

W 802

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

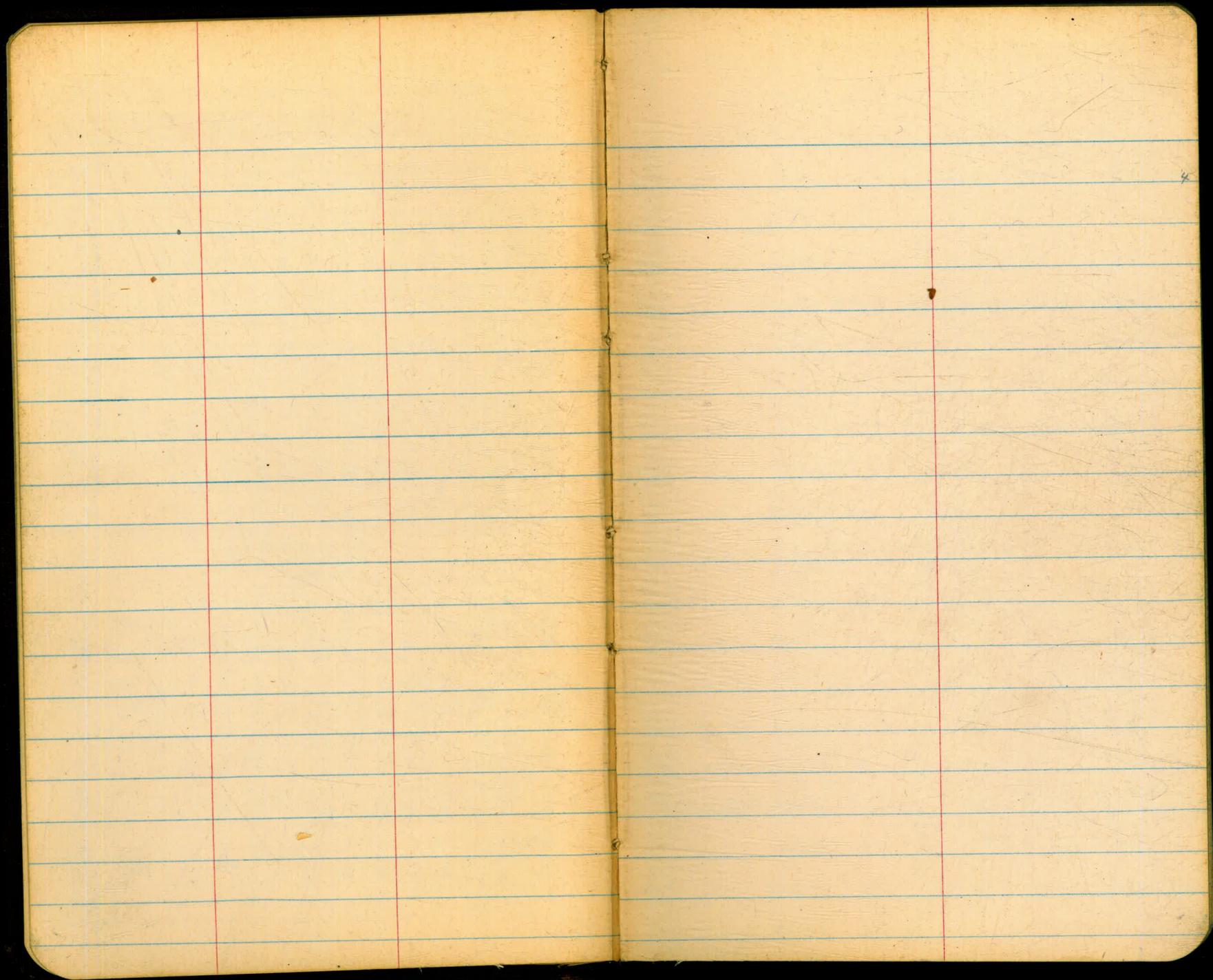
Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.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	.89	.99	1.09	1.20	1.31	1.42	1.54
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	.266	.353	.440	.528	.617	.707	.797	.877	.977	1.07	1.18	1.29
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

INDEX

- 6' offset grade stakes Bonita Pipeline ^{MPV} 1-6-34
- Meter Boxes - Vancouver St - Maple St. ^{alice} ✓ 36
- Profile ground - 2nd - 4th Ave Bonita P.L. ✓ 37
- Shrubbery " " " " " " ✓ 39-39
- JANACHA ROAD GRADES SET @ " ✓ 40-43
- MEL ROSE PLACE 6" MAIN STAKED ✓ 44
- MANZANITA DRIVE 6" MAIN STAKED ✓ 45-48
- Arbora Vista 8" MAIN STAKED ✓ 49
- 42nd ST 6" MAIN STAKED ✓ 50
- ROSWELL ST. 6" MAIN STAKED ✓ 51-52
- MANZANITA & GLENFIELD STS WATER METERS ✓ 53
- GLENFIELD ST. 6" MAIN STAKED " ✓ 54
- SANTA FE & PALMA F.H. STAKED ✓ 55
- CRESTON DRIVE 6" MAIN STAKED ✓ 56
- " & SELMA " " " " ✓ 57 & 58
- HEATHER ST. 8" MAIN STAKED " ✓ 59
- MANZANITA DR. WATER METERS ✓ 60
- MANZANITA DR 8" MAIN STAKED ✓ 61-62
- CRESTON DR & SELMA - WATER METERS ✓ 63-64
- MANZANITA DRIVE - HEATHER DRIVE WATER MET ✓ 65
- STAKES for curb replacement - Hilltop Drive ✓ 66-67
- Bonita Pl. Repla
- STR for 8" MAIN MANZANITA PLACE " ✓ 68
- MANZANITA DRIVE - WAT MET. S " ✓ 69
- ROSE AVE " " " " ^{alice} ✓ 70
- MANZANITA DR - STAKES for 8" MAIN " ✓ 71-72
- Heather & MANZ. PLACE " ✓ 72
- WATER MET. " ✓ 72
- TURROSE ST 8" WAT MAIN " ✓ 73
- 63rd BROADWAY to Aiken WAT MET. " ✓ 74-75
- HANOVER ST. 6" WAT. MAIN " ✓ 76
- 68, 69, 70, Saranac, etc. Relocation FH ✓ 77
- EL TOP 6" CI. MAIN 63rd ST. North of MONTUZUMA " ✓ 78



SEPT. 20 1950
BEATTY T N
LEONARD &

BONITA PIPELINE

6' OFFSET GRADE STAKES (RIGHT)

STATION	+B.S	HI.	-F.S	Elev.	GRADE	CUT
BM	9.24	166.41		157.17		⑥
342+07.2			1.30	165.11	154.70	c70
+38.5			2.00	162.41	"	c92
+69.0			2.93	163.48	"	c88
343+00.18			3.76	162.65	"	c80
+31.15			4.31	162.07	"	c74
+62.23			5.03	161.38	152.39	c90
+93.31			5.68	160.73	152.13	c86
344+21.27			6.48	159.93	151.89	c80
+50.82			7.25	159.16	151.65	c75
+81.04			8.04	158.37	151.13	c70
345+12.11			9.09	157.32	150.60	c67
+43.25			9.74	156.67	150.07	c66
+74.25			10.28	156.13	149.54	c66
346+01.99			11.00	155.41	149.01	c64
+35.03			11.66	154.75	147.51	c70
+65.32			12.11	154.30	146.60	c71
+93.31			12.40	154.01	"	c74
HP	8.33	162.18	12.56	153.85		

pg 29 BK 789 c pipe at driveway 35' RT 346+30

NOTE:

Elev of NATURAL GROUND AT E
OF PIPE IS THE SAME AS
⑥ UNLESS OTHERWISE
Noted IN THIS COLUMN

SEPT. 21, 1950

NOTE:

10/2/50
} PIPE LENGTH 31.06

2 Shifted to Right,
Thru Section of
Orig. GUNNITED PIPE
as noted below:-

0.30 RT

on curb 15' LT 347+24

SEPT 25, 1950
 BEATTY
 LEONARD

3.

BONITA PIPELINE

6' OFFSET STAKES (RIGHT)

P	5.58	163.42	157.84	
352+65 ⁶⁴			4.00 159.42	152.21 C72
+95 ¹²			3.23 160.19	151.57 C86
353+20 ⁸⁹			3.22 160.20	150.93 C93
+53 ⁸⁹			4.10 159.32	150.31 C90
+83 ⁸³			5.75 157.67	149.67 C80
354+11 ⁹²			7.54 155.88	148.41 C75
+40 ⁴⁷			9.00 154.42	147.15 C73
+69 ³⁴			9.67 153.75	145.86 C79
+97 ⁵²			9.95 153.47	144.60 C89
355+25 ³⁷			10.03 153.39	C88
+56 ⁴¹			10.02 153.40	144.60 C88
+84 ³⁸			9.81 153.61	144.60 C88
			9.81 153.61	145.87 C77
356+15 ⁷⁴			8.67 154.75	145.00 C68
+46 ⁷¹			7.06 156.96	145.00 C68
			7.06 156.96	150.12 C62
+77 ⁶³			5.03 158.40	152.23 C62
HP Rock			2.32 161.10	154.35 C68
357+08 ⁶⁶			0.69 162.73	
HP Rock	12.73	175.66	0.69 162.73	
+38 ³⁰			11.92 163.74	156.37 C74

BP SW Cor Morrison
 END OF GUNNITED PIPE 352+48

Shifted

(352+52) * 10.0 4.0 0.6 RT
 3.5 5.0

0.3 RT

0.0

9/25/50
 Betty
 Lechner

+

BONITA PIPELINE

SEPT 27, 1950

6' OFFSET GRADE STAKES (RIGHT)

357+68 ²²	175.66	9.55	166.11	158.46	C77
+97.17		7.82	167.84	160.38	C75
358+26 ⁸⁷		5.89	169.77	162.09	C72
+57.91		4.27	171.39	163.32	C81
+88.97		2.81	172.85	164.57	C83
359+20 ⁰⁹		1.26	174.40	165.82	C86
W rock 9.14	184.69	0.11	175.55		
+51.19		8.74	175.95	167.07	C89
+82.25		7.38	177.31	168.32	C90
360+13 ³²		6.31	178.38	169.57	C88
+44.44		5.42	179.27	170.81	C85
+75.40		5.12	179.57	171.42	C92
361+06 ²³		4.54	180.15	"	C87
+37.39		3.76	180.93	171.42	C95
+68.51		3.14	181.55	"	C96
CR BM 6.16	186.53	4.32	180.37 = 180.36	"	C102
361+99 ⁹³		4.86	181.67	"	C103
CR BM 5.06	181.47	5.06	181.47	181.16	
362+30 ⁹⁵		5.38	181.15	171.42	C93
+62.02		6.04	180.49	"	C91
+93.27		6.79	179.74	"	C89

65.9	61.6	61.2	60.7	61.5	66.0
7.8	14.1	14.5	15.0	14.2	9.7
4.0	3.5	3.5	3	4.2	2.5
67.9	62.5	62.1	61.3	62.4	67.7
7.8	13.2	13.6	14.4	13.2	8.0
4	3.5	3	2	3.2	4.0
69.4	65.7	64.6		63.7	69.6
6.3	16.0	14.1		12.0	12.1
5	2	3		3	5
	71.3	68.3		69.1	71.4
	4.4	7.4		6.6	8.3
	5	3.2		2	5
	72.8	70.4		69.2	72.9
	2.9	3.2		6.5	2.8
	5.0	3.5		3	4.5
	73.9	69.2		72.4	74.2
	4.8	6.5		4.8	1.5
73.6	72.4	67.9		71.7	75.8
4.1	13.3	14.8		13.0	8.9
4.2	2.9	2.9		3	3.8
	77.0	70.6		69.7	74.0
	2.7	1.1		15.0	10.7
	4.6	3.0		3.3	3.3
78.2	76.5	72.5		76.8	77.1
6.5	14.1	15.1		15.0	10.7
4.9	3.3	3.3		3.3	3.3
		19			4.2
					76.8
					78.3
					7.9
					6.4
					5.0

357+65=00

360+18=00

OD SW Cor. do " pp. 31 BR 789
 1 1/2" I.P. Inter. hole & Mill Top.

SEPT 26, 1950

BEATTY
LEONARD

BONITA PIPELINE

6' OFFSET GRADE STAKES (RIGHT)

BM	2.28	182.64	180.36	BP SW Cor 40 th
362 + 2432			3.90 178.74 170.48	C83
+54.60			5.03 177.61 169.56	C84
+85.65			6.58 176.06 168.62	C74
364 + 1674			7.72 174.92 167.68	C72
+47.81			8.86 173.78 166.03	C78
+78.22			9.85 172.79 164.27	C85
365 + 0985			10.56 172.08 163.10	C90
+41.21			11.35 171.29 162.74	C86
+72.23			12.21 170.43 162.38	C91
366 + 0329			13.26 169.28 162.02	C73
Rock	8.43	177.76	13.31 169.33	
+34.49			9.96 167.80 161.08	C67
+65.52			11.31 166.45 161.14	C53
+96.74			12.74 165.02 159.20	C58
367 + 2421			13.42 164.34 158.40	C59
+49.12			13.21 164.45 " "	C61
+77.07			12.07 165.69 " "	C73
+81.32			11.98 165.78 158.40	C74

1208
4913
1296

9-26-50

BONITA PIPELINE

6' OFFSET GRADE STAKES (RT)
177.76

368+12 ⁰⁸		10.09	167.67	158.40	C93
+42 ⁵⁵		8.13	169.63	158.40	C112.0
+68 ⁴⁵		6.33	171.43	160.50	C109
+97 ⁶⁹		4.24	173.52	162.70	C108
369+27 ⁶⁰		2.61	175.15	164.93	C103
+57 ⁵²		1.50	176.26	167.2	C94
+87 ⁹⁵		0.68	177.08	"	C99
370+19 ⁰⁵		0.47	177.29	"	C105
+50 ¹⁶		0.84	176.92	"	C97
+80 ³⁸		1.58	176.18	"	C90
371+11 ³¹		2.53	175.23	167.20	C80
+42 ¹⁸		5.66	172.10	165.24	C69
TBM	3.39	176.99	4.22	173.54 = 173.60	
+55 ⁶²		6.68	170.31	163.62	C63
371+87 ²¹		10.82	166.17	159.68	C65
OK TBM	3.39	173.60	173.60		

10⁰⁰ 31' RT
TAN - 0.55

55.40	50.20
50.20	42.18
5.22	8.02
5.5	1.55
4.87	7.47
32.29	
37.16	

NAIL IN POW. POLE

10/4/50

BEATTY
LEONARD
BAKER

7.

BONITA PIPELINE
6' OFFSET GRADE STAKES (LEFT)

TBM	3.19	173.40	170.22	
TP	2.40	169.34	4.46	166.94
342+07 ²			4.27	165.07 154.70 C10 ⁺
342+00 ⁰³			4.19	165.15 154.70 C10 ⁺ ✓
341+76 ⁹³			4.36	164.98 156.53 C8 ⁵
+45 ⁹⁴			3.98	165.36 157.40 C8 ²
341+14 ⁶⁹			4.02	165.32 157.56 C7 ⁸
340+83 ⁶³			4.33	165.01 157.72 C7 ³
+52 ⁵¹			4.31	165.3 157.88 C7 ²
340+21 ³⁹			4.45	164.89 158.04 C6 ⁹
339+90 ²⁸			4.40	164.94 158.2 C6 ⁷
+59 ²³			3.93	165.41 158.36 C7 ¹
339+28 ¹⁷			2.80	166.54 159.05 C7 ⁵
338+97 ⁰⁷			1.64	167.70 160.14 C7 ⁶
+65 ⁹⁴			0.56	168.78 161.23 C7 ⁶
TP	6.35	175.13	0.56	168.78
+34 ⁸¹			5.34	169.79 162.32 C7 ⁵
338+03 ⁷⁶			4.72	170.41 163.41 C7 ⁰
337+72 ⁶³			3.47	171.66 164.42 C7 ²

OCT. 5 1950

BONITA PIPELINE
6' offset GRADES (LEFT.)

337+41.59		2.31	172.82	164.81	C80	
337+11.40		1.88	173.25	165.00	C83	
336+80.28		2.26	172.87	165.00	C79	
+50.46		2.82	172.31	165.00	C73	
336+20.55		3.98	171.15	163.84	C73	
335+90.68	0.89	170.34	5.68	169.45	162.28	C72
+60.80		2.53	167.81	160.72	C71	
+30.92		4.29	166.05	159.16	C69	
335+01.04		5.87	164.47	157.60	C69	
334+71.14		6.99	163.35	156.53	C68	
+41.24		8.05	162.29	155.70	C66	
+11.33		8.41	161.93	155.33	C66	
333+81.50	4.00	165.79	8.55	161.79	155.15	C66
+57.58		4.08	161.71	154.97	C67	
+21.66		4.39	161.40	154.79	C66	
332+91.26		4.45	161.34	154.61	C67	
+61.82		4.61	161.18	154.43	C68	
+31.90		2.68	161.11	154.25	C69	
332+01.98		4.80	161.00	154.07	C69	

Oct. 6, 1950

9.

BONITA PIPELINE

6' OFFSET GRADES (LEFT.)

165.79

3	331+72.7		5.13	160.66	153.89	C68
3	+42.21		5.48	160.31	152.39	C79
3	+12.33		5.60	160.19	150.90	C93
	330+92.33		6.02	159.77	150.90	C89
3	+77.25		6.07	159.72	150.9	C88
3	+47.25	8.29 168.11	5.97	159.82	150.9	C89
	330+17.34		8.11	160.00	+51.32	
	329+87.43		7.56	160.55	+51.74	
3	+57.52		6.67	161.44	+52.16	
3	+27.66		5.76	162.35	+54.06	
	329+04.82		4.91	162.20	+55.89	
	338+83					
3	+89.78		4.79	163.32	+57.22	
	+70		0.92	167.19	159.30	C79
	338+67.0		2.35	165.76	159.37	C64
3	+67.0	Bottom 28" pipe	8.85	159.26		
	CK TBM		4.45	163.66 = 163.66		

331+30.21 6" CI. SEWER Bot. PIPE El. 156.06

REV. GRADE

151.4	C86
152.2	C84
153.1	C83
155.5	C69
157.4	C58

Top 2" GAS El. 161.21
Top 6" TRANS WATER El. 158.53

158.7 C46

} on dirt pile

Boat NAIL Intersection 45th & Hilltop

OCTOBER 11, 1950

BEATTY
LEONARD
BAKER

10.

BONITA PIPELINE REPLACEMENT

6' OFFSET GRADE STAKES (LEFT)

B.M.	9.71	168.76	159.05	
			5.84	162.92
331+79.00			4.35	164.41 160.54 C39
+59.74			4.00	164.76 160.6 C42
331+29.82			2.87	165.89 160.6 C53
330+99.90			2.68	166.08 160.6 C55
+69.90			3.06	165.70 160.08 C56
+40.09			3.47	165.29 159.12 C62
330+10.19			4.38	164.38 158.16 C62
329+80.29			5.09	163.67 157.2 C65
+50.38			5.08	163.68 156.71 C73
329+26.55			5.29	163.47 156.11 C74
328+96.63			5.84	162.92 155.81 C74
+60.71			7.61	161.15 155.51 C56
+30.29			7.33	161.43 155.21 C63
328+00.87			7.40	161.36 154.91 C63
327+70.25			7.54	161.22 154.61 C66
+41.03			8.00	160.76 154.31 C65
+11.11	1.89	162.34	8.31	160.45 154.01 C64
326+81.19			1.92	160.42 153.71 C67

TOP 28" PIPE. (160.55 Bot. pipe)

TOP 30" PIPE
AS LAMP

10/20/50

159.05	B.M.
7.63	
166.78	K.
8.51	8.37
158.22	
2.63	2.83
155.59	155.52

329+26 Top pipe (30")
328+30 Top pipe (30")

Revised Grade: 10/18/50 (After Excav. of Trench)
Due to Confliction of 6" TRANSITE WATER 328+26 Top Pipe 155.58
8" VIT SEWER 327+184 Top Pipe 153.64
1 1/2" GAS 328+26 " " 158.31

156.61	C71
156.41	C71
156.21	C62
156.01	C51
155.81	C56
155.51	C59
155.09	C61
154.57	C61
154.25	C62
153.83	C66

10/1/50

BONITA PIPELINE REPLACEMENT
6' OFFSET GRADE STAKES (LEFT)
162.94

326+51 ²⁷	1.84	160.50	153.41	C7L
+46 ⁶⁶	1.89	160.45	152.88	C76
+26 ⁹⁸	2.55	159.79	149.81	C100
+21 ⁸⁹	2.72	159.62	149.50	C102
326+01 ⁹⁷	3.77	158.57	"	C9L
325+72 ⁰⁵	3.76	158.58	"	C9L
+42 ¹³	4.03	158.31	"	C88
325+12 ²¹	4.40	157.94	"	C84
324+82 ²⁹	4.84	157.50	"	C82
+52 ³⁷	5.28	157.06	"	C76
324+22 ⁴⁵	5.76	156.58	"	C7L
323+92 ⁶²	6.21	156.13	"	C66
+62 ⁷⁰	6.71	155.63	149.50	C6L
+32 ⁷⁸	7.32	155.02	149.21	C58
323+02 ⁸⁷	8.10	154.24	148.43	C58
322+72 ⁹⁶	8.88	153.46	147.59	C52
+43 ⁰⁵	9.75	152.59	146.75	C58
322+13 ¹⁴	10.58	151.76	145.91	C59
321+83 ²³	11.27	151.07	145.07	C60

11.

326+15 END GUNITE SECTION OF ORIG. PIPE

↑
Meas. 10/20/50

325+336 BEGIN GUNITE SECTION OF ORIG. PIPE

10/11/50

12.

BONITA PIPELINE REPLACEMENT

6' OFFSET GRADE STAKES (LEFT)

162.34

321+53³²

1181 150.53 144.23 063

+23⁴¹

12.21 150.13 143.39 067

320+93⁵⁰

12.54 149.80 142.55 073

320+62⁰⁰

12.90 149.44 143.0 064

CK B.M.

3.28 159.06 = 159.05

10/11/50
10/13/50

BONITO PIPELINE

VALVE CHAMBER 367+74⁴⁰ - 367+83⁹⁹

TP 6.14 172.45 166.31
OK @ 367+81²² 6.63 172.41 663 165.82 = 165.78

⑤ NE Cor = 9⁶⁷ RT 367+74⁴⁰ 5.83 166.58 156.72 C¹⁰⁴

⑤ NW Cor = 9⁶⁷ RT 367+83⁹⁹ 5.02 167.39 156.0 C¹¹⁴

⑤ SW Cor = 9⁶⁷ LT 367+83⁹⁹ 6.96 165.45 155.70 C⁹²

⑤ SE Cor = 9⁶⁷ LT 367+74⁴⁰ 7.57 164.84 156.10 C⁸¹

TP 2.30 168.88 166.58

③ NE Cor 9⁶⁷ RT 367+74⁴⁰ 2.34 166.54 155.70 C¹⁰⁸

③ NW Cor 9⁶⁷ RT 367+83⁹⁹ 1.70 167.18 156.05 C¹¹¹

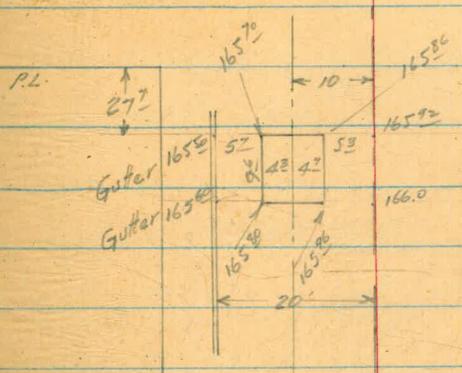
③ SW Cor 9⁶⁷ LT 367+83⁹⁹ 3.42 165.46 156.15 C⁹²

③ SE Cor 9⁶⁷ LT 367+74⁴⁰ 4.03 164.85 156.0 C⁸²

CK TP 2.60 166.28 = 166.31

Oct 23 1950
Booth
Leonard

39th



FIN GRD - Top of Box

BM. 5.73 172.26 166.53 city datum
367 SW Cor 39th

NE Cor 5.99 166.27 165.96 C³¹

NW Cor 5.35 166.91 165.86 C¹⁰⁵

SW Cor 7.06 165.20 165.70 F⁰⁵⁰

SE Cor 7.67 164.59 165.80 F²¹

OCTOBER 19 1950

14.

Bonita Pipeline.
6' offset GRADE STAKES

TBM	4.79	161.64	156.85	
233+00 ⁵³			6.05	155.59
232+70 ⁵³			5.76	155.88
+20 ⁶¹			5.10	156.54
232+10 ⁷⁵			3.35	158.29
231+80 ⁹⁰				159.36
+51 ⁹¹				163.49
TBM	12.07	168.92		156.85
231+21 ¹⁸			8.62	160.30
230+91 ²⁸			7.39	161.53
+61 ⁴⁴			5.00	163.92
+31 ⁵⁶			2.62	166.30
FD	13.22	182.10	0.04	168.88
230+01 ⁶⁵			14.10	168.00
229+81 ⁷⁴			13.35	168.75
+71 ⁸⁷			13.20	168.90
+42 ²⁸			11.10	171.00
229+12 ⁶³			8.65	173.45
228+82 ⁸⁹			7.80	174.30
+53 ⁹⁷			5.38	176.72
FD	12.55	191.30	0.35	181.75
OR BM			12.13	182.17

on curb 24' RT 233+03'

(R.P. CHG (X) 40' RT & PIPE & 80' RT & PIPE)

Top 8" CI WATER EL 150.40 STA. 232+81.5
Top 2 GAS EL 154.00 STA. 232+99

TBM 156.85
9.15
166.00

REVISED GRADE 10/26/50
DUE TO CONFLICTION WITH
8" WATER
EXCAVATION TO ORIG. GRADE
COMPLETED @ 233+23

STAKED 6" off RIGHT
STAKED 6" off LEFT

(59' RT)

FINE GRID & EXCAV TO 231+81
PREVIOUS TO GRADE CHANGE

155.9 °56

157.9 °62

158.6 °77

on curb

No change Replaced @ STK C93

158.45 °90³ (Replaced @ STK C93)

159.5 °94 Replaced Grade Stakes 10/27/50

11.22 171.00 °68

8.12 174.12 °76

6.17 176.05 °71

7.01 180.33 °77

GRADE CHANGE 10/31/50

171.70 °85

on FH

Top FH. NE Cor Orange & Santa Isabel

6.64
159.36
152.30
2.56

2.51
165.49
158.50
12.0

22.0
162.80
157.20
21.60

182.17 BM
182.24

10-20-50

Oct. 31 1950

15

Bonita Pipeline
6' Offset Grade Stakes

228 + 23 ⁵²		10.85	183.25	178.96	C75	
228 + 05 ⁸⁴		10.92	183.36	177.12	C72	
227 + 79 ⁴²		10.52	183.76	172.39	C64	
+49 ³⁰		6.81	187.49	180.01	C75	
227 + 19 ⁵¹			189.05	182.80	C63	
226 + 89 ²³			190.76	185.59	C52	
P + 59 ⁹³	13.13	207.28	0.15	192.15	188.38	C58
+30 ¹²			9.70	197.58	190.88	C67
+00 ³⁹			7.35	199.95	193.38	C66
225 + 70 ⁵⁸			5.55	201.73	195.88	C59
11)	7.00	211.27	3.01	204.37		
+40 ⁷³			6.67	204.60	197.89	C67
225 + 10 ⁹⁴			6.96	204.31	198.41	C59
224 + 91 ⁰²			6.91	204.76	198.94	C56
+61 ¹⁹			4.32	206.95	200.98	C62
+31 ³²			2.93	208.34	202.70	C56
+14 ⁰⁹			3.11	208.16	203.37	C48
SET TBM			118	210.09		
CK BM			102	210.25	-210.20	
224 + 07 ⁴¹				208.06	203.37	C47
223 + 99 ⁴⁹				208.06	203.60	C42

GRADE CHANGE 10/31/50

6.55	188.72	182.17
Top 8" CI. Waterline	10.10	178.62
STA 227+89		
Top Conc. Vault	5.44	183.28 (227+89)
Top Conc. Sewer	12.91	175.81 (228+125)
176.3	C72	176.8
177.6	C58	178.2
178.3	C55	179.10
180.3	C72	180.7
		183.0

GRADE CHANGE 10/31/50

NEW PIPE ON OFFSET LINE

Set 10/31/50

Nov. 1 1950
REV. GRADE

Nov. 2
REV. GRADE

195.3	C64	
196.8	C78	197.6
196.8	C75	198.1
196.8	C76	198.5
224+95	6" CI. Water. Top pipe	El 200.39
224+95	Top Conc. Vault	204.30
225+06	6" Conc. Sewer. Top 6" Conc. pipe	197.69
199.8	C72	
202.5	C58	

183.76
11.08
194.84

5.79 = 189.05

4.08 190.76

204.31
6.19
210.50
10.11
200.39

198.2
197.7
5

Top. Air Valve

Top. FH. Bonita De. & Santa Isabel

OCT. 23, 1950
BEATTY
LEONARD

16.

TBM	12.03	168.88	156.85
	8.59	175.77	1.69 167.18
233+20 ³⁸			163.75 +51.04 51.27
+30 ¹⁷			6.13 169.64 452.59 C171
+59 ⁶⁵			7.00 168.77 157.66 C111
+79 ²⁹			7.22 168.55 159.47 C91
+89 ⁰¹			7.12 168.63 159.60 C90
234+18 ⁹³			7.95 167.82 159.60 C82
CK TBM			6.42 169.35 = 169.33
+48 ⁸⁵			9.02 166.75 159.60 C72
+78 ⁶⁸			10.10 165.67 159.60 C61
235+08 ⁶⁰			10.15 165.62 159.80 C58
+38 ⁴⁹			8.86 166.91 160.99 C59
+68 ²⁹			6.96 169.81 163.60 C52
+98 ⁰³			5.87 169.90 164.23 C52
236+27 ⁹⁵			5.66 170.11 164.46 C52
+57 ⁸⁶			5.36 170.41 165.18 C53
+87 ⁷⁵			4.36 171.41 166.40 C50
237+17 ⁶⁴			3.24 172.59 167.62 C49
+27 ⁴⁶			1.55 174.22 167.86 C64

(29.14)

REV. GRADE 10/27/50

(on edge of bank)

151.90	C112
152.40	C162

154.85
6.9
169.75

Nail in Pole

REVISED GRADE Nov. 1, 1950

161.2	C57
164.0	C48
164.6	C53
164.7	C54

164.1

231+71.5 Top 6" C.I. WATER 163.60

10/23/50

17

81.80
29.90
11.71

175.77

237+77 ¹⁸		1.42	174.35	168.10	C63	
238+06 ⁸⁴		1.31	174.46	166.00	C85	
+36 ³⁴		2.22	173.55	161.74	C118	
^H +65 ⁸⁰	0.17	164.58	11.36	164.41	156.53	C79
+95 ²⁶		6.65	157.99	151.32	C66	
^H 239+24 ⁷²	0.90	152.59	12.89	151.69	146.11	C56
+54 ²⁵		5.49	147.10	141.35	C58	
+69 ¹¹		7.42	145.17	140.09	C51	
+84 ⁰³		9.30	143.29	140.00	C93	
240+12 ⁰³		13.60	138.99	140.00	F10	
^{29.91} +43 ⁹⁴		8.30	144.79	140.50	C98	
^{29.78} +73 ⁷²		2.01	150.58	143.34	C92	
^{29.54} 241+03 ²⁹	12.73	165.29	0.03	152.56		
+32 ⁹³		6.68	158.61	147.87	C107	
^{29.56} ^H +62 ⁴⁹	10.78	175.20	6.16	159.13		
^{29.22} +91 ⁷³		5.40	169.80	162.28	C95	
^{29.21} 242+20 ⁹⁴	12.71	187.60	0.31	174.89		
+50 ³⁶		11.68	175.92	168.76	C92	
		8.54	179.06	173.15	C59	

238+12 WATER
TRANS. SEWER EL. 170.50
TOP PIPE.

Top Carb. N. Side

10/23/50

18.

	29.65 29.25 29.25	187.60		6.90	180.70	175.22	C55
242+80 ⁰¹							
	29.81 29.05 29.76			5.39	182.21	176.26	C60
243+09.82							
+39.72	29.40 29.51 29.79			3.87	183.73	177.30	C64
+69.46				2.05	185.55	180.54	C50
HP 244+28.43							
+99.16	1.14	186.93	1.81	185.79	181.43		C47
				3.52	183.41	177.63	C58
244+28.43							
+49.99				7.78	179.15	174.15	C50
HP 244+28.43	0.43	174.03	13.33	173.60			
+76.49				2.21	171.82	162.92	C89
+85.86				4.42	169.59	159.66	C99
245+00.22							
				7.23	166.80	155.88	C99
+14.97				9.66	164.37	153.25	C112
HP 245+00.22	0.67	163.12	11.58	162.45			
+44.76				4.26	158.86	150.29	C86
+74.63				5.90	157.22	148.98	C82
246+04.55							
				5.70	157.42	148.87	C86
+34.47				5.85	157.27	148.76	C85
+64.30				6.40	156.72	148.65	C81
+94.22				7.33	155.79	148.54	C73
247+24.14							
+54.06				8.09	155.03	148.43	C66
				8.78	154.34	148.32	C60

(Cont'd pg 24 This Book)

Nov. 8, 1950
BETTY
LEONARD

CUT IN ERROR

(Check made 11/21/50
Because pipe substandard fit.)84
11 31
12.15

OCT. 23 1950
BEATTY
LEONARD

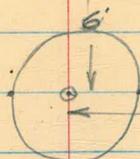
19

2" AV. 352+15 IN CHAMBER

24	BM.	5.77	163.37	157.60	
24		5.13	158.24	158.07	

CITY
DATUM
101.50
COR.
MORRISON
FO17

MORRISON



PIED STA. 352+15

10'

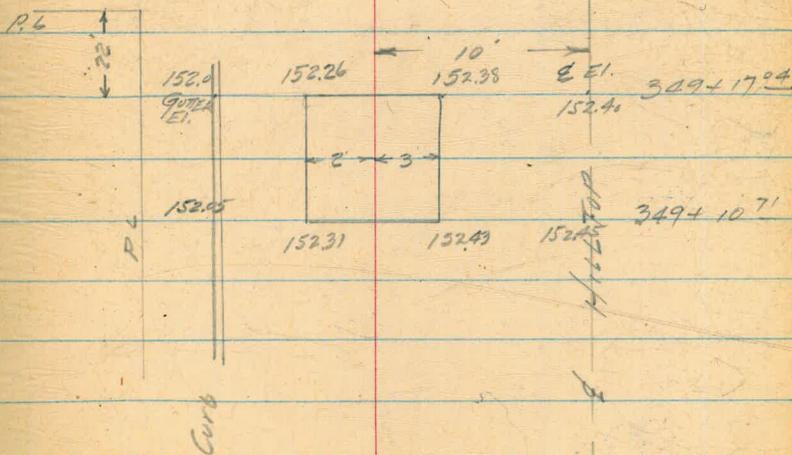
HILLTOP

LT.	RT
FIN GRD 158.10	FIN GRD 158.04
	FIN GRD 158.07

42nd

FIN. GRD. TOP 20" MANHOLE IN CHAMBER
349+10.71 - 349+17.04

24	BM.	10.10	163.04	152.94	
24	NE COR	10.08	152.96	152.43	C ²²
24	NW COR	9.51	152.53	152.38	C ¹⁵
24	SW COR	10.45	152.59	152.26	C ²²
24	SE COR	10.45	152.59	152.31	C ²³



OCT. 25, 1950

BEATTY
LEONARD

20

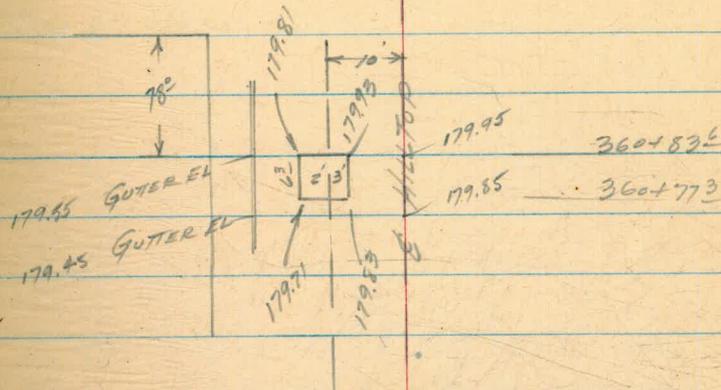
360+773 - 360+836

FIN GRD TOP. 20" MANHOLE IN CHAMBER

BM	5.66	185.74	180.08	BR SW COR 40 TH CITY DATUM
NE COR	6.50	179.24	179.83	F ⁵⁹
NW COR	6.32	179.42	179.93	F ⁵¹
SW COR	6.18	179.56	179.81	F ²⁵
SE COR	6.23	159.51	179.71	F ²⁰
Top of Chamber	11.30	174.99		
OK. BM.				

STA
36149.60

40th



10/24/50

21

STA 337+0520 to 337+1220 ✓
20" MANHOLE in Chamber

BM	5.60	175.82	170.22	
	7.60	168.22	172.40	F ₄₁₈ painted on top M.H. Cover
	2.70	173.12		

STA 355+333 to 355+395 ✓
20" MANHOLE in Chamber

BM	5.16	157.06	151.90	
	9.39	147.67	152.00	F ₄₂₃ painted on top M.H. Cover
	4.0	153.1		Average ground

151.90	BM
- 5.82	
157.72	N ₆
5.72	
152.00	

STA 355+333 = 215' W of E Prop line 41.5'

4" AVA in PIPE Chamber ✓
STA 331+0982

TP	5.95	171.84	165.89	⑥ 331+2952
	5.45	166.39	167.50	F ₁₁₁

CC TP	5.75	166.09	= 166.08	⑥ 330+999
-------	------	--------	----------	-----------

10/25/50

22

STA 370+68.50 To 370+74.80

FIN GRD Top 20" MH in Chamber

BM

12.37 178.90

166.53

BP SW
Cor 39th

8.57 170.33 174.50 F¹²

Painted on Top MH

2.80 176.10

Average ground

Oct 30 1950

27

Bonita Replacement

Elev of Conflicting Sewer lines

TP 7.00 164.25 156.85

230+72⁵ 7.16 157.09

230+56⁵ 3.80 160.45

230+53⁵ 6.87 152.38

Top 8" Con Sewer 164.25

Bottom 4" Sewer lateral 153.91

Top of Bell 8" Con SEWER 15 RT 163.92

TP 3.42 174.42 171.00

229+85 12.14 162.28

Top 8" Conc Sewer 12 RT

Nov. 6, 1950

BEATTY
LEONARD

24

BONITA PIPELINE REPLACEMENT

⑥ OFF SET GRADE STAKES

	163.12					
247+83 ⁹⁸		9.69	153.43	148.2	C52	
248+137 ⁶		11.05	152.07	146.10	C40	
+28 ⁴⁶		11.80	151.32	147.23	C41	
P +42 ⁰⁴	0.39	150.57	12.94	150.18	145.23	C50
+62 ⁵⁰		3.02	147.55	140.99	C66	
+92 ¹⁴		7.95	142.62	135.00	C76	
249+22 ¹⁴		8.56	142.01	135.00	C70	
CK TBM		6.80	143.77	143.77	on Conc Plat	
+25 ¹⁸		8.16	142.41	135.00	C74	
+51 ⁶⁰		3.16	147.41	139.50	C72	
P +80 ⁶¹	12.97	163.41	0.13	150.44		
+95 ¹¹		10.49	152.92	142.73	C62	
250+09 ⁷⁶		8.10	155.31	149.27	C68	
+29 ⁴⁸		6.48	156.93	150.67	C63	
+59 ⁴⁰		5.49	157.92	151.00	C69	
+89 ²⁹		4.31	159.10	151.00	C81	
P +251+18 ⁹⁷	11.69	174.90	2.76	160.65	153.33	C73
+48 ⁶⁹		0.20	163.21			
+60 ⁵¹		10.68	164.22	156.29	C74	
		7.26	167.64	157.91	C97	
		6.90	168.00	158.05	C100	

Nov 6 1950

25

BONITA PIPELINE REPLACE MT

251+90.43	174.90	5.93	168.97	158.50	C105
252+20.25		5.44	169.46	158.95	C105
+50.27		5.00	169.90	159.40	C105
+80.10		6.16	168.74	159.85	C99
CK 71)	9.87	4.64	170.26 = 170.26		
253+10.01		11.60	168.53	160.57	C79
+39.88		8.95	171.18	162.28	C89
+69.75		4.06	176.07	163.99	C121
71)	12.41	0.84	179.29		
+99.62		9.52	182.18	165.70	C165
SET 71) on 406		3.68	188.02		
254+19.37			168.30		
+38.23			172.08		
+58.53			174.25		
+78.24			172.94		
255+02.06			182.10		
+21.91			183.92		
+51.63			184.31		
+81.43			184.70		
256+11.33			182.70		
+41.23			182.70		

Nail in Cathodic Sta. Pole

Nov. 10, 1950

182.18	
12.51	
174.07	174.07
5.70	179.77
193.59	23
6.31	91.9
95.90	732
35	18.7
94.6	
821	79.7
125	
94.6	99.9
843	7
	92.9
	84.6

Nov. 10, 1950

BM	1.52	226.92	225.40		
205+10 ⁵⁰			1.79	225.13	218.4 ⁶⁷ ✓
204+96 ²⁵			2.76	224.16	217.9 ⁷¹ ✓
+66 ⁵⁴			7.68	219.24	212.74 ⁶⁵ ✓
+56 ⁶⁵			9.22	217.70	211.30 ⁶⁴ ✓
+52 ⁴⁵			9.84	217.08	210.68 ⁶⁴ ✓
IP + 37 ²⁸	0.92	215.24	12.50	214.42	208.54 ⁵⁹ ✓
TD	0.92	215.34	12.50	214.42	

BR. Tag on East Row line of Division St.

11/10/50

27

215.34

204+08 ²⁴		5.70	209.64	203.09	C66	✓
203+78 ⁹³		11.78	203.56	197.68	C59	✓
IP	0.80	203.13	13.01	202.33		
+49 ⁹⁷		5.58	197.55	191.0	C66	✓
+21 ⁴⁴		11.14	191.99	181.99	C90	✓
202+98 ⁰		13.61	189.52	181.9	C76	✓
+88 ²⁰		12.48	190.65	183.39	C73	✓
+58 ⁶²		7.65	195.48	187.88	C76	✓
+29 ⁰⁴		2.60	200.53	192.37	C82	✓
IP	6.64	209.66	0.11	203.02		
201+99 ⁴²		5.79	203.87	196.08	C78	✓
+79 ⁷²		3.70	205.96	197.0	C92	
+49 ⁹⁹		3.99	205.67	197.0	C82	
+20 ⁰⁸		4.08	204.86	197.0	C79	
200+90 ¹⁶		6.08	203.58	197.0	C66	
+60 ²⁵		8.81	200.85	197.0	C39	
+30 ³³		11.54	198.12	197.0	C12	
+00 ⁴¹		9.56	200.10	197.0	C31	
199+70 ⁵⁰		3.97	205.69	197.0	C82	

CHECK MADE ON PIPE
AS LAYED

11/29/50

Top Pipe 185.01
Bot " 182.16 0.19 highTop Pipe 185.20
Bot " 182.37 0.47 highTop Pipe 186.14
Bot " 183.31 0.05 lowTop Pipe 190.51
Bot " 187.68 0.2 low

VOID

11/10/50

28

	209.66				
199+60 ²⁶		1.80	207.86	198.53	C93
IP	11.59	220.07	0.18	208.48	
+30 ⁹³		6.35	213.72	203.94	C93
+01 ³⁷		3.17	216.90	207.12	C93
198+71 ⁷⁸		0.50	219.57	209.14	C94
IP		2.44	217.63		
	4.87	208.74	203.87		
201+79 ⁷²		3.28	205.46	197.0	C85
+49 ⁹⁹		2.80	205.94	197.0	C89
+20 ⁰⁸		3.74	205.40	197.0	C84
200+90 ¹⁶		4.52	204.22	197.0	C78
+60 ²⁵		6.69	202.05	197.0	C51
+30 ³³		9.71	199.03	197.0	C20
+00 ⁴¹		9.61	199.13	197.0	C21
199+70 ⁵⁰		5.04	203.70	197.0	C62
IP +60 ³⁶	13.44	219.15	3.03	205.71	198.53 C92
+30 ⁹³			7.31	211.84	203.94 C99
+01 ³⁷			2.78	216.37	207.12 C93
198+71 ⁷⁸			1.28	217.87	209.14 C82
IP			1.54	217.61	

VOID

3/4" Prop. Cor. C Road

Nov. 16, 1950
BETTY
WELKER3/4" Prop. Cor. 6'-LT 198+80⁸²

Nov. 17 1950
BEATRY
WELKER

29

1977	9.00	226.61	217.61		
198 + 4194		5.56	221.05	211.19	C99 ✓
+ 1213		5.05	221.56	211.99	C96 ✓
197 + 8230		5.35	221.26	212.80	C85 ✓
+ 5242		4.71	221.90	212.80	C91 ✓
+ 2268		4.80	221.81	212.80	C90 ✓
196 + 9266		4.55	222.06	212.80	C93 ✓
+ 6275		4.34	222.27	212.80	C95 ✓
+ 3223		4.95	221.66	212.80	C88 ✓
+ 0299		5.85	220.76	212.80	C80 ✓
195 + 7308		7.25	219.36 218.36	212.80	C56 ✓
+ 4316		8.81	217.80	212.80	C50 ✓
+ 1304		9.16	217.45	212.80	C46 ✓
194 + 8333		8.60	218.01	212.80	C52 ✓
+ 5341		7.43	219.18	212.80	C64 ✓
+ 2349		5.95	220.66	212.80	C79 ✓
193 + 9358		5.01	221.60	212.80	C88 ✓
+ 6366		5.05	221.56	212.80	C88 ✓

11/17/50
11/27/50

226.61

193+3374		5.47	221.14	212.80		
+0382		6.25	220.36	212.80		
CR TBM	3.39	219.21	10.79	215.82 = 215.82		
192+7397		0.00	219.21	212.80	C64	
+4412		1.63	217.58	212.04	C55	
+1425		3.56	215.65	210.26	C54	
191+8429		5.11	214.10	208.47	C56	
+5460		6.62	212.59	206.69	C59	
+2427		7.80	211.41	204.12	C73	
190+9501		10.24	208.97	201.30	C77	
19 +6522	0.00	205.97	13.24	205.97	198.49	C75
+3560		3.46	202.51	195.07	C74	
+0595		6.81	199.16	191.16	C80	
189+7631		10.86	195.11	187.25	C79	
19 +4667	0.08	192.89	13.16	192.81		
+1704		1.67	191.22	183.14	C81	
188+8740		5.82	187.07	179.03	C80	
19 +5767	0.01	179.93	10.17	182.72	174.92	C78
+2792			12.97	179.92		
			0.77	179.16	171.64	C75
			4.36	175.57	168.27	C72

NAIL IN GUY pole
SW Cor. of the ST.
11/27/50
BEATTY
WALKER

179.93

187+98¹⁹ 7.86 172.07 165.10 C70 ✓

W +68⁴⁶ 11.07 168.86 161.82 C70 ✓

0.29 167.37 12.85 167.08

+38⁷² 1.21 166.16 158.55 C70 ✓

+08⁷⁶ 3.72 163.65 156.39 C73 ✓

186+79¹² 6.75 160.62 154.22 C64 ✓

P +49²² 0.16 158.16 9.37 158.00 152.06 C52 ✓

+19⁴³ 2.26 155.90 150.2 C52

185+89⁵⁷ 4.32 153.80 148.34 C55

+59⁷¹ 6.28 151.88 146.48 C54

+29⁸⁵ 7.70 150.46 144.61 C59

184+99⁹⁷ 9.20 149.96 143.16 C58

+70⁰⁹ 10.61 147.55 141.71 C58

W +40²⁶ 11.86 146.20 140.26 C60 EAST

0.09 145.91 12.32 145.84 140.26 C56 WEST

+10⁴³ 1.29 144.62 138.32 C63 EAST

1.53 144.38 138.32 C61 WEST

183+80⁵⁸ 3.10 142.81 136.38 C64

+50⁷² 5.67 140.24 134.44 C58

+20⁸⁵ 7.74 138.17 132.82 C54

182+90⁷⁰ 9.18 136.73 131.19 C55

186+49²⁹
 72⁷⁰
 185+76⁵⁹

77¹⁸⁸
 76¹⁸⁹
 1¹⁸⁹

186+60
 186+50

Nov 29 1950

32

145.91

182+614		10.63	135.28	129.56	C57
+3121		11.80	134.11	128.38	C57
181+7142	2.56	12.72	133.19	127.30	C59
+4153		3.43	132.32	126.11	C62
+1130		4.47	131.28	124.93	C64
180+8128		4.98	130.77	124.51	C62
+5191		5.56	130.19	124.20	C60
+2211		5.81	129.94	124.20	C57
179+9246		6.04	129.71	123.49	C62
+6287		6.01	129.74	121.34	C84
+60		6.26	129.49	116.88	C123
+5306		6.32	129.43	116.50	C122
+2315 (16 long)		7.02	128.79	116.5	C122
CK BM 4.50	133.09	7.07	128.68	116.5	C122
+20		7.16	128.59 = 128.59		! Chis II on Conc Drain Ditch
+1619		4.44	128.65	116.5	122
178+9652		4.35	128.74	117.09	912
+950		3.97	129.12	120.16	C90
+8281		3.98	129.11	120.4	C87
CK BM		3.87	129.22	120.4	C88
		4.50	128.59		

2.46
16.19
18.27
3.75
25.40

GRADES SET FOR WATER METERS
59th ST.
KENWOOD TO BROOKLYN

AUG. 27 1951

BEATTY
LEONARD
SEAVELLO

34

BM	6.25	215.49		209.24		L&T 3'50 So line Kenwood on Merlin Dr.
6+38 W.			8.3	207.2	206.3	C09 ✓
6+21 E			8.0	207.5	206.9	C06 ✓
TP	11.01	221.61	4.89	210.60		
5+85 W			11.7	209.9	209.6	C03 ✓
5+73 E			11.3	210.3	210.1	C02 ✓
5+485 W			9.7	211.9	211.8	C01 ✓
5+375 E			9.0	212.6	212.5	C01 ✓
4+93 W			5.1	216.5	215.3	C12 ✓
4+74 E			4.2	217.4	216.6	C08 ✓
4+505 W			2.4	219.2	217.9	C13 ✓
4+30 E			1.2	220.4	219.3	C12 ✓
TP rock	13.20	234.80	0.01	221.60		
3+86 W			11.6	223.20	221.7	C15 ✓
3+74 E			10.8	224.0	223.0	C10 ✓
3+44 W			8.6	226.2	224.5	C17 ✓
3+417 E			8.4	226.4	225.1	C13
3+015 W			5.6	229.2	227.7	C15
2+74 E			2.9	231.9	231.4	C05
2+50 W			1.4	233.4	232.2	C13
TP	11.08	245.79	0.09	234.71		
2+25 E			9.5	236.3	234.8	C15
1+875 W			7.6	238.2	238.0	C02
1+86 E			5.2	240.6	238.7	C19
1+37 W			3.2	242.6	242.9	F03
1+35 E			1.5	244.3	243.3	C10
TP	11.24	255.80	1.23	244.56		
0+95 W			9.2	246.6	246.7	F01
0+42 W			4.8	251.0	252.0	F10
TP	1.26	246.82	10.24	245.56		0+00 = So Prop line Brooklyn Ave
TP	0.05	233.82	13.05	233.77		
TP	0.03	220.62	13.23	220.59		
CK BM			11.36	209.25 = 209.24		

Alvarado P. Plant
Check-along Proposed

35

~~5750 #~~

~~5.4~~

~~17'~~

~~5.2~~

~~6400 #~~

~~5.4~~

~~12'~~

~~5.1~~

~~6450 #~~

~~5.3~~

~~12'~~

~~4.9~~

~~7700~~

~~5.7~~

~~12'~~

~~4.8~~

585
35
620

Meter Boxes
Vancouver - Maple St - So.

King
West
Thomas

1-5-50

26

T.B.M.	0.52	285.35			284.83	S.E. curb return
T.P.	7.79	274.85	12.29	273.06		
5+85			3.0	271.9	269.5	0 2 4
5+35			4.2	270.7	269.1	0 1 6
4+91			4.8	270.1	268.9	0 1 2
4+38			5.3	269.6	268.6	0 1 0
4+11			5.6	269.3	268.4	0 0 2
3+62			4.7	270.2	268.2	0 2 0
2+83			3.2	271.7	267.9	0 3 6
2+14			3.1	271.8	267.6	0 4 2
1+78			3.6	271.3	267.4	0 3 8
1+58			3.8	270.1	267.3	0 3 2
1+34			4.1	270.8	267.2	0 3 6

7.96 266.89

Bonita Pk.

Profile Ground Line
2nd Ave - 4th Ave
192+38 - 199King
West
Williams

5-15-57

27

B.M.	9.28	225.08		215.80
P.O.T. 192+38.23			7.6	217.5
192+50			7.0	218.1
193+00			4.9	220.2
193+50			3.6	221.5
194+00			3.4	221.7
194+50			5.3	219.8
195+00			6.7	218.4
195+50			6.2	218.9
196+00			4.0	221.1
196+50			2.4	222.7
197+00			2.8	222.3
197+50			3.1	222.0
198+00			3.7	221.4
198+50			4.9	220.2
199+00			7.7	217.4
check			7.0	218.08 218.10

18.1

Top of par 198+50

9" Acacia	9.2	197+75
7" Acacia	9.6	197+67
12" Acacia	9.3	197+59
6" acacia	9'	197+50
8" acacia	9.3	197+34
8" Acacia	9'	197+26
Geraniums	9'	197+15
Holly-overhang	5'	197+08
Holly-foot trunk	12.8	197+08
Small cactus	8.8	197+04

dm	10'	196+50
----	-----	--------

φ	10.7	196+41
---	------	--------

Acacia. (4')	16.3	196+30
--------------	------	--------

3 acacia d. 2 dm	12.6	196+24
------------------	------	--------

196+24

7" Peppertree 12.3 198+39

7" Acacia 86 198+20

gladiola. 85 198+17

12" Acacia 87 198+10

8" Acacia 87 197+97
/

JAMACHA ROAD.

GRADES SET
ON ~~8~~ OFFSET 2.
⑥ LT

JUNE 25, 1951.

BEATTY
WEST
WILLIAMS

10

			ELEV	GRADE	CUT
IP	6.93	274.86	267.93		on Sew MH Run 44+25
45+90		4.6	270.3	266.0	C43
+50		4.1	270.8	265.5	C53
+45	X PT	4.1	270.8	265.4	C54
45+00		4.9	270.0	265.00	C50
+50		5.7	269.2	264.8	C44
44+00		5.0	269.9	264.5	C54
+50		5.9	269.0	264.3	C47
43+00		6.2	268.7	264.1	C46
+50		5.4	269.5	263.8	C57
42+00		5.7	269.2	263.6	C56
+55		5.6	269.3	263.4	C59
41+00		5.0	269.9	263.15	C68
+50		4.9	270.0	262.9	C71
40+00		4.7	270.2	262.70	C75
IP	1.10	271.14	4.82	270.04	Prop Car 39+65± 7'6"
+50		2.1	269.0	262.468	C65
39+00		2.8	268.3	262.23	C61
+50		3.5	267.6	262.4	C56

NOTE: - X PT Moved To
45+00 & 8'
SHIFTED 2.0 FT
NORTHERLY

45+31 (S) F.H

EL 270.2 C67 C65
Curb 269.5 C60 C58
gnd

40+44 (S) F.H.

270.95 EL.
267.90
C 3.05 C66

JUNE 27, 1951

JAMACHA Road
GRADES SET
(6)

6/27/51

41

			ELEV.	GRADE	CUT
38+00	271.14	3.8	267.3	261.14	C6 [±]
+50		4.7	266.4	260.28	C6 ⁻
37+00		6.9	264.2	259.42	C4.8
+50		7.9	263.2	258.56	C4.6
36+00		8.0	263.1	257.70	C5.4
+50		9.6	261.5	256.85	C4.6
35+00		10.0	261.1	256.00	C5.1
35+00	(5) F.H.	8.0	263.1	260.20 260.70	C2.4 C5.9 C1.9 C5.4
+79 ⁸	12' x 6" Cross	10.3	260.8		
+50	3.47	263.77	10.84	260.30	255.13 C5.2
+40	12' G.V.	3.3	260.50		
34+00		4.1	259.7	254.27	C5.4
+50		4.9	258.9	253.40	C5.4 C5.5
CK TP	2.55	262.24	3.94	259.83 = 259.79	Not/Rem Sew MH.
33+00		4.3	258.0	252.54	C5.5
+50		5.6	256.7	251.68	C5.0
+30	12' x 6" Cross				
32+00		6.0	256.3	250.83	C5.5
+50		6.8	255.5	249.96	C5.5
31+00		7.4	254.9	249.10	C5.8
+50		8.1	254.2	248.23	C6.0
30+00		9.7	252.6	247.37	C5.2

NOTE:-

STA 33+50 E shifted 2.0 FT
Northerly

6/29/51

JAMACHA ROAD
GRADES SET

(6)

6/29/51
BEATTY
WEST
WILLIAMS

42

		ELEV	GRADE
	262.34		
29+95	12" x 6" Cross		
+50	10.9	251.4	246.5
29+00	11.7	250.6	245.75
+50	13.2	248.9	244.0
TP Rock	3.52 252.61	13.25 249.09	
28+00	4.5	248.1	242.4
+86	(5) F.H.	3.8 248.8	247.4
+50	5.5	247.1	240.5
+46	12" x 6" Cross		
	7.58	245.03	
27+00	TOP 24 RCP 12" x 6" Sewer	6.7	245.9
CKP	12.75	249.86	= 249.93
P	4.20	249.23	245.03
27+27	Top 6" Sew @ MH. Bot. 12" Wat.	9.32	239.91
			239.20
26+50	5.0	244.2	239.4
26+00	5.5	243.7	239.2
+50	5.6	243.6	239.0
25+00	6.1	243.1	238.5
+50	6.4	242.8	238.0
24+00	6.7	242.5	237.4
+50	7.1	242.1	236.8

C49

C54

C49

C57

012 C46 C56

C63

C63

NOTE: -
27+00 E Shifted 2.50 FT
Northerly

Close

C48

C45

NOTE: -
26+00 used orig E
From here to & PT 22+

C46

C46

C48

C51

C53

July 1, 1951

42

JAMACHA ROAD

249.23

23+00

+65

+55

+50

⑤ F.H.
12" G.V.

8.1

241.1

236.2

C 42

240.3

9.2

240.0

235.6

C 44

CK 7

4.05

243.98

9.40

239.83

= 239.93

22+65

⑤ F.H.

3.1

240.9

240.0

C 09

~~240.3~~

~~C 06~~ C 48

MELROSE PLACE
6" MAIN - STAKED

JUNE 26 1951
BETTY
WEST
WILLIAMS

44

TP	5.56	247.78	242.22	362	244.16	Top Rd.	End of curb SW Cor MELROSE	7 25 6 38
0-18 ⁶	CONN TO MAIN AT TEE	5.4	242.4					556 448 108
0+00		4.4	242.4	243.2 239.2		C4 ²	So Prop Line ROSWELL	
+50		4.3	243.5	243.7 239.7		C3 ⁸		243.17 242.22
1+00		5.0	242.8	243.6 239.6		C3 ²		95.
+50		6.2	241.6	242.5 238.5		C3 ¹		
2+00		7.0	240.8	240.7 236.7		C4 ¹		
+50		8.7	239.1	238.9 234.9		C4 ³		
3+00		10.2	237.6	237.1 233.1		C4 ³		
+45	TOP SEW M.H	11.43	236.35					
+50		12.1	235.7	235.3 231.3		C4 ⁴		
TD Rock	5.71	241.10	12.39	235.39	233.5			
4+00			7.5	233.6	232.8	C4 ¹		
+12	2" B.O		8.0	233.10	233.0 229.0	C4 ¹		241.10 4.75 236.35

Water Meter's

3+69	West		237.2	235.1	C2 ¹	ROSWELL + MELROSE
3+05	West		239.3	236.9	C2 ⁴	MELROSE SE Prop Mon 243.37

STAKES SET FOR 6" MAIN
MANZANITA DRIVE
W.O. # 2-1052-5

JUNE 26 1951 6/29/51

BEATTY
WEST
WILLIAMS

45

BM.				GRADE	
	0.00	297.72		297.72	Top F.H. SE Cor Poplar & Columbine
TP	0.49	287.37	10.84	286.88	Top F.H. JW Cor Manzanita & Dahlia
0+00			3.0	284.4	284.1 2799 C45
+50			7.0	280.4	280.6 276.4 C40
1+00			7.5	279.9	279.1 274.9 C50
+50			5.9	281.5	279.4 275.2 C63 ✓
2+00			4.2	283.2	280.0 275.8 C74
+17 (BC)			4.0	283.4	280.2 276.0 C74
+25			3.5	283.9	280.7 276.7 C78
+50			4.2	283.2	280.5 276.3 C69
+75			3.5	283.9	280.3 276.6 C72
3+00			4.8	282.6	281.2 277.0 C56
TP (Rock)	10.47	293.04	4.80	282.57	281.9 277.7 C55
+25			9.8	283.2	277.2
+50			9.1	283.9	282.7 278.5 C54
+75	EC x PT		8.6	284.4	282.6 279.2 C50
	58° 32' RT / TAN TO CURVE		7.6	285.4	
4+00			7.9	285.1	284.2 280.0 C51 C54
+09	8"x6" Cross				
+50			5.4	287.6	285.5 281.3 C63
			4.3	288.7	286.3 282.1 C60
4+70.3	x PT (B.C)		4.1	288.9	282.7 282.7 C68
4+95.9			2.8	290.2	287.7 283.5 C62

Stakes Set For 6" Main
MANZANITA DRIVE

	293.04			288.8 284.6	
5+20?		1.9	291.1	289.5 285.3	C65
5+45?		0.8	292.2	289.8 290.7	C62
5+54.2 (5) FH		0.0	293.04	285.9	C63
5+70?		0.9	292.1	291.7	C62
TP 1 @ nail 7.29	299.47	0.86	292.18	286.5	C62
5+95?		6.1	293.4	291.6 287.6	C64
6+20?		5.5	294.0	291.8 287.8	C65
6+45? PRC		5.2	294.3	288.4	C61
+67		5.0	294.5	289.0	C52
+88		4.6	294.9	293.1 289.6	C52 ✓
7+06.9 (EC)		4.0	295.5	294.7 290.7	C67
+50		2.1	297.4	295.9 291.9	C60
8+00		1.6	297.9	296.3 292.3	C55
+50		1.7	297.8	295.8 291.8	C55
9+00		2.2	297.3	294.7 290.7	C60
+50		2.8	296.7	293.7 289.7	C51
10+00		4.7	294.8	292.3 289.3	
TP 1 @ nail 3.83	297.74	5.56	293.91	289.3	
+17? (BC of ST)				289.3	
10+38 X PT. (45° RT)		4.1	293.6	289.1	C45
+65		4.2	293.5	288.7	C48
+91.00 X PT (73° 26' LT) (E) 2.6		5.1	292.6	288.3	C43

⑤ FH C32 TO FLANGE

✓ 6x6" TEE 5+74.5 = 0+00 ARBOR VITEA

WHEEL 294.1 C03
10+15 ⑤ FH GRADE 2938 C38

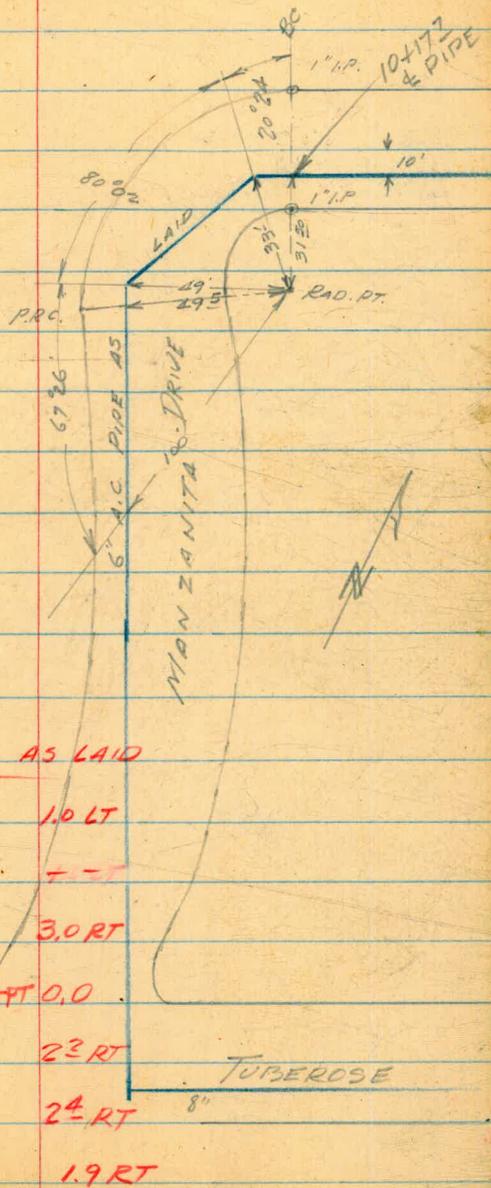
Stakes Set for 6" Main
MANZANITA DRIVE

JUNE 29, 51
Beatty
West
Williams

47

	297.74				
11+15.50 (B.C)	4.8	292.9	292.1 288.1	C48	
+35 +25	5.0	292.7	291.8 287.8	C49	
+60 +50	4.9	292.8	291.5 287.5	C53	
+85 +75	5.1	292.6	291.2 287.2	C54	
12+10 (F.C)	5.5	292.2	291.0 287.0	C52	
IP rock	3.98	292.89	288.91		
CK BM	6.41	286.48	= 286.38	✓	
12+00 (H. from pg. 29)	297.79				
12+00	6.2	291.6	290.5 286.5	C51	
+74.20 (2 15° 10' LT)	5.7	292.1	290.2 286.2	C59	
+82.2 TEE 90° RT (= 4+32 ARBORVITAE)	5.7	292.1	290.1 286.1	C60	
+87.2 45° 8"	5.8	292.0	290.0 286.0	C60	
13+21.3 B.C	6.2	291.6	289.6 285.4	C62	✓
+46.3	6.2	291.6	289.4 285.2	C64	
+71.3	6.4	291.4	289.0 284.8	C60	
+96.3	7.3	290.5	288.6 284.4	C61	
14+21.3 EC	7.8	290.0	288.1 283.9	C61	
14+41.76 B.C	7.7	290.1	288.5 284.3	C58	
+50	8.1	289.7	288.5 284.3	C54	

6" A.C. PIPE AS LAID



7/5/51

Stakes SET For 6" MAIN
MANZANITA DRIVE

		297.79				
14+75		8.5	289.3	288.5 284.3	C50	
15+00		8.6	289.2	288.7 284.5	C47	
+25		8.6	289.2	288.9 284.7	C45	
+50		8.7	289.1	289.1 284.9	C42	
HP 10 NAIL	5.95	295.05	8.69	289.10		
+75			5.4	289.7	289.3 285.1	C46
16+00			4.6	290.5	289.5 285.3	C53
+10 FH (S)			4.5	290.6	290.0	C51
+25			3.6	291.5	289.7 285.5	C60
HP on Prop Cor			5.66	289.39		
HP	5.21	292.87	7.39	287.66		
CK BM			6.39	286.48		
HP	7.36	296.75		289.39		
CK @ 16+25			5.32	291.43 = 291.44		
16+50			4.66	292.1	285.8	C63
17+00			3.7	293.1	286.3	C68
+10 8x6 Wyc					290.7	
+213 8x6 Wyc			2.6	294.2	286.5	C77
CK HP			7.36	289.39		

8" PIPE AS LAID

7 RT	0.0
12 RT	
23 RT	42 7
0.0 X PT	35 8
24 RT	2.7
25 RT	

3/4" I.P 35' RT 16+10

Aug. 9, 1951

STAKES SET FOR 8" MAIN
ON ARBOR VITAE

2-1000

JULY 5 1951
BEATTY
WEST
WILLIAMS

49.

14	5.61	297.79	292.18	
(6" NAIL 5+70?)				
15	0+103	4.9	292.9	290.9 286.7
				C6 ²
	+50	3.6	297.2	293.7 289.5
				C4 ⁷
	1+00	2.5	295.3	295.3 291.1
				C4 ²
	+50	1.8	296.0	296.0 291.8
				C4 ²
16	2+00	1.1	296.7	296.0 291.8
				C4 ⁹
	+50	1.7	296.1	295.2 291.0
				C5 ¹
	3+00	2.7	295.1	293.6 289.0
				C5 ⁷
	+50	3.9	293.9	291.8 287.6
				C6 ³
	4+00	5.0	292.8	290.8 286.6
				C6 ²
	+32 6" TEE	5.7	292.1	290.1 285.9
				C6 ²
	4+37 45° Bend = (12+87 ² MANZANITA)	5.8	292.0	290.0 285.8
				C6 ²

(Continued pg. 47)

3+83⁸⁵ = E Prop Line SnowDrop.

437
53.15
383.85

STAKES SET FOR 6" MAIN
42nd ST.
GAMMA TO ALPHA

JULY 3, 1951
BEATTY
WEST
WILLIAMS

BM	7.13	88.26	86.13
0+00			4.6 83.7 79.75 76.0
+50			3.0 85.3 80.09 76.3
1+00			4.4 83.9 82.40 78.6
+50			{ 4.4 83.9 4.6 83.7 81.60 77.8
2+00			4.4 83.9 81.90 78.1
+50			4.0 84.3 82.20 78.4
3+00			3.8 84.5 82.50 78.7
+15	⑤ F.H.	3.1 85.2	82.10
+29	6" x 6" TEE	3.9 84.4	82.7 78.9
+50		4.0 84.3	83.9 80.0
4+00		4.0 84.3	84.2 80.4
4+50		3.4 84.9	84.6 80.8
5+00		3.2 85.1	84.9 81.1
+50		2.5 85.8	85.3 81.5
6+00		1.5 86.8	85.6 81.8
+50		1.9 86.4	86.2 82.4
+55	⑤	0.6 87.7	86.7

TOP FH SE COR 42nd & Gamma
 C73 - North Prop. LINE Gamma St.
 ⑧ = 18' E of 42nd
 C90 ⑧
 C53 ⑧
 C61 ⑧ = 18' E of 42nd
 C59 ④ = 14' E of 42nd
 C58
 C49 ④
 C58
 C2' C56
 BETA ST. 82.1
 ④ 0+00 4.6 = 83.7 78.3 C54

STAKES SET FOR 6" C.I MAIN
 ROSWELL ST.
 (W.O. 2-1112-5)

July 10 1951
 BEATTY
 WEST
 WILLIAMS

51

BM	11.73	271.61		259.88		Conc Men SW Cor 56 th & Roswell
9+58.10			9.9	261.7	257.7	C40 = Westerly P.L. 56 th ST.
+50			9.9	261.7	257.8	C39
9+00			9.9	261.7	258.2	C35
+50			9.8	261.8	258.4	C34
8+00			9.3	262.3	258.6	C32
+50			9.1	262.5	258.8	C37
7+00			9.0	262.6	259.1	C35
+65.5 F.H.			8.7	262.9	263.0	FOI C34
+50			8.6	263.0	259.3	C32
+395 (6x6" Cross)						Cross = 259.5
6+00			8.5	263.1	260.1	C30
+50			6.4	265.2	262.2	C30
5+00			2.8	268.8	265.3	C35
+50			0.6	271.0	266.9	C41
4+00	0.20	270.57	12.4	270.37	266.9	C35
+50			1.1	269.5	266.0	C35
+46.5 F.H.			0.7	269.9	270.0	FOI
3+00			2.7	267.6	264.3	C33
+50			4.7	265.9	262.1	C38
2+00			7.0	263.6	259.9	C37
+50			9.2	261.4	257.7	C37
1+00			11.2	259.4	255.5	C39
+50			13.4	257.2	252.5	C43

July 10 1951

52

STAKES SET FOR 6" MAIN
ROSWELL ST.

(W.O. 2-1112-5)

270.57

TP	2.91	260.57	12.91	257.66	
0+00			8.3	252.3	CONN TO MAIN
TP	1.51	249.77	12.31	248.26	
			6.22	243.55	
TP	7.15	245.89	11.03	238.74	
OK BM			2.39	243.50	-243.37

30' west, East line Hanover
Bottom of existing 6" C.I.

TOP E.H. SELMA & ROSWELL

Mon SE Cor Melrose & Roswell

WATER METERS STAKED

0+81	South		259.2	258.50	C07
2+73	South		267.4	266.80	C06
3+10	South		268.3	268.8	F05
4+35	South		271.6	271.2	C04

July 11 1951

53

WATER METERS STAKED
MANZANITA DRIVE

W.O. 2-1052-5
297.97 Hi from page 45

2+51 South	2.1	285.3	280.5	C4E
2+20 South	1.8	285.6	280.2	C5A
1+80 South	1.9	285.5	279.8	C5Z
1+32 South	5.1	282.3	279.2	C3L
0+66.5 South	6.7	280.7	279.8	C09
Σ	14.2	285.32	283.9	
1+39.2 Nor.	6.65	278.7	279.2	F05
1+81 Nor.	5.74	279.6	279.7	F01
2+43 Nor.	4.9	280.4	280.4	F00

2+17
78.8
1+39.2

July 16, 1951
BEATTY
LEONARD

2+17 2+17
36 26
17.91

WATER METERS GLENFIELD ST

BM	2.45	320.47	318.02	
Σ	5.28	313.41	308.13	
0+45 East	4.6	308.8	307.4	C14
0+65.5 West	6.8	306.6	306.4	C02
1+07 West	6.3	307.1	306.6	C05
1+36 West	6.4	307.0	306.7	C03
1+34 East	5.2	308.2	307.2	C10
1+80 East	4.7	308.7	307.4	C13
2+04 West	6.2	307.2	307.0	C02
2+92.5 West	6.9	306.5	306.6	F0L
Σ	4.56	310.96	306.40	
3+35 East	2.7	307.7	306.6	C02
CK @ 3195	6.90	302.7 = 302.8		
Σ	11.82	317.75	305.93	
Σ			318.92	

43.99 320.93

3.02 316.94
317.91 = 318.07

STAKES SET FOR 6" MAIN
ON
GLENFIELD ST.
(W.O. 2-1097-5)

July 11 1951

BEATTY
WILLIAMS
WEST

2.5
1.7

54

B.M.	1.69	319.71		318.02			
FD	2.10	309.44	12.37	307.34			
0+00	TEE		N 2.5	306.7	306.5	044	(REV. TO 0+20.8
			W 3.3	306.7	302.5		= 15' N of Nor PL - MANZANITA
+50			2.6	306.8	306.3	045	15' W of W Prop. L. Glenfield.
					302.3		
+75	(PC of Street East Side)						
1+00			2.2	307.2	306.6	046	
					302.6		
+50			2.3	307.1	306.8	043	
					302.3		
2+00			2.3	307.1	307.0	041	
					302.0		
+50			2.6	306.8	306.9	039	
					302.9		
3+00			2.8	306.6	306.5	041	
					302.5		
+50			3.6	305.8	305.9	038	
					301.9		
+95			4.6	304.8 ✓	305.1	037	
					301.1		
4+50			5.3	304.1	304.2	039	
					300.7		
+74.25	{ 2 PT 43° 20' LT		5.7	302.7	304.0	037	
					300.0		
5+05.8	TEE		4.6	304.8			CONN TO TEE
CK			11.68	297.76 = 297.72			Top P.H. Poplar & Columbine pp. 45.

(SEE Pg 53 for Meters Staked)

July 12 1951

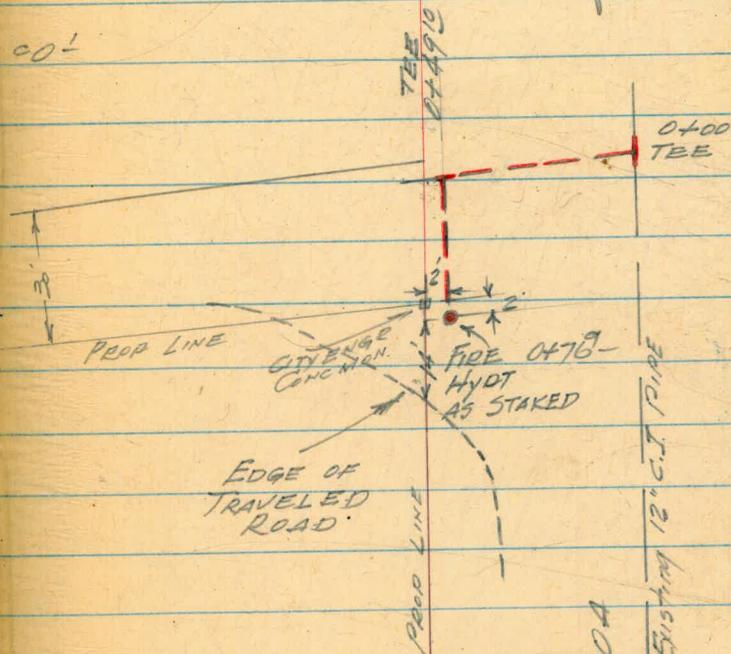
55

STAKES SET FOR WATER LINE
AND FIRE HYD.

SANTA FE & BALBOA

W.P. 2-1107-5

BM.	596	52.81	46.85	x 00 RIM BELL TEL M.H. (SANTA FE BALBOA)	
0+00 TEE	④	6.8	46.0		
+25	④	6.0	46.8		
+49 ¹⁰ TEE	④	4.4	48.4	27.8 22.0	C48
0+76 ⁹ C FIRE Hydt.					
⑤ F.H.		5.6	47.2	47.08	C01



STAKES SET FOR 6" MAIN
CRESTON DRIVE

JULY 17 1951

Very Hot

56

King
Williams

B.M.	774	267.62		259.88	262.0	Conc Mon SW Cor Roswell # 56 th
0-16	(G GV/End RED)				258.2	24.6
0+00			4.8	262.8	267.8	SO. P.L. Roswell
0+50			4.8	262.8	258.5	24.3
1+00			4.4	263.2	263.2	25.8
1+50			3.8	263.8	259.4	23.4
2+00			2.5	265.1	264.2	
2+50			1.5	266.1	260.4	23.9
T.P.	594	272.03	1.53	266.09	265.0	23.9
3+00			4.6	267.4	261.2	
3+50			3.2	268.8	266.0	24.3
4+00			2.1	269.9	267.8	24.8
4+15 ²⁵			2.0	270.0	267.8	24.8
4+50			2.8	269.2	264.0	25.9
5+00			5.0	267.0	267.5	26.0
5+50			6.5	265.5	264.0	26.2
6+00			8.3	263.7	266.7	24.1
6+50			9.8	262.2	262.9	24.1
7+00			11.3	260.7	263.2	23.8
7+50			13.00	259.0	261.4	23.8
					263.7	23.9
					259.9	23.7
					262.2	
					258.4	
					260.6	
					256.8	
					259.1	
					255.3	

6" CIP.
Creston Drive
& Selma St.

272.03

T.P.	0.95	260.00	12.98	259.05	257.6	
8+00			2.7	257.3	258.8	63.5
8+50			4.0	256.0	256.0	63.8
9+00			5.3	254.7	254.6	63.9
9+50			6.8	253.2	250.8	64.0
10+00			8.5	251.5	250.0	63.8
10+50			9.9	250.1	247.7	63.9
10+59.8			11.4	248.6	250.0	
T.J.I.	5.75	253.02	12.73	247.27	247.9	64.5
0-17 top Tee			16.3	236.7	244.1	
0+00			12.1	240.9	239.4	65th So. Prop. Line Roswell - going So. on Selma
0+50			11.5	241.5	235.6	64.3
1+00			10.0	243.0	241.0	64.3
1+50			8.4	244.6	237.2	64.5
2+00			6.4	246.6	242.5	65.0
2+50			4.9	248.1	238.7	65.0
2+98.2			4.1	248.9	243.9	64.8
10+79 Creston = 0+00 Selma			3.8	249.2	242.1	65.1
0+50			3.8	249.2	247.9	65.2
1+00			4.7	248.3	244.1	64.9

going So. on
Creston = 0+00 Selma

King
Williams

7-17-51

57

9.571

243.55

Selma St.
6" C.I.P.

253.02

1+50	5.5	247.5	246.1 242.8 245.0	C5.2
2+00	6.5	246.5	241.2 244.0	C5.3
2+50	7.5	245.5	240.1 242.7	C5.3
3+00	9.1	248.9	238.9 240.7	C5.0
3+50	10.7	242.3	236.9 239.2	C5.4
4+00	12.5	240.5	235.4 236.2	C5.1
4+55	14.9	238.1	232.4	C5.7
C.K.T.B.M.P.	9.54	243.48	243.53	Top F.H. Selma & Roswell
F.H. 10+535 Creston Dr	2.7	250.3	250.2	COL C36

July 17, 1951
Beatty
Leonard
King
West
Williams

59.

STAKES SET FOR 8" MAIN
HEATHER ST { MANZANITA
W.P. 2-1098-5 } POPLAR

July 20 1951
Beatty
Leonard
Seavello

6.24
8
5.56

59.

BM.	6.93	304.65		297.72		Top FH. Poplar & Columbine	
			N	6.1	298.6	297.0	
0+00			W.	6.2	298.5	293.0	C55 w/ C56
0+15 (50 Prop Line Manzanita)							
+25 (5) FH.				5.5	299.2	297.1	C21 C56
+50				5.7	299.0	297.4 293.2	C56
1+00				5.6	299.1	298.1 294.1	C50
+50				5.4	299.3	298.7 294.7	C46
2+00				5.3	299.4	299.3 295.3	C41
+50				5.1	299.6	299.5 295.5	C41
3+00				5.6	299.1	299.2 295.3	C38
3+30 (Nor Prop Line Poplar.)							
+50				6.4	298.3	299.0 295.0	C33
3+79.2 TEE				6.0	298.7	298.7 294.7	C40

CK BM 8.07 305.79 6.93 297.72

WATER METERS.

2+125 WEST				5.6	300.2	299.4	C08
1+85 WEST				6.0	299.8	299.2	C06
1+24 WEST				6.4	299.4	298.4	C10
0+90.5 WEST				6.8	299.0	297.9	C12
0+45 WEST				6.6	299.2	297.4	C18

0+21 East				6.1	299.7	297.7	C20
0+51 East				6.1	299.7	297.9	C18
1+44.5				5.7	300.1	298.8	C13

CK (B) 1+50 6.53 299.26 = 299.3

JULY 27, 1951

WATER METERS STAKED
MANZANITA DR

DM	7.27	295.16	287.89	GRADE	TOP FH	HOLLYWOOD PARK POPLAR
		9.94	285.22	292.60	C26	METER 62 ^E Nor SW Cor Lot 8 BLK 5 MAP 1696
7+145 So		5.5	296.2	293.9	C22	
7+645 So		3.9	297.8	295.1	C27	
8+055 So		3.9	297.8	296.0	C18	
8+83 So		3.8	297.9	296.2	C17	
P OK @ 8+50		2.06	297.68 =	297.8		

ARBOR VITAE
WATER METERS STAKED

BM	10.41	287.89	292.89	299.69	
0+31 So	4.55	293.75	291.5	C225	
0+96 So	3.19	295.11	294.8	C03	
P 1+28 So	248 298.30	3.28	295.82	295.6	C02
1+69 So	2.87	296.23	296.0	C02	
2+00 So	2.24	296.86	296.0	C09	
2+33 So	2.79	296.31	295.8	C05	
2+71 So	3.61	295.49	295.0	C05	
2+71 Nor	2.66	296.44	295.0	C14	
3+07 So	3.84	295.26	293.8	C14	
3+60 So	5.65	293.45	292.1	C14	
P	6.21	299.10	292.89	(1141550) 29.69	

JULY 1 1951

BEATTY
LEONARD
SCAVELLO

60

8-15-51

Aug 1, 1951

61

GRADE STAKE SET FOR 8" AC
WATER MAIN ON ④
MANZANITA - HEATHER TO DAHLIA

BM	3.13	300.85		297.72		Top FH Poplar & Columbine
0+00	= EXISTING TEE					
0+08	- 7' off W. Line	2.5	298.4	296.9 292.9		C55
0+25	Heather	2.3	298.6	296.8		⑤ F.H. C18 C53
0+50		3.2	297.7	296.4 292.4		C53
1+00		4.4	296.5	295.5 291.5		C50
+50		5.4	295.5	295.0 291.0		C45
2+00		6.0	294.9	294.4 290.4		C45
+50		6.0	294.9	294.0 290.0		C49
2+925	7' offset F. Line					
3+00	Columbine	5.5	295.4	293.2 289.2		C62
3+253	2	5.1				
3+253	West	5.1				
	} EXIST. TEE					
	} CONN. TO EXIST. TEE					
3+353	(B.C.)	5.1	295.8	293.2 289.2		C66
3+553		5.3	295.6	292.8 288.8		C68
3+753		5.6	295.3	293.4 289.4		C57
3+953		6.2	294.7	292.3 288.3		C64
4+153		7.0	293.9	292.1 288.1		C58
IP 4+332	1.29 (E.C.)	7.19	293.46	292.0 288.0		C57
+50		1.5	293.5	291.5 287.5		C60
5+00		2.7	292.3	290.4 286.4		C59
+50		3.4	291.6	289.2 285.2		C64

GRADES SET FOR 8" MAIN
MANZANITA

6+00	294.95	5.5	289.5	287.0 283.0	C65
+25' B.C.		6.3	288.7	287.2 283.2	C55
+45'		6.5	288.5	287.0 283.0	C55
+65' EC		5.9	289.1	286.5 282.5	C66
7+00		7.6	287.4	286.0 282.0	C54
+243 4' Nor EXIST TEE		8.0	287.0		{ CONN. TO EXIST TEE
CK BM		8.08	286.87 = 286.88		Top FH Dahlia & Manzanita

8-1-51

63

CRESTON DRIVE & SELMA
 WATER METERS STAKED
 (BACK-SIDE 203 from & ST)

TP 4+00	4.81	274.71		269.9	
3+50	6.08	274.88		268.8	
		274.8			
		274.5			
2+50 WEST		8.3	266.2	266.0	C05 C02
			266.5		
2+79 EAST		8.6	265.9	267.4	F12 F15
			266.2		
1+88 WEST		9.5	265.0	266.5	F12 F15
			265.3		
3+47 WEST		5.9	268.6	268.6	S03 C00
			268.9		
3+90 EAST		4.95	269.5	269.0	C06 F05 C05
			269.0		
CK (4+50)		5.6	269.2	269.2	
			269.2		C02 C32
3+80 (5) F.H		5.3	269.5	269.0	C05 C02
TBM	8.64	252.19		243.55	Top F.H Selma & Roswell
1+05 W. Selma			9.46	242.7	242.7
1+66 W. " "			7.9	244.3	244.5
2+66 W. " "			5.2	247.0	247.4
					F04
TP	3.82	253.40		249.58	
0+59 E Selma			4.1	249.3	249.0
					248.5 C08
0+60 W			5.2	248.2	248.0
					247.8 C07
1+65 E			5.4	248.0	246.5
					C12
2+28 E			6.4	247.0	245.6
					245.2 C14
2+26 W			8.2	245.0	244.5
					244.1 C10

Aug 2, 1951

CRESTON DRIVE & SELMA
WATER METERS STAKED

8/2/51

64

	253.40			240.1 239.8	F04 F02
3+78 W Selma ^{SOUTH of} Creston	13.7	239.7			
P 11.70	266.28	3.82	249.58		
10+45 Nor (on Creston Drive)	10.8	250.5	250.7		F02
9+91 Nor	"	9.0	252.3	253.1	F08
9+58 Nor	"	7.7	253.6	254.1	F05
8+97 Nor	"	5.8	255.5	255.9	F04
7+64 Nor	"	2.3	259.0	260.0	F10
7+405 So	"	1.6	259.7	260.2	F05
P 7+20 Nor ^{11.44}	271.61	1.11	260.17	261.3	F11
6+84 So	"	10.30	262.3	262.0	C03
6+17 So	"	8.3	264.3	263.8	C05
5+83 Nor	"	6.9	265.7	265.2	C05
5+67 So	"	6.7	265.9	265.4	C05
5+26 Nor	"	5.4	267.2	267.2	C00
4+77 So	"	3.5	268.1	268.1	C00
CK 4+50 @		2.73	268.88		
SET TP Prop. Cg ^{0.50} * PT. Nor.	269.54	2.57	269.04		
CK B.M.		10.10	259.44 = 259.88		

259.88
10.10

269.98

WATER METER STAKED
 MANZANITA DRIVE
 HEATHER - DAHLIA

AUG. 8 1951

BEATTY
 LEONARD
 SEAVELLO

65

TP	9.80	296.68	286.88	Top FH. DAHLIA & MANZANITA			
6+04.5 (6+25+EC)	W.M. So		5.71	290.97	288.2	C28 Lot 1	21' ft east from BC of Curve
Nor			9.34	287.34	287.1	C02 Lot 28	15' West of BC
Nor			6.23	290.45	289.7	C08 Lot 25	15' West of E Prop. Cor
Nor			5.19	291.49	291.4	C01 Lot 23	9' West of E.C.
Nor		(41. 300.86 6.36)		294.50	293.4	C11 Lot 20	55' East of POC
Nor		(41. 300.86 6.77)		294.09	293.7	C04 Lot 19	65' West of B.C.
4+46	So.		2.74	293.94	291.9	C20	12' WEST OF E.C.
4+60	So.		3.10	293.58	291.5	C21 Lot 22	26' WEST OF EC
TP Rock	6.40	300.86	2.22	294.46			
Nor.			5.72	295.14	295.4	C03 Lot 17	31' WEST OF EC
Nor.			4.75	296.11	295.6	C05 Lot 16	3' WEST OF EC
Nor.			3.17	297.69	296.6	C11 Lot 15	65' E OF EC
CK @ 1+00			4.4	296.45	= 296.5		

BONITA PIPELINE REPLACEMENT
 STAKES SET FOR CURB REPLACEMENT
 SOUTH SIDE HILL TOP DRIVE
 3' FT. BACK - BACK OF CURB.

8-10-51
 BEATTY
 LEONARD
 SEAVELLO

TBM.	118	171.40	170.22	
12+672 = 381+75	END CURB	6.15	165.25	165.25
	BONITA PL. REPLACMT			
12+279		6.15	165.25	165.23
11+279		6.11	165.39	165.05
11+279		6.41	164.99	164.86
11+029			164.69	164.8
10+779		6.36	165.04	164.86
10+529			165.41	165.50
10+279		5.09	166.31	166.42
9+779		3.37	168.03	167.97
9+279	E.C. CURB RET	1.62	169.77	169.82
IP	574	175.96	171.9	170.22
8+539	B.C. CURB RET	3.62	172.34	172.21
+50		3.53	172.43	172.40
8+00		2.67	173.29	173.14
+75			172.83	172.90
+50		3.39	172.57	172.45
+25			171.62	171.50
7+00		5.66	170.30	170.27
+50		8.33	167.63	167.55
IP	0.06	167.46	8.56	167.40
6+00		2.67	164.79	164.76
+50		4.63	162.83	162.83
+25			162.22	162.10

Nail in pole SW. Cor 44th & Hilltop

CO⁰²

15 H CO⁰²

CO⁰⁴

CO⁰³

6.73/ 721 inlet +53 FO⁰⁴

6.51 in CO⁰⁸

FO⁰⁹

FO¹¹

3.22/ CO⁰⁶

155 FO⁰⁵

same CO⁰³

CO⁰³

279 CO⁰⁵

FO⁰⁷

348 CO⁰³

CO⁰²

same CO⁰³

8.33 CO⁰⁸

same CO⁰³

" CO⁰²

CO⁰²

BONITA P.L. REPLACEMENT
CURB REPLACEMENT
Cont'd.

8-10-51

67.

	167.46	Elev.	Grade		
5+00	5.59	161.87	161.84	same	C0 ⁰³
+50	5.81	161.65	161.55	5.88	C0 ¹⁰
4+00	6.04	161.42	161.31	6.12	C0 ¹¹
+50	6.24	161.22	^{161.10} 161.01	6.22	C0 ¹²
3+00	6.57	160.89	160.86	same	C0 ⁰³
+50	6.97	160.49	160.40	7.03	C0 ⁰⁹
2+00	7.25	160.21	160.10		C0 ²¹
+75		159.77	159.70	(7.81 Top curb Top Dr 18.20 442)	C0 ⁰⁷
+50	2.76	159.70	159.61	7.82 oil SW	C0 ⁰⁹
1+00	7.36	160.10	160.03	7.40 oil SW	C0 ⁰⁷
+50	6.19	161.27	161.20	6.23 oil SW	C0 ⁰⁷
0+00 = EC Curb RET = 329+0730 BONITA P.L. REPLACMT.	4.60	162.86	162.77		C0 ⁰⁹
	4.24	163.22	163.22	0-14' Top curb	
TBM	3.81	163.65 = 163.66		Boat Nail @ 45' @ Hilltop	

④ STAKES SET FOR 8" MAIN IN
MANZANITA PLACE
FROM MANZANITA TO 10" EXISTING PIPE TO NORTH.

BM	1.46	319.48		318.02	
TBM			5.12	314.34	
0+00 So. = 20'E of W Prop Line			5.19	314.29	309.2
0+00 W. = 16'E #11. Nor SW Cor MANZANITA & MANZ. PLACE			5.22	314.26	313.2 309.2
+50			6.28	313.20	308.6
+75			8.06	311.42	307.0
P 1+00	0.65	308.32	11.81	307.67	303.7
+15			3.76	304.56	301.6
+30			9.84	298.48	295.5
P +45	0.12	295.27	13.17	295.15	
+60			3.81	291.46	287.5
P +75	5.29	287.73	10.68	284.59	280.6
			12.83	282.44	
1+97' Wye 10" x 8"			7.26	280.47	277.5
1+97' Top 10" C.I.			8.54	279.19	276.2
			10.83	276.90	

Aug. 13 1951
BEATTY
Leonard
Seavello

68

SP SE Cor Third & Fairmont
NAIL IN Pole SW Cor MANZANITA & MANZ. PLACE

C51

C51

C46

C44

C40

C30

22 1/2° Bend

C30

C40

C40

+65 22 1/2° Bend

282.59 278.0 C46

C30

C30

WATER METERS STAKED
ON
MANZANITA DRIVE

8-14-51

69

PC @ 8+50	3.05	300.73	297.68	299.60		
7+02 Nor.			6.54	294.19	293.5	C03
8+34 Nor.			4.45	296.28	296.3	C02
8+52 Nor.			4.32	296.41	296.3	C01
9+34 Nor			4.52	296.21	295.1	C11
9+88 Nor			6.00	294.73	293.3	C14
(10+17 ² -B.C. of curve)						
95 W of B.C. (Nor)			7.84	292.89	293.2	F03
44° SW of B.C. (W)			8.05	292.68	292.9	F02
86° SW of B.C. (W)			7.74	292.99	292.5	C05
82° Nor of PRC. (W)			8.23	292.50	292.2	C03
34° So of PRC (E)			6.84	293.89	292.2	C12
83° So of PRC (E)			6.52	294.21	291.6	C26
70° So PRC. (W)			8.24	292.59	291.7	C09
CK @ 11+15 ⁵⁰			7.84	=292.89 =	292.9	
SP	4.16	297.91		293.75		
7+08 ⁵ Nor			5.55	292.36	291.8	C06
6+47 ²						
6+75 Nor			5.96	291.95	290.8	C12
6+12						
6+18 Nor			6.84	291.07	289.5	C16
5+57						
OK 7+06 ⁹ ac			3.72	294.19 =	294.3	OR

8-15-51

WATER METERS STAKED
ON
REED AVENUE

Aug 16 1951

70

B.M.	7.25	51.00		
0+00 = EAST Prop Line Gresham			44.15	
1+405 Nor	4.1	39.97		
0+035 Nor	7.4	32.6	33.2	
1+64.5 Nor	7.8	32.2	32.0	
	7.0	33.0	33.5	
1+405 So	6.7	33.3	32.8	
2+24 Nor	6.0	34.0	34.4	
2+30.5 Nor	5.7	34.3	35.3	
2+175 So	6.4	33.6	33.8	
2+42 So	5.65	34.3	34.5	
2+96 Nor	3.0	37.0	37.3	
3+235 So	2.2	37.8	38.1	
3+33 Nor	1.5	38.5	39.0	
3+42 So	12.90	38.50	39.0	
3+92.6 Nor (stiff 2'short)	9.0	42.4	42.2	
3+92 So (stiff 2'short)	9.4	42.0	41.5	

L&T Reed & Ingram

F06				
C02				
F05				
C05				
F04				
F10				
F02				
F02				
F03				
F03				
F05				
F05				
C02				
C05				

3+33 Nor	38.50
	12.03
	50.53
	4.37
	46.16
50.5	50.5
36	43
46.9	46.2
	46.6

0+00 = EAST Prop. LINE HAINES

0+34 Nor	56.40	H.d.	47.3	
0+83 Nor	4.2	47.2	47.0	
1+36 Nor	4.5	46.9	46.7	
1+53.5 So	4.9	46.5	46.0	
1+82 Nor	4.4	47.0	46.4	
2+42.3 So	5.1	46.3	45.6	
2+73 So	5.3	46.1	45.3	
2+98 So	5.0	46.4	45.2	
3+46 So	5.4	46.0	44.8	
3+93 So	5.7	45.7	44.5	
4+40 So	6.7	44.7	44.3	
4+33			44.4	

Regraded 8-22-51

5.76	49.91	44.15
0+83 No	46.9	F01
1+82 Nor	46.6	F01
	46.2	F02
2+12 Nor	3.9	46.1
	3.7	46.2
	4.2	45.7
	4.6	45.3
	4.6	45.3
	4.7	45.2
	5.0	44.9
	5.3	44.6

SE Cor on F.H
SE Cor Gresham & Reed
8.21 31.76 = 31.60
5.65 32.32

EST. CURB GRD.

8-17-51
 BEATTY
 LEONARD
 SEVELLO

⑤ STAKES SET FOR 8" MAIN
 MANZANITA DRIVE
 HEATHER TO MANZANITA PLACE

IP	7.88	304.4		296.5		
0+00	-3° East TEE		5.75	298.6	292.9	C57
	HEATHER & MAN.					Grade 0+00 pg 61
+50			5.30	299.1	293.7	C54
0+74.12	B.C. (PCC of STREET)		5.15	299.2	298.8 293.8	C52
IP			4.13	300.27		
TBM	1.36	315.71		314.35		NAIL IN POLE pg 68
5+82.25	= TEE	MANZANITA DR PLACE 1.4		314.3	313.2 309.0	C53
+50			2.7	313.0	312.4 308.2	C48
5+00			4.5	311.2	310.8 306.6	C46
+50			5.9	309.8	309.3 305.1	C47
4+00			7.6	308.1	307.7 303.5	C46
3+54.5	TEE	MANZANITA DR GLENFIELD			305.8	
3+48.5			9.1	306.6	301.6	C50
+20E	⑤ FH		9.6	306.1	305.0	C12
3+00			10.6	295.1	304.3 300.1	C50
IP 2+50	2.73	306.23	12.21	303.50	302.7 298.5	C50
2+00			4.2	302.0	301.1 296.9	C51
1+90 ⁵³	EC		4.5	301.7	300.8 296.6	C51
+74.12			4.8	301.4	300.4 296.2	C52
+49.12			5.7	300.5	299.8 295.6	C49
+24.12			6.6	299.6	299.2 295.0	C46

0.32
 32
 64
 0.32
 96
 50/1.60 102

8-17-51

72

0+99 ^{1/2}	306.23	6.7	299.5	298.6 294.4	C5L
CR ID	1181 312.04	6.00	300.23 = 300.27	199.71	End Conc Drive 4320 MAN.

8-22-51

WATER METERS STAKED
NOR SIDE MANZANITA DR.

1+17 W		13.5	298.5	297.9	C06
0+37 W		11.4	300.6	299.9	C07
0+00 = B.C. Nor. Prop. Line					
0+35 E		9.5	302.5	301.9	C06
0+81 ^{1/2} F		8.6	303.4	303.3	C01
1+22 E		7.1	304.9	304.6	C03
1+61 E		5.6	306.4	306.0	C04
2+15 E		4.0	308.0	307.9	C01
2+75 E	6.90 317.08	1.86	310.18	309.9	C03
3+112 E		6.1	311.0	310.9	C01
3+63 ⁹	(5) FH	4.65	312.43	312.2	C02
		2.75	314.33 = 314.30		

Nail in power pole
SW Cor MAN. DR & MAN. PLACE

WATER METERS SW Cor Glenfield &

Manzanita

8-24-51

TBM	025 314.59		314.34		
65 Nor B.C.		6.4	307.2	308.5	F1?
72 So EC.		5.15	309.4	308.5	C09
275 Nor EC.		4.25	310.3	309.4	C09

8-17-51

73

⑤ STAKES SET FOR 6" MAIN
TUBEROSE ST. - 5' W & ST.
POPLAR TO MANZANITA

IP	6.37	295.76	289.39	29.48	
4+23 WYE = 16+07	MANZANITA	2.6	293.2	290.5 286.7	C65
4+00		2.8	293.0	286.6	C64
+50		3.8	292.0	286.3	C57
3+00		4.1	291.7	289.8 286.0	C57
2+50		4.8	291.0	289.4 285.6	C54
2+00		5.0	290.8	289.0 285.2	C56
+894	Nor. Side Alley	6.3	289.5	288.7 284.7	C46
+50					
1+00		7.1	288.7	288.4 284.0	C41
+50		8.0	287.8	288.0 284.2	C36
0+00	AT MAIN IN POPLAR ST.	7.9	287.9		CONN TO MAIN
OK IP		6.37	289.39		

WATER METERS STAKED
63rd St. Broadway to Aiken

8-17-51
BEATTY
LEONARD
SEAVELLO

BM	0.78	333.63		332.85			
TP	0.57	321.05	13.15	320.48			2.47. E 63 rd St Brdwy
TP	0.23	308.19	13.09	307.96			
2+11 ⁴	East		1.7	306.5	305.3	C12	(south ginnay)
1+51	West		10.7	297.5	300.0	F25	
1+47	West		10.85	297.3	299.9	F26	
0+49 ⁵	East		11.3	296.9	299.10	F22	
0+00 =	Nor. Prop. Line WUNDERLIN						
TP	7.91	305.91	10.19	298.00			
0+00 =	SOUTH LINE WUNDERLIN						
1+51	East		0.4	305.5	303.7	C18	(south ginnay)
2+07	West		3.8	302.1	300.2	C19	
2+37	East		3.4	302.5	298.0	C45	
2+43	West		6.1	299.8	296.7	C31	
TP	0.25	292.93	13.23	292.68			
3+21	East	292.93	2.3	291.6	287.7	C39	C29
3+47	West		7.65	286.3	284.5	C18	C08
TP	0.15	282.63	10.45	282.48			
TP	0.01	277.09	12.55	271.08			
0+00 =	So. Prop. Line Brooklyn Ave						
0+44	West		4.0	266.5	264.7	C18	C08 south ginnay
TP	0.12	258.33	12.88	258.21			
1+34	East		0.8	257.5	254.3	C32	C22 north ginnay
1+34	West		1.2	257.1	254.1	C30	C20 " "
2+35	West		11.6	246.7	242.0	C47	C37 " "
TP	0.10	245.35	13.08	245.25	237.2		
3+14	East	244.35	7.5	234.9	234.9	F1	F1 C21
TP	0.18	232.92	13.21	232.14			
3+47 ⁵	West		1.9	230.4	227.9	C25	C15

on Conc Wall 8-21-51

8-21-51

75

P		232.32					
4+35 West	0.04	219.00	13.36	218.96	217.6	C14	C04
5+12 West			9.5	209.5	207.5	C10	C10
P	0.07	205.82	13.25	205.75			
5+40 East			0.8	205.0	204.7	C03	F03
5+96 West			5.5	200.3	199.9	C04	F06
6+50 East			8.1	197.7	197.1	C06	F09
7+50 East			10.8	195.0	195.8	F08	F18
7+59.5 West			11.0	194.8	195.8	F12	F20
7+66 East			11.0	194.8	195.8	F12	F20
P	5.25	200.28	10.79	195.03			
8+02 East			5.6	194.7	195.6	F07	F19
8+46 East			6.5	193.8	195.5	F17	F27
9+20 West			7.1	193.2	197.5	F43	F53
P	11.76	211.74	0.30	199.98			
P	2.96	214.38	0.32	211.42			
CK BM			0.69	212.69 = 212.72		Top FH SE Cor 63 rd E Imperial	
				212.69			

Aug. 24 1951

BEATTY
LEONARD
SEVELLO

76

④ STAKES SET FOR 6" MAIN
HANOVER ST.
ROSWELL TO GENEVA

TOM	13.20	256.75		243.55			
H	5.68	260.63	1.80	254.95			Top FH. Roswell & Selma
			8.30	252.33			SIDEWALK NW Cor Hanover & Roswell
				251.5			Top H. 6" Gate Val. 0-0A
				251.5			
0+00			4.3	256.3		251.7	
0+44 ²							
+50			5.0	255.6		51.2	C44
1+00			4.7	255.9		51.2	C47
+50			4.8	255.8		51.2	C46
2+00			5.5	255.1		49.9	C52
+50			6.4	254.2		48.5	C57
			5.3	255.3			
2+81			6.4	254.2			C61
⑤ FH							
P 3+00	2.09	255.46	7.26	253.37		47.1	C63
+50			4.0	251.5		45.8	C57
4+00			6.1	249.4		44.4	C50
+50			6.9	248.6		43.1	C55
5+00			6.6	248.9		42.6	C63
+50			5.6	249.9		43.0	C69
6+00			5.0	250.5		43.2	C73
+50			4.6	250.9		43.6	C73
7+00			5.0	250.5		43.9	C66
7+31 ²							
+51			6.8	248.7		244.0	C47
⑥	5.92	260.55	0.83	254.63			
			5.55	255.00 = 254.95			

~~4+44²~~ Nor LINE.
ROSWELL

⑤ FH

7+31² = 50. PROP LINE GENEVA

TEE

RELOCATION & GRADE FOR
5-FIRE HYDRANTS

69th & Mandalay 69th & Saranac
69th & Mohawk 68th & Mohawk 67th & Mohawk

8-24-51
BEATTY
LEONARD
SEAVELLO

BM	0.49	461.49		461.00	Cor Conc porch SE Cor 69 th & Mandalay
IP	8.58	469.42	0.65	460.84	EXIST Top F.H. Saranac & 69 th
			10.25	459.17	456.75 (5) New location F.H. ↗ SE Cor 69 th & Saranac C242
IP			6.67	462.75	462.44 (5) " " F.H. SW Cor 69 th & Mohawk C031
BM	2.65	463.65		461.00	Con Conc Porch.
			4.86	458.79	456.50 (5) " " F.H. SE Cor. 69 th & Saranac C30
IP	2.79	465.54		462.75	
IP	6.18	461.47	10.25	455.29	Top Exist F.H.
			8.46	453.01	449.55 (5) " " F.H. SE Cor 68 th & Mohawk C35
IP	3.58	456.66	8.39	453.08	Top Exist F.H.
			5.79	450.87	449.8 (5) " " F.H. SE Cor 67 th & Mohawk C11
CK BM			2.89	453.77	453.79 BR SW Cor 67 th & EL CAJON BLVD.
IP	2.40	465.15		462.75	
IP	0.08	452.26	12.97	452.18	Sept. 14 th 1951
			8.50	443.76	443.45 (5) New Location F.H. 68 th & Saranac. C03
SET IP			8.21	444.05	Nail in pole SW Cor 68 th & Saranac # 12911254.

192
463

Nov. 3 1950
BEATTY
LEONARD

ELEVATIONS TOP OF EXISTING
6" C.I. WATER MAIN
63rd ST - Northw. from MONTEZUMA

BM	6.60	456.43	449.83
HP	2.99	452.77	6.65 449.78
HP	9.01	459.22	2.56 450.21
0+00 =	Intersection 63 rd & Montezuma.		
0+65 ²		6.57	452.65
0+87 ²		6.19	453.03
1+29 ²		4.81	454.41
1+68 ²		4.73	454.49
2+01 ²		5.10	454.12
2+44 ²		5.32	453.90
2+81 ²		5.30	453.92
3+39 ²		5.56	453.66
4+01 ²		5.90	453.32
4+72 ²		6.50	452.72
CR BM		0.52	458.70 = 458.65

76
P.P. NE Cor. MONTEZUMA & COLLEGE

on curb

on curb

Top 6" C.I. MAIN 10' RT. & ST

" " " " " " "

"

"

"

"

"

"

"

"

Top P.H. SE Cor 63rd & Montezuma

BM

IP

IP

0+00

0+65

0+87

1+29

1+68

2+01

2+44

2+81

3+39

4+01

4+72

CK 81

208.21) 1718.87.

16568

53190

41648

115480

104105

113750

104105

96450

SELMA NOR

2+66 W

1+66 W

1+05 W

SELMA SO

0+59 E

1+65 E

2+28 E

0+60 W

2+26 W

3+775 W

4+41

4+77 So

5+67 So

6+17 So

6+84 So

7+05

5+26 Nor

5+83 "

7+20 "

7+64 Nor

8+97 Nor

9+58 "

9+91 "

10+45 "

8,2554

3°26'23

206.38

8.2554

924

330216

165108

742956

76279896

1°16'17

3-26-23

4-42-40

3-26-23

8-19-03

2-26-23

11-35-26

3-26-23

15-01-49

2-26-23

18-25-12

3-26-23

21-54-25

3-26-23

25-20-58

700) 6.33

+25) 5.01

+10) 4.06

+75) 3.80

8000) 3.34

5.44
509.35
448.61

6283
6187
96

06

71

10+27 = 3.63

10+52 = 4.53

10+77 = 4.93

11+02 = 5.28

11+27 = 4.97

4.65

4.43

4.26

17

39

-15 = 16071

+17

160 807

10

66

BM

IP

IP

0+00

0+65

0+87

1+29

1+68

2+0

2+4

2+8

3+3

4+4

4+

CR

City Datum

Hilltop Drive

42nd SWBP 152.94

Morrison " 157.60

41st " 151.66

Raven " 171.33

40th " 180.08

Quail " 170.71

39th " 166.53

0-16

3+956

XPT 4+1925

192.0

196.4

192.5

196.4

193

3.4

30.75

235

33.10

3+35 E

2+928 W

2+04 W

1+80 E

1+36 W

1+32 E

1+07 W

0+65 W

SEGMA

11/4 SD

16.65

16.7

16.5

16.2

24.3

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

THE NATIONAL BLANK BOOK COMPANY

HOLYOKE



MASSACHUSETTS

NEW YORK

CHICAGO

BOSTON

SAN FRANCISCO