

1186

PLANTS

FIELD BOOK

No. 385 F

SEWERS

MICROFILMED
DEC 22 1964

No. 385 App 80 7/18/30 HA

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- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
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 ENGINEERING and DRAFTING SUPPLIES
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5.25
 5.12
 5.64
 5.64
 5.12
 5.25

Alley Bet. Cottonwood + MARINE VIEW
 From Osborne St East Sheet 4

Page 79
 1-57 other Book
 = 0 + 00 = M.H. & Alley 14.69

+50			5.15	9.54	5.90	+3.64
1+00			4.38	10.31	6.20	+4.11
+50			5.95	8.74	6.50	+2.24
2+00			4.68	10.01	6.80	+3.21
+50			1.60	13.09	7.10	+5.99
3+00	11.01	25.23	0.47	14.22	7.10	+7.69
+50			10.14	15.09	7.10	+9.16
4+00 = M.H.			8.37	16.86	7.70	+5.43
+52 ⁵⁵			11.80	134.3	8.00	+2.01
TP 1070	33.83		7.97	17.26	15.25	+4.86
5+05 = M.H.			0.10	25.13	22.50	+2.10
3-383 TP 13.33	48.61		8.47	27.36	28.67	+3.89
+43			0.57	35.26	34.84	+4.84
+81.7			17.84	30.77	28.67	6.35
6200 = B.K.			9.89	38.73	34.84	
6+50 = D.E.			2.77	45.84	41.00	
			0.76	47.85	41.50	

40th St.

Page 12
 Sheet 4

From Cottonwood on east to MARINE VIEW Bldg
 21-2775 + 100' to Page 79
 Cottonwood + 40th

7-46 ⁵⁰	20.93			9.09		
+43 ⁰²			9.87	11.06	9.84	+1.22
3-43 ⁰²			5.56	15.37	10.55	+4.82
+86 ⁰⁴			3.17	15.76	11.26	+4.50
1+20 ²⁶			3.73	17.80	12.00	+5.80
1+72 ⁰⁰ = M.H. & Alley B.K. 13			2.73	20.20	15.00	+5.20
2-52 ⁵⁵			0.73	20.20	15.00	+5.00
2+04 ⁶⁵ TP 13.09	33.29		10.29	23.00	18.00	
2-13 ²⁹ = M.H. & Alley B.K. 12						

Cont. on Page 2

Other Book (6-133)
 Page 79 Elev. Stub Sta. 1+57 = 8.98

5.71
14.69 -
0.47 -
14.22 = TP
11.01 +
25.23 = K
0.10 -
25.13 = TP
10.70 +
35.83 = K
0.57 -
35.26 = TP
13.35 +
48.61 = K
12.50 -
35.81 = TP
1.12 -
36.93
12.96 -
23.97 = TP
0.66 -
24.63
8.67
15.96
15.95
0.01 -

Ch. M. Nail in Pole
 40th + Nordica

Ch. M. Nail in Pole 40th Nordica = 15.95

4.98
20.93 = K
0.73 -
20.20 = TP
13.09 +
33.39 = K

40th St Cont. from Page 1

2

(2-50)

2+87.2		33.29	4.92	28.37	24.00	+4.37
3+37.2	T.P. 12.99	46.26	0.62	33.27	30.00	+4.14
3+79.25			6.62	39.64	33.25	+6.39
4+22.3	M.H. & Marine View		3.75	42.51	36.50	+6.01

33.29
0.02
33.27 = TP
12.99 +
46.26 = T

EASEMENT Bet Cottonwood and

MARINE VIEW Ave. from E. 40th East 410

1+72.10 Page 1		28.25			12.00	
= 0+00 = M.H.						
+50		12.08	1.617	12.33		+3.84
1+00		12.72	1.553	12.67		+2.86
+50 = B.K.		10.18	1.807	13.00		+5.07
2+00 = M.H.		40.00	5.01	23.24	19.00	+4.24
TP 12.41			0.62	27.43		
+45			4.61	35.43	31.00	+4.43
TP 13.36		53.15	0.25	39.79		
+90 = B.K.			5.97	47.18	43.00	+4.18
3+30			1.16	51.99	43.33	+8.66
3+70			2.80	50.35	43.66	+6.69
4+10 = D.E.			6.22	46.93	44.00	+2.93

0+00 =
= Elev. M.H. Stud 1+72.10 Page 1 =

17.80
10.45 +
28.25 = T
0.62
27.63 = TP
12.41 +
40.04 = T
0.25 -
39.79
1.336 +
53.15 = T
5.27
47.88
47.85
0.03

chk on 6+50 Page 1 = D.E.
Elev. Stud =

L. Alley Bet Cottonwood + Marine View
from E. 40th St. West 130'

2+37. Page 1		35.59	12.59	23.00	18.00	+5.00
= 0+00 = M.H.						
+40			14.05	21.54	18.50	+3.04
+80 = B.K.			8.97	26.62	19.00	+7.62
TP 11.89		47.39	0.09	35.50		
1+30 = D.E.			8.25	39.14	33.00	+6.14

M.H.
Elev. Stud 2+37 Page 1 = 0+00 this Street =

23.00
12.59 +
35.59 = T
0.09 -
35.50 = TP
11.89 +
47.39 = T
3.51
43.88

chk on Stud 1+74 Page 3 = 43.88

MARINE VIEW AVE
From 2 40th to 2 EASEMENT Bet. 40th & Anthony

46.26 = H.I. from Page 2

carried
H.I. From Page 2 46.26

4+223 Page 2					
= 0+00 = M.H. & 40th	3.75	42.51	36.50	+6.01	
2-433					
+43.5	4.16	47.10	37.12	+4.98	
+87.2	2.97	43.29	37.75	+5.54	
1430.5	2.69	43.57	38.37	+5.20	
	2.38	43.89			
1+74 = M.H. & easement bet 40th & Anthony		39.00		+4.88	

1+74 above	EASEMENT BET. 40th & ANTHONY Dr.				
= 0+00	31.28	7.40	43.88	39.00	+4.88
+44.7	3.55	45.73	39.25	+6.48	
88.4	5.82	45.46	39.50	+5.96	
1+33.5	6.61	44.67	39.75	+4.92	
+77.5 = D.E.	7.23	44.05	40.00	4.05	

H.I. from above = 46.26
2.38
 43.88 = T.P.
7.40
 51.28 = T.
3.21

CH. Elev. Stub 6+50 Page 1 ^{D.E.}
 = 47.87
0.02 ✓

40th From 2 Nordica North

23+27.5 Page 7 & other Book	27.70				
= 0+00 = M.H. & 40th Nordica	11.34	16.36	10.29	+6.07	✓ 0.01
+51.3	8.32	17.38	13.89	+5.49	
1+02.5 = M.H. & Arch	6.31	21.39	17.50	+3.89	
1+49.8	3.45	24.25	19.30	+4.95	
1+97.5	2.03	25.67	21.10	+4.57	
2+44.5	0.24	27.46			
	12.25	28.01	22.90	+5.11	
2+91.2	10.12	30.14	24.70	+5.44	
3+39 = M.H. & E.H.	7.49	37.77	26.50	+6.77	

BM. NAIL IN POLE 40th & Nordica = 15.95
11.75 +
 27.70 = T.
0.24 -
 27.46 = T.P.
12.80
 40.26 = T.

BIRCH ST
From E 40th West 350'

1+02 = Page 3					
= 0+00 = M.H. E 40th	3380	1241	213.9	17.50	+ 389
+50		767	2613	20.28	+ 585
1+00		439	2941	23.07	+ 634
T.P. 11.10	24.14	0.76	33.04		
+50		1020	3394	25.85	+ 8.09
2+00		819	3595	28.64	+ 731
+50		681	3733	31.44	+ 591
3+00		437	3977	34.21	+ 556
+50 = D.E.		226	4188	37.00	+ 488

Elev. Stub 1+02 = Page 3 =

21.39
12.71 +
3380 - x
0.76
3304 = x
11.10 +
44.14
4.23
39.91
39.93
+ 0.02

chk. on Stub 3+90 Page 16 other Book D.E. Elev. =

ETA ST
From E 40th 190' East

3+39 Page 3					
= 0+00 = M.H. E 40th	4026	749	3277	26.50	+ 6.27
+45		951	3075	26.75	+ 4.00
+90		627	3399	27.00	+ 6.99
T.P. 1176	51.62	0.40	39.86		
1+40		959	4203	33.75	+ 8.28
1+90 = D.E.		556	4606	40.50	+ 5.56

other Book
chk. on Stub 3+22.5 Page 18 =

4026
040
3986 = T.P.
1176 +
51.62 = x
5.82
45.80
15.77
0.03

MARINE VIEW AVE.

{ Profile 12 }
{ Sheet 4 }

0+00 = Page 3					
= 0+00 = M.H. E 40th	55.34			36.50	
+27.84		10.85	44.49	39.33	+ 5.16
+75.68		762	47.72	42.16	+ 5.56
1+43.5' = M.H. Δ 28'35" R		447	5087	45.00	+ 5.87
1+82.24		032	5502	48.33	+ 6.69

Sta. 4+22.3 Page 2 Elev. M.H. Stub =

42.51
12.83 +
55.34 = x

Cont. on Page 5

MARINE VIEW AVE Cont from Page 4

TP 12.94	67.96	0.32	55.02		
2+21 ^{1/2}		9.79	58.17	51.66	+6.51
2+60=B.H.		7.42	60.54	55.00	+5.54
3+03 ^{3/4}		5.22	62.74	56.94	+5.80
3+46 ²⁵		3.39	64.57	58.88	+5.69
3+90 ^{1/2}		1.68	66.28	60.82	+5.46
4+33 ⁵ =MH. EASEMENT E 41st St. 0.34		67.62	62.75		+4.87

55.34
 0.32 -
 55.02 = TP
 12.94 +
 67.96 = X
 0.34
 67.62 = TP

EASEMENT CRT. 40th + 41st Sts. Bk 6

From Marine View Ave 240' South
 1/2 from Page 4

1+43.5 Page 4 =0+00-MH	55.34		45.00		
+40		2.57	52.77	45.20	+7.57
+80		2.90	52.44	45.10	+7.04
1+20		3.40	51.94	45.60	+6.34
1+60		4.35	50.99	45.50	+5.19
2+00		4.23	51.11	46.00	+5.11
2+40=DE.		4.51	50.83	46.20	+4.63

Above T.P. = 17.67

EASEMENT EAST 41st Bk. 17

4+35.51 Above =0+00	79.07		62.75		
+40=B.H.		5.44	73.63	65.00	+8.63
+90		4.33	74.74	65.25	+9.49
1+40		4.52	74.55	65.50	+9.05
1+90		5.71	73.36	65.75	+7.61
2+40=DE.		6.77	72.30	66.00	+6.30

Above T.P. =
 67.62
 11.45
 79.07
 12.66 -
 66.41 = TP
 0.28 +
 66.69 = X
 12.63 -
 54.06 = TP
 0.27 +
 54.33
 11.81
 42.52
 ckt. on stub of 40th Marine = 42.51
 0.01

Line thru BK A.S.W. Haines
+ 410 H.C. Skinners Add

16.08

000 MH 7+5 P 59			6.46	9.62	4.00	+ 5.62
+ 50			2.48	13.40	6.80	+ 6.60
100	T.P. 12.19	28.74	0.13	15.75		
			9.14	19.00	9.60	+ 9.40
150			9.52	18.62	12.40	+ 6.22
200			4.89	23.25	15.20	+ 8.05
250 Brk	T.P. 11.81	39.45	0.50	27.64	18.00	+ 9.64
300			11.14	28.31	18.33	+ 9.98
350			12.46	26.99	18.67	+ 8.32
400	M.H. 37 th		9.06	30.39	19.00	+ 11.39
450			13.70	25.75	21.25	+ 4.50
500			9.59	29.86	23.50	+ 6.36
550			8.09	31.36	25.95	+ 5.41
600 Brk	T.P. 11.86	50.56	4.41	35.04	28.00	+ 7.04
650			10.42	40.14	33.00	+ 7.14
700 M.H.			5.50	45.06	38.00	+ 7.06
750			3.17	47.39	39.67	+ 7.72
800			1.05	49.51	41.33	+ 8.18
850	T.P. 12.44	62.82	0.18	50.38		
900			10.50	52.32	43.00	+ 9.32
950			7.01	55.81	44.67	+ 11.14
1000			2.73	60.09	46.33	+ 13.76
1050	T.P. 12.75	74.84	0.73	62.09		
1100	D.E. 40 th & 38 th St.		10.82	64.02	48.00	+ 16.02

12.57
1.13
13.70

30.39
33.71

33.71
3.89
29.82
18.78
+ 11.05

33.71
6.73
26.98

84 White BIKS H & Emerson Hts.
 & BIK 409 Holphingstines Add

29.71

10+62 ⁷² M.H. Page 59=00	14.10	15.61	10.00
+57.7 ⁷³	12.50	17.21	12.00
1+15 ⁴¹ M.H. & Emerson ST 40	4.46	25.25	14.00
1+55 ⁴¹ M.H. " " " 3-51.47	9.06	20.65	15.00
207.14	37.56	7.04	22.67
2+58 ⁸⁰	12.94	24.62	20.33
3+10 ⁴⁷ M.H. 36	6.32	31.24	23.00
3+46 ⁴⁷ M.H. 3-51.67	9.59	27.97	23.46
3+78 ¹⁴ 87	50.11	0.94	36.62
4+49 ⁸¹	11.61	38.50	30.82
5+01.47 M.H. & 37 th ST 5+62.2	11.20	38.91	34.50
5+53 ²	9.18	40.93	35.90
6+05 ²	6.35	43.76	37.30
6+58 ²	2.38	47.73	38.70
7+10 ³	3.57	46.54	40.10
7+62 ⁵ M.H. 5+80	62.32	1.28	48.83
8+12 ⁵	10.72	51.60	46.20
8+62 ⁵	74.61	4.04	56.28
9+12 ⁵	12.70	61.91	55.60
9+62 ⁵	7.16	67.45	60.30
10+12 ⁵ B.K. 2-40	4.20	70.41	65.00
10+52 ⁵	1.90	72.71	66.25
10+92 ⁵ R.E. No. 38 th	0.63	73.98	67.50

+5.61

+5.21

+9.25 11.25

+5.65

+5.00

+4.29

+8.24

+4.57

+9.49

+7.68

+4.41

+5.03

+6.46

+9.03

+6.44

+7.33

+5.40

+5.38

+6.31

+7.15

+5.41

+6.46

+6.48

74.84

0.96

73.88

0.72

74.61

12.70

61.91

0.41

62.32

12.65

49.67

0.44

50.11

12.90

37.21

0.35

37.56

12.94

24.62

5.09

29.71

12.95

1.15

14.10

15.41

N. S. Line in BIK 3
Emerson Hts
27.56

8

10+62 ²³ M	00 = D.E. 23.75 N of Boston	3.62	33.94	24.00	+ 9.94
+ 57 ⁷³	445' N	4.01	33.55	23.50	+ 10.05
1+75 ⁴² 40	+ 90' N = M.H. 3+10 ⁴⁷ Page 7	6.32	31.24	23.00	+ 8.24
1+55 ³⁷ 30-51.67					
2+07 ¹⁴	00 = M.H. 3+46 ⁴⁷ Page 7	9.59	27.97	23.46	+ 4.51
2+58 ⁸⁰	+ 43.22	9.34	28.22	23.97	+ 4.25
3+10 ⁴⁷ M	+ 86 ⁶²	6.16	31.40	24.48	+ 6.92
3+46 ⁴² M 3-51.67	+ 730' N - D.E. 5:07 Newton	1.58	35.98	25.00	+ 10.98
3+78 ³⁴ 81					
4+49 ⁸¹					

Line Thru BIKs 1 & 2 Emerson Hts

+ BIK 408 Heppings Stines

5+01.47 M 5+52.2 5+53.2	00 = D.M.H. 55.916 04 5+00 Page 10 37.39	14.11	23.28	20.50	+ 2.78
6+06 ²	+ 60.81 K 5-45	3.47	33.92	24.00	+ 9.92
6+58 ⁴	+ 105	4.85	32.54	24.80	+ 7.74
7+10 ³	+ 150	6.07	31.32	25.50	+ 5.72
7+62 ⁸ 5+50	+ 195	3.21	34.18	26.40	+ 7.78
8+12 ⁵	+ 240	3.27	34.12	27.20	+ 6.92
8+62 ⁵	+ 285 M.H. in BIK 2 Emerson Hts 2-37.3	3.10	34.29	28.00	+ 6.29
9+12 ⁵	+ 322 ²	2.42	34.97	29.25	+ 5.72
9+62 ⁵	+ 359 ⁶ BIK 60 T.P. 13.10 49.81	1.30 0.68	36.09 36.71	30.50	+ 5.59
10+12 ⁵ 2.40	+ 419 ⁶ 50	5.27	44.54	36.30	+ 8.05
10+52 ⁵	+ 469 ⁶ BIK 5-46	4.04	45.77	41.60	+ 4.27
10+92 ⁵	+ 515 ⁶ T.P. 12.09 61.76	1.11 0.14	48.70 49.47	42.80	+ 5.90
	+ 561 ⁶	11.20	50.56	44.10	+ 6.46
	+ 607 ⁶	9.46	52.30	45.40	+ 6.90
	+ 653 ⁶	8.45	53.31	46.70	+ 6.61

49.81
2.92
46.89 = 46.89

6176

6+99 ⁶ M.H.		6.53	55.23	48.00	+7.23
4-45					
7+44 ⁶	T.P. 13.07	3.90	57.86	52.15	+5.61
7+89.6	.74.09	0.74	61.02		
		11.66	62.43	56.50	+5.93
8+34.6		1.97	67.12	60.75	+6.37
8+77 ⁶ R.K.		4.88	69.21	65.00	+4.21
3-50					
9+29 ⁶		3.72	70.37	65.67	+4.70
9+79 ⁶		3.14	70.95	66.33	+4.62
10+29 ⁶ DE Ho W. 7385		0.83	73.26	67.00	+6.26

N+S. Lin + 17

B.K.R. Emerson Hqts

49.81

00-DE. S. of Nat		7.27	42.54	35.00	+7.54
+45		9.51	40.30	31.50	+8.80
+90-MH R+85 Page 8	37.39			28.00	
+33 ²³	49.81	3.05	34.34	29.33	+5.01
1+76 ⁶⁷		9.40	40.41	30.67	+9.74
+20 DE N. of Newton		10.24	39.57	32.00	+7.57

Sewer Construction of 36" St.

N. Line - Nat Ave North
8" Line
46.85

B.M. 7.87
End Existing Sewer at 31st
+ N. Line National Ave

+ 50
1+00
50 MH at Alley Ave. Add
8+47.5
1+97.5

2+45 T.P. 9.98 54.26
2+92.5

3+40
3+87.5
4+35
4+82.5

5+29.5 MH N. of Log 9th T.P.
7-47.15
5+76.2

6+24 L
6+71.5
7+18.4

7+65.5
8+12 L
8+59.8 MH
7-47.15
9+06.2

9+54 L
10+01.5
10+48.4 T.P. 91.62 73.29

10+95.5
11+42.2
11+89.5 MH at 37th

34.98	36.90	33.20	+5.70
7.95	39.76	33.47	+6.29
7.09	40.18	33.74	6.44
6.67	41.47	34.00	+7.47
5.38	42.35	35.87	+6.48
4.50	46.78	37.74	+8.54
0.57	45.32	39.60	+5.32
10.94	47.30	41.50	+5.80
8.96	49.37	43.37	+6.00
6.89	51.69	45.25	+6.44
4.57	52.83	47.12	+5.71
3.43	55.01	49.00	+5.98
1.25	54.98	49.21	+6.46
8.94	55.67	49.42	+6.92
8.25	56.34	49.64	+7.34
7.58	56.98	49.85	+7.32
6.94	57.17	50.06	+4.70
6.75	58.08	50.28	+4.80
9.16	56.67	50.50	+6.17
8.84	56.67	51.43	+5.02
7.25	57.46	52.36	+5.10
7.47	59.96	53.29	+6.67
6.46	61.67	54.22	+7.45
3.96	63.61	55.15	+8.46
2.25	63.54	56.08	+7.46
9.48	62.84	57.00	+5.84 Alley Line

S. Line by B.M.

Alley BIK 406

73.29

7-47.2						
12+36 ²		4.60	66.69	58.43	+ 8.26	
12+84 ^L		3.71	69.58	59.86	+ 9.72	
13+31 ²		1.62	71.67	61.29	+10.38	
13+78 ^H	T.P. 5.94	78.91	0.32	72.97		
			5.13	73.78	62.72	+11.06
14+25 ^E		3.90	75.01	64.15	+10.86	
14+72 ^L		4.98	71.93	65.58	+6.35	
15+19 ² M.H.		8.99	69.92	67.00	+2.92	
6-43.33						
15+63 ^L		1.09	77.82	69.17	+ 8.65	
16+06 ^H	T.P. 10.45	89.03	0.53	78.58		
			10.23	78.80	71.34	+7.46
16+49 ^H		8.33	80.70	73.51	+7.19	
16+93 ^L		8.51	80.52	75.64	+4.84	
17+36 ^H		6.62	82.41	77.84	+4.57	
17+79 ^H DE	40' w. of 38' St	2.55	86.48	80.00	+6.48	

Alley BIK 2 L.A. Add

46.85

00=M.H. 1+50 Page 10		5.38	41.47	34.00	+ 7.47
6-48.3					
+48 ²		6.63	40.22	34.58	+5.64
+96 ^L		1.97	44.88	35.16	+ 9.72
1+45		2.00	44.95	35.75	+9.10
1+93 ²		5.34	41.51	36.33	+5.18
2+41.6		5.85	41.00	36.92	+4.08
2+90 DE, E. of 36 th		3.52	43.33	37.50	+5.83

Alley N. of Logan
W. of 36th St.

63.92

00 = M.H. 5+29 Page 10 4-47.5	8.94	54.98	49.00	+5.98
+47.5	8.56	55.36	50.78	+4.58
+95	7.09	56.83	52.56	+4.27
1+42 ^E	4.42	59.50	54.34	+5.16
1+90 DEW of 36 th	0.84	63.08	56.13	+6.95
27 th From Alley N. of Logan To Alley N. of S				
00 = D.M.H. 5/3 11+89 ^S Page 10 11.95 74.79 6-54.75	2.84	62.84	60.00	+2.84 37 th St Line
+54.75	9.80	67.99	60.67	+7.32
1+09 ⁴⁵	7.70	67.09	61.38	+5.76
1+64 ²⁵	6.39	68.40	62.00	+6.40
2+19	6.10	68.69	62.67	+6.02
2+73 ⁷⁵	5.76	69.03	63.33	+5.70
3+28 ^E D.M.H. + Florence 6-54.6	5.48	69.31	64.00	+5.31 ✓
3+83 ¹	5.03	69.76	65.08	+4.68 ✓
4+37 ³	4.93	69.86	66.16	+3.70
4+92 ³	4.31	70.48	67.25	+3.23
5+46 ⁹	2.85	71.94	68.33	+3.61
6+01 ^E T.P. 12.80 86.90	0.69	74.10	69.41	+4.69
6+56 ^E M.H. 507 6-54.6	10.55	76.35	70.50	+5.85
7+10 ¹	8.24	78.62	72.42	+6.20
7+65 ²	6.07	80.83	74.34	+6.49
8+19 ⁸	4.12	82.78	76.25	+6.53
8+74 ⁴	2.20	84.70	78.17	+6.53
9+29 T.P. 5.56 92.01	0.35	86.55	80.09	+6.46
9+83 ^E M.H. + Oak 6-54.6	5.74	86.27	82.00	+4.27

86.90
3.00
83.90

Alley Bet Floor check & T
37th ST East

Grade change

95.34
6.62
88.72
4.76
93.48
12.66
80.82
0.08
80.90

14

00-M.H. STA 3+28 ^E Page 13 6-46.67 +46.62	80.90	11.59	69.31	67.06	+2.31	64.00	+5.31
+93 ²² BRK	80.90	6.69	74.21	69.83	+5.38	67.33	+6.88
1+40		3.43	77.47	70.67	+6.80	70.67	+6.80 same
1+86 ^U	93.18	0.25	80.15	72.50	+7.65		
2+33 ²²		11.40	82.08	74.33	+7.75		
2+80 M.H. 6-51.67 3+31 ^U		9.39	84.09	76.17	+7.92		
3+83 ²²		8.51	84.97	78.00	+6.97		
4+35		8.94	84.54	79.33	+5.21		
4+81 ^U		7.81	85.67	80.67	+5.00		
5+38 ²²		4.76	88.72	82.00	+6.72		
5+90 D.E. 40' W of 38 th ST		3.61	89.87	83.33	+6.54		
		2.04	91.44	84.67	+6.77		
		2.67	90.81	86.00	+4.81		

Alley Bet S & T STs E. of 37th

00-M.H. STA 6+56 Page 13 ¹⁴	88.49		76.35	70.50	+5.85		
+50		7.73	80.76	72.08	+8.68		
1+00		5.85	82.64	73.67	+8.97		
1+50		5.15	83.34	75.25	+8.09		
2+00		4.51	83.98	76.43	+7.15		
+50		5.24	83.25	78.41	+4.84		
3+00 M.H. 6-46.83 3+48 ²²	T.P. 10.03 95.84	5.02	83.47	80.00	+3.47		
3+96 ^U		3.18	85.31				
4+45		10.43	84.91	81.58	+3.33		
4+93 ²²		7.42	87.92	83.16	+4.76		
5+41 ^U		5.62	89.72	84.75	+4.97		
5+90 P.E.		4.19	91.15	86.33	+4.82		
		3.11	92.23	87.91	+4.32		
		1.58	93.76	89.50	+4.26		

Alley Bet S. + Teak
From 27th E to D.E.

	92.01				+4.27
M.H. Sta 9+83 ³ Page 13	5.74	86.27	82.00		+5.51
3-53 ³³	3.00	89.01	83.50		+5.71
+53 ³³					+7.07
1+06 ⁶⁷	1.30	90.71	85.00		+8.25
T.P. 6.02	0.41	91.60			+6.16
1+60 BTK	4.05	93.57	86.50		+5.18
5-50	2.57	95.05	86.80		+5.00
2+10	4.36	93.26	87.10		+4.87
2+60	5.04	92.58	87.40		
3+10	4.92	92.70	87.70		
3+60	4.75	92.87	88.00		
4+10 D.E. Bet 37+38					

47.19
4.14
43.05
33.20
79.83
chk

+9.81

46.89 37+38
11.61
58.50
12.99
45.51
4.14
49.65

Line thru BIK 2 Logan Ave Add Easement

	47.19				+9.78 ✓
connection with existing Sewer N. W. Nat Ave.	4.21	42.98	33.20		+3.95 ✓
002 173' Key 37 th St	9.78	37.41	33.46		+4.16 ✓
+30	9.30	37.89	33.73		+4.97 ✓
1+00		38.97	34.00		
M.H. Alley 1+50 BIK 2 Log Ave Add 8.22	47.19				

Line Alley BIK 2 Log Ave Add 4 07

	49.65				+8.19 ✓
00 D.E.	1.96	47.69	39.50		+7.02 ✓
+43.5	5.88	43.77	36.75		+4.97 ✓
0+81 M.H. Sta 1+50 above	10.64	38.97	34.00		+5.18 ✓
2-45	9.97	39.68	34.50		+7.13 ✓
1+32	7.52	42.13	35.00		+8.11
1+77 BTK	58.50	7.39	51.11	43.00	+4.10 ✓
2-54.5		3.40	55.10	51.00	
2.33					
2+90 M.H. 37 th					

Allegheny Blk 4.07

17

58.50

2+90 M.H. 37 th St 3-45 th T.P.	13.17	71.38	3.40 0.29	55.10 58.21	51.00	+4.10
3+35 th			12.38	59.00	54.00	+5.00
3+81 st			8.68	62.70	57.00	+5.70
4+27 Blk 3-46.69			6.50	64.88	60.00	+4.88
4+73 rd			3.57	67.81	61.33	+6.48
5+20 th			1.12	70.26	62.67	+7.59
5+67 M.H. 8-47.85			2.56	68.82	64.00	+4.82
6+14 th T.P. 11.71	82.99		1.78 0.30	69.60 71.08	65.37	+4.23
6+62 nd			9.91	73.08	66.75	+6.33
7+10 th			8.97	74.02	68.12	+5.90
7+58 th			8.65	74.34	69.50	+4.84
8+06 th			7.34	75.65	70.87	+4.78
8+54 th			5.80	77.19	72.25	+4.94
9+02 nd			4.40	78.59	73.62	+4.97
9+50 M.H. 38 th St 6-46.17			2.66	80.33	75.00	+5.33
9+96 th T.P. 8.35	90.60		0.74	82.25	75.75	+6.50
10+42 nd			6.20	84.30	76.50	+7.80
10+88 th			4.75	85.82	77.25	+8.57
11+34 th			4.54	86.06	78.00	+8.06
11+80 th			4.82	85.78	78.75	+7.03
12+27 M.H. 6-52.17			4.45	86.15	79.50	+6.65
12+79 th			4.54	86.06	80.08	+5.98
13+21 st			4.96	85.24	80.67	+4.97
13+83 rd			5.28	85.32	81.25	+4.07
14+35 th			4.57	86.63	81.83	+4.20
14+88 th			2.90	87.70	82.42	+5.28
15+40 D.E. 40 th W. of 39 th St			0.52	90.68	83.00	+7.68

83.05 SW 39th
Nat

90.08
2.48
92.56

00 DE 40' E of 38 ⁿ	78.06	4.75	93.31	89.00	+4.31	SE BR N of 1+38 ⁿ	76.58
6.49							12.85 +
+49		4.55	93.51	88.74	+4.77		87.41
+98		4.24	93.82	88.49	+5.33		0.06 -
1+47		4.04	94.02	88.24	+5.78		89.35 = TP
1+96		3.69	94.37	87.98	+6.39		87.1 +
2+45		3.48	94.58	87.73	+6.85		78.06 = T
2+93 ^g MH		3.95	94.11	87.48	+6.63		723 -
6-49.35							90.83
3+48		4.02	94.04	87.23	+6.81		283 -
3+92 ^g		2.77	95.29	86.99	+8.30		73.66 = T
4+41 ^g		2.45	95.61	86.74	+8.87		13.12 -
4+91 ^g		3.52	94.24	86.50	+7.74		80.54 = TP
5+40 ^g		5.65	92.41	86.25	+6.16		3.25
5+90 MH 39 th St		7.23	90.83	86.00	+4.83		83.79
2-52 TP 2.83	93.66	7.23	90.83				7.55
6+42		2.93	90.73	83.50	+7.23		
6+94 Brk		6.96	86.70	81.00	+5.70		
3-40.07							
7+40 ^g		10.28	83.38	77.93	+5.45		
7+87 ^g TP 3.25	83.79	13.12	80.54				
		3.82	79.77	74.86	+5.11		
8+34 ⁰⁰ MH 7.32	83.56	7.55	76.24	71.80	+4.44	TP on sub 8+34 =	76.24 = TP
7-40							
8+74		8.56	75.01	71.60	+3.41		
9+14		9.03	74.53	71.40	+3.13		
9+54		8.83	74.73	71.20	+3.53		
9+94		9.61	73.95	71.00	+2.95		
10+34		9.28	73.58	70.80	+2.78		
10+74		9.90	73.66	70.60	+3.06		
11+14 MH		8.46	75.10	70.40	+4.70		
				0.40			

11+14 MH		8.46	75.10	70.40	+4.70
7-46 ⁹					
11+60 ²		6.45	77.11	70.18	+6.93
12+07 ⁵		2.68	80.88	69.95	+10.93
12+54 ²		3.60	79.96	69.72	+10.24
13+01 ⁶		5.88	77.68	69.49	+8.19
13+48 ⁵		7.60	75.96	69.26	+6.70
13+95 ⁴		8.46	75.10	69.03	+6.07
14+42 ³ M.H.T.P. 0.60	75.40	8.76	74.80	68.80	+6.00
2-35.85					
14+78.1		6.87	68.53	60.40	+8.13
T.P. 0.34	63.18	12.56	62.84		
15+14.0 Brk		5.75	57.43	52.00	+5.43
1-40	T.P. 0.32	50.43	13.07	50.11	
15+54 Brk		8.34	42.09	35.00	+7.09
1-20	T.P. 9.45	46.68	13.20	37.23	
15+74 M.H. on 8" line		10.67	36.01	30.50	+5.51

Alley Bet New York Nat Hist St W

0-M.H. on 14" line	40.79	14.82	25.97	15.40	21.00	+4.97
2-35						
+35		14.91	25.88	21.50		+4.38
+70 Brk		14.40	26.39	22.00		+4.39
1-60						
1420 Brk		4.50	36.29	32.00		+4.29
4-42.5						
1+72 ⁵		2.75	38.04	32.27		+5.77
2+15	T.P. 11.79	52.13	1.52	39.27	32.55	+6.72
2+57 ⁵			0.45	40.34		
			12.08	40.05	32.87	+7.23
3+00 MH		10.50	41.63	33.10		+8.53
3-46.7						
3+46 ¹⁷		9.51	42.62	33.40		+9.22
3+93 ³³		11.72	40.21	33.70		+6.51
4+40 Brk		13.74	38.39	34.00		+4.39

BM 415 + North NW BR

35.85
 5.54+
 40.79-7
 0.45-
 40.34=7P
 11.79+
 52.13=7P

4240 BK 3-50	52.13	13.74	38.39	34.00
4490		8.75	43.18	37.33
5440		4.81	47.32	40.51
5490 DE		2.78	49.35	44.00

+4.99
+5.85
+6.65
+5.35

52.13
0.00 -
52.13 = TP
13.35 +
65.48 = X
0.66 = BM
65.42
65.40 = BM
0.02

Alley Bet National & Logan 41st St West

00: DMH on 8" line 4-40	38.84	8.83	30.01	24.00
440				26.00
7P	13.04	51.60	2.51	36.33
780			0.28	38.56
			9.33	42.27
1420			6.65	44.95
				39.50
1460 BK 2-40 TP	19.93	63.80	2.24	49.36
2400			0.83	50.77
			10.06	58.74
				45.84
2440 MH 4-40 TP	4.75	67.71	3.11	60.69
2480			0.84	62.96
			2.82	64.89
				49.49
3420			2.89	64.82
				51.33
3460			2.23	65.48
				53.16
4400 BK 3-50.8			2.65	65.06
4450.8			5.13	62.58
				55.66
5401			6.65	61.06
				56.33
5452.4 RE. 40' e. of 40th St			8.95	58.76
				57.00

+6.01
+4.01
+5.83
+7.27
+5.45
+5.36
+7.90
+13.03
+15.40
+13.49
+12.32
+10.06
+6.92
+4.73
+1.76

NY B.P. NATL + 41st = 35.25

35.25
3.59 +
38.84 = T
0.28 -
38.56 = TP
13.04 +
51.60 = X
0.83 -
50.77 = TP
13.03 +
63.80 = X
0.84 -
62.96 = TP
4.75 +
67.71 = T
2.28 -
65.43
65.40 = BM
0.03

check on BM. 40th
& Natl.

Hays Bet Florence & T Sts.
from D.E. 40' E of 38th St East

BM	6.63	94.89	88.26	Top Hyd/38 38 th Florence				
00-DE. 40' E of 38 th St.			5.68	89.21	86.50			+2.71
4-51.5								
+51.5			4.34	90.51	85.75			+4.76
1+03			4.33	90.56	85.00			+5.56
1+54.5			3.89	91.00	84.25			+6.75
2+06 Brk 2-40			6.17	88.72	83.50			+5.22
2+46			8.69	86.20	81.00			+5.20
2+86 MH 6-50.67	TP	6.64	58.45	10.09	84.80	78.50		+6.30
3+26				13.12	81.77			
				7.35	81.10	78.25		+2.85
3+89								
				7.45	81.00	78.00		+3.00
4+38								
				3.94	84.51	77.75		+6.76
4+84								
				4.04	84.41	77.50		+6.91
5+39								
				3.78	84.67	77.25		+7.42
5+40							6.49	5.01
6+90 MH. E 29 th St				4.59	83.86	77.00		+6.86
8-50.75								
7+40.75				5.47	82.98	76.75		+6.23
7+91.50				7.72	80.73	76.50		+4.23
							9.63	80.45
8+42.25				3.40	85.05	76.25		+8.80
							6.49	83.99
8+93.00				2.55	85.90	76.00		+9.90
							5.01	85.47
9+43.25				3.31	85.14	75.75		+9.39
							5.84	84.64
9+94.50				3.58	84.87	75.50		+9.37
							5.60	84.98
10+45.25				0.65	87.80	75.25		+12.55
10+96.00 MH. 9+96.00				4.30	84.15	75.00		+9.15

82.98
7.50
90.48

9.63
80.87

84.87
5.60
90.47

84.16
6.22
90.38

87.40
2.64
90.04

90.44

9.63 80.45 76.50 +4.35

6.49 83.99 76.25 7.74

5.01 85.47 76.00 9.47

5.84 84.64 75.75 +8.89

5.60 84.98

88.45

5+96 10+96 MH 6-47.57			4.30	84.75	75.00	+9.15
11+43 ⁶			10.30	74.15	72.67	+5.48
11+91 ¹	T.P. 4.65	81.20	11.90	76.55		+5.78
12+38 ⁷			5.09	76.11	70.33	+5.78
12+86 ³			2.10	79.10	68.00	+11.10
12+86 ³			7.20	74.00	65.67	+8.33
12+33 ⁸			11.70	69.50	63.22	+6.17
12+81.4 ⁴	T.P. 0.63	69.30	12.53	68.67		+5.14
13+81 ⁴	MHA3-16		3.16	64.14	61.00	+5.14
3.51.5						
14+32 ²			8.65	60.65	53.67	+6.98
14+84.4 ⁴	T.P. 0.45	57.04	12.71	56.59		+6.31
15+31 ¹	B+K.T.P. 7.68	53.64	4.40	52.64	46.33	+6.31
2-45			13.04	44.00	39.00	+5.00
15+81			10.94	42.74	37.50	+5.24
16+26 ^D	M.H. Mainline		12.64	41.04	36.00	+5.04
15+26 ⁰						

Line of T st from P.M.H. above W
53.68

and Canonline S.
+3.04 Canonline N

00=D.M.H. on Mainline 16+26 6.51.4			12.64	41.04	36.00	+5.04
+51.4			10.43	43.25	37.50	+5.75
1+62.8			9.68	44.00	39.00	+5.00
1+54 ²			7.42	46.26	40.50	+5.76
2+05 ⁶			6.07	47.61	42.00	+5.61
2+57 ¹			4.65	49.03	43.50	+5.53
3+08 ⁶	M.H. in the "T" ST		2.84	50.80	45.00	+5.80
7-80						
3+58 ⁶	T.P. 13.11	64.86	1.93	51.75	46.29	+5.46
4+08 ⁶			12.26	52.60	47.54	+5.02
4+58 ⁶			11.20	53.66	48.87	+4.79
5+08 ⁶			9.01	55.85	50.16	+5.69
5+58 ⁶			7.73	57.13	51.45	+5.68

Line E T ST

50

64.86

Ground Grade

6+06 ⁶		7.09	57.77	52.62	5.15
1+58 ⁴ MH	2' E of line lot T, S.P. = 00	6.02	58.84	54.00	+4.84
1-53.3					
1+55.3		4.72	60.44	55.77	+4.67
1+10.6		2.30	62.56	57.54	+5.02
1+66 ²		1.02	63.84	59.31	+4.53
2+21 ³	T.P. 12.24 76.69	6.41	64.45		
		11.52	65.17	61.08	+4.09
2+76 ⁵		10.06	66.63	62.84	+3.79
3+32 ⁰ MH	4 39 th	8.09	68.60	64.60	+4.00
1-60					
2+92 ⁰ BRK		5.65	71.04	66.50	+4.54
4+37		2.67	74.02	69.62	+4.40
4+82	T.P. 11.46 87.47	0.68	76.01		
		9.60	77.87	72.75	+5.12
5+27		6.24	81.13	75.97	+5.26
5+72 ⁰ DE		2.49	84.98	79.00	+5.98

87.47
6.45
81.02

Line from MH. 6+58² ^{above} T.M. thru lot T Blks 3 S.P. to E of lot line
64.86

8.24
63.77
72.01

00= MH. E T ST		6.02	58.84	54.00	+4.84
3-43.21					
0+43 ²¹		6.99	57.87	54.67	+3.20
0+86 ⁴²		6.61	58.25	55.33	+2.92
1+29 ⁶³ MH on E & W lot line		1.09	63.77	56.00	+7.77

Line on E & W lot line bet S & T Sts Blks 34
72.01

00= RE 40' W of 40 th St		10.40	61.61	57.50	+4.11
6-51.6					
757.6		4.08	67.93	57.25	+10.68
1+03 ²		4.40	67.61	57.90	+10.61
1+54 ⁵		5.48	66.53	56.75	+9.78
2+06 ⁴		8.55	63.46	56.30	+6.96
2+58		11.10	60.91	56.25	+4.66
3+09 ⁶ MH = 1+29 ⁶³ above		8.24	63.77	56.00	+7.77

12.41
1.16
13.57

3+09.6 MH 200 10.63 77.40		63.77	56.00	+ 7.77
4.45				
+45	12.02	61.38	56.25	+ 5.13
+90	13.14	61.26	56.50	+ 4.76
1+35	13.57	60.83	56.75	+ 4.08
1+80 BPK				
3-50.67	12.34	62.06	57.00	+ 5.06
2+30 37	9.84	64.56	59.83	+ 4.73
2+41 33	5.20	69.20	52.67	+ 6.53
3+32 MH 4 39 th St				
3+42.67 T.P. 12.75 86.81	1.53	72.87	65.50	+ 7.37
3+74 67	0.54	73.86		
	8.84	77.93	71.33	+ 6.60
4+17 30				
T.P. 12.30 98.82	4.61	82.20	77.17	+ 5.03
	0.29	86.52	5.83	
4+60 BPK				
4.40	10.06	88.76	83.00	+ 5.76
5+00	5.39	93.43	84.00	+ 9.43
5+40	5.07	93.75	85.00	+ 8.75
5+80	7.22	91.60	86.00	+ 5.60
6+20 MH				
6-50.33	7.64	91.14	87.00	+ 4.14
6+70 33				
7+20 67 T.P. 6.67 99.39	6.19	92.63	87.67	+ 4.96
	6.10	92.72		
	5.73	93.66	88.33	+ 5.33
7+71	4.80	94.59	89.00	+ 5.59
8+21 33	4.21	95.18	89.67	+ 5.51
8+71 33	3.94	95.45	90.33	+ 5.12
9+22 PAH 0.6 of 36 th St	3.25	96.14	91.00	+ 5.14

5.89
93.50

Line on E & W lot line in BKs 142 SP
 Bet S & T creek from DE 40' 80' 39" East

96.14
 1.33
 97.47

25

97.47

002 DE 40' E of 38' ST		9.90	87.57	78.50	+9.07
5-58 T.P.	84.99	12.58	84.89		
+58		4.71	80.28	77.10	+3.18
1+16		6.25	78.74	75.70	+3.04
1+74		8.05	76.94	74.30	+2.64
2+32	T.P. 3.05	7.80	77.19		
		3.74	80.50	72.90	+3.60
2+90 M.H.		4.60	75.64	71.50	+4.14
3+40		5.24	75.00	70.75	+4.25
3+90		6.00	74.24	70.00	+4.24
4+40		4.74	75.50	69.25	+6.25
4+90		5.77	74.47	68.50	+5.97
5+40		7.46	72.34	67.75	+4.63
5+90 M.H. & 32" = 00 outlet	82.25	8.72	71.52	67.00	+4.52
6-50		9.16	73.09	67.31	+5.78
+50		8.12	74.13	67.62	+6.51
1+00		4.76	77.49	67.93	+9.56
1+50		5.38	76.87	68.24	+8.63
2+00		4.11	78.14	68.55	+9.59
2+50		3.76	78.49	68.87	+9.62
3+00 = M.H.		3.87	78.38	69.17	+9.71
7-48.44		5.20	77.05	69.48	+7.57
3+48.44		4.36	73.89	69.78	+4.11
3+97.2		7.14	75.11	70.09	+5.02
4+45.2		4.46	77.79	70.39	+7.40
4+94.6		4.73	77.52	70.70	+6.82
5+43.2		6.43	75.82	71.01	+4.81
5+91.8					
6+40. E = DE 40' W of 40' ST					

Line # 39th St
from M.H. 3+32 Page 24 to M.H. 3+40 Page 25

	4.25	75.77	71.52		
00=M.H. 3+32 Page 24		2.87	72.88 ✓	65.50	+7.37
5.51.2					
+51.2		4.85	70.92	65.80	+5.12
1+02.4		7.37	68.40	66.10	+2.30
1+53.6		7.08	69.69	66.40	+2.29
2+04.8		5.98	69.79	66.70	+3.09
2+56.85 M.H. 3+40 Page 25		4.25	71.52	67.00	+4.52

Line in Alley Bet Woolman & Q St 40th West
89.93

00=M.H. #40 th		4.70	85.23	79.00	+6.23
+60 B		4.82	85.11	81.30	+3.81
P.P. 12.78	102.55	0.16	89.77		
1+10		13.38	89.17	85.65	+3.52
1+60 B		5.07	97.48	90.00	+7.48
P.P. 8.23	108.93	1.85	100.70		
2+06.67		5.53	103.40	91.67	+11.73
2+53.23		3.84	105.09	93.33	+11.76
3+00 B		6.12	102.81	95.00	+7.81
3+60 D.E.		3.06	105.87	100.00	+5.87

12.22
1.14
13.38

Line in Alley Bet Woolman & Teak 40th West
79.63

00=M.H. #40 th		9.49	70.14	66.00	+4.14
+45		4.35	75.28	69.50	+5.78
T.P. 13.10	91.77	0.96	78.67		
0+90		11.83	79.94	73.00	+6.94
1+35		8.92	82.85	76.50	+6.35
1+80 B		5.24	86.53	80.00	+6.53
3-52.1					
2+33.1		1.36	90.41	82.67	+7.74
T.P. 5.60	96.20	1.17	90.60		
2+86.2		4.24	91.96	85.33	+6.63
3+39.25		2.33	93.87	88.00	+5.87

Note - This line was extended 25 ft at request of P.O. (See 327-D) Boren, Inspector. 3-30-27

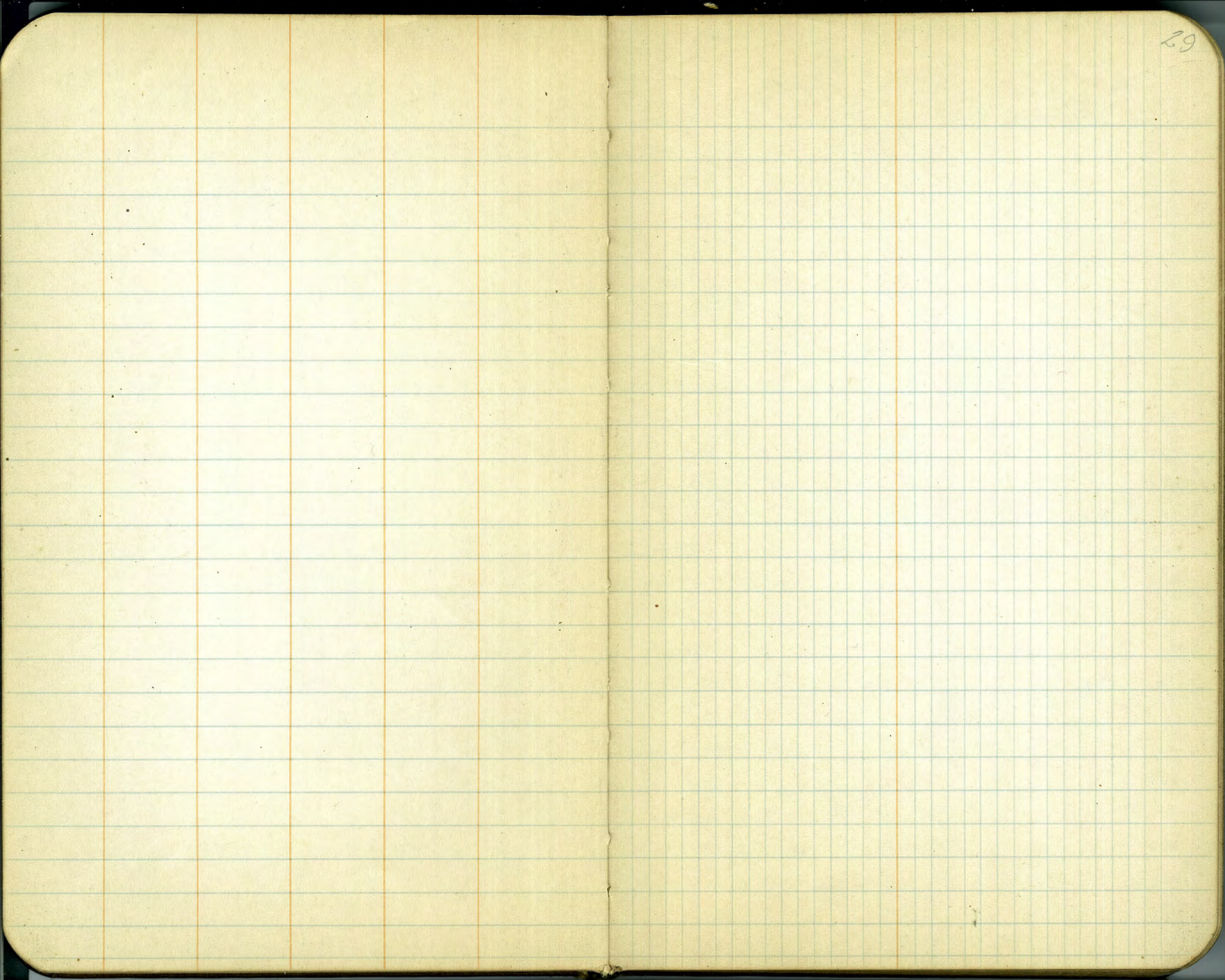
68.56

M.H. 6+00 6-47.73		10.78	57.78	52.88	+4.90	
6+47.73		9.96	58.60	54.07	+4.51	
6+95.46		8.23	60.33	55.26	+5.07	
7+43.19		6.15	62.41	56.45	+5.96	
7+90.92		4.63	63.93	57.63	+6.30	
8+38.65		3.53	65.03	58.92	+6.21	
8+86.4 M.H. 3-45.4		2.70	65.86	60.00	+5.86	
9+31.5		2.33	66.23	61.23	+4.90	
9+77.7 T.P.	12.84	79.63	0.97	67.59	62.67	+4.92
10+22.0 M.H. & 40 th St 4-44.5		9.49	70.14	64.00	+6.14	
10+67.		8.88	70.75	66.50	+4.25	
11+11.5		5.00	74.63	69.00	+5.63	
11+56	T.P. 10.72	89.93	0.42	79.67	71.50	+8.17
12+00.5 M.H. & 40 th Woolman 4-46.15		8.86	81.07	74.00	+7.07	
12+46.5		9.08	80.85	75.25	+5.60	
12+92.5		7.84	82.09	76.50	+5.59	
13+39		6.59	83.34	77.75	+5.59	
13+85.1 M.H. & 40 th & Alky No. 2 Woolman		4.70	85.23	79.00	+6.23	

#11-5 PUT
66.00 +4.14

89.93
7.66
82.07

28



BIRD ROCK SEWERS

± Beaumont Ave

Plan Sheet 405
Profile 32

3/17/27 30

79.06 SW. La Jolla + BR. Ave

00 = DE 600' N. of BR. Ave 10426	1131	92.95	92.00	+2.95
+50	1064	92.62	89.75	+3.87
1+00	991	94.35	89.50	+4.85
+50	911	95.12	89.25	+5.87
2+00	868	95.58	89.00	+6.58
+50	808	96.18	88.75	+7.43
3+00 M.H. #6	736	96.90	88.50	+8.40
+50	643	97.83	88.25	+9.58
4+00	585	98.41	88.00	+10.41
+50	540	98.96	87.15	+11.81
5+00	472	99.54	87.50	+12.04
+50	385	100.41	87.25	+13.16
6+00 P.M. H. of BR. Ave #11			87.06 W	
5+00			95.00 S	
+50	291	101.85	95.75	+6.10
7+00	133	102.93	96.50	+6.43
+50	111.47	103.13	97.25	+5.88
8+00	600	105.47	98.00	+7.47
8+50 M.H. #28	495	106.52	98.75	+7.77
6-51.67				
9+01 67	171	106.76	99.11	+7.65
9+53 33	197	106.50	99.47	+7.03
10+05	505	106.42	99.83	+6.59
10+56 67	542	106.05	100.19	+5.86
11+08 33	594	105.53	100.55	+4.98
11+60 DE 560' S. of BR. Ave	617	105.39	100.92	+4.47

H. 10426 87.50
61.90
104.07
7.40
11.97

31
8-18-27
S. H. ...
S. H. ...

Station	Notes	Calculation	Result
00-DELOCN. of B.R. Ave	12314 N. 1/2 Sec 33	19.43 -2.77	106.0
+50	1091 1121.5 116.5	13.64 -4.90	105.75
+100		10.73 -2.23	105.50
+150		11.23 105.27 -2.30	105.25
+200		18.14 10.96 -7.78	105.00
+250		18.33 10.23 -8.16	104.75
+300 M.H. #15		18.66 8.57 -9.87	104.50
+350		18.89 8.90 -9.99	104.25
+400		19.14 8.23 -10.93	104.00
+450		19.20 9.57 -11.83	103.75
+500		19.74 9.83 -12.51	103.50
+550	BY 117.51 118.24 121.5	19.80 10.29 -13.57	103.25
	ST. H. ... B.M. ... 123.14 123.39 127.7		103.00 N
600 D.M.H. & B.R. Ave #12			113.00 S
+50		13.55 13.55 -45.00	113.50
+100		14.15 8.89 -5.74	114.00
+150		13.65 13.36 -16.5	114.50
+200		13.15 13.15 -16.71	115.00
+250		12.65 8.53 -7.15	115.50
900 M.H. #29		12.15 12.15 -7.01	116.00
9+52		11.79 11.79 -5.77	116.36
10+04		11.45 8.40 -2.72	116.73
10+56		11.06 11.06 -6.97	117.09
11+08		10.68 8.73 -5.76	117.46
11+60 DEF. 800 S. of B.R. Ave		10.33 10.33 -4.77	117.82

1.50%

1.50%

1.00%

1.70%

000 DE 600' N. of BR Ave

4-42.5
+42.5
785
1+27 E
1+70 BTK
4-46
2+15
2+60
3+05
3+50 M.H. #14
5+00
4+00
+50
5+00
+50

157.35
141.30
140.61
139.92
139.24
138.55
135.85
133.15
130.45
127.75
127.16
127.05
126.70
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126.00 N
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135.77
136.02
136.28
136.54
136.80

BM 13581
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BM 13581
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BM 13581
13581

BM 7907
7906

6+00 D.M.H. of BR Ave #13

+50
7+00
+50
8+00
8+50 M.H. #30
6-51.67
7+01.67
9+53.33
10+05
10+56.67
11+08.33

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0.75
0.25

11+60 DE 560's. of BR Ave

117.5
117.5
117.5

♀ Bird Rock Ave

33
2-8-27

	H1	Red	Elev	Grade	
00-DM.H. & Bellevue #13 6-49.52	110.45	4.67	135.72	129.00 S 126.00 NW	16.78 +9.78
+49.52		7.41	133.04	123.83	+9.21
+99.04	130.38	0.60	129.79	121.66	+8.13
1748 86		3.22	126.64	119.50	+7.14
1748 08		7.25	123.13	117.33	+5.80
2+47 60		10.61	119.77	115.17	+4.60
2+97 13 DM.H. & Waverly #12 6-49.52		5.31	117.83	113.00 E 103.00 W	+4.83 +14.83
3+46 65		7.89	115.25	101.66	+13.59
3+96 17		10.81	112.33	100.33	+12.00
4+45 69	112.02	2.91	109.11	99.00	+10.11
4+95 21		6.12	105.90	97.66	+8.24
5+44 73		9.15	102.87	96.33	+6.54
5+94 26 DM.H. & Beaumont #110426 6-54.67		3.15	100.81	95.00 E 87.00 W	+5.81 +13.81
6+48 23	99.91	1.54	98.37	86.45	+11.92
7+03 60		4.51	95.40	85.90	+9.50
7+58 26		7.20	92.71	85.35	+7.36
8+12 22		9.32	90.59	84.81	+5.78
8+67 59		10.80	89.11	84.26	+4.85
9+22 26 DM.H. #70 Electric Ave 6-46.94	88.28 88.82	0.80 1.38	87.41 87.48	83.72 E 76.50 W	+3.76 +10.98
9+69 20		4.67	84.15	76.22	+7.93
10+16 14		6.20	82.62	75.94	+6.68
10+63 02		7.48	81.34	75.66	+5.68
11+10 02		8.44	80.38	75.38	+5.00
11+56 07		9.40	79.40	75.10	+4.30
12+03 21 DM.H. #9 La Jolla Blvd 35' W of E line		9.62	79.00	74.82 E 69.50 W	+4.38 +9.70

DM.H. #8 N side La Jolla Blvd

99.06 S.W.P.
95.20 La Jolla
88.20 Bird Rock
86.58
87.70
87.21
85.91
85.30
85.1
84.5
84.2
83.2
82.2
81.2
80.2
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9.2
8.2
7.2
6.2
5.2
4.2
3.2
2.2
1.2
0.2

99.61 → 99.70 S.W.P. Hub
112.00
112.32
111.72
111.38
113.17

133.14
117.30
117.50
117.51
12.17
136.38
102.71
107.17
110.45
2.67
81.3581 S.W.P. Hub
DM.H. #9
Bird Rock
Bellevue

79.06
9.76
89.22

88.82

7-50.9

DM.H. @ 35' 8" W. line La. lala Blud

7.93 79.89 67.50 E
66.00 W +11.39 E
+12.89 W

72.73
71.56
54.29
3.46
70.83

1 T.P. 1.28 79.45 10.65 78.17 65.58 +12.59

2 2.14 77.31 65.15 +12.16

3 3.32 76.13 64.72 +11.41

4 4.64 74.81 64.29 +10.52

5 6.45 73.00 63.86 +9.14

6 8.37 71.80^{90%} 63.43 +7.65

70.83 - 63.43 + 7.40

T.P. 0.44

4-45

M.H. W. of Shelton #7 (66.92)

13.01 66.44 63.00 +3.44

1 T.P. 0.53 54.44 7.07 59.85 56.00 +3.85

2 0.96 53.48 49.00 +4.48

37.46
70.62
26.84

3 T.P. 0.71 42.40 6.93 47.51 42.00 +5.51

4 B.K. 4.34 28.06 35.00 +3.06

45

1 M.H. @ Abalone #6 7.40 35.00 31.00 +4.00

4-43.75

1 9.17 33.23 29.25 +3.98

2 10.73 31.67 27.50 +4.17

175

3 T.P. 7.56 37.46 12.50 29.90 25.75 +4.15

4 DM.H. @ Dolphin #5 9.22 28.24 22.50 +5.74

21.00 W +7.24

509
3563

Settling Tank

BM

33.28 1st Tie N.W. Abalone B.R. Ave

M.H. 25 ϕ Dolphin

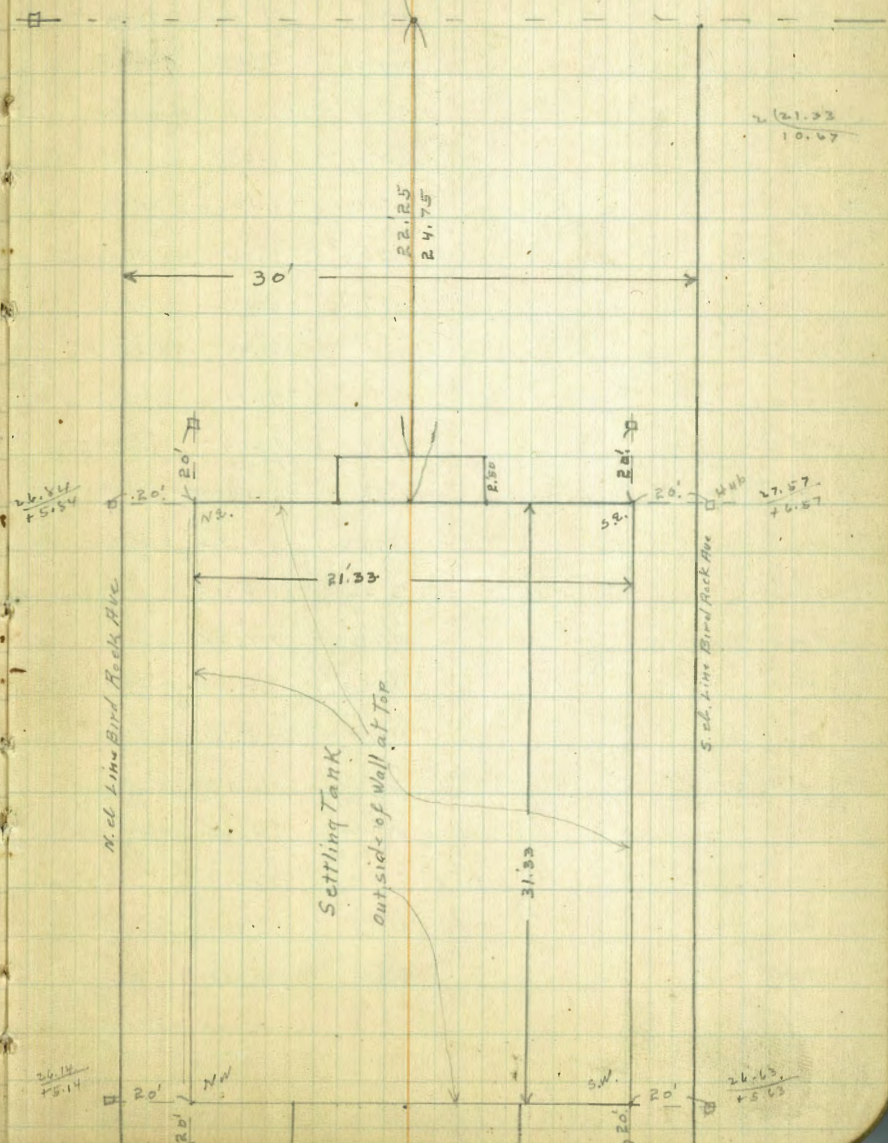
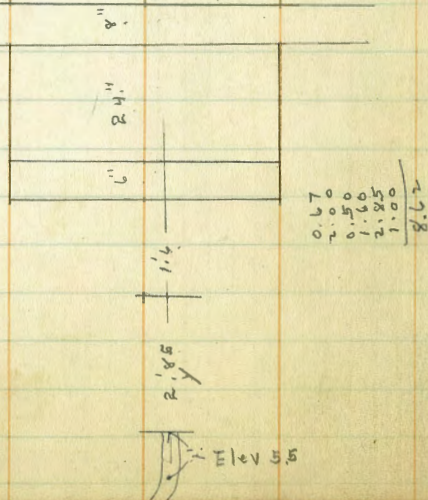
35

Top of S.T. El. 21.00

72.73
 0.72
 73.45
 12.82
 60.63
 8.96
 61.59
 12.95
 48.64
 1.77
 50.41
 13.10
 37.31
 0.40
 37.71
 1.34
 30.83
 2.46
 32.79

7.4
 30.3
 24.5
 + 1.8 c/k

20'S of SW cor	20' N. of NW cor	20' N. of NE cor	20' S of SE cor
5.22	6.16	6.65	5.95
27.57	26.63	26.14	26.84
Top of S.T. 21.00	21.00	21.00	21.00
+ 8.57	+ 5.63	+ 5.14	+ 5.44



15

La Jolla Blvd
 Line 35' W. of E. Line
 82.91

36

00 DE N of BR Ave 6-50	6.57	76.34	73.70	+2.64	
+50	6.10	76.81	73.35	+3.46	
100	5.66	77.25	73.00	+4.25	
+50	5.14	77.75	72.65	+5.10	
200	4.68	78.23	72.30	+5.93	
+50	4.26	78.65	71.95	+6.70	
300 MH #8	3.78	79.13	71.60	+7.53	
6-50					
+50	3.35	79.56	71.25	+8.31	
400	2.87	80.04	70.90	+9.14	
+50	2.41	80.10	70.55	+9.55	
500	2.93	79.98	70.20	+9.78	
+50	3.17	79.74	69.85	+9.89	
		79.06			
600 DMH #9 & RR Ave	2.42	79.19	69.50	+9.70 W.N.T.S.	74.82 E + 4.30
6-50					
+50	2.84	78.73	69.80	+8.93	
700	3.46	78.15	70.10	+8.05	
+50	4.03	77.58	70.40	+7.18	
800	4.63	76.94	70.70	+6.28	
+50	4.94	76.67	71.00	+5.47	
900 MH #26	5.14	76.43	71.30	+5.13	
5-82					
+52	5.36	76.25	71.61	+4.64	
1004	5.57	76.04	71.92	+4.12	
10+56	5.77	75.84	72.23	+3.61	
11+04	5.92	75.69	72.55	+3.14	
11+60 DE	6.08	75.53	72.86	+2.67	

271
78.90

La Jolla Blvd
Line 35' E of W. Line

37

B.M.	385	82.91	79.06	La Jolla B.R. Ave	
00 = DE. N. of B.R. Ave 6-50		6.81	76.10	71.10	+5.00
+50		6.21	76.70	70.85	+5.85
1+00		5.76	77.15	70.60	+6.55
+50		5.29	77.62	70.35	+7.27
2+00		4.87	78.10	70.10	+8.00
+50		4.38	78.53	69.85	+8.68
3+00 = AMH. # 6-50		3.98	78.93	69.60	+9.33
+50		3.46	79.45	69.25	+10.10
4+00		3.01	79.90	68.90	+11.00
+50		2.85	80.06	68.55	+11.51
5+00		2.99	79.92	68.20	+11.72
+50		3.14	79.77	67.85 67.50 N	+11.92 +11.39 N
6+00 AM. H. # 6-50	81.61	4.08	78.89	66.00 S	+12.89 S
+50		2.75	78.86	66.30	+12.56
7+00		3.36	78.25	66.60	+11.65
+50		4.02	77.59	66.90	+10.69
8+00		4.70	76.91	67.20	+9.71
+50		5.15	76.46	67.50	+8.96
9+00 = AMH 5-50		5.31	76.30	67.80	+8.50
+50		5.51	76.10	68.11	+7.99
10+04		5.69	75.92	68.42	+7.50
10+56		5.81	75.80	68.73	+7.07
11+08		6.00	75.61	69.05	+6.56
11+60 DE		6.09	75.52	69.36	+6.16

79.38
4.43
74.95 B.M. B.P. SW La Jolla
+ Forward
79.38
0.41
78.97
75.19
3.87
72.80 B.M. B.P. SE La Jolla
+ Forward

79.06 B.M. La Jolla a B.R. Av
1.63
80.69
5.38
75.31
4.07
79.38
6.95
72.43
2.76
75.19
1.76
73.43
8.41
81.84
3.86
77.98

B.M. B.P. SW La Jolla
Jolla + Collins

27.57
36.70
1.45
34.82
7.04
41.86

B.M.	8.70	36.27	27.57			
				24.00E	+1.45	
				22.50N	+2.95	
DDMH #5 @ Dolphin + B.R. Ave			25.45	21.00 SW	+4.45	
1			7.49	28.58	21.18	+7.40
2			7.62	28.65	21.36	+7.29
3			7.56	28.71	21.54	+7.17
M.H. #20			7.81	28.46	21.72	+6.74
1			7.00	29.27	21.88	+7.39
2			6.66	29.61	22.04	+7.57
3			6.31	29.96	22.20	+7.76
4			5.27	31.00	22.36	+8.64
5			4.49	31.78	22.52	+9.26
6			3.37	32.90	22.68	+10.22
7	7.04	41.86	1.45	34.82	22.84	+11.98
DDMH #21			3.30	38.56	23.00	+15.56

45.61
12.73
32.88 = 32.80

Forward St. Sowers

41.86

DMH #21 in Dolphin
3-45.23

3.30 38.56 33.00 East +5.56
23.00 1/4s +15.56

41.86
3.65
38.21
13.15
51.34
67
50.67
12.82
63.50

12.24
2.51
14.75

11.78
8.68
12.68

1 7.10 34.74 23.19 +11.57

2 9.83 32.03 23.34 +8.65

3 M.H. #41 14.75 27.11 23.56 +3.55
3-49

34.26
2.64
37.65
36.29
23.96
13.23

27.11
3.15
34.26

23.56
7.73

1 8.14 33.68 23.76 +9.92

11.62
4.8

2 6.26 35.80 23.96 +11.84

0.54
11.84
12.88
1.86

33.64
2.69
36.33

269
292
251
85

3 5.28 36.58 24.16 +12.42

11.53
11.44

0.54
36.83

11.76
17.00
76

DMH #40 5.31 36.55 30.00E +6.55
3-54.83
3-55.23

GI Pipe

1 TP 13.13 51.34 3.65 38.21 33.23 +4.88

2 10.18 41.16 36.67 +4.49

75.35
74.88
0.47

3 BFK 7.44 43.90 40.00 +3.90
2-55'

1 TP 12.83 63.56 0.67 50.67 47.00 +3.67

X 47.63

M.H. #39 N.Hin. Chel sea 6.07 57.43 54.00 +3.43
1-50.36

10.70
66.05
5.62
60.43

56.93

54.00
78.12
13.15
64.97

+2.93

1 3.06 60.44 55.44 +5.00

66.05
2.58
63.50

66.05
1.37
64.68

64.97
1.08
66.05

2 10.67 64.68 58.75 +6.53

78.12
11.20
66.92

78.12
7.30
70.82

3 8.44 66.91 59.51 +7.40

78.12
5.78
72.40

4 4.54 70.81 60.88 +9.93

78.12
3.25
74.87

74.25
16.67
66.62

5 2.95 72.40 62.23 +10.17
74.95 BM 63.58 S+W +11.50

84.62
11.12
75.50
71.00
44.50

DMH #38 12.91 74.88 69.00 East +5.88
6-51.25 2 of W Lincolnella Blvd

86.62
9.00
77.62
73.00
44.62

86.62
3.32
82.64

86.62
6.47
79.75
75.00
41.75

1 12.27 75.52 71.00 +4.52

2 10.04 77.75 73.00 +4.75

3 7.94 79.85 75.00 +4.85

4 5.15 82.64 77.00 +5.64

5 TP 7.56 92.85 2.50 85.29 79.00 +6.29

6 M.H. #37 5.08 87.77-87.76 81.00 +6.76

Forward St Sewers

40

87.42
10.25
97.67
99.45
12.158
12.03
0.42
111.61
10.67
122.88
111.84
129.54
6.46
127.30
0.60
126.70
111.44
138.14
0.47
137.67
132.47
150.50

B.M.					50K S.W. Forward + Electric		
10.25		99.67		87.42			
# OPENING FOR 20=MH 37 + Electric 6-49.5			11.91	87.76	81.00	+6.76	
7+55			10.75	88.92	83.83	+5.09	
1+10			6.99	92.68	86.67	+6.01	
1+65			3.62	96.65	89.50	+6.55	
2+20			1.31	98.36	92.33	+6.03	
2+75	T.P.	12.58	112.03	0.22 99.45	95.17	+5.91	
3+30 MH #36 6-49.5			7.96	104.07	98.00	+6.07	
3+79.5			5.11	106.92	100.67	+6.25	
4+29			2.47	109.56	103.33	+6.23	
4+78.5	T.P.	10.67	122.28	0.42 111.61	106.00	+6.18	
5+28			7.42	114.84	108.67	+6.17	
5+77.5			4.57	117.71	111.33	+6.38	
6+27 MH #35 6-49.5			1.94	120.34	114.00	+6.34	
6+76.5			4.78	122.52	116.00	+6.52	
7+24			3.24	124.06	118.00	+6.06	
7+75.5	T.P.	11.44	138.14	0.60	126.70	120.00	+6.70
8+25			9.31	128.83	122.00	+6.83	
8+74.5			7.55	130.59	124.00	+6.59	
9+24 MH #34 6-49.5			5.93	132.21	126.00	+6.21	
9+73.5			4.32	133.72	127.50	+6.22	
10+23			2.92	135.22	129.00	+6.22	
10+72.5			1.81	136.33	130.50	+5.83	
11+22	T.P.	12.83	150.50	0.47	137.67	132.00	+5.67
11+71.5			1.86	138.64	133.50	+5.14	
12+21 MH #33 6-49.5			9.83	140.67	135.00	+5.67	

6.96

6+27 MH #35
6-49.5

9+24 MH #34
6-49.5

12+21 MH #33
6-49.5

Forward Saws

150.50

41

150.50
 0.52
 17.96
 1.32
 112.70
 0.14
 166.56
 4.66
 171.22

12+21 M.H. #33 Station	9.83	140.67	135.00	+5.67
6-49.5				
12+70 E	7.12	143.38	137.67	+5.71
13+20	4.28	146.22	140.33	+5.89
13+69 E	1.01	149.49	143.00	+6.49
T.P. 12.72	0.52	149.98		
162.70				
14+19	10.50	152.20	145.67	+6.53
14+68 E	7.70	155.00	148.33	+6.67
15+18 M.H. #32 Linda Reason	5.60	157.10	151.00	+6.10
2-47 2.50				
5+65.5	2.46	159.84	153.50	+6.34
15+18				
16+13 BTK	0.14	162.56	156.00	+6.56
2-41.5				
16+53 11.59	6.06	165.12	156.50	+8.62
17+010				
16+93 M.H. #31 Linda Reason	2.42	168.76	157.00	+11.76

51118
 BTK
 Station
 8.62
 171.18

Colima St Sewers
La Jolla Blvd East

BM.	9.83	87.81	77.96	S.W. La Jolla Blvd & Colima	
00 = M.H. #44 E. side La Jolla Blvd 7-47.90		10.72	77.09	70.00	+7.09
1		10.70	77.11	70.59	+6.52
2		10.95	86.86	71.18	+5.68
3		10.36	77.45	71.77	+5.68
4		9.79	78.02	72.37	+5.65
5		9.05	78.76	72.96	+5.80
6		8.13	79.68	73.55	+6.13
M.H. #45 20'E of white Electric 8-46.47		6.39	81.42	74.15	+7.27 ✓
1		4.77	83.04	75.69	+7.35
2		3.79	84.02	77.24	+6.78
3 T.P. 11.48	96.79	2.50	85.31	78.78	+6.53
4		10.11	86.68	80.33	+6.35
5		8.62	88.17	81.47	+6.30
6		7.21	89.58	83.42	+6.16
7		5.11	91.68	84.96	+6.72
M.H. #46 Beaumont 7-48.14 T.P. 12.77	108.00	3.60	93.19	86.50	+6.69
1		1.58	95.21	88.14	+6.71
2		13.15	94.85	89.14	+6.71
3		11.60	96.40	89.74	+6.62
4		9.51	98.49	91.43	+7.04
5		8.03	99.97	93.07	+6.90
6		5.95	102.05	94.71	+7.34
7		4.11	103.89	96.35 98.00 W	+7.54 +7.44
D.M.H. #47 Naverly		2.56	105.44	101.00 E	+4.44
T.P.		0.50	107.50		

Colima Sewers

108.00

DMH #47
7-4814 T.P. 12.20

1	2.56	105.44	78.00 W.	+7.44
	0.50	107.50	101.00 E.	+4.44
2	12.67	108.03	102.57	+5.46
3	10.70	110.00	104.14	+5.86
4	8.50	112.20	105.71	+6.49
5	6.25	114.45	107.24	+7.17
6	3.97	116.73	108.85	+7.88

178.87

269.54
34.79

187.78

T.P. 12.83
DMH #48
7-4910

	1.23	119.47	110.42	+9.05
	0.53	120.17	112.00 W	+10.34
1	10.62	122.38	116.00 E	+6.38
2	7.79	125.21	119.21	+6.00
3	4.10	128.90	122.43	+6.47
4	1.15	131.85	125.64	+6.21
5	9.07	135.68	128.45	+6.83
6	5.29	139.76	132.07	+7.39
	0.94	143.81	135.24	+8.53

163.60 153.15
10.35
5.42
4.93

M.H. #49
7-4914

1	8.78	148.03	138.50	+9.53
2	5.76	151.05	141.43	+9.62
3	4.09	152.72	144.36	+8.36
4	3.79	153.02	147.29	+5.73
	0.89	155.92		
5	11.71	157.14	150.22	+6.92
6	8.54	160.31	153.15	+7.16
	4.34	164.51	156.06	+8.43
	2.16	166.69	159.00	+7.69

13.14 151.68

138.50

Reset

T.P. 12.66	163.60	1.40	150.28	141.43	+8.85
		0.74	150.94		
		10.77	152.84	144.36	+8.45
		4.62	155.00	147.29	+7.71
		6.31	157.29	150.22	7.07
T.P. 10.20	170.28	3.52	160.08	153.15	6.93
		5.83	164.45	156.08	+8.37
		3.49	166.79	159.00	+7.79

M.H. #72
Linda Rosa Ave

BelleVue Ave Sewer
Colima North

Station	Reading	1.16	123.54	122.38	112.00	
M.H. #48 & Colima 7-47.08						+10.38
1		1.72		121.62	112.19	+9.43
2		3.03		120.51	112.37	+8.14
3		4.23		119.31	112.56	+6.75
4		5.38		118.16	112.74	+5.42
5		5.35		118.19	112.93	+5.26
6		5.11		118.43	113.11	+5.32
M.H. #64 7-47.14		4.94		118.60	113.30	+5.30
1		5.04		118.50	113.49	+5.01
2	T.P. 9.22	5.60	127.16	117.94	113.67	+4.27
3		9.55		117.61	113.86	+3.75
4		8.79		118.37	114.04	+4.33
5		8.06		119.10	114.23	+4.87
6		6.43		120.73	114.41	+6.32
M.H. #53 & Midway 6-50		5.45		121.71	114.60	+7.11
1		3.46		123.70	115.83	+7.87
2		2.50		124.66	117.07	+7.59
3		1.59		125.57	118.30	+7.27
4	T.P. 8.34	0.59	134.91	126.57	119.53	+7.04
5		7.69		127.22	120.77	+6.45
M.H. #60 5-53		6.38		128.53	122.00	+6.53
1		5.38		129.53	123.06	+6.47
2		4.48		130.43	124.12	+6.31
3		4.02		130.89	125.18	+5.71
4		3.40		131.51	126.24	+5.27
DE		2.00		132.91	127.30	+5.61

134.91
2.44
132.47

132.47

53
65
765

Midway Sewers
Bellevue East

Account #	Balance	13.10				
00-MH #53 ♀ Bellevue	134.81		121.71	114.60		+7.11
7-48.14				11.77		
1		12.48	122.33	116.37		+5.96
2		11.47	123.34	118.14		+5.20
3		10.44	124.37	119.91		+4.46
4		9.49	125.32	121.68		+3.64
5		8.19	126.72	123.45		+3.27
6		5.67	129.14	125.22		+3.92
MH #52 ♀ Tall	147.04		1.24	133.57	127.00	+6.57
5-52.62 T.P. 12.82			0.59	134.22		
1		9.26	137.78	131.00		+6.78
2		5.45	141.59	135.00		+6.59
3		2.08	144.96	139.00		+5.96
4	T.P. 12.23	158.85	0.42	146.62		
			9.94	148.91	143.00	+5.91
Brk			6.77	152.08	147.00	+5.08
2-36.90						
1			5.24	153.61	148.50	+5.11
MH #51 ♀ Linda Rosa			2.42	156.43	150.00	+6.43

2031
739
1369

Wayley Sewers
Colima North

		3.07				
000	D.M.H. #47	Colima	108.51	105.44	98.00	
	7-47.1					
	1		3.22	105.29	98.29	
	2		3.94	104.57	98.58	
	3		4.55	103.96	98.86	
296	4		4.29	104.22	99.15	
3	5		3.63	104.88	99.43	
	6		3.28	105.23	99.72	
	7 M.H. #65		2.85	105.66	100.00	
	7-47.14					
	1		2.44	106.03	100.57	
	2		1.92	106.59	101.14	
	3	T.P. 9.55	116.24	1.32	107.19	101.71
	4			8.64	108.10	102.28
330	5			8.12	108.62	102.85
	6			7.37	109.37	103.42
	7 M.H. #54	Midway		6.33	110.41	104.00
	6-50					
	1			6.11	110.63	105.00
	2			5.23	111.51	106.00
300	3			4.28	112.46	107.00
	4			3.44	113.28	108.00
	5			2.09	114.65	109.00
	6 M.H. #59	T.P. 8.50	124.40	0.84	115.90	110.00
	5-53					
	1			7.32	117.08	111.06
	2			6.40	118.00	112.12
250	3			5.53	118.87	113.14
	4			4.77	119.63	114.24
	5 P.E.			3.49	120.71	115.30

+4.44 E
+7.44 W & N

+7.00
+5.99
+5.10
+5.07
+5.45
+5.51
+5.66
+5.46
+5.45
+5.48
+5.82
+5.77
+5.95
+6.41
+5.63
+5.51
+5.46
+5.24
+5.65
+5.90
+6.02
+5.84
+5.69
+5.39
+5.61

124.40
1.00
123.40 = 123.50

Beawmont Sewers
Colima North

00= M.H. # 46 Colima 526 98.45 93.19 84.50 +6.69
7-47.1

1 5.42 93.03 86.48 +6.15

2 5.60 92.85 87.26 +5.59

3 5.34 93.11 87.44 +5.47

4 5.24 93.21 88.02 +5.19

5 4.91 93.53 88.40 +5.13

6 4.32 94.13 88.78 +5.35

7 M.H. # 66 4.04 94.41 89.16 +5.25
6-47.14

1 4.09 94.36 89.56 +4.80

2 3.66 94.79 89.97 +4.82

3 3.14 95.31 90.37 +4.94

4 2.69 95.76 90.78 +4.98

5 2.34 96.07 91.18 +4.89

6 T.P. 4.70 101.26 cont 1.39 97.04 91.59 (45.47) +5.45
T.P. 647

7 M.H. # 55 Midway 105.16 3.07 98.69 92.00 +6.69
6-50

1 6.31 98.85 92.75 +6.10

2 6.18 98.98 93.50 +5.48

3 5.34 99.82 94.25 +5.58

4 4.78 100.38 95.00 +5.38

5 3.66 101.50 95.75 +5.75

6 M.H. # 58 2.98 102.18 96.50 +5.68
5-53

1 2.32 102.84 97.03 +5.81

2 1.85 103.31 97.56 +5.75

3 1.26 103.90 98.09 +5.81

4 T.P. 4.80 109.13 0.83 104.33 98.62 +5.71
33

5 D.E. 3.43 105.30 99.15 +6.15

105.16
8.12
97.04

109.13
1.62
107.51 = 107.44

329.6

330.1

300.1

265.1

Taft Sewers
Colima to Forward

149.90

00 DE. N of Colima
2-57.5

1151

X 2 Brk
3-48.33

1451

3 MH. #
6-50

3001

6 MH. #
6-50

3001

6 MH. #
5-53

2651

5 D.E. 5 of Forward

139.80

145.88

152.79

4.23 145.67 137.00

5.64 144.22 134.72

9.93 139.97 132.45

2.32 137.18 131.96

4.29 135.21 131.44

5.01 134.49 131.00

4.68 134.82 130.33

3.85 135.65 129.67

3.69 135.81 129.00

3.69 135.81 128.33

4.19 135.31 127.67

12.31
4 Midway 145.88 133.57 127.00

12.27 133.61 128.33

11.58 134.30 129.67

10.94 134.94 131.00

9.65 136.23 132.33

7.71 138.17 133.67

5.96 139.92 135.00

3.06 142.82 136.60

7.64 145.15 138.20

5.83 146.96 139.80

4.74 148.05 141.40

4.15 148.64 143.00

+8.67

+9.56

+7.52

+5.22

+3.73

+3.49

+4.49

+5.98

+6.81

+7.48

+7.64

+6.57

+5.28

+4.63

+3.94

+3.90

+4.50

+4.92

+6.22

+6.95

+7.16

+6.65

+5.64

133.57

5.93

139.50

0.62

139.89

11.02

149.90

11.76

148.14

1.27

151.5

150.0

+1.6

152.79

12.89

139.90

Linda Rosa Sawers
Colima to Forward

60 DE. N. of Colima 5-52	172.26				
1	4.10	168.16	721.00	+ 7.16	
2	5.24	167.00	159.10	+ 7.90	
3	8.12	164.14	157.20	+ 6.94 ✓	
4	0.78	161.67	155.30	+ 6.37 ✓	
5	3.27	159.18	153.40	+ 5.78 ✓	
5 MH #50 6-50	5.58	156.87	151.50	+ 5.37 ✓	
1	7.37	155.08	151.25	+ 3.83 ✓	
2	8.65	153.80	151.00	+ 2.80 ✓	
3	9.38	153.07	150.75	+ 2.32	
4	9.47	152.98	150.50	+ 2.48	
5	8.59	153.86	150.25	+ 3.61	
6 MH #51 & Midway 5-50	5.80 162.23	156.43	150.00	+ 5.87	
1	4.84	157.39	150.40	+ 6.99	
2	3.08	159.15	150.80	+ 8.35	
3	4.18	158.95	151.20	+ 6.85	
4	9.23	158.00	151.60	+ 6.40	
5 M.H. #62 4-52.5	5.09	157.14	152.00	+ 5.14	
1	5.59	156.64	152.75	+ 3.89	
2	1.56	160.67	153.50	+ 7.17 ✓	
3	T.P. 9.48 170.86	0.85 161.38			
4	7.79	163.07	154.25	+ 7.82 ✓	
4 BTK 2-50	9.81	161.05	155.00	+ 6.05	
1	5.40	165.46	158.00	+ 7.46	
2 DE. S. of Forward	2.91	167.95	161.00	+ 6.95	

162.23
8.62
153.61

153.61 148.50

49

156.43
5.80
162.23
+ 5.11

162.45
0.78
161.67
10.54
172.26
5.58
166.70

156.43
6.02
162.45
0.78
161.67
10.54
172.26
5.58
166.70

160.67
7.95
168.62

170.86
3.6
167.3 + 1.3
166.0

7.47
160.75
155.00
+ 5.75

Electric Ave 206.00 wire
Colima to Forward

	00: M.H. #45 Colima 6.45	87.87	81.42	74.15	+7.27	
	7-47.1					
	1	6.62	81.25	74.43	+6.82	
	2	6.50	81.37	74.72	+6.65	
	3	6.52	81.35	75.00	+6.85	
1527	4	6.24	81.41	75.28	+6.33	
527	5	6.00	81.87	75.57	+6.30	
	6	6.12	81.75	75.85	+5.90	
	7 M.H. #67	6.03	81.84	76.13	+5.71	
	7-47.14					
	1	5.92	81.95	76.41	+5.54	
	2	5.77	82.10	76.70	+5.40	
	3	5.59	82.28	76.98	+5.30	
330	4	5.34	82.53	77.26	+5.27	
5	T.P. 6.37	89.90	82.53			
	5	7.12	82.78	77.55	+5.23	
	6	5.73	84.17	77.83	+6.34	
	7 M.H. #56 Midway	5.69	84.21	78.10	+6.11	
	6-50					
	1	6.35	83.55	78.40	+5.15	
	2	6.01	83.89	78.70	+5.19	
500	3	5.64	84.26	79.00	+5.26	
	4	5.07	84.83	79.30	+5.53	
	5	4.56	85.34	79.60	+5.74	
	6 M.H. #57	4.06	85.84	79.90	+5.94	
	5-53					
	1	3.66	86.24	80.22	+6.02	
151	2 T.P. 6.31	92.75	3.46	86.77	80.54	+5.90
21	3	6.03	86.72	80.86	+5.86	
	4	5.77	86.98	81.18	+5.80	
	5 DE. S. of Forward	5.36	87.39	81.50	+5.89	

92.75
3.29
89.46

35' W of E Property of La Jolla Blvd
Colima to Forward

79.54

00-M.H. #44 @ Colima
7-47.43

1	2.32	77.22	70.00	+7.22
2	1.90	77.64	69.72	+7.92
3	2.34	77.20	69.45	+7.75
4	2.90	76.64	69.19	+7.46
5	3.48	76.06	68.91	+7.15
6	4.03	75.51	68.64	+6.87

7 M.H. #68
7-46.43

1	4.58	74.96	68.37	+6.59
2	5.14	74.40	68.10	+6.30
3	5.65	73.89	67.83	+6.06
4	6.19	73.35	67.56	+5.79
5	6.74	72.80	67.30	+5.50
6	7.26	72.28	67.03	+5.25

7 M.H. #43 @ Midway
6-50 T.P. 4.77

1	7.83	71.71	66.77	+4.94
2	8.32	71.22	66.50	+4.72
3	8.72	70.82	66.24	+4.58
4	5.49	70.87	66.59	+4.28
5	5.35	71.21	66.94	+4.27
6	4.95	71.61	67.29	+4.32

6 M.H. #71
5-51

1	4.23	72.33	67.99	+4.34
2	3.92	72.64	68.34	+4.30
3	3.53	73.03	68.69	+4.34
4	3.14	73.42	69.04	+4.38
5	2.84	73.72	69.40	+4.32
6	2.44	74.08	69.76	+4.32
5 D.E.	2.11	74.45	70.12	+4.33

4.76
70.82

71.80
3.78
75.58

51

7.97

67.61 Top Pipe Culvert East Side
2.81
64.80 Pipe 3" Thick

8.48

67.10 Top Pipe Culvert West Side

8.42 71.12 66.50 +4.62

322'

325'

300'

255'

35' E. of W. Line La Jolla Blvd
Colima North.

79.54

52

77.98
1.55
77.53

00: D.E. at Colima
6-50

	2.07	77.47	71.20	+6.27
1	2.71	76.83	70.85	+5.98
2	3.28	76.26	70.50	+5.76
3	3.87	75.67	70.15	+5.52
4	4.51	75.03	69.80	+5.23
5	5.08	74.46	69.45	+5.01
6 = M.H. # 69 6-50	5.65	73.89	69.10	+4.79
1	6.24	73.30	68.60	+4.70
2	6.84	72.70	68.10	+4.60
3	7.38	72.16	67.50	+4.66
4	8.02	71.52	67.10	+4.42
5	8.58	70.96	66.60	+4.36
6 = M.H. # 42 & Midway 6-52.67 IP 4.77 6-53.25	8.73	70.81	66.10	+4.71
		71.79		
	5.59	70.97	65.89	+5.08
2	5.13	71.43	65.68	+5.75
3	4.78	71.78	65.47	+6.31
4	4.42	72.14	65.26	+6.88
5	4.05	72.51	65.05	+7.46
6 = M.H. # 70 6-52.50	3.66	72.90	64.84	+8.06
1	3.19	73.37	64.63	+8.74
2	2.87	73.69	64.42	+9.27 ✓
3	2.52	74.04	64.21	+9.83
4	2.19	74.37	64.00	+10.37
5	1.77	74.79	63.79	+11.00
6 = M.H. # 38 & Forward T.P.	1.68	74.88	63.58	+11.30
	1.60			

2.45
77.08
79.53
7.74
71.79 = 71.80 B.M. Midway + La Jolla

300'

300'

315
316

315

20' E. of W. High Electric Ave
 from DE 600' N of BR Ave
 10 DE 560' S.

BM	TR	101.35	12.24	99.70	500' T. of BR & Billings	
600 DE 600' N of BR Ave	1.65 2.73	91.24	4.60	88.81	80.70	+5.94
1			4.60	86.64	80.35	+6.29
2			4.51	86.73	80.00	+6.73
3			4.31	86.93	79.65	+7.28
4			4.07	87.17	79.30	+7.87
5			3.87	87.37	78.95	+8.42
6 = M.H. #17 6-50'			3.77	87.47	78.60	+8.87
1			3.73	87.51	78.25	+9.26
2			3.75	87.49	77.90	+9.59
3			3.69	87.55	77.55	+10.00
4			3.70	87.54	77.20	+10.34
5			3.67	87.57	76.85	+10.72
6 = M.H. #20 of BR Ave 6-50' T.P. 6.62		93.08	14.74	76.50	76.50	
1			4.78	86.46		
2			5.37	87.71	77.00	+10.71
3			5.27	87.81	77.50	+10.31
4			5.15	87.93	78.00	+9.93
5			5.03	88.05	78.50	+9.55
6			4.90	88.18	79.00	+9.18
6 = M.H. #27 5-52'			4.82	88.26	79.50	+8.76
1			4.73	88.35	80.02	+8.33
2			4.71	88.37	80.54	+7.83
3			4.69	88.39	81.06	+7.33
4			4.58	88.50	81.58	+6.92
5 DE 560' S. of BR Ave			4.53	88.55	82.10	+6.45

91.24
88.51
2.73

9.45
5.18
14.63

9.45
7.67
19.12
9.56
5.18
14.74

76.50
77.24
91.24

3.80
77.24
77.29
14.74
54

87.58
93.08
5.46
87.60
76.50
+1.10 on Rail at M.H. 10

Abalone Place & Alley BIK B

BM	12.93	40.50		27.57		
00 = MH # 2 BR AVE			7.45	31.05	31.00	
+50			5.00	35.50	31.75	3.75
1+00			4.60	35.90	32.50	+3.40
1+50 = MH # 3			3.92	34.58	33.25	+3.33
2+00 T.P. 12.92	51.99		1.23	39.17		
1+90 BTK			16.90	41.09	36.00	+5.09
2+50 T.P. 12.73	64.19		0.53	51.46		
2+80			8.57	55.62	48.75	+6.87
2+90 BTK			0.85	63.34		
1+50	77.38		6.54	67.84	61.50	+6.34
2+40 DE			3.87	70.51	66.00	+4.51

Abalone Place & Alley BIK A

40.50

00 = MH # 2 BR AVE			9.45	31.05	31.00	
1			5.26	35.24	31.75	+3.49
2			4.88	35.62	32.49	+3.13
3 = MH # 24			3.50	37.00	33.23	+3.73
1+40	50.21		0.05	40.16		
BTK T.P.			0.34	40.16	35.00	+5.16
3-44.67			2.65	47.56	42.67	+4.89
1	62.45					
2	74.38		6.06	56.39	50.33	+6.06
3 DE			8.94	65.44	58.00	+7.44

74.38
 12.82
 61.56
 0.82
 62.45
 12.62
 49.83
 0.38
 50.21

46.67
 140.00
 83.33
 180

Chelsea Ave Sowers

67.63

100	DE Sof South Dolphin	4.54	63.09	60.00	+3.09	
2-55				59.50	+4.82	
1		3.31	64.32	59.00 S+W	+7.80	
100	2 BMH. 2 2 & Dolphin	76.27	0.43	66.80	61.00 N	+5.80
2-50						
1		7.78	68.49	63.25	+5.24	
100	2 Brk	5.94	70.33	65.50	+4.83	
5-50						
1		4.85	71.42	66.00	+5.42	
2		4.62	71.64	66.50	+5.14	
200	3	5.13	71.14	67.00	+4.14	
4		5.10	71.17	67.50	+3.67	
5 DE. S. of BR Ave		5.59	70.68	68.00	+2.68	
	T.P. 0.81	73.56	3.52	72.75		
4-55	DE. N. of BR Ave	4.17	69.39	64.00	+5.39	
1		5.15	68.91	63.25	+5.16	
2		5.77	67.79	62.50	+5.29	
3		6.27	67.29	61.75	+5.55	
4-45	4 MH. #1 & Balona	68.00	7.25	66.31	61.00	+5.31
	T.P. 1.69					
1		2.02	65.98	60.32	+5.66	
2		2.36	65.64	59.65	+5.99	
3		3.01	64.99	58.97	+6.02	
2-50	4 MH. 2 & Dolphin	3.64	64.36	58.30	+6.06	
1		4.42	63.58	59.05	+4.53	
100	2 DE. N. of Dolphin	5.60	62.40	59.80	+2.60	

62.51
5.12
67.63

7.19
60.44

76.27
5.83
70.44

South Dolphin Place, Chelsea West

0	00 RMH #22 Chelsea	0.12	66.92	66.80	59.00	+ 7.80
1			2.45	64.47	58.00	+ 6.47
2	2 BRK 2-53		4.42	62.50	57.00	+ 5.50
100	1		8.82	58.10	51.25	+ 6.85
	T.P. 0.52	54.84	12.60	54.32		
20	16°-0 2-57.5		1.60	53.24	45.50	+ 7.74
115	1		8.59	46.25	39.25	+ 7.00
	T.P. 1.68	45.61	10.91	43.93		
	2 MH #21				33.00	

140
255
180

195
55
150

140
43.5
43.5

N. Dolphin Place, Chelsea W + S to BRAVE

	00 RMH #22 Dolphin + Chelsea		68.00	3.64	64.36	58.20	+ 6.04	
	1			5.34	62.66	53.35	+ 7.31	
	2			11.97	56.03	48.40	+ 7.63	
	T.P. 0.36	55.96	12.10	55.60				
	3			6.40	49.56	43.45	+ 6.11	
	4 MH #3	Δ 15°-1	T.P. 0.47	44.04	12.39	43.57	38.50	+ 5.07
	1			5.01	39.03	34.25	+ 4.78	
	2 BRK			8.54	35.50	30.00	+ 5.50	
	1			11.34	32.70	28.75	+ 3.95	
	2	T.P. 2.59	33.91	12.72	31.32	27.50	+ 3.82	
	3			3.54	30.37	26.25	+ 4.12	
	4 MH #4	Δ 9°-01		4.31	29.60	25.00	+ 4.60	
	1			5.11	28.80	24.34	+ 4.36	
	2	Δ 4°-00	CUT OUT	4.64	29.27	23.87	+ 5.40	
	1			4.91	29.00	23.42	+ 5.58	
	2			5.38	28.53	22.96	+ 5.57	
	3	Δ 5°-05		8.45	25.46-25.45	22.50		

33.91
8.45
25.46

outfall

outlet TANK

+50 BrKingrad

+75

+5.5

-8.6

-8.9

36.8

outfall end

-12.60

-13.00

-27.57 BM.

4.23
31.80
17.27
19.53
0.45
19.98
11.25
8.73
12.12
9.85
12.04
-2.20
5.09
+2.58
1.37
+1.51 BM on Rack on Beach.
12.19
13.60
9.62
12.98
8.40
21.74
1.44
20.34
11.48
31.82
5.18
26.64

19.98
2.27
17.76
8.50
+12.26

+2.84
-8.84
-11.74
7.82
+5.96

1.51
2.00
4.60
8.9
10.4
6.5

-26.630K

5.17
26.63

26.63
4.93
31.56
21.00
10.56

1.51
0.33
1.74
7.66
-5.92
12.60
10.64
2.25
4.01
+6.68

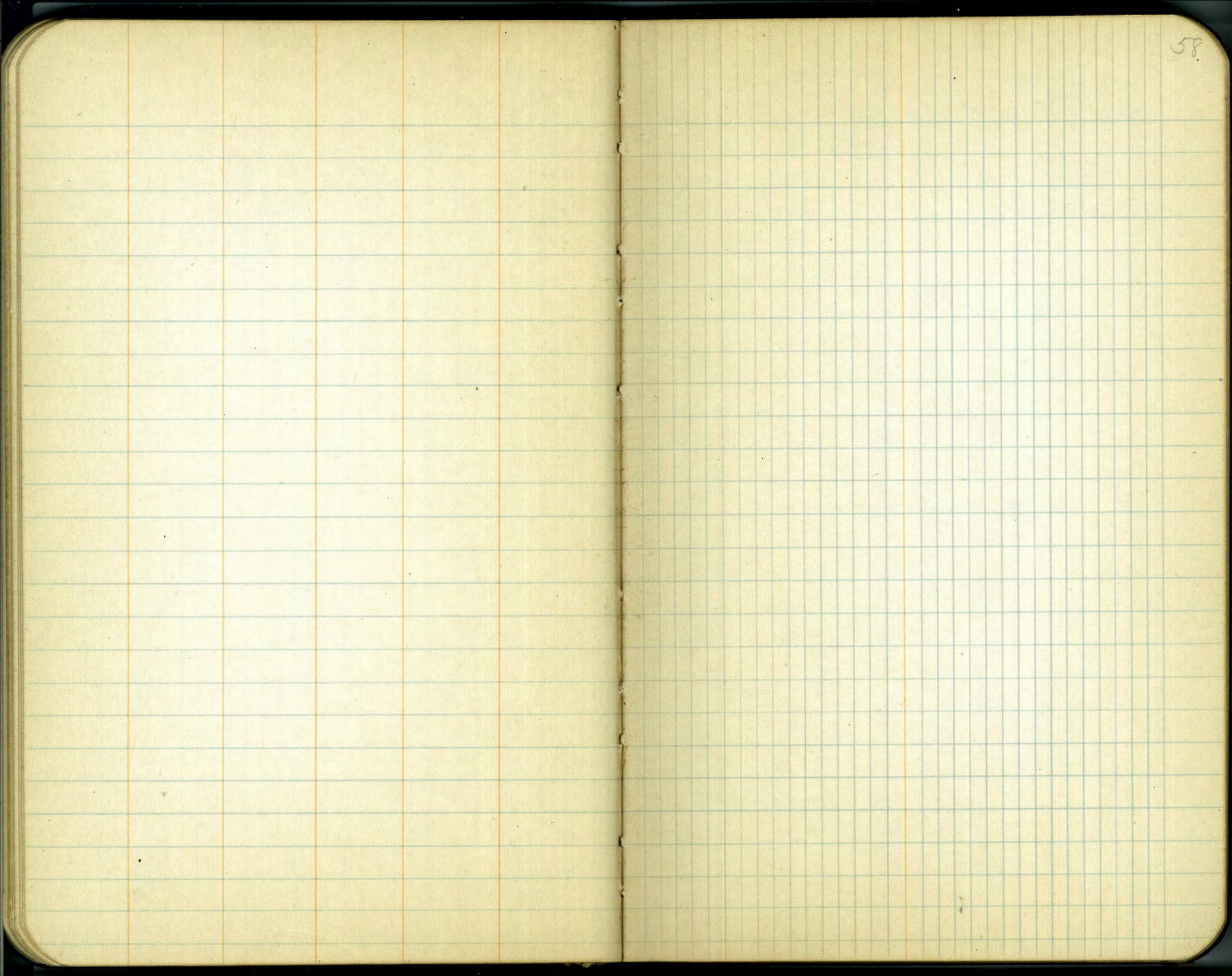
1.74
-10.30
12.04
9.27
+2.77

26
17
37
43

12.60

11.6
1.2
2.32
1.6
1.39
-8.9
-10.3

57



Stakes North
& West

Sewer Conc. N. Shore Highlands 6-7-27

Fanuel St N.H. & Stubs

8" M.H. #35 @ Fanuel Bet Feldspar & Garnet

55.19

W. Line Fanuel	7.66	47.53	41.23	+6.30
M.H. @ Fanuel	7.12	48.07	41.55	+6.52
E. Line "	7.14	48.05	41.87	+6.18

8" M.H. #34 Alley Intersection No. 2 Feldspar

61.03

W. Line Fanuel	6.58	54.45	47.85	+6.60
M.H. #34 @ "	6.32	54.71	48.21	+6.50
E. Line "	5.89	55.14	48.57	+6.57

6" M.H. #33 Alley Intersection N. of Emerald

67.90

W. Line Fanuel	6.00	61.90	55.08	+6.812
M.H. #33 @ "	5.94	61.96	55.44	+6.52
E. Line "	5.41	62.49	55.80	+6.69

6" M.H. #23 Alley Intersection N. of Diamond

77.34

W. Line Fanuel	6.89	70.45	63.18	+7.27
M.H. #23 @ "	6.39	70.95	63.34	+7.61
E. Line "	5.70	71.64	63.58	+8.14

58.27 B.P.S.E. Fanuel & Emerald
 9.63
 67.90
 2.05
 65.85 B.P.S.E. Fanuel & Diamond
 11.48
 77.34
 0.44
 76.90
 13.24
 90.14

OK 60.20 10.29
 11.08
 61.37
 10.75
 50.62
 3.39
 54.01
 7.90
 OK 46.02 46.11 B.M.N.H. Garnet & Fanuel
 1.08
 47.18
 7.56
 OK 39.53 38.62 B.M.N.H. Garnet & Everts
 1.38
 41.00
 8.35
 OK 32.83 32.65 B.M.N.H. Garnet & Dawes
 1.72
 34.37
 5.74
 OK 28.63 = 28.54

59

Fanuel St M.H.S.

6" M.H. 22 Alley Intersection N. of Missouri

90.14

W. Line Fanuel	11.53	78.61	71.94	+ 6.67
M.H. 22 ϕ "	10.66	79.48	72.12	+ 7.36
E. Line "	10.23	79.71	72.26	+ 7.65

8" M.H. 21 Alley Intersection N. of Phaedrony

101.13

W. Line Fanuel	10.23	90.90	80.72	+ 10.18
M.H. 21 ϕ "	10.70	90.43	80.92	+ 9.51
E. Line "	10.96	90.17	81.12	+ 9.05

8" M.H. 20 Alley Intersection N. of Law

113.36

W. Line Fanuel	11.73	101.63	93.18	+ 8.45
M.H. 20 ϕ "	11.10	102.26	93.42	+ 8.84
E. Line "	10.11	103.25	93.66	+ 9.59

6" M.H. 19 Alley Intersection N. of Beryl

126.10

W. Line Fanuel	10.05	116.05	108.26	+ 7.79
M.H. 19 ϕ "	9.34	116.76	108.62	+ 8.14
E. Line "	8.86	117.24	108.76	+ 8.48

90.14

0.45

89.69

11.44

101.13

0.54

100.59

12.77

113.36

0.43

112.93

13.17

126.10

90.14

6.23

83.91

113.36

4.18

109.18

60

BM. S.E. BIK cor
Pit Fanuel &
Phaedrony

BM. S.E. BIK cor
Fanuel &
Beryl

Fahuel St M.H.s

6' M.H. #14 Alley/Intersection N. of Wilbur

133.78

W. Line Fahuel	4.43	129.35	121.58	+7.77
M.H. #18 ♀ "	3.13	130.65	122.04	+8.61
E. Line "	2.89	130.89	122.36	+8.53

EVERETT ST M.H.s

6' M.H. #12 Alley N. of Wilbur

125.44

W. Line Everetts	10.12	115.54	108.18	+7.36
M.H. #12 ♀ "	8.93	116.73	108.72	+8.01
E. Line "	7.44	118.22	109.14	+9.04

6' M.H. #13 Alley N. of Beryl

113.78

W. Line Everetts	9.24	103.82	97.64	+6.14
M.H. #13 ♀ "	9.00	104.78	98.14	+6.60
E. Line "	8.24	108.54	98.54	+7.00

8' M.H. #14 Alley N. of Law

102.14

W. Line Everetts	8.34	93.84	86.02	+7.82
M.H. #14 ♀ "	7.62	94.56	86.46	+8.10
E. Line "	6.60	95.58	86.70	+8.88

126.10
 1.53
 124.57
 9.2
 133.74
 11.74
 122.04
 0.31
 122.35
 13.12
 109.23
 0.54
 109.77
 12.97
 96.80
 0.89
 97.69
 12.31
 85.48
 1.14
 86.62
 12.48
 74.14
 0.94
 75.06
 9.29
 65.77
 68.85
 1.22
 67.07
 8.28
 58.79

126.10
 3.16
 123.00 B.M. S. E BIK Hub
 Fahuel + Wilbur G/

124.17 30' N. of Everetts

122.00
 2.66
 125.66
 12.66
 113.00
 0.74
 113.74
 12.26
 101.62
 0.26
 102.14
 13.07
 89.11

Event St M.H. 5

8" M.H. #15 Alley N. of Chalcedony

89.34

W. Line	Events	6.04	83.30	74.74	+8.56
M.H. #15	"	6.31	83.03	75.08	+7.95
E. Line	"	6.37	82.97	75.28	+7.69

89.11

0.23

89.34

12.99

76.45

1.24

77.73

12.23

65.50

4.93

70.43

4.60

65.83

= 65.45 BM. Fannella Diamond

4" M.H. #16 Alley N. of Missouri

77.73

W. Line	Events	3.68	74.05	66.60	+7.45
M.H. #16	"	3.58	74.13	66.90	+7.23
E. Line	"	4.18	73.55	67.08	+6.47

4" M.H. #17 Alley N. of Diamond

70.43

W. Line	Events	5.24	65.19	58.40	+6.79
M.H. #17	"	5.50	64.93	58.70	+6.23
E. Line	"	5.40	65.03	58.86	+6.17

Gresham St M.H.s

M.H. #29 Alley N. of Diamond
78.21

W. Line Gresham	3.44	74.77	67.82	+6.95
M.H. #29	3.38	74.83	67.98	+6.85
E. Line	3.19	75.02	68.14	+6.88

M.H. #8 Alley N. of Missouri
91.05

W. Line Gresham	6.18	84.87	76.04	+8.83
M.H. #8	6.22	84.83	76.18	+8.65
E. Line	5.93	85.12	76.32	+8.80

M.H. #27 Alley N. of Chalcedony
104.05

W. Line Gresham	8.84	95.21	85.67	+9.54
M.H. #27	8.46	95.59	85.81	+9.78
E. Line	7.90	96.15	85.95	+10.20

M.H. #26 Alley N. of Law
117.10

W. Line Gresham	11.70	105.40	98.25	+7.15
M.H. #26	12.33	104.77	98.35	+6.42
E. Line	11.62	105.42	98.45	+6.97

65.85 S.E. Fahue & Diamond

12.36

78.74

0.00

78.13

12.19

91.05

0.13

90.92

12.13

104.05

0.00

104.05

12.05

117.10

91.05

12.64

78.37

91.05

2.27

88.78

104.05

104.05

5.41

117.10

5.89

111.51

111.51

111.51

111.51

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111.51

63

78.37 B.M. SW. BIK. Cor. Pipe Gresham Missouri

88.78 B.M. SW. BIK. Cor. Hub Gresham Chalcedony

98.64 B.M. SW. BIK. Cor. Hub Gresham Law

111.51 B.M. SW. BIK. Cor. Hub Gresham B.F.Y.I

Gresham St Sewers.

64

M.H. #25 Alley N. of Beryl

130.14

W. Line Gresham	8.47	121.67	112.54	+9.13
M.H. #25 W	8.41	121.73	112.68	+9.05
E. Line "	8.44	121.66	112.82	+8.84

M.H. #24 Alley N. of Wilbur

139.52

W. Line Gresham	1.92	137.60	124.57	+9.03
M.H. #24 W	1.73	137.79	125.71	+9.08
E. Line "	1.27	138.25	125.85	+9.40

117.10	130.14
0.10	2.80
117.00	127.34
73.14	
130.14	
0.08	
130.06	
9.46	
139.52	
8.90	
130.62	143.00
0.55	
131.17	

R.M. SW 1/4 Cor
Gresham + Wilbur

6-18-27
S. 1000
Beryl
Wilbur

0+0 = 248 H.M.H. 9	112.56	9.55 10.55 19.00	30 11.15 12.10 13.10 14.10 15.10	Should be 132.20
14.85 M.M.H. 9 Δ 78.54	113.00	12.03 12.20 17.03	130.43 117.30 137.24	132.04 9.34 140.36
50'S of M.H. 9	112.08	12.95 12.10 16.74	12.95 12.10 16.74	
100'S	111.16		15.88 139.20 16.19	
155.15 = M.H. N° 1 & Beryl/Wilbur 1104.6				
40'S of M.H. N° 1	108.12			

Beryl/St.

0+0 = M.H. N° 1	110.16			
50'E of M.H. N° 1	110.84	13.32 16.88		
100'E	111.52	12.53 17.70		
150'E	112.20	11.96 18.27		
200'E	112.88	10.92 18.93		
250'E	113.56	17.64 19.06		
290'E = M.H. N° 2	114.20	12.12 19.68		
50'E of M.H. N° 2	114.78	16.24 19.78		
100'E	115.46	15.76 19.31		
150'E	116.14	15.06 19.00		
200'E	116.82	14.28 18.90		
250'E	117.50	13.74 19.37		
288.8'E = M.H. N° 2 & Ingraham Farm S	118.00	13.20 19.33		
40'E of M.H. N° 2 = L.L.	122.00	17.84 18.05		

110.16	10.49	127.39
16.55	9.57	15.87
16.98	6.98	15.19
13.83	3.77	14.51
10.06	10.06	13.29
10.68	2.62	12.739
10.68	10.68	11.46
10.88	2.44	11.46
11.04	11.04	11.46
11.34	9.34	11.34
11.64	11.64	11.64
11.94	9.86	11.94
12.24	11.94	12.24
12.54	10.59	12.54
12.84	11.23	12.84
13.14	11.87	13.14
13.44	12.51	13.44
13.74	13.15	13.74

North shore High Lands sewers
Monmouth Drive + Ingraham S. of M. Drive

189.93

00 = D.E. 4-46.25		40.6	145.74	179.00	+6.74	
1		7.42	82.32	75.25	+7.13	
2	TP 0.46	178.43	11.83	177.97	71.50	+6.47
3		4.05	73.93	67.75	+6.18	
4 = M.H. #8 3-49.6		8.07	70.36	124.00	+6.00	
1	TP 0.49	166.46	12.46	165.97	57.67	+8.30
2		7.53	58.93	51.33	+7.60	
	TP 2.90	156.90	12.46	134.00		
3 = M.H. #7 1-64.3		5.30	141.60	145.00	+6.60	
	TP 0.44	143.11	12.23	144.67		
4102 M.H. #6 2-47.1		3.42	141.85	133.00	+8.85	
1		5.87	139.40	132.60	+6.80	
2 = M.H. #5 6-47.13		6.50	138.77	132.20	+6.57	
1		5.44	139.83	31.67	+8.16	
2		4.72	140.55	31.13	+9.42	
3		5.69	139.58	30.60	+8.98	
4		6.73	138.54	30.07	+8.47	
5		8.49	136.78	29.53	+7.25	
6 = M.H. #4 TP	0.54	134.51	10.24 11.30	135.03 133.97	129.00	+6.03

CON Page 67

Ingraham Sewers N. of Monmouth Drive

145.27

00 = M.H. #11 5-55.0				128.00	
1		10.35	134.92	-29.40	+5.52
2		9.09	136.18	30.80	+5.38
3		6.77	138.50	32.20	+6.30
4		4.13	141.14	33.60	+7.54
#5 = D.E. S. of Loring		1.53	143.74	135.00	+8.74

278
28.9

66

144.67	5.80	145.17	128.00
0.50	11.49	141.85	17.29
145.17		141.85	
5.32		17.17	

π 156.60 STUFFS FROM M.H. #7 & 6

0.85	156.05	147.90	+8.15
12.23	144.47	137.40	+7.27

M.H. #4 4-51.2	134.41	135.03	129.00	+6.03	
1		3.60	130.91	26.25	+4.66
204.7 2		5.93	128.58	23.50	+5.08
3		8.64	125.43	20.75	+5.08
4 = M.H. #3 @ Barry's Ingraham 1-33.20		7.61	126.90	118.00	+8.90
1		8.65	125.46	117.49	+8.27
2-00 1		10.49	123.92	116.82	+7.10
2-15 @ of M.H. #2 P. 3.29	126.53	11.27	123.74	116.14	+7.00

126.53
114.10

12.43

M.H. #2			114.10		
40' E of M.H. #3	134.51	6.32	128.19	122.00	+6.19

Loring St Sewers Ingham East

155.45

oo-outlet s. line Loring		8.00	146.45	134.76	+9.69
50' N-MH 30 Loring (3-44) 3-45		8.85	146.60	140.00	+6.60
1		8.15	47.80	141.00	+6.30
2		6.88	48.57	142.00	+6.57
3-MH 31 7-51.7 T.P.	12.05	6.18 0.53	49.27 154.92	143.00	+6.26
1 T.P.	12.87	7.95 0.35	160.02 167.62	154.00	+6.02
2 T.P.	12.85	8.92 0.60	171.57 179.49	165.00	+6.57
3 T.P.	12.97	9.01 0.05	183.43 192.39	176.00	+7.43
4 T.P.	12.89	10.73 9.05	194.63 205.73	187.00	+7.63
5		12.25	205.95	198.00	+7.95
6		0.86 0.23	217.34 217.97	209.00	+8.34
# 7-MH 32 4-40	12.90	5.14	225.73	220.00	+5.73
1		2.90	227.97	21.75	+6.22
2 T.P.	8.14	1.18	229.69	23.50	+6.19
3		6.52	231.31	25.25	+6.06
# 4 = D.E.		4.63	233.20	227.00	+6.20

1350

323

160

164.70
0.24
164.98
12.86
152.12
3.43
155.45
0.53
154.92
13.15
127.97
0.35
127.62
12.87
180.49
0.60
179.89
12.55
192.44
0.02
192.39
12.36
205.26
0.02
205.31
12.88
218.26
0.23
217.97
12.90
230.87
1.14
229.69
8.14
237.83

233.5
4.3
0.6
+3.7 check on cutstake

se stakes Upas

23
4.49
3.99
50

B.M. 295.80 E. Line
PARK Blvd
4.16
299.96 N 295.50
4.76
4.46 OK

350' East
= W line
Indiana

294.00
5.96
6.27 = 0.3 Low Profile
293.69 Set

S 295.00
4.94
3.96

294.00
5.76
6.17 Set 0.3 low
293.69 Set

Grade at SE. 292.00 10 High

286.97
2.03
289.00
1.63
287.37 B.M. Top Hdt N.E. Richmond & Upas

284.00
5.00
383.75
5.25

SW
283.00
6.00
383.75
5.75

5.67
5.30
0.37
1.20
1.4

2 1/2
5.35
281.47

5.67
2.4
1.6
0.5

171.5
143.5
335.0
135
335
149

5.37
5.11
4.37
3.2

79
2.15
81.15
5.67
143.5
717.5
1435
2152.5

Align stakes

SW. Ch. Rd. Rich. & Myrtle

B.M. 280.04
6.75
286.79

7.80
279.02

Upas

284.0

281.46

281.15

279.0
Myrtle

S/E Richmond & Myrtle

280.04 B.M.
3.15
283.19

4.16
279.03

4.19

5.17
288.02

287.37
0.56
287.93
8.62
279.31
3.82
283.13
2.64
280.45 B.M. Top Hdt N.E. Upas & Vermont

3.00
4.93

3.35
4.08

278.0
5.13

270
6.13

569
77.44

76.50
6.63

77.00
6.13

B.M. 280.04
4.56
284.60

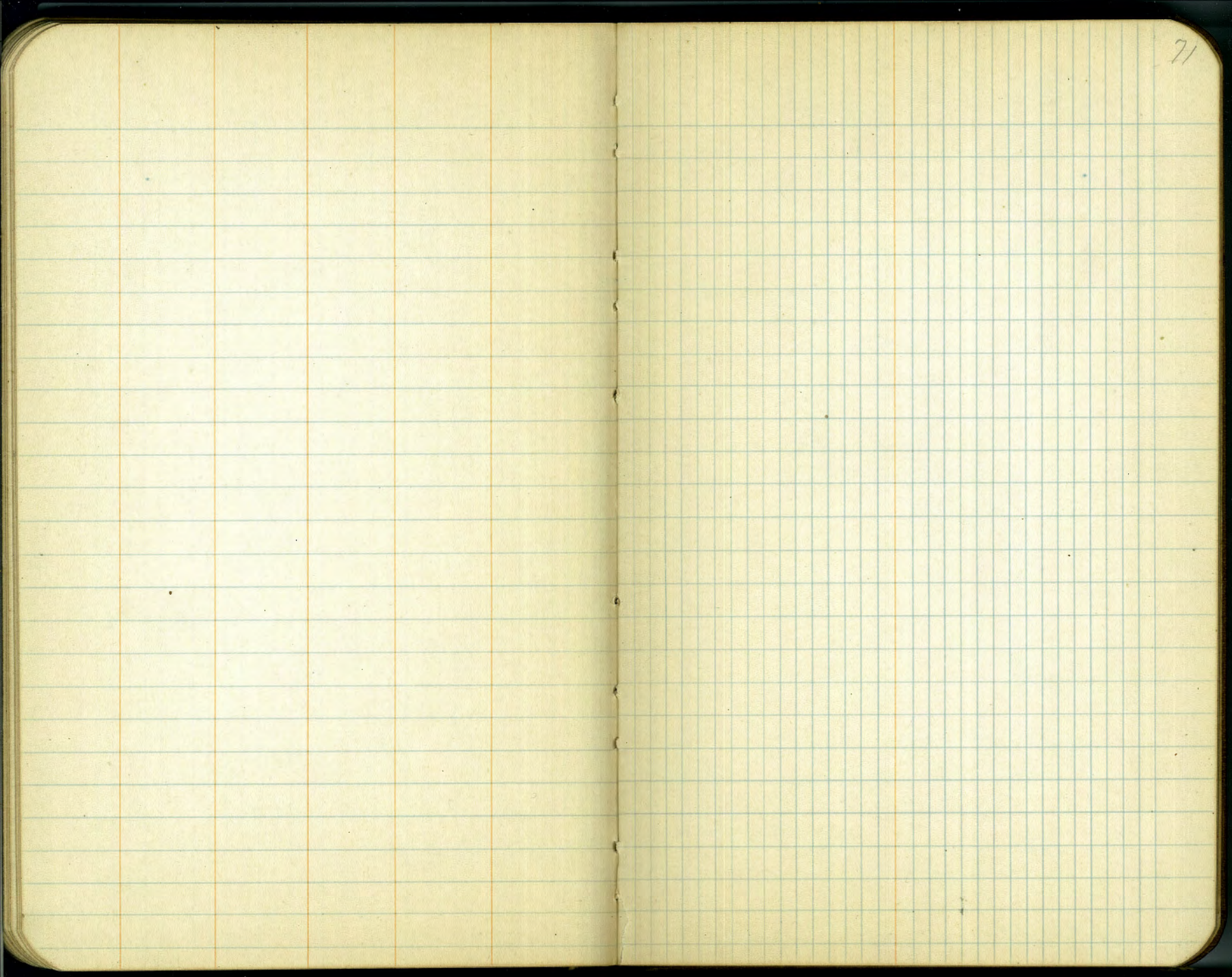
281.0
3.60
277.50
7.10

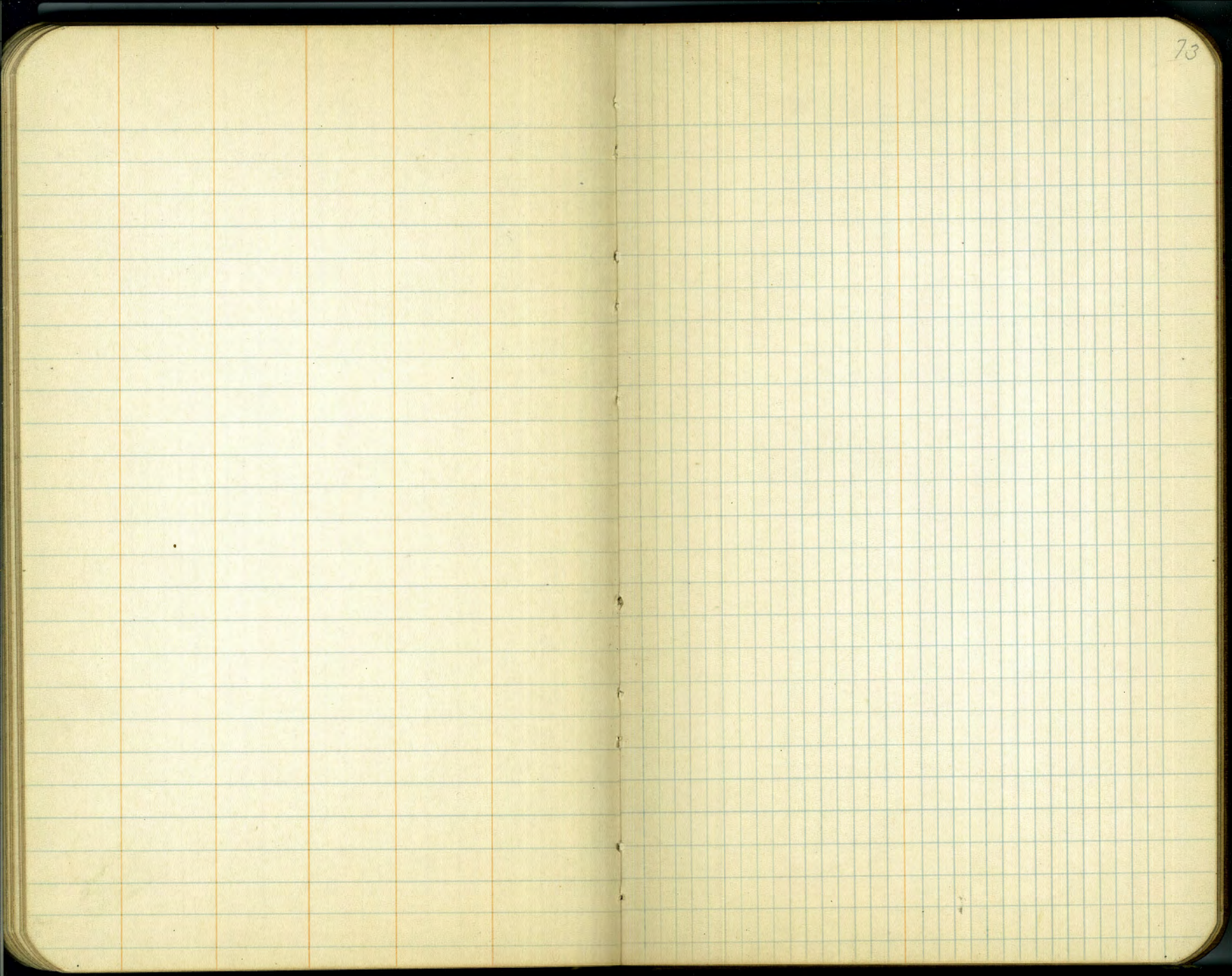
282.0
2.60

278.0
6.60
4.63

280.0
4.60
4.60

279.0
5.60
5.65







Extension of
Sewer in BIK E. Southlook
Continued from Page 77 & 78

7-R-27
miller

71.37 68.05
5.92 17.37
66.37

10.72
62.50

75

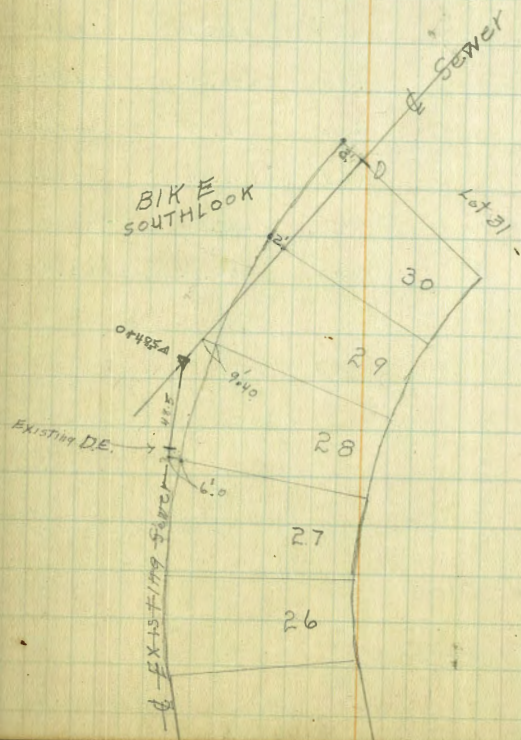
BM	6.17	71.37	65.20	59.97 = 60.00
00 = Existing DE in lot 10			11.40	67.16
TP	6.06	73.22	4.2	69.0
0+48.5 = A			9.2	64.0
1+00			10.2	63.0
1+25 = S line lot 30			11.2	62.0
1+50			9.0	64.2
1+87 = S line lot 31 DE.				

T 73.22

Construction

0+48.5 Δ	4.42	68.80	60.29	+ 8.51
1+00	7.90	65.32	60.60	+ 4.72
1+25	9.86	63.36	60.75	+ 2.61
1+50	10.66	62.56	60.90	+ 1.66
1+87 DE	8.51	64.71	61.12	+ 3.59

K. L. McClure 637-19th ST



Sewer Cans Montecito + Ibis Sts

IBIS ST

271.79

00-DEN of Lewis

4.69

267.10

263.60

+3.50

+45

4.28

267.51

62.78

+4.73

0190 = M.H. of Montecito + Ibis

4.11

267.68

262.15

+5.53

3-49.2

0149.2

4.84

266.95

62.37

+4.58

0198.4

5.60

266.19

62.59

+3.60

1+47.5 = DEN. of Montecito

7.00

264.79

262.80

+1.99

6.10
8.79
14.89

Montecito Way

B.M.

0.81

276.31

275.50

SW Jackson + Mohl cito

00-Existing M.H. Ibis ST

14.80

261.41

261.41

1

6.22

270.09

261.66

+8.43

2

T.P.

2.98

271.79

7.50

268.81

261.90

+6.91

3 M.H. of Montecito + Ibis

4.11

267.68

262.15

+5.53

4-48.75

0148.75

5.00

266.79

62.39

+4.40

0197.50

5.45

266.34

62.63

+3.71

1+46.21

6.27

265.52

62.87

+2.65

1195 = DIE, East of Ibis

6.49

265.30

263.10

+2.20

Sewer Caps in Southlook Private
BIRK

47.12

00=M.H. 20 th 40 th N. of S. St	12.95	34.17	31.00	+3.17	29.00	+5.17	69.36
+30.45	9.82	37.30	33.00	+4.20	37.00	+5.30	12.95
+60.19: M.H. 20 th S. of N. W. St	11.37	35.75	35.00	+0.75			56.41
3-46.33							0.44
1407 ³³	11.43	45.46	40.83	+4.63			56.89
1+53 ⁶⁷	4.28	52.61	46.67	+5.94			
2+00 B.R.K.	1.53	55.36	52.50	+2.86			
3-46.2							
2+46.2	8.55	60.81	53.67	+7.14			
2+92.4	6.58	62.78	54.83	+7.95			
3+38.5 M.H. on N. W. S. Line			56.00				

N + S. Line

69.36

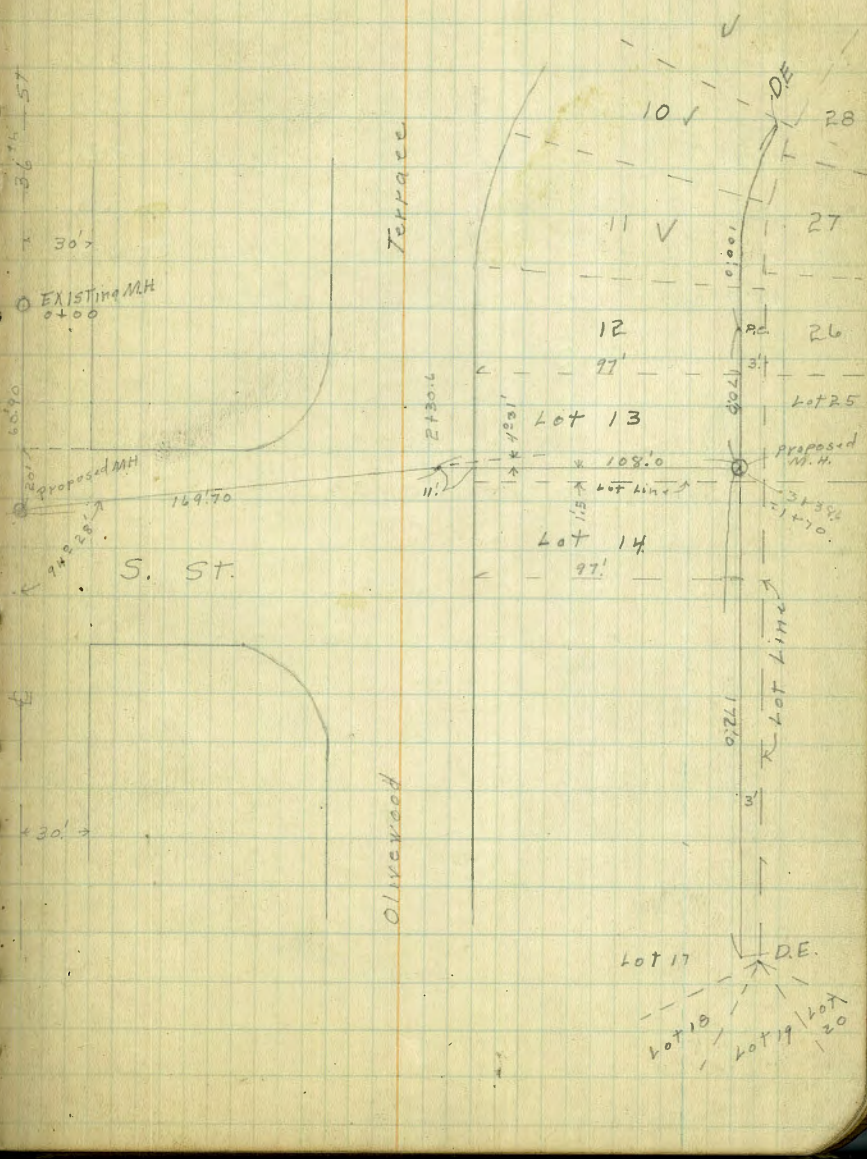
00=DE in lot 10	1.62	67.74	59.00	+8.74	60.00	+7.74	
+50	2.96	66.40	58.12	+8.28	59.12	+7.28	
1+00	2.14	67.22	57.24	+9.98	58.24	+8.98	
1+35	2.70	66.66	56.62	+10.04	57.62	+9.04	
1+70=M.H. 3+38 ⁶ above	4.16	65.20	56.00	+9.20 Drop	57.00	+8.20	
4-43							
2+13	6.24	63.08	56.25	+6.83			
2+56	6.45	62.91	56.50	+6.41			
2+99	7.39	61.97	56.75	+5.22			
3+42 D.E. in lot 17	8.43	60.93	57.00	+3.93			

Preliminary S.W. of IN BIR E Southhook

12.48
7.45
20.90

78

B.M. Top Hydt	0.87	65.14	64.27	S.E. 36' + Westman
T.P.	0.10	52.46	12.78	52.36
T.P.	7.10	47.12	12.44	40.02
0100 G.M.H. 236" 40.9 Not S. St		20.90	26.22	F.L.
		13.5	33.4	ground
+30.45		12.9	34.2	
+60.9 M.H. A		9.8	37.3	
1700		2.4	44.7	
T.P.	12.88	59.86	0.14	46.98
1760		6.8	53.0	
2100		4.4	55.4	
2+30.6 Δ		4.4	55.4	
2440		2.4	57.4	
T.P.	10.22	69.36	0.72	59.14
2444		9.0	60.4	
3400		6.6	62.8	
3+38.6 M.H.		4.5	64.9	
N. 45 Line				
00-DE in lot 10		1.8	47.6	
+50		3.4	66.0	
50' w of above		9.1	60.3	
1400		2.3	67.1	
+35		3.0	66.4	
1+70-M.H. 3+38.6 above		4.5	64.9	
2+13		6.4	63.0	
2+56		7.2	62.2	
2+99		7.8	61.6	
3+42		8.8	60.6	
		12.34	57.0	DE. FL



change of grade
 Sewer Page 77
 Blk E. of South Dock

00- Existing M.H.

34.17 27.50 + 6.67

+ 30.45

37.30 30.25 + 7.05

0+6.09 M.H.
 3-46.23

35.75 33.00 + 2.75

1+07.23

45.46 39.00 + 6.46 ✓

1+53.67

52.61 45.00 + 7.61 ✓

2+00 BRK

55.36 51.00 + 4.36 ✓

3-46.2

2+46.2 6.35 67.16

60.81 52.67 + 8.14

2+92.4 4.46

62.70 54.33 + 8.37

3+38.6 M.H. on N side

65.20 56.00 + 9.20

Line to North

57.00 + 8.20

79

$$\begin{array}{r} 33.00 \\ 27.50 \\ \hline 260.50 \\ 30.25 \\ \hline 51.00 \\ 33 \\ \hline 18.00 \\ \hline 315.00 \\ 1.21 \end{array}$$

$$\begin{array}{r} 47.16 \\ 32.33 \\ \hline 4.74 \end{array}$$

1186
 598
 1784
 1332
 69
 1405

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not

IMPROVED TABLES
 AND
 INFORMATION

TABLE No. 2.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of correction. Degree of curve with a given T may be found by dividing tangent (or external), opposite T by given tangent (or external). The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

TABLE II—Continued
TRIGONOMETRIC FORMULAE (continued)

In any triangle:

Given a, b, C; to find c, B, A.

Use Law of Lines.

Given A, B, c; to find a, b, C.

Use Law of Lines.

Given a, b, c; to find A, B, C.

$$\text{Let } \frac{a+b+c}{2} = s, \sqrt{\frac{(s-a)(s-b)(s-c)}{s}} = r$$

$$\cos \frac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$$

$$\tan \frac{1}{2} A = \frac{r}{s-a}$$

$$\tan \frac{1}{2} B = \frac{r}{s-b}$$

$$\tan \frac{1}{2} C = \frac{r}{s-c}$$

Area of a triangle:

$$\text{Area} = \frac{1}{2} ab \sin C$$

$$\text{Area} = \sqrt{s(s-a)(s-b)(s-c)}$$

PRISMOIDAL FORMULA.

$$\text{Vol.} = \frac{h}{6} (B+b+4M)$$

h = altitude; b, B = bases; M = midsection

TABLE III
INCHES AND FRACTIONS OF AN INCH IN DECIMALS OF A FOOT

	0	1	2	3	4	5	6	7	8	9	10	11
$\frac{1}{16}$	.0052	.0885	.1719	.2552	.3385	.4219	.5052	.5885	.6719	.7552	.8385	.9219
$\frac{1}{8}$	.0104	.0938	.1771	.2604	.3438	.4271	.5104	.5938	.6771	.7604	.8438	.9271
$\frac{3}{16}$	.0156	.0990	.1823	.2656	.3490	.4323	.5156	.5990	.6823	.7656	.8490	.9323
$\frac{1}{4}$	.0208	.1042	.1875	.2708	.3542	.4375	.5208	.6042	.6875	.7708	.8542	.9375
$\frac{5}{16}$	.0260	.1094	.1927	.2760	.3594	.4427	.5260	.6094	.6927	.7760	.8594	.9427
$\frac{3}{8}$	.0313	.1146	.1979	.2813	.3646	.4479	.5313	.6146	.6979	.7813	.8646	.9479
$\frac{7}{16}$	.0365	.1198	.2031	.2865	.3698	.4531	.5365	.6198	.7031	.7865	.8698	.9531
$\frac{1}{2}$	.0417	.1250	.2083	.2917	.3750	.4583	.5417	.6250	.7083	.7917	.8750	.9583
$\frac{9}{16}$	.0469	.1302	.2135	.2969	.3803	.4635	.5469	.6302	.7135	.7969	.8802	.9635
$\frac{5}{8}$	.0521	.1354	.2188	.3021	.3854	.4688	.5521	.6354	.7188	.8021	.8854	.9688
$\frac{11}{16}$	.0573	.1406	.2240	.3073	.3906	.4740	.5573	.6406	.7240	.8073	.8906	.9740
$\frac{3}{4}$	.0625	.1458	.2292	.3125	.3958	.4792	.5625	.6458	.7292	.8125	.8958	.9792
$\frac{7}{8}$	.0677	.1510	.2344	.3177	.4010	.4844	.5677	.6510	.7344	.8177	.9010	.9844
$\frac{15}{16}$	.0729	.1563	.2396	.3229	.4063	.4896	.5729	.6563	.7396	.8229	.9063	.9896
$\frac{1}{8}$	.0781	.1615	.2448	.3281	.4115	.4948	.5781	.6615	.7448	.8281	.9115	.9948
$\frac{1}{4}$	.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167	1.0000
	0	1	2	3	4	5	6	7	8	9	10	11

TABLE IV
USEFUL RELATIONS.

Lineal feet	×.00019	= miles
Lineal yards	×.0006	= miles
Square inches	×.007	= square feet
Square feet	×.111	= square yards
Square yards	×.0002067	= acres
Acres	×4840	= square yards
Cubic inches	×.00058	= cubic feet
Cubic feet	×.03704	= cubic yards
Links	×.22	= yards
Links	×.66	= feet
Feet	×1.5	= links

$$360^\circ = 21600' = 1296000''$$

$$\text{Radius} = \text{arc of } 57.2957790^\circ$$

$$\text{Arc of } 1^\circ (\text{radius} = 1) = .017453292$$

$$\text{Arc of } 1' (\text{radius} = 1) = .000290888$$

$$\text{Arc of } 1'' (\text{radius} = 1) = .000004848$$

$$\pi = 3.141592654 \quad \sqrt{\frac{1}{.4}} = 0.564190$$

$$\frac{\pi}{4} = 0.785398163 \quad \sqrt[3]{\frac{6}{\pi}} = 1.240700982$$

$$\frac{\pi}{6} = 0.523598776 \quad \pi^2 = 9.869604401$$

$$\sqrt{\frac{4}{\pi}} = 1.128379167 \quad \frac{1}{\pi^2} = 0.101321184$$

$$\frac{\pi}{6} = 0.523598776 \quad \sqrt{\pi} = 1.772453851$$

$$\frac{4\pi}{3} = 4.188790205 \quad \frac{1}{\pi} = 0.3183099$$

Curvature of Earth's surface = about 0.7 feet in 1 mile

Curvature in feet = 0.667 (Dist. in miles)²

Difference between arc and chord length, 0.05 feet in 11½ miles

$$\text{Probable error of a single observation} = 0.6754 \sqrt{\frac{\sum v^2}{n-1}}$$

Error in chaining of 0.01 feet in 100 feet:

Due to—

1. Length of tape error of 0.01 feet
2. Alignment. One end 1.4 feet out of line
3. Sag of tape at centre of 0.61 feet.
4. Temperature difference of 15°
5. Difference of pull of 15 lbs.

STADIA REDUCTION FORMULAE.

$$\text{Horizontal Distance} = R - R \sin^2 a + C \cos a$$

$$\text{Vertical Distance} = R \frac{1}{2} \sin 2a + C \sin a$$

$$R = \text{Reading} \times \frac{\text{distance from Object glass to cross hairs}}{\text{distance between cross hairs}}$$

C = distance from Object glass to cross hairs + distance from Object glass to center of instrument.

a = angle of elevation for mid Reading

SM. N 0 1/2 L + 3.8 H SE OP 70.5 f

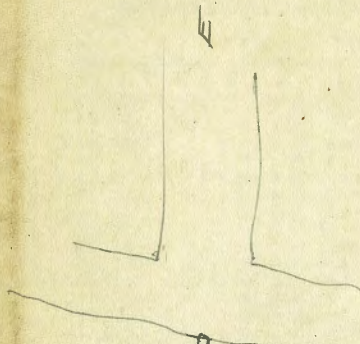
40 1/2 "

41' " NW

35.25

158 300
 40
 15
 195
 35
 158
 176

150
45
195



6170
1087

37
52
60
61

48.5
10
58.5
2
60.5

97
11
108