

Grades
137
Old Town Sewer.

PAST

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INDEX
SEWER CONST.

PAGE

CANYON LINE North JUAN	2-4
WHITMAN ST. Bet. Hortensia + Witherby	5
CANYON LINE. " Intersection Trias Congress to Witherby - Bet San Diego Ave + Congress	6
HORTENSIA Bet. Canyon Line + Juan	7
SAN DIEGO AVE Bet. Hort. + Witherby	8
GUY ST. " " "	8
WITHERBY AND COLUMBIA ST. Sewer	9
" " LINWOOD	10
CHERRY " CANYON LINE Bet Trias + Miss. Valley	11
CANYON LINE West of Canyon Rd.	13-14
CANYON " Bet. Mission Valley Line + Labor Dr.	15-16
" " North Palmetto Drive Bet. Randolph + " Canyon Line	17
Sew. from MH #250 - sta 55185 South	20
P. Profile - MH #250 - #233	27
GRAD - Change - " - "	76
Golden Gate Dr.	21
MASSACHUSETTS + Canyon Line	22-24
Alley North Madison Bet Rhode Island + Miss	23
HOFFMAN ST.	25
Alley Bet MASS. + Rhode Island Bet. Hoffman + Madison	25
Alley South Madison + East Rhode Island	26
RHODE ISLAND	27
Alley Bet. New York + Delaware Bet Madison + Canyon Line South of Oklahoma	28
Alley Bet. DELENWARE AND MARYLAND Bet. Madison + Monroe	29

INDEX Cont.

SEWER Const.

Page

MADISON AVE. Bet. Golden Gate Dr. & New Hampshire	30
NEW HAMPSHIRE Bet. Madison & Canyon ^{Line}	30-31
OKLAHOMA ST. " Buchanan & Maryland	32-33
JACK HAY Bet. Hunter & Canyon line	35
PUBLIC R. of Way Bet. Canyon Line in Mission Valley and	
Arcadia Dr.	34
PUBLIC R. of Way and in Closed Portion of	
Arbor Dr. Bet. Hawk & Ingalls	36-37
PUBLIC R. of Way Krolon Hts. Bet. Hawk & Canyon	38
CANYON LINE Bet. Mission Valley line & Intersection Arbor & Ibis ⁴¹⁻⁴²	
IBIS ST.	42
HAWK "	43
ARCADIA DR. & PUBLIC R. of Way	45
HAWK ST.	46
COURT WAY	47
PUBLIC R. of Way Lots 18 & 21 - Krolon Hts	47
PUBLIC R. of Ways & Alleys Bet. Hawk & Goldfinch ⁴⁸⁻⁴⁹	
Alley Bet. Falcon & Goldfinch	50

Indexed
1/20/21
JH

W. A. K...
 5/31/28

CANYON LINE Sewer

From 3 Twigg St. Bel. Sunset to Sun
 to Exist. MH # 237 N.W. 1/4 Sec. 16, T. 11 N., R. 10 W.

M.H. #	Note	Profile	Stk. Stud.	Elev. Grade	Cuts
M.H. # 261					
= 0+100		60.19	12.72	48.07	43.00
0+140			9.85	50.94	43.67
+80			9.05	51.74	44.33
1+20 = Bk			8.55	52.24	45.00
(5-44.1)			8.84	51.95	47.50
1+66.4			4.99	55.80	50.00
2+12.8			4.99	55.80	50.00
2+58.42	TP	72.44	10.61	61.83	52.50
3+104.56			3.34	67.10	55.00
3+50.7	= 0+141' bkt. = MH # 260 = 0+100		6.26	66.13	57.50
(7-43.97)			5.09	67.35	60.00
0+149.97			2.09	70.35	62.50
+99.94			2.09	70.35	62.50
1+49.9	TP	83.53	10.05	73.48	65.00
+99.9			5.85	77.68	67.50
2+49.85			3.00	80.53	70.00
+99.82			4.02	79.51	72.50
3+49.8	= 10' offset = MH # 259 = 0+100	75.83	12.18	83.65	75.00
(5-42.48)			12.00	83.83	77.30
0+142.48			9.47	85.26	77.60
+84.96			4.72	91.11	81.90
1+27.44	off in Rt offset Lt.		5.13	90.70	84.20
+69.9			2.59	93.24	86.50
2+12.4	= 10' offset = MH # 258 = 0+100		9.79	97.66	89.00
(3-47.57)			8.97	98.48	91.50
0+147.57	TP (10' Rt.)	107.45	6.78	100.67	94.00
+75.14			3.20	104.25	96.57
1+42.7	= 0+53' offset = MH # 257 = 0+100		6.78	100.67	94.00
(7-51.05)			3.20	104.25	96.57
0+51.05	10' Lt.				

Cont. on Page 3

Note change in Alignment see lower part of this page

in Book 132 Page 63 Elev. cut stub MH # 261

2

48.07
12.72
60.79-7
0.68-
60.11-TP
12.33+
72.44-7
1.08-
71.36-TP
12.17+
83.53-T
0.24-
83.29-TP
1.25+
75.83-T
0.03-
75.80-TP
11.65+
107.45-T
1.25-
106.20-TP
13.31+
117.54-T

See Continuation Levels Page 3

Change in Alignment	bet. MH # 261 Sunset to Twigg	bet. MH # 261 Twigg to MH # 260	bet. MH # 260 MH # 260 to MH # 261	Cuts
0+100	34.77	48.55	48.55	4.87
+80		4.04	50.73	43.65 + 7.08
+80	TP 11.94 64.44	3.11	51.66	44.30 + 7.36
1+20 = Bk.		12.00	52.44	45.00 + 7.44
1+66.4		11.11	53.33	47.50 + 5.83
2+12.8		7.82	56.62	50.00 + 6.62
TP 8.39		+58.42	70.17	2.59
3+104.56		2.99	67.18	55.00 + 12.18
3+50.7		4.00	66.17	57.50

66.18
 0.01 Error

CANYON LINE Cont.

From Page 2

3

1+02.10	119.54	11.97	107.57	99.14	+ 8.43 ✓
+ 53.15		2.58	116.76	101.71	+ 15.25
2+04.20		7.95	111.59	104.28	+ 7.31
+ 55.25	131.53	9.83	121.70	106.85	+ 14.85
3+06.3		7.33	124.20	109.42	+ 14.78
+ 57.40		6.37	125.16	112.00	+ 14.78
(1-53)		2.40	129.13	115.75	+ 13.38 ✓
0+45.3	143.86	10.17	133.67	119.50	+ 14.19
1+06		13.37	130.47	123.25	+ 7.94
+ 59		9.10	134.76	127.00	+ 7.76
2+12		7.62	134.24	130.33	+ 3.91
(3-19.33)		4.50	139.36	133.66	+ 5.70
0+49.93		6.37	147.55	140.00	+ 7.55
+ 99.86		2.27	151.65	142.50	+ 9.15
1+49.8	166.91	10.17	155.82	145.00	+ 10.82
(4-48.2)		6.39	159.62	147.50	+ 12.12
0+48.2		1.66	164.35	150.00	+ 14.35 ✓
+ 96.4		13.78	158.39	153.00	+ 5.39
1+44.6		6.06	166.06	156.00	+ 10.06
+ 92.8		1.42	170.70	159.00	+ 11.70
(7-49.91)		181.53	168.48	162.00	+ 6.48
0+44.91		8.95	172.58	165.00	+ 7.58
+ 89.8		2.01	179.52	168.00	+ 11.52
1+84.7		8.85	182.80	171.00	+ 11.80
+ 79.6		6.45	185.20	173.17	+ 12.03
2+24.5		8.63	191.79	175.34	+ 16.65
+ 69.4					
3+14.4	191.65				
(8-41.43)					
0+41.43					
+ 82.86	200.62				

H.I. from Page 2 =

119.54

0.82

on top of Lot 4

118.72 = TP

12.81 +

131.53 = K

0.67 -

130.86 = TP

130.04

143.86 = T

2.18 -

141.68 = TP

12.21 +

153.92 = T

1.01 -

152.91 = TP

13.10 +

166.01 = T

1.66 -

164.35 = TP

7.77 +

172.12 = T

1.92 -

170.70 = TP

10.82 +

181.53 = T

2.01 -

179.52 = TP

12.13 +

171.65 = T

2.19 -

184.6 = TP

11.64 +

200.62 = K

on cut slab MH # 253

on stake

See continuation of levels page 2

South +916 offset staked Moved
+4316 See Page 48 Book 137

offset

Rt 10'

offset

Rt 10'

offset

Lt 10'

offset

Lt 10'

offset

Rt 10'

offset

Lt 10'

offset

Lt 10'

CANYON LINE Cont. From P. 3

^{= Δ 1024' P} 1+24.3 - MH 251 = 200.62 (7-50.97)	14.48	186.18	177.50	+ 8.68	offset 10' MH
0+50.97	11.59	189.03	180.86	+ 8.17	4.10'
1+01.76	2.84	197.78	184.22	+ 13.56	R/10'
+52.94 7.P. 209.28	9.06	200.22	187.58	+ 12.64	R/10'
203.92	7.52	201.76	190.95	+ 10.81	R/10'
+34.9	7.79	201.49	194.32	+ 7.17	4.10'
3+0.6	7.64	201.64	197.63	+ 4.01	
+56.9 = Exist. MH & check out st.	7.93	201.35	201.00	+ 0.35 = Floor Line	Flow 10, 3.5 High

H.I. From Page 3

This H.I. used on Page 5
for check out see Page 5

4

200.62
+ 07-
196.55 = TP
12737
209.28

Walker
6.6.26

Whitman St. Sewer
Bet. Trios. + Witherby sts.

Profile 12 - Plan 8	Grade	Cuts
251.28 1.14 250.14 544.50 +5.64 R110'		
6.94 244.24 239.20 +5.24 R110'		
12.76 238.52 233.50 +5.02 R110'		
239.18 5.19 233.99 228.00 +5.99 R110'		
227.06 11.55 217.63 216.66 +10.77 R110'		
214.91 7.55 219.51 209.66 +9.85 R110'		
202.29 8.16 206.25 200.00 +6.25 L110'		
192.51 4.30 197.99 189.00 +8.99 R110'		
187.13 8.88 193.41 185.00 +8.41		
180.12 5.38 187.13 180.12 +7.01		
177.50 6.35 186.16 177.50 +8.66 For this cut see Page 4		
209.28 5.17 204.11 198.29 +5.82 L110'		
232.40 5.15 227.25 219.08 +8.17 L110'		
231.41 0.99 231.41 225.33 +6.08 L110'		
243.27 6.96 236.26 228.26 +8.00 L110'		

NE BR. Sunset + Witherby = 261.02
 2.67 +
 202.29 - 11
 12.58 -
 187.71 - TP
 2.80
 192.51
 6.35 -
 186.16 = 16K
 186.18 = Elev. Stk.
 0.02 = Error

H.I. from Page 4 = 209.28 - 0.17 = 209.11 - TP
 11.56 +
 220.67 - r
 0.10 -
 220.77 - TP
 12.13 +
 232.40 = TP
 0.99 -
 231.41 - TP
 11.81 +
 243.27 = r
 0.25 -
 242.97 = TP
 12.81 +
 255.78 = r
 0.30 -
 256.48 = TP
 8.20 +
 263.68
 2.67
 261.01 = 16K
 261.02 = BM
 0.01 = Error

Chk on NE BR. Sunset + Witherby

Walker 28
6/24

CANYON LINE

From # Point Intersection Trias + Congress
to " " on Witherby Rd. San Diego Ave + Congress
Prof. 1. 8 - plan 8

2 MH # 307 = 0+00 (8-4929)		79.82			59.00	
0+49.29			10.70	69.12	61.50	+7.62
+98.6			7.70	72.12	64.00	+8.12
1+47.9			3.49	76.33	66.50	+9.83
+97.2	T.P.	91.52	11.35	80.17	69.00	+11.17
2+46.5			10.42	81.10	71.50	+9.60
+95.7			7.73	83.79	74.00	+9.79
3+45			0.73	90.79	76.50	+14.29
+94.3	= Δ 31°16' R = Mortenson St. (5-433)		0.57	90.95	79.00 = F.M. 84.00	+11.95 +6.95
0+43.3	T.P.	103.88	13.72	90.16	81.45	+8.71
+86.6			10.39	93.49	83.91	+9.58
1+29.9			6.74	97.14	86.36	+10.78
+73.2			4.35	99.53	88.82	+10.71
2+16.5	= Δ 133°57' R = MH # 403 - 0+00		0.63	103.25	91.28	+11.97
0+46.83	T.P.	115.69	11.21	104.48	93.85	+10.63
+93.66			8.70	106.99	96.42	+10.57
1+40.5	T.P. = MH # 320 = Δ Witherby	116.82	7.01	107.81	99.00	+10.81

5/26 cut stub

66.77
13.05 +
79.82 = X
1.42 -
78.40 = T.P.
13.12 +
91.52 = X
6.57 -
90.95 = T.P.
4.29 +
103.88 = X
8.63 -
103.25 = T.P.
12.47 +
115.69 = X
11.28
107.1 = T.P.
13.61 +
116.82 = X

on Sect. West of Water Main
10 Bottom of Gulch

Note: this H.I. used on Page 9 for ckt. out see layout on that page

Walt
Feb 28

HORTENSIA ST. Senger
bet Canyon line & Juan St.

Profile 9 - Plan 8					
DMH 313 - Page 6				79.00 - EWS	+11.95
= 0+00	103.36	1241	90.95	84.00 - N	+6.95 offset 10' NW
(2-37.15)					
0+37.15		2.37	100.99	94.00	+6.99
+74.3 = Bk.	115.87	4.15	111.72	104.00	+7.72
(2-30)					
1+04.3	128.43	7.92	120.51	111.00	+9.51
+34.3 = Bk.		1.96	126.47	118.00	+8.97
(1-45)					
1+79.3 = MH#312	9.67	130.19	122.00		+8.19 offset 10' S.E.
0+05 = P.V.C	1137	128.54	122.40		+6.14
(1-20)					
+25 = Bk.		6.99	132.87	125.49	+7.38
(1-20)					
0+45 = E.V.C		1.75	138.11	131.56	+6.55
(1-30)					
0+75 = Bk.	151.58	2.60	148.98	143.00	+5.98 ✓
(1-30)					
1+07.5	175.45	9.68	165.77	158.67	+7.10
1+40 = P.V.C	187.93	7.96	179.97	174.34	+5.63
(1-30)					
+60 = Bk.	200.04	9.15	190.89	181.81	+9.08
1+80 = Bk. = E.V.C		4.56	195.48	184.90	+10.58
(1-30)					
2+20	208.79	12.44	176.35	186.70	+9.5
+60 = MH#311 = 0+00	1328	195.51	188.50		+7.01
(45-3)					
0+45	11.85	196.94	192.83		+4.11
+90		7.30	201.49	197.16	+4.33
1+35 = D.E. South of Juan	0.54	208.25	201.50		+6.75

Sta. cut stub. MH# 313 (Page 6)

90.95
12.41
103.36 = T
0.51
103.85 = TP
12.82
115.87 = T
0.00
115.87 = TP
12.56
128.43 = T
0.48
127.95 = TP
11.91
139.86 = T
0.82
139.04 = TP
12.54
151.58 = T
0.22
151.36 = TP
12.30
163.66 = T
0.49
163.17 = TP
12.81
175.45 = T
0.39
175.12 = TP
12.81
187.93 = T
0.84
187.09 = TP
12.95
200.04 = T
3.06
196.98 = TP
11.81
208.79 = T
9.14
197.65
197.60 = stub
0.05 = Error

on back 5' NW of sb. 0+75

chk. on cut stub 0+93.3 Bot 132 - 47

200
6-6-20

SAN DIEGO AVE.

Bet. Hortensia + Witherby

Profile 9 - Plan 8

6 MH# 312 Page 7						
= 0+00	163.14			123.50		
+50 = Bk		9.86	153.28	140.00	+13.28	
1+00 = PVC 7P		0.37	162.77	150.70	+12.07	
+20 = Bk	172.95	7.69	165.26	154.00	+11.26	
+40 = EXI 5-43		59.0	167.05	155.26	+11.79	
1+82		6.00	166.95	155.81	+11.14	
2+24		6.94	166.01	156.36	+9.65	
+66		7.69	165.26	156.91	+8.35	
3+08		6.85	166.10	157.46	+8.64	
+50 = MH# 316 = Witherby		8.45	164.50	158.00	+6.50	

Elev. T.P. on Sect. 5 NW. 075' 117 = 151.36

4 =
For this cut see Page 7

8
11.78
163.14 = T
0.37
162.77 = T.P.
10.18
172.95 = T

Lot 4 B.M. 077' hub San Diego Ave
on West line Witherby → 112.95
139
171.56 = B.M.

Note this H.I. used on Page 10 for ch. and see that Page

GUY STREET SEWER

Bet. Hortensia + Witherby

Profile 12 - Plan 8

6 MH# 311						
= 0+00	208.79	13.28	195.51	188.50	+70.1	
+50		13.41	195.38	189.75	+5.63	
1+00 Bk.		10.03	198.76	191.00	+7.76	
4-46.25						
1+46.25		3.66	205.13	196.25	+8.88	
+92.50 T.P.	221.10	11.56	209.54	201.50	+8.04	
8+88.75		7.37	213.73	206.75	+6.98	
+85.0 = D.E. East of Witherby		0.66	220.44	212.00	+8.44	

H.I. from Page 7

208.79
0.58
208.21 = T.P.
12.89
211.10 = T
12.85
208.25
208.25 = Elev. st. 1
0.00 = Error

chk. on 1+35 = DE Page 7

Walker
6-22-28

WITHERBY AND COLUMBIA ST.
From MH#320 to DE. EAST of BANDINI ST.

Profiles 8-3 Plan 9

1/2 MH#320 = 0+00	116.82			99.00	
+28.5		3.37	113.51	107.00	+6.51
+57 = 1/2 MH#319 = 0+00	129.50	6.52	122.98	115.00	+7.98
0+50 = Bk.		2.88	126.62	117.00	+9.62
+80 = Bk (4-42.5)	141.91	12.05	129.86	122.00	+7.86
1+22.5		8.25	133.66	125.00	+8.66
+64.0		6.20	135.71	128.00	+7.51
2+07.5		1.94	139.97	131.00	+8.97
+50 = MH#318 = 0+00 (4-42.5)	152.82	10.00	142.82	134.00	+8.82
0+42.5		7.98	144.84	135.75	+9.09
+85		6.63	146.19	137.50	+8.69
1+27.5		6.22	146.60	139.25	+7.35
1+70.0 = MH#401 (2-30)		3.13	149.69	141.00	+8.69
2+00	164.91	10.02	154.89	148.00	+6.89
+30 = Bk. (3-40)		3.98	160.93	155.00	+5.93
2+70	177.58	10.35	162.27	158.67	+8.60
3+10		6.56	171.02	162.33	+8.69
+3+50 = MH#317 = 0+00 (4-42.5)		1.70	175.88	166.00	+9.88
0+42.5	189.46	8.70	180.76	173.25	+7.51
+85		2.47	186.99	180.50	+6.49
1+27.5	201.99	7.37	194.02	187.75	+6.27
+70 = DE.		1.38	200.01	195.00	+5.01

H.I. From Page 6

= 116.82 = X
0.05 -
116.77 = TP
12.73 +
127.50 = X
0.61 -
128.87 = TP
13.02 +
141.91 = T
0.25 -
141.66 = TP
12.16 +
152.82 = X
0.78 -
152.04 = TP
12.87 +
164.91 = X
0.10 -
164.81 = TP
12.77 +
177.58 = T
0.27 -
173.31 = TP
12.15 +
189.46 = X
0.30 -
189.16 = TP
12.23 +
201.39 = T

chk. on BM Columbia & Bandini
Page 10

177.58
+31
173.27
173.31 = BM.
0.04 = Error

W. Her
6-6-28

WITHERBY + LINWOOD ST.
Bet. MH #316 And D.E. 75' West W. Bandini

Profile 3 - Plan 8.

2 MH #316 = 0+00 (2-36.54) 0+36.54		172.95	845	164.50	158.00	+6.50
473.08 = MH #315 = 0+00 (5-50') 0+50	TP	198.08	10.72	187.36	177.20	+10.16
1+00			8.88	189.20	177.90	+11.30
1+50			7.95	190.13	178.60	+11.53
2+00			6.97	191.16	179.30	+11.86
2+50 = MH #314 = 0+00 (2-45') 0+45	TP	210.59	11.85	198.74	187.00	+11.74
3+00 = Bk. (3-46.67) 1+36.67	TP		7.19	203.40	194.00	+9.40
3+83.34			4.92	205.67	197.00	+8.67
4+30 = D.E.		215.98	6.19	209.79	200.00	+9.79
			5.29	210.69	203.00	+7.69

H.I. Front Page 8 = 172.95

0.73 -
 172.22 = TP
 13.08 = +
 185.30 = T
 0.12 -
 185.18 = TP
 12.90 +
 178.08 = T
 0.21 -
 197.77 = TP
 12.82 +
 210.59 = T
 4.32 -
 205.67 = TP
 10.31 +
 215.98 = T
 13.06 -
 202.92 = TP
 0.30 +
 203.22 = T
 12.78 -
 204.4 = TP
 0.11 +
 192.85 = T
 11.66 -
 199.19 = TP
 4.05 +
 197.4 = T
 7.93 -
 193.81 = BM

Left BM 10 Pole brace with to pole
 SW. Cor. Columbia + Bandini St.
 For chk. out see Page 9

Walker
R.P. D. 11/11/28
6-15-28

CHERRY ST. AND CANYON LINE
Bet. Trias. & Mission Valley Line

Station	Profile 15	Plan 5	Station	Profile 15	Plan 5	Offsets
8 DMH #44 Book 132-11			32.61=124		+9.77	
= 0+00	59.67	12.29	36.50=8'		+5.83	
+40		11.65	38.50		+4.47	10' Lt.
+80		9.74	40.50		+4.38	" "
1+20 = Bk.		6.90	42.50		+5.22	" "
+60		3.54	46.50		+4.58	" "
2+00 T.P.	66.95	11.88	50.50		+4.57	" "
+40 = Bk. (2-47.45)		7.14	54.50		+5.31	" "
2+87.45		0.82	61.50		+4.63 ✓	" "
= 10.38' Rt.			68.50		+8.93	" "
3+34.9 = 8 DMH #230 T.P.	79.76	2.33	74.00		+3.43	" "
(2-50)						" "
3+84.9 T.P.	87.96	5.06	82.90		+5.90	" "
4+34.9 = Bk. (2-35')			86.59		+6.59	" Lt.
4+69.9 T.P.	98.97	12.38	87.00		+7.39 ✓	" Lt. on Bk. 1105-73
5+09.9 = Bk. (3-43.3')	110.97	9.16	101.81		+7.81	10' Lt.
5+48.22 T.P.		5.29	105.68		+5.35	10' Lt.
5+91.54	122.50	10.78	111.72		+5.06	" "
6+34.85 = MH #229 (4-44.51')		5.09	117.91		+4.41 ✓	" "
6+79.4 T.P.	133.99	7.26	126.73		+7.98	" "
7+23.9 T.P.	146.68	13.39	133.29		+8.79	" "
7+68.4		6.78	139.90		+9.65	" Lt.
8+12.9 = Bk. 2-40		1.87	144.61		+8.81	" "
8+57.9 T.P.	158.78	3.80	154.98		+11.98 ✓	" "
+92.9 = MH #228 (3-43.3')	170.85	7.76	160.59		+10.59	" "
9+56.2 T.P.		3.42	166.73		+10.60	" "
9+79.6	182.24	9.38	172.86		+10.70	" "
10+22.8 = 15° 05' Rt. = Bk. T.P.	194.31	12.10	182.71		+13.21	" "

Cont. on P-12

Book 132-11

Elev. Cont. Stub MH #44 { =

42.33
12.29
54.67 = T
0.32 =
54.30 = T.P.
12.65 =
66.95 = T
0.82 =
66.71 = T.P.
12.85 =
79.76 = T
0.26 =
79.50 = T.P.
8.46 =
87.96 = T
1.62 =
86.54 = T.P.
12.43 =
98.97 = T
0.44 =
98.53 = T.P.
12.44 =
110.97 = T
0.17 =
110.85 = T.P.
11.65 =
110.59 = T
0.76 =
109.74 = T.P.
12.25 =
133.99 = T
0.11 =
133.88 = T.P.
12.80 =
146.68 = T
8.95 =
157.3 = T.P.
13.05 =
158.78 = T
0.73 =
158.05 = T.P.
12.30 =
170.35 = T
0.96 =
169.37 = T.P.
12.85 =
182.24 = T
0.41 =
181.83 = T.P.
1.48 =
179.31 = T

on Rock in Cow Pen

on Rock Near MH 230 in Cow Pen

app 5+819 on Rock in Drive

on Rock. app 4+69.9

122.50 = Book 1105-73

38 =

116.7 = ch. on 2' Hub (3rd. 88)

116.7 = M. 11ers

0.0 = difference

107.4

802.4

12.9

CHERRY & CANYON LINE CONT.

(9-4137) 17 10464		194.31	7.53	186.78	177.33	+ 9.45
11+05.54	TP	206.66	5.43	201.23	185.66	+ 15.57
11+46.9 = MH#227 (2-38')			1.40	205.26	194.00	+ 11.26
11+34.9	TP	218.70	5.29	213.41	196.77	+ 16.64
12+22.9 = PXC 1-20			6.84	211.86	199.54	+ 12.32 ✓
12+42.9 = Bk 1-20			9.13	209.57	202.63	+ 6.94
12+62.9 = EXC 1-20	TP	230.98	11.14	219.84	209.00	+ 10.84
12+82.9 = Bk 1-40			4.84	226.14	217.00	+ 9.14
13+22.9 = PXC 1-20	TP	254.23	7.42	246.81	237.00	+ 9.81
13+42.9 = Bk 1-20			2.53	251.70	244.83	+ 6.87
13+62.9 = EXC = Δ (2-50')	TP		2.87	253.36	248.33	+ 5.03
14+12.9 = EXIST. TIAS ST.		264.33	8.20	257.13	251.66	+ 5.47
14+62.9 = EXIST. SEWER			4.61	260.72	155.00	+ 5.72
				255.0?		

HT from Page 11 = 194.31

194.31
 0.27 -
 194.04 = TP
 17.57 -
 206.66 - T
 0.25
 206.61 = TP
 12.05 +
 218.70 = T
 0.45
 218.25 = TP
 12.73 +
 230.98 = T
 0.53 -
 230.45 = TP
 13.46 +
 242.91 = T
 12.65 -
 241.69 = TP
 12.63 +
 254.23 = T
 0.87 -
 253.36 = TP
 11.97 +
 265.33 = T
 13.89
 257.44 = Walker's
 251.48 = Nick
 Donax's
 0.04 = Difference

chk. on 2 HUB Sta 3+26 Book 1105 P-63

Walker
Koplinger
Shed - 6-15-28
6-15-28

CANYON LINE West of CANYON ROAD
Bet Pine of And Canyon Line on West
profile 15 - Plan 5

MH 229 Page 11

0+00 (1-20')	179.06	1.65	117.41	113.00	+ 4.41
0+20 = P.V.C.		9.76	119.30	115.50	+ 3.80
0+40 = B.P. (1-20') T.P.		5.59	123.47	120.87	+ 2.60
0+60 = E.V.C. (2-32.5') T.P.	141.25	5.11	136.14	132.00	+ 4.14
0+92.5' T.P.	166.60	9.85	156.75	149.97	+ 6.78
1+23.0' = P.V.C. (1-20') T.P.	179.18	5.76	173.42	167.94	+ 5.48
1+45' = B.P. (1-20') T.P.	191.49	7.13	184.36	177.77	+ 6.59
1+65 = E.V.C. (1-20')	203.66	11.35	192.31	185.17	+ 7.14
1+85 = P.V.C. (1-20') T.P.		2.45	201.21	191.34	+ 9.87
2+05 = B.P. (1-20')	216.53	8.87	207.66	196.30	+ 11.36
2+25 = E.V.C. (1-37.6') T.P.		6.59	209.94	198.85	+ 11.09
2+62.66 = Δ 22°16' P.A. 1-38.62 = Δ 42°12' P.A.	219.63	6.96	212.67	201.41	+ 11.26
3+01.78 = MH 226 (2-50.45') T.P.		7.56	212.07	204.00	+ 8.07
3+51.73	227.67	11.70	215.97	205.34	+ 10.63
4+02.18 = 9°08' Lt. (3-41.5') T.P.		12.24	215.43	206.68	+ 8.75
4+43.7	229.12	5.00	218.12	207.79	+ 10.33
4+85.2		4.66	218.46	208.70	+ 9.56
5+26.68 = Δ 9°06' P.A. (3-40.89') MH 225 (4-43.5') T.P.		3.42	219.70	210.00	+ 9.70
5+67.5	228.18	1.90	226.23	212.33	+ 13.90
6+08.34		1.86	226.27	214.66	+ 11.61
6+49.18 = MH 224 (6-47.35') T.P.	233.51	6.44	227.37	217.00	+ 10.07
6+96.8		7.72	225.79	217.67	+ 8.12
7+43.7		7.36	226.15	218.33	+ 7.82
7+90.9		5.17	228.34	219.00	+ 9.84
8+38.2		4.70	228.81	219.67	+ 9.14

Cont. on P-14

221.74 =
11.77 +
233.51 =
4.20 -
228.81 = T.P.
See Page A

cht on L. Hub 6+975 Book 1105-72

117.41
11.65 +
129.06 = π
217 -
238.9 = T.P.
123.6 +
141.25 = π
241 -
140.84 = π
12.93 +
153.77 = π
0.06 -
153.71 = T.P.
12.89 +
166.60 = π
0.50 -
166.10 = T.P.
13.08 +
179.18 = π
0.66 -
178.52 = T.P.
12.77 +
191.49 = π
0.87 -
190.62 = T.P.
13.04 +
203.66 = π
0.09 -
203.57 = T.P.
12.96 +
216.53 = π
2.46 -
214.07 = T.P.
5.56 +
219.63 = π
2.31 -
217.32 = T.P.
16.35 +
237.67 = π
15.21 -
215.43 = T.P.
7.62 +
223.12 = π
3.22 -
219.70 = T.P.
8.63 +
228.13 = π
10.00 -
228.13 = T.P.
5.51 +
223.44 = π
1.70 -
221.74 = 10/100
221.77 = Miller
0.03 difference

CANYON LINE CONT. from P-13

6-16-28

Yellow
Rough
Shore
Shore
278.5
Sec 16.5

8+85.4 = Δ 520 Rt	232.54	1.31	231.23	220.33	+ 10.90
9+32.68 = MH #223 (3-41.94) 72		4.60	227.94	221.00	+ 6.94
9+74.61	240.34	8.61	231.73	221.55	+ 10.18
10+16.55 = Δ 15°37'64"		10.04	230.30	222.10	+ 8.20
10+58.5 = MH 188 (1-50.74)		8.93	231.41	222.64	+ 8.77
11+09.3 = Δ 11° Rt (1-51.81) = Δ 86° 10' 0"		4.30	236.04	223.31	+ 12.73
11+61.10 = MH #222 (2-42.95)		1.79	238.55	224.00	+ 14.55
12+04.05 = Δ 49° 11' 24"		0.85	239.49	227.25	+ 12.24
12+147 = MH #221 (2-32.39)	251.11	6.45	244.66	230.50	+ 14.16
12+77.4		7.15	243.76	232.25	+ 11.71
13+11.8 = DE.		2.91	248.20	234.00	+ 14.20

1058
932
1258

T.P. from Page 13 = 228.81
 373+
 237.54 = π
 460 -
 22794 = T.P.
 1240 +
 24034 = π
 285 -
 23717 = T.P.
 11621
 25111 = π
 1162 -
 23949 = T.P.
 112 +
 24061 = π
 1445
 22616 = Markers
 22621 = Markers
 0.05 = difference

chk. on Hub Book 1109-72 sta 27817

Valley
 6-25-28

CANYON LINE
 IN PUBLIC RIGHT OF WAY
 Bet. Mission Valley Line and Arbor Drive
 Profile 16 - Plan 4

MH # 54 Mission Valley line = 53+53 Book 132-13	61.46	12.10	49.36	43.37	+ 5.99
50+00 (6+43.52)					
0+43.52		5.70	55.76	49.47	+ 6.29
+ 87.04 TP	72.99	11.38	61.61	55.58	+ 6.03
1+30.6		6.95	66.04	61.68	+ 4.36
1+74.1		0.66	72.33	67.79	+ 4.54
2+17.6 TP	85.13	6.15	76.98	73.89	+ 5.09
2+61.12 = Bk. 132-13 (3-4166)		0.84	84.29	80.00	+ 4.29
3+02.8 TP	97.22	8.20	89.02	84.00	+ 5.02
3+44.4		3.14	94.08	88.00	+ 6.08
3+86.12 = 24+099' Lt = MH # 211 TP (2-4857)	108.09	10.58	97.51	92.00	+ 5.51
4+34.62		2.79	105.30	101.75	+ 3.55
				102.50	+ 7.80
4+83.12 = Bk. (2-40')	120.20	2.23	117.97	111.50	+ 6.47
				113.00	+ 6.73
5+23.12 TP	132.65	0.92	131.73	125.00	+ 4.98
				127.50	+ 8.90
5+63.12 = Bk. 1-50 TP	156.78	9.37	147.41	138.50	+ 5.41
				142.00	+ 5.19
6+13.12 = Bk. 1-50 = 21+029' Rt.	182.45	11.26	171.19	166.00	+ 5.19
6+63.12 = MH # 210 TP 3-40	194.80	6.38	188.42	183.00	+ 5.42
7+03.12 TP	206.56	10.33	196.23	187.33	+ 8.90
+ 43.14		6.64	199.92	191.66	+ 8.26
7+83.12 = Bk. TP 2-515'	216.49	11.53	204.96	196.00	+ 8.96
8+34.62		6.90	209.59	204.00	+ 5.59
+ 86.12 = 20+48' Rt. TP = MH # 209 (3-4933)	228.99	12.76	216.23	212.00	+ 4.23
9+35.45	228.86	4.58	214.28	216.00	+ 8.28
9+84.78 TP	239.98	10.68	229.30	220.00	+ 9.30
10+34.12 = 19+36' Lt. = MH # 220 (3-36')		7.25	232.73	224.00	+ 8.73
10+70.12		2.22	237.76	226.33	+ 11.43

Cont. on PAGE 16

Elev. Cut stub MH # 54 Book 132-13 = 49.36

12.10	61.46 - T
0.29	61.17 - TP
11.82	72.99 +
0.66	72.33 = TP
12.80	85.13 +
8.13 - T	84.29 - TP
0.84	12.73 +
97.22 = T	1.27
108.09 - T	84.29 - T
0.84	12.61 +
108.09 - T	102.00 - T
0.50	108.09 - T
107.59 = TP	102.00 - T
10.58	102.00 - T
101.75	102.00 - T
102.50	120.09 = TP
111.50	12.56 +
113.00	152.65 - T
125.00	0.92
127.50	131.73
138.50	12.54 +
142.00	144.27 = T
166.00	0.17
171.19	144.10 = TP
183.00	12.68 +
187.33	106.78 - T
191.66	0.10
196.00	156.58 = TP
199.92	14.98 +
204.96	169.56 = T
209.59	0.01
212.00	169.55 = TP
216.00	12.90
220.00	152.45 = T
224.00	0.29
226.33	182.16 = TP
	12.64 +
	194.80 - T
	0.72
	194.23 = TP
	12.43 +
	206.56 =
	0.15
	204.41 = TP
	12.08 +
	216.49 = T
	0.32
	237.76 = TP

Book 1109.8
 chk. on 10+29

216.17
 12.87
 208.99 = T
 11.38
 217.01 = Walkers
 217.48 = Donnans
 0.15 = diff.

atx. 24th 1009 Book 1109.8 = 217.48 used this cut End

11.38
 218.86
 1.56 -
 217.30 = TP
 12.68 +
 239.98 = T
 0.26
 238.52 = TP

CANYON LOINE Cont. From P 15
 Rd. Mission Valley + Harbor Dr.

11+06.12		250.90	8.73	242.17	228.66	+13.51	10' Lt.
11+42.12	-Δ 23°48' Rt. MH# 219		7.61	243.79	231.00	+12.79	"
(2-34.10')			7.00	243.90	232.78	+11.12	"
11+76.22			5.90	245.00	234.56	+10.44	"
12+10.32	Δ 14°28' Lt. T.P.	255.16	7.72	247.44	237.04	+10.40	"
(3-47.5')			6.74	248.42	239.52	+8.90	"
12+57.8			3.33	251.83	242.00	+9.83	"
13+05.3	Δ 20°24' Rt. MH# 218 T.P.	257.40	3.40	254.00	242.59	+11.41	"
13+52.82			3.60	253.80	243.18	+10.62	"
(3-36.43')			1.00	256.40	243.77	+12.63	"
13+89.25			4.59	252.81	244.02	+8.79	"
14+25.68	Δ 15°20' Rt. MH# 217		6.01	251.39	244.27	+7.12	"
14+62.12			3.79	253.61	244.52	+9.09	"
(3-36')			4.29	257.31	244.73	+12.58	"
14+98.12		261.60	3.10	258.50	244.95	+13.55	"
15+34.12			10.49	255.98	245.24	+10.74	"
15+70.12	Δ 14°20' Lt. T.P.		10.97	255.50	245.53	+9.97	5' Lt.
(2-29.8)			10.22	256.25	245.75	+10.50	5' Lt.
15+99.92	Δ 34°48' Rt. MH# 216 T.P.	266.47	8.03	258.44	245.97	+12.47	10' Lt.
16+29.72			11.79	254.68	246.23	+8.45	"
(3-41.5')			6.11	260.36	246.49	+13.87	"
16+71.17	Δ 44°50' Lt. MH# 215		7.22	257.20	246.85	+10.35	"
17+12.12		264.42	7.85	256.57	247.21	+9.36	✓
(2-31.75')			8.72	258.69	249.10	+9.59	9' Lt.
17+44.37	Δ 40°31' Rt. MH# 214		2.00	259.41	251.00	+8.41	10' Lt.
17+76.12			5.64	245.62	254.38	+11.24	5' Rt.
(2-37.5')			3.20	263.06	258.00	+10.06	7' Lt.
18+13.62			5.34	265.92	258.95	+6.97	5' Rt.
18+51.12	Δ 5°33' Lt. T.P.						
(2-51.5')		264.42					
19+02.62	Δ 86°41' Lt. MH# 213						
(2-48.4')		261.41					
20+02.3							
20+50.5	Δ 59°41' Lt. MH# 212	261.41					
(2-31')		271.76					
20+81.5	Δ 30°75' 17027' Rt.						
21+12.5	Δ 46°218' Rt.						
(2-44.6)							
21+22	Exist. Sewer						

Change in Grade
 AND Alignment
 See Page 79

T.P. on 6. Hub. MH# 213 = 257.63 = T.P.
 878

chk. on Sta. B.P. Harbor + Palmetto

stations
 17+54.12
 (2-50')

20+04.12
 10' Lt.
 5' Rt.
 7' Lt.
 5' Rt.

20+54.12 = MH# 212
 (1-28.75')
 20+82.87
 0+75.75'
 21+13.62 = Δ 17°27' Rt.
 (1-8.0')

change in alignment.
 These stations and angles
 from 19+54.12 on opposite page
 to exist. sewer

T.P. on Page 15 = 238.52
12.38+
250.90 = T
0.86 -
250.04 = T.P.
5.12+
255.16 = T
7.49 -
247.67 = T.P.
2.73 +
257.40 = T
8.90 -
248.50 = T.P.
13.10 +
261.60 = T
0.18 -
261.42 = T.P.
5.05 +
266.47 = T
3.81 -
262.66 = T.P.
1.76 +
264.42 = T
1.77 -
262.63 = T.P.
8.78
261.41 = T
0.07 -
261.34 = T.P.
9.92 +
271.26 = T
4.44 -
266.82 = T.P.
11.58 +
278.40 = T
1.98 -
276.42 = T.P.
4.47 +
280.89
1.91
278.93
279.01 = B.M.
0.08 = Error

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CANYON LINE IN PUBLIC Rd. of STATE
 North of PALMETTO STATE
 Bet. Randolph St. and Canyon Line
 Profile 16 - Plan 4

MH# 209 Page 15

= 0+00	229.07		212.00	
+46.5 = Δ 59°34' RL		3.56	225.46	215.50 + 9.96
+93 = MH# 208 (3-50.47) T.P.		2.95	226.07	219.00 + 7.07
1+43.47	240.68	10.30	240.38	221.33 + 9.05
1+93.94 = Δ 46°56' RL		7.16	233.52	223.66 + 9.86
2+44.4 = MH# 207 (9-46.4)		4.77	235.89	226.00 + 9.89
2+90.8		3.71	236.97	226.66 + 10.31
3+37.2		3.29	237.39	227.32 + 9.72
3+83.6 = B.H. = Δ 91°44' Lt.	250.45	13.24	237.21	227.32 + 10.07
4+30 = MH# 206 (2-40.75)		10.79	239.66	228.50 + 8.89
4+70.75		5.09	245.36	228.00 + 9.21
5+11.5 = Δ 6°58' RL (3-32.17) T.P.		6.98	243.47	229.75 + 7.46
5+49.67		6.87	243.58	231.00 + 8.66
5+87.84 T.P.	250.61	3.55	247.06	231.80 + 7.1356
6+26 = Δ 22°57' Lt. 1-38 = Δ 66°57' Lt. x 64°09' Lt.		6.86	243.75	232.60 + 10.87
6+64 = MH# 204 (2-34.5) (2-35.85) T.P.		5.87	244.74	233.34 + 10.24
6+98.5	246.57	+ 0.74	247.31	233.34 + 10.24
7+33 = MH# 203 (1-39.8) (1-35.85) (2-67.025) (2-68.93)		8.74	247.87	234.09 + 11.97
7+72.8 = MH# 202 T.P. (1-21.1) (1-21.1) (1-21.1)	266.24	4.75	261.49	234.84 + 8.91
7+94.5 = Exist. Sewer		3.53	267.1	235.60 + 9.14

10' RL

"

"

"

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"

"

"

"

"

change of grade
 See Profile 16

Elev. cut slab MH# 209 Page 15 = 216.23

17

216.23
12.79 +
229.02 = T
0.04 -
228.98 = T
11.70 +
240.68 = T
3.29 -
237.39
13.06 +
250.45 = T
2.51 -
247.91 = T.P.
2.70 -
250.61 = T
8.26 -
242.35 = T.P.
4.22 +
246.57 = T
6.24 -
246.33 = T.P.
11.28 +
256.61 = T
1.96 -
254.65
11.59 +
266.24 = T
6.14 -
266.10 = T.P.
12.59 +
278.69 = T
0.65 -
278.04 = T.P.
4.87 +
282.71 = T
3.68 -
279.03
279.01 = B.M.
0.02 = Error.

S.E.B.P.
 Chk. on B.M. Hwy Dr. & Palmetto Dr.

35.81
 51.25
 71.70

Popl. 1770
Shawkes
gro. kes

Sew-From- M.H. #250 - sta 65+85 - of Trunk-Line

	T	-Rod	EI.
M.H. #250 0+00	79.17		
+39.91 V	T.P.	91.53	4.92
+60.80 V			74.25
+79.82 V	T.P.	103.54	0.47
		115.43	91.06
119.74 M.H. #33 A 85° 24' 48"	T.P.	127.96	1.24
122.90			114.19
+162.64 V	T.P.		
170.54 V	T.P.	139.73	7.24
148.44 V	T.P.	152.05	6.57
149.34 V	T.P.	163.83	2.20
134.24 A 6° 24'	T.P.	175.75	5.82
+70.20			3.86
140.24 D. M.H. #64 A 37° 30'			6.99
147.24	T.P.		3.20
+88.24		174.79	1.49
129.24			9.03
170.24 M.H. #163 A 12° 55'			
100.24			
+30.24 Plug-End			
(Excluded - Portion)			
meas'd red - 18.2 ±			
50' P			
+100 Plug-End			
-0450			
0+00 M.H. #162-6° 32'			
44			
744			
788			
+32			

	T	-Rod	EI.
M.H. #231 - sta 6-68.77			68.77
			+10.40
			79.17 = T
			-4.45
			78.72
			+12.81
			91.53 = T
			-4.7
			91.06 = EI
			+12.48
			103.54 = T
			-0.46
			103.08 = EI
			+12.35
			115.43 = T
			-0.35
			115.08 = EI
			12.88
			127.96 = T
			.42
			127.54 = EI
			+12.19
			139.73 = T
			+1.6
			139.67 = EI
			12.48
			152.05 = T
			-3.1
			151.74 = EI
			12.87
			163.05 = T
			-0.47
			162.58 = EI
			12.40
			175.75 = T
			-8.96
			174.79 = EI
			+6.00
			174.79 = T
			-9.4
			173.85 = EI

Perlinger
Shed
Brk
7-19-28

Sew-From M.H. #250 Sta. 55+85.00
Profile-18-Plans-See-3 Trunk
Line

(GRADE-Change - Page 76)

M.H. #250 30' @ 0+30	T.P.	79.29	6.79	72.50	58.76	69.38	+3.12
1.60 BRK	T.P.	91.67	9.12	82.55	80.00	80.00	+2.55
+90 BRK 29' @	T.P.	103.05	7.81	95.24	100.00	100.00	-4.76
+19.74 M.H. #233 32' @	T.P.	115.11	0.85	114.26	104.80	104.80	+10.26
14.53.99	T.P.	127.50	5.71	121.79	112.50	112.50	+9.29 ✓
17.88.24 BRK 20' @		139.94	8.04	131.90	121.00	121.00	+10.90 ✓
2+08.24			6.50	133.44	124.50	124.50	+8.94 ✓
3+28.24 BRK 25' @			2.00	137.94	128.00	128.00	+9.94 ✓
2+53.24	T.P.	151.83	4.03	147.80	137.00	137.00	+10.80 ✓
4+27.8.24 BRK 25' @	T.P.	164.50	7.33	157.17	146.00	146.00	+11.17 ✓
3+06.24		176.17	11.45	164.72	153.00	153.00	+11.72 ✓
3+24.24 BRK Δ 6' 24' RT 26' @			6.17	170.00	160.00	160.00	+10.00 ✓
3+70.24	Δ 37' 30' RT T.P.	4.21		171.96	161.25	161.25	+10.71 ✓
4+06.24 M.H. #164 71' @		178.35	9.51	168.84	162.50	162.50	+6.34 ✓
4+47.24			5.72	172.63	162.77	162.77	+9.86 ✓
4+88.24			4.98	173.37	163.04	163.04	+10.33 ✓
5+29.24	T.P.	12.52		165.83	163.32	163.32	+2.51 ✓
5+70.24 M.H. #163 30' @	Δ 120' 55" L T.P.	186.38	6.45	179.93	163.59	163.59	+16.34 ✓
6+00.24			5.86	180.52	163.79	163.79	+16.73 ✓
6+30.24 Aug. End.			6.50	179.88	163.98	163.98	+15.90 ✓
Plug End. 6+48.24 0+00 6+98.24 +50 7+48.24			4.74	181.64	164.10	164.10	+17.54
100 M.H. #162		190.32	5.30	181.08	164.44	164.44	+16.64
			9.35	180.97	164.78	164.78	+16.19

Cont. on Page 41

M.H. #231 - St. 6

Changed - BRK

173.92
+12.46
186.38 T.P. on R Hub
101.89 Gregory
175.49

T.P. on R Hub

T.P. on stake
Hub M.H. #164, 164.42
Gregory
T.P. # M.H. #163

Elav cut stub 6+30.24

This H.I. Transferred to Page 41

68.77
10.52
79.29 T
17
79.12
+12.55
91.67 T
-0.60
91.07
+11.92
103.05 T
34
102.71
12.40
115.11 T
-0.35
114.76
12.74
127.50 T
0.01
127.49
-12.45
139.94
-0.26
139.68
12.20
151.88 T
35
151.53
+12.97
164.50 T
-1.10
163.40
12.77
176.17 T
4.21
171.96
6.39
178.35 T
-4.43
173.92
-179.88
1044.1
190.32 T

Golden Gate Drive Sewers
 Bet. Mass. St. and Delaware Sts
 Profile 22 - Plan 2

EXIST. Sewer MH E. Delaware St (4-4986)	348.45	12.02	336.43	336.34	0.07 high = floor line	
0+49.48		4.33	344.12	336.03	+8.09	
+98.96		4.62	343.83	335.71	+8.12	
1+48.44		6.68	341.77	335.39	+6.38	
+97.97 - MH #135 (4-4795)		6.37	342.08	335.07	+7.01	
2+43.87		7.29	341.16	334.78	+6.38	
+93.82	T.P.	342.82	2.85	339.97	334.48	+5.49
3+41.77		3.70	339.12	334.18	+4.94	
+89.72 = $\Delta 40^{\circ}55'$ KH. (5-4308) - MH #136		5.14	337.68	333.88	+3.80	
4+32.8		5.53	337.29	333.60	+3.69	
+75.88		6.17	336.65	333.33	+3.32	
5+18.96		5.27	337.55	333.06	+4.49	
+62.04		5.16	337.66	332.79	+4.87	
6+05.12 = $\Delta 26^{\circ}01'$ KH. (3-4397) - MH #137		5.10	337.72	332.52	+5.20	
6+48.6		343.32	6.42	336.90	332.24	+4.66
+92.07		6.20	337.12	331.97	+5.15	
7+35.52 = $\Delta 47^{\circ}52'$ KH. (6-4746) - MH #138		6.87	336.45	331.70	+4.75	
7+85		6.59	336.73	331.38	+5.35	
8+34.4		7.66	335.66	331.17	+4.59	
+83.9		8.59	334.73	330.76	+3.97	
9+33.4		7.65	335.67	330.44	+5.23	
+87.8		8.34	334.98	330.13	+4.85	
10+37.28 = $\Delta 2^{\circ}18'$ KH. (4-4747) - MH #139		6.77	336.55	329.82	+6.73	
10+79.75		343.15	6.06	337.09	329.52	+7.57
11+27.22	T.P.	6.06	337.09	329.22	+7.87	
11+74.69		7.01	336.14	328.92	+7.27	
12+22.16 = $\Delta 90^{\circ}$ KH. MH #140		8.52	334.63	328.62	+6.01	

S.W. B.P. Madison + Delaware St = 343.44
 5.01
 348.45
 7.29 -
 (on slab + 0.587) * 341.16 = T.P.
 1.66 +
 342.82 = π
 5.10 -
 337.72 = T.P.
 5.60 +
 343.32 = π
 6.62 -
 on Rock. 336.70 = T.P.
 6.45 +
 this H.I. used P. 22 343.15 = π

Walker
Ruplinger
Shaw
July 25-28

MASSACHUSETTS ST.
Bet. Golden Gate Dr. & Hoffmann St.

Profile 22 - Plan 2

MH #150 Page 21 -04.00 (6-59.16) 0+49.16 +98.32 1+47.48 +96.64 T.P. 2+45.8 +95.00 = Δ 36° 12' 12" (3-59.4) 3+34.4 +73.8 4+13.2 = Δ 31° 03' 12" (4-49.1) 4+62.2 5+11.2 +60.2 6+09.2 (1-59) 6+38.2 = P.Y.C. 1-70 6+58.2 = B.K. +78.2 = #143	343.15 8.52 334.63 328.62 +6.01 7.51 335.64 328.30 +7.34 7.23 335.92 327.99 +7.93 7.48 335.67 327.67 +8.00 336.21 1.07 335.14 327.36 +7.78 1.96 334.25 327.06 +7.19 3.27 332.94 326.75 +6.19 336.24 4.10 332.14 326.50 +5.64 4.15 332.09 326.25 +5.84 4.73 331.51 326.00 +5.51 548 = Part. 7.61 328.63 322.80 +5.83 10.31 325.93 319.60 +6.33 323.58 0.51 323.07 316.40 +6.67 3.00 320.58 313.20 +7.38 4.97 318.61 311.31 +7.30 7.35 316.23 307.82 +8.41 316.48 12.14 304.34 300.00 +4.34
---	---

Profile 23 - Plan 2

MASSACHUSETTS CANYON LINE

Above MH #143 = 04.00 +40.6 = B.K. (3-40.1) 0+80.6 1+20.6 +60.6 = B.K. (2-50.1) 2+10.6	304.70 0.36 304.34 300.00 +4.34 292.44 5.76 286.68 280.00 +6.68 280.64 7.18 273.46 264.66 +8.80 268.98 8.85 260.13 249.33 +10.80 256.53 11.85 244.68 234.00 +10.68 230.52 2.45 228.07 220.00 +8.07
--	---

Cont. on Page 24

H.I. from Page 21 = 343.15

748 - 335.67 = T.P. 0.59 + 336.21 = T 321 333.00 333.03 = B.M. 0.03 = Error 333.03 321 + 336.24 = T 12.71 - 323.53 = T.P. 0.25 + 323.58 = T 12.30 - 311.18 = T.P. 5.30 + 316.48 = T

chk. on B.M. NE of Madison Mass

above B.M. used from here

for chk. out see continuation levels from this H.I. on Page 25

Elev. Cut stub MH #143 = 304.34

268.98 12.83 - 256.15 = T.P. 0.38 + 256.53 = T 13.26 - 243.27 = T.P. 0.15 + 243.42 - 12.94 - 230.48 = T.P. 0.02 230.51 = T	304.34 0.36 + 304.70 = T 12.69 - 292.01 = T.P. 0.43 + 292.44 = T 12.38 - 280.06 = T.P. 0.58 + 280.64 = T 12.72 - 267.92 = T.P. 1.66 + 268.98 = T
--	--

this H.I. used on p-24

Alley North of Madison Ave
Bet Rhode Island & New York Sts.
Profile 27

D.E. 40' N. N. 6. Madison

= 0400

+478

+956

1+43.4 = MH #137

343.32	347.	339.85	334.50	+5.35
	372	339.60	333.84	+5.76
	440	338.92	333.18	+5.74
			332.52	for this cut see Page 21

H.I. from Page 21 = 343.32

23

Alley North of Madison
Bet Mass & Rhode Island

Profile 27 - Plan 2

D.E. 40' North N. 6. Madison

= 0400

+51

1+07

+59

2+04

+55 = MH 139

343.15	4.64	338.51	333.00	+5.51
	428	338.87	332.37	+6.50
	444	338.71	331.73	+6.98
	491	338.24	331.10	+7.14
	497	338.18	330.46	+7.72
	658	336.57	329.82	+6.75

H.I. from Page 21 = 343.15

Mass. & Canyon Line
Cont. from Page 22

24

2+60.6 = Bk (2-32.5) 2+93.1	217.48	2.60	214.88	206.00	+8.88	
		11.51	205.97	199.00	+6.97	
3+25.6 = Δ 8°46' Lt. 6-45.45' = DMH #104	205.60	10.31	295.29	187.50	+117.79	
3+71.05	193.00	1.30	191.70	181.91	+9.79	
4+16.5		7.98	185.02	176.32	+8.70	
+61.75	180.68	4.31	176.37	170.74	+5.63	
5+07.40		8.95	171.73	165.16	+6.57	
+52.85	169.06	2.08	166.98	159.58	+7.40	
+98.3 = Δ 17°32' Lt. (4-40.85') = MH #132 - Branch line P-27		6.89	162.17	154.00	+8.17	
6+39.15	157.10	0.72	156.38	148.50	+7.88	10' N
+80		4.80	152.30	143.00	+9.30	10' E
7+20.85 - Δ 16°25' Lt.		8.89	148.21	137.50	+10.71	
+61.7 = MH #152 (6-46.32') - 40	146.24	1.57	144.67	132.00	+12.67	
5+08.5 (5-46.3')		9.98	136.26	126.92	+9.34	
+54.3	134.08	2.49	131.59	124.83	+6.76	
9+00.7		8.13	125.95	117.48	+8.47	
+46.98	121.97	0.81	121.16	116.95	+4.21	
17+97.3 = Bk 1-52.7		7.03	114.74	107.34	+7.40	
10+48.9 = Bk 1-40	111.23	5.33	105.90	101.50	+4.40	
+79.6 = MH #95				100.00		

H.I. from Page 22 = 230.52

$\frac{13.10}{217.42} = T.P.$
 $\frac{0.86}{217.48} = X$
 $\frac{12.57}{204.91} = T.P.$
 $\frac{0.69}{205.60} = X$
 $\frac{12.86}{192.74} = T.P.$
 $\frac{0.26}{193.00} = X$
 $\frac{12.60}{180.40} = T.P.$
 $\frac{0.28}{180.68} = X$
 $\frac{12.36}{168.32} = T.P.$
 $\frac{0.74}{169.06} = X$
 $\frac{12.43}{156.63} = T.P.$
 $\frac{0.47}{157.10} = X$
 $\frac{12.68}{144.22} = T.P.$
 $\frac{1.82}{146.24} = X$
 $\frac{12.54}{133.70} = T.P.$
 $\frac{0.78}{134.08} = X$
 $\frac{12.27}{121.61} = T.P.$
 $\frac{0.36}{121.97} = X$
 $\frac{12.83}{109.14} = T.P.$
 $\frac{2.09}{111.23} = X$
 $\frac{4.90}{106.93} = \text{Stub}$
 $\frac{0.12}{100.00} = \text{Error}$

chk on cut stub MH 95 - Book 132-21

Walker
Profile
Sheet 2528

HOFFMAN ST.
Bet. Mass. & Rhode Island
Profile 22 - Plan 2

MH#143						
= 0+00	316.48	12.14	304.34	300.00	+4.34	
+10 = PVC	324.14	11.83	312.31	303.33	+8.98	
+30 = GPK		6.39	317.75	308.50	+9.25	
+50 = EVC		5.68	318.46	310.67	+7.79	
(3-43.23)						
0+93.73		4.21	319.93	312.11	+7.82	
1+36.46		3.19	320.95	313.55	+7.40	
1+79.7 = MH#133		1.88	322.26	315.00	+7.26	
1-50						
2+29.7 = D.E.		+0.12	324.26	316.00	+8.26	

- Miller on North

Miller Bet. Mass. & Rhode Island
Bet. Hoffman St & Madison Profile 23 - Plan 2

Above MH#133						
= 0+00	324.14	1.88	322.26	315.00	+7.26	
+47	334.47	9.62	324.85	318.03	+6.82	
+94		6.90	327.57	320.60	+6.80	
+141		2.92	331.55	323.40	+8.04	
+188	341.21	6.15	335.06	326.20	+8.81	
+235 = D.E. 40' S.S. Madison		4.48	336.73	329.00	+7.73	

Hoffman Page 22

→ 316.48
354-
312.94 = TP
11.20-
324.14 = T
1.88-
322.26 = TP
12.21 +
314.07 = T
0.68-
333.79 = TP
7.42 +
341.21 = T
8.14
333.07
323.03 = BM
0.04 = Error

chk. on BM Madison + Mass

Alley. South of Madison And. East of
Rhode Island And East Rhode Island

Profile 22 - Plan 2

MH# 129 = 0+00 = Rhode Island (4-44.92) 0+44.92	330.92	4.84	326.08	320.00	+6.08
+89.84		3.32	327.60	321.25	+6.35
+34.76		1.76	329.16	322.50	+6.66
+79.7 = MH# 128 = 0+00 (6-44.96) 0+44.96	342.64	12.02	330.62	323.75	+6.87
+89.9		12.24	330.40	325.00	+5.40
+34.9		9.49	333.15	326.83	+6.32
+79.8		6.22	336.42	328.66	+7.76
2+24.8		4.26	338.38	330.50	+7.88
+69.8 = D.F. 40 S.S. to Madison		2.90	339.74	332.33	+7.41
		2.76	339.88	334.17	+5.71
		1.86	340.78	336.00	+4.78

26

Elev. cut, stub MH# 133 Page 25 = 322.26
 8.66+
 330.92 -
 0.72 -
 330.20 = TD
 12.44 +
 342.64 =
 3.53 -
 339.11 = T.
 6.91 +
 346.02 =
 5.47 -
 340.55
 340.51 = BM.
 0.04 = Error

chk. on S.S. to Madison - New York

Walt
K. P. ...
Shaw
7-25-78

Rhode Island St. Sewer
Bet. Madison and Mass.

Profile 22 - Plan 2

MH#129					
= 0+00 (6-45.85)					
10+45.85					
+91.7					
-1+37.55					
+83.4					
2+29.25					
+75.10 = Δ 18°21' RT (8-48.55) MH#130					
3+23.65					
+72.2					
4+20.75					
+69.3					
5+17.85					
+66.4					
6+14.95					
+63.5 = Δ 60°53' RT (2-28.5) MH#131					
6+92					
7+20.5 = Bk (2-30')					
7+50.5					
+80.5 = Bk (2-30')					
8+10.5					
+40.5 = Bk (1-40')					
8+80.5 = PVC					
9+00.5 = Bk					
+20.5 = MH#132 = Canyon Line Page 24					
	327.35	127	326.08	320.00	+6.08
		4.74	326.61	317.00	+5.61
		7.24	320.11	314.00	+6.11
		10.40	316.95	311.00	+5.95
	314.83	2.29	312.54	308.00	+4.54
		4.53	310.30	305.00	+5.30
		6.85	307.98	302.00	+5.98
		9.54	305.29	300.37	+4.92
		11.98	302.85	298.75	+4.10
	303.78	3.03	300.75	297.12	+3.63
		4.29	299.49	295.50	+3.99
		4.42	299.36	293.87	+5.49
		5.09	298.69	292.25	+6.44
		6.89	296.89	290.62	+6.27
		9.50	294.28	289.00	+5.28
	279.69	3.82	275.87	269.50	+6.37
	267.44	10.40	257.04	250.00	+7.04
	243.80	6.71	237.09	231.00	+6.09
	231.66	12.78	218.88	212.00	+6.88
	207.64	5.16	202.48	197.00	+5.48
	196.25	10.20	186.05	182.00	+4.05
	173.00	2.91	170.10	164.00	+6.10
		10.86	162.15	157.00	+5.15
				154.00	

Elev. cut, slab MH#129 Page 26 = 326.08

on Rock 10' NE Sta 6+92

on Rock on Ridge 25' NW Sta 7+20.5

on Rock

chk. on MH slab Page 24

327.35	127	326.08	320.00	+6.08
327.35 - X				
13.66 -				
314.69 - TP				
0.14 +				
314.83 - X				
11.98 -				
302.85 = TP				
0.73 +				
303.78 - X				
12.69 -				
291.09 = TP				
0.26 +				
291.35 = X				
12.50 -				
278.85 = X				
0.84 +				
279.69 - X				
12.93 -				
266.76 = TP				
0.68 +				
267.44 = X				
13.66 -				
254.78 = TP				
6.82				
253.60 = X				
12.85 -				
242.75 = TP				
1.05 +				
243.80 = X				
13.01 -				
230.79 = TP				
0.87 +				
231.66 = X				
12.51 -				
219.15 = TP				
0.78 +				
219.93 = X				
12.74 -				
207.19 = TP				
0.45 +				
207.64 = X				
0.26 -				
207.19				
0.27 +				
207.46 = X				
12.21 -				
195.25 = TP				
1.04				
176.25 = X				
196.25				
12.24 -				
184.01 = TP				
0.09 +				
184.90 = X				
12.44 -				
171.66 = TP				
1.35 +				
173.01 = X				
10.85				
162.16				
162.17 = Elev. slab				
0.01 = Error				

3/10 Key
 Rip 11/19/28
 Shaw 8/10/28

Alley Bet. NEW YORK and DELEWARE
 Bet Canyon Line South of A. K. 10774 &
 And Madison Ave.

Profile 21 - Plan 2

U.S. 40' S.S. to Madison.					
= 07.00	344.77	2.84	341.93	336.00	+5.93
(3-42.66)					
0+42.66		3.36	341.41	335.13	+6.28
+85.34		3.77	341.00	334.27	+6.73
1+28 = P.V.C.		5.61	337.16	333.40	+5.75
+48 = B.K.		9.11	335.66	331.02	+4.64
+68 = E.V.C.	335.97	4.10	331.87	324.70	+7.17
1-45					
2+13 = M.H. #382	323.96	12.16	311.80	306.00	+5.80
(1-40')					
2+53 = P.V.C.	311.37	1.54	309.83	300.00	+9.83
(2-30')					
2+73 = B.K.		5.26	306.11	295.33	+10.78
+93 = E.V.C.	300.35	2.03	298.32	287.33	+10.99
(1-40')					
3+33 = B.K.	288.16	12.95	275.21	268.00	+7.21
(2-30')					
3+63	264.41	6.02	258.39	254.00	+4.39
+93 = M.H. #121 = Canyon Line = 15+19" Page 33				240.00	

S.W. B.P. Madison - New York =	340.51
	547
	345.98 = X
	372 =
	347.26 = T.P.
	251 +
	344.77 = X
	901 =
on Pk. in chicken Pen	335.76 = T.P.
	021 +
	335.97 = X
	12.30 =
	323.67 = T.P.
	029 +
	323.96 = X
	13.07 =
	310.89 = T.P.
	048 +
	311.37 = X
	12.68 +
	298.69 = T.P.
	12.66 =
	300.35 = X
	13.10 =
	287.25 = T.P.
	091 +
	288.16 = X
	12.95 =
	275.21 = T.P.
	062 +
	275.83 = X
	12.02 =
	263.81 = T.P.
	0.60 +
	264.41 = X
	12.61 =
	257.80 = T.P.
	2.97 +
	254.77 = X
	6.45 =
	248.32
	248.33 = ship
	0.11 = diff.

off set
 S.W. on
 Peppertree
 2.300.
 10' E
 10' E
 10' E
 10' E

chk. on cut stub M.H. #121 Page 33

Water
Pipes
S. 26-28

Alley Bet. DELEWARE and MARYLAND
Bet. Madison Ave + Monroe Ave.

Profile 21 - Plan 2

Exist. Sewer at S. Madison					
= 0700 (5-41.8')	350.67	5.16	345.51	338.67	+6.84
0741.8		1.92	345.75	338.33	+7.42
+83.6		5.38	345.29	338.00	+7.29
1+25.4		5.72	344.95	337.67	+7.28
+67.2		6.76	343.91	337.33	+6.58
2+09 = MH #118 (2-27.5')		7.85	342.82	337.00	+5.82
2+32.5	344.49	3.42	341.07	335.16	+5.91
2+64 = P.V.C (2-20')		5.85	338.64	333.33	+5.31
2+84 = BK		8.48	336.01	327.20	+8.81
3+04 = F.V.C (2-37.5')	332.49	4.19	328.30	321.47	+6.83
3+41.5	320.30	10.47	309.83	301.23	+8.60
+79 = MH #119 = Canyon Line 1-50	295.94	7.02	288.92	281.00	+7.92
4+29 = DE.	307.47	2.79	304.68	297.00	+7.68

S.W. B.P. Madison + Delaware =

343.44	
723 +	
350.67 - T	
808 -	
347.59 = TP	
120 +	
344.9 = T	
1271 -	
331.78 = TP	
671 +	
332.49 = T	
1252 -	
319.97 = TP	
0.33 +	
324.30 = T	
1304 -	
307.26 = TP	
6.21 +	
307.47 = T	
1244	
2950.3 = TP	
0.91 +	
295.94 = T	
702 -	
T. P. on cut stub MH #119 = 288.92 = TP	

Mike
Ruplinger
Sheet 8-228

MADISON Ave. Sewers
Bet. Golden Gate Dr. & NEW HAMPSHIRE

Profile 23 - Plan 2

MH # 145					
= 0+00 (6-50.03')	324.51	11.95	317.56	308.00	+1.56 ✓
0+50.03		10.03	314.48	307.75	+6.73
1+00.06		8.53	315.98	307.50	+8.48
150.1		7.00	317.51	307.25	+10.26
2+00.13		5.69	318.82	307.00	+11.82
150.16		4.38	320.13	306.75	+13.38
3+00.2 = MH # 146		2.58	321.93	306.50	+15.43

HT. from Page 31 = 324.51
 11.95
 313.46 - TP
 0.63 -
 314.09 -
 12.83 -
 301.26 - TP
 3.88 -
 305.14
 6.76 -
 298.18 - TP
 0.92
 299.10 -
 this HT. used on P-31

Nails = TP on Elec Pole End New Hampshire St
 on West side

NEW HAMPSHIRE ST. Sewer

Bet. Madison & Canyon Line

Above MH # 146					
= 0+00 (5-48.06')	324.51	2.58	321.93	306.50	+15.43
0+48.06		4.59	319.92	306.00	+13.92
+96.12		6.79	317.72	305.50	+12.22
1+44.18		8.88	315.63	305.00	+10.63
+92.24		11.05	313.46	304.50	+8.96
2+40.3 = MH # 147 (3-48.8')	314.09	3.27	310.82	304.00	+6.82
2+89.1		6.83	307.26	301.66	+5.60
3+37.9		10.25	303.84	299.33	+4.51
+86.7 = MH # 148 (5-15.54')		10.86	303.23	297.00	+6.23
4+32.24		11.33	302.76	296.40	+6.36
+77.78		10.53	303.56	295.80	+7.76
5+23.32		11.01	303.08	295.20	+7.88
+68.86	305.14	3.87	301.27	294.60	+6.67
6+14.4 = MH # 149 (3-39.67')		5.26	297.88	294.00	+5.88
6+54.07		6.97	298.17	291.34	+6.83

Cont. on Page 31.

NEW HAMPSHIRE St. Sewer
Cont. from Page 30

6+93.74	299.10	4.26	294.84	288.67	+6.17
^{24°20'44"} 7+33.4 = DMH #150		10.58	288.52	286.00	+2.52
(3-47.63)			282.00		+6.52
7+81.04	294.67	7.43	287.24	281.50	+5.74
8+28.67		9.73	284.94	281.00	+3.94
^{27°01'14"} +76.3 = MH #151		9.73	284.94	280.50	+4.44
(2-31.95)					
9+08.25		4.18	290.49	280.12	+10.37
+10.2 = PVC		4.71	289.96	279.74	+10.22
^{2-20"}					
9+60.2 = Brk		9.51	285.16	275.98	+9.18
+80.2 = E.V.C.	283.84	10.54	273.30	265.20	+8.10
(1-45')					
9+85.2 = Brk	246.49	8.42	238.07	233.00	+5.07
(2-27.6)					
10+12.7	233.83	11.42	222.41	216.00	+6.41
+16.2 = Brk	211.81	7.36	204.45	199.00	+5.45
(2-45')					
10+85.2	199.89	12.03	187.86	180.00	+7.86
11+30.2 = Brk	174.90	7.85	167.05	161.00	+6.05
(2-40')					
11+70.2	162.93	9.94	152.99	146.50	+6.49
12+10.2 = MH #157 - Cont. from line Page 24			152.00		

this bunch levels should of been on Page 30
N.E. BR. Madison + MASS. ←

This H.I. used on Page 30

H.I. from P-30

161.94 = TP

0.99 +

162.93

0.68

152.25 = Elev. stub

0.05 = Error

chk on cut stub 6+80 Page 24

31
333.03
0.73
333.76
12.31 -
321.45 = TP
3.06 +
324.51 = T
299.10
13.08 -
286.02 = TP
8.65 +
294.67 = T
12.85 -
281.82 = TP
2.02 +
283.84 = T
13.08 -
270.76 = TP
0.62 +
271.38 = T
12.45 -
258.93 = TP
0.35 -
267.28 = T
12.94 -
246.34 = TP
0.15 +
246.49 = T
12.66 -
233.83 = TP
0.00 +
233.83 = T
12.10 -
221.63 = TP
1.26 +
222.97 = T
11.40 -
211.09 = TP
0.72 +
211.81 = T
12.81 -
199.00 = TP
0.89 +
199.89 = T
12.85 -
187.04 = TP
0.25 +
187.29 = T
13.03 -
174.26 = TP
0.64 +
174.90 = T
12.96 -
161.94 = TP

OKLAHOMA ST. CANYON LINE

Bet. Buchanan & Maryland Sts.

Profile 21-Plan 2

offsets Elev. Cut. Stub 2496.90 Page 21 Book 132 =

32

Station	Profile	Plan	Elev.	Stub	Offset	Notes
MH#96 in Buchanan & Okla						
=0+00	127.61	10.33	117.28	111.00	+6.28	Reset 5' South. Grade only
+50 = BA (3-36.67)		10.33	117.28	112.00	+5.28	10' N
0+86.87		7.48	120.13	114.67	+5.46	16' E
1+23.34		3.71	123.90	117.34	+6.56	10' E
+60 = MH#127 (6-50')	137.80	10.76	127.04	120.00	+7.04	10' E
2+10		5.26	132.54	124.50	+8.04	10' N
+60		2.07	135.73	129.00	+6.73	10' N
3+10	149.16	7.42	139.74	133.50	+6.24	10' N
+60		6.04	143.12	138.00	+5.12	10' N
4+10	162.08	13.29	148.79	142.50	+6.29	10' E
+60 = MH#126 (5-47.4')		9.10	152.98	147.00	+5.98	
5+07.4		4.72	157.36	151.00	+6.36	
+54.8	172.34	10.79	161.55	155.00	+6.55	10' E
6+02.2		6.73	165.61	159.00	+6.61	10' E
+49.6		1.08	171.26	163.00	+8.26	10' N
+97 = MH#125 (3-48.67')	184.49	8.70	175.79	167.00	+8.79	10' E
7+45.57		8.03	176.46	171.00	+5.46	10' N
+94.14		0.59	183.90	175.00	+8.90	10' E
8+42.7	176.85	5.92	190.93	181.00	+9.93	10' N
6-48.25				179.00		
8+90.15		3.79	193.06	184.50	+8.56	10' E
9+39.2	208.46	7.18	201.28	190.00	+11.28	10' E
+87.45		3.35	205.11	194.50	+10.61	10' E
10+35.7		0.87	207.59	200.00	+7.59	10' E
10+83.9	221.31	12.20	209.11	204.50	+4.61	10' E
+117.32 = MH#123 (5-46.58')		5.26	216.05	209.00	+7.05	10' N

Cont. on Page 33

This H.I. used on Page 33

126.89
 8.72+
 127.61-X
 1.23-
 126.38=TP
 114.2+
 137.80-X
 8.50-
 137.30=TP
 11.86+
 49.16-X
 8.12-
 137.04=TP
 13.04+
 162.08-X
 8.27-
 161.81=TP
 10.53+
 172.34-X
 8.51-
 171.83=TP
 12.66+
 184.49-X
 8.03-
 184.46=TP
 12.39+
 176.85-X
 8.25-
 176.60=TP
 11.86+
 208.46-X
 8.20-
 208.26=TP
 13.05+
 221.31-X

Oklahoma st Canyon Line
Cont. from Page 32

11+78.8	230.62	9.82	220.80	212.80	+ 800	10'W
12+25.4		5.10	225.52	216.60	+ 892	10'E
+71.9		1.50	229.12	220.40	+ 872	10'E
13+18.5	242.21	8.45	233.76	224.20	+ 956	10'W
+65.1 ⁰ = $\Delta 26^{\circ}53'$ RT		1.52	240.69	228.00	+ 1269	
(3-51.37)			229.50	229.50	+ 1119	10'W
14+16.5		0.38	241.83	233.00	+ 883	
+67.8	251.31	6.36	244.95	236.50	+ 845	
15+19.2	254.88	6.45	248.43	240.00	+ 843	
(6-47.73)		9.29	256.51	245.25	+ 1126	
15+66.9	265.80	2.48	263.32	250.50	+ 1282	
16+14.7		14.25	263.63	255.75	+ 7.88	
+62.4	277.88	8.35	269.53	261.00	+ 853	
17+10.1		9.62	279.94	266.25	+ 1369	
+59.8	289.56	13.37	276.19	271.50	+ 4.69	
18+05.6		4.88	284.68	276.75	+ 793	
(2-46.05)				281.00		
18+51.6						
+97.7 = MH#119 - MH#119 Page 29						

chk. on cut stub MH#119 Page 29

33

HT. from Page 32	= 221.81
	076-
	220.55 = TP
	18.07 +
	230.62 = X
	118-
	229.48 = P.
	12.73 +
	242.21 = X
	088-
	241.33 = TP
	9.98 +
	251.31 = X
	1.74 -
Nail in EUC tree N of sta 14+70	249.57 = TP
	5.31 +
	254.88 = X
	1.99 -
	257.89 = TP
	12.91 +
	265.80 = X
	013-
	265.67 = TP
	12.21 +
	277.88 = X
	073-
	276.95 = TP
	12.61 +
	289.56 = X
	064-
	288.92 = TP
	6.63 +
	295.55 = X
	6.56 -
	288.99 = cut.
	288.92 = stub
	0.07 = Error

Moore
Walkey
Rippling
Brook
5-128

SEWER IN PUBLIC Rd. of Way
Bet. CANYON LINE in Missouri Valley
and Arcadia Drive

Profile 17 - PWD 3

Flow Line
Grades

MH# 61 in Book 132-14	64.85	6.70	57.15	50.48	+ 7.39
-0100 (2-47.37)					
0+47.37		6.98	57.87	53.57	+ 4.30
+94.75 = MH#387 (3-40')	74.27	0.45	64.40	56.67	+ 7.73
1+34.75		10.88	63.69	59.78	+ 4.41
+74.75		4.64	69.63	61.89	+ 7.74
-Δ 21°41' Lt.				64.50	+ 10.35
2+10.75 = MH#183 (5-44.88)	87.15	12.30	74.85	66.00	+ 8.85
2+59.63		13.08	74.07	69.40	+ 4.67
3+04.51		5.69	81.46	72.80	+ 8.66
+49.4		3.64	83.51	76.20	+ 7.31
+94.3		1.86	85.29	79.60	+ 5.69
-Δ 38°08' Lt.					
4+39.15 = MH#190 (6-40')	98.12	7.06	91.06	83.00	+ 8.06
4+79.15		0.27	97.85	87.00	+ 10.85
5+19.15 = Btk. 2-44.15	110.46	10.78	99.68	91.00	+ 8.68
5+63.3		0.69	109.77	98.50	+ 11.27
-Δ 20°28' Lt.					
6+07.45 = MH#189 (3-40')	122.68	7.30	115.38	106.00	+ 9.38
6+47.45	134.94	8.86	126.08	116.50	+ 9.58
+87.45 = Btk. (3-45.33)	147.46	9.43	138.03	127.00	+ 11.08
7+32.78		5.02	142.44	136.50	+ 6.11
+78.1	158.94	4.63	154.31	145.66	+ 8.65
-Δ 15°32' Lt.					
8+23.45 = MH#187 2-40	171.89	11.07	160.82	155.00	+ 5.82
8+63.45		1.23	170.66	162.50	+ 8.16
9+03.45 = Btk. 2-42	184.27	2.50	181.77	170.00	+ 11.77
9+45.45	196.44	9.37	187.07	176.00	+ 11.07
-Δ 34°55' Lt.					
+87.45 = MH#186 (3-42)		7.90	188.54	182.00	+ 6.54
10+29.45	208.75	11.10	197.65	190.00	+ 7.65

Cont. on Page 35

Ele. cut. Stud Sta 70+66.6 Book 132-14 = 5448

	10.37+
	64.85 = π
	0.45 -
	64.40 = TP
	9.87+
	71.27 = π
	0.08
on both	74.19 = TP
	12.76+
	57.15 = π
	1.86 -
	85.29 = TP
	12.83+
	78.12 = π
	0.27 -
	77.85 = TP
	12.61+
	110.46 = π
cut on stub 5+63.3	0.69 -
	109.77 = TP
	12.91+
	12.68 = π
	0.09 -
on both	122.67 = TP
	12.27+
	134.94 = π
	0.19 -
	134.75 = TP
	12.71+
	147.46 = π
	1.37 -
	146.09 = TP
	12.85+
196.38 = TP	12.37+
	208.75 = π
	158.94 = π
	0.06 -
	158.88 = TP
	130.1+
	171.89 = π
	0.00 -
	171.89 = TP
	12.38+
	184.27 = π
	0.00 -
	184.27 = TP
	12.77+
	196.44 = π
	0.06 -
	196.38 = TP

10+71.45	208.75	2.98	205.77	198.00	+7.77
11+13.45 = MH#185 1-35	221.13	7.97	213.16	206.00	+7.16
11+48.45 = MH#184 1-35		2.31	218.82	215.00	+3.82
11+83.45 = PVC (3-15')	232.05	2.16	229.89	222.00	+7.89
11+98.45 = Bk	244.06	9.00	235.06	226.32	+8.74
12+13.45 Bk		1.75	242.31	233.31	+9.00
+28.45 = PVC 2-27.45	248.70	4.56	244.14	236.77	+7.37
12+45.90		3.79	244.91	238.68	+6.23
12+83.35 = Δ 99'45" Ht. 2-31.33	252.05	3.08	248.97	240.60	+8.37
13+14.68		0.54	251.51	242.75	+8.76
13+46.00 = Plug End.		3.00	249.05	244.90	+4.15

Exist. Sewer 24.8' South MH#185

on 3 Nails 4' E

Dopans
chk. on 6' curb 1+70.9 Book 1115-37

JACK DAW ST. Bet. Hunter + Canyon Side

on North Profile 17 - Plan 3

MH#187 = 0+00	173.92	13.10	160.82	155.00	+5.82
0+51.5 = Δ 12'51" Ht.	186.34	2.21	184.13	177.00	+7.13
1+03 = MH#191 2-37.5	210.50	4.22	206.28	199.00	+7.28
1+40.5	223.01	5.36	217.65	210.50	+7.15
1+78 = Bk 1-25	235.01	6.69	228.32	222.00	+6.32
2+03 = PVC	258.02	11.71	246.31	233.40	+12.91
+23 = Bk		7.50	248.52	240.60	+7.92
+43 = PVC 5-46.67		7.95	250.7	244.38	+6.32
2+89.67		3.25	254.77	248.75	+6.02
3+36.34	269.48	10.12	259.36	253.12	+6.24
3+83 = Dead End		6.15	263.03	257.50	+5.53

Elev. Cut Stub MH#187 - Page 34 = 160.82

235.01 -
0.81 -
234.20 = T.P.
12.84 +
247.04 = π
0.29 -
246.55 = T.P.
11.97 +
258.02 = π
0.60 -
257.42 = T.P.
12.06 +
269.48 = π
0.43 -
269.05
269.02 = B.M.
0.03 = Error.

chk. on SW of Hunter + Jackson

H.F. from Page 34 = 208.75 = π
0.00 -
208.75 = T.P.
12.38 +
221.13 = π
0.00 -
221.13 = T.P.
10.92 +
232.05 = π
0.15 -
231.90 = T.P.
12.16 +
244.06 = π
1.75 -
242.31 = T.P.
6.39 +
248.70 = π
0.13 -
248.57 = T.P.
3.48 +
252.05 = π
3.36 -
248.67
248.66 = Aub
0.03 = diff.
Elev. Cut Stub MH#187 - Page 34 = 160.82
13.10 = +
173.92 = π
0.10 -
173.82 = T.P.
12.52 -
186.34 = π
0.63 -
185.71 = T.P.
12.59 +
198.30 = π
0.30 -
198.00 = T.P.
12.50 +
210.50 = π
0.56 -
209.94 = T.P.
13.07 +
223.01 = π
0.68 -
222.33 = T.P.
12.68 +
235.01 = π

Walker
Ruplingier
Shea 8-1-28

SEWER CONST. IN PUBLIC Pt. of WAY
AND IN Closed Portion Harbor Dr.
bet Ingham + Lark sts.

Profile 17 - Plan 3

MH# 190 Page 34 =						
= 0+00	102.88	11.82	91.06	83.00	+ 8.06	
5-42.74						
0+42.74		8.70	99.18	86.00	+ 8.18	
+ 85.49		3.12	77.76	89.00	+ 10.76	
1+28.22	114.56	10.81	103.75	92.00	+ 11.75	
+ 70.98		10.30	104.26	95.00	+ 9.26	
2+13.7 = $\Delta 23^{\circ}28' R$				98.00	+ 15.58	
(3-37.66) = DMH# 166		0.98	113.58	106.00	+ 7.58	
2+51.36	127.17	10.40	114.77	107.00	+ 9.77	
+ 89.02		14.00	113.17	108.00	+ 5.17	
= $\Delta 28^{\circ}59' L$				112.00	+ 4.72 = Exist. Sewer	
3+26.7 = DMH# 167		10.45	114.72	109.00	+ 7.72	
2-50'						
3+76.7 201		4.65	122.52	113.50	+ 9.02	
4+26.7 = Bk.	139.35	12.78	126.57	118.00	+ 8.57	
1-46" = $\Delta 16^{\circ}15' L$						
4+72.7 = MH# 200		5.12	134.28	127.00	+ 7.28	
(3-43.23)						
5+13.93		0.27	139.08	129.33	+ 9.75	
+ 59.16	150.86	11.72	139.14	131.61	+ 7.53	
= $\Delta 12^{\circ}17' L$						
6+02.4 = MH# 199		7.85	143.01	134.00	+ 9.01	
(2-40')						
6+42.4		4.04	146.82	137.00	+ 9.82	
+ 82.4 = Bk.	163.87	11.85	152.02	140.00	+ 12.02	
2-32 13						
7+14.55		5.35	158.52	145.00	+ 13.52	
7+46.7 = MH# 198		0.17	163.70	150.00	+ 13.70	
(4-40')						
7+86.7		0.51	163.36	154.75	+ 8.61	
8+26.7	176.14	1.62	174.52	159.50	+ 15.02	
+ 66.7	188.70	11.48	177.02	164.25	+ 12.77	
= $\Delta 10^{\circ}55' R$				169.00	+ 12.55	
9+06.7 = MH# 197		7.15	181.55	173.00	+ 8.55	
(3-50')						
9+56.7		1.44	187.26	174.33	+ 12.93	
10+06.7	199.50	11.15	188.35	175.66	+ 12.69	

Cont. on Page 37

Elev. Cut Stub MH# 190 Page 34 =

91.06
11.82 +
102.88 - T
0.32 -
102.56 = TP
12.00 +
114.56 - T
0.19 -
114.37 = TP
12.80 +
127.17 - T
0.51 -
126.86 = TP
12.49 +
139.35 = T
0.27 -
139.08 = TP
11.78 +
150.86 = T
0.13 -
150.73 = TP
13.14 +
163.87 = T
0.04 -
163.83 = TP
12.31 +
176.14 = T
0.25 -
175.89
12.81 +
188.70 = T
1.44 -
187.26 = TP
12.24 +
199.50 = T

This 42, used on Page 37

= Change in Alignment + Grades bet. MH 197 + Exist. Sewer
See Page 40

Cont. from Page 36

10+56.7 = MH#196	199.50	12.52	186.98	177.00	+9.98	
2-39.62						
10+96.32		9.45	190.05	182.00	+8.05	
11+35.91 = MH#195	209.20	13.67	195.58	187.00	+8.58	
(2-40.82)						
11+76.76		7.98	201.22	190.50	+10.72	
12+17.6 = MH#194		9.02	200.18	194.00	+6.18	6.169
1-10'						
12+27.6 = P.V.C.		7.67	201.53	194.33	+7.20	
2-70'						
12+47.6 = Brk.		5.60	203.60	195.96	+7.64	8.1966
+67.6 = E.V.C.		2.01	207.19	199.54	+7.65	8.206
12+91.7 = MH#193	221.79	12.35	209.44	205.00	+4.44	8.2085
2-45'						
13+36.7		4.85	216.94	210.14	+6.80	8.2110
13+81.7 = P.V.C.	234.37	11.22	223.15	215.28	+7.87	8.2140
(4-15')						
13+96.7 = Brk.		9.29	225.08	218.07	+7.01	8.2190
14+11.7 = P.V.C.		5.50	228.87	223.00	+5.87	
+26.7 = Brk.	246.87	10.17	236.70	230.14	+6.56	
14+41.7 = E.V.C.		1.47	245.40	239.57	+5.83	
14+73.7 = Exist. Sewer	268.43	16.1	266.82	259.00	+7.82	

H.I. from Page 36

357

199.50
-0.88
198.62 = TP
10.58 +
209.20 = T
0.45 -
208.75 = TP
13.04 +
221.79 = T
0.32 -
221.47 = TP
12.90 +
234.37 = T
0.50 -
233.87 = TP
13.00 +
246.87 = T
1.47 -
245.40 = TP
12.01 +
257.41 = T
0.90 -
256.51 = TP
11.92 +
268.43 = T
1.61 -
266.82 = TP

-change in Alignment
 And Grades Ref. MH 197
 " Exist. Sewer At Montecito
 See Page 40 for Cuts
 " Levels " 33 " Preliminary

SEWER IN CLOSED PORTION

85-00

MH#195 = 11+35.95 Above	209.20	13.67	195.58	186.00	+9.58
= 0+00					
+25 = P.V.C.	220.06	11.89	208.17	200.82	+7.35
+45 = Brk.		2.21	217.85	212.44	+5.41
+65 = E.V.C.	232.69	6.90	225.79	221.18	+4.61
+118.1 = DE	257.19	9.02	248.17	240.00	+8.17

H.I. from Above = 209.20

on left	1.28 -
	207.92 = TP
	12.14 +
	220.06 = T
	0.21 -
	219.85 = TP
	12.84 +
	232.69 = T
	0.31 -
	232.38 = TP
	11.94 +
	244.32 = T
	0.20 -
	244.32 = TP

Page 40
 Ck. on T.P. on W.C. Impalls

244.32 = TP
 0.02 = Error

26/10/88
Ruff
8/10/88
Boyle

SEYER IN PUBLIC R. of. WAY
AVARON HHS.
Bet. Arcadio Dr. + CANYON LIXE

PROFILE 18 - Plan 3

MH#183 - Page 34 =0+00	82.36		66.00	for this cut see Page 34
+20 = PVC		1302	69.34	+ 1.74
+25 = Bk.		11.15	71.21	+ 2.76
+30 = PCVC (2-20)		8.50	73.86	+ 3.66
0+50 = Bk.	94.76	7.45	87.31	+ 6.33
+70 = EXC (1-15')	107.16	4.66	102.50	+ 6.78
0+85 = PVC (2-20)	119.46	5.30	114.16	+ 5.90
1+05 = Bk.	131.34	1.14	130.20	+ 7.28
+25 = EXC (35.2'-2)	142.59	3.23	139.36	+ 5.95
1+60 = 268°30' Pt.	167.31	12.10	155.21	+ 7.01
+95.4 = MH#182 (3-45.82')	180.47	7.06	173.41	+ 10.41
2+41.22		7.14	173.33	+ 6.16
+87.04 = 344°6' Lt.		2.24	178.23	+ 6.89
3+32.85 = MH#181 (2-45')	193.55	8.85	184.70	+ 9.20
3+77.85		3.09	190.46	+ 7.71
4+22.85 = Bk. (3-37.67')	205.68	9.38	196.30	+ 6.30
4+60.5		7.24	198.44	+ 5.11
+98.2		5.00	200.68	+ 4.02
5-135.87 = 433°53' Lt. (1-7.5') = MH#180		0.57	205.11	+ 5.11
5+43.97 = PVC (4-12.5')	218.10	11.86	206.24	+ 4.36
5+55.87 = Bk.		6.77	211.33	+ 5.24
+68.37 P.P.V.C.		0.88	217.22	+ 4.72
+80.87 = Bk.	229.45	3.97	225.48	+ 7.31
+93.37 = EXC (1-21.9')		4.40	225.05	+ 4.87
6+15.27 = Y Branch See Page 39	0.87	228.58	220.50	+ 8.08

T.P. on Lath Page 34

74.19 = TP
8.17 +
82.36 = π
0.48 -
81.88 = TP
12.88 +
94.76 = π
0.52 -
94.24 = TP
12.92 +
107.16 = π
0.11 -
107.05 = TP
12.41 +
119.46 = π
0.90 -
118.56 = TP
12.78 +
131.34 = π
1.14 -
130.20 = TP
12.39 +
142.59
0.66 -
141.93 = TP
12.68 +
154.61 = π
0.00 -
154.61 = TP
12.70 +
167.31 = π
0.03 -
167.28 = TP
13.19 +
180.47 = π
0.06 -
180.41 = TP
13.14 +
193.55 = π
0.60 -
192.95 = TP
12.73 +
205.68 = π
0.57 -
205.11 = TP
12.89 +
218.10 = π
0.88 -
217.22 = TP
12.23 +
229.45 = π
0.54 -
228.91 = TP
6.01 +
234.92 = π
9.26 -
225.66
225.51 = Cb
0.10 = π

chk. on Cb 0+48.7 Book 1115-35

AVABON ^{And} ARCADIA DR.
SEWER CONST.

T
201.16

"Y" Branch Page 38
= 0+00

Profile 17 - Plan 3

229.45 = T from P-38	220.50
+50	226.86
TR 6.01	228.91
1+00 = DE	229.68
	226.00 + 3.68

2+09	11.6	189.6
+29 = MH #195 = Δ 1°55'14"	8.5	192.7
+68	3.0	198.2
TR	12.01	210.62
	2.55	198.61

39
6.5'W = 187.2
7.5'W = 178.7
4'W = 170.8
10'W = 186.8
12'W = 180.8

"Y" Branch Above =
0+00

North Branch

234.92	220.50
+45	229.05
+90	232.52
	224.00 + 8.52

+83	11.4	199.2
3+07 = MH #194 = Δ 39°29'24"	13.7	196.9
+28	10.3	200.3
+31	18.3	192.3
+32	15.3	195.3

5'W = 195.1
7'W = 192.6

For ch. out see lower page 38.

Water
Rpt. Inv.
Sheet 17, 20
86

2 Levels for Change in Alignment Bet.

MH 197
= 0+00

MH #197 and Exist. Sewer 5' South N.W. Manhole
Elev. cut slab
MH 197
page 36

11.21	192.76	181.55
+12	12.7	180.1
+25	11.2	181.6
+50	11.2	181.6
+75	12.4	180.4
TR	12.55	195.45
	9.86	182.90
+100	11.3	184.2
+20	10.3	185.2
+50 = MH #196 = Δ 20°03'14"	12.0	183.5
+61	13.6	181.9
+62	20.1	175.4
+65	13.3	182.2
+70	12.8	182.7
+90	9.1	186.4
TR	9.76	201.16
	4.05	191.40

3+44	14.2	196.4
+47	7.7	202.9
+57	5.7	204.9
+64	6.5	204.1
+70	3.5	207.1
TR	12.97	218.49
	5.10	205.52
3+81 = MH #193 = Δ 18°17'14"	8.2	210.3
+98	8.4	210.1
+95	9.6	208.9
+44	8.8	209.7
+26	6.6	211.9
+30	6.6	211.9
+22	1.2	217.3
TR	13.01	230.75
	0.75	217.74
+71 = PVC	11.2	219.6
+86 = BVC	11.8	218.9
+90	9.7	221.0
+91	7.0	223.7
5+01 = PCVC	2.6	228.1

2'W = 195.0

5'W = 199.2

5'W = 206.3

3'W = 216.5

5'W = 212.5

3'W = 214.7

2'E = 223.0

2'W = 219.0

Cont. on opp. Page

2 Levels Same as old notes from here to Exist. Sewer

50' Water
 Right Hand
 Street
 86' 28"

Change in Alignment and Grades
 Bet MH 197 + Exist. Sewer S'S N.L.
 Montecito

	X	-	Elev. Subs	Flow Line Grades	
MH 197 = 50					
= 9+06.7	192.76	11.21	181.55	173.00	+ 8.55
+ 56.7		4.72	188.04	173.67	+ 14.37
10+06.7	195.95	5.61	189.84	174.34	+ 15.50
+ 56.7 = 20°03' R		6.23	189.02	175.00	+ 14.02
6-39.62 = MH 196		4.05	191.40	180.50	+ 10.90
10+96.3					
+ 105.5' R					
11+35.9 = MH 195	201.16	3.80	197.36	186.00	+ 11.36
2-38.90					
11+74.8	210.62	8.57	202.05	188.50	+ 13.55
+ 39°29' Lt					
12+18.7 = MH 194		9.96	200.66	191.00	+ 9.66
1-33					
12+46.7 = Bk		6.97	203.65	192.00	+ 11.65
1-45 = 18°17' R					
12+71.7 = MH 193	218.49	9.94	208.55	202.00	+ 6.55
2-25					
13+36.7		2.12	216.37	206.85	+ 9.52
+ 81.7 = PVC	230.75	6.92	223.83	211.71	12.12
4-15					
13+96.7 = Bk		5.32	225.43	215.30	+ 10.13
14+11.7 = PCVC		1.73	229.02	221.50	+ 7.52
+ 26.7 = Bk	241.23	4.56	236.67	229.50	+ 7.17
+ 41.7 = FCC	252.96	7.55	245.41	238.57	+ 6.84
1-32	276.72	9.96	266.76		
14+73.7 = Exist. Sewer S'S N.L. Montecito			259.00		+ 7.76

Elev. C.L. Stub MH # 197 Page 36

- 181.55
11.21 +
192.76 - X
98.6 -
182.90 - TP
12.55 +
195.45 - X
4.05 -
191.40 = TP
9.76 +
201.16 = X
2.55 -
198.61
12.61
210.62 = X
5.10 -
205.52 = TP
12.97 +
218.49 = X
0.75 -
217.74 = TP
13.01 +
230.75 = X
1.73 -
229.02 = TP
12.21 +
241.23 = X
6.04 -
241.19 = TP
11.77 +
252.96 = X
0.26 -
252.70 = TP
12.74 +
265.44 = X
1.24 -
264.70 = TP
12.52
276.72
1.22 -
275.50
275.50 = B.M.
0.00 = Error
Good Work
276.72 - X Above
9.51
267.21 = TP

chk. on B.M. S.W. Jackson & Montecito

This line of levels Run from old town bridge
 8" plunger = X
 8" level = Red
 8" level = Blue
 Good Work

Left TP on x'cb line Engalls St.

Walker
Rup. in
Shaw
Brooks
& B
8-15-28

SEWER Const.
CANYON LINE & Mission Valley Line
at Intersection IBIS + ARBOR Dr.
Cont. from Page 20
Profile 18 - Plan 3

MH#162 Page 20					
=0+00	184.27	12.39	172.58	164.78	
+44	184.97	12.39	172.58	165.07	+ 7.51
+88		4.05	180.92	165.36	+ 15.56
1+32		2.98	181.99	165.65	+ 16.34
+76 = MH#161 (3-37')		4.51	180.46	165.95	+ 14.51
2+13		4.94	180.03	166.19	+ 13.84
+50		5.60	179.37	166.43	+ 12.94
+87 = MH#386 2-28		4.90	180.07	166.68	+ 13.39
3+15	187.01	6.42	180.59	166.87	+ 13.72
+43 = MH#160		13.96	173.05	167.06	+ 5.99
2-30		11.86	175.15	167.26	+ 7.89
3+73		6.24	180.77	167.46	+ 13.31
+03 = MH#385 (3-37.67)		8.97	178.04	167.71	+ 10.33
4+40.67		11.89	175.12	167.96	+ 7.16
+78.34		5.24	181.77	168.21	+ 13.56
5+16 = MH#159 12-288		8.15	178.82	168.40	+ 10.42
5+44.8	186.97	13.48	173.49	168.60	+ 4.89
5+73.6 = MH#399 2-30.65		5.90	181.67	168.80	+ 12.27
6+64.25		8.56	178.41	169.00	+ 9.41
6+34.9 = MH#158		4.87	182.10	170.00	+ 12.10
3-46.7 6+81.6		7.14	179.83	171.00	+ 8.83
7+28.3		7.80	179.17	172.00	+ 7.17
+75 = MH#57 = Δ 19°26' Lt. (3-48.33)		2.85	187.91	177.33	+ 10.58
8+23.33	190.76	10.42	192.28	182.66	+ 9.62
+71.66	202.70	8.10	194.60	188.00	+ 6.60
9+20 = Bk					

Cont. on Page 42

H.I. from Page 20

41

190.32
116.0 -
178.72 = TP
6.25 +
184.97 = T
6.07 -
178.90 = TP
8.11 +
187.01 = T
5.24 -
181.77
5.20 +
186.97 = T
7.80 -
179.17 = TP
11.59 +
190.76 = T
6.99 -
187.77 = TP
17.93 +
202.70 = T

this H.I. used on Page 42 = 202.70 = T

CANYON Line
And Arbor Dr.
Cont from P-41

(3-40')						
9+60	214.98	12.17	202.25	195.33	+6.92	
10+00		4.68	209.74	202.66	+6.08	
+40 = MH#156	226.48	8.45	218.03	210.00	+8.03	

SEWER Const. IN

Notes MH #156	I B I S	St.				offsets
=0+00	226.48	8.45	218.03	210.00	+8.03	10' N
0+50 = PVC		8.44	218.04	213.22	+4.82	10' W
+70 = Bk.		6.35	220.13	216.00	+4.13	10' W
+90 = EXC		0.26	226.22	221.78	+4.44	10' E
1+40 = Bk.	262.30	11.37	250.93	240.00	+10.93	10' E
+70 = DE	272.29	8.25	264.04	256.00	+8.04	10' E

M.S. from Page 41 → 202.70

0.24 -
202.46 = T.P.
11.96 +
214.42 = T
0.68 -
213.74 = T.P.
12.74 +
226.48 = T

246.48
10.46
Walker = 216.02 - chk on Gregory's 26. Herb Arbor 1.581
215.90 = Book 1115 - 15
0.12 = difference

chk. on stn. 02 route to Jackdaw

226.48
0.26 -
226.22 = T.P.
12.67 +
238.89 = T
0.50 -
238.39 = T.P.
11.78 +
250.17 = T
0.21 -
249.96 = T.P.
12.34 +
262.30 = T.
1.83 -
260.47 = T.P.
11.82 +
272.29 = T
0.46 No Good.
271.83
272.29 = T.
1.42 -
270.87 = T.P.
8.81 +
279.68
3.91
275.77
275.50 = B.M.
0.27 = Error.

Walker
Rupl. 1907
Sheet
8-16-28

1/4 HWK St. Sewer Const.
Bet. Barr Ace & Harbor Dr.

Profile 18 - Plan 3

MH# 157 Page 41
= 0+00

+33-

+66 = Brk

1+06 = PVC

+26 = Brk

+46 = P.R.V.C

+66 = Brk

+86 = E.V.C

^{-10'}
1+96 = Brk

2+46 = Brk

-186

3+26 = Brk

-151 = MH# 153

^{-25'}
3+76 = \Rightarrow

^{-30'}
4+26.0 = DE

190.76 11.59 179.17 172.00

213.07 11.49 201.58 181.50

225.21 8.36 216.85 207.67

237.39 5.86 231.53 229.00

249.37 7.38 239.99 241.09

260.86 5.69 255.17 247.34

272.74 3.31 257.55 250.00

284.61 0.07 260.79 256.00

296.48 8.87 263.87 259.50

308.35 4.05 268.69 263.00

320.22 4.24 268.50 263.25

332.09 4.02 268.72 263.62

343.96 5.93 266.81 264.00

+7.17 10' NW

+7.26 10' W

+10.58 10' W

+9.18 10' W

+4.09 10' E

+2.53 10' E

+8.90 10' E

+7.83 10' W

+7.55 10' W

+4.79 18' W on Walk

+4.37 11' W "

+5.69 11' " "

+5.25 7' " on Pav.

+5.10 1' E " cb

+2.81 1' E " "

H.I. from Page 41

190.76

2.00

188.76

12.28 +

201.04 = T

0.14 -

200.90 = T.P.

12.17 +

213.07 = T

0.39 -

212.68 = T.P.

12.53 +

225.21 = T

0.65 -

224.56 = T.P.

12.83 +

237.39 = T

0.31 -

237.08 = T.P.

12.29 +

249.37 = T

0.59 -

248.78 = T.P.

12.08 +

260.86 = T

0.07 -

260.79

11.95 +

272.74

3.81 -

268.93

2.19 +

266.74

0.29 = Error

Note Sewer is 24' East of W.L. Hawks \rightarrow

\rightarrow from station 3+76 to 4+26 = 1' West cb. face

chk. on T.P. Page 49

Volley
Kupling
Shoel
Boots
5 26

SEWER Const.
ARCADIA DR + PUBLIC RT. of WAY

MH#	Profile 18 - Plan 3	Roots	Elev. slab	Elev. Plan 18	Elev. cut
MH#64 = Page 14 = 0+00 3-37.4 0+37.4 +74.8	76.01	149.8	61.03	54.95	+6.08
1+12.2 = Brk (1-20.5)	88.41	0.86	74.61	69.30	+5.31
1+32.2 = P.V.C. 2-22	113.22	10.80	87.55	83.65	+3.90
1+52.2 = Brk	125.87	3.84	102.42	98.00	+4.42
1+72.2 = E.V.C.	138.06	2.26	110.96	109.00	+1.96
1+82.2 = Brk (2-27.5)	125.87	3.84	122.03	118.92	+3.11
2+09.7	138.06	7.90	130.16	126.66	+3.50
2+37.2 = MH#177 1-25.82	150.38	3.94	134.42	130.00	+4.42
2+63.02 = P.V.C. 2-20	175.46	10.74	146.44	142.50	+3.94
2+83 = Brk		3.55	164.72	155.00	+9.72
3+03 = E.V.C. 1-21.02		0.04	171.91	161.76	+10.15
3+28 = MH#178 (1-10.05)		0.78	172.89	165.75	+7.14
3+38.7 = P.V.C.	185.46	5.52	172.89	165.88	+7.01
4+58 = Brk	196.65	1.30	175.50	167.22	+8.28
4+78 = E.V.C.	206.65	5.43	174.68	167.50	+7.18
3+91 = MH#179 - 0+00 4-40.5		5.89	177.00	169.00	+8.00
4+28.1		6.70	179.94	177.00	+2.94
4+28.5		7.45	188.78	189.02	+6.57
4+28.5		7.91	195.35	189.02	+6.57
4+28.5		8.05	201.72	193.10	+8.12
4+28.5		8.05	200.76	193.17	+7.59
4+28.5		8.05	199.95	193.38	+6.57
4+28.5		8.05	199.20	193.59	+5.61
4+28.5		8.05	198.74	193.80	+4.94
4+28.5		8.05	198.60	194.00	+4.60

63.05	129.6 +
76.01 = T	2.57 -
75.4 = TP	12.97 +
88.41 = T	0.34 -
88.07 = TP	12.63
100.70 = T	0.17 -
100.53 = TP	12.69 +
113.72 = T	0.28 -
112.94 = TP	12.93 +
125.87 = T	0.30 -
125.57 = TP	12.49 +
138.06 = T	0.00 -
138.06 = TP	12.32 +
150.38 = T	0.00 -
150.38 = TP	12.48 +
162.86 = T	0.26 -
162.60 = TP	12.86 +
175.46 = T	0.78 -
174.68 = TP	10.78 +
185.46 = T	0.00 -
185.46 = TP	11.19 +
196.65 = T	1.30 -
195.35 = TP	11.30 +
196.65 = T	1.35 -
205.37 = T	10.27 = cl
205.37 = TP	0.10 = diff.

Checked Grade to
Trap under ground

chk. on top of Book 115.48 Sta. 4+04.8

to 3' N. of
Arcadia

Yakima
Riparian
Shrub
Breakers 8-13-28

HAWK St. Sewer Const.
Bet. BARR ave and Mission Valley Lane

MH#177 Page 45

Profile 19 - Plan 3

Hits from Page 45

= 0+00 (2-5279) 0+52.8	175.46	1074	164.72	155.00	+9.72	10'S
= $\Delta 83^{\circ}21' R$ 1+05.59 = MH#176 (2-1683) 1+22.43 = B.K.	183.29	11.02	172.27	162.00	+10.27	10'S
+39.26 = Exc (1-544)	196.09	10.10	185.99	182.13	+3.86	
1+44.7 = P.V.C. = $\Delta 10^{\circ}47'30'' R$ (2-1091)		7.58	188.51	185.41	+3.10	
1+55.61 = B.K. = $\Delta 10^{\circ}47'30'' R$		1.45	194.64	191.12	+3.52	
+66.54 = B.C.V.S.	208.08	9.14	198.94	195.50	+3.44	
1+77.43 = B.K.		5.80	202.28	198.00	+4.28	
+88.34 = E.S.C. (2-52)		3.46	204.62	199.52	+5.10	
2+40.3V +92.34 = $\Delta 3^{\circ}33'64''$ 2-46.5' 2-41' 3+38.84	218.62	0.58	207.50	207.01 204.50	+5.49 +10.91	
+85.34 = "Y" to rect. (2-47.5) 4+32.84	230.86	3.21	215.41	208.00	+7.41	
+80.34 = MH#174 2-48.5		3.03	215.59	211.81	+3.78	
5+V8.84 = $\Delta 20^{\circ}30' R$	239.35	11.46	219.40	215.63	+3.77	
5+77.34 = Y.V.L. With DE to South 1-20'		7.33	223.53	219.52	+4.01	
5+77.32 = Plug End		3.35	227.51	223.41	+4.10	
		8.03	231.32	227.38	+3.94	
		4.22	235.13	231.36	+3.77	
		2.77	236.58	233.00	+3.58 +3.47	

Prelim.
chk. on file at 100 feet 115-50

175.46 = X
4.86 =
170.60 = T.P.
12.09 =
183.79 = X
0.80 =
182.99 = T.P.
13.10 =
196.09 = X
2.16 =
195.93 = T.P.
12.15 =
208.08 = X
0.52 =
207.56 = T.P.
11.06 =
218.62 = X
0.30 =
218.32 = T.P.
12.54 =
230.86 = X
0.08 =
230.78 = T.P.
8.57 =
239.35 = X
0.71 =
230.59 = T.P.
11.84 =
227.51 =
227.35 = Gregor's
0.16 = diff

SEWER CONST.
COURT WAY

47

D.M.H. #175 on DEP. #

Profile 19 - Plan 3

H.I. from Page 46

21862

=0+00	21862	3.21	204.50	
+40.13 = MH #384		5.30	213.32	204.79
+90.13		7.04	211.58	205.14
+140.13 = DE		8.43	210.19	205.50

SEWER CONST. PUBLIC Rt. of WAY

2' North of Slide lot 18 Arden Hts.

M.H. #174 Page 46

Profile 19 - Plan 2

off M.H. #174

227.51
13.19
240.70

=0+00	220.70	13.19	227.51	223.41	4.10
+40.66		7.24	232.46	224.99	+ 8.47
+81.32 = DE.		0.75	239.73	229.70	+ 4.26
				226.58	-13.37
				235.00	+ 4.75

} LINE Extended North from DE
AND Grade Changed see Page 53

SEWER CONST. IN PUBLIC Rt. of WAY

1' North of Slide lot 21 Arden Hts.

above M.H. #175

Profile 19 - Plan 2

=0+00	225.98	10.57	215.41	208.00
3-36.97		6.10	219.88	214.33
0+36.97				
+73.94	234.48	8.00	226.48	220.66
+110.91 = DE.		1.45	232.03	227.00

elec. cut stub M.H. #175 = 215.41 - lot dw
10.57 +
225.98 = π
0.00
225.98 = I.P.
8.50 +
234.48 = π

SEWER CONST. IN PUBLIC RT. OF NAY

49

Incl Alloys Cont. from Page 48

Profile 19 Pk 2

2+41.09	229.63	3.44	226.19	220.16	+6.03
+85.76	237.28	9.48	227.80	222.99	+4.81
3+30.43		7.42	229.86	225.83	+4.03
-175.09	244.80	13.26	231.54	228.66	+2.88
4+19.75 = Bk.		7.86	236.94	231.50	+5.44
(2-24.5)		3.83	240.97	234.95	+6.02
4+147.25					
4+75.00 = Exist Sewer at New Barr Ave.	0.12		244.68	238.40	+6.28

HI. from Page 48 → 229.63

0.90 -
 228.73 = T.P.
 8.55 +
 237.28 = π
 4.32 -
 232.96 = T.P.
 11.84
 244.80 = π
 0.12 -
 244.68 =
 12.52 +
 257.20 = π
 8.20 -
 257.00 = T.P.
 5.18
 262.18 = π
 5.18 -
 257.00 = T.P.
 6.71 -
 263.71 = T

T.P. Nail in Board Walk

5.16 -
 258.55 = T.P.
 10.06
 269.61 = π
 0.41 -
 269.20 = T.P.

see Page 48 → 269.20 = T.P.

SEWER CONST.

Alley Bet. Hawk + Goldfinch

from S.L. Barr Ave South

EXIST. SEWER S.L. BARR AVE

= 0+00	257.20	10.74	246.46	243.50	+2.96
3-44.39					
0+44.33		2.84	254.30	247.00	+7.36
1-37.33				249.96	
+88.66	262.18	+1.69	263.87	250.50	+13.91
1+33 = Bk.	263.71	2.42	261.29	254.00	+7.29
2-32.5					
1+65.5		3.26	260.45	254.39	+6.06
+98 = MH#383		5.70	258.01	254.79	+3.22
2-29.15					
2+27.15		5.41	258.30	255.14	+3.16
2+56.31 = DE.	269.61	14.05	255.56	255.50	+0.06

Map to
Sta 10
Brookline
2/15/28

Alley Bet. FALCON + GOLDFINCH
And in PUBLIC RT of WAY.
Bet. BARK AVE + Goldfinch
Profile 19 - Plan 3.

MH# 176 Page 48

=0+00 (2-29.85)				155.00		
0+29.85	185.15	2.66	182.49	172.00	+10.49	6'E
-459.7 = MH#169 1-50	206.70	9.13	197.57	189.00	+8.57	6'S
1+09.7 = Bk (2-45')	218.37	10.17	208.20	201.00	+7.20	" "
1+54.7 = 290°05'Kt		2.70	215.67	207.00	+8.67	" "
1+99.7 = MH#168 2-30	231.33	12.14	219.19	213.00	+6.19	6'E
2+29.7	231.02	8.15	222.87	217.25	+5.62	" "
+59.7 = Bk. (5-43.6)		4.48	226.54	221.50	+5.04	" "
3+03.3	240.47	6.70	233.77	221.80	+11.97	" "
+46.9		4.74	235.73	222.10	+13.63	" "
+90.5		4.17	236.30	222.40	+13.90	" "
4+34.1		8.21	232.26	222.70	+9.56	" "
+77.7 = D.E.		12.36	228.11	223.00	+5.11	" "

MH# from Page 48 → 185.15

266 -
182.49 = TP
12.50 +
194.99 = T
042 -
145.57 = TP
12.13 +
206.70 = T
062 -
206.08 = TP
12.29 +
218.37 = T
012
218.25 = TP
13.08 +
231.33 = T
12.23
219.10
218.79
0.31 = Diff.
218.79
12.23 +
231.02 = K
007 -
230.95 = TP
9.52 +
240.47 = T
7.05
233.42

Spot 1115-52

chk on Gregory & Hub 2+78

" " More elev. on 2 bus used from MH
to D.E.

Walker
Pulitzer
Stations
19-28

Profile bet MH 175 + DE
Line 1' North S.L. Lot 21
Kroton Hts. Add.

MM#175 = 0+00	228.40		
+18 on Walk		16.3	212.1
+26 " "		4.0	217.1
+33 " "		10.6	217.8
+36 " "		8.4	220.0
+65 " "		3.8	224.6
1+08		3.0	225.4
1+10.9 = DE.		4.1	232.5

Elev cut stub MM 175-46 = $\frac{215.41}{13.00} +$
228.40 = 228.40

51

Location Line 2 North South Line Lot 21 Kroton Hts.
Grades For Above Line Elev. Ground Flow Line

MM#175 = 0+00	226.71		208.00	
+18 = Bk	10.38	216.33	210.00	+6.33
+26 = Bk	8.88	217.63	215.0	+2.83
+33 = "	7.57	219.14	215.40	+3.74
+36 = Bk	7.00	219.71	217.6	+2.11
+65 = Bk	1.74	224.97	222.35	+2.62
1+10.9 = DE	4.570	232.41	223.2	+9.21

Elev. Above Stub. $\frac{215.41}{12.30} +$
226.71 = 226.71

3/11/28
R. H. H. H.
Sheet
8-17-28

Levels for Sewer in Alley
bet. Hawk & Goldfinch. North of Barr Fire

Elev cut stub	Dist	Elev	Elev
MM# 167 Page 28	10.62	229.13	218.51
323.00' N.N.W. Barr.			
= 0+00	10.6	218.5	
+23	10.5	218.6	
+35	6.6	222.5	
+75	3.9	225.2	
T.P.	11.58	238.39	227
			226.86
+135	10.0	228.4	
(33'E) of +135	15.5	222.9	
(45'E) " "	20.0	218.4	
47'E " "	22.0	216.4	
55'E " "	25.2	213.2	
70'E " "	28.5	209.9	
+170	8.0	230.4	
(15'E) +170	10.6	227.8	
17'E " "	12.2	226.2	
29'E " "	14.4	224.0	
45'E " "	20.8	217.6	
55'E " "	22.6	215.8	
+195	7.5	230.9	
(15'E) +195	9.3	229.1	
42'E " "	13.9	224.5	
70'E " "	11.5	226.9	
2+25	6.4	232.0	
(20'E) 2+25	8.0	230.4	
42'E " "	8.3	230.1	

20' E
0.5' lower
2.5' East
4' lower
25' E
4.6' lower

75' E 30' lower
75' E 40' lower

Elev.
EAST of +135

Elev East of
+170

Elev. East
of +195

			238.39		
	2+70			1.0	237.4
	(50'E) 2+70			1.7	236.7
	T.P.	12.29	249.40	1.28	237.11
	2+87			9.0	240.4
	3+08			6.2	243.2
	+23.0 N.W. BARR FIRE			4.8	244.6
	chk. on cut stub East street Page 49			4.78	244.62
					244.68 = Elev. Stub P-19
					0.06 = ELEV. OF

Prelim. Levels for E Profile
West of Lot Lines 18 + 19
Avdon Hts.

Sta.	Dist.	Level	Height	Elev. cut Sub
DE. lot 18	4.46	244.41	239.95	DF. Page 47
+0+00			5.1	239.3
+50			8.7	235.7
TP	5.50	236.80	13.11	231.30
+1+00			4.0	232.7
+26.25	DL. 1948		5.4	231.4
+1+59.25			5.5	231.3
+1+92.25			5.5	231.3

SEWER Const for Above Line

DE = MH.						
+0+00	244.41	4.46	239.95	226.58	+13.37	
+50		7.81	237.60	227.08	+10.52	
TP	5.50	236.80	231.30			
+1+00		3.06	233.74	227.58	+6.16	
+26.25	DL. 1948	4.37	232.43	227.84	+4.59	
+1+59.25	DE.	4.51	232.29	228.17	+4.12	
+1+92.25	DE.	4.36	232.44	228.53	+3.91	

Not Constructed
H.H. 5/13/52

Server Const. Notes For Change in Side
Bet MH. 170 & 1967

MH#167						
-0+00	22392	340	220.52	215.50	+5.02	6'W
+29 = Bk		742	216.50	212.00	+4.50	6'South
+58 = Bk	211.54	0.80	210.74	206.00	+4.74	" "
+59 = Bk		7.83	203.71	197.00	+6.71	" "
+99 = MH-Extra	201.33	7.00	194.33	185.00	+9.33	10'NW
+140.91 = Bk	189.76	6.19	183.57	174.00	+9.57	6'W
+157 = 40'54' RT		13.04	176.72	166.00	+10.72	" "
+168 = Bk	182.94	12.37	170.57	160.50	+10.07	" "
+198.91 = MH#170			155.00			

offsets

cut stub
Elev. 1+96.92 on p. 48

55

22370
0.227
22392.5
12.84
211.08 = 7P
0.46
211.54 = 11
12.55
198.79 = 11
2.347
201.33 = 7
12.60
168.73 = 7P
1.03
189.76 = X
13.04
176.72 = 7P
6.227
182.94 = 7
2.48
180.46
180.34 = 10k
0.12 = Error

Change in Grade Bet. Station 1+51.75 + 1+19.75

25' South of old sta 1+51.75	Page 48 + 49	to Serve Lots 10 + 11	Florence Hts		
= 1+76.75 = MH#167		Elev. Stub	Flow Line	215.50	
1-19.67				223.70	215.58
1+76.42				226.19	216.72
2-44.67				227.80	217.57
2+41.09				229.44	218.00
2+85.76				229.86	220.54
1-24				231.54	226.02
3+09.76 = Bk	235.80	6.36	229.44	231.50	231.50
1-20.67					
3+30.43					
2-44.67					
3+75.10					
4+19.75 = Bk					

6'W

Note: All Elev. of Stubs Trans. from Page 49
with the Exception of 3+09.76 & MH# stub 167

6'W

6'E

" "

" "

" "

227.80
8.00 = 7
235.80 = 7

= 4+75 on Page 49

4+75 = Exist server N.L. Bar Bet. Hawk & Goldfinch

201.26
116.73
33.01

Walker
9-5-28

Prelim. Levels For "A" Line
as shown on opposite page

	11.00	207.30		196.30
0+00 = Bottom ditch = Approx. Floor line	19.2			188.1
+07		14.2		193.1
+13		11.2		196.1
+73		2.4		204.9
TP	12.00	218.93	0.37	206.93
0+95		2.7		216.2
1+03.5 = $\Delta 80^{\circ}23' Lt$		0.8		218.1
+06.5 on top cb.		1.02		217.91
+06.5 " Gutter on Pav.		1.56		217.37
1+32 at Bottom of Ret. Wall on Pav.	3.33			215.60
+33 on top Ret. Wall		0.5		218.4
1+44		+3.4		222.3
+59		+5.7		224.6
1+71.5 on top Septic Tank.		+5.4		224.3
+71.5 " " Ground at tank.		+6.0		224.9
chk. on cut slab 5468.37 Page 38		1.70		217.23
				217.22 = Elev. slab 0.01 = Error.

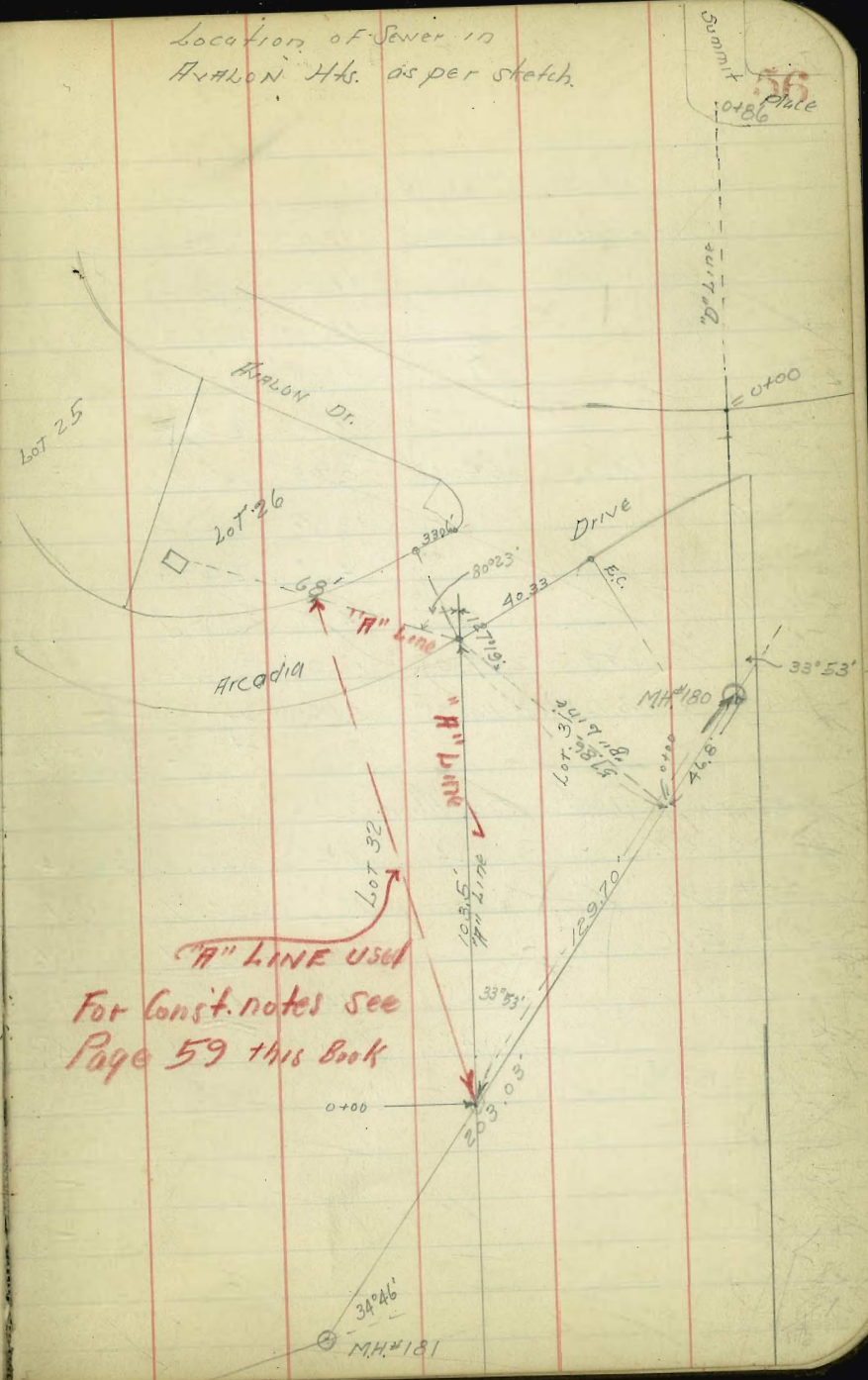
Levels For "B" Line

207.30 = Above Ht.

0+00 = Bottom ditch = Approx. Floor line		11.6		
+07		8.0		
+35		1.9		
TP	12.00	218.93	0.37	206.93
0+53		1.5		
0+57.86 = $\Delta 27^{\circ}42' Lt$		0.8		

For. Chk. out
See Above Note

Location of Sewer in
HAWSON Hts. as per sketch.



Prelim. LEVELS For "D" Line
Location on Page 56

	13.03	241.61		228.58
0+00 = 1/2 West of East Cb. Line on Pav.	17.00		224.61	
+01 = Bottom Ref. Wall.	17.00		224.61	
+01 = Top " "	13.00		228.61	
+06	12.5		229.1	
+14	7.2		234.4	
T.P.	12.62	254.10	0.13	241.48
0+34	12.5		241.6	
+54	4.7		249.4	
+87	4.0		258.1	
T.P.	3.98	257.08	1.00	253.10
chk. on cut stub. 12+83.35 Page 35	8.06		249.02	
			248.97 = Elev. stub.	
			0.05 = Error.	

Elev. cut stub
Sta. 6+15.27.
Page 33

Grades For Above Line					
7/8 West of Above 0+00					
0+00 = P.V.C.	235.24	10.21	225.03	230.34	+469
+07 = Bk.		11.07	224.17	231.31	+286
+14 = E.V.C.		5.57	229.67	233.86	+581
+37 = Bk.	247.25	6.74	240.51	234.90	+561
+65.5	259.45	9.06	250.39	243.45	+694
+94 = D.E.		1.55	257.90	252.00	+590

Elev. Cut stub 6+15.27 = 228.58
 6.66 +
 235.24 = II
 0.29 -
 234.95 = TP
 12.30 +
 247.25 = J
 0.25 -
 247.01 = TP
 12.04 +
 259.05 = J

SEWER CONST. FOR "A" LINE
 From 0+00 to 1+32 as Located on Page 56

0+00 = see Page 56	208.90	14.00	194.90	188.10	+ 6.80
+345		892	199.78	194.31	+ 5.67
+69		320	205.79	200.52	+ 5.18
1+03.5 = Δ 80°00' Lt. (1-298)	221.52	313	318.39	206.73	+ 11.66
1+33 = Plug End.		0.19	211.33	212.09	+ 9.24

Page 56
 Elev. Cutstop Sta 4+22.88

196.30
<u>12.604</u>
208.90 = T
<u>9.12</u>
208.78 = TP
<u>12.74</u>
221.52 = T

191.31

2+50			2.4	188.9	
T.P	11.43	201.82	0.92	190.39	
2+65			9.0	192.8	
+79	on Ground at Walk		7.3	194.5	
+79	" top Coll Walk		6.52	195.30	
+80	" " Ret. Wall		5.66	196.16	
+83	= D.E. on stub		5.98	195.84	
T.P	10.47	211.89	0.40	201.42	
chk. on cut stub 2+40	Page 46		4.39	207.50	
				207.50	
				0.00 = Error	
				Good Work ✓	

MH # 173	SEWER Const. For	Above	Line	Flow	Line
= 0+00	115.48			94.84	
+30 = B.K.		10.90	104.58	98.00	+6.58
(3-50)					
0+80	128.44	2.99	125.45	118.67	+6.78
1+30	153.40	8.91	144.49	139.34	+5.15
= A 2+28°					
+80 = B.K.	165.95	0.77	165.18	160.00	+5.18
2-30					
2+10	178.24	2.33	175.91	171.00	+4.91
+40 = B.K. "Y" Branch	190.31	4.32	185.99	182.00	+3.99
1-43					
2+83 = Plug end.	200.42	4.03	196.39	192.00	+4.39
Branch Line					
2+40 =	190.31	4.32	185.99	182.00	+3.99
0+00					
+25	200.42	6.67	193.75	189.00	+4.75

#173
Elev. MH. stub Page 40

104.25
11.23 +
115.48 = T
0.00 -
115.48 = T.P.
12.76 +
128.44 - T
0.00 -
128.44
12.92 +
140.88 - T
0.00 -
140.88 = T.P.
12.52 +
153.40 = T
0.00 -
153.40 = T.P.
12.53 +
165.95 = T
0.00 -
165.95 = T.P.
12.29 +
178.24 = T
0.00 -
178.24 = T.P.
13.07 +
190.31 = T
0.00 -
190.31 = T.P.

2+83
chk. on D.E.

190.31
10.11
200.42
4.63
195.79
195.84
0.06 = Error

GRADE Change - M.H. #250-233

D.M.H. #250
0+00

77.49 10.14

67.35

58.76 - TRUNK
60.00 - Spurr-w.

+
+

8.59 - TRUNK
7.35 - Spurr

+30

72.50 68.50

+

6.00 ✓

+60 BRK.

82.55 77.00

+

5.55 ✓

+90

95.24 90.56

+

4.68 ✓

1+19.74 M.H. #233

114.26 104.00

+

10.26 ✓

Elevations of stubs transferred from notes on page 70

M.H. #231 - stub

68.77

8.72
77.49

R. plingor
Schoo
Brooks
7-21-28

M.H.#250
0+00

Not Possible.

58.76

+30

69.38

+60 BRK

8.000

+75 BRK

90.00

0+99.37

97.00

1+19.74 MH#233

104.00

♀ PROFILE - M.H.#250 - #233

Elev. + T -

72.5

5.6

78.1

0.1

M.H.#250

0+00

0+10

11.1

67.0

+26

5.3

72.8

+40

1.7

76.4

78.0

13.0

91.0

0.2

+65

7.2

83.8

+80

0.2

90.8

90.8

12.6

103.4

0.2

+90

7.7

95.7

+99

4.2

99.2

1+07

0.2

103.2

103.2

12.7

115.9

77

Elev.

+

T

-

115.9

1.7

1+14

M.H.#233

9.4

106.5

1+19.74

6.3

109.6

114.2

M.H. offset

114.2

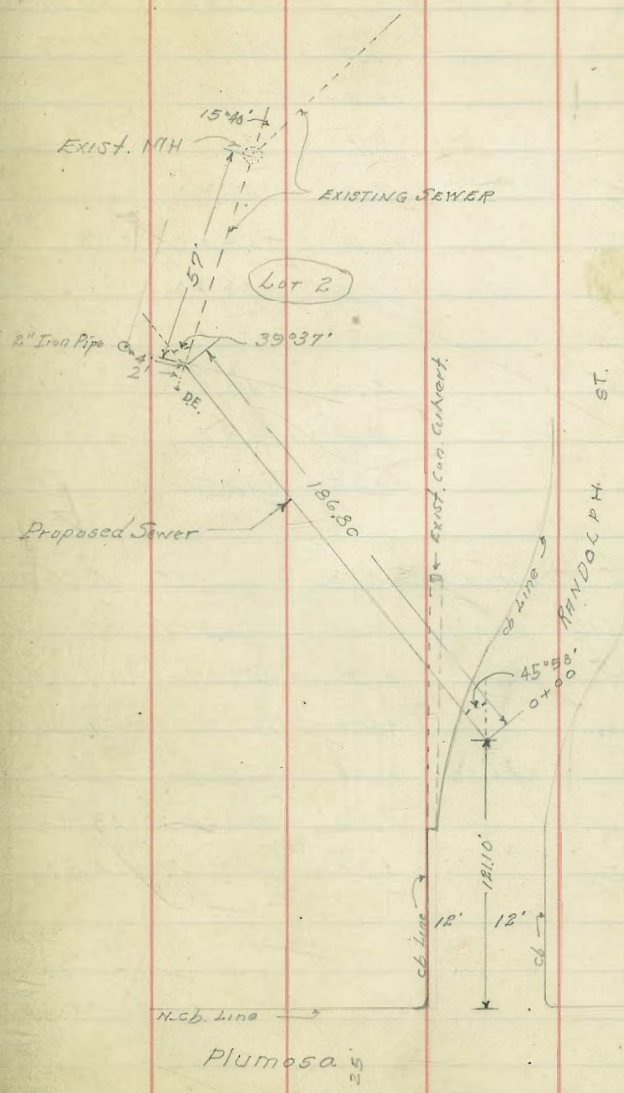
M.H.#250
0+00

GRAD. Change - M.H.#250 - 233

Yolker
 R.P. 1/10/10
 S. 1/10/10
 6-28-25

Preliminary Levels For Proposed Sewer Location. opp. Page

				Elev. cut stub MH # 202 Page 17
	11.0	242.59		261.49
0+00			1.3	261.3
0+03 on top cb			0.91	261.68
+04			1.1	261.5
0+16 on top culvert.			9.15	253.44
+22			10.7	251.9
+28			15.8	246.8
T.P.	0.13	250.38	12.34	250.25
T.P.	0.81	237.80	18.89	237.49
0+50			3.3	234.5
+75			10.4	227.4
T.P.	0.78	226.77	11.81	225.99
1+00			4.0	222.8
+78			13.4	213.4
T.P.	0.30	214.66	12.41	214.36
1+46			8.4	206.3
+57			12.4	202.3
T.P.	0.93	203.18	12.41	202.25
1+66			8.2	195.0
T.P.	2.16	194.16	11.18	192.00
1+86.8 on stub			5.19	188.97
Exist. M.H. Flow line			8.00	186.16



YRY

Walker
Replinger
Shaw
Shaw
6-17-28

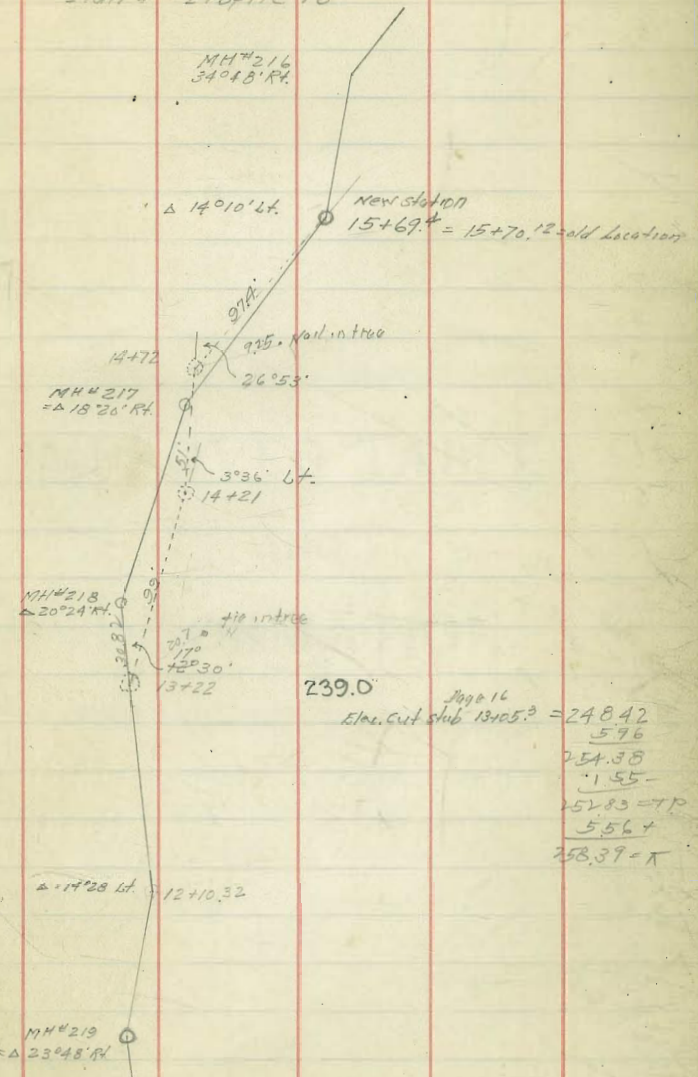
LEVELS & Proposed change in Sewer
Location on opp. Page

	1.82	253.65	251.83	Elev. cut stub MH#218 Page 16
13+22		9.2	244.4	
+50		10.3	243.3	
+75		9.9	243.7	
14+00		9.8	243.8	
+21 = $\Delta 3^{\circ}36'$ Lt.		10.3	243.3	
+50		7.5	246.1	
+72 = $\Delta 26^{\circ}53'$ Rt.		2.9	250.7	
15+00		4.0	249.6	
+25		5.8	247.8	
15+69.4 = old Δ		5.15	248.5	

LEVELS AND Grades

13+22 = MH#218 2-49.5'	254.38	5.87	248.51	239.00	+9.51
13+71.5		4.51	249.87	240.10	+7.77
14+21 = $\Delta 3^{\circ}36'$ Lt. 1-51 T.P.		4.62	249.76	241.20	+8.56
14+72 = MH#217 2-48.7	258.39	1.31	257.08	242.34	+14.74
1570.9		4.20	254.19	242.43	+10.76
15+69.4 = Δ Bk.		4.78	253.61	244.52	9.09 ✓

Proposed change in Alignment
IN Sewer line Bet MH#219 & 216
{dotted line = Proposed change}
Plan 1 - Profile 16



239.0
Page 16
Elev. cut stub 13+05.3 = 248.42
5.96
254.38
1.55
252.83 - TP
5.56 +
258.39 =

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

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 connection found in column of connections. Degree of curve with a given I may be found by dividing tangent (or external) opposite I 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.

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope $1\frac{1}{2}$ 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 level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I 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.

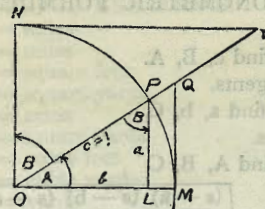


TABLE II
TRIGONOMETRIC FORMULÆ.

$$\angle A = \angle MOP \quad \angle B = \angle PON = \angle OPL$$

$$R = OB = c = 1$$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$$

$$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$$

$$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$$

$$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B \#$$

$$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$$

$$\text{exsec } A = PQ = \text{coexsec } B$$

$$\text{coexsec } A = PT = \text{exsec } B$$

$$\sin \frac{1}{2} A = \sqrt{\frac{1 - \cos A}{2}} \quad \cos \frac{1}{2} A = \sqrt{\frac{1 + \cos A}{2}}$$

$$\sin 2A = 2 \sin A \cos A \quad \cos 2A = \cos^2 A - \sin^2 A$$

$$\text{Law of Sines} \quad \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C}$$

$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$$

TABLE II—Continued
TRIGONOMETRIC FORMULAE (continued)

In any triangle:

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

Use Law of Tangents.

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

Use Law of Sines.

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
$\frac{13}{16}$	.0677	.1510	.2344	.3177	.4010	.4844	.5677	.6510	.7344	.8177	.9010	.9844
$\frac{7}{8}$	.0729	.1563	.2396	.3229	.4063	.4896	.5729	.6563	.7396	.8229	.9063	.9896
$\frac{15}{16}$	.0781	.1615	.2448	.3281	.4115	.4948	.5781	.6615	.7448	.8281	.9115	.9948
1	.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.

Horizontal Distance = R — R sin² a + C cos a

Vertical Distance = R ½ sin 2 a + C sin a

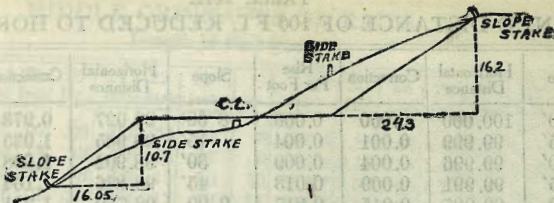
R = Reading × $\frac{\text{distance from Object glass to cross hairs}}{\text{distance between cross hairs}}$

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

a = angle of elevation for mid Reading

206 65
128
20537

TABLE XII
INCLINATION OF PLANE REDUCED TO HORIZONTAL



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.

39.91
39.91
 7982
39.91
 11974
21410
 23424

19251 186.13
 635 435
 18616 17978

5/21415
42.9
 3
2145
 11280
 1713
 1035
 68

19165
133
 17835

30611
911
 31522 = T
539
 30983
31137
 1.54
 22648
 +1046
 28602

179060
5241
 127019
 7953
 80023
 5241
 2742

4253 Palmetto
Mrs MERRION

29.74
15
44.74
70

~~19.24~~

68.5
40
50
158.5
56
214.5

119.74
34.25

1453.99
34.25

1788.24
93927

186654
559962
5786274

2/68.5
34.25

117.78 117.78
8.06 3.42
109.72 114.31

2/44.74
22.37

Wednesday 961
MIX 31+on.
restake,

3697
350
3347

4066
35
3716

9245
55

46225

46225

508475

99479
35
495393

218437
1765

348
3347
1351

925
55
4625
50875

9107
55
45735
45735
503085

4/176
44

81.70
7.57
74.13

93.24
2.07
91.17

33.58

2/21.24

80.00
58.76

80.00
10.62

67.38
11.62
55.76
23985
22751
1204
1184

1262
111

20928
793
20135

7982
1104
6878

1981
125
1856

105.46

231.33
1223
27910

17960
12457
5503