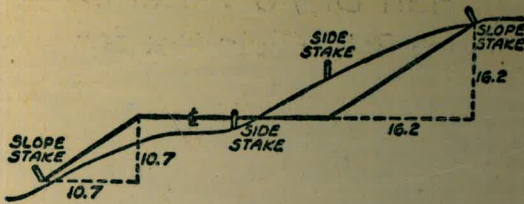


Please Return to  
 City of San Diego Water Dept.  
 Room 903 Civic Center

885



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING  
 SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

MICROFILMED

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.



TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	.43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	.51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4.76	5.31	5.86	6.43	7.01	7.60
120°	.62	1.25	1.93	2.52	3.16	3.81	4.45	5.11	5.77	6.44	7.12	7.80	8.50	9.22

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.032	.035	.039	.043	.047	.051	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	.120	.127	.135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

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Page

OTAY FILTER PLANT, Topo Central Area, Base Line - 1 ✓

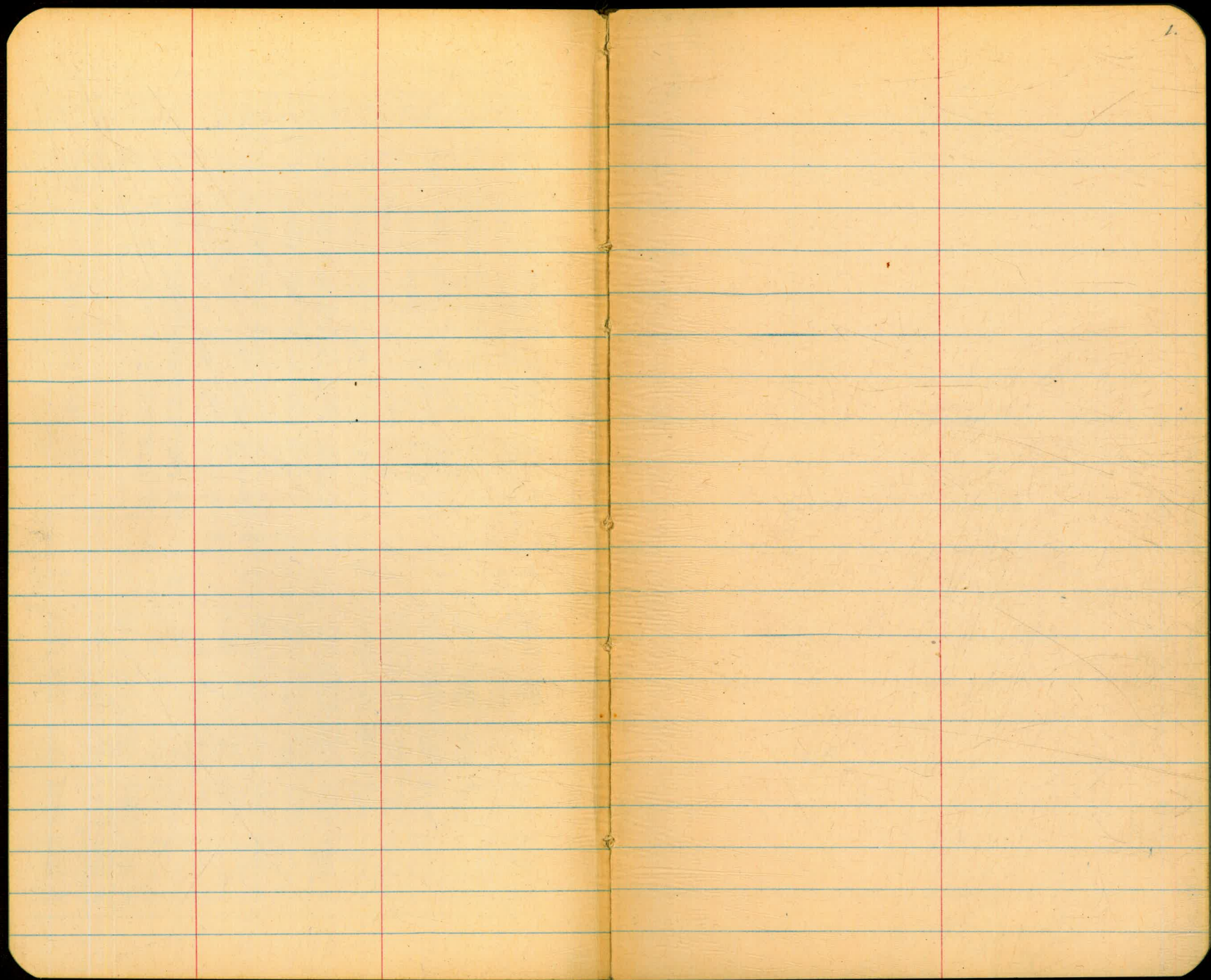
" " " Cross-sections of Base Line W/ 3-6 ✓

OTAY 2nd Main, 1000' Station Stus Set. ✓  
alice

OTAY FILTER PLANT  
Proposed Sewer Line ✓  
15

Lower Otay Reservoir ✓  
16-20  
alice





OTAY FILTER PLANT  
TOP OF CENTRAL AREA  
BASE LINE

See Also P.D. 281, pp 74-78 ✓  
For additional X-sections, etc.

JAN. 5, 1954

BEATTY  
SHOREY  
MARTELL  
ALEXANDER

2.

OTAY  
FILTER  
PLANT  
BLDG.

0+25 E  
0+18 E

NAIL  
LINE

0+00

0+39<sup>68</sup> W 2 PT. 22°45'

22°45'

EAST

0+70<sup>23</sup> W  
0+70<sup>82</sup> W

SETTLING  
BASINS



OTAY FILTER PLANT  
 X-SECTIONS OF BASE LINE  
 0+00 Westerly

1/5/53

3

BM 11.35 411 93 400.58 { FB 281-  
 pg. 74-74

0+25 E

10.43 10.43 10.20  
 25 24.3 20  
 Top Edge  
 Curb Conc

2.5 0.2 0.2 40.5  
 30 43 56 60

0+18 E

10.46 10.46 10.71  
 25 24.3 20  
 Top Curb

3.7 2.6 4.4 0.8  
 27 40 50 60

0+10 E

10.74 10.74 10.7  
 24.7 24 24  
 Top Curb

5.4 5.0 4.4 3.3 2.7 1.7  
 26 30 40 50 60 70

0+00

8.2 4.9 5.7 5.4 4.9 2.7  
 20 30 40 50 60 70

0+00E

10.36 10.36 10.44 10.6 10.56 10.8 10.8 10.5  
 24.7 24 24 24 20.4 20.2 3  
 Top Curb Top Cham. Top Cham.

East

0+04 E

10.9 11.2 11.4 10.8 10.9  
 14 12 25 3 6

LEFT. WLY

0+00

RT. WLY

0+015 W

11.33 11.42 10.42 10.42  
 21 20.5 24 24.7  
 Top Conc platform Top Curb

0+05 W

7.5 50 61 7.6 9.9 11.0  
 80 70 50 28 10 12

WEST

BASE LINE

OTAY FILTER PLANT  
X-Sections  
Cont'd

21193

0+165 W

0+165 W

0+205 W

0+27 W

0+326 W

0+365 W

0+3968 W & PT

H 410 403.61 12.42 399.51

0+50 W

0+57 W

0+60 W

1/5/50

4.

LEFT ELY

WLY RIGHT

112 11.35 11.40 11.44 11.2 10.06 10.06  
0 2 16.5 20.2 23.5 23.7  
Top curb

11.70 11.70  
24.2 22.8  
Top curb

40 6.5 71 9.2 11.2 11.35 11.35  
96 77 30 12.0 1.2 1.5  
Edge Chnl. 21dg.

5.6 6.9 7.8 9.3 11.3 10.9  
100 82 40 15 0 1.2

6.5 7.3 7.7 9.4 11.0 11.33 11.3 11.7 11.7 12.09 12.07 12.07  
100 88 42 11.5 13. 8.5 5.8 9.6 11.7 23.8 24.5  
Edge of Road Edge Conc Catch Basin Conc. Step Edge Chamber Top curb  
(2.25 cur)

7.4 7.6 8.1 9.6 12.00 11.74 11.1 11.8 12.4 11.97 12.08 12.08  
100 92 38 15 12 8. 6.7 13 18.3 24 24.7  
Top curb

8.0 7.7 7.9 8.1 10.2 10.8 12.1 12.8 11.98 12.00 12.08 12.08  
100 76 49 32 19 8 8 19 19.5 21.5 24 24.5  
SIDEWALK Top Curb

6.0 6.0 5.5 7.6 8.4 7.95 7.99  
29 7 0 10 26 26.5 29.3  
SIDEWALK

0.0 0.5 2.9 5.6 10.1  
41 33 25 13 0

40.1 4.8 8.7 10.3 12.7 11.9 11.9 10.6 11.2 11.16 10.24 11.01  
42 37 14 12 6 0 1.2 6. 24.25 28 29 32.5  
Edge Chnl. 21dg. 1  
10.70 10.70  
24.4 24.4



OTAY FILTER PLANT  
(Cont'd.)

1/5/53

5.

403.61

LEFT. E/W

RIGHT. W/W

0+65 W

00 7.3 12.2 12.7 13.2 13.3  
21 37 18 8 0 12

0+70<sup>33</sup> W Edge SETTLING BASIN CURB

00.03 0.3 1.2 3.3 12.9 13.4 14.4 13.7 13.5 13.2 13.47 13.47 14.52 14.55 12.45  
60 51 45 42 39 31 28.2 12 6 4 12 12 12 12 21.2 21.2

13.6 13.4 13.2  
40 39.6 22.55

0+70<sup>33</sup> } Top of curb  
0+70<sup>83</sup> }

13.36 39.22  
28.2 12.39

0+77<sup>3</sup> W

01 02 04 14 12.8 12.9 14.0 13.35  
75 55 56 47 31 30 28.2 28.2 c  
CURB

0+95 W

10 20 7.7 12.6 14.0 14.1 13.35  
59 53 39 33 30 28.2 28.2 c  
CURB

08 07  
62 80

1+08 W

81 98 12.7 13.8 14.2 14.4 13.35  
45 38 33 31 30 28.2 28.2 c  
CURB

28 12 0.4 06  
56 62 73 90

1+23 W

4.3 8.5 11.8 14.2 14.4 14.4 13.35  
73 53 36 32 30.7 28.2 28.2 c  
CONC.



OTAY FILTER PLANT  
(Cont'd)

403.61

1+23 W

1+36 W

1+69 W

CK II 730 406.81 4.10 399.51

CK 6.23 400.58 = 400.58

1/5/54

6.

LEFT ELY

RIGHT WLY

15 17 07 38  
122 106 94 87 C  
Edge  
0162.Rd

79 83 122 144 144 144 1338  
83 64 95 93 312 282 282 C  
Camo

63 21 27 88 64 37 31 0.3 0.7  
97 106 113 88 123 125 128 134 143

79 120 119 100 91 112 138 1357  
73 93 92 89 85 66 97 282 C

36 18 00 +1.2 +28  
128 134 150 162 172

OTAY 2nd MAIN PIPELINE  
1000' STATIONS for MAINTENANCE  
MARKERS SET

DEC. 8, 1954  
BEATTY  
SILVER  
MARTELL  
ALEXANDER

7.

APPURT.	PLAN STATION	T.V. HUFF STATION	Remarks	STATION SET
A.V.	7+39	7+39		
B.O.	10+90	10+87	meas. 10+87?	SET 10+00
A.V.	17+80	17+80		
B.O.	20+50	20+50	ok	SET 20+00
B.O.	29+25	29+25		
A.V.	31+57	31+57	meas. 31+56	SET 30+00
B.O.	42+31	42+30	ok	SET 40+00
1" Copp.	43+29	43+28	ok	
A.V.	47+45	47+25		
B.O.	49+25	49+25	meas. 49+26	
A.V.	58+50	58+56	ok meas. 58+56	SET 50+00
B.O.	67+50	67+50		SET 60+00
A.V.	70+30	70+30	meas. 70+27.95	
B.O.	72+25	70+29	meas. 72+17.25	} rechecked!
A.V.	74+85	74+85	meas. 74+83.85	
A.V.	77+08	77+08	meas. 77+08	
B.O.	81+50	81+52	meas. 81+51.0	SET 80+00
A.V.	85+00	81+50?	meas. 85+00?	
A.V.	90+00	89+98		Set. 90+00



Otay 2nd Main  
1000' Sta. Set.  
(Cont'd)

12/9/56

8.

Appurt.	PLAN STATION	T.V. HUFF STATION	Remarks	
A.V.	101+00	101+01	meas 101+00 <sup>2</sup>	SET 100+00
A.V.	108+40	108+40		
B.O.	110+00	110+00	meas 110+98 <sup>0</sup>	SET 110+00
A.V.	111+38	111+38	meas OK	
A.V.	115+00	115+00		
B.O.	119+67	119+67	meas 119+67 <sup>2</sup>	SET 120+00
A.V.	122+82	122+2	meas 122+85 <sup>2</sup>	
A.V.	126+53	126+53	meas 126+53 <sup>6</sup>	
A.V.	134+45	134+45	meas OK 134+45	SET 130+00
B.O.	136+50	136+48		
A.V.	143+00	143+02	meas 143+02	Set. 140+00
outside Wall Entr. Well	145+83	145+83 <sup>06</sup>	OK	} TUNNEL #1
outside Wall Exit Well	167+75	167+75 <sup>06</sup>	OK	
A.V.	167+77	-	OK	SET 170+00
outsid wall Entr. Well	171+95 <sup>5</sup>	-	meas. 171+98 <sup>5</sup>	} TUNNEL #2
outside wall Exit Well	192+31 <sup>5</sup>			
A.V.	193+00	192+36		
B.O.	195+60	195+60		
A.V.	205+02		meas 205+02 <sup>70</sup>	} TUNNEL #3
outside wall Entr. Well	205+11		205+11 <sup>0</sup>	

12/10/54

9

OTAY 2<sup>nd</sup> MAIN  
1000' Stations Set  
(Cont'd.)

	Plan Station	T.V. Huff Station		
Outside wall Exit Well	224+31			
A.V.	224+32		meas. 224+32 <sup>8</sup>	
B.O.	234+50	234+50	meas. 234+50 <sup>7</sup>	Set 230+00
A.V.	238+85	238+85		
B.O.	244+32	244+32	meas. 244+32 <sup>9</sup> meas. 244+32 <sup>8</sup>	
A.V.	253+00	253+00	Trestle piers at 251+75	Set 240+00
A.V.	256+75	256+75	ok	Set 250+00
B.O.	260+00	260+00		Set 260+00
A.V.	262+50	262+50	meas. 262+49 <sup>5</sup>	
A.V.	268+83	268+83		Set 270+00
B.O.	270+50	270+47	meas. 270+51 <sup>2</sup>	
A.V.	272+72	272+72	meas. 272+71 <sup>5</sup>	
A.V.	277+97	277+97		
B.O.	279+50	279+50	meas. 279+50 <sup>9</sup>	Set 280+00
Outside Wall Entr. Well	287+12 <sup>9</sup> <sub>5</sub>			
Outside wall Exit Well	298+17			
A.V.	298+25	298+25	meas. 298+23 <sup>5</sup>	Set 300+00
B.O.	302+05	302+05	meas. 302+04 <sup>8</sup>	
B.O.	309+87	309+88		Set 310+00



OTAY 2nd Main  
1000' Stations Jet  
(Cont'd)

12/10/52

10.

	Plan. Sta.	T.V. Hoff. Sta.		
A.V.	312+00	312+01	meas 312+00.9	Set 320+00
A.V.	321+30	321+30	meas 321+30.3	
B.O.	329+17	329+17	ok	Set 330+00
A.V.	338+73	338+73	ok	12/27/54 Set 340+00
B.O.	343+25	343+25	meas 343+25.0	
A.V.	347+54	347+54	ok	Set 350+00
B.O.	351+00	351+01	meas 351+01.2	
A.V.	355+50	355+50	ok	
1" Comp	356+00	356+01	ok	Set 360+00
B.O.	361+25	361+25	meas 361+26	
A.V.	367+18	367+18		
B.O.	369+00	369+00		Set 370+00
B.O.	378+65	378+66		Set 380+00
A.V.	385+00	385+00	meas 384+99.5	Set 390+00
A.V. (2)	392+45	392+40+42 +26+48	meas 392+39.5 to 1st one	Set 400+00
B.O.	401+65	401+63	d	Set 410+00
A.V. - f	413+75	413+70; +72; +78 +76	ok	Set 420+00
B.O.	416+00	416+38		
A.V.	422+25	422+27	meas 422+28	Set 420+00

Otay 2nd Main  
1000' Stations Set  
(Cont'd)

12/27/54

11.

	PLAN STATION	T.V. Huff Station		
AV.	430+00	429+98	used 429+98	
30" GV.	430+51	430+57	meas 430+51	Set 430+00
AV.	430+60	430+68	meas 430+61	
AV.	436+75	436+75		
2-AV.	443+83	443+81; +85	meas 443+81.5	Set 440-
B.O.	453+15	453+17		SET 450-
1" Coup.	454+10			
AV.	457+00	457+02		
AV.	464+00	464+00	meas 464+02	Set 460-
4 Bonita Rd	470+25			Set 470-
Cross 36" <sup>Calif. West</sup> & Tele Co	470+56.4		ok	
B.O.	482+60	482+60		Set 480-
2-AV.	491+53	491+52; +50		Set 490-
Cross 24" <sup>Calif. West</sup> & Tele Co	492+45.8		ok	
2-AV. (in Jt.)	498+23	498+22; +24		
B.O.	506+07	506+07	ok	Set 500-
AV.	512+12	512+12	ok	Set 510-
B.O.	516+70	516+70		
2-AV.	522+25	522+22; +26	meas 522+20.6	Set 520-



OTAY 2nd MAIN  
1000' STATIONS SET  
(Cont'd)

12/28/54

12

	PLAN STATION	T.V. HUFF STATION		
B.O	526+15	526+15	meas. 526+25	
2-AV	535+75	535+73; +75	meas. 535+72.5	Set 530-
B.O	540+85	540+85	meas. 540+85'	Set 540-
AV	545+00	545+00	meas. 544+97.2	
B.O	549+55	549+55	meas. 549+57.2	
2-AV	556+75	556+73; +75		
B.O	560+30	-		Set 560-
AV	570+00	570+00		
B.O	571+15	571+15	meas. 571+13	Set 570-
AV	579+10	579+10		
B.O	583+50	583+50	meas. 583+51.2	Set 580-
2-AV	587+90	587+90; +97		
B.O	592+25	592+25	meas. 592+24.8	Set 590-
2-AV	601+50	601+48; +50	OK	12/29/54 Set 600-
B.O	607+08	607+08		
AV	610+50	610+50	OK	SET 610-
B.O	621+40	621+40	OK	SET 620-
2-AV	634+35	634+35		SET 630-
B.O	636+65	636+63		

OTAY 2<sup>nd</sup> MAIN  
1000' STATIONS SET.  
(Cont'd.)

12/29/54

13

APPURT	PLAN STATION	T.V. HUFF STATION		SET
A.V.	644+25	644+25	meas. 644+25 <sup>2</sup>	640-
A.V.	648+00	648+00		650-
B.O.	650+00	650+00		
Ridge Way Rd & now SKYLINE DR.	652+63 <sup>6</sup>		ok	
30" GN.	657+93			
A.V.	658+00	658+00		660-
B.O.	660+25	660+25	meas. 660+25 <sup>5</sup>	
2-AV	667+55	667+53; +55		670-
B.O.	680+20	680+20		
A.V. in Brooklyn Avenue	689+04	689+04		690- painted on AC. Sully school yard
A.V.	700+00	700+00		700-
Near edge Broadway, PWT	704+48 <sup>70</sup>		meas. 704+47 <sup>6</sup>	
A.V.	709+50	709+50		
A.V.	711+50	711+46; +48	meas. 711+45	710-
B.O.	716+00	716+02		
2-AV.	724+00	723+98; 726+00	ok	
A.V.	732+50	732+50		730-
B.O.	736+85	736+63		
A.V.	741+00	741+00	meas. 740+99 <sup>5</sup>	740-



OTAY 2<sup>nd</sup> MAIN  
1000' STATIONS JET  
Cont'd.

12/30/56

14.

REPORT	PLAN STATION	T.V. HUFF		
2-AV.	748+00	748+00; +02		SET 750-
B.O.	752+50	752+50	OK	SET 760-
2-AV.	763+00	763+00 (2-7)		
B.O.	768+30	768+30	OK	SET 770-
AV.	770+93	770+93	meas. 770+92	
AV.	779+25	779+25		SET 780-
B.O.	782+10	782+12	meas. 782+10.5	
AV (in st)	789+17	789+17		
B.O.	793+00	793+00	meas. 793+00.5	SET 790-
AV.	799+90	800+23	meas. 800+24	SET 800-
30' GU.	802+17		meas. 802+17.2	
B.O.	806+00	806+00		printed } SET 810 padding }
AV.	818+00	818+00	meas. 818+00.5	
AV.	826+07	826+07		SET 820-
B.O.	829+88	829+90		SET 830-
AV.	840+00	840+00	meas. 840+06 in using this sta. as 840+00	SET 840-
B.O.	842+00	842+02	B.O. Covered up	
AV.	845+50	845+48	meas. 845+44	
B.O.	852+08	852+08	used this sta. meas. 852+02	SET 850-

OTAY FILTER PLANT

B.M.	6.13	406.71	400.58
	6.6	400.1	
	7.3	399.4	
	7.4	399.3	
	8.3	398.4	
	8.0	398.7	
	7.9	398.8	
	1.20	405.51	
	0.66	406.05	
	+3.0	409.71	
	+3.05	409.76	
	+3.58	410.29	
	+3.12	409.83	
CHECK B.M.	6.12	406.59	406.58
		400.59 =	400.58

WEST  
WILLIAMS T  
VARONFAKIS †  
ALEXANDER †

15

PAGE 3

8/2/55 HOT

CHISEL □ CON. SLAB CHLORINE BLDG.

TOP CON. BLOCK

TOP FLANGE 42" SIDE OPERATED G.V

TOP FLANGE 2' FROM BASE OF BELL 6' 1"

77' OUT FROM BLDG. ON REDUCER

" " " " TOP BELL

83.5 OUT END REDUCER

TOP 37" PIPE AT BLDG.

TOP 37" PIPE 76.9' OUT TOP FLANGE

BOTTOM 36" 26.6 FROM BLDG

BOTTOM 36" 7.5 FROM BLDG.

BOTTOM 36" 8.9 FROM BLDG.

BOTTOM 36" LINE AT BLDG.



LOWER OTAY RESERVOIR  
 PROPOSED SEWER LINE.  
 OUTFALL FROM SEPTIC TANK  
 (See Pg. 20 for Align't.)

Aug. 17 1955  
 WEST  
 WILLIAMS  
 VARENFAKIS  
 KELLHOFER.

BM	5.07	503.09		498.02 = (496.81)
IP	11.59	510.27	4.41	498.68
IP	9.05	518.96	0.36	509.91
IP	1.57	515.02	5.51	513.45
IP	12.82	527.25	0.59	514.43
IP	13.11	539.85	0.51	526.74
IP	6.44	545.60	0.69	539.16
CK TBM	0.65	545.82	0.43	545.17 =
IP	6.62	544.19	8.25	537.57
SET TBM	4.14	543.54	4.79	539.40
0+00	Top of diff. box		4.17	539.4
			1.8	
0+00	Bottom diff. box		5.97	537.57 537.57
0+31 <sup>7</sup>	B.C		4.41	539.1 536.9
0+40			4.72	538.8 536.8
0+50			4.9	538.6 536.6
0+60			5.4	538.1 536.4
0+70			6.0	537.5 536.2
0+80			6.5	537.0 536.0
0+90			6.6	536.9 535.8

x on I iron at recording gauge on Dam  
 SET BY BYLER 1-26-44 FB 295-28  
 HILL 11, FB 281-69 USES ELEV. 496.81  
 BUT GOES ON 534 WHERE FROM.  
 FAIRCHILD BM. 3 FILE 3977 LISTS BM  
 ON WALL 498.02

SE Cor Top Porch Bldg #1545 CROWELL AVE

NW Cor Septic Tank Rear #1549 CROWELL AVE

Top of diffusion box Nly of Septic Tank

C2 <sup>2</sup>	539.0
	4.5
C2 <sup>0</sup>	538.6
	2.9
C2 <sup>0</sup>	538.1
	2.4
C1 <sup>2</sup>	537.7
	5.8
C1 <sup>3</sup>	537.2
	6.3
C1 <sup>2</sup>	536.6
	6.9
C1 <sup>1</sup>	536.5
	7.0



OTAY SEWER LINE  
(Cont'd)

8/17/55

17.

543.54

1+02 <sup>91</sup> EC		6.6	536.9	535.6	c1 <sup>3</sup>	536.4
1+50		7.3	536.2	534.7	c1 <sup>5</sup>	535.8
2+00	11.59	8.06	547.07	535.48	533.6	c1 <sup>9</sup>
TP						535.1
ck TBM		1.90	545.17 = 545.17			535.0
2+50		11.8	535.3	533.3	c2 <sup>0</sup>	535.0
3+00		11.2	535.9	532.6	c3 <sup>3</sup>	535.4
3+50	4.07	11.02	540.12	536.05	532.1	c4 <sup>0</sup>
TP						535.7
3+81 <sup>93</sup> B.C.		4.9	535.2	531.7	c3 <sup>5</sup>	534.6
4+00		5.6	534.5	531.6	c2 <sup>2</sup>	533.9
4+19 <sup>22</sup> EC		5.9	534.2	531.3	c2 <sup>9</sup>	533.6
4+50		5.8	531.3	531.0	c3 <sup>3</sup>	533.6
5+00		5.8	531.3	530.5	c3 <sup>7</sup>	533.6
5+50		7.0	533.1	530.1	c3 <sup>0</sup>	532.1
6+00		8.1	532.0	529.6	c2 <sup>4</sup>	531.3
6+50		10.57	529.55	527.5	c2 <sup>1</sup>	529.0
TP	0.58	10.01	530.69	530.11		529.0
7+00		7.56	523.13	520.2	c2 <sup>9</sup>	521.9
TP	1.02	13.09	518.62	517.60		521.9
7+50		3.9	518.7	516.7	c3 <sup>0</sup>	514.3
7+61						511.2
7+75						509.7

SE. Cor. of perch #1545



OTAY SEWER LINE  
(Cont'd)

8/7/55

18

		518.62							
8+00 110 ⑤	0.08	506.56	1214	506.48	504.5	c2 <sup>0</sup>		506.2	121
9+36 <sup>68</sup>	BC		5.1	501.5	499.5	c2 <sup>0</sup>		501.4	5.2
+50			7.5	499.1	497.6	c1 <sup>5</sup>		499.1	7.5
	0.25	493.93	1288	493.68					
9+00			1.3	492.6	490.7	c1 <sup>9</sup>		492.8	1.1
+49 <sup>50</sup>	EC		8.9	485.0	484.0	c1 <sup>0</sup>		485.5	8.9
	0.08	480.85	1316	480.77					
10+00			1.1	476.5	475.4	c1 <sup>1</sup>		477.7	3.2
+25								472.9	8.0
+50			10.0	470.3	468.0	c2 <sup>3</sup>		470.9	10.1
	0.48	468.77	1256	468.29					
11+00			7.2	461.6	461.0	c0 <sup>6</sup>		462.8	6.0
+50			12.0	456.8	456.8	c0 <sup>0</sup>		458.2	10.6
	0.23	455.97	1303	455.79					
12+00			2.5	453.5	453.0	c0 <sup>5</sup>		454.6	1.9
+50			7.5	448.5	446.0	c2 <sup>5</sup>		449.2	6.8
+76 <sup>12</sup>	BC		10.9	445.6	444.4	c1 <sup>2</sup>		446.0	10.0
13+00	π ⑥	0.81	443.44	1339	442.63	441.8	c0 <sup>8</sup>	443.0	13.0



OTAY SEWER LINE  
(Cont'd)

8/18/55

19.

443.11

13+25		32	440.2	439.0	c1 <sup>2</sup>	
+50		55	437.9	436.0	c1 <sup>9</sup>	
+60 <sup>81</sup> EC		6.7	436.7	434.7	c2 <sup>0</sup>	
	0.55					
14+00	TPC	430.99	1300	430.44	429.2	c1 <sup>2</sup>
+50		8.6	422.4	421.2	c1 <sup>2</sup>	
1	0.40	418.09	13.30	417.69		
15+00		3.8	414.3	413.2	c1 <sup>L</sup>	
+50		6.3	411.8	409.0	c2 <sup>8</sup>	
+63						
16+00		8.4	409.7	408.2	c1 <sup>5</sup>	
	end of work					
+15		9.1	409.0	408.0	c1 <sup>0</sup>	
	292	409.71	11.30	406.79		

4408  
2.8  
1383  
5.1  
436.5  
69  
431.3  
121  
423.2  
7.8  
414.9  
3.2  
412.1  
6.0  
409.6  
8.5  
410.6  
7.5  
409.6  
8.5

edge AC Road

7.73 401.98 = 400.58  
 (Corr. Elev. <sup>diff. 1.21</sup> 400.77 = 400.58)  
 see note pg. 16  
 Chis is SE Cor CHLOR  
 Loading platform.

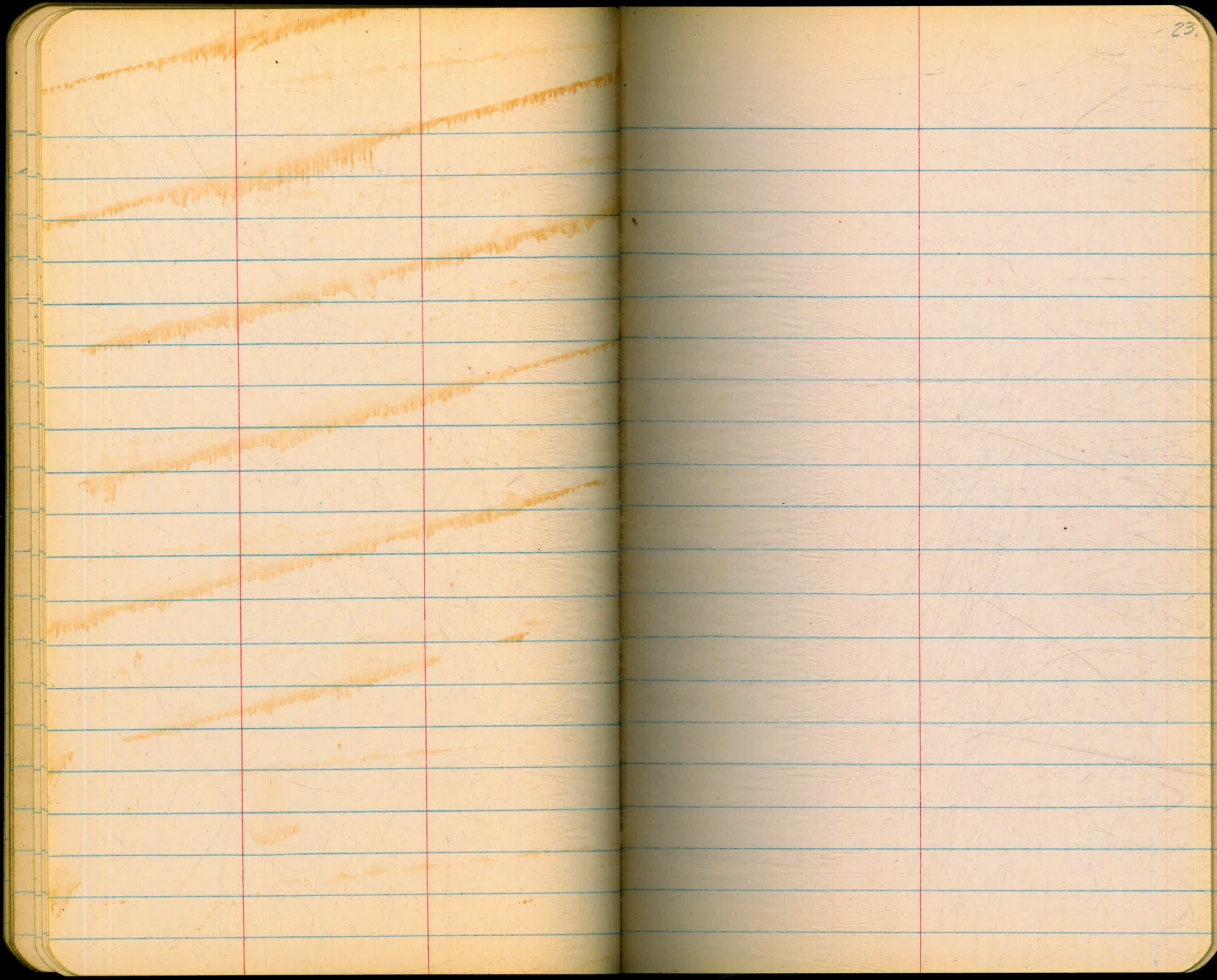






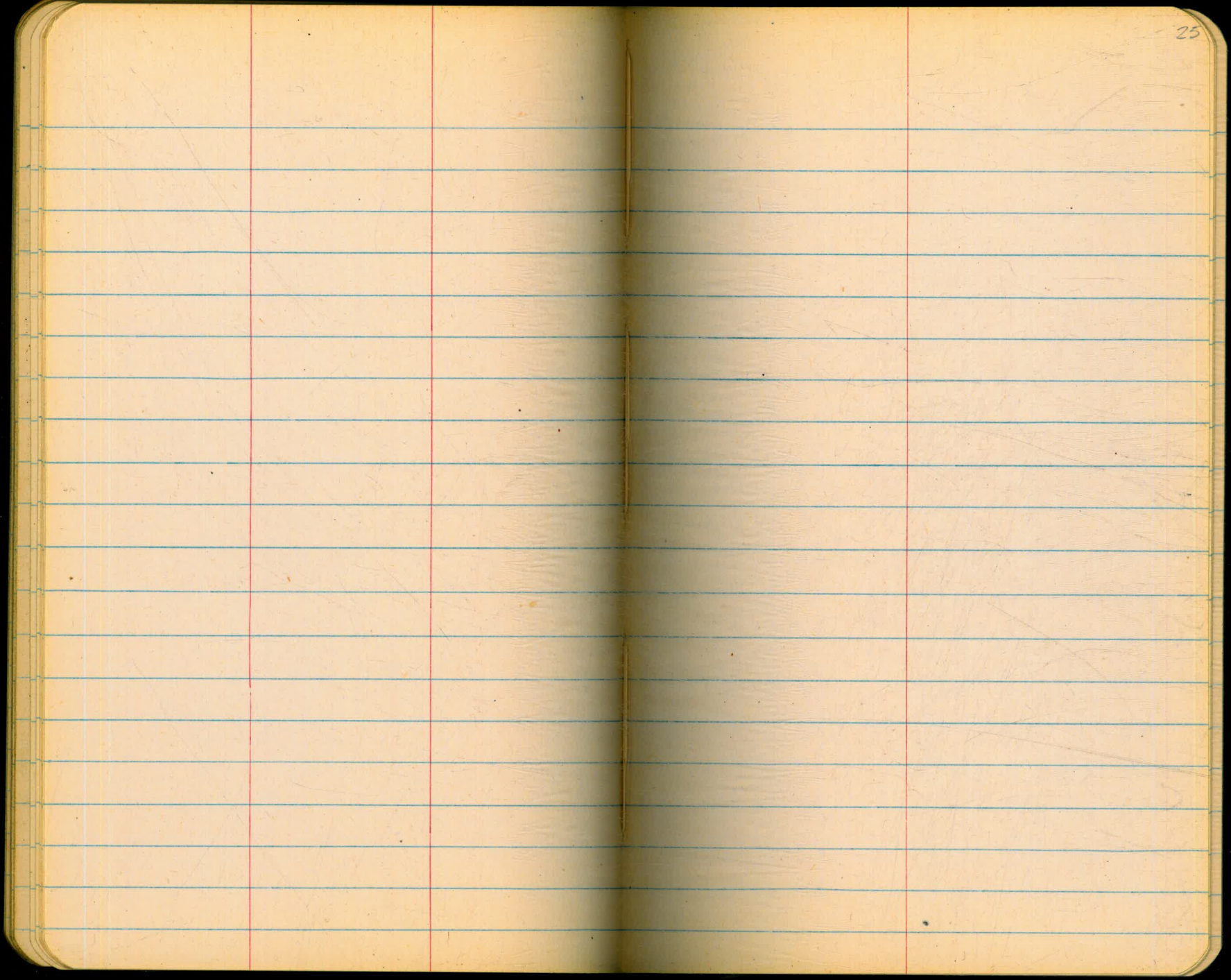






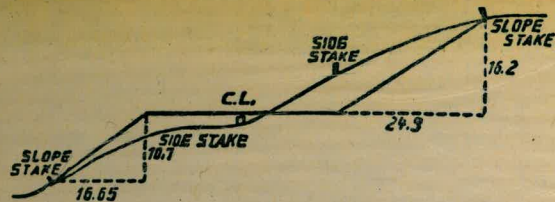








Please Return to  
 City of San Diego Water Dept.  
 Room 903 Civic Center



**DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.**

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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