519

7

FIELD BOOK

360

F.B.519

519

C I C

KEUFFEL & ESSER CO.

DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

"Copyright, 1895, by Keuffel & Esser Co."

MICROFILMED
1364

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

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

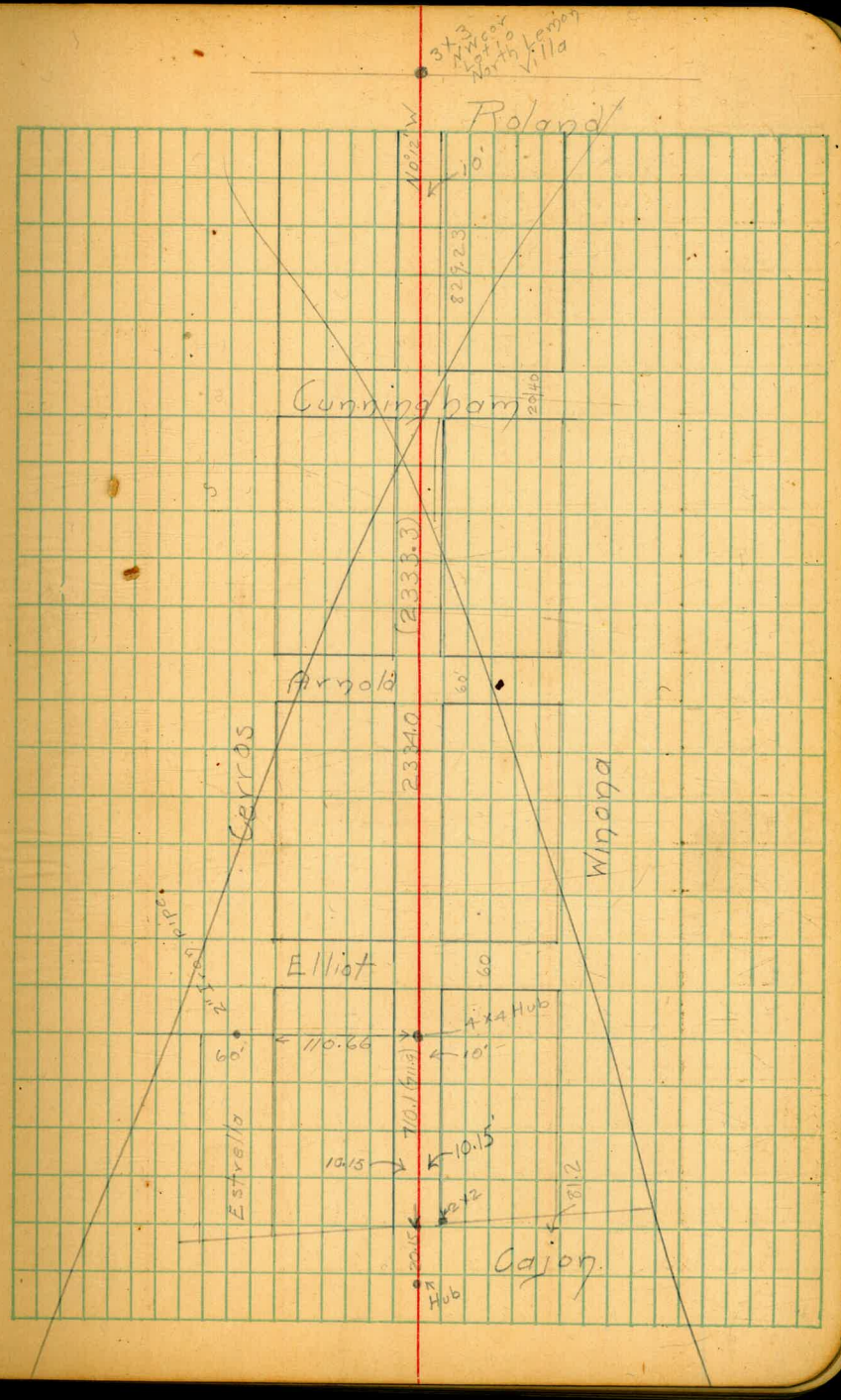
FOR KEITH'S RAILROAD CURVE TABLES SEE END OF BOOK.

Index -

	Page
Western Interceptor -	
Manholes #101½ & 102	2
↙ #104	3
↙ #105	4
↙ #106	5
Eastern Interceptor -	
Manhole #52	6
Western Interceptor - MH# 109	7
Branch "I" MH#100	8
↙ MH#99	9
Branch "F" MH#112	10
Branch "G" MH#115	11
Branch "K" MH#121	12
Branch "H" MH#123	13
↙ MH#124	14
Branch "B" MH#37	15
Branch "C" MH#39	16
↙ ↙ MH#41	17
Eastern Interceptor - MH#43	18
Branch "D" MH#46	19
Eastern Interceptor - MH#44	20
Branch "E" - MH#49	21
Central Interceptor MH#26½	23

Index Contd -

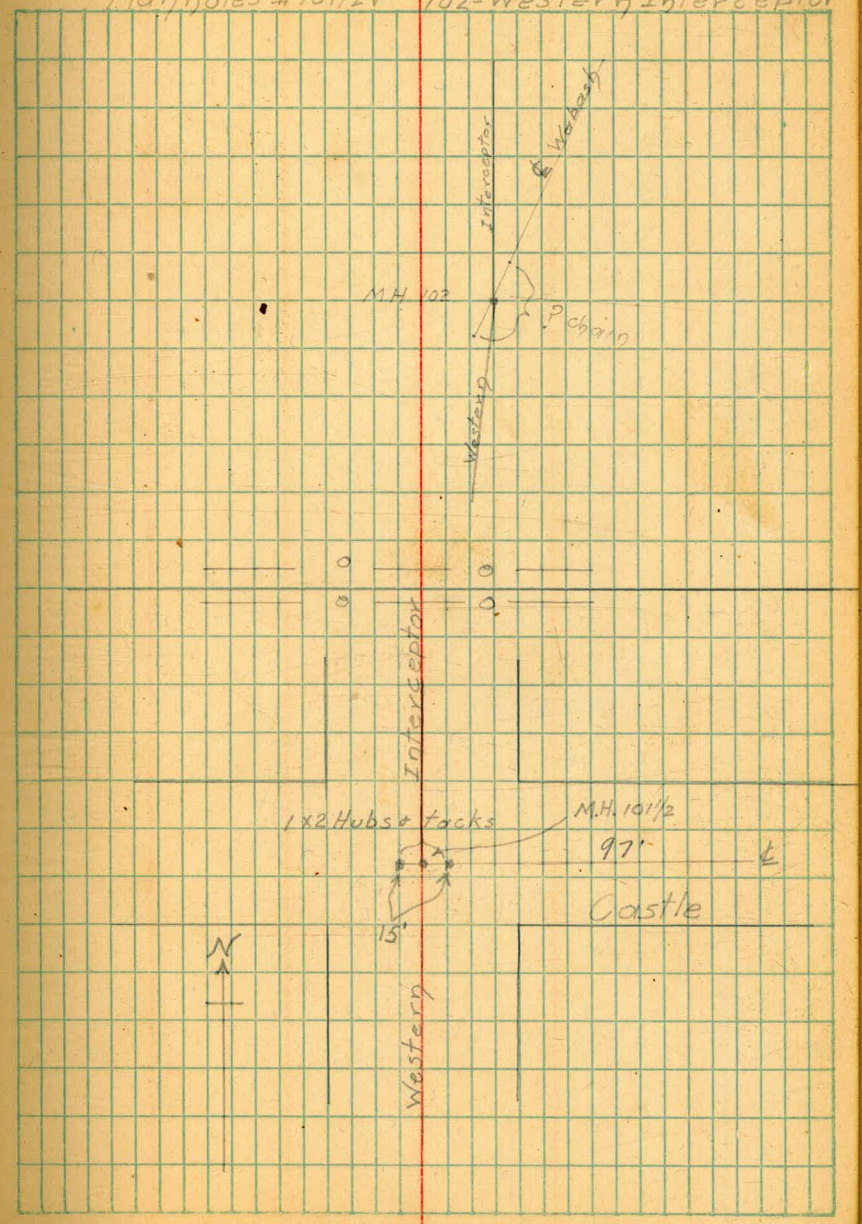
	Page
Lateral Sewer- Sierra-Euclid alley - MH#4 to FT#4 -	25
✓ ✓ Menlo-Sierra alley - MH#14 to MH#13	26
✓ ✓ Mentone-Menlo alley - MH#23 to MH#22	27
✓ ✓ Chamoune-Mentone alley - MH33 to MH#32	28
✓ ✓ Cabrillo-Chamoune alley MH#40 to MH#39 -	29
✓ ✓ Chamoune-Mentone alley - MH#33 to MH#32 (Revised)	30
✓ ✓ Chamoune-Mentone alley MH#34 to MH#33	31
Drainage Ditch- Olive- Conklin -	33-34
Check Levels- MH-Fairmount-Colonial alley - on Anna -	35
Drainage Ditch-on Olive- Conklin to Stockton -	36



3x3 NW cor Lot 10 North Lemon Villa
Roland
10'
829.23
Cunningham
20.40
(2333.3)
Arnold
60'
2334.0
Cerros
Winona
Elliot
60
4x4 Hub
110.66
60'
10'
710.1 (711.6)
10.15
10.15
Estrella
2x2
81.2
Cajon
Hub

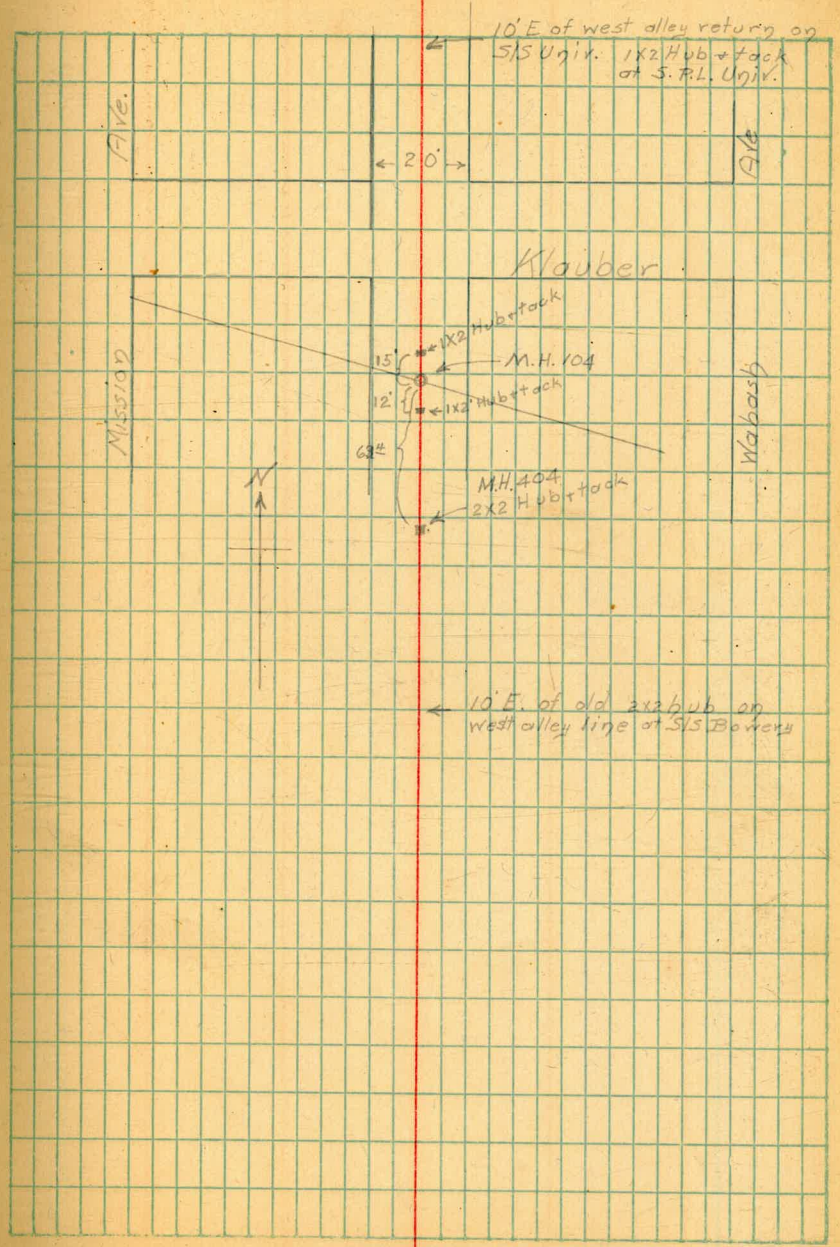
Ford
Smale
Chisholm } 9-15-'21

Manholes #101½ + 102 - Western Interceptor



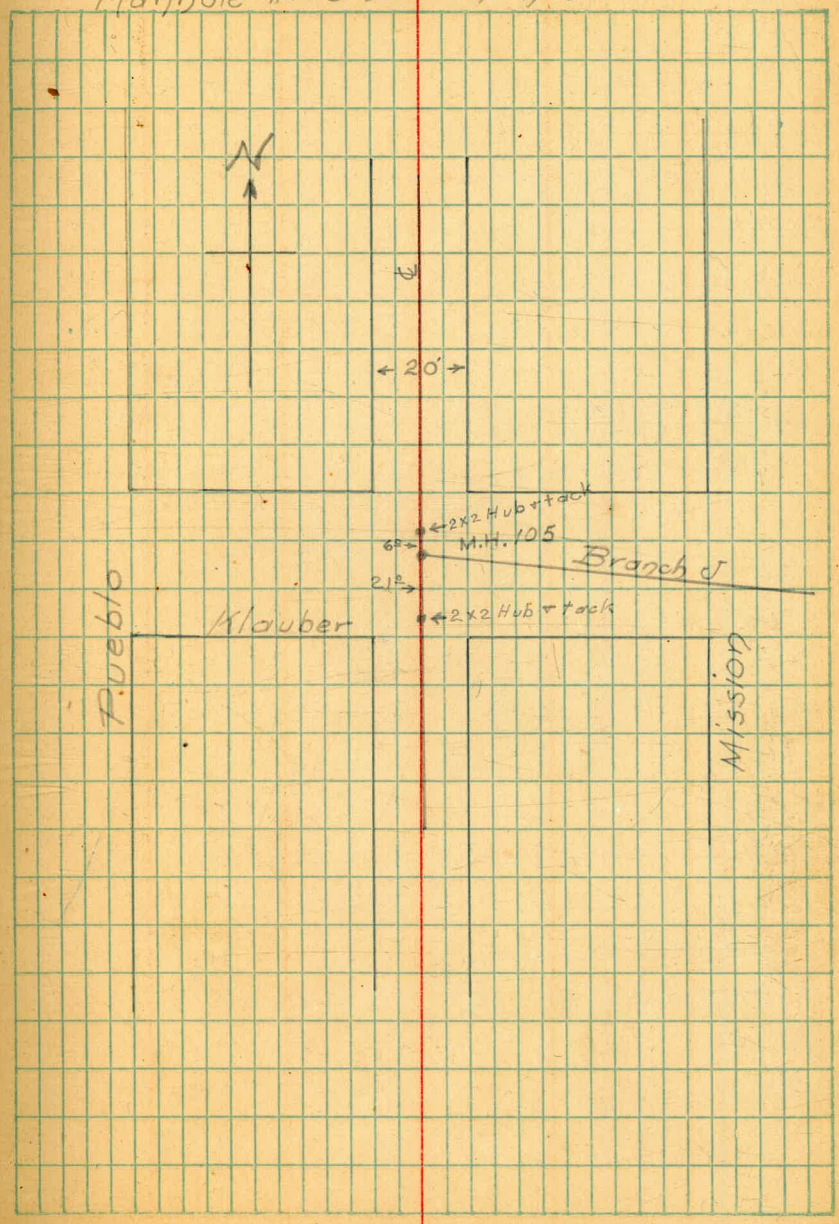
Manhole #104 - Western Int.

Smale } 9-16-21
Chisholm



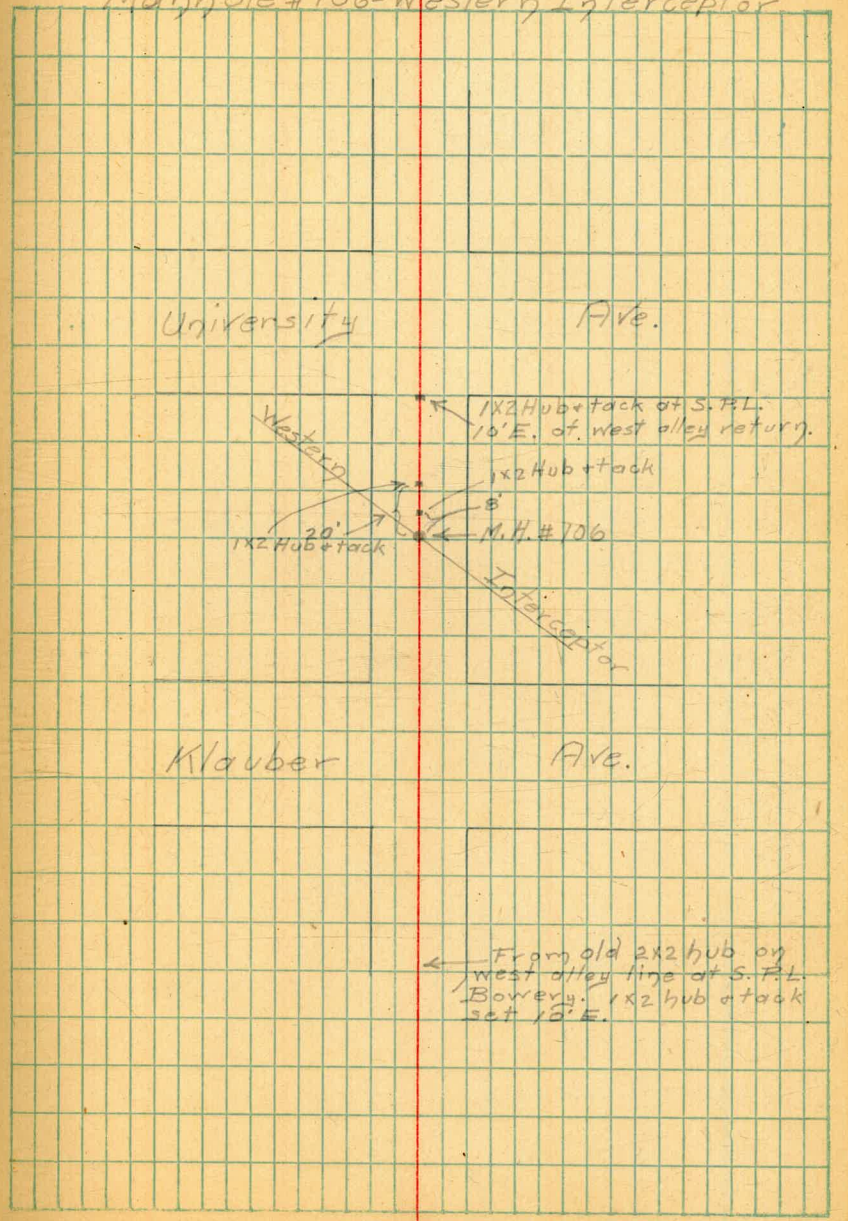
Smale
Chisholm } 9-15-26 4

Manhole #105 - Branch "J."



Smale
Chisholm } 9-16-21

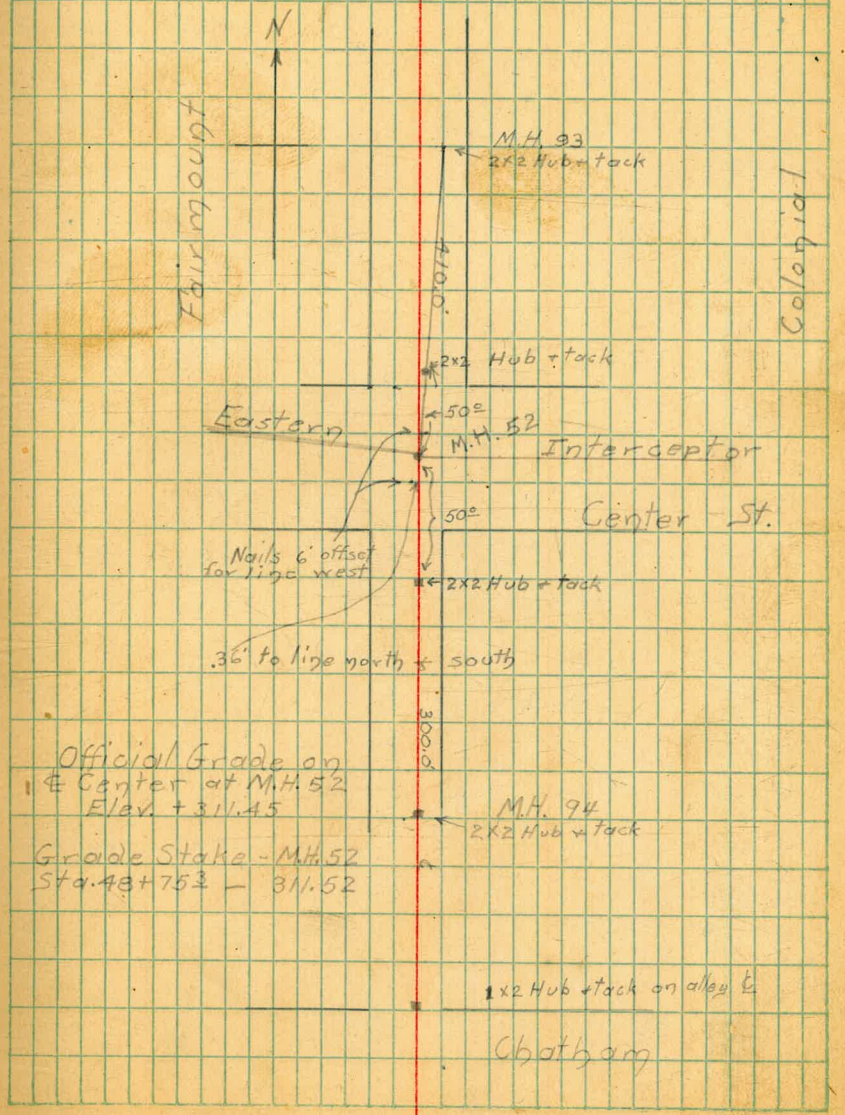
Manhole #106 - Western Interceptor



Ford } 9-15-21
Smale }

6

Manhole #52 - Eastern Interceptor

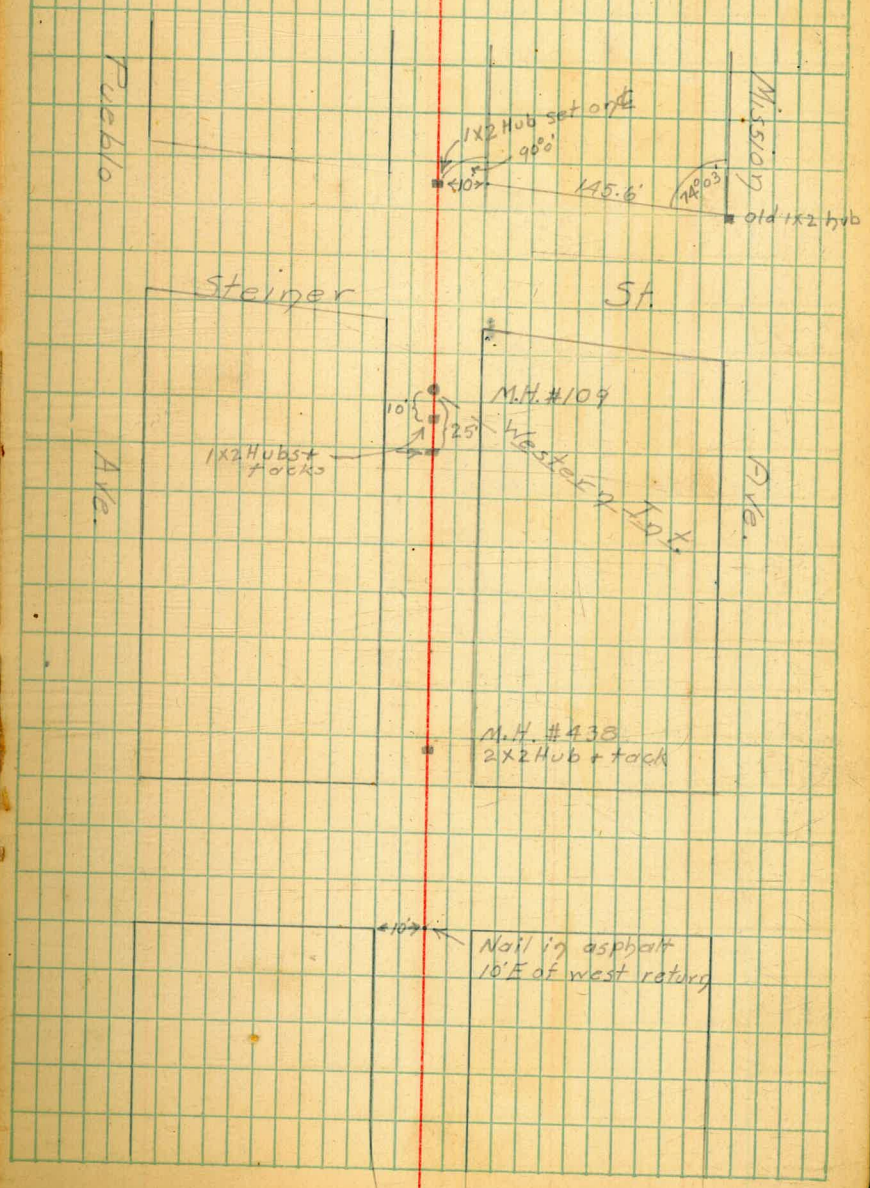


Official Grade on
℄ Center at M.H. 52
Elev. + 311.45

Grade Stake - M.H. 52
Sta. 48+753 — 311.52

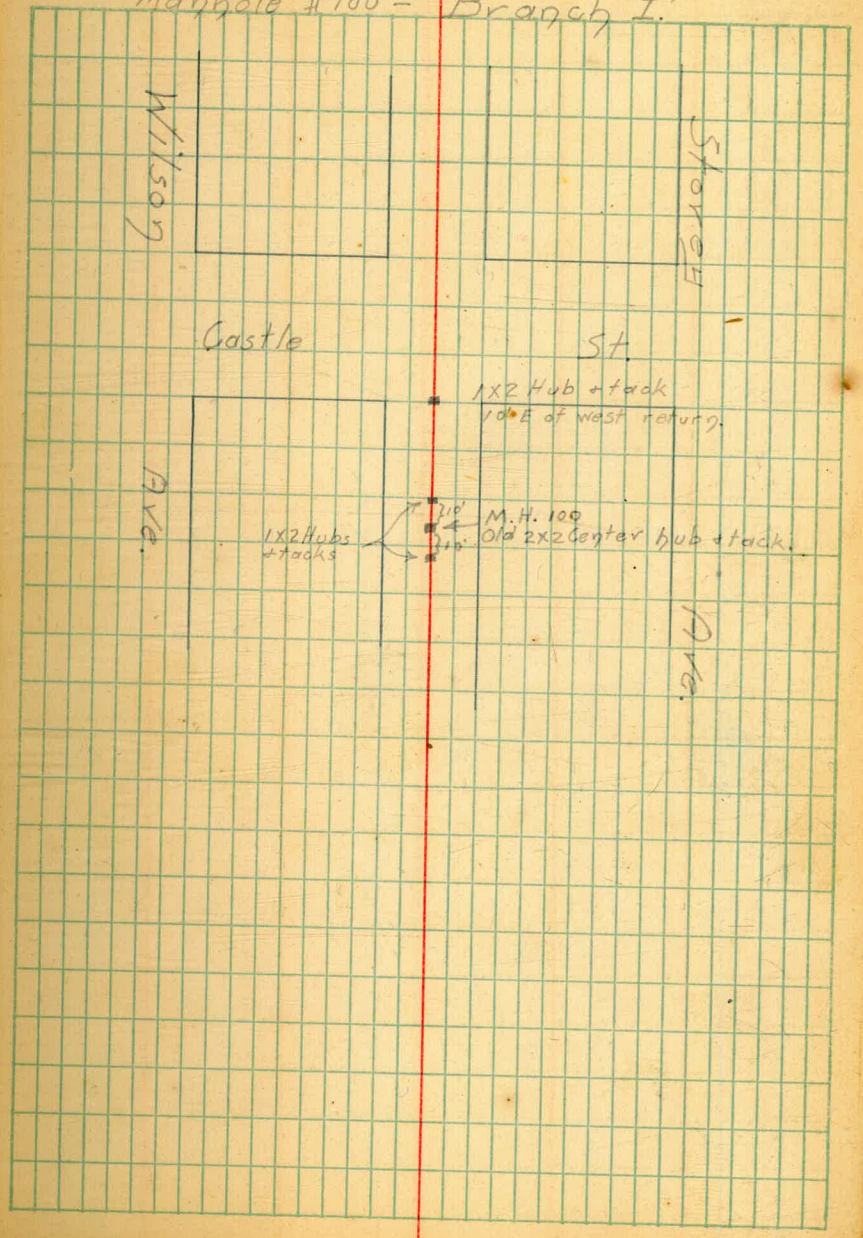
Smale
Chisholm } 9-17-21

Manhole #109 - Western Interceptor.



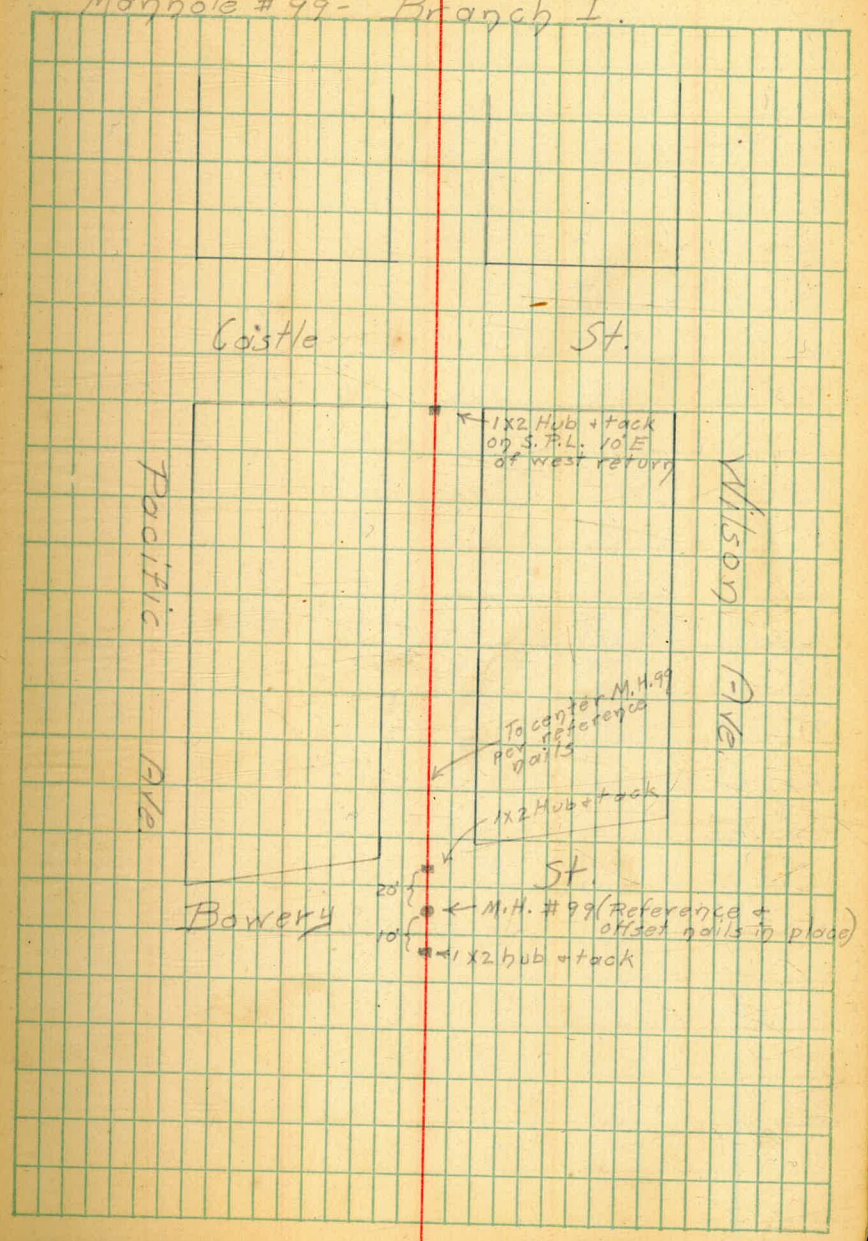
Smale
Chisholm } 9-17-21

Manhole #100 – Branch "I."



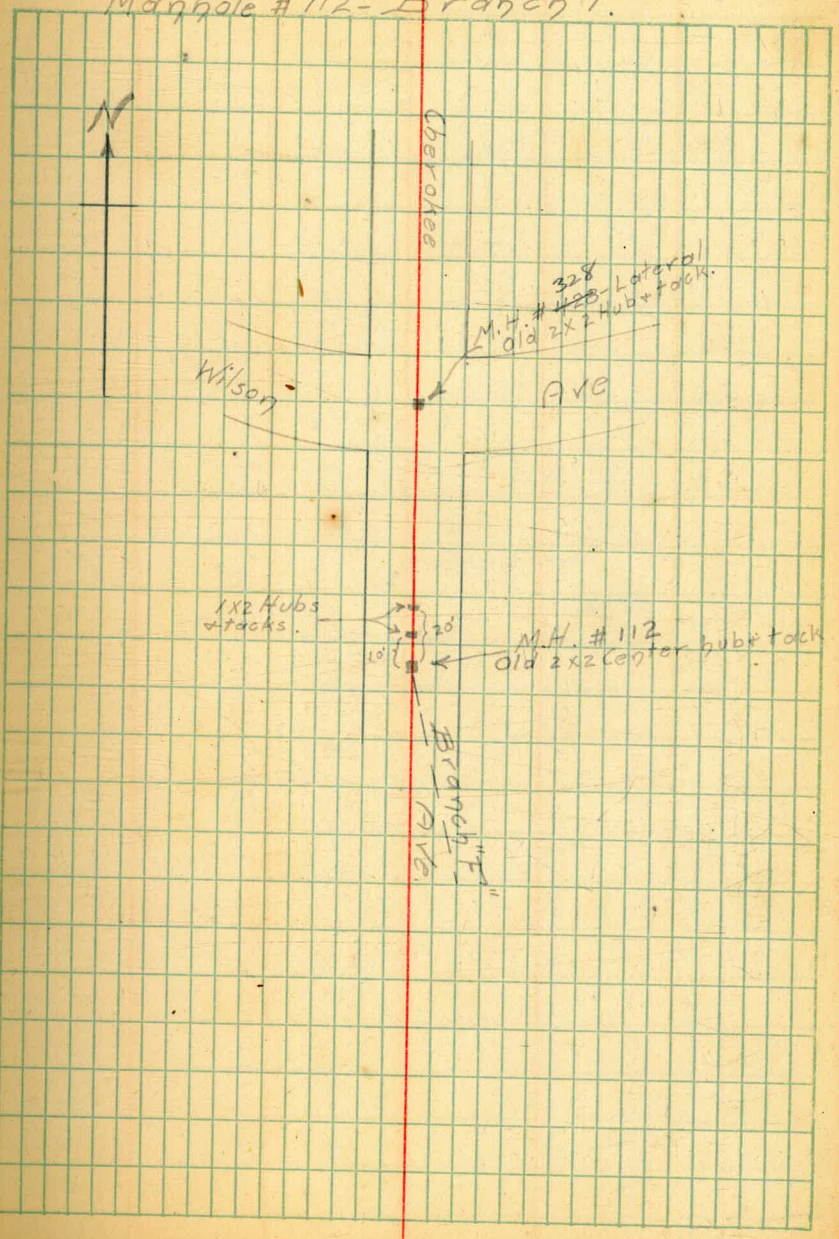
Smale
Chisholm } 9-17-21

Manhole #99 - Branch "I"



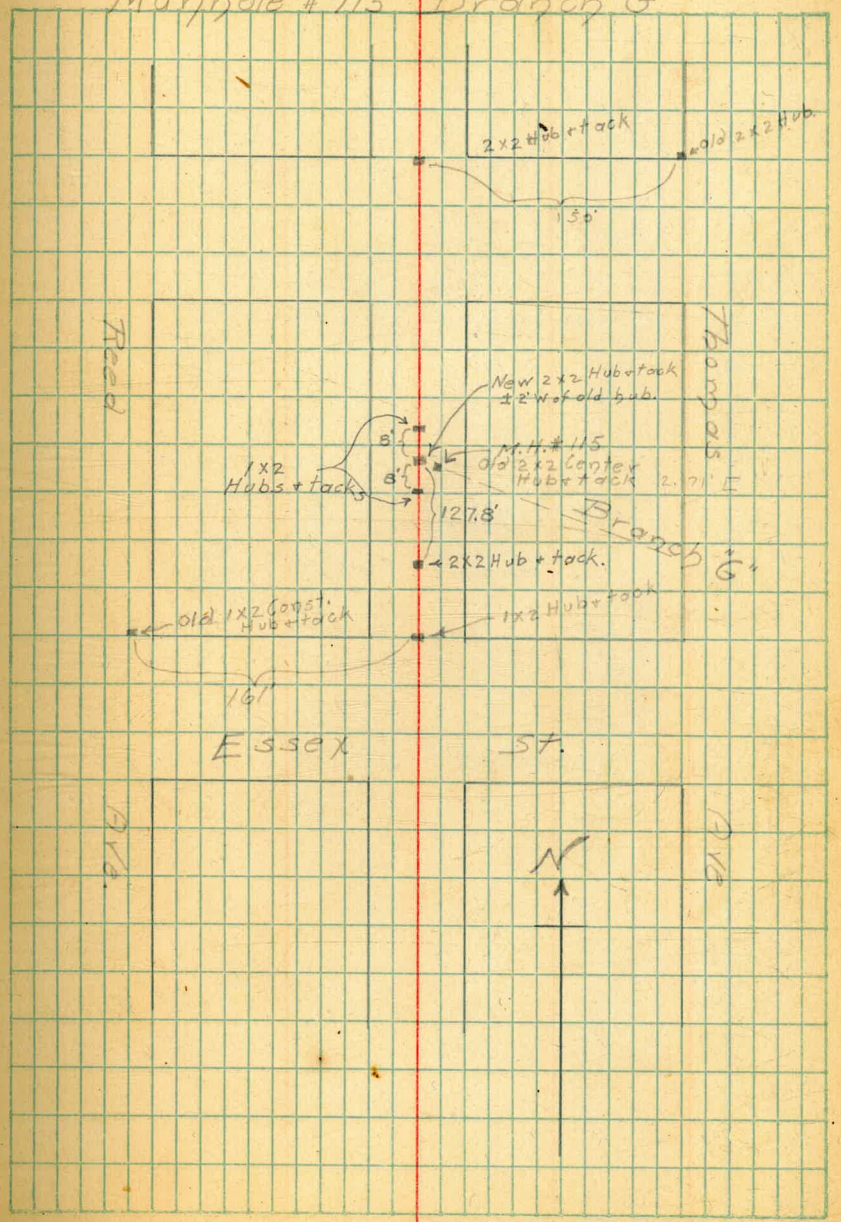
Smale } 9-19-20
Chisholm }

Manhole #112 - Branch "F"



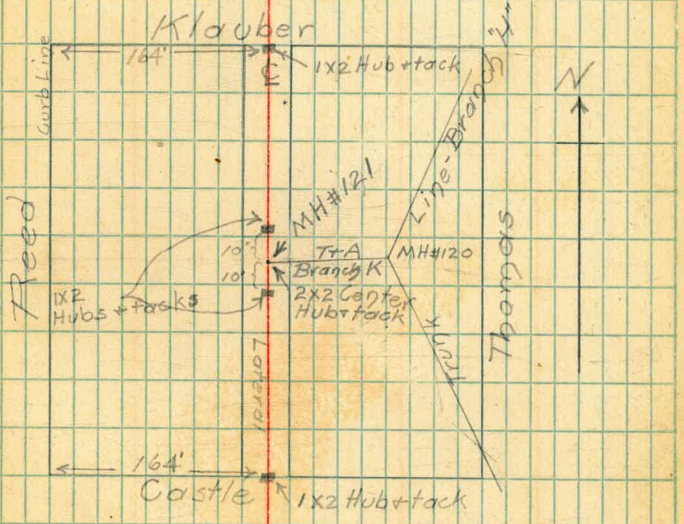
Smale
Chisholm } 9-19-21

Manhole # 115 Branch "G"



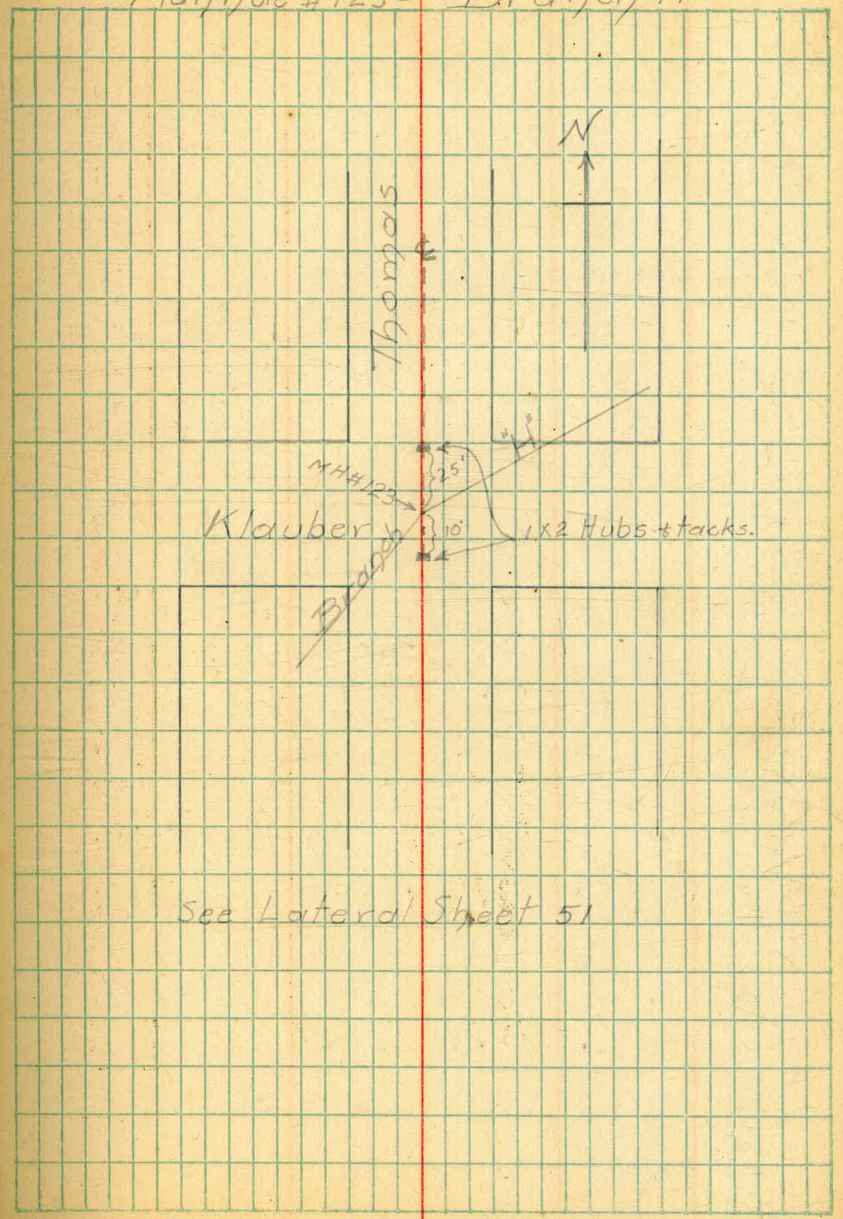
Srijale
Chisholm } 9-19-21

Manhole #121 - Branch - "K"



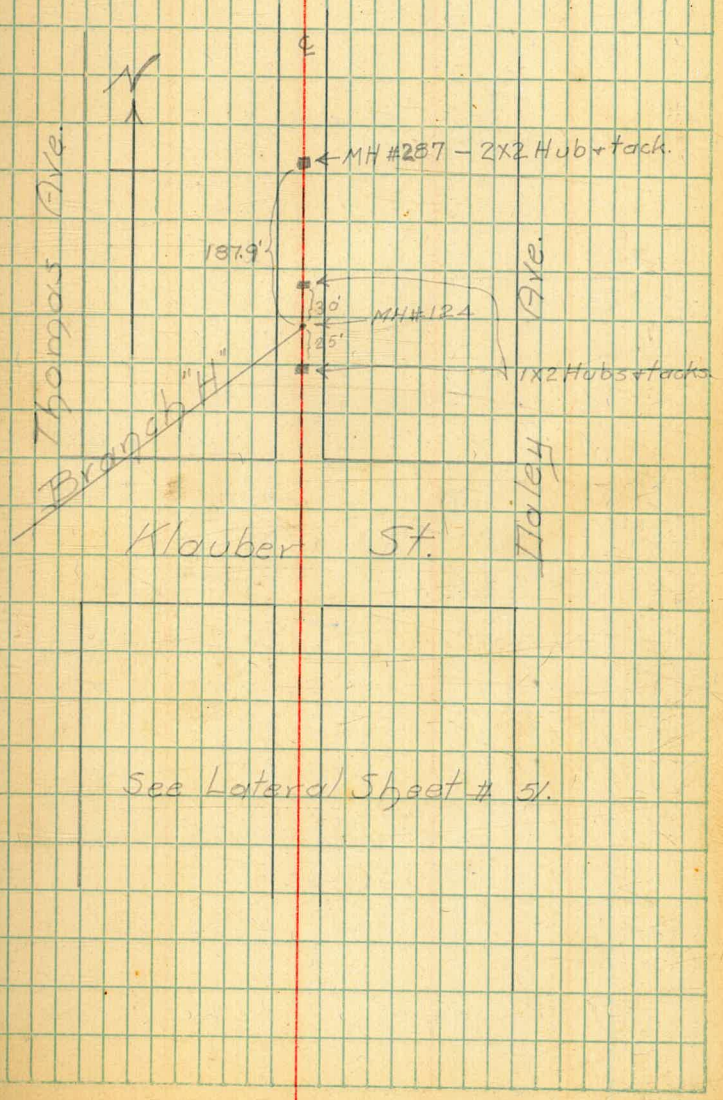
Smale
Chisholm } 10-14-21

Manhole #123 - Branch "H"



See Lateral Sheet 51

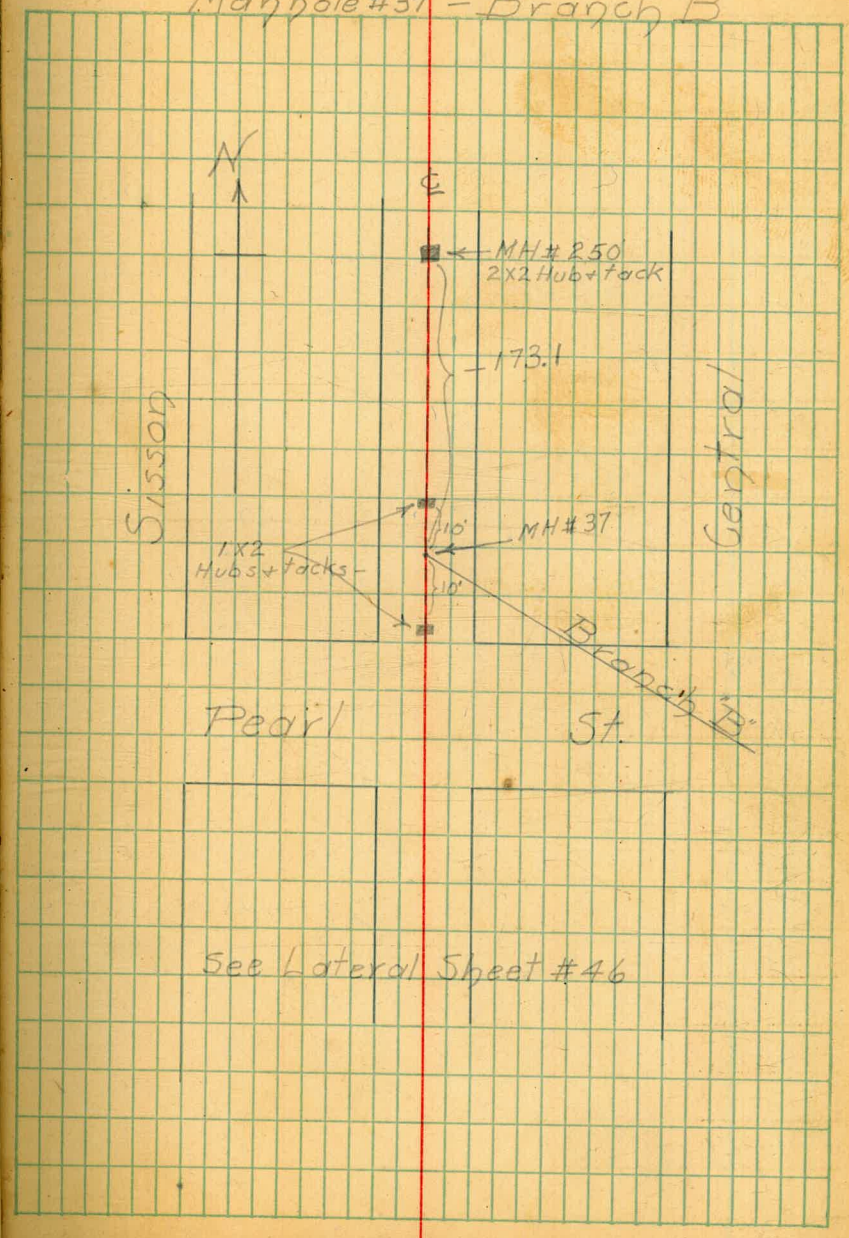
Manhole #124 Branch "H"



Smale
Chisholm } 10-19-21

15

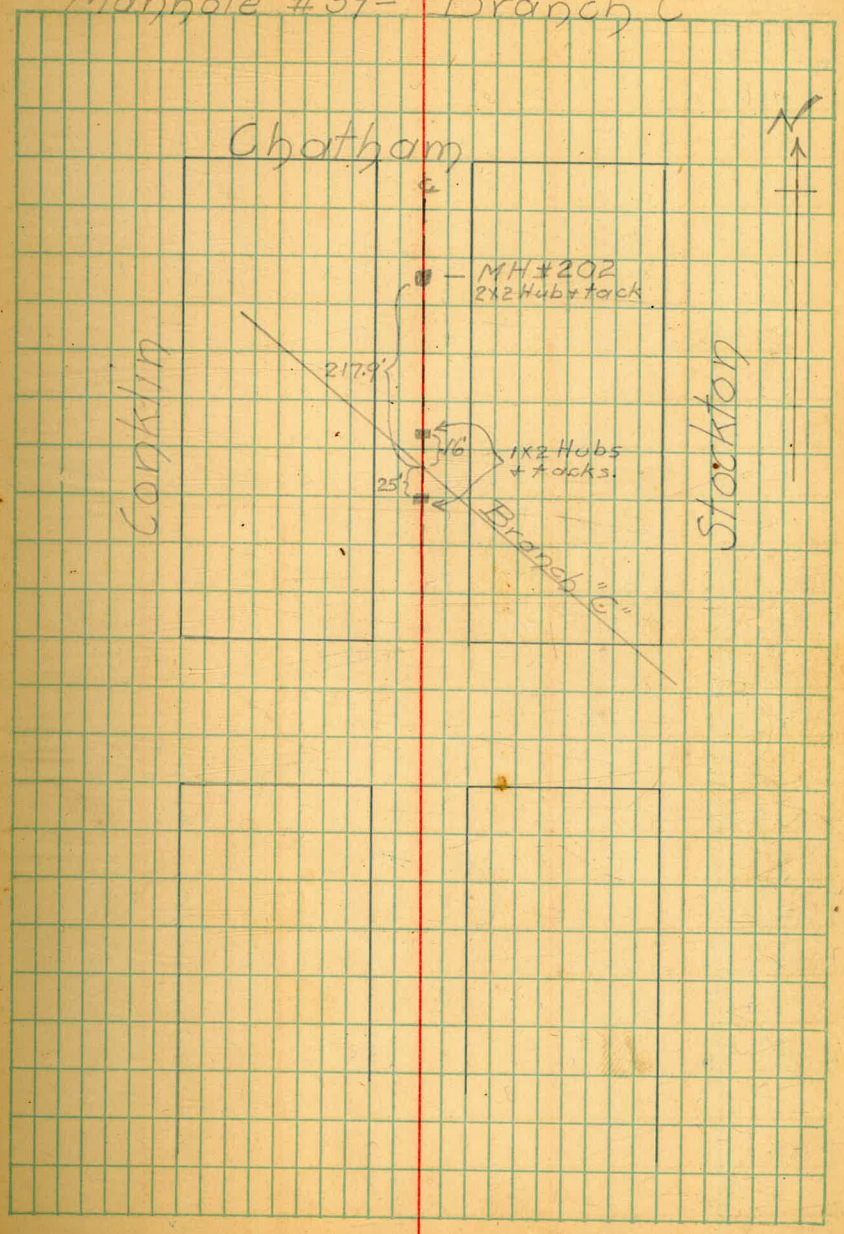
Manhole #37 – Branch "B"



See Lateral Sheet #46

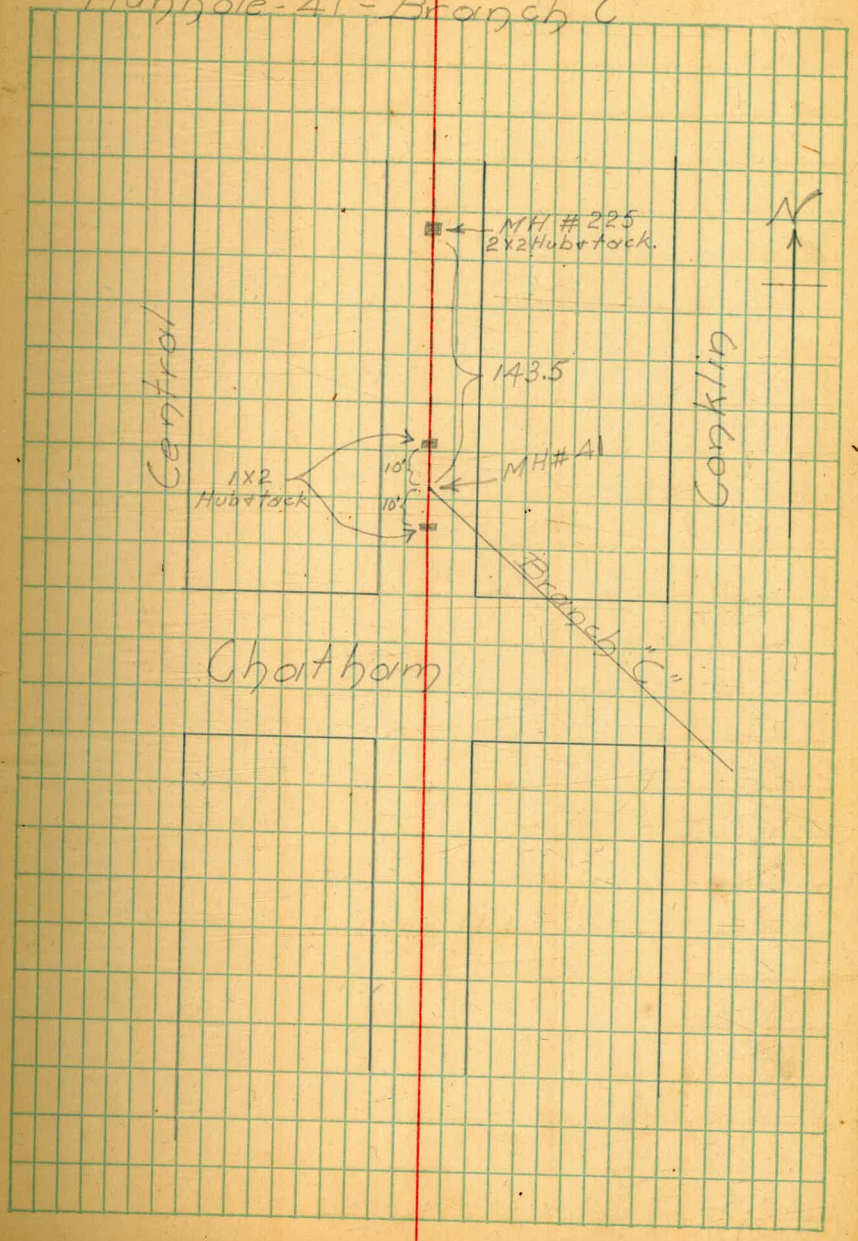
Smale
Chisholm } 10-19-21

Manhole #39- Branch "C"



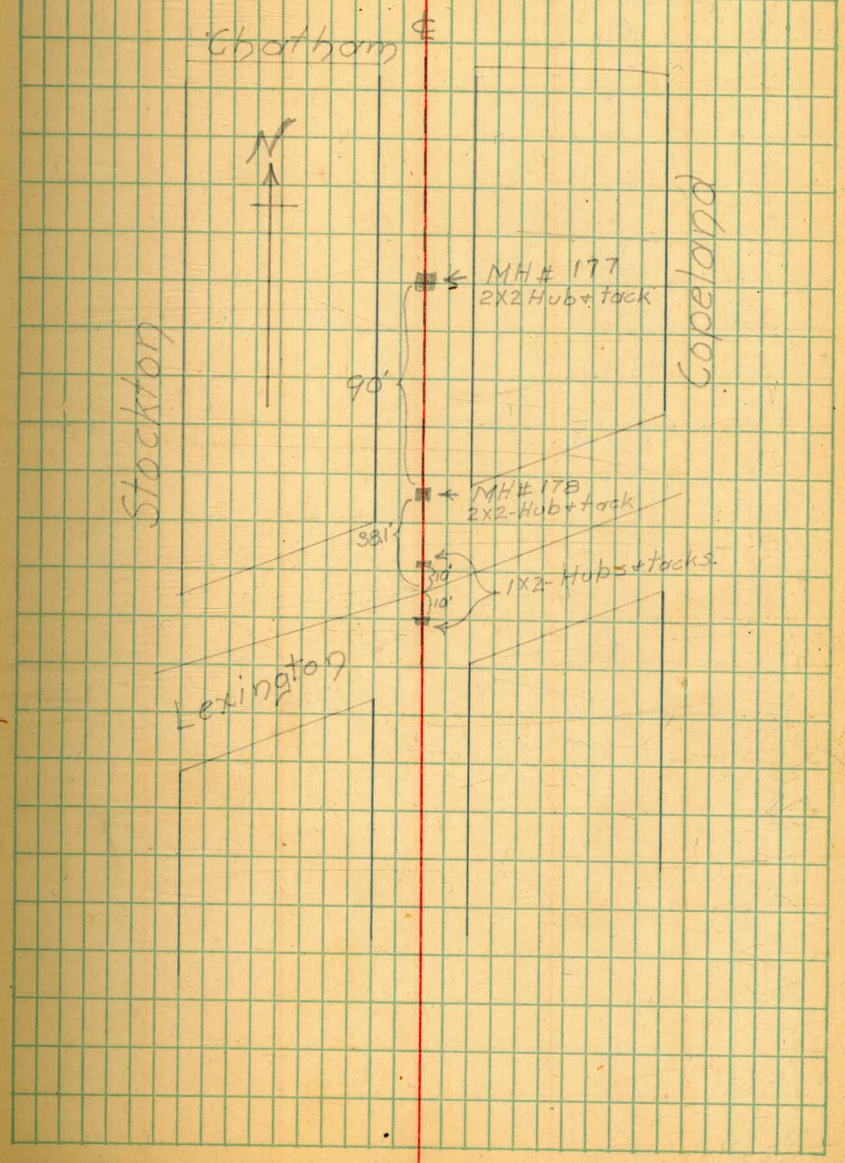
Smale
Chisholm } 10-20-21

Manhole-41-Branch "C"



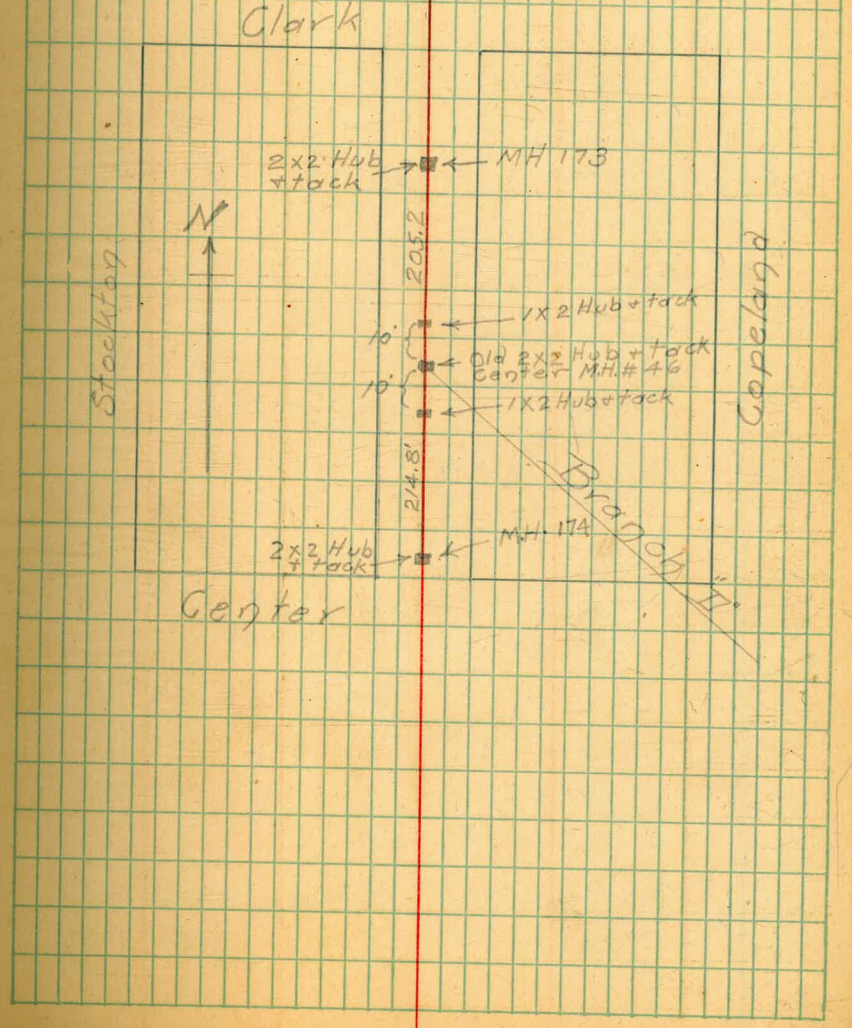
Smale
Chisholm } 10-21-21

Manhole #43 — Eastern Interceptor.



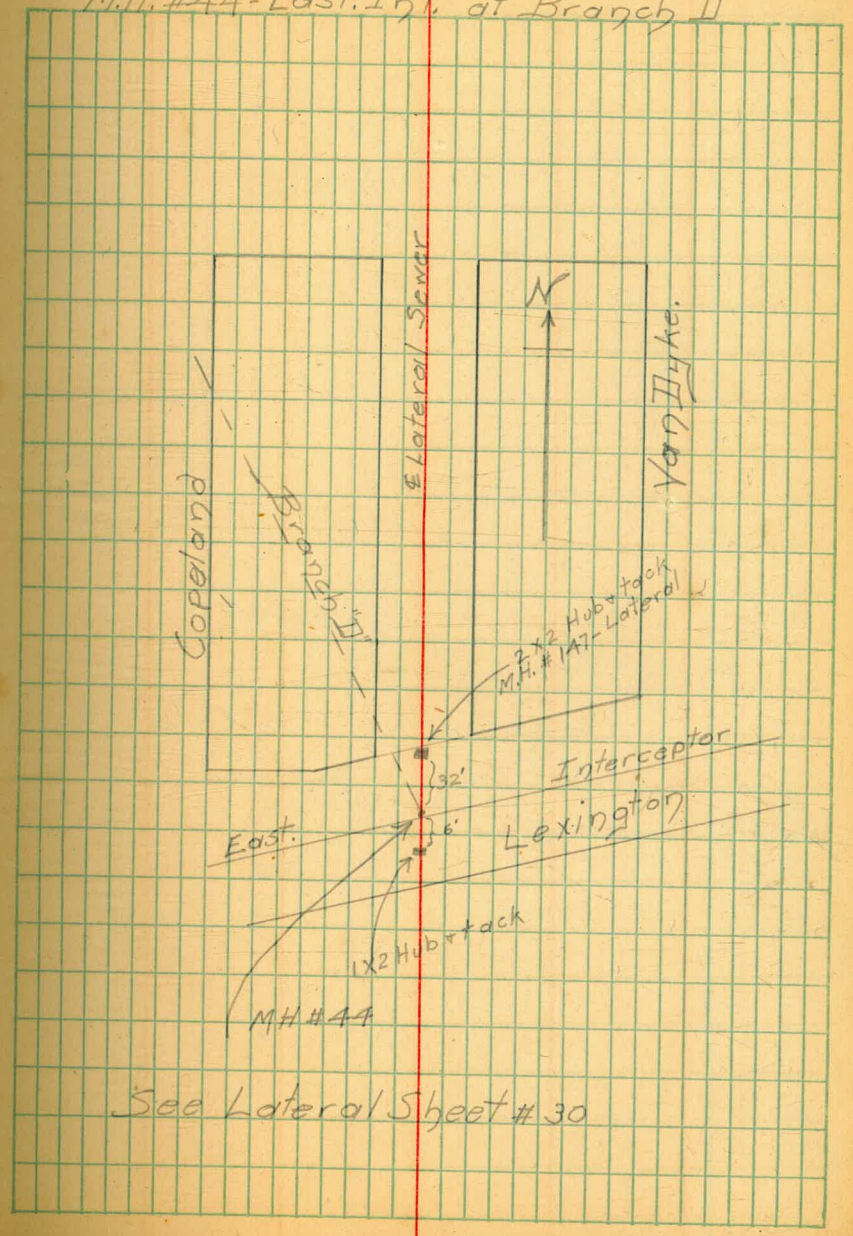
Smale
Chrisholm } 10-21-21 19

MH #46 – Branch II.



Smale
Chisholm } 11-23-21 20

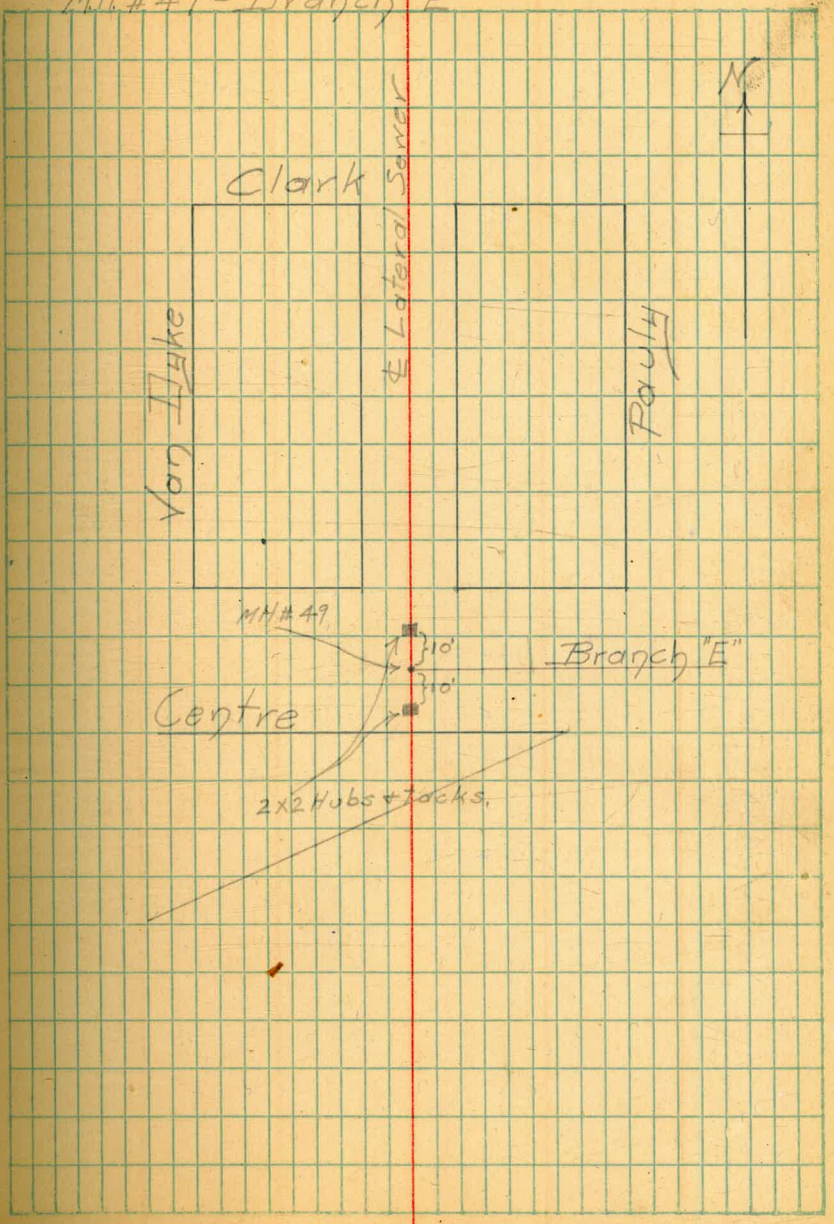
M.H. #44 - East. Int. at Branch "I"



See Lateral Sheet #30

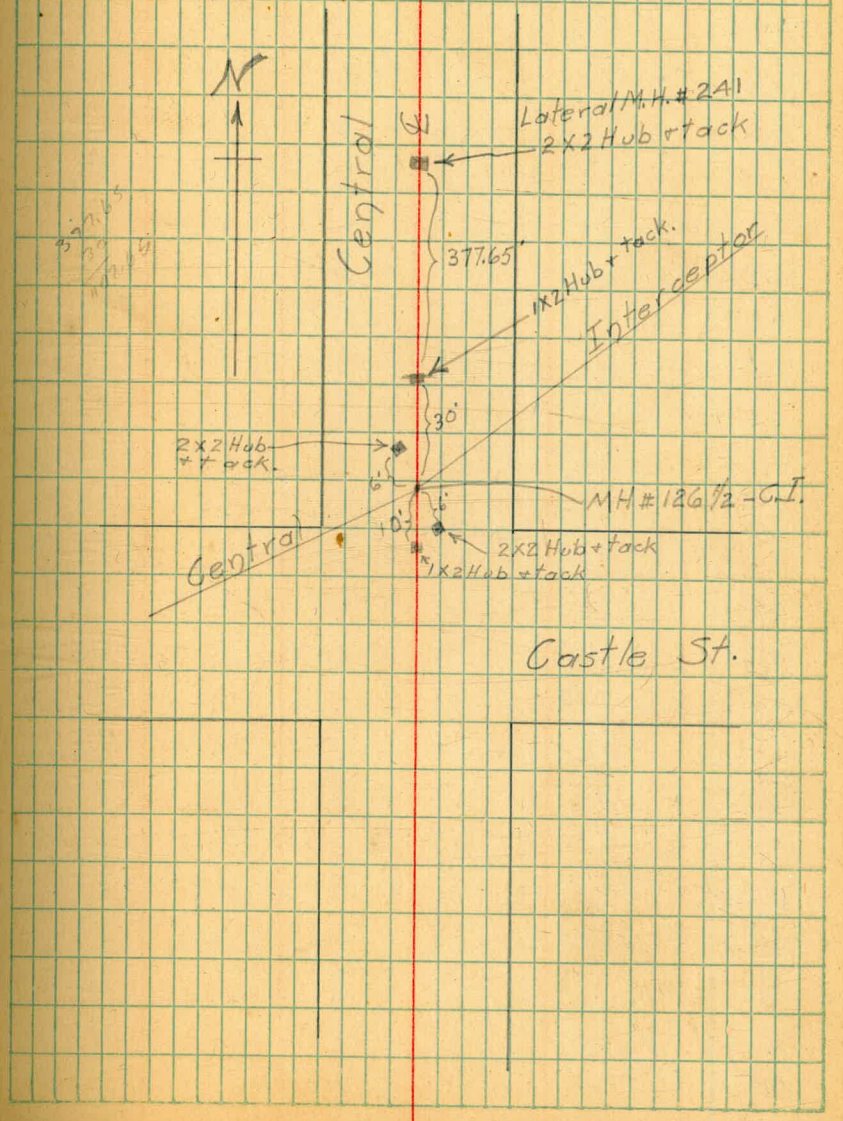
Smale
Chisholm } 11-25-21

M.H. #49 - Branch "E"



M.H. # 26½ - C.I. + M.H. #241 - Lateral.

See Lateral Sewer - Sheet #44.



Lateral Sewers – Sierra-Euclid Alley – M.H. #4 (S. of Univ.) to F.T. #4 (N. of Univ.)

Sta	+	HI	–	Elev. 340.63	Grade
0+00	4.77	345.40	6.16	339.24	335.14
+25			5.69	339.71	35.24
+50			5.20	40.20	35.34
+60			4.99	40.49	35.38
1+00			4.63	40.77	3554
TP +50			0.39	45.01	35.74
+75	6.33	51.34	5.86	45.48	35.84
2+00			5.76	45.58	35.94
+25			5.62	45.72	36.04
+50			5.38	45.96	36.14
+75			5.19	46.15	36.24
3			5.22	46.12	36.34
+25			4.81	46.53	36.44
+50			4.88	46.46	36.54
+75			5.55	45.79	36.64
4			5.98	45.36	36.74
+25			6.54	44.80	36.84
+50			7.60	43.74	36.94
+75			9.83	41.51	37.04
+90			11.33	40.01	337.10
TP			10.81	40.53	
BM	5.17	45.70	5.06	340.64	S.B. 340.69

See Sheet #3

All stakes set on 6' offset East.

Smale } 11-26-21
Chisholm }
Levels with transit. 25

5% Cut –

B.P. – N.W. cor. Univ. + Euclid – B82 P2

4.10	MH #5 – 2x2 Hubstacks on 6' offset E. & W.
4.47	
4.86	
5.11	Pavement – S/S Univ. Ave.
5.23	N/S SARH.
9.27	Shoulder of cut 5.10'
9.64	
9.64	
9.68	
9.82	
9.91	
9.98	Revised – 3-17-22 See Page 37
10.09	Grade Sheet #115 –
9.92	
9.15	
9.62	
7.96	
6.80	
4.47	
2.91	End of line.

F.T. #4 – 2x2 Hubstack on 6' offset E. & W.

B.P. – N.W. cor Univ. + Euclid – B82 P2

Lateral Sewers - Menlo - Sierra alley.

Sta.	+	HI.	−	Elev.	Grade
BM	7			341.53	
0+00	7.35	348.88	6.95	41.93	335.00
+20			7.43	41.45	35.09
+60			6.98	41.90	35.27
1			7.30	41.58	35.46
+25			6.23	42.65	35.57
+50			5.38	43.50	35.68
+75			5.03	43.85	35.80
2			4.71	44.17	35.91
+25			4.83	44.05	36.03
+50			4.40	44.48	36.14
+75			4.15	44.73	36.26
3			3.55	45.33	36.37
+25			2.95	45.93	36.48
+58.85			2.25	46.63	36.64
BM-			5.80	343.08	S.B. 343.08

See Sheet #5

All stakes set on 6' offset East.

MH14 to MH13

Cut

Smale } 12-7-21
Chisholm }
Levels with transit.

BP-N.W. Univ. & Sierra - B82 - P2

6.93 MH#14 - 20' S. of S/L Univ. Ave.
2x2 Hubs & tacks 6' E & W.
6.36 (8" So. 6" N.) (See Book So. 2 P6 - line south)
6.63 On pavement
6.12
7.08
7.82 Grade Sheet #52 - 12-8-21
8.05
8.26
8.02
8.34
8.47
8.96
9.45 MH#~~14~~ 13 - 2x2 Hubs & tacks at center
9.99 & 6' offsets E & W.

BP-N.W. Univ. & Menlo - B82 P2.

Lateral Sewers - Mentone - Menlo alley across Univ. Ave.

BM	+	HI	—	Elev. 351.18	Grade .4%
TP.	3.12	54.30	6.93	47.37	
0+00	6.14	53.51	6.01	47.50	338.85
+25			5.53	47.98	38.95
+50			4.86	48.65	39.05
+80			6.94	46.57	39.17
1+20			6.83	46.68	39.33
+60			6.71	46.80	39.49
+75			5.15	48.36	39.55
2			5.20	48.31	39.65
+25			5.79	47.72	39.75
+50			6.22	47.29	39.85
+75			6.64	46.87	39.95
3			7.00	46.51	40.05
+25			7.54	45.97	40.15
+50			7.88	45.63	340.25
B.M.			10.43	343.08	S.B. 343.08

All stakes set on 6' offset East

See Sheet # 7

Smale
Chisholm } 12-15-16-21
Cox
Levels with transit

Cut.

B.P. N.W. Mentone & Univ. (B82 P2)

8.65 M.H. #23 - S. of University Ave.
(2x2 Hub & tack at center & 6' E & W.)
9.03
9.60
7.40 S.L. Univ. Ave.
7.35 Edge of concrete at N/S. St. R.y.
7.30 N.L. Univ. Ave.
8.81
8.66 Grade Sheet #53
7.97
7.44
6.92
6.46
5.82
5.38 M.H. #22 - N. of University Ave.
(2x2 Hub & tack at center & on 6' offset E. & W.)

B.P. N.W. cor Univ. & Menlo. B82-P2

Lateral Sewers - Chamoune - Mentone alley across Univ. Ave.

B.M.	+	H.I.	−	Elev. 351.18	Grade .3
0+00	8.28	59.46	10.75	48.71	341.24
+25			10.23	49.23	41.31
+50			9.22	50.24	41.39
+75			8.31	51.15	41.46
1			7.55	51.91	41.54
+25			6.32	53.14	41.61
+50			5.45	54.01	41.69
+75			4.88	54.58	41.76
2			4.57	54.89	41.84
±20			7.44	52.02	41.90
±60			7.31	52.15	42.02
3			7.15	52.31	42.14
+25			6.12	53.34	42.21
+60			6.38	53.08	42.32
B.M.			5.91	53.55	S.B. 53.62

See Page 30 This Book

All stakes set on 6' offset East

See Sheet # 11.

Smale, Chisholm, Cox } 12-15-16-21
Levels with transit.

28

Cut.

B.P. N.W. Univ. & Mentone. B-82 P-2

7.47	M.H. # 33 - So. of Univ. 2x2 Hub &
7.92	tack at center & on 6' offset E & W.
8.85	
9.69	
10.37	
11.53	Grade Sheet # 54.
12.32	
12.82	
13.05	
10.12	S/S Pavement
10.13	Ft edge of pavement at N/S St. Rd.
10.17	N/S Pavement.
11.13	
10.76	MH # 32 - N. of Univ. 2x2 Hub & tack at center & on 6' offset E & W.

B.P. N.W. cor. Univ. & Chamoune. B82 P2

Lateral Sewers - Cabrillo-Chamoune alley across Univ. Ave.

BM	+	HI	-	Elev. 353.59	Grade .96209
0+00	7.25	360.84	10.28	50.56	342.50
+20			9.60	51.24	42.57
+60			9.37	51.47	42.71
1			9.23	51.61	42.85 ✓
+25			7.11	53.73	42.94 ✓
+50			6.08	54.86	43.03
+75			5.34	54.50	43.11
2			5.08	55.76	43.20
+25			4.92	55.92	43.29
+50			4.74	56.10	43.38
+75			4.70	56.14	43.47
3			4.81	56.03	43.55
+25			4.81	56.03	43.64
+50			4.87	55.97	43.73
+75			4.74	56.10	43.82
4			4.53	56.31	43.91
+25			4.58	56.26	43.99
+50			4.31	56.53	44.08
+80			4.55	56.29	44.19
BM-			11.26	49.58 SB	49.58

All stakes set on 6' offset East.

See Sheet #11

See Book So.2 P.17 for line south.

Smale / Ghisholm / Hales / Cox

Cut.

B.P. - N.W. Chamoune & Univ.

8.06	M.H. #40 - S. of University Ave.
8.67	S.L. Univ. Ave.
8.76	Edge of concrete at N/S St Ry.
8.76	N.L. Univ. Ave.
10.79	
11.83	
11.39	2x2 Hub & tack at center & on 6' offset E. & W.
12.56	
12.63	
12.72	
12.67	Restaked on 6' offset W. — See Book So.2 P. 40
12.48	
12.39	
12.24	
12.28	
12.40	
12.27	
12.45	2x2 Hub & tack at center & on 6' offset E. & W.
12.10	M.H. # 39 - N. of University Ave.

B.P. - N.W. Univ. & Cabrillo B82-P1

Sta	+	HI	—	Elev 351.18	
0+00	5.55	56.~~68~~ 73	787	48.86	
+25			7.33	49.40	
+50	New		6.38	50.35	
+75	~~At~~		5.53 ~~5.48~~	51.20	
1			4.80 ~~4.76~~	51.92	
+25			3.43 ~~3.38~~	53.30	
+50			2.74 ~~2.70~~	53.98	
+75			2.10 ~~2.05~~	54.63	
2			1.78	54.95	
+20					
	Chaucoone – Mentone Alley				
BM.				351.18	
3+60	8.93	360.11	6.99		
3+25			6.73		
3+00			7.79		
2+60 ±			7.95		
2+20			6.21	353.90	341.90
2			4.27	355.84	41.84
1+75			4.35	355.76	41.76
1+50			4.42	55.69	41.69
1+25			4.50	55.61	41.61
1+00			6.57	53.54	41.54
0+75		✓	6.65	53.46	41.46
0+50		✓	6.72	5339	41.39
0+25			10.73	4938	41.31
0+00			11.24	4887	41.84

4871
4923
5024
51.15
51.91
53.14
54.01
54.58
54.89

Ford + Smale – Chisholm Rogers –
1-12-22

B.P. N.W. Univ + Mentone
M.H. No. 32
on stakes 6' East

+12.0
+14.0
+14.0
+14.0
+14.00
+12.0
+12.0
+12.0
+8.07
+7.63

On Grade Boards

on stakes 6' East
M.H 33

Ctd. from Page 30

Sta	+	HI	−	Elev.	Grade
0+00	M.H 33 E		348.87	348.87	
3+59.15	1.06	349.93	1.06	348.87	341.24 ~~340.24~~
3+25			2.56	47.37	41.13
3			3.15	46.78	41.06
2+75			3.31	46.62	40.98
2+50			3.35	46.58	40.91
2+25			3.60	46.33	40.83
2			4.11	45.82	40.76
1+75			4.90	45.03	40.68
1+50			5.26	44.67	40.61
1+25			5.19	44.74	40.53
1			5.37	44.56	40.46
0+75			5.00	44.93	40.38
0+50			4.99	44.94	40.31
0+25			4.29	45.64	40.23
0+00			3.90	46.03	340.16

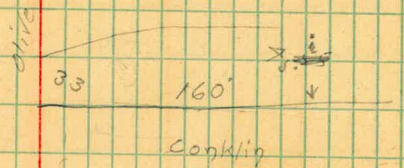
Rods by E.P.F.
reduced by Y.M.S.

Ford
Smale
Chisholm
Rogers
} 1-12-22

Cut

7.63	M.H 33
6.24	
5.72	
5.64	
5.67	
5.50	on stakes 6' East
5.06	
4.35	Grade Sheet #65 1-12-22
4.06	
4.21	
4.10	
4.55	
4.63	
5.41	
5.87	M.H #34

BM	5.38	73.07		367.69
			5.60	67.47
			6.50	66.57
			6.60	66.47
			7.1	
			7.1	
			7.5	
			7.2	65.87
			6.9	
			6.65	Pitch
			6.8	
			7.3	
			7.4	65.67
			7.1	
			5.3	67.77



Curb line

Curb on Conkling

Drainage Ditch – Olive E. from W.L. Conklin

Sta	+	HI	–	Elev.	Grade
BM				367.69	.0921
0–33	4.57	72.26	5.61	66.65	65.60
0+00			5.61	66.65	65.57
+50			4.82	67.44	65.52
1			5.84	66.42	65.48
+50			5.10	67.16	65.43
2			5.45	66.81	65.38
+50			5.95	66.31	65.34
3			6.13	66.13	65.30
+50			6.28	65.98	65.25
BM–			6.21	66.05	S.F. 366.04
4+00			6.82	365.44	365.20

Cut.	
1.05	Staked on line bet. 14' curb on N/S Olive west of Central to 15' curb on N/S Olive at W/S 5th. Levels taken on tops of 1x2 hubs set 7.1 to ground line.
1.08	
1.92	W.P.L. Conkling.
0.94	B.P. N.W. Conkling at Olive.
1.73	
1.43	
0.97	
0.83	
0.63	
	BP. – N.W. Stockton at Olive –
0.24	

Drainage - Univ. & Highland -

	+	HI	-	Elev.
BM-	-			354.12
1+75	5.02	359.14	5.67	
			6.58	
			6.9	
			7.2	
			7.3	
			7.7	351.44
1+50			7.2	
			5.95	
			5.85	
			5.93	
			7.00	
			6.95	
			6.9	

Smale
Chisholm
Rogers
1-31-21

N.W. Univ. & Highland.

Water level - N.W. End.

+

alley side

N. end ditch

Center

S. end -

Check Levels to MH on Anna at alley bet. Fairmount & Colonial.

	+	H.I.	−	Elev.	
B.M.				359.78	B82 P1
TP	4.64	64.42	4.98	59.44	
MH	2.99	62.43	8.58	353.85	
TP			8.38	54.05	
	4.67	58.72	2.05	56.67	356.68

Smale
Chisholm } 2-1-22

MH - existing sewer - Anna at alley bet. Fairmount & Colonial.

B82 P1

Drainage Ditch - Olive - Conklin to Stockton.

Sta.	+	H.I.	-	Elev.	Grade
BM				367.69	
0-33	5.31	73.00			365.60
0+00					65.57
+50					65.52
1					65.48
+50					65.43
2 TP			6.18	66.82	65.38
+50	4.56	71.38			65.34
3					65.30
+50					65.25
4					65.20
BM-			5.34	66.04	366.04
				367.69	
	5.25	72.94	6.28	66.66	65.60

Smale
Chisholm } 2-2-22
Rogers

36

Cut Rods.

B.P. - N.W. Conklin + Olive. B-51, P13

3	4.40
✓	4.43
✓	4.48
3	4.52
✓	4.57
✓	4.62
3	3.04
2	4.08
✓	4.13
✓	4.18

Grade stakes set on line 5. offset 5' south of 33. shown on page

B.P. N.W. Stockton + Olive. B-51 P13

1.06

Lateral Sewer – Sierra-Euclid alley.
MH#4 to F.T.#4 – Revised grades –

Smale
Chisholm } 3-17-22

Sta.	+	H.I.	–	Elev.	Grade
				340.63	
0+00	5.44	346.07			
+25					
+50					
+75					
1					
+25					
+50			0.86	345.21	35.74
+75			0.49	45.58	35.84
2 TP			0.55	345.52	35.94
+25	5.02	350.54	4.40	46.14	36.04
+50			4.31	46.23	36.14
+75			4.32	46.22	36.24
3			4.36	46.18	36.34
+25			3.79	46.75	36.44
+50			3.94	46.60	36.54
+75			4.56	45.98	36.64
4			4.54	46.00	36.74
+25			5.35	45.19	36.84
+50			6.00	44.54	36.94
+75			7.33	43.21	37.04
+90			9.05	41.49	37.10
TP			12.10	338.44	
BM	6.11	44.55	3.94	340.61	

See Page 25

Cut – Staked on 6' offset W.

BP-N.W. Euclid & Univ. B32 P2

MH #4

9.47
9.74
9.58
10.10
10.09
9.98
9.84
10.31
10.06
9.34
9.26
8.35
7.60
6.17
4.39 F.T.#4 – 2x2 at center & 6' E & W.

Grade Sheet #115 –

Moore
12-28-40

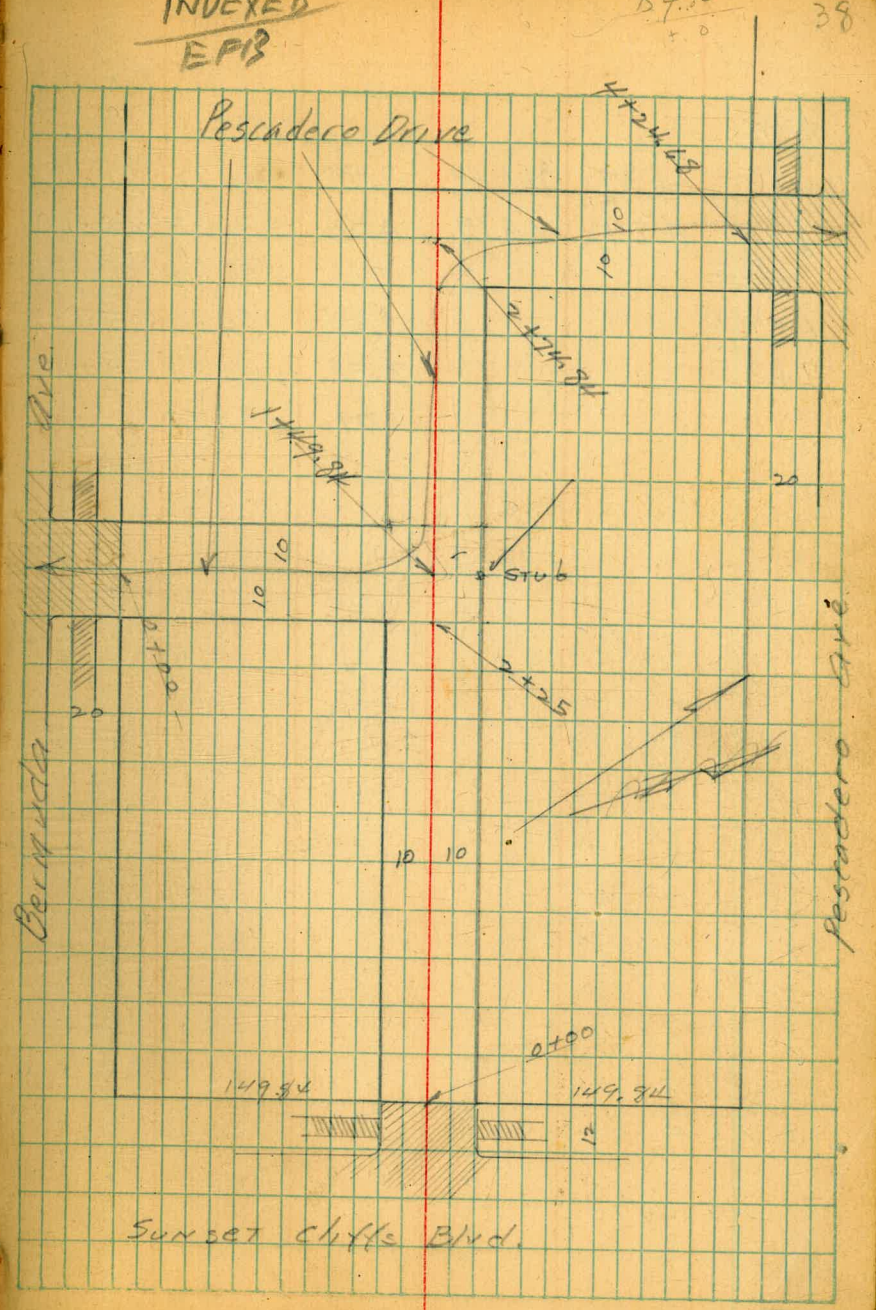
X sec of E & W alley
and Pescadero Drive
in Blk 44 Ocean Beach

NWBP	0 71	28.84		28.13	Sunset & Pescadero
	0-12	W cb	Line	Sunset Cliffs Blvd	
N pav.			5.11	23 73	
S "			5.50	23 34	
	0+0	WL	Sunset Cliff Blvd		
S cb			4.82	24 02	
S pav			5.01	23 83	
C "			5.02	23 82	
N "			4.69	24 15	
N cb			4.45	24 39	
	0+15				
-5			2.6	26 2	
N			4.4	24 4	
+2			5.1	23 7	
C			5.2	23 6	
S			5.0	23 8	
+30			6.2	22 6	

Red. & Plot. 12/31/40 C.B.H.

Cont'd P 41

INDEXED
EP13



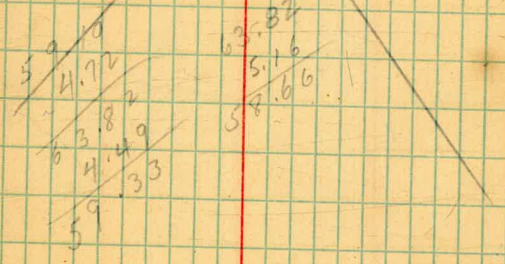
#9

BM				359.10	
T	4.39	363.49	3.59	359.90	
1+00	4.29	64.19	4.86	359.33	350.10
~~+20~~ 16.85			5.16	59.03	50.15
1+96.85			4.29	59.96	50.39
2+25			3.82	60.37	50.48
			5.09	359.10	

Cut

Univ. of Paula -

9.23
8.88
9.51
9.89



#10

BM				359.10	
				58.63	
0+00	4.24	363.34	4.75	58.59	349.06
+20			4.87	58.47	49.16
1			4.36	58.98	49.58
+25			3.57	59.77	49.71
BM			5.17	58.17	✓

40

Cut

9.53 Univ. & Pauly — (58.63)
9.31
9.40
10.06

	0+60		
-30		6.1	22.7
S		4.2	24.6
+5		4.7	24.1
C		5.0	23.8
+8		4.6	24.2
N		3.7	25.1
+5		2.1	26.7
	1+00		
-5		1.4	27.4
N		3.3	25.5
+2		4.2	24.6
C		4.4	24.2
+5		4.5	24.3
S		3.4	25.2
+30		6.1	22.7
	1+25		
S +0.4	0.9 P.P.		
	1+31		
S -3.5	℄ Sin. gar.	4.3	24.5 dirt
S		4.4	24.4
C		4.5	24.3
N		3.5	25.3
+5		1.0	27.8

	1+57		
N-20 E edge de. gar.	0.47		28.42 c&M.
	1+70		
S-10 ℄ Sin. gar	4.55		24.29 Wood &l.
	1+77		
N-20 W. edge de. gar	0.47		28.37 c&M.
-5	1.7		27.1
N'	3.3		25.5
C	4.4		24.4
S	4.5		24.3
	2+25 = E.L. Pescadero Drive to South		
S	2.7		26.1
C	2.4		26.2
N'	2.1		26.7
+5	1.6		27.2
T.P. 4.4 V	3138	1.88	26.96 STUB

Pescadero Drive xsec.

0-20 = N cb. Line Bermuda Ave

W	Pav quarter	9.48	21.90
E	" "	9.60	21.78
	0+00 N℄ Bermuda.		
E	cb	8.73	22.65
E	Pav	8.88	22.50

C pav		9.18	22.20
W "		8.78	22.60
W cb		8.63	22.75
W +0.5	S.E. Cor Stucco Bldg		✓
	0+18		
W -0.5	N.E. Cor "	and beg. lattice fence	✓
	0+28		
W -0.4	℄ 2' cem walk	7.68	23.70 ✓
W		7.9	23.5
C		8.2	23.2
E		8.0	23.4
+20		8.6	22.8
	0+31		
W +0.1	S edge con. apron	7.56	23.82 ✓
W -0.8	" " do. gar	7.25	24.13 cem fl.
	0+50		
-20		8.5	22.9
E		8.2	23.2
C		8.1	23.3
+9.8	N edge Con. apron	7.52	23.86
W	on apron	7.46	23.92 ✓
W +0.8	N edge do. gar	7.25	24.13 cem. fl.
	0+75		
W		7.6	23.8
C		7.6	23.8

E	7.2	24.2
+20	8.1	23.3
1+00		
-20	7.8	23.6
E	7.0	24.4
C	6.6	24.8
W	6.8	24.6
+20	6.1	25.3
1+39.84 = SW		
W	4.9	26.5
C	5.1	26.3
1+40		
W+0.7 1.2 P. & Tel. P.		
1+49.84 = ℄ Δ 90° Lt.		
C SMH. Rim	5.00	26.38
N on stub	4.42	26.96
1+59.84		
N	4.4	27.0
C	4.8	26.6
1+90		
-10	5.2	26.2
S	4.4	27.0
C	4.5	26.9
N	4.1	27.3
N beg. picket fence		

Please give plus or minus on this point.

	1+93			
N	E 2' Conc walk	3.72	27.66	
	1+97			
N	end picket fence			
	1+98			
N − 3.7	E edge Con. apron	3.43	27.95	
N − 5.7	E " do. gar	3.34	28.04	Conc
	2+15			
N − 5.7	W. edge do. gar	3.32	28.06	
N − 3.7	" " apron	3.40	27.98	"
N		3.6	27.8	
C		4.1	27.3	
S		4.4	27.0	
+20		4.0	27.4	
	2+16			
N	beg. picket fence			
	2+45			
−10		2.9	28.5	
S		3.1	28.3	
C		3.1	28.3	
N	fence	2.4	28.8	
	2+64.84 = E.L. to North			
N	Cor picket fence	2.5	28.9	
C		2.5	28.9	
S		2.3	29.1	

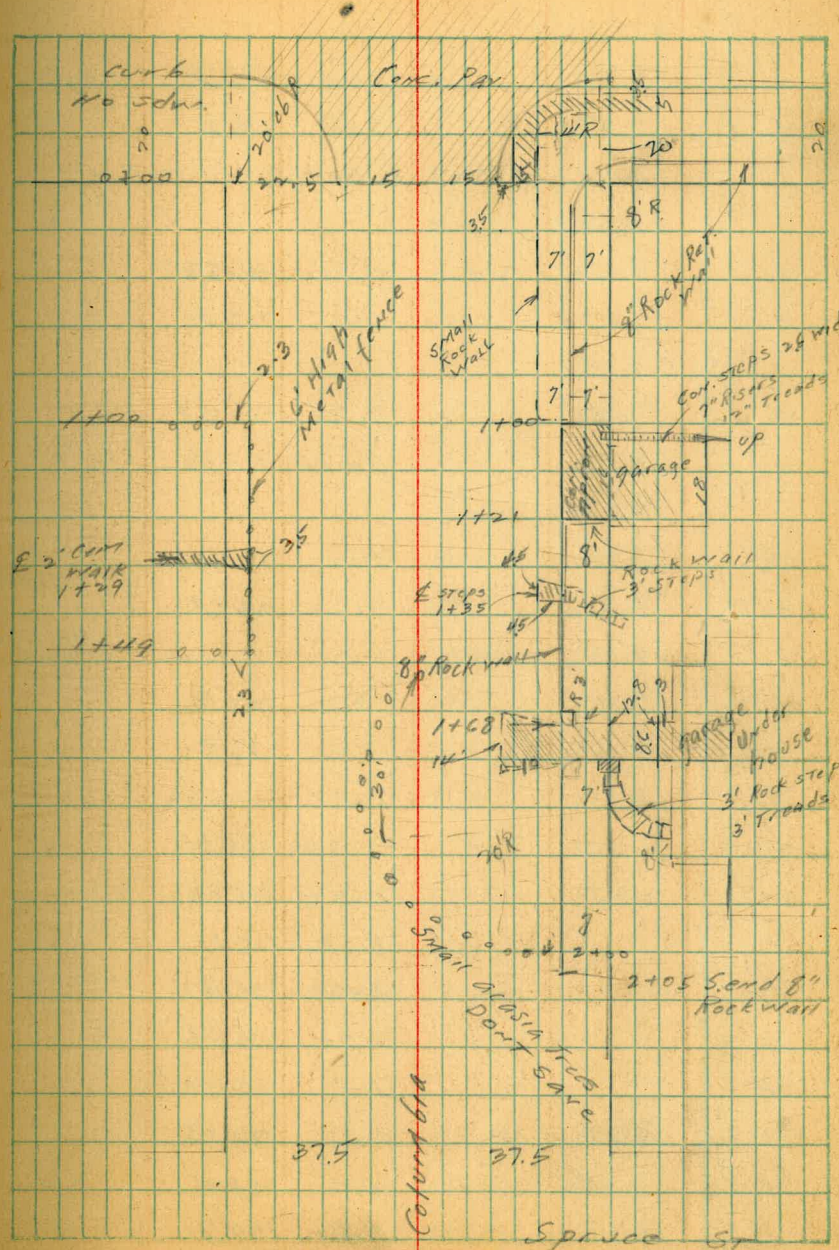
S +10		2.3	29.1
	2+74.84 = E to North ∠ Rt 90°		
S		2.0	29.4
C	SMH RIM	1.9	29.46 ✓
N		2.0	29.4
	10' West of 2+74.84 = W.L. to North		
N		0.8	30.6
C		1.1	30.3
S		1.2	30.2
	2' W = P of Tel Pole 0.7 dl.		
T.P	6.10 35.48	2.00	29.38
	2+90		
E	end Picket fence		
E	S edge Con. apron	5.39	30.09
E − 8.2	" " do gar	5.18	30.30 Conc ✓
	3+20		
E − 8.2	N edge do gar.	5.22	30.26
E	" " Con. apron	5.60	29.88
E	beg. picket fence	5.6	29.9
C		5.6	29.9
W		4.9	30.6
	3+25		
W + 0.1	beg bath fence		

	3+59		
W	+0.2 end lath fence		
	3+61		
W	+0.1 E 3' Conc. walk	3.43	32.05
W	+0.2	3.8	31.7
C		4.7	30.8
E	picket fence	4.6	30.9
	3+64		
W	+2.9 S edge Conc. apron	4.03	31.45
W	on apron	3.66	31.82
W	-0.9 S edge Sidewalk	3.40	32.08 CEM
	3+75		
W	-0.9 N edge Sidewalk	3.42	32.06
W		3.63	31.85
W	+2.9	3.98	31.50
	4+00		
E	Picket fence	3.8	31.7
C		4.0	31.5
W		3.4	32.1
	4+09		
E	end Picket fence		
	4+24.68 = SL Pescadero Ave		
W	c6	2.62	32.86
W	Par	2.94	32.54
C	"	3.26	32.22

E	Par	3.12	32.36
E	c6	2.94	32.54
	4+24.68 S c6 Line Pescadero Ave		
E	Par	3.81	31.67
W	"	3.58	31.90
T.P	27.2 35.12	3.08	32.40
check to orig. BM		4.97	28.15 28.13
			0.02

Moore 2-7-41 | X sec Columbia = 75' wide 22.5 curbs 7½ 1/4 s | Sassafras to Spruce | Indexed LM

NWBP	0.36	166.68		166.32	Sassafras State
T.P.	0.18	154.06	12.80	153.88	
T.P.	0.19	141.62	12.63	141.43	
T.P.	5.59	134.46	12.75	128.87	
NWBP Sassafras			8.72	125.74	✓
S cb Line on Sassafras					
W +2.5 cb PC			11.45	123.01	
" gut			12.07	122.39	
cb			9.97	124.49	
1/4			9.31	125.15	
c			8.84	125.62	
1/4			8.42	126.04	
cb			7.96	126.50	
+20 gut			5.92	128.54	
" cb			5.38	129.08	
EL Top cb			11.99	129.47	
S E Curb Ret in 4 parts					
#1 PT					
cb			6.60	127.86	
gut			7.09	127.37	
#2					
cb			7.35	127.11	
gut			7.88	126.58	



#3 part

c6		7.67	126.79
gvt		8.15	126.31
	SW Curb Ret 4 parts		
	#1 pt		
c6		10.58	123.88
gvt		11.16	123.30
	#2 pt		
c6		9.85	124.61
gvt		10.40	124.06
	#3 pt		
c6		9.14	125.32
gvt		9.67	124.79
	SL Sassafras = c6 EC end Ret = #4 part		
w		10.6	123.9
+21	for ydge	7.7	126.8
c6		8.43	126.03
gvt		8.95	125.51
1/4		8.54	125.92
c		8.29	126.17
1/4		8.04	126.42
gvt		7.90	126.56
c6		7.50	126.96
+8.5	edge sdw	7.33	127.13
+9		6.1	128.4
+15		4.7	129.7

+15.5	Top Ret. wall	+1.0	135.5
E		+2.0	136.5
	0+25		
E		+5.1	139.6
+7	Top wall	+2.1	136.6
+7.5		2.4	133.1
+14		3.2	131.3
+15		4.0	130.5
+21		4.4	130.1
c6		5.2	129.3
1/4		5.0	129.5
c		5.1	129.4
+5		5.3	129.2
1/4		3.0	131.5
+3		1.9	132.6
c6		2.1	132.4
w		7.8	126.7
+15		10.5	124.0
T.P	11.13 145.55	0.04	134.42
	0+50		
-1.5		18.0	122.6
x1		14.5	131.1
c6		10.4	135.0

145.55

1/4		11.6	134.0
+3		13.7	131.8
c		13.3	132.3
1/4		13.1	132.5
c6		13.7	131.8
+2		13.8	131.7
+3		12.7	132.8
+8		12.6	133.0
+9	Top small wall	11.8	133.8
+15		11.5	134.1
+15.5	Top wall	7.4	138.2
E		4.1	141.5
	0+75		
E		2.6	143.0
+7	Top wall	5.7	142.9
+7.5		9.3	136.3
+14		9.6	136.0
+15		10.4	135.2
+18		10.5	135.1
+19		11.3	134.3
c6		11.1	134.5
1/4		10.7	134.9
c		11.1	134.5
+5		11.6	134.0
+6		10.3	135.3
1/4		9.9	135.7

145.55

c6		9.7	135.8
W		13.4	132.2
+15		16.2	129.4
	1+00		
-15		14.7	130.9
W		12.6	133.0
+5		12.4	133.2
+7		11.0	134.6
c6		9.8	135.8
1/4		9.3	136.3
c		9.1	136.5
1/4		8.7	136.9
c6		8.6	137.0
+4		8.8	136.8
+8		8.1	137.5
+9	Top small wall	6.9	138.7
+15		7.0	138.6
+15	" " "	5.6	140.0
+15.5	" Ret "	4.6	141.0
E	" " "	0.40	145.15
	1+00.2		
E		3.2	142.4
+2		4.0	141.6
+2.1	Cem	5.38	140.17
+8	NW Cor Cem apron	5.86	139.69
+19		8.8	136.8
E c6		8.6	137.0

145.55

	1+13 E garage		
E	cent Fl	5.24	140.31
+8	edge cent apron	5.53	140.02
	1+21		
E	St gar Fl.	5.24	140.31
+8	" apron	5.31	140.24
+15		5.5	140.1
+17		6.0	139.6
c6		6.0	139.6
	1+21.20		
E	Top wall	+1.2	146.8
+8	" "	0.0	145.6
+8.1		3.8	141.8
+10.5		3.9	141.7
+11		5.2	140.4
+15		5.5	140.1
+17		5.9	139.7
c6		6.0	139.6
	1+29		
W	on E 2' Conc walk	12.50	133.05
+2.3	" " end "	12.18	133.37
	1+35		
E	on Lawn	+0.8	146.4
+4	Top wall N edge Steps	+0.35	145.90
+4.3	Top 3d step	1.6	144.0

145.55

+8	Rock walk	2.94	142.61
+12.5	edge Rock walk	3.00	142.55
	1+50		
E	Lawn	+1.3	146.9
+8	Top wall	0.0	145.6
+8.2		1.8	143.8
c6		3.3	142.2
1/4		3.5	142.1
+4		3.6	142.0
C	N. end agasia row	3.2	142.4
1/4		7.6	138.0
c6		9.0	136.6
+20		12.0	133.6
W		12.6	133.6
+15		14.7	130.9
	1+52		
-15	Top Cut	14.7	130.9
W	" "	12.7	132.9
	1+68		
W	-10 Bot Cut	45.5	100.1
W	Top "	12.5	133.1
+15		10.1	135.5
c6		8.3	137.3
1/4		3.4	142.2
+2	E Row acacia		

145.55

C			3.2	142.4
1/4			2.8	142.8
CL			2.7	142.9
+5.5	Wedge apron		2.60	143.15
+13	" "	"	1.80	143.95
E	" "	"	0.1	145.5
E	Top Ret wall		+0.5	146.1
T.P	3.74	147.48	1.81	143.74

1472.3 & Cen Dr has been rebuilt

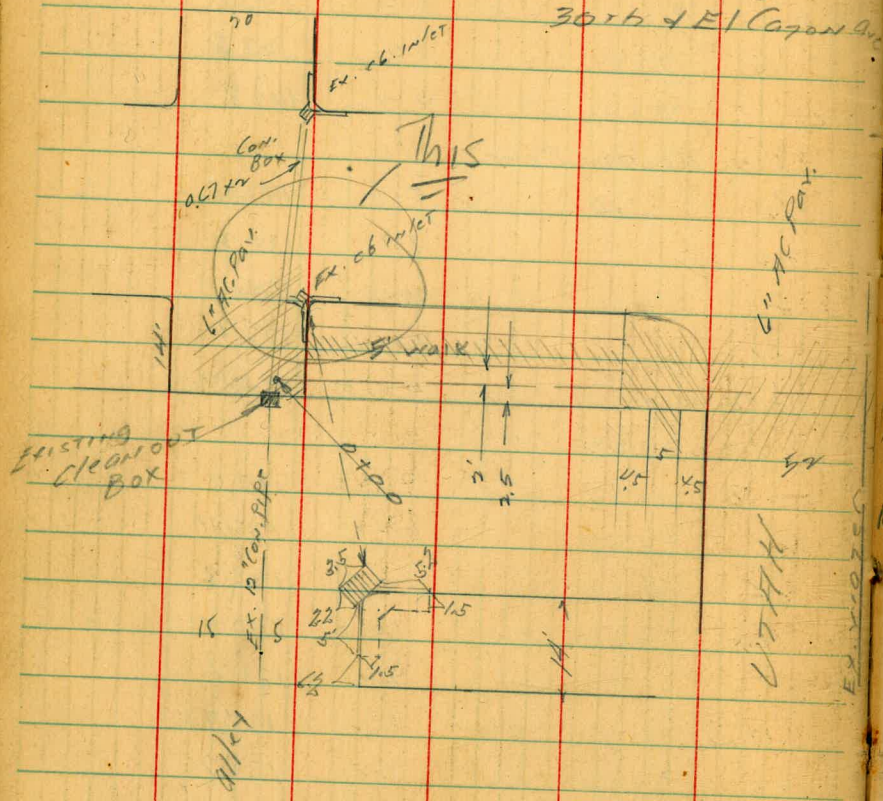
E -15.8 & garage			0.87	146.61 Cen Pt.
E -12.8 E Dr.			1.22	146.26
E	" "		2.05	145.43
+12	" "		3.68	143.80
+17	" "	end	4.02	143.46
1477.5				
E	Top wall		1.2	146.26
E	on drive		2.02	145.46
+5	Top wall		1.57	145.91
+5	on drive		2.78	144.70
+10	"	"	3.53	143.95
+17	"	"	3.78	143.70
1495				
E			1.7	145.8

147.48

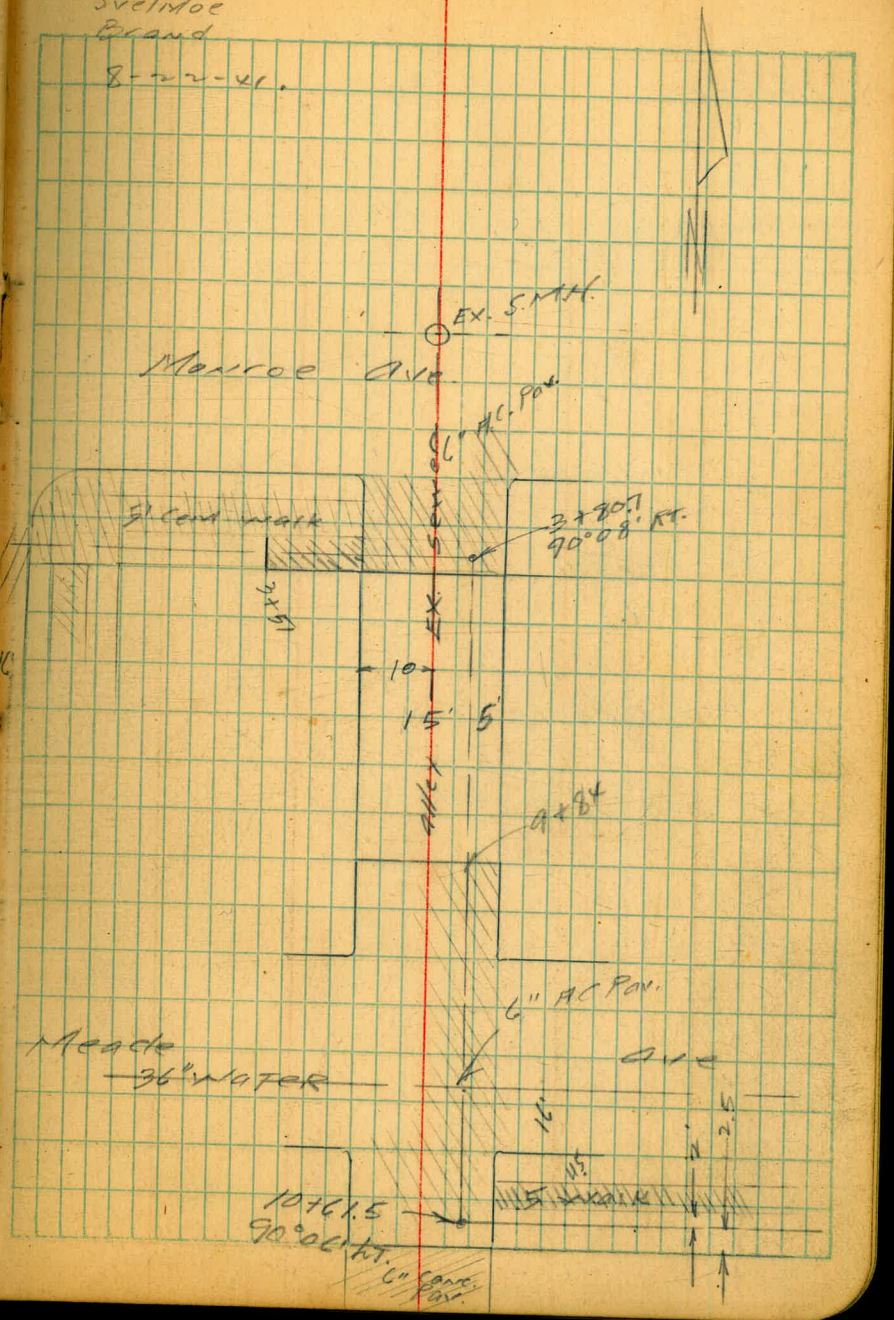
E +7 Top wall		1.8	145.7
+7.2		4.0	143.5
CL		3.6	143.9
1/4		3.9	143.6
C		4.7	142.8
+2 Acasia Row			
1/4		5.1	142.4
+4		8.9	138.6
CL		10.8	136.7
W		13.4	134.1
+8		45.5	102.0
+0.5			
+8		45.5	153.0
W		13.4	134.1
CL		10.9	136.6
1/4		10.1	137.4
C		9.4	138.1
1/4		8.2	139.3
CL		7.8	139.7
+8		5.6	141.9
E		4.6	142.9

Indexed
LM

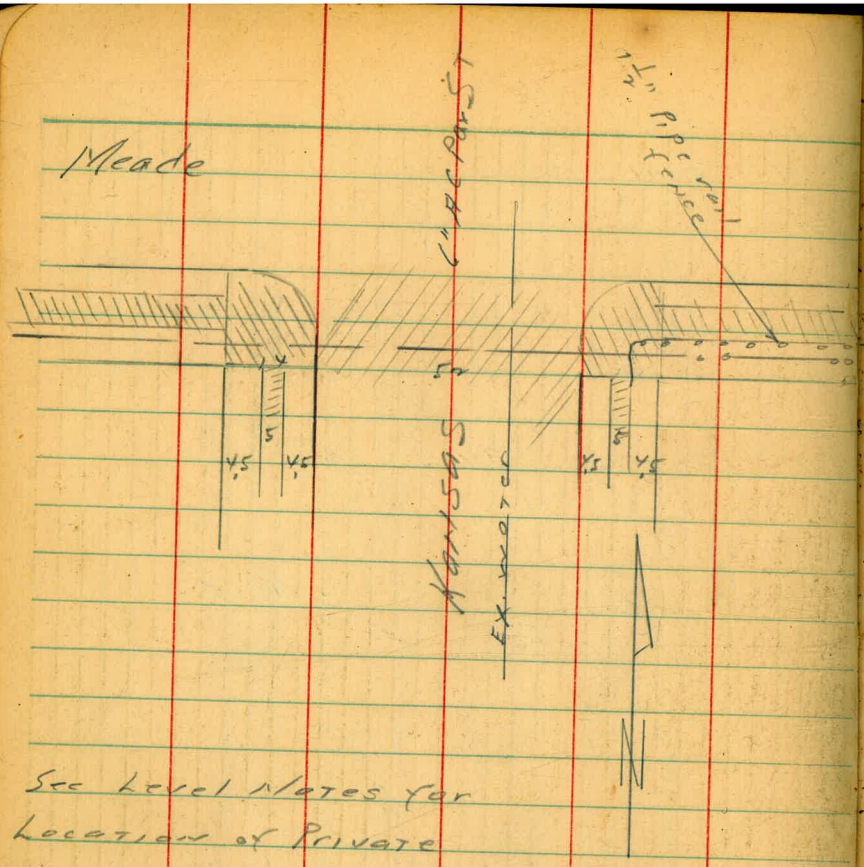
Proposed Storm drain
Beg. at alley west of Utah St
on Monroe Ave. and ending at
30th & El Cajon Ave



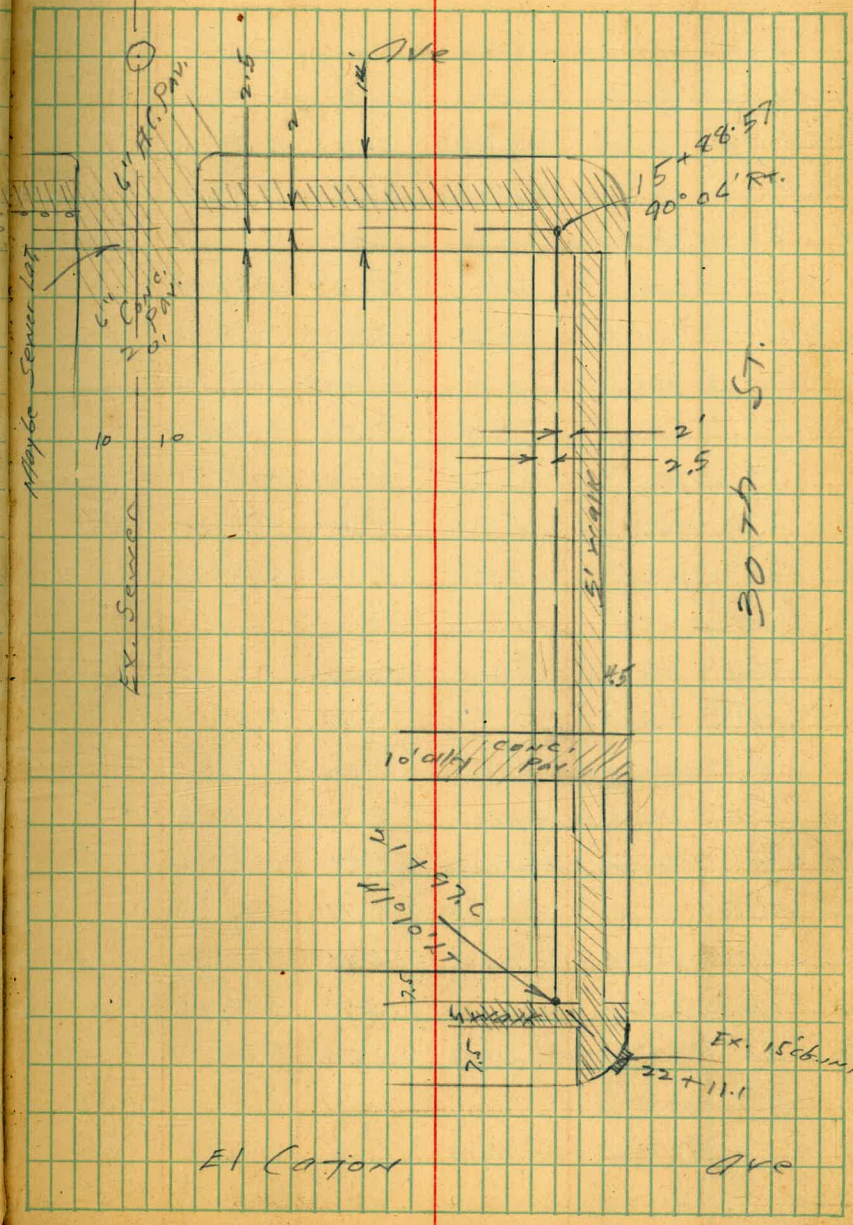
Moore
Osborne
Svelmoe
Brand
8-22-41.



Meade



See Level Notes for Location of Private Walks & Drives



Levels on Proposed drain

Plug SERP gone only Ld.	2.61	378.55 ✓	375.94	Monroe Idaho
T.P.	5.96	375.72 ✓	8.79	369.76
cb. inlet N. cb Monroe			6.53	369.19 Iron grate
" " "			7.53	368.19 Fl. Box
" " "			5.58	370.14 Top cb
" S. " "			6.94	368.78 grate
" " " "			7.90	367.82 Fl. Box
" " " "			6.13	369.59 Top Curb
cleanout Box S.L. Monroe			5.99	369.73 Top
" " "			8.14	367.58 F.L.
0+00 Pav			6.25	369.47
0+058 "			6.27	369.45
0+0.85 alley curb			6.04	369.68
0+22 ℄ 4' cent walk			5.80	369.92
0+46.5 ℄ 2' W. R. 66 on Dr.			5.80	369.90
0+51 ℄ " E " "			5.75	369.97
0+58.9 ℄ 2' W " "			5.71	370.01
0+64.6 ℄ 2' E " "			5.64	370.08
0+82 ℄ 4' cent walk			5.55	370.17
1 Level			5.2	370.5
1+30 ℄ 4' cent walk			5.14	370.56
1+45.7 W.L. Utah			5.07	370.65 cen. Ret.

375.72

1+59.7 W curb		5.25	370.47
" W gut Pav		5.76	369.96
1+85.7 ℄ Pav		5.12	370.61
Pav.		5.43	370.29
2+11.8 gut "		5.83	369.89
2+11.8 cb		5.30	370.42
2+25.8 E.L. Utah		4.96	370.76 cent. Ret.
2+50		4.9	370.8
3+00		4.9	370.8
3+51 Beg. cent walk Front of store		4.76	370.96
3+65.8 curb alley		4.81	370.91
" " Pav.		4.98	370.74
3+80.7 Δ 90°02' RT		4.92	370.80 Pav.
3+83.2 S.L. Monroe		4.81	370.91 end " and Beg. Dirt alley
℄ alley and Fl. Ref. ℄ Monroe		13.03	362.09 F.L.
T.P. 1.21	372.49 ✓	4.44	371.28 ✓
4+00		2.2	370.3
+50		2.9	369.6
5		4.0	368.5
+50		4.8	367.7
+70		5.0	367.5
" 10' East		5.5	367.0 Low Point

372.49

6+00		4.9	367.6	
+50		5.0	367.5	
7+00		5.4	367.1	
7+00	10' East	6.2	366.3	Low Point
+50		4.9	367.6	
+50	20' West	5.6	366.9	"
8+00		5.2	367.3	
T.P.	5.03	372.56	4.96	367.53
8+50		4.8	367.8	
9		5.1	367.5	
+50		5.2	367.4	
+84	end dirt alley beg. 6" AC Pav.	5.40	367.16	W.L. Meade
+98	Pav.	5.48	366.94	
10	"	5.43	366.93	
+24	"	5.19	367.37	
+50	"	5.58	366.98	
10+61.5	Δ 90°0'LT	5.13	367.43	Pav
+66.5		5.00	367.56	Pav
+66.5	alley Curb	4.84	367.72	
10+90	℄ 3.6' Cem walk	5.18	367.44	
11	Level	5.1	367.5	
11+10.4	℄ 7' West Cem Res. Drive	5.18	367.44	
11+15.5	" " East " "	5.20	367.36	

372.56

11+72	ground	5.20	367.4	
"	Top 8" Conc. Ret Wall	3.66	368.90	
11+40.2	℄ 7' Cem. Drive	5.28	367.28	
+50		5.3	367.3	
12		5.4	367.2	
12+07	W.L. Kansas	5.39	367.17	on Cem Sdwk Ret
12+21	℄ C6	5.40	367.16	
12+21	Gut Pav	6.19	366.37	
12+47	Pav	6.05	366.51	
12+73	" Gut	6.41	366.15	
12+73	Curb	5.87	366.69	
12+83.2	edge Sdwk Ret	5.59	366.97	
13+04	℄ 4' Cem walk	5.76	366.70	
13+38.6	℄ 15' Cem Drive	5.91	366.65	
T.P.	4.58	371.18	5.96	366.60
13+50	Level	4.5	366.7	
13+70	℄ 3' Cem walk	4.57	366.61	
13+91.8	℄ 8' " drive	4.69	366.49	
check to BM	S.E. Meade Kansas	4.44	366.72	366.78 0.06
14+10	℄ 3' Cem walk	4.79	366.39	

371.18.

14+26.6	w cb alley		4.83	366.35	
14+26.6	gut pav		5.00	366.18	
14+36.6	℄ alley pav		5.18	366.00	Cross Sewer
"	40' N S.M.H.		11.86	359.32	F.L.
"	197.5 S	"	13.58	357.60	
14+46.5	pav		4.98	366.20	
14+46.5	alley curb		4.86	366.32	
15			5.1	366.1	
+50			5.1	366.1	
15+88.57	Δ 90°06' Rt.		5.30	365.88	on cem Return
16			5.3	365.9	
+45	beg. cem walk		5.20	365.98	Front of Store
T.P.	4.42	370.30	5.30	365.88	
16+75	end cem walk		4.34	365.96	" "
16+92	℄ 2' "	"	4.57	365.73	
17+29	℄ 2.5 "	"	4.64	365.66	
+50			4.7	365.6	
18			5.2	365.1	
+50			5.2	365.1	
19			4.9	365.4	
+21	℄ 3' cem walk		4.84	365.46	
+50			5.1	365.2	

370.30

19+71.6	beg. cem walk	5.08	365.22	Front of Store Bldgs.
20	on cem walk	5.02	365.28	
20+40.6	N L alley	5.02	365.28	cb. Ret
"	" " pav	5.61	364.69	end sdw front of store bldg
20+50.6	S L alley "	5.65	364.65	
"	S L "	5.15	365.15	cb Ret
20+50.6 to 20+80 = Rock garden				
20+83.2	℄ 5' cem walk	5.06	365.24	
21	ground	5.3	365.0	
21+29	beg. oil pav	5.23	365.07	
21+50	" "	5.26	365.04	
21+97.6	Δ Pt. oil pav	5.57	364.73	
22+11.1	Top cb Ret	5.66	364.64	Curb inlet
"	iron grate	6.70	363.60	"
"	FL Box	12.19	358.11	"

Plan-5118L = 358.0

No B.M. here
please check curb El. to Profile.

T.P.	5.38	371.25	4.43	365.87	
check to BM			4.53	366.72	366.78
					0.06

B	4.33	64.11		59.78	
TP	4.38	62.64	5.85	58.26	
BM	3.92	60.60	5.96	56.68	
✓	3.75	56.00	8.35	52.25	.28
	6.93	66.52	6.41	59.59	
	4.32	57.92	2.92	53.60	.62
	1.65	52.845	6.725	51.195	
	4.16	47.256	9.75	43.095	
			5.72	41.536	
Auburn Dr	8.76				

Fairmount

Colonial
Highland
Cabrillo
Chamoune
Mentone

Benches - Brass plugs in curbs

NW - Klauber & Fairmount - 355.28.

Benches - Brass Plugs in curbs.

B82 P4

S.W. Euclid & El Cajon	344.98	
✓ Sierra & ✓ ✓	347.15	
✓ Menlo & ✓ ✓	355.60	
✓ Mentone & ✓ ✓	352.97	
✓ Chamoune ✓ ✓	356.56	(56.53)
✓ Cabrillo ✓ ✓	357.30	X
✓ Highland ✓ ✓ ✓	356.12	
✓ Colonial ✓ ✓	354.70	
✓ Fairmount ✓ ✓	358.0	
✓ Pauly	357.725	

B-51 P-13

N.W. Conklin & Olive -	367.69	
Stockton & ✓	366.04	
5th & ✓	364.62	
Copeland ✓	364.51	

Benches – B.P.

B82 P-2	N.W. Mentone & Univ.	351.18
	Menlo &	343.08
	Sierra &	341.53
	Chamoune &	353.62
B82 P1	Cabrillo &	349.58
	Highland &	352.28
	Colonial &	356.68
	Fairmount &	359.78
B82-P4	Euclid & Orange	350.66
B82 P2	Sierra & Orange	354.48
	Mento &	349.27
	Mentone & Orange	353.89
	Chamoune &	351.17
B82 P1	Cabrillo & Orange	352.50
	Highland &	354.12
	Colonial &	358.43
	Fairmount &	358.36

II Line Tunnel. 3.9795%

4+00	51.98
+50	53.97
5	55.96
+50	57.95
6	59.94
+25	60.93
+50	61.93
+75	62.92
7	63.92
+25	64.91
+50	65.91
+75	66.90
8+01.3	67.95
+50	69.93
9	71.93
+50	
10+03.2	

BM-	6.88	58.06	/	351.18	—
NS alley			5.74	52.32	
BM- Cham	2.82	56.40	4.48	53.58	53.62
BM-	6.59	56.17	6.82	49.58	49.58
BM-	8.35	60.58	3.94	52.23	52.28
BM-			3.92	56.66	56.68
	Check Benches - 12-31				
	6.831	56.411		49.58	
			2.82	53.591	
1+00			4.80	51.61	
0+20			5.17	51.24	
0+00			5.85	50.56	
1+75			0.91	55.50	
0+50			1.55	54.86	

Mentone
Sta. #300 - Chamoune - Mentone alley

Chamoune
Cabrillo
Highland
Colonial.

Cabrillo
Chamoune

53.59

51.84
9.68
60.84
53.59
7.25

11.30 60.88 49.58

4.51 46.37

4.24 6.64

4.56 6.32

4.74 6.14

KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

Entered according to Act of Congress in the year 1883,
by W. Keuffel & H. Esser, in the office of the Librarian of Congress,
in Washington, D. C.

Copyright, 1902, by Keuffel & Esser Co.

HOW TO USE KEITH'S TABLES.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20′ to the R. at Station 542+72.

Ext. in Tab. IV opposite 23° 20′ = 120.87
120.87 ÷ 12 = 10.07. Say a 10° Curve.

Tan. in Tab. IV opp. 23° 20′ = 1183.1
1183.1 ÷ 10 = 118.31.

Tab. V correction for A. 23° 20′ for a 10° Cur. = 0.16
118.31 + 0.16 = 118.47 = corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. 23° 20′ = 23.33° ÷ 10 = 2.3333 = L. C.

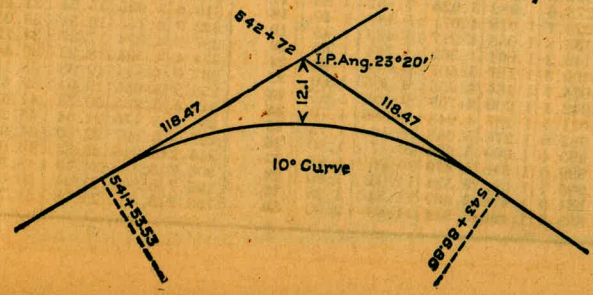
2° 19½′ = def. for sta.	542	I. P. = sta.	542+72
4° 49½′ = " " "	+50	Tan. =	1.18.47
7° 19½′ = " " "	543	B. C. = sta.	541+53.53
9° 49½′ = " " "	+50	L. C. =	2.33.33
11° 40′ = " " "	543+ 86.86	E. C. = Sta.	543+86.86

100 − 53.53 = 46.47 × 3′ (def. for 1 ft. of 10° Cur.) = 139.41′ = 2° 19½″ = def. for sta. 542.

Def. for 50 ft. = 2° 30′ for a 10° Curve.

Def. for 36.86 ft. = 1° 50½′ for a 10° Curve.

(These tables are published in Field Books of KEUFFEL & ESSER Co., New York, N. Y.)



125
76
201

80
14
66

Anna at alley bet. Sierra & Menlo. 360.17

40.16
339.08
36)1.08 (.3

.075

519

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	[illegible]7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	[illegible]6.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	[illegible]0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

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