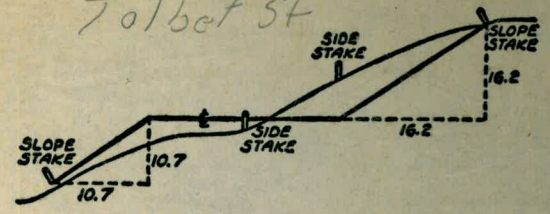


782

Tolbet St



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.

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JAN 14 1965

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

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

FOR TANGENTS ADD

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

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.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	.771	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.266	.353	.440	.528	.617	.707	.797	.887	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

Profile BYLINE LINE 1-23

Meter Bases - Westland - Superior - Ivy 24

Midway Bridge Pk. Loc. #514 Field - 11-7-58 25

Meter Bases - Commonwealth - Laurel - Superior Alice 26 ✓

Alvarado Filter Plant Sludge Line Alice 27-33 ✓

Slope Stakes for Alvarado Sludge Basins Alice 34-38 ✓

12" suction Alvarado " Alice 39 ✓

12" overflow lines Stake Dike #1 Alice 39 ✓

Check on 12" steel SLUDGE LINE as Layed 40-44

FINAL X-SECTS of EXCAV. SLUDGE BASINS 42-44

FINAL X-SECTS of EMBKT " 44-51

PROPERTY LINE - N. SIDE ALVARADO " Alice 52 ✓

PROPOSED FENCE ALVARADO SLUDGE BASINS Alice 53

PROP CORN SET TROJAN PIPELINE & ALVARADO FREEWAY 55

ALVARADO SLUDGE BASINS - Profile Along Proposed FENCE 56-62

" " " " of DYKES 63-65

PROPERTY LINE - Northernly side Alvarado 66

SLUDGE BASINS - Monumented

TROJAN AVE Pipeline, Elev. Top of pipe, ALVARADO 67

FREEWAY CROSSING Alice

Profile 21" Brine Line
 From Alvarado Filter Plant - From Sta. 8+54.62

KING-
 West-T
 Shipman 8-11-49

1.

B.M.	1.69	494.37		492.68
T.P.	0.72	482.43	12.66	481.71
T.P.	3.70	474.99	11.14	471.29

CONC. MON. SET BY LEONARD 52' AT STA. 7+65.80

6+54 ²⁰		3.9	471.1	Reduced by W.R. 9/9/49
6+54 ²⁰		3.8	471.2	
6+58		3.1	471.9	
6+64		4.7	470.3	
6+54		8.3	466.7	
6+85		12.0	463.0	
6+90		14.2	460.8	
7+00		13.9	461.1	
7+08		18.6	464.4	
7+12		6.6	468.4	
7+27		4.1	470.9	
7+32		2.8	472.2	
7+42		1.9	473.1	

Top 21" Brine Line
 ground

T.P.	12.90	487.46	0.43	474.56
------	-------	--------	------	--------

	487.46 ✓		
7+50		10.3	477.2
7+63		1.8	485.7
△ P.O.C. 7+65 ⁸⁰		1.9	485.6
0.1-7'		1.5	486.0
8+00		3.3	484.2
T.P	0.66 484.74 ✓	3.38	484.08 ✓
8+58		2.7	482.0
E.C. 8+93 ⁶⁴		5.1	479.6
9+00		5.4	479.3
C.U.V.			

LH

RH

$$\frac{3.0}{5.701}$$

$$\frac{3.5}{4' \text{ berm}}$$

$$\frac{11.0}{14' \text{ on slope}}$$

$$\frac{2.6}{6.011}$$

$$\frac{2.8}{4'}$$

$$\frac{9.7}{14'}$$

$$\frac{4.8}{6.3}$$

$$\frac{5.2}{5'}$$

$$\frac{12.0}{14'}$$

$$\frac{5.1}{6.3}$$

$$\frac{8.5}{5.0}$$

$$\frac{11.7}{14.0}$$

$$\frac{476.0}{8.7} \text{ F.L.}$$

$$\frac{11.2}{F.L.} 473.5$$

9+50	484.74	8.0	El. 476.7
------	--------	-----	--------------

T.P.	0.45	474.94 ✓	10.25	474.49 ✓
------	------	----------	-------	----------

10+00		0.8	474.1
-------	--	-----	-------

10+50		3.5	471.4
-------	--	-----	-------

11+00		6.6	468.3
-------	--	-----	-------

11+50		9.3	465.6
-------	--	-----	-------

T.P.	0.99	463.81 ✓	12.12	462.82 ✓
------	------	----------	-------	----------

12+00		1.3	462.5
-------	--	-----	-------

B.C. 12+47.49		4.1	459.7
------------------	--	-----	-------

12+50		4.24	459.4
-------	--	------	-------

L.T.

$$\frac{7.4}{6^{\circ} 0.1}$$

$$\frac{0.4}{5^{\circ} 0.1}$$

$$\frac{3.3}{5^{\circ}}$$

$$\frac{6^{\circ}}{5^{\circ} 3'}$$

$$\frac{9^{\circ}}{5^{\circ} 3'}$$

$$\frac{10^{\circ}}{6^{\circ}}$$

$$\frac{3^{\circ}}{6^{\circ}}$$

$$\frac{4^{\circ}}{6^{\circ}}$$

R.T.

$$\frac{8.5}{5.5 \text{ Berm}}$$

$$\frac{15'}{15' \text{ on slope}}$$

$$\frac{0.5}{5^{\circ}}$$

$$\frac{6^{\circ}}{14'}$$

$$\frac{3^{\circ}}{5^{\circ}}$$

$$\frac{9'}{14'}$$

$$\frac{6^{\circ}}{5^{\circ}}$$

$$\frac{12^{\circ}}{14'}$$

$$\frac{9^{\circ}}{6'}$$

$$\frac{15'}{14}$$

$$\frac{12^{\circ}}{5^{\circ}}$$

$$\frac{7^{\circ}}{14'}$$

$$\frac{4^{\circ}}{5'}$$

$$\frac{10'}{14'}$$

$$\frac{5^{\circ} 3'}{5'}$$

$$\frac{10^{\circ}}{14'}$$

3

13+00 463.81 ✓ 7.5 456.3

13+50 10.4 453.4

B.M. 1.38 452.76 ✓ 12.46 451.35 ✓ 451.38

14+00 2.4 450.4

Cu/v.

14+50 5.7 447.1

E.C. 14+64²³ 6.4 446.4

15+00 8.8 444.0

T.P. 0.94 442.34 ✓ 11.36 441.40 ✓

15+50 1.4 440.9

$\frac{71}{6' 0.1}$

$\frac{75}{5'}$ Berm

$\frac{139}{14' 84' slope}$

$\frac{100}{59}$

$\frac{104}{55}$

$\frac{165}{141}$

Top of drill - at 13+60

$\frac{2.1}{6'}$

$\frac{24}{5'}$

$\frac{84}{141}$

F.L. $\frac{46}{5'}$

$\frac{84}{5'}$
F.L.

$\frac{51}{5'}$

$\frac{60}{6'}$

$\frac{12}{14}$

$\frac{5.9}{55}$

$\frac{66}{6'}$

$\frac{128}{141}$

$\frac{82}{6'}$

$\frac{92}{4'}$

$\frac{153}{141}$

$\frac{0.8}{67}$

$\frac{15}{2'}$

$\frac{8'}{141}$

		442.34 ✓		
B.C.	15764 ⁷⁴		2.5	439.8
	16+00		4.3	438.0
	16+50		7.2	435.1
T.P.	172	3.38	435.25 ✓	10.47
	17+00		3.4	431.9
	17+50		6.1	429.2
EC 17+86.21	18+00		8.1	427.2
	18+00		8.8	426.5
T.P.	1.80	425.79 ✓	11.26	423.99 ✓

0.1

$$\frac{17}{66.1}$$

$$\frac{39}{64}$$

$$\frac{27}{69}$$

$$\frac{3.0}{6}$$

$$\frac{5.9}{6}$$

$$\frac{7.8}{6}$$

$$\frac{8.5}{6}$$

Berm

Slope

$$\frac{2.8}{56 \text{ Berm}}$$

$$\frac{4.8}{50}$$

$$\frac{7.4}{6}$$

$$\frac{3.2}{6.5}$$

$$\frac{6.8}{5}$$

$$\frac{8.}{5}$$

$$\frac{9.1}{5}$$

$$\frac{9.9}{14' \text{ ON Slope}}$$

$$\frac{11.4}{15'}$$

$$\frac{15.5}{17'}$$

$$\frac{7.8}{14}$$

$$\frac{15.3}{20}$$

$$\frac{16.4}{20}$$

5

				oil	Boym	Bottom
	42579 ✓					
18+50		2.3	423.5	$\frac{1.8}{6}$	$\frac{2.5}{4}$	$\frac{7.7}{12}$
19+00		5.4	420.4	$\frac{5.0}{5.5}$	$\frac{6.1}{5}$	$\frac{10.9}{15}$
Gulvert		LT 8.8 RT	417.0			
19+50		8.4	417.4	$\frac{8.0}{6}$	$\frac{8.6}{5}$	$\frac{11.8}{10}$
20+00 ⁰⁴		11.7	414.1	$\frac{11.0}{6}$	$\frac{12.3}{10}$	$\frac{13.7}{14}$
T.P	064	413.60 ✓	412.96 ✓			
20+50		1.5	412.1	$\frac{2.0}{6}$	$\frac{2.6}{6}$	$\frac{4.0}{8}$ Bottom $\frac{2.3}{10}$
21+00		5.5	408.1	$\frac{5.0}{9}$	$\frac{5.6}{2}$ Bottom $\frac{6.9}{6}$	$\frac{3.8}{9}$
21+50		7.9	405.7	$\frac{7.4}{7}$	$\frac{8.3}{3}$ Bottom $\frac{9.3}{7}$	$\frac{7.9}{10}$

					O.L	Berm		
	413.60 ✓						Bottom	
22+06		9.9	403.7		$\frac{9.3}{9}$	$\frac{9.8}{3}$	$\frac{11.2}{10}$	$\frac{8.9}{20}$
22+50		11.8	401.8		$\frac{11.2}{10}$	$\frac{10.9}{8}$	$\frac{14.5}{17}$	
^L 22+80		12.9	400.7		$\frac{12.3}{10}$			
T.P.	2.88	403.85 ✓	12.63	400.97 ✓				
23+00		3.4	400.5					
Δ23+48 ⁸²		4.5	399.4					
23+50		4.6	399.3					
23+88		5.2	398.7					
24+06		5.6	398.3					

40385 ✓

24+185

6.2

397.7

Edge 0.1

24+50

8.1

395.8

24+54

8.5

395.4

Edge 0.1

24+88²⁵

10.2

393.7

25+00

10.6

393.3

25+50

11.6

392.3

 $\frac{12.5}{16.01}$ $\frac{12.8}{9.1}$ $\frac{10.7}{4.1}$ $\frac{13.0}{10.1}$

T.P.

3.45

39423 ✓

13.07

390.78 ✓

26+50

4.4

389.8

 $\frac{4.7}{16.01}$ $\frac{4.9}{8}$ $\frac{3.3}{2}$ $\frac{5.0}{10}$

26+56

6.9

387.3

 $\frac{6.6}{26}$ $\frac{7.2}{7.1}$ $\frac{6.0}{2}$ $\frac{7.5}{10}$

27+00

9.1

385.1

394.23 ✓

27750			10.7	383.5	
B.M.	3.67'	386.69 ✓	11.19	383.04 ✓	383.02
28400			3.5	383.2	
28450			5.1	381.6	
28462			5.4	381.3	
28469			10.6	376.1	
28474			11.9	374.8	
29400			12.0	374.7	
29410			7.2	379.5	
Δ29432			7.3	379.4	

B.M. Kox wheel guard N.W. Cor bridge

creek

386.69 ✓

2 29450 7.3 379.4

B 29475 4.9 381.8

2 30400 4.7 382.0

$\frac{4.4}{85} 0.1$

2 30450 3.9 382.8

2 Δ 30455²¹ 3.6 383.1

$\frac{3.4}{65} 0.1$

2 31400 1.8 384.9

$\frac{1.3}{61} 0.1$

2 T.P, 12.85 399.54 ✓ 0.00 386.69 ✓

31434⁸ 11.0 388.5

$\frac{10.6}{55} 0.1$

2 31450 10.5 389.0

$\frac{10.0}{53}$

1 32400 6.7 392.8

$\frac{6.2}{65}$

32+50

399.54 ✓

2.7 396.8

$\frac{2.2}{5.3 \text{ 0.1}}$

T.P. 13.07 412.23 ✓ 0.38 399.16 ✓

33+00

11.5 400.7

$\frac{11.4}{5.3 \text{ 0.1}}$

B.C. 33428⁸⁰

9.1 403.1

$\frac{8.7}{5.3 \text{ 0.1}}$

35+50

7.3 404.9

$\frac{6.9}{5.3 \text{ 0.1}}$

34+00

34+00 3.4 408.8

$\frac{3.0}{5.3}$

T.P. 12.90 424.78 ✓ 0.35 411.88 ✓

34+50

11.8 413.0

$\frac{11.7}{4.3 \text{ 0.1}}$

35+00

8.3 416.5

$\frac{7.9}{4.2}$

EC 35409⁹¹

7.5 417.3

$\frac{7.2}{4.8}$

35+50

424.78 ✓

4.5 420.3

$\frac{43}{45} 0.1$

36+00

1.0 423.8

$\frac{0.5}{4.5} 0.1$

T.P. 12.15 436.59 ✓ 0.34 424.44 ✓

36+50

8.9 427.7

$\frac{50}{45} 0.1$

37+00

4.8 431.8

$\frac{50}{55}$

B.C. 37412

3.9 432.7

$\frac{42}{55}$

37+50

1.4 435.2

$\frac{1.5}{62}$

T.P. 12.25 448.95 ✓ 0.39 436.20 ✓

38+00

10.1 438.9

$\frac{99}{51}$

E.C. 38123

8.5 440.5

$\frac{82}{55}$

448.95 ✓

38+50

63 442.7

$\frac{60}{4.8} 0.1$

39+00

2.6 446.4

$\frac{2.1}{5.8} 0.1$

2 T.P.

12.62 461.26 ✓ 0.31 448.6 ✓

39+50

110 450.3

$\frac{107}{4.8}$

40+60

74 453.9

$\frac{7.4}{5.2}$

40+39²⁷

4² 457.1

40+50

3.6 457.7

41+00

0.5 460.8

T.P.

11.55 471.17 ✓ 1.64 459.62 ✓

Top FH

6.48 464.69 ✓ 464.67

Sarona C 970^H BK. 700

41+50

8.1 463.1

471.17 ✓

42+00

5.5 465.7

42+50

3.0 468.2

Sewer

2 M.H. - E. Edge of cut

1.19 469.98 ✓

42+85 F.K.

10.1 461.1

995. M.H.

1.58 469.6

T.P.

9.14 479.12 ✓

1.19 469.98 ✓

10.1

43+00

8.4 470.7

43+50

6.0 473.1

44

4.7 474.4
479.3

44+50

4.9 474.2

S.M.H.

4.38 474.7

F.L.

19.5 459.6

Moham K 670 19

		478.12 ✓		
45+00			5.9	473.2
Top FH.	0.50	476.49 ✓	3.13	475.99 ✓
			19.2	
45+50			4.6	471.9
46+00			5.9	470.6
S.M.H.			7.37	469.12
Fill by 46+60			20.97	455.52
F.L.			7.3	469.2
46+50				
99 S.M.H.			7.7	468.8
47+00			8.9	467.6
47+50			10.3	466.2

Mokan K 470

476.49 ✓

48+00

11.7 464.8

T.P.

2.24 467.61 ✓ 11.12 465.37 ✓

48+22

3.4 464.2

S.M.H.#1

48+25

3.45 464.16

FL.

12.25 455.36

S.M.H. #E/Cason

2.75 464.9

48+50

2.7 464.9

B.P.S.W.

3.46 464.15 ✓

B.P.S.W. Cor 70th & E/Cason 464.156

48+96

3.3 464.3

49+00

3.3 464.3

49+50

3.5 464.1

467.61 ✓

Rt.

50700

4.3 463.3

$\frac{4.3}{5.01}$

50750

5.1 462.5

$\frac{4.9}{5}$

S.M.H.
50759

4.9/ 462.70

F.L.
995.M.H.

13.81 453.80

4.79 462.82

50754

8.49 459.12

Top 8" H. Pressure 995

51000

6.1 461.5

$\frac{5.8}{5.9}$

PC
5175071

7.3 460.3

$\frac{7.1}{4.9}$

52000

8.2 459.4

$\frac{8.1}{6.4}$

52037-

8.2 459.4

995 M.H.
52038

8.17 459.4

9.67 457.9

Top 995 Pipe

Note: See BK. 791 - Re loc.

S.M.H. #1

8.21 459.40

52415 - 011

52017

14.21 453.4

F.L. Sewer

		467.61 ✓		
Q Amherst		2.74	459.87	E
S.M.H.		14.54	453.07	
Fl.		8.6	459.0	East End
Top 12" Corr Pipe		9.0	458.6	West End
" 12" " "		7.7	459.9	
52+50		7.1	460.5	
53+00		7.01	460.60 ✓	
T.P	10.24 470.84 ✓	9.6	461.2	
53+50		8.8	462.0	
54+00		7.7	463.1	
54+50		6.6	464.2	

470.84 ✓

55+50 5.9 465.1

56+50 4.9 465.9

56+50 4.4 466.4

57+50 4.1 466.7

57+50 4.6 466.2

58+50 5.5 465.3

Δ 58+35²² 6.2 464.6

Sewer M.H. 58+45 6.74 464.10

F.L. 20.14 450.70

58+50 6.7 464.1

59+50 7.9 462.9

470.84 ✓

5 7.P 2.69 464.90 ✓ 8.63 462.21 ✓

59+50 3.1 461.8

60+00 3.9 461.0

60+50 4.5 460.4

61+00 5.1 459.8

61+50 5.7 459.2

62+00 5.9 459.0

62+50 6.1 458.8

Sewer mit.
~~63+00~~ 6.29 458.61

Fid. 16.69 448.21

63+00 6.1 458.8

	464.90 ✓		
63+50		6.1	458.8
64+00		6.3	458.6
T.P.	4.05 462.54 ✓	6.41	458.49 ✓
64+50		4.1	458.4
65+00		4.2	458.3
65+50		4.1	458.4
66+00		4.3	458.2
66+50		4.5	458.0
67+00		4.6	457.9
67+50		4.8	457.7

457.53

462.54 ✓

68+00		5.1	457.4
68+41 S.M.H.		5.52	457.02
FL.		16.92	445.62
68+50		5.4	457.1
69+00		5.6	456.9
69+50		5.9	456.6
T.P.	2.13	45823 ✓	6.44 456.10 ✓
70+00		2.0	456.2
70+50		2.6	455.6
71+00		3.3	454.9
71+50		3.8	454.4

Tower St

458.23 ✓

72+00

4.4

453.8

72+50

5.0

453.2

Sm. 11 72+78

5.30

452.9

F.L.

14.20

444.03

73+00

5.5

452.7

73+50

6.2

452.0

74+00

6.9

451.3

74+50

7.6

450.6

Δ 74+94¹²

8.3

449.9

Sm. H.

10.60

447.6

F.L.

15.60

442.63

B.M.

3.78

454.45 ✓

431.5' So. to M.H.

Top F.H. Lt. Sta. 73+65 454.53

Meter Boxes
Westland St - Juniper - 18y

11-21-50
Kings
Baker
West

38
15
5.3

38
2.0
1.6

24

4400	258.5	2.14 in	256.8		
4440		3.80 in	34.7	54.0	2.9
4480		5.5	253.0	32.1	4.7
5720		8.1	250.4	50.6	3.8
5760		11.3	247.2	48.7	5.3
5784		9.0	249.5	42.2	1.6

255.8
256.4
2.1
C 4.8
C 5.0

58.5
5.4
54.7

16" CIP & New Alignment - Midway Drive
 20" Conc. Pipe Bridge - 45 put in Field

187+85.29	A	22° 30' Lt
187+47.49 AH =		
187+51.99 BK	Δ	22° 30' Rt

181+31.76 AH. = EQ. (Reducer) EWE.
 181+41.95 BK.

181+37.95 EWE
~~181+27.76~~ Δ 30° Rt.

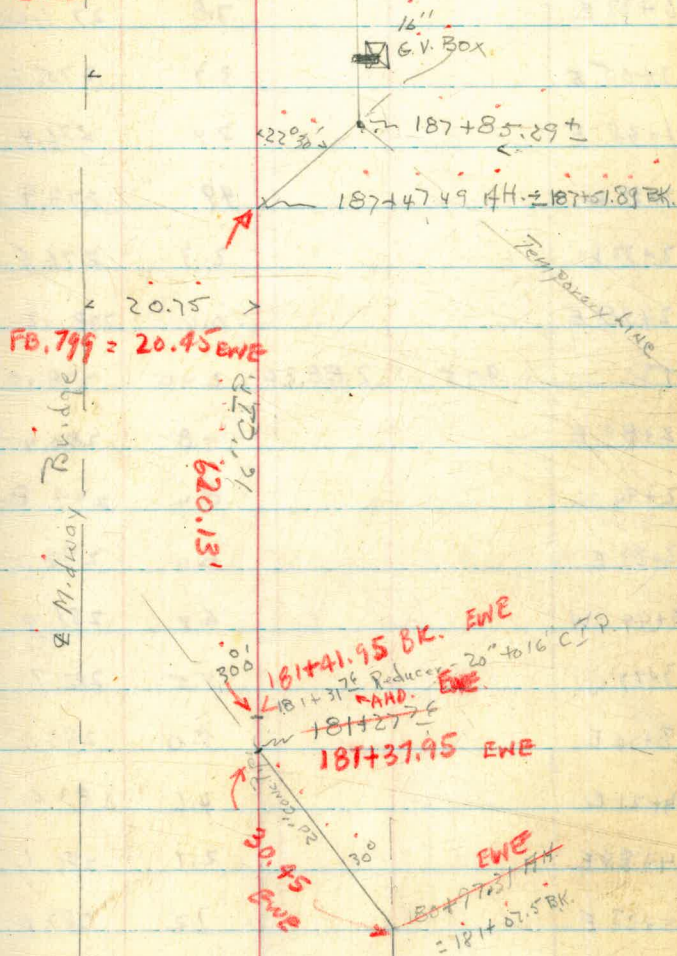
~~180+97.31 AH~~ EWE
 Δ 30° Lt
 = 181+07.5 BK

King
 Baker
 Wood

11-7-50

25

See FB 799, pg. 10
 EWE



Meter Boxes
Common Wealth Juniper-Lowel

11-21-50
King
West
Baker

24

	12.42	278.85		266.43		BR Swlor Common Wealth Juniper
0433 E			7.8	271.05	69.2	C 1 ⁹ ✓
1405 E			3.7	275.1	72.3	C 2 ⁸ ✓
1448 E			2.4	276.4	74.0	C 2 ⁴ ✓
1439 W			4.9	273.9	73.3	C 0 ⁶ ✓
2433 W			2.3	276.5	72.2	F 0 ² ✓
2438 E			0.6	278.2	72.8	C 0 ⁴ ✓
T.P.	9.75	288.20	0.40	278.45		
2489 E			7.8	280.4	80.0	C 0 ⁴ ✓
2494 W			8.4	279.8	79.8	C 0 ⁰ ✓
3439 E			6.0	282.2	81.7	C 0 ⁵ ✓
3449 W			6.4	281.8	81.9	F 0 ¹ ✓
3479 W			5.5	282.7	82.6	C 0 ¹ ✓
3474 E			5.0	283.2	82.9	C 0 ³ ✓
4421 E			4.6	283.6	83.9	F 0 ³ ✓
4488 E			2.1	286.1	84.9	C 1 ³ ✓
5423 E			1.2	287.0	85.2	C 1 ⁸ ✓
			3.66	284.60	284.6	check 5. + Par. Lowel.

Sludge P.L. Alignment
 Alvarado Filter Plant.

King
 Baker
 West

12-26-52

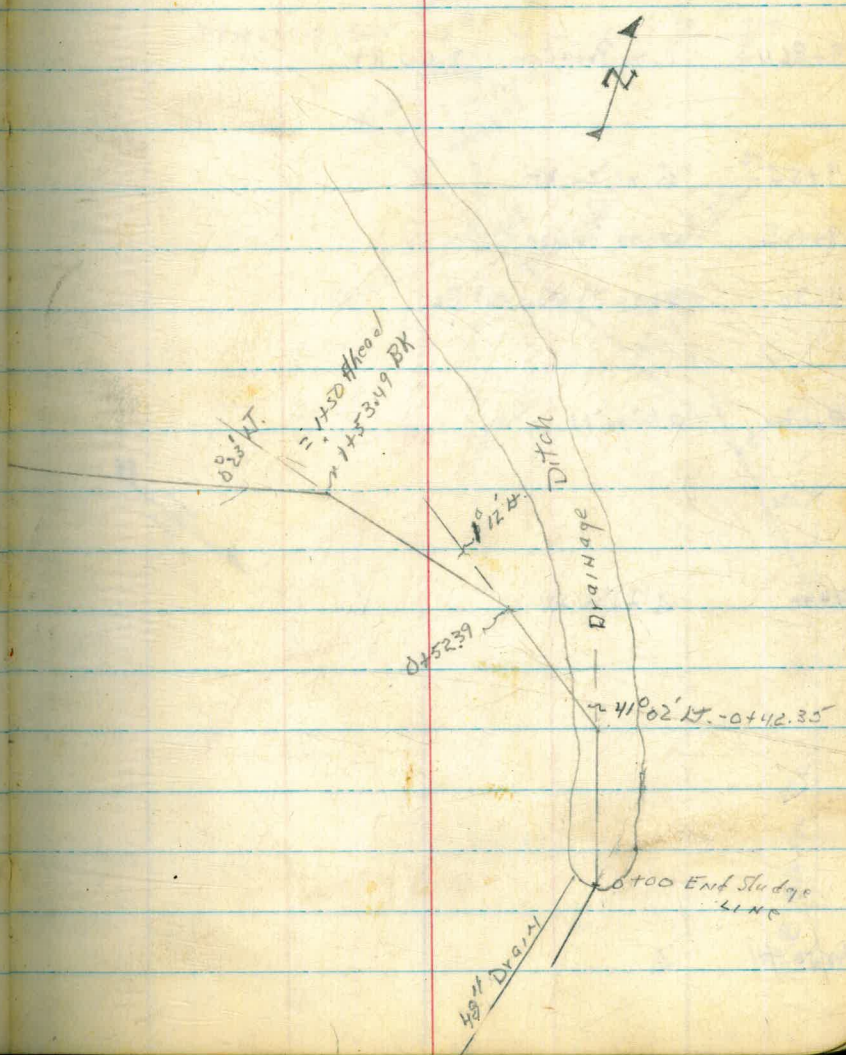
27

1450 ft.
 1453.49 BK 0°23' LT.

0452.39 1°12' LT.

0442.35 41°02' LT.

0400 End Sludge line



Sludge P.L.
Alvarado Filter Plant

King
Baker
West

12-26-50

28

9+86.43 City Prop Cor. 12.64 Rt.

9+53.56 Δ 43°23' Rt

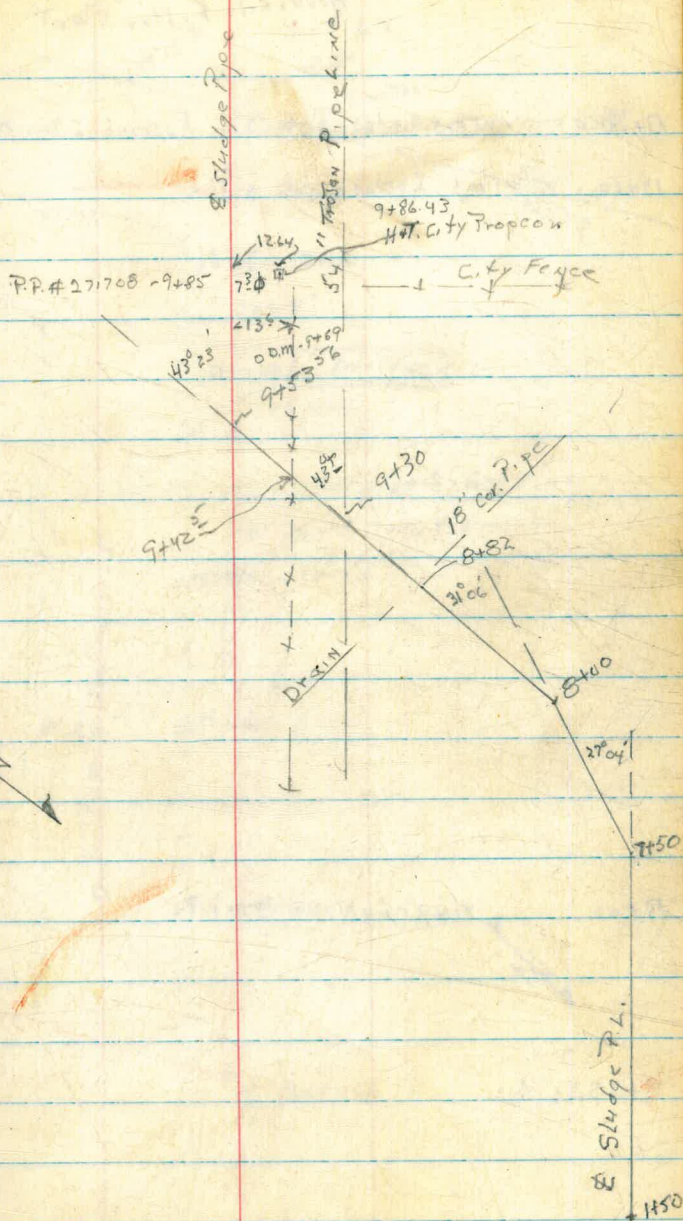
9+42.5 xing Fence

9+30 xing Trojan 54" P.L.

8+00 Δ 31°06' Lt

7+50 Δ 27°04' Lt

1+50 H.H. Δ



Sludge line
Alvarado Filter Plant

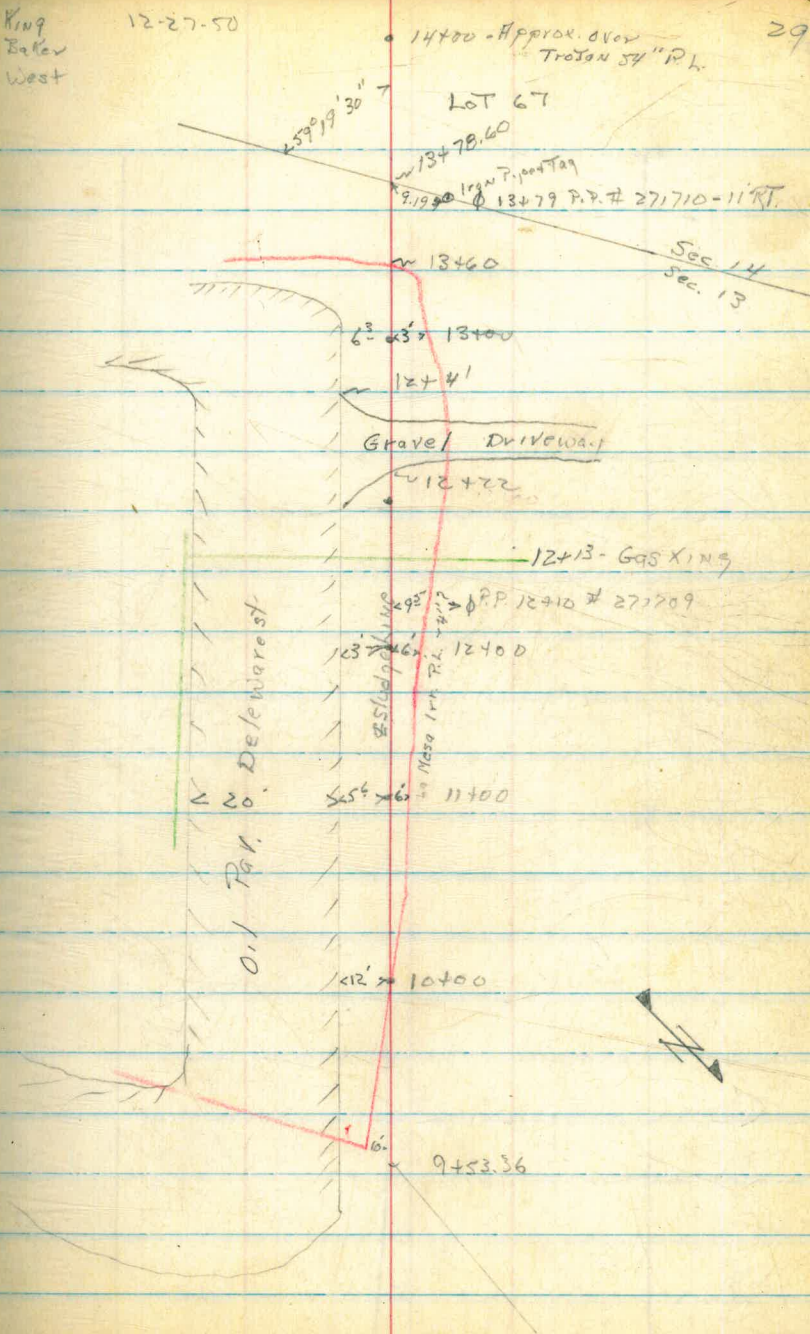
13+78.60 inters. with West Line Reasoning S. Div. Map #2134

13+60 xing Lomas Irrig. P.L.

12+60 xing - Lomas Irrig. P.L.

9+53.36 Δ

King
Eaker
West
12-27-50



13

15

1

Profile (4) & E
Sludge line
Alvarado Filter Plant

Cont From BK #03 Page 70

King
Water
West

12-27-50

31

T.B.M. 11.55 522.88 511.33

8+00 (4) 9.9 513.0 510.75 2.3

φ 12.8 510.1

8+50 (4) 9.8 513.1 510.5 2.6

φ 12.5 510.4

8+73 φ 8.3 514.6 510.25

8+82 10.0 512.9

Top 18" Pipe - 10' Rt.

9+00 (4) 6.9 516.0 510.0 C.G. 0

φ 7.1 515.8

~~9+53 (4) A 6.7 516.2~~

See Next Page

~~(4) BK 6.1 516.8 509.75~~

~~(4) R.H. 6.2 516.7 509.75~~

~~10+00 6.2 516.7~~

~~φ 7.9 515.0~~

~~8.90 513.98 514.0~~

Top a.v. chamber Tri-Ton, P.L. 1445

~~10+50 (4) 7.3 515.6 509.5~~

~~φ 7.6 515.3~~

~~11+80 (4) 8.3 514.6 509.25~~

~~φ 8.7 514.2~~

Profile ④ 8 P - Sludge P.L.
Alvarado P.L.

King
Baker's
West

32

52288

11450 (4)	9.2	513.7	509.0
⊕	9.3	513.6	
12+00 (4)	9.6	513.3	508.75
⊕	9.6	513.3	
12+50 (4)	10.6	512.3	508.50
⊕	10.5	512.4	
13+00 (4)	12.5	510.4	508.25
⊕	12.5	510.4	
13+50 (4)	14.7	508.2	508.0
⊕	14.9	508.0	
14+00 (4)	16.7	506.2	507.75
⊕	16.8	506.1	
T.B.M.	8.90	513.98	514.0

S.E. cor B.V. Box 1+05 Trojan P.L.

New line

T.B.M.	2.97	516.97	514.0	
9+92.1	0.5	516.5	509.8	⊕ 6 7
10+00	3.4	513.4	509.5	⊕ 4 L
+50	5.6	511.4	508.2	⊕ 3 2
11+00	7.3	509.7	508.0	⊕ 1 2

517
181
4989

Sludge line

(*)

King
West

1-18-51

33.

pp. 13 BK 803

BM.	1.03	362.48		361.45		
				367.57		
SET			6.92	355.56		
	6.58	362.14		361.68		
				355.56		
ck BM			0.70	361.44		
		516.97				
11+50 m			6.7	510.3	507.8	C 2.5
12+00 m					507.6	
+50 m						
13+00			7.5	509.5	507.0	C 2.5
13+50			9.1	507.9	504.8	C 3.1
14+00			10.8	506.2	502.4	C 3.8
+50			13.2	503.8	500.0	C 3.8
15+00			18.1	498.9	498.5	C 0.4
ck			2.98	513.99	514.0	

SLOPE STAKES FOR DIKES
OF
ALVARADO SLUDGE BASINS

JAN. 23, 1951
BEATTY
LEONARD
WELKER

34

1 BM 103 362.48 361.45 (City Datum)
SET BM 6.58 362.14 6.92 355.56
0.70 361.44

Co. BM on 90' RPPI. HUB
See Book 803 pg 13
this \square on Eastly END of Conc. Hdwall of Culvert
CK Orig. BM

CK BM.

BM. 10.03 371.48 361.45

0+00 (Begin Southerly end of DIKE No 1)
254' RT 5+15

2.5 2.4 369°
4.0 x 2.5
4.2

+50

(F21) 4.6 4.3 367°
(32) 7.2 x 4.0 (F15)
7.0 (30)

1+00

(F36) 6.1 6.1 365°
(54) 9.4 x 6.1 (F36)
11.2 (70)

+50

(F54) 7.9 8.2 363°
(81) 12.1 x 8.5 (F60)
16.0 (120)

2+00

(F78) 10.3 10.3 361°
(11.7) 15.7 x 10.3 (F78)
19.6 (156)

+30⁷³

B.C 84' RT - 3+59 ϕ

RT 360° LT
(F88) 11.3 11.4 11.5 (F90)
(17.6) 21.6 x 17.5 (135)

+53⁹⁴

359°
(F100) 12.5 12.1 11.7 (F92)
(152) 19.0 x 22.4 (182)

Slope - Stakes
Alvarado Sludge Basins

JAN. 23 1951

35

2+77¹⁵

371.48

4.29 365.50 10.27 361.21

2+77¹⁵

3+00³⁶

3+23⁵⁷

3+46⁷⁹ E.C. Sta 4+00 ϕ

4+00

+50

5+00

+50

P

3.02 362.48

BM - CK 11 9.00 370.45

361.45

7.98 362.47 = 362.48

359⁵

12.0 (F95)
23.0 19.0

(F110) 7.5
16.5 20.5

RT 359.0 357⁴ LT.
(F109) 6.5 8.1 (F116)
20.0 24.0 21.4 17.4

(F104) 6.9 357³ 6.2 (F97)
15.6 19.6 23.4 19.4

(F115) 8.0 359² 6.2 (F97)
17.3 21.3 23.4 19.4

(F122) 9.2 359⁸ 5.7 (F92)
19.1 23.1 22.4 18.4

(F117) 8.2 310¹ 5.4 (F89)
17.6 21.6 21.8 17.8

(F100) 6.5 310¹ 5.4 (F89)
15.0 19.0 21.8 17.8

(F91) 5.6 361³ 4.2 (F77)
13.2 17.7 19.3 15.4

Slope Stakes
Alvarado Sludge Basins

JAN. 24, 1951

26.

370.45

6+00

(F72) 9.4 8.6 364¹ (F69)
112 15.9 17.8 13.8

6+22.79

D1 Sta 6+72 B

(F73) 8.8 8.3 362¹ (F63)
112 15.2 16.6 12.6

6+50

(F65) 8.0 7.5 363² (F60)
98 13.8 16.0 12.0

7+00

(F50) 6.5 5.7 363³ (F57)
75 11.5 15.4 11.4

7+50

(F47) 6.2 6.6 364⁵ (F45)
71 11.1 13.2 9.2

8+00

(F29) 4.4 5.1 367² (F12)
43 8.4 7.4 3.2 3.2

8+42.89

72' RT - 8+80 B
Northerly End DIKE No 1

1.8 1.7 369²
4.0 4.0

CK BM

3.68 365.13 9.00 361.45

0+00

DIKE No 2 (Southerly End)
205' LT. 1+00 B

0.1 0.04 363⁴ 6' ± 0.0
4.0 1.0 1.7 4.0

0+50

(F72) 7.3 10.5 353³ (F115)
144 18.4 21.3 17.3

Slope Stakes
Alvarado Sludge Basins

365.13

JAN. 24, 1951

37.

1+00

✓ (F106) 10.7 10.4 10.1 (F100) ✓
212 25.2 19.0 (15°)

1+50

✓ (F95) 9.6 9.1 9.3 (F92) ✓
19° 23.0 17.8 (138)

1+94.74

} P.I. 60' LT 2+30

(RT & DR Tang) 11.7 11.4 (F113) ✓
21.0 (172)

1+94.74

✓ (F98) 9.9
196 23.0
(RT & FD Tang) 11.7 10.3 (F102) ✓
19.3 (152)

2+50

✓ (F100) 10.1 10.9 8.4 (F83) ✓
20° 24.0 16.5 (12.5)

3+00

✓ (F91) 9.2 10.7 9.3 (F92) ✓
182 22.2 17.8 (138)

3+50

✓ (F76) 7.7 8.8 10.5 (F104) ✓
153 19.2 19.6 (15.6)

4+00

✓ (F64) 6.5 6.7 7.3 (F72) ✓
128 16.8 14.8 (108)

4+50

✓ (F48) 4.9 5.2 5.7 (F56) ✓
96 13.6 12.4 (8.4)

Slope Stakes
Alvarado Sludge Basins

JAN. 24, 1951

38

365.13

5+00

(F4°) 4.1 4.3 4.1 (F4°)
8° 12.0 2 10.0 6°

5+50

(F36) 3.7 3.7 4.3 (F42)
7.2 11.2 10.3 6.2

TP

4.38 365.83 3.68 361.45

6+00

(F25) 3.3 3.5 3.8 (F30)
5.0 9.0 8.5 4.5

6+50

(F11) 1.9 2.4 2.8 (F20)
2.2 6.2 7.0 3.0

(72' LT - 7+12 1/2)
6+79.05 Northern End of DIKE N°2

(C0°) 0.8 1.2 1.8 (C0°)
4.0 4.0 4.0
3'00" 8'00"

CK BM

4.38 361.45

FEB. 7 1951

Beatty
Leonard
Welker

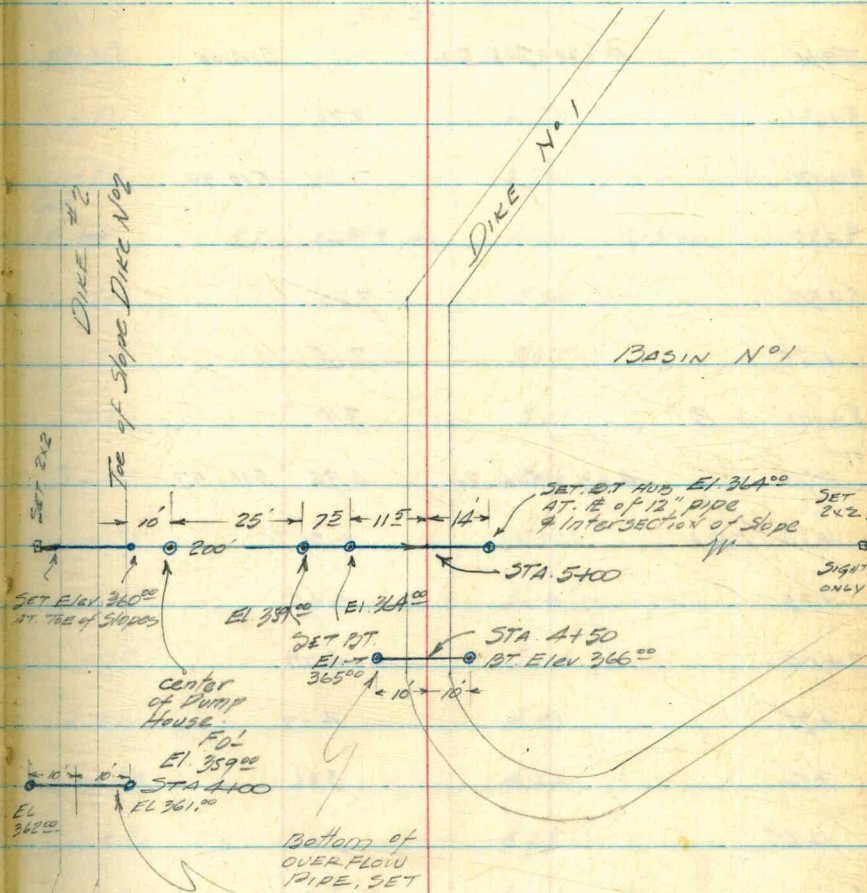
39

12" SUCTION LINE THRU DIKE #1
12" OVERFLOW LINE THRU DIKE #1

B.M.	11.80	373.25	361.45
		9.25	364.00
		14.25	359.00
		7.25	366.00
		8.25	365.00

B.M.	12.78	374.23	361.45
		14.23	360.00

B.M.	7.33	368.78	361.45
		6.78	362.0
		7.78	361.0



2/14/51

BETTY
WELKER

PIPE 0.0 .90 (40
I.D. 1.85

2.5
0.05
.125

CHECK ON TOP 12" STEEL PIPE
SLUDGE LINE AS LAYED

				516.20			
B	TBM	4.52	518.52	514.00	3E GR GV. Box	4+75	2.88
						+50	2.78
						+25	2.72
						4+00	5.86
				519.46			2.60
						+75	5.70
						+50	5.67
						+25	5.61
						3+00	5.48
						+75	5.32
						+50	5.16
						+25	5.04
						2+00	4.98
						+75	4.84
						+50	4.63
						+25	4.44
						1+00	4.33
						+75	4.21
						+67	4.13
						+50	3.93
						+42 25 P.1	3.88
							1.25
				528.29			518.21

4.52 518.52

514.00

516.20

2.88

2.78

2.72

2.60

519.46

5.70

5.67

5.61

5.48

5.32

5.16

5.04

4.98

4.84

4.63

4.44

4.33

4.21

4.13

3.93

3.88

1.25

518.21

10.08 528.29

3.57
3.56

3.38

3.12

2.92

P

P

P.1

P.1

B

B

3E GR

GV. Box

P

P

P

2/14/51

41

CHECK ON TOP 12" STEEL PIPE
SLUDGE LINE AS LAYED

	528.29			
0+27	} opening		12.68	
0+21			12.67	
0+063 (PI)			12.65	
0-047 (PI)			12.50	
IP	9.83	537.92	0.20	528.09
CK BM.			1.52	536.40 = 536.39

ALVARADO SLUDGE BASINS

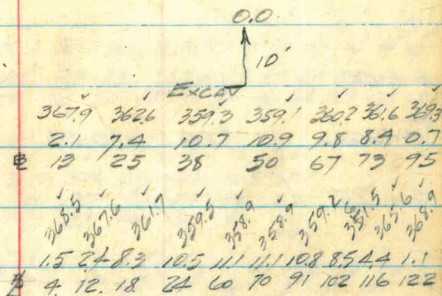
FINAL CROSS-SECTIONS OF EXCAVATION

BASE LINE STATIONS	BASIN	N ^o 1	- FS	ELEV.
B.M.	8.50	369.95		361.45

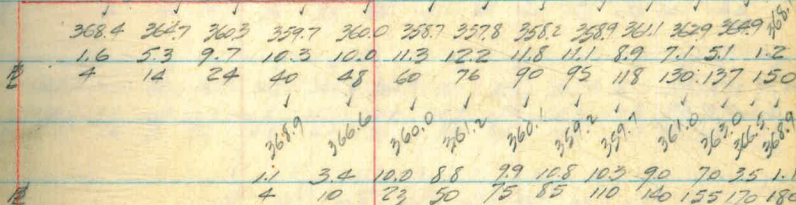
FEB. 19, 1951
BEATTY &
LEONARD &
WELKER P

42

3+75



4+00



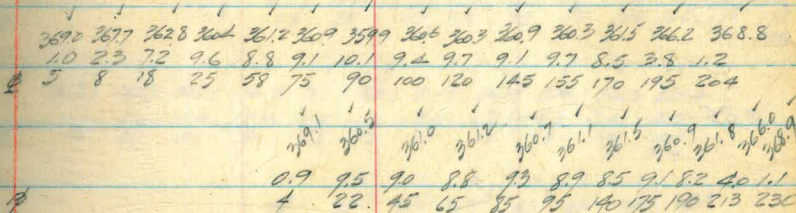
+25

+50

+75

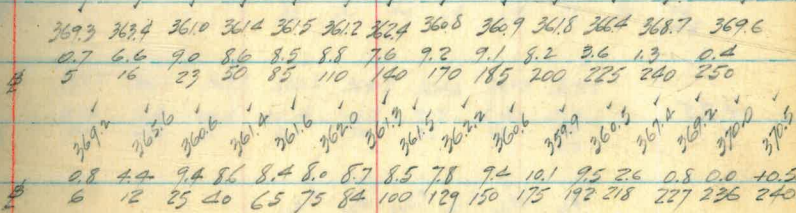
5+00

JUNCTION LINE
INVEST 12" Steel
22' RT 5.90 364.05



+25

+50



ALVARADO SLUDGE BASINS

FINAL CROSS-SECTIONS
OF EXCAVATION

2/19/51

43

NATURAL
GROUND,
N.G.
371.0 370.0

369.95

5+75

369.4	369.9	361.4	361.4	361.9	361.9	361.4	361.4	361.0	361.0	360.0	361.6	364.0	365.3	367.4
0.6	6.1	8.6	8.8	8.1	8.1	8.6	8.6	8.0	8.0	9.8	10.0	8.4	6.0	3.5
6	15	24	41	50	70	75	93	106	123	155	175	185	189	195

6+00

369.2	363.8	361.5	361.1	361.8	362.2	361.0	361.0	361.6	361.6	361.9	361.9	361.9	361.9	361.9
0.8	6.2	8.5	8.9	8.2	7.8	9.0	8.3	8.9	8.4	5.8	1.2	0.1		
4	15	20	30	50	85	113	120	150	162	169	178	185		

P rock

5.64

373.89

1.70

368.25

6+25

368.8	369.7	361.8	362.2	362.3	362.1	362.3	360.6	361.1	364.0	368.3	371.1
5.1	10.2	12.2	11.7	11.6	11.8	11.6	13.3	12.8	9.9	5.6	2.8
4	13	20	45	70	100	112	133	140	150	157	167

6+50

365.6	363.5	367.7	361.5	362.6	362.7	362.7	362.7	362.6	361.7	362.2	362.4	361.7	362.6	361.7	363.4
5.1	10.4	11.6	12.1	11.3	11.7	11.2	11.7	11.5	12.6	9.3	6.5	5.5			
4	14	19	30	55	65	80	85	100	125	135	141	145			

6+75

369.3	365.2	363.0	362.2	362.1	362.8	362.9	362.1	362.0	361.4	361.6	364.7	378	370.4
4.6	8.7	10.9	11.7	11.8	11.1	11.0	11.8	11.9	12.5	12.3	9.2	6.1	3.5
6	14	20	32	48	60	70	85	94	105	110	120	129	134

7+00

369.7	365.0	362.0	361.7	362.3	362.6	361.5	362.5	362.6	361.5	362.5	362.6	362.0	370.1
4.6	8.9	10.9	12.2	11.6	11.3	12.1	11.4	10.3	5.9	3.8			
13	23	28	43	63	75	93	100	102	114	118			

+25

369.3	365.3	362.0	361.5	362.1	362.2	361.5	361.8	364.1	362.3	369.4
4.6	8.6	11.9	12.4	11.8	11.7	12.4	12.1	9.8	7.6	4.5
23	31	41	50	65	72	78	86	93	100	104

+50

369.1	364.6	362.0	362.4	362.0	362.1	362.6	361.9
4.8	9.3	11.9	11.5	11.9	11.8	11.3	4.9
32	41	48	64	69	78	90	96

+75

368.7	366.1	363.8	363.5	363.2	364.2	367.3	369.5
5.2	7.8	10.1	10.4	10.7	9.7	6.6	4.4
40	45	51	61	70	76	84	89

8+00

368.4	366.7	365.8	365.6	367.1	368.5
5.5	7.2	8.1	8.3	6.8	5.4
48	51	55	72	80	83

2/19/51

368.6	367.5	366.6	366.9	368.3
5.3	6.2	7.3	7.0	5.6
58	60	64	76	79
				NG

368.9	368.4	369.1	370.8
5.0	5.5	4.8	3.1
67	71	84	100
			NG

0.0 Excav 5' ? (if any)

8+25

373.89

8+50

CK BM.

12.26 361.43 = 361.45

BM

8.41 369.86

361.45

CROSS-SECTIONS OF DIKE NO. 1.
SHOWING EMBANKMENT.

369.86

0+00

0.0 AREA

0+50

66.6	68.4	69.1	69.0	67.4
3.3	1.5	0.8	0.9	2.5
9	6	2	5	8

1+00

65.6	68.9	68.9	69.0	65.6
4.3	1.0	1.0	0.9	4.3
10	6.5	2	4.5	11

+50

63.8	68.5	68.7	68.5	65.1
6.1	1.4	1.2	1.4	4.8
13.5	7	2	5	13

2+00

61.7	69.1	69.1	69.1	62.3
8.2	0.8	0.8	0.8	7.6
19	7	2	2	17

+30.73 B.C

60.0	69.3	69.2	69.3	66.2	64.8
9.9	0.6	0.7	0.6	3.7	5.1
20	6.5	2	6	10	22

+53.74

59.0	68.7	69.2	68.5	65.7	60.5
10.9	1.0	0.7	1.4	4.2	9.4
19	5	2	6	11	23

SLUDGE BASINS
X-SECTIONS of
#1 DIKE EMBK'T.

2/19/51

45

369.86

2+77¹⁵

58.0	68.7	68.9	68.4	66.2	59.7
11.9	1.2	1.0	1.5	2.7	10.2
21	6	0	5	11	26.5

3+00³⁶

57.4	67.4	68.7	69.1	68.6	65.9	59.6
12.5	2.5	1.2	0.8	1.3	4.0	10.3
22	8	4	0	5	9.5	24

3+23⁵⁷

58.6	67.9	69.2	69.1	68.0	61.9	59.5
11.3	2.0	0.7	0.8	1.9	8.0	10.4
20	7	4	0	7	18	25

3+46⁷⁹

57.5	68.2	68.7	68.2	61.8	59.8
12.4	1.7	1.2	1.6	8.1	10.1
22	6.5	0	6	17	24

4+00

Top 12" Steel
overflow 1.25 368.61

56.3	69.4	69.1	68.8	63.6	60.3
13.6	0.5	0.8	1.1	6.3	9.6
23	5.5	0	5.5	20	24

4+50

57.3	69.0	69.0	69.0	60.5
12.6	0.9	0.9	0.9	9.4
22	7	0	5	22

5+00

59.0	68.7	69.0	69.2	65.6	60.9
10.9	1.2	0.9	0.7	4.3	9.0
20	5.5	0	6	12	23

+50

59.9	68.7	69.0	69.1	65.5	61.8
10.0	1.2	0.9	0.8	4.4	8.1
18	5	0	4.5	11	18

6+00

61.1	68.6	68.8	68.9	66.0	62.5
8.8	1.3	1.1	1.0	3.9	7.4
16	6	0	3.8	9	17

+22⁸

4 PT

61.7	68.9	69.1	69.2	65.9	62.6
8.2	1.0	0.8	0.7	4.0	7.3
16	4	0	5.5	11	18

SLUDGE BASINS
 X-SECTS of
 #1 - DIKE EMBKT

369.86

6+50

62.5	69.2	69.3	69.4	64.4	62.9
7.4	0.7	0.6	0.5	5.5	7.0
15	4.8	0	5	12	18.5

7+00

64.0	69.0	69.0	69.2	64.6	62.0
5.9	0.9	0.9	0.7	5.3	7.9
12	5.5	0	4.8	13	20

+50

64.3	68.7	68.6	68.9	64.5
5.6	1.2	1.3	1.5	5.2
12	5	0	4	13

8+00

66.7	68.1	68.8	69.0	68.7	67.8
3.2	1.8	1.1	0.9	1.2	2.1
9	7.5	5	0	4.5	7.8

8+20

0.0 Area

PAGES 44 TO 46
 Reduced 2-27-51 E.M.

2/19/51

46

BEATTY
LEONARD
WELKER

FINAL CROSS-SECTIONS
OF EXCAVATION

BASIN No 2

BM 4.30 365.75 361.45

0+50

0.0 Area Excav

0+75

(Excav for Approach Ramp)

61.6 59.1 58.1 57.4
22 67 77 84
193 192 189 181
NG NG

1+00
1+25

0.0 AREA EXCAV BACK
0.0 AREA EXCAV AHEAD

1+50

64.7 62.3 59.1 59.8 64.4
11 25 67 62 1.4
205 202 180 172 159

1+75

62.3 61.2 60.5 59.4 56.9 55.6 57.9 61.5 63.5 64.7
3.5 4.6 5.3 7.4 8.9 10.2 8.4 4.3 2.3 1.1
201 200 198 181 178 158 148 140 134 129
NG

2+00

62.7 59.8 58.1 56.0 55.6 54.4 54.0 55.1 57.9 61.0 64.8
21 6.8 7.7 9.8 10.2 11.4 11.8 10.7 7.9 4.8 1.0
201 197 188 170 153 147 137 130 120 112 100
NG

0.0 AREA

10'

Channel Excav

+25

65.7 62.9 56.6 56.7 55.2 55.4 54.4 55.1 56.2 57.7 65.1
0.1 2.9 7.2 9.1 10.6 10.4 11.4 10.7 9.6 8.1 0.7
202 200 197 182 167 140 128 106 99 89 71
NG NG

+50

64.7 61.7 60.6 58.5 55.5 54.9 54.7 54.5 55.0 56.7 59.6 64.8
11 21 22 7.2 10.3 10.9 11.1 11.3 12.8 9.1 6.2 1.0
202 200 196 193 182 170 150 122 105 80 73 66
NG NG

+75

60.7 59.8 57.2 54.7 54.3 54.6 54.1 56.7 59.7 65.1
3.2 6.0 8.6 11.1 11.2 11.2 11.3 9.1 6.1 0.7
199 193 191 181 172 148 123 81 74 66
NG NG

56.7 56.3 54.8 55.6 57.3 56.3
9.1 9.5 11.0 10.2 8.5 9.5
37 34 32 25 22 18
NG NG

FINAL X-SECTS
EXCAVATION
BASIN No 1
367.87

5+50

655 599 597 575 565 568 565 57.1 58.7 61.9 65.1
23 7.9 8.1 10.7 11.3 11.0 11.3 10.7 2.1 5.9 2.7
157 158 146 138 132 118 105 95 90 80 73
NG

+75

678 645 629 610 62.0 60.6 60.2 57.5 56.6 56.8 57.3 59.0 65.3
2.0 3.3 4.9 6.8 5.8 7.2 7.6 10.3 11.2 11.0 10.2 8.8 2.5
176 167 160 155 142 140 135 127 121 103 95 88 72
NG

6+00

699 63.6 62.6 64.2 61.0 57.2 57.9 60.1 62.6 65.3
2.1 4.2 5.2 3.6 6.8 10.6 9.9 7.7 5.2 2.5
165 154 149 135 125 113 97 87 78 74
NG

+25

723 71.3 67.8 63.5 65.2 62.7 59.0 59.0 62.1 65.2
4.5 3.5 0.0 4.3 2.6 5.1 8.8 8.8 5.7 2.5
166 163 155 145 126 116 104 93 81 70
NG

P 10.23 373.50 4.60 363.27

+50

735 65.7 66.2 65.0 65.6 64.8 61.5 62.5 64.7
6.6 7.8 7.3 8.5 7.9 6.7 12.0 11.0 8.8
159 142 127 114 111 105 90 81 75
NG

+75

765 74.0 71.3 69.4 68.2 68.7 66.6 66.2 64.0 65.4
7.2 4.5 4.2 4.1 5.3 4.8 6.9 7.3 9.5 8.1
156 152 151 142 132 130 115 108 84 77

P 8.12 380.11 1.51 371.99

7+00

763 74.5 73.1 71.4 71.3 69.3 65.1 65.7 64.9
3.8 5.6 7.0 8.7 8.8 10.8 15.0 12.4 12.2
150 145 143 133 125 116 94 82 78
NG

+25

775 75.2 74.6 74.0 70.2 69.1 69.1
2.6 4.9 5.5 6.1 9.9 11.0 11.0
148 141 129 125 112 104 94
NG

7+50

80.9 79.7 78.6 77.9 77.7 76.2 74.5 74.4
4.8 0.4 1.5 2.2 2.4 3.9 5.6 3.7
153 150 146 145 133 125 112 NG
NG

OK P 6.10 374.0

7+75

G.O. AREA EXCAV.

Reduced 2-27-51
cim

2/23/51

50.

FINAL X-SECTS
EMBKT
DIKE NO 2

5 TP 2.33 367.85 365.52

6479⁰⁵

6450

O.O Area Embkt

64.3 65.4 65.2 65.1 63.2
3.6 2.5 2.7 2.8 4.7
12 8 C 2.5 7

6. 6400

62.8 65.4 65.3 65.5 62.0
5.1 2.5 2.6 2.4 5.9
9 5 C 4.5 10

5450

61.4 65.4 65.4 65.4 60.9
6.5 2.5 2.5 2.5 7.0
11 5.0 C 7.5 11

5400

62.4 65.4 65.5 65.6 61.0
5.5 2.5 2.4 2.3 6.9
11 5 C 4 10

+50

61.2 65.0 65.3 65.4 59.6
6.7 2.9 2.6 2.5 8.3
12 2.5 C 4 14

7 4400

60.5 65.2 65.1 64.9 58.1
7.4 2.7 2.8 3.0 9.8
13 4.8 C 4 15

+50

60.0 65.1 65.0 64.8 55.9
7.9 2.8 2.9 3.1 12.0
14 5 C 5 15

7 3400

60.1 65.0 64.8 64.6 64.0 63.3 56.0
7.8 2.9 3.1 3.3 3.9 4.6 11.9
13 C C 3 C 8 22

C.

+50

58.9 65.1 65.0 65.0 57.0
9.0 2.8 2.9 2.9 10.9
16 6 C 6 17

2/27/51

51

367.85 ✓

2+00

56.0	64.7	65.2	64.7	54.8
11.9	3.2	2.7	3.2	13.1
13	5	C	4.5	20.

1+50

56.0	64.4	64.7	64.3	52.6
11.9	3.5	3.2	3.6	15.3
12	4.5	C	8	22

1+00

57.6	59.8	65.0	65.0	65.1	55.8
10.3	8.1	2.7	2.9	2.8	12.1
17	11	4	C	7	18

+50

58.1	64.3	64.5	64.4	60.6	58.9	54.1
9.8	3.6	3.4	3.5	7.7	9.0	13.8
17	5			6	11	15.5
						23

0+00

D.O. AREA Embert

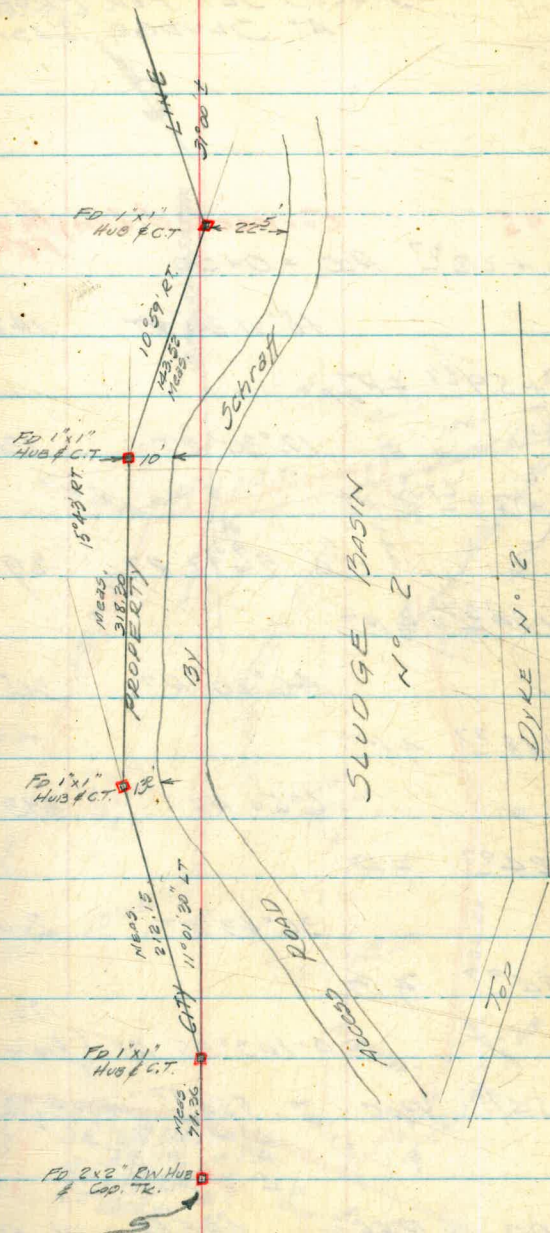
Reduced 2-27-51 com

MAY 3 1951

BEATTY
LEONARD
G. NELSON

52

PROPERTY LINE - Northern Side
ALVARADO SLUDGE BASINS



(SEE LATER ENTRY Pg. 66.)

STAKES SET FOR PROPOSED FENCE
AT SLUDGE BASINS

Nov. 8, 1951

BEATTY
LEONARD
ROWELL

53

2195 Corrected length of FENCE - 7.34
22+02³⁷ P.O.C. = 0+00 - 4.16

18° 11' 30" RT 142.50 - .37

20+59⁸⁷ ~~PT~~
12° 30' RT 130.20 - .24

19+29⁶⁷ ~~PT~~
Δ 96° 17' RT 295.10 - 1.11

16+34⁵⁷ ~~PT~~
46° 20' RT 315.80 - 1.05

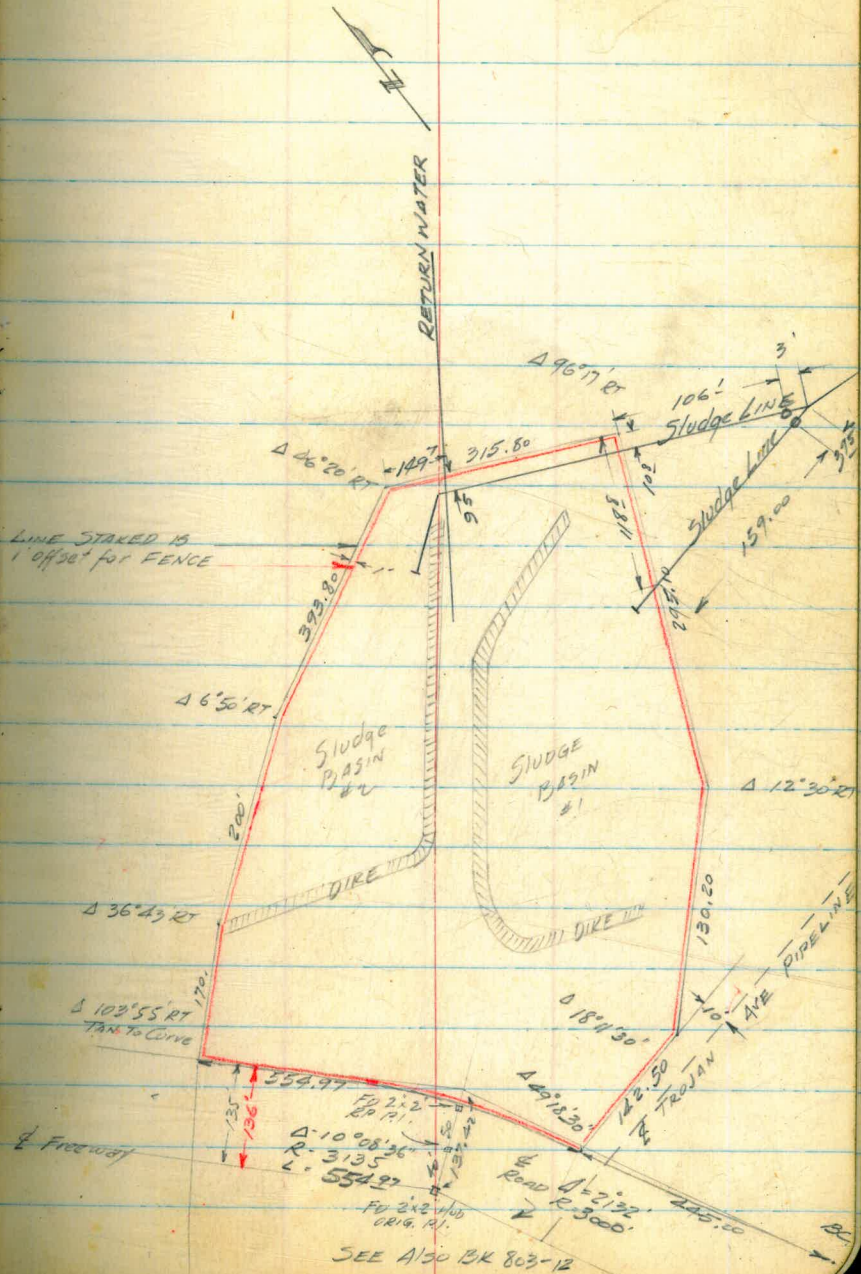
13+18⁷⁷ ~~PT~~
6° 50' RT 393.80 - .12

9+24⁹⁷ ~~PT~~
36° 43' RT 200. - .75

7+24⁹⁷ ~~PT~~
170.00 - 2.6
0-103° 55' RT (from tail to curve)

5+54⁹⁷ P.O.C. 554.97 W. of Beginning of Fence
Δ = 10° 08' 36"
R = 3135
L = 554.97

0+00 P.O.C. 445.00 W. of P.O.C.

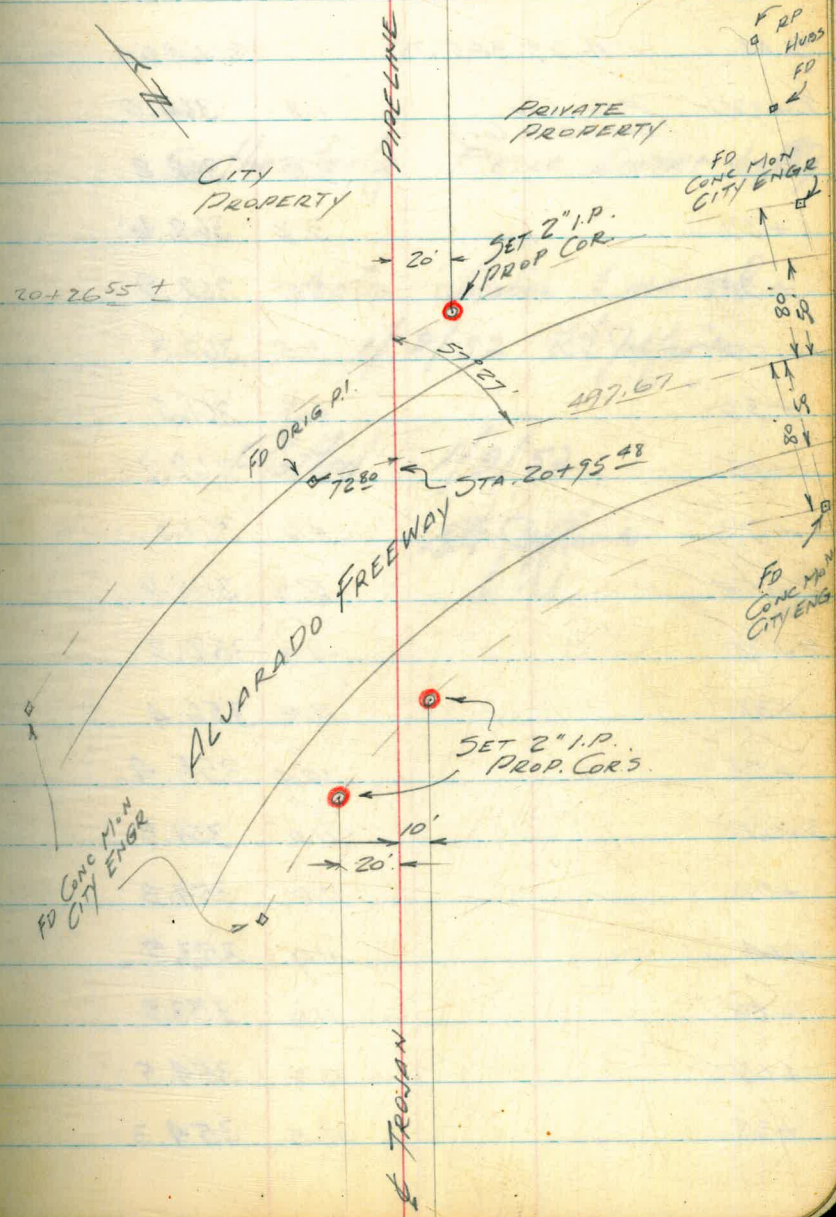


PROP. COR.'S SET
 TROJAN AVE PIPELINE R.O.W.
 & ALVARADO FREEWAY

Nov. 8 1951
 BEATTY
 LEONARD
 POWELL

100
 60' →
 FD R.P.P.I.
 HUBS
 STA 8+42.63

53



ALVARADO SLUDGE BASINS
 PROFILE OF PROPOSED
 FENCE
 (See pg 53)

JAN. 7 1952

BETTY
 LEONARD
 POWELL

56

B.M.			
	4.33	365.78	361.45
0+00	FEN Cor. (Southernly Cor.)	1.8	364.0
+17		3.0	362.8
+33		3.2	362.6
+55		2.9	362.9
1+00		3.5	362.3
+33		4.3	361.5
+35		3.6	362.2
+39		4.3	361.5
+55		5.2	360.6
2+00		7.9	357.9
+38		9.4	356.4
+54		10.4	355.4
3+00		11.0	354.8
+02		11.0	354.8
+04		11.9	353.9
+06		11.9	353.9
+08		11.3	354.5
+38		11.5	354.3

on RPP1 H12 (pg. 34)

Southeasterly Fence Corner by 129

Notes checked & reduced

1/9/52 *L. Joffe*

Plotted 1/9/52

L. Joffe

ALVARADO SLUDGE BASINS
Profile along Proposed
FENCE LINE

1-7-52

57.

Station	Distance	Offset	Elevation	Description
	265.78			
3+45	14.1		351.7	Edge of Slough (water)
3+91	14.3		351.5	" " (water)
4+00	12.7		353.1	
+19	11.9		353.9	
+25	11.5		354.3	
+28	12.3		353.5	
+70	12.9		352.9	
5+00	13.4		352.4	
+29	13.5		352.3	
+41	12.5		353.3	
5+53 ² FEN. COR.	12.2		353.6	
+99	11.3		354.5	
6+55	9.0		356.8	
+63	8.5		357.3	
+94	1.5		364.3	
7+00	1.3		364.5	} Top DIKE
+04	1.8		364.0	
TP	12.71	377.92 ^v	0.57	365.21 ✓
+06	13.0		364.9	

ALVARADO SLUDGE BASINS
Profile along Proposed
Fence

1-9-52

58.

	377.92		
7+22	FEN & RT	8.4	369.5
+51		7.7	370.2
8+00		7.8	370.1
+40		7.7	370.2
9+00		10.2	367.7
+215	FEN. COR	9.0	368.9
+29		9.5	368.4
+47		10.0	367.9
+61		11.2	366.7
+94		9.2	368.7
10+00		9.8	368.1
+24		10.9	367.0
+50		9.8	368.1
+74		8.3	369.6
11+00		8.5	369.4
+24		9.2	368.7
+54		8.6	369.3
12+00		3.9	374.0 374.0
+10		2.7	375.2
TP	5.99	383.04	0.87 377.05 ✓

ALVARADO SLUDGE BASINS
PROFILE ALONG PROPOSED
FENCE

1-7-52

59

	383.02		
+50		4.8	378.2
+73		3.4	379.6
+94		1.9	381.1
13+00		1.9	381.1
+153	FEN. COR	1.3	381.7
+43		3.0	380.0
+45		4.0	379.0
+52		5.1	378.9 377.9
+55		6.2	376.8
+60		6.4	376.6
+65		5.5	377.5
+87		6.4	376.6
14+00		8.0	375.0
+29		11.2	371.8
+53		13.2	369.8
TP	6.36 376.22	13.18	369.86
+56		6.2	370.0
+61		7.7	368.5
+62		8.4	367.8

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ALVARADO SLUDGE BASINS
 PROFILE ALONG PROPOSED
 FENCE

1-7-52

60.

376.22

+65E	Top 6" Gal RET. WAT.	7.5	368.7
+66		8.8	367.4
+74		10.3	365.9
+90		12.7	363.5
15+00		12.7	363.5
+28		12.3	363.9
+67		11.6	364.6
+80		10.2	366.0
+91		9.4	366.8
16+00		7.9	368.3
+23		6.5	369.7
+30	FEN. COR	4.9	371.3
+41		3.7	372.5
+41	Top 6" Steel	3.5	372.7
+48		2.9	373.3
+64		3.7	372.5
+81		3.3	372.9
+98		3.6	372.6
17+14		2.5	373.7

Edge Slough

ALVARADO SLUDGE BASINS
PROFILE ALONG PROPOSED
FENCE

1-7-52

61.

376.22

17+26	3.1	373.1
+38	2.3	373.9
+43	0.2	376.0
+49	2.9	373.3
+49.5 Top 6"	2.1	374.1
+52	2.9	373.3
+54	2.4	373.8
+59	2.2	374.0
+65	4.5	374.7
+68	2.0	374.2
+90	1.9	374.3
18+00	2.4	373.8
+25	2.7	373.5
+50	1.9	374.3
+72	2.1	374.1
19+00	1.9	374.3
+24 FEN COR	2.2	374.0
+40	2.3	373.9
+65	1.5	374.7

ALVARADO SLUDGE BASINS

1-7-52

62

PROFILE ALONG PROPOSED
FENCE

20+00		376.22		3.2	373.0
+54	FEN. Cor			5.5	370.7
21+00				8.1	348.1
1. P.W.		0.99	369.16	8.05	368.17
+50				3.6	365.6
21+95	FEN Cor			5.3	363.9
= 0+00					
CK B.M.				7.78	361.38 = 361.25

Notes checked & reduced
1/9/52 R.S. Jeffries

ALVARADO Sludge Basins

Check Levels

Profile Dike #1

5-22-52

West

Kemp

63.

Sta	+	Hi	-		
	10.95	366.51		355.56 BM	on Hd wall
	10.38	373.19	3.70	362.81	Turn on rock
0+00			3.90		
0+15			4.3		
0+38			4.4		
0+50			4.25		
0+73			4.3		
1+00			4.1		
+50			4.1		
2+00			4.1		
2+50			4.5		
3+00			4.5		
+50			4.3		
4+00			4.3		
+50			4.2		
5+00			4.2		
+50			4.5		
6+00			4.4		

5-23-52

West
Kemp
Martell's

Sta	BS +	HI	55 -
6+16		373.19	4.4
6+50			4.0
7+00			4.1
+50			4.3
8+00			4.0
+20			4.3
	Dike #2	North Dike	0+00
			at X in Fence line
		373.19	
0+00			8.1
+50			8.5
1+00			8.5
+50			8.4
2+00			7.3
+50			8.2
3+00			8.6
+27			8.3
3+50			8.3
4+00			7.9
+50			8.0

End of Dike No 1 Natural Ground

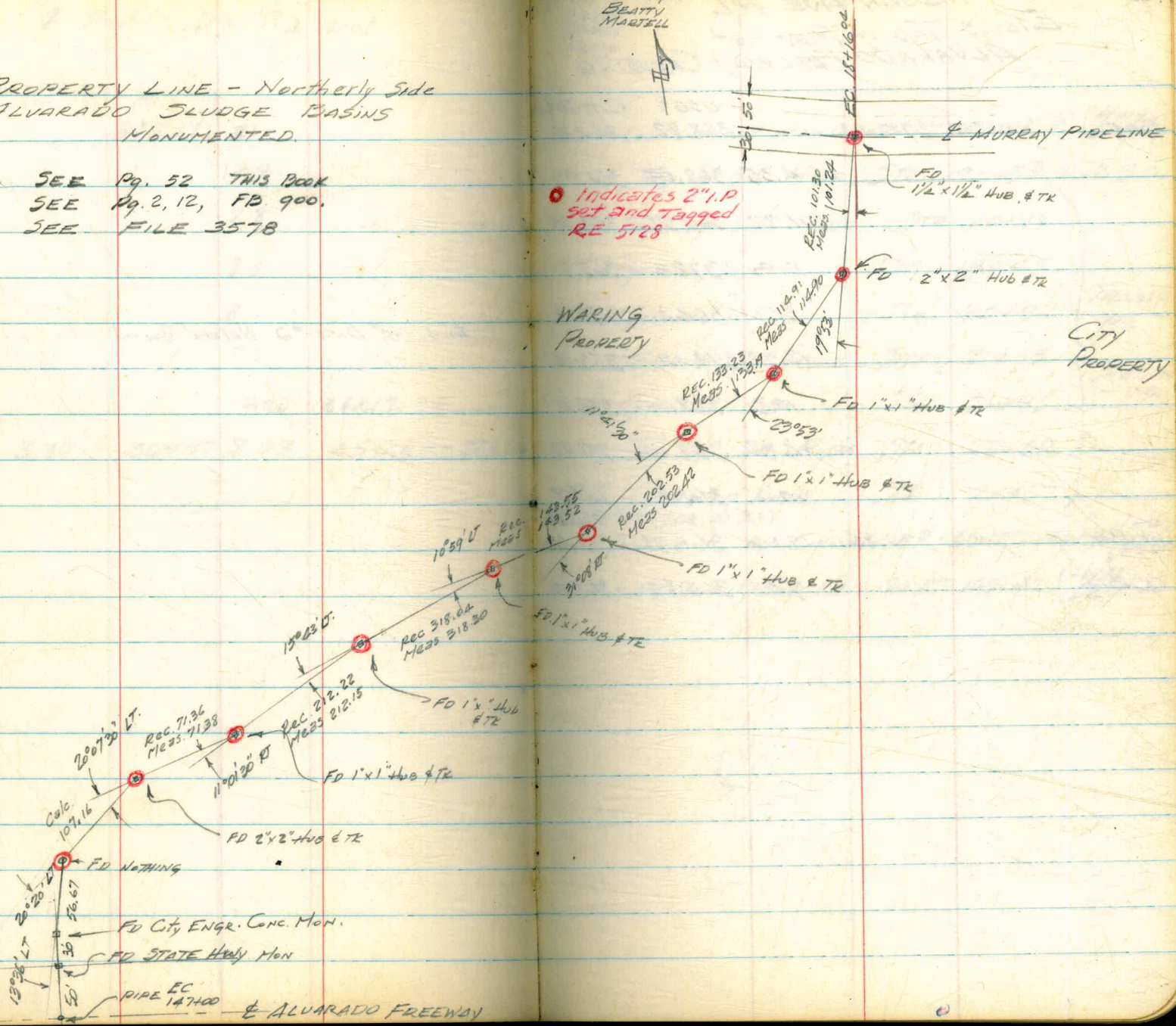
Profile Dike #2 cont

	+	H ₁	-	
4+67		373.19	8.1	
5+00			7.9	
+50			7.8	
6+00			8.0	
+50			8.1	
+65			7.0	
			12.02	361.17
	3.30	364.47	8.93	355.54 = 364.56
7+00			8.1	
8+00			8.5	
9+00			8.7	
10+00			8.4	
11+00			7.3	
12+00			8.2	
13+00			8.6	
14+00			8.3	
15+00			8.5	
16+00			7.9	
17+00			8.0	

End of Dike #2 Natural Ground

PROPERTY LINE - Northern Side
ALVARADO SLUDGE BASINS
MONUMENTED.

SEE Pg. 52 THIS BOOK
SEE Pg. 2, 12, FB 900.
SEE FILE 3578



TROJAN AVE P.L.
 Elev. 5 Top of Pipe at
 ALVARADO FREEWAY CROSSING

July 3 1956
 Beatty
 Shorey
 Kemp

67

BM		USGS	City Datum		
	3.62	372.44	368.82	362.70	PK Nail on culvert Hdwall 42° LT. 157+98 "P" (Hwy Dept.)
		4.35	368.09	361.97	Top of 54" Pipe STA. 19+45.3 @ 12" S.O.
		11.87	360.57	354.45	Top of 54" Pipe STA. 20+92
		0.4	372.0	365.9	Ground line STA. 19+45
		8.3	364.1	358.0	Ground line STA. 20+92
		12.97	359.27	353.35	Top of 54" Pipe STA. 21+95
		10.3	362.1	356.0	Ground line STA. 21+95
		14.34	358.10	351.98	Top of 54" Pipe STA. 22+57
		10.6	361.8	355.7	Ground line STA. 22+57
CK BM.	9.07	370.85	10.66	361.78 = 361.68	City Datum (see pg. 34)
					USGS CHIS on Culv. Hdwall 65' LT. 149+90 (Hwy Dept.)
CK BM.			7.02	363.83 = 363.82	USGS NE Cor City Engr Men 80' RT 145+42 (Hwy Dept.)

TRASH
 P.L.

STATION
 -ING

8.26
 6.08
 12.34

382
351
31'

0248
170.

17360
248
4.2160

7+14 72
2+30 60.0248
4.84) 12.00.
968

2320
1936
3840

60.00
4.22
64.22

200.00
84.22
145.78
125.78

174
15
89

0
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48
49
50

361.45 13M
 12.47
 373.92 Ni
 4.92 431.5
 8.92

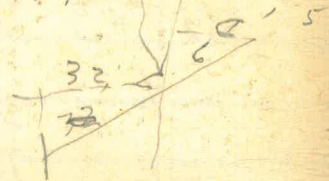
7+34.20
 80
 6+54.20 End Pt

514.0

464.67

22.88
 14
 8.88

9+27
 9+53
 9+57



71.17
 64.67
 6.50

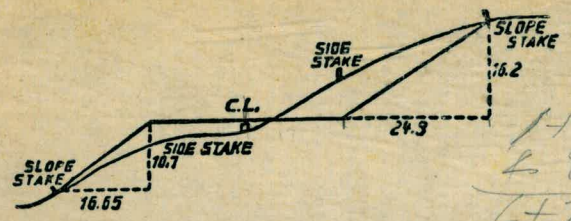
361.45
 1.32
 362.77
 514.0
 45

361.45
 1.80
 372.25
 364.00
 9.25

0° 23' N. 145'

41° 02' 44" - 0742.35

10 12' N. 1 - 0452.39
 1.01 07
 1+53.46 = 450 4/16



1194.74
 284.15
 6+78.89

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