DIETZGEN

ENGINEER

FIELD BOOK

No. 4003F

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

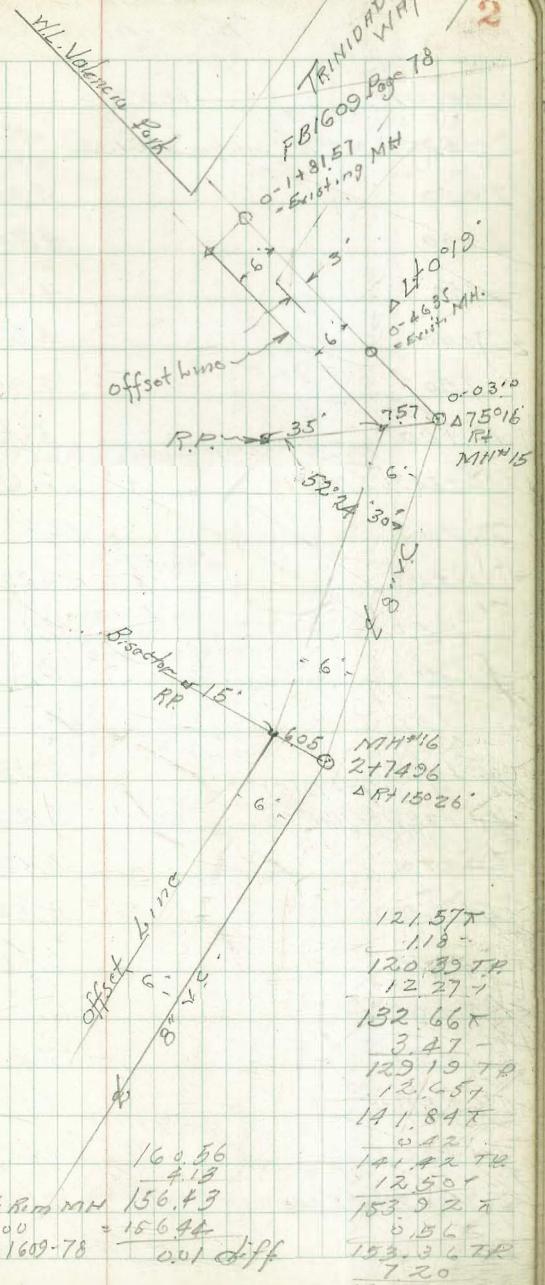
Walker
Hogard
Hardin = Start Levels and
10-13-43

Trunk Line Sewer Construction
"E"-1 Line
From Valencia Park to Harbor & Vesta St.

Drawing #357 D-Sheet 3

Stations			Elev. Stakes	Elev. Flow Line	Cuts	Offsets
0-1+81.57 = ℄ Existing MH. in Trinidad St. (BS: 0+13)	160.56	4.96	155.60	142.17	13.43	
0-1+36.50	153.92	4.43	149.49	137.84	11.65	
0-91.43		10.10	143.82	133.51	10.31	
0-46.35 = ℄ Existing MH (0-07.72)	ΔLt 0°19' FB 1609-P-78 141.84	5.81	136.03	129.17	6.86	
		6.12	135.72	128.20	7.52	
0-03.10 = Δ 75°16' Rt. (0+01.52)	℄ MH #15	6.12	135.72	128.00	7.72	
		6.12	135.72	127.86	7.86	
0+25		12.12	129.72	127.16	2.56	
+50	132.66	3.47	129.19	126.40	2.79	
1+00		3.13	129.53	124.90	4.63	
+50 (3 d/o)		0.24	132.42	123.40	9.02	
2+00		4.15	128.51	121.90	6.61	
+50		5.43	127.23	120.40	6.83	
2+74.96	MH #16 Rt. 15°26'	6.31	126.35	119.66	6.69	
3+00		6.60	126.06	118.90	7.16	
+50		9.47	123.19	117.40	5.79	
4+00 (3 d/o)		9.64	123.02	115.90	7.12	
+50		12.35	120.31	114.40	5.91	
4+93.80 = P.O.T. MH #17	121.57 π P24	1.18	120.39	113.09	7.30	
5+25		2.28	119.29	112.38	6.91	
+50		3.88	117.69	111.83	5.86	
6+00 (2.23 d/o)		6.18	115.39	110.71	4.68	
+50		5.27	116.30	109.59	6.71	
+81.48		7.04	114.53	108.90	5.63	

Cont. Page 3



chk Rim MH 0+00 FB 1609-78 = 156.43 − 4.13 = 156.44 0.01 diff

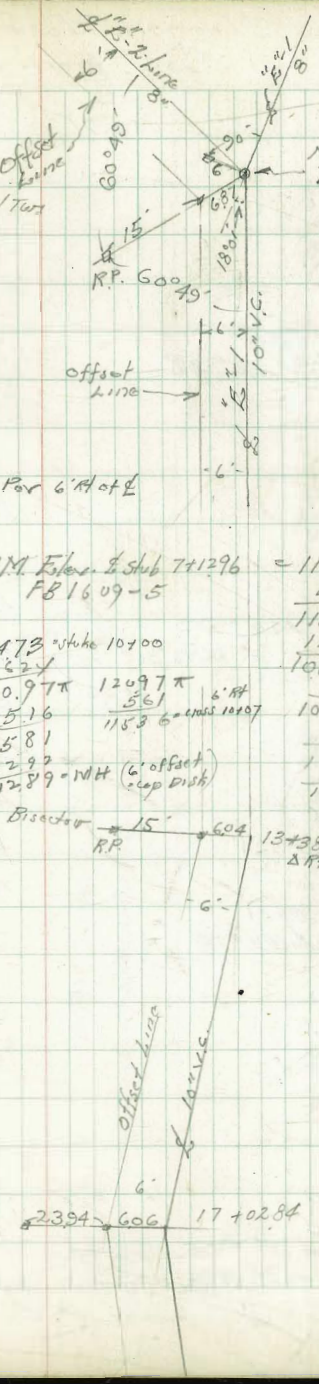
121.57 π
1.18
120.39 TP
12.27
132.66 π
3.47
129.19 TP
12.65
141.84 π
0.42
141.42 TP
12.50
153.92 π
0.56
153.36 TP
7.20
160.56 π

Valencia Park Trunk Sewer
"E"-1 Line Cont. from P. 2

Station			Elev. Stake	Elev. Flow Line
	2.23%	118.39		
	Δ Lt 18°01'			
7+12.96 = ℄ MH #18 = Junction "E-2" Line		4.22	114.17	108.20
+16.32		4.35	114.09	108.20
7+50		4.35	114.04	108.14
8+00		5.20	113.19	107.59
+50		4.70	113.69	106.77
9+00	1.64 %	7.41	110.98	105.95
+50		8.33	110.06	105.13
10+00		8.79	109.60	104.31
	P.O.T. 5' W.V.V. edge Paving.	3.66	114.73	103.49
10+34.96 = ℄ MH #19			115.36	103.50
10+65		2.63	116.76	102.92
11+00		12.21	106.18	102.43
+50		108.57	106.18	101.86
12+00	1.64 %	3.16	105.41	101.04
+50		4.27	104.30	100.22
13+00		4.17	104.40	99.40
	Δ Rt 13°51			
13+38.96 = MH #20		4.82	103.75	98.58
13+70		5.29	103.28	97.93
14+00		5.49	103.08	97.42
+50		5.82	102.75	96.93
15+00	1.64 %	6.83	101.74	96.11
+50		7.02	101.55	95.29
16+00		7.31	101.26	94.47
+50		100.71	8.17	100.40	93.65
	Δ 4. 15°53'30"		1.21	99.50	92.83
17+02.84 = ℄ MH. 21			2.55	98.16	91.96

Cont. P-4

Cuts	offsets
5.97	6' Rt Δ to Back Tan.
5.84	6.87 Rt on diag.
5.90	6' Rt Δ to Forward Tan
5.60	
6.92	
5.03	
4.93	
5.29	
11.24	
11.86	→ Cross 10+07 on Per 6' Rt of ℄
13.84	
3.75	
4.32	
4.37	
4.08	
5.00	
5.17	
5.35	
5.66	
5.82	
5.63	
6.26	
6.79	
6.75	
6.67	
6.20	



B.M. Elev. ℄ Stub 7+12.96 = 114.02
FB 1609-5

114.02
4.37 +
118.39 π
12.21 −
106.18 F.P.
2.39 +
108.57 π
.817 −
100.40 F.P.
.031 ✓
100.71 π

11473 = Stake 10+00
6.74
120.97 π
5.16
115.81
10297
12.89 = MH (6' offset cap Disk)

12097 π
5.61
6' Rt
115.36 = cross 10+07

Bisector 15' R.P. 604 13+38.96 Δ Rt 13°51

Valencia Park Trunk Sewer "E-1" Line
Cont. from P-3

Station.				El. Stakes	El. Flow Line	Cuts	Offsets.
		100.71					
17+50			6.12	94.59	91.08	3.51	
18+00	1.87 %		4.29	96.42	90.15	6.27	
+50			5.68	95.03	89.21	5.82	
19+00			7.11	93.60	88.28	5.32	
19+38.84 = P.O.T. ℄ MH #22			9.57	91.14	87.55	3.59	
19+70			10.21	90.50	87.13	3.37	
20+00	1.36 %		9.88	90.83	86.72	4.11	
+50			10.09	90.62	86.04	4.58	
21+00			9.25	91.46	85.36	6.10	
+40			11.72	88.99	84.82	4.17	
21+74.73 = MH #23 Δ Lt. 26°16'30"			11.67	89.04	84.34	4.70	
22+00		91.96	3.32	88.64	84.00	4.64	
+50	1.36 %		3.51	88.45	83.32	5.13	
23+00			4.39	87.57	82.64	4.93	
+50			4.85	87.11	81.96	5.15	
24+00			4.98	86.98	81.28	5.70	
24+44.73 = P.O.T. ℄ MH #24			5.22	86.74	80.67	6.07	
24+72			5.45	86.51	80.30	6.21	
25+00			5.59	86.37	79.92	6.45	
+50	1.37 %		7.04	84.92	79.24	5.68	
26+00			7.44	84.52	78.55	5.97	
+50			9.37	82.59	77.87	4.72	
27+00			9.97	81.99	77.18	4.81	
27+15.04 = ℄ MH #25 Δ Lt. 17°24'10"			10.25	81.71	76.96	4.75	

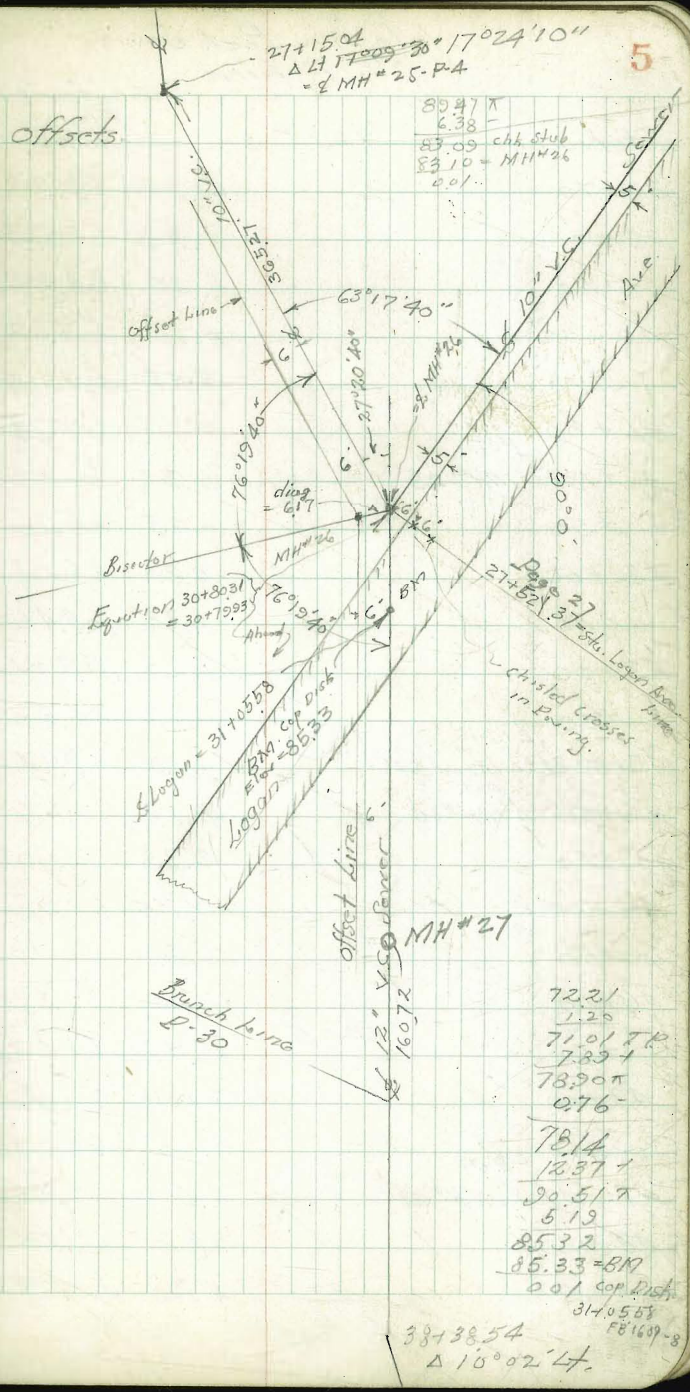
Cont. P-5

100.71 π
11.67 −
89.04 T.P.
2.92 +
91.96 π
8.96 −
83.00 T.P.
6.47 +
89.47 π

"E-1" Line
Valencia Park Trunk Sewer
Cont. from Page 4

Station			Elev. Stakes	Elev. Flow Line	Cuts	Offsets
27+50	89.47	8.42	81.05	76.61	4.44	
28+00		7.52	81.95	76.11	5.84	
+50		7.59	81.88	75.61	6.27	
29+00		6.58	82.89	75.11	7.78	
+50		8.69	80.78	74.61	6.17	
30+00		10.23	79.24	74.11	5.13	
+50		9.79	79.68	73.61	6.07	
30+80.31 ℄ MH #26 Equation.						
30+79.93 = ΔRt. 27°26'48"	90.51	7.41	83.10	73.28	9.82	
31+01		5.27	85.24	73.07	12.17	
+40		5.59	84.92	72.60	12.32	
31+60		12.19	78.32	72.36	5.96	
32+00	78.90	0.76	78.14	71.88	6.26	
+50		2.00	76.90	71.28	5.62	
33+00		3.12	75.78	70.68	5.10	
+50		3.70	75.20	70.08	5.12	
34+00		4.21	74.69	69.48	5.21	
+30		4.39	74.51	69.12	5.39	
34+60.94 = ℄ MH #27 (P.O.T.)		4.63	74.27	68.75	5.52	
35+00		5.23	73.67	68.28	5.39	
+50		6.11	72.79	67.68	5.11	
36+00		7.16	71.74	67.07	4.67	
+50		7.92	70.98	66.47	4.51	
37+00		8.77	70.13	65.86	4.27	
+25	78.90 ↑	8.99	69.91	65.56	4.35	
+60	72.21 ↑	1.20	71.01	65.14	5.87	
38+00		1.36	70.85	64.65	6.20	
+38.54 = ℄ MH #28 Δ = 10°02' Lt.		1.14	71.07	64.19	6.88	

1.00 %
1.21 %
1.21 %



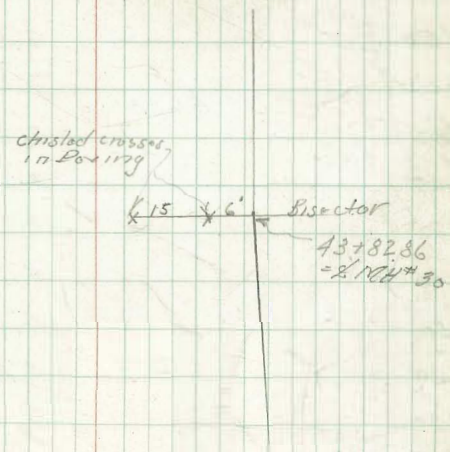
Valencia Park Sewer
"E-1" Line

Cont. from P-5

Station		72.21		Elev. Stakes	Elev. Flow Line	Cuts	Offsets
38+70			2.38	69.83	63.87	5.96	6' Rt
39+10			3.98	68.23	63.46	4.77	
+50	1.04 %		3.95	68.26	63.04	5.22	
40+00			4.39	67.82	62.52	5.30	
+50			5.16	67.05	62.00	5.05	
41+00			5.06	67.15	61.48	5.67	
+19.27	P.O.T. = MH #29		5.38	66.83	61.27	5.56	
41+50			6.45	65.76	60.95	4.81	
42+00	1.04 %		6.20	66.01	60.43	5.58	
+50			6.75	65.46	59.91	5.55	
43+00			7.20	65.01	59.39	5.62	
+50			7.83	64.38	58.87	5.51	
43+82.86	℄ MH #30 = Δ Lt. 0°54'	73.33	4.19	69.14	58.53	10.61	6' Rt
44+00	P.O.T. = ℄ MH #30		4.17	69.16	58.35	10.81	
+50			9.73	63.60	57.83	5.77	
45+00			10.35	62.98	57.31	5.67	
+50	1.04 %		10.63	62.70	56.79	5.91	
46+00			11.46	61.87	56.27	5.60	
+50		64.05	2.43	61.62	55.75	5.87	
47+00			3.01	61.04	55.23	5.81	
+50			3.28	60.77	54.71	6.06	
47+87	P.O.T. = ℄ MH #31		3.57	60.48	54.33	6.15	
48+20			3.82	60.23	~~53.99~~ 54.20	6.03	
+50			4.28	59.77	53.68	6.09	

Cont. Page 7

For check levels see Page 67



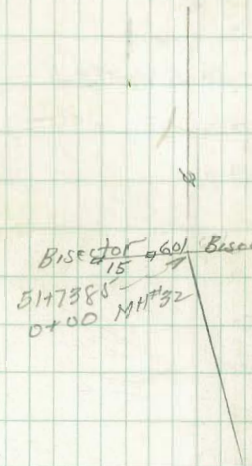
B.M. Cap Disk
44+07.52 F81609-9

64.05 T
2.43 -
61.62 P
11.71 +
73.33 T
4.22
69.11
69.17
0.06
69.17
3.0
72.21

Valencia Trunk Sewer
"E-1" Line
Cont. from P-6

Station			Elev. Stakes	Elev. Flow Line	Cuts	offsets
	64.05					
49+00		4.04	60.01	53.16	6.85	6' Rt
+50		4.09	59.96	52.64	7.32	"
50+00	1.04%	4.65	59.40	52.12	7.28	"
+50		4.79	59.26	51.60	7.66	"
51+00		4.92	59.13	51.08	8.05	"
+40		5.35	58.70	50.66	8.04	"
51+73.85 = △ 14 7°28'30 = 0+00 MH #32 } Equation.		5.84	58.21	50.31	7.90	6.1' Rt
0+50		6.50	57.55	49.78	7.77	6' Rt
1+00		7.17	56.88	49.25	7.63	"
	56.98					
+50	1.06%	2.15	54.83	48.72	6.11	"
2+00		3.07	53.91	48.19	5.72	"
+50		3.23	53.75	47.66	6.09	"
3+00		4.61	52.37	47.13	5.24	"
+50		4.44	52.54	46.60	5.94	"
4+00		4.83	52.15	46.07	6.08	"
+30		5.10	51.88	45.75	6.13	"
4+61.2 = P.O.T. MH #33		5.42	51.56	45.42	6.14	"
5+00		6.09	50.89	45.07	5.82	"
+50		6.87	50.11	44.62	5.49	"
6+00		7.92	49.06	44.17	4.89	"
+50	0.70%	8.01	48.97	43.72	5.25	"
7+00	52.45	3.66	48.79	43.27	5.52	"
+50		4.42	48.03	42.82	5.21	"

Cont. P-8



52.45 x
3.66 −
48.79 p
8.19 +
56.98 x
2.15
54.83
2.22 +
64.05 x

VALENCIA PARK TRUNK SEWER

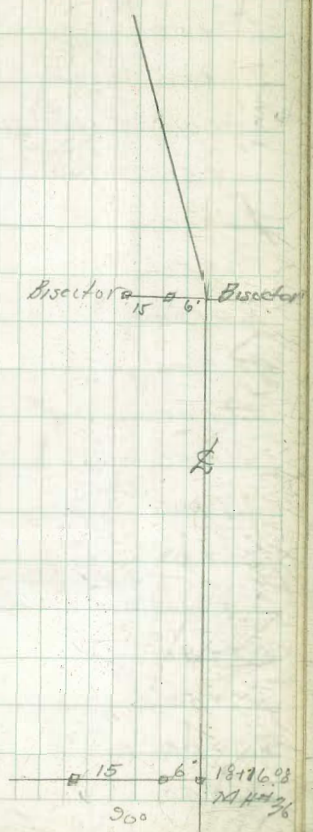
"E"-Line

Cont from P-7

Station			Elev. Stakes	Elev. Flow Line	Cuts	offsets.
		52.45				
8+00	0.90%		4.94	47.51	42.37	5.14	6' Rt.
+50			4.78	47.67	41.92	5.75	✓
9+00			4.93	47.52	41.47	6.05	✓
9+22.40 = ℄ MH #34	P.O.T.		5.08	47.37	41.27	6.10	✓
+50			5.11	47.34	41.02	6.32	✓
10+00			5.18	47.27	40.57	6.70	✓
+50	0.90%		5.19	47.26	40.12	7.14	✓
11+00			5.96	46.49	39.67	6.82	✓
+50			6.31	46.14	39.22	6.92	✓
12+00			6.89	45.56	38.77	6.79	✓
+50			7.27	45.18	38.32	6.86	✓
13+00		47.70	3.33	44.37	37.87	6.50	✓
+50			3.77	43.93	37.42	6.51	✓
13+83.62 = ℄ MH #35	Δ Rt 1°43'		5.00	42.70	37.12	5.58	✓
14+00			5.12	42.58	36.97	5.61	✓
+50			5.81	41.89	36.52	5.37	✓
15+00			6.19	41.51	36.07	5.44	✓
+50			5.45	42.25	35.62	6.63	✓
~~16+00~~ +98	0.90%		5.43	42.27	~~35.17~~ 35.19	7.08	✓
+50			5.26	42.44	34.72	7.72	✓
17+00			5.23	42.47	34.27	8.20	✓
+50			5.21	42.49	33.82	8.67	✓
18+00			4.43	43.27	33.37	9.90	✓
18+16.08 = ℄ MH #36	P.O.T.		3.17	44.53	33.23	11.30	✓

Cont. Page 9

47.70 ↑ P-9
3.33 −
44.37 T.P
8.08 +
52.45 ↑



VALENCIA PARK TRUNK SEWER

Cont. from Page 8

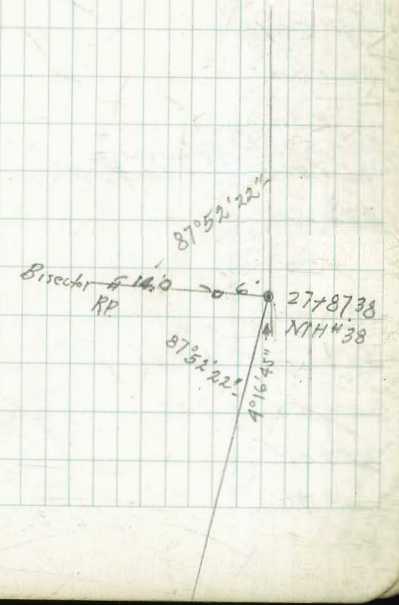
Station			Elev. Stakes	Elev. Flow Line
	42.61			
18+50		1.19	41.42	32.92
19+00		4.29	38.32	32.47
+50		4.35	38.26	32.02
20+00		4.15	38.46	31.57
+50	0.9%	4.41	38.20	31.12
21+00		4.58	38.03	30.67
+50		5.02	37.59	30.22
22+00		5.63	36.98	29.77
+50		5.67	36.94	29.32
23+01.73 = ℄ M.H. #37		4.59	38.02	28.86
	40.42			
+50		3.42	37.00	28.42
24+00		4.94	35.48	27.97
+50		5.45	34.97	27.52
25+00	0.9%	6.25	34.17	27.07
+50		6.99	33.43	26.62
26+00		7.57	32.85	26.17
+50		8.71	31.71	25.72
27+00		6.95	33.47	25.27
+50		7.13	33.29	24.82
℄ M.H. #38	35.74			
27+87.38 = ∠ Rt 4°16'45"		2.82	32.92	24.49
28+20.00		3.29	32.45	24.16
+50	1.0%	4.67	31.07	23.86
29+00		4.94	30.80	23.36
+50		4.59	31.15	22.86

Cont. P. 10

Cuts	Offsets		
8.50	6' Rt.		
5.85	"	chk BM	
6.24	"		
6.89	"		
7.08	"		
7.36	"		
7.37	"		
7.21	"		
7.62	"		
9.16	"	FB. 1609-19	
8.58	"	chk BM 26	
7.51	"		
7.45	"		
7.10	"		
6.81	"		
6.68	"		
5.99	"		
8.20	"		
8.47	"		
8.43	"		
8.09	"		
7.21	"		
7.44	"		
8.29	"		

35.74
0.79
34.95
34.94 = BM #25
0.01 FB 1609-19

34.94 = BM #25
5.48 +
40.42 = π
1.44 −
38.98 T.P.
3.63 +
42.61 π
1.19 −
41.42
5.57 +
46.99
3.58 − R.P. in Alley West
43.41 ok
4.29 +
47.70 π



Valencia Park Trunk Sewer
Cont. from P-10

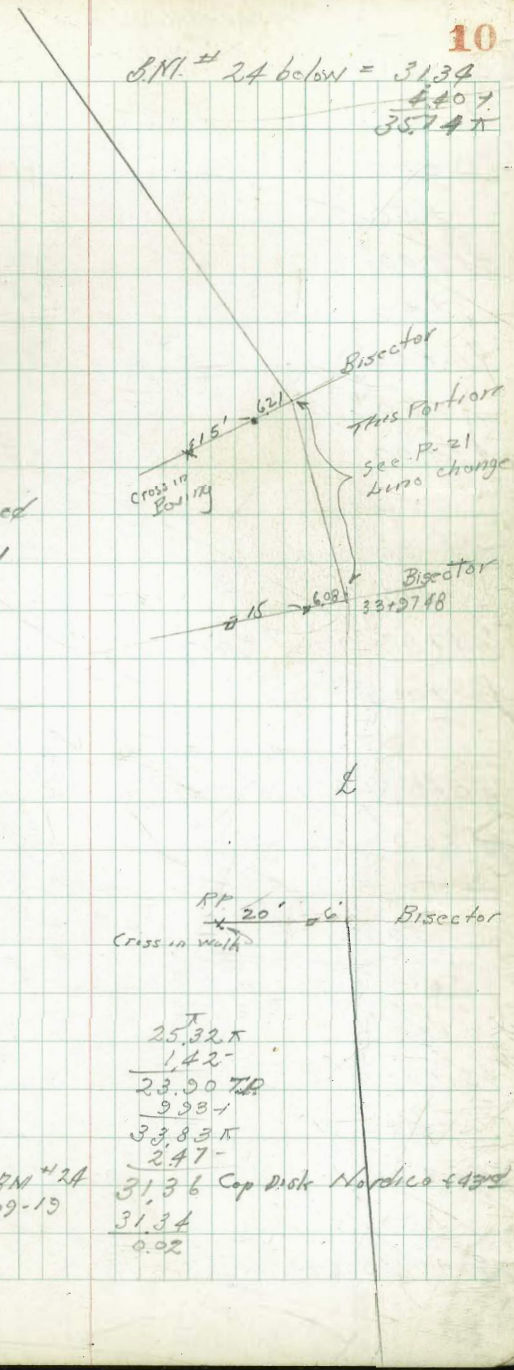
Station		T 35.74	Elev. Stakes	Elev. Flow Line
30+00			5.00	30.74	22.36
+50			5.46	30.28	21.86
31+00	1.0%		6.22	29.52	21.36
+50			7.89	27.85	20.86
31+87.78 = P.O.T. = MH #39		33.83	4.32	31.42	20.48
32+06.09 = Δ Rt. 29°55'30"			2.38	31.45	20.30
+50			4.83	29.00	19.92
33+00	0.86%	See Note on Rt.	5.37	28.46	19.49
+50			5.06	28.77	19.06
℄ M.H. #40 33+97.48 = Δ Rt. 19°03'			4.68	29.15	18.66
34+25					18.42
+50			2.40	31.43	18.21
35+00	0.86%		1.39	32.44	17.78
+50			3.99	29.84	17.35
36+00			5.98	27.85	16.92
+30			7.29	26.54	16.66
36+59.62 = 36+56.65 Equation = Δ Lt. 1°15'			8.51	25.32	16.40
37+00	0.86%		10.11	23.72	16.03
+50			11.55	22.28	15.60
38+00			11.56	22.27	15.17
38+25.65 = MH #41 P.O.T.			10.05	23.78	14.95
38+50					14.79
39+00	0.66%	25.32	1.11	24.21	14.46
+50			4.04	21.28	14.13

Cont. P-11

Cuts	Offsets
+ 8.38	6' Rt.
8.42	
8.16	
+6.99	
10.94	
11.15	
9.08	
8.97	line changed
9.71	See P-21
10.49	
out	
13.22	6' Rt.
14.66	
12.49	
10.93	
9.88	
8.92	
7.69	
6.68	
7.10	
8.83	
out	
9.75	
7.15	

chk. BM #24
FB 1609-13

B.M. # 24 below = 3134
+ 4.07
35.74 T



T
25.32 π
1.42 -
23.90 TP
9.98 +
33.83 π
2.47 -
31.36 Cap Disk Nordico ~~4332~~
31.34
0.02

Valencia Park Sewer
Cont. from P-10

Station		Cuts	Elev. Stakes	Elev. Flow line
	25.32			
40+00		4.37	20.95	13.80
+50		4.84	20.48	13.47
41+00		5.36	19.96	13.14
+50		5.80	19.52	12.81
42+00 0.66%		5.95	19.37	12.48
+50		6.13	19.19	12.15
43+00		6.52	18.80	11.82
+50		7.07	18.25	11.49
	27.02			
44+00		9.04	17.98	11.16
+50		8.98	18.04	10.83
		9.43	17.59	
44+82.40 ~ Δ Lt 90°01'30"		9.70	17.32	10.62
45+00 0.56%		9.78	17.24	10.52
+50		7.43	19.59	10.24
℄ MH #43 Norlica 4-15	27.02			
45+99.70 = Δ Rt 73°35'50"		3.74	23.28	9.96
	25.51			
46+50		3.30	22.21	9.68
47+00		6.00	19.51	9.40
+50		7.81	17.70	9.12
	20.67			
48+00 0.56%		4.22	16.45	8.84
+50		5.29	15.38	8.56
49+00		6.34	13.73	8.28
+50		4.30	16.37	8.00
50+00		4.66	16.01	7.72
+50		5.19	15.48	7.44
℄ MH #44	Turned	5.11		
50+71.60 = Δ Lt 14°22'30"	14°18'		15.56	7.32

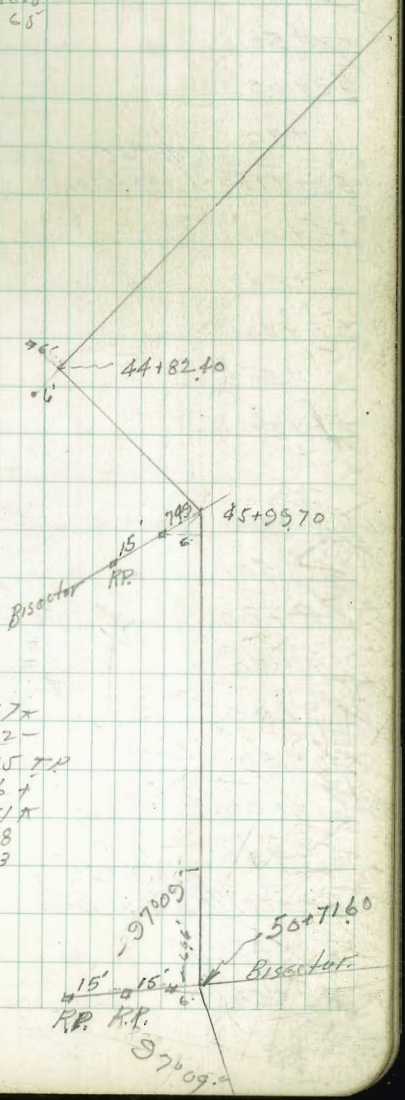
0.55%

Cont. P. 12

BM FB 1609-P-70
13 Mon 415t + Norlica 1628
10.74 +
27.02 π
8.96 -
T.P. = 18.06
7.26 -
π 25.32

Cuts	offsets
7.15	6' Rt
7.01	
6.82	
6.71	
6.89	
7.04	
6.98	
6.76	
6.82	
7.21	
6.97	6' N
6.70	6' W
6.72	6' Rt
9.35	
13.32	
12.53	
10.11	
8.58	
7.61	
6.82	
5.45	
8.37	
8.29	
8.04	
8.24	

For Check Levels See P-65



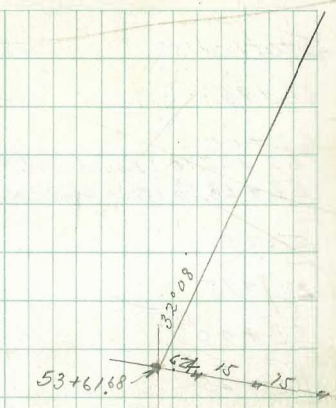
20.67 π
4.22 -
16.45 T.P.
9.06 +
25.51 π
2.28
23.23

25.51
5.96 -
19.55

Valencia Park Sewer
Cont. from P. 11

Station		2.0.67	Elev. Stakes	Elev. Flow Line	Cuts.	Offsets.
51+00		5.13	15.54	7.16	8.38	6' Rt
+50		5.72	14.95	6.89	8.06	"
52+00	0.55%	12.92	7.75	6.61	1.14	"
+50		10.22	10.45	6.34	4.11	"
53+00		6.10	14.57	6.06	8.51	"
+30		6.45	14.22	5.90	8.32	"
53+61.68	℄ MH #45 14.60 = Δ 32°08' Rt.	0.63	13.97	5.72	8.25	6' Rt Δ 6.24 on diag.
54+00		0.84	13.76	5.52	8.24	6' Rt
+50		1.54	13.06	5.26	7.80	"
55+00	0.53%	2.33	12.27	4.99	7.28	"
+50		2.98	11.62	4.73	6.89	"
56+00		3.30	11.30	4.46	6.84	"
+50		3.58	11.02	4.20	6.82	"
57+00		3.93	10.67	3.93	6.74	"
+50		4.38	10.22	3.67	6.55	"
58+00		4.58	10.02	3.40	6.62	"
+50		5.03	9.57	3.14	6.43	"
59+00		5.28	9.32	2.87	6.45	"
+50		5.58	9.02	2.61	6.41	"
60+00		6.09	8.51	2.34	6.17	"
+50		5.76	8.84	2.08	6.76	"
61+00.77	℄ MH #46 12.58 = Δ ∠ 51°34'30"	4.45 / 4.44	8.13 / 8.14	1.81	6.32 / 6.33	6' Rt on W / 6' Rt on W
+25		4.54	8.04	1.78	6.26	6' Rt "
+50	0.15%	4.55	8.03	1.74	6.29	"

Cont. P-13



FB 1609-18

12.58 = Π P13
3.72 -
8.86 = TP. BM #19
5.74 +
14.60 Π
0.63 -
13.97 TP 53+61.68
6.70 +
20.67 Π
5.79 -
14.88 Chk. BM #21
14.89 Cap Disk
0.01 NW Cottonwood + 40 Rt
FB 1609-18

SW 7' tack
Yuma + Cottonwood

BM

Valencia Park Trunk Sewer

Cont. from Page 12

Stations		Elev. Stakes	Elev. Flow Line	Cuts	Offsets.
	12.58 π				
61+75		4.64	7.94	6.24	6' Rt.
62+00		4.70	7.88	6.22	"
62+26.16 } Equation P.O.T.					
62+18.38 } ~~Δ 62°27'30"~~		4.73	7.85	6.22	"
+50		4.66	7.92	6.34	"
+75		4.73	7.85	6.31	"
63+00		4.74	7.84	6.33	"
+25		4.65	7.93	6.46	"
+50		4.74	7.84	6.41	"
+75		4.94	7.64	6.25	"
64+00		5.10	7.48	6.12	"
+25		5.21	7.37	6.05	"
+50		5.75	6.83	5.55	"
+75		6.15	6.43	5.19	
65+00		6.21	6.37	5.16	"
+25		6.70	5.88	4.71	"
+50		6.33	6.25	5.12	"
+75		6.42	6.16	5.07	Re set See P-20.
66+00			1.06	in Ditch. Left out	
Alley South Dalbergia St. MH #47					
66+13.4 = Δ Rt 90°00'		6.10	6.48	1.03	5.45 6' South of MH
+19.4	9.97				
+25		5.04	4.93	1.01	3.92 6' Rt
+50		5.69	4.28	0.97	3.31 "
+75		5.82	4.15	0.93	3.22 "
67+00		5.69	4.28	0.90	3.38 "
+25		5.87	4.10	0.86	3.24 "

Stakes Re set See Page 20

on stake 66+25 = 4.93
7.65 +
12.58 π

883
372
1260

Cont. Page 14

Valencia Park Sewer
Cont. from P. 13

Station			Elev. Stakes	Elev. Flow Line
	9.97			
67+50		5.34	4.63	0.82
+75		4.61	5.36	0.78
68+00		4.96	5.01	0.75
+25		5.08	4.89	0.71
+50		5.29	4.68	0.67
+75		5.32	4.65	0.63
69+00		5.39	4.57 = Mean ~~4.58~~	0.60
+25		5.60	4.36 = Mean ~~4.37~~	0.56
+50		5.78	4.17 = Mean ~~4.19~~	0.52
+75		5.92	4.03 Mean ~~4.05~~	0.48
70+00	15.93	11.95	3.97 = Mean ~~3.98~~	0.45
+25		11.91	4.02	0.41
+50		11.73	4.20	0.37
+75		10.53	5.40	0.33
71+00		7.91	8.02	0.30
+25	0.15 s/o	4.45	11.48	0.26
+50		3.18	12.74 = Mean ~~12.75~~	0.22
+75		3.03	12.90	0.18
72+00		2.82	13.10 = M ~~13.11~~	0.15
+25		4.29	11.63 = M. ~~11.64~~	0.11
+50		5.45	10.47 = M ~~10.48~~	0.07
	℄ M.H. #48	4.56	~~11.37~~ 11.36 = M	
72+73.5	= Δ Lt. 90°	4.52	~~11.41~~ = 11.40 = M	0.04
73+00		4.63	11.29 = Mean ~~11.30~~	0.00
+25	0.15 s/o	4.86	11.06 = Mean ~~11.07~~	− 0.04

Cont. Page 15

Cuts	Offsets	
3.81	6' Rt.	Re staked see P-20
4.58	"	Check Levels Page 63
4.26	"	
4.18	"	
4.01	"	
4.02	"	
3.97	"	
3.80	"	
3.65	"	
3.55	"	
3.52	"	
3.61	"	
3.83	"	
5.07	"	
7.72	"	
11.22	"	
12.52	5.19 N. = Nail on fence	
12.72	5.08 N. " " "	
12.95	4.95 N. " " "	
11.52	6' Rt.	
10.40	"	
11.32	6' N.	
11.36	6' W.	
11.29	6' Rt	
11.10	"	

	15.93
	11.95
T.P.	3.98
	5.99
	9.97
	2.25
	7.72
	4.82
	12.54
	3.70
S.W. 7" Tack Yammera Cottonwood.	8.84

Valencia Park Sewer
Cont. from Page 14

Stations			Elev. Stakes	Elev. Flow Line	Cuts	Offsets
	15.93					
73+50		5.10	10.82 ~~10.83~~	-0.08	10.90	6 Rt.
+75		5.34	10.59	-0.12	10.71	✓
74+00		5.52	10.40 = Mean ~~10.41~~	-0.15	10.55	✓
+25		5.61	10.31 = Mean ~~10.32~~	-0.19	10.50	✓
+50		5.68	10.25	-0.23	10.48	✓
+75		5.65	10.27 = Mean ~~10.28~~	-0.27	10.54	✓
75+00	11.84	6.44	9.48 = Mean ~~9.49~~	-0.30	9.78	✓
+25		2.97	8.87	-0.34	9.21	✓
+50		2.88	8.96	-0.38	9.34	✓
+75		2.94	8.90	-0.42	9.32	✓
76+00		3.10	8.74	-0.45	9.19	✓
+25		3.29	8.55	-0.49	9.04	✓
+50		3.44	8.40	-0.53	8.93	✓
+75	0.15 %	3.65	8.19	-0.57	8.76	✓
77+00		3.89	7.95	-0.60	8.55	✓
+25		4.17	7.67	-0.64	8.31	✓
+50		4.45	7.39	-0.68	8.07	✓
+75		4.81	7.03	-0.72	7.75	✓
78+00		5.12	6.72	-0.75	7.47	✓
+25		5.08	6.76	-0.79	7.55	✓
+43		4.98	6.86	-0.81	7.67	✓
78+49.0 = 78+49.4 (℄ MH #49 Equation △ Rt 89°56')		5.01	6.83	-0.82	7.65	✓
78+55.4		4.98	6.86	-0.84	7.70	✓
78+75		4.99	6.85	-0.90	7.75	✓
79+00	0.24 %	4.98	6.86	-0.99	7.85	✓
+25		5.01	6.83	-1.07	7.90	✓

Cont. Page 16

Mh & rail
79+49 } Equation
= 79+49.4 }

11.84 π
5.01 -
6.83

9.38
6.55
15.93

Valencia Park Trunk Sewer

Cont. from P. 15

Stations			Elev. Stakes	Elev. Flow Line
	11.84			
79+50		4.83	7.01	-1.16
+75	0.34 %	4.70	7.14	-1.24
80+00		4.76	7.08	-1.33
	13.67			
+25		6.56	7.11	-1.41
+50		6.36	7.31	-1.50
+75		6.36	7.31	-1.58
81+00		6.33	7.34	-1.67
+25		6.32	7.35	-1.75
+50		6.20	7.47	-1.84
+75		6.08	7.59	-1.92
82+00		6.06	7.61	-2.01
+25		5.99	7.68	-2.09
+50		5.94	7.73	-2.18
+75		5.84	7.83	-2.26
83+00		5.73	7.94	-2.35
+25	0.34 %	5.54	8.13	-2.44
+50		5.45	8.22	-2.52
+75		5.45	8.22	-2.60
84+00		5.33	8.34	-2.69
+25		5.17	8.50	-2.77
+50		4.95	8.72	-2.86
+75		4.89	8.78	-2.94
85+00		4.77	8.90	-3.02
85+09.50 ~~Rt 50~~ Lt. 89°57'	14.22	5.41	8.81	-3.07
85+09.50	Cont. Page 17	5.29	8.93	-3.07

Cuts.	Offsets.
8.17	6' Rt.
8.38	
8.41	
8.52	
8.81	
8.89	
9.01	
9.10	
9.31	
9.51	
9.62	
9.77	
9.91	
10.09	
10.29	
10.57	
10.74	
10.82	
11.03	
11.27	
11.58	
11.72	
11.92	
+11.88	6' Rt. on West.
+12.00	6' Rt. on North

Nail 6' Rt 85+09.5 = 14.22 π P-17
5.41 −
8.81 T.P.

chk & Nail 85+09.50 14.22 π
5.44
8.78
8.82
0.04 diff.

6' Rt on nail on Nail 85+09.50 8.81 = Above T.P.
4.86 +
13.67 π
6.56 −
on Nail 6' Rt Pot 25 7.11 T.P.
4.73 +
11.84 π

Valencia Park Sewer

Cont. from Page 16

Stations			Elev. Stakes	Elev. Flow line	Cuts	Offsets
	14.22					
85+25		5.67	8.55	-3.09	+11.64	6' Rt.
+50		5.60	8.62	-3.13	+11.75	
+75		5.41	8.81	-3.17	+11.98	
86+00		5.29	8.93	-3.20	+12.13	
+25		5.23	8.99	-3.24	+12.23	
+50		5.06	9.16	-3.28	+12.44	
+75		4.97	9.25	-3.32	+12.57	
87+00		4.84	9.38	-3.35	+12.73	
+25		4.79	9.43	-3.39	+12.82	
+50		4.70	9.52	-3.43	+12.95	
+75		4.57	9.65	-3.47	+13.12	
88+00		4.48	9.74	-3.50	+13.24	
+25		4.49	9.73	-3.54	+13.27	
+50		4.54	9.68	-3.58	+13.26	
+75		4.62	9.60	-3.62	+13.22	
89+00		4.72	9.50	-3.65	+13.15	
+25		4.82	9.40	-3.69	+13.09	
+50	12.91	3.62	9.29	-3.73	+13.02	
+75		3.74	9.17	-3.77	+12.94	
90+00		3.85	9.06	-3.80	+12.86	
+25		4.05	8.86	-3.84	+12.70	
+50		4.24	8.67	-3.88	+12.55	
90+75				-3.92		
90+83.63 = △ Rt 4°18'30	EMH #51	4.45	8.46	-3.98	+12.39	

0.15 %

Cont. P-18

12.91 π P-18
3.62 -
9.29 TP
4.93 +
14.22 Z.π

Valencia Park Sewer
Cont. from P. 17

Stations			Elev. Stakes	Elev. Flow Line	Cuts	Offsets
		12.91 π				
91+00	0.15%	4.33	8.58	-3.95	+12.53	6' Rt.
+25		4.46	8.45	-3.99	+12.44	✓
+50		4.57	8.34	-4.03	+12.37	✓
+75		4.76	8.15	-4.07	+12.22	✓
92+00		4.94	7.97	-4.10	+12.07	
92+21.40 = ΔH. 4°18'30"		5.07	7.84	-4.14	+11.98	✓
+50		5.24	7.67	-4.18	+11.85	✓
+75		5.30	7.61	-4.22	+11.83	✓
93+00		5.38	7.53	-4.25	+11.78	✓
+25		5.41	7.50	-4.29	+11.79	✓
+50		5.46	7.45	-4.33	+11.78	✓
+75		5.58	7.33	-4.37	+11.70	✓
94+00	0.15%	5.66	7.25	-4.40	+11.65	✓
+25		5.73	7.18	-4.44	+11.62	✓
+50		5.82	7.09	-4.48	+11.57	✓
+75		591	7.00	-4.52	+11.52	✓
95+00		11.27 π	4.29	6.98	-4.55	+11.53 ✓
+25			4.32	6.95	-4.59	+11.54 ✓
+50			4.38	6.89	-4.63	+11.52 ✓
+75			4.57	6.70	-4.67	+11.37 ✓
96+00			4.74	6.53	-4.70	+11.23 ✓
+25			4.81	6.46	-4.74	+11.20 ✓
+50					-4.78	
℄ M.H. #52 96+55.32 = ΔRt 4°30			4.67	6.60	-4.79	+11.39 ✓
+75	1.10%		4.88	6.39	-5.01	+11.40 ✓

Cont. Page 19

11.27 π P-19
4.29 −
6.98 T.P.
5.93 +
12.91 π

Valencia Park Sewer

Cont. from Page 18

Stations	11.27	Elev. Stakes	Elev. Flow Line	Cuts	Offsets.
97+00	4.88	6.39	-5.28	+11.67	6' Rt.
+25	4.83	6.44	-5.55	+11.99	✓
97+52.83 = ΔH. 4°30	4.60	6.67	-5.86	+12.53	✓
+75	5.11	6.16	-6.10	+12.26	✓
98+00	6.59	4.68	-6.37	+11.05	6' Rt. on Flange Rail
+25	4.11	7.16	-6.65	+13.81	6' Rt.
+50	5.38	5.89	-6.92	+12.81	✓
+75	5.14	6.13	-7.20	+13.33	✓
99+00	3.88	7.39	-7.47	+14.86	✓
+30	4.19	7.08	-7.80	+14.88	✓
99+57.83 = B.C. 156' Radius. Dat Δ 20°56' Chd 1438 on 6' offset	6.40	4.87	-8.11	+12.98	✓
99+73.2 = End this Contract	4.43	6.84	-8.29	+15.13	✓

11.0% 11.0%

This Line to Treadmond Point
Cont. in Grd. Book 201-56

B.M. #14 FB 1609-18
= S.E. Top Hydt
McCandless & Vestu = 8.96
2.31+
11.27π
3.74-
7.53 - ok.

Chk. B.M. Spike Switch
Grd Book 201-64 11.27π

Walker
Osborne
Hongard
Hartlin
11-10-43

Valencia Park Sewer
Re-stake Portion in Alley
South of Dolbergia, Bet. Yama & Vladero

66+13.49-Z MH#47	10.46			1.03	
66+25				1.01	
+50		4.73	5.73	0.97	4.76
+75		4.68	5.78	0.93	4.85
67+00		4.76	5.70	0.90	4.80
+25		5.12	5.34	0.86	4.48
+50		5.33	5.13	0.82	4.31
+75		5.38	5.08	0.78	4.30
68+00		5.49	4.97	0.75	4.22
+25		5.56	4.90	0.71	4.19
+50				0.67	

65+50	11.34			1.13	
+75		5.26	6.08	1.09	4.99
66+00		5.26	6.08	1.06	5.02
66+13.4 chk stake 6' South		4.85	6.49		

P-13
6' offset = 6' Rt 66+13.4 6.48
3.98+
10.46 = π

Est.
Stake 65+50 P-13 = 6.25
5.09+
11.34 = π

Walker
Hurdis
Hazard
11-20-45

Valencia Park Sewer

Grades for Line Change

From 31+93.80 to 33+95.87

Line changed per instruction BD Phelps in order To Place MH off of Existing Paving at 43rd & Nordice

Cont. P-10

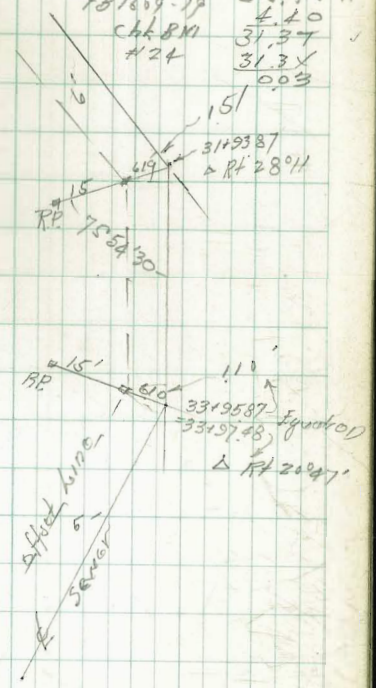
Station		Elev. Stakes	Elev. Flow line	Cuts	offsets
	℄ MH #39 35.77				
31+93.87 = △ Rt 28°11	4.39'	31.38	20.42	+10.96	
32+25	5.68'	30.09	20.18	9.91	
+50	6.88'	28.89	19.96	8.93	
33+00	7.17'	28.60	19.53	9.07	
+50	6.91'	28.86	19.09	9.77	
33+95.87 Equation = 33+97.48 △ Rt 20°47'	6.62'	29.15	18.66	+10.49	

0.87 ↑ 0/0

Correction To BM Elev #24 = 31.34
from MH #39 to 38

Elev. Stub 33+97.48 P-10 = 29.15
6.62 +
35.77 ℄
4.40
31.37
31.34
0.03

FB 1609-19
Ch. BM
#24



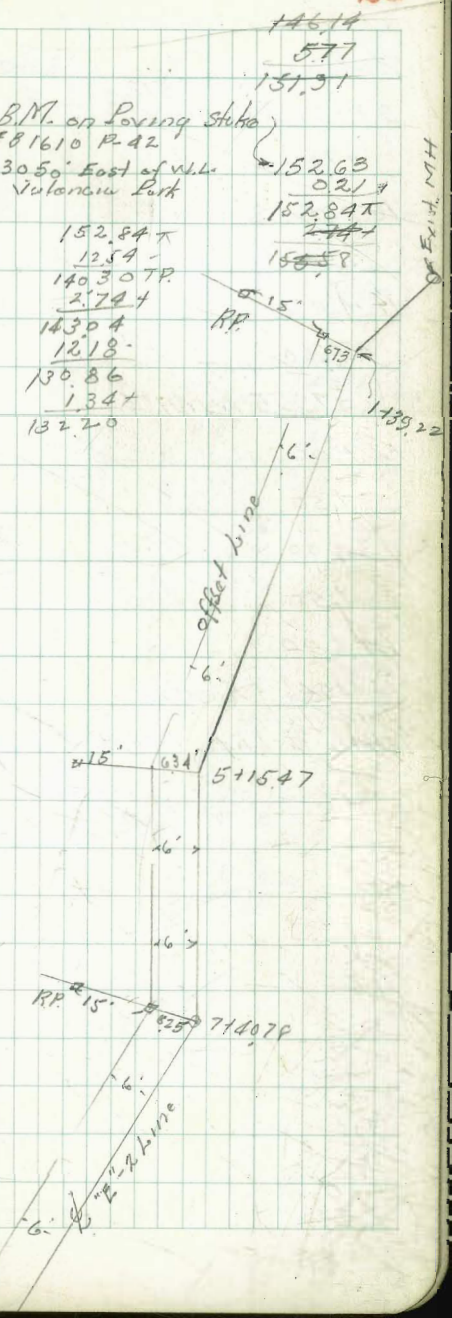
Walker
Hogard
Hudin
12-3-43

"E" 2 Line
Valencia Park Trunk Sewer Const.
From W. Line Valencia Park Unit #2
Blk 6 Filed Map #1985

Plan 955-D Sheet #1

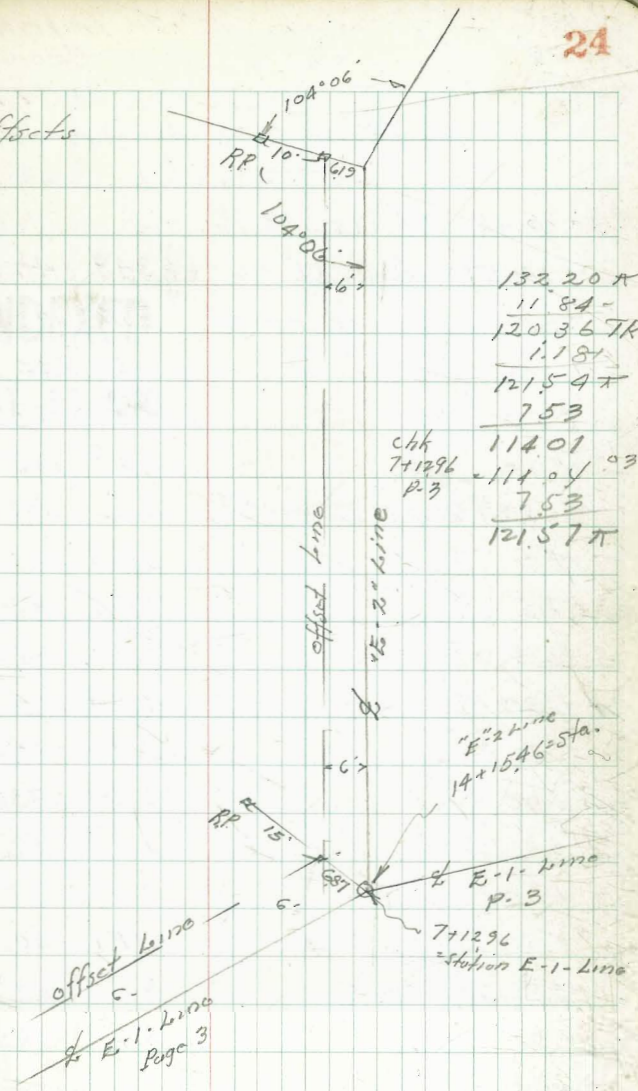
Station		Elev. Stakes	Elev. Flow Line	Cuts	Offsets
3.2' East of W.L. Valencia Park = 0+00 = ℄ Exist. MH.	152.84		143.54	Meet Exist Flow	
+50		3.39	149.45	+7.29	6' Rt
1+00 (2.76 %)		4.87	147.97	+7.19	
℄ MH #1 +39.22 = Δ Lt 51°42'45"		6.43	146.41	+6.71	
+70		7.94	144.90	+6.00	
2+00		9.51	143.33	+5.21	} Reset see P-29
+50		9.49	143.35	+6.53	
3+00 (2.60 %)		12.54	140.30	+4.78	
+50	143.04	3.74	139.30	+5.08	
4+00		5.60	137.44	+4.52	
+50		6.14	136.90	5.28	
4+85		5.85	137.19	+6.48	} Reset P-29
5+15.47 ℄ MH #2 = Δ Lt. 37°45'30"		8.31	134.73	+4.81	
+57		9.74	133.30	4.36	
6+00 (2.36 %)		11.85	131.19	3.26	
+50		10.03	133.01	+6.26	} Reset see P-29
7+00		9.32	133.72	+8.15	
7+40.78 ℄ MH #3 = Δ Rt 32°20.		12.18	130.86	+6.26	
+70	132.20	2.09	130.11	+6.19	
8+00 (2.36 %)		3.00	129.20	+5.99	
+50		4.84	127.36	+5.33	
9+00		5.28	126.92	+6.07	

Cont. P-24



Valencia Park Trunk Sewer
"E"-2 Line
Cont. from P-23

Station			Elev. Stakes	Elev. Flow Line	Cuts	Offsets
	Δ Lt 28°12'	132.20				
9+39.95 = ℄ MH #4			6.06	126.14	119.90	6.24
+70			7.12	125.08	119.19	5.89
10+00			10.53	121.67	118.48	3.19
+50	2.36%		9.08	123.12	117.30	5.82
11+00			10.11	122.09	116.12	5.97
+40	P.O.T.		10.97	121.23	115.18	6.05
+79.95 = ℄ MH #5			11.84	120.36	114.24	6.12
12+00		121.54	11.84	120.36	113.77	6.59
+50			2.04	119.50	112.59	6.91
13+00	2.36%		2.91	118.63	111.41	7.22
+50			5.17	116.37	110.23	6.14
14+00			6.95	114.59	109.05	5.54
14+15.46 = ℄ MH #18			7.53	114.04 P-3 114.01	108.68	5.30
= Junction With "E-1" Line 7+12.96 P-3			7.53	114.04 P-3 114.01 0.03 diff	108.20	5.84
		chk				
		121.57				
			7.40	114.17		



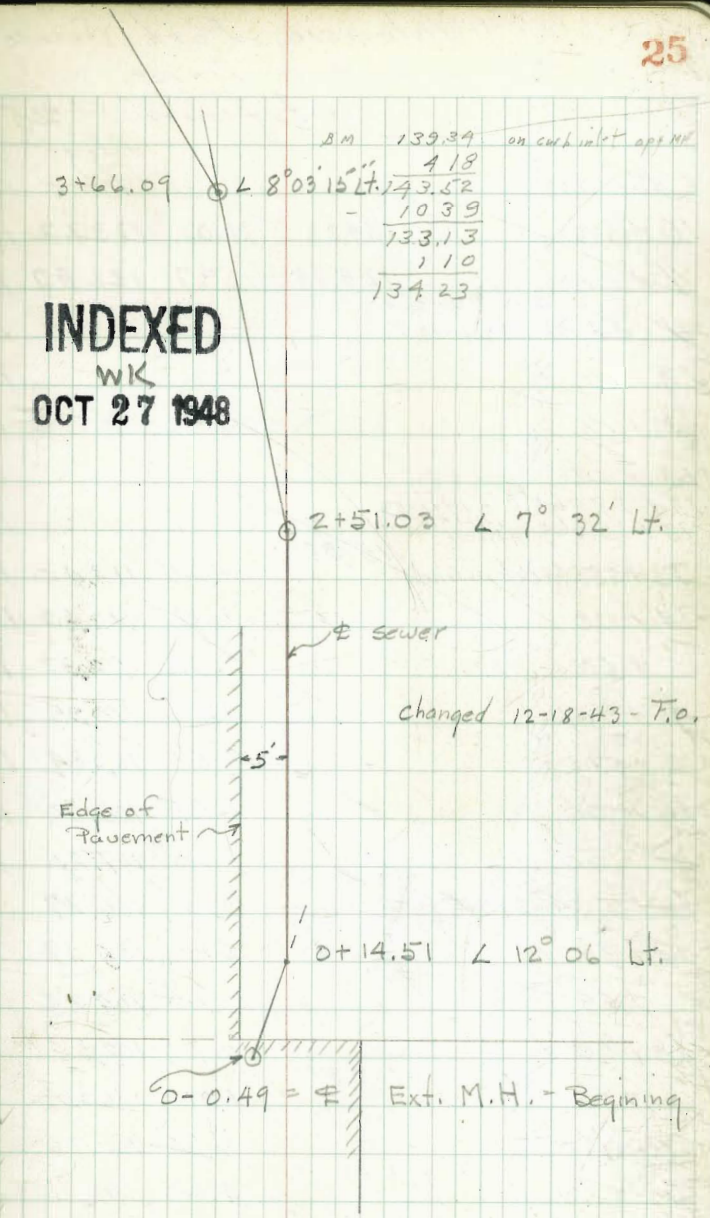
132.20 π
11.84 -
120.36 TR
1.18 +
121.54 π
.753
114.01
chk 7+12.96 P-3 = 114.04 .03
.753
121.57 π

Walker
Hagord
Hardin

Valencia Park Trunk Sewer
Along Logan Ave from M.L. Valencia Park
To Junction with "E"-1 Line
Plan 956-D Sheet 2

		H.I.			Cut
0- 0.49 = Ext. M.H. 143.52				130.30	
0+14.51 = Angle 12° 06'		Lt. 3.48	140.04	130.17	9.87
+50	change recorded 12-20-43	2.99	140.53	129.85	10.68
1+00	0.9%	3.56	139.96	129.40	10.56
+50		4.04	139.08	128.95	10.13
2+00		5.37	138.15	128.50	9.65
+51.03 = Δ ~~4.7°46'45"~~	MH#6 7° 32'	6.10	137.42	128.04	9.38
+85	0.9%	6.68	136.84	127.72	9.12
3+25		7.43	136.09	127.36	8.73
3+66.09 = Δ Lt 8°03'15"	MH#7	8.03	135.49	127.00	8.49
4+00		8.64	134.88	126.68	8.20
+50		9.46	134.06	126.23	7.83
5+00	0.9%	10.38	133.14	125.78	7.36
+50	134.23	1.98	132.25	125.33	6.92
6+00		3.01	131.22	124.88	6.34
+50		3.81	130.42	124.43	5.95
6+97.23 = Δ Lt. 8°43'20"	MH#8	4.48	129.75	124.01	5.74
7+50	2.10%	5.26	128.97	122.92	6.05
8+00		6.11	128.12	121.87	6.25
8+55.54 Δ Lt 13°31'20"	MH#9	6.97	127.26	120.71	6.55
9+00	2.10%	7.82	126.41	119.77	6.64
+50		8.67	125.56	118.72	6.84
10+00		9.72	124.51	117.67	6.84

Cont. P-26



Valencia Park Sewer
Logan Ave - Line
Cont. from P. 25

Stations				Elev. Stakes	Elev. Flow Line	Cuts
10+50	2.10%	134.23	11.01	123.22	116.62	6.60 ✓
11+00		124.24	2.37	121.87	115.57	6.30 ✓
11+54.84	△ Pt 19 92 '20 ✓ ℄ MH #10				114.42	
12+00	2.10%				113.47	
+50					112.42	
13+00					111.37	
13+33.06 }	Equation △ Pt 17.59 MH #11					
13+35.36 }	Ahead				110.66	
13+55.04 = Brk. in Grade		115.35	0.95	114.40	110.23	4.17
14+00			1.86	113.49	108.94	4.55
+50			2.98	112.37	107.51	4.86
15+00	2.86%		4.40	110.95	106.08	4.87
+50			5.51	109.84	104.65	5.19
16+00			6.85	108.50	103.22	5.28
+50			8.10	107.25	101.79	5.46
16+90.04 = ℄ MH #12	P.O.T.		9.18	106.17	100.65	5.52
17+30			10.18	105.17	99.45	5.72
+65			11.10	104.25	98.40	5.85
18+00			12.01	103.34	97.35	5.99
+50	3%	103.31	1.31	102.00	95.85	6.15
19+00			2.55	100.76	94.35	6.41
+50			4.00	99.31	92.85	6.46
20+00			5.32	97.99	91.35	6.64
20+45.04 = ℄ MH 13	P.O.T.		6.49	96.82	90.00	6.82

Cont. P. 27

Line change - See P. 28

134.23 X
11.13 -
123.10
1.14
124.24
12.90
111.34

Ck on B.M. in head wall

103.31 X
.041 -
103.27 TP
12.457
115.35 X
3.97 -
111.38
111.32
0.06 diff.

#6
Chk BM BP
in Hd. Wall 100' West of Euclid
FB 1609 - P. 2

Valencia Park Sewer –
– Along Logan Ave Cont. from P. 26

B.M. Cop. Disk
31+05.58 F.B. 1609-8 = 85.33
Page 5 this book
8.10
93.43 π
0.34
93.09 TP
10.22
103.31 π

Stations		10331		Elev. Stakes	Elev. Flow Line
21+00			7.91	95.40	88.26 ~~88.35~~
+50			9.08	94.23	86.67 ~~86.85~~
22+00	3%		10.43	92.88	85.09 ~~85.35~~
+50		93.43	1.72	91.71	83.50 ~~83.85~~
23+00			2.92	90.51	81.92 ~~82.35~~
+50			4.07	89.36	80.33 ~~80.85~~
24+00	P.O.T. ¼ = 2 MH #14		5.24	88.19	78.75 ~~79.35~~
+50			6.35	87.08	78.60
25+00			7.30	86.13	77.85
+50	5%		8.01	85.42	77.10
26+00			8.45	84.98	76.35
+50			8.71	84.72	75.60
27+00			8.63	84.80	74.85
27+52.37	= MH #26 = Junction "E" line Page 5		8.32	85.11	74.06

Cuts		
~~7.05~~	7.14	
~~7.38~~	7.56	
~~7.53~~	7.79	Grade changed 12-22-43 7.0.
~~7.86~~	8.21	
~~8.16~~	8.59	
~~8.51~~	9.03	
~~8.84~~	9.44	
8.48		
8.28	Brk. here to miss box culvert	
8.32		
8.63		
9.12		
9.95		
11.05		

Walker
Hazard
Hardin
12-16-43

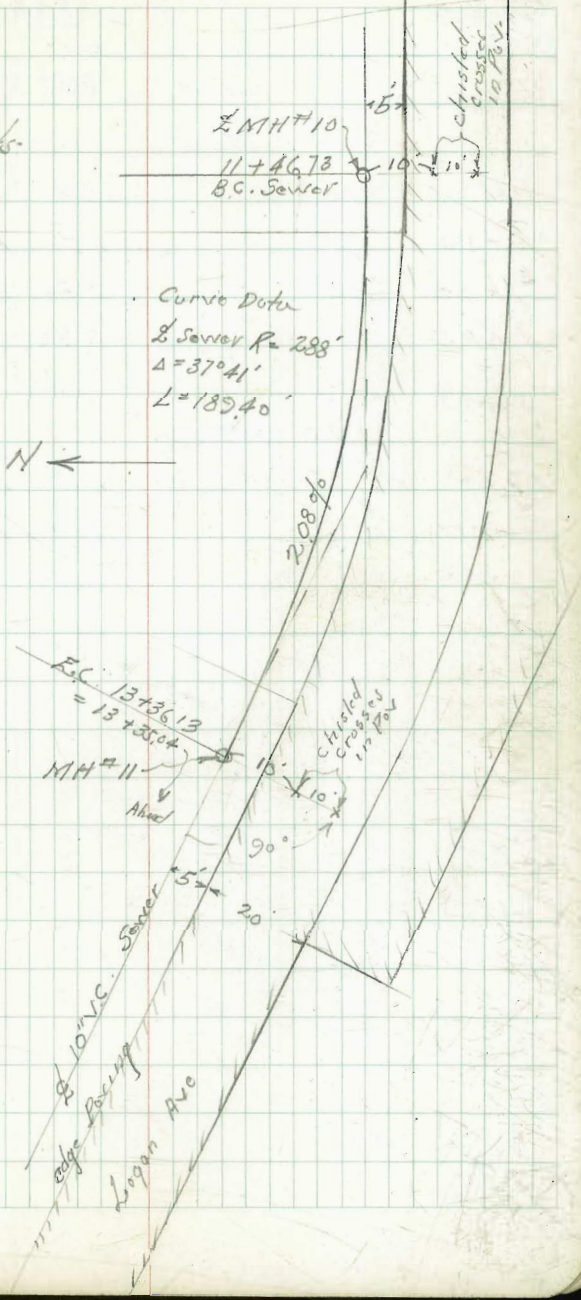
Valencia Park Trunk Sewer on Logan Ave - West of Euclid.

Grades for Line Change

Stations				Elev. Stakes	Elev. Flow Line
Cont. from P-26					
11+46.73	℄ MH #10 = B.C. Rt	12.4.24	3.83	120.41	114.60
+65.67	1°53'03"		4.36	119.88	114.21
+84.61	3°46'06"		5.02	119.22	113.81
12+03.55	5°39'09"		5.57	118.67	113.42
+22.49	7°32'12"		6.05	118.19	113.02
+41.43	9°25'15"		6.69	117.55	112.63
+60.37	11°18'18"		7.25	116.99	112.23
+79.31	13°11'21"		7.77	116.47	111.84
12+98.25	15°04'24"		8.38	115.86	111.44
13+17.19	16°57'27" = ℄ MH #11	Equation	8.90	115.34	111.05
13+36.13 = 13+35.04 Ahead	18°50'30" = E.C.		9.29	114.95	110.65
Cont P-26					
13+55.04 = Brk.					110.23

2.08 %

Cuts	Offsets
5.81'	
5.67'	
5.41'	
5.25'	
5.17'	
4.92'	
4.76'	
4.63'	
4.42'	
4.29'	
4.30	



Walker
Hardin
Hagard
7-3-44

Re stake Portion
Valencia Park Trunk Sewer
"E" 2- Line

orig. Cuts Page 23

Station		K		Elev. Stakes	Elev. Flow Line	Cuts
		140.01				
chk. 5+57			6.68	133.33		
6+50			7.56	132.45	126.75	+5.70
7+00			7.25	132.76	125.57	+7.19
4+85			3.90	136.11	130.71	+5.40
1+39.22 BM	3.20	K 149.61		146.41		
1+70 chk			4.70	144.91	.01	
2+00			5.90	143.71	138.12	5.59
+50			6.27	143.34	.01	

INDEXED
W K
OCT 27 1948

29

6+15.47
Elev. Cut Stake P-23 = 134.73
5.28
140.01 K

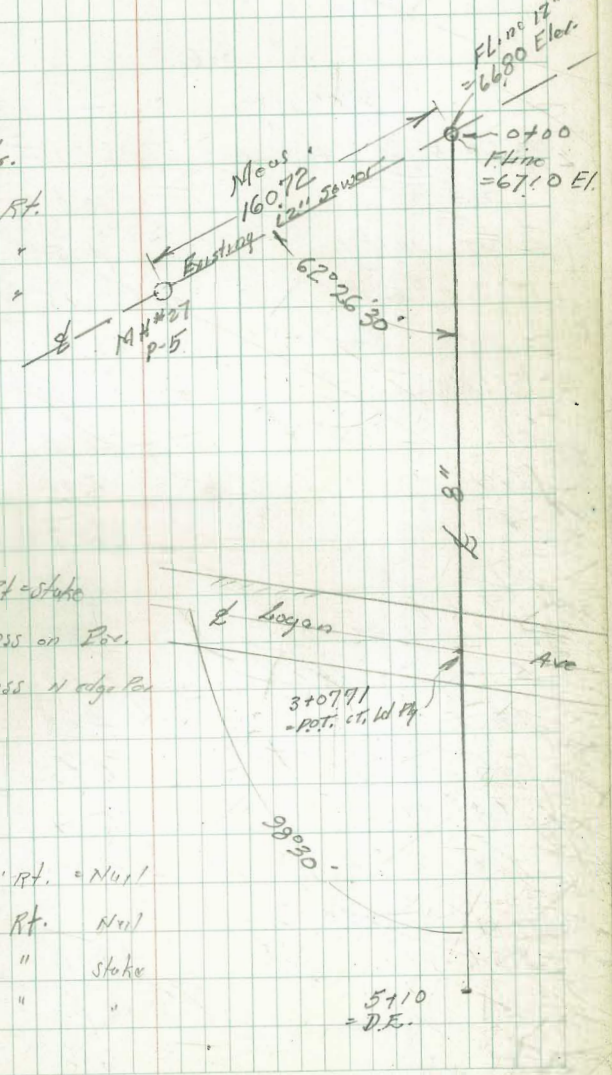
Walker
Hazard
Hurdin
3-23-44

Construction Lateral Sewer 8"
from Valencia Park Trunk Sewer
in Ex-Mission Lands (Helens Purchase)
Lots 55 and 62 Drawing 2794-B
Prelim. FB 1631-P-73

	1.17	90.32		89.15	ct. ld Pkg 3+07.71 ℄ Logan FB 1631-74
T.P.	3.42	81.26	12.48	77.84	
Stations				El. Stakes	El. Flow Line 66.80 =
0+00			9.87	71.39	67.10
+40			9.18	72.08	67.86
+80			8.20	73.06	68.62
1+25			5.38	75.88	69.48
+70			6.16	75.10	70.33
2+15			6.11	75.15	71.19
+60 =	Extra MH. Per Inst. Knox Dairy		3.03	78.23	72.04
T.P.	9.80	90.69	0.37	80.89	72.61
2+90			1.40	89.29	72.61
+97.85 =	℄ for Tunnel		1.64	89.05	72.76
3+17 =	℄ " "		1.64	89.05	73.12
Chk starting BM.			1.54	89.15	
+30			2.40	88.29	73.37
+65			6.10	84.59	74.04
4+00			8.60	82.09	74.70
+35			8.41	82.28	75.37
+70			8.13	82.56	76.03
5+10 =	Dead End.		7.47	83.22	76.79
5+10	℄ Check		8.16	82.53	ok.

Cuts offsets.
= Flow Valencia Line

4.29	10' Rt.
4.22	" "
4.44	" "
6.40	
4.77	
3.96	
6.19	
16.68	10' Rt = Stake
16.29	℄ Cross on Pav.
15.93	℄ Cross N edge Pav
14.92	
10.55	
7.39	10' Rt. = Nail
6.91	8' Rt. Nail
6.53	" " Stake
6.43	" " "



Wulker
Hazard
Hurlin
3-24-45

CURB And Gutter Levels
on West Side Kettner Blvd. from G-St.
to Market And on Market from
Kettner to Calif St. To determine -
Drainage ~

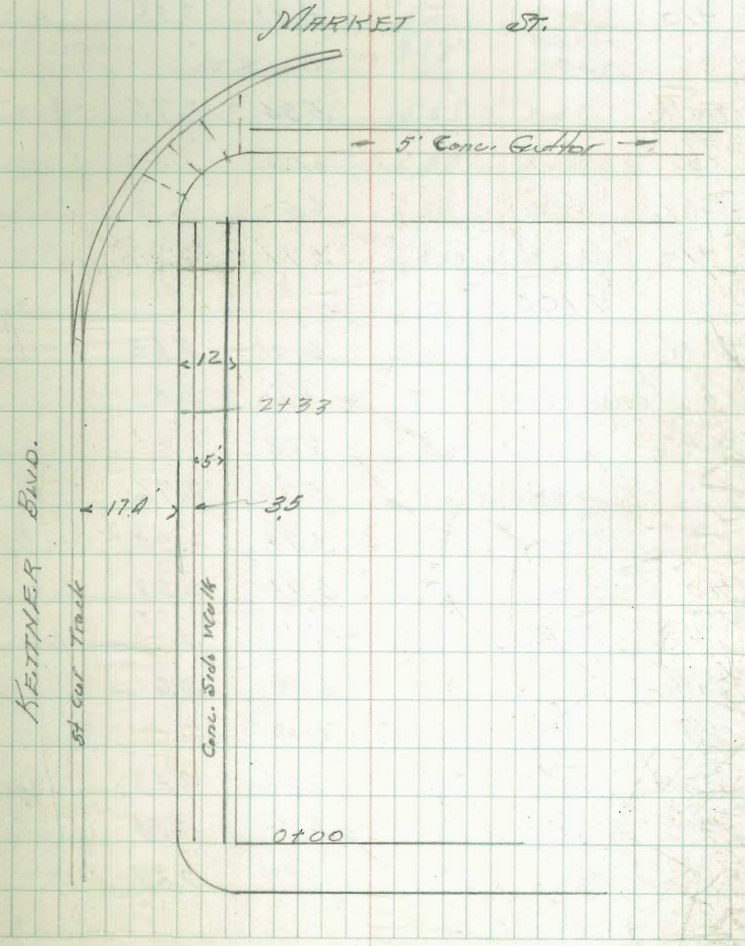
BM:
S.W. B.P.
G. And Kettner Blvd

5.73 8.69		2.96
S.W. Return		
on cb. B.C. Ret. W.L. Kettner	5.70	2.99
" Gut	6.30	2.39
L Ret. on cb.	5.63	3.06
" " " Gut.	6.15	2.54
0+00		
E Edge Walk	5.59	3.10
cb.	5.69	3.00
Gut.	6.13	2.56
+3	5.78	2.91
+10	5.46	3.23
+16 W. Truck	5.26	3.43
0+30	5.23	3.46
E edge Walk	5.81	2.88
cb.	5.87	2.82
Gut.	6.30	2.39
+3	6.07	2.62
+10	5.50	3.19
0+50		
E Walk	5.88	2.81
cb.	6.00	2.69
Gut.	6.36	2.33
+3	6.15	2.54
+10	5.60	3.09

869

0+50 Cont.

+16	5.41	3.28
+ on W Rail	5.39	3.30



8.69

0+81		
Walk.	5.86	2.83
cb.	6.07	2.62
Gut.	6.52	2.17
+3	6.30	2.39
+10	5.71	2.98
0+90		
Walk.	5.94	2.75
cb.	6.09	2.60
Gut.	6.50	2.19
+10	5.77	2.92
1+00		
Walk.	6.01	2.68
cb. (below Rail)	6.10	2.59
Gut.	6.08	2.61
+3	5.93	2.76
+7	5.74	2.95
+10	5.71	2.98
+16 W-Rail	5.62 5.61	3.07 3.08
1+13		
Walk	6.08	2.61
cb.	6.19	2.50
Gut.	6.21	2.48
+4	6.06	2.63
+10	5.80	2.89

8.69

1+25		
Walk	6.05	2.64
cb.	6.30	2.39
Gut.	6.36	2.33
+3	6.32	2.37
+9	5.81	2.88
+10	5.80	2.89
+16 W-Rail	6.06 5.98	2.63 2.73
1+50		
Walk	6.21	2.48
cb.	6.41	2.28
Gut.	6.58	2.11
+3	6.51	2.18
+8	6.15	2.54
+10	6.09	2.60
1+75		
W	6.44	2.25
cb.	6.60	2.09
Gut.	6.94	1.75
+3	6.78	1.91
+10	6.32	2.37
2+00		
Walk	6.52	2.17
cb.	6.64	2.05
Gut.	7.12	1.57
+3	6.88	1.81
+10	6.49	2.18
+16	6.33	2.36
W Rail	6.28	2.41

8.69

2+25

Walk.	6.75	1.94
cb.	6.85	1.84
Gut.	7.26	1.43
+3	7.08	1.61
+10	6.68	2.01

2+50

Walk.	6.97	1.72
Gut. in Drive	7.32	1.37
+1'	7.37	1.32
+3	7.18	1.51
+10	6.76	1.93
+16	6.63	2.06
W-Rail	6.58	2.11

2+75

Walk	7.13	1.56
Gut. in Drive	7.48	1.21
+3'	7.33	1.36
+10	6.93	1.76

3+00 = NL. Market

Walk	7.17	1.52
cb.	7.25	1.44
Gut.	7.54	1.15
+3'	7.40	1.29
+10	7.12	1.57
+13' = W Rail	6.94	1.75
TP 5.15 6.70	7.14	1.55

6.70

S.vl. Return Kittner x Market 24' Rot. 4 Parts

Part 1

on cb.	5.30	1.40
Gut.	5.64	1.06
+10.4 on Rail	5.00	1.70

Part 2 - 2 Rot.

cb.	5.19	1.51
Gut.	5.67	1.03
+8' = Rail	5.05	1.65

Part 3

cb.	5.24	1.46
Gut.	5.79	0.91
+6	5.14	1.56
+9.4 = Rail	5.03	1.67

West on North side Market to Calif. St.

0+00 = W.L. Kittner Blvd

cb	5.29	1.41
Gut.	5.80	0.90
+5 on Surfacing over Conc. Gut.	5.44	1.26
+15.5 = Rail	5.08	1.62

0+25

Gut. in Drive	5.95	0.75
+5	5.60	1.10

0+50

Gut. in Drive	6.05	1.65
+5	5.66	1.04

6.70

0+90

cb.	5.59	1.11
Gut.	6.08	0.62
+5'	5.74	0.96

1+25

cb.	5.74	0.96
Gut.	6.20	0.50
+5'	5.85	0.85

1+50

cb.	5.68	1.02
Gut.	6.26	0.44
+5	5.90	0.80

2+00 = E.L. Calif St.

cb.	5.94	0.76
Gut.	6.39	0.31
+5	6.16	0.54

2+13 = East Edge 3' x 2' Inlet.

on Grating	6.56	0.14
" Flow	11.08	
Check Sterling B.M.	3.75	2.95
		2.96 = BM
		0.01 = Error

on Flow 12" from N 9.36

Walker
Hogard
Hardin
3-26-45

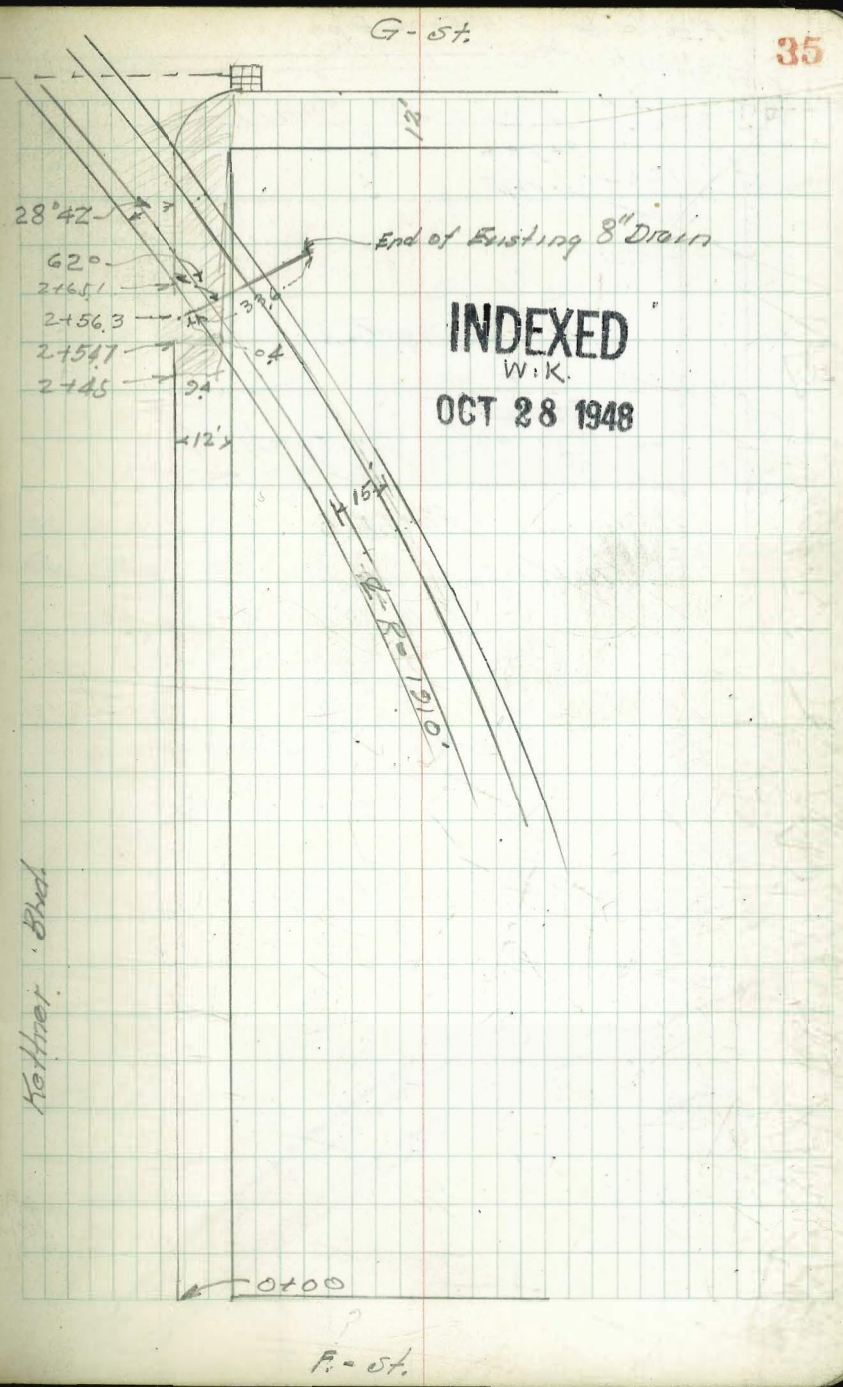
Curb & Gutter Levels (West side)
on Kettner Blvd. from F to G-St
(Cross Sections G-St - Sketch P-36)

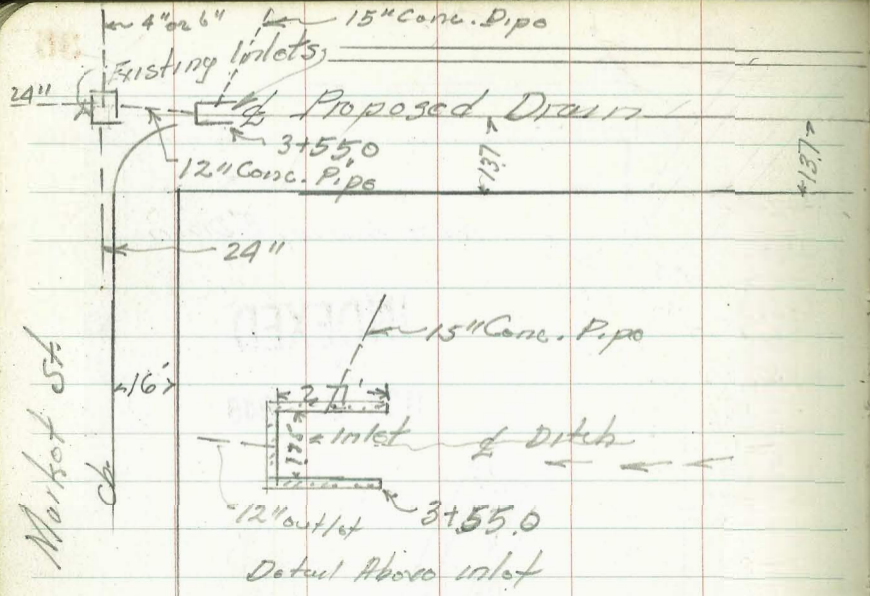
Stations on cb Line

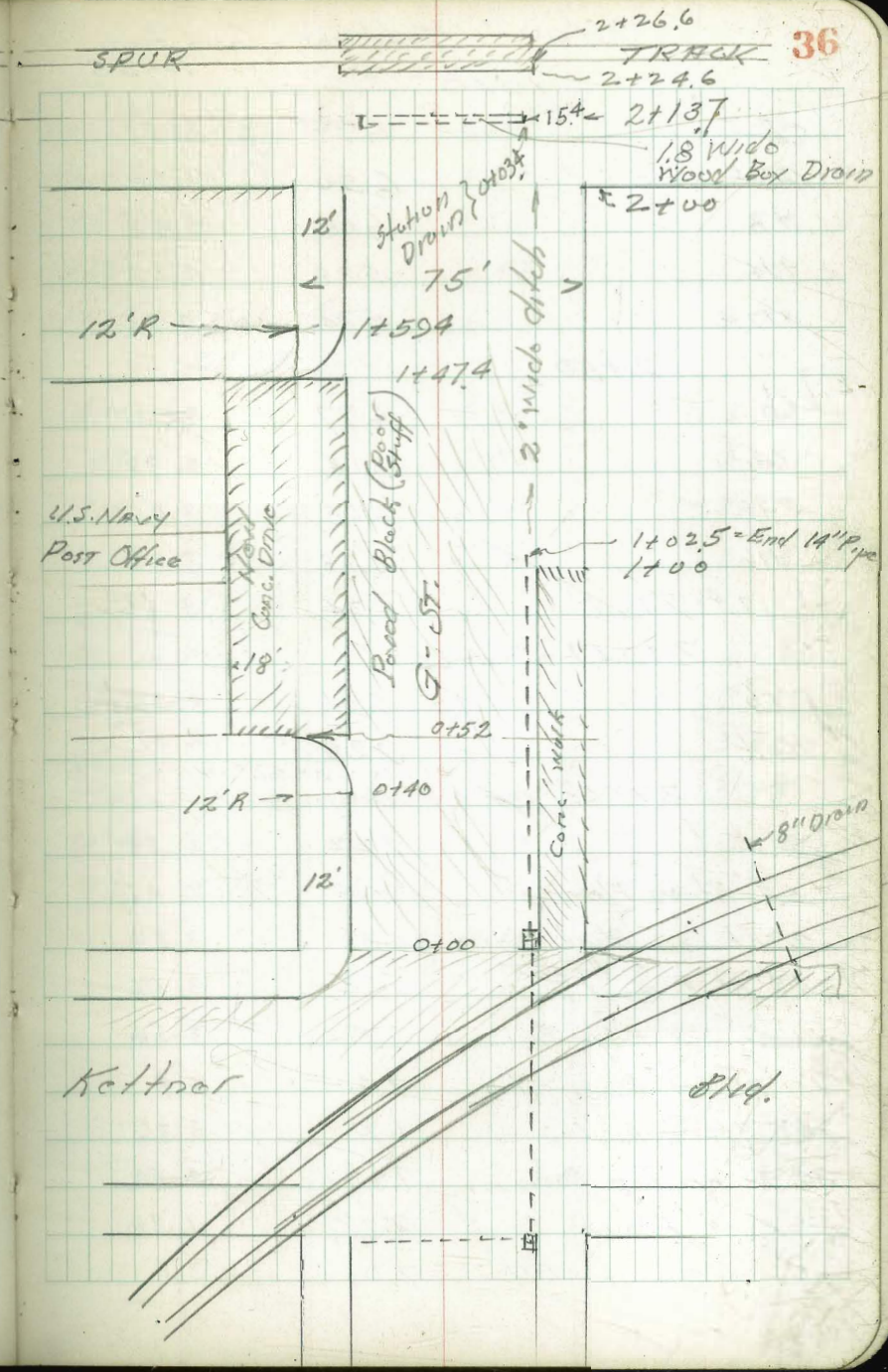
7.14 10.10 2.96

0+00 = St. F-St.

cb.	4.63	5 47
Gut.	5.23	4 87
+8	4.82	5 28
+16	4.69	5 41
+17.4 = W Rail St. Car	4.68	5 42
0+50		
cb.	5.06	5 04
Gut.	5.66	4 44
+8	5.13	4 97
+16	5.02	5 08
+17.4 Rail	4.95	5 15
1+00		
cb.	5.41	4 69
Gut.	6.00	4 10
+8	5.45	4 65
+16	5.30	4 80
+17.4 Rail	5.24	4 86
1+50		
cb.	5.86	4 24
Gut.	6.39	3 71
+8	5.83	4 27
+16	5.58	4 52
+17.4 = Rail	5.54	4 56




4" or 6"
15" Conc. Pipe
Existing Inlets
24"
Proposed Drain
3+55.0
12" Conc. Pipe
137
137
24"
15" Conc. Pipe
16'
2'
1.7'
Inlet
℄ Ditch
12" outlet
3+55.0
Detail Above inlet
Market St.


2+26.6
SPUR
TRACK
2+24.6
15.4
2+13.7
1.8 Wide
Wood Box Drain
2+00
Station Drain 0+03.4
12'
75'
12'R
1+59.4
1+47.4
2' Wide ditch
U.S. Navy
Post Office
Navy Conc. Drive
Paved Block (Poor Stuff)
G. St.
1+02.5 = End 14" Pipe
1+00
18'
0+52
12'R
0+40
12'
Conc. Walk
8" Drain
0+00
Kettner
Blvd.

2+00 Kottnor Cont. from P-35

10.10		
cb	6.33	3.77
Gut.	6.90	3.20
+8	6.18	3.92
+16	5.88	4.22
+17.4	5.84	4.26
2+50		
cb.	6.77	3.33
Gut.	7.18	2.92
+8	6.65	3.45
+16	6.28	3.82
+17.4 = W Rail	6.24	3.86
2+54.7 = End cb.		
cb.	6.81	3.29
Gut.	7.23	2.87
2+56.3 = int. 8" Drain Steel Pipe	Δ = 62° with curb	
Gut.	7.22	2.88
0.4' Rt. on Flow	7.64	2.46
2' Rt. on Black Pav.	6.58	3.52
4.4' Rt. " E Rail AT+3F	6.54	3.56
11' Rt. = W Edge Pav.	6.56	3.54
15' Rt on Ground	7.2	2.9
24.1 " = W Rail	6.74	3.36
34' Rt. on Top Drain	7.56	2.54
" " Flow "	8.26	1.84
" on Ground 1' Rt.	7.0	3.1

cb. 10.10		
2+65.1' = int. W Rail AT+3F	6.54	3.56
Gut.	6.54	3.56
+8	6.56	3.54
+16	6.43	3.67
+17.4 = W Rail of cur	6.38	3.72
2+83		
Cb. = Gut.	6.51	3.59
+8	6.55	3.55
+16	6.53	3.57
+17.4 = W Rail	6.54	3.56
3+00		
W Lip on Pav	6.87	3.23
Cb + Gut.	6.71	3.39
+8	6.64	3.46
+16	6.55	3.55
+17.4	6.57	3.53
T.P. 5.88	8.84	7.14	2.96

Cont P-38

Walker
Hazard
Hardin
3-26-45

G-St. X-Sections - 51' Roadway
Kettner to Calif St
8.84 X P-37

0-75'		
N.E. Cor Kettner on Grating Inlet.	5.59	3.25
Bottom Box = Below outlet	9.24	-0.40
Flow 18" Pipe	8.20	0.64
W/ cb - 0-17.4		
N cb. on Rail Car Track	5.35	3.49
℄ G	5.40	3.44
S cb	5.35	3.49
W/ cb 0-16		
S cb.	5.38	3.46
1/4	5.37	3.47
℄	5.39	3.45
1/4	5.44	3.40
N cb.	5.34	3.50
W/cb 0-08'		
N cb.	5.40	3.44
1/4	5.43	3.41
℄	5.43	3.41
1/4	5.55	3.29
S cb.	5.68	3.16
W cb.		
S cb	6.06	2.78
S 1/4	5.72	3.12
℄ - G	5.55	3.29
N 1/4	5.65	3.19
N cb.	5.71	3.13

8.84

0+00 = W/L. Kettner Blvd

N cb.	5.97	2.87
Gutter on Grating	6.47	2.37
Bottom 1.9'x1.9' Box	10.12	-1.28
Flow 14" outlet Pipe	8.87	-0.03
N 1/4	6.05	2.79
℄	5.83	3.01
S 1/4	6.04	2.80
S Gut.	6.46	2.38
S cb.	5.85	2.99
0+25		
S cb.	6.16	2.68
Gut.	7.09	1.75
S 1/4	6.65	2.19
℄	6.55	2.29
N 1/4	6.46	2.38
N Gut Conc. cb	6.15	2.69
0+40 = PC 12'R on South		
S cb	6.36	2.48
S. Gut.	7.25	1.59
0+52		
N cb. on Conc. Gut.	6.40	2.44
" 1/4	6.60	2.24
℄ G.	6.87	1.97
S 1/4	7.21	1.63
S Gut. on Conc.	7.52	1.32
St. Gut.	7.01	1.83
St. on cb.	6.38	2.46
+18	6.79	

8.84 G-St

1+00

-18' on conc. Drive	6.76	2.08
S.L. on conc. "	7.60	1.24
Gut " " "	8.01	0.83
S 1/4	7.58	1.26
℄	7.38	1.46
N 1/4	7.24	1.60
N cb Gut Conc.	6.57	2.27
1+02.5 = End 14" Pipe	(Appx. Sizo)	
Flow 14" Pipe	9.10	-0.26
on Ground (1+03)	7.9	0.9 Ditch outlet Above Pipe
TR 5.56 6.97	7.43	1.41

1+47.4

N.L.	4.8	2.2
+9	4.9	2.1
cb (Ground)	5.8	1.2
+1 in Ditch.	6.1	0.9
+2	5.5	1.5
N 1/4	5.9	1.1
℄	5.9	1.1
S 1/4	6.0	1.0
Gut. Conc. Drive	6.39	0.58
SL. " " also Top. = cb.	5.99	0.98
+18 on "	4.91	2.06

1+59.4 E.S. 12'R

on cb.	6.03	0.94
" Gut.	6.4	0.6

6.97 G-St. 39

1+95

S.L.	6.1	0.9
cb. Ground	6.2	0.8
cb. on Top cb.	6.49	
1/4	5.9	
℄	5.8	
N 1/4	5.8	
+8	5.8	
+10 in Ditch.	6.3	
cb.	6.0	
+2	5.3	
N	5.1	

2+00 ± = E.L. Colif. St.

N	5.3
+9	5.8
Gut. in Ditch	6.1
+3 " "	6.1
+5	5.7
1/4	5.7
℄	5.8
S 1/4	5.9
cb. Ground	6.1
cb on cb.	6.57
SL.	6.0

6.97 G-St.

2+18.7

S.L. in Ditch	7.2	
cb+1' Flow	6.99	
	5.9	
1/4	5.6	
℄	5.5	
N 1/4	5.4	
+9.3 = End Wood Box culvert	5.51	Top
" " " Flow	6.61	
N Gut in Ditch	6.5	
N.L.	6.1	

2+24.6

N.L.	5.8	
N cb. on Conc. Slab	5.35	
N 1/4 " " "	5.32	
℄ " " "	5.36	
S 1/4 " " "	5.40	
S cb " " "	5.45	
S.L. on Ground	5.9	
T.P. 4.23 5.69	5.51	1.46

Levels Proposed Drain

0-50	3.8	
~~0+03.4 on Flow~~ Wood Box	~~4.27~~	
0+00 = N cb bmo G-St	5.3	
0+03.4 = N end Exist Box	5.32	
0+50 = S end " "	5.70	

5.69

1+00

10' Lt	5.2
1' Lt.	6.1
℄	6.1
2' Rt.	5.6
10' R	4.9

1+50

10' Rt.	5.0
1' Rt.	5.7
℄ in Ditch.	6.3
2' Lt. " "	6.3
3' Lt.	5.6
10' Lt.	4.9

2+00

10' Lt	5.0
3' Lt.	5.5
~~1'~~ in ℄ Ditch	6.6
1' Rt.	5.7
3' Rt	5.4
10' Rt.	5.0

3+00

10' Lt.	5.0
2' Lt.	6.6
℄ in Ditch	7.1
2' Rt.	5.9
	5.3

5.69

3+57.9 = beginning East 12" Culvert.

on Flow 12" Pipe	7.89		
" Hd. wall	6.11		
10' Lt.	4.7		
2' Lt.	6.0		
2' Rt	6.0		
10' Rt.	5.2		
Chk. Grating 2+13 P-34	5.54	0.15	0.14
on Flow 12" from North	8.34		
" " 24"	10.06		
" " 24" outlet to South	10.09		
" " Flow 4" or 6" from West	9.34		

Walker
Hazard
Hardin
3-31-45

CURB And GUTTER Grades
for Portion West side Kettner Blvd.
Between G & Market st.

Station		El. Pav. 10' from cb.	El. Pav. 3' from cb.	El. Cb.	El. Gutter.
0+80			2.39	2.62	2.17
	0+90 =	2.92		Brk.	
1+00				2.59	2.08
+25				2.46	1.97
+50				2.32	1.86
1+75		2.37	1.91	2.19	1.75
2+00				2.05	1.57

2.96 = BM SW. BP G + Kettner
4.617
7.57 π

1+00 = cb Turn out from here to 2+00

	0+80	1+00		1+75		= 2+00	
cb	2.62	2.59	2.46	2.32	2.19	2.05	
	4.95 ✓	4.98	5.11	5.25	5.38	5.52	ok
		ok	4.93	5.10	5.33		
			+0.18	0.15	+0.05		
						2+00	
Gut.	2.17	2.08	1.97	1.86	1.75	1.57	
	5.40	5.49	5.60	5.71	5.82 ✓	6.00	5.99 Gut
		4.89	4.93	5.10		5.10	Gutok.
		+0.60	+0.67	0.61			

Walker
Becker
Johnson
7-30-47

Cross Sections - Intersection 5th Ave and Redwood St.

Sketch P-46

0+20 Cont

0+20 Cont.

T.P. 4.72 283.68 4.54 278.96

0+20 Cont.

0+20 = N cb Redwood

0+00 = NW. Redwood

0-25 - 25' NW Line Redwood

4.54 283.50 278.96 BM NW BP 5th & Redwood

Lt. ℄ Rt.

3.38	4.02	3.81	4.50	3.90	3.90
65	65	45	45	40	40
cb	Gut	cb	Gut	cb	Gut

4.98	3.96	4.28	4.39	4.37
40	26	13	6.7	2
Gut Flow			Rail	Rail

283.68

5.96	6.64	5.96
45	60	60
Gut	Gut.	cb.

4.15	4.22	4.21	4.24	4.71	4.71	4.88	5.62
	2	6.7	13	26	40	40	40
	Rail	Rail		Gut	Gut.	cb	Gut
						15' Ditcher	

3.76	4.73	3.76	4.12	4.18	4.16	4.09	4.17	4.16	4.21	5.72	4.53
26	26	23	13	6.7	2		2	6.7	13	26	26
cb	Gutter	Hdwall			Rail		Rail	Rail		Gut.	cb.

3.78	4.39	4.17	4.14	4.12	4.03	4.12	4.10	4.19	5.10	4.78
26	26	13	6.7	2		2	6.7	13	26	26
cb.			Rail	Rail		Rail	Rail			cb

0+50

0+40 Cont.

0+40 = 2 Redwood

0+30 Cont.

0+30

TP	5.18	284.14	4.72	278.96

0+20 Cont.

283.68

Lt. ℄ Rt

4.60	4.98	4.93	4.87	4.88	4.88	4.95	4.93	4.91	5.69	5.51	6.41
40	26	13	6.7 Roll	2 Roll		2 Roll	6.7	13	26	40	65

2.42	2.96	3.39	3.88
140	115	90	65

4.39	4.88	4.86	4.88	4.88	4.91	4.91	4.91	4.92	5.59	5.36	6.32
40	26	13	6.7 Roll	2 Roll		2 Roll	6.7 Roll	13	26	40	65

2.58	3.12	3.60	4.03
140	115	90	65

4.42	4.77	4.84	4.86	4.85	4.84	4.88	4.88	4.91	5.47	5.40	6.61
40	26	13	6.7 Roll	2 Roll	284.14	2 Roll	6.7 Roll	13	26	40	65

1.87	2.56	2.43	3.04	2.91	3.56
140	140	115	115	90	90
cb.	Gut.	cb.	Gut.	cb.	Gut

283.68

chk starting BM, 5.18 278.96

0+22.5

0+24 = South edge Gratings

0-05 = Toe Grating 5' N.N.L. Redwood

0+80 = 5 Line Redwood

0+60 Cont.

0+60

0+50

2.8414

Lt. ℄ Rt.

4.35 40 Top Grating
4.83 45 Toe Grating

6.51 45 Toe Grating
5.39 40 Top Grating

4.40 26 Cb
5.20 26 Cut
4.95 23
5.69 23
5.82 26 Cut
5.17 26 Cb

4.50 26 Cb.
5.06 26 Cut
4.98 13
4.93 67 Roll
4.92 2 Roll
4.92
5.01 2 Roll
4.99 67 Roll
5.02 13
5.92 26 Cut
5.42 26 Cb.

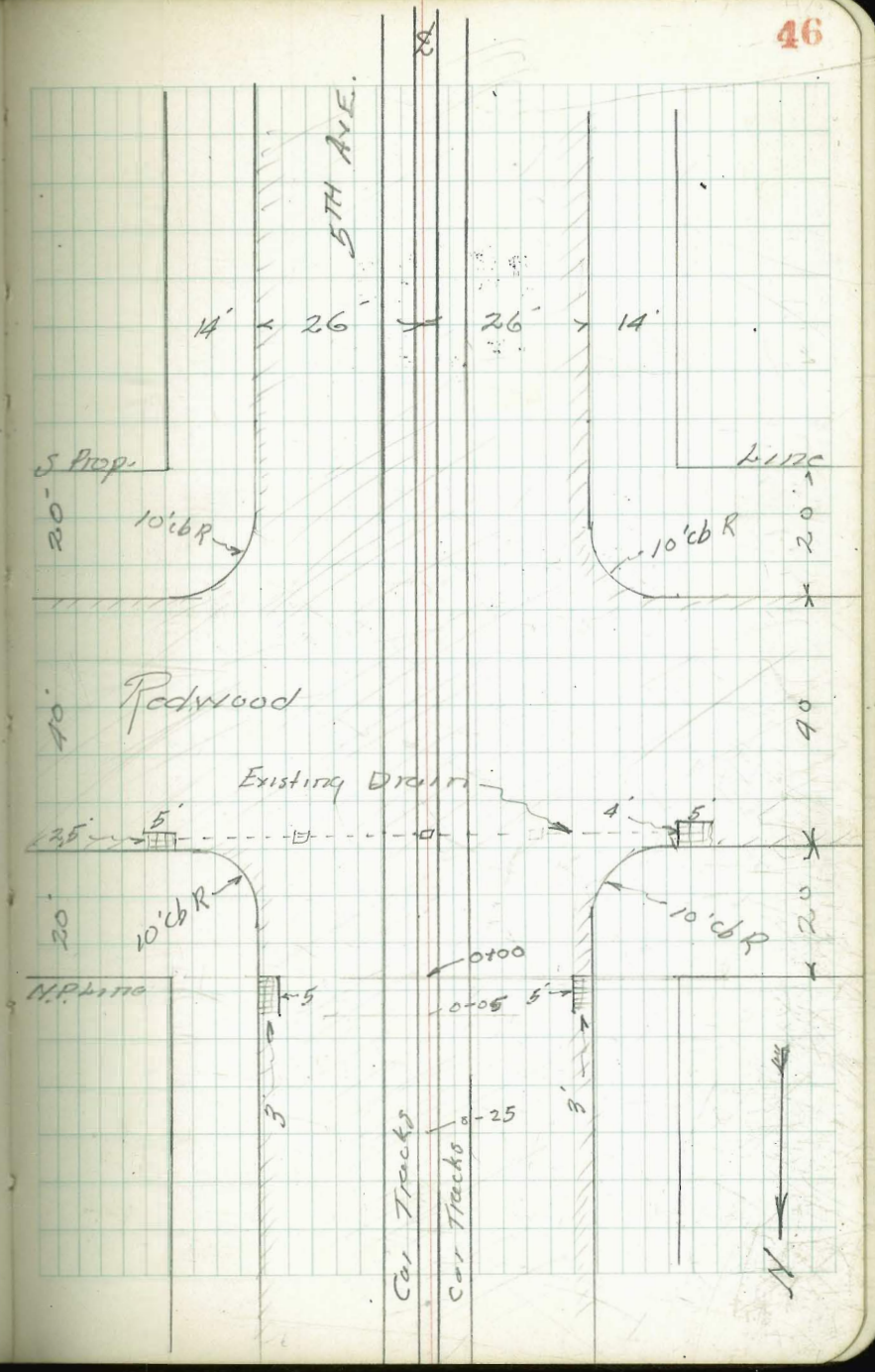
2.61 40 Cb.
3.10 140 Cut.
3.07 115 Cb
3.57 115 Cut
3.50 90 Cb.
4.07 90 Cut.
3.97 65 Cb.
4.53 65 Cut.
6.99 65 Cut.
6.55 65 Cb

4.40 40 Cb
4.94 40 Cut
5.04 26
4.94 13
4.93 67 Roll
4.96 2 Roll
4.90
4.97 2 Roll
4.97 67 Roll
4.91 13
5.77 26
5.89 40 Cut
5.58 40 Cb

2.61 140
3.10 115
3.63 90
4.08 65

2.8414

Cross Sections
Redwood & 5th Ave
Levels P-43-45



Walker
Hendricks
Becker
Johnson
5-21-47

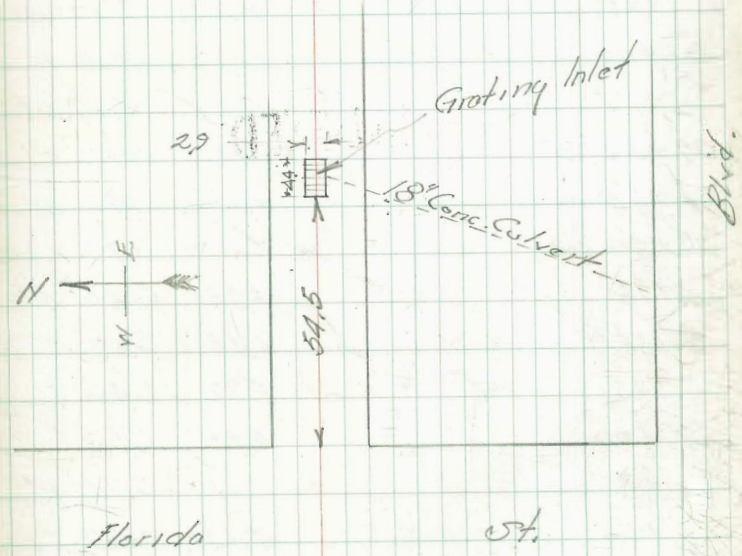
Levels on Existing Catch Basin
in Alley North of El Cajon
and East of Florida St.

BM SW BP
El Cajon
& Florida

	7.28	307.93	300.65
NW Cor Top Conc. Inlet		6.74	
N.E. " " " "		6.75	
S.E. " " " "		6.79	
SW " " " "		6.82	
Flow Line		2.53	840

Block 100
Min. Height

INDEXED
W.K.
OCT 29 1948



Walker x
Hardin.
10-14-43

Valencia Park Trunk Sewer
~ Check Levels ~

SE Top Hyd McCandless & Velta	2.42	11.38		8.96	BM. #14 Page 19
99+73.2			4.54	6.84 ✓	
+57.83 = BC 150' R			6.51	4.87 ✓	
+30			4.30	7.08 ✓	
99+00			3.99	7.39 ✓	
+75			5.25	6.13 ✓	
+50			5.49	5.89 ✓	
+25			4.21	7.17 .01	Hyd
98+00			6.70	4.68 ✓	
+75			5.21	6.17 .01	"
97+52.83			4.71	6.67 ✓	
+25			4.93	6.45 .01	"
97+00			4.99	6.39 ✓	
+75			4.98	6.40 .01	"
96+55.33			4.78	6.60 ✓	
+25			4.92	6.46 ✓	
96+00			4.85	6.53 ✓	
+75			4.67	6.71 .01	"
+50			4.49	6.89 ✓	
+25			4.43	6.95 ✓	
T.R. 95+00	6.15	13.13	4.40	6.98 ✓	
+75			6.11	7.02 .02	
+50			6.04	7.09 ✓	
+25			5.94	7.19 .01	"

Cont. P-60

Walker & Hardin
10-14-43

Valencia Sewer

Check Levels Cont. from P-59

		18.13			
94+00			5.87	7.26	.01 High.
+75			5.79	7.34	" "
+50			5.67	7.46	" "
+25			5.62	7.51	" "
93+00			5.60	7.53	✓
+75			5.51	7.62	.01 "
+50			5.45	7.68	" "
+21.40			5.28	7.85	" "
92+00			5.15	7.98	" "
+75			4.97	8.16	" "
+50			4.78	8.35	" "
+25			4.67	8.46	" "
91+00			4.54	8.59	" "
+83.63			4.66	8.47	" "
+50			4.46	8.67	✓
+25			4.27	8.86	✓
90+00			4.07	9.06	✓
+75			3.95	9.18	" "
TP +50	4.93	14.22	3.84	9.29	✓
+25			4.83	9.39	✓
89+00			4.73	9.49	.01 Low
+75			4.63	9.59	" "
+50			4.55	9.67	" "
+25			4.49	9.73	✓

Walker & Hardin
10-14-43

Valencia Park Trunk Sewer
~ Check Levels ~ Cont. from P-60

14.22 = TP-60

88+00			4.48	9.74	✓
+75			4.57	9.65	✓
+50			4.70	9.52	✓
+25			4.79	9.43	✓
87+00			4.84	9.38	✓
+75			4.97	9.25	✓
+50			5.07	9.15	.01 Low
+25			5.24	8.98	" "
86+00			5.29	8.93	✓
+75			5.42	8.80	.01 "
+50			5.61	8.61	" "
+25			5.69	8.53	.02
85+09.50	TP = D on W		5.42	8.80	.01
T.P.	5.09	13.90	5.41	8.81	✓
85+09.50	6 ft. on W		4.97	8.93	✓
85+00			5.00	8.90	✓
+75			5.13	8.77	.01 Low
+50			5.18	8.72	✓
+25			5.40	8.50	✓
84+00			5.56	8.34	✓
+75			5.68	8.22	✓
+50			5.68	8.22	✓
+25			5.76	8.14	.01 High
83+00			5.95	7.95	" "

Cont.

— Check Levels —
Valencia Park Trunk Sewer

		13.90			
82+75			6.07	7.83	✓
+50			6.17	7.73	✓
+25			6.22	7.68	✓
82+00			6.28	7.62	.01 High.
81+75			6.31	7.59	✓
+50			6.42	7.48	.01 "
+25			6.55	7.35	✓
81+00			6.56	7.34	✓
T.P. +75	4.65	11.96	6.59	7.31	✓
+50			4.65	7.31	✓
+25			4.85	7.11	✓
80+00			4.88	7.08	✓
+75			4.82	7.14	✓
+50			4.96	7.00	.01 Low
+25			5.14	6.82	" "
79+00			5.11	6.85	" "
+75			5.12	6.84	" "
78+55	on		5.11	6.85	" "
+49			5.14	6.82	" "
chk ℄ 79+49			5.14	6.82	.01 Low
+25			5.21	6.75	" "
78+00			5.25	6.71	" "
+75			4.94	7.02	" "
+50			4.58	7.38	" "
+25			4.30	7.66	" "

Cont. P. 61

Check Levels
Valencia Park
11.96

77+00			4.02	7.94	.01 Low
+75			3.78	8.18	" "
+50			3.57	8.39	" "
+25			3.42	8.54	" "
76+00			3.23	8.73	" "
+75			3.06	8.90	"
+50			3.00	8.96	"
+25			3.10	8.86	.01 Low
75+00			2.58	9.38	
75+00		15.71	6.24	9.47	.02 Low
+75			5.45	10.26	.02 "
+50			5.47	10.24	.01 "
+25			5.41	10.30	.02 "
74+00			5.32	10.39	.02 "
+75			5.13	10.58	.01 "
+50			4.90	10.81	.02 "
+25			4.66	11.05	.02 "
73+00			4.43	11.28	.02 "
	6' W		4.32	11.39	.02 "
72+73.56 = A =	6' N.		4.36	11.35	.02 "
+50			5.25	10.46	
+25			4.09	11.62	.02 "
72+00			2.62	13.09	.02 "
+75			2.82	12.89	.01 "
+50			2.98	12.73	.02 "
+25			4.24	11.47	.01 "
71+00			7.70	8.01	.01 "
+75			10.32	5.39	.01 "
+50	+		11.53	4.18	.02 "
+25		10.37	6.37	4.00	.02 "

? on 75+10 ?

8.84 = S.W. 7' Tack
3.70
12.54
4.88
7.66
2.71
10.37
6.37
4.00
11.71
15.71
6.34
9.37 - .01

		10.37			
70+00			6.41	3.96	.02 low
+75			6.35	4.02	.03 "
+50			6.21	4.16	.03 "
+25			6.02	4.35	.02 "
69+00			5.81	4.56	.02 "
+75			5.73	4.64	.01 "
+50			5.70	4.67	.01 "
+25			5.49	4.88	.01 "
68+00			5.37	5.00	.01 "
+75			5.02	5.35	.01 "
+50			5.75	5.62	.01 "
+25			6.27	4.10	"
67+00			6.10	4.27	.01 "
+75			6.23	4.14	.01 low
+50			6.09	4.28	"
+25			5.45	4.92	.01 "
66 +13.4 =	M.H. on ℄ Hub.		7.04	3.33	

10.37
6.37
4.00
11.71
15.71

Walker
Osborne
Hingorani
Hardin 11-12-43

Valencia Trunk Sewer
~ Check Levels ~

For Grades See P-1911

14.60

53+61.68			0.64	13.96	.01
54+00			0.84	13.76	✓
+50			1.54	13.06	✓
55+00			2.33	12.27	✓
chk. BM #20			2.68	11.92	
				11.93 = BM	
				0.01	
55+50			2.97	11.63	.01
56+00			3.29	11.31	.01
+50			3.57	11.03	.01
57+00			3.92	10.68	.01
+50			4.37	10.23	.01
58+00			4.58	10.02	✓
+50			5.03	9.57	✓
59+00			5.28	9.32	✓
+50			5.58	9.02	✓
60+00			6.09	8.51	✓
+50			5.76	8.84	✓
BM #19					
T.P	3.75	12.61	5.74	8.86	✓ chk BM
			4.48	8.13	✓
61+00.77			4.46	8.15	.01
+25			4.55	8.06	.02
+50			4.57	8.04	.01
+75			4.66	7.95	.01
62+00			4.73	7.88	✓
62+26.11 = 62+18.38			4.75	7.86	.01
+50			4.68	7.93	.01

H.H. Tack Earl & Cottonwood
12.61

62+75	4.76	7.85 ✓
63+00	4.77	7.84 ✓
+25	4.68	7.93 ✓
+50	4.77	7.84 ✓
+75	4.97	7.64 ✓
64+00	5.13	7.48 ✓
+25	5.24	7.37 ✓
+50	5.77	6.84 ✓
+75	6.18	6.43 ✓
65+00	6.24	6.37 ✓
+25	6.73	5.88 ✓
+50	6.36	6.25 ✓
+75	6.44	6.17 .01
66+13.4	6.12	6.49 .01
66+25		

Walker
Osborne
Hazard
Hurdin
11-12-43

Valencia Park Sewer
~ Check Levels ~

Station					Elev. Cap Disk as per P-10
	2.47	33.83		31.36	
32+06.09			2.37	31.46	.01
+50			4.83	29.00	✓
33+00			5.37	28.46	✓
+50			5.05	28.78	.01
+97.48 = Δ			4.68	29.15	✓
34+50			2.40	31.43	✓
35+00			1.39	32.44	✓
+50			3.99	29.84	✓
36+00			5.98	27.85	✓
+30			7.30	26.53	.01
36+59.62 +52.65			8.52	25.31	.01
37+00			10.11	23.72	✓
+50			11.54	22.29	.01
38+00			11.56	22.27	✓
+25.66 P.O.T. MH #41			10.05	23.78	✓
T.P.	1.34	25.24	9.93	23.90	✓
39+00			10.3	24.21	✓
+50			3.96	21.28	✓
40+00			4.30	20.94	.01
+50			4.76	20.48	✓
41+00			5.28	19.96	✓
+50			5.73	19.51	.01
42+00			5.87	19.37	✓
+50			6.05	19.19	✓

43+00			6.45	18.79	.01
+50			6.99	18.25	✓
T.P.	8.61	26.67	7.18	18.06	
44+00			8.68	17.99	.01
+50			8.63	18.04	✓
44+82.4			9.07	17.60	.01
			9.35	17.32	✓
45+01			9.43	17.24	✓
chk. 13' Mon P-11			10.39	16.28	✓
45+51			7.08	19.59	
45+99.7 - MH #43			3.40	23.27	.01
2551 π from P-11					
46+50			3.31	22.20	.01
47+00			6.00	19.51	✓
+50			7.81	17.70	✓
48+00			9.06	16.45	
chk. BM #21			10.64	14.87	
				14.89 = BM #21	
			Error	0.02 P-12	
2067 π P-11					
48+00			4.22	16.45	✓
+50			5.28	15.39	.01
49+00			6.94	13.73	✓
+50			4.30	16.37	✓
50+00			4.66	16.01	✓
+50			5.19	15.48	✓
+71.60			5.11	15.56	✓
51			5.13	15.54	✓

Check Levels Valencia Sewer

2067

51+50			5.73	14.94	.01
52+00			12.91	7.76	.01
+50			10.22	10.45	✓
53+00			6.11	14.56	.01
+30			6.46	14.21	.01
+61.68 = ΔRt 32°08'			6.70	13.97	✓

11-24-43 Valencia Sewer Check Levels
from 47th to Delta
Const. Grades P-6, 7, 8 this Book

73.33 π Grd 211-6

43+82.86			4.19	69.14	✓
44+00			4.17	69.16	✓
+50			9.73	63.60	✓
45+00			10.38	62.98	✓
+50			10.63	62.70	✓
46+00			11.46	61.87	✓
+50			11.71	61.62	✓
47+00 T.P.	2.95	64.00	12.28	61.05	.01
+50			3.22	60.78	.01
+87 = MH #31			3.50	60.50	.02
48+00			3.75	60.25	.02
+50			4.21	59.79	.02
49+00			3.98	60.02	.01
+50			4.05	59.95	.01
50+00			4.60	59.40	✓

6400

+50			4.75	59.25	✓
51+00			4.87	59.13	✓
+40			5.30	58.70	✓
51+73.85 = 0+00 = Δ 7°28'30" Lt			5.79	58.21	✓
+50			6.44	57.56	.01
1+00			7.13	56.87	✓
+50 T.P.	2.27	57.10	9.17	54.83	✓
2+00			3.19	53.91	✓
+50			3.35	53.75	✓
3+00			4.73	52.37	✓
+50			4.57	52.53	.01
4+00			4.96	52.14	.01
+30			5.23	51.87	.01
+61.2 = ℄ MH #33			5.55	51.55	.01
5+00			6.21	50.89	✓
+50			6.99	50.11	✓
6+00			8.04	49.06	✓
+50 T.P.			8.12	48.98	.01
7+00	3.41	52.21	8.30	48.80	.01
+50			8.17	48.04	.01
8+00			4.70	47.51	✓
+50			4.54	47.67	✓
9+00			4.69	47.52	✓
+22.4 = MH #34			4.85	47.36	.01
9+50			4.87	47.34	✓

11-24-43

Valencia Sewer
Check Levels Cont from P 67

		52.21			
10+00			4.95	47.26	.01
+50			4.96	47.25	.01
11+00			5.73	46.48	.01
+50			6.08	46.13	.01
12+00			6.66	45.55	.01
T.P. +50	1.89	47.07	7.03	45.18	✓
13+00			2.70	44.37	✓
+50			3.15	43.92	.01
13+83.62 = ℄ MH #35		△ Rt 1°43'	4.37	42.70	✓
14+00			4.49	42.58	✓
+50			5.19	41.88	.01
15+00			5.56	41.51	✓
+50			4.83	42.24	.01
15+98			4.80	42.27	✓
T.P. 16+50	5.51	47.94	4.64	42.43	.01
17+00			5.48	42.46	.02
17+50			5.46	42.48	.01
18+00			4.68	43.26	.01
18+16.08 = ℄ MH #36			3.42	44.52	.01
Chk BM #26 P-9			4.54	43.40	
				43.41 = BM	
				0.01	

11-29-43

Walker
Hagard
Hardin

Sewer
Valencia Checks Levels
Bet. Logan & 47th (Grade P-5, 6)

	5.18	90.51		85.33 = BM	
30+80.31 = 30+79			7.41	83.10	✓
31+00			5.26	85.25	.01
+40			5.59	84.92	✓
+60			12.19	78.32	✓
T.P. 32+00	0.66	78.80	12.87	78.14	✓
+50			1.88	76.92	.02
33+00			3.01	75.79	.01
+50			3.58	75.22	.02
34+00			4.11	74.69	✓
+30			4.29	74.51	✓
+60.94 = MH 27			4.53	74.27	✓
35+00			5.13	73.67	✓
+50			6.01	72.79	✓
36+00			7.06	71.74	✓
+50			7.83	70.97	.01
37+00			8.68	70.12	.01
+25			8.88	69.92	.01
+60			7.79	71.01	✓
38+00			7.93	70.87	.02
+38.54 = ℄ MH #28 △ Lt 10°02			7.72	71.08	.01
T.P. 38+70	1.85	71.67	8.98	69.83	.01
39+10			3.45	68.22	.01
+50			3.41	68.26	✓

Valencia Sewer Check Levels
Cont from P68

	71.67			
40+00		3.84	67.83	.01
+50		4.63	67.04	.01
41		4.53	67.14	.01
+19.27	MH#29	4.85	66.82	.01
41+50		5.92	65.75	.01
42+00		5.67	66.00	.01
+50		6.22	65.45	.01
43+00		6.67	65.00	.01
+50		7.31	64.36	.02 Low
+82.86 = ℄ MH#30		2.50	69.17	.03 High
Elev MH Adjusted to Fit B.M. on Disk = .05 Adjst.				
Chk BM		2.50	69.17	-

11-30-43 ~ Check Levels ~

Valencia Park Sewer
Station 7+12.96 to 30+80.31 (Grades P-3 to 5)

	4.23	118.25	114.02	℄ stub 7+12.96 P-3
7+12.96 = Rt. ∆ to Back Tree		4.08	114.17	
7+12.96 - drag. stake		4.20	114.05	.01
+50		5.06	113.19	✓
8+00		4.56	113.69	✓
+50		7.27	110.98	✓
9+00		8.18	110.07	.01
+50		8.65	109.60	✓
10+00		3.53	114.72	.01

		118.25		
POT 10+34.96 = ℄ MH#19			2.50	113.75 .01
TP 10+65	2.66	108.84	12.07	106.18 ✓
11+00			2.65	106.19 .01
+50			3.44	105.40 .01
12+00			4.54	104.30 ✓
+50			4.45	104.39 .01
13+00			5.09	103.75 ✓
+38.96 = ∆ Rt 13°51'			5.57	103.27 .01
+70			5.76	103.08 -
14+00			6.10	102.74 .01
+50			7.11	101.73 .01
15+00			7.30	101.54 .01
+50			7.59	101.25 .01
TP 16+00	0.42	100.81	8.45	100.39 .01
+50			1.31	99.50 -
℄ MH#21 17+02.84 = ∆ Lt 15°53'30"			2.65	98.16 ✓
+50			6.21	94.60 .01
18+00			4.38	96.43 .01
+50			5.78	95.03 ✓
19+00			7.20	93.61 .01
+38.84 = MH#22			9.67	91.14 ✓
+70			10.31	90.50 ✓
20+00			9.98	90.83 ✓
+50			10.19	90.62 ✓
21+00			9.34	91.47 .01

12-1-43 Valencia Trunk Sewer

110.81 Check Levels

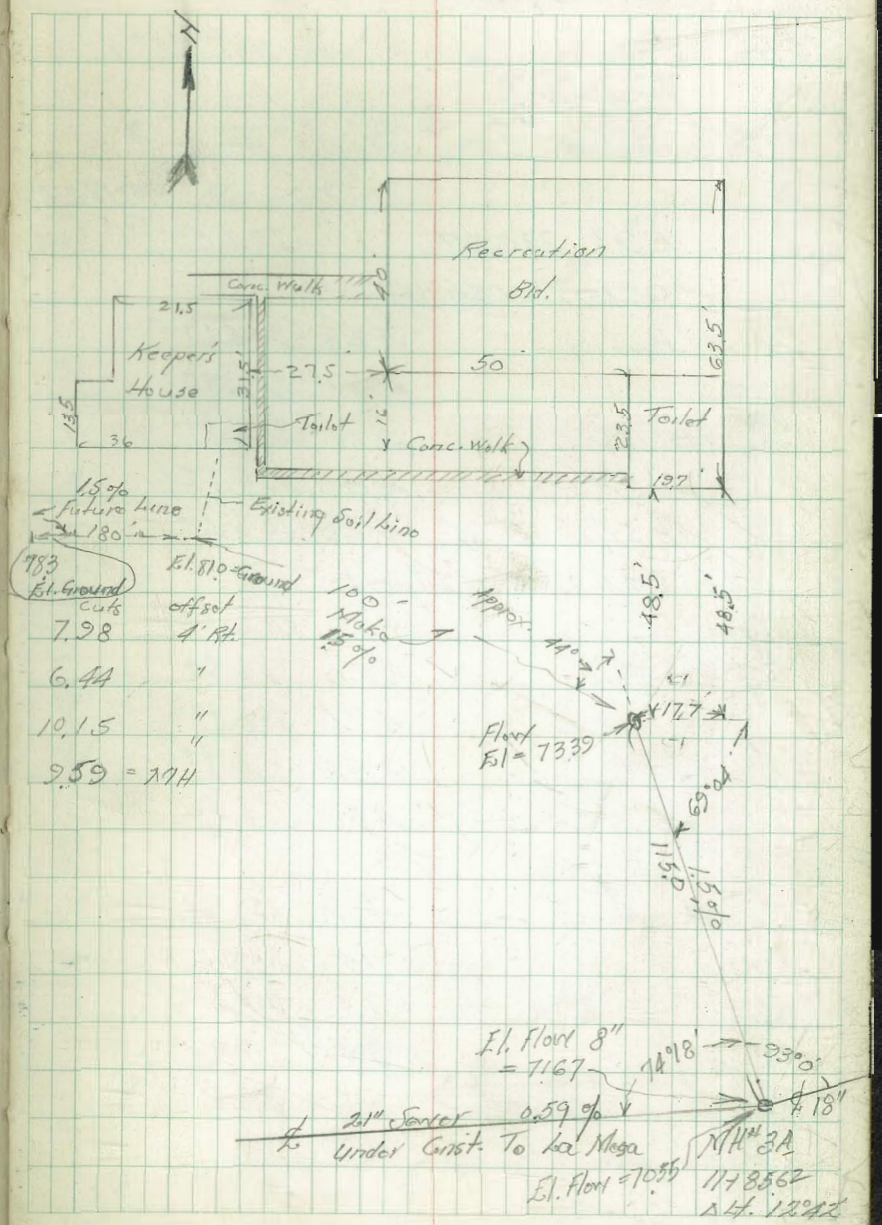
Cont. from p. 69

21+40			11.82	88.99	✓
+74.73	℄ MH #23 = Δ 26°16'30"		11.77	89.04	✓
T.P.	2.65	91.69	11.77	89.04	✓
22+00			3.04	88.65	.01
+50			3.22	88.47	.02
23+00			4.11	87.58	.01
+50			4.56	87.13	.02
24+00			4.70	86.99	.01
+44.73	= ℄ MH #24		4.93	86.76	.02
+72			5.16	86.53	.02
25+00			5.31	86.38	.01
+50			6.76	84.93	.01
26+00			7.15	84.54	.02
+50			9.09	82.60	.01
~~27+00~~ T.P.	7.79	90.33	9.15	82.54	
27+00			8.33	82.00	.01
+15.04	MH #25 = Δ Lt 17°24'10"		8.61	81.72	.01
27+50			9.26	81.07	.02
28+00			8.37	81.96	.01
+50			8.44	81.89	.01
29+00			7.43	82.90	.01
+50			9.53	80.80	.02
30+00			11.07	79.26	.02
+50			10.64	79.69	.01
30+80.31 = 30+79.93	Equation = Δ Rt 27°20'40"		7.23	83.10	
chk B/M cap Disk			5.00	85.33	

Walker
Hagard
Hardin
8-16-44

Police Target Range - Sewer Const.
from Bldg. in Range to Trunk Sewer

			70.55 = Flow MH 3A 9.10 = Cut 79.65 = Elev. stake	
	8.38	88.03		
			Elev. stake	Elev. Flow 70.55 = 21" 71.67 = 8"
0+00		8.38	79.65	
+35		9.40	78.63	72.19
+75		5.09	82.94	72.79
1+15		5.05	82.98	73.39
100' in on Ground		7.0	81.0	
280 " " "		9.7	78.3	



Walker
Hendricks
Hunley
1-30-46

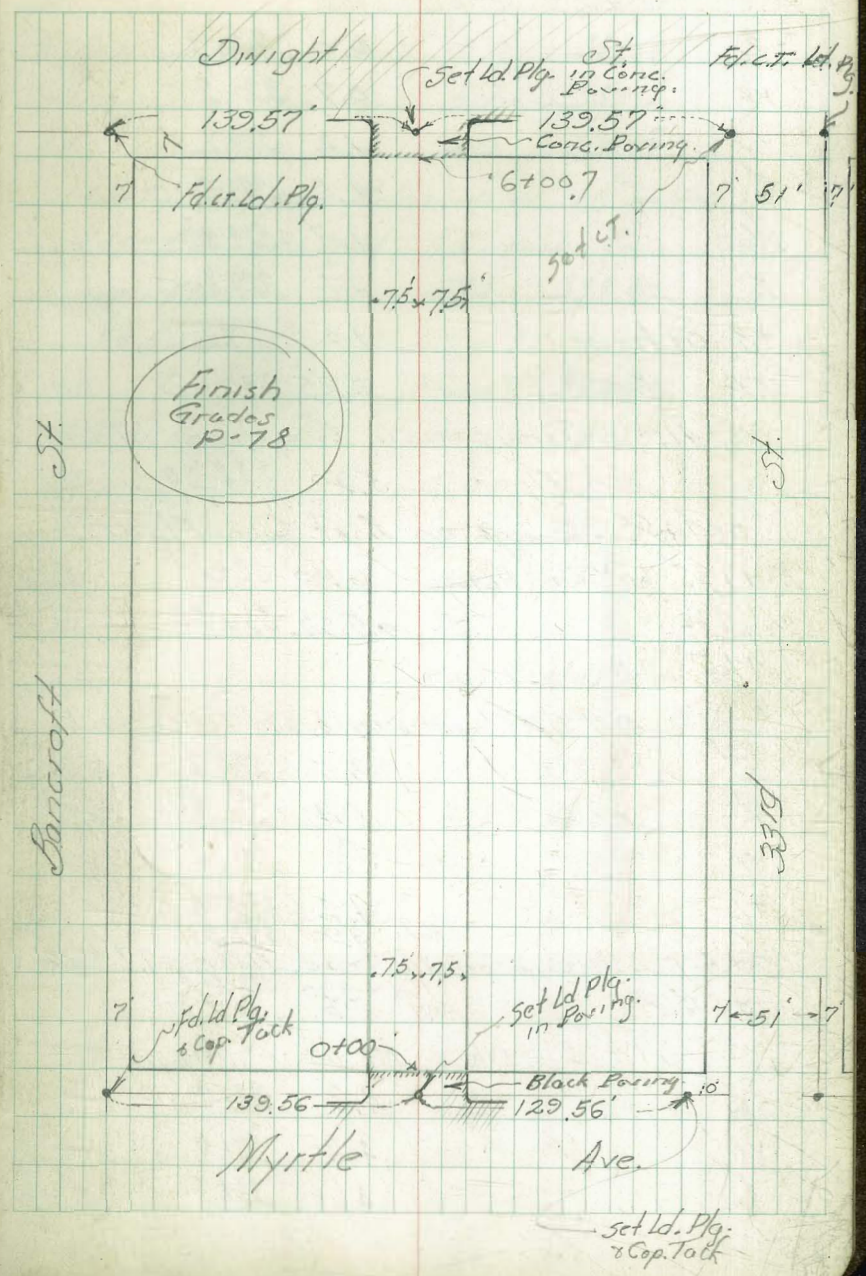
CROSS SECTION ALLEY BLK. 53
PARK VILLAS

Between Bancroft & 33rd Sts.
from N. Line Myrtle Ave
to S. Line Dwight St.

BM. TYE.B.P
Myrtle & 33rd

	8.91	330.97	322.06
	0-10' = N.cb. Myrtle		
E. Gut. Paving		5.28	325.69
" cb		4.67	326.30
℄ on "		5.18	325.79
W " "		4.85	326.12
" " cb.		4.28	326.69
	0+00 = N.L. Myrtle		
W on cb.		4.10	326.87
" " Gut. Pav.		4.20	326.70
℄ on "		4.76	326.21
E. " Gut "		4.58	326.39
" " cb.		4.53	326.44
	0+10		
-3 at House		1.2	329.7
E.		1.4	329.5
+1		1.5	329.4
+3		3.0	327.9
℄		3.2	327.7
+6		2.8	328.1
W		2.2	328.7
+2		1.1	329.8
+4		1.0	329.0

indexed
C.S.K



330.97

0 +25

-2	0.0	330.9
W	0.7	330.2
+2	1.2	329.7
℄	1.6	329.3
+6	1.7	329.2
E	1.1	329.8
+3 at House	1.6	329.0
T.P. 5.62 336.24	0.35	330.62

0+41.4 = ℄ Garage on W. Conc. Floor 7.7 Back

on Floor	3.90	332.30
		Apron 1.25' Back

0+44.5 = ℄ Garage on East Conc. Floor.

E +1.25' on Conc. Apron	6.00	330.24
"	5.92	330.32
+6.5' on Garage Floor		

1' Back

0+50 = Beginning Board Fence on E

E	5.5	330.7
℄	5.4	330.8
W	4.8	331.4
+6	4.2	332.0
	Rod = 3.90	332.34

0+57 = ℄ Garage on W. Conc. Floor 7.7' Back
Rod = 3.90 332.34

+66 = ℄ " " W Conc. " "

1+00 = Pole on W 0.7 in Alley

-2	4.3	331.9
W	4.3	331.9
℄	4.6	331.3

336.24

E	4.9	331.3
+1' = N end Board Fence	5.0	331.0
+2	5.7	330.5
+5'	5.9	330.3

1+31 = ℄ 30" Date Palm on W 1.8' in Alley.

1+45 = ℄ Garage on West	3.5' Back Conc. Floor	
on Floor	3.34	332.90
1+50		
-5	6.0	330.20
-2.2 at Fence	6.0	330.2
-2'	5.6	330.6
E	5.2	331.0
℄	4.4	331.8
W	3.9	332.3
+3	3.4	332.8

1+75 = ℄ 3.7' Conc. Steps on E on Line

E on Top Step	.442	331.82
+3.3 on Bottom Step.	6.18	330.06
+10	6.4	329.8

2+00 = ℄ Pole on W 0.7' in Alley

-5'	3.7	332.5
W	4.2	332.0
+2	5.0	331.2
℄	4.8	331.4
E	5.3	330.9
+3.5	6.2	330.0
+5	6.7	329.5
+10	7.0	329.0

33624

2+25			
-5		7.0	329.2
-4		6.6	329.6
E		5.5	330.7
℄		5.6	330.6
+5'		5.0	331.2
W		4.3	331.9
+5		4.4	331.8
2+50			
-5		4.6	331.6
W		5.4	330.8
℄		5.6	330.6
E		6.1	330.1
+4 of Fence		6.7	329.5
+5		6.9	329.3
+10		7.2	329.0 1.2' Back.
2+81 = ℄ 2' x 4' Conc. Steps on E			
E +1.2' on Top step		6.7	329.5
+3.2" Bottom "		8.3	327.9
E		6.0	330.2
℄		5.9	330.3
W		5.5	330.7
+3		5.2	331.0
3+00 = ℄ Pole on W 1.1' in Alley			
-3'		5.4	330.8
W		5.8	330.4

33624

74

W+2		6.3	329.9
℄		6.7	329.5
+4		6.6	329.6
E		5.9	330.3
+0.4 on Conc. Wall		6.24	330.00
T.P. 221	333.12	5.33	330.91 Wall in Blo 3+00
3+00 to 3+40 = Conc. Wall on E on Line			
N end		4.13	329.99
3+40 to 3+81 = Conc. Wall on E 1.6' Back.			
S end Wall		4.63	328.49
3+50 = Beginning Cobble Wall on W			
-2		6.5	326.6
-1.6 - on Wall		4.70	328.4
E		4.6	328.5
+2		4.0	329.1
+4		4.6	328.6
℄		4.9	328.2
+7.2' of Cobble Wall		4.6	328.5
W on " "		2.5	330.6
+5		2.3	330.8
3+81 = N end Cobble Wall on W.			Wood Conc. W on East
W on		3.0	330.1
+4.5		4.6	328.5
℄		5.4	327.7
+5		5.6	327.5
E		5.1	328.0
+1.6' on N end Wall		5.20	327.9
+5		6.8	326.3

333.12

3+81 = beginning Plastered Wall on E 1.6' Back

on Wall	2.71	330.41
E-5 in yard	7.4	325.7

3+81 to 4+20.5 Fence on W 0.3' Back

4+00 = ℄ Pole 1' in Alley on W

-5' in yard	7.8	325.3
-1.6' on Plastered Wall	2.76	330.36
-1.6 Ground at Wall	4.3	328.8
E	4.3	328.8
+4	6.1	327.0
℄	6.1	327.0
+5	5.7	327.4
W	4.4	328.7
+2	2.7	329.4

4+20.5 N end Plastered Wall on E

-2	3.7	329.4
-1	3.7	329.4
W	5.0	328.1
+3	6.1	327.0
℄	6.5	326.6
+4	6.7	326.4
E	5.6	327.6
+1.6 at Wall	5.5	327.6
" on W	2.82	330.30
+6'	7.6	325.5

4+20.5 to 4+62 = 5' Board Fence on W 0.5' Back

333.12

4+50

-6'	7.9	325.2
-4	6.3	326.8
E	5.8	327.3
+3	6.3	326.8
℄	6.3	326.8
W	5.9	327.2
+3	5.8	327.3 on Dist 6+07.7
T.P. 5.28	333.57 4.83	328.29

4+75 = Beg. Picket Fence on E 0.1 Back

-3	6.1	329.4
W	6.2	327.3
℄	6.3	327.2
E	6.4	327.1
+2	7.6	325.9

5+00 = Beg. Picket Fence on W 0.3' Back

5+00 = Pole on W 1' in Alley

-5	7.8	325.7
E-1	7.8	325.8
E	5.7	327.8
℄	5.8	327.7
+5	5.8	327.7
W	5.0	328.5

5+31 = ℄ Garage on W 10.6' Back

-10.6 on Garage Floor	4.51	329.06
-0.8' on toe Conc. Apron	5.08	328.49
W	5.1	328.4

333.57

5+31 Cont. from P-75

℄	6.2	327.3
E	5.3	328.2
+5	5.6	327.9
+10	7.6	325.9

5+56.5 = ℄ Garage on E 2' Back

E-2 on Conc. Floor	4.90	328.67
E on toe "Apron	4.90	328.67
℄	5.2	328.3
W	5.2	328.3

5+27 = Beg. Conc. Walk on W

0.8' Back	5.15	328.42	
" " 5+63 on Walk on W	5.20	328.37	0.8' Back
5+73 " " " "	5.14	328.44	

5+80

-0.8 on Walk	4.79	328.78
W	4.9	328.6
℄	4.8	328.7
E	5.0	328.5
+5	5.0	328.5

6+00.7

E on cb.	4.91	328.76
" Cut on Conc. Pav.	4.98	328.69
℄ " " "	5.06	328.51
W " " " "	4.83	328.74
" on cb.	4.57	329.05

333.57

76

6+10.7 = South cb line Dwight St

cb.	4.58	328.95
Cut. on Conc. Paving.	5.31	328.26
℄ " " "	5.41	328.16
E " " "	5.48	328.09
cb	4.93	328.64
TP 580 333.05	6.32	327.25
chk S.E. B.P. Dwight & Felton	6.09	326.96
		326.95
		0.01

Additional Levels Above Alley

462	332.91		328.29	B.M. on Disk 6+07.7 P-75

4+21

E	5.8	327.1
+3.8' at Wire Fence	6.8	326.1
+5	7.5	325.4
+10	8.0	324.9

4+40

E	5.7	327.2
+4' at Wire Fence	6.2	326.7
+5'	7.7	325.2
+10	8.0	324.0

4+60.7 = South edge Green House on East 0.1' in Alley

4+72.7 - W " " " " " 0.1 Back

Cont. P-77

Cont. from P-76

4+60.7

E = at Green House	5.8	327.1
+4.6 = N end Wire Fence	6.6	326.3
+5	7.2	325.7
+10	7.4	325.5

4+62 = South end Conc. Wall on W

-10	7.8	325.1
E	7.7	325.2
+0.1	5.6	327.3
℄	5.9	327.0
W	6.0	326.9
+10.6 = at Wall	5.3	327.6
" on Wall	4.41	328.50

4+72.7 N end Green House on E.

-5	7.1	325.8
E	6.8	326.1
+1	5.8	327.1

4+23

W	4.5	328.4
+3	4.2	328.7
+10	4.1	328.8

Note 1' South is 1' Above this Section

4+40 on W

W	5.6	327.3
+1	5.0	327.9
+7	5.0	327.9
+10	4.0	328.9

4+61 on W

W	5.8	327.1
+10	4.8	328.1

10.9 Back

5+00 = N end Conc. Wall on W

-10.9 on wall	4.57	328.34
" " Ground	5.4	327.5
-2	5.3	327.6

0.6 Back

5+00 to Picket Fence on E.

5+01 to 5+50 = Picket Fence on E 0.2 Back

W	4.6	328.3
+10	4.3	328.6

5+00 to 5+25 = Picket Fence on W 0.3 Back

5+50 on E

-10'	6.6	326.3
-4	6.7	326.2
-3	5.0	327.9
E	4.7	328.2
℄	4.5	328.4
Cbt on W cb 6+00.7	3.86	329.05 ✓

Walker
Hendricks
Becker
Johnson
5-28-47

CONSTRUCTION - GRADES PAVING
Alley Blk. 53 - Park Villas
Between Buncroft Rd 33rd
from Myrtle to Dwight St.
Drawing No 6683-2

8.96 331.02 322.06

INDEXED
W.K
OCT 29 1948

Station			Stake	V/L Grade
0+00		3.40	327.62	326.70 / 328.66
+20		0.06	330.96	~~328.37~~
TP	6.56 336.41	1.17	329.85	
0+40		4.86	331.55	330.15 / ~~329.69~~
+60		4.62	331.79	331.15 / ~~330.69~~
+80		4.25	332.16	331.68 / ~~331.34~~
1+00		2.93	333.48	331.73 / ~~331.66~~
+20 = EVC		3.82	332.59	331.64
1+50		3.83	332.58	331.36
+80		3.85	332.56	331.07
2+10		4.84	331.57	330.79
+40				
TP	5.59 335.26	6.74	329.67	
2+40		3.57	331.69	330.50
2+70		4.23	331.03	330.22
3+00		3.95	331.31	329.93
3+20		4.59	330.67	329.75
+40		4.95	330.31	329.60
3+60		4.97	330.29	329.48
3+80		5.16	330.10	329.38

Preliminary Data P-72
W.O. #31043

Grade change per Inst. Gabrielson 6-17-47 EBW.
Both sides from 0+00 to 1+20

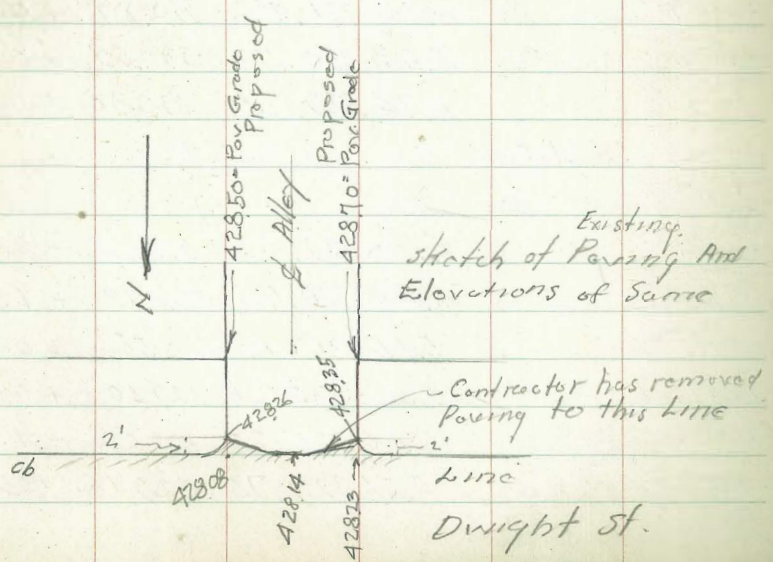
331.02

Cuts P&L + Fill		Fdn. Stake	EL Grade	Cuts + Fills
+0.92		4.28	326.74	326.39 / 328.49 + 0.35
2.30				-1.36
+2.59		1.17	329.85	328.09 + 1.76
	336.41			
1.40			329.91	-0.25
+1.86		6.25	330.16	~~329.45~~ + 0.71
+0.64			330.94	+0.90
+1.10		4.57	331.84	~~330.46~~ + 1.38
+0.48			331.49	+0.53
+0.82		4.39	332.02	331.13 + 0.89
1.75			331.54	+0.56
+1.82		4.31	332.10	~~331.46~~ + 0.64
+0.95		4.36	332.05	331.44 + 0.61
+1.22		4.14	332.27	331.16 + 1.11
+1.49		4.85	331.56	330.87 + 0.69
+0.78		5.63	330.78	330.59 + 0.19
		6.74	329.67	330.30 - 0.63
	335.26			
+1.19				
+0.81		5.90	329.36	330.02 - 0.66
+1.38		4.52	330.74	329.73 + 1.01
+0.92		5.16	330.10	329.55 + 0.55
+0.71		5.00	330.26	329.40 + 0.86
+0.81		7.06	328.20	329.28 - 1.08
+ 0.72		5.51	329.75	329.18 + 0.57

Alley Blk 53

Cont. from P-78

Station				Elev. Stk.	W.L. Grades
		335.26			
4+00			6.06	329.20	-329.30
+40			6.64	328.62	-329.18
T.P.	4.70	333.32	6.64	328.62	
4+80			5.85	327.47	-329.06
5+10.7			3.69	329.63	-328.97
+20			3.87	329.45	-328.94
+60			4.98	328.34	-328.82
6+00.7			4.50	328.82	-328.70
chk E cb					
chk W cb			4.26	329.06	
chk E Toe Conc. Apron			4.68	328.64	
				328.67	
				0.03	



Sketch of Paving And Existing Elevations of Same

W.L. Cuts + Fills			Elev. Stakes	EL. Grades	
	335.26				
-0.10		5.88	329.38	329.10	+0.28
-0.56		10.06	325.20	328.98	-3.78
	333.32				
-1.59		4.07	329.25	328.86	+0.39
+0.66		6.88	326.44	328.77	-2.33
+0.51		3.97	329.35	328.74	+0.61
-0.48		4.59	328.73	328.62	+0.11
+0.12		4.65	328.67	328.50	+0.17
		4.70		328.62	

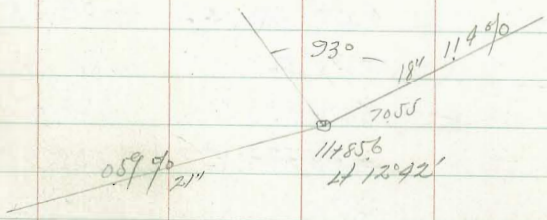
Grades For Bottom of Retaining Wall

	El. Stakes	Bottom	
3+80.7 = Beg. Wall	329.78	324.20	+5.55
4+00	329.38	324.20	+5.18
+40	325.20	324.19	+1.01
+80	329.25	324.18	+5.07
5+10.7 = End of Wall	326.44	324.17	+2.27

Flow

70.55 = Flow MH #32
9.10 = cut
79.65 = Elev. Stake

8.38 88.03



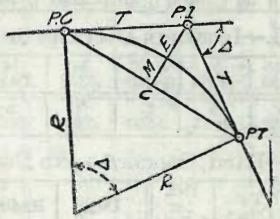
0+00 = Near W/L/ Bdry on Ground

1+80 - opp. Keeper's House

2+80 = ℄ proposed MH.

9.7 78.3
8.2 79.8
7.0

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



8.38
180
93
87
12.42
75°18'

3.67
4.74
8.41
8.93

CURVE FORMULAS

Radius=R=$\frac{50}{\sin. D/2}$(1) Degree of Curve=D and sin. $\frac{D}{2}=\frac{50}{R}$ (2)

Tangent=T=R tan$\frac{\triangle}{2}$ (3) Length of Curve=L=100$\frac{\triangle}{D}$ (4)

Middle ordinate=M=R(1—cos. $\frac{\triangle}{2}$) (5)=R vers $\frac{\triangle}{2}$ (6)

External=E=T tan$\frac{\triangle}{4}$(7)=R ÷ cos.$\frac{\triangle}{2}$—R(8)=R x sec$\frac{\triangle}{2}$(9)

Long Chord=C=2 R sin.$\frac{\triangle}{2}$ (10) $\triangle$=Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. $\triangle$=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=414.49 ft. From Table V correction=.36 or T=414.85 ft. P. C.=Sta. P.I.—T=157 +45.50. Also from (4) L=746.00 and P. T.=Sta. P. C.+L=164+91.50.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 $(54.50 \div 100)^2$=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26)$=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For e ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6 ÷8⅓=115.27 and from Table V correction=.10 or E=115.37 ft. Or suppose $\triangle$=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

Table I.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table II.—Inches in Decimals of a Foot.

1-16	3-32	1/8	3-16	1/4	5-16	3/8	1/2	5/8	3/4	7/8
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729

1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

Table III.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid. Ord.	Tan. Offset	Def. for 1 Foot	Deg.	Radius	Mid. Ord.	Tan Offset	Def. for 1 Foot
0° 10′	34377.5	.036	.145	0.05′	7°	819.02	1.528	6.105	2.10′
20	17188.8	.073	.291	0.10	20′	781.84	1.600	6.395	2.20
30	11459.2	.109	.436	0.15	30	764.49	1.637	6.540	2.25
40	8594.42	.145	.582	0.20	40	747.89	1.673	6.685	2.30
50	6875.55	.182	.727	0.25	8	716.78	1.746	6.976	2.40
1	5729.65	.218	.873	0.30	20	688.16	1.819	7.266	2.50
10	4911.15	.255	1.018	0.35	30	674.69	1.855	7.411	2.55
20	4297.28	.291	1.164	0.40	40	661.74	1.892	7.556	2.60
30	3819.83	.327	1.309	0.45	9	637.28	1.965	7.846	2.70
40	3437.87	.364	1.454	0.50	20	614.56	2.037	8.136	2.80
50	3125.36	.400	1.600	0.55	30	603.80	2.074	8.281	2.85
2	2864.93	.436	1.745	0.60	40	593.42	2.110	8.426	2.90
10	2644.58	.473	1.891	0.65	10	573.69	2.183	8.716	3.00
20	2455.70	.509	2.036	0.70	30	546.44	2.292	9.150	3.15
30	2292.01	.545	2.181	0.75	11	521.67	2.402	9.585	3.30
40	2148.79	.582	2.327	0.80	30	499.06	2.511	10.02	3.45
50	2022.41	.618	2.472	0.85	12	478.34	2.620	10.45	3.60
3	1910.08	.655	2.618	0.90	30	459.28	2.730	10.89	3.75
10	1809.57	.691	2.763	0.95	13	441.68	2.839	11.32	3.90
20	1719.12	.727	2.908	1.00	30	425.40	2.949	11.75	4.05
30	1637.28	.764	3.054	1.05	14	410.28	3.058	12.18	4.20
40	1562.88	.800	3.199	1.10	30	396.20	3.168	12.62	4.35
50	1494.95	.836	3.345	1.15	15	383.07	3.277	13.05	4.50
4	1432.69	.873	3.490	1.20	30	370.78	3.387	13.49	4.65
10	1375.40	.909	3.635	1.25	16	359.27	3.496	13.92	4.80
20	1322.53	.945	3.718	1.30	30	348.45	3.606	14.35	4.95
30	1273.57	.982	3.926	1.35	17	338.27	3.716	14.78	5.10
40	1228.11	1.018	4.071	1.40	18	319.62	3.935	15.64	5.40
50	1185.78	1.055	4.217	1.45	19	302.94	4.155	16.51	5.70
5	1146.28	1.091	4.362	1.50	20	287.94	4.374	17.37	6.00
10	1109.33	1.127	4.507	1.55	21	274.37	4.594	18.22	6.30
20	1074.68	1.164	4.653	1.60	22	262.04	4.814	19.08	6.60
30	1042.14	1.200	4.798	1.65	23	250.79	5.035	19.94	6.90
40	1011.51	1.237	4.943	1.70	24	240.49	5.255	20.79	7.20
50	982.64	1.273	5.088	1.75	25	231.01	5.476	21.64	7.50
6	955.37	1.309	5.234	1.80	26	222.27	5.697	22.50	7.80
10	929.57	1.346	5.379	1.85	27	214.18	5.918	23.35	8.10
20	905.13	1.382	5.524	1.90	28	206.68	6.139	24.19	8.40
30	881.95	1.418	5.669	1.95	29	199.70	6.360	25.04	8.70
40	859.92	1.455	5.814	2.00	30	193.18	6.583	25.88	9.00

Note. Chord Deflection=2 times tangent deflection.

Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
1°	50.00	.22	11°	551.70	26.50	21°	1061.9	97.57
10′	58.34	.30	10′	560.11	27.31	10′	1070.6	99.16
20	66.67	.39	20	568.53	28.14	20	1079.2	100.75
30	75.01	.49	30	576.95	28.97	30	1087.8	102.35
40	83.34	.61	40	585.36	29.82	40	1096.4	103.97
50	91.68	.73	50	593.79	30.68	50	1105.1	105.60
2	100.01	.87	12	602.21	31.56	22	1113.7	107.24
10	108.35	1.02	10	610.64	32.45	10	1122.4	108.90
20	116.68	1.19	20	619.07	33.35	20	1131.0	110.57
30	125.02	1.36	30	627.50	34.26	30	1139.7	112.25
40	133.36	1.55	40	635.93	35.18	40	1148.4	113.95
50	141.70	1.75	50	644.37	36.12	50	1157.0	115.66
3	150.04	1.96	13	652.81	37.07	23	1165.7	117.38
10	158.38	2.19	10	661.25	38.03	10	1174.4	119.12
20	166.72	2.43	20	669.70	39.01	20	1183.1	120.87
30	175.06	2.67	30	678.15	39.99	30	1191.8	122.63
40	183.40	2.93	40	686.60	40.99	40	1200.5	124.41
50	191.74	3.21	50	695.06	42.00	50	1209.2	126.20
4	200.08	3.49	14	703.51	43.03	24	1217.9	128.00
10	208.43	3.79	10	711.97	44.07	10	1226.6	129.82
20	216.77	4.10	20	720.44	45.12	20	1235.3	131.65
30	225.12	4.42	30	728.90	46.18	30	1244.0	133.50
40	233.47	4.76	40	737.37	47.25	40	1252.8	135.35
50	241.81	5.10	50	745.85	48.34	50	1261.5	137.23
5	250.16	5.46	15	754.32	49.44	25	1270.2	139.11
10	258.51	5.83	10	762.80	50.55	10	1279.0	141.01
20	266.86	6.21	20	771.29	51.68	20	1287.7	142.93
30	275.21	6.61	30	779.77	52.89	30	1296.5	144.85
40	283.57	7.01	40	788.26	53.97	40	1305.3	146.79
50	291.92	7.43	50	796.75	55.13	50	1314.0	148.75
6	300.28	7.86	16	805.25	56.31	26	1322.8	150.71
10	308.64	8.31	10	813.75	57.50	10	1331.6	152.69
20	316.99	8.76	20	822.25	58.70	20	1340.4	154.69
30	325.35	9.23	30	830.76	59.91	30	1349.2	156.70
40	333.71	9.71	40	839.27	61.14	40	1358.0	158.72
50	342.08	10.20	50	847.78	62.38	50	1366.8	160.76
7	350.44	10.71	17	856.30	63.63	27	1375.6	162.81
10	358.81	11.22	10	864.82	64.90	10	1384.4	164.86
20	367.17	11.75	20	873.35	66.18	20	1393.2	166.95
30	375.54	12.29	30	881.88	67.47	30	1402.0	169.04
40	383.91	12.85	40	890.41	68.77	40	1410.9	171.15
50	392.28	13.41	50	898.95	70.09	50	1419.7	173.27
8	400.66	13.99	18	907.49	71.42	28	1428.6	175.41
10	409.03	14.58	10	916.03	72.76	10	1437.4	177.55
20	417.41	15.18	20	924.58	74.12	20	1446.3	179.72
30	425.79	15.80	30	933.13	75.49	30	1455.1	181.89
40	434.17	16.43	40	941.69	76.86	40	1464.0	184.08
50	442.55	17.07	50	950.25	78.26	50	1472.9	186.29
9	450.93	17.72	19	958.81	79.67	29	1481.8	188.51
10	459.32	18.38	10	967.38	81.09	10	1490.7	190.74
20	467.71	19.06	20	975.96	82.53	20	1499.6	192.99
30	476.10	19.75	30	984.53	83.97	30	1508.5	195.25
40	484.49	20.45	40	993.12	85.43	40	1517.4	197.53
50	492.88	21.16	50	1001.7	86.90	50	1526.3	199.82
10	501.28	21.89	20	1010.3	88.39	30	1535.3	202.12
10	509.68	22.62	10	1018.9	89.89	10	1544.2	204.44
20	518.08	23.38	20	1027.5	91.40	20	1553.1	206.77
30	526.48	24.14	30	1036.1	92.92	30	1562.1	209.12
40	534.89	24.91	40	1044.7	94.46	40	1571.0	211.48
50	543.29	25.70	50	1053.3	96.01	50	1580.0	213.86

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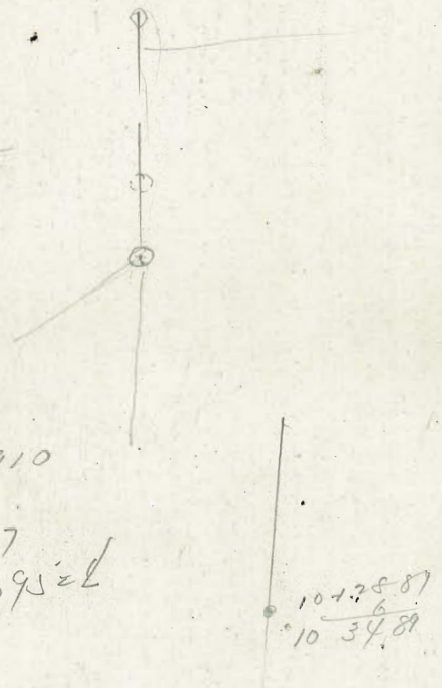

R = 1910

2 + 13.7

3 + 80.95 = l

10 + 38.89
6
10 34.89

15
12
3
9.3

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9 + (20—16) ÷ 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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