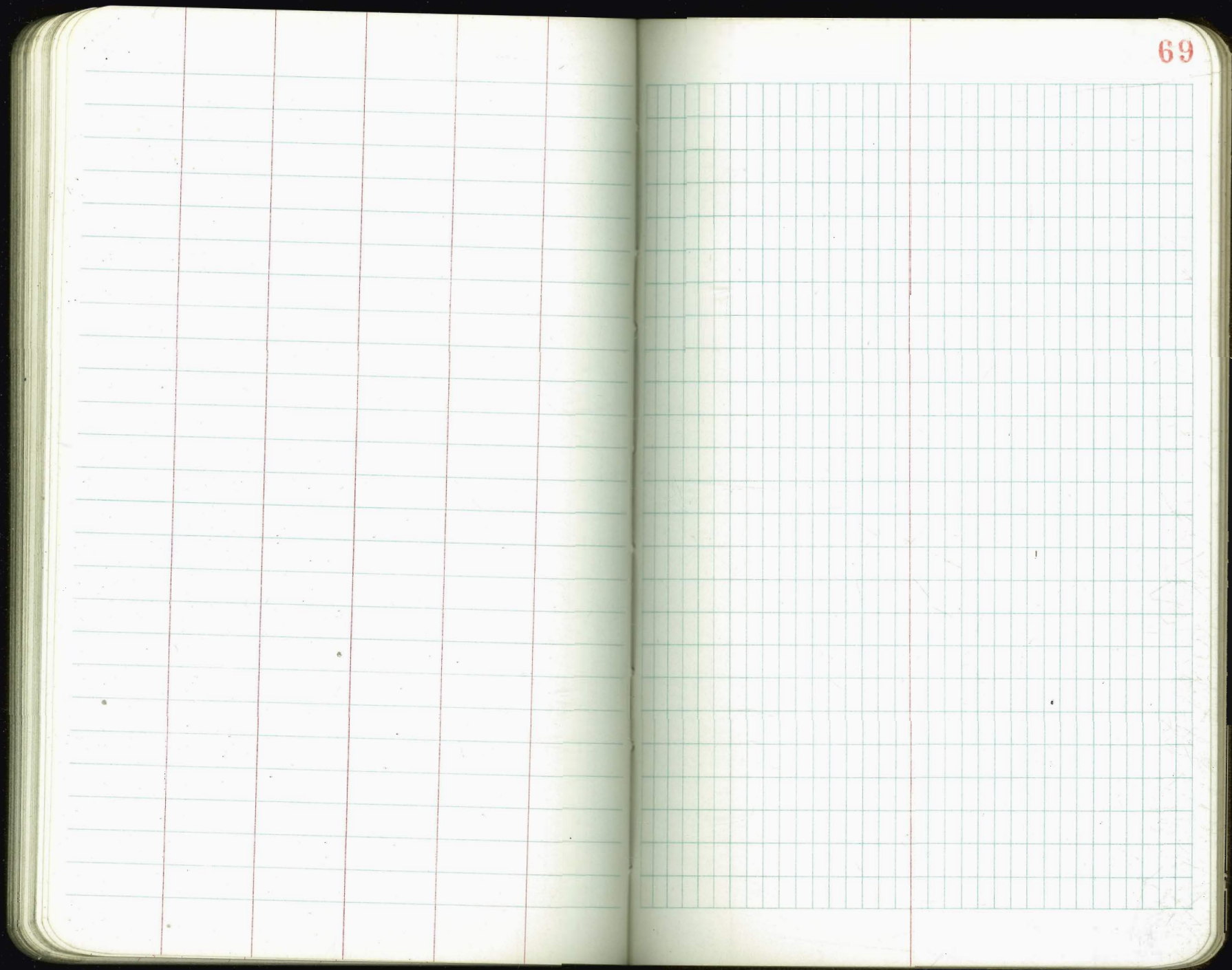
14093
1.21
Pay.

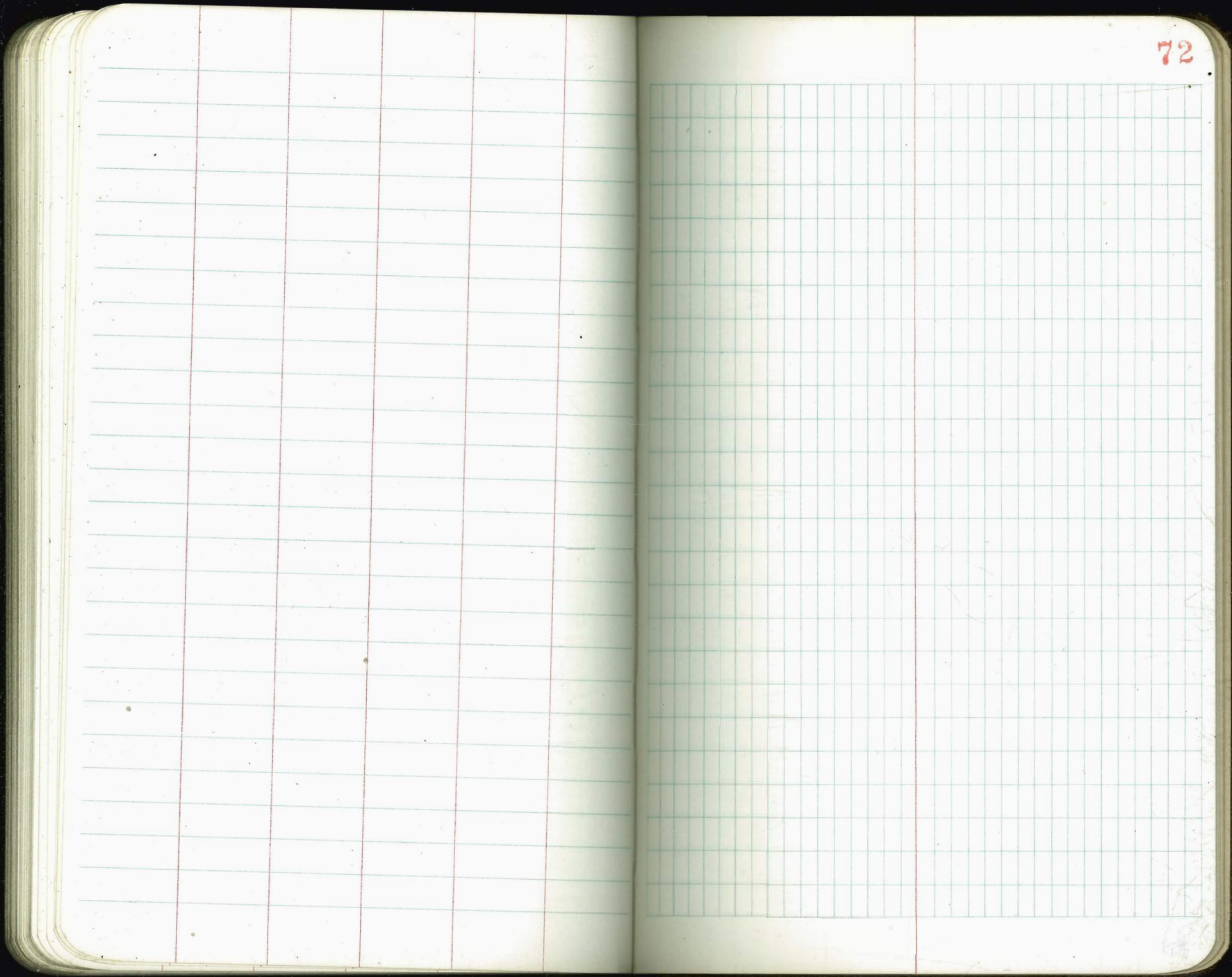


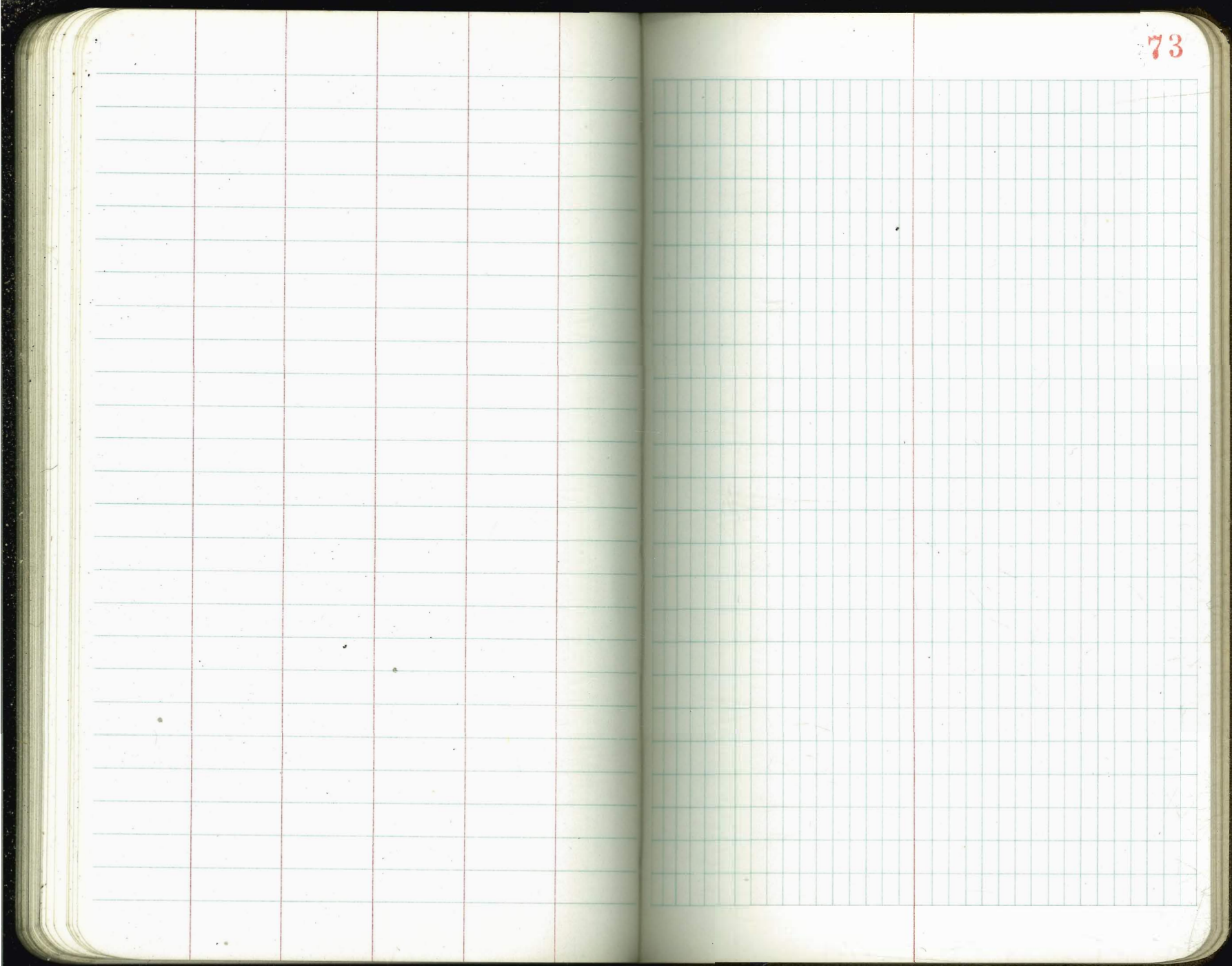
This page is a blank ledger with a red margin line on the left side. It is divided into five vertical columns by four red lines. The page is ruled with horizontal blue lines.

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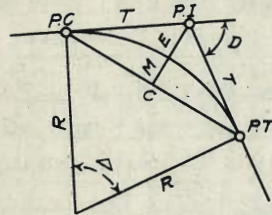


This page is a ledger-style grid with four vertical red lines and many horizontal blue lines. It is divided into five columns of varying widths. The columns from left to right are: a wide column, a medium-width column, a narrow column, a narrow column, and a wide column. The grid is empty.

This page is a ledger-style grid with one vertical red line and many horizontal blue lines. It is divided into two columns of equal width. The grid is empty.

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) $\Delta =$ 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) $.3 \times C \times D^2$ 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 $D=5^\circ 30'$.

69.55
30.96
100.61

29.55
26.40
95.95

69.55
35.52
105.07

36.2
12
29.9

86.83

456

52.7

77.71

72.15

4.5

17.25
11.6
12.7

86.83

456

91.39 1/4

95.95 1/4

100.51 1/4

105.07 ncb

13.17

118.24

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 $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see distance of front cover.

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