

1589



FOUR  
LEAF BOOK  
75-407



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

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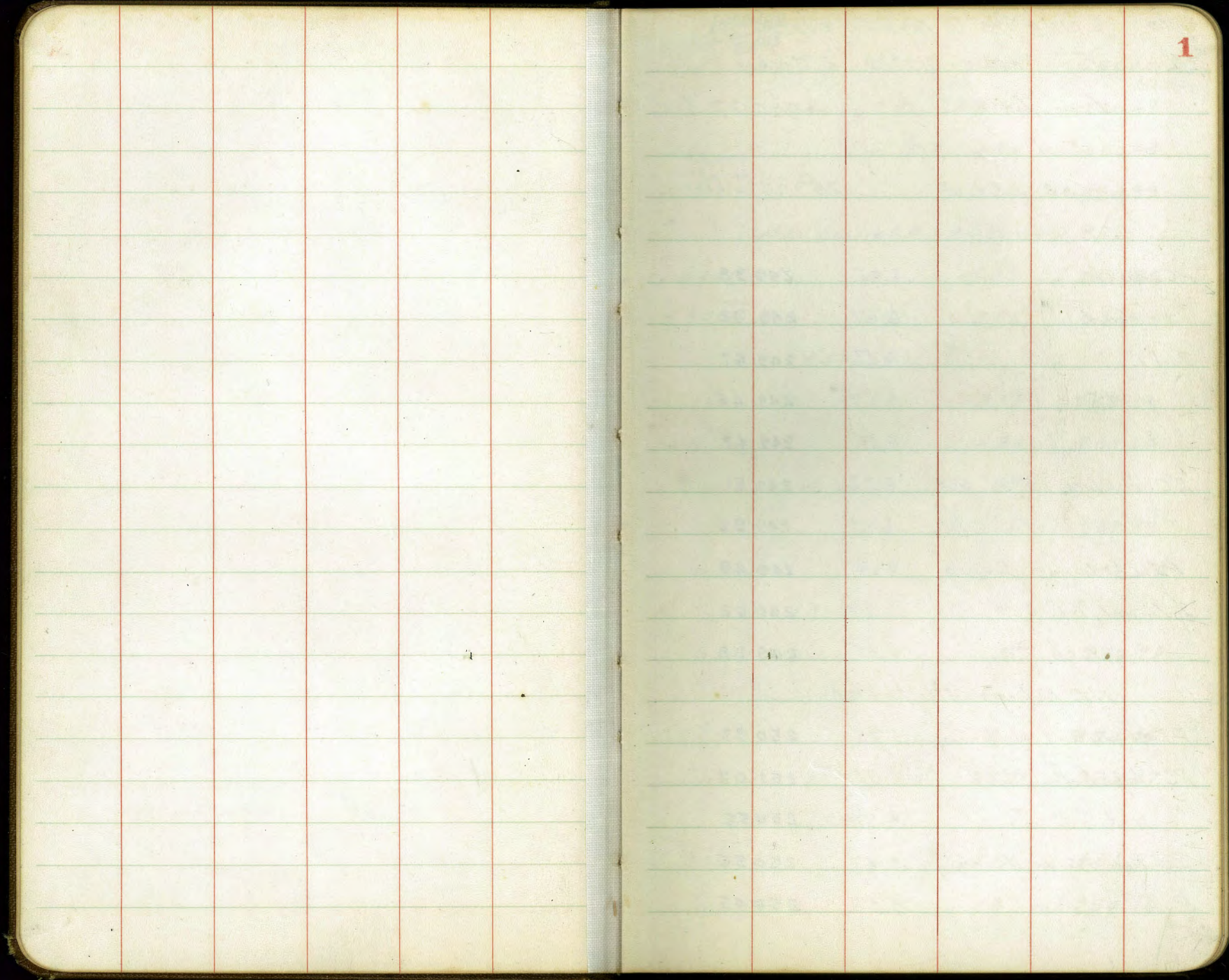
# 1589

ENGINEERING DEPARTMENT  
CITY OF SAN DIEGO,  
CALIFORNIA.

The paper stock of this book is made of a high grade 50% rag paper having a water resisting surface and is sewed with Bing Special Enamel Waterproof Thread.

Made in U. S. A.







Walker CURB AND GUTTER LEVELS  
Bliss For RESURFACING 5TH AVE.  
Isbell 10-7-90 From LAUREL to UNIVERSITY AVE.

East side 5th

6.08 256.03 249.95

NW. BP  
Laurel  
+ 5th

S.E. Return

P.C. on cb. 6.05 249.98

" " Gut. 6.61 249.42

Part 1 " 6.56 249.47

" 2 " 6.57 249.46

" 3 6.56 249.47

E.C. Paving 5th/2 Gut. 6.52 249.51

" " " " cb. 6.11 249.92

P.I. cb lines Paving. 6.57 249.49

S. Laurel, E.L. 5th 5.51 250.52

" " E. cb " 6.15 249.88

N.E. Return 5th Laurel

P.I. cb lines on Paving 5.70 250.33

P.C. top cb E.L. 5th 5.01 251.02

" Gut " " 5.51 250.52

(20' East P.C. on Paving) 5.47 250.56

Part 1 on Pav. 5.58 250.45

INDEXED 258.03

EPB

Part 2 on Paving 5.63 250.40

" 3 " " 5.56 250.47

E.C. " " 5.54 250.49

" " " 5.04 250.99

N.W. Laurel = 0+00

0+25 cb 4.47 251.56

0+25 Gut 5.11 250.92

0+50

cb 3.83 252.20

Gut 4.49 251.54

0+75

cb 3.15 252.88

Gut 3.77 252.26

1+00

Gut in Drive 3.15 252.88

1+25

cb 1.89 254.14

Gut 2.56 253.47

1+50

cb 1.11 254.92

Gut 1.87 254.16

2



	258.03		
	1+75		
cb		0.68	255.35
Gut		1.93	254.90
	2+00		
cb		0.08	255.95
Gut		0.70	255.33
TP	8.18	263.71	0.50 255.53
	2+25		
cb.		7.17	256.54
Gut.		7.74	255.97
	2+50		
cb.		8.51	257.20
Gut.		7.16	256.55
	2+75		
cb.		5.87	257.84
Gut		6.55	257.16
	3+00.7 = SL Maple		
cb.		5.23	258.48
3		5.88	257.83
	SE Return Maple = 30' 5' Parts 6'		
Part 1 Gut.		5.91	257.80

	268.71		3
Part 2		5.84	257.87
" 3		5.83	257.88
" 4		5.67	258.04
" 5 Gut		5.76	257.95
" 5 top cb.		5.23	258.48
20' East on Pav.		5.98	257.73
PI. cb lines = 3+20.7		5.84	257.87
3+40.7 = 2 Maple cb line		5.70	258.01
3+40.7 " " E.L. 5th		4.99	258.72 <sub>6</sub>
			NE Return Maple & 5th 5 Parts.
25' E. E.L. 5th on Gut.		5.59	258.12
P.C. on cb.		4.77	258.94
" " Gut.		5.32	258.39
PI. cb lines on Gut		5.51	258.19
Part 1 " "		5.35	258.36
" 2 " "		5.47	258.24
" 3 " "		5.45	258.26
" 4 " "		5.41	258.30
			Part 5 = N.W. Maple = 0+00
" 5 Gut		5.33	258.38
" 5 cb		4.72	258.99



TR 872 268.14 ✓ 429 259.42

0+25

E. cb. 8.83 259.31

" Gut. 9.46 258.68

0+50

E. cb. 8.32 259.82

" Gut. 8.95 259.19

0+75

E. cb. 7.98 260.16

" Gut. 8.63 259.51

0+92

E. cb. 7.66 260.48

" Gut. 8.30 259.84

1+01

E. cb. 7.22 260.92

" Gut. 7.91 260.23

+1 8.19 259.95

1+10

E. cb. 7.40 260.74

" Gut. 8.07 260.07

1+25

E. Gut 8.00 260.14

1+42

E. top cb 7.05 261.09

" Gut 7.70 260.44

1+51

E. cb. 6.31 261.79

" Gut. 7.32 260.82

5' W on Pav. 7.43 260.71

1+62

E. cb. 6.77 261.37

" Gut. 7.37 260.77

1+75

E. Gut. 7.16 260.98

2+00

E. cb. 6.08 262.06

" Gut 6.80 261.34

2+25

E. Gut 6.49 261.65

2+44

E. Gut 6.20 261.94



2+50 E Gut	6.05	262.09
2+7 " "	5.80	262.34
3+01 - <sup>SE</sup> PC. Return Nutmeg 4 Parks 6'		
PC. on cb	4.77	263.37
" " Gut	5.32	262.82
Part 1 "	5.33	262.81
" 2 "	5.21	262.93
" 3 "	5.20	262.94
" 4 "	5.25	262.89
" 4 on cb.	4.69	263.45
30' E E.L. 5th Gut	5.68	262.46
3+15		
= P.I. cbs. Gut.	5.18	262.96
PCB 5th		
3+41 = E Nutmeg " Pav.	4.41	263.73
E Nutmeg E.L. 5th "	3.67	264.47
N.E. Return Nutmeg x 5th 4 Parks 6'		
P.I. cbs on Paving	3.54	264.60
20' E E.L. 5th "	3.72	264.42
PC. cb. on cb	2.70	265.44
" " " Gut	3.37	264.87
Part 1 "	3.37	264.77
" 2 "	3.34	264.80

Part 3 Gut.	3.35	264.79
Part 4 = E.C. = NL. Nutmeg =	0+00	
" " on cb.	3.72	264.92
" 4 " Gut.	2.51	265.63
	0+10	
E cb.	2.22	265.92
" Gut.	3.01	265.13
	0+16	
" cb.	2.03	266.11
" Gut.	2.83	265.31
2' W on Pav.	2.89	265.25
	0+25	
E cb.	2.13	266.01
" Gut.	2.78	265.36
	0+46	
E Gut	2.35	265.79
0+50 Gut	2.17	265.97
0+58 "	2.10	266.04
0+58 cb.	1.38	266.76
0+65 Gut	1.80	266.34
0+65 cb.	1.34	266.80
0+75 2' W on Paving	1.96	266.18



	0+70		
E. cb.	1.23	266.91	
"Gut.	1.86	266.28	
	0+84		
E. cb.	0.72	267.42	
"Gut.	1.62	266.52	
	1+00		
E. cb.	0.65	267.49	
"Gut.	1.59	266.55	
T.P. 9.01	276.70	0.45	267.69
1+25 = E. Gut	9.27	267.43	
+50	8.82	267.88	
	1+65		
E. top cb.	7.68	269.02	
"Gut.	8.53	268.17	
	1+71		
E. cb.	7.57	269.13	
E. Gut on Pav.	8.26	268.44	
2' W " "	8.38	268.32	
	1+76		
E. top cb.	7.56	269.14	
"Gut.	8.22	268.48	

2' W	8.31	268.39
	2+00	
E. cb.	7.24	269.46
	7.87	269.83
2+12 = E. Gut	7.61	269.09
+14 = " "	7.50	269.20
+16 = " "	7.55	269.15
2+25 = E. Gut.	7.36	269.34
+50 = " "	6.80	269.90
+75 = " "	6.40	270.30
2+83 " "	6.20	270.50
+86. " "	6.05	270.65
2' W	6.17	270.53
3+00.8 = Sk. Olive - PC. SE. Return. 4 parks <sup>6'</sup>		
E. top cb.	5.24	271.46
"Gut. on Pav.	5.83	270.87
2' W " "	5.89	270.81
Part. 1 on Gut at cb.	5.67	271.03
1' W " "	5.79	270.91
Part 2. " "	5.61	270.89
" 3 " "	5.80	270.90



276.70

Part 4 Gut EC	5.83	270.87
" 4 top cb.	5.25	271.45
20' E on Gut	6.29	270.41
PT. Obs S.E. <sup>olive</sup> on Pav	5.82	270.88
E cb line + E olive	5.65	271.05
E olive, E.L. 5th	5.00	271.70
NE Returns		
PT Obs on Pav.	5.09	271.61
20' E.E.L. 5th Gut	5.71	270.99
P.C. Ret. top cb.	4.58	272.14
" " Gut	5.32	271.38
Part 1 "	5.29	271.41
" 2 "	5.02	271.68
1' South	5.15	271.55
3+72.8 = 8th E Pav.	4.70	272.00
" " E top cb.	4.68	272.02
Part 3 on Gut	4.69	272.01
" " " cb.	4.66	272.04
4' W " Pav.	5.03	271.67

276.70

7

Part 4 = EC Ret. = N.L. olive = 0+00		
E top cb.	4.64	272.06
" Gut. Flow inlet	5.94	270.76
2.5' W " "	5.90	270.80
25' " on top inlet	4.75	271.95
5' W " Pav.	5.06	271.64
0+4.5 = N end Inlet		
E top cb.	4.60	272.10
" Gut. Flow	5.24	271.46
0+2.5 = Gut	5.03	271.67
0+5.0 = E Gut	4.75	271.95
0+7.5	4.43	272.27
1+00		
E top cb.	3.39	273.31
" Gut.	4.06	272.64
1+2.5 = E Gut.	3.73	272.97
1+5.0 = " "	3.35	273.35
T.P. 5.98 280.25	2.43	274.27
1+7.5 = E Gut.	6.59	273.68
2+00 = E " in Drive	6.26	273.99
+2.5 " "	5.97	274.28



280.25

2+50 = E Gut	5.54	274.71
+75 = " "	5.22	275.03
3+009 = S.L. Palm = SE Return 4-Parts 6'		
P.C. top cb.	4.26	275.99
" Gut.	4.92	275.33
Part 1 "	4.96	275.29
" 2 "	4.87	275.38
" 3 "	4.80	275.45
" 4 = E.C. Gut	4.71	275.54
" 4 = top cb.	4.20	276.05
20' E. Pav.	4.89	275.36
P.I. Cbs "	4.86	275.39
3+409 = S. Palm. E cb. 5th gut.	4.56	275.69
" " " E.L. 5th Pav.	3.75	276.50
NE Return Palm. 4 parts 6'		
3 P.I. Cbs Gut	4.10	276.15
20' E. E.L. 5th Gut.	3.98	276.27
P.C. top cb.	3.26	276.99
" Gut.	3.81	276.44
Part 1 "	3.95	276.30
" 2 "	3.89	276.36

280.25

8

Part 3 Gut	3.65	276.60
2' W " "	3.95	276.30
N.L. Palm = 0700		
P.C. top cb.	3.15	277.10
" Gut.	3.63	276.62
1' W Pav.	3.83	276.42
0+10		
E cb.	3.23	277.02
Gut.	3.78	276.47
0+25 = E Gut	3.73	276.52
0+50 " "	3.45	276.80
0+57 " "	3.51	276.74
0+67 " top cb	2.68	277.57
0+67 = E Gut	3.38	276.87
0+69 = E " "	3.22	277.03
0+69 = E top cb	2.63	277.62
2' W on Pav.	3.29	276.96
0+75 " "	3.19	277.06
0+80 " "	3.39	276.86
1+00 E top	2.54	277.71
1+00 " Gut.	3.15	277.10



280,25

1+14 = E. Gut.	3.09	277.16
+18 = " "	2.97	277.28
2'W on Pav.	3.18	277.07
1+25 = E. Gut	3.05	277.20
1+50 = E. Gut Pav.	2.86	277.39
1+75 = E. Gut "	2.65	277.60
<del>2+00 = E. top cb</del>	<del>2.10</del>	
TR 545	283.61	2.09 278.16
2+00 E. top cb	5.30	278.31
2+00 " Gut	5.93	277.68
+25 " "	5.79	277.82
+50 " "	5.61	278.00
2+62 " "	5.45	278.16
+75 " "	5.18	278.43
3'W " "	5.44	278.17
2+85 " "	4.36 ?	279.25
+94 " "	5.17	278.44
1'W " "	5.31	278.30
3+00		
E. Gut.	5.17	278.44
3'W	5.34	278.27
E. top cb.	4.65	278.96

283.61

9

J.E. Returns

3+00.7 = SL. Quince	PC Ref. 4 - parts 6'	
E. top cb.	4.64	278.97
" Gut	5.32	278.29
Part 1 Gut.	5.28	278.33
" 2 "	5.18	278.43
" 3 "	5.24	278.37
" 4 = E. Gut E.C.	5.00	278.61
" 4	4.52	279.09
20' E. E.L. 5th Gut	4.93	278.68
PI cbs Gut. S.E. Ref	5.27	278.34
3+90.7 = E. cb 5th Quince	5.27	278.34 <sup>2</sup> Gut.
" E.L. 5th " "	4.68	278.93
N.E. Returns Quince		
PI, Returns on Gut.	5.26	278.35
20' E. E.L. 5th Gut	5.00	278.61
PC Ref top cb.	4.61	278.00
" " Gut	5.17	278.44
Part 1 "	5.14	278.47
" 2 "	5.20	278.41
" 3 "	5.22	278.39
" 4 E.C. Gut	5.17	278.44
" 4 " top cb.	4.57	279.04



N.L. Quince = 0+00

0+25 = E Gut.	5.21	278.40
+50 = E "	5.11	278.50
+75 = " "	5.07	278.54
0+90 E top cb.	4.23	279.38
0+90 = E Gut.	4.98	278.63
+96 = E top cb.	3.93	279.68
0+96 = E Gut.	4.72	278.89
TP 4.28 284.01	3.88	279.73
4' West	5.32	278.69
1+00 E top cb.	4.33	279.68
1+00 E Gut.	5.12	278.89
1' W	5.24	278.77
1+10 E Gut.	5.03	278.98
4' W	5.28	278.73
1+20 = E Gut.	5.12	278.89
1+20 E top cb.	4.97	279.54
1+50 E Gut.	5.20	278.81
+75 = E "	5.20	278.81
2+00 E top cb.	4.39	279.62
2+00 = " Gut.	5.16	278.85

284.01

2+25 = E Gut.	5.06	278.95
2+46 = E cb.	4.12	279.89
2+46 = E Gut.	4.83	279.18
2+51 = E cb.	3.58	280.43
2+51 = E Gut.	4.69	279.32
5' W on Prov.	4.84	279.17
2+57 = E top cb.	4.14	279.87
" = E Gut.	4.61	279.40
2' W	4.82	279.19
2+65 = E Gut.	4.80	279.21
+75 " "	4.82	279.19
+93 " "	4.79	279.22
+96 " "	4.58	279.43
2' W	4.76	279.25
3+01.6 = S.L. Redwood	Ref 5-Posts 6'	
E top cb.	4.87	279.94
" Gut.	4.70	279.31
Post 1 "	4.61	279.40
" 2 "	4.65	279.36
" 3 "	4.61	279.40



284.01

Part 4 Gut	4.59	279.42
" 5 "	4.52	279.49
" 5 top cb EC	3.99	280.02
35' E.E.L. 5th Gut	3.95	280.06
PTI RI SE Gut	4.68	279.33
3+416 = 2 Redwood Ecb 5th	4.50	279.51
" " " E.L. 5th	3.99	280.02
PTI NE Rd. Gut	4.00	280.01
10' E E.L. 5th Gut	4.37	279.64
NE Return Redwood	East & West Gutlet N.Cb. North & South " do " " on E. 5 Purty 6'	
PC. top cb.	3.91	280.10
" Gut. inlet	4.98	279.03
2' South "	4.98	279.03
2' South Pav	3.95	280.06
Part 1 on cb	3.97	280.04
" " " Gut	3.93	280.08
TR. 4.17	284.25	3.93 280.08
Part 2 on cb	4.22	280.03
" " " Gut	4.22	280.03
" 3 " cb.	4.20	280.05
" 3 " Gut	4.17	280.08

284.25

11

Part 4 Gut	4.17	280.08
" 4 6	4.19	280.06
" 5 = NL. Redwood = 0+00		
PC. top cb.	4.20	280.05
" Gut. inlet	5.37	278.88
2.5' W " "	5.37	278.88
2.5' " on Pav	4.20	280.05
5' W " "	4.43	279.82
0+05 E Gut	4.96	279.29
0+25 = E Gut	4.88	279.37
0+50 = " "	4.86	279.39
0+75 = " "	4.74	279.51
1+00 <sup>E</sup> top cb.	3.96	280.29
1+00 <sup>E</sup> Gutlet	4.61	279.64
+25 "	4.57	279.68
+45 = E Gut	4.47	279.78
+52 = " "	4.27	279.90
2' W on Pav	4.43	279.82
1+55 E Gut	4.42	279.83
+75 " "	4.43	279.82
2+00 = E top cb.	3.67	280.58
" = " Gut	4.30	279.95



	284.25		
T.P. 4.99	285.67	3.57	280.68
2+25 = E Gut		5.64	280.03
2+50 " "		5.59	280.08
75 " "		5.54	280.13
3+00 = S.L. Spruce			
P.C. Ret. cb.		4.68	280.99
P.C. Gut		5.43	280.24
Part 1 Gut		5.41	280.26
" 2 "		5.38	280.29
" 3 "		5.31	280.36
" 4 "		5.37	280.30
" 5 "		5.25	280.42
" 5 top cb.		4.74	280.93
20' E EL 5th		4.78	280.89
P.T. cb SE Return		5.35	280.32
3+40 5th = E cb 1/2 Spruce cb line		5.31	280.33 gut.
" " " EL 5th		4.77	280.90
P.E. cb NE Ret		5.34	280.33
20' E EL		4.78	280.89
P.C. cb		4.69	280.98
" " Gut.		5.20	280.47

	285.67		12
Part 1 Gut		5.25	280.42
" 2 "		5.22	280.45
" 3 "		5.23	280.44
" 4 "		5.21	280.46
" 5 E.C. Gut		5.17	280.50
" 5 top cb.		4.65	281.02
N.L. Spruce = 0+00			
0+12 = E Gut		5.13	280.54
+17 = " "		5.29	280.38
+30 = " "		5.18	280.49
+50 = " "		5.13	280.54
+75 = " "		5.10	280.57
1+00 = E top cb		4.39	281.28
1+00 = E Gut		5.02	280.65
+09 = " "		4.98	280.69
+15 = " "		4.84	280.83
T.P. 5.14	286.53	4.28	281.39
3' W on Perc.		5.80	280.73
1+25 = E Gut		5.81	280.72
+50 = " "		5.79	280.74
+75 = " "		5.70	280.83



2+00 E top cb	4.86	281.67
" " Gut	5.57	280.96
2+25 " "	5.54	280.99
+50 " "	5.30	281.23
+75 " "	5.40	281.13
3+01.3 - S.L. Thorn	5 Parks	6'
P.L. top cb	4.70	281.83
" Gut	5.40	281.13
Part 1 "	5.38	281.15
" 2 "	5.30	281.23
" 3 "	5.23	281.30
" 4 "	5.18	281.35
" 5 "	5.19	281.34
" 5 top cb	4.67	281.86
20' E.E.L. 5th, Gut	4.70	281.83
P.I. cb (S.E. Ret. Gut)	5.27	281.26
<sup>3+41.3</sup> S. Thorn E cb 5th	5.11	281.42
" " E.L. 5th	4.40	282.13
P.I. N.E. cb Return	4.97	281.56
20' E.E.L. 5th gut	4.05	282.48

N.E. Return	5 Parks	6'
P.L. top cb	3.99	282.54
" Gut	4.57	281.96
Part 1 "	4.73	281.80
" 2 "	4.79	281.74
" 3 "	4.85	281.68
" 4 "	4.83	281.70
" 5 "	4.83	281.70
" 5 top E cb	4.15	282.38
1' W	4.95	281.58
chk. N.W. B.P. Thorn + 5th	4.64	281.89 ✓

cb + Paring on West side 5th  
see pages 14 to 22

levels on East cb & Gut

Cont. on P-27



W. H. Bliss  
Isbell  
10-7-90

CURB AND GUTTER LEVELS

ON 5TH AVE FROM LAUREL TO UNIV.

West cb. Line To Thorne

5.26 255.21

249.95

NW 8 P.  
Laurel  
7.575

J.W. Return Laurel 4 Parks = 6'

P.C. cb on cb - SL Laurel 6.18 249.03

" " " Gutt 6.80 248.41

Part 1 " " 6.71 248.50

" 2 " " 6.63 248.58

" 3 " " 6.65 248.56

" 4 " " 6.66 248.55

" 4 " " cb = WL stb 6.20 249.01

20' W. WL. stb on Gutt 7.33 247.88

P.T. SW. cb's 6.47 248.74

L Laurel, W cb stb 5.54 249.67

" " WL. " 5.66 249.55

P.T. NW. cb. Ret Gutt 5.71 249.47

20' W. WL. stb " 6.64 248.51

NW. Return Laurel 4 Parks 6'

P.C. top cb 5.35 249.86

" Gutt 6.02 249.19

Part 1 " 5.90 249.31

INDEXED  
E.P.B.

255.21

14

Part 2 Gutt 5.75 249.46

1' South 5.83 249.38

Part 3 Gutt 5.80 249.41

" 4 " 5.86 249.35

" 4 top cb 5.26 249.95

0+00 = N.L. Laurel

0+25 = W Gutt 5.23 249.98

+50 - W " 4.58 250.63

+56 " " 4.18 251.03

+56 " top cb 3.67 251.54

+60 " " " 3.66 251.55

" " Gutt 4.30 250.91

0+70 4.09 251.12

0+88 - W " 3.63 251.58

0+92 " " 3.37 251.84

1+00 " " 3.13 252.08

" top cb 2.63 252.58

1+25 W Gutt 2.76 252.45

1+40 " " ? 1.73 253.48

+50 " " 1.48 253.73

T.P. 8.48 263.12 0.57 254.64



1+75 = West	948	253 64
2+00 = West	873	254 39
" " top cb.	823	254 89
2+25 = West	813	254 99
+33 " "	755	255 57
2' E on Riv	758	255 54
2+50 = West	764	255 48
+75 " "	700	256 12
+87 " "	660	256 52
+92 " "	631	256 81
2' E	626	256 86
3+00.7 = SL. Maple Gut.	630	256 82
" top cb.	558	257 54
Part 1 Gut.	629	256 83
" " "	624	256 88
" 3 "	621	256 91
" 4 "	616	256 96
" 4 top cb = W.L. sth	566	257 46
20' W W.L. sth	657	256 55
P.T. Cbs SW Return	632	256 80
2 Maple W. cb sth	614	256 98
" " W.L. "	545	257 67

N.W. Return		
15' W W.L. sth	595	257 17
P.C. Return cb.	503	258 09
" " Gut.	569	257 43
P.T. cbs NW	593	257 19
Part 1 Gut.	578	257 34
" 2 "	583	257 29
" 3 "	578	257 34
" 4 "	551	257 61
" 4 top cb	990	258 22
N.L. Maple = 0+00		
0+25 = West	525	257 87
0+00 " "		
+75 " "	463	258 49
1+00 " "	408	259 04
" " "	347	259 65
1+20 " "	358	259 54
2' E	356	259 56
1+25 = W "	362	259 50
TP 933 270.10	235	260 77
1+50 = West	1014	259 96



	270.10		
1+53=W Gut	10.07	260.03	
1+75=" "	9.87	260.23	
2+00 " "	9.30	260.80	
" " "	8.82	261.28	
2'E	9.43	260.67	
2+25=W "	9.06	260.04	
+50=" "	8.53	261.57	
+75=" "	8.18	261.92	
3+01=S.L.			
PC. cb. top cb.	7.81	262.29	
	7.12	262.98	
Part 1	7.83	262.27	
" 2	7.60	262.50	
" 3	7.61	262.49	
" 4 Gut	7.54	262.56	
" 4 top cb.	7.13	262.97	
20' W.L. 5th Gut	7.64	262.46	
PT. cbs	7.63	262.47	
L Nutmeg Wcb 5th	6.85	263.25	
L " W.L. 5th	6.26	263.84	

	270.10		16
NW Return	4-Parts - 6'		
20' W.W.L.	5.94	264.06	
PC. cb top cb.	5.18	264.92	
" " Gut	5.77	264.33	
PT. cbs	5.90	264.20	
Part 1 Gut	5.78	264.32	
" 2 "	5.80	264.30	
" 3 "	5.78	264.32	
" 4 "	5.70	264.40	
2'E	5.82	264.28	
Part 4 top cb.	5.16	264.94	
0+00 = N.L. Nutmeg			
0+25 = W Gut	5.37	264.73	
+46 " "	4.82	265.28	
2'E	4.78	265.32	
0+75 = W Gut	4.35	265.75	
+90 = " "	3.95	266.15	
2'E	3.95	266.15	
1+00 = W Gut	3.90	266.20	
" = W top cb	3.26	266.84	
1+25 = W Gut	3.46	266.64	



		270.10		
1+50 = W Gut.		3.06	267.04	
+75 = " "		2.56	267.54	
2+00 = " "		2.17	267.93	
" = W top cb.		1.57	268.53	
T.P.	7.50	276.04	1.56	268.54
2+15 = W Gut.		7.54	268.50	
2' E		7.52	268.52	
2+25 = W Gut.		7.58	268.46	
+50 = " "		7.08	268.96	
+75 = " "		6.61	269.43	
3+00.8 = SL. Olive	SW Return	4 Parts - 6'		
Top cb.		6.19	269.85	
Gut.	nr?	5.63	270.41	
Part 1		6.14	269.90	
" 2		6.08	269.96	
" 3		6.07	269.97	
" 4		6.06	269.98	
" 4 top cb.		5.61	270.43	
20' W/W.L. Gut.		6.57	269.47	
P.I. cbs		6.04	270.00	
2' Olive, W cb 5th		5.62	270.42	
" " W.L. 5th		5.37	270.67	

		276.04		17
N.V.V. Return Olive				
20' W/W.L. 5th Gut.		6.46	269.58	
7' W " 5th Flow Inlet		6.44	269.60	
4' W " " "		6.58	269.46	
P.I. cbs.		4.96	271.08	
W.L. top cb.		5.10	270.94	
" Gut.		5.10	270.94	
4' South		5.17	270.87	
Part 1 top cb.		5.06	270.98	
" " Gut.		5.03	271.01	
" 2 cb.		5.95	270.99	
" 2 Gut.		5.00	271.04	
" 3 cb.		5.00	271.04	
" 3 Gut.		5.00	271.04	
" 4 "		5.05	270.99	
" 4 top cb.		5.05	270.99	
3' E		5.03	271.01	
0+00 = N.L. Olive				
0+05 Gut. Flow Inlet		5.75	270.39	
2' E " " "		5.67	270.37	
0+25 = W Gut		5.43	270.61	



	276.04		
0+42 W Gut.	5.00	271.04	
" top cb	4.35	271.69	
0+52 = W Gut.	4.61	271.43	
" "	3.61	272.43	
2' E	4.61	271.43	
0+60 = W Gut.	4.78	271.26	
0+60 = " cb	4.07	271.97	
0+75 = W Gut	4.74	271.30	
1+00 " "	4.22	271.82	
" " top cb	3.70	272.34	
1+25 " Gut.	3.87	272.17	
+50 " "	3.50	272.54	
+75 " "	3.03	273.01	
2+00 " "	2.56	273.48	
" " top cb	1.83	274.21	
2+03 = W Gut.	2.53	273.51	
2+25 = " "	2.38	273.66	
+50 " "	1.96	274.08	
+75 " "	1.56	274.48	
3+00.9 = St. Palm Gut	1.29	274.75	
T.P.	6.22	281.58	0.68 275.36

	281.58		18
SW Return Palm 4-Ports - 6'			
<sup>3+00.9</sup> top cb St.	6.22	275.36	
Part 1 Gut	6.78	274.80	
" 2 "	6.64	274.94	
" 3 "	6.64	274.94	
" 4 "	6.53	275.05	
" 4 top cb	6.10	275.48	
20' WWL Stb	7.31	274.27	
P.I. cbs	6.71	274.87	
2' Palm, Wcb Stb	6.36	275.22	
2' " WL Stb	5.57	276.01	
N.W. Return Palm St.			
20' WWL.	6.49	275.09	
top cb WL	5.57	276.01	
WL Gut.	5.17	276.41	
Part 1 "	5.74	275.84	
P.I. cbs	5.92	275.66	
Part 2 Gut.	5.82	275.76	
" 3 "	5.81	275.77	
" 4 "	5.70	275.88	
" 4 top cb WL Palm	5.11	276.47	



	281.58		
0+25 = W Gut	5.66	275.92	
0+50 = " "	5.44	276.14	
+75 = " "	5.38	276.20	
1+00 = " " in Dixie	5.23	276.35	
+25 " "	5.12	276.46	
+50 " Gut.	4.92	276.66	
1+54 " "	4.89	276.69	
2' E. on Lin.	4.87	276.71	
+75	4.89	276.69	
2+00 = W Gut.	4.72	276.86	
" " cb.	4.12	277.46	
2+25 = W Gut.	4.62	276.96	
+50 " "	4.41	277.17	
+75 " "	4.37	277.21	
W. Gut			
3+00.7 = S.L. Quince	4.28	277.30	
T.P.	5.56	283.57	3.57 278.01
S.L. Return Quince 4-Parks - 6'			
top cb S.L. Quince	5.62	277.95	
Part 1 Gut.	6.24	277.33	
" 2 "	6.18	277.39	
" 3 "	6.14	277.43	

	283.57		19
Part 4 Gut.	6.16	277.41	
" " top cb = W.L. 5th	5.59	277.98	
20' W W.L. 5th	7.06	276.51	
P.I. cbs 5th	6.18	277.39	
L Quince, Wcb 5th	6.11	277.46	
L " W.L. 5th	5.51	278.06	
P.I. cbs N.Y. Return	6.11	277.46	4-Parks - 6'
20' W W.L.	6.98	276.59	
PC. cb on Gut	6.02	277.55	
" " " cb	5.58	277.99	
Part 1 Gut.	6.01	277.56	
" 2 "	6.10	277.47	
" 3 "	6.08	277.49	
" 4 "	6.02	277.55	
" 4 top cb.	5.51	278.06	
W.L. Quince = 0+00			
0+25 = W Gut.	6.00	277.57	
0+50 " "	5.93	277.64	
0+75 " "	5.95	277.62	
0+95 " "	5.75	277.82	
1+00 " "	5.85	277.72	
" " top cb.	5.28	278.29	



1+25 = W Gut	5.75	277.82
+50 " "	5.65	277.92
+75 " "	5.62	277.95
2+00 " "	5.46	278.11
" " top cb.	4.94	278.63
2+25 " Gut	5.47	278.10
TP 6.10 284.78	4.89	278.68
2+42 W Gut	6.47	278.31
2' E	6.44	278.34
2+50 = W Gut	6.58	278.20
+75	6.49	278.29
3+01.6 = S.L. Redwood	6.27	278.51
" W top cb. S.L.	5.73	279.05
SW. Return 5-Parks - 6'		
Part 1 Gut	6.38	278.40
" 2 "	6.34	278.44
" 3 "	6.39	278.39
" 4 "	6.36	278.42
" 5 "	6.24	278.54
" 5 top cb. W.L. 5th	5.91	278.87
20' W W.L. 5th Gut	7.09	277.69

PT. cbs SW. Ret.	6.17	278.61
S Redwood Wcb 5th	5.98	278.80
" " W.L. 5th	5.71	279.07
N.W. Return 5-Parks - 6'		
20' W W.L. 5th	7.46	277.32
4' W " 5th	6.95	277.83
W.L. 5th Gut outlet	6.97	277.81
" " top	5.89	278.89
1' S on P.W.	5.82	278.96
4' S " "	5.72	279.06
Part 1 on cb.	5.86	278.92
" 1 " Gut	5.80	278.98
" 2 " "	5.85	278.93
" 2 " cb.	5.85	278.93
" 3 " "	5.71	279.07
" 3 " Gut	5.68	279.10
" 4 " "	5.55	279.23
" 4 " cb.	5.60	279.18
" 5 " cb.	5.55	279.23
" 5 " Gut	5.44	279.34
3' E "	5.50	279.28
PT. cbs. N.W.	5.69	279.09



	N.L. Redwood = 0+00		
0+05 = Flow inlet.	6.17	278.61	
3' E " "	6.14	278.64	
0+13 W Gut.	6.01	278.77	
+13 top cb.	5.26	279.52	
2' E. Gut.	6.01	278.77	
0+25 W " "	6.20	278.58	
+53 " "	6.00	278.78	
2' E	5.94	278.84	
0+75 = W Gut.	6.06	278.72	
+92 " "	5.89	278.89	
2' E	5.80	278.98	
1+00 W Gut.	6.03	278.75	
" " top cb.	5.45	279.33	
1+25 " Gut.	6.01	278.77	
+50 " "	5.91	278.87	
+75 " "	5.85	278.93	
2+00 " "	5.72	279.06	
" " top cb.	5.15	279.63	
2+25 W Gut.	5.61	279.17	
+50 " "	5.52	279.26	

2+75 = W Gut.	5.46	279.32	
3+00 = S.L. Spruce Gut	5.31	279.47	
" " " top cb.	4.81	279.97	
S.W. Return 4-Parks - 6' Spruce 5'			
Part 1 Gut.	5.15	279.63	
" 2 "	5.02	279.76	
" 3 "	5.04	279.74	
" 4 "	5.02	279.76	
" 4 top cb.	4.82	279.96	
T.P. 5.85 285.91	4.72	280.06	
20' W.W.L. 5th Gut.	7.07	278.84	
P.I. cbs S.W. Ret.	5.90	280.01	
L. Spruce, W. cb 5th	5.67	280.24	
" " W.L. "	5.81	280.10	
N.W. Return Spruce 4-Parks - 6'			
P.I. cbs p.w.	6.29	279.62	
20' W.W.L. "	7.13	278.78	
W.L. top cb.	6.44	279.47	
" Gut.	5.88	280.03	
Part 1 Gut.	6.32	279.58	
" 2 "	6.31	279.60	
" 3 "	6.43	279.48	
1' E	6.52	279.39	



Part 4 Gut	6.37	279.54
" 4 top cb	5.88	280.03
W. Spruce = 0.100		
0+25 W Gut.	6.43	279.48
+45 " "	6.23	279.68
2'E	6.12	279.79
0+50 " "	6.28	279.63
+75 " "	6.19	279.72
1+00 W Gut	6.02	279.89
" " top cb	5.39	280.52
+25 " Gut.	5.90	280.01
+50 " "	5.73	280.18
+75 " "	5.70	280.21
2+00 " "	5.44	280.47
" " top cb	4.89	281.02
+25 " Gut	5.48	280.43
+43 " "	5.23	280.68
2'E	5.16	280.75
0+50	5.03	280.88
2'E	5.09	280.82
2+75 W	5.16	280.75

St. Thorn Gut	5.01	280.90
" " cb	4.41	281.50
S.W. Return 4-Parts - 6'		
Part 1 Gut	5.01	280.90
" 2 "	4.93	280.98
" 3 "	5.00	280.91
" 4 "	4.85	281.06
" 4 top cb	4.50	281.41
TP	4.76	286.65
PI. cbs S.W. Return Thorn	5.82	280.83
25 W W.L. = Gut.	5.83	280.82
L. Thorn, W cb 5 1/2	5.54	281.11
L. " W.L. "	4.92	281.73
PI. W.L. Returns	5.48	281.17
20' W W.L. Gut.	5.46	281.19
N.W. Return 4-Parts - 6'		
W.L. Thorn top cb.	4.76	281.89
" " Gut.	5.17	281.48
Part 1 Gut	5.29	281.36
" 2 "	5.34	281.31
" 3 "	5.38	281.27



Part 1 Gut.	5.29	281.36
" top cb.	4.77	281.88
1'E	5.39	281.26
N.L. - Thorns = 01.00		
0+25=W.Gut.	5.09	281.56
+50=" "	4.87	281.78
+75=" "	4.60	282.05
1+00=" "	4.31	282.34
" W.cb.	3.74	282.91
1+25=W.Gut.	4.07	282.58
+40=" "	3.81	282.84
+46=" "	3.62	283.03
2'E " "	3.60	283.05
1+58 " "	3.57	283.08
+75 " "	3.48	283.17
2+00 " "	3.17	283.48
" "top cb.	2.59	284.06
T.P. 5.87 290.19	2.33	284.32
2+25=W.Gut.	6.57	283.62
2+75=" "	6.05	284.14
3+05.7=St. Upas Gut.	5.83	284.36
" " " " cb.	5.23	285.96

SW Return	4-Parks - 6'	
Part 1 Gut.	5.85	284.34
" 2 "	5.74	284.45
" 3 "	5.81	284.38
" 4 "	5.77	284.42
" 4 top cb - W.L. 5th	5.25	284.94
10' W.W.L. Gut.	5.78	284.41
35' " " "	5.79	284.40
75' " " "	5.87	284.32
P.I. cbs. SW Ret. Upas	5.85	284.34
1/2 Upas, W.cb 5th	5.78	284.41
" " W.L. "	5.18	285.01
P.I. NW Return	5.73	284.46
20' W.W.L. 5th Gut.	5.78	284.41
Top cb. W.L. 5th	5.28	284.91
Gut " "	5.80	284.39
Part 1 Gut	5.80	284.39
" 2 "	5.77	284.42
" 3 "	5.80	284.39
" 4 "	5.76	284.43
" 4 top cb W.L. Upas	5.29	284.90



29019

N.L. UPAS St. = 0+00

0+25 = W Gut	5.77	284.42
+50 " "	5.80	284.39
+65 " "	5.73	284.46
+75 " "	5.89	284.30
1+00 " "	6.05	284.14
" " top cb	5.55	284.64
1+25 " Gut	5.93	284.26
+38 " "	6.05	284.14
+43 " "	5.85	284.34
2' E	5.94	284.25
+48 " "	6.13	284.06
1+67.5 = S.L. Walnut cb.	5.46	284.73
" " " Gut. SW Return	6.15	284.04
Part 1 Gut	6.27	283.92
" 2 "	6.22	283.97
" 3 "	6.13	284.01
" 4 "	6.05	284.14
" 4 top cb W.L. 5th	5.58	284.61
20' W.W.L. 5th Gut.	5.80	284.39
Pt. cb. SW Return	6.40	283.79

29019

24

2+075 = S.L. Walnut W cb. 5th	6.58	283.61
" " " " " "	5.90	284.29
Pt. cb. SW Return Gut	6.70	283.49
20' W.W.L. 5th	6.43	283.76
W.L. 5th top cb	6.10	284.09
" " Gut	6.64	283.55
Next Return 4 Parks - 6'		
Part 1 Gut	6.68	283.51
" 2 "	6.70	283.49
" 3 "	6.71	283.48
" 4 "	6.11	284.08
" 4 "	6.71	283.48
2+47.5 = N.L. Walnut on West		
2+75 on W Gut	6.86	283.33
3+00 " " "	7.02	283.17
3+00 " " top cb	6.35	283.84
+25 " Gut	7.28	282.91
+50 " W Gut	7.35	282.84
+75 " " "	7.60	282.59
3+81 " "	7.38	282.81
2' E	7.57	282.62



3+91	W Gut	7.47	282 72
2'E	" "	7.60	282 59
4+00	" "	7.70	282 49
"	" top cb.	7.07	283 12
	W Gut -	7.95	282 24
4+17.6	SL. Try Lure on E.		
"	W Top cb.	7.40	282 79
4+42.6	W Gut. Try Lure on E	8.07	282.12
+67.6	NL. " " "	8.28	281.91' W Gut.
TP	see P-28 - for check.	7.40	282.79 4+17.5 on top cb.

Locals on West Side From Anderson Pl.

to Univ. Cont. P. 33

for Cross Sections Between Try Lure  
& Anderson Pl. see Book 578-54



Curb & Gutter Sawks  
5th AVE, East side

Cont. from p-13

837 290.26 281.89 NW 8P

N.L. Thorns = 0+00

0+25 = E Gut. 8.38 281.88

+50 " " 8.01 282.25

+75 " " 7.68 282.58

1+00 " " 7.47 282.79

" E top cb 6.70 283.56

1+25 E Gut. 7.11 283.15

+50 " " 6.87 283.39

+70 " " 6.23 284.03

" top cb 5.58 284.68

.2' W 6.92 283.84

1+75 = E Gut. 6.46 283.80

2+00 " " 6.16 284.10

" " cb 5.48 284.78

+25 " Gut. 5.88 284.38

+50 " " 5.66 284.60

+75 " " 5.31 284.95

Gut.  
3+007 = sk Upas 4.92 285.34

" " " cb 4.32 285.94

29026

26

3+027 4.80 285.46

2' W 4.77 285.49

S.E. Return 4-Parks, 6'

Part 1 Gut 4.80 285.46

" " 4.78 285.48

" 3 " 4.83 285.43

" 4 " 4.77 285.49

" 4 top cb E.L. 5th 4.27 285.99

20' E.F.L. 5th 4.64 285.62

PI cbs SE Return 4.83 285.43

2' Upas, E cb 5th 4.86 285.40

" " " line " 4.29 285.97

(3+307) Gut. Patch 4.76 285.50

PI, NE cb Rd. 4.95 285.31

30' E.F.L. 5th, Gut 4.31 285.95

NE Return Upas 4-Parks 6'

5' E.F.L. Gut. 4.54 285.72

E.L. top cb 4.73 285.53

" Gut. 4.29 285.97

Part 1 Gut 4.78 285.51

" 2 " 4.78 285.48

" 3 " 4.96 285.30



Part 4	E. Gut	5.03	285.23
"	" E top cb.	4.42	285.84
	N. h. Upas = 0+00		
0+25	= E. Gut	5.20	285.06
+50	" "	5.36	284.90
+75	" "	5.59	284.67
1+00	" "	5.67	284.59
"	" top cb.	5.01	285.25
1+25	= E. Gut	5.97	284.29
+50	" "	6.09	284.17
+75	" "	6.31	283.95
+98	" "	6.95	283.81
2+00	" "	6.53	283.73
"	" top cb.	5.87	284.39
2+25	" Gut.	6.71	283.55
+50	" "	6.88	283.38
+75	" "	7.14	283.12
+86	" "	7.11	283.15
T.P.	304	287.16	6.14 <sup>283.98?</sup> 284.12 <sup>BM NW 8P Walnut Ave +5' 0"</sup>
2+98		4.10	283.06
2' W		4.06	283.10

3+00	= E. Gut	4.18	282.98
"	" top cb.	3.66	283.50
3+25	= E. Gut.	4.44	282.72
+39	" "	4.40	282.76
2' W		4.37	282.79
3+50	E. "	4.52	282.64
+75	" "	4.81	282.35
4+00	" "	5.02	282.14
"	" top cb.	4.42	282.34
4+17.6	= S. h. Fry Lane Gut	5.36	281.80
"	" " " cb.	4.67	282.49
	J. E. Return Fry Lane	4-Parks	5'
Part 1		5.28	281.88
" 2		5.10	282.06
" 3		5.15	282.01
" 4	Gut	5.10	282.06
"	" top cb. E. h. 5th	4.64	282.52
20'	E. E. L. 5th	4.86	282.30
P.T. cb	Ret. SE Gut.	5.26	281.90
2'	Fry Lane E. cb. 5th	5.40	281.72
"	" " " E. L. "	4.84	282.32



PI. NE Return	564	281.52
20' E.E.L.	526	281.90
NE Return, JY LINE		
E.L. top cb.	506	282.10
" Gut	549	281.67
Part 1 "	555	281.61
" 2 "	555	281.61
" 3 "	553	281.63
" 4 "	557	281.59
1' W	565	281.51
Part 4 on cb.	492	282.24
on Wcb.		282.79
chk T.P. 4+17.5 @ - 25	438	282.78
T.P. 3.74 284.08	6.82	280.34
chk NW. 8.P. Bookers 134	3.96	280.12
		279.91 - B.M. Moore
		0.21 - difference
		in 8 P.S.
		279.91 = 1700 @
4.74 284.86		280.12 = Above BM
		our line
O.L. Anderson Pl.		
E. cb.	458	280.28
" Gut	518	279.68
SE Return	4-Party	55'
Part 1 Gut	512	279.74

Part 2 Gut	507	279.79
" 3 "	500	279.86
" 4 " E.L. 514	475	280.11
" 4 top cb "	433	280.53
20' E.E.L. 541	425	280.61
PI cbs. SE Return	508	279.78
L. Anderson Pl., Ecb 514	500	279.84
L. " " E.L. "	475	280.11
PI. NW cb Ret	493	279.93
30' E.E.L. 514	398	280.88
NE Return Anderson Pl.		
E.L. top cb.	436	280.50
" Gut	480	280.06
Part 1 Gut	486	280.00
Part 2 "	490	279.96
" 3 "	489	279.97
" 4 "	485	280.01
" 4 top cb.	422	280.64
N.L. Anderson Pl. = 0+00		
0+25 = E Gut	466	280.20
+50 " "	498	280.38



+75 = E Gut	4.37	280.49
+100 " "	4.32	280.54
" <sup>F</sup> top cb	3.85	281.01
+125 = E Gut	4.20	280.66
+150 = " "	4.00	280.86
+75 " "	3.87	280.99
+82 " "	3.57	281.29
+87 " "	3.57	281.29
+93 " "	3.80	281.06
2+00 " "	3.80	281.06
T.P. 4.73	286.97	2.62
2+00 top cb. East side	5.38	281.59
2+25 = E Gut	5.80	281.17
+150 = " "	5.70	281.27
2+75 = S.L. Penn. Ave <sup>Gut.</sup>	5.57	281.40
" " " top cb	5.07	281.90
Port 1	5.59	281.38
" 2	5.56	281.41
" 3	5.52	281.45
" 4 Gut	5.98	281.49
" 4 "	4.83	282.14

S.E. Ret.  
1 Park - 55'

20' EEL	4.60	282.37
P.I. SE cb Returns	5.57	281.40
2. Penn Ave Ecb 5th	5.37	281.60
" " " E.L. "	4.71	282.26
P.I. NE Ret. Gut	5.17	281.80
20' EEL	4.67	282.30
NE Ret. Penn Ave 4 Park 55'		
E.L. top cb	4.58	281.39
" Gut	5.04	281.93
Port 1 Gut	5.03	281.94
" 2 "	5.04	281.93
" 3 "	5.14	281.83
" 4 "	5.02	281.95
1' W	5.08	281.89
Port 4 top cb	4.54	282.43
N.L. Penn Ave = 0+00		
0+25 E Gut	4.95	282.02
+50 " "	4.74	282.23
+57 " "	4.54	282.43
2' W	4.56	282.41
0+62 = E Gut	4.49	282.48
chk. NVA B.P. Penn Ave +5th	4.48	282.43
		282.41 - 8M
		2.0 Error



0775 - E Gut	4.49	282.48
1400 " "	4.33	282.64
" " cb.	3.70	283.27
1407 " Gut.	4.17	282.80
4' West	3.93	283.04
1411 E "	4.22	282.75
1425 " "	4.11	282.86
+50 " "	3.92	283.05
+56 " "	3.60	283.37
6' West	3.50	283.47
1460 E Gut	3.80	283.17
+64 " "	3.60	283.37
+67 " "	3.82	283.15
+75 " "	3.80	283.17
2400 " "	3.55	283.42
" " top cb.	3.07	283.90
T.P. 6.24 290.27	2.94	284.03
2435 - E Gut.	6.67	283.60
+50 " "	6.56	283.71
2475 <sup>2</sup> SL. EVANS <sup>E</sup> Gut.	6.40	283.87
" " " top cb.	5.80	284.47

SE. Return EVANS Pl. 4 Parks 55'		
Part 1 Gut.	6.34	283.93
" 2 "	6.32	283.95
" 3 "	6.32	283.95
" 4 "	6.26	284.01
" " top cb. EL. 5th	5.84	284.43
10' F. EL. 5th	6.19	284.08
P.I. obs. Ret. Gut	6.31	283.96
EVANS, E cb 5th	6.03	284.23
" " EL. "	5.44	284.83
P.I. NE Return Gut	5.93	284.34
15' EEL.	5.73	284.54
NE. Return 4 Parks 55'		
EL. top cb <sup>5th</sup>	5.35	284.92
" Gut	5.77	284.50
Part 1 "	5.83	284.44
" 2 "	5.87	284.40
" 3 "	5.90	284.33
" 4 "	5.95	284.32
" 4 top cb.	5.29	284.98
Nb. EVANS Pl. = 0400		



0+07 = E Gut	5.75	284.52
+30 = " "	5.56	284.71
+50 = " "	5.38	284.89
+80 = " "	5.16	285.11
+95 = " "	5.02	285.25
" top cb.	4.49	285.78
1+20 = E Gut	4.65	285.62
+25 = " "	4.56	285.71
2' W	4.71	285.56
1+28 = E "	4.75	285.52
1+50 = " "	4.56	285.71
+70 = " "	4.27	286.00
2+00 = " "	4.08	286.19
" = " top cb.	3.57	286.70
2+25 E top cb.	3.81	286.46
+50 " Gut	3.58	286.69
2+75 = S.L. Robinson	3.35	286.92
T.P. 5.88 293.18	2.97	287.30
2+75.7 top cb. S.L. Robinson	5.74	287.45
S.L. Ret.		
2+75.7 Gut. S.L. Robinson	6.17	287.01

Port 2 Gut.	6.15	287.03
" 3 "	6.11	287.07
" 4 "	6.13	287.05
" 4 top cb. E.L. 5th	5.73	287.45
20' E.E.L. 5th	6.31	286.87
P.I. cb Returns	6.13	287.05
S. Robinson E cb 5th	5.98	287.20
" " E.L. "	5.98	287.70
P.I. NE cb Ret. Gut	5.78	287.40
15' E.E.L. 5th	5.75	287.43
Robinson NE Returns	4-Parts	55
E.L. top cb.	5.33	287.95
" Gut.	5.59	287.59
Port 1 "	5.69	287.49
" 2 "	5.72	287.46
" 3 "	5.73	287.45
" 4 "	5.74	287.44
" 4 top cb.	5.25	287.93
N.L. Robinson = 0100		
0+25 = E Gut.	5.60	287.58
0+50 " "	5.43	287.75



0+75 = E Gut.	5.31	287.87
1+00 " "	5.23	287.95
" " top lb.	4.82	288.36
Robinson = 5th chk. NWBR.	Gone	
1+25 = E Gut	5.03	288.15
TR 4.87	293.97	4.08
1+50 = E Gut	5.68	288.29
+75 " "	5.54	288.43
2+00 " "	5.46	288.57
" " top lb.	5.16	288.91
2+25 " Gut	5.28	288.69
+50 " "	5.29	288.73
+75 " "	5.20	288.77
3+00 " "	5.08	288.84
" E top lb.	4.59	289.38
3+25 " Gut.	4.92	289.05
+50 " "	4.81	289.16
+75 " "	4.74	289.23
4+00 " "	4.57	289.46
" " top lb.	4.09	289.88
4+12 " Gut	4.43	289.54

UNIV. 45th	290.03	P. 36
chk. NWBR.	3.93	290.04
		289.94 = BM
		0.10 = difference



Walker  
Johell  
Blues  
10-8-40

CURB AND GUTTER LEVELS:

on West side 5th Cont. from P-25

from Anderson Pl. to Univ. Ave

4.82	284.94	280.12	N.W. 8 <sup>th</sup> Brooks + 5th
opposite			
S. L. Anderson Pl. on W. cb.	4.67	280.27	
" " " Gut.	5.15	279.79	
20' North of Ill. on W "	4.92	280.02	
0+00 = N.L. Anderson			
W top cb.	4.12	280.82	
" Gut	4.61	280.33	
0+25 on W Gut	4.61	280.33	
+50 " " "	4.39	280.55	
+75 " " "	4.15	280.79	
+100 " " "	4.11	280.83	
" " " top cb.	3.60	281.34	
+25 " Gut.	4.03	280.91	
+50 " "	3.94	281.00	
+75 " "	3.58	281.36	
2+00 " "	3.72	281.22	
" " top cb.	3.30	281.64	
2+19 = W Gut.	3.68	281.26	
+25 " "	3.65	281.29	

284.94

2+50 = W Gut	3.68	281.26	
2+75 " W Gut. S.W. Penn. Ave	3.55	281.39	35' Roadway
2+75 = W top cb S.W. Penn. Ave	2.98	281.96	
T.P.	5.41	287.43	2.92 282.02
S.W. Return Penn. Ave	4-Pole	5.5'	
Part 1 on Gut	5.02	281.41	
" 2 " "	5.94	281.49	
" 3 " "	5.92	281.51	
" 4 " "	5.80	281.63	
" 4 " cb. W.L. 5th	5.45	281.98	
20' W.W.L. 5th Gut.	5.73	281.70	
P.I. cb Return SW "	5.94	281.49	
to Penn. W cb 5th	5.72	281.71	
" " W.L. "	5.15	282.28	
P.I. cb. N.W. Return	5.58	281.85	
16' W.W.L. 5th Gut.	5.41	282.02	
N.W. Return Penn Ave	4-Pole	5.5'	
W.L. 5th top cb.	5.53	281.90	
" " Gut.	4.96	282.47	
Part 1 "	5.46	281.97	



Part 2 Gut	5.43	282.00
" 3 "	5.47	281.96
" 4 "	5.44	281.99
" 4 top cb.	4.96	282.47
chk. N.W. B.P. Penn <sup>+5th</sup>	4.93	282.50
N.W. Penn. Ave = 0+00		
0+07 - W Gut.	5.35	282.08
2' E	5.32	282.11
0+25 - W Gut.	5.31	282.12
+50 " "	5.03	282.40
+68 " "	4.93	282.50
1' E	4.93	282.50
0+75 " "	4.96	282.47
1+00 " "	4.62	282.81
" on cb.	4.10	283.33
1+07 on W Gut.	4.47	282.96
+32 " " "	4.38	283.05
+55 " " "	4.15	283.28
+75 " " "	4.04	283.39
+95 " " "	3.75	283.68
2' E	3.74	283.69

2+03 on W Gut	3.67	283.76
2' E	3.66	283.77
2+00 on W cb.	3.16	284.27
+12 " " Gut.	3.60	283.83
2' E	3.55	283.88
2+25 " " "	3.65	283.78
+48 " " "	3.28	284.40
2' E	3.25	284.18
2+75 " " " SL. EVANS PI.	3.25	284.18
T.P. 7.12 291.76	2.79	284.64
3+00 S. EVANS PI.	7.26	284.50
3+25 = H.L. EVANS PI. on E = 0+00		
3+25 = 0+00 on W Gut.	7.07	284.69
0+00 " " cb.	6.68	285.08
0+25 " " Gut	6.80	284.96
+50 " " "	6.66	285.10
0+75 " " "	6.39	285.37
1+00 " " "	6.17	285.59
" " " top cb.	5.76	286.00
1+25 " W Gut	5.98	285.78
+36 " " "	5.86	285.90
1' E	5.86	285.90



29176

1+50 on W Gut	5.79	285.97
+75 " " "	5.59	286.17
+83 " " "	5.46	286.30
2+00 " " "	5.37	286.39
" " " cb.	4.96	286.80
2+32 " " Gut	5.16	286.60
+50 " " "	5.07	286.69
2+75 = S.L. Robinson, Gut	4.85	286.91
" " " cb.	4.30	287.46
S.W. Return Robinson 4-Pads 5.5'		
Part 1 on Gut	4.34	287.42
" 2 " "	4.80	286.96
" 3 " "	4.75	287.01
" 4 " "	4.69	287.07
" 4 " cb.	4.43	287.33
13' W.W.L. 5th Gut.	4.69	287.07
30' " " " "	4.59	287.17
P.I. cbs	4.78	286.98
↳ Robinson, wcb 5th	4.50	287.26
" " " W.L. "	3.90	287.86

29176

35

N.W. Return Robinson 4-Pads -5.5'		
P.I. cbs. Gut.	4.24	287.52
16' W.W.L. 5th on Gut.	4.17	287.59
30' " " " "	4.05	287.71
65' " " " "	3.98	287.78
W.L. 5th Gut	4.09	287.67
2' South on Pav.	4.19	287.57
" top cb.	3.52	288.24
Part 1 Gut.	4.01	287.75
" 2 "	3.98	287.78
" 3 "	3.99	287.77
" 4 "	4.05	287.71
" + top cb. N.L. Robinson	3.97	288.29
N.L. Robinson = 0+00		
0+06 = W Gut.	4.07	287.69
+25 = " "	4.06	287.70
+50 = " "	3.98	287.78
+75 = " "	3.90	287.86
1+00 = " "	3.66	288.10
" = W top cb.	3.22	288.54
1+25 " Gut.	3.60	288.16
+50 " "	3.47	288.28



1+75	W Gut	3.33	288.43
2+00	" "	3.13	288.63
"	" top cb.	2.64	289.12
2+25	" Gut.	3.06	288.70
+50	" "	3.00	288.76
T.P.	5.14	294.58	2.32 289.44
2+75	W Gut.	5.75	288.83
3+00	" "	5.69	288.94
"	" top cb.	5.18	289.40
3+70	W Gut.	5.65	288.93
+25	" "	5.66	288.92
+50	" "	5.64	288.94
+75	" "	5.43	289.15
4+00	" "	5.37	289.21
+12	" "	5.25	289.33
+12	on cb.	4.74	289.84
+16	PC. cb Return Gut.	5.12	289.46
+16	on cb.	4.65	289.93
	5 NW Return Univ. 4-Parts - 5'		
Part 1 Gut.		5.01	289.57
" 2 "		5.06	289.52
" 3 "		5.08	289.50

Part 4 - Gut		5.09	289.49
" 4 - top cb.		4.58	290.00
15 W W.L. 5th		5.30	289.28
PI cb		4.90	289.68
chk. 8P. NW Univ. + 5th		4.55	290.03
			290.04 P. 32
			289.94 Bench Book
	5 NW Univ. + 5th		
	N.E. Return	4-Parts - 5.5'	
SL. Univ. Gut		4.96	289.62
1' W.		5.06	289.52
SL. Univ. top cb.		4.56	290.02
Part 1 Gut.		4.97	289.61
2' out Radial		5.09	289.49
10.5 "		4.81	289.97
Part 2 Gut.		5.02	289.56
11 out Radial		4.61	289.97
Part 3 Gut.		5.06	289.52
2' out Radial		5.12	289.46
11 "		4.92	289.66
13 "		4.61	289.97
Part 4 Gut		5.17	289.41
top cb	cb = 4.47		290.11
5' North on Poly	= 5.16		289.42
15' E. E. on Gut	= 5.61		288.97



Walker  
Bliss  
18bell  
10-9-40

LEVELS on N<sup>W</sup>-side Greene St  
Between Edwards & Solo Sts.

To Compare present rough Grade  
to Profile of Established

7.99 38.05 30.06

TP 12.91 46.75 4.21 33.84

NW 7' line Found & Locus 5.23 41.52

TP 4.65 45.62 5.78 40.97

TP 11.63 51.34 5.91 39.71

0+00

N top cb. 11.27 40.09

" Gut on Paving. 11.91 39.43

N cb +5' on SLY edge Walk 11.20 40.14

0+20

N 9.1 42.2

+5 9.2 42.1

+8 9.4 41.9

cb. 9.9 41.4

+1 10.9 40.4

0+50

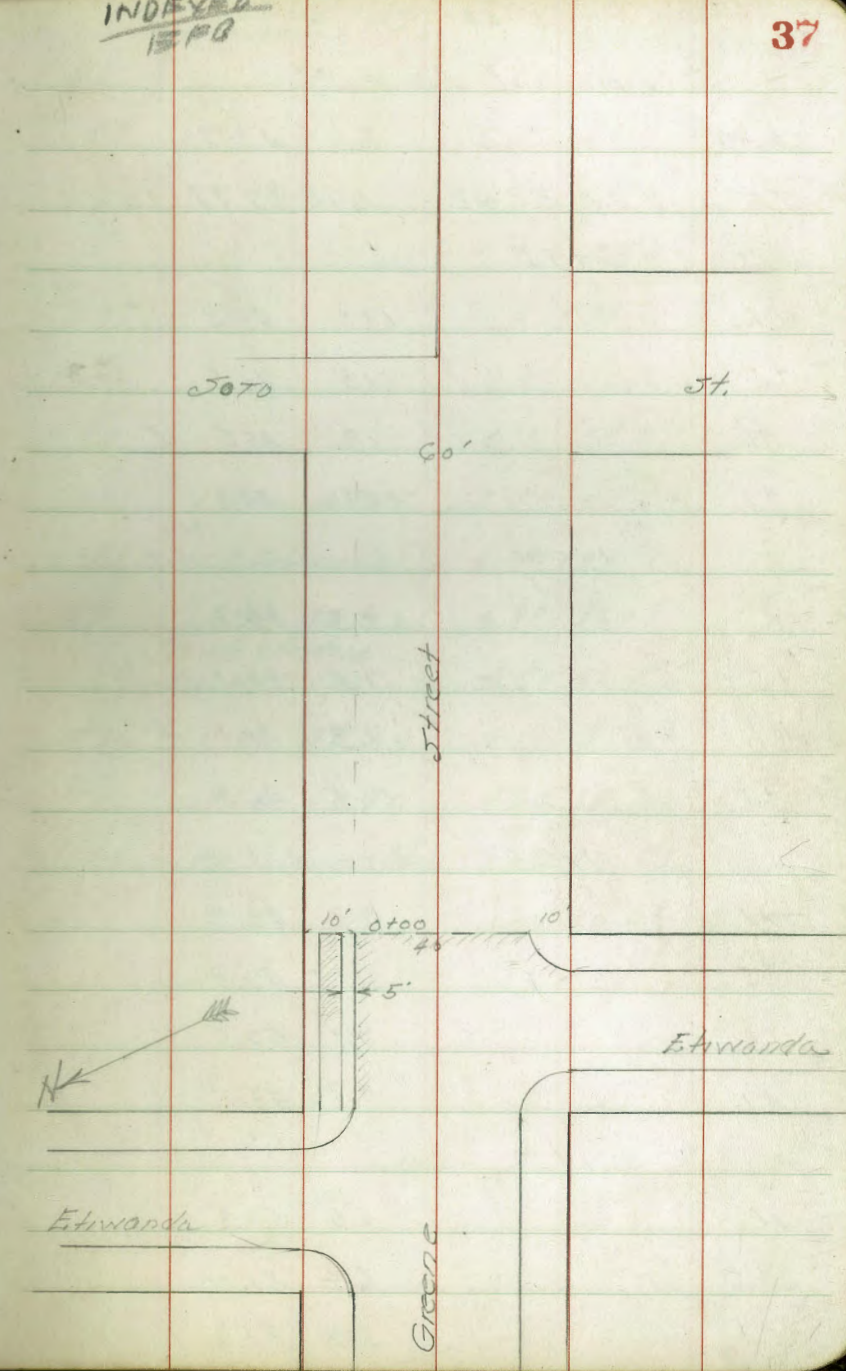
N 7.7 43.6

+5 7.7 43.6

+8 7.7 43.6

cb. 8.1 43.2

INDEXED  
15 PB





0150 cont. from p. 37

cb+2 8.6 42.7

TP 7.71 57.42 1.63 49.71

0175

N.L. 12.0 45.4

+5 11.8 45.6

cb 11.9 45.5 ✓

+1 12.6 44.8

1100

N 9.3 48.1

+5 9.3 48.1

cb 9.3 48.1 ✓

+1 10.6 46.8

1125

N 8.2 49.2

+5 8.1 49.3

cb 7.1 50.3 ✓

+1 8.7 48.7

1150

N 6.6 50.8

+5 6.4 51.0

+9 5.8 51.6

cb 6.7 50.7 ✓

+1 6.7 50.7

2100

N 2.0 55.4

+5 1.8 55.6

cb 2.1 55.3

+1 2.1 55.3

TP 1.00 46.07 12.35 45.07

B.P.

chk. S.W. 1/4 Estwarder 6.37 39.70

TP 6.93 46.92 6.98 39.09

Froude & Lotus

chk. N.W. 1/4 7 Pipe 4.51 41.51

TP 0.39 42.28 4.13 41.89

TP 1.66 39.70 4.24 38.04

chk. S.W. 1/4 P. Voltaire & Froude 9.65 30.05 ✓

30.06 = 811

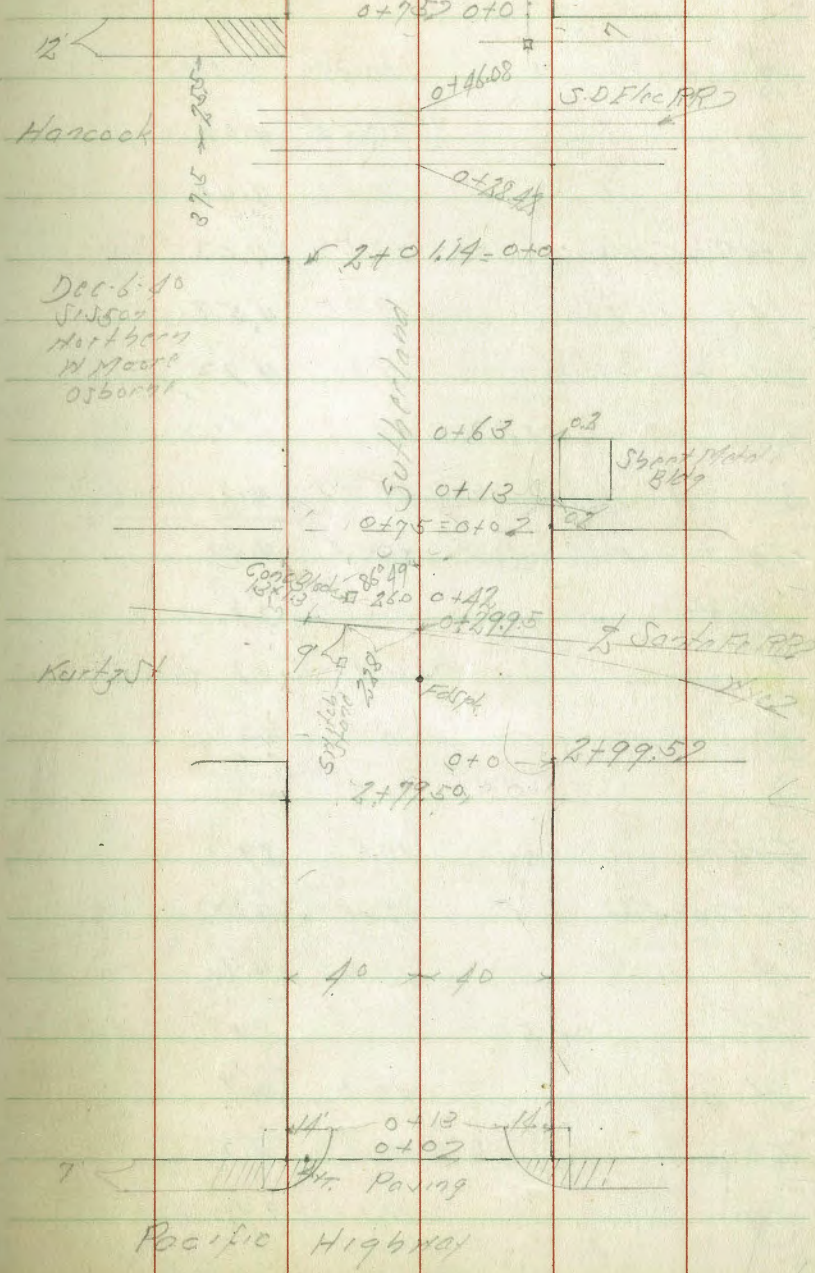
0.01 = Error.



Cross Section Sutherland St.  
Pacific Highway to Moore St.

B.M.	0.93	10.93	10.00	12
TP	9.93	14.53	6.33	4.60
0-9' = FCB Pacific Highway				
-6 = Cb Top FC	9.89	4.64	check	Ref 80
-6 Gut H/W	10.50	4.03		
S.L. on Pavement	10.57	3.96		
Cb	10.58	3.95		
1/4	10.60	3.93		
1/2	10.60	3.93		
3/4	10.67	3.86		
Cb	10.68	3.85		
H/L	10.73	3.80		
+6	10.86	3.67		
+6 = Cb Top FC	10.18	4.35		
0+0 = FCB Pacific				
H/L on Walk	10.20	4.33		
+9.6 = Cb Top	10.34	4.19		
Gut H/W on Pavement	10.68	3.85		
Cb	10.63	3.90		
1/4	10.58	4.02		

INDEXED  
EFB



Dec. 6: 10  
Singer  
Northern  
H. Moore  
Osborn

Sutherland

Spartan Bldg

Spartan RR

Pacific Highway



14.53

2	on Pav 29	10.39	4.14
1/4	"	10.41	4.09
Cb	"	10.52	4.01
+4.9	Gutter	10.50	4.03
+4.9	Cb Top	9.95	4.58
SL	on walk	9.81	4.22

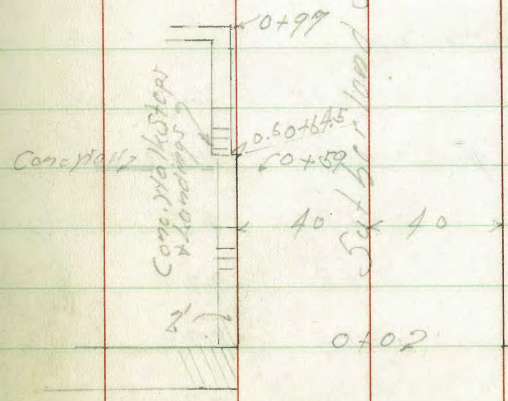
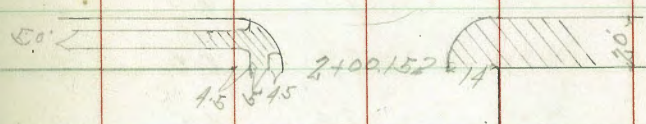
0+13: Cb FC

S		10.0	4.5
Cb Top=End		10.53	4.00
Gutter		10.6	3.9
1/4		10.4	4.1
2		10.3	4.2
1/4		10.5	4.0
Gutter		10.6	3.9
Cb Top=End		10.36	4.12
H		10.4	4.1

0+30

N		10.4	4.1
Cb		10.3	4.2
1/4		10.1	4.4

Moore St



Hancock



14.53

S	9.8	4.7
1/4	9.7	4.8
Cb	9.4	5.1
42.5 Sly Poxer Palt		
S	9.1	5.4
1+0		
S	8.2	6.3
Cb	8.1	6.4
1/4	8.5	6.0
S	8.7	5.8
1/4	8.4	6.1
Cb	8.5	6.0
H	8.3	6.2

14.50

H	oz Brick Walk	4.35	10.15
+4	1/4 4.5 Brick Walk	4.36	10.17
Cb		5.0	8.8
1/4		4.8	9.7
S		5.8	8.7
1/4		6.2	8.3
Cb		6.2	8.3

14.53

S		6.7	7.8
1+60			
S+12	~Sly Poxer Palt		
-10	2+0	5.3	9.2
S		5.1	9.4
Cb		4.7	9.8
1/4		4.4	10.1
S		4.4	10.1
1/4		4.2	10.3
Cb		4.1	10.4
H		4.1	10.4
2+50			
-10		1.9	12.6
H		1.9	12.6
Cb		2.3	12.2
1/4		2.6	11.9
S		2.6	11.9
1/4		2.9	11.6
Cb		3.3	11.2
S		3.9	10.6
+10		4.1	10.4



14.53

2+79.5 = W.L. Kuntz

-10	3.2	11.3
S	3.0	11.5
C6	2.7	11.8
1/4	2.2	12.3
1/2	1.9	12.6
3/4	1.4	13.1
C6	1.1	13.4
H	1.0	13.5
+10	0.7	13.5

2+99.5 = W.L. Kuntz = 040

-10	2.1	12.4
H	2.8	11.7
C6	3.0	11.5
1/4	3.0	11.5
1/2	3.5	11.0
3/4	3.5	11.0
C6	3.2	11.3
S	2.6	10.9
+15	3.1	11.4

14.53

TP 9.70 23.99 0.24 14.29

0+17.5

-10	6.2	12.8
S	6.4	12.6
C6	6.4	12.6
1/4	6.5	12.5
1/2	6.9	12.1
3/4	6.7	12.3
C6	6.6	12.4
H	6.8	12.2
+10	7.0	12.0

0+29.95 = Santa Fe RR

H Top Rail	5.86	12.13
H Ground	6.4	12.6
C6	6.4	12.6
1/4	6.3	12.7
1/2	6.2	12.8
3/4	6.2	12.8
C6	6.0	12.0
S Ground	6.1	12.9
S Top Rail	5.44	12.55



2399

0+38

-10	69	121
S	71	16.9
C6	72	16.8
1/4	73	16.7
1/2	73	16.7
3/4	71	16.9
C6	6.6	16.4
H	69	16.1
+10	70	120

0+46

0+46

-15 = Bot. Ditch	9.2	14.5
H	73	16.7
C6	74	16.6
1/4 = Bot. Ditch	9.8	14.2
1/2 " "	10.0	14.0
3/4 " "	10.7	13.3
C6 " "	10.8	13.2
S " "	11.0	13.0
+15	11.0	13.0

2399

0+55 Fk Kutz 0+0

-15	16.3	13.7
S	10.0	14.0
C6	9.7	14.3
1/4	9.5	14.5
1/2	8.9	15.1
3/4	8.5	15.5
C6	9.8	14.2
H	9.0	15.0
+10	8.3	15.7

0+70

N+30.8 = N1/4 Tel Pole

0+13 = 13' Top of L. Kutz

-15	6.5	12.5
H	7.4	16.6
C6	7.7	16.3
1/4	8.1	15.9
1/2	8.2	15.8
3/4	8.1	15.9
C6	8.3	15.2
S = Cor Bldg	8.8	15.2



23.99

0+63

+63

S = Cor. Bldg	7.1	16.9
Cb	6.8	17.2
1/4	6.6	17.4
1/2	6.5	17.5
1/4	6.2	17.8
Cb	5.8	18.2
H	5.4	18.6

1+10

1+10

H	3.6	20.4
Cb	3.7	20.3
1/4	3.8	20.2
1/2	4.1	19.9
1/4	4.5	19.4
Cb	4.5	19.4
S	4.9	19.1

1+52

1+52

S	2.6	21.4
Cb	2.0	22.0
1/4	1.8	22.2

23.99

1/2	1.5	22.5
1/4	1.3	22.7
Cb	1.3	22.7
7.2 = 1/4 Tol Polr		
H	1.1	22.9

TP 1097 34.66 080 23.69

1+80

1+80

H	10.6	24.1
Cb	10.6	24.1
1/4	10.1	24.5
1/2	9.2	25.5
1/4	10.0	24.7
Cb	10.0	24.7

7.3 = 1/4 Harbor Polr

S 10.6 24.1

2+0.14 H.L. Hancock = 0+0

S 8.0 26.7

Cb 8.0 26.7

1/4 8.5 26.2

1/2 8.9 25.8

44



34.66

1/4	8.9	25.8
Cb	9.0	25.7
H	9.0	25.7

0+28.42 = H Rail S.D. Elec

H Top Rail	7.42	27.24
H Ground	7.6	27.1
Cb	7.5	27.2
1/4	7.6	27.1
1/2	7.6	27.1
1/4	7.5	27.2
Cb	7.6	27.1
S	7.4	27.3
S Top Rail	7.18	27.45

0+46.08 = E Rail S.D. Elec

S Top Rail	6.98	27.68
S Ground	7.0	27.7
Cb	7.1	27.6
1/4	7.1	27.6
1/2	7.0	27.7
1/4	7.1	27.6

34.66

45

Cb	7.1	27.6
H	7.1	27.6
H Top Rail	7.15	27.51

0+63 = E Cb Hancock

-25 = Top Cb	6.38	27.28
H = Top Cb End	6.37	27.39
H Gutter	6.8	27.9
Cb	6.4	27.3
1/4	6.7	27.0
1/2	6.4	27.3
1/4	6.4	27.3
Cb	6.3	27.4
S	6.3	27.4

+0.4 = Sky Pole

0+75 = E L Hancock = 07.0

S	5.7	29.0
Cb	5.7	29.0
1/4	5.3	29.4
1/2	5.0	29.7
1/4	5.7	29.0



34.66

Cb	5.8	28.9
H = 5/4 Conc Apron	5.63	29.03
H Top 2' Conc Walk	5.23	29.43

0+7

H	4.7	30.0
Cb	5.1	29.6
1/4	4.9	29.8
1/2	4.1	30.6
1/4	4.5	30.1
Cb	4.6	30.1
1/8	4.2	30.5
S	0.5	34.2

0+20

S	0.2	34.5
1/6	2.8	31.9
Cb	3.0	31.7
1/4	3.4	31.3
1/2	3.6	31.1
1/4	3.6	31.1
Cb	3.4	31.3

34.66

H	7.3	32.4
H = 5/4 + 1/2 Conc Walk	1.81	32.85
TP	11.65	46.10
	0.21	34.45

0+42

H = 5/4 Conc Walk	11.73	34.27
H Ground	12.0	34.10
Cb	12.5	33.6
1/4	12.3	33.8
1/2	12.6	33.5
1/4	12.6	33.5
Cb	12.0	34.1
S	10.5	35.6

0+59

S	8.8	37.3
Cb	9.6	36.5
1/4	10.0	36.1
1/2	10.2	35.9
1/4	10.4	35.7
Cb	10.4	35.7
H	9.5	36.6
H = 5/4 Conc Walk	9.67	36.43

46



## Sutcliffe land St.

46.10

0+73

N-0.6-Sly Conc Walk 8.13 32.92

0+90 = 2 Garage on Sta.

S+5' = 1/4 Conc Apron 6.83 39.27

S-1' = 2/3 Garage Conc Floor 6.61 39.49

0+97

-0.6 = S 1/4 Conc Walk 7.51 38.59

N 7.5 38.6

+2 5.1 41.0

Cb 5.4 40.7

1/4 5.8 40.3

1/2 6.0 40.1

1/4 6.3 39.8

Cb 6.7 39.4

S 6.7 39.4

0+98

S+11.2 = Sly Power Pole

1+01

N 4.9 41.2

Ncb 5.2 40.9

47

46.10

1+08

S+10 = Top Conc Wall 5.83 40.27

S+L = 2 Door Conc Floor 6.63 39.47  
8' 11" deep

1+50

S = 1/4 Bldg 2.7 43.4

Cb 2.8 43.3

1/4 2.7 43.4

1/2 2.6 43.5

1/4 2.3 43.8

Cb 2.0 44.1

N 1.2 44.9

1+75

N 0.0 46.10

Cb 0.3 45.8

1/4 0.9 45.2

1/2 1.2 44.9

1/4 1.6 44.3

Cb 1.2 44.9

S = 1/4 Bldg 1.0 45.1

TP 11.53 57.36 0.27 45.83

S+11.7 = Sly Power Pole  
1+95



5736

2+00.15 = N.L. Moore

S = N/4 Bldg on Wall	10.22	47.14
Cb Top	10.72	46.64
Gutter on Porch	11.35	46.01
" " "	10.92	46.42
" " "	10.86	46.50
" " "	10.98	46.38
Gutter " "	11.54	45.82
Cb Top	10.99	46.32
H	10.7	46.7

2+20.15 = N.Cb Moore

H Cb Top	11.01	46.35
Gutter	11.49	45.87
Cb on Porch	11.17	46.19
" " "	10.91	46.45
" " "	10.84	46.52
" " "	10.80	46.56
Cb " "	10.94	46.42
S " "	11.06	46.30
S Top Cb	10.65	46.71

48

5736

TP	12.03	69.13	0.26	57.10
BM			2.01	67.12

NFBP  
Sulphur head  
+ Lafoletto  
67.19



Cross Section College Ave  
Estelle to Carol

BM	11.28	429.94	418.66	Highway 60' wide Estelle + 60' wide
TP	8.12	436.20	1.86	428.08
	0-40 = 5 Cb Estelle			
-50	Cb top	10.70	425.50	
-50	Gutter on Pav	11.17	425.03	
H	Cb top	8.08	428.12	
H	Gutter on Pav	8.50	427.70	
∅	Cb to Drive	6.70	429.50	
	Gutter on Pav	6.76	429.44	
F	Cb top	4.65	431.55	
	Gutter on Pav	5.05	431.15	
+50	Cb top	1.77	434.43	
+50	Gutter on Pav	2.18	434.02	
	0-25 = 1/4" Black Paving			
-50		2.14	434.06	
F		5.00	431.20	
∅	1/4" on Rim	6.74	429.46	
H		8.43	427.77	
+50		11.19	425.01	

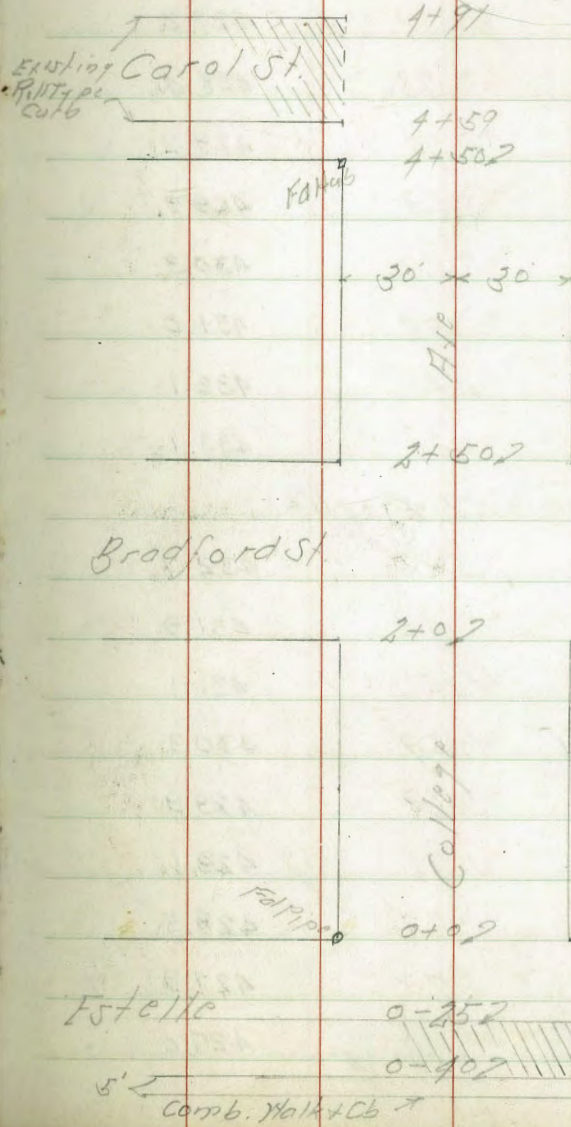
Notes Red + Pbl 12-21-40 c.M.

60' wide  
10' cbs  
15' 1/4

INDEXED  
E/FB

Dec 20. 40  
S. 1000  
North 1111  
H. 1000

49





436.20

0-9

-15	10.2	426.0
H	8.9	427.3
C6	7.8	428.4
1/4	7.0	429.2
8	6.3	429.9
1/4	5.9	430.3
C6	5.2	431.0
F	4.1	432.1
+15	3.1	433.1

0+0 = 1/4 Estelle

-15	3.5	432.7
F	4.3	431.9
C6	5.1	431.1
1/4	5.9	430.3
8	6.3	429.9
1/4	7.1	429.1
C6	7.7	428.5
H	8.3	427.9
+15	9.2	427.0

436.20

0+50

-15	8.8	427.4
H	8.6	427.6
C6	8.3	427.9
1/4	8.2	428.0
8	7.9	428.3
1/4	7.3	428.9
C6	6.9	429.3
F	6.0	430.2
+15	4.9	431.3

1+0

-15	6.1	430.1
F	7.0	428.9
C6	8.4	427.8
1/4	8.5	427.1
8	8.7	427.5
1/4	8.8	427.4
C6	8.7	427.5
H	9.1	427.1
+15	8.7	427.5

50



436.20

1+25

-15	8.8	427.4
M	8.9	427.3
Cb	8.8	427.4
1/4	9.0	427.2
2	9.1	427.1
1/4	8.9	427.3
Cb	8.5	427.7
F	7.8	428.4
+15	7.3	428.9

1+50

-15	7.0	429.2
F	7.4	428.8
Cb	8.7	427.5
1/4	8.6	427.6
2	8.7	427.5
1/4	8.8	427.4
Cb	8.6	427.6
M	8.7	427.5
+15	8.6	427.6

436.20

2+0 - SL Bradford

-15	5.9	430.3
M	7.3	428.9
Cb	7.3	428.9
+5	8.1	428.1
1/4	7.9	428.3
2	7.8	428.4
1/4	7.7	428.5
Cb	8.0	428.2
F	6.8	429.4
+15	6.1	430.1

2+50 - NL Bradford

-15	5.1	431.1
F	5.8	430.4
Cb	6.7	429.5
1/4	6.5	429.7
2	6.4	429.8
1/4	6.3	429.9
+2	6.3	429.9
Cb	5.6	430.6
M	4.8	431.4



436.20

+15		1.0	4322
	3+0		
-15		1.0	4352
H		2.4	4338
C6		3.7	4325
+5		4.6	431.6
1/4		4.5	431.7
1/2		4.5	431.7
1/4		4.2	4320
C6		4.8	431.4
F		5.3	430.9
+15		4.6	431.6
	3+50		
-15		4.8	431.4
F		4.6	431.6
C6		4.0	432.2
+5		3.6	432.6
1/4		1.4	4348
+5		1.8	4344
1/2		2.2	4340

52

436.20

1/4		1.8	4344	
+8		2.3	4339	
C6		1.4	4348	
H		0.0	4362	
TP	10.45	44632	0.33	435.87
	3+66			
-14	Ground	7.7	438.6	
-14	Sly Jo. Sp. Conc Floor	5.41	440.91	
H	on Conc Floor	7.46	438.86	
H	Ground	8.9	437.4	
+1	Sly Conc Floor	7.56	438.76	
C6		9.3	436.0	
+5		11.1	435.2	
1/4		10.7	435.6	
1/2		11.2	435.1	
+5		11.2	435.1	
1/4		10.1	436.2	
+5		12.8	433.5	
C6		12.5	432.8	
F		14.0	432.3	
+15		14.7	431.6	



44632

3+82

M-14 = Ply Garage Conc Floor 537 440.95

M+10 = Ply Conc Apron 7.15 439.17

440

-15 13.5 432.8

F 12.7 433.6

Cb 11.9 434.4

+5 11.4 434.9

1/4 8.3 438.0

+5 8.7 437.6

1/2 8.7 437.6

1/4 8.3 438.0

+7 8.2 438.1

Cb 6.9 439.4

M 5.9 440.4

+10 4.8 441.5

4+30

-14 = Fly House 2.4 443.9

M 3.0 443.3

Cb 4.0 442.3

44633

+5 6.3 440.0

1/4 6.5 439.8

1/2 6.3 440.0

1/4 6.2 440.1

Cb 6.2 440.1

E 7.1 439.2

+15 8.7 437.6

4+48

M+7.5 = Ply Power Pole

4+50 = S. L. Carol St

-15 6.7 439.6

F 5.8 440.5

Cb 5.2 441.1

1/4 4.7 441.6

+5 5.2 441.1

1/2 4.8 441.5

1/4 4.8 441.5

+5 4.6 441.7

Cb 3.2 443.1

M 2.5 443.8

+15 1.4 444.9



44632

4459 = Sky Roll/Carb on Corol/St

-15 Cb Top	1.52	444.80
-15 Gutter on Pav	1.88	444.44
1/4 Cb Top End	2.41	443.91
1/4 Gutter on Pav	2.72	443.60
Cb	3.2	443.1
+5	4.0	442.3
1/4	4.0	442.3
1/2	4.3	442.0
1/4	4.6	441.7
Cb	5.0	441.3
F	6.0	440.3
+15	6.5	439.8

4475 = 1/2 Corol

-15	6.3	440.0
F	5.2	441.1
Cb	4.7	441.6
1/4	4.3	442.0
1/2	4.0	442.3
1/4	3.4	442.9

44632

Cb	3.0	443.3
1/4 = 1/4 Pav ing	2.30	444.12
+15 = 07.00	1.40	444.92
4491 = 1/4 Roll/Cb		
-15 = Cb Top	1.01	445.31
-15 = Gutter on Pav	1.24	444.98
1/4 Cb Top	1.90	444.42
1/4 Gutter on Pav	2.22	444.10
Cb	3.0	443.3
1/4	3.0	443.3
1/2	3.2	443.1
1/4	3.9	442.4
Cb	4.5	441.8
F	5.0	441.3
+15	5.6	440.7

570 = 1/2 Corol

-15	5.7	440.6
F	4.5	441.8
Cb	3.9	442.4
1/4	3.2	443.1



446.32

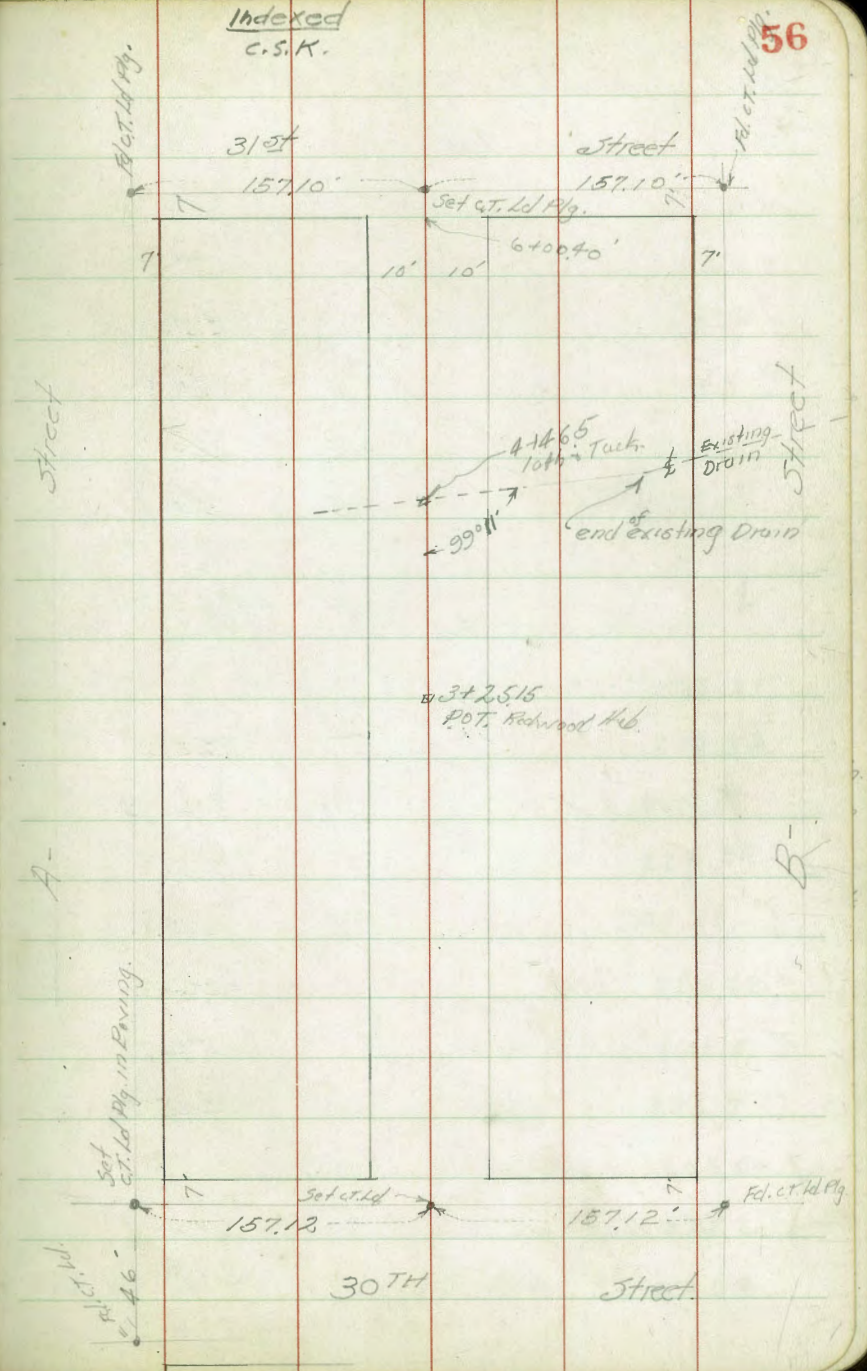
Z			2.7	443.6
4			2.5	443.8
+5			2.6	443.7
C6			1.7	444.6
W			0.9	445.4
TP	12.20	458.00	0.52	445.80
TP	12.44	470.27	0.17	457.83
TP	1.71	469.66	2.32	467.95
B.M.			2.49	466.17

N.H.B.P.  
 5/10/69  
 59/45  
 466.12



CROSS SECTION ALLEY BLK. 32.  
 Walker E.W. Morse's Subdivision  
 Bliss Between B & A streets.  
 Isbell  
 3-3-41 from E.L. 30th to W.L. 31st

8.85	228.99	220.14	EX. BP NE 30th & B
0-10 = E.C. 30th			
N-20' on cb.	4.77	224.22	
N-20' " Gut. Paving.	5.46	223.53	
N on cb.	5.21	223.78	
" " Gut. "	5.88	223.11	
L " Pav.	6.23	222.76	
S " "	6.38	222.61	
"	5.76	223.23	
S+20' on cb.	6.25	222.74	
S+20' " Gut. "	6.92	222.07	
0+00 = E.L. 30th			
S-0.2' on cb.	5.52	223.47	
" " " Gut.	5.53	223.46	
S+5' on Pav.	5.60	223.39	
L " "	5.80	223.19	
+5 " "	5.58	223.41	
+9.8 = N.C.B. on Pav.	5.33	223.66	
" on N.C.B.	5.01	223.98	





228.99

Alley Blk 92

0+12 = L. Dote Palm on South 3' dia. 4 Palm 1' back

0+20

N-5 3.8 225.2

N 4.0 225.0

+4 4.7 224.3

E 4.5 224.5

S 4.3 224.7

1.5 4.3 224.7

3.84 — 225.15 1.4' Back.

0+41 = Beginning Conc. Walk on South. 2.0' wide

3.73 — 225.26

0+63 = BC. Bl. on Above Walk. 0.2' Back.

0+50

-5' at house 3.8 225.2

-1' on Walk 3.80 225.19

S 3.8 225.2

E 3.8 225.2

+7 3.8 225.2

N 3.3 225.7

+5 3.3 225.7

0+69 to 0+81 = Fence on South. (on line 0+69) 2.1' in Alley 0.8' dia

0+76 = Elec. Pole on South 1' edge 1.5' in Alley. 0.75' in Alley

0+85 = Garage on South, Conc Floor

Floor = 3.64 - 225.35

228.99

Alley Blk 92

Floor = 3.64 - 225.35 57

0+94 = Garage on South, 0.2' in Alley

1+00

N-5 2.8 226.2

N 2.8 226.2

+3 3.4 225.6

E 3.3 225.7

S 3.5 225.5

+5 3.6 225.4

0.6' Back.

1+30 = West edge Conc. Apron to Obli. Garage on South.

TP 4.85 230.59 3.25 225.74

S + 0.6' on toe Conc. Apron 5.28 225.31

S + 4.4' on Conc. Floor 5.25 225.34

1+40 = E. Above Obli. Garage 5.38 225.21 on South toe Apron

" " " " 5.27 225.32 Floor

1+50 = E. edge " " 5.27 225.32 Floor 4.25' Back

S - 0.25' toe Apron " 5.37 225.22

S 5.2 225.4

E 4.9 225.7

+8 5.0 225.6

N 4.4 226.2

+5 4.3 226.3



230.59 Alley Blk 92

↓ 1450	W end fence on South on line		
↓ 1775	E " " " 0.3' Back		
	1765		
N-5		4.3	226.3
N		4.3	226.3
+2		5.0	225.6
L		4.8	225.8
S		4.4	226.2
+5		4.9	225.7
↓ 1775	W. edge Apron to Dble Garage on South		
↓ -4.5	on Conc. Apron	4.83	225.76
↓ -0.7	" toe "	4.96	225.63
S		4.8	225.8
L		4.8	225.8
+8		5.0	225.6
N		4.6	226.0
+5		4.5	226.1
↓ 1787	W. Dble Garage on South 4.6' Back		
↓ S+0.7	toe Apron	5.14	225.45
↓ +4.6	Garage Floor	4.98	225.61
	1796 = E edge Con Apron to Dble Garage.		

230.59 Alley Blk 92

58

S+0.9	toe Conc. Apron	5.18	225.41
S 4.7	Garage Floor	5.08	225.51
↓ 2+00	to Elec. Pole on South		
↓ 0+00 to 2+00	Playground Fence on N 0.1' Back		
	2+00		
-5		4.2	226.4
N		4.7	225.9
+6		5.2	225.4
L		5.1	225.5
S		4.9	225.7
+5		5.2	225.4
T.P.	3.50	228.44	5.65 224.94
↓ 2+00	Beginning Fence on North = 0.3' Back		
↓ 2+25	End " " = 0.2' in Alley		
↓ 2+25	West end Conc. Wall = Apron Support to Garage	0.9' Back on South	
↓ S+0.9	on Wall	3.38	225.06
+1.5	" Apron	3.30	225.14
↓ +3.2	on Floor Garage	3.27	225.17
↓ 2+49	E end Above Apron to Garage		
↓ S-5'	on Wall	3.47	224.97
↓ S	" "	3.47	224.97



↓ 2+33 = Garage on N, Dirt Floor 3' Back.		
↓ dirt Floor	2.9	225.5
↓ 2+43 = Garage on N, Wood Floor, 3.0' Back.		
↓ Wood Floor = 3.3		225.1
	2+50	
-10	4.0	224.4
S	4.1	224.3
L	3.8	224.6
N	3.6	224.8
+5	3.8	224.6
+10	3.7	224.7
↓ 2+59 = Garage on N, Conc. Floor Apron 3' Back.		
↓ N+3 = toe Apron	3.72	224.72
↓ N+5 = Garage Floor	3.57	224.87
L+6.5 = West edge Garage Apron on N		
N+1.6 = toe Apron	4.21	224.23
↓ N+5.1 = Garage Floor	3.97	224.47
2+7.5 = E. edge Drive Apron = 0.6' Back.		
N+0.6 on toe Apron	4.62	223.82
↓ +5.1 = Garage Floor	3.90	224.54

	2+80	
N-5		5.5 222.9
N		5.3 223.1
L		5.4 223.0
S		5.4 223.0
+10		5.4 223.0
	3+00	
-10		6.5 221.9
S		6.4 222.0
L		6.3 222.1
N		6.5 221.9
+10		7.4 221.0
↓ 3+07 = Garage on South, Conc. Floor, 5' Back, Conc. Apron.		
↓ S+3 = toe Apron	6.62	221.82
↓ S+5 = Garage Floor	6.40	222.04
		Conc. Floor.
↓ 3+16 = Garage on South, 4.9' Back.		
↓ S+3.3 on Apron	7.18	221.26
↓ S+5 = Garage Floor	7.18	221.26
	Floor = 6.57	221.87 4.4' Back.
↓ 3+08 = Garage on N, Wood Floor - 4' Back.		
	Wood Floor = 6.64	
↓ 3+21 = Garage on N		221.80



3+25.15

N-4 at Garage	6.8	221.6
N	7.0	221.4
♀ on Hub = POT.	7.13	221.31
S	7.7	220.7
+2	7.4	221.0
+3	9.1	219.3
+10	9.1	219.3

3+27

-10	9.1	219.3
-3	9.1	219.3
-2	7.9	220.5
S	7.7	220.7
♀	7.1	221.3
N	7.0	221.4
+4	6.8	221.6

3+28

-4	6.8	221.6
N	7.4	221.0
♀	7.3	221.1
S	7.8	220.6
+2	8.0	220.4

S +3	11.6	216.8
+10	11.6	216.8
+15	11.6	216.8
3+39		
-15	12.2	216.2
-5	12.2	216.2
S	11.3	217.1
♀	7.8	220.6
N	9.0	219.4
+10	9.8	218.6

TP 5.5 2.00 215.47 12.97 215.47

✓ 3+30 = ♀ Pepper tree on South 6" limb 10/16/92  
 N edge = 08' back

3+54		
-40	1.9	213.6
-10	1.9	213.6
N	1.9	213.6
♀	1.4	214.1
S	2.2	213.3
+20	3.9	211.6
+35	4.7	211.3



2.1547

Alley 814 92

3+90

-35	10.2	205.3
V	9.0	206.5
L	8.5	207.0
N	8.5	207.0
+35	7.8	207.7

✓ 3+90 = 1/2 Elec. Pole on South, N. edge = 1.5' in Alley  
1' dia.

✓ 3+90 = 1/2 Paper tree on N. S. edge = 0.5 in Alley

4+15

-35	12.1	203.4
N	12.2	203.3
L	13.5	202.0
S	13.5	202.0
750	14.7	200.8

7.P 0.61 203.04 13.04 202.43

4+22

-50	4.3	198.7
S	3.1	199.9
L	3.6	199.4
N	3.7	199.3
+40	3.2	199.8

20304

61

4+35

-50	7.5	195.5
N	8.3	194.7
L	9.4	193.6
S	9.0	194.0
+50	12.1	190.9

4+47

-50	15.7	187.3
S	12.0	191.0
L	10.9	192.1
N	10.3	192.7
+25	8.9	194.1
+50	6.0	197.0

4+39 = 1/2

4+57 = 1/4 edge 81d on North

-30 at 81d.	2.0	201.0
-15 "South edge 81d.	7.2	195.8
N	9.1	193.9
L	10.8	192.2
S	11.0	192.0
+50	14.0	189.0



South of	4+465 = $\frac{1}{2}$ Proposed Drain	18.0	185.0 ✓
E Alley	+123' = North end Existing 30" Drain		
65' R/L of $\frac{1}{2}$		15.6	187.4
35' R/L " "		14.9	188.1
$\frac{1}{2}$ Alley		10.9	192.1
50' Lt.		7.5	195.5

4+75

-45		6.8	196.2
-20		5.0	198.0
5		4.5	198.5
$\frac{1}{2}$		3.3	199.7

+2.5 on Ground of Conc. Wall +0.3 203.3

N on Conc. Floor. +1.44 204.48

+15 on " " +1.4 204.4

TP 8.67 220.21 +8.50 211.54

4+75.5 = W edge Wood Platform

Floor Platform 8.67 211.54 ✓

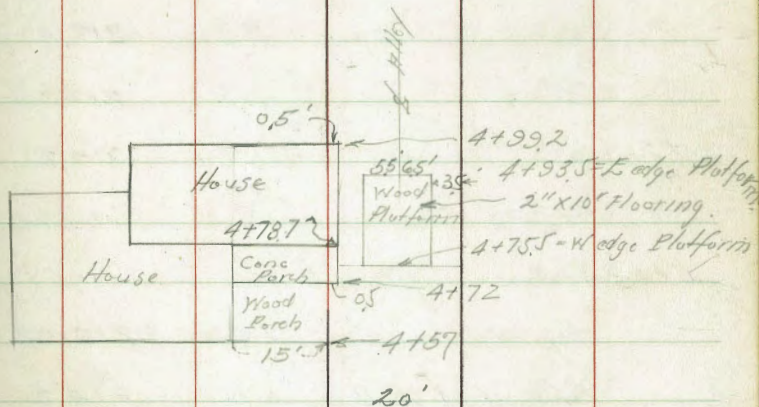
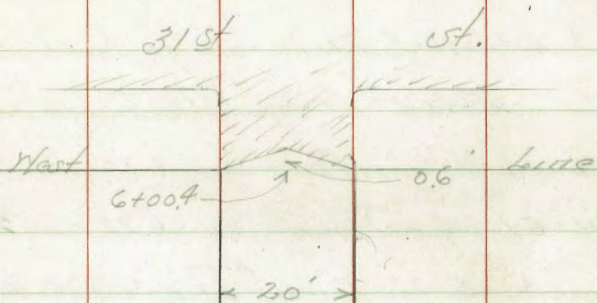
4+93.5 = E edge Platform on 6" Conc Wall

N+0.5 9.2 211.0

E 9.13 211.08

✓ +6.9 on end Wall 9.20 211.01

S 9.9 210.3





+25	11.4	208.8	11' India
✓ 4+99 = E. Edge Pole on South			N edge = 22' in Alley
✓ 5+04 = W edge Dble. Garage on N. Conc. Floor			
✓ N-8.9' on Garage Floor	6.75	213.46	
✓ N-6.1' Toe <sup>Conc.</sup> Apron	6.21	214.00	
✓ 5+22 = E. edge <sup>Above</sup> Dble Garage on N			
✓ N-8.9' on Garage Floor	6.03	214.18	
✓ N-6.1' Toe Conc. Apron	6.47	213.74	
N	6.7	213.5	
L	7.3	212.9	
U	7.3	212.9	
+20	8.0	212.2	
5+19 = E. Deadman on South			15' in Alley
5+23.5 = Beginning Conc. Ret. Wall on N			0.5' in Alley
Top Wall	4.67	215.54	
Ground at Wall	6.0	214.2	
5+25			
-15	7.6	212.6	
U	7.1	213.1	
L	7.1	213.1	
+5	6.7	213.5	

+95	5.7	214.5	
+9.5 on Wall	4.67	215.54	
N	4.6	215.6	
+5	4.4	215.8	
✓ 5+41 = E. Dble Garage on South			Diff. Floor = 6.8 213.4 Dirt Floor 23.3' Buck
5+53			
N-3.5' at House	3.8	216.4	
N	3.7	216.5	
+0.4 = top Wall	3.67	216.54	
+0.4 = Ground at Wall	4.1	216.1	
N+5	5.0	215.2	
L	5.4	214.8	
U	4.7	215.5	
+10	4.7	215.5	
✓ 5+83 = 8th in Wall on N			
-10	3.4	216.8	
U	3.1	217.1	
+4	3.1	217.1	
L	3.9	216.3	
+5	3.7	216.5	
+9.6 at Wall on ground	3.1	217.1	
+9.6 on "	2.38	217.83	



N	2.4	217.8
+5	2.1	218.1
5+90		
-5'	3.6	216.6
N	3.3	216.9
+6.5 on Wall	3.35	216.86
+6.5 at Wall on ground	3.6	216.6
L	4.2	216.0
+5	4.0	216.2
S	4.1	216.1
+5	4.1	216.1

6+00.4 = 1/4 31st St.

S <sup>+0.1</sup> on cb	5.63	214.58
S+0.1 Gut.	5.72	214.49
L on Poring.	5.56	214.65
N on cb.	4.58	215.63
" " Gut.	5.01	215.20

6+10.4 - W cb 31st

-15' on cb.	3.96	216.25
15 " Gut. Por.	4.60	215.61
N on "	5.33	214.88
N " cb.	4.77	215.44

L on Poring	5.82	214.39
S " "	6.43	213.78
S on cb	5.90	214.31
+6' on Gut.	6.82	213.39
" " cb.	6.20	214.01

T.P. 0.72 211.72 9.21 211.00

cbk. Hwy 82 8 + 31st 5.01 206.71

206.74 = 817.

0.03 Error.



Walker CROSS SECTION PANAMA PLACE  
 Bliss from Mt. View Drive 40' wide  
 1st cut. 10' cbs.  
 3-4-41 to North end.

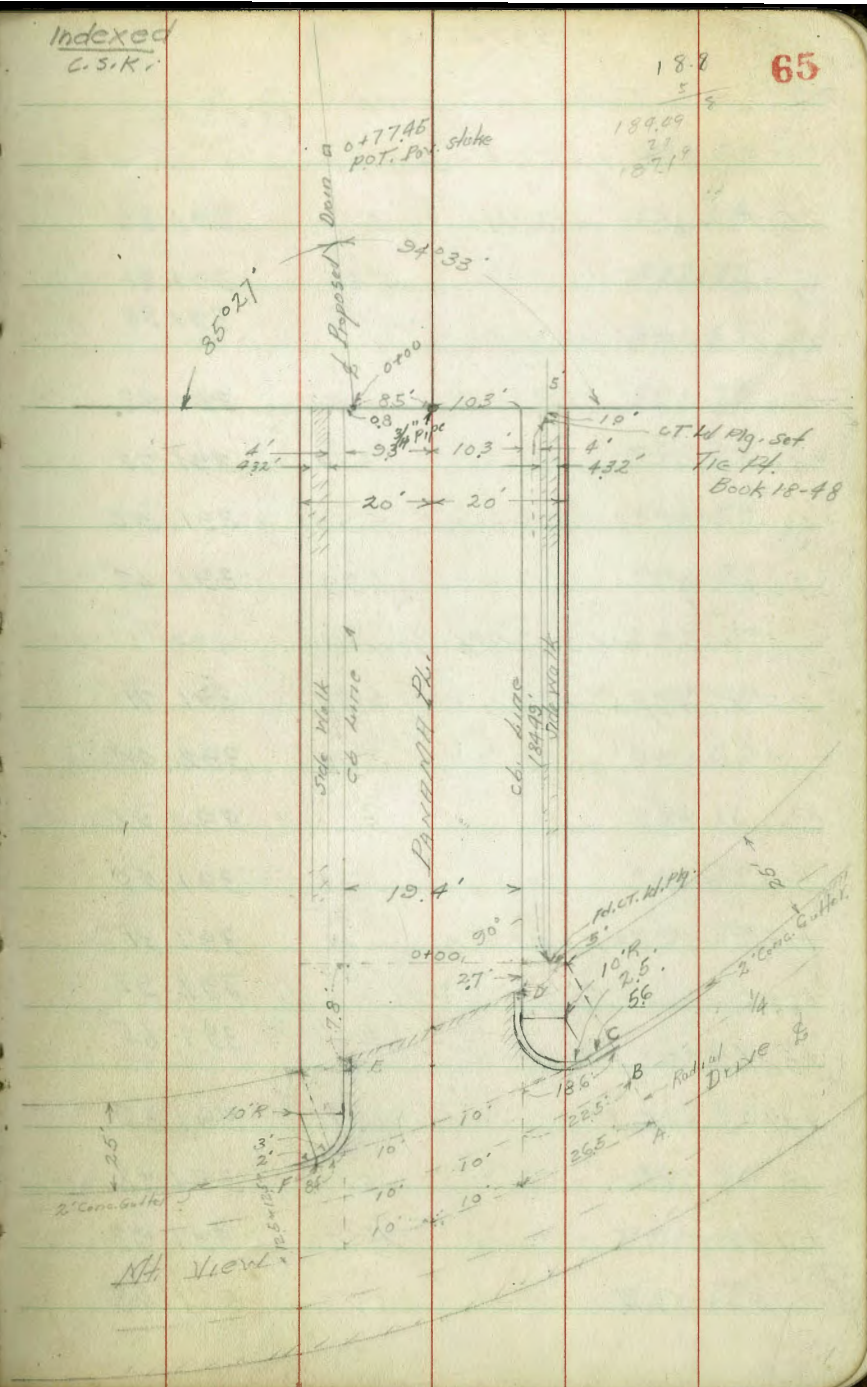
Indexed  
 C.S.K.

18.8  
 5  
 65

4.77	397.15	392.38	S.V. BP Mt. View + 331d
E. Mt. View			
7.12	397.46	4.82	392.33 on 5' hdy. N.E. Cor Mt. View + Panama
2.5'	East of A, on Pav.	4.93	392.53
A	on Pav.	5.03	392.43
+2.65"	" " - E. cb. Line Panama Pl.	5.10	392.36
+3.65"	" " - E. Panama Pl.	5.19	392.27
+4.65"	" " - W. cb. " "	5.11	392.35
+5.0	" "	5.21	392.25
+7.0	" "	5.36	392.10
N 1/4 Mt. View = 12.5' N of L			
2.5'	East of B	5.21	392.25
B,	on Pav.	5.32	392.14
+2.2.5	on Pav. = E. cb. Panama Pl.	5.42	392.04
+3.2.5	" " " " " "	5.40	392.06
+4.2.5	" " " " " "	5.46	392.00
+6.8	" " " " " "	5.64	391.82

Notes Red. 2 Plot on Profile # 721 3-7-41 CBH

Cont P-66





397.46

Cont from P-65

(2' South of N.Cb.)

10.5' N of N $\frac{1}{2}$  = South edge 2' Conc. Gutter

25' East of C on Gutter 5.60 391.86

C<sub>1</sub> on Conc Gut. 5.65 391.81

+118.6 on " " = E. cb. Panama Pl. 5.48 391.98

+28.6 " " " " " 5.53 391.93

+38.6 " " " " " 5.74 391.72

+47.0 " " " " = opp. P.C.C. Rod 5.90 391.56

+72.0 " " " " 5.99 391.47

N. cb. N.H. View

25' East of C<sub>1</sub> on Gutter 5.75 391.71

" " " " " cb 5.02 392.44

C<sub>1</sub> on cb. 5.20 392.26

" " Gutter 5.88 391.58

+118.6 " " = E. cb. line Panama Pl. 5.55 391.91

+28.6 " " " " " 5.53 391.93

+38.6 " " " " " 5.81 391.65

+47.0 on Gutter 6.11 391.35

" " cb. 5.48 391.98

+72 " " " " 3.53 391.93

+72 " Gutter 6.23 391.23

397.46

N.E. Return

C to D = 36.7'

66

4 Parts.

C<sub>1</sub> on cb. 5.21 392.25

" " Gutter 5.88 391.58

Part 1 on cb. 5.11 392.35

" " " Gutter 5.83 391.63

2' Lt. on edge Conc. Gut. 5.68 391.78

Part 2 on cb. 5.17 392.29

" " " Gutter 5.87 391.59

2' Lt. on " 5.75 391.71

Part 3 on cb. 5.29 392.17

" 3 " Gutter 5.93 391.53

2' Lt. " " 5.84 391.62

Part 4 = D on cb. 5.35 392.11

" " " " Gutter 5.98 391.48

2' Lt. " " 5.93 391.53

SW

N.H. Pl. = 31.7' from F to E. 4 Parts

F on cb. 5.49 391.97

" " Gutter 6.11 391.35

Part 1 on cb. 5.52 391.94

" " " Gutter 6.00 391.46

2' Lt. " " 5.88 391.58



Part 2 on cb.	5.49	391.97
" " " Gut	5.96	391.50
2' Rt. " edge conc. Gut.	5.82	391.64
Part 3 on cb.	5.46	392.00
" " " Gut.	6.00	391.46
2' Rt. in edge conc. Gut.	5.87	391.59
Part 4 = E, on cb.	5.58	391.90
" " on Gut.	6.04	391.42 ✓
2' Rt.	5.97	391.49
10' Rt. on E. Part	5.69	391.77
0 + 00 = Rt. to N.E.		
E. cb.	5.34	392.12
Gut.	6.1	391.4
ℓ	5.7	391.8
W Gut.	6.0	391.5
W cb.	5.57	391.89
0 + 40	6.10	391.36 <sup>Drive way on W</sup>
147	6.13	391.33 <sup>Drive on W</sup>
0 + 50		
W cb.	5.80	391.66
Gut.	6.2	391.3
ℓ	6.0	391.5

E. Gut.	6.1	391.4
E. cb.	5.61	391.85
0 + 95 = Drive on E	6.37	391.09 ✓
1 + 00		
E. cb.	5.92	391.54
" Gut.	6.4	391.1
ℓ	6.2	391.3
W Gut.	6.5	391.0
W cb.	5.99	391.47
0 + 99 = Drive on W	6.50	390.96 ✓
1 + 44 = " " "	6.67	390.79 ✓
1 + 45 = " " "		
T.P. 300	394.44	6.02 391.44
1 + 42 = Drive on E	3.40	391.04 ✓
1 + 50		
E. cb.	3.19	391.25
Gut.	3.6	390.8
ℓ	3.4	391.0
Gut.	3.7	390.7
W cb.	3.25	391.19
1 + 85.49 = End of Penonze Pl.		



W.L.	3.2	3912
+ 17 - W edge Walk	3.20	39124
<sup>13</sup> + 6.0 - F " "	3.36	39108
W cb	3.50	39094
Gut.	4.0	3904
L	3.6	3908
E Gut.	3.8	3906
E cb	3.46	39098
+ 4 on W edge Walk	3.31	39113
+ 8.32 - E " "	3.29	39115
E	3.4	3910
	2.700	
E	3.5	3909
cb	3.9	3905
L	3.7	3907
cb.	4.1	3903
W	3.7	3907
+ 7.8 - Rim Canyon	4.7	3897
+ 8.8	8.3	386.1
	2.725	
- 4.0	7.6	3868
- 2.7 - Rim Canyon	4.4	3900

W.	4.1	3903
cb	3.9	3905
L	3.3	3911
cb.	3.7	3907
E	3.2	3912
	2.750	
- 2.8	7.5	3869
+ 1.8 - Rim Canyon	4.3	3901
E	3.7	3907
cb	3.9	3905
L	3.6	3908
cb.	3.7	3907
W.	4.2	3902
+ 1.2 - Rim Canyon	5.3	3891
+ 1.8	8.9	3855
	2.765	
- 1.0	8.7	3857
- 5 - Rim Canyon	6.0	3884
W.	5.0	3885
cb.	5.2	3892
L	4.8	3896
cb.	5.1	3893



E	5.7	388.7
+7 = Perm Canyon	6.8	387.6
+15	10.4	384.0

2478

E on Perm Canyon	9.2	385.2
cb	8.8	385.6
2	11.6	382.8
cb.	13.2	381.2
V	13.1	381.3

Levels for Proposed Drain.

0+00 on stub	3.93	390.51
+50	4.0	390.4
+70	4.4	390.0
+77.45 = POT. Stake	5.11	389.33
+89	11.4	383.0
1+00	23.2	371.2
+7.06	27.1	367.3
+11 = Wash	33.4	361.0

1P	4.18	396.43	2.19	392.25
Mt. View + 33' d				
chk. Hurling C.M.	4.07	392.36		
			392.38 - BM.	
			0.02 Error.	





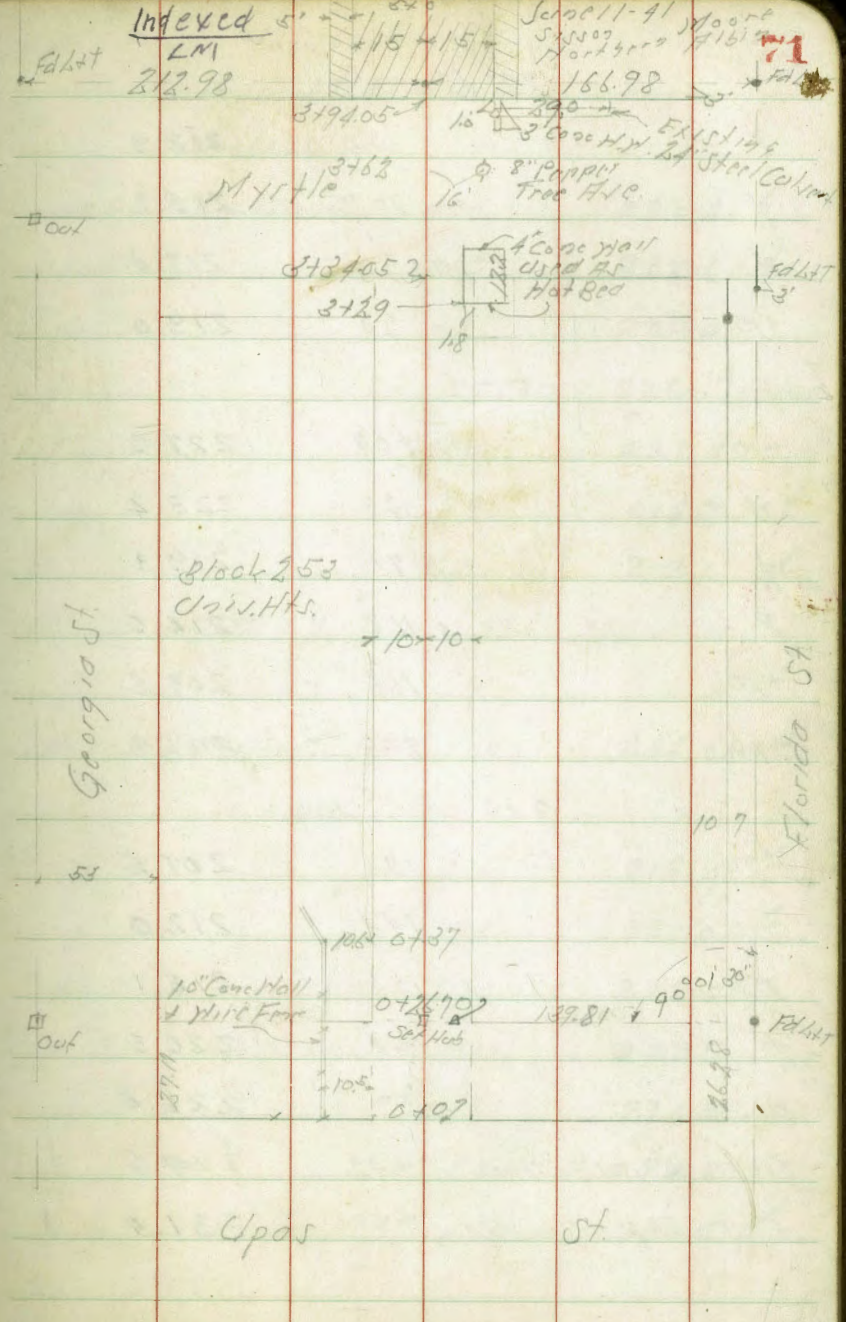


Cross Section Alley Block 253 Univ. Hts.  
Between Georgia + Florida From Upar to Myrtle

BM	5.43	203.42		197.99
TP	11.41	214.46	0.37	203.05
		0-10		
-40			14.0	200.5
-20			9.0	205.5
F			6.9	207.6
d			5.1	209.4
H			3.4	211.1
+10			2.0	212.5
TP	12.27	226.42	0.31	214.15
		0-26		
+10			8.3	218.1
H			9.1	217.3
d			10.7	215.7
F			13.6	212.8
+10			17.1	209.3
+20			22.7	203.7
		0-26		
-20			20.1	206.3
-10			17.0	209.4

Reduced & Plotted 6-13-41  
C.B.H.

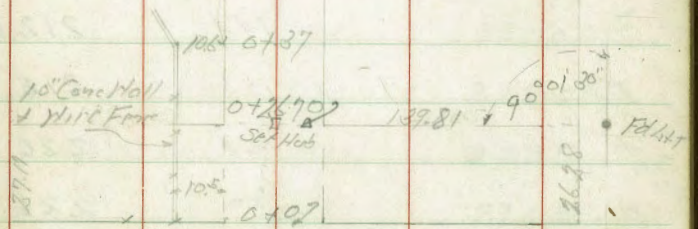
SM 8P  
Myrtle +  
Florida



Georgia St.

Block 253  
Univ. Hts.

Florida St.



Upar St.

St.



226.42

F		13.5	212.9
Z		10.7	215.7
H		9.0	217.4
+10		7.4	219.0
	0-16		
-10		+0.9	227.3
H		3.0	223.4
Z		7.1	219.3
F		11.8	214.6
+10		16.6	209.8
+20		20.0	206.4
	0+0 = N.L. Capat		
-20		18.8	207.6
-10		14.4	212.0
F		10.3	216.1
Z		5.9	220.5
H		0.0	226.4
+10.5 = 54 Wire Fall		+3.2	229.6
+10.5 = Top 10" Core Wall		+5.0	231.4

226.42

	0+26.76		
-10.5 = Top 10" Core Wall	+7.0	233.4	✓
-10.5	+6.8	232.6	✓
H	+8.6	230.0	
Z	0.28	226.14	on Hub
F	5.0	221.4	
+10	9.7	216.7	✓
+20	14.3	212.1	✓
TP	12.32	238.46	0.28
	0+2.7		
H-10.6 = 114 Top Core Wall	4.08	234.38	✓
	0+5.0		
-20	21.6	216.9	✓
-10	17.5	221.0	✓
F	13.5	225.0	
Z	9.0	229.5	
+8	4.2	234.3	
H	4.3	234.2	
+10	3.9	234.6	✓



238.46			
	0+54		
W	-10.3 = 8/4 Conc Apron	2.39	235.07 ✓
W	-14.6 on " "	2.98	235.48 ✓
	0+73		
W	-10.1 = 11/4 Conc Apron	2.73	235.73 ✓
W	-18.3 on Conc Apron	1.62	236.83 ✓
	0+75		
-10		3.1	235.4
W		3.8	234.7
+6		3.9	234.6
♯		6.1	232.4
F		11.3	227.2
+10		14.2	224.3 ✓
+20		17.8	220.7 ✓
	1+0		
-20		16.0	222.5 ✓
-10		13.4	225.1 ✓
F		10.5	228.0
♯		4.7	233.8
+4		3.3	235.2

238.46			
W		3.5	235.0
+10		3.4	235.1 ✓
	1+23		
-10		2.7	235.8
-6.8	W/4 Port Pole		
W		3.2	235.3
♯		2.8	235.7
F		9.1	229.4
+10		12.3	226.2 ✓
+20		14.2	224.3 ✓
	1+50		
-20		14.3	224.2 ✓
-10		11.2	227.3 ✓
F		7.9	230.6
♯		3.6	234.9
+3		2.8	235.7
W		3.0	235.5
+5		3.1	235.4 ✓
+10		1.0	237.5 ✓
TP	8.59	243.99	106 237.40



243.99

2+0

-10	7.0	237.0	✓
-7	7.4	236.6	✓
-5	8.8	235.2	✓
H	8.5	235.5	
+5	8.5	235.5	
g	9.8	234.2	
+8	12.5	230.5	
F	14.1	229.3	
+10	17.0	227.0	✓
+20	19.1	224.9	✓

2+24

E-02 = 5/4 Wire Fence ✓  
 W-6.7 = 1/4 Power Pole ✓

2+50

-20	17.8	226.2	✓
-10	15.5	228.5	✓
F	12.3	230.7	
+6	12.1	231.9	
g	9.2	234.7	

243.99

+1	8.5	235.5	
H	8.4	235.6	
+5	8.8	235.2	✓
+7	7.1	236.6	✓
+10	6.7	237.3	✓

2+75

-10	5.9	238.1	✓
-6	7.0	237.0	✓
-5	8.7	235.3	✓
H	8.4	235.6	
+7	8.2	235.8	
g	9.2	234.8	
+6	12.0	231.0	✓
F	13.7	230.3	
+10	15.2	228.7	✓
+20	17.6	226.4	✓

3+0

-20	16.5	227.5	✓
-10	14.2	229.7	✓
F	12.6	231.4	



243.99

+5	11.4	232.6	
2	8.6	235.4	
+11	8.1	235.9	
H	8.2	235.8	
+2	8.4	235.6	✓
+6	5.8	238.2	✓
+10	4.6	239.4	✓

3+34.05 = G.L. Myrtle

-10	3.2	240.8	
-5	4.0	240.0	
-2	8.1	235.9	
H	7.8	236.2	
2	7.8	236.2	
+1	7.9	236.1	
+8.2 = Top of Core Wall	9.92	234.07	✓
F	11.1	232.9	
+10	12.3	231.7	
+20	15.6	228.4	

3+38

H-4.2 = 1/2 Port. of Pole ✓

75

243.99

3+41			
F+1.9 = 1/2 by Wire Fence			✓
3+64.05			
-20	14.1	229.9	
-10	11.4	232.6	
F	8.8	235.2	
2	7.5	236.5	
H	7.8	236.2	
+2	7.8	236.2	
+4	5.8	238.7	
+10	4.0	240.0	

3+93

F-5 = 1/2 of 34" Steel Pipe	11.04	232.95	✓
Flow 4.71			
on Top Hand Wall	8.58	235.41	✓
3+94.05 = H.L. Myrtle			
-10	5.0	239.0	
-5 = Ob Top	7.31	236.68	
-5 = Gutter on Pav	7.97	236.02	
H	7.90	236.09	
2	7.91	236.08	



243.99

F on Pavmg	8.46	235.53
+5 Gutter "	8.89	235.10
+5 - Cb Top	8.26	235.73 J
+10 on Walk	8.2	235.8
+10 Ground	8.9	235.1
+15 SSES	9.6	234.4
+25 SSES	17.5	226.5

4+50

-5 - Cb Top	7.30	236.69
-5 - Gutter on Pavmg	7.99	236.00
F on Pavmg " "	7.57	236.42
L " " "	7.03	236.96
W " " "	6.98	237.01
+5 - Gutter " "	7.08	236.91
+5 - Cb Top	6.46	237.53

5+0

-5 - Cb Top	5.64	238.35
-5 - Gutter on Pavmg	6.22	237.77
W " " "	6.12	237.87
L " " "	6.13	237.86

243.99

F on Pavmg	6.66	237.33	
+5 - Gutter "	7.08	236.91	
+5 - Cb Top	6.42	237.57	
TP 0.88	232.20	12.17	231.82
TP 0.28	220.75	11.73	220.47
TP 0.47	209.00	12.22	208.53
BM	11.00	198.00	

SW 8P  
Myrtle  
Florida  
19799



Euclid Ave. E/Cajon Blvd to Monroe Ave  
 Cross Section Fill on West Side  
 West Curb = Base Line

6+0

5+50

5+0

4+50

4+0

3+52 = NY Side Walk Curb & Strip Paving old.

BY 10.27 358.01

347.74  
 10 RPT  
 NE F/Cajon  
 & Euclid  
 G Book 179  
 p 40

Indexed  
 LM

St. West

B

June 18-41  
 Survey 77  
 North  
 Mass  
 71517

352.2 354.9 355.03

5.8 3/1 2.98  
 13 90

352.6 355.5 355.47

5.4 2.5 2.54  
 14 90

353.5 355.7 355.80

4.5 2.3 2.21  
 13 90

351.2 355.0 355.15

6.8 3.0 2.86  
 13 85

350.0 353.6 353.81

8.0 4.4 4.20  
 13 85

349.0 352.5 352.40

9.0 5.5 3.61  
 176-Topch 70 Topch

358.01



9+0.7 =

8+45

8+03

7+50

7+0

TP 4.16 358.77 3.40 354.61

6+50

358.01

2+ = 77

B

78

351.1	352.6	352.59
7.7	6.2	6.18
12	9.5	

350.8	353.2	353.36
8.0	5.6	5.11
15	9.5	

351.1	353.3	353.61
7.7	5.5	5.16
12	8.5	

350.7	353.9	353.94
8.1	4.9	4.83
13	8.5	

351.6	354.3	354.21
7.2	4.5	4.56
13	9.0	

358.77

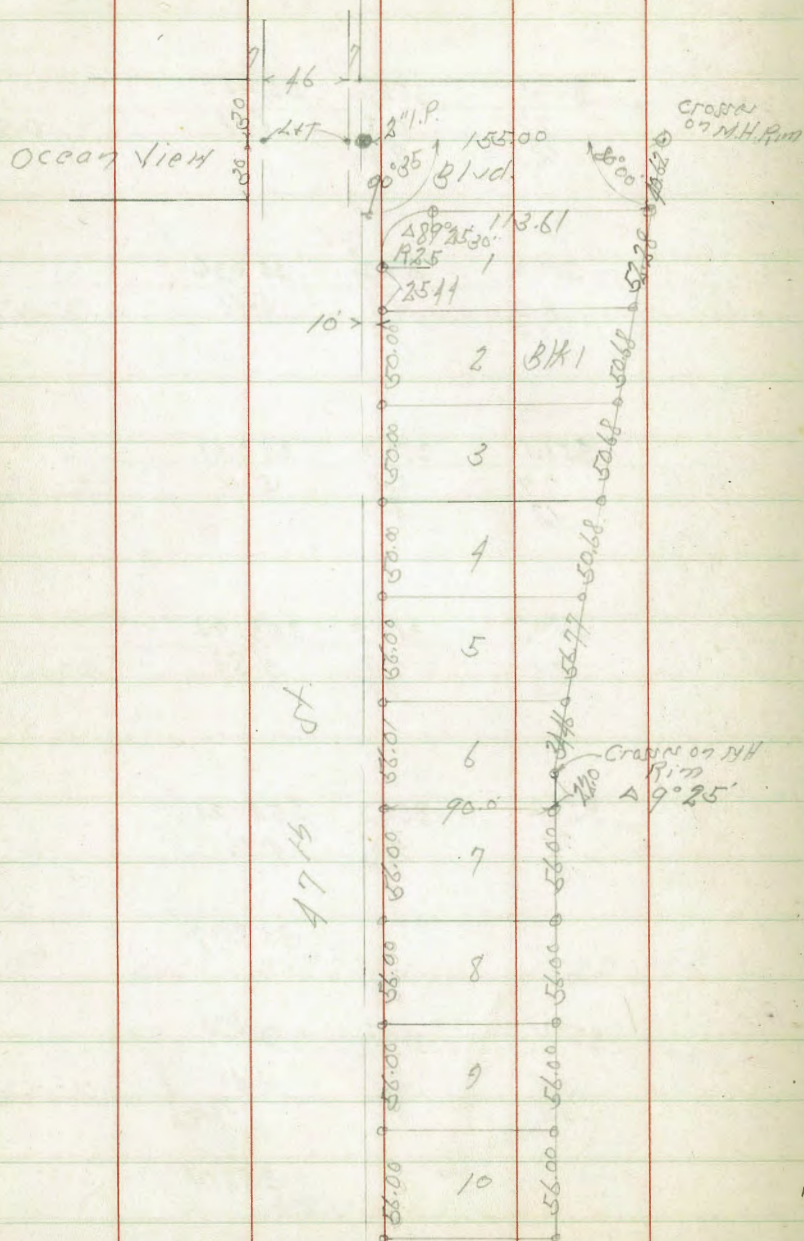
351.7	354.4	354.61
6.0	3.6	3.40
13	8.5	7.7003

13 = 7003

358.01

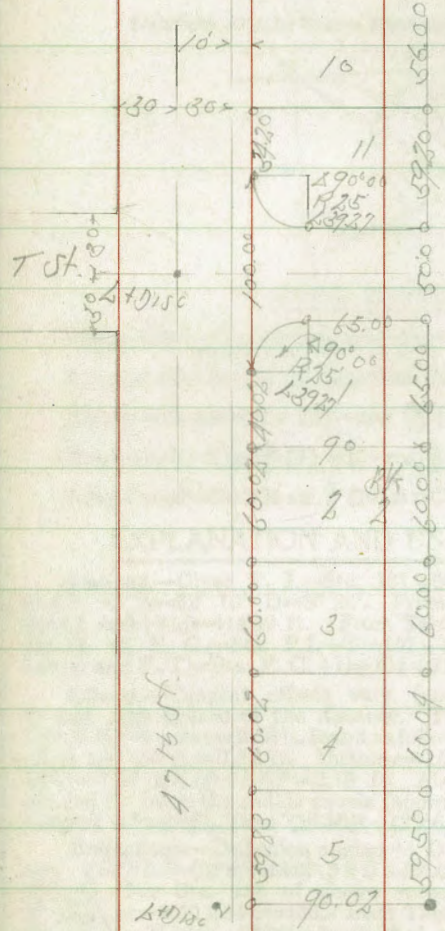


Survey Vista Bonita



47 15 ST

Jan. 12-41  
 Simon  
 Hartberg  
 Moore  
 Albin  
 Found  
 • 1" Pipe & Disc  
 • 2" Pipe & Disc



47 15 ST



Check-

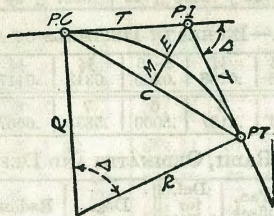
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- Curb Elev. N.E. Cor Sutherland  
And Pacific Hwy.

Hulker  
Johnson  
Pope  
Crowford  
3-25-49

# DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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## CURVE FORMULAS

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

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

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

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

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

## EXPLANATION AND USE OF TABLES

**Stations.**—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T.  $\Delta = 62^\circ 10'$   $D = 8^\circ 20'$ . From Table IV for  $1^\circ$  curve  $T = 3454.1$  and  $+8\frac{1}{3} = 414.49$  ft. From Table V correction = .36 or  $T = 414.85$  ft. P. C.—Sta. P. I.— $T = 157 + 45.50$ . Also from (4)  $L = 746.00$  and P. T.—Sta. P. C. +  $L = 164 + 91.50$ .

**Offsets.**—Tangent offsets vary (approximately) directly with  $D$  and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = 158—Sta. P. C. = 54.50, hence offset =  $7.27 (54.50 \div 100)^2 = 2.16$  ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus  $(54.50)^2 \div (2 \times 688.26) = 2.16$  ft.

**Deflections.**—Deflection angle =  $\frac{1}{2} D$  for 100 ft.,  $\frac{1}{4} D$  for 50 ft., etc. For  $c$  ft. = (in minutes)  $.3 \times C \times D^\circ$  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 91.37. For from Table IV for  $1^\circ$  curve  $E = 960.6$  for  $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 91.27$  and from Table V correction = .10 or  $E = 91.37$  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  $+42 = 5.5$  or  $D = 5^\circ 30'$ .

0.04 diff.  
Cb. Check P-39 4.64 P-39  
- 6' cb Top E.C. 496 4.68  
0-07 = E.C. Pacific Hwy. P-39  
578 9.14 336  
N.E. D  
Hocell  
Pacific



TABLE I.—MINUTES IN DECIMALS OF A DEGREE.

1'	.0167	11'	.1833	21'	.3500	31'	.5167	41'	.6833	51'	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

TABLE II.—INCHES IN DECIMALS OF A FOOT.

1-16	3-32	1/4	3-16	1/2	5-16	3/8	1/2	5/8	3/4	7/8
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729
1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

TABLE III.—RADI, ORDINATES AND DEFLECTIONS.

Deg.	Radius	Mid. Ord.	Tan. Offset	Def. for 1 Foot	Deg.	Radius	Mid. Ord.	Tan. Offset	Def. for 1 Foot
0° 10'	34377.5	.036	.145	0.05'	7°	819.02	1.528	6.105	2.10'
20	17188.8	.073	.291	0.10	20'	781.84	1.600	6.395	2.20
30	11459.2	.109	.436	0.15	30	764.49	1.637	6.540	2.25
40	8594.42	.145	.582	0.20	40	747.89	1.673	6.685	2.30
50	6875.55	.182	.727	0.25	50	731.81	1.710	6.830	2.35
1 10	5729.65	.218	.873	0.30	60	716.78	1.746	6.976	2.40
20	4911.15	.255	1.018	0.35	20	688.16	1.819	7.266	2.50
30	4297.28	.291	1.164	0.40	30	674.69	1.855	7.411	2.55
40	3819.83	.327	1.309	0.45	40	661.74	1.892	7.556	2.60
50	3437.87	.364	1.454	0.50	50	649.38	1.929	7.702	2.65
60	3125.36	.400	1.600	0.55	60	637.28	1.965	7.846	2.70
70	2864.93	.436	1.745	0.60	20	614.56	2.037	8.130	2.80
80	2644.58	.473	1.891	0.65	30	603.80	2.074	8.281	2.85
90	2455.70	.509	2.036	0.70	40	593.42	2.110	8.426	2.90
100	2292.01	.545	2.181	0.75	50	583.42	2.146	8.571	2.95
110	2148.79	.582	2.327	0.80	60	573.69	2.183	8.716	3.00
120	2022.41	.618	2.472	0.85	20	564.44	2.220	8.861	3.05
130	1910.08	.655	2.618	0.90	30	555.67	2.257	9.006	3.10
140	1809.57	.691	2.763	0.95	40	547.44	2.294	9.151	3.15
150	1719.12	.727	2.908	1.00	50	539.67	2.331	9.296	3.20
160	1637.28	.764	3.054	1.05	60	532.34	2.368	9.441	3.25
170	1562.88	.800	3.199	1.10	20	525.44	2.405	9.586	3.30
180	1494.95	.836	3.345	1.15	30	518.96	2.442	9.731	3.35
190	1432.69	.873	3.490	1.20	40	512.89	2.479	9.876	3.40
200	1375.40	.909	3.635	1.25	50	507.22	2.516	10.021	3.45
210	1322.53	.945	3.718	1.30	60	501.94	2.553	10.166	3.50
220	1273.57	.982	3.826	1.35	20	497.04	2.590	10.311	3.55
230	1228.11	1.018	4.071	1.40	30	492.51	2.627	10.456	3.60
240	1185.78	1.055	4.217	1.45	40	488.34	2.664	10.601	3.65
250	1146.28	1.091	4.362	1.50	50	484.51	2.701	10.746	3.70
260	1109.33	1.127	4.507	1.55	60	481.01	2.738	10.891	3.75
270	1074.68	1.164	4.653	1.60	20	477.84	2.775	11.036	3.80
280	1042.14	1.200	4.798	1.65	30	475.00	2.812	11.181	3.85
290	1011.51	1.237	4.943	1.70	40	472.48	2.849	11.326	3.90
300	982.64	1.273	5.088	1.75	50	470.28	2.886	11.471	3.95
310	955.37	1.309	5.234	1.80	60	468.39	2.923	11.616	4.00
320	929.57	1.346	5.379	1.85	20	466.80	2.960	11.761	4.05
330	905.13	1.382	5.524	1.90	30	465.49	2.997	11.906	4.10
340	881.95	1.418	5.669	1.95	40	464.44	3.034	12.051	4.15
350	859.92	1.455	5.814	2.00	50	463.63	3.071	12.196	4.20
360					60	463.05	3.108	12.341	4.25

Note. Chord Deflection=2 times tangent deflection.

TABLE IV.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
1°	50.00	.22	11°	551.70	26.50	21°	1061.9	.97.57
10'	58.34	.30	10'	560.11	27.31	10'	1070.6	99.16
20	66.67	.39	20	568.53	28.14	20	1079.2	100.75
30	75.01	.49	30	576.95	28.97	30	1087.8	102.35
40	83.34	.61	40	585.36	29.82	40	1096.4	103.90
50	91.68	.73	50	593.79	30.68	50	1105.1	105.60
2	100.01	.87	12	602.21	31.56	22	1113.7	107.24
10	108.35	1.02	10	610.64	32.45	10	1122.4	108.90
20	116.68	1.19	20	619.07	33.35	20	1131.0	110.57
30	125.02	1.36	30	627.50	34.26	30	1139.7	112.23
40	133.36	1.55	40	635.93	35.18	40	1148.4	113.95
50	141.70	1.75	50	644.37	36.12	50	1157.0	115.66
3	150.04	1.96	13	652.81	37.07	23	1165.7	117.38
10	158.38	2.19	10	661.25	38.03	10	1174.4	119.12
20	166.72	2.43	20	669.70	39.01	20	1183.1	120.87
30	175.06	2.67	30	678.15	39.99	30	1191.8	122.63
40	183.40	2.93	40	686.60	40.99	40	1200.5	124.41
50	191.74	3.21	50	695.06	42.00	50	1209.2	126.20
4	200.08	3.49	14	703.51	43.03	24	1217.9	128.00
10	208.43	3.79	10	711.97	44.07	10	1226.6	129.82
20	216.77	4.10	20	720.44	45.12	20	1235.3	131.65
30	225.12	4.42	30	728.90	46.18	30	1244.0	133.50
40	233.47	4.76	40	737.37	47.25	40	1252.8	135.35
50	241.81	5.10	50	745.85	48.34	50	1261.5	137.23
5	250.16	5.46	15	754.32	49.44	25	1270.2	139.11
10	258.51	5.83	10	762.80	50.55	10	1279.0	141.01
20	266.86	6.21	20	771.29	51.68	20	1287.7	142.93
30	275.21	6.61	30	779.77	52.89	30	1296.5	144.85
40	283.57	7.01	40	788.26	53.97	40	1305.3	146.79
50	291.92	7.43	50	796.75	55.13	50	1314.0	148.75
6	300.28	7.86	16	805.25	56.31	26	1322.8	150.71
10	308.64	8.31	10	813.75	57.50	10	1331.6	152.69
20	316.99	8.76	20	822.25	58.70	20	1340.4	154.69
30	325.35	9.23	30	830.76	59.91	30	1349.2	156.70
40	333.71	9.71	40	839.27	61.14	40	1358.0	158.72
50	342.08	10.20	50	847.78	62.38	50	1366.8	160.76
7	350.44	10.71	17	856.30	63.63	27	1375.6	162.81
10	358.81	11.22	10	864.82	64.90	10	1384.4	164.86
20	367.17	11.75	20	873.35	66.18	20	1393.2	166.95
30	375.54	12.29	30	881.88	67.47	30	1402.0	169.04
40	383.91	12.85	40	890.41	68.77	40	1410.9	171.15
50	392.28	13.41	50	898.95	70.09	50	1419.7	173.27
8	400.66	13.99	18	907.49	71.42	28	1428.6	175.41
10	409.03	14.58	10	916.03	72.76	10	1437.4	177.55
20	417.41	15.18	20	924.58	74.12	20	1446.3	179.72
30	425.79	15.80	30	933.13	75.49	30	1455.1	181.89
40	434.17	16.43	40	941.69	76.86	40	1464.0	184.08
50	442.55	17.07	50	950.25	78.26	50	1472.9	186.29
9	450.93	17.72	19	958.81	79.67	29	1481.8	188.51
10	459.32	18.38	10	967.38	81.09	10	1490.7	190.74
20	467.71	19.06	20	975.96	82.53	20	1499.6	192.99
30	476.10	19.75	30	984.53	83.97	30	1508.5	195.25
40	484.49	20.45	40	993.12	85.43	40	1517.4	197.53
50	492.88	21.16	50	1001.7	86.90	50	1526.3	199.82
10	501.28	21.89	20	1010.3	88.39	30	1535.3	202.12
10	509.68	22.62	10	1018.9	89.89	10	1544.2	204.44
20	518.08	23.36	20	1027.5	91.40	20	1553.1	206.77
30	526.48	24.14	30	1036.1	92.92	30	1562.1	209.12
40	534.89	24.91	40	1044.7	94.46	40	1571.0	211.48
50	543.29	25.70	50	1053.3	96.01	50	1580.0	213.86



TABLE IV.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
31°	1589.0	216.3	41°	2142.2	387.4	51°	2732.9	618.4
10'	1598.0	218.7	10'	2151.7	390.7	10'	2743.1	622.8
20	1606.9	221.1	20	2161.2	394.1	20	2753.4	627.2
30	1615.9	223.5	30	2170.8	397.4	30	2763.7	631.7
40	1624.9	225.0	40	2180.3	400.8	40	2773.9	636.2
50	1633.9	228.4	50	2189.9	404.2	50	2784.2	640.7
32	1643.0	230.9	42	2199.4	407.6	52	2794.5	645.2
10	1652.0	233.4	10	2209.0	411.1	10	2804.9	649.7
20	1661.0	235.9	20	2218.6	414.5	20	2815.2	654.3
30	1670.0	238.4	30	2228.1	418.0	30	2825.6	658.8
40	1679.1	241.0	40	2237.7	421.4	40	2835.9	663.4
50	1688.1	243.5	50	2247.3	425.0	50	2846.3	668.0
33	1697.2	246.1	43	2257.0	428.5	53	2856.7	672.7
10	1706.3	248.7	10	2266.6	432.0	10	2867.1	677.3
20	1715.3	251.3	20	2276.2	435.6	20	2877.5	682.0
30	1724.4	253.9	30	2285.9	439.2	30	2888.0	686.7
40	1733.5	256.5	40	2295.6	442.8	40	2898.4	691.4
50	1742.6	259.1	50	2305.2	446.4	50	2908.9	696.1
34	1751.7	261.8	44	2314.9	450.0	54	2919.4	700.9
10	1760.8	264.5	10	2324.6	453.6	10	2929.9	705.7
20	1770.0	267.2	20	2334.3	457.3	20	2940.4	710.5
30	1779.1	269.9	30	2344.1	461.0	30	2951.0	715.3
40	1788.2	272.6	40	2353.8	464.6	40	2961.5	720.1
50	1797.4	275.3	50	2363.5	468.4	50	2972.1	725.0
35	1806.6	278.1	45	2373.3	472.1	55	2982.7	729.9
10	1815.7	280.8	10	2383.1	475.8	10	2993.3	734.8
20	1824.9	283.6	20	2392.8	479.6	20	3003.9	739.7
30	1834.1	286.4	30	2402.6	483.3	30	3014.5	744.6
40	1843.3	289.2	40	2412.4	487.2	40	3025.2	749.6
50	1852.5	292.0	50	2422.3	491.0	50	3035.8	754.6
36	1861.7	294.9	46	2432.1	494.8	56	3046.5	759.6
10	1870.9	297.7	10	2441.9	498.7	10	3057.2	764.6
20	1880.1	300.6	20	2451.8	502.5	20	3067.9	769.7
30	1889.4	303.5	30	2461.7	506.4	30	3078.7	774.7
40	1898.6	306.4	40	2471.5	510.3	40	3089.4	779.8
50	1907.9	309.3	50	2481.4	514.3	50	3100.2	784.9
37	1917.1	312.2	47	2491.3	518.2	57	3110.9	790.1
10	1926.4	315.2	10	2501.2	522.2	10	3121.7	795.2
20	1935.7	318.1	20	2511.2	526.1	20	3132.6	800.4
30	1945.0	321.1	30	2521.1	530.1	30	3143.4	805.6
40	1954.3	324.1	40	2531.1	534.2	40	3154.2	810.9
50	1963.6	327.1	50	2541.0	538.2	50	3165.1	816.1
38	1972.9	330.2	48	2551.0	542.2	58	3176.0	821.4
10	1982.2	333.2	10	2561.0	546.3	10	3186.9	826.7
20	1991.5	336.3	20	2571.0	550.4	20	3197.8	832.0
30	2000.9	339.3	30	2581.0	554.5	30	3208.8	837.3
40	2010.2	342.4	40	2591.0	558.6	40	3219.7	842.7
50	2019.6	345.5	50	2601.1	562.8	50	3230.7	848.1
39	2029.0	348.6	49	2611.2	566.9	59	3241.7	853.5
10	2038.4	351.8	10	2621.2	571.1	10	3252.7	858.9
20	2047.8	354.9	20	2631.3	575.3	20	3263.7	864.3
30	2057.2	358.1	30	2641.4	579.5	30	3274.8	869.8
40	2066.6	361.3	40	2651.5	583.8	40	3285.8	875.3
50	2076.0	364.5	50	2661.6	588.0	50	3296.9	880.8
40	2085.4	367.7	50	2671.8	592.3	60	3308.0	886.4
10	2094.9	371.0	10	2681.9	596.6	10	3319.1	892.0
20	2104.3	374.2	20	2692.1	600.9	20	3330.3	897.5
30	2113.8	377.5	30	2702.3	605.3	30	3341.4	903.2
40	2123.3	380.8	40	2712.5	609.6	40	3352.6	908.8
50	2132.7	384.1	50	2722.7	614.0	50	3363.8	914.5

1577 2.9  
33  
37

TABLE IV.—TANGENTS AND EXTERNALS TO A 1° CURVE.

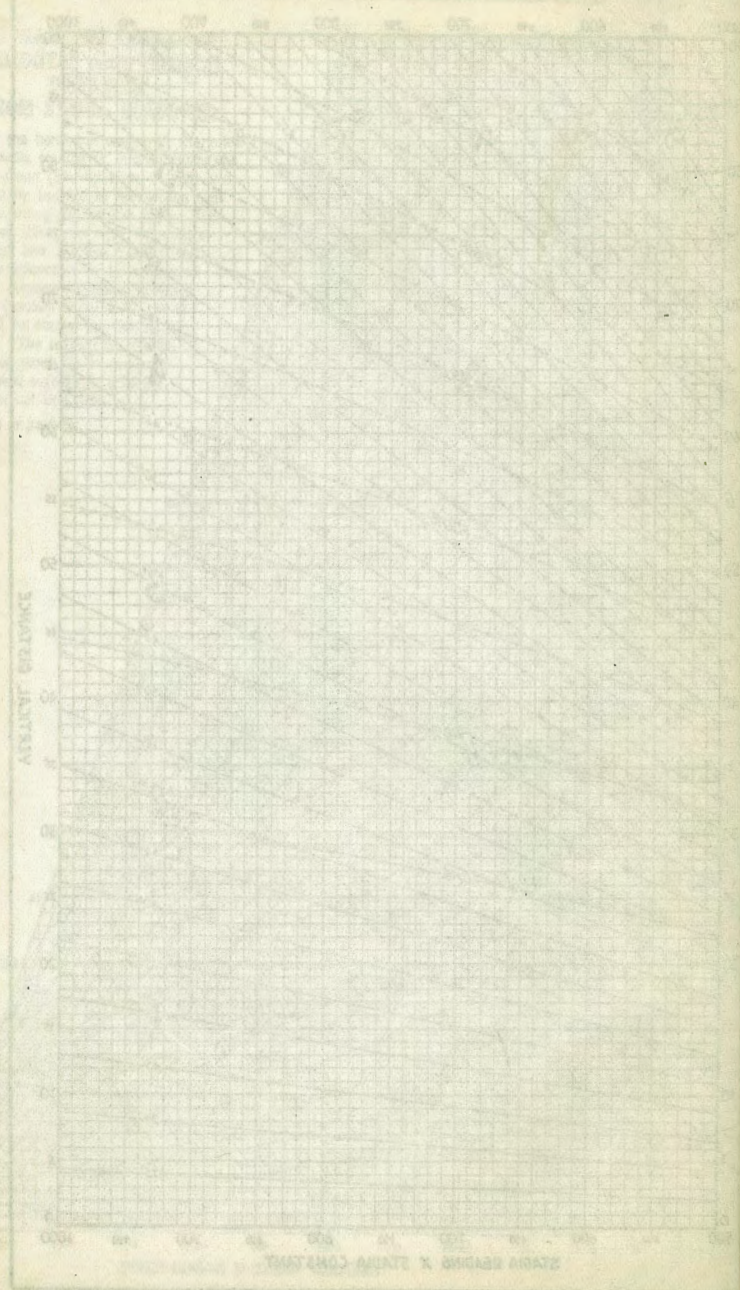
Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
61°	3375.0	920.2	71°	4086.9	1308.2	81°	4893.6	1805.8
10'	3386.3	925.9	10'	4099.5	1315.6	10'	4908.0	1814.7
20	3397.5	931.6	20	4112.1	1322.9	20	4922.5	1824.1
30	3408.8	937.3	30	4124.8	1330.3	30	4937.0	1833.6
40	3420.1	943.1	40	4137.4	1337.7	40	4951.5	1843.1
50	3431.4	948.9	50	4150.1	1345.1	50	4966.1	1852.6
62	3442.7	954.8	72	4162.8	1352.6	82	4980.7	1862.2
10	3454.1	960.6	10	4175.6	1360.1	10	4995.4	1871.8
20	3465.4	966.5	20	4188.5	1367.6	20	5010.0	1881.5
30	3476.8	972.4	30	4201.2	1375.2	30	5024.8	1891.2
40	3488.3	978.3	40	4214.0	1382.8	40	5039.5	1900.9
50	3499.7	984.3	50	4226.8	1390.4	50	5054.3	1910.7
63	3511.1	990.2	73	4239.7	1398.0	83	5069.2	1920.5
10	3522.6	996.2	10	4252.6	1405.7	10	5084.0	1930.4
20	3534.1	1002.3	20	4265.6	1413.5	20	5099.0	1940.3
30	3545.6	1008.3	30	4278.5	1421.2	30	5113.9	1950.3
40	3557.2	1014.4	40	4291.5	1429.0	40	5128.9	1960.2
50	3568.7	1020.5	50	4304.6	1436.8	50	5143.9	1970.3
64	3580.3	1026.6	74	4317.6	1444.6	84	5159.0	1980.4
10	3591.9	1032.8	10	4330.7	1452.5	10	5174.1	1990.5
20	3603.5	1039.0	20	4343.8	1460.4	20	5189.3	2000.6
30	3615.1	1045.2	30	4356.9	1468.4	30	5204.4	2010.8
40	3626.8	1051.4	40	4370.1	1476.4	40	5219.7	2021.1
50	3638.5	1057.7	50	4383.3	1484.4	50	5234.9	2031.4
65	3650.2	1063.9	75	4396.5	1492.4	85	5250.3	2041.7
10	3661.9	1070.2	10	4409.8	1500.5	10	5265.6	2052.1
20	3673.7	1076.6	20	4423.1	1508.6	20	5281.0	2062.5
30	3685.4	1082.9	30	4436.4	1516.7	30	5296.4	2073.0
40	3697.2	1089.3	40	4449.7	1524.9	40	5311.9	2083.5
50	3709.0	1095.7	50	4463.1	1533.1	50	5327.4	2094.1
66	3720.9	1102.2	76	4476.5	1541.4	86	5343.0	2104.7
10	3732.7	1108.6	10	4489.9	1549.7	10	5358.6	2115.3
20	3744.6	1115.1	20	4503.4	1558.0	20	5374.2	2126.0
30	3756.5	1121.7	30	4516.9	1566.3	30	5389.9	2136.7
40	3768.5	1128.2	40	4530.4	1574.7	40	5405.6	2147.5
50	3780.4	1134.8	50	4544.0	1583.1	50	5421.4	2158.4
67	3792.4	1141.4	77	4557.6	1591.6	87	5437.2	2169.2
10	3804.4	1148.0	10	4571.2	1600.1	10	5453.1	2180.2
20	3816.4	1154.7	20	4584.8	1608.6	20	5469.0	2191.1
30	3828.4	1161.3	30	4598.5	1617.1	30	5484.9	2202.2
40	3840.5	1168.1	40	4612.2	1625.7	40	5500.9	2213.2
50	3852.6	1174.8	50	4626.0	1634.4	50	5517.0	2224.3
68	3864.7	1181.6	78	4639.8	1643.0	88	5533.1	2235.5
10	3876.8	1188.4	10	4653.6	1651.7	10	5549.2	2246.7
20	3889.0	1195.2	20	4667.4	1660.5	20	5565.4	2258.0
30	3901.2	1202.0	30	4681.3	1669.2	30	5581.6	2269.3
40	3913.4	1208.9	40	4695.2	1678.1	40	5597.8	2280.6
50	3925.6	1215.8	50	4709.2	1686.9	50	5614.2	2292.0
69	3937.9	1222.7	79	4723.2	1695.8	89	5630.5	2303.5
10	3950.2	1229.7	10	4737.2	1704.7	10	5646.9	2315.0
20	3962.5	1236.7	20	4751.2	1713.7	20	5663.4	2326.6
30	3974.8	1243.7	30	4765.3	1722.7	30	5679.9	2338.2
40	3987.2	1250.8	40	4779.4	1731.7	40	5696.4	2349.8
50	3999.5	1257.9	50	4793.6	1740.8	50	5713.0	2361.5
70	4011.9	1265.0	80	4807.7	1749.9	90	5729.7	2373.3
10	4024.4	1272.1	10	4822.0	1759.0	10	5746.3	2385.1
20	4036.8	1279.3	20	4836.2	1768.2	20	5763.1	2397.0
30	4049.3	1286.5	30	4850.5	1777.4	30	5779.9	2408.9
40	4061.8	1293.6	40	4864.8	1786.7	40	5796.7	2420.9
50	4074.4	1300.9	50	4879.2	1796.0	50	5813.6	2432.9



84.60  
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85  
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103

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DISTANCES FROM CENTER OF ROADWAY FOR  
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½  
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 inside of front cover.

MADE IN U.S.A.

458  
118  
1865

392  
55  
47