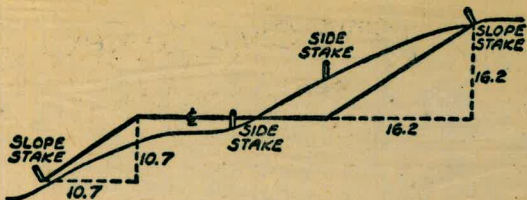


Please Return to
 City of San Diego Water Dept.
 Room 903 Civic Center

882



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.

18°46

3.3

3.40

35

340

21.60

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	2.12	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	.88	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	.970	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

Alley N. of University E of 278th 1-5
 Alice

38th St Edna Pl 6

To Ward. Rd ✓ Alice 8

{ Rolando Annexation -
 67th St. - Tower St. to Patria St. 9-11 ✓

GROUP 15:-
 OSBORN ST. - Cottonwood St. to Birch St. 12 ✓
 NEWTON AVE. - 40th St. to 71st St. 13 ✓
 Continue Profiles Osborne & Newton 14 ✓

Newton Ave 35th to 36th 15 ✓
 Newton Ave. 32nd to 33rd 16 ✓
 Continue Newton 35th to 36th 17 ✓
 Nogal St. 47th to 49th 18-20 ✓
 33rd St. Ocean View to Webster 21-23 ✓
 Cont. Newton - 35th to 36th 23-25 Alice
 Profile Morona Blvd. 29-30 ✓

36th St. Ward Rd. to Edna Pl. 6" A.C. Water 31-32 ✓
 Alice

Extend 67 St. to Toledo St 33-34 ✓
 Prelim Fairmont Ave, Redwood to Maple Group 24 Prelim Alice 34-41 ✓
 Amberst St Amberst to El Cajon 42-46 ✓
 Group 24 Prelim

67th St Alley North of Shannon to Amberst 47-48 ✓
 GROUP 24 PRELIM. ✓

ALLEY BLK. 5 S. OF EL CAJON E. OF ARAGON 49-50 ✓
 Group 24 Prelim

Division St 65th to 66th 51-53 ✓

Group 24 Prelim

65th St Detroit to ~~Brown~~ Div. 54-57 ✓
 Prelim Group 26 Alice

Division St 65th to Alden St 58 ✓

Alden St Division to Bower St ✓ Alice

INDEX

Division St Bower St to 95th E of Leonard St 66
Group 29 palm ✓

66th St Division to 410th N 67-68
palm to La Jolla Hermosa Ave alice

La Canada La Jolla Blvd 69- ✓
alice

Alleys E of 48th
N. of University
BIRs 22+31

West
Williams
Yoron Fokis
Kemp

12-3-53

7+11 5' QV

Fed PK Nord on 2

6+87
NH 5' RT Polk
5" AC

6+14 8' QV

Water Meters

1+02 2' LT
1+45 14' LT
2+13 11' LT
2+71 11' LT
2+84 21' LT
3+95 2' LT
4+41 3' LT
11+59 4' LT
7+07 3' LT
7+32 8' LT
7+60 8' LT
8+50 3' LT
9+62 4' LT
11+88 14' LT
12+45 LT

4+71
Storm Drain King

Water Meters

1+09 14' RT
1+63 14' RT
2+15 14' RT
2+70 14' RT
3+07 12' RT
3+45 12' RT
4+02 14' RT
5+19 14' RT
5+03 14' RT
5+89 14' RT
7+34 14' RT
7+76 14' RT
8+32 14' RT
8+83 14' RT
9+27 14' RT
10+55 14' RT
11+33 RT
11+88 4' RT
12+32 RT
12+66 12' RT

24" Storm Drain

Proposed PK

6+50 Water

6+54 QV

6" AC

Orange

6+22 Gas King

0+00

North Prop Line Orange

← 110' VHT

Fed ⑦ WHT

Alloys E of 48th
N of University Cont

9.90	322.26	312.36
9.70	331.52	0.44 321.82
13.00	344.34	0.18 331.34
7.00	351.17	0.17 344.17
2.24	349.11	4.30 346.87
0+00		4.04 345.07
+15		4.59 344.59
+50		4.49 344.62
+65		5.05 344.06
0+80		4.60 344.51
1+00		4.6 344.51
+50		6.2 342.9
2+00		9.0 340.1
+50		11.1 338.0
058	336.96	12.73 336.38
3+00		0.9 336.06
+50		2.7 334.26
4+00		5.0 331.96
+50		10.1 326.86

BP NE Cor 49th + University

BM NW Cor Estrella + Orange

Begin AC pipe

N Butter

end AC pipe

	336.96		
4+64	11.40	325.54	+42 To Flow
5+00	10.1	326.86	
+50	7.6	329.26	
6+00	4.9	332.06	
+50	3.4	333.56	
764	3.14	333.82	
+87	2.61	332.35	+12 To Flow
7+00	3.31	333.65	
+07	3.10	333.86	
676	0.92	336.04	
7+50	0.3	336.5	
8+00	1.8	335.0	
+50	4.6	332.2	
9+00	8.5	328.3	
+23	11.08	+5.5 To Flow	
+50	13.02	323.78	
+90	4.3	320.8	
+95	3.0	322.13	
1000	12.40	312.71	

339.96
 11.4
 328.56
 11.2
 324.36

336.96
 2.61
 334.35
 12.4
 309.95

4+71 Storm Drain Xing

Top 4' RT. to 24" Storm Drain Xing

Begin AC PAVO

Top east rim sewer M.H. 50' R

Top east edge sewer M.H. 50' R

329.77

10+18	13.1	309.67
+25	12.03	310.74
7+12	12.7	310.07
+65	4.8	318.0

4.81 Top east rim sewer MH

12.13 333.90 1.00 321.77

11+00 4.5 327.4

12.14 345.76 0.28 333.62

+50 11.4 334.36

12+00 6.2 339.56

+50 2.8 343.0

+90 1.7 344.06

13+05 5.8 340.0

3.53 343.48 5.81 339.95

+22 4.05 339.43

Butter North Side

+50 3.11 340.37

+72 3.95 340.5

Butter South Side

+82 3.13 340.35

South edge side walk

0.22 333.52 10.18 333.30

0.92 321.43 13.01 320.51

9.00 312.43 =

312.36

West
Williams
Varon Fokro
Kemp

12-7-53

7

2.56	371.33	368.77			
7.62	367.25	11.70	359.63		
0		0.74	366.51		Top FH 10 RT
0+00		3.37	363.88		
0+14		4.11	363.14		
			+ 3.4 To Floor	line 24" steel	Top storm Drain Grate 6' RT
0+14		4.18	+ 2.1 To Floor	line	" " " " 41.21
0+31		4.27	362.98		
			+ 3.2 To Floor	line	Top West Rim sewer MH 10 RT
1.50		5.47	361.78		
2.97 ^{1/2}		7.54	359.71	359.71	
1+00		7.64	359.61		
+50		9.20	358.03		
2+00		11.90	355.35		
	11.22	365.48	12.99	354.26	
2+42 ^{1/2} A		12.58	352.90		9.6 7.2 RT
+50		12.50	352.98		
+90 ^{3/4}		9.06	356.42		8.53 5 RT
3+00		8.04	357.44		7.23 7 RT Base cobble well
+50		3.45	362.03		3.35 6.5 RT " " "
+97 ^{3/4}		1.43	+ 3.1 To Floor		Top SE Rim sewer MH 10 RT

365.48

4+00 ³⁵ Δ 1.04 364.44

6.56 371.63 0.41 365.07

4+50 4.39 365.24

5+00 5.60 366.03

+50 4.92 366.71

4+00 4.12 367.51

+50 3.34 368.29

7+00 3.04 368.59

+04 3.00 ^{368.63}

450 2.39 369.24

+72 2.04 369.59

2.84 368.79 = 368.79

Top East View Scanner Mill 80 ft

Curb Line at J View D.

Wert
Kemp
Halahan

9

3-24-54 - Rain

Profile Proposed Water Main

67th St. - Tower St. to Patria St.

Station	+	H.I.	-	Elev.
	207	458.45 W		456.38 T.B.M.
0+50			5.0	453.5 ✓
0+00			5.1	453.4 ✓
0+29.7			4.7	453.8 ✓
+50			4.6	453.9 ✓
1+00			4.7	453.8 ✓
+50			4.7	453.8 ✓
2+00			4.9	453.6 ✓
+50			4.9	453.6 ✓
3+00			5.16	453.29 W
	3.63	456.92 W		
+50			3.7	453.2 ✓
4+00			3.8	453.1 ✓
4+31			3.79	453.13 W
+50			3.9	453.0 ✓
5+00			4.0	452.9 CFW 456.9

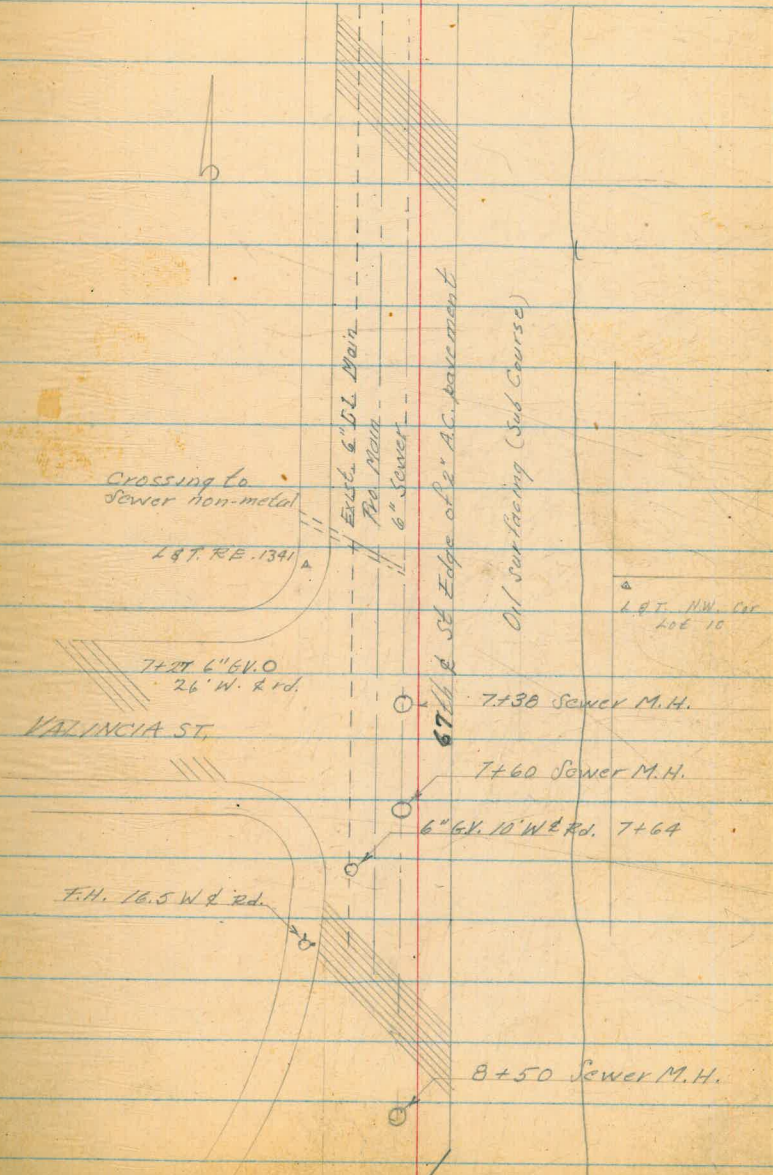
Rim elev. Sewer M.H. Flow line 444.38

Profile 67th - Tower to Palms

	456.92 ^v		
5+50	4.8	452.1	✓
6+00	7.7	449.2	✓
T.P.	14.82	445.10	vv
	0.46	445.56 ^w	
7+50	2.9	442.7	✓
7+00	9.5	436.1	✓
7+38	10.70	441.86 - 438.06	
		434.86 CFM ✓	
7+50	11.0	434.6	✓
8+00	19.5	431.1	✓
	9.92	SW. FH. 67 & Valencia	
		Elev 435.64	vv

For extension of this line
see page 33

REDUCED 17 DEC 54
C.F.W.



Wert
Kemp
Halahan

3-25-54 Clear-Windy

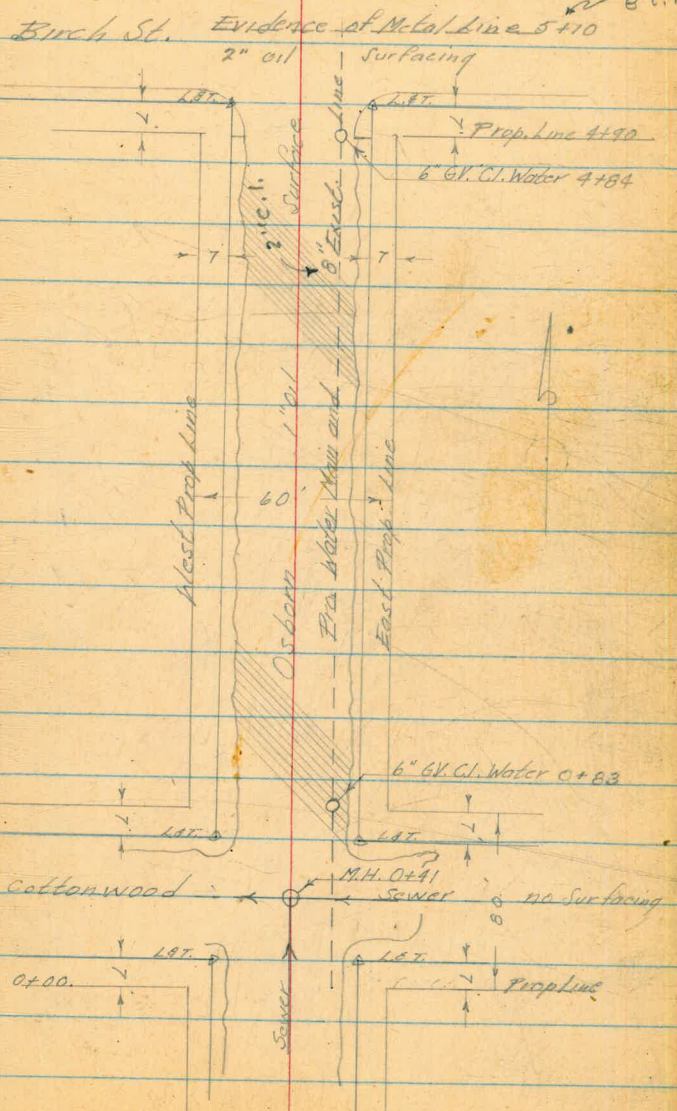
Profile Osborne St. Cottonwood to Birch

No. Curb Line 5+90.3
Exist. e'l. l.

			9.67	
	5.52	15.19		
0-50				
0+00			9.2	
0+32		6.09	9.0	
0+50			9.2	
1+00		5.5	9.7	
1+50		5.0	10.2	
2+00		4.3	10.9	
2+50		3.4	11.8	
3+00		1.2	14.0	
T.P.		0.21		
			14.98	
	12.76	27.74		
3+50		10.1	17.6	
4+00		5.4	22.3	
4+50		1.4	26.3	

N.E. M. S.W. Cor
20' P.P. Cottonwood
Osborne

Sewer M.H.
East Lim



continued page 14

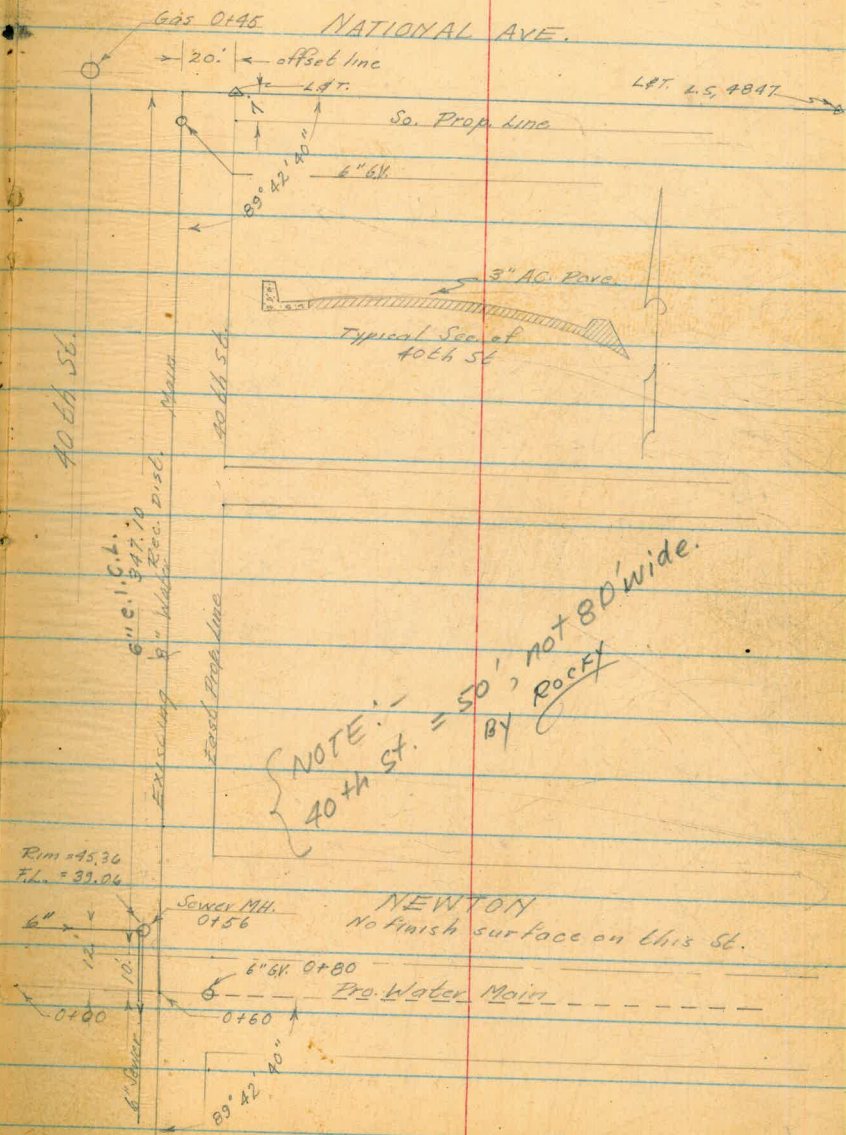
WERT
Kemp
Halahan
3-25-54 Clear

13

Profile Newton 40th to 41st St.

Station			
			65.40
0.16	65.56		
		12.45	53.11
0.80	53.91		
0-30 0+00		6.6	47.3
0+07 0+37		8.9	45.0
0+20 0+50		8.9	45.0
0+49 0+79		9.56	44.4
0+70 1+00		9.7	44.2
1+20 1+50		12.1	41.8
T.P.		13.06	40.85
0.86	41.71		
1+70 2+00		1.6	40.1
2+20 +50		2.7	39.0
2+70 3+00		4.2	37.5
3+20 +50		6.6	35.1

T.B.M. F.H. 5W.
Cor National
Ave.

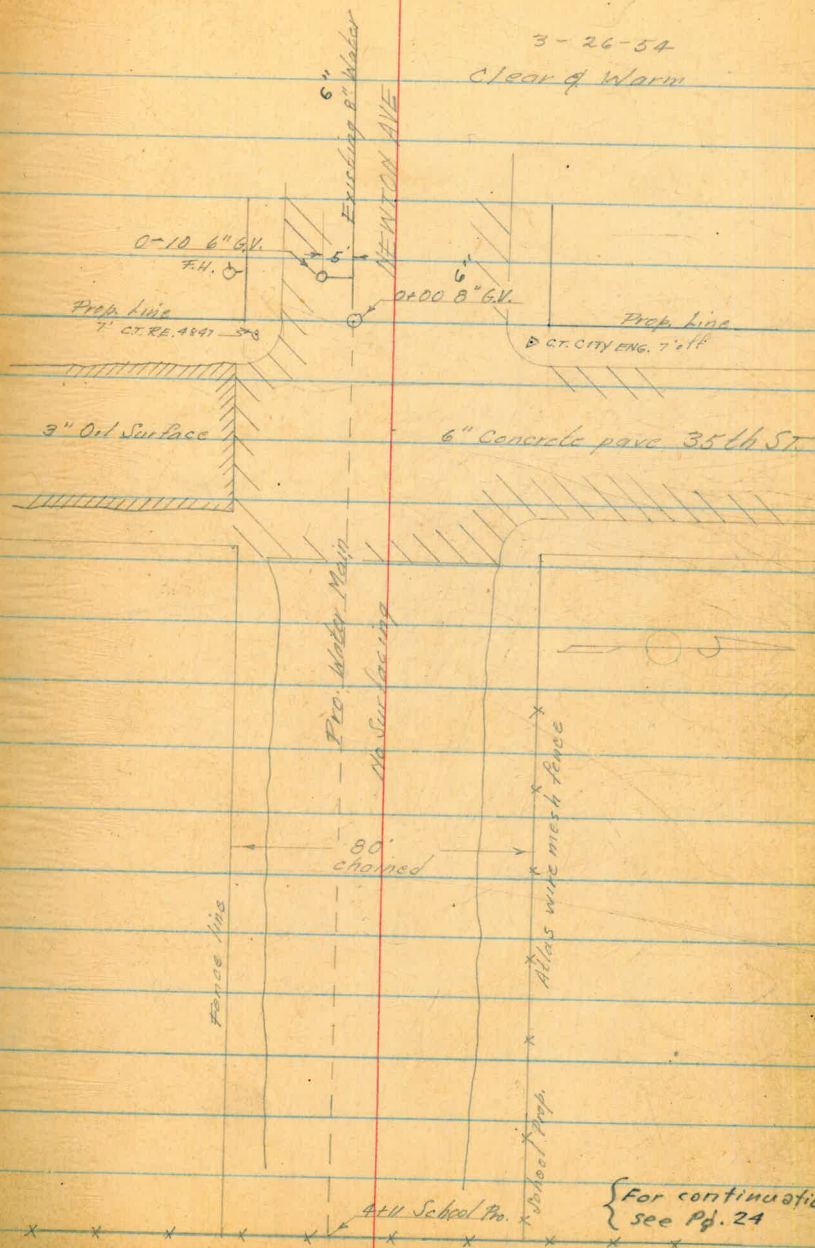


continued page 14

Profile Newton Ave - 35th to 36th

Sta				
			44.19	S.E. F.H. National 35th
	0.70	44.89		
T.P.		10.28	34.61	
	10.75	45.36		
0+00		12.4	33.0	
+50		11.3	34.1	
+60		11.13	34.2	East edge pave 35th
1+00		9.6	35.8	
+50		7.4	38.0	
2+00		6.0	39.4	
+50		4.7	40.7	
3+00		3.4	42.0	
+50		2.0	43.4	
4+00		0.3	45.1	
4+11		0.1	45.3	School prop line

return circuit page 17



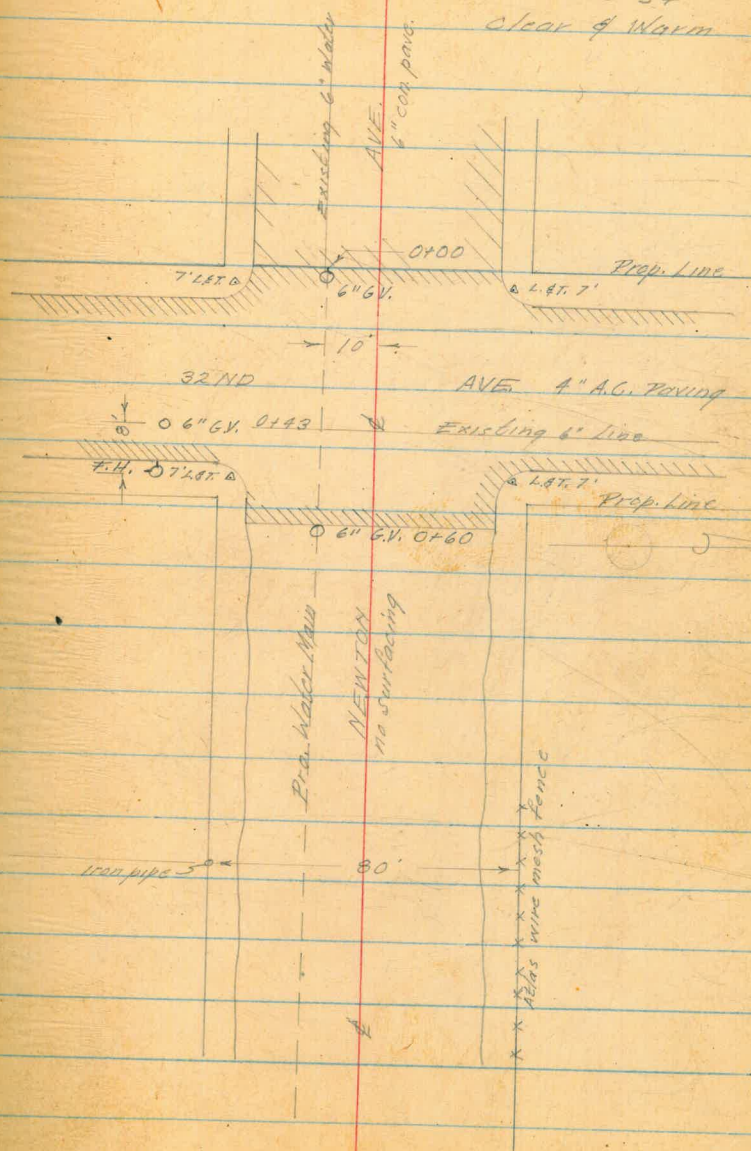
For continuation
see Pg. 24

West
Camp
Halahan

3-26-54
Clear & Warm

Profile Newton Ave - 32nd to 33rd.

Station					
			61.02		B.M. N.W.B.P. 32nd National
	2.08	63.10			
T.P.			7.82	55.28	
	2.36	57.69			
0+00			3.8	53.8	
+10.5			4.14	53.5	W. Gutter 32nd
+50			4.75	52.9	E Gutter 32nd
+100			5.6	52.0	
+150			6.1	51.5	
+200			6.35	51.3	
+250			6.7	50.9	
+300			6.7	50.9	
+350			7.0	50.6	
T.P.			12.8	56.36	
	6.73	63.09			
			2.08	61.01	B.M. N.W.B.P. 32nd National
			61.02		



Return Circuit of Newton & 36th St.

	45.36			
T.P.		9.75	35.61	
	9.37	44.98		
		0.77	44.21	
			44.19	S.E. COV. H.H. National 36th

continued page 24-25

NEET
Kemp
Hala han

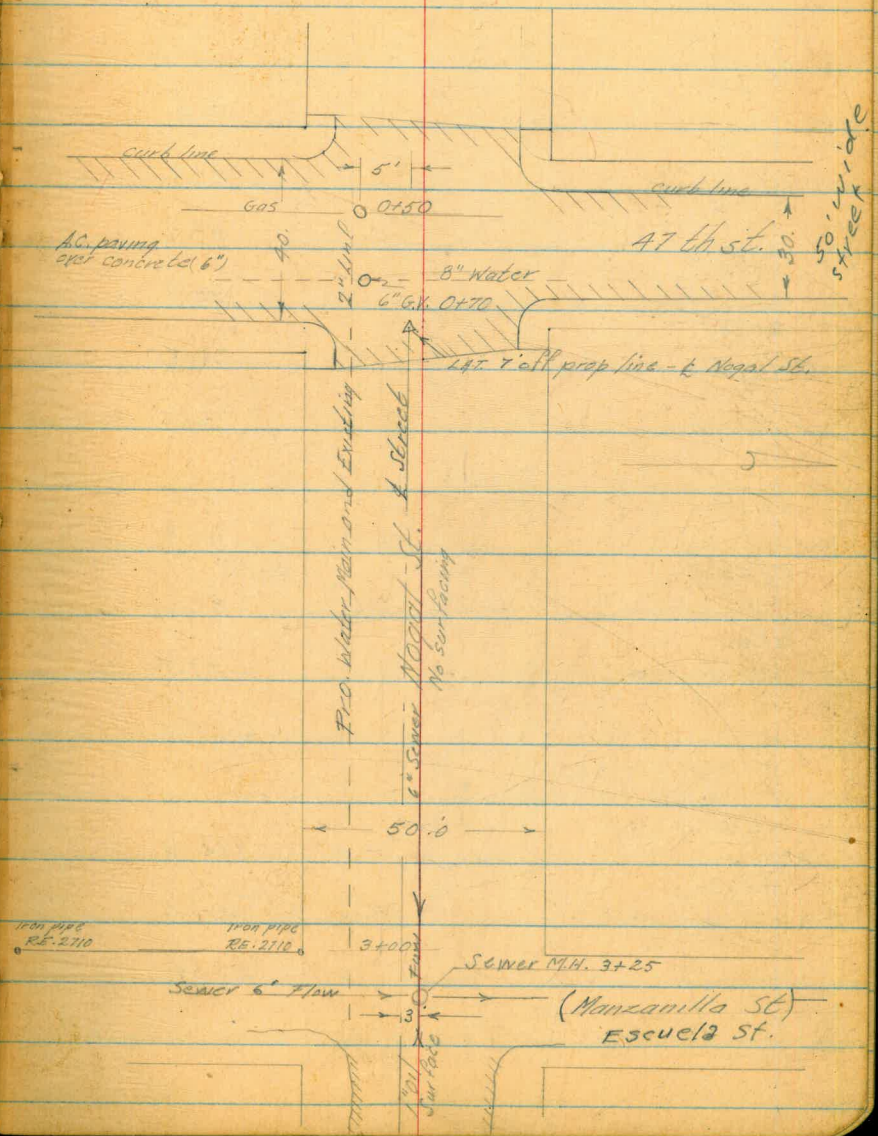
18

3-29-54

Cool & Cloudy

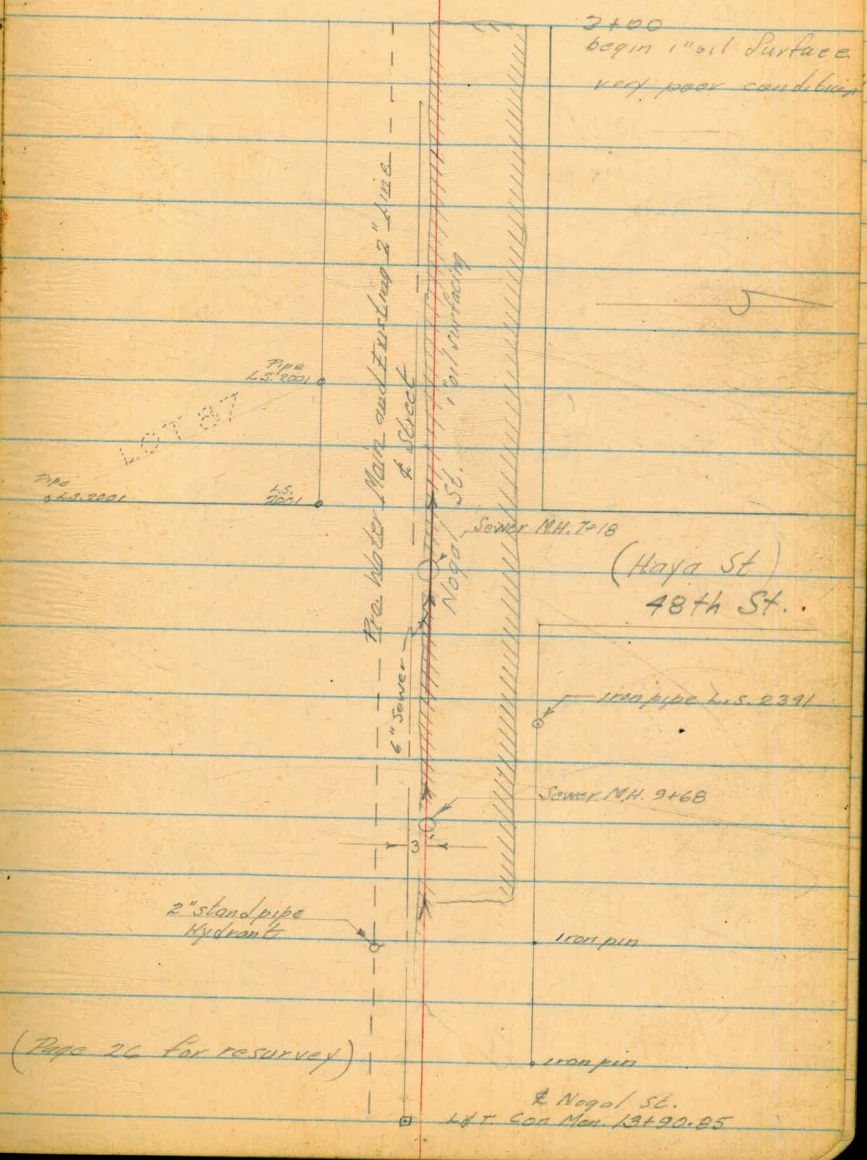
Profile Nogal Street - 47th to 49th

Station	+	H.I.	-	Elev.	Notes
				75.37	B.M. L.A.T. & Nogal 7.0 ft. E 916
		4.31	79.68		
0+00			7.7	72.0	
0+15					W. Gutter
0+45			4.34	75.3	47th St.
0+20					
0+50			4.0	75.7	
0+54					E. Gutter
0+84			4.24	75.4	47th St.
0+70					
1+00			4.4	75.3	
1+20					
1+50			5.2	74.5	
1+51					Sewer M.H.
1+81					
1+70					
2+00			5.0	74.7	
2+20					
2+50			4.4	75.3	
2+70					
3+00			3.1	76.6	
2+95					Flank. 11.66
2+25					Rim 2.26
3+20					So. Rim
3+50			2.0	77.7	Sewer M.H.
3+70					
4+00			0.3	79.4	
T.P.			0.26	79.42	
		12.04	91.46		



Profile of Nagal St 47th to 49th

		91.46		
4+20				
4+50			10.3	81.2
4+70				
5+00			8.3	83.2
5+20				
+50			5.9	85.6
5+70				
6+00			3.1	88.4
6+20				
+50			0.4	91.1
T.P.			0.61	90.85
	13.15	104.00		
6+70				
7+00			9.7	94.3
6+89			Flow L. 15.13	88.87
+19			Rim 8.23	
7+20				
7+50			4.8	99.2
T.P.			0.12	103.88
	12.88	116.76		
7+70				
8+00			12.5	104.3
8+20				
+50			9.6	107.2
T.P.			7.22	109.54
	11.32	120.86		



Profile of Nagal - 47th to 49th

Continued

Station	+	HI.	-	Elev.
8+70		120.86		
9+00			11.6	109.3
9+20				
+50			8.2	112.7
9+37	Flow	13.00		107.9
+67	Rim	6.80		Sewer MH
9+70				
10+00			5.7	115.2
10+20				
+50			3.9	117.0
10+70				
11+00			3.1	117.8
11+20				
+50			2.3	118.6
11+70				
12+00			0.5	120.4
11+79				
12+09				121.2 Sewer MH
T.P.			0.23	120.63
11.11		131.74		
12+20				
12+50			10.5	121.2
12+70				
13+00			9.6	122.1
13+20				
+50			6.3	125.4
13+61				cen. Mon
13+91			3.69	128.05 & Nagal

Station	+	HI.	-	Elev.	
13+91				128.05	T.B.M. cen. Mon. & Nagal
	3.75	131.80			
T.P.			12.85	118.95	
	0.60	119.55			
T.P.			12.88	106.67	
	0.92	107.09			
			13.01	94.08	
	0.97	94.55			
			13.22	81.33	
	0.00	81.33			
			5.97	75.36	B.M. 197.
				75.37	& Nagal

WERT
KEMP
Holahan

21

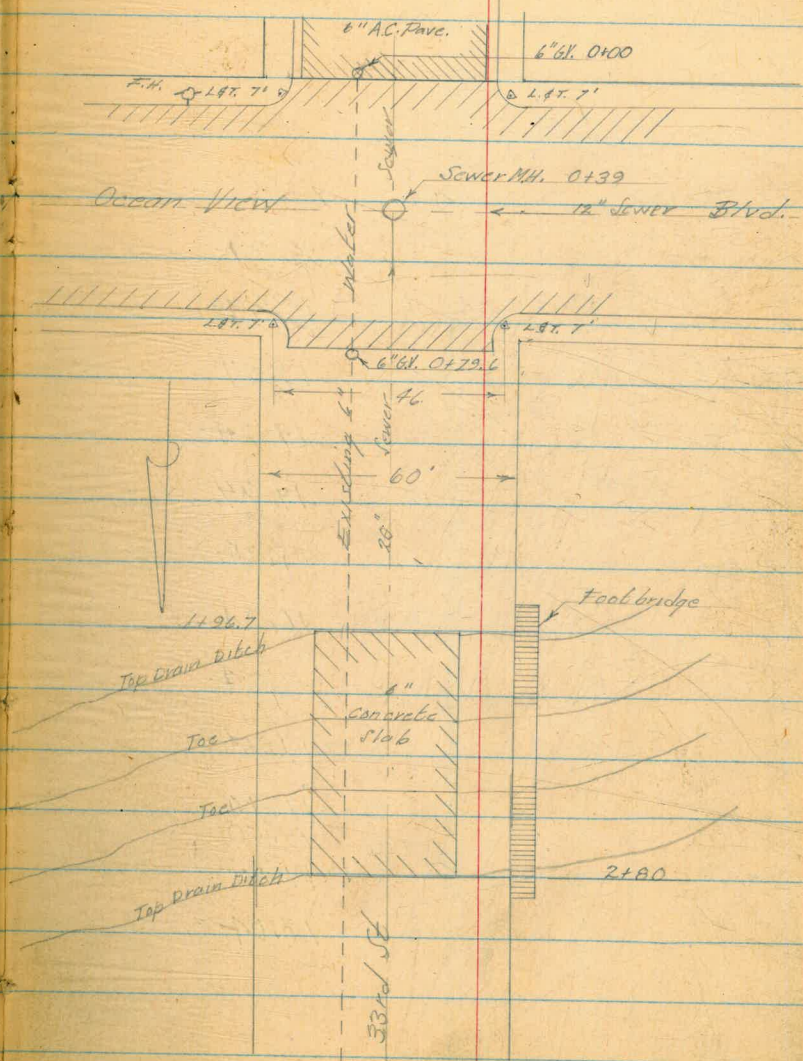
3-30-54

Profile 33rd St. - Ocean View Blvd.

to Webster St.

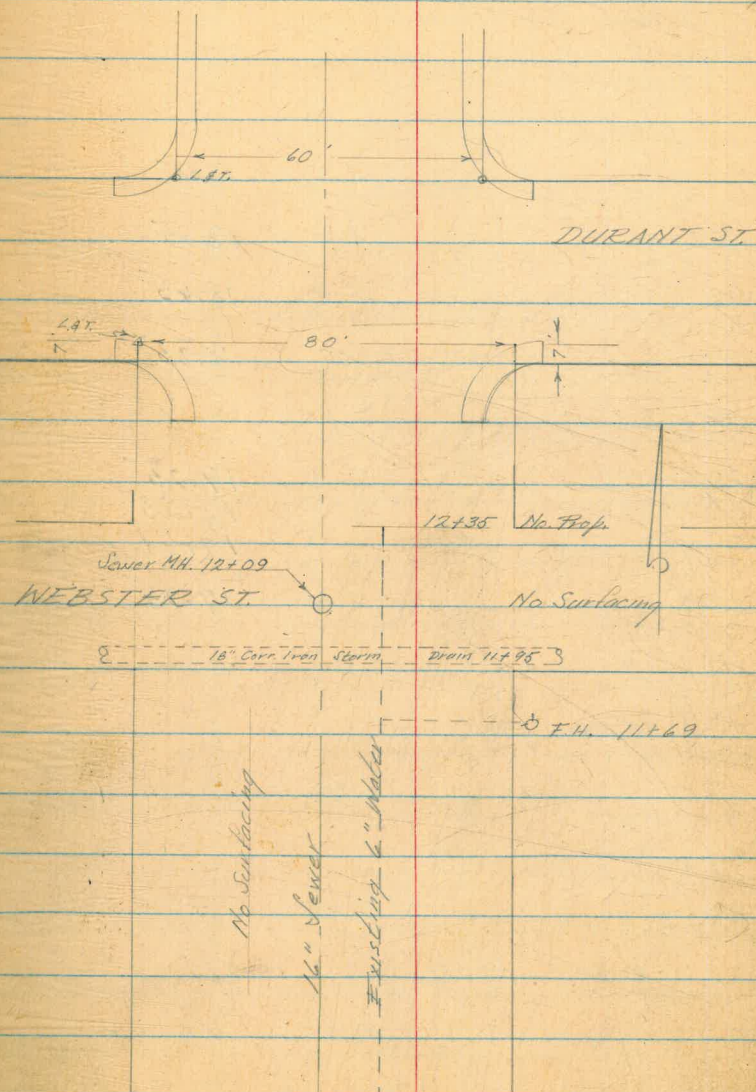
Clear & Warm

Station	+	Hgt.	-	Elev.	
				17.22	S.E. F.H. 33rd & Ocean View Blvd.
	0.52	17.74			
0+00			3.1	14.64	So. edge of Ck.
		Flow	13.53	4.21	E. edge Sewer
+30		Rim	3.03	14.71	M.H.
+50			2.9	14.84	N. edge con.
+79.6			3.07	14.67	Ocean View
1+00			3.9	13.84	
+50			5.6	12.14	So. edge con.
+96.2			6.63	11.11	Drain ditch
2+00			6.9	10.84	
+26			8.61	9.13	
+46			8.76	8.98	
+50			8.56	9.18	
+80			6.53	11.21	No. edge of con. Ditch
3+00			6.3	11.44	
+50			5.9	11.84	
4+00			5.3	12.44	



Profile 33rd - Ocean View to Webster

Station	+	H.L.	-	Elev.
		17.74		
T.P.			4.10	13.64 ✓
	7.50	21.14		
4+50			8.2	12.94
5+00			7.7	13.44
+50			7.2	13.94
6+00			6.9	14.24
+50			6.2	14.94
7+00			5.7	15.74
7+50			4.9	16.24
8+00			4.3	16.84
8+50			3.9	17.24
9+00			3.4	17.74
		Flow	10.64	10.50
9+12		Rim	3.90	17.74 Sewer M.H.
9+50			3.1	18.04
T.P.			3.00	18.14
	5.01	23.15		



Profile 33rd - Ocean View to Webster

Station	+	H.L.	-	Elev.	
		23.15			
10+00			5.0	18.15	
+50			4.8	18.35	
11+00			4.5	18.65	
11+50			4.3	18.85	
11+95			3.76	19.29	18" corr. Iron St. Dr.
12+00			3.9	19.25	
12+09		Flow	10.62	12.53	
		Rim	3.54	19.61	
12+35			3.9	19.25	
			1.35	21.80	Set T.B.M. S.E. F.H. 33 & Webster
	0.45	22.25			
T.P.			7.24	15.01	
	2.02	17.03			
T.P.			5.28	11.75	
	6.44	18.19			
			0.98	17.21	
				17.22	B.M. S.E. F.H. 33 - Ocean V.

Wert
Holahan
Veronstalis

24

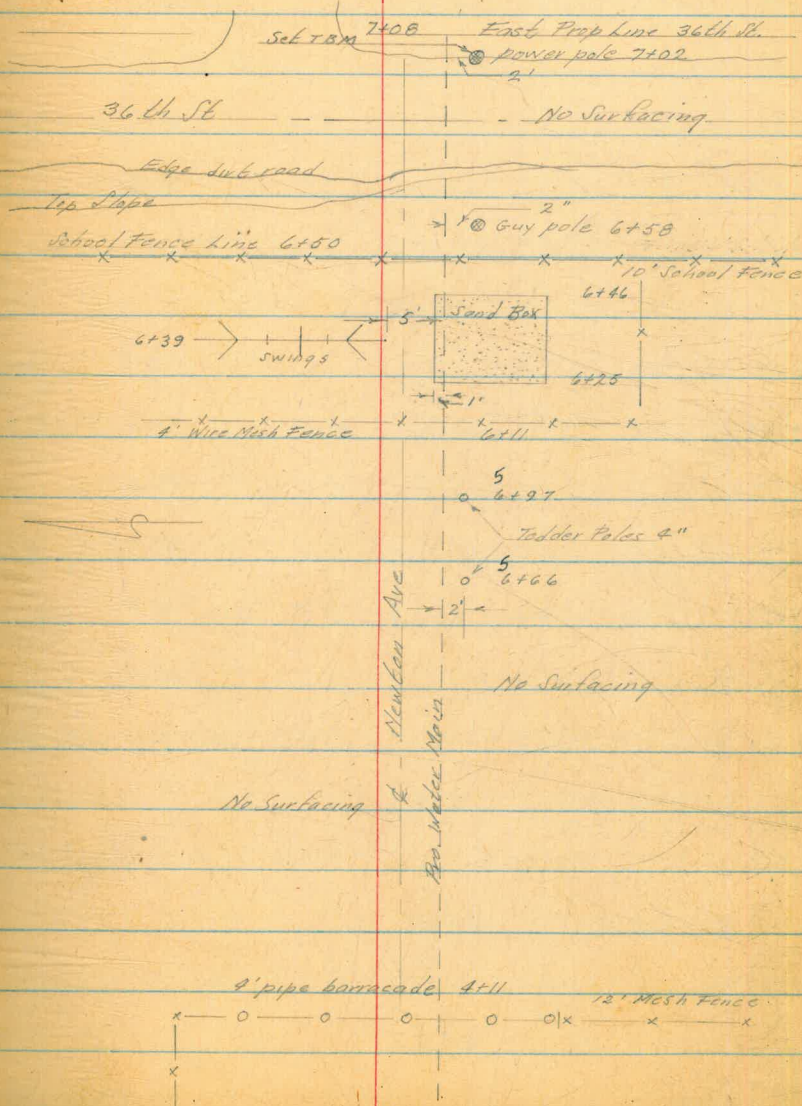
4-7-54

Continuous Profile of Newton

35th to 36th

Clear & Warm

Sta	+	H.L.	-	Elev.	F.H. S.E. Cor. 35th National
	0.77	44.94		44.19	
T.P.	6.86	43.26	8.56	36.40	
T.P.	10.62	53.12	0.76	42.50	
4+11			7.8	45.3	
+50			6.9	46.2	
5+00			5.2	47.9	
+50			2.1	49.0	
+66			4.0	49.1	
+97			3.7	49.4	Tedder bell
6+00			3.7	49.4	Tedder bell
+11			3.1	50.0	4' wire fence
+25			3.3	49.8	NW Sand box
+46			3.2	49.9	NE Sand box



Newton 35 to 36

Sta.	+	H.I.	-	Elev.	
		53.12			
6+50			2.9	50.2	12' distance
6+58			3.3	49.8	
T.P.			3.14	49.98	
	1.63	51.61			
6+79			2.9	48.7	Top Slope W edge Rd.
6+82			3.4	48.2	Top Slope E edge Rd.
6+98			4.6	47.0	
7+00			4.3	47.3	Top Burm
+02			3.9	47.7	End work
+08			5.2	46.4	Set T.B.M. Spike.
			3.81	47.80	Power pole
	3.13	50.93			
T.P.			8.70	42.23	
	10.60	52.83			
			6.26	46.57	
	2.00	48.57			
			4.37	44.20	
				44.19	B.M.

5-6-54

Profile & Water on Nogal St. 47th to 49th St

6+73 1100 pipe C.T. RE 2710, E prop
line lot 87

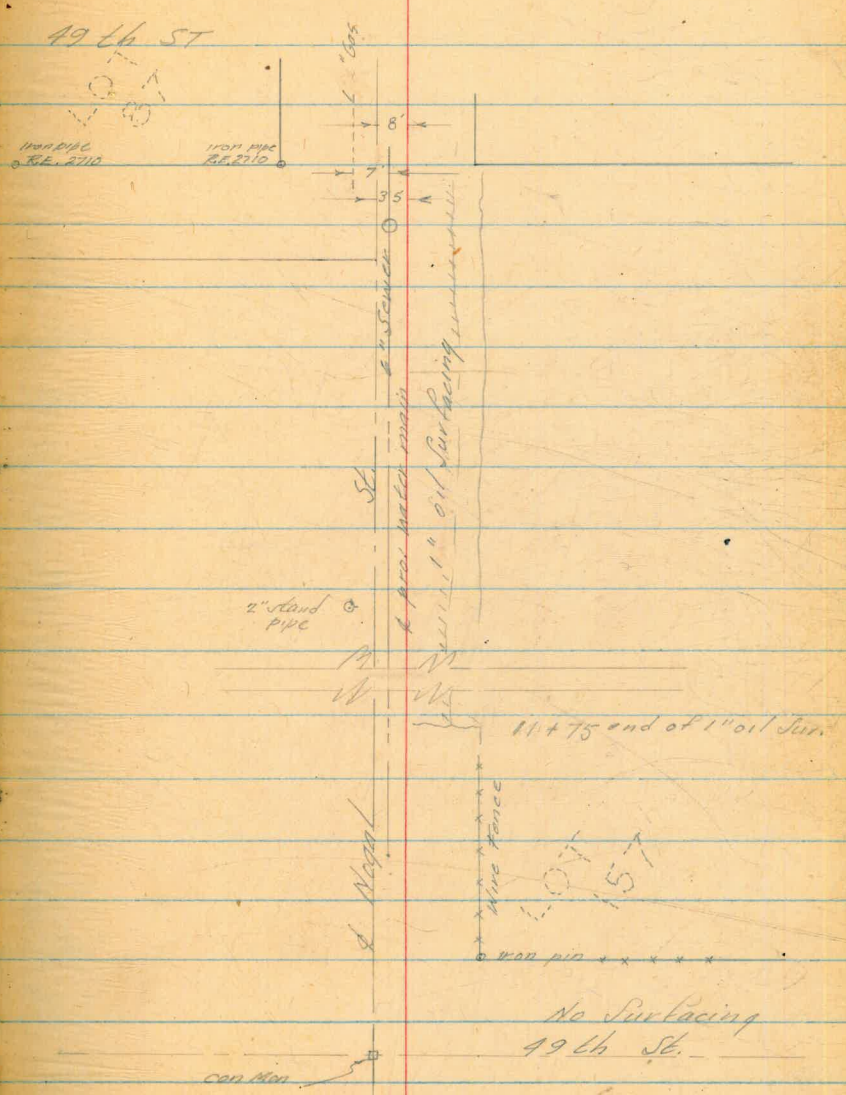
6+89 Sewer M.H.

11+95 2" Water stand pipe 15' So.
pro. water main

11+75 end 1" oil Surfacing

13+36 iron pin E prop line lot 157

13
14+61.2 con Man & Nogal & 49th



11+75 end of 1" oil Sur.

No Surfacing
49th St.

Profile of Nogal St. continued

			109.54	T.B.M. 1" L.S. pipe
	1.06	110.60		
6+73		16.4	94.2	prop. line hole produced
+89		14.9	95.7	Sewer M.H.
+98		14.2	96.4	
7+48		8.9	101.7	
+98		4.4	106.2	
8+48		1.4	109.2	
T.P.		0.30	110.30	
	11.65	121.95		
8+98		10.2	111.8	
+37		8.9	113.1	Sewer M.H.
9+48		7.6	114.4	
+98		5.8	116.2	
10+48		4.3	117.7	
10+98		3.7	118.3	

121.95

11+98 2.8 119.2

T.P. 2.69 119.26

10.00 129.26

11+98 2.8 119.5

12+98 2.9 119.4

12+98 6.3 123.0

13+98 2.1 127.2

13+61.2 1.3 123.0

13+61.2 1.20 128.06

128.05

El. con men.

Profile of Morena Blvd.
 Lehigh St to 650' So.
 ϕ 16" Water Main

10.04

4.26 14.30

0+00	4.4	9.9
+21	4.5	9.8
+50	4.6	9.7
1+00	4.7	9.6
+50	5.0	8.3
2+00	5.2	9.1
+50	5.4	8.9
3+00	5.6	8.7
+50	5.7	8.6
4+00	6.0	8.3
+50	6.2	8.1
5+00	6.2	8.1
+50	5.6	8.7
6+00	4.6	9.7
+50	3.2	11.1

Wert
 Lemp
 Holahan

29

6-11-54

B.P. No. rail of con. bridge, Lehigh & Morena

Sewer M.H. 15' So. bridge, 2' Pl. ϕ 16" Main

5'x5' con valve M.H. 8' Pl. ϕ 16" Main

Profile Morena Blvd Cont.

0+00

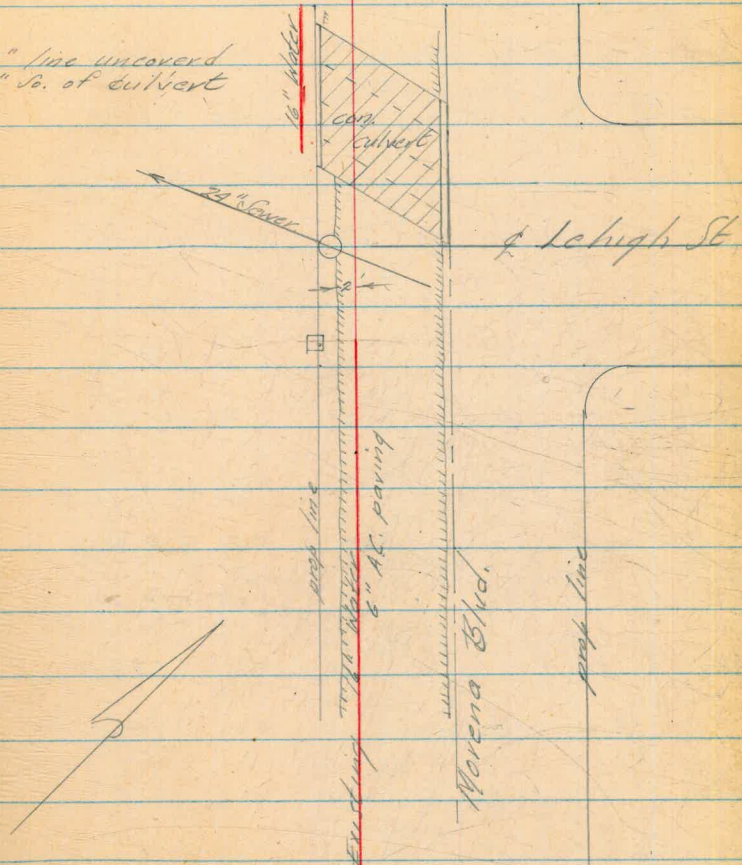
24" Sewer

+21

5x5' con. valve box, 8' So.
exist line; 16" horizontal
valve

All other sub surface lines
are marked in field and
assumed correct. Map 2413-D

16" line uncovered
20" So. of culvert



38TH ST.
WARD RD. TO EDNA PLACE
⑤ GRDS FOR 6" A.C WATER

JULY 28, 1954.

BEATTY
MARTELL
ALEXANDER

31

B.M	3.22	371.99	368.77	SE B.P. NOR MT. VIEW DR. & EDNA PLACE (See pg. 7.)
G+81	6' G.V. (CITY)	3.48	368.51	368.63 Elev. PAVT & PIPE 336
G+50		3.95	368.04	68.79 370
G+00		4.68	367.31	67.53 446
S+50		5.42	366.57	66.71 525
S+00		6.15	365.84	66.01 598
A+50		6.90	365.09	65.22 477
A+0235	22 1/2° 11 1/2° } BENDS	7.57	364.42	64.44 753
A+00		7.60	364.39	64.42 757
D	0.39	363.95	8.43	363.56
3+50		1.87	362.88	356.3
3+00		6.2	357.8	352.2
2+90 ³⁶	11 1/2° BEND	6.92	357.09	351.9
2+75		6.9	357.0	350.1
2+50		8.9	355.0	349.1
2+42 ³⁶ E	} WYE	8.9	355.0	348.9
2+42 ³⁶ S		11.65	352.7	348.9
2+25		10.50	353.45	348.2
2+00		8.50	355.45	348.6
1+50		6.10	357.85	352.6
1+15		4.90	359.05	354.8

368.63 Elev. PAVT & PIPE
336
68.79
370
67.53
446
66.71
525
66.01
598
65.22
477
64.44
753
64.42
757
62.03
172
57.45
650
56.61
734
52.95
70 (not on A.C.)
53.00
10.75 (" " " ")
52.85
116 (" " " ")
53.5
10.45 on D.C.
55.35
860
58.05
390
59.15
480

38TH ST.

(Cont'd.)

WAT. MET. S.

6+27 SWly

5+52 SWly

5+36 NEly

5+02 NEly

371.99

5.5 366.5

4+87 SWly

4+64 SWly

4+47 Nly

"

6.6 365.4

3+84 Nly

"

8.05 363.9

3+13 Nly

363.95

4.62 359.3

7^D

8.18

372.10

0.03

363.92

CK BM

3.32 368.78

= 368.77

12-20-54

Extend Proposed Water Line
67th Valencia to Toledo

435.64

FM 67th & Valencia

0.19 435.83 W

8+00

2.7 431.1 v

+50

2.5 426.3 v

T. P.

11.65 424.18 W

0.97 424.65 W

9+00

3.3 421.4 v

+50

6.1 418.6 v

10+00

7.7 417.0 v

+03

2.7 417.0 v

+26

2.3 416.4 v

+45

2.6 415.1 v

T. P.

17.2 422.93 W

12.80 435.75 W

REDUCED 24 DEC 54
C.F.W.

CK 04

0.12 435.63 = 435.64

FM 67th & VALENCIA

12-15-54

Profile & Proposed Water Replacement
Fairmont Ave. Redwood to Maple

		318.02		S.E. BP. Fairmont & Theron
	0.60	318.62		
T.P.		9.08	309.54	
	1.17	310.71		
0+00		6.0	304.7	N/H of Redwood
+10		6.7	304.5	No. curb line Redwood
+50		7.2	303.5	So. " " " "
T.P.		4.64	306.07	S.E. + H. Fairmont & Redwood
	0.45	306.52		
1+00		4.0	302.5	
+50		5.2	301.3	
2+00		6.4	300.1	
+50		7.7	298.8	
+57		8.05	298.5	Sewer M.H. 5' dia.
+62		7.9	298.6	Sewer crossing
3+00		9.0	297.5	
+18		9.3	297.2	Storm Drain Crossing, 24", 7.50 to flow

Revised by
R. Rockmore
12-21-54

	306.52			
3+18		9.05	297.5	Storm Drain Grate. 10' ht.
T.P.		9.14	297.38	
	5.08	302.46		
3+50		5.2	297.3	
4+00		4.7	297.8	
+50		4.9	297.6	
5+00		4.9	297.6	
+50		5.1	297.4	
+70.18		5.1	297.4	Angle point in line
+77		5.2	297.3	N. curb Quince St.
6+07		5.4	297.1	So. curb " " on East side
6+14.58		5.4	297.1	Angle point in line
+13		5.4	297.1	So. curb line Quince on west side
6+50		5.5	297.0	
7+00		5.5	297.0	
T.P.		5.60	296.86	
	1.22	304.08		

306.08

7+50	4.4	296.7
8+00	4.6	296.5
+50	4.7	296.4
9+00	4.8	296.3
+50	5.0	296.1
10+00	5.3	295.8
+50	5.4	295.7
11+00	5.6	295.5
T.P.	5.68	295.40 ✓

336 298.76 ✓

11+50	3.5	295.26
11+92.58	3.8	294.96
12+00	3.8	294.96
+03	3.9	294.86
+34	4.2	294.56
+42	4.3	294.46
12+50	4.4	294.36

Reduced by
R. Barker
12-29-54

G.V. & N/4 of Olive St.

No. curb line Olive

So. curb line on West

" " " " East

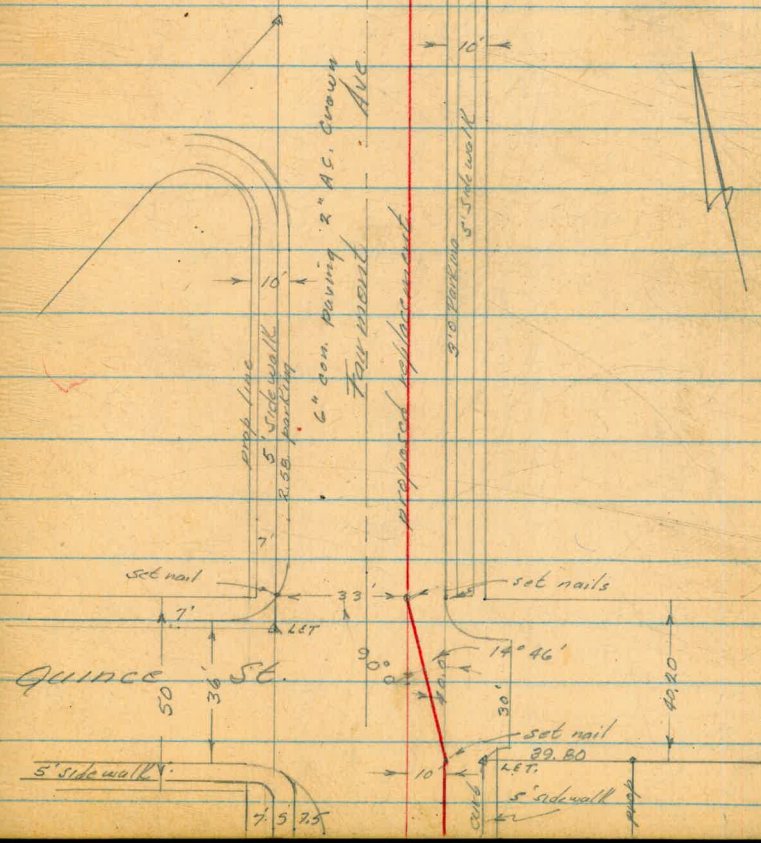
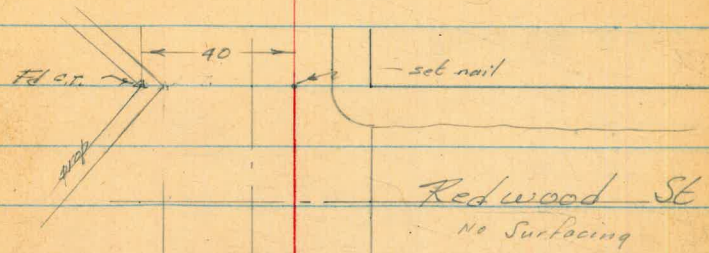
298.76

13+00	5.4	293.36
+50	6.7	292.06
14+00	8.0	290.76
+50	9.3	289.46
T.P.	9.66	289.10 ✓

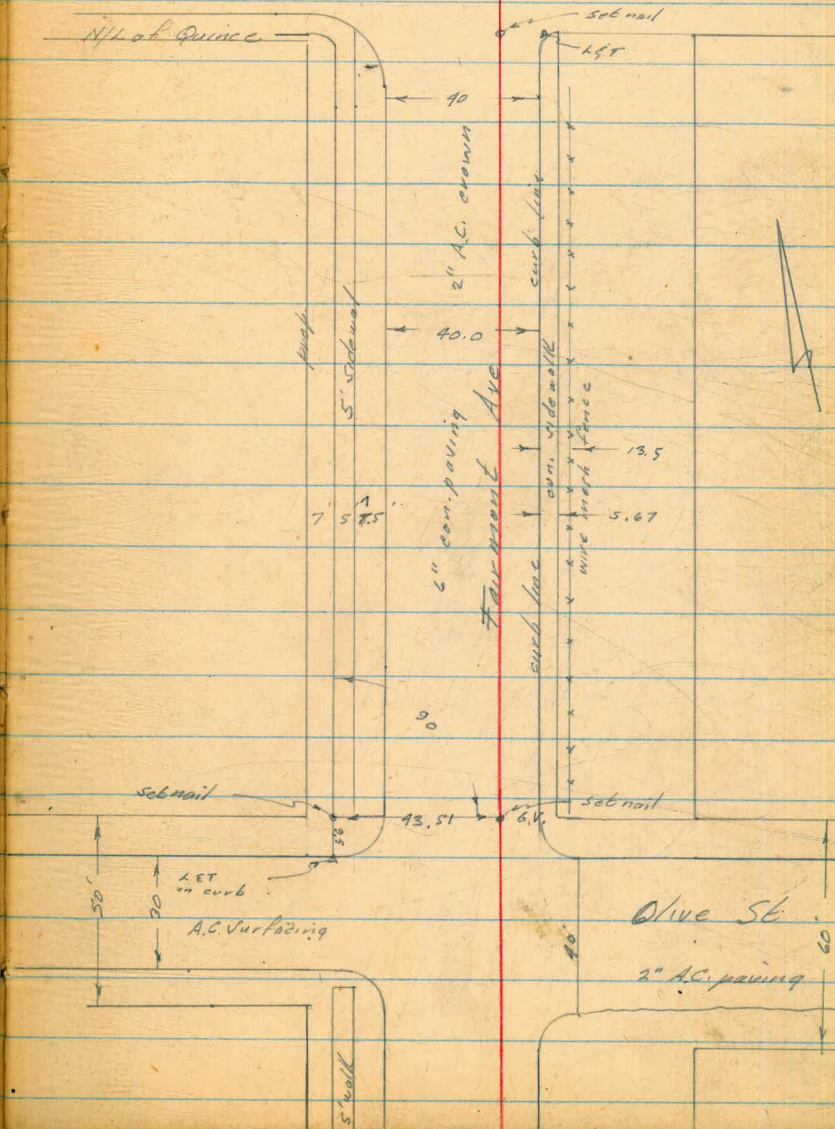
0.97 290.07 ✓

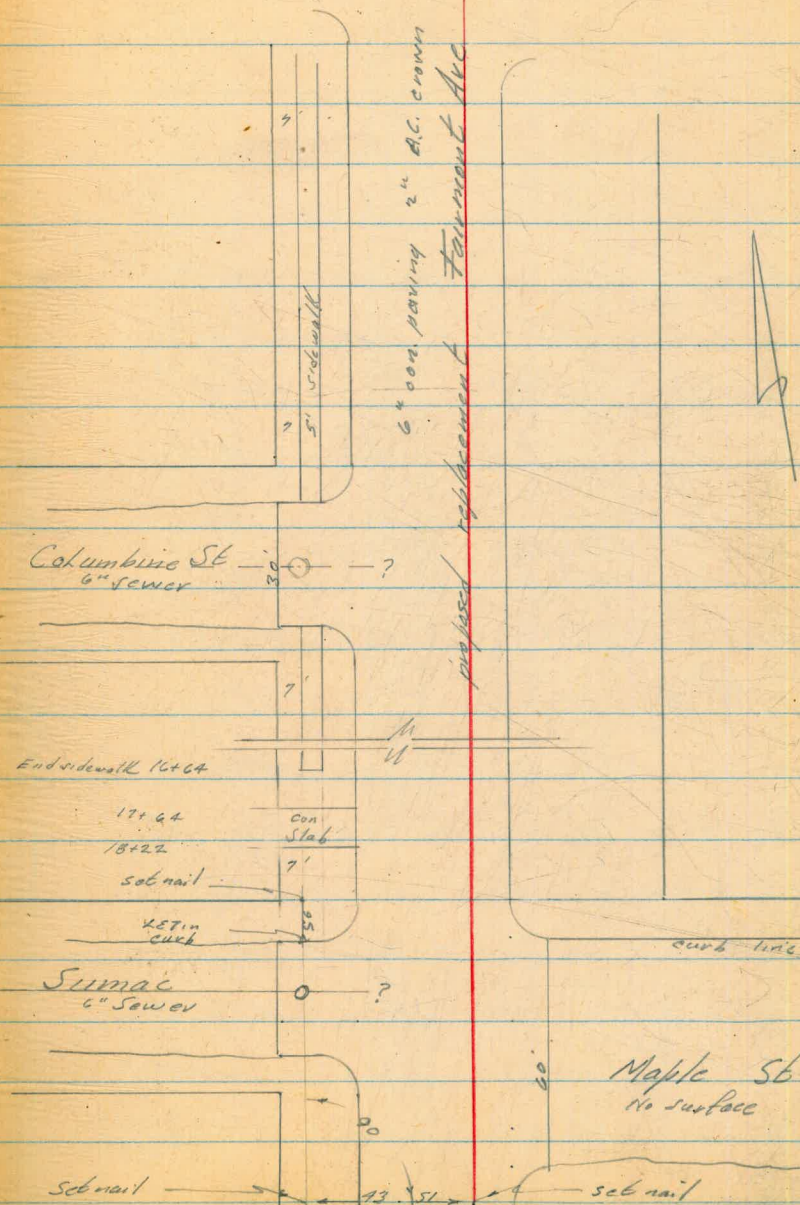
14+92	1.6	288.47	No. curb line Columbine
15+00	1.8	288.27	
+22	2.3	287.77	So. " " "
+50	2.9	287.17	
16+00	4.1	285.97	
+50	5.2	284.87	
17+00	6.3	283.77	
+50	6.7	283.37	
18+00	8.7	281.37	
+50	9.9	280.17	
+63	10.1	279.97	No. curb line Sumac

	290.07			
18+66		10.2	279.87	No curb on Maple
+23		10.6	279.47	So. curb on Sumac
19+00		10.6	279.47	
+19		10.9	279.17	So. curb Maple
+34.18		11.1	278.97	SE of Maple
	9.89	280.18	✓	280.17 NW 8 th Fairmont of Maple



QUINCE ST.





Amherst St
Amherst to El. Cajon
Pelina Group 2A^H

West
Williams
Kellholes -

45
36
39
43

5/9/55

SW BT 67^H + El Cajon

Nly prop line of Amherst produced

10.6	11.9	edge conc pave	wly edge conc pave
10' LT	15' LT	2' RT ✓	17' RT ✓
7.4	12.9		
10' LT Top of Bank	15' LT		

2.01 455.71 ✓ 453.70

0+00 9.8 445.9

+50 11.7 444.0

1+00 13.3 442.4

0.27 443.48 ✓ 12.80 442.91 ✓

1+50 3.6 439.9

+64 4.0 439.5

+75 4.6 438.9

2+00 5.3 438.2

111 5.8 437.7

2+22 ⁸² A 6.2 437.3

2+31 6.57 436.97

+50 7.19 436.29
+6.9 to Flow Line

2+79 8.53 434.95

3+00 9.09 434.39

+50 11.10 432.38

+67 ³⁹ ⁸⁰ 1.2 12.08 431.40

+77 2 12.07 431.41

3+93 12.11 431.37
+4.2 to Flow Line

+3.9	3.2	edge conc pave	edge conc pave
10' LT	4' LT	2' RT ✓	12' RT ✓

north edge AD driveway 2.6
10' LT

slly " " "

3.3	Edge
10' LT	AC
	0.3
	LT
	2' RT ✓
	Edge Conc

wly edge AD driveway 3.7
10' LT

slly edge AC " 6.16
2' RT edge AD begin conc 17' RT

begin conc pave on 2 ✓

Inv = 428.0 4.31 ← edge conc pave → 10.9 RT ✓

wly via sewer MH 10' LT to 2 sewer

8.5' LT ← edge conc pave → 6.5 RT ✓

2.5' LT Edge Conc 13.0 RT ✓

Begin Conc pave end as apron 2.0 OK

Inv 427.2
Nly via sewer MH 22' LT

	443.48			
4+00		17.66	430.80	
+04		12.71	430.77	+3.5 To Flow Line = 427.3 8 1/2' RT Sewer MH 19' RT to 2
200	434.88	10.60	432.88 ✓	
4+50		5.10	429.78	LT Concrete 7 1/2' RT edge AC
5+00		5.69	429.19	
+44		+9.0 6.46	To Flow Line 428.42 Top Brate	of 18" concrete pipe 428.4 7 1/2' Top storm drain ab inlet
+50		5.93	428.95	
+54		+4.8 6.20	To Flow Line 428.68	of 18" Dia concrete pipe = 423.9 28' RT Top storm drain ab inlet
6+00		5.50	429.38	
+50		4.99	429.89	LT 9" to curb 2 1/2' RT edge AC pave Concrete
6+76 1/2 EC		4.74	430.14	
883	439.37	4.34	430.54	TBM Top of 3/4" iron pin 10' RT of 6+76 1/2 EC pin is bent slightly
7+00		8.97	430.40	
+50		8.09	431.28	LT 9 1/2' curb 2 1/2' RT edge AC pave
+67		+5.0 8.19	To Flow Line 431.18	Line 18" concrete pipe = 426.2 2 1/2' RT Top storm drain ab inlet
+67		17.6	421.8	To Flow Line 34' RT to outlet
8+00		6.84	432.53	
+50		5.76	434.21	LT 9" to curb 2 1/2' RT edge AC pave Concrete
11+00		3.81	436.16	

439.37

9+00		131	438.03
	10.12	448.91	0.58 438.79 ✓
10+00		9.02	439.89
+50		7.15	441.76
+58 ⁶⁸ 80		6.77	442.14
11+00		5.52	443.39
+50		4.29	444.62
12+00		2.05	446.86
+50		2.28	446.63
12+55 ⁷⁵		1.73	447.18
	12.20	452.89	8.27 449.69 ✓
	202	457.82	2.09 450.80 ✓
		4.09	453.73 ✓ 453.70

LT 9 3/4 To Curb 2 3/4 RI edge AC pave ✓
Conc pave

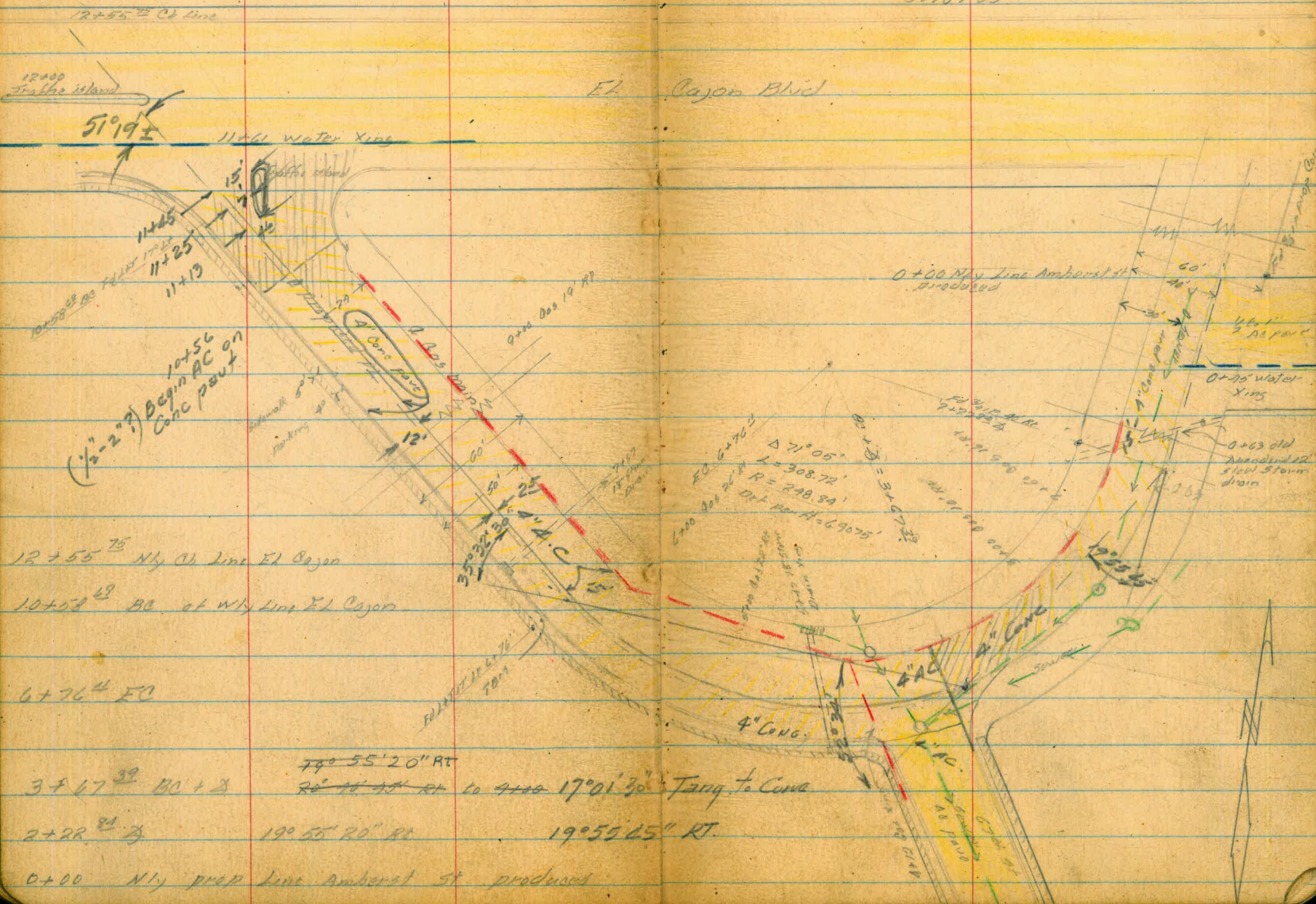
LT 9 1/2 To curb 2 3/4 RI ✓
Conc pave

an island of El Cajon Blvd

Top of Ob Nly Line El Cajon Blvd

5/10/55

El Cajon Blvd



12+55⁷⁵ NY Ch line El Cajon

10+58⁸⁹ BC of NY line El Cajon

6+76⁴ FC

3+17³⁹ BC + 8

2+22⁸¹ 8

0+00 NY prop line Amherst St produced

74° 55' 20" RT
~~20° 18' 45" RT~~ to 4+00 17° 01' 30" Tang. to Curve

19° 55' 20" RT 19° 55' 45" RT

FC 6+76.2
L=308.72'
R=248.34'
Del. Par. H=6.9675'
E.C. 3+07.33

0+00 NY line Amherst St produced

0+03 old abandoned 12" dia storm drain



67th St Alley N of Shamrock
to Amherst St
Proposed P2

0+00 = 2+16 on Plan 6-30-55 Gray

2+16 = 0+00 on Plan

2+16 ±

North prop line Amherst

1+75 ± 67th St = 3+82 ± Amherst

0+00 = 0-10 ±

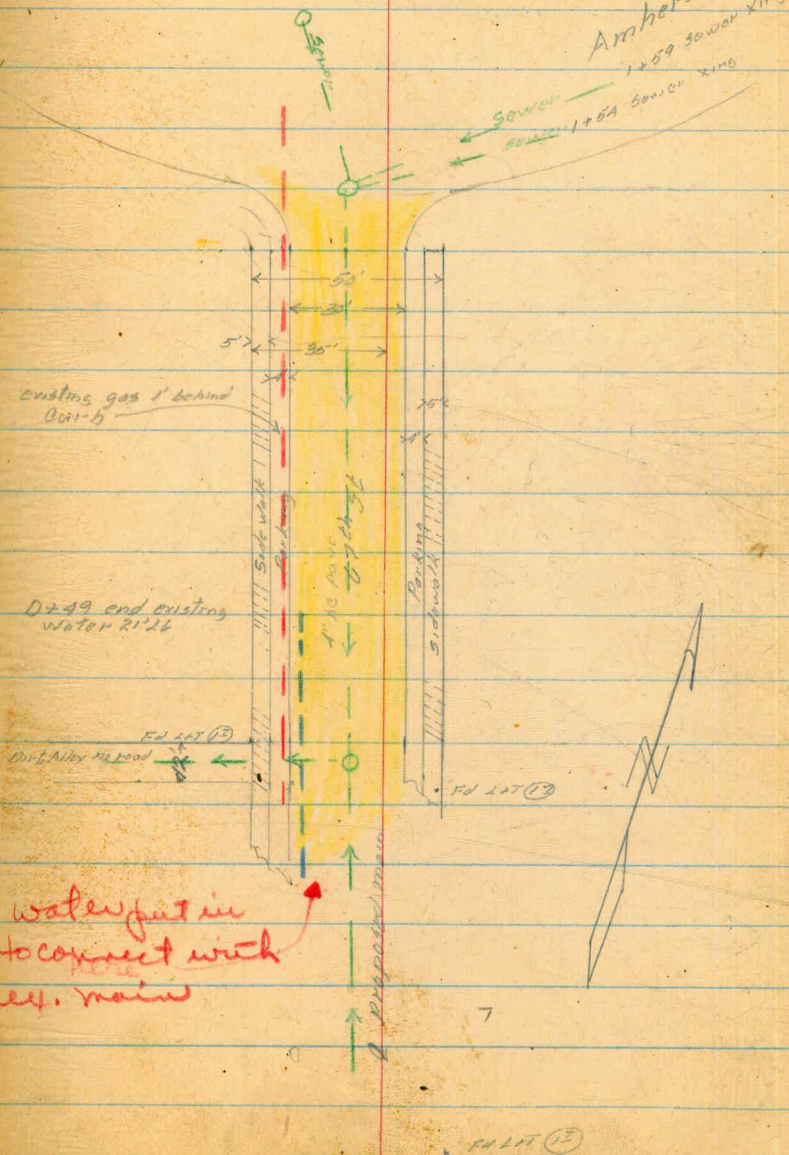
0+00 = R/W/S St.

South prop line (Alley)

West
Williams
Kellhofer

47

5/13/55



67th St Cont

Profile

West
Williams
Kellhofer

48

440.35
3.57
432.87

9.08 440.45 ✓ 431.37 ✓

0+00 = 0-10±
(0+00 = 1/2 W/S St.) 3.27 437.17.8

+13 3.66 436.79

+50 5.1 435.4

1+00 6.9 433.6

+49 8.3 432.2

+50 8.7 431.8
+10.5 to Flow Line

+54 9.08 431.37

2+00 8.7 431.8

+16 8.2 432.3

9.08 431.37 ✓ = 431.27

Nly Rim Sewer MH See page 43

South prop line (Allen) Easement

Top Fly Rim Sewer MH 11.21

Begin same page 4

Sewer MH 10.21

Nly prop line Amberst

Alley Blk 4
of El Cajon
E of Aragon

Pelton

4+362

E prop line Rolando Blvd

4+343

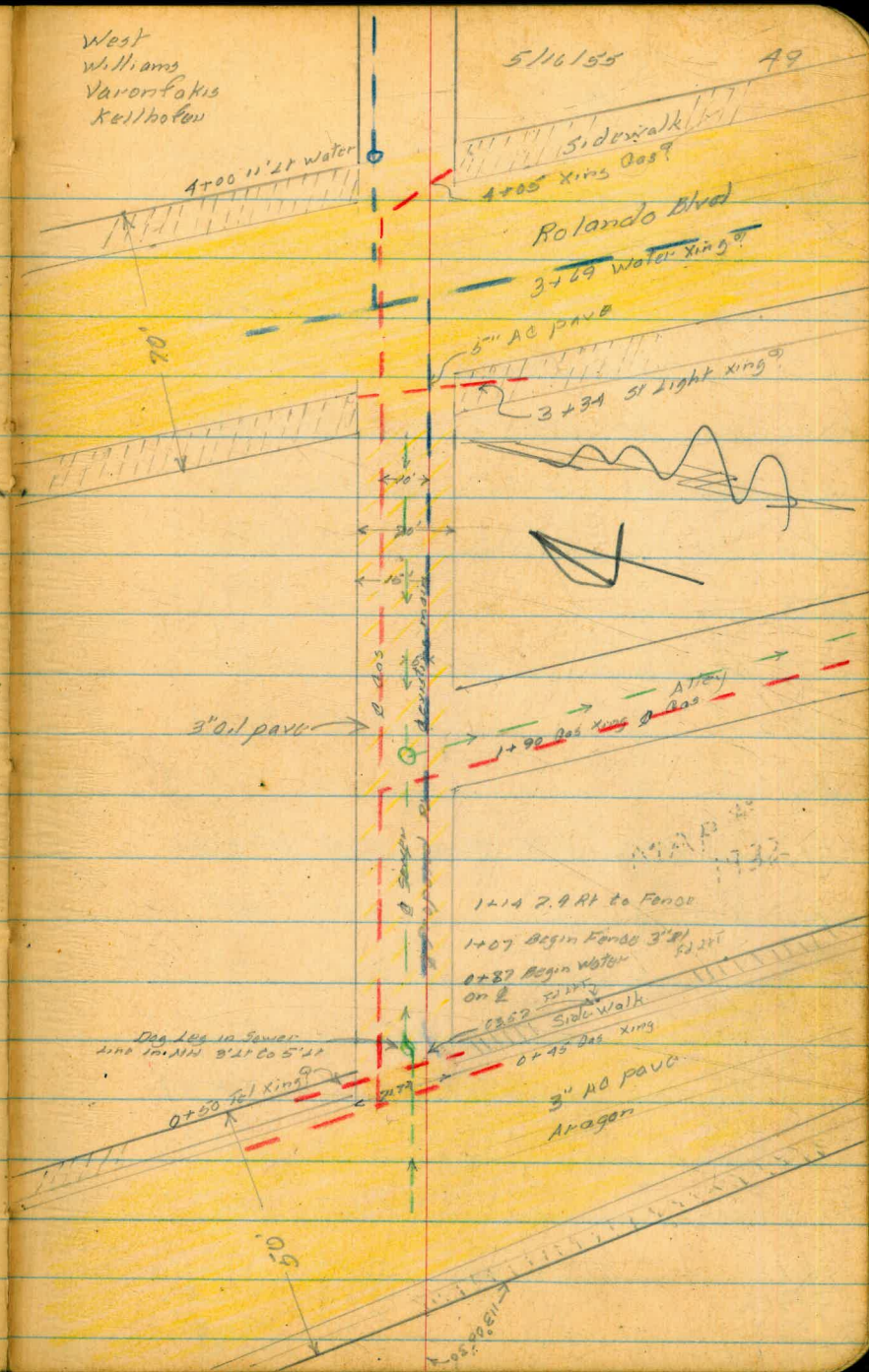
POT

0+52⁸⁵ POT

0+00

West Prop Line Aragon Dr

West
Williams
Varonakis
Kellhofen



ALLEY BLK 5 S. OF EL. CAJON
E OF ARAGON
E PROFILE

WEST
WILLIAMS
VARONFAKIS †
KELLHOFER X

50.

5/16/55 SUNNY + WARM

B.M.			452.46 (OUT)
B.M.	10.41	457.27	446.86
T.P.	5.90	459.71	3.46 453.81
0+00			5.85 453.86
+11			5.83 453.88
+46			5.79 453.92
+50			5.64 454.07
+54			5.58 454.13
1+00			5.47 454.24
+50			5.70 454.01
T.P.			+ 6.7 to flow
+93	4.02	457.85	5.88 453.83
2+00			4.01 453.84
+50			4.25 453.60
3+00			4.60 453.25
+14.2			4.98 452.97
+35			5.36 452.49
+50			5.17 452.68
4+00			5.53 452.32
+19			5.84 452.01
4+34.7			5.33 452.52
4+36.2			5.21 452.64
CHECK B.M.			10.99 446.86 = 446.86

ROLANDO + EL. CAJON S.W.B.P.

SEE PAGE 45 (STA. 12+00)

W. PROP. LINE ARAGON

W. GUTTER ARAGON

E. GUTTER ARAGON

4481.

TOP N. RIM M.H. 3.5' LT

TOP S. RIM M.H. 5' LT

E. PROP. ROLANDO

W. GUTTER ROLANDO

E. GUTTER ROLANDO

E. PROP. ROLANDO

END WORK

DIVISION 56.
65th to 66th

Pelims

3+08²²

Why prop line 66th produced

0+00 = 11+88.85 on Plan
J Gray 7-1-55

0+21⁶⁹

POT

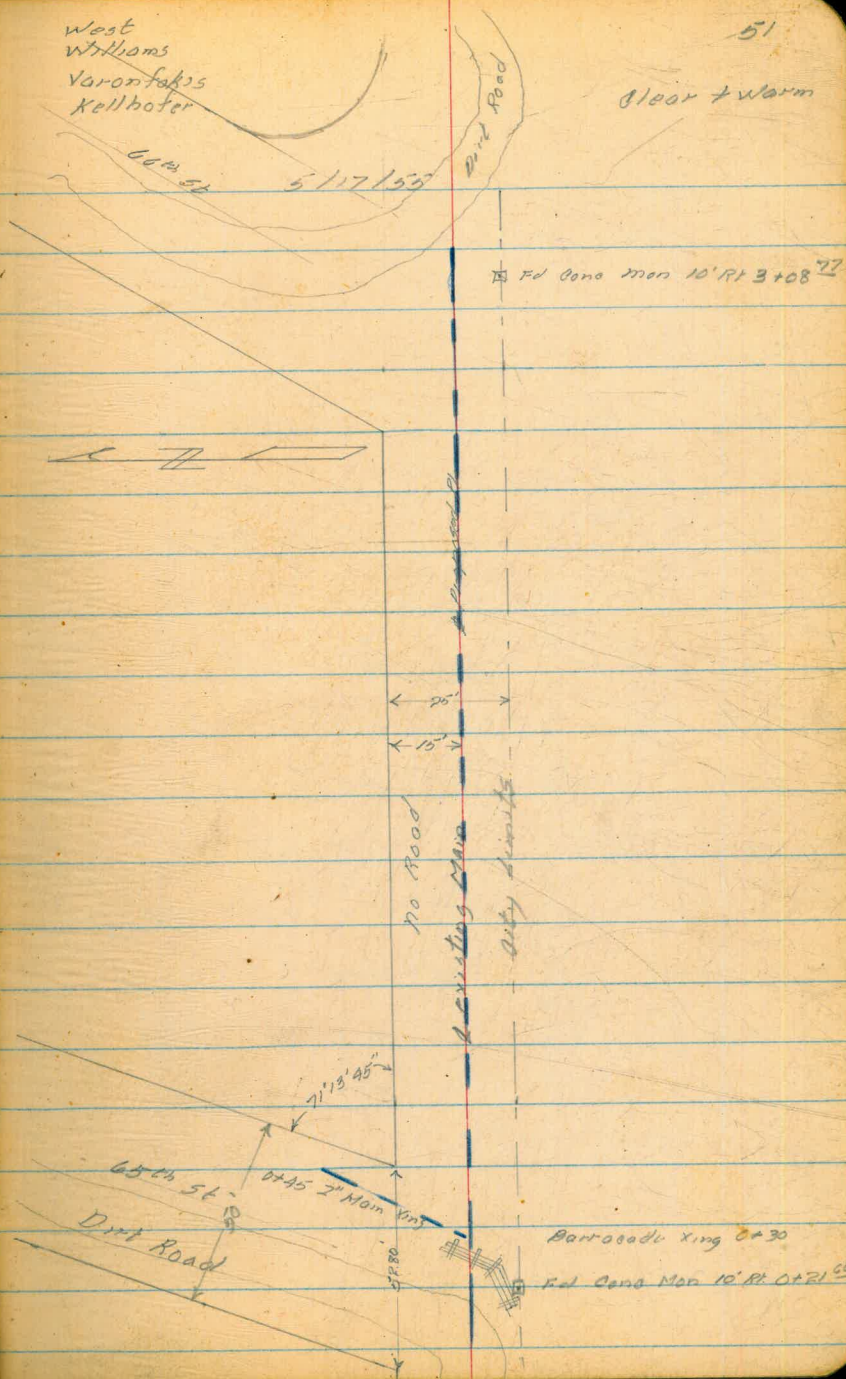
0+00

Why prop line 65th produced

West
Williams
Varonfakis
Keilhofer

51

Clear + Warm



Profile

Division St 65th to 66th

	563	274.27		268.64
0+00			1.6	272.7
+35			3.0	271.3
+50			7.1	267.2
0.35	261.59	1303		261.24 ✓
1+00			4.6	257.0
538	254.28	1269		248.90
+45			12.0	242.3
+62			12.7	241.6
+77			11.6	242.7
2+00			4.5	249.8
12.12	265.88	0.52		253.76
12.34	277.54	0.68		265.20
2+50			10.7	266.8
1.66	288.99	0.81		277.33
3+00			5.3	283.7
+08 ² ±			3.6	285.4
3.33	289.61	3.71		285.28
2.20	277.88	12.99		275.68

West
Williams
Varanfakus
Kallhoter

52

5/18/55

See page 57

Turn on cone man 10' RT 0+21⁰⁰

on dirt road

	6.0		9.2
	<u>70.11</u>		<u>70.11</u>
	3.3		6.5
	<u>10.11</u>		<u>10.11</u>
Bottom of Slope	10.3		12.5
	<u>10.11</u>		<u>10.11</u>
Creek Batt		Creek runs SW	
	11.9		11.5
Batt of Slope	<u>10.11</u>		<u>10.11</u>
	5.7		2.9
	<u>10.11</u>		<u>10.11</u>
	12.4		9.9
	<u>10.11</u>		<u>9.11</u>
			8.6
			<u>10.11</u>
	5.5		4.7
	<u>10.11</u>		<u>10.11</u>

Elly prop Line 66th

Turn on cone man 10' RT 3+08²

277.88

9.25 248.63

=

269.64

53

	7.90	352.28		344.38
0+00			6.4	345.9
+50			7.9	344.4
1+00			8.9	343.4
+50			7.3	345.0
2+00			4.7	347.6
+50			2.5	349.8
3+00			0.5	351.8
	0.95	352.79	0.44	351.84
+50			0.2	352.6
4+00			1.9	350.9
+50			1.7	348.1
5+00			8.4	344.4
	0.58	340.54	12.81	339.98
+50			1.5	339.1
6+00			7.5	333.1
	0.53	328.28	12.81	327.75
+50			1.2	327.1
7+00			8.8	319.5

506 FB 852 P 49

TBM FH s/w cor 65th + Detroit

N/A prep line Detroit

$\frac{11.3}{10'LT}$	$\frac{10.8}{13'LT}$	$\frac{8.3}{2'RT}$	$\frac{8.8}{10'RT}$
$\frac{11.8}{10'LT}$	$\frac{11.6}{9'LT}$	$\frac{6.9}{1.5}$	$\frac{7.1}{10'RT}$
$\frac{7.2}{10'LT}$	$\frac{4.2}{8'LT}$		

From 2 to 15' LT

Trash pile 3' deep

$\frac{13.8}{10'LT}$	$\frac{11.8}{5'LT}$	$\frac{1.1}{10'RT}$	$\frac{4.5}{7'RT}$	$\frac{4.7}{10'RT}$
----------------------	---------------------	---------------------	--------------------	---------------------

328.28

5/17/55

Q

7+50		9.1	319.2	
8+00		7.0	321.3	
8+50		7.1	321.2	
9+00		10.2	318.1	
		11.57	316.71 =	
0.90	316.14	12.54	315.74	
+50		2.7	313.4	
10+00		6.6	309.5	
+50		9.65	306.5	
	0.62	303.68	13.08	303.06
11+00		0.8	302.9	
+50		4.2	299.5	
12+00		11.5	297.2	
	0.50	291.38	12.80	290.88
+50		8.0	283.4	
	1.72	280.19	12.91	278.47
13+00		7.1	273.1	
+50		10.2	270.0	
14+00		7.7	272.5	

14.0	6.3	6.4
10' Lt	6' Rt	10' Rt
10.3	7.2	6.4
10' Lt	3' Lt	10' Rt

316.82 9+07 519531H PP 15' 42" Nail in pole

0.0	0.0	2.0	2.2
10' Lt	3' Lt	9' Rt	10' Rt
	4.2	7.6	7.7
	10' Lt	6' Rt	10' Rt
	11.2	12.1	14.5
	10' Lt	4' Rt	9' Rt

7.1	1.0	1.0
10' Lt	12' Rt	20' Rt
16.5	3.1	
13' Lt	15' Rt	
14.0	4.7	
13' Lt	11' Rt	

65th Cont.

280.19

14+50

6.5 273.7

15+00

6.5 273.7

+00

8.6 271.6

4.99 273.20 =

+9.25 277.89 11.55 268.64

12.90 290.51 0.28 277.61

12.55 303.02 0.04 290.47

12.38 314.90 0.50 302.52

12.88 327.56 0.22 314.68

13.04 340.39 0.23 327.33

12.69 352.39 0.67 339.70

3.55 358.33 0.61 351.78

10.90 344.43

= 344.38

57

10.5
13.21

9.5
12.11

12.2
10.11

5.0
6.81

6.6
10.21

7.0
10.81

2.9
10.81

30' RT 18+75

1911 Nardin paper pole 271619

Turn on cone Mon 10' RT 15+70[±]

Division St (Alden St)
65th to Leonard St
Pelim for 12" AB

West
Warren factors
mortar
Kellhofer

58

7+51 ⁸⁵ wly prop line

7+51 ⁸¹ 86° 48' 30" RT

6+57 ¹³ 42° 45' 20" LT

5+98 ⁶⁷ 90° 00' 00" LT

4+36 ²⁴ 64° 44' 30" RT

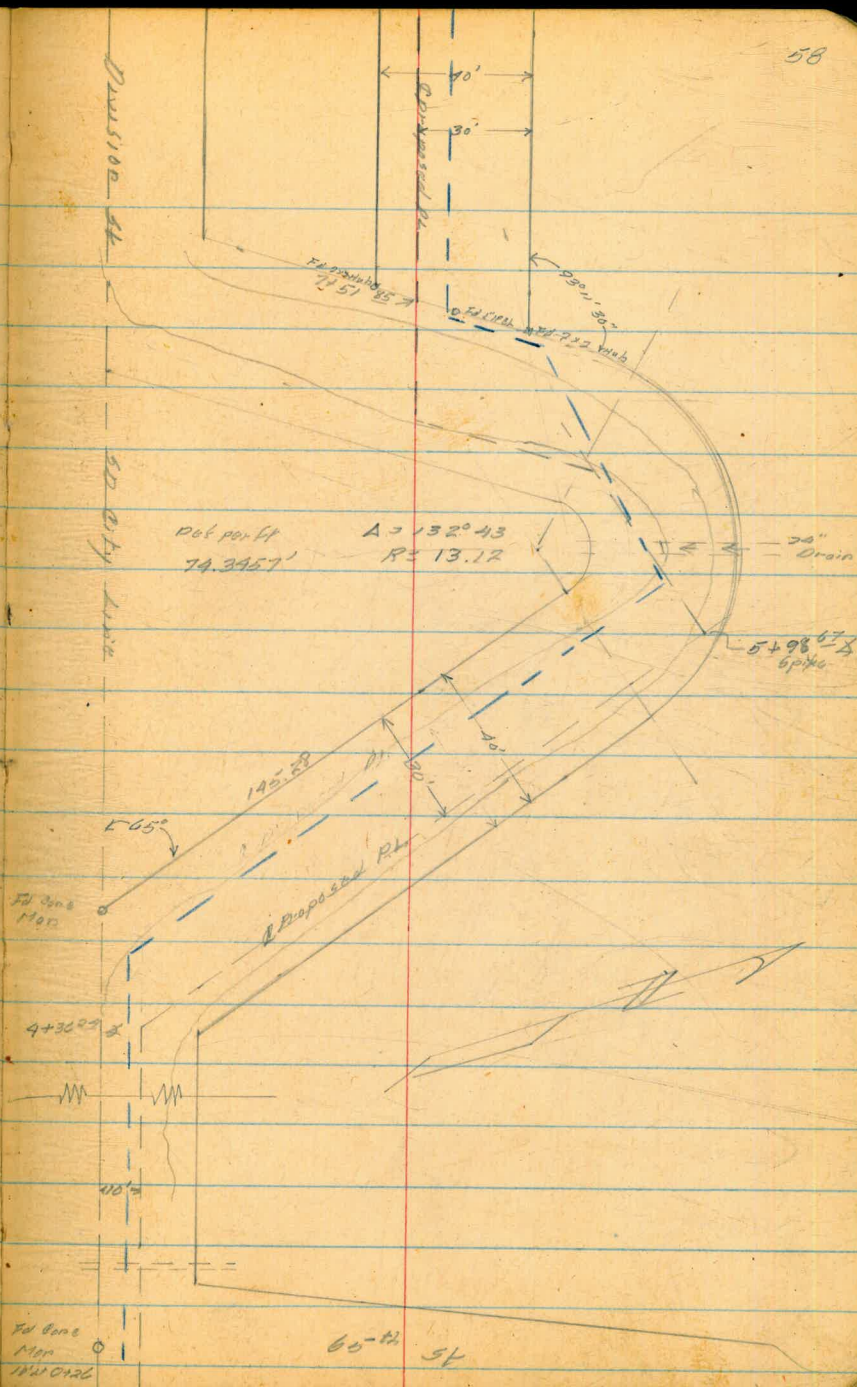
Locations of 2" Water Main

Sta	Distance from RT
3+49 ⁰⁷ P.O.T	0+26
	1+00
	3+00
	4+26
	5+50
	6+18
	6+38
	6+70
	7+72
	8+00
	8+50
	10+00
	10+23
	11+31
	11+50
	12+73
	12+00
	13+00
	13+33

0+00 = 11+36.05
on Plan
J Gray 7-1-55

0+26 ⁹³ P.O.T

0+00 Ely prop line 65th produced



Division St Cont

16+65.95

Wly Prop Line Leonard St

13+33.21

Split of Angle $66^{\circ} 45' 40''$ RT

11+19.27

$85^{\circ} 44' 00''$ LT 50' HET

10+69.27

POT EA 2' AP 10' RT 90°

9+13.19 POT

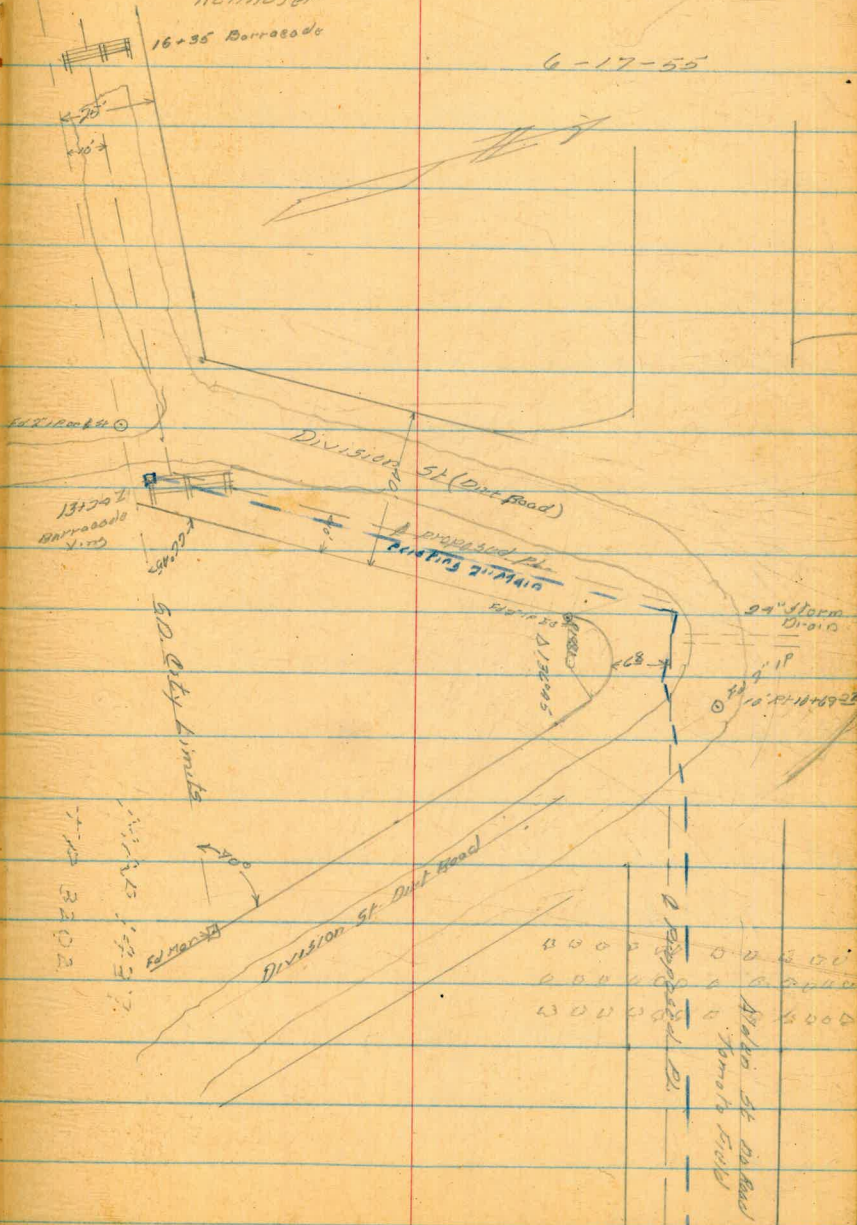
8+31.16

POT 13' $1\frac{1}{2}$ HET

West
Marcell
Varonakis
Kellhofer

16+35 Barracade

6-17-55



Division St @ Profile

West
martell
Varonakis
Kellhofer

60

6/20/55

12.77 281.91 268.64

Turn on Gene Man See page 57

0+00 14.3

0+00 Ely prop line 65

+26 9.2

+50 8.7

+56 8.9

$\frac{11.7}{78 \text{ ft. Flare line 6" drain}}$ $\frac{10.5}{13 \text{ ft. end 6" steel drain}}$

1+00 8.1

$\frac{8.1}{7 \text{ ft. top road bank}}$

+50 6.1

$\frac{6.1}{6 \text{ ft. " " "}}$

2+00 2.4

$\frac{2.3}{7 \text{ ft. " " "}}$

703 288.06 0.38 281.03

+50 5.4

$\frac{5.2}{6 \text{ ft. top of bank}}$

3+00 2.3

+50 1.5

4+00 2.8

+26³² 6.5

+50 9.7

092 275.72 1266 275.30

5+00 3.3

+50 5.8

+98⁶² 6.2

Division 51 98.6 212.9
 Cont 129.6 32

275.72

6+19 - 7.5 Top of Road bank

11.9 8.6
 12' RT 5' RT

6.8
 10' RT

+296 11.9 bott of gulch

12.7
 10' RT

11.8 7.1
 0.8 RT 2' end 6' RT

10.1
 4.1 RT
 14' end 20' drain flow line

+47 6.5 Top of Road bank

11.5
 10' RT

6.5
 10' RT

+52 13.8 6.6

7+00 5.0

10.2
 7' RT

5.2
 8' RT Top Bank

5.1
 10' RT

+21 8.1 4.34 Hub

+44 4.9

Bott of Road Bank Wly Side

10.90 286.19 0.93 275.39

7+57 8.5 8.94 Hub

9.1
 10' RT

9.7
 10' RT

9.7
 30' RT

8+00 3.2

3.6
 10' RT

3.1
 10' RT

2.6
 30' RT

5.37 289.96 1.60 284.59

+50 5.9

6.0
 10' RT

5.2
 10' RT

4.7
 30' RT

9+00 6.4

6.4
 10' RT

6.3
 10' RT

5.8
 30' RT

+50 11.1

11.1
 10' RT

10.6
 10' RT

10.2
 30' RT

0.13 277.35 12.74 277.22

10+00 7.3

7.8
 10' RT

6.4
 10' RT

3.3
 30' RT

+29 11.3

16.8
 13' RT

13.1
 8' RT

Top of Bank

10.0
 10' RT

6.4
 30' RT

1.25 246.51 12.89 265.26

+34 1.7

0.0
 10' RT

266.51

edge road

10+41

6.2

+50

6.2

Top of Bank w/ Edge Road

+71

6.2

6.0
10.21

6.5
6.81

3.2
10.81

9.2
10.21

6.8
10.81

6.22 260.38 12.35 254.16

11+00

7.6

9.1
10.21

6.9
2.11

2.6
12.81

11+19.21 Hub

8.17

Sh. end 24' Cur
Drain

7.75' flow line
38.81

5.1
13.81

11+50

7.4

10.0
10.21

2.3
13.81

12+00

4.4

6.6
10.21

1.6
6.81

2.0
10.81

+50

1.5

5.5
10.21

0.5
2.81

0.7
10.81

12.09 271.26 1.21 259.17

13+00

10.5

13.7
10.21

8.7
8.81

8.5
10.81

+33.21

7.6

+50

5.6

7.08 264.18

= 264.24 Top 2" 10 10.21 13+50

14+00

1.7

8.70 279.67 0.29 270.97

14+50

7.1

15+00

5.3

+50

4.5

Division 51 Cont

279.67

16.00 48

4.50 9.7

+65.95 13.3

5.68 283.80 1.55 278.12

4.19 287.99 0.00 283.80

3.15 278.44 12.70 275.29

9.77 268.67 = 268.64

why prop line Leonard

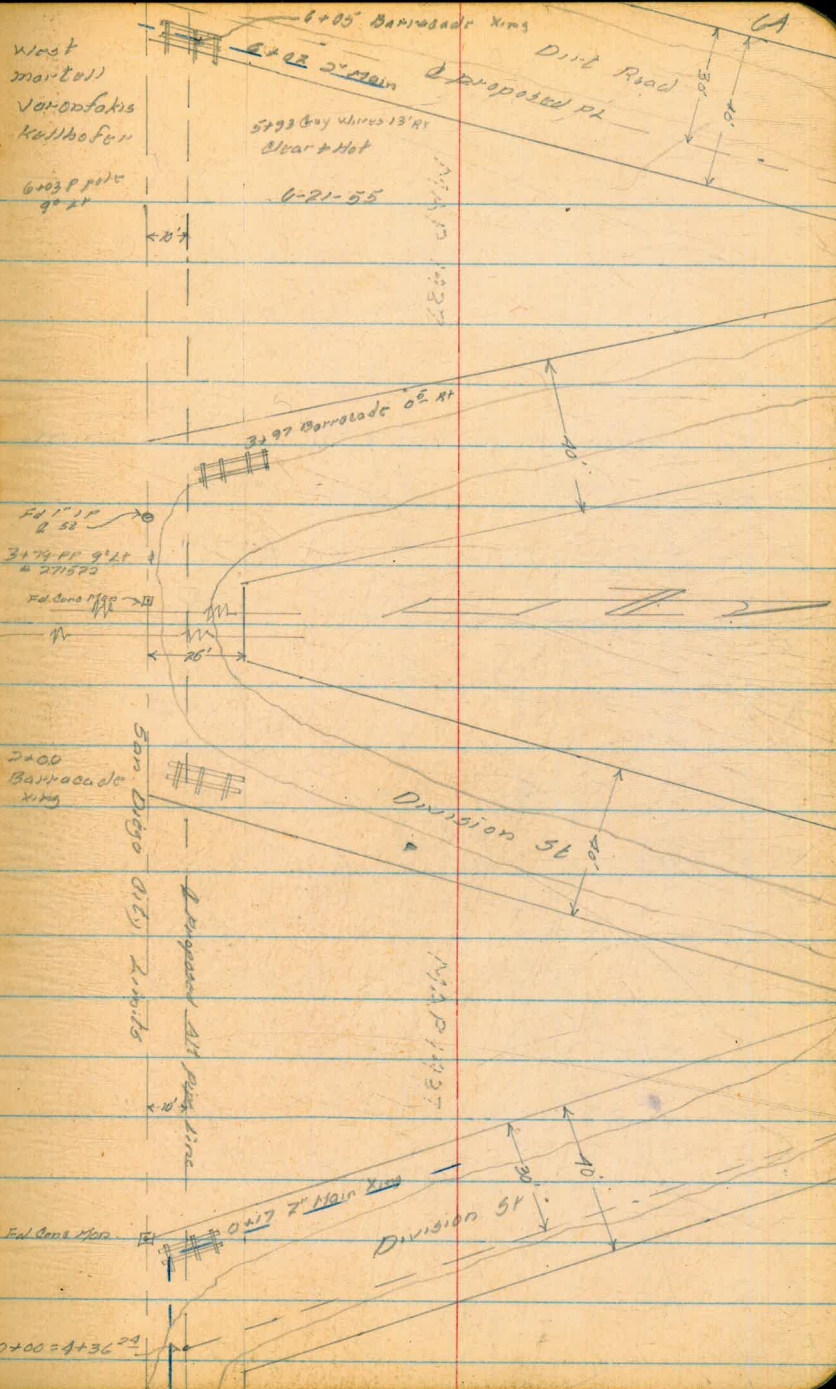
Alternate List
 Division 51
 from $4+36^{21}$ to $13+23^{21}$

$6+08^{45} = 13+33^{21}$

$4+00^{89}$ 10' LT 1" ID @ 51 90°

$3+72^{62}$ 10' LT Cone Man 90°

$0+00 = 4+36^{21}$ see page 58



Division 5t
Q Profile

0.27	284.07		283.80
0+00		2.5	
+18		4.3	
0.53	271.50	19.10	270.97
0+50		1.2	
5.08	243.85	12.73	256.77
1+00		7.0	
+13		10.2	
+23		10.4	
+50		3.4	
11.86	275.56	0.15	263.70
+70		10.1	
+90		1.5	
5.02	280.30	0.58	275.28
2+00		4.8	
+50		1.8	
3+00		0.7	
+50		2.2	
4+00		5.7	

West
Martell
Voronski
Kalkhof

6-21-56

From page 63

	5.7		4.5
	10' LT		10' RT
	1.5		0.7
	10' LT		10' RT
	6.4		7.0
	10' LT		10' RT
	Creek Bott		
	Creek Bott		
	4.7		2.3
	10' LT		10' RT
	11.2		8.8
	10' LT		10' RT
	5.5	5.2	0.7
	10' LT	8' LT	10' RT
		1.9	
		10' LT	
	7.0		5.2
	10' LT		10' RT
	7.7	7.4	5.8
	10' LT	6' LT	10' RT

280.30

4+77

11.8

$\frac{12.0}{10.21}$

$\frac{11.6}{5.91}$

$\frac{10.6}{10.82}$

0.40 267.90 1280 267.50

4+50

8.5

$\frac{9.4}{10.21}$

$\frac{8.0}{10.81}$

0.04 255.02 1292 254.98

5+00

11.5

$\frac{11.6}{10.21}$

$\frac{11.3}{10.81}$

7.62 250.32 1232 242.70

+17

10.8

+26

11.2

Bottom of Creek

+34

9.6

+42

9.6

+50

5.8

$\frac{6.9}{10.21}$

$\frac{5.3}{10.81}$

1257 469.39 1.47 448.85

2.94 467.87 1.46 459.93

6+00

7.6

$\frac{7.6}{10.21}$

$\frac{7.5}{10.81}$

+06

4.4

+08⁴⁵

4.2

3.67 464.20 = 464.18 Top 2" IP see page 62

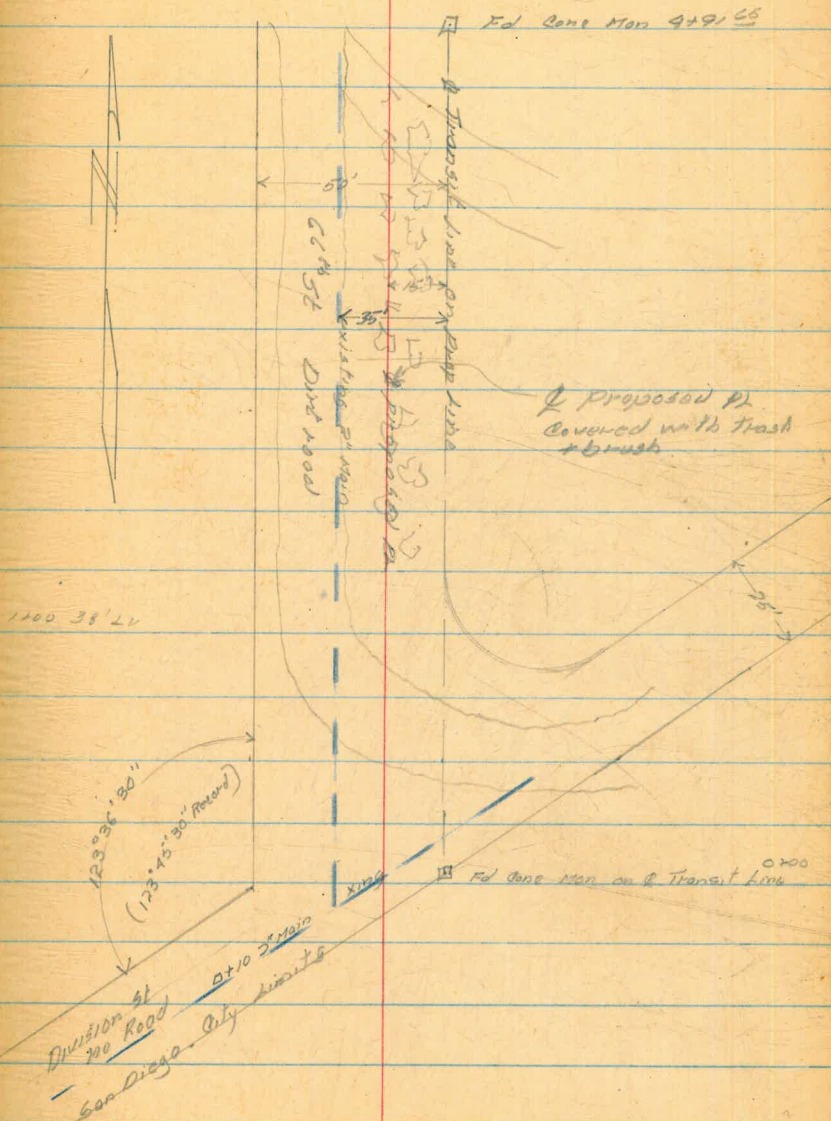
66th St Division St to 405' North

Proposed Pl. Group 26

Transit line on Ely prop line 66th

West
Martell
Varon Lakes
Kellhofer

67



0+00

South line of Division

LA CANADA

La Jolla Blvd to La Jolla Hermosa
Palm City force

2+61±

Wly prop line La Jolla Blvd

13

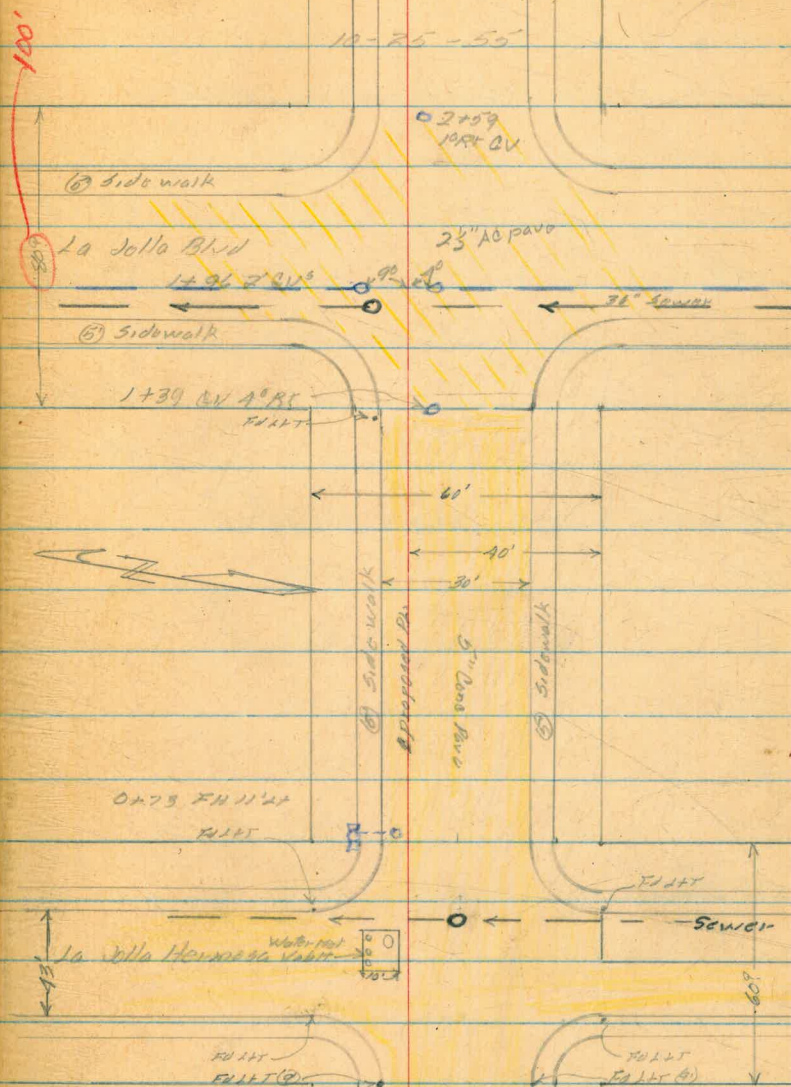
12

0+00

Lack of Control on La Jolla Blvd
Started 0+00 at Hermosa because of
Fly prop line Hermosa St

West
Williams
Kellhofer

69



	9.77	86.19	76.42
0+00		1.00	85.2
0+27		1.65	84.54
0+44		2.15	84.0
+48		2.50	+7.0 To Flow
+50		2.64	83.55
1+00		6.01	80.2
+40		8.90	Reduced by J. GREY 10-31-55
+50		9.14	
+75		9.63	+10.8 To Flow
+91		10.17	
2+00		9.94	
+50		11.22	
+61 ±		11.70	

NE BP La Canada + La Jolla Blvd

NE
2' 1/2" edge water vault

2' 1/2" NW Edge Water Vault

10' 8" Top South rim sewer MH 10' 8"

Reger AC pave end 5" Beria pave

Sewer
Top east rim MH 13' 11"

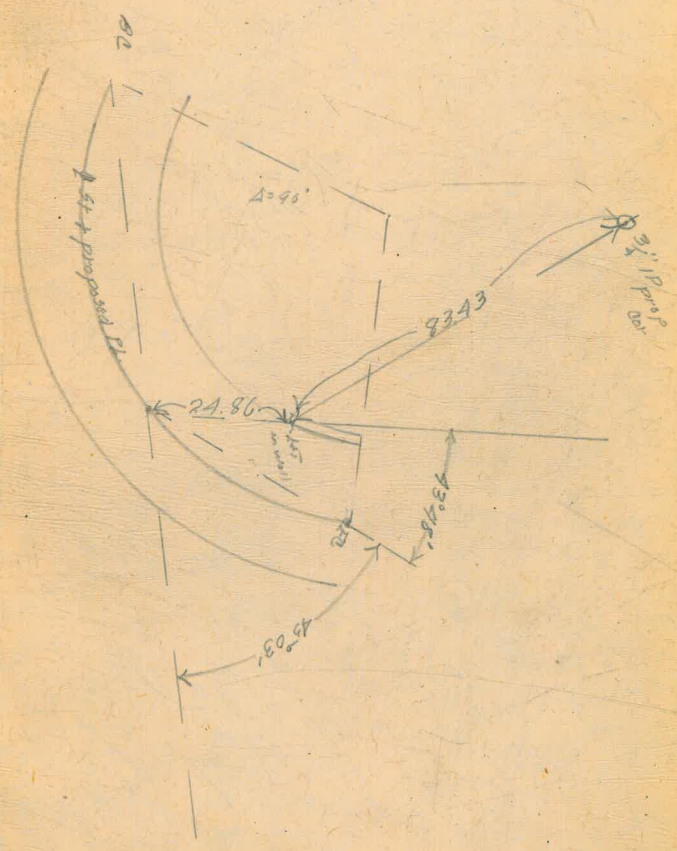
Curver Line

Wly prop line La Jolla Blvd

85.00 @ 12.55'

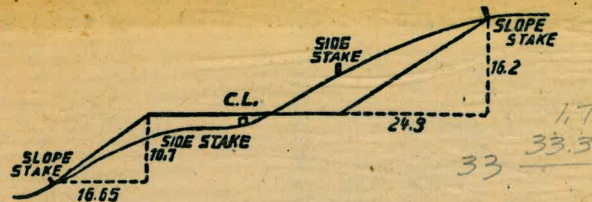
7
3

IG.



9	
.35	0
.85	1
.35	2
.85	3
.35	4
.85	5
.35	6
.85	7
.35	8
.85	9
.35	10
.85	11
.35	12
.85	13
.35	14
.85	15
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.85	41
.35	42
.85	43
.35	44
.85	45
.35	46
.85	47
.35	48
.85	49
.35	50

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



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	71.25	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

5+98 67
 53 00
 17 9 59 60
 93 11 30
 86 48 30
 6+52 17

5.75
 1.33
 7.08

$\Delta = 17^\circ 48''$
 $\hat{R} = 181.88$

T = 3052

con
 Men
 50 ft.

446.34

850
 1983
 8+30 17