

1407

M.H. Tide

Govt. Line North

PASTY

FIELD BOOK

No. 385 F

MICROFILM

DEC 23 1964

ENGINEERING DEPARTMENT,
CITY OF CHICAGO,
CALIFORNIA.

00 0.005 0.005 0.005 0.005 0.005 0.005

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

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THE FREDERICK POST CO.
ENGINEERING and DRAFTING SUPPLIES
IRVING PARK STATION
CHICAGO, ILL.

Mean High Tide Line Survey
 from Govt Reservation on Point
 Loma to La Jolla. 0 1

BASE LINE

8/22/30 London.

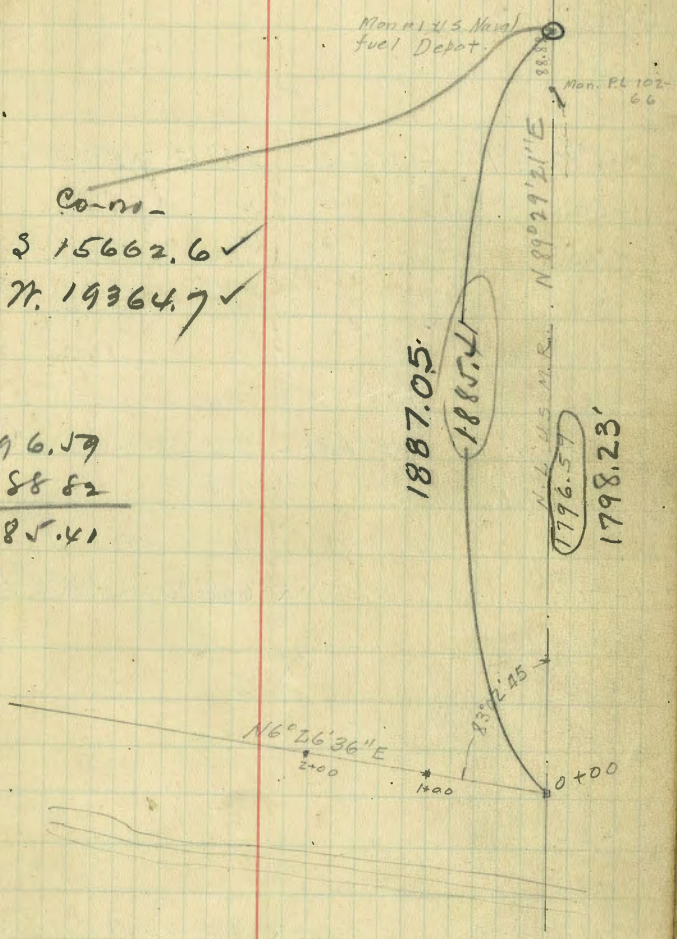
Mon. 145. Mial
 Fuel Depot.

Mon. Pl. 102-
 66

Co-m-
 \$ 15662.6 ✓
 77. 19364.7 ✓

1796.57
 88.82

 1885.41



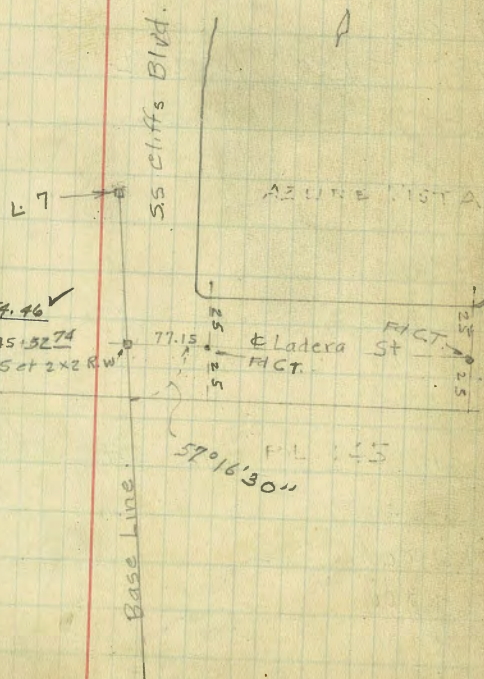
	Defl.	Dist.	Bearing
0+00		366.45	N6°26'36"E
1+00			
2+00			
3+00			
3+66 ⁴⁵	L 14°38'45" L	549.14	N8°12'09"W
4+00			
6+00			
7+00			
8+00			
9+00			
9+15 ⁵⁹	L 2 13°19'34" L	235.32	N21°31'23"W
10+00			
11+00			
11+50 ²¹	L 3 13°37'30" R	646.80	N7°54'13"W
12+00			
13+50			
14+50			
15+00			
16+30			
17+40			
17+97 ²²	L 4 5°45'23" R	995.50	N2°08'50"W
19+00			
20+00			
21+00			
22+00			

Reduced back from Course 6-7

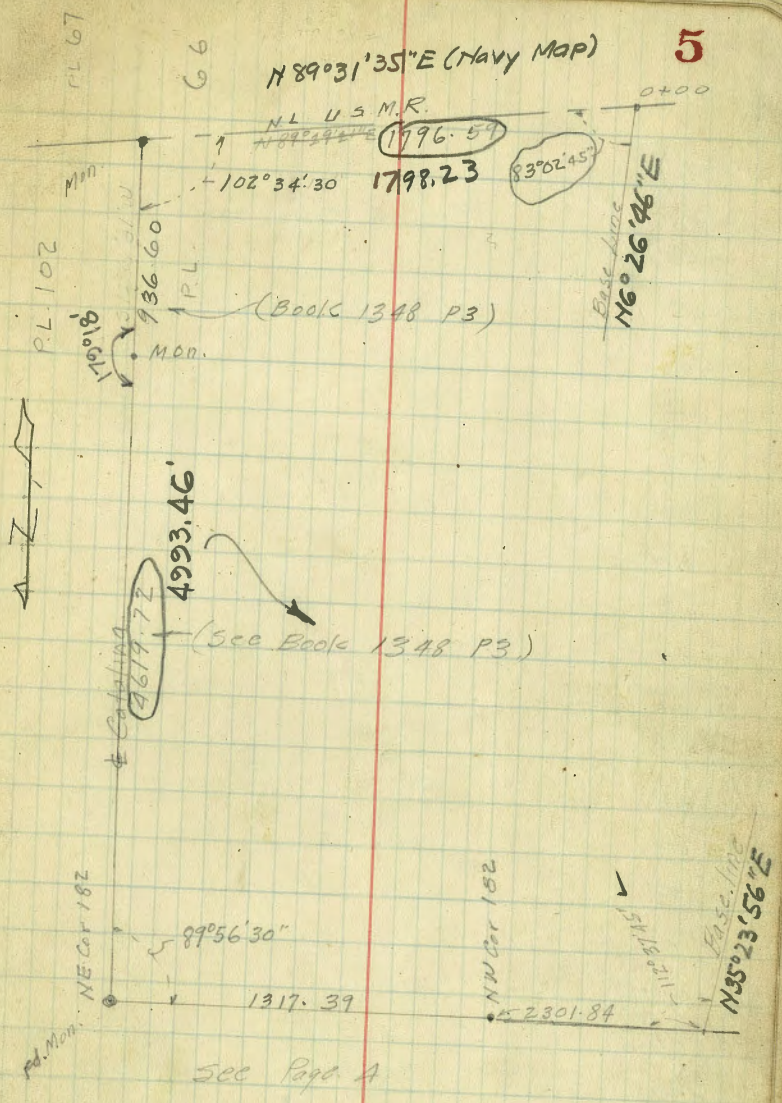
	Defl.	Dist	Bearing
23+00			
24+00			
24+24 ⁵⁵	P.O.T.		
25+00			
26+00			
26+49 ²⁸	P.O.T.		
27+50 ⁷⁸	P.O.T.		
27+93 ²¹	L 5	41°45'08"R	365.02 N39°36'48"E
30+20 ⁰⁵	P.O.T.		
31+58 ²³	L 6	59°31'22"L	1517.92 N19°35'04"W
33+10			
34+00			
34+75	P.O.T.		
36+00			
37+00			
38+00			
39+00			
40+45			
42+00			
43+00			
43+80			
45+00			
46+00			
46+76 ¹⁵	L 7	21°01'15"R	1098.21 N1°06'11"E

By Solar Obs. on P77

* use adjusted tie
stationing to go with
New adjusted line.
Adjusted line starts on
page 18.
c.s.k.



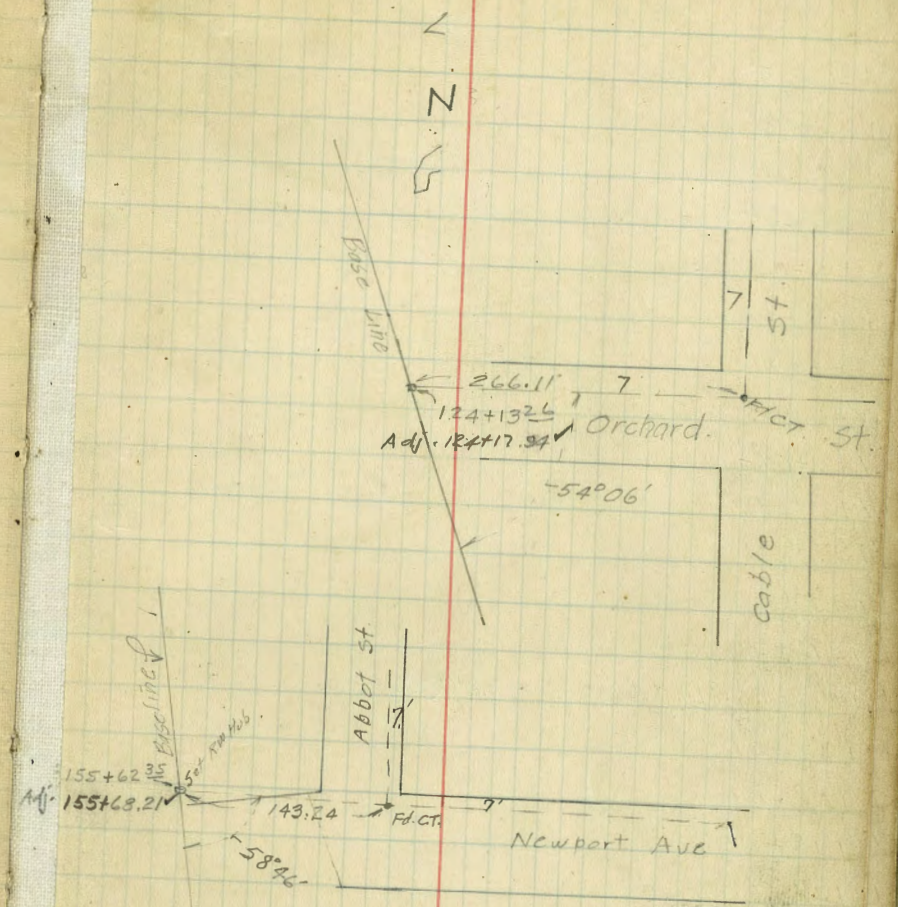
	Defl.	Dist.	Bearing
70+00			
71+00			
72+00			
73+00			
74+00			
74+80			
75+61 ³³	RPS CT sin Pt 5' SE. S' NE L: 10	49°37'00" L 1432.17	N 4°13'14" W
76+50			
77+00			
78+00			
79+00			
80+00			
81+00			
82+00			
83+00			
83+80			
84+80			
86+00			
87+00			
88+00			
89+95 ⁵⁰	L: 11	18°31'22" R 759.80	N 4°18'08" E
91+00			
92+00			
93+00			
93+95			



Defl Dist Bearing

116+56
 117+01⁹⁸ L 13 11°40'08" L 2936.02
 117+97⁶⁹ Nail.
 118+00
 119+00
 119+01⁵⁰ Nail.
 119+31
 119+54 PaT.
 120+50³
 121+50
 122+00
 123+00
 124+00
 125+02
 126+00
 127+00
 127+10³⁴
 128+07⁵
 129+00
 130+00
 130+90
 133+91⁴¹
 134+34
 135+34
 35+95

7



Def'l. Dist Bearing

136+15
 137+00
 137+26
 138+55²³
 139+00
 140+00
 141+00
 141+63
 142+60³¹
 143+00
 144+00
 145+00
 146+00
 146+38
 147+00
 148+00
 148+80
 149+80
 150+80
 151+80
 152+80
 153+80
 154+00
 155+00
 156+00

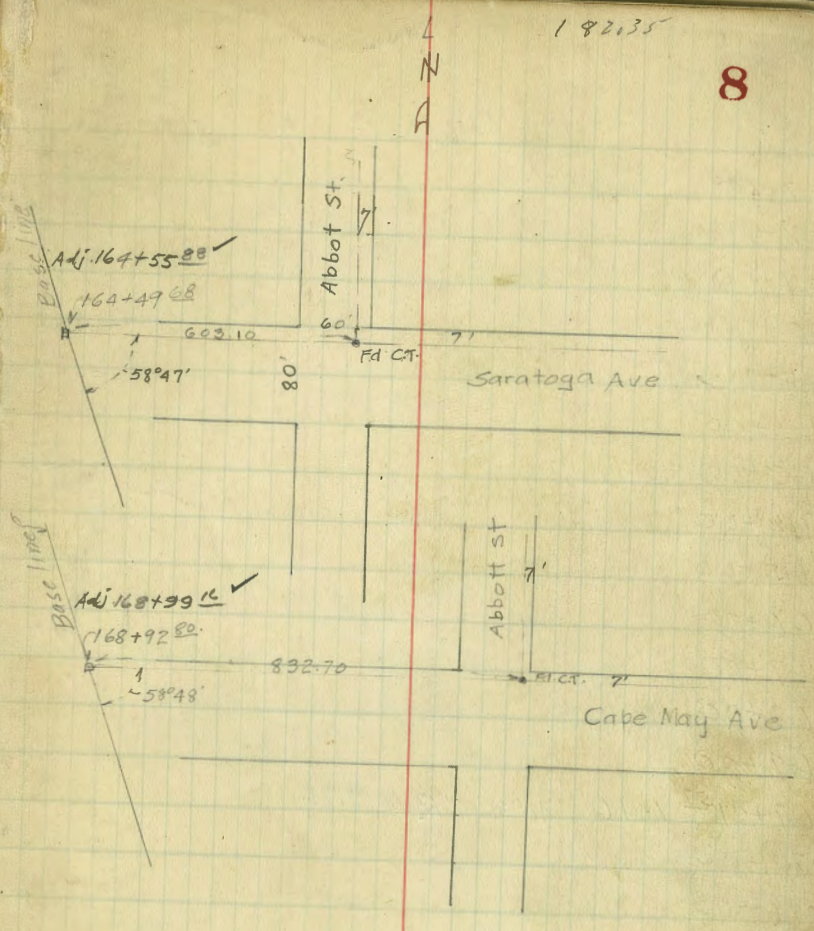
P.O.T. x22R

L 14 55°32'30" R 742.00

RPS 50' SE. 50' NE. C.T.s in floor of Parch to M.B. Bath house
 L 15 50°11'30" L 15.41.57

182135

8

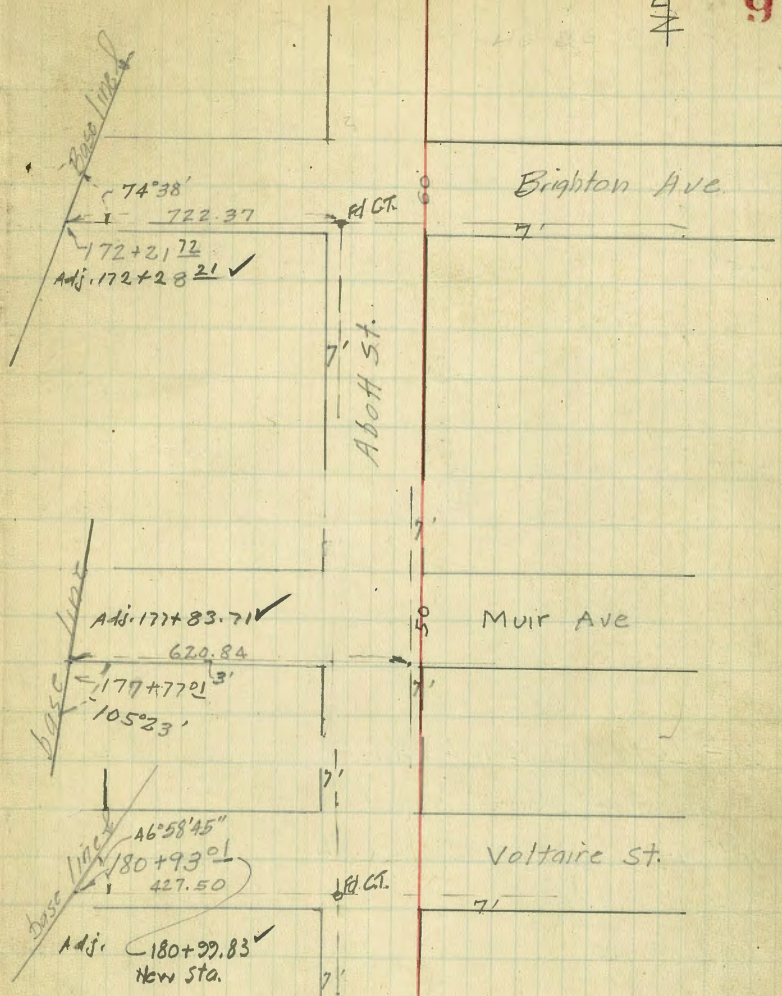


Def'l. Dist. Bearing

157+00
158+00
159+00
160+00
161+00
162+00
163+00
164+00
165+00
166+00
167+00
168+00
169+00
169+21⁵²
170+00
171+00
172+00
173+00
174+00
175+00
176+00
177+00
178+00
179+00
179+40⁴⁹

L: 16 16°36'07" R 1018.92

L: 17 27°37'22" R 1202.83

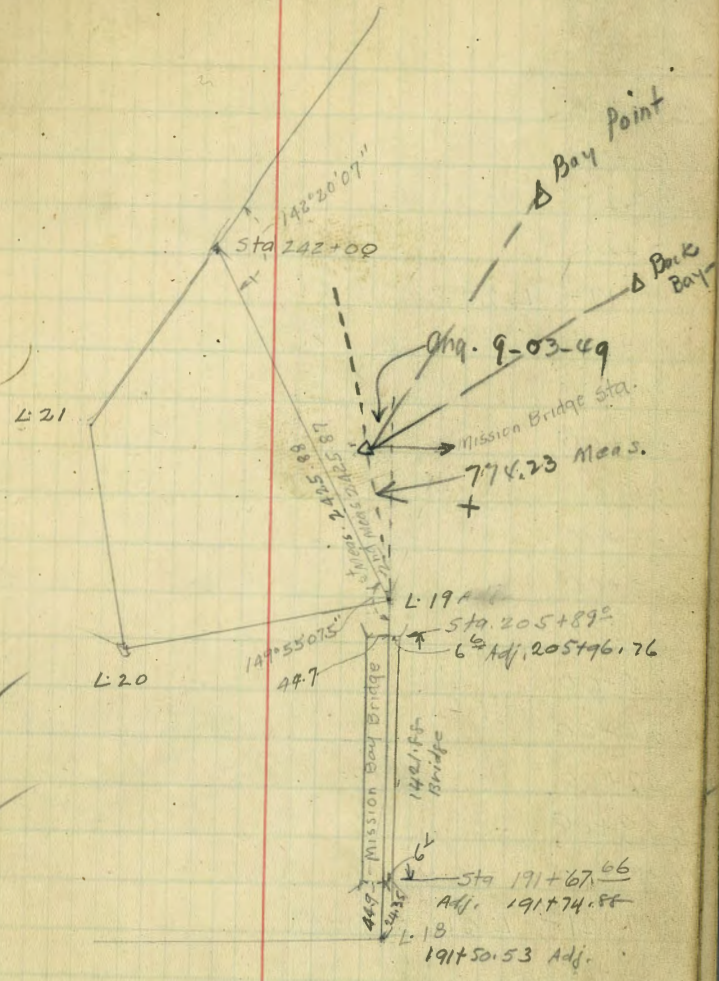


Defl. Dist Bearing

180+00			
181+00			
182+00			
182+25	96. tack in web		
183+00			
184+00			
185+00			
186+00			
187+00			
188+00			
189+00			
190+00			
191+00			
191+43 ³³	L-18	87°52'40" L	1467.67
191+67 ⁶⁴	S end of Miss Bay Bridge		
206+10 ⁹⁹	L-19	107°03'00" L	1108.82
206+52			
206+66	tack in web		
206+68			
208+81			
209+00			
210+00			
211+00			
212+00			
213+00			

tack in East curb ✓
tack in East curb ✓

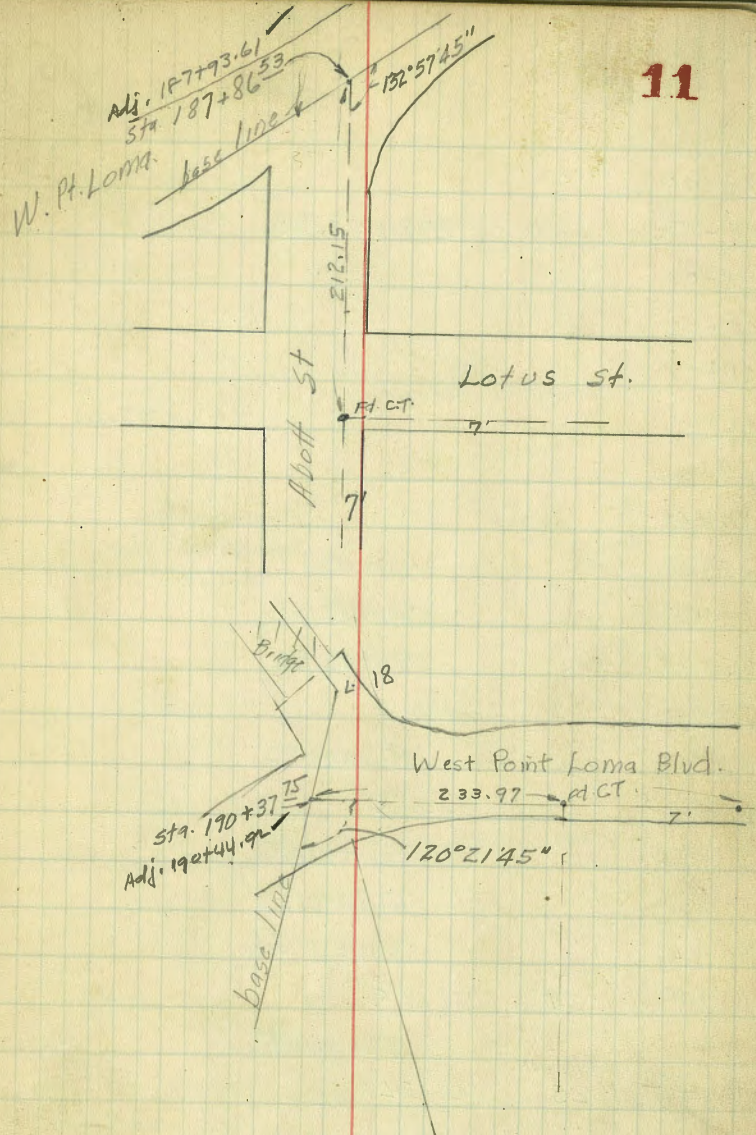
Sketch showing Main Base line course from L-19 to Sta 242+00



- 214+00
- 215+00
- 216+00
- 217+00
- 217+19⁸¹
- 218+00
- 219+00
- 220+00
- 221+00
- 222+00
- 223+00
- 224+00
- 225+00
- 226+00
- 227+00
- 228+00
- 229+00
- 229+21⁸⁶
- 230+00
- 231+00
- 232+00
- 233+00
- 234+00
- 235+00
- 236+00

L 20 91°23'R

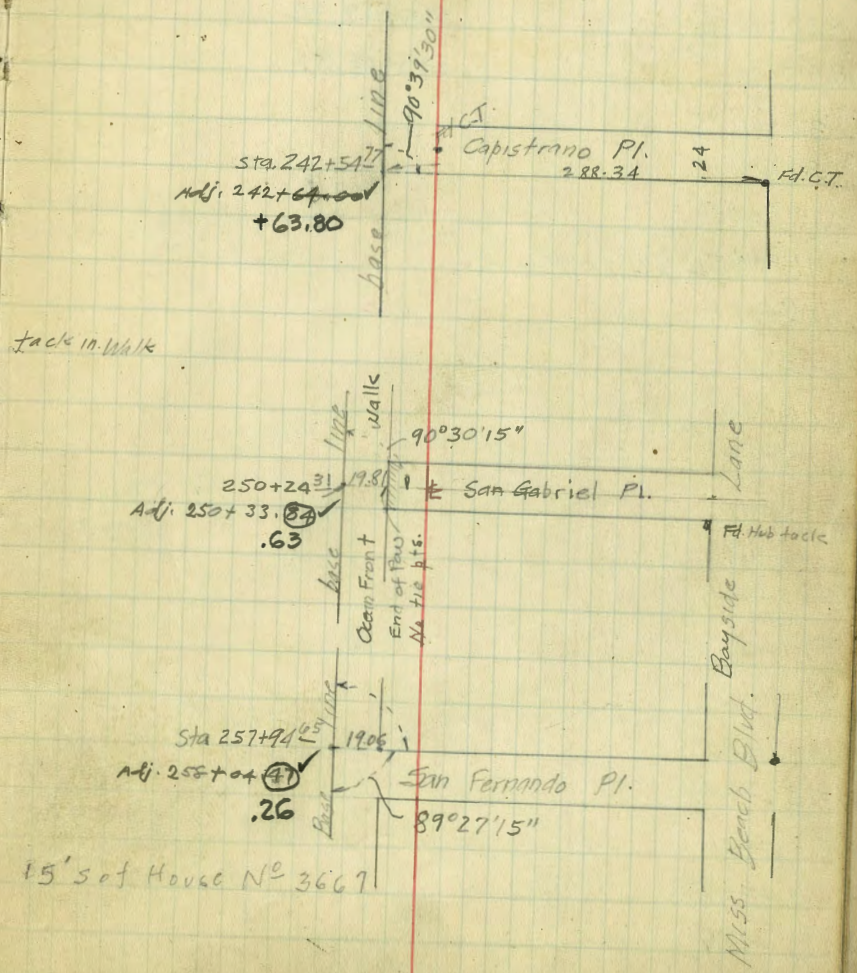
L 21 23°14'50"R



add. 1

238+00		
238+88 ⁹⁹	tack in Walk	238+97.88
239+00		
240+00		
241+00		
242+00	Set Conc. Mon. R.P.s tack in walk 10' N.W. 10' S.W.	242+09.01
243+00		
244+00		
245+00	tack in Walk	245+09.12
250+00	tack in walk	250+09.31
255+00	tack in walk	255+09.50
258+00	L: 22	2°23'00"L
263+00	tack in walk	263+09.80
265+29 ⁶²	L: 23	2°55'50"R
270+00	tack in walk	270+10.06
275+00	"	275+10.25
280+00	"	280+10.44
285+00	tack in walk L: 24	0°39'37"R
290+00	tack in walk	290+10.82
296+33 ³¹	tack in walk L: 25	0°45'45"L
300+00	tack in walk	300+11.19
305+00	tack in walk	305+11.38
309+00	tack in walk L: 26	4°26'15"L

Opp. South end of Sea Wall

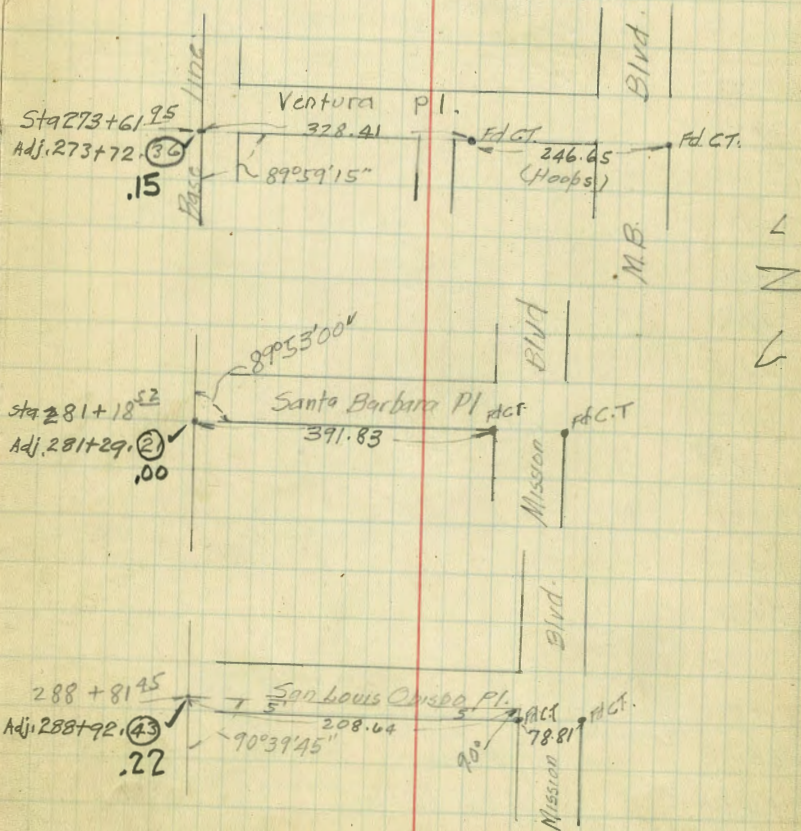


315+00	Tack in walk	315+11.76
318+00	Tack in walk L: 27 1°49'16" L	
320+00	Tack in walk	320+11.94
325+00	Tack in walk	325+12.13
330+00	Tack in walk	330+12.32
335+00	Tack in walk	335+12.51
337+00		
338+00		
339+00		
341+00	L: 28 9°06'10" L	
342+00		
343+00		
344+00		
345+00		
346+00		
347+00		
348+00		
349+00		
350+00		
351+00		
352+00		
353+00		
354+00		
355+00		
356+00		

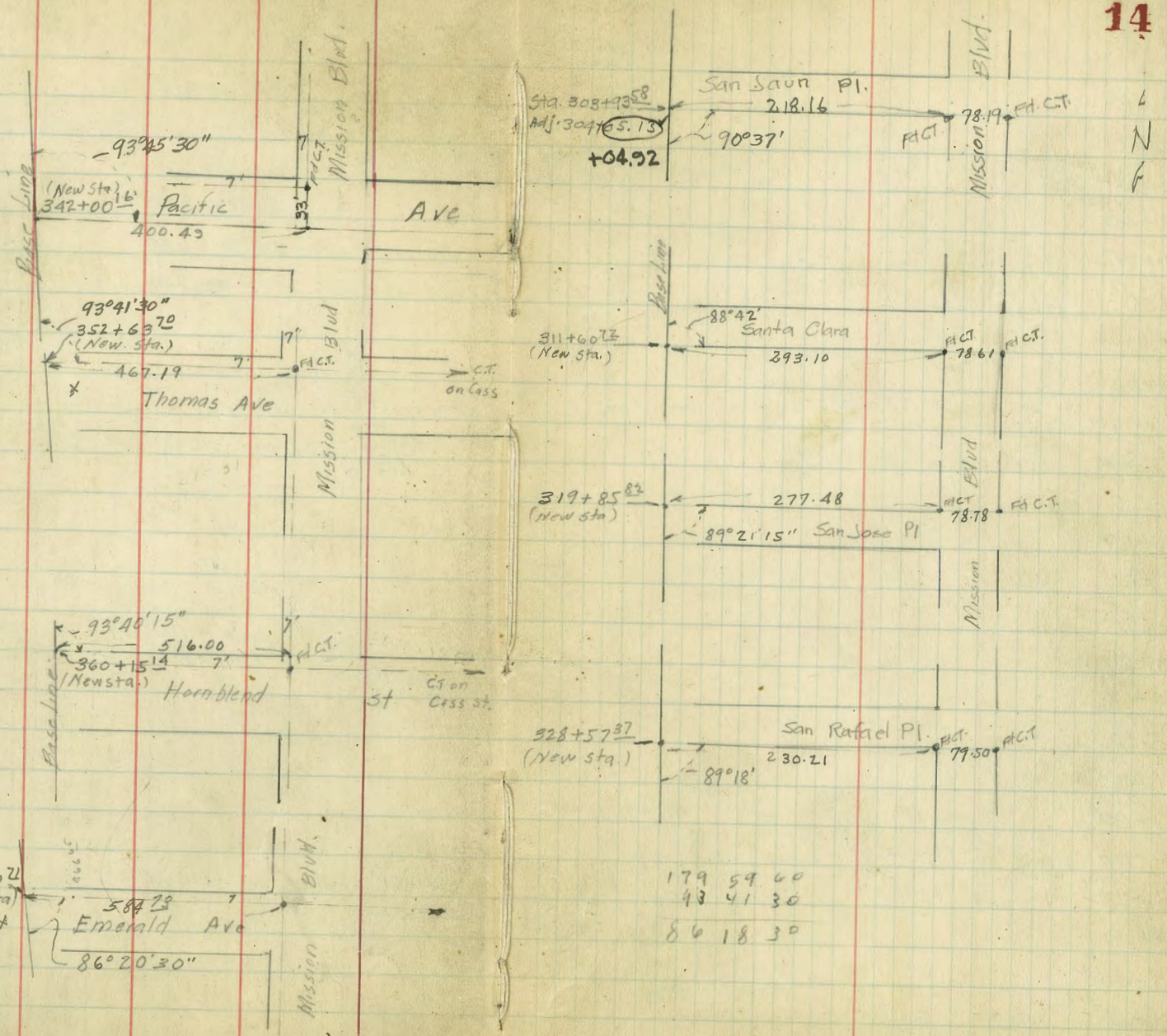
Opposite Yellow slatboard House bickett fence

30' N. of House N^o 3911

10' S. of House N^o 702 (Court)



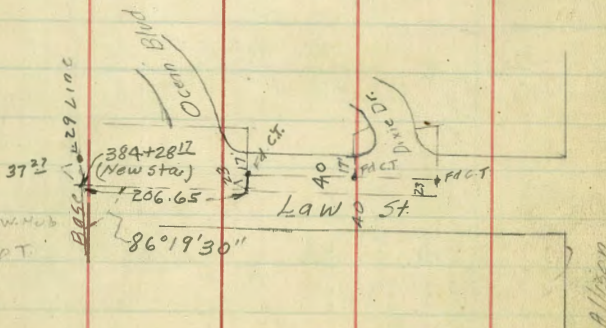
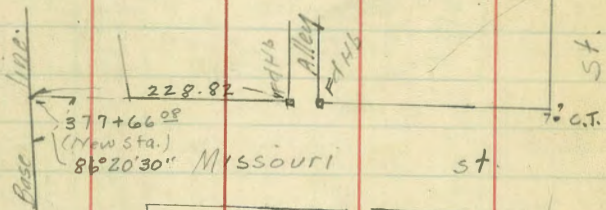
357+00
 358+00
 359+00
 360+00
 361+00
 362+00
 363+00
 364+00
 365+00
 366+00
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 369+00
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 375+00
 376+00
 377+00
 378+00
 379+00
 380+00



381+00
 382+00
 382+34⁰⁴
 383+00
 384+00
 384+51⁰⁶
 385+00
 386+00
 387+00
 388+00
 389+00
 390+00
 391+00
 392+00
 393+00
 394+00
 395+00
 396+00
 397+00
 398+00
 398+23⁸⁶
 399+00
 400+00¹⁹
 401+00⁰⁵
 402+00

RW Hub
 P.O.T.

L 29 16°52'00" L



395+25⁹⁴
 (New Sta.)

199.46 L
 20

Loring

st
 P.O.T.

67°28'

Ocean Blvd

Crystal Dr

N

st.

C.T.

st.

Allison

Allison

Law St

P.O.T.

40

P.O.T.

40

P.O.T.

40

P.O.T.

40

P.O.T.

40

P.O.T.

40

P.O.T.

40

P.O.T.

40

P.O.T.

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P.O.T.

40

P.O.T.

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P.O.T.

40

P.O.T.

40

P.O.T.

40

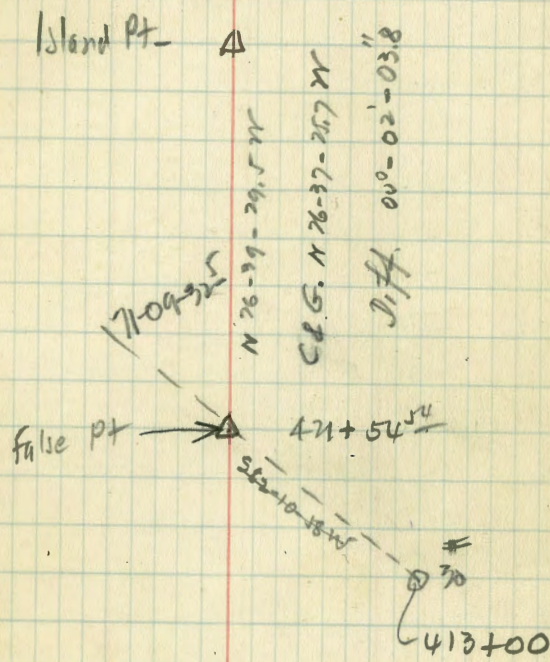
P.O.T.

40

P.O.T.

103+00
 404+00
 405+00
 406+00
 407+00
 408+00
 409+00¹⁰
 409+63³³ RWHub
 410+12⁷⁸
 410+93⁸⁶
 411+00
 412+00
 413+00 L 30
 414+00
 414+80
 415+80
 416+80
 417+80
 418+00
 419+00
 420+00
 421+00
 421+56⁴⁸ L 31
 421+54⁵⁴ 31 False

62-42-15 S 52-10-14 W
 62-00-18' L 58°52-02' W



U.S. C&G.S. Δ "False Point"
 False Pt

17

11/6/30
London

Offsets from base 1105 to
MH W.
correction factor 1.0003767

F+C=1.00

New Sta.	Old Sta.	Offset	stadia	vert L	Additional Measurement
0+00	0+00	L 75.7✓	1.68	28°56'	-53.8
1+00	0+99.96	81.0✓	1.00	41°58'	+25.0
2+00	1+99.92	107.5	2.45	52°00'	+15.4
3+00	2+99.89	62.0✓	1.76	51°03'	-8.2
3+66.59	3+66.45				
4+00	3+99.85	54.6✓	1.34	52°14'	+4.0
4+65	4+99.81	50.3✓	1.06	46°51'	
5+00	4+99.81	51.0✓	1.15	36°33'	-24.0
5+60	5+99.77	55.7✓	1.04	51°04'	+14.0
6+00	5+99.77				
7+00	6+99.74	61.7✓	1.12	53°16'	+21.0
8+00	7+99.70	82.3✓	1.29	37°21'	
9+00	8+99.66	124.7✓	1.40	37°10'	+35.0
9+15.94	9+15.59				
10+00	9+99.62	124.8✓	1.73	47°28'	+45.0
11+00	10+99.59	120.7	1.78	41°30'	+20.0
11+51.35	11+50.91				
12+00	11+99.55	107.1✓	1.62	38°50'	+8.0
13+00	12+99.51	105.4✓	1.08	30°50'	+25.0
14+00	13+99.47	99.0✓	0.88	39°38'	+46.0
15+00	14+99.44	96.3✓	0.97	50°51'	+59.0
16+00	15+99.40	77.6✓	1.10	41°25'	+15.0
17+00	16+99.36	77.1✓	0.97	52°16'	+40.0
17+98.39	17+97.71	69.1	1.60	51°02'	+5.0
19+00	18+99.28	62.6✓	0.76	53°26'	+35.0
20+00	19+99.25	76.0✓	0.95	32°45'	+8.0

Normal to back course

Dist to top of Bluff

108.9✓

6.0 L

6.0

16.0

17.0

33.0

5.0

10.0

40.0

50.0

25.0

12.0

55.0

69.0

23.0 High bluff

93.0 Low bluff

67.0 Low bluff

45.0 Low bf.

8.0 High bf

R 30.0 High bluff

L 38.0 Low bluff

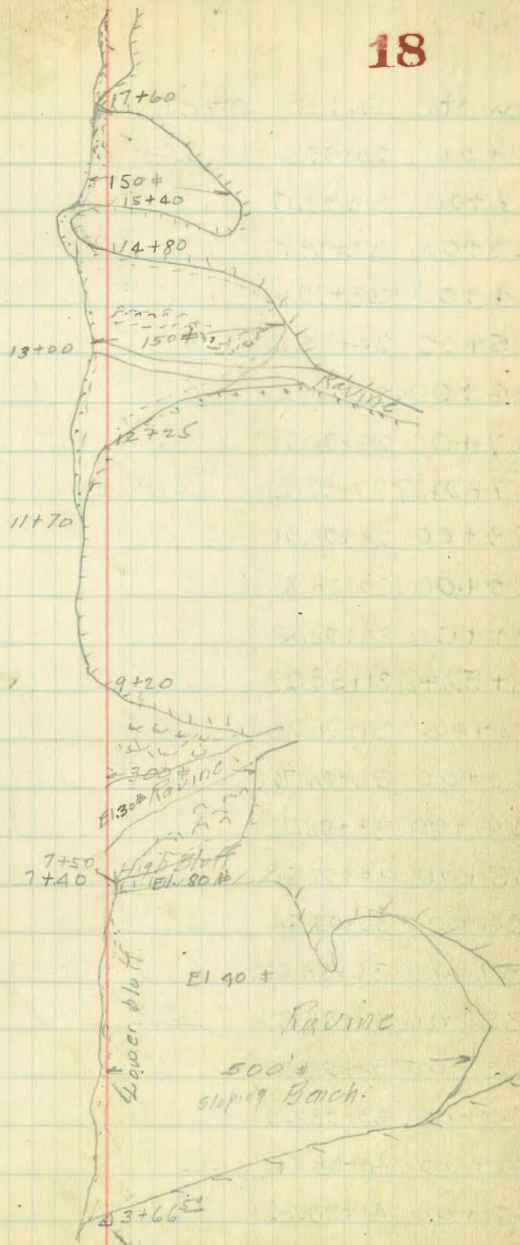
R 40.0 High bf.

L 65.0 Low bf.

83+66

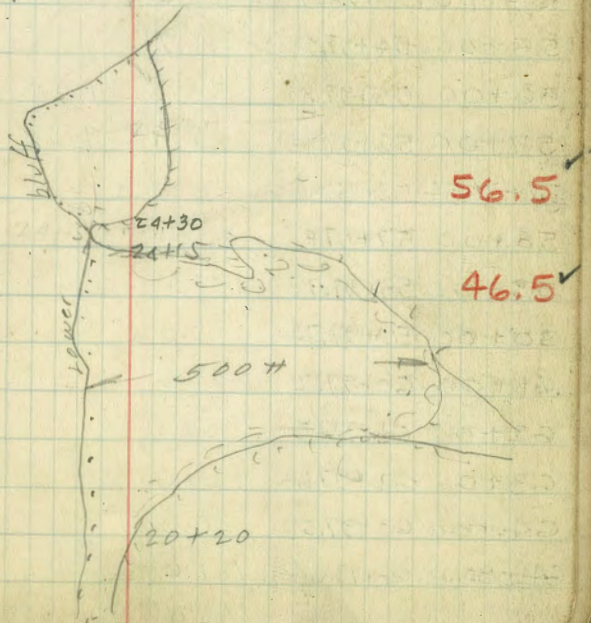
121.1✓

18



High bluff breaks back into Ravine
at 20+20

New Sta.	Old Sta.	Offset	Stadia	Vert. L	Additional Height	Dist to Foot of Bluff	
21+00	20+99.21	L 92.8	0.99	44°39'	+42.0	72.0 L	Low bluff.
22+00	21+99.17	127.4	0.98	30°33'	+35.0	85.0	Low bf. 108.5 ✓
23+00	22+99.13	123.1	0.82	42°39'	+78.0	83.0	" "
24+00	23+99.10	105.2	0.86	49°18'	+68.0	78.0	" "
25+00	24+99.06	87.4	0.76	45°59'	+50.0	86.0	" "
26+00	25+99.02	81.9	0.93	47°38'	+39.0	83.0	" "
27+00	26+98.98	136.2	0.55	45°00'	+108.0	30.0 R	High bf.
27+00	27+93.21	45.4	1.46	45°30'	-27.0	111.0 L	Low bf.
29+00	28+98.91	R 21.0				5 L	high bf.
30+00	29+98.87	L 80.3	1.59	38°50'	-17.0	50 R	" "
31+00	30+98.83					14 L	" "
31+59.43	31+58.23	181.4	1.65	34°17'	+68.0	71.0 L	Higher Bf.
32+00	31+98.80						
33+00	32+98.76	99.2	1.09	42°53'	+40.0	43.0 L	Lower bf.
34+00	33+98.72	74.4	1.06	49°26'	+29.0	34.0 L	" "
35+00	34+98.68	55.9	1.15	53°53'	+16.0	45.0 R	Higher bf.
36+00	35+98.64	44.9	0.99	49°11'	+2.0	19.0 L	Lower bf.
37+00	36+98.61	45.7	1.13	35°04'	-30.0	14.0 L	" "
38+00	37+98.57	38.2	1.43	54°46'	-10.0	60.0 R	higher bf.
39+00	38+98.53	31.7	1.22	55°00'	-9.0	8.0 L	Lower bf.
40+00	39+98.49	30.3	0.93	52°20'	-5.0	0.0	" "
41+00	40+98.46	32.0				2.0 R	" "
42+00	41+98.42	84.0	0.93	40°48'	+30.0	15.0 R	" "
43+00	42+98.38	70.4	1.01	45°27'	+20.0	35.0 L	" "
						28.0 L	" "

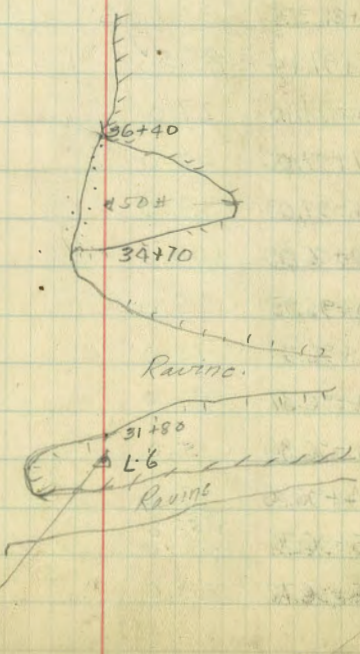


New Sta.	Old Sta.	Offset	Stadia	Vert L	Additional
44+00	43+98.34	L 45.8 ✓	1.30	53°54'	
45+00	44+98.31	77.0			
46+00	45+98.27	139.4 ✓	1.40	28°18'	+30.0
46+77.92	46+76.15	Δ			
47+00	46+98.23	65.9 ✓	1.15	47°08'	+12.0
48+00	47+98.19	60.3 ✓	1.30	51°21'	+9.0
49+00	48+98.15	75.0			
50+00	49+98.12	94.0			
51+00	50+98.08	81.2 ✓	0.96	54°42'	+48.5
52+00	51+98.04	54.2 ✓	1.48	29°25'	-59.0
53+00	52+98.00	36.1 ✓	1.26	48°00'	-21.0
54+00	53+97.77	36.3 ✓	1.10	50°24'	-9.0
55+00	54+97.93	14.9 ✓	1.15	52°09'	+29.0
56+00	55+97.89	30.6 ✓	1.10	47°09'	-21.0
57+00	56+97.85	28.4 ✓	1.00	47°27'	-18.0
57+76.54	57+74.36	Δ			
58+00	57+97.82	20.8			
	+50	112.8			
59+00	58+97.78	138.0			
60+00	59+97.74	115.0			
61+00	60+97.70	149.0			
	+50	73.0			
62+00	61+97.67	104.0			
63+00	62+97.63	120.0			
64+00	63+97.59	30.0			
64+80.08	64+77.64	114.0 Δ			
	Normal to back course				
	Mass L				
64+80.08		142.0			
64+90.08		290.0			
	Normal to course ahead				

Dist to
top of
bluff

0.0
55.0 L
40.0 L
14 L
27 L
65 L
75 L
57 L
36 L
28 L
21 L
19 L
0.0
20 L
140 L
115 L
149 L
73 L
104 L
120 L
2 L
114 L
142 L
290 L

62+85
+25
59
Devils Punch Bowl.



New Sta.	Old Sta.	Offset	stadia	Vert L	Additional Measurement	Dist to top of Bluff
65+00	64+97.55	L 285.0				L 285
66+00	65+97.51	298.0				298
67+00	66+97.48	180.0				180
68+00	67+97.44	100.0				100
69+00	68+97.40	49.0				39
70+00	69+97.36	90.0				80
71+00	70+97.33	70.0				50
72+00	71+97.29	110.0				110
73+00	72+97.25	97.0				0.0
74+00	73+97.21	106.9 ✓	1.40	29°33'		L 8
74+80 75+00	74+97.18	112.9 ✓	1.50	30°13'		
75+64.18	75+61.33					
76+00	75+97.14	87.5 ✓	1.39	35°16'	-6.0	0.0
77+00	76+97.10	27.0				27
78+00	77+97.06	30.0				13
79+00	78+97.03	15.0				8
80+00	79+96.99	100.0				60
81+00	80+96.95	125.0				62
82+00	81+96.91	70.0				30
83+00	82+96.87	40.0				2
84+00	83+96.84	15.0				L 0.0 R 45.0 3
85+00	84+96.80	15.0				L 5
86+00	85+96.76	148.0				115.0 148
87+00	86+96.72	188.0				188

85+80-80 L bluff.

New Sta.	Old Sta.	Offset	Stada	Vert L	Add. Measurement	Dist to next Blot
88+00	87+96.69	L 242.5 ✓	1.70	9°16'	+76.0	
89+00	88+96.65	118.0 ✓ Mean L	0.93	27°25'	+44.0	48 L
89+96.89	89+93.50	65.8 ✓ Δ	0.73	19°30'		70 L
91+00	90+96.57	41.0				31 L
92+00	91+96.54	83.0				73 L
93+00	92+96.50	112.3	0.99	16°15'	+30.0	Sanctus offset 122.2 ✓
94+00	93+96.46	70.0				70 L
95+00	94+96.42	39.0				39. L
96+00	95+96.39	197.0 ✓	1.83	5°40'	+15.0	Sanctus NAT
97+00	96+96.35	264.4 ✓ Mean L	1.28	18°14'	+148.0	"
97+56.98	97+53.30	309.0 ✓ Δ	1.73	12°21'	+143.0	"
98+00	97+96.31	136.6 ✓	0.50	25°30'	+95.0	"
99+00	98+96.27	72.0				22 L
100+00	99+96.23	75.0				7 R
101+00	100+96.20	80.0				80 L
102+00	101+96.16	155.0				38 L
103+00	102+96.12	38.0				120 L
104+00	103+96.08	32.0				32 L
105+00	104+96.05	0.0				50 R - 104+70
106+00	105+96.01	80.0				7 R
+55 107+00	106+95.97	105.3 ✓ R 35.0	1.12	15°09'		40 L 50 L
108+00	107+95.93	L 98.0				35 R
109+00	108+95.90	22.0				50 R
110+00	109+95.86	9.0				40 R 47 R

New Sta.	Old Sta.	Offset	Stadia	Vert h	Dist to Bluff
111+00	110+95.82	R 2.0			42 R
112+00	111+95.78	34.0			50 R
113+00	112+95.74	25.0			
114+00	113+95.71	0.0			
115+00	114+95.67	L 3.0			45 R
116+00	115+95.63	19.0			20 R
117+00	116+95.59	76.3	0.91	24°27'	5 L
117+06.3	117+01.98		Δ		
118+00	117+95.56	52.0			30 R
119+00	118+95.52	42.0			10 R
120+00	119+95.48	20.0			37 R
121+00	120+95.44	29.0			45 R
122+00	121+95.41	23.0			10 R
123+00	122+95.37	15.0			8 R
124+00	123+95.33	5.0			16 R
125+00	124+95.29	0.0			00
126+00	125+95.26	R 41.0			41 R
127+00	126+95.22	L 2.0			00
128+00	127+95.18	3.0			5 R
129+00	128+95.14	R 21.0			28 R
130+00	129+95.10	50.0			50 R
131+00	130+95.07	40.0			40 R
132+00	131+95.03	65.0			65 R
133+00	132+94.99	70.0			70 R

New Sta.	Old. Sta.	Offset	Stadia	Vert L
134+00	133+24.95	R 44.0		
135+00	134+24.72	L 15.0		
136+00	135+24.88	L 5.0		
137+00	136+24.84	L 100.0		
138+00	137+24.80	L 104.1 ✓	1.10	14°25'
139+00	138+24.77	L 136.2	1.42	13°21'
140+00	139+24.73	L 125.9 ✓	1.37	17°17'
141+00	140+24.69	L 128.0 ✓	1.38	16°24'
142+00	141+24.65	L 68.0		
143+00	142+24.62	L 38.0		
144+00	143+24.58	L 39.0		
145+00	144+24.54	L 23.0		
146+00	145+24.50	L 19.0		
146+43.52	146+38	Mean L L 6.0 Δ		
147+00	146+24.46	L 20.0		
148+00	147+24.43	L 35.0		
149+00	148+24.39	0.0		
150+00	149+24.35	R 74.0		
151+00	150+24.31	R 52.0		
152+00	151+24.28	0.0		
153+00	152+24.24	73.0		
153+85.80	153+80			Δ
154+00	153+24.20	L 108.0		
155+00	154+24.16	107.0		

Dist to

Bluff

90 R

100 R

45 R

85 R

150 R

0

135.4 ✓

0

0

0

40 R

42 R

56 R

69 R

75 R

45 R

147+50 end bluff at ocean Beach Plunge.

New Sta.	Old Sta.	Offset
156+00	155+94.13	L 112.0
157+00	156+94.09	108.0
158+00	157+94.05	108.0
159+00	158+94.01	98.0
160+00	159+93.98	88.0
161+00	160+93.94	85.0
162+00	161+93.90	78.0
163+00	162+93.86	75.0
164+00	163+93.82	63.0
165+00	164+93.79	45.0
166+00	165+93.75	30.0
167+00	166+93.71	15.0
168+00	167+93.67	0.0
169+00	168+93.64	R 15.0
169+27.95	169+21.57	Δ
170+00	169+93.60	L 20.0
171+00	170+93.56	72.0
172+00	171+93.52	122.0
173+00	172+93.49	160.0
174+00	173+93.45	185.0
175+00	174+93.41	196.0
176+00	175+93.37	195.0
177+00	176+93.33	185.0
178+00	177+93.30	164.0

New Sta	Old Sta.	Offset
179+00	178+93.26	L 133.0 <i>Normal to course ahead</i>
179+47.25	179+40.49	103.0 Δ
180+00	179+93.22	107.0
181+00	180+93.18	117.0
182+00	181+93.15	150.0
183+00	182+93.11	172.0
184+00	183+93.07	222.0
185+00	184+93.03	259.0
186+00	185+93.00	271.0
187+00	186+92.96	245.0
188+00	187+92.92	90.0
189+00	188+92.88	68.0
190+00	189+92.85	50.0
191+00	190+92.81	65.0
191+50.53	191+43.32	Δ
192+00	191+92.77	
193+00	192+92.73	
194+00	193+92.69	
195+00	194+92.66	
196+00	195+92.62	
197+00	196+92.58	
198+00	197+92.54	
199+00	198+92.51	
200+00	199+92.47	

New Sta.	Old Sta.	Offset
201+00	200+92.43	
202+00	201+92.39	
203+00	202+92.36	
204+00	203+92.32	
205+00	204+92.28	
206+00	205+92.24	
206+18.75	206+10.99	△
207+00	206+92.21	R 7.0
208+00	207+92.17	R 23.0
209+00	208+92.13	L 58.0
210+00	209+92.09	230.0
211+00	210+92.05	286.0
212+00	211+92.02	404.0
213+00	212+91.98	393.0
214+00	213+91.94	328.0
215+00	214+91.90	245.0
216+00	215+91.87	174.0
216+70		0.0
217+00	216+91.83	
217+27.89	217+12.81	△
218+00	217+91.89	R 33.0
218+65		0.0
219+00	218+91.85	L 17.0
220+00	219+91.82	64.0
221+00	220+91.78	68.0
222+00	221+91.74	49.0

* add 0.10 to each computed
station from here

New Sta	Old Sta.	Offset
223+00	222+91.70	33.0
224+00	223+91.67	42.0
225+00	224+91.63	70.0
226+00	225+91.59	104.0
227+00	226+91.55	130.0
228+00	227+91.51	135.0
229+00	228+91.48	122.0
229+30.39	229+21.86	105.0 Δ
230+00	229+91.44	115.0
231+00	230+91.40	119.0
232+00	231+91.36	130.0
233+00	232+91.33	144.0
234+00	233+91.29	153.0
235+00	234+91.25	160.0
236+00	235+91.21	167.0
237+00	236+91.18	171.0
238+00	237+91.14	181.0
239+00	238+91.10	200.0
240+00	239+91.06	198.0
241+00	240+91.02	195.0
242+00	241+90.99	193.0
243+00	242+90.95	199.0
244+00	243+90.91	214.0
245+00	244+90.87	219.0

Normal to course ahead.

New Sta.	Old Sta.	Offset
246+00	245+90.84	221.0
247+00	246+90.80	215.0
248+00	247+90.76	214.0
249+00	248+90.72	209.0
250+00	249+90.67	209.0
251+00	250+90.65	206.0
252+00	251+90.61	205.0
253+00	252+90.57	202.0
254+00	253+90.54	200.0
255+00	254+90.50	199.0
256+00	255+90.46	198.0
257+00	256+90.42	196.0
258+00	257+90.38	195.0
258+09.61	258+00	△
259+00	258+90.35	190.0
260+00	259+90.31	182.0
261+00	260+90.27	176.0
262+00	261+90.23	174.0
263+00	262+90.20	171.0
264+00	263+90.16	162.0
265+00	264+90.12	153.0
265+39.48	265+29.60	△
266+00	265+90.08	143.0
267+00	266+90.05	141.0

New Sta	Old Sta	Offset
290+00	289+89.18	L 109.0
291+00	290+89.14	108.0
292+00	291+89.10	108.0
293+00	292+89.07	106.0
294+00	293+89.03	105.0
295+00	294+88.99	105.0
296+00	295+88.95	107.0
296+44.44	296+33.39	△
297+00	296+88.92	106.0
298+00	297+88.88	108.0
299+00	298+88.84	105.0
300+00	299+88.80	105.0
301+00	300+88.77	105.0
302+00	301+88.73	104.0
303+00	302+88.69	109.0
304+00	303+88.65	115.0
305+00	304+88.61	124.0
306+00	305+88.58	126.0
307+00	306+88.54	127.0
308+00	307+88.50	127.0
309+00	308+88.46	127.0
309+11.53	309+00	128.0 △
310+00	309+88.43	128
311+00	310+88.39	128.0

New Sta	Old Sta.	Offset
312+00	311+88.35	L 128.0
313+00	312+88.31	130.0
314+00	313+88.28	132.0
315+00	314+88.24	130.0
316+00	315+88.20	125.0
317+00	316+88.16	124.0
318+00	317+88.13	129.0
318+11.87	318+00	Δ
319+00	318+88.09	128.0
320+00	319+88.05	128.0
321+00	320+88.01	129.0
322+00	321+87.97	132.0
323+00	322+87.94	133.0
324+00	323+87.90	130.0
325+00	324+87.86	131.0
326+00	325+87.82	135.0
327+00	326+87.79	139.0
328+00	327+87.75	134.0
329+00	328+87.71	133.0
330+00	329+87.67	138.0
331+00	330+87.64	142.0
332+00	331+87.60	141.0
333+00	332+87.56	145.0
334+00	333+87.52	146.0

New Sta.	Old Sta	offset
335+00	334+87.49	L 150.0
336+00	335+87.45	152.0
337+00	336+87.41	153.0
338+00	337+87.37	160.0
339+00	338+87.33	163.0
340+00	339+87.30	160.0
341+00	340+87.26	161.0
341+12.74	341+00	Δ
342+00	341+87.22	151.0
343+00	342+87.18	139.0
344+00	343+87.15	129.0
345+00	344+87.11	116.0
346+00	345+87.07	106.0
347+00	346+87.03	95.0
348+00	347+87.00	83.0
349+00	348+86.96	72.0
350+00	349+86.92	64.0
351+00	350+86.88	54.0
352+00	351+86.85	44.0
353+00	352+86.81	36.0
354+00	353+86.77	44.0
355+00	354+86.73	43.0
356+00	355+86.69	39.0
357+00	356+86.66	35.0

Dist. to Bluff

12.75
12.62

16

33

120 R

Beginning of Bluff 5' high

New Sta	Old Sta.	Offset
358+00	357+86.62	L 34.0
359+00	358+86.58	35.0
360+00	359+86.54	35.0
361+00	360+86.51	36.0
362+00	361+86.47	28.0
363+00	362+86.43	30.0
364+00	363+86.39	35.0
365+00	364+86.36	38.0
366+00	365+86.32	36.0
367+00	366+86.28	36.0
368+00	367+86.24	37.0
369+00	368+86.20	41.0
370+00	369+86.17	40.0
371+00	370+86.13	44.0
372+00	371+86.09	49.0
373+00	372+86.05	50.0
374+00	373+86.02	50.0
375+00	374+85.98	56.0
376+00	375+85.94	62.0
377+00	376+85.90	65.0
378+00	377+85.87	70.0
379+00	378+85.83	76.0
380+00	379+85.79	83.0
381+00	380+85.75	93.0

Dist.
to
Bluff.

132 R 8' high.

130 R 13' high.

134 R 15' high.

110 R 20' high.

110 R 25' high.

95 R 30' high.

84 R 30' high.

57 R 25' high.

1-1 steps East

" " "

" " "

New Sta.	Old Sta.	Offset
382+00	381+85.72	L 102.0
383+00	382+85.68	113.0
384+00	383+85.64	124.0
384+65.44	384+51.06	Δ
385+00	384+85.60	126.0
386+00	385+85.56	114.0
387+00	386+85.53	100.0
388+00	387+85.49	92.0
389+00	388+85.45	80.0
390+00	389+85.41	75.0
391+00	390+85.38	70.0
392+00	391+85.34	66.0
393+00	392+85.30	61.0
394+00	393+85.26	58.0
395+00	394+85.23	61.0
396+00	395+85.19	71.0
397+00	396+85.15	80.0
398+00	397+85.11	83.0
399+00	398+85.08	83.0
400+00	399+85.04	77.0
401+00	400+85.00	66.0
402+00	401+84.96	52.0
403+00	402+84.92	38.0
404+00	403+84.89	25.0

Dist to Bluff.

47' R	20' high	1-1 Slope East
20' R	15' high	" " "
20 R	20' high	" " "
30 R	" "	" " "
35 R	" "	" " "
55 R	" "	" " "
65 R	" "	" " "
55 R	15' high	" " "
55 R	30' high	1/2-1 slope East
30 R	" "	" " "
20 R	" "	" " "
15 R	35' high	" " "
7 R	35' high	1-1 Slope East
20 R	" "	" " "
30 R	" "	" " "
5 R	" "	" " "
15 R	40' high	Vertical
25 R	" "	" " "

New Sta.	Old Sta	Offset	stadia	Vert L	Additional Measurement	Dist to Bluff	
405+00	404+84.85	L 20.0				25 R	40' high vertical
406+00	405+84.81	17.0				38 R	" " "
407+00	406+84.77	15.0				35 R	" " "
408+00	407+84.74	19.0				10 R	" " "
409+00	408+84.70	30.0					
410+00	409+84.66	55.2 ✓	1.34	50°22'		0	" " "
411+00	410+84.62	83.5 ✓	1.27	39°28'	+7.0	10 L	" " "
412+00	411+84.59	122.7 ✓	1.32	33°28'	+30.0	35 L	" " "
413+00	412+84.55						
413+15.45	413+00		Δ				
414+00	413+84.51	141.4 ✓	1.80	21°13'	-16.0	20 L	" 1-1 slope west
415+00	414+84.47	72.4 ✓	1.17	30°41'	-10.0	10 L	30 high Vertical
416+00	415+84.44	54.2 ✓	0.83	36°39'		5 L	25' " 1/2-1 slope swly
417+00	416+84.40	71.8 ✓	0.78	32°05'	+15.0	40 L	10' " Vertical
418+00	417+84.36	96.6 ✓	0.75	34°38'	+45.0	50 L	15' 1/2-1 slope swly
419+00	418+84.32	108.7 ✓	0.85	29°10'	+43.0	65 L	15' high Vertical
420+00	419+84.28	108.4 ✓	0.78	39°20'	+61.0	65 L	20' high "
421+00	420+84.25	83.1 ✓	0.71	41°04'	+42.0	48 L	" " "
421+70.28	421+54.54	61.5 ✓	0.80	39°24'	+13.0	17 L	" " "

Normal to back
Course

False Point

Walker - Recording
8155 - Transit
940 am

SOUNDINGS
LASOLLA COVE

3-2-31

READINGS From Station "A"

Shot #	Δ A	"B"	Sounding	Time
1	128° 22'			940 am
2	119° 30'			
3	117° 00'			
4	114° 00'			
5	106° 30'			
6	100° 20'			
7	98° 00'			
8	95° 50'			
9	84° 10'			
10	85° 30'			
11	86° 50'			
12	89° 10'			
13	91° 20'			
14	93° 45'			
15	95° 00'			
16	95° 30'			
17	98° 45'			
18	102° 30'			
19	105° 40'			
20	69° 30'			
21	70° 00'			
22	71° 15'			
23	72° 30'			
24	73° 30'			

toward station "B" Counter clockwise

37

Shot # Δ

25	73° 00'
26	73° 00'
27	73° 00'
28	73° 00'
29	61° 45'
30	60° 30'
31	59° 30'
32	59° 00'
33	58° 00'
34	56° 30'
35	53° 50'
36	50° 10'
37	44° 30'
38	37° 50'
39	35° 40'
40	19° 45'
41	32° 20'
42	39° 20'
43	43° 50'
44	46° 30'
45	49° 10'
46	50° 30'
47	52° 15'
48	53° 30'
49	54° 40'

Cont. on p-38

LAJolla Cove
Soundings Cont.
from P-37

Shot #	Δ
50	55° 10'
51	55° 50'
52	48° 40'
53	46° 50'
54	45° 20'
55	43° 45'
56	41° 00'
57	38° 15'
58	33° 50'
59	29° 50'
60	25° 50'
61	20° 40'
62	16° 30'
63	11° 45'
64	4° 15'
65	10° 10'
66	16° 00'
67	21° 45'
68	26° 20'
69	30° 20'
70	33° 00'
71	35° 00'
72	37° 00'
73	38° 40'
74	40° 15'

Shot #	Δ
75	41° 45'
76	42° 40'
77	36° 10'
78	34° 40'
79	33° 15'
80	31° 40'
81	30° 00'
82	27° 45'
83	25° 30'
84	23° 40'
85	21° 10'
86	18° 10'
87	15° 45'
88	12° 30'
89	10° 00'
90	7° 40'
91	6° 00'
92	4° 30'

Cont. on P-39

38

Time
10:55 AM.

READINGS From station "C" toward "B" clockwise

Shot #	Δ	time	Shot #	Δ
93	359°40'	12:15 P.M.	117	17°45'
94	1°30'		118	12°45'
95	2°45'		119	8°45'
96	4°15'		120	4°30'
97	6°10'		121	1°30'
98	7°30'		122	359°00'
99	9°40'		123	357°10'
100	11°45'		124	355°40'
101	14°50'		125	354°30'
102	18°10'		126	355°00'
103	21°00'		127	356°15'
104	28°05'		128	357°45'
105	32°15'		129	359°45'
106	36°30'		130	1°50'
107	40°15'		131	4°40'
108	43°50'		132	6°45'
109	48°45'		133	8°00'
110	53°50'		134	11°10'
111	53°50'		135	14°50'
112	47°30'		136	12°30'
113	40°00'		137	23°40'
114	32°50'		138	28°40'
115	27°50'		139	31°40'
116	23°10'		140	38°30'

Cont. on P-40

LASOLLA COVE

Soundings Cont from p. 39
 READINGS FROM station "C"

Shot #	A
141	46° 40'
142	39° 30'
143	21° 30'
144	17° 45'
145	12° 00'
146	8° 15'
147	4° 45'
148	1° 40'
149	358° 30'
150	356° 30'
151	353° 30'
152	352° 20'
153	351° 30'
154	

Time
 1:00 P.M.

4-1-31

Additional Soundings

L. A. JOHNSON

SOUNDINGS

READINGS FROM STATION "A"
 TO STATION "B" ANGLES ARE TO LEFT STATION "B"
 TIME 10.20 a.m.

41

Shot #	A
1	161° 19'
2	163° 30'
3	160° 40'
4	158° 00'
5	154° 25'
6	151° 08'
7	148° 20'
8	145° 45'
9	141° 25'
10	136° 15'
11	133° 35'
12	133° 00'
13	133° 30'
14	133° 40'
15	133° 30'
16	133° 10'
17	136° 30'
18	139° 00'
19	140° 40'
20	141° 30'
21	127° 30'
22	125° 05'
23	123° 07'
24	121° 20'

Cont- p-42

SHOT NO. Δ

25	118° 40'
26	116° 10'
27	116° 00'
28	115° 20'
29	116° 20'
30	115° 40'
31	107° 00'
32	106° 40'
33	106° 20'
34	106° 20'
35	105° 55'
36	110° 23'
37	112° 58'
38	115° 15'
39	120° 20'
40	122° 40'
41	128° 35'
42	112° 05'
43	108° 40'
44	104° 55'
45	101° 50'
46	100° 00'
47	98° 15'
48	98° 10'
49	97° 45'

time
10.55 AM
11.04 AM

42

SHOT NO. Δ

50	97° 00'
51	90° 20'
52	89° 30'
53	88° 10'
54	89° 30'
55	89° 20'
56	91° 00'
57	90° 45'
58	91° 10'
59	92° 45'
60	93° 30'
61	87° 40'
62	84° 25'
63	80° 55'
64	78° 30'
65	76° 55'
66	74° 25'
67	69° 22'
68	68° 35'
69	67° 30'
70	66° 20'
71	65° 50'
72	67° 45'
73	68° 30'
74	62° 25'

time
11.26 AM
12.42 PM

SHOT NO. Δ

75	60° 45'
76	61° 45'
77	62° 45'
78	63° 00'
79	63° 45'
80	63° 25'
81	64° 10'
82	64° 20'
83	62° 05'
84	61° 30'
85	60° 35'
86	59° 25'
87	58° 30'
88	58° 20'
89	57° 45'
90	56° 30'
91	51° 25'
92	52° 30'
93	54° 30'
94	55° 30'
95	56° 05'
96	57° 40'
97	53° 10'
98	52° 30'
99	51° 50'

43

Shot No. Δ

100	51° 00'
101	51° 00'
102	49° 55'
103	48° 15'
104	45° 45'
105	39° 05'
106	40° 35'
107	42° 10'
108	42° 55'
109	44° 25'
110	45° 20'
111	46° 45'
112	47° 55'
113	45° 45'
114	46° 50'
115	46° 30'
116	45° 45'
117	45° 10'
118	44° 40'
119	43° 30'
120	42° 30'
121	41° 15'
122	40° 15'
123	39° 20'
124	38° 10'

SHOT. NO. Δ

125 36° 40'

126 35° 20'

127

time
1.58 PM

Sounding Pacific Ocean
Foot of Del Monte Ave.
Ocean Beach

Transit Pt. B For sight on A

Shot #	L Pt	Time 10-57 AM
1	83° 18' ✓	
2	86° 40' ✓	
3	88° 24' ✓	
4	86° 53' ✓	
5	88° 03' ✓	
6	87° 15' ✓	
7	89° 04' ✓	
8	90° 06' ✓	
9	89° 45' ✓	

Ranged
Going East

1	84° 18' ✓
2	83° 46' ✓
3	83° 18' ✓
4	83° 17' ✓
5	82° 58' ✓
6	82° 37' ✓
7	81° 38' ✓
8	80° 46' ✓
9	78° 35' ✓

Shot #	L Pt
1	60° 54' ✓
2	63° 17' ✓
3	65° 07' ✓
4	65° 55' ✓
5	67° 34' ✓
6	68° 14' ✓
7	69° 07' ✓
8	77° 16' ✓
9	78° 45' ✓

Ranged
Going East

1	75° 20' ✓
2	74° 06' ✓
3	72° 35' ✓
4	71° 59' ✓
5	70° 44' ✓
6	68° 55' ✓
7	67° 16' ✓
8	65° 31' ✓
9	63° 40' ✓
10	61° 40' ✓

Sept 20-23
Moore Tra 46
Sinner's Recording

Weather Cloudy
Brookers High

Note: Impetible
to get clear to
Shore, Brookers
Very High

Boat

Spade Burns Police Dept

Holbrook Recorder
Harbor

Good poster Sander
Harbor
Boat

Note: Between Harropson
& Del Monte Rock Bottom

Del Monte & Santa Cruz
Sand & Rock Bottom

11:33 AM

Spot 4

4 FT

1 57° 08' ✓

2 56° 38' ✓

3 57° 37' ✓

4 59° 31' ✓

5 60° 10' ✓

6 60° 35' ✓

7 62° 06' ✓

8 63° 30' ✓

9 64° 17' ✓

10 65° 20' ✓

Range 5
Going East

1 62° 20' ✓

2 60° 57' ✓

3 59° 59' ✓

4 58° 54' ✓

5 57° 58' ✓

6 56° 21' ✓

7 54° 35' ✓

8 52° 37' ✓

9 50° 41' ✓

10 48° 16' ✓

11 45° 40' ✓

12 43° 05' ✓

13 40° 27' ✓

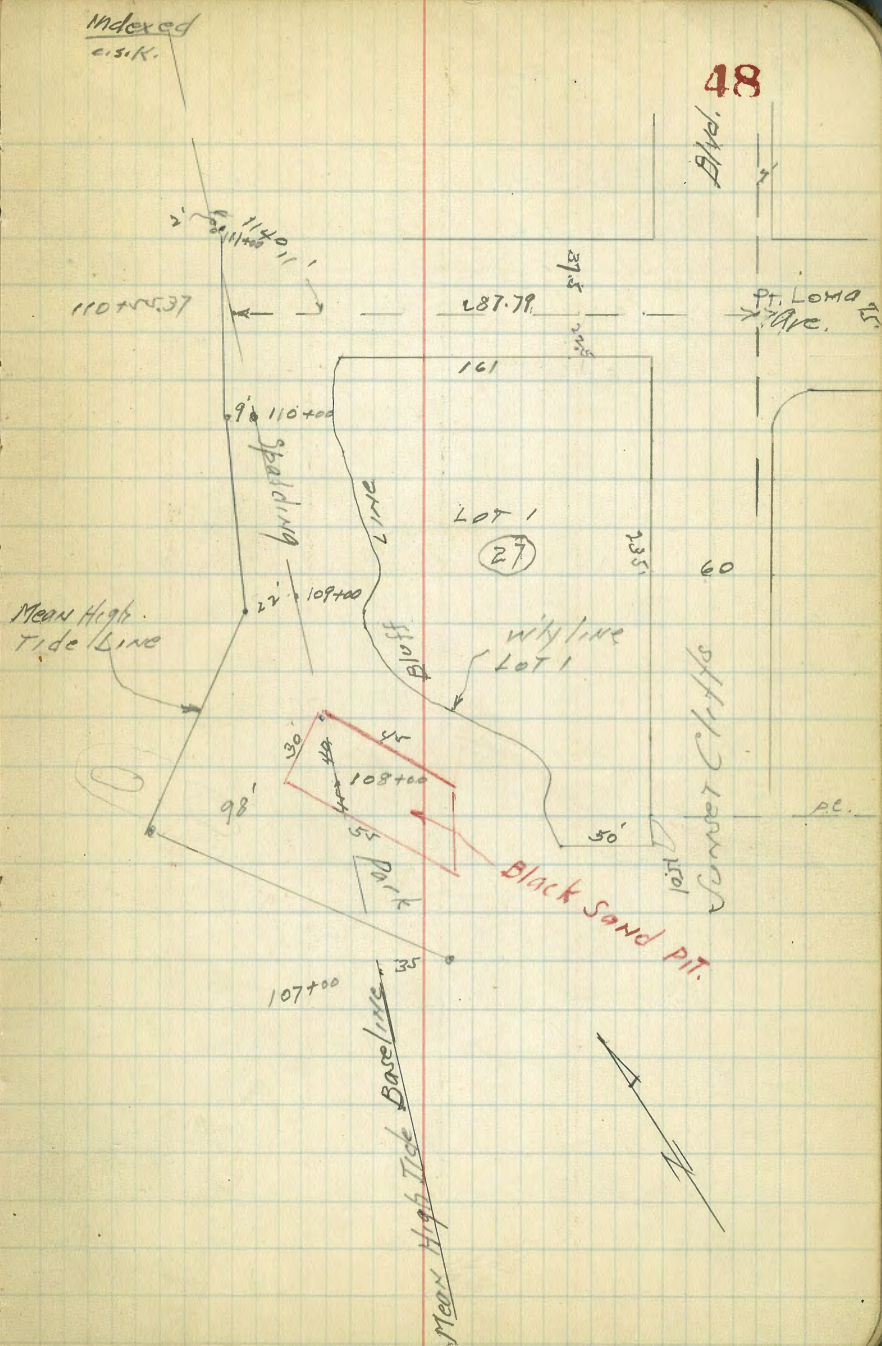
Range 6
Going East

Time 12-07 PM

Moore
Sisson
Northern
4-19-24

Survey of Black Sand Pit.
lying wily of wily line of Lot 1 Blk 27
Sunset Cliffs and being within
Spalding Park.

Mean High Tide line and
Bluff line flagged out



10.95

0+17

20 S	Sand Rock	101	0.9
19 S	"	62	4.8
10 S	"	6.7	4.3
7 S	"	5.9	5.3
5	"	5.1	5.9
10 N	"	5.2	5.8
20 N	"	5.9	5.1

0+15

20 N	02 Sand Rock	5.3	5.7
10 N	"	5.1	5.9
5	"	4.8	5.2
3 S	"	4.7	5.2
8 S	"	5.9	4.1
10 S	"	9.4	1.6
20 S	"	9.8	1.2

0+20

20 S	00 Sand Rock	10.6	0.4
10 S	"	11.4	-0.4
7 S	"	9.8	1.2
5	"	10.3	0.7
7 N	"	10.6	0.4
8 N	"	6.9	4.1
10 N	"	7.0	4.0
20 N	"	7.8	3.2

10.95

50

0+23

20 N	02 Sand Rock	11.2	-0.2
10 N	"	11.2	-0.2
5	"	10.0	1.0
8 S	"	11.4	-0.4
10 S	"	16.4	-5.4
20 S	"	18.2	-7.2

0+27

20 S		18.3	-7.3
4 S		16.0	-5.0
3 S		12.0	-1.0
5	02 Sand Rock	11.2	-0.2
4 N		12.2	-1.2
5 N		16.2	-5.2
10 N		17.4	-6.4
20 N		18.3	-7.3

0+30

5		19.0	-8.0
BM	7.05	13.56	6.51
BM ^{50'}		2.08	13.48
BM	1.44	7.95	6.51
TP	12.56	9.12	11.39
BM		2.63	6.49

Conc.
Bottom Stone
B.P. S.E. End
Conc. Wall
60' N of Stone

H.F. BP
New part
Abbott
6.50

B/M	6.13	12.63		6.50
TP	12.21	23.79	1.05	11.58
TP	2.59	29.33	3.05	20.74
TP	13.02	41.61	0.74	28.59
TP	5.75	46.84	0.52	41.09

Floor of Top Landing 0.00 46.84 ✓

Floor of Middle Landing 12.65 34.19 ✓

N.E.B.P.
Nump of 2
#6304

8.0
11.5

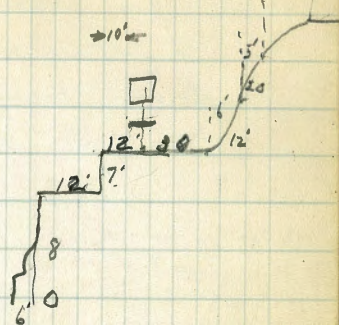
from Bottom

10 steps

33 "

18

Top landing



CORB PLUG

BACON - N.W. - 23.995

2.

Levels of Auto parking area at scene of
Auto accident, Sunset Cliffs

cont'd v2

1+00 E dirt embankment

0+90

0+77

0+50

0+25

0+00

0-24.5 w/ledge parking

SEBP

8.20

33.60

25.40

rdair ↓
Sunset Cliffs Blvd

City Datum

LT. only from
E or Caroline

2

RT

53

$\frac{3.7}{20}$

$\frac{3.7}{10}$

$\frac{3.7}{20}$

$\frac{3.7}{10}$

$\frac{3.7}{20}$

$\frac{3.7}{20}$

$\frac{4.4}{20}$

$\frac{4.4}{20}$

$\frac{4.4}{20}$

$\frac{4.3}{20}$

$\frac{4.3}{20}$

$\frac{4.3}{20}$

$\frac{4.1}{20}$

$\frac{4.1}{20}$

$\frac{4.1}{20}$

$\frac{4.1}{20}$

$\frac{4.1}{20}$

$\frac{4.1}{20}$

$\frac{4.2}{20}$

$\frac{4.2}{20}$

$\frac{4.2}{20}$

$\frac{4.7}{20}$

$\frac{4.7}{20}$

$\frac{4.7}{20}$

33.60

0+99 to shore under shot cliff at sand beach in Cove

1+12 = water's edge

1+06

1+05

$$\frac{334}{16}$$

336

$$\frac{337}{10}$$

$$\frac{177}{24}$$

$$\frac{179}{15}$$

$$\frac{357}{14}$$

356

$$\frac{356}{12}$$

$$\frac{150}{13}$$

$$\frac{152}{20}$$

$$\frac{12.5}{20}$$

$$\frac{11.5}{13}$$

$$\frac{34.8}{12}$$

348

$$\frac{34.7}{6}$$

$$\frac{14.7}{8}$$

$$\frac{13.5}{20}$$

$$\frac{11.4}{20}$$

$$\frac{11.2}{13}$$

$$\frac{12.0}{11}$$

12.8

$$\frac{13.0}{6}$$

$$\frac{13.3}{8}$$

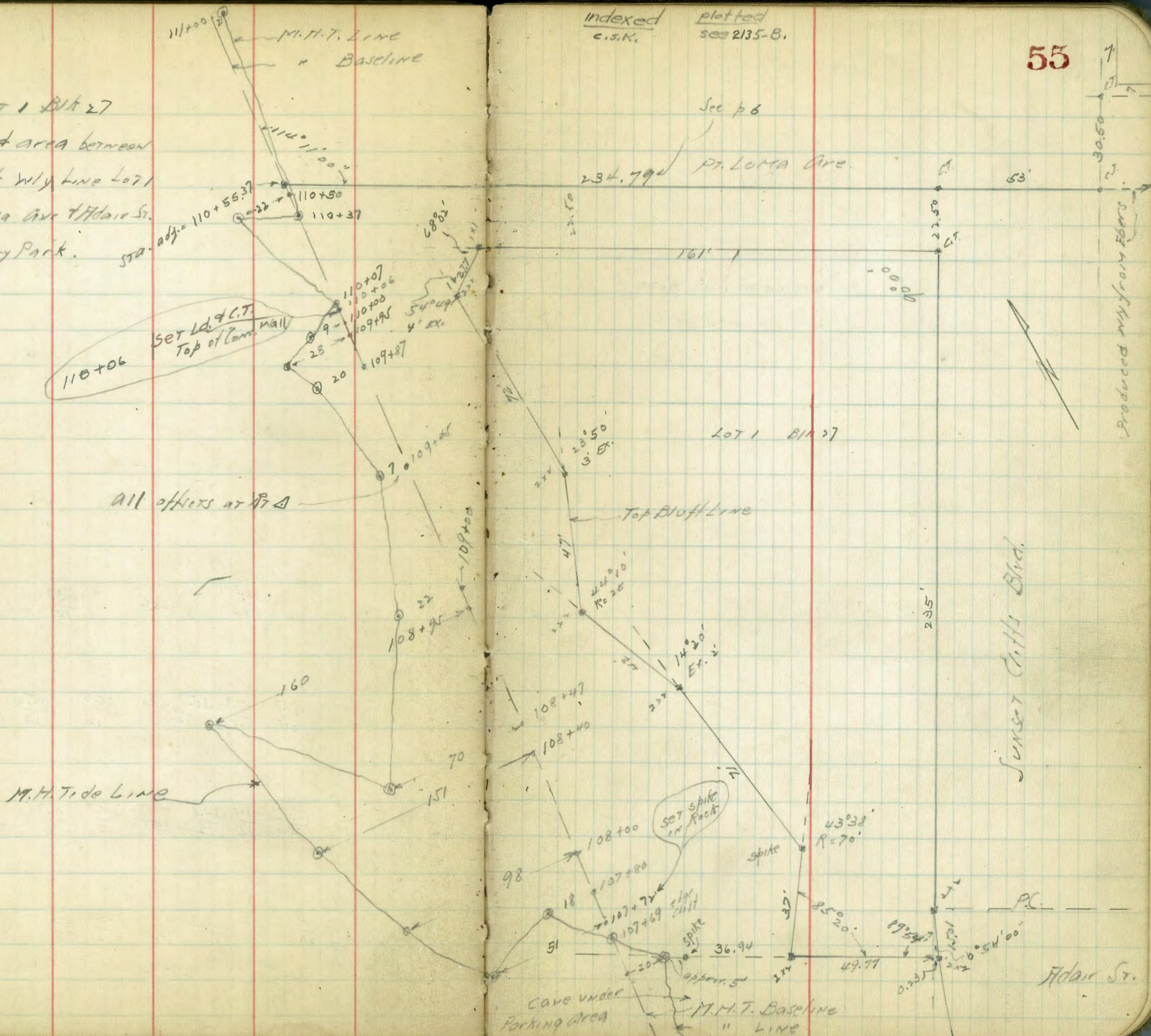
$$\frac{13.7}{20}$$

$$\frac{13.1}{30}$$

$$\frac{3360}{10}$$

Survey of Lot 1 Blk 27
 Sunset Cliffs & area between
 M.H.T. Line & Wly Line Lot 1
 between Pt. Loma Ave & Hdair St.
 for proposed City Park.

Moore
 Sisson
 Northern
 3-19-36
 Windy



by measurements

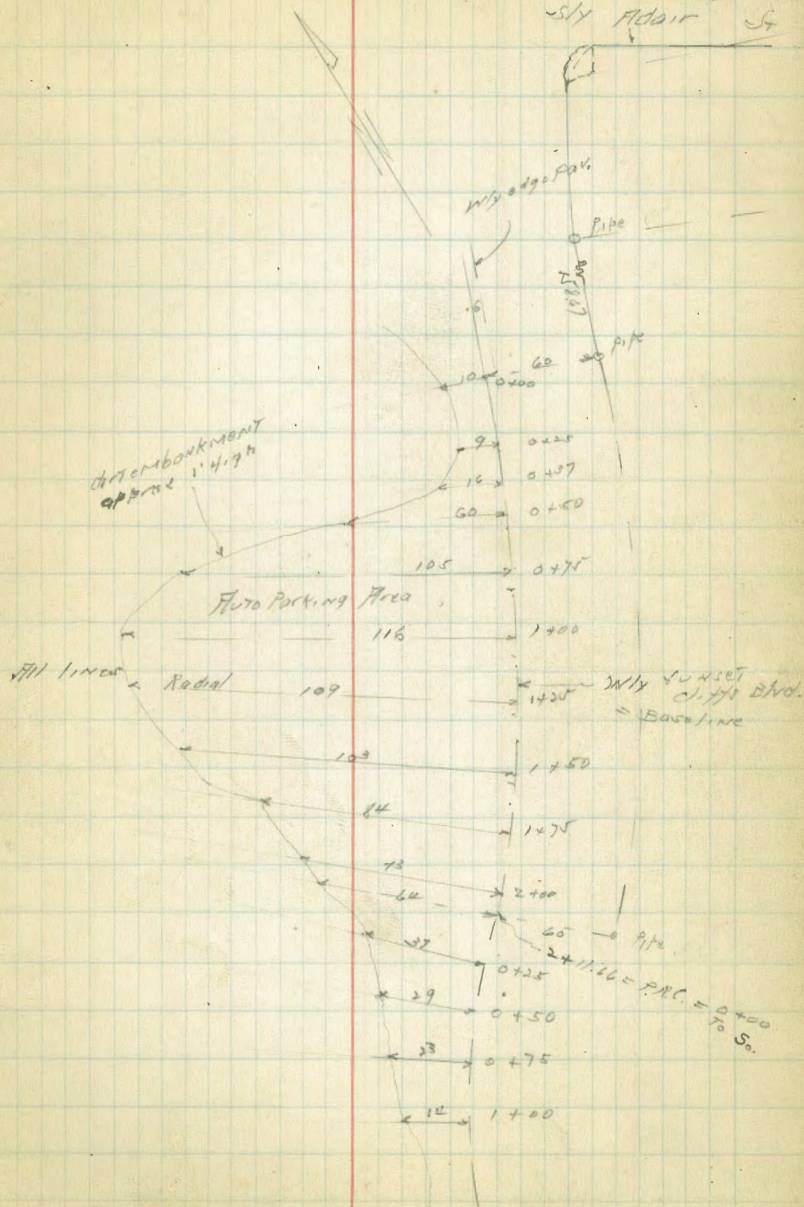
Sketch showing cliffs edge from
Wly Line of Sunset Cliffs Blvd.

offsets taken on Radial Lines. Nov 7-12-36

Note! Cliffs edge = center of dirt embankment
built by the late G.E. Shaulding to prevent
autos from driving over cliffs.

56

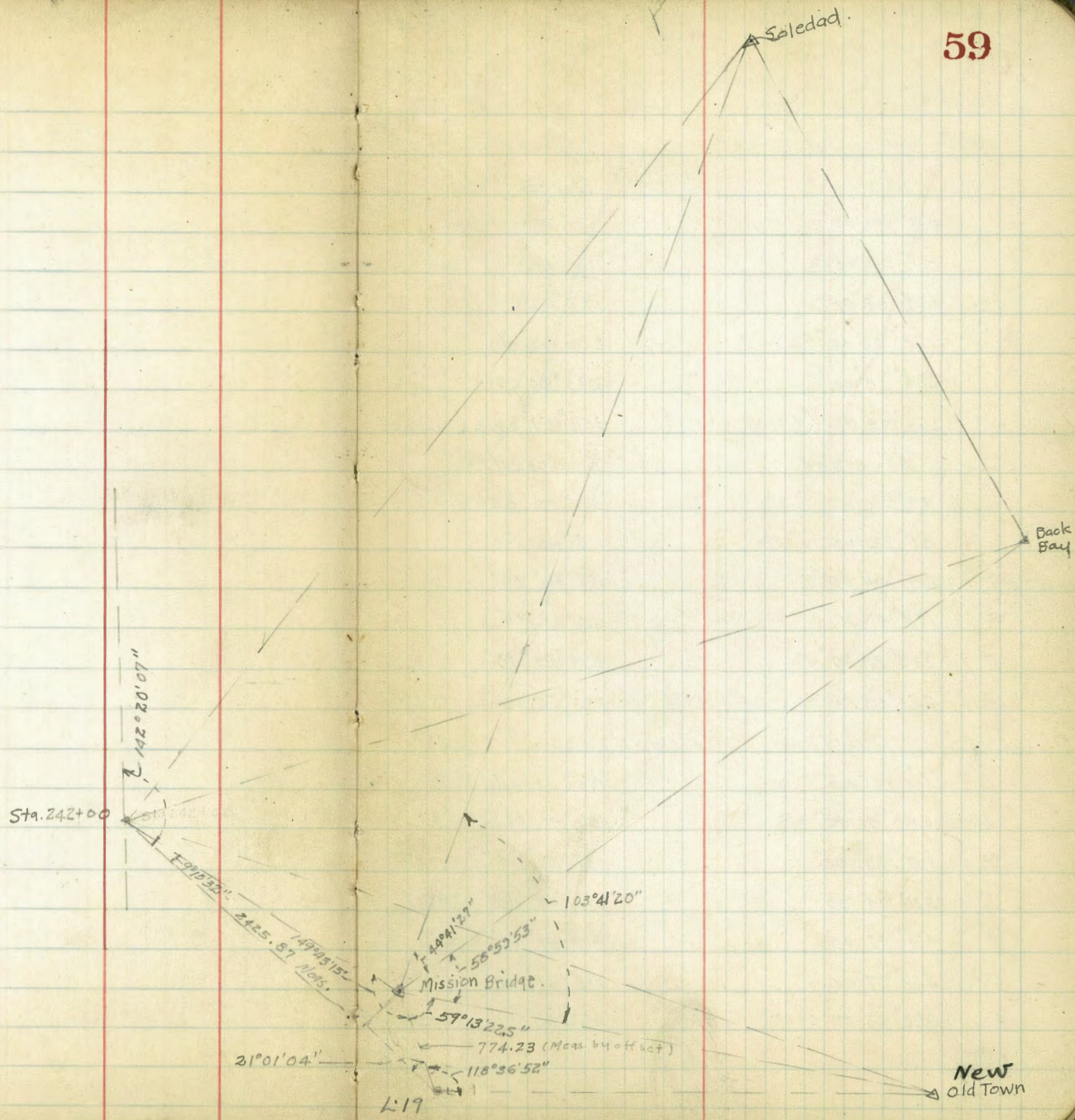
Sly Adair St



56

57

58



Angles to G.G.s. Net from stations
on Baseline of M.H.T. line survey.

Inst. at N. Mission Bridge Sta.

Soledad - Back-bay - Back Bay - Old Town.

Direct.

1	44° 41' 30"	59° 00' 00"
2	89° 23' 00"	118° 00' 00"
3	134° 04' 30"	177° 00' 00"
4	178° 46' 30"	236° 00' 00"
5	223° 28' 00"	295° 00' 00"
6	268° 08' 45" ÷ 6 = 44° 41' 27"	353° 59' 20" ÷ 6 = 58° 59' 53"

Reversed

1	44° 41' 00"	59° 00' 00"
2	89° 22' 00"	118° 00' 00"
3	134° 04' 00"	177° 00' 00"
4	178° 45' 30"	236° 00' 00"
5	223° 27' 30"	294° 59' 40"
6	268° 08' 45" ÷ 6 = 44° 41' 27"	353° 59' 20" ÷ 6 = 58° 59' 53"

Old Town - Soledad.

Direct.

1	103° 41' 40"	103° 41' 00"
2	207° 23' 00"	207° 22' 00"
3	311° 04' 00"	311° 04' 00"
4	414° 45' 00"	414° 45' 00"
5	518° 27' 00"	518° 27' 00"
6	622° 08' 00" ÷ 6 = 103° 41' 20"	622° 08' 00" ÷ 6 = 103° 41' 20"

Reversed.

1	103° 41' 00"
2	207° 22' 00"
3	311° 04' 00"
4	414° 45' 00"
5	518° 27' 00"
6	622° 08' 00" ÷ 6 = 103° 41' 20"

9/8/30 - London.

Inst. at N. Mission Bridge.

Inst. at N. Miss. ^{Adoc.}
60

Old Town - L. #19

Direct.

1	59° 14' 00"
2	118° 28' 00"
3	177° 40' 30"
4	236° 49' 30"

Reversed.

1	59° 13' 30"
2	118° 28' 00"
3	177° 40' 00" = 177
4	236° 53' 00" = 59° 13' 15"

Direct.

1	59° 13' 30"
2	118° 27' 00"
3	177° 40' 30"
4	236° 54' 00" ÷ 59° 13' 30"

L. 19 - 242+00

Direct

1	149° 43'
2	299° 27'
3	449° 10'
4	598° 53' $\frac{1}{149° 43' 15"}$

L. 19 - 242+00

Reversed.

1	149° 43'
2	299° 26'
3	449° 10'
4	598° 53' + 4 = 149° 43' 15"
Direct	149° 43' 15"

Inst. at L. #19

N. Mission Bay Bridge - 242+00

Direct.

1	21° 01'
2	42° 02'
3	63° 03' $\frac{1}{84-04-30}$
4	84° 04' 30" $\frac{1}{21-01-07\frac{1}{2}}$

Reversed.

1	21° 01'
2	42° 02'
3	63° 03'
4	84° 04' = 21° 01'

Mean = 21° 01' 04"

Inst at L # 19

L 18 - 292+00

1	149° 55' 30"
2	299° 50'
3	449° 45' 30"
4	599° 40' 30" 149° 55' 07.5"

Reversed

1	149° 55'
2	299° 50'
3	449° 45'
4	599° 40' 30" 149° 55' 07.5"

Inst at Sta 292+00

Miss Bridge Sta - L 19

1	9° 15'
2	18° 30' 30"
3	27° 46'
4	37° 01' 40" ÷ 4 = 9° 15' 25"

Reversed

1	9° 16'
2	18° 32'
3	27° 47'
4	37° 02' 40" ÷ 4 = 9° 15' 40"

Mean = 9° 15' 32"

Inst at Sta 292+00

L # 19 - Baseline Ahead

1	142° 20'
2	284° 40'
3	427° 00'
4	568° 20' ÷ 142° - 20'

Reversed

1	142° 20'
2	284° 40'
3	427° 00'
4	567° 21' ÷ 4 = 142° 20' 15"

Mean = 142° 20' 07.5"

Miss Br Sta - Base Ahead

1	133° 00'
2	266° 08'
3	399° 12'
4	532° 17' ÷ 4 = 133° 04' 15"

Reversed

1	133° 04'
2	266° 09'
3	399° 13' 30"
4	532° 17' 30" ÷ 4 = 133° 04' 22"

Mean = 133° 04' 17.5"

Inst at L 19

Oldtown - Miss B. Sta.

1	118° 36'
2	237° 13'
3	355° 50'
4	474° 27' 30" ÷ 4 = 118° 36' 52"

Inst at Sta. 292+00

Old Town - N. Mission Bridge.

1	26° 30' 00"
6	158° 58' 30"
÷ 6	= 26° 29' 45"

Reversed.

1	26° 29' 00"
6	158° 58' 00"
÷ 6	= 26° 29' 40"

Old Town - Back Bay

Direct.

1	56° 19' 00"
6	337° 54' 30"
÷ 6	= 56° 19' 05"

Reversed.

1	56° 18' 15"
6	337° 54' 00"
÷ 6	= 56° 19' 00"

11

Levels from benches to M.H.T.

	+	H.I	-	Elev.	
B.M	777	93.71		85.915	Hub 20' N.W. of L3
T.P	0.72	81.78	12.65	81.06	
T.P.	0.07	69.02	12.83	68.25	
T.P	0.12	56.35	12.79	56.23	
T.P.	0.46	44.56	12.25	44.10	
T.P.	0.26	30.78	14.04	30.52	
T.P.	0.67	14.35	17.10	13.68	Nail in Cliff
T.P	3.52	11.20	6.67	7.68	Rod = 6.29 to 4.91 center.
T.P	2.19	12.90	0.49	10.71	
T.P.	0.07	6.34	6.63	6.27	
T.P	5.27	8.50	3.11	3.23	
T.P. ⊕	1.71	9.95	0.26	8.24	Nail foot of steps
B.M	1.32	87.24		85.92	Hub 20' N.W. of L3
B.M	6.64	89.06	4.82	82.42	21' W. of L4
T.P	0.90	77.00	12.96	76.10	
B.M #8			4.91	72.09	
T.P	0.94	64.87	13.07	63.93	
T.P.	0.19	52.32	12.74	52.13	
T.P.	0.53	39.90	12.95	39.37	
T.P.	0.68	27.84	12.74	27.16	
T.P	0.65	15.83	12.66	15.18	Nail in Steps
T.P. ⊕	1.71	9.95	7.60	8.23	Nail foot of steps

48.55
35
13.55 64

B.M #A	1.85	65.97		64.12	
T.P.	3.99	13.69	56.27	9.70	to be held vertically
T.P.	7.33	14.93	6.09	7.60	
T.P	3.42	13.13	5.22	9.71	
T.P.			3.01	10.12	Nail
T.P.	36.86	48.55	1.44	11.69	
T.P.	12.59	61.14	0.00	48.55	Nail
T.P.	12.90	73.48	0.56	60.58	
B.M			4.57	68.91 (68.89)	
					SS Cliff = H.I. 11
B.M	10.76	61.19		50.43	
	4.00	65.12	0.07	61.12	
			55.89	9.23	
SSC 8 Osberg					
B.M	0.83	42.97		42.16	
T.P	1.70	32.04	12.65	30.34	
			6.70	25.34	
T.P.	10.51	40.85		30.34	
T.P.	0.49	28.20	13.14	27.71	
T.P.	2.55	18.16	12.59	15.61	
T.P.	3.42	11.83	9.75	8.41	
T.P.	2.26	8.58	5.51	6.32	
T.P.	3.56	8.27	3.87	4.71	
T.P Sta 131+00			1.57	6.70	Nail

Levels From Benches to M.H.T.

B.M.	5.59	13.39		7.80	N.E. B.P. Miss. Blvd & San Diego Pl.
T.P.	3.63	11.65	5.37	8.02	Nail N. end Bridge
T.P.	4.74	13.12	3.27	8.38	
T.P.			5.67	7.45	Sta. 214+00
T.P.	2.37	11.98	3.51	9.61	
T.P.	4.50	11.65	4.83	7.15	
T.P.	9.19	16.18	4.66	6.99	
		Sailed 0.02 16.16			
T.P.	1.64	12.30	5.50	10.66	
T.P.	4.83	10.10	7.03	5.27	
T.P.	9.80	18.53	1.37	8.73	
B.M.			1.93	16.60	(16.58)

B.M.	1.31	17.51		16.20	sea Wall Santa Clara
T.P.	5.46	10.62	12.35	5.16	
T.P.	4.95	10.41	5.16	5.46	
T.P.	5.11	10.60	4.92	5.49	
T.P.	12.84	17.76	5.68	4.92	
B.M.			1.78	15.98	(16.00)

N. end Sea Wall	B.M.	1.11	17.11		16.00
T.P.	5.42	16.98	5.55		11.56
Thomas & Ocean Blvd.	B.M.		2.89		14.09
T.P.	3.85	12.74	8.09		8.89
T.P.	4.71	11.54	5.91		6.83
T.P.	4.44	11.21	4.77		6.77
T.P.	5.23	10.64	5.80		5.41
T.P.	1.83	10.77	1.70		8.94
T.P.	5.13	10.18	5.72		5.05
T.P.	1.04	9.18	2.04		8.14
T.P.	4.18	9.54	3.82		5.36
T.P.	3.94	9.23	4.25		5.29
T.P.			3.03		6.20
T.P.	12.32	20.92	0.63		8.60
T.P.	12.90	33.67	0.15		20.77
T.P.	12.72	46.29	0.10		33.57
T.P.	12.57	58.44	0.42		45.87
T.P.	12.89	70.82	0.51		57.93
T.P.	10.69	80.46	1.05		69.77
T.P.	10.94	90.46	0.94		79.52
B.M.			3.16		87.30
					(87.32)

Heard
Jensen
Northard
Nov. 17-34

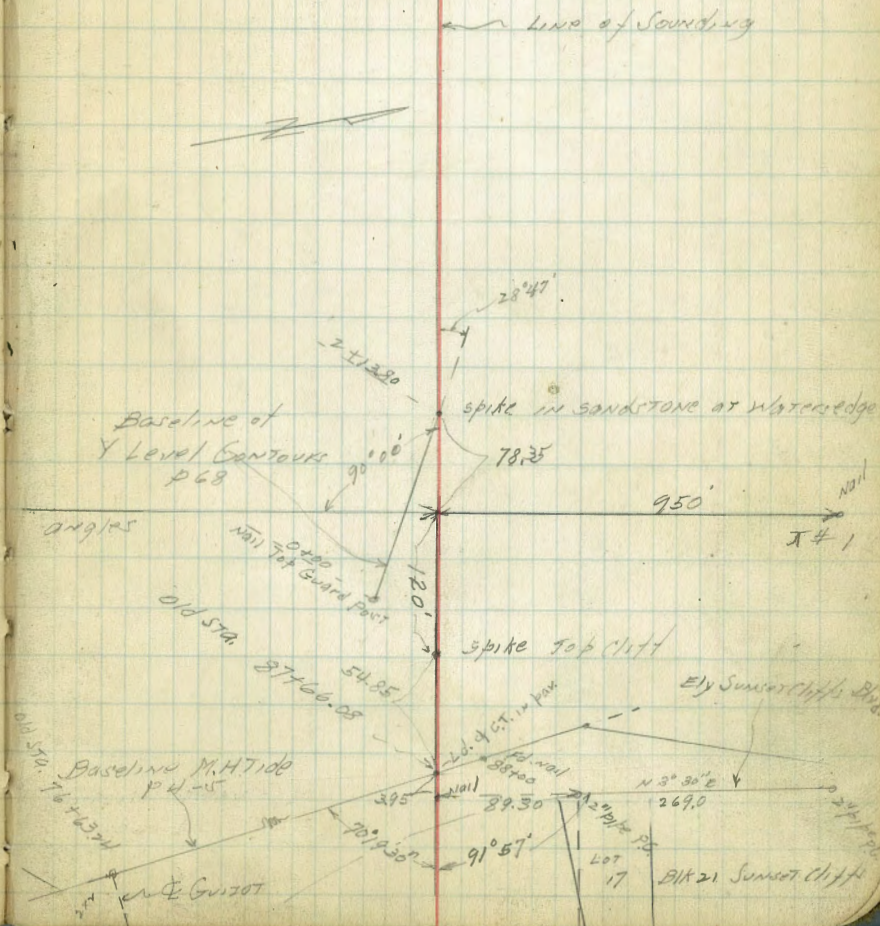
67

Location and soundings for proposed
fishing pier Sunset Cliffs

See FB. 1517-34 for T #1 angles
and soundings

T #2 spike

1900'
Baseline of Sounding



Soundings Sunset Cliffs Prop. Pier
 Readings From Sta. #2 Sight #1

Nov. 5-35
 Sigsbee Rec.
 B.T. & T. Transit

Weather Clear

Boat
 Moore
 Hartburn

70

H ^o	Lt	Time
✓ 1	3° 37'	9-53 A.M.
✓ 2	4° 16'	
✓ 3	5° 27'	
✓ 4	6° 15'	
✓ 5	7° 24'	
✓ 6	8° 55'	
✓ 7	10° 23'	
✓ 8	11° 22'	
✓ 9	13° 00'	
✓ 10	13° 09'	10-02 A.M.
✓ 11	14° 43'	
✓ 12	15° 52'	
✓ 13	16° 57'	

H ^o	Lt	Time
14 ✓	18° 16'	
15 ✓	19° 38'	
16 ✓	21° 05'	
17 ✓	22° 20'	
18 ✓	23° 59'	
19 ✓	25° 06'	
20 ✓	25° 38'	10-11 A.M.
21 ✓	26° 47'	
22 ✓	27° 34'	
23 ✓	28° 22'	
24 ✓	29° 05'	
25 ✓	29° 56'	
26 ✓	30° 57'	

H°		Lt.	Time
27	✓	32° 02'	
28	✓	33° 09'	
29	✓	34° 12'	
30	✓	35° 30'	10-20 AM
31	✓	36° 39'	
32	✓	37° 20'	
33	✓	38° 23'	
34	✓	39° 23'	
35	✓	40° 41'	
36	✓	42° 06'	
37	✓	43° 33'	
38	✓	44° 23'	
39	✓	43° 39'	

71

H°		Lt.	Time
40	✓	42° 31'	10-37 AM
41	✓	41° 35'	
42	✓	40° 04'	
43	✓	39° 06'	
44	✓	37° 55'	
45	✓	36° 33'	
46	✓	35° 23'	
47	✓	33° 44'	
48	✓	32° 24'	
49	✓	30° 24'	
50	✓	29° 00'	10-48 AM
51	✓	27° 20'	
52	✓	25° 07'	

No		ht.	Time
53	✓	22° 33'	
54	✓	19° 52'	
55	✓	18° 17'	
56	✓	16° 18'	
57	✓	14° 07'	
58	✓	12° 04'	
59	✓	9° 38'	
60	✓	8° 11'	11-01 A.M.
61	✓	6° 20'	
62	✓	4° 41'	
63	✓	3° 47'	
64	✓	3° 30'	
65	✓	4° 09'	

		ht.	Time
66	✓	4° 18'	
67	✓	5° 40'	
68	✓	7° 28'	
69	✓	9° 10'	
70	✓	11° 20'	11-12 A.M.
71	✓	12° 49'	
72	✓	13° 55'	
73	✓	16° 11'	
74	✓	18° 09'	
75	✓	19° 53'	
76	✓	21° 20'	
77	✓	23° 11'	
78	✓	25° 02'	

No.		Ht.	Time
79	✓	26° 37'	
80	✓	27° 31'	11-20 A.M.
81	✓	28° 53'	
82	✓	29° 47'	
83	✓	31° 06'	
84	✓	32° 23'	
85	✓	33° 12'	
86	✓	34° 14'	
87	✓	35° 39'	
88	✓	36° 51'	11-22 A.M.

[Faint pencil scribbles]

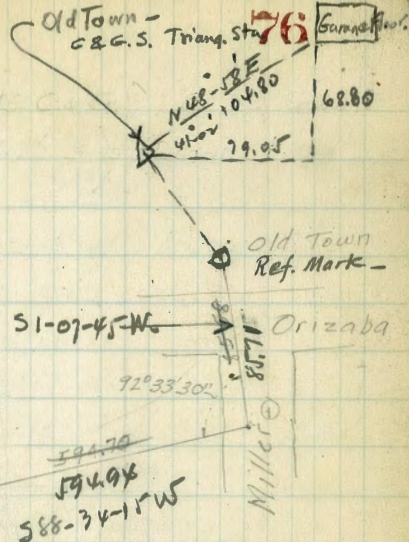
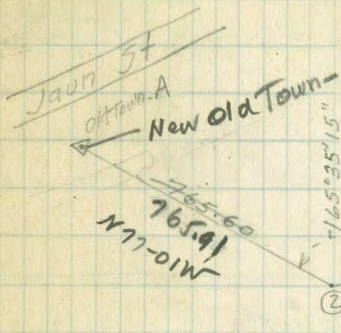
75

Solar obs. on Oldtown A - ②
 Sept 2, 1930 - Loudon.

Time	Alt	Defl:	
		Anderson @ A	
3 ³⁸	31° 18'		
3 ⁴²	30° 41' 00"	23° 59' 00"	Lt.
3 ⁴³	30° 26' 00"	23° 46' 00"	"
3 ⁴⁴	30° 14' 00"	23° 37' 00"	"
3 ⁴⁵	29° 59' 00"	23° 25' 00"	"
	Reversed.		
3 ⁴⁷	29° 35' 00"	23° 07' 30"	
3 ⁴⁸	29° 21' 00"	22° 59' 00"	
3 ⁴⁹	29° 10' 00"	22° 50' 00"	
3 ⁵⁰	29° 00' 00"	22° 42' 00"	

Mag. Bg.
~~N 83° 30' E.~~
 N 76° 00' W.

Transfer OldTown-
 Tri. Sta. to point on
 Hill near Juan St.
 on'g. not visible.



add 0⁰⁰ per 100 yds long tape.

$594.70 = 9.9997819$
 $594.94 = 1.3300000$
 $1.9378819 = 85.71$
 $594.70 = 4.7741198$
 $4.7741198 = 765.91$
 $765.60 = 2.8800010$
 $2.8800010 = 765.91$

85.68
 03
 85.71
 594.70
 0.21
 594.94
 765.60
 01
 765.91

Solar Observation on Baseline

Aug 23, 1930

Time	Alt.	Angle to Course	Mag. Bq.	1st Bq.	2nd Bq.	Mean
9 ^h -27 ^m	50°53'	134°20'15		N 11°54'21" W	N 19°55'48" W	N 19°55'04" W
9-32	51°53'30	135°40'		N 18°15' W		
	Lat	32°44'06"				
	Long	117°15'23"				

2nd Reading

9-32 AM = 1st time + 5^m = 03" declination

$$d = 11^{\circ}32'03''$$

$$l = 32^{\circ}44'06''$$

$$h = 51^{\circ}53'30 - 41'' = 51^{\circ}52'49''$$

$$\text{Log cos } 51-52-49 = 9.7904967$$

$$\text{Log cos } 32-44-06 = 9.9249171$$

$$9.7154138$$

$$\text{Log Sin } 11-32-03 = 9.3009159 \quad \text{Nat. func.}$$

$$9.5855021 - .3850434$$

$$\text{Log tan } 32-44-06 = 9.8081107$$

$$\text{Log tan } 51-52-49 = 0.1053206 \quad \text{Nat. func.}$$

$$9.9134313 - .8192820$$

$$- 8192820$$

$$+ 3850434$$

$$- 4342386 = \text{Nat. cos } A$$

$$A = 115^{\circ}44'12''$$

$$\text{Az Angle} = 135^{\circ}-40$$

$$\text{Bearing} = \text{N } 19^{\circ}55'48'' \text{ W}$$

77

1st Reading

9-27 A.M. = 5^h-27^m W. of G.A.N

Time equa = 2^m-42^s

Total time = 5^h-29^m-42^s W. of G.A.N

Decl. at G.A.N = 11°36'36"

Hourly change = 50.7"

$$\text{Decl. cor} = 5.495 \times 50.7'' = 4' - 36''$$

$$\text{Decl. at P.O.} = 11-36-36 - 0-4-36 = 11^{\circ}32'00''$$

$$\text{Refraction cor} = 57'' \times .71 = 41''$$

$$\text{Alt.} = h = 50^{\circ}53' - 41'' = 50^{\circ}52'19''$$

$$\text{Lat.} = l = 32^{\circ}44'06''$$

$$\text{Decl.} = d = +11^{\circ}-32'-00''$$

A = Az. angle from Sun to Meridian

$$\cos A = \frac{\sin d}{\sin h} - \tan h \cdot \tan l$$

Cos h. Cos l

$$\text{Log cos } 50-52-19 = 9.8000621$$

$$\text{Log cos } 32-44-06 = 9.9249171$$

$$9.7249792$$

$$\text{Log Sin } 11-32$$

$$9.3008953$$

$$9.5759161 - .3766315 = \text{Nat. func.}$$

$$\text{Log tan } 50-52-19 = 0.0896471$$

$$\text{Log tan } 32-44-06 = 9.8081107$$

$$9.8977578 - .7902378 = \text{Nat. func.}$$

$$- .7902378$$

$$+ 3766315$$

$$- 4136063 = \text{Cos } A \quad A = 114^{\circ}25'54''$$

$$\text{Az Angle} = 134^{\circ}20'15''$$

$$\text{Bearing} = \text{N } 19^{\circ}54'21'' \text{ W}$$

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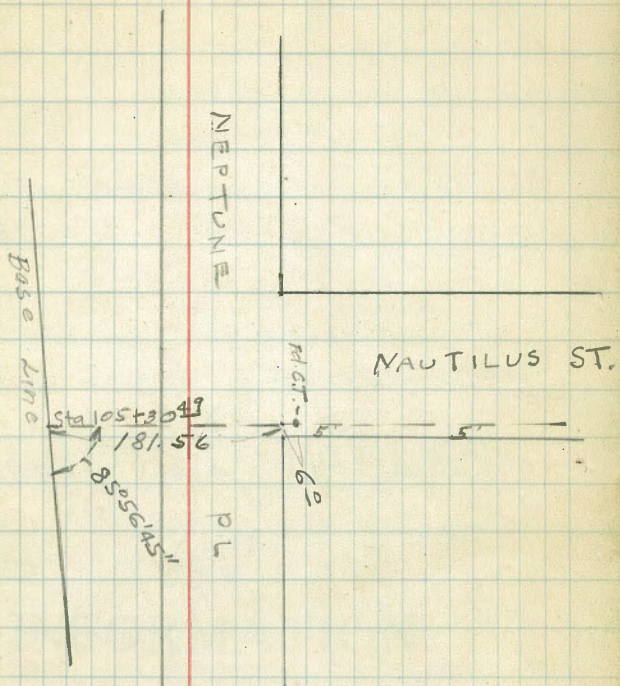


TABLE X.
MIDDLE ORDINATES OF RAILS
Length of Rail (feet)

C	R	30	28	26	24	22	20	C	R	30	28	26	24	22	20
o /	Feet	Inch	Inch	Inch	Inch	Inch	Inch	o	Feet	Inch	Inch	Inch	Inch	Inch	Inch
0-20	17189	.08	.07	.06	.05	.04	.03	8	716.8	1.88	1.64	1.42	1.20	1.01	.84
0-40	8594	.16	.14	.12	.10	.08	.07	9	637.3	2.12	1.84	1.60	1.35	1.14	.94
1-0	5730	.24	.20	.18	.15	.13	.10	10	573.7	2.36	2.05	1.78	1.50	1.27	1.04
1-20	4297	.31	.27	.23	.20	.17	.13	11	521.7	2.59	2.26	1.95	1.65	1.39	1.15
1-40	3438	.39	.34	.29	.25	.21	.17	12	478.3	3.83	2.47	2.15	1.81	1.54	1.26
2-0	2865	.47	.41	.35	.30	.25	.20	13	441.7	3.05	2.66	2.30	1.96	1.66	1.36
2-20	2456	.55	.48	.41	.35	.29	.23	14	410.3	3.30	2.87	2.48	2.10	1.78	1.46
2-40	2149	.63	.55	.47	.40	.33	.27	15	383.1	3.54	3.08	2.68	2.26	1.91	1.57
3-0	1910	.71	.62	.53	.45	.38	.31	16	359.3	3.76	3.28	2.83	2.40	2.04	1.67
3-20	1719	.78	.68	.59	.50	.42	.35	17	338.3	4.00	3.48	3.02	2.57	2.16	1.78
3-40	1563	.86	.75	.65	.55	.46	.38	18	319.6	4.21	3.67	3.18	2.70	2.28	1.87
4-0	1433	.94	.82	.71	.60	.50	.42	19	302.9	4.45	3.89	3.36	2.86	2.41	1.98
4-20	1323	1.02	.89	.77	.65	.55	.45	20	287.9	4.70	4.09	3.55	3.00	2.54	2.09
4-40	1228	1.10	.96	.83	.70	.59	.48	22	262.0	5.16	4.44	3.84	3.30	2.80	2.29
5	1146	1.18	1.03	.89	.75	.63	.52	24	240.5	5.64	4.92	4.20	3.59	3.04	2.50
6	955.3	1.41	1.23	1.06	.90	.76	.62	26	222.3	6.07	5.29	4.58	3.88	3.29	2.70
7	819.0	1.65	1.44	1.24	1.05	.89	.73								

TABLE XI.
SHORT RADIUS CURVES

Radius Feet	Chord Feet	Central Angle	Deflection Angle	Deflection for 1 Foot
35	10	16-26	8-13	49.3
45	10	12-46	6-23	38.3
50	15	17-16	8-38	34.5
60	15	14-22	7-11	28.8
75	15	11-30	5-45	23.0
100	20	11-30	5-45	17.3
120	20	9-34	4-47	14.3
150	20	7-39	3-49	11.5
190	25	7-32	3-46	9.15
200	25	7-10	3-35	8.6
225	25	6-25	3-12	7.7
240	25	5-58	2-59	7.2
250	25	5-44	2-52	6.9
275	25	5-12	2-36	6.2
288	50	9-58	4-59	6.0
300	50	9-32	4-46	5.7
350	50	8-12	4-06	4.9
376	50	7-40	3-50	4.6
400	50	7-10	3-35	4.3
410	50	7-00	3-30	4.2

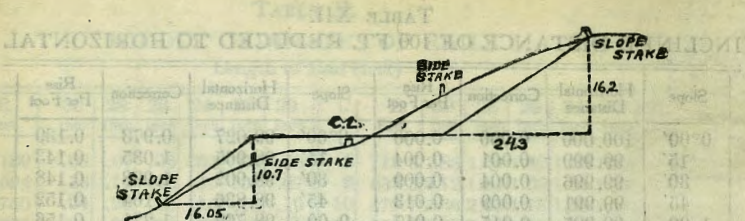
To find length of curve divide angle from P. C. to P. T. by central angle of chord, and multiply by length of chord.

TABLE XII.
INCLINED DISTANCE OF 100 FT. REDUCED TO HORIZONTAL

Slope	Horizontal Distance	Correction	Rise Per Foot	Slope	Horizontal Distance	Correction	Rise Per Foot
0°00'	100.000	0.000	0.000	8°00'	99.027	0.973	0.139
15'	99.999	0.001	0.004	15'	98.965	1.035	0.143
30'	99.996	0.004	0.009	30'	98.902	1.098	0.148
45'	99.991	0.009	0.013	45'	98.836	1.164	0.152
1 00	99.985	0.015	0.017	9 00	98.769	1.231	0.156
15	99.976	0.024	0.022	15	98.700	1.300	0.161
30	99.966	0.034	0.026	30	98.629	1.371	0.165
45	99.953	0.047	0.031	45	98.556	1.444	0.169
2 00	99.939	0.061	0.035	10 00	98.481	1.519	0.174
15	99.923	0.077	0.039	15	98.404	1.596	0.178
30	99.905	0.095	0.044	30	98.325	1.675	0.182
45	99.885	0.115	0.048	45	98.245	1.755	0.187
3 00	99.863	0.137	0.052	11 00	98.163	1.837	0.191
15	99.839	0.161	0.057	15	98.079	1.921	0.195
30	99.813	0.187	0.061	30	97.992	2.008	0.199
45	99.786	0.214	0.065	45	97.905	2.095	0.204
4 00	99.756	0.244	0.070	12 00	97.815	2.185	0.208
15	99.725	0.275	0.074	15	97.723	2.277	0.212
30	99.692	0.308	0.078	30	97.630	2.370	0.216
45	99.657	0.343	0.083	45	97.534	2.466	0.221
5 00	99.619	0.381	0.087	13 00	97.437	2.563	0.225
15	99.580	0.420	0.092	15	97.338	2.662	0.229
30	99.540	0.460	0.096	30	97.237	2.763	0.233
45	99.497	0.503	0.100	45	97.134	2.866	0.238
6 00	99.452	0.548	0.105	14 00	97.030	2.970	0.242
15	99.406	0.594	0.109	15	96.923	3.077	0.246
30	99.357	0.643	0.113	30	96.815	3.185	0.250
45	99.307	0.693	0.118	45	96.705	3.295	0.255
7 00	99.255	0.745	0.122	15 00	96.593	3.407	0.259
15	99.200	0.800	0.126	15	96.479	3.521	0.263
30	99.144	0.856	0.131	30	96.363	3.637	0.267
45	99.087	0.913	0.135	45	96.246	3.754	0.271

TABLE XIII.
MINUTES IN DECIMALS OF A DEGREE.

0 30"	.00833	10' 30"	.17500	20' 30"	.34167	30' 10"	.50833	40' 30"	.67500	50' 10"	.84167
1 00	.01667	11 00	.18333	21 00	.35000	31 00	.51667	41 00	.68333	51 00	.85000
30	.02500	30	.19167	30	.35833	30	.52500	30	.69167	30	.85833
2 00	.03333	12 00	.20000	22 00	.36667	32 00	.53333	42 00	.70000	52 00	.86667
30	.04167	30	.20833	30	.37500	30	.54167	30	.70833	30	.87500
3 00	.05000	13 00	.21667	23 00	.38333	33 00	.55000	43 00	.71667	53 00	.88333
30	.05833	30	.22500	30	.39167	30	.55833	30	.72500	30	.89167
4 00	.06667	14 00	.23333	24 00	.40000	34 00	.56667	44 00	.73333	54 00	.90000
30	.07500	30	.24167	30	.40833	30	.57500	30	.74167	30	.90833
5 00	.08333	15 00	.25000	25 00	.41667	35 00	.58333	45 00	.75000	55 00	.91667
30	.09167	30	.25833	30	.42500	30	.59167	30	.75833	30	.92500
6 00	.10000	16 00	.26667	26 00	.43333	36 00	.60000	46 00	.76667	56 00	.93333
30	.10833	30	.27500	30	.44167	30	.60833	30	.77500	30	.94167
7 00	.11667	17 00	.28333	27 00	.45000	37 00	.61667	47 00	.78333	57 00	.95000
30	.12500	30	.29167	30	.45833	30	.62500	30	.79167	30	.95833
8 00	.13333	18 00	.30000	28 00	.46667	38 00	.63333	48 00	.80000	58 00	.96667
30	.14167	30	.30833	30	.47500	30	.64167	30	.80833	30	.97500
9 00	.15000	19 00	.31667	29 00	.48333	39 00	.65000	49 00	.81667	59 00	.98333
30	.15833	30	.32500	30	.49167	30	.65833	30	.82500	30	.99167
10 00	.16667	20 00	.33333	30 00	.50000	40 00	.66667	50 00	.83333	60 00	1.00000



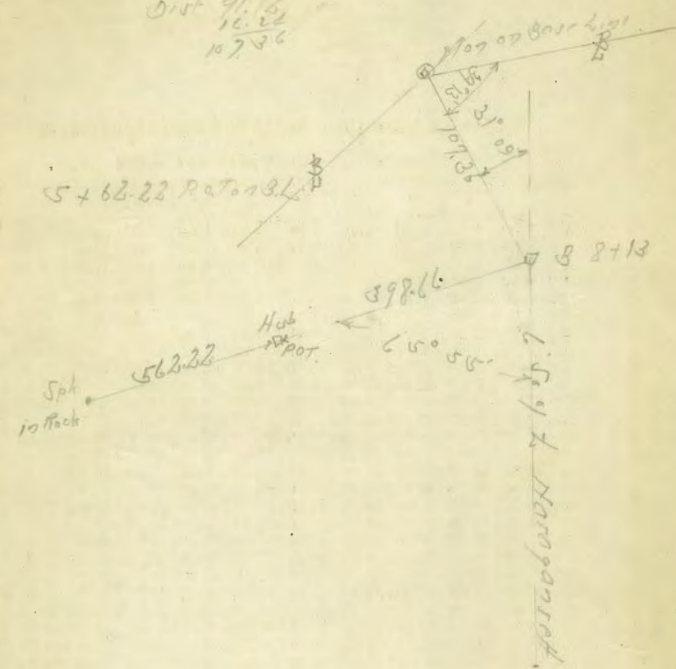
DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 1/4 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35
47	70.50	70.65	70.80	70.95	71.10	71.25	71.40	71.55	71.70	71.85
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35

Computed by L. Leland Locke.

B 8+13 L of 31° 09'
 Vert. 24° 20' 100'
 Dist 91.15
 16.52
 107.36



L N 32° 42'

Long 116° 55' 30" W

Inst at Miss Antz Sta-

Bk Bay to - from Bay 118-15-00

230
360
590
590 5
591-12-30
118-14-30

Bay Pt - Back Bay 16-11-30

81° 11'
16-14-12

178-54-30
89-27-15

17.06
5.35

41-45
20-52-30
90

69.68

46.04
4.81
50.85
4.91
45.94
118.40
179-58-30.9
89-59-15

511.03
690
1001.03

1900
500
850
950
1800

788
181-12-30
90-37-45

6200583

880
3157
91557

166-05-20
83-02-40
20
6-57-20

84743
42
167486
338772
3559206
1.00735
5.03675

155 160
58 35
14 38-45

6 1538-58-30
26-29-40

8631
37.522
366.45
40077
6 1538-58-30
26-29-40

6 337-54-30
56-19-05

5.71
8.20
2.29

8523
8
68184
62
618

SUNSET CLIFF BLDG
ADMIT JERRA

25.21
9.01
5442 USC 46

ENGINEERING DEPARTMENT,
CITY OF SAN DIEGO,
CALIFORNIA.