

1579



ENGINEER'S
FIELD BOOK
No. 433F

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be $30.6 + (20 - 16) \div 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on $1\frac{1}{2}$ see inside of back cover.

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1579

ENGINEERING DEPARTMENT
CITY OF SAN DIEGO,
CALIFORNIA.

The paper stock of this book is made of a high grade 50% rag paper having a water resisting surface and is sewed with Bing Special Enamel Waterproof Thread.

Made in U. S. A.

~~INDEXED~~
~~EFB~~

Record of angles by

T # 2 read by S. Hale.

Ocean Sdg. Line #1 - Pt. Lema Ave.

T #2 on 2x2 Hub ^{FB} 1578-P7

B.S. on hd. & C.T. N. of Bermuda

No. Δ

✓ 1 R 0° 28'

✓ 2 R 0° 24'

✓ 3 R 0° 22'

✓ 4 R 0° 09'

✓ 5 L 0° 08'

✓ 6 L 0° 07'

✓ 7 R 0° 15'

✓ 8 L 0° 35'

✓ 9 R 0° 25'

10

Ocean Sdg. Line #2

T #2 on pipe stake

B.S. 90° at 1ath to South.

No. Δ

✓ 1 90° 00'

✓ 2 89° 42'

✓ 3 90° 09'

✓ 4 90° 13'

✓ 5 89° 30'

✓ 6 89° 42'

✓ 7 89° 10'

8.

9.

10.

Ocean Sdg line #3

A #2 on Sdg STA #2.

B.S. on STA #3

No. Δ

✓ 1 18°22'

✓ 2 28°50'

✓ 3 38°20'

✓ 4 45°56'

✓ 5 51°34'

✓ 6 58°21'

✓ 7 60°46'

✓ 8 63°45'

✓ 9 67°25'

✓ 10 69°20'

No

Δ

✓ 11.

71°23'

3

Ocean Sdg line #15 I.P. So. of Bay Ct.

T#2 ON #16 STA. 220+16.39

B.S. ON #15 T#1

No. A

1 ✓ 15°43'

2 ✓ 21°11'

3 ✓ 27°40'

4 ✓ 33°59'

5 ✓ 38°29'

6 ✓ 42°44'

7 ✓ 44°10'

8 ✓ 47°17' END of "A" line

1 ✓ 55°32'

2 ✓ 50°39'

No

A

3 ✓ 46°06'

4 ✓ 36°13'

5 ✓ 26°51'

6 ✓ 20°43' End of "B" line

7 ✓ 26°08'

8 ✓ 35°43'

9 ✓ 41°37'

10 ✓ 49°20'

11 ✓ 52°11'

12 ✓ 55°08'

13 ✓ 55°51' End of "C" line

14 ✓ 63°06'

No.	✓	Δ
2.	✓	61° 15'
3.	✓	58° 33'
4.	✓	53° 37'
5.	✓	49° 22'
6.	✓	43° 11'
7.	✓	40° 40'
1.	✓	56° 19'
2.	✓	62° 01'
3.	✓	64° 27'
4.	✓	65° 25'
5.	✓	66° 56'
6.	✓	67° 30'

End of "D" line

No.	✓	Δ
7.	✓	68° 00'
1.	✓	72° 53'
2.	✓	72° 14'
3.	✓	73° 02'
4.	✓	72° 16'
5.	✓	72° 59'
6.	✓	72° 44'
7.	✓	71° 36'
8.	✓	71° 18'
9.	✓	71° 29'
10.	✓	71° 43'

End of "E" LINE

Δ #16 220+10.39
 ∠ 15, 16, 17 = 131° 00'

Ocean Sdg line #4

A #2 on Sdg line #4

B.S. on #5

No.	Δ
✓ 1.	89° 58'
✓ 2.	90° 02'
✓ 3.	89° 47'
✓ 4.	89° 50'
✓ 5.	90° 00'
✓ 6.	89° 53'
✓ 7.	89° 52'
✓ 8.	90° 36'
9.	
10	

Ocean Sdg line #5

A #2 on Sdg Sta. #4

B.S. on #5

No.	Δ
✓ 1.	22° 23'
✓ 2.	31° 01'
✓ 3.	41° 04'
✓ 4.	48° 09'
✓ 5.	54° 05'
✓ 6.	59° 07'
✓ 7.	62° 36'
✓ 8.	65° 33'
9.	

T#2. S.R. Hale

5/21/40

Ocean Sdg line #14

T#2 On Sdg line #14
on # 7, 153 + 85.80 c.s.k.
B.S. On T#1 Between #6 & #7

No.	Δ
✓ 1.	89° 25'
✓ 2.	90° 01'
✓ 3.	89° 25'
✓ 4.	89° 56'
✓ 5.	89° 48'
✓ 6.	89° 59'
✓ 7.	89° 58'
✓ 8.	90° 03'
✓ 9.	89° 54'
10.	

Ocean Sdg line #13

T#2 On Sdg line #13
on # 7 c.s.k.
B.S. On T#1 Between #6 & #7

No.	Δ
1. ✓	89° 51'
2. ✓	90° 01'
3. ✓	89° 53'
4. ✓	89° 58'
5. ✓	89° 55'
6. ✓	89° 58'
7. ✓	89° 52'
8. ✓	91° 14'

Ocean Sdg line #12

T #2 on sdg line #12
at #7 - 153 + 85.00 = 238
B.S. on T #1 Between #6 & 7

No.	Δ
✓ 1.	89° 55'
✓ 2.	90° 04'
✓ 3.	90° 01'
✓ 4.	89° 43'
✓ 5.	90° 00'
✓ 6.	89° 54'
✓ 7.	90° 01'
✓ 8.	89° 49'
✓ 9.	90° 00'
✓ 10.	89° 19'

No

Δ

✓ 11. 89° 58'

Ocean Sdg line #11

T^{#2} on sdg line #11

B.S. on T^{#1}. ^{at #7} Between #6 & #7.

No.	Δ
✓ 1.	89° 58'
✓ 2.	89° 50'
✓ 3.	90° 02'
✓ 4.	90° 04'
✓ 5.	90° 02'
✓ 6.	89° 58'
✓ 7.	89° 50'
✓ 8.	89° 57'
✓ 9.	90° 00'
10.	90° 08'

Ocean Sdg line #10

π #2 on Sdg line #14 170+50

B.S. on π #1 on Sdg line #10.

No	Δ
✓ 1	34° 00'
✓ 2	41° 41'
✓ 3	47° 18'
✓ 4	52° 25'
✓ 5	56° 53' —
✓ 6	60° 12'
✓ 7	63° 07'
✓ 8	65° 39'
✓ 9	67° 24'
✓ 10	69° 04'

No	Δ
✓ 11	70° 44'
✓ 12	71° 53'
✓ 13	

Ocean sdg. line #9.

π #2 on Sdg line #14 170+50

B.S on π #1 on sdg line #9

No	Δ
✓ 1.	68° 30'
✓ 2.	66° 44'
✓ 3.	63° 39'
✓ 4.	61° 24'
✓ 5.	58° 18'
✓ 6.	54° 46'
✓ 7.	50° 31'
✓ 8.	45° 32'
✓ 9.	39° 54'
✓ 10.	30° 45'

Ocean Sdg line #8.

π #2 on Sdg line #14 170+50

BS on π #1 on Sdg line #8

No.	Δ	No	Δ
✓ 1.	30° 13'	✓ 11.	62° 20'
✓ 2.	34° 35'	✓ 2.	63° 55'
✓ 3.	39° 25'	✓ 3.	65° 26'
✓ 4.	43° 32'		
✓ 5.	47° 31'		
✓ 6.	51° 21'		
✓ 7.	54° 23'		
✓ 8.	56° 29'		
✓ 9.	58° 31'		
✓ 10.	60° 14'		

Ocean Sdg line #7

T #2 on Sdg line #14 170+50

B.S. on T #1 on Sdg line #7

No	Δ	No.	Δ
✓ 1.	28° 06'	✓ 11	61° 05'
✓ 2.	33° 50'		
✓ 3.	38° 36'		
✓ 4.	42° 44'		
✓ 5.	46° 30'		
✓ 6.	49° 43'		
✓ 7.	52° 21'		
✓ 8.	54° 57'		
✓ 9.	56° 53'		
✓ 10.	59° 12'		

Ocean Sdg line #6

T #2 on Sdg line #10 = 160+50

B.S. on T #1 on Sdg line #6

No	Δ
✓ 1.	53° 09' RT
✓ 2.	51° 26'
✓ 3.	49° 08'
✓ 4.	46° 46'
✓ 5.	44° 19'
✓ 6.	40° 43'
✓ 7.	35° 32'
8.	30° 40'

5-23-40
T#2 S.R. Hale

M. Bay Sdg.

E of Bridge ^{0000'}

T#2 ON 0400 F.S. ON T#1

A Sly Shore line

1 ✓ 96 21' RT.

4 ✓ 91° 26'

3 ✓ 88° 24'

4 ✓ 85° 58'

5 ✓ 86° 38'

6 ✓ 86° 01'

7 ✓ 100° 49'

8 ✓ 95° 19'

9 ✓ 94° 53'

5/23/40

13

M. Bay Sdg line #1 STA. 2+50

T#2 ON 0400 F.S. ON T#1.

No. Δ RT

1 ✓ 21° 23'

2 ✓ 48° 53'

3 ✓ 63° 04'

4 ✓ 70° 35'

5 73° 41'

6.

7.

8.

9.

5/23/40

MISSION BAY SDG LINE #2 STA 5+00
T#2 ON O+00 F.S. ON T#1

No. Δ RT

1. ✓ 66° 07'

2. ✓ 62° 44'

3. ✓ 59° 05'

4. ✓ 56° 12'

5. ✓ 50° 29'

6. ✓ 45° 47'

7. ✓ 39° 04'

8. ✓ 19° 56'

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MISSION BAY SDG LINE #3 STA 7+50
T#2 ON O+00 F.S. ON T#1

No. Δ RT

1. ✓ 11° 28'

2. ✓ 26° 36'

3. ✓ 39° 09'

4. ✓ 48° 01'

5. ✓ 53° 39'

6.

5/23/40

MISSION BAY SDG LINE #4 STA. 10+00

T#2 ON STA. 0+00 F.S. ON T#1

No. Δ RT

1. ✓ 47° 23'

2. ✓ 43° 57'

3. ✓ 38° 49'

4. ✓ 34° 11'

5. ✓ 27° 18'

6. ✓ 24° 27'

7. ✓ 19° 35'

8. ✓ 6° 34'

9.

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MISSION BAY SDG LINE #5 12+50

T#2 ON STA. 0+00 F.S. ON T#1

No. Δ RT

1. ✓ 4° 08' 30"

2. ✓ 15° 00'

3. ✓ 19° 35'

4. ✓ 30° 24'

5. ✓ 37° 30'

6. ✓ 42° 16'

7. ✓ 45° 36'?

8.

5/23/40

MISSION BAY SDG LINE #6 STA 14+88.22

T #2 ON STA. 0+00 F.S. ON T #1

No. Δ RT.

1. ✓ 0° 33'

2. ✓ 2° 43'

3. ✓ 8° 10'

4. ✓ 15° 20'

5. ✓ 21° 53'

6. ✓ 26° 52'

7. ✓ 31° 10'

8. ✓ 36° 00'

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MISSION BAY SDG LINE #7 STA 16+13.22

T #2 ON STA 22+66.11 BS T #1 STA 14+88.22

No. Δ LT. No. Δ LT.

1. ✓ 63° 05½' 2. ✓ 11° 50'

2. ✓ 60° 39' 3. ✓ 7° 20'

3. ✓ 58° 08' 4. 2° 45'

4. ✓ 54° 50' IN Δ UNDER 15°

5. ✓ 51° 19' BOAT LINE SHOULD

6. ✓ 44° 22' TAKE PRECEDENCE

7. ✓ 39° 20' OVER TRIANGULATION

8. ✓ 32° 52'

9. ✓ 23° 59'

10. ✓ 12° 57'

11. ✓ 14° 18'

5/23/40

MISSION BAY SDG LINE 8 STA 18+13.22

T# 2 ON STA 22+66.11 BS ON T# 1

No. Δ LT

1. ✓ 356° 35'

2. ✓ 3° 15'

3. ✓ 29° 09'

4. ✓ 31° 53'

5. ✓ 51° 26'

6. ✓ 62° 52'

7. ✓ 69° 54'

8. ✓ 77° 25'

9. ✓ 82° 06'

10.

5/23/40 17

MISSION BAY SDE LINE #9 STA 20+13.22

T# 2 ON STA 22+66.11 BS ON T# 1
OK 14+88.22No. Δ LT

1. ✓ 79° 40'

2. ✓ 77° 24'

3. ✓ 75° 31'

4. ✓ 71° 18'

5. ✓ 66° 34'

6. ✓ 63° 19'

7. ✓ 53° 20'

8. ✓ 47° 07'

9. ✓ 29° 49'

10. ✓ 14° 21'

1. ✓ 5° 01'

5/23/40 96[±]

MISSION BAY SDB LINE #10 STA 22+66.4

T#2 ON STA 22+66.4 F.S. T#1 STA 29+00

30+00

No ART

1. ✓ 96°33'

2. ✓ 96°06'

3. ✓ 96°47'

4. ✓ 97°19'

5. ✓ 95°32'

6. ✓ 96°11'

7. ✓ 96°33'

8. ✓ 96°10'

9.

10.

5/23/40 18

MISSION BAY SDB LINE #11 STA 25+16.11

T#2 ON STA 22+66.4 F.S. T#1 ON 29+00

30+00

No ART No ART

1. ✓ 77°07' 1. ✓ 35°46'

2. ✓ 76°18' 2. ✓ 25°30'

3. ✓ 73°35' 3. ✓ 13°43'

4. ✓ 71°42' 4. ✓ 8°52'

5. ✓ 66°50' 5.

6. ✓ 62°28'

7. ✓ 59°25'

8. ✓ 56°30'

9. ✓ 55°14'

10. ✓ 42°43'

5/23/40

MISSION BAY SDG LINE #12 STA 28+50

T#2 ON 22+66 L.F.S. T#1 ON STA 30+00

301-0

No. Δ RT

1. ✓ 4° 29'

2. ✓ 9° 44'

3. ✓ 14° 05'

4. ✓ 24° 20'

5. ✓ 36° 24'

6. ✓ 40° 23'

7. ✓ 49° 36'

8. ✓ 53° 35'

9. ✓ 58° 09'

10. ✓ 63° 06'

5/23/40¹⁹

MISSION BAY SDG LINE #13 STA 31+00

T#2 ON 31+00 F.S. T#1 ON P.O.T.

No. Δ RT

1. ✓ 89° 50'

2. ✓ 90° 10'

3. ✓ 90° 01'

4. ✓ 89° 51'

5. ✓ 89° 54'

6. ✓ 89° 50'

7. ✓ 90° 55'

8. ✓ 91° 11'

9. ✓ 87° 47'

10. ✓ 87° 22' 100' OUT ESTIMATE

1. ✓ 83° 25' OUT ESTIMATE

and W.L. 5-23-40

Sdg. along E.L. MISSION
Beach Bridge by head line

0+00 to 14+98.22 TIME

		W.L.	E.L.	
0+70	✓	0.0	0.0	3:40 PM.
1+00	✓	7.2	7.0	
2+50	✓	15.0	9.5	
5+00	✓	11.5	11.0	
7+50	✓	9.0	10.0	
10+00	✓	6.5	10.0	
12+50	✓	4.5	5.0	
14+35	✓	0.0		
14+65	✓		0.0	

MISSION BAY TIDE STAFF 0.5 C. & G. U.S. ENGRS
MAR DEPTH = 2.7
STATE PARK # 2.7
8:30 AM
2.6
3:40 PM.

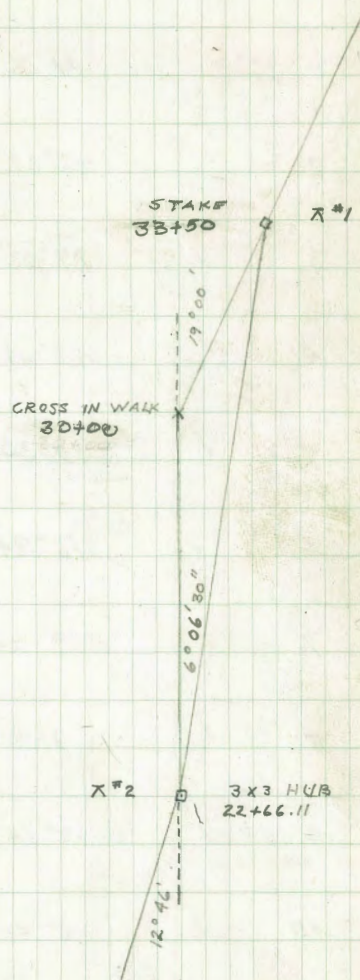
Mission Bay Sounding Line No. 14

5-23-40 20

π #2 ON STA. 22+66.11

0°00' F.S. ON 33+50 = π #1

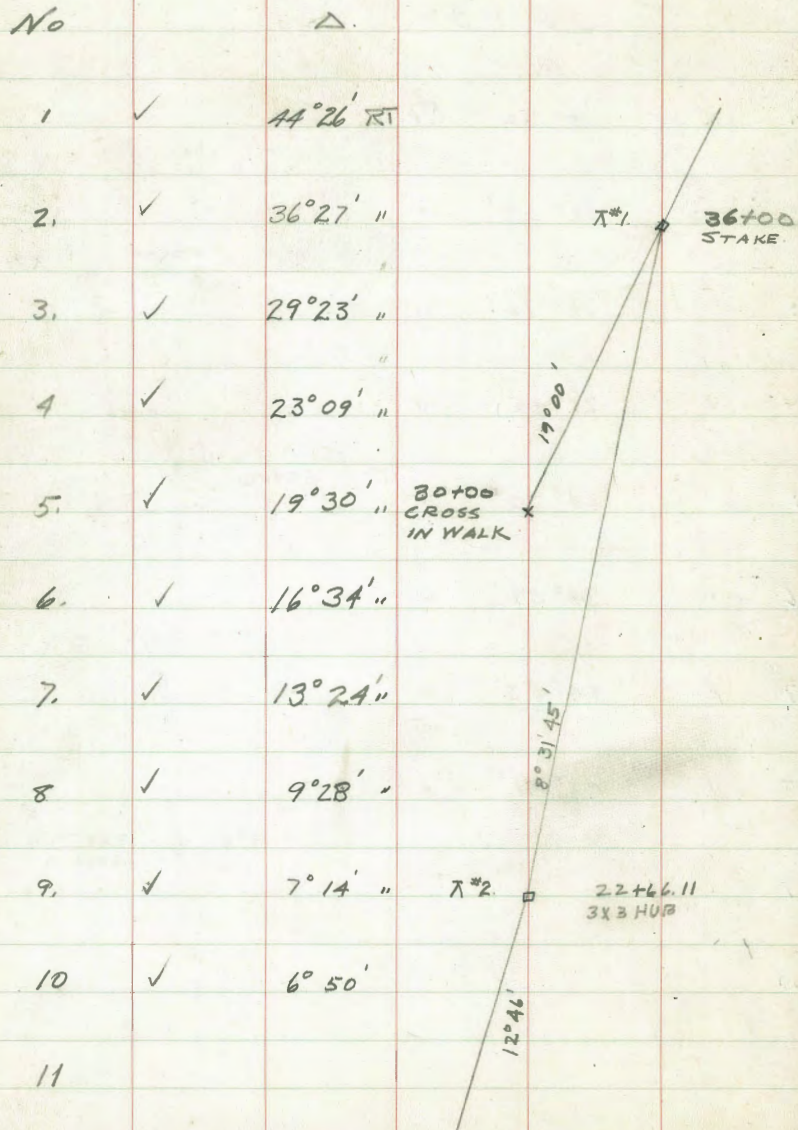
		32+50	
		Δ	
1	✓	5°36'	PT.
2	✓	12°08'	"
3	✓	15°16'	"
4	✓	21°45'	"
5	✓	24°30'	"
6	✓	34°59'	"
7	✓	44°53'	"
8	✓	52°41'	"
9			
10			
11			



5/23/40

MISSION BAY SDG LINE #15 - 36+00

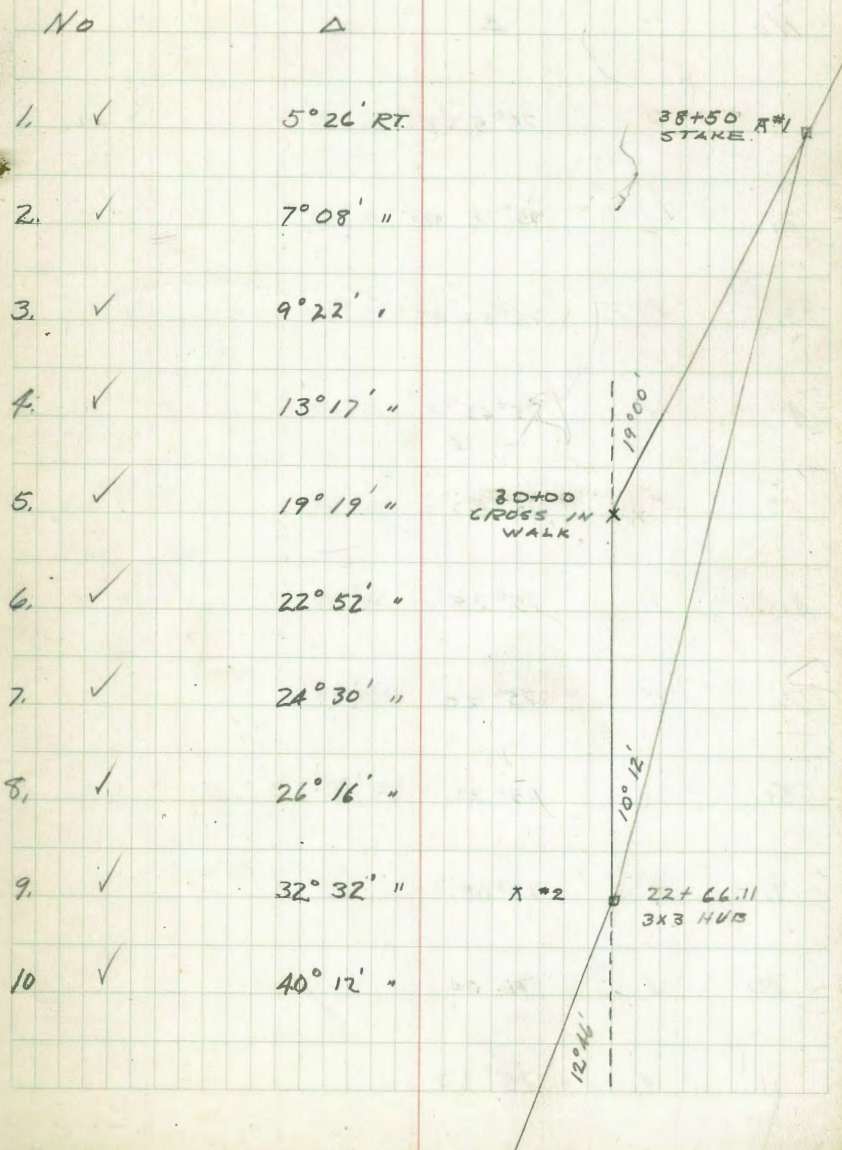
X#2 ON 22+66.11 0°00' ON X#1 = 36+00



5/23/40 21

MISSION BAY SDG LINE #16 - 38+50

X#2 ON 22+66.11 FS 0°00' ON X#1 = 38+50



5/23/40

MISSION BAY SDG. LINE #17 = 41+40

T#2 ON 41+40 FS T#1 AT 51+00. 75°53'

SPLIT OF ANGLE = 75°53'

No	✓	Δ
1.	✓	75°53' RT
2.	✓	75°35' RT
3.	✓	75°52' RT
4.	✓	75°42' "
5.	✓	75°57' "
6.	✓	75°28' "
7.	✓	75°20'
8.	✓	75°32'
9.	✓	77°08'
10.	✓	76°04'
11.	✓	75°33'

5/23/40²²

MISSION BAY SDG. LINE #18 = 43+50

T#2 ON 43+50 FS T#1 AT 51+00

No	✓	Δ
1.	✓	90°16' RT
2.	✓	90°48' "
3.	✓	89°34' "
4.	✓	90°21' "
5.	✓	89°54'
6.	✓	90°41'
7.	✓	89°45'
8.	✓	90°09'

5/23/40

MISSION BAY SDG. LINE #19 = 46+00

T#2 ON 46+00 FS 0°00' T#1 = 55+46²¹

No		Δ
1.	✓	89°36' RT
2.	✓	89°58' RT
3.	✓	90°08'
4.	✓	89°57'
5.	✓	89°43'
6.	✓	90°19'
7.	✓	89°56'
8.	✓	89°23'
9.	✓	88°05'
10.	✓	89°44'

5/23/40²³

MISSION BAY SDG. LINE #20 = 48+50

T#2 ON 48+50 FS 0°00' T#1 = 55+46²¹

No		Δ
1.	✓	89°02' RT.
2.	✓	89°59'
3.	✓	89°44'
4.	✓	89°51'
5.	✓	90°39'
6.	✓	89°56'
7.	✓	90°24'
8.	✓	90°37'
9.	✓	89°47'
10.	✓	90°30'

5/23/40

MISSION BAY SDO LINE #21 = 51+00
T#2 ON 51+00 FS ON T#1 = 58+46.4

No.		Δ
1.	✓	90° 13' RT
2.	✓	89° 51' "
3.	✓	90° 03' "
4.	✓	89° 57' "
5.	✓	89° 56' "
6.	✓	89° 30' "
7.	✓	90° 16' "
8.	✓	89° 38' "
9.	✓	89° 46' "
10.	✓	90° 00' "
11.	✓	90° 20'

5/23/40 24

MISSION BAY SDO LINE #22 = 55+46.4
T#2 ON 51+00 FS. 0°00' ON T#1 = 55+46.4

No.		Δ
1.	✓	32° 52' LT
2.	✓	40° 05' "
3.	✓	49° 23' "
4.	✓	56° 44' "
5.	✓	60° 58'
6.	✓	65° 32'
7.	✓	68° 16'
8.	✓	71° 33'
9.	✓	74° 59'
10.		76° 18'

Ocean Sounding
MISSION Bay Channel Mx.
17

T # 2 ON 221+80.39 ON 200' off 150T
0°00' Sight ON 224+30.39 " " Sec 1578-6

Δ 66°45' N

Sdg #17 = 221+80.39

	Δ	No.	Δ
1 ✓	67°03' LT	11. ✓	66°42' LT
2 ✓	66°57' "	12. ✓	66°42' "
3 ✓	66°55' "	13. ✓	66°48' "
4 ✓	66°56' "	14. ✓	66°50' "
5 ✓	66°46' "	15. ✓	66°47' "
6 ✓	66°47' "	16. ✓	66°59' "
7 ✓	66°43' "	17. ✓	66°51' "
8 ✓	66°50' "	8.	
9 ✓	66°47' "	9.	
10 ✓	66°49' "	10.	

Ocean Sounding
MISSION BAY CHANNEL N.Y.
18

T #2 ON #18 = 224 + 30³⁹ FS. T #1 ON #20

No.	Δ
1. ✓	66° 48' LT.
2. ✓	66° 42' "
3. ✓	66° 35' "
4. ✓	66° 44' "
5. ✓	66° 41' "
6. ✓	66° 51' "
7. ✓	67° 00' "
8. ✓	67° 10'
9. ✓	68° 27'
10.	

OCEAN SOUNDING
MISSION BAY CHANNEL N.Y.
19

T #2 ON #16 = FS ON 224 + 30³⁰ 200^{off}

No.	Δ	No.	Δ
1. ✓	39° 57' 2T	1. ✓	54° 18' LT.
2. ✓	42° 46' "	2. ✓	54° 52' "
3. ✓	44° 56' "	3. ✓	55° 43' "
4. ✓	46° 04' "	4. ✓	56° 05'
5. ✓	48° 03' "	5. ✓	56° 30'
6. ✓	49° 28' "	6.	
7. ✓	50° 01' "	7.	
8. ✓	51° 35' "		
9. ✓	52° 39'		
10. ✓	53° 34'		

5-24-40

Ocean Soundings.

Mission Bay Channel Nly.

20

T #2 ON #20 = 229 + 30 = 40' offset West.

F.S. T #1 ON #24 = 240 + 09.42

No	Δ	No	Δ
1 ✓	90° 07' Lt.	11. ✓	89° 58' Lt.
2 ✓	90° 24' Lt.	12. ✓	90° 09' Lt.
3 ✓	91° 02' Lt.	13. ✓	90° 14' Lt.
4 ✓	90° 01' Lt.	14. ✓	90° 08' Lt.
5 ✓	90° 25' Lt.		
6 ✓	90° 04' Lt.		
7 ✓	90° 08' Lt.		
8 ✓	89° 58' Lt.		
9 ✓	90° 04' Lt.		
10 ✓	90° 14' Lt.		

5-24-40 27

Ocean Soundings

Mission Bay Channel Nly.

21

T #2 AT #21 = 232 + 59 = 40' offset West

F.S. T #1 AT #24 = 240 + 09.42 40' West.

No	Δ
1. ✓	90° 07' Lt.
2. ✓	90° 07' "
3. ✓	89° 59' "
4. ✓	90° 12' "
5. ✓	90° 00'
6. ✓	90° 14'
7. ✓	89° 54'
8. ✓	89° 58'
9. ✓	90° 31'
10	

Ocean Soundings
Mission Bay Channel Nly.
22

T^{#2} At #22 = 235 + 09¹² 40' offset W.
F.S. T^{#1} At #24 = 240 + 09¹² 40' W.

1.	✓	90° 09' LT	1.	
1.	✓	90° 09' LT	11.	✓ 90° 01'
2.	✓	90° 52' "	12.	✓ 90° 04'
3.	✓	89° 48' "		
4.	✓	89° 57' "		
5.	✓	89° 46' "		
6.	✓	89° 55' "		
7.	✓	90° 05'		
8.	✓	89° 45'		
9.	✓	89° 45'		
10.	✓	90° 08'		

Ocean Soundings
Mission Bay Channel Nly.
23

T^{#2} At 229 + 30 39 40 offset W.
T^{#1} At #23 = 237 + 59¹² 40' offset W.

No.	Δ	No.	Δ
1.	✓	74° 28' LT 11.	✓ 50° 03' LT
2.	✓	73° 26' " 12.	✓ 43° 12'
3.	✓	72° 24' 13.	✓ 32° 18'
4.	✓	71° 25'	
5.	✓	70° 40'	
6.	✓	67° 58'	
7.	✓	64° 38'	
8.	✓	61° 30'	
9.	✓	58° 36'	
10.	✓	54° 51'	

5-24-40

Ocean Soundings

Mission Bay Channel Nly

24.

T*2 At #20 = 229 + 30⁰⁰ offset 40' W.F.S. T*1 At #24 = 240 + 09¹³ offset 40' W.

No.	Δ Lt.	No.	Δ
1. ✓	27° 57' Lt	11. ✓	62° 39' Lt
2. ✓	32° 10' "	12. ✓	63° 53' "
3. ✓	36° 32' "	13. ✓	65° 42' "
4. ✓	41° 43' "	4.	
5. ✓	44° 47' "	5.	
6. ✓	47° 53' "		
7. ✓	51° 05' "		
8. ✓	54° 47' "		
9. ✓	56° 52' "		
10. ✓	60° 31' "		

5-24-40

29

Ocean Soundings

Mission Bay Channel Nly

25

T*2 At #25 = 245 + 09¹³ F.S. T*1 At Nly

No.	Δ Left
1. ✓	89° 30' "
2. ✓	89° 55' "
3. ✓	89° 55'
4. ✓	90° 10'
5. ✓	90° 09'
6. ✓	90° 16'
7. ✓	90° 04'
8. ✓	90° 03'
9	

END 5-24-40.

BAY CHANNEL SDGS.
NORTH BAY CHANNEL BASE LINE

T#2 ON 9+70 F.S. T#1 ON 0+00
LINE 2+50

No.	Δ		
1.	✓	61° 25'	RIGHT
2.	✓	59° 25'	"
3.	✓	57° 34'	"
4.	✓	55° 33'	"
5.	✓	52° 39'	"
6.	✓	47° 57'	"
7.	✓	42° 46'	"
8.	✓	36° 23'	"
9.	✓	30° 35'	"
10.	✓	23° 06'	"

BAY CHANNEL SOUNDINGS
NORTH BAY CHANNEL BASE LINE

T#2 ON 9+70 B.S. T#1 ON 0+00
LINE 5+00

No.	Δ	
1.	✓	43° 42'
2.	✓	49° 32'
3.	✓	55° 18'
4.	✓	60° 00'
5.	✓	63° 24'
6.	✓	65° 59'
7.	✓	67° 41'
8.	✓	68° 57'
9.		

5/29/40

BAY CHANNEL SOUNDINGS
N. BAY CHANNEL BASE LINE

T#2 ON 9470 B.S. T#1 ON 0700
LINE 7450

No		Δ
1.	✓	78° 18' RIGHT
2.	✓	77° 22' "
3.	✓	75° 19' "
4.	✓	73° 04' "
5.	✓	70° 30' "
6.	✓	68° 27' "
7.	✓	65° 59' "

T

5/29/40 31

BAY CHANNEL SOUNDINGS
N BAY CHANNEL BASE LINE

T#2 ON 9470 B.S. T#1 ON 0700
LINE 9470

No.		Δ
1.	✓	90° 00' RIGHT
2.	✓	90° 00' "
3.	✓	90° 05' "
4.	✓	89° 04' "
5.	✓	90° 07' "
6.	✓	90° 03' "
7.	✓	89° 30' "
8.	✓	89° 48' "

BAY CHANNEL SOUNDINGS.
NORTH BAY CHANNEL BASE LINE

T#2 ON 9+70 BS T#1 ON 0+00
LINE 12+50

No	Δ	
1.	✓	104° 58' RIGHT
2.	✓	106° 37' "
3.	✓	109° 27' "
4	✓	113° 09' "
5.	✓	117° 49' "
6.	✓	122° 59' "
7.	✓	128° 11' "
8	✓	137° 14' "

5/29/40

Ocean Soundings
Mission Bay Channel N/4
26

T#2 ON 250+09³¹ F.S. T#1 ON 258+0961

No.		Δ
1.	✓	89° 05' 47"
2.	✓	89° 51' "
3.	✓	90° 05' "
4.	✓	91° 05' "
5.	✓	90° 08' "
6.	✓	90° 00' "
7.	✓	90° 21' "
8.	✓	90° 10' "
9.	✓	89° 43' "
10.	✓	90° 02'

5/29/40 33

Ocean Soundings
Mission Bay Channel N/4
27

T#2 ON #25-245+09¹² F.S. T#1 ON 255+09.50

No.		Δ LTT
1.	✓	66° 45'
2.	✓	64° 44'
3.	✓	63° 01'
4.	✓	60° 21'
5.	✓	57° 33'
6.	✓	53° 37'
7.	✓	49° 40'
8.	✓	44° 55'
9.	✓	37° 45'
10.	✓	32° 34'

5/29/40

Ocean Soundings.

Mission Bay Channel N.Y.

28

T[#] 2 on 240+09¹² FS. T[#] 1 on 258+09.61

No		Δ LF	No	Δ LFT
1.	✓	25° 17' "	11.	✓ 53° 16'
2.	✓	29° 09' "	12.	✓ 57° 29'
3.	✓	33° 57' "	13.	✓ 59° 46'
4.	✓	39° 30' "		
5.	✓	43° 28' "		
6.	✓	46° 09'		
7.	✓	48° 19'		
8.	✓	49° 59'		
9.	✓	51° 24'		
10.	✓	53° 21'		

5/29/40

34

Ocean SOUNDINGS.

Mission Bay Channel N.Y.

29

T[#] 2 on 258+09.61 FS on T[#] 1 263+09.80

No		Δ LFT
1.	✓	77° 09' "
2.	✓	75° 42' "
3.	✓	74° 13' 30' "
4.	✓	72° 57' "
5.	✓	70° 06' "
6.	✓	68° 29' "
7.	✓	66° 53' "
8.	✓	62° 30' "
9.	✓	58° 09' "
10.	✓	54° 32'

5/29/40

Ocean Soundings
Mission Bay Channel Nly
30

T#2 ON #30-268+10 FS T#1 ON (27)? 31

No	Δ	No.	Δ
1.	✓	91° 55' Left. 11. ✓	90° 02' Left
2.	✓	89° 43' "	
3.	✓	90° 37' "	
4.	✓	90° 31' "	
5.	✓	90° 03' "	
6.	✓	90° 04' "	
7.	✓	90° 41' "	
8.	✓	90° 07' "	
9.	✓	89° 51' "	
10.	✓	89° 51' "	

5/29/40 35

Ocean Soundings
Mission Bay Channel Nly
31

T#2 ON #30-268+10 FS #1 ON (27)?

No	Δ
1.	✓ 76° 10' Left
2.	✓ 74° 36' "
3.	✓ 73° 02' "
4.	✓ 71° 32' "
5.	✓ 68° 31' "
6.	✓ 66° 14' "
7.	✓ 61° 00' "
8.	✓ 56° 01' "
9.	✓ 48° 20' "
10.	✓ 39° 34' "

T*2 S.R. HALE

5/31/40

OCEAN SOUNDING #32

T*2 ON #31 = 273 + 86³⁵ F.S. T*1 ON #32

No	Δ
1.	✓ 40° 39' Left.
2.	✓ 44° 13' "
3.	✓ 49° 30' "
4.	✓ 53° 21' "
5.	✓ 56° 00'
6.	✓ 57° 47'
7.	✓ 60° 33'
8.	✓ 63° 09'
9.	
10.	

T*2 S.R. HALE

5/31/40 36

OCEAN SOUNDING #33

T*2 ON #33 = 296 + 44⁴⁴ B.S. T*1 ON #32

No	Δ
1.	✓ 89° 26' Right
2.	✓ 89° 40' "
3.	✓ 89° 42' "
4.	✓ 89° 20' "
5.	✓ 89° 37'
6.	✓ 89° 53'
7.	✓ 90° 12'
8.	

5/31/40

OCEAN SOUNDING # 34

T#2 ON #33 = 296 + 44 ± E.S. T#1 ON #34
305 + 50
CROSS IN WALK

No	Δ
1. ✓	47° 49' Left.
2. ✓	50° 20' "
3. ✓	52° 35' "
4. ✓	55° 54' "
5. ✓	57° 57' "
6. ✓	59° 36' "
7. ✓	61° 51' "
8. ✓	64° 52' "
9. ✓	66° 13' "
10. ✓	68° 05' "

5/31/40 37

OCEAN SOUNDINGS # 35

T#2 ON Δ 309 + 11 ± B.S. T#1 ON #35 = 315 + 11.76

No	Δ
1. ✓	74° 50' Left.
2. ✓	72° 21' "
3. ✓	71° 00' "
4. ✓	67° 30' "
5. ✓	64° 33' "
6. ✓	61° 22' "
7. ✓	56° 37' "
8.	
9.	

T[#] 2 S. RHALE.325+12.13
6/4/40

OCEAN SOUNDING #36

T[#] 2 ON #36 = 325+12.13 F.S. T[#] 1 ON #37 = 335+09.12

No.		Δ
	IN	
1.	✓	89° 58' Left
2.	✓	90° 23' "
3.	✓	89° 57' "
4.	✓	90° 00' "
5.	✓	90° 07' "
6.	✓	90° 07' "
7.	✓	89° 43' "
8.	✓	89° 57' "
9.	✓	89° 56' "
	OUT	

6-4-40
38

OCEAN SOUNDING #37

T[#] 2 ON #36 = 325+12.13 F.S. T[#] 1 ON #37 = 335+09.12

No.		Δ	No.	Δ
	OUT			
1.	✓	70° 29' LEFT?	10	✓ 47° 30'
2.	✓	69° 26' "		
3.	✓	68° 30' "		
4.	✓	67° 27' "		
5.	✓	65° 08' "		
6.	✓	63° 12' "		
7.	✓	60° 51' "		
8.	✓	57° 12' "		
9.	✓	52° 59'		

OCEAN SOUNDING #38

π #2 ON #38 345+00 FS. π #1 ON $\overline{347+63.7}$
 NY. 352+63.70

No	Δ	No	Δ
		LEFT.	
1	✓ 89° 42' Left. 11.	✓	89° 53'
2	✓ 90° 02' " 12.	✓	90° 14'
3	✓ 89° 29' "		
4	✓ 90° 04' "		
5	✓ 89° 47' "		
6	✓ 90° 15' "		
7	✓ 89° 55' "		
8	✓ 89° 58' "		
9	✓ 90° 12' "		
10	✓ 90° 07' "		

39

OCEAN SOUNDING #39

π #2 ON #39-355+00 BS. π #1 ON 350+00

No	Δ
1	✓ 90° 00' RIGHT.
2	✓ 89° 55' "
3	✓ 89° 59' "
4	✓ 89° 50' "
5	✓ 90° 27' "
6	✓ 89° 51' "
7	✓ 90° 09' "
8	✓ 89° 52' "
9	✓ 89° 51' "
10	✓ 90° 00' "

should be 11 shots - assumed 110.11 at 90° c.s.k.

6/4/40

B 8402.7*

6/4/40

OCEAN SOUNDING #40
 CRYSTAL PEIR (PROLONGATION)

T#2 NE 7' POINT GRAND ST & OCEANFRONT

F.S. NE 2' POINT DIAMOND ST & OCEANFRONT

No	Δ	No	Δ
1	✓ 74° 59' Left. 11.	✓	58° 05'
2	✓ 74° 13' "		
3	✓ 73° 04' "		
4	✓ 71° 48' "		
5	✓ 70° 25' "		
6	✓ 68° 58' "		
7	✓ 67° 25' "		
8	✓ 64° 55' "		
9	✓ 62° 23' "		
10	✓ 59° 59'		

OCEAN SOUNDINGS #41

T#2 ON #41-375+00 FST#1 ON 384+02.74

No	Δ	No.	Δ
1	✓ 89° 21' Left	11.	✓ 89° 56'
2	✓ 90° 00' "	12.	✓ 90° 08'
3	✓ 89° 53' "	13.	✓ 89° 42'
4	✓ 90° 02' "		
5	✓ 89° 48' "		
6	✓ 90° 08' "		
7	✓ 89° 54' "		
8	✓ 90° 03' "		
9	✓ 89° 49' "		
10.	✓ 89° 59' "		

6/4/40

OCEAN SOUNDING #42

T^{#2} ON #41 = 375+00 F.S. T^{#1} ON #42 = 384+02

No	Δ	No	Δ
1. ✓	73°46' Left		
2. ✓	72°40' "		
3. ✓	71°02' "		
4. ✓	69°09' "		
5. ✓	66°31' "		
6. ✓	63°49' "		
7. ✓	61°00' "		
8. ✓	57°20' "		
9. ✓	51°41' "		
10. ✓	48°53' "		

6/4/40

OCEAN SOUNDING #43

T^{#2} ON #44

BST #1

No	Δ	No	Δ
1. ✓	41°33' RIGHT "		69°35'
2. ✓	47°48' "		
3. ✓	51°47' "		
4. ✓	55°00' "		
5. ✓	58°27' "		
6. ✓	60°50' "		
7. ✓	62°45' "		
8. ✓	64°19' "		
9. ✓	66°06' "		
10. ✓	68°15' "		

6/4/40

42

OCEAN SOUNDING #44

T #2 ON #44

BS. T #1 ON

No	Δ	
1	✓	89° 52' RIGHT
2	✓	89° 57' "
3	✓	90° 00' "
4	✓	89° 52'
5	✓	90° 11' "
6	✓	89° 52' "
7	✓	89° 48'
8	✓	89° 57'
9	✓	89° 35'
10		

1-23-41. Survey & Levels on Beach
at Ocean Beach

172+50

1" iron pipe
Now gone

170+50

168+00

165+50

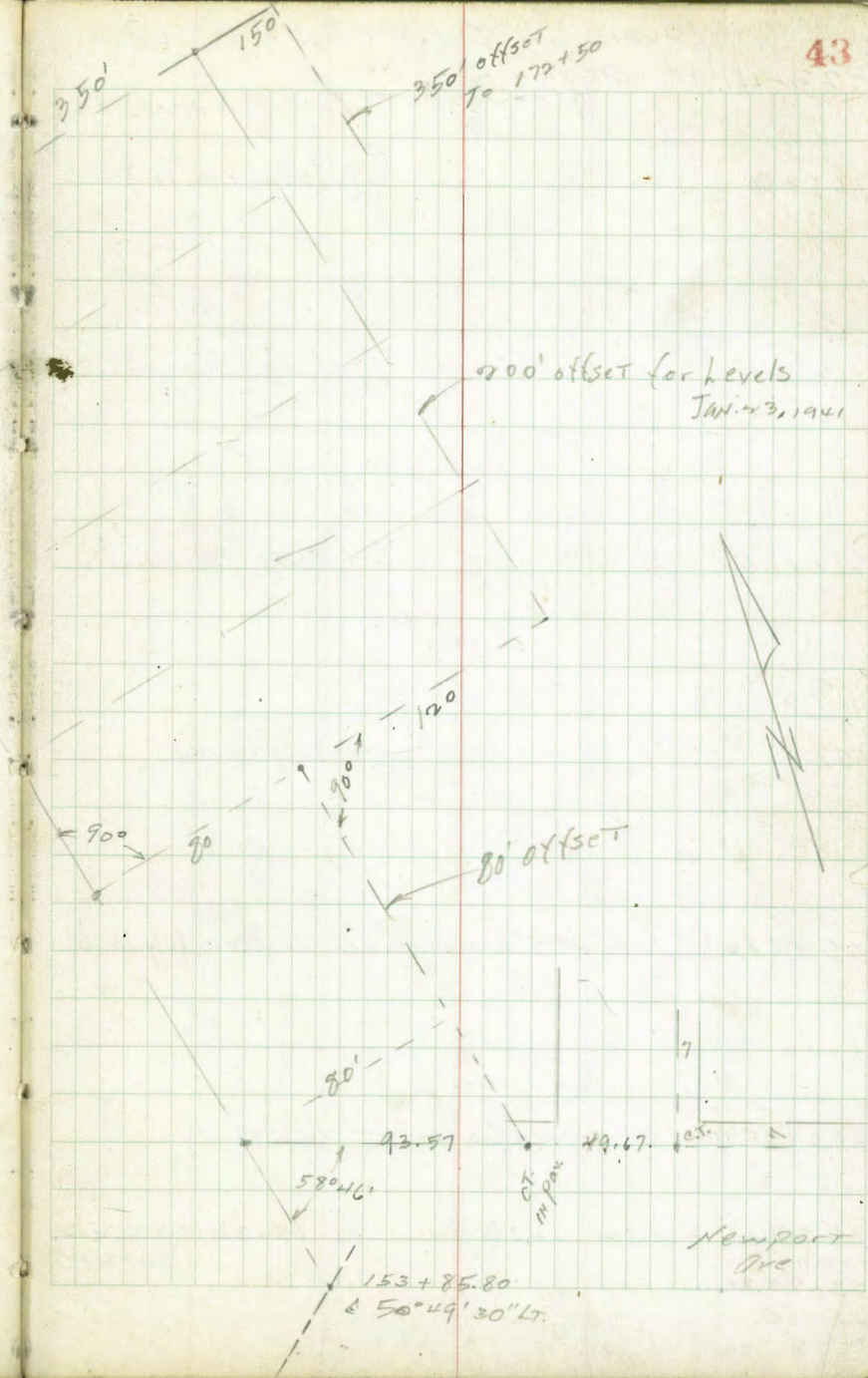
163+00

160+50

158+00

155+68.71 Int. with N 7' line of Newport

153+85.80 Δ $50^{\circ}49'30''$ LT.



Levels on Sand Beach at Ocean Beach
Newport to Channel

plotted
C.S.H.

165+50 (Sdg. No. 12)

163 (Sdg. No. 11)

160+50 (Sdg. No. 10)

158 (Sdg. No. 9)

155+68.21 Int. N 7' line Newport Ave. (Sdg. No. 8)

153+85.80 Δ 50° 49' 30" Lt. (Sdg. #7)

B.M. Top - 1.12 14.18
Sea Wall
153+85.80
See F.B.
1578-70

15.30 U.S.C. & G.
Datum

LT Loudon M.H.T.
Baseline

Rt

44

	$\frac{14.9}{150}$	$\frac{14.6}{80}$	$\frac{12.2}{100}$	5.5	$\frac{110}{180}$	$\frac{154}{200}$
	$\frac{-1.6}{15.8}$	$\frac{1.0}{13.2}$	$\frac{3.3}{10.9}$		$\frac{9.2}{5.0}$	$\frac{12.2}{12.0}$
High Tide	200	100	10.9		150	200
	$\frac{0.5}{12.7}$	$\frac{1.8}{12.4}$	$\frac{4.4}{9.8}$		$\frac{10.2}{4.0}$	$\frac{13.4}{0.8}$
	$\frac{14.6}{200}$	$\frac{12.2}{100}$	$\frac{9.4}{9.4}$		$\frac{2.0}{130}$	$\frac{0.8}{160}$
	$\frac{-0.5}{14.7}$	$\frac{1.7}{12.5}$	$\frac{4.8}{9.4}$		$\frac{9.2}{5.0}$	$\frac{12.9}{1.3}$
	190	80	9.4		65	78
	$\frac{-0.1}{14.3}$	$\frac{1.9}{12.3}$	$\frac{7.4}{6.8}$		$\frac{12.6}{1.6}$	
	200	100	6.8		35	
						$\frac{14.18}{5}$

1-23-41

172+50

(Sdg. No. 15)

170+50

(Sdg. No. 14)

168+00

(Sdg. No. 13)

T.P.	2.85	14.63	2.40	11.78
		14.18		

LT

Louder / M.H.T. Baseline RT

45

-0.6	+0.2	0.2	0.7	1.2	3.6	6.4	10.5	10.7
15.2	14.4	14.2	13.9	13.4	11.0	8.4	4.1	3.9
300	200	100		100	200	290	325	350

-0.1	1.0	1.4	2.3	5.9	10.2	11.6
14.7	13.6	13.2	12.3	8.7	4.4	3.0
300	200		100	200	300	350

0.2	1.2	1.6	1.7	4.5	7.0	13.1
14.4	13.4	13.0	12.9	10.1	5.4	1.5
300	200	100		100	195	205

14.63

X sec of Mission Bay Inlet
 1-24-41 Bridge Wly to Ocean

17+50

T.P. 4.97 10.33 9.77 5.36

9+70

T.P. 5.05 15.13 4.22 10.08

7+50

T.P. 5.98 14.30 5.90 9.32

5+00

T.P. 4.90 14.22 4.17 9.32

2+50

0+00 No change

T.P. 4.33 13.49 3.65 9.16

5.01 12.81

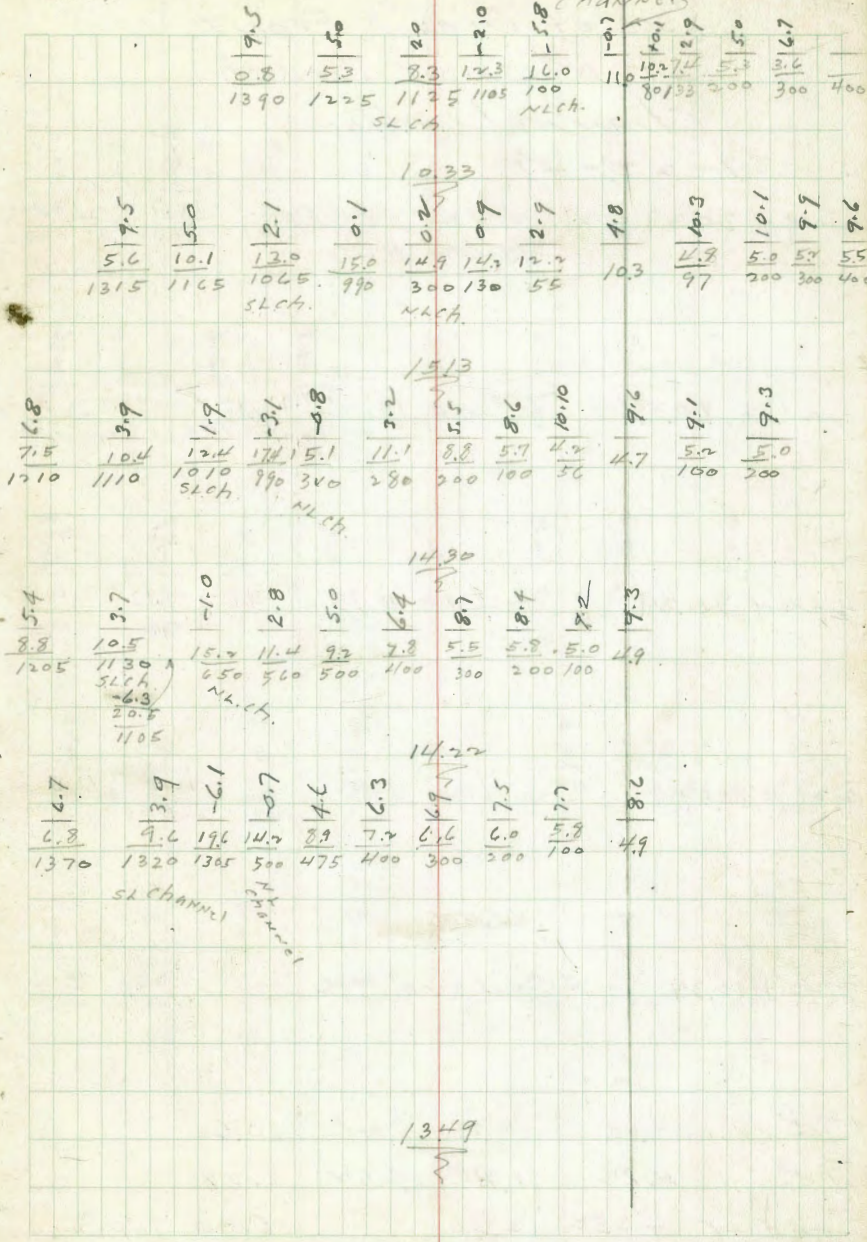
NEBPC6 CITY DATUM

Sec 1578-74

7.80 = VSC4G
 Mission Pt.
 S.D. Pt.
 -1.21
 9.01

Plotted
 as K.

LT



Xsec of Ocean Front
at Mission Beach
Channel Nly.

1-28-41

229 + 30.39 = Δ 23° 14' 50" RT.
Sdg. Line # 20

	-0.9	
	14.7	13.3
	800	700

226 + 30.39 Sdg. Line # 19

	-1.1	-0.6		
	14.9	14.4	13.0	13.2
	750	700	600	500

224 + 30.39 Sdg. Line # 18

	-1.1		10.3
	14.9		13.5
	500		450

221 + 30.39 Sdg. Line # 17

	-1.1		10.1
	14.9		13.7
	550		500

220 + 10.39 Sdg. Line # 16

	-0.3	
	14.1	
	450	

T.P. 3.15 13.75 11.4 10.60

T.P. 4.84 11.74 5.62 6.88

S. end of Mission Beach -350 12.50 16.00 Top Seawall

USCGC
BATUM

1.2	1.3	1.8	5.8	6.1	8.0	9.7	10.4
12.6 600	12.5 400	12.0 300	8.0 200	7.7 100	5.8	4.1 100	3.4 200
1.3	1.6	3.5	5.8	8.6	9.7	9.6	9.7
12.5 400	12.2 300	10.3 200	8.0 100	5.2	4.1 70	1.6 100	5.1 200
1.3	1.0	1.8	4.6	8.3	10.2	10.2	10.2
12.5 400	12.8 300	12.0 250	9.2 130	5.5	3.6 50	3.6 100	3.6 200
0.9	1.3	0.6	1.8	4.6	6.8	10.0	9.6
12.9 400	12.5 300	13.2 200	12.0 100	9.2	7.0 70	3.8 170	4.2 300
0.2	0.3	-0.9	-0.6	-0.1	3.1	6.4	10.1
13.6 400	13.5 300	14.7 200	14.4 100	13.9	10.7 100	7.4 200	3.7 200

Sand bar filling in

13.75

250 + 09.31

Sdg. Line # 26

245 + 09.12

Sdg. Line # 25

240 + 09.12

1 - 29 - 141. Sdg. Line # 24

237 + 59.12

Sdg. Line # 23

235 + 09.12

Sdg. Line # 22

232 + 59.12

Sdg. Line # 21

T.P.

3.40 1395 320 10.55

1375

Loudon
Baseline
F

$\begin{array}{r} 1.1 \\ \hline 12.9 \\ \hline 200 \end{array}$	$\begin{array}{r} 2.3 \\ \hline 13.7 \\ \hline 150 \end{array}$	$\begin{array}{r} 3.5 \\ \hline 14.5 \\ \hline 100 \end{array}$	$\begin{array}{r} 4.3 \\ \hline 15.7 \\ \hline 15 \end{array}$	$\begin{array}{r} 12.8 \\ \hline 31.7 \\ \hline 5 \end{array}$
$\begin{array}{r} 1.1 \\ \hline 14.9 \\ \hline 200 \end{array}$	$\begin{array}{r} 3.8 \\ \hline 12.7 \\ \hline 130 \end{array}$	$\begin{array}{r} 4.3 \\ \hline 11.7 \\ \hline 100 \end{array}$	$\begin{array}{r} 11.1 \\ \hline 4.9 \\ \hline 6 \end{array}$	
$\begin{array}{r} 0.5 \\ \hline 15.5 \\ \hline 200 \end{array}$	$\begin{array}{r} 3.0 \\ \hline 13.0 \\ \hline 100 \end{array}$	$\begin{array}{r} 7.2 \\ \hline 8.8 \\ \hline 25 \end{array}$	= foot seawall on sand	
16.00 = K				
$\begin{array}{r} -0.6 \\ \hline 14.6 \\ \hline 275 \end{array}$	$\begin{array}{r} 1.0 \\ \hline 13.0 \\ \hline 200 \end{array}$	$\begin{array}{r} 3.9 \\ \hline 10.1 \\ \hline 100 \end{array}$	$\begin{array}{r} 11.6 \\ \hline 21.1 \\ \hline 5 \end{array}$	$\begin{array}{r} 16.0 \\ \hline 17.0 \\ \hline 275 \end{array}$
= TOP RIP RAP				
$\begin{array}{r} -2.0 \\ \hline 16.0 \\ \hline 250 \end{array}$	$\begin{array}{r} 0.2 \\ \hline 14.2 \\ \hline 200 \end{array}$	$\begin{array}{r} 3.9 \\ \hline 10.1 \\ \hline 100 \end{array}$	$\begin{array}{r} 9.1 \\ \hline 4.9 \\ \hline 49 \end{array}$	$\begin{array}{r} 13.0 \\ \hline 1.0 \\ \hline 70 \end{array}$
70 FOOT NEW RIP RAP				
$\begin{array}{r} 0.0 \\ \hline 14.0 \\ \hline 250 \end{array}$	$\begin{array}{r} 1.5 \\ \hline 12.5 \\ \hline 200 \end{array}$	$\begin{array}{r} 5.6 \\ \hline 8.4 \\ \hline 100 \end{array}$	$\begin{array}{r} 9.0 \\ \hline 5.0 \\ \hline 50 \end{array}$	$\begin{array}{r} 10.8 \\ \hline 3.2 \\ \hline 100 \end{array}$
				$\begin{array}{r} 11.0 \\ \hline 3.0 \\ \hline 200 \end{array}$
				$\begin{array}{r} 1395 \\ \hline \end{array}$

100'S of
 This = SAND RIP RAP

285 + 10.50

Sdg. Line # 32

272 + 86.85

Sdg. Line # 31

268 + 10

Sdg. Line # 30

263 + 09.80

Sdg. Line # 29

258 + 09.61

Sdg. Line # 28

255 + 09.31

Sdg. Line # 27

LT

London
M.H.T.S
Baseline

49

0.1	1.1	1.8	3.8	9.4
15.9	14.9	14.2	12.7	6.6
250	200	150	75	8

0.2	0.9	1.4	5.9	16.00
16.2	15.1	14.6	10.1	2
200	150	100	22	

0.1	0.5	3.4	8.5
15.9	15.5	12.6	7.5
250	150	75	22

0.6	2.0	6.7	10.10
15.2	14.0	9.3	5.9
300	200	50	8

1.5	3.3	7.0	10.9
14.5	12.7	9.0	5.1
250	150	75	8

1.3	2.5	4.4	10.10	14.4	16.50
14.7	13.5	11.6	5.9	1.6	2
250	150	100	25	5	

16.00
2

345+00 1-29-41 "H.W.S."
Sdg. Line # 38 says far end.

335+02.47 Sdg. Line # 37

325+12.13 Sdg. Line # 36

315+11.76 Sdg. Line # 35

305+50 Sdg. Line # 34

296+00.00 Sdg. Line # 33

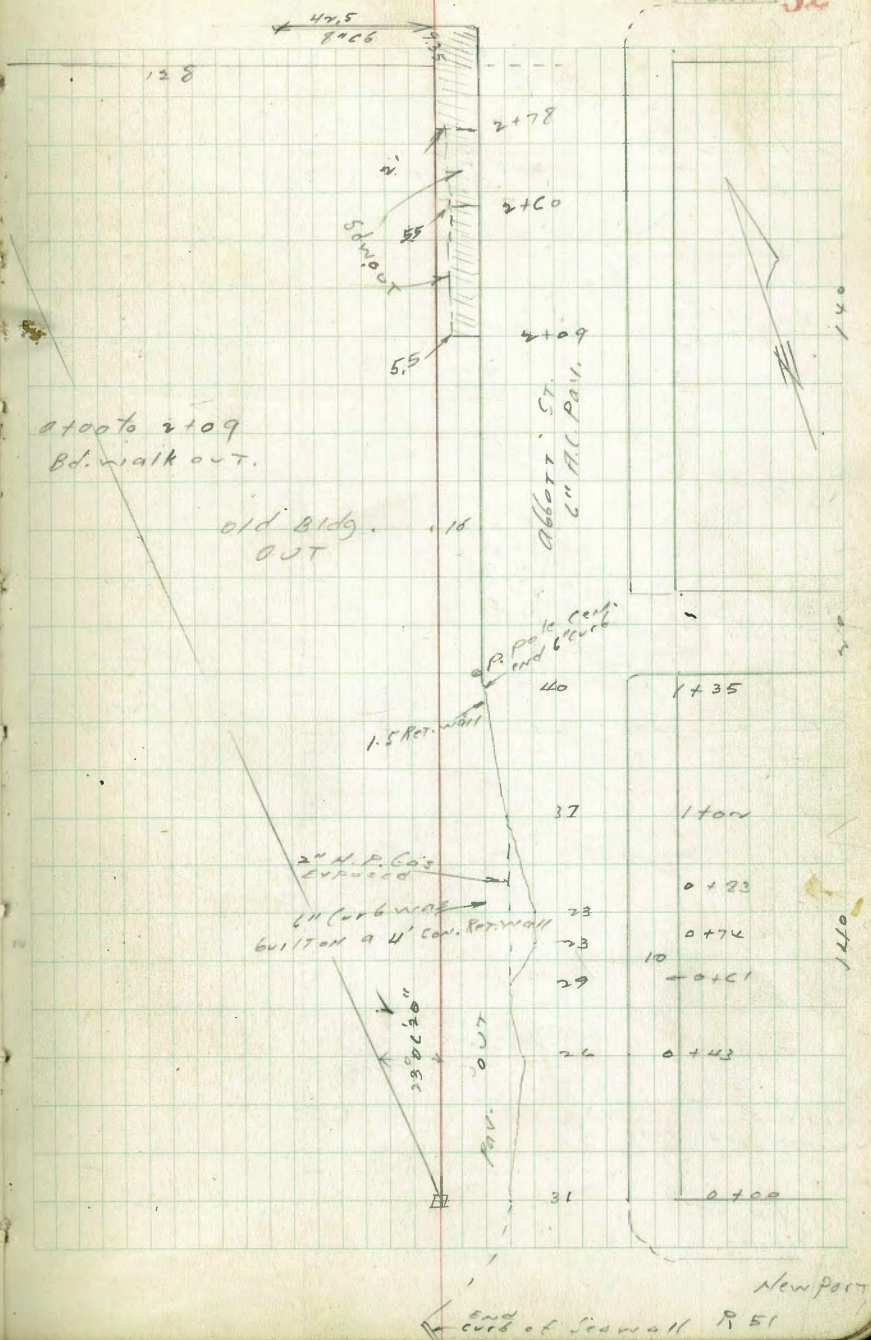
London
MHT Baseline
←

LT

$\frac{17.4}{300}$	$\frac{15.4}{200}$	$\frac{13.5}{100}$	7.5	$\frac{16.0}{70}$
-0.4	1.2	3.3	9.3	12.8
3.3	1.3	2.0	5.2	12.0
$\frac{15.7}{400}$	$\frac{14.7}{300}$	$\frac{14.0}{200}$	$\frac{10.8}{100}$	$\frac{4.0}{80}$
0.3	1.4	4.0	11.1	16.80 = T
$\frac{15.7}{300}$	$\frac{14.6}{200}$	$\frac{12.0}{100}$	$\frac{4.9}{7}$	
-1.0	1.2	3.8	11.7	
$\frac{17.0}{300}$	$\frac{14.8}{200}$	$\frac{12.2}{100}$	$\frac{11.3}{7}$	
0.3	1.8	3.8	11.4	
$\frac{15.7}{250}$	$\frac{14.2}{150}$	$\frac{12.2}{100}$	$\frac{4.6}{4}$	
1.1	2.4	3.0	6.6	11.3
$\frac{14.9}{250}$	$\frac{13.6}{200}$	$\frac{13.0}{150}$	$\frac{9.4}{50}$	$\frac{4.7}{5}$

16.00 = T

location of damaged
walk & paving



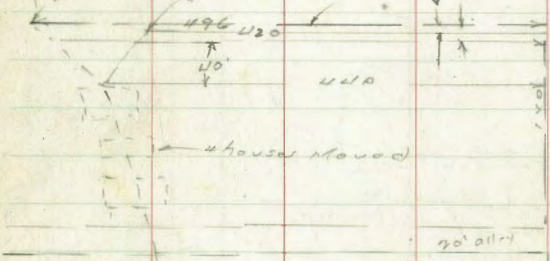
See M.H.T. Levels of 1940 for High water Cut of 2 years past



Brighton

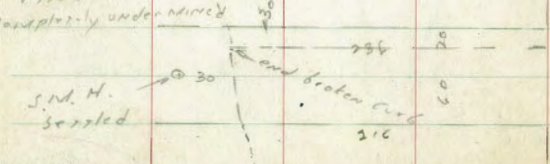
Line of High water Oct. 41. High water line and erosion of 2 years ago approx.

1 house undermined & moved Broken end of 504 Broken end of 504



Cape May

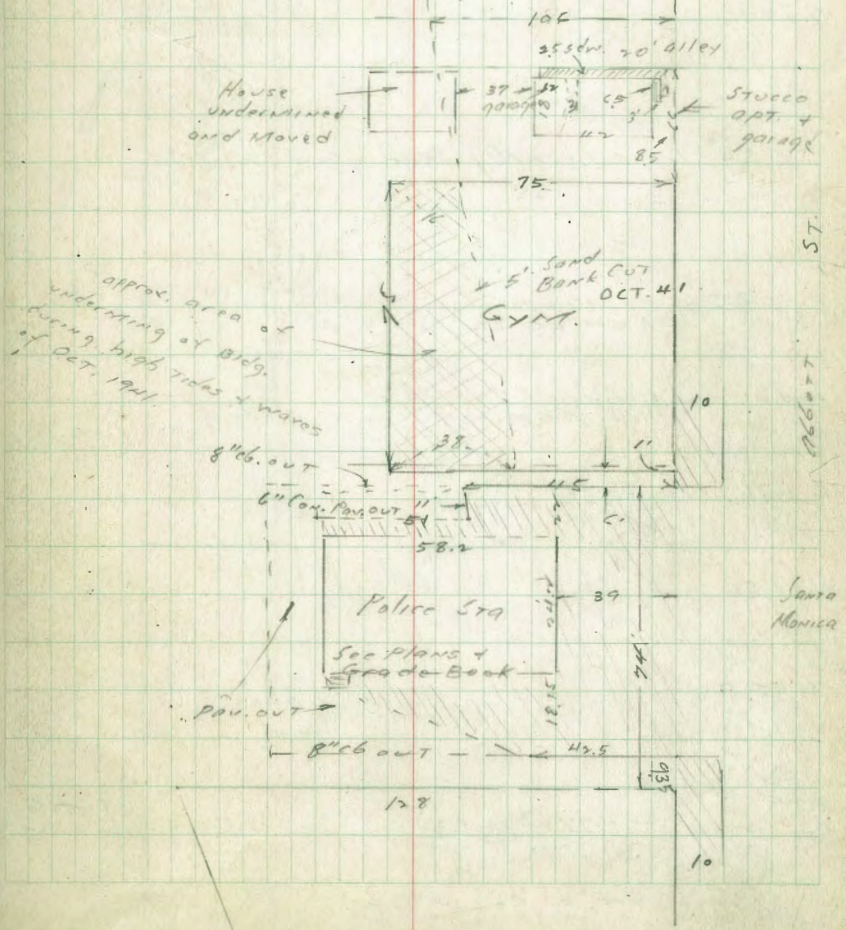
3 or 4 house moved but portions remain



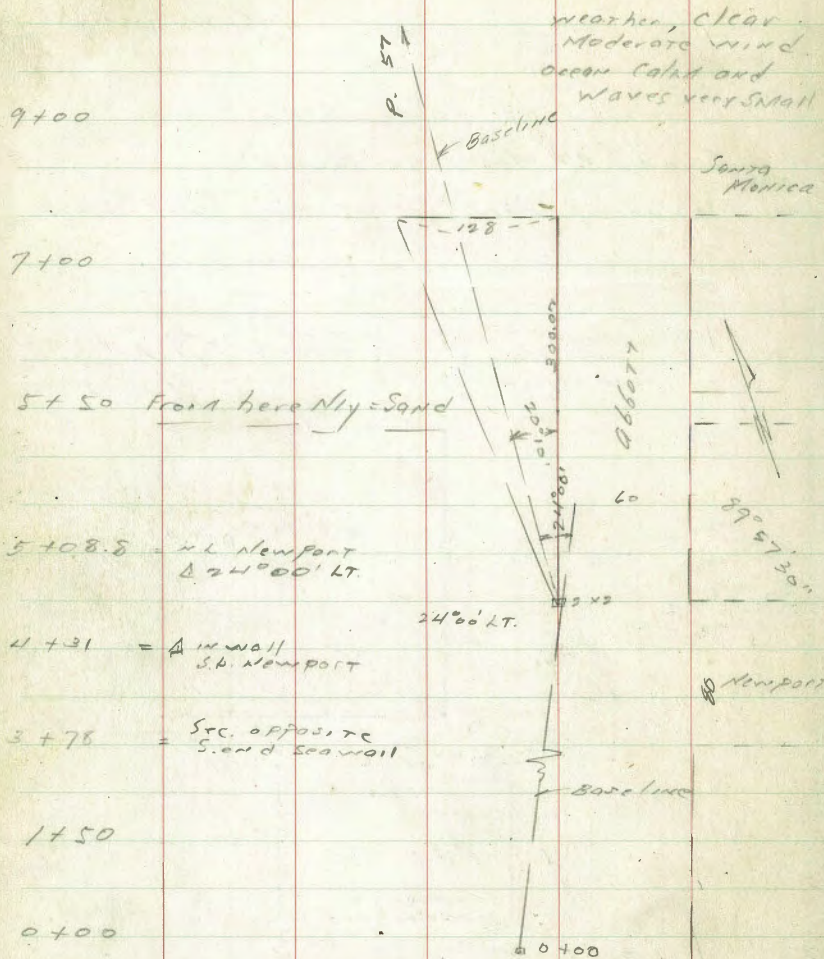
Saratoga

11-3-41.

Location of Police Sta. & Gym (old Merry-go-round) showing damages of High tidal water



Location of 0.00 M.H.T. Svd. loc
at Ocean Beach 11-3-41.



B.M. See R. 44 - 4.77 10.53 ✓ 15.30 USC + G. DATUM

Note! Sec. at 90° on Tang.
" " split on A Pts.

LT	Baseline	RT
0.0	3.1	4.9
10.5	7.4	5.6
20.7		2.4
0.0	3.2	4.9
10.5	7.3	5.6
13.8		2.7
0.0	3.1	4.9
10.5	7.4	5.6
15.0		1.5
0.0	1.5	
10.5	20 N. end 147 Rock	26 Sand on split of Δ
0.0	3.9	4.9
10.5	4.6 Rock	5.6 Sand
9.1 Rock		1.8 Sand
0.0	3.0	4.9
10.5	7.5 Rock	5.6 Sand
1.0 Rock		2.7 Sand
0.0	3.2	4.9
10.5	7.3 Rock	5.6 Sand
21.2 Rock		4.3 Rocks
0.0	4.9	
10.5	5.6	
1.90 Rocks		7.5 Rocks

5
21.0 Sand

Rock = sand stone

10.53
Rod 5.6 = M.H.T.
4.93 = " "

Rod 10.5 = 0.00
USC + G

END 11-3-41.

T.P. 2.75 15.23 0.00 12.48

21+00

19+00

T.P. 11.78 17.48 5.83 7.70

17+00 A 28° 27' RT.

Section SPLIT.

T.P. 3.01 13.53 0.00 10.52

13+00.50 A = 15° 00' RT.

11+00

10.53

Lt.

B.H.

Rt.

55

0	2	11.3
<u>12.5</u>	<u>2.5</u>	<u>1.2</u>
584	141	

0	5	11.1
<u>17.5</u>	<u>7.5</u>	<u>1.4</u>
710	114	

Pod 7.55

0	4.9	12.118
<u>13.5</u>	<u>8.6</u>	<u>7.7</u>
299	19	5.8

Cape May Storm drain

0.0	4.9	9.8
<u>10.5</u>	<u>5.6</u>	<u>0.7</u>
300	61	

Section A Split

0.0	4.9	5.4
<u>10.5</u>	<u>5.6</u>	<u>5.1</u>
274	4	

10.53

T.P. 4.90 7.91 5.51 3.01

32+85

31+61

T.P. 4.11 8.51 4.76 4.40

29+76

slightly ocean village Bulkhead Sec. on
approach Nly line 1017915C

27+00

Rods 3.73 = MHT
8.66

T.P. 4.73 8.66 11.30 3.93

25+84 Δ 72° 51' RT

23+00

Rods
10.3 = MHT
15.23 = 0.0

15.23

Beq. 11-4-41

clear
light wind
ocean calm

LT

0
8.51
147

0
8.51
110

0
8.66
98

0
8.66
103

0
15.23
185

0
15.11
426

4.9
10.3
104

LB

4.93

3.58

4.41

4.1

8.51

1.56

4.1

2.6

6.0

8.66

3.9

11.3

4.1

6.1

15.23

RT

56

2.31

1.2

4.93

3.58

8.51

4.93

3.73

4.93

3.73

8.66

4.9

10.3

4.1

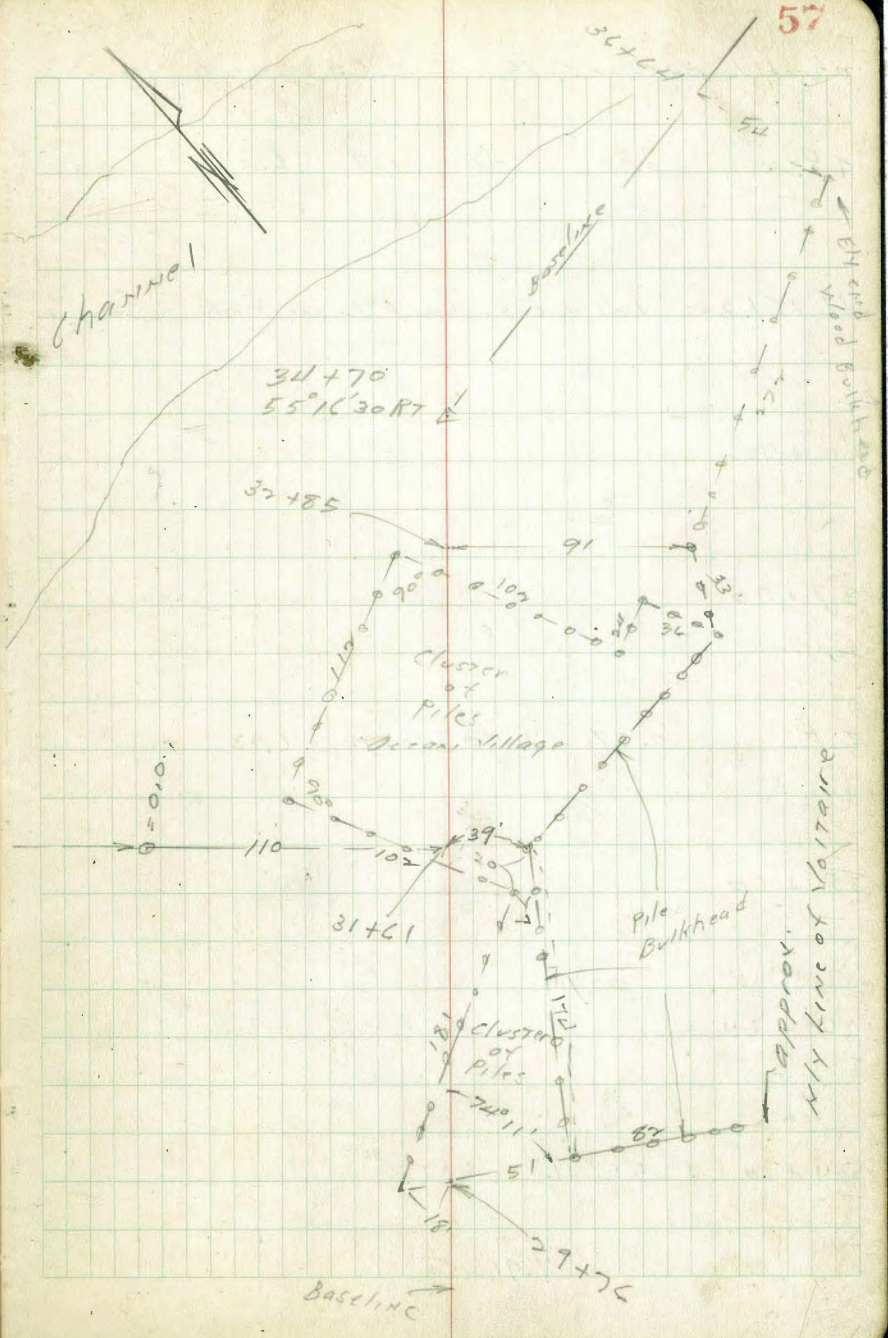
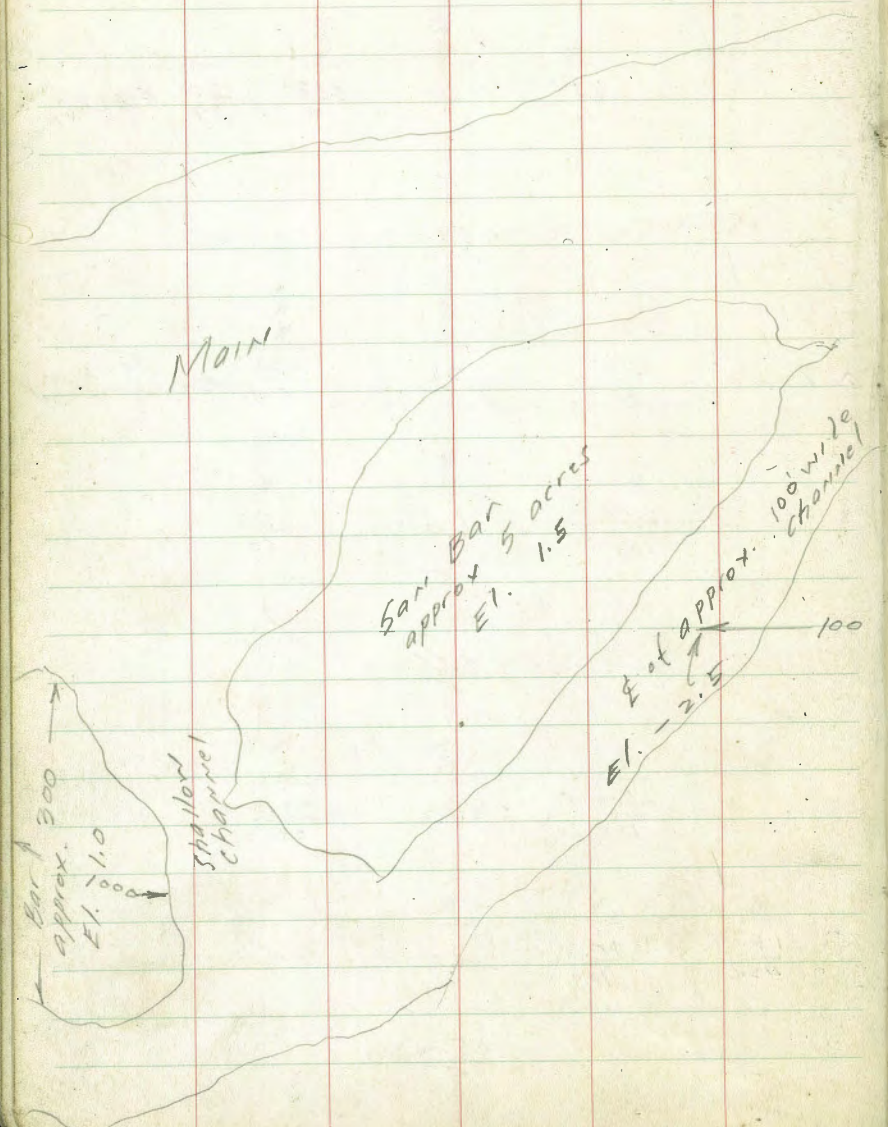
6.1

15.23

Δ Bulkhead

2.2 Δ Bulkhead

also So. Bulk
Car. head



check to B.M. in C. 16 4.50 12.21 12.23 USC+G

T.P. 10.38 16.71 11.7 6.33

11. + 61.30 Ld. + C.T. Co. PT. in Ecch. So. of

40 + 90

39 + 90

T.P. 0.57 7.50 0.98 6.93

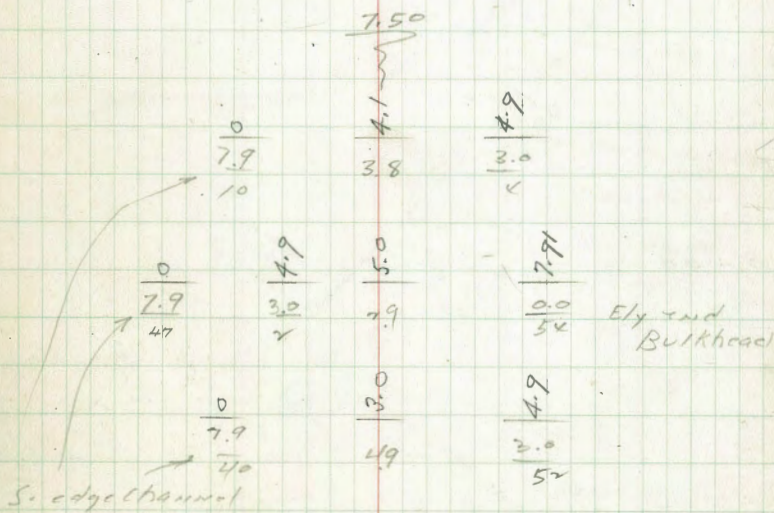
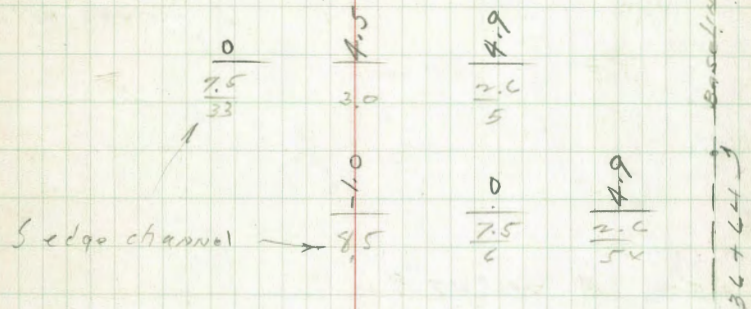
38 + 60

36 + 64

34 + 70 Δ 55° 16' 30" RT.

7.91

Lt Rt 58
S. of S. end Mission Bay Bridge



Location of M.H.T. of 0.0 line
at Mission Beach, Ocean side
Mission Bay Bridge N/ly to

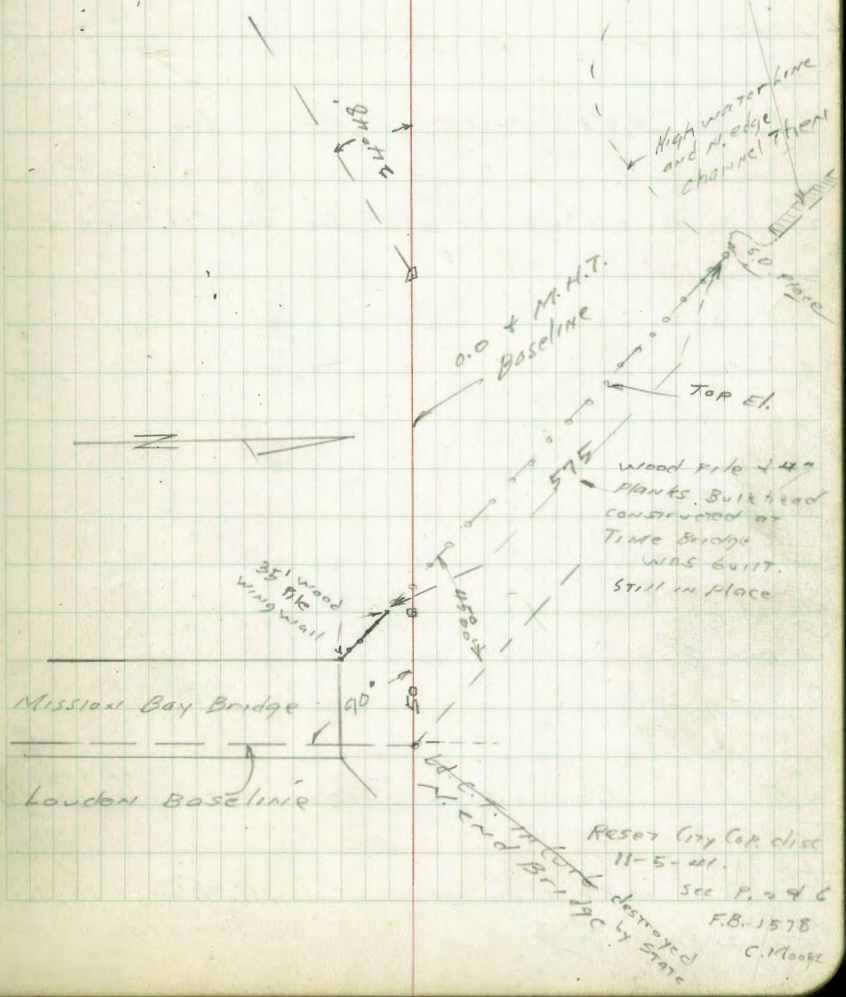
11-5-41.
clear
light wind
6 waves all day

2+50 A 74°48' LT

0+00

Note! From N. end Bay Bridge
to San Diego Pl. on Mission Blvd.
Large Rock Fill

12' Ed. walk via
Ocean Front walk
to San Fernando Pl.
and N/ly.
"in these three days"
way out.



T.P. 11.90 11.77 6.25 6.42

8+00 = Δ 53°00' RT. Sec. on split

6+00

T.P. 4.85 12.67 6.90 7.82

2+50 Δ 24°48' LT Sec. on split of A

0+07

0+00

00-8

T.P. 6.90 14.72 11.50 7.82 ON 5706 2+50 Sec

B.P. B.M. OUT 4.52 12.32
N.E. Cor. Mission Blvd. San Diego Pl.
Radon in State curb

7.80 = U.S.C. & G. datum
901
1.21 = CITY "

LT

RT

60

0
12.7
157

4.9
7.8
119

6.5
6.2

53
18.0
290

0
12.7
276

4.9
7.8
186

8.8
59

↑
change channel

19.0
230

0
12.7
219

4.9
7.8
173

12.67
8.6
41

7.82 el. 5706

8.6

= sand el. Fill = 0.8 = sand drift by wind

0
14.7
68

4.9
9.8
23

6.5
8.2

0
14.7
60

4.9
9.8

Sand 22
NW cor. bridge

1532
+0.6
22

1532
10.6

Bridge sdw.

P. n + L E. Bank 1578

14.72

18+00

T.P. 4.82 11.35 1.20 6.53

25+00

Center channel 35' wide El. - 1.0
 Parallel with shore, front channel
 to 200' at of this sta.
 Tide is outgoing, 3:00 P.M.

27+00

C. waves at west side of bar and
 water in 35' channel goes Sly at

T.P. 4.55 7.73 9.57 3.18

19+00 A 76° 24' Rt. On split of B, Big bar El. - 25
 beg. approx. 800' out

17+00

T.P. 4.70 12.75 3.17 8.05

14+00

11+00

11.22

LT

RT

0	4.9	16.3
11.3	6.2	1.0
200	50	

0	1.0	11.35
7.7	8.7	6.5
288	60	1.2
	4.9	16

0	3.4	4.9
7.7	4.3	2.8
67		15

100' per Min.

0	7.73	4.9
12.7	3.1	2.8
30.3	9.6	5.8

0	4.9	7.2
12.7	7.8	5.5
161	43	

0	4.9	12.75
11.2	6.3	7.9
227	63	33

0	4.9	8.2
11.2	6.3	3.0
225	55	

11.22

Note! from Se. end Mission Beach
 Seawall to San Gabriel Pl.
 Sand is approx. 4' below top of
 wall, which is El. 16.00 USC&G,

45+93 approx. S.L. of San Gabriel Pl.

T.P. 4.84 13.27 8.55 8.45

43+00 x

check to Top Seawall 0.94 16.05 $\frac{16.00}{2.05}$
 40+00

T.P. 4.80 17.00 12.24 12.20

37+00 ✓

34+00

T.P. 4.71 14.46 16.0 9.75

31+00 - Δ 7°07' LT

11.35

LT

RT

RT

0
 $\frac{13.3}{125}$
 50
 $\frac{83}{23}$

0
 $\frac{17.0}{200}$
 4.9
 $\frac{12.1}{50}$
 13.27
 $\frac{8.5}{8.5}$

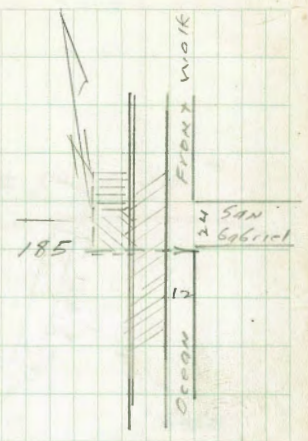
0
 $\frac{17.0}{200}$
 4.9
 $\frac{14.1}{73}$
 10.6
 6.4

0
 $\frac{14.5}{200}$
 4.9
 $\frac{9.5}{72}$
 17.00
 $\frac{12.3}{2.7}$

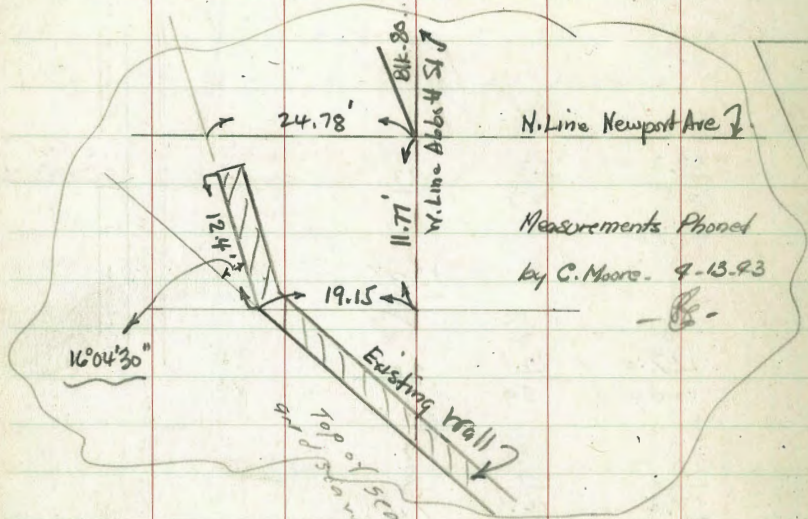
0
 $\frac{14.5}{300}$
 4.9
 $\frac{9.5}{90}$
 11.8
 2.7

0
 $\frac{11.3}{254}$
 4.9
 $\frac{6.4}{87}$
 14.46
 $\frac{9.5}{1.8}$

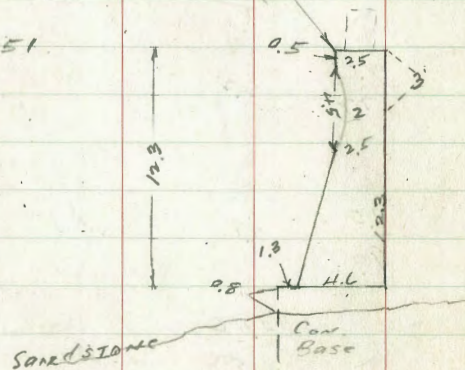
11.35
 7



Levels and location of
Seawall Abbott & Newport



Sec P. 51



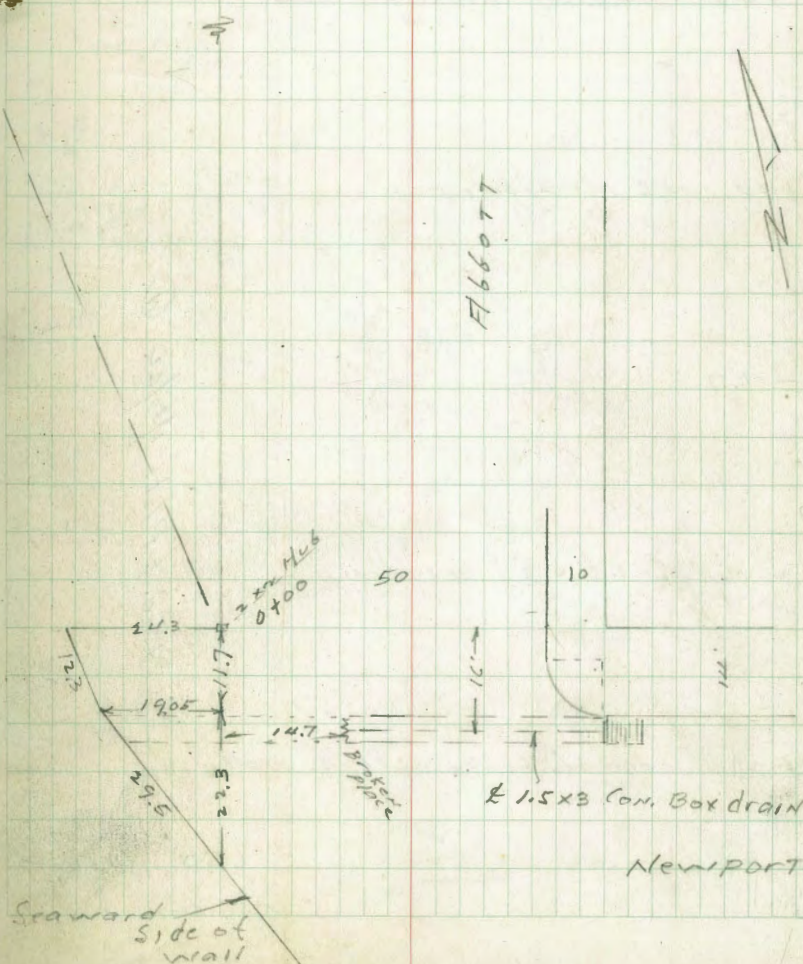
SEE ALSO PAGE 79

Indexed
c.s.K.

Moore
Rand
Mayne
1-28-42
63

128 Sly Santa Monica

Also page 79



Xsec on Abbott

Newport Nly

0+25 foot Rock Rip Rap

0+08 Shoulder Rock Rip Rap

0+00 N.H. Newport

0-11.7

0-16 1.5 x 3 Box drain

0-29 edge of broken cem. walk

N.E. BP 7.02 8.57

6.50 Newport
Abbott

CITY DATUM

Red. P/lot. 1/30/42

8.47
0.48
TOP LOW
RAIL

LT

RT

64

-7.6	2.9	2.9	-4.1	3.9	3.6	5.27
16.1	5.4	5.6	12.6	12.0	12.1	330
40	80	Rock	Sand	Sand	5	17 edge Pav.
Top Rock	Rock	17			Sand	Top Rock
Sand						

-7.7	2.7	3.0	5.30
15.8	5.8	5.5	3.27
47 Slope	26	Rock	18 Pav
Top Rock	Rock		
on Sand			

5.40	3.0	4.1	5.57
3.17	5.5	4.3	3.00
24.3	21	dirt	19.4 Edge Pav.
Top of wall	Top Rock		

3.8	5.56
4.7	2.96
dirt	15.5 edge pav.

2.57	3.8	3.00	5.56
6.00	dirt 4.7	5.57	2.96
FL. OUTLET		14.7	7.5 edge pav.
thru wall			FL. Box at gutter
			place

5.65	5.37
Top walk 2.87	3.27
dirt 4.8	7.0 edge Pav

8.57

1+75

T.P. 10.59 9.23 9.88 -1.36

1+50

1+25

1+00

0+75

0+50

8.52

LT

W.L.

RT

65

9.5
-1.7
8.5
Sand

Toe
Rock
Sand -1.5
10.7

4.8
-1.1
edge
Pav.

7.6
-1.1
7.0
Sand

9.23
2

9.2
-1.7
10.7
Sand

1.5
-1.0
7
Sand
Toe Rock

5.10
3.4
21
edge
Pav.

7.3
-1.5
5.5
Sand

7.9
-1.4
11.4
Sand

2.4
-1.0
7
Sand
Toe
Rock

5.46
3.0
31
edge
Pav.

6.8
-1.5
5.0
Sand

3.1
-1.1
11.6
Sand

2.8
-1.3
7
Sand
Toe
Rock

5.61
2.8
31
edge
Pav.

6.1
-1.4
4.0
Sand

3.6
-1.1
12.1
Sand

3.0
-1.5
8
Sand
Toe
Rock

5.48
3.0
28
edge
Pav.

6.8
-1.5
4.0
Sand

6.1
-1.4
3.0

5.3
-1.3
4.0

Sand
Toe
Rock

4.5
-1.0
12.0
Sand
Toe
Rock

5.49
3.0
27
edge
Pav.

8.52
1.2

3+00

9.23
2.74
6.49 ✓

1.3
16.5
130
SAND

16.4
15.4
120
Sand
Toe
Rock

3.8 LT
5.6
100
Rock
Shoulder

3.9
5.3
60
Shoulder
Rock

W.L.
4.98
4.25

RT

66

2+90

8.4
17.4
130
SAND

4.4
13.4
71
SAND
Toe
Rock

4.4
5.0
17
Shoulder
Rock

5.3
4.20
WALK

4.84
4.39
10.6

2+75

9.0
18.4
125
SAND

0.9
10.1
25
SAND
Toe
Rock

4.9
4.3
10
Shoulder
Rock

4.79
W.L.
South
Broken
walk

4.76
4.47
10.6

2+50

8.6
17.8
115
SAND

1.0
10.4
25
SAND
Toe
Rock

4.8
4.4
Shoulder
Rock

4.81
4.30
10.6

2+25

9.0
18.4
105
SAND

1.4
10.6
14
SAND
Toe
Rock

4.2
5.0
Shoulder
Rock

4.9
4.31
10.6

2+18.5 S. end broken curb

4.96
4.27
10.6

2+00

8.9
18.0
95
SAND

2.1
11.3
7
SAND
Toe
Rock

1.6
2.6
as
stop
Rock

4.39
4.84
10
edge
par.
in
gutter

9.23 ✓

9.23

Elev. of Sandstone Bed rock

W.L. Abbott St. Newport N.H.

3+00 = S.L. Santa Monica

2+75

2+50

2+25

2+00

1+75

1+50

1+25

1+00

0+75

0+50

0+25

T.P. 3.93 1.43 11.06 - 2.50

NEBP 2.06 8.56 6.50
Newport
City
Datum
Abbott

W.L. BIK 80

F. 10.8

Left

W.L. Abbott

67

12.74 - 12.8

-10.8 -10.1

12.2 12.1
27

-10.4 -10.1

11.6 11.5
27

-10.7 -9.3

14.1 10.7
18

-9.8 -10.1

11.2 11.5
17

-10.6 -8.4

12.0 9.8
10

-11.4 -9.3

12.8 10.7

-10.0 -9.6

11.4 11.0

-9.6 -8.8

11.0 10.2

-8.8 -9.2

10.7 10.6

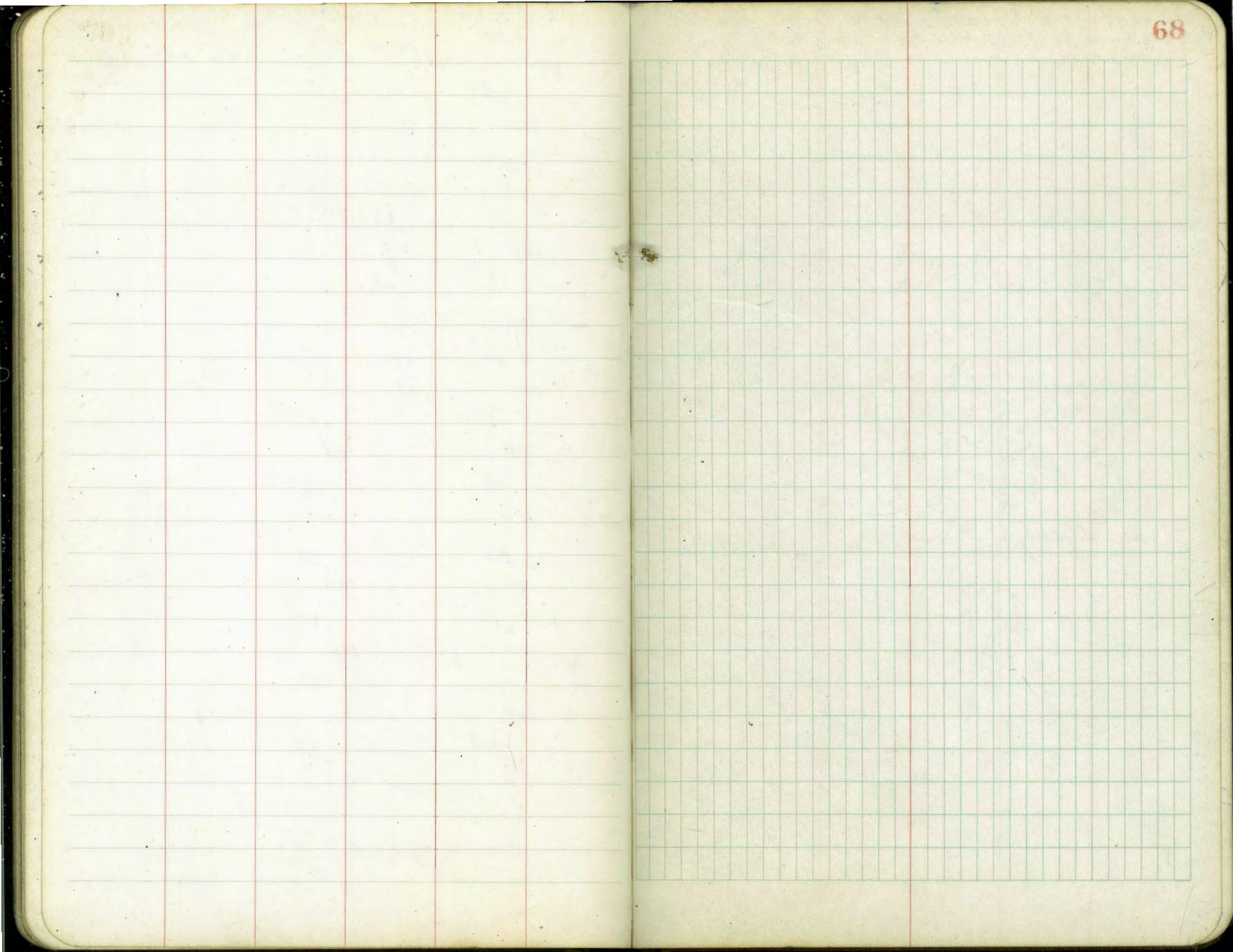
-9.3 -8.9

10.7 10.3

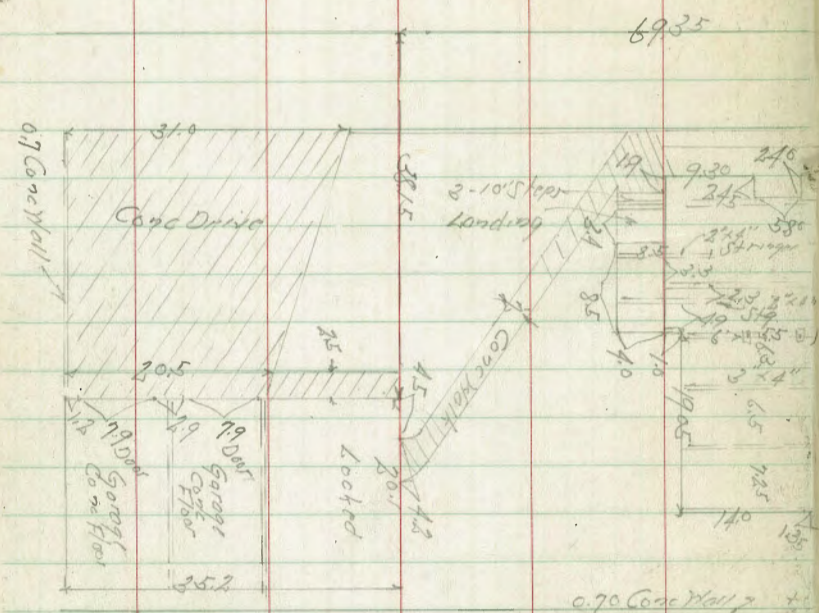
-9.4 -9.3

10.6 10.7

1.43



Location & Dimensions of House & Garage
 on Lots 25-26-27 Block 180 Driv. Hts.
 Merrill House



Franc Garage
 Comp. Single Roof

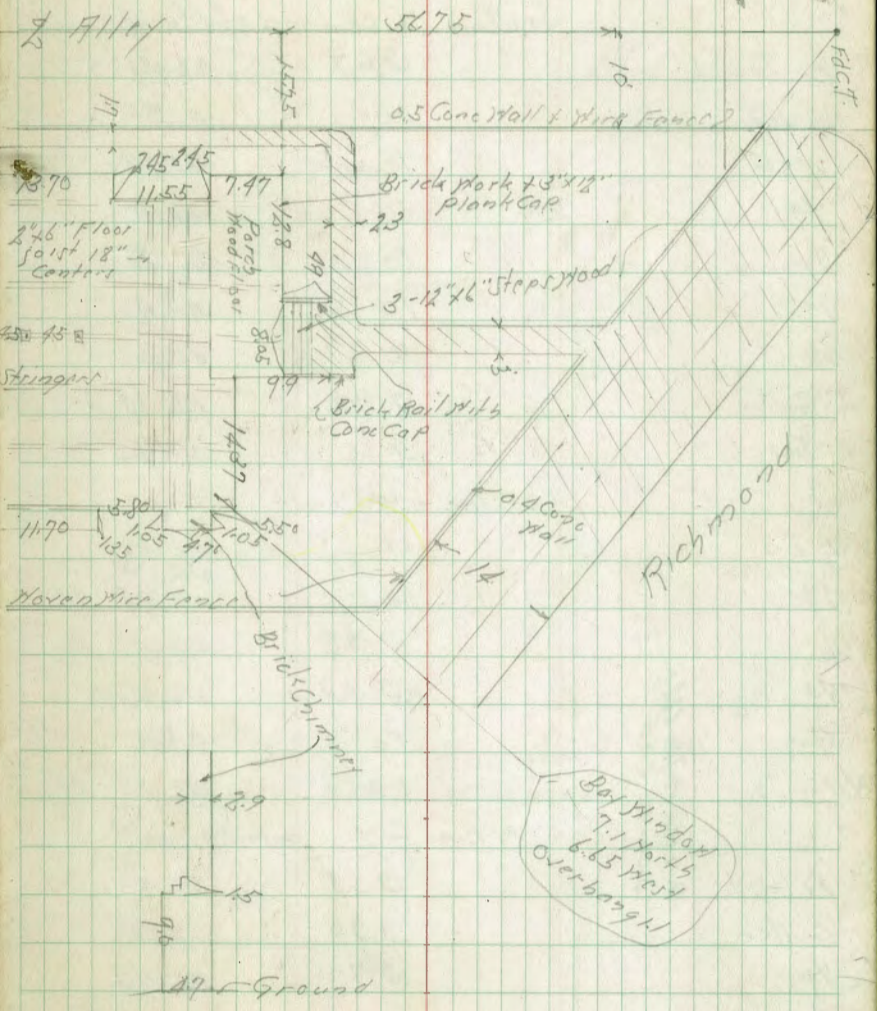
Franc House
 Comp. or Single
 Roof
 3.9' Eave

Concrete Foundation
 2"x6" Mud Sill
 Brick Work Around House
 1 Brick Wide
 High From Found. to 1.3' Above
 Bottom of Floor

Feb 13-42
 Sisson
 Hartborn
 Moore

Indexed
 P.P.K.

59



Bay Window
 7.1' High
 6.65' Wide
 Overhang 1.1'

Franc House
 Comp. or Single
 Roof
 3.9' Eave

1.7' Ground

Bliss Notes
 Sammeyer X
 Begg Rod
 1/16/42
 BM

X Section Noell Moore to
 La Jolla Blvd

967 52.00

42.41

SW 72TK
 Moore's Plot
 See FB 1532
 Back p 73

Section N. cb line of Moore

W. Top cb	9.67	42.41 ✓
Gutter	10.42	41.66 ✓
W cb	10.26	41.82
1/4	10.20	41.88
℄	10.20	41.88 ✓
1/4	10.15	41.93
cb	10.01	42.07
E. Gutter	9.90	42.18 ✓
E. Top cb	9.46	42.62 ✓

N-Line - 14. on Paring

E cb	9.55	42.53
E gutter	9.94	42.14
1/4	10.00	42.08
℄	9.98	42.10 ✓
1/4	9.99	42.09
Gut	10.13	41.95
W Top cb	9.60	42.48

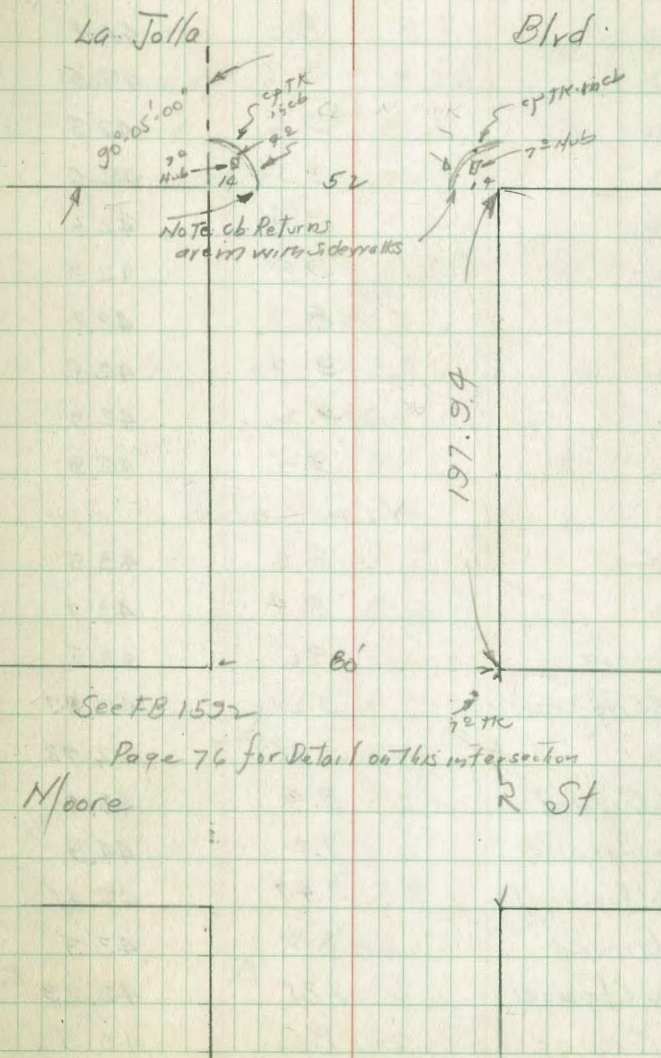
N-Line - 7 on Paring

W Top cb	9.53	42.55
Gutter	9.98	42.10
1/4	9.72	42.36
℄	9.64	42.44
1/4	9.73	42.35
Gutter	9.86	42.22
Top cb	9.50	42.58

Part Plot Profile 685
 3-30-42 C.B.H.

indexed
 C.B.H.

70



T
52.08

N. Line - 5

E	8.9	43.2
+7	9.1	43.0
cb	8.0	44.1
+9	9.6	42.5
1/4	9.6	42.5
⊕	9.5	42.6
1/4	9.6	42.5
+10	9.8	42.3
cb	8.3	43.8
+5	9.3	42.8
N	9.2	42.9
+5	9.2	42.9

N. Line = 0+00

-5	8.6	43.5
N	8.4	43.7
+9.5 Ground	8.6	43.5
" " Edge walk	9.21	42.87
+9.5 " "	9.36	42.72
" Ground	8.4	43.7
cb on Ground	7.2	44.9
Top of cb (figured)	9.47	42.61
1/4 Ground	8.8	43.3
on Paring (figured)	9.85	42.23
⊕ Ground	8.6	43.5
⊕ Paring (figured)	9.46	42.62

T
52.08

71

1/4	8.6	43.5
1/4 (figured)	9.48	42.60
cb	7.3	44.8
top. cb (figured)	9.95	42.63
+9.5 Ground	7.6	44.5
" Edge walk	9.38	42.70
+9.5 Ground	8.3	43.8
" Edge walk	9.23	42.85
E	7.2	44.9
+5	7.5	44.6
	0+03	
E-10	7.8	44.3
E	5.8	46.3
+8	6.1	45.0
cb	6.4	45.7
+5	7.7	44.4
1/4	8.3	43.8
⊕	8.2	43.9
1/4	8.5	43.6
+9	8.1	44.0
cb	7.0	45.1
N	6.6	45.5
+10	7.9	44.2
	0+25	
-10	3.6	48.5
N	3.0	49.1

52.08

cb	2.2	49.9
+5	4.0	48.1
1/4	4.9	47.2
E	5.0	47.1
+10	4.7	47.4
1/4	5.0	47.1
+10	4.8	47.3
cb	1.9	50.2
E	1.6	50.5
+15	7.3	44.8
T.P.	11.89	63.47
	0.50	51.58

0+50

-10	8.4	55.1
E	8.2	55.3
+1	8.3	55.2
cb	9.6	53.9
+3	11.5	52.0
1/4	11.9	52.6
E	12.0	51.5
1/4	11.9	51.6
+9	11.2	52.3
cb	8.4	55.1
W	8.4	55.1
+10	8.3	55.2

0+52 Tel Pole 12 East of W.L.M.

63.47
0+75

72

-10	2.5	61.0
W	2.6	60.9
+13	3.1	60.4
cb	6.0	57.5
+4	7.8	55.7
1/4	8.2	55.3
E	8.0	55.5
1/4	8.3	55.2
+10	7.7	57.8
cb	5.4	58.1
E	5.3	58.2
+10	5.3	58.2

1+00

-10	8.2	60.3
E	3.1	60.4
cb	3.0	60.5
+1	3.9	59.6
1/4	4.4	59.1
E	4.1	59.4
1/4	4.2	59.3
+9	4.1	59.4
cb	2.0	61.5
W	1.8	61.7
+10	1.4	62.1

↑
63.47
1125

W-10		0.3	63.2	
W		0.3	63.2	
+9		0.8	62.7	
cb		0.3	63.2	
1/4		1.0	62.5	
Φ		0.9	62.6	
1/4		0.8	62.7	
+3		0.5	63.0	
cb		0.6	62.9	
+5		1.5	62.0	
E		1.5	62.0	
+10		1.6	61.9	
TP	1100	74.34	0.21	63.26

1150

-10		9.6	64.7
E		9.1	65.2
+12		8.2	66.1
cb		8.6	65.7
1/4		8.6	65.7
Φ		8.4	65.9
1/4		8.3	66.0
cb		8.4	65.9
W		9.0	65.3
+10		8.6	65.7

↑
74.34
1168

73

Take Pole N' East of W. line

1170

-10	6.6	67.7
W	6.1	68.2
cb	5.0	69.3
1/4	5.9	68.4
Φ	6.0	68.3
1/4	6.0	68.3
cb	6.0	68.3
+2	5.2	69.1
E	7.0	67.3
+10	7.0	67.3

1185

-10	4.6	69.7
E	4.4	69.9
cb	4.0	70.3
+3	4.5	69.8
1/4	4.5	69.8
Φ	4.1	70.2
1/4	3.9	70.4
cb	3.1	71.2
+10	3.2	71.1
W	3.6	70.7
+10	3.6	70.7

1797⁹⁴ S Line La Jolla Blvd on Farming

-10	1.9	72.4
W	2.1	72.2
W Top cb	2.26	72.08 ✓
Gutter	2.92	71.42 ✓
1/4	2.78	71.56
ϕ	2.89	71.45 ✓
1/4	3.26	71.08
Gutter	3.80	70.54 ✓
E Top cb	3.40	70.94 ✓
E	3.3	71.0
+10	3.5	70.8

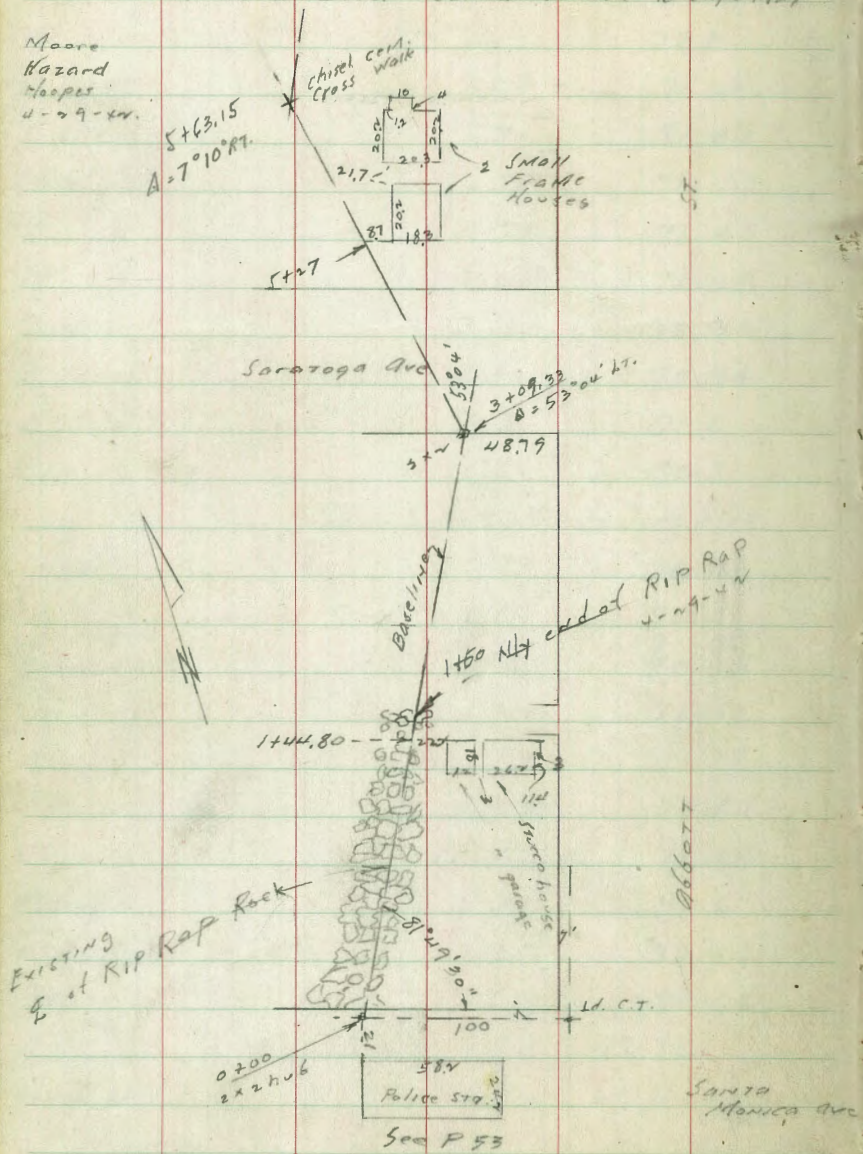
Sec. in South Gutter La Jolla Blvd

-10	3.93	70.41
E	3.73	70.61
E Top cb	3.25	71.09
cb of Noell	3.49	70.85
1/4	3.32	71.02
ϕ	3.19	71.15
1/4	3.00	71.34
cb	2.76	71.58
W Gutter	2.73	71.61
W Top cb	2.28	72.06
+10	2.68	71.66
T.P.	3.77	73.53
check BM	4.58	69.76
	6.42	67.11

N.W. BP
Coff La Jolla
Blvd

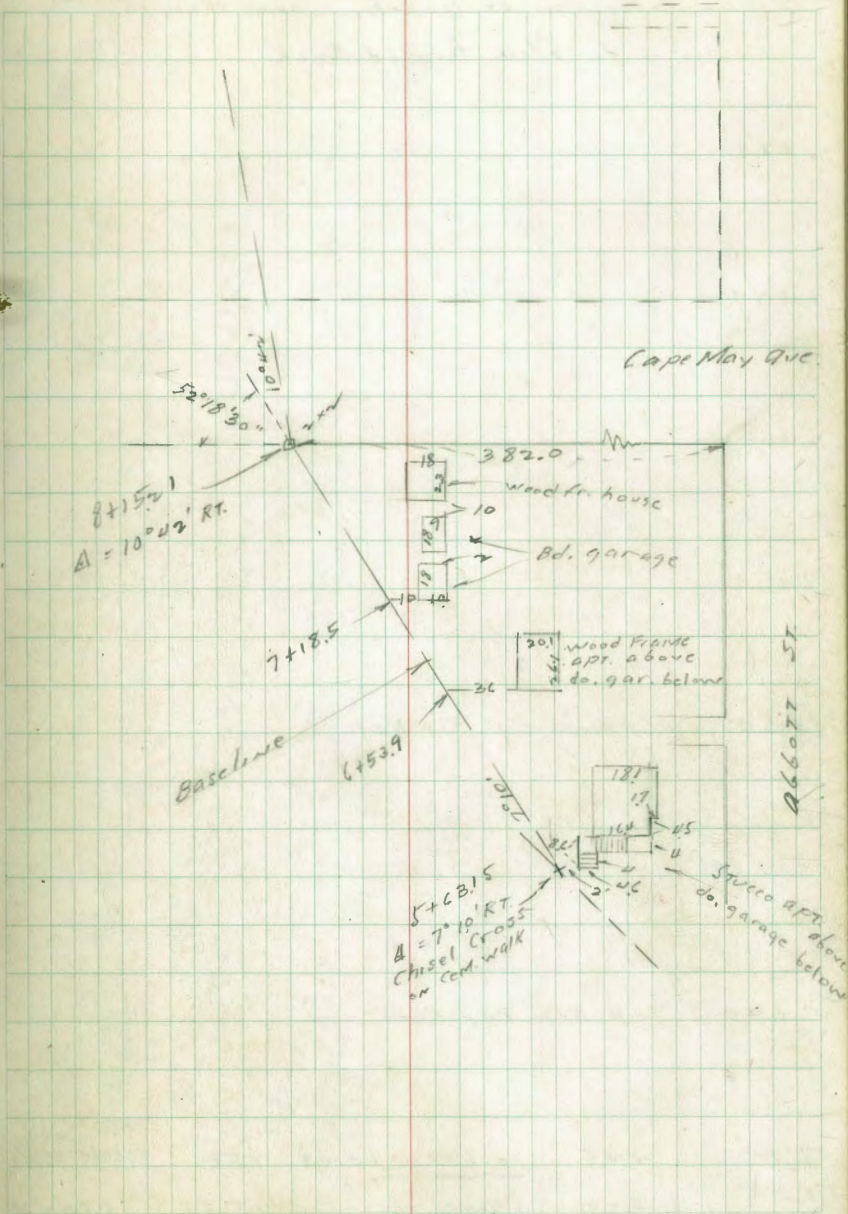
Erosion Survey of Ocean Front
at Ocean Beach Santa Monica to Cape May

Moore
Hazard
Hoopes
4-29-44.



See P 53
See p 63-64-67 for Levels
and Bed Rock Newport to Santa Monica

Indexed
c.s.R.



Cross Sec. of Beach, Santa Monica, Ally.

+ elev. to Bed Rock

2+88

2+79

2+00

1+65

1+50 Nly end Ex. Rip RAP

0+80

0+00 Top Rip Rap Rock

T.P.	4.25	<u>10.83</u>	10.48	8.58	Chisel Cut
NE.B.P.					E. side M.H.
Newport	3.55	19.06		15.51	6.50 = CITY
Abbott				9.01	
				15.51	15.51

Saratoga

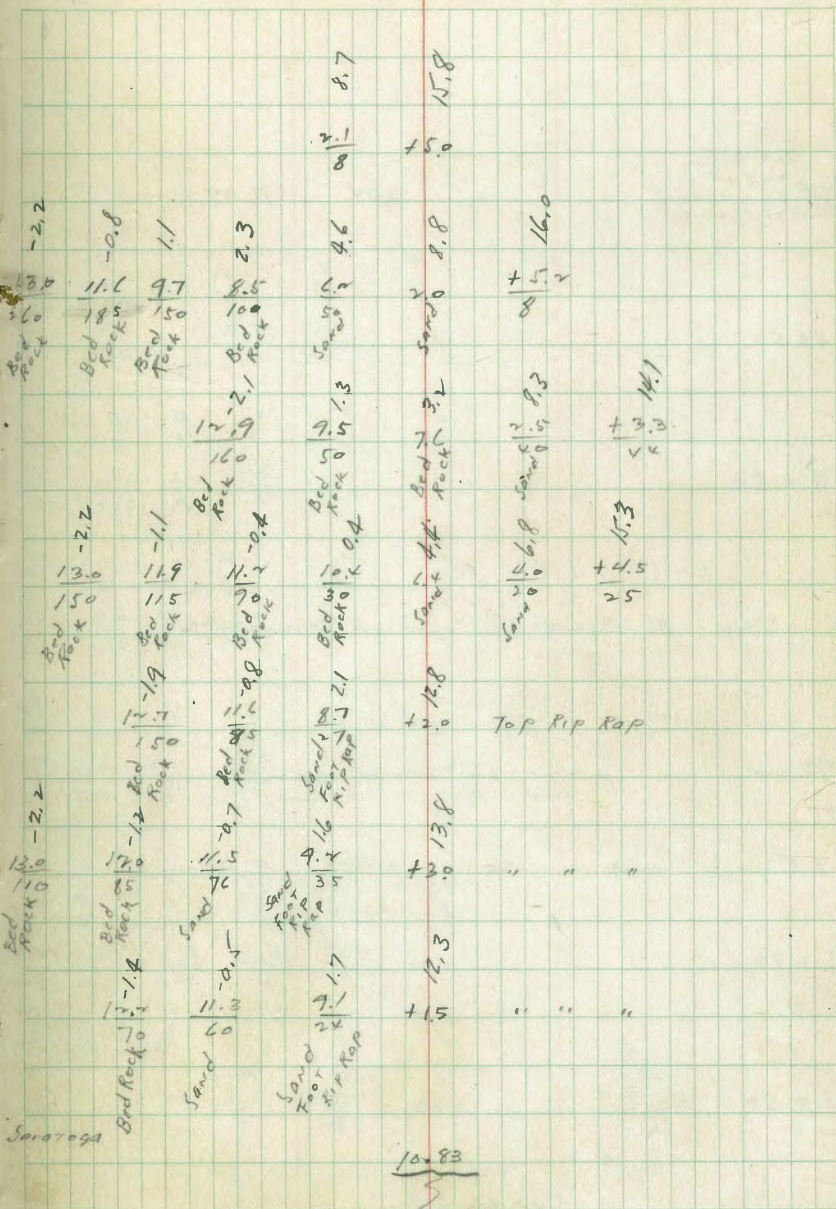
15.51

LT.

Baseline

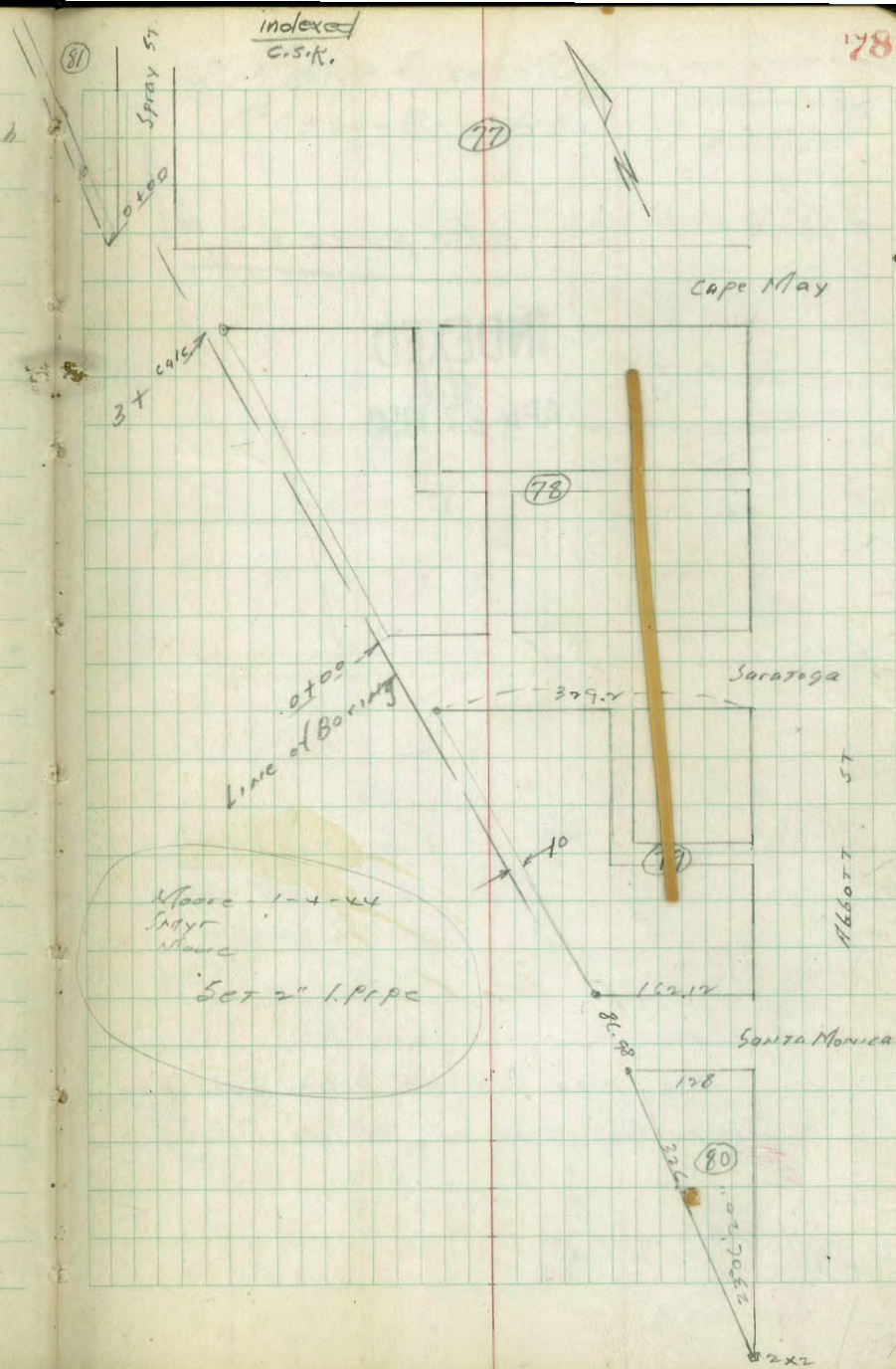
RT.

76



Moore
Hazard Levels on Bed Rock along
Hoopes
5-1-44. Wly Line of Blks 78 & 81 Ocean Beach
Soundings taken by jacking.

	- Rod.	Elev.
1 + 75	15.6	-2.7
0 + 75	15.4	-2.9
0 + 00 Sly Cor. Blk 81	14.7	-2.4
3 + NW Cor. Blk 78	14.4	-2.1
2 + 40	16.6	-4.3
1 + 60	17.1	-4.8
0 + 80	17.9	-4.4
0 + 00 = 10' W of SW Cor. Blk 78	17.7	-5.4
B.M. P 77	0.30	<u>12.27</u>
		11.97
		0.32 + 6



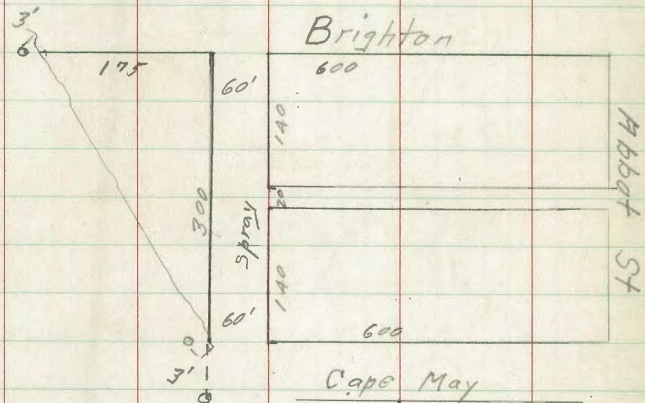
Sommermeier
Osborne
W. Moore

Stakes for Rock Sea Wall
Ocean Beach

Begg
7-26-44

also page 63

INDEXED
M.K.
APR 27 1950



1 1/2" Pipes set 3' West of
prop. corners, as shown.

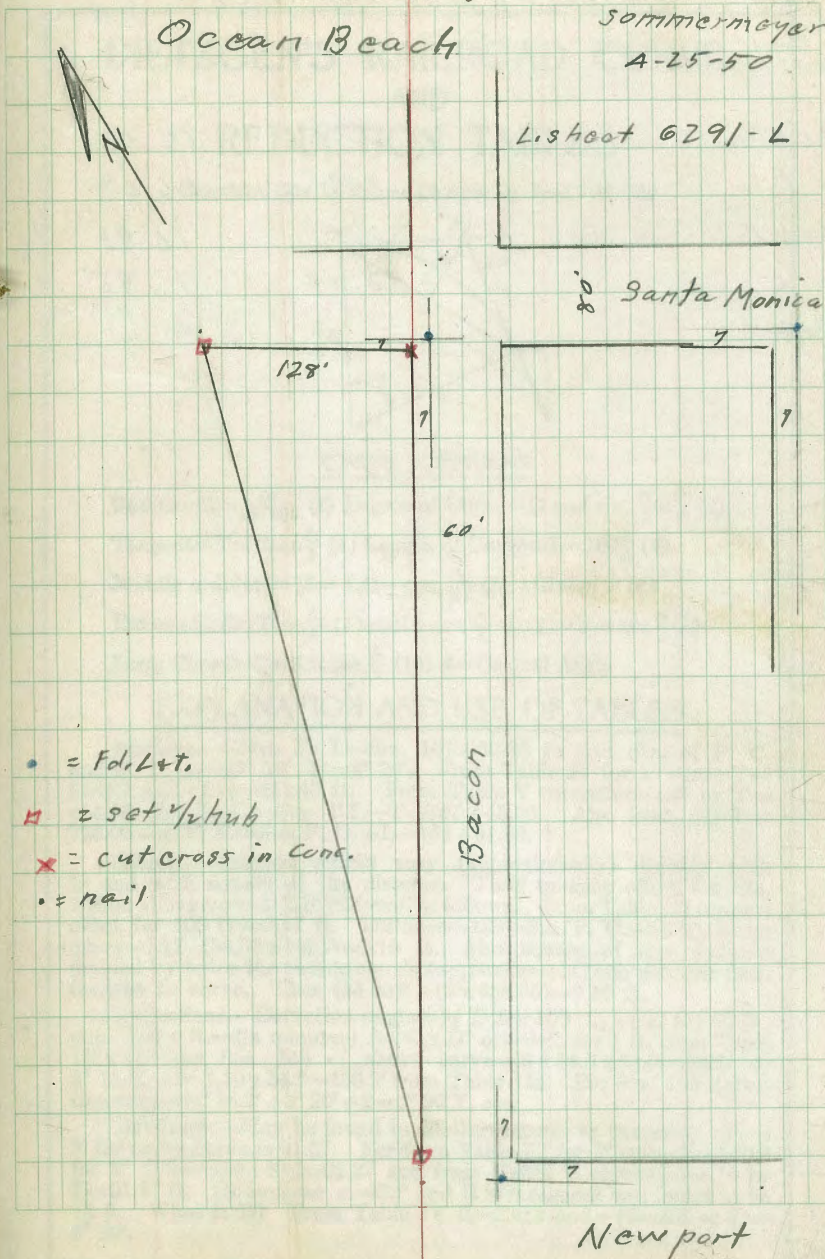
Also pipe set on S. line Cape May
+ Sly. prolongation of W. line Spray

Stake Block 80
Ocean Beach

79

Sommermeier
A-25-50

Listfoot 6291-L



- = Fol. Let.
- = set 1/4 hub
- x = cut cross in cont.
- = nail

index
E.S.K.

Noell & Kurtz

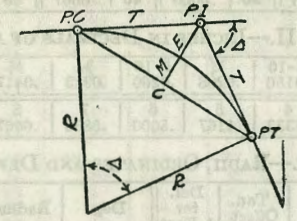
Levels on Santa Fe Tracks

BM Kurtz				5.W. 7°
Weight	2/10	18.88	9.78	Hub
Sec 78 1604-139				
Top W Rail N Line Noell	2.45	16.43	✓	
E " " " "	2.45	16.42	✓	
Top W Rail S Line Noell	2.07	16.81	✓	
E " " " "	2.03	16.85	✓	
Solgn 1839	3.03	15.85		SW 90 Penny spikes in Girt pole

2.45
2.07
1.38
2.45
1.9
2.26

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

- Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)
- External= $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)
- Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta = \text{Central Angle}$

EXPLANATION AND USE OF TABLES

Stations.—Given P. I. = Sta. 161 + 60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. - $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = $158 - \text{Sta. P. C.} = 54.50$, hence offset = $7.27 \frac{(54.50 + 100)^2}{100^2} = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D^\circ$ or = defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 91.27$ and from Table V correction = .10 or $E = 91.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

2372

77 x 11

1576

149
120
309

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9 + (20 - 16) * 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.