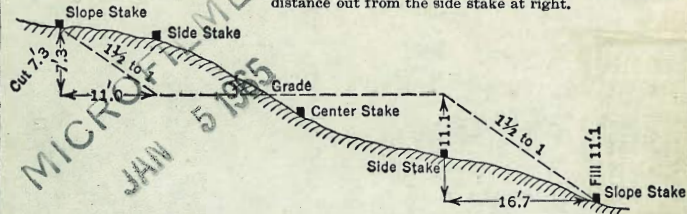


2282

WABASH SECT. B

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
Roadway of any Width. Side Slopes 1 1/2 to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

INDEXED
 Completely
 DEC 8 1954

The paper in this book No. 373A
 is made of 50% high grade rag stock
 with a WATER RESISTING surface sizir.g.

38th St. 16" C.I. Water Main At Market St 2-3

Market St 8" C.I. Water Main East of 36th St 4

Yabash Blvd. + Broad Ave 8" VC Pipe Sewer 5-6

" " At Florence Lane 6" VC Pipe Sewer 7

35th St. 8" Water Main 2-3
Set. 17712. = Durant

CRIBBLING - YABASH & FEDERAL 30

Wabash Boulevard Sec B
 36 1/2 St 18" Oil Water Main Layering
 #1 Market St

Sheet 51

June 5, 58
 H. J. Wilson
 Garber
 Chipman
 Parks
 Kelley

2

1440				123.8	23.25 10.50 12.8								
+94.64	Fd Mon 10/1/58					+50							277. 11.5 106.4 12.3
+75				127.0	19.75 8.34 11.4	+35	1" Blot off.						279. 10.2 106.2 17.7
+50				130.80	16.25 6.72 9.5								
						15+0							244. 6.4 109.7 18.0
+25				134.6	12.45 2.63 9.8								
						+75							209. 3.9 113.2 17.0
1340				137.4	9.65 5.49 4.0								
						+50							17.4 8.6 116.7 16.5
12+75				132.2	7.85 4.1 3.7 8	7P	0.11	134.13	130.3	134.02			
						11+25							26.75 11.92 120.5 14.83 8' standard
	1303	147.05	0.65	134.03									
BM	1250	134.67		122.17	Pipe 99 ft 224 18.94 Market			147.05					

17+0

111.3. ^{22.8.}
^{18.4.}
c/12.2.

+75

109.2. ^{24.9.}
^{10.9.}
c/14.0.

17+50

107.8. ^{26.3.}
^{11.2.}
c/15.7.

+30 1-16" x 8" T&C

+75

107.0. ^{27.1.}
^{11.5.}
c/15.6.

16+0

166.8. ^{27.3.}
^{11.4.}
c/15.7.

15+75

106.6. ^{27.5.}
^{11.4.}
c/16.1.

134.13

Starting
BM

11.9% 12217

18+0

118.2. ^{15.9.}
^{10.2.}
c/17.7.

+75

117.2. ^{16.9.}
^{10.0.}
c/17.9.

+50

115.5. ^{18.6.}
^{10.0.}
c/18.1.

17+25

113.4. ^{20.7.}
^{10.2.}
c/19.5.
8.20.17.92

154.13

Market St. 8" C.I. Water Main Lowering
East of 36th St.

Sheet 51

June 8-55

4

	Rt of New 8" Market	Bottom Pipe		Rt of New 8" Market	Bottom	
2+0	29.00 ✓	113.10	13.2. 8.2. 0.82. 5'N			
+75	31.14 ✓	112.65	13.8. 4.8 0.92	+27 = 45° Bend Exist 8" CI.	114.2	12.3. 3.2. 0.41. 0.97.
+50	33.29 ✓	112.2	14.3 4.9 0.94	+11 = 45° Bend 14.00 -	114.3	12.2. 3.3. 0.39.
+25	35.43 ✓	111.4	15.6. 5.6 0.95	4+0	114.35	12.1. 3.2. 0.39.
1+0	37.57 ✓	110.6	15.9. 4.1 0.98	+75	114.5	12.0. 3.8. 0.42
+75	39.71 ✓	109.3	17.6. 3.7 0.98	+50	114.6	11.9. 3.6. 0.43.
+50	41.58 ✓	108.3	18.2. 3.9 0.98	+25	114.45	12.0. 3.7. 0.47.
+25 = Opp 2/10. Market	42.93	107.2	19.3. 4.9 0.94. 5'N	3+0	114.50	12.3. 3.7. 0.48.
+20 = 16" CI.		107.0		+75	114.15	12.3. 3.7. 0.5.
0+00 = opp 36th St				+50	114.0	12.5. 3.8. 0.59.
BIV	4.31 126.48	122.17	Pipe 99' FH 22+18.94	2+25	113.55	12.9. 3.8. 0.57. 0.57.

Grader 8" V.C. Pipe Sewer
 3 Lateral to Broad H.C.

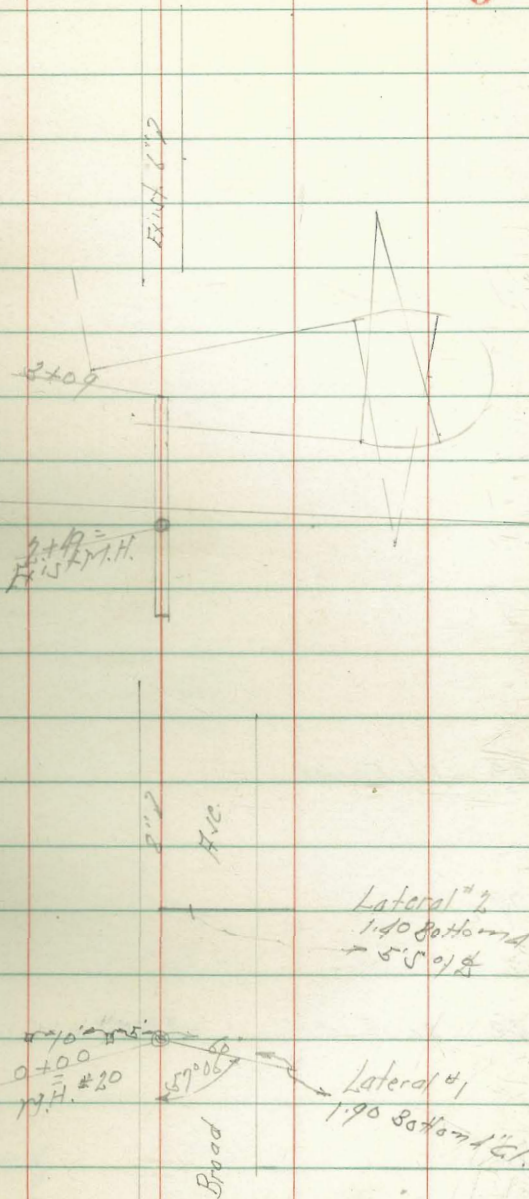
Sheet 31-59 #18095104

July 11-53

5

2+0	-1/4 Escarp	-0.80	13.30 5.23 07.97 5' 11.97 ft Ditch
+75		-0.70	13.10 5.00 C 8.10
+50		-0.60	13.00 5.51 C 7.49
+25		-0.50	12.90 5.23 C 7.67
1+0		-0.40	12.80 5.03 C 7.77
+75		-0.30	12.70 9.00 C 3.70
+69	-Expt Lat #2		
+50		-0.20	12.50 9.81 C 2.69
+25		-0.10	12.50 10.12 C 2.38
0+0	- M.H. #20	0.00	12.40 10.23 07.17 5' 5.14 ft
BM	565 1240	6.77	5.18 ft

of Lateral



3+09 = Fly Escarc

+79

+49 = EXIST M.H. -280FL. 0 -1.00

13.40
5.24
8.16

2+25

00 -0.90

13.00
5.05
8.25
5/11/73

1240

Grades L' V.C. Pipe Sewer
 Yabash Blvd + Florence Lane

TRUCK
 MH 1155B

Sheet 30 #100 922D

June 22, 1950

© - First M.H.

7

8 P.S.C.6
 Florence Lane
 BM 16.75
 748
 24.23

+70 = Approx S.E. Florence Lane 12.60
 13.64
 3.60
 10.04

Yabash

30" Ex. 12.7

8" Ex. 12.8

+50 12.40
 13.24
 1.82
 11.37

Rim 15.71
 F.L. -1.64

Rim 17.81
 F.L. 2.45
 10.70 F.L.

Florence Lane
 Ex. 12.8
 Sewer

+25 12.90
 12.74
 1.92
 10.82

32+0
 Rim 10.73
 F.L. -1.90

11.00
 94

45 Coast.

0+0 = Ex. 12.40
 12.24
 3.63
 8.61
 5' Fast
 31+45

Ex. 12.8
 21.40

BM 7.83 2.564 17.81
 0.5 M.H.
 R.M.

Grades "8" V.C. Pipe Sewer Alley
Hobart Blvd. Between Florence & Martin Ave.

Sheet 29

8

Alley



First 30' of
Sewer



Hobart Blvd



Grades 6" V.C. Server & Alley
Between Martin Ave & Valle Ave.

Sheet 29

9

Finch's Alley

7 Habas & Blvd.

Nabash Blvd + Ocean View Blvd.
 2" V.C. Sayer

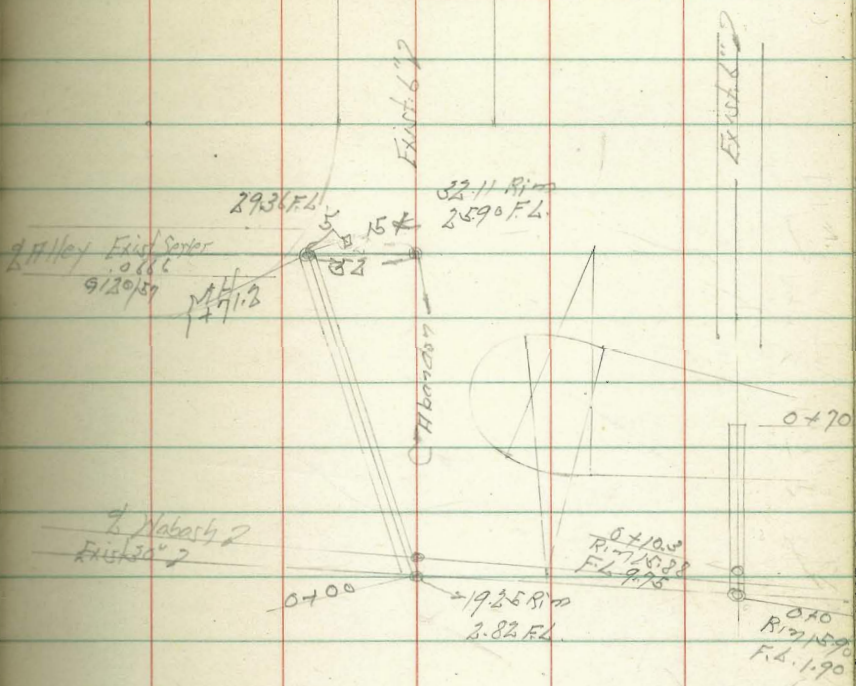
Sheet 28

June 12, 53
 A. Sisson
 Garber
 Chipman

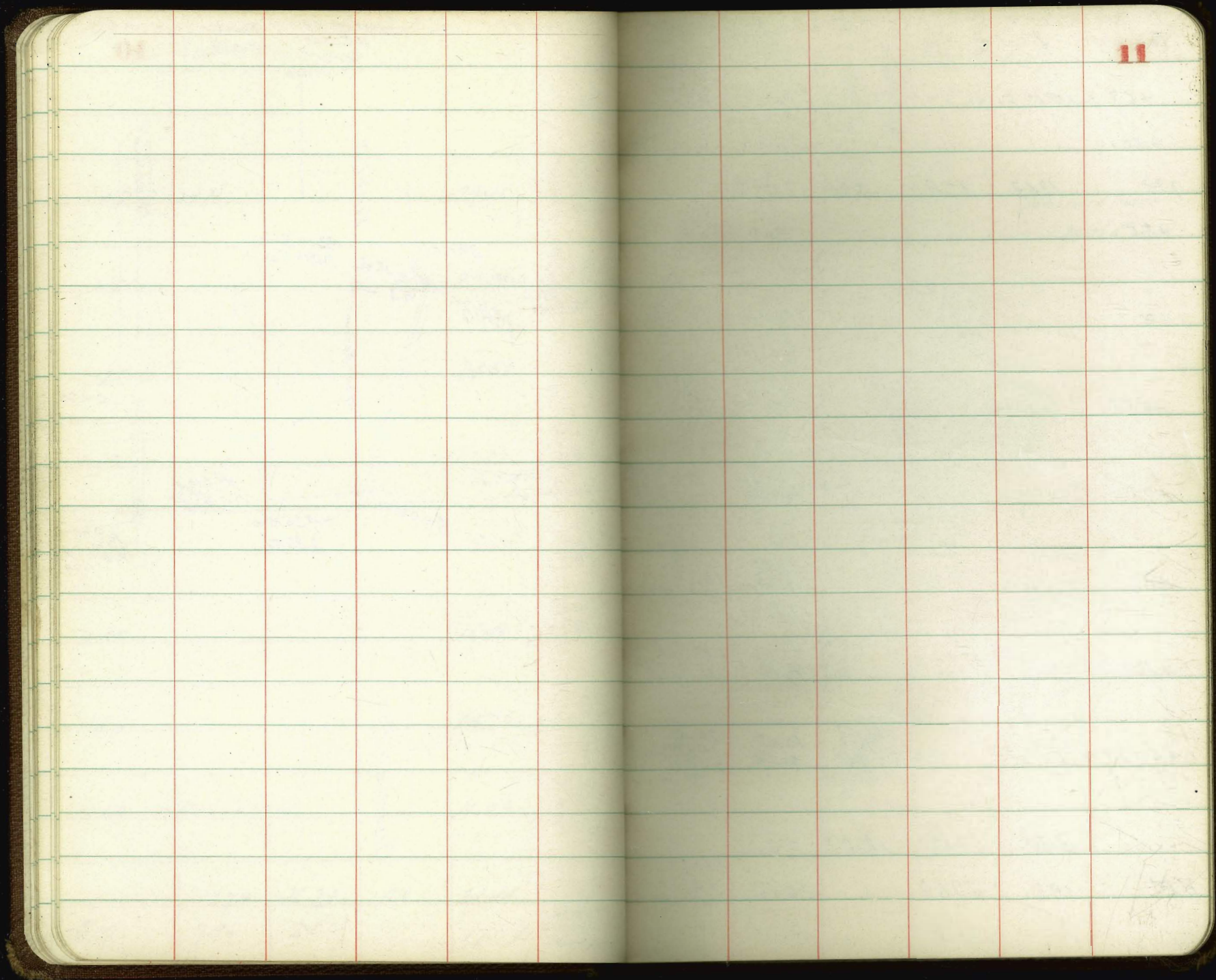
Part of
 Kelley

10

+71.2 = M.H.	29.36	6.87 2.27 4.16 5.7107
+50	27.20	9.02 1.86 4.17
+25	24.50	11.93 7.50 4.23
+10	21.80	14.43 16.17 6.3.82
+75	19.10	17.13 12.56 4.6
+50	16.40	19.83 14.56 5.27
+25	13.70	22.53 16.93 5.60 2.016
0 + 0 = Exist M.H.	11.00	25.23 16.98 8.25 8.07 R.M.
BM	12.79	26.23
	7.96	25.00
	1.56	23.44
	17.04	25.87 Ocean View Territory



Ocean View Blvd.



Woburn Blvd. + Webster Ave
Grades 6" V.C. Pipe Sewer

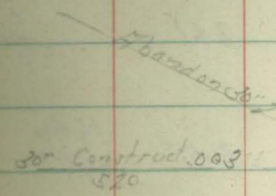
Plan Sheet 26
Profile .. 40

June 26-53
1151507
Garber
Chiemass
Parks
Halloway

Webster Ave
Exist 8" 2

Wolbert Place
Exist 6" 2

+67 = M.H. Exist		0 25.58	12.44 3.07 9.34
+50		23.10	12.44 9.34 c 7.22
TP	1263	3791	339 2528
+25		19.60	9.02 6.32 5.68 5 South
+10	14.18 F.L.H.17 2.72 2.72 3.67 25.99K	16.10	12.44 5.22 c 7.22
+858 = M.H. #17	Finish 37.04 -11.45 2.98 +11.21	0 74.10	14.57 1.98 c 7.62
+75		13.39 13.35	15.11 9.62 c 6.21 66.00
+50		13.42 11.63	16.99 13.02 c 3.97
+25		11.24 9.91	03.25 13.71 c 4.87
0+0 = M.H. Exist		0 7.55	20.43 11.88 c 7.43 5 South
		10.07 8.19	20.43 14.52 c 5.91 5 South
	3.34	28.62	12.82 25.28
BM	1.95	37.60	05.65 Pipe 27" 17.46 to 2nd pipe



0+00
M.H. #17

Exist 30" V.C. Sewer
0.03

Wabash Blvd. North of Webster Ave.
Grades of 30" #100 27"

Sketch Page 12-15
520' 30" S.C.

July 1-53
H. Sisson
Garber
Chapman

Porter
Kelley

13

2+0

8.98.

14.05.
5.27
c9.78.
5'8"

+75

8.91.

13.02.
5.11
c9.91.

+50

8.83.

15.10.
6.23
c9.07.

+25

8.76.

15.16.
5.40
c9.76.

1+0

8.68.

15.25.
5.57
c9.68.

+75

8.61.

15.31.
6.70
c9.61.

+50

8.53.

15.40.
5.87
c9.53.

+25

8.46.

15.46.
6.00
c9.46.

0+00: M.H. #1 Webster E. of 8.19

8.38.

15.55.
6.17
c9.38.
confirm

TP

0.81

33.93

12.74

23.12

BM

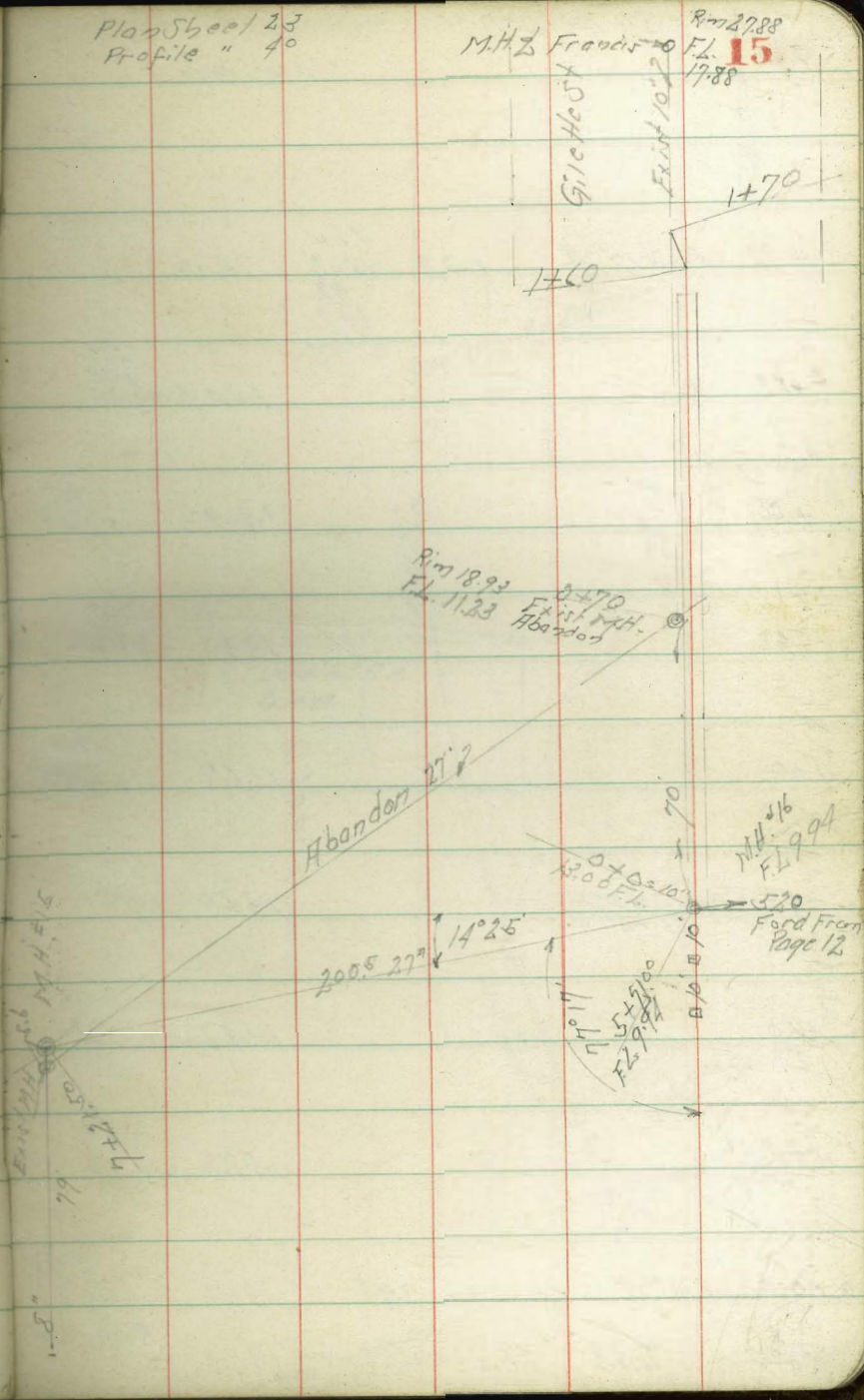
0.21

35.86

35.65

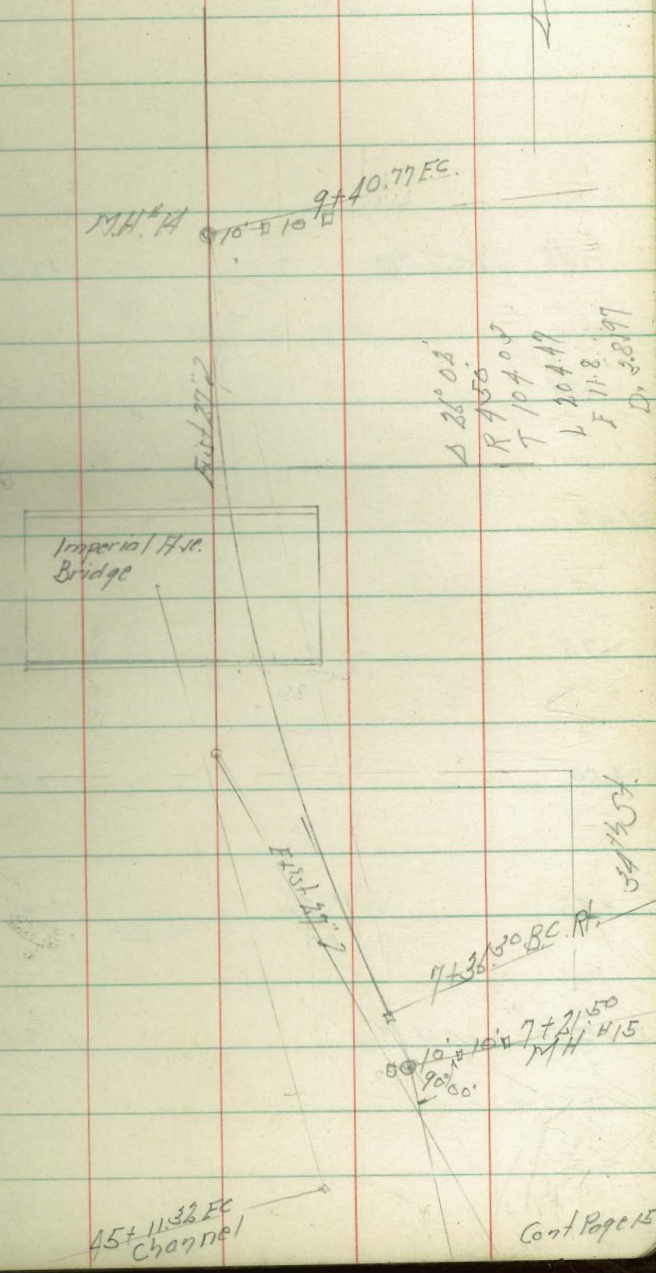
RPC 27 RT
1+46 SLO.
to (imprvmt)

B.M.			0.37	29.58		B.P. Bridge 29.57
+40.77	13° 01' MH #14	Sketch Page 16	(El. 204) 9.50	13.62 ✓	16.33 5.87 c/10.41 10.5	Plan Sheet 23 Profile " 40
9+20	11° 41.65'		(El. 196) 10.30	13.49	16.46 8.88 c/10.88 10.5	
+95	10° 06.11'		(El. 200) 10.00	13.34	16.61 5.88 c/10.73 10.5	
TP	10.89	29.95	2.87	19.06		
+70	8° 30.67'			13.19	8.74 4.19 c/9.23 over head 2.710	
+45	6° 55.18'			13.04	8.89 1.82 c/10.6 over head 2.710	
TP	1.05	21.97	9.74	20.88		
8+20	5° 19.69'		10.06	12.89	17.73 9.67 c/8.84	
+95	3° 44.20'			12.74	17.88 9.68 c/8.19	
+70	2° 08.71'			12.59	18.03 9.98 c/8.65	
+45	0° 53.32'		18.18 9.91 c/8.27 10.74	12.44	18.18 9.91 c/8.27 10.74	
+36.30	B.C.P.					
7+21.30 =	M.H. #15	For Check	8.07	12.30	13.08 1.68 c/8.70	
B.M.	1.05	30.63		29.57	B.P. Rail of Bridge Cholby + Lamp	



Sketch Page 15

+72 = First 10' VC	11.29	Top 15.02 9.2 14.10	14.10	12.21
+62 A			14.04	12.27 9.2 c 8.34
+50			13.97	12.34 9.2 c 8.28
+25			13.82	12.40 8.21 c 8.08
+10			13.67	12.44 7.58 c 5.56
+72 = Opposite M.H. #11			13.50	12.81 7.38 c 5.31
+50			13.37	12.91 5.87 c 7.07
+25			13.22	13.09 4.71 c 3.38 5.5
+100 = M.H. #16	9.94		13.07	13.24 5.23 c 6.37
BM 7.38	26.31		18.93	Rim M.H.

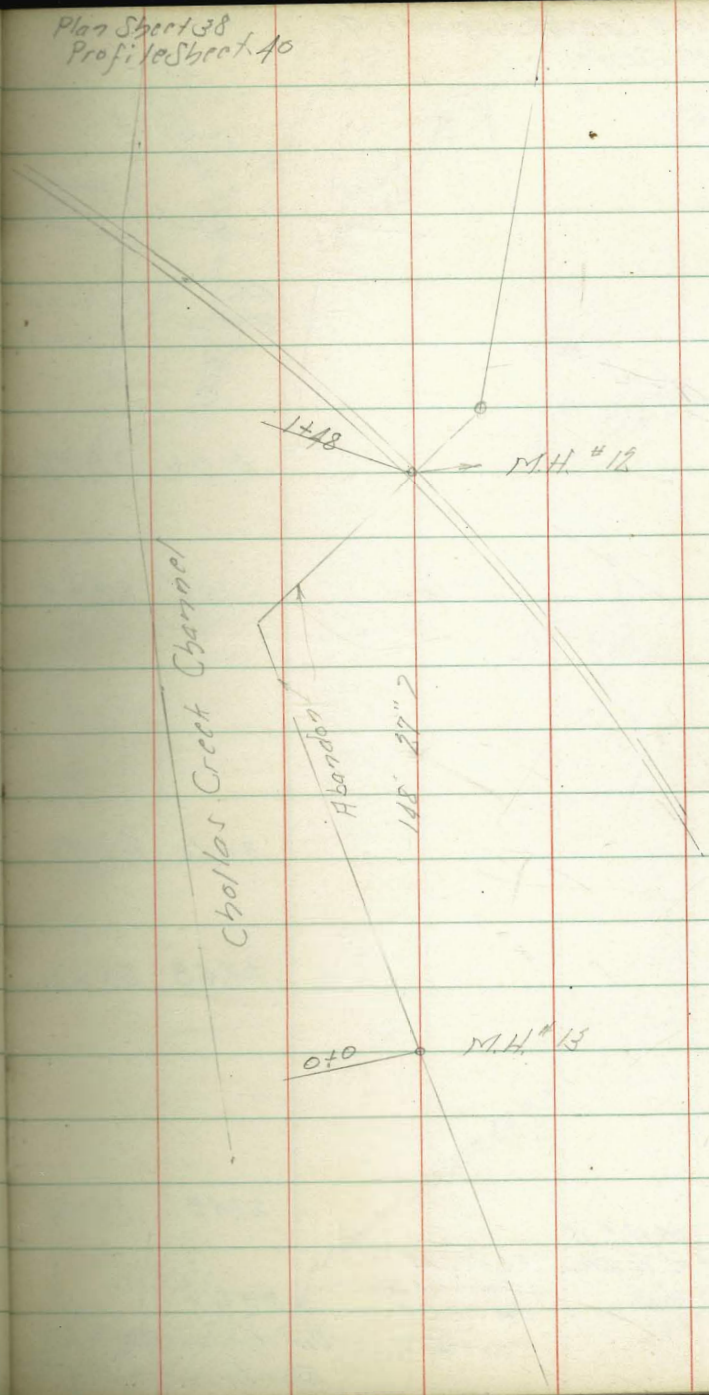


Cont Page 15

See Page 31

+18 = M.H. #12	17.68
+21	17.54
+40	17.41
+75	17.27
+50	17.12
+25	16.98
0+00 = M.H. #13	16.84

0.0587



Chollas Creek Channel At "J" Sta
8" V.C. Sewer

18

240

175

+60
+50

1+30
125

110

+80
+75

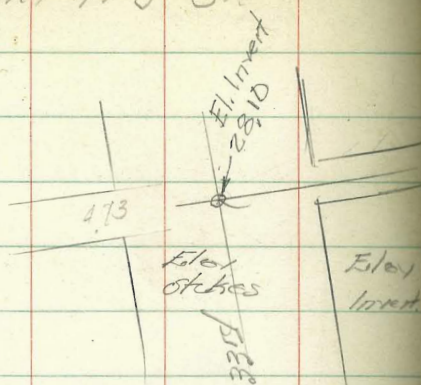
0+40
+30

125

0+00 - MH #11
104.08' RT of E Sta.
B.M. on R.P. Hub

56+77.4
= Channel Sta.
FB 22.81
45

Direct Elev. Rod used
filed Invert = 21.86



31.20 23.98 7.92

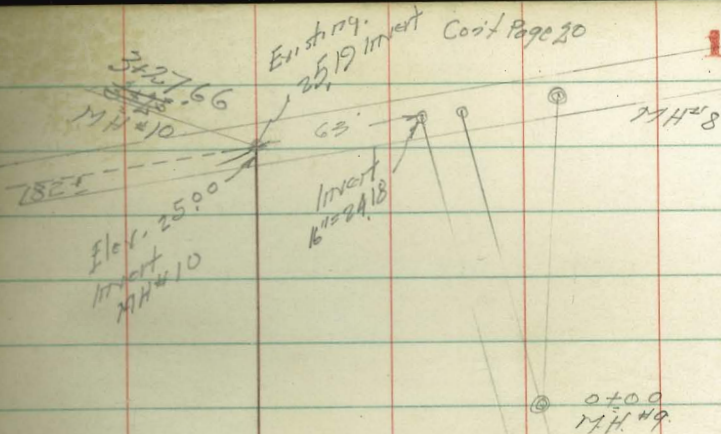
21.86 23.73 8.12

30.50 23.49 7.01

27.68 23.28 4.43

27.43 23.00 4.43

30.61



0+00
MH #11
Elev. 16.2
157

Invert MH #10 = 23.00

22.74 = Invert

Invert = 23.03

"J" Sta

Cont Page 20

chk H. b 5735 ¹/₂ 61+4428
 FB 2281
 72

3473

3471

3+2766
 +75 = M.H. #10

Elev.
SubsElev.
Invert

Cuts

32.17

25.00

7.17

~~3+0~~

2+80
 +75

31.37

24.71

6.66

LV

2+40
 +55

31.71

24.47

7.24

2+00
 2+25

31.93

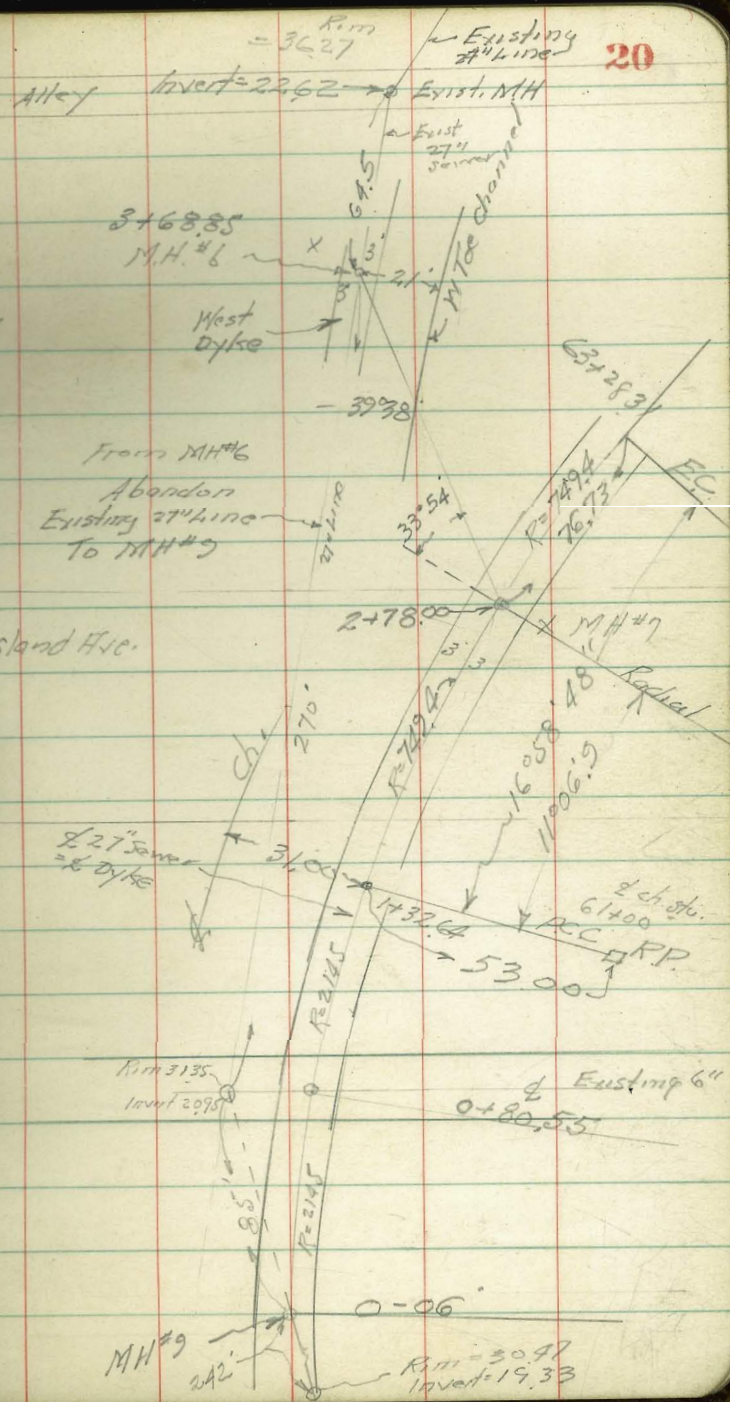
24.22

7.71

27" Sewer Grades

Along Chulla Creek Channel

Walker Pipe Potten Whipple 8-27-53	chk B.M. Nail in Pole	37.06 37.02		
3+68.85	M.H.#6 = make Connection Exist. 27" Line	33.99	22.30	11.69
3+50		33.56	22.21	11.35
3+25		30.88	22.09	8.79
3+00		32.60	21.97	10.63
2+78	M.H.#7 5°33.45'	32.97		11.10
2+50	4°29.22'	34.38	21.74	12.64
2+25	3°31.87'	33.15	21.62	11.53
2+00	2°34.52'	32.76	21.50	11.26
1+75	1°37.18'	33.07	21.38	11.69
1+50	0°39.82'	32.83	21.26	11.57
1+32.64	P.C.C. 1024 T.P.	33.80	21.18	12.62
1+05	1°24'	32.54	21.05	11.49
0+80.55	M.H.#8 1°04'	32.10	20.94	11.16
0+50	0°40'	32.06	20.80	11.26
0+25	0°20'	32.05	20.68	11.37
0+00	0°0'	31.51		
0-06	Exist Int. 27" Sewer = M.H.#9 B.M. P-18	31.51	20.53	10.98
		30.61		



MAPASH BLVD - SEC B
35TH ST - 8" WATER MAIN

Walker Drawing No 10578-L
Pope
Fuller 110 22071
Bertucci
7-14-59 Levels Bucked in

8.28 62.98

5470

BM on FR. Nail 0+00 F2 Line FB 2281-64

El. Stakes El. Bottom pipe

Cuts Offsets

3+13 1765 45.33 4165 3.68 7 West

2+88 1445 48.53 42.00 6.53

TP

+44 10.24 72.36 1.56 61.42 48.70 12.72

Topcb. Cut 14.67

20' curbs

2+23 1.62 70.74

5607 5' N Fire Hyd. stakes 1.5 E.E. Ch.

2+28 835 64.01 51.14 12.87

2+00 573 66.63 55.40 11.23

+50 8th 536 67.70 60.20 6.90

Proposed curb line

1+06 425 68.11 62.18 5.93

40'

TP 618 75.39 3.15 62.21

0+62 582 69.57 64.17 5.40

0+47.3 Fire Hyd. 73.05 68.58-06 4.47

0+47.3

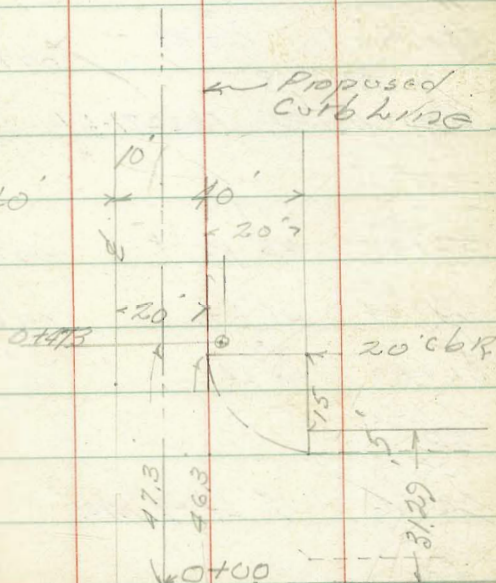
20' curb

+37 492 70.47 65.30 5.17

+18 446 70.23 65.43 5.50

TP 13.3 64.62 12.10 63.32

chk starting BM 2.22 59.70



Wabash Boulevard Section 25
Durant St. 30" Conc Pipe Lowering

Sheet 48
offset 12 1/2 of Ditch → 20 ← 30

Bottom Pipe

Aug. 5-53
S. J. Jones
C. J. Parks
W. Kelly
1722-33
For TIC
H. J. St.

+36.39 0.00 1.00 1.97
TP 4.52 23.27 1.86 18.85

110+0.439 12.96

+72.39 15.83

+40.39 16.87

109+08.39 0.00 1.75 12.50

+92.39 1.27 9.78 10.00

+88.96 1.56 out

108+72.96: Exist Pipe 5.30 15.41 163.30

TP 3.88 20.71 7.19 16.83

TP 1.08 24.02 13.09 22.94

B.M. 0.58 36.03 35.55

111+37.53 FC
111+38.07
111+38.33
111+38.61 PRC
A 14.428
R 14.031
T 18.11
V 36.07
D 11.333

BM 23.20
23.98
23.987

For Start off Box
218 E of E. L. Gregory
C6 Grade 18.50
548



110+85.13 RC
A 15.00
R 15.999
T 18.45
V 36.65

10 Durant St

+6277 = I
WY of Job

Bottom
Pipe

12.67
12.80

10.37
10.70

+1692

12.57
12.85

10.85
11.15
11.45
11.75
12.05

+3753 FC

0.22

+2213

0 11.78

11.59
11.89
12.19

11140731

10.26

13.11
13.41
13.71

11140161 PRC

+83.82

3° 48.87

6.82

16.55
16.85
17.15

+68.08

0° 35.61

4.61

18.76
19.06
19.36

+65.18 BC, RT

out

110+52.20

2.17

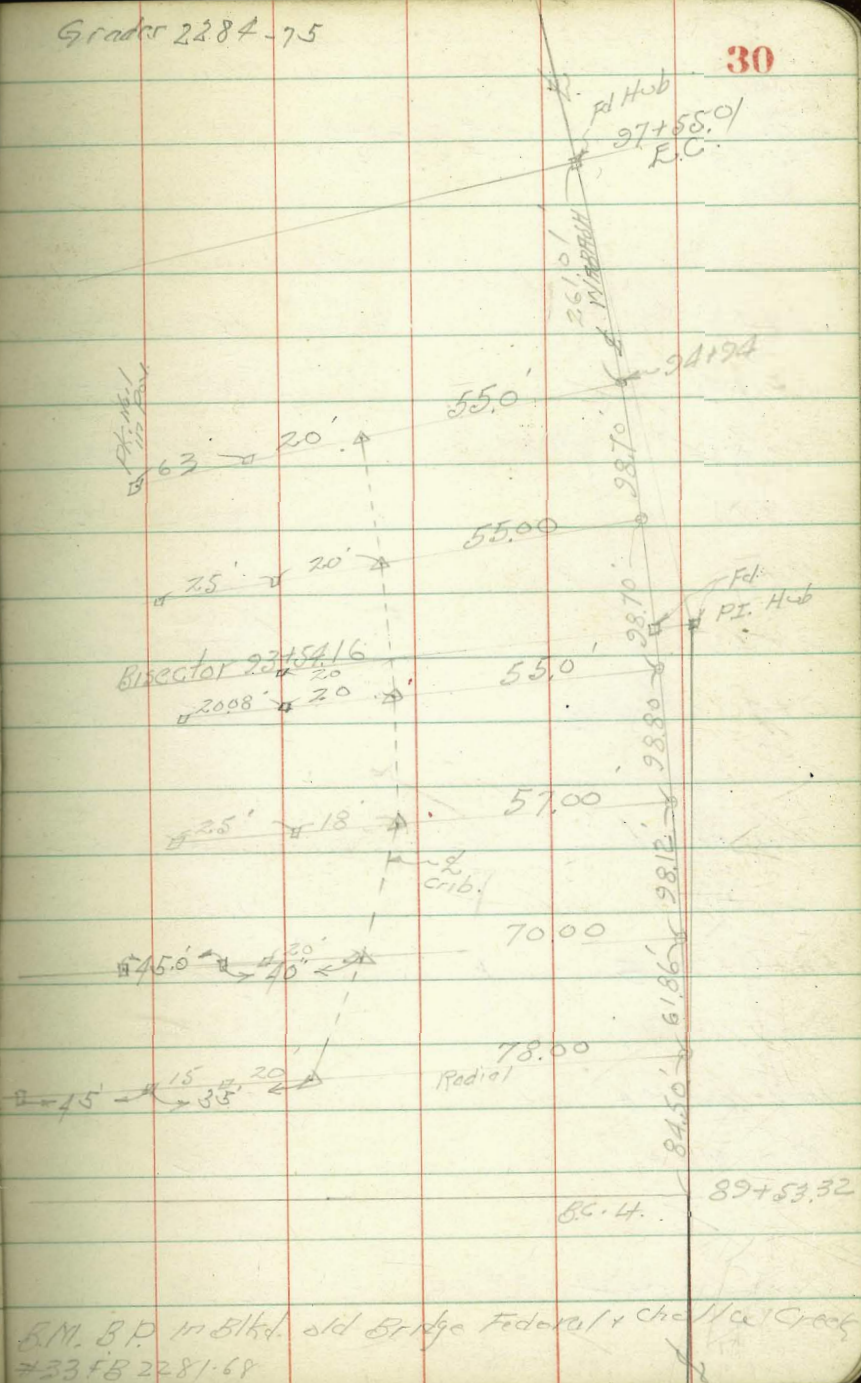
20.70
21.00
21.30
21.60
21.90

3337

WABASH BLVD - SEC "B"			
CRIB RET. IN ALL			
Walker			
Pope			
Pullen	7-20-53		
Bertucci			
Estn.	Def. Δ		
97+55.0 = E.C.	11°29'		
			Curve Data
			Δ = 22°58'
			R = 2000'
			T = 406.30
			L = 801.60
clk. starting 8 M.		5384	
		Stakes	El. Top Crib
		75' Lt.	
94+24 = End Crib	7°44.63	44.28	50.50
98.70	94.27		
93+25.30	6°19.86	42.28	51.33
CTR. CURVE 110			
93+54.16 = POC	5°44.5	39.60	
57.56			
92+26.60	4°55.04	55.40	40.89 54.00
98.80		95.09	
91+27.80	3°30.13	40.26	56.75
98.12		94.40	
90+29.68	2°05.8	41.74	51.25
61.86		59.55	
	0°53.16		
90+37.82 = Beg. Crib		42.28	48.50
84.50	1°18.62	81.32	
T.P.		45.21	
82+53.32 = BC. 1st			
T.P.		40.26	
T.P.		45.79	
		53.84	

Grades 2284-75

30

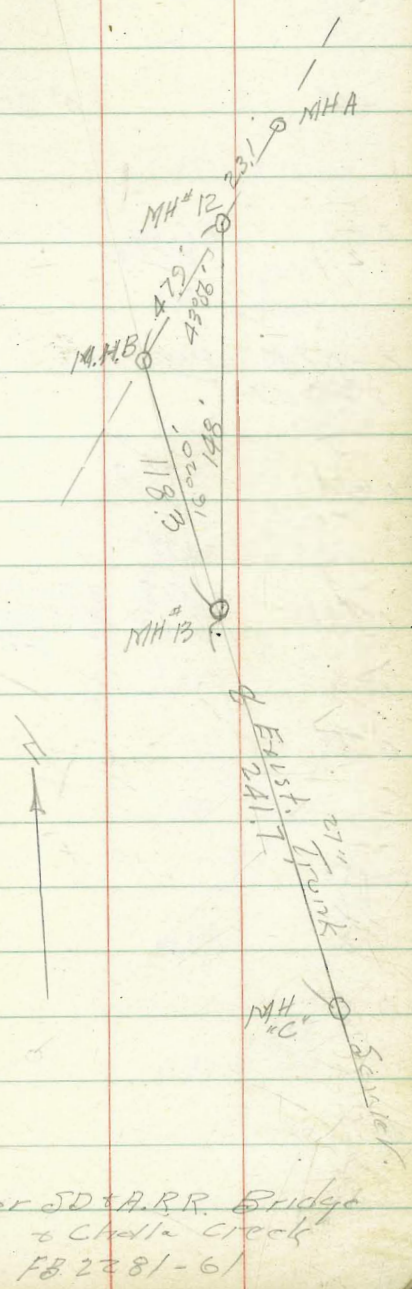


B.M. B.P. in 51' hd. old bridge Federal + Chell / Cal Creek
#33FB 2281-68

Los Chollas Creek Channel - MARSH BLVD SEC "B"

Walker in 27" Trunk Sewer
 Pipe Plan # 2008-D 140 22071
 Puller " # 2006-D

	Elav.	Invert	Cuts	offsets
1+48	13.12	24.14	17.68	6.46 10' RT
1+23	12.21	25.05	17.54	7.51 "
1+00	13.51	23.75	17.41	6.34 "
0+75	10.62	26.64	17.27	9.37 "
0+50	9.71	27.55	17.13	10.42 "
0+25	7.70	29.56	16.99	12.57 "
0+00 = MH #13	8.59	28.67	16.84	11.83 "
Invert MH #C	21.81	15.45	15.45	
Riff MH #C	12.57			
Invert MH #B	19.84	17.42	17.42	
Riff MH #B	10.79			
Invert MHA	19.16	17.80	17.80	
Riff MHA	10.54			
0+CA 37.26	36.62			



B.M. #20 = Bolt NE Cor SD & A.R.R. Bridge
 to Cholla Creek
 FB 2281-61

Chollas Creek Channel
 # Alignment Piling East Side North of National

Special Sheet No Number

Sept. 2, 1955
 H. S. Mason
 Garber
 Chippman

Part 4
 No. 32

				2.56	+54	1° 37.03'	6.40	2.54 7.54
+14		0° 25.19'	R 95547 6.21					
			D. 1.7989		+10	1° 11.84'	6.38	2.56 7.56
0+0	86 for Piling	0° 00'	6.19	2.58 7.58				
0-03.40 = PRC 8700.07			6.18	2.59 04	+26	3° 46.66'	6.36	2.58 7.58
0-14	8.77 ↑ 8.06 5.71 4.79 10.50 2.18		6.14	2.63 7.63	+12	3° 21.48'	6.34	2.43 7.43
0-28	BM 6.32	Checkbook From 74,3365 National 8x30	6.10	2.67 7.67	+98	2° 56.29'	6.33	2.44 7.44
0-42			6.06	2.71 7.71	+84	2° 31.10'	6.31	2.46 7.46
0-56			6.02	2.75 7.75	+70	2° 05.92'	6.29	2.48 7.48
0-70			5.98	2.79 04	+52	1° 40.74'	6.27	2.50 7.50
0-74.71			5.95	2.82	+42	1° 15.55'	6.25	2.52 7.52
		ELY 7.10 Ext 107 P. 10						
					0+28	0° 50.37'	6.23	2.54 7.54

Gholias Creek Channel
 #1 Alignment Piling East Side

+80 = Angle = 8° 23.19 ✓ 10+78.60	7.25 8.58	1.69 7.19 8.69 ✓	+20 = 11+95.54 Channel	8.79 ✓	2.83 3.84 8.78
+66	7° 58.51 ✓	7.10 8.56	4+06	8.84 8.77	
+52	7° 23.32 ✓	6.94 8.54	+92 Brt Ford Page 8.94T	8.48 8.75	
+38	7° 08.15 ✓	6.79 8.52	+78	8.33 8.73	
+24	6° 42.25 ✓	6.63 8.50	+64	8.17 8.70	0.72 5.06 5.77
2+10 +	6° 17.77 ✓	8.48 6.48	+50	8.02 8.68	0.77 5.00 5.93
+96	5° 52.58 ✓	6.46	+36	7.87 8.66	1.07 5.00 6.07
+82	5° 27.40 ✓	6.44	+22	7.71 8.64	1.33 4.00 8.23
1+68	5° 02.22 ✓	6.42	3+08	7.58 8.52	1.18 4.00 8.38
			2+94	7.40 8.60	1.54 7.00 8.54

0.11
0.02476

0.058

8M 6.38
5.48
11.78
3.28
8.50
3.12
11.62T

0.01
0.02776

x

Gholias Creek Channel
 Alignment Piling West Side North of National

Sept. 25-53
 Cut off trail

0-43.70 - A		611	$\frac{2.86}{7.86}$	+82.30	2° 41.58'	6.30	$\frac{1.91}{7.91}$
0-57.70	Sept. 25-53 171500 Case Talk 3265 National	609	$\frac{2.88}{7.88}$	+18.30	2° 14.09'	6.28	$\frac{1.93}{7.93}$
0-71.70	BY 6.30 5.68 11.78 8.54 3.14 2.75 8.21	6.07	$\frac{2.90}{7.90}$	+54.30	1° 46.61'	6.26	$\frac{2.71}{7.71}$
0-85.70	8.94 0.73 9.20 8.97	6.05	$\frac{2.92}{7.92}$	+40.30	1° 19.12'	6.24	$\frac{2.73}{7.73}$
0-99.78 - A	11/1 9.10 0.7 68.30	6.03	$\frac{2.94}{7.94}$	+26.30	0° 51.63'	6.22	$\frac{2.75}{7.75}$
0-113.86		6.01	$\frac{2.96}{7.96}$	+12.30	0° 24.15'	6.20	$\frac{2.77}{7.77}$
0-127.86		5.99	$\frac{2.98}{7.98}$	0+0 = 8+00.07 P.R.C.S	0° 00'	6.18	x 0
0-141.86		5.97	$\frac{3.00}{7.00}$	0-01.70		out	$\frac{2.79}{7.79}$
0-155.86 = H.L. National		5.95	$\frac{3.02}{7.02}$	0-15.70		6.15	$\frac{2.82}{7.82}$
				0-29.70		6.13	$\frac{2.84}{7.84}$

64/100.

5
 100

64/100.

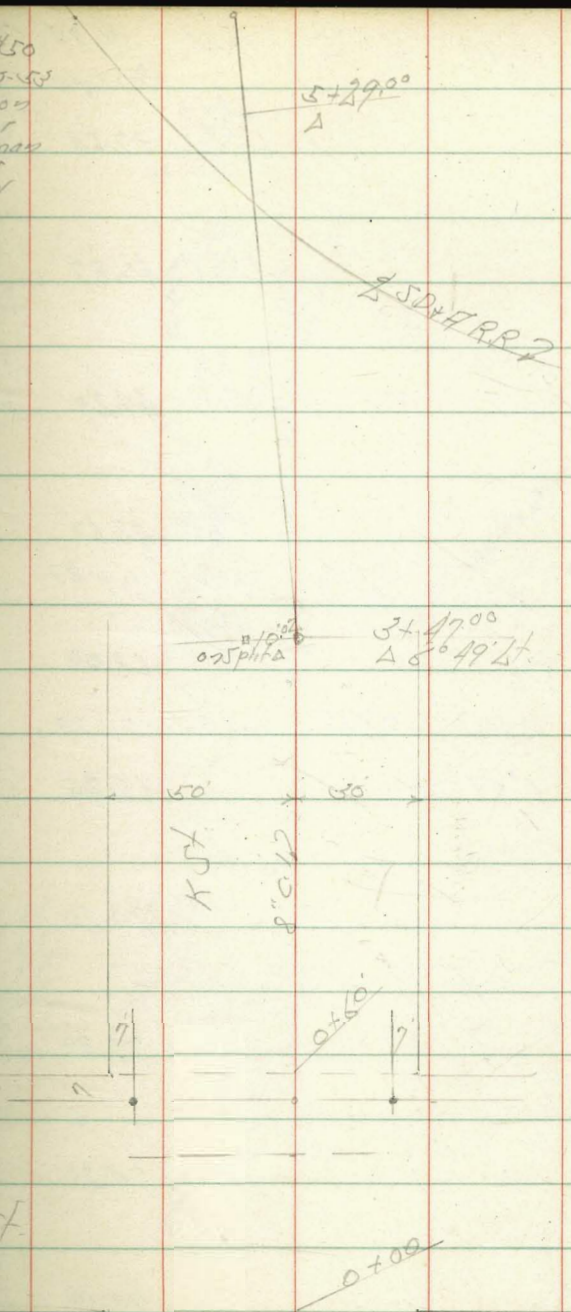
2+08.30		1° 48.96	6.15	4.57 8.06 9.33
+94.30	x	1° 21.47	8.48 6.48	4.69 5.15 9.69
+80.30		5° 53.98	8.45	4.72 5.72 9.72
	3rd Ford Page 11.62x			
+66.30		5° 26.30	6.43	4.74 5.15 9.74
+52.30		4° 59.01	6.41	4.76 5.76 9.76
+38.30		4° 31.52	6.39	4.78 5.08 9.78
+24.30		4° 04.04	6.37	4.80 5.20 9.80
1+10.30		3° 36.55	6.34	4.82 5.60 9.83
0+96.30		3° 09.07	6.32	4.83 5.20 9.83
				5.30 7.00 10.20
				5.66 5.00 10.65

+90.30 Ford =	0.15			
11+95.54 Channel				
+76.30	0.22	8.79		
+62.30	0.48	8.62	6.30	
+48.30	0.64	8.46	4.87	
+34.30	0.81 5.81	8.30	11.17	
+20.30		8.13	6.85	
3406.30	0.97 5.97	7.97	4.32	
		7.80	4.62	
+92.30	x	7.64	8.94	
+78.30		7.49	1.19	
+64.30		7.31	5.14	
+50.30 = A =		7.14	1.30	
10+6181		8° 11.43'	4.18	
+36.30		7° 43.92'	7.30	
+22.30		6.98	5.82	
		7° 16.44'	9.82	
		6.81	1.96	
			2.09	
			9.92	
			4.10	
			5.00	
			9.19	
			4.66	
			5.26	
			9.26	

Wabash Blvd. Section B" 8" C.I. Water Main
 KST 32nd to 33rd 33rd St K to Spring Garden

Sheet 450
 Nov. 15-53
 K. Simpson
 Garber
 Chipman
 Park
 Kelley

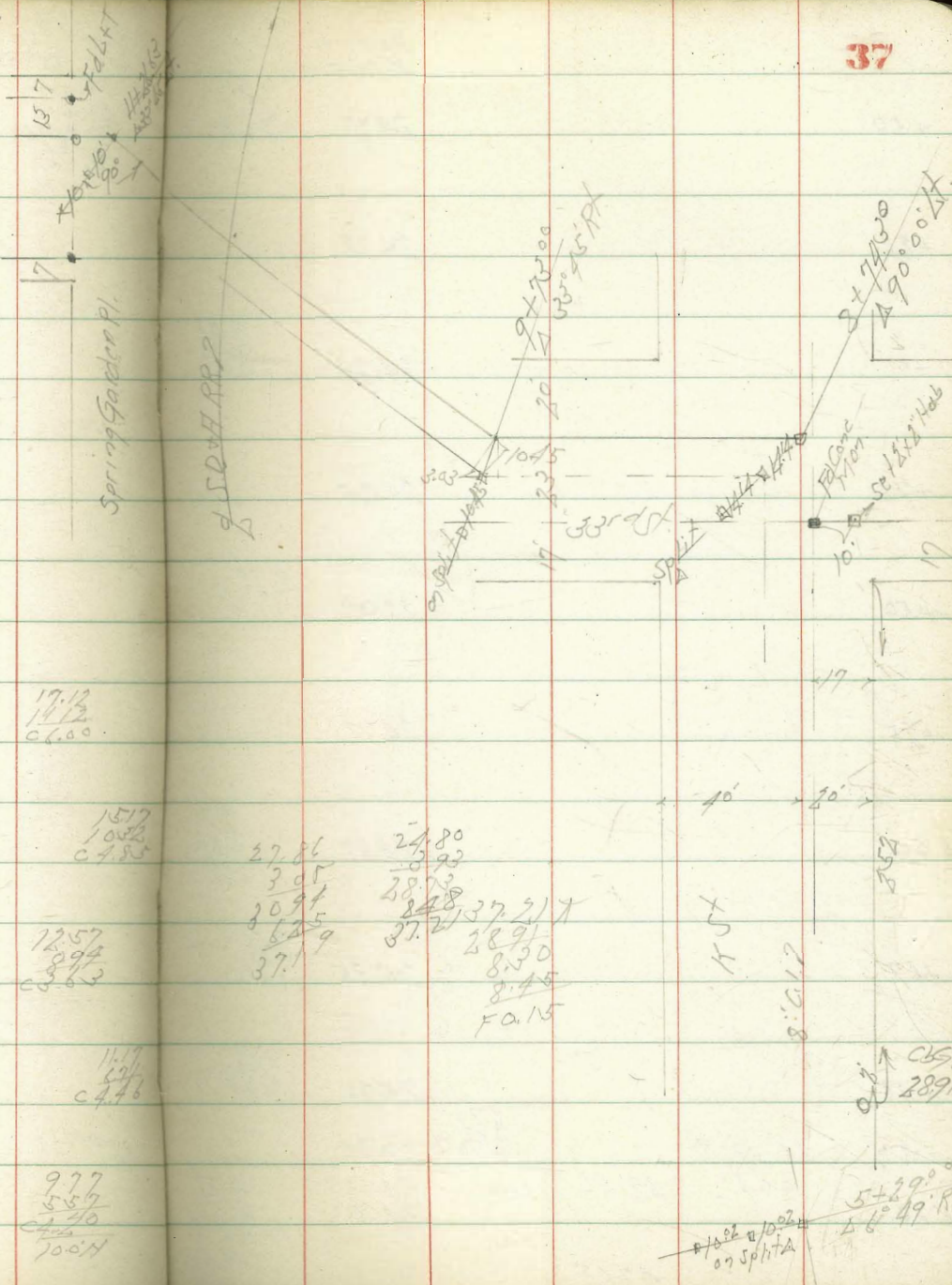
	Bottom Pipe Grade	
+35	75.79	out
2+0	75.98	9.49 1.20 8.29
+25	76.17	out
+50	76.36	9.01 1.28 7.73
+25	76.55	out
1+0	76.74	8.63 4.20 4.43
+70	76.97	8.40 4.00 4.40
+45 8" S.Y.		
+40 = Exit Cross	77.20	8.17 3.84 4.33 10.11
0+0 = N.E. 33rd St		
BM	81.57	83.57 KST BP KST 4320



TP	0.79	47.62	13.25	46.83	
				Bst. Pipe	
+75			22.54 12.28 c 10.08	37.54	137
				107 RR	
+50			19.21 13.37 c 5.84	40.87	7
				0.15	
+25			15.88 10.84 c 5.04	44.20	
1+0			14.68 c 7.40	48.60	
TP	0.60	60.08	13.10	59.48	
			14.58 c 7.76	58.00	
TP	0.29	72.58	13.08	72.29	
+47° 46' 49" Lt.				68.25	17.12 c 6.00
+38				70.20	15.17 10.22 c 4.95
3+12				72.80	12.57 8.94 c 3.63
+81				74.20	11.74 c 3.76
2+50				75.60	9.77 5.57 c 4.20
					100 ft

8537

Spring Garden Pl.



Bottom
Pipe Grade

+50				24.70	9.86 6.01 c3.85
+25				24.72	
7+0				24.73	9.83 5.90 c3.93
+75				24.75	
+50			9.9066	24.77	9.79 5.96 c3.89
+25				24.78	
6+0				24.80	9.76 6.83 c3.93
+69			0.170	25.35	9.21 6.81 c3.60
+38				25.90	8.66 4.75 c3.91
+29	16° 49' Rt		6.70 5.62 c3.08	27.86	
TP	0.08	34.56	13.09	34.53	13.42 6.76
5+0				34.20	6.66 c3.60
		47.62			10.1142

10+0				24.92	12.18 7.87 c 4.81				
+73.00	$\Delta 33^\circ 45'H$			24.75	12.36 7.95 c 4.70				
+50				24.60	12.50 7.94 c 4.56	RM	6.02	36.66	NE Bolt SD & RR Bridge 36.62
+25				24.60	out				
TP	864	3710	6.10	28.46		+38 = End		25.80	
9+0				24.60	9.94 11.84 c 3.92				
+74.30	$\Delta 90^\circ 00'H$			24.62	9.94 5.76 c 4.18 70.25' H			25.73	16.95 12.60 c 4.35 10' H
+50				24.64	9.94 5.76 c 4.18	11+0		25.56	17.12 11.74 c 5.38
+25				24.65		+85 = NY Top Fill		25.46	17.22 4.35 c 12.67
8+0				24.67	9.89 6.04 c 3.85 10' H	+70 = Sly Top Fill		25.36	17.32 3.54 c 13.78
7+75				24.68		TP 593	42.68	0.25	36.75
						10435 = Sly Top Fill		25.14	11.96 11.45 c 5.51 10' H
		34.56							
							37.10		

Grades + Alignment Page 33

Oct. 8-53
Bottom Grader

T.B.M. 8.78 Top Conc
4+20 of East
8.891

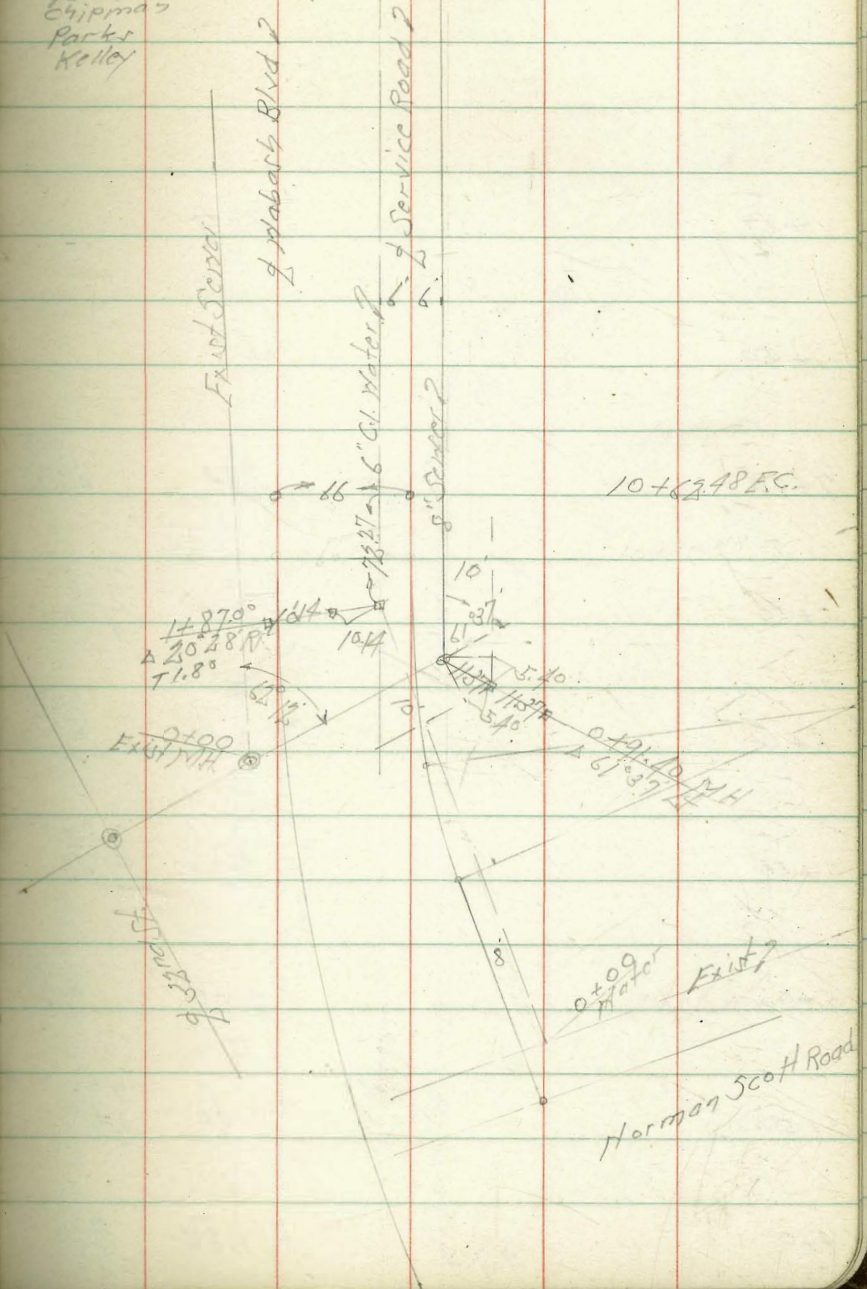
T.B.M. 8.78 Top Conc
0.86 4+20 Page 33
9.64

Station	East Side Sta.	Bottom Gr.	Top Conc	Grading	Top Conc
4+20	1195.54	1210	8.79	0.85	8.79
4+06	162	1210	7.57	2.07	7.57
+76	144	1215	6.35	3.29	6.35
+78	126	1215	5.13	1.51	5.13
+64	108	1219	3.91	5.73	3.91
+50	90	1219	2.69	6.95	2.69
+36	72	1223	1.47	8.17	1.47
+22	54	1223	0.25	9.39	0.25
3+08	36	1227	0.98	10.62	0.98
2+94	18	1231	2.19	11.83	2.19
1+80	0	1231	3.42	13.06	3.42

U.S. Naval Station
6" Water (Cast Iron)

Water
Nov. 16-53
K. Simon
Gardner
Chipman
Parker
Kelley

+50		1.40	8.33 7.17 4.17 10.17
2+0		1.20	8.53 13.33 4.2
+50		1.00	8.73 16.7 4.06
2+0		0.80	8.93 19.3 4.00
+87.00 Δ	-0.04	0.75	8.98 22.0 4.28
+50		0.60	9.13 25.3 4.90
1+0		0.40	9.33 28.5 4.28
+50		0.20	9.53 31.3 4.10
0+0 = EXIST 8"		0.0	9.73 34.3 4.80 10.17
BM	5.97	9.73	3.76 RP NW Chollar Br. 432nd St



+67

5.07

+50

cut

7+10

384

1.89
3.92
c3.99

+50

2.60

7.13
2.87
c4.26

6+0

2.40

7.33
6.17
c4.16

+50

2.20

7.53
3.07
c4.46

5+0

2.00

7.73
3.23
c4.53

+50

1.80

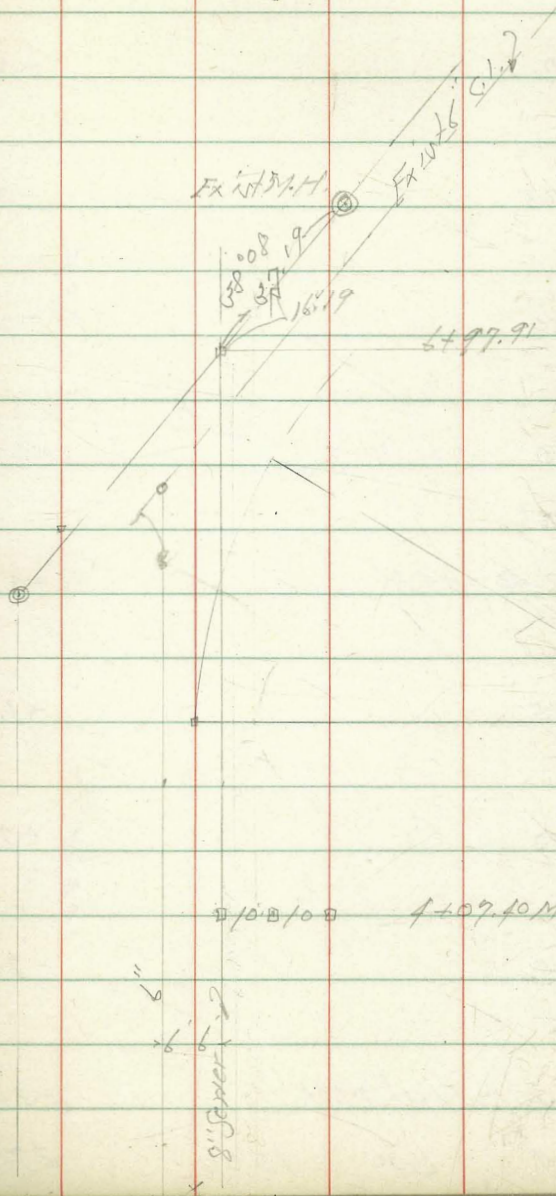
7.93
3.48
c4.45

4+0

9.73

1.60

8.13
8.93
c4.28



U.S. Naval Station
8' Vitrified Clay Sewer

Oct 23-53
75.507

43

+25		-0.36	10.71 2.63 c 8.34
2+0		-0.46	10.52 4.00 c 6.52
+75		-0.56	10.62 2.86 c 8.56
+50	0.00	-0.66	10.72 4.20 c 8.52
1+20		-0.78	10.82 4.87 c 8.77
28.6			
+91.40 = M.H.		-0.89	10.95 4.83 c 8.72 11.07 5.2
+75		-1.35	10.66 c 6.32
+50	10.27	-2.08	12.09 3.63 c 6.76
+25		-2.72	12.78 6.00 c 6.78
0+00 = First M.H.		-3.40	
BM	6.30	10.06	3.76 B.P.M.M. 10.7 5.2 + Choke 10.00

8" V.C. Senter

4.95

7.09

02 PA 15x0
Service
7.2885-18
-5.33 Rim

+75

0.64

11.49
4.98
6.51

MH 2719 NE

10.19

1.85

1.98 P60

+50

-0.54

11.50
5.21
6.29

+99.91 = F.W. 8"

0.152

10.53
4.87
5.66
16.19 NE

+25

0.44

11.60
5.21
6.39

TP 5.48 12.04 3.50 6.56

+75

1.44

10.60
4.88
5.72

A + 0.710 = M.H.

+0.39

9.59
3.50
6.09

+50

1.34

10.70
4.98
5.72

+75

+0.24

9.82
2.97
6.85

+25

1.24

10.80
4.82
5.98

+50

+0.14

9.91
3.57
6.34

6+0

1.004

1.14

10.90
4.85
6.05

+25

+0.04

10.02
3.72
6.30

3+0

1.004

-0.06

10.12
2.07
8.05

+75

1.04

11.00
4.90
6.10

+75

-0.16

10.22
4.17
6.05

+50

0.94

11.10
4.96
6.14

2+50

-0.26

10.32
4.12
6.20

+25

0.84

11.20
4.96
6.24

10.06

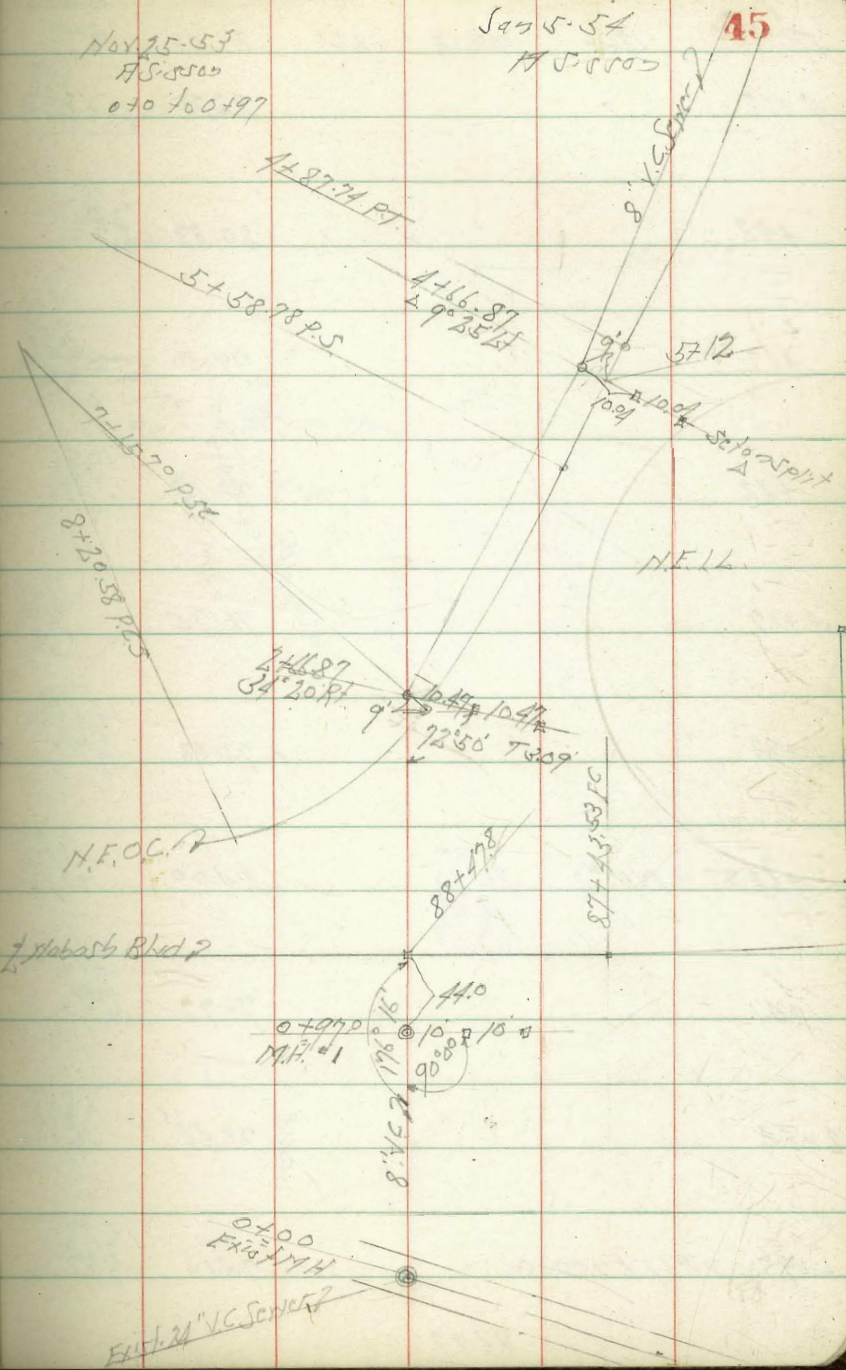
5+0

+0.74

11.30
4.88
6.42

8" V.C. Sewer Habash Blvd. North of Market St.

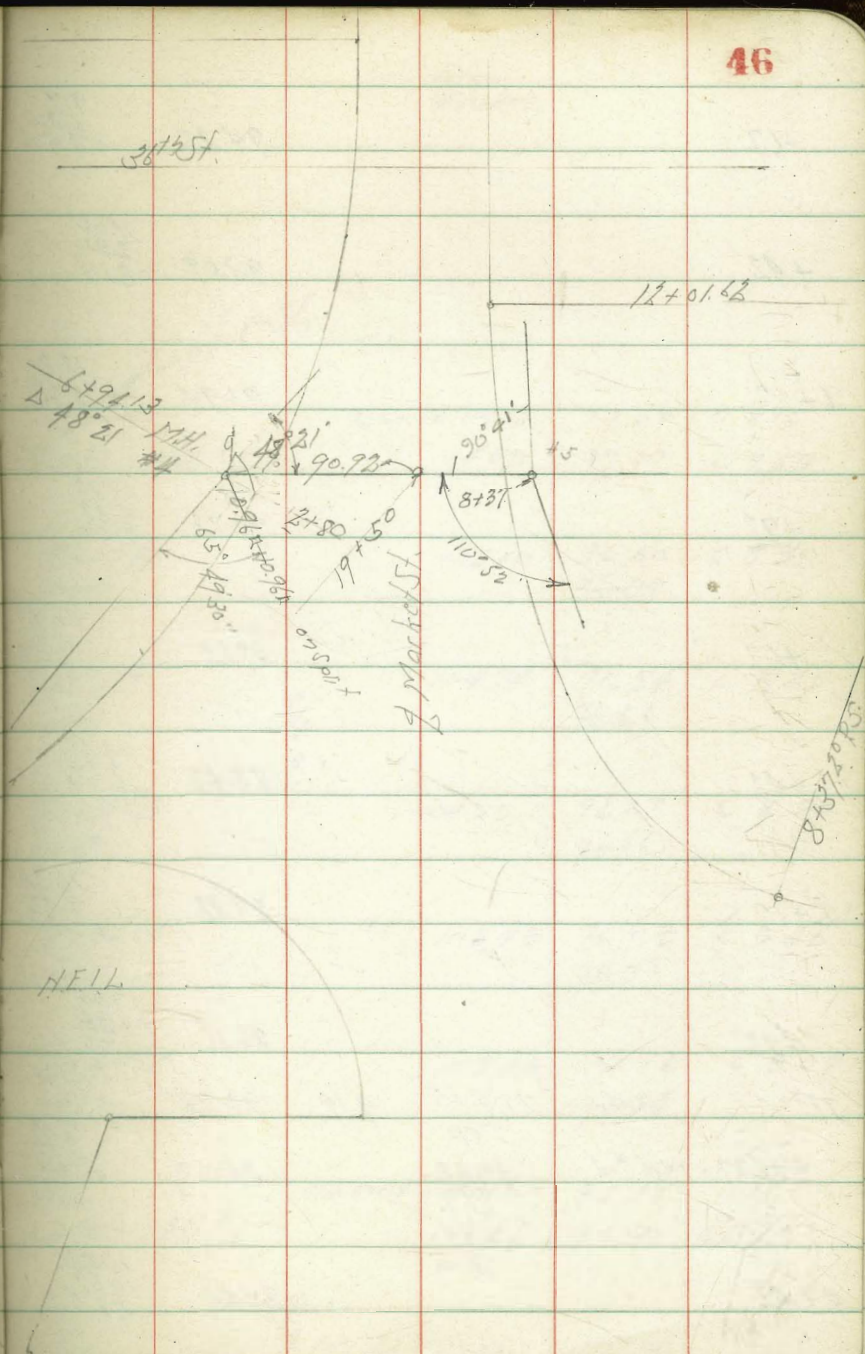
+72				72.89	16.05 8.00 8.05
+47	#2 BM 68.88 12.57 81.45 T. 80.76 8.38 88.94 T.			72.59	16.35 2.09 07.26
1+22				72.30	16.64 8.65 8.05
+97.00 = M.H. #1	2.58 0.87 705	6.77 1.75 705	6.87 0.75 705	72.00	9.65 8.56 13.75 2.75 17.37 705
TP	12.95	85.72	0.04	72.77	12.03 2.93 8.09
+69 = Cutoff Wall				60.79	20.64 7.85 8.19
+49				52.77	15.25 8.85 8.16
TP	13.17	72.81	0.12	59.64	31.83 20.30 0.153 705
+29 = Cutoff Wall				44.75	26.64 12.34 14.30 0.153 on Rim
+12 = Fly Mass				37.93	
0+00 = Exist M.H.				33.12	
TP	12.75	59.76	10.57	47.01	
BM	37.4	57.58		53.84	M.H. SP Federal & Cholla Bridge



Nov 25.53
 H.S. 5500
 010 700497
 5475.54
 H.S. 5500
 45

7P	1230	100.18	1.06	87.88	0.5106 4+17
4+17				82.25	6.69. 1.06. c5.83.
+92				80.88	8-06. 2.29. c5.77.
+67				79.50	2.44 0.31 3.27 c6.07 c6.17
+42				78.13	10.81. 4.92. c6.34.
8+17			650.	76.75	12.19. 5.32. c6.87.
+92				75.38	13.56. 6.23. c7.33.
+66.87 = MH #2	75P 80.10			74.00	14.92. 6.92. c8.12.
+47				73.77	15.17. 7.22. c7.23.
2+22			810.	73.48	15.26. 7.18. c8.32.
1+97 = ELY F2005cd				73.18	15.76. 7.05. c8.71.

88.94



Felan
Stakes

+67				94.25	9.90 1.35 C 8.55
+42				93.09	11.06 2.91 C 8.15
6+17				91.94	13.21 1.16 C 7.55
+92				90.78	13.37 5.87 C 7.50
+67				89.63	14.02 6.25 C 7.77
+42				88.47	15.68 7.94 C 7.94
5+17				87.32	16.83 9.46 C 7.37
+92				86.16	17.90 14.24 C 6.75
TP	13/16	104.15	9.19	90.99	15.10 9.17 C 5.93 7.03
+66.87				85.00	
4+42				83.63	16.55 10.67 C 5.86

Cont. P. 56
8+37 = MH #5

					80.20	105.15	97.00	C 8.15
						104.59	97.00	C 7.59
				8+19.13		105.10	96.80	C 8.30
				8+17			96.99	
				7+94.13		104.74	96.54	C 8.20
				+92			96.53	
				7+69.13		104.73	96.27	C 8.52
				+67			96.26	
				7+96.13		105.93	96.03	C 9.40
				+92			96.00	
				7+20.13		103.83	95.76	C 8.07
				9+17			95.74	
				6+94.13	MH #4	CHK Exist Invest =	95.32	11.03
							101.87	95.50
				TP	463	107.43	103.80	13.13
						104.15		08.81

100.18

10.55

10.10

Grader 3846 St. Island to 9 St.

H.L. Grade

±

F.L. Grade

Feb. 3 1954
H. Sisson
Garbo
Equipman 48
Barth
Kelley

Slope

+47.75

1:1

8.5
2.0
08.5
16.5

123.06
20

123.06
20

8.5
8.0
00.5
20.5

+407.75 P.X.C.

1:1

8.0
2.0
05.0
25.0

123.54
20

123.54
20

8.0

+71.84

122.99
20

25.0
10.0

+35.92

122.45
20

0+0 = H.L. Island H.C.

121.90
20

BM

9.86

23/1.525

122.17

Pipe 99 ft
22.4/894
1/10/1954

Slope

F.L. Grade

±

F.L. Grade

14.141
14.11 RT
+67.75: ON P.C. 6.55
Mol. for ST

18.7
3.9
67.8
37.4
113.88
36

112.88
20

22.1
12.7
69.4
29.4

✓ 13501 X

2+27.75

14.141
14.11 RT

14.9
+2.1
67.0
34.5
116.63
25

116.63
20

74.8
2.9
67.0
27.0

1+87.75

14.141
14.11 RT
F.C.

11.1
4.1
67.0
25.3
120.39
20

120.39
20

11.1
8.2
67.9
22.9

131.55

Grades 3815 St.
Island Rte. to G St.

M.L. Grade

±

F.L. Grade

50

+33.89 = 8 ft
10' South of S.L.G. St.

7.6
5.5
28.1

144.32

7.6
7.6
0.0
2.5
17.7

11.59 on Top
Water 11/10/2

144.32

7.6

6 + 0

1:1 Lt.

12.2
7.7
4.5
2.5

139.66
20

139.66

12.2
7.7
0.0
3.5

151.89
4.79
BM 147.10
Correction
2.5 St.
11.2.38/5

TP

7.43

151.89

1.99

144.46

+50

3/4:1 Lt.

13.6
7.6
0.0
2.5

132.81
20

132.81

13.6
7.6
0.0
7.6

5 + 0

1:1 Rt.
1/2:1 Lt.

20.5
10.2
0.0
25.8

125.95
20

125.95

20.5
18.1
0.0
2.4

+7.5

1 1/2:1 Lt.

23.9
11.6
0.0
26.2

122.52
20

119.10

15.9
6.7
0.0
24.6

+50

1/2:1

27.4
6.6
0.0
30.7

119.10
20

119.10

15.9
6.7
0.0
24.6

+2.5

1/2:1

36.8
8.2
0.0
36.8

115.69
35

110

15.9
6.7
0.0
24.6

TP

12.01

146.45

0.57

134.44

+0.6

22.0
0.0
0.0
22.0

113.00
30

4 + 0.87 = Opp C6 FC
N.E.C.

22.5
0.0
19.5
30

112.50
30

112.50
30

22.5
8.5
0.0
27.0

BM

12.84

135.01

122.17

Pipe 74' Rt.
224.8

Grades - North East Outer Connection
to Market St. For Beach

	Slope		Edge Pav.	Hinge	Face Bench	Back Bench
3+0	1/2" 1		100.39 6	99.68 17.5	120.00 37.7	119.00 47.7
2+43.87 P.S.S.			103.51 6	103.67 17.5-06	122.80 27.1	121.80 47.1
2+0	1/2" 1		106.26 6	106.76-06 17.5	125.00 26.6	124.00 46.6
1+62 - 06.15	1/2" 1		108.73 6	109.34 18.5	126.90 27.3	125.90 47.3
BM	3.42	15416	150.74	4+8774 2281-65		

0+00 = Opp 22+1894 Market St.

Pipe 7964

4+8774
2281-65

Bench Northwest Outer Connection
to Market St.

	Slope				Edge Pav	Hinge	Face Bench	Back Bench
TP	0.24	14326	11.14	14302				
57.25	1/2:1				89.64 6	89.48 17.5	108.80 27.2 27.2	107.80 47.2
							45.4 8.1 37.3	46.4 8.1 38.3
+87.74	P.T. 1/2:1				91.57 6	91.19 17.5	110.60 27.2 27.2	109.60 47.2
							43.6 3.9 39.7	44.6 3.9 40.7
+50	1/2:1				93.08 6	92.81 17.5	112.50 27.4 27.4	111.50 47.4
							43.2 2.6 40.6	43.7 2.6 41.1
4+0	1/2:1				95.40 6	94.99 17.5	115.00 27.5 27.5	114.00 47.5
							39.2 2.8 36.4	40.2 2.8 37.4
3+50	1/2:1				97.81 6	97.26 17.5	117.50 27.6 27.6	116.50 47.6
							36.7 2.8 33.9	37.7 2.8 34.9

15416

Bench North East Outer Connection
to Market St.

	Slope			Z	Edge Pav	Hinge	Face	Bench	Back Bench	
+ 15.70	0.09	12210	13.29	12201	80.45 6	79.51 17.5	99.20 27.4	36.1 13.2 22.8 27.4	98.20 47.4	37.1 13.3 23.8 59.3
7+0					81.15 6	80.27 17.5	100.00 27.4	35.3 12.1 23.2 27.4	99.00 47.4	31.3 12.1 24.2 59.5
TP	0.38	135.30	8.24	13492						
450	1/8"				82.51 6	82.89 17.5	102.50 27.3	40.8 11.8 29.0 27.3	101.50 47.3	11.8 30.8 58.7
6+0	1/8"				85.99 6	85.63 17.5	105.00 27.2	38.3 11.6 26.7 27.2	104.00 47.2	39.3 11.4 27.9 53.2
5+58.78	RS. 1/2"				82.05 6	87.86 17.5	107.10 27.1	36.2 2.7 33.5 27.1	106.10 47.1	37.2 2.7 34.5 64.4

143-26

Bench North East Outer Connections
to Market St.

	Slope				Edge Par.	Hinge	Face Bench		Back Bench	
9+0					74.52 6	74.35 18 22.1 8.5 c 1.26 31.6 #2284-57	91.00 347 2	54 8.5	88.00 54.7	84 9.6 F 1.2 58.3: Back Bench EXIST
+50	3/4:1				75.97	75.48 17.75	93.00 309	3.4 3.2 60.2 30.9	92.00 50.9	1.4 3.2 11.2 51.9
TP	0.57	96.41	1331	95.87						
+20.58	PGS				76.82 6	76.14 17.5	94.20 266	15.9 8.7 8.7 26.6	93.20 466	16.0 8.9 c 9.1 57.3
8+0					77.41 6	76.60 17.5	95.00 267	14.2 10.3 10.9 26.7	94.00 467	15.2 10.9 c 10.7 53.7
TP	0.18	109.18	1310	109.00						
7+50	1/2:1				79.07 6	78.02 17.5	97.50 273	24.6 5.2 19.4 27.3	96.50 473	25.6 5.2 c 2.4 57.5

122.10

8" V.C. Sewer - Wabash Blvd
North of Market - Sketch P-46

And Across Market, West of 36th

And Along S.E. Outer Connection

at Market St Plan 1985-D St. #4

Walker

Pope

Oltman

Olver 7-21-54

Elev.
Invert

0+80 = Fly. End.	98.38	98.00	60.38	
+50	100.48	97.62	62.86	
+25	102.24	97.31	64.93	
0+00 West				
8+37 = 2' X 14" #5	104.00	97.00	67.00	10' Rt.

0+80 = Fly. End.	109.98		68.98	5' Lt.
	108.83	101.00	67.83	70' Lt.
0+50	108.27		68.77	
	107.26	99.50	67.76	10' Lt.
0+25	105.95		7.70	5' Rt.
= 0+00 East	105.72	98.35	7.47	10' Lt.

8+37 = 2' X 14" #5 P-47
Cont. from
P-47

97.00

Market St. Bridge 56

B.P. Chisler	47.74
T.P.	55.98
T.P.	64.05
T.P. SW End of Wabash Bridge at Market	66.16
T.P.	73.94
T.P.	81.56
T.P.	90.93
T.P.	100.30
T.P.	109.62
T.P.	118.15
Chk. BM	122.16
FB 2287-43	122.17
	561

Grades Road for Drainage
37th St. North of Imperial H.R.

Nov. 15-54
H.S. 3300
Garber
Chipman
Keller

Lt. W

d

Rt. = E

57

+50	2	31.0 Lt. of Base Line				26.00	$\begin{array}{r} 163 \\ C21 \\ 81 \end{array}$
+30		23.0 Lt.				26.10	$\begin{array}{r} 11.5 \\ 1.5 \\ C2.8 \\ 138 \end{array}$
+70		12.5 Lt.				26.15	$\begin{array}{r} 11.04 \\ 1.82 \\ C9.2 \\ 15.2 \end{array}$
+39		2.5 Lt.				26.20	$\begin{array}{r} 11.0 \\ 6.8 \\ C4.4 \\ 10.4 \end{array}$
TP	420	37.19	200	3299	Top Ref Rt 2+39		
2+0		9.5 Rt.				26.27	$\begin{array}{r} 8.7 \\ 3.0 \\ C5.7 \\ 11.7 \end{array}$
+60		13.5 Rt.				26.34	$\begin{array}{r} 8.65 \\ 6.25 \\ C1.78 \\ 7.9 \end{array}$
+20		13.5 Rt.				26.41	$\begin{array}{r} 8.6 \\ 7.9 \\ C0.8 \\ 6.2 \end{array}$
1+035	2	12.5 Rt. of Base Line				26.44	$\begin{array}{r} 8.5 \\ 8.5 \\ C0.0 \\ 6 \end{array}$
BM	542	3499	29.57		BP N Rail Bridge Imperial + 34		

0.0178

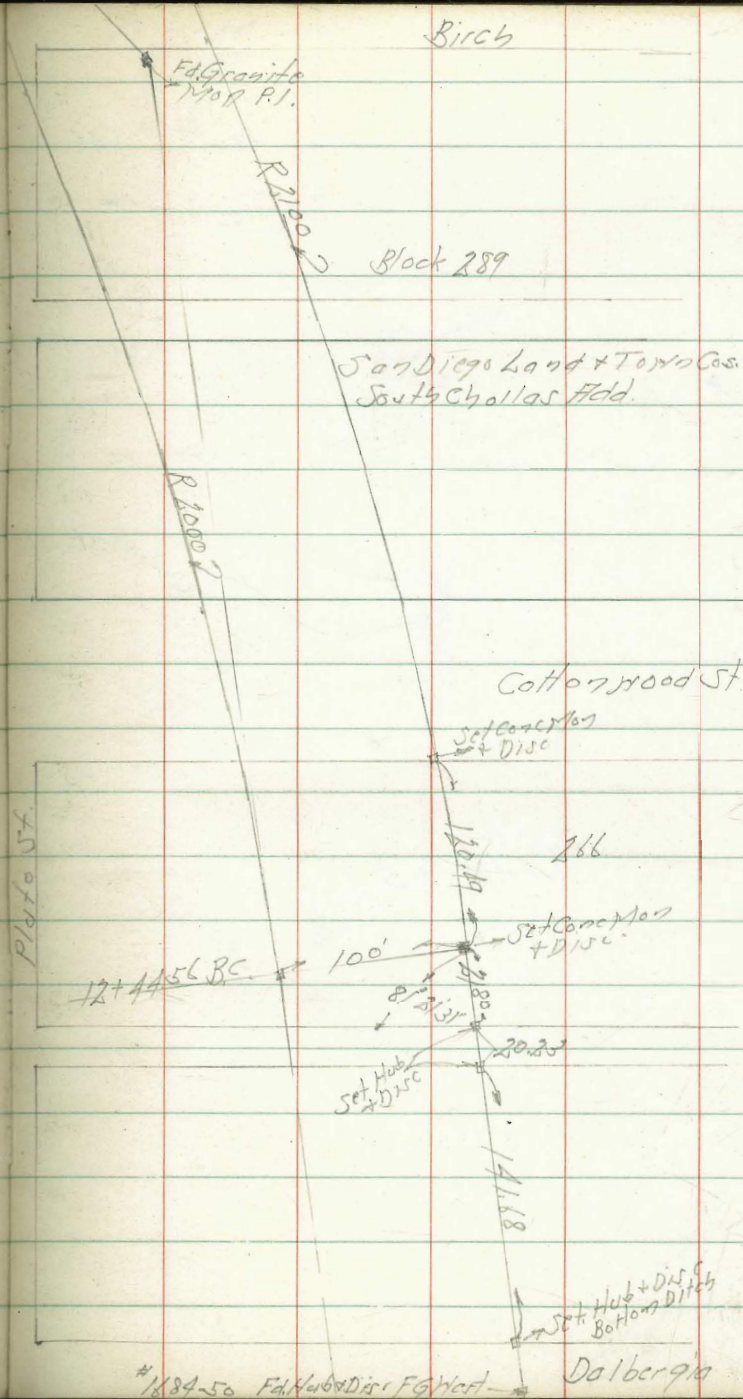
The image shows an open notebook with two facing pages. Both pages are cream-colored and feature light green horizontal lines for writing. Each page is also ruled with red vertical lines, creating a grid of columns. The left page has a red number '62' in the top left corner, and the right page has a red number '63' in the top right corner. The notebook is bound in a dark, textured cover, which is visible at the edges. The pages are otherwise blank, with no handwriting or printed text.

The image shows an open notebook with two facing pages. Both pages are cream-colored and feature light blue horizontal ruling. Each page is divided into two columns by two vertical red margin lines. The pages are otherwise blank, with no handwriting or printed text. The notebook's dark cover is visible at the edges, and the pages are slightly aged.

Survey North East Right of Way
Habersh Blvd. Between Dalbergia & Birch

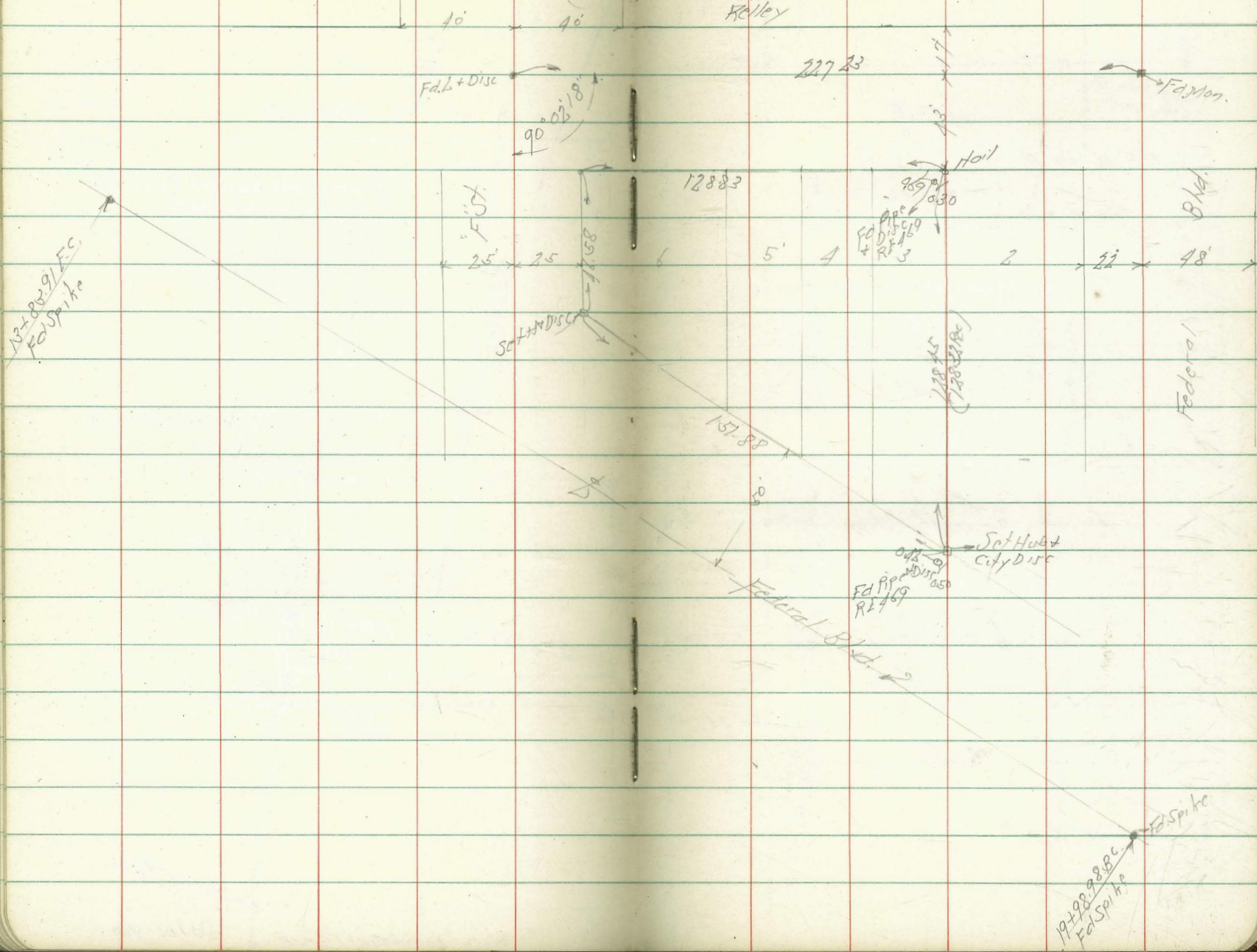
Dec. 7-54
H. Sisson
Garber
Chipman
Kelley

R/W 72391
Field Book # 1823-37
" " 1884-50



April 1-54
R. D. Sisson
Garber
Chapman
Kelley

76



Re Survey Lots 29+30 Block 8 Spring Garden Tract

Also Lots 7+8 - 21+22 Block 7

75 per R/W Sheet 9725 L

Fed. 19. 54

F.S. 508
Garber
Chippman
Parley
Kelley

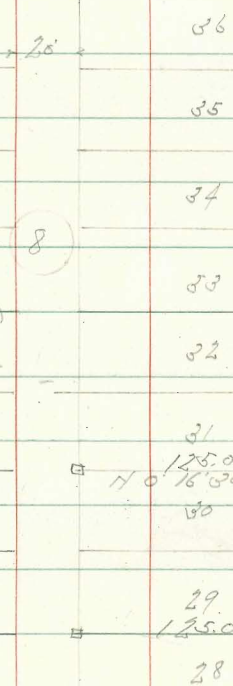
Depot
Hub & Disc Set
Nail

77

17

43

$N 10^{\circ} 16' 30'' W$



Spring Garden Tract

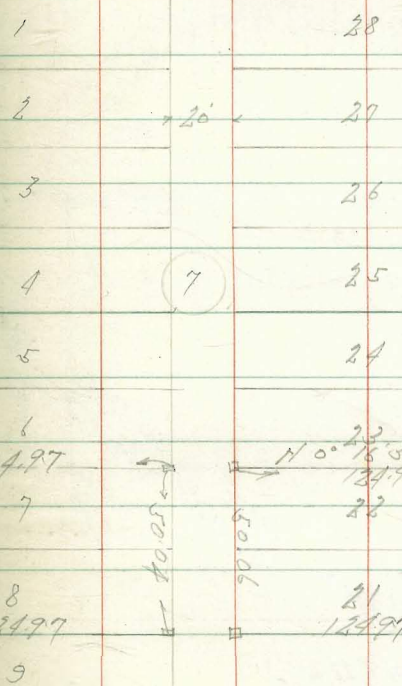
Imperial Hwy.

17 43
 $N 89^{\circ} 43' 30'' E$

(31995)
(Crowned)

17

43



Fd. Hub Set
Page 37

K 54

$N 89^{\circ} 43' 30'' E$

Yabash Blvd. Right of Way
Island Ave. + 35th St. to Merritt + 9th

Rt 5600
7246 HL

June 15: 53
H. Sisson
Garber
C. H. P. ...

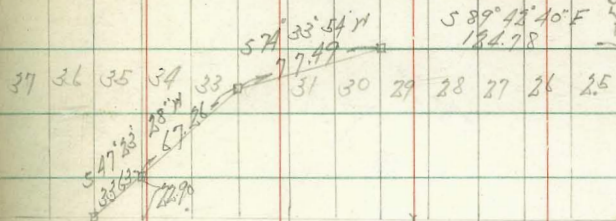
Parke
K. Kelley 78

Market St.

589° 42' 40" E

589° 42' 40" E

589° 42' 40" E
184.78



589° 41' 26" E

1520.34

74.88

17.88

19.13

19.13

0.6

1 2 2 4 5 6 7 8 9 10 11 12

11

11

11

11

11

11

No. 88.02 00 N

No. 88.02 11

No. 88.02 11

No. 88.02 11

Fd. H. ...
used 130.85
Rec. 124.60
568

Rec. (9° 22' 50")
used 12° 07'

Cont. 2287-79

FARE

913

589° 40' 12" E

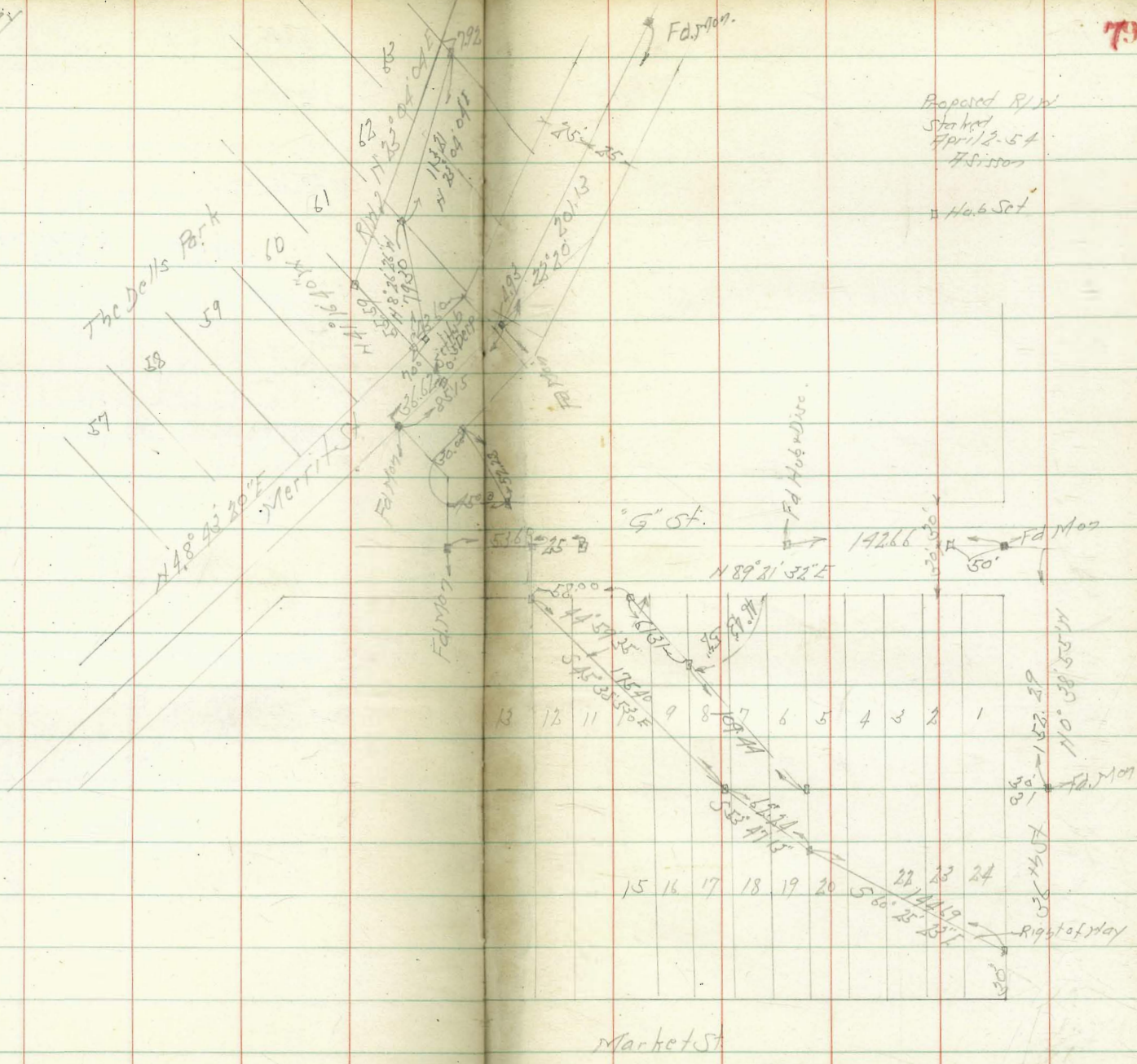
Island Ave

637.39

Fd. Mar.

Right of Way

T



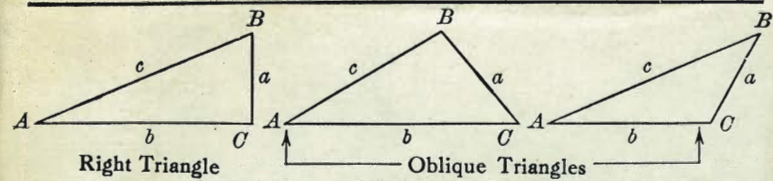
Proposed R/W
 Set out
 April 12, 54
 T. Sisson
 H. G. Set

Market St

Right of Way

13100

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

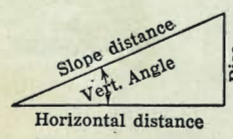
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\text{cosec} = \frac{c}{a}$

Given	Required	Formulas
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	Formulas
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}, C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{b c \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10'. From Table, Page IX. $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft.
Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle) With the same figures as in the preceding example, the following result is obtained. $\text{Cosine } 5^\circ 10' = .9959, 1 - .9959 = .0041, 319.4 \times .0041 = 1.31, 319.4 - 1.31 = 318.09$ ft.
When the rise is known, the horizontal distance is approximately: — the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.

3205
117
3088