

**Our Leather Bound Engineers Note Books
are carried in the following rulings:**

- No. 380 LEVEL BOOK. Left and Right Hand Page
the same as Left Hand Page
of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this
Book, Right Hand Page 4x4
to the inch, Center Line Red.
- No. 384 MINING TRANSIT
BOOK. Left Hand Page as in this
Book, Right Hand Page 8x8
to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this
Book, Right Hand Page 8 ver-
tical and 4 horizontal lines to
the inch, Center Line Red.

We also carry the Note Books listed above,
bound in extra strong Fabri-Hide (otherwise
the same quality of book,) which can be fur-
nished at a somewhat lower price.

In ordering Fabri-Hide covered books, add
the letter "F" to catalog number.

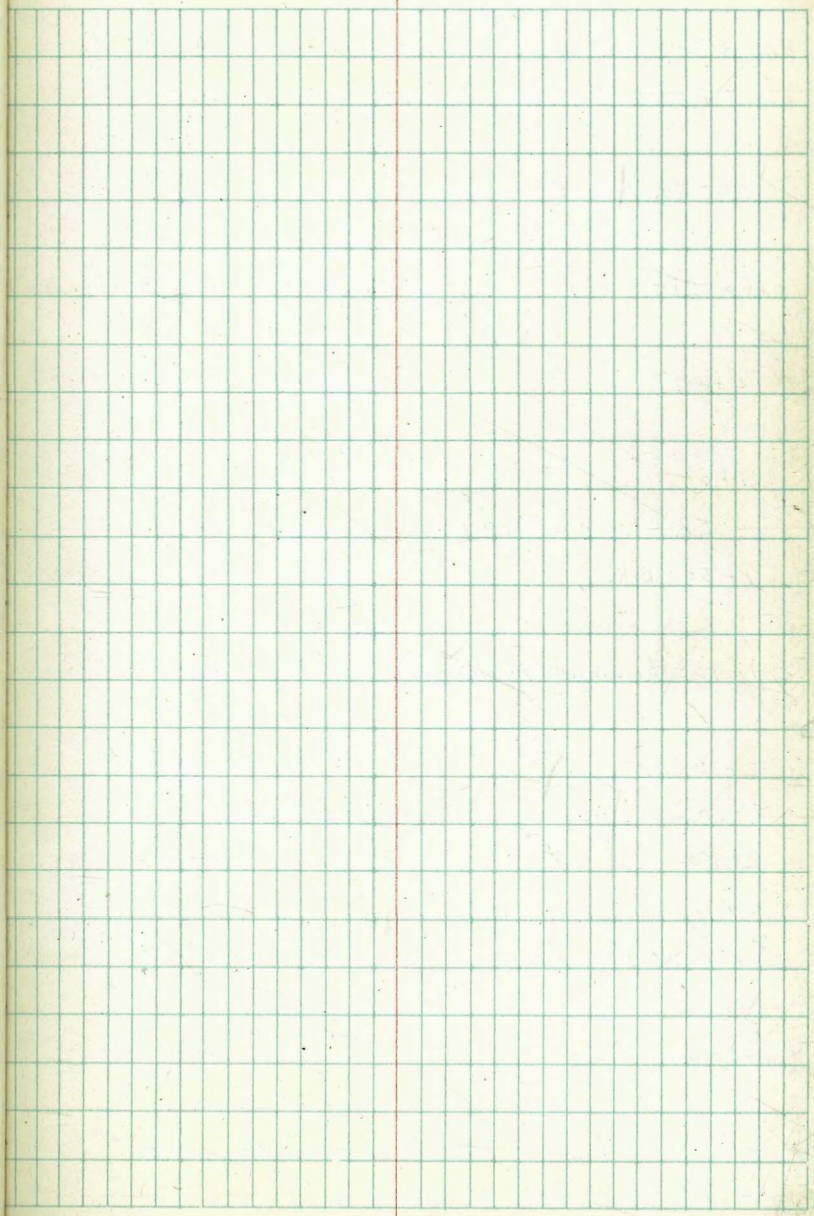
THE FREDERICK POST CO.

ENGINEERING and DRAFTING SUPPLIES
P. O. Box 803 MICROFILMED CHICAGO

APR 14 1965

Sewer Grades. Junip \leftarrow 29th St. We St. 1

7' Pt. R.P.s: (W.P.A.) ————— 3.



3-12-37 Sewer Grades. E.N. of S. Line Juniper St.
 Walk
 Bliss W. of 29th St.

See change Page 4

BM. B.P. — 12.41 — 254.25 — 241.84 — ^{N.W. Juniper} *Granada

T.P. — 7.10 — 260.04 — 1.31 — 252.94 —

00-59.75 = W. Line of 29th ST.

0+00 = D.F. 0.54 259.50 253.50

0+50 5.98 254.06 248.00

1+00 11.42 248.62 242.50

T.P. — 0.42 — 247.51 — 12.90 — 247.14 —

1+50 = Brk. 4.21 243.35 237.00

1+90 = Granada Ave (closed) 6.02 241.54 234.94

2+30 Brk. 7.72 239.84 232.88

T.P. — 0.22 — 234.98 — 12.80 — 234.76 —

2+80 2.82 232.16 225.78

3+30 M.H. #2 10.16 224.82 218.68

3+50 Brk. 11.03 223.95 215.84

3+70 T.P. — 0.98 — 222.35 — 13.61 — 221.37 — 210.48

T.P. — 0.70 — 210.00 — 13.05 — 209.30 —

Indexed

1

Cuts on sidewalk Pipe Laid below cur. Walk.

+ 6.00 ✓ + 5.0

+ 6.06 ✓ + 5.0

+ 6.12 ✓ + 5.0

+ 6.35 ✓ + 5.0

+ 6.60 ✓ + 5.0

+ 6.96 ✓ + 5.7

+ 6.38 ✓ + 5.0

+ 6.14 ✓

+ 2.11 ✓

+ 10.89

5th St. Closed

210.00

↑	4+20		8.45	201.55	197.08
	T.P.	1.17	197.90	13.27	196.73
26.80	4+70		8.28	189.62	183.68
	T.P.	0.44	185.44	12.90	185.00
	5+20		8.76	176.72	170.28
	T.P.	0.31	172.99	12.80	172.68
X	5+77 Brk.		12.23	160.76	155.00
	T.P.	2.47	163.23	12.23	160.76
	6+10		6.23	157.00	154.11
	6+43 M.H. connection with Existing Sewer.		6.62	156.61	153.22

+ 4.47 ✓

+ 5.94 ✓

+ 6.44 ✓

+ 5.76 ✓

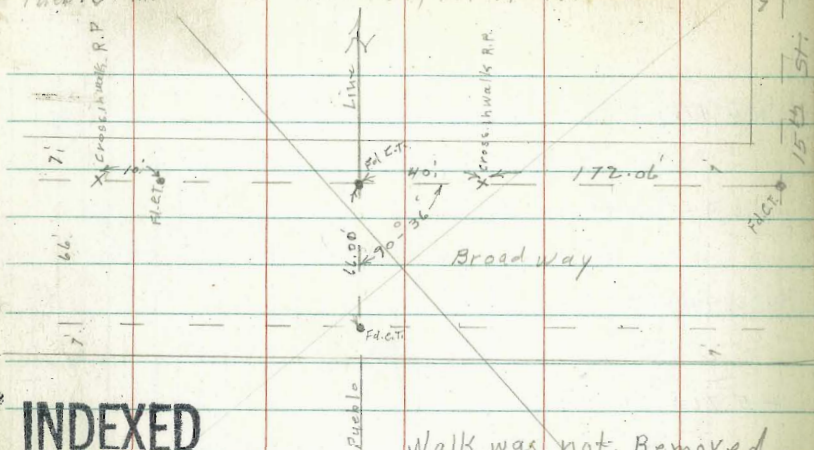
+ 3.89 ✓

+ 3.39 ✓

2

3-12-37

Pueblo Line Tricuts Broad Way Bet 14th & 15th



INDEXED

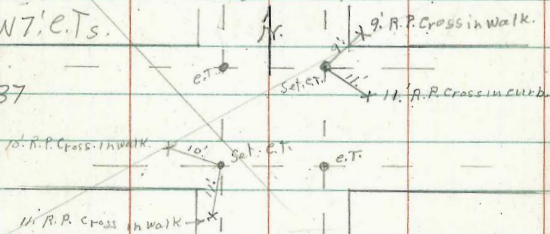
WK.
OCT 14 1948

Walk was not. Removed
Points O.K. 10-19-37

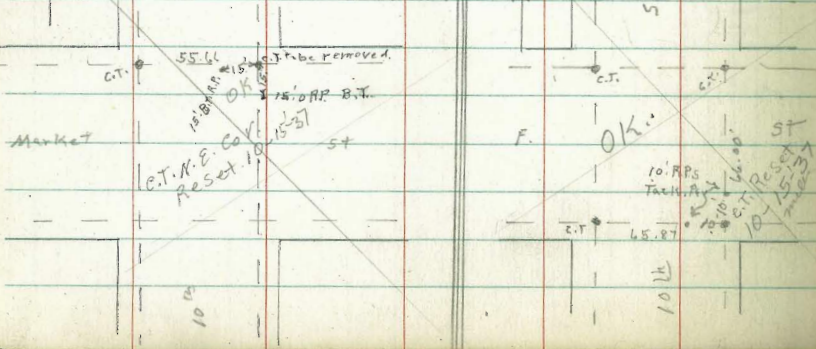
R.P.s 4th Ave & Grapest.

N.E. & S. W. T's.

Replaced.
10-19-37

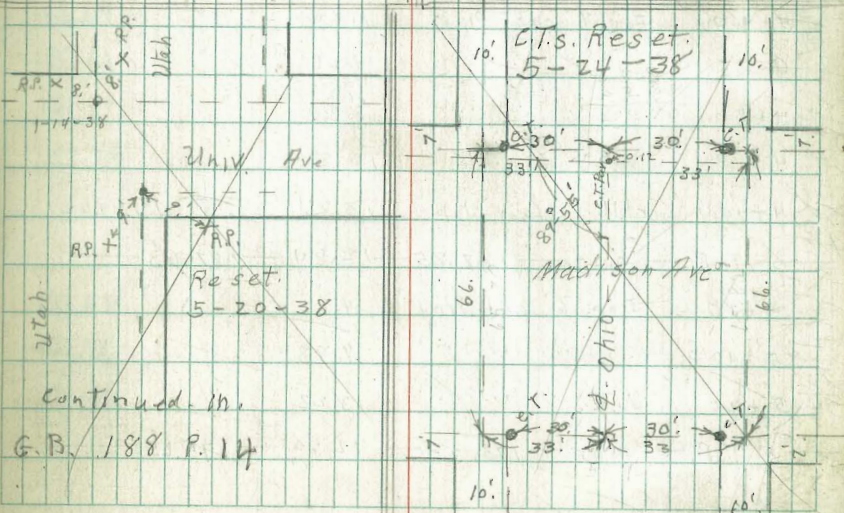
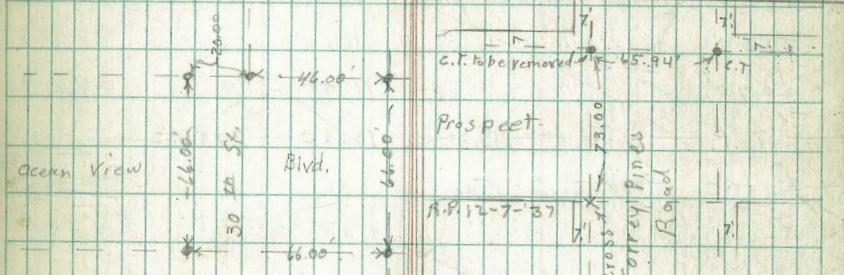


R.P.s 10th & Market



S.E. T. C.T. 12th & Market. R.P.s Tack. 5 in pav. 10' W & 15' N. 10-15-37

N.W. T. C.T. 18 th + C.	R.P.s	10' S + 10' E. OK 10-19-37
N.W. T. C.T. 18 th + B.	R.P.s	Crosses in walk 15' N 15' W. OK. 10-19-37
S.E. T. C.T. 25 th + B.	R.P.s	20' S + 20' E. OK 10-19-37
N.W. T. C.T. 28 th + B.	R.P.s	20' N + 20' W. OK. 10-19-37



Continued in
G.B. 188 P. 14

4-1-37

Grades on Sewer R.N. of S. Line Juniper
St. as laid by P.W.F. this does not follow.

Grades as set. Page 1.

Ditch dug but.

No pipe laid from 0+00 to 3+30 M.H. #2

Grade will be 5' below sidewalk = 5' below.

Crosses in walk. see Page 1.

Pipe laid from Sta 0+00 to 3+30. 4-19-37

B.M. cross at M.H. #2

224.82

B.M. 1.30 — 226.12 —

224.82

3+30 M.H. #2 Top 6" cmt. pipe 5.24 220.88 - 0.58

3+50 " " " " 7.64

3+70 " " " " 11.40

T.P. 0.17 — 213.39 — 12.90 — 213.22 —

3+80 Top 6" cmt. Pipe 1.76

4+00 " " " " 9.40

T.P. 0.00 — 200.47 — 12.92 — 200.47 —

4+20 Top 6" cmt. Pipe 1.22

4+35 " " " " 4.26

4+50 " " " " 8.30

4+70 " " " " 12.81

4+70 chk. offset step 10.86 189.61 - 189.62

T.P. 0.22 — 187.85 — 12.84 — 187.63 —

4+90 Top 6" cmt. Pipe 4.27

5+10 " " " " 9.93

5+20 " " " " 13.23

T.P. 0.05 — 175.30 — 12.60 — 175.25 —

Indexed 175.30

4

5+40 Top 6" cmt. Pipe 7.72 167.02

T.P. 3.95 — 166.07 — 13.18 — 162.12 —

5+60 Top 6" cmt. Pipe 4.41 161.10

5+77 " " " " 8.20 157.31

5+93.6 " " " " End. 10.45 155.06

chk. T.P. Page 2. 5.32 — 160.75 = 160.76

220.32

217.92

214.16

211.07

203.43

198.64

195.65

191.61

187.10

183.02

177.36

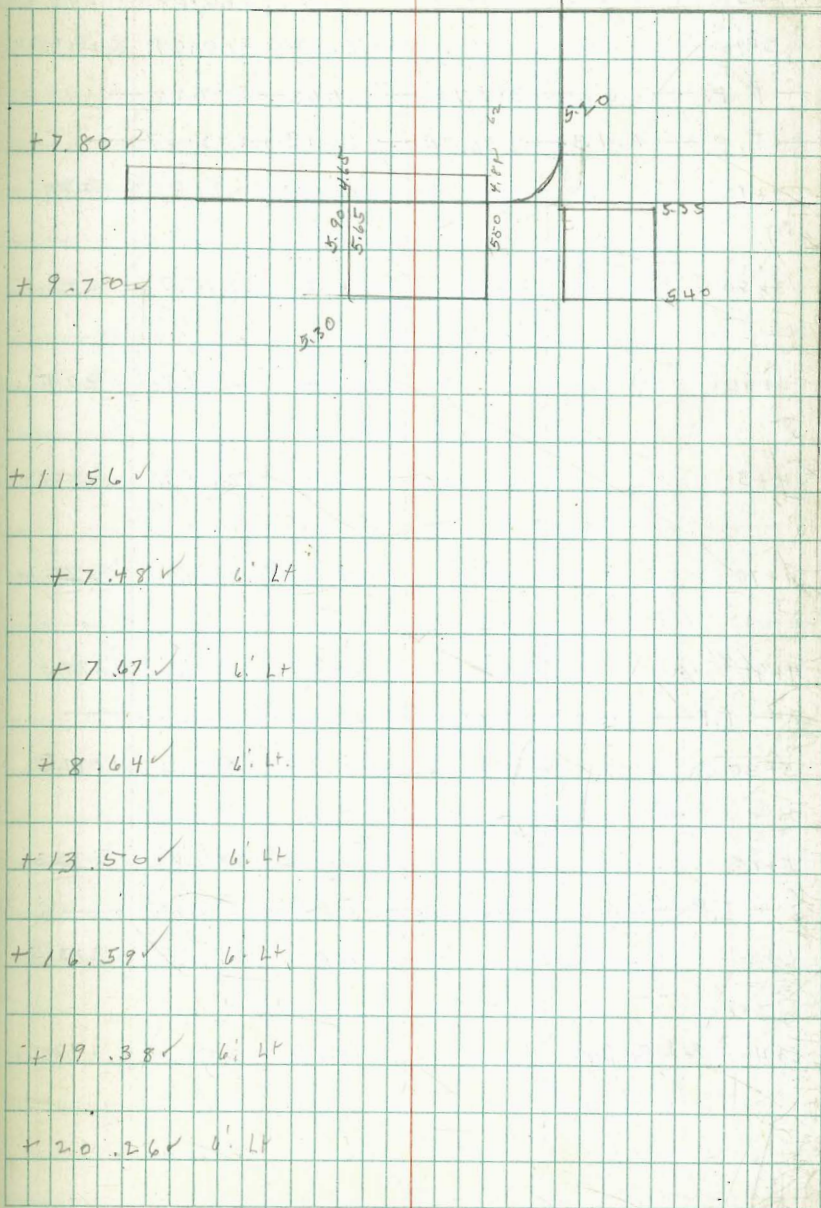
174.06

Storm Drain BIK. 7. Frary Hls
See Field Book. 1156-74.

Indexed

5

Station	Description	Dist	Elev	Notes
BM. B.P.	0.45	319.43	318.98	N.W. 31 st Thorn sls
0+00	N. Line Thorn.			F.L.
0+10	N. ch. Line Thorn	4.63	314.80	307.00
	R.P.W. of N. line Alley			
0+12	ctr. cleanout #1	4.63	314.80	305.10
	In same Position as 0+12 catch Basin			
0+50	S. ch. curb inlet #2			303.13
0+53	Δ 18° 30' Lt.	4.90	314.53	302.97
0+83	T.P. 8.08	8.08	308.83	301.35
1+08		9.24	307.67	300.00
1+38	Δ 15° 06' Lt.	9.91	307.00	298.36
1+56		6.00	316.91	297.41
1+80		4.20	312.71	296.12
2+01	Δ 25°-27' Rt. cleanout #2	2.59	314.32	294.94
2+25		2.97	313.94	293.68



	316.91			
2+50		4.71	312.20	292.28
2+70		6.82	310.09	291.20
T.P.	0.42	307.70	9.63	307.28
T.P.	1.13	296.70	13.13	295.57
3+10		4.90	291.8	289.0
3+50		6.7	290.0	286.8
3+90		6.9	289.8	284.6
4+30		11.4	285.3	282.4
4+70		11.8	284.9	280.2
4+91 ⁸ A		10.4	286.3	279.0
T.P.	3.20	287.70	12.20	284.50
5+30		1.5	286.2	277.3
5+75		3.0	284.7	275.3
T.P.	2.45	282.60	7.55	280.15
6+15		4.0	278.6	273.5
6+46 ² End. Ex Pipe		10.50	272.10 =	272.12

+ 19.924 6. LT

+ 18.894

6. LT

+ 2.84 6. LT

+ 3.24 6. LT

+ 5.24 6. LT

+ 2.94 6. LT

+ 4.74 6. LT

+ 7.34 6. LT

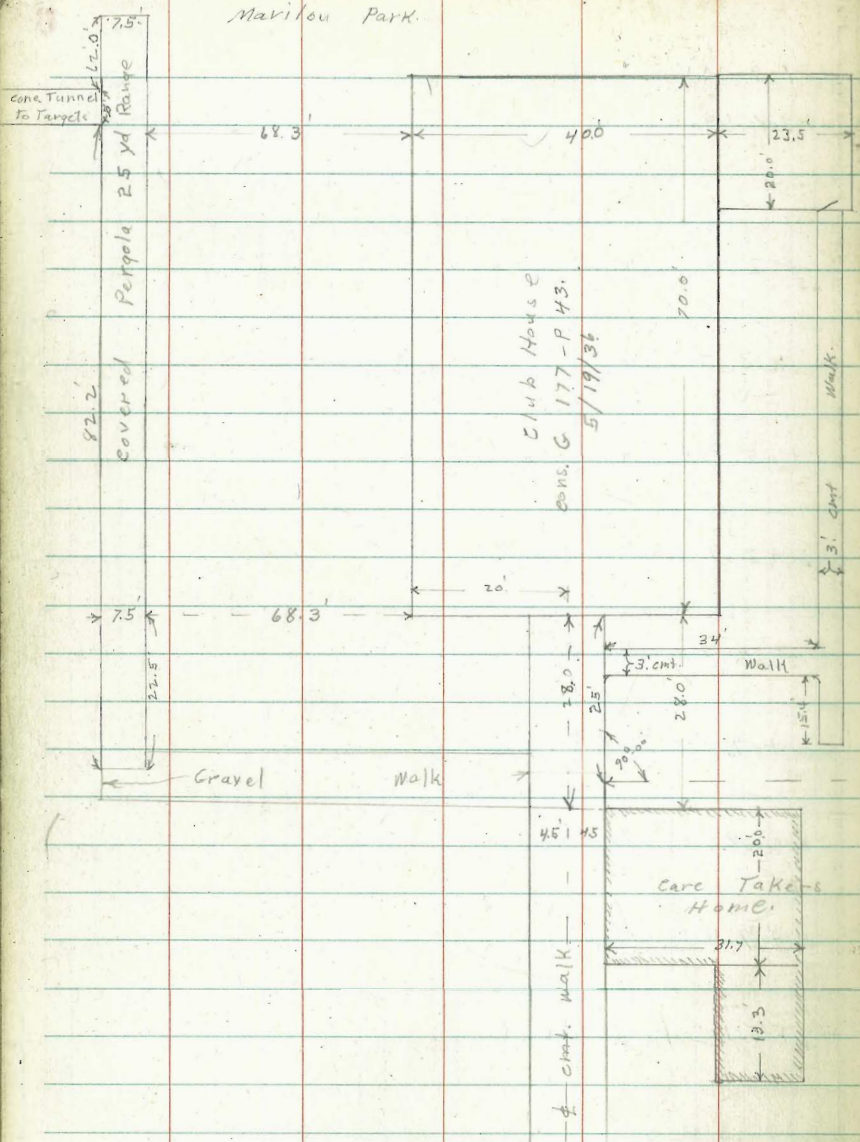
+ 8.94 15. LT

+ 9.44 15. LT

+ 5.14 6. LT

4-20-37

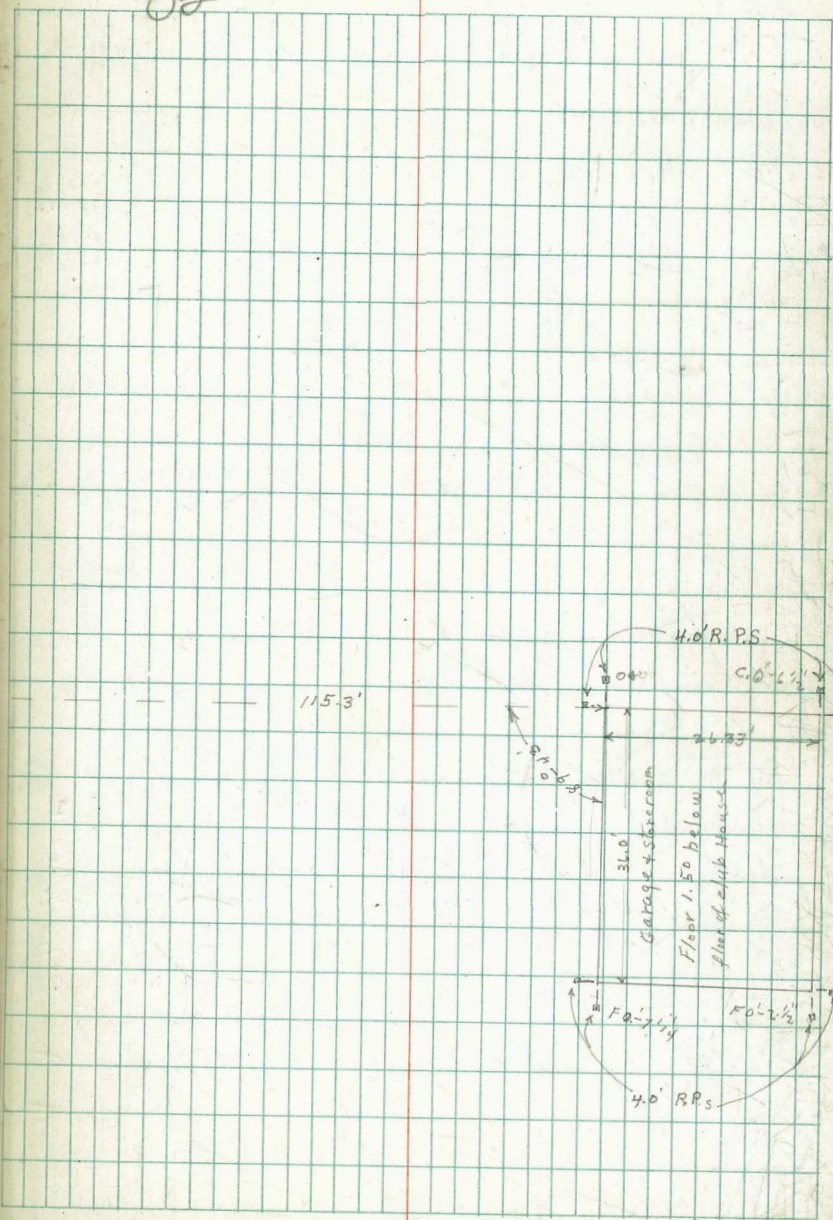
Police Pistol Range
Marillon Park.



Grades for Garage + stor. Room.

Indexed

7



Pav. Grades. W of Park Blvd
S. of Roosevelt High School

295.80		BM. S.W. of Park Blvd		0+00		0+25 W		0+25.0	
3.47		-30.2		-2.0N		-1.0N		0	
299.27		5.35		5.37		5.43		4.94	
		293.92		293.90		293.84		294.33	
4.5 S. of 1+00 W	10.4 S. of 0+75 W	20.5 of 0+50 W	5.0 of 0+25 W						
5.52	5.23	5.05	5.13						
293.75	294.04	294.22	294.14						
0+25 S.	0+50 S	0+75 S.	1+00 S	1+10 S	1+25 S				
5.04	5.41	5.38	5.29	5.26	4.92				
294.23	293.86	293.89	293.88	294.01	294.35				
1+50 S	1+65 S	2+00 S	2+50 S	3+50 S.	4+50 S				
4.93	5.09	5.00	4.98	5.07	5.11				
294.34	294.18	294.27	294.29	294.20	293.63				

$$\Delta = 75^{\circ}00'$$

$$\frac{1}{2}\Delta = 37^{\circ}30'$$

$$R = 710'$$

$$T = 89.08'$$

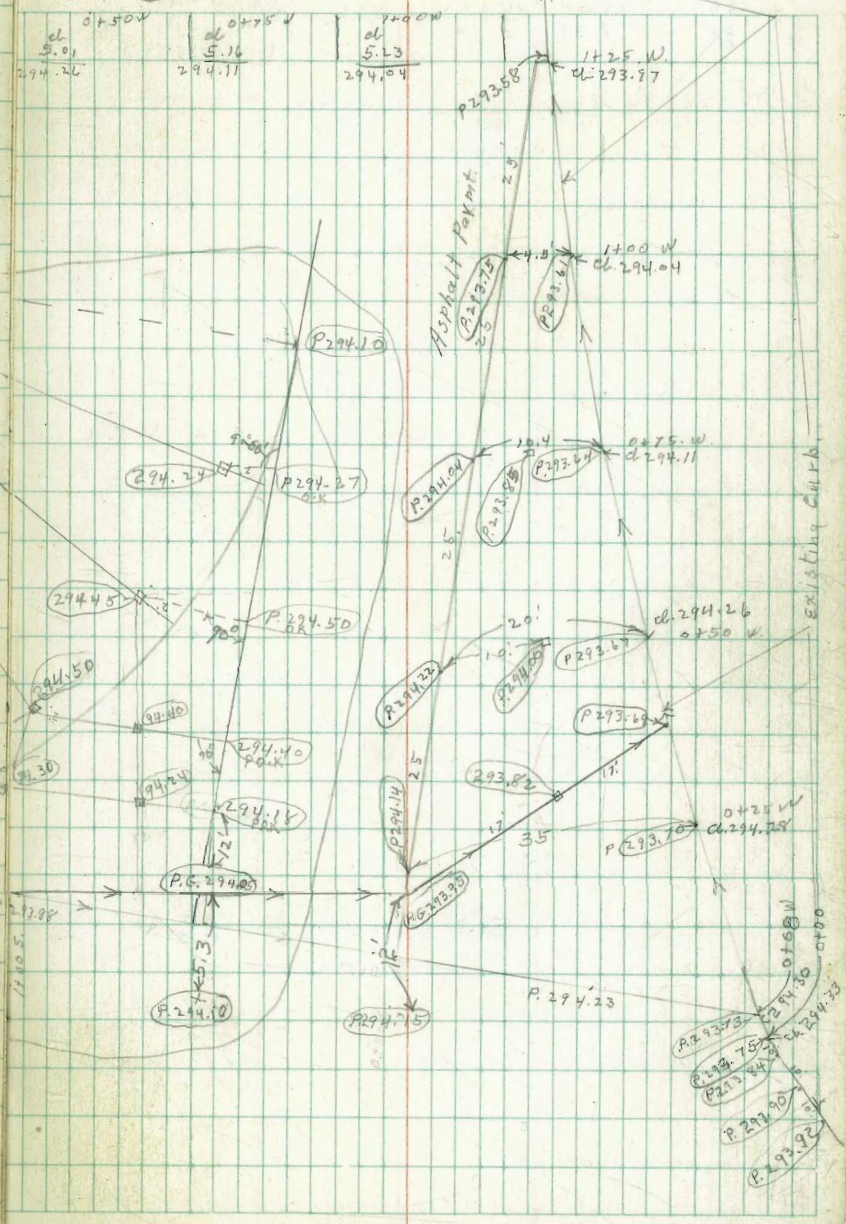
Asphalt Pav.

Existing Curb

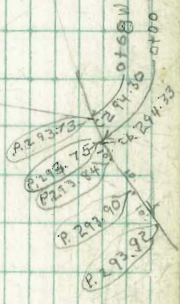
For Change See Page 9.

Detailed

cl	1+25 P	P 1+75
5.30	5.67	5.81
293.97	293.58	293.46



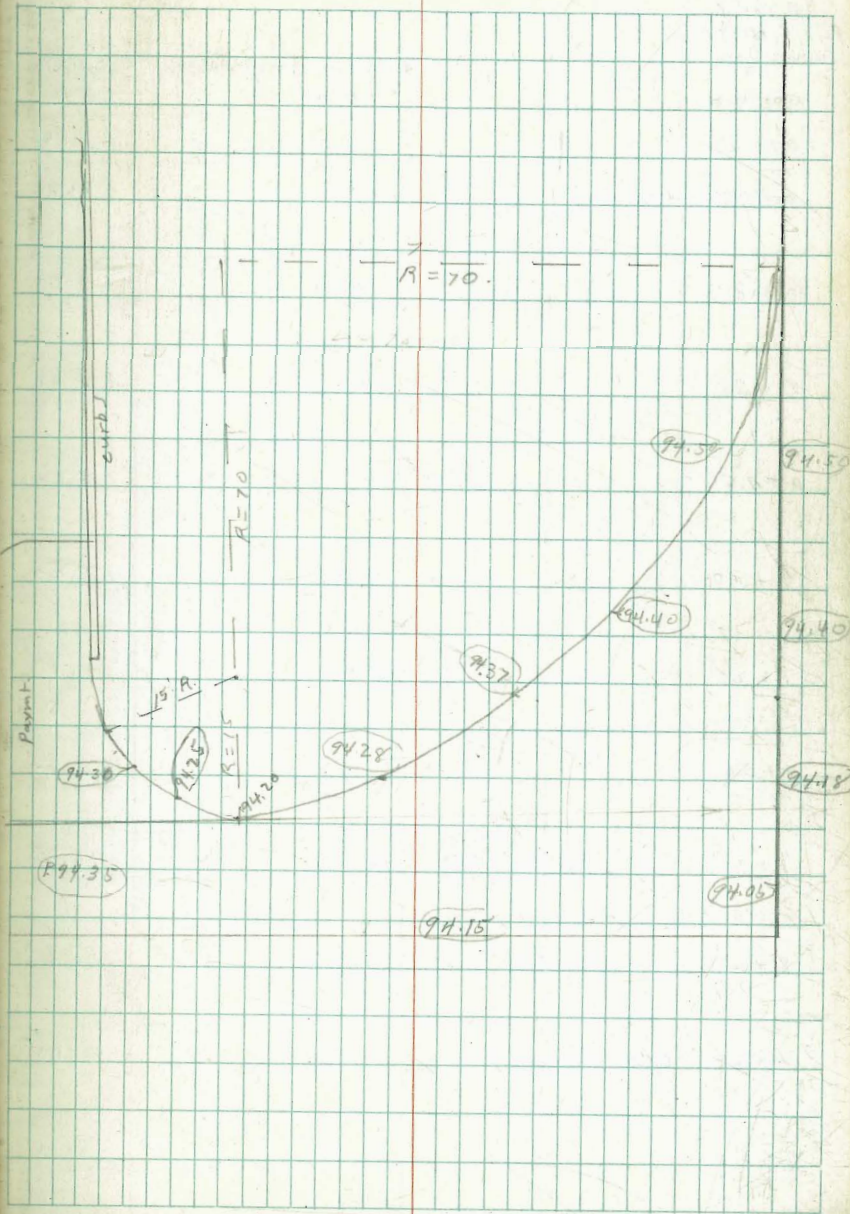
Existing Curb



Conte
To

94.35					
<u>5.34</u>	94.30	94.25	94.20	94.15	94.12
99.69	<u>5.39</u>	5.44	5.49	5.54	5.27

94.37	94.28	5.60	5.62
<u>36</u>	41	94.09	94.07
		94.19	
		-0.10	



5-3-37 Pershing Drive Slope Stakes.
1st Curve E. of 18th St.

R.M. Nail Elev 14.09
Pole C. W. 19' N. of
Switzer Dam

		7 Sec. S. 1/4, 1/2 Rod. C. Cutter
00-50	15.00	15.40
00-25	14.80	15.15
0+00 W. End stub	14.51	14.90
0+25	14.51	14.70
0+50	14.62	14.96
0+75	14.87	15.20
1+00	15.33	15.60
1+25	15.91	16.70
1+50	16.33	16.50
1+75	16.58	16.80
2+00	16.57	16.90
2+25 E. End stub	16.43	17.00
2+50	16.45	17.10

Deleted
B

10

Elev. C. Cutter
17' N. of Pav.

14.9
8.3
+ 5.6 out 4.0 Meet Existing Slope

14.7
7.4
+ 6.3 out 3.1

14.9
7.9
+ 7.0 out 3.5

15.2
7.5
+ 7.7 out 3.9

15.6
7.8
+ 7.8 out 3.9

16.10
8.1
+ 8.0 out 4.0

16.5
9.1
+ 7.4 out 3.7

16.8
8.3
+ 6.5 out 3.3

16.9
8.1
+ 5.8 out 2.9

17.0
11.0
6.0 out 4.0 Meet Ex'is. Slope

100. N. edge
Pav.

El. N. edge
Pav

Rel. gutter
12' N. of Pav

Elev. gutter
12' N. of Pav.

2+75

16.46

17.20

3+00

16.63

17.30

3+25

16.86

17.40

3+50

17.10

17.50

3+75

17.33

17.70

4+00

17.54

17.90

4+25

17.75

18.10

ca
f

A ledger page with horizontal blue lines and vertical red lines forming columns. The page is divided into six columns by five vertical red lines. The columns vary in width, with the first column being the widest and the last being the narrowest. There are 20 horizontal blue lines across the page.

A page with a full grid of blue lines. The grid consists of 20 horizontal lines and 20 vertical lines, creating a 20x20 grid of small squares. A single vertical red line is present on the right side of the page, approximately one-fifth of the way from the right edge.

This page features horizontal blue lines for writing. It is divided into four vertical columns by three red lines. The columns are of varying widths, with the two outer columns being wider than the two inner columns.

This page is a full grid of blue lines, forming a square pattern. A single vertical red margin line is positioned on the left side of the grid.

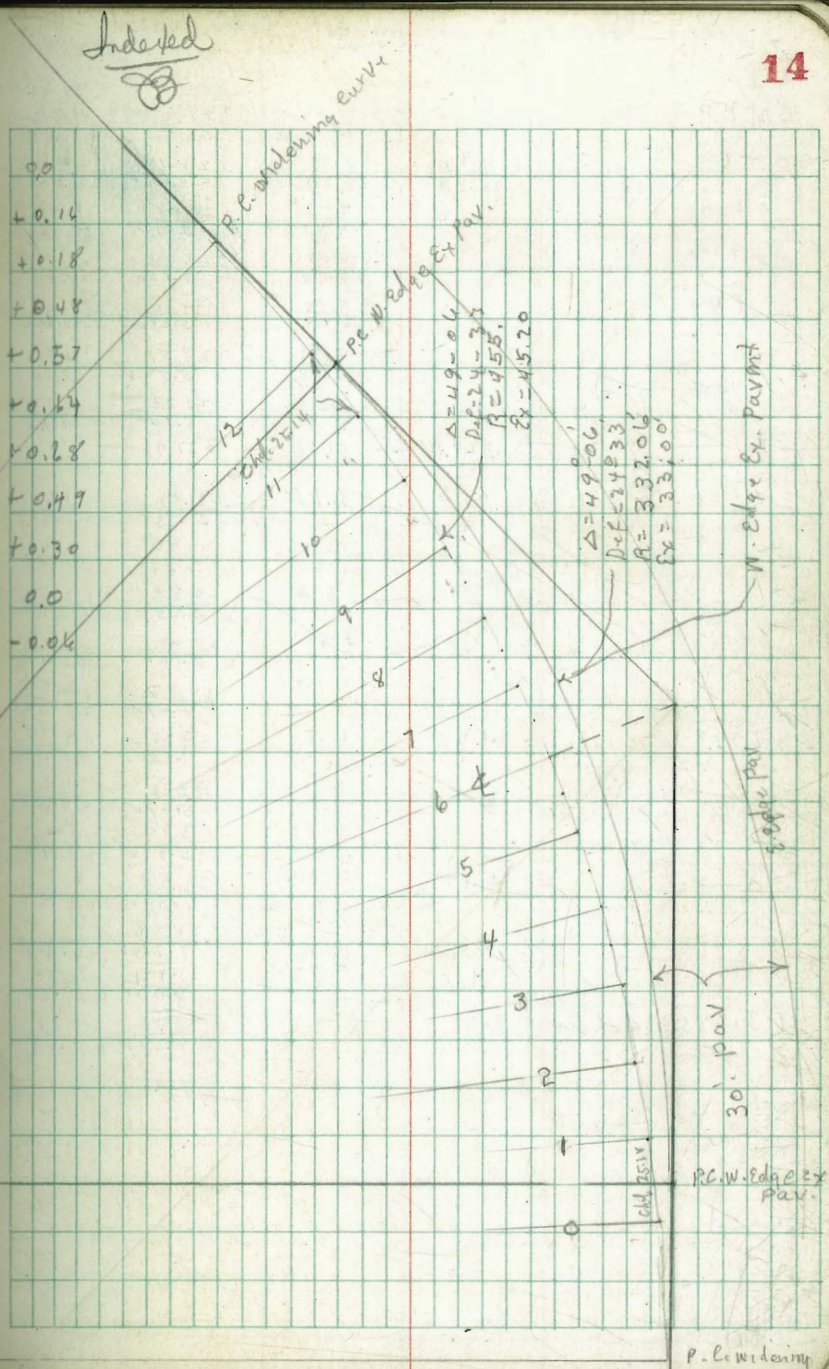
8-6-37

Pershing Dr. Grade stakes for
widening W. Side of Curve at Redwood.

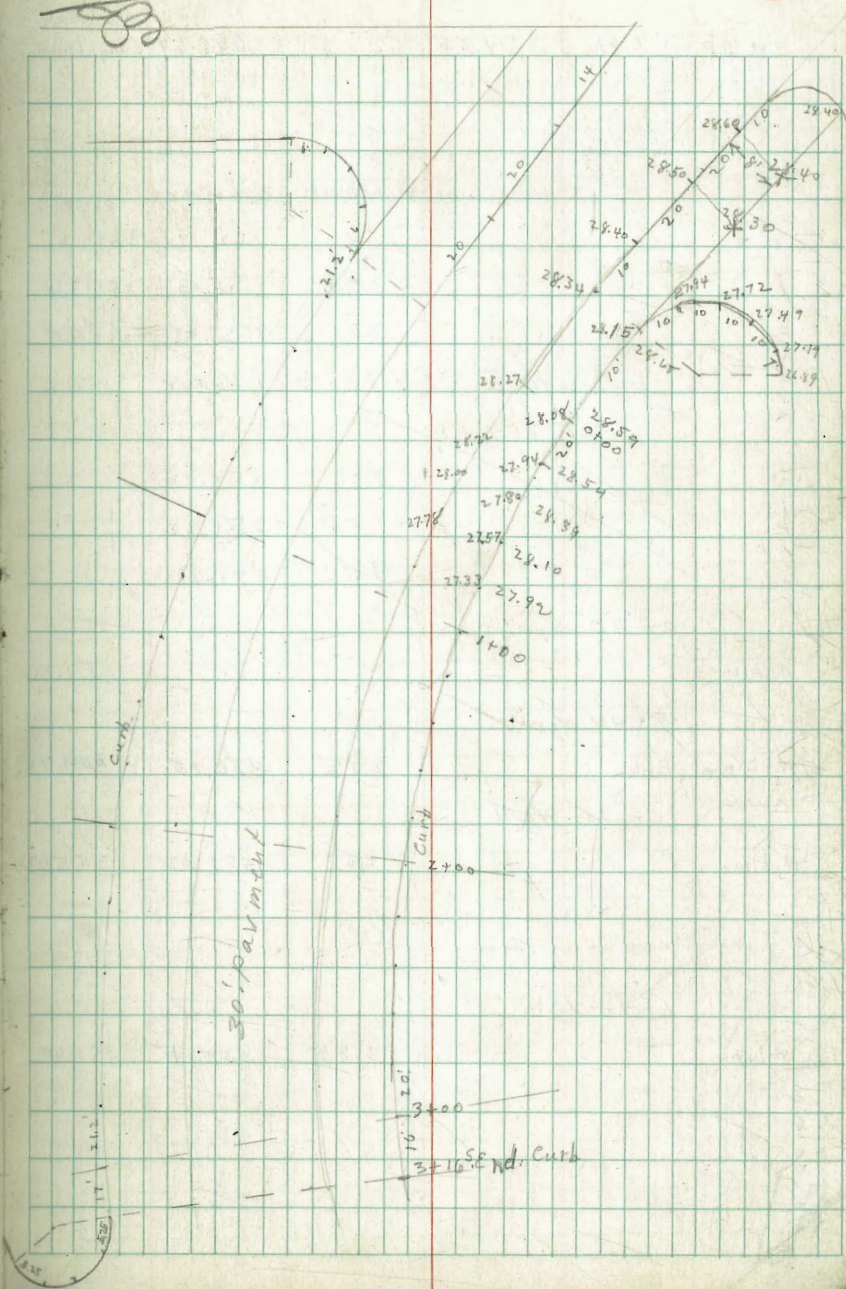
#	D	on Pav	edge Pav	S.Pike 2. offset	cut or fill
			12.60	12.91	
1	1-35	3.10.85	11.05	11.26	11.26
2	3-10	5.5 9.03	9.35	9.51	9.67
3	4-45	8. 7.38	7.91	8.26	8.44
4	6-20	9.5 6.20	6.83	6.98	7.46
5	7-55	10.7 5.20	5.87	5.97	6.54
6	9-30	10.2 4.55	5.17	5.15	5.79
7	11-05	10.1 3.97	4.59	4.53	5.21
8	12-40	9.1 3.80	4.26	4.31	4.80
9	14-15	7.5 3.91	4.32	4.40	4.70
10	15-50	5.5 4.15	4.47	4.53	4.53
11	17-25	3 4.20	4.37	4.46	4.40
12	19-00		4.30	4.40	4.30

Indexed

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BM.B.P.	2.09	333.09	331.00	N.G. 2pas
00-10		4.66 26.43	4.75 28.34	Cutter 5.94
+00		4.82	28.08	4.50
+20		4.87	27.94	4.58
+40		5.08	27.80	4.70
+60		5.31	27.57	4.99
+80		5.70	27.23	5.17
TP	1.21	329.14	5.16	327.93
1+00	196	2.16	26.81	1.63
		2.56	26.35	2.09
		3.10	25.89	2.52
	3.37	3.58	25.43	3.00
	4.07	4.07	24.87	3.56
2+00	4.48	4.62	24.31	4.10
		5.12	23.75	4.66
		5.70	23.19	5.23
	6.17	6.32	22.55	5.86
	7.02	7.02	21.88	6.58
3+00	7.73	7.73	21.24	7.38
3+16.5 End of curb	8.34	8.38	20.55	7.91
			8.61	21.68



5-7-37

Grades Alley Bk. 1 Hartleys North Park

BM-BP

7.91

359.55

351.64

S.W. Ray.
+ Wightman

0+00 = N. Line Wightman / R.N. of N. of Profile

W

7.36

352.19 = 352.12

E

7.55

352.00 351.92

E

7.50

352.05 351.98

Diff in H. I. should be 0.07 Lower

T 359.48

W

7.36

352.12

E

7.56

351.92

E

7.50

351.98

0+40 North

W. Line

354.70

0+48 North

W. Line

Bk.

2.73

356.75

354.75

+2.0

0+98 North

W. Line

2.45

357.03

355.03

+2.0

1+98 North

W. Line

3.88

355.60

355.60

Indexed



16

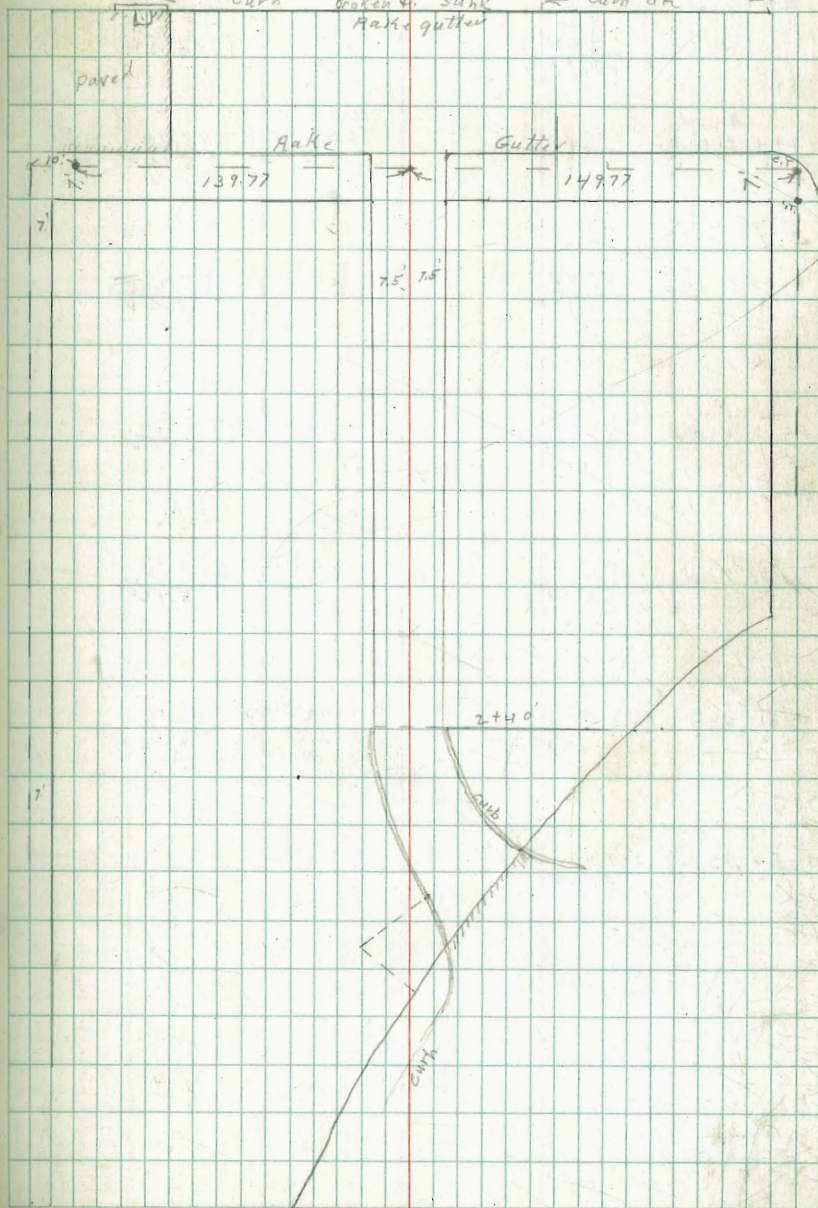
5-11-37

Pavmt Grades: Lewis St. 4th to 5th
& Alley BIK. 3. HillcrestN.W. Hillcrest
& Washington

BM T.P.	2.84 4.01	290.80 288.40	6.41	287.96 284.39	Lowered 0.10 280.30 8.10	Lowered 0.10 280.50 7.90
0+00 = Shinelouis						
0+20 B	281.60 6.80 6.60 +0.20			281.80 6.60 4.80 +1.80		
0+40 B	282.60 5.80 5.09 +0.80			282.80 5.60 7.35 +1.25		
0+60 B	283.25 5.15 4.74 +0.41			283.45 4.95 4.02 0.88		
1+00 B	284.30 4.10 3.85 +0.25	290.80		284.50 6.30 6.15 +0.15		
1+20 B	284.70 6.10 5.56 +0.54			284.90 5.90 5.86 +0.04		
1+40 B	285.00 5.80 5.38 +0.42			285.10 5.70 5.63 +0.07		
1+80	285.40 5.40 4.20 +1.20			285.35 5.45 5.51 +0.06		

Indexed

17



W side

T290.80

2+20 B $\frac{285.80}{5.00}$
 $\frac{4.23}{+0.77}$

N. End
 2+40 curb. B $\frac{285.96}{4.90}$

0+13.5 cur. W $\frac{285.84}{4.96}$

0+20 on W. B $\frac{285.80}{5.00}$

0+35.2 W $\frac{285.65}{5.15}$

0+51 E W. B $\frac{285.50}{5.30}$

0+58 W 2 Pav $\frac{285.44}{5.36}$

E. side

285.60
 $\frac{5.20}{4.88}$
 $\frac{40.72}{}$

N. End Curb
 2+40: B $\frac{285.70}{5.10}$

0+10 $\frac{285.60}{5.20}$

0+20 B $\frac{285.50}{5.30}$

2+31.3 $\frac{285.94}{5.46}$

2+42 Pav $\frac{285.18}{5.62}$

18

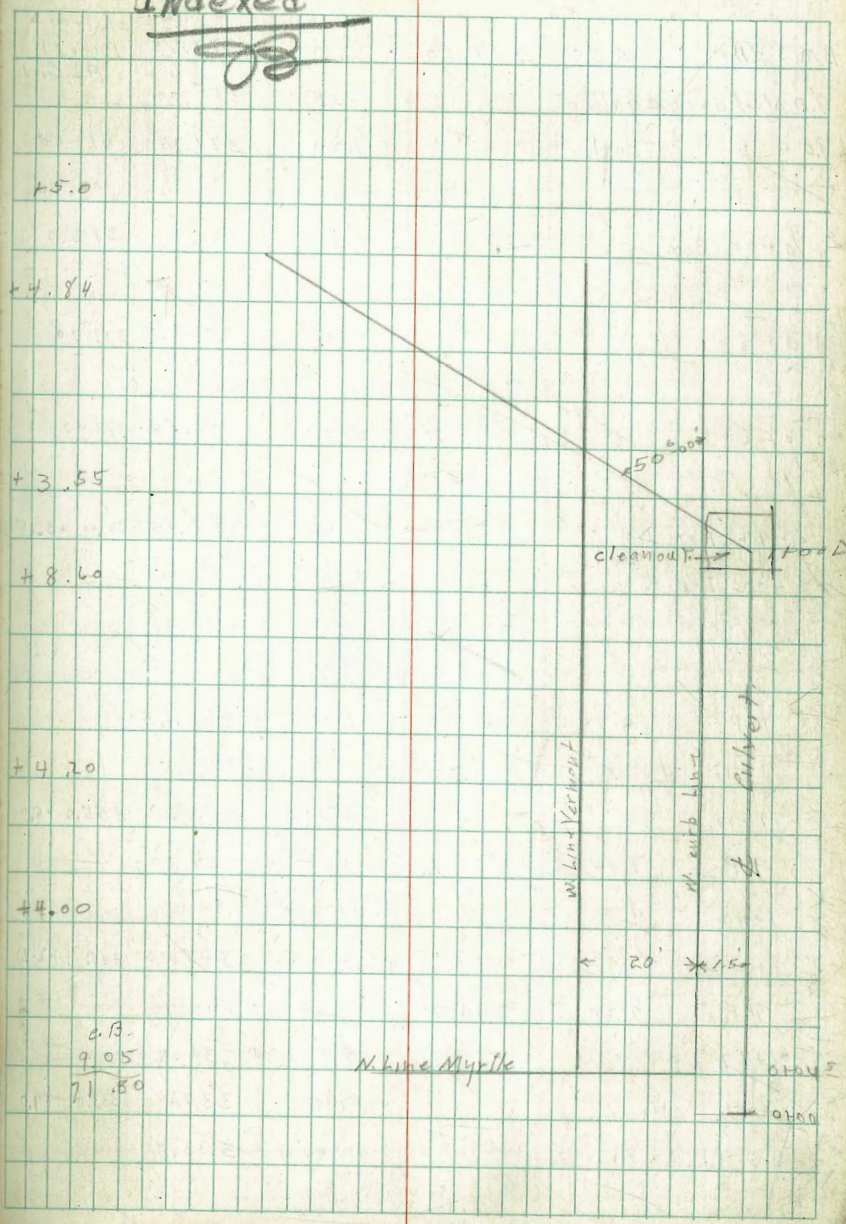
Culvert line + Grade in Richmond St. North of Myrtle

B.M.	0.76	280.80		280.04	
Top d.			2.65	278.15	
F.L. Cone Box			7.40	273.40	
0+00 = S. End. 24' Cor. F. Culvert					
N. End. Box				273.30	273.30
0+4.5 = N. Line Myrtle					
0+30		3.40	277.40		272.40
0+60		4.46	276.34		271.50
				3.00	
1+00 Δ 50°-00' Lt.		6.95	273.85		270.30
1+20 Natural ground at Δ		13.0	267.90		
1+20 stub		9.50	271.30		262.70
TP	0.34	268.14	13.00	267.80	
TP	0.58	255.84	12.88	255.26	
1+55 stub		2.24	253.60		249.4
1+55 ground at Δ		3.2	252.6		
1+85 stub		13.84	242.00		238.0
1+85 ground at Δ		14.4	241.4		
		cleanout grades			

B.M.	0.78	280.82		280.04	
0+00 = N. Line Myrtle			2+39.2	249.7	
0+90		274.50		278.70	
		6.32		7.12	
		6.02			
		40.30			
d	274.87			273.00	
	5.95			7.84	
	274.17			7.82	
gutter	6.165			6.82	
	5.50			7.00	
	+1.15				

0+00
 248
 278.20
 549.7
 55.7
 305.5
 3.75
 277.07
 277.24
 3+30
 240.82
 2.70
 274.12
 277.07
 1.05
 19

Indexed




G.R.
 9.05
 71.50

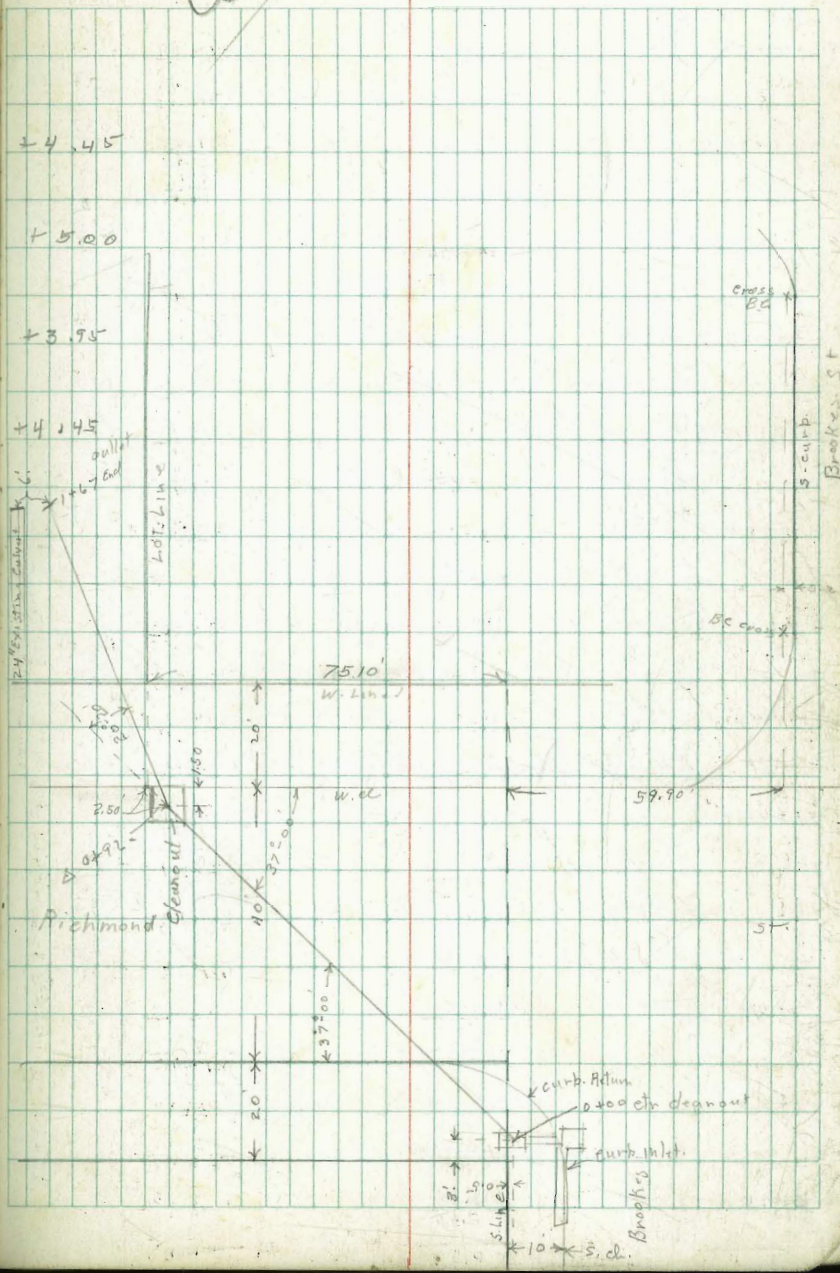
N. Line Myrtle

0+44.5
 0+00

Richmond St Culvert
S. of Brookes Ave

Indexed


B.M. 3' offset	5.30	379.15		373.85	st. 1+00 Page 19 F.L. Grad.
9.0 N of 1000 gutter			2.15	377.00	
9.0 " " " = curb			1.20	377.95	373.50
					8.00
0+00 Box			1.15	378.00	373.00
					+5.00
0+30			3.50	375.65	371.70
					+3.95
0+60			4.30	374.85	370.40
					+4.45
0+92 Box Δ			6.20	372.95	369.00 +3.95
0+92 T.P. Δ			5.6		
T.P.	0.85	367.50	12.50	366.65	
1+17 Δ			6.0	361.5	
1+17			7.50	360.0	355.0 +5.0
T.P.	1.00	355.70	12.80	354.70	
1+42 Δ			11.0	344.7	
1+42			12.00	343.70	341.0 +2.70
T.P.	1.20	344.90	12.00	343.70	
1+67 Δ			8.9	336.0	
1+67 stub			7.90	337.0	333.0 +4.0
6 S.F.L. 8x Pipe			11.90	333.0	

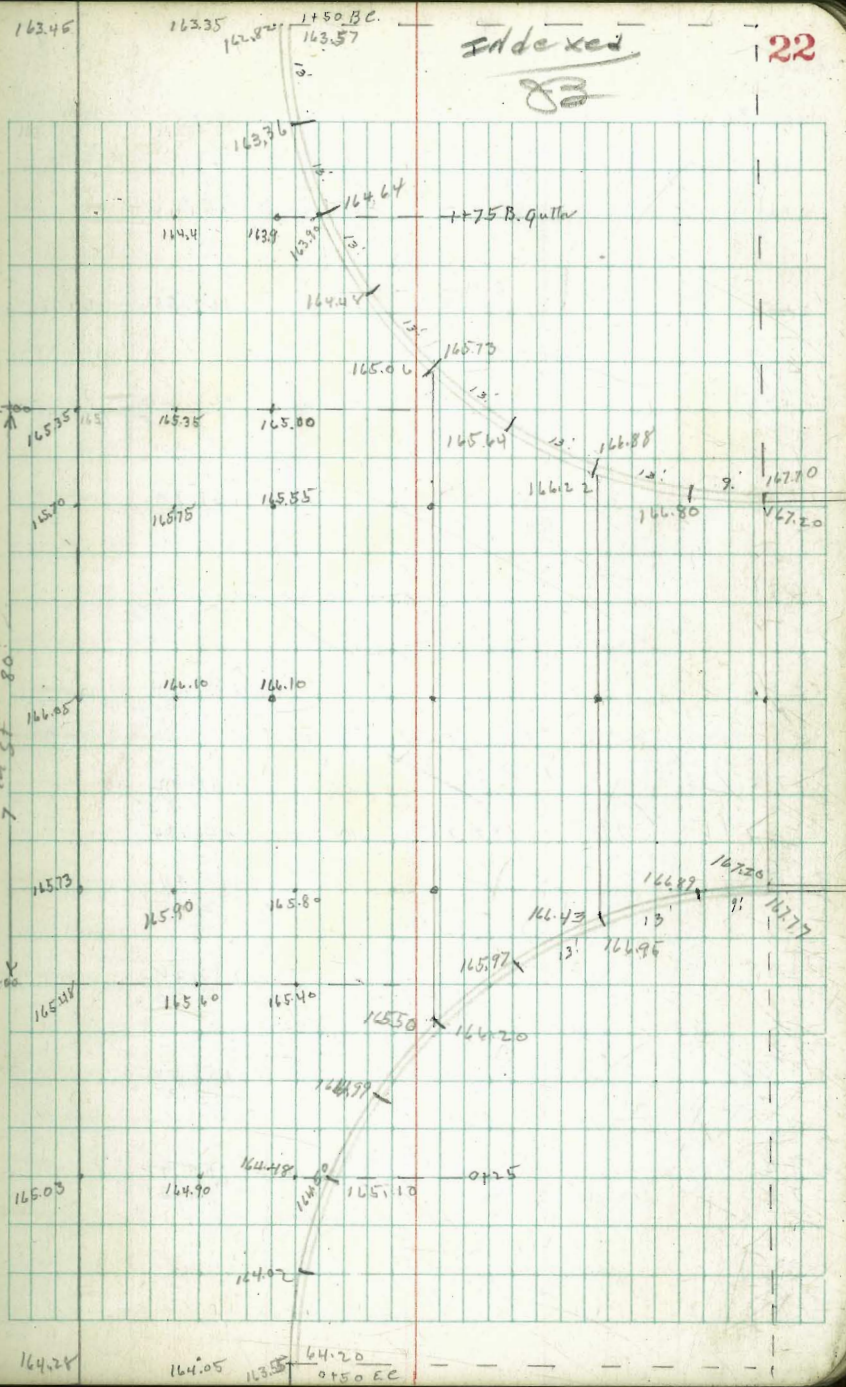


S. Line	Memroe	W. Lin.	2. Lino	378.07	378.07
0+00	370.34	370.09	374.38	7.73 7.01 +0.72	7.98 7.42 +0.56
0+20 B	372.07	371.87	372.72	6.00 4.73 +1.27	6.20 5.13 1.07
0+40 B	373.43	373.23	370.26	4.64 4.49 +0.15	4.84 4.44 +0.40
0+60 B	374.05	373.85	378.07	4.02 3.89 +0.13	5.71 4.59 +0.82
0+80 B	374.30	374.10		4.96 3.79 +1.17	5.16 4.45 +0.71
1+00 B	374.51	374.31		4.75 4.97 -0.22	4.95 4.57 +0.38
1+20 B	374.63	374.43		4.63 4.89 -0.26	4.83 4.75 +0.08
1+40 B	374.70	374.50		4.56 4.15 +0.41	4.76 4.67 +0.09
1+60 B	374.61	374.41		4.65 4.75 -0.10	4.85 5.12 -0.27
2+00	374.42	374.22		4.84 3.76 +1.08	5.04 3.21 +1.83
2+40	374.23	374.03		5.63 4.96 +0.67	5.23 5.00 +0.23
2+80	374.04	373.84		5.22 3.63 +1.59	5.42 5.01 +0.41
3+20	373.85	373.65		5.41 4.89 +0.52	4.12 2.52 +1.60

377.77	377.77
373.66	373.46
4.11 2.85 +1.26	4.31 2.25 +2.06
4+00	373.47
4.30 3.25 +1.05	4.50 3.50 +1.00
4+40	373.28
4.49 3.23 +1.26	4.69 3.76 +0.93
4+80 B	373.09
4.68 4.57 +0.11	4.88 3.96 +0.92
5+00 B	372.92
4.85 4.80 +0.05	5.06 3.65 +1.40
5+20 B	372.78
4.79 4.63 +0.16	376.18 372.58 3.60 1.01 +2.59
5+40 B	372.58
376.18 372.58 3.60 2.64 +1.00	372.34 3.64 3.39 +0.25
5+60 B	372.23
3.95 3.11 +0.84	372.13 4.05 3.70 +0.35
6+00 ²	371.70
4.48	371.45 4.73 371.65 4.53
6+04 ex. Pay.	371.60
	571.40 371.48

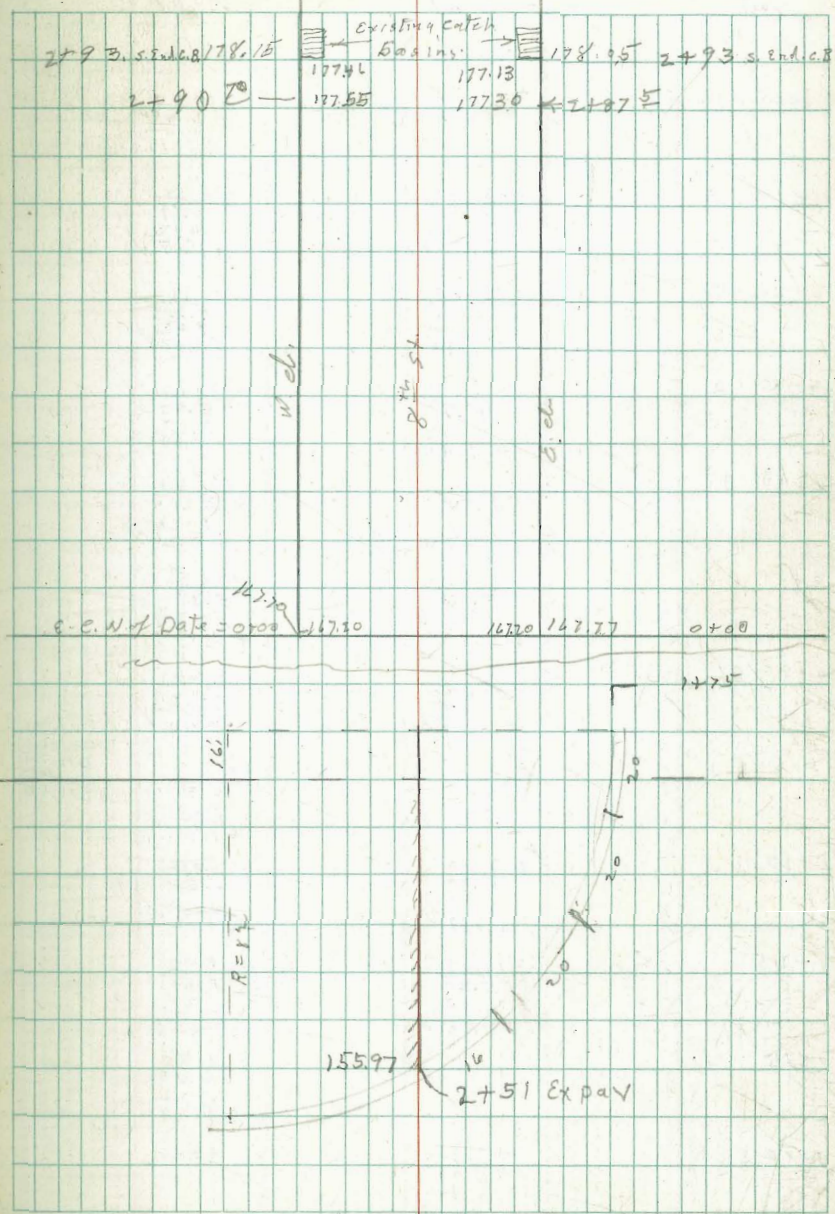
6-5-37 Pav. Grades. N. 1/2 Date St. E. of 6th

Station	BM	13.00	155.17	142.17	s.w. 6 th + Date St.
0+00 = S. Line 1 st					
0+08 ⁴ E. gutter pav					N. 114 N. edge Ex pav N. gutter grade 143.85 71.92
0+35 ⁴					
0+58 ⁴ E. on N Edge Pav			146.85		
1+00 B.				148.45	
2+00 = W. Line 7 th		153.60	153.50	152.90	
T.P.	9.80	164.62	0.35	154.82	
0+00 = E. Line 7 th		157.20	157.0	156.35	
0+15 ⁰ = P.R. Curb 1 st		163.45	163.35	162.82	
T.P.	5.42	168.85	1.19	163.43	
1+75			164.40	163.90	
2+00 W. Line 8 th		165.35	165.35	165.00	
2+14 v.d.		165.70	165.75	165.55	
2+40		166.00	166.10	166.10	
2+66		165.73	165.90	165.80	



	± N. edge Pav	1/4	N. gutter
0+00 E. Line	165.48	165.60	165.40
0+25	165.03	164.90	164.48
0+50	164.28	164.05	163.55
	168.85		
0+75	163.45	163.20	162.62 6.23
1+00			161.70 7.15
1+25	161.35	161.30	160.77 8.08
1+50			159.84 9.01
1+75			158.92 9.93
TP 1.94	160.28	10.51	158.34
1+95			158.14 2.10
2+15			157.38 2.96
2+35			156.58 3.70
2+51 Ex. Pav.			155.97 4.31

167.20
8.20
175.40



6-15-37

Alley B.K. 1. Watkins & Biddle
Payment. Grados.
F.B. 1534-35

Indexed

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B.M.	4.94	279.02	274.08
		N. Lin.	S. Lin.
0+00 = W. Lin. 3 ST		272.72 6.30	272.34 6.64
0+10 B		273.49 5.53 3.61 +1.87	273.13 5.89 4.42 +1.47
0+20 B		273.98 5.04 3.81 +1.18	273.66 5.36 4.63 +0.73
0+30 B		274.25 4.77 4.32 +0.45	273.95 5.07 4.68 +0.39
0+40 B		274.18 4.84 4.45 +0.39	273.88 5.14 4.88 +0.26
0+60 B		273.93 5.09 4.86 +0.24	273.63 5.39 5.23 +0.16
0+80 B		273.56 5.46 4.29 +1.17	273.26 5.76 5.80 -0.04
1+00 B		273.01 6.01 4.71 +1.30	272.71 6.31 5.00 +1.31
1+20 B		272.30 4.30 4.13 +0.17	272.00 4.60 4.48 +0.12
1+45		271.30 5.30 4.55 +0.75	271.00 5.60 5.25 +0.35
1+75		269.80 6.80 6.71 +0.09	269.80 6.80 6.71 +0.09
1+80 E. End		269.90 6.70 7.80 -1.10	269.60

X 279.02
6.22
272.78
3.85
A 276.60

Indexed

199.61
1+00 W

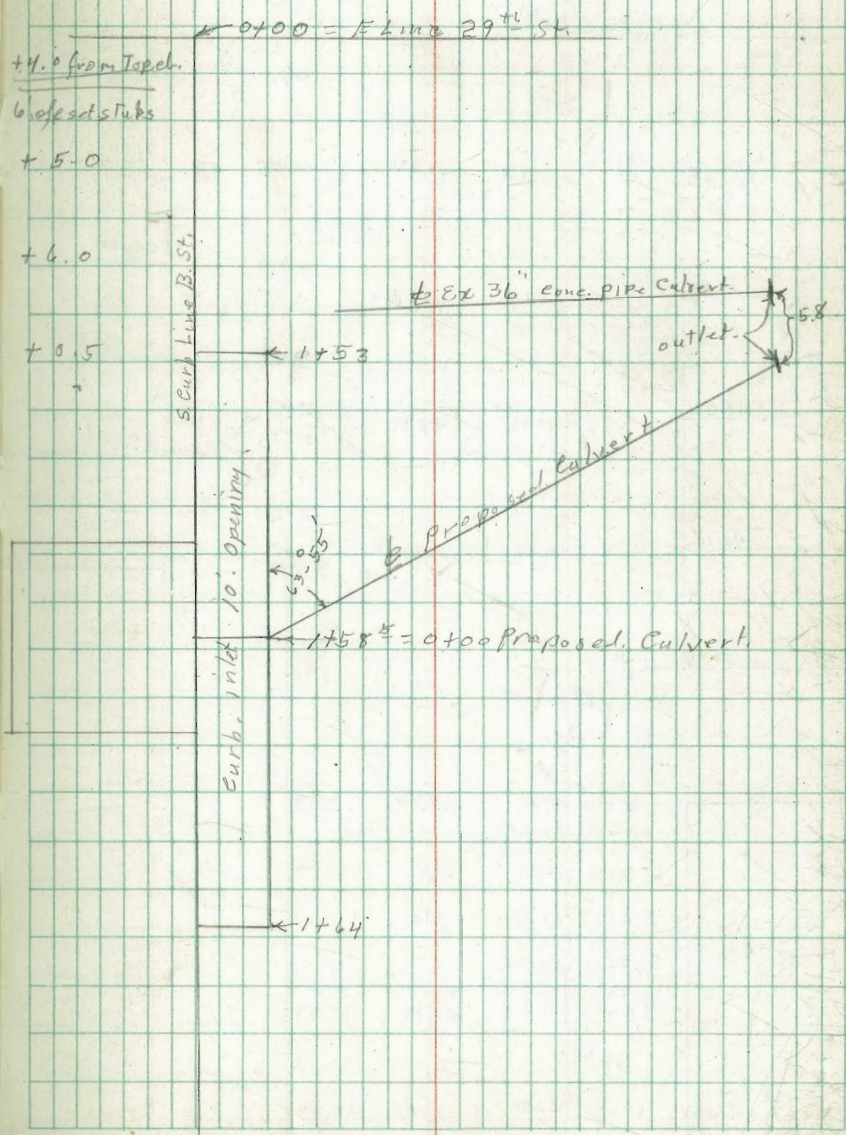
6-17-37	curb cuts & culvert	13. St		
	W. of 29th	St.		
B.M. B.P.	0.98	206.48	205.50	N.W. H & Granada
T.P.	3.71	199.61	105.4	195.90
S. cl.	0+00 = E. Line	29th St.		
	0+01 = E. End.	Existing Curb Inlet.	4.01	195.60
S. gutter	inlet cl. inlet		4.64	194.97
	0+08 West = W. End.	Ex cl. inlet		
S. cl.			4.08	195.53
S. gutter	inlet cl. inlet		4.81	194.80
	0+31 W.			
S. cl.			4.01	195.60
Ex. gutter			4.51	195.10
Gutter grade			4.71	194.90 ✓
	0+53 W			
S. cl.			4.01	195.60
Ex. gutter			4.63	194.98
Gutter grade			4.61	195.00 ✓
	0+73 W			
S. cl.			4.01	195.60
Ex. gutter			4.62	194.99
Gutter grade			4.51	195.10 ✓
	0+93 W			
S. cl.			4.01	195.60
Ex. gutter			4.59	195.02
Gutter grade			4.61	195.00

Ex. pav.	4.64		
	1+13 W		
S. cl.	4.01	195.60	
Gutter grade	4.71	194.90 ✓	
	1+33 W		
S. cl.	4.04	195.57	
Gutter grade	4.81	194.80 ✓	
	1+53 = E. End.	10. Type A. Curb Inlet Proposed.	
S. cl.	3.94	195.70	
Gutter grade	4.91	194.70 ✓	
	1+64 = W. End.	Curb Inlet.	
S. cl.	3.88	195.73	
Gutter grade	4.91	194.70 ✓	
	1+84		
S. cl.	3.83	195.78	
Gutter grade	4.61	195.00 ✓	
	2+04		
S. cl.	3.78	195.83	
Gutter grade	4.35	195.26 ✓	
	2+54		
S. cl.	3.63	195.98	
Gutter grade	4.27	195.34	
	3+04		
S. cl.	3.36	196.25	
Gutter grade	4.07	195.60	
	See Page 26 for Culvert.		

Proposed Calvert. see Page 25
199.61

0+00	curb - inlet. elev	3.91	195.70
0+00	" gutter	4.91	194.70
0+00	" " F.L.		195.70 191.70
0+14		4.00	195.6 190.60
0+48			
0+85	cullet.		

15.3
5.5
158.8



Parmt. Grades Chamoune Dwight. 6-28-37
to Landis.

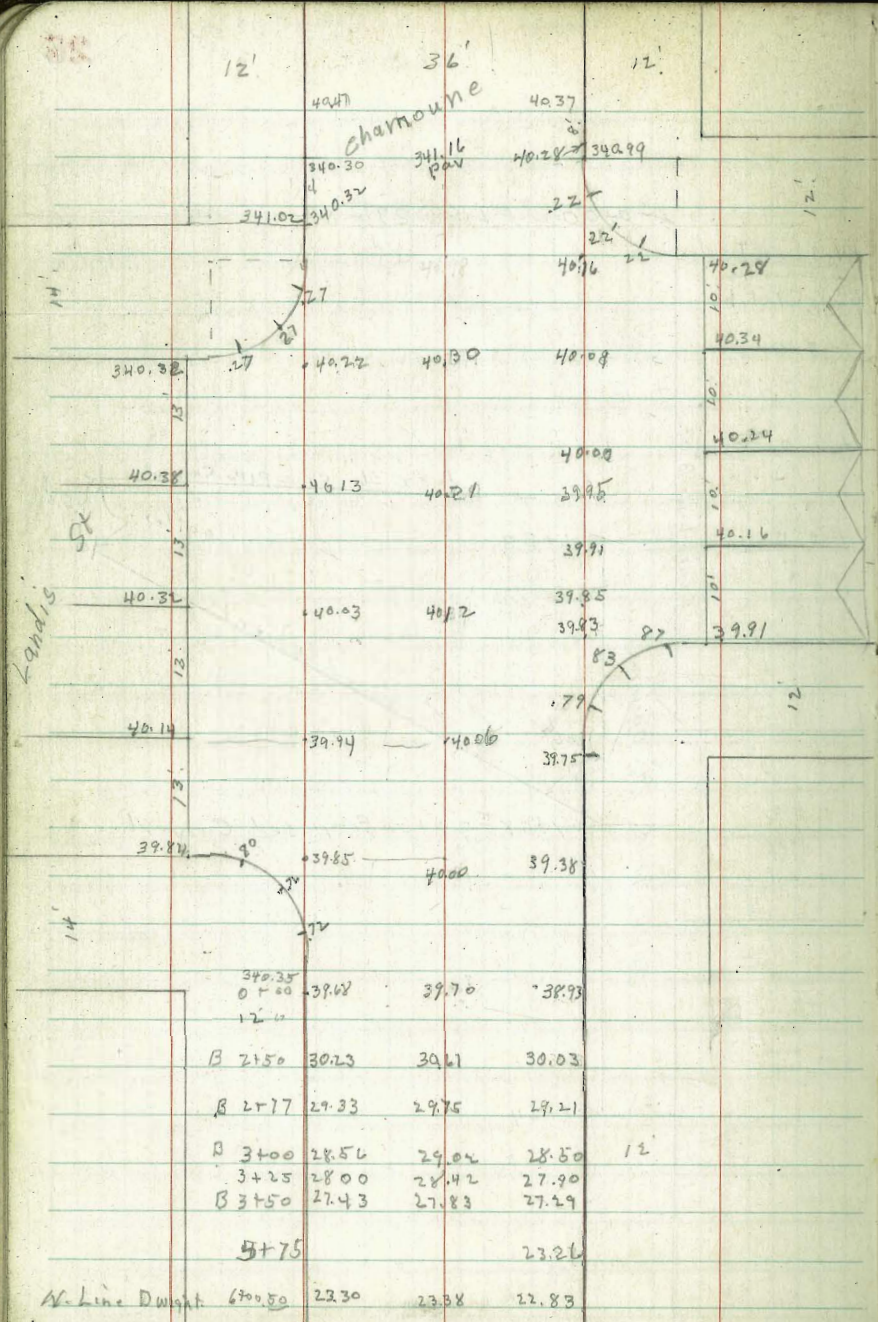
27

N. W. Dwight

Indexed

B.M. RP 324.00 Chamoune
B.M. BP. 341.00 N. W. Landis Chamoune

40.32	40.27	40.28	40.27	39.21	39.75	38.93
4.60	4.65	4.64	4.70	5.01	5.17	5.99
39.68	39.84					
5.24	5.09					
T.P.	1.32	334.26	11.98	332.94		
N	30.23	29.33	28.56	28.00	27.43	26.30
	4.03	4.93	5.70	6.26	6.83	10.94
S	30.03	29.21	28.50	27.90	27.29	26.26
	4.23	5.05	5.76	6.36	6.97	11.09
30.03						
7.27	341.00	39.68	39.70	40.00	40.02	40.30
37.30	4.45	5.77	5.75	5.45	5.33	2.15
7.27	345.45	40.16	40.00	39.83	40.24	40.22
6.38		5.29	5.45	5.62	5.21	2.3
8.9	40.03	39.85	40.14	40.32	40.38	
5.47	5.42	5.60	5.31	5.13	5.07	
4.60						
7.63						
6.23						



N. Line Dwight 600.50 22.30 23.38 22.83

7-2-37
Mellen
Walker
Bliss

Grades for Parking Area South of
Organ Pavilion - Balboa Park

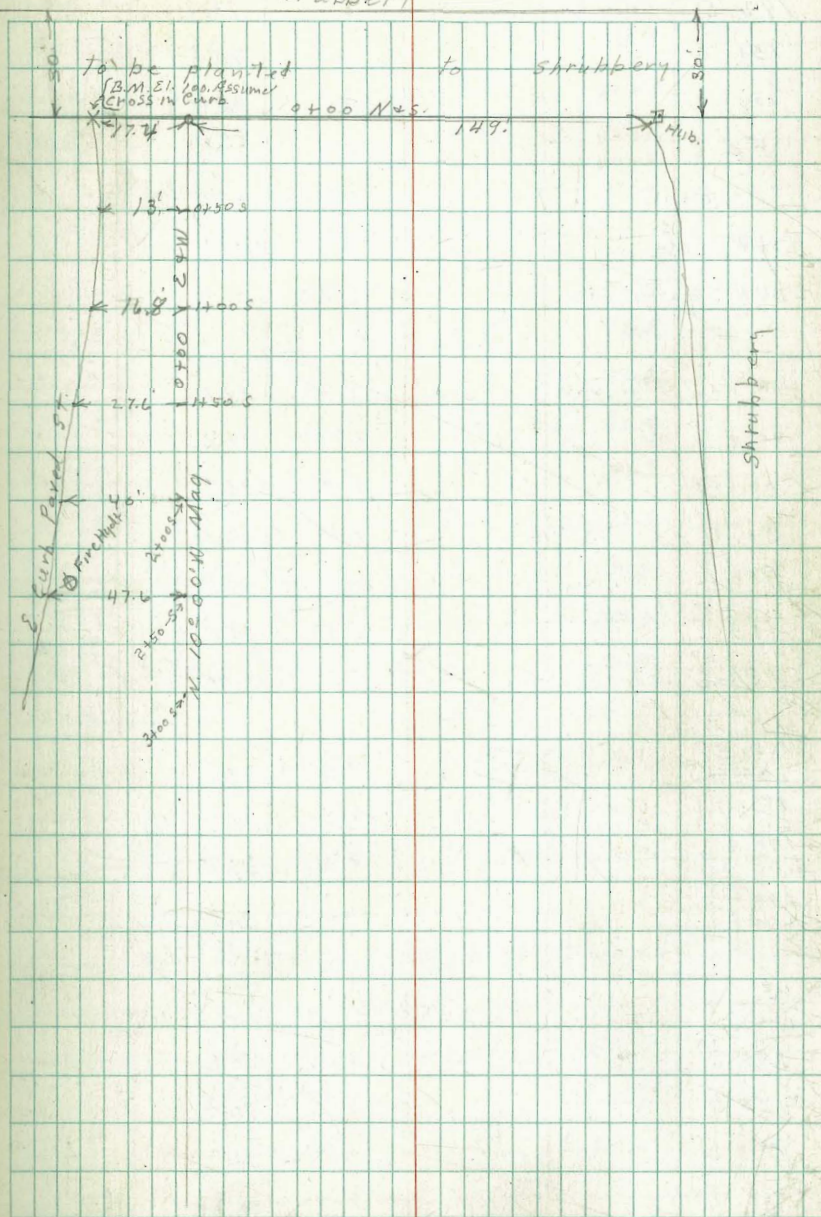
BM. Crosscurve 2.50	102.50	100. Ass.	17.4 W
	0+00		
17.5 W gutter Pav.	2.88	99.62	
17.4 W Top cl.	2.90	100.00	
00 E & W	2.7	99.8	
50' E	3.2	99.3	
100' E	4.6	97.9	
142' E = W. edge shrubbery	5.3	97.2	
	0+50.5		
159' E = W. edge shrubbery	6.5	96.0	
100' E	5.3	97.2	
50' E	4.0	98.5	
00 E & W	3.5	99.0	
13' W = E curb.	3.30	99.20	
13.2 N = gutter	3.64	98.86	
	1+00 South		
16.8' W = gutter	4.62	97.88	
16.8' W = cl.	4.24	98.26	
00 E & W	4.0	98.5	
25' E	4.0	98.5	
50' E	4.6	97.9	
100' E	5.7	96.8	
150' E	6.7	95.8	
192' E = shrubbery	8.0	94.5	

Indexed Organ.

29

oo

shrubbery



102.50

1+50 S

192. E = shrubby	7.6	94.9
150. E	7.0	95.5
100. E	5.9	96.6
50. E	4.9	97.6
00 E+W	4.9	97.6
27.6 W = dr	5.95	96.55
27.6 W = gutter pav	6.33	96.17

2+00 S

40. W = gutter pav	8.26	94.24
40. W = dr	7.85	94.65
00 E+W	7.0	95.5
50. E	6.4	96.1
100. E	7.0	95.5
150. E	7.5	95.0
182. E = shrubby	8.1	94.4

145. E } 225. S }	8.2	94.3
190. E } 225. S }	8.4	94.1
190. E } 235. S }	8.6	93.9
190. E } 240. S }	11.0	91.5

2+50 S

190. E	11.0	91.5
150. E	10.0	92.5
125. E	10.3	92.2
100. E	8.3	94.2

102.50

2+50 S.

30

50. E	8.4	94.1
0+00 E+W	9.0	93.5
47.6 W = curb	9.95	92.55
47.6 W gutter pav	10.33	92.17
44.6 W } 249.5 S = Fire Plug. S. Limit of Parking Area on W.		
271.5 } 0+00 E+W } S. End Parking Area	10.0	92.8
282.5 } 50. E } " " " "	9.7	92.8
295.5 } 100. E } " " " "	9.5	93.0
300.5 } 125. E } " " " "	9.8	92.7
280.5 } 125. E }	8.9	93.6
275.5 } 125. E }	12.1	90.4
275.5 } 130. E }	12.4	90.1
300.5 } 130. E } S. End Parking Area	12.1	90.4
300.5 } 150. E } " " " "	12.2	90.3
263.5 } 150. E }	12.0	90.5
263.5 } 200. E }	12.2	90.3
300.5 } 185. E } S. E. Cor P.A.	12.3	90.2

Tractor Filling in. Low spot. S. E. Cor.

RM.	1.10	101.10	100.00
0700/45	100.00	0700/45	0750 2
	99.7	99.0	99.0
	1.4	2.1 ✓	2.1 ✓
	0.9		
	20.5		
0755			
0750	99.20	99.0	98.5
		2.1 ✓	2.6 ✓
0755			
1100	98.21	98.2	98.0
		2.9	3.1 ✓
		2.1 ✓	
		10.5	
1125			
1150	96.55	97.5	97.50
		3.6	3.6
		3.1	3.5
		10.5	10.1
1155			
2000	94.65	95.5	95.9
		5.6 ✓	5.3
		5.1	4.3
		10.5	11.0
2025			
2150	92.55	93.5	94.0
		7.6 ✓	7.1 ✓
2175			
2170	92.5		92.8
			7.3
			7.9
			10.4
3005			

1400	1421
97.8	96.7
3.3	4.4
3.0 ✓	3.7
20.5	0.7
	1450
97.3	1460
3.8 ✓	16.2
	4.9 ✓
	1492
96.9	1492
4.2 ✓	15.8
	5.3 ✓
	1492
96.5	1492
4.6	15.5
4.2	5.6 ✓
10.4	6.4 ✓
	1492
95.4	1492
5.7	14.6
5.05	6.5
10.65	10.5
	1492
93.5	1492
7.6	12.8
6.6	9.1
11.1	9.0 ✓
	1492
91.8	1492
7.3	10.9
7.6	10.7
11.7	10.6

(2190)

(2190)

		272.20		n.d.
2+60	2.1	274.00 8.20 7.72 +0.78		274.40 7.90 7.90 F0.10
2+80		275.20 7.00 6.50 +0.50		275.57 6.63 7.37 -0.74
3+05.5 = S. End. elev W				5.15 277.05
3+10 S. End. elev E		5.20 277.00		
T.P.	0.76	279.96	3.00	279.20
		Bk. N. of Brook & Av		
		0+00 = N. Line Brook & Av		
		0+10 = N. End. Curb on E		
E curb		0.83		279.13
gutter		14.2		278.54
	0+40			
Stub E. d.		0.77		279.19
E.G		1.8		278.2
	0+50 N. End. elev on W			
W. d.		1.33		278.63
W.G		2.0		278.0
	0+60			
Stub W. d.		1.65		278.31
WG		2.7		277.3
E.G		2.7		277.3
Stub E. d.		1.46		278.50

279.74

0+80

Stub E. el 2.93 277.03

E. G 3.9 276.1

W. G 4.0 276.0

Stub W. el 2.96 277.00

1+00

Stub W. el 4.51 275.45

W. G 5.7 274.3

E. G 5.5 274.5

Stub E. el 4.81 275.15

1+20

Stub E. el 5.84 274.12

E. Gutter 7.2 272.8

W. " 7.5 272.5

Stub W. el 6.37 273.59

1+40

Stub W. el 8.39 271.57

W. G 9.2 270.8

E. G 9.1 270.9

Stub E. el 8.26 271.70

1+60

Stub E. el 10.60 269.36

E. G 11.2 269.8

W. G 11.3 268.7

Stub W. el 10.62 269.34

T.P. 0.54 267.87 12.63 267.33

267.87

1+80

Stub W. d. 0.54 267.33

W. G. 1.2 266.7

E. G. 0.9 267.0

Stub E. d. 0.23 267.64

2+00

Stub E. d. 2.54 265.33

E. G. 2.9 265.0

W. G. 3.2 264.7

Stub W. d. 2.31 265.56

2+20

Stub W. d. 4.35 263.52

W. G. 4.8 263.1

E. G. 4.6 263.3

Stub E. d. 4.02 263.85

2+40

Stub E. d. 5.11 262.76

E. G. 5.7 262.2

W. G. 6.3 261.6

Stub W. d. 5.70 262.17

2+60

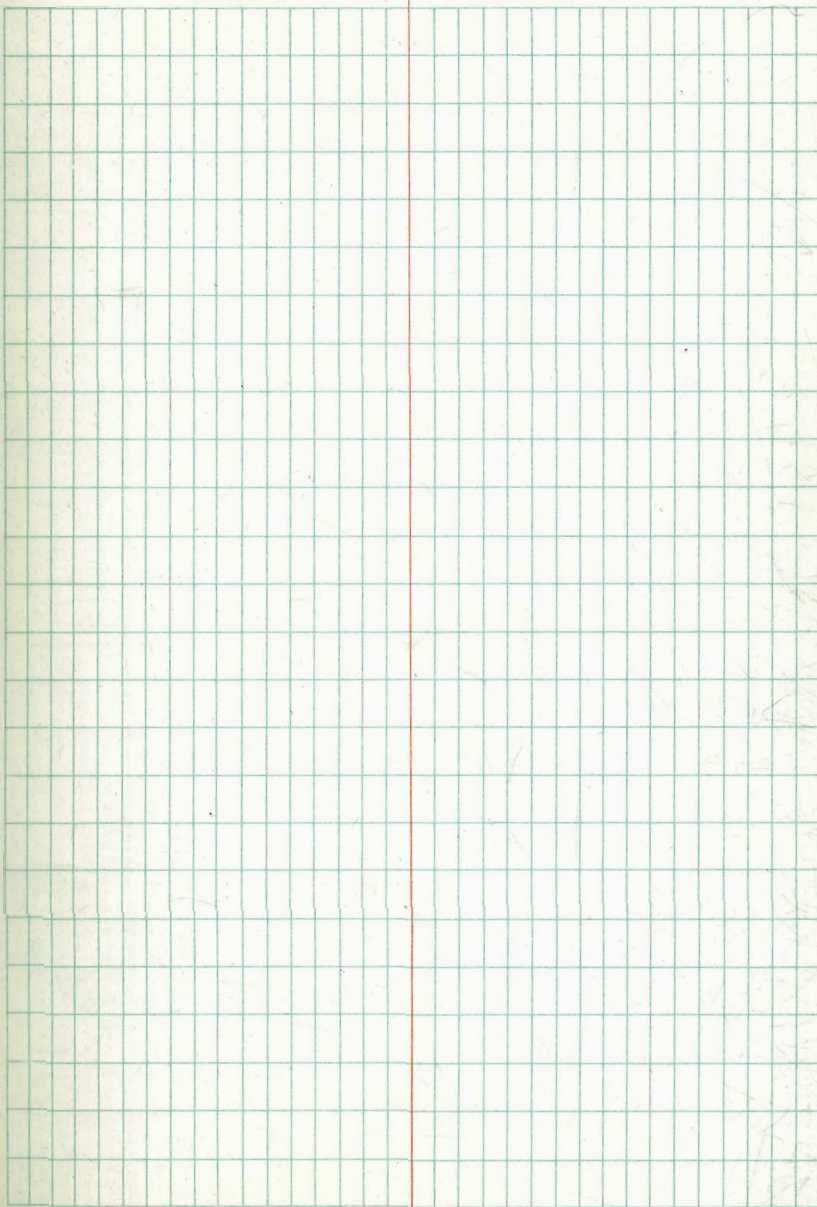
Stub W. d. 6.74 261.13

W. G. 7.2 260.7

E. G. 6.5 261.4

E. d. 5.5 262.4

Stub E. d. 6.07 261.80



267.87

2 + 80

Stub E. el	6.50	261.37
E. el	5.9	262.0
E. G	7.0	260.9
W. G	7.7	260.2
W. d	7.0	260.9
Stub W. el	7.21	260.66

3 + 00

Stub W. el	7.67	260.20
W. el	7.3	260.6
W. G	8.2	259.7
E. G	7.2	260.7
E. el	6.5	261.4
Stub E. el	6.76	261.11

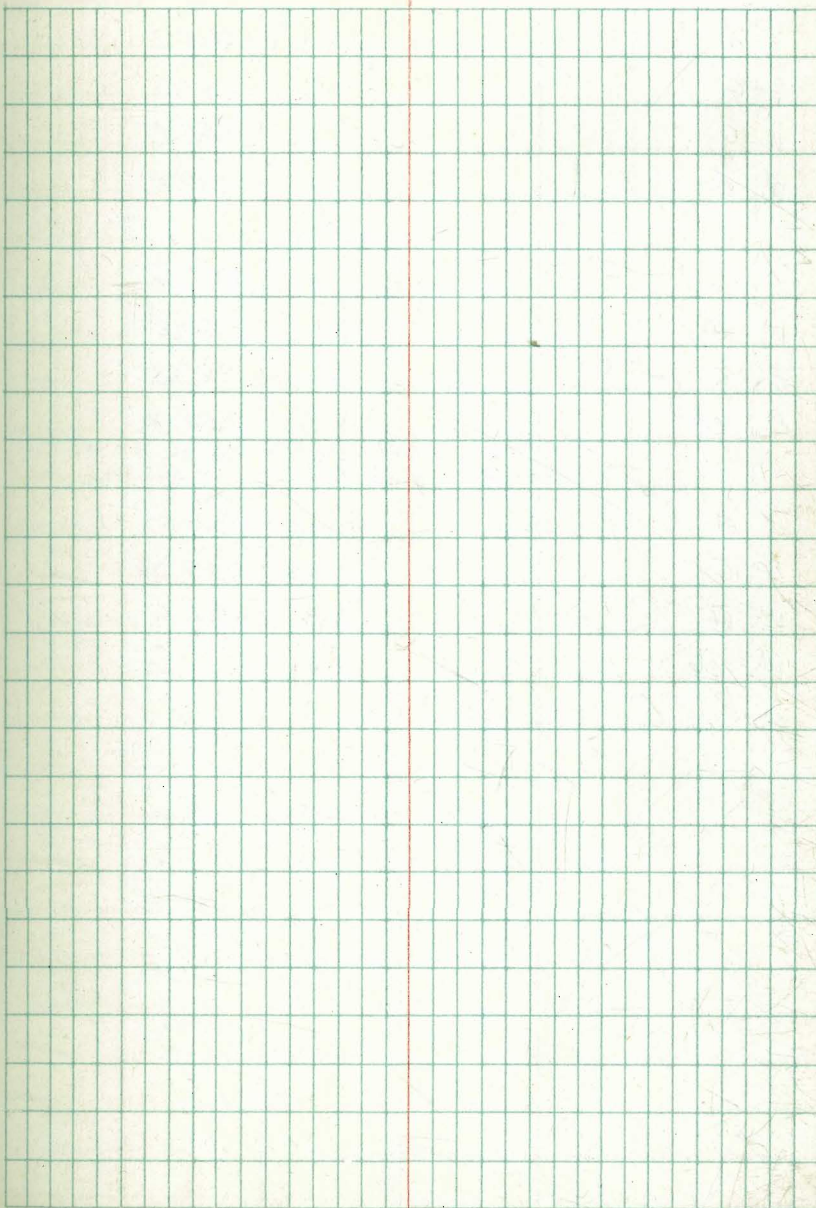
3 + 24⁵ S. End. curb inlets

E. Existing curb el	6.55	261.32
E gutter F.L. el. inlet	7.50	260.37
W " " " "	8.82	259.05
W. Existing curb el	7.92	259.95

3 + 35⁵ N. End. el. inlet

W. existing curb el.	7.64	260.21
W. gutter F.L. el. inlet	8.66	259.21
E " " " "	7.29	259.58
E. existing curb el.	6.26	261.61

260.58



262.87

3 + 60

E. d.	5.6	262.3
E. G	6.6	261.3
W. G	7.8	260.1
W. d.	7.1	260.8

3 + 80

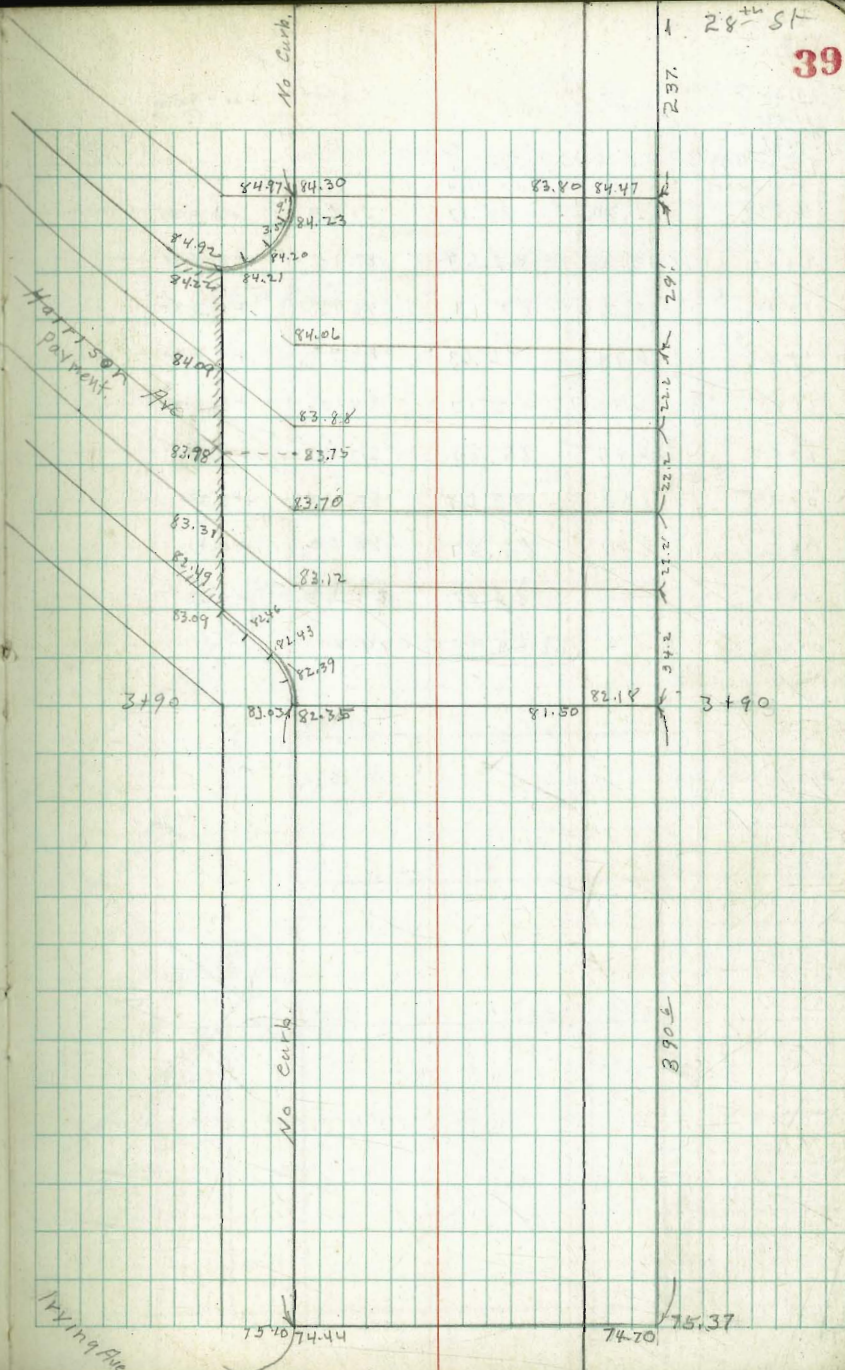
W. d.	6.3	261.6
W. G	7.1	260.8
E. G	4.4	263.5
E. d.	5.6	262.3

$34 + 01 = 5$ End. Existing cont. d. on w.
 $34 + 05 = 8$ End. Existing cont. d. on 2.

E. d.	2.30	265.57
E. G	3.63	264.24
W. G	6.3	261.6
W. d.	5.41	262.46

37

Sta	Gutter	Stakes	Irving to Harrison	Stab Grade	Gutter Grade	+or-	Curb Grade	+or-
75.15 83.61								
S. Harrison 3+90	S. End.	Ex. Curb		82.35			83.03	
3+82	2.26	81.35	81.78	-0.43				
3+37	2.60	81.01	81.27	-0.26				
3+12	3.11	80.50	80.76	-0.26				
2+87	3.56	80.05	80.26	-0.21				
2+62	4.30	79.31	79.75	-0.44				
2+37	4.62	79.00	79.24	-0.24				
2+12	5.00	78.61	78.74	-0.13				
1+87	5.41	78.20	78.23	-0.03				
1+62	5.66	77.95	77.72	+0.23				
1+37	6.03	77.58	77.22	+0.36				
1+12	6.40	77.21	76.71	+0.50				
0+87	6.80	76.81	76.20	+0.61				
0+62	7.23	76.38	75.70	+0.68				
0+37	7.65	75.96	75.20	+0.76				
0+12	8.03	75.58	74.68	+0.90				
N. Line Irving 0+0	N. End.	Ex. Curb		74.44			75.10	
X 83.61 2.26								
T.P. 81.35 7.14								
X 88.49								



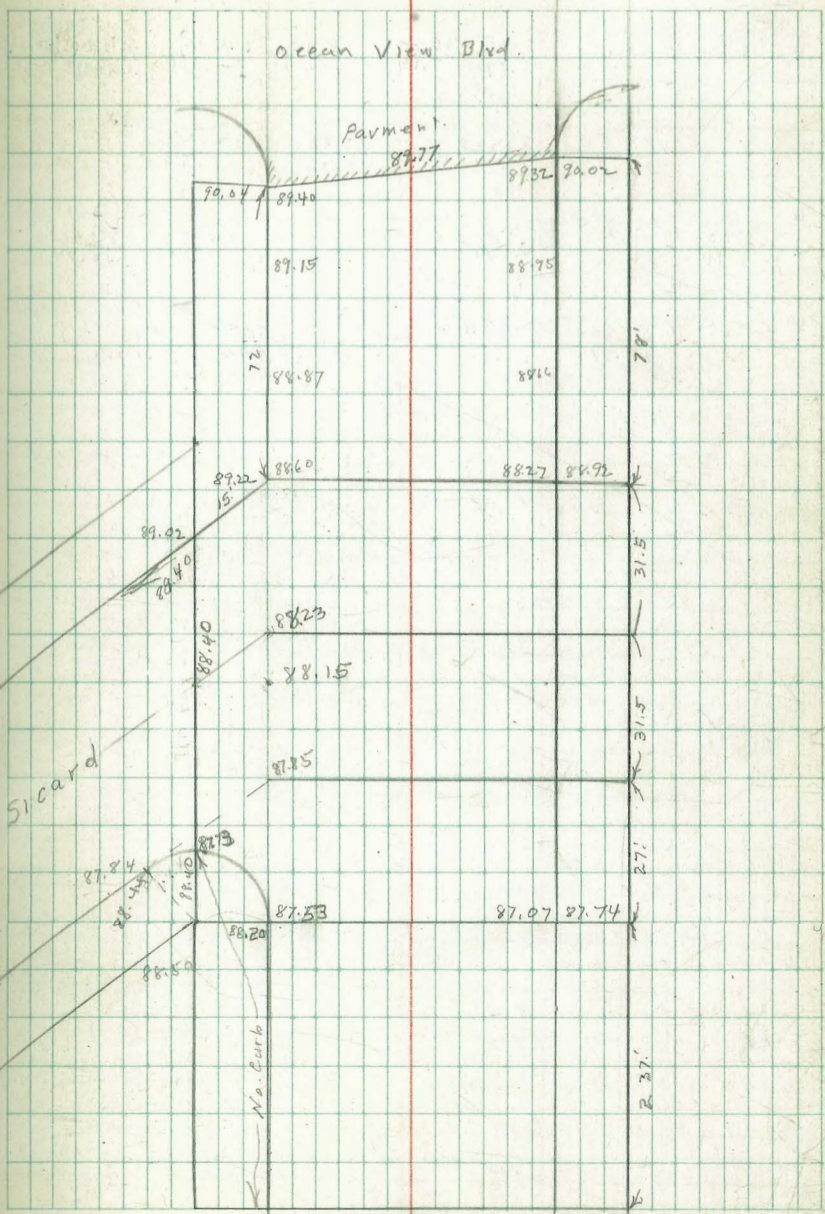
81.35 T.P. Page 39.

Gutter Grade + or - gutter

11.12
97.47
91.65 B.M. B.P. N.E. 28th Ocean View
S. Line Sicard Slab Elev

2437	4.30	88.17	87.53	+0.64
2400	4.80	87.67	87.10	+0.57
1475	5.34	87.13	86.75	+0.38
1450	5.84	86.63	86.40	+0.23
1225	6.30	86.17	86.06	+0.11
1400	6.46	86.01	85.70	+0.31
0475	6.80	85.67	85.35	+0.32
0450	6.90	85.57	85.00	+0.57
0425	7.60	84.87	84.65	+0.22
N. Harrison 0400		<u>Curb 84.97</u>	84.30	

4.514 Line of Harrison St

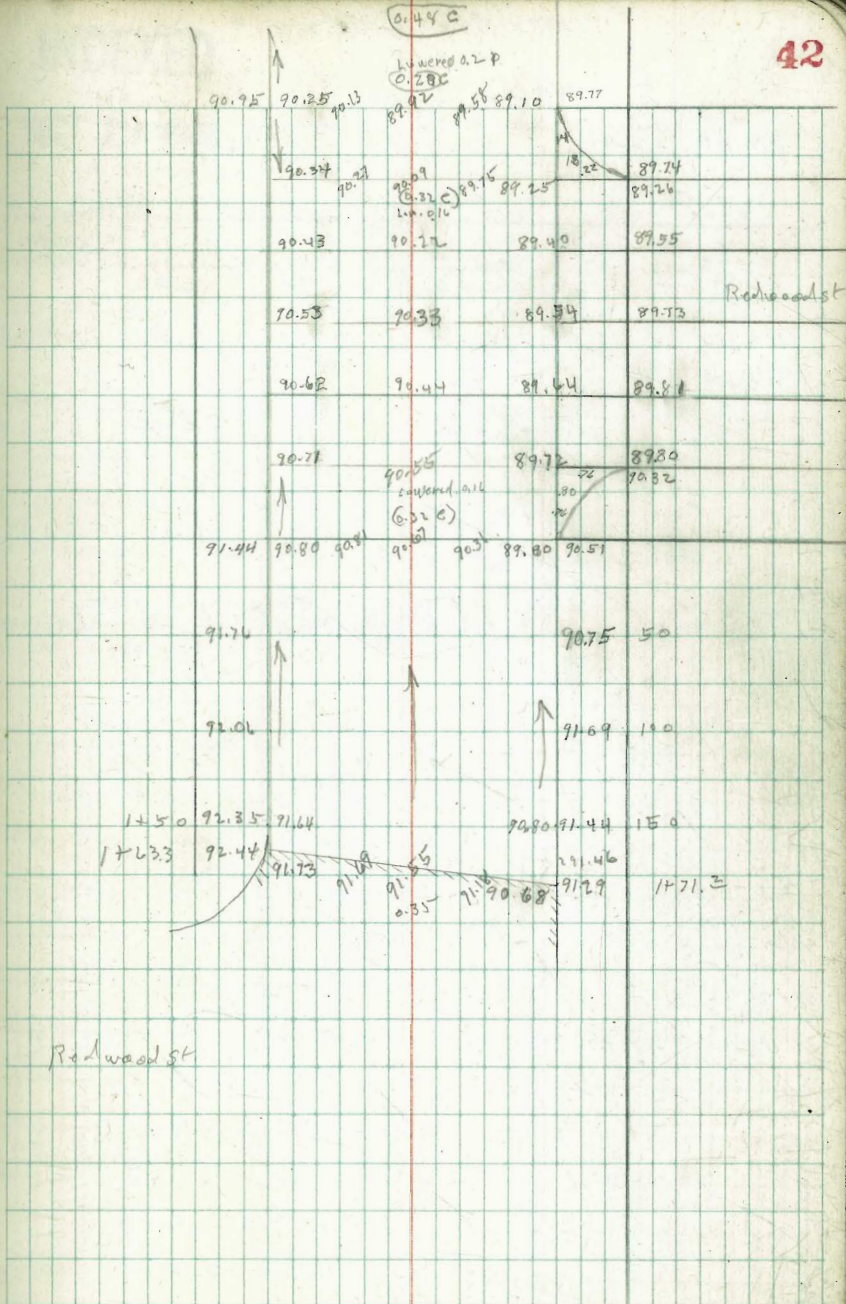


Boundary St.

293.55 B.M. N.W. Boundary + Redwood.

2.18	E	C	E	W	E	C
295.73	91.29	90.14	90.80	91.64	89.80	89.26
	4.44	3.05	4.93	4.09	5.23	6.47
					7.11	8.11
					7.32	8.32

W	90.80	90.25
	4.93	5.48



Redwood St

Logan Ave Grades

N. Curb, Logan.

BM. B.P.	2.91	67.40	64.47	N. W. Logan & Sampson
0+00				Profile Gr.
N.E. Cor Logan & Sampson	2.94	64.46	64.50	= 64.50
0+75			63.36	63.70
1+47	Set. slak.	62.92	62.92	
1+47	old. Top. el	4.90	62.50	62.92
1+47	Gutter pav	5.30	62.10	
2+00	Top. el	4.95	62.45	62.37
	New curb & walk			
2+50	Top. el	5.44	61.96	61.84
3+20		6.30	61.10	61.10

INDEXED

WK.

OCT 11 1948

Boundary St. Grades

43

W. 0+00	80.97	80.78 (63.45)	79.91	0+00 E
	81.27		80.18	0+20
	81.54		80.60	0+40
	82.31		81.24	0+60
	83.14		82.20	0+80
	84.21		83.42	1+00
	86.82			1+40
	88.74			1+80

0.42 Low.

N. El.

3.31' curb gutter

3.31' curb gutter

0.33' E. El.

0.33' E. El.

7-29-27

Rosecrans. Paymt. Grades.

INDEXED

S. W. Rosecrans + Elliot.

BM. 51.51 N.W. Homer

BM. Top Mt. 0.97 54.50 53.53

3.90
55.41

4.60
49.90

7'
50.12 50.12

4.38
50.12

Dewey Drive

Rosecrans

INDEXED
WK
OCT 14 1948

Rosecrans

4.97
49.53

7'
49.97 49.81

4.69
49.81

5.90
49.51

5.80
5.27
49.64

2.5

5.56
48.94

7'
49.24 49.24

5.86
49.24

5.50
49.91

5.41
50.00

5.45
49.96

2.5

Freman st

5.13
5.029

5.05
50.31

5.10
50.31

5.03

6.10
48.40

7'
48.73 48.73

5.77
48.73

BM. Top. Hydt. SW Goldsmith

4.90
49.94
1.89
51.47

Pay mt
cone

7'
46.57 46.92

4.60
46.92

Pay mt
cone

Goldsmith

4.87
46.60

7'
46.94 46.94

4.53
46.94

⊙

⊙

cl. Grad. Rod. \nearrow 70.80
 W. side
 2+58.5 N. End $\frac{3.14}{07.46}$ d $\frac{3.72}{67.08}$
 0.16
 Door E. side $\frac{2.72}{67.08}$

City Garage
 1-17-39

INDEXED
 WK
OCT 14 1948

2+39.5	$\frac{3.30}{19}$ ✓	Fin Sub. Gr. Rd. G. Rd. $\frac{4.38}{4.38}$ $\frac{3.49}{0.00}$	
2+19.5	$\frac{3.49}{19}$ ✓		4.07
1+99.5	$\frac{3.68}{19}$ ✓	5.02 $\frac{4.76}{0.26}$ $\frac{4.26}{0.26}$ x	
1+79.5	$\frac{3.87}{19}$ ✓		4.45
1+59.5	$\frac{4.06}{19}$ ✓	5.38 $\frac{5.14}{-0.24}$ $\frac{4.64}{-0.24}$ x	
1+39.5	$\frac{4.25}{19}$ ✓		4.83
1+19.5	$\frac{4.44}{19}$ ✓	6.28 $\frac{5.52}{-0.76}$ $\frac{5.02}{-0.76}$ x	
0+99.5	$\frac{4.63}{19}$ ✓		5.21
0+79.5	$\frac{4.82}{19}$ ✓	6.38 $\frac{5.90}{-0.48}$ $\frac{5.40}{-0.48}$ x	
0+59.5	$\frac{5.01}{19}$ ✓		5.59
0+39.5	$\frac{5.20}{19}$ ✓	6.70 $\frac{6.26}{-0.44}$ $\frac{5.79}{-0.44}$ x	
0+20.2	$\frac{5.39}{19}$ ✓		5.97
0+00 S. wall	$\frac{5.56}{65.24}$ ✓	6.14 $\frac{6.14}{64.66}$	

sub. Gr. Rd. $\frac{3.26}{3.96}$ 0.00
 Fin G. Rd. 3.46
 E. Door W. side $\frac{3.61}{67.19}$
 E. side $\frac{3.61}{67.19}$
 \nearrow 70.80 cl. Grad. Rod 3.03 ✓ **45**
 67.77 0.19

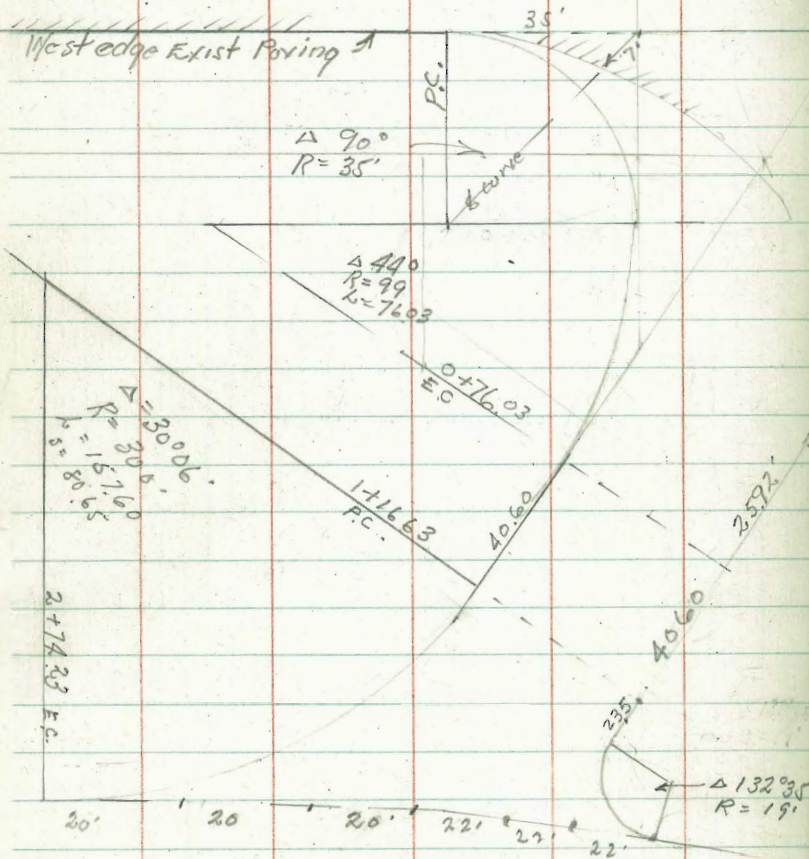
4.55	$\frac{4.43}{4.38}$ ✓	4.68 $\frac{4.27}{-0.41}$	
4.22	$\frac{4.38}{-0.16}$ ✓		3.21 ✓
4.88	$\frac{4.60}{-0.28}$ ✓	5.18 $\frac{4.76}{-0.42}$ ✓	3.42 ✓
5.29	$\frac{4.97}{-0.32}$ ✓		3.63 ✓
5.92	$\frac{5.35}{-0.37}$ ✓	5.35 $\frac{5.14}{-0.21}$ ✓	3.84 ✓
6.25	$\frac{5.73}{-0.52}$ ✓		4.05 ✓
6.60	$\frac{6.12}{-0.48}$ ✓	5.71 $\frac{5.52}{-0.19}$ ✓	4.26 ✓
6.14	$\frac{6.12}{-0.02}$ ✓		4.47 ✓
6.20	$\frac{6.46}{-0.26}$ ✓		4.68 ✓
6.77	$\frac{6.28}{-0.49}$ ✓	6.22 $\frac{5.90}{-0.32}$	4.89 ✓
6.00	$\frac{6.27}{64.53}$ ✓		5.10 ✓
6.29	$\frac{6.27}{64.53}$ ✓		5.31 ✓
6.71	$\frac{6.29}{64.51}$ ✓		5.52 ✓
6.50	$\frac{6.29}{65.09}$ ✓		5.71 ✓

Redwood

East c6 Lane

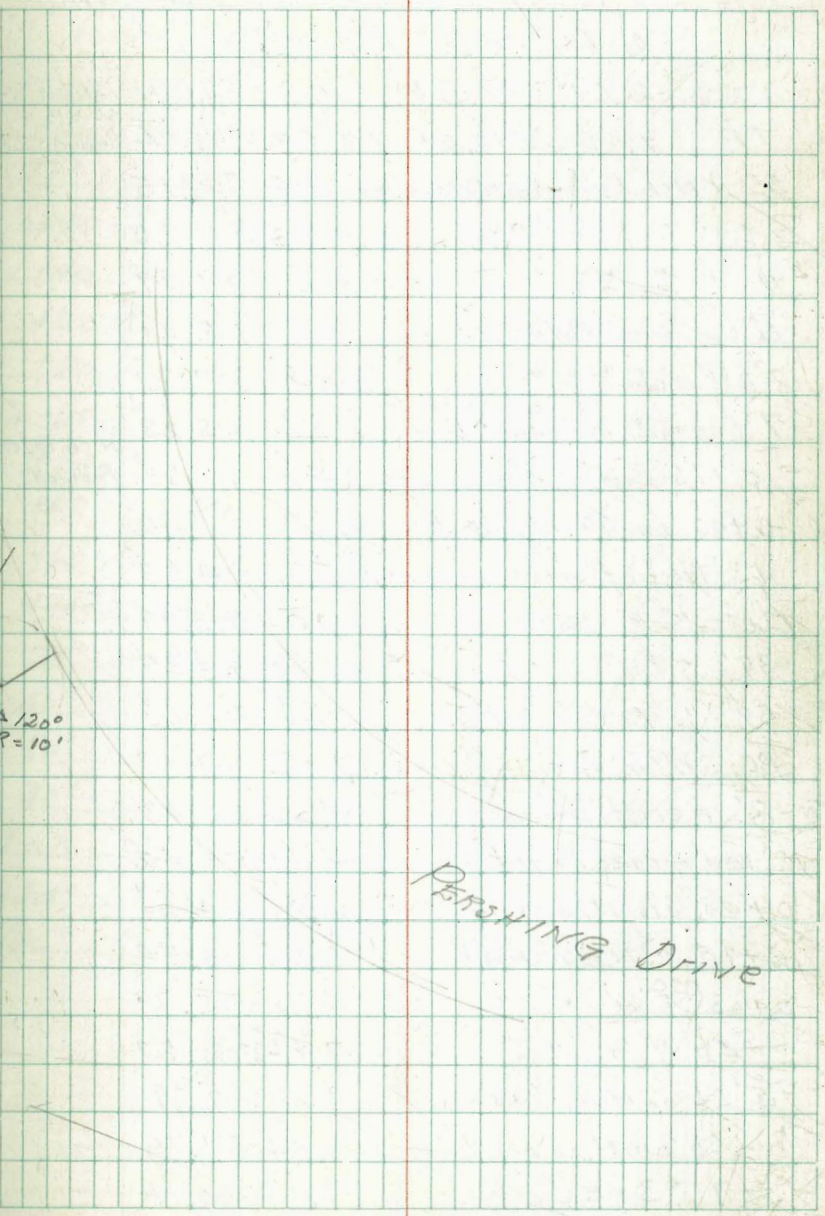
28th St.

West edge Exist Paving



Pershing Drive

PERSHING DRIVE



Preliminary Levels on Existing Paving
Redwood And Pershing Drive
to Establish Grade For unpaved Area

As Per sketch Page 46

2.61	319.57		316.96
TP	1.05	310.09	10.53 309.04
55' N Ncb. Redwood on West edge pav		0.94	309.15
35' " " " " PC.		0.83	309.26
11' " " " "		1.12	308.97
Ncb Line Redwood		1.88	308.21
8' S of Ncb " " on West edge Pav.		2.38	307.71
7' from P.I. on Radial line		1.81	308.28
- 0 17.5' East of 0+00		3.46	306.63
0+00 on Paving. North		4.67	305.42
13' West of 0+00 on N edge paving		5.46	304.63
26' " " " "		6.10	303.99
39' " " " "		6.60	303.49
52' " " " " = P.I.		7.46	302.63
P.C. SW Cor. on exist. pav.		9.02	301.07
0-8' = exist. paving SW.		7.66	302.43
18' West of 0+20 on N = on pav.		6.67	303.42
0+20 on N. on pav.		5.88	304.21
0+20 " N on Nail		6.55	303.54
0+00 P.C. " N " "		4.30	305.79
+40 " " " "		7.42	302.67
5' Lt. on dirt 0+20		7.2	302.9
0+60 on N on Nail		8.34	301.75
+76.3 = EC. "		9.95	300.14
1+16.63 P.C. on "		13.47	296.62

B.P. SW
Redwood
SE BP
Redwood + 28'

Ncb Redwood
Produced

Indexed

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~~310.09~~ 310.09

on Nail	0+00 = EC. 10' Rad. on South.	8.33	301.76	
+25.92 on South on Nail	opposite 1+16.63 on North	10.45	299.64	opposite N of 76.3 on "
+66.52 on Nail		13.70	296.39	
TP 12.6		297.65	13.70	296.39
0+90 on South P.C. 19'R		3.46	294.19	
1+40' " North on Nail		3.30	294.35	
+60 " " " "		5.19	292.46	
+80 " " " "		6.44	291.21	
2+00 " " " "		7.16	290.49	
+20 " " " "		7.39	290.26	
+40 " " " "		7.53	290.12	
+60		7.88	289.77	
+74.23 = EC. on Pav.		8.03	289.62	
20' South (2+74.23)		7.85	289.80	on Pav.
40' " " "		7.57	290.08	" "
60' " " "		7.37	290.28	" "
80' " " "		7.25	290.40	" "
102 " " "		7.15	290.50	" "
124 " " "		7.11	290.54	" "
146' " " " = P.C.		7.22	290.43	" "

Highway
10-18-37

Grades For Paving Area
Pershing And Redwood
Sketch Page 46

Elev. of
Nails

South edge
Paving
Elev. Grade
of
edge Paving

Indexed

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0+00 N side = P.C.C		305.42	
+20		303.54	304.21
+40		302.67	302.25
+60		301.75	301.15
+76.03 = E.C.		300.14	299.65
1+16.63 P.C. R=300'		296.62	296.50
+40		294.35	294.20
+60		292.46	292.45
+80		291.21	291.25
2+00		290.49	290.55
+20		290.26	290.20
+40		290.12	290.15
+60		289.77	289.85
+74.23 = E.C. Meet pav.		289.62	
6+00 on South (76+03 N)		301.76	302.00
+25.92 opp E.C. on N.		299.64	299.65
+66.52 " Sta. 1+16.63 on N		296.39	296.50
0+90 P.C. of 19' Radius		294.19	294.15

-0.67
+0.42
+0.60
+0.49
+0.12
+0.15
Grade
F 0.04
F 0.06
+0.06
-0.03
-0.08
-0.24
Grade
-0.11
+0.04

Walker
Blk 6
9-25-37

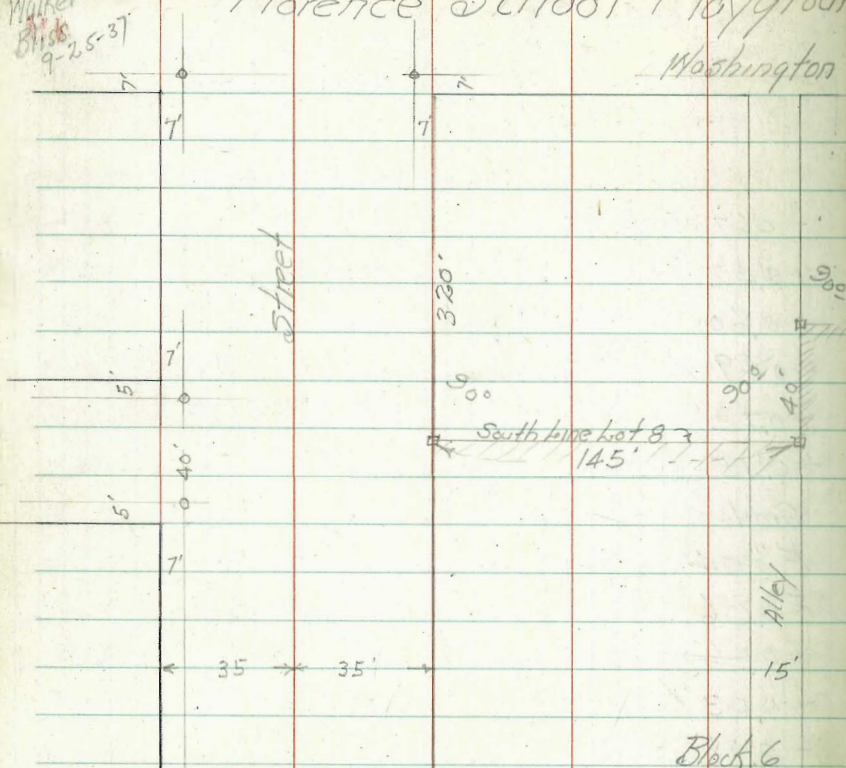
Florence School Playground Stokes (for N.W. limits of Grading.)

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Washington

Indexed

Street

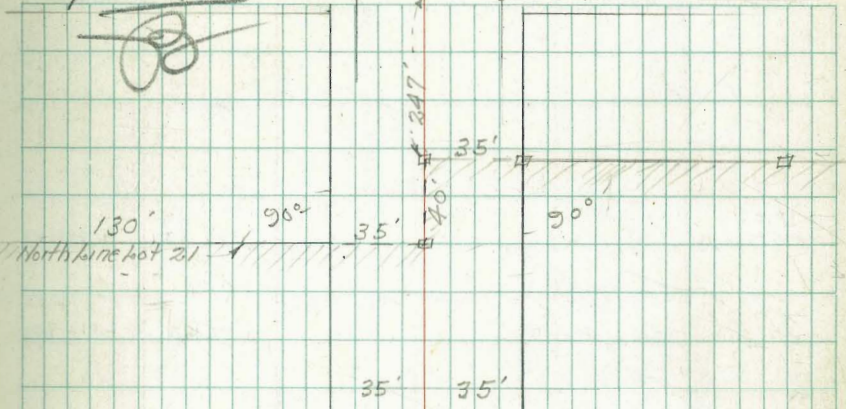


Street

Alley

Block 6

ALBATROSS



North line Lot 231

Grades For Cleanout 0+28 Book 1538

7.75	251.75	244.00 = stub 0+65
chk on stub 0+28	7.40	244.35
		248.70 = top cleanout
		- 4.45

Univ

Ave

B.M. B.P. 3.09 312.13 309.04 S.E. 28th Redwood.

P.C. 0+74.49 Nail edge 12.00 300.13 299.64

0+210.3 Ctr Curve stub 5' Back 9.70 302.43 201.90

0+56⁰⁰ P.C. 4.80 305.33 304.20

11 edge pav 11' South 7.70 304.43

0+69⁸⁰ 6.33 305.80 305.30

0+83⁵⁵ Ctr Curve 5.65 306.48 306.40

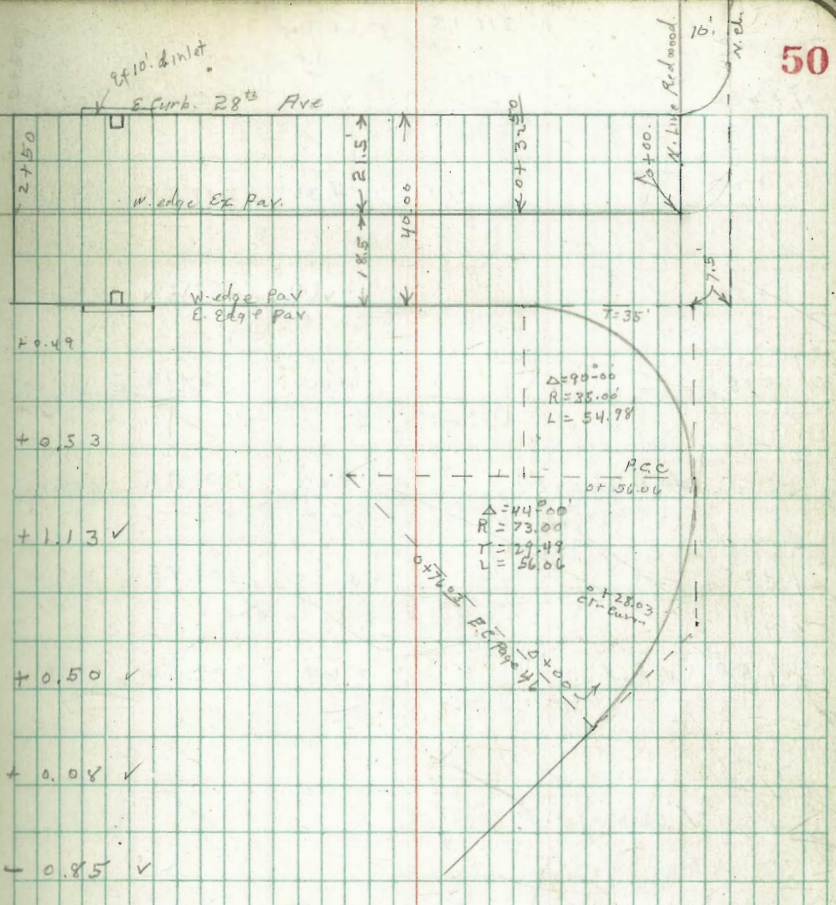
0+97²⁵ 5.48 306.65 307.50

1+11⁰⁴ F.C. => 5.18 306.95 308.70

0+32.5 28th Ave

0+50 5.30 306.83 308.40

0+75 4.23 307.90 308.10



	w. pav	E.G	E.d
-1.15 ✓	2.90	3.05	3.40
	309.23	309.04	308.73
	0.81 ground		309.35
	.16		.11
-1.57 ✓	3.06	3.18	3.56
	309.07	308.95	308.57
	.25		.22
-0.20 ✓	3.31	3.47	
	308.82	308.66	

	312.13	Stub 5. Back	el. Gutter Grade
1+00		4.22	307.91 307.80
+25		4.36	307.77 307.50
+50		4.98	307.20 307.20
+75		4.44	307.69 306.90
2+00	dr. inlet on E	4.23	307.90 306.60
+25		3.28	308.85 307.20
+50	N. End	2.63	309.50 307.90
Curb inlet W. curb 28 th N. of Redwood			
0+00	N. Line Redwood		
BM. B.P.		309.04	S.E. 28 th + Redwood W. Curb Grade
0+50			308.90 ✓
0+75			308.70
1+00			308.50 ✓
1+25			308.20
1+50			307.90 ✓
1+75			307.60
2+00			307.60
2+25			307.90
2+50			308.60

	W. Pav	el	E. G.	el
+0.11 ✓	3.67	3.82	4.12	3.38
	308.46	308.31	308.00	308.75
+0.77 ✓	4.03	4.13	4.43	
	308.10	308.00	307.70	
0.00 ✓	4.46	4.45	4.67	
	307.75	307.68	307.46	
+0.79 ✓	4.50	4.63	4.93	
	307.63	307.50	307.20	
+1.30 ✓	4.48	4.68	5.03	4.13
	307.15	307.50	307.10	308.00
+1.65 ✓	3.98	4.13	4.46	
	308.15	308.00	307.47	
+1.60 ✓	3.23	3.40	3.73	-3.13
	308.90	308.73	308.40	309.00
	0.75 down			
309.04				
4.45				
313.69				
Curb stakes W				
0+50	1+00	1+50	S. End curb inlet	N. End of inlet
308.90	308.50	307.90	1495	2405
4.79	5.19	5.79	307.80	307.80
5.02	5.41	6.00	5.89 ✓	5.89 ✓
-0.23	-0.22	-0.21		
				2+50
				308.60
				5.09
				4.42
				+0.57

Sewer Grades. Alley BIK. 113				
E. W. Morse Sub.				
31 st St. E. bet. G + Market				
B.M. B.P.	5.06	86.45		81.39
T.P.	8.32	94.52	0.25	86.20
0+00 = M.H. 1			4.86	89.66
223.5 W. of 32 nd				83.50
0+50		2.73		91.79
1+00		0.63		93.89
T.P.	12.65	106.54	0.63	93.89
1+50		9.87		96.67
2+00		5.25		101.29
2+50		0.96		105.58
T.P.	12.68	118.26	0.96	105.58
3+00		9.84		108.38
3+31.5 45		9.34		108.88
3+76.5 = E. bet. 31 st St.				

Indexed

	+6.16			
	+5.89			
	+5.59			
	+5.97			
	+8.19			
	+10.08			
	+10.48			
	+9.78			

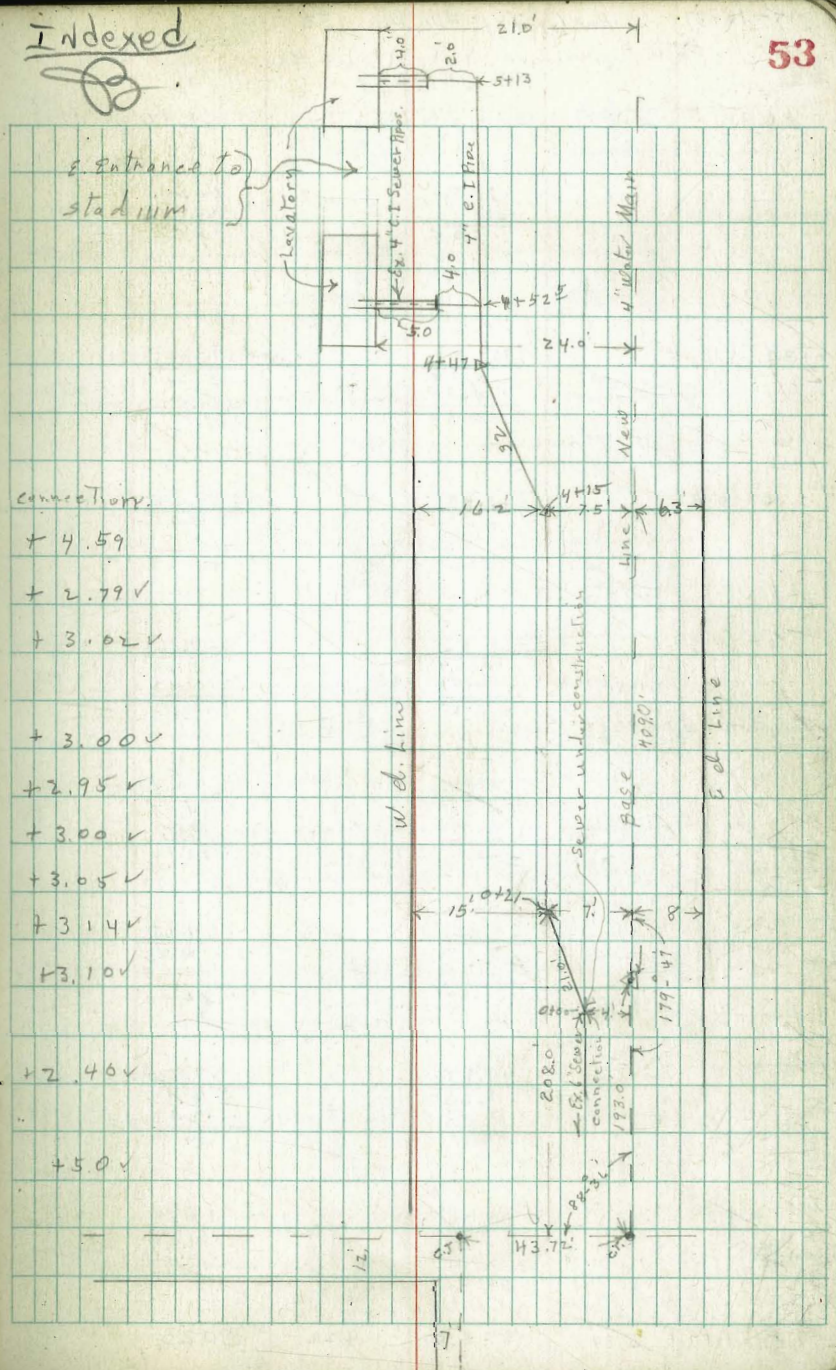
B.M.

52

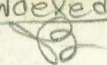
B.M. B.P. N.W. 32 nd + 14 th St.	81.52
	4.13
	85.65
	3.28
Man gen. set B.M. B.P. S.E. 32 nd + I. Sts.	82.42
	4.29
	86.71
Set B.M. B.P.	5.32
Man gen. S. W. 32 nd + Market St.	81.39
	5.06
	86.45
	0.25
	86.20
	8.32
	94.52
	0.63
	93.89
	12.65
	106.54
	0.96
	105.58
	72.68
	118.26
	10.08
	108.24
	11.45
	109.69
B.M. N.E.	5.69
7' CT - 31 st St + Market St	103.00
	96.30
	0.27
	96.57
	12.92
	83.65
	1.74
	85.39
	9.96
B.M. Man S.W. 31 st + I. Sts.	80.63

9-8-37		16 th St. Sewer N. of Russ. Blvd.		F. 13.1444 - P. 80	
To Laboratory & E. Gate of Stadium					
BM. B.P.	13.22	90.20	76.98	S.W. 15 th	+ E. St.
T.P.	12.18	101.20	1.18	89.02	
BM. Top Hyd.	12.56	112.56	1.20	100.00	S.W. 15 th & R. St.
T.P.	13.06	125.24	0.38	112.18	
T.P.	13.30	137.14	1.40	123.84	
set. BM. B.P.			10.91	126.23	S.W. 16 th & Russ. Blvd.
T.P.	13.03	149.99	0.18	136.96	
0+00 = 8x6 Sewer		11.39	138.60	Fl. 138.60	
0+21		5.40	144.59	140.00	
0+65		4.20	145.79	143.00	
1+15		1.77	147.22	145.20	
T.P.	12.59	162.30	0.28	149.71	
1+65		12.00	150.30	147.30	
2+15		9.95	152.35	149.40	
2+65		7.80	154.50	151.50	
3+15		5.65	156.65	153.60	
3+65		3.46	159.84	155.70	
B 4+15 A		1.40	160.90	157.80	
T.P.	8.40	169.30	1.40	166.90	
B 4+47 A		6.72	162.58	160.18	
4' West of 4+52.5 Fl. 4" C.I. Pipe		8.00	161.30		
5+13		2.80	168.50	161.50	
2' West of 5+13 = End Fl. 4" C.I. Pipe		7.76	161.54		

Indexed



9-10-37 Pav. Grades. Alley BIK 153. 2 H.
 Polk. to Howard. bet. 21(a) + Kansas
 F.B. 1519-59

Indexed


B.A.B.P.	5.98	374.45	368.47	M.E. Polk & Utah
		W	0	
0+00 = K Line Polk		Ex. Pav 368.80 5.65	Ex. Pav 368.81 5.64	
0+30 B		369.21 5.24 4.55 +0.69	369.09 5.36 4.36 +1.00	
0+50 B		369.43 5.02 4.27 +0.75	369.25 5.20 4.00 +1.20	
0+70 B		369.56 4.49 2.89 +2.00	369.36 5.09 4.13 +0.96	
1+00		69.68 4.77 2.77 +2.00	69.48 4.97 2.97 +2.00	
+30		69.80 4.65 2.65 +2.00	69.60 4.85 2.85 +2.00	
+60		69.92 4.53 2.53 +2.00	69.72 4.73 2.73 +2.00	
+90		70.04 4.41 2.41 +2.00	69.84 4.61 2.61 +2.00	
T.P	5.34	375.57	4.22	370.23

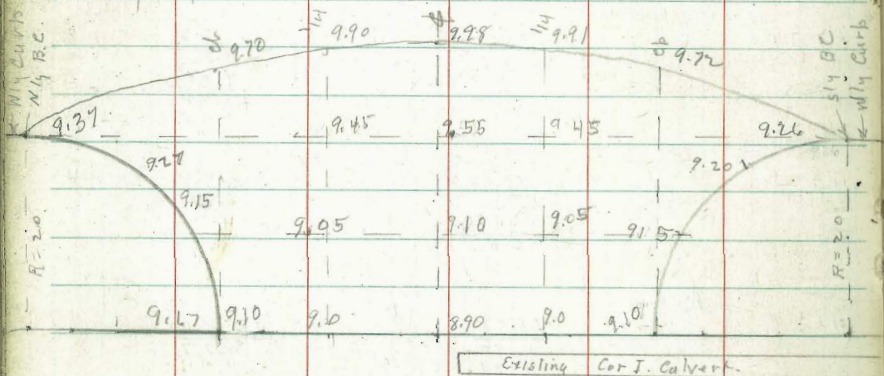
2+20	W	70.16	E.	69.96
		5.41 5.12 +0.29		5.41 4.61 +1.00
2+50		70.28		70.08
		5.29 4.95 +0.84		5.47 4.49 +1.00
2+80		70.40		70.20
		5.17 3.05 +0.12		5.37 3.37 +2.00
3+10		70.52		70.32
		5.05 5.05 0.0		5.25 4.95 +0.30
3+40		70.64		70.44
		4.93 4.55 +0.38		5.13 4.97 +0.16
3+70		70.76		70.56
		4.81 4.63 +0.18		5.01 4.01 +1.00
4+00		70.88		70.68
		4.69 4.54 +0.15		4.89 4.76 +0.13
4+30		71.00		70.80
		4.57 4.39 +0.18		4.77 4.44 +0.33
4+65	chick. stake	71.14	G. 177-P. 76	chick. Nail
		9.43 8.95 +0.48		70.94 4.63 3.43 +1.00

Catch Basin
Taylor & Calhoun Sts

BM B.P.	4.16	π 8.82	4.72	s. e. Taylor
		+ 6.12		+ Juan.
U.S. G.S. Datum		π 14.94		
F.L. ex	Cor. I	Culvert.	8.42	6.52
Nly BC.	pav.		5.57	9.37
"	ch	"	5.24	9.70
"	"	"	5.04	9.90
"	"	"	4.96	9.98
Sly "d	"	"	5.03	9.91
"	ch	"	5.22	9.72
"	BC.	"	5.68	9.26

Nly Line Taylor

Nly Top. curb	5.27	9.67
Nly pav.	5.91	
Sly Top. ch	5.34	9.60
Sly pav.	5.93	9.01



Indexed

BM	4.03	8.75	4.72
		+ 6.12	
		π 14.87	
9.10	9.0	8.90	9.20
77	87	97	5.67
		50	9.45
			5.42
			9.05
			5.82
			9.55
			5.32
9.15	9.27		
5.72	5.60		

9-28-37.

+- Stakes Twiggs - Juan to Sunset
 +- Mason " " "
 +- Sunset Mason to Twiggs
 Mason

~~Indexed~~

12-20-37. Curb stakes
 31.69
 21.70
 28.99 Hyd. Sly Car Juan + Mason

31.69
 4.84 Elev. Rim M.H. of sunset
 26.85
 Mason + sunset **56**

BM. & Hub

30.10
 8.50
 138.60 E. curb W. Curb

N. Line
 & Mason

31.60
 5.59
 26.10 Ex curb
 Back of Curb = Prop. Line
 Stakes 3' from Face of Curb
 31.69
 26.10
 5.59
 5.42
 +0.17 ✓

27.22 P.M.B.P. S.W. San Diego + Mason
 2.50
 24.72
 0.64
 24.08
 7.61

0+00 N. Line Juan

26.10
 12.50 ✓
 24.95

0+00 E. Juan
 26.10
 5.59
 5.42
 +0.17 ✓

Sewer Grades Mason St.

M.H. Rim	Chart	
26.85	1+85 S	21.80
6.12		1.17
		6.96
32.97 X		2.96
6.12		+5.34
26.85	1+50 S	21.60
12.91		2.37
39.82 X		2.07
		+4.80

0+40

E. Line
 26.3
 12.3
 11.6
 +0.7
 W. Line
 25.4

0+40
 26.30
 5.39
 5.41
 -0.02 ✓

400 S	21.30	19.54
	11.67	13.53
	6.80	6.94
	+4.81	46.67

0+80

26.4
 12.2
 11.1
 +1.1
 25.7

0+80
 26.60
 5.09
 5.23
 -0.14 ✓

0+50	21.00	18.71
	11.97	14.76
	5.58	5.58
	+4.37	8.68
	20.70	

1+20 P.V.C.

26.5
 12.1
 11.6
 +0.5
 26.0

1+20
 26.90
 4.79
 5.34
 -0.55 ✓

0+00 Ex M.H. Rod. 15.00
 E Sunset. FL Gr. 17.97
 23.00

1+60

26.8
 11.8
 11.1
 +0.7
 26.4

1+60
 27.20
 4.49
 5.15
 -0.66 ✓

0+50	24.50	25.23
	11.32	14.49
	6.86	6.86
	4.41	+7.63

2+00 E.V.E.

27.3
 11.3
 11.0
 +0.3
 27.0

2+00
 27.70
 3.99
 4.66
 -0.67 ✓

39.82 X		
11.66		
38.16	1+00	34.00
6.06		5.82
44.22 X		1.66
		+4.16

2+40

28.0
 10.6
 10.4
 +0.2
 27.9

2+40
 28.60
 3.09
 3.80
 -0.71

1+35	37.85	37.85
	6.37	6.37
	2.44	2.44
	+3.93	+3.93

2+80 E.V.C.

28.8
 9.8
 9.3
 +0.5
 28.8

2+80
 29.80
 1.89
 2.51
 -0.62

K.M. Curb. Twiggs St.

9-28-37 + + Twigg Mason & Sunset
Mason.

		π 38.60	
	E. Line	0.11	W. Line
3+00 = S Sunset.	29.5	38.49	29.2
	2.1	12.94	
	8.6	π 51.43	
	+0.5		
3+55 } (S.N. of N. Line) N. Sunset	31.6		31.6
	7.0		
	6.2		
	+0.8		
	Sunset Blvd.		
cross E. Line Mason	S. Line	N. Line	
	30.8	31.6	
0+10	32.2	32.7	
	6.4	5.9	
	8.4	3.6	
	-2.0	+2.3	
0+60	39.4	39.9	
	+0.8	11.5	
	2.8	8.4	
	-3.6	+3.1	
		π 51.43	
		0.47	
		50.96	
		12.39	
1+10	46.6	47.1	
	4.8	4.3	
	10.9	0.4	
	-6.1	+3.9	
		π 75.53	
1+60	53.8	54.3	
	+2.4	9.0	
	1.8	5.4	
	-4.2	+3.6	
2+15 BHK	61.8	62.3	
	1.5	13.2	
	4.3	11.4	
	-2.8	+1.8	
2+50	65.6	66.1	
	+2.3	9.4	
	0.6	8.2	
	-2.9	+1.2	

12-20-37
change in grade

57

T.P. 26.85

3+00	π 40.1			
80 70 Return				1322
3+00 = S Sunset	30.27			40.07 π
	9.87			0.08
	0.68			39.99
	-1.31			13.71
				58.20 π
				0.46
				52.74
				12.47
End 10 Return				65.21 π
3+50 N. Line Sunset	32.4			0.24
	7.87			44.97
	8.06			12.94
	-0.39			77.91 π
40 Return				
0+69 ³³	31.90	32.40	31.90	32.40
	8.2	7.7		
	8.7	7.0		
	-0.5	+0.7		
0+60	39.05	39.55	39.05	39.55
	1.0	0.5		
	2.5	0.9		
	-1.5	+0.5		
		π 53.20		
1+10	46.10	46.60	46.10	46.60
	7.1	6.6		
	8.8	5.6		
	-1.7	+1.0		
1+60	53.15	53.65	53.15	53.65
	0.55	11.6		
	0.84	10.2		
	-0.8	+1.4		
2+15	60.95	61.45	60.95	61.45
	4.3	3.8		
	5.8	2.5		
	-1.2	+1.3		
		π 77.91		
2+50	64.95	65.45	64.95	65.45
	8.3	12.5		
	1.2	11.9		
	-0.9	+0.6		

9-28-37

Sunset.

775.53

3+00

70.9

$$\begin{array}{r} 4.6 \\ 6.7 \\ -2.1 \\ \hline \end{array}$$

$$\begin{array}{r} 0.73 \\ 7480 \\ \hline 11.89 \\ 12.60 \\ \hline 74.07 \\ 0.27 \\ \hline 74.36 \end{array}$$

71.4

$$\begin{array}{r} 4.5 \\ \hline 11.6 \end{array}$$

3+50 BC.

76.2

$$\begin{array}{r} +0.7 \\ 1.3 \\ -2.0 \\ \hline \end{array}$$

74.36

76.7

$$\begin{array}{r} 10.0 \\ 6.6 \\ \hline +3.4 \end{array}$$
3+81⁴²

72-18-00

77.7

$$\begin{array}{r} 9.0 \\ 10.0 \\ -1.0 \\ \hline \end{array}$$

76.2

$$\begin{array}{r} 8.15 \\ 2.0 \\ \hline +6.5 \end{array}$$

4+12 83

2 7-36-00

77.4

$$\begin{array}{r} 9.3 \\ 8.8 \\ +0.5 \\ \hline \end{array}$$

77.9

$$\begin{array}{r} 8.8 \\ +0.7 \\ \hline +9.5 \end{array}$$
4+44²⁵

3 7-54-00

75.1

$$\begin{array}{r} 11.6 \\ 8.8 \\ +2.8 \\ \hline \end{array}$$

75.6

$$\begin{array}{r} 11.7 \\ 1.2 \\ \hline +12.3 \end{array}$$
4+75⁶⁶

4 7-72-00

70.9

$$\begin{array}{r} 15.8 \\ 10.0 \\ +5.8 \\ \hline \end{array}$$

71.4

$$\begin{array}{r} 15.3 \\ 3.4 \\ \hline +11.9 \end{array}$$
5+07⁰⁸

5 7-90-00 EC.

66.2

$$\begin{array}{r} 8.2 \\ 1.2 \\ +7.0 \\ \hline \end{array}$$

74.36

66.2

$$\begin{array}{r} 20.5 \\ 7.1 \\ \hline +13.4 \end{array}$$

12-20-37 change in grade

777.91

58

3400

70.70

$$\begin{array}{r} 7.2 \\ 8.3 \\ -1.1 \\ \hline \end{array}$$

71.20

$$\begin{array}{r} 6.7 \\ 6.7 \\ +0.5 \\ \hline \end{array}$$

70.70 ✓

71.20 ✓

350 BC

76.45

$$\begin{array}{r} 1.5 \\ 3.2 \\ -1.7 \\ \hline \end{array}$$

76.95

$$\begin{array}{r} 1.0 \\ 1.0 \\ +0.6 \\ \hline \end{array}$$

76.45 ✓

76.95 ✓

3+81⁴²

7-18-00

$$\begin{array}{r} 78.20 \\ 2.9 \\ 4.2 \\ -1.3 \\ \hline \end{array}$$

78.70

$$\begin{array}{r} 2.4 \\ 2.4 \\ +0.6 \\ \hline \end{array}$$

78.20 ✓

78.70 ✓

4+12⁸³

7-36-00

$$\begin{array}{r} 78.30 \\ 2.8 \\ 3.6 \\ -0.8 \\ \hline \end{array}$$

78.80

$$\begin{array}{r} 2.3 \\ 1.5 \\ +0.8 \\ \hline \end{array}$$

78.30 ✓

78.80 ✓

4+44²⁵

7-54-00

$$\begin{array}{r} 76.40 \\ 4.7 \\ 4.1 \\ +0.6 \\ \hline \end{array}$$

76.90

$$\begin{array}{r} 4.2 \\ 2.9 \\ +1.3 \\ \hline \end{array}$$

76.40 ✓

76.90 ✓

4+75⁶⁶

7-72-00

$$\begin{array}{r} 72.65 \\ 8.5 \\ 5.5 \\ +3.0 \\ \hline \end{array}$$

73.15

$$\begin{array}{r} 8.0 \\ 3.8 \\ +4.2 \\ \hline \end{array}$$

72.65 ✓

73.15 ✓

5+07⁰⁸

7-90-00 EC.

$$\begin{array}{r} 67.00 \\ 14.1 \\ 9.2 \\ +4.9 \\ \hline \end{array}$$

67.50

$$\begin{array}{r} 13.6 \\ 10.1 \\ +3.6 \\ \hline \end{array}$$

67.00 ✓

67.50 ✓

77.91

1.17

74.74

4.36

81.10

11.84

69.26

0.08

69.34

9-28-37

Twigs st.

	W. Line	774.36 12.77 61.89 0.19 61.78	E. Line
5+07 ^{or} E.C.B.	66.2		66.2
5+32 ^{or} B	61.2 13.2 5.6 +7.6		61.2 13.2 4.0 +9.2
5+62 ^{or} B	56.40 18.0 13.2 +4.8		56.5 5.3 4.1 +1.2
5+82 ^{or} B	53.30 8.5 8.2 +0.3		53.6 8.2 7.6 +0.6
6+02 ^{or} B	51.20 10.6 10.6		51.7 10.1 9.3 +0.8
6+22 ^{or} B	49.80 12.0 11.7 +0.3		50.4 11.4 9.7 +1.7
6+42 ^{or} B	49.20 12.6 13.0 -0.4		49.8 12.0 10.3 +1.7
7+02 ^{or} B	48.20 13.6 14.4 -0.8		49.2 12.6 8.7 +3.9
7+32 ^{or} N. Line Juan	Ex. Curb 47.47		Ex. Curbs 48.75 13.03

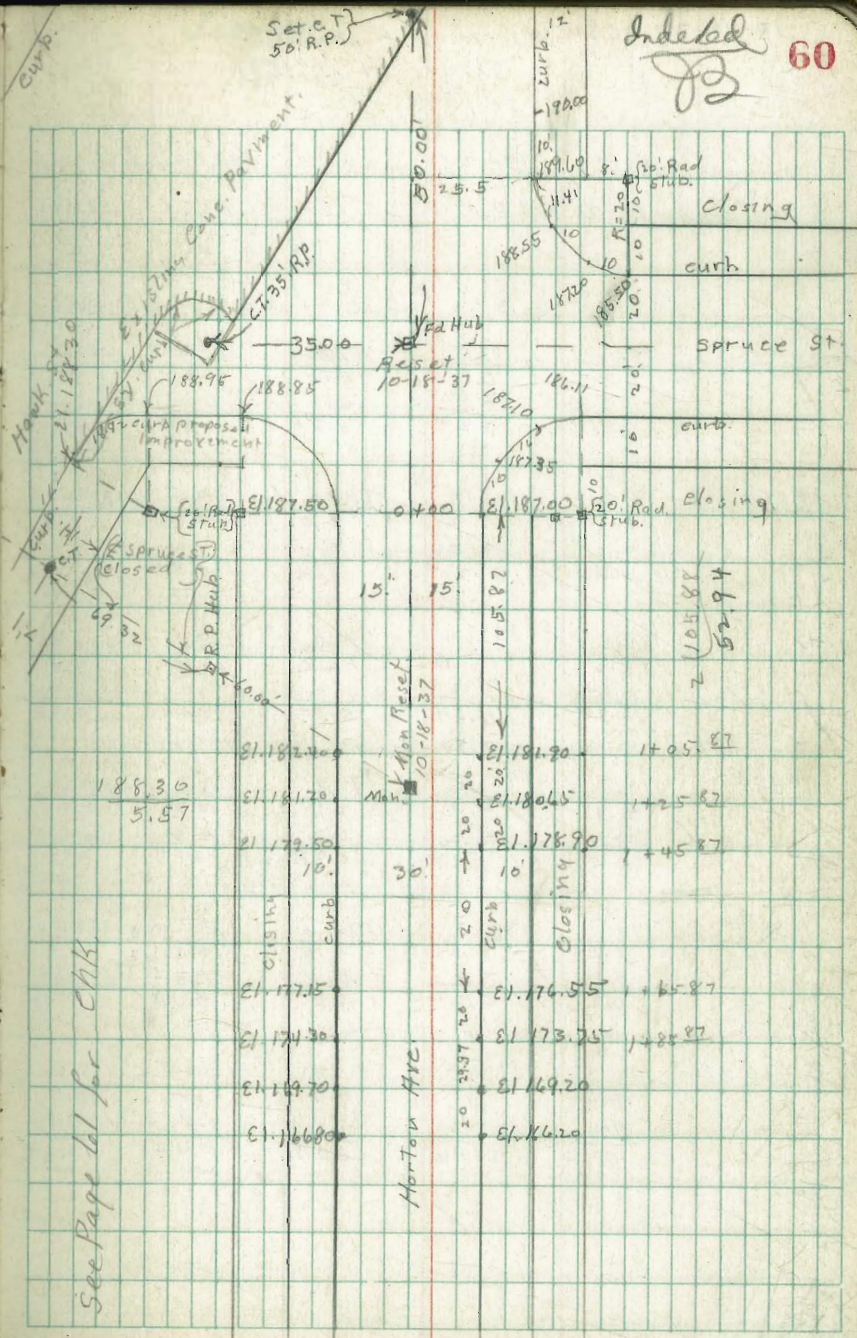
12-20-37
change in Grade

		769.34			
5+62 ^{or} B	56.20 15.14 8.5 +4.6		56.30 13.04 11.45 +1.4	56.20 ✓	56.30 ✓
5+82 ^{or} B	53.10 6.4 3.8 +2.6	59.53	53.40 6.1 6.0 +0.1	53.10 ✓	53.40 ✓
6+02 ^{or} B	51.00 8.3 7.1 +1.2		51.50 8.0 7.7 +0.3	51.00 ✓	51.50 ✓
6+22 ^{or} B	49.60	Out.	50.20	49.60 ✓	50.20 ✓
6+42 ^{or} B	49.00 10.5 9.9 +0.6		49.60 19.7 9.2 +0.7	49.00 ✓	49.60 ✓
6+72 ^{or} B	48.60 -9	Out	49.31	48.60 ✓	49.30 ✓
7+02 ^{or} B	48.20 11.3 11.3		49.03 16.5 8.3 2.2	48.20 ✓	49.00 ✓
7+32 ^{or} B	47.47 12.06		48.75 10.78 10.72	47.47 ✓	48.70 ✓

Horton Ave + 4 - Staked

Spruce St. North
 BM 190075
 3.80

Station	Return	Σ Line	W. End. Ret
P.C. U. Return	193.87 11.63 182.24 2.95 185.19	189.8 4.1 3.9 +0.2 185.70 8.2 3.9 4.3	185.70 8.2 3.9 4.3
0+00 = P.C. Curb Returns	147.70 6.2 5.9 +0.3	187.20 6.7 5.6 +1.1	184.70 9.2 5.6 +3.6
0+52.94	185.12 8.7 5.6 +3.1	184.7 0.5 9.1 -8.6	
1+05.87	182.60 11.3 6.8 +4.5	182.10 3.1 7.4 -4.3	
1+45.87	179.70 14.2 11.7 +2.5	179.1 6.1 9.6 -3.5	
1+85.87	174.50 16.7 7.1 +3.6	173.9 17.3 13.8 -2.5	
2+00 N. End	172.35 12.9 8.5 +4.4	171.8 13.4 16.9 3.5	
2+15.84	169.90	169.40	



See Page 61 for CLK

10-18-37 Chk. of Grading Horton Ave
Spruce St. North
See Page 60.

Indexed

61

BM.	4.17	194.24		190.07	Page 60
				W. cl.	W. Lin-
S. Side Spruce R.C. 20. Rod Ret.				189.6	189.4
				4.6	4.4
				4.2	4.4
				0.4 H.	0 K
N. of Spruce	E. Lin-	E. cl	±	W. cl	W. Lin-
at 00 = P.R. Ret.	187.7	187.5	187.2	187.0	187.2
	6.5	6.7	7.0	7.2	7.0
	6.5	6.5	6.5	6.6	6.4
	OK	0.2 H	0.5 H	0.6 H	0.2 H
at 52 ²⁴	185.2	185.0	184.2	184.5	184.7
	9.0	9.2	9.0	9.7	9.5
	9.0	9.0	9.1	9.2	9.2
	OK	0.2 H	0.1 K	0.5 H	0.3 H
1705 ⁸⁷	182.6	182.4	182.2	181.9	182.10
	11.6	11.8	12.0	12.3	12.1
	11.5	11.7	11.7	11.7	11.9
	OK	0.7 H	0.3 H.	0.6 H.	0.2 H
T.P.	0.16	181.76	12.64	181.60	
1745 ⁸⁷	179.7	179.5	179.2	178.9	179.1
	2.1	2.3	2.6	2.8	2.7
	2.1	2.2	2.3	2.3	2.6
	OK	0.1 H	0.3 H.	0.5 H.	0.1 H.
1785 ⁸⁷	174.5	174.3	174.0	173.7	173.9
	7.3	7.5	7.8	8.1	7.9
	7.4	7.4	7.8	7.3	7.5
	0.1 L	0.1 H	OK	0.8 H	0.4 H
2+00 = End	172.3	172.1	171.8	171.6	171.8
	9.5	9.7	10.0	10.2	10.0
	9.1	9.3	9.4	8.8	8.4
	0.4 H	0.4 H	0.6 H	1.4 H	1.6 H

Tennis Court Grads.
Univ Hts Play Ground.

	W. side	0+10	0+20	0+30	0+40
0+00=N. End	4.18 ✓ 4.4 -0.20	4.08 ✓	3.98 ✓	3.88 ✓	3.78 ✓
0+10	4.30 ✓	4.20 ✓	4.10 ✓	4.00 ✓	3.90 ✓
0+20	4.42 ✓	4.32 ✓	4.22 ✓	4.12 ✓	4.02 ✓
0+30	4.54 ✓	4.44 ✓	4.34 ✓	4.24 ✓	4.14 ✓
0+40	4.66 ✓	4.56 ✓	4.46 ✓	4.36 ✓	4.26 ✓
0+50	4.79 ✓	4.69 ✓	4.59 ✓	4.49 ✓	4.39 ✓
0+60	4.91 ✓ 4.93	4.81 ✓	4.71 ✓	4.61 ✓	4.51 ✓
0+70	5.03 ✓ 5.06	4.93 ✓	4.83 ✓	4.73 ✓	4.63 ✓
0+80	5.15 ✓ 5.19	5.05 ✓	4.95 ✓	4.85 ✓	4.75 ✓
0+90	5.27 ✓ 5.31	5.17 ✓	5.07 ✓	4.97 ✓	4.87 ✓
1+00	5.40 ✓ 5.45	5.30 ✓	5.20 ✓	5.10 ✓	5.00 ✓
1+10	5.52 ✓ 5.56	5.42 ✓	5.32 ✓	5.22 ✓	5.12 ✓
		5.44	5.35	5.25 ✓	5.17 ✓

Indexed
83

Existing Court	0+50			
0+50	3.68	3.68		
	3.74	3.80	+0.06	
	3.86	3.92	+0.06	
	4.07	4.04	-0.03	
	4.26	4.16	-0.10	
	4.40	4.29	-0.11 ✓	
	4.59	4.41	-0.18 ✓	
	4.64	4.53	-0.13 ✓	
	4.74	4.65	-0.09 ✓	
	4.80	4.77	-0.03 ✓	
	4.92	4.90	-0.02 ✓	
	5.02	5.02	0.0	

Existing Court
 3.28
 Existing Court
 2.88

	S. Line	N. Line
E. Line 35 th	392.00	392.02
0+25	392.35	392.28
0+45	392.51	392.38
0+65	392.46	392.29
0+85	392.19	391.99
1+05	391.70	391.50
W. Line Alley 1+35	391.10	390.90
2. Line Alley 1+40	391.05	390.85
1+65	390.97	390.77
1+90	390.89	390.69
2+15	390.81	390.61
2+40	390.73	390.53
2+65	390.65	390.45

96.70

INDEXED

64

S	391.05	90.97	90.89	90.81	90.73	90.65
	5.85	5.78	5.81	5.89	5.97	6.05
	4.65	5.29	4.80	4.66	4.97	5.54
	+1.20	-0.44	+1.31	+1.23	+1.00	+0.59
N	90.85	90.77	90.69	90.61	90.53	90.45
	5.85	5.93	6.01	6.09	6.17	6.25
	5.77	5.23	4.86	4.78	4.93	5.21
	.58	+0.70	+1.45	+1.31	+1.24	0.64

12-13-37

B.M. 4.70 5.83 1.13 ^{W. Pacific} + W. Larkin

Tap. Sewer 10' W of Sec. A. 1 8.30 -7.47

Pav. & Pacific 4.70 1.13

F.L. 24" Pipe outlet 10' inlet 8.02 -7.19

TOP of Water Main 10.90 -4.17
10' S. of Pacific

See Book 1503/77 - 1521/76

Top Pipe 8.33
1.47
8.00
-2.32 F.L.

8M 1.13
4.55
7.98
15.68

0+00
-2.30
7.98
4.35
13.63
8.78

0+32
-1.93
7.61
4.69
+3.01
3.74

0+52
-1.70
7.38
4.57
+2.69
1.87

0+70
-1.50
7.18
5.11
+2.07
2.70

0+70
5'
Club Line
Type D Catch Basin

W. Line W. Larkin:
4.53 5.10
1.15 0.58

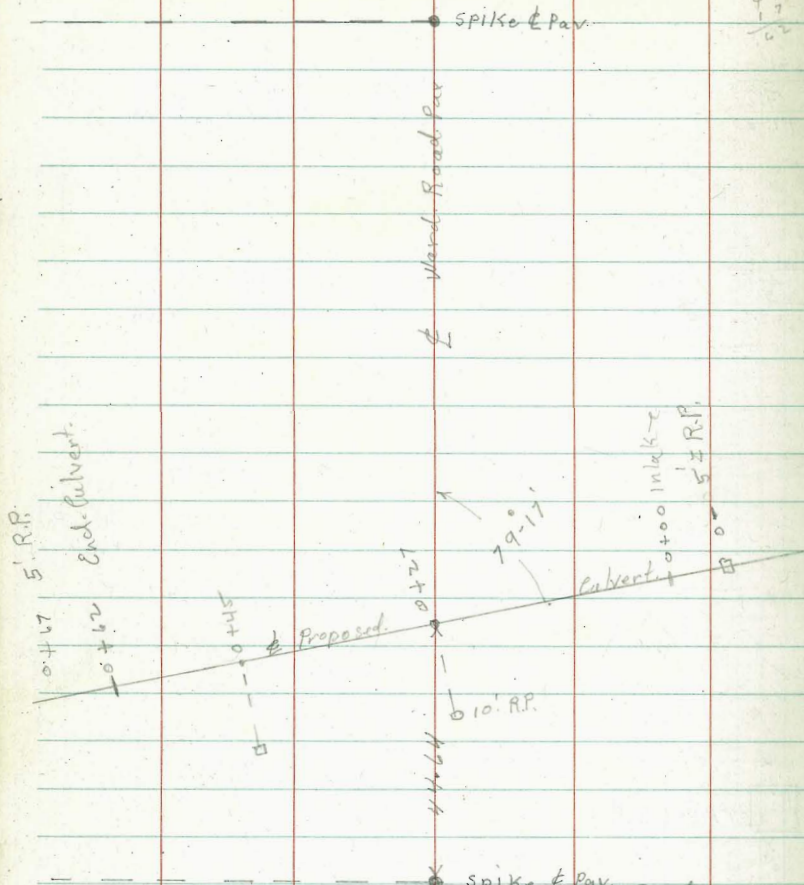
1-11-38 Culvert Ward Road P.W.A.

27
1.6
1.45
1.75
2.2

Indexed

79-17

65



~~0+00~~
~~+27~~
~~+45~~
~~+62~~

Grades
Flow line
~~96.86~~
94.97
93.71
92.45

B.M. Spike 3.84 103.84

Assumed

100.00

St

BC

Grade Rod

0-5 R.P. stub	4	5.66	6.03	
0+00 End ground		6.5	6.56	
0+09 "		1.8		
0+27 on pav		2.40		
0+27 R.P. stub 10.2+		2.70	9.55	+6.85
0+45 R.P. stub 10.2+		2.65	11.53	+8.88
0+47		2.1		
0+62 End		13.9	13.40	
0+67 5' R.P. stub		13.95	13.95	00

Change of Above Grades

Miller Bliss 5-1-17-38

100.00 Assumed spot of Pav. 44.64 N of & culvert
6.57
106.57

Elev. Rod Road Cut. st. Flow line Cuts

0-5'	8.77	97.80	97.81	0.00
0+00 Beginning cutcut			97.41	
+27	5.43	101.14	95.25	5.89+
+45	5.39	101.18	93.81	7.37+
+62=end.			92.45	
+67	14.68	89.89	92.05	2.16-

1-11-38

Alley BIK 1 Hartleys North Park

B.M. B.P.	7.03	358.67		351.64
T.P.	3.94	360.99	1.62	357.05

s.w. Ray +
Wightman.

W. ♀ ♂

2+00 = E+W Alley	355.62	<u>355.42</u>	355.53	5.58 5.14 0.16 6.04 57.15 26 30
1+80B	356.07	355.76	356.04	
1+70B	356.27	355.94	356.25	
1+60B	356.38	355.07	356.37	
1+50B	356.41	356.11	356.41	
1+40B	356.35	356.05	356.35	
0+95				
0+80B	355.45	355.15	355.45	
0+40B	355.24	354.94	355.23	
0+30B	354.78	354.47	354.76	
0+20B	354.10	353.78	354.06	
0+10B	353.18	352.79	353.09	
0 for N. Line Wightman	352.15	351.98	352.01	

357.67

Indexed

66

		+10	+20	+30	+40	+50B	+95
W	52.15	53.18	54.10	54.78	55.24	55.45	55.80
	6.32	5.49	4.57	3.89	3.43	3.22	2.87
	6.64	4.69	3.57	2.87	3.03	3.10	2.82
		+0.86	+1.00	+1.00	+0.46	+0.12	+0.50
E	52.01	53.09	54.06	54.76	55.23	55.45	55.80
	6.66	5.58	4.61	3.91	3.44	3.54	3.19
	6.75	4.64	3.61	2.91	2.44	5.48	4.84
		+0.96	+1.00	+1.00	+1.00	+0.06	+0.35
W	56.35	56.41	56.38	56.27	56.07	55.11	55.42
	4.64	4.58	4.61	4.72	4.92	5.35	5.57
	4.47	3.58	3.61	3.72	3.72	5.35	5.58
	+0.15	+1.00	+1.00	+1.00	+1.20		
E	56.35	56.41	56.37	56.25	56.04	55.53	55.42
	4.64	4.58	4.62	4.74	4.95	5.46	5.57
	4.64	4.15	3.62	3.74	3.95	5.50	5.58
		+0.43	+1.00	+1.00	+1.00		

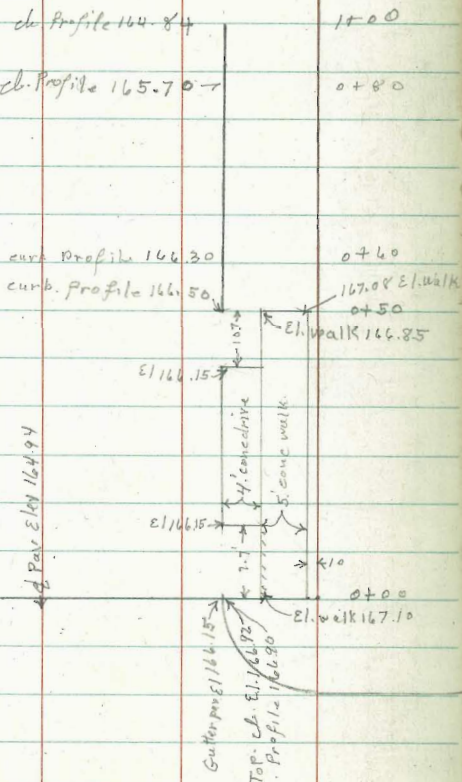
1-13-38

curb. stakes, N. Side Linwood.
50, to 100' W. of Pringle

N 168.55

St.

Linwood



Pringle

St.

Indexed

67

168.55

0+50 Property	0.47	168.08	167.08	+1.00 Pr.
0+50 cl.	0.47	168.08	166.50	+1.58
0+60 property	0.15	168.40	166.70	+1.70 Pr.
0+60 cl.	0.15	168.40	166.30	+2.10 cl.
0+80 property	0.70	167.85	165.90	+1.95 Pr.
0+80 curb.	0.70	167.85	165.70	+2.15 cl.
1+00 property	1.00	167.55	165.04	+2.51 Pr.
1+00 curb.	1.00	167.55	164.84	+2.71 C.

1-13-38

Grades - Alley Bk. 3
Cleveland, Hts.

F.B. 1516-53

N. E. Front
& Robinson

B.M. B.P.

3.96

273.93

269.97

3.07
270.86
3.86

274.72

8.14
266.58
272.89

chk. Rim M.H.
7.43
265.46 = 265.47

W. ♀ ♂

3+00	263.40	263.00	263.20
2+60	266.13		265.93
2+40	267.21		267.01
2+20	267.72		267.52
1+80	268.18		267.98
1+60	268.48		268.28
1+40	268.95		268.75
1+00	270.05		269.85
0+80	270.39		270.19
0+60	270.30		270.10
0+40	269.87		269.67
0+20	269.16	268.78	268.98
0+00	268.33	268.06	268.16

0+00 = N. Line Robinson

89° 57' 30" E To X

Indexed

274.72 68

W.	68.33 5.60 262.73	69.16 4.77 3.95 +0.82	69.87 4.06 3.70 +0.36	70.20 3.43 3.47 +0.16	70.40 3.57 3.07 +0.50	70.85 4.07 4.22 +0.45	
E	68.16 5.77 5.29 +0.48	68.98 4.95 3.97 +0.98	69.67 4.26 4.07 +0.19	70.19 4.64 5.06 -0.44	70.20 4.52 5.10 -0.62	69.85 4.87 5.07 -0.26	
W.	68.95 5.77 5.75 +0.02	68.48 4.24 5.89 +0.35	68.18 4.54 5.54 +1.00	67.72 7.00 6.55 +0.45	67.71 7.51 6.90 +0.61	66.13 8.59 7.19 +1.40	63.40 9.49 8.13 +1.36
E	68.75 5.77 4.03 -0.06	68.28 4.61 4.61 0.0	67.98 4.91 3.91 +1.00	67.52 5.37 5.87 -0.50	67.01 5.78 5.27 +0.21	65.93 6.96 7.42 -0.46	63.20 9.69 8.69 +1.00

Sewer Lateral Sta. 2+10
Stub S. E. of E. Line

262.64
+0.25
5.71
+4.54

1-14-38

Service Station
City yards:

B.M. R.P.	0.40	70.63	70.23	S. E. 20 th + B. Sts
T.P.	4.42	68.23	63.81	
S. E. Cor	68.32	E. R.P.		
	65.50			
	GR 2.82			
	4.47			
	-1.65			

			3.03	
			65.20	
S. W. Cor	GR 2.82	W. R.P.		
	5.50			
	-2.68			

			68.23	
			3.10	
			65.13	
			5.59	
N. W. Cor	2.82	W. R.P.	70.72	
	5.12		0.49	
	-2.30		70.23	

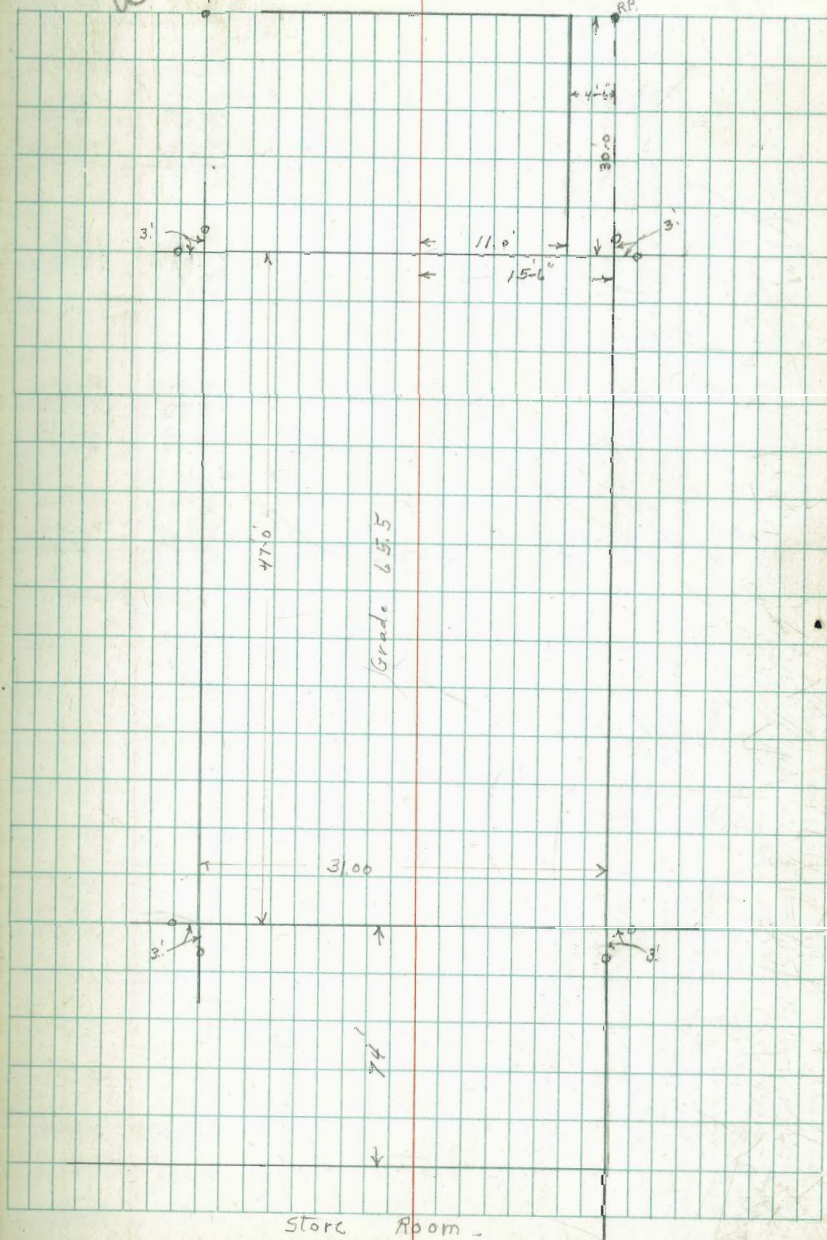
N. E. Cor	2.82	W. R.P.		
	4.05			
	-1.23			

30' N. of N.E. Cor	2.82			
	3.98			
	-1.16			

30' N. of N.W. Cor	2.82			
	4.87			
	-2.05			

Indexed

69



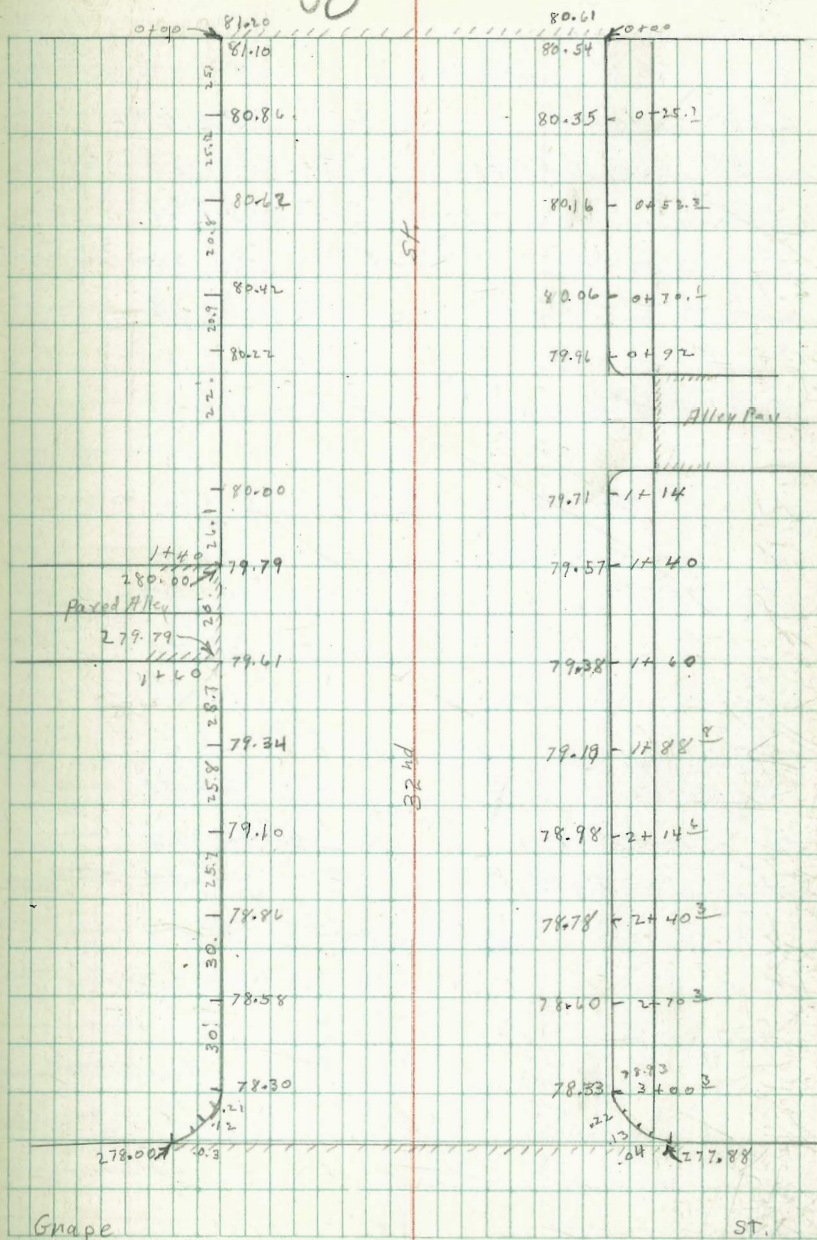
1-14-38

32nd St. Grading
Grape to Hawthorn.

B.M.	7.10	284.06		276.96	S.W. 32 nd & Grape.
W	$\frac{79.30}{5.74}$	$\frac{78.58}{5.48}$ $\frac{4.58}{+0.90}$	$\frac{78.86}{5.20}$ $\frac{4.58}{+0.65}$	$\frac{79.10}{4.96}$ $\frac{4.02}{+0.94}$	$\frac{79.34}{4.72}$ $\frac{4.33}{+0.39}$
E	$\frac{78.33}{5.73}$	$\frac{78.60}{5.46}$	$\frac{78.78}{5.28}$	$\frac{78.94}{5.08}$	$\frac{79.14}{4.88}$
W	$\frac{79.61}{4.45}$ $\frac{3.62}{+0.83}$	$\frac{79.79}{4.27}$ $\frac{3.31}{+0.91}$	$\frac{80.00}{4.06}$ $\frac{2.20}{+1.86}$	$\frac{80.22}{3.84}$ $\frac{3.04}{+0.80}$	$\frac{80.42}{3.64}$ $\frac{2.93}{+0.71}$
E	$\frac{79.38}{4.68}$	$\frac{79.57}{4.49}$	$\frac{79.71}{4.35}$	$\frac{79.96}{4.10}$	$\frac{80.06}{4.00}$
W	$\frac{80.62}{3.44}$ $\frac{3.02}{+0.42}$	$\frac{80.86}{3.20}$ $\frac{2.08}{+1.12}$	Ex. pay $\frac{81.20}{2.86}$		
E	$\frac{80.16}{3.70}$	$\frac{80.35}{3.71}$	Ex. Pay. $\frac{80.61}{3.45}$		

Hawthorn Indexed

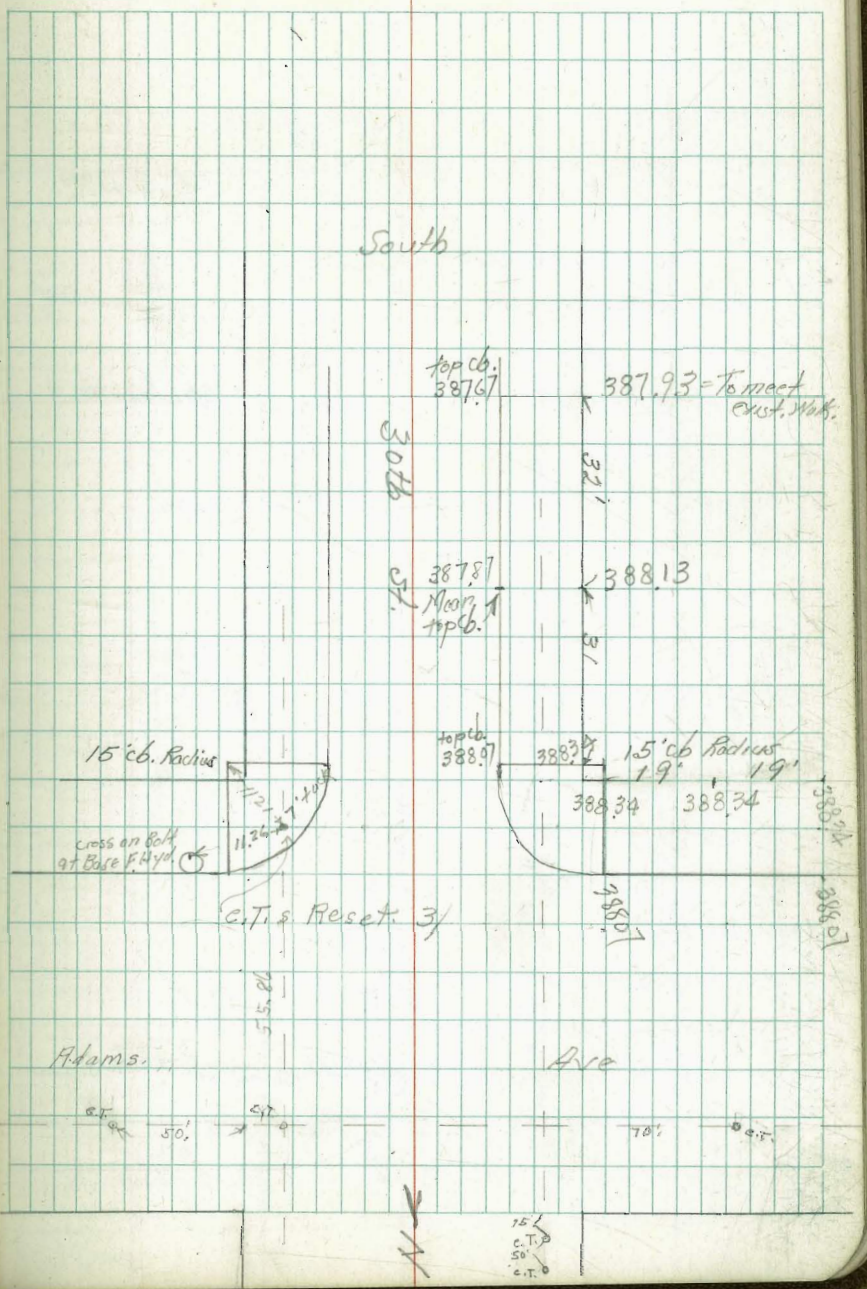
St. 70



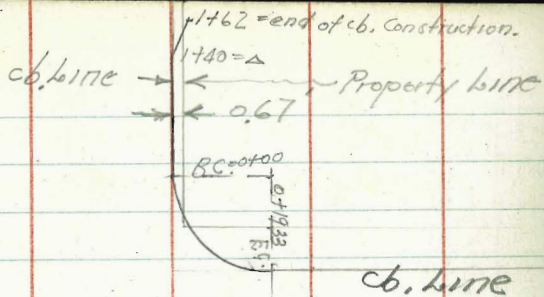
	4.10	393.14	389.04	S.F. B.P. 30th + Adams
0+00 =	South curb	5.07	388.07	
+32	" on West side	5.31	387.83	
+64	" " " "	5.47	387.67	
Prop. Cor. on Walk		4.80	388.34	
3.8'	" " " at prop	4.80	388.34	
38'	" " " c.b.	5.07	388.07	
0+00 on	S.C. Adams	5.07	388.07	

Levels on Paving S.K. Cor.

	5.22	394.26	389.04
50' East	5.29	388.97	
25' "	5.55	388.71	
7' "	5.60	388.66	
B.C.	5.60	388.66	
\$ Ret.	5.80	388.16	
4' N of E.C.	5.86	388.40	
E.C. S.W. Adams	5.83	388.43	
20' South	5.80	388.46	
40' "	5.93	388.33	



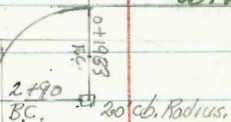
Walker
Dist
1-25-38



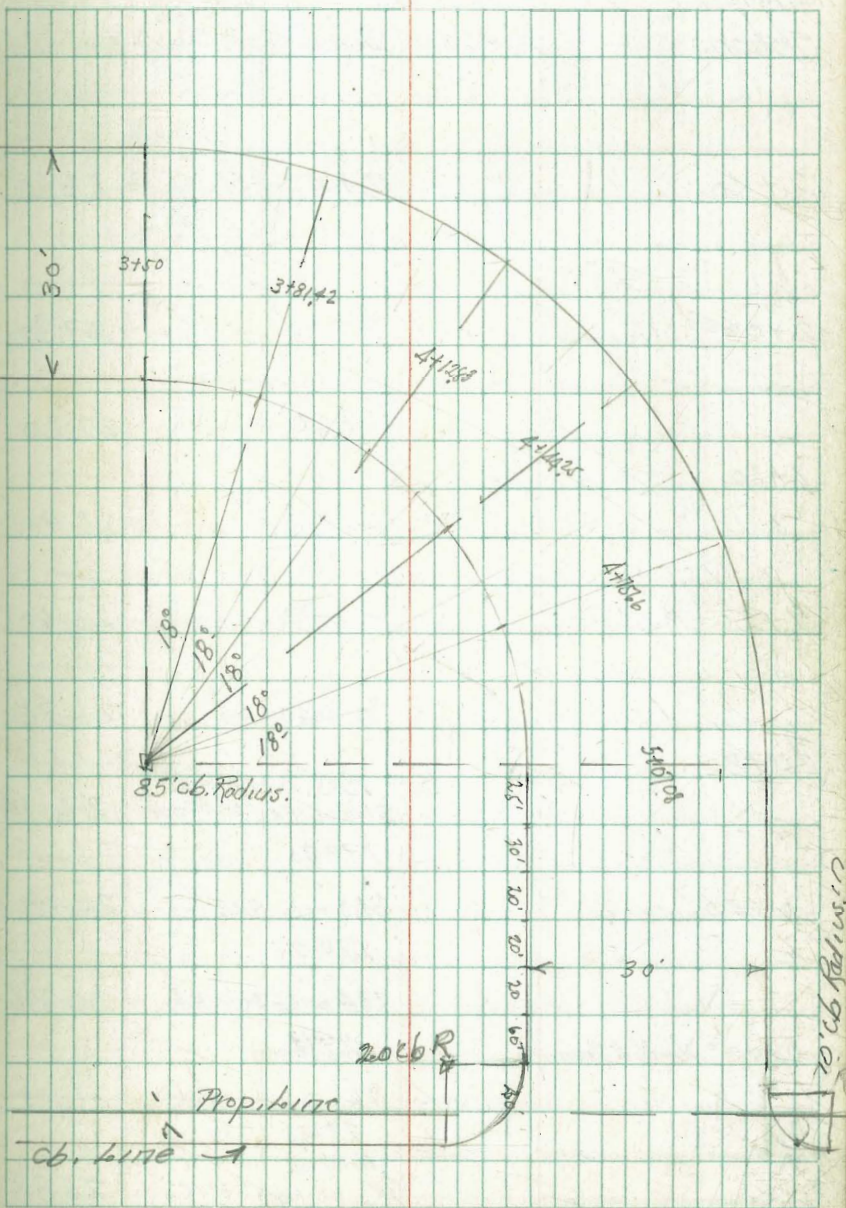
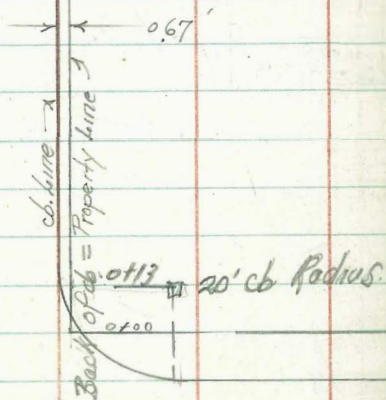
cb. line

SUNSET

cb. line



MASON



JUAN St.

1-25-38 Curb Grades
 Mason, Sunset and Twiggs Streets.
 West Side
 Mason Street this Page

Stations	West cb.	East Line Stations	East cb.
2+40		2+40	28.60
2+00 = P.V.C.		2+00	27.70
1+60		1+60	27.20
		1+20	26.90
1+20 = P.V.C.		0+80	26.60
		0+40	26.30
0+80		EC, 0+13 NE. 31.4' cb. Arc = on Mason	26.14
		17° 30'	
0+40		24.5' - cb. Arc.	26.18
		17° 30'	
		18.4' on cb. Arc. = Brk	26.26
		27° 30'	
0+00 = North to Town		9.6' on cb. Arc. = Brk	26.52
		27° 30'	
		East cb P.C. on Swan = P.V.C.	26.88

2899 = Elev. Top Fire Hydr. S.E. Swan + Mason Page 56
 363 +
 3262 - K

Indexed

East cb.				EC.	=+40	
26.88	26.52	26.26	26.18	26.14	26.30	26.60
5.79	6.10	6.36	6.44	6.48	6.32	6.02
✓	6.02	6.11	6.26	5.67	6.39	6.15
	+0.28	+0.25	+0.18	+0.81	-0.02	-0.13
East						
1+20	1+60	2+00	2+40			
26.90	27.20	27.70	28.60			
5.72	5.48	4.92	4.02			
6.28	6.09	5.70	4.74			
-0.56	-0.67	-0.78	-0.72			

West Line
Stations

Mason Street Cb Grades

West cb. Stations East cb.

20.94 = on cb. Arc 32.80

10.47 on cb. Arc = Bit 32.75

19.33 South
S.P.
E.C. on sunset 33.81

on Sunset
E.C. 33.31

Part #2 31.90

#1 Part 30.88

2+90 = P.C. 20' cb. Return 30.20

2+80 = F.V.C. 2+80 29.80

32.62 = T.P. 73

3.33 -

29.29 = T.P.

10.42 + East cb.

39.71	24.80	P.C.	#1	#2	= E.C. on Sunset on Street
29.80	30.20	30.88	31.90	33.31	
2.82	2.42	3.83	7.81	6.40	
3.44	3.33	9.58	7.97	6.77	
-0.62	-0.91	-0.75	-0.16	-0.37	

East cb.

= E.C. on Sunset on 1/4"

33.81 32.61 32.82

5.90 7.10 7.69

5.57 6.87 7.21

+0.33 +0.66 +0.68

33.81 = Elev. Grade at 19.33

0.33 = cut

34.14 = Elev. East cb.

8.30 + E.C. on Sunset

32.44 33.81 32.75 32.80

8.63 0.69 9.64

2.30 9.19 9.75

+0.33 +0.50 -0.11

} Change Grade

Mason St. Curb Grades

cont. from P-74

West Line Stations	West Line cb. Grade	East Line Station	East Line cb. Grade
--------------------	---------------------	-------------------	---------------------

		Pot. Elev	
1+638	end. exist. paving	47.75	
1+62	= end cb.	48.00	

1+40	Break. Δ in cb.	45.83	
------	------------------------	-------	--

1+00	9.27' Δ	42.13	
------	----------------	-------	--

0+50	Break.	37.50	
------	--------	-------	--

0+11.3	Break.	34.20	
--------	--------	-------	--

0+00	Break. B.C. cb. on Mason	33.40	
------	--------------------------	-------	--

39.71 = T P-74

0.73 =

38.98 = T.P.

9.69 + East cb.

48.67 = T

7.43

7.02

+0.21

0+00 B.C. cb. on Mason

32.08

6.90

+1.08

0+11.3 = Break.

32.81

6.90

+1.08

0+11.3 = Break.

36.68

3.03

+0.12

1+68

41.68

6.99

-0.29

1+68

46.68

1.99

3.45

1+82

46.82

1.85

0.82

1+82

46.82

1.85

0.82

Grades Changed

Change of Above Grades

40.44 T P-74

1.63

41.41

7.19 +

48.60 +

0.78 =

47.82 T.P.

3.20

51.02 T

East

0+00 B.C. cb. on Mason

33.40

9.04

-0.72

0+11.3 = Break.

34.20

8.24

-0.34

0+11.3 = Break.

37.50

4.94

-0.70

1+62

42.13

0.31

-0.77

1+62

45.83

2.77

-1.06

1+62

48.00

3.02

+1.80

Curb Grades Sunset
Cont from P-76

Stations	Left Curb Grades	Right Curb Grade
5+62.08	56.30	56.20
5+32.08	62.72	62.09
5+07.08 = E.C.	67.50	67.00
+91.37	70.55	70.05
4+75.66	73.15	72.65
+59.96	75.30	74.80
4+44.25	76.90	76.40
+28.54	78.15	77.65
4+12.83	78.80	78.30
3+97.13	79.00	78.50
3+81.42	78.70	78.20
3+65.71	77.95	77.45
3+50 = B.C. of 100' Radius	76.95	76.45

82.51 = K P. 76

12.37 -

70.14 TP

0.36 +

70.50 TP

12.23 -

58.27 TP

0.41

58.68 TP

Right

BC

76.45

6.06

6.18

-0.42

76.45 = Elev. Stake

6.32 = Fill

76.03 = Elev. Stake

82.80 = TP

Left

77.95

6.85

4.96

-0.71

Right

77.95

5.35

5.69

-0.39

Right

78.50

4.30

4.59

-0.29

Right

78.15

4.65

5.25

-0.60

Right

75.30

7.50

7.37

+0.13

Right

72.05

12.25

12.53

-0.28

Right

67.50

3.00

3.68

-0.68

Right

62.09

8.41

7.77

+0.64

Right

56.30

2.38

2.86

+0.29

Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
78.70	78.80	76.90	73.15	67.50	62.42	56.30			
3.81	3.71	5.61	5.36	3.00	8.08	2.38			
4.05	3.77	5.49	4.66	3.68	8.85	2.86			
-0.24	-0.26	+0.18	-0.10	-0.68	-0.77	-0.48			
78.20	78.30	76.40	72.65	67.00	62.09	56.30			
4.31	4.21	6.11	7.86	3.50	8.41	2.48			
4.57	4.46	6.00	7.81	3.47	7.77	2.19			
-0.26	-0.25	+0.11	+0.05	+0.03	+0.64	+0.29			

Additional stakes set on this curve

Left	Right
79.00	78.15
3.80	4.65
4.26	5.25
-0.46	-0.60
79.00	76.80
4.30	5.15
4.59	5.42
-0.29	-0.27
78.50	75.30
4.30	7.50
4.59	7.37
-0.29	+0.13
78.15	72.05
4.65	12.25
5.25	12.53
-0.60	-0.28

Curb Grades TWIGGS
Cont. from Page 77

Stations	Left = E.L. where Curb Grades	Right = W.L. where Curb Grades
Exc.		46.29
51°16' = Bk		46.94
	143' Cb. Arc.	47.16
7+17.08 = B.C. 20	on West Cb Radius	47.77
7+02.08	49.00	48.20
6+72.08	49.30	48.60
6+42.08	49.60	49.00
6+22.08	50.20	49.60
6+02.08	51.50	51.00
5+82.08	53.40	53.10

58.68 T P: 77

11.24
47.44 = TP on top of EC. on Juan NW
47.47 = Miller
Left

78

53.40	51.50	50.50	49.60	49.30	49.00
5.28	7.18	8.18	9.08	9.38	9.68
4.99	6.72	7.84	8.75	9.67	10.65
+0.29	+0.46	+0.24	+0.13	+1.71	+2.03
Right					
53.10	51.00	49.60	49.00	48.60	48.20
5.58	7.68	9.08	9.68	10.08	10.48
5.13	7.29	8.48	8.78	10.33	10.43
+0.45	+0.39	+0.40	+0.90	-0.25	+0.05
48.20 = Elev. Grade 7+02.08 on Right					
.05 = cut for Right 20' Cb. Ret. NW Juan Triggs					
48.25 = El. Stake / B.C.				13.5' = EC. existing cb.	
2.85 +	47.77	47.16	46.94	46.29	
51.10 x	3.33		4.16	4.81	
	3.14				
	+0.19				

Water Main Grades
A St. from Alley E. of 18th E. to City yards

Indexed
8

BM	12.92	76.03	63.11	
Floor Grade N. End Big Garage	2. N. End 9.03	67.00		
0+00 = W. line 10' Alley	2.76	73.3	69.0	
0+12	3.03	73.0	68.4	
0+50	3.61	72.4	67.2	
1+00	4.01	72.0	65.6	
1+38	8' side Garage	8.66	67.4	64.4
N.E. Cor Big Garage	10.4	65.6	62.6	

Grade of bottom 6" Pipe

3' Below St Grade

+ 4.3
+ 4.6
+ 5.2
+ 6.4
+ 3.0
+ 3.0

Water Tank at Univ. Hts. Reservoir.
Levels on Top of Liron. on
Base plate ctr inside

Indexed
JP

		4		
		5		3
				2
				1
W				E
				12
				11
				10
				5
#1	E.	4.612	21.3	21.3
#2		4.626	$\frac{3}{18.3}$	$\frac{6}{27.3}$
#3		4.622		$\frac{59}{24}$
#4	N	4.636		$\frac{62}{33}$
#5		4.636		$\frac{6}{35}$
#6		4.637		$\frac{6}{27}$
#7	W	4.630		
#8		4.625		
#9		4.622		
#10	S	4.620		
#11		4.623		
#12		4.626		

IMPROVED TABLES AND INFORMATION

HORIZONTAL STADIA CORRECTIONS

2°-00'	— 0.1	21°-00'	— 12.8	33°-00'	— 29.7
3°-00'	— 0.3	21°-30'	— 13.4	33°-15'	— 30.1
4°-00'	— 0.5	22°-00'	— 14.0	33°-30'	— 30.5
5°-00'	— 0.8	22°-30'	— 14.7	33°-45'	— 30.9
6°-00'	— 1.1	23°-00'	— 15.3	34°-00'	— 31.3
7°-00'	— 1.5	23°-30'	— 15.9	34°-15'	— 31.7
8°-00'	— 1.9	24°-00'	— 16.5	34°-30'	— 32.1
9°-00'	— 2.5	24°-30'	— 17.2	34°-45'	— 32.5
10°-00'	— 3.0	25°-00'	— 17.9	35°-00'	— 32.9
10°-30'	— 3.3	25°-30'	— 18.6	35°-15'	— 33.3
11°-00'	— 3.6	26°-00'	— 19.2	35°-30'	— 33.7
11°-30'	— 4.0	26°-30'	— 19.9	35°-45'	— 34.1
12°-00'	— 4.3	27°-00'	— 20.6	36°-00'	— 34.6
12°-30'	— 4.7	27°-30'	— 21.3	36°-15'	— 35.0
13°-00'	— 5.1	28°-00'	— 22.0	36°-30'	— 35.4
13°-30'	— 5.5	28°-30'	— 22.3	36°-45'	— 35.8
14°-00'	— 5.9	29°-00'	— 23.5	37°-00'	— 36.2
14°-30'	— 6.3	29°-30'	— 24.3	37°-15'	— 36.6
15°-00'	— 6.7	30°-00'	— 25.0	37°-30'	— 37.1
15°-30'	— 7.2	30°-15'	— 25.4	37°-45'	— 37.5
16°-00'	— 7.6	30°-30'	— 25.8	38°-00'	— 37.9
16°-30'	— 8.1	30°-45'	— 26.2	38°-15'	— 38.3
17°-00'	— 8.5	31°-00'	— 26.5	38°-30'	— 38.7
17°-30'	— 9.0	31°-15'	— 26.9	38°-45'	— 39.1
18°-00'	— 9.5	31°-30'	— 27.3	39°-00'	— 39.6
18°-30'	— 10.1	31°-45'	— 27.7	39°-15'	— 40.0
19°-00'	— 10.6	32°-00'	— 28.1	39°-30'	— 40.5
19°-30'	— 11.2	32°-15'	— 28.5		
20°-00'	— 11.7	32°-30'	— 28.9		
20°-30'	— 12.3	32°-45'	— 29.3		

Chains to Feet

1	.....	66
2	.....	132
3	.....	198
4	.....	264
5	.....	330
6	.....	396
7	.....	462
8	.....	528
9	.....	594
10	.....	660

Feet to Chains

100	....	1.515
200	....	3.030
300	....	4.545
400	....	6.060
500	....	7.575
600	....	9.090
700	....	10.606
800	....	12.121
900	....	13.636
1,000	....	15.151

TABLE X.
MIDDLE ORDINATES OF RAILS
Length of Rail (feet)

C o /	R Feet	30 Inch	28 Inch	26 Inch	24 Inch	22 Inch	20 Inch	C o	R Feet	30 Inch	28 Inch	26 Inch	24 Inch	22 Inch	20 Inch
0-20	17189	.08	.07	.06	.05	.04	.03	8	716.8	1.88	1.64	1.42	1.20	1.01	.84
0-40	8594	.16	.14	.12	.10	.08	.07	9	637.3	2.12	1.84	1.60	1.35	1.14	.94
1-0	5730	.24	.20	.18	.15	.13	.10	10	573.7	2.36	2.05	1.78	1.50	1.27	1.04
1-20	4297	.31	.27	.23	.20	.17	.13	11	521.7	2.59	2.26	1.95	1.65	1.39	1.15
1-40	3438	.39	.34	.29	.25	.21	.17	12	478.3	3.83	2.47	2.15	1.81	1.54	1.26
2-0	2865	.47	.41	.35	.30	.25	.20	13	441.7	3.05	2.66	2.30	1.96	1.66	1.36
2-20	2456	.55	.48	.41	.35	.29	.23	14	410.3	3.30	2.87	2.48	2.10	1.78	1.46
2-40	2149	.63	.55	.47	.40	.33	.27	15	383.1	3.54	3.08	2.68	2.26	1.91	1.57
3-0	1910	.71	.62	.53	.45	.38	.31	16	359.3	3.76	3.28	2.83	2.40	2.04	1.67
3-20	1719	.78	.68	.59	.50	.42	.35	17	338.3	4.00	3.48	3.02	2.57	2.16	1.78
3-40	1563	.86	.75	.65	.55	.46	.38	18	319.6	4.21	3.67	3.18	2.70	2.28	1.87
4-0	1433	.94	.82	.71	.60	.50	.42	19	302.9	4.45	3.89	3.36	2.86	2.41	1.98
4-20	1323	1.02	.89	.77	.65	.55	.45	20	287.9	4.70	4.09	3.55	3.00	2.54	2.09
4-40	1228	1.10	.96	.83	.70	.59	.48	22	262.0	5.16	4.44	3.84	3.30	2.80	2.29
5	1146	1.18	1.03	.89	.75	.63	.52	24	240.5	5.64	4.92	4.20	3.59	3.04	2.50
6	955.3	1.41	1.23	1.06	.90	.76	.62	26	222.3	6.07	5.29	4.58	3.88	3.29	2.70
7	819.0	1.65	1.44	1.24	1.05	.89	.73								

TABLE XI.
SHORT RADIUS CURVES

Radius Feet	Chord Feet	Central Angle	Deflection Angle	Deflection for 1 Foot
35	10	16-26	8-13	49.3
45	10	12-46	6-23	38.3
50	15	17-16	8-38	34.5
60	15	14-22	7-11	28.8
75	15	11-30	5-45	23.0
100	20	11-30	5-45	17.3
120	20	9-34	4-47	14.3
150	20	7-39	3-49	11.5
190	25	7-32	3-46	9.15
200	25	7-10	3-35	8.6
225	25	6-25	3-12	7.7
240	25	5-58	2-59	7.2
250	25	5-44	2-52	6.9
275	25	5-12	2-36	6.2
288	50	9-58	4-59	6.0
300	50	9-32	4-46	5.7
350	50	8-12	4-06	4.9
376	50	7-40	3-50	4.6
400	50	7-10	3-35	4.3
410	50	7-00	3-30	4.2

To find length of curve divide angle from P. C. to P. T. by central angle of chord, and multiply by length of chord.

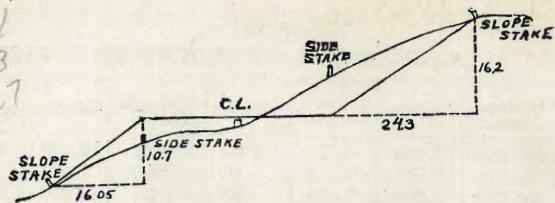
TABLE XII.
INCLINED DISTANCE OF 100 FT. REDUCED TO HORIZONTAL

Slope	Horizontal Distance	Correction	Rise Per Foot	Slope	Horizontal Distance	Correction	Rise Per Foot
0°00'	100.000	0.000	0.000	8°00'	99.027	0.973	0.139
15'	99.999	0.001	0.004	15'	98.965	1.035	0.143
30'	99.996	0.004	0.009	30'	98.902	1.098	0.148
45'	99.991	0.009	0.013	45'	98.836	1.164	0.152
1 00	99.985	0.015	0.017	9 00	98.769	1.231	0.156
15	99.976	0.024	0.022	15	98.700	1.300	0.161
30	99.966	0.034	0.026	30	98.629	1.371	0.165
45	99.953	0.047	0.031	45	98.556	1.444	0.169
2 00	99.939	0.061	0.035	10 00	98.481	1.519	0.174
15	99.923	0.077	0.039	15	98.404	1.596	0.178
30	99.905	0.095	0.044	30	98.325	1.675	0.182
45	99.885	0.115	0.048	45	98.245	1.755	0.187
3 00	99.863	0.137	0.052	11 00	98.163	1.837	0.191
15	99.839	0.161	0.057	15	98.079	1.921	0.195
30	99.813	0.187	0.061	30	97.992	2.008	0.199
45	99.786	0.214	0.065	45	97.905	2.095	0.204
4 00	99.756	0.244	0.070	12 00	97.815	2.185	0.208
15	99.725	0.275	0.074	15	97.723	2.277	0.212
30	99.692	0.308	0.078	30	97.630	2.370	0.216
45	99.657	0.343	0.083	45	97.534	2.466	0.221
5 00	99.619	0.381	0.087	13 00	97.437	2.563	0.225
15	99.580	0.420	0.092	15	97.338	2.662	0.229
30	99.540	0.460	0.096	30	97.237	2.763	0.233
45	99.497	0.503	0.100	45	97.134	2.866	0.238
6 00	99.452	0.548	0.105	14 00	97.030	2.970	0.242
15	99.406	0.594	0.109	15	96.923	3.077	0.246
30	99.357	0.643	0.113	30	96.815	3.185	0.250
45	99.307	0.693	0.118	45	96.705	3.295	0.255
7 00	99.255	0.745	0.122	15 00	96.593	3.407	0.259
15	99.200	0.800	0.126	15	96.479	3.521	0.263
30	99.144	0.856	0.131	30	96.363	3.637	0.267
45	99.087	0.913	0.135	45	96.246	3.754	0.271

TABLE XIII.
MINUTES IN DECIMALS OF A DEGREE.

0 30"	.00833	10 30"	.17500	20 30"	.34167	30 10"	.50833	40 30"	.67500	50 10"	.84167
1 00	.01667	11 00	.18333	21 00	.35000	31 00	.51667	41 00	.68333	51 00	.85000
30	.02500	30	.19167	30	.35833	30	.52500	30	.69167	30	.85833
2 00	.03333	12 00	.20000	22 00	.36667	32 00	.53333	42 00	.70000	52 00	.86667
30	.04167	30	.20833	30	.37500	30	.54167	30	.70833	30	.87500
3 00	.05000	18 00	.21667	23 00	.38333	33 00	.55000	43 00	.71667	53 00	.88333
30	.05833	30	.22500	30	.39167	30	.55833	30	.72500	30	.89167
4 00	.06667	14 00	.23333	24 00	.40000	34 00	.56667	44 00	.73333	54 00	.90000
30	.07500	30	.24167	30	.40833	30	.57500	30	.74167	30	.90833
5 00	.08333	15 00	.25000	25 00	.41667	35 00	.58333	45 00	.75000	55 00	.91667
30	.09167	30	.25833	30	.42500	30	.59167	30	.75833	30	.92500
6 00	.10000	16 00	.26667	26 00	.43333	36 00	.60000	46 00	.76667	56 00	.93333
30	.10833	30	.27500	30	.44167	30	.60833	30	.77500	30	.94167
7 00	.11667	17 00	.28333	27 00	.45000	37 00	.61667	47 00	.78333	57 00	.95000
30	.12500	30	.29167	30	.45833	30	.62500	30	.79167	30	.95833
8 00	.13333	18 00	.30000	28 00	.46667	38 00	.63333	48 00	.80000	58 00	.96667
30	.14167	30	.30833	30	.47500	30	.64167	30	.80833	30	.97500
9 00	.15000	19 00	.31667	29 00	.48333	39 00	.65000	49 00	.81667	59 00	.98333
30	.15833	30	.32500	30	.49167	30	.65833	30	.82500	30	.99167
10 00	.16667	20 00	.33333	30 00	.50000	40 00	.66667	50 00	.83333	60 00	1.00000

1234
113
1347



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 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

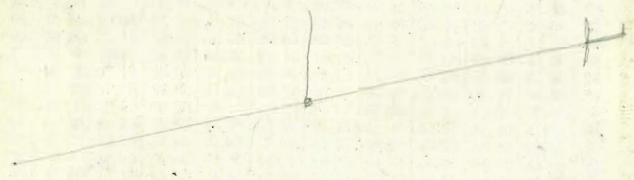
Computed by L. Leland Locke.

Palm St.
 er 400at. 0-3.
 0+22
 0+40
 0+54
 0+68
 0+80 3/4 train

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 119 331.5
 3.70 45
 10.45 500.0
 11

6.20
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 5.52
 6.45 4.93
 6.54 5.92

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