

67

CROSS SECTIONS

PARK

BOULEVARD.

and

2

Water Front Survey

F.B. 67

City Hall, San Diego, Cal.
 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	2 $\frac{1}{2}$	21	49	41	95 $\frac{3}{4}$
2	4 $\frac{2}{3}$	22	51 $\frac{1}{2}$	42	98
3	7	23	53 $\frac{3}{4}$	43	100 $\frac{1}{2}$
4	9 $\frac{1}{3}$	24	56	44	102 $\frac{3}{4}$
5	11 $\frac{2}{3}$	25	58 $\frac{1}{2}$	45	105
6	14	26	60 $\frac{3}{4}$	46	107 $\frac{1}{2}$
7	16 $\frac{2}{3}$	27	63	47	109 $\frac{3}{4}$
8	18 $\frac{1}{3}$	28	65 $\frac{1}{2}$	48	112
9	21	29	67 $\frac{3}{4}$	49	114 $\frac{1}{2}$
10	23 $\frac{2}{3}$	30	70	50	116 $\frac{3}{4}$
11	25 $\frac{1}{3}$	31	72 $\frac{1}{2}$	51	119
12	28	32	74 $\frac{2}{3}$	52	121 $\frac{1}{2}$
13	30 $\frac{2}{3}$	33	77	53	123 $\frac{3}{4}$
14	32 $\frac{1}{3}$	34	79 $\frac{1}{2}$	54	126
15	35	35	81 $\frac{2}{3}$	55	128 $\frac{1}{2}$
16	37 $\frac{1}{3}$	36	84	56	130 $\frac{3}{4}$
17	39 $\frac{2}{3}$	37	86 $\frac{1}{2}$	57	133
18	42	38	88 $\frac{2}{3}$	58	135 $\frac{1}{2}$
19	44 $\frac{1}{3}$	39	91	59	137 $\frac{3}{4}$
20	46 $\frac{2}{3}$	40	93 $\frac{1}{2}$	60	140

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STATIONERS AND PRINTERS,

SAN FRANCISCO, CAL.

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

MEAN LIGHT
 TIDE LINE
 ALSO SEE F.B. 1050

MICROFILMED
 DE 1964

Return to City Engineers Office

67

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.....	2 $\frac{1}{2}$	21.....	49	41.....	95 $\frac{3}{4}$
2.....	4 $\frac{1}{2}$	22.....	51 $\frac{1}{2}$	42.....	98
3.....	7	23.....	53 $\frac{1}{2}$	43.....	100 $\frac{1}{2}$
4.....	9 $\frac{1}{2}$	24.....	56	44.....	102 $\frac{1}{2}$
5.....	11 $\frac{1}{2}$	25.....	58 $\frac{1}{2}$	45.....	105
6.....	14	26.....	60 $\frac{1}{2}$	46.....	107 $\frac{1}{2}$
7.....	16 $\frac{1}{2}$	27.....	63	47.....	109 $\frac{1}{2}$
8.....	18 $\frac{1}{2}$	28.....	65 $\frac{1}{2}$	48.....	112
9.....	21	29.....	67 $\frac{1}{2}$	49.....	114 $\frac{1}{2}$
10.....	23 $\frac{1}{2}$	30.....	70	50.....	116 $\frac{1}{2}$
11.....	25 $\frac{1}{2}$	31.....	72 $\frac{1}{2}$	51.....	119
12.....	28	32.....	74 $\frac{1}{2}$	52.....	121 $\frac{1}{2}$
13.....	30 $\frac{1}{2}$	33.....	77	53.....	123 $\frac{1}{2}$
14.....	32 $\frac{1}{2}$	34.....	79 $\frac{1}{2}$	54.....	126
15.....	35	35.....	81 $\frac{1}{2}$	55.....	128 $\frac{1}{2}$
16.....	37 $\frac{1}{2}$	36.....	84	56.....	130 $\frac{1}{2}$
17.....	39 $\frac{1}{2}$	37.....	86 $\frac{1}{2}$	57.....	133
18.....	42	38.....	88 $\frac{1}{2}$	58.....	135 $\frac{1}{2}$
19.....	44 $\frac{1}{2}$	39.....	91	59.....	137 $\frac{1}{2}$
20.....	46 $\frac{1}{2}$	40.....	93 $\frac{1}{2}$	60.....	140

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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.
0		0		0		0	
4	0-24	11	1-88	18	5-14	25	10-54
5	0-38	12	2-24	19	5-46	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

MICROFILMED

DEC 1964

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

R. Cadwallader, A.B.

Plaintiff's exhibit No. 9

for IDENTIFICATION

Section No. 35473

Plaintiff's Exhibit 9
in Case of

Plaintiff No. _____
vs
Defendant

Filed
J. B. McLEES, Clerk
by _____
Deputy

Park Boulevard

Rad.	Left	Rod - C	Rod	Right
		120.50 (120.94)		
13.00	107.5	6.09	114.71	1.9 118.6
10.9	109.5	5.20	115.30	1.1 119.3
13.4	113.3	6.28	122.5	2.80 125.9
(29.65) 8.10 (36.21)	120.6	6.30	129.9	9.40 132.8
(16.20) (36.21) 9.31	121.0	2.20	132.0	7.90 139.5
	127.9	7.40	139.4	10.00 (57.21) (157.21)
1.60	145.2	6.40	140.4	9.40 147.8
6.9	150.3	5.2	152.0	3.1 154.1
11.0	156.2	9.4	157.8	9.2 158.0
3.8	163.4	3.40	164.4	4.60 162.0
8.6	167.9	10.8	166.3	10.6 165.9
6.8	169.7	6.4	170.1	5.8 170.7
3.0	173.5	3.1	173.4	3.4 173.1
9.0	176.6	8.5	177.1	9.9 175.7
7.1	178.5	6.7	178.9	7.7 177.9
4.1	181.5	3.9	181.7	5.6 180.0
1.5	184.1	1.6	184.0	3.0 182.6
1.4	184.2	2.3	183.3	2.8 182.8
9.9	183.9	10.2	185.6	11.7 184.1
4.9	186.3	9.2	186.6	8.7 187.1

Stn	+	HD	-	Elev
1 ^{81.6}	B.M.	11.23	116.51	105.28
2	#	10.9	120.49	213 114.39
3	#	9.9	128.69	0.95 119.50
4	#	8.20	136.21	0.65 128.01
5	#	11.30	146.79	0.72 135.49
6	#	11.17	152.2	0.75 146.14
7				
8				
9	#	11.47	167.23	1.45 155.76
10	B.M. N.W. cor. school yard	9.74		163.99
11	#	11.69	176.53	1.77 165.44
12				
13				
14	B.M. N.W. cor. Sta 14	10.69	183.61	1.61 174.92
15				
16				
+70				
17				
+50	#	11.17	195.79	1.52 184.61
18				

Rod	S	Rod	C	Rod	B
		(195.79)			
6.3	189.5	6.3	189.5	5.7	190.1
1.7	194.1	3.0	192.8	1.8	194.0
9.0	196.5	9.3	196.2	4.1	196.4
4.9	200.6	3.9	201.6	3.3	200.2
0.8	204.7	1.5	204.0	2.1	203.4
8.3	207.0	6.9	208.4	7.0	208.3
4.7	210.6	3.5	211.8	6.6	208.7
1.4	213.9	3.1	212.3	6.5	208.8
4.6	215.2	6.2	213.6	10.6	209.2
3.2	216.6	5.1	214.7	13.2	206.6
3.5	216.3	2.8	217.0	7.6	201.2
2.0	217.8	3.2	216.6	9.6	201.2
0.1	219.7	2.1	217.7	6.2	213.6
5.2	222.5	6.6	221.1	7.9	219.8
2.9	224.6	3.8	223.9	5.7	222.0
0.3	227.4	0.8	226.9	1.0	226.7
7.0	231.6	6.7	231.9	7.7	230.8
1.9	236.7	2.3	236.3	2.4	236.2
6.3	241.5	5.7	242.1	3.8	244.0
10.9	246.8	8.5	249.2	6.7	251.0
6.4	250.9	5.8	251.9	3.8	253.9

Sto	sto	+	HJ	-	Cliv
19					
20			195.78		
21			20.00		
22			208.48	1.64	199.18
23					
24	#	10.57	215.27	0.72	204.76
25					
26					
27	Bm	6.25	219.93	1.69	213.58
28					
29	Bm			2.90	217.43
30					
31	Bm	10.50	227.73		217.43
32					
33	Bm			1.00	226.68
34		11.91	234.59		
35	Bm	7.5	247.42	2.05	246.54
36					
37	#	10.55	257.66	0.71	247.11
38					

Park Boulevard

Rod	Left	Rod	to	Rod	Right
-----	------	-----	----	-----	-------

		(257.7)			
6.1	257.6	4.9	252.8	3.7	254.0
4.3	253.4	3.9	253.8	4.7	253.0
		(264.0)			
8.7	255.3	8.8	255.7	7.4	256.2
6.4	257.6	2.9	261.1	3.4	260.2
		(271.1)			
9.8	261.3	6.0	265.1	5.6	265.5
1.4	269.7	2.7	268.4	5.8	265.3
		(279.6)			
7.6	272.0	6.9	272.7	0.9	268.7
5.4	277.2	3.7	275.9	4.4	274.8
3.3	276.3	1.7	277.9	1.6	278.0
		(283.2)			
8.5	277.9	5.3	279.9	6.9	279.3
7.4	277.8	4.6	280.6	6.3	278.9
8.2	278.0	4.7	280.5	6.3	278.9
10.0	275.2	6.3	279.9	6.4	279.4
9.9	277.3	3.2	282.0	5.3	279.7
4.0	281.2	2.2	283.0	6.0	279.2
3.9	281.3	2.2	283.0	4.1	281.1
		(293.0)			
9.6	283.4	3.1	287.9	8.6	285.0
9.8	283.2	3.0	290.0	2.9	290.1
9.7	283.3	2.7	290.3	1.8	291.1
		(296.8)			
6.1	289.2	4.8	290.5	4.0	291.3

Str	+	#	0	-	Offset
-----	---	---	---	---	--------

			257.66		
39	apk 70'	Right	270.45		
40	Bm#	11.33	263.97	5.07	252.64
41					
	apk 70'	Right	42		
42	Bm#	11.50	2671.14	4.23	259.64
43					
44					
45	#	11.33	279.64	2.5	269.31
46					
47					
	apk 70'	Left	Stv 47		
48	Bm#	9.94	273.16	3.46	276.19
49					
50					
51					
52					
53					
	apk 70'	Right	53		
54	#	11.93	293.02	4.07	281.29
55					
56					
57	#	3.74	293.34	3.46	289.56
				6.46	
	Bm	apk 70'	Left	Stv 57	289.89

Park Boulevard

Roll	Left	Roll	6	Roll	Right
		(292.4)			
10.7	288.7	3.1	288.3	2.0	290.4
12.0	280.7	8.4	284.0	6.9	285.5
9.1	283.3	8.7	283.7	8.1	284.3
8.3	284.1	9.2	283.2	8.8	283.6
13.1	279.3	11.2	281.2	8.9	283.5
9.4	283.0	8.2	283.2	8.6	283.8
5.6	286.8	2.6	289.5	5.1	287.3
12.0	286.1	(298.1)	288.7	8.9	289.2
11.1	287.0	8.9	289.2	5.5	292.6
6.9	291.2	6.8	291.3	5.0	293.1
8.2	289.9	3.5	294.6	2.7	295.4
11.1	293.0	(304.1)	296.8	7.5	296.6
6.9	297.2	5.0	299.1	5.5	299.6
8.0	296.1	4.6	299.5	5.5	299.8
5.5	298.6	9.1	301.0	4.1	300.0
6.5	297.9	3.4	300.7	2.9	301.2
9.5	297.5	(306.6)	299.0	6.9	299.7
9.9	298.7	6.4	300.2	7.3	299.3
8.9	297.7	5.2	300.4	6.8	299.8
10.2	296.4	7.0	299.6	6.5	300.1

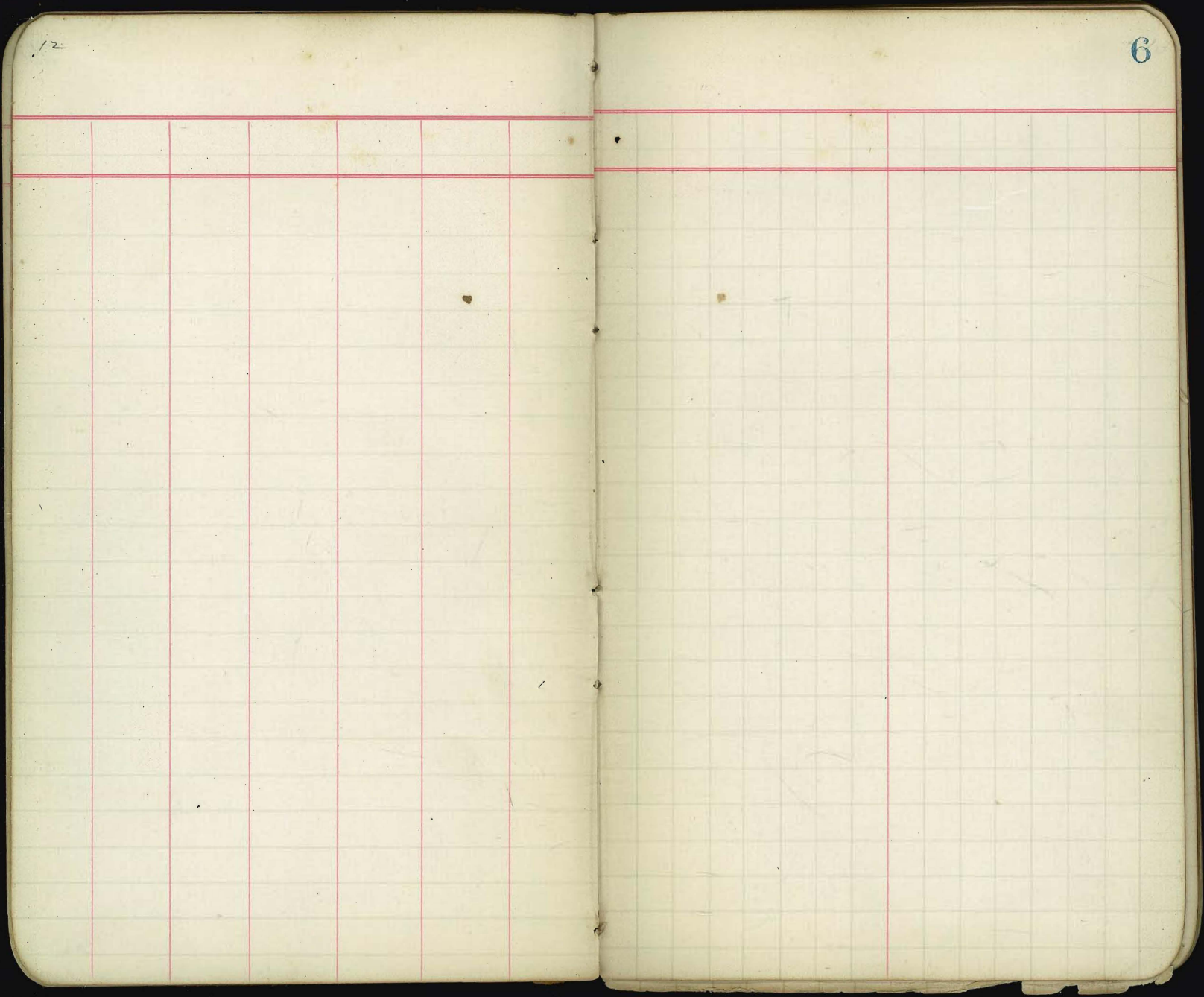
Sta	49	- Elev
58	353	292.41
59		295.88
60		
750		
61		
62		
63		
64	apk 63 Right 63	
65	Bent# 1050 298.07	484 287.57
66		
67		
68	#	501 304.06
69		2.32 293.75
70		
71		
72	apk 70 Right 72	
73	Bent# 6.38 304.57	2.97 301.19
74		
75		
76		

Park Boulevard

Rod	Left	Rod	to	Rod	Right
		306.6			
11.2	295.4	6.4	299.8	8.7	297.9
10.1	296.5	6.4	299.7	9.0	297.6
4.9	300.5	3.4	302.0	5.6	299.4
5.2	300.2	3.3	302.1	5.2	300.2
8.4	297.0	5.5	299.9	6.5	298.9
7.7	297.7	4.4	301.0	6.7	298.7
8.4	297.6	6.6	298.9	5.5	299.9
9.8	295.6	7.9	297.5	6.7	298.7
4.4	296.7	3.3	297.5	4.1	296.7
5.3	295.5	4.1	296.7	5.0	295.8
5.4	295.4	5.2	295.6	5.3	295.5
6.1	294.7	6.2	294.6	6.4	294.0
7.0	295.6	6.4	294.4	9.2	292.6
7.4	293.4	6.4	293.9	9.2	291.6
7.4	293.4	6.0	294.4	5.6	295.2
6.5	294.3	5.6	295.2	5.00	296.4

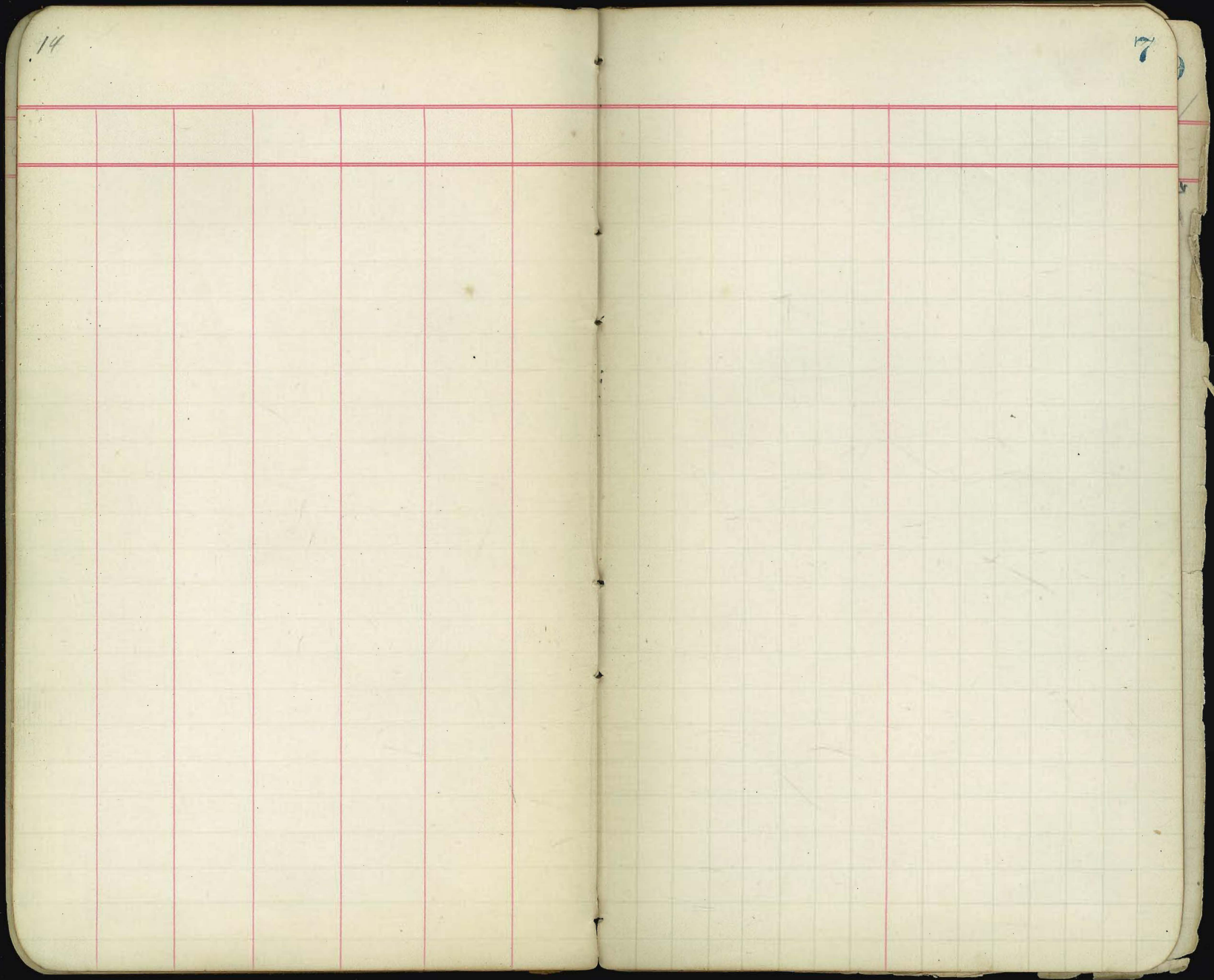
Sta	to	to	to	to
77		306.57		
78				
79	# 7.23	305.44	5.46	298.11
80				
81				
82				
83				
84				
85	off 70' right Sta 84			
86	Blmt# 242	300.50	7.13	298.31
87				
88				
89				
90				
91				
91 + 54.6 Blmt	off 71' Sta 91 + 54		7.12	293.64

Park Blvd



14

7



Sta	B.S.	I.I.S.	Insi.	Exptm	Ret	check
				18.03		
#	1.080	19.110	4.595	14.515		14.50
#			6.415	12.695		
	4.390					
		17.085	8.09	8.995		
				12.710		
#	2.245					
#		14.955	7.89	7.065		
				21.58		
	4.155	25.735	3.975	24.760		21.76
#			11.775	13.960		
#	0.72	14.680	11.11	103.57		
	1.14	104.74				

Remarks

SpK in tel. post Calif + Juniper
 Bench Book page 3
 On 4 spK in cem pile of Holly + Kalmia

at 265+50, 30ft left (cor of fence)

BM in tel post cor Spruce + Calif.

BM. in " " " Vine " "

Placed BM.

Added 100 to the city ell.

95.25 = mean H. Tide
97.85 = High Tide

Sta	B.S.	I.H.	F.S.	El. Turn	Rod	Cheek
		104.74				
	0.59			103.67		
		104.16			6.34	
					8.91	
#			5.39			
				98.77		
	2.25	101.02			3.77	
291#			4.23	96.79		
	3.665	100.455			2.6	
					3.2	
#			6.104	94.415		
	4.83	99.245			4.00	
					1.40	
#			3.615	95.630		
	3.83	99.460			4.21	
					1.61	
			0.655			
			0.655	98.805		
#						
	11.345	100.190				

Remarks—

Ran south

B.M. at N line of maple

97.85
95.25
2.6

291 sta

101.02
97.85
5.77

101.02
97.85
3.17

100.45
95.25
5.2

99.28
4.00

99.46
97.85
1.61
2.6
4.21
100.45
97.85
2.60
97.25
97.85
97.40
2.6

95.25
97.80
N3

Sta B.S. I.H. F.S. El. of Rod Check. k
Turn

- Remarks -

		110.190			
		3.245	106.945		7.065
			98.80		
	.95	99.75		1.9 4.5	
		2.45	97.30		
	3.84	101.14		3.29 5.29	
		1.11	100.03		

~~Taken from Kalmia~~
~~Mistake of .10 in City Bench between Kalmia + Maple Sts.~~
~~B.M. in cor. of fence continued South~~
~~B.M. on bank in cor. of Kalmia~~

22 Levels to La Playa

R. Cadwallader - Sam. Williams

Friday Feb. 7, 1888

11

Sta. B.S. I.H. F.S. &I, Rod Check

—Remarks—

Sta.	B.S.	I.H.	F.S.	&I, Rod Check
#	1.70	23.46		21.76
#	2.116	18.645	6.975	16.485
#	1.92	16.35	4.215	14.430
#	3.015	10.435	8.94	7.41
#	3.705	8.830	5.130	25.125
#	3.593	5.523	6.90	1.93
#	5.270	106.673	5.12	0.403 = 100.403

B.M. in tel pole California + Vine

See Book 2 - page 2

No 1

B.M. about 125' SW of break in old Ry grade

[Added 100 ft] No 2

B.M. at break of Ry grade 500' E of Slough the House

Sta	B.S.	I H	F.S.	Bl	Red
-----	------	-----	------	----	-----

105.673

#

6.18 99.493

3.142 102.635

#

4.56 98.075

3.96 102.035

#

3.425 98.610

Saturday Feb. 2 1889

98.61

#

4.445 103.055

#

3.975 99.080

4.423 103.503

#

5.445 98.058

5.60 103.658

-Remarks-

No 3

B.M. 25' S of Roseville Road, 25' S of
line of south side of wire fence

See Book 2 - page 2

Sta	B.S.	I.H.	F.S.	El	Rod
-----	------	------	------	----	-----

103.658

#

1.008 102.650

3.692 106.342

#

6.052 100.290
.31

1.395 101.685

#

3.905 97.780

7.210 104.99

#

.07 104.92

8.495 113.415

#

3.042 110.378

4.585 114.958

#

4.40 110.558

6.263 116.821

#

8.757 108.064

5.925 113.989

-Remarks-

See book 2 - page 2

NO 4

B.M. - 200' S of Pueblo cor. 1/4 mi W of house
 Second line
 barret el = 100.30

NO 5

B.M. 25' S of path + 100' S of Ry stake

Sta B.S. I.H. F.S. &I

113,989

7.725 106,264
2,365 108,629# 6.145 102,484
5,885 108,369

7.613 100,756

Monday, Feb. 4, 1889
7,503 108,259# 3,437 104,822
3,990 108,812# 2,665 106,177
5,598 111,745# 4,768 106,977
2,44 109,417

no 6

B.M. 50' W of wash out on Bay front

B.M.

no 7

B.M. 10' E of Rosville road, 300' N of Ry Crossing

Sta B.S. I.H. F.S. & L

#	109.417	6.145	103.282
	3.728	106.990	

#	4.728	102.262
	6.425	108.687

#	1.335	107.352
	9.702	117.054

#	0.820	116.234
	8.08	124.314

#	5.175	119.189
	4.575	123.654

#	5.365	118.289
	0.695	118.984

#	8.785	110.199
	4.114	114.313

NO-8

B.M. 20' E of grade, 300 N of 1st curve at Hotel

NO 9

B.M. 10' E of Road to LaR, 500' from Hand works

32 2.6

$$\begin{array}{r} - 3.85 \\ 2.6 \\ \hline 1.25 \end{array}$$

$$\begin{array}{r} 88.85 \\ - 2.10 \\ \hline 16 \end{array}$$

Sta	B.S.	I.H.	7.5	8t
#		114.313	3.075	111.238
	11.48	122.718		
#			0.778	121.940
	8.377	130.317		
#			1.065	129.252
	5.166	134.418		
#			10.178	124.240
	12.05	125.445		
#			10.997	114.648
	4.143	118.791		
#			11.60	107.191
	2.905	110.096		
#			7.800	102.296

110 10
 BM 5' W of road to La P., 300' N of Mt. House

Gov. BM at La Playa marked
 Ref. Mark for Tides, U.S. Coast Survey,
 1854-50-53;

La	B.S.	I.H.	7.5.	62
		1.296		
5.66	6.956			
		4.87	2.086	=

Stone Marked U.S. M.R

Jewels North from Juniper
Sunday Feb 5th 1889 96.15 = ordinary H. Tide

Sta BS. I.H. F.S. El Rod chak

				98.805	
	0.58	99.385			3.235
#			3.76	95.625	3.235
	3.83	99.455			3.305
#			4.525	94.930	
	4.70	99.63			3.48
#			2.50	96.83	
	4.325	101.155			5.005
			2.36	98.795	98.775
	2.385	101.180			5.03

99.63
96.15
3.48

99.385 96.15
96.15
3.235

101.18
96.15
5.03

99.455
96.15
3.305

101.155
96.15
5.005

B.M. at view of under bank

Thursday Feb 7 1859

96.15 = ordinary H. Tide

Sta	B.S., I.H.	F.S.	Elev.	Red	Hgt. Tide line
			98.97		
#	2.36 101.13			4.98	
302					L 72.5
302+85					L 47.2
304					L 23.7
305					L 7.
T.P.		4.355	96.775		
	3.155 99.930			3.78	
306					R 6.8
307					R 14.4
308					R 19.5
309					R 20.6
310					R 21.4
311					R 14.5
312					0
T.P.		2.235	97.695		
	2.655 100.350			4.2	
313					L 13.1
314					0

B.M. on Vine under Bank

Sta	B.S.	I.H.	F.S.	GL	Rod	Dist
315						L 6.1
316						L 7.4
317						L 11.1
318						L 14.7
319						L 16.5
320						L 18.
T.P.			1.021	98.83		
	8985	107.814				
					check	
T.P.			0.42	107.394	107.41	
T.P.				corrected = 98.846		
	1.947	100.793			4.643	
321						R 20.9
322						R 10.8
323						R 4.5
324						R 4.2
325						L 20.5
326						L 22.5
327						L 41.9

B.M. 30' N 87 Δ at sta 320

B.M. No 1 on line to Ranville

Sta	B.S.	I.H.	F.S.	EL	Rod	Dist
328						R. 13.3
T.P.			3.235	97.558		
	4.96	102.518			6.368	
329						R. 26.3
330						R. 1.
331						R. 5.8
332						R. 10.9
333						R. 13.3
334						L. 15.7
335						L. 78.5
336						L. 113.3
T.P.			2.969	99.549		
	1.176	100.725			4.575	
#	6.332	105.881				
#			4.865	101.016		
	4.922	100.938				
#			5.545	100.398	.403	

B.M. on dyke 75' E of Δ at sta 336+40
 Cen of Dyke Outside line
 L. 43.8 L. 130.8

BM 2 on line to Rosville

44 P.M. Thursday Feb 7, 1889

96.15

22

Sta B.S. I.H. F.S. Bl Rod Check

14.50

1.132 15.632

B.M. in Cen. pile Calif + Kalmia

11.222 4.410

0.670 5.080

4.96 0.12

.08

B.M. Run down from Calif + Vine

46 Friday Feb. 8, 1889. - [R.C.]
[S.W.]

96.15

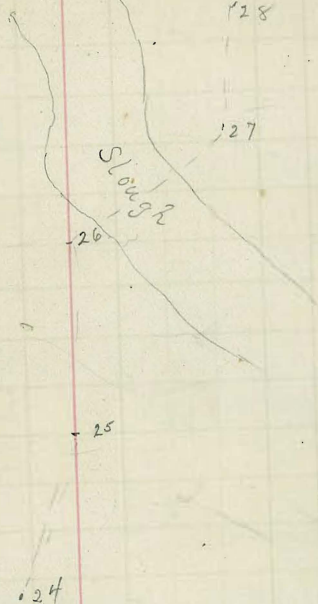
Sta	B.S.	I.H.	F.S.	El	Red	Dis
				99.55		
#	0.955	100.505			4.355	
0					=	to
1						164
3-4-5-6-7						
T.P.			2.695	97.810		
	3.505	101.315			5.165	
8						
9 to 15						
T.P.			4.540	96.775		
	3.82	100.595			4.445	
16						
18 to 20						
T.P.			4.025	96.570		
	4.485	101.055			4.905	
21						
22-30						
T.P.			4.55	96.505		
	4.430	100.935			4.985	

Contour line of marsh 100' apart begins
at 936+40. Angles read from these points by the
This line is outside of the dyke

B.M. on dyke near sta Δ 336+40
128

Sta 336+40

South

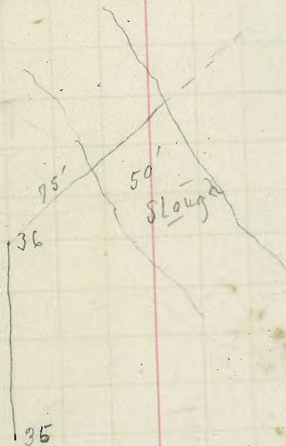


48

96.15

Sta	B.S.	I.H.	F.S.	El	Rod
		100.935			
36					
45					
T.P.			4.522	96.413	
	46 05	101.068			4.868
46					
54					
T.P.			4.750	96.268	
	21.46	100.728			4.15.78
55					
62					
T.P.			3.989	96.739	

From 36 to 37 = 228'



P.M. on top of plug of sta 358, base line

50 Saturday Feb 9th 1889

96.15

Sta	B.S.	I.H.	F.S.	Bl	Rod
T.P.	4.560	101.299		96.734	5-149
63					
69					
T.P.			4.502	96.897	
	4.440	101.237			571
70					
78					
T.P.			4.517	96.720	
	4.582	101.302			5.152
79					
81					
85					
T.P.			5.315	95.987	
	6.270	102.267			
#			1.22	101.037	
	4.76	105.797			

Contour line continued

25

B.M. in sta 358

From 81 to 82, 197 ft, spanning low ground
 cut up with a number of cuts
 B.M. - 1500' E of east sunny sta 15' S of board in
 ground on RR corner - 50' W of sta 85 of cont. line

Sta	B.S.	I.H.	F.S.	EL	Check
-----	------	------	------	----	-------

#		106.797	4608	101.189	
---	--	---------	------	---------	--

	4.14	105.329			
--	------	---------	--	--	--

#			41075	101.254	101.29
---	--	--	-------	---------	--------

B.M. M 4 m Russell line d
 101.29 old line
 101.31 second line

30
 255
 545

Monday Feb 11th 1889

P.M.

96.15

Sta	B.S.	I.H.	F.S.	EL.	Rod	Dist
#				100.12		Looking S
	Or 11	100.23			4.08	
258						R168.3
257						R179.5
256						R148.1
255						R113.0
254						R.97.5
253						R94.5
252						R82.4
T.P.			6.590	93.640		
	3.952	97.592				
T.P.			1.5.94	95.988		
	4.609	100.597			4.447	
247						R41.2
246						R36.5
245						R35.6
244						R33.2
243						R30.0

B.M. On bank con. of Kolumbia Ran
down from B.M. Elevation 14.5 in Kolumbia
& California Sta

The back of the block running from 255
to 251 has been filled up some

Intermediate Sta are taken up by the wharf
of the Independent Lumber Co. which is
50' or more

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
		100.597				
242						R 27.9
241						R 20.5
240						R 10.3
239						R 7.5
T.P.			5.30	95.297		
	11.760	107.057				
*			6.700	106.357		
	11.62	117.977				
			0.97	117.007		
T.P.			95.24	Cor. El		
	5.785	101.025			4.975	
238						R 11.1
237						R 16.
236						R 19.6
235						R 27.
234						R 34.6
233						R 39.7

16.94 B.M. in tel post 75' N of Oate +
California .06 error

Sta	B.S.	I.H.	F.S.	EL	Rod	Dist
		101.025				
232						45.2
T.P.			55.05	95.520		
	457.2	100.032			3.982	
231						R36.9
130						R32.5
229						R17.7
228						R14.5
227						R10.4
226						R10.9
225						R11.6
T.P.			1.214	98.818		

B.M. on sewer, under bank, 50' S of
old 2 masted schooner

Tuesday Feb 12th 1889
96.15

Sta	B.S.	I.H.	F.S.	62	Rod	Dist
				98.818		
#	7.772	106.590			10.44	
224						R9.5
223						R14.
222						R18.5
221						R20.7
T.P.			5.415	101.175		
	3.04	104.215				
#			3.45	100.765		
	5.890	106.655			10.505	
220						R28.9
219						R26.9
218						R22.7
217						R21.5
216						R26.6
215						R23.9
214						R23.6
T.P.			3.33f	108.321		
	2.624	105.945				

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
		105.945				
#					9.795	
213					R29.9	
212					R34.	
211					R26.1	
210					R16.	
209					R20.5	
208					R21.	
T.P.			4.488	101.457		
			1.585	104.360		
	6.32	110.68				
			2.124	8.44		
				101.457		
	3.446	104.903			8.753	
207					R35.5	
B25					R46.5	
B24					R49.0	
B23					R50.7(2)	
B22						

("C" line on map.
Bartter)

8.43 P.M. in Tel pole SE cor of building D

Went schu's beer estab. in the way
building in the way

96.15

Sta	BS.	I.H.	F.S.	El	Rod	Dist
-----	-----	------	------	----	-----	------

		104.903				
T.P.			5.034	99.869		
	5.216	105.085			8.935	

B21+50						R42.8
--------	--	--	--	--	--	-------

B20+60						R43.9
--------	--	--	--	--	--	-------

B20						R43.
-----	--	--	--	--	--	------

B19						R44.8
-----	--	--	--	--	--	-------

T.P.						
------	--	--	--	--	--	--

		4.815	100.270			
	4.690	104.960			8.41	

B18						R49.7
-----	--	--	--	--	--	-------

B17						R53.5 also 25' sand bar
-----	--	--	--	--	--	-------------------------

B15+30						R24.
--------	--	--	--	--	--	------

B15						R23
-----	--	--	--	--	--	-----

T.P.			3.385	101.575		
------	--	--	-------	---------	--	--

	2.355	103.930			7.78	
--	-------	---------	--	--	------	--

B4						R25.4
----	--	--	--	--	--	-------

B13						R18.
-----	--	--	--	--	--	------

B12						
-----	--	--	--	--	--	--

Sta	B.S.	I.H.	F.S.	6L	Red	Dist
T.P.		163.93	4.375	99.555		
#				99.635		
	4.300	103.935			7.785	
B12						R 23.1
T.P.			5.005	98.930		
	1.523	100.463			4.303	
B10+90						R 36.4
B10						R 23.1
B9						I 2.9
B8						I 34.4
B7						I 22.
T.P.			6.00	94.453		
	4.568	99.021			2.87	
B6						I 12.7
B5						0
B4						R 10.5
B3						R 9.8

B.M. SE cor of Atlantic + 74 st = 99.635-

Sta	B.S.	I.H.	7.S.	8.L	Red	Dist
		99.021				
B2					9.16	R9.4
T.P.			0.80	98.221		
	9.096	107.811			11.16	
B1						R11.6
B0 =						R27.2
186						R19.9
T.P.			3.832	103.479		
	8.964	112.443				
#			3.84	8.603		

(C' line on my)

BIV in NE cor of H + State 8.62
.017

103.479
0.17
103.496

Wednesday Feb 13th 1889

96.15-

Sta	B.S.	I.H.	F.S.	EL	Rod	Dist
T.P.	1.742	105.238		103.496	Carried B	MC-
					9.088	
185						R 17.2
184						R 15.8
183						R 13.9
T.P.			3.565	101.673		
	2.782	104.455			8.305	
182						R 13.5
181						R 14.3
180						R 15.3
179+15						R 15.6
178						
T.P.			2.923	101.532		
	3.70	105.232			9.082	
177						R 16.
176						R 15.2
175						R 16.3
174						R 15.5
173						R 15.6

From 186 & the ordinary Tide line follows closely the base of the rip-rap of the California southern, but seems to be on the base stones

Wharf in the way

BM, pin at 177

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
		105.232				
172					R15.9	
171					R16.	
170					R14.7	
T.P.			4.153	101.079		
	4.561	105.640			9.49	
169					R13.8	
168					R12.4	
167					R15.3	
166+20					R14.5	
165					R13.7	
164					R17	
163					R13.5	
T.P.			4.715	100.925		
	7.434	108.359				
#			3.957	104.402		
	5.258	109.660				
#			2.260	7.400		

B.M. 7.39 Sec of 15+K

96.135

Sta	B.S.	I.H.	F.S.	EL	Rod	Dist
-----	------	------	------	----	-----	------

T.P.	5.215	106.135		100.92	9.985	
------	-------	---------	--	--------	-------	--

162						R15.1
-----	--	--	--	--	--	-------

161						R13.6
-----	--	--	--	--	--	-------

160						R13.6
-----	--	--	--	--	--	-------

158+75						R25.9
--------	--	--	--	--	--	-------

158						R13.3
-----	--	--	--	--	--	-------

157						R14.
-----	--	--	--	--	--	------

156						R17.7
-----	--	--	--	--	--	-------

155						R28.4
-----	--	--	--	--	--	-------

T.P.			4.813	101.322		
------	--	--	-------	---------	--	--

	4.363	105.685			9.535	
--	-------	---------	--	--	-------	--

154						R60.5
-----	--	--	--	--	--	-------

153						R20.7 - R 76.2
-----	--	--	--	--	--	---------------------------

152						R42.1 - R 86.8
-----	--	--	--	--	--	---------------------------

T.P.			4.605	101.080		
------	--	--	-------	---------	--	--

	5.598	106.678				
--	-------	---------	--	--	--	--

#			4.245	102.433		
---	--	--	-------	---------	--	--

B.M. in SE cor of Ninth + N = 2.43

96.13

Sta B.S. I.H. F.S. El Rod Dist

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
				101.080		
T.P.	4.490	105.370			9.42	
151					R65	
150					R61.1	
149					R61.9	
147+45					R72.5	
146+45					R58.1	
T.P.			4.098	101.472		
	3.182	104.604			8.454	
146					R43.7	
145					R22.1	
144					R14.8	
143					R14.3	
142					R15.8	
141					R15.9	
140					R14.6	
139						
138					R13.7	
T.P.			3.612	100.992		
	5.190	106.182			10.082	

Ry rip-rap - mud flat on
the north

under Ry bridge rod read 91.8

Sta	B.S.	I.H.	F.S.	Bl	Red	Dist
-----	------	------	------	----	-----	------

106.182

137 R.17.

136 R.15.1

135 R.15

134 R.14.7

133 R.14.1

132 R.16.

131 R.22.6

T.P.

6.936 99.246

7.289/106.535

10.385

130

129+40

128+40

127

126

125

124

123

122+5

121+30

R.21

R.40

R.78

R.99.6

R.96.5

R.83.4

R.75.

R.50

R.29.9

R.19.4

mud flat on the N

- 130 is to the Right of the Ry track
on at Trousse line

96.15

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
-----	------	------	------	----	-----	------

106.535

T.P.

4.249 102.286

2.341

104.627

8477

121

R22.4

120

R30

119

R34

118

R36

117

R27

116+55

R24.1

116

R23.6

115

R22.3

114

R19.5

113

R24.7

T.P.

1.746 102.881

10.268

113.149

#

0.833 112.316

10.555

122.871

#

0.425 22.446

11.246

93.692

Sta	B.S.	I. H.	F.S.	El	Rod	Dist
-----	------	-------	------	----	-----	------

93.692

0.963 32.729

9.356 42.085

4.15 37.935

4.100 42.035

4.34 37.695

Thursday, Feb 14, 1889

102.9

T.P, 4.700 107.600

11.45

112

R26.4

111

R28.3

110

R26.5

109

R24.8

108

R35.

107

R40.8

106

R39.2

BM on Chinese Laundry Mutton 422.⁰⁰
 Could not find its El.

37.715 - B.M. in S gully part
 37.695 of Elec. Deptment
 .020

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
		107.6				
105					R31.9	
104					R25.7	
103					R25.2	
102					R21.	
101					R17.6	
T.P.			9.74	97.86		
	4.095	101.955			5.805	
100					R22.2	
98+75					R21.5	
98					R24	
97					R23.5	
96					R25.2	
95					R22	
T.P.			2.850	99.105		
	11.22	110.325				
#			1.620	108.705		
	12.00	120.705				
#						

B.M. in SW pile of L+J wharf

check

	B.S.	I.H.	F.S.	BL	
#	5.265	108.165		102.9	
#	6.372	110.053	4.484	103.641	
#	3.894	111.541	2.386	107.667	
#	9.287	117.960	2.988	108.673	-108.705 108.673 .032
#	7.237	23.484	1.711	116.249	
#	1.775	110.448	1.772	21.714	
				108.673	
			11.373	99.165 99.075 .030	

$$\begin{array}{r} 99.105 \\ 32 \\ \hline 99.073 \end{array}$$

BM. on Ry track towards the house
--

BM. on car of Oliver + 26th st marked
el of 20.701

$$\begin{array}{r} 110.448 \\ 99.105 \\ \hline 11.343 \\ 11.35 \end{array}$$

Monday Feb 18th 1889

96.15

Sta B.S. I.H. F.S. El Rod dist

T.P. 2.595 101.670 99.095 5.52

B.M. on L & S bus wharf SpR

94				R22.6
93+50				R22.9
92+93				R19.
91+93				R20.
91				R26.7
90+50				R26.1
90				R29.3
89				R45.5
88				R54.5
87				R56.9
86				R59.
85				R92.
84				R69.4
83				R43.
82				R23.5
82-65'	W Line	7	A	R15.2
82-165'		6	A	R4.6
82-265'		5	A	R4.1
82-365'		4	A	R5.5

Guard stables are all washed out
 a random line is run on the ^{Clear}
 this sta. is on the bench 65' of sta 82

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
		101.67				
T.P.			4.000	97.67		
	4.490	102.160			6.01	
82-465		3 - A			R 9.3	
82-575		2+50 A			R 8.5	
82-565		✓ A			R 3.1	
82-665		1 A			R 10.2	
75					R 52.	
74					R 42.	
73					R 36.	
T.P.			1.075	101.085		
	6.735	107.820			11.67	
72					R 27.5	
71					R 23.1	
90					R 21.	
69					R 18.5	
T.P.			5.000	102.820		
	2.720	105.540			9.39	
68					R 18.4	

This is about an L point in line
but the sta on each side itself were washed
out.

Main line

Ref-top of Ry.

B.M. in the top of the SE pile of Ry bridge-*spk*

Sta	B.S.	I.H.	F.S.	El	Rod	Dist
-----	------	------	------	----	-----	------

105.54

67

R 17.6

66

R 17.5

65

R 16.8

64

R 19.7

63

R 28.

62

R 33.7

61

R 43.

60

R 51.5

T.P.

5.850 99.660

B.M. on Whitney's wharf el - 99.686

99.686

$$\begin{array}{r} 660 \\ \underline{.026} \end{array}$$

T.P. 3.260 102.946

6.8

Whitney's wharf in the road
angle point

59

R 81.4

58+44

R 68.8

58

57

R 35.4

56

R 9.3

55

R 1.5

54

R 2.5

53

R 1.5

52

R 14.5

51

R 31

Sta	B.S.	I.H.	F.S.	El	Rod	Dist-
		102.946				
T.P.			4.311	98.635		
	3.441	102.076			5.926	
50					R40.3	
49					R44.8	
48					R41.	
47					R34.3	
46					R30.7	
45					R22.4	
44					R25.8	
T.P.			4.723	97.353		
	5.518	102.871			6.721	
43					R20.5	
42					R18.6	
41					R20.7	
40					R4.4	
39					R9.4	
T.P.						
		0.690				
	1.241	103.422			102.191	

Along the beach

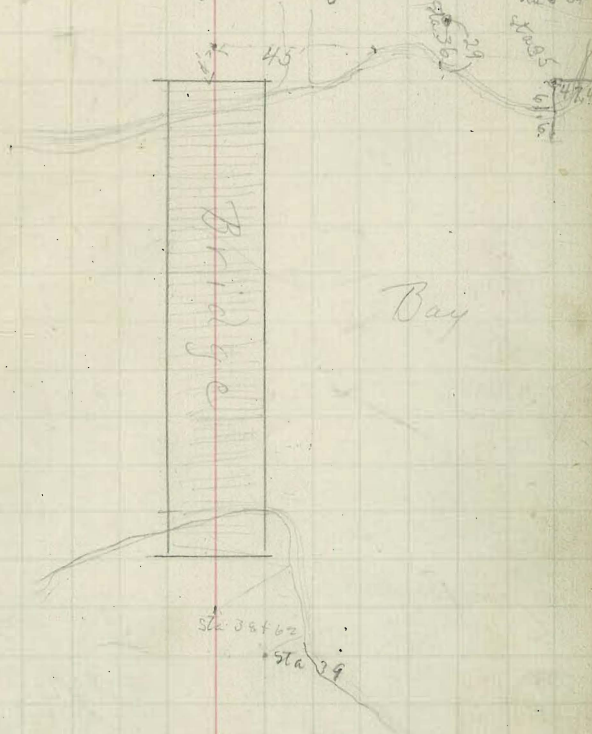
17.5

Base of rip rap of Ry.

B.M. on end of Ry bridge and post
on S side W. end.

Sta	B.S.	I.H.	F.S.	Bl	Rod	Dist
		103.422			7.272	
38+62					R 18.6	
					R 46.5	
36					R 29	
35					R 61.6	
					R 47.7	
34					R 19.7	
33					L 2.5	
32					L 6.5	
31					R 1.8	
30					R 19.9	
29					R 26.8	
T.P.			6.709	96.713		
	5.418	102.131			5.981	
28					R 49.7	
27					R 59.7	
26					R 62.6	
25					R 66.1	
24					R 60.3	
23					R 55.1	
22					R 53.1	
21					52.5	
T.P.			5.484	96.612		

(the bridge
 - angle point (25' E is the outlet under
 - Sta not marked 4' E of E end of bridge, 2nd track
 Sta 34



Sta	B.S.	I.H.	F.S.	Bl	Rod	Dial
	4.582	101.224			5.074	
20						R45.4
19						R38.4
18						R34.
17						R34.1
16						R32.
15						R39.5
14						R36.3
T.P.			4.297	96.927		
	4.226	101.153			5.053	
13						R40.4
12						R48
11						R50
10						R64.9
9						R80.2
8						R87.
T.P.			1.479	99.674		
	0.933	100.07			4.457	
7						R109.1
6						110.6

25.6
85
110.6

uncertain

Bay side

Sta	B.S.	I.H.	F.S.	El	Red	Dist
5					R 124.9	
4					R 93.5	
3					R 64.	
2					R 49.8	
1					R 38	
0					R 27.1	
	100.607					
#	1.24	99.902	0.945 933 1872	99.662		
#	3.432	99.445	3.889	96.013		
#	5.192	101.162	3.175	96.270		
#	9.948	105.796	5.614	95.848		
			3.64	102.116		
#	3.49	104.386	4.900	100.896		

Sta	B.S.	I.H.	F.S.	Elevation
#			3.230	101.156
	4.79	105.940		
			6.370	99.57
			2.45	99.69
				.12
			99.57	
			.012	
			.582	
			99.686	
			.582	
			.104 error	
- in checking back on the B.M. in Whitneys bridge				
			105.237	
			18.626	
			6.23	
			1.58	
			1.16	
			0.65	

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

Return to City Engineers Office
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	81
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	80
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	79
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	78
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	77
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	76
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	75
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	74
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	73
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	72
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	71
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	70
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	69
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	68
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	67
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	66
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	65
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	64
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	63
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	62
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	61
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	60
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	59
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	58
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	57
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	56
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	55
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	54
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	53
29	87.46	48.43	87.25	48.86	87.04	49.24	86.82	49.62	52
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	51
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	50
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	49
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	48
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	47
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	46
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	45
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	44
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	43
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	42
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	41
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	40
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	39
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	38
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	37
45	70.71	70.71							36
Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	

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