Return to City Engineers Office
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400 LEVEL

F.B. 448

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Published by H. S. CROCKER COMPANY, Stationers, Drawing Materials, and Mathematical Instruments, San Francisco.

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

448

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	135½
19	44⅓	39	91	59	137⅔
20	46⅔	40	93⅓	60	140

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1964

TABLE FOR RUNNING ON SLOPES.

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.

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

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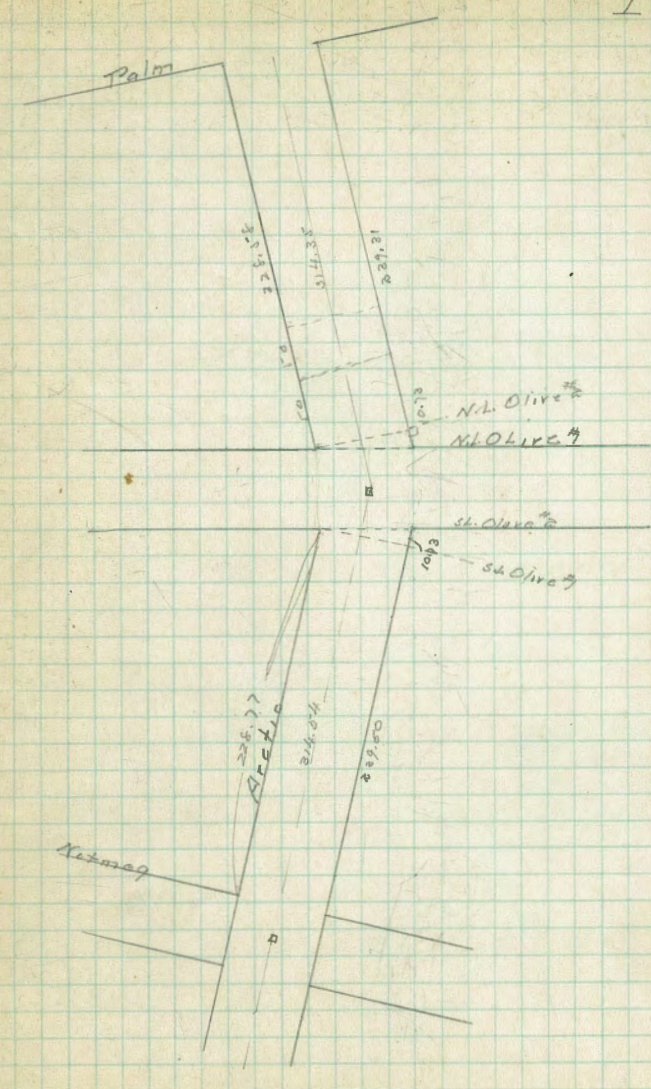
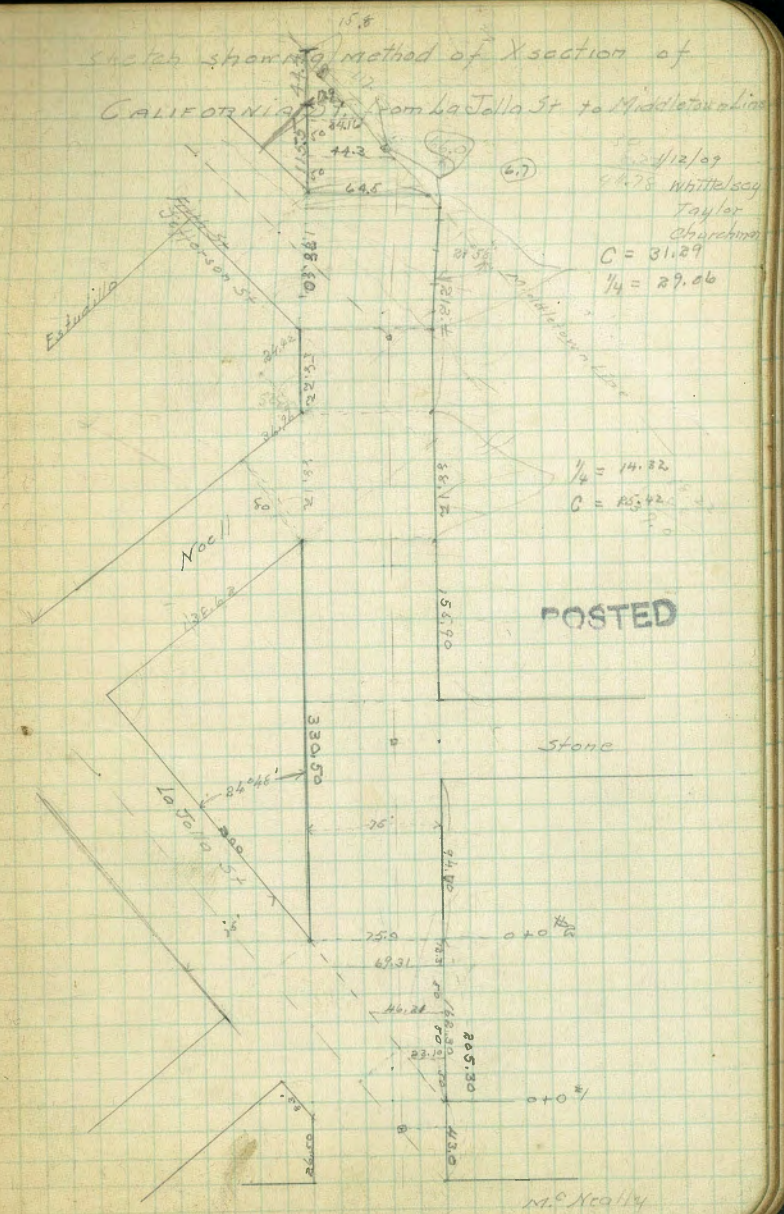


Sketch showing method of X section of

California St. from La Jolla St to Middletown Line



"38"

B.M.	Spkin pole. S.W. India		Nutmeg	90.073
TP	0.21	90.28	13.13	77.15
TP.	0.49.	77.64	13.03	64.61
	0.14	64.75	13.08	51.67
	0.12	51.79	13.02	38.77
	1.03	39.80	9.29	30.51

1/8/09 {Whittelsey, Taylor, Thomas}

Xsection of Arctic

from Kalmia to Willow

N.L. of Kalmia (30.51)

E	4.02	34.53	10.40	24.1
C			11.90	22.6
1/4			9.50	25.0
2' E of T.			4.50	30.0
W. Rail			3.81	30.72
2' W. of T			4.70	29.8
1/4			4.10	30.4
C			5.00	29.5
W.			9.20	25.3

POSTED

X 2

25' N. of Kalmia

W	34.53	9.90	25.5
C		5.00	29.5
1/4		4.60	29.9
2' W		4.90	29.6
W. R.		3.80	30.7
2' E = 1/4		4.50	30.0
5' E of 1/4		6.60	27.9
C		10.40	24.1
E		4.30	30.2

50' N. of Kalmia

E		4.20	30.3
C		5.80	28.7
1/4		5.10	29.4
2' E		4.40	30.1
W. R.		3.80	30.7
2' W = ¢		4.70	29.8
1/4		4.60	29.9

50' N. Cont'd.

C	34.53	5.10	29.4
W		5.50	29.0

100' N. of Kalmia

W		5.40	29.1
C		5.30	29.2
1/4		4.70	29.8
℄ = 2' W.		4.50	30.0
W. R.		3.54	30.99
2' E		4.10	30.4
1/4		4.40	30.1
C		4.00	30.5
E		3.60	30.9

150' N

E		3.10	31.4
C		3.20	31.3
1/4		3.70	30.8
2' E of T		3.70	30.8
W. R.		3.29	31.24
2' W		4.10	30.4
1/4		5.00	29.5
C		5.30	29.2
W		6.10	28.4

200' N

W		4.40	30.1
C		3.80	30.7
1/4		3.80	30.7
2' W		3.50	31.0
W. R.		2.86	31.67
2' E		3.30	31.2
1/4		1.10	33.4
T.R.		1.92	32.61
C	9.16	41.77	5.80
E		5.40	36.8

250' N. of Kalmia

E	41.77	2.77	39.0
C		3.60	38.2
¼		9.30	32.5
2' E of T		10.00	31.8
W. R.		9.56	32.21
2' W. of T		10.40	31.4
¼		9.80	32.0
C		10.40	31.4
W		10.00	31.8

300' W of K = s.l. Laurel

W		10.00	31.8
C		9.60	32.2
¼		9.10	32.7
2' W. of T		9.70	32.1
W. R.		9.01	32.76
2' E		9.60	32.2
10' E of ℄		9.40	32.4
¼		6.00	35.8
C		2.30	39.5
E		1.80	40.0

N.b. of Laurel

E.		2.30	39.5
C		2.80	39.0
¼		7.80	34.6
2' E		8.60	33.2
W. R.		7.95	33.82
2' W		8.70	33.1
¼		9.00	32.8
C		9.60	32.2
W		10.20	31.6

50' N. of Laurel

W		10.90	30.9
C		10.10	31.7
E		8.80	33.0
2' W		8.20	33.6

50' N. Cont.

W. R.	41.77	7.38	34.39
2' E		8.00	33.8
1/4		7.30	34.5
C		2.60	39.2
E		1.90	39.9

100' N. of Laurel

E		1.90	39.9
C		3.10	36.7
1/4		6.70	35.1
2' E		7.00	34.8
W. R.		6.65	35.12
2' W		7.20	34.6
1/4		8.50	33.3
C		11.30	30.5
W		12.50	29.3

150' N. of Laurel

W		13.40	28.4
C		12.60	29.2
1/4		10.40	31.4
2' W		6.60	35.2
W.R.		5.35	35.92
2' E		6.50	35.3
1/4		6.50	35.3
C		5.90	35.9
E		3.30	38.5
TP.		6.83	34.94

200' N. of Laurel

E	8.51	43.45	4.80	38.7
C			6.70	36.8
1/4			8.30	35.2
2' E of T			7.70	35.8
W. R.			6.77	36.68
2' W of T			7.50	36.0

200' N. of Laurel Cont			
W 1/4	43.45	10.80	32.7
+7		14.50	29.0
C		15.50	28.0
W		16.80	27.7
200' N			
W		16.70	26.8
C		15.70	27.8
1/4		8.70	34.8
2' W		6.60	36.9
W. R.		5.89	37.56
2' E		6.60	36.9
1/4		6.80	36.7
C		8.90	34.6
E.		4.80	38.7
300' N of Laurel = S.L. Maple			
E		4.60	38.9
+10		9.00	34.5

C ~~7x~~		9.20	34.3
+8		9.10	34.4
1/4		6.90	36.6
2' E of T		5.70	37.8
W. R.		4.97	38.48
2' W. of T		5.70	37.8
1/4		8.79	34.7
+10		16.00	28.5
C		15.10	28.4
W		16.20	27.3
N. L. of Maple			
W		15.90	27.6
+10		15.00	28.5
C		13.00	30.5
1/4		6.80	37.5
2' W		4.80	39.3
W. R.		3.34	40.11
2' E		4.20	39.3

N.L. Maple Cont'd

E 1/4	43.45	5.80	37.7
+4		8.10	35.4
C		8.10	35.4
+ 2		8.20	35.3
E		2.30	40.2

50' N. of Maple

E		1.30	42.2
C		5.40	38.1
+2		7.30	36.2
+ 8		7.50	36.0
1/4		4.60	38.9
2' E		2.10	40.4
W. R.		2.35	41.10
2' W		3.10	40.4
1/4		5.20	38.2
C		13.00	30.5
+1		14.50	29.0
W		15.30	28.2

100' N. of Maple

W		14.60	28.7
C		15.80	30.7
+2		11.50	32.0
1/4		4.00	39.5
2' W of 1/4		2.20	41.3
W. R.		1.37	42.08
2' E		2.10	41.4
1/4		3.50	40.0
+2		6.00	37.5
19		5.60	37.9
C		3.70	39.8
E		+0.60	44.10
T.P.		0.91	42.54
	9.11	51.65	

	150' N of Maple		
E.	51.65	6.40	45.3
C		11.00	40.7
+10		13.30	38.5
1/4		10.70	41.0
2' E of T		9.20	42.5
W. Rail		8.46	43.19
2' W		9.10	42.6
1/4		11.50	40.2
+9		16.20	35.5
C		19.20	32.5
W		21.00	30.7
	200' N. of Maple		
W		20.00	31.7
C		17.50	34.2
+8		17.10	34.6
1/4		11.00	40.7
2' W of T		8.80	43.4

W. Rail		7.50	44.2
2' E		8.30	43.4
1/4		10.10	41.6
+3		12.00	39.7
C		11.00	40.7
E		7.40	44.2
	250' N		
E		6.30	45.4
C		10.10	41.6
+9		10.80	40.9
1/4		8.40	43.3
2' E		7.30	44.4
W. R.		6.45	45.20
2' W		7.40	44.3
1/4		10.10	41.6
+4		12.90	38.8
+6		14.50	37.2
C		15.30	36.4
W		18.10	33.6

300' N of Maple = 5.6 of Notmeg			
W	51.65	15.00	36.7
C		12.40	39.3
+8		11.70	40.0
1/4		6.40	45.3
2' W of T		6.20	45.5
W.R.		5.50	46.2
2' E		6.30	45.4
1/4		7.70	44.0
+1		9.30	42.4
+8		8.20	43.5
~~+~~11		5.50	46.2
C		5.20	46.5
E		2.50	49.2
N.L. of Notmeg			
E		+0.6	52.3
C		0.90	50.8
+5		5.00	46.7

1/4		5.90	45.8
2' E		4.60	47.1
W.R.		3.93	47.72
2' W		4.80	46.9
1/4		6.20	45.5
~~2~~+4		8.80	42.9
C		9.40	42.3
W		11.50	40.2
50' N of Notmeg			
W		9.60	42.1
C		7.60	44.1
+9 ~~X~~		7.00	44.7
1/4		5.40	46.3
2' W		3.80	47.9
W.R.		2.98	48.67
2' E		3.60	48.1
1/4		4.60	47.1
+9		3.20	48.5

50' N of Nutmeg Cont'd.

T.P.		51.65	1.57	50.05
E. C.	12.66	62.74	11.50	51.2
E			9.30	53.4

100' N of Nutmeg

E			9.60	55.1
C			9.20	53.5
+2			9.80	52.9
+6			12.90	49.8
1/4			13.50	49.2
2' E			13.70	49.0
W. R.			13.11	49.63
2' W			14.00	48.7
1/4			14.50	48.2
C			16.20	46.5
W			18.20	44.5

150' N of Nutmeg

W			16.60	46.1
C			14.10	48.6
1/4			13.10	49.6
2' W			13.20	49.5
W. R.			12.24	50.50
2' E			12.90	49.8
¢ +6			13.00	59.7
+7			10.40	52.3
1/4			10.50	52.2
C			6.90	55.8
E.			5.20	57.5

200' N. of Nutmeg

E			2.40	60.3
C			4.00	58.7
+7			7.10	55.6
1/4			9.30	53.4
+8			12.10	50.6
2' E of T = ¢ ±			11.90	50.8
W. R.			11.35	51.39
2' W			12.50	50.2

200' N. of Nutmeg Contact

W 1/4	62.74	11.50	51.2
C		12.10	50.6
W		14.20	48.5

228.77' N of Nutmeg = S.L. Olive #7

W		12.60	50.1
C		11.10	51.6
1/4		10.90	51.8
2' W of T		12.00	50.7
W. R.		10.96	51.78
2' E of T		11.50	51.2
# ℄		11.80	50.9
+1		11.60	51.1
+2		10.20	52.5
1/4		8.50	54.2
+3		6.70	56.0
+5		5.10	57.6
C		3.30	59.4
E		2.00	60.7

S.L. of Olive #8

E.		1.60	61.1
C		3.20	59.5
+9		7.00	55.7
1/4		8.90	53.8
+10		10.20	52.5
℄		11.70	51.0
+2 = 2' E of T		11.40	51.3
W. R.		10.88	51.86
2' W		12.00	50.7
1/4		10.80	51.9
C		10.90	51.8
W		12.60	50.1

N. L. of Olive #7 (see sketch front of Book)

W		11.00	51.7
C		9.80	52.9
1/4		9.40	53.3
2' W of T		10.60	52.1

N.L. of Olive #7

N.R. of T	62.74	9.48	53.26
2' E		10.00	52.7
℄ +3		10.20	52.5
+4		9.30	53.4
+10		9.00	53.7
1/4		6.70	56.0
+14		4.70	58.0
C		3.80	58.9
E		2.30	60.4

N.L. of Olive #2

E		1.90	60.8
C		3.50	59.2
+7		4.30	58.4
1/4		6.60	56.1
+1		8.90	53.8
℄ = 2' E of T		10.10	52.6
W. R.		9.40	53.3
2' W of T		10.40	52.3
1/4		9.30	53.4
C		9.80	52.9
W		11.00	51.7

50' N. of Olive

W		11.50	51.2
+3		10.00	52.7
C		9.00	53.7
1/4		8.70	54.0
+4		8.90	53.8
2' W of T		9.60	53.1
W Rail		8.47	54.27
2' E		9.00	53.7
1/4		8.40	54.3
+3		6.30	56.4
C		5.10	57.6
E		3.10	59.6

100' N. of Olive

E	2.00	60.7
C	4.20	58.5
+4	5.80	56.9
+6	7.50	54.9
1/4	8.00	54.7
2' E	8.10	54.6
W. R.	7.40	55.3
2' W	8.50	54.2
+8	8.70	54.0
+11	7.50	55.2
1/4	7.90	55.0
C	8.10	54.6
W	9.50	53.2

150' N. of Olive

W	8.00	54.7
+4	6.20	56.5
C	5.80	56.9
1/4	5.90	56.8
1/4 +3	6.00	56.7
+5	7.50	55.2
2' W of T	7.20	55.5
W. R.	6.23	56.41
2' E	6.80	55.9
1/4	7.00	55.7
+2	4.60	58.1
C	3.20	59.4
E	1.70	61.0

200' N. of Olive

E	1.90	60.8
C	3.10	59.6
1/4	2.80	59.9
+2	3.40	59.3
+4	6.20	56.5
2' E of T	6.00	56.7
W. R.	5.35	57.39
2' W	6.20	56.5

200' N of Olive Cont'd

7' W of ℄	62.74	6.50	56.2
℄ +9		4.80	57.9
1/4		4.90	57.8
+4		4.60	58.1
+5		3.80	58.9
C		4.00	58.7
W		3.50	59.2
T.P.		3.10	59.64

228.58 N of N.L. of Olive & = St. Palm

W	9.82	69.46	9.80	59.9
C		9.80	59.7
+6		9.60	59.9
+8		11.00	58.5
1/4		11.00	58.5
+2		11.20	58.3
+4		12.80	56.7
2' W of T		12.40	57.1

W. Trail	11.66	57.80
2' E	12.40	57.1
℄ +7	12.60	56.9
℄ +9	7.10	62.4
1/4	6.80	63.0
C	7.00	62.5
E	7.60	67.9

N.L. of Palm

E	1.40	68.1
C	2.20	67.3
1/4	3.80	65.6
+4	12.20	57.3
2' E of T	12.00	57.5
W. R.	11.27	58.19
2' W of T	12.00	57.5
℄ +7	12.40	57.1
+9	10.40	59.1
1/4	10.50	59.0

N. L. of Palm Cont'd

W 1/4 +3	69.46	10.30	59.2
+6		8.30	61.2
C		8.50	61.0
W		9.10	59.8

50' N of Palm

W		10.00	59.5
C		8.10	60.8
+8		8.30	61.2
+10		10.00	59.5
1/4		10.00	59.5
+5		12.00	57.5
2' W		12.00	57.5
W. R.		11.34	58.12
2' E		12.10	57.4
℄ + 6		12.20	57.3
1/4		3.10	65.8
C		2.30	67.2
E		0.10	68.8

~~+25~~ 25' N. of Palm

E		0.10	69.4
C		1.30	68.2
+2		1.50	68.0
+3		3.00	66.5
1/4		3.80	65.7
+7		12.20	57.3
2' E of 7		12.20	57.3
W. R.		11.30	58.2
2' W		12.20	57.3
℄ +6		12.30	57.2
+8		10.00	59.5
1/4		10.00	59.5
+4		8.50	61.0
C		8.10	60.8
W		10.60	58.9

100' N. of Palm

W	69.46	11.40	58.1
C		9.30	60.2
1/4		10.00	59.5
+4		9.90	59.6
+7		12.20	57.3
2' W		12.00	57.5
W.R		11.26	58.20
2' E		11.90	57.6
℄ +8		11.60	57.9
1/4		4.70	64.8
C		1.70	67.8
E		0.40	69.1

150' N. of Palm

E		2.30	67.2
C		4.00	65.5
+9		5.10	64.4
1/4		6.50	63.0
1/4 +6		11.90	57.6
2' E		12.00	57.5
W.R.		11.31	58.15
2' W		12.00	57.5
℄ +6		12.10	57.4
+8		10.20	59.3
1/4		9.90	59.6
C		10.40	59.1
W		12.00	57.5

200' N. of Palm

W		11.90	57.6
C		10.50	59.0
1/4		10.20	59.3
+5		10.30	59.2
+7		12.20	57.3
2' W		12.00	57.5
W.R.		11.30	58.2
2' E		11.90	57.6

200' N. Contol.

℄+9	69.46	11.60	57.9
1/4		8.50	61.0
+5		6.90	62.8
C		5.80	63.7
E.		4.10	65.4

250' N. of Palm

E		4.80	64.7
C		5.40	64.1
+6		6.40	63.1
1/4		8.10	61.4
+4		11.90	57.6
2' E		12.00	57.5
W. R.		11.30	58.2
2' W		12.00	57.5
+6		12.40	57.1
+7		9.90	59.6
1/4		10.10	59.4
C		10.40	59.1
W		11.60	57.9

300' N. of Palm = S.L. of Quince

W		11.70	57.8
C		11.10	58.4
1/4		10.50	59.0
+5		10.10	59.4
+7		12.30	57.2
2' W		12.00	57.5
W. R.		11.25	58.21
2' E		11.90	57.6
℄ +7		11.80	57.7
49		9.30	60.2
1/4		8.00	61.5
C		6.90	62.6
E		5.80	63.7
T.P.		6.18	63.34
	4.18	69.52	

N.L. of Quince

E.	67.52	2.90	64.6
C		4.30	63.2
+8 ~~X~~		4.00	63.5
1/4		5.50	62.0
~~X~~ +2		5.70	61.8
+4		9.80	57.7
2' E		10.00	57.5
W. R.		9.35	58.17
2' W		10.10	57.4
℄ +5		10.20	57.3
+8		7.70	59.8
1/4		7.70	59.8
C		8.00	59.5
+4		8.20	59.3
+6		9.40	58.1
W		9.20	58.3

50' N. of Quince

W	9.10	58.4
C	8.50	59.0
1/4	7.60	59.9
+6	7.70	59.8
+8	10.10	57.4
2' W	10.00	57.5
W. R.	9.30	58.2
2' E	9.80	57.7
℄ +8	9.50	58.0
1/4	4.40	63.1
C	3.10	64.4
E	2.40	65.1

100' N. of Quince

E	1.70	65.8
C	3.00	64.5
1/4	3.60	63.9
+4	3.40	64.1

100' N Cont'd.

1/4 +7	67.52	9.40	58.1
2' E		9.80	57.7
W.R.		9.37	58.15
2' W		10.10	57.4
℄ +6		10.50	57.3
+8		8.00	59.5
1/4		8.10	59.1
C		7.90	59.6
+4		8.00	59.5
W		9.20	58.3

150' N. of Quince

W		8.10	59.4
C		7.10	60.4
+6		6.40	61.1
1/4		8.00	59.5
+6		8.00	59.5
+8		10.20	57.3
2' W		10.00	57.5
W.R.		9.35	58.17
2' E		10.00	57.5
℄ +8		10.30	57.2
1/4		3.90	63.6
C		2.70	64.8
E		1.10	66.4

200' N. of Quince

E		1.50	66.0
C		2.50	65.0
+8		3.20	64.3
1/4		4.20	63.3
+3		4.50	63.0
+6		10.30	57.2
2' E		10.20	57.3
W.R.		9.33	58.19
2' W		10.20	57.3
℄ +6		10.10	57.4

200' N Cont'd.

℄ +8	6).52	8.60	58.7
1/4		8.10	58.8
+2		8.40	59.1
+3		7.10	60.4
C		7.70	59.8
+6		7.90	59.6
W		9.20	58.3

250' N. of Quince

W		9.50	58.0
C		8.50	59.0
1/4		8.10	59.4
+6		7.10	59.8
+7		10.20	57.3
2' W		10.00	57.5
W R		9.34	58.18
2' E		10.30	57.2
+6		10.2	57.3

1/4		5.80	61.7
C		3.70	63.8
E		2.20	65.3

300' N of Quince = S.L. of Redwood.

E		1.80	65.7
C		3.90	63.6
1/4		4.40	63.1
+6		5.90	61.6
+7		10.20	57.3
2' E		10.20	57.3
W.R.		9.30	58.2
2' W		10.00	57.5
℄ +6		10.00	57.5
+8		8.00	59.5
1/4		8.40	59.1
C		8.60	58.9
W		9.80	57.7

N. 2. of Redwood

W	67.52	10.50	57.0
+8		10.10	57.4
C		8.10	59.4
1/4		7.70	59.8
+4		7.50	60.0
+8		10.00	57.5
2' W		10.00	57.5
W. R.		9.27	58.25
2' E		10.10	57.4
℄ +6		10.20	57.3
1/4		4.60	62.9
C		3.40	64.1
E		1.80	65.7

50' N of Redwood

E		2.70	64.8
C		4.10	63.4
1/4		4.50	63.0
1/4 +4		4.30	63.2
+6		10.60	56.9
2' E		10.20	57.3
W. R.		9.41	58.1
2' W		10.10	57.4
℄ +6		10.30	57.2
+8		8.50	59.0
1/4		8.60	58.9
C		9.10	58.4
+2		9.00	58.5
+6		10.70	56.8
W		10.80	56.7

100' N. of Redwood

W		11.50	56.0
C		10.40	57.1
1/4		9.10	58.4
+6		8.60	58.9
+8		10.90	56.6
2' W		10.60	56.9

100' N. Continued

W.R.	67.52	9.84	57.71
2' E		10.50	57.0
℄+6		10.70	56.8
+9		5.50	62.0
1/4		4.70	62.8
C		4.00	63.5
E		2.80	64.7

150' N of Redwood

E		5.80	62.3
C		6.50	61.6
+6		6.90	60.6
1/4		6.80	60.7
+4		8.80	59.3
+6		11.60	55.9
2' E		11.10	56.4
W.R.		10.57	56.95
TW		11.30	56.2

℄+6		11.50	56.0
+8		9.60	57.9
1/4		10.80	57.3
C		12.00	55.5
+4		11.70	55.8
+7		13.50	54.0
W		14.20	53.3
TR		12.47	55.05

200' N. of Redwood

W	5.57	60.62	10.40	50.2
+4		9.80	50.8
+8		8.80	52.4
℄		6.80	57.8
1/4		7.40	53.2
2' W		5.40	55.2
W.R.		4.57	56.05
2' E		5.80	55.4
℄-HO		5.90	54.9
1/4		4.70	55.9
C		3.80	56.8
E		2.30	58.3

225 N. of Redwood

E	60.62	5.10	55.5
C		6.20	54.4
1/4		7.20	53.4
+2		5.80	54.8
2' E		5.80	54.8
W.R.		4.93	55.69
2' W		5.70	54.9
℄ +10 ~~W~~		6.30	54.3
1/4		7.60	53.0
+2		9.20	51.4
C		10.50	50.1
W.		11.50	48.8

250' N. of Redwood

W		12.80	47.8
C		12.70	47.9
+8		11.70	48.9
1/4		8.50	52.1
+4	60.62	6.50	54.1
2' W		6.20	54.4
W.R.		5.47	55.15
2' E		6.30	54.3
1/4		7.60	53.0
C		8.70	51.9
E		9.00	51.6

300' N. of Redwood = S.L. of Spruce

E		9.20	51.4
C		9.60	
+6		10.00	
+10		8.70	
1/4		7.90	
2' E		7.20	
W.R.		6.40	✓54.2
2' W		7.20	
+10		7.70	
1/4		6.70	

S.L. Spruce Cont'd.

½ + 5	60.62	12.80	47.8
C		13.60	47.0
W.		14.10	46.✓

N.L. of Spruce

W.		14.10	46.✓
+10		12.70	47.9
C		12.00	48.6
¼		11.40	49.2
+6		8.80	✓1.8
2' W		8.50	✓2.1
W.R.		7.72	✓2.9
2' E		8.40	✓2.2
℄ + 9		8.60	✓2.0
¼		9.50	✓1.1
C		7.80	✓2.8
E		6.70	✓3.9

60.62

50' N. of Spruce

E	5.60	✓5.0
C	6.60	✓4.0
¼	7.50	✓3.1
+4	9.20	✓1.4
2' E	9.20	✓1.4
W. R.	8.53	✓2.1
2' W	9.30	✓1.3
¼	10.10	✓0.✓
C	10.80	49.8
W	12.70	47.9

100' N of Spruce

W	14.00	46.6
+10	13.00	47.6
C	12.30	48.3
¼	11.40	49.2
2' W	10.00	✓0.6
W. R.	9.20	✓1.4

100' N of Spruce

2' W. of T	60.72	10.00	✓0.6
+8		10.10	✓0.1
1/4		8.40	✓2.2
C		7.40	✓3.2
E		6.50	✓4.1

150' N. of Spruce

E		6.40	✓4.2
C		7.40	✓3.2
1/4		8.60	✓2.0
+4		10.60	✓0.0
2' E		10.70	49.9
W R.		9.93	✓0.7
2' W		10.80	49.8
1/4		11.60	49.0
C		12.70	47.9
W		13.30	47.3

200' N. of Spruce

W		13.20	47.4
C		13.40	47.2
1/4		12.20	48.4
2' W		11.30	49.3
W.R.		10.54	✓0.1
2' E		11.20	49.4
℄ +6		11.20	49.4
1/4		9.60	✓0.8
42		7.90	✓2.7
C		7.10	✓3.✓
E		6.00	✓4.6

250' N. of Spruce

E		6.50	✓4.2
C		7.50	✓3.1
+8		8.40	✓2.2
1/4		9.60	
+4		10.50	

250' N. Cont'd

3/4 #6	60.62	12.00	
2' E		11.90	48.7
W. R.		11.11	49.5
2' W		12.00	48.6
1/4		12.40	48.2
C		14.00	46.6
W		14.30	46.3
TP		12.03	48.59

300' N of Spruce = S.L. of Sassafras

W	6.42	55.01	10.00	45.0
C			9.30	45.7
1/4			8.10	46.9
2' W			7.00	48.0
W. R.			6.35	48.6
2' E			6.80	48.2
℄ + 8			6.80	48.2
1/4			5.00	50.0
C			4.20	50.8
E			2.40	52.6

N.L. of Sassafras

E	55.01	3.40	51.6
C		4.60	50.4
1/4		5.20	49.8
+6		6.40	46.6
2' E		6.30	46.7
W. R.		7.69	47.3
2' W		5.40	46.6
1/4		8.70	46.3
C		9.90	45.1
W		10.20	44.8

50' N

W	11.80	43.2
C	12.30	42.7
1/4	11.80	43.2
+5	9.60	45.4
2' W	9.40	45.6
W.R.	8.62	46.4

50' N of Sass cont'd

2' W of T.	55.01	9.20	45.8
+6		9.10	45.9
1/4		7.40	47.6
C		6.10	48.9
E		5.30	49.7

100' N of Sassafras

E		7.40	47.6
C		8.40	46.6
1/4		9.40	45.6
2' E		10.10	44.9
W.R.		9.38	45.6
2' W		10.10	44.9
℄ +7		10.90	44.1
1/4		13.60	41.4
C		14.50	40.5
W		14.90	40.1

150' N. of Sassafras

W	55.01	15.60	38.4
C		15.2	39.8
1/4		14.50	40.5
46		10.80	44.2
2' W		10.70	44.3
W.R.		10.08	44.9
2' E		10.80	44.2
1/4		10.20	44.8
C		9.70	45.3
E		8.20	46.8

200' N of Sass

E		9.00	46.0
C		10.60	44.4
1/4		11.90	43.1
2' E		11.70	43.3
W.R.		10.80	44.2
2' W		11.60	43.4

200' N. Cont'd

2 + 6		55.01	11.90	43.1
1/4			16.00	39.0
C			16.60	38.4
W			17.50	37.5
TP			12.31	42.70

250' N. of Sassafras

W	3.47	46.17	9.90	36.3
C			9.50	36.7
1/4			9.30	36.9
+6			4.00	42.2
2' W			3.70	42.5
W.R.			3.04	43.1
2' E			3.40	42.8
1/4			4.60	41.6
C			3.40	42.8
E			1.40	44.8

300' N of Sassafras = S.L. of Thorn

E		46.17	2.90	43.3
C			4.10	42.1
1/4			6.00	40.2
+4			4.50	41.7
2' E			4.30	41.9
N.R.			3.55	42.6
2' W			4.30	41.9
℄ +8			4.50	41.7
1/4			7.70	38.5
+6			11.10	35.1
C			11.70	34.5
W			11.40	34.8

N.L. of Thorn

W			15.70	30.3
C			13.20	33.0
+8			11.30	34.9
1/4			9.20	37.0

N. L. of Thorn Cont'd

1/4+6	46.17	5.60	40.6
2' W		5.20	41.0
W.R.		4.51	41.7
2' E		5.20	41.0
1/4		5.40	40.8
+4		5.50	40.7
+6		7.40	38.8
C		6.50	39.7
E		4.20	42.0

50' N. of Thorn

E		4.90	41.3
+8		5.90	40.3
+9		6.90	39.3
C		7.70	38.5
1/4		8.20	37.0
+6		6.00	40.2
2' E		5.80	40.4
W.R.		5.00	41.2

1/9/09 Whittelsey, Taylor, Thomas

2' W	46.17	5.80	40.4
+8		6.10	40.1
1/4		9.50	36.7
+4		11.80	34.4
C		13.00	33.2
W		14.30	31.9

100' N. of Thorn

W		14.00	32.2
C		12.80	33.4
1/4		11.20	35.0
+6		6.30	39.9
2' W		6.00	40.2
W.R.		5.37	40.8
2' E		6.30	39.9
1/4		6.30	39.9
+6		8.60	37.6
C		7.20	39.0
E		4.60	41.6

150' N of Thorn

E	46.17	4.00	42.2
C		5.70	40.5
+2		6.00	40.2
+3		7.10	39.1
+9		7.90	38.3
1/4		6.80	39.4
2'E		6.30	39.9
W.R.		5.59	40.6
2'W		6.30	39.9
¢+6		6.90	39.3
1/4		9.80	36.4
C		11.70	34.5
W		12.70	33.5

200' N of Thorn

W		12.30	33.9
C		10.40	35.8
1/4		9.10	37.1
2'W	46.17	6.40	39.8
W.R.		5.70	40.5
2'E		6.50	39.7
+6		6.60	39.6
+8		7.70	38.5
1/4		7.60	38.6
+3		7.00	39.2
+5		5.10	41.1
C		4.80	41.4
E		3.60	42.6
T.P.		2.91	43.26

250' N of Thorne

E	8.18	51.44	7.60	43.8
C			9.30	42.1
1/4			12.00	39.4
2'E			11.80	39.6
W.R.			11.04	40.4
2'W			11.90	39.5

250' N. Cental

L +8	51.44	12.50	38.9
+10		13.90	37.5
1/4		14.50	36.9
C		15.20	36.2
W		15.80	35.6

300' N of Thorn Sh. Upas.

W		14.00	37.4
C		12.30	39.1
1/4		12.10	39.3
2' W		11.90	39.5
W.R.		11.10	40.3
2' E		11.80	39.6
L +6		11.80	39.6
+8		10.90	40.5
1/4		10.60	40.8
+4		9.70	41.7
+5		8.50	42.9
C		7.70	43.7
E		6.60	44.8

N. L. Upas 43.26

E	8.31	51.57	5.00	46.6
C			6.10	45.5
+6			7.00	44.6
+10			10.90	40.7
1/4			11.10	40.5
2' E			12.00	39.6
W.R.			11.26	40.3
2' W			12.00	39.6
1/4			12.20	39.4
+3			11.60	40.0
+5			10.40	41.2
C			10.70	40.9
W			12.10	39.5

50' N. of Upas

W		13.60	38.0
C		12.90	38.7
1/4		11.80	39.8

10' N Cont'd

2' W	51.57	12.20	39.4
W, R1		11.33	40.2
2' E		12.10	39.5
1/4		12.00	39.6
+4		11.70	39.9
+8		8.50	43.1
C		8.00	43.6
E		6.60	45.0

100' N of Upas

E		8.00	43.6
C		8.70	42.9
+6		9.80	41.8
+8		11.60	40.0
1/4		12.30	39.3
2' E		12.20	39.4
W. R1		11.40	40.2
2' W		12.30	39.3
1/4	51.57	12.90	38.7
C		14.00	37.6
W		15.00	36.6

150' N of Upas

W		15.70	35.9
C		15.00	36.6
1/4		14.30	37.3
+4		13.60	38.0
+6		12.60	39.0
2' W		12.30	39.3
W, R1		11.48	40.1
2' E		12.30	39.3
℄ +8		12.30	39.3
1/4		14.00	37.6
+5		13.30	38.3
+6		12.20	39.4
C		11.90	39.7
E		11.00	40.6
TP		11.82	39.75

	175' N of Upas			(39.75)
E	6.04	45.79	5.60	40.2
C			7.00	38.8
+4			7.40	38.4
+6			9.30	36.6
1/4			9.40	36.4
+8			9.10	36.7
+6			6.90	38.9
2' E			6.50	39.3
W.R.			5.75	40.0
2' W			6.60	39.2
℄ +8			6.60	39.2
1/4			9.60	39.2
C			10.60	35.2
W			10.80	35.0
		200' N of Upas		
W			11.60	34.2
C			10.50	35.3

1/4		45.79	9.90	35.9
+8			9.30	36.5
+6			6.80	39.0
2' W			6.60	39.2
W.R.			5.79	40.0
2' E			6.50	39.3
℄ +6			6.90	38.9
+10			9.30	36.6
1/4			9.50	36.3
+8			9.00	36.8
+10			7.50	38.3
C			7.10	38.7
E.			5.80	40.0
	250' N of Upas			
E			4.30	41.5
C			5.70	40.1
+8			6.40	39.4
+10			7.40	38.4

250' N of U pas Cont'd

1/4	45.79	8.00	39.8
+1		8.10	37.7
+2		9.10	36.7
+4		8.00	37.8
+6		6.80	39.0
2' E		6.60	39.2
W. R.		5.82	40.0
2' W		6.50	39.3
℄ +8		6.70	39.1
1/4		9.50	36.3
C		10.40	35.4
W		11.90	33.9

300' N of U pas = S.L. Vine

W		13.70	32.1
C		12.50	33.3
1/4		10.90	34.9
+7		6.80	39.0
2' W		6.60	39.2
W. R.		5.87	39.9
2' E		6.60	39.2
+8		6.80	39.0
+10		9.00	36.8
1/4		6.90	38.9
+2		6.60	39.2
+4		5.30	40.5
C		4.50	41.3
E		2.90	42.9

N.L. of Vine

E		3.50	42.3
C.		6.00	39.8
1/4		7.20	38.6
+3		8.30	37.5
+4		9.10	36.7
+6		6.70	39.1
2' E		6.70	39.1

N.L. Vine

N. Rail	45.79	5.98	39.9
2' W		6.70	39.1
℄ +6		7.00	38.8
1/4		9.20	36.6
C		9.90	35.9
W		10.00	35.8

50' N of Vine

W		9.00	36.8
C		8.20	37.6
1/4		7.80	38.0
2' W		6.70	39.1
W.R.		5.91	39.9
2' E		6.60	39.2
℄ +10		7.20	38.6
1/4		9.30	36.5
+5		5.30	40.5
C		5.20	40.6
E		4.30	41.5

100' N. of Vine

E		3.70	42.1
C		4.80	41.0
1/4		4.60	41.2
+5		9.20	36.6
+8		6.60	39.2
2' E		6.60	39.2
W.R.		5.83	40.0
2' W		6.70	39.1
1/4		6.70	39.1
C		7.90	37.9
W		9.20	36.6

150' N of Vine

W		10.30	35.5
C		8.90	36.9
1/4		6.60	39.2
2' W		6.40	39.4
W.R.		5.67	40.1

	150' N Contd		
2' E	45.79	6.40	39.4
¢ +8		6.70	39.1
¼		9.40	36.4
+5		6.90	38.9
C		6.60	39.2
E		6.00	39.8
	200' N. of Vine		
E		7.80	38.0
C		8.20	37.6
¼		8.30	37.5
+2		9.30	36.5
+6		6.40	39.4
2' E		6.20	39.6
W.Q.		5.49	40.3
2' W		6.30	39.5
+10		7.10	38.7
¼		8.80	37.0

¼+6		11.00	34.8
C		10.40	34.4
W		11.00	34.8
	250' N of Vine		
W		10.60	35.2
C		10.00	35.8
+6 ¾		11.20	34.6
¼		7.80	38.0
+4		6.40	39.4
2' W		6.00	39.8
W.R.		5.23	40.6
2' E		5.70	40.1
¼		6.30	39.5
+6		8.90	37.1
C		8.40	37.4
E		7.90	38.1

300' N of Vine = S.L. Willow

E		45.79	6.90	38.9
C			7.10	38.7
1/4			8.00	37.8
+6			5.50	40.3
2' E			5.40	40.4
W.R.			4.84	41.0
2' W			5.80	40.0
1/4			6.90	38.9
+6			10.30	35.5
C			9.50	36.3
W			9.80	36.0
TP			8.03	37.76
	12.81	50.57		

POSTED

Levels on E. Rail of LaJolla tracks from N.L. of Willow to N.L. of Haraethy

N.L. Willow = 0+0		50.57	8.37	42.2
0+50			7.57	43.0
1			6.60	44.0
+50			5.74	44.8
2			4.94	45.6
+50			4.39	46.2
3			4.07	46.5
+50			3.72	
4			3.29	
+50			2.85	
5			2.37	
+50			1.93	
6			1.42	
+50			0.85	
TP 6+95.7 S.L. Winder	7.34	56.90	1.01	49.56
			6.65	

POSTED

							1.07 .036 .71			
									56.55	
7 +00		56.90	6.60			12.70	69.25	1.29	67.96	
7+41 S.E. Cor. Xsing			6.03			9.45	77.41 .71 78.12	9.08	68.33	68.29 ✓ B.M. Chalmers + India.
7 +50			5.98							
7+80 N.L. Winder			5.70							
8			5.54							
+50			5.15							
9			4.87							
+50			5.62							
10			4.47							
+50			4.45							
11			4.54							
+50			4.88							
12			5.23							
+50			5.53							
13			5.68							
+15.3 = N.L. Harazthy			5.73							
T.P.			0.35	56.55						

1/15/09 {Knittelsey, Taylor, Churchman}

~~X section of Arctic~~

see sketch front of Book.

X section of CALIFORNIA ST. La Jolla St to Middletown line

BM S pk in tel. pole 200' N of McKee 70.39

Pt of intersection of E.L. of Cal. & E.L. of La Jolla sts

0+0 #1	4.73	75.12	6.20	68.9	Top of Bank
			9.70	65.4	Bot. of "

50' N

E.L. of Cal.			7.3	67.8
C			7.5	67.6
+5			7.8	67.3
+7			8.8	66.3
E.L. of La Jolla			9.4	65.7

100' N.

E.L. of Cal.			7.0	68.1
C			7.3	67.8
1/4			7.6	67.5
℄			7.6	67.5
E.L. of La Jolla			8.6	66.5

POSTED

PLOTTED

150' N.

E.L. of Calif.			5.2	69.9
C			6.0	69.1
1/4			6.5	68.6
℄			7.5	67.6
1/4			7.8	67.3
C			8.3	66.8
EL of La Jolla			8.3	66.8

162.3' N = 0+0 #2

POSTED

W.L. of Cal.			8.0	67.1
C			7.6	67.5
1/4			6.8	68.3
℄			6.3	68.8
1/4			5.8	69.3
C			5.1	70.0
E.L.			4.4	70.7
TP			0.10	75.02

50' N of ore #2 (25.02)

E	13.19	88.21	10.40	77.8
C			11.80	76.4
1/4			13.10	75.1
℄		75.12	1.20	73.9
1/4			2.50	72.6
C			2.50	72.6
W			3.20	71.9

94.7' N. of ore #2 = 5.2 of Stone = 80'

W		88.21	11.0	77.2
C			9.6	78.6
1/4			8.6	79.6
℄			7.6	80.6
1/4			6.8	81.4
C			5.2	83.0
E			3.7	84.5

PLOTTED

S. Curb of Stone

E		88.21	1.3	86.9
C			2.9	85.3
1/4			4.0	84.2
℄			5.1	83.1
1/4			6.1	82.1
C			7.1	81.1
W			8.5	79.7

5 1/4 of Stone

W			7.3	80.9
C			5.8	82.4
1/4			4.7	83.5
℄			3.7	84.5
1/4			2.9	85.3
C			1.2	87.0
TP			0.46	87.75
E	13.68	100.43	11.20	

℄ of Stone

E	100.43	8.6	91.8
C		10.0	90.4
1/4		12.2	88.2
℄		13.5	86.9
1/4		14.8	85.6
C		15.2	85.2
W		18.1	82.3

N 1/4 of Stone

W		16.8	83.6
C		14.6	85.8
1/4		13.1 ~~12.8~~	87.3
℄		11.5 ~~10.6~~	88.9
1/4		9.3	91.1
C		7.6	92.8
E		6.2 ~~4.4~~	94.2

PLOTTED

N. Curb of Stone

E		4.4	96.0
C		6.0	94.4
1/4		7.6	92.8
℄		9.5	90.9
1/4		11.2	89.2
C		13.7	86.7
W		14.1	86.3

N L. of Stone

W		13.8	86.6
C		11.6	88.8
1/4		9.3	91.1
℄		7.9	92.5
1/4		6.2	94.2
C		4.4	96.0
E		2.6	97.8
TP.		0.31	100.12

POSTED

		55' N. of Stone		(100.72)
E	13.17	113.29	10.4	102.9
C			12.3	101.0
1/4			14.0	99.8
℄		100.43	2.5	97.9
1/4			3.6	96.8
C			5.6	94.8
W			7.7	92.7
		100' N. of Stone		
W		113.29	14.2	99.1
C			12.4	0.9
1/4			10.6	
℄			8.9	4.4
1/4			7.2	
C			5.3	
E			2.9	10.4
~~T.P.~~			~~0.46~~	~~.97~~
T.P.			0.46	112.83

PLOTTED

		155.9' N. of Stone = S.L. of Noell		(112.83)
E	13.06	125.89	7.8	118.1
C			9.6	
1/4			12.0	
℄		113.29	0.1	13.7
1/4			2.7	
C			5.0	
W			6.8	6.5
		S. Curb of Noell		
W		125.89	16.6	109.3
C			15.7	110.2
1/4			13.9	112.0
℄			11.4	14.5
1/4			9.1	
C			7.7	
E			6.1	19.8

S 1/4 of Noel

E	125.89	5.00	120.9
C		6.50	
1/4		8.3	
℄		9.5	16.4
1/4		11.6	
C		13.2	
W		14.8	11.1

℄ of Noell

W		12.5	13.4
C		11.0	
1/4		9.3	
℄		7.6	18.3
1/4		6.6	
C		4.7	
E		3.1	22.8

PLOTTED

125.89

N 1/4 of Noell

E		1.3	124.6
C		3.0	22.9
1/4		4.6	
℄		6.0	19.9
1/4		7.5	
C		8.7	
W		10.00	15.9

N. Curb of Noell

W		7.9	18.0
C		6.6	
1/4		4.6	
℄		3.2	22.7
1/4		2.2	
C		0.9	
E		+0.5	26.4
		0.10	125.79

N.L. of Noell (125.79)

E	12.73	138.52	9.9	128.6
C			11.60	
1/4			12.20	
℄		126.89	0.2	127.7
1/4			2.1	
C			3.9	
W			4.9	21.0

58.22 N. of Noell = S.L. of 5th or Jo.H.

W		138.52	8.8	29.7
C			6.9	31.6
1/4			5.8	32.7
℄			4.3	34.2
1/4			3.1	
C			2.4	
E			1.3	37.2
TP			0.32	138.20

PLOTTED

SC of 5th (138.20)

E	13.09	151.29	9.6	141.7
C			11.0	
1/4			11.9	
℄		138.52	0.7	37.8
1/4			1.6	
C			3.1	
W			4.6	33.9

5 1/4 # of 5th

W		151.29	14.2	37.1
C			12.0	
1/4			10.3	
℄			9.0	43.3
1/4			7.60	
C			6.40	
E			5.20	46.1

℄ of 5th

W	151.29	11.8	139.5
C		10.0	
1/4		8.4	
℄		6.6	44.7
1/4		4.7	
C		2.9	
E		1.0	50.3

N. 1/4 of 5th

W		9.2	42.1
C		7.8	
1/4		5.3	
℄		3.8	47.5
1/4		1.9	
C		0.0	
E	162.29	9.2	53.1
T.P.	151.29	0.05	151.24

PLOTTED

11.05 162.29

N. Curb of 5th

E	162.29	6.8	155.5
C		8.4	
1/4	151.29	0.1	
℄		1.2	50.1
1/4		3.0	
C		5.0	
W		6.5	44.8

N.L of 5th

W		4.3	47.0
C		2.2	
1/4		0.5	
℄	162.29	8.1	54.2
1/4		6.8	
E		5.8	54.5

64.0

POSTED

		50' N of 5th			TP		462.29	13.12	149.17
	E	162.29	3.5	158.8		0.35	149.52	13.13	136.39
	℄		5.8	154.5		0.11	136.50	12.97	123.53
44.3	1/4		8.5			2.03	125.56	13.15	112.41
	C		10.9	151.4		0.89	113.30	13.08	100.22
	W	151.29	4.3	147.0		0.19	100.41	13.18	87.23
		100' N of 5th				3.04	89.27	13.49	76.78
	W	162.29	13.90	148.4		4.19	80.97	10.43	70.54
24.16	C		12.2	150.1					
	E		9.0	153.3					
		115.5' N of 5th = El. of Estudillo							
	W		13.4	148.9					
17.9	C		11.5	150.8					
	E		10.2	152.1					
		At Apex 14.4 from Cor of Estudillo							
			14.7	147.6					

PLOTTED

POSTED

x-section Lamont Ave. Garnet to Diamond Dunkle
Lamont 80' wide with 20' sidewalks Graded. 3/29 Shaw
B.M. Brass plg cor Lamont & Garnet 65.89 09 Lambert

B.M.	10.89	76.78	65.89	
	N.L. Garnet St.			
W			7.9	68.9
crb.			8.5	68.3
+1			8.9	67.8
1/4			8.3	68.5
M			7.8	69.0
1/4			8.2	68.6
+9			8.9	67.9
Crb			8.4	68.4
E			8.4	68.4
	0+25 N of Garnet			
E			6.5	70.3
crb			6.6	70.2
+1			7.4	69.4
1/4			6.8	70.0
M			6.5	70.3
1/4			6.9	69.9
+9			7.6	69.2
crb			7.0	69.8
W			6.9	69.9

POSTED

	0+50			
W			5.2	71.6
crb			5.4	71.4
+1			5.8	71.0
1/4			5.3	71.3
M			4.9	71.9
1/4			5.1	71.7
+9			5.8	71.0
crb			5.1	71.7
E			4.7	72.1
	0+75			
E			3.3	73.5
crb			3.9	72.9
+1			4.5	72.3
1/4			3.8	73.0
M			3.5	73.3
1/4			3.8	72.8
+9			4.4	72.4
crb			3.9	72.9
W			3.8	73.0

		76.78		
		1+0		
W			1.8	75.0
crb			2.2	74.6
+1			3.1	73.7
1/4			2.4	74.4
M			2.1	74.7
1/4			2.2	74.6
+9			2.9	73.9
crb			2.2	74.6
E			1.7	75.1
		1+25		
E			0.4	76.4
crb			0.7	76.1
+1			1.2	75.6
1/4			0.8	76.0
M			0.5	76.3
1/4			1.0	75.8
+9			1.7	75.1
crb			0.6	75.2
W			0.2	75.6
T.P.	12.50	88.77	0.51	76.27

		88.77		
		1+50		
W			10.9	77.9
crb			11.3	77.5
+1			11.9	76.9
1/4			11.5	77.3
M			11.2	77.6
1/4			11.3	77.5
+9			11.7	77.1
crb			11.2	77.6
E			10.9	77.9
		1+75		
E			9.2	79.6
crb			10.2	78.6
+1			10.6	78.2
1/4			9.8	79.0
M			9.8	79.0
1/4			10.1	78.7
+9			10.4	78.4
crb			10.0	78.8
W			9.4	79.4

88.77

2+0

W	7.8	810
Crb	8.4	80.4
+1	9.2	79.6
1/4	8.7	80.1
M	8.3	80.5
1/4	8.5	80.3
+9	8.9	78.9
Crb	8.3	80.5
E	7.8	81.0

2+25

E	6.4	82.4
Crb	6.8	82.0
+1	7.5	81.3
1/4	7.0	81.8
M	6.8	82.0
1/4	7.1	81.7
+9	7.6	81.2
Crb	6.9	81.9
W	6.4	82.4

88.77

2+50

W	4.9	83.9
Crb	5.4	83.4
+1	6.3	82.5
1/4	5.6	83.2
M	5.3	83.5
1/4	5.6	83.2
+9	6.4	82.4
Crb	5.3	83.5
E	5.1	83.7

2+70 = S.L. Feldspar Ave 80'-20' sidewalk

E	4.0	84.8
Crb	4.2	84.6
+1	5.2	83.6
1/4	4.4	84.4
M	4.0	84.8
1/4	4.4	84.4
+9	4.7	84.1
Crb	3.9	84.9
W	3.6	85.2

88.77

S. cork - Feldspar

W	3.0	85.8
crb	3.2	85.6
+1	4.1	84.7
1/4	3.7	85.1
M	3.2	85.6
1/4	3.5	85.3
+9	4.2	84.6
crb	3.5	85.3
E	3.7	85.1

S 1/4

E	3.7	85.1
crb	4.0	84.8
1/4	3.2	85.6
M	2.8	86.0
1/4	3.3	85.5
+9	3.7	85.1
crb	2.7	86.1
W	2.6	86.2

center

W	2.2	86.6
crb	2.5	86.3
+1	3.3	85.5
1/4	3.0	85.8
M	2.5	86.3
1/4	3.0	85.8
crb	3.5	85.3
E	3.2	85.6

N 1/4

E	2.4	86.4
crb	3.1	85.7
1/4	2.6	86.2
M	2.1	86.7
1/4	2.5	86.3
+9	3.2	85.6
crb	2.1	86.7
W	1.8	87.0

88.77

Note - Curb & side walk is laid on E side of Lamont from Feldspar for 135.5' North

N. Curb

W			1.5	87.3
crb			1.7	87.1
+ 1			2.7	86.1
1/4			2.0	86.8
M			1.7	87.1
1/4			2.2	86.6
+ 9			1.9	86.9
crb			0.70	88.1
E			0.78	

N.L. Feldspar

E			0.6	
Crb			0.70	
gutter			1.7	87.1
1/4			1.2	87.6
M			0.9	87.9
1/4			1.2	87.6
+ 9			2.0	86.8
crb			0.9	87.9
W			0.5	88.3
T.P.	12.84	101.54	0.07	88.70

101.54

0+75 N of Feldspar

W			12.1	89.4
crb			12.3	89.2
+ 1			13.3	88.2
1/4			12.7	88.8
M			12.5	89.0
1/4			12.8	88.7
gtr			13.3	88.2
curb			12.58	
E			12.5	

POSTED

0+50

E			11.5	
crb			11.47	
gtr			12.4	89.1
1/4			11.8	89.7
M			11.4	90.1
1/4			11.6	89.9
+ 9			12.2	89.3
crb			11.2	90.3
W			10.9	90.6

101.54

0+75

W	9.5	92.0
crb	9.9	91.6
+1	11.1	90.4
1/4	10.2	91.3
M	10.0	91.5
1/4	10.6	90.9
gtr	11.4	90.1
crb	10.47	
E	10.4	

1+0

E	9.3	
crb	9.56	
gutter	10.40	91.1
1/4	9.6	91.9
M	9.1	92.4
1/4	9.1	92.4
+9	10.0	91.5
crb	8.8	92.7
W	8.3	93.2

1+35.5 = end of cement curb

W	6.7	94.8
crb	7.1	94.4
+1	8.2	93.3
1/4	7.6	93.9
M	7.4	94.1
1/4	7.9	93.6
gutter	8.7	92.8
crb	8.00	93.5
E	8.2	93.3

1+50

E	7.4	94.1
crb	7.5	94.0
+1	8.5	93.0
1/4	7.5	94.0
M	6.9	94.6
1/4	7.0	94.5
+9	7.3	94.2
crb	6.3	95.2
W	6.0	95.5

101.54

1+75

W	4.8	96.7
crb	5.2	96.3
+1	6.2	95.3
11q	5.8	95.7
M	5.6	95.9
11q	6.4	95.1
+9	7.5	94.0
crb	6.5	95.0
E	6.3	95.2

2+0

E	5.3	96.2
crb	5.4	96.1
+1	6.1	95.4
11q	5.5	96.0
M	4.6	96.9
11q	4.7	96.8
+9	5.0	96.1
crb	3.9	97.6
W	3.5	98.0

2+25

W	2.2	99.3
crb	2.8	98.7
+1	3.8	97.7
11q	3.5	98.0
M	3.5	98.0
11q	4.5	97.0
+9	5.2	96.3
crb	4.4	97.1
E	4.3	97.2

2+50

E	3.2	98.3
crb	3.4	98.1
+1	4.1	97.4
11q	3.5	98.0
M	2.4	99.1
11q	2.3	99.2
+9	2.5	99.0
crb	1.6	99.9
W	1.2	100.3

101.54

2+70 = S.L. Emerald Ave 80' - 20' sidewalk.

W		0.5	101.0
crb		0.8	100.7
+1		1.6	99.9
1/4		1.5	100.0
M		1.6	99.9
1/4		2.6	98.9
+9		3.6	97.9
crb		2.6	98.9
E		2.6	98.9
S. curb			
E		2.6	98.9
crb		3.2	98.3
1/4		2.1	99.4
M		1.2	100.3
1/4		1.2	100.3
crb		1.5	100.0
W		0.9	100.6

S 1/4

W		0.7	100.8
crb		1.2	100.3
1/4		1.1	100.4
M		1.0	100.5
1/4		2.0	99.5
crb		2.6	98.9
E		2.3	99.2
Center			
E		1.8	99.7
crb		2.3	99.2
1/4		1.7	99.8
M		0.8	100.7
1/4		0.8	100.7
crb		1.3	100.2
W		0.2	101.3
T.P	8.33	109.35	0.52	101.02

109.35

N 11A

W	8.3	101.1
crb	8.7	100.7
11A	8.5	100.9
M	8.5	100.9
11A	9.3	100.1
crb	10.0	99.4
E	9.7	99.7

N curb

E	9.5	99.9
crb	9.9	99.5
11A	8.9	100.5
M	8.3	101.1
11A	8.3	101.1
crb	8.6	100.9
W	7.6	101.9

N.L. Emerald & C

W	7.1	102.4
crb	7.3	102.2
+1	8.1	101.3
11A	7.8	101.6
M	8.2	101.3
11A	9.0	100.4
+9	9.7	99.7
crb	9.1	100.3
E	9.1	100.3

0+25 N. of Emerald

E	8.7	100.7
crb	9.1	100.4
+1	9.4	100.1
11A	8.8	100.6
M	7.8	101.6
11A	7.6	101.8
+9	7.9	101.5
crb	7.0	102.4
W	6.7	102.7

109.35

0+50

W	6.4	103.0
crb	6.6	102.8
+1	7.4	102.1
"9	7.2	102.2
M	7.5	101.9
"9	8.5	100.9
+9	9.1	100.4
crb	8.4	101.0
E	8.2	101.2

0+75

E	7.6	101.8
crb	8.0	101.4
+1	8.3	101.1
"9	8.0	101.4
M	7.2	102.2
"9	6.8	102.6
+9	6.7	102.7
crb	6.2	103.2
W	6.1	103.3

1+0

W	5.8	103.6
crb	5.9	103.5
+1	6.3	103.1
"9	6.5	102.9
M	6.7	102.7
"9	7.5	101.9
+9	7.8	101.6
crb	7.5	101.9
E	7.3	102.1

1+25

E	6.8	102.6
crb	7.1	102.3
+1	7.4	102.1
"9	6.9	102.5
M	6.3	103.1
"9	6.1	103.3
+9	6.0	103.4
crb	5.4	104.0
W	5.3	104.1

Note— Curb & sidewalk Laid on E. Side of Lamont from Sta 1+45 To Diamond.

109.35

1+45

W	5.0	104.4
crb	5.2	104.2
+ 1	5.7	103.7
1/4	5.6	103.8
M	5.8	103.6
1/4	6.5	102.9
gutter	7.0	102.4
curb	6.55	
E	6.4	

1+75

POSTED

E	5.6	
crb	6.00	
gutter	6.7	102.8
1/4	6.0	103.4
M	5.4	104.0
1/4	5.2	104.2
+ 9	5.3	104.1
crb	4.7	104.7
W	4.6	104.8

2+0

W	4.3	105.1
crb	4.2	105.3
+ 1	5.0	104.4
1/4	4.8	104.6
M	4.9	104.5
1/4	5.6	103.8
gutter	6.3	103.1
crb	5.52	
E	5.1	

2+25

E	4.5	
crb	5.09	
gutter	5.9	103.5
1/4	5.0	104.4
M	4.3	105.1
1/4	4.4	105.0
+ 9	4.7	104.7
crb	3.8	105.6
W	3.9	105.5

109.35

2+50

W	3.5	105.9
crb	3.5	105.9
+1	4.4	105.0
1/4	4.0	105.4
M	4.0	105.4
1/4	4.7	104.7
gutter	5.5	103.9
crb	4.65	
E	4.1	105.3

2+70 = S.E. Diamond 5+

E	3.9	105.5
crb	4.28	105.07
gutter	5.2	104.2
1/4	4.4	105.0
M	3.8	105.6
1/4	3.8	105.6
+9	4.1	105.3
crb	3.3	106.1
W	3.1	106.3

POSTED

8/17 Hatch
9/19 Moore
Thomas

X sec. 2d St. from Lewis to Stockton

20' Curbs
10' 1/4 s & Crs.

NE Curb 2d Washington

BM	5.80	290.83		285.03
TP	9.50	296.63	3.70	287.13
NL Lewis St.				
E			7.2	289.4
cb			8.2	288.4
1/4	POSTED		8.2	288.4
c			8.3	288.3
1/4			8.2	288.4
cb			8.6	288.0
W			8.0	288.6
	25' N.			
W			7.8	288.8
cb			8.4	288.2
1/4			8.3	288.3
c			8.4	288.2
1/4			8.4	288.2
cb			8.2	288.4
E			7.3	289.3

		296.63		
		50' N.		
E			7.2	289.4
cb			7.8	288.8
1/4			7.9	288.7
c			8.1	288.5
1/4			8.0	288.6
cb			8.1	288.5
W			7.9	288.7
		75' N.		
W			7.7	288.9
cb			8.0	288.6
1/4			7.8	288.8
c			7.7	288.9
1/4			7.5	289.1
cb			7.6	289.0
E			6.9	289.7

296.63

100' N.

E	6.8	289.8
cb	7.3	289.3
1/4	7.3	289.3
c	7.4	289.2
1/4	7.3	289.3
cb	7.5	289.1
W	7.3	289.3

125' N.

W	7.1	289.5
cb	7.2	289.4
1/4	7.0	289.6
c	7.2	289.4
1/4	7.0	289.6
cb	6.9	289.7
E	6.4	290.2

296.63

150' N.

E	5.8	290.8
cb	6.7	289.9
1/4	6.8	289.8
c	6.9	289.7
1/4	6.9	289.7
cb	6.8	289.8
W	6.4	290.2

175' N.

W	6.1	290.5
cb	6.5	290.1
1/4	6.7	289.9
c	6.3	290.3
1/4	6.3	290.3
cb	6.3	290.3
E	5.4	291.2

29663

200 N

E	5.3	291.3
cb	5.5	291.1
1/4	6.3	290.3
c	6.1	290.5
1/4	6.2	290.4
cb	6.4	290.2
W	6.2	290.4

225 N

W	6.2	290.4
cb	6.4	290.2
1/4	6.1	290.5
c	6.0	290.6
1/4	5.4	291.2
cb	5.0	291.6
E	5.1	291.5

29663

250 N

E	5.1	291.5
cb	5.3	291.3
1/4	5.5	291.1
c	6.1	290.5
1/4	5.9	290.7
cb	5.8	290.8
W	6.3	290.3

275 N

W	6.6	290.0
cb	6.1	290.5
1/4	5.7	290.9
c	5.8	290.8
1/4	5.4	291.2
cb	5.3	291.3
E	4.7	291.9

296.63

300 N. St. Broadway

E	4.8	291.8
cb	5.1	291.5
1/4	5.3	291.3
c	5.6	291.0
1/4	5.3	291.3
cb	5.5	291.1
W	6.4	290.2

5 cb. Broadway

W	6.0	290.6
cb	5.0	291.6
1/4	5.1	291.5
c	5.2	291.4
1/4	5.3	291.3
cb	5.1	291.5
E	4.6	292.0

296.63

5 1/4 Broadway

E	4.6	292.0
cb	4.9	291.7
1/4	5.1	291.5
c	5.2	291.4
1/4	5.1	291.5
cb	4.9	291.7
W	5.8	291.8

cr. Broadway

W	5.7	290.9
cb	5.1	291.5
1/4	4.9	291.7
c	5.1	291.5
1/4	5.1	291.5
cb	5.0	291.6
E	4.8	291.8

29663

N ½ Broadway

E	4.3	292.3
cb	4.9	291.7
½	5.0	291.6
c	5.2	291.4
½	5.0	291.6
cb	5.1	291.5
W	5.9	290.7

N cb Broadway

W	5.9	290.7
cb	5.3	291.3
½	4.9	291.7
c	5.1	291.5
½	5.0	291.6
cb	4.8	291.8
E	4.6	292.0

29663

N1 Broadway

E	4.1	292.5
cb	4.6	292.0
½	4.6	292.0
c	4.8	291.8
½	4.9	291.7
cb	5.3	291.3
W	5.5	291.1

25' N

W	5.0	291.6
cb	4.8	291.8
½	4.6	292.0
c	4.8	291.8
½	4.3	292.3
cb	4.3	292.3
E	5.4	291.2

POSTED

296.63

50 N.

E	4.8	291.8
cb	4.8	291.8
1/a	4.8	291.8
c	4.8	291.8
1/a	4.4	292.2
cb	4.6	292.0
W	4.6	292.0

75 N.

W	4.3	292.3
cb	4.6	292.0
1/a	4.5	292.1
c	4.9	291.7
1/a	4.9	291.7
cb	5.4	291.2
E	5.6	291.0

296.63

100 N.

E	6.6	290.0
cb	5.2	291.4
1/a	4.9	291.7
c	4.7	291.9
1/a	4.5	292.1
cb	4.3	292.3
W	4.2	292.4

125 N.

W	4.1	292.5
cb	4.9	291.7
1/a	5.0	291.6
c	5.6	291.0
1/a	5.6	291.0
cb	5.9	290.7
E	6.8	289.8

POSTED

29663

150' N.

E	4.9	291.7
cb	6.1	290.5
1/4	6.5	290.1
c	6.0	290.6
1/4	5.4	291.2
cb	4.9	291.7
W	5.6	291.0

175' N.

W	5.7	290.9
cb	6.2	290.4
1/4	6.7	289.9
c	7.1	289.5
1/4	7.0	289.6
cb	7.1	289.5
E	6.7	289.9

29663

200' N.

E	7.1	289.5
cb	7.3	289.3
1/4	7.3	289.3
c	7.0	289.6
1/4	6.8	289.8
cb	6.9	289.7
W	5.7	290.9

225' N.

W	6.1	290.5
cb	7.0	289.6
1/4	6.9	289.7
c	7.1	289.5
1/4	7.3	289.3
cb	7.4	289.2
E	7.0	289.6

296.63

250 N

E	6.8	289.8
cb	7.4	289.2
1/4	7.3	289.3
c	7.2	289.4
1/4	7.0	289.6
cb	7.2	289.4
W	6.6	290.0

275 N

W	7.2	289.4
cb	7.3	289.3
1/4	7.1	289.5
c	7.1	289.5
1/4	7.3	289.3
cb	7.5	289.1
E	7.0	289.6

296.68

on West = 294.
on East = 300 = Sh. Stockton

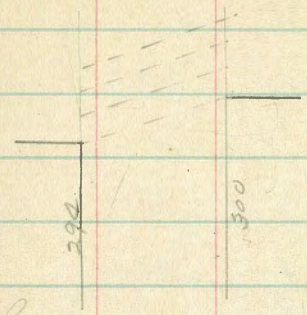
E	6.6	290.0
cb	7.1	289.5
1/4	7.0	289.6
c	6.9	289.7
1/4	7.2	289.4
cb	7.3	289.3
W	7.2	289.4

8 cb Stockton

W	7.2	289.4
cb	6.9	289.7
1/4	7.1	289.5
c	7.0	289.6
1/4	6.9	289.7
cb	6.7	289.9
E	6.6	290.0

29663

5 1/2 Stockton



E	6.6	290.0
cb	6.6	290.0
1/2	6.9	289.7
c	6.9	289.7
1/2	6.8	289.8
cb	6.6	290.0
W	6.9	289.7

POSTED

cr Stockton

W	6.9	289.7
cb	6.5	290.1
1/2	6.6	290.0
c	6.5	290.1
1/2	6.5	290.1
cb	6.3	290.3
E	6.4	290.2

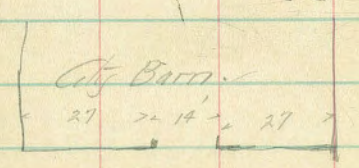
8 Hatch
24 Moore
09 Thomas

Levels at City Barn on P & 20th St.

SW 20th D.

BM	2.86	97.70		94.84
	0.09	87.98	9.81	87.89
	0.76	75.84	12.90	75.08
ground at SE Cor. Barn			11.56	64.28
top of foundation at SE Cor. "			11.23	64.61
Threshold -			12.30	63.54
top wall SW Cor "			12.70	63.14
ground " " "			13.60	62.24

PO[illegible]D



20th St

B St.

8/26/09 Hatch Moore Thomas

Profile on E Rail of W. Track.

Adams to El Cajon

Park Blvd - Madison				
BM	542	357.22		351.80
End of Track	N. of S.L. Adams		2.50	354.72
SL Adams			2.24	354.98
50 S			2.28	354.94
100			2.64	354.58
150			2.86	354.36
200	PO[illegible]D		3.18	354.04
250			3.51	353.71
300			3.75	353.47
350			4.08	353.14
400			4.58	352.64
450			5.12	352.10
467	N.L. Madison		5.35	351.87
Cr.	"		5.72	351.50
SL	"		6.30	350.92
50	164	351.85	7.01	350.21
100			2.36	349.49

		351.85		
150			3.03	348.82
200			3.72	348.13
250			4.40	347.45
300			5.08	346.77
350	POSTED		5.42	346.43
400			5.74	346.11
450			6.04	345.81
500			6.26	345.59
550			6.57	345.28
600	N.L. Monroe		6.85	345.00
Cr.	"		7.00	344.85
SL	287	347.47	7.25	344.60
50			3.08	344.39
100			3.28	344.19
150			3.40	344.07
200			3.61	343.86
250			3.78	343.69

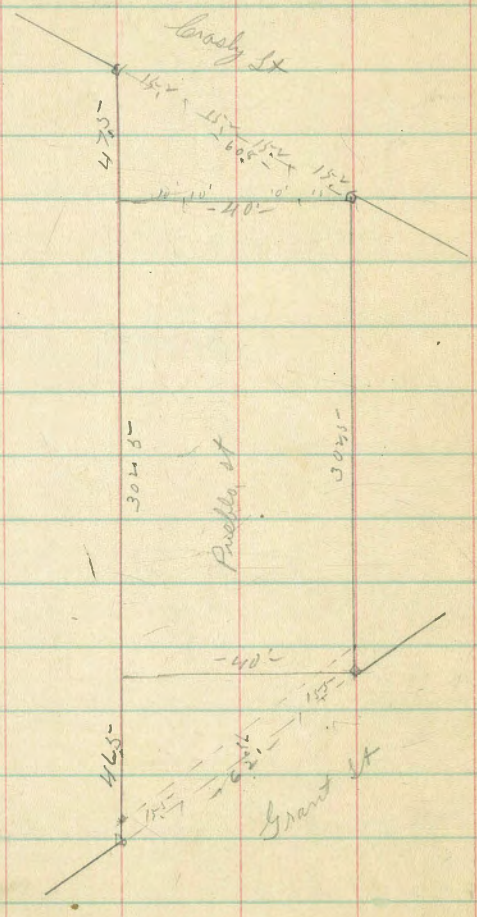
		347.47		
300			3.98	343.49
350			4.13	343.34
400			4.35	343.12
450			4.54	342.93
500			4.71	342.76
550			4.92	342.55
600	N.L.	Meade	5.11	342.36
Qr	"		6.04	341.43
S.L.	550	346.21	6.76	340.71
50			4.95	341.26
82			4.33	341.88
100			4.36	341.85
150			4.50	341.71
200			4.61	341.60
250			4.73	341.48
300			4.83	341.38
350			4.98	341.23
400			4.76	341.45

		346.21		
450	about P.C.		4.38	341.83
500			3.96	342.25
550			3.53	342.68
600	N.L.	El Cajon	3.15	343.06

POSTED

X Sec of Pueblo St (40)

From Crosby st to Grant



3	Clough
7	Donnan
11	Fitzpatrick

BM NW 25+ N

3.65 57.97 54.32

10 1/4 E Line of Crosby st

NL		11.2	46.3
	+3'	9.5	
4		9.3	
b		12.0	46.0
4		9.1	
SL		7.4	50.6

Ed of Crosby on N } od
47.5 E of " on S }

NL		11.7	46.3
	+3'	9.3	
4		8.8	
b		8.0	50.0
	+2'	8.3	
	+3'	11.0	
4		11.8	
	+4'	8.2	
SL		8.0	50.0

27.5 E of Crosby st

S		7.9	50.1
~~b~~		8.5	
b		11.2	46.8
4		9.9	
n		9.7	48.3

52.5 E of Crosby

n		9.5	48.5
4		9.9	
b	+4 +7	11.0 9.9 9.6	48.4
4		8.6	
S		6.8	51.2

77.5 E of Crosby

S		5.7	52.3
4		8.2	
b		9.4	48.6
4	+8	9.6 11.0	
n		9.4	48.6

102.5 E of Crosby st

n	+7	8.9 9.6	49.1
4		11.3	
b	+2	9.0 9.0	49.0
4		8.0	
S		4.6	53.4

127.5 E of Crosby

S		4.4	53.6
4		7.2	
b		8.5	49.5
4		9.1	
n		9.0	49.0

152.5 E of Crosby st

n		8.7	49.3
4		8.7	
b		8.0	50.0
4		6.7	
S		5.3	52.7

57.97

177.5' E of Crosby st			
S		4.3	53.7
4		5.2	
6		6.8	51.2
4		8.2	
n		8.2	49.8
202.5' E of Crosby			
n		7.8	50.2
4		7.4	
6		5.3	52.7
4		4.4	
S		4.2	53.8
227.5' E of Crosby			
S		4.1	53.9
4		3.9	
6		4.0	54.0
4		3.8	
n		7.1	50.9

57.97

252.5' E of Crosby				
n		5.7	52.3	
4		5.0		
6		4.9	53.1	
4		4.8		
S		3.1	54.9	
277.5 E of Crosby				
S		4.0	54.0	
4		5.0		
6		5.5	52.5	
4		5.7		
n		4.9	53.1	
TP	6.23	62.60	1.60	56.37

6260

3025' E = S. d of Grant on n

n		6.0	56.6
	+6'	9.3	
y		9.5	
l		8.5	54.1
y		7.6	
S		6.5	56.1
	62' { 2960' E on nd; 3415' E on S d }		
S		1.5	61.1
y		5.3	
l		6.2	56.4
y		8.5	
n		8.0	54.6
	62' { 3490' E on S; 3025' E on n } = S d in of Grant st		
E		0.2	62.4
y		2.0	
l		3.4	59.2
y		4.7	
n		6.0	56.6

#400

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TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees
	DEGREES		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		