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WARD SEWER NOTES

Wm. H. Ball, Engineer  
City Hall, San Diego, Cal.

F.B. 172

Return to City Engineers Office  
City Hall, San Diego, Cal.

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MICROFILMED

DEC 7 1964

09/76

Erwin M. Lappel  
City Engineer 1898

Return to City Engineers Office  
City Hall, San Diego, Cal.

MICROFILMED

DEC 7 1964

Alley Bet Irving-Harrison

Stat	Red	Elev	
0+0	7.70	78.50	86.16
50	7.60	78.60	
1+00	7.60	78.60	
50	7.70	78.50	
2+00	6.10	80.10	
50	5.20	81.00	
3+00	3.50	82.70	
59	3.70	82.80	
30	2.60	83.60	
0+0	2.80	83.40	
50	2.30	83.90	
1+00	2.20	84.00	
50	1.70	84.50	
2+00	10.10	85.50	95.65
50	9.00	86.60	
3+00	9.30	86.30	
50	8.70	86.90	
4+00	8.80	86.80	
50	8.80	86.80	
5+00	7.80	87.80	
50	6.40	89.20	

Alley Bet Irving-Harrison **1**

West line 28th st

$$\begin{array}{r}
 498 \\
 81.18 = \text{BM 280. Harrison} \\
 \hline
 86.16 = HI \\
 164 \\
 \hline
 84.52 = \text{T.P.} \\
 11.13 \\
 \hline
 95.65 = HI
 \end{array}$$

East line South 27th

Center

West line South 27th

Alley Bet Inning-Harrison

Stat	Prod	Elev	
6+00	5.30	90.30	
30	5.50	90.20	95.73
0+0	5.50	90.20	
50	4.80	90.90	
1+00	5.40	90.30	
50	6.90	89.00	
2+00	7.20	88.50	
50	7.00	88.70	
3+00	.60	88.40	88.96
50	1.10	87.90	
4+00	1.80	87.20	
50	1.10	87.90	
5+00	1.10	87.90	
50	2.30	86.70	
6+00	5.50	83.50	
30	7.80	81.20	
0+0	10.20	78.80	
50	2.20	76.50	78.68
1+00	3.80	74.90	
50	5.00	73.70	
2+00	5.40	73.30	

East line South 26<sup>th</sup>

Center

West line South 26<sup>th</sup>

95.65  
25  
95.40

BM 26 + Harrison =

95.37

36

95.73 = H.I.

683

88.90 = T.P.

06

88.96 = H.I.

1136

77.60 = T.P.

108

78.68 = H.I.

88.96  
1.53 R on 215 + Harrison  
87.43

East line South 25<sup>th</sup>

Center

West line South 25<sup>th</sup>

Alley Bet Dwing. Harisow

Stak	Rod	Elev.	
50	6.60	72.10	
3+00	7.10	71.60	
50	7.90	70.80	
4+00	9.30	69.40	
50	9.10	69.60	
5+00	8.60	70.10	
50	9.60	69.10	
6+00	10.50	68.20	
30	11.10	67.60	
0+0	11.50	67.20	
50	1.70	66.70	68.36
1+00	2.60	65.80	
50	4.50	63.90	
2+00	6.00	62.40	
50	6.10	62.30	
3+00	7.20	61.20	
50	8.30	60.10	
4+00	9.80	58.60	
50	11.90	56.50	
5+00	3.60	55.90	59.46
50	1.60	57.90	

$78.68$   
 $11.08$   
 $\hline 67.60 = T.P.$   
 $76$   
 $68.36 = H.I.$   
 $11.87$   
 $\hline 56.49 = T.P.$   
 $2.97$   
 $\hline 59.46 = H.I.$

East line South 24<sup>th</sup>  
 Center  
 West line South 24<sup>th</sup>

Alley Bet Irving + Harrison

245-

Stat	Prod	Elev
6+00	2.20	57.30
30	3.20	56.30
0+0	3.90	55.60
50	5.30	54.20
1+00	6.90	52.60
50	8.60	50.90
2+00	10.40	49.10
45	13.50	46.00

East line South 23<sup>rd</sup>  
Center  
West line South 23<sup>rd</sup>

South line Sherman Add-

59.46  
6.68 = R on T.P. 23 and alley  
52.78 = bet Irving + Julia

T.P. on 23rd at bet Irving and Julia = 52.75

Alley Bet Harrison Grant

Stat	Red	Elev	
0+0	9.20	87.60	96.84
50	8.10	88.70	
1+00	6.60	90.20	
50	5.60	91.20	
2+00	4.30	92.50	
50	5.70	91.10	
3+00	5.30	91.50	
50	6.10	90.70	
4+00	4.60	92.20	
50	4.10	92.70	
5+00	4.30	92.50	
50	1.90	94.90	
6+00	.70	96.10	
50	7.15	96.60	103.74
0+0	5.90	97.80	
50	5.50	98.20	
1+00	5.30	98.40	
50	5.20	98.50	
2+00	4.20	99.50	
50	2.80	100.90	
3+00	2.40	101.30	

West line 27<sup>th</sup> sheet

$$\begin{array}{r} \text{BM 26 + Harrison} = 95.37 \\ 1.47 \\ \hline 96.84 = HI \end{array}$$

$$\begin{array}{r} \text{BM 26 + Harrison} = 95.37 \\ 8.37 \\ \hline 103.74 = HI \end{array}$$

East line South 26<sup>th</sup>

Center

West line South 26<sup>th</sup>

Alley Bet Harrison - Grant

Stat	Rod	Elev
50	3.00	100.70
4+00	4.40	99.30
50	7.60	96.10
5+00	11.10	92.60
50	4.10	91.00
6+00	3.70	91.40
30	4.70	90.40
0+0	4.50	90.60
50	4.60	90.50
1+00	6.30	88.80
30	8.50	86.60
2+00	11.90	83.20
50	6.60	79.20
3+00	8.40	77.40
50	8.80	77.00
4+00	7.80	78.00
50	6.30	79.50
5+00	5.30	80.50
50	3.40	82.40
6+00	3.50	82.30
30	3.30	82.50

95.11

85.85

103.74  
 11.03  
 92.71 = T.P.  
 2.40  
 95.11 = H.I.  
 11.80  
 83.31 = T.P.

East line South 25<sup>th</sup>  
 Center  
 West line South 25<sup>th</sup>

83.31  
 2.54  
 85.85 = H.I.  
 9.84  
 76.01 = T.P.  
 37  
 76.38 = H.I.

East line South 24<sup>th</sup>  
 Center



# Alley Bet Harrison - Grant

120.27  
444  
864  
432

7

Stat	Prod	Elc	
0+0	3.70	82.10	
50	5.10	80.70	
1+00	7.70	78.10	
50	9.80	66.60	76.38
2+00	2.50	73.90	
50	9.40	67.00	
3+00	5.30	60.90	66.17
50	7.40	58.80	
4+00	10.70	55.50	
432	12.85	53.40	

## West line South 24<sup>th</sup>

76.38  
11.59  
64.79 = T.P.  
1.38  
66.17 = H.I.  
7.68  
58.49 = T.P.  
4.08  
62.57 = H.I.

## South line Sherman Add -

T.P. = Nail in alley between Irving & Julian  
on 23<sup>rd</sup> st = 52.75

62.57  
9.77 = R. on other T.P.  
52.80

Grant Ave

Stat	Prod	Elev.	
0+0	3.00	92.20	95.21
50	3.00	92.20	
1+00	4.30	90.90	
50	5.60	89.60	
2+00	6.20	89.00	
50	6.80	88.40	
3+00	6.90	88.30	
50	8.50	88.70	
4+00	6.70	88.50	
50	4.90	90.30	
5+00	4.10	91.10	
27	4.90	90.80	
50	3.60	91.60	
0+0	2.70	92.50	
50	3.90	91.30	
1+00	4.30	90.90	
50	4.20	91.00	
2+00	4.30	90.90	
50	3.70	91.50	
3+00	2.50	92.70	
50	2.90	92.30	

Grant Ave

8

West line 28<sup>th</sup> street

$$\begin{aligned} \text{T.P. 27 + Triangl.} &= 86.08 \\ &9.13 \\ \hline &95.21 = H1 \end{aligned}$$

East line South 36<sup>th</sup>

Center

West line South 36<sup>th</sup>

## Grant Ave

Stat	Prod	Eliv	
4+00	5.00	90.20	
50	3.80	91.40	
5+00	9.00	95.20	104.19
50	5.50	98.70	
6+00	4.10	100.10	
30	3.40	100.80	
0+0	3.60	100.60	
50	4.20	100.00	
1+00	5.60	98.60	
50	7.60	96.60	
2+00	11.00	93.20	
50	2.50	90.50	93.04
3+00	7.20	85.80	
50	10.50	82.50	
4+00	8.80	84.20	
50	5.90	87.10	
5+00	5.10	87.90	
50	3.50	89.50	
6+00	3.80	89.20	
30	4.10	88.90	
0+0	5.10	87.90	

## Grant Ave

9

East line South 25<sup>th</sup>  
Center  
West line South 25<sup>th</sup>

$$\begin{array}{r}
 95.21 \\
 1.66 \\
 \hline
 93.55 = 11' P. \\
 10.64 \\
 \hline
 104.19 = H. 1 \\
 2.13 \text{ m B.M. 25 + Grant} \\
 \hline
 102.06
 \end{array}$$

$$\begin{array}{r}
 104.19 \\
 11.49 \\
 \hline
 92.70 \\
 34 \\
 \hline
 93.04 = H. 1
 \end{array}$$

East line South 24<sup>th</sup>  
Center  
West line South 24<sup>th</sup>

Grant Ave

50	10.00	83.00	
1+00	8.10	74.00	82.09
50	3.80	67.40	71.23
2+00	9.10	62.10	
50	3.60	57.70	61.30
3+00	6.80	54.50	
50	9.40	51.90	
+ 85	10.70	50.60	

Grant Ave

10

$$\begin{array}{r}
 93.04 \\
 11.23 \\
 \hline
 81.81 = \text{Tip} \\
 28 \\
 \hline
 82.09 = \text{H} 1 \\
 11.95 \\
 \hline
 70.14 = \text{Tip} \\
 1.09 \\
 \hline
 71.23 = \text{H} 1 \\
 11.63 \\
 \hline
 59.60 = \text{Tip}
 \end{array}$$

Southline N St

$$\begin{array}{r}
 59.60 \\
 170 \\
 \hline
 61.30 = \text{H} 1 \\
 4.31 \\
 \hline
 56.99 = \text{Tip} \\
 6.71 \\
 \hline
 63.70 = \text{H} 1 \\
 519 \text{ RR on Tip on RR road} \\
 \hline
 58.51
 \end{array}$$

58.49 = Tip on RR Riding  
on Harrison St 22+20

Sunday 27th 28

50	3.10	33.50	
100	7.30	32.80	
50	5.60	31.00	
200	5.90	30.70	
50	8.10	28.50	
300	9.30	27.30	
40	9.90	26.70	
0 + 50	11.40	25.20	
50	2.60	24.00	26.50
100	2.80	23.80	
50	3.10	23.50	
200	4.90	21.70	
50	5.50	21.10	
300	7.10	19.50	
40	8.10	18.50	
0 + 50	8.80	17.80	
50	9.90	16.70	
100	10.30	16.30	
50	11.80	14.80	
200	6.30	13.60	19.89
50	7.30	12.60	

$$\begin{array}{r} 36.59 \\ 11.24 \\ \hline 25.35 = 77P \end{array}$$

$$\begin{array}{r} 26.50 \\ 11.67 \\ \hline 14.88 = 77P \end{array}$$

$$\begin{array}{r} 19.89 = 41' \end{array}$$

Franklin Ave

Stat	Rod	Elev.	
0+0	3.60	83.30	86.87
50	5.50	81.40	
1+00	6.20	80.70	
50	4.30	82.60	
2+00	4.00	82.90	
+15	3.90	83.00	
30	3.60	83.30	
0+0	3.60	83.30	
50	4.10	82.80	
1+00	5.40	81.50	
50	.80	80.40	81.22
2+00	1.90	79.30	
50	3.30	77.90	
3+00	4.20	77.00	
50	4.70	76.50	
4+00	5.80	75.40	
50	6.40	74.80	
5+00	6.70	74.40	
50	7.50	73.70	
6+00	9.00	72.20	
30	8.60	72.60	

Franklin Ave 11

West line 28<sup>th</sup> st

East line of South 26<sup>th</sup>

Center

West line South 26<sup>th</sup>

BM 254 Franklin = 79.95

6.27

81.22 = H.I.

73

80.49 = H.P.

6.38

86.87 = H.I.

79

86.08 = H.P.

East line South 25<sup>th</sup>

Center

Franklin Ave

0+0	3.50	72.60	76.05
50	3.70	72.40	
1+00	4.20	71.90	
50	4.50	71.60	
2+00	6.20	69.90	
50	7.30	68.80	
3+00	8.50	67.60	
50	10.20	65.90	
4+00	7.60	62.40	67.03
50	5.30	61.70	
5+00	5.40	61.60	
- 50	5.80	61.70	
85-	5.80	61.20	

Franklin Ave

12

West line South 25"

$$\begin{array}{r}
 \text{BM 251 Franklin} = 74.96 \\
 \quad \quad \quad \quad \quad \quad 1.1 \\
 \hline
 76.05 = \text{HI} \\
 11.18 \\
 \hline
 64.87 = \text{TP} \\
 \quad \quad \quad \quad 2.16 \\
 \hline
 67.03 = \text{HI}
 \end{array}$$

South line N. St.

Alley bet Union and Logan av

13

0+00	11.60	36.80	48.38
50	15.30	33.10	
100	13.20	35.20	
50	6.30	42.10	
200	1.60	46.80	
50	10.60	47.70	58.30
300	9.10	49.20	
50	7.00	51.30	
400	6.60	51.70	
50	5.30	53.00	
500	3.80	54.50	
50	1.90	56.90	
30	9.00	60.70	69.70
0+00	6.70	63.00	
50	12.20	67.40	79.64
100	7.40	72.20	
50	5.20	74.40	
200	3.90	75.70	
50	3.10	76.50	
300	3.80	75.80	

West line 32<sup>nd</sup> st  
79.64

BM 31 + Logan = 77.88  
R.R. on BM = 1.75  
79.63

79.64  
11.79  
67.85 = T.P.  
1.85  
69.70 = H.I.  
11.64  
58.06 = T.P.  
24  
58.30 = H.I.

46.51  
11.71  
58.22 = H.I.  
2.34 = 10 + BM 32 + log  
55.88

East line 31<sup>st</sup> st  
Cenche

West Line 31<sup>st</sup> st.

58.30  
1.157  
46.73 = T.P.  
65  
47.38 = H.I.  
0.87  
46.51 = T.P.



Alley bet Union and Logan av.

14

.50	5.20	74.40	
4.00	5.20	74.40	
.50	5.80	73.80	
5.00	5.30	74.30	
.50	5.60	74.00	
6.00	5.90	73.70	
<u>40</u>	6.30	73.30	
04.00	6.20	73.40	
.50	6.60	73.00	
1.00	4.60	72.20	76.85
.50	5.00	71.80	
2.60	5.70	71.10	
.50	5.70	71.10	
3.00	6.50	70.30	
.50	6.70	70.10	
4.00	6.20	70.60	
.50	5.40	71.40	
5.00	6.10	70.70	
.50	6.40	70.40	
6.00	6.50	70.30	
<u>50</u>	6.20	70.60	

76.85  
 3.53  
 73.32 = 71.7  
 6.82  
 79.64 = 111

East line 30<sup>th</sup> st.  
 Centre  
 West line 30<sup>th</sup> st.

East line 29<sup>th</sup> st  
 Centre

Alley bet Union and Logan ave

0+00	6.90	69.90	
50	6.40	70.40	
100	5.80	71.00	
50	4.50	71.10	75.57
200	4.50	71.10	
50	4.70	70.90	
1500	4.60	71.00	
50	4.10	71.50	
400	3.10	72.50	
50	3.80	71.80	
500	4.00	71.60	
50	4.90	70.70	
600	6.20	69.40	75.60
30	6.50	69.10	
0+00	6.80	68.80	
50	6.10	69.50	
100	8.70	66.90	
150	8.90	66.70	
200	8.90	66.70	
50	8.80	66.80	
300	3.50	66.70	70.23

West line 29th st

$$\begin{array}{r}
 70.23 \\
 3.25 \\
 \hline
 66.98 = T.P. \\
 8.62 \\
 \hline
 75.60 = H.I.
 \end{array}$$

$$\begin{array}{r}
 \text{BM 28 + Logan} = 66.13 \\
 \text{Run same} = 9.44 \\
 \hline
 75.57 = H.I. (\text{corrected}) \\
 3.93 \\
 \hline
 71.64 = T.P. \\
 5.21 \\
 \hline
 76.85 = H.I.
 \end{array}$$

East line 28th st

Can be

West line 28th st

Alley bet. Union + Logan ave.  
#

50	3.70	66.50
400	4.60	65.60
50	5.20	65.00
500	6.00	64.20
50	6.00	64.20
600	5.80	64.40
50	4.80	65.40
0+00	4.70	65.50
50	5.00	65.20
100	5.60	64.60
50	5.40	64.80
200	5.50	64.70
50	6.10	64.10
300	5.70	64.50
50	5.90	64.30
400	5.80	64.40
50	6.40	63.80
500	7.20	63.00
50	8.00	62.20
600	8.30	61.90
50	8.10	62.10

16

$$\begin{aligned} \text{BM 27 + Julian} &= \frac{74.98}{2.10} \\ &= 35.70 \\ &= 77.13 = H 4 \\ &= 10.08 \\ &= 67.05 = T.P. \\ &= 3.18 \\ &= 70.23 = H 1 \end{aligned}$$

East line 27<sup>th</sup> st  
Center  
West line 27<sup>th</sup> st

East line 26<sup>th</sup> st  
Center

Alley bet Logan + National ave.

17

0+00	8.20	62.90	71.06
50	7.30	63.80	
100	6.50	64.60	
150	5.20	65.90	
200	3.70	67.40	
250	10.40	69.10	79.49
300	10.90	68.60	
350	10.70	68.80	
400	9.30	70.20	
450	8.00	71.50	
500	4.40	75.10	
550	2.20	77.30	
600	5.00	76.80	81.75
0+00	4.90	76.90	
50	9.60	77.20	
100	4.50	77.30	
150	7.10	74.70	
200	8.70	73.10	
250	9.70	72.10	
300	11.40	70.40	
350	5.00	68.80	73.85

West line 32<sup>nd</sup> st

BM 31 + National = 71.97

$$\begin{array}{r}
 7.52 \\
 \underline{79.49} = H.I. \\
 10.21 \\
 \underline{69.28} = T.P. \\
 1.78 \\
 \underline{71.06} = H.I.
 \end{array}$$

East line 31<sup>st</sup> st

Center

West line 31<sup>st</sup> st

BM 31 + National = 71.97

$$\begin{array}{r}
 9.78 \\
 \underline{81.75} = H.I. \\
 11.16 \\
 \underline{70.59} = T.P. \\
 3.26 \\
 \underline{73.85} = H.I.
 \end{array}$$

Alley bet Logan and National av.

700	6.80	67.00	
50	7.90	65.90	
500	7.80	66.00	
50	6.40	67.40	
600	5.20	68.60	
40	5.50	68.30	
0+00	5.90	67.90	
50	6.30	67.50	
100	6.40	67.40	
50	6.10	67.70	
200	7.30	66.50	
50	8.90	64.90	
300	4.10	64.50	68.64
50	2.60	66.00	
4.00	1.60	67.00	
50	2.90	65.70	
500	2.80	65.80	
50	2.90	65.70	
600	4.30	64.30	
30	5.50	63.10	
0+00	7.00	61.60	

BM 29 + National = 63.89  
 RR on same = 476  
 68.65

East line 30th st

Center

West line 30th st

73.85

9.13

64.72 = 77.0

39.2

68.64

East line 29th st

Center

West line 29th st

Alley bet Logan + National ave

50	8.00	60.60	
100	4.50	64.10	
50	2.20	66.40	
200	1.70	66.90	
50	2.50	66.10	
200	3.70	64.90	
50	5.10	63.50	
400	5.50	63.10	
50	1.50	55.00	66.49
500	2.20	64.30	
50	2.30	64.20	
600	4.30	62.20	
30	4.90	61.60	
0 + 100	5.00	61.50	
50	6.60	59.90	
100	8.90	58.10	
50	9.30	57.20	
200	11.60	54.90	
50	9.90	51.80	61.68
300	8.70	53.00	
50	4.60	57.10	

$$\begin{array}{r}
 68.64 \\
 588 \\
 \hline
 62.76 = \text{TP} \\
 391 \\
 \hline
 66.47 = \text{HI}
 \end{array}$$

East line 28th al.

$$\begin{array}{r}
 \text{BTL 28 + National} = 57.71 \\
 \text{RR. in same} = 898 \\
 \hline
 66.49 = \text{HI corrected} \\
 1124 \\
 \hline
 55.25 = \text{TP} \\
 643 \\
 \hline
 61.68 = \text{HI}
 \end{array}$$

Alley bet Logan + National ave

400	4.90	56.80	
50	5.10	56.60	
500	6.40	55.30	
50	6.80	54.90	
600	5.30	56.40	
30	4.60	57.10	
0+00	3.90	58.80	62.74
50	3.50	59.20	
100	4.90	58.30	
50	5.40	57.30	
200	4.70	58.00	
50	5.20	57.50	
300	5.10	57.60	
50	4.90	57.80	
400	7.80	57.90	
50	5.30	57.40	
500	6.90	56.30	
50	6.80	55.90	
600	7.60	55.10	
30	8.20	54.50	

$$\begin{array}{r}
 61.68 \\
 4.33 \\
 \hline
 57.35 = \text{T.P.} \\
 5.39 \\
 \hline
 62.74 = \text{H.I.} \\
 8.15 \\
 \hline
 54.59 = \text{T.P. Eline 27 st}
 \end{array}$$

$$\begin{array}{r}
 \text{B.M. } \S 26 + \text{Logan} = 6631 \text{ Centre} \\
 \text{R.R. on same} = \frac{.19}{6650} \text{ Wline 27-28}
 \end{array}$$

$$\begin{array}{r}
 54.59 = \text{T.P.} \\
 11.93 \\
 \hline
 66.52 = \text{H.I.}
 \end{array}$$

Alley bet National + Grandan

0+50	13.40	60.00	73.36
50	11.60	61.80	
100	10.80	62.60	
50	9.70	63.70	
200	8.60	64.80	
50	7.80	65.60	
300	7.00	66.40	
50	5.30	68.10	
400	5.20	68.20	
50	4.90	68.50	
500	5.30	68.10	
50	6.20	67.20	
30	7.20	66.20	
0+500	8.70	64.70	
50	9.80	63.60	
100	10.30	63.10	
50	1.80	62.70	69.51
200	2.40	62.10	
50	2.20	62.30	
300	1.30	63.20	
50	1.50	63.00	

21

West line 32<sup>nd</sup> St

$$\begin{array}{r}
 64.51 \\
 \underline{1.70} \\
 62.81 = \text{Tip} \\
 \underline{10.55} \\
 73.36 = \text{H 1}
 \end{array}$$

$$\begin{array}{r}
 \text{To M 31 + National} = 71.97 \\
 \text{R R on same} = 1.43 \\
 \hline
 73.40
 \end{array}$$



400	1.60	62.90
50	2.70	61.80
500	5.00	59.50
50	6.40	58.10
600	6.20	58.30
48	6.10	58.40
<del>500</del>	5.00	59.50
50	4.70	59.80
100	3.80	60.70
50	4.60	59.90
200	5.10	59.40
50	5.50	59.00
300	6.10	58.40
50	7.20	57.30
400	6.60	57.90
50	6.50	58.00
500	6.00	58.50
50	6.10	58.40
600	6.80	57.70
30	7.30	57.20
<del>500</del>	6.80	57.70

East line 30<sup>th</sup>

$$\begin{array}{r}
 59.33 \\
 289 \\
 \hline
 \sqrt{6.44} = 7.7 \\
 807 \\
 \hline
 64.51 = 41
 \end{array}$$

East line 29<sup>th</sup>

50	2.90	56.40	59.33
150	3.00	56.30	
50	1.40	57.90	
200	1.80	57.50	
50	8.00	51.30	
300	19.10	45.20	
50	10.10	49.20	
400	6.10	53.20	
50	4.80	54.50	
500	6.70	52.60	
50	6.00	53.30	
600	5.20	54.10	
<del>30</del>	5.30	54.00	
1400	4.10	55.20	
50	3.20	56.10	
100	4.90	54.90	
50	4.90	54.40	
200	4.70	54.60	
50	.70	53.80	54.51
300	3.80	50.70	
50	8.80	45.70	

$$\begin{array}{r}
 54.51 \\
 69 \\
 \hline
 53.82 = T.P. \\
 552 \\
 \hline
 59.34
 \end{array}$$

East line 28<sup>th</sup>  
B

$$\begin{array}{r}
 \text{BM 28 + National } 5791 \\
 \text{R.R. on same } = 162 \\
 \hline
 59.33 = \text{C.H.I.}
 \end{array}$$

400	14.50	40.00	
50	15.20	39.30	
500	7.70	46.80	
50	5.80	48.70	
600	4.50	50.00	
<del>30</del>	5.10	49.40	
5400	3.10	51.40	
50	3.30	51.20	
100	4.80	49.70	
50	5.20	49.30	
200	6.60	47.90	
50	7.20	47.30	
300	7.90	37.40	
50	8.20	36.60	
400	8.70	36.10	
50	.30	44.50	44.82
500	.80	44.00	
50	.40	44.40	
600	2.00	42.80	
30	2.20	42.60	

BM 275 Newton

34.52  
10.3044.82 = H1  
75East line 27<sup>th</sup>44.07 = H1  
10.44

54.51 = H1

East line 26<sup>th</sup>

Alley bet Grand and Boston av

0+00	13.50	45.90	57.37
50	10.90	48.50	
100	6.10	53.30	
50	3.20	56.20	
200	1.90	57.50	
50	1.20	58.20	
300	1.70	57.70	
50	2.50	56.90	
400	4.30	55.10	
50	4.70	54.70	
500	3.90	55.50	
50	4.10	55.30	
50	4.00	55.20	59.21
6+00	4.90	54.80	
50	5.00	54.20	
100	5.50	53.70	
50	6.00	53.20	
200	6.10	53.10	
50	5.90	53.80	
300	4.00	55.20	
50	2.80	56.40	

BM 81 + National = 71.97  
1.10  
 73.07 = H.I.  
11.30  
 61.77 = T.P.  
1.70  
 63.47 = H.I.  
8.45  
 55.02 = T.P.  
4.35  
 59.37 = H.I.

East line 81

55.02 = T.P.  
4.19  
 59.21 = H.I.

400.	3.40	55.80	
50	3.40	55.80	
500	5.00	54.20	
50	5.30	53.90	
600	5.40	53.80	
40	5.90	53.30	
0+00	7.60	51.60	
50	8.20	43.10	51.29
100	13.30	38.00	
50	5.10	46.20	
200	6.40	51.30	57.74
50	4.60	53.10	
300	4.80	52.90	
50	4.70	53.00	
400	4.50	53.20	
50	4.50	53.20	
500	4.70	53.00	
50	4.50	53.20	
600	5.10	52.60	
50	5.90	51.80	
0+00	6.90	50.80	

8.73  
50.45  
59.18

26

59.21

BM 30 + Boston = 50.45  
R. R. on same = 8.73  
59.18

East line 30

59.21  
10.85  
48.36  
2.93  
51.29 = H  
1.74  
49.55 = M.P.  
8.20  
57.75 = H  
5.83  
51.92 = M.P.

East line 29

50	7.60	50.10	
100	8.80	48.90	
50	8.20	49.50	
200	9.00	48.70	
50	8.10	49.60	
300	2.80	48.70	51.49
50	6.90	44.60	
400	15.00	36.50	
50	16.90	35.10	
500	8.50	43.00	
50	3.90	48.10	
600	3.30	48.20	
30	6.50	45.00	
400	3.50	48.00	
50	2.90	57.50	50.87
100	5.00	45.40	
50	5.80	44.60	
200	4.20	46.20	
50	5.90	44.50	
300	7.70	37.60	45.34
50	15.10	30.20	

$$\begin{array}{r}
 57.75 = HI \\
 \underline{8.96} \\
 48.79 = TP \\
 \underline{2.70} \\
 51.49 = HI \\
 \underline{3.30} \\
 48.19 = TP \\
 \underline{11.19} \\
 59.38 = HI
 \end{array}$$

$$\begin{array}{r}
 BM 28 + Nat'l = 57.71 \\
 RR on same = \underline{1.73} \\
 59.44 = Co H 1
 \end{array}$$

East line 28th

$$\begin{array}{r}
 T.P. = 59.44 \\
 \underline{11.19} \\
 48.25 = TP \\
 \underline{2.12} \\
 50.37 = HI \\
 \underline{11.83} \\
 38.54 = TP \\
 \underline{6.80} \\
 45.34
 \end{array}$$

400	11.30	34.00	
50	4.90	40.90	
+500	2.00	43.30	
50	2.90	42.40	
600	4.50	40.80	
<del>30</del>	5.40	39.90	
1400	3.20	39.20	42.49
50	2.70	39.70	
100	2.90	39.50	
50	3.50	38.90	
200	3.90	38.50	
50	4.30	38.10	
300	5.00	37.40	
50	6.40	36.00	
400	6.80	35.60	
50	6.70	35.70	
500	8.90	34.00	
50	7.60	34.80	
600	8.50	33.90	
<del>80</del>	8.90	33.50	

East line 27<sup>th</sup>

$$\begin{array}{r}
 4534 \\
 \underline{5.72} \\
 39.62 = \text{I.P.} \\
 \underline{2.82} \\
 42.44 = \text{H.I.} \\
 \underline{791} \\
 34.53 = \text{I.P.} \\
 \underline{3.78} \\
 38.31 = \text{H.I.}
 \end{array}$$

$$\begin{array}{r}
 \text{BM 27 + Newton} = 34.52 \\
 \text{RR on same} = \underline{380} \\
 38.32
 \end{array}$$

$$\begin{array}{r}
 378 \\
 \underline{34.54} = \text{I.P.}
 \end{array}$$

East line 26<sup>th</sup>

Alley bet Boston + Topeka a.

29

6400	7.00	39.10	46.07
50	4.50	41.60	
100	10.30	35.80	
50	8.80	37.30	
200	4.40	41.70	
50	9.40	48.40	57.76
300	6.70	51.10	
50	5.20	52.60	
400	4.70	53.10	
50	4.70	53.10	
550	4.90	52.90	
50	7.90	49.10	57.04
30	8.40	48.60	
6400	8.50	48.50	
50	8.70	48.30	
100	7.80	49.20	
50	5.40	51.60	
200	3.90	53.10	
50	4.00	53.00	
300	4.90	52.10	
50	6.00	57.00	

$$\begin{array}{r}
 57.04 \\
 731 \\
 \hline
 49.73 = \text{M.P.} \\
 5.03 \\
 \hline
 54.76 = \text{H.I.} \\
 1128 \\
 \hline
 43.48 = \text{T.P.} \\
 259 \\
 \hline
 46.07 = \text{H.I.}
 \end{array}$$

East line 31<sup>st</sup>



400	6.20	50.80	
50	8.60	48.40	
500	8.10	48.90	
50	8.00	49.00	
600	7.50	49.50	
40	8.70	48.60	
0400	9.00	48.00	
50	12.10	44.90	
100	12.20	30.60	42.77
50	18.70	24.10	
200	5.00	37.80	
50	9.20	42.80	51.98
500	6.60	45.40	
50	7.30	44.70	
400	7.60	44.40	
50	8.50	43.50	
500	8.20	43.80	
50	8.00	44.00	
600	7.70	43.20	47.94
30	9.90	43.00	
0400	5.00	42.90	

$$\begin{aligned} \text{BM 29 + Topoka} &= 4114 \\ \text{R-R on same} &= \frac{720}{48.34} \end{aligned}$$

East line 30th

47.94

$$\text{BM 30}^2 + \text{Nat}^6 = 65.74$$

$$\frac{86}{66.60} = H1$$

$$\frac{11.21}{55.29} = T.P.$$

$$\frac{84}{56.13} = H1$$

$$\frac{5.92}{50.21} = T.P. \text{ (Nail in fence post)}$$

$$\frac{1.77}{51.98} = H1 \text{ (Nail in fence post)}$$

$$\frac{10.99}{40.99} = T.P.$$

$$\frac{1.78}{42.77} = H1$$

$$\frac{1.78}{42.77} = H1$$

$$\frac{1.78}{42.77} = H1$$

$$\frac{50.21}{6.83} = H1$$

East line 29

$$\begin{array}{r} \text{BM 29 + Nat'l} = 63.89 \\ \text{R R on same} = 1.85 \\ \hline 65.74 \end{array}$$

50	4.20	43.20	
100	5.30	42.60	
50	4.90	43.00	
200	5.30	42.60	
50	.20	40.80	40.97
300	3.90	37.10	
50	3.10	37.90	
400	1.40	39.60	
50	1.30	39.70	
500	8.20	32.50	
50	17.10	23.90	
600	10.00	32.10	42.08
30	9.90	32.20	
0+00	9.60	32.50	
50	6.50	35.60	
100	4.40	37.70	
50	3.30	38.80	
200	3.60	38.50	
50	6.10	36.00	
300	10.40	31.70	
50	8.50	25.10	33.63

$$\begin{array}{r} 57.14 \\ 862 \\ \hline 65.76 = HI \end{array}$$

$$33.63 = HI$$

$$\begin{array}{r} 30.92 = TP \text{ Pal 27 } \\ 11.16 \\ \hline \end{array}$$

$$\begin{array}{r} 42.08 = HI \\ 9.85 \\ \hline \end{array}$$

$$\begin{array}{r} 32.23 = TP \\ 8.74 \\ \hline \end{array}$$

$$40.97 = HI$$

$$\begin{array}{r} 81 \\ \hline 40.16 = TP \end{array}$$

East line 28

$$40.16$$

$$778$$

$$\hline 47.94 = HI$$

$$84$$

$$\hline 47.10 = TP$$

$$11.62$$

$$\hline 58.72 = HI$$

$$1.58$$

$$\hline 57.14 = TP$$

400	13.40	20.20	
50	15.30	18.30	
500	8.00	25.60	
50	1.70	31.90	
600	.50	33.10	
<del>30</del>	2.30	31.30	
0+00	5.40	30.20	35.61
50	5.70	29.90	
100	5.90	29.70	
50	5.50	30.10	
200	4.90	30.70	
50	5.60	30.00	
300	5.70	29.90	
50	6.50	29.10	
400	5.60	30.00	
50	5.20	30.40	
500	5.60	30.00	
50	6.40	29.20	
600	8.90	26.70	
<del>30</del>	9.20	26.40	

B-S on T.P. at end alley bet Grand  
+ Boston av = 34.84

$$\frac{1.07}{35.61} = H1$$

East line 27

35.61.

4.69

30.92 = T.P.

2.71

33.63 = H1

Alley bet Topeka + Bolton ave.

33

0+00	8.10	42.90	50.99
50	4.70	46.30	
100	4.10	46.90	
50	4.40	46.60	
200	4.60	46.40	
50	6.20	44.80	
300	7.20	36.80	43.96
50	.70	43.30	
400	.90	43.10	
50	1.80	42.20	
500	2.90	41.10	
50	3.80	40.20	
30	4.00	40.00	
0+00	4.30	39.70	
50	8.60	35.40	
100	7.80	24.80	32.61
50	13.60	19.00	
200	10.10	22.50	
50	9.20	23.40	
300	5.40	27.20	
50	9.40	32.70	42.10

$$\begin{array}{r} 46.07 \\ 1.45 \\ \hline 44.62 = \text{T.P.} \\ 6.37 \\ \hline 50.99 = \text{H I} \\ 7.05 \\ \hline 43.94 = \text{T.P.} \\ .02 \\ \hline 43.96 = \text{H I} \\ 12.00 \\ \hline 31.96 = \text{T.P.} \\ .65 \\ \hline 32.61 = \text{H I} \\ 2.37 \\ \hline 30.24 = \text{T.P.} \\ 11.86 \\ \hline 42.10 = \text{H I} \end{array}$$

400	4.60	37.50	
50	4.20	37.90	
500	4.60	37.50	
50	5.50	36.60	
600	5.20	36.90	
40	4.50	38.40	37.87
0+00	7.90	30.00	
50	.80	30.80	31.60
100	12.60	19.00	
50	15.30	4.50	19.83
200	9.70	20.80	30.52
50	6.20	32.80	32.01
300	4.10	34.90	
50	4.10	34.90	
400	9.20	29.80	
50	14.60	24.40	
500	12.70	26.30	
50	11.40	27.60	
600	6.80	32.20	
30	11.90	32.00	43.90
0+00	12.20	31.70	

$$\begin{array}{r} 42.10 \\ 1.05 \\ \hline 41.05 \\ 9.65 \\ \hline 50.70 \\ 50 = \text{RR on T.P. on 30th st at Boston + Topeka} \\ \hline 50.20 \end{array}$$

whose Elevation = 50.21

$$\begin{array}{r} 42.10 \\ 5.11 \\ \hline 36.99 = \text{T.P.} \end{array}$$

$$\begin{array}{r} 36.99 = \text{T.P.} \\ 88 \\ \hline 37.87 = \text{HI} \end{array}$$

West Line, 30th St

$$\begin{array}{r} 30.52 \\ 50 \\ \hline 30.02 \\ 8.99 \\ \hline 39.01 = \text{HI} \\ 5.36 \\ \hline 33.65 = \text{HTP} \\ \text{in bank} \\ \text{on NE cor} \\ \text{alley (rail)} \\ \hline 37.87 \\ 7.67 \\ \hline 30.20 = \text{T.P.} \\ 1.40 \\ \hline 31.60 = \text{HI} \\ 11.75 \\ \hline 19.87 = \text{T.P.} \\ 3.69 \\ \hline 23.56 = \text{HI} \\ 10.43 \\ \hline 13.13 = \text{T.P.} \\ 6.70 \\ \hline 19.83 = \text{HI} \\ 7.4 \\ \hline 19.09 = \text{T.P.} \\ 11.43 \\ \hline 30.52 = \text{HI} \end{array}$$

Centre Line 29th St

50	4.50	31.20	35.67
100	4.00	31.70	
50	4.10	31.60	
200	3.10	32.60	
50	5.50	30.20	
300	15.50	20.20	
50	18.10	17.60	
400	6.20	29.50	
50	2.80	32.90	
500	2.70	33.00	
50	4.50	31.20	
600	6.20	26.20	32.58
30	14.90	17.50	
0+00	15.00	17.40	
50	14.10	8.10	22.25
100	11.90	10.30	
50	7.90	25.30	32.66
200	3.90	28.80	
50	4.50	28.20	
300	4.90	27.80	
50	5.60	27.10	

B S on T.P. on 30th st bet Boston  
+ Dureka T.P. = 50.21

$$\begin{array}{r}
 3.97 \\
 \hline
 54.18 = H1 \\
 11.29 \\
 \hline
 42.89 = T.P. \\
 1.01 \\
 \hline
 43.90 = H1 \\
 10.19 = R.K. on T.P. in Bank \\
 33.71 = H1 T.P. \\
 1.96 \\
 \hline
 35.67 = H1 \\
 4.21 \\
 \hline
 31.46 = T.P. \\
 .92 \\
 \hline
 32.38 = H1 \\
 11.53 \\
 \hline
 20.85 = T.P. \\
 1.40 \\
 \hline
 22.25 = H1
 \end{array}$$

Centre 28th st

$$\begin{array}{r}
 22.25 \\
 \hline
 50 \\
 \hline
 21.75 = T.P. \\
 10.91 \\
 \hline
 32.66 = H1
 \end{array}$$

700	5.50	27.20	
50	6.00	26.70	
500	9.80	22.90	
50	5.70	16.30	22.04
600	13.30	8.70	
30	17.60	4.40	
0+00	17.40	4.60	
50	6.30	15.70	
100	6.00	21.90	27.86
50	5.00	22.90	
200	4.50	23.40	
50	4.10	23.50	
300	5.40	22.50	
50	5.60	22.30	
400	3.40	24.50	
50	3.80	24.10	
500	4.60	23.30	
50	4.90	23.00	
600	4.60	23.30	
<del>30</del>	4.60	23.30	

34.52

$$\begin{array}{r} 32.66 \\ 11.35 \\ \hline 21.31 = 7.9 \\ 73 \\ \hline 22.04 = 4.1 \\ 1.30 \\ \hline 20.74 = 7.9 \\ 7.12 \\ \hline 27.86 = H.1 \end{array}$$

Centre 27th

$$\begin{array}{r} 27.86 \\ 77 \\ \hline 27.09 = 7.9 \\ 9.98 \\ \hline 37.07 = H.1 \end{array}$$

$$\begin{array}{r} \text{BM 27 + Newton} = 34.52 \\ \text{RR on same} = 2.58 \\ \hline 37.10 \end{array}$$

• Centre 26th st -

Twenty sixth street.

37

Sta	Rod	Elev	HI
0+00	.90	63.00	63.86
33	1.70	62.20	
83	2.80	61.10	
133	3.70	60.50	
183	4.00	59.90	
<del>40</del>	4.30	59.60	
0+00	4.90	59.00	
50	6.30	57.60	
100	7.80	56.10	
50	9.20	54.70	
200	.80	53.20	53.98
50	2.30	51.70	
300	3.90	50.10	
<del>40</del>	4.30	49.70	
0+00	5.70	48.60	
50	7.60	46.40	
100	9.40	44.60	
50	1.30	42.20	43.54
200	2.20	41.30	
50	3.30	40.20	
300	4.40	39.10	

Center Union ave

10.55

Center Logan av

BM 27 + Newton = 74.52

$$\begin{array}{r} 74.52 \\ 9.02 \\ \hline 43.54 = H \\ 60 \end{array}$$

42.94 = T.P

$$\begin{array}{r} 42.94 \\ 10.94 \\ \hline 53.98 = H \\ 98 \end{array}$$

$$\begin{array}{r} 53.98 \\ 10.86 \\ \hline 63.86 = H \end{array}$$

$$\begin{array}{r} 51.15 \\ 2.74 \\ \hline 53.89 \end{array}$$

Center National av

BM 26 + Logan = 66.31

BM 26 + National = 1.03

67.34

$$\begin{array}{r} 63.86 \\ 2.44 \\ \hline 61.42 = T.P \end{array}$$

$$\begin{array}{r} 61.42 \\ 6.01 \\ \hline 67.43 = H \end{array}$$



Twenty Sixth street

Sta	Rod	Elev	H1
<del>40</del>	5.80	37.70	
0+00	7.10	36.40	
50	.50	35.70	36.20
100	1.30	34.90	
50	2.30	33.90	
200	3.60	32.60	
50	4.60	31.60	
300	6.00	30.20	
40	7.60	28.60	
0+00	8.30	27.90	
50	9.00	27.20	
100	8.50	27.70	
50	9.70	26.50	
200	10.90	25.30	
50	10.50	25.70	
300	10.60	25.60	
40	11.70	24.50	
0+00	11.10	25.10	
50	11.10	25.10	
100	12.10	24.10	
50	13.00	23.20	

Center Grand ave

$$\text{BWT } 27^{\text{th}} + \text{Newton} = 34.52$$

$$\begin{array}{r} 171 \\ 36.23 \end{array}$$

Center Boston

Center Topika

Twenty Sixth Street

39

Sta	Rod	Elev	H1
-----	-----	------	----

200	14.30	21.90	
-----	-------	-------	--

10			
----	--	--	--

300			
-----	--	--	--

40			
----	--	--	--

= Bluff above R R tracks.

Center bottom an

Alley bet Webster and Stal

Sta	Rod	Elev	HI
0+00	1.40	87.40	88.75
50	2.70	86.10	
100	4.30	84.50	
50	5.80	83.00	
200	8.60	80.20	
50	10.20	78.60	
300	3.90	77.70	81.13
50	4.90	76.20	
400	5.80	75.30	
50	5.60	75.50	
500	4.00	77.10	
50	6.80	74.30	
600	6.50	74.60	
30	6.00	75.10	
0+00	7.00	74.10	
50	6.10	75.00	
100	7.30	73.80	
50	7.40	73.70	
200	7.50	73.60	
50	8.00	73.10	
300	8.00	73.10	

West line 32nd st

$$\begin{array}{r} 81.13 \\ 321 \\ \hline 77.92 = \text{M.P.} \\ 1083 \\ \hline 88.75 = \text{HI} \\ 16 \\ \hline 87.99 = \text{M.P.} \end{array}$$

East line 31st st

Sta	Rod	Elev	HI
50	8.40	72.70	
400	8.90	72.70	
50	8.80	72.30	
500	9.00	72.10	
50	9.20	71.90	
600	9.00	72.10	
40	8.80	72.3	
6+00	3.70	71.7	75.38
50	3.80	71.60	
100	3.90	71.50	
50	4.20	71.20	
200	4.10	71.30	
50	3.50	71.90	
300	4.60	70.80	
50	4.80	70.60	
400	5.30	70.10	
50	5.20	70.20	
500	5.30	70.10	
50	5.20	70.20	
600	5.40	70.00	
30	5.50	69.90	

$$\begin{array}{r}
 75.38 \\
 3.22 \\
 \hline
 72.16 = \text{I.P.} \\
 8.97 \\
 \hline
 81.13 = \text{HI}
 \end{array}$$

Center 30<sup>th</sup> St

Center 29<sup>th</sup> St

Alley bet Webster ave + Mal

Stav	Rod	Elev	HI
0+00	5.50	69.90	
50	4.50	70.90	
100	5.60	69.80	
150	5.50	69.90	
200	5.20	70.20	75.42
50	4.70	70.70	
300	4.70	70.70	
50	5.70	69.70	
400	6.00	69.40	
50	5.40	70.00	
500	6.00	69.40	
50	6.30	69.10	
600	6.40	69.00	
30	5.40	70.00	

BM 25<sup>th</sup> + Franklin = 74.95

2.13

77.08 + HI

7.21

69.87 = HI

5.55

75.42 = HI

4.56

70.86 = HI

4.52

75.38 = HI

Centre 28<sup>th</sup> st

## Alley bet Clay and Webster ave

Sta	Red	# Rev	HI
0+00	7.50	82.50	90.05
50	9.60	80.40	
100	9.60	80.40	
50	8.40	81.60	
200	8.70	81.30	
50	9.50	80.50	
300	9.70	80.30	
50	10.70	79.60	
400	6.70	78.30	85.04
50	6.00	79.00	
500	7.80	80.20	
50	5.10	79.90	
600	6.60	78.40	
30	15.00	70.00	
0+00	10.60	74.40	
50	6.70	71.20	77.95
100	11.80	66.10	
50	12.00	65.90	
200	9.90	68.00	
50	6.90	71.00	
300	5.70	72.20	

Street line 32<sup>nd</sup> st

$$\begin{array}{r}
 87.99 \\
 2.06 \\
 \hline
 90.05 = HI \\
 10.19 \\
 \hline
 79.86 = T.P. \\
 5.18 \\
 \hline
 85.04 = HI \\
 10.26 \\
 \hline
 74.78 = T.P. \\
 3.17 \\
 \hline
 77.95 = HI
 \end{array}$$

Centre line 31<sup>st</sup> st

Sta	Red	Elev	HI
50	5.10	72.80	
400	4.80	73.10	
50	4.50	73.40	
500	5.30	72.60	
50	4.50	73.40	
600	4.80	73.10	
40	4.00	73.90	
0400	3.80	74.10	
50	3.80	74.80	78.59
100	3.70	74.90	
50	3.70	74.90	
200	3.30	75.30	
50	2.70	75.90	
300	3.20	75.40	
50	4.10	74.50	
400	4.60	74.00	
50	4.60	74.00	
500	4.60	74.00	
50	4.90	73.70	
		74.00	
600	4.60	74.00	
80	5.00	73.60	

$$\begin{array}{r}
 77.95 \\
 344 \\
 \hline
 74.51 = T.P. \\
 408 \\
 \hline
 98.59 = HI
 \end{array}$$

Center line 30<sup>th</sup> st

Center line 29<sup>th</sup> st

Alley bet. Olney and Webster Aves

Sta	Rod	Elev	H.I.
0+00	4.80	73.80	
50	4.10	74.50	
100	4.80	73.80	
50	4.80	73.80	
200	4.70	73.90	
50	3.60	75.00	
300	4.90	74.20	
50	4.40	74.10	78.47
400	5.50	73.00	
50	5.70	72.80	
500	4.90	73.60	
50	5.60	72.90	
600	5.60	72.90	
30	5.30	73.20	

$$\begin{array}{r}
 78.59 \\
 \underline{4} \\
 74.59 = \text{T.P.} \\
 \underline{388} \\
 78.47 = \text{H.I.}
 \end{array}$$

$$\begin{array}{r}
 69.87 = \text{T.P. set from B.M. at 25+ Main St.} \\
 \underline{854} = \text{R.R. on same} \\
 78.41 = \text{corrected H.I.} \\
 \underline{186} \\
 76.55 = \text{T.P.}
 \end{array}$$

Centre line 28th St.



Alley bet. 6<sup>th</sup> and Sargent ave

Sta	Red	Elev	H.I.
0+00	2.90	73.60	76.46
50	3.50	73.00	
100	7.60	68.90	
50	7.90	68.60	
200	7.30	69.20	
50	7.60	68.90	
300	6.70	69.80	
50	3.60	72.90	
400	4.20	72.30	
50	4.60	71.90	
500	6.70	69.80	
50	8.50	68.00	
600	9.60	66.90	
30	15.30	61.20	
0+00	9.10	67.40	
50	3.40	62.00	65.43
100	10.20	55.20	
50	16.60	48.80	
200	8.80	56.60	
50	11.30	54.10	
300	9.20	56.20	

65.74

West line 32<sup>nd</sup> st

75.32
11.68
<u>63.64 = I.P.</u>
1.79
65.43 = H.I.
82
64.61 = I.P.
11.85
76.46 = H.I.
3.72
72.75 = I.P.
7.01
79.76 = H.I.
8.66
71.10 = I.P.
1.18
72.28

Center 31<sup>st</sup> st

B.M. 30 + National	=	65.74
R.R. on same	=	6.47
		<u>72.21</u>

Alley bet 30th and 29th st

Sta	Rod	Elev.	H1
50	12.00	63.30	75.32
400	8.10	67.20	
50	3.80	71.50	
500	10.80	76.10	86.68
50	10.80	76.10	
600	9.70	77.20	
40	6.80	80.10	
0+00	9.40	85.20	94.58
50	3.70	90.90	
100	.90	93.70	
50	4.20	90.40	
200	9.20	85.40	
50	11.80	82.80	
300	14.60	80.00	
50	13.50	81.10	
400	11.80	82.80	
50	11.70	82.90	
500	11.50	83.10	
50	11.80	82.80	
600	11.70	82.90	
50	11.50	83.10	

$$\begin{array}{r}
 94.58 \\
 878 \\
 \hline
 85.80 = T.P. \\
 88 \\
 \hline
 86.68 = H1 \\
 1186 \\
 \hline
 74.82 = T.P. \\
 50 \\
 \hline
 75.32 = H1
 \end{array}$$

Centre 30th st.

Centre 29th st.

Wells bet Belmont and Argent a

Sta	Rad	Elev	H <sub>1</sub>
6700	1080	83.80	
50	4.40	82.80	87.20
100	4.90	82.80	
50	4.10	83.10	
200	4.00	83.20	
50	3.90	83.30	
300	3.40	83.80	
50	2.60	84.60	
400	3.30	83.90	
50	4.80	82.40	
500	4.90	82.30	
50	5.50	81.70	
600	7.20	80.00	
30.	6.80	80.40	

76.55 = T.P.  
 10.65  
 87.20 = H<sub>1</sub>  
 4.30  
 82.90 = T.P.  
 11.68  
 94.58 = H<sub>1</sub>

Center 28th 28

## Alley bit Ingent + Woolman av

0 + 50	2.60	70.20	72.82
50	2.70	70.10	
100	4.80	68.00	
50	5.00	67.80	
200	7.10	65.70	
50	8.80	57.10	65.94
300	15.40	50.50	
50	13.70	52.20	
400	9.80	56.10	
50	7.30	58.60	
500	9.60	56.30	
50	7.60	49.90	57.49
600	12.30	45.20	
30	5.66	51.80	R.R. Track
6400	16.30	41.20	
50	18.20	39.30	
1000	10.80	46.70	
50	2.60	54.90	
100	7.90	59.70	67.58
50	5.20	62.40	
300	5.60	62.00	

$$\begin{array}{r} 62.57 \\ 10.25 \\ \hline 72.82 \\ 11.26 \\ \hline 61.56 = TP \\ 438 \\ \hline 65.94 = H1 \\ 11.45 \\ \hline 54.49 = TP \\ 300 \\ \hline 57.49 = H1 \\ 111 \\ \hline 56.38 = TP \\ 1120 \\ \hline 67.58 = H1 \\ 28 \\ \hline 67.30 = TP \\ 1122 \\ \hline 78.52 = H1 \end{array}$$

Alley bit - haircut + Woodman's

50	.50	67.10	
400	7.30	71.20	78.52
50	4.10	74.40	
500	10.30	78.60	88.96
50	7.30	81.60	
600	4.60	84.30	
40	2.80	86.10	
64.00	9.90	88.40	98.33
50	5.30	93.00	
100	3.40	94.90	
50	.70	103.80	104.49
200	5.20	99.20	
50	5.40	99.10	
300	5.90	98.60	
50	8.00	96.50	
400	9.60	94.90	
50	8.10	96.40	
500	6.50	98.00	
50	4.60	99.90	
600	3.30	101.20	
30	2.90	101.60	

88.95  
4.60  
84.35

82.15  
10.72  
72.87  
8.5  
84.37

50

67.58  
78.52  
89  
77.63 = T.P.  
11.32  
88.95

82.15 = nail in hitching post bet S + T ch  
10.72  
92.87  
6.04  
86.83 = T.P.  
11.50  
98.33  
3.9  
9794 = T.P.  
6.55  
10449  
+41  
105.90

Alley to Sargent + Workman on

400	2.30	102.20	
50	2.40	102.10	
100	1.70	102.30	104.02
50	2.10	101.90	
200	7.50	102.50	
50	1.70	102.30	
300	2.90	101.10	
50	4.40	99.60	
400	4.60	99.40	
50	3.90	100.10	
500	4.90	99.10	
50	7.00	97.00	
600	10.60	93.40	
30	13.00	91.00	

104.49

1.88

102.61 = 110.

1.41

104.02

6.81

97.21

84

98.05

2.73 = R.R. on 18.7.26 + Harrison

95.32

Ally bet Woolman + S. st.

0+00	7.30	62.30	69.60
50	5.60	64.00	
100	3.70	<del>65.90</del>	
50	2.30	67.30	
200	3.10	66.50	
50	4.30	65.30	
300	7.90	61.70	
50	3.10	56.30	59.38
400	8.60	50.80	
50	4.90	43.30	48.22
500	14.30	33.90	
50	18.30	29.90	
600	14.80	33.40	
30	5.20	43.00	
0+00	12.60	35.60	
50	8.20	40.00	
100	12.10	44.00	56.10
50	6.70	49.40	
200	11.90	55.30	67.19
50	10.90	56.30	
300	8.50	58.70	

$$\begin{array}{r} 67.19 \\ 11.80 \\ \hline 55.39 = \text{T.P.} \\ 71 \\ \hline 56.10 = \text{H.I.} \\ 11.50 \\ \hline 44.60 = \text{T.P.} \\ 3.62 \\ \hline 48.22 = \text{H.I.} \\ 54 \\ \hline 47.68 = \text{T.P.} \\ 11.70 \\ \hline 59.38 = \text{H.I.} \\ 1.13 \\ \hline 58.25 = \text{T.P.} \\ 11.35 \\ \hline 69.60 = \text{H.I.} \\ 7.03 \\ \hline 62.57 = \text{T.P.} \end{array}$$

Alley bet Woolman ave + S 2<sup>d</sup>

50	4.00	63.20	
400	11.90	66.50	78.44
50	8.80	70.10	
500	11.60	77.50	89.11
50	7.20	81.90	
600	4.40	84.70	
30	2.40	86.70	

$$\begin{array}{r}
 82.15 \\
 \underline{6.96} \\
 89.11 = H1 \\
 \underline{11.45} \\
 77.66 = T.P. \\
 \underline{78} \\
 78.44 = H1 \\
 \underline{11.94} \\
 66.50 = T.P. \\
 \underline{69} \\
 67.19 = H1
 \end{array}$$



## Alley bet Sands T etc

0+00	10.90	46.00	56.86
50	6.60	50.30	
100	3.20	53.70	
50	0.00	56.90	
200	1.60	57.90	59.48
50	5.60	53.90	
300	9.70	49.80	
50	11.30	48.20	
400	10.40	40.70	51.12
50	8.50	32.00	40.54
500	15.00	25.50	
50	15.00	25.50	
600	9.30	31.20	
30	10.90	29.60	
0+00	10.30	30.20	
50	6.00	34.50	
100	3.40	37.10	
50	6.10	34.40	
200	.40	40.10	
50	10.30	40.40	50.70
300	5.70	45.00	

44.86	
12.00	
<u>56.86</u>	
74	
<u>56.12</u>	= M.P.
336	
<u>59.48</u>	= H1
1088	
<u>48.60</u>	= T.P.
252	
<u>51.12</u>	= H1
1174	
<u>39.38</u>	= M.P.
116	
<u>40.54</u>	= H1
94	
<u>39.60</u>	= M.P.
1110	
<u>50.70</u>	= H1

Alley bet S and T etc

50	2.30	48.40	
700	0.00	50.70	
50	9.70	51.80	61.47
500	4.30	57.20	
50	8.80	63.80	72.61
600	6.90	65.70	
30	3.20	69.40	

$$\begin{array}{r} 50.70 \\ 96 \\ \hline 49.74 = \text{TP} \\ 11.73 \\ \hline 61.47 = \text{H1} \\ 78 \\ \hline 60.69 = \text{TP} \\ 11.92 \\ \hline 72.61 = \text{H1} \\ 32 \\ \hline 72.29 = \text{TP} \\ 9.87 \\ \hline 82.16 = \text{H1} \end{array}$$

$$\begin{array}{r} 75.19 = \text{TP alley bet T+U} \\ 6.96 = \text{P/R on same} \\ \hline 82.15 = \text{H1 set nail} \end{array}$$
 in hitching post on 30<sup>th</sup> bet workman - + set  
at H1.

Alley bet T and Wato

0+00	1.00	35.10	36.06
50	2.90	33.20	
100	9.90	26.20	
50	13.40	22.70	
200	18.60	17.50	
50	18.60	17.50	
300	11.20	24.90	
50	10.00	36.20	46.22
400	6.70	39.50	
50	4.80	41.40	
500	5.10	41.10	
50	4.60	41.60	
600	8.00	38.20	
30	5.60	40.60	
0+00	2.30	43.90	
50	7.20	49.60	56.83
100	3.10	53.70	
50	11.30	55.50	66.80
200	10.70	56.10	
50	9.50	57.30	
300	8.10	58.70	

1730  
 950  
 21078  
 539  
 230  
 1790  
 1860

46.22  
 230  
 43.92  
 38.22  
 5.70

56

66.80  
 10.82  
 55.98 = T.P.  
 85  
 56.83 = H1  
 11.22  
 45.61 = T.P.  
 61  
 46.22 = H1  
 11.53  
 34.69 = T.P.  
 137  
 36.06 = H1  
 114  
 34.92 = T.P.  
 11.02  
 45.94 = H1  
 1.08  
 44.86 = T.P.

Alley bet T + West

50	4.40	62.40	
400	10.90	65.40	76.34
50	8.80	67.50	
500	6.30	70.00	
50	4.80	71.50	
600	2.10	74.20	
30	1.50	74.50	

57

B.M 30<sup>th</sup> + National =

$$\begin{array}{r} 65.74 \\ 10.17 \\ \hline 75.91 = H1 \\ \quad 72 \\ \times 75.19 = T.P. \\ \hline 115 \\ \hline 76.34 = H1 \\ 10.78 \\ \hline 65.56 = T.P. \\ 1.24 \\ \hline 66.80 = H1 \end{array}$$

5  
27<sup>th</sup> L W till 28<sup>th</sup> R-Rave

58

40

0400

50

100

50

200

50

300

40

0400

50

100

50

200

50

300

40

0+00

50

100

50

200

50

300

0+00 1.50

53.30 54.84

24 2.20

52.60

74 4.40

50.40

40 5.20

49.60

0+00 5.80

49.00

50 7.30

47.50

100 11.10

43.70

50 3.30

41.70 45.03

200 5.30

39.70

50 6.50

38.50

300 7.60

37.40

40 8.60

36.40

0+00 1.50

35.10 36.59

57.15-

369

54.84

1091

43.93 = T.P.

110

45.03 = H1

10.50 = R.R. BM 27 + newton

34.53

W line 26<sup>th</sup> st.

B.M. 27 + newton = 34.52

2.07

36.59 = H1

South 27th st.

50	3.10	33.50	
100	4.30	32.30	
50	5.60	31.00	
200	5.90	30.70	
50	8.10	28.50	
300	9.30	27.30	
40	9.90	26.70	
0400	11.40	25.20	
50	2.60	24.00	26.55
100	2.80	23.80	
50	3.10	23.50	
200	4.90	21.70	
50	5.50	21.10	
300	7.10	19.50	
40	8.10	18.50	
0400	8.80	17.80	
50	9.90	16.70	
100	10.30	16.30	
50	11.80	14.80	
200	6.30	13.60	19.89
50	7.30	12.60	

36.59  
 1124  
 25.35 = T.P.  
 120  
 26.55 = H.1  
 1167  
 1488 = T.P.  
 501  
 19.89 = H.1

300	8.80	11.10
40	9.20	10.70

19.89



South Twenty Sixth street

0+00	14.20	86.60	100.77
50	11.70	89.10	
100	11.10	89.70	
50	11.30	89.50	
200	11.80	89.00	
50	12.60	88.20	
300	11.50	89.30	
40	9.10	91.70	
0+00	7.90	92.90	
50	7.30	93.50	
100	6.30	94.50	
50	4.10	96.70	
200	3.90	96.90	
50	4.70	96.10	
300	5.80	95.00	
50	6.80	94.00	
0+00	2.00	93.40	95.42
50	3.20	92.20	
100	4.50	90.90	
50	5.20	90.20	
200	6.10	89.30	

$$\begin{array}{r}
 95.42 \\
 .05 \\
 \hline
 95.37 \\
 5.40 \\
 \hline
 100.77 = 111
 \end{array}$$

R. R. 13M 26 + Harrison  
said B. W.

Grant

Harrison

50	6.70	88.70	
300	7.80	87.60	
40	8.40	87.00	
6400	9.60	85.80	
50	10.30	85.10	
100	1.00	83.80	84.80
50	1.80	83.00	
200	2.90	81.90	
50	3.40	81.40	
300	4.20	80.60	
40	4.10	80.70	
6400	5.10	79.70	
50	6.10	78.70	
100	6.70	78.10	
50	8.00	76.80	
200	9.10	75.70	
50	10.80	74.00	
300	.70	72.70	73.43
110	2.10	71.80	
6400	3.60	69.80	
50	4.30	69.10	

Irving

$$\begin{array}{r}
 73.43 \\
 58 \\
 \hline
 72.85 = 11.8 \\
 11.95 \\
 \hline
 84.80 = 11.1 \\
 94 \\
 \hline
 83.86 \\
 11.56 \\
 \hline
 95.42 = 11.1
 \end{array}$$

Julian

Kearney

100	5.80	67.60	
50	7.70	65.70	
200	8.70	64.70	
50	9.50	63.90	
300	9.40	64.00	
40	9.20	64.20	
600	5.40	64.50	69.89
50	4.50	65.40	
100	5.30	64.60	
50	7.00	62.90	
200	9.20	60.70	
50	2.30	58.30	60.56
300	6.10	54.50	
40	7.90	53.20	
600	7.40	53.20	
50	9.70	50.90	
100	1.30	48.60	49.95
50	3.70	46.20	
200	6.80	43.10	
50	9.60	40.30	
300	11.20	38.70	

$$\begin{array}{r} 38.48 \\ \underline{55} \\ 37.93 = T.P. \\ 12.12 \\ \underline{49.95} = H1 \\ 73 \\ 49.22 = T.P. \\ \underline{11.34} \\ 60.56 = H1. \\ \underline{75} \\ 59.81 = T.P. \\ 10.08 \\ \underline{69.89} = H1 \\ 3.52 = R.R.M. BM 26 + Logan \\ \underline{66.37} \end{array}$$

B.M. 26 + Logan = 66.51

$$\begin{array}{r} 712 \\ \underline{73.43} = H1 \end{array}$$

Milton

40	40	38.10	38.48
0400	1.20	37.30	
50	2.20	36.30	
150	3.60	34.90	
50	4.90	33.60	
200	6.00	32.50	
50	7.00	31.50	
300	8.00	30.50	
40	9.10	29.40	
0400	9.50	29.00	
50	.80	28.00	28.75
100	2.40	26.40	
50	3.70	25.10	
200	4.80	24.10	
50	5.50	23.30	
300	6.80	22.00	
40	7.60	21.20	
0400	8.30	20.50	
50	9.30	19.50	
100	.90	19.00	19.89
50	3.00	16.90	

Newlon

$$\begin{array}{r}
 19.89 \\
 \underline{66} \\
 19.23 = \text{TT.P} \\
 \underline{952} \\
 28.75 = \text{HI} \\
 \underline{66} \\
 28.09 = \text{TT.P} \\
 \underline{1039} \\
 38.48 = \text{HI}
 \end{array}$$

Oliver

Pierce

South Twenty Six Street

200	3.70	16.20
50	5.20	14.70
300	6.10	13.80
40	6.70	13.20

Rail Road av

Twenty Fifth sheet.

0+00	10.80	74.20	85.04
50	7.60	77.40	
100	7.60	77.40	
50	4.80	80.20	
200	8.80	85.30	94.07
50	3.70	90.40	
300	8.60	96.10	104.69
40	3.70	101.00	
0+00	3.10	101.60	
50	6.00	98.70	
100	9.90	94.80	
50	2.90	90.60	93.46
200	5.10	88.40	
50	6.50	87.00	
300	6.80	86.70	
50	7.00	86.50	
0+00	5.70	87.80	
50	6.50	87.00	
100	8.30	85.20	
50	12.10	81.40	
200	14.80	78.70	

Franklin

$$\begin{array}{r}
 B.M. 25 + Franklin = 74.90 \\
 \underline{10.09} \\
 85.04 = H1 \\
 \underline{1.87} \\
 83.17 = TP \\
 \underline{10.90} \\
 94.07 = H1 \\
 \underline{1.21} \\
 92.86 = TP \\
 \underline{11.83} \\
 104.69 = H1 \\
 \underline{11.53} \\
 93.16 = TP \\
 \underline{3.0} \\
 93.46 = H1
 \end{array}$$

Grant

$$\begin{array}{r}
 104.69 = H1 \\
 \underline{11.53} \\
 93.16 = TP \\
 \underline{3.0} \\
 93.46 = H1
 \end{array}$$

Harrison

50	14.20	79.30	
300	12.40	81.10	
40	12.10	81.40	
0400	10.30	83.20	
50	9.40	84.10	
100	7.80	85.70	
50	5.70	87.80	
200	1.70	87.40	89.12
50	2.60	86.50	
300	3.60	85.50	
40	4.50	84.60	
0400	5.70	83.40	
50	7.60	81.50	
100	9.30	79.80	
50	11.20	77.90	
200	2.50	76.30	78.79
50	4.10	74.70	
300	5.70	73.10	
40	7.20	71.60	
0400	8.90	69.90	
50	10.50	68.30	

Irving

$$\begin{array}{r} 93.46 \\ 564 \\ \hline 87.82 = \text{TIP} \\ 130 \\ \hline 89.12 = \text{H1} \\ 1109 \\ \hline 98.03 = \text{TIP} \\ 76 \\ \hline 78.79 = \text{H1} \end{array}$$

Julian

Kearney

100	12.00	66.80	
50	1.50	66.10	67.58
200	1.60	66.00	
50	3.00	64.60	
300	4.60	63.00	
40	5.10	62.50	(corrected) 67.59
0700	6.20	61.40	
50	8.90	58.70	
100	9.00	58.60	
50	7.60	60.00	
200	8.60	59.00	
50	11.80	55.80	
300	3.20	58.00	56.25
40	4.60	57.60	
0700	5.30	57.90	
50	6.90	49.30	
100	9.10	47.10	
50	11.10	45.10	
200	2.90	43.00	45.95
50	4.40	41.50	
300	5.80	40.10	

$$\begin{array}{r} 78.79 \\ 11.20 \\ \hline 67.59 = T.P. \\ 49 \\ \hline 67.58 = H.1 \end{array}$$

Logan

$$\begin{array}{r} B.M. 25 + Logan = 65.36 \\ R. on same = 2.23 \\ \hline 67.59 \\ 11.55 \\ \hline 56.04 = T.P. \\ 21 \\ \hline 56.25 = H.1 \\ 10.86 \\ \hline 45.39 = T.P. \\ 56 \\ \hline 45.95 = H.1 \end{array}$$

Milton



40	7.50	38.40	
0+50	8.30	37.60	
50	9.70	36.20	
100	10.60	35.30	
50	12.20	33.70	
200	2.90	32.30	35.25
50	4.90	30.30	
300	6.60	28.60	
40	8.20	27.00	
0+00	9.30	25.90	
50	10.30	24.90	
100	11.40	23.80	
50	2.10	23.10	25.24
200	3.00	22.20	
50	4.10	21.10	
300	5.00	20.20	
40	5.50	19.70	
0+50	6.30	18.90	
50	6.20	19.00	
100	7.80	17.40	
50	9.00	16.20	

Newton

45.95
11.56
<hr/>
34.39
86
<hr/>
35.25 = H 1
11.14
<hr/>
24.11 = TP.
1.13
<hr/>
25.24 = H 1

Oliver

Pierce

Twenty Fifth street

200	9.60	15.60
100	10.60	14.60
300	11.00	14.20
40	10.60	14.60

71

$$\begin{array}{r} 25.24 \\ 1.59 \\ \hline 23.65 = T.P. \\ 5.97 \\ \hline 29.62 = \end{array}$$

Rail Road Ave

$$\begin{array}{r} B.M. 24 + Olive = 25.14 \\ RR on same = 4.45 \\ \hline 29.59 \end{array}$$

Twenty Fourth Street

0+00	10.60	60.80	71.37
50	10.60	60.80	
100	8.00	63.40	
50	5.80	65.60	
200	9.50	70.90	80.41
50	3.30	77.10	
300	4.60	86.50	91.15
40	1.80	89.30	
0+00	1.30	89.80	
50	2.70	88.40	
100	.90	85.90	86.95
50	4.40	82.40	
200	8.10	78.70	
50	2.20	75.00	77.19
300	7.10	70.10	
50	7.80	69.40	RRR grade
0+00	9.70	67.50	
50	9.80	67.40	
100	10.00	67.20	
50	9.60	67.60	
200	6.70	70.50	

77.19  
 2.12  
 75.07 = T.P.  
 11.68  
 86.75 = H 1  
 72  
 86.03 = T.P.  
 5.12  
 91.15 = H 1  
 11.29  
 79.86 = T.P.  
 55  
 80.41 = H 1  
 11.45  
 68.96 = T.P.  
 2.41  
 71.37 = H 1  
 1.90  
 69.47 = T.P.  
 7.48  
 76.95 = H 1

Grant

Harrison

B.M. 25 + Franklin = 74.95  
 R R on same                    2.06  
 77.01

50	5.60	71.60	
300	4.50	72.70	
40	3.20	74.00	
0+50	2.40	74.80	
50	2.90	74.30	
100	4.30	72.90	
50	6.50	70.70	
200	.60	68.20	68.85
50	2.80	66.00	
300	5.00	63.80	
40	7.50	61.30	
0+50	9.00	59.80	
50	10.20	58.60	
100	10.30	58.50	
50	1.00	57.10	58.10
200	2.50	55.70	
50	4.20	53.90	
300	4.40	53.70	
40	4.30	53.80	
0+50	5.30	52.80	
50	5.80	52.30	

Irving

58.70  
 93  
 57.17 = T.P.  
 11.68  
 68.85 = H.I.  
 .58  
 68.27 = T.P.  
 892  
 77.19 = H.I.

Julian

Keamey

100	5.30	52.80	
50	5.90	52.20	
200	6.90	51.20	
50	7.70	50.40	
300	8.40	49.70	
40	9.30	48.80	
0400	3.20	47.90	51.14
50	4.80	46.30	
100	6.00	45.10	
50	8.10	43.00	
200	9.30	41.80	
50	10.00	41.10	
300	11.00	40.10	
40	3.80	39.30	43.15
0400	4.20	38.90	
50	4.90	38.20	
100	6.40	36.70	
50	7.60	35.50	
200	8.90	34.20	
50	10.00	33.10	
300	10.80	32.30	

B.M. 50.61 (24 + Logan)

$$\begin{array}{r} 50.61 \\ .53 \\ \hline 51.14 = H1 \\ 10.98 \\ \hline 40.16 = T.P. \\ 2.99 \\ \hline 43.15 = H1 \end{array}$$

Logan

$$\begin{array}{r} 50.61 = B.M. \\ 7.49 \\ \hline 58.10 = H1 \end{array}$$

Milton

110	11.00	32.10	
0450	2.20	30.60	32.81
50	3.50	29.30	
100	4.50	28.30	
50	5.40	27.40	
200	5.70	27.10	
50	6.40	26.40	
300	8.00	24.80	
40	9.20	23.60	
0400	9.80	23.00	
50	10.80	22.00	
100	11.50	21.30	
50	1.10	20.50	21.65
200	2.10	19.50	
50	3.20	18.40	
300	4.50	17.10	
40	5.40	16.20	
0400	6.20	15.40	
50	7.10	14.50	
100	8.00	13.60	
50	9.30	12.30	

Newton

$$\begin{array}{r}
 48.15 \\
 10.93 \\
 \hline
 32.22 = \text{M.P.} \\
 .59 \\
 \hline
 32.81 = \text{H1} \\
 7.71 = \text{R.R. BM 24410} \\
 \hline
 25.10
 \end{array}$$

Oliver

$$\begin{array}{r}
 32.81 \\
 11.48 \\
 \hline
 21.33 = \text{M.P.} \\
 32 \\
 \hline
 21.65 = \text{H1}
 \end{array}$$

Pierce

200	10.10	11.50
50	11.00	10.60
300	12.10	9.50
40	13.00	8.60

R. Road am

Twenty Third Street.

50	8.60	50.00	58.89
0 + 00	4.90	54.00	
50	3.50	55.40	
100	3.10	55.80	
50	2.70	56.20	
200	2.60	56.30	
50	2.30	56.60	
300	2.30	56.60	
40	3.30	55.60	
0 + 00	4.00	54.90	
50	4.90	54.00	
100	5.30	53.60	
50	6.20	52.70	
200	5.30	53.60	
50	5.90	53.00	
300	6.00	52.90	
40	6.70	52.20	
0 + 00	7.00	51.90	
50	8.20	50.70	
100	9.20	49.70	
50	7.90	51.00	

Harrison

58.89

8.70

Set nail 22 + Julian = 50.19

Julian

Julian



200	8.50	50.40	
50	1.40	48.60	49.99
300	2.50	47.50	
40	3.20	46.80	
0+00	3.50	46.50	
50	4.20	45.80	
100	5.20	44.80	
50	5.70	44.30	
200	5.10	44.90	
50	5.10	44.90	
300	6.30	43.70	
40	6.80	43.20	
0+00	4.00	42.80	46.79
50	4.40	42.40	
100	7.70	42.10	
50	5.10	41.70	
200	5.30	41.50	
50	6.10	40.70	
300	8.40	38.40	
40	9.50	37.30	
0+00	9.80	37.00	

36.86  
 71  
 36.15 = 71 P.  
 10.64  
 46.79

Hearney

BM. 23 + Logan = 45.18  
 R.R. in ref = 1.69  
 46.87

45.18  
 4.81  
 49.99 = H1  
 85

Logan

49.14 = 71 P.  
 9.75  
 58.89 = H1

Milton

50	1.10	35.80	36.86
100	.90	36.00	
50	.80	36.10	
200	1.30	35.60	
50	2.50	34.40	
300	3.70	33.20	
40	3.90	33.00	
6+00	4.80	32.10	
50	5.30	31.60	
100	6.10	30.80	
50	7.00	29.90	
200	8.30	28.60	
50	9.80	27.10	
300	1.20	25.10	26.33
40	2.10	24.20	
0+00	3.70	22.60	
50	5.20	21.10	
100	6.70	19.60	
50	8.00	18.30	
200	9.60	16.70	
50	10.60	15.70	

$$\begin{array}{r}
 21.65 \\
 6.26 \\
 \hline
 15.39 = \text{M.P.} \\
 10.94 \\
 \hline
 26.33 = \text{H.I.} \\
 .65 \\
 \hline
 25.68 = \text{M.P.} \\
 11.18 \\
 \hline
 36.86 = \text{H.I.}
 \end{array}$$

Newton

Oliver

21-65

✓	300	6.70	19.60	
✓	40	7.10	19.20	Pierre
✓	0400	7.70	18.60	
2	50	8.60	17.70	
✓	100	9.80	16.50	
3	50	10.90	15.40	
✓	200	11.90	14.40	
64	50	12.60	13.70	
✓	300	13.50	12.80	
10	40	14.00	12.30	R. Rail
5				
20				
5				
30				
4				
04				
5				
10				
5				
20				
50				

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*Return to City Engineers Office  
City Hall, San Diego, Cal.*

*Return to City Engineers Office  
City Hall, San Diego, Cal.*

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12 85