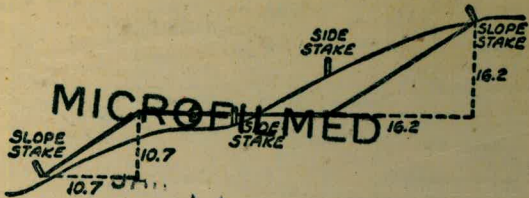


#767



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.

641032
80
543032

500
1141032
54
16
324
54
864
27 | 432.0
12

27
162
168

86.4
5

Indexed to p 95. 12/20/98 m. 82.

DIRECTIONS FOR USE OF TABLES

TABLE No. XIV

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 to 1. If ground is nearly level, the cut or fill at side

IMPROVED TABLES
AND
INFORMATION

TABLE No. VIII

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

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

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

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

FOR TANGENTS ADD

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

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.032	.035	.039	.043	.047	.051	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	.120	.127	.135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.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	.977	1.07	1.18	1.29
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

Water grades Alley from Dwight to Lands
4th + Highland 2-3 ✓

Water grades Hornblend St. from
Lamont to Noyes 4-5 ✓

Electric Ave. Alignment from
Westbourne to Center on Draper
and Draper to Girard on Center 6-14

Electric Ave. profile from Westbourne
to Exchange Place 21-45 ✓

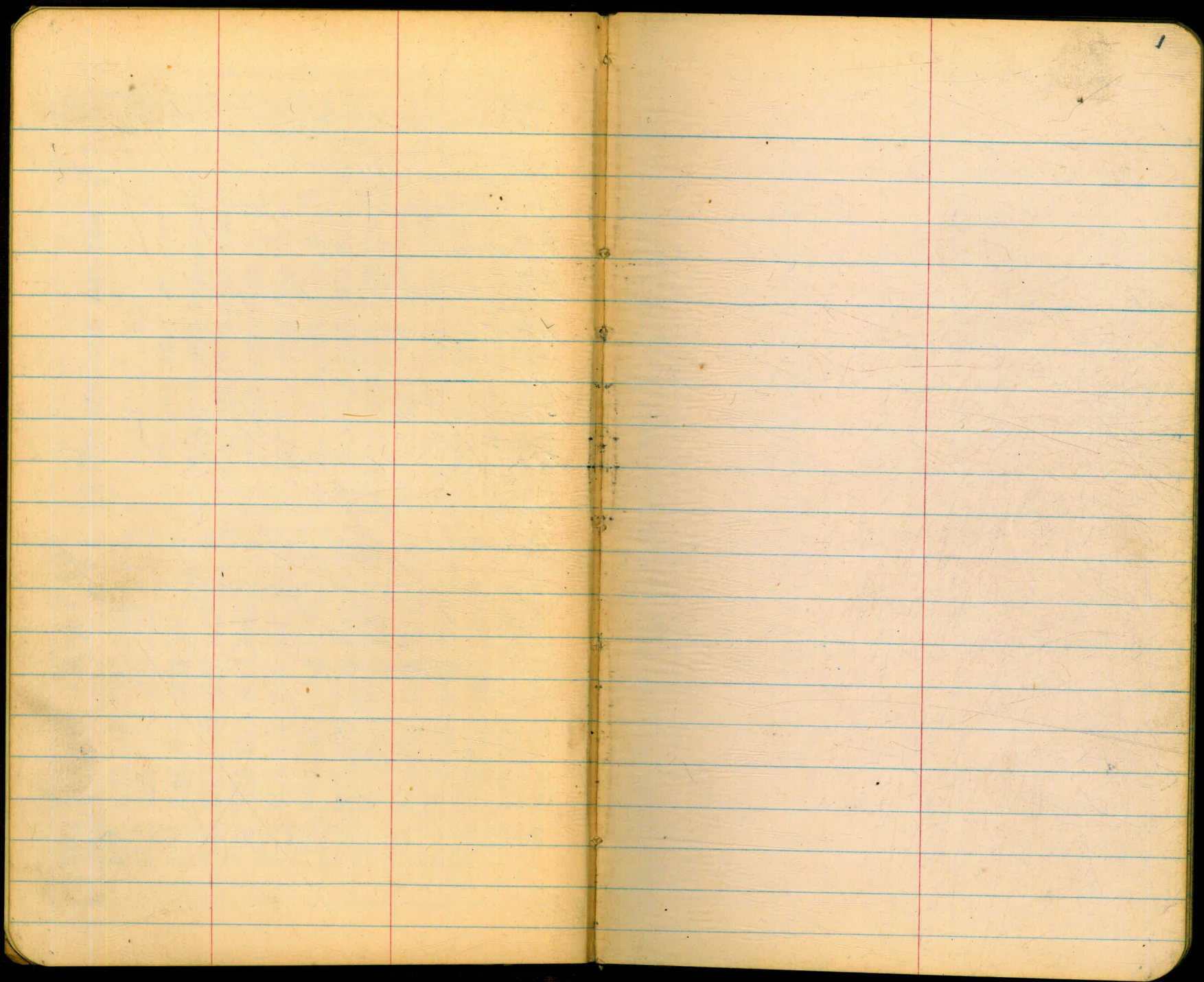
Electric Ave. P.L.
REVISED Profile & Cross Sections } 146-49
Sta. 142+44 to Sta. 154+25.63
PROF. & OF PIPE FROM COUNTRY CLUB DR 150-51
To RESERVOIR (La Jolla Res.)

EXCHANGE PLACE, Torrey Pines Rd to Olivet 17.
REVISION EXCHANGE PLACE 15.

GRADES SET - EXCHANGE PLACE PIPELINE 19-20
EXCHANGE PLACE PIPELINE AS CONSTRUCTED 18.

GRADES SET. Electric Ave Pipeline 53-71

LAW ST. 6" WATER MAIN, CUT STAKES. 76, 78 ✓



Grades FOR ALLEY
 BETWEEN DWIGHT & LANDIS
 44th & HIGHLAND

11-17-48

RAINEY
 BAKER
 ROGERS

2

	+	π	-	ELEV.		
B.M. B.P. N.W. CORNER				Dwight & Highland		
	2.54	350.07		347.53		
0+00			4.7	345.4	341.7	3.7
+50			3.3	346.8	346.2	4.1
1+00			2.5	347.6	347.3	3.8
+50			1.2	348.9	348.3	4.1
2+00			0.6	349.5	349.2	3.8
T.P.			0.97	349.10		
	7.79	356.89				
2+50			6.7	350.2	349.9	3.8
3+00			5.5	351.4	350.4	4.5
ck to 3+50			5.2	351.7	350.9	4.4
T.P.			3.81	353.03		
	7.78	360.81				
7+00			6.9	353.9	353.5	3.9
7+50			4.8	356.0	354.0	5.5
8+00			4.6	356.2	354.3	5.1
8+50			5.2	355.6	354.1	4.5
9+00			5.3	355.5	354.8	4.2
						7+00 353.5
						354.0
						354.3
						354.6
						354.6
						354.8
						354.9
						354.8
						354.6
						354.5
						354.4
						354.3
						353.3-8

360.81

9:50	5.2	355.6	354.9	4.2
10:00	4.8	356.0	354.8	4.7
10:50	6.5	354.3	354.6	3.2
11:00	5.8	355.0	354.5	4.0
11:50	5.5	355.3	354.4	4.4
12:00	6.1	354.7	354.3	4.0
12:50	6.7	354.1	354.5	4.1

Horribland St. (Water grades)
From Lamont to Noyes

Nov. 19, 1948

Rainey
Baker
Rogers

4

Sta.	SW Cor Lamont	Horribland	60.03		
	0.67	60.70			0+00 int w/ existing line Lamont
0+23.99	7' off prop line	1.0	59.7	60.0	3.2
0+50		1.7	59.0	59.6	2.9
1+00		2.9	57.8	58.5	2.8
1+50		4.0	56.7	57.4	2.8
2+00		5.1	55.6	56.2	2.9
2+50		5.6	55.1	55.0	3.6
3+00		6.1	54.6	54.6	3.5
3+50		6.4	54.3	54.3	3.5
4+00		6.9	53.8	53.9	3.4
4+50		7.2	53.5	53.6	3.4
5+00		7.5	53.2	53.3	3.4
5+50		8.1	52.6	52.8	3.3
6+00		7.5	53.2	52.2	4.5
6+50		8.7	52.0	51.4	4.1
7+00		11.0	49.7	50.6	2.6
7+50		12.6	48.1	49.8	1.8
T.R. #1		12.49	48.21	48	
	7.77	55.98			

55.98

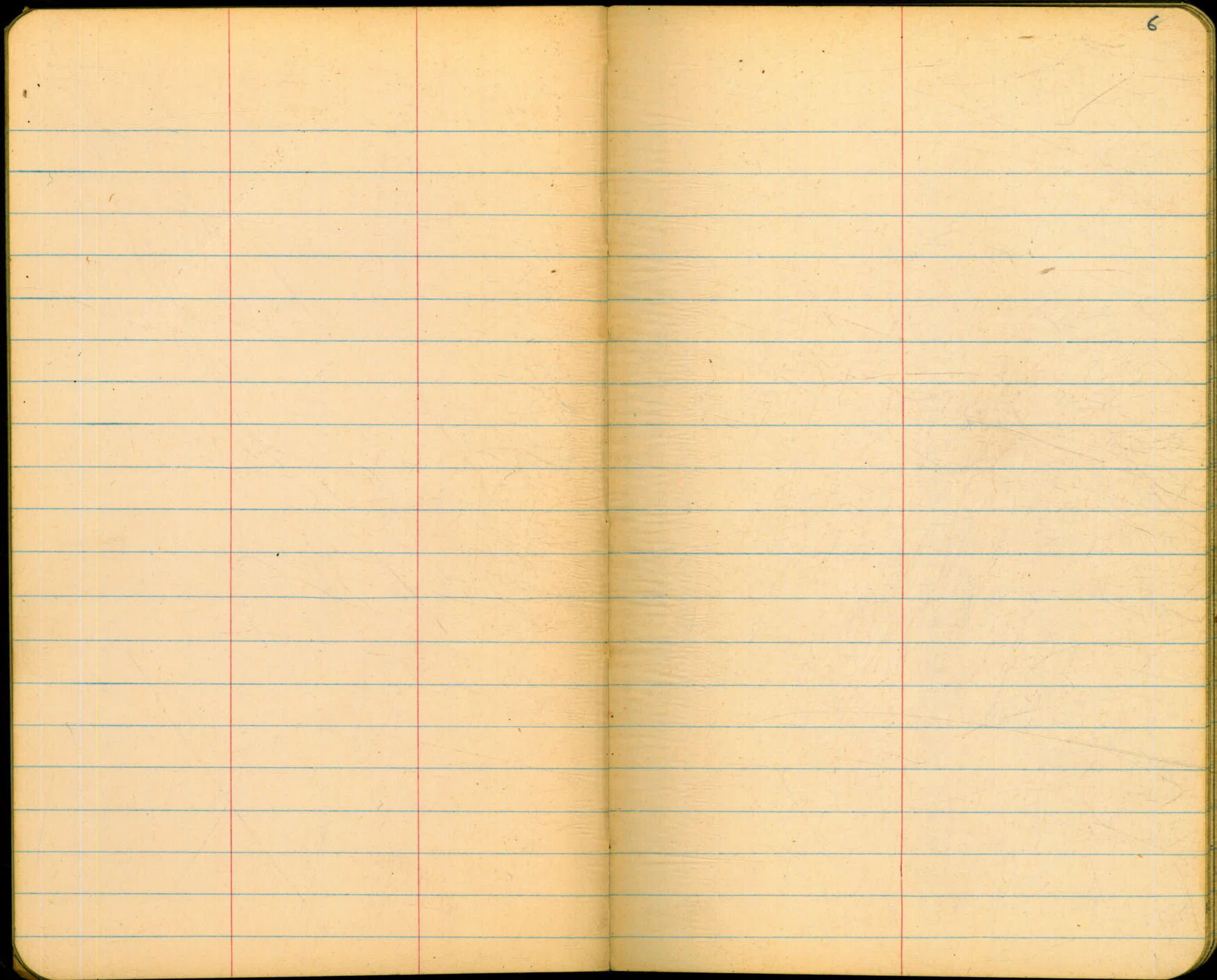
8+00	8.9	47.1	49.0	1.6
8+50	9.2	46.8	48.2	2.1
9+00	9.6	46.4	47.5	2.4
9+50	9.4	46.6	46.8	3.3
10+00	9.2	46.8	46.0	4.3
10+50	6.8	49.2	46.0	6.7
11+00	5.3	50.7	46.2	8.0
11+50	4.7	51.3	46.2	8.6
TP	0.09	55.89		

796 63.85

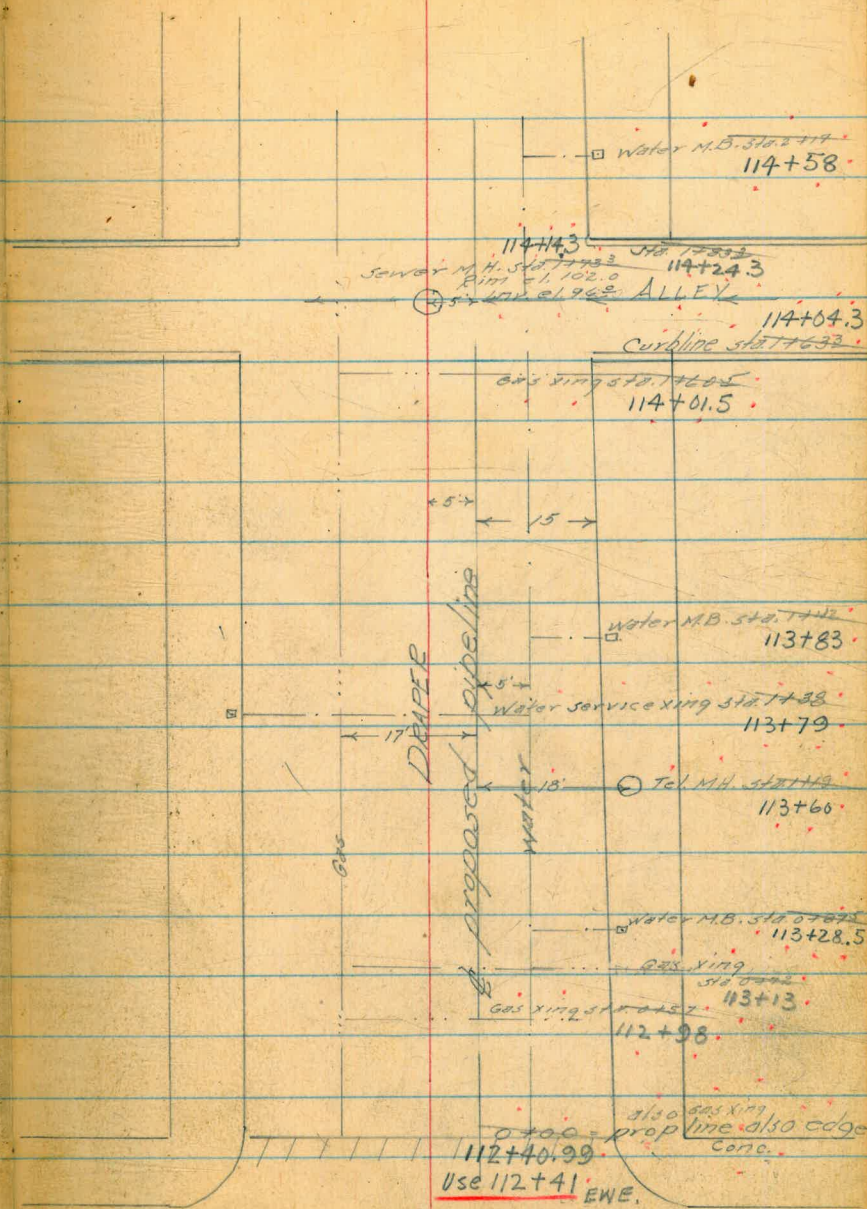
Garnet

corr.

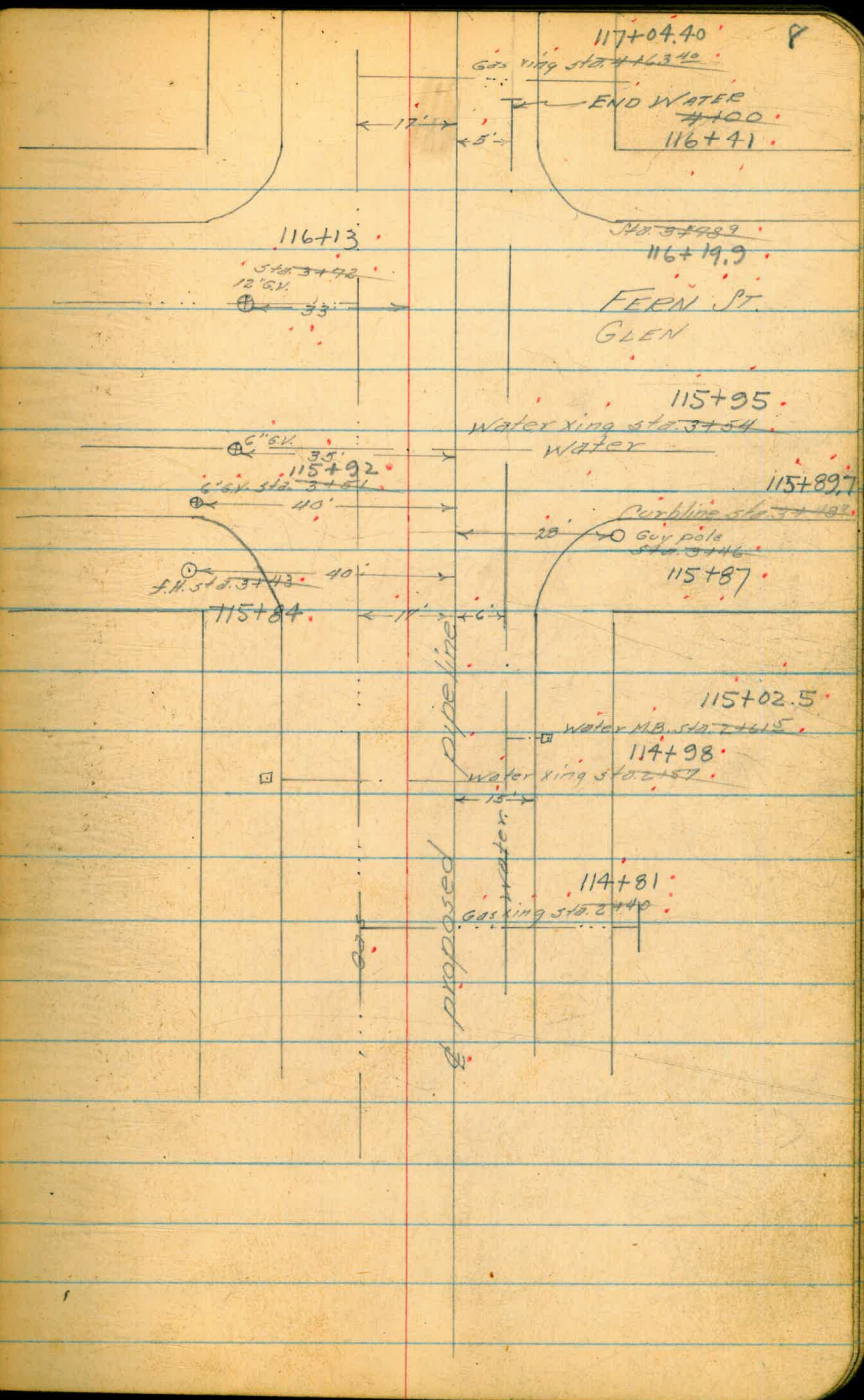
BM. B.P.N.W. Cor + Noyes 1.66 62.19 62.21

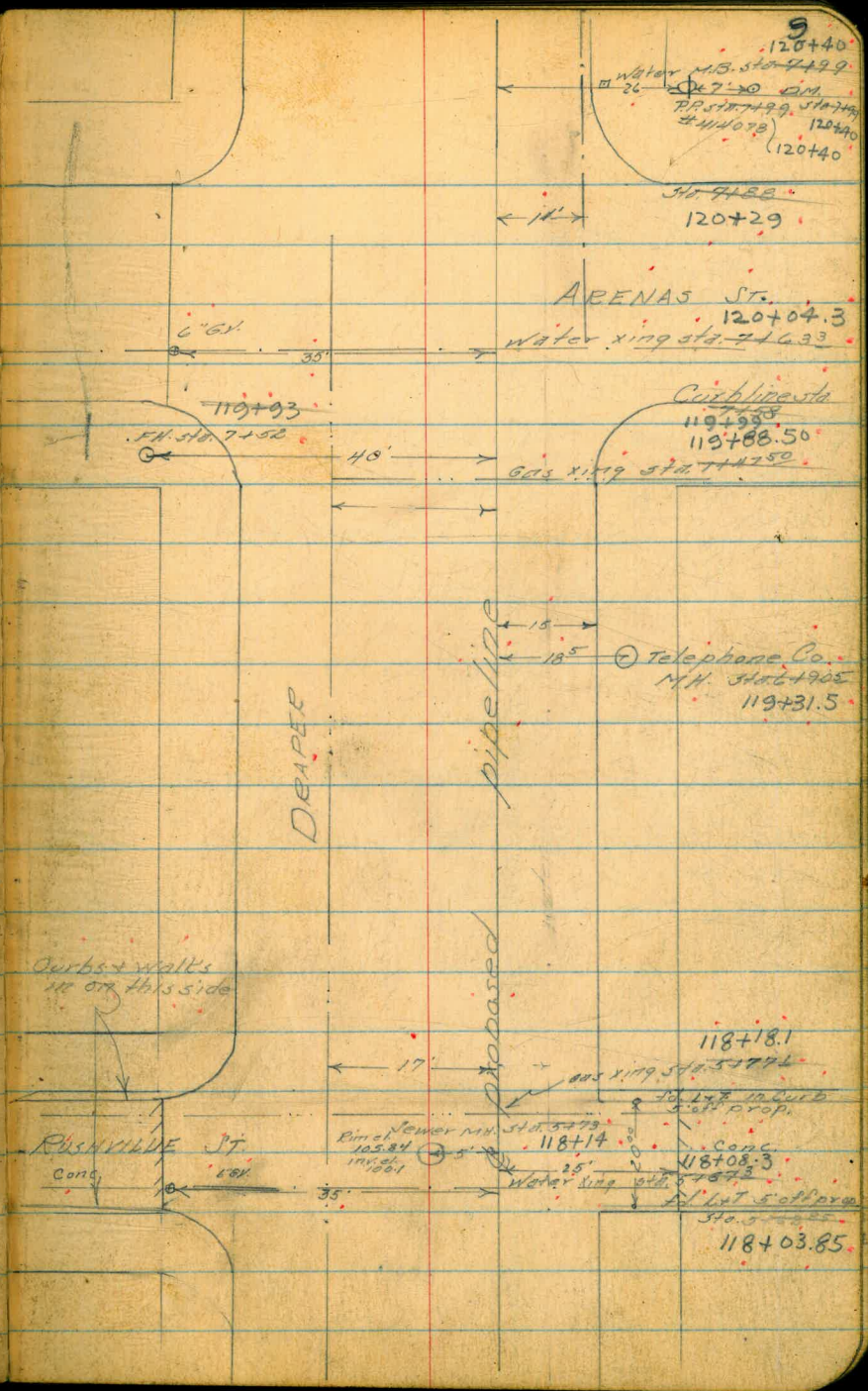


Alignment
Electric Ave. Pipeline
From Westbourne
to Eads



CAN'T FROM F.B. 731, pg. 21. EWE



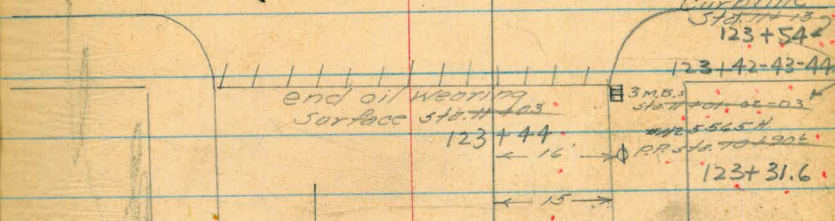


0.2" pipe
NE. Prop line
Center + Drap

CONT'D. ON Page 13

GENTER ST.

123+69.10
2 pt. sta. 11+28.10
89.42 Pt.
123+59.10
2 pt. sta. 11+18.10



DEARIN ST.

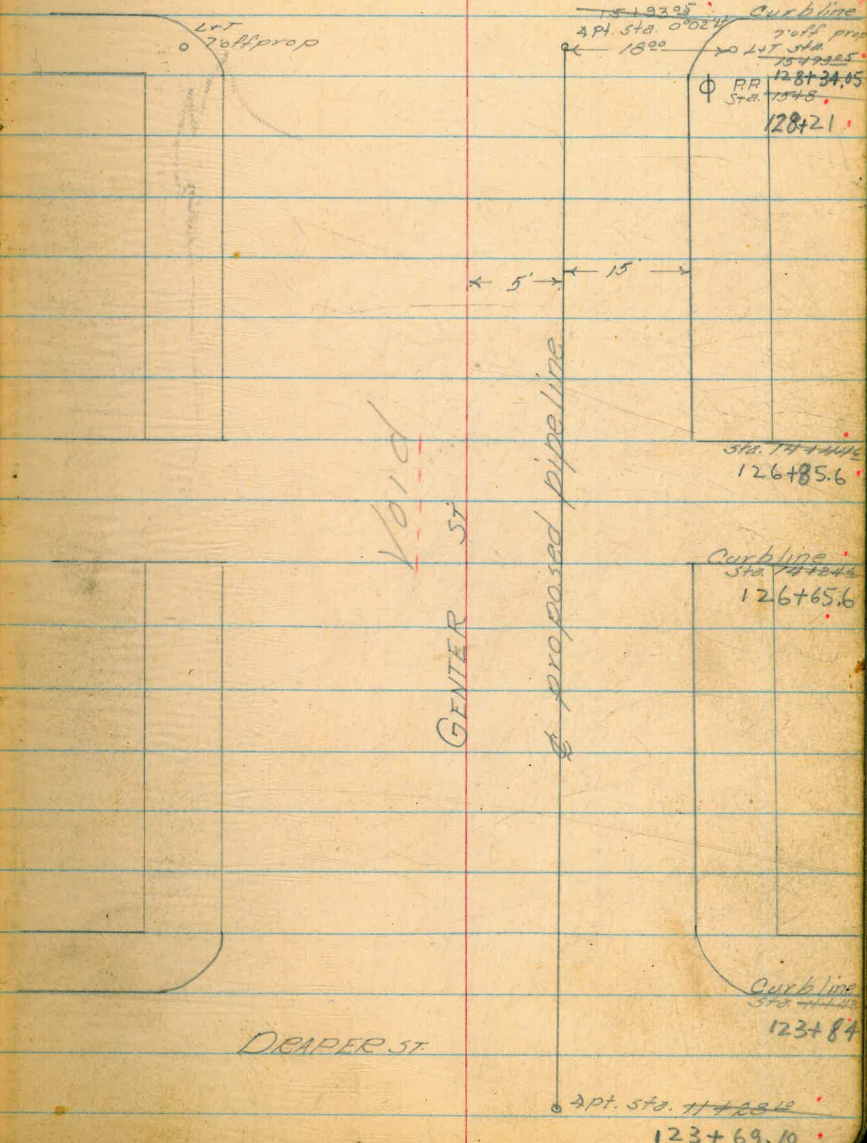
Proposed Pipeline

122+04.5
Gas Valve Sta. 11+55.5
124+04 121+97
108.99 6' GENTER
111.01 104.1

121+84.8
9+43.8
121+81
11.57 11+40

Water Service
121+64.6
18'

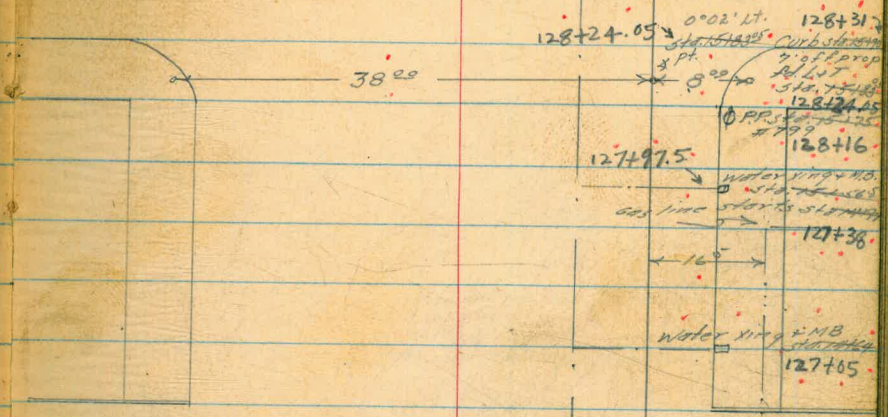
121+04
120+81.5
120+81.5
120+58
120+58
120+58
120+58



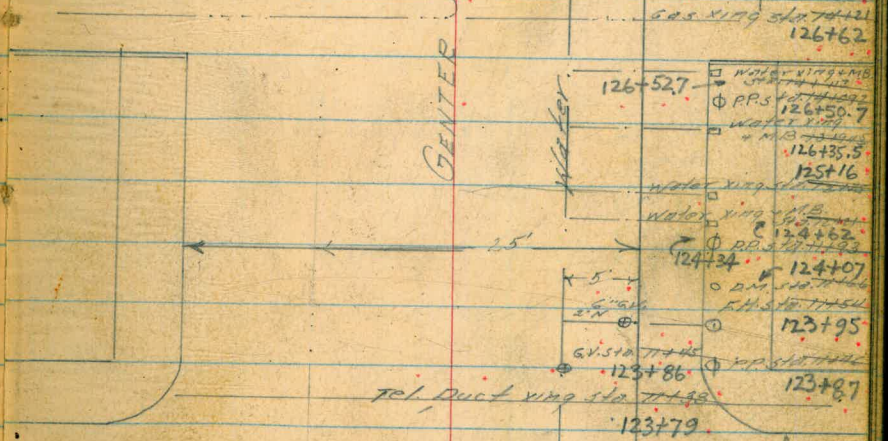
GV 45' W

Water viny MB
128+76.5
128+66.5

EADS



CENTER ST



DRAPER

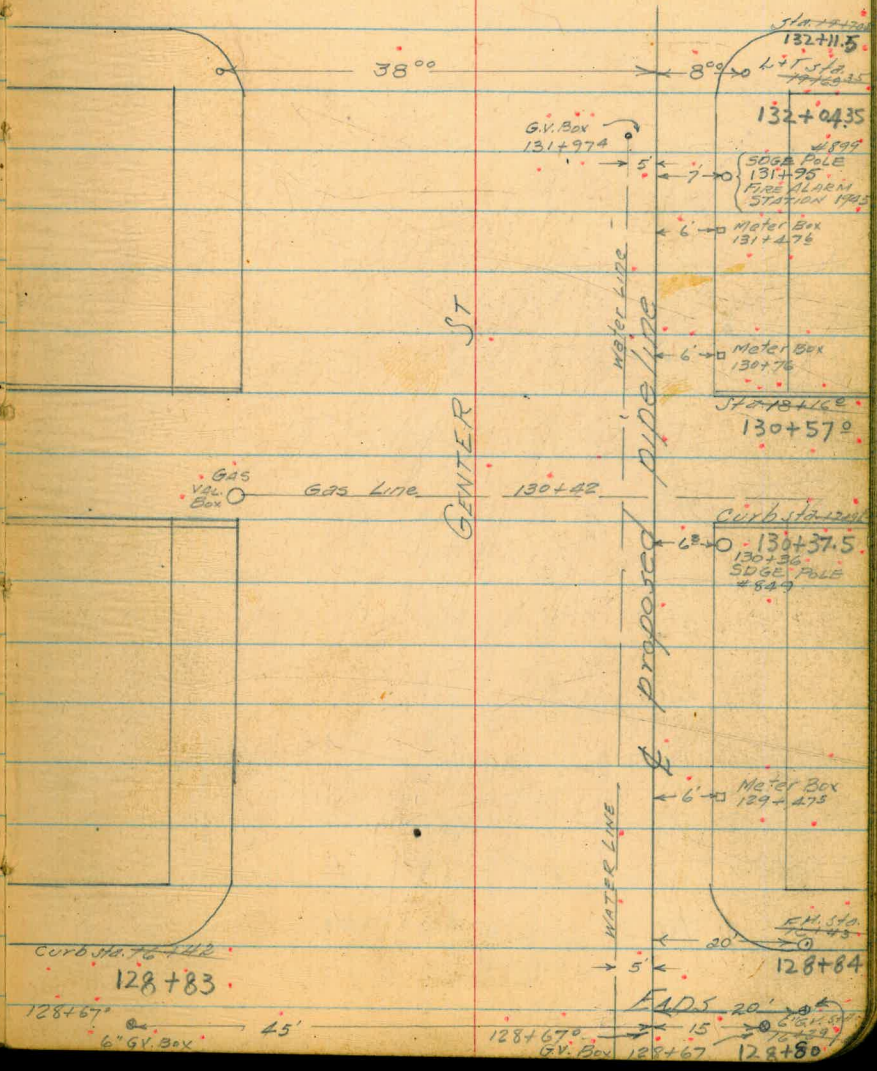
CONT'D. From Pg. 10

123+59.10
123+69.10

R.R. Tracks

132+46.35
 STA 132+46.35
 132+41.45
 STA 132+41.45
 132+33.40
 STA 132+33.40
 132+28.50
 STA 132+28.50
 FAY

R.R. Tracks



Curb Sta. 128+42
 128+83
 128+67
 6" G.V. Box

128+67
 6" G.V. Box
 128+80
 128+84
 15'

Nov 25, 1948

Rainey
Baker
Rogers

16

(Cont'd in BK 731 pg. 60)

prop line
1123

136+79.31

2 Pt. Sta. 247+00
29°35' Lt

For additional detail
See BK 731 pg. 60.

edge oil sta. 136+00

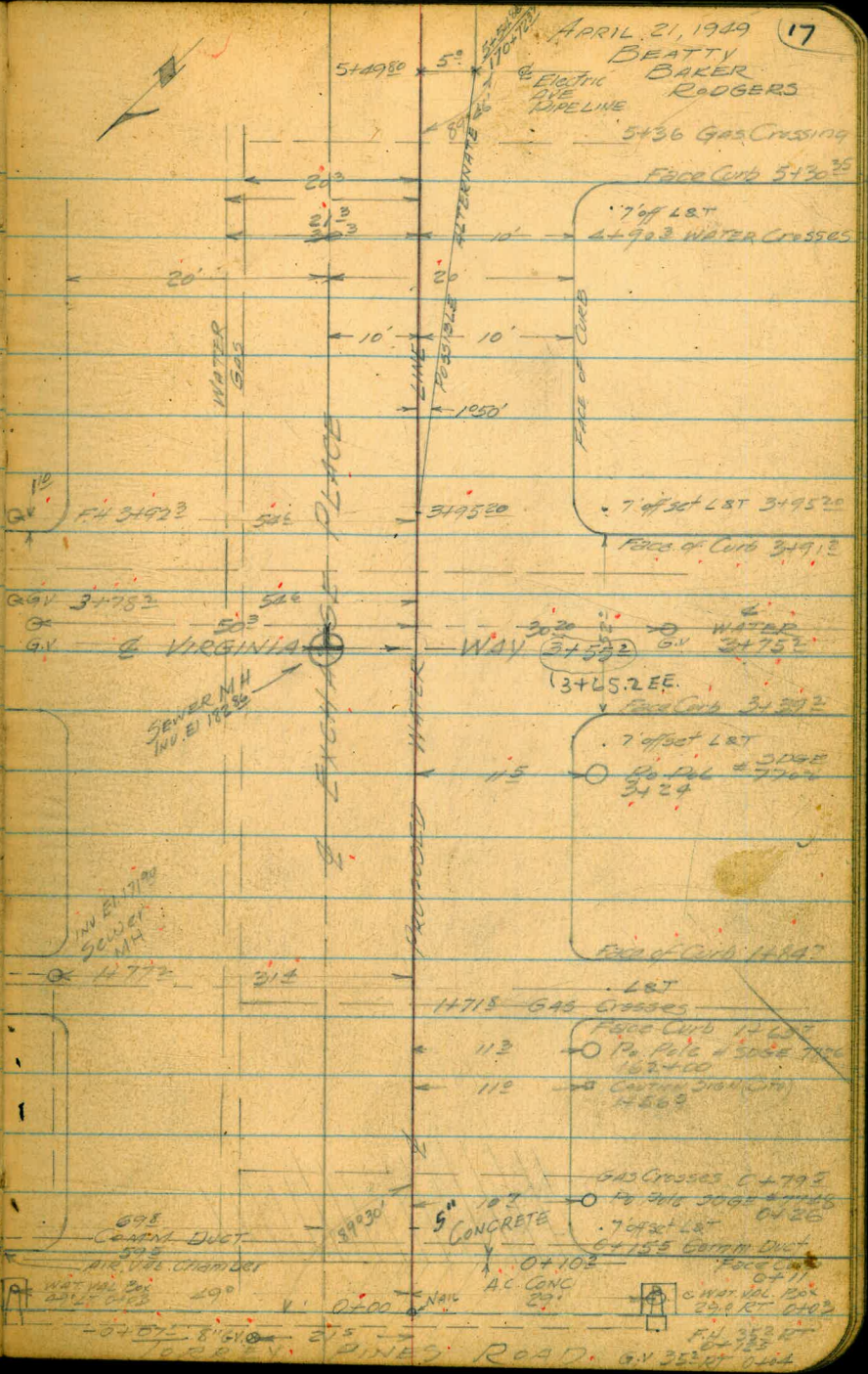
APRIL 21, 1949 17

EXCHANGE PLACE
TORREY PINES ROAD TO OLIVET

PROFILE & PROPOSED WATERLINE

	+ P.S.	H.I.	- P.S.	EL.	Notes
11	0.67	204.81		204.14	See 09.93 x 2.71 Curb 7.0' of 24" Pipe Olivet Lane
11	0.25	191.97	13.09	191.72	
11	0.27	180.12	12.12	179.85	OK
11	7.28	174.99	12.41 12.41	167.71	167.98 EE
			10.28	164.51	WEST R.M. OF M.H. Top 16" Pipe
			12.38	160.71	
			9.49	165.50	EAST R.M. OF M.H. Top 16" Pipe
			12.89	162.19	
			7.88	165.11	✓
+50			7.99	167.00	
1400			5.53	169.41	169.46 EE
+50	11.62	186.48	2.90	172.09	on curb
			0.13	172.86	
2400			11.28	175.20	
+50			8.00	178.48	
3400			4.79	181.69	
+85			2.96	183.52	
+50			2.11	184.37	
+90			1.31	185.17	
4400			1.00	185.48	
11	12.32	198.62	0.18	186.30	x on curb
+50			8.01	190.61	
5400			2.24	196.38	
11	9.61	207.65	0.58	198.04	x sidewalk
+20			8.90	198.75	
5449.80			6.29	201.36	El. R.M. 1662 CASE 1612
5456.80			6.69	200.96	M.H.
178+72.21			3.51	204.16 = 204.14	

B. EQUATION
ELECTRIC AVE
12" PIPE
PAGE 72



5" CONCRETE
A.C. CONC
29'

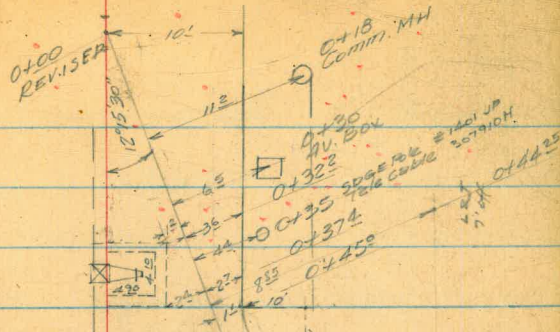
TORREY PINES ROAD. G.V. 35.87 044

APRIL 28 '49

REVISION OF ALIGNMENT
EXCHANGE PLACE

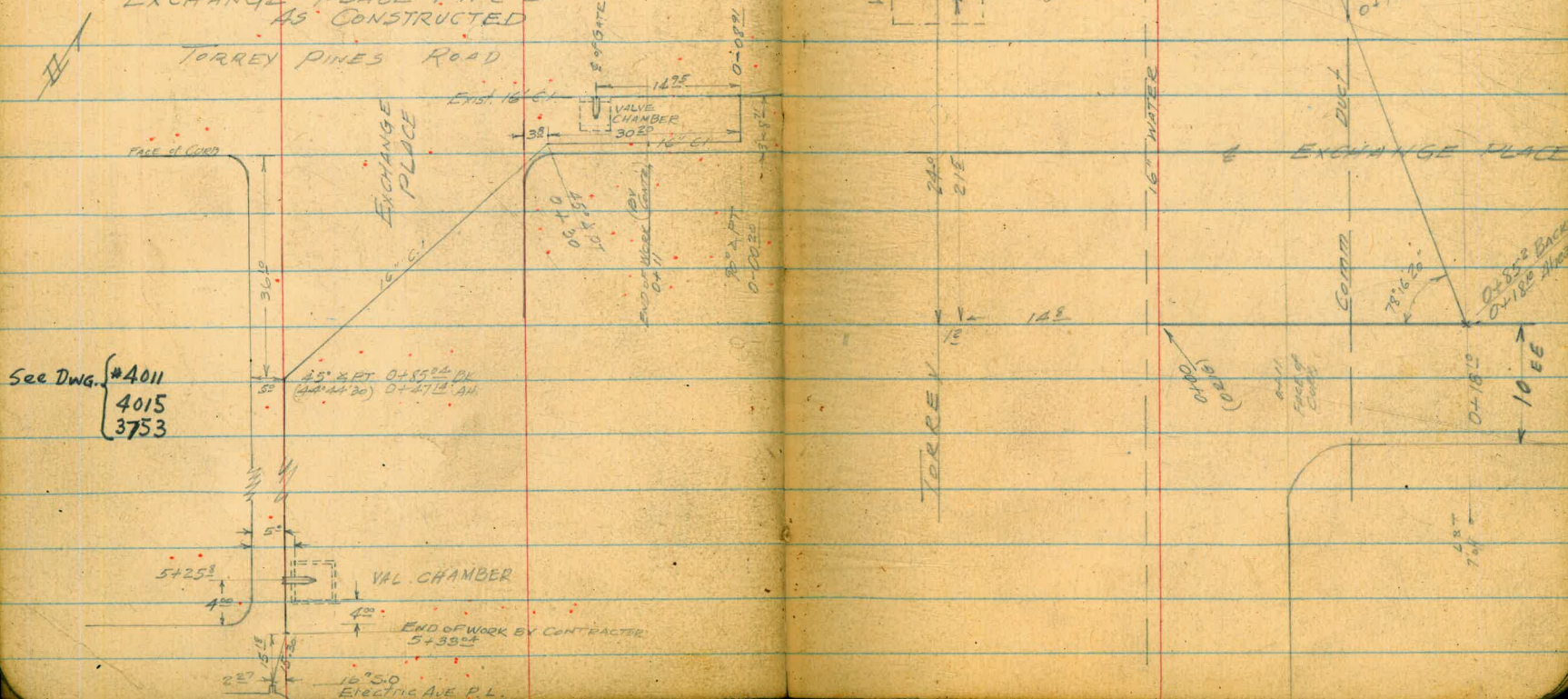
TP	6.33	171.44	165.4	(0+00)
0+00 (REVISED)		7.15	164.29	
0+47		6.38	165.06	
0+734 @ Exchange Place		5.90	165.54	
OK TP		6.33	165.11	

NOTE:
NO TOWER MH
IN THIS VICINITY



EXCHANGE PLACE PIPE LINE
AS CONSTRUCTED

TORREY PINES ROAD



See Dwg. { #4011
4015
3753

JULY 29, 1949
BEATTY
ROGERS
WEST

19

GRADES SET ON EXCHANGE PLACE PIPELINE

NOTE: SEE PAGE 18
FOR SKETCH
AS CONSTRUCTED

IP	Station	Offset	Elev	Station	Elev	Station	Elev
	11.04	176.15		165.11		0+00	0016
			E offset				19.17
	0+00	(E PIPE)	10.75				
	0+07	(90° Bend) EAST	10.92	165.23			C24
	0+11	(SOUTH) BEGIN WORK	10.87	166.23	160.8		C54
	0+30	(45° Bend) WEST	10.60	165.55	160.9		C53
	+64	E St	9.50	166.65			
	0+85	04 BK (45° BEND)	9.73	166.09	163.6		C25
	0+47	14 AL (44° 44' 30" LT)	9.00	166.94	163.6		C23
	0+60		9.00	167.2	163.6		C36
	0+67	30 E of Tee To Regulators	7.09	168.86	165.0		C39
	1+00		4.47	171.32	167.5		C37
	1+50		1.28	174.52	170.7		C32
	2+00						
IP	11.88	188.03	0.00	176.15			
	+50		9.88	177.85	173.8		C41
	3+00		6.57	181.21	177.0		C42
	+50		3.50	184.05	179.0		C51
	+75			184.90	180.1		C48
	4+00		2.79	186.92	181.5		C34
IP	13.08	201.11	0.00	188.03			
	+25			187.2	183.8		C34
	4+50		10.70	190.95	186.5		C37
	5+00		4.88	195.87	192.0		C39
	5+08			196.8	192.9		C39
	5+13		3.46	197.43	193.5		C39

Ground Line
& Elev
over pipe (EE)

Top Pipe as Layed

165.40

165.28

165.55

166.65

166.42

167.15

169.06

171.68

174.87

178.15

181.46

184.23

185.24

190.41

196.23

197.65

163.65

165.91 (0+50)

162.20

165.06

162.61

7/29/49

20

GRADES SET	EXCHANGE PLACE	PIPE	Elev
5+25 ⁸ C 16" G.V.	201.11	E offset	E Elev
5+26	217.239	198.72	198.94
5+35.3 Bottom of GAS LINES		197.31	
5+33 ⁰⁹ END OF BELL 16" C.I. PIPE	0.24 W 200.62		Elev Bottom of 16" C.I.
5+47 ⁸⁹ END OF PIPE	0.24 - 0.14 E 201.25		200.87 194.85
TP	4.62 205.56	0.17	200.94
CK BM		1.39	204.17 = 204.14

5+35
End

August 3, 1949

TP	5.51	170.62	165.11
0+14 ²⁵ } Top 6" vit. tile Sewer	6.77	163.85	at 4
0+40 ² } BR Top TELE DUCT	8.03	162.59	
0+47 ¹ } Top 10" WATER	8.25	162.27	
0+50 ⁸ } Top 6" Gas	7.16	163.46	
0+56 ⁵ } AH Bottom 6" Sewer	5.30	165.32	
	From this point on 4" Conc. Sewer on E. to Sta 1+63, TURNS to right. (Dead)		
TP	2.58	190.61	188.03
3+64 ⁸ } Top vit. Tile Sewer	7.88	182.73	
3+74 ⁸ } Top 6" C.I. Water	7.70	182.91	

PROFILE
ELECTRIC AVE
PIPELINE from Westbourne
To Exchange Place

CONTD. FROM F.B. 731 - pg. 51 E.W.E.

BM. B.P. SW Cor Ben Air + Draper 105.80

5.46 111.26

T.P. 6.72 104.54

112+43.67 3.77 108.31

~~0+00~~ 4.8 103.5

112+93.67 5.5 102.8

113+43.67 5.9 102.4

113+93.67 6.2 102.1

114+43.67 6.6 101.7

114+93.67 7.1 101.2

115+43.67 7.7 100.6

115+78.67 8.1 100.2

REDUCED BY E.W.E. 11/29/48
REVISIONS RM 1-12-49

int with proposed pipeline

Nov 24, 1948 RAINY
BAKER
ROGERS 21

115+93.67 5+00	108.31	8.1	100.2
116+22.67 5+29		8.1	100.2
116+43.67 4+00		7.5	100.8
116+93.67 4+50		6.2	102.1
117+43.67 5+00		4.8	103.5
117+93.67 5+50		3.0	105.3
Senior M.H. Haz. 5+73 Rim	2.47		105.84
118+43.67 6+00		1.9	106.4
118+93.67 6+50		0.8	107.5
T.P.		0.22	108.09
7.18	115.27		

119 + 43.67
~~7700~~

115.27

6.6 • 108.7

119 + 93.67
~~7750~~

5.6 • 109.7

120 + 16.67
~~7773~~

5.3 • 110.0

120 + 43.67
~~8100~~

5.3 • 110.0

120 + 93.67
~~8750~~

5.6 • 109.7

121 + 43.67
~~9700~~

6.0 • 109.3

121 + 93.67
~~9750~~

6.2 • 109.1

Sewer M.H. 7+53

Rim

6.28 • 108.99

122 + 43.67
~~10100~~

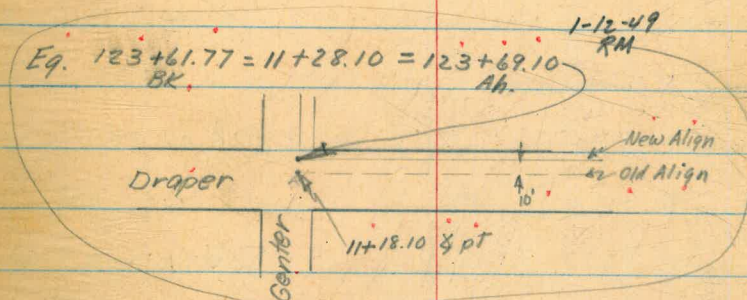
6.9 • 108.4

122 + 93.67
~~10150~~

7.6 • 107.7

123+43.67 11+00	115.27	8.0	107.3
123+46.67 11+03		8.04	107.23
123+56.67 11+13		8.37	106.90
123+61.77 4 Pt. 11+18 3 Pt.		8.30	106.97
123+85 11+44		7.90	107.37
T.P.		7.64	107.63
123+91 11+50	12.40 120.03	12.43	107.60
124+41 12+00		9.85	110.18
124+91 12+50		7.20	112.83
125+41 13+00		4.74	115.29

edge conc.



on 2" pipe N.E. Cor. of GENTER+DRAPER

IP	EL	2/10/49
5.72	113.35	107.63
Single Top Duct 46' Lt.	9.58	103.77
123+79 Single Top Duct 15' Rt.	10.89	102.52

Mantle 200' Lt. & shows 2-Ducts



Electric Ave.
from Westbourne
to Exchange Place

	120.03	
125+91 13+50	2.17	117.86
T.P.	0.53	119.50
12.71	132.21	
126+41 14+00	11.77	120.44
126+91 14+50	9.19	123.02
127+41 15+00	6.60	125.61
127+91 15+50	4.07	128.14
128+17.3 15+76.3	2.8	129.41
128+41 16+00	2.38	129.83
128+91 16+50	1.81	130.40

2/10/28

TD	12.02	119.65	107.63
TD	7.51	126.01	115
ce & sta	126+41 16+00	5.55	120.46 = 120.44
Part E	126+62	4.49	121.52
Top 6" gas pipe 15' RT		6.46	119.55
& sta	126+62		

128+97.4
~~76+56.4~~ 152.21
 1.60 130.61


T.P. 0.44 131.77

129+41 12.95 144.72
~~74+00~~ 10.21 132.51

129+91
~~19+50~~ 9.76 134.96

130+41
~~18+00~~ 7.36 137.36

Jewer MH. No. 130+47
 12406 Rim 7.19 137.53
 Invert Elev. 12.79 131.93

Flows North from South
 EAST 

130+91
~~78+50~~ 4.92 139.80

131+41
~~19+00~~ 2.55 142.17

131+91
~~19+50~~ 0.13 144.59

TP 0.26 144.06

12.18 156.24

131+97.4
~~19+564~~ 156.24
 11.35 144.89

132+11
~~19+120~~
 11.58 144.66

Rail 10.78 145.46

Rail 10.78 145.46

Rail 10.68 145.61

Rail 10.65 145.59

Jewer M.H.
 Invert EL. ¹³²⁺⁵⁸⁰
~~132+556~~
~~20+176~~ Rim 10.97 145.27 ✓
 15.62 140.62

132+63.6
~~20+124~~ 10.71 145.53

132.77
~~20+136~~ 10.41 145.83

132+91
~~20+150~~ 9.84 146.40

P 6.00 151.27 145.27
 Rim M.H. Sewer 3.80 147.47
 280.5 c to 6 M.H. RT. STA
 Invert Elev. 8.63 142.64
 Top of Val. STEM 22 RT 132+532 6.98 144.29
 Top of Val. STEM 35 LT 132+495 7.40 143.87

2/10/49

Rim of
 M.H. 1512
 LT 132+584
 M.H. 2654
 RT. STA
 132+584

Flow West From
 (Nor. SOUTH EAST)



133+41. 21+00	156.24	7.44	148.80
133+91. 21+50		5.20	151.04
134+41. 22+00		3.00	153.24
134+91. 22+50		0.56	155.68
TR		1.11	155.13
	8.83	163.96	
135+41. 23+00		6.01	157.95
135+75.70 23+34.20		4.40	159.56
B.P. NW. Cor. Girard + Center	5.01	^{used} 158.25	= 158.75 - (29.20)
B.M.	4.64	163.59	158.95
135+96Z		3.50	160.1
136+00		2.50	161.1

REDUCED & CHECKED BY EWIE. 12-23-48
 SEE SHT. 15 to 18 incl. - FILE 3829
 Pp. 28 to 45 incl.

end conc.

Dec. 10, 1948

Beatty
Baker
Rogers

on AC Pavit

AC Stldr

136 + 50	163.59	1.4	162.2
+ 61		1.2	162.4
136 + 79 ³¹ (LPT)		3.9	159.7
+ 93		6.41	157.2
+ 97		10.94	152.7
137 + 00 <u>+ 99.5</u>		11.31	152.3
⁰³ 137 + 02		10.94	152.7
+ 07		6.52	157.1
+ 23		6.53	157.1
HP (Rock)	2.18	152. ⁷⁹ 59	12.98
			150.61

Top Rubble, Drain Ditch Slope

Conc. Ditch

Conc. Ditch Bottom

Conc. Ditch

Top Rubble, Drain Ditch Slope

Top of Rubble retaining wall

12-10-48

20

135	137+30	152.59 79	3.8	149.0	Base of well
	+35		3.8	149.0	
136	+36		4.95	147.8	Top - shldr conc drain ditch
	+38		5.48	147.3	Bottom conc drain ditch
	+41		4.93	147.9	Top - shldr of conc drain ditch
13	+50		2.8	148.0	
137	138+00		2.9	147.9	
	+50		2.8	148.0	
	139+00		4.6	148.2	
11	139+40 ^{AL} (L PT.)		2.6	148.2	

139+50 152.⁵⁹₇₉ 4.6 148.2 ✓

140+00 4.7 148.1 ✓

H. Beck 3.38 151.²¹₈₄ 4.96 147.⁸³₆₃

+50 3.4 147.8 ✓

141+00 3.7 147.5 ↓

+50 4.2 147.0 ✓

142+00 4.7 146.5 ×

142+44⁷⁹ (6 PT.) 5.2 146.0 ×

+50 5.2 146.0 ↓

CONT'D. pg. 46

+64⁷⁵ 5.12 146.1 ✓

+70⁵⁰ 5.70 145.5 ✓

NOTE
SEE REVISED PROFILE
ON CROSS SECTIONS
PAGE 46-49

x-section
145.5 146.1 149.0
5.2 5.1 2.2
10 3 9
Top side Conc-Rubble drain ditch

Bottom of ditch

VOID

		151.21		
142+76 ²⁴			5.22	145.99
TP (Rock)	11.05	159.48	2.78	148.23 ⁴³ ✓
+84			12.2	147.3
143+00			11.4	148.1
+04			11.0	148.5
+10			11.9	147.6
+13			11.2	148.3
+50			8.1	151.4
+58			6.8	152.7
+71			5.0	154.5
144+00			3.0	156.5
H (Rock)	13.01	171.12	1.37	158.11

12-14-48
Same Party
- Fair

23

X-SECT

145.8	146.0	145.4	148.9	149.5	148.7
5.4	5.2	5.8	2.3	1.7	2.5
10	3.0	1.5	5	8	10

Tap - 50ldr Conc Rubble drain ditch

149.9	149.5
13.6	10.0
4	6

145.8	148.9	147.8 (ex. reduced)
13.7	10.6	11.7
10	2	8

150.0	153.2
9.5	6.9
10	10

153.8	159.3
5.7	0.2
10	10

124+25 171.12 10.3 160.8 EWE
+60.9

+64 5.8 165.3 EWE
+65.2

+75 6.2 164.9 EWE
+65.0

+90 4.6 166.5 EWB
+66.6

IP (Rock) 12.41 183.52 0.01 171.11

125+00 14.7 168.8

+19 10.5 173.0

+26⁷⁵ Edge of Oiled RD 10.8 172.7
4" Thick

+54 Edge of Oiled Rd. 11.7 171.8

+58 Ditch 12.2 171.3

+59 Ditch 12.3 171.2

155.8 EWE
~~165.8~~
15.3 13.6
12 8

157.5 EWE
~~167.6~~
9.8 7.9 7.4
3 7 10

161.8 EWE
~~161.9~~
166.8 167.3 EWE
~~167.4~~
4.3 3.8
6 10

163.5
~~162.0~~
9.2 7.6
7 6

167.2 168.1 EWE
~~167.3~~
3.9 3.0
7 10

161.9 163.1
~~162.0~~
9.2 8.0
10 8

169.2 171.1 EWE
~~169.2~~
1.9 0.0
5 10

160.8 166.5 175.4 175.8
22.7 17.0 8.1 7.7
10 2 12 17 Edge oil

167.8 173.6 173.6 173.9
15.7 9.9 9.9 9.6
10 3 5 10
2.0 oil

169.8 171.8 173.6
13.7 11.7 9.9
10 6 10
oil

171.0 171.3 171.6 175.5
12.5 12.2 11.9 8.0
12 2 5 10
oil

125 + 67	183.52	{ 7.2 6.1	176.3 177.4
146 + 00		1.9	181.6
HP (Rock)	11.70	195.03	0.19
+ 19		10.7	184.3
+ 40		6.1	188.9
+ 50		4.9	190.1
+ 87 ⁵⁰ Pet.		3.0	192.0
147 + 00		3.6	191.4
+ 25		4.4	190.6
+ 40		3.7	191.3
HP (Rock near IX)	6.20	189.77	11.46
+ 63		1.0	188.8

172.5	180.6	181.7
11.0 10	2.9 7	1.8 10
178.6	186.0	
4.9 10	+ 2.5 10	
181.5	189.4	
13.5 10	5.6 10	
184.7	191.8	192.6
10.3 9	3.2 8	2.4 10
186.1	193.0	
8.9 10	2.0 10	
194.6	189.2	
0.4 10	5.8 10	
187.9	189.2	194.1
7.1 10	5.8 7	0.9 10
188.8	193.7	
6.2 10	1.3 10	
189.4	193.8	
5.6 10	1.2 10	
183.6	191.9	
6.2 10	+ 2.1 10	

1474.85 189.77 4.8 185.0

177.5 181.9 186.7 188.1
 $\frac{12.3}{25} \frac{7.9}{17}$ * $\frac{3.1}{5} \frac{1.7}{10}$

148+00 6.2 183.6

178.6 178.4 178.5 182.9 186.1
 $\frac{11.2}{15} \frac{11.4}{10} \frac{11.3}{5} \frac{6.9}{2}$ * $\frac{3.7}{10}$
 Gully Gully

+04 7.2 182.6

178.5 178.7 178.2 178.6 181.7 184.5 185.7
 $\frac{11.3}{15} \frac{11.1}{10} \frac{11.6}{7} \frac{11.2}{3} \frac{8.1}{1}$ * $\frac{5.3}{8} \frac{4.1}{12}$

+05⁰⁵ (L RT) 8.6 181.2

181.8 182.5 181.3 181.2
 $\frac{8.0}{2} \frac{7.3}{2} \frac{8.5}{6} \frac{8.6}{10}$ (RT & T. FWD TANG)

+07 10.8 179.0

179.5 182.1 179.2
 $\frac{10.3}{12} \frac{7.7}{6}$ * $\frac{10.6}{10}$

+11 (E of gully) 11.4 178.4

+14 10.5 179.3

177.8 180.2 180.5 181.7
 $\frac{12.0}{13}$ * $\frac{9.6}{3} \frac{9.3}{10} \frac{8.1}{12}$

+25 10.4 179.4

178.0 179.9 182.5
 $\frac{11.8}{13} \frac{7.9}{8}$ * $\frac{7.3}{11}$

+29 (Loose Fill) 8.2 181.6

179.9 179.9 181.3 184.5
 $\frac{9.9}{12} \frac{9.9}{9} \frac{8.5}{2}$ * $\frac{5.3}{10}$

+50 8.0 181.8

148+77 189.77 6.4 183.4

+87 6.0 183.8

+90 7.5 182.3

+95 9.2 180.6

148+97²¹ (L PT) 9.1 180.7

149+00 9.0 180.8

+02 8.4 181.4

+18 Edge oiled RD 7.7 182.1
4" Thick

+20 oiled Berm 6.9 182.9

149+23³³ L PT 7.8 182.0

180.0 180.0 185.9
7.5 7.8 3.9
10 6 10

180.3 180.4 185.2 186.3 186.9
9.5 9.4 4.6 3.5 2.9
12 3 2 7 10
Edge oiled

180.7 181.1 180.8 180.9 186.4 187.6
9.1 8.7 9.0 8.9 3.4 2.2
9 6 4.5 1 7 10
3rd 50

179.7 182.0 182.9 183.0
10.1 7.8 6.9 6.8
11 3 6 10
2 2 1 20

178.2 181.2 183.0 183.2 182.7 183.2
11.6 8.6 6.8 6.6 7.1 6.6
10 3 1 3 2 9
Berm 20 20

(RT. & To
30' Tang.)

(RT. & To FWD)
TANG

	186.59		
152+50		83	158.3
153+00		84	158.2
+50		95	157.1
IP (Low Gas Meter) (Max 153+40)	0.28	157.87	9.00 157.59
154+00		13	156.6
154+00.46 X PT.		13	156.6
+09	# Conc. Gutter (0.3' dia. on top) Conc. 8" Thick	1.70	156.2
154+13.52 X PT.		1.27	156.5
34.53 154+24.2	E Pearl St.	1.24	156.63
" " Top 8" Sewer	(4.92' lower)	6.16	151.71
154+60	# Conc. Gutter (0.3' dia. on top) Conc. 8" Thick	2.74	155.1
"	Top 24" Conc. Pipe - Drain	4.24	153.63
155+00		3.1	154.8
SET 71 (Rock)		2.61	155.26
H	0.14	145.19	12.82 145.05

NOTE:
SEE REVISED PROFILE
& CROSS-SECTIONS
Pg. 46-49

		145.19		
180.0' +80.2 LT. of Sta. 154+243	{ E. Edge Rim San Sewer M.H. Invert Elev.	3.37	141.82	
		6.30	138.89	
IP	0.38	132.92	12.65	132.54
IP	0.67	120.70	12.89	120.03
ck B.M.		5.11	115.59	115.17 ?
IP	12.64	167.90		155.26
IP	12.75	180.42	0.23	167.67
172.0' +85.4 RT. of Sta. 154+243	{ W. Edge Rim San Sewer M.H. Invert Elev.	0.75	179.67	
		5.60	174.88	
IP	0.49	155.75		154.26
155+50		3.8		152.0
+75		5.9		149.9
156+00		9.2		146.6
+01 ⁰⁵	Edge Conc Driveway	9.24		146.5
+11 ³⁵	Edge Conc Driveway	10.10		145.7
IP	1.27	143.97	13.05	142.70

S.E. CORNER GIRARD & PEARL, B.P.M.

Note:-

San. Sewer Profile, levels
off across Cabrillo Ave, but
no M.H. at intersection in
evidence.

For F.L. Elev. of Sewer
at E. & W. M.H. See Dwg. 2754-B
EWE.

146.5

9.24
8

146.1

9.69
8

	143.97		
156+50		1.3	142.7
157+00		5.3	138.7
+50		6.7	137.3
14' LT. of (E. Edge Rim San Sewer M.H.)	7.13		136.8
Sta. 157+65 (invert Elev.)	12.94		131.0
158+00		7.5	136.5
+01	Top CI. Sewer (4" 5' LT. E)	2.8 10.3	133.7
+50		7.9	136.1
+62	Top 4" CI Sewer (5' LT. E)	8.4	135.6
+99	Top 4" CI Sewer	10.2	133.8
159+00		7.7	136.3
+50		6.4	137.6
+59.7	Top 4" Sewer (5' LT.)	8.3	135.7
+75.88	PT	5.1	138.9
15' LT. of (N. Edge Rim San Sewer M.H.)	6.22		137.8
Sta. 159+70.8 (invert Elev.)	10.68		133.3
11.83	154.79	1.01	142.96
160+00		14.0	140.8

Crosses at Pt. X
Flow, west from East North

Flow down from Olivet, Se. on Cabrillo
Ten Large Boulder at E. Prop. Line

		154.79		
160+50			8.4	146.4
161+00			4.2	150.6
TP (Rock)	12.20	167.08	0.11	154.68
+50			11.1	156.0
+62	End of oil Surf.		10.0	157.1
162+00			6.6	160.5
365 Lt. of	SW Edge Pitt. San Sewer Invert. Elev.			
162+47		M.H.	1.29	165.7
+50			7.03	160.1
			1.0	166.1
TP (Rock)	12.56	179.32	0.32	166.76
163+00			6.9	172.4
TP (Rock)	12.42	191.38	0.36	178.96
+50			12.7	178.7
164+00			6.9	184.5
+50			2.7	188.7

Note: - ϕ is 5° SE. of ϕ Olivet St to clear Sewer line
But this M.H. shows, line should be moved out
another 2 or 3 ft.

	191.38		190.91 EWE	
162+97.90	Beginning Conc Pavt (0.75" Thick)	0.47	190.89	191.10
IP End of Curb Sta.	11.78	203.15	191.37	
165+00		12.19	191.0	
43 LT. of (E Edge Rim San Sewer NH Sta. 165+073)	Invert. Elev.	12.12 16.37	191.0 186.8	
+19.50		11.62	191.5	
+50		9.35	193.8	
166+00		5.59	197.6	
+50		1.89	201.3	
167+00		0.0	203.2	
IP Top Curb Nor. Sta.	5.32	207.99	0.48	202.67
+50		4.23	203.8	
168+00		4.65	203.3	

Note: All distances from & to SEWER M.H.s and power, telephone poles, etc are to the E of Manhole, poles, etc.

See Previous Note
Flow Down Outlet ♂

168+50	207.99	5.11	202.9
169+00		5.41	202.6
+50		5.71	202.3
170+00		6.02	202.0
+50		6.53	201.5
+60		6.82	201.2
+675 # Gutter		7.30	200.69
170+72 ³³ A.P.T.		7.04	201.0
TP	11.95	216.09	3.85
171+05 ⁷⁷ (B.C)		11.94	204.2
+25		9.94	206.2

on Curb at L&T, 7' offset Prop Line, So. Line Olivet Lane

203.5

12.57

5.18

Low Gutter Elev

205.6

10.53

5.7

171+50		216.09	7.15	208.9
+75			4.04	212.1
172+00			1.05	215.0
TP curb 5' ahead 58	12.39	228.43	0.05	216.04
+25			10.85	217.6
172+34 ⁰	(E.C.)		9.87	218.6
OK B.M.			8.50	219.93 = 216.81
+50			8.45	220.0
172+86 ⁴⁹	X PT.		4.98	223.5
173+00			3.01	225.4
TP (Rock)	12.47	240.74	0.16	228.27
+50			7.05	233.7
TP (Rock)	9.22 8.22	249.89 248.89	0.07	240.67
174+00			8.28	241.61

208.3

7.80

6.02

211.4

4.69

5.82

214.6

1.53

4.93

217.1

11.37

5.11

217.9

10.50

1.85

P. PIN. NEAR CURB NEAR AVE at
Country Club Drive

223.4

225.4

233.7

240.6

216.09

7.80

208.29

Low Gutter Elev

210.11

(pick up cross ref to Brass plug in book 756) JK 45.

Note: FB 730, pg. 70 Nail in P.P. PEPITA & Co. Club
~~SE~~ Cor. corrected to B.M. 246.87 PER RAINEY.
 S.W. 12-23-48

174 + 32.65	ca 1.27 ±	5.25	244.6
			USE ↑
CK T.B.M.		2.73	247.16
		276	246.79 = 246.87
T.B.M.	0.15	247.31	247.16
TP. Rock		12.64	234.67
	0.07	234.74	
TP #2 (Broke in pavement)		12.55	222.19
	0.09	222.28	

Nail on Pav. Edge #7724
 SW Cor. Pepita & Country Cl

235 · 219.93 = 219.93 - 26.88
 Use ↑
 B. Pin. Nor. Curb Mar Ave at Country Club Dr.

ELECTRIC AVE P.L.

(CONTO. from pg. 31)

STA. 142+44.79 TO STA. 154+25.63
REVISED PROFILE & CROSS-SECTIONS

9P (Rock)	9.50	157.93	148.23	This Book pg. 32
142+44.79 (X PT.)		11.9	146.0	X PT.
+ 50		11.9	146.0	X
+ 74°		12.0	145.9	+
+ 796		12.5	145.4	+
+ 843		12.1	145.8	+
143+00		11.0	146.9	+
+ 10		9.5	148.4	+
+ 17		10.6	147.3	+
+ 19		9.4	148.5	+
+ 50		8.3	149.6	+
+ 76		5.8	152.1	+
144+00		5.3	152.6	X
11P (Rock)	11.90	165.78	153.88	
+ 40		8.8	157.0	X
+ 50		9.9	155.9	X
+ 75		9.1	156.7	+
145+00		7.5	158.3	+
+ 15		7.3	158.5	+
14P (Rock)	12.21	176.10	163.89	

JAN. 10, 1949

Boggy
Coker
Rogers

46

X PT.

West edge conc rubble Ditch

" " "

East Edge " " "

145.7	146.8	147.7
12.2	9.1	10.2
7	6	11

Edge ditch

El.
Rob
Dist

9.9	6.8
10	10

7.2	2.6
10	10

13.1	6.8
10	10

10.2	3.8
8	10

9.0	3.3
10	10

JAN. 10, 1949
Cold!

47.

REVISED PROFILE & X-SECTIONS (CONT'D)

Station	Profile	X-Section	Profile	Notes	Profile	X-Section
145+50	176.10	8.0	168.1	+	126 10.	6.6 8 6.1 Edge of
+53		7.0	169.1	+		
+57 ³		7.35	168.75	+		Edge oiled road
+69		6.86	169.22	X	8.4 10.	5.8 10.
+79 ²		7.03	169.07	↓		Edge oiled road
+84		7.1	169.0	↓		
+91		7.9	168.2	+		
146+00		5.4	170.7	↓	8.2 7.	8.6 6 3.5 2. 0.8 10.
+01		4.5	171.6	+		
+21		1.6	174.5	+		
P (rock)	12.34	186.90	1.54	172.56	-	
+50		12.0	174.9	X	15.4 10	8.4 10
+89 ²⁹ (2 PT)		8.4	178.5	X	9.0 6.	6.9 9
147+00		7.3	179.6	+	7.9 6	6.1 7
+32		4.0	182.9	X		
+50		0.8	186.1	↓	4.7 10	4.24 10.
+86 ²⁶ (2 PT)		2.6	184.3	+		RT X To Bl. Tang. +0.1 8
CK P		3.34	183.56 = 183.56			RT X To FWD. Tang. 2.3 7
148+00		4.9	182.0	X	5.3 10	4.9 7. 7.0 9. 7.3 15.

JAN 10, 1949

49

REVISED PROFILE & X-SECTIONS

	163.98		
152+00		49	159.1 +
+50		57	158.3 +
153+00		63	157.7 +
+50		70	157.0 +
+89.85	X PT	76	156.4 +
+962		8.00	156.0 +
154+00 ⁵		7.90	156.08 +
+15.28 Back		7.33	156.65 +
+25.63 Ahead			
OR TP (ROCK)		8.72	155.26 = 155.26
SET P NW COR. NW CURB RETURN		8.65	155.33

Edge of Conc GUTTER

(0.3 A.C. on top of Conc Gutter 8" THICK)

JAN. 10, 1969
RAIN, SLEET 3:50 PM

50

ELECTRIC AVE P.L.

PROFILE $\frac{1}{2}$ OF PIPE FROM
COUNTRY CLUB DR. TO RESERVOIR

15 TRM.	10.22	257.38	247.16	pp 45	NAIL IN PO. Pole
174 +02.21 ²¹	(X PT. 90°00'00")	15.31	242.07		& Country Club Drive
15	+14.36 ^{10.15}	15.55	241.83		Gutter @ Face of Curb
	+12.36	15.05	242.33		Top of Curb
	+15.06			15.05	
	+15.5	14.6	242.8		
	+19.43 ^{8.55}	13.8	243.6		
15	+27.98 ^{7.80}	6.2	251.2		
	+35.78 ^{10.32}	4.6	252.8		
0	+39.50				255.1 2.3 2.7 Top of Parapet wall on roof of pump house
35 TD	12.22	268.36	1.24	256.12	
	+46.2 ^{5.94}	10.3	258.1		
	+52 ^{1.42}	8.9	259.5		
	+57.4 ^{7.5}	7.3	261.1		Top 8" Surge pipe ?
	+60.9	3.7	264.7		
	+78.4	3.0	265.4		Edge of Conc. (ground line)
TD	5.36	269.96	3.76	264.60	
			2.29	267.67	Roof of Reservoir
			3.40	266.56	Top Conc. Curb (6')
			4.84	265.12	Inside Lip of Res. High water (7" wide) (1:1)

JAN 11 1949
Cold.

51.

PROFILE OF STAIRS & CURB AT PUMPHOUSE

		269.96		
			5.01	264.95
			5.38	264.58
			5.35	264.58
			5.90	264.06
P	0.07	257.38	12.65	257.31
			2.73	254.65
			3.15	254.23
			3.24	254.14
P	4.96	249.49	12.85	244.53
			6.98	242.51
			7.30	242.19
			7.52	241.95
			7.50	241.99
			8.03	241.46
OR B.M.	2.70	249.86	3.33	247.16 = 247.16
			6.9	243.0
			11.2	238.7

3.85	LT	174 + 65.64	EL. of 3rd Landing
"	"	174 + 60.18	" " "
"	"	174 + 58.83	EL. of Stair curbing at South edge of Steps
"	"	174 + 58.83	" " " " " "
"	"	174 + 43.30	" " "
"	"	174 + 43.30	(Stair landing 0.32 lower)
"	"	174 + 39.45	EL. of Stair Curb
"	"	174 + 19.16	" " "
"	"	174 + 19.16	EL. of Landing
"	"	174 + 15.06	EL. of Curb
"	"	174 + 14.36	EL. of Curb
"	"	174 + 14.36	EL. of Gutter

242.00
2.50
244.50
2.70
245.80

Elev. of 8" C.I. pipe. Sta. 174 + 32.21

Rim of Sewer N.H.

Invert of

2/10/28

(Cont'd from pg. 48)

Elev. Comm. Duct Crossing Sta 149+

	4.98	175.33	8.22	167.11	Rim of Comm. M.H. po. 27
149+76 ^{et} Top of Comm. Duct					
Bottom of " "			8.62	166.71	□ 1-Tile Duct
149+75 ³⁶ Top of Comm. Duct			8.35	166.98	
149+74 ⁶⁶ Bottom " "			9.15	166.18	□ 4-Water Duct

JULY 8 1949
BEATTY,
ROGERS,
WEST.

53

GRADES SET — ELECTRIC AVE P.L.
(Continued from pp. 80 Bk. 731)

TBM	272	97.30	94.58	Top. Elevat	GRADE CUT	
76+15 ⁹⁵		6.1	91.2	84.10	071	✓
+47 ⁴⁰		6.1	91.2	84.10	071	✓
+78 ⁸¹		5.8	91.5	85.4	061	
77+10 ²²		5.6	91.7	85.4	063	
+41 ⁶⁶		5.5	91.8	85.4	064	
+73 ¹⁸		5.5	91.8	85.4	064	
78+04 ⁷⁰		5.4	91.9	85.6	063	
+36 ²²		5.2	92.1	85.8	063	
+67 ⁷⁴		5.0	92.3	86.1	062	
+99 ²⁶		4.7	92.6	86.3	062	
79+30 ⁷⁸		4.4	92.9	86.5	064	
+62 ²⁰		4.2	93.1	86.8	062	
+93 ⁸²		4.0	93.3	87.0	062	
80+25 ³⁴		3.5	93.8	87.2	066	
+56 ⁸⁶		3.8	93.5	87.2	061	
81+00		3.5	93.8	87.8	062	
+50		3.2	94.1	88.2	059	✓
82+00		3.1	94.2	88.2	062	
PA NAI	5.41	99.58	3.13	94.17		

7/8/49

54

GRADES SET — ELECTRIC AVE P.L.

Station	Grade	Offset	Station	Grade	Code
82+50	99.58	5.2	94.4	88.2	C62
83+00		5.0	94.6	88.3	C63
+50		4.9	94.7	88.5	C62
84+00		4.9	94.7	88.8	C52
+50		4.9	94.7	88.9	C52
85+00		5.1	94.5	88.4	C61
+50		5.5	94.1	88.0	C61
86+00		5.9	93.7	87.6	C61
+50		6.3	93.3	87.5	C58
+86.87		6.8	92.8	87.4	C54
87+18.35		7.0	92.6	86.1	C65
+49.83		6.2	93.4	85.2	C82
+65.00		5.7	93.9	85.2	C87
+77.31		5.4	94.2	86.1	C81
CK TBM		5.56	94.02	93.96	TOP F.H.

AIR Valve Sta 84+32.50

Set. FIN GRD Rod 5.31
EL 94.83

BM 93.96

6.18

N 100.14

E Curb $\frac{4.92}{95.22}$ Rod
ELW Curb $\frac{5.41}{94.73}$ Rod
EL- $\frac{6.18}{93.96}$

7/12/49

55

GRADES SET — ELECTRIC AVE P.L.

TBM	11.50	105.46	92.96	Top. FH.
87+85 ²⁹			11.0	94.5 • 86.75 C77
88+00			10.5	95.0 • 87.9 C7L
+50			8.3	97.2 • 91.75 C54
89+00			5.0	100.5 • 95.6 C49
+10 ⁹⁰			4.4	101.1 • 96.39 C47
+42 ²⁹			0.6	102.9 • 96.70 C82
P	7.58	112.12	0.92	104.54 •
+54 ⁹⁰			5.4	106.7 • 96.70 C100
SET P			2.53	109.59 N.E. Cor. ^{Corner} Head ^{will}

July 14 1949

BEATTY
ROGERS
WEST

56

GRADES SET → Electric Ave. P.L.

IP	11.78	121.37	109.59	
89+62 ⁴¹		11.0	110.37	97.33 C130
+93 ⁵¹		11.3	110.1	102.30 C78
90+24 ⁷⁹		10.0	111.4	105.0 C64
+56 ²⁰		8.3	113.1	107.43 C57
91+00		5.9	115.5	109.1 C64
+50		4.6	116.8	111.0 C58
92+00		3.4	118.0	112.9 C51
+13 ⁵⁹		2.4	119.0	113.27 C50
+42 ⁵⁰ 2" A.V.A.				
+45		1.6	119.8	113.39 C64
+76 ³⁷		1.9	119.5	116.0 C85
93+07 ⁷⁸		4.3	117.1	108.62 C85
+39 ²⁸		5.5	115.9	108.51 C74
+70 ⁷⁸		5.0	116.4	108.41 C80
+82 ⁸¹				107.73
IP SET		7.09	114.28	1" P NEAR POWER POLE

POE

July 15, 1949

57

GRADES SET - Electric Ave P.L.

IP	3.23	119.63	116.40			
93+82.81			2.8	116.8	107.73	C91
93+90.79			3.2	116.4	107.20	C92
94+22.30			3.4	116.2	104.81	C114
+53.60			6.4	113.2	102.26	C109
+85.14			10.4	109.2	100.97	C82
IP	2.75	117.03	5.35	114.28	111.17	119.40
95+48.09			11.9	105.1	98.10	C70
+79.62			13.1	103.9	97.70	C62
96+11.6			13.2	103.8	97.70	C61
+42.60			12.9	104.1	99.62	C45
+50			12.8	104.2	99.65	C45
97+00 P	11.97	116.66	12.34	104.69	99.35	C48
+50			11.6	105.1	100.05	C50
98+00			11.0	105.7	100.25	C54
+25				106.0	100.2	C58 ✓
+50			10.3	106.4	100.7	C57 ✓
+55				106.6	100.8	C58 ✓
99+00			7.8	108.9	103.1	C58 ✓
+50			5.4	111.3	105.7	C56 ✓
+75				111.9	107.0	C49 ✓
100+00			4.8	111.9	107.0	C49 ✓
+50			4.9	111.8	107.0	C48 ✓
+65				111.6	107.0	C46 ✓
101+00			5.6	111.0	106.2	C48 ✓

Note: Revised Grades due to Water & Sewer
Confliction.

July 21, 1949

108

(2" A.V.A.
IN PLACE)

7/15/29

GRADES SET — ELECTRIC AVE. PL.

Station	SET	116.66				
101+50			6.8	109.9	105.0	C42
TP	7.28	113.05	10.89	105.77		
102+00			4.2	108.9	103.8	C51
+50			5.6	107.5	102.6	C49
+72 ²⁹			6.1	107.0	102.06	C49
OK BM.	7.28	113.08	7.28	105.77	105.80	
103+00			6.9	106.2	100.4	C58
+35 ²⁸			7.4	105.7	98.3	C74
+66 ⁷⁸			7.1	106.0	98.3	C77
104+00			6.7	106.2	98.3	C81
+25			6.6	106.5	98.3	C82
+50			6.5	106.6	98.3	C82
105+00			6.2	106.9	99.6	C73
+55 ⁷⁹			5.8	107.3	99.46	C78
+87 ²²			5.9	107.2	101.5	C57
106+00			6.0	107.1	101.5	C56
106+15 ⁸¹			6.1	107.0	101.5	C55
+50			6.2	106.9	101.6	C53
107+00			6.4	106.7	101.6	C51
+13 ¹¹			6.5	106.6	101.5	C51
+44 ⁶¹			6.6	106.5	101.3	C52
+76 ¹⁰			6.8	106.3	100.97	C53

58

108+2670

Confliction of Sewer & water at Bon Air Place

BM	105.77	
	11.49	
Hi.	117.26	117.26
	11.34	8.75
	105.92	108.51
Top Sewer		Top 6" water

BM	105.97	
	5.50	
Hi	111.47	
	5.41	106.06
		4.38
		107.09

SET 2" AVE - 107+42⁶ EL 106.57
 Rod 4.90
 Curb W
 Curb E

GRADES SET — ELECTRIC AVE PL.

108+00			6.6	106.5	1009	C56
CK BM. 1BP SW Cor. Nautilus	110.31		7.11	105.97		
+39 ¹²	B.C.		3.8	106.5	1008	C59
+70 ⁶²			4.2	106.0	1003	C57
109+02 ¹²			4.4	105.8	1001	C57
+33 ⁶²			4.6	105.6	999	C57
+64.98 ^{EE}			4.8	105.4	996	C58
+65 ¹² (E.C.)			5.0	105.3	994	C59
+96 ⁶²			5.2	105.0	992	C58
+28.24 ^{EE}			5.5	104.8	989	C59
110+28 ¹² (B.C.)			5.4	104.2	983	C59
+59 ⁶²			5.6	104.2	980	C62
111+91 ¹²	5.16	109.74	5.73	104.58	986	C60
111+22 ⁶²			5.9	103.8	976	C62
+54.10 (E.C.)			5.95	103.79	976	C62
112+06 ³³	Begin	Valve Chamber	6.09	103.65	976	C61
112+16 ¹⁷	End	" "	6.35	103.39	976	
CK BM						
OR Sta 111+	Edge Post	orig. line.	5.71	104.03 = 104.03		

987
573
152

104.17
5.17
109.29
99.7
9.59
109.35
99.4
9.95

NOTE: REVISED ALIGNMENT.

STA. 108+39¹² B.C.
 A. 3°02' RT
 R. 2377.4 EE.
 T. 63.006295
 L. 126.00
 +64.98^{EE}
 STA. 109+65¹² E.C. 125.86
 +28.24^{EE}
 STA. 110+28¹² B.C.
 D = 3°02' LT
 R = 2377.4 EE
 T = 63.006295
 L = 126.00
 STA. 111+54¹² E.C. 125.86
 EE

FOR Elev. of Top of Chamber
See 179.60

Sta. 112+06³³ to Sta. 112+16¹⁷
GRADES SET FOR Valve Chamber
DRAGER AT Nautilus Westbourne

	Red	Elev	Sub GRADE	Cuts	
④ S SE Cor	5.79	103.95	95.46	885	C88
④ E " "	5.62	104.12	95.46	887	C90
④ E NE Cor	5.73	104.01	95.11	889	C92
④ N NE Cor	6.04	103.70	95.11	886	C89
④ N NW Cor	6.29	103.45	94.67	888	C91
④ W NW Cor	6.16	103.58	94.67	887	C92
④ W SW Cor	6.01	103.73	95.02	887	C90
④ S SW Cor	6.02	103.72	95.02	887	C90

Top of pipe checked Elev
 So. End 99.52
 Nor. End 99.53
 97.42
 Pipe Graded originally
 to 97.6

FOR

99.52
2.17
97.25

July 25 1949

Bessie
Rogers
West.

60

GRADES SET - ELECTRIC AVE PIPELINE

Elev Top of Val Chamber Draper @ West Br.

B.M.	7.99	107.35		103.39		
112+50			4.0	103.4	97.6	C53
113+00			4.6	102.8	97.6	C52
+50			5.1	102.3	97.6	C47
114+00			5.4	102.0	97.6	C44
+50			5.8	101.6	97.0	C45
115+00			6.1	101.3	96.5	C48
+31.6			6.6	100.8	96.9	C46
+62.51			7.0	100.4	96.2	C62
+94.01			7.0	100.4	96.2	C62
1116+25.47			7.0	100.4	95.77	C46
+56.96			6.0	101.4	96.46	C47
1117+00			5.0	102.4	97.9	C45
^R +50	10.87	114.68	3.57	103.81	99.3	C45
1118+00			9.1	105.6	100.5	C51
+50			8.1	106.6	101.8	C48
1119+00			7.0	107.7	103.1	C46
+50			5.9	108.8	104.4	C44
120+10			4.7	110.0	104.4	C56

			^R 103.70
			5.20
NE COR.	5.05	103.85	^L 108.90
SE COR.	4.91	103.99	
SW COR.	5.20	103.70	
NW COR.	5.35	103.55	

July 25 1949

61

GRADES SET — ELECTRIC AVE. P.L.

	114.68					
120+00		4.7	110.0	105.0	C50	
121+00		5.1	109.6	105.0	C40	
+29.39		5.4	109.3	105.0	C43	
+60.70		5.6	109.1	102.85	C63	
+92.13		5.6	109.1	100.7	C80	
122+23.63		6.1	108.6	100.7	C79	
P +55.08	3.26	111.44	6.50	108.18	102.4	C58.
+86.49		3.7	107.7	102.0	C50	
123+00		3.8	107.6	102.7	C79	
+49.49		4.4	107.0	102.9	C40	
+54.41	(Begin Spec)	4.5	106.9	103.0	C30	
(+58.64	Back x PT. of Pipe)					
(+64.61	Back 6' off set.)					
123+73.33	Ahead. (End Spec)	4.2	107.2	103.1	C40	
2" 110 NB Cor						
Center of Drop						
CTP		3.84	107.60	= 107.63		
	11.69	119.32				
123+73.0		12.2	107.1	103.1	4.0	100.2 C69
124+05.10		10.2	109.1	103.1	6.0	100.2 C89 ✓
124+36.57		9.4	109.9	105.4	4.5	103.0 C69 ✓

July 29, 1949

REVISED GRADE DUE TO CONFLICT OF COMMUNICATION (TELE) DUCT.

105.00

102.6 C65

100.2 C89

100.2 C84 ✓

100.2 C80 ✓

100.2 C75 ✓

100.2 C74 ✓

100.2 C68 ✓

100.2 C67 ✓

BM 107.63

+ 4.42

Ni 112.05

- 9.48

Bottom of Comm. Duct 102.57

Notes

119.32

124+67 ³⁴	7.9	111.4	107.4	4.9	106.6	C43	✓
125+00	6.1	113.2	108.7	4.5	108.5	C42	✓
125+50	3.6	115.7	111.2	4.5			
126+00	1.1	118.2	113.7	4.5			
T.P.	0.34	118.98					

12.14 131.12

126+50	10.2	120.9	116.2	4.7			
126+60	9.7	121.4	116.4	5.0			
127+00	7.6	123.5	118.8	4.7			
127+50	5.1	126.0	121.2	4.8			
128+00	2.6	128.5	123.6	4.9			
128+25	1.7	129.4	124.8	4.6			
128+80	0.9	130.2	124.8	5.4			
129+00	0.5	130.6	125.8	4.8			
T.P.	0.51	130.61					

12.70 143.31

129+50	10.4	132.9	128.2	4.7			
130+00	8.1	135.2	130.7	4.5			
130+50	5.6	137.7	133.2	4.5			

	143.31					
131+00		2.9	140.4	135.6		4.8
131+50		0.7	142.6	138.1		4.5
131+60			143.0	138.4		4.6
T.P.		0.72	142.59			
	6.43	149.02				
132+00		4.2	144.8	138.4		6.4
ok to west rail		3.50	145.52			
Top E.H. S.E. Cor. Page Center		4.58	X44.44			
P	7.54	155.98	148.44			August 1 1929
132+5479		10.3	145.7	138.6		073
+5620		9.8	146.2	140.72		053
133+1761		8.4	147.6	143.04		046
+50		6.8	149.2	144.4		048
134+00		4.5	151.5	146.8		047
+50		2.4	153.6	149.1		045
P	11.13	165.75	154.62			
135+00		9.7	156.1	151.4		047
+3789		8.0	157.8	153.00		048
+6233		6.9	158.9	154.00		049
+7217		6.4	159.4	154.00		054
136+03 ⁶⁷		4.5	161.3	154.00		073 & 0° 52' LT

8/1/49

64

GRADES SET — Electric Ave

136+35 ¹²	165.75	4.0	161.8	154.00	C78	± 1°18' LT.
+66 ⁵⁷		3.8	162.0	154.00	C80	± 1°44' LT.
+75 ³¹		5.0	160.8	154.00	C68	± 0°55' RT.
CK 13N		6.79	158.96 = 158.95			

August 2 1949

13M	0.47	115.32	114.85	COND. MEN	NE COR.	
42+10 ³³		12.9	114.0	105.7	C83	
+20 ¹⁷		2.4	112.9	105.7	C72	
+50		3.2	112.1	105.6	C65	
43+00		2.5	112.8	105.5	C73	
+50		4.1	111.2	105.4	C58	
+75		4.8	110.5	105.3	C52	
44+00		5.6	109.7	104.5	C52	
+50		7.1	108.2	102.9	C53	
45+00		9.2	106.1	101.2	C49	
+50		10.4	104.9	99.6	C53	
46+00	1.90	105.50	11.72	103.60	97.9	C57
+50		3.2	102.3	96.3	C60	
+92 ⁵⁰		4.5	101.0	94.94	C61	

8/2/49

65.

GRADES SET. — Electric Ave

105.50

47+239+		5.3	100.2	92.92	C73
+55 ³⁸	Begin Spec.	6.3	99.2	90.90	C83
+65 ³¹	End Spec.	6.6	98.9	90.47	C84
48+00		6.6	98.9	90.2	C87
+50		6.4	99.1	89.9	C92
+60 ³¹		6.4	99.1	89.8	C93
+67 ⁵⁹	Begin Spec.	6.5	99.0	89.7	C93
+75 ⁵⁹	End Spec.	6.8	98.7	89.6	C94
49+00		7.9	97.6	89.5	C85
+50		8.7	96.8	89.2	C76
^P 50+01 ⁵⁹		10.37	95.13	88.8	C67
(+04 ²⁹ B.C.)					
CK B.M.:		5.53	99.97 = 99.97		off COPC MON per

Aug. 2, 1929

66

124
5
139

GRADES SET — Electric Ave

B.M.	7.23	166.18	158.95	Dep. NW Cor GIRARD CENTER
136 + 83 ¹³			7.2	159.0 152.5 C ⁶⁵
137 + 01 ¹⁸			13.9	152.2 147.0 C ⁵² 148.0 C ⁴²
+ 08 ⁹⁹			9.0	157.2 145.6 C ¹⁶ 144.6 C ²⁴
HP + 40 ³²	0.01	153.19	13.00	153.18
47184			5.3	147.9 143.4 C ⁴⁵
138 + 00			5.3	147.9 143.4 C ⁴⁵
+ 50			5.2	148.0 143.4 C ⁴⁶
139 + 00			5.1	148.1 143.4 C ⁴⁷
+ 40 ⁴⁶	PT		5.0	148.2 143.4 C ⁴⁸
+ 50			5.0	148.2 143.4 C ⁴⁸
120 + 00			5.2	148.0 143.4 C ⁴⁶
+ 50			5.4	147.8 143.0 C ⁴⁸
121 + 00			5.7	147.5 142.7 C ⁴⁸
+ 50			6.2	147.0 142.3 C ⁴⁷
122 + 00			6.7	146.5 142.0 C ⁴⁵
+ 22 ³⁵			7.1	146.1 141.7 C ⁴⁴
(+ 44.79) (PT.)				
HP Rock			3.54	149.65
122 + 75 ⁸¹				141.5. 108

GRADES FOR VALVE Chamber
Center at Girard.

⊕	S-SW Cor	6.66	159.52	151.28	C ⁸²⁶
⊕	W-SW Cor.	7.49	158.69	151.28	C ⁷⁴¹
⊕	W-NW Cor	7.27	158.71	151.53	C ⁷¹⁸
⊕	N-NW Cor	7.32	158.86	151.53	C ⁷³³
⊕	N-NE Cor	6.55	159.30	151.87	C ⁷⁴³
⊕	E-NE Cor	6.63	159.55	151.87	C ⁷⁶⁸
⊕	E-SE Cor	6.68	159.53	151.62	C ⁷⁹¹
⊕	S-SE Cor	6.18	160.00	151.62	C ⁸³⁸

El. Top of Chamber

				B.M. 158.95
				4.78
				Ni 163.73
	NE Cor	4.44	159.29	
	SE Cor	4.44	159.29	
	SW Cor	4.74	158.99	
	NW Cor	4.78	158.95	

Aug. 4, 1909

CREST
DITCHES
WEST

67.

GRADES SET \checkmark ELECTRIC AVE P.L.

STATION	102	96.15		95.13	94.65	
50+33 ⁵⁵			2.1	94.05	87.76	C63
+65 ⁰⁷			3.1	93.1	86.6	C62
+96 ⁵⁹			4.6	91.6	85.5	C61
51+28 ⁰⁹			6.5	89.7	83.85	C58
+59 ⁰⁹			7.6	88.6	82.15	C64
+90 ⁵⁹			8.5	87.7	80.42	C73
52+22 ⁹⁵			8.7	87.5	78.85	C86
+36 ¹⁸			8.8	87.4	78.03	C94
+67 ⁶⁸			9.6	86.6	77.86	C87
52+71 ⁹¹ BK 5+25 ⁷⁸ AH P.1						
5+30 ²⁴			9.5	86.7	77.6	C91
+50			9.7	86.5	77.5	C90
6+00			10.5	85.7	77.1	C86
+50			11.5	84.7	76.6	C81
7+00			12.6	83.6	76.2	C74
+50 ⁷⁴			12.5	83.7	75.78	C79
+81 ⁹³			12.8	83.4	73.2	C102
8+13 ³⁸			13.1	83.1	70.6	C125

Aug. 5 1909

Note: FROM STATION 52+71⁹¹ TO STATION 13+00
51+25⁷⁸ ORIGINAL GROUND SURFACE DISTURBED & ALTERED BY
HAZARD CONSTRUCTION COMPANY, WITH SOME MATERIAL
EXCAVATED & REMOVED, BUT LEFT IN A ROUGH
CONDITION, MAKING IT NECESSARY FOR CONTRACTOR
TO LEVEL FOR EXCAVATING DITCH.
USE ELEVATION OF 6' FT OFFSET STAKES SHOWN
AS REVISED & PROFILE. 18

Note: 42" CONC PIPE storm drain crosses at
Sta. 8+35⁸⁰

8-4-49
8-5-49

68

GRADES SET - Electric Ave

FIRE HYD. STAKED Aug. 11, 1949

Station	Offset	Grade	Station	Offset	Grade	Notes	Station	Offset	Grade	Notes		
8+44 ⁸⁸		13.3 82.9	70.6	C123		6" 5.0 STA. 8+42 ⁴³ on RT.						
8+76 ²⁹		13.3 82.9	72.3	C106	P.							
9+07 ²⁰		13.2 83.0	75.41	C76	0+00							
+39 ⁰⁷		13.1 83.1	75.55	C75	0+03 ⁷⁵	C of 45° LT						
+50		13.2 83.0	75.6	C74	0+7 ⁵⁸	C of 11 1/2° LT						
10+00		13.0 83.2	75.8	C74	0+20							
PD	2.40	90.05	8.50	87.65								
+50		7.2 82.9	76.0	C69	0+28							
11+00		7.1 83.0	76.2	C68	0+31							
+50		7.0 83.1	76.4	C67	0+32							
12+00		6.9 83.2	76.6	C66	0+36							
+50		6.7 83.4	76.8	C65	0+50 ⁵⁶	F.H.						
PD												
+75	4.30	88.05	6.30	83.75	77.0	C68	(6) offset	F.H.	2.1	85.5	81.57	C39
13+00		3.8 84.3	77.0	C73		(10) offset	F.H.	16	86.0	81.57	C44	
+50		3.8 84.3	77.0	C73	OK PD			4.20	83.42	= 83.4		
14+00		4.5 83.6	77.0	C66		(6) East		1.9	85.7	81.6	C41	
+50		4.9 83.2	77.0	C62		(6) West		2.2	85.4	81.6	C38	
+85		4.9 83.2	77.0	C62								
15+00		4.7 83.4	77.25	C61								
+15		4.7 83.4	77.5	C52								
+50		4.6 83.5	77.5	C58								
+75		4.5 83.5	77.5	C58								
OK BM		6.91	81.14	= 80.97								

Note:-

8" SANIT. SEWER installed after this F.H. Connection placed. Sewer crosses at Sta. 8+52⁵⁰ (under 6" C.I. & over 20" corr. pipe)

See BK 731, pg. 73

8/8/49

69

GRADES SET — ELECTRIC AVE

P	6.59	156.24		149.65					
142+75 ⁸¹			10.0	146.2	141.30	C47			
143+07 ³⁶			8.3	147.9	142.5	C59			
143+38 ⁸²			6.7	149.5	144.5	C50			
+70 ²⁸			3.4	152.8	146.5	C63			
144+01 ⁷⁴			1.9	154.3	148.4	C59			
W	11.77	167.48	0.53	155.71					
+50			9.5	158.0	151.4	C66			
+96 ¹²			7.5	160.0	153.1	C69			
145+27 ⁶¹			2.5	165.0	159.9	C70			
W	9.11	176.54	0.05	167.43					
+58 ⁸⁷			6.5	170.0	158.8	C112			
146+00			2.30	174.24	163.8	C104			
W	12.92	180.35		167.43					
+21 ⁴⁰			3.6	176.8	166.4	C109			
+52 ⁶⁷			3.4	177.0	170.3	C67			
+82 ⁰⁵			1.9	178.5	173.0	C45			
+89 ²⁹									
W	9.06	188.93	0.48	179.87	173.8	C53			
+93 ²⁷			1.3	179.1					
147+24 ⁶⁵			4.7	184.2	176.6	C76			
+51 ³¹			0.6	188.3	176.6	C117			
+82 ⁴⁷			3.4	185.5	173.8	C112			
W	8.90	184.92	12.91	176.02					
Rock			0.1	184.8	173.10	C117			
+90 ⁴⁵									

X PT. 2°34' LT.

0°41' RT. (2)

1°22' RT. (2)

0°41' LT. (2)

1°22' LT. (2)

87.15
134
88.49

8-9-49

70

GRADES SET Electric Ave

Aug 11 1949

148+10	184.92	8.1	176.8	171.4	C54	170.5	
148+21.94		6.1	178.8	171.4	C74	4.7	
+53.44		5.3	179.6	171.4	C82	165.8	
+84.75		5.9	178.0	171.4	C76	165.7	Elev Bottom of 6" Transite Water main @ Sta 150+06.60
149+16.9		7.6	177.3	168.6	C87	168.4	Profile & Elev.
+47.57		11.6	173.3	165.8	C75	165.4	173.7
+77.04		13.9	171.0	163.4	C86	162.6	169.9
149+81.06 & PT	0.76	8.90	176.02		C77	162.6	169.6
+85.06		6.3	170.5	163.4	C77	162.6	169.6
150+16.56		5.8	171.0	163.4	C76	162.6	169.0
150+20.26 BK							
+29.88 AH (2 PT)							
+34.7		6.4	170.4	163.4	C73	162.3	168.7
+50		8.2	168.6	162.0	C66	161.4	167.2
151+00		11.9	164.9	158.7	C62	158.5	163.8
151+25	1.51	13.10	163.68		C60	157.0	162.4
+50		3.7	161.5	155.8	C57	155.8	
152+00		5.4	159.8	153.4	C64	153.0	155.0
+10		5.6	159.6	153.0	C66	152.4	
+50		6.0	159.2	152.6	C66	152.3	
153+00		6.7	158.5	152.2	C63	152.2	
+50		7.1	158.1	151.9	C62		
+80.36		7.6	157.6	151.7	C59		

Revised Grades for 6" Trans.
Water Main Conflicting

NOTE:-

149+47.57 to 151+25
ORIGINAL GROUND CHANGED
By City Water Distribution,
forces during construction
of 6" transite main after
preliminary profile was
taken

REVISED GRADES FOR SEWER CONFLICTION

159.6
4.6

ELEV Bottom of 6" SEWER = 155.0

Sta 152+06.9 6" SEWER Crosses & is Joined
By a 4" C.I. SEWER RUNNING Approximately
parallel & 1/2 RT of Sta. 152+63 where it
VERTS off to RT.

8/9/29
8/10/29

71

GRADES SET. — ELECTRIC AVE

153+96 ⁴⁶		165.19	7.8	157.4	151.6	C58
CR TP			7.71	157.48	157.59	
TP	4.45	159.78		155.33	see pp. 49	
154+00 ⁴⁶	PT		3.3	156.5	151.6	C49
+04 ³²			3.4	156.4	150.4	C60
+09 ⁴⁶			3.5	156.3	148.9	C74
+13 ⁵²			1.5	158.3	148.0	C103
+17 ⁵²			3.0	156.8	148.0	C88
+50			3.6	156.2	148.0	C82
155+00			4.7	155.1	148.0	C71
+12 ⁰²			4.9	154.9	148.0	C69
+43 ³⁷			7.4	152.4	146.3	C61
+74 ⁶³			10.4	149.4	143.1	C63
TP	3.32	150.62	12.48	147.30		
156+05 ⁹⁷			4.4	146.2	139.9	C63
+50			8.8	141.8	136.3	C55
157+00 ¹⁹			12.0	138.6	132.2	C64
+50			13.2	137.4	131.1	C62
158+00			19.8	136.8	130.0	C68
+50			14.3	136.3	130.0	C63
159+00			14.2	136.4	130.0	C64

(Continued in Book 677 page 74)

MARCH 23, 1949

LEONARD
PAYNE
CARYER.

72.

LAW STREET, 6" WATER MAIN, CASS TO EVERTS.

R.M. IS BRASS PLUG AT S.W. COR. CASS & LAW STS.

R.M. +10.75	77.15		66.40	
STATION.	GRADE:	-	HIG. ELEV.	CUT.
0+00		11.77	65.38	
+50	64.79	8.92	68.23	3.44
1+00	65.47	8.17	68.98	3.51
+50	66.16	7.18	69.97	3.81
2+00	66.84	6.40	70.75	3.91
+50	67.53	5.51	71.64	4.11
3+00	68.21	4.53	72.62	4.41
+50	68.90	3.57	73.58	4.68
4+00	69.58	3.10	74.05	4.47
+50	70.27	2.65	74.50	4.23
T.P.		1.75	75.42	
H. d. +8.79	84.21			
5+00	70.97	-9.22	74.99	4.02
+50	71.81	-8.95	75.26	3.45
+91	76.21	-7.81	76.40	0.19
6+00	72.97	-7.35	76.86	3.89
+50	74.57	-5.82	78.39	3.82

ON TOP OF EXISTING PIPE AT CASS ST.

NOTE: PIPE LINE IS 10' S. OF CL OF ST. OFFSET 4 FT.

0+00 = EAST LINE OF CASS ST.

GRADE TAKEN AS 3' BELOW GUTTER GRADE OF

IMPROVED GRADE PER CITY ENG'S 7078-L.

ROCK COR. LAWN, 1075 LAW ST.

GRADE FOR FIRE PLUG, 2" BACK OF CURB.

STA.	GRADE	-	HUB ELEV.	CUT.
T.P.				
N.d.	84.21			
7+00	75.96	-4.59	79.62	3.66
+50	76.75	-5.65	80.58	3.85
8+00	77.46	-2.87	81.34	3.88
+50	78.19	-2.26	81.95	3.76
9+00	78.92	-1.55	82.66	3.74
+50	79.65	-0.78	83.43	3.78
+91.4		-2.60	81.61	
TOP OF EXISTING PIPE LINE, WEST LINE NORTH				
SHORE HIGHLANDS SUB'N.				
COR. OF METER BOX IN FRONT OF 1067 LAW ST.				
T.P.		-9.26	74.95	
+1.68	76.63			
CHECK R.M.		-10.22	66.41 = 66.40	

Thomas Ave - Cass to Lamont

Dec. 9 1948

Beatty
Baker
Rodgers.

Sta	+P.S.	H.I.	-F.S.	EL. (4)	GRADE	CUT.
B.M.	5.54	20.17		14.63		SE. Cor. Thomas at Cass Top F.H.
0+00 = Prop. Line		(Top curb)	7.61	12.56	12.00	
+50			7.4	12.8	08.90 12.40	
1+00			7.2	13.0	09.3 12.80	
+50			6.7	13.5	09.7 13.20	
2+00			6.3	13.9	10.1 13.60	
+50			5.7	14.5	10.5 14.00	
3+00			5.1	15.1	10.7 14.2	
+50			4.6	15.6	10.9 14.4	
4+00			4.2	16.0	11.1 14.6	
+50			4.1	16.1	11.3 14.8	
5+00			4.2	16.0	11.6 15.1	
11.2	5.95	21.69	4.43	15.74		
+50			5.8	15.9	11.9 15.4	
+795	SE. Cor. Dawes Prop. Line	Beginning of Work	6.1	15.6	12.0 15.5	C36
+815	F.H.		5.8	15.9	15.5	C04
+815	F.H. (5)		6.0	15.7	15.5	C02
6+00			6.1	15.6	12.1 15.6	C35
+50			5.8	15.9	12.4 15.9	C35
7+00			5.5	16.2	12.8 16.3	C34

12-9-48

Thomas Ave. (Cont'd)

Sta	BS	HI	FS	EL	Low Curb	BOT PIPE	CUT
		21.69					
7+50			5.1	16.6	16.6	13.1	C35.
8+00			4.7	17.0	17.1	13.6	C34.
+50			3.9	17.8	18.0	14.5	C33.
9+00			2.7	19.0	19.2	15.7	C32.
+50			1.6	20.1	20.4	16.9	C32.
10+00			0.6	21.1	21.6	18.1	C30.
TP	9.33	30.45	0.57	21.12			
+50			8.3	22.2	22.8	19.3	C29. 30
11+00			7.4	23.1	23.6	20.1	C30.
+50			6.7	23.8	24.0	20.5	C33.
11+60 = Prop. Line (SE Cor Everts)							
+62 F.H.			5.1	25.2	24.1		C12
+62 F.H. (S)			4.6	25.9	24.1		C18.
12+00			6.1	24.2	24.6	21.1	C33.
+50			5.7	24.8	25.0	21.5	C33.
13+00			5.3	25.2	25.6	22.1	C32.
+50			4.9	25.6	26.0	22.5	C31.
14+00			4.5	26.0	26.5	23.0	C30.
+50			3.8	26.7	27.0	23.5	C32.
TP	8.06	34.70	3.81	26.64			

12-9-48

Thomas Ave (Cont)

				Low Cut	Bot Proc	CUT	
	34.70						
15+00		7.5	27.2	27.5	24.0	C32	
+ 50		7.0	27.7	27.9	24.4	C33	
16+00		6.3	28.4	28.4	24.9	C35	
+ 50		5.6	29.1	29.0	25.5	C36	
17+00		4.8	29.9	29.8	26.3	C36	
+ 50		4.2	30.5	30.6	27.1	C34	
18+00		3.2	31.5	31.2	27.6	C39	
+ 50		2.3	32.4	31.8	28.3	C41	
19+00		1.5	33.2	32.4	28.9	C43	
R.	8.00	41.16	1.54	33.16			
+ 50			7.3	33.9	33.0	29.5	C44
20+00			6.3	34.9	33.6	30.1	C48
+ 50			5.5	35.7	34.2	30.7	C50
21+00			5.0	36.2	34.8	31.3	C49
+ 50			4.7	36.5	35.4	31.9	C46
22+00			4.6	36.6	36.0	32.5	C41
+ 3955 PL.							
T.B.M.	6.25	43.34	4.07	37.09			
+ 50			6.8	36.5	36.6	33.1	C32

Dec. 16, 1948

Dec. 16, 1948
Cloudy, Cold

Thomas Ave (Cont'd)

112th

264.95

		4334		Low Curb	Top Pipe		
23+00			6.5	36.8	36.9	33.4	034 ✓
+22.05	F.H.				37.1		
+22.05	(5) F.H.		6.40	36.9	37.1		032 ✓
+50			6.0	37.3	37.6	36.1	032 ✓
24+00			5.5	37.8	38.1	34.6	032 ✓
+50			4.7	39.0	38.6	35.1	039 ✓
25+00			2.6	40.7	40.6	37.1	035 ✓
+50			1.0	42.3	42.3	38.8	035 ✓
26+00	12.58	55.39	0.53	42.81			
+50			10.2	45.0	44.2	40.7	042 ✓
+50			9.2	46.0	46.0	42.5	035 ✓
27+00			7.5	48.9	48.0	44.5	030 ✓
+50			5.2	50.2	49.8	46.3	039 ✓
28+00			1.5	53.9	51.6	47.9	060 ✓
P +50	6.35	61.35	0.39	55.00	52.5	49.0	060 ✓
+90 PL					53.2		
29+00			5.0	56.4	53.4	49.9	065 ✓
+02.28	(5) F.H.		5.5	55.9	53.4		022 ✓
+50			5.2	56.2	53.8	50.3	059 ✓
30+00			6.2	55.2	54.3	50.8	042 ✓
+50			6.2	55.2	54.5	51.0	042 ✓

Dec. 16, 1908

Thomas Ave (Cont'd.)

		61.35			Low Curb	Bot Pipe		
31+00			5.6	55.8	50.4	50.9	C47	✓
+50			5.9	55.5	53.9	50.4	C52	✓
32+00			5.6	55.8	52.9	49.4	C64	✓
+50			6.0	55.4	51.9	48.4	C70	WOW!
33+00			7.7	53.7	50.9	47.4	C63	✓
+50			9.3	52.1	49.9	46.3	C58	✓
IP	4.10	56.32	9.03	52.32				
9950		.42						
33+70	PL							
IP	9.54	65.02	0.94	55.38				
		65.98						
CK BM			2.14	62.88	62.81			
				62.78	62.74		Garnet & Logan	
							NO CAN FOUND	(NEW CURB)

					17.68
B.M.	756	88.53			
TD		88.77			-81.14 = 80.97
	3.40	91.78	0.32		88.38 88.21
Flange of F.H.		91.61	6.33		85.45

	9.13	82.48		81.33	
		82.65		West @	

	4.73	86.88		81.33	
		87.05		East @	

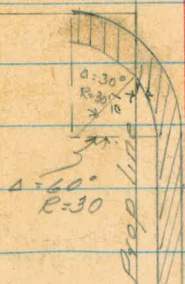
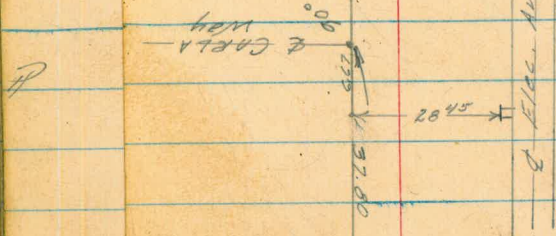
P	10.62	99.46			
		99.63	2.77		88.84
					89.01
			0.60		98.86
					99.03 = 98.74

	1.15	0465			12.9
	0432	TO FLANGE		0482	to bott. pipe
					6 12.2
					14.2
					2.2
					1.8
	0572	" "		0922	to " "
	555			0905	

= 12 diff

40.747

BM
ID
Flange



24.62
3.83

$$0+00 = 75+50$$

$$41+60$$

$$46+60$$

$$\underline{28+90}$$

$$41+60$$

$$\underline{13+70}$$

$$69+80$$

$$\underline{5+70}$$

$$00r \quad \text{Prof}$$

$$54+95 = 69+80$$

$$46+60$$

$$\underline{23+20}$$

$$28+20$$

$$41+60$$

$$33+995$$

$$\underline{28+70}$$

2-80

46.2

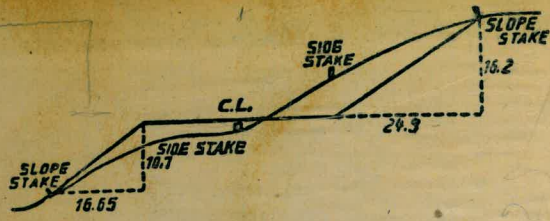
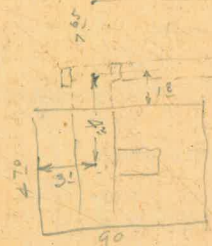
14 of 9580

BM
ID
Flange

0+18 7' off

3+9520 7' off 4 PT 1°50'10"

5+4980 4 PT 52 West 70°12'27"



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

THE NATIONAL BLANK BOOK COMPANY
 HOLYOKE MASSACHUSETTS
 NEW YORK CHICAGO BOSTON SAN FRANCISCO