G-237

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)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

G.237

INDEXED

to page # 50

except page # 43

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

Made in U. S. A.

Index

Low St. Water Grades from Gresham to Ingraham P 1-2

Balboa Ave P-33, 49

X-Sect. Balboa-Morrell to Pacific Hiway P.D. 51-62

Water Grades
Law St. from Gresham to Ingraham

Rainey
King
Niemow

						Cuts	
B.M. Top Curb Elev. F.B. 1644 P40 101.07							
	5.73	106.80					
0+00			8.0	98.8	99.12	3.2	Propline E Side Gresham
0+50			6.1	100.7	99.6	4.6	
1+00			5.8	101.0	99.8	4.7	
1+50			5.9	100.9	100.1	4.3	
2+00			5.3	101.5	100.4	4.6	
2+50			4.9	101.9	100.8	4.6	
3+00			4.5	102.3	101.1	4.7	
3+50			4.3	102.5	101.5	4.5	
4+00			4.1	102.7	101.8	4.4	
4+50			3.5	103.3	102.2	4.6	
5+00			3.2	103.6	102.6	4.5	
5+50			3.2	103.6	102.7	4.4	
T.P. #1			3.24	103.56			
	5.58	109.14					
6+00			5.6	103.5	103.0	4.0	
6+50			5.6	103.5	103.2	3.8	
7+00			6.2	102.9	103.4	3.0	
7+50			5.7	103.4	103.6	3.3	
8+00			6.0	103.1	103.8	2.8	
8+50			5.7	103.4	104.1	2.8	
9+00			5.2	103.9	104.6	2.8	
9+50			4.1	105.0	105.0	3.5	
10+00			3.3	105.8	106.0	3.3	

Water Grades
Law St. from Gresham to Ingraham

		109.14			
10+50			2.2	106.9	107.5
11+00			1.5	107.6	108.5
T.P.#2			1.45	107.69	
	12.88	120.57			
T.P.#3			0.89	119.68	
	11.46	131.14			
T.P.#4			0.19	130.95	
	10.35	141.30			
T.P.#5			4.53	136.77	
	13.02	149.79	7.26		Corr.
B.M. Lt. 10' Std. Cor Lamont & Law				142.53	142.49

cuts

2.9

3.5 Int. w/existing Line on Ingraham

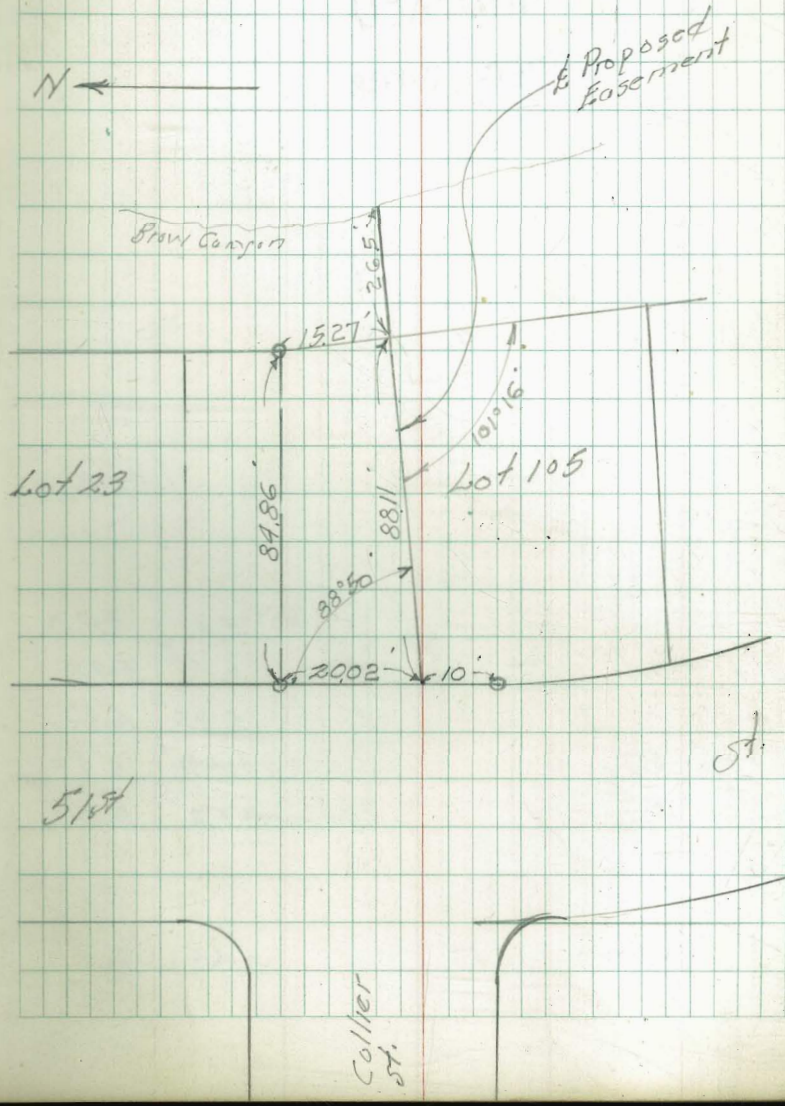
Walker Hendricks
Backer
11-13-47

Location Proposed Easement
Subsurface
for Drainage Ditch
Lot 105 Talmadge Park Manor
UNIT #2
Filed Map # 2284
⊙ = Fd. 2" Pipes Ld + Tacks

W.O. 60217

Indexed
3/31

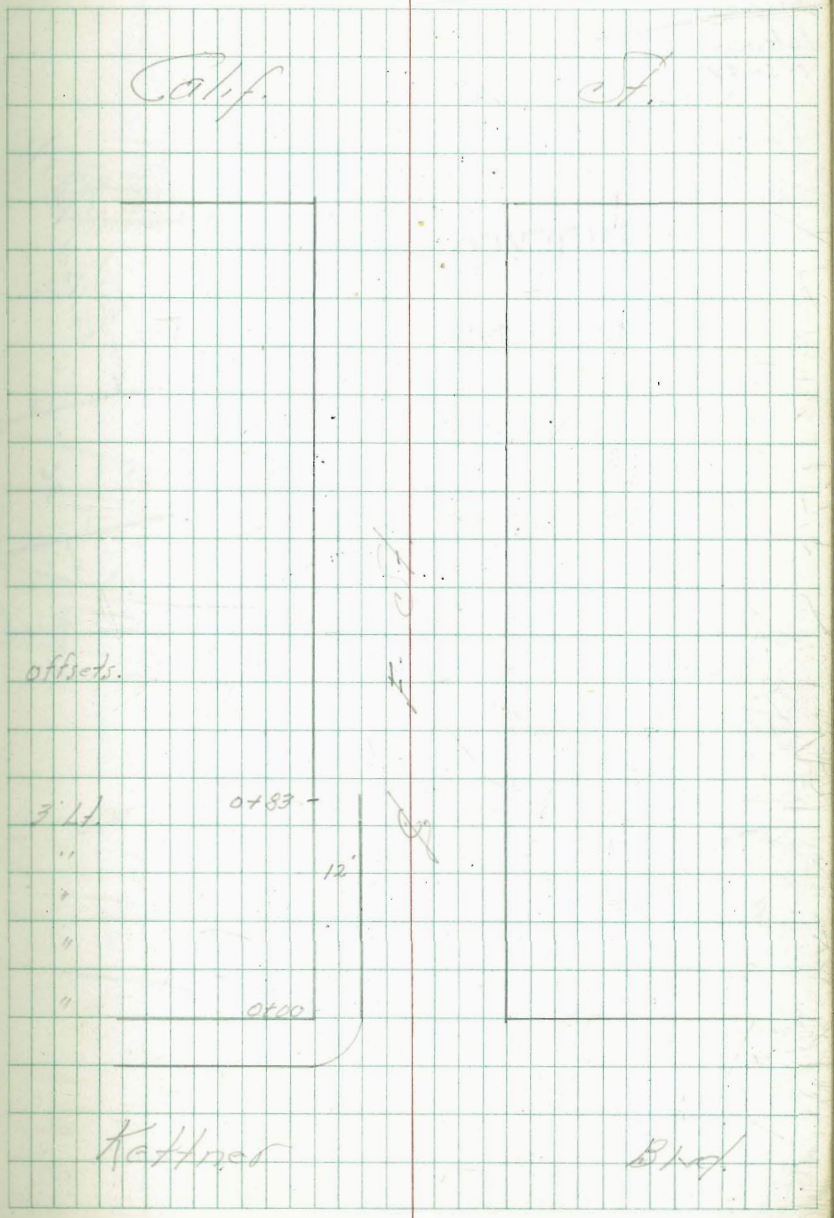
INDEXED



Walker
Hendricks
Becker
Johnson
12-2-47

Grades - Sidewalk & Curb
on F Street
Between Kettner Blvd. California

				El. Curb
0+83		5.03	5.42	5.42
0+80=Bk		3.09	5.45	5.45
0+50		5.11	5.34	5.34
0+20=Bk		5.22	5.23	5.23
0+00=W.L. F-St.		4.93	5.52	5.50
	500	10.45	5.45	

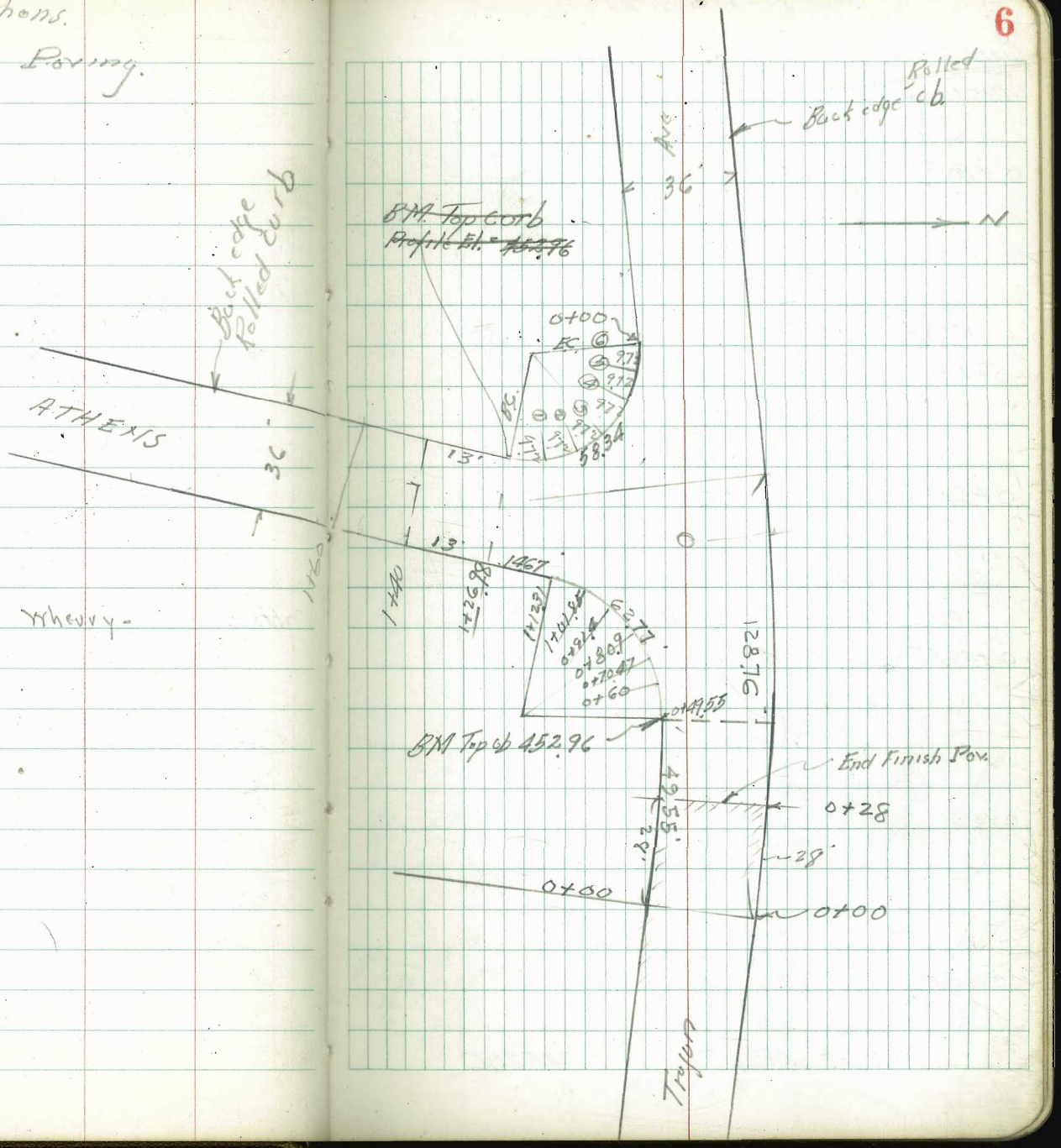


Walker
Hendricks
Becker
Johnson
1-6-48

Trojan & Athens.
Levels cb & Paving.

(Walker Phone R-2095)

Notes. Reduced 1-7-48 Wheavy-



Trojan & Athens
Curb Levels
Sketch P-6

Curb Line
Stations

0+80.93 SE Ret

0+70.97 SE Ret

0+70 on N cb.

0+60.01 SE Ret

6 Equal Parts

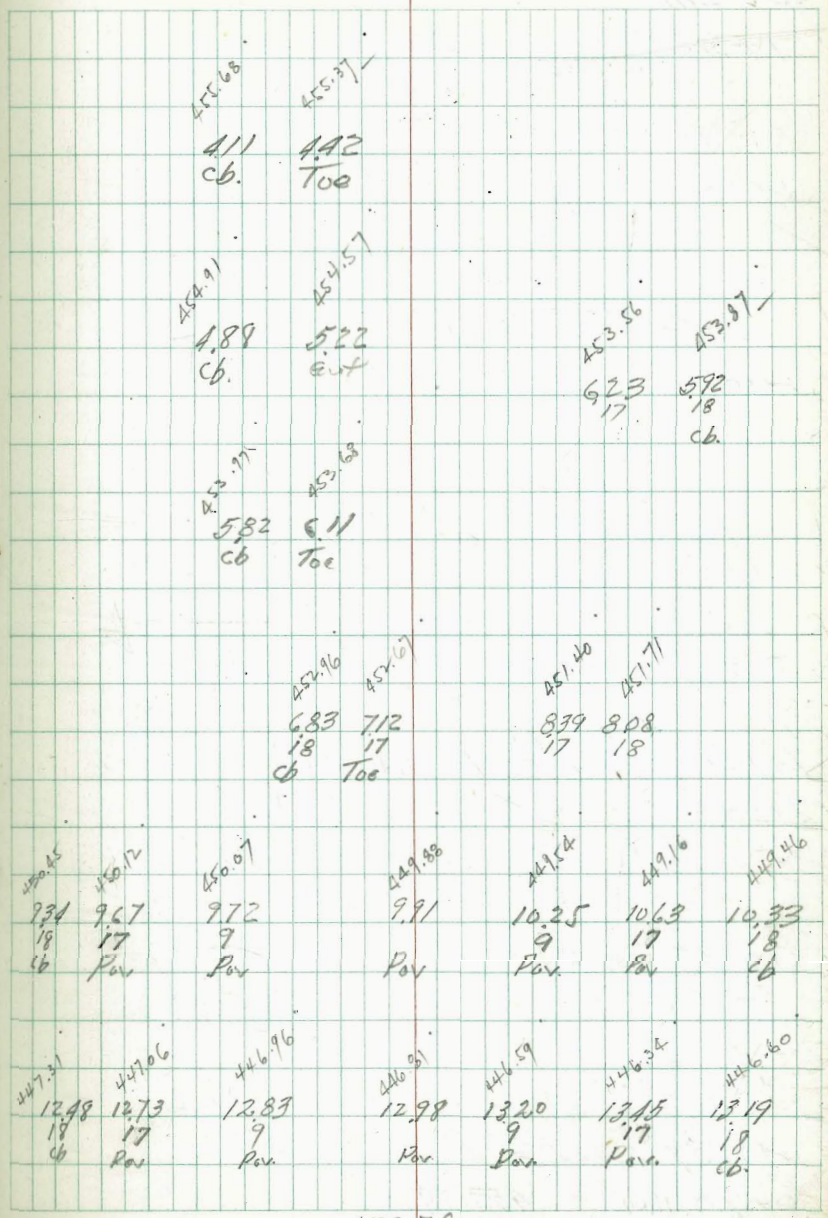
0+49.55 = B.C.C SE Return

0+28

0+00

6.83 459.79 452.96

459.79



Trojan & Athens

Sta. on Curb Line					Lt. Cb	Lt. Toe	℄	Rt. Gut	Rt. Cb
1+98.8 · N cb Sta.							13.29 Rim M.H. (458.09)		
1+70								7.80 Gut (463.58)	7.48 (463.90)
1+50								9.47 Gut (461.91)	9.17 (462.21)
1+30								11.32 Gut (460.06)	11.05 (460.33)
T.P.	11.73	471.38	0.14	459.65			471.38		
Prop. 1+12.31 - E.C. SE. Cb. Return					1.08 Cb. (458.71)	1.37 Toe (458.42)			
1+10								2.01 Gut (457.79)	1.68 Cb. (458.11)
1+01.85 SE Ret.					2.16 Cb. (457.63)	2.41 Toe (457.35)			
0+91.39 on SE. Return					3.19 Cb (456.60)	3.44 Toe (456.35)		4.18 Gut (455.61)	3.85 Cb. (455.94)
0+90. N.cb		459.79					459.79		

Trojan & Athens

Rt.

Station		
2+30	466.00 4.50 Gut	467.22 4.16 Cb.
2+10	466.00 5.30 Gut	466.41 4.97 Cb.
1+90	464.93 6.45 Gut	465.25 6.13 Cb

471.38

Trojan & Athens

② SW Ret

① SW Ret

~~P.C.~~ 1 SW Ret.

1+60 East Side Athens

1+40 "Sta. E cb Athens

1+26.98 cb on East Side Athens

471.38

462.48 462.15
8.90 9.23
cb Gut.

462.26 461.99
9.12 9.39
~~Top~~ cb Gut

462.32 461.95
9.86 9.43
cb Gut

463.5 462.94 463.36 463.60 463.64 463.54 463.84
8.18 8.44 8.02 7.78 7.74 7.84 7.54
cb East 9 17 18 cb West

461.45 461.18 461.78 462.46 462.39 462.36 462.66
9.93 10.20 9.60 9.12 8.99 9.02 8.72
18 17 9 9 17 18
cb East Gut cb West

460.18 459.91
11.20 11.47
cb Gut.

471.38

South cb Trojan Stations — Trojan & Athens

0+60

0+40

0+20

⑥ E.C. = 0+00 going West

⑤

④ SW Ref

③ S.W. Ref Athens & Trojan

Lt.

467.99	467.68
339 cb	370 Cut
467.vv	466.90
416	498 Cut
466.14	465.79
5.24	5.59
464.91	464.59
6.47 cb.	6.79 Cut.
464.10	463.80
7.28 cb.	7.58 Cut.
463.35	463.05
8.03 Top cb.	8.33 Cut.
462.85	462.55
8.53 cb	8.83 Cut.

47138

Trojan & Athens

					0.01
					452.96
Chk Starting B.M.				9.39	452.95
T.P.	2.96	462.24		12.10	459.28
		471.38			

Moore
Begg
Greer
Roberts
3-24-48.

Paving on Kline St
Drapen to Ivanhoe

7.77 93.81 86.04

93 81
85 77
8 04

87 02
6 79

89 23
4 58

90 48
3 83

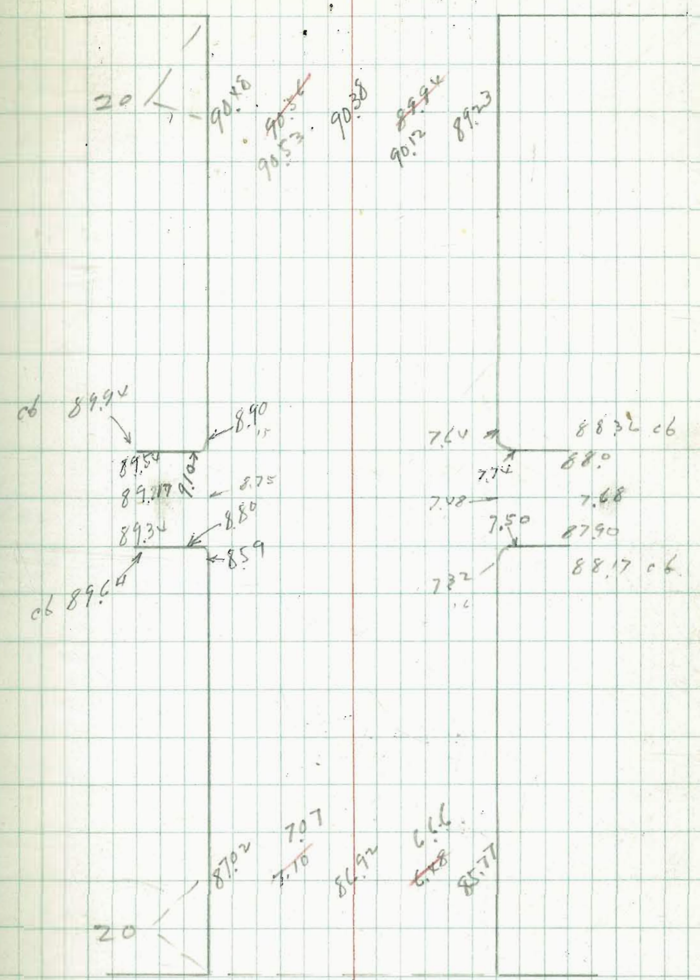
90 56
3 75

Note!
Roadway in 3 equal width parts

0.67 rate for grade to Apx.
0.45 rate for Corr.
0.23 Corr. for .52 Crown

Eads Ave

W.O. 31247



BM S.E. B.P.
86.04

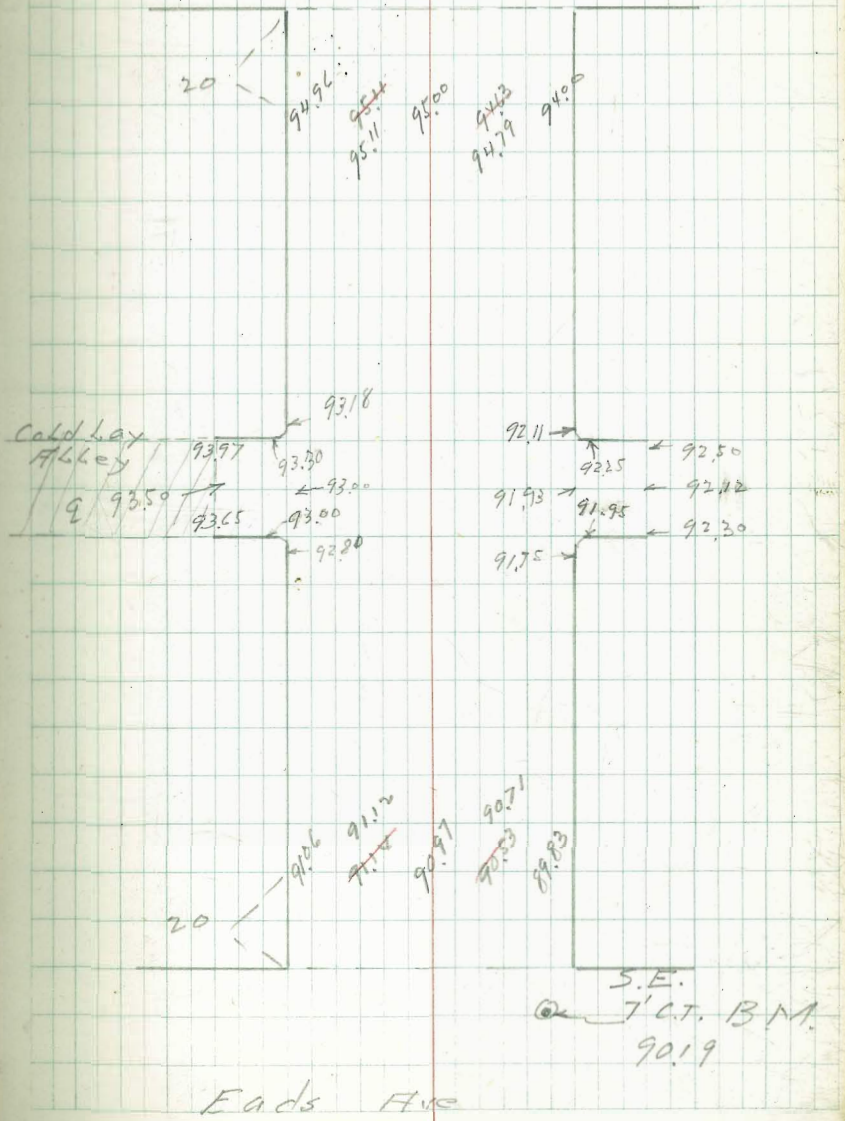
Draper Ave

Kline St.

90.19
7.34
97.53

90.19
7.00
97.19

Fay Ave



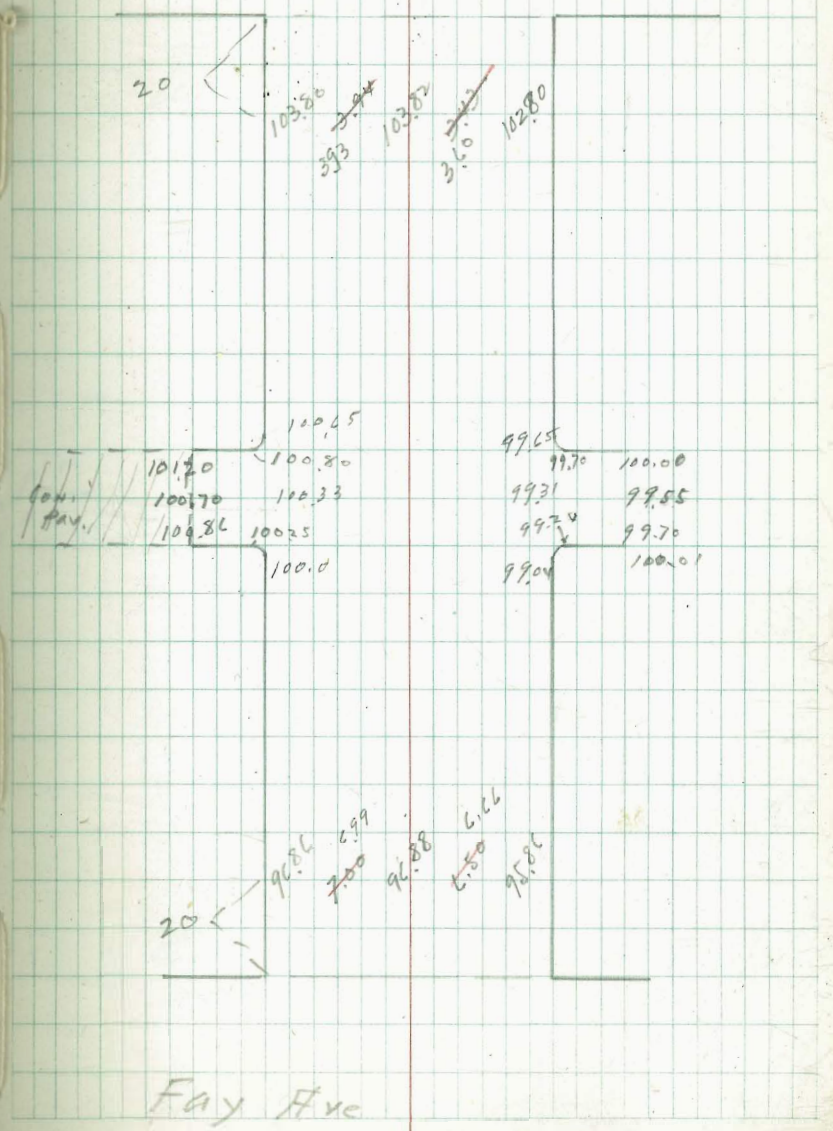
Eads Ave

K Line Paving

B.M.	3.5C	107.59		104.03
	140' Curb grades on Lt.			
0+00 w/ Girard St.				105.07 / 2.52
0+50				103.76 / 3.83
1+00				102.46 / 5.13
1+38.0 ±	= 2' R (alley) F.L. alley			101.47 / 6.12

Girard

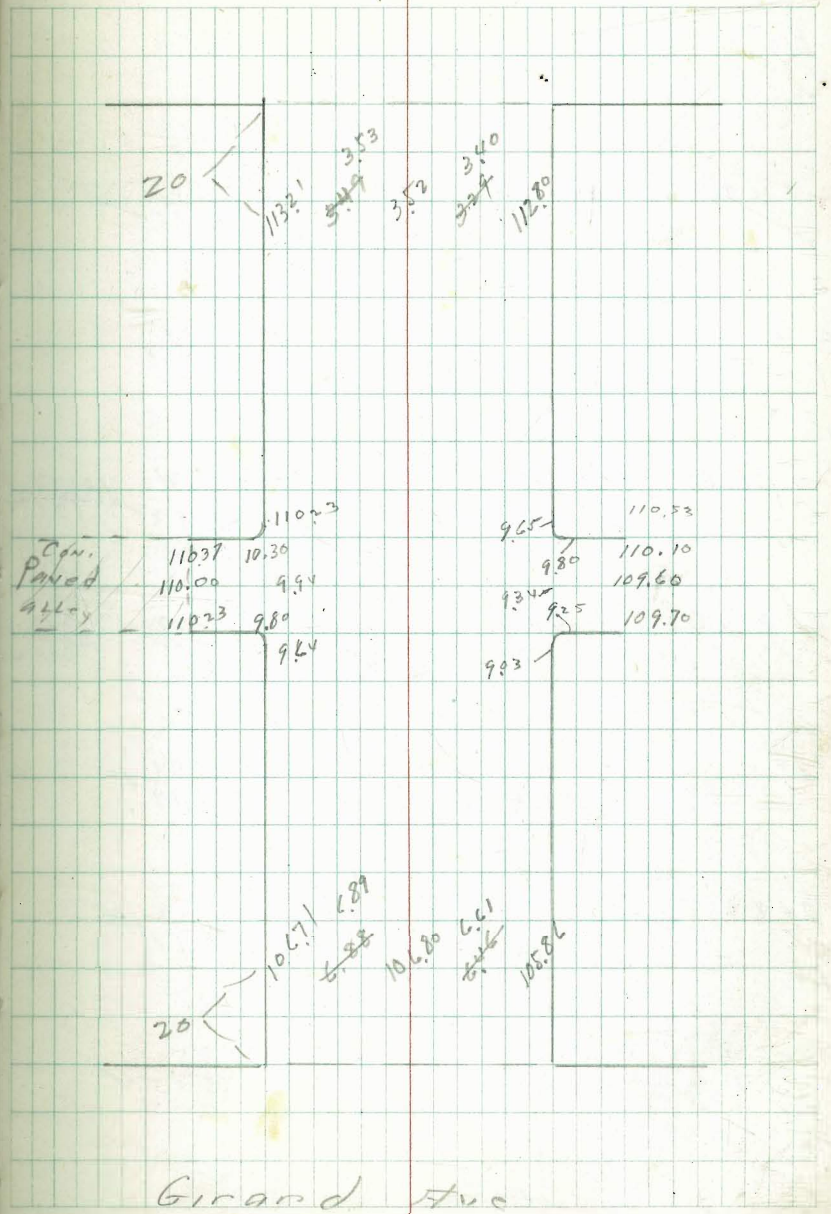
B.M. Sw BP
104.03



Fay Ave

0.40 115.92 115.52

Henschek Ave.

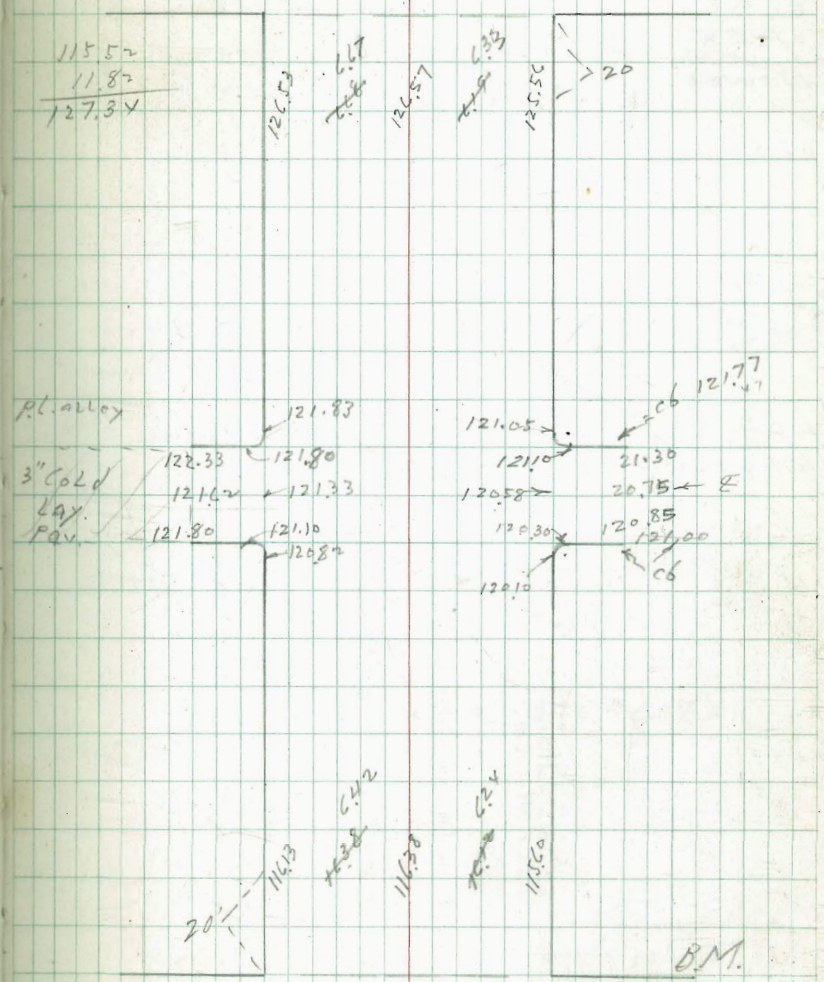


Girard Ave

Kline St Pav.

B.M. S.E. Kline Herschel	1301	128.53		115.52
			Curb grade	
2+49.7	Join Curbend		125.08 / 3.45 ✓	
2+00			123.17 / 5.36 ✓	
1+61.85	2'R E.L. alley		121.71 / 6.82 ✓	121.77 / 7.76 ✓
1+37.85	2'R W.L. alley		120.78 / 7.75	121.00 / 7.53 ✓
		NOT Set		
1+00			119.34 / 9.19 ✓	
0+50.			117.42 / 11.11 ✓	
0+0 Nly Herschel			115.50 / 13.03 ✓	

Ivanhoe Ave



Herschel Ave

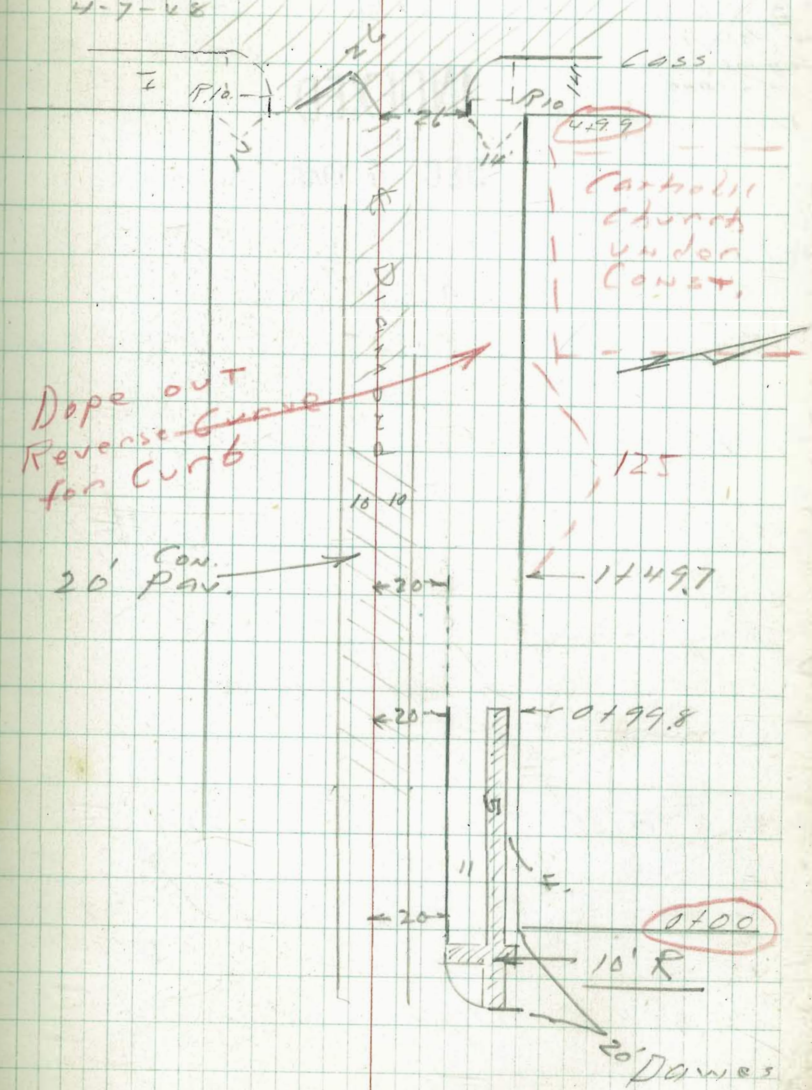
Curb grades

Lots ~~24 to 27~~ 25-26 Incl. Blk 151 P.B.

W.O. 21018

BM Top Ex. cb at Dawes	2.24	54.24		52.00
0+00	W.L. Dawes			52.00
~~1+00~~ 0+99.8	Beg. curb trk		Ex. curb →	50.71 / 3.53 / 3.63 / 0.10 Low
~~1+50~~ 1+49.7	end " "			50.07 / 4.17
5+00 4+99	E.L. Cass		Ex. curb end →	45.57 / 8.67

Moore
Begg
Greer
Robt.
4-7-48



Curb grades S. side Palm
Bet. Calif. St. + Pacific

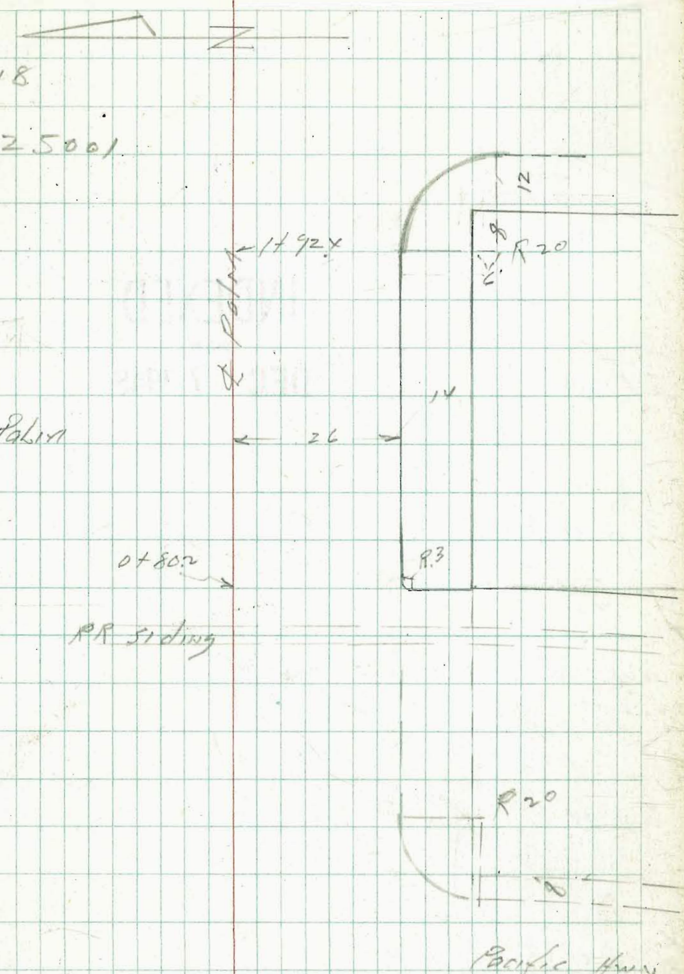
(1941-10)

BMBP S.E. Calif. & Palm Signal Stand	0.59 (28.99)	28.40
		curb grade
0+80.2 S.L. cb grade (nw cor. Bldg)	16.30 / 12.69	✓
0+83.2 = 3' cb. R.	16.30 / 12.69	✓ Grade on S.L. Palm
0+98.75	17.03 / 11.96	✓
1+09.37	17.77 / 11.22	✓
1+20 EVC.	18.70 / 10.29	✓
1+56	22.10 / 6.89	✓
1+92.4 cb. P.C. R 20	25.50 / 3.49	✓
Part #1	26.10 / 2.89	✓
" #2	26.40 / 2.59	✓

Moore
Begg
Greer
Roberts

4-27-48

W.O. 25001



Part " #3 — 26.55 / 2.44 / C 0.50 / 26.60 / 2.39 ✓ — Cut 0.50

" #4

Pav. grades West side (Property Line)
Calif. St. Palm Sly 200' ±

3+50

3+17.3

2+76.92 A.

2+39.9

2+31.5

2+03

1+73 South side drive

BM BP 0.66 +9.06 8.40 SE Calif. & Palm
1841-10

2508
3.98

2476
4.30

2445
4.61

2417
4.64

2401
5.02

2371
5.35

2347
5.59

5+13.82 5L Palm

4+50

4+00

2906

26.72
2.34

26.08
2.98

25.58
3.48

Xsec Balboa Ave.

Moore
Begg
Greer
Roberts
5-21-48

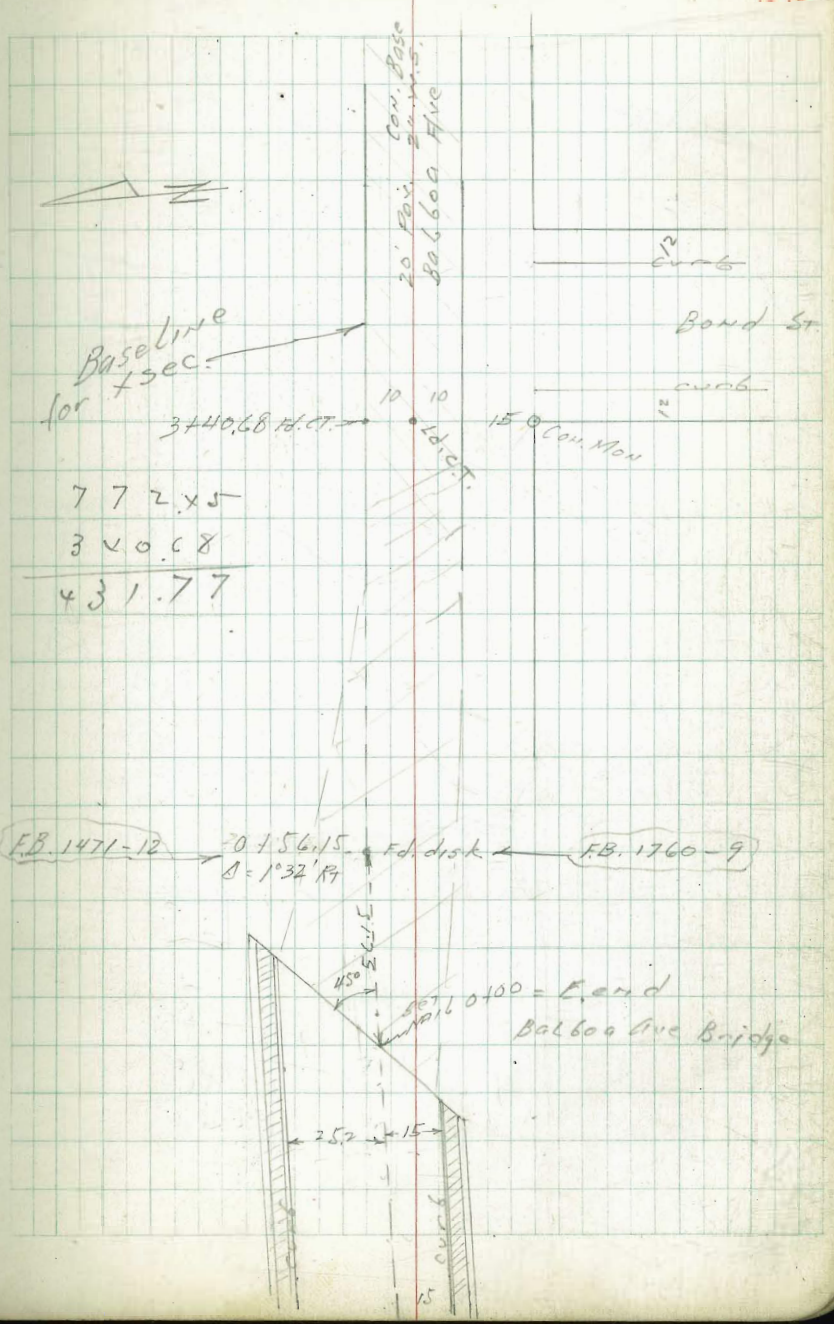
Balboa Bridge Ely to Pacific

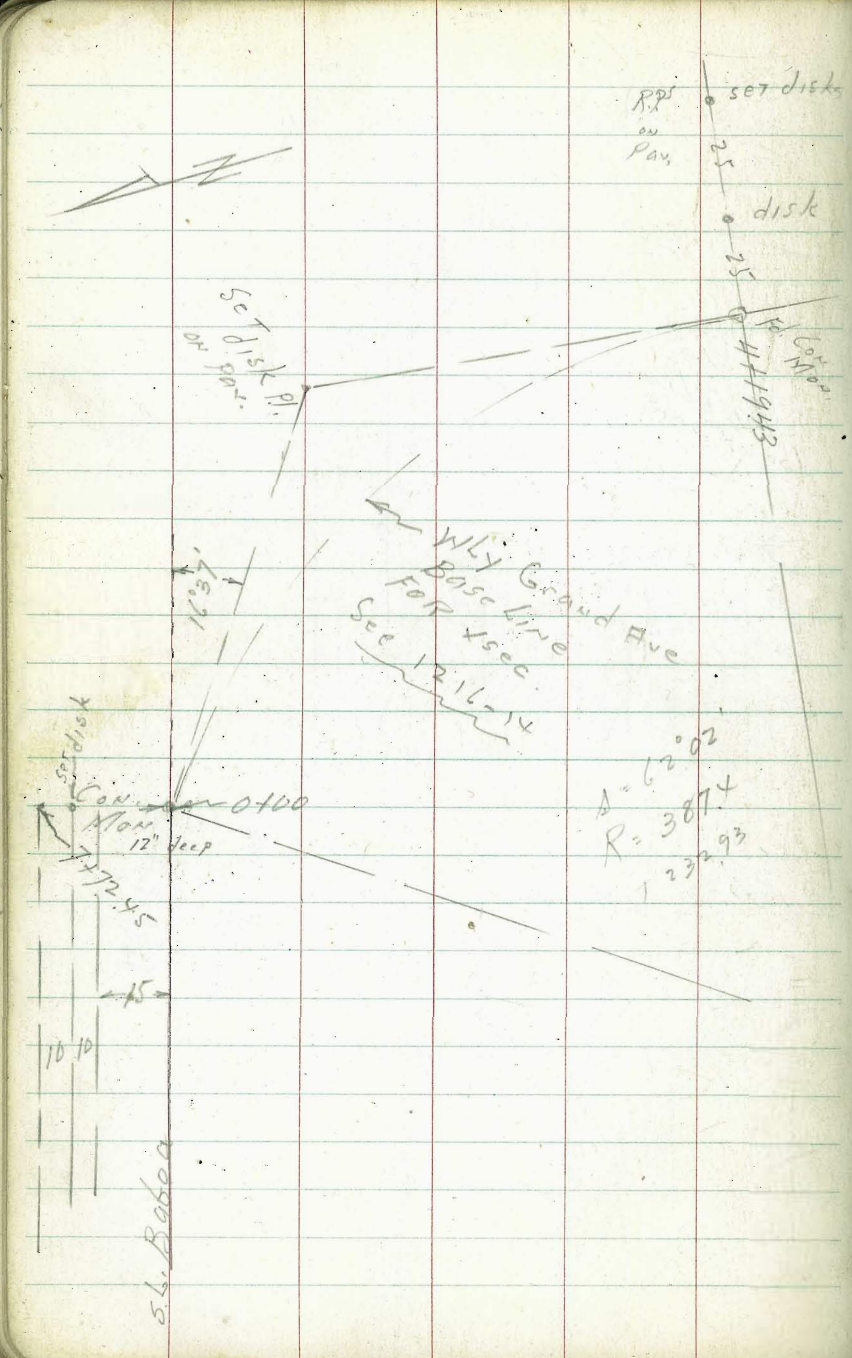
W O 25001

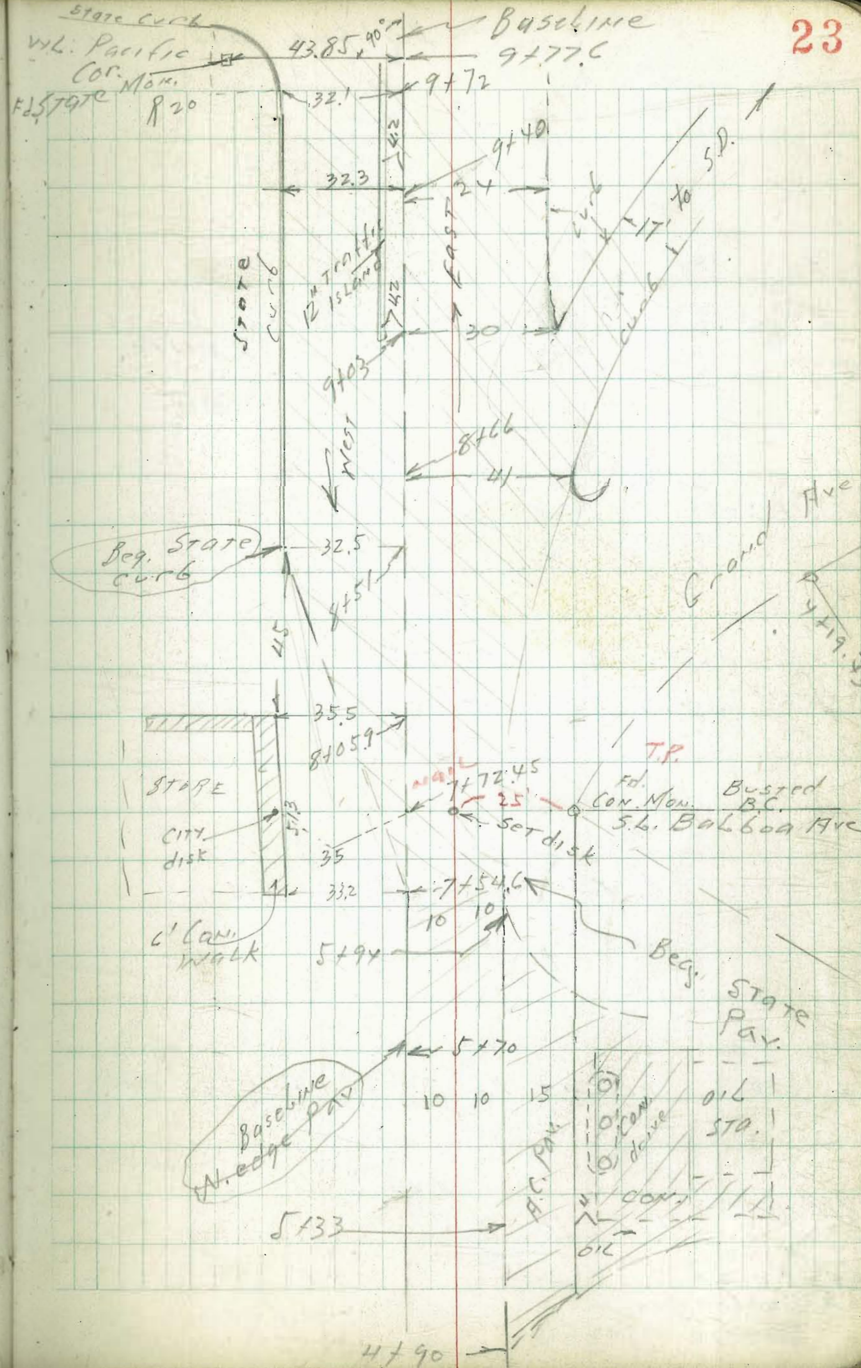
est. grade

Ref. F.B. 1216-14
" 1471-12
T.P. #20
G.B. 234-11

Please index and
Plot Tie Pts on
Tie sheets




RP's on Pav.
set disks
25
disk
25
Fd. Con. Mon.
4+19.43
Set disk P.I. on pav.
Wly Grand Ave
Base Line
FOR x sec
See 1216-14
16°37'
Set disk
Con. Mon.
12" deep
0+00
7+72.45
15
10 10
S.L. Balboa
Δ = 62°02'
R = 387.4
1232.93


State curb
W.L. Pacific
Cor. Mon.
Fd. State
R 20
43.85, 90°
Baseline
9+77.6
32.1
9+72
9+40
32.3
24
curb
17' to S.D.
State curb
12" Traffic island
East
30
curb
9+03
West
8+66
41
Beg. State curb
32.5
8+51
Grand Ave
4+19.43
45
35.5
8+05.9
STORE
CITY disk
nail
7+72.45
25'
T.P.
Fd. Con. Mon.
Busted B.C.
S.L. Balboa Ave
Set disk
35
33.2
7+54.6
10
10
C' Con. walk
5+94
Beg.
State Pav.
5+70
10
10
15
Baseline N. edge pav
A.C. Pav.
Con. drive
Oil Sta.
5+33
oil
4+90

Balboa Ave

2

+62.5 Conc. Steps down to Conc. walk
4' wide 3' wide

+50

1+00 Beg. Sec. at 90°

0+56.15 Δ 1°32'Rt Sec on Split

0+00 Sec at 45° on Ely end Conc. Bridge

B.M. B.P. 428 18.00 13.72

SE Top curb
on Balboa Ave
Bridge 1747-10

Baseline
N. edge of Old
20' Pav. Strip

24

12.3	12.1	13.14	13.14	13.08	13.1	12.1	11.3
5.7	5.9	4.88	4.88	4.92	4.8	5.9	6.7
50	35	8 E. Pav.		19	26	35	40

12.54	10.36	10.33
5.46	7.64	7.67
29 Top steps	35.5 Bot. Steps on walk	40 walk

12.8	13.1	13.30	13.30	13.02	13.5	10.9	10.4
5.2	5.2	4.70	4.80	4.98	4.5	7.1	7.6
50	35	9 P.	Pav.	17 P.	27	35	40

12.9	13.1	13.38	13.18	13.05	13.3	11.7	10.6
5.1	4.9	4.62	4.82	4.95	4.7	6.3	7.4
50	35	13 Pav	Pav	17 Pav	25	35	40

12.0	13.4	13.32	13.18	13.03	13.4	13.2	12.0	10.9
6.0	4.6	4.68	4.82	4.97	4.6	4.8	6.0	7.1
50	35	20 edge pav.		17 Edge Pav	21	28	35	40

13.76	13.4	13.32	13.23	13.08	13.70
4.24	4.86	4.68	4.77	4.92	4.30
35.7 c6	35.7 Pav. gut.	6.5 deck c/l Bridge	deck	21.2 pav. deck gut.	21.2 c6

18.00

Balboa

47.90				
4+50				
T.P. nail PP SW Bond	5.31	17.84	5.22	12.53
3+88.7	E cb Bond			
3+52.7	W cb Bond			
3+00				
T.P.	4.47	17.75	4.72	13.28
2+80. Beg. Pav. 20' wide				
2+50				
		18.00		

10.7 7.1/50	10.8 7.0/35	13.2 4.6/8	13.37 4.52	13.42 4.42/10	13.23 4.61/20	13.0 4.8/27	11.2 6.6/35	10.7 7.1/40	
11.2 6.6/50	11.7 6.1/35		13.19 4.65	13.36 4.48/10	13.28 4.56/20	12.7 5.1/28	11.0 6.8/35	10.8 7.0/40	
		17.84							
			13.15 4.60	13.16 4.59/10	13.11 4.64/20	12.3 5.5/35 dirt over curb	10.30 7.45/50	9.59 8.16/100 curb	
10.5 7.3/50	10.4 7.4/32	12.8 5.0/14	13.19 4.56 p	13.25 4.50/10 p	13.10 4.65/20 p	11.6 6.2/35 dirt over curb	10.37 7.38/50 curb	9.80 7.95/100 CB	
12.5 5.3/50	12.7 5.1/35	13.1 4.7/6	13.10 4.65	13.23 4.52/10	13.10 4.65/20	12.9 4.9/26	11.1 6.7/35	10.8 7.0/40	
		17.75							
12.2 5.8/50	12.7 5.3/35		13.15 4.85 p	13.16 4.84/10 p	13.09 4.91/20 p	13.1 4.9/25	10.7 7.3/35	10.5 7.5/40	
12.7 5.3/50	12.8 5.2/35	13.10 4.90/8 p	13.10 4.90 p	13.08 4.92/20	12.9 5.1/26	10.8 7.2/35	10.3 7.7/40		
		18.00							

7+72.45	B.C. on S.L. Balboa			
T.P.	8.39	21.87	4.36	13.48
7+54.6	Beg. State Pav			
7				
6+50				
6+08				
5+94				
5+70				
5+33				
		17.84		

Lt B.L. Rt

14.10 7.77/33.8 Con. walk — 13.7 8.2/33.8 dirt gut — 13.6 8.25/5 edge Pav. — N. edge Old Pav. 13.67 8.20 — 13.66 8.21/10 disk — 13.58 8.29/20 — 13.5 8.4/35 ← B.C. of Mot Tang.

21.87

14.09 3.75/33.2 Cor. Con walk — 13.4 4.4/33 dirt — 13.44 4.40 — 13.55 4.29/10 — 13.45 4.39/20 — 13.2 4.6/35 — 12.9 4.9/40

12.2 5.6/50 — 12.4 5.4/35 — 13.32 4.52 — 13.49 4.35/10 — 13.40 4.44/20 — 13.3 4.5/35 — 12.5 5.3/40

12.3 5.5/50 — 12.5 5.3/35 — 13.33 4.51 — 13.42 4.42/10 — 13.30 4.54/20 — 12.7 5.1/30 — 12.4 5.4/35 — 11.7 6.1/40

11.72 6.12/54 Con. Porch of Motel

12.4 5.4/50 — 12.4 5.4/35 — 13.29 4.55 — 13.40 4.44/10 — 13.27 4.57/20 — 13.1 4.7/35 — 11.5 6.3/40

13.23 4.61/60 Fl. el. Poultry House — 12.6 5.2/50 — 13.3 4.5/35 — 13.1 4.7/10 — 13.29 4.55 — 13.40 4.44/10 — 13.29 4.55/20 — 13.28 4.56/35 o.c. — 13.30 4.54/39 NE Cor. Con. Slab

11.3 6.5/50 — 11.3 6.5/35 — 11.7 6.1/30 — 13.1 4.7/8 — 13.20 4.64 — 13.37 4.47/10 — 13.28 4.56/20 — 13.15 4.69/35 o.c. — 13.22 4.62/39 NW Cor Con Slab

17.84

					Lt		BL	Rt		
check to B.M. B.P.		0.85	21.02	21.02	Balboa & Pacific N.E. Cor.		S. end Con. gas Pump Base Union Oil Sta.			
9+72					16.75 / 5.12 / 32.1 curb in drive	16.66 / 5.21 / 32.1 gut.	17.22 / 4.65	17.09 / 4.78 / 15	17.04 / 4.83 / 24.2 gut	17.54 / 4.33 / 24.2 cb on Island
9+40					16.54 / 5.33 / 32.5 cb	15.94 / 5.93 / 32.5 gut	16.49 / 5.38	16.27 / 5.60 / 15	16.27 / 5.60 / 24 gut	16.75 / 5.12 / 24.2 curb on island
9+03					15.16 / 6.71 / 32.5 in drive thru cb.	15.09 / 6.78 / 32.5 gut	15.65 / 6.22	15.43 / 6.44 / 15	15.36 / 6.51 / 30	15.77 / 6.10 / 30 Top curb
8+66					14.92 / 6.95 / 32.6 Top cb	14.35 / 7.52 / 32.6 gut pav.	14.90 / 6.97	14.62 / 7.25 / 20	14.19 / 7.68 / 35	13.85 / 8.02 / 41 gut; 14.47 / 7.40 / 41 Top Beg. curb
8+51					Beg. curb → 14.72 / 7.15 / 32.5 Top curb	14.10 / 7.77 / 32.5 gut. pav.	14.67 / 7.20	14.51 / 7.36 / 10	14.36 / 7.51 / 20	13.97 / 7.90 / 36 edge pav.
8+059					14.13 / 7.74 / 35.5 Conc. walk; 13.9 / 8.0 / 35.5 dirt gut	14.02 / 7.85 / 16.5 edge pav.	14.14 / 7.73	14.03 / 7.84 / 10	13.95 / 7.92 / 20	13.81 / 8.06 / 28 edge pav; 13.6 / 8.3 / 35
		21.87					21.87			

Levels on Grand Ave.
Cut off
Balboa & Pacific

2+50

2+00

+50

1+00

0+50

0+00 = 7+72.45 P.26.

21.87

W.L. See Sketch 23
Baseline

17.47
4.40
60
Pav

16.45
5.42
46.8
gut

17.04
4.83
46.8
curb

17.1
4.8
3.5

15.5
6.4

15.53
6.34
5.38
gut

16.17
5.75
5.38
c6

14.3
5.0
40
dirt

15.0
6.9

14.85
7.02
19 ← N.E. Cor. New Con. Porch Motel

16.05
4.82
69.4
c6

16.54
5.33
69.3
gut

15.57
6.30
67.1
gut

16.08
5.79
67.3
c6

14.41
7.46
50.3
gut

15.07
6.85
50.3
curb

14.2
7.7

13.85
8.02
34.8
gut

14.47
7.40
34.8
c6

13.6
8.3

13.97
7.90
22.3
edge
pav.

13.5
8.4

21.87

BM BP P.27			0.01	21.02	
4+19.43 E.C.					16.92✓ 4.11 / 53 Island
4					17.11 3.92 / 52.3 Island
3+50					17.49 3.54 / 57.5 Island
3+00					17.99 3.04 / 68 Island
2+80				18.29 2.74 / 80 Top Center Island	17.86 3.17 / 79.7 Pav
T.P.	3.82	21.03	4.66	17.21	
		2187			

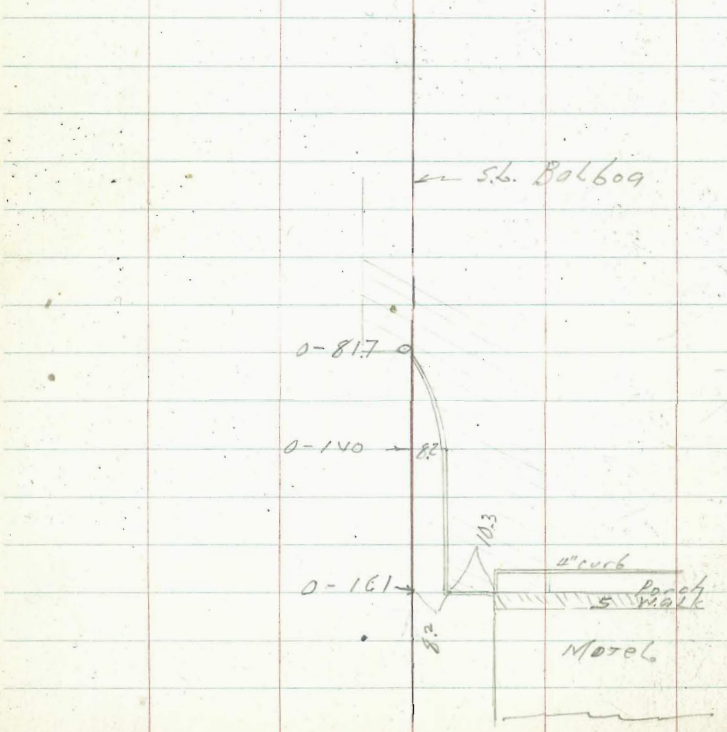
Lt · W.L. Baseline · Rt

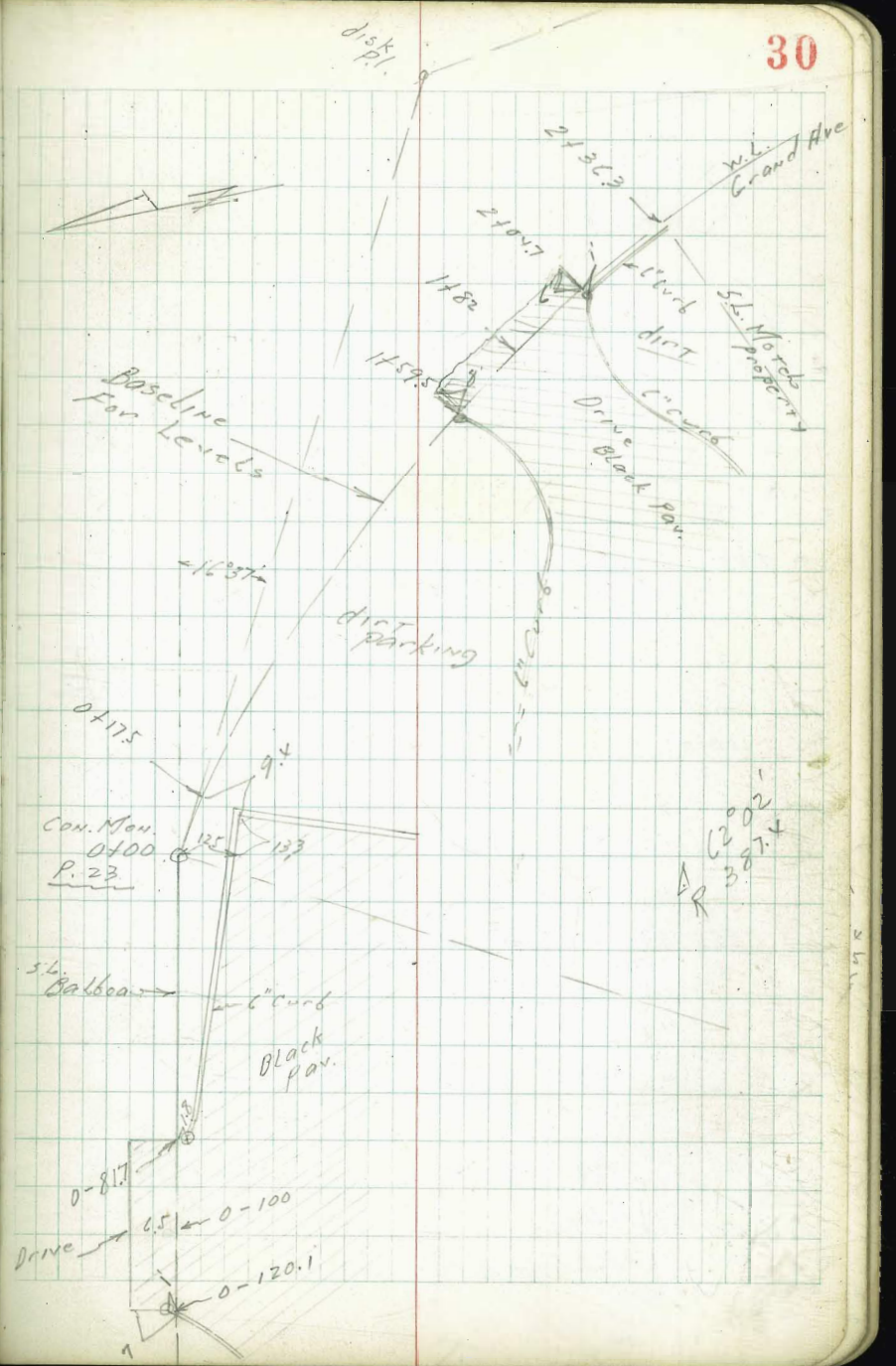
Lt			W.L. Baseline	Rt
16.51✓ 4.51 / 53 Pav	16.41✓ 4.61 / 40 Pav	15.74 5.29 / 20 edge Pav	15.0 6.0	
16.70 4.33 / 52.3 Pav	16.60 4.43 / 40 Pav	15.93 5.10 / 19.5 edge Pav	15.1 5.9	
17.13 3.90 / 57.5 Pav	17.08 3.95 / 45 Pav	16.18 4.85 / 24 edge Pav	15.5 5.5	
17.58 3.45 / 68 Pav	17.47 3.56 / 55 Pav	16.37 4.66 / 33.6 edge Pav	15.3 5.7	
17.75 3.28 / 67 Pav	16.61 4.42 / 39.7 edge Pav.	17.21 3.82 / 39.7 end curb	15.4 5.6	15.45 5.58 / 2.3 ← Top N.E. Cor. Porch of Coffee Shop Gateway Motel

21.03

Rev. elev. of Motel
Parking Area
at Balboa & Pacific

6-7-48





0 – 81.7					
0 – 100					
0 – 120					
0 – 140					
0 – 161		d = dirt cb = curb p = pav.			
T.P.	4.35	18.31	8.80	13.96	
BM BP S. end 905 Pump Base Union Oil Sta. N E Cor Bulbou and Pacific	1.74	22.76		21.02	

Lt Baseline Rt

13.47 4.84 5
13.29 5.02 p
13.09 5.2 1 p
13.64 4.47 2 cb end
12.83 5.48 2.5 p
11.06 7.25 26 p
11.25 7.06 37 p

13.47 4.84 6.5 p
13.59 4.72 4 p
13.15 5.16 p
10.97 7.34 22 p
11.21 7.10 3.3 p

13.39 4.92 7 p
13.77 4.54 26 end
13.06 5.25 0.1 p
10.81 7.50 20.5 p
10.98 7.33 31 p

12.4 5.9 d
12.35 5.96 8.2 cb
11.91 6.50 8.2 p
10.77 7.54 18 p
10.86 7.45 30 p

13.01 5.3 d = dirt
12.25 6.06 8.2 curb
11.71 6.60 8.2 p
10.61 7.70 14 p
11.23 7.08 18.5 p
11.67 6.64 18.5 cb

18.31

1+50					
1+00					
T.P.	5.72	19.78	4.25	14.06	Top Cor. Curb 9.4 Rt of 0+17.5
0+50					
0+17.5	9.4 Rt Cor				
0+00 BC Rt					
0-50					
		18.31			

Lt	B.L.			Rt	
	d 5.6 / 14.2	d 6.4 / 26 / 13.4	cb 5.78 / 27 / 14.00	p 6.25 / 27 / 13.53	p 7.38 / 50 / 12.40
	d 6.2 / 13.6	d 6.9 / 20 / 12.9	d 7.2 / 40 / 12.6		
	19.78				
	d 5.9 / 13.4	d 5.4 / 20 / 13.9	d 5.8 / 40 / 13.5		
	d 5.0 / 13.3	d 5.1 / 9 / 13.2	cb 4.25 / 9.4 / 14.06	p 4.86 / 9.4 / 13.45	p 5.94 / 12.37
	d 4.8 / 13.5	cb 4.29 / 12.5 / 14.02	p 5.04 / 12.5 / 13.27	p 6.08 / 42 / 12.23	p 6.10 / 50 / 12.21
	d 4.5 / 13.8	cb 4.52 / 6.6 / 13.79	p 5.28 / 6.6 / 13.03	p 7.10 / 32 / 11.21	p 6.86 / 48 / 11.45
	18.31				

check to B.M.			1.48	21.02	21.02
T.P.	4.63	22.50	1.91	17.87	
2+36.3	end	New curb			
2+04.7					
2+00					
1+82.					
1+59.5					

1978

Lt		B.L.			Rt		
		4.3 / d 16.5	4.3 / 0.6 d 15.5	3.30 / 1 cb 16.48	4.9 / 18 14.9		
	4.45 / 6 p 15.33	4.31 / p 15.47	4.27 / 0.5 p 15.51	3.73 / 0.5 cb 16.05	4.8 / d 15.0	5.1 / 19 d 14.7	4.91 / 20 Porch walk 14.87
4.52 / 7 p 15.26	4.30 / 4 p 15.48	4.31 / p 15.47	4.31 / 2.8 p 15.47	3.86 / 2.8 cb 15.92		4.7 / 3.5 d 15.1	4.88 / 19 Top Porch walk of Motel 14.90
4.56 / 7 p 15.22	4.30 / 5 p 15.48	4.33 / p 15.45	5.16 / 15 p 14.62	5.84 / 30 p 13.94			
5.07 / 8 14.71	4.75 / 5 p 15.03	4.81 / p 14.97	4.82 / 0.6 p 14.96	4.43 / 0.6 cb end 15.35	4.88 / 1.5 p 14.90	5.65 / 14 p 14.13	6.28 / 30 13.50

1978

20' Alley Pav. Blk 3 Eastgate W.O. 31111

Ref. Bks, 1357-76, 1745-68

Moore
Begg
Sherman
D. Sisson

Sta.		Lt	℄	Rt
0+80	E.V.C.	54.01 / 4.88 / 4.22 / C 0.66	53.56	53.71 / 5.18 / 5.22 / F 0.04
+60		53.80 / 5.09 / 4.13 / C 0.96	53.36	53.51 / 5.38 / 5.28 / C 0.10
+40		53.35 / 5.54 / 4.30 / C 1.24	52.93	53.10 / 5.79 / 4.96 / C 0.83
+20		52.69 / 6.20 / 4.20 / C 2.00	52.30	52.51 / 6.38 / 5.11 / C 1.27
0+00	N.L. Orange	351.80 / 7.09	351.50	351.70 / 7.19

11' Lt. of ℄ = X R.R.

351.94 E.L. Alley Top cb. 1745-69

B.M. Top cb. 10' Rt. of 0+00	6.95	358.89	351.94

2+72				
2+40				
T.P.	520	(359.96)	4.3	354.76
2+08				
1+76				
1+44				
1+12				
		(358.89)		

Lt	C	Rt
55.02 4.94 4.34 C 0.60	54.57	54.72 5.24 3.95 C 1.29
54.85 5.11 4.81 C 0.30	54.40	54.55 5.41 4.93 C 0.48
54.68 4.21 3.92 C 0.29	54.23	54.38 4.51 4.24 C 0.27
54.51 4.38 4.17 C 0.21	54.06	54.21 4.68 4.61 C 0.07
54.35 4.54 3.74 C 0.80	53.90	54.05 4.84 4.98 F 0.14
54.18 4.71 4.30 C 0.41	53.73	53.88 5.01 4.82 C 0.19

4+40					
4+20					
T.P.	5.07	(361.67)	3.24	356.60	nail P.P.
4+00	P.V.C.				
3+68					
3+36					
T.P.	4.41	(359.84)	4.53	355.43	
3+04					
		(359.96)			

Lt ℄ Rt

Lt	℄	Rt
55.96 5.71 5.19 C 0.52	55.51	55.66 6.01 5.01 C 1.00
55.82 5.85 5.48 C 0.37	55.37	55.52 6.15 5.60 C 0.55
55.69 4.15 3.85 C 0.30	55.24	55.39 4.45 3.72 C 0.73
55.57 4.32 4.09 C 0.23	55.07	55.22 4.62 4.28 C 0.34
55.35 4.49 4.31 C 0.18	54.90	55.05 4.79 4.63 C 0.16
55.19 4.77 3.77 C 1.00	54.74	54.89 5.07 4.14 C 0.93

L + 08

T.P. 5.61 (363.41) 3.87 357.80

5+76

5+44

5+12

4+80 E.V.C.

4+60

(361.67)

Lt ℄ Rt

57.79 / 5.62 / 5.28 / F 0.06

57.34

57.49 / 5.92 / 4.62 / C 1.30

57.43 / 4.24 / 3.84 / C 0.40

56.98

57.13 / 4.54 / 4.00 / C 0.54

57.07 / 4.60 / 4.06 / C 0.54

56.62

56.77 / 4.90 / 3.89 / C 1.01

56.71 / 4.96 / 4.68 / C 0.28

56.26

56.41 / 5.26 / 4.92 / C 0.34

56.35 / 5.32 / 4.74 / C 0.58

55.90

56.05 / 5.62 / 5.09 / C 0.53

56.15 / 5.52 / 4.58 / C 0.94

55.70

55.85 / 5.82 / 4.82 / C 1.03

Blk. 3 Eastgate

Lt | Ex. Pav = 357.60 = 1745-69 | Rt

7+23.47 SL. EL Canyon Ave

Lt		Rt
57.98	357.67	357.85
5.43	5.74	5.56
5.44	5.81	5.56
F 0.01	F 0.07	0.00 ✓
58.01	57.71	57.91
5.40		5.50
5.09		4.89
C 0.31		C 0.61
58.23	57.84	58.05
5.18		5.36
4.56		4.45
C 0.62		C 0.91
58.34	57.92	58.09
5.07		5.32
4.38		4.65
C 0.69		C 0.67
58.30	57.86	58.02
5.11		5.39
4.71		4.92
C 0.40		C 0.47
58.15	57.70	57.85
5.26		5.56
4.71		4.41
C 0.55		C 1.15

7+20

7+00

+80

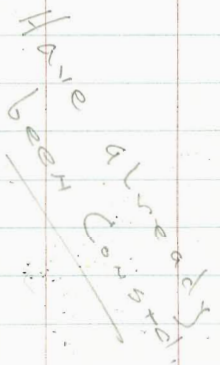
+60

C+40 PvC.

(3634)

Sewer Laterals
Alley Blk 3 Eastgate

Lat. #1 — 349.33



Lat. #2 — 349.06

Const. Storm Drain, Blk 227 M. and S. City Force.

Moore
Begg
Sherman
D. Sisson

6-7-49

W.O. 60326

INV.

Sta.						Calc.
1+69.4	Δ 6°22' Lt.					33.92 / 8.69 / 2.61 / C 6.08
1+50						33.54 / 9.07 / 5.07 / C 4.00
1+20						32.96 / 9.65 / 7.65 / C 2.00
0+80	Re-stake	Cuts set 10' So.				32.20 / 10.41 / 9.75 / C 0.66
0+45						31.53 / 11.08 / 10.03 / C 1.05
0+09.4						30.85 / 11.76 / 10.50 / C 1.26
0+01.64	Δ 37°47' Lt					30.70 / 11.91 / 9.50 / C 2.41
El. old cut stub 10' Lt. of 0+01.64	1.02	42.61		41.59	Walker	

Moore
Begg
8-4-49 Sherman
Sisson

New W.S. E c6 43d St. 88.17 = X
Delta Nly

1+87	C 0.25	4+25	83.43 / 5.24 / 5.44 / F 0.2
1+83	C 0.80	4+21	83.03 / 5.24 / 5.21 / C 0.03
1+37	C 1.0	3+37	C 0.25
1+33	C 1.05	3+33	C 0.20
0+87	C 0.25	2+87	C 0.35
0+83	C 0.20	2+83	C 0.35
0+37	F 1.15	2+37	C 0.10
0+33	F 1.0	2+33	F 0.10

0+33 to 3+37
Raked

W.O. 22020

W.S. Ec6 43d Beta to Boston

3+10	90.50 / 3.5 / 2.9 / C 0.6	
2+60		90.74 / 3.3 / 0.0
2+10	90.60 / 3.4 / 3.8 / F 0.4	
1+60		90.00 / 4.0 / 4.2 / F 0.2
1+10	89.5 / 4.5 / 5.0 / F 0.5	
0+65		89.0 / 5.0 / 5.3 / F 0.3
(W) NE Ret. 43d Beta	88.40 / 5.6 / 6.1 / F 0.5	88.37 / F 0.5
(W) ℄ Ret SE Beta 43d	87.56 / 6.44 / 6.94 / F 0.5	87.60 / 6.4 / 6.8 / F 0.4

Nail Sw Pole 5.83 93.97 88.14
43d Beta
1875-37

4 + 60 87.4

4 + 10 88.8
5.2
3.3
C 1.9

3 + 60 89.84
4.2
3.2
C 1.0

93.97

Const. Pressure Sewer w/10 20×4×
on Loring St.

Moore
Begg
Sherman
Sisson
Sept. 16-49.

0+521.5 Δ 49°40' Rt.
R.P.s 6 and 16 Lt.

Piers set by Contractors at Bevels

	6.77	52.77		46.00	BM B.P.	SE Cor. of Loring and Ocean Blvd	43.20 / 9.57 / 4.24 / C 5.33

×8.79%

0+01 Δ 29°30' Lt.						29.54 / 7.29	18.50 / 11.04 / 7.29 / C 3.75
0+00 outside Tank							18.50

T.P.	0.32	29.54	11.46	29.22
T.P.	2.70	40.68	12.15	37.98
B.M.	4.13	50.13		46.00

℄ INV.

2 +40				
2 +05				
T.P.	3.77	56.24	0.30	52.47
+70				
+35				
1				
0 +65				
		52.77		

44.54
11.70
2.30
C 9.40

44.29
11.95
2.73
C 9.22

44.04
8.73
0.30
C 8.43

43.79
8.98
1.72
C 7.26

43.54
8.23
2.74
C 6.49

43.29
9.48
3.75
C 5.73

4 + 85

4 + 50

4 + 15

3 + 80

3 + 45

3 + 10

2 + 75

5624

46.29
9.95
8.18
C 1.77

46.04
10.20
4.68
C 0.52

45.79
10.45
8.75
C 1.70

45.54
10.70
7.50
C 3.20

45.29
10.95
6.64
C 4.31

45.04
11.20
4.66
C 6.54

44.79
11.45
3.41
C 8.04

7+30

6+95

6+60

T.P. Stub 12.55 68.49 0.30 55.94

6+25

5+90

5+55

5+20

56.24

48.0x
20.45
5.14
C 15.31

47.79
20.70
7.67
C 13.03

47.5x
20.95
10.40
C 10.55

47.29
8.95
0.30
C 8.65

47.0x
9.20
3.15
C 6.05

46.79
9.45
5.45
C 4.00

46.5x
9.70
7.10
C 2.60

Check to Pav.		3.98	7011	7.15 0.04
8+74.67	Ex. M.H. #24 Trunk Sewer #1			
8+66.67	Δ 22°30' Rt	R.P. 16+26 Lt		
8+35				
T.P. Stub	5.90	74.09	0.30	68.19
8+00				
7+65		68.49		

133+77.3 Main Trunk Survey 1650-41

49.10
24.99
3.97
C 21.02

49.03
25.06
3.77
C 21.29

48.79
25.30
4.57
C 20.78

48.54
19.75
0.30
C 19.45

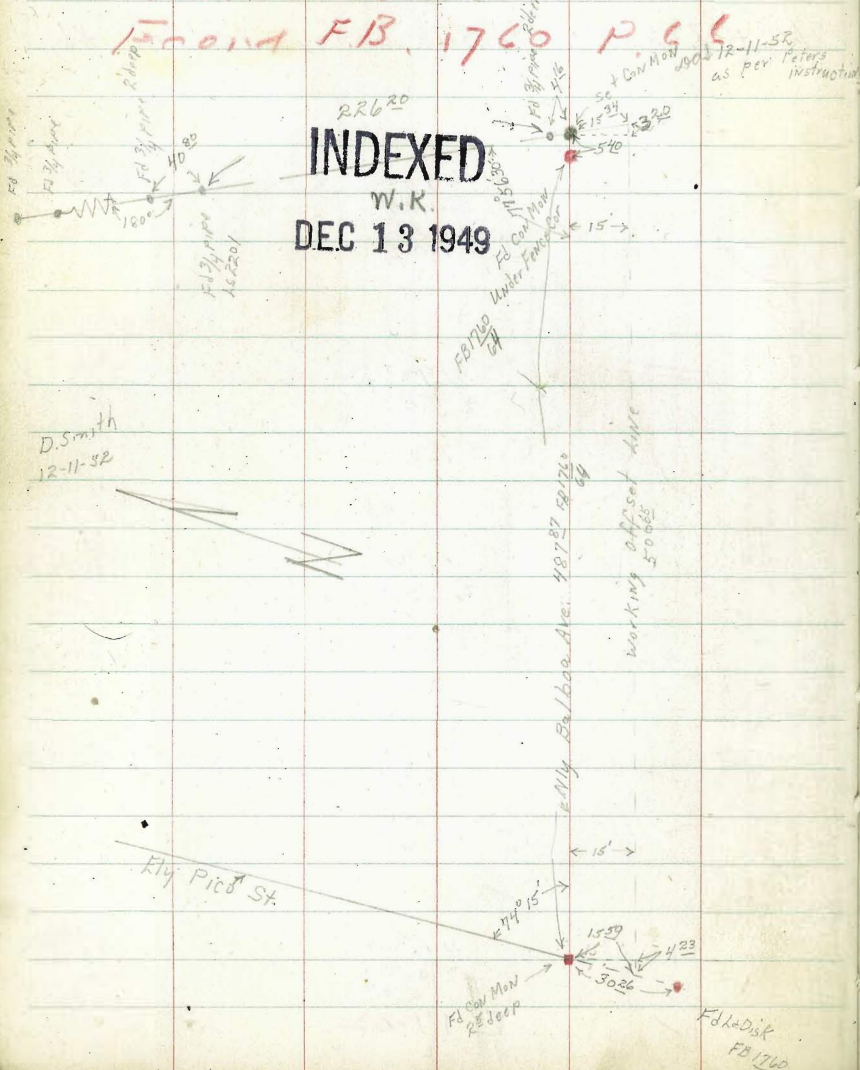
48.29
20.20
2.37
C 17.83

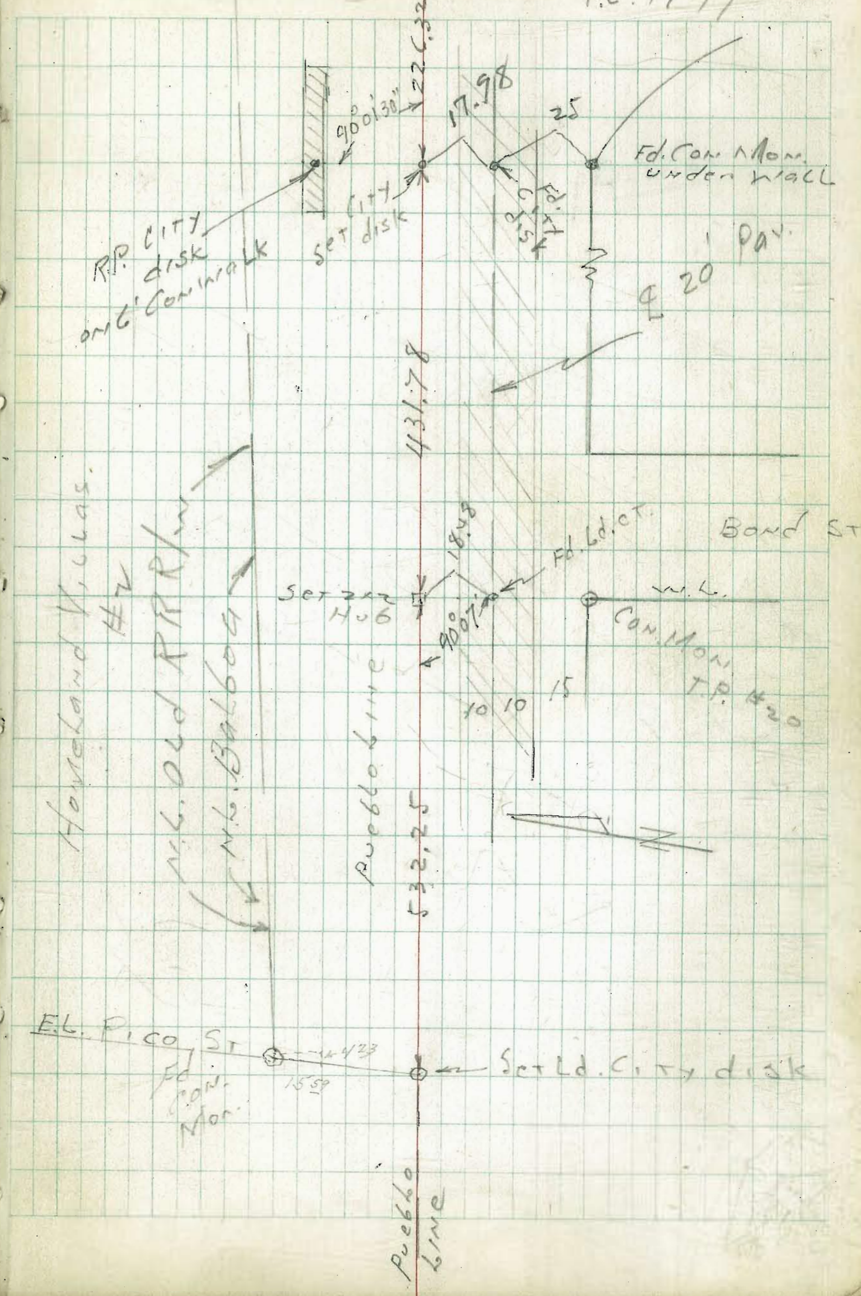
10-31-49.

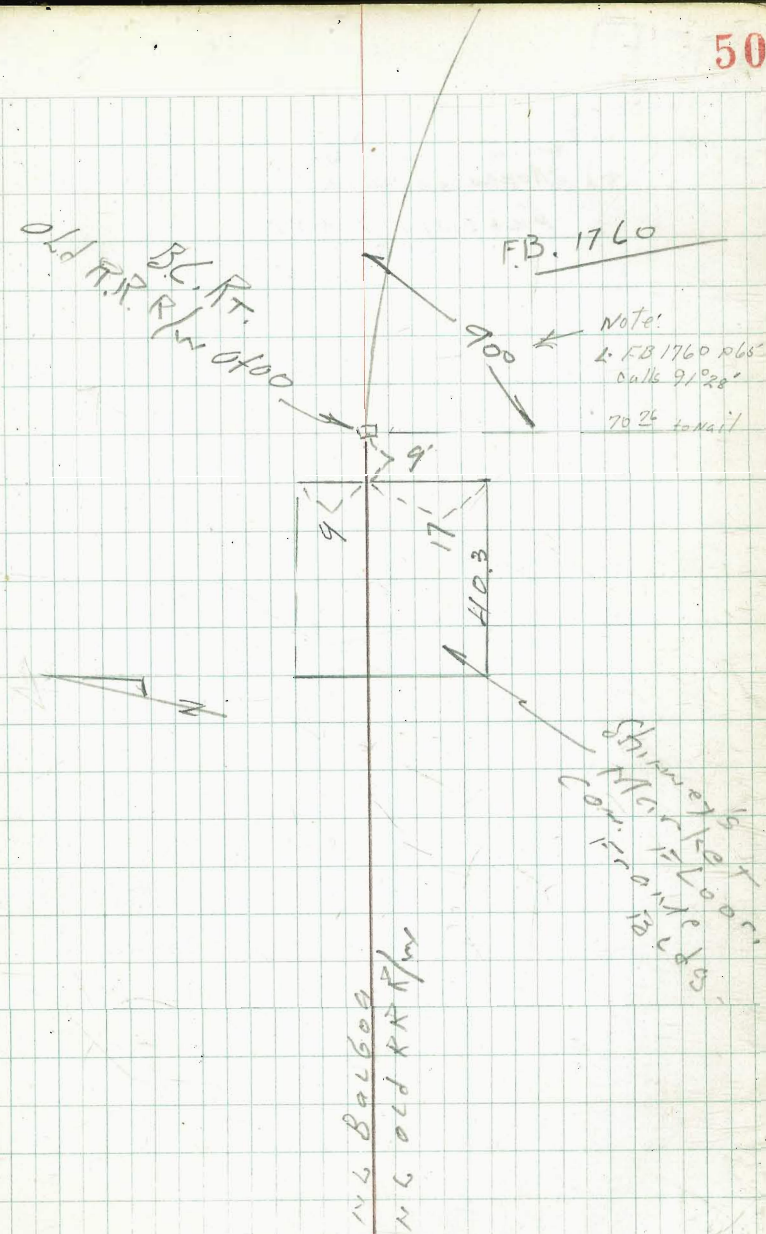
Moore
Walker
McCoy
Crawford
G. Pope

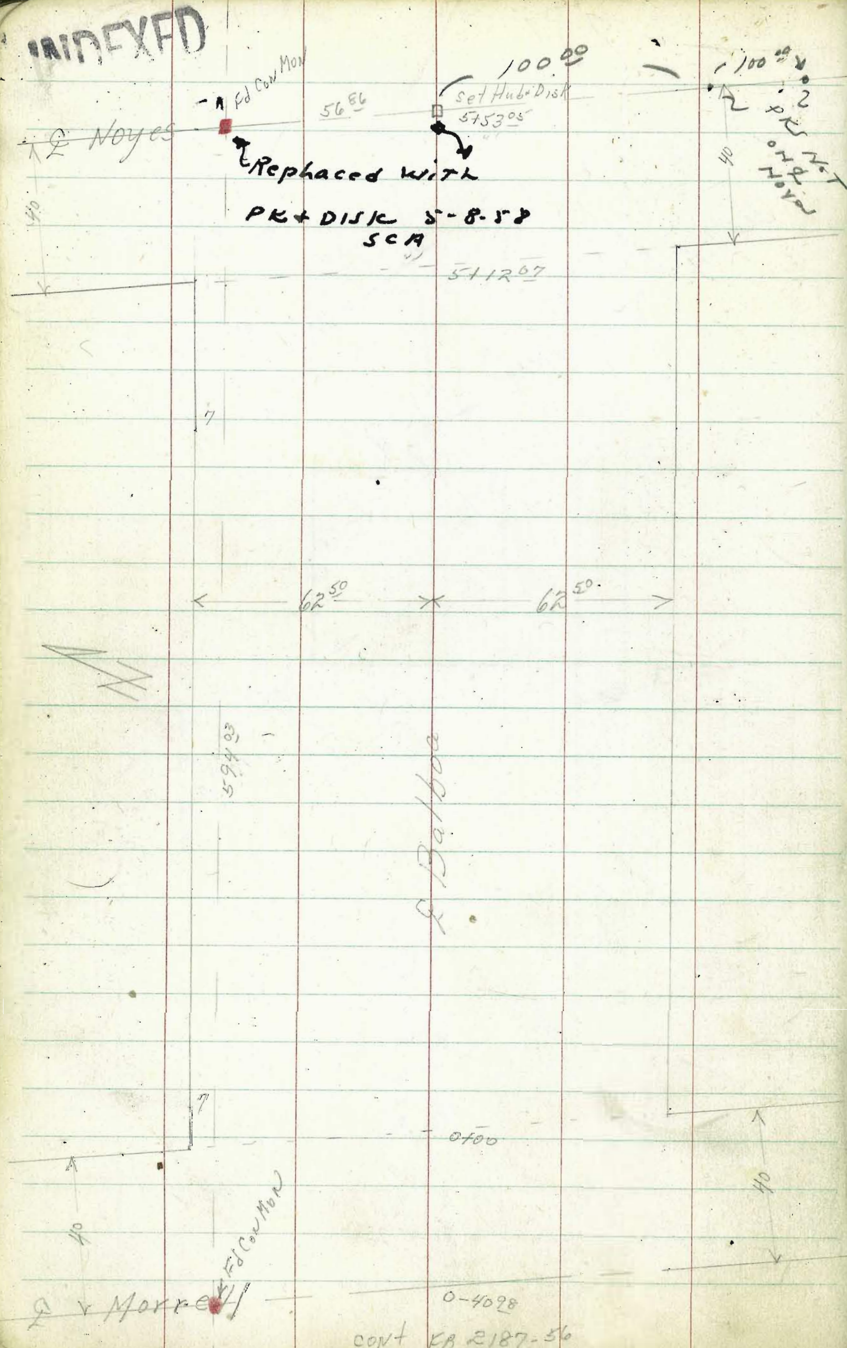
Survey of Balboa Ave
Pico to Pacific

Notes contd.
From FB. 1760 P 66

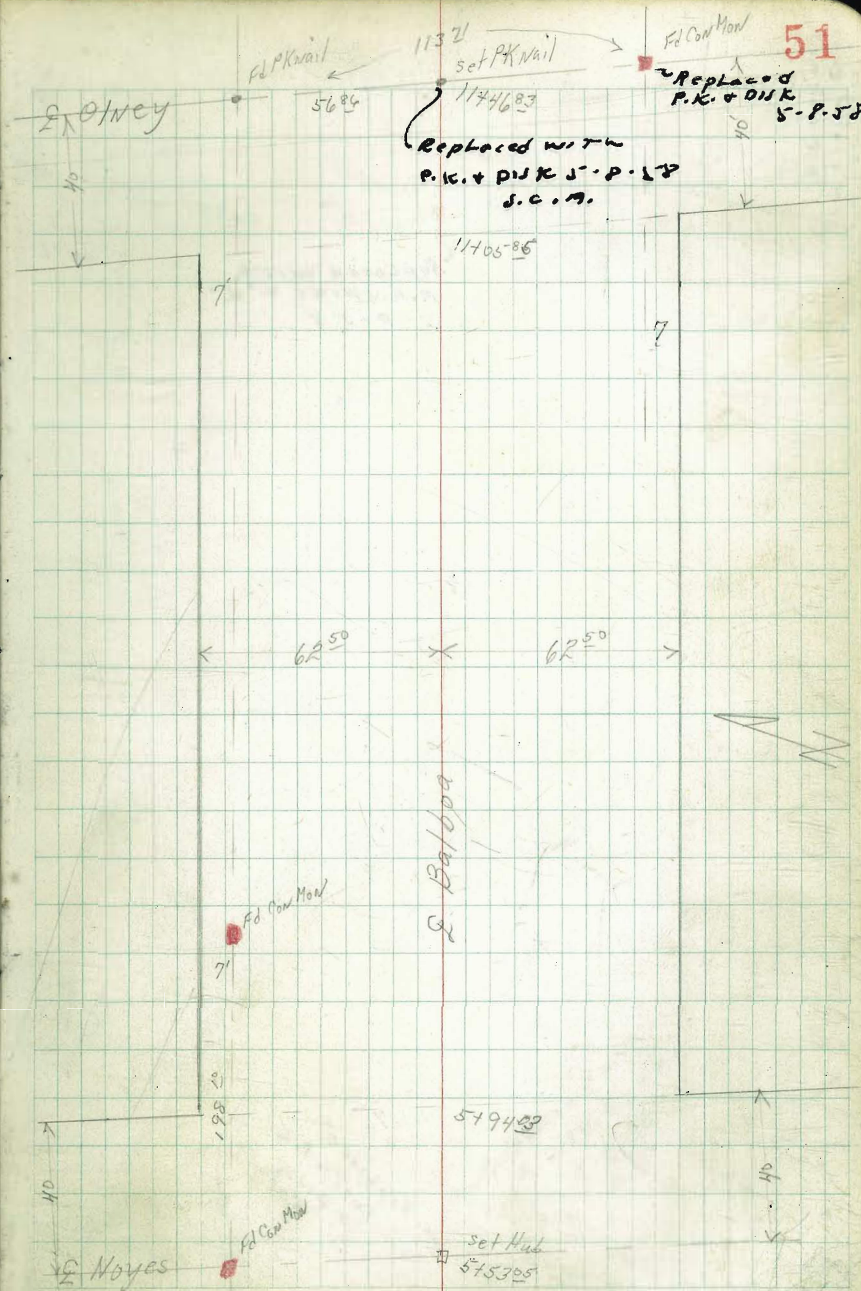




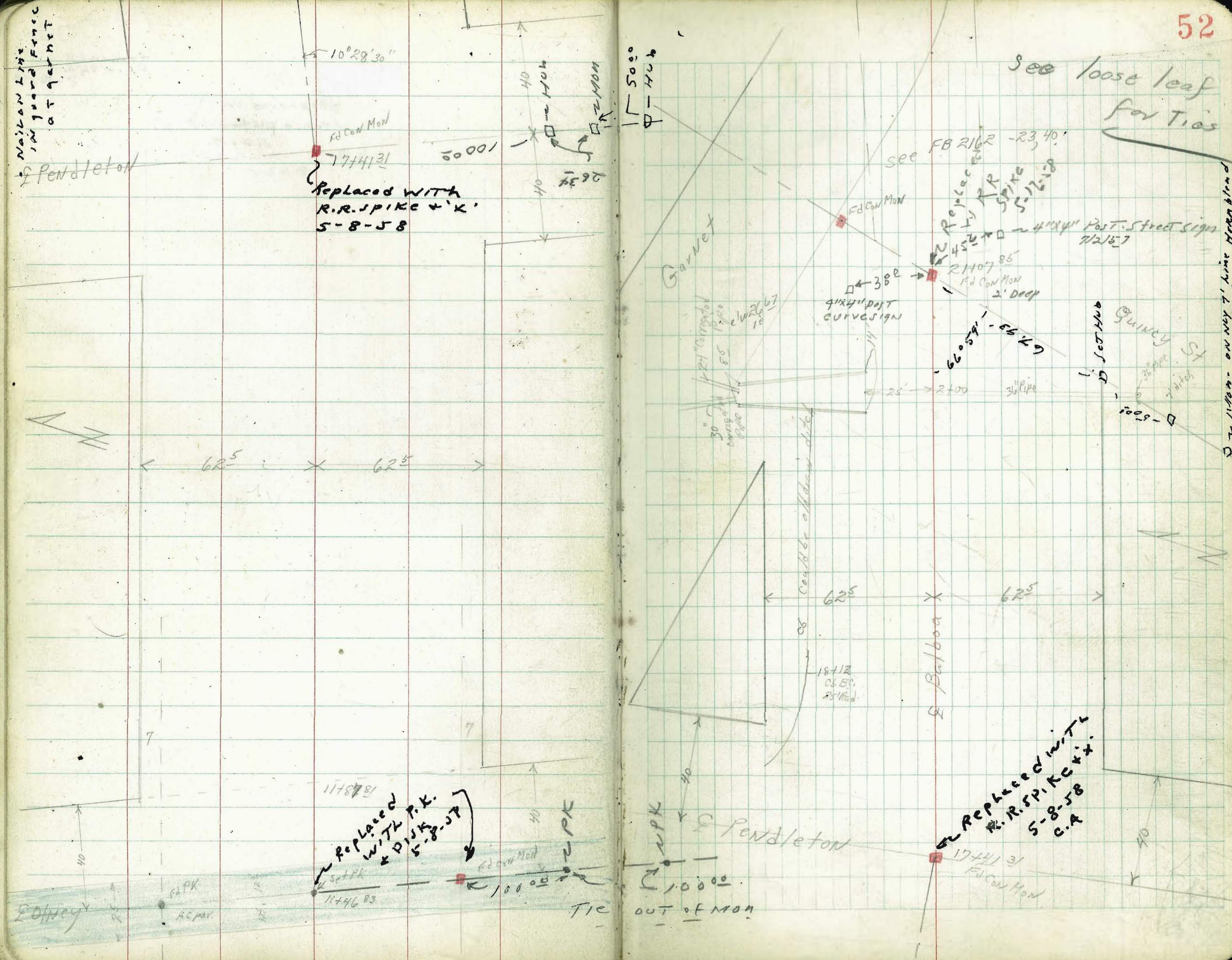

B.C. Rt.
Old R.R. R/W 0+00
F.B. 1760
900
Note!
∠ FB 1760 p65
calls 91°28'
70 26 to Nail
9'
9
17'
40.3
N
Shimmey's Market Floor
Cor. Front of Bldg.
N L Bal600
N L old RR R/W



Fd Con Mon
56.56
Set Hub-Disk
5+53.05
100.00
100.00
℄ Noyes
Replaced with
PK + DISK 5-8-58
SCM
40
5+12.07
7
62.50
62.50
5+94.83
℄ Balboa
7
0+00
40
40
Fd Con Mon
℄ Morrell
0-40.98
cont FB 2187-56



℄ Olney
Fd PK nail
56.84
1132
set PK Nail
11+46.83
Fd Con Mon
Replaced
P.K. + DISK
5-8-58
Replaced with
P.K. + DISK 5-8-58
S.C.M.
11+05.86
40
40
7
7
62.50
62.50
℄ Balboa
Fd Con Mon
7
5+94.83
40
40
℄ Noyes
Fd Con Mon
Set Hub
5+53.05


Nail on Line in yard fence at Garnet
℄ Pendleton
10°28'30"
Fd Con Mon
17+41 31
Replaced with R.R. spike + 'X' 5-8-58
Hub
Mon
50.00
100.00
62.5
62.5
40
7
11+87 81
Replaced with P.K. + Disk 5-8-58
Set PK
Fd PK
11+46 83
Fd Con Mon
100.00
PK
℄ Olney
Tie out of Mon
See loose leaf for Ties
see FB 2162 - 23, 40
Garnet
Fd Con Mon
Replaced by R.R. spike 5-12-58
4"x4" Post Street Sign
21+07 85
Fd Con Mon 2' Deep
4"x4" Post Curve sign
66°59' - 67°27'
Set Hub
Quincy St
25'
21+00
36" Pipe
50.00
Marker on Hwy 7' Line Hrenbland
Could be old drain ditch
62.5
62.5
℄ Balboa
18+12
NPK
℄ Pendleton
100.00
Replaced with R.R. Spike + X 5-8-58 C.A
17+41 31
Fd Con Mon
40

P. Smith
J. Rorer
R. Taylor
J. Schlink

"X" Sec. Balboa Ave

1+37	42⁸ Lt ℄ 8" Pole #P2026				
1+31	60⁴ Lt ℄ 3⁵ con walk				
1+06	65³ Lt ℄ 3⁵ con walk				
1+00					
0+89	43⁰ Lt ℄ 8" Pole #P2020				
0+56	63⁰ Lt ℄ 3 con walk				
0+54	43⁸ Lt ℄ 6" Pole #46 4052 H				
0+52	55⁰ Lt end 18" Brick wall				
0+50					
0+42	56⁰ Rt ℄ 6" Anchor Pole #464053H				
0+23	61⁵ Lt Begin 18" Brick wall				
0+20	62⁵ Lt ℄ 3⁵ con walk				
0+00	Ely Morrell taken along Line of				
0-20⁴⁹	taken along cb Line				
0-40⁹⁸	℄ Morrell taken along St				
TP₂	4²⁰	49²³	6⁴³	44⁵³	
TP₁	0⁰²	50⁹⁶	11³⁸	50⁹⁴	
BM	0²⁰	62²²		62⁰²	NWBP Garnet & Noyes

Morrell to Pacific Hwy ℄
Lt = N'ly
Rt = S'ly
W.O.# 211.37
7/8/53

47.18 46.80 46.46 46.32
2⁰⁵ 2⁴³ 2⁷⁷ 2⁹¹
75³ wlk 65³ 68⁴ 60⁴ wlk

46.9 46.0 44.9 44.7 44.4 44.1 44.4 42.9
2³ 3³ 4³ 4⁵ 4⁸ 5¹ 4⁸ 6³
73 62⁵ 31 22 40 62⁵ 100

48.03 47.26
1²⁰ 1⁹⁷
73⁰ wlk 63⁰

47.9 47.0 44.9 44.9 44.4 44.9 44.5 43.2
1³ 2⁸ 4³ 4³ 4⁸ 4³ 4⁷ 6⁰
76 62⁵ 31 24 25 62⁵ 100

47.63 47.12
1⁶⁰ 2⁴
72³ wlk 62⁵

47.4 46.6 45.4 45.2 44.6 45.2 44.5 42.9
1⁸ 2⁶ 3⁸ 4⁰ 4⁶ 4⁰ 4⁷ 6³
85 62⁵ 31 25 27 62⁵ 100

47.0 47.41 46.2 45.83 45.6 45.1 44.1 43.2 42.4
2³ 1⁸² 3⁰ 3⁴⁰ 3⁶ 4⁴ 5¹ 6⁰ 6⁸
95 94 64 64 cb end 31 31 62⁵ 100

47.0 46.0 45.9 45.5 44.9 43.9 43.1 42.3
2² 3² 3³³ 3⁷ 4³ 5³ 6¹ 6⁹
100 62⁵ 53 31 31 62⁵ 100
5⁵⁄₄ Hrm

x Sec Balboa
Please note Lamont to Morrell FB 2235-27, 29

x 49²³

3+38 61^0 Rt Stairs to apts
3+50 68^0 Lt ℄ 3^0 con wlk
3+33 43^5 Lt ℄ 8" tel Pole #P2056
3+26 61^0 Lt ℄ 3^0 con walk
3+22 48^0 Rt Begin AC parking area
3+17 45^8 Rt ℄ 8" Power Pole # 2055
3+00

2+86 60^8 Lt ℄ 3^5 con wlk
2+73 48^5 Lt ℄ 6" Tel. Pole # 4640 54H
2+50
2+50 62^5 Lt ℄ 4^0 con wlk
2+35 62^5 Lt ℄ 3^0 con walk

2+06 ℄ SMH
2+03 62^5 Lt ℄ 3^0 con walk

2+00

1+80 63^4 Lt ℄ 3^0 con wlk
1+73 44^0 Rt ℄ 8" Power Pole #2027

1+64 63^6 Lt ℄ 3^0 con walk

1+50 43^0 Rt ℄ deadman

Lt = N'ly ℄ Rt = S'ly

45.83 3^40/73^2 · 45.78 3^45/68^2 wlk · 45.7 3^5/62^5 · 44.5 4^7/31 · 44.2 5^0 · 44.1 5^1/24 · 44.3 4^9/20 · 44.11 5^8/40 P.C. · 44.5 4^2/62^5

45.77 3^46/66^2 wlk · 45.62 3^61/61^2

44.18 5^05/48 A.C. · 44.05 5^18/62^5 P.C.

45.4 3^8/70 · 45.3 3^9/62^5 · 45.0 4^2/50 · 44.3 4^9/24 · 44.2 5^0 · 44.0 5^2/22 · 43.5 5^7/46 · 44.0 5^2/42 · 43.9 5^3/62^5 · 41.2 8^0/100

45.70 3^53/70^8 wlk · 45.56 3^67/60^8 wlk

45.8 3^2/79 · 45.77 3^46/72^5 wlk · 45.64 3^59/62^5 wlk · 44.9 4^3/31 · 44.4 4^8 · 44.0 5^2/23 · 43.7 5^5/38 · 44.2 5^0/40 · 43.9 5^3/62^5 · 40.9 8^3/100

46.05 3^18/72^5 wlk · 45.88 3^35/62^5

44.52 4^21 N.M.

45.99 3^24/72^5 wlk · 45.74 3^49/62^5

45.8 3^4/75 · 45.4 3^8/62^5 · 45.1 4^1/31 · 44.5 4^7 · 44.2 5^0/23 · 44.4 4^8/26 · 43.7 5^5/62^5 · 42.0 7^2/82 · 41.2 8^0/100

45.98 3^25/73^4 · 45.70 3^53/63^4 wlk

46.03 3^20/73^6 wlk · 45.75 3^48/63^6

45.4 3^8/62^5 · 44.5 4^7/40 · 44.8 4^4/20 · 44.5 4^7 · 44.4 4^8/22 · 43.9 5^3/40 · 44.5 4^7/43 · 44.6 4^6/58 · 43.6 5^6/62^5 · 42.8 6^4/60 · 41.7 7^5/100

T 49^23

6+30

5+94.03 Ely Noyes taken along

5+53.05 ℄ Noyes taken along

5+18 47' Rt ℄ 8" Power Pole # P4428

5+15 42' Lt ℄ 2 deadmen

5+12.07 Wly Prop Noyes taken along line of

5+00

4+94 42' Lt ℄ 6" tel Pole # 46 40 55 H

4+94 44' Rt ℄ deadman

4+56 41' Rt end AC parking area in front of Apts

4+50

4+00

3+71 66' Lt ℄ 3' con walk

TP3 3.04 49.05 3.22 46.01

Lt = Wly ℄ Rt = Sly

46.3 0.8/65 — 46.4 2.5/62.5 — 44.5 4.6/18 — 43.5 5.6/16 — 44.1 5.0 — 42.8 6.3/25 — 43.4 5.2/27 — 43.6 5.5/52 — 45.2 3.9/62.5 — 45.7 3.4/70

49.5 0.4/70 — 46.6 2.5/62.5 — 45.5 3.6/35 — 44.1 5.0/18 — 44.5 4.6 — 43.3 5.8/28 — 43.8 5.3/40 — 43.9 5.2/62.5 — 44.0 5.1/100

48.4 0.2/75 — 47.1 2.0/62.5 — 45.3 3.8/39 — 44.4 4.7/22 — 44.6 4.5 — 43.5 5.6/27 — 43.7 5.4/40 — 43.7 5.4/62.5 — 43.9 5.2/100

46.1 3.0/82 — 45.4 3.7/62.5 — 44.6 4.5/26 — 44.2 4.9/16 — 44.4 4.7 — 43.5 5.6/28 — 43.7 5.4/40 — 44.1 5.0/54 — 44.3 4.8/62.5 — 44.2 4.9/100

46.9 2.2/86 — 45.3 3.8/62.5 — 44.6 4.5/20 — 44.1 5.0/18 — 44.3 4.8 — 43.5 5.6/25 — 44.1 5.0/30 — 43.6 5.5/35 — 44.2 4.9/44 — 44.3 4.8/62.5 — 44.0 5.1/100

44.27 4.78 — 44.54 4.51/62.5

47.1 2.0/100 — 45.8 3.3/62.5 — 45.1 4.0/45 — 44.4 4.7/30 — 44.2 4.9/17 — 44.3 4.8 — 43.8 5.3/25 — 44.1 5.0/29 — 44.25 4.80/46 AC — 44.52 4.53/62.5 — 44.8 4.3/75

45.9 3.2/100 — 45.5 3.5/62.5 — 45.1 4.0/41 — 44.5 4.6/22 — 44.2 4.9/15 — 44.3 4.8 — 44.0 5.1/23 — 44.3 4.8/25 — 44.22 4.83/35 AC — 44.65 4.40/62.5 — 44.9 4.2/70

45.90 3.15/76 walk — 45.67 3.38/66

T 49.05

8+00

7+89 63° Rt ℄ 3' con walk

7+65 63° Rt ℄ 3° con walk

7+50

7+39 62.5 Rt ℄ 3° con walk

7+12 62.5 Rt ℄ 4° con walk

7+00

6+87 62.3 Rt ℄ 17' con. drive

T.P.4 3.26 47.16 5.15 43.90

6+65

Lt = Nly ℄ Rt = Sly

8+00:
47.46 +0.3 73 | 44.76 2.4 62.5 | 43.56 3.6 47 | 42.26 4.9 35 | 42.76 4.4 18 | 42.16 5.0 17 | 42.56 4.6 | 41.16 6.0 24 | 41.86 5.3 25 | 41.56 5.6 35 | 42.66 4.5 53 | 44.96 2.2 62.5 | 45.76 1.4 66 | 46.06 1.1 85

7+89:
45.63 1.53 63.0 | 46.73 0.43 73.0 w/k

7+65:
46.05 1.1 63.0 w/k | 46.92 0.24 73.0

7+50:
47.66 +0.5 70 | 47.16 0.0 62.5 | 43.56 3.6 50 | 43.16 4.0 20 | 42.76 4.4 17 | 43.16 4.0 | 41.56 5.6 26 | 42.36 4.8 27 | 41.86 5.3 38 | 42.56 4.6 43 | 43.06 4.1 54 | 45.96 1.2 62.5 | 47.08 0.08 75

7+39:
46.11 1.05 62.5 w/k | 46.37 0.79 72.5

7+12:
45.77 1.39 62.5 | 46.33 0.83 72.5 w/k

7+00:
50.46 +3.3 70 | 47.16 0.0 62.5 | 44.66 2.5 58 | 43.76 3.4 18 | 43.06 4.1 17 | 43.56 3.6 | 42.36 4.8 25 | 42.86 4.3 28 | 43.56 3.6 58 | 45.46 1.7 62.5 | 45.96 1.2 70

6+87:
44.74 2.42 62.3 | 45.50 1.66 72.3 drive

⊼ 47.16

6+65:
44.9 2.3 68 | 44.3 4.8 62.5 | 44.0 5.1 21 | 43.2 5.9 17 | 43.8 5.3 | 42.8 6.4 24 | 43.1 6.0 30 | 43.4 5.7 49 | 44.3 4.8 62.5 | 45.8 3.3 70

⊼ 49.05

9+62 62° Lt ℄ 4° con steps walk

9+58 62° Rt ℄ 2° con walk

9+50

9+33 63° Rt ℄ 3° con walk

9+03 62° Rt ℄ 2½ con walk

9+00

8+89 63° Rt ℄ 3° con walk

8+89 53° Lt ℄ 3 con walk & steps

8+66 62½ Rt ℄ 3° con walk

8+50

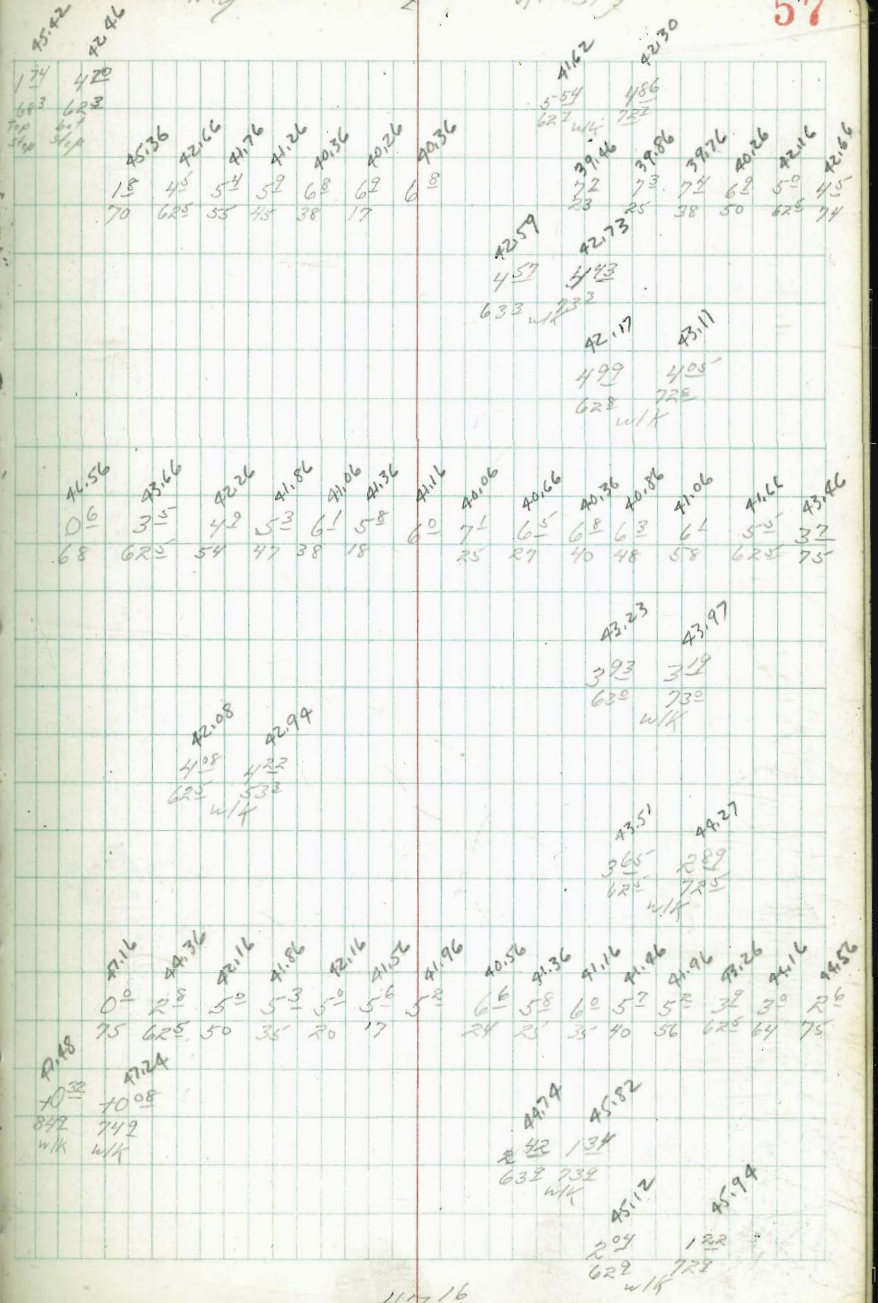
8+46 74° Lt ℄ 3° con walk

8+40 63° Rt ℄ 3° con walk

8+16 62° Rt ℄ 3 con walk

Lt = Nly ℄ Rt = Sly

57



417.16

11+05 ES Wly Olney taken along

11+01 45° Rt ℄ 14" Power Pole #2199

10+75

TP3 4.04 42.78 8.42 38.24

10+50

10+32 63² Lt ℄ 3' con steps + wlk

10+19 61° Rt ℄ 2' con steps + walk

10+00 (10-12-56 - C.H.S.)
66' Rt = ℄ 10' wide Conc. Dr. EL. = 41.5
76' Rt = ℄ Gar. EL. = 41.90
New Gar.

9+91 45⁵ Rt ℄ 10" Pole No. gone
9+88 62² Rt ℄ 2' con walk

9+83 46° Rt ℄ deadman
9+65 63° Rt ℄ 2' con walk
9+63 46² Rt ℄ deadman

Lt = Nly ℄ Rt = Sly

40.5 2.3/100 · 40.1 2.7/65 · 39.6 3.2/62.5 · 39.41 3.37/56 Gas 4.4 rim · 38.7 4.1/18 · 38.3 4.5/15 · 38.4 4.4 · 37.9 4.2/20 · 38.1 4.7/21 · 37.7 5.1/45 · 38.6 4.2/50 · 38.7 4.1/62.5 · 39.1 3.2/70 · 38.6 4.3/100

41.8 1.0/75 · 41.5 1.3/65 · 40.8 2.0/62.5 · 39.6 3.2/42 · 39.2 3.6/20 · 38.5 4.3/15 · 38.5 4.3 · 38.0 4.8/20 · 38.2 4.6/22 · 37.8 5.0/36 · 38.6 4.3/45 · 39.0 3.8/62.5 · 39.8 3.0/72

HI 42.78

42.16 5.0/70 · 40.36 6.8/62.5 · 39.26 7.9/20 · 38.66 8.5/18 · 38.86 8.3 · 38.26 8.9/17 · 38.66 8.5/20 · 38.36 8.8/40 · 38.96 8.3/58 · 39.76 7.1/62.5 · 40.46 6.7/70

42.84 4.32/63.2 Top step · 41.61 5.55/63.2 Bot step

39.79 7.37/61.0 bot step · 41.58 5.58/63 Top step

43.86 3.3/75 · 42.16 5.0/62.5 · 41.16 6.0/54 · 40.06 7.1/40 · 39.96 7.2/20 · 39.36 7.8/17 · 39.66 7.5 · 38.86 8.3/20 · 39.06 8.1/24 · 38.76 8.4/40 · 39.36 7.8/45 · 40.06 7.1/62.5 · 41.06 6.1/68

41.25 5.91/62.2 wlk · 41.78 5.38/72.2

41.42 5.74/63 · 41.79 5.37/68 wlk

HI 47.16

13+25 64^{6} Lt End drive CON 4 garages

13+00

12+84 63^{8} Lt Begin CON drive for 4 garages

12+70

12+35

12+00 43^{7} Rt ℄ 14" Power Pole # 2201

11+87.81 Ely Olney taken along

11+59.2 Ely pav A.C. edge taken along

11+46.83 ℄ Olney take along

11+34.3 Wly edge A.C. pav. taken along

Lt = Nly ℄ Rt = Sly

37.72	37.00										
5^{06}	5^{78}										
74^{6} drive	64^{6}										

37.90	37.0	36.4	35.6	35.1	35.3	35.0	35.1	34.5	34.6	34.0
4^{88}	5^{8}	6^{4}	7^{2}	7^{7}	7^{5}	7^{8}	7^{2}	8^{3}	8^{2}	8^{8}
80	62.5	45	24	17		14	20	50	62.5	100

37.74	37.46
5^{04}	5^{32}
73^{8} drive	63^{8}

38.0	37.4	36.9	36.2	35.7	35.8	35.3	35.6	35.0	34.7
4^{8}	5^{4}	5^{9}	6^{6}	7^{1}	7^{0}	7^{5}	7^{3}	7^{8}	8^{1}
85	62.5	45	25	15		15	21	62.5	90

38.2	38.0	36.8	36.2	36.2	35.6	36.1	35.3	35.1
4^{6}	4^{8}	6^{0}	6^{6}	6^{6}	7^{2}	6^{7}	7^{5}	7^{7}
75	62.5	22	17		18	21	62.5	90

38.8	38.1	37.8	36.8	36.7	36.2	36.7	36.0	35.7
4^{0}	4^{7}	5^{0}	6^{0}	6^{1}	6^{6}	6^{1}	6^{8}	7^{1}
100	62.5	25	15		20	30	62.5	100

39.55	38.92	38.43	37.84	37.57	37.02	36.47
3^{23}	3^{86}	4^{35}	4^{94}	5^{21}	5^{76}	6^{31}
100	62.5	31		31	62.5	100

38.87	38.46	37.97	37.53	36.98	36.41	35.81
3^{91}	4^{32}	4^{81}	5^{25}	5^{80}	6^{37}	6^{97}
100	62.5	31		31	62.5	100

39.40	39.11	38.57	38.16	37.54	36.98	36.31
3^{38}	3^{67}	4^{21}	4^{62}	5^{24}	5^{80}	6^{47}
100	62.5	31		31	62.5	100

HI 42^{78}

16+50

16+00 62° Lt ℄ deadman

15+95 43° Rt ℄ 16" Power Pole # J7A2277

15+95 37° Lt ℄ deadman

15+90 68° Lt ℄ 8" Power Pole # J7A2267

15+83 46° Lt ℄ 10" Power Pole # A2269

15+68 67° Lt ℄ single garage con drive

15+50

TR 2 30 36 43 86 34 13

15+00

14+50

14+00

13+99 43° Rt ℄ 12" Power Pole # 2237

13+50

Lt = N/y ℄ Rt = S/y

32.8 31.8 31.7 30.8 31.1 30.0 29.9 29.8 30.4 29.2 27.8 26.3
3 4 4 5 5 6 6 6 6 7 8 10
100 62.5 40 30 16 14 10 17 37 62.5 100

34.2 32.7 31.4 30.8 30.5 30.5 30.7 30.0 30.1 29.0 28.5 27.6
2 3 5 5 5 5 5 6 6 7 7 8
100 62.5 40 15 17 19 30 48 62.5 80 100

35.20 33.90
123 263
77 67
floor drive

35.6 33.4 32.6 32.1 32.4 31.6 31.4 31.0 31.4 30.2 30.2 29.7
0 3 3 4 4 4 5 5 5 6 4 6
100 62.5 43 36 16 13 16 18 43 62.5 100

T 36 43

34.8 35.6 34.3 33.9 32.8 32.9 32.2 32.3 31.6 31.9 31.2 31.0 30.5
6 7 8 8 10 9 10 10 11 10 11 11 12
95 70 62.5 45 38 17 14 17 20 42 62.5 100

37.5 34.5 34.5 33.7 32.7 33.1 32.4 32.8 31.7 31.3
4 7 8 9 10 9 10 10 11 11
85 62.5 50 20 15 18 23 62.5 100

35.0 35.7 35.4 34.0 34.3 33.8 33.9 33.3 33.8 32.2 32.5 32.3 32.2
4 4 7 8 8 9 8 9 9 9 9 10 10
100 75 62.5 40 20 15 19 21 50 62.5 78 100

36.3 36.0 35.8 35.1 34.5 34.6 34.1 34.4 34.0 33.5 33.4
6 6 7 7 8 8 8 8 8 9 9
80 62.5 47 21 14 17 21 41 62.5 100

T 42 78

20+00

19+78 56° Rt ℄ 14" Pole # 2365

19+50

19+00

T.P. 7 6^{79} 34^{30} 8^{22} 27^{51}

18+50

18+33 39° Rt ℄ 12" Pole # 2333

18+00

17+70

17+42 83° Lt ℄ 12 Pole # SP4492
66° Lt ℄ Dish Man

17+41.31 ℄ Pendelton L+ Lt taken on split

17+00

16+94 43° Rt ℄ 12" Pole # 2299

Lt = Nly ℄ Rt = Sly

30.08	29.85	26.35	28.1	19.94	25.29	25.5	24.9	24.7	24.9	24.4	23.3	20.9	16.99	18.5
4^{22}	4^{45}	7^{95}	6^{2}	14^{36}	9^{01}	8^{8}	9^{4}	9^{6}	9^{1}	9^{9}	11^{0}	13^{4}	17^{31}	15^{8}
92 Garnet Pav edge	72 Top	72 ie	62.5	25 ie Pipe	20 Top	17		15	20	43	62.5	75	75 ie Top ditch & pipe	100 9d

31.60	29.30	27.9	27.2	27.7	25.7	25.60	26.11	23.3	21.30	20.0
2^{70}	5^{0}	6^{4}	7^{1}	8^{6}	8^{6}	8^{7}	8^{2}	11^{0}	13^{0}	14^{3}
112 Garnet Pav edge	62.5	46	33	15		18	25	62.5	83	100

31.1	29.89	27.6	27.4	26.30	26.6	26.3	26.9	25.3	24.1	20.2
3^{2}	4^{41}	6^{2}	6^{2}	8^{0}	7^{2}	8^{0}	7^{4}	9^{0}	10^{2}	14^{1}
100	62.5 Parking area AC.	36	26	14		20	24	46	62.5	100

⊼ 34^{30}

31.0	30.6	28.4	28.10	27.3	27.1	27.4	27.6	26.1	29.8	20.9
5^{4}	5^{8}	8^{0}	8^{4}	9^{1}	9^{3}	9^{0}	8^{8}	10^{3}	11^{6}	15^{5}
75	62.5	36	16	13		21	25	47	62.5	100

33.1	31.7	29.6	29.1	28.1	27.8	27.9	28.4	27.6	26.1	25.2	22.8
3^{3}	4^{7}	6^{8}	7^{3}	8^{3}	8^{6}	8^{5}	8^{0}	8^{8}	10^{3}	11^{2}	13^{6}
100	62.5	33	18	16		17	19	25	56	62.5	85

32.8	31.6	30.8	29.3	28.6	28.1	28.2	28.7	27.3	25.4	24.0	22.9
3^{6}	4^{8}	5^{6}	7^{1}	7^{8}	8^{3}	8^{2}	7^{7}	9^{1}	11^{9}	12^{4}	13^{5}
100	62.5	40	18	15		16	20	38	62.5	80	100

32.4	31.1	30.2	29.3	29.0	28.5	28.7	29.0	28.4	27.9	25.9	24.8
4^{0}	5^{3}	6^{2}	7^{1}	7^{4}	7^{9}	7^{7}	7^{4}	8^{0}	8^{5}	10^{5}	12^{6}
100	62.5	42	16	14		16	18	26	40	62.5	100

32.4	31.4	30.7	29.7	30.7	29.3	29.1	29.2	30.0	28.6	26.9	25.3
4^{0}	5^{0}	5^{2}	6^{7}	5^{7}	7^{1}	7^{3}	7^{2}	6^{4}	7^{8}	9^{5}	11^{1}
100	62.5	42	30	19	14		11	14	43	62.5	100

⊼ 36^{43}

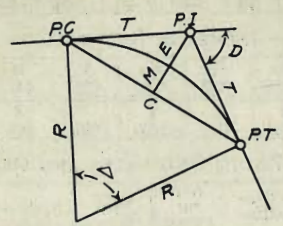
TP8			10^{96}	23^{34}	℄ Mon Balboa $21+07^{85}$ Pl. Line
$21+07^{85}$	Pl. Line	taken along			
$20+75$	46° Lt ℄ 36" Eucalyptus tree				
$20+50$					

Lt = Nly ℄ Rt = Sly

	26.74	26.4	25.4	24.3	23.5	22.9	23.3	23.3	21.8	20.7	18.0
	7^{56}	7^{9}	8^{9}	10^{0}	10^{8}	11^{4}	11^{0}	11^{0}	12^{5}	13^{6}	16^{3}
Garnet pav edge	48	38	29	16		20	22	34	40	65	100
	27.44	25.6	23.9	23.3	23.6	23.2	21.9	20.7	16.7		
	6^{86}	8^{7}	10^{4}	11^{0}	10^{7}	11^{1}	12^{4}	13^{6}	17^{6}		
Garnet pav edge	58	28		20	26	39	46	62.5	100		
	28.34	28.2	25.9	24.3	23.9	24.5	23.2	22.1	21.5	17.5	
	5^{96}	6^{1}	8^{4}	10^{0}	10^{4}	9^{8}	11^{2}	12^{3}	12^{8}	16^{8}	
Garnet pav edge	70	62.5	30		19	24	45	56	62.5	100	

⊼ 34^{30}

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

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

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

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

External=E=T tan $\frac{\triangle}{4}$ (7)=R ÷ cos. $\frac{\triangle}{2}$—R (8)=R exsec $\frac{\triangle}{2}$ (9)

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

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. $\triangle$=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=414.49 ft. From Table V correction=.36 or T=414.85 ft. P. C.=Sta. P.I.—T=157 +45.50. Also from (4) L=746.00 and P. T.=Sta. P. C.+L=164+91.50.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 $(54.50 \div 100)^2$=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=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6÷8⅓=115.27 and from Table V correction=.10 or E=115.37 ft. Or suppose $\triangle$=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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)÷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.