

W 905

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	3.08	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	.037	.043	.049	.053	.057	.061
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	.618	.707	.797	.877	.970	1.07	1.18	1.29
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

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Profile of Proposed Water Line

Alley B/K 50, No. 4 / Canyon Blvd.

3/4 E. of Central Ave

6107.25 (Rea.) S/L of Meade 6107.65 chained

2+20

Sewer M.H. 3' dia.

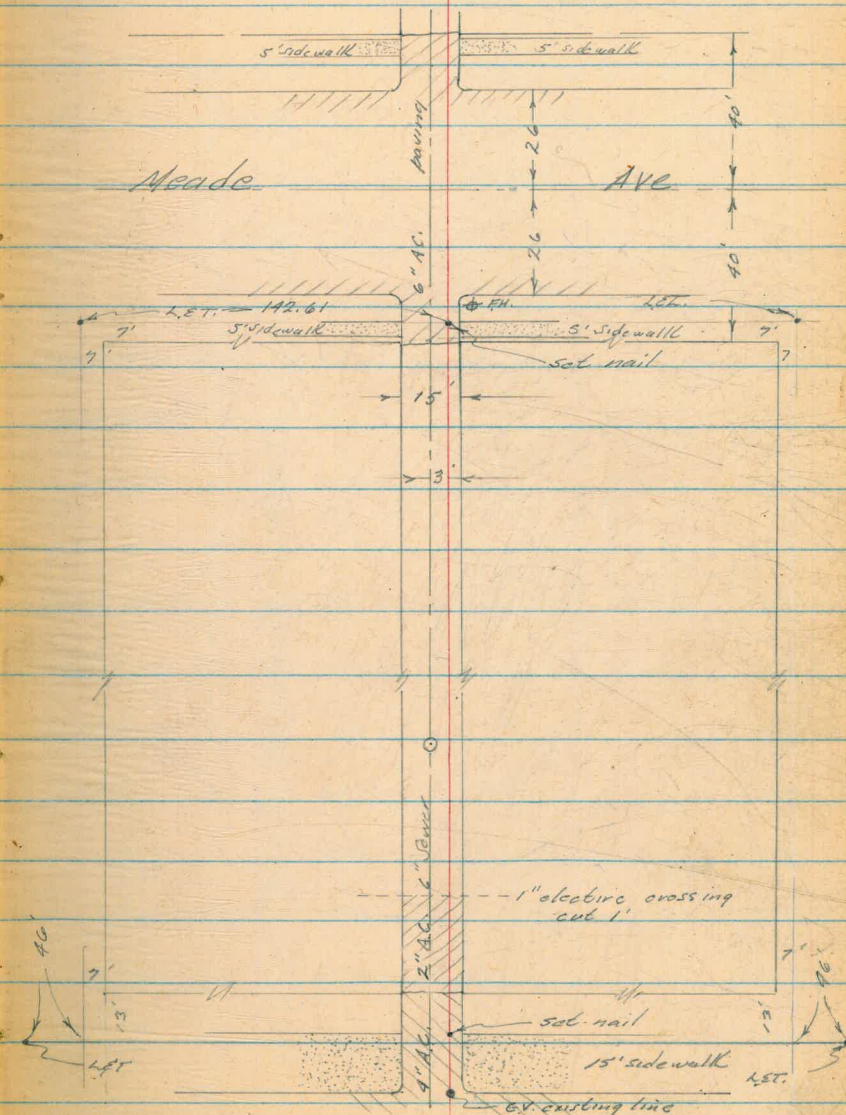
1+03

0+00

N/L of El Cajon

WERT
LEMP
ALEXANDER

2-3-55



Alley Bk 50 Cont.

369.66

S.W.B.P. El Cajon & Central Ave.

5.36 370.02

4.84 365.18

4.90 370.16

0-25 5.9 364.26

N. Gutter of El Cajon & Water Gt.

0+00 5.6 364.56

Nh of El Cajon

0+50 5.0 365.16

1+00 4.8 365.36

1+00 4.8 365.36

End 2" AC., Flood. crossing cut 1'

1+50 4.7 365.46

2+00 4.8 365.26

2+20 4.81 365.25

Sewer M.H. 3' 16

2+50 4.9 365.26

3+00 4.5 365.66

3+50 4.6 365.56

4+00 4.3 365.86

T.P. 4.21 365.95

6.39 372.34

Reduced by J. Gray 14 MAR 55

Alley BIK 50 Cont.

372.34

4150	6.3		366.04
5100	5.8		366.54
5450	5.3		367.04
6400	4.6		367.74
6407.25	4.5		367.84
6421	4.0		367.54
6497.25	4.1		368.24
6473	4.7		367.64
6487.25	4.5		367.84
T.P.	3.70	368.64	

Reduced by J. Gray 14 MAR 55

So. edge 6" A.C.

So gutter & curb line

& Meade

No gutter & curb line

1/2 of Meade

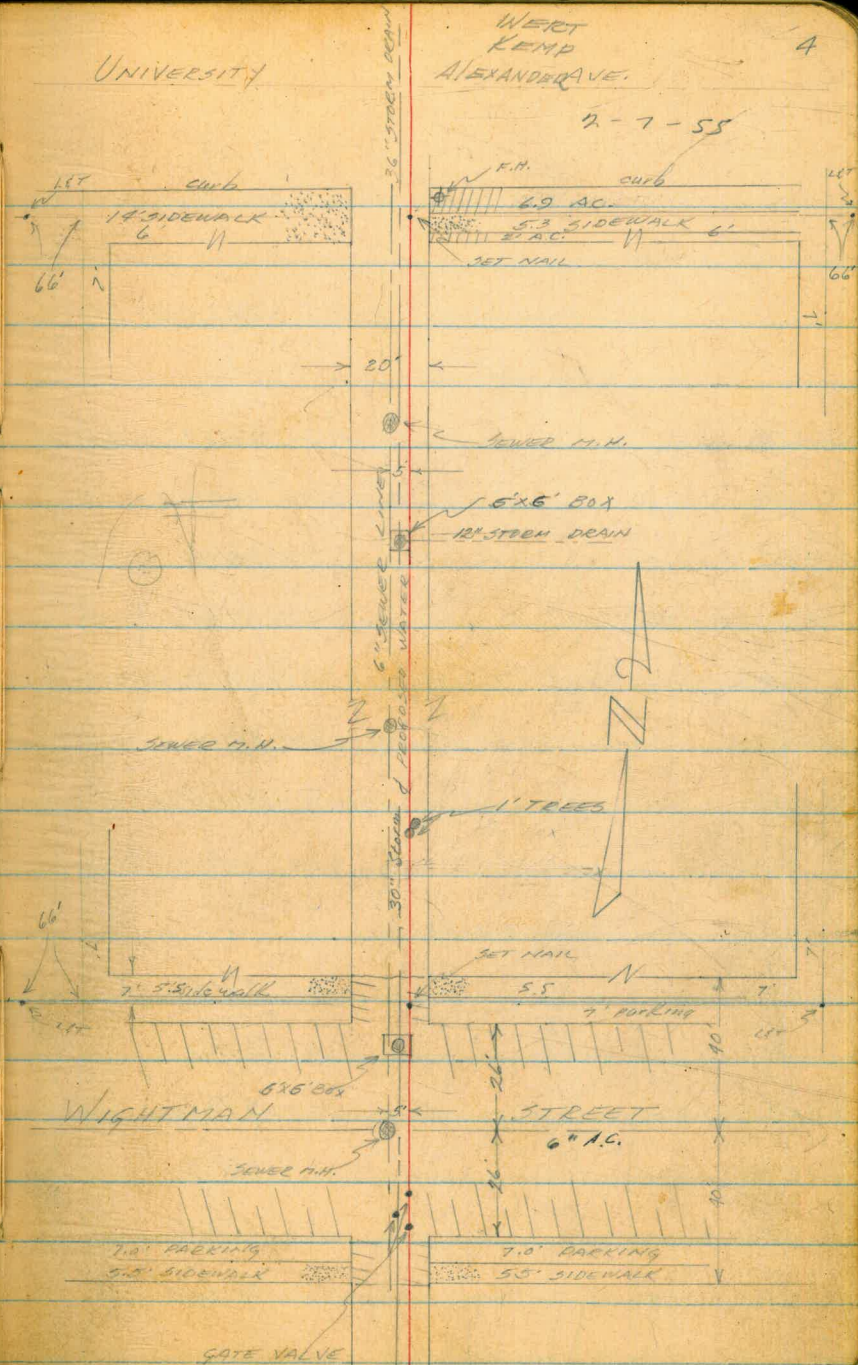
= 368.05 N.W. B.P. central & Meade

PROFILE & PROPOSED WATER LINE

ALLEY BLK. 51, No. WIGHTMAN ST.

& E. 41ST ST.

- 6+94 30. CURB LINE
- 6+79.85 30. PROP LINE UNIVERSITY
- 6+60 SEWER M.H. 5' LEFT
3' LEFT
- 3+33 STORM DRAIN M.H. & 5'x5' CON BOX
- 1+68 1'2" GUM TREE
- 1+67 10" GUM TREE
- 0+80 EDGE 4' A.C. APRON
- 0+66 NO. CURB LINE
- 0+64 STORM DRAIN M.H. & 5'x5' CON. BOX
3' LEFT
- 0+40 & WIGHTMAN
- 0+40 SEWER M.H. 5' LEFT
- 0+31 G.V. ON &
- 0+27 G.V. 4' LEFT
- 0+23 G.V. ON &
- 0+14 30. CURB LINE
- 0+00 30. PROP LINE WIGHTMAN



Alley B/M 51 Cont.

		347.09
1.66	348.75	
0+00	7.4	341.4
0+14	8.0	340.8
0+40	7.2	341.6
0+40	7.35	341.4
0+64	7.49	341.3
0+66	7.4	341.4
0+80	7.3	341.6
7.8	7.24	341.51
1.63	343.14	
0+90	1.4	341.7
1+00	1.4	341.7
1+50	3.0	340.1
2+00	6.3	336.7
2+50	6.6	336.5
3+00	5.5	337.6

REDUCED BY H.C. BREWSTER
3-9-55

N.W. B.P. Marlborough & Wightman
 S/H of Wightman
 8" So. gutter & curb face
 Sewer crossing
 Sewer M.H. 5' Lt. cut in. to flow line
 Storm Dr. M.H. 3' Lt. (30") 9.76 flow 6x6 Box
 No. gutter & curb face
 N/H of Wightman

Alley Blk 51 Cont

343.14

3433 4.8 338.3
 3433 1.93 341.2
 T.P. 1.93 341.21

10.91 352.12

3444 13.1 338.0
 3450 11.0 341.1
 3467 6.7 345.4
 4100 5.3 346.8
 4150 4.2 347.9
 5400 2.7 349.4
 5450 1.3 350.8
 5469 11.7 350.9
 T.P. 0.50 351.62

5.89 357.51

6100 5.8 351.7
 6150 4.7 352.8
 6160 4.54 353.0

REMOVED BY H.C. BREWSTER

3-9-55

12" Storm Dr. crossing cut 3.0 to top
 30" Storm Dr. M.H. 3' Lt 2.0 to flow

So. edge 6" con paving
 T.B.M. spike in p.p. 15' Lt Sta. 5469

Sewer M.H. 5' Lt. cut 11.0 to flow

Alley B/L 51 Cont.

357.51

6179.85

4.4 353.1

REMOVED
BY
M.C.B.
9-8-55

6194

4.8 352.7

T.P.

2.45 355.06

3.81 358.87

2.55 355.32

2.13 357.45

5.30 352.15

7
Sof/L of University

Se. gutter & curb Pace University

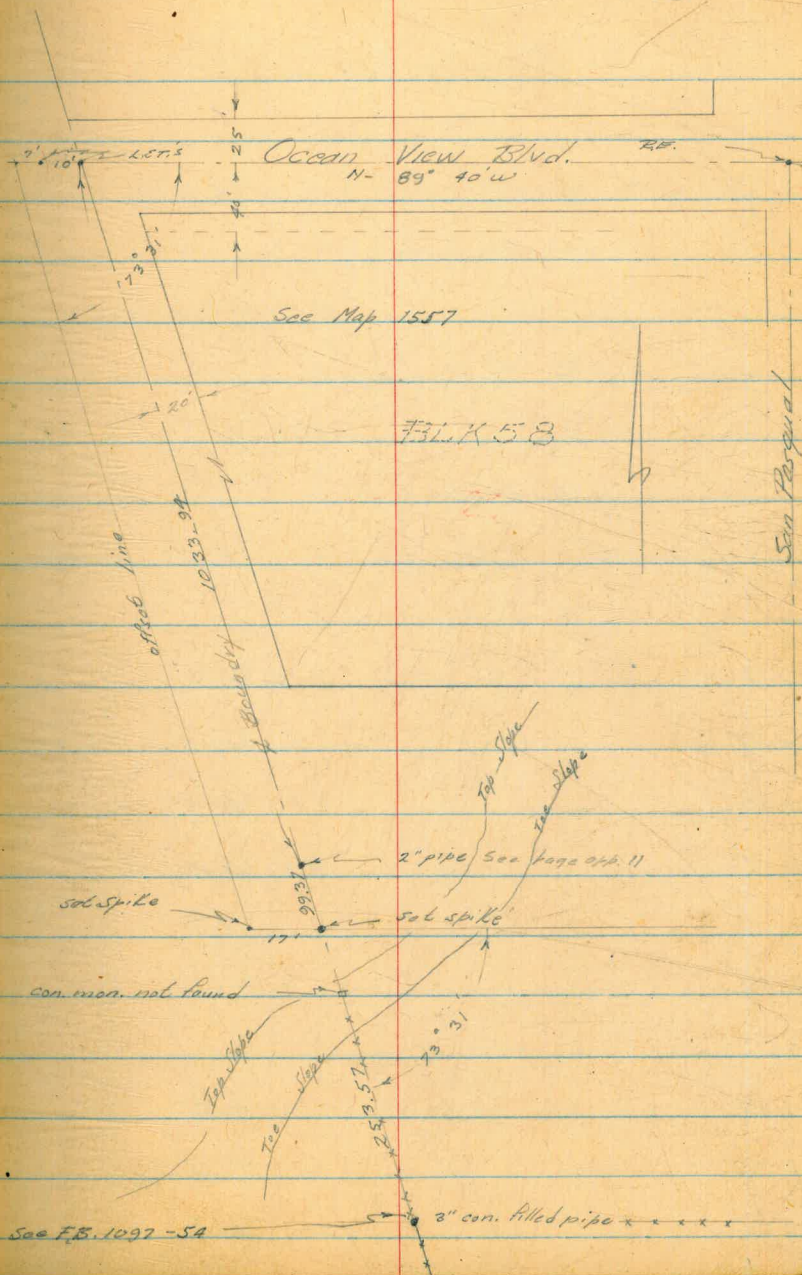
NW. BP. University & Central

Profile & Proposed Water Line
 Boundary St, T. S. St.

WERT
 LEMP
 ALEXANDER

8

2-14-55



Boundry St. Cont.

	82.18
0.94 83.12	
	8.83 74.29
0.46 74.75	
	6.58 68.17
4.52 72.69	
	4.12 68.57
1.13 69.70	
0+00	1.4 68.3
0+50	2.5 67.2
1+00	4.8 64.9
1+25	8.2 61.5
1+50	11.3 58.4
1+75	12.6 57.1
2+00	13.0 56.7
2+50	14.3 58.4
3+00	7.9 61.8
3+50	3.2 66.5

9
NW. 7' L&T Ocean View Blvd. & 40th St.

T.B.M. Spike in pole P100, SW. cor. Boundry & T St.

N/2 of T St

Boundary
~~Bancroft~~ Cont.

69.70

T.P.

13.35 56.35

2.84 59.19

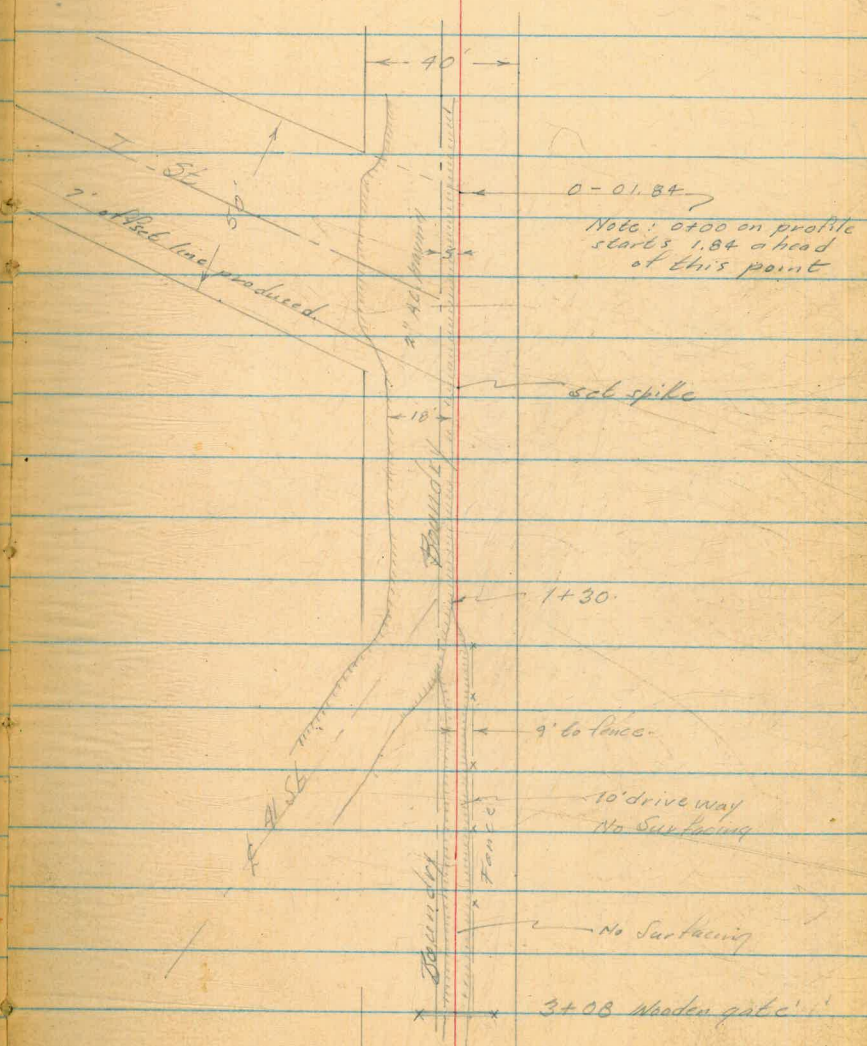
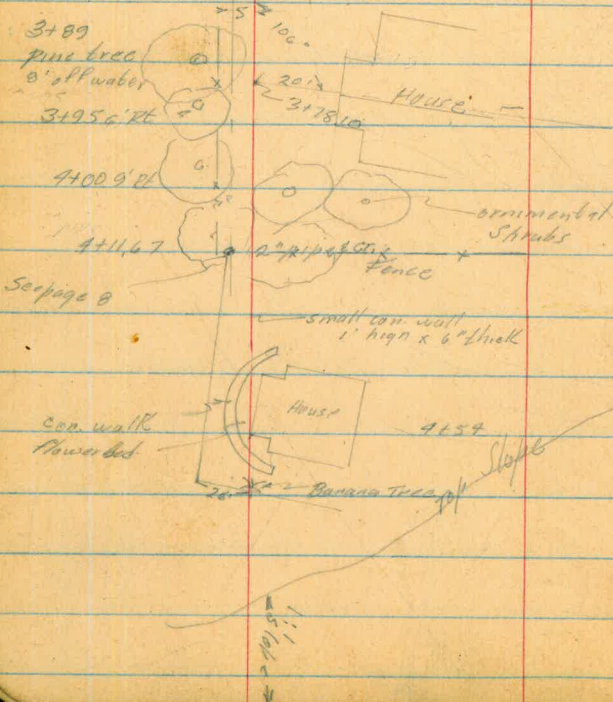
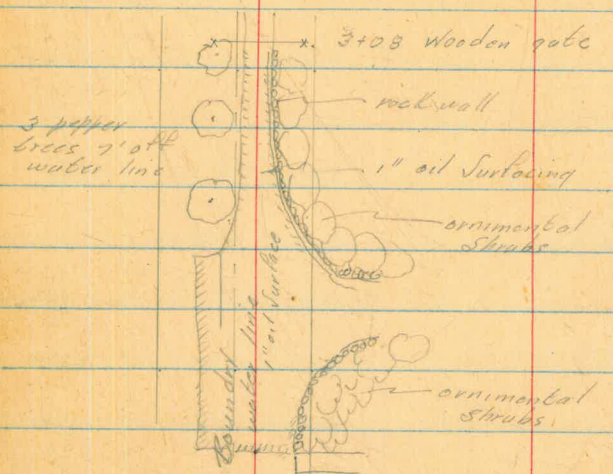
8.32 50.87

0.87 51.74

7.86 43.88

T.B.M. con. wall. SE. Cor 41 St & Logan.

Cont. on Page 35 & page 11



0-01.84
 Note: 0700 on profile starts 1.84 ahead of this point

set spike

1+30

9'6\"/>

10' drive way
 No Surfacing

No Surfacing

3x08 wooden gate

WERT
KEMP
ALEXANDER

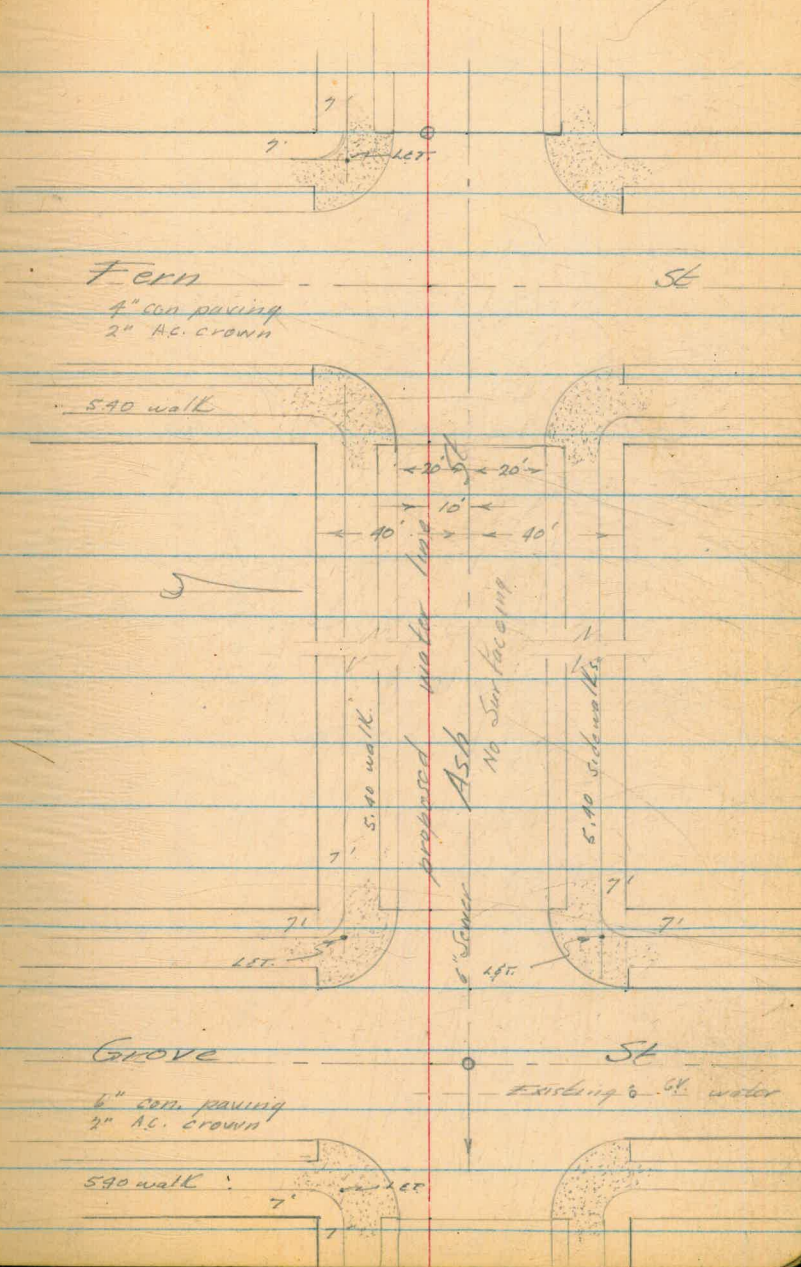
12

2-18-55

Profile & Proposed Water Line
Ash St, Fern to Grove

3+60.54 W/L of Fern & water M.H.
3+40.54 curb
3+20.54 E of Fern
3+00.54 curb
2+80.54 E/L of Fern

0+80 W/L of Grove
0+60 curb line
0+40 E of Grove & Sewer M.H. in Pt.
0+20 curb line
0+00 E/L of Grove



Ash St Cont.

			225.01
9.35	234.36		
		1.27	233.09
3.50	236.59		
		6.98	230.11
7.93	237.54		
0+00	8.6	Reduced by J. Gray 2-28-55	228.9
+70	8.8		226.94
+40	8.0		8.7
+40	7.97		226.94
+50	7.8		9
+60	7.9		228.54
+80	7.7		229.62
1+00	7.4		229.74
+50	6.5		229.64
2+00	5.5	229.84	
			230.14
			231.04
			232.04

NW. CP. Ash & 30th

T.B.M. SW. 7' LET. Ash & Fern

T.B.M. SW. 7' LET. Ash & Grove

E/H of Grove

E gutter

& Sewer crossing

Sewer M.H. 10' Pl. (no crossing)

W gutter

W/H of Grove

Ash St Cont

237.54

2+50 4.6 232.94

2+80.54 3.8 233.74

3+00 3.7 233.84

3+20.54 3.8 233.74

+40.54 4.4 233.14

+60.54 4.9 232.64

12.56 224.98

E/H of Fern

E gutter

W of Fern

W gutter

W/L of Fern

= 225.01

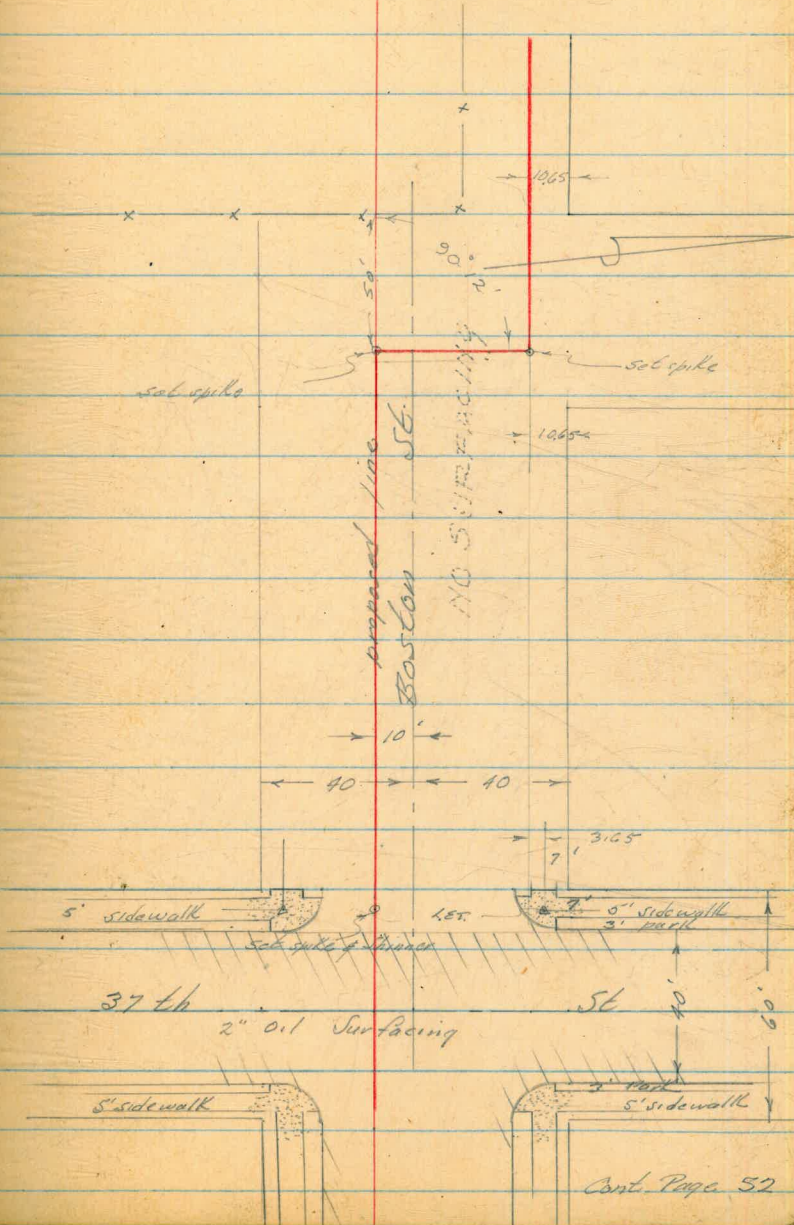
Profile of Proposed Water Line
 Boston St. 37th St West

Went
 Kemp
 Alexander

15

2-18-55

8+0.4.31 W/L of Goodyear
 3+69.31 Angle pt 89° 46' RL
 3+29.26 Angle pt 90° 11' RL



0+60 W/L of 37th

0+00 E/L of 37th

Cont. Page 52

Boston St. Cont.

27.35

SE.F.H. 37th & 7 St.

10.80 38.15

0+00	3.6	34.55	E/L of 37th
0+10	3.6	34.55	E curb line
0+30	3.7	34.45	E 37th
0+50	4.8	33.35	W curb line
1+00	6.3	31.85	
1+50	8.2	29.95	
2+00	9.2	28.95	
2+50	10.4	27.75	
3+00	12.6	25.55	
3+50	15.2		Fence line

Reduced by J Gray 8 MAR 55

T.P. 7.82 30.33

1.76 32.09

4.75 27.34

= 27.35

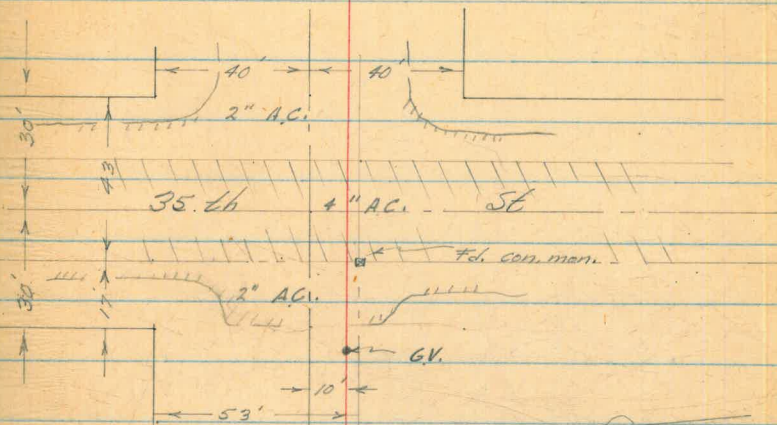
Profile of Proposed Water
 Boston St, 35th to 34th St

0+00	1/2 ft. of 35th, edge 2" A.C.
+22	edge of 4" A.C.
+40	edge of 2" A.C.
+44	edge of 2" A.C.
+63	G.V. on line

WERT
 KEMP
 ALEXANDER
 HOLAHAN

17

2-23-55



NO SURFACING

Boston St.

proposed water line

209.40

Fd. con. man.

27'

6158.59

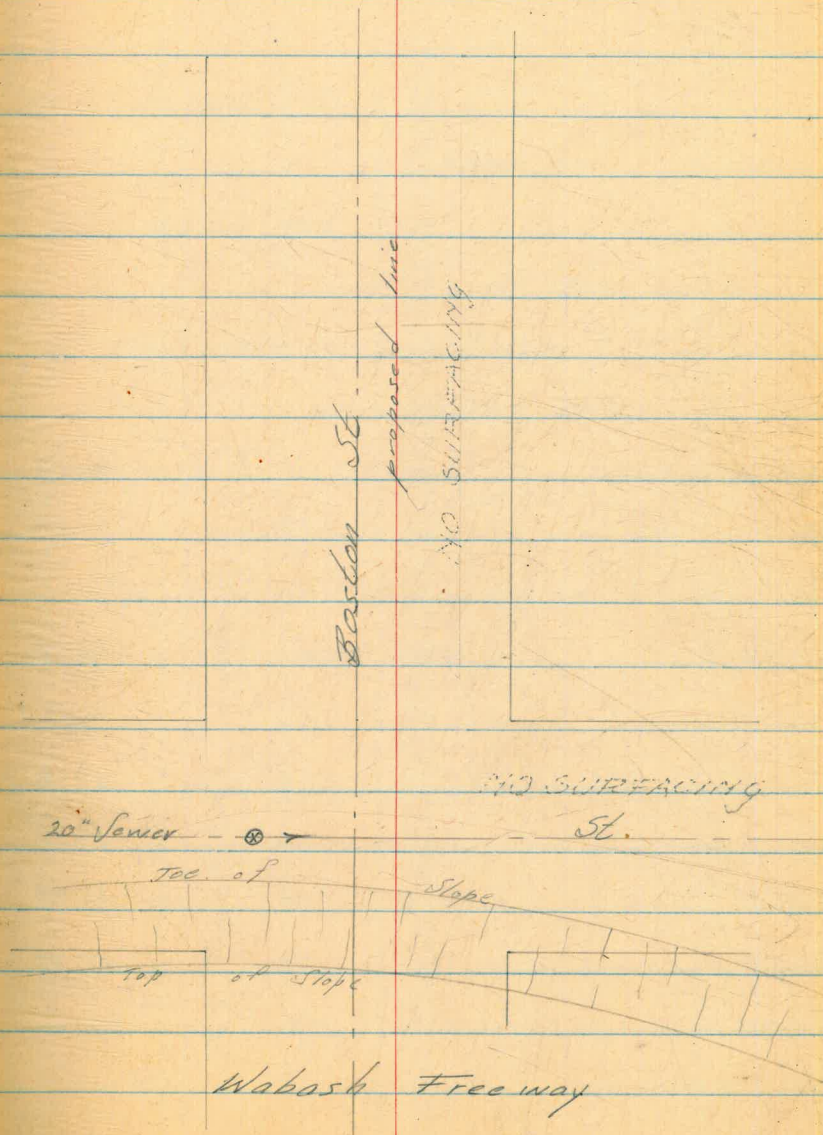
1/2 of 346

6188.59

20" Sewer M.H. 41' R.L. 8.8 74 pipe

7118.59

W/L of 346



Boston St Cont.

44.19

0.03 44.22

7.84 36.38

2.76 39.14

9.01 30.13

0.55 30.68

S.E.H. National Ave & 35th St.

T.B.M. con. man. 35th & Barton

0+00 0.0 30.68

0+17 0.2 30.48

0+30 0.1 30.67

0+43 0.4 30.28

0+50 0.6 30.08

1+00 1.6 29.08

1+50 3.0 27.68

2+00 4.4 26.28

2+50 5.1 25.58

3+00 5.5 25.18

Reduced by T. Gray 14 MAR 55

Top of 35th

" "

Wedge AC paving 35th

Boston St. Cont.

30.68

3+50		6.0		24.68
4+00		6.8	SS	23.88
4+50		9.0	WATER	21.68
5+00		11.3	H	19.38
5+50		13.0		17.68

T.P.

0.05 18.01

12.72 17.96

5+90		4.3	RED	13.71	Top Slope
6+00		2.8	J	10.31	
6+13		12.4	BY	5.61	Top Slope
6+50		12.9	PER	5.21	
6+80		13.7	REDUCED	4.31	
6+97		13.8		4.21	
7+00		13.3		4.71	Top Slope, fill for Wabash Freeway
7+05		12.2		5.81	
7+15		6.3		11.71	Top Slope " " " "
7+18.59		6.1		11.91	Rec. W/L of 34th

Boston Cont.

18.01

7+19 6.1 11.91

T.P. 12.63 5.38

11.93 17.31

T.P. 0.12 17.19

12.55 29.74

T.P. 0.26 29.48

8.82 38.30

T.P. 1.94 36.36

7.84 44.20

0.02 44.18 = 44.19

E. edge pavement Wabash Freeway

T.B.M. Sewer MH. app. Sta. 6+90

S.E.F.M. National Ave. & 35th St.

Wert
Kemp
Holman
Alexander

22

2-20-55

Profile of Proposed Water Line
Bancroft St, Island to "J" St.

82.07

NW L & T. Island & 32nd St.

7.24 89.26

See Pg's 47 & 48

12.97 76.29

0.41 76.70
Plan

0+00 = 0+93.82

8.1

68.6

N/E of Island St.

0+50 = 1+43.82

7.1

69.6

0+70 = 1+63.82

7.9

68.8

0+97 = 1+90.82

10.1

66.6

1+00 = 1+93.82

9.9

66.8

1+50 = 2+43.82

10.4

66.3

2+00 = 2+93.82

9.3

67.4

2+50 = 3+43.82

7.6

69.1

3+00 = 3+93.82

6.8

69.9

T.P

9.38 67.32

9.05 76.37

Reduced by J Gray 2-28-55

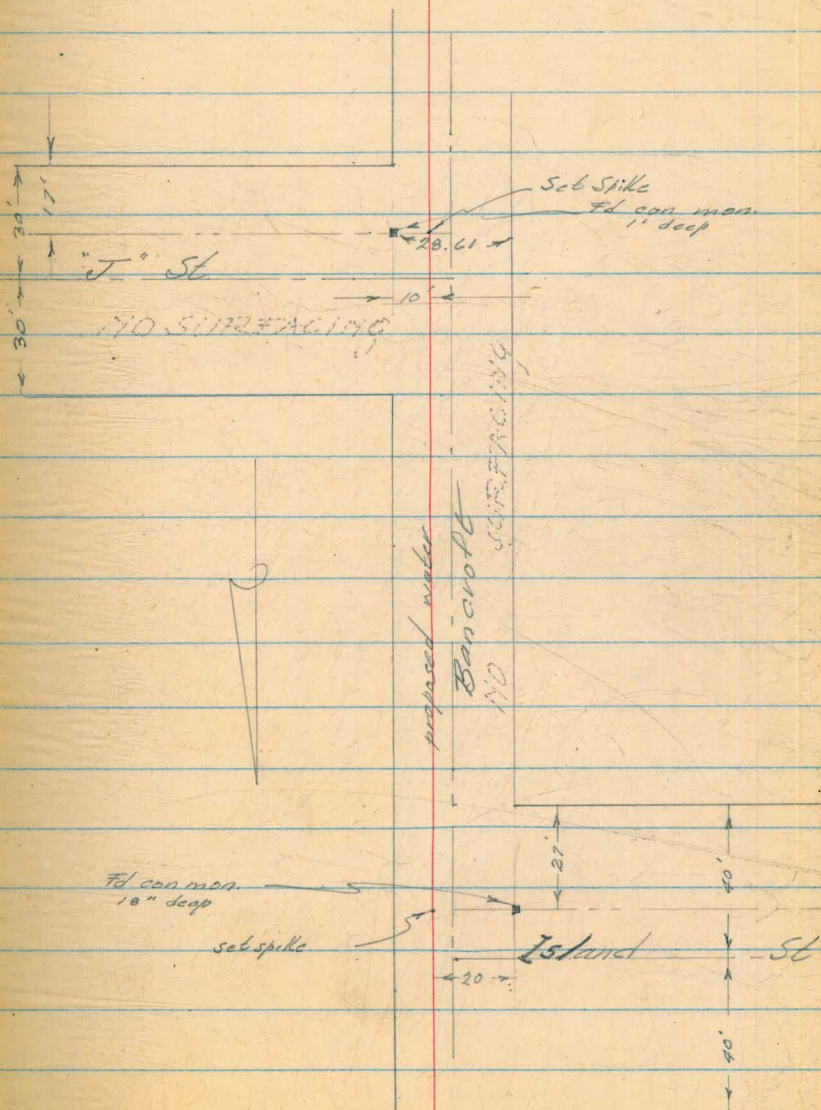
Bancroft Cont

76.37

0.03 76.34

12.76 89.10

7.96 82.04 = 82.02



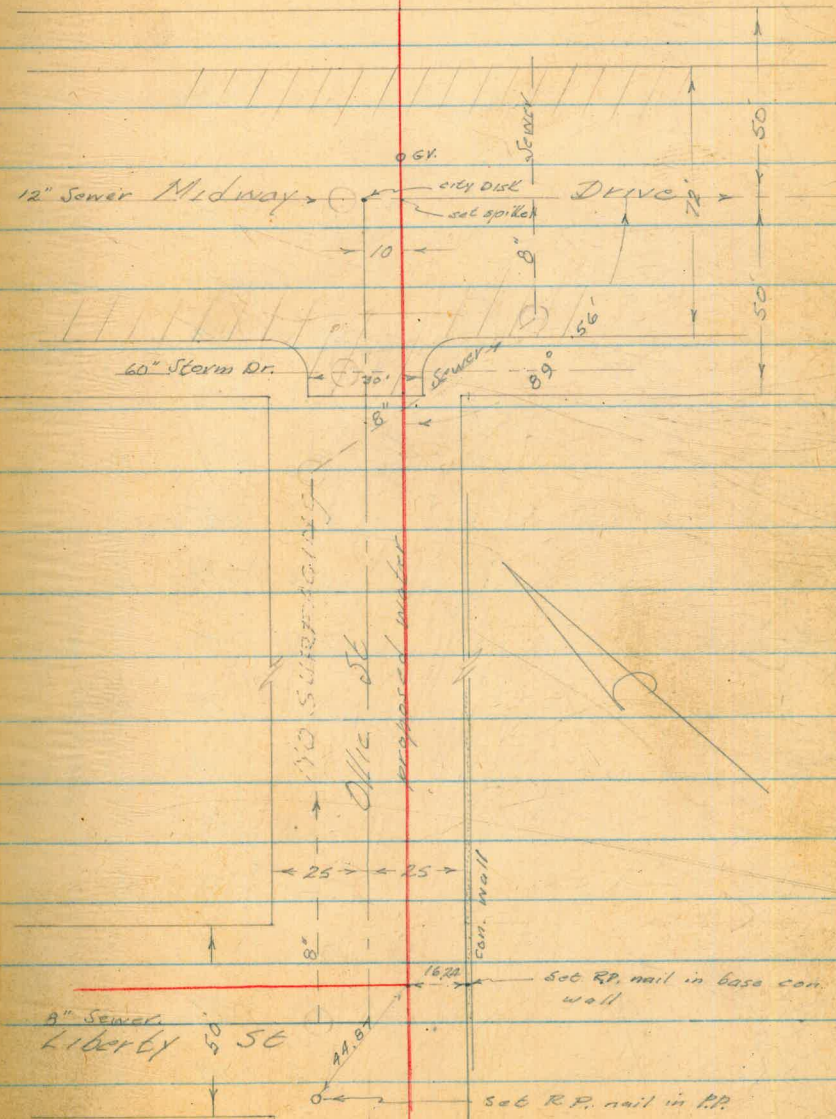
Went
Kemp
Holahan

7-25-55

Profile & Proposed Water Line
Ollie St, Midway Dr to Liberty

0+00

E/L of Midway Dr.



3+42.60

W/L of Liberty

Ollie St Cont.

2.76

SE. FH. Nashville & Midway Dr.

3.63 6.39

0+00	5.9	.5		F/H of Midway Dr.
0+14	5.03	1.36		Top east curb
0+14	3.65	.74		Bot. " "
0+39	5.1	1.29		Water Ct.
0+50	5.0	1.39		of Midway
0+50	5.00	1.39		Sewer M.H. 11.5 Rt cul 6.5 to flow
0+83	5.4	.99		" " 39 Lt 5.20 on rim, 3.9 to flow
0+91	5.3	1.09		60" Storm Dr crossing, 11.5 Rt to M.H., 1.8 to top pipe
1+00	5.4	.99		
1+05	5.6	.79		End A.C. paving
1+08	5.8	.59		Sewer crossing
1+08	6.03	.36		
1+24	5.86	.53		Sewer M.H. 22 Rt
1+50	6.0	.39		
2+00	6.3	.09		
2+50	6.9	.99		

REDUCED BY H. C. BREWSTER

2-28-55

Ollic St Cont

6.39

3100

62 .19

3107.60

61 .29

3142.60

57 .69

T.P. 1

3.01 3.38

3.04 6.42

3.68 2.74 = 2.76

REDUCED BY HENRY BREWSTER

2-28-55

T.B.M. RP. nail in con. wall 3107.60

Profile & Proposed Water Line
 Liberty St, Ollie to Camulos

7+09.70

N/H of Camulos

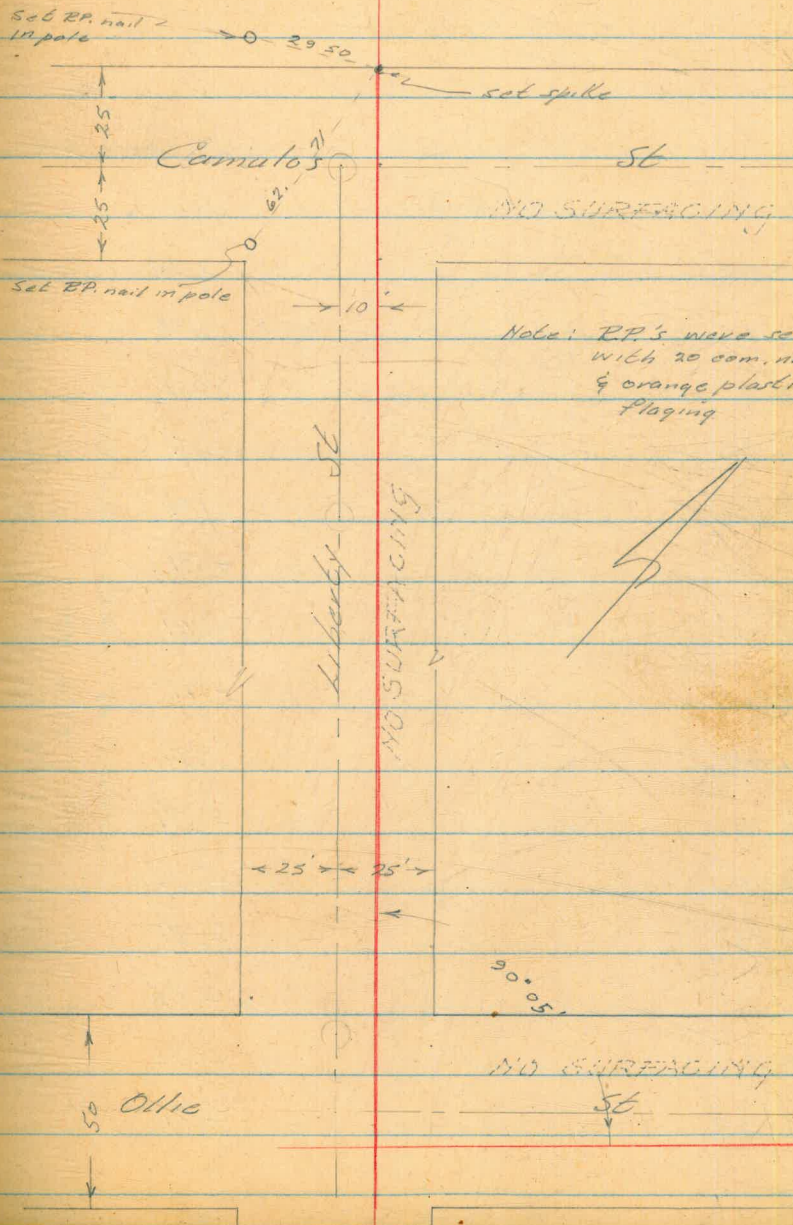
0+50

N/H of Ollie

Wert
 Kemp
 Holahan

27

2-25-55



Cumulos St. Cont.

3.38

R.R. rail 16.24 So. line on Office 3107.60

0.81 4.19

0+00	1.3	2.89
0+11	3.9	.29
0+15	4.0	.19
0+36	4.7	-.51
0+36	4.50	-.31
0+50	4.9	-.71
1+00	4.8	-.61
1+50	4.9	-.71
2+00	5.0	-.81
2+50	5.1	-.91
3+00	4.9	-.71
3+50	5.0	-.81
3+60	5.10	-.91
4+00	4.9	-.71
4+50	5.1	-.91

REDUCED BY HENRY C. BREWSTER

3-2-55

Sewer crossing

Sewer MH. 10' 16" cut 7.0 to flow

Sewer MH. 10' 16" cut 4.9 to flow

Camulos Cont

419

5+00	5.0	- .81
5+50	5.2	- 1.01
6+00	5.3	- 1.11
6+50	5.4	- 1.21
6+85	5.9	- 1.21
6+85	5.20	- 1.01
7+00	5.5	- 1.31
7+00.70	5.5	- 1.31
T.P.	4.38	- 0.19

REDUCED BY W.C. BROWNSTER
2-2-55

417 3.38

0.59 3.39

Sewer M.H. 10' dia cut 44 to flow

N/E of Camulos

T.B.M. Spike in P.P. S.W. cor Camulos & Liberty

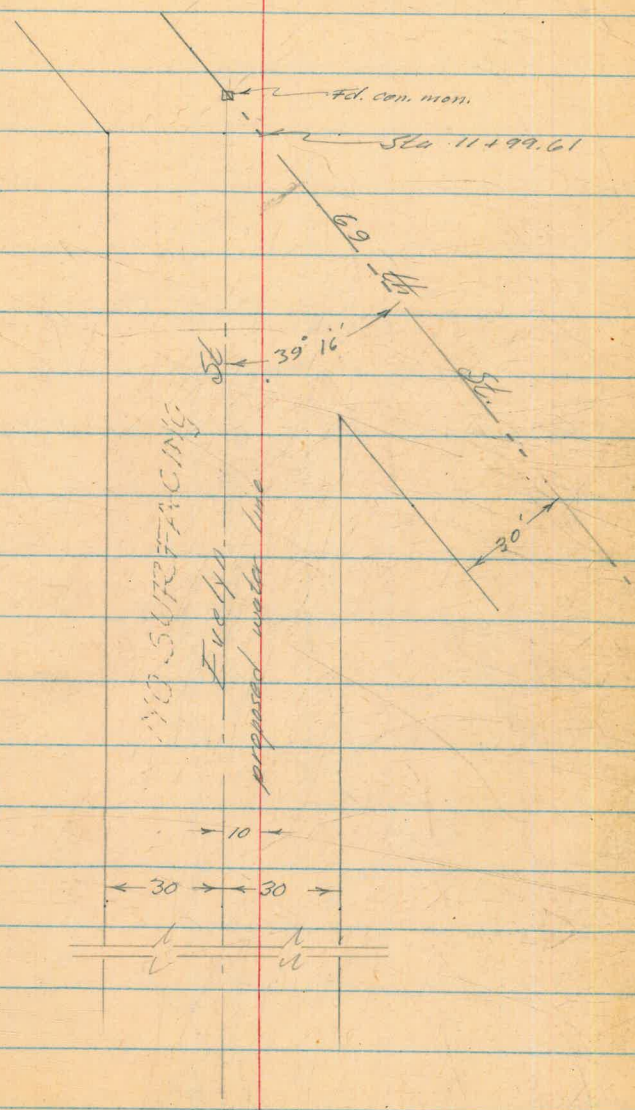
= 3.38

8-7-55

Profile & Proposed Water Line
Evelyn St, Broadway to 69th

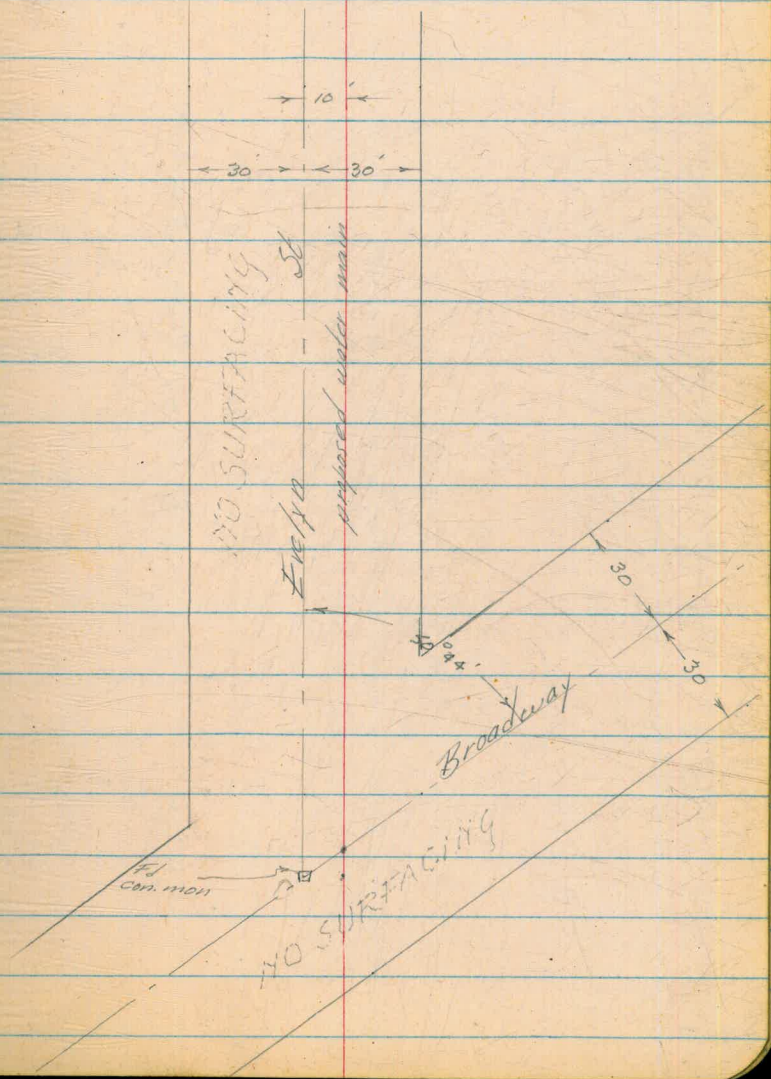
11499.61

E. of water & E. of 69th



0+00

S/E of Broadway



Evelyn Cont

305.36

Nail in pole SE. corn. Evelyn & Broadway

1.78 307.14

0+00	3.7	Reduced by J. Gray & Mar. 50	303.44
+22	5.3		301.84
+30.56	5.0		302.14
+50	4.9		302.24
1+00	4.8		302.34
+50	5.2		301.94
2+00	3.8		303.34
+50	1.2		305.94
T.P	0.01		307.13

13.03 320.16

3+00	11.7	308.46
+50	2.0	313.16
4+00	2.7	317.46
+14	2.7	317.46

320.16

0.67 319.49

1207 331.56

440 10.5 321.06

+50 8.7 322.86

+90 3.8 327.76

5+00 2.7 328.86

T.P. 0.30 331.26

1218 343.44

5+50 7.0 336.44

T.P. 0.24 343.20

1269 355.89

6+00 9.4 346.49

+50 3.1 352.79

T.P. 0.62 355.27

1318 368.45

7+00 9.9 358.55

+50 7.2 361.25

	368.45		
7170		5.4	363.05
8100		5.6	362.85
+50.01		0.5	367.95
9100		0.0	368.45
+50		0.6	367.85
+55		1.7	366.75
+58		2.5	365.95
+68		0.4	368.05
+70		0.0	368.45
10100		1.9	366.55
+05.07		2.5	365.95
+50		2.2	361.95
T.P.		12.85	355.60
	1.34		356.94
11100		3.1	353.84
T.P.		12.89	344.05
	0.71		344.76
11150		1.2	343.56

349.76

12+00

12.9

331.86

T.P.

12.05 332.71

1.84 334.55

12+13

4.8

329.75

6.61 327.94

con man $\frac{1}{2}$ of 69th & Evelyn

West
Kamp
Holohan
Alexander

35

4-28-55

Profile of Proposed Water Line Cont
Boundary St, T St & S 600'

from p. 10 & p 11

		43.88	BM cor cor wall 41st & Logan
10.95	54.83		
		0.45	54.38
11.78	66.16		
		1.79	64.37
7.97	72.34		
4+00		4.5	
#		8.30	64.04
	6.98	70.22	
4+15		2.6	Fence line
4+37		2.1	edge of cor wall
4+42			cor house porch 4' 11"
4+50		1.7	
4+54			cor house porch 0.3' 11"
4+67.7		2.1	edge of cor wall
4+80.2		2.4	Top cor wall & both fence
4+80.2		4.7	Bottom " " " "

Boundary Cont.

70.22

5+00

9.8

5+23

6.0

H

4.87 65.35

0.25 65.60

13.07 52.53

0.06 52.59

8.70 43.89

Top of 1:1 Slope

T.M. NE Cor of old foundation 30' H

BM = 43.88

Werb
Kemp
Holahan
Alexander

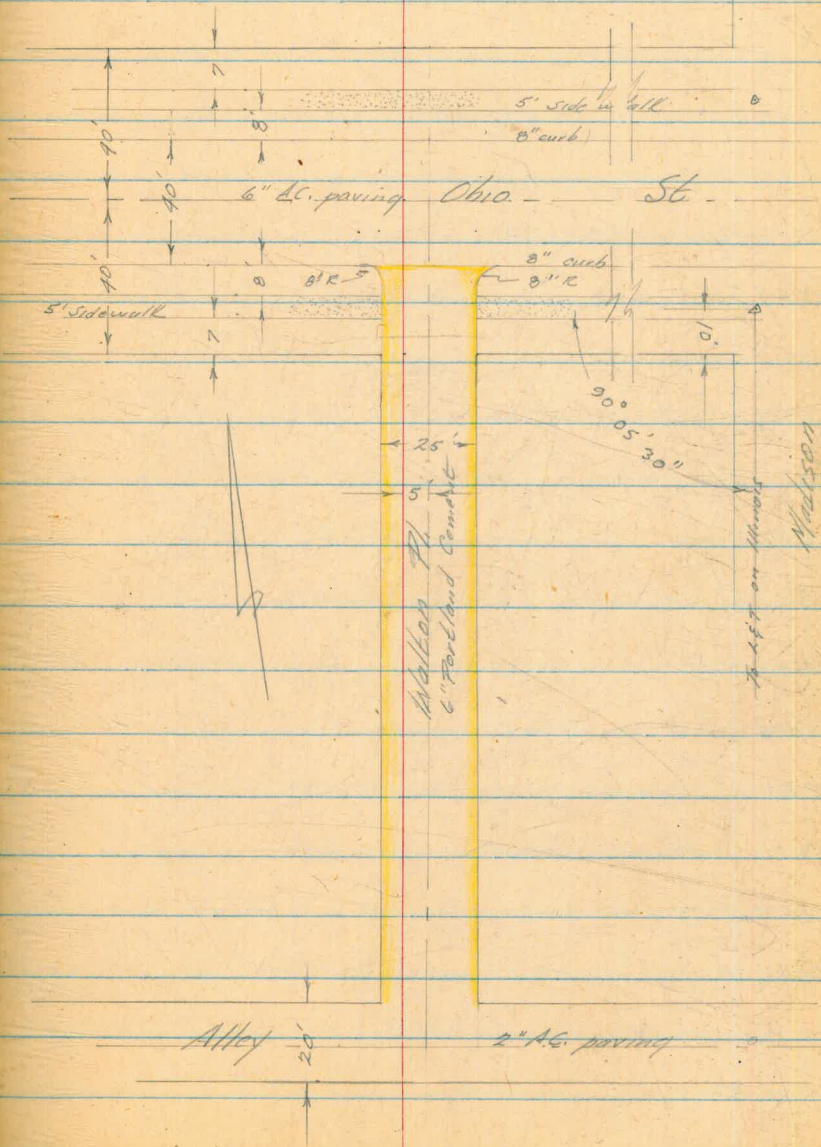
37

4-28-55

Profile of Proposed Water Line
Walton Place, Ohio St to Alley Bk Co

0+00

W of Ohio



2+90²

E of Alley

		391.55	SETH. Boundry of Madison
2.72	394.27		
		6.50	387.77
1.10	391.87		
0+00		5.3	W/L of Ohio
0+07		5.3	W. edge of sidewalk
0+12		5.4	E " " "
0+20		5.5	Top of 6" curb
0+40		5.3	of Ohio
0+50		5.4	
0+60		5.5	E. gutter
0+76			Water G.V. 1.5 Ft.
1+00		5.3	
1+50		5.2	
2+00		5.0	
2+20.2		4.9	end 6" con. pave.
2+32			Water G.V. 2.5 Ft. existing main
2+40.2		4.3	E/L of Alley

391.87

4.87 387.03

5.28 392.31

2.83 389.48

5.61 395.09

3.55 391.54

T.B.M., E, end So curb, Waller & Alley

7th Madison & Boundry

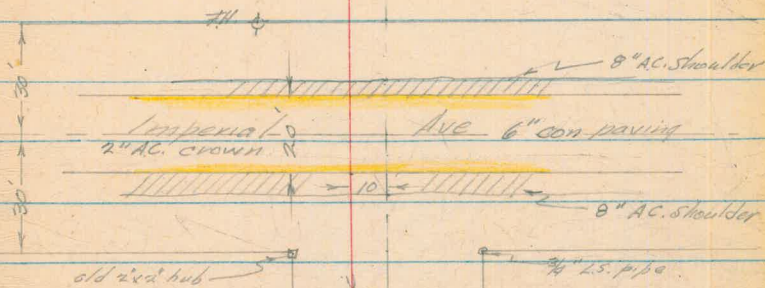
Profile of Proposed Waterline
50th St. Imperial Ave. No. 6 term

Werb
Kerip
Holahan
Alexander

5-17-55

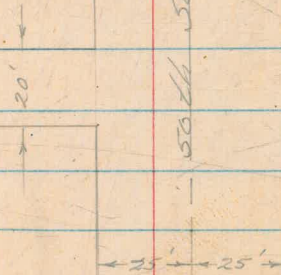
0+00 S/H of Imperial Ave.

0+60 N/H of Imperial Ave.



2+5998 S/H of Alley

Alley



6+34

3/4" pipe

3/4" 25. pipe

50. th St Cont.

184.86

105 185.91 ✓

0+00 8.1 177.8

0+01

0+05

0+16 7.9 178.0

0+30 7.3 178.6

0+44 7.8 178.1

0+50 8.4 177.5

1+00 9.5 176.4

T.P. 9.60 176.31 ✓

0.46 176.77 ✓

1+50 3.0 173.8

2+00 5.3 171.5

2+50 7.8 169.0

3+00 10.0 166.8

BP. So. curb Churchward of Imperial

S/H of Imperial

±H. 25' H.

Water 61. 25 26

So. eddy shoulder

No edge shoulder

50th St. Cont

176.77

3+50 11.6 165.2

T.M. 11.55 165.221

2.52 167.741

4+00 3.7 164.0

4+50 4.7 163.0

5+00 6.2 161.5

5+50 7.9 159.8

6+00 10.0 157.7

6+50 12.6 155.1

7+00 14.6 153.1

T.B. 12.12 155.62 ✓

12.48 168.10 ✓

1.03 167.07 ✓

12.75 179.82 ✓

3.23 176.59 ✓

2.85 186.44 ✓

1.60 189.86 ✓

Set T.B.M. 3/4 prop. pipe 15' Pl. Sta. 6+35

Set T.B.M. 3/4 prop. pipe 35' Pl. Sta. 0+60

8P So. curb Churchward & Imperial

Went
Kemp
Halohai
Alexander

43

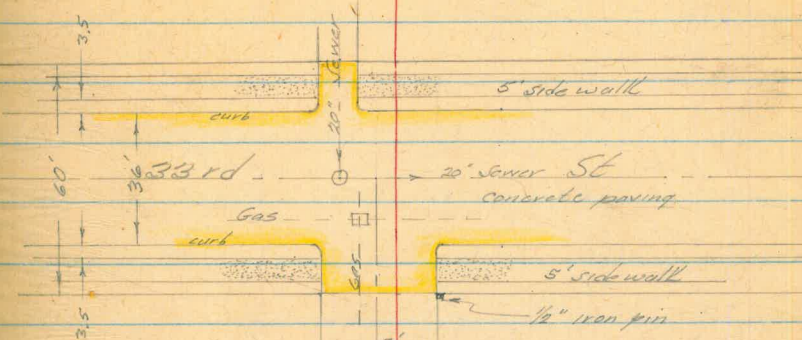
5-17-55

Profile & Proposed Water Line

M^c Laren's Lane, 33rd to Bancroft

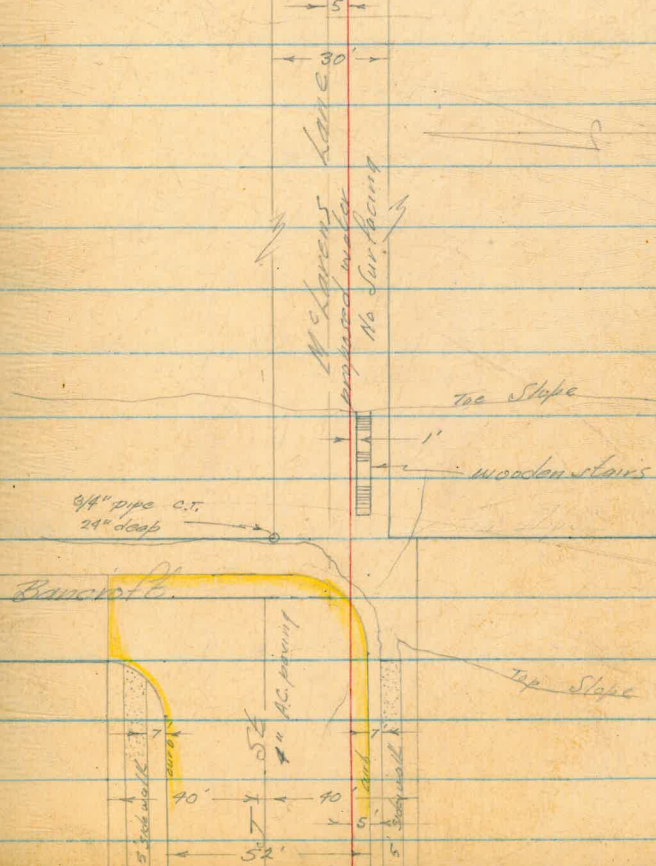
0+00

E/W of 33rd St.



5+53.60

E/W of Bancroft



McLaren's Lane Cont

		35.33	
	2.84	38.17	
T.P.		5.78	32.39
	3.34	35.73	
T.P.		4.58	31.15
	6.53	37.68	
0+00	6.1	31.58	
0+03.50	6.5	31.18	
0+08.50	6.6	31.08	
0+12	6.7	30.98	
0+18	7.3	30.38	
0+30	7.7	29.98	
0+30	7.57	30.11	
0+40			
0+48	7.3	30.38	
0+50	7.2	30.48	
0+60	7.2	30.98	

NW CORNER ISLAND & 33RD ST.

T.B.M.

SW CORNER PIN MCLAREN'S LANE & 33RD ST.

E. PROPP LINE 33RD ST.

BACK SIDEWALK E. SIDE 33RD

FRONT " " " "

TOP CURB " " "

BOTTOM " " "

& 33RD

SEWER M.H. 19' RT

TWO GAS M.H. 10' & 19' RT

W. CURB LINE 33RD PRODUCED

W. EDGE CON PAVE

McLaren's Lane Comb

37.68

1+00	6.3	31.38
1+50	5.4	32.28
2+00	4.4	33.28
2+50	3.8	33.88
3+00	3.4	34.28
3+50	3.1	34.58
4+00	3.0	34.68
T.P.	2.78	34.90

13.11 48.01

4+50	12.3	35.71
4+84	9.4	38.61
4+85		
5+00	3.4	44.61
T.P.	0.02	47.99

12.23 60.22

T.P.	0.60	59.62
------	------	-------

12.657 2.27

TOE SLOPE

BOTTOM WOODER STAIRS

Mc Laren's Lane Cont

72.27

5 + 35.50

5 + 50

7.5

69.77

5 + 59.50

T.P.

0.29 71.98

10.25 82.23

5 + 65

8.3

74.63

5 + 70.60

8.6

74.33

5 + 70.60

9.1

73.83

5 + 80

8.6

74.33

T.P.

1.45 81.98

9.66 86.14

T.P.

9.08 82.06 = 82.02

TOP WOODEN STAIRS 1ST

ST. PARADE

TOP SLOPE

UP CURB BANKROFT

BOTTOM E. CURB BANKROFT

ENDING

B.M.

NW 32ND & ISLAND

Profile of Proposed Water Line
Bancroft St. J. St. 200' South

0+00

N/4 of Island

0+60

S/4 of Island

0+93.82

N/4 of Island

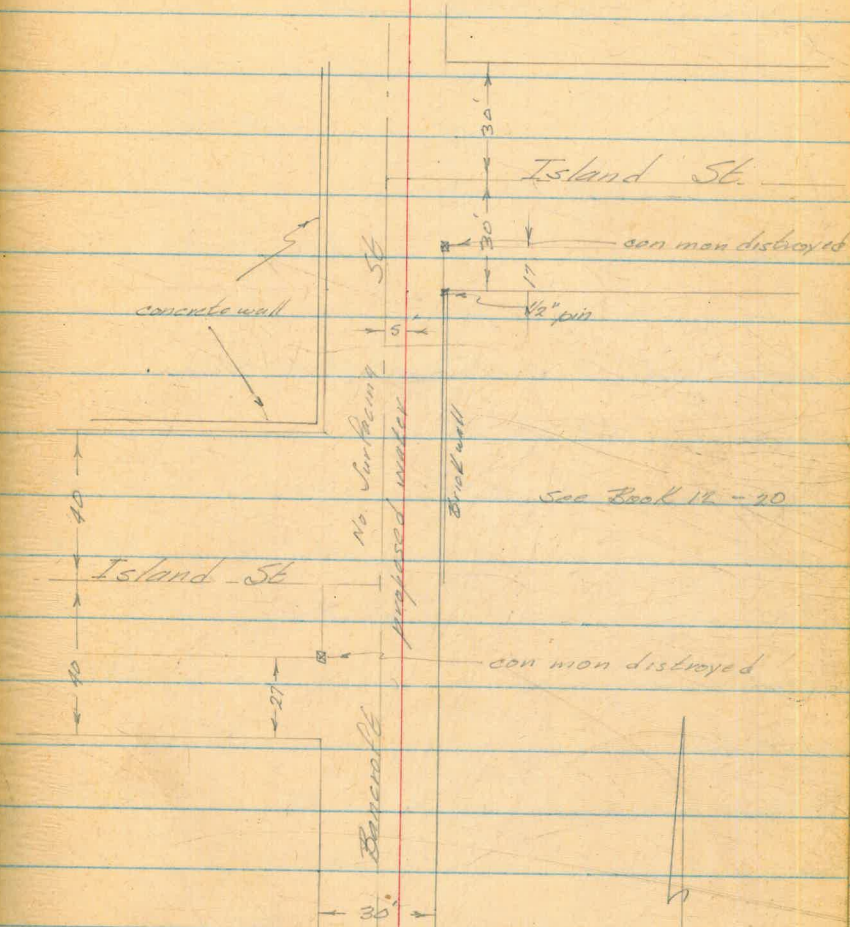
1+73.82

S/4 of Island

Went
Kemp
Halahan
Alexander

47

5-17-55



See Book 16-20

con mon destroyed

Note Bancroft St
has been graded since
survey of 2-21-55

3/4" pipe or

J St

Bancroft Cont.

		82.04	
6.58	88.60		
	9.51	79.09	
0.22	79.31		
	12.14	67.17	
8.91	75.58		
0+00	7.7	68.38	
+50	6.9	68.68	
+00	6.2	69.38	
+50	6.3	69.28	
+73.82			
+75	7.6	67.98	
	8.91	67.17	

1/2" pin SW cor Island of Bancroft, base brick wall

Se. pier of Island

1/2" pin

Went
Kemp
Holahan
Alexander

49

5-17-55

Profile & Proposed Water Line
Island St. Bancroft to Exisb. Pave.

0+00

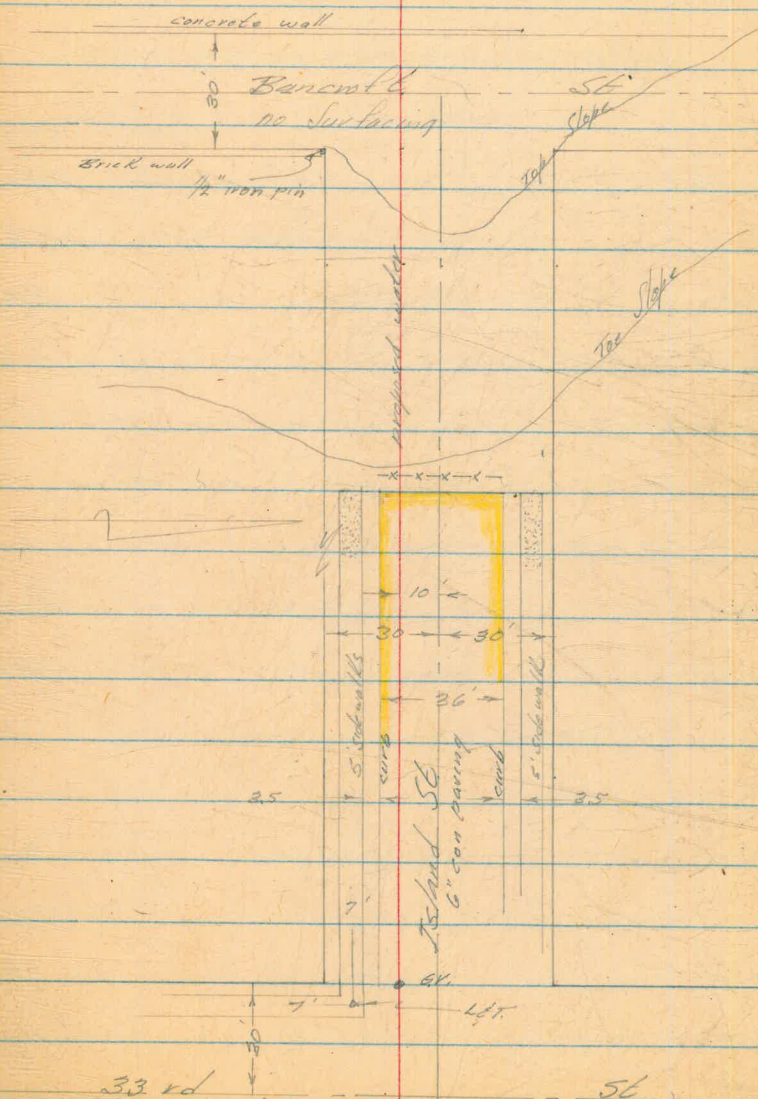
W/L of Bancroft

0+30

E/W of Bancroft

1+39.45

Edge con paving



Island Cont.

			67.17	
	8.91	75.58		
0+00		0.0		75.6
0+03		2.0		73.6
0+16		6.6		69.0
0+30		7.7		67.9
0+50		10.7		64.9
0+57		11.5		64.1
T.P.		12.23	63.35	
	1.20	64.55		
0+64		5.8		58.8
0+80		13.0		51.6
T.P.		13.14	51.41	
	1.20	52.41		
1+00		4.6		47.8
1+12				
1+22		6.5		45.9

1/2" iron pin SW cor Island & Bancroft

Top con. wall

base con wall

edge of road bed

Top Slope

Top Slope

Barricade

Island Con

52.41

14.29

8.8

43.6

1+39.45

9.57

42.8

Edge con. page

T.P.

14.29

41.12

2.56 43.68

8.38

35.30

BP. NW. cor. 33 rd & Island = 35.33

Werb
Kemp
Holahan
Alexander

52

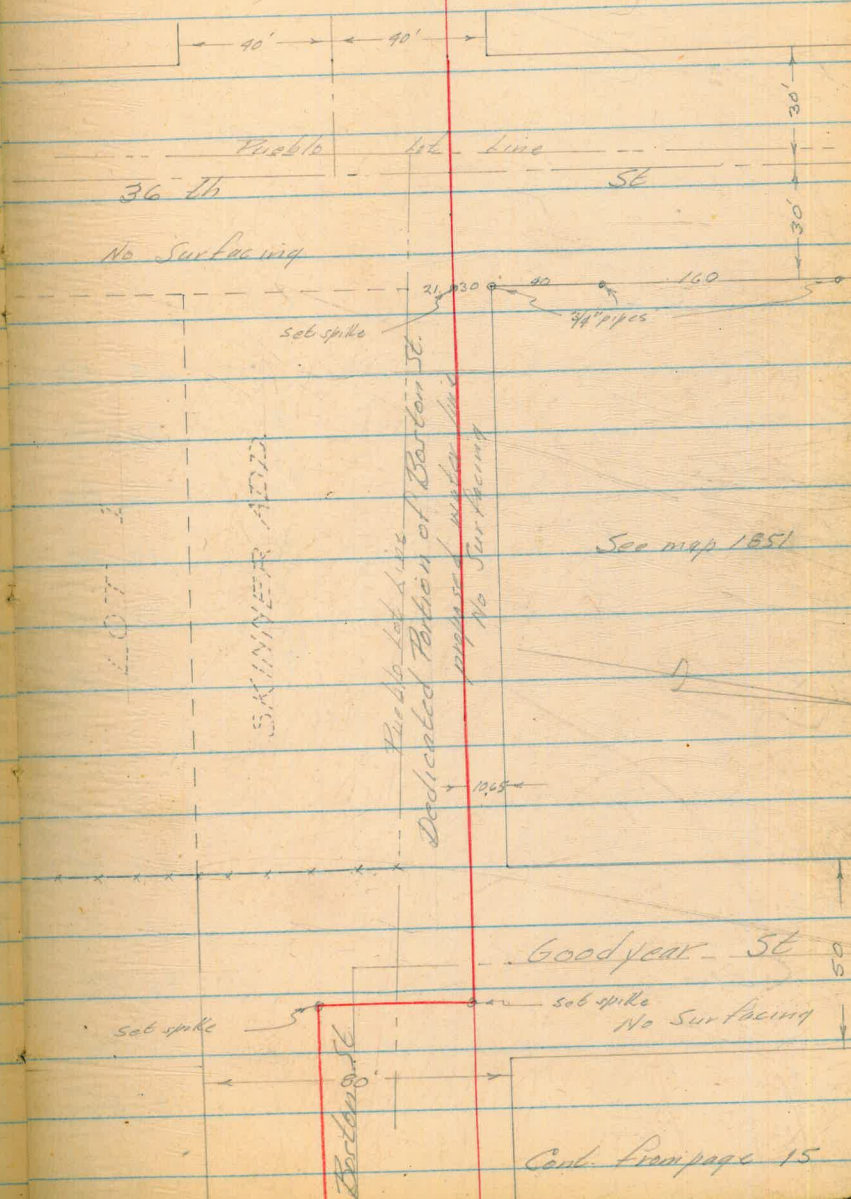
6-10-55

Boston St Cont from page 15
37th to 36th St.

7460.31 W/L of 36th St.

7400.31 E/L of 36th St.

4104.31 W/L of Goodyear



Boston Cont

27.25

SETH Z & 37th St (see note p-54)

6.00 33.35

6.85 26.50

4.54 31.04

3100 5.5 25.54

cont. from page 15

3129.96 6.7 24.34

Angle point

3169.31 1.7 26.84

Angle point

4100 6.7 24.34

Reduced by J. Gray
6-15-50

4170 8.1 32.94

4135 10.5 20.54

T.P. 10.19 20.85

2.20 23.05

4150 5.6 17.45

4170 9.0 14.05

4180 10.1 12.95

4190 9.8 13.25

Sewer crossing 5' to flatline

5100 9.2 13.85

Bolon Cont.

23.05

5417 8.9 14.15

5425 7.6 15.45

5450 0.9 22.15

7.2 0.48 22.57

12.70 35.27

5465 9.0 26.27

5475 6.2 39.07

6100 0.5 34.77

0.18 35.09

12.22 47.31

6430 7.6 39.71

6439 4.7 42.61

6450 4.2 43.11

7400.72 3.0 44.31

7450 2.9 44.91

7460.72 2.7 44.61

1/11 of 36th Record 7400.31

1/11 of 36th Record 7460.31

47.31

P

2.74 44.57

8.99 53.56

P

7.84 45.72

5.68 51.90

3.07 48.33

3/4" I.P. & CT. NE. cor. 36th & Boston

T.B.M. in Power Pole = 47.60

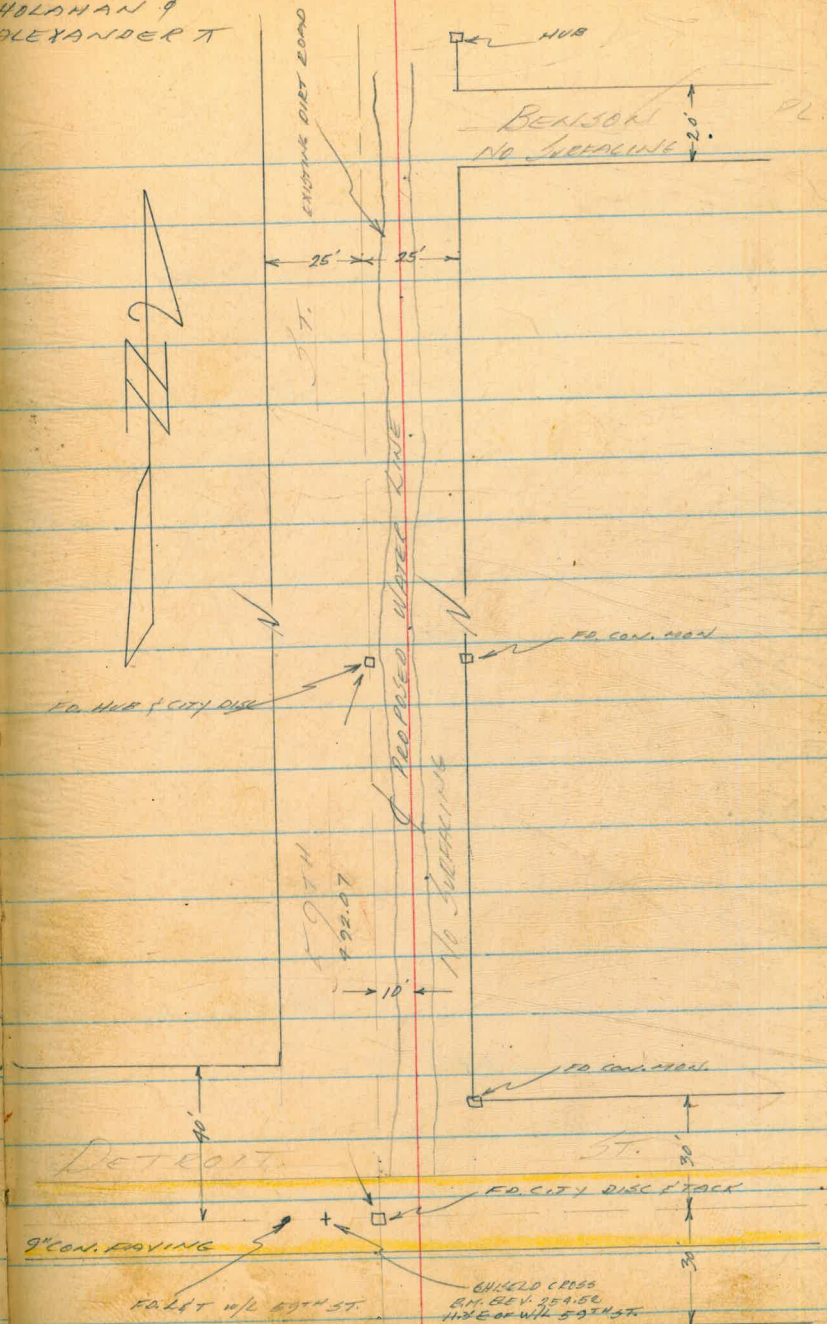
Note: this Bench was set on closed circuit
from S.E. T.H. National Ave & 35th per city level
book = 44.19

T.B.M. on 2 & 37th set on closed circuit from
S.E.P. 38th & Alpha per city level book

KEMP
HOLDMAN &
ALEXANDER T

6-23-55 58

PROFILE of PROPOSED WATER
59TH ST, DETROIT AV. TO BENSON PL.



59TH ST. CONT

254.521

CALLED CROSS of DETROIT, 113' E. OF W/2 59TH ST.F.B. ZIREL
P. 20

951 264.03

0+00

11.8

W/2 DETROIT AV.

0+10

11.8

0+20

11.02

BEGIN 9" CON PAVEMENT

0+30

10.57

of DETROIT

0+40

10.85

END 9" CON PAVEMENT

0+50

11.2

1+00

9.7

1+50

6.9

2+00

4.1

2+50

1.6

T.P.

0.39 263.64

10.83 274.47

3+00

9.7

3+50

6.8

4+00

4.9

4+50

3.1

274.47

5+00	2.4	
5+22.07	2.3	POT
6 T.P.	1.59	272.88
0		230 275.18
0 5+50	3.0	
0 6+00	3.5	
0 6+50	5.0	
0 7+00	8.2	
1 7+50	12.1	
1 T.P.	12.98	262.20
2		0.54 264.74
2 8+00	7.6	
2 8+50	11.0	
2 9+00	10.0	
3 9+50	5.6	
3 10+00	2.3	
4 10+25	1.8	
4 10+50	3.4	

264.74

11+00

6.9

11+50

3.6

6.89 257.85 = 257.86

END PROFILE

T.B.M.

NAILED IN POLE

Ash St

31st to Grove

Polim Proposed Pl

2+87⁶⁶

PAI

2+80⁶⁶

= 0+00 Page 12 Ely prop. line

0+73 PAI

0+00

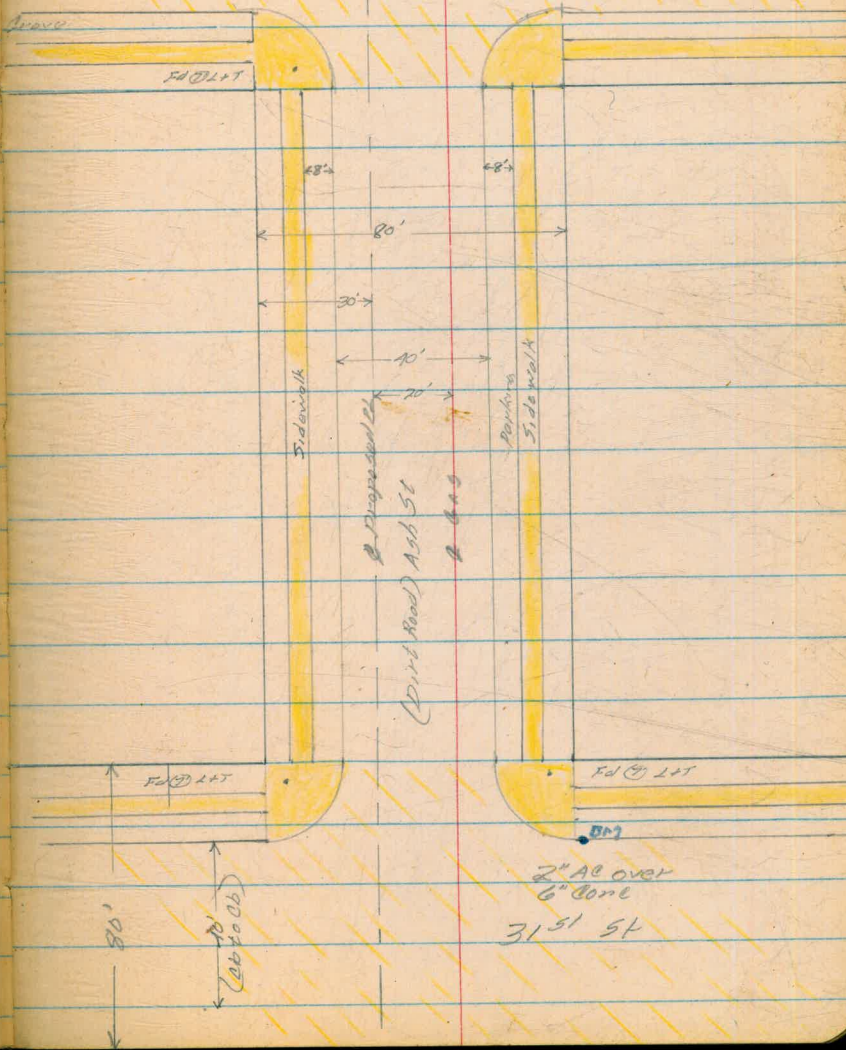
Ely prop line 31st St

West
Marshall
Varonakis

60

6-28-55

Grove St



Ash St
Q Profile

61

	3.49	238.56	235.07
0+00		3.8	234.76
+50		3.5	235.06
+80		3.85	234.71
1+00		4.6	233.96
+50		6.2	232.36
2+00		7.6	230.96
+50		8.9	229.66
+80 ⁶		9.52	229.04
+87.66		9.54	229.02
	3.49	235.07	=

BM NW BP 31st + Ash

Ely prop line 31st

end AC pave

Begin AC pave

② Line

235.07

BENSON ST 61ST TO 59TH

PLAN + PROFILE OF PROPOSED WATER

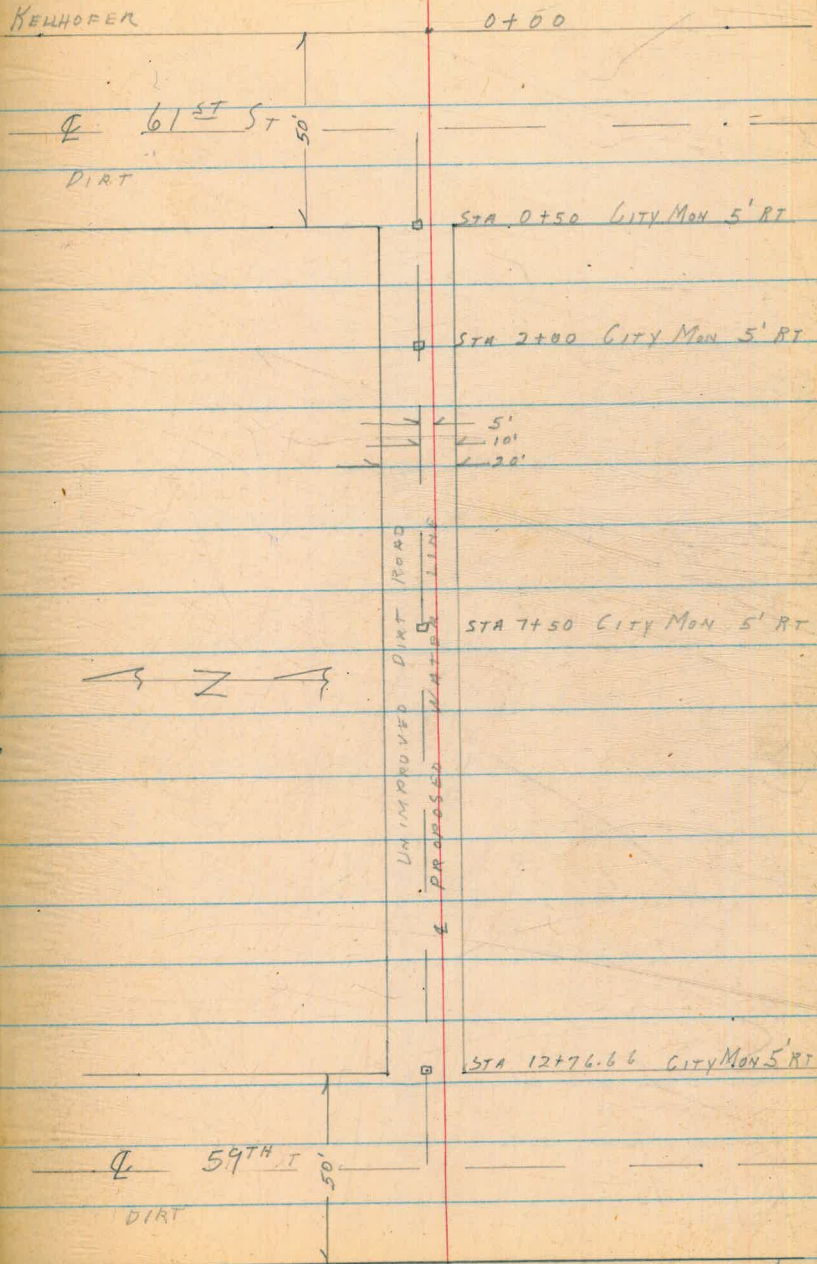
0+00 - E/L PROP LINE OF 61STS

SEE PROFILE NOTES FOR
EXPOSED 2" CITY WATER LINE AND
4" PRIVATE WATER LINE USED FOR
IRRIGATION.

13+26.66 W/LY LINE 59TH ST

ALEXANDER
HOLMANN
KENHOFER

6-30-55 62



BENSON ST

CONT

BM 257.85

POWER POLE 471423 S/W BENSON + 59

12.12 269.97

TP 0.07 269.90

12.52 282.42

TP 0.16 282.26

13.03 295.29

TP 1.91 293.88

TBM CON MON 5' RT STA 7+50

10.78 304.66

TP 0.60 304.06

8.10 312.16

TP 4.87 307.29

TBM CON MON 5' RT STA 2+00

3.85 311.14

TP 9.46 301.68

TBM CON MON 5' RT STA 0+50

9.86 311.54

0+00 12.2

0+13 11.9

0+25 10.0

0+35

GV- 6' RT

BENSON ST

(CONT)

LEFT

RIGHT

311.54

0.50 9.7

$\frac{2.8}{5}$ $\frac{9.2}{5}$ $\frac{8.2}{15}$

0.53

6" STEEL PRIVATE WATER CROSSING

1+00 7.3

4" PRIVATE WATER LINE 1 RT $\frac{2.2}{5}$ $\frac{6.6}{5}$ $\frac{5.3}{15}$

1+50 4.9

$\frac{5.8}{5}$ $\frac{4.3}{5}$ $\frac{3.0}{15}$

2+00 4.2

4" " " " 1 RT $\frac{5.0}{5}$ $\frac{3.5}{5}$ $\frac{2.6}{15}$

2+50 6.2

2" CITY WATER 14 RT $\frac{6.4}{5}$ $\frac{6.0}{5}$ $\frac{5.2}{15}$
4" PRIV " 0.5 LT

3+00 8.8

$\frac{8.8}{5}$ $\frac{9.0}{5}$ $\frac{8.4}{15}$

TP 11.39 300.15

0.56 300.71

3+50 1.6

2" CITY WATER 14 RT $\frac{2.8}{5}$ $\frac{1.9}{5}$ $\frac{1.3}{15}$
4" PRIV " 15 RT

4+00 4.1

4" " " 14 RT $\frac{4.0}{5}$ $\frac{4.5}{5}$ $\frac{4.6}{15}$

4+50 6.4

$\frac{5.4}{5}$ $\frac{6.1}{7}$ $\frac{6.6}{5}$ $\frac{7.6}{15}$

5+00 7.6

4" " " 12 RT $\frac{7.2}{5}$ $\frac{7.6}{5}$ $\frac{8.9}{15}$

5+50 7.6

$\frac{7.2}{5}$ $\frac{8.0}{5}$ $\frac{7.6}{15}$

6+00 6.1

4" " " 11 RT $\frac{5.6}{5}$ $\frac{6.4}{5}$ $\frac{8.4}{15}$

6+50 4.4

4" " " 11 RT $\frac{4.0}{5}$ $\frac{4.6}{5}$ $\frac{6.2}{15}$

TP 3.95 296.76

BENSON ST

CONT

LEFT

RIGHT

296.76

0.74 297.50

7+00 1.4

 $\frac{1.5}{5}$ $\frac{1.2}{5}$ $\frac{2.2}{15}$

7+25

EXPOSED 2" CITY WATER 5' RT

7+50 3.0

4" PRIV WATER 12' RT $\frac{2.7}{5}$ $\frac{3.0}{5}$ $\frac{3.0}{15}$

7+65

EXPOSED 2" CITY WATER 2' RT

7+80

END 4" PRIV WATER 15' RT

8+00 6.3

 $\frac{6.1}{5}$ $\frac{6.3}{5}$ $\frac{6.2}{15}$

8+50 9.9

 $\frac{9.9}{5}$ $\frac{10.3}{5}$ $\frac{10.4}{15}$

TP

12.77 284.73

0.93 285.66

9+00 1.9

 $\frac{1.7}{5}$ $\frac{2.2}{5}$ $\frac{2.7}{15}$

9+50 5.4

START 4" PRIV WATER 18' RT $\frac{5.1}{5}$ $\frac{6.1}{5}$ $\frac{6.4}{15}$

10+00 9.4

4" PRIV WATER 10' RT $\frac{9.4}{5}$ $\frac{9.8}{5}$ $\frac{10.1}{15}$

10+50 10.7

4 " " 16' RT $\frac{10.8}{5}$ $\frac{11.2}{5}$ $\frac{11.7}{15}$

11+00 14.6

4 " " 15' RT $\frac{14.2}{5}$ $\frac{13.0}{5}$ $\frac{12.8}{15}$

TP

12.90 272.76

0.17 272.93

BENSON ST

(CONT)

LEFT

RIGHT

272.93

11+50 2.2

12+00 5.7

12+50 9.7

TP 13.12 259.81

6.74 266.55

13+00 8.7

13+15

13+26.66 12.2

CK B.M 8.67 257.88 = 257.85

4" PRIV WATER 13RT $\frac{2.0}{5}$ C $\frac{2.4}{5}$ $\frac{2.6}{15}$

4 " " 11.5RT $\frac{5.6}{5}$ $\frac{5.7}{5}$ $\frac{5.6}{15}$

4 " " 7.5RT $\frac{9.7}{5}$ $\frac{9.5}{5}$ $\frac{9.3}{15}$

4" PRIV WATER 3.5RT $\frac{8.9}{5}$ $\frac{8.3}{5}$ $\frac{7.0}{15}$

4" PRIVATE WATER CROSSING $\frac{12.6}{5}$ $\frac{11.8}{5}$ $\frac{10.8}{15}$

NAIL IN POLE 471427 SW BENSON + 59TH

PARADISE FROM TOOLEY 850' NLY

PLAN & PROFILE PROPOSED WATER LINE

3+22.16 EC
= 3+65.08

$\Delta = 90^\circ$
 $R = 100'$
 $L = 157.08$

new alignment by west
8-15-55

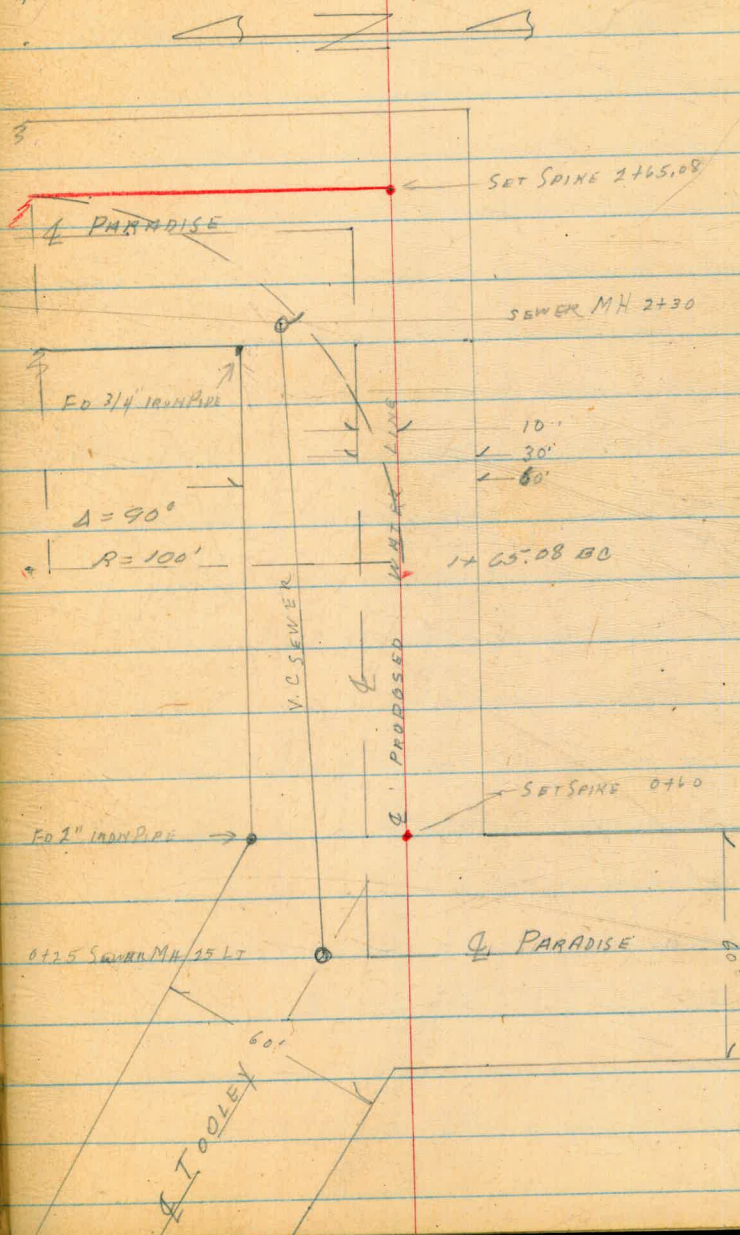
1+65.08 BC

0+00 W/LY PROP LINE PARADISE

ALEXANDER
HOLAHAN
KELLMER

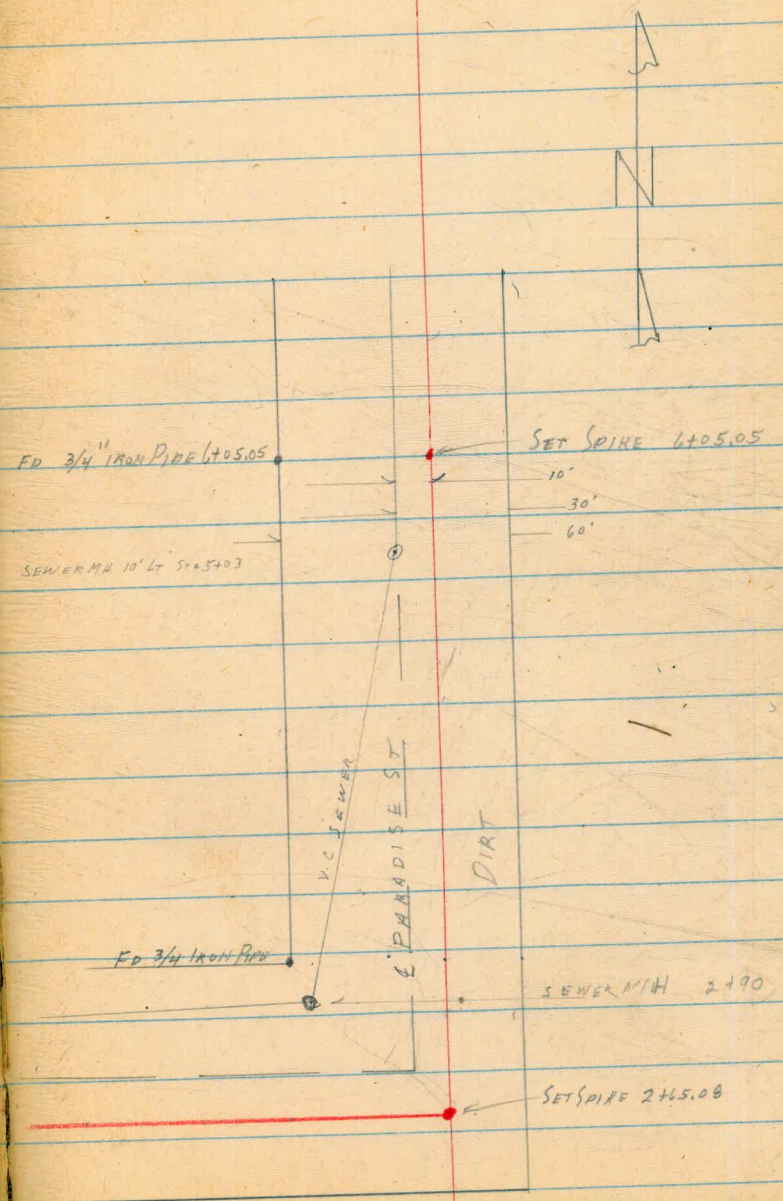
6-30-55

67



PARADISE ST (CONT)

8+48.19 END OF PROFILE



2+65.08 ANGLE POINT 90° RIGHT RECORD

PARADISE ST

CONT

434.17

13.14 447.31

TP

0.81 446.50

12.74 459.24

TP

0.65 448.59

TP

7.32 465.91

0+30

VOID

2.41

TP

3.75 462.16

0+00

0.0

0+30

0.1

0+50

0.8

1+00

2.5

1+50

4.9

2+00

8.1

2+30

10.3

TP

12.50

S.F.F.H. SPRINGFIELD + PARADISE

S. RIM SEWER MH 28' LT 17.3 TO FLOW

VOID

S. RIM SEWER MH 28' LT 17.3 TO FLOW

FBM 2" IP RE 913 40' LT 0+60

SEWER CROSSING

$\frac{7.1}{10}$ & $\frac{8.3}{10}$

RIM SEWER MH 28' LT 5.6 TO FLOW

PARADISE S.T (CONT)

BM			434.17
	13.14		447.31
TP		0.81	446.50
	12.74		459.24
TP		0.65	448.59
	7.32		465.91
0+30		2.41	463.50
TP		3.75	462.16
	0.90		463.06
0+00		0.0	463.06
0+30		0.1	462.96
0+50		0.8	462.26
1+00		2.5	460.56
1+50		4.4	458.66
2+00		8.1	454.96
2+30		10.3	452.76

Reduced by J Gray 8-10-55

SEFH SPRINGFIELD & PARADISE

S. RIM SEWER MH 25' LT 17.3 To Flow

SEWER CROSSING

EDGE ROAD 7.7 10.1 88 10.8

RIM SEWER MH 28' LT 5.6 To Flow

PARADISE ST (CONT)

463.06

TP 12.50 450.56

0.47 451.03

2+50 6.9 444.13

2+65.08 * 10.6 440.43

3+00 7.0 444.03

TP 6.71 444.32

12.72 457.04

3+50 10.4 446.64

3+90 6.6 450.44

4+00 3.7 453.34

4+15 2.3 454.74

4+50 0.7 456.34

5+00 0.1 456.94

TP 0.10 456.94

1.08 468.02

1.6 / 10L 6.5 / 7L C 7.7 / 10R

SECTION ON SPLIT OF ANGLE

7.6 / 13L 11.6 / 10R

3.6 / 10L 5.0 / 8L 10.3 / 10R

1.6 / 11L 9.0 / 5L 13.2 / 10R

3.0 / 10L 3.1 / 5L 8.2 / 10R

2.0 / 10L 2.7 / 4L 5.0 / 2R 6.7 / 10R

EDGE ROAD

0.6 / 10L 0.6 / 3R 2.4 / 7R 3.0 / 10

PARADISE ST

(CONT)

458.02

5+03 0.96 457.06

PLYRIM SEWER M.H. 10' LT 8.5 FLOW

5+50 1.3 456.72

6+00 1.6 456.42

6+50 2.8 455.22

7+00 5.3 452.72

5.8

10.1

5.9

10.1 R

7+50 POT 9.8 448.22

EDGE OF ROAD

17.1 12.2

15.1 8.1

7.8

10 R

TP 12.95 445.07

3.92 448.99

8+00 10.0 438.99

14.0

10.1

4.5

10 R

8+40.19 18.2 430.79

21.7

10.1

15.9

10 R

TP 1.35 447.64

3/4" 10 RE 913 40' LT 7+00

12.92 460.56

TP 1.69 458.87

8.19 467.06

TP 8.46 458.60

1.15 459.75

PARADISE ST (CONT)

459.75

TP 13.29 446.46

1 0.59 447.05

CHR BM 12.92 434.13 = 434.17 SE FH SPRINGFIELD & PARADISE

1.81 463.97 462.16

Top 2' 10" RE 913 page 69 page

BC 1 + 65.08 6.0 457.97

West Williams 8-15-05
Varonakis
Nevander

1 + 75 6.5 457.47

2 + 00 8.4 455.57

+ 25 10.6 453.37

+ 37.5 11.09 452.88

+ 50 11.8 452.17

+ 68 12.2 451.77

4.72 457.07 11.62 452.35

+ 75 7.7 449.37

3 + 00 10.4 446.67

- 3 + 65.09 AH 8.6 448.47

896 465.35 0.68 456.39

318 462.17 = 462.16

8.7 8.2 8.9 9.5
10' LT 9' RT 6' RT 10' RT10.3 11.0
10' LT 10' RT

Top NE Rim 2' LT Lower MA

11.7 12.1
10' LT 8' RT Top Bank

Top Bank

5.0 5.2 11.4
10' LT 4' LT 10' RT4.6 5.1 9.9 13.1
15' LT 10' LT 2' LT 10' RT3.9 4.1 12.2
15' LT 9' LT 10' RT

EVELYN ST.
 Broadway to 69th
 (5) STR'S & GRDS FOR 6' MAIN

7/11/55
 SHORBY
 KEMP
 KELLHOFER

74

NAIL IN P.P. S.E. COR. EVELYN & BROADWAY
 (199.31)

B.M.	1.70	307.06	305.36	
0+27	45° BEND BY CITY	3.6	303.5	297.4
0+50		4.3	302.8	297.4
1+00		4.9	302.2	297.7
1+50		4.9	302.2	298.4
2+00		3.7	303.4	299.1
2+50		1.2	305.9	301.8
TP	13.04	319.54	0.56	306.50
3+00		10.2	309.3	303.6
3+50		6.3	313.2	307.5
4+00	(5)	1.8	317.7	312.5
4+00	(10)	1.3	318.2	312.5
TBM	12.05	328.16	3.43	316.11
4+50	(10)	5.0	323.2	318.3
TP	11.34	338.66	0.84	327.32
5+00	"	9.1	329.6	324.7
5+50	"	2.1	336.6	331.0
TP	12.62	349.48	1.80	336.86
6+00	"	2.2	347.3	337.4
TP	12.74	362.04	0.18	349.30
6+50	"	7.6	354.4	343.7
6+625	"	5.7	356.3	345.4
6+81	F.H. TEE	2.8	359.2	347.5
(5) F.H.		1.3	360.7	351.0
7+00		1.5	360.5	348.9
TP	10.06	371.84	0.26	361.78
7+50		8.0	363.8	353.4

TOP ROCK APPROX 50' LT. 4+50

E 92 C 132

0 116

C 104

EVELYN ST.
(Cont'd.)

371.84

7+75		6.7	365.1	354.7	C10 ⁴
8+00		6.5	365.3	355.4	C9 ²
8+25		5.0	366.8	355.8	C11 ⁰
8+50		1.8	370.0	355.9	C14 ¹
9+00		1.1	370.7	356.2	C14 ⁵
TP	5.11	375.51	1.44	370.40	
9+50		4.3	371.2	356.6	C14 ⁶
9+87.5		6.3	369.2	356.8	C12 ⁴
10+00		4.3	369.2	356.8	C12 ⁴
TP	2.57	365.54	12.54	362.97	
10+50		1.2	364.3	356.7	C7 ⁶
10+62.5		2.8	362.7	356.0	C6 ³
11+00		8.1	357.4	350.0	C7 ⁴
TP	1.06	353.64	12.96	352.58	
11+50		6.2	347.4	340.0	C7 ⁴
TP	0.56	341.16	13.04	340.60	
11+83 ⁸¹		2.0	339.2	331.1	C8 ¹
			2" B.O.		

CU TBM

13.22 327.94 = 327.94

Conc Man. @ 69th St. & Evelyn. (pg. 34)

EVELYN ST.
(CONT'D)

7-11-55

76

WATER METERS

2+76 FLY	319.54	11.5	308.0	305.8	C22	
2+87 WLY		13.9	305.6	306.0	F04	
3+86 FLY	328.16	1.8	317.7	314.5	C32	1045
4+23 WLY	338.66	12.7	315.5	318.7	F32	
5+70 WLY	349.48	4.8	333.9	336.0	F2 ^L	
6+14 WLY	375.51	10.5	339.0	340.0	F1 ^L	
9+44 FLY		2.9	372.6	368.2	C4 ^L	

move Fire Hyd at cor of
Talbot & Catalina

7329 L

211 262.76

260.65

6.4 256.4 @ 51

⑤ & FH

2.9 259.9 256.4

35

211 260.65 = 260.65

West
Williams
Varonfakis
Alexander

8-22-55

BM SW by cor Catalina + Santa Barbara

60' Talbot St

rd & nail

rd & nail

Catalina Blvd

FH

existing FH @ 39' From Q 51

Re Set FH @ 29' From Q

rd & nail

(37)

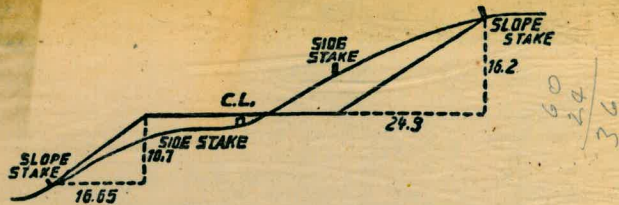
$$\begin{array}{r} 89\ 60 \\ 89\ 16 \\ \hline 10\ 12 \end{array}$$

$$\begin{array}{r} 200\ 54 \\ 8 \\ \hline 2\ 2 + 80.50 \\ 80 \\ \hline 3 + 80.50 \end{array}$$

$$\begin{array}{r} 103\ 82 \\ 10 \\ \hline 120\ 82 \end{array}$$

$$\begin{array}{r} 6.5 \\ 2.5 \\ \hline 3.1 \end{array}$$

$$\begin{array}{r} 80 \\ 225 \\ \hline 52 \end{array}$$



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

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