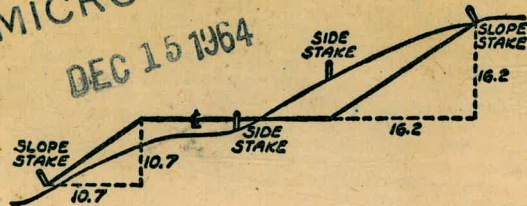


MICROFILMED

DEC 15 1964



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

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.

811

372

22
3.3

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City of San Diego Water Dept.
Room 903 Civic Center

DIRECTIONS FOR USE OF TABLES

TABLE No. XIV

Distance of slope stake from side or shoulder stake for any width roadway, slope $1\frac{1}{2}$ 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 No. VIII

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections. Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

37

25
175
TABLE II - Continued
TRIGONOMETRIC FORMULÆ

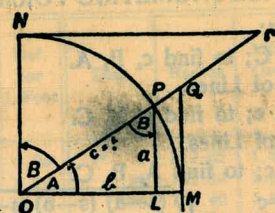


TABLE II
TRIGONOMETRIC FORMULÆ.

$$\begin{aligned} \angle A &= \angle MOP & \angle B &= \angle PON = \angle OPL \\ R &= OB = c = 1 \\ \sin A &= \frac{a}{c} = \frac{a}{1} = a = \text{cos } B = LP \\ \text{cos } A &= \frac{b}{c} = \frac{b}{1} = b = \text{sin } B = OL \\ \tan A &= \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \text{cot } B = MQ \\ \text{cot } A &= \frac{NT}{ON} = \frac{NT}{1} = NT = \text{tan } B = NT \\ \text{sec } A &= \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \text{csc } B = OQ \\ \text{csc } A &= \frac{OT}{ON} = \frac{OT}{1} = OT = \text{sec } B = OT \\ \text{vers } A &= \frac{LM}{OP} = LM = \text{covers } B = \neq \\ \text{covers } A &= \frac{OP-LP}{OP} = OP-LP = \text{vers } B \\ \text{exsec } A &= PQ = \text{coexsec } B \\ \text{coexsec } A &= PT = \text{exsec } B \\ \sin \frac{1}{2} A &= \sqrt{\frac{1-\text{Cos } A}{2}} & \cos \frac{1}{2} A &= \sqrt{\frac{1+\text{Cos } A}{2}} \\ \sin 2 A &= 2 \sin A \cos A & \cos 2 A &= \cos^2 A - \sin^2 A \\ \text{Law of Lines} & \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C} \\ \text{Law of Cosines} & c^2 = a^2 + b^2 - 2 ab \cos C \\ \text{Law of Tangents} & \frac{a+b}{a-b} = \frac{\tan \frac{1}{2} (A+B)}{\tan \frac{1}{2} (A-B)} \end{aligned}$$

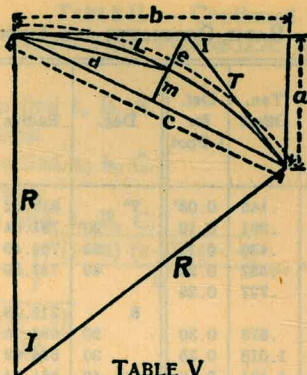


TABLE V
CURVE FORMULÆ FOR SIMPLE CURVES
COMPILED BY J. CALVIN LOCKE, C. E.

- (1) $c = \sqrt{2Ra}$ (2) $c = \sqrt{a^2 + b^2}$
 (3) $c = \sqrt{2R(R - \sqrt{(R+b)(R-b)})} = \sqrt{2R(R - \sqrt{R^2 - b^2})}$
 (4) $c = 2\sqrt{m(2R - m)}$
 (5) $c = 2R \sin \frac{1}{2} I$ (6) $c = 2T \cos \frac{1}{2} I$
 (7) $e = R \operatorname{exsec} \frac{1}{2} I$
 (8) $e = R \tan \frac{1}{2} I \tan \frac{1}{4} I$ (9) $e = T \tan \frac{1}{4} I$
 (10) $b = \sqrt{a(2R - a)}$
 (11) $b = \sqrt{\left(c + \frac{c^2}{2R}\right)\left(c - \frac{c^2}{2R}\right)} = \sqrt{c^2 - \frac{c^4}{4R^2}}$
 (12) $b = R \sin I$ (13) $b = a \cot \frac{1}{2} I$
 (14) $R = \frac{a^2 + b^2}{2a} = \frac{c^2}{2a}$ (15) $R = \frac{d^2}{2m} = \frac{c^2 + 4m^2}{8m}$
 (16) $d = \sqrt{R(2R - \sqrt{(2R+c)(2R-c)})} = \sqrt{R(2R - \sqrt{4R^2 - c^2})}$
 (17) $d = \sqrt{2Rm}$ (18) $d = 2R \sin \frac{1}{4} I$ (19) $m = \frac{d^2}{2R}$
 (20) $m = R \mp \sqrt{\left(R + \frac{c}{2}\right)\left(R - \frac{c}{2}\right)} = R \mp \sqrt{R^2 - \frac{c^2}{4}}$
 (21) $m = R \sin \frac{1}{2} I$ (22) $m = R \sin \frac{1}{2} I \tan \frac{1}{4} I$ (23) $m = \frac{1}{2} c \tan \frac{1}{4} I$
 (24) $a = \frac{c^2}{2R}$ (25) $a = R - \sqrt{(R+b)(R-b)} = R - \sqrt{R^2 - b^2}$
 (26) $a = 2R(\sin^2 \frac{1}{2} I)^2$ (27) $a = R \operatorname{vers} I$ (28) $a = R \sin I \tan \frac{1}{2} I$
 (29) $a = b \tan \frac{1}{2} I$ (30) $a = T \sin I$ (31) $T = R \tan \frac{1}{2} I$
 (32) $I = \frac{L}{R} \times 57.295780$ (33) $R = \frac{L}{I} \times 57.295780$
 (34) $L = IR \times 0.01745329$ (35) $L = \frac{8d - c}{3}$
 (36) $\text{Area Seg.} = \frac{LR - R^2 \sin I}{2} = \frac{LR - Rb}{2}$

TABLE VI
SINES, COSINES, TANGENTS, COTANGENTS

deg.	sin 0'	tan 0'	sin 10'	tan 10'	sin 20'	tan 20'	sin 30'	tan 30'	sin 40'	tan 40'	sin 50'	tan 50'	deg.
0	0000	0000	0029	0029	0058	0058	0087	0087	0116	0116	0145	0145	89
1	175	0175	0204	0204	0233	0233	0262	0262	291	291	320	320	88
2	349	349	378	378	407	407	436	436	465	465	494	494	87
3	523	524	552	553	581	582	610	612	640	641	669	670	86
4	698	699	727	729	756	758	785	787	814	816	843	846	85
5	872	875	901	904	929	934	958	963	987	992	1016	1022	84
6	1045	1051	1074	1080	1103	1110	1132	1139	1161	1169	1190	1198	83
7	219	228	248	257	279	287	305	317	334	346	363	376	82
8	392	405	421	435	449	465	478	495	507	524	536	554	81
9	564	584	593	614	622	644	650	673	679	703	708	733	80
10	736	763	765	793	794	823	822	853	851	883	880	914	79
11	908	944	937	974	965	2004	994	2035	2022	2065	2051	2095	78
12	2079	2126	2108	2156	2136	186	2164	217	193	247	221	278	77
13	250	309	278	339	306	370	334	401	363	432	391	462	76
14	419	493	447	524	476	555	504	586	532	617	560	648	75
15	588	679	616	711	644	742	672	773	700	805	728	836	74
16	756	867	784	899	812	931	840	962	868	994	896	3026	73
17	924	3057	952	3089	939	3121	3007	3153	3035	3185	3062	217	72
18	3090	249	3118	281	3145	314	173	346	201	378	228	411	71
19	256	443	283	476	311	508	338	541	365	574	393	607	70
20	420	640	448	673	475	706	502	739	529	772	557	805	69
21	584	839	611	872	638	906	665	939	692	973	719	4006	68
22	746	4040	773	4074	800	4108	827	4142	854	4176	881	210	67
23	907	245	934	279	961	314	987	348	4014	383	4041	417	66
24	4067	452	4094	487	4120	522	4147	557	173	592	200	628	65
25	226	663	253	699	279	734	305	770	331	806	358	841	64
26	384	877	410	913	436	950	462	986	488	5022	514	5059	63
27	540	5095	566	5132	592	5169	617	5206	643	243	669	280	62
28	695	317	720	354	746	392	772	430	797	467	823	505	61
29	848	543	874	581	899	619	924	658	950	696	975	735	60
30	5000	774	5025	5812	5050	851	5075	890	5100	930	5125	969	59
31	150	6009	175	6048	200	6088	225	6128	250	6168	275	6208	58
32	299	249	324	289	348	330	5373	371	398	412	422	453	57
33	446	494	471	536	495	577	519	619	544	661	568	703	56
34	592	745	616	787	640	830	664	873	688	916	712	959	55
35	736	7002	760	7046	783	7089	807	7133	831	7177	854	7221	54
36	878	265	901	310	925	355	948	400	972	445	995	490	53
37	6018	536	6041	581	6065	627	6088	673	6111	720	6134	766	52
38	157	813	180	860	202	907	225	954	248	8002	271	8050	51
39	293	8098	316	8146	338	8195	361	8243	383	292	406	342	50
40	428	391	450	441	472	491	494	541	517	591	539	642	49
41	561	693	583	744	604	796	626	847	648	899	670	952	48
42	691	9004	713	9057	734	9110	756	9163	777	9217	799	9271	47
43	820	325	841	380	862	435	884	490	905	545	926	601	46
44	947	657	967	713	988	770	7009	827	7030	884	7050	942	45
45	7071	1.0000	7092	1.0058	7112	1.0117	133	1.0176	153	1.0235	173	1.0295	44
deg.	60'	60'	50'	50'	40'	40'	30'	30'	20'	20'	10'	10'	deg.
	cos	cot	cos	cot	cos	cot	cos	cot	cos	cot	cos	cot	

1823
9115

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	.037	.043	.049	.053	.057	.061
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	.470	.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	.771	.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

✓ Kst 32nd to 35th 33rd St. Kst to Spring Garden Pl 59-63
 Stks for water main & meters Morrison Market to J 64-66
 Stks for water meters Alley Bk 80 Landcut & straight ✓ 66-67
 Alley Bk #1 N. of Madison E. of 35th ✓ 68-69
 Jefferson Ave Terrace 0th ✓ 70-77
 and Terrace Dr. Polunsky ✓
 MANZANITA DR. Pappy to TERMINUS. ✓
 Stk's for 6" MAIN DERBY ST ✓
 " " 6" STUB LINES BROOKLYN AVE ✓
 " " WAT. MET. MOHAWK ST ✓
 " " 8" MAIN VENICE ST. ✓
 " " WAT. MET. JEWELL ST ✓
 " " " " MOHAWK ST. ✓
 " " " " SARANAC ST ✓
 " " " " DERBY ST ✓
 " " 8" MAIN - MANZANITA - TOBEROSE - VIOLET ✓ 9
 " " " " VIOLET, MANZANITA - Pappy ✓ 10
 " " " " MANZANITA - VIOLET WESTERLY ✓ 11
 " " " " 6" " Oliver St, Gresham-Haines ✓ 12
 " " for WAT. MET. " " " ✓ 13
 & PROPOSED 12" MAIN - MADRONE ST ✓ 14-16
 & Profile " " " " " ✓ 16-23
 Stks. for WAT. MET. REED AVE Everts-FANUEL 24
 " " " " " Everts-Dawes 25
 " " " " MANCHESTER ROAD ✓ 26
 " " " " 69th ST ✓ 27
 Madrone St. P.L. ✓ 14-23
 WAT. METERS - REED AVE ✓ 24-25
 WAT. METERS - MANCHESTER ROAD ✓ 26
 " " 69th ST ✓ 27
 WAT. METERS - GAMMA ST ✓ 28-29
 & Profile Western ST. ✓ 30
 & Profile Bend ST ✓ 31-32
 Proposed P.L. 69th St Jamaica to Madisonway ✓
 Proposed P.L. Naranja St Evalud to 54 ✓
 Radio Rd to Tooley St ✓
 Proposed P.L. Burian + Weaver St 40-47
 " " Winona Trujon to Orange 48-49
 " " " " " ✓
 " " " " Market to "J" St 51-53
 " " " " " PL ✓
 " " 34th St Market St Spring Garden 54
 " " Spring Garden Pl 34th to 35 58
 alicia ✓

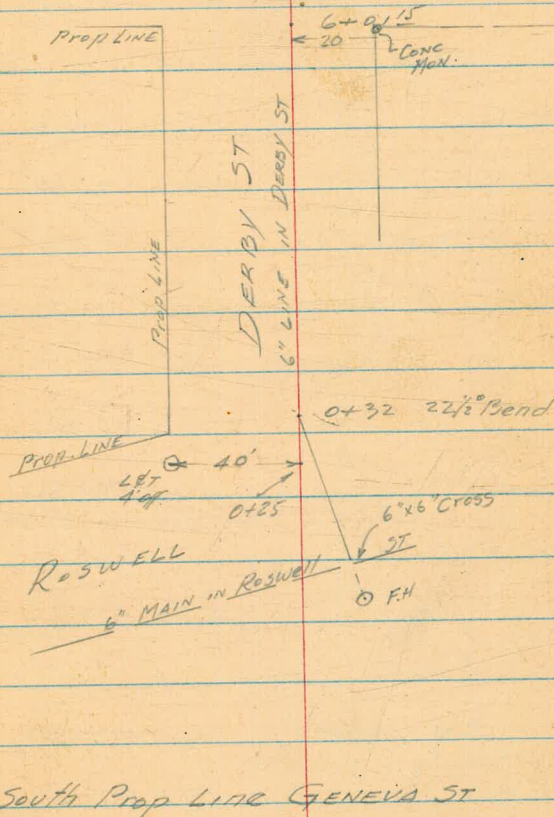
STAKES SET FOR 6" MAIN (5)
 DERBY ST
 ROSWELL TO GENEVA

TP	12.93	267.88		254.95 243.55	
TP	7.72	275.01	0.59	267.29	
			6.07	268.94	
0+00	at Cross				266.0
0+25	= XRT to Nor Prop Line Roswell				
0+32			5.4	269.6	266.0
+50			5.2	269.8	266.0
1+00			4.3	270.7	266.7
+50			3.3	271.7	266.5
2+00			3.2	271.8	266.4
+50			3.3	271.7	266.0
3+00			4.5	270.5	265.2
+50			6.2	268.8	263.7
4+00			8.0	267.0	262.2
+50			9.9	265.1	260.7
5+00			11.0	264.0	259.3
+50			11.3	263.7	257.8
6+01.5			10.0	265.0	256.5
TP	3.30	268.03	10.25	264.73	
CK BM			8.10	259.93 =	259.85

SEPT. 13 1951
 BEATTY
 LEONARD
 SPAVELLO

SIDEWALK NW Cor Hanover & Roswell BK 802 pg 76

L&T NW Cor Derby & Roswell



9-13-51

2

⑤ STAKES SET FOR STUB LINES

Brooklyn & 61ST - South 20'

BM	11.34	245.87	234.53	
0+20		10.96	234.91	230.7
SET TP	6.50	248.72	3.65	242.22

L & T 10' W of Brooklyn @ 60th

C42

CITY ENG TAG End Conc Wall

Brooklyn & FERGUS SOUTH 20'

0+20		4.58	244.14	238.7
TP	6.65	254.71	0.66	248.06
TP	2.79	247.35	10.15	244.56

C54

Brooklyn & 62ND - SOUTH 20'

0+20		7.83	239.52	239.9
		7.50	239.85	

FOA C15

Bot. pipe at tee

SET TP		2.79	244.56	
--------	--	------	--------	--

Nad in pole SW Cor

63RD & Wunderlin - East 20'

TP	6.14	308.24	302.1	
0+20		5.23	303.01	297.2

C58

WATER METER 63RD ST

BM	309	335.94	332.85	
0+00 = So Prop line Broadway				
0+97 East		12.75	323.19	320.6

L & T @ 63RD Broadway

C26

SEPT. 13 1951

3

STAKES SET FOR WATER METERS

MOHAWK ST.
68TH TO 67TH

IP	13.25	457.30	444.05	
0+00 = W Prop. line 68 th St.				
0+13 ⁵ Nor		5.3	452.0	450.1 C19
0+00 ² Nor		5.5	451.8	449.7 C21
0+20 ³ So		4.1	453.2	450.7 C25
IP		5.47	451.83	
0+67 ⁵ Nor		5.2	452.1	451.3 C08
1+28 ⁵ Nor		4.0	453.3	452.7 C06
1+31 So		3.0	454.3	453.4 C09
1+82 ⁵ So		1.4	455.9	454.6 C13
2+06 ⁵ Nor		1.7	455.6	454.6 C10
IP				
2+29 So	348	460.22	0.56	456.74 455.6 C11
2+93 ⁷ So		2.3	457.9	457.1 C08
2+98 Nor		3.3	456.9	456.7 C02
3+38 So		1.9	458.3	457.3 C10
4+01 Nor		4.4	455.8	455.3 C02
4+28 So		4.9	455.3	454.7 C06
4+35 Nor		6.2	454.0	454.0 C02
4+76 Nor		7.7	452.5	452.4 C01
4+96 So		7.4	452.8	452.1 C07
5+22 ⁵ Nor		9.0	451.2	450.9 C03
5+43 So		8.4	451.8	450.8 C10
5+75 Nor		9.9	450.3	449.8 C05
5+89 ⁵ So		7.4	450.8	449.9 C02
IP				
CE BM	2.05	457.06	7.21	453.01
			7.31	453.75 453.79

NAIL IN Pole SW Cor 68th & Saranac.
Book 802 pp. 71

* SE Cor Sidewalk NW Cor 68th & Mohawk

449.6

Top Existing F.H. 67th & Mohawk
BP SW Cor El Canon & 67th

SEPT. 17 1951
 BEATTY
 LEONARD
 SEAVELLO

④ STAKES SET FOR 8" MAIN
 VENICE ST.
 BRIGHTON TO MUIR

IP	4.36	155.92 155.61		151.56 151.25	
CK BM			4.57	151.35 151.04 = 151.35	
0+20			7.36	148.56 148.25	
+50			5.1	150.8 150.5	147.3
1+00			7.1	148.8 148.5	146.0
+50			10.2	145.7 145.4	143.2
IP	1.61	140.39 144.08	13.14	142.29 142.7	
2+00			3.2	140.9	139.3
+50			7.4	137.0 136.7	134.0
+92	8x6	Cross	10.9	133.5 133.2	130.8
3+00			11.5	132.9 132.6	130.2
IP	0.17	131.88 131.57	12.68	131.40 131.71	
+50			3.3	128.6 128.3	125.8
4+00			8.4	123.5 123.2	119.9
IP	0.89	120.03 119.72	12.74	118.83 119.14	
+50			2.2	114.8 114.5	114.2
5+00			7.7	112.3 112.0	108.4
IP	0.87	108.04 107.73	12.86	106.86 107.17	
+50			1.6	106.4 106.1	103.3
+53	8x6	Cross	1.6	106.4 106.1	103.0
5+89			3.0	105.0 104.7	99.8
IP	0.92	96.22	12.43	95.30	
IP	0.92	84.16	12.98	83.24	

IP. SW. Cor Venice & Brighton

Bottom Exist Tee

C22 C35

C25 C30

C22 C30

C16 C30

C22 C30

C24 C30

C24 C30

C25 C30

C22 C36

C22 C36

C26 C39

C28 C30-91

C24 C34

C49 C52

1+77E ⑤ F.H.
 21E EAST & ST.

0.65 = 143.73
 143.43
 F12
 C30
 144.9

5+035 ⑤ F.H.
 21E East & ST
 7.6 112.4
 112.1
 C03 H
 C39
 112.1

Sept. 17 1931

STAKES SET FOR WATER METERS
JEWELL ST.

		Moorland to La Playa.			B.P. NW Cor Ingram & Moorland	
B.M.		1.98	35.66	33.88		
TR		4.41	29.33	10.74	24.92	
0+00	= 10' 30" E Moorland					
1+71	EAST	5.4	23.9	23.6		C03
2+44	WEST	4.9	24.4	24.5		F01
3+53	EAST	4.5	24.8	24.9		F01
4+24	WEST	4.3	25.0	25.3		F03
4+49	WEST	4.4	24.9	25.3		F04
5+16	WEST	4.0	25.3	25.1		C03
5+52E	WEST	3.8	25.5	25.0		C03
5+45	EAST	3.9	25.4	25.2		C03
5+76	WEST	3.7	25.6	25.0		C06
6+25	WEST	3.6	25.7	24.5		C08
6+38	EAST	2.9	26.4	24.5		C19
6+70	EAST	3.2	26.1	23.8		C23
CK H		2.50	26.83			Top FH. Jewell & Moorland

SEPT. 18 1951

STAKES SET FOR WATER METERS
Mohawk St.
68TH To 69TH

TP	3.81	455.64		451.83
CRP			9.37	462.73 = 462.75
0+00 = WEST Prop Line 69 TH				
0+63 ⁵ So.			9.9	462.2 461.4
TP	11.85	472.10	0.89	460.25
1+58 ³ So			1.4	459.7 459.3
1+96 ³ So			2.3	458.8 458.4
2+51 ² So			3.8	457.3 457.0
2+71 ³ So			4.3	456.8 456.4
3+23 ² So 65 ²		461.12	1.02	454.62 454.5
4+75 ⁶ So			6.1	449.5 450.2
6+06 So			3.15	452.49 449.6
6+22 ⁵ So			2.55	453.09 449.5

TP 3.81 455.64 451.83

TP 5.85 468.60 462.75

0+00 = Nor Prop Line Mohawk

0+49 W.
(Southerly) 6.84 461.76 461.9

in Car Sidewalk 68

Book 802 pg. 77

C08

C04

C04

C03

C04

C01

F01

C29

C36

F01

426.75

+ 25

451.00

467

5.5

461.50

SEPT. 19 1951

7.

STAKES SET FOR WATER METERS

SARANAC ST

69TH To 68TH

TP	10.64	454.69	444.05		
0+00 = W. Prop. line 69 th ST					
0-00 ⁵ Nor.	0.22	454.47	454.75	FO ³	
1+22 ⁵ Nor.	6.0	448.7	448.5	CO ²	
1+91 ⁷ Nor	7.3	447.4	447.5	FO ²	
2+67 Nor	8.2	446.5	447.2	FO ²	
4+88 Nor	8.2	446.5	445.5	CO	
5+45 ⁵ Nor	9.7	445.0	444.4	CO ⁶	

NAIL IN Pole SW Cor 68th & Saranac

69TH To 70TH

9-28-51

0+00 = E. Prop. line 69 th ST			454.47			
0+11 So.	13.32	467.79	3.4	464.4	462.2	CO ²
0+63 ⁷ Nor.	9.34	475.73	1.40	466.39	464.8	CO ⁶
1+21 ⁵ Nor.	6.3	469.1	467.9			CO ⁵
1+92 ⁵ So.	4.2	471.5	469.8			CO ²
1+95 ⁵ Nor	5.8	469.9	469.1			CO ⁸
2+39 ³ So.	4.4	471.3	470.2			CO ²
2+55 Nor	5.3	470.4	469.6			CO ⁸
2+92 So	4.0	471.7	470.8			CO ⁹
3+45 So	3.4	472.3	471.4			CO ⁹
3+93 Nor	3.4	472.3	471.1			CO ²
4+61 So.	1.8	473.9	471.4			CO ²⁵
5+29 So	5.9	469.8	466.4			CO ³⁴
5+49 Nor	10.3	465.4	464.7			CO ⁷
SET. TP	8.72	467.01				

SE Cor Sidewalk YALE FOUNDATION

9-20-51

8.

STAKES SET FOR WATER METERS
DERBY ST.

ROSWELL TO GENEVA

#					
	8.43	277.37	268.94		LT NW Cor Sidewalk Derby & Roswell
2+33 West		5.66	271.7	270.7	C12
2+83 West		6.1	271.3	270.6	C07
2+86 West		6.2	271.2	270.4	C08
3+23 East		7.0	270.4	269.5	C09
4+02 East		9.6	267.8	267.3	C05
5+69 East		12.6	264.8	262.9	

SEPT. 20 1951

9.

⑤ STAKES SET FOR 8" MAIN
MANZANITA DRIVE
TUBEROSE TO VIOLET

E PIPE 10' So E ST.

TBM.	8.36	297.75		289.39		3/4" Prop. Cor.
17+05	WYE					
			Nor 2.7	295.1	290.7	C84
+30			So. 3.85	293.9	286.7	C72
+50			4.85	292.9	290.9	C60
18+00			5.2	292.6	291.2	C59
+30 ⁴	(BC Road)	(1°26' LT)	5.4	292.4	291.1	C53
18+60 ⁴		(30° LT)	5.6	292.2	290.9	C53
19+06 ²		(45° LT)	6.35	291.4	290.3	C51
	4.39	295.30	6.84	290.91	286.3	
19+53 ⁰²		(30° LT)	4.5	290.8	289.6	C52
			4.3	291.0	285.6	Rim Sew MH Inv. 9' lower
19+83 ⁰²	(EC Road)	(1°25' LT)	4.7	290.6	289.2	C54
					285.2	
20+00			4.9	290.4	289.0	C54
					285.0	
+50			5.6	289.7	288.2	C55
					284.2	
20+80 ⁹⁵	(BC Road)	(22°21' RT)	5.9	289.4	287.6	C58
					283.6	
SET TBM	+7.46	294.78	7.98	287.32		To BE MOVED NAIL IN P.O. Pole SW Cor Violet & MANZANITA
21+00			5.8	289.0	287.3	C57
					283.3	
21+50			7.0	287.8	286.6	C52
					282.6	
21+69.9		Rim SEW MH	16.98	287.80		72' lower to Invert EL 279.9
21+76.2	TEE		7.5	287.3	286.2	C51
					282.2	
21+80.1 A		(40°56' RT)	7.8	287.0	286.1	C49
					282.1	
SET TBM CK #D			8.26	286.52		2" IP. Prop. Cor. SW Cor Violet & MANZANITA.

SEPT. 21 1951

Sept 24 1951

10.

⑤ STAKES SET FOR 8" MAIN
VIOLET ST
MANZANITA TO POPLAR

(E PIPE 5' WEST E ST.)

17	TBM	4.75	291.27	286.52		
18	4+03E	1 1/4" Bend	4.0	287.3	282.2	C51
	4+00		4.1	287.2	282.2	C50
18	3+85 ⁸³	{ 90° LT 20' to SW Prop. Cor Violet & MANZANITA }	4.6	286.7	281.5	C52
	+50					
	3+00		4.9	286.4	280.9	C55
18	+50		5.8	285.5	280.5	C50
19	2+00		6.2	285.1	280.2	C49
19	+50		6.6	284.7	279.7	C50
19	1+00		7.3	284.0	279.3	C47
20	+50		7.9	283.4	279.0	C44
	0+00	EXIST G. VAL CONNECT TO MAIN				
20	CK B.M.		4.78	286.49	286.38	Top F.H SW Cor Violet & Poplar
21	TBM	4.60	291.12	286.52		
21	3+74 ⁵		4.90	286.22	286.4	F0 ² ⑤ F.H
21	3+87 ⁵	Prop. Cor SW Cor Violet & MANZANITA 20' RT.				
21						
SE						
CK						

(Cont'd from page 9)
 ⑤ STAKES FOR 8" MAIN IN
 MANZANITA DRIVE
 VIOLET - Westerly

IP	3.04	289.56	286.52	
21+89.2	16.25	50 to SW Cor Violet & MANZANITA	286.0	
22+00	West prop line Violet	3.6	286.0	282.0
+50		4.9	284.7	285.8 281.8
22+74.4	⊥ pipe (50°40'30" RT)	5.15	284.4	285.5 281.5
23+00		5.2	284.1	285.4 281.4
23+53.4	EC Road (11°44'00" RT)	4.9	284.7	282.6 280.6
24+00		4.6	285.0	284.3 280.3
+18.5	(BC Road) (47°55' LT)	4.7	284.9	282.2 280.2
+66.95	(EC Road) (37°59' LT)	6.1	283.5	283.1 279.1
25+00		7.0	282.6	281.6 277.6
+50		9.1	280.5	279.6 275.6
26+00		11.2	278.4	277.6 273.6
+50				
IP	2.80	280.54	11.82	277.74
26+50			4.9	275.6 271.6
27+00			7.2	273.5 269.5
27+07.2	(BC Road)			273.5 269.5
IP		7.18	273.36	

SEPT. 27 1951

11.

2" prop Cor SW Cor Violet & MANZANITA

C40

C30

C30

C30

C41

C47

C47

C44

C50

C49

C48

⊥ pipe 6' swly - & Road

245

373

1045

33

135

135

1485

Nail in Pole

SEPT 21 1951

BEATTY
LEONARD
SEWELL

12.

④ STAKES FOR 6" C.I. MAIN
OLIVER ST
GRESHAM TO HAINES

AP	1.56	35.88		34.32	
PP (ret)	11.24	35.78	11.34	24.54	
0+00	= East Prop. line Gresham			24.5	
				20.7	
+50		10.2	25.6	24.8	c46
				21.0	
1+00		10.0	25.8	25.2	c44
				21.4	
+50		9.6	26.2	26.0	c40
				22.2	
2+00		7.6	28.2	27.6	c44
				23.8	
+50		5.4	30.4	30.6	c36
				26.0	
3+00		1.9	33.9	34.0	c37
				30.2	
AP	11.82	47.58	0.02	35.76	
+50		10.6	37.0	37.5	c33
				33.7	
4+00		8.2	39.4	40.0	c32
				36.2	
+50		6.6	41.0	41.0	c38
				37.2	
4+99.5	Edge Conc Pavt.			41.8	
	Top 6" C.I.			38.0	
		9.85	37.73		
OK curb		5.69	41.89 = 41.8		

Top F.H. SE Cor Gresham & Reed 124 802 179.70
Cor Curb ret. SE Cor Gresham & Oliver

Curb 4.12 34.30
F.H. 1.56 31.60
2.56 2.70

Both
pipes as laid 9/25/51 33.50

Cor Curb SW Cor Haines & Oliver

9/21/51

13

STAKES SET FOR WATER METERS
 OLIVER ST.
 GRESHAM - HAINES

0+00 - E. Propline	Gresham				
	35.78				
0+09 Nor		9.3	26.5	25.5	C12
0+15 Nor		9.9	25.9	25.6	C03
0+72 Nor		9.9	25.9	25.8	C01
0+76 ⁵ So		10.3	25.5	25.1	C04
0+96 Nor		9.9	25.9	26.0	F01
1+03 ⁵ Nor		9.8	26.0	26.1	F01
1+09 So		10.1	25.7	25.4	C03
1+61 Nor		9.1	26.7	27.0	F03
2+43 So		5.4	30.4	30.2	C02
	47.58				
3+20 Nor		11.1	36.5	35.8	C02
3+97 Nor		7.2	40.4	39.9	C05
4+24 ⁵ Nor		6.4	41.2	40.7	C05

PROPOSED 8" PIPE LINE
MADRONE AVE
WOODMAN TO 69TH

6+29 POT

4+65.95 PT 0°01'45" RT

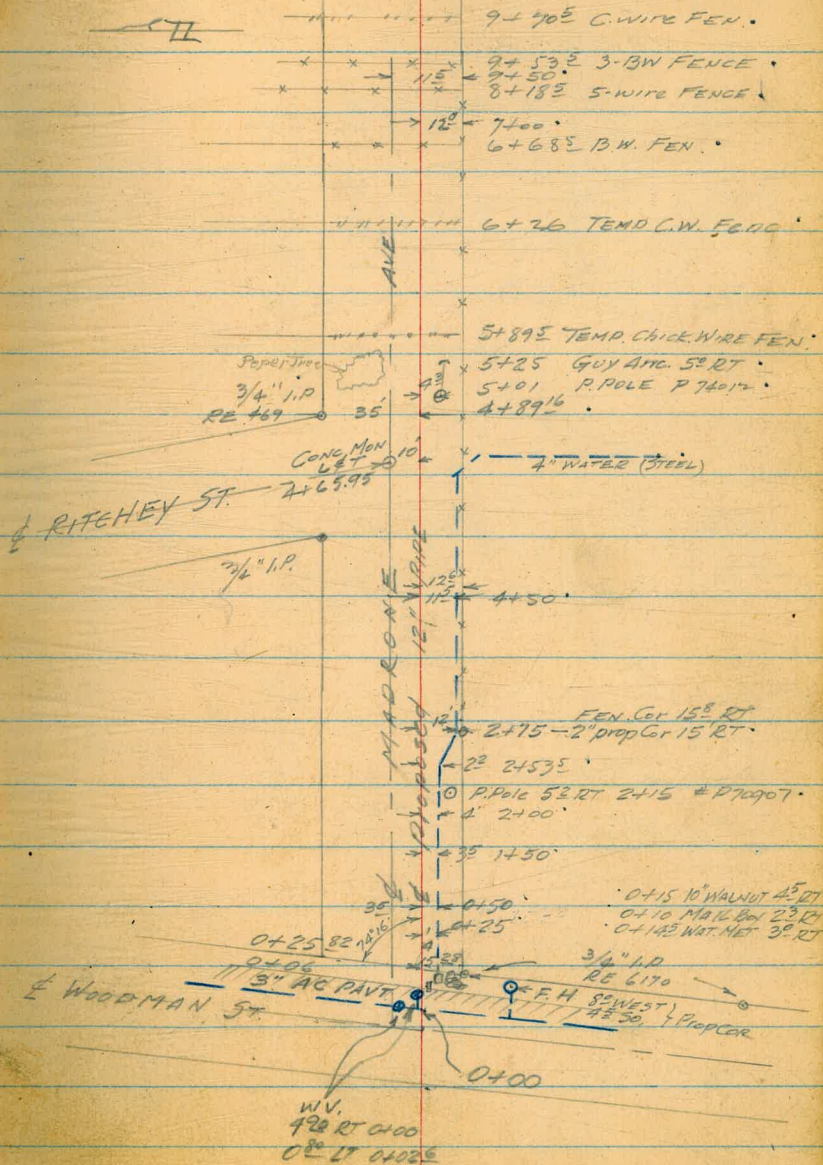
0+25.82 Intersect with E. prop line Woodman

0+00 12" Water in Woodman St

OCTOBER 1 1951

BETTY
LEONARD
SEAVELLO

14.



PROPOSED 8" PIPELINE
MADRONE AVE
WOODMAN TO 69TH ST.

21+40 END OF LINE

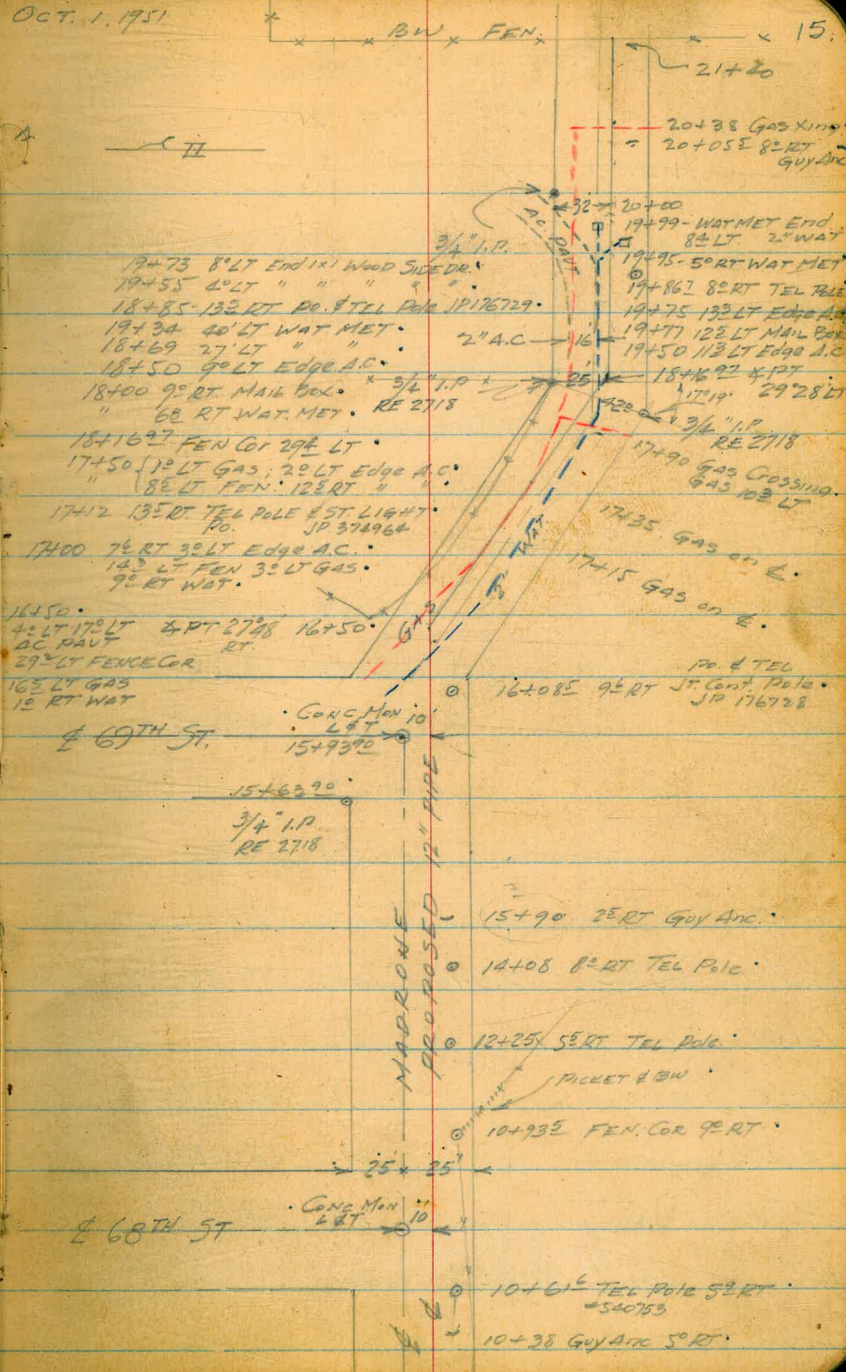
18+16^{PT} 29°28' LT. (25° LT 3/4" I.P. RE 2718)

16+50^{PT} 27°48' RT.

15+93^{POT}

10+86^{PT} 0°01'15" RT

OCT. 1, 1951



19+73 8" LT End in Wood Side Dr.
 19+55 2" LT " " "
 18+85 132 RT PO. TEL Pole JP 176729.
 19+34 40' LT WAT MET.
 18+69 27' LT " " " 2" A.C.
 18+50 90' LT Edge A.C.
 18+00 90' RT MAIL BOG. 3/4" I.P. RE 2718
 " 50' RT WAT. MET.
 18+16^{PT} FEN COR 29° LT.
 17+50 10' LT GAS, 20' LT Edge A.C.
 " 80' LT FEN. 120 RT.
 17+12 130 RT TEL POLE & ST LIGHT.
 PO. JP 374964
 17+00 70' RT 30' LT Edge A.C.
 140' LT FEN 30' LT GAS.
 90' RT WAT.
 16+50.
 40' LT 170' LT & PT 2708 16+50.
 AC PAUT RT.
 29' LT FENCE COR
 100' LT GAS
 10' RT WAT.
 CONC Man 10
 68th St
 15+93^{POT}

15.
 21+20
 20+38 Gas Xing.
 20+05E 80 RT Guy Arc
 20+00
 19+99 WAT MET End.
 80' LT. 25 WAT
 19+75 50' RT WAT MET.
 19+86 80 RT TEL Pole
 19+75 132 LT Edge A.C.
 19+77 120 LT MAIL BOG.
 19+50 112 LT Edge A.C.
 18+16^{PT} 29°28' LT
 17+19 3/4" I.P. RE 2718
 17+90 Gas Crossing.
 GAS 102 LT
 17+35 Gas on E.
 17+15 Gas on E.
 16+08E 90 RT ST. Cont. Pole.
 JP 176728
 15+90 25 RT Guy Arc.
 14+08 80 RT TEL Pole.
 12+25 50 RT TEL Pole.
 PICKET & BW
 10+93E FEN. COR 90 RT.
 25' 25'
 CONC Man 10
 68th St
 10+61 TEL Pole 50 RT.
 540753
 10+38 Guy Arc 50 RT.

475

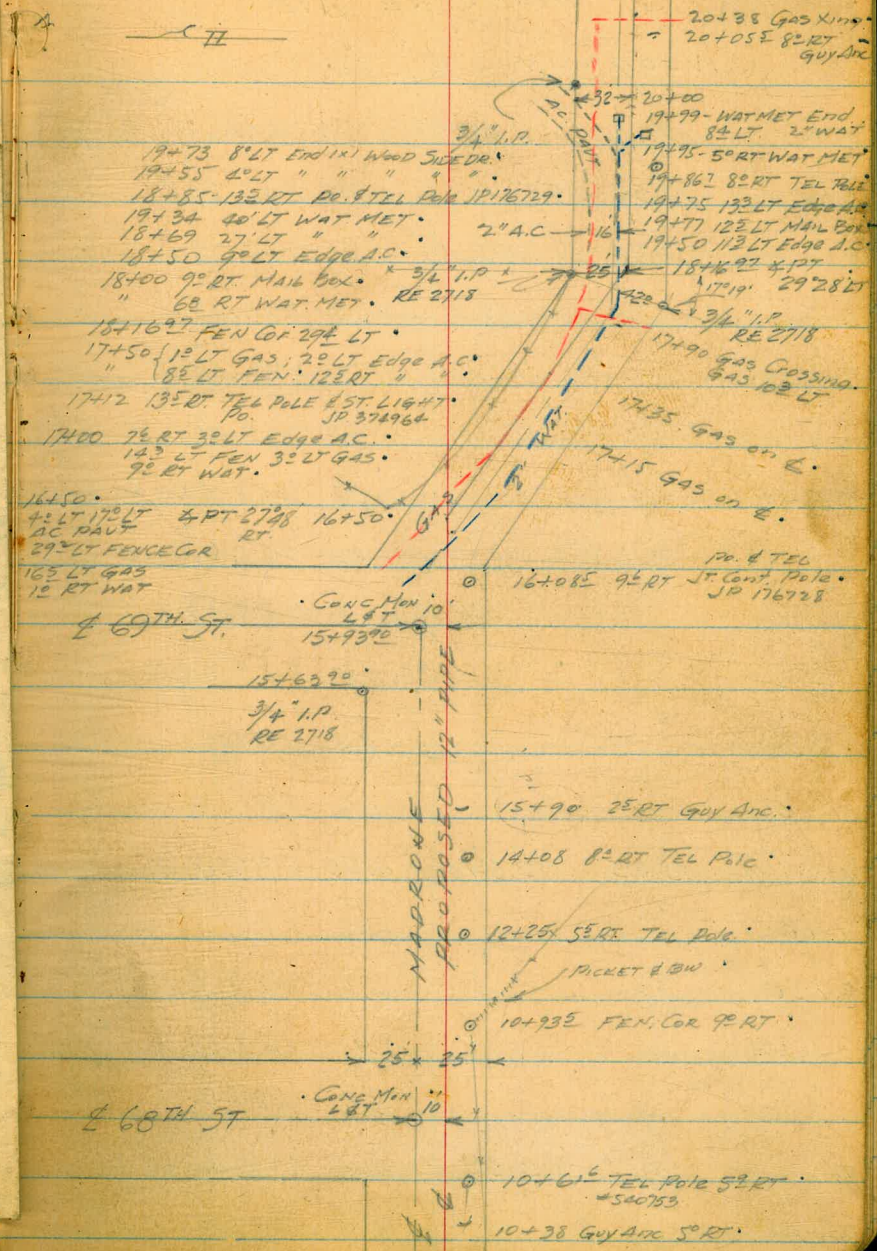
OCT. 1, 1951

230.94
115.47

30°

16+50
15+83.9
66.1

BW FEN 15.



PORTION OF LOT 12, RANCHO MISSION OF SAN DIEGO,
CITY OF SAN DIEGO, CALIF.
Scale: 1 Inch = 100 Feet.

Jamacha Rd.

City Eng
F.B. 2139
Frank Osborne is
charged out with this book

See Map # 59

330

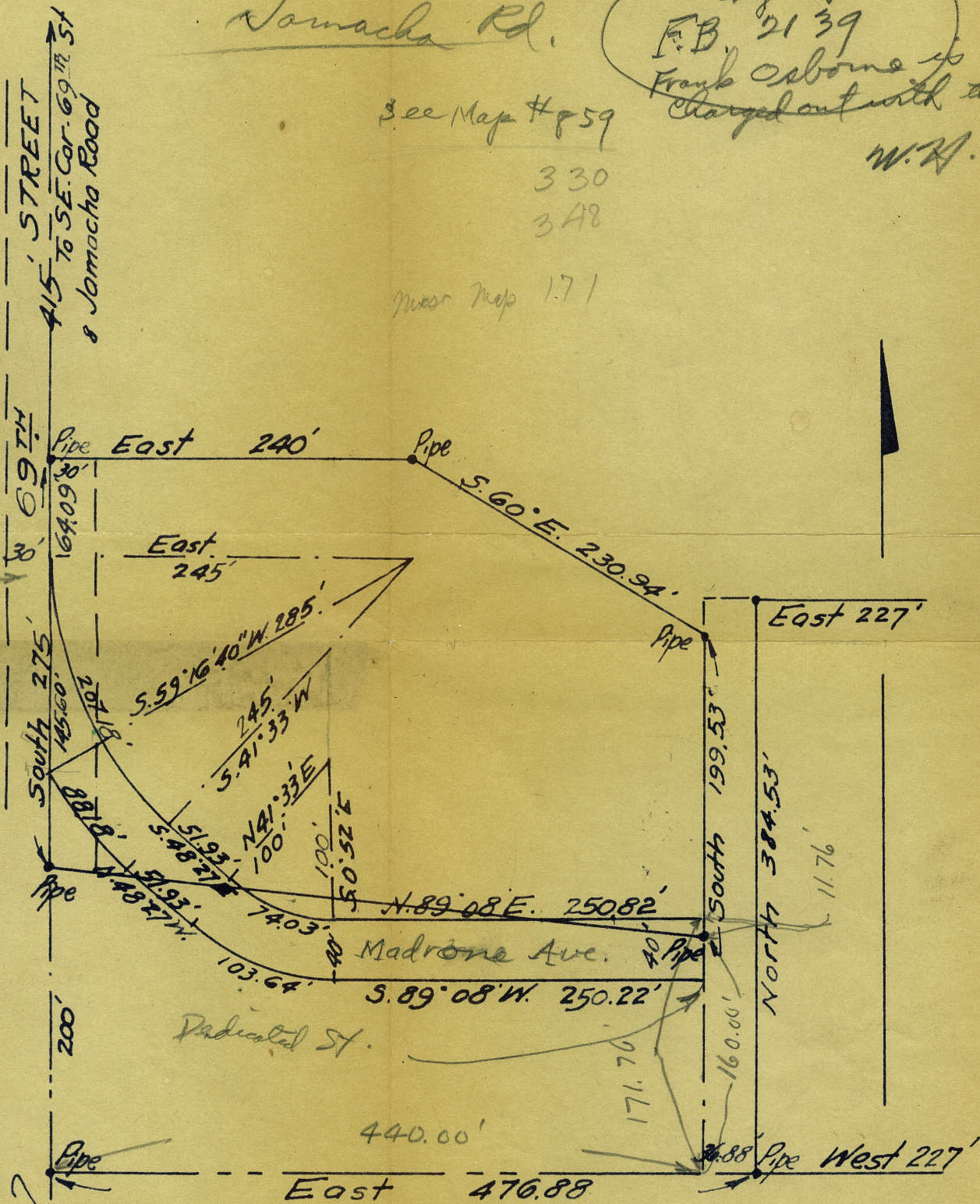
348

near Map 171

W.R.

69th St.
Dedicated

Madrone Ave
Dedicated



W. LOT 12

D.A. Loebenstein, C.E.
November 1938

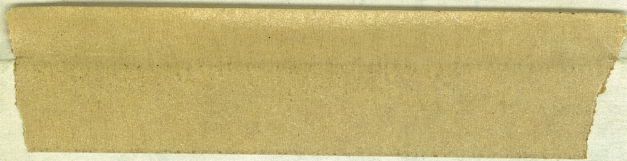
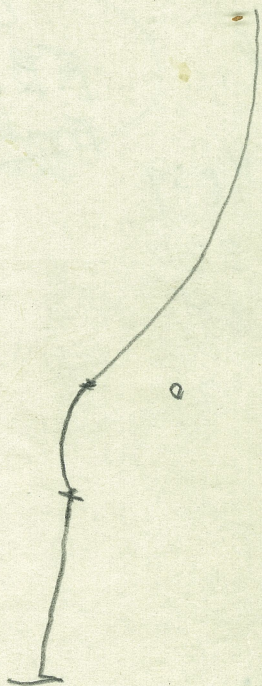
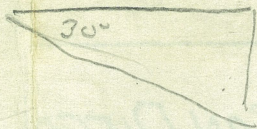
475

185 00

230.94

115.47

M



199
 15+839
 16+50

2 PROFILE - PROPOSED 6" PIPE
MADRONE AVE

WOODMAN TO 69TH ST

BM	12.22	242.62 ✓		230.40
IP _{rock}	12.59	255.12 ✓	0.09	242.53 ✓
IP _{rock}	13.23	268.32 ✓	0.03	255.09 ✓
IP _{rock}	11.62	279.82 ✓	0.12	268.20 ✓
SET TBM			5.37	274.45 ✓
			11.82	268.00 ✓
0+00			11.25	268.57 ✓
			13.91	265.91 ✓
+06			11.40	268.42 ✓
+11			11.2	268.62 ✓
+36			10.2	269.62 ✓
+50			8.6	271.2 ✓
IP	13.25	292.54 ✓	0.53	279.29 ✓
1+00			12.2	280.3 ✓
+30			6.6	285.9 ✓
+42			3.9	288.6 ✓
+50			3.3	289.2 ✓
IP	13.12	305.52 ✓	0.14	292.40 ✓
2+00			8.0	297.5 ✓

NOTE: -
LISTED AS
230.49
CITY ENGR
Beatty 4/18/53

OCT 2 1951

BEATTY
LEONARD
SEAVELD

16

Top
L&T SW. Cor. Imperial & Woodman

NAIL IN Power Pole SW Cor
WOODMAN & MADRONE - P-70906

Top of stem of G. VAL 4" LT Sta 0+00
on A.C.

Top of hand wheel on 2" (?) G. VAL 0" LT 0+02 1/2

Edge of A.C. part 3" AC

81 45 40
7 65 10

10-2-51

17

± PROFILE - 8" PROPOSED PIPE
MADRONE AVE

	305.52			
2+25		3.5	302.0 ✓	
TP	13.15	318.60 ✓	0.07	305.45 ✓
+50		12.8	305.8 ✓	
3+00		7.4	311.2 ✓	
+50		1.5	317.1 ✓	
TP	9.34	326.97 ✓	0.97	317.63 ✓
4+00		4.7	322.3 ✓	
+25		3.2	323.8 ✓	
+50		2.9	324.1 ✓	
5+00		2.7	324.3 ✓	
SET TBM.		4.81	322.16 ✓	
+50		3.9	323.1 ✓	
6+00		6.8	320.2 ✓	
+29 (Pot)		9.4	317.6 ✓	
+50		12.4	314.6 ✓	
P (Prop Stk.)	0.10	314.87 ✓	12.20	314.77 ✓
+69		4.0	310.9 ✓	
7+00		8.6	306.3 ✓	
TP (Prop)	0.19	301.90 ✓	13.16	301.71 ✓

2.0 2.2 1.3
10 3 10

3.3 3.3 4.5
10 2 10

SW
Cor Conc slab approach to garage.

10-2-51

18.

PROFILE - 8" PROPOSED PIPE
MADRONE AVE

		301.90 ✓		
7+25		0.4	301.5	✓
+50		5.3	296.6	✓
IP (200)	0.78	289.69 ✓	12.99	288.91 ✓
8+00		2.6	287.1	✓
+19		7.0	282.7	✓
+25		8.5	281.2	✓
+33		10.7	279.0	✓
+43		13.8	275.9	✓
+50		13.9	275.8	✓
+61		13.4	276.3	✓
+68		11.6	278.1	✓
9+00		7.7	282.0	✓
+50		0.0	289.7	✓
IP (200)	13.25	302.93 ✓	0.01	289.68 ✓
+54		12.2	290.7	✓
+80		8.3	294.6	✓
+85		7.3	295.6	✓
10+00		2.6	300.3	✓
IP	5.50	307.53 ✓	0.90	302.03 ✓

♀ PROFILE - 8" Proposed Pipeline
MADRONE AVE

10-2-51

19

		307.53 ✓			
10+20		5.0	302.5 ✓		
+50		4.0	303.5 ✓		
+86 ¹⁰ POT.		2.8	298.7 ✓		
SET TBM		5.66	301.87 ✓	CONC MON	
11+00		3.9	303.6 ✓		
TP	0.48	295.46	12.55	294.98 ✓	
+50		2.5	292.96 ✓		
12+00		11.5	283.96 ✓		
TP	0.30	282.53	13.23	282.23 ✓	
+50		7.6	274.93 ✓		
+80		10.4	272.13 ✓		
13+00		13.4	269.13 ✓		
TP Top Str	1.55	271.14	12.94	269.59 ✓	
+42		7.2	263.94 ✓		
TP Top Str	3.04	260.89	13.29	257.85 ✓	
13+67		3.7	257.19 ✓		
+83		10.2	250.69 ✓		
14+00		10.2	250.69 ✓		
+13		9.8	251.09 ✓		
+36		5.8	245.09 ✓		

MADRONE
E & 68TH

Edge
of AC

4.8

5.5

5.4

4

3.8

2

1.3

4

0.8

7

+0.4

4

2.5

4

10 TEL Pole # 540754

10-3-51

20

8" PROFILE - 8" PROPOSED PIPELINE
MADRONE AVE

		260.89			
10	14+50		4.1	256.79	✓
	P	11.96	271.05	1.80	259.09 ✓
	15+00		6.7	264.35	✓
54					
11	P	11.30	281.80	0.55	270.50 ✓
7	+50		9.8	272.00	✓
	+93?		3.6	278.20	✓
12	SET TBM	12.81	291.05	3.56	278.24 ✓
14	16+00		11.6	279.45	✓
	+30		7.2	283.85	✓
	+40		4.6	286.45	✓
13	+50		3.4	287.65	✓
14	+59 ⁵		2.70	288.35	✓
	17+00		1.05	289.00	✓
11	P Rect	13.00	303.84	0.21	290.84 ✓
13	+50		11.8	292.04	✓
	+90		8.2	295.64	✓
1	18+00		7.6	296.24	✓
	+02 ⁵		7.45	296.39	✓
	+13		6.5	297.34	✓

See Note pg. 16.
Party 6/18/53

LET IN CONC MEN & 69TH & MADRONE

Edge A.C Road

ON " "

" " "

" " "

Edge A.C Road

PROFILE - 8" PROPOSED PIPELINE
MADRONE AVE

		303.84		
18+16.97	2 PT	7.0	296.84	✓
+50		1.4	302.44	✓
P (rock)	12.79	316.43	0.20	303.64
+80		8.6	307.83	✓
+87		6.1	310.33	✓
19+00		27	313.73	✓
P	13.05	328.85	0.63	315.80
+30		9.1	319.75	✓
+50		8.1	320.75	✓
+64		5.3	323.55	✓
+75		3.5	325.35	✓
P	13.37	341.00	1.22	327.63
20+00		11.6	329.40	✓
+42		3.0	338.00	✓
+50		1.8	339.20	✓
P Top Str	12.80	352.74 ^{.54}	1.26	339.74
+73		10.6	341.94	✓
+89		6.3	346.29	✓
21+00		4.8	347.74	✓

(RT 7 To FWD)
TANG 5.95 6.2
9.4
Edge AC Road 8.8 8.8 5.2
3 4 13

Edge - 5.75 5.9
AC Road 9.6 5
+9.1 +4.1
13 17

Edge - 12.5 12.1 10.0
AC Road 10.5 9 5
9.1 8.3
8 10

Edge A.C. Driveway

" " "

NW Cor. WAT. MET. BOX

13.4 13.4
10 3
10.4
6

3.6
7
+2.0 +2.0
8 15

6.7 6.7 5.0
15 4 1
2.4 2.0
7 15

± PROFILE - 8" PROPOSED PIPE
MADRONE AVE

		352.74 54		
21+26			+0.4	352.50 ✓
+29			0.6	352.48 ✓
21+40			+1.6	354.1 ✓
SET TOM	2.51	349.41 350.61	5.64	346.90 347.10 ✓
+63			+9.1	358.5
22+00			+14.1	363.5
+50			+20.3	369.7
+87			+16.1	375.5
23+00			+28.3	377.7
+45			+32.8	382.2
+75			+32.3	381.7
24+00			+30.6	380.0
IP Reck	0.34	336.72 337.92	13.03	336.38 337.58
IP Reck	0.11	324.24 325.44	12.59	324.13 325.33
IP Reck	0.11	311.14 312.34	13.21	311.03 312.23
IP Reck	0.24	298.01 297.21	13.37	297.77 296.97
IP Reck	0.14	286.20 285.40	11.95	286.06 285.26
CK TOM	0.96	279.19 280.19	7.97	278.23 277.23 = 278.24
IP	0.03	273.88 274.88	5.34	273.85 274.85

NAIL IN FENCE COR POST
175' ± LT 21+40

4' RT To 2x2" painted white (Lot Cor.?)

Let Conc Man E 69TH & MADRONE (Pg. 20)

OCT. 3, 1951

23

E PROFILE - 8" PROPOSED PIPE
MADRONE AVE

273.88
274.88

H_{PROCK} 0.14 262.21 12.81 261.07
262.07
261.21

CK B.M. 0.19 249.57 11.83 249.38
250.38 = 248.31

H 1.06 239.06 11.57 238.00

ORIG.
CK B.M. 8.60 230.46 = 230.40

CITY ELEV
ERRONEOUS!!
1 FT SPOOL ADDED

Top F.H. SW Cor Imperial & 68TH (CITY B.M.)

L&T WOODMAN & Imperial

STAKES SET FOR WATER METERS
REED AVE

EVERTS TO FANUEL

BM 1.85 36.17 30.32 (1970 to 802)

SET IP 1.91 27.98 10.10 26.07

0+00 W. PROP. LINE FANUEL

0+29 Nor	1.6	26.4	25.5	C09
1+00 Nor	3.0	25.0	24.3	C02
1+36 ^S So.	3.8	24.2	23.2	C10
1+76 So.	4.4	23.6	22.7	C07
1+98 Nor	4.7	23.3	23.0	C03
2+10 Nor	4.7	23.3	22.8	C05
2+27 So.	5.0	23.0	22.0	C10
2+98 Nor	5.6	22.4	21.7	C07
3+10 So.	6.3	21.7	20.8	C09
3+26 Nor	6.3	21.7	21.3	C04
3+59 So.	7.4	20.6	20.2	C04
3+89 Nor	7.3	20.7	20.5	C02
4+22 ^S Nor	7.2	20.8	20.1	C07
4+28 So.	8.4	19.6	19.4	C02
4+70 Nor	8.0	20.0	19.5	C05

SET IP

IP	0.20	19.90	6.87	21.11
IP	3.66	13.66	8.28	19.70
			9.90	10.00
			4.55	09.11 = 09.11

Oct. 4 1951

BEATTY
LEONARD
SEAVELLO

24

(@ 33.0 from E Street)

Top F.H. SE Cor GRESHAM & REED
L&T NW Cor

Top F.H. SE Cor Everts & Reed

L&T NE Cor Cass & REED

10-4-51

25

WATER METERS - REED AVE
(Cont'd)

EVERTS TO DAWES

P	0.84	20.54	19.70	
0+00 W. Prop. LINE EVERTS				
0+17 ⁵ Nor	1.5	19.0	18.2	C08
0+53 So	2.8	17.7	16.4	C13
1+04 So	3.2	17.3	15.3	C20
1+11 Nor	2.7	17.8	16.2	C16
1+80 So	4.6	15.9	13.8	C21
2+33 Nor	5.8	14.7	13.7	C10
2+34 So	7.0	13.5	12.8	C07
2+51 Nor	6.6	13.9	13.3	C06
2+66 Nor	7.1	13.4	13.0	C04
2+85 So	8.0	12.5	11.7	C08
3+33 Nor	8.3	12.2	12.1	C04
3+75 So	9.7	10.8	10.6	C02
3+80 Nor	8.6	11.9	11.3	C06
4+27 Nor	8.9	11.6	10.8	C08
4+46 So	10.0	10.5	9.9	C06
4+87 Nor	7.7	10.8	10.1	C07
5+02 So	10.6	09.9	9.4	C05
5+06 So	10.9	09.6	9.4	C02
5+06 Nor	10.4	10.1	10.0	C01

Oct. 4 1951

26

STAKES SET FOR WATER METERS
MANCHESTER ROAD

@ 21.0 from E Street

SARANAC TO MANDALAY ROAD

H. 9.62 476.01 466.39 199.7

0+632 Nor Saranac

1+57 E	6.1	469.9	469.3	CO ⁶
1+82 W	7.0	469.0	468.6	CO ⁴
2+57 E	7.4	468.6	468.8	FO ² ✓
2+57 W	7.6	468.4	468.2	CO ²
3+12 W	8.0	468.0	467.9	CO ¹
3+38 E	8.0	468.0	468.4	FO ⁴ ✓
3+89 W	8.0	468.0	467.6	CO ⁴
3+98 ⁵ E	8.0	468.0	468.0	CO ²
4+62 W	8.4	467.6	467.2	CO ⁴
5+43 W	8.1	467.9	466.8	CO ¹
5+91 E	8.7	467.3	467.1	CO ²
6+33 E	9.0	467.0	466.8	CO ²

H 0.61 467.02 9.60 466.41

H 3.18 464.20 6.00 461.02

Top. FH. 69th & MANDALAY RD

CK BM 3.22 460.98 = 461.00

Cor. Porch SE Cor 69th & MANDALAY RD.

OCT. 5 1951

BEATTY
LEONARD
SEAVELLO

29

STAKES SET FOR WATER METERS
69TH ST.

SARANAC TO MANDALAY ROAD

(@ 21.0 from E STREET)

(0-003 Nor Saranac 69th to 68th pp. 7.)

8.57	463.04	454.47	
0+00 Nor Prop. Line Saranac			
1+63 W	6.1	456.9	457.7 F08
1+82 E	4.7	458.3	458.3 C02
2+40 ⁵ E	5.5	457.5	458.1 F06
2+65 W	6.9	456.1	457.2 F11
3+39 W	7.0	456.0	457.0 F12
3+62 E	6.4	456.6	457.6 F12
4+14 E	6.3	456.7	457.4 F07
4+55 W	6.8	456.2	456.5 F03
4+86 E	5.9	457.1	457.2 F01
571	463.34	5.41	457.63
5+57 E	5.7	457.6	456.9 C03
6+23 W	6.2	457.1	455.8 C13
6+45 E	4.6	458.7	456.5 C22
6+69 ⁵ So. Prop. Line MANDALAY			
6+89 W	4.55	458.8	455.6 C32
6+99 W	4.7	458.6	455.6 C30
CK BM	2.34	461.00	= 461.00

STAKES SET FOR WATER METERS
 GAMMA ST
 41ST TO 43RD

DEC. 18, 1951
 BEATTY
 LEONARD
 POWELL

28

BM	10.69	88.64	77.95	BP NW Cor	GAMMA HIGHLAND
9+86 Nor			11.6 77.0	76.4	C06
9+86 So			11.6 77.0	75.0	C20
9+12 So			11.4 77.2	77.3	F01
8+75 Nor			8.9 79.7	79.4	C03
8+25 So			10.9 77.7	79.2	F15
7+73 So			10.1 78.5	79.2	F07
7+76 Nor			7.5 81.1	80.2	C09
7+27 Nor			6.5 82.1	79.9	C23
7+24 So			9.8 78.8	79.0	F02
6+73 So			9.9 78.7	78.7	C00
6+80 Nor			5.8 82.8	79.7	C31
5+60 Nor			9.8 78.8	78.8	C00
5+25 So			13.4 75.2	77.9	F22
4+86 Nor			11.4 77.2	78.2	F10
4+74 So			12.4 76.2	77.6	F14
4+21 So			10.7 77.9	77.2	C07
4+21 Nor			11.3 77.3	77.6	F03
3+63 Nor			12.1 76.3	77.1	F086

	88.64				
3+80 So		11.6	77.0	76.9	CO ₂
3+23 So.		11.9	76.7	76.6	CO ₂
3+19 Nor		12.9	75.7	76.7	Fl ₂
2+68 So		12.4	76.2	76.2	CO ₂
2+20 So.		11.7	76.9	75.8	CO ₂
1+05 So.		12.7	75.9	75.2	CO ₂
1+04 Nor		13.5	75.1	74.8	CO ₂
0+57 Nor		14.1	74.5	74.4	CO ₂
0+57 So		12.8	75.8	74.9	CO ₂ ✓
0+35 So		13.4	75.2	74.7	CO ₂
CK BM		10.69	77.95 = 77.95		
		11.95	76.69 = 76.66		Nor and Carb.

Dec 20, 1951

320

 E PROFILE Proposed Pipeline
 10' Easterly E ST
 Western ST
 425' So. NASHVILLE ST TO DYKE

3 B.M	0.78	5.88	5.10
3 TP	5.03	4.57	6.34 -0.46
0+00			4.7 -0.1
+50			5.1 -0.5
1+00			5.1 -0.5
+50			5.4 -0.8
2+00			5.5 -0.9
+50			5.2 -0.6
+75			4.7 -0.1
3+00			5.2 -0.6
+50			5.3 -0.7
4+00			5.4 -0.8
+50			5.5 -0.9
5+00			5.8 -1.2
+50			5.7 -1.1
6+00			5.9 -1.3
+31			5.8 -1.2
SET T.B.M	4.90		-0.33

NAIL IN Pa. Pole E Side Lapwai. & P.L

SE Cor End of Sidewalk

CURB RT SIDEWALK

5.38 5.11 P.L
 4.9 9.3 15.0

5.17
 9.3

5.16
 9.3

5.17
 9.3

Curbs are
 in, but curb
 on Rt. Caved

5.21
 9.3

5.38 5.26
 4.9 9.3

5.24
 4.9

5.22 5.14
 4.9 9.3

So. P.L. Nashville

5.31
 4.9

Nor. P.L. "

5.33
 4.9

5.30
 4.9

5.38
 4.9

5.53
 4.9

(6+31 is intersection with a stake of
 of some kind. Sewer or storm drain?) 5.70
 4.9

NAIL IN GUY
 NW COR
 WESTERN &
 NASHVILLE



EAST
 P.L.

& PROFILE - PROPOSED WATER PIPELINE
 10' EASTERLY & ST.
 BOND ST.
 BALBOA TO GRAND

BM.	1.82	22.84 [✓]	21.02
TP	1.17	14.48 [✓]	9.53 13.31 [✓]
SET TBM			3.73 10.75
0+54			1.5 12.98
0+64			1.3 13.18
0+75			1.4 13.08
0+90			2.4 12.08
1+00			3.1 11.38
+50			3.1 9.38
2+00			6.0 8.48
+50			6.8 7.88
3+00			7.4 7.08
+50			8.1 6.38
4+00			8.6 5.88
+50			9.4 5.08
TP	2.03	07.85 [✓]	8.66 05.82 [✓]
5+00			2.9 4.95
+50			3.3 4.55
6+00			3.5 4.35
+50			3.9 3.95

DEC. 21, 1951

31.

B.P. N. edge Cor. Balboa & Pacific Hwy
(B.P. GONE)

COND. MON. SW. Cor. Bond & Balboa

N. edge of A.C. Pavt

& " " " } Balboa Ave
 So " " " }

So. P.L. Balboa } Tap Curb LEFT (36' curb to curb.)

4.15
8

4.84
8

5.52
8

6.23
8

6.98
8

7.76
8

8.64
8

2.23
8

2.48
8

3.32
8

12/21/51

32.

E PROFILE - PROPOSED WATER
BOND ST (Cont'd)
7.85

7+00	4.1	3.75	3.50 8
+50	4.4	3.45	3.84 8
8+00	4.7	3.15	4.15 8
+50	5.2	2.65	4.59 8
9+00	5.6	2.25	5.00 8
+50	5.7	2.15	5.35 8
10+00	6.0	1.85	5.54 8
+50	6.1	1.75	5.75 8
11+00	6.1	1.75	5.92 8
+50	6.3	1.55	6.29 8
12+00	6.6	1.25	6.50 8
+50	6.6	1.25	End curb 12+42 6.80 8
TP 4.41	6.80	1.05	
SET BM	5.40	2.45	
13+05	4.8	3.05	

2x2 City Eng. 7' off West Prop. Line Bond
& GRAND

69th St
 Jamocha Rd to Madrone Way
 & Profile

West
 Martell
 Varonfakis

33

8 Oct 62

Sta

	0.63	254.21	253.58	
0+00			7.2	247.0
0+13			7.67	247.30
0+55			7.3	246.9
1+00			8.3	245.9
T.P.	5.58	252.16	7.63	246.58
1+50			6.5	245.7
2+00			5.3	246.9
+50			5.4	246.8
3+00			3.9	248.3
	11.77	262.86	1.07	251.09
+50			5.0	257.9
4+00			0.9	261.96
	13.02	275.04	0.84	262.02
+25			9.0	266.0
+50			5.3	269.7
+75			1.9	273.1
	12.11	286.87	0.28	274.76
5+00			10.5	276.4

BM Top 2" pipe S.W. Box Culvert 69th Imperial

NOTE: THIS BM LISTED AS
 253.44 City Eng'rs
 see DR 82 nearby 6/18/59

Sewer Manhole 11 Right

10.6
 8' Right
 11.3
 9' Right

6.3 9²
 2² 8²

Beginning of Bridge

5.3 7²
 2² 6²
 3² 7²
 3² 8²

4² 7²
 7² 10

1⁰
 10 RT

7²
 10² RT
 3²
 10 RT

10²
 10 RT

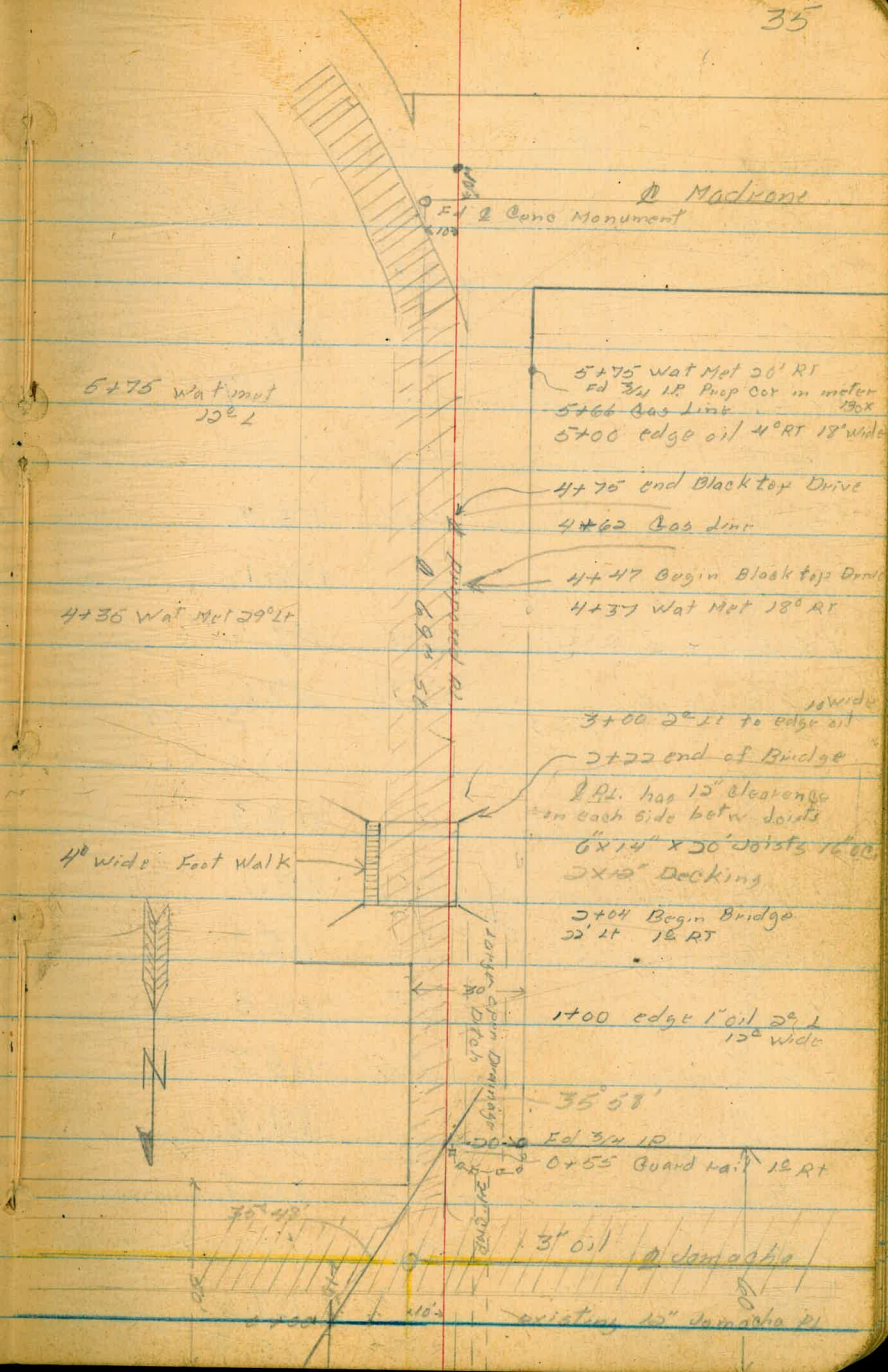
5+50	286.87 286.27	5.2	281.7 281.1
6+00		3.1	283.8 283.2
+50		5.9	281.0 280.4
7+00		9.8	277.1 276.5
7+10 ⁵⁸		10.0	276.9 276.5
	8.60	278.27 = 278.24	
		OK	

Corr. Elev.
6/17/53 Beatty

5.8
10° RT
4.2
10° RT
4.2
10° RT
7.2
10° RT
8.4
10.2
10.2
10.2

Monument Madrone + 69th See Page 20

7+10⁵² BK = 15+83²² AH 90° Lt See Page 16



5+75 Wat Met 10° L

4+36 Wat Met 29° Lt

4' wide Foot Walk

5+75 Wat Met 20° RT
Ed 3/4 IR Prop Cor in meter
5+66 Gas Line
5+00 edge oil 4° RT 18' wide

4+75 end Blacktop Drive

4+62 Gas Line

4+47 Begin Blacktop Drive

4+37 Wat Met 18° RT

3+00 2° Lt to edge oil 10' wide

2+72 end of Bridge

2 PL has 15" clearance
on each side betw joints

6" x 14" x 50' Joists 16' on
2x10" Decking

2+04 Begin Bridge
2' Lt 18' RT

1+00 edge oil 2° Lt
12' wide

35' 51"

Ed 3/4 IR
0+55 Guard Rail 18' RT

3' oil of Jamacha

existing 15" Jamacha PL

0+53

35° 58' Lt

35° 48' RT

0+00

15" north of Jamacha 20' Foot
E 69°

Naranja St
 Euclid to 54th
 Profile Proposed PL

West
 Martell
 Yaron Fakis

Oct 10 50 36

	6.47	110.92		104.45
0+00			3.3	107.6
+15			3.91	107.0
+42			3.75	107.17
+45			4.50	+6.8 To Flow Line
+50			4.4	106.5
1+00			4.8	106.1
+50			3.4	107.5
2+00			0.3	110.6
	12.91	123.65	0.18	110.74
+50			11.3	112.3
3+00			10.0	113.6
+50			8.6	115.0
4+00			7.3	116.3
+50			5.4	118.2
5+00			2.0	121.6
	10.41	134.00	0.6	123.59
+50			8.5	125.5
+79			7.03	+8.4 to to Flow Line
6+00			6.4	127.6
+50			5.7	128.3

BM Euclid 200's Market BP NW Bridge

edge oil

" " East side

Top Sewer MH 11°24

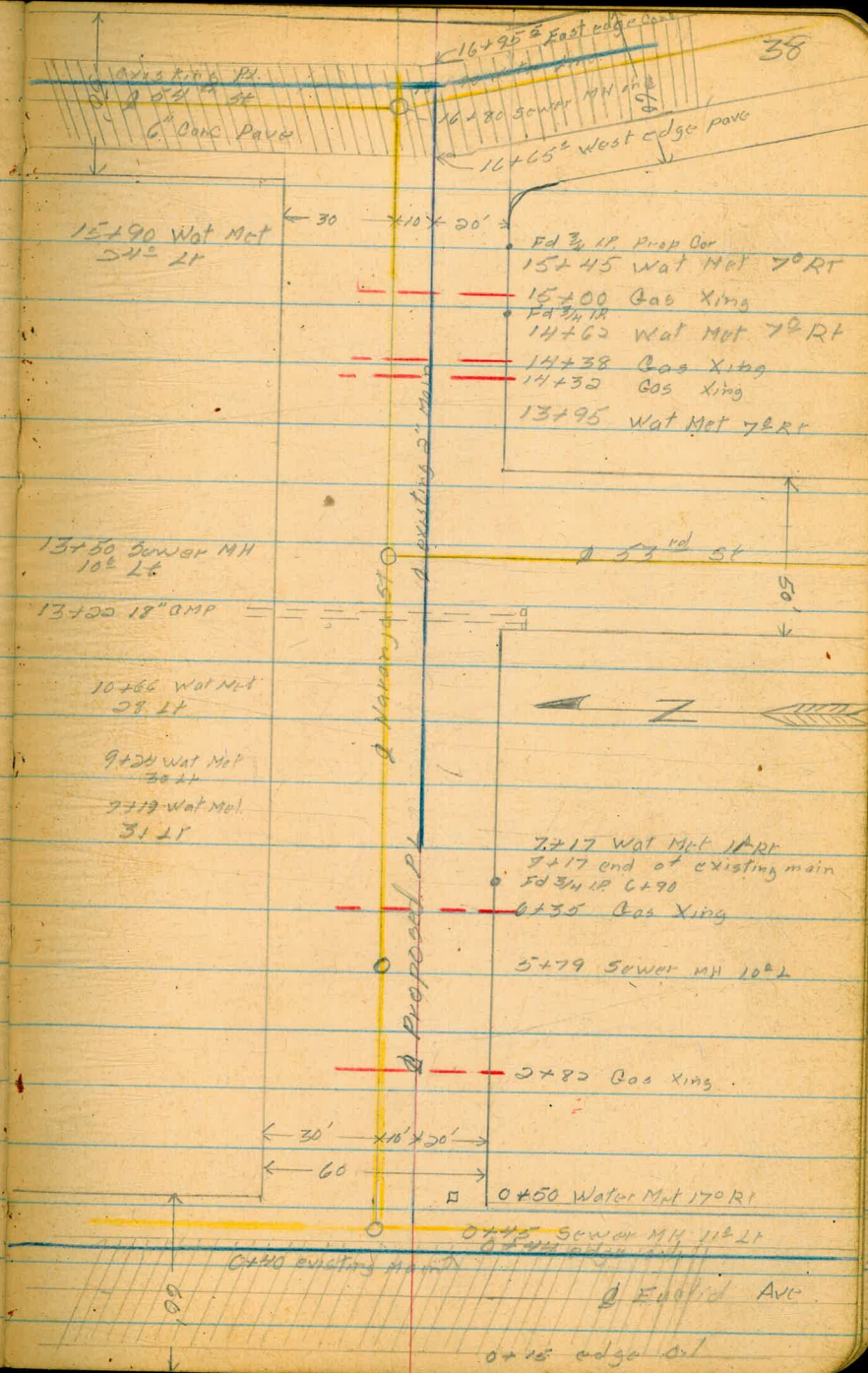
Top Sewer MH South edge 10°27

7+00		134.00	5.3	128.7
+50			4.8	129.2
8+00			4.2	129.8
+50			3.5	130.5
9+00			2.4	131.6
+50			1.3	132.7
10+00			0.2	133.8
	6.98	140.55	0.43	133.57
+50			5.7	134.85
11+00			5.0	135.55
+50			5.1	135.45
12+00			5.7	134.85
+50			6.5	134.05
13+00			6.8	133.75
+20	18° RT		8.8	133.75
+50			5.6	134.95
14+00			3.5	137.05
+50			1.4	139.15
15+00			0.1	140.45
	1.86	142.02	0.39	140.16
+50			2.0	140.02
16+00			4.0	138.02

See Page 39 for Continuation

18" CMP 39° LY - 112 To Flow Line
See page 39 for Survey MH

Proposed PL
Naranja St



0+00

West Prop Line Euclid Ave

16+50		140.00	8.8	133.2	
+65			8.57	133.45	edge curb pavement
+80			8.85	+6.7 to Flow	Top Sewer MH @ 54 th South edge 10 th LT
+95 ⁵			8.28	133.74	East edge Pavement
17+00			8.6	133.4	
+10			8.4	133.6	
	0.39	140.51	1.86	140.12	
13+50			5.78	+7.6 to Flow Limit	Top Sewer MH @ 53 + Morango 10 th LT
	1.30	134.69	7.10	133.39	
	1.23	124.80	11.12	123.57	
	1.99	114.42	12.37	112.43	
			10.08	104.34 = 104.45	

Barian + Weaver St
Radio Rd to Todley St

EO 9+13.52

$\Delta 14^\circ 06'$
R 406.1
L 99.94
T = 50.32

BC 8+13.53

$7^\circ 03'$ LT

This Tan. dist. is longer
than map distance see me (olyde)

EO = 6+87.24

$\Delta 45^\circ 32'$
R = 190'
L = 141.14
T 73.95

BC 5+46.12

$21^\circ 16'$ RT

EO = 3+16.12

$\Delta = 45^\circ 50'$
R = 190'
L = 152.14
T = 80.32

BC 1+63.26

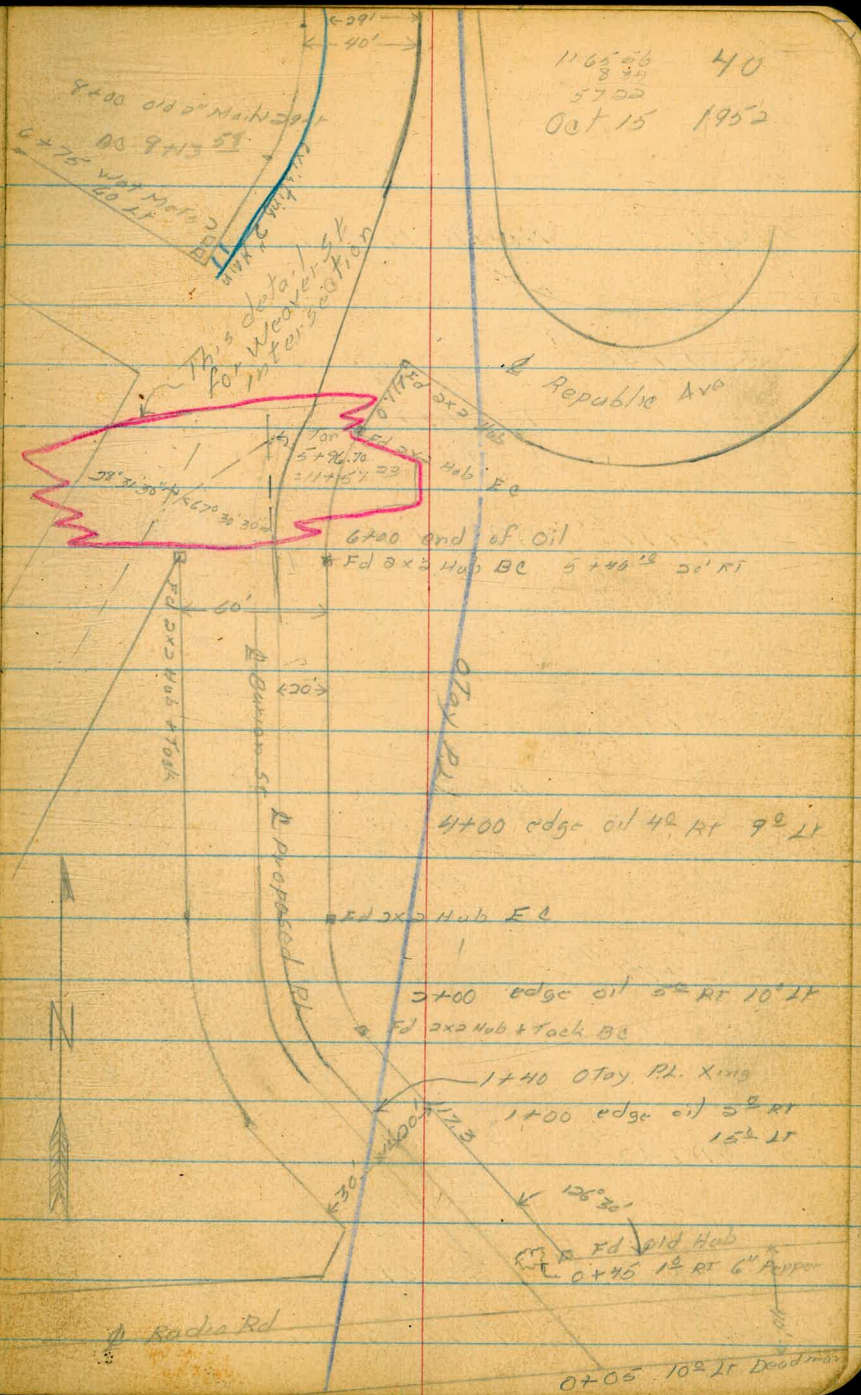
$23^\circ 55'$ RT

O+46.66

North Prop Line Radio Rd

O+00

South Prop Line Radio Rd



23+84 ³⁶ North Prop Line Tooley

EO = 21+88 ⁴⁹

$\Delta = 57^{\circ} 00'$

$R = 190$

$L = 189.13$

BO = 19+99 ³⁶ $28^{\circ} 31' RT$

EO 14+18 ²¹

$\Delta = 32^{\circ} 03'$

$R = 257.9$

$L = 144.26$

$T = 74.07$

BO = 12+74 ⁴⁵ $16^{\circ} 01' 30" LT$

EO = 11+32 ⁵³

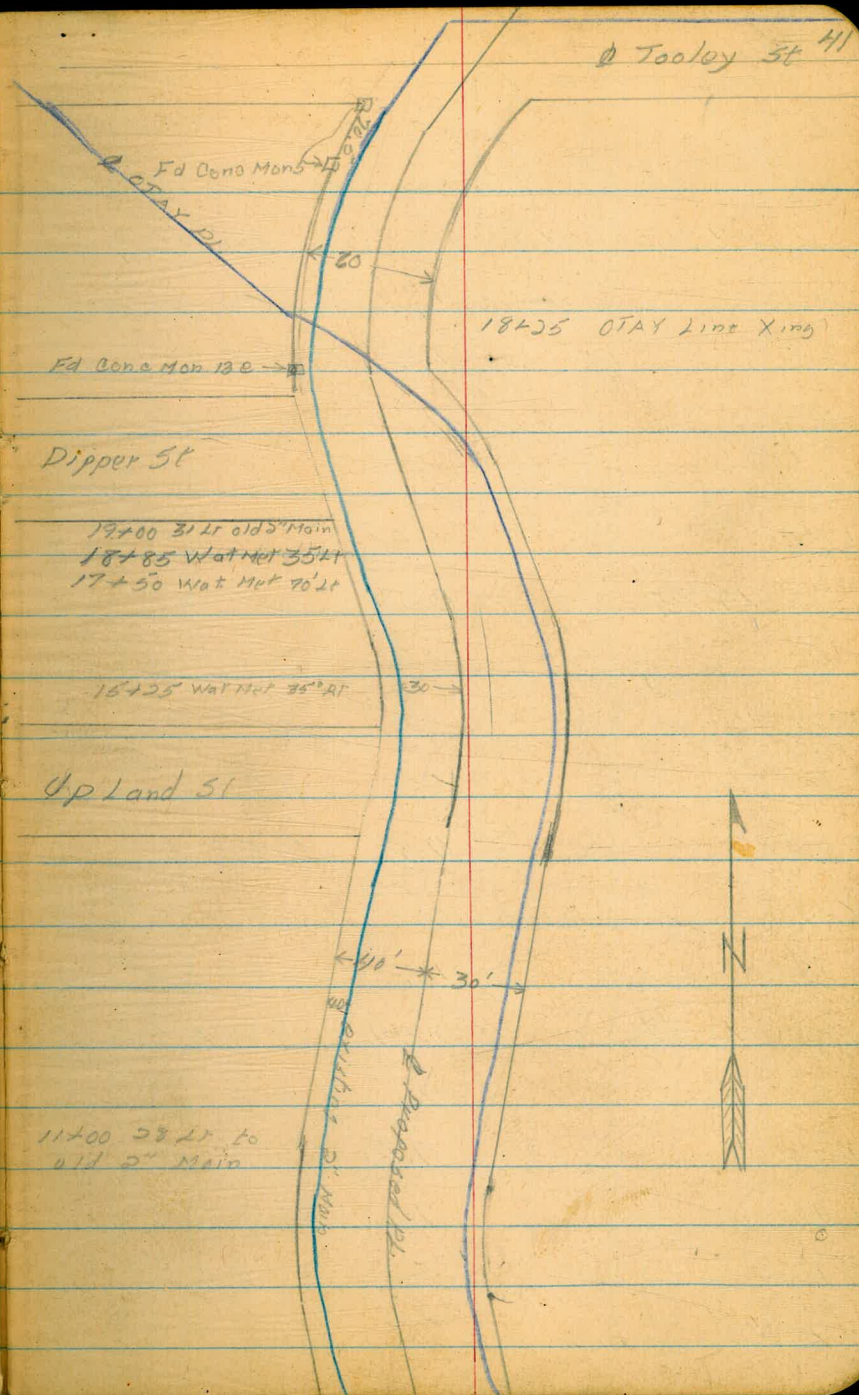
$\Delta = 8^{\circ} 59'$

$R = 297.9$

$L = 277.11$

$T = 22.09$

BO = 10+88 ⁴² $40^{\circ} 14' 30" RT$



Q Profile
Proposed Pl.
Burian + Weaver St Radio Rd to Today

	8.43	287.85		279.40
0+00			12.3	275.6 ✓
+15 ⁷			7.55	280.3 ✓
+38			7.40	280.5 ✓
0+50			6.0	281.9 ✓
1+00			0.6	287.3 ✓
	12.83	300.17	0.51	287.34
+50			7.8	292.4 ✓
1+63 ⁹⁶ 80			7.2	293.0 ✓
+75			6.6	293.6 ✓
2+00			4.9	295.3 ✓
+25			3.0	297.2 ✓
+50			1.0	299.2 ✓
	12.57	312.15	0.59	299.59
+75			11.1	301.1 ✓
3+00			9.1	303.1 ✓
+16 ¹⁸ 50			7.9	304.3 ✓
+50			5.2	307.0 ✓
4+00			0.3	311.9 ✓

West
Martell
Varonakis

14 Oct 52 42

TBM # 32+57⁸⁵ Q Proposed Pl. on Radio Rd

South prop line Radio Rd

edge of 2" oil

" " " " Q

$\frac{6.5}{5}$

$\frac{3.1}{7}$ RT

$\frac{0.0}{2}$ $\frac{+2.0}{5}$ $\frac{+0.9}{10}$

$\frac{6.9}{6}$

$\frac{7.1}{5}$ $\frac{5.1}{7}$ $\frac{4.2}{10}$

$\frac{5.2}{5}$ $\frac{+0.5}{10}$ Top of Bank



edge oil $\frac{1.2}{10}$

$\frac{1.2}{8}$ RT edge oil

$\frac{9.0}{10}$ RT

$\frac{9.2}{7}$ RT Bottom Bank $\frac{6.0}{10}$ Top Bank

$\frac{6.3}{5}$ $\frac{1.3}{5}$ $\frac{0.0}{10}$

	312.15			
	12.76	324.74	0.17	311.99
4+50			7.5	319.2 ✓
5+00			0.4	324.3 ✓
	12.96	337.32	0.38	324.36
4+6 ¹¹ _{BR}			6.1	331.2 ✓
+75			1.6	335.7 ✓
	12.80	349.82	0.30	337.02
6+00			9.9	339.9 ✓
+25			5.3	344.5 ✓
+50			2.9	346.9 ✓
6+87 ²⁴ _{FO}			1.7	348.1 ✓
7+00			0.7	349.1 ✓
	11.74	361.30	0.26	349.56
			9.26	352.04 ✓
+50			7.0	354.3 ✓
8+00			2.5	358.8 ✓
8+13 ⁵⁸ _{BO}			1.0	360.3 ✓
	11.99	372.77	0.52	360.78
+25			11.4	361.4

TBM Top 2x2 Fe Hub 20' RT. 6+87²⁴
 edge road $\frac{10^0}{30^0L}$ $\frac{5.3}{10 RT}$

edge Road $\frac{15^0}{6^0}$ Top Bank $\frac{12.7}{4^0}$ $\frac{8.2}{70R}$

0
 $\frac{7^3}{2^0}$ $\frac{5^2}{5^0}$ $\frac{2^2}{10^0}$

$\frac{6^2}{2^0}$ $\frac{2^4}{7^0}$ $\frac{1^2}{10^0}$

$\frac{7^2}{10}$ $\frac{7^3}{4^0}$ $\frac{5^3}{3^0}$

$\frac{7^3}{4^2 RT Top Bank}$ $\frac{7^3}{10^2 RT}$
 $\frac{4^2}{10 RT}$

$\frac{2.5}{10L}$ $\frac{1^2}{10R}$

8+50		372.77	9.3	363.5 ✓
+75			9.0	363.8 ✓
9+00			7.0	365.6 ✓
113 ⁵² EC			7.3	365.5 ✓
+50			7.0	365.8 ✓
10+00			8.1	364.7 ✓
+50			10.7	362.1 ✓
42 +88 BC			10.6	362.2 ✓
11+00			11.7	361.1 ✓
+25			11.7	361.1 ✓
58 +32 EC			10.8	362.0 ✓
6.45	366.15	13.07		359.70 ✓
+50			4.2	362.0 ✓
12+00			7.1	359.1 ✓
+50			9.3	356.9 ✓
116 +74 BC			9.1	357.1 ✓
13+00			8.9	357.3 ✓
+25			8.9	357.3 ✓
+50			9.0	357.2 ✓
+75			8.9	357.3 ✓

edge road	$\frac{11.6}{92}$	$\frac{9.9}{62}$	$\frac{2.4}{10RT}$
edge road	$\frac{11.6}{72}$	$\frac{7.2}{5}$	$\frac{3.2}{10RT}$
edge road	$\frac{10.2}{70}$	$\frac{9.0}{3}$	$\frac{3.7}{10RT}$
edge road	$\frac{13.0}{69}$	$\frac{11.2}{3}$	$\frac{5.1}{10RT}$
edge road	$\frac{13.2}{30}$		$\frac{5.2}{10RT}$
edge road		$\frac{13.6}{40}$	$\frac{6.5}{10RT}$
		$\frac{10.5}{40}$	$\frac{1.7}{10RT}$
edge road	$\frac{11.7}{50}$	$\frac{9.6}{30}$	$\frac{4.8}{10RT}$
edge road	$\frac{11.3}{3}$		$\frac{4.9}{10RT}$

14+00		366.15	7.8	358.4 ✓
+18 ^m EC			11.6	354.6 ✓
+50			8.2	358.0 ✓
15+00			11.2	355.0 ✓
+50			10.5	355.7 ✓
	5.97	365.53	6.59	359.56 ✓
16+00			11.1	354.4 ✓
+50			9.7	355.8 ✓
17+00			8.8	356.7 ✓
+50			5.8	359.7 ✓
18+00			8.4	357.1 ✓
+50			11.2	354.3 ✓
	0.24	353.03	10.74	352.79 ✓
19+00			7.1	345.9 ✓
	4.44	345.97	11.50	341.53 ✓
+50			8.2	337.8 ✓
19+99 ^{3/4} BC			6.4	339.6 ✓
20+25			4.0	342.0 ✓
+50			1.9	344.1 ✓

	$\frac{10.3}{3}$	$\frac{42}{10}$
edge road	$\frac{10.3}{3}$	$\frac{33}{10}$
" "	$\frac{10.3}{20}$	$\frac{5.3}{10}$
edge road	$\frac{13.2}{5}$	$\frac{6.8}{10}$
2 on 2 of dirt road	$\frac{8.8}{12}$	$\frac{7.4}{5}$
edge road	$\frac{8.5}{8}$	$\frac{5.3}{10}$
	$\frac{70}{10}$	$\frac{43}{10R}$
	$\frac{8.1}{10}$	$\frac{7.2}{10}$
	$\frac{2.5}{10}$	$\frac{1.3}{10R}$

Q Profile
Burton + Weaver cont

		345.97		
	12.23	358.02	0.18	345.79
20+75			11.1	346.9 ✓
21+00			7.9	350.1 ✓
+25			4.2	353.8 ✓
+50			0.2	357.8 ✓
	12.70	370.32	0.40	357.62
+75			8.6	361.7 ✓
21+88 th E.O.			5.5	364.8 ✓
22+00			3.6	366.7 ✓
			4.15	366.17
	12.95	382.98	0.29	370.03
+50			7.9	375.1 ✓
	11.54	394.06	0.46	382.52
23+00			10.9	383.2 ✓
+50			3.6	390.5
+59			2.2	391.9
23+88 th			2.7	391.4
	8.74	402.68	0.12	393.94
	12.38	414.22	0.84	401.84

$\frac{7.7}{10}$ $\frac{7.5}{10}$

$\frac{3.7}{10.1}$ $\frac{2.5}{10.1}$

TBM E.O. Conc Man 40' Lr 21+88th

$\frac{10.9}{10.1}$ $\frac{9.7}{10.1}$

North prop line Tooley

	414.52		
13.05	426.46	0.81	413.41
12.96	439.24	0.18	426.28
12.39	450.75	0.88	438.36
2.91	446.47	7.19	443.56
1.84	435.50	12.81	433.66
0.97	424.24	12.23	423.27
1.73	415.17	10.80	413.44

	411.24	3.30	411.87
			64
			23

411.64 BM Winnett + Tooley Top FH SE cor
+23 ??

#7
BM Top FH SE cor
Springs Field + Paradise

Q PL. Profile
Winona St
Trojan to Orange

West
Williams
Jacobs

48

4 Dec 52

	10.83	373.72		362.89
0+00			10.3	363.4
+03			13.0	360.4
0+50			8.9	364.8
1+00			6.9	366.8
+50			5.5	368.2
2+00			4.7	369.0
+50			5.4	368.3
3+00			7.0	366.7
+50			10.6	363.1
	1.00	361.83	12.89	360.83
4+00			6.5	355.3
	0.55	349.51	12.87	348.96
+50			0.9	348.6
5+00			7.5	342.0
+50			12.3	337.2
	0.58	337.27	12.82	336.69
6+00			3.5	333.7
+50			7.4	329.8
7+00			9.5	327.7
+40 ²⁸			10.7	326.5
	11.57	340.22	8.63	328.65
	10.30	350.47	0.25	339.97

B17 NW BP Trojan + Winona
North Prop line Trojan Ave
Top wheel 2" O.I

Estrella + Orange
B17 Church St

-2.16 349.31 = 348.45

Winona St

49

7+40 ²⁹
111
30

South Prop Line Orange

7+26 26'4" to Fire Hyd

54" Trojan St Pl

Orange

80

Fd 2x2 Hub + Tack

6+50 end ob

Fd 2x2 Hub + Tack

All Gas Sewer + Water in Alley

4+71 end Oil

Proposed Pl
Alleyway St

2'0"

20' x 10' x 30'

1+00 8'0" to ob

36' ±

2" Oil

Trojan

0+16 Storm Drain MH 25' R/L
18" Agnd

Fd 2" in Sidewalk

0+00

North Prop Line Trojan St

Fd 2x2 Hub + Tack

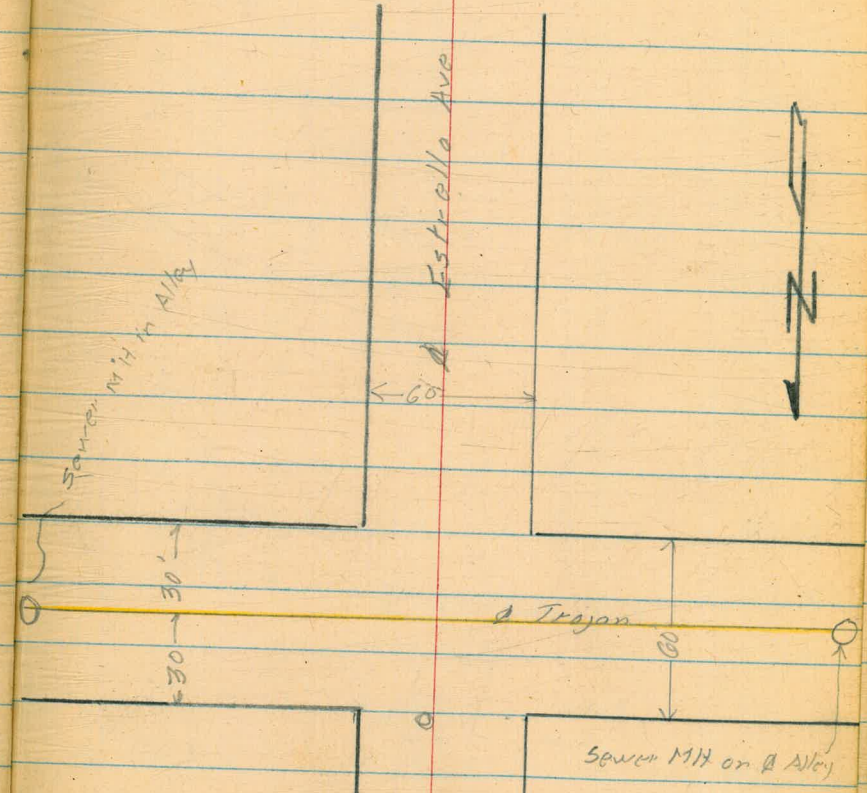
0+02 2" Oil on



Location + Profile
of Sewer King on Estrella

0+00	5.08	351.29	346.21
			348.548 343.8
		2.75	+4.75 to Flow
			344.3 & 339.8
		6.97	+4.60

8" sewer Top West edge sewer MH in Alley East
Top east edge sewer MH in Alley West



Profile Morrison St
Market to J⁵¹

	0.02	125.41		125.39
0+00			5.50	119.9
0+00			7.1	118.3
				119.4 & 111.2
+40			5.76	+8.5 to Flow
+50			5.80	119.6
+80			6.2	119.2
1+00			6.3	119.1 118.8 & 110.5
+77			6.64	+8.25 to Flow
+50			6.6	118.8
2+00			6.4	119.0
+50			5.9	119.5
3+00			5.9	119.5
+50			7.3	118.1
4+00			8.5	116.9
	4.24	120.50	9.15	116.26
+50			4.3	116.2
5+00			6.8	113.7
+23			7.1	113.4
+50			5.4	115.1
6+00			2.1	118.4
+50			2.3	118.2

West
Williams
Jacobs.

51

5 Dec 52

BM BP NW Cor 41st & Market

North Prop Line Market

Top Step GV

Top Sewer MH 10' RT South edge

end curb pave

Top east edge sewer MH 10' RT

	112.0	109.8
	8.5	10.7
6" Storm Drain xing	17.41	10 RT end of 6" Pipe

7+00	120.50	5.8	115.2
7+00		2.32	113.2 @ 99.4
			+13.8 To Flow
7+10		4.2	116.3
	8.62	125.18	3.94
	4.32	126.99	2.51
		1.60	125.39

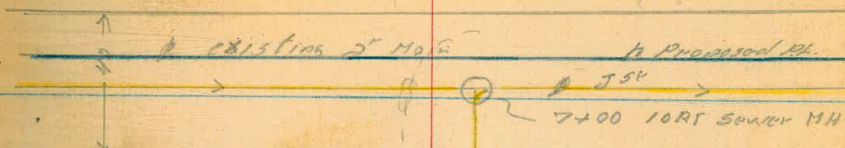
ϕ
 Top east edge 10° RT To Sewer MH ϕ Jst 8"
 ϕ Jst Line $\frac{9.2}{10^{\circ} RT}$ $\frac{6.0}{5^{\circ} RT}$ $\frac{6.2}{10^{\circ} RT}$

7+20

South Prop Line Jst

7+00

Jst



6+86 21' x 21' 5" wet mats

5+86 Gas Xing

3 1/2" Private P.L.S.

5+23 6" Storm Drain

4+96 Gas Xing

4+35 Gas Xing

4+18 Gas Xing

3+40 Gas Xing

3+25 Gas Xing

2+53 Gas Xing

Proposed P.L. Harrison St

1+02 Gas Xing

0+90 end of Ob 5' x 1'

0+75 3' Wet Mats 7' x 7'

0+50 existing Main

1+77 Sewer MH 10' RT

0+20 Sewer MH 10' RT Markel

0+00

North Prop Line Markel

0+00 8V on 2

0+11 Tel Cord Xing



34th St Market to
Spring Garden Pl

Spring Garden Pl 34th to 35

Sta	f	Hi	Elv
	1.24	86.89	85.65
		75.87	74.18
	1.69	76.67	12.71 73.98
		63.17	63.13
	0.04	62.97	12.74 62.93
		52.58	50.93
	1.65	53.38	12.24 50.73
0+00			3.0 49.38
+12			3.8 48.5
+12 ¹¹			4.15 48.2
+50			4.35 48.0
+63			4.85 47.5
+74			4.82 47.5
			4.67 47.7 47.91 ✓
1+00			6.8 45.5
+50			12.8 39.5
	3.60	42.96	13.02 39.36
2+00			4.4 38.5
+50 ²⁰			4.7 38.2
3+00			4.9 38.0
+50			5.4 37.5
3+700			6.3 36.6

add .2

add .2

West
Martell
Varonfakis

54

4th Feb 53

BM NE B.P. 35th + Market

Top of

Butter Line

Butter Line

Top of Sidewalk

BM A inside edge near north end of
South Rail of Market St Bridge

9.7	7.5
10.2	6.1
13.2	13.6
10.1	6.4
	10.2

4.4
10.1
4.6
10.1
4.8
10.1
6.2
10.1
5.9
10.1

4+50	42.96	7.1	35.8		6.2 10.2
5+00		7.7	35.2		6.7 10.2
+50		8.8	34.1	add .2	8.4 10.2
6+00		9.5	33.4		10.0 9.2
	2.30	35.13	10.23	32.83	
+50		2.2	32.9		
7+00		2.1	33.0		1.3 10.2
+50		2.2	32.9	add .2	3.1 5.0
8+00		2.5	32.6		2.3 5.0
+50		2.5	32.6		2.3 5.0
9+00		3.1	32.0		3.0 5.0
+02		3.1	4.5 to flow	Top Sewer 17H	3.9 5.2
+50		4.0	31.1		
10+00		4.5	30.6		4.4 5.0
+50		4.9	30.2		4.8 5.2
10+53 rd X		4.9	30.2		
11+00		5.4	29.7		
+50		5.7	29.4		
12+00		5.1	30.0		
+50		8.3	26.8		
+61		8.4	26.7		

12+69	35.13	4.3	30.8
+81		9.5	25.6
13+00		10.1	25.0
+19		9.4	25.7
+34		1.8	33.3
+43		7.2	27.9
+50		7.9	27.2
14+00		7.4	27.7
+50		5.8	29.3
15+00		6.9	28.2
15+33 ⁵²		6.5	28.6
		4.88	30.25
10.79	43.60	2.32	32.81
12.71	56.30	0.01	43.59
11.19	67.46	0.03	56.27
12.87	80.27	0.06	67.40
9.16	88.39	1.04	79.23
		2.75	85.64 = 85.65

add .2

Top of creek bank
Creek bed

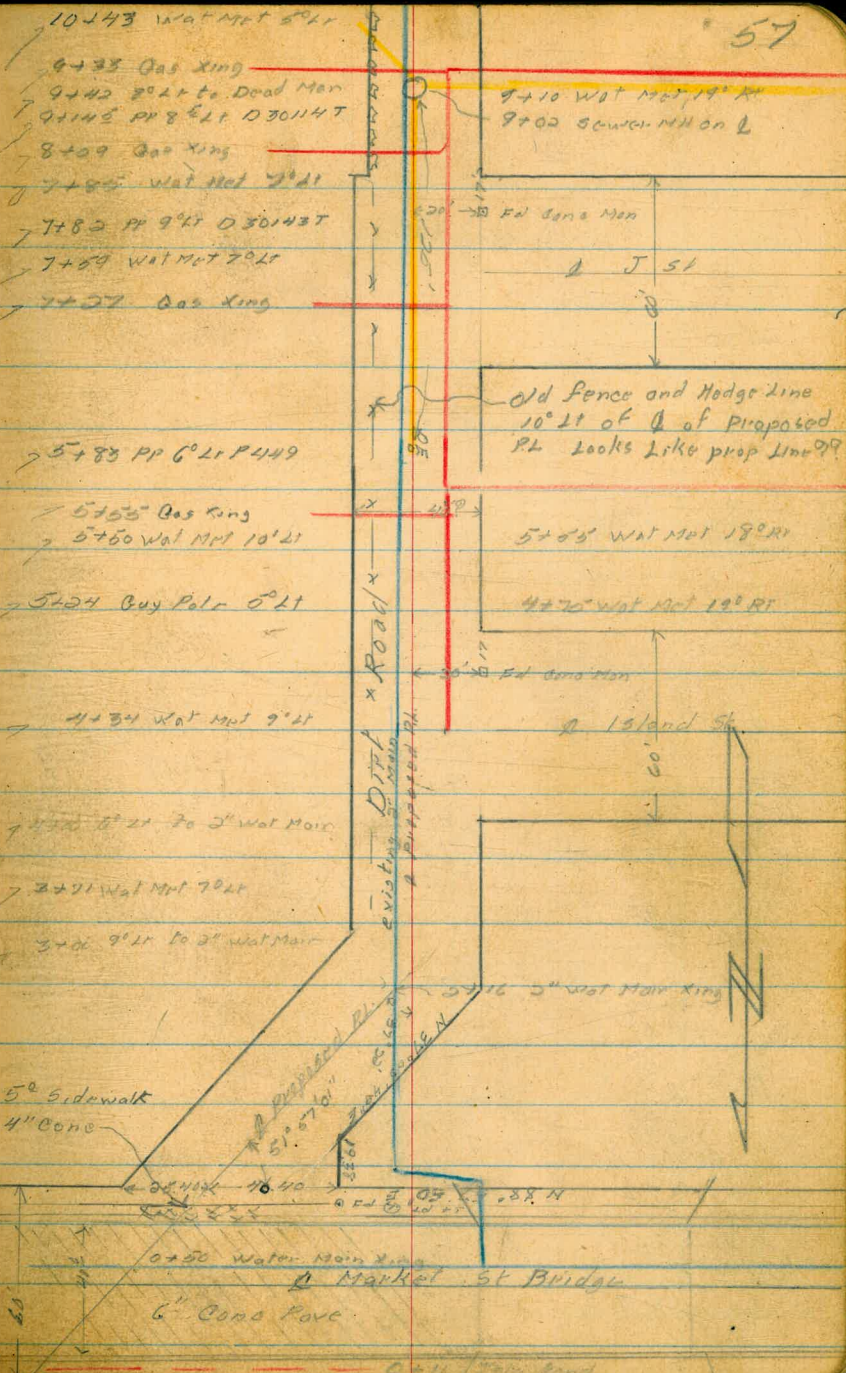
Top of creek bank

	7.2	5.2
	10.14	10.21
Railroad road bed (Cholden)	4.9	6.9
	10.14	5.21
		5.7
		10.14

West prop Line 33rd St

(7) 10+01 NE Cor Garden Pl +33rd Spring

NE BP 35 + Market



10+43 Wat Met 5' Lt
 9+33 Gas King
 9+42 8' Lt to Dead Man
 9+115' PP 8' Lt D 30/14T
 8+09 Gas King
 7+85 Wat Met 7' Lt
 7+82 PP 9' Lt D 30/14T
 7+59 Wat Met 7' Lt
 7+27 Gas King

5+88 PP 6' Lt P 449
 5+55 Gas King
 5+60 Wat Met 10' Lt
 5+24 Bay Pole 5' Lt

4+34 Wat Met 9' Lt
 4+21 8' Lt to 3' Wat Met
 3+21 Wat Met 7' Lt
 3+21 9' Lt to 2' Wat Met

5+16 5" Wat Met King
 5' Sidewalk
 4" Cone
 0+50 Water Main King
 6" Cone Pav
 0+11 5' Land

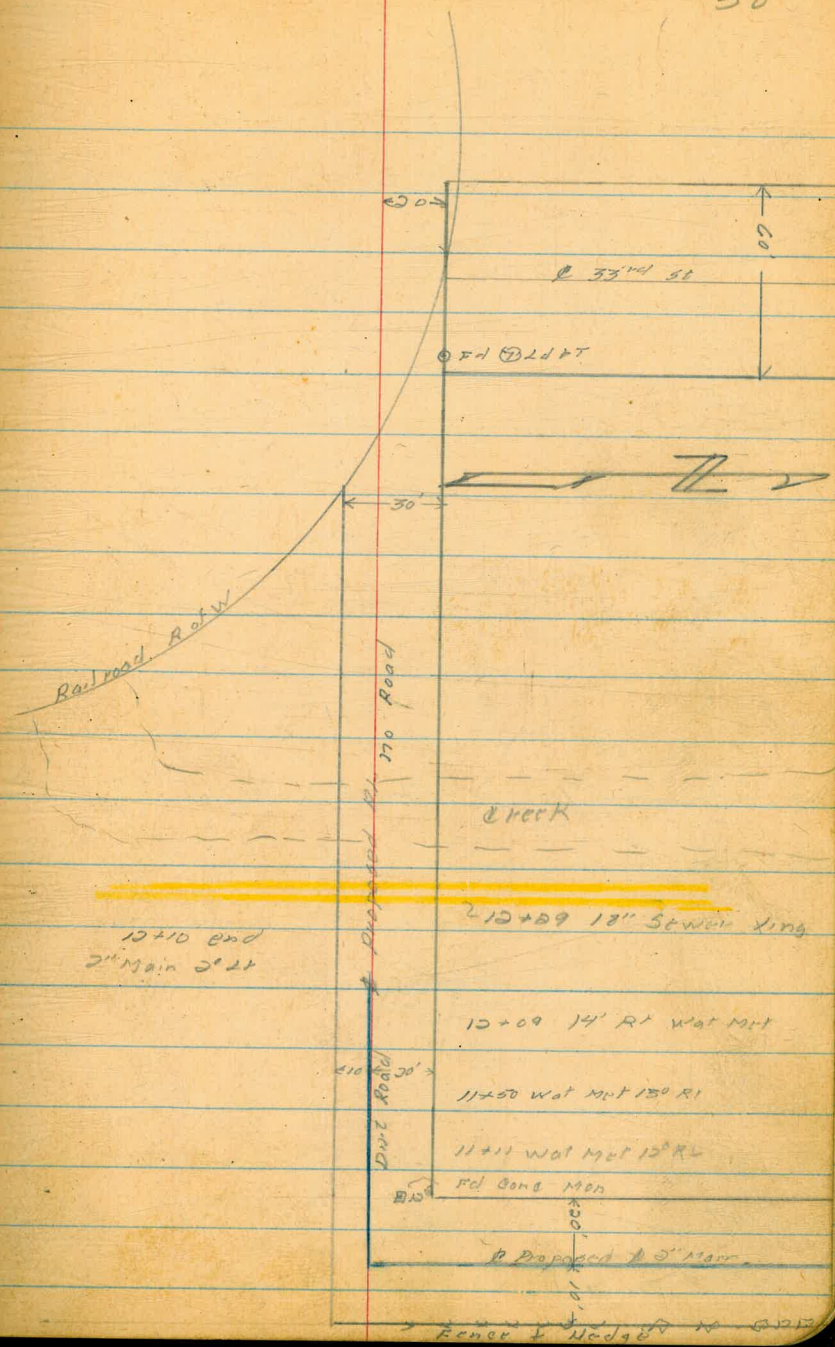
2+50²² 37° 22' Lt
 0+76.19 South prop line Market
 0+00 North prop line Market St

15+33 52

West prop line 33rd St

10+53 61

89° 17' RT



Q PL Profile

Kst 32 to 33

33rd St Kst to Spring Garden Pl

Sta		H ₁		H ₂
	3.36	84.89		81.53
0+00		84.63	3.9	81.0
+50			3.6	81.3
+60			3.7	81.2
1+00			4.0	80.9
+50			4.4	80.5
2+00			4.6	80.3
+50			5.3	79.6
3+00			7.8	77.1
+30			10.8	74.1
+30			10.1	74.8
	2.09	77.92	9.25	75.63
+472			4.8	73.1
+64			10.0	67.3
	3.18	68.38	12.72	65.20
	2.06	58.00	15.42	55.96
4+01			4.9	53.1
+17			8.8	49.2
+50			10.3	47.7
+69			9.76	48.3 48.26
275			10.08	47.9 47.94

West
Martell
Varonakis

(Hot) 59
6 Feb 53

BM BP N.W. Cor 32nd + Kst

West prop

Top cover C.V

Bottom of C.V
Top of curb End of Blacktop St

6.5
10.2

11.4
10.2

1.7
10.2

6.9
10.2

11.4
10.2
edge road bed RR

Top west RR Rail

Top east RR Rail

4+80		58.02	11.2	46.8
	0.28	45.53	12.78	45.24
5+00			6.5	39.0
	0.87	34.30	12.09	33.43
+29			3.2	31.1
+50			5.0	29.3
6+00			5.8	28.5
+50			6.0	28.3
7+00			6.0	28.3
+50			5.9	28.4
8+00			5.9	28.4
+50			6.0	28.3
8+74	7.89	36.57	5.62	28.68
8+65			7.81	28.8 & 20.4
9+00			8.2	28.4
+50			7.1	29.5
+73			7.0	29.6
10+00			6.7	29.9
+20			7.0	29.4
+39			10.9	25.7
+55			6.5	30.1

$$\frac{3.9}{8.2} = \frac{7.9}{10.81}$$

Turn on Spike @

10" Sewer

Top North pin sewer MH 28° RT

Top of drainage ditch south bank RR
 Bottom " " " " " "

		36.57		
	8.92	40.75	4.74	31.83
10+69			4.3	36.5
+73 ³			1.40	39.35
+79 ³			1.17	39.58
+91			4.5	36.3
11+00			8.9	31.9
11+13 ⁰³ 33 rd				
75+06 ⁴⁴ Spring Garden		12.5	28.3	
11+36 ⁹¹		11.2	29.6	
		10.47	30.29 = 30.25	

Top South RR Rail
 Top North T.R. Rail

edge conc paving 33rd

Page 56. 10+7 (9) 5.5. Out Spring Garden +33rd

5+29 84

DEK
(6°49' RT.)

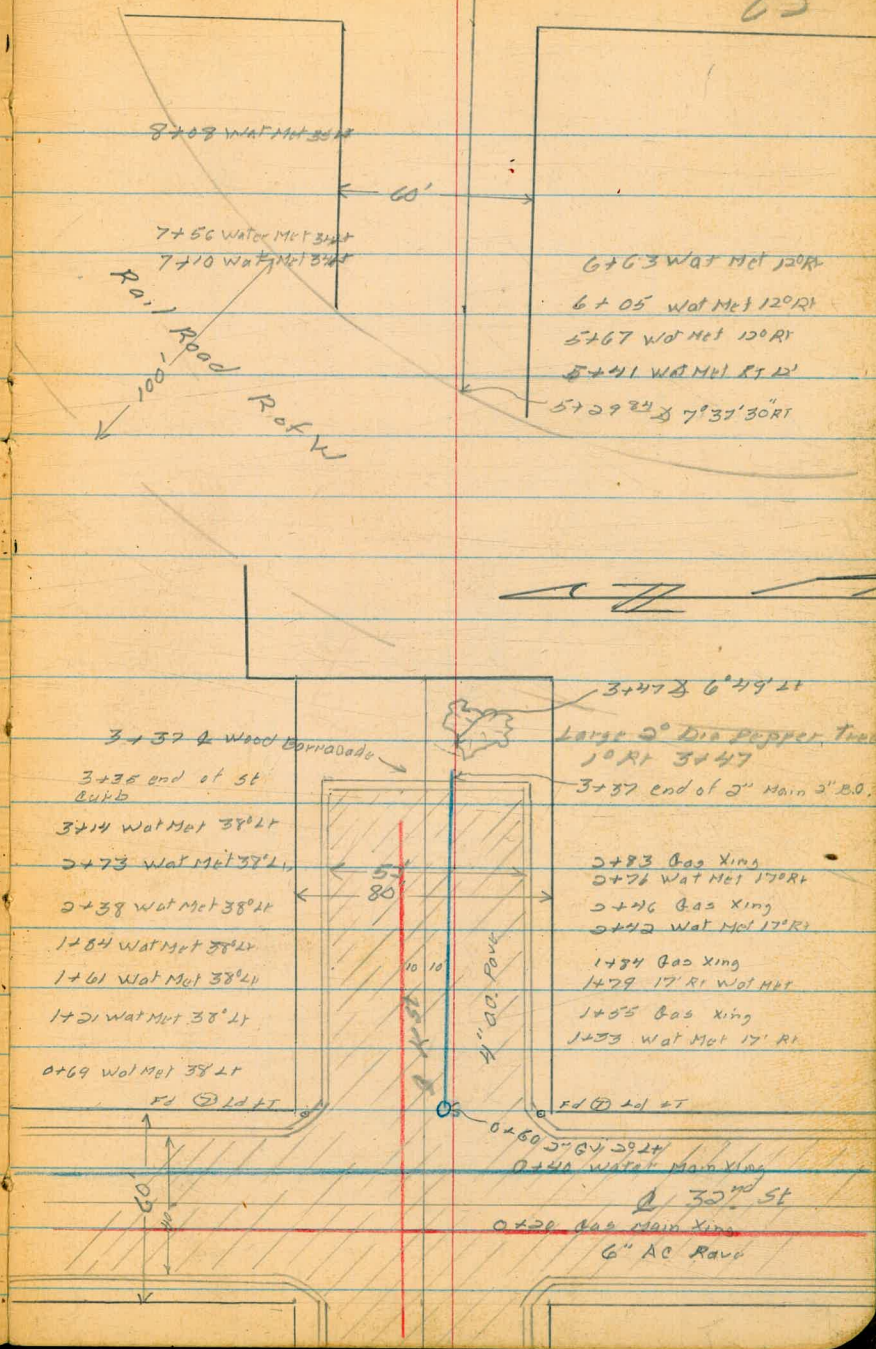
7°37'30 RT

3+47 84

6°49' Lt

0+00

West Prop Line 32nd St



(11+38 ^{DEW} N. Prop. Line)

11+36 ⁹¹ North prop line Spring Garden Pl

11+13 ⁰³ 33rd = 15+06 ²¹ Spring Garden Pl

(11+28[±] (^{DEW} 33° 45' LT.))

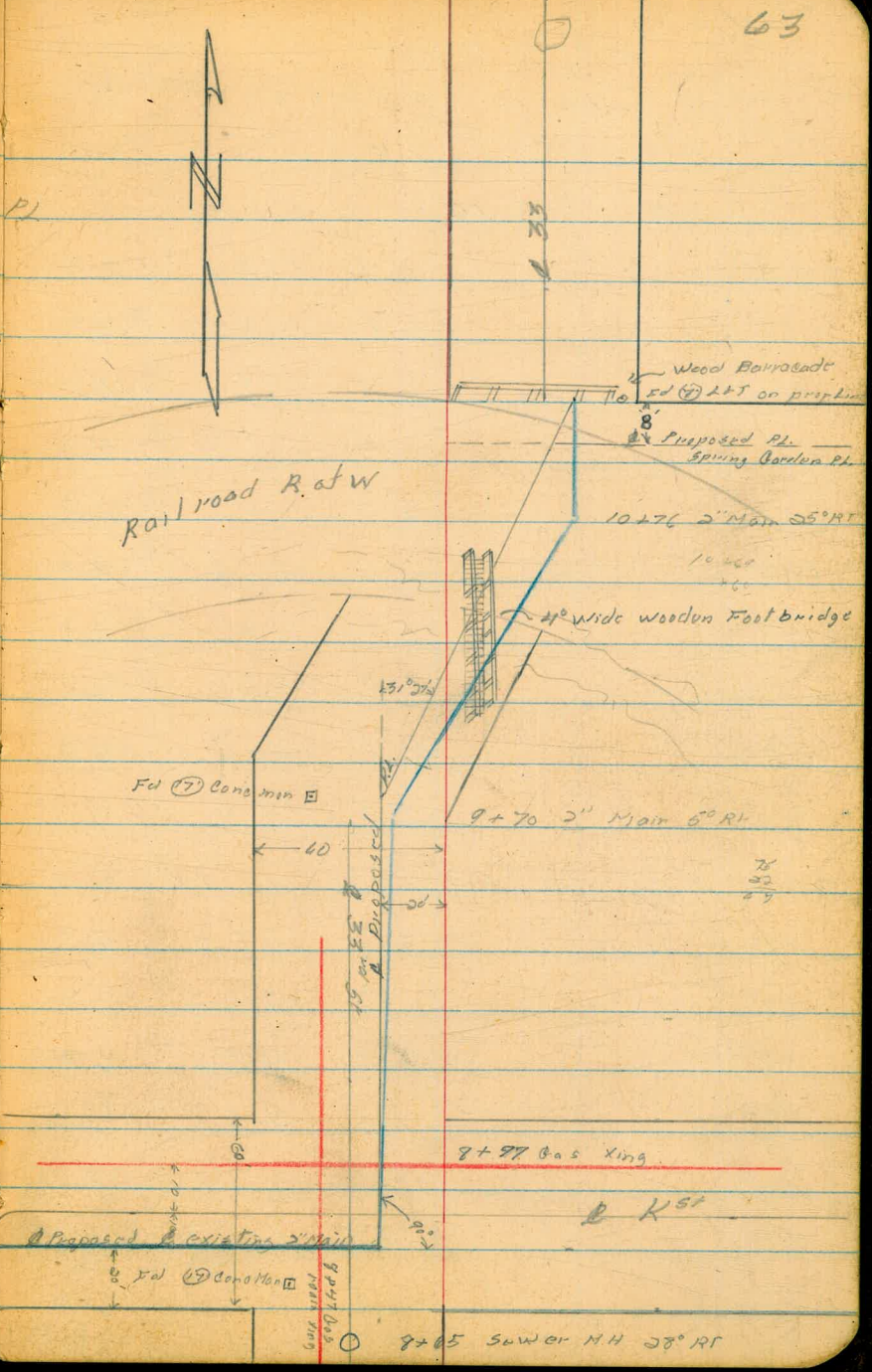
10+76 ³¹ P.O.T @ RR. Track

37

(^{DEW} 33° 45' RT)

9+73 ²¹ 31° 27' RT

8+74 ²³ 90° LT



Sta's for 6" Water Main
+ Water Meters

Morrison St Market to Jst

West
Williams
Varonfokis

64

7-3-53

Sta	+	HI	-	Elev	Grade				
	0.31	125.70		125.39		BM	BP	MW	Cor 41 st + Market
0+80			5.9	119.8	115.7	C4 ¹			
1+00			6.4	119.3	115.5	C3 ⁸			
+50			6.7	119.0	115.0	C4 ⁶			
2+00			6.5	119.2	114.5	C4 ⁷			
+50			5.9	119.8	114.0	C5 ⁸		House Numbers	
+54			4.1	121.6	118.0	C3 ⁶	WM	501	East Side
3+00			5.8	119.9	113.6	C6 ³			
+04			3.2	122.5	117.6	C4 ⁹	WM	513	East Side
+45			4.7	121.0	117.3	C3 ⁷	WM	503	
+50			7.2	118.5	113.0	C5 ³			
4+00	5.88	123.00	8.66	117.14	112.6	C4 ⁵			
+00			3.6	119.4	116.7	C2 ⁷		449	East Side
+50			6.8	116.2	111.3	C4 ⁹			
+58			4.5	118.5	116.0	C2 ⁵		441	
5+00			9.2	113.8	110.0	C3 ⁸			
+18			9.2	113.8	114.6	70 ⁸		431	9 No Number
+50			7.7	115.3	109.8	C5 ⁵			
6+00			4.8	118.2	108.4	C9 ⁸			
+15			4.6	118.4	111.8	C6 ⁶		411	

6+50	123.02	5.0	118.0	107.0	C 11 ⁰	
+70			117.0			
+75		6.3	116.7	106.4	0 10 ³ 910 ⁶	FH Tee
+75		4.7	116.5	110.3	C 6 ⁰ 899	(5) FH 06 ² 910 ¹
			116.3		Flange Ell	Flange Ell
7+00		6.8	116.2	105.6	0 10 ⁶	
	8.57	125.69	5.90	117.12		
			0.33	125.36	=	125.39 BM BP

WATER METERS
ALLEY BLOCK 80 BETWEEN LANDIST +
DWIGHT

WEST
WILLIAMS
VARONFAKIS

7-23-53

66

STA	+	HI	-	EL		
B.M.	4.13	334.68		330.55	N.W.B.P.	DWIGHT + 41 ST.
0+00			3.4	331.3	330.30	W.M. EAST C 1 ⁰
+08			3.2	331.5	330.8	W.M. EAST CO ⁷
+52			1.8	332.9	332.0	W.M. WEST CO ⁹
+75			1.6	333.1	332.3	W.M. WEST CO ⁸
+93			1.5	333.2	332.6	W.M. EAST CO ⁶
1+33			1.4	333.3	332.8	W.M. WEST CO ⁵
1+37			1.15	333.5	332.8	W.M. EAST CO ⁷
T.P.	6.29	339.85	1.12	333.56		
1+63			6.1	333.7	333.1	W.M. EAST CO ⁶
1+77			5.7	334.1	333.2	W.M. WEST CO ⁹
1+78			6.1	333.7	333.1	W.M. EAST CO ⁶
2+16			5.6	334.2	333.6	W.M. WEST CO ⁶
2+16			6.1	333.7	333.5	W.M. EAST CO ²
2+64			5.1	334.7	334.1	W.M. EAST CO ⁶
2+72			4.9	334.9	334.0	W.M. WEST CO ⁹
2+93			5.1	334.7	334.2	W.M. EAST CO ⁵
2+96			5.1	334.7	334.2	W.M. WEST CO ⁵
3+22			4.5	335.3	334.6	W.M. EAST CO ⁷

WATER METERS
 ALLEY BLOCK 80 BETWEEN LANDIS &
 339.85 DWIGHT

WEST
 WILLIAMS
 VARONFAKIS

7-23-53

07

STA	+	H1	-	EL			
3+29		339.85	4.8	335.0	334.5	W.M.	WEST CO ⁵
3+74			4.4	335.4	335.0	W.M.	WEST CO ⁴
+78			4.4	335.4	335.0	W.M.	EAST CO ⁴
4+08			4.2	335.6	335.2	W.M.	EAST CO ⁴
+42			3.6	336.2	335.6	W.M.	EAST CO ⁶
+44			3.6	336.2	335.5	W.M.	WEST CO ⁷
+63			3.4	336.4	335.8	W.M.	WEST CO ⁶
+63			3.6	336.2	335.8	W.M.	EAST CO ⁴
+87			3.4	336.4	335.9	W.M.	WEST CO ⁵
5+30			3.6	336.2	335.0	W.M.	EAST C1 ²
+32			3.4	336.4	335.0	W.M.	WEST C1 ⁴
+72			3.7	336.1	332.6	W.M.	EAST C3 ⁵
+75			4.6	335.2	332.5	W.M.	WEST C2 ⁷
T.P. CK. TO B.M.	4.22	334.55	9.52	330.33			
				330.56	330.55	N.W.B.P.	DWIGHT 41ST

Q Profile Alley B/K 411

4.25
1.15
5.41

West
Williams
Varonakis
Kemp

SS Hot 88 69

10-27-53

4.59 397.43 392.84

6.75 398.61 5.57 391.86

5.33 399.14 4.80 393.81

BM BP S-E Cor. Mansfield + Adams

0+00 4.8 394.34

South Prop Line Alley

+50 4.6 394.54

1+00 4.5 394.64

+50 4.8 394.34

2+00 5.2 393.94

+50 5.2 393.94

3+00 4.6 394.54

+50 5.2 393.94

4+00 5.0 394.14

4.54 398.64 5.04 394.10

+26⁰² 4.7 393.94

+50 4.7 393.94

5+00 5.0 393.64

+34 5.44 393.20 +5.9

387.30

Flow Line

Tap east rim sewer MH 2⁵ ft

+43² 5.0 393.64

North Prop Line Alley

6.34 397.46 7.52 391.12

4.60 392.86 = 392.84

Jefferson Ave
Terrace Ct
and Terrace Dr

Wesley
Williams
Varonakis
Kemp

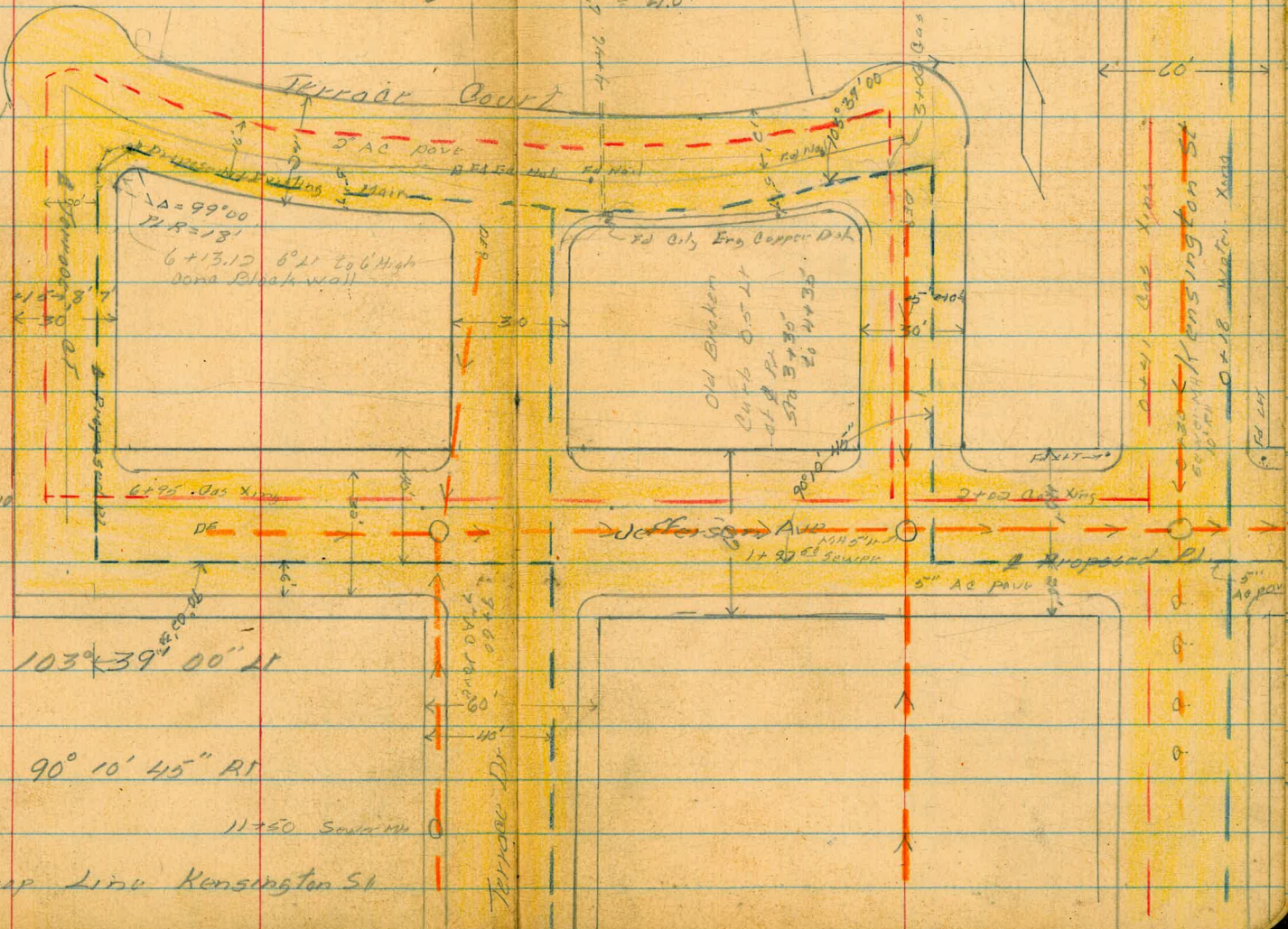
10-27-53

70

$\Delta = 9^{\circ}00'$
 $\frac{1}{2} \Delta = 4^{\circ}30'$
 $P.L. R = 680.8$
 $L = 106.94$
 Def per ft
 0.52478466

$\Delta = 13^{\circ}40'$
 $P.L. R = 420.10$
 $L = 100.21$
 Def per ft
 0.0916911

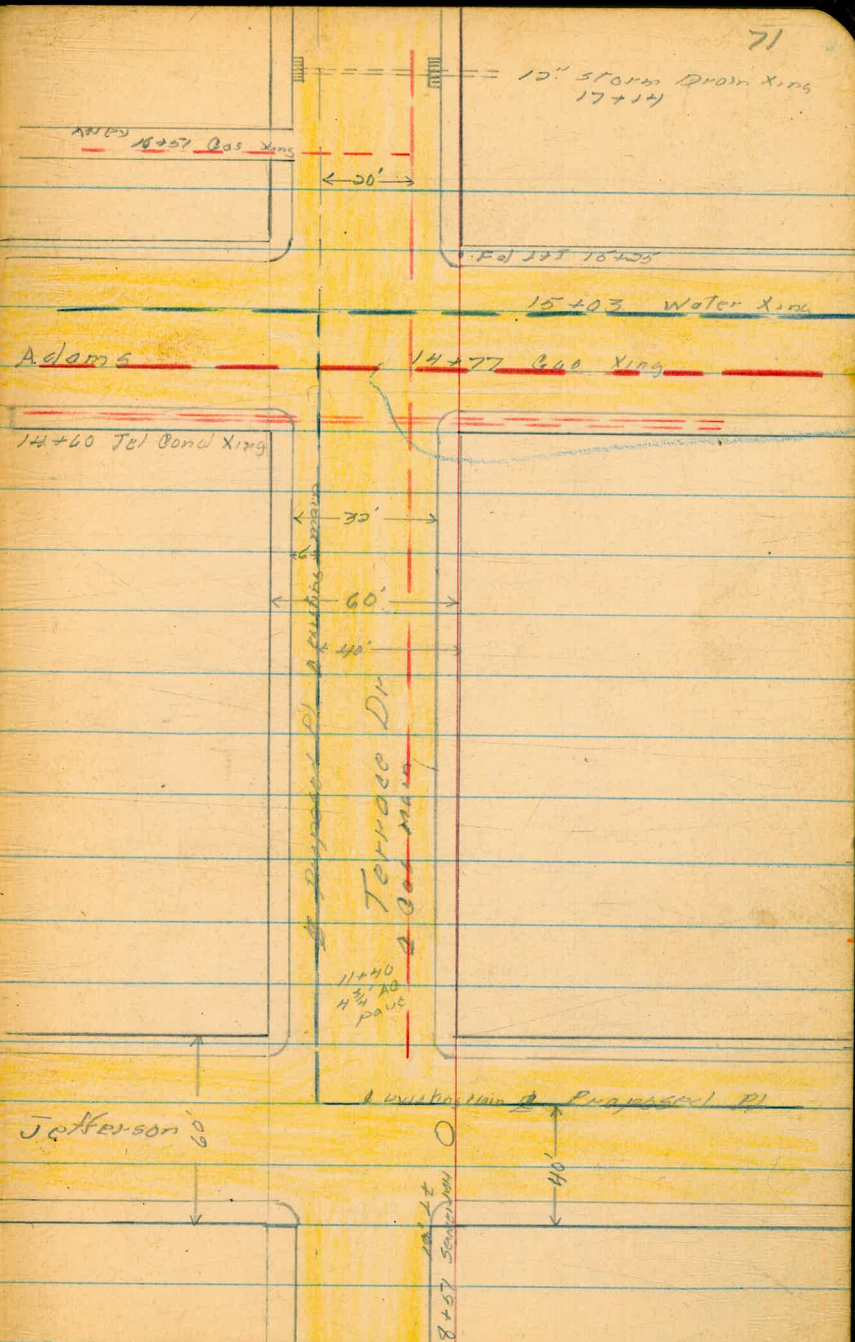
8+80 $\frac{55}{\Delta}$ $90^{\circ}11'30" RT$
 7+15.33 Δ $90^{\circ}02'30" LT$
 6+28.19 EO
 49° 30' LT
 6+13.12 Cl $490 30$
 24° 45' LT
 5+98.05 EO
 $\Delta = 9^{\circ}00'$
 $P.L. R = 680.8$
 4+91 LL BO
 4+35 LL EO
 $\Delta = 13^{\circ}40'$ $P.L. R = 420.10$
 3+34 90 EO
 2+98 47 Δ $103^{\circ}39'00" LT$
 1+92 50 Δ $90^{\circ}10'45" RT$
 11+50 S $Water$
 0+00 E $prop$ $Line$ $Kensington$ St



Location of
Water Meters

Gas Service
Xings

2+26	13' LT
3+48	9' RT
3+74	7' RT
2+95	9' RT
3+09	13' RT
6+03	17' RT
6+11	20' RT
6+72	21' RT
7+10	21' RT
7+23	20' RT
7+50	28' LT
8+05	28' LT
9+12	28' RT
9+36	28' RT
9+65	28' RT
10+25	28' RT
10+58	28' RT
11+19	27' RT
11+60	28' RT
12+18	28' RT
12+66	28' RT
13+15	27' RT
13+67	27' RT



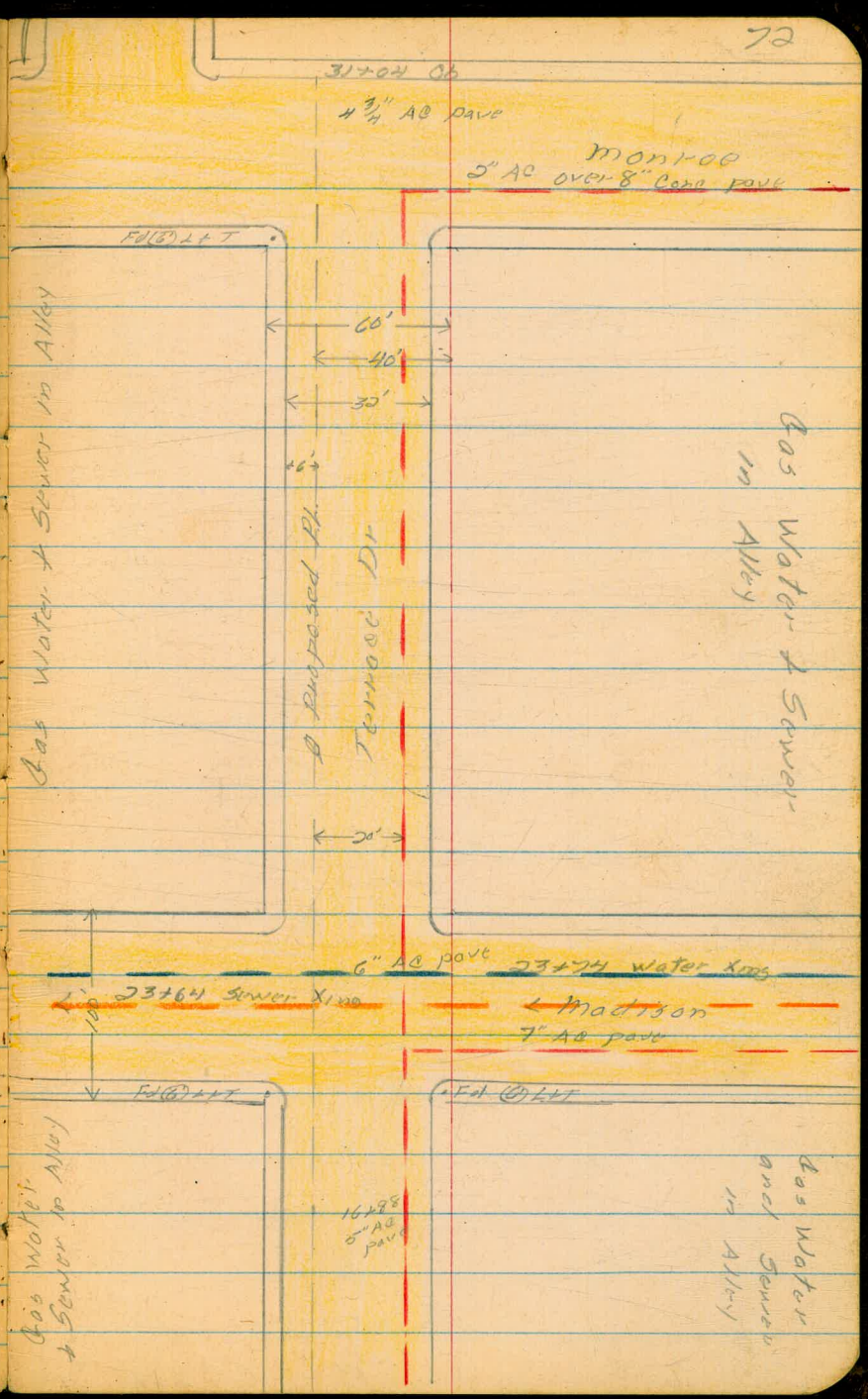
30+60 22

14' LT to (6) L+T



23+19 83

(6) North prop line Madison



31+04 03
4 3/4" AC pave

mont-00
5" AC over 8" corr pave

Fd(6) L+T

60'
40'
30'

Proposed Pl.
Terrace Dr

Gas Water + Sewer
in Alley

6" AC pave 33774 Water Line

3364 Sewer Line

Madison
7" AC pave

Fd(6) L+T

Fd(6) L+T

Gas Water
+ Sewer in Alley

16 x 8
5" AC
pave

Gas Water
and Sewer
in Alley

Profile Proposed Pl.
Jefferson Terrace Ct
and Terrace Dr

10-29-53
10-30-53
136

356.99
487
361.86
73
362.80
361.86
74

	5.61	362.60	356.99	
				357.8
0+00			4.81	+5.0 To Flow Line
+30			5.36	
+50			6.02	
1+00			5.45	
+50			5.33	
+80 ²⁰			5.19	
+90 ⁵⁰			5.04	+4.6 To Flow
2+00			5.15	
+08			5.60	
+50			3.82	
2+98 ⁴⁷ X			4.08	
	4.05	362.52	4.13	358.47
3+34 ²⁰ BC			4.52	
+50			4.63	
+75			4.81	
4+00			4.90	
+25			5.15	
+35 ¹¹ EC			5.60	
+50			4.92	
+46			5.34	+1.0 To Flow Line

BM SW A Jefferson + Kensington

East prop line Kensington
Top West River Sewer MH 10 ft

N River Sewer MH 50 ft

Butter North Side Jefferson

6" Top storm drain Grade 3° Lt

362.57

4+91 ¹² BC	4.93	357.6
5+00	4.98	357.5
+25	5.21	357.3
+50	5.56	357.0
+75	6.13	356.4
5+98 ⁰⁰ EC	6.56	356.0
6+13 ¹² Chord ^{2.28} 359.02	6.78	355.74
+28 ¹² EC	3.57	355.4
+60	4.46	354.6
+89	6.72	352.3
7+00	6.34	352.7
+15 ³⁵ A	6.59	352.4
+50	5.03	354.0
8+00	2.84	357.2
+50	1.16	357.9
8+57 ³⁵ A	1.09 +4.2	357.9
+80	1.02	358.0
9+00	1.11	357.91
6.61 364.58	1.05	357.97
+50	6.44	358.2

Be after line

Top West Rim Sewer MH 10' LT

990
525
+67

364.58

10+00	6.18	358.4
+50	5.97	358.6
11+00	5.68	358.9
+50	5.41	359.2
+50	5.25	359.5
12+00	5.10	359.5
+50	5.04	359.5
13+00	6.22	358.4
+50	7.64	356.9
14+00	9.02	355.6
+50	10.32	354.20
15+00	3.33	354.0
+25	4.17	353.1
+50	4.11	353.20
+50	5.0	352.3
16+00	7.21	350.1
+50	9.60	347.7
+50	11.18	345.58
17+00	11.18	345.4

Top of rim Sewer MH 29' RI

± Adains
J+T S-W on Terrace Dr.

356.56

17+14	11.51	+ 1.3	To Flow
+14	12.60	+ 3.2	To Flow
+50	10.81		345.7
18+00	9.27		347.3
+50	7.87		348.7
19+00	5.87		350.7
+50	4.12		352.4
20+00	2.29		354.3
+50	126736876	0.47	356.09
21+00	10.96		357.8
+50	9.23		359.4
22+00	7.45		361.3
+50	6.16		362.6
23+00	5.21		363.5
+	1.31	367.45 =	367.46
+50	4.12		364.6
24+00	3.81		364.95
+50	2.70		366.1
25+00	1.46		367.3

Top Storm Drain Grate 5' Lt

" " " " 23' Lt

Page 8

1 + T 10 Alley West Sec FA 878

	368.76		
25+00	6.20	373.90	1.11 367.65
25+50		6.06	367.8
26+00		5.75	368.1
+50		5.39	368.5
27+00		5.11	368.8
+50		5.01	368.9
28+00		4.86	369.0
+50		4.76	369.1
29+00		4.59	369.3
+50		4.40	369.5
30+00		4.30	369.5
+50		4.19	369.7
31+00		3.91	370.0
+04		4.10	369.8
+04 ²		3.72	
	2.37	370.24	6.03 367.87
		2.76	367.48 = 367.90

Cutter South side mine

Top of (C) 1 1/2

4 Lead rods

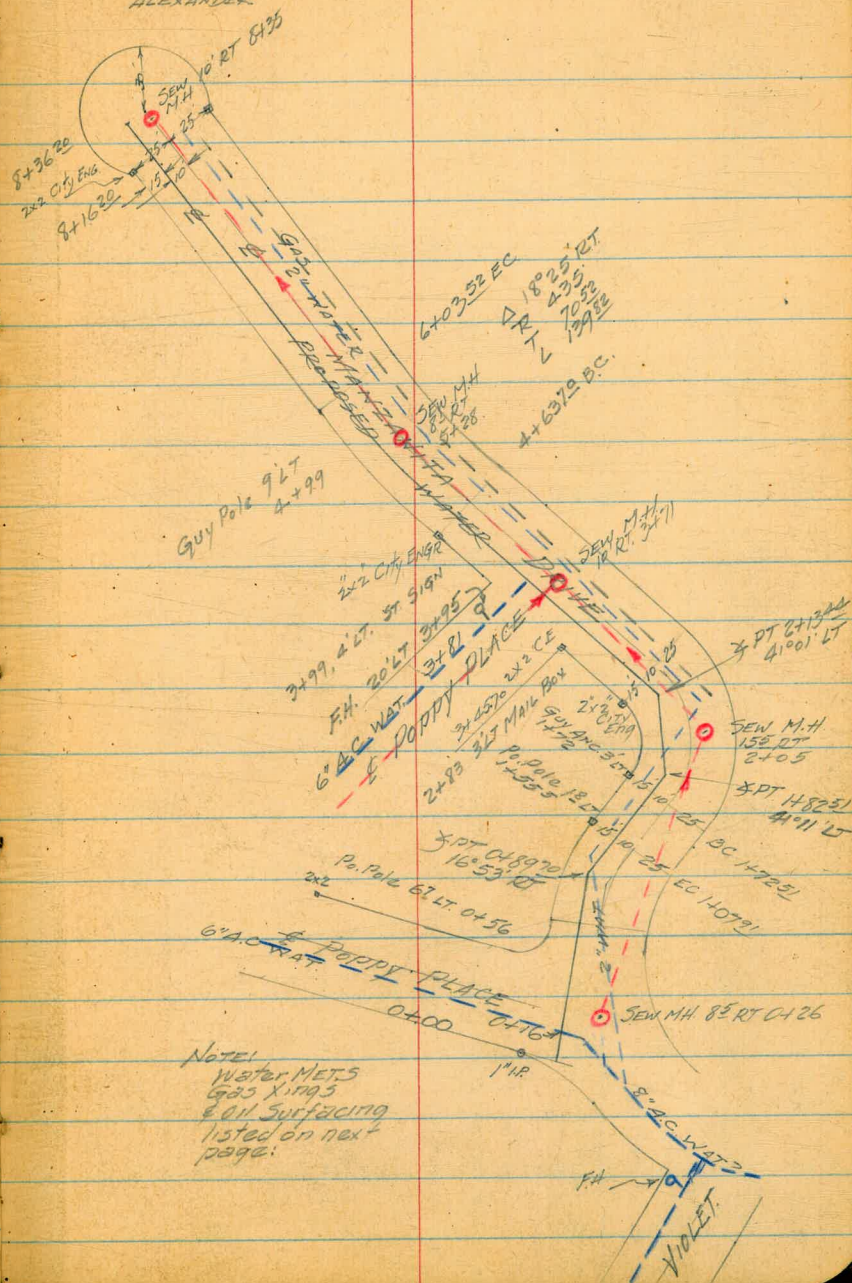
MANZANITA DRIVE
POPPY PLACE TO WESTERLY TERMINUS
PROPOSED 6" WATER

TBM				TOP. F.H. VIOLET & POPLAR
0+00	4.76	291.16	286.40	
0+08			7.0	284.2
0+12	Edge oil Surfacing		7.4	283.8
		Rim 6.63		284.53
		Inv. 11.73		279.43
0+50			6.9	284.3
0+85			6.9	284.3
0+89.70 P.I.			6.7	284.5
0+93			6.8	284.4
0+97			6.5	284.7
1+00			6.5	284.7
1+50			6.1	285.1
1+ Nail in Pole	2.61	286.13	7.64	283.52 = 283.52
1+70	Edge oil Surf.		1.3	284.8
1+82.5' X PT.			1.6	284.5
2+00			2.0	284.1
		Rim 1.58		284.55
		Inv. 8.67		277.46
2+13.44 X PT.			2.4	283.7
2+20	Edge oil Surf.		2.7	283.4
2+27			2.5	283.6
2+50			3.1	286.0
3+00			5.2	280.9

MAR. 12, 1952

BEATTY
SHARPEY
MAETELL
ALEXANDER

78.



MANZANITA DRIVE
(Cont'd.)

3/12/54

79

	286.13			
3+456 ¹	NE prop in Poppy Place	7.0	279.1	
3+50	Edge oil Surf.	7.7	278.4	} SEW MH 10' RT 3+71
	Rim	8.50	277.63	
	Inv.	17.10	269.03	
	POPPY PLACE			
3+90	Edge oil Surf.	9.9	276.2	
4+00		10.2	275.9	
4+30		11.9	274.2	
4+50		12.6	273.5	
4+63 ⁷² D.C.		13.3	272.8	
IP	0.00	272.84	13.29	272.84
5+00		1.7	271.1	} SEW MH 8' RT 5+28
	Rim	2.50	270.30	
	Inv.	11.95	260.89	
5+50		3.8	269.0	
6+00		5.6	267.2	
6+03 ⁵² E.C.		5.8	267.0	
6+50		8.0	264.8	
7+00		12.9	259.9	
IP Nail in Pole	0.06	261.13	11.77	261.07 = 261.05
7+50		5.8	255.3	
8+00		10.2	250.9	
8+16 ²⁰		10.9	250.2	
8+36 ²⁰		11.3	249.8	

(see next page)

WAT. MET	GAS CROSSING	1/4" - 1/2" OIL SURFACING
		0+12 on E
		0+50 2' LT
	0+88	1+00 1 1/2' LT
		1+50 0 1/2' LT
0+50 RT		1+70 on E
1+90 RT		1+82 3' LT
		2+00 1' LT
2+69 RT	2+68	2+13 2 1/2' LT
2+76 LT		2+20 on E
3+09 RT		2+50 2 1/2' RT
3+47 RT		3+00 2 1/2' RT
3+90 RT		3+45 2' RT
4+90 RT		3+50 on E
5+73 LT	5+69	3+90 on E
6+05 RT		4+00 0 1/2' RT
6+68 RT		4+50 on E
7+15 RT	7+74	4+63 0 1/2' RT
7+50 RT		5+50 1' RT
7+74 LT		6+00 on E
8+18 WAT. XING MET		6+50 0 1/2' RT
8+36 3 1/2' RT	8+18	7+00 1 1/2' RT
8+52 1' LT		7+50 2' RT
		8+16 ²⁰ 1' LT
		8+36 5' LT

MANZANITA DRIVE
(Cont.d.)

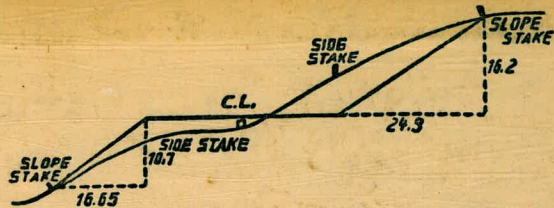
3+456		261.13	rim. 11.48	249.65	} SEW. MH RT 8+35
			Inv. 17.3	243.83	
3+50	CK IP NAIL IN POLE		0.06	261.07 = 261.05	
3+90					
4+00					
4+30					
4+50					
4+63 ⁷⁴					
IP					
5+00					
5+50					
6+00					
6+03 ⁵³					
6+50					
7+00					
IP	NAIL IN				
7+50					
8+00					
8+16 ²⁰					
8+36 ²⁴					

32

81
24
57

BP in Conc Man

inside P.L. at SW Cor
Voltaire & Mendocino
79.01



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.
SLOPE 1 1/2 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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