





125

100  
47  
26  
3  
96

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 4 x 4 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 vertical 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 furnished 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*

IRVING PARK STATION

CHICAGO, ILL.

MICROFILMED

APR 8 1965



El Cajon Ave Paving

1

Winona, 50, Alameda etc Paving

20

Robinson Ave Paving

35

Alley Grades B115 17. Fairmont

50.

" " " 1. Eastgate

51.

Swift Ave Paving Landis to Wightman

52

Boundary Nile Thorn Upas Martie McKinley Etc.

53

Included  
1/3/30 AM

50  
515  
51  
52  
53



Change for 60 miles Estrella & El Cajas

N.E.

gutter 5.22  
 50.53  
 47.00  
 3.53

N.W.

gutter 5.33  
 350.42  
 35.75

S.H.	9.72	345.83	346.00
N.W.		50.42	346.68
N.E.		50.53	347.00
	6.38	48.37	346.50
Paymt	7.40	351.35	46.41

351.53  
 4.22  
 355.75

50.00  
 345.83  
 83  
 345.00  
 31.00  
 342.00

5.33  
 350.50

100 -  
 96  
 40

82  
 38  
 120

123  
 87  
 166  
 464  
 6706  
 87  
 700

83  
 38  
 664  
 249  
 3154

83  
 4150  
 46  
 46.41

50.50  
 49.50  
 46.00  
 3.50

+ 3.74

+ 3.53

2.87

44.74  
 2.70  
 2.65



EL CAJON.  
Paving Grading Etc.

Jan 1928

Culverts El Cajon + Estrella

C.B. #1 N.E. cor  
355.10

Top curb 3.55 51.55 351.6

Gutter

Flow Line 3.55 51.55 346.00

C.B. #2 N.W. cor

Top curb 3.55 51.55 351.4

Gutter

Flow line 3.55 51.55 345.00 + 6.55

C.B. #3 S.E. cor

Top ch. 4.80 50.30 50.40

Gutter

Flow Line 4.80 50.30 345.00

C.B. #4 S.W. cor

Top ch. W. end ret 50.70 4.40

" " S " " 488 50.22

Flow Line 4.60 50.50 344.00

370.13 B.M. Nails in Pole S.W. 32<sup>nd</sup> + El. Cajon

6.87

377.00 X

Box Culverts #4 + 5

N. End

El. 366.90 profile  
+ 00.40

+ 5.55  
7 FL

N. End El. 367.30 changed  
+ 0.80

Culvert #4 N. End 35' Long

N. End Existing Box

10.90  
366.10  
40 fall  
366.50

370.13

3.29

373.42

11.40

361.82

7.87

369.71

13.2

360.2 ~ F.L. S. End Ex Box = 360.3 Profile

El. 356.20 grade S. End Culvert

+ 0.30

+ 5.30 + F.L.

Culvert #5 S. End 45' Long

3.57

4.80

4.88

50.80

50.22

+ 6.50 + F.L.

74.30

1.57

7.55

8.03

370.13

8.74

378.87

374.30 ch grade S. ch inlet

4.57

7.60

8.03

W. Tie

374.80 ch grade N. ch inlet

4.07

9.59

5.52

5.14

W. Tie

6.16

374.80

5.14

369.66

6.14

375.82

6.07

5.14

5.0X

7.06  
1.52  
5.54

9.53  
7.04  
2.49

4.57  
9.74  
5.17  
E. Tie

2.86

4.07  
9.59  
5.52  
E. Tie

74.80  
1.07  
5.14  
4.72



Cutvert #3 Estrella ST

π 354.44

BM. S.E. Elevation + 49<sup>20</sup> - 357.05  
 BM NW " " Estrella - 351.53

00=FL CB 4			4.15	350.27	344.00	+ 6.29	x on W. entel
+ 50 S			4.55	349.89	43.60	+ 6.29 ✓	" " " "
+ 100			4.93	49.51	43.19	+ 6.32 ✓	" " " "
+ 50			5.34	49.08	42.78	+ 6.30 ✓	" " " "
2+00			5.90	48.54	42.38	+ 6.26 ✓	" " " "
+ 50			6.28	48.12	41.98	+ 6.18 ✓	" " " "
3+00			6.63	47.81	41.57	+ 6.24 ✓	" " " "
+ 50			7.02	47.42	41.17	+ 6.25 ✓	" " " "
4+00 T.P.	2.27	349.19	7.52	346.92	40.76	+ 6.16 ✓	" " " "
+ 50			2.58	46.61	40.36	+ 6.25 ✓	" " " "
BHK 4+95 = 0.8 Type D			1.12	48.07	340.00	+ 8.07 ✓	" " " "
							5' x 4' S Line Trojan ST 100
+ 50			0.94	48.25	38.40	+ 9.85 ✓	" " " "
+ 100			1.00	348.19	36.80	+ 11.39 ✓	" " " "
+ 50			2.38	46.81	35.20	+ 11.61 ✓	" " " "
2+00			4.49	44.70	33.60	+ 11.10 ✓	Stub 3' W. of W. cl
+ 50			6.46	42.73	32.00	+ 10.73 ✓	" " " "
3+00			10.48	38.71	30.40	+ 8.31 ✓	" " " "
T.P.	2.81	339.43	12.57	336.62			" " " "
+ 50			8.43	31.00	28.80	+ 2.20 ✓	" " " "
3+75 = outlet			12.67	326.76	328.00	- 1.24 ✓	" " " "



Culvert #7

B.M.	402.46	402.01	402.01	402.01
S. End intake	9.1	393.4	393.0	+0.4
S. ch inlet	6.9	395.5	392.00	+3.5
+33.33	8.1	394.3	390.00	+4.3
+67.66	8.2	394.2	388.00	+6.2
N. ch inlet	10.16	392.30	386.00	+6.30
" " outlet of box	10.16	392.30	383.00	+9.30
N. End outlet	9.4	390.6	382.00	-1.4

S. End 26' of 24" Pipe  
center 90  
N. End 34

BM 466.36 B.P. N.W. El Cajon 59+91	402.00	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	0.40	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	12.57	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	0.55	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	390.44	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	10.1	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	382.6	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	397.0	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	8.2	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	15	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	7.5	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	32.5	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	7.4	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	396.80	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	395.5	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	1.30	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	396.70	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	392.30	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9
	4.40	402.46	387.89	390.44	8.3	384.14	ground at ch inlet	8.9

Culvert #6

BM	466.72	466.08	466.08	466.08
Top ch NW Cor	0.64	466.08	461.00	+5.08
Fl. N.W. Cor	0.64	466.08	459.50	+6.58
Inlet to Type D C.B. on W		465.24	460.50	+4.74
Top ch NE Cor	1.63	465.09	460.50	+4.59
Flow Line NE Cor	1.63	465.09	459.50	+5.59
Flow Line at Type D C.B. from E	0.48	465.24	460.00	+5.24
+32	7.83	461.89	459.50	+2.35
+52	4.93	461.79	458.72	+3.07
Flow Line S. ch inlet Pipe on W	9.75	456.97	458.00	-1.03
Flow Line at S. ch inlet Pipe to S	9.75	456.97	453.00	+3.97
S. = outlet	9.7	451.9	451.00	+0.8

S. End 31' of 24" Pipe

N.W.	100'	N.E.
466.30		465.00
0.40		
464.7		
Prop. Grade S. Line El Cajon 59+70		
0.36		
466.36		
466.7		
453.00		
13.7		
64.7	64.7	21.5
53.5	53.0	13.5
11.2	11.7	8.0
5.8	5.8	
16.8	17.5	64.7
8.9	8.4	51.00
52.6	53.4	13.7
464.40	change	464.20
456.97	change	2.23
-7.43	ch grade	
461.79		465.40
5.06		464.70
466.85		
470.10		
465.10	Top Type D. C.B.	
5.00		
4.85		
+0.15	+1.24	

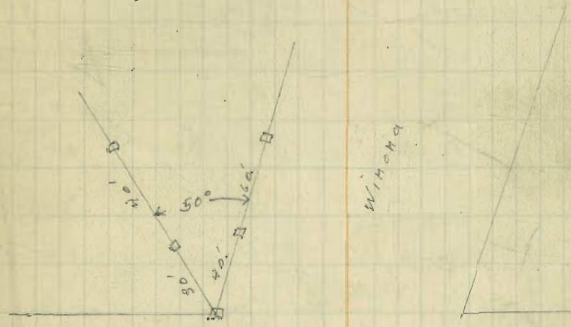


	S. Line	S. ch	N. ch	N. Line
00° E. line 49 <sup>th</sup>	357.2	357.00	358.80	359.0
1	59.5			61.3
2	61.8			63.6
3	64.1			65.9
4	66.4			68.3
5	68.7			70.6
6° N. line Winona	271.0	370.8	372.7	372.9
00° E. line Winona	73.90	373.70	375.50	75.70
+15 B	74.50	374.30	76.10	76.30
+35 B	75.40	75.20	76.90	77.10
+55 B	76.20	76.00	77.60	77.80
+75 B	76.90	76.70	78.20	78.40
1425	78.50			79.80
1475	80.10			81.30
2425	81.70			82.70
2+75° Win 50 <sup>th</sup>	383.20	383.00	384.00	384.20

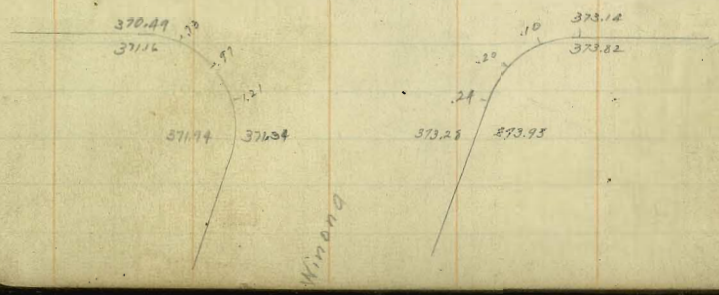
357.00 PM 3.45 JL  
 12.90  
 369.75  
 9.36  
 369.59 S  
 11.63  
 381.22  
 0.12  
 381.10  
 4.36  
 385.46 N

383.36 3M. Mon S.W. 504 El Cajon

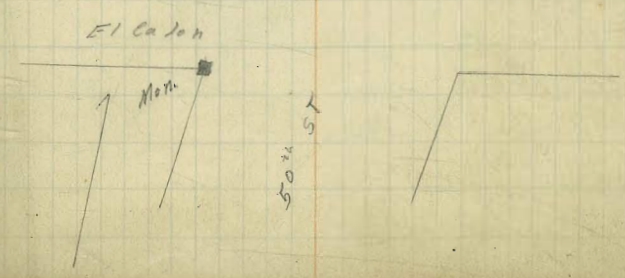
S	73.9	74.5	75.4	76.2	76.9	78.5	80.1	81.7	83.2
	7.3	6.7	5.4	5.0	4.3	2.7	5.4	5.4	2.3
	5.1	4.8	3.2	1.3	0.8	0.9	4.1	2.9	2.5
	+2.2	+1.9	+2.5	+3.7	+3.5	+1.8	+1.3	+1.0	-0.2
N	75.7	76.3	77.1	77.8	78.4	79.8	81.3	82.7	84.2
	5.5	4.9	4.1	3.4	2.8	5.7	4.2	2.8	1.3
	2.1	1.5	0.4	0.2	0.1	3.7	2.5	6.5	1.9
	3.9	3.4	+3.7	+3.2	+2.7	+2.0	+1.7	+0.3	-0.4



El Cajon Ave



El Cajon Ave





El Cajon +-

S. line S. el N. el N. line

00-El Line 50<sup>th</sup>

384.00 385.00 385.2

38  
3  
2  
1  
2

B/K

26.14 on S.

386.50 386.7

1

2

3-El Line Algodena

387.00 387.2

4-El Line Algodena

288.0 287.80 387.70 387.9

1

2

3

4

5

6-El Line 51<sup>st</sup>

387.1 386.90 387.20<sup>20</sup> 387.4

383.36 Man S.W. El Cajon + 50<sup>th</sup>

393.59  
5.53  
387.86 Man S.E. El Cajon + 51<sup>st</sup> 5

7.20  
390.60  
2.85

387.75

5.64

393.39

5.53

387.86

1.30

389.16

N 85.2 85.7 86.2 86.7 86.8 87.0 87.2

5.4 4.9 4.4 3.9 3.8 3.6 3.4

5.8 4.6 4.0 4.0 3.7 3.9 3.6

-0.4 +0.3 +0.4 -0.1 +0.1 -0.3 -0.2

N 87.9 87.5 87.8 87.7 87.6 87.5 87.4

2.7 2.8 5.6 5.7 5.8 5.9 6.0

3.3 2.8 5.2 4.3 4.7 4.6 5.1

-0.4 0.0 +0.4 +1.4 +1.6 +1.3 +0.9

S 88.0 87.8 87.7 87.5 87.4 87.2 87.1

5.4 5.6 5.7 5.9 6.0 6.2 6.3

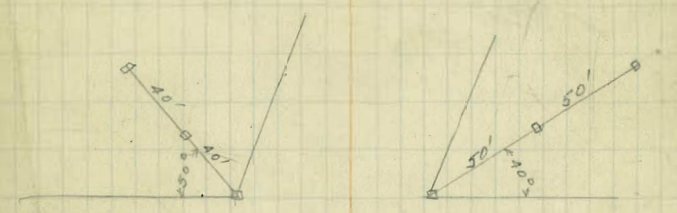
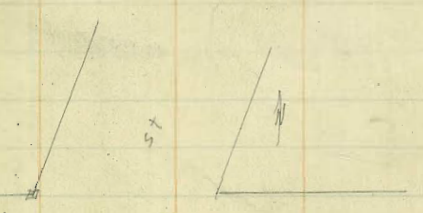
5.6 5.3 5.2 4.5 4.0 3.6 4.2

-0.2 +0.3 +0.5 +1.4 +2.0 +2.6 +2.1

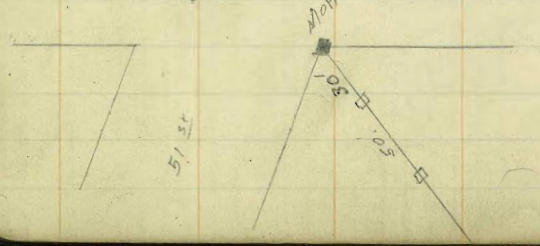
383.0 384.0

7.60 6.60

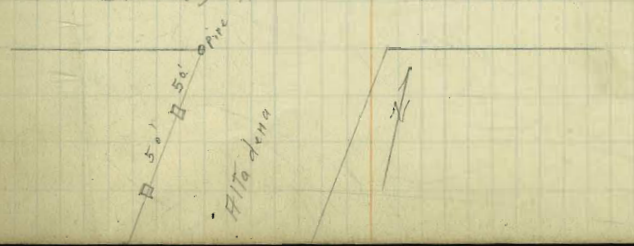
7.22



El Cajon Ave



El Cajon Ave





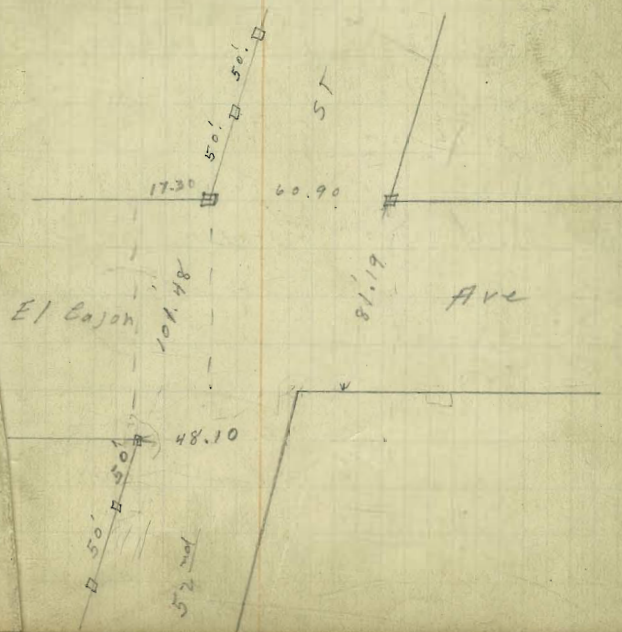
El Cajon 72-

	S. Line	S. el	N. el	N. Line
20-E. line 51 <sup>st</sup> ✓	86.4	386.20	286.1	84.3 ✓ E. 50"
125 B ✓	85.6	385.4	84.1	85.3 ✓ 125
148 B		384.6	84.3	84.5 ✓ 148 ✓
164 B ✓	84.0	383.8	83.2	83.5 ✓ 164
188 B		382.8	82.2	82.4 ✓ 188 ✓
1408 B ✓	81.9	381.7		
1164 B ✓	78.7	378.2	78.7	78.9 ✓ 1144
1188 B		377.1	77.6	77.8 ✓ 1164
1405 B ✓	76.4	376.2	76.7	76.9 ✓ 1188
2128 B		375.5	76.0	76.2 ✓ 2104
2148 B ✓	75.2	375.0	75.3	75.5 ✓ 2124
2168 B		374.7	75.1	75.3 ✓ 2144
2174-W. line 52 <sup>nd</sup> St.	74.8	374.6	75.0	75.2 ✓ 2164
			75.0	75.2 ✓ 2174-W. line 52 <sup>nd</sup> St.

El Cajon 52<sup>nd</sup> 37581

389.16	N	86.3	85.3	84.5	83.5	82.4	78.9
12.48		2.9		4.7		6.8	10.3
376.68		2.5		5.0		6.7	8.8
1.52		+0.4 ✓		-0.3 ✓		+0.1 ✓	+1.5 ✓
378.20							
4.05	S	86.4	85.6		84.0		81.9
374.15		2.8	3.6		5.2		7.3
1.65		2.0	2.4		4.6		6.5
375.80		+0.8 ✓	+1.2 ✓		+0.6 ✓		+0.8 ✓
	N	77.8	76.9	76.2	75.5	75.3	75.2
			12.3		13.7		3.0
			10.3		11.5		2.8
			+7.0 ✓		+2.2 ✓		+0.2
	S	78.4	76.4		75.2		74.8
		10.8	1.8		3.0		3.4
		11.6	3.2		2.3		11.0
		-0.8 ✓	1.4		-4.3		-7.6

375.80  
 5.70  
 370.10  
 370.10





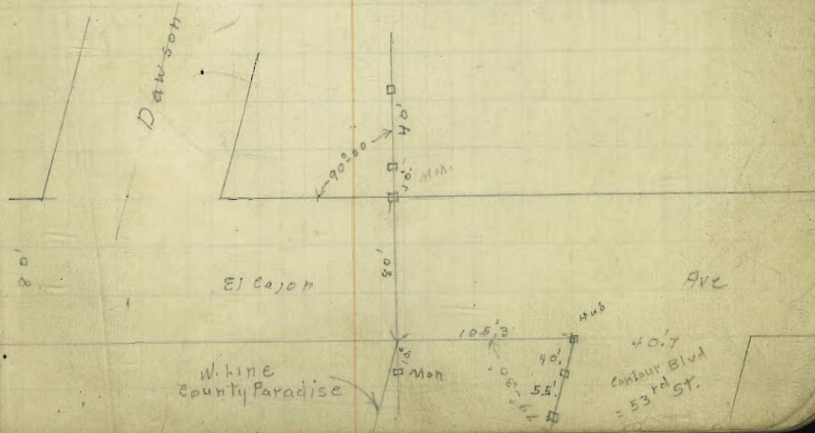
	S. line	S. ch	N. ch	N. line
0002 L. line 52.00	74.5 ✓	374.4	0002 L. line 52.00 AVE	374.8 ✓ 74.9
+50 P.V.C.	74.3 ✓	374.2	+20 ✓	74.8 ✓ 74.9
+70	74.4	74.3	+40	74.8 74.9
+90	74.5 ✓	74.4	+60 ✓	74.9 ✓ 75.0
+110	74.8	74.7	+80 ✓	75.2 75.3
+130	75.3 ✓	75.2	+100 ✓	75.6 ✓ 75.7
+150	75.9	75.8	+20	76.2 76.3
+170	76.6 ✓	76.5	+40 ✓	76.9 ✓ 77.0
+190	77.5	77.4	+60	77.7 77.8
+210 E.V.C.	78.6 ✓	78.5	+80 E.V.C. ✓	78.8 ✓ 78.9
+230	81.9 ✓		+100 N. line Dawson ✓	81.8 ✓
+250	85.2 ✓		+120 Dawson	83.3 ✓ 83.4
+270 B	88.5 ✓	88.4	000 Dawson	86.5 ✓ 86.6
+290	90.0 ✓		+50	87.1 ✓ 87.2
+310 P.V.C.	91.2 ✓	91.5	+100 P.V.C.	89.2 ✓ 91.8
+330	92.4	92.3	+20	92.6 92.7
+350	93.1 ✓	93.0	+40	93.3 ✓ 93.4
+370	93.7	93.6	+60	93.8 93.9
+390	94.1 ✓	94.0	+80 E.V.C.	94.00 ✓ 94.1

S. line 52<sup>rd</sup> ST. 394.20

399.38  
2.76  
BM 596.62 Mon 10' S of S. line El Cajon + N. line County Paradise

	E. 52 <sup>rd</sup> P.V.C.	Ave	E.V.C.						
375.80	74.9	74.9	75.0	75.7	77.0	78.9	81.1		
0.30	0.9	0.9	0.8	0.1	11.5	7.6	7.4		
375.50	3.1	4.8	8.3	4.5	14.3	11.0	7.0		
12.95	-2.2	-5.9	-7.5	-4.4	-2.8	-7.4	+0.4		
358.45		86.6	89.4	91.1	93.5	93.4	94.1		
0.75		5.1	12.8	7.6	6.0	5.3	4.5		
357.70		2.4	7.3	6.1	5.2	4.9	4.5		
11.68		+2.7	+3.6	+4.1	+2.4	+1.1	+0.8		
347.02			+3.3	+3.7	+2.1	+1.0			
1.26									
345.76									
1.26									
344.50									

	E. 52 <sup>rd</sup>	Ave	E.V.C.						
5	74.5	74.3	74.5	75.3	76.6	78.6	81.9	85.2	
	1.3	1.5	1.5	0.5	11.9	9.9	6.6	14.2	
	11.8	11.4	9.3	3.0	13.2	11.2	5.8	10.1	
	-10.5	-9.7	-8.0	-2.5	-1.3	-1.3	+0.8	+4.1	
5	98.5	90.0	90.0	93.5	94.7	94.7	94.7	94.7	
	10.9	9.4	7.8	6.3	5.3	4.8			
	2.7	2.4	3.3	2.3	1.8	1.8			
	+8.0	+7.4	+4.5	+4.0	+3.5	+3.5			
		+6.6	+3.2	+3.6					







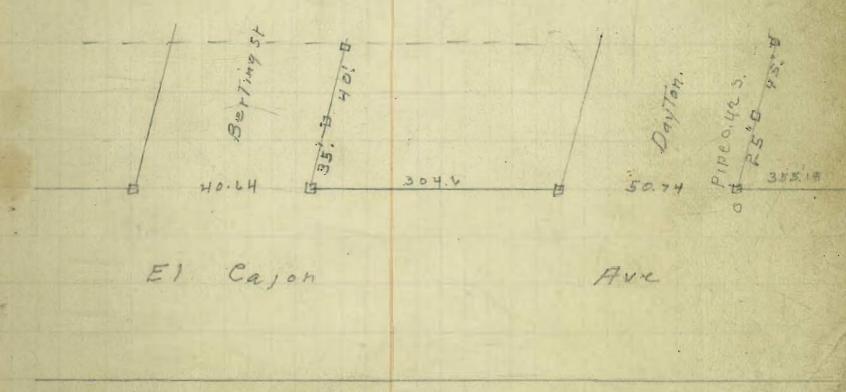
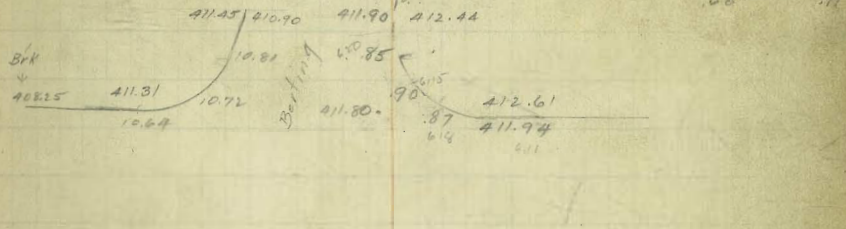


S. Line	S. Ck	S. Line	S. Ck
Line 34 <sup>th</sup> ST	402.8	400.7	403.95
+50 E	6.0		6.3
1+00 E = B	408.1	408.0	408.3
1+52 E	9.4		10.0
2+05 E = B	410.7	410.60	411.40
2+53 E	11.7		412.40
3+00 E	13.0		415.30
3+50 E	14.3	414.20	415.4
4+01.1	15.2		419.00
4+02.2	16.2		419.1 B
4+53.2	17.1		419.30
5+04.3 Dayton	18.4	418.00	419.4 B
5+50.7	19.8		422.20
6+01.4	19.2		422.3 B
6+52.1	19.6		
7+02.6	20.0		
7+53.5	20.4		
8+04.2	20.8		
8+55 = 55 <sup>th</sup> ST	21.3	421.20	

402.06 B.M. Mon 54<sup>th</sup>

12.92  
414.98  
0.34  
414.64  
8.83  
423.47

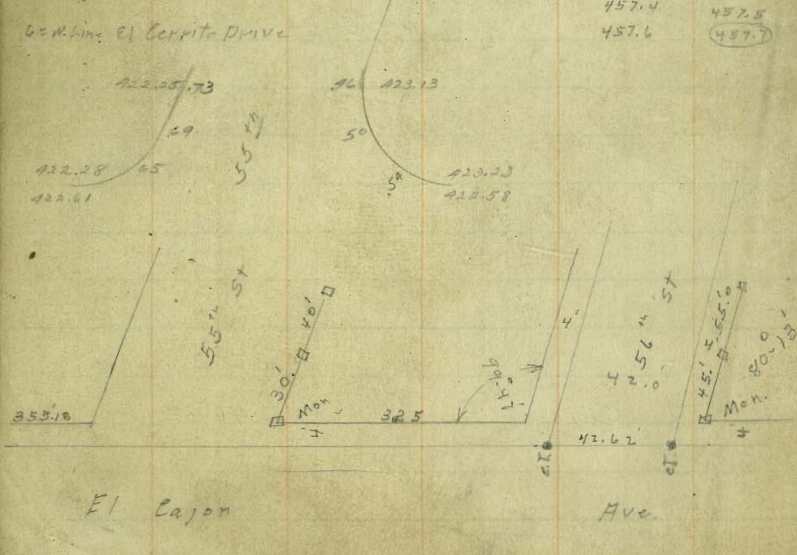
NA	B	B	B	B	B	B	B
3.8	6.1	8.4	10.0	11.5	12.5	14.0	15.4
11.2	8.9	6.6	5.0	3.5	2.5	1.0	8.1
11.5	9.4	7.1	5.4	3.8	2.6	0.5	7.0
-0.3	-0.5	-0.5	-0.4	-0.3	-0.1	-0.5	7.1
5	3.8	6.0	8.1	9.4	10.7	11.7	13.0
11.2	9.0	6.9	5.6	4.3	2.3	2.0	0.7
0.0	9.4	7.8	5.9	4.9	4.0	2.7	1.2
	-0.4	-0.9	-0.3	-0.6	-0.7	-0.7	-0.5
N	17.2	18.2	19.1	19.4	19.8	20.2	20.6
6.3	5.3	4.4	4.1	3.7	3.3	2.9	2.5
5.3	5.0	4.4	4.5	3.9	3.5	3.5	3.5
+1.0	+0.3	0.0	-0.4	-0.2	-0.2	-0.2	-0.6
S	16.2	17.1	18.1	18.4	18.8	19.2	19.6
7.3	6.4	5.4	5.1	4.7	4.3	3.9	3.5
7.7	7.2	6.5	6.1	5.5	4.7	4.1	4.8
-0.4	-0.8	-1.1	-1.0	-0.8	-0.4	-0.7	-0.8



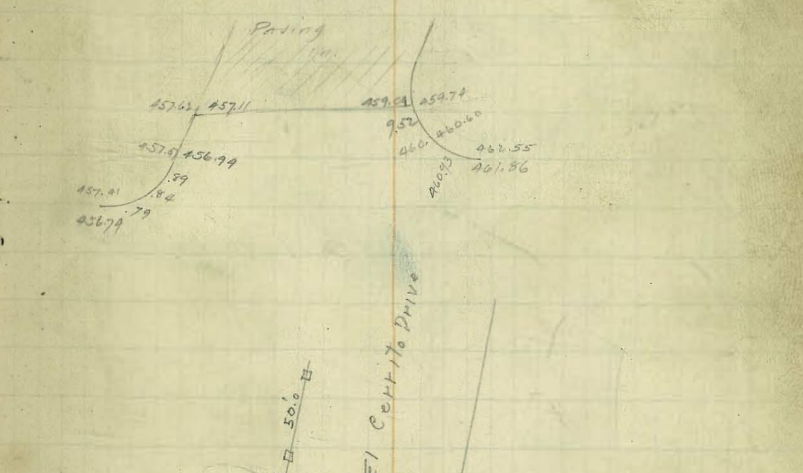


S. Line	S. 26	N. 26	N. 27
at line 55 <sup>th</sup> St	421.3	421.20	422.20
E. Line			422.2
at 55 <sup>th</sup> St	22.3	423.20	423.3
+ 2.5	23.9		24.7
+ 0.5	25.5		26.1
+ 1.5	27.0		27.5
+ 10. B	428.6	428.5	428.8
+ 5.8 sbs	31.5	2467 E	31.7
+ 0.6 White 56 <sup>th</sup>	434.4	434.3	434.4
E. Line 56 <sup>th</sup>		435.0	434.5
		437.0	437.1

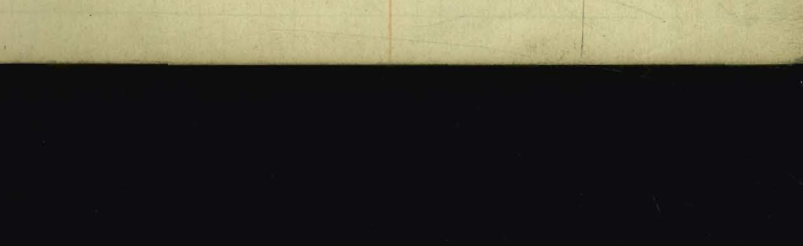
1	41.0	40.5
2	44.4	44.0
3	47.7	47.4
4	51.0	50.5
5	54.4	54.3



423.47								
-0.77								
422.70								
435.49								
-0.83								
435.46								
-12.64								
448.10								
10.80								
437.80								
10.26								
448.06								
0.11								
447.95								
12.88								
460.83								
0.22								
460.61								
12.92								
473.53								
2.87								
470.66								
8.27								
478.93								
5.50								
473.43								



23.3	24.7	26.1	27.5	28.9	31.7	34.6
0.2	10.8	9.4	8.0	6.6	3.9	0.7
0.8	11.7	11.5	10.0	7.6	4.1	1.8
-0.6	-0.9	-2.1	-2.0	-1.0	-0.3	-0.9
27.3	23.9	25.5	27.0	28.6	31.5	34.4
1.2	11.6	10.5	8.5	6.9	4.0	1.1
2.5	13.6	12.5	10.5	7.8	5.4	1.1
-1.3	-2.0	-2.5	-2.0	-0.7	-1.4	
37.1	40.5	43.0	47.4	50.8	54.3	57.7
11.0	7.0	4.1				
11.0	7.2					
0.0						
0.0						
36.6						
11.0						
11.5						
37.7	41.0	44.4	47.7	51.0	54.4	57.5
10.4	7.1	3.7	13.1	9.9	6.4	3.3
11.0	7.2	2.6	11.2	7.5	3.8	3.0
-0.6	-0.1	1.7	1.9	2.3	2.7	2.0





Changed

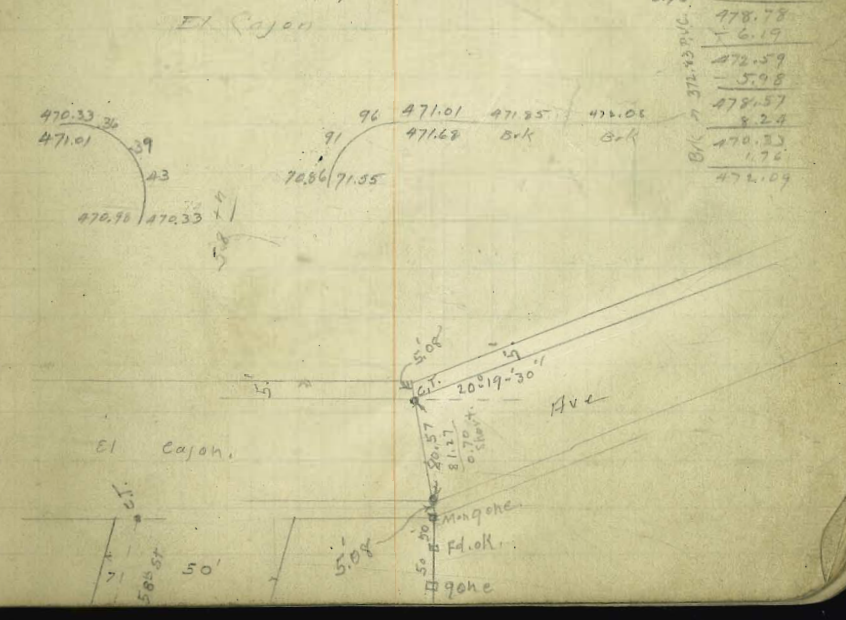
S. line	S. cl	N.W. 58°	58° 58'
4. line 58"	471.00	N.W. 58°	58° 58'
Line 58" 31	71.8	471.65	58° 58'
1+20 Brk	72.7	472.53	1+20
1+40 Brk	72.8	472.70	1+40
1+80	73.0	472.90	1+80
2+18 do HS			2+18 do HS
2+20	73.2	473.10	2+20
2+60	73.4	473.30	2+60
3+00 Brk	73.6	473.50	3+00 Brk 473.5
3+35	73.5	473.35	*50.2 473.35
3+70 PVC	73.3	473.20	1+00 2/PVC 473.20
+90		473.06	+20 473.06
4+10	73.0	472.85	+40 472.85
4+30		472.55	+60 472.55
4+50 PVC	72.3	472.18	+80 472.18
5+10	71.0		1 471.13
5+70	69.8		2 470.08
6+30	68.6		3 469.02
6+90	67.4		4 467.97
7+50	66.2		5 466.92
8+10 PVC	65.0	464.81	6 465.86
			7-PVC 464.81

473.43 B.M. Top Hgt SW. 58" El Cajon  
 478.73  
 470.73  
 8.20 Per W. line 58"  
 470.73  
 8.52  
 469.66  
 467.12  
 0.75  
 466.38 = 466.36 NW El Cajon + 59'

473.43	5.50	8.58"	B	B					
478.93	7.1	72.7	72.4	73.0	73.2	73.4	73.6	73.5	
474.23	7.4	6.2	6.1	5.9	5.7	5.5	5.3	5.4	
475.88	7.7	6.0	5.6	4.8	4.5	4.9	4.4	4.5	
467.13	11.85	+0.7	+0.2	+0.5	+1.1	+1.2	+0.6	+0.9	+0.9
464.03	5.6	73.0	72.3	71.0	69.8	68.6	67.4	66.2	65.0
467.13	5.6	5.7	6.6	7.9	9.1	7.3	8.5	9.7	2.1
	4.8	4.9	5.3	5.3	5.9	5.8	8.4	12.4	13.8
	+0.8	+1.0	+1.8	+2.6	+3.2	+1.5	+0.1	-2.7	-11.7

473.5	73.35	73.2	73.1	72.8	72.6	72.2	71.2
5.3	5.2	5.4	5.8	6.0	6.4	7.4	
4.3	4.2	4.8	4.8	4.4	4.9	4.7	5.8
1.0	1.0	+0.6	+0.7	-0.9	+1.1	+1.7	+2.0
470.1	69.0	68.0	67.0	65.9	64.8		
8.5	9.6	11.1	5.1	6.2	7.3		
5.8	8.2	3.8	4.8	5.0	7.9		
52.7	+1.4	+0.3	+0.3	+1.2	-0.6		

470.33	39	96	471.01	471.25	471.06
471.01	43	91	471.69	Brk	Brk
470.90	43	72.66	71.55		
470.71	0.86				
471.38	1.02				
470.71	0.86				
				2.70	473.34 473.43
				2.65	473.35









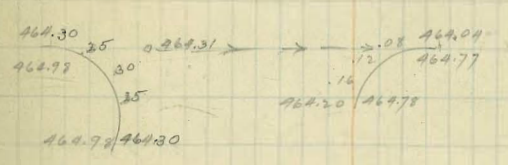
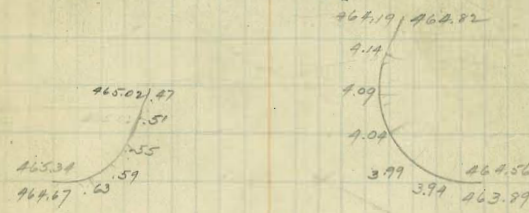




S. Line	S. Elev	N. Elev	N. Line
000-8 line Grace	466.20	466.00	67.2
1	66.0	+40	67.1
2	65.8	+80	67.0
3	65.6	+120	67.0
4	65.5	1+60 Brk	66.9
5	65.4	2+400 Brk	66.7
6	65.2	+50	66.5
7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100	65.1	464.90	66.3
8	64.9	464.70	66.1
9	64.5	464.00	66.0
10	64.1	463.50	65.8
3 = East End	63.8	463.60	65.7
		+50	65.5
		5+72.4 N. line Gilcher	65.4
		464.80	
000-8 line Gilcher	465.00	65.0	65.3
+45.75		64.7	64.9
+86.27		64.4	64.5
1+30 B	464.00	64.1	64.2
1+55 B	463.80	64.0	64.1
1+80 End	464.14	64.0	64.1

470.19  
0.60  
469.59 BM. Top Hydt N.E. El Cajon + 60<sup>th</sup>  
8.45  
461.74 = 461.72 BM. Min S. Side El Cajon. N. line to Mesa Colony

S	66.0	65.8	65.6	65.5	65.4	65.2	65.1
	4.2	4.4	4.6	4.7	4.8	5.0	5.1
	5.1	5.0	6.3	6.3	6.6	6.1	6.2
	-0.9	-0.6	-1.7	-1.6	-1.8	-1.1	-1.1
S	64.9	64.5	64.1	63.8			
	5.3	5.7	6.1	6.4			
	6.7	8.1	9.0	9.8			
	-1.4	-2.4	-2.9	-3.4			
N	67.2	67.1	67.0	66.9	66.7	66.5	66.3
		3.1	3.2	3.3	3.5	3.7	3.9
		1.7	3.6	2.4	3.2	4.1	4.2
		7.4	10.4	10.9	10.3	10.4	10.3
	66.0	65.8	65.7	65.5	65.4	65.0	64.7
	4.2	4.4	4.5	4.7	4.8	5.1	5.5
	4.6	5.0	4.9	5.3	5.2	5.4	6.6
	-0.4	-0.6	-0.4	-0.6	-0.4	0.2 low	-1.1
	64.4	64.1	64.0	64.2	64.5	64.4	64.0
	5.8	6.1	6.2	6.6	6.8	6.8	6.8
	7.7	8.0	8.0	7.5			
	-1.9	-1.9	-1.8	-1.5			









	W. Line	E. Line	
00-Subline Redwood	316.35 5.23	15.86 5.77	315.81 5.77
220 B	317.30 4.38 0.01H	16.80 4.78 0.08H	317.00 4.58 0.02H
440 B	317.50 4.08 0.02H	17.10 4.43 0.05H	317.30 4.34 0.06H
485	17.27		17.17
1+30	17.25		17.05
1+75	17.12		16.92
2+20 B	317.00 4.58 0.02L	16.60 4.48 0.09H	316.80 4.78 0.01H
2+65	16.40		16.20
3+10	15.80		15.60
3+55	15.20		15.00
4+00 Brk	314.60 2.70 0.03H	14.20 3.10 0.15H	314.40 2.90 0.06H
4+52	14.40		14.20
5+05	14.20		14.00
5+58 Brk	314.00 3.3 0.02L	13.6 3.7 0.05H	313.80 3.50 0.04L
5+78 Brk	313.60 3.7 0.03H	13.2 3.10 0.13H	313.40 3.45 0.05H
5+98 N Line Palm	313.07 4.22	12.5 4.8	312.80 5.0
0+40 Brk	0.K.	0.05H	0.06L
0+45	0.05L	0.04H	0.08L
0+52	0.04L	0.09H	0.07L
0+60	0.04L	0.11H	0.03L
0+70	0.05L	0.08H	0.03L
0+85	0.K.	0.13H	0.04H
1+30	0.03H	0.12H	0.06L
1+40	0.K.	0.07H	0.03H
1+50	0.K.	0.13H	0.01H
1+70	0.02L	0.07H	0.03L
1+75	0.04L	0.09H	0.03L
0+92	0.K.	0.13H	0.03H
2+00	0.03H	0.11H	0.04L
2+20 Brk	0.02L	0.09H	0.K.
2+65	0.04L	0.08H	0.K.
3+10	0.06L	0.110H	0.04H
3+23	0.05L	0.05H	0.K.
3+26 MH	0.03L	0.01H	0.K.
3+30	0.02L	0.06H	0.K.

Headers

	A	B	C	D	E	F	G	H	I
319.95 BM. BP SE. 29 <sup>th</sup> 4-Redwood	1.84								
321.79	11.35	17.30	17.50	17.37	17.25	17.12	17.00	16.40	
4.38	5.44	4.44	4.39	4.42	4.54	3.69	3.81	4.41	
317.41	5.43	3.93	2.97	3.27	3.30	3.17	3.17	2.31	
3.40		+0.54	+1.30	+1.15	+1.24	+0.52	+0.64	+2.10	
320.81									
6.18	8	15.91	17.00	17.30	17.17	17.05	16.92	16.80	16.20
314.63		5.78	4.79	4.79	4.62	4.74	3.97	4.01	4.61
4.78		5.76	5.25	5.21	5.67	5.70	2.97	3.01	3.61
319.41			-0.72		-1.00	-0.96	+1.00	+1.00	+1.02
	W	15.80	15.20	14.60	14.40	14.20	14.00	13.60	13.07
		5.01	5.61	6.21	5.01	5.21	5.41	5.81	6.34
		4.01	5.28	4.67	3.66	3.97	4.26	4.33	6.33
		+1.00	+0.83	+0.93	+0.34	+1.55	+1.44	+1.55	
	E	15.20	15.00	14.40	14.20	14.00	13.80	13.40	12.30
		5.21	5.41	6.41	5.21	5.41	5.61	6.01	7.11
		5.26	6.03	6.41	5.66	4.41	5.41	5.30	7.04
		-0.05	-0.22	0.00	-0.45	+1.00	+0.20	+0.71	
		5.17	5.08	5.16			13.80		
							5.81		
							5.16		
							+0.15		
							Replaced		
15.00							4.08	27	3.2
4.11							2.78		1.5
19.11							+1.30		5.07

Sewer Lateral

①

310.65  
8.76

5.01

Set by Inspector

314.92
2.37
317.29
2.79
314.50
7.08
321.58

	W	E
3+55	0.K.	0.13H
4+0 Brk	0.03H	0.15H
4+30	0.03H	0.13H
4+40	0.04H	0.14H
4+50	0.03H	0.16H
4+70	0.05H	0.10H
4+80	0.05H	0.15H
4+95	0.05H	0.09H
5+05	0.05H	0.15H
5+30	0.K.	0.12H
5+45	0.02L	0.13H
5+58 Brk	0.10L	0.05H
5+78 Brk	0.03H	0.13H
5+98 N Palm	0.K.	0.K.



	W. Line	E. Line
00: S. Line Palm St	312.02	311.32
+10 Brk	312.60	312.00
+20 Brk	312.90	312.50
+30 Brk	313.00	312.70
+40 Brk	313.00	312.70
+50	12.10	11.85
+40 Brk	311.20	311.00
+46	10.10	9.90
+86	9.00	8.80
2+33.33	307.90	307.70
2+80 Brk	6.14	5.92
2+27.22	4.38	4.14
2+75.34	2.62	2.36
4+23.31	300.86	300.58
4+71.05	299.10	298.80
5+18.85 Brk	298.00	297.70
5+38.85 Brk	296.50	296.20
5+58.85 Brk	294.60	294.30
5+78.85 Brk	293.50	292.90
5+98.85 Brk on W. only	292.70	292.00
5+98.85 N. Line Nutmeg	291.87	291.20
+16 1/2 Nutmeg	292.45	291.20

319.41	12.02	12.60	12.90	13.00	13.00	12.10	11.20	10.10
6.90	5.48	4.90	4.60	4.50	4.50	5.40	6.30	7.40
312.51	5.46	3.74	3.74	3.96	4.00	4.67	4.30	6.33
4.79	1.16	+0.86	+0.86	+0.54	+0.50	+0.73	+2.00	+1.47
317.50	11.35	12.00	12.50	12.70	12.70	11.85	11.00	9.90
8.49	6.18	5.50	5.00	4.80	4.80	5.65	6.50	7.60
309.01	6.17	4.85	4.26	4.85	4.31	5.27	6.24	7.50
1.61	+0.65	+0.14	+0.14	-0.05	+0.47	+0.36	+0.26	+0.10
279.48	9.00	7.90	6.14	4.38	2.62	0.86	99.10	98.00
0.42	1.62	2.72	4.48	6.24	8.00	9.76	0.80	1.90
279.90	1.04	2.42	3.41	5.58	7.54	8.86	0.44	1.50
6.08	+0.58	+0.30	+0.17	+0.66	+0.44	+0.90	+0.34	+0.40
293.82	8.80	7.70	5.92	4.14	2.36	0.58	98.80	97.70
7.17	8.70	2.92	4.70	6.48	8.26	10.04	1.10	2.20
300.99	8.79	1.92	3.64	6.02	8.26	10.83	1.80	+1.14
2.02	-0.07	+1.00	-0.94	+0.46	0.04	-0.79	-0.70	3.24
298.97	96.50	94.60	93.50	92.67	91.9	92.55		
299.96	3.40	5.30	6.40	7.23	8.0	7.4		
	2.50	3.40	3.57	3.75	6.8	7.7		
	+0.90	+1.90	+2.83	3.48	+1.2	-0.30		
	96.20	94.30		92.00	91.2	91.2		
	3.70	5.22		7.96	8.7	8.7		
	4.85	7.11		10.50	11.3	13.7		
	-1.15	-1.51		-2.60	-2.6	-5.0		

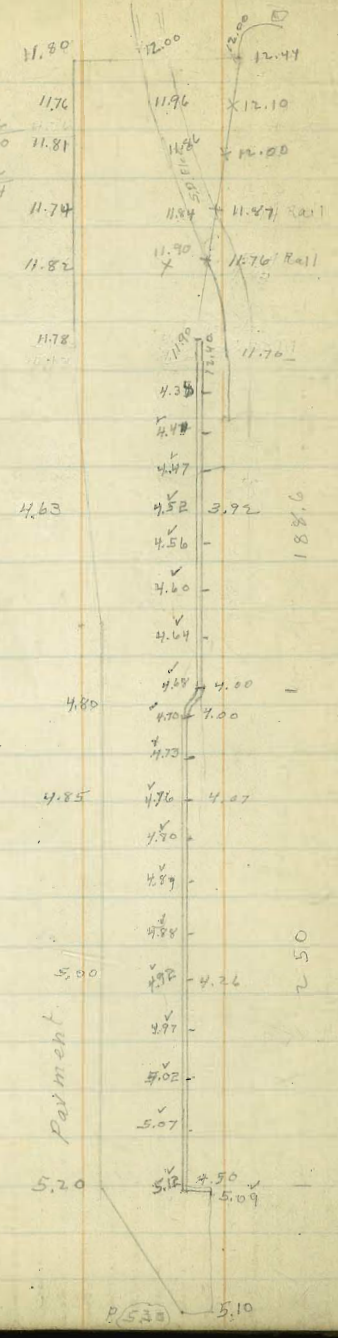
sewer laterals

	①	②	③	④		
314.92					0.58	
1.77					7.86	
316.69					8.64	
10.57					-0.78	
306.12	301.11	297.11	296.20	293.79		
2.15	7.23	11.53	12.24	12.40		
308.44	4.00	6.95	4.75	98.40		
	+3.23	4.38	+3.49	+4.61		
98.95					change	
	98.00	96.40	94.20	91.80	91.10	91.30
	0.95	2.55	4.75	7.15	7.85	7.65
	0.35	1.55	2.45	2.80	5.80	6.93
	10.40	+1.00	2.30	+4.95	2.05	+0.72
	97.70	96.10	93.90	91.10	90.30	90.30
	1.25	2.85	5.05	7.85	8.15	8.15
		3.90	6.15	8.00	8.50	9.05
		-1.05	-1.10	-0.15	+0.15	-0.40
	60	40	10	10	10	5
	98.00	96.30	94.10	92.90	91.90	91.55
		2.65	4.85	6.05	7.05	7.40
		1.85	2.45	2.62	2.40	5.40
		11.10	+2.40	+3.43	+4.25	+1.60
	97.70	96.00	93.80		91.25	90.75
		2.95	5.15		7.70	8.20
		8.10	6.45		8.00	8.50
		-0.95	-1.00		-0.80	-0.30



Kellner Blvd Grades Bd. To C

12.83	BYA	4.22	4.66	4.66	4.86	
3.83		12.44	12.00	12.00	11.80	
16.66		4.77	4.90	4.96	4.26	11.76
		11.87	11.76	11.70	12.40	11.81
		4.88	4.92	4.84	4.80	
		4.78	11.74	11.82	11.84	11.74
		5.04	4.80	4.90		
		11.62	11.86	11.76		11.82
		4.70				
		11.96				
		12.10	12.00	11.90		11.78
		4.56	4.66	4.76		



Payment

5.10



See Page 16

Alley BIK R Blairs High

7-2-31

N

Restake

E

Miller  
Walker  
Blairs

00.5 s. Redwood rd	316.35 <del>4.96</del> 4.96	319.95 1.36 321.31 4.55 316.76 5.21	315.81 5.50 315.50	
0+20	317.30 4.01 4.09		317.00 4.31 4.26	0.05 H.
0+29 N. end patch	317.40 3.91 3.80	4.26 0.11 H.	317.15 3.16 3.08	0.08 H.
0+40	317.50		317.30	
0+40 change	317.70 3.67 3.61	317.30 4.01	317.50 3.81 3.81 0.00	
0+89.7 s. end Patch	3.94	4.21	4.12	1
1165 N. end Patch	4.84	5.16	5.04	
2409.5 s. end Patch	4.88	5.21	5.12	







Winona Grades

	E. line	E. elev.	W. elev.	W. line
00-N. line Monroe	76.6	376.50	376.00	76.1
1	76.8			76.3
2	77.0			76.5
3	77.2			76.7
4	77.4			76.9
5	77.6			77.1
6	77.8			77.3
7	77.9			77.4
8 = BHK	78.1	378.00	377.50	77.6
1.	79.0			78.5
2	79.9			79.4
3	80.9			80.3
4	81.8			81.2
5 = S line Madison	82.8	382.70	382.00	82.1
N. line = Madison		383.30	382.60	

388.9 - 8 - 48.6

262.6 - 5 - 52.5

393.55  
6.49  
377.06 B.M. to N.N.T. & Winona + Monroe

393.55  
4.76  
378.79  
8.53  
387.42

W	76.1	76.3	76.5	76.7	76.9	77.1	77.3	77.4
	7.5	7.3	7.1	6.9	6.7	6.5	6.3	6.2
	5.7	6.3	6.6	6.5	6.9	6.9	6.6	5.8
	+1.8	+1.0	+0.5	+0.4	-0.2	-0.4	-0.3	+0.4
E	76.6	76.8	77.0	77.2	77.4	77.6	77.8	77.9
	7.0	6.8	6.6	6.4	6.2	6.0	5.8	5.7
	5.0	5.5	5.9	5.8	5.4	6.2	6.2	5.4
	+2.0	+1.3	+0.7	+0.6	+0.8	-0.2	-0.5	+0.3
B								
W	77.6	78.5	79.4	80.2	81.2	82.1		
	6.0	8.9	8.0	7.1	6.2	5.3		
	6.0	9.2	6.7	6.1	5.5	5.3		
	0.0	-0.3	+1.3	+1.0	+0.7	0.0		
B								
E	78.1	79.0	79.9	80.9	81.8	82.8		
	5.5	8.4	7.5	6.5	5.6	4.6		
	4.8	7.4	6.0	4.7	4.5	3.9		
	+0.7	+1.0	+1.5	+1.8	+1.1	+0.7		



Winona Grades

	E. line	e. ch	w. ch	W. Line
N. Line Madison	83.4	383.30	382.6	82.7
1	84.0			83.3
2	84.7			84.0
3	85.3			84.6
4	85.9			85.3
5	86.5			86.0
6 B.K.	87.1	387.00	386.50	86.6
1	87.4			87.0
2	87.7			87.4
3	88.1			87.8
4	88.4			88.2
5	88.7			88.7
6 S. Line Adams	89.1	389.00	389.00	89.1
N. Line Adams		389.20	389.20	

387.42  
1.74

385.68 BM. 100' S.E. Tie Winona + Madison

394.47  
7.10

389.37 BM. 70' N.E. Tie Adams + Winona

	W	82.7	83.3	84.0	84.6	85.3	86.0	86.6	87.0
387.42									
1.74									
385.68		4.7	4.1	3.4	2.8	2.1	1.4	0.7	0.0
394.47		4.1	3.5	2.8	2.0	1.1	0.2	0.3	0.0
7.10		+0.5	+0.6	+0.6	+0.8	+0.6	0.0	+0.1	+0.3
389.37									
8									
82.7		83.4	84.0	84.7	85.3	85.9	86.5	87.1	87.4
4.7		4.0	3.4	2.7	2.1	1.4	0.7	0.0	0.0
4.1		2.0	2.4	2.4	2.7	2.0	1.1	0.2	0.3
3.5		+2.0	+1.0	+0.3	+1.0	+1.1	+0.9	+0.5	+0.5
2.8									
2.0									
1.1									
0.2									
0.0									
+0.1									
+0.3									
87.4		87.4	87.8	88.2	88.7	89.1			
7.0		6.6	6.2	5.8	5.3	4.7			
6.7		5.1	5.0	4.5	4.5	4.4			
6.1		+1.5	+1.2	+1.3	+0.8	+1.0			
5.4									
4.7									
4.0									
3.4									
2.7									
2.1									
1.4									
0.7									
0.0									
+0.1									
+0.3									
87.4		88.1	88.4	88.7	89.1				
7.4		6.3	5.9	5.6	5.3	4.9			
7.0		5.8	4.0	5.8	4.3	6.9			
6.7		+0.5	+1.9	-0.2	+1.0	+0.5			
6.1									
5.4									
4.7									
4.0									
3.4									
2.7									
2.1									
1.4									
0.7									
0.0									
+0.1									
+0.3									

385.68 BM

1.13  
386.81

385.68

3.57

389.25

1.58

387.67

6.53

394.20

3.70

390.50

5.21

395.71

82.50

4.21

4.1

3.3

10.8

388.92

5.10

390.64

5.03

391.96

3.6

395.75



Winona Grades

	E. Line	E. ct	W. ct	W. Line
N. Line Adams	89.3	389.20	389.20	89.3
1	89.5			89.5
2	89.7			89.8
3	89.9			90.0
4	90.1			90.2
5	90.3			90.4
6	90.5			90.6
7	90.7			90.8
8	90.9			91.0
9	91.1			91.2
10	91.3			91.5
11	91.5			91.7
12	91.7			91.9
13	91.9			92.1
14 = S. Line Collier	92.1	392.00	392.20	92.3

730.14 - 52.14

397.79

7.11

390.68 BM 70' S.E. Tie Winona & Collier

23

396.47  
4.68

391.79 W.  
5.00

397.79

	89.3	89.6	89.8	90.0	90.2	90.4	90.6
	7.2	6.9	6.7	6.4	6.3	6.1	5.9
	6.0	6.2	5.9	5.5	5.0	5.0	4.5
	+1.2	+0.7	+0.8	+0.9	+1.3	+1.1	+1.4
E	89.3	89.5	89.7	89.9	90.1	90.3	90.5
	7.2	7.0	6.8	6.6	6.4	6.2	6.0
	6.0	6.4	5.3	5.7	5.0	5.1	5.2
	+1.2	+0.6	+1.5	+0.9	+1.4	+1.1	+0.8
N	90.8	91.0	91.2	91.5	91.7	91.9	92.3
	5.7	5.3	5.3	5.0	4.8	5.7	5.5
	4.3	4.2	3.9	3.6	3.7	5.0	4.6
	+1.4	+1.3	+1.4	+1.4	+1.1	+0.9	+0.9
E	90.7	90.9	91.1	91.3	91.5	91.7	91.9
	5.4	5.6	5.4	5.2	5.0	6.1	5.7
	5.3	4.8	5.0	4.8	4.7	5.9	5.8
	+0.6	+0.8	+0.4	+0.4	+0.3	+0.2	+0.5















50<sup>th</sup> St. Grades

	E. Line	E. cl	W. cl	W. Line
N. Line & Cajon	385.1	385.00	384.00	384.1
1	84.8			83.9
2	84.6			83.7
3	84.3			83.5
4	84.1			83.3
5	83.8			83.1
6	83.6			82.9
7	83.3			82.7
8	83.1			82.5
9	82.8			82.3
10 BHK	382.6	382.50	382.00	382.1
1	82.1			81.6
2	81.6			81.1
3	81.1			80.6
4 S. Line Monroe	380.6	380.50	380.00	380.1
N. Line Monroe		380.50	380.00	

E 520 - 10 - 52  
N 530

1952 - 4 - 28

393.36 BM.  
6.25  
387.11

T.P. 382.98  
4.00  
386.98  
3.63  
383.35 =  
393.36 MINOR  
SW. El Cap + 50'

	84.2	83.9	83.7	83.5	83.3	83.1	82.9	82.7
W	5.4	5.7	5.9	6.1	6.3	6.5	6.7	6.9
	5.9	5.8	5.7	5.6	5.9	5.7	6.0	6.4
	-0.5	-0.1	+0.2	+0.5	+0.4	+0.4	+0.7	+0.5
E	85.2	84.8	84.6	84.3	84.1	83.8	83.6	83.3
	4.4	4.8	5.0	5.3	5.5	5.8	6.0	6.3
	4.4	4.6	4.6	4.5	5.0	5.4	5.7	6.0
	0.0	+0.2	+0.4	+0.8	+0.5	+0.4	+0.3	+0.3
W	82.5	82.3	82.1	81.6	81.1	80.6	80.1	
	7.1	7.3	4.9	5.4	5.9	6.4	6.9	
	6.6	7.1	5.0	4.6	5.1	5.3	5.7	
	+0.5	+0.2	-0.1	+0.8	+0.8	+1.1	+1.2	
E	83.1	82.8	82.6	82.1	81.6	81.1	80.6	
	6.5	6.8	4.4	4.9	5.4	5.9	6.4	
	6.3	6.7	4.1	4.6	4.9	4.9	4.9	
	+0.2	+0.1	+0.3	+0.3	+0.5	+1.0	+1.5	
W	383.36	380.60	384.00	385.00				
	3.61	4.93	2.97	1.97				
	386.97							
	7.77							
	379.20							
	6.00							
	385.26							

82.1 82.6  
7.5 7.0  
7.6 6.7  
-0.1 +0.3  
12.14  
36.54



50<sup>th</sup> St Grades

	E. line	E. cl	w. cl	W. line
N. line Monroe	380.6	380.50	380.00	80.1
1	80.9			80.4
2	81.2			80.7
3	81.5			81.0
4	81.8			81.3
5 <sup>4</sup> Brk	82.1	382.00	381.50	81.6
1	82.5			82.1
2	83.0			82.6
3	83.5			83.1
4	83.9			83.6
5	84.4			84.1
6	84.8			84.6
7	85.3			85.1
S. line Madison	85.7	385.60	385.40	85.5
N. line Madison		386.00	385.50	

24.4  
19.1  
6.0  
41.1

385.1 - 5-53!  
265' - 5-53!  
245'  
385.1 - 8-48.1  
385.1

392.37  
4.66  
387.71 B/M 70'S.E. T. 50<sup>th</sup> & Madison 28

2.09 ✓

392.37	80.1	80.4	80.7	81.0	81.3	81.6	82.1
6.01	6.4	6.1	5.8	5.5	5.2	4.9	4.4
386.36	5.5	5.5	5.5	5.4	5.8	4.3	4.2
0.12	+0.9	+0.6	+0.3	+0.1	-0.6	+0.6	+0.2
386.48							
3.50							
382.98	80.6	80.9	81.2	81.5	81.8	82.1	82.5
	5.9	5.6	5.3	5.0	4.7	4.4	4.0
	4.8	5.1	4.7	4.4	4.0	4.2	2.0
	+1.1	+1.5	+0.7	+0.6	0.0	+0.2	+2.0
	82.6	83.1	83.6	84.1	84.6	85.1	85.5
	9.8	9.3	8.8	8.3	7.8	7.3	6.9
	7.6	6.8	6.2	5.7	5.2	4.9	4.6
	+2.2	+2.5	+2.6	+2.6	+2.4	+2.4	+2.3
	83.0	83.5	83.9	84.4	84.8	85.3	85.7
	9.4	8.9	8.5	8.0	7.6	7.1	6.7
	6.0	5.8	5.8	5.1	4.7	4.6	3.8
389.80	+3.4	+3.1	+2.7	+2.9	+3.4	+2.5	+2.9
6.65							
383.15	385.50	85.7					
2.38	4.30	4.1					
385.53		4.3					
		2.8					

385.6      388.53      380.5



50th Grades

	E. line	E. ch	W. ch	W. line
N. line Madison	86.1	386.00	385.80	85.9
1	86.2			86.1
2	86.3			86.3
3	86.4			86.4
4	86.6			86.6
5	86.7			86.7
6	86.9			86.9
7	87.0			87.0
8	87.2			87.2
9	87.3			87.3
10	87.5			87.5
11	87.7			87.7
12	87.8			87.8
13.5. line Adams	88.0	387.90	387.90	88.0
N. line Adams		388.10	388.10	

6501 - 13 - 50

393.39	W	85.9	86.1	86.3	86.4	86.6	86.7	86.9
5.97		6.5	6.2	6.1	6.0	5.8	5.7	5.5
387.42		5.1	4.5	4.3	4.6	4.6	3.8	4.9
4.95		+1.4	+1.8	+1.8	+1.4	+1.2	+1.9	+0.6
392.37								
	E	86.1	86.2	86.3	86.4	86.6	86.7	86.9
		6.3	6.2	6.1	6.0	5.8	5.7	5.5
		4.2	4.5	4.8	4.9	4.7	4.8	4.9
		+2.1	+1.7	+1.3	+1.1	+1.4	+0.9	+0.6
	W	87.0	87.2	87.3	87.5	87.7	87.8	88.0
		6.4	6.2	6.1	5.9	5.7	5.6	5.4
		6.0	6.0	5.9	5.6	5.1	4.9	4.8
		+0.4	+0.2	+0.2	+0.3	+0.6	+0.7	+0.6
	E	87.0	87.2	87.3	87.5	87.7	87.8	88.0
		6.4	6.2	6.1	5.9	5.7	5.6	5.4
		6.0	6.0	5.9	5.7	5.3	4.8	4.4
		+0.4	+0.2	+0.3	+2.2	+0.4	+1.3	+1.0
293.14								
6.24								
386.90								
2.90								
389.80								
		387.87	88.0					
		5.27	5.1					



50<sup>th</sup> Grades

	E. line	E. el.	W. el.	W. line
N. line Adams	88.2	388.10	388.10	88.2
1	88.4			88.4
2	88.6			88.6
3	88.7			88.7
4	88.9			88.9
5	89.0			89.0
6	89.2			89.2
7	89.3			89.3
8	89.5			89.5
9	89.6			89.6
10	89.8			89.8
11	90.0			90.0
12	90.1			90.1
13	90.2			90.2
14 S. line Collier	90.3	390.20	390.30	90.4

730.8' - 14 - 52.2

393.34  
4.52

388.87 B.M. 70' NW Tie 50<sup>th</sup> + Adams

30

397.79

7.10  
390.69 B.M. 70' S.W. tie 50<sup>th</sup> + Collier

	W	88.2	88.4	88.6	88.7	88.9	89.0	89.2
		5.2	5.0	4.8	4.7	8.0	7.9	7.7
		4.5	4.3	4.3	4.1	2.5	5.9	7.1
		+0.7	+0.7	+0.5	+0.6	+1.5	+2.0	+0.6
		392.86						
		7.35						
		389.51						
		3.88						
		393.39						
	E	88.2	88.4	88.6	88.7	88.9	89.0	89.2
		5.2	5.0	4.8	4.7	8.0	7.9	7.7
		3.4	2.7	3.0	3.8	7.4	7.1	6.6
		+1.8	+2.3	+1.8	+0.9	+0.6	+0.8	+1.1
	W	89.3	89.5	89.6	89.8	90.0	90.1	90.2
		7.6	7.4	7.3	7.1	6.9	6.8	6.7
		6.8	6.4	6.8	6.4	6.2	5.6	5.4
		+0.8	+1.0	+0.5	+0.7	+0.7	+1.2	+1.3
	E	89.3	89.5	89.6	89.8	90.0	90.1	90.2
		7.6	7.4	7.3	7.1	6.9	6.8	6.7
		6.1	6.3	6.3	5.3	5.2	5.2	5.1
		1.5	+1.1	+1.0	+1.8	+1.7	+1.6	+1.6
		395.71						
		6.55						
		389.16						
		3.98						
		393.14						
		90.3	390.20					
		5.4						
		3.7						
		7.7						







Altadena Grades

	E. line	E. cl	W. cl	W line
N. line Monroe	382.4	382.30	382.00	82.1
1	82.7			82.4
2	83.0			82.7
3	83.3			83.1
4	83.6			83.4
5	84.0			83.7
6	84.3			84.1
7	84.6			84.4
8	84.9			84.7
9	85.2			85.1
10	85.6			85.4
11	85.9			85.7
12	86.2			86.1
S. line Madison	86.5	386.40	386.40	86.5
N. line Madison		386.80	386.80	

656. - 13.50

392.37  
5.64  
386.73 B.M. 70' sq. T. e. Altadena + Madison

32

382.08 5.84 388.92 3.11 385.81 7.07 392.88	W	82.1 6.9 5.3 +1.6	82.4 6.6 5.4 +1.2	82.7 6.8 5.2 +1.1	83.1 5.9 5.5 +0.4	83.4 5.6 5.7 +0.2	83.7 5.3 5.3 0.0	84.1 4.9 4.6 +0.3
E	82.4 5.2 +1.2	82.7 6.3 +0.7	83.0 6.0 5.6 +0.4	83.3 5.7 5.5 +0.2	83.6 5.4 5.5 -0.1	84.0 5.0 4.8 +0.2	84.3 4.7 4.2 +0.5	
W	84.4 4.6 3.7 +0.9	84.7 4.3 3.6 +0.7	85.1 3.9 3.1 +0.8	85.4 3.6 3.2 +0.4	85.7 3.3 3.3 0.0	86.1 2.9 3.1 -0.2	86.5 2.4 2.2 -0.4	
E	84.6 4.4 4.5 -0.1	84.9 4.1 4.0 +0.1	85.2 3.8 4.0 -0.2	85.6 3.4 3.5 -0.1	85.9 3.1 3.4 -0.3	86.2 2.8 3.3 -0.5	86.5 2.4 2.2 +0.2	
386.73 3.09 389.82	Altadena + Madison			386.36 3.46	86.5 3.3			



Alladena grades

	E. Line	E. ch.	W. ch.	W. Line
N. Line Madison	86.9	386.80	386.80	86.9
1	87.2			87.2
2	87.4			87.4
3	87.6			87.6
4	87.9			87.9
5	88.1			88.1
6	88.3			88.3
7	88.6			88.6
8	88.8			88.8
9	89.0			89.0
10	89.3			89.3
11	89.6			89.6
12	89.8			89.8
S. Line Adams	90.1	390.00	390.00	90.1

105  
- E1  
1057

393.39

3.05

390.34 B.M. 70' a.m. Tice Adams + Alladena

33

392.89											
3.50	W	86.9	87.2	87.4	87.6	87.9	88.1	88.3			
389.39		6.0	5.7	5.5	5.3	5.0	4.8	4.6			
5.87		6.4	5.7	5.3	4.6	4.3	3.6	3.5			
395.26		-0.4	0.0	20.2	+0.7	+0.7	+1.2	+1.1			
	E	86.9	87.2	87.4	87.6	87.9	88.1	88.3			
		6.0	5.7	5.5	5.3	5.0	4.8	4.6			
		6.0	5.2	4.7	4.0	3.9	3.6	3.5			
		0.0	+0.5	+0.8	+1.3	+1.1	+1.2	+1.1			
	W	88.6	88.8	89.0	89.3	89.6	89.8	90.1			
		6.7	6.5	6.3	6.0	5.7	5.5	5.2			
		5.6	5.3	5.2	5.2	4.8	3.6	4.4			
		+1.1	+1.2	+1.1	+0.4	+0.9	+1.9	+0.8			
	E	88.6	88.8	89.0	89.3	89.6	89.8	90.1			
		6.7	6.5	6.3	6.0	5.7	5.5	5.2			
		5.4	5.2	4.7	4.9	4.2	4.5	4.6			
		+1.3	+1.3	+1.4	+1.1	+1.5	+1.0	+0.6			

390.34 Adams + Alladena

389.96

90.1

3.91  
394.25

4.29

4.1

3.5

+0.6



Manroc Grades

	S. line	S. d.	N. d.	N. Line
00 = 139.10 Wat				
W. Line Winona	75.6	375.5	375.0	75.1
1	76.0			75.5
2	76.3			75.8
3 = W. Line Winona	76.6	376.50	376.0	76.1
E. Line Winona	77.1	377.00	376.5	76.6
1	77.7			77.3
2	78.3			78.0
3	78.9			78.7
4	79.5			79.4
5 = W. Line 50 <sup>th</sup>	80.1	380.00	380.00	80.1
E. Line 50 <sup>th</sup>	80.6	380.50	380.50	80.6
1	80.9			80.9
2	81.2			81.2
3	81.5			81.5
4	81.8			81.8
5 = W. Line Madena	82.1	382.00	382.00	82.1

383.55

N. 75.1	75.5	75.8	77.3	78.0	78.7	79.4
8.3	8.1	7.8	6.3	5.6	4.9	4.2
7.1	6.4	6.0	4.9	4.4	3.4	3.1
+1.4	+1.7	+1.8	+1.4	+1.2	+1.5	+1.1
S 75.6	76.0	76.3	77.7	78.3	78.9	79.5
8.0	7.6	7.3	5.9	5.3	4.7	4.1
6.3	6.0	5.1	4.5	3.9	3.3	2.6
+1.7	+1.6	+2.2	+1.4	+1.4	+1.4	+1.5
386.48						
3.50						
382.98	N 80.9	81.2	81.5	81.8		
4.00	5.6	5.8	5.5	5.2		
386.98	4.5	3.8	3.5	3.4		
	+1.1	+2.0	+2.0	+1.8		
	S 80.9	81.2	81.5	81.8		
	5.6	5.8	5.5	5.2		
	4.0	3.5	3.2	3.3		
	+1.6	+1.8	+2.3	+1.9		



Richmond - Robinson Essey etc 1-31-28.

Paving Grading.

Culvert #1 E. Richmond

X 270.90

285' S of Penn. Ave 00' cl. inlet #7 Top cl.	6.50	264.40	265.6	
00' " " #7 Flowline	246.27	6.50	264.40	260.6
B. 0+55 S.	8.6	237.7	236.0	
B. 0+80 S.	14.3	232.0	230.0	change
outlet 1+01 S.	15.4	230.9	229.2	230.0

X 270.90

E. Richmond S. End for curb	7.03	263.87	264.10	
-----------------------------	------	--------	--------	--

Culvert #5 W. Richmond

X 270.90

255' S of Penn. Ave 00' cl. inlet #8 Top cl.	10.23	260.67	262.60	-1.93
" " " #8 Flowline	258.52	10.23	260.67	257.60
B. 0+35 S.	246.27	8.5	250.0	242.0
B. 0+75 S.	15.1	231.2	230.0	
outlet 1+00 S.	17.2	229.1	228.8	change 228.8

Culvert #2 Robinson Place

X 290.0

00' cl. inlet #3 Top curb	0.60	290.02	278.81?	
" " " #3 Flowline	0.60	290.02	288.0	
B. 0+37 S.	278.73	0.7	289.7	286.0
B. 0+75	266.31	4.1	274.6	271.0
B. 1+15	255.36	8.3	258.0	254.0?
change 1+60 outlet	7.2	248.2	247.4	247.0

294.05 SW. Robinson + Richmond. 294.23 Top Bolt Hyd. Pann + Richmond.

35

294.05	0.24	295.03	295.03
	12.59	282.44	0.80
	0.03	282.47	294.23
	12.80	269.67	
-1.20		1.23	
+3.80		270.90	
	12.55	258.35	
+1.7		0.17	
		258.52	
+1.0		12.80	
		245.72	
+0.9		0.55	
		246.27	

295.03  
0.80  
294.23

7.1  
140.1  
20.1  
125.1  
292.1  
275.1  
17.

2/49  
24.5

52  
3  
49  
58

52  
58

99  
40  
153

11.0  
4.4  
15.4

4.4  
12.8  
17.2

10.7  
4.4  
15.1

10.5  
45.0

Ground Profile

0.6	290.
0.7	290.
3.0	275.7
7.7	258.6
8.0	247.4

294.05	12.5	295.30
5.16	0.14	0.48
290.14	0.48	290.62
12.35		278.27
0.46		278.73
12.27		266.46
0.45		266.01
12.19		253.82
1.24		255.06



Culvert #3  
299.23

100 ch inlet # H. S. de Essex	5.81	293.42	289.50	+3.92
+10	5.47	293.76	289.34	+4.42
+59	5.78	293.45	288.53	+4.92
1108	7.15	292.08	287.73	+4.35
1+57	6.00	293.23	286.93	+6.30
2+06	4.50	294.73	286.12	+8.61
2+55	4.42	294.81	285.31	+9.50
3+ PC Type A Culvert	5.37	293.86	284.50	+9.36
1 0+11.75	5.63	293.60	284.28	+9.32
2 0+23.50	5.92	293.31	284.07	+9.24
3 0+35.25	6.18	293.05	283.86	+9.19
4 = EC = 0+47	6.40	292.83	283.65	+9.18
0+97	1.03	291.91	282.77	+9.14
1+47	2.01	290.93	281.88	+9.05
4 ch inlet #5 1+97	3.00	289.94	281.00	+8.94
ch inlet #6 = 00	4.26	288.68	278.00	+10.68
0+45	8.2	272.5	268.20	+4.3
0+55 B+K	10.7	270.0	266.00	+4.0
0+78 outlet	15.5	265.2	263.00	+2.2

Culvert #1  
292.92

ch. inlet #1 Top ch	7.72	285.20	285.60	-0.40
" " #1 Flowline	7.72	285.20	281.00	+4.20
" " #2 Top ch	7.26	285.66	285.60	
" " #2 Flowline	7.26	285.66	280.50	+5.16
+53.5	8.75	284.17	275.00	+9.17
1+07	13.5	271.8	269.50	+2.30

4.48  
298.53  
5.11  
293.42  
5.81  
299.23  
8.67  
290.56  
2.38  
292.94  
12.72  
280.72  
0.51  
280.73

80.50  
17.50  
= 111.00  
5.6  
75.0

RM 304.01 N.E. Robinson Park Blvd  
0.98  
304.99  
12.42  
292.53  
0.39  
292.92  
8.75  
284.17  
1.15  
285.32

15.7  
269.6



S/O Stakes Robinson & Richmond

290.00  
31.88  
293.88

RM 294.25  
0.15  
294.10

S.W. Robinson & Albart

289.00  
89.50

SM 294.05  
0.27  
294.42

289.00  
89.50  
290.00  
4.42  
4.41

290.00  
4.36  
87.40  
84.70  
81.89  
0.42

SE " " "

290.00

294.36  
12.84  
281.52  
0.77  
282.31  
13.01  
269.30  
1.83  
271.13

M. Prop 81.90  
0.41  
40.59  
+1.00  
S. Prop 80.04  
2.27  
2.13  
+0.14

164.0  
249.98  
86.00  
83.20  
80.31  
2.00

Robinson

E. d.

S. Line Penn

288.00

290.00

M. Prop 80.36  
2.00  
S. Prop 78.34  
4.00  
S. Allen 77.91  
4.40

73.20  
69.80  
66.60  
64.3  
6.83  
71.00

+50 B

286.00

287.90 (287.2)

1400 B

283.2

285.2 (284.7)

Prop

80.32

280.31

82.31 (281.89)

24.01  
(281.90)

~~65.8~~  
65.6  
5.53

6.72  
1.20  
5.52  
10.70  
1.93  
8.77

+50 B

279.4

81.5 (281.0)

~~47.8~~  
42.6  
8.53

+62 S. Allen

278.32

277.91

79.91 (279.64)

240.31  
(280.00)

2100 B

273.2

275.4

87.20  
0.89  
88.09  
87.90  
0.19  
85.20  
2.89  
91.89  
6.20

82.31  
80.31  
79.91  
8.18  
5.78  
7.74  
7.90  
-0.12

+20 B

269.8

272.2

+40 B

266.6

269.3

+60 B

264.3

267.3

+80 B

262.8

265.8

+85 End

262.60

265.6

3700: Express

262.00

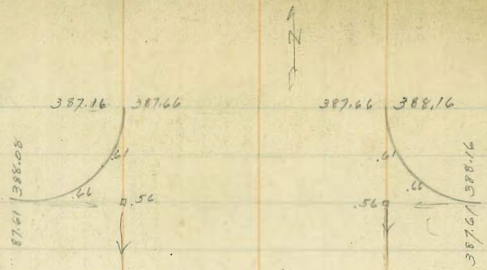
265.00



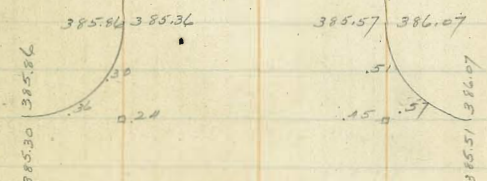
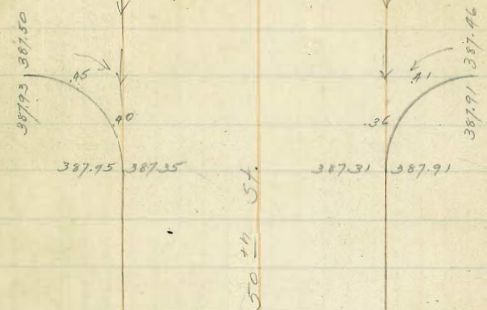
	n. ch	s. ch
Eline Park Blvd		300.47
13' W P.V.C.		300.27
28' W P.V.C.	PT 300.00	300.00
43' " E.V.C.		299.40
		296.60
		292.70
P.V.C.	288.80	288.80
	287.50	
	286.60	
	286.00	
	285.70	
	285.60	
	285.80	
	286.20	

304.01	S	300.50	300.27	300.00	99.40	96.60	92.70
0.25		3.85	4.95	4.26	4.86	7.66	17.56
304.26		3.15					
11.56		0.03.44					
292.70		P.V.C.					
1.58	S	88.80	88.10	87.50	86.60	86.00	85.70
294.28		5.43	6.13	6.53	7.72	7.77	86.00
				PT End of Alley Ret			
	N.	300.50	288.80	87.50	86.60	86.00	85.70
		2.82	5.43	6.73	7.63	8.23	8.53
	N.	85.60	85.70	85.80	86.00	86.20	
		8.63	8.53	8.23	8.03		
			16				
			8.37				
			10.07				
			-1.70				

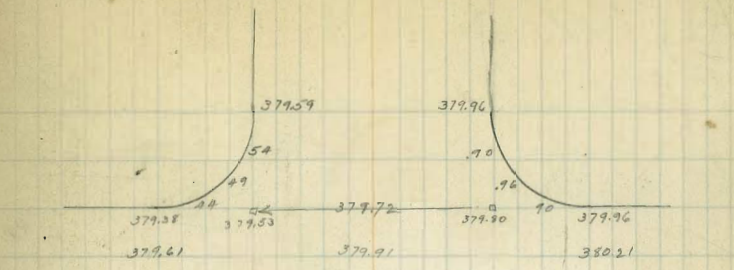




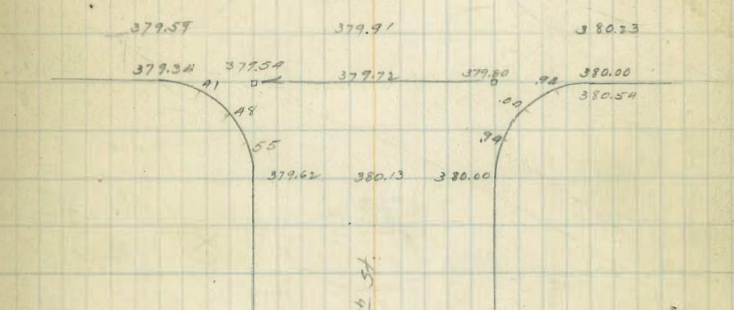
Adams Hie



Madison



Monroe



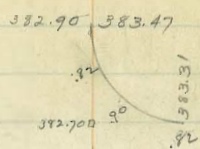
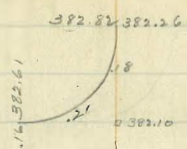
Monroe



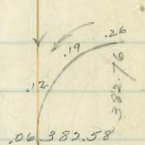
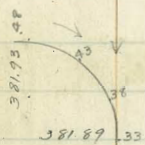
(Break)



Northern  
Semmermeyer 40  
Matson  
Brooks 6/23/28



Madison St.



377.54 377.00

Winona St.

377.50 378.05 Break

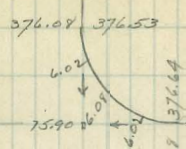
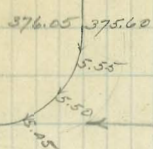
375.60

376.08

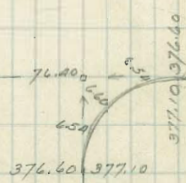
Monroe

375.15 375.60 375.15

375.60 375.15 375.60



Monroe St.



(Break) 381.42 381.92

381.52 382.05

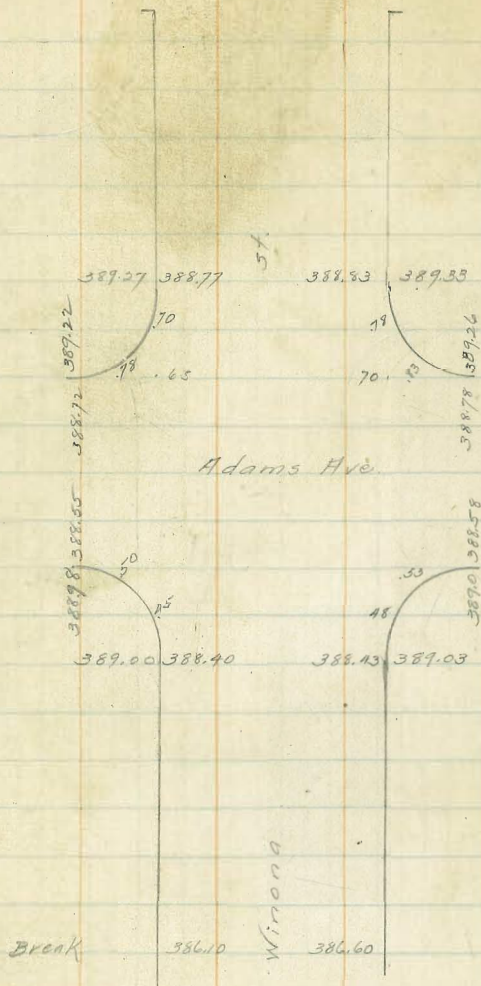
(Break) 377.47 376.97

Winona St.

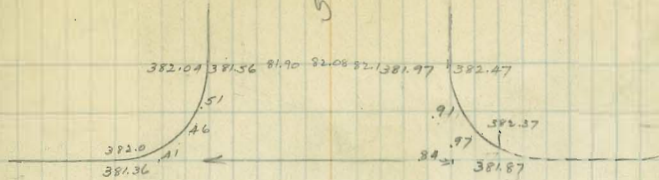
377.17 377.92



Collier St.

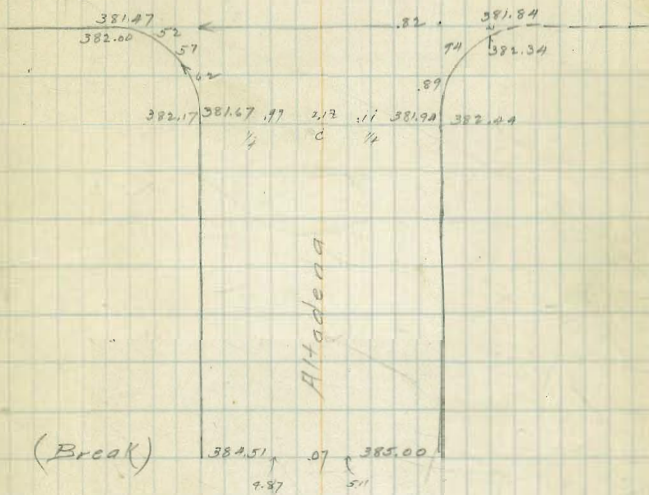


St.



Monroe

St.



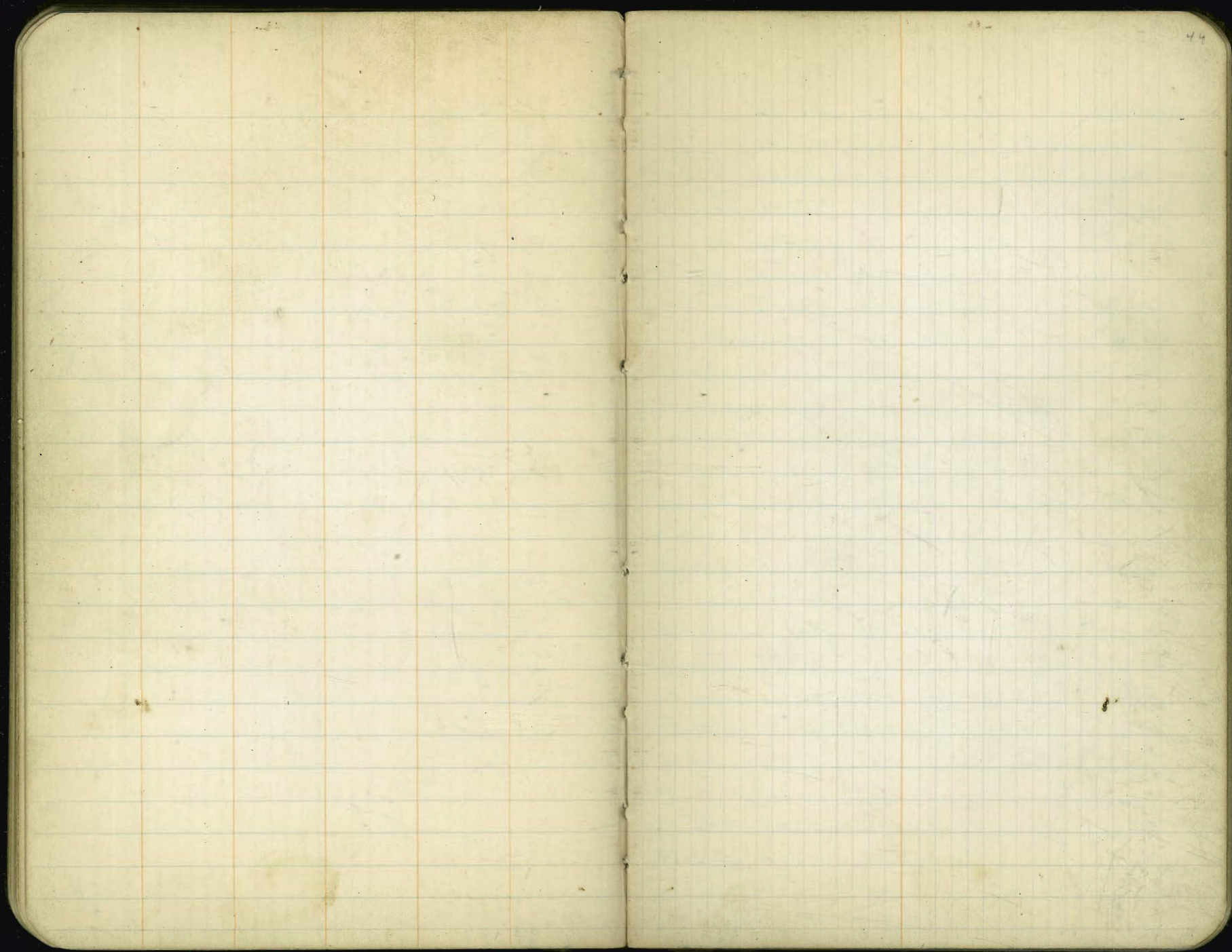














Northern

Sewer in Alley between  
Nile & Vancouver

4/27/31.

45

	π		Elev. of stake	Grade Elev.		
0.0 = D.M.H. # 43	298.85	12.93	285.92	273.00 279.00	+6.92	
1		10.33	288.52	280.50	+8.02	
2		8.51	290.34	282.00	+8.34	
3		7.09	291.76	283.50	+8.26	
4		6.20	292.65	285.00	+7.65	
5		5.20	293.65	286.50	+7.15	
6 = M.H. # 42		4.36	294.49	288.00	+6.49	
1		3.49	295.36	288.66	+6.70	
2		2.82	296.03	289.33	+6.70	
3		2.22	296.63	290.00	+6.63	
4	TR 8.65	π 306.80	1.40	297.45	290.66	+6.79
5			0.70	298.15	291.33	+6.82
6 = M.H. # 41			7.99	298.81	292.00	+6.81
1			7.38	299.42	292.83	+6.59
2			6.73	300.07	293.67	+6.40
3			6.33	300.47	294.50	+5.97
4			5.60	301.20	295.33	+5.87
5			5.02	301.78	296.16	+5.62
6 = M.H. # 40			4.32	302.48	297.00	+5.48
1			3.73	303.07	297.33	+5.74
2			3.38	303.42	297.67	+5.75
3	TR 6.84	311.68	2.60	304.20	298.00	+6.20
4			1.96	304.84	298.33	+6.51
5			6.28	305.40	298.66	+6.74
6 = M.H. # 39			5.74	305.94	299.00	+6.94

Elev. M. Hole Stake

285.92  
+12.93  
\* 298.85  
-0.70  
298.15  
+9.65  
\* 306.80  
-1.96  
304.84  
+6.84  
\* 311.68



Northern

Sewer in Alley between Nile + Vancouver

1/27/28

D.I. F.C., Mondouir  
16217 Amund. City Hts.

			Elev. of Stake	Grade Elev.	
0.0 = M.H. #39	311.68	5.74	305.94	299.00	+6.94
1		5.18	306.50	299.58	+6.92
2		4.72	306.96	300.17	+6.79
3		7.25	304.43	300.75	+3.68
4		7.08	304.60	301.33	+3.27
5	X	2.85	308.83	301.92	+6.91
6 = M.H. #38	T.P. 593 314.88	-2.73 2.73	308.95	302.50	+6.45
1		5.29	309.59	303.08	+6.31
2		5.00	309.88	303.67	+6.21
3		4.87	310.01	304.25	+5.76
4		4.52	310.36	304.83	+5.53
5		4.12	310.76	305.42	+5.34
6 = M.H. #37		3.69	311.19	306.00	+5.19
1	T.P. 837 320.67	X -2.58 3.00	311.88	306.43	+5.45
2		2.58	312.30	306.87	+5.43
3		7.90	312.77	307.30	+5.47
4		6.98	313.69	307.73	+5.96
5		6.60	314.07	308.17	+5.90
6 = M.H. #36		5.55	315.12	308.60	+6.52
1		4.92	315.75	309.17	+6.58
2		4.80	315.87	309.73	+6.14
3		4.67	316.00	310.30	+5.70
4		4.74	315.93	310.86	+5.07
5		5.20	315.47	311.43	+4.04
6 = D.End.		6.38	314.29	312.00	+2.19 D.End

300'-6-50.0  
300'-6-50.0  
300'-6-50.0  
320'-6-53.33

X 311.68  
- 2.73  
308.95  
+ 5.93  
314.88  
X 311.68  
- 8.01  
303.67 Van B.M.  
Thorn + Nile X 320.67

Thorn Street.

Sewer at Dwight St. between Nile + Vancouver

			Grade Elev	Stake	
0.0 = center	X		311.0		
1	8.10	311.5	317.01	+5.51	
2	9.80	312.0	316.31	+4.31	
3 = D.End.	11.17	312.5	313.94	+1.44	

SEBP Boundary  
+ Landis  
Elev. 329.01  
+ 1.21  
330.72  
- 9.23  
321.49  
+ 3.62  
X 325.11



Sewer in Quince St. - Vancouver <sup>11/5/24</sup>  
 Sewer in Vancouver to D. End <sup>to Boundary</sup>

	+	κ	-	Elev Stake	Grade Elev	
00 DMH #27	+6.02	248.80		242.78	233.00	+114.78
1-506						
M.H. #45			18.04	237.76	230.00	+7.76
T.P. +12.62		260.99	-0.43			
1-126			6.42	254.57	243.33	+11.24
3-166			-0.81			
T.P. +12.93		273.11				
2-120			3.05	270.06	256.66	+13.40
3-166			-1.07			
T.P. +12.73		284.77				
10' End of			6.57	278.20	270.00	+8.20
2-120						
3 M.H. #44			1.17	283.60	270.75	+12.85
1-120						
2-120			10.14	274.63	271.50	+3.13
1-150						
3-120			5.73	277.04	272.25	+6.79
T.P. +9.21		293.10	-0.88			
4 DMH #43			7.18	285.92	273.00	+12.92
1-120					279.00 to N. East	+6.92
2-120			5.45	287.65	279.32	+8.33
1-150						
2-120			2.93	290.17	279.65	+10.52
3-120			0.94	292.16	279.97	+12.19
1 M.H. #56			-0.77	292.33	280.30	+12.03
2-120			-0.77			
2-120		293.51	2.25	291.26	280.68	+10.58
1-120			3.30	290.21	281.06	+9.15
3-120			4.43	289.08	281.44	+7.64
1-120			6.14	287.97	281.82	+5.55
5-120			8.41	285.10	282.20	+2.90
6 D. End			12.88	280.63	282.57	-1.94

{ Elev. Cont. Stake 242.78  
 114 #27  
 +6.02  
 248.80  
 -0.43  
 248.37  
 +12.62  
 260.99  
 -0.81  
 260.18  
 +12.93  
 273.11  
 -1.07  
 272.04  
 +12.73  
 284.77  
 -0.88  
 283.89  
 +9.21  
 293.10  
 8.21  
 294.79  
 Mile to Quince  
 -0.77  
 292.33  
 +1.18  
 293.51



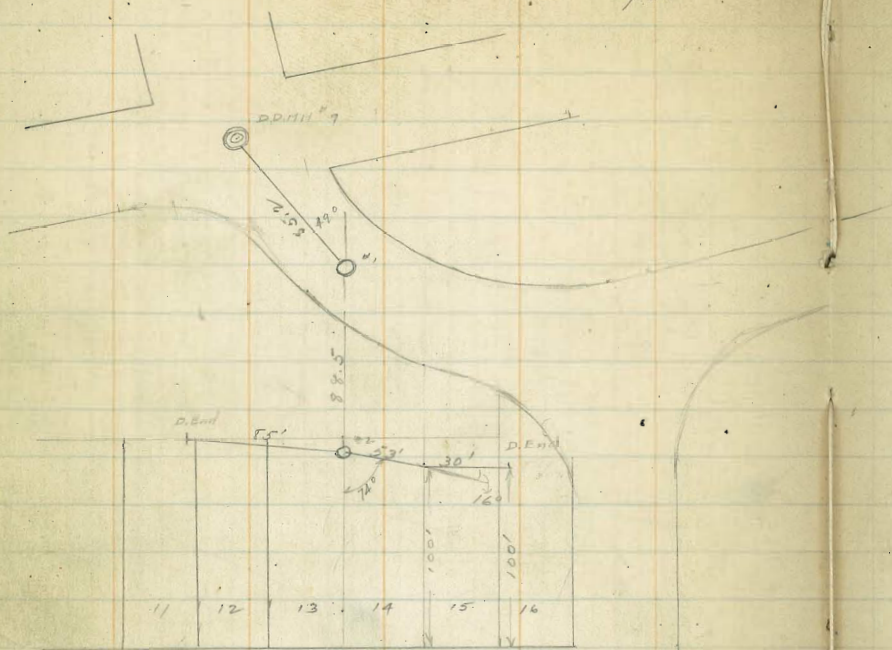




Sewer in Boundary  
McKinley Easement.

4/17/28

Note: - See F.B. 1182/79



00° DMH 1	303.17	12.46	291.31	285.00	+6.31
+42"	302.40	8.34	294.06	287.50	+6.56
152° M.H. 1 + 42" 49° R		6.88	295.52	290.00	+5.52
+48"	312.31	9.35	302.96	294.00	+8.96
115° DMH 2 4740L		2.80	309.51	303.00	+6.51
+53 116° L	316.59	5.10	311.49	305.55	+5.94
+83° DEnd.		3.72	312.87	307.00	+5.87
00° DMH 1	312.31	2.80	309.51	298.00	+11.51
Line North + 42.5		15.19	306.82	298.50	+8.32
+85° DE		18.12	302.19	299.00	+3.19

{ +7.06 Slopes  
 { +2.75 Result  
 { +3.17

303.69 B.M. Thorn & Nile
-0.05
303.77
-12.00
291.31
+11.09
302.40
-1.16
301.24
-11.07
312.31
-2.44
307.97
+6.72
316.59



	E. Line	W. Line
oo=M. Lin + Univ	352.40	352.47
1	52.22	52.30
2	52.05	52.12
3	51.87	51.93
4	51.70	51.75
5	51.52	51.57
6	51.35	51.39
7	51.17	51.18
8 = Brk	351.00	351.00
1	50.35	50.42
2	49.70	49.85
3	349.05	49.27
4 = Brk	348.40	348.70
5 = Lin + Brk	347.80	348.20

340 - 8 - 42.5  
340 - 4 - 40  
160 - 4 - 40  
98.5  
2 - 49.25

351.21 BM. N.W. 1/4 + Univ

6.66									
7 257.87									
4.21	W	52.47	52.30	52.12	51.93	51.75	51.57	51.39	
351.66		5.40	5.57	5.75	5.94	5.32	5.50	5.68	
5.41		5.40	5.27	6.08	6.21	5.16	4.80	4.22	
357.07		✓	✓	✓	✓	✓	✓	✓	
4.37			+0.30	-0.33	-0.27	+0.16	+1.00	+1.46	
352.70									
2.59	E	52.40	52.22	52.05	51.87	51.70	51.52	51.35	
355.29		5.147	5.65	5.82	5.70	5.37	5.55	5.72	
6.78		5.46	4.37	4.86	5.14	5.46	5.36	5.03	
348.51		✓	✓	✓	✓	✓	✓	✓	
5.70			1.28	+0.96	1.06	-0.09	+0.19	+0.69	
353.71									
	W	51.18	51.00	50.42	49.85	49.27	48.70		
		5.89	6.07	4.87	5.44	6.02	5.07		
		3.83	4.37	3.21	4.70	4.84	4.84		
		+2.06	+1.70	+1.66	+0.74	-0.13	+0.17		
	E	51.17	51.00	50.35	49.70	49.05	48.40		
		5.90	4.79	4.94	5.59	6.24	6.89		
		4.68	2.79	3.89	4.93	6.49	6.78		
		+1.22	+1.50	+1.35	+0.66	-0.25	+0.11		
	W	49.45	48.20						
		5.26	5.51						
		4.87	4.70						
		+0.39	+0.81						
	E	48.10	47.70						
		5.61	5.91						
		5.64	4.96						
		-0.53	+0.95						

WALK  
4.37  
348.94 = 348.70







Curb Slakes Swift Ave  
 Wightman to Landis  
 Paving

3/3/26.

(4.67)

52

	N	E
Shim Wightman	336.30	337.30
		grade changed
N. to Landis old grade	289.20	290.20
N. to " New. grade	284.20	285.20 d. ret

B.M. 337.42 N.W. Swift & Wightman

3.00			
340.42			
12.87			
327.55	N	36.30	289.20
0.65		7.12	
328.20			
12.86			
315.34			
0.11	E	37.30	290.20
315.45		3.12	285.20
13.11		3.12	
302.34			
0.58			
302.92			
12.80			
290.12			
0.52			
290.64			

6.25

3.08  
 1.5  
 2.87  
 .50  
 3.37  
 0.65  
 + 2.72



Thorn, Boundary, Nile Gregory Landis etc.  
Grading Paving + Sewers  
SEWERS.

3-13-28

313.83

B.M. 303.69 N.E. Thorn + Nile

53

9.91  
313.60  
3.87  
309.73  
4.10  
313.83

313.60

5.71

307.89

12.65

307.89

12.65

307.89

10	D.E.N. of Thorn BK 19 City Hqts	5.30	308.53	305.16	+ 3.37	
1		3.23	310.60	304.87	+ 5.73	
2		3.13	310.70	304.58	+ 6.12	
3		3.23	310.60	304.29	+ 6.31	
4	M.H. (51)	3.48	310.35	304.00	+ 6.35	
1		4.15	309.68	303.62	+ 6.06	
2		4.96	308.87	303.25	+ 5.62	
3		5.59	308.24	302.87	+ 5.37	
4	M.H. (50)	6.13	307.70	302.50	+ 5.20	
1		7.24	306.59	301.12	+ 5.47	
2		8.30	305.53	299.75	+ 5.78	
3	T.P. 0.56	304.59	9.80	304.03	298.37	+ 5.66
4	M.H. (49)	2.18	302.71	297.00	+ 5.71	
1		3.60	300.99	294.15	+ 6.84	
2		5.44	299.15	291.30	+ 7.85	
3		7.56	297.03	288.45	+ 8.58	
4		9.00	295.59	285.60	+ 9.99	
5	M.H. (48) Redwood	3.71	291.44	293.00	+ 8.44	ground 11.4 293.2 O.K.
1		1.72	287.60	275.25	+ 6.35	
2		8.92	274.40	267.50	+ 6.90	
3	T.P. 0.94	272.21	12.05	271.27	259.75	+ 7.10
4		5.36	266.85	259.75	254.00 S.	+ 8.51 S
5	M.H. (47) L 47-4-30 L	10.70	262.51	252.00 N+E.	252.00 N+E.	+ 10.51 N+E.
1		4.47	255.65	247.40	252.00 N+E.	+ 8.25
2		10.69	249.43	242.80	249.43	+ 6.63
3	T.P. 0.54	248.39	12.27	247.85	244.60	+ 6.40
4		9.00	239.39	233.60	239.39	+ 5.79
5	M.H. (52) Hallway 417-12 L	11.67	236.72	229.00	236.72	+ 7.72

ground 11.4 293.2 O.K.

ground 12.4 259.8

ground 12.7 235.7



248.39

M.H. 52  $\Delta$  Haller 17-22 L.  
T.P. 0.89 236.90

14.67 236.72 229.00  
12.38 236.01  
7.40 229.50 245.00

+7.72  
+4.50

2 - T.P. 0.70 225.00

8.15 228.75 221.00  
12.60 224.30

+7.75

3

4.52 220.48 217.00

+3.48

4

6.00 219.00 213.00

+6.00

5 = M.H. 53  
T.P. 0.78 213.60

8.48 216.52 209.00  
12.18 212.82

+7.52

$\Delta$  12.4 2126

1

1.70 211.90 203.25

+8.65

2 - T.P. 0.89 201.49

7.78 205.82 197.50  
13.00 200.60

+8.32

283.32

3

2.31 199.18 191.75

+7.43

4 = B+K

9.90 191.59 186.00

+5.59

Existing M.H. in Wash

12.24 189.25 184.00

+5.25

M.H. 47  $\Delta$  Bel Air & Quince  
283.32

252.00 N+E.  
254.00 S

+50.5 = B+K  
295.15

6.88 276.44 267.50

+8.94

1

11.90 283.25 271.12

+12.13

2

9.60 285.55 274.75

+10.80

3

7.34 287.81 278.37

+9.44

4 = M.H. 46

4.60 290.55 282.00

+8.55

1

2.35 292.80 283.85

+8.95

2

1.00 294.15 285.70

+8.45

3

0.63 294.52 287.55

+6.97

4 = D.E. 28  $\Delta$  W of N. Line Quince ST

0.78 294.37 289.40

+4.97



Haller St Sewers

248.94

M.H. (52)

229.00

+30 BYK 6.00 242.94 234.00  
 15 TP 11.90 260.72 0.12 248.82 260.87  
 12.35 272.42 0.65 260.87

+7.5 TP 4.04 268.34 254.50  
 4 TP 0.02 272.40

+20 M.H. (64) 2.97 282.11 275.00  
 TP 13.10 298.10 0.08 285.00

1 10.48 287.42 279.50

2 5.76 292.34 284.00

3 1.52 296.58 288.50  
 T.P. 10.50 308.20 0.30 297.80

4 = M.H. (65) to S. of Redwood 8.97 299.33 293.00

1 7.33 300.97 294.00

2 6.22 302.08 295.00

3 5.26 303.04 296.00

4 4.37 303.93 297.00

5 3.72 304.58 298.00

6 = M.H. (66) T.P. 6.70 312.03 2.97 305.33 299.00

1 6.16 305.87 299.42

2 5.35 306.68 299.84

3 4.96 307.07 300.36

4 4.30 307.73 300.78

5 4.00 308.03 301.20

6 4.16 307.87 301.60

7 = D.E. 6.74 305.29 302.00

236.01

12.93

248.94

+8.94

+13.88

+7.11

+7.92

+8.34

+8.08

+6.33

+6.97

+7.08

+7.04

+6.73

+6.58

+6.33

+6.45

+6.84

+6.71

+6.95

+6.83

+6.27

+3.29

12.67

295.63

4.31

307.72

120-4-40

240-6-40

280-7-40



303.09

DE 240 S. of Cooper Ave

4.04 299.05 294.00

+5.05

3.27 299.82 293.25

+6.57

3.24 299.85 292.50

+7.35

4.00 299.09 291.75

+7.34

4 = M.H. & Cooper Ave (58)

5.41 97.68 291.00

+6.68

6.85 296.24 388.75

+7.49

292.87

9.05 294.04 386.50

+7.54

0.79 292.08 284.25

+7.83

4 M.H. (58)

3.74 289.13 282.00

+7.13

281.13

7.50 285.37 277.17

+8.20

1.02 280.11 272.33

+7.78

5.87 275.26 267.50

+7.76

272.90

3.95 268.95 262.67

+6.28

10.45 262.45 257.83

+4.62

261.71

6 = M.H. (57)

249.40

3.18 258.53 253.00

+5.53

6 N = BRK

238.56

11.76 38.04 234.50

+3.54

2.67 235.89 232.25

+3.64

0.66 237.90 227.50

+10.40

2 = D.M.H. (28)

230.00

12

$\pi$  238.56  
 0.66  
 237.90  
 11.90  
 $\pi$  249.80  
 0.62  
 249.18  
 12.53  
 $\pi$  261.71  
 0.77  
 260.94  
 11.96  
 $\pi$  272.90  
 3.95  
 268.95  
 12.18  
 $\pi$  281.13  
 1.02  
 280.11  
 12.76  
 $\pi$  292.87  
 0.79  
 292.08  
 11.01  
 303.09

3.4 90.5

1.6 61.1



		273.46			
00-MH (32) 1h Wash			5.04	18.42	163.00
1			4.34	67.12	164.00
2	281.13		12.02	69.11	165.00
3			10.50	70.63	166.00
4			8.13	73.00	167.00
5			5.97	75.16	168.00
6-MH (34)			5.87	75.26	169.00
1			3.20	77.92	170.42
2	287.89		10.95	78.94	171.84
3			11.66	78.23	173.25
4			9.03	80.86	174.67
5			7.22	82.67	176.09
					$\Delta 5^{\circ} 59' 20''$
6-MH (33) 2 Hallerst			5.99	83.98	177.50
1			4.28	85.11	179.12
2	200.27		12.32	188.35	180.75
3			8.01	192.66	182.37
					$\Delta 21^{\circ} 04' 30''$
4-MH (32) d. P. 12.08	202.59		10.16	190.51	184.00
1			7.52	93.07	185.76
2			7.14	95.45	187.52
3			6.69	95.90	189.28
4			3.85	98.74	191.04
5	12.09	213.07	1.61	200.98	
			12.25	200.82	192.80
6-MH (31) $\Delta 38^{\circ} 21' 30''$			8.84	204.23	194.55

+ 5.42
+ 5.12
+ 4.11
+ 4.63
+ 6.00
+ 7.16
+ 6.26
+ 7.51
+ 7.10
+ 4.98
+ 6.19
+ 6.58
+ 6.40
+ 6.49
+ 7.60
+ 16.29
+ 6.51
+ 7.31
+ 7.93
+ 6.62
+ 7.70
+ 8.02
+ 9.68

200.67
12.32
287.35
1.54
289.89
11.66
278.21
2.92
281.13
11.42
269.71
3.75
273.46

4.7	68.8
6.9	74.2
5.9	84.0
9.4	203.7



213.07

M.H. (21)

194.55

1.96

284. 6-47.33

1			5.75	207.32	196.21	+11.11
2			5.03	208.04	197.87	+10.17
3			5.06	208.01	199.53	+8.48
4	T.P.	11.81	4.83	208.24	201.19	+7.05
5			13.52	206.53	202.85	+3.68

6-M.H. (30) Δ 7-20

			8.68	211.37	204.50	+6.87
1			2.81	217.24	206.42	+10.82
2	T.P.	9.96	1.05	219.00		
		228.46	8.70	219.76	208.34	+11.42
3			14.56	213.90	10.26	+3.64
4			9.42	219.04	12.17	+6.87
5			8.46	220.00	14.09	+5.91

$$\begin{array}{r} 17.44 \\ 1.92 \\ \hline 14.56 \end{array}$$

6-M.H. (29)

4.0.24.5

1	T.P.	11.48	3.32	225.14	216.00	+9.14
2			1.38	227.08	17.92	+9.16
3			12.88	225.6	19.84	+5.84
4			8.22	230.34	21.76	+8.58
5			7.20	231.36	23.68	+7.68
			4.27	234.29	25.59	+8.70

6-M.H. (28) 033-53-20

247.28

0.66 237.90 227.50N+S +12.40

2.8.35.8

275. 675

D.M.H. (27) 2 Quince

1			7.25	240.03	227.75	+12.28
					22800 S	+14.78 S
			4.50	242.78	233.00 N	+9.78 N
2			3.78	248.50	33.60	+9.90
3			2.26	244.82	34.20	+6.82
4			5.54	242.14	34.80	+7.34
			5.12	242.16	35.40	+2.76
					236.00 S	+8.20 S
			3.02	244.26	240.00 N	+4.26 N



D.M.H. (26) T.P.	11.37	256.69	3.02 1.96	244.26 245.32	240.00	+ 4.26
	1		8.64	48.05	241.20	+ 6.85
	2		10.17	246.52	242.40	+ 4.12
	3		7.97	48.72	243.60	+ 5.12
	4		6.49	50.20	244.80	+ 5.40

262.10  
11.98  
250.20 ✓

For Main Line toward M.H. 2 Page 62

5 D.M.H. (13) T.P.			3.43 1.93	253.26 254.76	246.00 M.S	+ 4.26 M.S. + 7.26 M.S.
	1		6.15	255.95	48.00	+ 7.95
	2		8.51	253.59	50.00	+ 3.59
	3 = B.K		5.76	256.34	252.00	+ 4.34
	1	TR-067	262.10	2.27 12.28	259.83	54.75

2.6 254.1 ✓

4 D.M.H. (19)			9.46	275.26	269.40 M	+ 5.86	
	1		6.69	278.03	71.72	+ 6.31	
	2	TR-10.96	254.72	5.17 11.48	279.55	74.04	+ 5.51
	3	TR-1.89	273.71	12.90	270.82	57.50	+ 13.32
	4			10.74	273.98	60.25	+ 13.73

5 = M.H. (20)			9.17	286.07	78.68	+ 7.39
	1		5.76	259.48	281.00	+ 8.48
	2		6.10	289.14	81.67	+ 7.47
	3 = B.K		6.82	288.42	82.33	+ 6.09
	4		7.86	287.38	283.00	+ 4.38

4 = M.H. (21) @ Thorn			3.46	291.78	85.50	+ 6.28	
	1	TR-0.20	295.24	10.99	295.04	88.00	+ 5.04
	2			10.99	295.04	88.00	+ 5.04
	3			8.09	297.94	90.50	+ 7.44
	4			6.38	299.65	293.00	+ 6.65

284.72 303.69 B.M.N.E.  
-12.90 +2.32 Thorn  
271.82 306.03 Nile  
-1.89 -10.99  
273.71 295.04  
-13.28 -0.20  
261.43 295.24  
-0.67 -11.48  
262.10 283.76  
+0.96  
264.72



	x	RR	Grade	Elc	
M.H. (21) & Thorn	312.37			293.00	
200-4-56					
1		7.84	302.53	94.75	+7.78
2		7.74	304.63	96.50	+8.13
3		6.32	306.05	98.25	+7.80
4 = M.H. (22)		5.00	307.37	300.00	+7.37
1		3.66	308.71	301.40	+7.31
2		2.02	310.35	302.80	+7.55
3		-1.22	311.15	304.20	+6.95
4	T.P. 4.11	8.48	312.11	305.60	+6.51
240-5-48	320.59				
5 = M.H. (23)		7.54	313.05	307.00	+6.05
1		6.65	313.94	307.40	+6.14
2		5.91	314.68	308.60	+6.06
3		4.84	315.75	309.40	+6.35
4		4.28	316.31	310.20	+6.11
5 = M.H. (24) & Myrtle	323.50				
1		5.95	317.55	11.62	+5.93
2		5.14	318.36	12.25	+6.11
3		4.85	318.65	12.97	+5.78
4 M.H. (25)		5.01	318.49	313.50	+4.99
1		4.93	318.57	14.12	+4.45
2		4.66	318.84	14.75	+4.09
3		3.36	320.14	15.37	+4.77
220-4-55					
4 = D.E. No of Myrtle		1.90	321.60	316.00	+5.60

299.65  
 12.72  
 \* 312.37  
 - 1.22  
 311.15  
 + 9.44  
 \* 320.59  
 316.88  
 3.62  
 \* 323.50



Sewer Alley Bk.M.

	RR	Elev of Stake	Grade Elev				
200.67							
00 = M.H. (52)	10.16	190.51	184.50	+6.01		294.37 B.M.	10.6 1.98.0
+20 = BTK	5.10	195.57	188.60	+6.97		1.22	
225.09						275.59	
+62.5	8.33	216.76	10.55	+6.21		12.72	
249.98						272.87	
+105.6 = BTK	12.32	237.66	232.50	+5.16		0.23	
262.50						283.60	
+30.6 = M.H. (63)	4.35	45.63	239.00	+6.23		9.88	
274.36	6.32	56.18	49.00	+7.18		278.72	
						0.64	
2 = M.H. (62)	8.71	65.65	259.00	+6.65		274.36	
+30' N	0.64	73.72	59.57	+14.15		12.70	5.0 450
+55' N	12.30	62.06	60.03	+2.03		261.66	
283.60			260.50	+18.545		0.84	
2 = D.M.H. (61)	4.56	79.04	275.00 N	+4.04 N		249.93	
295.59						0.05	
1	12.72	82.87	76.40	+6.47		249.98	
2	10.18	85.41	77.80	+7.61		12.32	
3	9.23	86.36	79.20	+7.16		237.66	
4	8.42	87.17	80.60	+6.57		0.16	
5	7.93	87.66	282.00	+5.66		237.82	
1	7.04	88.55	82.83	+5.72		12.89	
2	5.95	89.64	83.67	+5.97		224.93	
3	5.03	90.56	84.50	+6.06		0.16	
4	4.11	91.48	85.33	+6.15		225.09	
5	3.22	92.37	86.17	+6.20		12.80	
6 = D.E. S. of center	2.40	93.19	287.00	+6.19		212.29	
Sewer Changes between M.H. # 61 + # 62							
285.06			275.8 N	+6.39 N		0.41	
	2.87	282.19	257.53	+24.695		212.70	
1	6.34	278.72	256.87	+21.85		12.46	
2	12.29	262.19	256.25	+5.94		200.24	
3	4.09	270.39	255.62	+4.77		0.43	
4 = M.H. # (62)	12.17	262.31	255.00	+7.31		200.67	

282.17  
+ 2.19  
x 285.06  
- 11.33  
273.73  
+ 0.75  
274.48

25.5 5-51.  
25.5 6-50.  
300-6-50.  
28'  
125'  
4-31.45  
7.7-11.33







	$\pi$	Flt	Stake	Grade
M.H. ⑧	311.85	12.20	299.45	293.60
1		10.69	301.16	94.18
2		9.04	302.81	91.76
3		6.95	304.90	95.34
4		5.54	306.31	95.92
5 - Boundary M.H. ⑤ + Uras 473-49A		3.71	308.14	296.50
1		3.99	307.86	96.83
2		5.41	306.44	96.17
3 - M.H. ⑥ & Gregory St	313.70	7.70	306.00	297.50
4 - M.H. ⑤ & Alleyto K		8.92	304.78	298.00 E+W
1	311.85	9.86	303.84	99.00
2 - M.H. ④ & Alleyto S		5.25	308.45	300.00
1	320.20	7.99	312.21	300.86
2		5.71	314.49	301.72
3		4.44	315.76	302.58
4 - M.H. ③ & Alleyto N. 90-A		3.80	316.40	303.44
1				4.05
2				4.66
3				5.27
4				5.88
5 - R.M.P. ②				304.50 S
1				309.00 N
2				10.00
3				11.00
4				12.00
5				13.00
6 - M.H. ⑦				14.00
				315.00

+5.85			
+6.98			
+8.05			
+9.56			
+10.39			
+11.31			
+11.03			
+10.27			
+8.50 changed - 7.65			
+4.35			
+6.78 E+W			
+4.84	12.95	307.25	99.00
+8.45	9.62	310.58	300.00
+11.35			
+12.77			
+13.18			
+12.96			

B.M. Cor Felton +  
N.W. Uras

Flt. 312.35  
7.85  
320.20  
- 12.95  
307.25  
+ 4.60  
311.85  
- 12.20  
299.45  
+ 0.32  
300.77

305.98 297.50 +8.48  
300.40 to N  
298.00



M.H. (1)		315.00
1		16.10
2		17.20
3		18.30
4		19.40
5 - D.F. S. of Dwight		320.50

Boundary St Thorn to Redwood

M.H. (10) T.P.	6.78	288.82	282.04	276.00	+6.04
1		10.15	78.67	76.33	+2.34
2		10.82	78.00	76.67	+1.33
3		10.25	78.57	77.00	+1.57
4		6.82	82.00	76.33	+4.67
5		5.34	83.48	77.67	+5.81
6 = M.H. (5)		4.73	84.09	278.00	+6.09
1		3.48	84.94	78.83	+6.11
2		3.10	85.72	79.67	+6.05
3	T.P.	6.34	288.02	289.22	+8.72
4		5.14	89.49	81.33	+8.16
5		4.87	89.49	82.17	+7.49
6 = M.H. (5) & Redwood		4.87	89.49	283.00	+6.49
1		5.06	89.30	83.80	+5.50
2		4.68	89.68	84.60	+5.08
3		4.04	90.32	85.40	+4.92
4 = D.F. S. of Redwood		2.95	91.41	286.70	+5.21

296.67 - 6.49.44

6 = M.H. (5) + 119.44 = 296.67 = 6

170.4 - 44.5



Nile St. Grades  
Thorp to Quince

	N. Line	W. d	E. d	E. Line .75
000 S. Line Thorp	301.9	301.75	302.50	302.5
1	301.1			301.7
2	300.3			301.0
3	99.5			300.3
4	98.7			99.5
5	97.9			98.8
6	97.1			98.1
7	96.3			97.3
8	95.7			96.6
9	95.0			95.8
10	94.2			95.1
11	93.4			94.3
12 = N. Line Redwood	292.6	292.50	293.50	293.6
000 S. Line Redwood	291.6	291.50	292.50	292.6
1	90.6			91.6
2	89.6			90.6
3	88.6			89.6
4	87.6			88.6
5	86.6			87.6
6 = Brk	285.6	285.50	286.50	286.6
1	84.4			85.4
2	83.2			84.2
3	82.1			83.1
4	80.9			81.9
5	79.8			80.8
6 = N. Line Quince St.	278.6	278.50	279.50	279.6

12-51.67  
 620'  
 6-53.33  
 320'  
 64  
 300-6-50

389.23  
4.44  
284.79 BM #1 Tie N.E. Nitro + Quince

303.69  
0.61  
304.30  
6.87  
397.43  
0.85  
398.28  
12.46  
385.82  
3.41  
389.23  
10.04  
379.15  
2.31  
381.46

	N. Thorp						
W.	303.80	01.9	01.1	00.3	99.5	98.7	97.9
	1.30	2.4	3.2	4.0	4.8	5.6	6.4
	1.20	3.7	4.8	5.3	5.3	5.8	6.7
		-1.3	-1.6	-1.3	-0.5	-0.2	-0.3
E.	303.50	01.7	01.7	01.0	00.3	99.5	98.8
	0.90	1.7	2.6	3.3	4.0	4.8	5.5
	0.70	1.6	2.3	3.4	3.0	3.7	4.5
		10.1	10.3	-0.1	+1.0	+1.1	+1.0
W.	97.1	96.3	95.7	95.0	94.2	93.4	92.6
	7.2	8.0	8.6	9.3	4.1	4.7	5.7
	7.3	7.9	8.5	9.6	4.1	5.3	6.1
	-0.1	+0.1	+0.1	-0.3	0.0	-0.4	-0.4
E.	98.1	97.3	96.6	95.9	95.1	94.3	93.6
	6.3	7.0	7.7	8.4	3.2	4.0	4.7
	4.7	5.3	6.1	6.9	3.6	2.5	3.2
	+1.4	+1.7	+1.6	+1.5	+1.6	+1.5	+1.5

						Brk
W.	91.6	90.6	89.6	88.6	87.6	86.6
	6.7	7.7	8.7	9.7	10.7	11.7
	7.1	8.2	9.4	9.5	9.7	10.1
	-0.4	-0.5	-0.7	+0.2	+1.0	+1.6
						5
E.	92.6	91.6	90.6	89.6	88.6	87.6
	5.7	6.7	7.7	8.7	9.7	10.7
	4.3	5.2	5.9	6.0	6.8	7.7
	+1.4	+1.5	+1.9	+2.7	+2.9	+3.0
						13.4

W.	84.4	83.2	82.1	80.9	79.8	78.6
	4.8	6.0	7.1	8.6	7.7	12.9
	5.7	10.3	12.4	6.1	6.4	8.4
	-0.9	-4.3	-5.3	+5.5	+4.7	-5.5
E.	85.4	84.2	83.1	81.9	80.8	79.6
	3.8	5.0	6.1	7.3	8.4	9.6
	0.2	1.4	2.4	3.2	4.2	5.6
	+3.6	+3.6	+3.7	+4.1	+4.2	+4.0

79.6  
4.0  
283.6



## 36" Culvert

	0.60	282.64	282.04		
00=Outlet				0.52	272.00
+50				9.50	73.54
1+00				5.50	75.10
+50				5.50	76.65
2+00				5.14	78.20
+50 T.P.				1.88	79.75
3+00 = Cleanout Δ 6° 53' 48"	291.27	1.50	289.77	281.30	
+50 T.P.	293.98	9.07	84.91	82.95	
1+00		9.25	85.87	84.60	
1+50		6.92	87.06	86.25	
2+00		5.20	88.79	87.90	
2+50 T.P.	302.58	1.86	92.12	89.55	
3+75 Δ		9.96	92.62	90.37	
3+00		9.33	93.25	91.20	
3+50		8.29	94.29	92.85	
connection with existing culvert under Gregory SE End 3+95	312.35		94.20	294.20	
connection existing NW End 00	313.92	15.57	298.35	298.35	
+57.2		11.99	301.93	98.97	
1+15 ± Clean Out. 00 to North 312.35		10.61	303.31	299.60	
0.0	313.90			299.60	
+43 E		7.29	306.61	300.07	
+87		6.65	307.25	300.55	
1+30 E		6.43	307.47	301.02	
1+74 = P.C.		6.59	307.31	301.50	

80.26	277.14
12.20	14.13
92.96	291.27
1.67	1.50
91.29	289.77
	4.21
	293.98
	-1.86
	292.12
	10.46
	302.58



270=PC	9.14	307.14	301.5
0.0=PT	8.38	307.90	301.90
+ 14 26	7.36	308.92	302.43
+ 88 53	5.25	311.03	302.97
132 28 PC	3.64	312.64	303.50
50' Rad, Δ 90°	2.69	313.59	303.67
L 78.54	2.85	313.43	303.85
Cleanout	2.72	313.56	304.00
3	2.39	313.89	304.04
4=PT	1.42	314.86	304.20
0.0=PT			304.20
1	9.29	315.74	304.82
2	7.48	317.55	305.44
3	6.03	319.00	306.06
1	4.65	320.38	306.68
5' P.O. 50' Rad.	3.28	321.75	307.30
Δ 90°	3.15	321.88	307.52
L 78.54	2.90	322.13	307.75
Cleanout	2.75	322.28	307.80
3	2.76	322.27	307.97
4=PT	2.32	322.71	308.20

+ 5.64
+ 6.00
+ 6.49
+ 9.06
+ 9.14
+ 9.92 + 19.18 } Changed
+ 9.58 + 7.84
+ 9.56 + 10.14
+ 9.85
+ 10.66
+ 10.72
+ 12.11
+ 12.94
+ 13.70
+ 14.45
+ 14.36 + 14.56 } Cut on Curb 52 from B.
+ 14.38
+ 14.48 + 14.26 } Changed (Cut on Curb) 166 from 4.
+ 14.30 + 14.15
+ 14.51 + 14.50

BM Felton & Upes Elev
312.35
3.93
316.28
- 1.42
314.86
+ 10.17
325.03
- 2.98
322.05

319.64
304.80
15.64
5.50
10.14
319.64
312.53
15.79
5.92
9.84
319.64
303.67
15.97
5.79
10.18
319.64
303.50
16.14
5.83
9.31
327.15
322.06
5.09
327.15
19.63
5.07
14.56
327.15
307.80
19.35
5.09
14.26
31.315
307.97
19.18
5.03
14.15
327.15
308.20
18.95
4.45
14.50



Thorn St. Grades

	S. line	S. ch	N. ch	N. line
291.1	291.1	291.50	292.50	292.6
293.3	293.3	292.2		294.3
295.1				295.9
296.9				297.6
298.6				299.2
300.3				300.9
302.10	302.00	302.50		302.6
302.6	302.50	303.50		303.6
303.5				304.4
304.4				305.3
305.3				306.1
306.2				306.9
307.2				307.8
308.1	308.00	308.50		308.6
308.6	308.50	309.00		309.1
309.9				309.4
309.3				309.8
309.6	309.50	310.00		310.1
308.6	308.50	309.00		309.1

291.1  
 293.3  
 295.1  
 296.9  
 298.6  
 300.3  
 302.10  
 302.6  
 303.5  
 304.4  
 305.3  
 306.2  
 307.2  
 308.1  
 308.6  
 309.9  
 309.3  
 309.6  
 308.6

303.0  
 305.00  
 295.33

S. 291.1	292.3	293.3	295.1	296.9	298.6	300.3	302.10
14.2	12.0	12.0	10.2	8.4	6.7	5.0	3.2
10.3	11.9	9.1	7.3	7.0	6.4	5.5	4.6
+2.9	+1.1	+2.9	+2.7	+1.0	+0.3	-1.5	-1.9
N 292.6	294.3	295.9	297.6	299.2	300.9	302.6	
2.4	4.1	5.8	7.4	9.1	11.7	12.4	
1.6	1.6	1.2	2.4	4.0	6.1	9.7	
1.8	+2.5	+4.6	+5.0	+5.1	+5.6	+2.7	
S 302.6	303.5	304.4	305.3	306.2	307.2	308.1	
10.9	10.0	9.1	8.2	7.3	6.3	5.4	
10.8	8.5	7.3	6.4	5.8	5.4	5.0	
+0.1	+1.5	+1.8	+1.8	+1.5	+0.9	+0.4	
N 303.6	304.4	305.3	306.1	306.9	307.8	308.6	
9.9	7.1	8.2	7.4	6.6	5.7	4.9	
7.4	7.3	6.4	5.6	5.0	4.8	4.6	
+0.5	+1.8	+1.8	+1.8	+1.6	+0.9	+0.3	
S 308.6	308.9	309.3	309.6	308.6			
1.9	4.6	4.2	3.9	4.9			
4.9	4.6	4.0	3.0	3.7			
0.0	0.0	+0.2	+0.9	+1.2			
N 309.1	309.4	309.8	310.1	309.1			
1.9	4.1	3.7	3.4	4.4			
3.9	2.5	2.9	2.9	11.7			
+0.5	+0.6	+0.9	+0.5	-7.3			

B.M. 100' to N. Thorn St. 309.89



Sewer BIKs 60+61 Park Villas

	00 = DMH (5) ± Ugas	213.70	8.92	304.78	300.45N	+ 4.38 N
	1		4.90	308.80	1.82	+ 6.98
	2		2.00	311.70	3.25	+ 8.45
	3 T.P. 7.32	220.41	0.61	213.09	4.67	+ 8.42
	4 = MH (16)		5.69	214.72	306.10	+ 8.62
	1		5.40	215.01	7.57	+ 7.44
	2		4.81	215.60	9.05	+ 6.55
	3		4.46	215.95	10.52	+ 5.43
	3+125		3.98	216.43	10.90	+ 5.53
	4 = MH (17)		3.88	216.53	312.00	+ 4.53
	1		2.55	217.86	12.64	+ 5.22
	2 T.P. 6.28	325.71	0.94	219.43	13.28	+ 6.15
	3		5.03	20.64	13.93	+ 6.75
	4		3.80	21.91	14.57	+ 7.34
	5		1.68	23.03	15.21	+ 7.82
	6 = MH (18) ± Boundary ± 11.13		4.88	20.83	315.86	+ 4.97
	160 = D.E.		3.71	22.00	316.70	+ 5.30 D.End.

312.35 B.M. N.W. Feltton + Ugas.  
1.35  
 313.70

4.62  
37

1  
 1100 set on curb 3.85 21.86 15.86 + 6.00  
 2.68 / 23.03 16.70 + 6.33

Sewer MH by BIK D Alladana

	00 = MH (14) ± Ugas	313.70	5.25	308.45	300.00	+ 8.45
	1 T.P. 2.90	321.30	2.30	311.40	3.50	+ 7.90
	2		6.17	315.13	7.00	+ 8.13
	3		3.70	317.60	10.50	+ 7.10
	4 = D.E.		1.90	319.40	319.00	+ 5.40

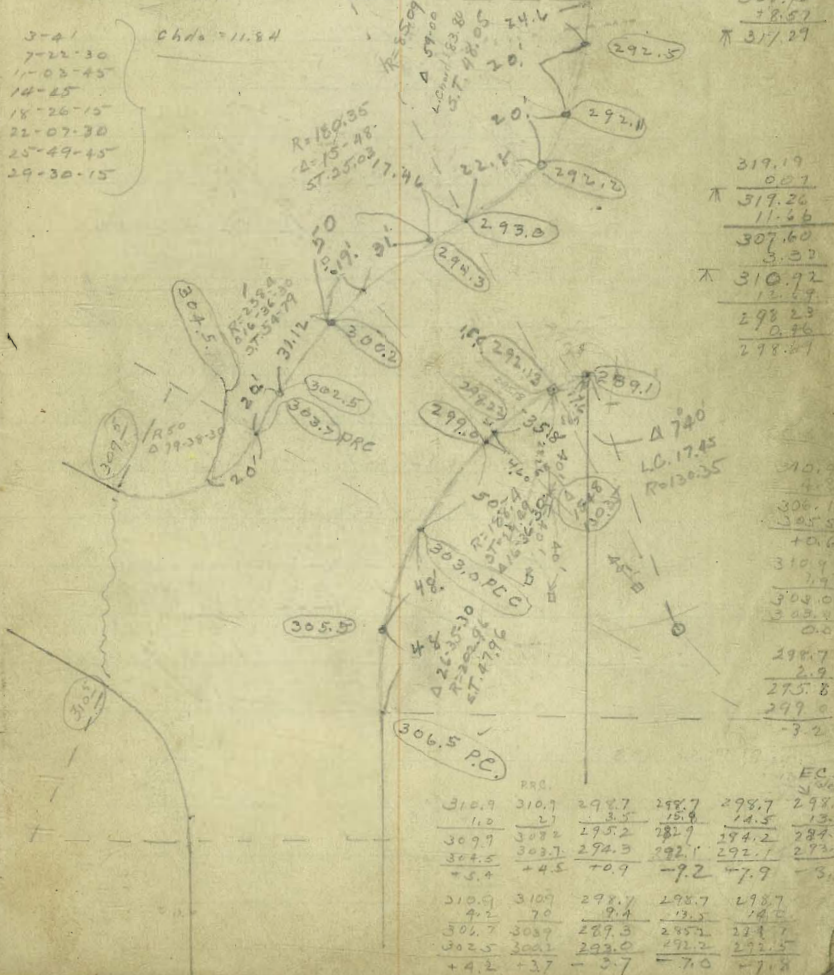
1400  
 1400  
 1400  
 1400  
 1400



# McKenley ST

	W 66	EC 66
1/2 Redwood	308.50	307.50
+50	308.75	307.75
	309.0	308.0
+50	309.25	308.25
? = PC = BREAK	309.50	308.50
det.		
2003 47	309.47	308.47
4° 07' 14"	309.05	308.15
6° 10' 51"	308.84	307.97
8° 14' 30"	308.60	307.80
	308.40	307.54
	307.80	307.28
	307.40	307.04
	307.0	306.76
L = PC ON West		
BRK { 8° 29' 10"	307.50	V = PC EAST 306.50
16° 56' 20"		
ch = 19.94	308.40	FOS
	309.45	FOS
46° 55'	310.50	
36° 53' 30"		
V = EC ch = 28.44	313.75	
+50		
I = EL Gregory on S.	317.0	
There is		
D = EL Gregory on N.	317.5	
+ 50	313.5	
I = PC.	309.5	

W 308.5	308.7	309.0	309.2	309.5	309.3	309.0	308.8	
4.3	4.1	3.8	3.6	3.5	3.5	3.8	4.0	70
0.6	0.7	1.2	0.8	1.0	1.4	1.7	1.9	
E 307.5	307.8	308.0	308.2	308.5	308.3	308.2	307.9	
5.3	5.0	4.9	4.6	4.3	4.5	4.6	4.9	
4.2	4.7	4.7	4.5	4.2	3.9	5.1	5.1	
+0.2	+0.1	+0.1	+0.1	+0.1	+0.6	-0.5	-0.2	
W 308.6	309.2	307.8	307.4	307.0	307.5	308.4	309.5	
4.2	7.1	7.5	7.9	10.3	7.8	7.9	7.8	
1.4	7.4	8.0	7.4	6.4	5.9	5.0	3.8	
+1.8	+1.7	+1.5	+2.5	+3.7	+3.9	+3.9	+4.0	
E 307.5	307.5	307.3	307.0	306.7	306.5	306.4	306.3	
5.0	9.8	10.0	10.3	10.6	10.8	10.8	10.8	
5.3	11.0	10.9	12.3	11.8	7.2	7.2	7.2	
-0.3	-1.2	-0.9	-2.0	-1.2	+1.0			
W 310.50	313.7	317.0	317.5	313.5	309.5			
6.8	2.6			3.1	7.8			
2.3	1.3			0.5	3.3			
+4.5	+2.9			+2.0	+4.5			









Boundary <sup>St</sup>  
Thorn to Myrtle

	Wcb		Ecb
P.C. of McHenry	293.50	NL Thorn	294.50
1	295.57	"	294.56
2	297.64	"	296.62
3	299.71	"	298.68
4	301.78	"	300.74
5	303.85	"	302.80
6	305.92	"	304.86
7 SL Upas	308.00	1	306.92
NL Upas 00	309.00	8=BREAK	309.00
+30° PC	310.05		310.62
+72° E	311.52	"	312.25
1 + 15 A	313.02	"	313.87
opposite S.L. of Myrtle on East Brk.	315.50	4=SL Myrtle	314.50
opposite N.L. of Myrtle on East Brk.	315.75	NL "	316.50
3107 St. Myrtle	316.0		
	changed		
Myrtle to Upas			318.35
W.Cb.			315.00
			3.35
W. line Myrtle	316.11		318.35
			315.00
			2.85
			318.35
Opposite N.L. Myrtle	315.50		316.62
opposite S.L. Myrtle.	315.00		1.73
			318.35
E.C.	310.00		
Prop. Cor			
Upas Board	309.00		

W	293.5	295.6	297.6	299.7	301.8	303.8	305.9	308.0
	3.8	1.7	11.9	9.8	7.7	5.7	11.8	9.7
	12.4	8.5	11.4	7.7	6.3	4.1	2.9	8.9
	-8.6	-6.8	+0.5	+2.1	+1.4	+1.6	+1.9	+0.9
E	292.5	294.6	296.6	298.7	300.7	302.8	304.8	306.9
	17.0	14.9	12.9	10.8	8.8	6.7	4.7	2.6
	14.2	11.9	8.7	6.6	5.1	3.1	1.9	0.3
	+2.8	+3.0	+4.2	+4.2	+3.7	+3.6	+2.8	+2.3
W	309.0	310.0	311.5	313.0	315.5	315.7		
	8.7	7.7	6.2	4.7	2.2	2.0		
		6.2	5.7	3.9	2.8	1.7		
		+0.9	+0.5	+0.8	-0.6	+0.3		
E	309.0	310.6	312.3	313.9	315.5	316.5		
	8.7	7.1	5.4	3.8	2.2	1.2		
	7.3	5.6	4.3	3.0	2.2	0.9		
	1.4	1.5	+1.1	+0.8	0.0	+0.3		

	316.62
	1.04
π	317.66
	-9.39
	308.27
	1.26
π	309.53
	12.39
	297.14
	0.18
	297.32



Northern  
Sommermeyer  
Matoon

Utas Street  
Felton to Gregory  
Gregory to Boundary

5/3/28

73

N.L. Sta.	N. Cb.	S.L. Sta.	S. Cb.
Existing Return 0.0 = E.W. Felton	311.39	Combination Curb & Sidewalk	311.22
1	309.90	+17 E.Wine Alley	310.60
2	308.50	+74 <sup>5</sup>	308.40
3 Brk.	307.00	+34 <sup>5</sup> W.Lino Gregory	306.03
+50 Brk.	307.00	0.0 = E.Wine Gregory	306.13
1	307.75	+54 <sup>2</sup>	307.1
2	308.50	+08 <sup>5</sup> W.Lino Boundary	308.0

N 311.39	309.9	308.5	307.0	307.0	307.75	308.50
1.12	2.61	4.0	5.5	5.5	4.25	4.0
	3.3	5.6	5.1	3.9	3.0	4.0
	-0.7	-1.6	+0.4	+1.6	+1.25	0.0
S 311.22	310.6	308.4	306.0	306.1	307.1	308.0
1.28	1.9	4.1	6.5	6.4	5.4	4.5
1.28	2.6	6.7			4.6	3.7
0.0	-0.7	-2.6	Co Return	Co Return	+0.8	+0.8

312.35  
0.16  
312.51

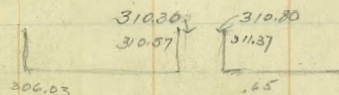
Landis Street  
Boundary to Nile

5/3/28

N.L. Sta.	N. Cb.	S.L. Sta.	S. Cb.
Existing Return 0.0 = E.W. Boundary	329.00	Existing Return 0.0 = E.W. Boundary	328.00
1	328.25	1	327.50
2	327.50	2	327.00
3	326.75	3	326.50
4 = Break	326.00	4 = Break	326.00
1	324.50	1	324.75
2 = W.W. Nile	323.00	2 = Existing Return W.W. Nile	323.50

329.0	328.3	327.5	326.5	326.0	324.5	323.0
4.4	5.1	5.9	6.9	7.4	8.9	10.4
4.4	4.3	5.7	6.5	6.4	7.1	10.6 Existing
0.0	+0.3	+0.2	+0.4	+1.0	+1.8	0.0 Return
S 328.0	327.5	327.0	326.5	326.0	324.8	323.5
5.4	5.9	6.4	6.9	7.4	8.6	9.9 Existing
5.4	4.9	6.4	6.2	6.2	7.2	7.7 Return
0.0	+1.0	0.0	+0.7	+1.2	+1.4	0.0

N.W. 8<sup>th</sup> Landis + 32nd  
Elev. 338.47  
+2.57  
341.04  
-1.14  
339.90  
+2.67  
339.57  
-10.12  
329.47  
-3.87  
333.36



312.35  
2.65  
315.00



Northern  
Sommermeyer  
Mateon

Sewer in Alley between  
33rd and Felton.

74

B.C. - Altadena

	$\pi$	RR	Elev. of Stake	Grade Elev.	
00-MH ③	322.29	5.89	316.40	303.44	+12.96
1		5.34	316.95	303.95	+13.00
2		6.62	315.67	304.46	+11.21
3		6.88	315.41	304.97	+10.44
4		6.10	316.19	305.48	+10.71
5		6.21	316.08	305.99	+10.09
DMH ②		6.31	315.98	306.50 S.	+9.48 S.
				309.00 North	+6.98 N.
1		5.29	317.00	310.00	+7.00
2		3.75	318.54	311.00	+7.54
3	325.94	7.71	318.23	312.00	+6.23
4		7.82	318.12	313.00	+5.12
5		6.45	319.49	314.00	+5.49
MH ①		5.85	320.09	315.00	+5.09
1		4.88	321.06	316.10	+4.96
2		3.15	322.79	317.20	+5.59
3		2.54	323.10	318.30	+5.10
4		1.61	324.33	319.40	+4.93
5 - D. End		0.84	325.10	320.50	+4.60

B.M. NW Cor. Felton & Upton

Elev. = 312.35  
 +9.94  
 $\pi$  = 322.29  
 +3.75  
 318.54  
 7.40  
 $\pi$  325.94  
 7.40  
 318.54  
 380  
 322.34  
 10.01  
 B.M. Check: 312.33 ✓



Sewer in Gregory St.

7/12/28

319.17

75

	π	R.R.	Elev of Stake	Grade Elev.	
0.00-M.H. #6	314.17	9.02	305.15	297.50	+ 7.65
1		9.90	304.27	298.60	+ 5.67
2		10.98	303.19	299.70	+ 3.49
3		9.42	304.75	300.80	+ 3.95
4 T.P.		6.97	307.20	301.90	+ 5.30
				303.00	+ 6.59
5 DMH #15	319.23	9.64	309.59	305.00	+ 4.59
1		7.39	311.84	306.00	+ 5.84
2		5.10	314.13	307.00	+ 7.13
3		3.57	315.66	308.00	+ 7.66
4		2.67	316.56	309.00	+ 7.56
5 MH #10		2.27	316.86	310.00	+ 6.86 MH #10

B.M. Cor. Felton & Upas  
N.W. C.P.

Elev. 312.35  
1.82  
314.17  
6.97  
307.20  
12.03

π 319.23  
2.18  
317.05  
2.37  
319.42  
0.23

319.19 check  
on line along  
Thorn & Gregory  
Elev 319.19

Sewer in Gregory St.

4/13/28

B.M. Cor Felton & Upas

	π	R.R.	Elev of Stake	Grade Elev.	
0.00-M.H. #6	308.18	3.01	305.17	297.50	+ 7.67
1		3.91	304.27	298.89	+ 5.38
2 of 36" Drain Elev. top of pipe = 300.28		4.99	303.19	300.28	+ 2.91
3		3.44	304.74	301.52	+ 3.22
4		0.97	307.21	302.76	+ 4.45
5	317.92	8.33	309.59	304.00	+ 5.59
6		6.08	311.84	305.24	+ 6.60
7 5 = D. End. + 8'		3.78	314.14	306.50	+ 7.64

312.35  
2.78  
315.13  
9.96  
305.17  
3.01  
π 308.18  
0.97  
307.21  
10.71  
317.92



Wightman St. Grades  
33rd to 125' W. of W.L. of 33rd

5/4/28

N.L. Sta.	N.Cb.	S.L. Sta.	S.Cb.
00 = W.L. 33rd	328.00	00 = W.L. 33rd	328.50
105 3-4170	1 332.67	1	333.16
2	337.33	2	337.83
3 = 125' W.	342.00	3 = 125' W.	342.50

33rd St. Grades

W.L. Wightman to 100' S. on W.  
E.L. Wightman to 124.9' N. on W.

5/4/28

W.L. Sta.	W.Cb.	E.L. Sta.	E.Cb.
0.0 = Wightman	324.5	0.0 = W.L. Boundary 100' S. of W.L. Wightman E.L. 33rd	336.00
+20 = Brk	329.1	+20 Brk	335.00
+40 = Brk	330.49	+30 = PC on top	334.15
+100 = Brk	335.35	+40 Brk	333.3
0.0 = Wightman	327.50		
+417	327.27		
T88-A	327.03		
+20 F.L.	326.80		

Boundary St. Grades  
From Wightman to University

5/4/28

W.L. Sta.	E.Cb.	E.L. Sta.	E.Cb.
00 = A	326.90	00 = Wightman	325.30
+41	27.10		
+82 Brk	327.30	1	325.49
1010 5-5347	1 328.73	2	325.67
2	330.16	3	325.86
3 SL Univ.	331.60	4	326.04
0.0 = S.L. Wightman	326.0	5	326.23
+325 = PC	325.93	6	326.42
+20 = N.W.	325.8	7 = Break	326.60

X 338.75

76

X 345.99

N	328	332.7	337.3	342.0	Univ. & Boundary N.W. B.P.			
	10.8	6.1	8.6	3.9	338.75	Elev. 333.94		
	7.8	2.9	7.0	4.1	-2.22	71.54		
	-3.0	+3.2	+1.6	-0.2	336.53	X 334.98		
					9.36	-9.69		
					345.89	335.39		
						+3.99		
						X 329.33		
						-1.16		
						328.17		
						-12.58		
						325.59		

W	327.5	327.3	327.0	326.8	327.1	328.6	330.0	331.5
	7.5	7.7	8.0	8.2	7.9	6.4	5.0	3.4
	4.0	7.2	8.6	8.3	5.8	6.5	5.2	3.4
	+3.5	+0.5	-0.6	-2.1	+2.1	-0.1	-0.2	0.0

E	325.3	325.5	325.7	325.9	326.0	326.2	326.4	326.6
	4.0	3.8	3.6	3.9	3.3	8.8	8.6	8.4
	4.4	3.5	4.2	4.5	4.9	7.2	10.0	8.1
	-0.4	+0.3	-0.6	-1.1	-1.6	-0.4	-1.4	+0.3

N	328.5	329.1	330.4	335.4	336.53	
	7.4	10.8	9.5	4.5		
	5.7	4.1	3.1	1.1	X 339.91	
	5.7	+6.7	6.4	+3.4		

E	336.0	335.00	334.2	336.53	
	2.0	3.0	3.8		
	0.8	4.2	4.0	X 339.04	
	0.20.0	-1.2	-0.6		

Boundary	PC on Top	4.50	
		26.40	
W	326.0	325.9	325.8
	7.0	7.1	7.2
	4.6	2.6	6.3
	7.4	4.5	5.9
	326.06	4.00	27.10
	4.84	26.90	3.80
	330.90		27.30
	1.74	1.55	28.73
	329.12	31.40	30.15
	4.03		4.42
	333.15		3.00



Northern  
Semmermejer  
Mateon

Storm Drain  
33rd St. Myrtle to Dwight.  
Dwight - 33rd to Bancroft

5/16/28

77

00 = P.T.	325.67	2.96	322.71	308.20	+ 14.51
1		3.30	322.37	308.88	+ 13.49
2		3.69	321.98	309.56	+ 12.42
3		4.11	321.56	310.24	+ 11.32
4		4.52	321.15	310.92	+ 10.23
+26.5 Cleanout		4.57	321.10	311.30	+ 9.90
5		4.25	321.42	311.60	+ 9.82
6		3.34	322.83	312.28	+ 10.05
7		3.05	322.62	312.96	+ 9.66
8		1.54	324.13	313.64	+ 10.49
9		0.60	325.07	314.32	+ 10.75
10	331.75	5.64	326.07	315.01	+ 11.06
11 = P.C.		4.88	326.87	315.70	+ 11.17
50 Rad 490° 1 L76.54		4.89	326.86	315.90	+ 10.96
2		5.06	326.69	316.10	+ 10.59
Cleanout		4.80	326.95	316.20	+ 10.75
3		4.49	327.26	316.30	+ 10.96
4 = P.T.		3.49	328.26	316.50	+ 11.76
1		3.79	327.96	317.08	+ 10.88
2		2.82	328.93	317.67	+ 11.26
3		2.55	329.20	318.25	+ 10.95
4		2.19	329.56	318.83	+ 10.73
5		1.85	329.90	319.42	+ 10.48
Cleanout 6 = End of Drain		1.39	330.36	320.00	+ 10.36

B.M.B.P.	322.06
NE Cor 33rd	3.61
+ Myrtle	325.67
	0.60
	325.07
	6.68
	331.75

560  
11-50.9

272.5  
6-95.41



Boundary 19/c Myrtle to Dwight

	N. cl.	change
N. Myrtle	317.1	317.20
+41		17.47
+82		17.74
1+23 BK	317.5	318.00
+50		18.92
1+00		19.84
+40 S. Alley		20.58
+93 N. Alley		21.56
2+43		22.48
2+93		23.40
3+52 S. Dwight E	24.5	24.5
3+92		24.75
4+32 N. Dwight E	25.0	25.00
4+49 N. Endel		25.10
5+03 S. Dwight W	25.26	25.45

Boundary Nightman S

P.C. 1A1, 33rd	26.00
N. Nightman	25.6
S. "	25.8
S. "	26.0
40	27.0
80	28.0
120	29.0
160 B	30.0
200 B	30.0
240 B	31.0
4-54.25 To Landis	
Landis	30.0

316.02 N.E. Boundary + Myrtle

6.04  
 312.70  
 1.02  
 311.68  
 6.31  
 327.99  
 2.60  
 325.39  
 5.33  
 330.72

17.1  
 5.60  
 5.35  
 10.22  
 17.23  
 5.47  
 5.24  
 10.23  
 17.36  
 5.34  
 4.94  
 10.50

2. amt cl

5.00  
 17.70  
 BK  
 17.50  
 5.20  
 4.52  
 10.68

4.25

78

17.20  
 5.50  
 5.34  
 +0.12  
 17.47  
 5.23  
 5.23  
 .00  
 17.74  
 4.96  
 4.84  
 +0.12  
 18.00  
 4.70  
 4.52  
 +0.18  
 18.92  
 3.74  
 3.66  
 +0.12  
 19.84  
 2.86  
 2.30  
 +0.56

S. Alley  
 20.58  
 2.12  
 1.20  
 +0.92  
 N. Alley  
 21.56  
 2.56  
 6.43  
 5.64  
 +0.74  
 22.48  
 5.51  
 4.06  
 +1.45  
 23.40  
 4.59  
 2.53  
 12.06  
 24.50  
 3.49  
 2.19  
 1.30  
 24.75  
 3.24  
 1.81  
 1.43  
 25.00  
 2.99  
 1.10  
 1.89

25.16  
 2.89  
 0.99  
 1.90  
 25.45  
 5.27  
 5.15  
 +0.12  
 25.90  
 8.81  
 4.10  
 30.00  
 8.10  
 26.00

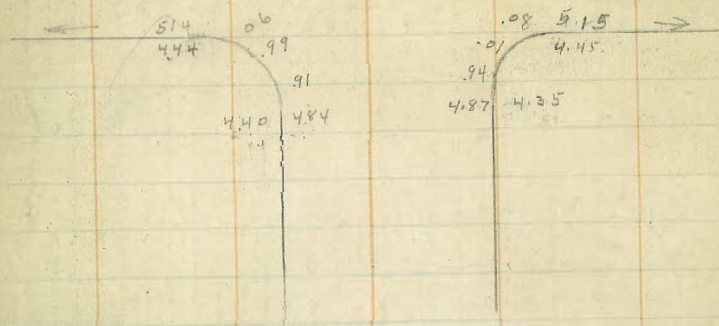
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 25.6  
 8.5  
 25.8  
 8.3  
 26.0  
 8.1  
 27.0  
 7.1  
 28.0  
 6.1  
 29.0  
 5.1  
 30.0  
 4.1

B  
 30.6  
 3.5  
 B  
 31.0  
 3.12  
 30.75  
 3.35  
 30.50  
 3.60  
 30.25  
 3.85  
 30.00  
 4.10



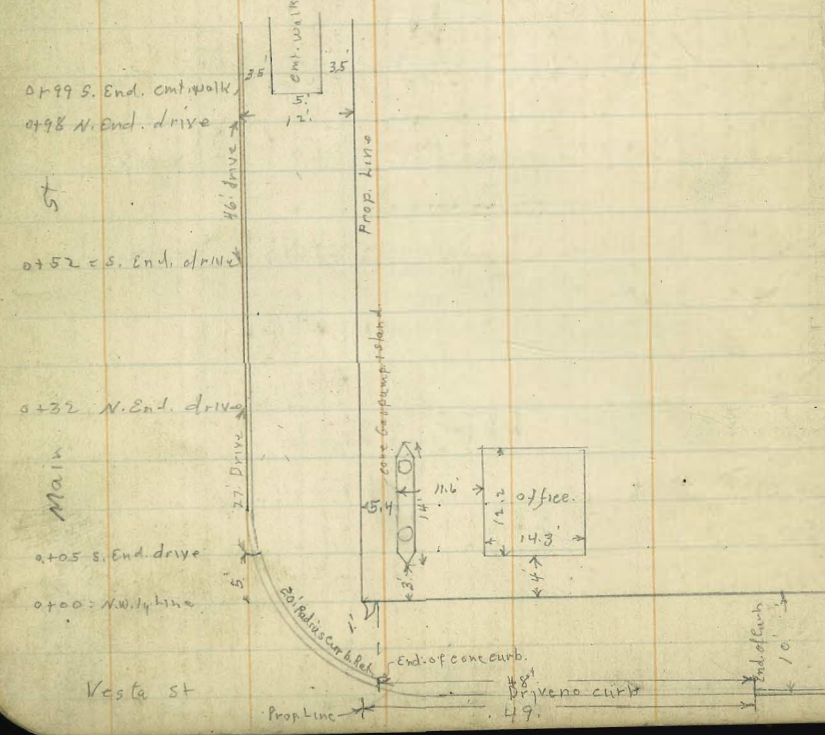
4.92 5.54  
4.90 46.  
3.54 .50

0.4 5.4  
0.9 5.42  
9.00 6.04



7-31-37  
Miller  
Walker

Survey Oil Station Nly Cor Main & Vesta.



20  
15  
17  
28

66.13

91  
63  
54

11.6  
5.4  
17.0

61  
12  
49

DIRECTIONS FOR USE OF TABLES 79

TABLE No. 1

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

IMPROVED TABLES AND INFORMATION

TABLE No. 2

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











210.67

156.44

17

156.15

48

6

210.65

48

162.67

$$C = 2R \sin D$$

$$R = \frac{C}{2 \sin D}$$

$$T = R \tan \frac{1}{2} A$$

493  
5  
493

$$N/2 = 17$$

Boundary Univ & Myrtle 6' gutter 4" crown

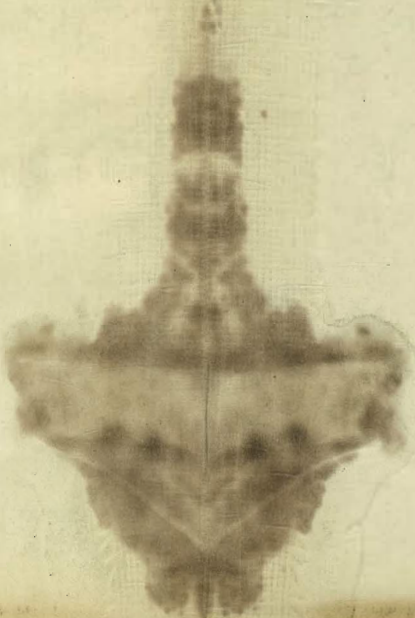
" Myrtle to Thorn 8' gutter 5" crown

up as 6' gutter 3" crown

Guigora & McKimley 6' gutter 4" crown

58.9

43.9



246

49.2

73.8

98.4

4  
4



11.75

8.50

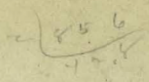
4.25

329.83

48.01

281.82

30  
6.50  
23.50  
67  
22.83



16  
12  
45

20.  
90.27  
15.86  
30.  
156.13

295.7

309.5 d