C. St. Ry. Levels —
— Logan Ave Ry " —
5th St " "

F.B.219

219

Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

Minutes	Lks.	Minutes	Lks.	Minutes	Lks.
1	2⅓	21	49	41	95⅔
2	4⅔	22	51⅓	42	98
3	7	23	53⅔	43	100⅓
4	9⅓	24	56	44	102⅔
5	11⅔	25	58⅓	45	105
6	14	26	60⅔	46	107⅓
7	16⅓	27	63	47	109⅔
8	18⅔	28	65⅓	48	112
9	21	29	67⅔	49	114⅓
10	23⅓	30	70	50	116⅔
11	25⅔	31	72⅓	51	119
12	28	32	74⅔	52	121⅓
13	30⅓	33	77	53	123⅔
14	32⅔	34	79⅓	54	126
15	35	35	81⅔	55	128⅓
16	37⅓	36	84	56	130⅓
17	39⅔	37	86⅓	57	133
18	42	38	88⅔	58	135⅓
19	44⅓	39	91	59	137⅔
20	46⅔	40	93⅓	60	140

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

TABLE FOR RUNNING ON SLOPES.

MICROFILMED

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

DEC 8 1964

Angle	Cor. in Links	Angle	Cor. in Links	Angle	Cor. in Links	Angle	Cor. in Links
°		°		°		°	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

219
4511 SE Cor N. End Hydt Hinge
Return to City Engineers Office
City Hall, San Diego, Cal.

C. Street Ry

POSTED

6/29 Hatch
65 Wetmore
Thomas

	India & C. –				
Bal.	2.99	21.29		18.30	
E. Line India			4.39	16.90	✓
50			3.51	17.75	✓
100			2.64	18.65	✓
150			1.76	19.53	✓
200	5.39	25.79	0.89	20.40	✓
¢ Columbia			4.89	20.90	–
E. Line "			4.39	21.40	–
50			3.76	22.03	✓
100			3.14	22.65	✓
150			2.51	23.28	✓
200			1.89	23.90	✓
¢ State			1.64	24.15	✓
E. Line "			1.39	24.40	✓
Bm	2.84	29.03		26.19	
50			3.75	25.28	✓
100			2.88	26.15	✓
150			2.00	27.03	✓
200	5.49	33.39	1.13	27.90	✓
¢ Union			4.99	28.40	–
E. Line "			4.49	28.90	–
50			3.86	29.53	✓

Grade 0.10 below ¢ of Street 22.19

469
4

18.30
6.89
25.19
2.97
22.22
5.96
28.18
1.96
26.22

4.75

26.32
2.80
29.12
4.75
24.37

29.09
18.30
10.79

26.19
2.96
29.09
4.75
24.34

23.28
6.81

29.09
2.19
6.90

30.40
5.69

6/29/05

		33.39			
100			3.24	30.15	✓
150			2.61	30.78	✓
200			1.99	31.40	✓
℄ Front.	4.54	37.12		32.58	
E. Line "			5.22	31.90	✓
50			4.72	32.40	✓
100			4.09	33.03	✓
150			3.47	33.65	✓
200	4.97	39.87	2.84	34.28	✓
℄ 1st			2.22	34.90	✓
E. Line "			4.47	35.40	✓
50			3.97	35.90	✓
100			3.34	36.53	✓
150			2.72	37.15	✓
200			2.09	37.78	✓
BM. ℄ 2d	8.10	48.10	1.47	38.40	✓
				40.00	
E. Line "			9.20	38.90	✓
50			8.70	39.40	✓
100			8.07	40.03	✓
150			7.45	40.65	✓
200			6.82	41.28	✓
			6.20	41.90	✓

497
5
4.89

4810
3778
10.32

3339
082
3257 Check
32.58

Angle L. 0°17'

4000
810
4810
3005
45095
23105
38400
97

Stake Raised to 3498 Angle L 0°07'

2 Stakes set 5' each side of car line at elev. 35.54 = elev of car line

7/5/05

check.

3d ℄ C	2d ℄ B	2d ℄ D
45105	43175	3719
822	021	611
45326	43385	4330
697	504	504
38355	38345	3826
3840	3840	3840

POSTED

7/8/05

POSTED ℄ 47.30 47.95 0.45

		48.10			
℄ 3rd St.			5.70	42.40	✓
E. line "			5.20	42.90	✓
50			4.10	44.00	✓
100			3.00	45.10	✓
150			1.90	46.20	✓
200			0.80	47.30	✓
℄ 4th St.	7.34	57.23	9.70	49.89 47.53	✓
E. line "			9.60	47.63	✓
50			8.48	48.75	✓
100			7.36	49.87	✓
150			6.24	50.99	✓
200			5.13	52.10	✓
℄ 5th St			4.98	52.25	✓
E line 5th			5.03	52.20	✓
50			4.11	53.12	✓
100			3.19	54.04	✓
150			2.26	54.97	
200					

! (860) 1½" low -
3/8" high
1½" "
3/4" "
3/8" "
3/8" "
1/2" "
1/2" "

7/5/05

BM	2.66	60.08		57.42		
S Line C.				55.60		
50			5.25	54.83	✓	
100			6.04	54.04	✓	
150			6.83	53.25	✓	1/2" high
200			7.62	52.46	✓	3/4" "
250			8.41	51.67	✓	
300			9.20	50.88	✓	1/2" "
℄ D St.			9.50	50.58	✓	1/2" "
BM.	2.70	54.80	7.98	52.10	✓	
S. Line D.			4.40	50.40	✓	1/4" low.
50			5.60	49.20	✓	
100			6.82	47.98	✓	1/2" "
150			8.04	46.76	✓	1 1/2" "
200			9.26	45.54	✓	
250			10.48	44.32	✓	
300.			11.70	43.10	✓	
℄ E St.			12.34	42.46	✓	
S Line E. St.			12.73	42.07	✓	1/2" low
	1.05	46.59	9.26	45.54		
50			5.45	41.14	✓	1/2" low.
100			6.39	40.20	✓	7/8" "

Elevations are 0.02 above Grade

Elevations are 0.02 above Grade

7.91
5.10
52.07 check

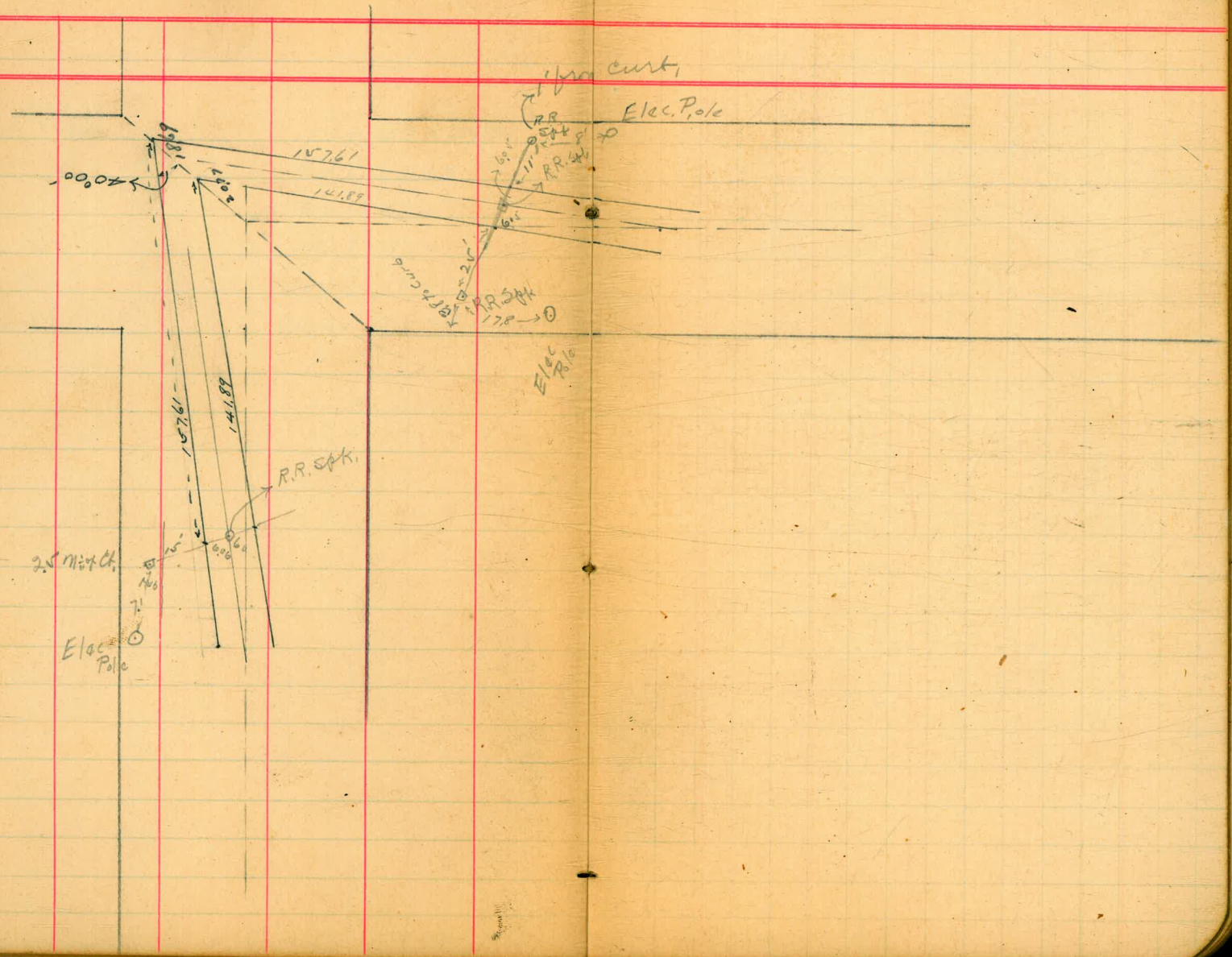
2.70

4.05

7/57

		4659				
150			7.33	39.26	✓	1/2" high
200			8.27	38.32	✓	7/8" "
250			9.21	37.38	✓	—
300			10.13	36.46	✓	—
℄ F St.			10.31	36.28		
S line F St.			10.61	35.98		

BM. F. & G.
37.60


Elec. Pole
R.R. Spk.
R.R. Spk.
R.R. Spk.
R.R. Spk.
Elec. Pole
Elec. Pole
157.61
141.89
157.61
141.89

8/8/05 Hatch, Grant, Thomas

Track Centres & Grades

Logan Ave

BM 44.88
7.65
52.56
8.62
43.94
6.03
49.97 141

	5.98	46.98		41.00	
E.h. 22d				41.00	
50				41.17	
100			5.65	41.33	✓
150			5.48	41.50	✓
200			5.32	41.66	✓
250			5.15	41.83	✓
300			4.98	42.00	✓
350			4.82	42.16	✓
400			4.65	42.33	✓
450			4.49	42.49	✓
500			4.32	42.66	✓
550			4.15	42.83	✓
T.P. 600		49.97	6.97	43.00	✓
℄ 23d			6.97	43.00	✓
E.h. 23d			6.97	43.00	✓
50			6.51	43.46	✓
100			6.05	43.92	✓
150			5.60	44.37	✓
200			5.14	44.83	✓
250			4.68	45.29	✓

		49.97			
300			4.22	45.75	✓
350			3.76	46.21	✓
400			3.31	46.66	✓
450			2.85	47.12	✓
500			2.39	47.58	✓
550			1.93	48.04	✓
600			1.47	48.50	✓
℄ 24th			1.22	48.75	✓
E L. 24th			0.97	49.00	✓
B.M	0.17	68.99		68.82	
	1.48	60.78	9.69	59.30	
50			10.65	50.13	✓
100			9.53	51.25	✓
150			8.40	52.38	✓
200			7.28	53.50	✓
250			6.15	54.63	✓
300			5.03	55.75	✓
350			3.90	56.88	✓
400			2.78	58.00	✓
450	7.18	66.31	1.65	59.13	✓

8/9/05

8/9/05

7.60
60.70

		66.31			
500			6.06	60.25	✓
550			4.93	61.38	✓
600			3.81	62.50	✓
1=L. 25th			3.81	62.50	✓
50			3.66	62.65	✓
100			3.52	62.79	✓
150			3.37	62.94	✓
200			3.23	63.08	✓
250			3.08	63.23	✓
300	3.95	67.32	2.94	63.37	✓
350			3.80	63.52	✓
400			3.65	63.67	✓
450			3.51	63.81	✓
500			3.36	63.96	✓
550			3.21	64.11	✓
600			3.07	64.25	
BM	1.51	68.22		66.71	
E Line	26th		3.97	64.25	✓
50			4.42	63.80	✓
100			4.89	63.33	✓

8/9/05

		6822			
150			5.35	62.87	✓
200			5.81	62.41	✓
250			6.27	61.95	✓
300			6.74	61.48	✓
350			7.20	61.02	✓
400			7.66	60.56	✓
450				60.10	
500				59.64	
515	Line of Logan.			59.50	

McLeran
8/24 Wm Lefebvre
3 — 37 pass switch bet Palmyra & Zaneville

Surface below grade — Fill
" above " + cut

B.M.	3.83			278.38		SW co Spike in Elect. Car Pole
Rail Switch		282.21	4.41	277.80	277.62	+ 2 cut 287.00
25		"	4.38	277.83	277.92	− 1 Fill
					278.21	
125		"	3.86	278.35	278.00	− 1.5 Fill
Quince						
0		"	3.80	278.41	278.50	− .1 Fill
100		"	3.46	278.75	278.83	− 0.0
200		"	2.86	279.35	279.16	+ 1.0
300	p. 4.28		2.90	279.31	279.03	+ 2.0 C
Redwood						
0		283.59	4.12	279.47	279.50	+ .03 C
100		"	3.86	279.73	279.83	− .10
200		"	3.63	279.96	280.17	− 2
300		"	3.23	280.36	280.50	− 1
Spruce						
0			3.18	280.41	280.50	− 1
P. 100	5.37		2.83	280.76	280.[illegible]	− 0
200		286.13	4.85	281.28	281.33	− 0
300			4.41	281.72	281.75	− 0
Thorn						
0			3.92	282.21	282.25	− 0
100			2.94	283.19	283.32	− 1.3
200			1.85	284.28	284.41	− 1.3
P. 300	3.69		0.74	285.39	285.50	− 1.1
B.M.		289.08	1.76	287.32	287.[illegible]	

Upon								
0		289.08	3.62	285.46	285.50	-.04	+.04	5 ft. East centre centre line of cut
100			4.49	284.59	284.84	-.25	-.17	stakes at property line
167	—	—	—	4.70	284.38	284.56	-.18	-.10	and each 50 feet.
About								
0			5.29	283.79	284.00	-.21	-.13	
Up 100			5.78	283.30	283.12	+.20	+.28	{Correct from level 18.66
				283.38				{Call it 283.38 top elevation
169.56	2.77	286.15	3.25	282.90	282.73	+.17		
Joy Lane								
+6.77			4.45	281.70	281.75	-.05		
180			5.15	281.00	281.01	-.00		
280			6.86	280.29	280.25	+.04		
Up 380	3.24		6.53	279.62	279.50	+.12		
Bayuke								
0		282.86	3.24	279.62	279.50	—		
—			4.56	278.30				BM S.M. on Brooks
75			4.12	277.74	279.81			
175			4.79	278.07	280.23			
275			4.22	278.64	280.66			
Anderson								
0			4.20	278.66	280.88			
75			3.71	279.15	281.05			
175	6.45		3.22	279.64	281.59			
275		286.09	5.92	280.17				
Sheridan								
0			5.56	280.53				
75			5.12	280.97				
175			4.34	281.75				

275		286.09	3.44	282.65
Dorlam			2.97	283.12
0				
op 100	6.65		2.32	283.77
2nd		290.42	5.85	284.57
Rotun			4.97	285.45
0			4.36	286.06
100			3.94	286.48
200			3.56	286.86
300			3.09	
416			255	

Grades for Car Track
in Upper 5th St. 25 Adams 55 Hassam

						Sta	Grade	
	6.04	284.42			278.38	0 · No. line Palm	276.75	7.67
						+50	277.04	
						100	277.33	
						150	277.62	
						200	277.91	6.51 ✓
						250	278.21	6.21 ✓
						300 So line Quince	278.50	5.92 ✓
						Ctr	278.50	5.92
						0 · No " "	278.50	5.92 ✓
						50	278.66	5.76 ✓
						100	278.83	5.59 ✓
						150	278.99	5.43 ✓
						200	279.16	5.26 ✓
						250	279.33	5.09 ✓
						300	279.50	4.92 ✓
						0 = No line Redwood	279.50	4.92 ✓
T.P.	2.24	284.77	1.89		282.53			

Car Track Levels

						Sta	Grade	
		284.77				50' No Redwood.	279.67	5.10 ✓
						100 "	279.83	4.94 ✓
						150 "	280.00	4.77 ✓
						200 "	280.17	4.60 ✓
						250 "	280.33	4.44 ✓
						50. line Spruce	280.50	4.27 ✓
TP	4.10	284.60	4.27		280.50	Ctr "	280.50	4.27 ✓
						No. line "	280.50	4.10 ✓
						50' No "	280.71	3.89 ✓
						100 "	280.91	3.69 ✓
						150 "	281.12	3.48 ✓
						200 "	281.33	3.27 ✓
						250 "	281.54	3.06 ✓
						50 line Thorn	281.75	2.85 ✓
						Ctr "	282.00	2.60 ✓
	5.54	287.79	2.35		282.25	No. " "	282.25	2.35 ✓
						50' No	282.79	5.00 ✓
						100 "	283.33	4.46 ✓
						150 "	283.87	3.92 ✓
						200	284.41	3.38 ✓
						250 "	284.96	2.83 ✓

Car Track Levels

8/26/05 { Davis, Brooks, Haslam

						Sta	Grade	
		287.79				So. line Upas	285.50	2.29 ✓
	2.05	289.45			287.40	Ctr " "	285.50	2.29 ✓
						No. " "	285.50	3.95 ✓
						50' No "	285.22	4.23 ✓
						100 "	284.94	4.51 ✓
						167.4 " So line Walnut	284.56	4.89 ✓
						Ctr "	284.28	5.17 ✓
						No line "	284.00	5.45 ✓
						50' No "	283.63	5.82 ✓
						100' " "	283.26	6.19 ✓
	1.86	289.26		287.40		169.6 " S.L. Ivy Lane	282.74	6.71 ✓
	0.55	285.87	3.94	285.32		No. line " "	282.37	3.50 ✓
						350 So. of Brookes	282.14	3.73 ✓
						300 "	281.76	4.11 ✓
						250 "	281.39	4.48 ✓
						200 "	281.01	4.86 ✓
					380.4'	150 "	280.83	5.04 ✓
						100 "	280.26	5.61 ✓
						50 "	279.88	5.99 ✓
	0.50	284.12	2.25	283.62		So. line Brookes	279.50	6.37 ✓

Car Track Grades

						Sta	Grade	
		284.12				Ctr Brooks	279.50	4.62 ✓
						No. line "	279.50	4.62 ✓
						25' No "	279.61	4.51 ✓
						75 "	279.82	4.30 ✓
						125 "	280.03	4.09 ✓
						175 "	280.24	3.88 ✓
						225 "	280.45	3.67 ✓
	4.61	285.27	3.46	280.66		275 " - So line Anderson Place	280.66	3.46 ✓
						No. line " "	280.84	4.43 ✓
						25' No " "	280.95	4.32 ✓
						75' "	281.16	4.11 ✓
						125 "	281.37	3.90 ✓
						175 "	281.58	3.69 ✓
						225 "	281.79	3.48 ✓
			B.M. Spk in pole 2.74 S.E Thornton		282.53	275 - So line Thornton	282.00	3.27 ✓
	5.34	287.91			282.57	Ctr "	282.25	5.66 ✓
						No. line "	282.50	5.41 ✓
						25' No "	282.70	5.21 ✓
						75 "	283.08	4.83 ✓
						125 "	283.48	4.43 ✓
						175	283.87	4.04 ✓

Car Track Grades

5th St

		287.91			
	1.63	290.82			289.19

Sta	Grade	
225 No Thornton	284.26	3.65
275 " So line Evans Place	284.65	3.26
No. line " "	285.11	5.71
25' No " "	285.33	5.49
75 "	285.76	5.06
125 "	286.20	4.62
175 "	286.63	4.19
225 "	287.06	3.76
275 " So line Robinson	287.50	3.32
Ctr "	287.75	3.07
No. line "	288.00	2.82
50' No "	288.24	2.58
100 "	288.48	
150 "	288.72	
200 "	288.96	
250 "	289.20	
300 "	289.44	
350 "	289.68	
400 "	289.92	
416 So line Univ.	290.00	

290.0

Car Track Grades

7.32	290.86			283.54
3.03	286.57			283.54
3.86	288.11			284.25

University Ave.

Sta.	Grade	
E. line 5th	290.00	
50' E. "	288.54	2.32
100' " "	287.07	3.79
150' " "	285.61	5.25
W. line 6th	284.15	6.71
E. " "	283.15	3.42
50 E "	283.30	3.27
100 "	283.45	3.12
150 "	283.60	2.97
200 "	283.75	2.82
250 "	283.90	2.67
W.L. 7th	284.05	2.52
	284.00	4.51
E.L. 7th	283.95	4.16
50' E "	284.13	3.98
100 " "	284.30	3.81
150 " "	284.48	3.63
200 "	284.46	3.65
230 E. W.L. 8th No. Side	284.44	3.67
300 " W.L. 8th So. Side	284.30	3.81

	3.46	287.71			284.25	0 E. line 8th So. Side	284.20	3.51 ✓
						50 E "	284.04	3.67 ✓
						100 "	283.87	3.84 ✓
						141 " P.S	283.74	3.97 ✓
						150 " "	283.71	4.00 ✓
						196 W.L. 9th No. Side	283.56	4.15 ✓

					Sta	Grade	
3.21	287.46			284.25	0 = E.L 9-50 Side	283.40	4.06
					+50	283.19	4.27
					100	282.99	4.47
					+50	282.79	4.67
					200	282.58	4.88
6.50	288.85	5.11		282.35	+57.2 = W.L. 10th	282.35	5.11
					0 = E.L. 10th - So Side	283.47	5.38
					+50	284.13	4.72
					1	284.79	4.06
					+50	285.45	3.40
					2	286.10	2.75
6.29	293.05	2.09		286.76	+50	286.76	2.09
					3	287.42	1.43
					+50	288.08	0.77
					4	288.74	
					+50	289.40	
					+80.5 = W.L. V mt.	289.80	

GRADES FOR R.R. TRACK ON "B." ST. 25TH, EAST

Sta.	+ R.R.	H.I.	− RR.	GRADE ELEV.
B.M.	8.05	199.51		191.46
	7.10	205.56	1.05	198.46
0 =				196.40
				1.18
+50			7.98	197.58
				1.18
1			6.80	198.76
				1.18
+50			5.62	199.94
				1.18
2			4.44	201.12
				1.18
+50			3.26	202.30
				1.18
3			2.08	203.48
				1.18
+50			0.90	204.66
				.24
+60			0.66	204.90
				1.50
4			2.16	203.40
				1.875
+50			4.035	201.525
				1.875
5			5.91	199.650
				1.875
+50			7.785	197.775
				.375
+60			8.16	197.400
	5.09	202.49	8.16	197.40
			4.49	198.00

GRADE ELEV. = 0.10' BELOW CENTER LINE GRADE OF "B" ST.

Covert
Munson
Harlan } Oct 2 1905

SPIKE IN ELECTRIC MAST AT S.W. COR 25TH & C.

0 = EAST LINE OF 25TH ST.

205.55
197.58
7.98
1.18
6.80
1.18
5.62

205.57
198.76
6.80

204.90
197.40
2) 7.50
375
1.875

375
40
1,5000

204
0.90
1.50
2.40

0.66
1.50
2.16
1.875
4.035
1.875
5.910
1.875
7.785
.375
8.160

GRADE HUB FOR CURB AT N.W. COR 25TH & "B"

Grades for St RR-B St 10/3/05 { Davis, Wehmer, Thomas

						Sta	Grade	Rod
			B.M. Spk fence Post 8' No of N.W Cor					
	0.20	202.61			202.41	0 W.L 27th	196.40	6.21 ✓
						+50	196.48	6.13 ✓
						1	196.57	6.04 ✓
						+50	196.65	5.96 ✓
						2	196.73	5.88 ✓
						+50	196.82	5.79 ✓
						3	196.90	5.71
	4.90	201.42	6.09		196.52	+50	196.98	4.44 ✓
						4	197.07	4.35 ✓
						+50	197.15	4.27 ✓
						5	197.23	4.19 ✓
						+50	197.32	4.10 ✓
						6 E.L. 26th	197.40	4.02 ✓

Grades as below grade of Center line of St.

GRADES FOR ST. RY. ON. 25TH ST.
"B" — "D"

		H. I.	R.R.	GRADES.
B.M.	5.13	196.59		191.46
			not set	
0			0.69	195.90
+50			1.36	195.23
1			2.02	194.57
+50			2.69	193.90
2			3.35	193.24
+50			4.02	192.57
3			4.69	191.90
0			5.69	190.90
+50			6.19	190.40
1			6.69	189.90
+50			7.19	189.40
2			7.69	188.90
+50			8.19	188.40
3			8.69	187.90

GRADES GIVEN ARE 0.10 BELOW CENTER GRADE OF ST.

COVERT — WETMORE — THOMAS.
OCT — 21, 05

SPIKE IN. ELEC. POLE S.W. COR. C & 25TH

SOUTH LINE OF B ST.

196.59	196.59
195.90	195.23
0.69	1.36
196.59	196.59
194.57	193.90
2.02	2.69
196.59	196.59
193.24	192.57
3.35	4.02

NORTH LINE OF C ST.

196.59	196.59
191.90	190.90
4.69	5.69

SOUTH LINE OF C ST.

196.59	196.59
190.40	189.90
6.19	6.69
196.59	196.59
189.40	188.90
7.19	7.69
196.59	196.59
188.40	187.90
8.19	8.69

NORTH LINE OF D ST.

28th St. 1/29/06 Hatch, Hawkins, Thomas

POSTED

	3.11	208.29		205.18	
50' N of B.St			9.22	199.07	
100			8.06	200.23	
150	11.36	212.76	6.89	201.40	
200			10.19	202.57	
250			9.03	203.73	
300			7.86	204.90	
Cr. A St.			6.86	205.90	
N. Line " "			5.86	206.90	
50'			5.17	207.59	
100			4.49	208.27	
				208.96	
				209.65	

Track Grade is 0.1 below Centre grade of Street.

POSTED

Grades for Car track on 3rd St across "B" St.

				N.W. 44.5	N.E. 45.5
				"B" St.	
				S.W. 44.5	S.E. 44.5
S.L. B		44.40			
Ctr "		44.65			
N.L. "		44.90			
	3.14	48.25 H.I.			45.11
	44.40	44.90	44.65		
	3.85	3.35	3.60		
58.64	BM.	57.00	5.00 56.24		.05
3.44		56.24			
62.08	H.I.	.76	.007238		
		105		.007238	
		735		45	
		250		36190	
56.56		210		289522	
5.52		400		.325710	
	56.24	357			
56.78	2257	8.50		.007238	
5.30	56565	8.40		30	
	2172	8		.217140	
	56.7829				
	57.0001				

(B.M.) S.E 3rd & "C".

3rd St. line —
11/7/06 Stakes Evans Lowrie

POSTED

				Grade
	5.75	45.75		40.00
Nh. D. (End of Curve)			3.85	41.9
50			3.76	41.99
100			3.66	42.09
150			3.57	42.18
200			3.48	42.27
250	0.77	45.88	3.52	42.36
270 SL. C St.			3.48	42.40
Cr.	"	"	3.48	42.40
N.L	"	"	3.48	42.40
50			3.15	42.73
100			2.81	43.07
150			2.48	43.40
200			2.15	43.73
250			1.81	44.07
300			1.48	44.40

D Street 12th 11/8/06 Hatch Hunzel Cooley

POSTED

F	2.34	75.75		73.41
EL 12th			4.50	71.25
Cr "			4.13	71.62
WL 12th			3.75	72.00
50			3.25	72.50
100			2.75	73.00
150			3.13	72.62
200 EL 11th			3.50	72.25
Cr	2.58	75.32		72.74
WL 11th			3.50	71.82
50			3.92	71.40
100			4.71	70.61
150			5.50	69.82
200 EL 10th			6.28	69.04
Cr	"		7.07	68.25
WL	10th			67.50
50				66.75
100				65.43
150				64.12
200 EL 9th				62.81
				61.5

11/15/06 Hatch
Minerals

	0.15	73.56		73.41	
EL 12th			2.31	71.25	0.5 low.
50			✓ 5.38	68.18	
100			✓ 8.44	65.12	
150	1.86	63.92	11.50	62.06	
200 WL 13th	321	61.68	✓ 2.68	59.47 59.00	
Cr.			✓ 3.18	58.50	
E.L. 13th			✓ 3.68	58.00	
50			✓ 3.93	57.75	
100			✓ 4.18	57.50	
150			✓ 4.43	57.25	
200 W.L 14th			✓ 4.68	57.00	
			✓ "	57.00	
			✓ "	57.00	
Bm 14th St	416	61.54		57.38	
50			✓ 4.29	57.25	
100			✓ 4.04	57.50	
150			✓ 3.79	57.75	
200			✓ 3.54	58.00	
250			✓ 3.79	57.75	
300			✓ 4.04	57.50	

13th St.

SW 58.50 NW 59.72

14th St

NE 57.38 NW 57.50

SE 56.37 SW 56.36

15th St

NE 57.50 NW 57.61

SE 56.50 SW 56.50

		61.54			
350			4.29	5725	
400			454	5700	
Cr.	15 1/4		"	"	
Eh.	"		"	"	

0					
W.L. 7th		53.25	✓		
Ctr "		53.62	✓		
E.L. "		54.00	✓		
+50		54.50	✓		
1		55.00	✓		
+50		55.50	✓		
2 = W.L. 8th		56.00	✓		
Ctr "		56.37	✓		
E.L. 8th		56.75	✓		
+50		57.62	✓		
1		58.50	✓		
+50		59.37	✓		
2 = W.L. 9th		60.25	✓		
Ctr "		60.87			
E.L. 9th		61.50			

14.

2.83 60.58 57.75

56.00 55.50 55.00 54.50 54.00
4.58 5.08 5.58 6.08 6.58

53.62 53.25 56.37 56.75
6.96 7.33 4.21 3.83

57.62 58.50 59.37 60.25
2.96 2.08 1.21 0.33

51.25
53.25

5 1 4
5 0.74

W.L. 7th	53.25				
+50	52.62				
1	52.00				
+50	51.37				
E.L. 6th	50.75				

1.07 55.88 54.81 BW

53.25 52.62 52.00 51.37
2.62 3.26 3.88 4.51

1.02 55.83 54.81

53.25 52.62 52.00 51.37
2.58 3.21 3.83 4.46

"F" St Car Line

POSTED

Ctr 21st		118.65			
W.L. 21st		117.90			
50 W "		113.15			
100 " "		108.40			
150 " "		103.65			
E.L. 20th		98.90			
Ctr 20th		98.15			
W.L. 20th		97.40			
50 W "		93.02			
100 " "		88.65			
150 " "		84.27			
E.L. 19th		79.90			
W.L. 19th		78.90			
50 W "		76.90			
100 " "		74.90			
150 "		72.90			
EL. 18th		70.90			

6.31 110.42 104.11

98.90 103.65 108.40
11.52 6.77 2.07

12.20 12.44 0.18 110.24

113.15 117.90 118.65
9.28 4.54 3.79

3.35 102.25 99.90

98.15 97.40 93.02
4.10 4.85 9.23

0.40 89.72 12.93 89.32

88.65 84.27 79.90 7.79 81.93 81.94
1.07 5.45 9.82

0.35 82.29 81.94

78.90 76.90 74.90
3.39 5.39 7.39 9.39 11.39

"F" St Car Line

W.L. 18th		69.90 ✓			
50' W "		69.15 ✓			
100' "		68.40 ✓			
150' "		67.65 ✓			
E.L. 17th		66.90 ✓			
W.L. 17th		65.90 ✓			
50' W "		62.52 ✓			
100' "		59.15 ✓			
150' "		55.77 ✓			
E.L. 16th		52.40 ✓			
		52.40			
W.L. 16th		51.40 ✓			
50' W "		49.27 ✓			
100' "		47.15 ✓			
150' "		45.02 ✓			
E.L. 15th		42.90			

$\frac{5.15}{.60}$
5.55

144.

82.29

69.90 / 12.39 — 3.11 — 73.01 — 12.39 — 69.90

69.15 / 6.86 — 68.40 / 4.61 — 67.65 / 5.36 ✓ — 66.90 / 6.11 ✓ — 65.90 / 7.11

1.81 — 67.71 — 7.11 — 65.90

62.52 / 5.19 — 59.15 / 8.56 — 55.77 / 11.94

0.06 — 55.60 — 12.17 — 55.54

52.40 / 3.20

4.01 — 55.51 — 51.50

51.40 / 4.11 ✓ — 49.27 / 6.24 — 47.15 / 8.36 ✓ — 45.02 / 10.49 — 42.90 / 12.61

W.L. 15th	42.90
50 W "	43.52
100	44.15
150	44.77
200	45.40
250	46.02
300	46.65
350	47.27
400 W.E.L. 14th	47.90
W.L. 14th	48.90
50	50.65
100	52.40
150	54.15
200 E.L. 13th	55.90
W.L. 13th	56.90
50	57.47
100	58.03
150	58.59
200 E.L. 12th	59.15

N1.

B.M. Hydt SW 14F

6.02 57.53 51.51

55.90	54.15	52.40	50.65	48.90
1.63	3.38	5.13	6.88	8.63
47.90	47.27	46.65	46.02	
9.63	10.26	10.88	11.51	

2.81 48.83 11.51 46.02

45.40	44.77	44.15	43.52	42.90
3.43	4.06	4.68	5.31	5.93

7.76 63.66 55.90

56.90	57.47	58.03	58.59	59.15
6.76	6.19	5.63	5.07	4.51

2.18 60.75 58.57

W.L. 12th		59.15			
		58.39			
		57.65			
		56.90			
E.L 11th		56.15			
W.L 11th		54.90			
		54.27			
		53.65			
		53.02			
E.L 10th		52.40			
W.L. 10th		52.40			
		51.90			
		51.40			
		50.90			
E.L. 9th		50.40			

6366

60.75 141.

59.15 58.39 57.65 56.90 56.15
1.60 2.36 3.10 3.85 4.60

7.52 57.78 50.26

50.40 50.90 51.40 51.90 52.40
7.38 6.88 6.38 5.88 5.38

53.02 53.65 54.27 54.90 56.15
4.76 4.13 3.51 2.88 1.63

0.83 51.09 50.26

POSTED

W.L. 9th		49.40			
50		48.21			
1		47.02			
50		45.83			
x=E.L. 8th		44.65			
W.L. 8th					

141

51.09

49.40	48.21	47.02	45.83	44.65
1.69	2.88	4.07	5.26	6.44

7th St 37 Fo Track

POSTED

N.L.L		5.75			
+50		6.58			
1		7.42			
+50		8.25			
2		9.08			
+50		9.92			
3 = S.L.K		10.75			
N.L.K		11.25			
+50		11.87			
1		12.50			
+50		13.12			
2		13.75			
+50		14.37			
3=S.L.U.		15.00			
S.L.L		4.50			
+50		4.16			
1		3.83			
+50		3.50			
2		3.16			
+50		2.83			
3=N.L.M.		2.50			

0.29 15.86 15.57

10.75 9.92 9.08 8.25 7.42 6.58

5.11 5.94 6.78 7.61 8.44 9.28

5.75

10.11

6.95 17.70 10.75

11.25 11.87 12.50 13.12 13.75 14.37

6.45 5.82 5.20 4.58 3.95 3.33

15.00

2.73

1.16 6.89 3.75

4.50 4.16 3.83 3.50 3.83 2.50

2.34 2.73 3.06 3.39 4.06 4.39

7th St Fe Track.

0=N.L.J		16.75			
+50		16.50			
1		17.25			
+50		18.00			
2		18.75			
+50		19.50			
3=S.L.I		20.25			
	Siding				
S.L.J.		14.90			
50' S.		14.24			
100 "		13.58			
150 "		12.92			
200		12.27			
250		11.61			
300' S. N.L.K		10.95			

6.77 20.51 13.74

15.75	16.50	17.25	18.00	18.75
4.76	4.01	3.26	2.51	1.76

14.90	14.24	13.58	12.92	20.25
5.61	6.27	6.93	7.59	.26

14.77 - St.

7th St Fc - S. ang W side

N.L.	J	14.93			
+25		15.30 ✓			
+75		16.05 ✓			
1+25		16.80 ✓			
1+75		17.55 ✓			
2+25		18.30 ✓			
3+00 SL	I	19.43 ✓			

8.07 21.81 13.74 Bm

7.22 / 14.49 - SW J 6.31 / 15.50 - SE J. 5.81 / 16.00 NE J 6.31 / 15.50 NW J.

1.81 / 20.00 SW I 1.31 / 20.50 SE I 14.90

15.30 / 6.61 ✓ 16.05 / 5.76 ✓ 16.80 / 5.01 17.55 / 4.26 ✓ 6.91 / 18.30 / 3.51 ✓ 19.43 / 2.38 ✓

Grades for India St and Ivy St Ry.

POSTED

3.L Ivy			76.00		
W.L. State			75.00		
+50			72.50		
1			70.00		
+50			67.50		
2 .00 EL. Columbia			66.00		
+375 "			64.00		
W.L. "			63.00		
+50			59.25		
1			55.50		
+50			51.75		
2 EL India			48.00		
W.L. Ivy			47.00		
+50			47.17		
1			47.33		
+50			47.50		
2			47.67		
+50			47.83		
3 S.L. Juniper			48.00		

101.

0.33 83.48 83.15

76.00 75.50 75.00
7.48 7.98 8.48

T.P. 0.54 74.54 9.48 74.00

72.50 70.00 67.50 65.00 & N.W. Glass
2.04 4.54 7.0 9.54
0.24 63.22 11.56 62.98

63.00 59.25 55.50 51.75 48.00
022 3.97 7.72 11.47 15.22

0.05 63.03 62.98

51.75
11.28
2.51 53.45 12.09 50.94

48.00 47.50 47.40 47.70 47.17 47.33
5.45 5.95 6.05 5.75 6.28 6.12

47.50 47.67 47.83 48.00
5.95 5.78 5.62 5.45

0.32 51.78 1.99 51.46

Ctr Juniper			48.00 ✓		
N.L "			48.00 ✓		
+50			47.17		
/			46.33 ✓		
+50			45.50 ✓		
2			44.67 ✓		
+50			43.83 ✓		
3 - S.L Maimia			43.00 ✓		
Ctr "			43.00 ✓		
N.L. "			43.00		
+50			44.92		
/			46.83		
+50			48.75 ✓		
2			50.67 ✓		
+50			52.58 ✓		
3 - S.L. Laurel			54.50 ✓		
Ctr "			55.00 ✓		
N.L Laurel			55.50 ✓		
+50			59.08 ✓		
/			62.67 ✓		
+50			66.25 ✓		

M.

51.78

48.00 — 48.00 — 47.17 — 46.33 — 45.50 — 44.67

3.78 — 4.61 ✓ — 5.45 ✓ — 6.28 ✓ — 7.11 ✓

43.83 — 43.00

7.95 — 8.78 M.

11.55 — 59.04 — 4.29 — 47.49

Bm Pole N W cor Bridge

48.75 — 50.67 — 52.58 — 54.50 — 55.00 — 55.50

10.29 — 8.37 ✓ — 6.46 ✓ — 4.54 ✓ — 4.04 — 3.54 ✓

12.23 — 71.00 — 0.27 — 58.77

59.08 — 62.67 — 66.25

11.92 ✓ — 8.33 ✓ — 4.75

2			69.83		
+50			73.42		
3 S.L. Maple			77.00		
Ctr "			77.50		
N.L "			78.00		
+50			80.17		
			82.33		
+50			84.50		
2			86.67		
+50			88.83		
3 S.L Nutmeg			91.00		
+40 Ctr "			91.60		
N.L. "			92.00		
+40			93.17		
+90			94.62		
1 +40			96.08		
+90			97.54		
2 +40			99.00		
+74.05 S.L Olive			100.00		

71.00 NS

9.83 12.40 83.20 0.20 70.80
1.17

73.42 77.00 77.50 78.00 80.17 82.33
9.78 6.20 5.70 5.20 3.03 0.87

12.16 94.64 0.72 82.48

84.50 86.67 88.83 91.00
10.14 7.97 5.81 3.64

Spk Pole N W Nutmeg

9.98 102.60 2.02 97.62

92.00 93.17 94.62 96.08 97.54 99.00
10.60 9.43 7.98 6.52 5.06 3.60

100.00
2.60

3.08 99.52

5.47
99.52
104.99 NS 100.40
4.59

Ctr Olive	
N.L. Olive	100.40 ✓
+50	100.21 ✓
1	100.03 ✓
+50	99.85 ✓
2	99.67 ✓
+50	99.49 ✓
3 +74-S.L. Bm	99.40 ✓
Ctr "	99.40 ✓
N.L "	99.40 ✓
+50	100.73 ✓
1	102.07 ✓
+50	103.40 ✓
2	103.07 ✓
+50	102.73 ✓
3 -S.L Quince	102.40 ✓
Ctr "	102.40
N.L "	102.40

5.84 105.36 99.52 Bm

100.21	100.40	100.03	99.85
5.15 ✓	4.96 ✓	5.33	5.51 ✓

99.67	99.49	99.40	100.73	102.07
5.69 ✓	5.87	5.96	4.63 ✓	3.29 ✓

103.40	103.07	102.73	102.40
4.96 ✓	2.29	2.63 ✓	2.96

Bm-S.W. Quince

3.82 ✓ 104.54

N.L. Quince			102.40	✓	
+50			101.73	✓	
1			101.07	✓	
+50			100.40	✓	
2			99.73	✓	
+50			99.07	✓	
3 - S.L. Redwood			98.40	✓	
Ctr "			97.90	✓	
N.L "			97.40	✓	
+50			95.40	✓	
1			93.40	✓	
+50			91.40	✓	
2			89.40	✓	
+50			87.40	✓	
3 - S.L. Spruce			85.40	✓	

3.11 104.65 101.54

102.40 / 2.25 — 101.73 / 2.92 — 101.07 / 3.58 — 100.40 / 4.25 — 99.73 / 4.92 ✓

99.07 / 5.58 — 98.40 / 6.25 — 97.90 / 6.75 — 97.40 / 7.25 — 95.40 / 9.25 ✓

93.40 / 11.25

1.08 94.48 11.25 93.40

91.40 / 3.08 — 89.40 / 5.08 — 87.40 / 7.08 — 85.40 / 9.08

BM - S.E Spruce

1.90 88.44 7.94 86.54

Ctr Spruce	85.40
N.L. "	85.40
+50	85.23
+50	85.07
+50	84.90
"	84.73
+50	84.57
3=5.L. Sass.	84.40
Ctr "	84.40
N.L "	84.40
+50	85.07
"	85.73
+50	86.40
"	87.07
+50	87.73
3=5.L Thorn.	88.40

H.I.
88.44

85.40 / 3.04 | 85.23 / 3.21 | 85.07 / 3.37 | 84.90 / 3.54 | 84.73 / 3.71

84.57 / 3.87 | 84.40 / 4.04 | 85.07 / 3.37 | 85.73 / 2.71 | 86.40 / 2.04

87.07 / 1.37 | 87.73 / 0.71

2.28 | 90.01 | 0.71 | 87.73

88.40 / 1.61

0.38

89.63 BM. S.E Thorn

Ctr. Thorn		88.40	✓	
N.L "		88.40	✓	
+50		87.57	✓	
"		86.73	✓	
+50		85.90	✓	
"		85.07	✓	
+50		84.23	✓	
3" S.L Upro		83.40	✓	
Ctr "		83.40	✓	
N.L "		83.40	✓	
+50		83.23	✓	
"		83.07	✓	
+50		82.90	✓	
"		82.73	✓	
+50		82.57	✓	
3" S.L Vine		82.40	✓	

N.L.

90.01

88.40 — 1.61 ✓
87.57 — 2.44 ✓
86.73 — 3.28 ✓
85.90 — 4.11 ✓
85.07 — 4.94 ✓
84.23 — 5.78 ✓

83.40 — 6.61 ✓
83.40 — 6.61
83.23 — 6.78 ✓
83.07 — 6.94 ✓

2.82 85.89 6.94 ✓ 83.07

82.90 — 7.99
82.73 — 8.16 ✓
82.57 — 8.32 ✓
82.40 — 8.49 Bm-S.E Vine

0.16 83.14 7.91 82.98 ✓

Ctr Vine			81.90	✓	
N.L "			81.40	✓	
+50			79.73	✓	
/			78.07	✓	
+50			76.40	✓	
✓			74.73	✓	
+50			73.07	✓	
3 = S.L	Willow		71.4	✓	
Ctr	"		71.4	✓	
N.L	"		71.4	✓	
+50			70.73	✓	
/			70.07	✓	
+50			69.40	✓	
✓			68.73	✓	
+50			68.07	✓	
3 = S.L	Chalmers		67.40	✓	

83.14 HS

81.90 / 1.24 — 81.40 / 1.74 — 79.73 / 3.41 — 78.07 / 5.07 — 76.40 / 6.74 — 74.73 / 8.41

73.07 / 10.07 — 71.40 / 11.74

✓ 56 73.96 11.74 71.40

71.40 / 2.56 — 70.73 / 3.23 — 70.07 / 3.89 — 69.40 / 4.56 — 68.73 / 5.23 — 68.07 / 5.89

BM. S.E Chalmers

67.40 / 6.56

5.61 68.35

Ctr Chalmers			67.4 ✓		
N.L "			67.4 ✓		
+00			69.23 ✓		
1			71.07 ✓		
+00			72.90 ✓		
2			74.73 ✓		
+00			76.57 ✓		
3" S.L. Winders			78.40 ✓		
Ctr "			78.40		
N.L "			78.40		

M.

12.07 80.42 68.35

67.40 / 13.02 | 69.23 / 11.19 | 71.07 / 9.36 | 72.90 / 7.52 | 74.73 / 5.69

76.57 / 3.85 | 78.40 / 2.02 | 2.28 / 78.14 Bn N.W Winder Frost

3rd D - N.

6/7/07 Hald Dorman Emery

Levels for West Track are 0.1 below Cr.
" " East " to be 0.1 above "

	6.74	45.85		45.11	6E 3rd
	2.60	43.66	4.79	41.06	
	Sh D St		3.51	40.15	40.35
50		3rd	4.37	39.29	39.49
100			5.50	38.16	38.36
145			6.51	37.15	37.35
300			8.02	35.64	35.84
250			9.39	34.27	34.47
300	NL E St		10.76	32.9	33.10
BM 4" F. 837		33.87		25.50	
Cr	E		1.47	32.4	32.60
	S L E		1.97	31.9	32.10
50			3.14	30.73	30.93
100			4.31	29.56	29.76
150			5.47	28.40	28.60
200			6.64	27.23	27.43
250			7.80	26.07	26.27
300	N L F		8.97	24.90	26.10
Cr	F		9.47	24.40	24.60

C. Hd. 5.E 3rd E BM. N.H.Hydt

6.86 41.42 34.56

40.35 / 1.07 | 39.49 / 1.93 | 38.36 / 3.06 | 37.35 / 4.07 | 35.84 / 5.58 | 34.47 / 6.95 | 33.10 / 8.32

5.66 46.66 0.42 41.00

46.63 1.53 45.10

1.56 42.53 5.66 40.97

39.49 / 3.04 | 38.36 / 4.17 | 37.35 / 5.18 | 35.84 / 6.69 | 34.47 / 8.06 | 33.10 / 9.43

7.65 33.15 25.50 BM

24.60 / 8.55 | 25.10 / 8.05 | 26.27 / 6.88 | 27.43 / 5.72 | 28.60 / 4.55 | 29.76 / 3.39 | 30.93 / 2.22

32.10 / 1.05 | 32.60 / 0.55

5 } Clam
3 } Moore
2 } Thom

3.59

	1.71	27.21		25.50	
St	IF		3.31	23.9	24.10
50			4.14	23.07	23.27
100			4.98	22.23	22.43
150			5.81	21.40	21.60
200			6.64	20.57	20.77
250			7.48	19.73	19.93
300	NL "G"		8.31	18.9	19.10
	3.90"	23.32		19.42	
Cr	G		4.92	18.4	18.60
St	"		5.42	17.9	18.10
50			6.42	16.9	17.10
100			7.42	15.9	16.10
150			8.42	14.9	15.10
200			9.42	13.9	14.19
250			10.42	12.9	13.10
300	NL H		11.42	11.9	17.10

GBM 19.95 SE Cor Hydt Nozzle
H. 13.57 SE " " Hinge
E 12.5 — 12.0 W

N.1.

0.26 25.76 25.50 BM.

24.10	23.27	22.43	21.60	20.77	19.93	19.10
1.66	2.49	3.33	4.16	4.99	5.83	6.66
18.10						
7.16	1.85	20.45		7.16	18.60	

18.10 / 2.35 — 17.10 / 3.35 — 4.35 — 5.35 — 1.35 — 7.35 — 8.35

1357
316
1673 HI

447
12.26

266
14.17

1.91
.95
1.226
13.21
3.52

		grade	
El Stake 100' N of H.	14.17	14.21	.05
" " 50 " " "	13.21	13.23	.02
" " N L "	12.26	12.26	.00
" " 150 " " "	15.10	15.18	.08
" " 200	16.10	16.15	.05
" " 250	17.10	17.12	.02
" " 300	18.10	18.10	

1357 BM H Gd.
7.29
20.86
2.16
18.70
1.93
20.63
.70
19.93 BM Gd

20.63 HI

6.50 / 14.13

6.71 / 13.92

		278.32			
St Perm.			3.57	269.75	
Cr			3.32	270.00	
Nh "			3.07	270.25	
50			2.63	270.69	
100			2.19	271.13	
			1.76	271.56	
200			1.32	272.00	
			0.88	272.44	
300			0.44	272.88	7.27
			6.84	273.31	✓
400			6.40	273.75	✓
			5.96	274.19	✓
500			5.52	274.63	✓
			5.09	275.06	✓
600	St Robinson		4.65	275.50	✓
				275.50	✓
	Nh "		4.65	275.50	✓
50			4.08	276.07	✓
100			3.51	276.64	✓

460	287.47		286.83 BM.
290	283.65	6.72	280.75
482	280.15	8.32	275.83

N.L.

280.15

150		277.21	2.94
200		277.78	2.37
250		278.35	1.80
300		278.92	4.70
350		279.50	4.12
400		280.07	3.55
416	S.L.	280.25	3.37
	N.L.	278.25	

5.27 283.62 1.80 278.35

4946 2
6
28.5
97302
15568
37922
55461
55.461

12.26
973
13.233
973
14.206
15,179
16,152
17.125
18.098

973 - 50
1946 77

352
55
407

280.76 2c

3.836
74.88

940 803
684 (27521) Pm N.

277.71
4.75

26975
269.47
31 85
4.13

283.24
248

790
275.34
127
277.71

grad. south 269.75
336
273.82 Pt

Curve at India & Olive

23° curve

R- 250.79

Chord 10.19

Def 1°10'

16°18'

5.73 5.92

L. 71.35'

923
392
831

2a — Pm

		278.75
	50	278.5
	100	278.75
		279.0
	200	279.25
		279.5
	300	279.95
		280.85
	400	281.15
		282.12
	500	283.09
		284.06
Sh. mach -	560	284.25

10

4375
270.25

270.6875
- 271.1250
271.5625
- 272.0000
272.4375
- 272.8750
273.3125
273.7500
274.1875
274.6250
275.0625
275.5000

2755
270.25

525 (12
48
45
36
90
84
60
.0375

280.0 Pm 280.5

275.0 Pohman 276.0
275.0 276.0

270.0 Pm 270.5

269.75

188.34	S.W.	COR.	NOZZLE	OF HYDRANT	
191.46	S.W.	COR.	C.8425 SPIKE	IN ELECT.	POLE
197.49	N.W	COR	" "	TEL.	"

19.43
14.93
300 / 4.50
1.015

.015
.25
75
30
.375

.015
.25
75
105
1.125

14.50
.75

14.93
.325
15.005
.75
16.055
16.805
.75
17.555
18.305
1.125
19.43

89:45 45°07'
15.08

I

90 15

274 / 8.00 (.029)
648
2570
2466
648
648

.0292
.24
1168
876
.9928

.0292
.40
1.168
2.92
1.46

19.43 20.50 15.57 .48
15.50 14.93 15.75 16.00

15.33 .40 15.37

14.50 16.00 15.50

92.00
1.168
93.168
1.46
94.628
96.088
97.548
99.008
50.468
.9928

92.00
1.168
93.168
1.46
94.628
96.088
97.548
99.008

179°60'
16°17'2
2163.42 1/2
81°51'

2102
61
.62

Cult Ang — Degree of Curve
Length of Curve

		287.71	Rail	Grade
4°46	W.L 50	3.44	284.27	284.30
4°46				
9°32	EL 50	3.48	284.23	284.20
4°46	50	3.73	283.98	284.04
14°18				
9°0	4100	4.08	283.63	283.87
4°46	150	4.45	283.26	283.71
23°50'		4.71	283.00	283.56
4°46				
28°36				
33°22'				

9th — 4314 S.E Hyatt Bridge

9th 50.26 S.W Cu 4 Nor.

9.04
.62
9.68

8.84
1.25
10.09
9.68
.41

80 9 8.74 0.57
74 8 4 37.13
14 4
17 8
77 8 9 1/2
16

77

77.06 | 74.233 | 96331
69354

-0.03
-0.03
-0.06
-0.24
-0.45
-0.54 20

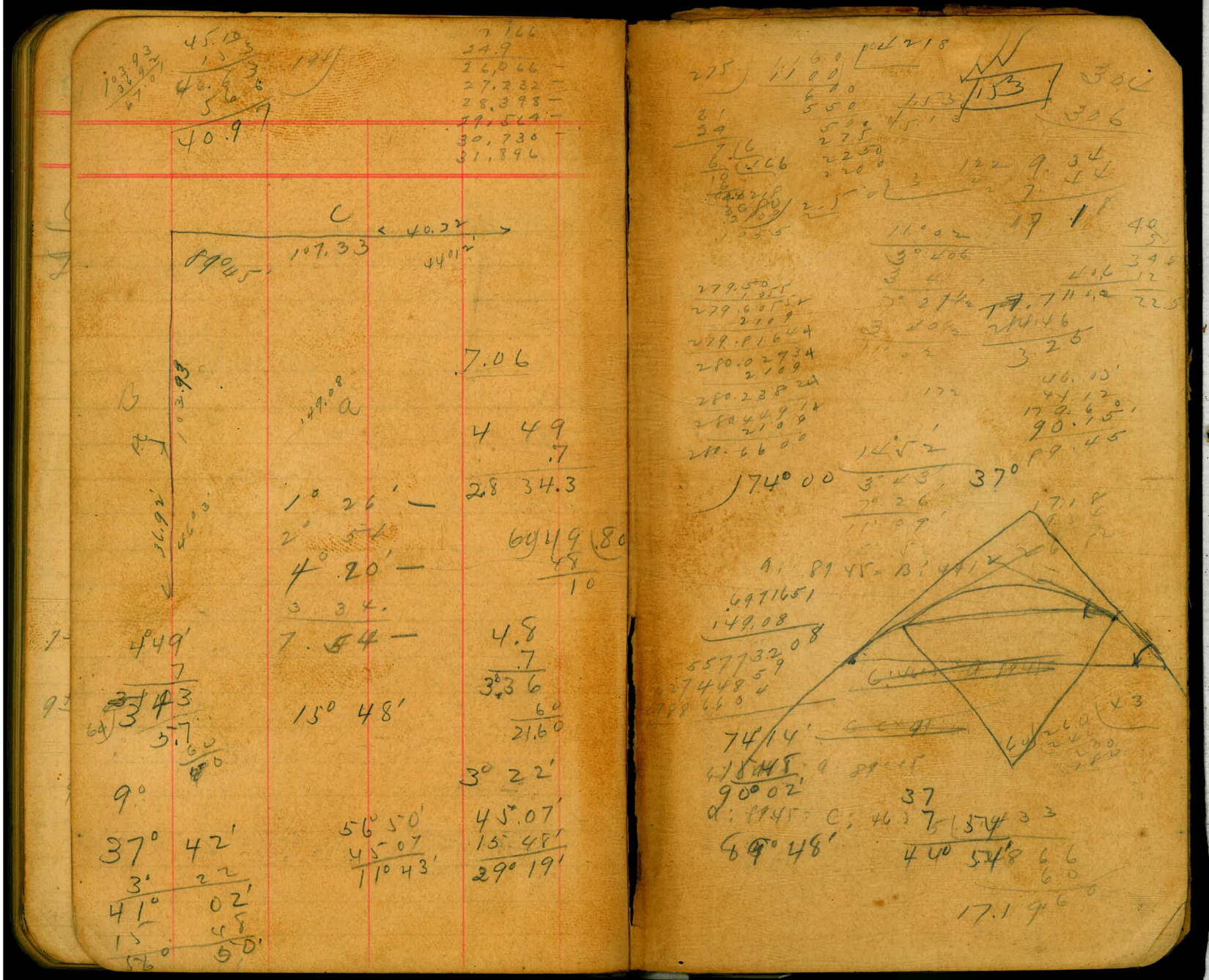
9633
60
198

48790
46236
25540
23118
24220
23118
1102
1706
204.9
196.4
8.5

96°20' | 4°49'
80
16
4°0
96
20
980
20 | 204.
180
14
36.48
4.49
41°57'

7.54
4.49
12°43
4.49
17°32'
4.49
22°21'
4.49
27°10'
4.49
31°59'
4.49
36°48

300 | 8.5 | 2.36
72
1.18
130
108
.0833
.057
22.16 | .916
215
80
4
1.42
11



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