1647

DIXIE

ENGINEERS

FIELD BOOK

NO. 408 F

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.

1647

CITY ENGINEER

499
8.56
13.85

4.25
8.56
12.81

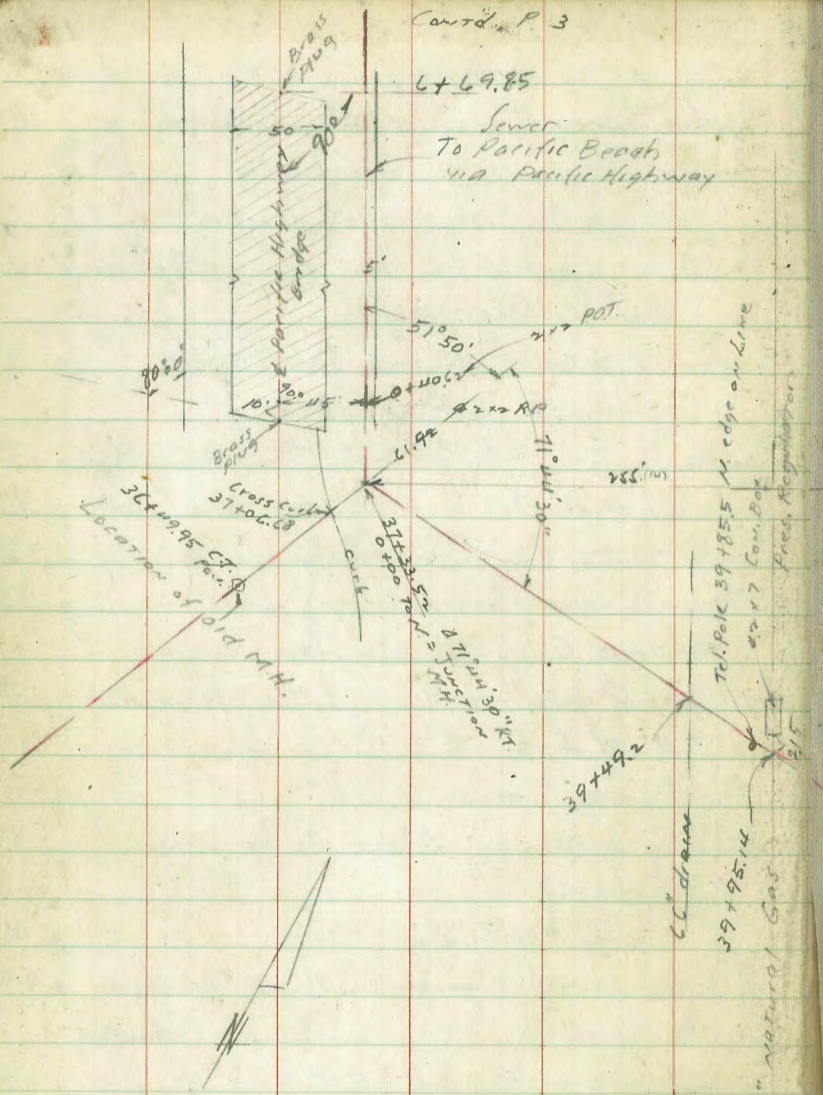
Completely except page # 1, 7v

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

Cont'd. P 3



Proposed Change of Mission Valley Sewer for Junction with Pac. Beach Sewer at Pacific Highway and Govt. Dyke.

Moore
10-9-42.

Levels on proposed Line change
Mission Valley Sewer, Pac. Highway.

BM. B.P. S.W. R.R. Agt. & Govt. Dyke

6.79 [18.99] N

City 12.70

USC&G Walker 21.71 1423-7

35		14.6	4.4	✓ N
	+50	14.6	4.4	✓
	+66	14.9	4.1	✓
36		5.3	13.7	✓
	+16	4.5	14.5	✓
	+37 r w Shoulder	1.0	18.0	✓
	+37 " edge pav	1.2	17.8	✓
	+49.95 old MH	0.93	18.06	✓ Pav.
37		0.6 r	18.37	✓ "
	+06.4 Gutter	0.77	18.22	✓ "
	+06.68 Top 6" Curb	0.27	18.72	✓
	+15	0.5	18.5	✓
	+33.5 r Δ 71°44'30" Rt.	8.0	11.0	✓
	+54	15.3	3.7	✓
38		15.4	3.6	✓
	+50	15.0	4.0	✓
39		16.7	2.3	✓
	+21	16.3	2.7	✓
	+39	10.r	8.8	✓
	+49.r ditch overdrawn	9.4	9.6	✓

Reduced by M.R.V. 10/10/42 ✓

<18.99 ✓

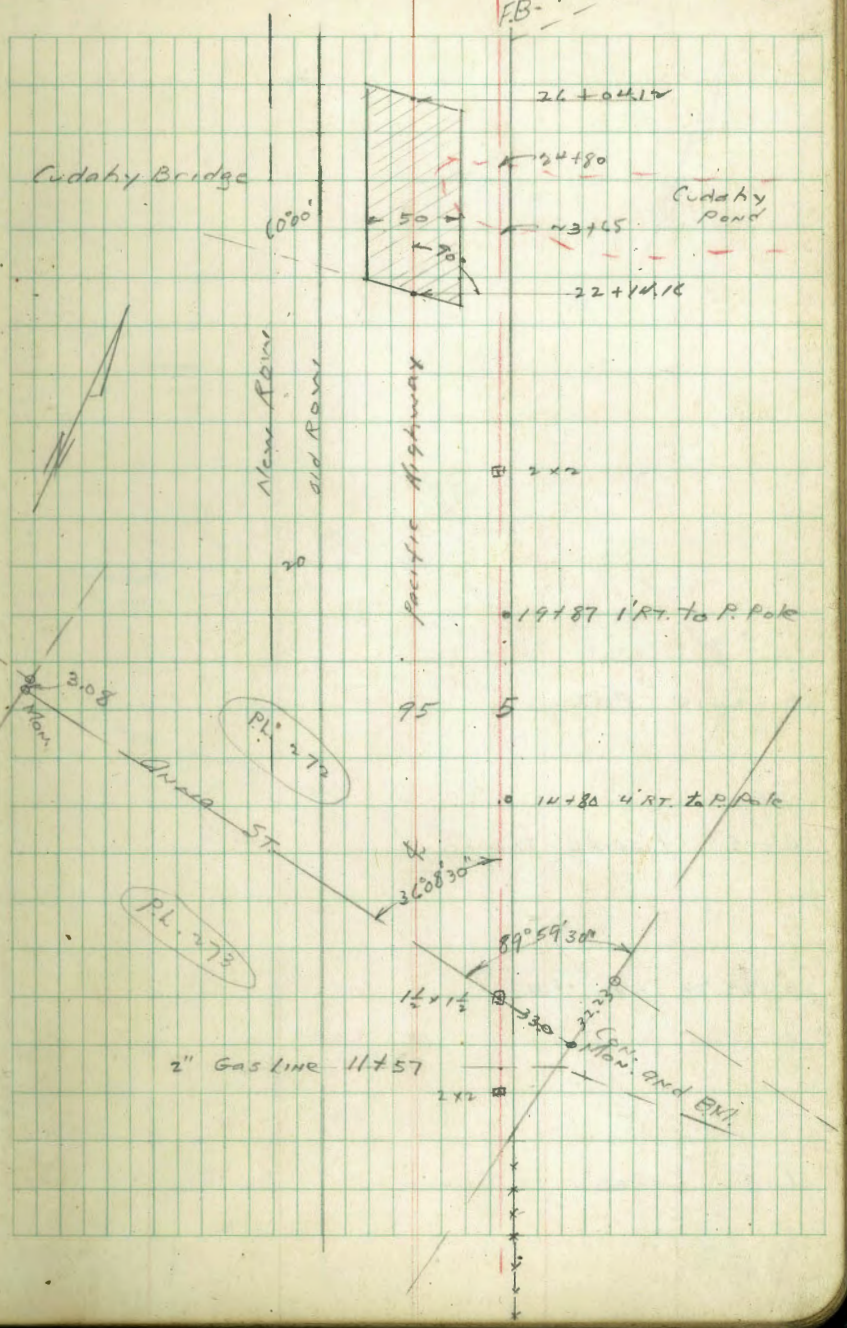
		Elev.	✓ M.
39+60		10.8	8.2
	+70	10.5	8.5 ✓
	+75	8.5	10.5 ✓
	+95.14 Top Conc. Box 2.5 Lt.	9.1	9.9 Top Pipe 2.6 below Bot. Box 5.6 - 4.3 = Elev. (7.3 Elev.)
40		9.6	9.4 ✓
	+18	10.r	8.8 ✓
	+33	5.6	13.4 ✓
	Top W Rail	4.9 r	14.07 ✓
	+39.75 ℄ R.R. on ℄	5.5 r	13.47 ✓
	Top E Rail	4.93	14.06 ✓
	+45	5.6	13.4 ✓
	+54	7.6	11.6 ✓
	+71 r	16.1	2.9 ✓
	+81 r	16.7	2.3 ✓
41+05		14.1	4.9 ✓
	+50	13.6	5.4 ✓
4 r		13.6	5.4 ✓
	+50	13.4	5.6 ✓
43		13.5	5.5 ✓
	+50	13.5	5.5 ✓
43 +74.04 Δ 28°54' Lt.		13.5	5.5 ✓

43 +71.51 = old Sta.

20 + 99.44 ± ± ± P.O.T.

11 + 63.33 INT. P.L. ON ANNA ST. (Sly P.L. ± 77±)

11 + 51.5 ± ± ± P.O.T.

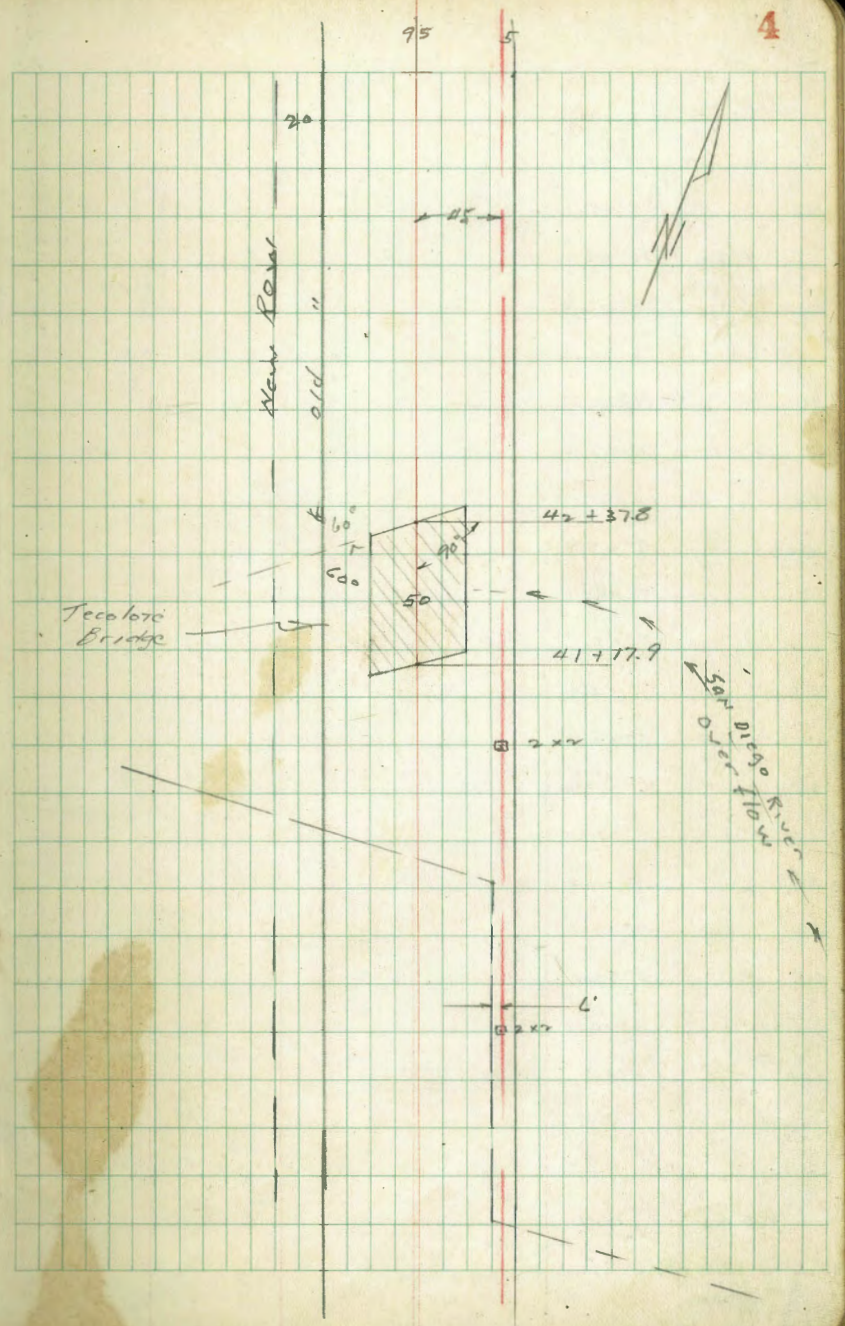


39 + ±4.15 P.O.T.

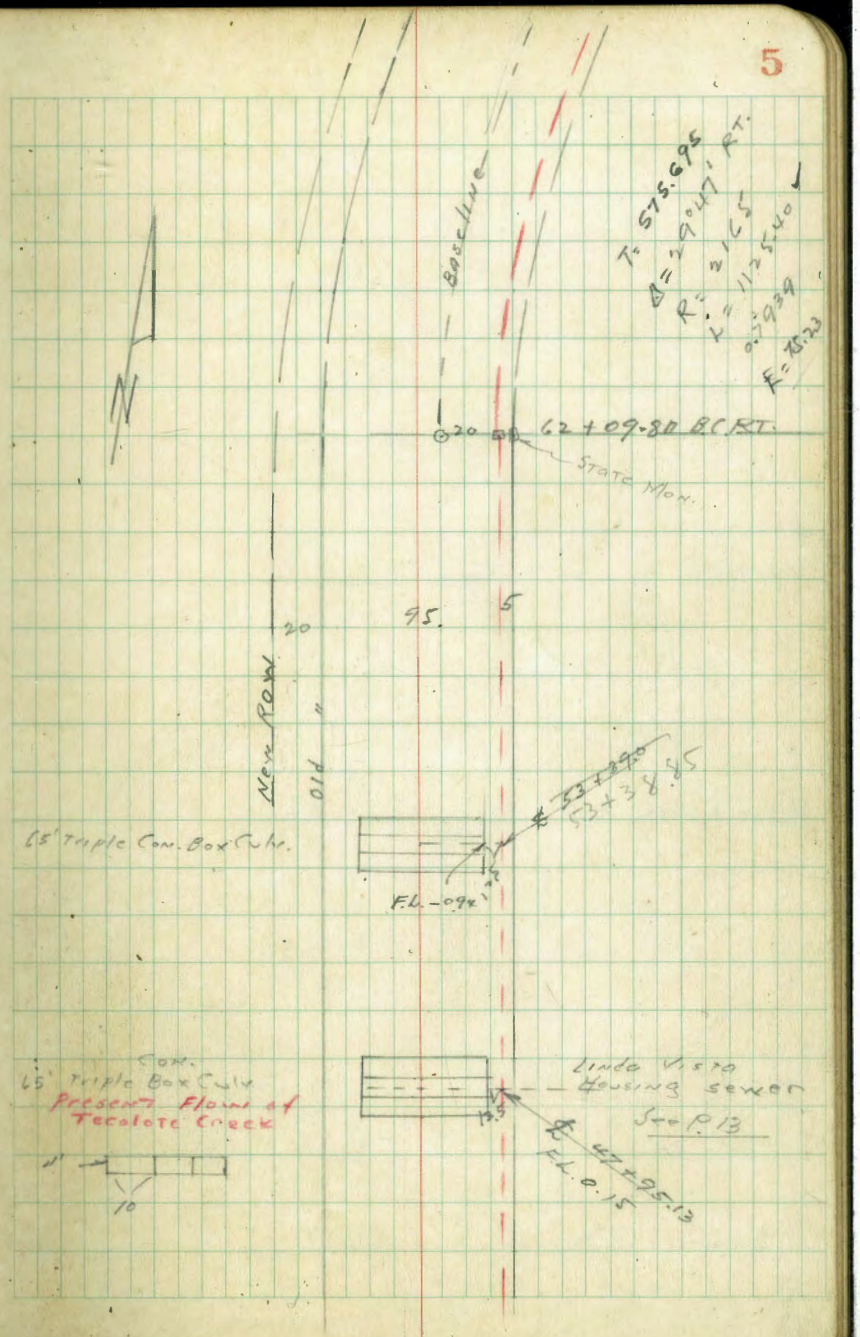
34 + 05 Cudahy Sewer

30 + 85.83 xxx P.O.T.

26 + 8± Cudahy 10" Sewer



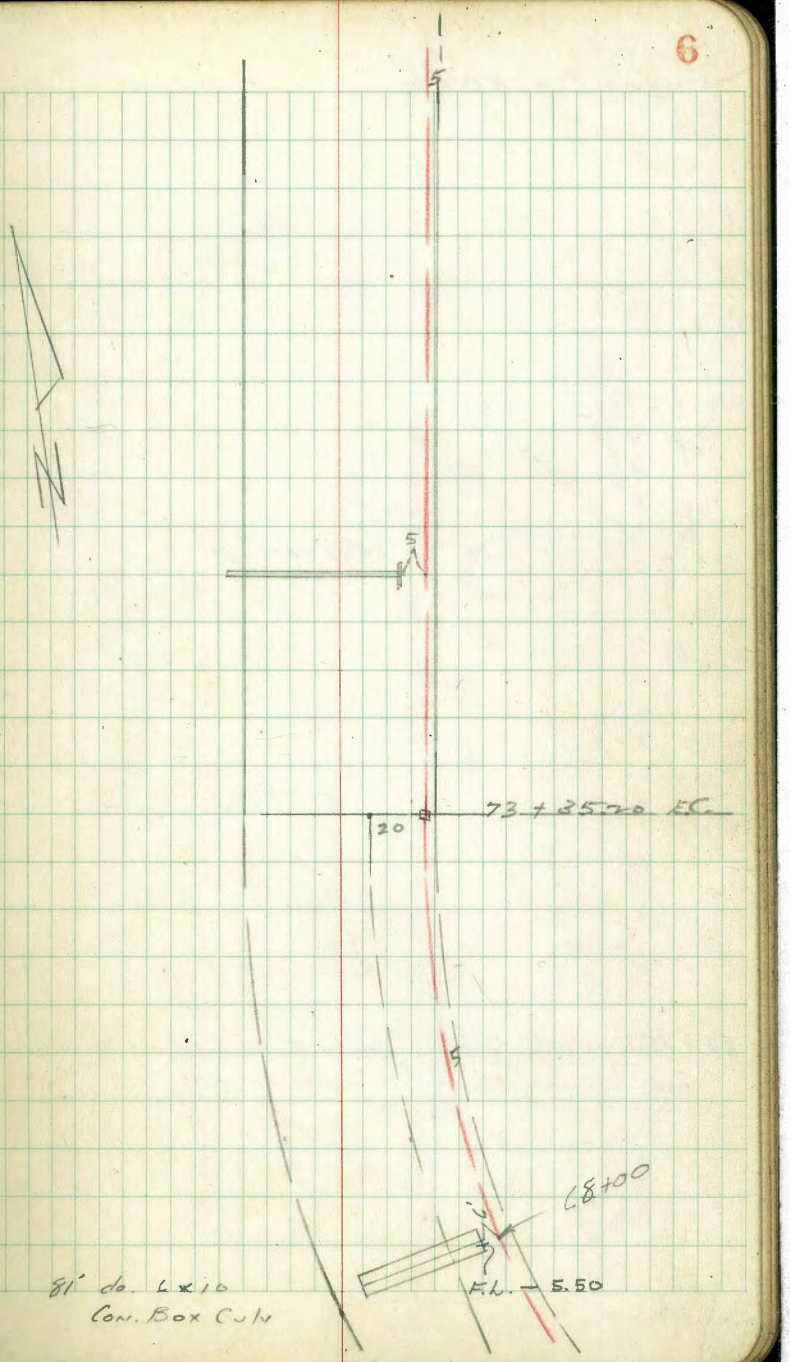
Sta.	defl.	
E.C. + 35.48	14°52.5	
73	14°45.6	35.48 ch. on offset
+ 50	13°46.0	
72	13°04.3	
+ 50	12°26.6	
71	11°46.9	
+ 50	11°07.2	
70	10°27.5	
+ 50	9°47.8	
69	9°08.1	
+ 50	8°28.3	P.O.C.
68	7°48.6	
+ 50	7°08.9	
67	6°29.2	
+ 50	5°49.5	
66	5°09.8	
+ 50	4°30.1	
65	3°50.4	
+ 50	3°10.7	
64	2°31.0	
+ 50	1°51.3	
63	1°11.6	
+ 50	0°31.9	
62 + 09.80	B.C.RT	46.51 ch. on 20° offset



78+56 24" Con. pipe Culv.

73+35±0 E.C. 1½"x½" STK6

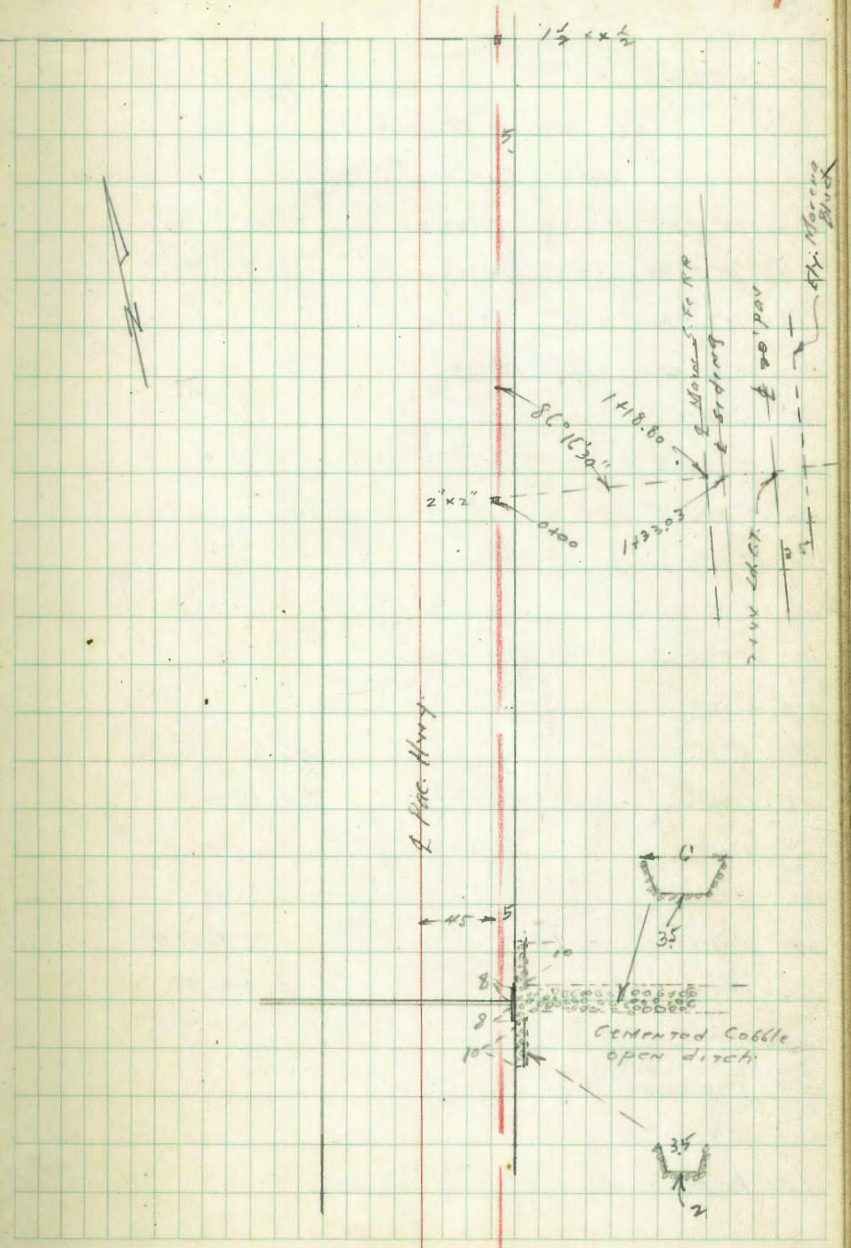
L8+00 do L x 10 Box Culv.



100+00.60 B.C. LT.

93+77.53 INT. ℄ MILTON ST.

83+15.5 = 30" Cor. pipe Culv. 8" hd. wall on ROW Line
or 4.3' Rt. to inside hd. wall



175+87.76 E.C.

E.C. +87.76 16°18.75

		175	15°45.7 ✓
170	12°36.0 ✓	174	15°07.3 ✓
169	11°58.7 ✓	173	14°29.4 ✓
168	11°20.4 ✓	172	13°51.6 ✓
167	10°42.5 ✓	171	13°13.8 ✓
166	10°04.7 ✓		
165	9°26.9 ✓		
164	8°49.1 ✓ POC		
163	8°11.3 ✓		
162	7°33.5 ✓		
161	6°55.7 ✓		
160	6°17.9 ✓		
159	5°40.1 ✓		
158	5°02.4 ✓		
157	4°24.5 ✓		
156	3°46.6 ✓		
155	3°08.8 ✓		
154	2°31.0 ✓		
153	1°53.2 ✓		
152	1°15.4 ✓		
151	0°37.6 ✓		

100+00.60 E.C.T. 1½ × 1½ STUB

Δ = 32°36'30" LT

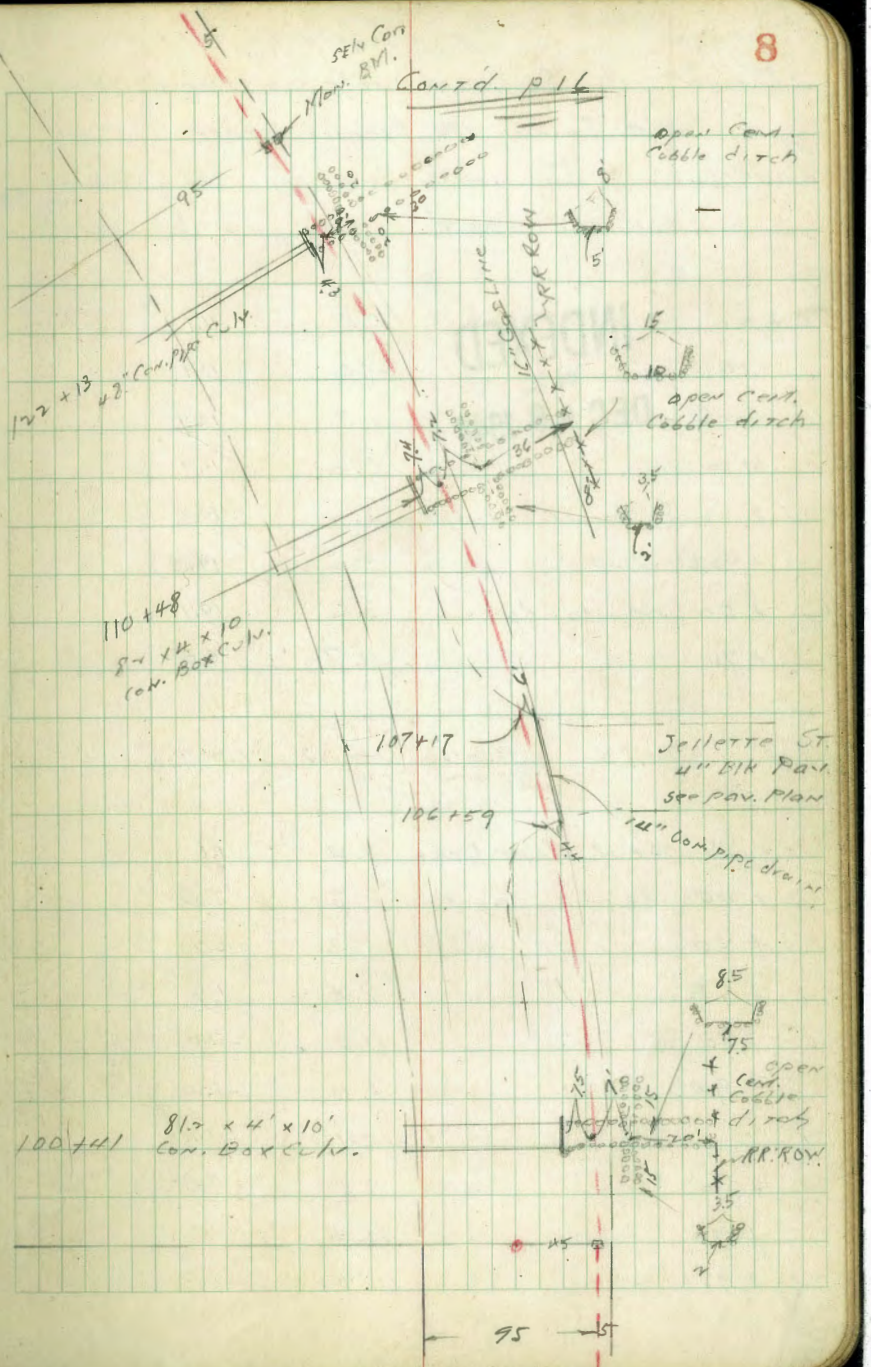
R = 4545

L = 2586.66 ✓

a 3781

T = 1329.91

E = 190.98



I of 4 Way

Preliminary Sewer Levels via Pacific Hwy
Old Town to Pacific Beach

BM BP Sym. Con. So. Abut. Com. Santa Fe RR Bridge on Govt. Dyke — State. 12.57

4.97 — 17.67 — 12.70 City Datum

U.S.G.S. has corrected this BM 12.588 City Datum

0+00		6.6	11.1
+10		4.6	13.1
+25		3.8	13.9
+30		6.0	11.7
+33	S. Shoulder dyke	3.2	19.5
+40.6	POT	3.2	19.5
+50	N. sh. dyke.	3.6	19.1
+70		11.7	6.0
T.P.	1.73	(9.02)	10.38 (7.29)
+85	Toe N. slope Dyke	7.4	1.6
1+00	River sand	5.8	3.2
+40	" "	5.3	3.7
+75	" "	7.1	1.9
+80	" "	11.0	-2.0
+90	" "	11.0	-2.0
2	" "	10.1	-1.1
+50	" "	9.8	-0.8
+90	" "	10.2	-1.2
+95	" "	11.2	-2.2

(9.02)

State. 6108 & 6196

3	" " "	10.7	-1.7
+15	" "	9.3	-0.3
+18	" "	7.7	1.3
+40	" "	7.2	1.8
+50	" "	6.3	2.7
4	" "	8.5	0.5
+10	" "	7.0	2.0
+40	" "	6.7	2.3
+50	" "	4.5	4.5
T.P.	6.64	(10.96)	4.70 (4.32)
+65	River Sand	10.7	0.3
+75	" "	10.6	0.4
5	" "	11.2	-0.2
+15	" "	10.9	0.1
+50	" "	10.1	0.9
+85	" "	9.3	1.7
6	" "	7.2	3.8
+50	Near Soil	5.6	5.4
+70	on slope	0.5	10.5
"	7 RT	4.2	6.8
7	Line on Toe Slope	4.5	6.5 on Pac. Hwy.
+50		4.6	6.4
+90		4.1	6.9
T.P.	5.04	(15.13)	0.87 (10.09)

15.13

8+00		4.2	10.9
+05	Ramp to Hwy.	2.1	13.0
+21		2.0	13.1
+34		7.8	7.3
+60		9.0	6.1
9		9.0	6.1
+50		9.3	5.8
10		8.7	6.7
+50		9.1	6.0
+90		8.7	6.9
11		5.2	9.9
+50		4.0	11.1
+63.33	Pebble Lane Ramp St	4.6x	(10.49) Hub
+90		9.7	5.9
12		9.8	5.3
+50		10.2	4.9
13		10.6	4.5
+50		10.7	4.8
14		10.7	4.9
+50		10.6	4.5
15		10.8	4.3
T.P.	10.02	(14.72)	10.43 (4.70)
+50		10.5	4.2
16		10.4	4.3

(14.72)

+50		10.5	4.2
+60		10.2	4.5
+75	Ramp to Hwy.	4.4	10.3
+90	" " "	5.2	9.3
17		9.7	5.0
+50		11.6	3.1
18		11.4	3.3
+50		10.9	3.8
19		10.5	4.2
+50		10.3	4.8
20		9.7	5.0
+50		9.6	5.1
+90		10.2	4.3
+97		4.8	7.9
21		6.9	7.8
T.P.	18 (6.50)	9.40	(5.32)
+18	Ramp to Hwy.	+1.6	8.1
+25		2.5	4.0
+50		3.2	3.1
+75		5.2	1.1
+90		3.0	3.5
22		5.2	1.3
+05		6.2	0.1
+50		7.1	-0.6

		(6.50)			
~3			7.3	-0.8	✓
	+50		7.0	-0.5	✓
	+65	S. edge pond	7.3	-0.8	✓
	+70	" "	8.3	-1.8	✓
~4		" "	10.0	-3.5	✓
	+30	" "	10.1	-3.6	✓
	+45	" "	8.~	-1.7	✓
	+70	" "	8.7	-2.2	✓
	+80	N. edge pond	7.3	-0.8	✓
~5			7.0	-0.5	✓
	+25		6.7	-0.2	✓
	+40		7.~	-0.7	✓
	+65		6.5	0.0	✓
T.P.	7.56	(13.09) ✓	0.97	(5.53)	✓
	+70		9.6	3.5	✓
	+85		8.8	4.3	✓
~6			10.0	3.1	✓
	+25		11.1	2.0	✓
	+50		9.4	3.7	✓
	+75		8.0	5.1	✓
~7			8.5	4.6	✓
	+50		8.5	4.6	✓
~8			8.7	4.9	✓
	+50		9.2	3.8	✓

		(13.09) ✓			
~9			9.6	3.5	✓
	+50		9.9	3.2	✓
30			9.8	3.3	✓
	+30		10.7	2.2	✓
	+C~		9.4	3.7	✓
	+73		6.~	6.9	✓
	+85		6.4	6.7	✓
T.P.					
30+85.83	1.~7	(7.99) ✓	6.37	(6.7~) ✓	
	+88		1.3	6.7	✓
31			4.7	3.3	✓
	+15		5.7	2.3	✓
	+40		5.0	3.0	✓
	+50		5.1	2.9	✓
	+95		5.5	2.5	✓
3~			4.6	3.8	✓
	+50		5.0	3.0	✓
	+90		5.6	2.9	✓
~33			5.0	3.0	✓
	+50		5.4	2.6	✓
34			5.0	3.0	✓
	+15		3.0	5.0	✓
	+75		5.0	3.0	✓
	+50		5.5	2.5	✓
35			5.4	2.6	✓

		(7.99)			
T.P	7.34	(10.35)	4.98	(3.01)	
35 + 50			8.2	2.2	
36			7.9	2.5	
+ 50			7.9	2.5	
37			8.2	2.2	
+ 50			8.2	2.2	
38			8.2	2.2	
+ 50			8.2	2.2	
+ 90			8.2	2.0	
39			7.2	3.2	
+ 15	RAMP		5.5	4.9	
+ 2.15	P.O.T. 2x2		5.65	(4.70)	
+ 30			5.8	4.6	
+ 40			8.2	2.2	
+ 50			8.3	2.1	
40			8.2	2.2	
+ 50			8.3	2.1	
41			8.3	2.1	
					Stak. 7.75
Iron Pin T.P. Switch.	1.55	(9.38)	2.52	(7.83)	Tecolote Bridge
+ 40			7.4	2.0	
+ 52			9.7	-0.3	
+ 85			8.2	1.2	

(9.38)

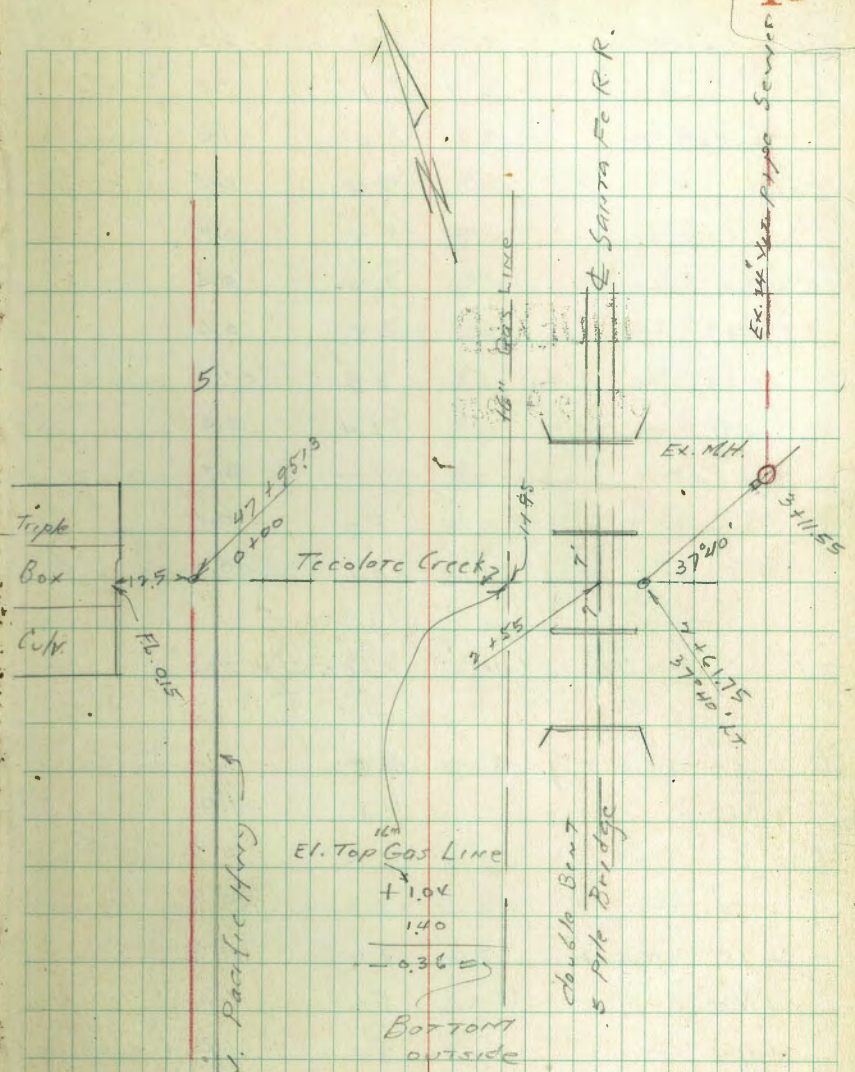
42			9.0	0.8	
+ 50			8.6	0.8	
+ 70			7.5	1.9	
43			7.1	2.3	
+ 50			7.4	2.0	
44			7.6	1.8	
+ 50			7.1	2.3	
45			7.3	2.1	
+ 50			7.2	2.2	
46			7.2	2.2	
+ 50			6.2	3.2	
47			6.2	3.2	
+ 40			5.6	3.8	
+ 60			5.6	3.8	
+ 70			5.5	3.9	
+ 85			8.4	1.0	
					47 + 95.13 ℄ Chisel Top West Hd. Wall Culv.
T.P	2.23	(7.88)	3.73	(5.65)	
47 + 95.13 ℄ Triple Box Culv.			8.5	-0.6	Sand
48			6.6	1.3	
+ 23			4.2	3.7	
+ 50			4.7	3.2	
49			5.1	2.8	
+ 50			5.5	2.9	
50			5.8	2.1	

Contd. P.14

Levels to Ex. outlet M.H.

Linda Vista Housing Project

T.P. P.I.M.	5.73	(11.38)	5.65	
0+00		12.0	-0.6	Sand
0+50		11.0	0.4	"
1		10.6	0.8	"
+50		10.4	1.0	"
2		10.0	1.4	"
2 +55	T.S. Fe R.R.	9.8	1.6	sand
"	" "	4.40	7.0	Top rail
2 +61.75	Δ 37°40' Lt	9.7	1.7	Sand
+75		10.1	1.3	Sand
3+06		9.5	1.9	Sand
"	F.L. end 24" Pipe thru M.H.	8.20	3.18	
3+11.55	M.H. Rim	8.34	3.06	
"	" F.L.	5.10	6.28	



		⟨7.88⟩	from P.I.	
5.0 + 50			5.7	2.2
51			6.1	1.8
+ 50			6.6	1.3
52			7.2	0.5
+ 50			7.2	0.7
53			7.4	0.5
+ 37			7.4	0.5
+ 39	opp. Cv In.		8.9	-1.0 (12.5 Lt. & INV. F.L. -0.9)
+ 41			7.4	0.5
+ 60			7.2	0.7
54			8.0	-0.1
+ 50			8.1	-0.2
T.P.	1.64	⟨6.41⟩	3.11	⟨4.77⟩
55			7.5	-1.1
+ 50			7.8	-1.9
56			7.1	-0.7
+ 50			7.3	-0.9
+ 75	Rain		7.2	-0.8
+ 80			5.1	1.3
+ 92			5.1	1.3
57			7.3	-0.9
+ 30			8.2	-2.0
+ 65			8.0	-1.6
+ 78	Ramp		4.8	1.6

		⟨6.41⟩		
58			4.8	1.6
+ 07			4.8	1.6
+ 15			7.8	-1.8
+ 50			8.2	-2.0
59			9.2	-2.8
+ 50			9.1	-2.7
60			9.3	-2.9
+ 50			8.6	-2.2
61			8.0	-1.6
+ 50			8.0	-1.6
62			8.0	-1.6
+ 09.80 B.C. P.T.			7.9	-1.5
T.P. B.C.H.6	6.08	⟨4.59⟩	7.90	-⟨1.49⟩
B.M. Top rail P.T. Hwy. 120 Rt. Cv +70		Const. B.M.	4.89	-0.30 (Highway -0.32, 0.02)
62 + 50			6.7	-2.1
63 Beg. Marshy ground			6.5	-1.9
+ 50			6.6	-2.0
64			6.5	-1.9
+ 50			6.6	-2.0
65			6.8	-2.2
+ 50			7.2	-2.6
66			7.2	-2.6
+ 50			7.2	-2.6

(4.59)

67		7.5	-2.9	
+50		7.1	-2.5	
+85		6.7	-2.1	
+90		10.0	-5.9	6' Lt. to 8" Inlet
68	opp. Box Culv. in Tidal Slough	10.5	-5.9	F.L. -5.50
+10		9.6	-5.0	
+70		5.9	-1.3	
+50		6.4	-1.8	
69		6.7	-2.1	
T.P.	1.48 (6.01)	0.06	(4.53)	
+50		7.9	-1.9	
70		8.2	-2.2	
+50		8.6	-2.6	
71		9.0	-3.0	
+50 end Marshy grd.		8.8	-2.8	
72		7.9	-1.9	
+50		8.0	-2.0	
73		8.5	-2.5	
+3520 E.C.		8.3	-2.3	
+50		8.6	-2.6	
74		8.5	-2.5	
+15		8.3	-2.3	
+21	Ramp	5.1	0.9	
T.P.	2.16 (4.83)	3.34	(2.67)	

4.83

+40		3.5	1.3
+50		6.8	-2.0
75	Beg. Marshy ground	7.6	-2.8
+50		7.9	-3.1
76		7.8	-3.0
+50		8.0	-3.2
77		8.2	-3.4
+50		8.3	-3.5
78		7.9	-3.1
+56		8.4	-3.6
" 5' Lt F.L. 24" Culv		8.46	-3.68
+63 end Marshy grd		7.9	-3.1
+70		6.0	-1.2
79		5.7	-0.9
+50		5.9	-1.1
80		5.8	-1.0
+50		5.6	-0.8
81		5.4	-0.6
T.P.	3.83 5.58	3.08	1.75
+50		5.9	-0.3
82		5.4	0.2
+50		5.3	0.3
83		5.7	-0.1
+15.5		6.2	-0.6
" 5' Rt F.L. 30" Culv. Inlet		1020	-4.62

Contd. P. 2

Δ = 24° 53' 45" Lt

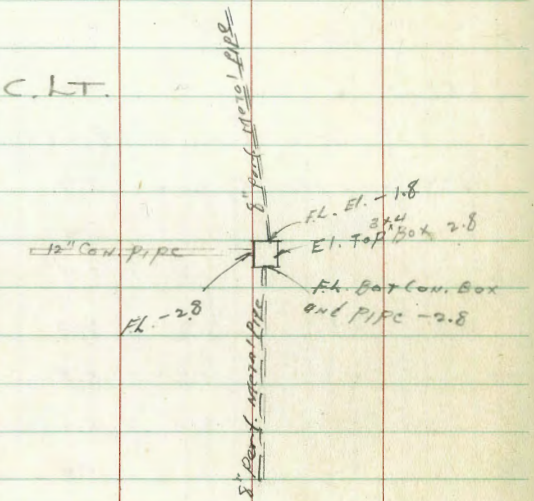
R = 3545

L = 1540.35 ✓

0.4848

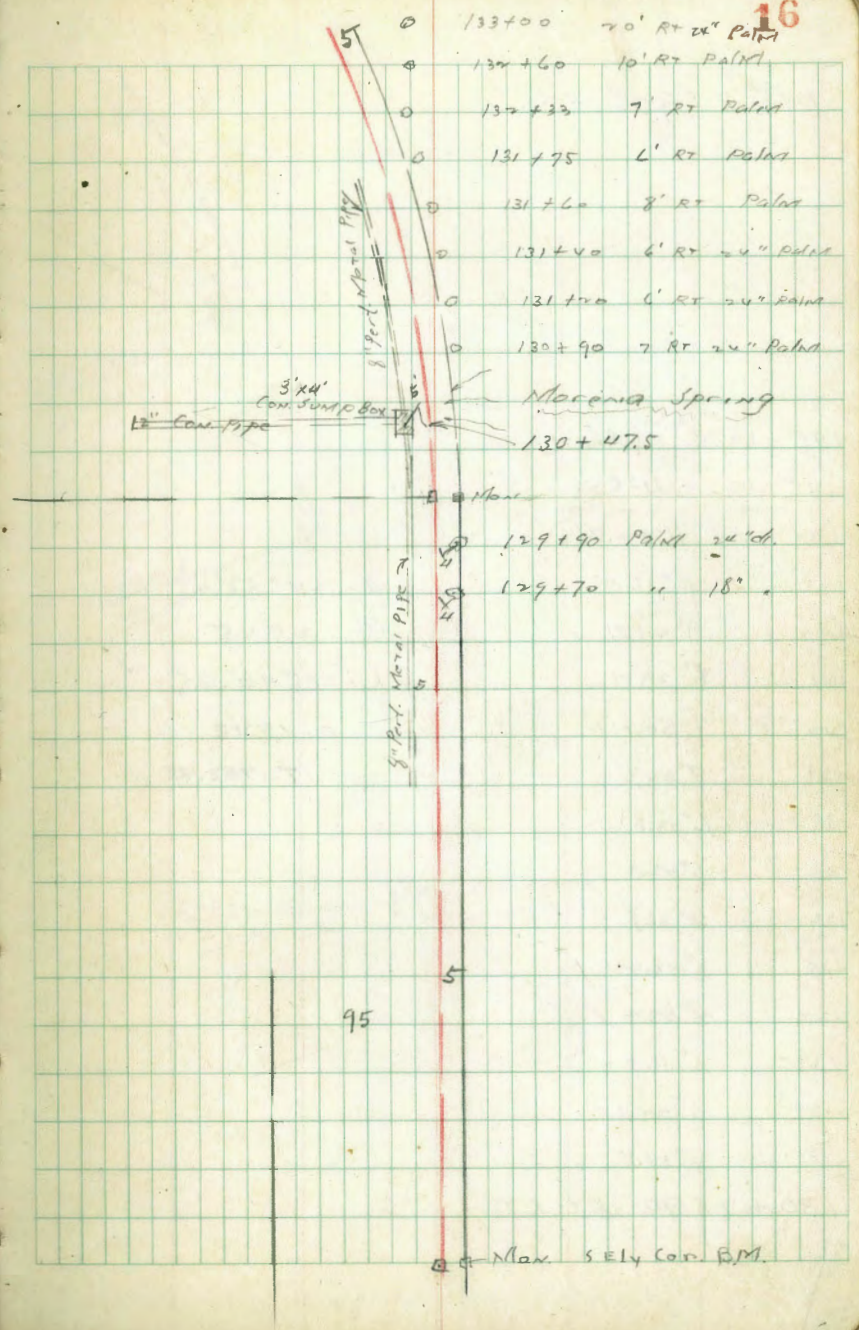
T = 782.95 E = 85.36

130 + 18.90 B.C. Lt.



125 + 87.26 E.C.

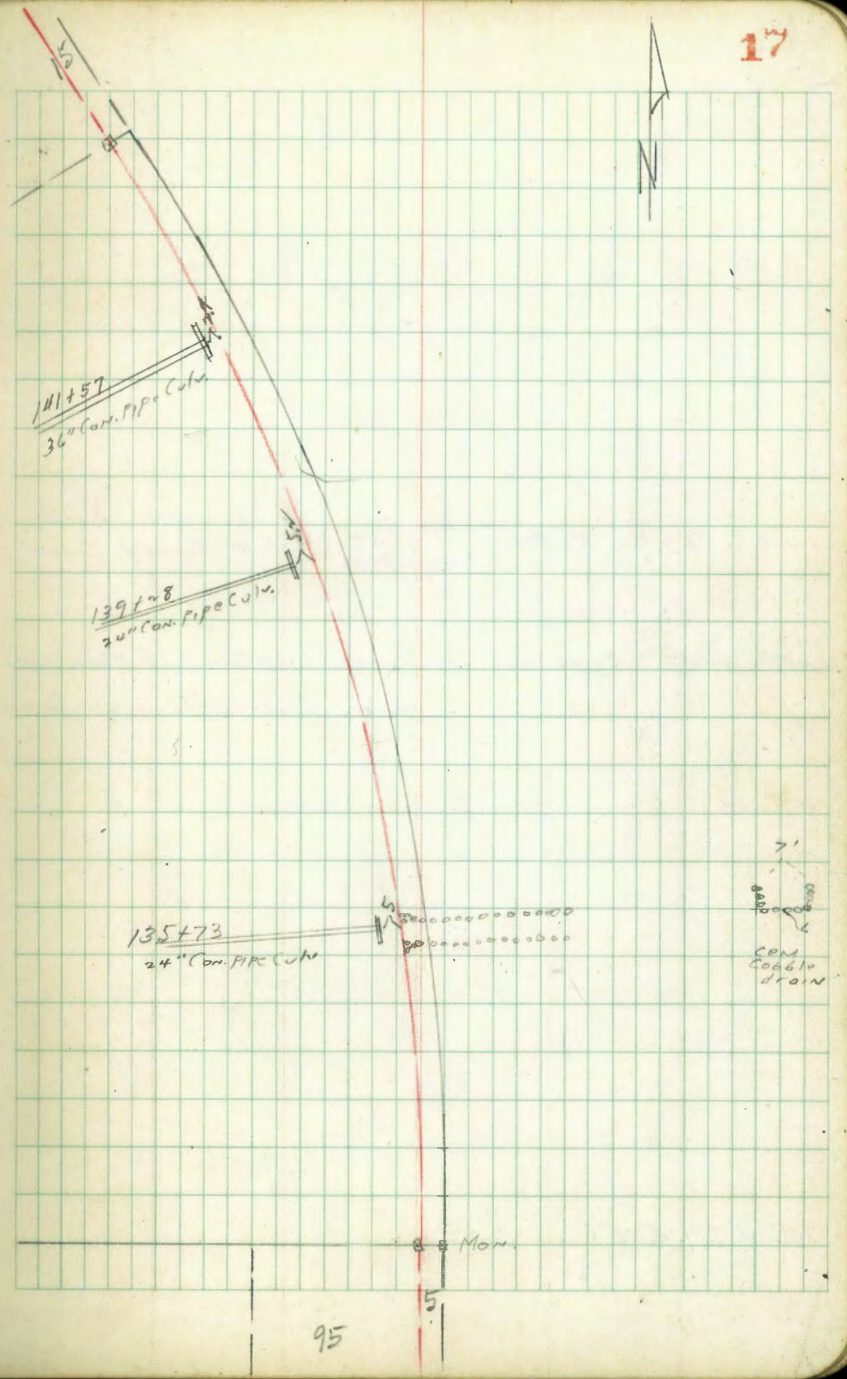
X 31.44 Cont'd from P.B



145 + 69.25 E.C.

145 + 69.25 E.C.	12°26.6
145	11°53.1
144	11°04.7
143	10°16.2
142	9°27.7
141	8°39.1
140	7°50.8
139	7°02.3
138	6°13.8
137	5°25.3
136	4°36.8
135	3°48.2
134	2°59.9
133	2°11.4
132	1°22.9
131	0°34.5
130 + 78.90 B.C.L.T.	

Δ = 24°53'45" Lt
R = 3545
L = 1540.35
0.1818
T = 782.45

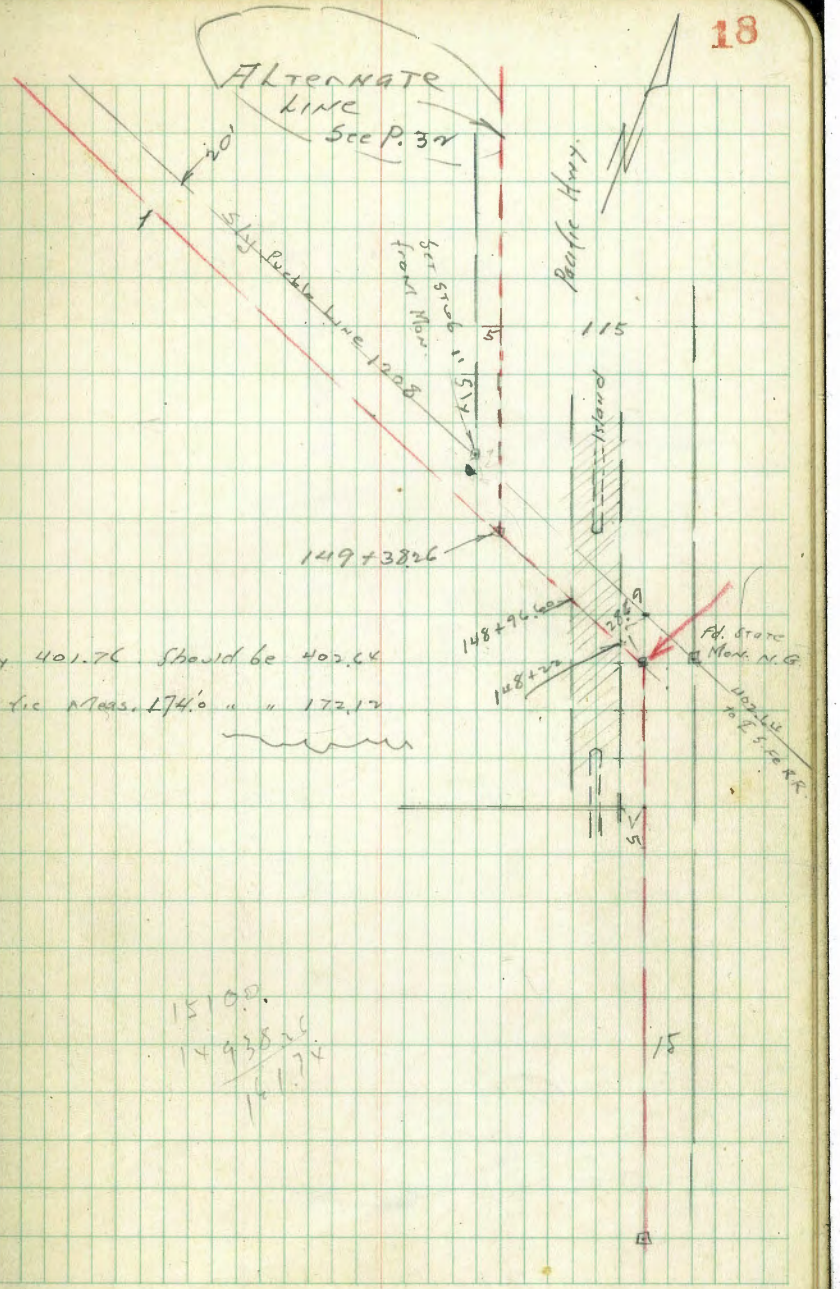


149+38.26 Δ 44°12'15" RT. = Alternate Line Via Grand Ave

147+94.83 Δ = 44°12'15" LT. From State Mon. to ℄ RR. Meas. and Mon. to Mon. across

147+44 30" Con. pipe Culv.

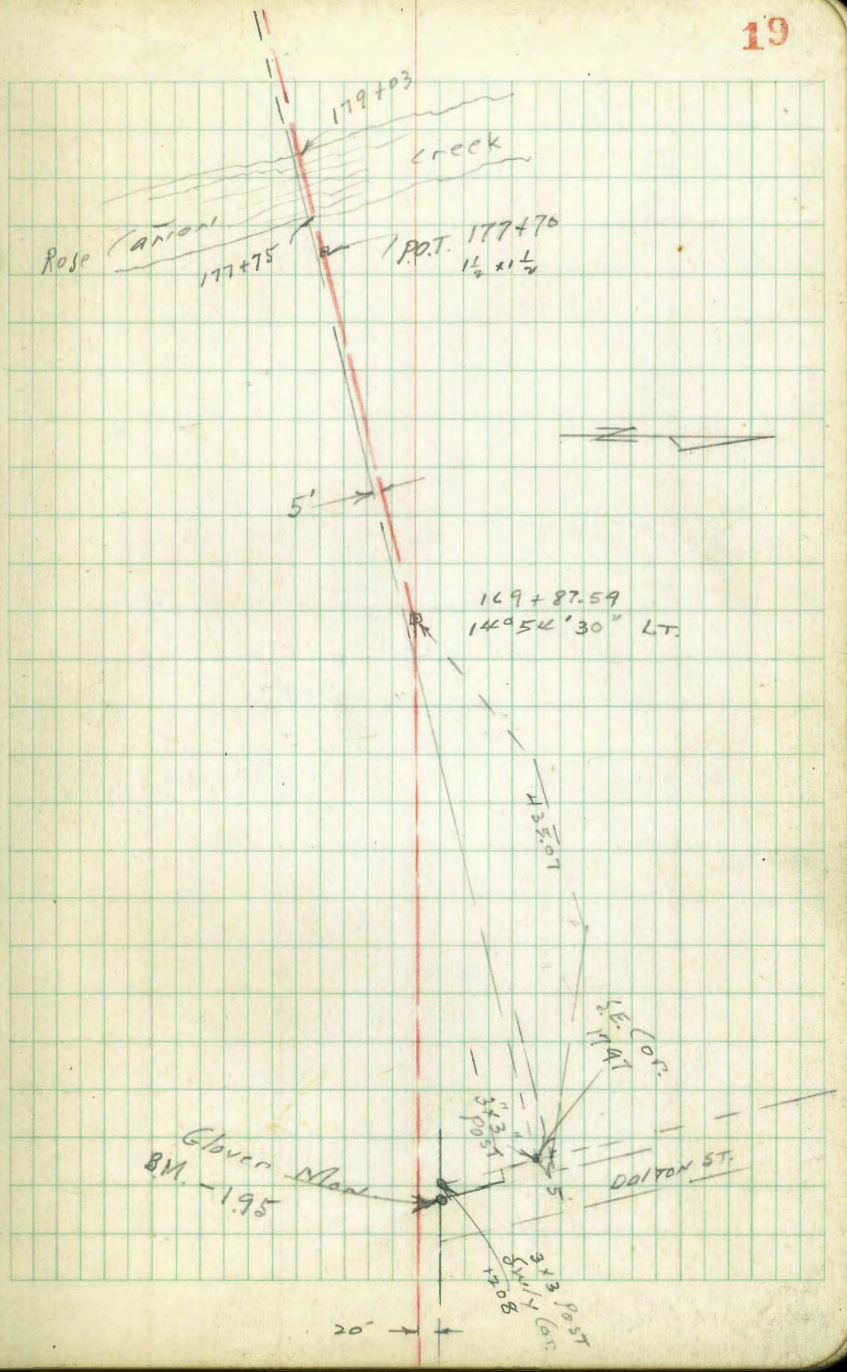
145+69.75 E.C.



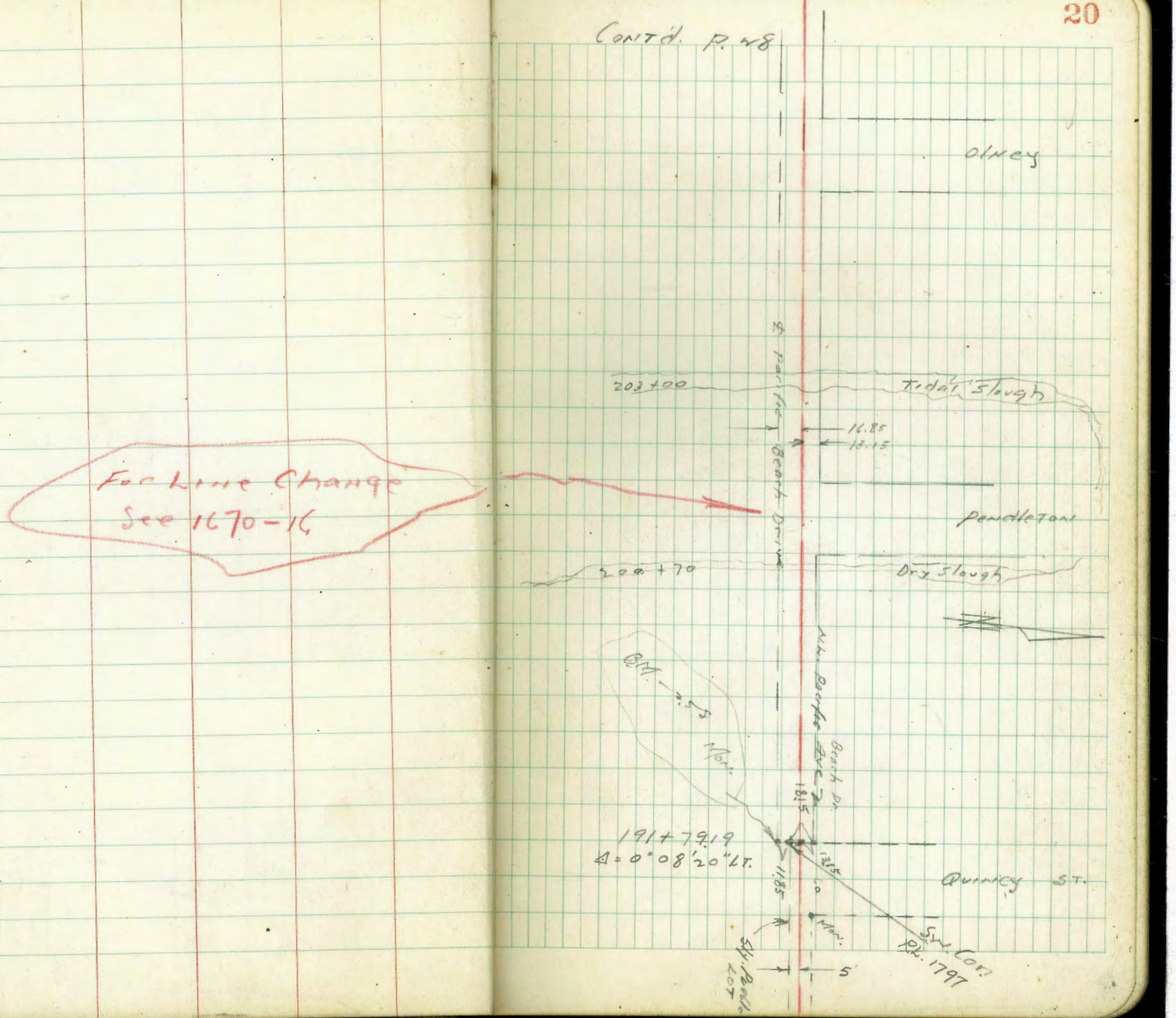
only 401.76. Should be 402.64

Pacific Meas. 174.0 " " 172.12

15100
14938.26
161.74


179+03
Creek
Rose Canion
177+75
P.O.T. 177+70
1½ x 1½
5'
169+87.59
14°54' 30" LT.
Glover Mon.
B.M. -1.95
3"x3" post
Dalton ST.
20'

Cont'd. P. 28



For Line Change
See 1670-16

5.58 ✓ front P. 15

83 + 50			5.8	-0.2	✓
84			6.1	-0.5	✓
+ 50			5.7	-0.1	✓
85			6.0	-0.2	✓
+ 50			5.7	-0.1	✓
86			5.7	-0.1	✓
+ 50			5.4	0.2	✓
87			5.5	0.1	✓
T.P.	4.48	7.80 ✓	2.21	3.37	✓
+ 50			6.9	0.9	✓
88			7.1	0.7	✓
+ 50			6.7	1.1	✓
89			6.4	1.4	✓
+ 50			6.4	1.6	✓
90			6.4	1.6	✓
+ 50			6.0	1.8	✓
91			6.1	1.7	✓
+ 50			5.8	2.0	✓
92			5.9	1.9	✓
+ 50			5.6	2.2	✓
T.P.	4.54	7.28 ✓	5.08	2.74	✓
93			5.5	1.8	✓

7.28 ✓

93 + 50			5.3	2.0	✓
+ E MILTON ST.			5.1	2.2	✓
94			5.1	2.2	✓
+ 50			5.4	1.9	✓
95			5.3	2.0	✓
+ 50			5.3	2.0	✓
96			5.5	1.8	✓
+ 50			5.3	2.0	✓
97			5.6	1.7	✓
+ 50			5.5	1.8	✓
98			5.7	1.6	✓
+ 50			6.0	1.3	✓
99			6.0	1.3	✓
+ 50			5.6	1.7	✓
100 + 00.60 B.C. LT.			5.0	2.3	✓
T.P. No. 1 Tel pole	2.63	(6.62) ✓	3.99	(3.99) ✓	60 FT. - LT. 96 + 10
T.P.	4.64	(7.31) ✓	3.93	(4.69) ✓	
100 + 38			4.7	2.6	✓
+ 39			7.9	-0.6	✓
+ 41			8.0	-0.7	✓
+ 41 75 LT. Fl. Box Culv.			10.55	- 3.29	✓
+ 46			7.9	-0.6	✓
+ 47			4.8	2.5	✓
+ 50			4.5	2.8	✓

Contd. Page

Levels on Milton St.
Pacific to Morena Blvd.

11.20 15.19 3.99

93+77.53 = 0+00	See p. 7	13.0	2.2
+50		11.1	9.1
/		8.5	6.7
+14		5.5	9.7
+18.8	℄ Main S.F.R.R.	4.80	10.39 on roof
+33.3	℄ Siding "	5.35	9.89 " "
+45		6.5	8.7
+57		2.5	12.7
+57		5.4	9.8
+66		5.8	9.9
+70		4.8	10.8
+84		3.0	12.2
		3.1	12.1
+04		2.6	12.6
+07		6.4	8.8
+22		6.0	9.2
+25		4.5	10.7
+33.7	wedge pav.	4.40	10.79
+44	Ld. C.T. ℄ Pav.	4.20	10.99

INDEXED
WK
DEC 29 1948

101		4.7	2.6	
+50		4.5	2.8	
102		4.4	2.9	
+50		4.5	2.8	
103		4.4	2.9	
+50		4.3	3.0	
104		3.8	3.5	
+50		3.4	3.9	
105		3.2	4.1	
+50		2.9	4.4	
T.P.	106	14.68	3.45	4.06
106		10.2	4.5	
+50		10.1	4.6	
+59	beg. 4" Blk. Pav.	10.3	4.4	See plan of Jellette St. for grade etc.
"	4.4 Rt. ℄ 14" Culv.	11.70	2.98	
107		9.7	5.0	
+17	end 4" pav.	10.1	4.6	
"	℄ Rt. ℄ 14" Culv.	11.21	3.87	
108		10.3	4.8	
T.P.	15C	14.94	1.34	13.34 nail in pole
BM. Nail & Disc	Jellette & Morena Blvd		3.61	11.81 11.51 = Walker 0.20

State = 11.34 11.33 = Old City El.
See last page — 11.34 from U.S.B.M.

14.68 ✓ T Point

108+50			10.5	9.2	✓
109			10.5	9.2	✓
+50			10.5	9.2	✓
T.P.	6.11	10.97 ✓	9.8 ±	4.86	✓
110			4.2	4.8	✓
+39			5.6	5.9	✓
+44			10.5	0.5	✓
+48			10.5	0.5	✓
" 7.4 Lt. Fk Conc Box Culv.			11.55	-0.58	✓
+53			10.5	0.5	✓
+55			5.6	5.4	✓
111			6.1	4.9	✓
+50			5.9	5.1	✓
112			5.3	5.7	✓
+50			5.2	5.8	✓
113			5.1	5.9	✓
+50			4.6	6.4	✓
114			4.5	6.5	✓
+50			4.3	6.7	✓
T.P.	4.66	11.00 ✓	4.43	6.34	✓
115			4.1	6.9	✓

11.00 ✓

+50			4.2	6.8 ✓
116			4.2	6.8 ✓
+50			4.2	6.8 ✓
117			3.8	7.2 ✓
+50			4.1	6.9 ✓
118			4.0	7.0 ✓
+50			4.0	7.0 ✓
119			4.0	7.0 ✓
+50			4.6	6.4 ✓
120			5.1	5.9 ✓
+50			5.5	5.5 ✓
TP	3.73	9.87 ✓	4.86	6.14 ✓
121			4.3	5.6 ✓
+50			4.2	5.7 ✓
122			4.2	5.7 ✓
+11			4.2	5.5 ✓
+17			7.2	2.5 ✓
+13			7.6	2.3 ✓
" 4.3 Lt. Fk. 48" Conc Pipe Culv			10.5	-0.6 ✓
+17			7.5	2.9 ✓
+19			4.4	6.5 ✓
+50			4.8	5.1 ✓
123			4.3	5.6 ✓

9.27

1+73 + 50		3.4	6.5	✓
1+74		3.8	6.1	✓
+ 50		3.8	6.1	✓
1+75		4.1	5.8	✓
+ 50		5.0	4.9	✓
1+75 + 81.6 E.C.		4.6	5.3	✓
1+76		4.6	5.3	✓
T.P.	4.90	9.28 5.49	4.38	✓
+ 50	E	3.7	5.6	✓
"	5 LT	6.0	3.3	✓
"	5 RT	2.6	6.7	✓
1+77	E	4.3	5.0	✓
"	5 LT	5.8	3.5	✓
"	5 RT	2.0	7.3	✓
+ 50	E	4.3	5.0	✓
"	5 LT	5.7	3.6	✓
"	5 RT	2.3	7.0	✓
1+78	E	3.6	5.7	✓
"	5 LT	5.9	3.8	✓
"	5 RT	0.8	8.5	✓
+ 50	E	4.8	4.5	✓
"	5 LT	5.8	3.5	✓
"	5 RT	1.8	7.5	✓
1+79	E	3.0	6.3	✓

9.28

1+79	5 LT		5.9	3.8 ✓
"	5 RT		+ 0.7	10.0 ✓
+ 50	E		4.4	5.1 ✓
"	5 LT		6.0	3.3 ✓
"	5 RT		3.7	5.6 ✓
1+80	E		5.1	4.2 ✓
"	5 LT		6.5	2.8 ✓
"	5 RT		4.6	4.7 ✓
1+80 + 78.9	B.C. LT E		6.0	3.3 ✓
"	5 LT		6.3	3.0 ✓
"	5 RT		3.9	5.3 C on Tan. Mon. ✓
+ 50	E		5.3	4.0 ✓
"	5 LT		6.3	3.0 ✓
"	5 RT		1.9	7.8 ✓
1+81	E		4.6	4.7 ✓
"	5 LT		6.7	2.6 ✓
"	5 RT		2.4	6.9 ✓
+ 50	E		3.8	5.5 ✓
"	5 LT		6.9	2.8 ✓
"	5 RT		3.0	6.13 ✓
T.P.	4.54	7.74 ✓	6.06	3.74 ✓
1+82			4.4	6.5 ✓
"	5 LT		5.3	2.8 ✓
"	5 RT		0.0	7.7 ✓

7.74 ✓

			5.8	1.9 ✓
+76				
136			4.2	3.5 ✓
"	5 LT		6.0	1.7 ✓
"	5 RT		1.9	5.8 ✓
+50			3.8	3.9 ✓
"	5 LT		5.7	2.0 ✓
"	5 RT		7.4	5.3 ✓
137			3.8	3.9 ✓
"	5 LT		5.6	2.1 ✓
"	5 RT		3.2	4.5 ✓
+50			4.1	3.6 ✓
"	5 LT		5.2	2.5 ✓
"	5 RT		3.6	4.1 ✓
138			4.8	2.9 ✓
"	5 LT		4.9	2.8 ✓
"	5 RT		4.5	3.2 ✓
TP	4.55	7.85 ✓	4.44	3.30 ✓
+50			5.1	2.8 ✓
139			5.6	2.3 ✓
+15			5.5	2.4 ✓
+20			7.2	0.7 ✓
+28			7.4	0.5 ✓
"	4' LT FL 4" pipe		8.6	-0.75 ✓
+35			6.4	1.45 ✓

7.74 ✓

134		2.0	5.7 ✓	
"	5 LT	5.4	2.3 ✓	
"	5 RT	1.5	6.2 ✓	
133		1.6	6.1 ✓	
"	5 LT	8.0	7.7 ✓	
"	5 RT	5.4	2.3 ✓	
+50		3.8	3.9 ✓	
"	5 LT	5.7	2.0 ✓	
"	5 RT	0.3	7.8 ✓	
132		2.5	5.2 ✓	
"	5 LT	5.7	2.0 ✓	
"	5 RT	2.4	5.3 ✓	
+50		3.1	4.6 ✓	
"	5 LT	5.8	1.9 ✓	
"	5 RT	1.8	5.9 ✓	
135		2.2	4.5 ✓	
"	5 LT	6.0	1.7 ✓	
"	5 RT	2.0	5.7 ✓	
+50		4.0	3.7 ✓	
"	5 LT	6.0	1.7 ✓	
"	5 RT	2.0	5.7 ✓	
+69		6.0	1.7 ✓	
+70		8.6	-0.9 ✓	
+73		9.0	-1.3 ✓	
"	5' LT FL 2" pipe	9.37	-1.63 ✓	
+75		8.7	-1.0 ✓	

7.85 ✓

139+50		5.7	2.7	✓
+40		5.7	2.7	✓
+50		5.0	2.9	✓
141		4.7	3.7	✓
+50		3.7	4.7	✓
+57		5.1	2.8	✓
" 2.7 Lt. EL. 30" Pipe		8.70	- 0.85	✓
+65		4.0	3.9	✓
142		3.7	4.2	✓
+50		3.6	4.3	✓
143		3.7	4.2	✓
T.P.	4.26	9.40 ✗	2.71	5.14 ✓
+50		5.7	4.2	✓
144		5.0	4.2	✓
+50		5.1	4.3	✓
145		4.8	4.6	✓
+50		4.8	4.6	✓
+69.5 E.C.		5.0	4.4	✓
146		4.8	4.6	✓
+50		5.7	4.2	✓
147		5.7	4.2	✓
+50		5.5	3.9	✓
+55		5.6	3.8	✓

9.40 ✓

147+64	9.0	0.4	✓
" 5' Lt. 30" pipe Inlet	9.70	-0.30	F.L. ✓
+71	5.6	3.8	✓
+94.83 Δ 44°12'15" Lt.	4.66	4.78	on Hub ✓
148	5.1	4.3	✓
+72, E edge Pav.	4.43	4.97	✓
+60 " "	3.87	5.53	✓
+96.6 W edge "	3.90	5.50	✓
149	4.5	4.9	✓
+38.26 Δ 44°12'15" Rt.	5.98	3.42 ✓	on Hub ✓

For alternate line see P. 41 for levels

Note! Levels across Rose Cañon Delta via Pacific Ave.

T.P.	3.18	6.60 ✗	5.98	3.42 ✓ Δ Hub ✓ 149+38.26
149+50			3.9	2.7 ✓
150			4.4	2.2 ✓
+50			4.6	2.0 ✓
151			4.6	2.0 ✓
+18			4.6	2.0 ✓
+30 Beg. Marshy land			9.7	- 3.1 ✓
+50			10.0	- 3.4 ✓
152			10.4	- 3.8 ✓
+50			10.7	- 4.1 ✓

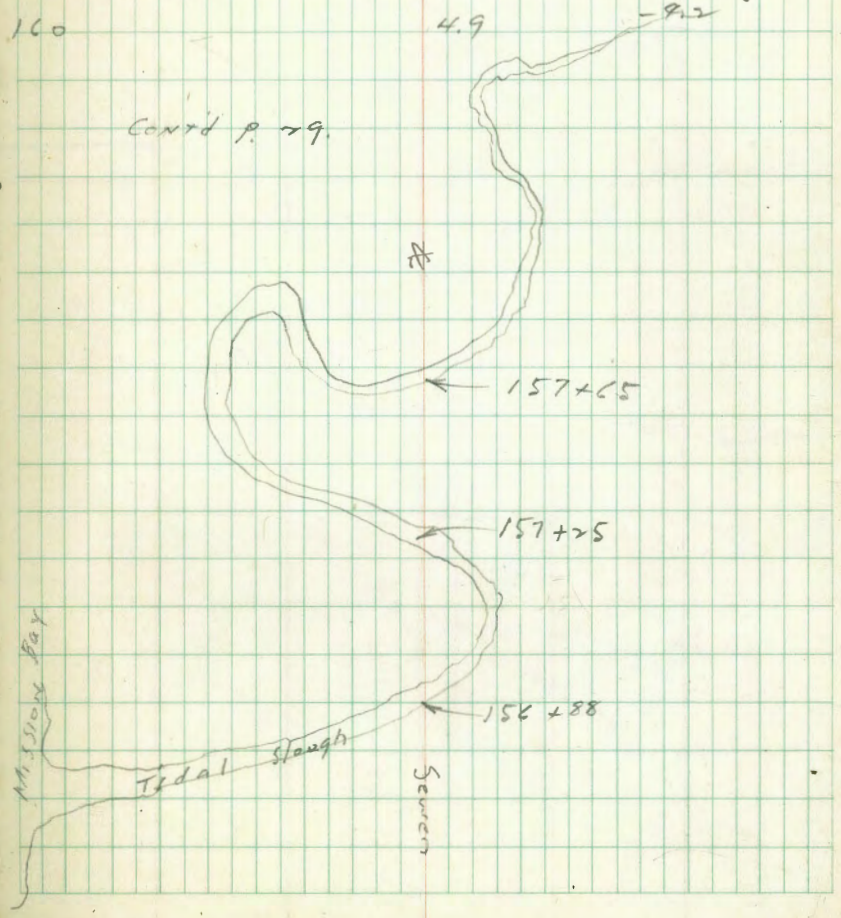
C.60

153			10.9	- 4.3	✓
+50			10.7	- 4.1	✓
154			10.7	- 4.1	✓
+50			10.4	- 3.8	✓
155			10.1	- 3.5	✓
T.P	3.76	0.72	9.44	- 3.04	✓
+50			11.3	- 3.6	✓
156			11.4	- 3.7	✓
+50			11.4	- 3.7	✓
+83			11.5	- 3.8	✓
+84			5.3	- 4.6	✓
+88	Tidal Slough		6.3	- 5.6	✓
+91			5.2	- 4.5	✓
+93			4.5	- 3.8	✓
157			4.5	- 3.8	✓
+70			5.0	- 4.3	✓
+72	SAME	"	6.2	- 5.5	✓
+75			6.3	- 5.6	✓
+79			6.1	- 5.4	✓
+31			4.2	- 3.5	✓
+62			4.4	- 3.7	✓
+63			6.0	- 5.3	✓
+65	"	"	6.2	- 5.5	✓

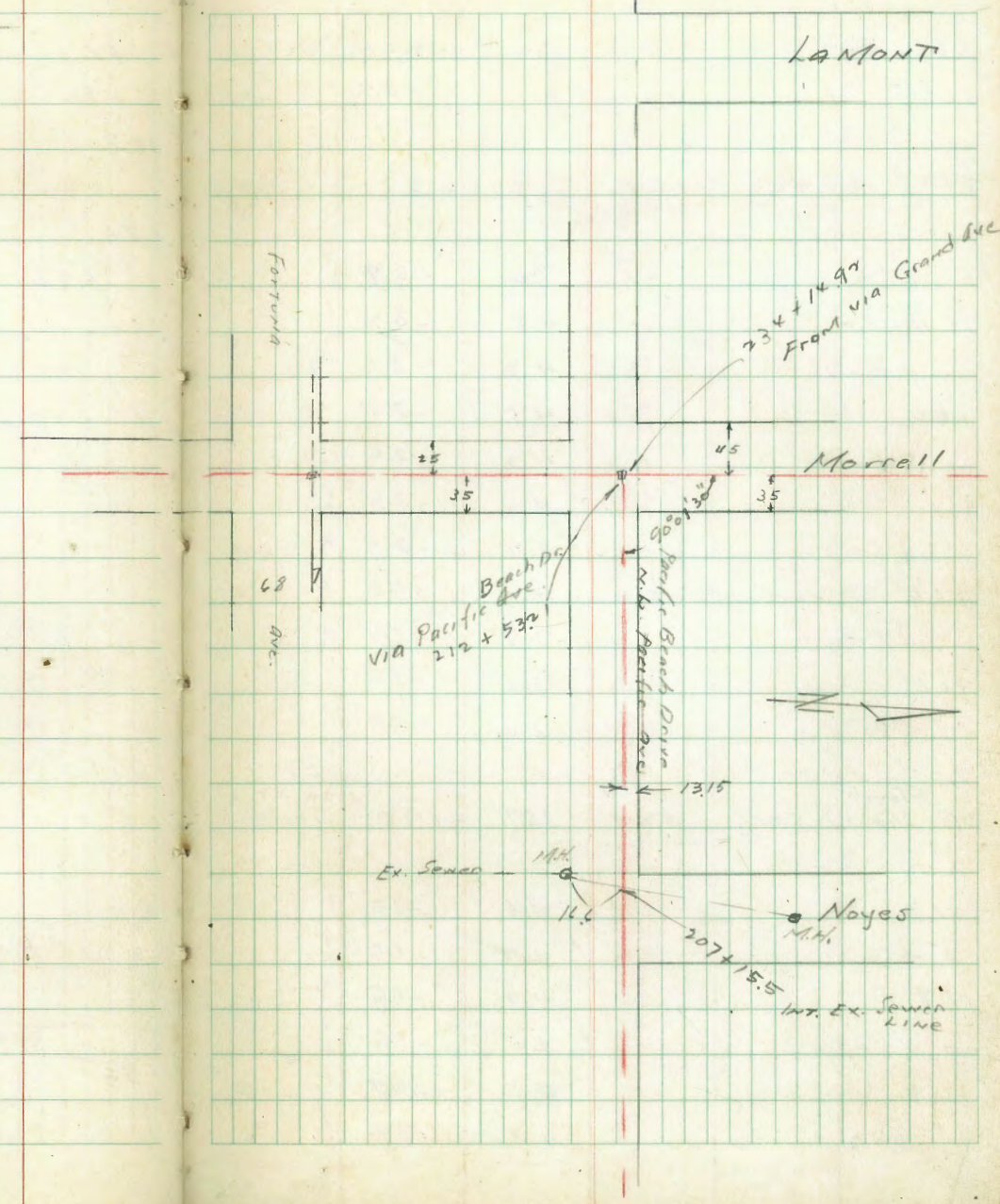
0.72

+69	5.0	- 4.3	✓
+80	4.5	- 3.8	✓
158	4.3	- 3.6	✓
+50	4.3	- 3.6	✓
159	4.1	- 3.8	✓
+50	4.7	- 4.0	✓
160	4.9	- 4.2	✓

Contd p. 29.



Contd. From p. 20



0.72 T from P. 7

160 + 50			4.2	- 3.5	✓
161			4.1	- 3.4	✓
T.P.	4.63	1.64	3.73	- 3.01	✓
+ 50			5.0	- 3.4	✓
162			4.8	- 3.2	✓
+ 50			4.7	- 3.1	✓
+ 63			4.5	- 2.9	✓
+ 50			4.2	- 2.6	✓
164			4.2	- 2.6	✓
+ 50			3.7	- 2.1	✓
+ 65	end Marsh		3.4	- 1.8	✓
+ 50			3.5	- 1.9	✓
166			3.4	- 1.8	✓
+ 50			3.4	- 1.8	✓
Clover T.P. Mon.	5.02	3.07	3.57	- 1.95	✓ B.M. 20' RT. of 165+75
+ 67			4.6	- 1.5	✓
+ 50			4.7	- 1.6	✓
168			4.7	- 1.6	✓
+ 50			4.4	- 1.3	✓
169			4.5	- 1.4	✓
+ 50			4.8	- 1.7	✓

3.07

169+87.59 Δ 14°5'30" Lt.			4.50	- 1.83	✓
170			4.4	- 1.3	✓
+ 50			4.6	- 1.5	✓
171			5.3	- 2.2	✓
			Mud		
T.P.	5.63	3.47	5.23	- 2.16	✓
+ 40			5.8	- 2.3	✓
+ 60			4.5	- 1.0	✓
+ 80			4.6	- 1.1	✓
+ 90			5.0	- 1.5	✓
172			5.0	- 1.5	✓
+ 50			4.5	- 1.0	✓
173			4.8	- 1.3	✓
+ 50			4.6	- 1.1	✓
174			4.9	- 1.4	✓
+ 50			4.8	- 1.3	✓
175			4.8	- 1.3	✓
+ 50			5.0	- 1.5	✓
176			4.9	- 1.4	✓
+ 50			4.8	- 1.3	✓
177			4.6	- 1.1	✓
+ 50			4.2	- 0.7	✓
177 + 70	P.O.T.		4.2	- 0.7	✓

Sewer Levels
Via Pacific Ave.

	P.O.T		3.47		
1.	T.P. 177+70	4.48	3.74	4.21	−0.74
	177+75			4.6	−0.9
	178			6.5	−2.8
	+04			7.0	−3.3
	+06			9.1	−5.4
	+50	Rose Canon Creek		8.5	−4.8
	+97			8.5	−5.8
	179			7.1	−3.9
	+03			4.8	−1.1
	+50			4.2	−0.5
	180			4.4	−0.7
	T.P	5.00	4.34	4.40	−0.06
	+50			4.8	−0.5
	181			4.9	−0.6
	+50			5.1	−0.8
	182			4.6	−0.3
	+50			5.0	−0.7
	183			4.6	−0.3
	+50			4.8	−0.5
	184			4.8	−0.5
	+50			5.1	−0.8
	185			5.2	−0.9

4.34

+50		5.3	−1.0
186		5.6	−1.3
T.P.	3.28	3.73	4.89 −0.55
+50		4.4	−1.5
187		4.5	−1.8
+50		4.4	−1.7
188		4.6	−1.9
+50		4.5	−1.8
189		4.4	−1.7
+50		4.4	−1.7
190		4.6	−1.9
+50		4.5	−1.8
191		4.5	−1.8
+50		4.6	−1.9
+79+19	A0°08'20"LT	4.7	−2.0
T.P.	5.55	3.97	5.31 −2.58
192		5.0	−2.0
+50		4.8	−1.8
193		4.7	−1.7
+50		4.6	−1.6
194		4.4	−1.9

Sew. Mon. 14.85 S. of +79+19

2.97

194+50			4.7	-1.2
+95			4.7	-1.7
+50			5.1	-2.1
196			4.3	-1.3
+50			4.0	-1.0
197			4.3	-1.3
+50			4.5	-1.8
198			4.3	-1.3
+50			4.8	-1.8
T.P.	3.88	2.77	4.08	-1.11
199			4.5	-1.7
+50			4.3	-1.5
200			4.5	-1.7
+50			4.7	-1.9
+66			5.7	-2.9
+70	old dry slough has been dyked off		7.0	-4.2
+83			7.0	-4.2
+85			4.6	-1.8
201			4.3	-1.5
+50			4.8	-2.0
202	Beg. marshy ground		5.4	-2.6
+50			4.8	-2.0
+80			6.1	-3.3

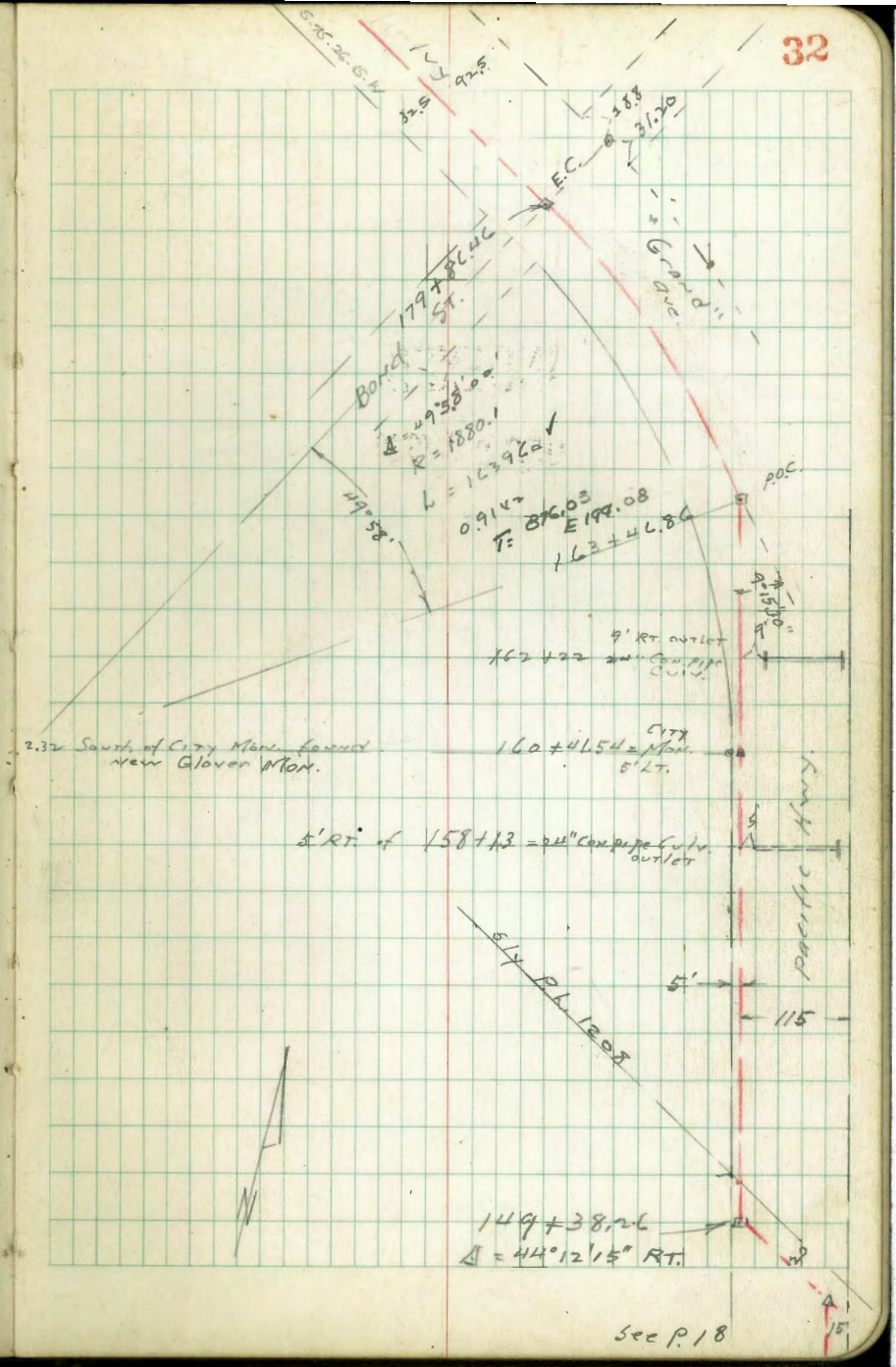
2.77

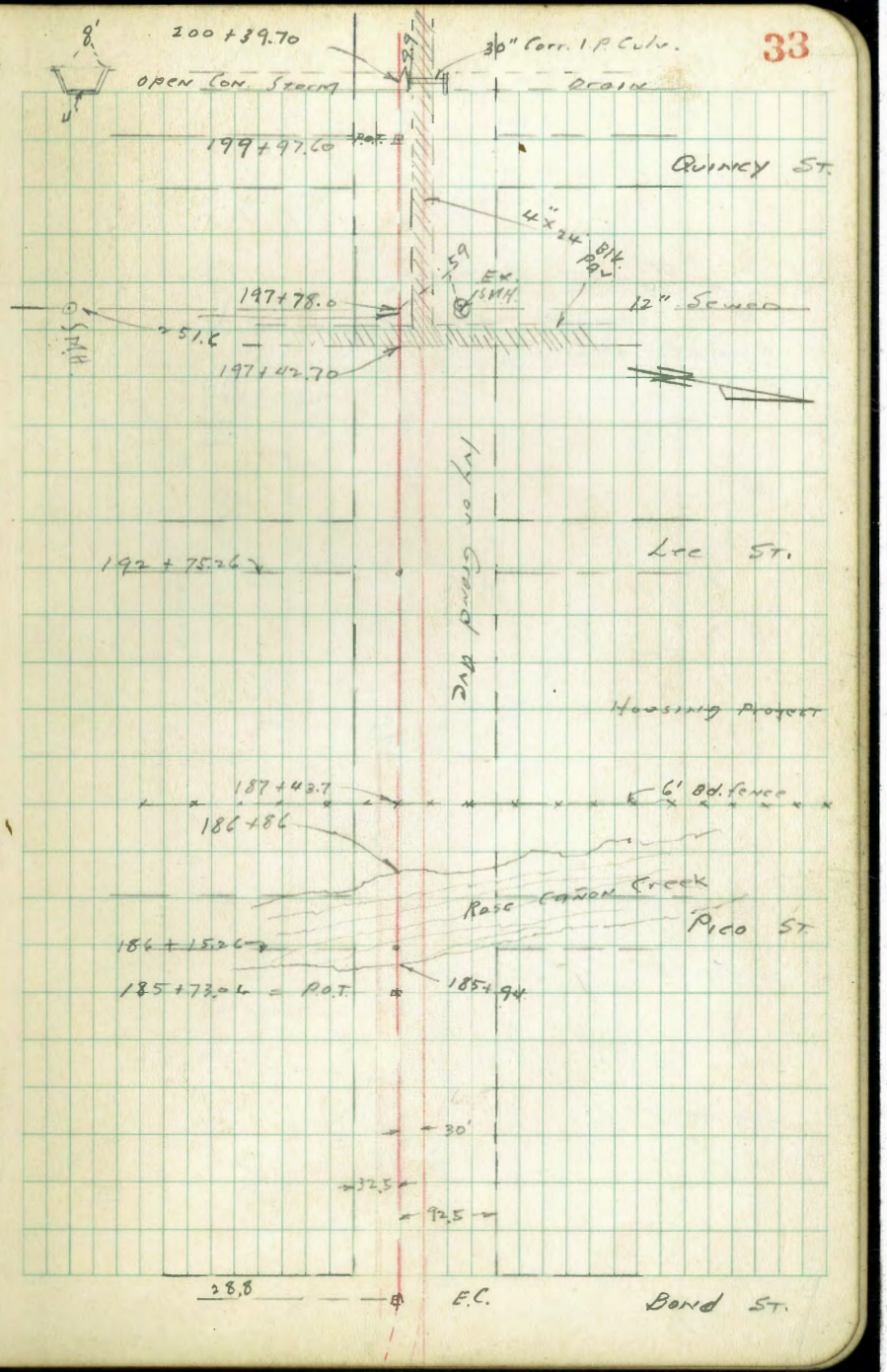
+83			7.3	-4.5
203	Tidal Slough		7.4	-4.6
+10			7.0	-4.2
+16			5.4	-2.6
+50			5.3	-2.5
204			4.8	-2.0
+50			6.0	-3.2
T.P.	11.30	8.37	5.70	-2.93
205			11.7	-3.3
+50			11.8	-3.4
206			11.8	-3.4
+50			11.8	-3.4
+70			11.8	-3.4
+78	small slough made from dyke borrow		12.7	-4.3
+90			12.6	-4.2
+98			11.5	-3.1
207	End Marshy grd.		9.3	-0.9
207 +15.5			9.3	-0.9
" 16.6 S Ex. M.H.			8.21	0.16 RM
" " "			16.34	-7.97 EL.
T.P.	10.58	10.42	8.21	0.16

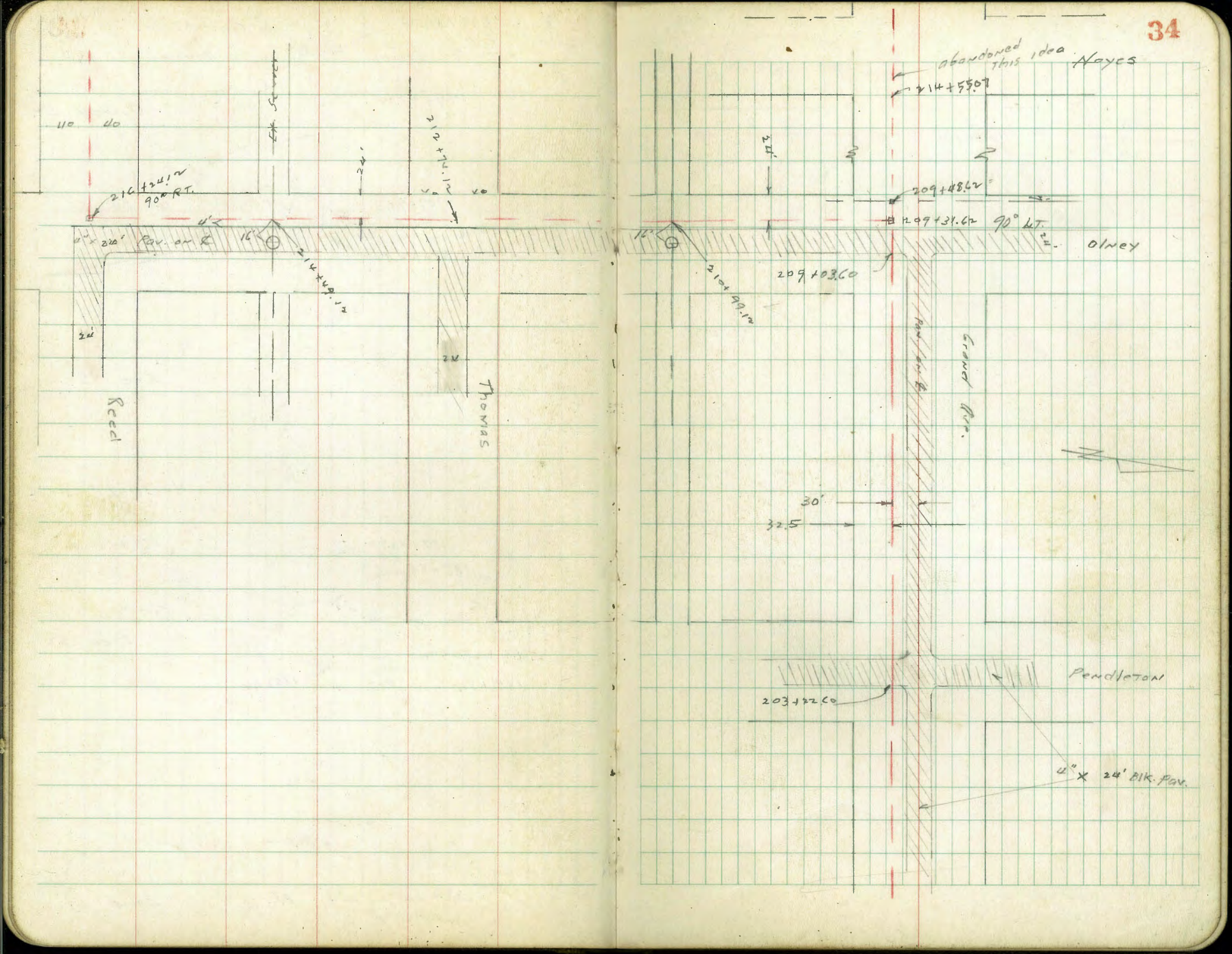
S. edge of above MH Rim 16.6 So. of 207+15.5

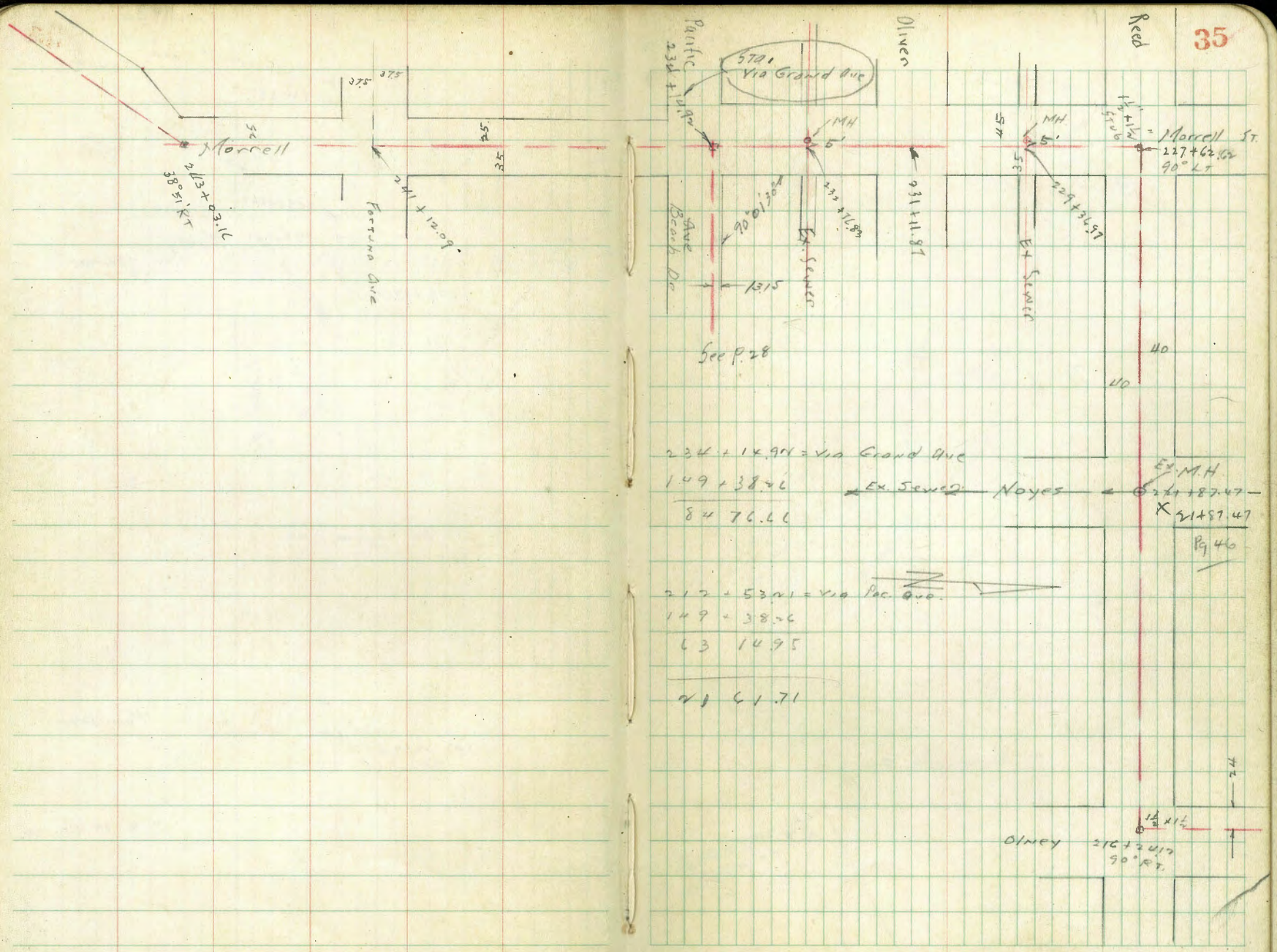
Contd. P. 38

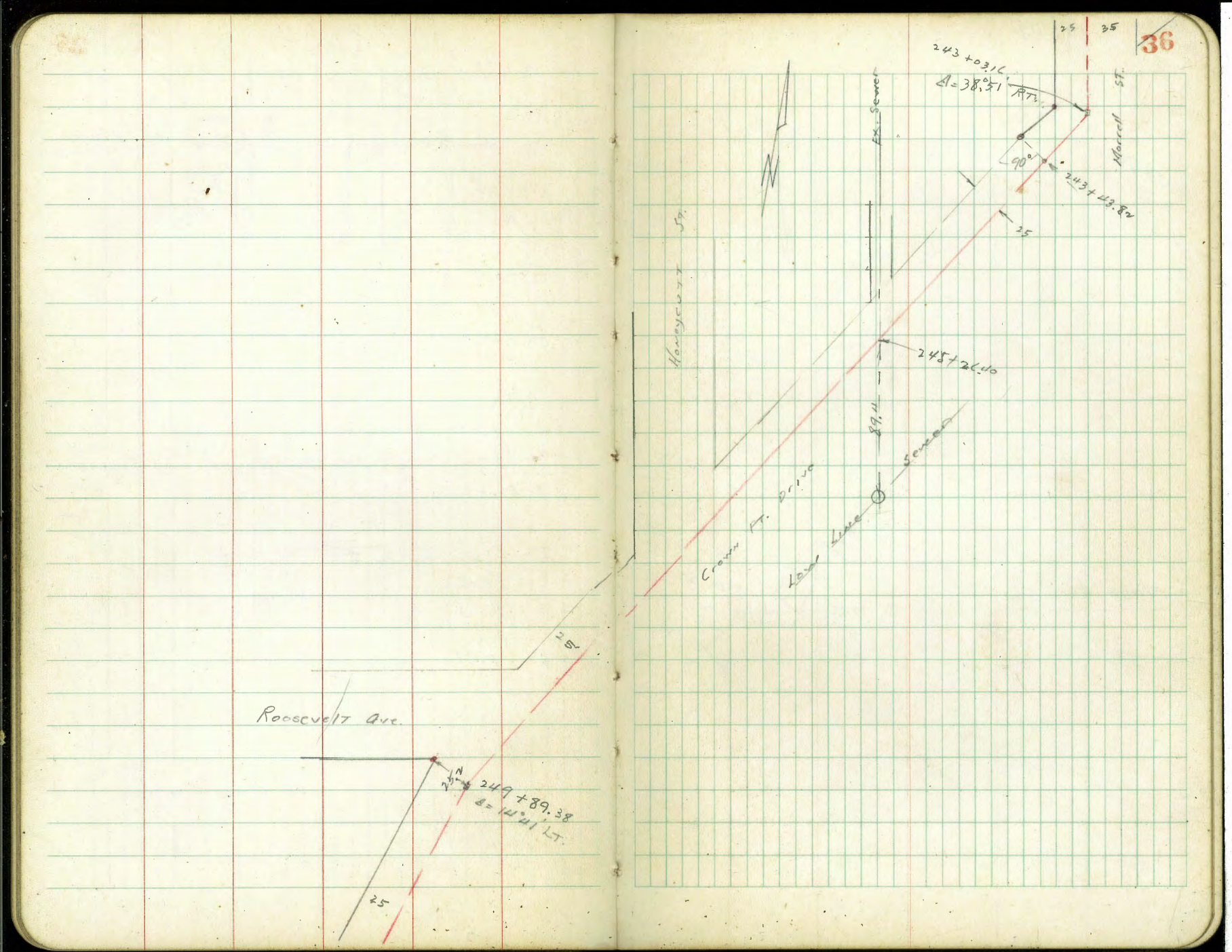
Alternate Sewer Line
via Ivy St. or Grand Ave
Mission Bay Park Tract.
front p. 18

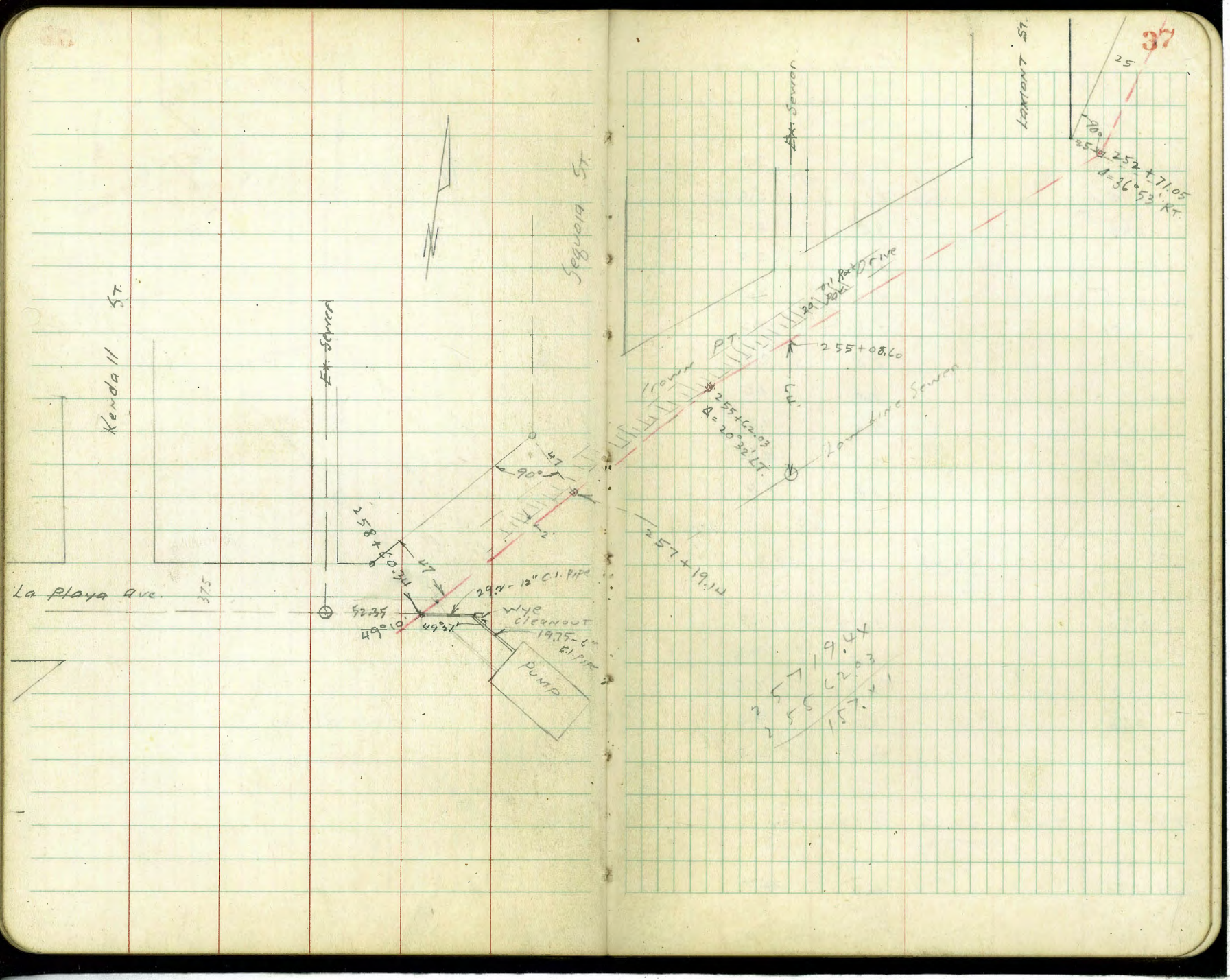



200+39.70
30" Corr. I.P. Culv.
Open Con. Swale
Drain
199+97.60
P.O.T.
Quincy St.
4"x24" B/V
Ex. S.M.H.
197+78.0
51.6
S.M.H.
197+42.70
12" Sewer
Lee St.
192+75.26
Housing Project
187+43.7
6' Bd. fence
186+86
Rose Canon Creek
Pico St.
186+15.26
185+73.04 = P.O.T.
185+4.94
30'
32.5'
92.5'
28.8
E.C.
Bond St.


abandoned idea
This
Hayes
214+55.0?
209+48.42
209+31.62
90° Lt.
Olney
209+03.60
210+89.1?
Penn Ave.
Penn Ave.
30'
32.5
Pendleton
203+72.60
4" x 24' Blk. Pav.
110
40
Penn Ave.
212+74.1?
90° Rt.
4" x 24' Pav. on R.
16'
214+48.1?
Reed
Thomas
24'


Morrell St.
Fortuna Ave
Beach Dr
Pacific
Olivera
Reed
Via Grand Ave
MH
Ex. Sewer
Ex. MH
Noyes
Olney
See p. 28
Pg 46
234 + 14.90 = Via Grand Ave
149 + 38.76
84 76.14
213 + 53.41 = Via Pac. Ave.
149 + 38.76
63 14.95
227 + 62.62
90° Lt
229 + 34.97
231 + 41.81
233 + 76.84
Ex. MH
Sta 21 + 87.47
X 21 + 87.47
216 + 24.17
90° Rt.


243+03.16
Δ = 38°51' RT.
Harwell St.
Ex. Sewer
90°
243+43.84
25
Harwell St.
245+26.40
89.4'
Sewer
Crown Pt. Drive
Local Line
25
Roosevelt Ave.
N
249+89.38
Δ = 14°41' LT.
25


Kenda ll St.
Segovia St.
Segovia St.
La Playa Ave.
375
47
90°
258+60.34
47
29.71 - 12" C.I. Pipe
52.35
49°10'
49°37'
Wye
cleanout
19.75 - 6" C.I. Pipe
PUMP
Segovia St.
Lighthouse St.
25
90°
25
257+71.05
Δ=36°53' Rt.
Lighthouse Drive
PT
255+08.60
C.L.
255+62.03
Δ=20°32' Lt.
Low Line Sewer
257+19.14
19.44
L 20°32'
255+62.03
257.15

10.68

Contd. from p. 31

207+35			8.4	2.3
+70			7.1	3.6
+85			8.6	2.1
208			8.3	2.2
+45			6.4	8.3
+50			6.5	8.2
+75			7.8	2.9
209			9.4	1.3
+40			9.4	1.3
+50			6.5	8.2
210			3.8	6.9
T.P.	12.17	22.63	0.22	10.46
+50			10.7	11.9
+70			8.0	18.6
211			6.0	16.6
+50			4.3	18.3
212			2.1	20.5
T.P.	5.46	27.46	0.63	22.00
212+50			4.8	22.7

27.46

212 + 53.21 = 233 + 14.96 — Front 419 Grand Ave — 4.51 — 22.95 — 4.6

Check to S.W. 4" Con. Mon. Pacific Beach Drive and Morrell — 4.14 — 23.32 — 23.53 — 0.21 error

This was derived from USGS marker

Location of Prop. New Conn. to Trunk Sewer # 2 of 2-6" C.I. Pipes from Pump House

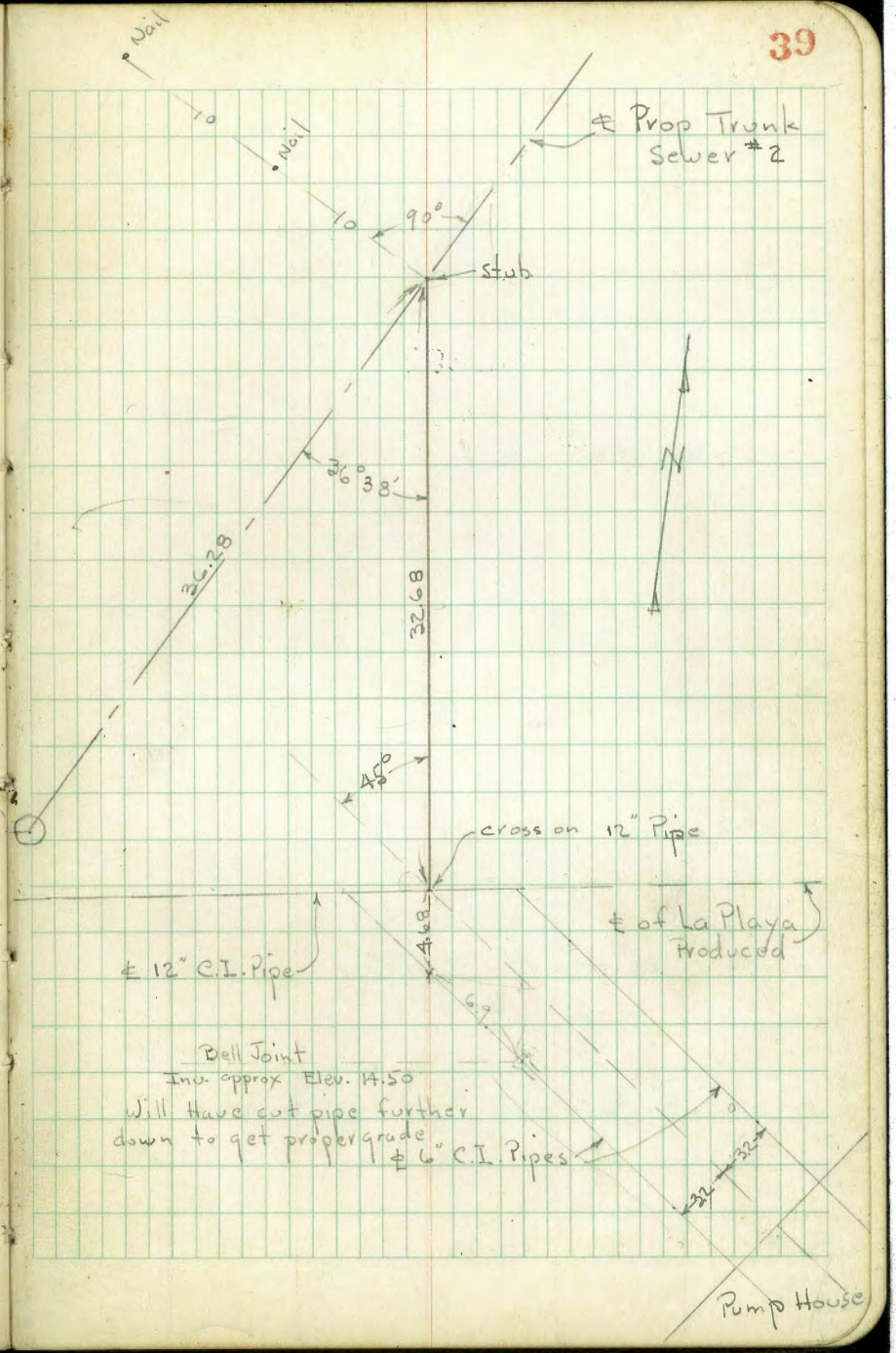
W.O. 60208

12-28-48

7.0

INDEXED
WK
DEC 29 1948

Levels - P. 40



Levels on Prop. Conn. - Sketch P. 39

0+32.68 = stub = ℄ Trunk Sewer			
0+18			
0+07			
0+00 = Exist. 12" C.I. Pipe			
0-04.68 = ℄ 6" C.I. Pipe on ℄ Prod.			
B.M.	2.54	27.43	24.89

5.1 − 0.1 = 5.0 2233

5.1 − 0.1 = 5.0 2233

5.5 2183

5.4 2203

7.33 Top Pipe

7.60 Top of Pipe

5.1 2173

5.41 22.02

10.9 16.53

10.5 − 2.473

13.95

13.5 − 0.5

12.2 15.23

20 − 2.453

20 − 0.9

7.1 20.73

20 = Top of Bank

Sewer levels on alternate line via Hwy and Grand Ave - See p. 32 for Sketch

T.P. P.26 Hub	7.24	10.66	From P.26 3.42	149+38.26 44.2' RT.
149+50 via W. side Pacific Hwy.		7.4	3.3	
150		6.4	4.3	
+50		5.7	5.0	
151		5.1	5.6	
+50		4.8	5.9	
152		4.7	6.0	
+50		4.6	6.1	
153		4.1	6.6	
+50		4.0	6.7	
154		4.4	6.5	
+50		4.1	6.6	
155		4.1	6.6	
T.P.	4.86	12.05	3.47	7.19
+50		5.1	7.0	
156		4.9	7.2	
+50		4.7	7.4	
157		4.7	7.4	
+50		4.9	7.2	

12.05

158	4.0	8.1	
+04	4.4	7.9	
+07	8.5	3.6	
+13	8.6	3.5	
" 5' Rt. F.L. 24" Con. Pipe	9.34	2.71	Outlet to Culv.
+16	8.6	3.5	
+19	4.5	7.6	
+50	5.0	7.1	
159	4.7	7.4	
+50	5.0	7.1	
160	5.5	6.6	
+50	5.6	6.5	
161	6.3	5.8	
Found City T.P. Con Mon.	4.35	12.35	2.05	10.00	120' Rt. of 161+40 10.04 = old City datum
+50	7.0	5.4	10.45 = City datum from USCLNG. Walker 1423-7
162	6.7	5.7	
+17	6.7	5.7	
+21	10.5	1.9	
+22	10.5	1.9	
" 9' Rt. F.L. 24" Con. Pipe	9.70	2.65	Outlet to Culv.
+25	10.4	2.0	
+28	7.4	5.2	
+50	7.4	5.0	

12.35

163	7.2	5.2	✓
+46.86 P.O.C. LT.	7.2	5.2	✓
+ 50	7.1	5.3	✓
164	6.7	5.7	✓
+ 50	6.4	6.0	✓
165	6.0	6.8	✓
+ 50	5.7	6.7	✓
166	5.2	7.2	✓
+ 50	5.0	7.8	✓
167	5.1	7.3	✓
+ 50	6.3	6.1	✓
T.P. 4.43 10.41	6.37	5.98	✓
168	6.1	9.3	✓
+ 50 THIS line via	7.8	2.6	✓
169 Ivy or Grand	8.7	1.7	✓
+ 50 is 30' S of E	9.2	1.2	✓
170 also S of old	9.6	0.8	✓
+ 50 Pac B. R.R. Emb.	9.5	0.9	✓
171	9.4	1.0	✓
+ 50	8.9	1.5	✓
172	8.8	1.6	✓
+ 50	8.8	1.6	✓
173	8.8	1.6	✓

10.41

T.P. 4.66	6.31	8.76	1.65	✓
173+76		4.8	1.5	✓
+ 32 wash from N.		6.0	0.3	✓
+ 48		5.8	0.5	✓
+ 50		5.2	1.1	✓
+ 52		4.5	1.8	✓
174		4.6	1.7	✓
+ 50		4.7	1.6	✓
175		4.5	1.8	✓
+ 50		4.2	1.9	✓
176		4.1	2.2	✓
+ 50		4.0	2.3	✓
177		3.8	2.5	✓
+ 50		3.6	2.7	✓
T.P. 2.65	7.26	1.70	4.61	✓
178		4.0	3.3	✓
+ 50		5.0	2.3	✓
179		4.2	2.9	✓
+ 50		4.5	2.8	✓
+ 58		4.8	2.5	✓
+ 62		6.3	1.0	✓

7.26 ✓

179 + 86.46 E.C. at Bond St.		6.56	0.70	✓
Set B.M. on Gloven Mon. 32.5 S of E.C.		7.18	0.08 ✓	Bond St.
180		6.8	0.5	✓
+ 11		6.4	0.9	✓
+ 18		5.0	2.3	✓
+ 50		5.0	2.3	✓
181		5.1	2.2	✓
+ 50		4.8	2.5	✓
182		5.1	2.2	✓
+ 50		5.1	2.2	✓
T.P.	4.81	7.01 ✗	5.06	2.20 ✓
+ 85		6.2	0.8	✓
183		5.3	1.7	✓
+ 50		5.2	1.8	✓
184		5.0	2.0	✓
+ 50		5.1	1.9	✓
185		4.9	2.1	✓
+ 50		4.6	2.9	✓
+ 73.0 P.O.T.		3.78	3.23 ✗	H.6
+ 94		5.1	1.9	✓
186		10.1	- 3.1	✓

7.01 ✓ Sewer Levels via Grand Ave.

+ 50 Rose Cañon Creek	10.4		- 3.7	✓
177	10.4		- 3.7	✓
+ 86	5.6		1.1	✓
187	6.3		0.7	✓
+ 24	7.2		- 0.2	✓
+ 37	4.8		2.2	✓
+ 50	4.6		2.4	✓
188	4.5		2.5	✓
+ 50	4.6		2.4	✓
T.P. 5.57	8.20 ✗	4.38	2.63 ✓	
189	5.3		2.9	✓
+ 50	5.3		2.9	✓
190	5.4		2.8	✓
+ 50	4.9		3.3	✓
191	4.5		3.7	✓
+ 50	4.5		3.7	✓
192	4.4		3.8	✓
+ 50	4.1		4.1	✓
193	4.3		3.9	✓
T.P. 4.72	8.52 ✗	4.38	3.82 ✓	
193 + 50	4.2		4.3	✓

8.5N

194		4.3	4.2	✓
	+50	4.7	3.8	✓
195		4.8	3.7	✓
	+50	4.9	3.6	✓
196		4.9	3.6	✓
	+50	4.9	3.6	✓
197		4.7	3.8	✓
	+40.7 E edge pav	3.9N	4.62	✓
	+54.7 E " "	4.1 N	4.42	✓
	+66.7 W " "	3.8N	4.72	✓
	+78. Int. Ex. Sewer 12"	3.C	4.9	✓
	" 59' Rt. SMH.	2.43	6.11	✓ RIM
	" " " "	9.37	-0.83	✓ Fl. 12"
T.P. S edge M.H. Rim 59' Rt. of 197+78		4.61	10.7N ✗	2.43 ✓ 6.11 ✓
197	+78 251.6 Lt SMH.	7.47	3.25	✓ RIM
	" " "	12.N7	-1.55	✓ Fl. 12"
198		5.6	5.1	✓
	+50	5.1	5.6	✓
199		4.5	6.2	✓
	+50	4.0	6.7	✓
	+97.6 P.O.T.	3.5N	7.20	✓
N00		3.6	7.1	✓
	+34	3.N	7.5	✓

10.7N ✓

	+39.7 E open drain wingdk on Bot.	5.3	5.8	✓
	+XX	3.N	7.5	✓
	+50	1.7	9.0	✓
201		0.6	10.1	✓
T.P.	9.99 19.60 ✗	1.11	9.61 ✓	
	+50	8.3	11.3	✓
20N		7.K	12.2	✓
	+50	6.K	13.0	✓
203		5.5	14.1	✓
	+27.6 E edge pav	4.K	15.2	✓
	+34.6 Ctr " "	3.7	15.9	✓
	+46.6 W " "	3.N5	16.35	✓
	+50	3.3	16.3	✓
20N		2.3	17.3	✓
	+50	0.7	18.9	✓
T.P.	10.56 29.5N ✗	0.CN	18.48 ✓	
205		9.6	19.9	✓
	+50	8.9	20.6	✓
206		7.6	21.9	✓
	+50	6.4	23.1	✓
207		5.0	24.5	✓

29.54

207+50	4.1	25.8	
208	3.5	26.0	
+50	3.1	26.8	
209	2.1	27.9	
+03.6 E edge pav	1.75	27.79	
+15.6 Ctr "	2.13	27.41	
+27.6 W " "	1.65	27.89	
209+31.6N = ∠ 90° LT.	1.28	28.26	STK6

T.P. for BM S.W. 7' Mon. 11.81 39.07 2.28 27.26 Grand & Olney

T.P. 7N9 45.73 0.43 38.44

check to BM BP Garnet & Olney 0.66 45.07 Walker 45.30 — 0.23

8.18 46.6N 38.42 above T.P.

T.P. 5.11 49.00 2.73 43.89

T.P. 5.50 49.9N 4.58 44.42

T.P. 6.28 52.53 3.67 46.25

check to WW BP in C6 Grand & LAMONT 2.21 50.37 50.37 = Old City — 0.05 error

Walker = 50.56 — 0.2 dif.

50.56
50.37
0.19 dif.

BM SW 7' Mon. Grand & Olney 27.26

2.7N 29.98

209+50	2.2	27.8	
210	3.5	26.5	
+50	4.8	25.2	
+99.1N Int. Ex. Sewer	6.2	23.8	
" 16' Lt. S.M.H.	6.93	23.05	R.I.M.
" " "	13.23	16.75	F.L.
211+50	7.3	22.7	
212	8.6	21.2	
+50	9.9	20.1	
213	11.2	18.8	
T.P. 4.20	3.1N	11.04	18.94
+50	5.4	17.7	
214	6.3	16.8	
+49.1N Int. Ex. Sew. 6.8		16.3	
" 16' Lt. M.H.	7.75	15.39	R.I.M.
" " " "	15.51	7.63	F.L.
215	7.1	16.0	
+50	7.6	15.5	
216	8.8	17.3	
+04.1N ∠ 90° Rt.	9.10	14.04	STK15

		3.1		via Reed St.	
21+50			6.5	16.6	
+75			5.0	18.1	
22+17			4.2	18.9	
+50			3.3	19.8	
22+18			3.0	20.1	
+50			2.9	20.2	
22+19			2.1	21.0	
+50			1.2	21.9	
T.P.	0.22	21.84	1.52	21.62	
22+20			0.2	21.6	
+25			0.8	21.0	
+50			1.7	20.1	
+75			3.2	18.6	
22+21			4.9	16.9	
+50			7.5	14.3	
+87.47	℄ Hayes	℄ Reed	8.62	13.22	M.H. Rim
"	"	"	15.17	6.67	" F.L.
22+22			9.0	12.8	
+50			10.7	11.1	
22+23			11.3	10.5	
+50			10.8	11.0	
T.P.	11.22	22.44	10.62	11.82	

22.44

22+24			10.7	11.7	
+50			10.0	12.8	
22+25			8.5	13.9	
+50			6.1	16.3	
22+26			1.9	20.5	
T.P.	9.45	31.72	0.17	22.27	
+50			7.0	24.7	
22+27			3.9	27.8	
+50			2.2	29.5	
+62.6		Δ = 90° Lt.	2.19	29.53	Stub
22+28			2.2	29.5	
+50			3.1	28.6	via Morrell
22+29			5.2	26.3	
+36.97		Ext. Ex. Sewer	7.2	24.3	
"		5' Ft M.H.	7.84	23.88	Rim
"	"	" "	18.09	13.63	F.L.
+50			7.6	24.1	
22+30			10.6	21.1	
T.P.	7.52	26.50	12.76	18.96	
+50			9.7	16.8	
22+31			12.6	13.9	

26.50

231 +17	E Oliver	12.6	13.9	✓
+50		12.5	14.0	✓
+65		12.3	14.2	✓
232		9.2	17.1	✓
+50		8.0	18.5	✓
+76.8	Int. Ex. Sewer	7.6	18.9	✓
"	5' Rt " M.H.	7.62	18.86	Rim
"	" " " "	16.72	9.76	F.L.
233		7.3	19.2	✓
+50		5.6	20.9	✓
234		3.8	22.7	✓
234 +149 = 231 +53	on Pac. Beach Dr. Line from East	3.6	22.9	✓

Check to Sw 7' Mon. Pacific Beach Drive and Morrell St.

		3.19	23.31	✓ See P. 38
			23.32	0.01 error on My Loop
TP	3.72	27.04		
			23.32	
234 +50		3.8	23.2	✓
235		3.1	23.9	✓
+50		2.5	24.5	✓
236		3.5	23.5	✓
+50		4.3	22.7	✓
237		5.5	21.5	✓

27.04

+50		6.8	20.2 ✓
238		8.3	18.7 ✓
+50		10.1	16.9 ✓
TP	3.70	20.46 ✓	10.08 16.96 ✓
239		5.2	15.2 ✓
+50		5.7	15.0 ✓
240		5.7	15.0 ✓
+50		5.6	15.1 ✓
241		4.5	16.2 ✓
+1209 E Fortuna		4.3	16.4 ✓
+50		3.6	17.1 ✓
242		2.7	18.0 ✓
+50		1.8	18.9 ✓
243		1.8	18.9 ✓
243 +0316 Δ 38°51' Rt.			Hub
TP	6.63	25.49 ✓	1.80 18.86 243 +0316 Δ H.C. ✓
+50		6.6	18.9 ✓
244		6.4	19.1 ✓
+50		5.6	19.9 ✓
245		5.1	20.4 ✓
+264 Int. Ex. Sewer		5.0	20.5 ✓

		25.49			
245 + 50			4.8	20.7	
246			5.1	20.8	
+ 50			5.0	20.5	
247			4.8	20.7	
+ 50			4.9	20.6	
T.P.	3.60	24.19	4.90	20.59	
248			3.8	20.8	
+ 50			4.2	20.0	
249			4.5	19.7	
+ 50			4.7	19.5	
+ 89.38 Δ 14°41' LT			4.8	19.4	
250			5.0	19.2	
+ 50			5.7	18.5	
251			6.0	18.2	
+ 50			6.6	17.6	
252			6.6	17.6	
+ 50			7.1	17.1	
+ 71.05 Δ 36°53' RT			7.22	16.97	
T.P.	6.12	23.09	7.22	16.97	Δ Hub
253			6.0	17.1	
+ 50			5.7	17.4	

	23.09			
254		5.5	17.6	
+ 50		5.1	18.0	
255		4.5	18.6	
+ 108.6 Int. Ex. Sewer		4.3	18.8	
+ 50		4.1	19.0	
+ 62.03 Δ 20°32' LT		3.7	19.4	
256		3.6	19.5	
+ 50		3.3	19.8	
257		2.9	20.2	
T.P.	7.21	27.57	2.73	20.36
+ 50		6.7	20.9	
258		6.0	21.6	
+ 50		5.6	22.0	
+ 60.34 Int. 12" C.I. Pipe		5.53	22.09	Hub
29.7 E = Top of 12" C.I. Wye		7.54	20.03	
52.35 W Ex. Pump M.H.		4.55	23.02	R.M.
" " " " "		8.76	18.81	F.L.
Set Temp. BM. 30" Spike Sewer Int. Pump Elect. P.P. near Pump East end of La Playa Ave		4.02	23.55	
T.P.	4.78	28.9-	3.43	24.1x
T.P.	3.86	27.68	5.10	23.78 x
check BM B.B. Sw. curb Moorland & Crown Pt. Dr.		6.42	21.46 x	From Walker USC&G 21.68 0.22

#1 Leveling

C. Moore Inst. M. Fox Rod W. Moon

Bench Marks for Sewer Const. Old Town to Crown Pt. via Pacific Hwy.

Nov. 19 '24 clear PM. - windy

Correction 5-17-24

City Dat. 12.588

	6.305	19.005		12.70	B.M. B.P. Walker
T.P. #1	0.72	6.935	12.81	6.195	
T.P. #2	9.875	11.025	5.785	1.15	
T.P. #3	1.465	10.80	1.69	9.335	
T.P. #4 Set B.M.	9.03	16.10	3.73	7.07	
11+63.33 on Curb			5.61	10.49	P.10 10.49 0.00
T.P. #5	3.525	16.195	3.43	12.67	
T.P. #6	4.20	15.905	4.49	11.705	
T.P. #7	2.61	16.845	1.67	14.235	
T.P. #8 Set B.M.	2.45	14.14	5.155	11.69	
T.P. #9	3.38	13.13	4.39	9.75	

12.59 = State Hwy BM

Sim. of S. Abut. S.P.C. R.R. Bridge at Govt. River dyke

23' Sly of 11+63.33 Con. Mon. Pueblo Cor. SEly P.I. 27 on Anna St.

Ld & Sq hd. Iron Bolt in Curb N.E. Cor. (Cudahy Bridge) S.D. River overflow Bridge

		13.13 ✓	Seven B.M.'s		
T.P. #10	3.655	12.73 ✓	4.055	9.075 ✓	
T.P. #11	2.215	10.32 ✓	4.625	8.105 ✓	
T.P. #12	3.675	10.975 ✓	3.0 ±	7.30 ✓	
39+24.15	±	4.6 P.O.T.	6.25	4.725 ✓	P.12 4.70 / 0.025
T.P. #13 Set B.M.	2.33	10.185 ✓	3.12	7.855 ✓	
T.P. #14	3.865	9.885 ✓	4.165	6.0 ± ✓	
Check to Chisel Cross		Tecolote Culv.	4.205	5.68 ✓	P.12 5.65 / 0.03
T.P. #15	3.03	7.69 ✓	5.225	4.66 ✓	
T.P. Set B.M.	4.76	9.61 ✓	2.84	4.85 ✓	
T.P. #16	5.39	8.65 ✓	6.35	3.26 ✓	
T.P. #17	5.987	8.493 ✓	6.144	2.506 ✓	
Set B.M.			8.75	−0.257 ✓	

check on P.O.T.

B.M. B.P. East C6. Tecolote Bridge, N. of E. Bridge
S.D. overflow Bridge

47+95.13 ℄ w.h.d. w.l. Culv. Present Tecolote Creek

B.M. B.P. ℄ E. h.d. w.l. Culv. Sta. 53+29
Tecolote Overflow Culv.

High Pt.
Top R.R. Rail Sta. Fe R.R. Con. 120' Rt. of Cr+70
at First Curve in Hwy. N. of Cudahy Plant

8.493 ✗ Sewer B.M.'s

T.P. #18	6.27	9.323	5.44	3.053	
T.P. #19	6.30	10.04	5.583	3.74	
Set B.M.			7.87	2.17	
Check to old T.P.			5.42	4.62	P.15 4.53 0.09
T.P. #20	5.36	9.36	6.04	4.00	
T.P. #21	1.565	4.605	6.32	3.04	
T.P. #22	10.655	12.375	2.885	1.72	
T.P. #23	2.61	11.75	3.235	9.14	
T.P. #24 B.M. B.P.	6.51	13.255	5.005	6.745	Walker 6.835
T.P. #25	4.77	13.64	4.385	8.87	
T.P. #26	4.72	13.735	4.025	9.015	
T.P. #27	3.985	12.497	5.223	8.512	

51

BMBP & Top E hd.wall of Hwy Culv 4.8 +010 Tidal Slough on approx. Center first Curve N. of Cudahy Plant

1908/11 - M2317

Fd. BM.B.P. W.W. hd.w.l S.Fe Culv approx. 900 N of Kennedy's Rd. House

		12.497 ✓	Sewer BM's		
T.P. #28	3.578	10.755 ✓	5.82	6.677	✓
T.P. #29	5.CC	12.635 ✓	3.28.	6.975	✓
T.P. #30	6.53	15.05 ✓	4.115	8.52	✓
T.P. #31 City Fd. B.M. Mon.	3.VO	14.81 ✓	3.64	11.41 ✓	City Con. Mon
T.P. #32	3.26	8.21 ✓	9.86	4.95	✓
T.P. #33	4.503	9.088 ✓	3.625	4.585	✓
T.P. #34	4.58	9.73 ✓	3.938	5.15	✓
T.P. #35	3.475	8.788 ✓	4.367	5.363	✓
T.P. #36	4.477	8.18 ✓	5.085	3.703	✓
T.P. #37	4.408	7.54 ✓	5.048	3.137	✓
Set B.M. on SEly Cor		Top Conc. Mon	0.87	6.67	✓
T.P. #38	4.73	6.175 ✓	5.645	1.895	
		✓			

1928/17
derived USGS. Walker = 11.51
old City = 11.33
B.P. S.W. Cor. Jellette & Morena Blvd. State Hwy = 11.34
derived USGS = 11.34
P.mm C.Moore levels on Xsec = 11.31
USC&G Correction 5-17-34. 17.457
6.119
11.338 = City datum

B.M. Top SEly Cor. State Hwy Mon. E.C.
State Hwy Sta. 50' Rt 185+95.90 or Sewer Sta. 5' Rt of 125+87.20 EC.

		6.125			
T.P. #39	4.098	5.528	4.695	1.43	
T.P. #40	4.78	5.68	4.628	0.90	
T.P. #41	3.93	6.425	3.185	2.495	
T.P. #42	5.378	7.405	4.398	2.027	
T.P. #43	5.017	7.997	4.43	2.975	
T.P. #44 Set BM	7.205	10.282	4.915	3.077	
Check to T.P. #36	Δ 149+38.2C	6.762	3.52	P.2C 3.42 / 0.10	
T.P. #45	4.695	4.397	3.585	6.697	
T.P. #46	4.65	12.039	4.003	7.389	
T.P. #47	4.55	11.961	4.628	7.411	
P.41 120' RT. 161+40 Check to B.M. B.R. Mon.			1.898	10.063	10.00
T.P. #48	4.498	13.068	3.391	8.57	

City Con. Mon. Brass Plug Set 11-22-47. Pueblo Lot
3' W of Wly ROW Pacific Hwy & 3' Sly of Sly line of 1208

10.00 Old City BM Mon. NE Cor ~~Mon. Cor~~ Pacific & Revere Ave
~~Grand & Loma~~ = old description

19.16 = See F.B. 1423 P7 = Walker USC&G.
9.01
10.15

		13.068			
T.P. #49	1.913	10.972	4.057	9.011	
T.P. #50	2.59	7.389	6.125	4.799	
T.P. #51	3.81	4.979	6.[illegible]2	1.169	
T.P. #52	4.771	5.79	3.96	1.019	
T.P. #53	4.825	6.402	4.213	1.577	
T.P. #54	3.183	5.615	3.97	2.432	
T.P. #55 Set B.M.	6.727	6.90	5.442	0.173	P.43 0.08
T.P. #56	5.336	6.586	5.65	1.25	
185+73.96 H06 T.P. #57	3.765	7.081	3.27	3.316	3.23 0.086
T.P. #58	4.72	7.781	4.02	3.061	
T.P. #59	5.14	9.114	3.807	3.974	
T.P. #60	5.837	9.664	5.287	3.827	

High Pt. on Brass disk
B.M. Elevan Mon. E.C. approx E Bond on S.L. Grand Ave.

B.M. Transfered to City Con. Mon. 1.5 E of NW Con. of Bond & Grand

0.173
5.516
5.689
4.660
1.029 El.

9.CC4

11-24-42

T.P. #61	5.80	12.139	3.325	6.339	
T.P. #62	6.271	17.142	1.268	10.871	
T.P. #63 Set B.M.B.P.	7.52	23.742	0.92	16.222	
T.P. #64	7.77	29.712	1.79	21.952	
T.P. #65.	CC3	34.102	2.25	27.472	
Check to 7' Set B.M. Mon.			6.722	27.38	P. 45 27.26
T.P. #66	6.748	37.844	3.006	31.096	
T.P. #67	6.775	40.454	3.615	34.279	
Set B.M.B.P. Mon.			6.45	34.004	
T.P. #68	5.703	40.603	3.554	36.90	
T.P. #69	5.96	45.743	2.82	39.783	
T.P. #70	5.845	49.535	2.053	43.69	

C.T.Y. Con. B.M.B.P. Mon. approx. 1.5 in St. from S.W. Cor. on Pendleton & Grand

S.W. 7' Mon. Olney & Grand

Note! Leaving proposed sewer here, to run levels wly. on Grand to a Tie up with Walker's B.M. on north end of Mission Beach Sea wall.

C.T.Y. B.M.B.P. Con. Mon. approx 1.5 in Street on S.E. Cor. Noyes & Grand. 4" deep

Contd. Sewer B.M.'s on P. 60

		49.535			
T.P. #71	6.90	53.51	2.925	46.61	
T.P. #72 Ser B.M.	4.265	54.715	3.06	50.45	-0.11 error
T.P. #73	5.15	55.405	4.46	50.255	
T.P. #74	4.857	55.742	4.57	50.885	
check to old City BM			4.212	51.53	51.51 old City
T.P. #75	4.438	55.692	4.488	51.254	
T.P. #76	5.03	56.072	4.65	51.042	
check to Old City BM.			4.18	51.89	
T.P. #77	5.66	57.54	4.192	51.88	
T.P #78	5.913	60.115	3.338	54.202	
check to old City BM.			4.2	55.875	
T.P. #79	4.41	61.165	3.36	56.755	

50.56 = walker = 0.11 diff.
Rd. BM. B.P.ck. N.W Cor. Lamont & Grand
50.37 = old City

BM. B.P. in Curb N.W Cor. Kendall & Grand

B.P. in Curb N.W Cor. Jewell & Grand
51.8X = old City

BP curb N.E. Cor. Ingraham & Grand
55.85 = old City

		C1.165		
T.P. #80	3.36	59.34	5.185	55.98
T.P. #81	2.57	55.848	6.04	53.276
T.P. #82	2.445	51.473	6.82	49.028
T.P. #83	2.077	46.68	6.87	44.603
T.P. #84	1.535	41.87	6.345	40.335
T.P. #85 Set B.M.	2.61	38.39	6.09	35.78
T.P. #86	3.03	36.11	5.308	33.082
T.P. #87	3.17	33.108	6.08	30.034
T.P. #88	3.33	30.23	6.306	26.898
T.P. #89	3.33	27.368	6.19	24.038
T.P. #90	2.934	24.357	5.945	21.423
T.P. #91	3.213	21.986	5.584	18.773

cloudy AM. 11-25-41 Clear P.M.

Set B.M. 1' inside edge sidewalk # 036 below
City Cor. Mon. B.P. S.E. Cor. Samuel & Grand

		21.986		
T.P. #92 Set B.M.	2.697	20.33	4.348	17.638
T.P. #93	3.286	17.366	6.25	14.08
T.P. #94	3.664	14.912	6.118	11.248
Fd. Old City B.M.			4.858	10.054
T.P. #95	3.67	12.849	5.735	9.177
T.P. #96	3.67	10.604	5.915	6.934
T.P. #97	5.125	11.855	3.874	6.73
Fd. Old City BM			5.015	6.84
T.P. #98	3.855	10.13	5.58	6.275
T.P. #99 Fd. B.M. B.P.	2.875	7.725	5.28	4.85 ?
T.P. #100	4.18	6.485	5.47	2.305
T.P. #101	4.753	6.606	4.634	1.853

destroyed

Fd. old City Con. Mon. B.P. N.E. Cor Cass & Grand — old City 17.80

Fd. B.M. B.P. in c6 S.E. Cor. Bayard & Grand.

Fd. B.P. in c6. S.E. Cor. Ocean Blvd. & Grand.
6.82 old City

Fd B.M. B.P. C.& G. N.E. Cor Thomas & Ocean Blvd.
5.085 = walker ?
0.435 This Curb must have settled

		6.606			
T.P. #10 N	6.637	8.17	5.143	1.483	
check in to B.M. B.P.			1.25	6.87	
					11-25-4 N
Check from Grand & Ingraham					
	to	Garnet	"	"	
B.M. P. 56	5.46	61.335		55.875	City datum 99 56
T.P.	4.998	64.593	1.74	59.595	
T.P.	5.58	67.011	3.16 N	61.431	
check to City B.M.			4.377	62.634	
" " USC+G Standard disk			4.307	62.704	

Walker
6.495 North End Mission Beach Seawall
0.125
error

B.M. B.P. in C6. N.E. Cor. Ingraham & Grand old City B.M. 55.85

B.M. B.P. Cut 6 S.E. Ingraham & Garnet 62.60 = old City datum ?

Standard disk in C6. 6½' E of City B.M. Ingraham & Garnet

USC&G 1929 68.799

70.59 = USC&G Mission Bay Datum
9.01
61.58 = City according to " " "

62.704
61.58
1.124
0.11 = diff. Walker & Moore at Grand & Lamont
See P. 56
1.234 = diff. Between Mission Bay datum and USC&G "

Sewer B.M.'s cont'd. from P. 55

B.M. Mon.	0.938	34.947		34.009
T.P.	1.875	30.359	6.458	28.484
T.P.	3.025	28.747	4.637	25.722
T.P.	4.88	32.151	1.476	27.271
T.P.	5.45	33.014	4.587	27.564
check to stub P.46			3.35	29.664
Set B.M. B.P. Mon.			3.85	29.164
T.P.	0.41	26.394	7.03	25.984
T.P.	7.295	23.079	10.61	15.784
T.P.	7.11	27.209	2.98	20.099
Set B.M. T.P. 7' Mon.	4.713	28.137	3.785	23.424
T.P.	1.535	24.338	5.334	22.803

B.M. Mon. B.P. S.E. Cor. Noyes & Grand

29.53 A = 227 + 67.67 Reed & Morrell
0.13 error

S.W. Cor. Reed & Morrell inside Prop. Cor.

P. 38
23.37 Set B.M.
S.W. 7' Mon. Pacific Beach Dr. & Morrell
Ld. & C.T.

Moore
11-30-47
clear, some heat waves
light wind

		24.338		
T.P.	4.06	19.681	8.717	15.621
T.P.	4.39	22.547	1.52x	18.157
check to T.P.			3.56	18.987
T.P.	4.416	24.641	2.322	20.225
T.P.	3.485	24.201	3.925	20.716
T.P.	3.255	22.911	4.545	19.656
T.P. City Con. Mon.	5.17	22.18	5.901	17.01
T.P.	5.05	24.52x	2.706	19.474
T.P.	5.005	27.58x	1.945	22.579
check to Temp. BM			3.90	23.684
Set B.M. City Con. Mon. B.P.			2.697	24.892
T.P.	4.844	28.944	3.484	24.10

T.P. 1st level P.41 STUB Δ = 243 + 03.16 18.80

Set B.M. Con. Mon. B.P. 1' inside Prop. Con. N.E. Cor. LAMONT & Crown Pt. Drive

23.55 P. 48 Split in P. Pole near Sewer Pump East End La Playa Ave

8' West of N.E. Cor. La Playa & Kendall Mon. in Parking area. 2" below Sdw.

		28.944 ✓		
T.P.	3.95	28.076 ✓	4.818	24.126 ✓
T.P.	4.145	24.847 ✓	4.374	23.702 ✓
T.P.	5.22	27.147	5.94	21.927
check to B.M. B.P.	P.48	5.544	21.603 ✓	

Walker
21.68 S.W. Cor. Moorland & Cronin Pt. Drive.
0.977 error

Spur Levels from City B.M. P. 53
to U.S.G.S. stem. disk, C 132, 1933.

					P. 53
	4.436	14.499 ✓		10.063 ✓	City datum
T.P.	4.495	13.940 ✓	5.054	9.445 ✓	
T.P.	5.12	14.55 ✓	4.51	9.43 ✓	
T.P.	4.68	14.745 ✓	4.485	10.065 ✓	
T.P.	3.705	16.485 ✓	1.965	12.78 ✓	
T.P.	6.145	17.92 ✓	4.71	11.775 ✓	
T.P.	5.905	20.001 ✓	3.824	14.096 ✓	
T.P.	7.185	23.956 ✓	3.23	16.771 ✓	
T.P. on State Hwy. B.M.	6.35	24.631 ✓	5.675	18.281 ✓	
T.P.	4.01	25.691 ✓	2.95	21.681 ✓	
T.P.	5.783	25.653 ✓	5.821	19.87 ✓	

✓

C. Moore Clear
W. Moore Little wind
12-1-42.

10.15 = Worked 4423 - P. 7

Fd old City Con. Mon. and B.P. see 997 - P. 45
120' Rt. Sewer Sta. 161 + 40
or 65' Rt. of 219 + 90 Pac. Hwy Sta.
N.E. Cor. Pacific & Revere Ave.

B.M. # B-1 State Hwy.
18.28 Bolt in S.E. Cor. of Pump Island
Gen. Pet. Ser. Sta.
N.W. Cor. of Pacific & Balboa

		25.653		
T.P.	4.75	25.196	5.207	20.446
T.P.	2.70	23.651	4.245	20.951
T.P.	9.59	22.191	11.05	12.601
T.P.	2.935	22.225	2.901	19.29
T.P.	7.695	28.495	1.425	20.80
T.P.	8.69	35.512	1.673	26.822
T.P.	12.30	47.472	0.32	35.172
T.P.	9.657	56.829	0.30	47.172
T.P.	9.39	65.089	1.13	55.699
check to U.S.G.S. "C 132, 1933			4.548	60.541 / 60.564

Sec. 49 0.112 high to Begin
0.023 Low " end
0.089

66.683 = U.S.G.S. Fd. B.M. standard disk "C 132 1933"
4.119
60.564
on W. hdwall of S. Fe R.R. Culv. Encl
1' S of N end hdwall.
approx. Midway betwn Balboa Ave
and old Rose Canon Brickyard with
leaning Chimney.

C. Moore 12-3-42 Cloudy Little wind

65

#2 Levels via Pacific Hwy. Old Town to Pacific Beach

				CITY DATUM
B.M. B.P.	6.57	19.27		12.70 = Walker FB 1H 23
T.P. #1	0.355	6.976	12.619	6.621
T.P. #2	10.59	10.936	6.63	0.346
T.P. #3	1.55	10.886	1.60	9.336
T.P. #4	7.846	17.677	1.055	9.831
T.P. #5	4.089	16.879	4.887	12.79
T.P. #6	4.755	16.694	4.94	11.939
T.P. #7	4.32	15.697	4.817	11.377
T.P. #8	2.507	16.734	1.47	14.227
B.M. T.P. #9	2.925	14.609	5.05	11.684
T.P. #10	4.003	13.992	4.62	9.989
T.P. #11	3.69	12.872	4.81	9.182

Top S.W. of S. Obj. S. Fe. R.R. Bridge & Cont. Dyke

11.69 = P.49 1st Leveling
5/8 hd. bolt in E.C.B. N.E. Con. Cudahy Bridge
approx. 25+90 Survey Sta.

		12.872		
T.P. #12	3.571	12.123	4.32	8.552
T.P. #13	4.126	11.677	4.572	7.551
T.P. #14	5.071	11.979	4.769	6.908
B.M. T.P. #15	3.611	11.462	4.128	7.851
T.P. #16	4.064	9.659	5.865	5.597
T.P. #17	3.547	8.186	5.02	4.639
check to Chisel Cross			2.505	5.681
T.P. #18	4.15	7.553	4.783	3.403
T.P. #19	4.032	7.04	4.545	3.008
check to B.M. B.P.			2.18	4.86
T.P. #20	4.32	7.31	4.05	2.99
T.P. #21	3.786	5.653	5.443	1.867

7.855 P. 50
B.M. B.P. E ab. Tecolote Bridge N of E. Sewer Sta. approx. 42+00

5.68 P. 50
Chisel Cross
CTR. Top W. hd. w.l. Culv. present Tecolote Creek

4.85 P. 50
Top ℄ E hd. wall Hwy Culv. Sta 53+39

		5.653		
T.P. #22	4.058	5.579	4.134	1.521
T.P. #23	6.33x	6.086	5.825	−0.244
T.P. #24	5.24	7.436	3.89	2.196
check to B.M.B.P.			5.26	2.176
T.P. #25	3.70	6.583	4.553	2.883
T.P. #26	4.635	6.30	4.918	1.665
T.P. #27	4.71	6.346	4.664	1.636
T.P. #28	4.011	5.639	4.718	1.628
T.P. #29	5.568	8.192	3.015	2.624
T.P. #30	3.04x	8.206	3.078	5.164
check to BM.			1.448	6.758
T.P. #31	4.198	7.024	5.38	2.826

−0.257 P. 50

B.M. Top RR Rail 120' Rt of 62+70 Curve N of Eudaly Plant — near B.C. of 1st St.

P. 51 ℄ Top E hd wl. Hwy Culv.
2.17 B.M.B.P. Sewer sta 68+00 at Tidal Slough

6.745 P. 51

BMBP Top w. hd wl. S. Fk. RR Culv — approx 900' N of Kennedy's. 150' Rt of 83+00 Sewer Sta

		+ 7.024			
T.P. #32	4.918	8.352	3.59	3.434	
T.P. #33	2.875	8.032	3.195	5.157	
T.P. #34	3.967	8.129	3.82	4.162	
T.P. #35	5.218	8.057	5.29	2.839	
T.P. #36	3.46	5.842	5.675	2.382	
T.P. #37	4.075	6.835	3.032	2.81	
T.P. #38	4.75	8.06	3.525	3.31	
T.P. #39	929	4.661	2.689	5.372	
Check to B.M. City Mon.			3.247	11.414	11.41 P. 52
T.P. #40	3.79	8.777	9.074	4.987	
T.P. #41	1.362	8.572	1.567	7.21	
T.P. #42	4.577	9.866	3.283	5.289	

B.M. B.R. City Mon. S.W. Jellette & Moreno Blvd.

17.457 = U.S.G.S.
6.119
11.338 = City walker = 11.51

		9.866			
T.P. #43	4.125	9.471	4.57	5.346	
T.P. #44	3.313	8.089	4.755	4.716	
T.P. #45	4.21	8.299	3.94	4.089	
T.P. #46	4.18	7.549	4.93	3.369	
check to Hwy Row	Mon	0.887	6.66	P. 5 L 1.17	
T.P. #47	3.14	6.115	4.574	2.975	
T.P. #48	4.633	5.884	4.864	1.251	
T.P. #49	4.54	5.50	4.9	0.964	
T.P. #50	4.80	5.60	4.70	0.80	
T.P. #51	4.94	7.125	2.415	2.185	
T.P. #52	4.828	7.514	4.439	2.686	
T.P. #53	3.45	7.738	3.228	4.286	

Top of SE Con. Conc. State Hwy Mon. E.C. Sta. 50' E of ℄ Hwy 185+95.90 = 11 Sta

Sewer Sta = 125 + 87.26

		7.738			
T.P. #54	2.514	7.74	3.51	4.228	
check to B.M.B.P. City Mon.			4.655	3.085	
T.P. #55	5.428	10.894	2.284	5.456	
T.P. #56	5.08	11.528	4.446	6.448	
T.P. #57	5.095	12.218	4.405	7.123	
T.P. #58	4.807	12.275	4.75	7.468	
T.P. #59 check to old City Mon	3.99	14.077	2.188	10.087	
T.P. #60	4.684	13.527	5.232	8.845	
T.P. #61	2.663	10.31	5.88	7.647	
T.P. #62	2.629	6.418	6.521	3.789	
T.P. #63	4.419	5.157	5.68	0.738	
T.P. #64	5.146	5.893	4.41	0.747	

3.077 P. 53
3' W'ly of W'ly Line Pacific Hwy
3' S'ly of Prolo. Line 12+08

Walker = 10.15 ±
old City = 10.02 ±

10.063 P. 53
WESCO
B.M.B.P. NW Cor Pacific Hwy + Revere St.
12.0' Rt. of Sewer Sta. 10+40

		5.893		
T.P #65	5.26	6.767	4.386	1.507
T.P. #66	5.886	6.935	5.718	1.049
T.P. #67	5.21	6.45	5.695	1.24
T.P. #68	3.82	7.155	3.115	3.335
T.P. #69	4.906	7.891	4.17	2.985
T.P. #70	4.955	8.936	3.91	3.981
T.P. #71	4.872	9.003	4.805	4.131
T.P. #74	5.84	10.673	4.17	4.833
T.P. #73	7.001	16.454	1.22	9.453
T.P. #74 BM City Mon.	7.876	24.116	0.214	16.24
T.P. #75	6.945	29.618	1.443	22.673
check to BM.			2.24	27.378

1.042 P. 54
BM BP City Mon. NW Cor. Bond & Grand

16.222 P. 55
BM BP Mon. SW Cor. Pendleton & Grand

27.38 P. 55
SW 7' Mon. Olney & Grand

29.618

T.P. #76	6.65	34.345	1.923	27.695	
T.P. #77	4.85	37.99	1.205	33.14	
T.P. #78 B.M. Mon.	5.65	39.644	3.996	33.994	
T.P. #79	5.337	43.946	1.035	38.609	
T.P. #80	5.36	47.72	1.586	42.36	
T.P. #81	4.76	51.305	1.175	46.545	
T.P. #82	4.66	53.393	2.572	48.733	
check into B.M. B.P. in Conb			2.968	50.425	-0.145 error

From Lamont & Grand to N. end M.B. seawall, I check Walkens levels very closely.

See pages 56 + 59

34.004 P. 55

B.M.B.P. City Mon. S.E. Cor. Noyes & Grand

N.W. Cor. Lamont & Grand

50.56 = Walken 1923

50.45 = Moore, 1st Leveling P. 56

50.37 = old City dat.

#2 Sewer B.M.'s Pac. Beach

B.M. SE BP	7.40	17.45		10.05	P. 58
T.P.	6.89	23.34	1.00	16.45	
T.P.	6.46	28.00	1.80	21.54	
T.P.	7.95	31.89	4.06	23.94	
T.P.	8.18	38.29	1.78	30.11	
T.P.	7.94	45.99	0.24	38.05	
check to NW BP	BM		8.45	37.54	37.50 / 0.04
check to SW Con Mon.			3.15	42.84	

Moore Bagg-R. Green-Rod Roberts

very windy

73

Bayard and Ground

Diamond & Bayard

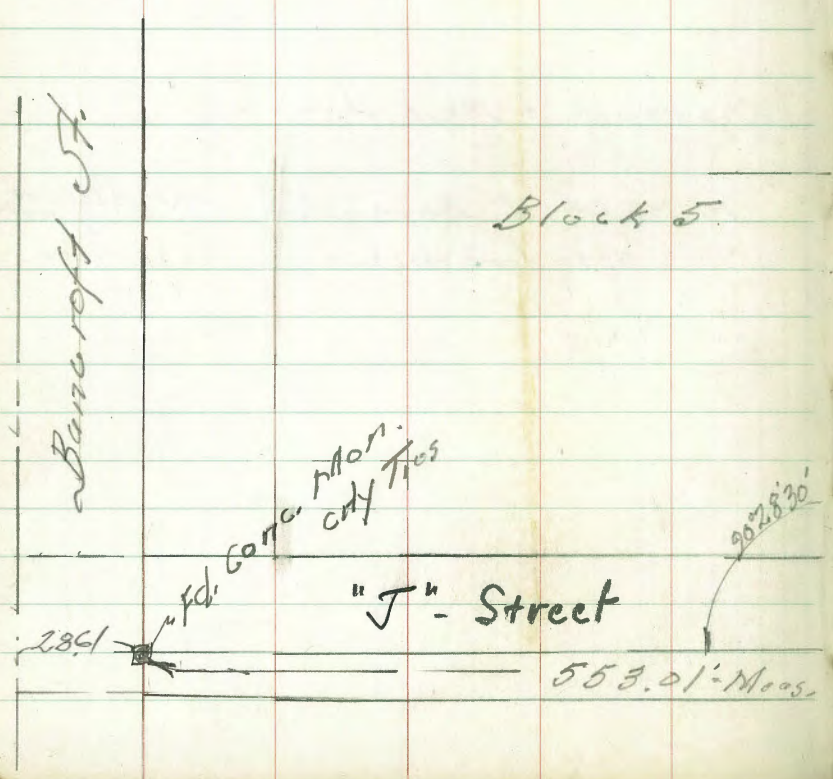
Missouri & Bayard 42.80 { lost 04 1651 ?

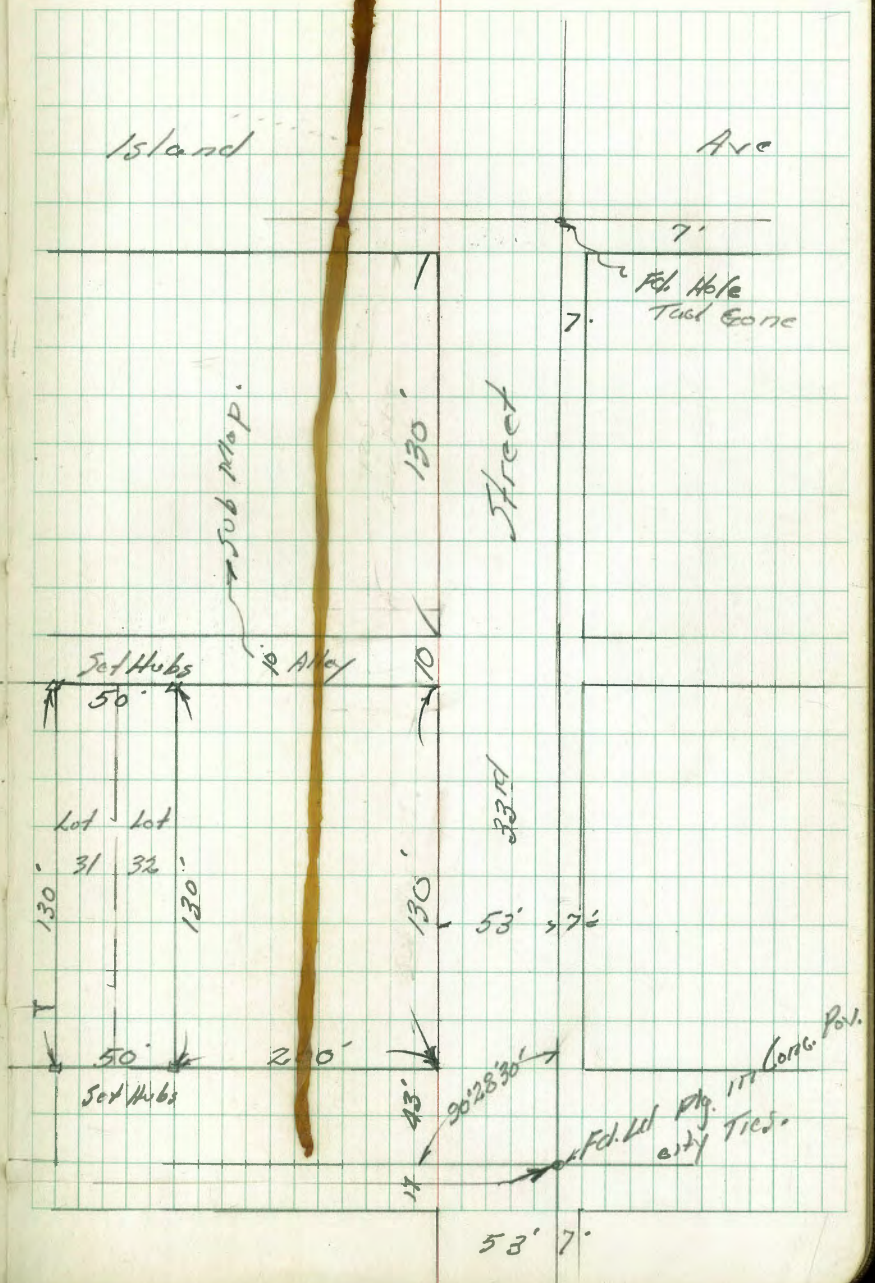
43.00 from Walker 42.88 1650 - 38

SURVEY - LOTS 31, 32
BLOCK 5 - MC LARENS
"H" ADDITION
WO 22009

Walker
G. Pope
R. Sisson
12-12-50

MC LARENS
"H" - ADD.





C Sm
C Sint
W.M.
E.B.
6-11-44

B.M. check Levels
on Pacific Hwy
Rosecrans to San Diego River

BM BP	5.506	9.816		4.31	In Wly Curb Pac. Hwy approx. 800' S of Rosecrans. This B.M. was run from Bliss B.M. R.R. iron. 4.50 Greenwood & Hancock
T.P.	5.104	10.67	4.75	5.566	
T.P.	3.054	8.606	5.118	5.552	
T.P.	3.980	7.543	5.043	3.563	
T.P.	5.88	9.073	4.35	3.193	
T.P.	8.78	14.786	3.607	5.466	City datum Set B.M. 1½" chiseled □ on Sly Cor of Island Curb at Riley and Pacific Hwy
T.P.	5.646	19.398	0.494	13.752	
T.P.	4.629	19.311	4.716	14.682	
			CCY	Inv. City	13.69

Moore
12-12-44

Check Levels for B.M.'s Old Town
To Midway & Rosecrans

				City Datum	
	x.1x	7.684		5.564	Rock T.P. see
T.P.	4.36	6.466	5.578	2.106	
T.P.	5.845	9.205	3.106	3.36	
check to	Rock T.P.		3.84	5.365	
check to	City B.M.		4.73	4.475	
T.P.	4.x3	10.38x	3.x53	5.95x	
T.P.	4.5C	9.947	4.995	5.387	
T.P.	3.08	8.037	4.99	4.957	
T.P.	4.185	7.647	4.575	3.46x	
T.P.	4.x8	7.4x	4.507	3.14	
T.P.	4.x35	6.135	5.5x	1.90	
T.P.	4.577	6.8xx	3.89	x.x45	

↓

A.M. Cold & clear
little wind.

77

P. 79 This Book

5.364 Rock T.P. P. 79

4.Cx orig. el. B.M. B.P. cur6 N.E'ly Return Taylor St. and San Diego Ave.

		6.82 ✓			
T.P.	5.44	7.23 ✓	5.03	1.79 ✓	
T.P.	3.565	7.04 ✓	3.757	3.475 ✓	
T.P.	4.15	6.05 ✓	5.14	1.90 ✓	
T.P.	4.853	5.508 ✓	5.395	0.655 ✓	
check to	B.M. City		5.07	0.488 ✓	

1.79 + 3.475 = 5.265
5.265 − 4.853 = 0.412

B.M. B.P. in Curb S.W. Rosecrans & Midway
various El.'s of this B.M.
0.56 from O. Beach 16.46 - P.7
0.53 in My Field Bench Bk. orig.?
0.488 from La Playa 1423 P.5 1-3-1938
0.49 was stipulated recently for the
Bill Bliss Sewer levels La Playa to S.D.

Moore's 11-27-42 cloudy little wind

Level check USBM old Town to City BM S.Fe RR Bridge on Gov't Dyke

				25.321	USGS
				6.119	
	3.963	23.165		19.202	= City datum
T.P.	2.045	18.242	6.968	16.197	
T.P.	0.532	12.172	6.602	11.64	
T.P.	1.677	7.241	6.608	5.564	* Rock
T.P.	4.685	5.486	6.44	0.801	
T.P.	5.79	8.051	3.225	2.261	
T.P.	4.671	10.035	2.687	5.364	* Rock
T.P.	5.005	10.52	4.52	5.515	
T.P.	4.35	11.25	3.62	6.90	
T.P.	5.592	12.872	3.97	7.28	
T.P.	5.105	15.312	2.665	10.207	
T.P.	3.286	14.398	4.20	11.112	
check to City BM S.F.R.R.			1.803	12.595	12.588
					0.007 Error

Elev. of Stand. disk A Co. Pt. known as Bay Pt. #1 1933/1887 near N. end of 1st Bridge on Ingraham So. of Crown Pt. is 38.70 USC & G. from Walker's Level Net

See 1-23-20

adj. cf.
USBM Bot. sq. hole Gran. Mon. on Mason St. Bot'm, San Diego Prod Congress

(T.P.) used for Levels on P. 77

12.70 = Walker

S.W. Cor of S. abut. of Santa Fe RR Bridge & Gov't Dyke

80

INDEXED
MK
JUL 24 1950

B.M. Jellers & Morena

→ Mon Ties FB 2067-73

Stan. disk Sw. cor. Jellers & Morena 17.79x = USGS
B.M. Con. Mon USGS 6.119

above Stan. disk	4.945	16.618	11.673	= City Dat.
City B.M. Mon.	same location	5.278	11.34	11.51 walker
				11.33 old City
	State B.M. 11.3x			11.31 CSM

1647-22

Walker Pope R. Session 7-21-50

Levels to Determine Elev. Mon Baltimore & Gesner

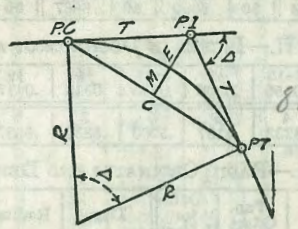
	27/	14.38		11.673 above old disk
176+72 on R			9.11	5.27
Chk. State BM □ in Culvert				5.24 = Marked
				0.03
T.P. #1	7.08	20.85	0.61	13.77 Spk.
T.P. #2	12.06	31.59	1.32	19.53 Nail in Guy Pole
T.P. #3	12.33	43.92	0.00	31.59
T.P. #4	10.58	53.73	0.77	43.15
Chk. Mon Baltimore Gesner			1.66	52.07

T.P.	0.98	44.13	10.58	43.15
TP	0.36	31.94	12.55	31.58
TP	0.20	19.44	12.70	19.24
TP	4.27	18.47	5.24	14.20
B.M. Starting			6.81	11.66
				11.67
				0.01

Levels Continued on Gesner FB 1468-61

INDEXED
MK
JUL 24 1950

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



L 8+90
67+99.4
81' do. 6'x10' Con. Culv.
5207
166
73

CURVE FORMULAS

Radius=R=$\frac{50}{\sin. D/2}$(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 vers $\frac{\Delta}{2}$ (6)

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

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

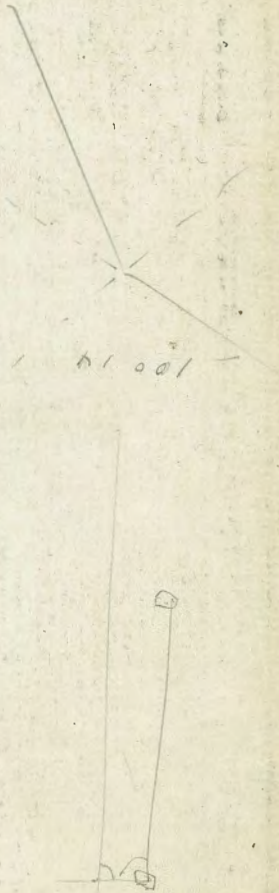
EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. Δ=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 Δ=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.