

F. B.
896

LEVEL BOOK

373

IND

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK

CHICAGO MICROE SAN FRANCISCO. ST. LOUIS.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

"Copyright, 1885, by Keuffel & Esser Co."

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

C-2 Line
Gillette Street

Sta	+	H.I.	-	El.
B.M. Top Hyd	NE 33 rd & Imp.			29.07
	1.42	30.49		
T.P.			6.96	23.53
	2.60	26.13		
0+00			7.0	19.1
0+50			8.3	17.8
0+60			7.3	17.8
0+65			9.9	16.2
1+10			10.9	16.1
1+18			9.8	16.3
1+30			8.3	17.8
1+35			4.6	21.5
1+58 ⁸⁰ = Δ			4.9	21.2
2+00			5.0	21.1
3+00			5.2	20.9
3+07			5.9	20.2
3+20			3.0	23.1
3+30 = 4 old well			7.2	18.9
3+45			4.4	21.7
4+00			4.2	21.9
5+00			4.3	21.8
5+78 = Top Cb. EL. 33 rd			5.11	21.0
5+79 = Gutter			5.52	20.6
5+98 ⁸⁰ Top MH #1			4.8	21.3
6+13 ⁸⁰			5.2	20.9
T.P.			4.02	22.11
	8.83	30.94		
B.M. Top Hyd.			1.78	29.16

"C" 2 Line

Grades
 Filbert
 Dalbergia
 Logan
 Bancroft
 33rd

Plotted

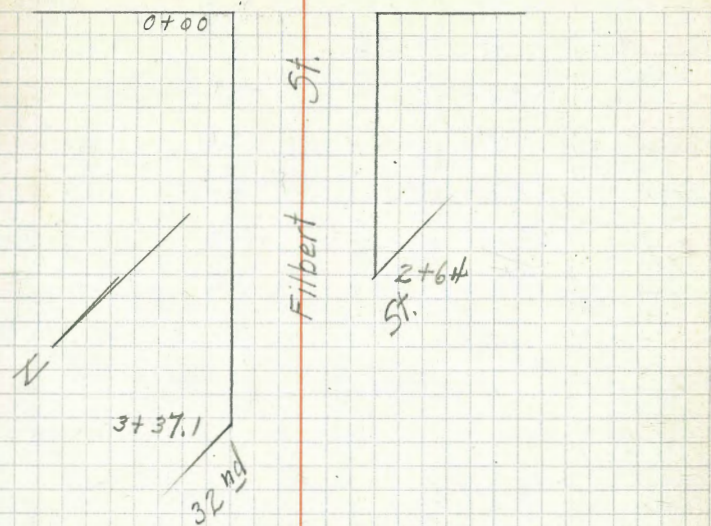
Filbert St. - 32nd to Pluto

	Sta.	N	± ground	S
W.L. Pluto	0+00	3.0	-2.9	3.0
	0+40		-2.4	
	0+84		5.1	
	1+44	16.5	14.5	16.5
	2+14		21.7	
EL. 32 nd on S	2+64		23.1	22.7
EL. 32 nd on E	3+00 ^{SS}		23.9	
EL. 32 nd on N	3+37 ^I	26.0		

Tentative grade

Pluto

St.



Dalbergia St. - Pluto to N.W.

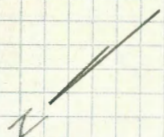
	Sta	N	± ground	S
W.L. Pluto	0+00	2.0	-3.5	2.0
	0+50		-0.8	
	1+00		-3.6	
	2+00		+0.3	
	2+50		20.4	
	3+00	20.5	18.5	20.5

Tentative grade

PLUTO

St.

0+00



3+00

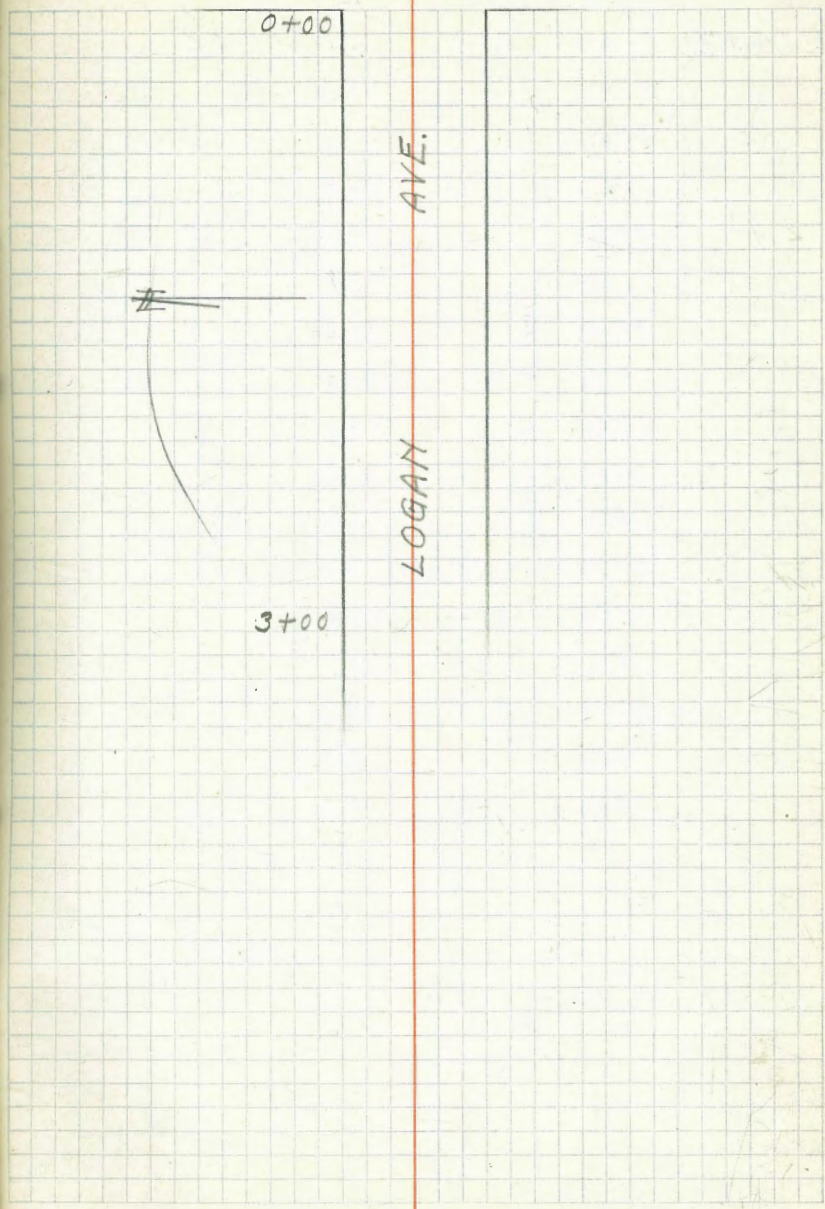
DALBERGIA

Logan Ave - 32nd To 33rd

Sta.	N	φ ground	S
WL 33 rd 0+00	5.0	3.0	5.0
0+40	6.3	3.5	6.3
0+80	10.2	7.5	10.2
1+00		11.0	
1+50		24.2	
2+00		28.7	
2+50		34.8	
3+00	40.0	43.5	40.0

Tentative grade

33rd St.

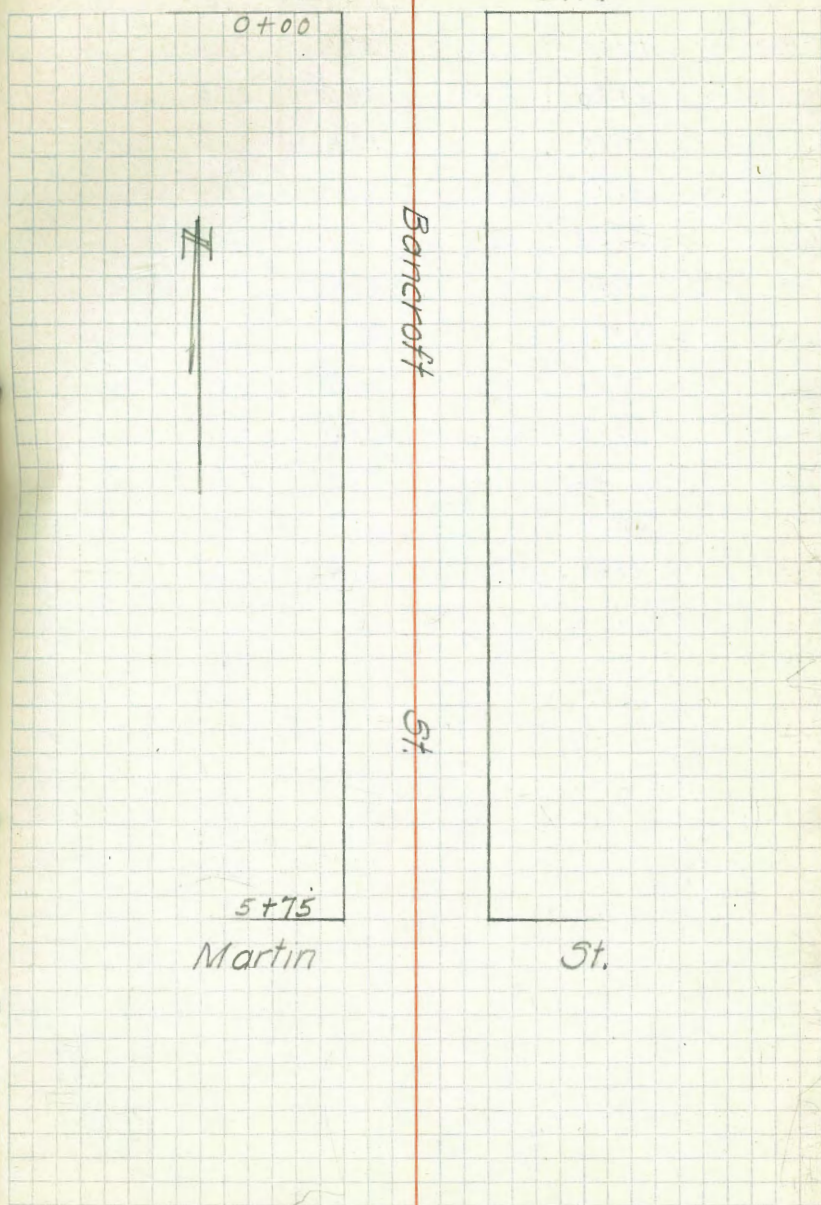


Bancroft - Ocean View to Martin

Sta	W	$\frac{d}{\text{ground}}$	E
S.L. Ocean V. 0+00	33.5	37.8	32.5
0+50		34.5	
1+00		33.6	
1+25		31.8	
1+50		26.2	
1+65		15.8	
2+00	tentative grade	26.8	
2+25		30.8	
2+50		28.0	
3+00		25.8	
3+60		28.8	26.3
4+00	27.5	26.3	26.5
4+25	26.0	25.8	
4+50	24.1	25.3	
4+80	21.4	20.2	
5+50		10.0	
5+75	11.0	9.6	10.0

Ocean View

Blvd.

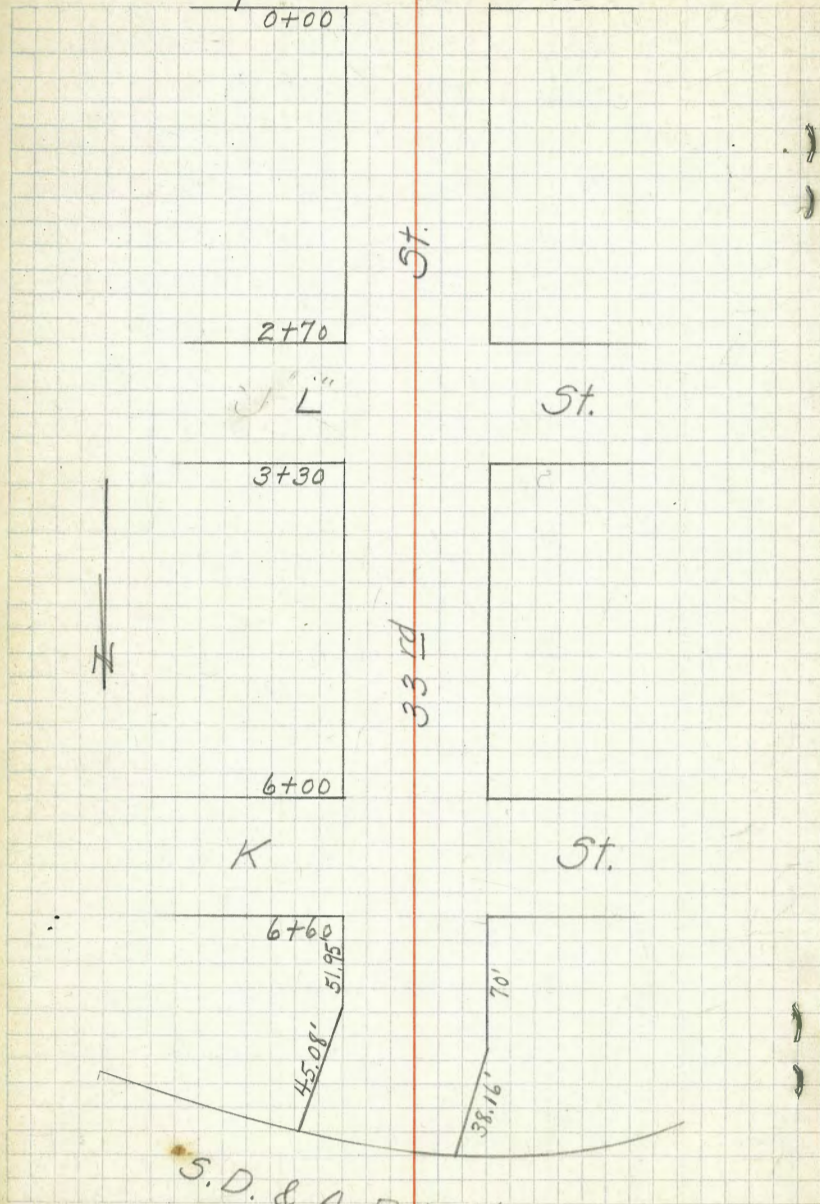


33rd - Imperial to N of K St.

	Sta.	E	± ground	W
N.L. Imperial	0+00	27.0	27.3	28.0
	0+50	25.4	24.5	25.5
	2+00		25.2	
S.L. "L"	2+70	24.3	25.8	24.5
N.L. "L"	3+30	25.0	26.0	25.0
	4+00		27.8	
	4+50		27.7	
	5+40		28.4	
S.L. "K"	6+00	27.5	29.2	27.5
N.L. "K"	6+60	28.0	29.0	28.0
	7+50		29.8	
	7+60	29.0	26.8	29.5

Imperial

Ave



S.D. & A. R.O.W.

NW/8P

30th + Ocean View

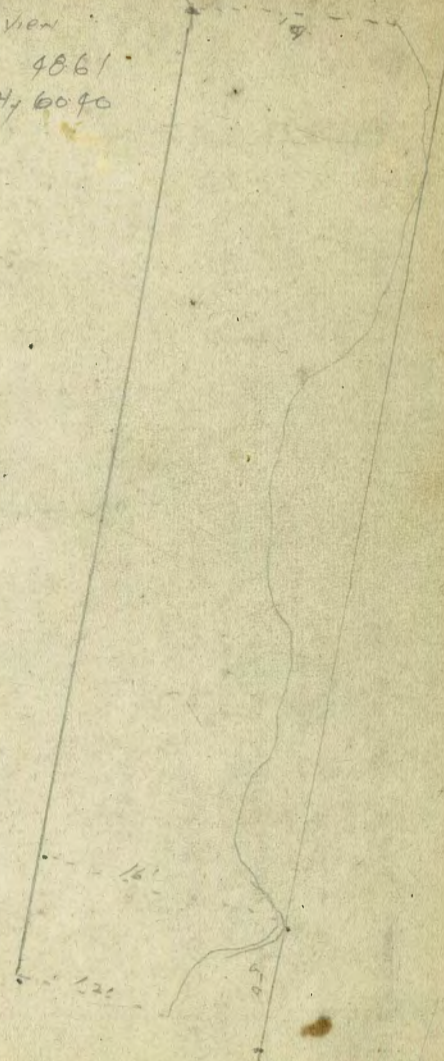
88.03

Ocean 29th NE 2P 9745

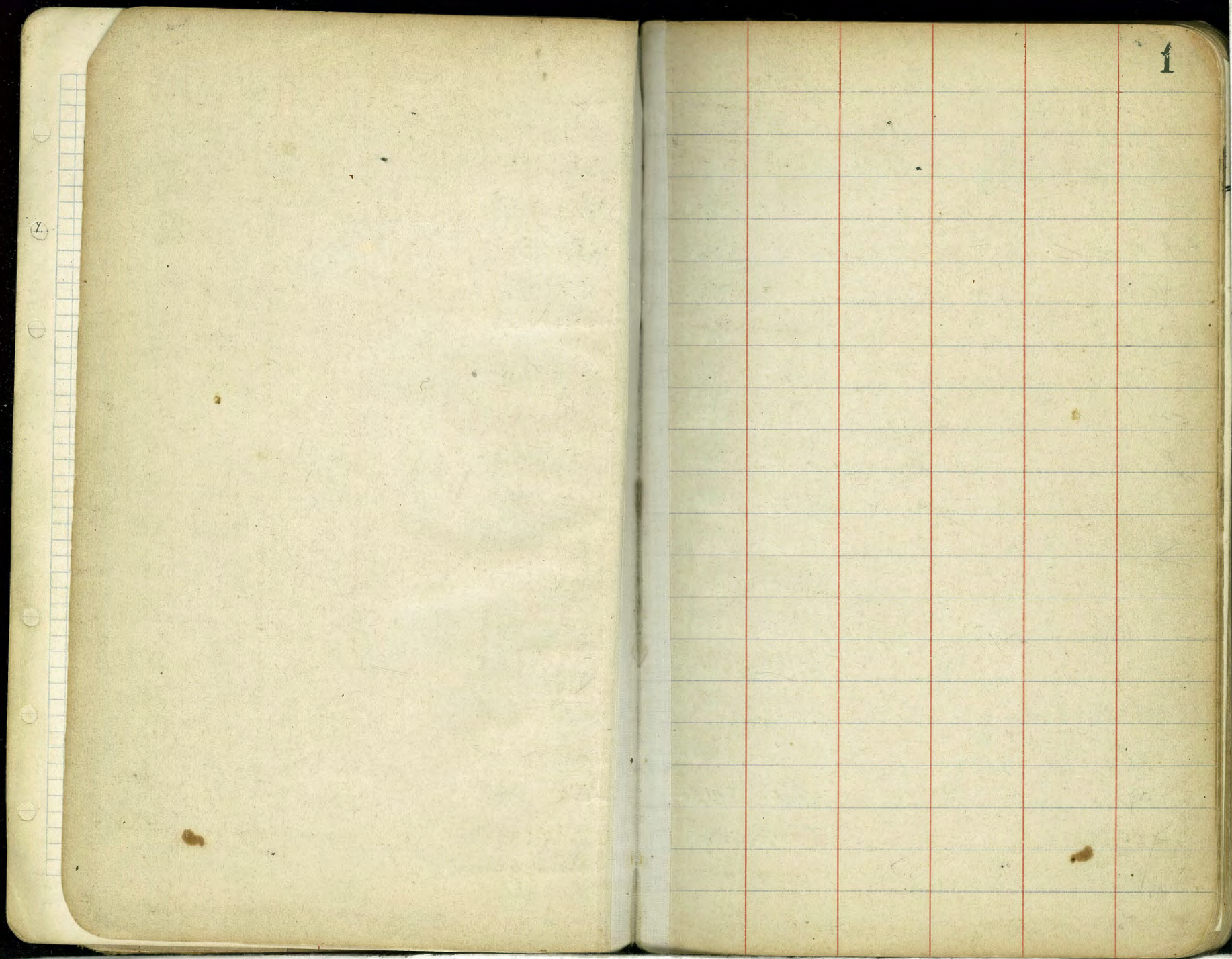
31st + Ocean View

H.W. BP 4861

32nd SW Top H. 6090



4702



1

main sewer from M.H. center
to alley bet. Chicago
Sta.

of 38th. just north of belt line
July 17/13
H.I. 18.18
2.38
20.66 H.I.
7.85
12.71
8.47
12.09
8.92
11.64
9.37
11.19
13.13
7.47 H.I.
20.60
8.80
12.60
14+67.65

Sta.	M.H. center of 38 th	H.I.	Roof	Ground	Grade	cut			
0+00	M.H. center of 38 th	12.26	11.64	0.62	0.70	0.0	9.53		
+50			9.07	3.19	1.20	2.0	4.73	18.18	30499
1+00			5.2	7.1	1.70	5.4	14.26	2.38	
+50			5.60	6.66	2.20	4.5	1.20	20.66	
2+00			2.06	10.20	2.70	7.5	13.06	7.85	
+30	M.H. (probable)		2.18	10.08	3.00	7.1	12.56	12.71	
+50			2.73	9.53	3.24	6.3	2.20	8.47	
3+00			12.8	7.8	3.84	4.0	12.06	12.09	
J.P.	11.03	20.56					2.70	8.92	
+50			11.39	9.17	4.44	4.8	11.56	11.64	
4+00			11.2	9.4	5.04	4.4	3.00	9.37	
+50			11.05	9.51	5.64	3.9	11.26	11.19	
5+00			10.7	9.9	6.24	3.7	3.24	11.02	
+50			9.71	10.85	6.83	4.0	3.84	13.13	
6+00			7.49	13.07	7.43	5.7	10.42	7.47	
+35							4.44	20.60	
+46.8	M.H. center of 32 nd .		2.38	18.18	8.00	10.2	9.82	8.80	
7+00			7.43	13.13	8.47	4.7	5.04	12.60	
J.P.	10.75	23.28					9.22		
+50			9.3	14.0	8.92	5.1	5.64		
8+00			8.40	14.88	9.37	5.5	8.62		
							6.24		
							8.02		
							6.83		
							7.43		
							7.43		
							6.83		
							7.85		

Cont. from page 2

July 19/13
 Schultz
 et al.
 Bunker

Sta.	H.I.	Rod	Ground	Grade	cut	2056 H.I.	
8+50	23.28	8.7	14.6	9.81	4.8	9.81 ✓ 10.75 ✓ 10.26 ✓ 10.30 ✓ 10.70 ✓ 9.86 ✓	18.24 3.62 21.86 H.I. 11.00 ✓ 10.86 ✓ 11.23 ✓ 10.63 ✓ 12.06 ✓ 9.80 ✓
9+00		9.17	14.11	10.26	3.9		
+50		6.25	17.03	10.70	6.3		
+86.15		5.69	17.59	11.00	6.6	25.72 4.76	12.89 ✓ 8.97 ✓
10+00	28.24	10.00	18.24	11.23	7.0	30.48 H.I. 19.00 ✓ 11.48 ✓ 19.47 ✓ 11.01 ✓ 20.20 ✓ 10.28 ✓ 20.92 ✓ 9.56 ✓	13.72 ✓ 8.14 ✓ 14.55 ✓ 7.31 ✓ 15.38 ✓ 6.48 ✓ 16.21 ✓ 3.85 ✓ 17.04 ✓ 4.82 ✓ 17.87 ✓ 3.99 ✓ 18.70 ✓ 3.16 ✓
+50		9.5	18.7	12.06	6.6		
11+00		10.96	17.28	12.89	4.4		
+50		11.8	16.4	13.72	2.7		
12+00		8.91	19.33	14.55	4.8		
+50		7.3	20.9	15.38	5.5		
13+00		7.00	21.24	16.21	5.0		
+50		6.8	21.4	17.04	4.4		
14+00		5.33	22.91	17.87	5.0		
+50		5.2	23.0	18.70	4.3		
+67.63		3.34	24.90	19.00	5.9		
15+00		2.52	25.72	19.47	6.2		
+50		2.0	26.2	20.20	6.0		
16+00		1.38	26.86	20.92	6.0		

cont. from page 3

July 18/13 ^{St. Louis} _{attn 4}
Baltimore

Sta.		H.T.	Rod	Ground	Grade	cut		
J.P.	10.78	<u>37.64</u>					30.48 H.T.	33.68
16+50			10.2	27.4	21.64 ✓	5.8	21.64 ✓ 8.84 ✓	4.76 38.44 H.T.
17+00			9.24	28.40	22.37 ✓	6.0	22.37 ✓ 8.11 ✓	25.93 12.51 ✓
+50			8.0	29.6	23.09 ✓	6.5	23.09 ✓ 7.39 ✓	27.30 ✓ 11.14 ✓
18+00			7.38	30.26	23.81 ✓	6.5	23.81 ✓ 6.67 ✓	28.66 9.78 ✓
+47.5	M.H. alley bet.		7.2	30.4	24.50 ✓	5.9	36.96 6.03	29.35 9.09 ✓
19+00	Valle & Woolman		3.96	33.68	25.93 ✓	7.8	42.99 H.T. 30.71 ✓	38.68 2.18
+50			1.0	36.6	27.30 ✓	9.3	12.28 ✓	35.86 H.T. 24.50 ✓
20+00			1.98	35.66	28.66 ✓	7.0	46.90 0.72 47.68	11.36 47.68 47.68 35.33 35.00 2.35 12.68
J.P.	12.30	<u>49.87</u>	0.07	37.57				
+25			12.1	37.8	29.35 ✓	8.5	44.70 1.54 46.24	46.24 46.24 46.24 36.25 37.17
+75			12.7	37.2	30.71 ✓	6.5		9.97 9.07
21+00			12.91	36.96	31.40 ✓	5.6		
+50			11.8	38.1	32.76 ✓	5.3		
22+00			9.45	40.42	34.13 ✓	6.3		
+31.88	M.H. alley bet.		4.4	45.5	35.00 ✓	10.5		
+50	Woolman & Franklin		3.0	46.9	35.33 ✓	11.6		
J.P.	8.03	<u>52.88</u>	0.02	49.85				
23+00			8.18	44.70	36.25 ✓	8.5		
+50			11.5	41.4	37.17 ✓	4.2		

Cont. from page 4

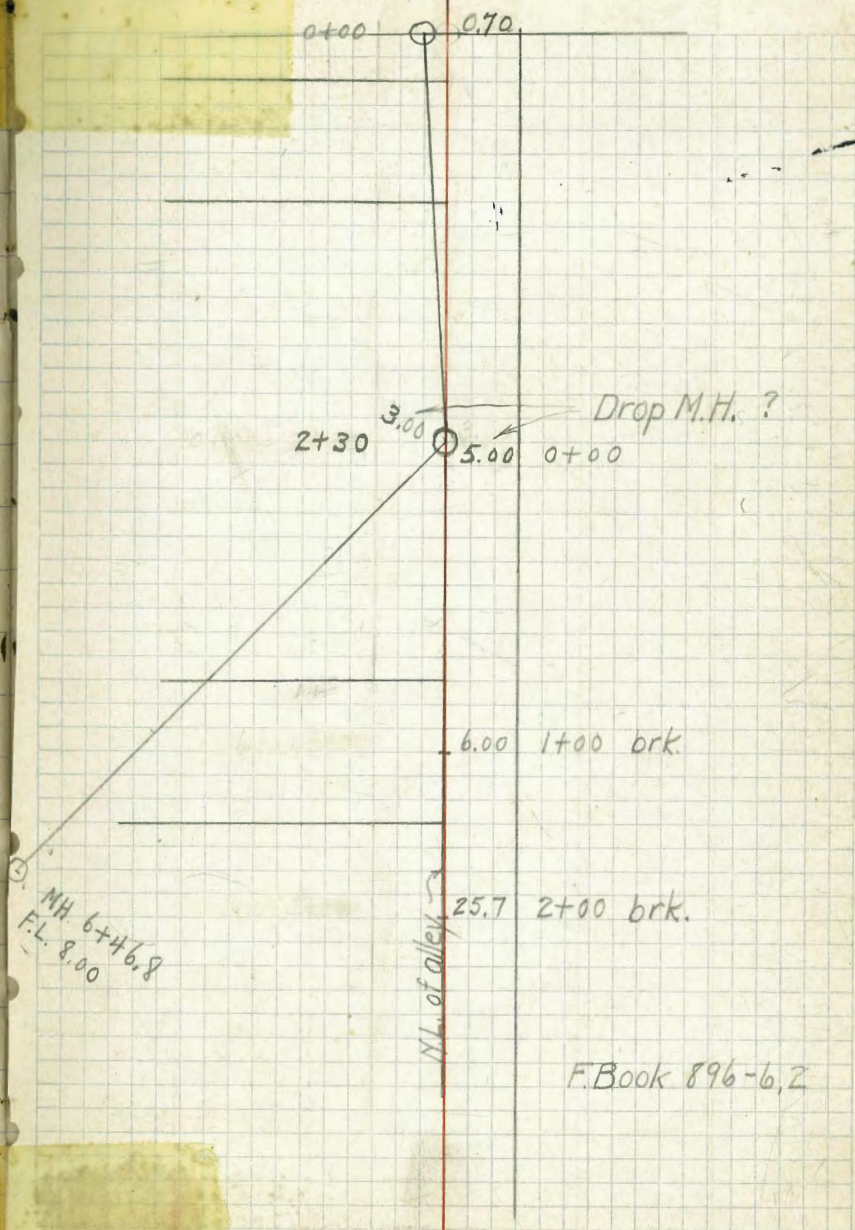
July 21/13 ^{Childs} letter ⁵ number

Sta.		H.I.	Rod	Ground	Grade	Cut	46.24	46.24	46.24
24+00		52.88	11.27	41.61	38.09	3.5 ✓	38.09	39.10	
+50			9.5	43.4	39.08	4.4 ✓	8.15	7.24	
25+04	M.H. 3 of old Franklin		2.96	49.92	40.00	9.9 ✓	52.30	54.99	54.99
J.P. of Franklin		60.97					2.62	41.87	42.23
+50			8.62	52.35	41.07	11.3 ✓	54.99	13.92	12.76
26+00			12.44	48.53	42.23	6.3 ✓	40.00	✓	11.59
+50			72.3	48.7	43.40	5.3 ✓	14.99	✓	10.92
27+00			9.18	51.79	44.56	7.2 ✓			
27+22 ⁵									
+18.6	M.H. Alley bet. Franklin & Clay.		8.00	52.97	45.00	8.0 ✓			
+50			7.6	53.4	48.62	4.8 ✓			
28+00			0.68	60.29	54.38	5.9 ✓			
J.P.		9.71	70.00						
+40	break		4.6	65.4	59.00	6.4 ✓			
+50			4.9	65.1	59.11	6.0 ✓			
29+00			5.81	64.79	59.69	4.5 ✓			
+50			4.7	65.3	60.27	5.0 ✓			
30+00			3.57	66.43	60.85	5.6 ✓			
+50			2.3	67.7	61.43	6.3 ✓			
+99	M.H. alley bet Clay & Webster		-0.4	70.4	62.00	8.4			

Alley bet. Greeley & Logan
 page 2 to 80' west of g 31st.

Sta.		H.S.	Rid	Ground
0+00	M.H. = 2+30	21.72	11.64	10.08
+25	on page 2 ↓		11.15	10.57
+75			9.0	12.7
1+00	break.		9.81	11.91
J.P.	12.94	33.86	0.80	20.92
+50			7.98	25.88
J.P.	9.55	41.43	1.98	31.88
2+00	break		4.48	36.95
+50			3.4	38.0
3+00			3.02	38.41
+50			1.8	39.6
4+00			0.62	40.81
+10			7.2	34.2
+30	M.H. center of		6.3	35.1
+50	32nd on pueblo		6.5	34.9
5+00			9.02	32.41
+30	M.H. center		9.1	32.3
+50	alley.		7.9	33.5
6+00			1.22	40.21
J.P.	12.46	52.67		
+50			7.49	45.18

Alley bet. Logan and Greeley ✓



from M.H. Sta 2430

July 24/13

Childs
H. H.
B. 6

Grade	cut			
		14.26	H.I.	2588
		5.75		1.85
5.0	5.1	8.51	✓	27.73 H.I.
		6.00	✓	15.85
5.25	5.3	8.26	✓	11.88
		39.41		36.95
5.75	7.0	140		1.99
		39.81	H.I.	38.94 H.I.
6.00	5.9	26.70	✓	25.70
		13.11	✓	13.24
				26.20
15.85	10.0	38.44		12.74
		1.77	H.I.	
25.7	11.2	40.18	H.I.	32.41
		27.20	✓	6.62
26.2	11.8	12.98	✓	39.03 H.I.
		32.41		27.70
		6.48		11.23
26.7	11.7	39.09	H.I.	
		29.70	✓	45.18
27.2	12.4	10.39	✓	2.95
		29.32	✓	48.13
		9.77	✓	2.87
27.70	13.1			45.26
27.80	6.4	32.41		30.92
28.00	7.1	6.43		14.36
		38.84	H.I.	
28.20	6.7	28.00	✓	
		10.84	✓	
28.70	3.7	28.20	✓	
		10.64	✓	
29.00	3.3	29.32	✓	
		9.52	✓	
29.32	4.2			
30.12	10.1			
30.92	14.3			

cont. from page 6

July 24/13

Builds
often
number

11+20

Sta	HI.	Red.	Ground	Grade	cut		
	<u>52.67</u>					47.78	
7+00.		4.89	47.78	31.72 ^v	16.1	6.19	
						53.97 H.I.	
+50		3.73	48.91	32.52 ^v	16.4	5.89	10+40
						48.09	
+70 m.H.		3.4	49.3	32.85 ^v	16.4	31.72	
						16.87 ^v	
8+00		2.33	50.34	34.20 ^v	16.1	5.04	
						48.93	
+50		1.10	51.57	36.45 ^v	15.1	32.52	
J.P.	10.84	<u>62.41</u>				16.41	
9+00		9.78	52.63	38.70 ^v	13.9	4.81	
						49.16	
+50		8.3	54.1	40.95 ^v	13.2	32.52	
						16.64 ^v	
10+00		6.17	56.24	43.20 ^v	13.0	4.62	
						49.35	
+40 break		1.3	61.1	45.00 ^v	16.1	32.85	
						16.50 ^v	5+30
+50		0.91	61.50	46.75 ^v	14.8	3.44	
J.P.	10.73	<u>72.23</u>				50.53	
11+00		7.32	64.91	55.50 ^v	9.4	34.20 ^v	
						16.33 ^v	
+20 deadend		5.19	67.04	59.00 ^v	8.0	50.34	
						7.08	
						57.42 H.I.	4+30
						6.73	
						50.69	
						34.20 ^v	
						16.49	
						5.21	
						64.91	
						2.43	
						67.34 H.I.	
						52.11	
						36.45	
						55.50	
						15.66 ^v	
						11.84	
						4.38	
						59.00 ^v	
						53.64	
						8.34	
						39.70	
						14.34 ^v	
						2.91	
						54.57	
						40.95 ^v	
						13.56	
						0.58	
						56.84	
						43.20 ^v	
						13.64	

13.5

0+00

Cont. from page 8

July 30/13 } Childs
 } Atterg
 } Bunker

Sta.		H.I.	Rod	Ground	Grade	cut		
7+50		59.35	4.4	55.0	46.59	8.4	56.54 H.I.	56.57
8+00			3.53	55.80	48.06	7.7	46.59	71.3
+50			2.78	56.57	49.53	7.0	9.95	63.74
9+00 M.H.			1.59	57.76	51.00	6.8	48.06	42.53
J.P.	12.40	70.16					8.48	42.1
+50			10.16	60.00	53.66	6.3	51.00	63.74
10+00	3.5		6.66	63.51	56.33	7.2	5.64	12.74
+50			4.0	66.2	59.00	7.2		63.74
11+00			1.69	68.47	61.67	6.8		63.74
J.P.	7.41	75.88						63.74
+50			5.1	70.8	64.33	6.5		63.74
12+00	dead end. about 30' east of 30th.		3.61	72.27	67.00	5.3		63.74

Alley bet. Valle & Martin from 75' east of center of 31st
 to near 30th

July 31/13
 Builds
 Allen 10
 Bunker

Sta.		H.I.	Rod	Ground	Grade	cut	
J.P.	10.62	36.34		25.72			28.55 35.01
0+00	M.H. = 14+67.65		11.4	24.9	19.00	5.9	25.01 35.01 35.01 28.53 21.09 23.32 25.52 2.22 13.42 11.67 9.50 3.00 36.82 20.22 12.92
+25	main line		7.81	28.53	20.08	8.4	4.88 41.70
+60			7.79	28.55	21.59	7.0	27.63 41.70 41.70 41.70 41.70 14.02 11.95 9.69 2.52 36.25 43.38 49.58 49.58 49.58 49.58 49.58 6.20 37.00 39.00 42.34 46.28 48.00 49.58 12.58 10.18 6.74 3.30 1.58
1+00			5.75	30.59	23.34	7.3	55.46 611 645714
+50	about		2.75	33.59	25.51	8.1	60.57 60.57 64.57 58.05 54.14 57.00 14.52 10.43 7.57
J.P.	8.79	43.22	1.91	34.43			
2+00	about		6.40	36.82	27.68	9.1	
+50	about		7.7	35.5	29.85	5.6	
3+00			3.83	39.39	32.01	7.4	
+50			4.8	38.4	34.18	4.2	
J.P.	11.05	53.48	0.79	42.43			
4+00			10.10	43.38	36.36	7.0	
+15	M.H.		8.9	44.7	37.0	7.7	
+50			7.7	45.8	39.40	6.4	
5+00			4.14	49.34	42.84	6.5	
+50			1.7	51.8	46.28	5.5	
+75	break		0.43	53.05	48.00	5.0	
J.P.	11.55	64.60	9.14	55.46	50.05	5.4	
6+00			2.19	62.41	54.14	8.3	
+50			1.0	63.6	57.00	6.6	
+85	dead end.						

alley bet Valley & Woolman
 of 31st to Sta. 6+85 near

from 85' east of center
 30th

Aug 5/13
 Blinded
 11
 Barber

Sta.		H.I.	Rod	Ground	Grade	cut	
J.P.	8.22	41.90		33.68			
0+00	M.H. 85' east of center of 31st		11.5	30.4	24.50	5.9	
+50			8.19	33.71	28.00	5.7	
J.P.	6.70	48.43	0.17	41.73			
1+00			11.86	36.57	31.50	5.1	
+50			9.54	38.89	35.00	3.9	
2+00			5.53	42.90	38.50	4.4	
+50			0.62	47.81	42.00	5.8	
J.P.	12.50	60.31	6.88	53.43	45.50	7.9	
3+00	about 9' deep.		3.98	56.33	49.00	7.3	
+50			3.8	56.5	50.75	5.8	
4+00			2.81	57.50	52.65	4.9	
J.P.	12.29	72.52	0.08	60.23			
+50			11.44	61.08	56.45	4.6	
5+00	break.		6.90	65.62	60.25	5.4	
+50			3.42	69.10	64.75	4.4	
J.P.	12.78	84.84	0.46	72.06			
6+00			9.63	75.21	69.25	6.0	
+50			3.62	81.22	73.70	7.5	
+85	dead end.		1.53	83.31	76.85	6.5	

33.71	44.53	44.53	44.53	44.53	44.53	44.53
10.82	28.00	31.50	35.00	38.50	42.00	
44.53	10.53	13.03	15.53	18.03	20.53	
53.43	62.00	62.00	62.00	62.00	62.00	62.00
8.57	45.50	47.00	48.75	50.65	52.45	54.25
62.00	16.50	13.00	11.25	9.35	5.55	1.75
69.10	27.44	25.44	23.64	22.64		
9.57	14.75	14.25	13.70	12.85		
78.64	13.89	9.39	4.94	1.79		

76.85
 25.70
 1.15

Sta.	Alley bet. Woolman & Franklin from 30' east of 30 th to 30' west of 32 nd .	H.T.	Rock	Ground	Grade	cut	43.12 3.88 47.00	47.00 1.72 45.28	47.00 36.86 10.14	47.00 37.00 10.00	47.00 42.60 4.40
0+00	dead end	84.85	1.81	83.04	77.00	6.0	38.20 2.76 35.44	38.20	10.14	12.77 2.23 15.00	11.70
+50			4.84	80.01	72.00	8.0					
1+10		76.18	1.2	75.0	66.00	9.0					
+50	break		3.87	72.31	62.00	10.3					
2+00			7.13	69.05	58.67	10.3					
+50		65.88	2.12	63.76	55.33	8.4					
+70	M.H.		3.9	62.0	54.00	8.0					
3+00			3.69	62.19	53.25	8.9 ✓					
+50			5.33	60.55	52.00	8.6					
+90	break		8.4	57.5	51.00	6.5 ✓					
4+00			9.38	56.50	49.60	6.9 ✓					
+50		52.89	3.73	49.16	42.60	6.6 ✓					
+90	break		11.2	41.7	37.00	4.7 ✓					
5+00			12.54	40.35	36.86	3.5 ✓					
+50			12.74	40.15	36.15	4.0 ✓					
+79			9.77	43.12	35.73	7.4 ✓					
6+16			6.98	45.91	35.20	10.7					
+30	M.H. Also 22431.88 mainline		7.39	45.50	35.00 37.00	10.5 ✓					

Cont. from page 12

Aug. 9/13

Labels
Allen
Bunker 13

Star		Net	Rock	Gravel	Grade	cut	
6+50		<u>52.89</u>	5.74	47.15	37.59	9.6	57.88 1.48 55.36 39.07 16.29
7+00			1.01	57.88	39.07	12.8 ✓	
J.P. +50	12.99	<u>64.87</u>	7.47	57.40	40.55	16.9 ✓	
8+00			6.74	58.13	42.03	16.1 ✓	
+50			9.72	55.15	43.51	11.6 ✓	
9+00	break		14.2	50.7	45.00	5.7 ✓	
+50			12.07	52.80	48.50	4.3 ✓	
+70	M.H.		9.4	53.5	50.00	5.5 ✓	
10+00			2.54	62.33	53.75	8.6 ✓	
J.P. +50	9.87	<u>73.20</u>	4.96	67.24	60.00	7.2 ✓	
break							
11+00			4.53	67.67	61.33	6.3 ✓	
+50			4.2	68.0	62.67	5.3 ✓	
12+00	dead end.		2.47	69.73	64.00	5.7 ✓	

corner of Alley bet Woolman & Franklin from D.E. center
 (Page 12) 30' E of E.L. 30th St west for 665' or 45' E of 29th St

3/17 Dennis
 Spaw
 Buntch

14 break

B.M. brass pig N.W. 30th St M 74.97

	1.85	76.82		
T.P.	9.27	80.31	5.78	71.04
T.P.	10.57	90.92	0.26	90.05

	+R	H.I	-R	Elev.	Grade	Cut
0+0 = D.E. constructed				74.8	83.44	77.00

+50				6.75	84.17	80.00	4.2
-----	--	--	--	------	-------	-------	-----

+60 M.H. @ 30th St				5.8	85.1	80.60	7.5 V
--------------------	--	--	--	-----	------	-------	-------

1				3.17	87.75	83.00	4.8 ✓
T.P.	12.46	102.59	0.79	90.13			

+50 break				10.13	92.46	86.00	6.5
-----------	--	--	--	-------	-------	-------	-----

2				7.02	95.57	86.25	9.3 ✓
---	--	--	--	------	-------	-------	-------

+50				4.9	97.7	86.50	11.2 ✓
-----	--	--	--	-----	------	-------	--------

3				3.10	99.49	86.75	12.7 ✓
---	--	--	--	------	-------	-------	--------

+50 M.H.				2.96	99.63	87.00	12.6 ✓
----------	--	--	--	------	-------	-------	--------

4				3.32	99.27	87.25	12.0 ✓
---	--	--	--	------	-------	-------	--------

+50				5.29	97.30	87.50	9.8 ✓
-----	--	--	--	------	-------	-------	-------

5	8.99	109.66	6.87	95.72	87.75		8.0 ✓
---	------	--------	------	-------	-------	--	-------

+50 break				8.90	95.76	88.00	7.8 ✓
-----------	--	--	--	------	-------	-------	-------

6				8.98	97.68	89.52	8.2 ✓
---	--	--	--	------	-------	-------	-------

+50				4.56	100.10	91.04	9.1
-----	--	--	--	------	--------	-------	-----

+65 D.E.				3.93	100.73	91.50	9.2 ✓
----------	--	--	--	------	--------	-------	-------

	4	M.H.	3	2+50	2	14.50
99.27	102.61	102.61	102.61	102.61	102.61	14.50
3.38	87.25	87.00	86.75	86.50	86.25	20.00
102.61 M	15.26	15.61	15.86	16.11	16.36	

72.46	100.35	95.57	5.37			
98.57	86.	97.35	10.094			
2.78	100.35 M	86.25	86.37			
97.35	12.10	14.57				
97.30	4.20	101.50	101.50	101.50		
101.50 M	101.50	87.50	14.00			

97.30	97.30	97.30	97.30	97.30	97.30	
2.59	97.30	97.30	97.30	97.30	97.30	
99.89 M	87.50	7.35	88.00	89.52		
	12.29	12.14	11.89	10.37		

100.73	73.44	M.H.				
2.50	6.03	89.52	89.52	89.52	89.52	89.52
63.23	89.52 M	77.00	80.00	80.00	83.00	
97.50	11.73	12.52	7.52	8.92	6.52	

cut 7.5

cut 9'

3000r Line Hilly bet Franklin C/By
 from 30th to Bancroft.

0+0	2.55	77.97	75.42	70.00	5.4	✓	70.00
50		3.6	74.4	66.84	7.6	✓	
1+0		5.7	72.8	63.67	9.1	✓	
2+0		9.07	68.90	62.51	8.4	✓	
T.P.	0.93	66.86	65.93				
2+0		2.83	64.13	57.34	6.8	✓	
3+0		10.0	56.9	54.18	2.7	✓	
4+0		11.9	55.0	51.01	4.0	✓	
5+0		11.55	55.31	47.85	7.5	✓	
T.P.	7.87	61.88	54.01				
3+95 M.H.		8.9	53.0	45.00	8.0	✓	45.00
4+0		9.5A	52.34	45.26	7.1		
5+0		12.0	47.9	47.87	2.0	✓	
6+0		11.55	60.33	50.49	9.8	✓	
T.P.	12.07	72.40	60.33				
7+0		6.8	65.6	53.10	12.5		
8+0		11.7	61.28	55.72	5.6		
6+25		5.2	67.2	57.03	10.2	✓	
7+0		4.9	67.5	58.33	9.2	✓	
7+20 M.H.		3.36	69.04	60.95	8.1	✓	
8+0		11.6	70.8	62.17	8.6	✓	62.00
8+0		0.5	71.9	62.45	9.5	✓	

2.55
 3.40
 6.25
 69.04
 53.0
 74.34 74.34 74.34 74.34 74.34 74.34
 57.03 57.33 60.95 62.00 62.17 62.45
 74.34 M. 17.31 16.01 13.39 12.34 12.17 11.39

85.42

9:00 M.H.	4.9	80.5	75.00	5.5 ✓
10:10	4.00	81.42	75.40	6.0 ✓
1:50	4.6	80.8	75.80	5.0 ✓
11:40	3.3	82.1	76.20	5.9 ✓
4:50	5.1	80.3	76.60	3.7 ✓
11:59 - F.T. - 30 W. of N.L. 32 nd	4.0	81.4	77.00	4.4 ✓

84.74 84.74 84.74 84.74 84.74 84.74 20
75.00 75.40 75.80 76.20 76.60 77.00
4.9 4.0 4.6 3.3 5.1 4.0

Senior G. Alley but Franklin Clay from
D. E. 35' E of 30th west for 463

94.62
1.23
92.69
1.23
94.62

I				74.51				
B.M.	11.14	85.95						
0+0		9.90		76.05	70.0	6.1		
150		7.99		77.96	70.65	7.3 ✓		
465 M.H.								
T.P.	12.50	95.80	37.6	82.69	71.30	17.4 ✓		
250			0.65	85.30				
2			6.61	89.17	71.95	17.2 ✓		
150			3.11	92.67	72.60	20.1 ✓		
3			3.74	92.26	73.25	18.8 ✓		
150			9.31	86.47	73.90	12.6 ✓		
4			12.44	83.36	74.55	8.8 ✓		
463			14.50	81.80	75.20	6.1 ✓		
			13.5	82.0	76.00	6.0		

Grade cut

77.76 84.60 84.60
6.64 70.65 71.30
84.60M 13.95 73.30

89.19 94.62 94.62
5.43 71.95 72.60
94.62M 22.67 1202

99.06 95.08
3.02 73.25
95.08M 21.83

86.49 86.03
1.84 74.55 86.03
88.33 73.90 75.20
14.93 10.83

81.30 86.03 86.03
4.73 74.55 75.20
86.03 11.48 10.83

86.03 86.03
10.03
5.82
4.21

Scorer & Alley between National & Logan from M.H. 72 to 377

332 to D.E. 377 right side

13. mi. Mt. 382 5310 11211 Line

274

	11.00	13.74			
0+0-M.H.		✓	7.3	-0.73	
+50			2.19 11.55	0.49	
1+0 break			10.4	3.3	1.00
+50			4.8	8.9	4.15
2+0 T.P. 12.83	25.18	1.39	12.35	8.50	
2+0 break				10.00	
+50			6.89	18.29	15.45
T.P. 3	13.06	38.19	0.05	25.13	
+50			8.12	30.06	21.54
T.P. 4	12.78	50.68	0.24	37.95	
+50		16.74	11.5	39.2	33.63
4 T.P. 12.30	25.64	0.86	44.82	42.92	
M.H. 4+0 break M.H.	62.12			50.00	
+50			6.45	55.67	50.08
5			4.7	57.4	50.46
+50			1.6	60.5	50.85
6	8.73	70.28	0.57	61.55	51.28
+50			8.2	62.1	51.62
6+0 break M.H. 377					
7+0 break			7.6	62.7	52.00
+50			6.7	63.6	53.00
8 M.H. break			5.20	65.08	58.00
+50			4.7	65.6	59.34

Alley bet. National and Logan

0+00

-0.23

0+28

brk. 1+00

1.00

brk. 2+20

10.00

M.H. 4+40

50.00

Alley

F. Book 896-22

7.19	9.48	9.48	9.48	9.48	10.5
7.29	0.79	1.00	4.75	8.50	4.1
9.48M	8.99	8.48	4.73	4.98	14.6

55.67	57.73	57.73	59.73
4.06	50.00	50.00	50.00
59.73M	9.73	9.65	9.77

- 2.0 ✓
- 1.7 ✓
- 2.3 ✓
- 4.2 ✓
- 3.8 ✓
- 2.8 ✓
- 5.5 ✓
- 5.6 ✓
- 7.1 ✓
- 5.6 ✓
- 6.9 ✓
- 9.7 ✓
- 10.3 ✓
- 10.5 ✓
- 10.7 ✓
- 8.6
- 7.1
- 6.3

61.55	66.33	66.33	66.33	66.33
4.78	50.95	51.23	51.62	52.00
66.33M	15.48	15.10	14.71	14.83

6.4 dis
7.00

6.5 dis

70.28

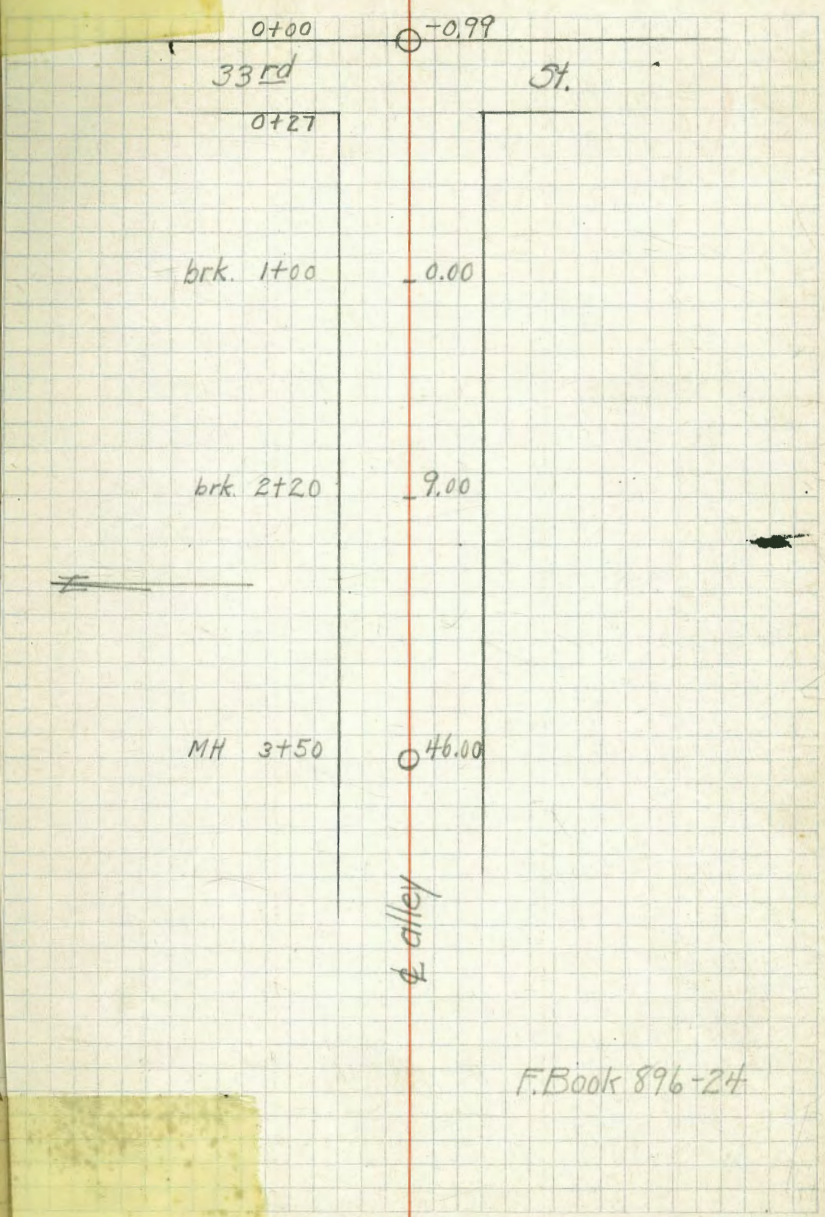
940	2.8	67.5	60.69	4.8	6' deep
1050	1.47	68.81	62.03	6.8	
1070	2.0	68.3	63.38	4.9	
10460 = DE 372' N of M.L. 372 ²⁹	1.34	68.94	65.00	4.0	3' deep

28

Senior Alley bet Newton and National
 Main line 31351100 to D.E. 513 7+95 of 188 ref N. 22

3.34	12.57	14.24	1.67		
0.00			1.3	-0.99	
+50			17.5	-3.3	-0.50
1+0 brk			11.06	3.18	0.00
+50			7.4	5.2	3.75
2+0			3.19	11.05	7.50
T.P. 2+20 brk +50	12.44	26.29	0.39	13.25	9.00
T.P. 3	12.45	38.19	0.55	25.74	17.54
T.P. 4	12.40	49.60	0.89	37.20	31.77
T.P. 5	12.07	61.11	0.96	49.04	
+50 MH. MAK			9.36	51.75	41.00
6			4.4	56.7	47.23
+50			4.31	52.20	45.47
5			6.5	54.6	49.70
+50			6.9	54.12	50.94
+27 E.L. 37 th			5.31	55.80	52.17
6+0			2.5	58.6	53.41
+50			0.71	60.40	54.64
7+0	4.77	65.17	3.6	61.6	55.88
+50			2.70	62.47	57.00

Alley bet. Newton and National ✓



F. Book 896-24

11.05
2.32
18.15
3.25
12.45

4970
4723
247
25

2.3

-2.8 f11

3.2 ✓

2.1 ✓

3.5 ✓

5.4 ✓

3.7 ✓

5.4 ✓

5.8 ✓

9.5 ✓

8.3 ✓

4.9 ✓

3.3 ✓

3.6 ✓

5.2 ✓

5.8 ✓

5.7 ✓

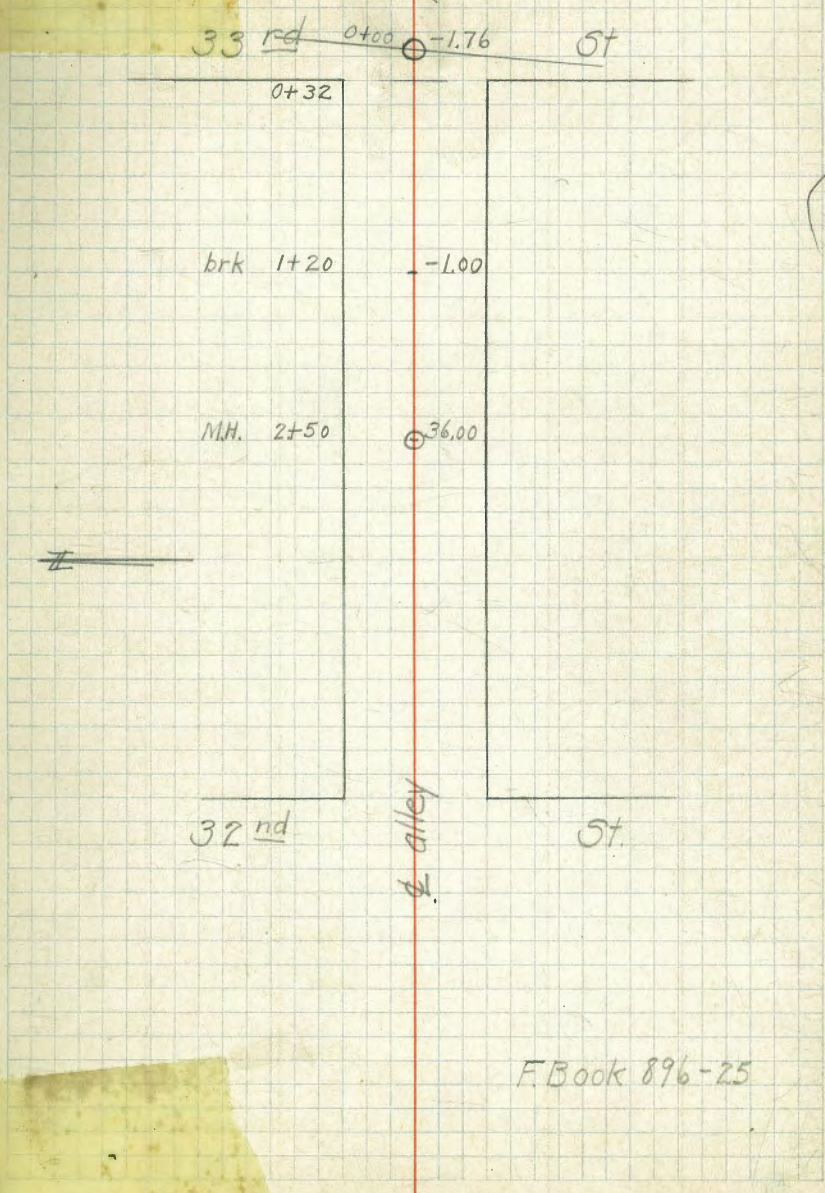
5.6 ✓

Some of Alley bet Grand's Boston from M.H. St
 61+13⁶ on main line West to D.E. St 7195 or 103
 with 32nd St

B.M. 402 St 11+50 M.H.			1.15		
11.92	13.07				
0+0 = St 11+13 ⁶ main line		11.5	1.6	-1.76	
0+50		14.5	-1.4	-1.44	
1+0		11.77	1.30	-1.12	
1+20 brk			4.74	-1.00	
1+50		2.3	10.8	7.53	
T.P.	12.98	25.10	0.95	12.12	
2+0	12.50	37.25	0.35	24.75	21.75
T.P.	12.22	47.56	1.91	35.34	
2+50 M.H.		7.07	40.49	36.50	
3	4.15	50.86	0.85	46.71	36.37
4			1.3	49.6	36.75
4			2.0	48.9	37.12
4+50			4.23	46.63	37.50
5			5.2	45.7	37.87
4+50			4.8	46.1	37.25
6			4.0	46.9	38.62
4+50 M.H.			5.6	45.3	39.00
6+62 M.H. brk					39.09
7+0			4.75	46.11	42.10
4+50	7.46	56.66	1.66	49.20	45.21
7+95 D.E. 103 rd W of M.H. 32 nd			3.6	53.1	48.00

Alley bet. Boston and Newton

"C" 2 Line.



F Book 896-25

$$\begin{array}{r} 15.0 \\ 3.3 \\ 48.6 \\ 3 \\ \hline 75.9 \end{array}$$

3.4

0.0

2.4

5.7

3.3

3.0

4.5

10.3

12.9

11.8

9.1

7.8

7.9

7.5' dup.

8.3

6.3

6.0

4.0

4.0

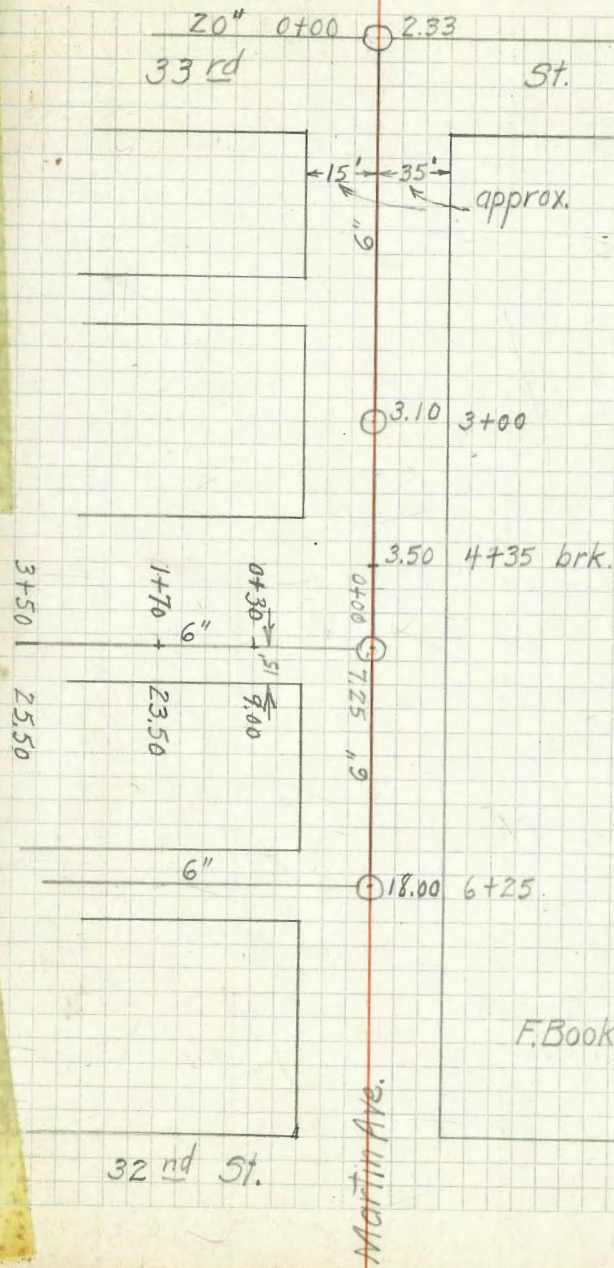
5.1

5" st from sta 40+65 main line west for 67.5 to P Alley
 bet 32nd & 33rd

B.M.	629	1574	945	
0+0 M.H. & Fellen Sta 40+68 main line				2.33
+50		6.35	9.39	2.26
+10		5.4	10.3	2.57
+50		4.72	11.02	2.17
2+0		5.3	10.4	2.24
+50		8.0	7.7	2.97
3+0 M.H.		7.7	8.0	3.10
+50		8.10	7.64	3.23
4+0		12.2	3.5	3.40
4+35 break		5.1	7.6	3.60
+50		6.9	8.8	
T.P.	11.99	26.19	1.54	14.20
5+0		8.78	17.61	
5+05 break		8.2	18.02	15.20
+50		6.2	20.0	15.53
6+0		5.23	20.96	17.10
6+25 M.H.		2.7	23.5	15.00

-180°

Martin - 33rd to alley E. of 32nd



9.39	14.47	14.47	14.47	14.47	14.47	14.47	14.47	14.47
<u>5.08</u>	<u>2.46</u>	<u>2.59</u>	<u>2.71</u>	<u>2.84</u>	<u>2.97</u>	<u>3.10</u>	<u>3.23</u>	<u>3.36</u>
14.47	12.01	11.88	11.76	11.63	11.50	11.37	11.24	11.07

14.47
3.50
10.97

13.25
5.75
7.50 15

6.9 ✓
7.7 ✓
8.3 ✓
7.6 ✓
4.7 ✓
4.9 ✓
4.3 ✓
0.1 ✓
4.1 ✓
3.1
4.2
4.0
4.5
3.8
8.75

6.25
1.50
4.75

Sandy Alley bet 32nd & 33rd from 30' S of Woolman

T.S. S

26.19

0+0 = M.H. 5' St

T.P. 12.97

37.73

2.7

1.43

23.57

24.76

18.00

5.5

+50

11.3

26.4

22.34

4.1

1+0

57.99

31.74

26.69

5.1

1+15 break

T.P. 10.97

47.56

3.8

1.14

33.9

36.59

28.00

5.9

+50

8.1

38.5

28.56

9.9

2+0

5.01

42.55

29.35

13.2

+50

2.8

44.8

30.75

14.7

3+0

2.82

44.74

30.85

13.7

3+15 M.H.

3.9

43.7

31.19

12.5

+50

3.72

43.84

31.75

12.1

4+0

4.3

43.3

32.54

10.3

+50

4.05

43.51

33.34

10.2

5+0

7.9

39.7

34.13

5.6

5+55 D.F. 30' S of S. Woolman

6.8

40.8

35.08

5.8

40.49

555
200
114

555
200
315

9.69

28

1.85
14.28
14.10
10.3

30.5
142.5
1.80

Senior. Riley bet Clay & Webster from M.H. 4334 West
 farm 300 to D.E. 37 E of E. L. 3702

B.M.	12.94	75.00		62.06		
M.H.			12.94	61.80	55.80 ^{up}	6.0
					58.40 ^{up}	3.4
4.50			3.6	71.4	65.20	6.2
T.P.	11.18	86.06	0.07	74.93		
1+0 break		✓	9.90	76.66	72.00	4.7
1.50			6.2	79.9	74.00	5.9
2+0 break			4.2	81.9	76.00	5.9
1.50			3.55	82.51	76.77	5.7
3+0			3.9	82.7	77.54	4.7
3+30 D.E.			4.0	82.1	78.0	4.1

Senior Gilbert N. Webster from Mid. 2 33¹/₂ nest for
150 to DE

30

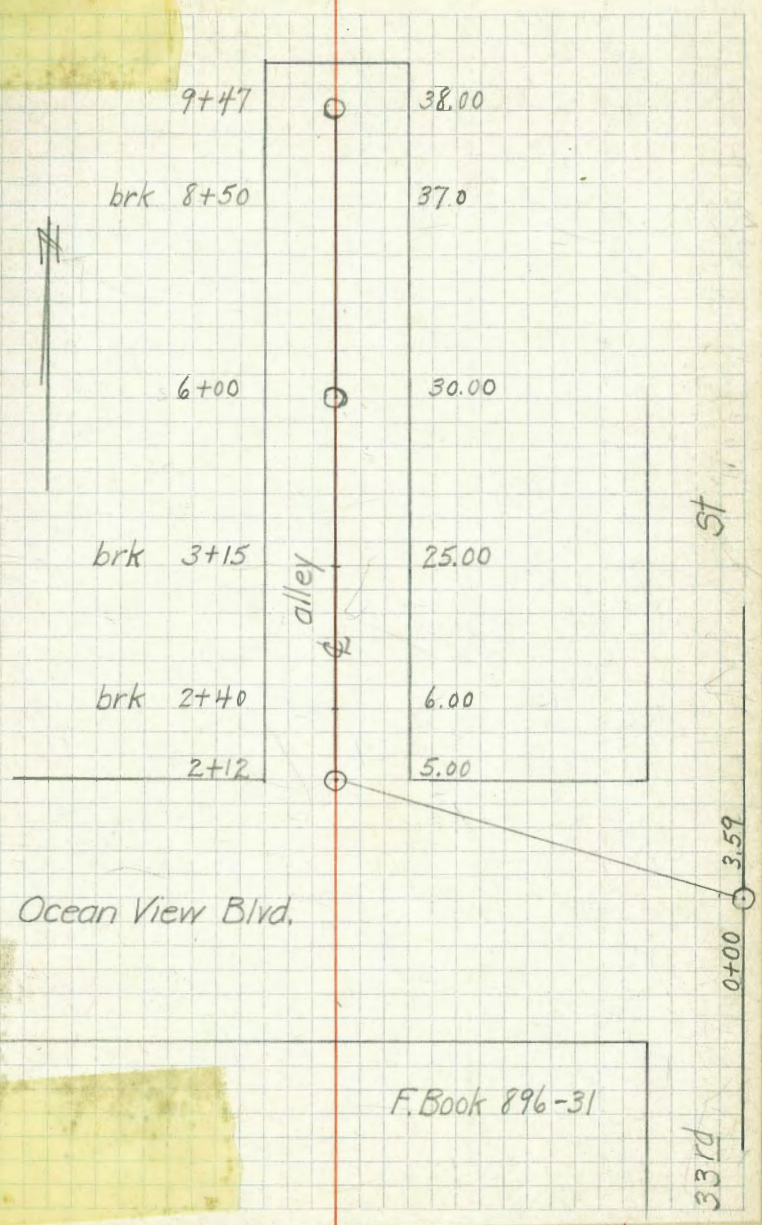
J	12.32	75.02		62.20		
0402 M.H.		✓		62.2	58.00	4.2
+50			2.3	72.7	66.33	6.4
T.P.	12.38	87.22	0.18	74.84		
140	8.26	93.70	1.78	85.44	74.66	10.8 ✓
1470 break			5.0	88.7	78.00	10.7
+50 D.F.			4.0	89.7	85.00 X	4.7

5

Sewer constructed according to sketch on opp page

B.M.	5.53	19.10	13.52	12.44	12.44
0+0 M.A. Main Line			3.59		
+50		5.48	13.62	3.92	9.7 ✓
+10	✓	6.0	13.1	4.25	8.9 ✓
+50		11.6	7.5	4.58	2.9 ✓
+20		9.54	9.56	4.91	4.7 ✓
+2+12 M.H.	5	10.0	9.10	5.00	4.1 ✓
+2+40 break		9.3	9.8	6.00	3.8 ✓
+150		6.7	12.4	8.53	3.9 ✓
T.P.	12.94	31.93	0.11	18.99	
+3+0		6.5	25.4	21.20	4.2 ✓
+3+15 break		1.23	30.70	25.00	5.7 ✓
+50		1.9	30.0	25.61	4.4 ✓
+4+0	2.06	0.14	31.79	26.48	5.3 ✓
	40.35				
+50		9.2	31.7	27.36	4.3 ✓
+5+0		8.7	32.2	28.23	4.0 ✓
+50		7.35	33.00	29.11	3.9 ✓
+6+0 M.H.		7.0	33.9	30.00	3.9 ✓
+50		4.6	36.3	31.40	4.9 ✓
+7+0		3.4	37.5	32.80	4.9 ✓
+7+50	11.19	50.37	1.67	39.18	34.20
				50	50 ✓

Ocean View & alley bet. Bancroft and 33rd



F. Book 896-31

9.56	13.93	13.93
4.37	5.00	2.53
<u>13.93</u>	<u>2.93</u>	<u>5.40</u>
	7.93	

31

	31.79								
	4.42	36.21	36.21	36.21	36.21	36.21	36.21	36.21	M.H.
	36.21	5.61	6.48	7.36	8.23	9.11	30.00	36.21	
		10.60	9.75	8.88	7.98	7.10	4.21		

33.00					
7.35	41.38	40.38	40.38	40.38	40.38
<u>40.38</u>	27.11	20.00	30.40	32.00	34.00
	11.27	10.38	8.98	7.58	6.18

30 30

Webster

13.62	15.78	15.78	15.78	15.78
2.16	3.92	4.25	4.58	4.91
<u>15.78</u>	<u>11.86</u>	<u>11.53</u>	<u>11.20</u>	<u>10.87</u>
3.57				
<u>12.19</u>				

OMA 12+95

M.H. M.L. Oxcoll's Hdd.

1179 10719

Clay

NH 9+47

31

33

Felton

M.H. 2+12

Woolman Arc

OMA Main line

		50.37						40.38 35.60	40.9 9.3 50.2	32
8+0			9.5	40.9	35.60	5.3 ✓	478 42.75 5.77 48.72	48.72 48.72 48.72 48.72 48.72 48.72 37.00 37.52 38.00 38.70 39.25 40.00 11.72 11.20 10.70 9.82 9.27 8.12		
+50	break		7.6	41.8	37.00	5.8 ✓	64.17 2.62 66.79	66.79 66.79 66.79 66.79 66.79 66.79 53.00 55.17 55.28 55.57 55.81 5.88 11.79 11.62 11.51 11.22 10.98 10.74 10.65 10.37		
9+0			7.42	42.95	37.52	5.4 ✓				
9+47 M.H.			9.5	40.9	38.00	2.9 ✓	66.79 66.79			
9+50		50.20	9.6	40.6	38.90	1.7 ✓	6.71 6.99			
10+0			7.4	42.8	39.25	3.4 ✓				
10+20 break			4.5	45.7	40.00	5.7 ✓	10.08 9.80			
10+50			7.1	43.3	43.72	4.6				
T.P.	11.91	62.18	0.0	50.27	-					
11+0			9.3	52.9	49.36	3.5				
+50 break			2.5	59.7	55.00	4.7 ✓				
T.P.	7.61	69.52	0.47	61.71	-					
11+79 M.H. 433 rd st			2.5	66.8	55.17	11.6 ✓				
12+0			6.1	63.2	55.28	7.9 ✓				
4+50			5.15	64.17	55.57	8.6 ✓				
12+95 M.H. Q. Hwy			7.5	61.8	55.81	6.0 ✓				
13+0			6.3	63.0	55.85	7.2				
+58			9.4	59.9	56.14	3.8 ✓				
14+0			9.5	59.8	56.42	3.4 ✓				
+50			10.3	59.0	56.71	2.3 ✓				
15+0			9.7	59.6	56.99	2.6 ✓				

69.82

15+50

6.70

63.62

57.28

5.3 ✓

16+0

5.4

64.1

57.56

6.5 ✓

150

5.6

63.7

57.85

5.9 ✓

16+76 M. H. & Alley

7.1

62.2

58.00

4.2 ✓

66.79 66.79 66.79 66.79
7.28 7.56 7.85 8.00
9.51 9.23 8.94 8.79

30

"C" - 2 Line

Sewer in 34th N. of Logan

Sta.	Ground	Grade	
15+50	14.3	8.90	
16	14.9	9.50	
+50	15.54	10.10	
17+06.6	16.16	10.78	M.H. & Alley south of Ocean View Blvd.

See 367-D for continuation.

Sewer in 34th St. North of the
Alley north of Logan Ave.

Sta.	Ground	Grade	
5+44.2	17.57	2.43	M.H. (see preceding sheet)
6	9.56	2.60	
+50	8.8	2.75	
7	10.67	2.90	
+25.2	11.24	2.97	M.H. \pm of Florence
+50	11.8	3.12	
8	10.83	3.42	
+50	9.7	3.72	
9	9.85	4.02	
+50	10.1	4.32	
10	10.67	4.62	
+50	10.6	4.92	
+66.3	10.46	5.02	M.H. alley south of Martin
11	11.05	5.22	
+50	10.7	5.52	
12	10.82	5.82	
+50	10.8	6.12	
13	11.2	6.42	
+50	11.5	6.72	
+86.6	11.75	6.94	M.H. \pm Alley
14	12.19	7.10	
+50	12.7	7.70	
15	13.51	8.30	

Note: These sewers do not cross over "C-2" line

Sewer in Alley north of Logan,
East of 33rd St.

34

Sta.	Ground	Grade	
0+00	6.71	0.95	☒ 33rd
+50	6.7	1.08	
1	5.74	1.21	
+50	4.4	1.34	
2	4.4	1.47	
+50	4.1	1.60	
3	4.4	1.73	
+50	4.8	1.86	
4	5.25	2.00	
+50	7.6	2.15	
5	12.04	2.30	
5+44.2	17.57	2.43	M.H. ☒ 34th = 0+00
= 0+00	"	"	
+50	24.76	16.50	
1+00	31.72	22.00	Break
+50	35.7	25.75	
2	37.97	29.50	
+50	40.2	33.25	
3+00	42.25	37.00	M.H.
+50	43.9	38.81	
4	45.49	40.62	
+50	47.8	42.43	
5+00	50.23	44.24	
6+40	55.9	49.32	M.H.

Field Book 896

Sewer from center of Felton +
34th + North lane + North in

Pueblo line east to center of July 21st 113
34th to alley bet. S + W
W. Adams. Brunker

Sta.	H.I.	Rod	Ground	Grade	cut				
J.P. 0+00	17.93	11.22	6.71	0.95	5.7	5.25	6.65		
+50		11.2	6.7	1.08	5.6	7.71	9.56		
1+00		12.19	5.74	0.95	5.7	12.96 H.I.	16.21 H.I.		12.04
+50		13.5	4.4	1.21	4.5	2.00	6.15		11.39
2+00		13.5	4.4	1.10	4.6	10.96	9.56		23.43 H.I.
+50		13.8	4.1	1.34	3.1	2.15	15.71 H.I.		4.93
3+00		13.5	4.4	1.47	2.9	10.81	2.60		18.50
+50		13.8	4.1	1.60	2.5	2.30	13.11		2.43
4+00		13.1	4.8	1.73	2.7	10.66	2.75		16.07
+50		13.1	4.8	1.86	2.9		12.96		
5+00		12.68	5.25	1.85	3.0		2.90		
+50		10.3	7.6	2.00	3.2		12.81		
6+00		5.89	12.04	2.15	5.5		2.97		
+44.2		0.36	17.57	2.30	9.7		12.74		
7+00		8.37	9.56	2.43	15.1		3.12		
+50		9.1	8.8	2.60	7.0		12.59		
8+00		9.1	8.8	2.75	6.0				
+25.2		7.26	10.67	2.90	7.8				
9+00		6.69	11.24	2.97	8.2				
+50		6.1	11.8	3.12	8.7				

5.74 10.29 10.29 10.29 10.29 10.29 10.29 10.29
4.55 1.08 1.21 1.34 1.47 1.60 1.73 1.86
10.29 9.21 9.02 8.95 8.82 8.69 8.56 8.43

45

Levit. from page 45

July 22/3

Sheet # 46
 other
 Bunker

Sta.		H.I.	Rod	Ground	Grade	cut		H.I.
8+00		17.93	7.10	10.83	3.42 [✓]	7.4	15.71	10.67
+50			8.2	9.7	3.72 [✓]	6.0	3.42 [✓]	4.87 ^{H.I.}
9+00			8.08	9.85	4.02 [✓]	5.8	12.29 [✓]	15.54 ^{H.I.}
+50			7.8	10.1	4.32 [✓]	5.8	3.72 [✓]	4.62 [✓]
10+00			7.26	10.67	4.62 [✓]	6.1	11.99 [✓]	10.92 [✓]
J.P.	7.17	17.84					4.02 [✓]	4.92 [✓]
+50			7.2	10.6	4.92 [✓]	5.7	11.69 [✓]	10.62 [✓]
+663	M.H. Center alley		7.38	10.46	5.02 [✓]	5.4	4.32 [✓]	3.02 [✓]
11+00	South of J. St.		6.79	11.05	5.22 [✓]	5.8	11.39 [✓]	10.52 [✓]
+50			7.1	10.7	5.52 [✓]	5.2	11.05	5.22 [✓]
12+00			7.02	10.82	5.82 [✓]	5.0	4.44	10.32 [✓]
+50			7.0	10.8	6.12 [✓]	4.7	15.49 ^{H.I.}	4.02 [✓]
13+00			6.64	11.20	6.42 [✓]	4.8	5.52 [✓]	11.52 [✓]
+50			6.3	11.5	6.72 [✓]	4.8	9.97 [✓]	12.19 [✓]
+866	M.H. alley bet.		6.09	11.75	6.94 [✓]	4.9	5.82 [✓]	6.95 [✓]
14+00	J + J.		5.65	12.19	7.10 [✓]	5.1	9.67 [✓]	19.14 ^{H.I.}
+50			5.1	12.7	7.70 [✓]	5.0	6.12 [✓]	7.70 [✓]
15+00			4.33	13.51	8.30 [✓]	5.2	9.37 [✓]	11.44 [✓]
							6.42 [✓]	8.30 [✓]
							9.07 [✓]	10.84 [✓]
							6.72 [✓]	
							8.77 [✓]	
							6.94 [✓]	
							8.55 [✓]	
							7.10 [✓]	
							8.39 [✓]	

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cont. from page 46

July 22/13
Bluffs
Alley
Bunker

Sta.	H.I.	Rod	Ground	Grade	cut	
15+50	17.84	3.5	14.3	8.90 [✓]	5.4	586 12 1132 586 6792
16+00		2.9	14.9	9.50 [✓]	5.4	191442 8.90 10.24 [✓] 9.50 9.64 [✓]
+50		2.30	13.54	10.10 [✓]	5.4	10.10 9.04 [✓]
17+06.6		1.68	16.16	10.78 [✓]	5.4	10.78 8.36 [✓]

m.H. alley bet
S + Woodman

North Lane from center of 34th east to July 22/13 Childs 43
Bunker

Sta.		H.I.	Rod	Ground	Grade	
0+00	M.H. = Sta 5+44.2 on page 45	30.51	12.94	17.57	6.00 11.00	6.6
+50			5.75	24.76	15.37 11.50	2.3
+80	break		1.47	29.04	21.00	8.0
J.P.	12.99	43.31	0.19	30.32	23.00	9.7
1+00	break		11.59	31.72	22.15	9.3
+50			7.6	35.7	25.75	9.9
2+00			5.34	37.97	26.09	9.6
+50			3.1	40.2	29.50	8.5
3+00	M.H.		1.06	42.25	33.25	6.9
J.P.	12.30	54.55			37.00	5.3
+50			10.7	43.9	33.36	6.8
4+00			9.06	45.49	38.81	5.1
+50			6.8	47.8	40.62	4.9
5+00			4.32	50.23	42.43	5.4
+50			2.9	51.7	44.24	6.0
6+00			0.68	53.87	46.05	5.7
J.P.	13.09	66.96			47.87	6.0
+40	M.H.		11.1	55.9	49.32	6.6
+50			10.6	56.4	49.68	6.7
7+00			7.87	59.09	51.49	7.6

40
000

51.49
49.68
1.81

cont. from page 48

Sta.	H.I.	Rod	Ground	Grade	cut	
7+50	66.96	6.9	60.1	53.30	6.8	
8+00		5.50	61.46	55.11	6.4	
+50		3.1	63.9	56.92	7.0	
9+00		0.39	66.57	58.74	7.8	
JR. +50	6.07	72.64	4.73	67.91	60.55	7.4
+90 F.S.		6.0	66.6	62.00	4.6	

5.89
66.7553.3
51
1.8

Florence Street from Center - 8 34th to

July 30/13

Builds
at
50
feet

Sta.		H.I.	Rod	Ground	Grade	cut		
0+00	M.H. Sta. 7+25.2 on 34 th	23.81	12.57	11.24	2.97 [✓]	8.2	15.73	
+50	break		8.08	15.73	10.00 [✓]	5.7	6.75 22.48 H.I. 10.00 12.48 [✓]	28.17 7.13 35.30 H.I. 22.60 [✓]
1+00			4.04	19.77	14.20 [✓]	5.6	14.00 8.28 [✓]	12.70 [✓] 26.80 [✓]
J.P.	12.04	35.79	0.06	28.75			18.40	8.50
+50			11.85	23.94	18.40 [✓]	5.5	4.08 [✓]	31.00 [✓] 4.30
2+00			7.62	28.17	22.60 [✓]	5.6	41.25 7.29	33.36 [✓] 1.94
+50			3.35	32.44	26.80 [✓]	5.6	48.64 H.I. 35.73 [✓]	38.10 [✓] 10.54 [✓]
J.P.	12.37	48.15	0.01	35.78			12.91 [✓] 40.46 [✓]	
3+00	M.H.		11.9	36.2	31.00 [✓]	5.2	8.18 [✓]	
+50			9.30	38.85	33.36 [✓]	5.5	42.82 [✓] 5.82	
4+00			6.90	41.25	35.73 [✓]	5.5	44.00 [✓] 4.64 [✓]	
+50			4.7	43.4	38.10 [✓]	5.3		
5+00			2.22	45.93	40.46 [✓]	5.5		
J.P.	2.74	50.87	0.02	48.13				
+50			2.67	48.20	42.82 [✓]	5.4		
+75	dead end		1.5	49.4	44.00 [✓]	5.4		

Sewer in alley bet Sta 6795
of east prop. line 34th to Sta 6795

Sta.	H.I.	Rod	Ground
0+00	m.H. 15' west of easting of 34 th	25.07	13.32 11.75
+50			10.2 14.9
1+00			8.65 16.42
+50			6.6 18.5
2+00	break		3.25 21.82
J.P.	12.12	37.08	0.11 24.96
+50			10.1 27.0
3+00	m.H.		2.34 34.74
J.P.	12.31	49.42	-0.03 37.11
+50			4.27 45.15
J.P.	13.03	62.03	0.42 49.00
4+00			7.28 54.75
+20	break		5.0 57.0
+50			3.87 58.66
5+00			1.27 60.76
J.P.	6.95	67.71	
+50			4.48 63.23
+95	dead end		4.5 63.2

from center of 34 15' west
near 35th Aug 1/13
Childs
alter 51
Bunker

Grade cut	7.39	16.42	5.84
6.94 [✓]	4.9	45.15	22.26 H.I.
9.20 [✓]	5.7	1.59	9.20
11.47 [✓]	5.0	46.74 H.I.	13.06 [✓]
13.73 [✓]	4.8	37.16	11.47
16.00 [✓]	5.8	9.58 [✓]	10.79 [✓]
22.00 [✓]	5.0	54.75	13.73 [✓]
28.00 [✓]	6.7	3.05 H.I.	8.53 [✓]
37.16 [✓]	8.0	57.05 H.I.	16.00 [✓]
46.33 [✓]	8.4	46.33 [✓]	6.26
50.00 [✓]	7.0	11.42	22.00 [✓]
51.03 [✓]	7.7	50.00 [✓]	0.26
52.74 [✓]	8.0	7.75	
54.45 [✓]	8.8	58.66	
56.00 [✓]	7.2	5.31	27.0
		63.97 H.I.	9.75
		51.03 [✓]	36.75
		12.94 [✓]	28.00
		52.74 [✓]	8.75 [✓]
		11.23	63.23
		54.45 [✓]	60.76
		9.52 [✓]	6.16
			66.92 H.I.
			56.00 [✓]
			10.92 [✓]

Sewer in alley bet. S & W. Ocean View
 line of 34th to sta 5+95 near

from 15' west of east
 35th J. Childs
 after 52
 P. Miller
 Aug 4/13

Sta.		H.I.	Rod	Ground	Grade	cut		
J.P.	12.47	<u>28.01</u>		15.54			41.14	
0+00	M.H. 15' west of east line of 34 th		11.85	16.16	10.78 ✓	5.4	18.11	2.82 H.I.
+50							6.05 ✓	43.96 H.I.
			9.90	18.11	12.95 ✓	5.2	24.16	34.50
1+00							12.95 ✓	9.46 ✓
			7.67	20.34	15.13 ✓	5.2	11.21 ✓	43.00
+50	break						15.13	0.96 ✓
			6.3	21.7	16.00 ✓	5.7	9.03 ✓	57.64
+50							16.00 ✓	3.27 H.I.
J.P.	12.04	<u>39.06</u>	3.10	24.91	19.75 ✓	5.2	8.16 ✓	60.91 H.I.
2+00	break		0.99	27.02			19.75 ✓	49.00 ✓
			7.32	31.74	26.00 ✓	5.7	4.41 ✓	71.91 ✓
J.P.	13.02	<u>51.27</u>	0.81	38.25			31.74	55.00 ✓
+50			10.13	41.14	34.50 ✓	6.6	6.68 H.I.	5.91 ✓
3+00	M.H.						38.42 H.I.	57.82 ✓
J.P.	12.32	<u>63.39</u>	0.20	51.07	43.00 ✓	8.1	26.00 ✓	3.09 ✓
+50			5.75	57.64	49.00 ✓	8.6	72.42 ✓	60.64
							69.62	0.27 ✓
4+00	break						16.1 H.I.	
J.P.	10.90	<u>71.74</u>	2.55	60.84	56.00 ✓	5.8	71.23 H.I.	
+50			7.14	64.60	57.82 ✓	6.8	63.46 ✓	
							7.77 ✓	
5+00			4.44	67.30	60.64 ✓	6.7	66.00 ✓	
+50			2.12	69.62	63.46 ✓	6.1	5.23 ✓	
+95	dead end.		0.23	71.51	66.00 ✓	5.5		
			0.08	71.66				

2.82

Sewer in alley bet. T + Pleasant (mainline) to Superba Hts. labels
 Aug 6/13
 50

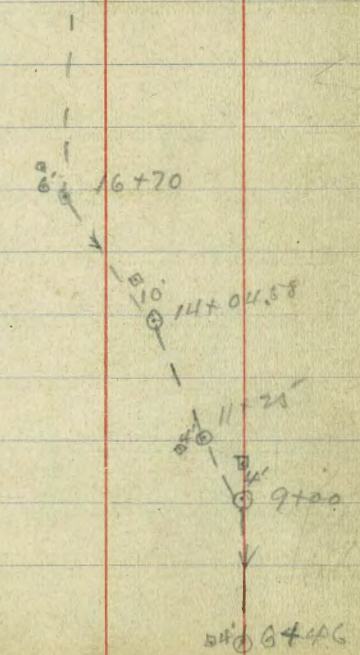
Sta.	J.P.S	791	H.T.	Rod	Ground	Grade out	11.13					
0+00	M.H. 18 west of east line 34 th		18.58	8.12	10.67 10.46	5.02	5.4	17.02	H.F.	13.91	16.29 20 23.25	23.25 11.47 11.25
+50				7.45	11.13	5.79	5.3	5.79	✓	6.37		23.25 12.49 12.50
1+00		✓	✓	6.64	11.94	6.56	5.4	11.23	✓	7.33		23.25 13.51 9.72
+50				5.4	13.2	7.33	5.9	6.56	✓	11.95		23.25 14.29 2.76
2+00				4.67	13.91	8.11	5.8	10.46	✓	8.11	23.25 15.00 7.90	23.25 14.29 2.76
+50				3.6	15.0	8.88	6.1			8.88	22.16 6.40 23.25	23.25 15.00 2.76
3+00				3.80	14.78	9.65	5.1			10.40		23.25 16.63 2.76
+50				3.7	14.9	10.27	4.6			9.65		23.25 16.63 11.93
4+00				3.3	15.3	10.42	4.9			9.63		23.25 16.63 2.76
+50				2.34	16.24	11.20	5.0			10.27		23.25 16.63 2.76
5+00				1.6	17.0	11.97	5.0			9.01		23.25 16.63 2.76
J.P.S				0.82	17.76	12.74	5.0			10.42		23.25 16.63 2.76
+50		10.30	28.06	10.1	18.0	13.51	4.5			8.86		23.25 16.63 2.76
6+00				9.40	18.66	14.29	4.4			11.20		23.25 16.63 2.76
+46	M.H. center of 35 th			8.16	19.90	15.00	4.9			8.08		23.25 16.63 2.76
7+00				5.90	22.16	15.85	6.3					23.25 16.63 2.76
+50				2.3	25.8	16.63	9.2					23.25 16.63 2.76

cont. from pages 3

Aug. 8/13 Bhilds
Other 54
Bunker

Sta.	H.T.	Rod	Ground	Grade	cut
8+00	28.06	2.76	25.30	17.43	7.9V
+50		3.1	25.0	18.21	6.8V
9+00		4.12	23.94	19.00	4.9V
J.P. +50	12.03 35.97	11.6	24.4	19.89	4.5V
10+00		11.65	24.32	20.78	3.5V
+50		8.2	27.8	21.67	6.1V
11+00		8.44	27.53	22.56	5.0V
+25 m.H.		8.02	27.95	23.00	5.0V
+50		7.7	28.3	23.27	5.0
12+00		6.96	29.01	23.80	5.2V
+50		6.1	29.9	24.34	5.6V
13+00		5.21	30.76	24.87	5.9V
+50		6.2	29.8	25.41	4.4V
14+04.58		4.60	31.37	26.00	5.4V
J.P. +50	36th 12.79 44.16	10.00	34.16	26.85	7.3V
15+00		9.53	34.63	27.79	6.8V
+50		11.0	33.2	28.73	4.5V

28.56	28.56	35.83	35.83	35.83	35.83
17.43	17.43	24.87	24.87	24.87	24.87
10.35	10.35	12.03	12.03	12.03	12.03
19.10	19.10	35.83	35.83	35.83	35.83
9.55	9.55	20.83	20.83	20.83	20.83
28.56	28.56	8.97	8.97	8.97	8.97
19.89	19.89	35.83	35.83	35.83	35.83
8.27	8.27	27.73	27.73	27.73	27.73
28.56	28.56	8.04	8.04	8.04	8.04
12.79	12.79	7.10	7.10	7.10	7.10
7.79	7.79				
28.56	28.56				
23.00	23.00				
14.56	14.56				



Cont. from page 54

Sta.	H.I.	Red	Ground	Grade	cut
16+00	44.16	10.38	33.78	29.67	4.1 ✓
+50		7.8	36.4	30.61	5.8 ✓
+70	M.H. angle. 11.57 48.74 48.74	6.94	37.22	31.00	6.2 ✓
17+0		9.84	38.90	31.37	7.5 ✓
+50		8.1	40.6	31.98	8.6 ✓
18+0		5.1	43.6	32.60	11.0 ✓
+50		4.9	43.8	33.21	10.6 ✓
19+0		5.03	43.71	33.83	9.9 ✓
+50		3.1	45.6	34.44	11.2
19+95 ³ M.H.	6.03	6.54	48.20	35.00	13.2 ✓
T.P.		6.54	48.20		
20+0		5.5	48.0	35.09	12.9
+50		7.28	46.5	36.03	10.7 ✓
21+0		7.4	45.8	36.97	8.8 ✓
+50		7.7	45	37.91	6.6 ✓
22+0		10.41	43.2	38.35	5.0 ✓
+50		9.5	44.7	39.79	4.9 ✓
23+0		6.9	47.3	40.73	6.6 ✓
+50		4.47	49.74	41.67	8.1
23+66 ⁹⁵ M.H.	11.64	7.14	47.09	42.20	5.1 ✓

35.83	35.83	35.83	35.83
29.67	30.61	31.00	
4.16	5.22	7.83	
38.70	43.67	43.67	43.67
4.77	31.50	31.37	31.98
43.67	12.67	12.30	11.69
			11.07
46.95	51.28	51.28	51.28
4.22	33.21	33.83	34.44
51.28	18.07	17.75	16.28
			16.28
51.28	51.28	51.28	51.28
36.05	36.97	37.91	38.85
15.25	14.31	13.37	12.43
			11.49
51.28	49.76	55.68	
40.73	5.33	42.00	
10.55	55.58	13.58	
38.90	48.49		
4.59	34.44		
48.49	14.05		

23+66⁹⁵ M.H.
37th St.

27+0			7.8	51.15	42.88	8.3 ✓
+50			6.4	52.3	44.22	8.1 ✓
28+0			10.6	42.1	45.56	2.5 ✓
+50			8.2	50.5	46.90	3.6 ✓
T.P.	57.46	63.48	0.71	58.02		
28+0			4.56	58.92	48.24	10.7 ✓
+50			5.0	58.5	49.58	8.9 ✓
trans old survey						
27+03 ³ M.H. new line			4.70	58.78	51.00	7.8 ✓
		71.59		64.30		
+50			13.2	58.4	53.05	5.4 ✓
28+0			10.32	60.76	55.24	5.5 ✓
+50			6.10	65.48	57.43	8.1 ✓
28+65 ³ creek M.H. & A. H. get Milligan 638 th			5.6	66.0	58.08	8.0 ✓
29+0			4.4	67.2	58.66	8.5 ✓
+50			2.6	68.0	59.55	8.5 ✓
30+0			2.07	64.51	60.45	4.1 ✓
30+59 ² = old survey			2.9	65.7	61.00	7.7 ✓
30+81 M.H. & 88 th new line			2.73	68.85		
	12.16	81.01				
31+00			12.58	68.43	62.65	5.8 ✓
+50			14.08	67.0	64.77	2.2 ✓
32+0			9.17	71.84	66.87	5.0 ✓
+50			6.02	74.8	68.96	5.8 ✓
33+0			5.1	75.9	71.06	4.8 ✓

51.15	55.95	55.95	55.95	55.95
4.93	42.88	49.22	45.66	46.90
55.98M	73.10	11.76	10.42	9.08
58.92	60.72	60.72	60.92	
2.00	48.24	49.58	51.00	
60.92	12.68	11.34	9.92	

109.04
4.05
113.07

6		81.01						
33+50	1212	87.55	5.65	75.36	73.15	2.2	✓	
34+0			6.5	81.0	75.75	5.25	✓	
+50			4.89	82.66	77.34	5.3	✓	
35+0			2.4	85.1	79.44	5.7	✓	
35+18	M.H. angle 14.95	95.83	1.67	85.88	80.00	5.9	✓	2881
35+50			11.57	84.26	81.46	2.8	✓	
35+78			10.1	85.7	82.56	3.1	✓	
36+08			6.0	89.8	83.74	6.1	✓	
36+50			6.52	89.31	85.39	3.9	✓	
T.P.	1232	106.31	1.84	93.99				
37+00			15.0	91.3	87.38	3.9	✓	
37+15	⁷⁵ M.H. angle bet ^o Superior		12.1	94.2	88.00	6.2	✓	
37+60			8.98	97.33	90.00	7.3		
38+0			3.0	103.3	92.94	10.4		
+50			2.4	103.9	95.88	8.0		
39+0			1.76	104.55	98.82	5.7		
39+03	⁶⁵ M.H. angle bet ^o Superior	113.07	1.7	104.6	99.00	5.6		
39+60			7.05	106.02	99.73	6.3		
40+10			5.52	107.55	100.37	7.2		
40+60	M.H. angle bet ^o Superior				101.00	8.2		

Senior Line 374 St from M.H. Main Line 5/2 23+60.25 To M.H. & Clinton 5/2 940764			Sample		Span	Rem	63							
								5-5.58	5.558	60.81	60.81	60.81	60.81	60.81
130	12.73	59.82		47.09				49.80	49.61	50.41	53.32	56.03	56.03	4.79
200				47.09		42.00	5.1 ✓	55.5247	53.26	72.28	72.35	72.25	72.25	72.25
250				47.09		44.80	5.2 ✓	60.21121	53.26	69.44	13.45	10.65	7.24	6.62
300				47.09		42.51	5.6 ✓	72.28	72.28	72.28	72.28	72.28	72.28	6.62
350				47.09		50.41	5.3 ✓	72.28	72.28	72.28	72.28	72.28	72.28	6.62
400				47.09		53.32	3.5 ✓	77.05	7.05	84.13	84.13	84.13	84.13	84.13
450	11.26	70.38		47.09		56.02	3.1 ✓	84.13	84.13	84.13	84.13	84.13	84.13	84.13
500				47.09		58.83	3.9 ✓	88.61	11.92	89.25	71.61	74.00	76.42	78.86
550				47.09		61.63	4.8 ✓	101.5311	101.53	101.53	101.53	101.53	101.53	101.53
600				47.09		64.44	5.0 ✓	11.92	101.53	101.53	101.53	101.53	101.53	101.53
650				47.09		65.00	5.3 ✓	15.35	15.35	15.35	15.35	15.35	15.35	15.35
700				47.09		66.89	7.1 ✓							
750				47.09		69.25	5.8 ✓							
800				47.09		71.61	5.4 ✓							
850				47.09		74.00	6.2 ✓							
900				47.09		76.42	6.2 ✓							
950				47.09		78.86	6.3 ✓							
1000				47.09		81.30	6.2 ✓							
1050				47.09		83.74	5.9 ✓							
1100				47.09		86.18	5.5							
1150				47.09		88.63	5.6							
1200				47.09		91.07	5.6							
1250				47.09		93.51	5.6							
1300				47.09		96.00	5.6							
1350				47.09		98.58	5.6							
1400				47.09		101.16	5.6							
1450				47.09		103.74	5.6							
1500				47.09		106.32	5.6							
1550				47.09		108.90	5.6							
1600				47.09		111.48	5.6							
1650				47.09		114.06	5.6							
1700				47.09		116.64	5.6							
1750				47.09		119.22	5.6							
1800				47.09		121.80	5.6							
1850				47.09		124.38	5.6							
1900				47.09		126.96	5.6							
1950				47.09		129.54	5.6							
2000				47.09		132.12	5.6							

Alley got Milbrac 32nd from M.H. Sta 28+63 in canyon
 Time N for 430' to D.E.
 Sewer 2' E of B. Alley

Simple
 Shaw
 Run

64

	13.01	78.49		65.48		
0+0 = M.H. Sta 28+63				66.00	58.00 prop.	8.0
+50			9.45	69.04	64.90	4.6
+100			7.1	71.4	66.80	4.6
+150			5.9	72.6	69.20	3.4
+200			3.56	74.73	71.60	3.3
T.P.	12.71	91.06	0.14	78.35		
+250	break	11.75	79.31	79.31	74.00	5.3
+300	break		4.4	84.7	82.00	4.7
+350			3.94	87.62	83.53	4.1
+400			1.5	89.6	85.07	4.5
+430 D.E.			1.28	89.78	86.00	3.8

Center Line of Gilmore St from M.H. 37th to Alley
between 36th & 37th Fick Gilmore 58' wide

B.M.	11.44	81.72	79.28		
B.M.					
0+0 = M.H. 57 th St			10.60	71.1	65.66 5.4 ✓
0+50			7.63	74.09	68.49 5.6 ✓
1+0			7.33	74.39	71.32 3.1 ✓
1+50			2.15	79.57	74.15 5.4 ✓
1+64 ⁵⁵ M.H. & Alley Drop M.H.		1.10	80.62	75.00	5.6 Drop
T.P.	11.30	92.42	1.10	80.62	Prop. 76.00 4.6
2+0			8.0	84.4	76.53 7.9 ✓
2+50			2.40	90.02	77.53 2.9 ✓
T.P.	5.32	95.34	3.40	90.02	77.29 12.7 ✓
3+0			2.36	92.98	76.29 13.7 ✓
3+50					78.04 14.9 ✓
4+0			2.3	93.0	77.04 15.9 ✓
4+50					78.80 14.2 ✓
4+0			4.16	91.18	77.80 13.2 ✓
4+50			10.9	84.4	79.56 11.6 ✓
4+94 ⁴ M.H. & Alley Out 36 th Fick			10.8	84.5	80.32 4.1 ✓
					79.32 5.1 ✓
					81.00 3.5 ✓
					80.00 1.0 ✓

74.09
11.20
85.29 ✓

85.29 86.29 86.29 85.29 85.29
68.49 71.37 74.15 78.00 76.53
10.80 13.97 11.14 10.29 8.74

grade changed ✓

Bliss
Sommerhayer
Sept 8
12/22/41

59
51
1214

T
88.84

Profile Levels for Sewer Extension

from a pt. 30' East of the East line of 1425

30' th South of Ocean View to a pt 150' West of existing H50

Dead End See Page 11 this Book

B.M. 2.42 99.87 97.45 N.E. BP
29th Ocean View

T.P. 3.13 91.35 11.65 88.22

T.P. 5.06 88.84 7.57 83.78

0+00 Ground 7.5 81.3 ✓

" " Top 6" Sewer Pipe 11.59 77.25 ✓

Flow. Line 0.55 lower 12.14 76.70 ✓

0+25 8.2 80.6 ✓

0+30 E 8.31 80.53 ✓

0+44 8.50 80.34 ✓

0+50 8.09 80.75 ✓

0+70 6.99 81.85 ✓

0+75 6.93 81.91 ✓

0+96[~] Gutter 7.06 81.78 ✓

0+96[~] Top ch 6.28 82.56 ✓

1+00 6.1 82.7 ✓

1+00⁸⁰ E. Sidewalk 6.11 82.73 ✓

1+05⁸⁰ W. " 5.99 82.85 ✓

Cut Stakes for Sewer Extension

in alley South of Ocean View. 152³/₄ W of D. End 32³/₄ East

Cut

of the E line of 30³/₄ Ft. Elev. Sbr. Elev. Grade

8884 76.85 - According to Childs
 0+00 Flow line ex. Sewer 12.14 76.98 76.48

0.70% grade

Station	Dist.	Elev. Sbr.	Elev. Grade	Cut
0+27 ³ / ₄	7.93	80.91	76.67	4.29
0+52 ³ / ₄	7.95	80.89	76.845	4.06
0+77 ³ / ₄	6.78	82.06	77.02	5.04
1+02 ³ / ₄	5.95	82.89	77.195	5.70
1+27 ³ / ₄	6.31	82.53	77.37	5.16
1+52 ³ / ₄ D. End	6.59	82.25	77.545	4.70

Saxon Line ~~Harding St~~ Valley Col. Superior & Superior

Harding St

B.M. M.N.	12.40	92.58		20.18
B.M. 0702 M.H. 037				
150			10.6	82.0
170			7.89	84.69
1150 = D.E.			4.2	89.4
170 = D.E. Jener running E			3.1	89.5
150			4.93	87.65
370			6.6	86.05
3730 ³ M.H. & M.H. 0571		90.16	8.13	84.45
150			6.62	83.54
3770				
410			9.86	80.34
4130				
150			9.9	80.3
4130 ³ M.H. 0571			8.7	81.5
570			7.4	82.52
150			3.7	86.5
T.R.	6.92	94.38	2.70	87.46
670 Gump	12.74	104.37	2.75	81.63
6750			6.70	97.67
6760 = M.H. & 3770			6.0	98.4
770	12.64	116.08	0.93	103.44
7750			5.9	110.2
770	5.73	121.25	0.56	115.52
8430 Gump			4.4	116.8
8750			3.8	117.4
970			2.9	118.3
9750			3.63	118.33
1070			3.6	117.6
1150			2.13	119.15
1150 D.E.			2.7	119.0
1140 D.E.			3.3	117.4
1140			5.31	115.94
1270			7.1	112.2
1270			10.7	106.5
1370			12.1	102.4
1370			12.9	100.7

Sample
Shale
Kerr

84.4

6.

74.00	6.2
76.00	6.0
73.00	6.7
80.00	8.4
80.00	9.5
78.26	9.2
76.92	9.1
76.00	8.5
76.13	7.4
76.46	3.8
76.80	3.5
77.00	4.5
78.33	4.2
81.66	4.8
85.00	6.6
90.83	6.8
92.00	6.4
96.23	7.2
101.53	8.7
106.52	8.7
110.00	6.8
110.26	7.1
110.97	7.4
111.56	6.7
112.2	5.4
112.8	5.2
113.00	6.0
113.2	5.4
108.74	5.1
108.74	5.1
108.74	5.1
108.74	5.1
108.74	5.1
108.74	5.1

83.54
3.72
57.03 M
76.00
11.02
87.03 87.03 87.03
76.46 76.80 77.00
78.57 10.23 10.13

3000 Line Clinton at 370 to 380
 From 380 to FT. 3 W. of 39 B.
 B.M. M.N. 277 Clinton 94.58
 B.M. 897 10355
 0+0 = M.H. 37 B 89.7 94.58
 +50 6.08 97.47
 +100 ✓ 5.1 98.4
 +150 4.5 99.0
 2+0 3.14 100.41
 +50 2.05 101.50
 T.F. 483 106.33 2.05 101.50
 3+0 M.H. 3.5 102.58
 +50 4.46 101.87
 +100 5.1 101.2
 +150 5.1 101.2
 5+0 6.05 100.28
 +50 5.9 100.4
 6+0 8.41 97.92
 6+50 710.52 9.69 100.83
 6+60 = M.H. A. 37 B 57 7.7 100.8
 7+0 T.F. 12.44 122.28 4.40 106.12
 7+50 0.68 109.84
 8+0 8.03 114.25
 8+50 6.9 115.4
 9+0 7.74 114.54
 9+50 6.6 115.7
 9+60 M.H. 5.0 117.3
 10+0 4.4 117.9
 10+50 3.86 118.42
 11+0 4.6 117.7
 11+50 3.9 118.4
 12+0 A.3 118.0
 12+50 4.47 116.84
 12+60 = FT. 30 W. of M.H. 39 B 57 4.1 118.7
 3.56 118.72

68
 Est. rule at 371
 101.53 M 101.53 101.53 101.53 101.53
 89.25 89.50 89.75 90.00 90.25 90.50
 12.28 12.23 11.78 11.53 11.28 11.03
 101.87 104.22 104.22 104.22 104.22
 2.35 80.25 92.75 91.20 91.25
 104.22 117.97 13.47 13.22 13.97
 100.28 103.28 103.28 103.28
 103.28 211.50 91.25 92.10
 3.00 11.78 11.53 11.28
 106.12 6.27
 112.99 26.25
 147.9 3.00
 12.7 118.42 21.23 21.23 21.23
 100.53 2.21 121.23 125.7 117.4 10.91
 103.57 23.00 10.57
 92.00 5.9 ✓
 92.83 8.0 ✓
 93.00 7.8 ✓
 95.00 11.1 ✓
 97.50 16.7 ✓
 100.00 15.4 ✓
 102.50 12.0 ✓
 105.00 10.7 ✓
 107.50 7.8 ✓
 108.00 9.9 ✓
 108.66 9.8 ✓
 109.45 8.2 ✓
 110.22 8.1 ✓
 111.15 6.9 ✓
 111.78 4.8 ✓
 112.82 5.4 ✓
 113.00 5.7 ✓

Sewer Line Milbrae, ST

Day 360

Note - Sewer 2' E of E Milbrae

Winkle
Shaw
Kirk

60.92
53.33
7.59

69

B.M.						
B.M.	12.70	71.48		58.78		
0+0 2 M.M. Main Line 19' S of ST			12.70	58.78	57.00	2.8 ✓
100			11.33	60.15	53.33	6.8 ✓
140			9.6	61.9	55.17	6.2 ✓
150			8.4	63.1	58.00	5.1 ✓
200			6.68	64.80	63.24	4.5 ✓
150			5.0	66.5	62.67	3.8 ✓
3+0 M.M.			2.8	68.7	65.02	3.7 ✓
T.P.	12.52	83.69	0.31	71.17		
150			11.99	71.80	67.36	4.3 ✓
140			8.2	78.5	69.70	5.8 ✓
150			4.27	79.47	72.04	7.4 ✓
540	6.93	90.16	0.46	83.23	74.37	8.9 ✓
5+34 ⁰ = M.M. E. Wash			5.71	84.95	76.00	8.5 ✓

Note -
M.H. 69' S of
N. Line of Franklin Ave
Highway

b

center line & Alley W of 37th from N.H. & Gilmore
St to D.E. 35' E of Seigel lot 37th & Fisk

Note - Grade changed 2' on this line

Dist	11.80	92.92	80.62																
0+0 = N.H. & Gilmore	Drop		11.80	80.6	75.00	5.6	95.90												
150			12.40	80.02	77.00	3.6	97.59	Drop	97.59	97.59	97.59	97.59	97.59	97.59	97.59	97.59	97.59	97.59	97.59
140			2.0	84.4	79.00	5.4													
1250			6.57	85.85	77.00	8.8													
220			4.2	88.2	81.00	7.2													
2150			2.7	89.7	82.00	7.7													
3+00 M.			4.7	87.7	83.00	4.7													
450			4.9	87.5	84.00	3.5													
4+0 break			2.90	89.52	85.00	4.5													
71 P.	1129	100.76	2.90	89.52	87.94	4.1													
450			8.8	92.0	88.94	3.1													
540			4.86	95.90	90.88	5.0													
450			1.8	99.0	93.82	5.2													
5+69 ² D.E. 30' E of Seigel			2.51	98.25	95.00	3.2													

5

Sever 38th St from sta 30+50 on Canyon Line

South to Alley bet Woodman's St

72

0	12.41	76.92		64.51		
0+0			2.2	68.7	61.00	2.7
750			5.97	70.95	63.17	7.8
1+0			3.5	73.4	65.35	8.0
1+15 M.N. Alley bet Woodman's St			4.36	72.56	66.00	6.6
1+30			4.2	72.7	68.14	4.6
2+0			2.83	74.07	71.19	2.9
T.P.	11.31	87.99	0.24	76.68		
2+50		88.00	8.2	79.8	74.25	5.4
2+75 M.N. Alley bet Woodman's St			4.6	83.4	77.00	4.4
3+0			4.4	83.6	77.22	4.4
4+0	10.43	86.82	1.59	86.95	79.41	7.0
4+0			8.3	88.6	81.61	7.0
4+50			7.65	89.20	83.80	5.9
4+77.5 M.N. Alley bet S Woodman's St			6.4	90.5	88.00	7.5

Sender 38267 J.M. M.H. 30+89 Canyon Line North
 To W.H. Alex bet

	12.91	76.92		69.51		
040 M.H.			5.2	65.7	61.00	7.7
100				72.25		
5R	11.31	87.99	4.67	71	66.42	5.8
110			0.24	76.68		
			10.0	78.0	71.84	6.2
1150			5.28	82.71	77.22	5.5
270			0.71	87.28	82.164	4.6
2246 M.H. Alex bet Superior 20				89.6	85.40	4.2

Schwar K. Fly bet J. & Maulman from 38th to D.E

285-E of 39th

	13.22	85.63		73.56	
240-21.H			1.31	72.6	66.00
450		✓	7.46	78.22	70.71
470			5.3	80.4	75.43
450	12.97	97.53	11.2	84.56	80.14
540			8.4	89.1	84.86
450			3.3	94.2	89.57
J.R	12.57	109.38	0.72	96.31	
340			8.7	100.7	94.29
3450-M.M.			4.52	104.26	99.00
410			4.1	105.3	99.40
450			4.4	105.0	99.80
540	7.50	114.24	2.64	106.74	100.20
450			4.3	109.9	100.60
640			4.6	109.6	101.09
6450			9.3	109.9	101.40
6460-M.M. 39th			9.0	105.2	101.48
740			7.9	105.3	101.80
750			7.61	105.63	102.20
840			6.3	107.9	102.60
8450			4.7	109.5	103.00
940			4.06	110.18	103.40
9450			5.1	109.1	103.80
9474-D.E			6.2	108.0	104.20

106.74	110.62	106.2	106.2	106.2	106.2	106.2	106.2	106.2
3.58	100.00	01.00	1.00	1.00	1.00	1.00	1.00	1.00
110.62 M.	10.00	7.00	7.22	7.14	8.82	8.42	8.02	7.02
	✓	✓	✓	✓	✓	✓	✓	✓
10.62	10.62	10.62	10.62	10.62	10.62	10.62	10.62	10.62
3.80	4.00							
6.82	6.62							

6.6

7.57

5.0

4.4

4.4

4.6

6.4

5.9

5.9

5.7

6.5

9.3

8.6

3.5

3.7

4.5

4.3

5.3

6.5-65

5.3

4.0

Senior & Wiley bet Madway 25 ft from 2nd to D.E. 250 E 2nd 39th

2+0	M.H.		6.4	90.5	85.00
2+50			4.51	92.37	85.60
1+0			4.2	92.7	86.21
1+50			5.0	91.9	86.81
2+0			3.21	93.67	87.42
1+50			1.1	95.3	88.02
3+0			3.3	93.6	88.63
3+30 M.H.			4.5	92.4	88.99
3+50			2.7	94.2	89.23
4+0	12.80	109.48	4.20	96.63	
4+10			7.48	102.0	89.84
4+50			4.2	105.3	90.44
5+10			3.5	106.0	91.05
4+50			3.5	106.0	91.65
6+0			9.55	99.93	92.26
4+50			9.7	99.8	92.56
6+60 = M.H. E 39 th			10.1	99.4	93.00
7+0			12.8	96.7	93.57
4+50			11.6	97.9	94.28
8+0			5.6	103.9	95.00
4+50			1.3	108.2	95.78
9+0			3.0	106.5	96.73
9+40 = D.E.			7.1	102.9	97.00

109	98.93	109.00	109.00	109.00	109.00
105	90.7	91.05	91.65	92.26	
	109.00 H.	179.5	173.5	167.4	
	99.93	103.05	103.05	103.05	103.05
	3.12	92.26	92.86	93.00	93.57
	103.05 H.	107.9	10.19	100.5	9.48
				M.H.	8.77
					2.05
	108.40	112.08	112.08	112.08	
	3.88	95.71	96.43	97.40	
	112.08	143.7	156.5		
	9.7				
	102.4	99.93	103.43	103.43	103.43
		3.50	92.26	92.86	93.
		103.43 H.	11.17	10.57	10.43
	7.66	Bottom M.H.	3+30		8.23
	11.90			4 38 th st	8.62
					33 2.00 60
					198

Semmer & Allen bet Superior St & D St from N.H.
 to 38th to N.H. Canyon line

13.79

102.41
 3.71
 102.70

76

B.M.	11.22	99.10	1	87.28		
↓						
0+0			7.5	89.6	85.4	4.2
150			3.7	95.4	86.98	8.4
T.P.	10.70	102.41	1.89	97.71		
1+0		↓	5.51	102.90	88.56	14.3
+50			6.4	102.0	90.14	11.9
2+0		↓	13.3	95.1	91.72	3.4
2+40 break			12.0	96.4	93.00	3.4
450			10.56	97.85	94.00	3.9
3+0 D.E. for semmer running west			3.5	104.9	99.00	5.9
T.P.	3.56	110.97	1.00	107.41		
3+60 D.E. " " " " " " " "			2.8	103.25	103.00	5.8
4+10			3.2	107.8	101.34	6.5
4+60		✓	3.29	107.68	99.68	8.0
4+80 break			4.8	106.2	99.00	7.2
5+10			12.75	95.22	94.88	3.3
5+60 = N.H. Canyon line					88.00	6.2
6+0 = D.E. 30 May 1975			3.8	101.7	105.28	2.2

101.2

Alley lot line bet Siegel's Superior from 39th St to Alley
bet 39th & 40th St
Seabrook 260 page 61

	1120	120.24	109.04		
100			101.00	8.2	
100		109.1	109.3	101.28	8.0 v
140		106	109.6	101.57	8.0 v
150		102	110.0	101.85	8.2 v
175 M.H. Alley bet 39 th & 40 th St		111.0	102.00		9.0 v
210		7.00	113.24	102.14	11.1 v
150		6.47	113.77	102.42	11.4 v
310	5	8.2	112.0	102.71	9.3 v
400		8.9	111.3	102.99	8.3 v
440		11.1	109.1	103.28	5.8 v
450		10.3	109.9	103.56	6.3 v
510		10.7	109.57	103.85	5.7 v
5125 M.H. Alley bet 40 th St & 41 st		108.7	104.00		5.7

Alley bet 39th & 40th

		120.24		Drop	
0+0=NH ₂ full line sewer	1475-9.2	111.0	106.00	5.0 v	
100	✓	5.36	111.88	107.11	4.8 v
120		5.2	115.0	108.22	6.8 v
150	✓	3.3	116.9	109.33	7.6 v
176		2.6	117.6	109.91	7.7
210		2.6	117.6	110.43	7.2 v
250		2.9	117.3	111.54	5.8 v
310		3.5	116.7	112.65	4.1 v
450	7.57	1.40	118.84	113.75	5.1 v
		128.91			
470				114.86	
4+06=D, E		4.56	121.85	115.00	6.9 v

South

		120.24		Drop	
0+0=NH ₂	1475 see above 9.2	111.0	106.0	5.0	
100		7.05	113.16	106.92	6.8 v
170		8.1	112.1	106.83	5.3 v
1720		8.3	113.9	107.00	4.9 v

Alley bet #28 20th

	120.24						
	NORTH						
0+0=M.N. 5725 line sec page 77 115	108.7	104.00	4.7	✓			
+50	993	110.31	105.46	4.9	✓		
+10	10.05	7.52	112.42	106.92	5.5	✓	
+50	✓	122.47	9.7	112.8	108.38	4.4	✓
+10		8.2	114.3	109.84	4.5	✓	
+50		2.0	115.5	111.30	4.2		
+10		4.9	117.6	112.76	4.8		
+50		3.4	119.1	114.22	4.9		
3+77=F.T.		2.6	119.9	115.00	4.9		

120.24
SOUTH

0+0=M.N. 5725 sec 115	108.7	104.00	4.7	-	
+50	122	107.4	104.45	3.0	-
+10	113	108.9	104.91	4.0	✓
+10	107	109.5	105.00	4.5	✓

3

109.57
5.94
115.5 111.1

15.51	15.51	15.51	15.51
04.00	4.45	4.91	5.00
11.51	11.06	10.60	10.51

29

15.51	15.51	15.51	15.51	115.50
05.46	6.92	8.38	9.84	6.59
10.05	8.59	7.13	5.67	122.0 911.1
				11.30
				10.79
				22.09
				12.76
				14.22
				15.00
				9.33
				7.87
				7.09

Survey for proposed sewer system South Look Add.

E (Fiske) St from D.E. 90° S of S.L. Gilmore 578 M.H. Terrace

South Look Ave.

B.M.	2.80	90.86	88.06
0+0 = D.E. 90° S of S.L. Gilmore		8.0	82.9
1+50	0.77	78.67	11.9 12.96
1+0		3.0	75.7
1+50		6.2	72.5
2+0		9.4	69.3
2+50		13.0	65.7
	0.87	67.22	12.82 66.35
3+12 M.H. $\Delta 58^{\circ} 54' L$		5.6	61.6
3+50		5.8	61.4
4+0		7.7	59.5
4+50		10.4	56.8
T.P.	1.57	56.11	12.70 54.52
5+0		4.0	52.1
5+64 ⁵ M.H. Terrace = 5+446 Terrace line 9.0			47.1

5' deep
at grade

Note 5' cut will be cut every place in South

Look Add except where noted in level notes

E Terrace from D.E. 90° S of S.L. Gilmore 570 M.H. E

Headman Sta 19+95³ Canyon Line (constructed)

80

B.M.	3.85	83.87	80.02
0+0 = D.E. E Terrace 90° S of Gilmore		5.3	78.6
0+50		7.0	76.9
1+0		9.1	74.8
1+50		12.3	71.1
	1.45	72.33	12.79 70.88
2+0		6.0	66.3
2+57 ⁵ M.H. $\Delta 10^{\circ} 38' R$		0.07	11.7 60.6
			11.69 60.64
3+0		3.2	57.5
3+50		6.2	54.5
4+0		9.9	50.8
4+46 ⁵ M.H. int. of Fiske St line			
4+46 ⁵ M.H. int. of Fiske $\Delta 29^{\circ} 41' R$		13.6	47.1
5+0		14.3	46.4
4+50		13.3	47.4
5+86 ⁵ M.H. E Headman Sta 19+95 ³		12.04	48.67

5' deep
at grade

47.1
1.8
51.3
19
53.3 R.T.
5+86⁵ M.H.

3+12 break M.H.
4+10 break

3+12
1.85
2.97
19
51.6

± 360 ST from D.E. 40 S. of S.L. Gilmore S. to Woodman
 Trace E on Woodman to M.H. 572 19+95² Canyon Line

611	120.1	100.07	88.11	
0+0=D.E. 40 S of Gilmore			5.1	95.0
+50			4.0	96.1
T.P.				
+10			4.5	95.6
+50			6.5	93.6
+20			7.6	92.5
+50			10.1	90.0
T.P.				
+30			12.2	87.9
T.P.	0.09	88.23	11.93	89.14
+50			3.0	85.2
+40			5.2	83.0
+50			6.8	81.4
+50			10.3	77.9
T.P.	0.47	76.19	12.81	75.72
+50			3.3	72.9
6+00 ⁵ M.H. P. Woodman			8.9	67.3
+50			8.9	67.3
+70			10.5	65.7
T.P.	0.85	64.15	12.89	63.30
+50			1.7	62.5
+80			8.0	56.2
+8+50			13.5	50.7
T.P.	2.88	55.60	11.93	52.72
+90			6.0	49.6
+9+50			8.5	47.1
+9+80=M.H. 19+95 ²			6.93	48.67

NOTE 7' deep

Olivewood st from M.H. (to be constructed) 572 18+55² Canyon Line
 South to D.E. 35 M of M.H. 572 st, & from D.E. 15' N of S.L. of 5"
 To D.E. 40' N of S.L. South Look Add.

811	53.39	54.06	48.67
0+0=M.H. 572 18+55 ²			10.1
+50			8.9
+10			7.8
+50			6.0
+20			4.2
2+43 M.H. Δ 27° 58' L			3.7
+30			0.8
T.P.	4.53	53.33	0.26
+50			3.0
± Olive wood Δ 0° 45' L to D.E. Olive wood 15' N of S.L. 5" st			
3+90=D.E. 35' N of M.H. 572			2.5
+70			58.33
0+0=D.E. 15' N of S.L. 5" st & Olive wood			2.1
+50			2.9
+10			3.7
+50			4.4
+20			6.7
2+40 M.H. " 7" st			10.06
+50			10.8
+30			13.6
T.P.	3.69	49.35	12.67
3+53 M.H. for Canyon Line West			6.62
+10			6.6
4+29 D.E. 40' N of S.L. South Look Add.			6.1

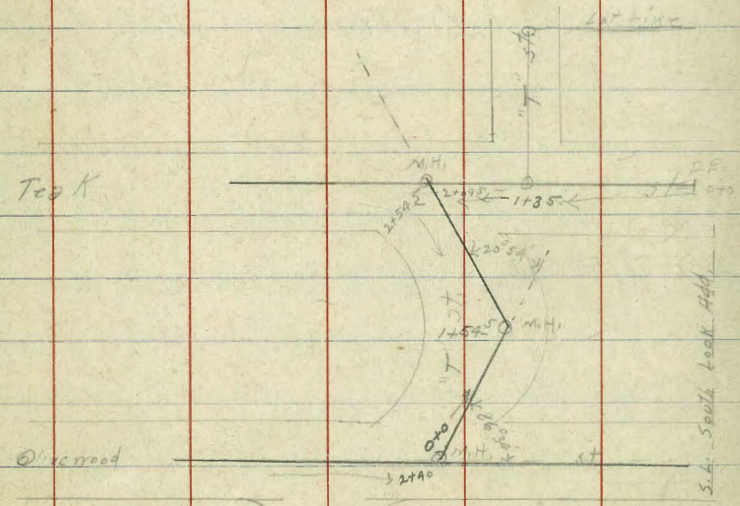
Street graded

corner T^h St from E Olive road to E Teak

0+0 = M.H. 3/2 2740 Olive road	61.36	48.27
750	9.3	52.1
170	6.0	55.4
1451° Δ 20° 54' L	2.1	59.3
T.P.	73.27	61.29
1198	0.07	
170	11.2	62.1
2+54° M.N. & Teak	7.7	65.6

4" T^h from E Teak St East for 125.70 m to lot line bet Teak & 37th St

0+0 = M.N. & Teak	9.1	64.2
+25	9.0	64.3
+75	5.2	67.5
North to South		
1+25 = M.N. lot line bet Teak & 37 th St	4.3	69.0



corner E Teak St from D.E 40' N of S.L. South Look Add North to D.E 50' west of 37th St.

0+0 = D.E & Teak	73.27	13.2	59.4
+50		11.4	61.2
170		9.7	63.6
1+35 M.N. T St East		9.1	64.2
+50		8.9	64.4
270		7.8	65.5
2+29° M.N. T St West		7.7	65.6
+50		6.7	66.6
370		5.3	68.0
+50		3.9	69.4
470		3.3	70.0
+50		3.0	70.3
+570		2.2	71.1
5741 = E Teak		1.6	71.7
+500		1.4	71.9
670		0.7	72.5
+50 T.P. 1170	84.82	0.5	73.1
6729° Δ 41° 53' R		10.8	74.0
		10.5	74.3
770		9.7	75.1
+50		6.9	77.9
870		4.1	80.1
8+522 D.E 50' W of 37 th St		4.5	80.3

S.L. South Look Add

Center North & South Lot Line Lot Total 8374 from D.E. 40' north
of South Line South Look Add north 7052.6 + 27 or 4' in Lot 29

	73.27		
0 + 0 = D.E. 40' N of S.L. South Look Add	7.9	65.4	
150	9.0	64.3	
140	5.0	68.3	
135 MN. & T 5'	4.3	69.0	
150	4.4	68.9	
240	2.5	70.8	
T.P. 11.70	24.82	2.15	73.12
250	11.0	73.8	
340	11.2	73.6	
450	10.5	74.3	
440	10.2	74.6	
450	9.8	75.0	
540	8.0	76.8	
5453' Δ 16°43' R	6.4	78.4	
640	2.9	81.9	
6 + 29 = 9' N of S.L. Lot 29	1.6	83.2	

Q 36th St from M.H. 5 1/2 14+04⁵³ Canyon Line (constructed)
South to D.E. 80° N of S.L. Sou. Look Hill

B.M.	12.41	46.57		34.16
0+0 = M.H. 14+04 ⁵³			15.0	31.6
25			14.1	32.5
50			11.4	35.2
75			7.4	39.2
100			5.5	41.1
125			7.2	39.4
150			7.6	39.0
175			5.2	41.4
200			2.0	44.6
225			3.2	43.4
250			6.9	39.7
275			10.1	36.5
2+93 M.H. Canyon Line East			13.19	33.38
300			15.5	31.1
307			18.2	28.4
325			11.5	35.1
350			7.8	38.8
375			9.8	41.8
T.P.	7.00	53.07	1.00	25.47
400			7.9	45.2
425			5.2	47.9
450			3.8	49.3
4+77 ⁵ = D.E. 80° N of S.L. Sou. Look Hill			3.2	49.3

Canyon Line from M.H. Q 36th St. N 49° East to M.H. Q
Olivewood Sta 3+53 on Olivewood Line

84

B.M.	12.59	45.97		33.38
0+0 = M.H. Q 36 th St 2+93			12.6	33.4
25			10.9	35.1
50			11.0	35.0
75			14.9	31.1
100			11.1	34.9
125			9.5	36.5
150			6.8	39.2
175			6.2	39.8
200			4.0	42.0
225			4.1	41.9
2+15 M.H. Q Olivewood Sta 3+53			3.24	42.73

Lot Line bet 36th & Olive road from M.H. (constructed)
 575 16770 Canyon Line North for 101' or 10' x of 34. 2018 2882
 1811 H. 16770 5' East of above Lot line

B.M.	13.10	49.50	36.40
010-M.H. 16770		12.3	37.2
426		15.0	37.5
150		8.2	41.3
1701 D.F.		0.9	48.6

Survey of road from M.H. 575 1949 5³ Canyon Line
 East for 160' or 90' W of N.L. 37251

35

B.M.	9.28	57.95	43.67
010-M.H. 1949 5 ³		9.28	43.67
0150		3.9	49.0
140		6.9	51.0
1450		3.9	54.0
1400 D.F. 92 W of 37251		3.4	54.5

Sewer pipe between "K" & "L" from #335th E for 265th
 & West from #335th for 385

26.89
 5.21
 32.0541

32.05	32.05	32.05	32.05	32.05	32.05	32.05	32.05	32.05
21.00	21.33	21.67	22.00	22.33	22.67	23.00	23.33	23.67
11.05	10.72	10.38	10.05	9.72	9.38	9.05	8.72	8.38

B.N. 1	4.0	31.90	27.80		
		East Line	19.23 Main		
at = M.H. Main Line #335 th Drop	3.5	28.4	21.00	7.4	
150		4.47	27.43	21.38	6.0 ✓
140		4.95	26.95	21.76	5.2 ✓
150		5.37	26.51	22.14	4.4 ✓
210		6.10	25.80	22.52	3.3 ✓
150		4.61	27.29	22.90	4.4 ✓
2165 = D.F.		4.69	27.21	23.00	4.2 ✓

32.05	32.05	32.05	32.05	32.05	32.05
1.38	1.76	2.14	2.52	2.90	3.00
10.67	10.49	9.91	9.53	9.15	9.05

16.
 265
 385
 650
 66

		West Line	19.23 Main		
at = M.H. Main Line #335 th 5 th Drop, 3.5	3.5	28.4	21.00	7.4	✓
150		4.4	27.5	21.33	6.2 ✓
140		5.06	26.84	21.67	5.2 ✓
150		5.06	26.84	22.00	4.8 ✓
210		5.2	26.7	22.33	4.4 ✓
150		4.7	27.2	22.67	4.5 ✓
370 break		4.65	27.25	23.00	4.3 ✓
150 break 11.03	41.36	1.57	30.33	26.00	4.3 ✓
3185 = D.F.		1.2	40.2	35.00	5.2 ✓

Corner Hwy Lot L 8' M from m.h. & 33rd St E for 800 to D.E.
 & West from M.N. & 33rd St

B.M. 5	5.03	29.26	24.23	17.20	
		E 33 rd Line		18.00	6.7
0+0 M.N. & 33 rd St Drop			24.7	18.00	6.7
100		4.26	25.00	18.28	6.7 ✓
120		4.47	24.89	18.57	6.2 ✓
150		4.26	25.00	18.85	6.2 ✓
210		3.9	25.4	19.14	6.3 ✓
150		4.8	24.5	19.42	5.1 ✓
310		4.5	24.2	19.71	5.1 ✓
150 D.E.		5.38	23.88	20.00	3.9 ✓

West Line

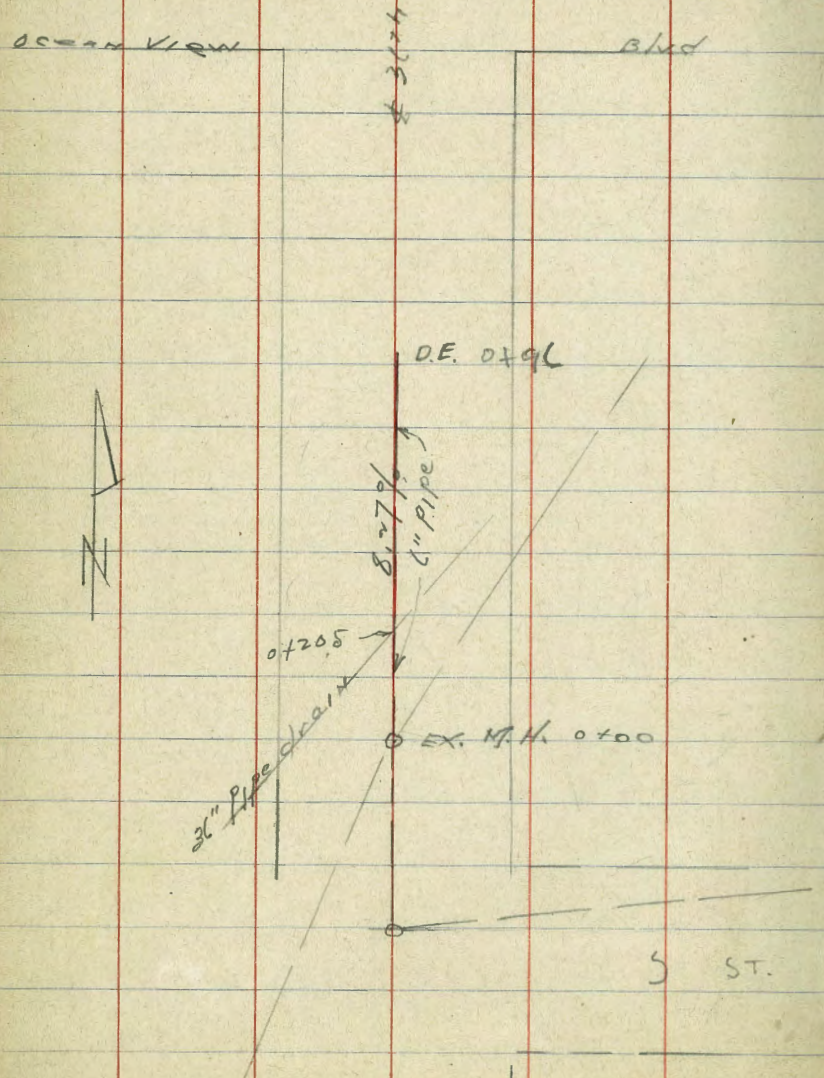
0+0 M.N. & 33 rd St Drop			24.7	17.20	6.7 ✓
100		4.8	24.5	18.25	6.3 ✓
120		4.66	24.60	18.50	6.1 ✓
150		4.25	24.81	18.75	6.1 ✓
210		4.5	24.3	19.00	5.8 ✓
200		4.6	24.7	19.25	5.5 ✓
310		4.6	24.7	19.50	5.2 ✓
150		5.2	24.1	19.75	4.4 ✓
410 D.E.		4.6	24.7	20.00	4.7 ✓

25.00	19.62	29.22	29.62	29.22	29.62	29.62	29.62
9.62	18.23	5.57	8.85	9.14	9.42	9.71	9.62
29.62	11.34	11.05	10.17	10.48	10.20	9.91	9.62
18.00	✓	✓	✓	✓	✓	✓	✓
11.62							

24.60	29.43	29.43	29.43	9.43	9.43	9.43	9.43
9.23	18.20	8.23	8.75	9.00	9.25	9.50	9.25
29.43	11.15	10.93	10.62	10.43	10.18	9.93	9.68
18.00	✓	✓	✓	✓	✓	✓	✓
11.43							

8'

S. Main Sewer grades on 36th
 South of Ocean View Blvd.
 9-12-45



New BP Height Lock & Oliverwood Ter. 83

4.25	5874		5449
T.P.	0.7	4584	12.97 45.77
0+20.5	Top 36" Pipe drain	956	36.28 ✓
0+00	FL. EX. M.H.	1979	26.05 30.30
"	RIM " "	920	36.64 ✓ 30.30 6.34
0+20.5	Int. of 36" pipe drain	1384	31.74 32.00
0+32		679	32.04 +6.57 32.95
0+64		537	34.78 +5.61 35.59 4.81
0+96	D.E.	287	37.02 +5.98 42.97 38.22 47.2
			Stubs 4' EAST ↑
T.P.	10.89	5656	0.17 45.67
0+250	ground for future line	0.1	5646 51.0 47.2

36.28
 17.00
 42.8
 3.50
 0.78
 0.67 = including Bell
 0.11 = clear

24.76	7.9	6.65
<u>1.47</u>	4.75	<u>8.38</u>
26.23	7.1	15.00

0+0 M.H.	8.32	17.7
0+0	15.00	11.2
0+28	13.6	12.6
150	8.26	18.0

2) 11.00
<u>2.75</u>
16.50
<u>2.75</u>
19.25

350	22.00	0+0	11.00
<u>170</u>	<u>11.00</u>		
180		128	14.08
	11.00		
	<u>23</u>	150	16.50
	8800		
	<u>2200</u>	1+0	22.00
	3.080.0		

26.23
<u>14.08</u>
12.15

2) 7.50
<u>3.75</u>

29.04
<u>3.07</u>
32.11
<u>19.25</u>
12.86
<u>3.66</u>
9.2
<u>7.1</u>

M.H. Rod & P.H. 9.1
 Mon. E.H. & P.H. 12.0

140) 145	10.36
<u>140</u>	
500	2.072
<u>120</u>	
720	

100) 200	1.10
<u>20</u>	
200	

95
400

165
400
155
7.20

553.96
69.27
222.95
26.49
27.90
15.50
2.89

160
350
431
(559)

1205
720
5135
267

724
1224
81.28

90
400
45

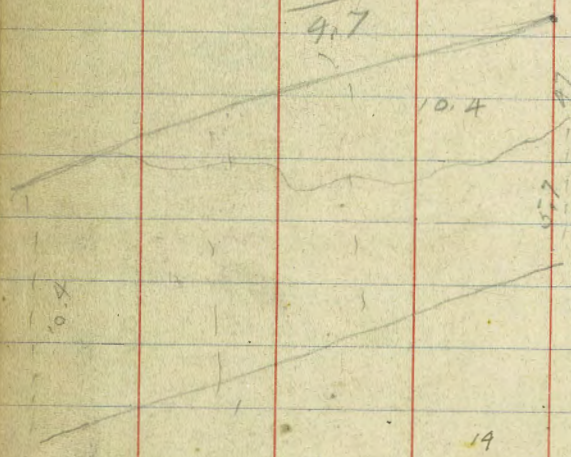
7
7.20
280
1000

535
9.00
3.80
12.8
12.8

9.6
5.0
14.6
12.3
7.3
10.4
5.7
4.7

184
184
184
20.24

553.1
620.00
627.00



10.1
16.1
3.9
7.2

14
8.9
5.5
2.0
7.4
9.2
3.9
13.1

14.4
8.9
5.5
2.0
7.4
8.9
7.5
16.4

3944) 10,500 (2.73
7688
28120
26908
12120
11532

273
525
1368
546
1365
143325

277.1) 5000 (18.4
2721 17.1
2290 18.4
21468 1472
102284
33304

1.367 (14.6) 5000 (2.33)
4292
68 233 7080
116 46 6438
1398
932
10718
6420

121.0) 1400 (11.53
1214 314
1860 461.2
1214 1153
646.0 459
6070 362042
3900

2590) 3000 (1.16
570 259
410
259
1510
15540
1.16

54.5
59.0
27135
56.7

Florence

North Lane

0+50 - 10.0
3+00 MH 31.0
5+75 44.0

6.00
0+80 - 21.0
3+00 MH 37.0
6+00 MH 49.5
9+00 - 62.0

Alley bet W + S.

1+20 - 17.0
2+00 - 26.0
3+00 MH 46.0
4+00 - 56.0
5+95 - 66.0

120) 2200 (18.33
120
1000
960
9.10 400
360
100

Alley S + J.

2+00 16.0
3+00 MH 28.0
4+20 52.0
5+95 - 58.0

175) 600 (3.42
342
30
10260
171
154
525
750
700
500

3.0
 8.0
 230
 130
 390
 11.0 alley bet. Bradley + mountain 7.30
 19.0 " " mountain + Valle
 24.5 alley bet. Valle + Washburn
 35.0 " " Washburn + Franklin
 40.0 " " Washburn
 45.0 alley bet. Valle + Franklin
 2940-58.0
 1060 62.0
 653
 372
 4168/5000 (.12) 339,35/300000 (8)
 4168
 8320
 6336
 6690/2500 (3.623)
 2070
 430053.2
 4140
 100058
 1380
 2200
 0.8
 13.70
 0.6
 12
 310 76
 780
 325 223.60
 235.60
 65.5
 12.5 - 64.92
 64.0
 2299.10
 491.5/80000 (.66) 379.85/55000 (1.44)
 481.5
 31850
 28890
 2966
 144.8
 32.35
 7240
 4344
 4344
 4344
 46842.50
 170150
 151940
 182100
 151900
 301600
 7.55

475.4
 362.4
 400
 1517.2
 1900
 14480
 220/1600 7.27
 363
 159
 20
 700
 937
 70
 356

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.