

MISSION BAY

VENTURA 4-A PROJECTS

2

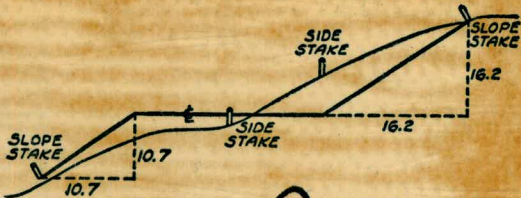
DATE

TIME

NO. OF

PLANTS





DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

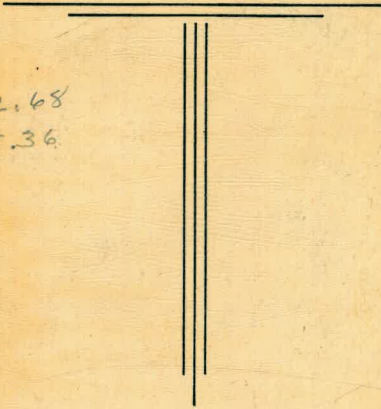
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

MICROFILMED
APR 7 1965

RETURN TO
U. S. ENGINEER OFFICE
751 SO. FIGUEROA ST
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CHARLES BRUNING CO.
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LITHOGRAPHED IN WATERPROOF INK ON
WATER-REPELLANT RAG PAPER AND SEC-
TION SEWED.

MADE IN U.S.A

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

495960

29-17-52

20-42-08

TITLE

"Right" and "Left" on Cross Section Notes
means right and left when facing increasing
stationing, except on minus stationing
where right and left means facing 0+00

MISSION BAY PROJECT A-D[#]

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 # SOUNDINGS
 64-78 FINAL X-SECTIONS PROJECT 4-"A"

INDEX

0400 = R 88 + 6758

Sta 66400 Sound West

Dist	Sound	ELEV.	Dist	Sound	ELEV.
0400	170	-11.9		135	-8.4
	170	-11.9	50	135	-8.4
	167	-11.6		137	-8.6
	165	-11.4		133	-8.2
	165	-11.4		134	-8.3
50	166	-11.5		132	-8.1
	166	-11.5	300	128	-7.7
	165	-11.4		130	-7.9
(5.1)	160	-10.9	(5.1)	125	-7.4
	160	-10.9	11 ¹²	124	-7.3
100	154	-10.3		125	-7.4
11 ¹⁰	151	-10.0	50	120	-6.9
	151	-10.0		121	-7.0
	150	-9.9		120	-6.9
	152	-10.1		118	-6.7
50	152	-10.1		120	-6.9
	145	-9.4	400	116	-6.5
	145	-9.4		116	-6.5
	145	-9.4		115	-6.4
	140	-8.9		110	-5.9
200	141	-9.0		113	-6.2
	440	-8.9	50	107	-5.6
	138	-8.7		107	-5.6
				103	-5.2

INDEXED

3-17-46 (1)

JUL 16 1953

66400

Dist	Sound	ELEV	Dist	Sound	ELEV
	102	-5.2		97	-4.7
	104	-5.4		94	-4.4
500	100	-5.0		90	-4.0
	100	-5.0	50	96	-4.6
	100	-5.0		98	-4.8
	97	-4.7		96	-4.6
	97	-4.7		104	-5.4
50	90	-4.0		104	-5.4
(5.0)	95	-4.5	800	105	-5.5
	96	-4.6		110	-6.0
11 ¹⁴	90	-4.0	11 ¹⁶	103	-5.3
	90	-4.0	(5.0)	110	-6.0
600	92	-4.2		120	-7.0
	90	-4.0	50	122	-7.2
	84	-3.4		121	-7.1
	87	-3.7		130	-8.0
	85	-3.5		135	-8.5
50	78	-2.8		158	-10.8
	80	-3.0	900	138	-8.8
	80	-3.0		160	-11.0
	80	-3.0		150	-10.0
	70	-2.0		134	-8.4
700	80	-3.0		132	-8.2
	91	-4.1	50	130	-8.0

66400

DIST	Sound	ELEV	DIST	Sound	ELEV
60	151	-10.1	1200	10.2	-5.2
	157	-10.1		10.1	-5.1
	155	-10.5		96	-4.6
	156	-10.6		95	-4.5
1000	130	-8.0		90	-4.0
	130	-8.0	50	90	-4.0
(5.0)	130	-8.0	(5.0)	84	-3.4
	136	-8.6		86	-3.6
1120	137	-8.7	1120	87	-3.7
50	133	-8.3		86	-3.6
	128	-7.8	1300	86	-3.6
	124	-7.4		88	-3.8
	120	-7.0		85	-3.5
	120	-7.0		78	-2.8
1100	121	-7.1		70	-2.0
	120	-7.0	50	71	-2.1
	115	-6.5		78	-2.8
	110	-6.0		85	-3.5
	109	-5.8		88	-3.8
50	108	-5.8		84	-3.4
	110	-6.0	1400	80	-3.0
	112	-6.2		74	-2.4
	113	-6.3		70	-2.0
	107	-5.7		68	-1.8

66400

DIST	Sound	ELEV.
40	6.7	-1.7
50	6.4	-1.4
	5.7	-0.7
	4.6	+0.4
(5.0)	4.0	+1.0
	3.4	+1.6
1500	2.9	+2.1
10	2.1	+2.9
20	1.7	+3.3
30	1.5	+3.5
40	0.0	+5.0

(2)

0400 = R8846758

(3)

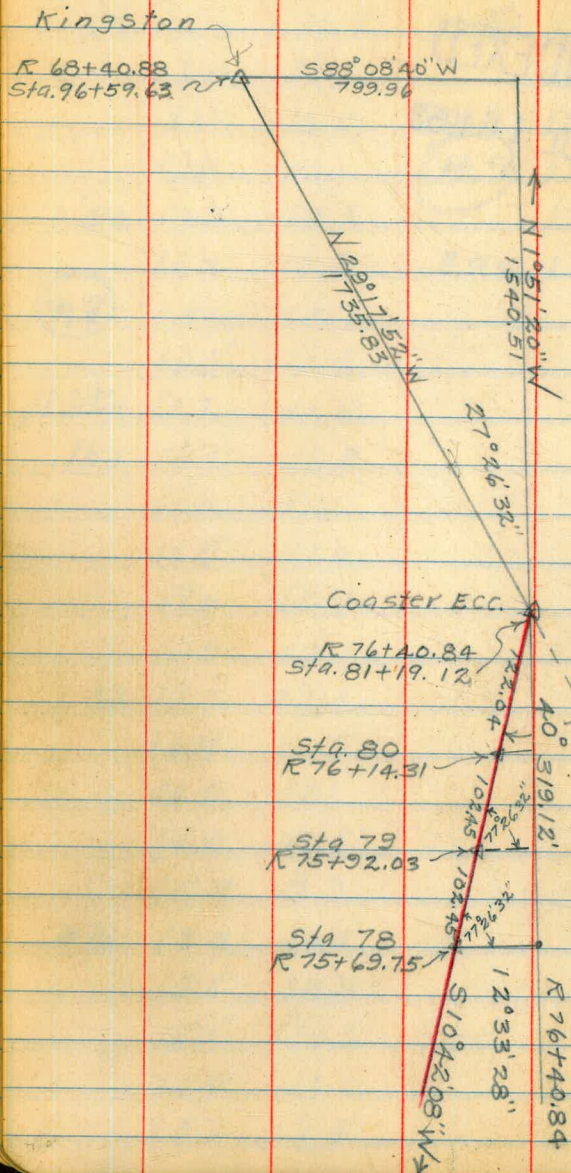
Sta 66400 Sound East

DIST	Sound	ELEV.	DIST	Sound	ELEV.
10	16.6	-11.7	50	13.8	-8.9
	170	-12.1		137	-8.8
	170	-12.1	1134	135	-8.6
	170	-12.1	(4.9)	140	-9.1
50	170	-12.1		134	-8.5
	167	-11.8	300	135	-8.6
(4.9)	156	-10.7			
	165	-11.6			
1132	167	-11.8			
100	167	-11.8			
	160	-11.1			
	165	-11.6			
	176	-12.7			
	170	-12.1			
50	170	-12.1			
	164	-11.5			
	16.0	-11.1			
	16.0	-11.1			
	14.8	-9.9			
200	150	-10.1			
	155	-10.6			
	155	-10.6			
	150	-10.1			
	137	-8.8			

INDEXED

JUL 16 1953

GRID & RANGE STATIONS ON
COASTER ECC. TO KINGSTON BASELINE



COASTER ECC. TO
KINGSTON RANGE LINES
Distance along B/L
Per 100ft = 112.679

- 96+59.63
- R 68+40.88
- 96+00
- R 68+71.84
- 95+00
- R 67+23.77
- 94+00
- R 67+75.70
- 93+00
- R 70+27.63
- 92+00
- R 70+79.55
- 91+00
- R 71+31.48
- 90+00
- R 71+83.41
- 89+00
- R 72+35.34
- 88+00
- R 72+87.27
- 87+00
- R 73+39.20
- 86+00
- R 73+91.12
- 85+00
- R 74+43.05
- 84+00
- R 74+94.98
- 83+00
- R 75+46.91
- 82+00
- R 75+98.84
- 81+00
- R 76+50.77
- 80+00
- R 77+02.70

T. A. STAMPER
3-20-46

INDEXED
JUL 16 1953

ORIGINAL X-SECTIONS
MISSION BAY AREA

STA	+	H.I	-	ELEV
B.M.				11.39
	4.44	15.83		
25 E			4.9	10.9
33 E			8.0	7.8
44 E			9.2	6.6
88 E			10.2	5.6
108 E			12.2	3.6
				11.39
	4.82	16.21		
67 E			5.5	10.7
79 E			8.6	7.6
100 E			10.4	5.8
122 E			12.8	3.4
				11.39
	5.17	16.56		
63 E			5.4	11.2
85 E			10.6	6.0
111 E			13.1	3.5
	3.40	14.79		11.39
0 E			4.0	10.8
26 E			8.4	6.4
53 E			10.1	4.7
80 E			11.2	3.6

3-21-46

0+00 = Coaster Ecc. To Kingston (5)

Baseline

U.S.C. & G.S. Coaster

T. ALLEN

T. STAMPER

π STA 81+00 B/L

π STA 80+00 B/L

π STA 79+00 B/L

π STA 78+00 B/L

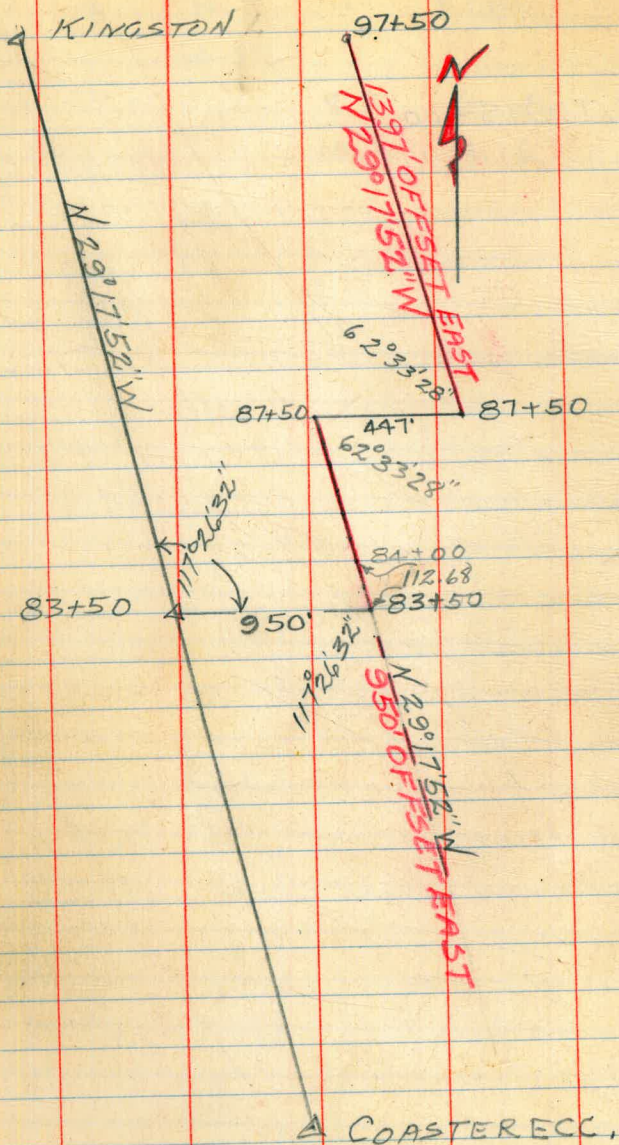
3-21-46

STA	+	H.I.	-	ELEV.
		14.79		
14'S			8.3	6.5
47'S			10.2	4.6

6.

⌞ STA 78+00

BASELINE LAYOUT FOR MARCH
ESTIMATE MISSION BAY AREA



627
323
950
447
1397

87+50

7.

179 57 60

117-26-32

62-33-28

TOM STAMPER

3-26-46

levels along offset lines parallel
to base line Coaster Ecc. to Kingston.

	1.38	12.77		11.39
T.P.	5.70	17.01	1.46	11.31
	1394' Offset line			
87+50			5.2	11.8
88			5.1	11.9
+50			5.0	12.0
89			4.7	12.3
+50			4.6	12.4
90			4.8	12.2
+50			5.0	12.0
91			5.3	11.7
+50			5.4	11.6
92			5.3	11.8
+50			4.8	12.2
93			4.8	12.2
T.P.	3.53	16.51	4.03	12.98
93+50			4.7	11.8
94			4.8	11.7
+50			3.2	13.3
95+00			3.7	12.8
+50			4.2	12.3
96			4.6	11.9
+50			10.2	6.3
97			11.5	5.0
+50			12.5	4.0

for purpose of March estimate

U.S.C&G. Coaster

Tom Allen

Tom Stamper

Dick Crooker

2/26/46

NOTE: See Baseline sketch
Pg. 7

Temp T.P.

3"x4" (Blue-topped)

Inst. at
Sta. 96
1651

3-26-46
X-SECTIONS FOR MARCH ESTIMATE (9)

West ↓ +43	5.2	11.3
+85	5.7	10.8
+97	3.9	12.6
1426	10.3	6.2
1489	11.1	5.4
3400	12.3	4.2
3453	12.7	3.8
34		11.9
East. 34	3.4	13.1
+172	5.4	11.1
+177	5.8	10.7
+188	5.9	11.5
+210	10.3	6.2
+320	12.6	3.9
340	15.9	1.5

Inst. at Sta. 96+50 (1397 Offset)

±	11.0	6.3
321 E.	7.7	3.3
178 E	6.2	4.8
108 E	4.5	6.5
58 E	3.5	4.5
34 E	3.6	4.4
E	4.7	6.3
106 W	5.7	5.3
176 W	5.6	5.4

11.0

3-26-46

10.

244' W		6.9	4.1
302' W		7.2	3.8

Sta. 97 (1397 Offset)

232 W		6.6	3.4
108 W		5.8	4.2

Edge of dredged channel

⊕	5°	10°	5.0
---	----	-----	-----

96 E		5.0	5.0
------	--	-----	-----

176 E		5.8	4.2
-------	--	-----	-----

Inst. Sta. 97+50 (1397 Offset) 4°

188 E		5.2	3.8
-------	--	-----	-----

Original ground near Edge of Dr. Channel

108 E		4.8	4.2
-------	--	-----	-----

⊕	5°	9°	4.0
---	----	----	-----

90 W		5.2	3.8
------	--	-----	-----

Inst at 95+50 (1397 O.S.)

⊕	4.9	17.2	12.3
---	-----	------	------

72 W		4.6	12.6
------	--	-----	------

123 W		5.3	11.9
-------	--	-----	------

178 W		6.0	11.2
-------	--	-----	------

186 W		4.5	12.7
-------	--	-----	------

202 W		10.3	6.9
-------	--	------	-----

43' E		4.7	12.5
-------	--	-----	------

136' E		4.9	12.3
--------	--	-----	------

204 E		4.7	12.5
-------	--	-----	------

232		10.7	6.5
-----	--	------	-----

290		12.8	4.4
-----	--	------	-----

Coq. end

Sta. 95400 (Inst)

3-26-46

11.

R	4.9	17.7		12.8
238 E			11.1	6.6
343 E			13.3	4.4
226 E			5.3	12.4
222 E			6.1	11.6
163 E			4.9	12.8
71 E			4.6	13.1
<u>28' W</u>			4.5	13.2
122 W.			6.1	11.6
180' W			5.1	12.6
230' W.			6.4	11.3
237 W			4.2	13.5
253 W.			10.3	7.4
320 W			12.7	5.9

Inst at 94450 (1397 offset)

R	4.8	18.1		13.3
300 W			11.1	7.0
285 W			4.2	13.5
278' W			6.5	11.6
216 W			5.0	13.1
173 W			6.5	11.6
105 W			5.7	12.4
<u>46 W</u>			4.1	14.0
39 E			5.9	12.4
96 E			5.5	12.6
157 E			5.6	12.5

18.1

228 E	7°	11.1
230 E	6°	12.1
235 E	11.3	6.8
338 E	13.9	4.2

Inst at Sta 94+00 (1397 O.S.)

Σ	5°	16.7	11.7
241 E	10.1	6.6	
273 E	4.0	12.7	
270 E	5.4	11.3	
163 E	4.4	12.3	
166 E	4.5	12.2	
63 E	4.0	12.7	
43 W	4.5	12.2	
67 W	3.5	13.2	
106 W	3.1	13.6	
167 W	3.9	12.8	
250 W	4.1	12.6	
308 W	5.0	11.7	
316 W	3.1	13.6	
330 W	10.7	6.0	

Inst at 93+50 (1397 O.S. line)

Σ	5°	16.8	11.8
333 W	9.6	7.2	
323 W	3.7	13.1	
316 W	4.8	12.0	
243 W	4.0	12.8	

3-26-46

12.

(93-150 Contd.)
16.8

3-26-46

13

161 W 3.6 13.2

96 W 4.7 12.1

54 W 4.6 12.2

37 E 3.9 12.9

98 E 4.8 12.0

144 E 3.7 13.1

216 E 5.2 11.6

223 E 4.0 12.8

233 E 10.6 6.2

334 E 12.4 4.8

Inst. at. St. 93-100 (1397 O.S. line)

Q 4.9 17.1 12.2

231 E 10.6 6.5

218 E 4.8 12.3

213 E 6.0 11.1

190 E 5.9 12.1

140 E 3.8 13.3

97 E 5.5 11.6

31 E 4.5 12.6

26-W 5.6 11.5

74 W 4.4 12.7

133 W 5.6 11.5

208 W 3.9 13.2

305 W 5.8 11.3

318 W 4.2 12.9

340 W 11.2 5.9

(17.1)

400 W

12.2

4.9

	Inst. at Sta. 92+50 (1397 O.S. Line)			
370 W	4.8	17.0	11.8	12.2
326 W			11.2	5.2
313 W			5.5	5.8
				11.5
303 W			4.0	13.0
295 W			5.4	11.6
204 W			4.0	13.0
140 W			6.0	11.0
93 W			5.3	11.7
<u>31 W</u>			5.8	11.2
76 E			5.9	11.1
135 E			3.8	13.2
210 E			5.5	11.5
220 E			4.8	12.2
228 E			10.5	6.5
283 E			11.9	5.1

	Inst. at Sta. 92+00 (1397 O.S. Line)			
♀	4.9	11.6.7		11.8
268 E			11.2	5.5
224 E			10.2	6.5
212 E			7.0	9.7
207 E			3.9	12.8
200 E			4.7	12.0
123 E			3.8	12.9
<u>56 E</u>			5.7	11.0

Inst. at 92 (contd)

28 w	<u>16.7</u>	5.4	11.3	213 E	16.5	10.3	6.2
168 w		4.8	11.9	296 E		12.8	3.7
204 w		3.3	13.4				
292 w		5.2	11.5				
314 w		8.1	8.6				
330 w		7.8	8.9				
333 w		10.6	6.1				
<u>368 w</u>		11.3	5.4				

Inst. at 91+50

♀	4.9	16.5		11.6			
370 W			11.0	5.5			
343 W			10.4	6.1			
335 W			7.9	8.6			
310 W			7.6	8.9			
288 W			5.3	11.8 12.2			
222 W			4.0	12.5			
137 W			4.4	12.1			
<u>94 W</u>			4.0	12.5			
48 E			5.3	11.2			
151 E			3.3	13.2			
194 E			4.4	12.1			
205 E			3.0	13.5			

3-26-46

No.

90+50 (cont'd)
16.9

		Int at 91+00					
♀	5.0	16.7		11.7			
					358 W.	9.1	7.8
					320 W	8.1	8.8
290 E			13.0	3.7	297 W	5.2	11.7
250 E			11.3	5.4	240 W	4.0	12.9
202 E			10.3	6.4	200 W	5.0	11.9
192 E			3.0	13.7	120 W	4.8	12.1
180 E			4.8	11.9	79 W	3.8	13.1
123 E			3.2	13.5	32 W	4.9	12.0
<u>26 E</u>			5.4	11.3			
83 W			3.6	13.1	21 E	5.4	11.5
134 W			4.9	11.8	101 E	3.9	13.0
210 W			3.2	13.5	184 E	4.3	12.6
290 W			5.2	11.5	192 E	10.6	6.3
303 W			4.9	11.8	268 E	12.5	4.4
308 W			7.0	9.7			
318 W			8.3	8.4			
353 W			10.6	6.1			
<u>383 W</u>			11.2	5.5			

Inst. at 90+50

♀ 4.9 16.9 12.0

388 W 11.3 5.6
364 W 10.4 6.5

3-26-46

171

Inst. at Sta 90+00

£	4.9	17.1	12.2
250 E		14.1	3.0
188 E		11.8	5.3
176 E		8.6	8.5
170 E		3.2	13.9
163 E		4.3	12.8
113 E		3.5	13.6
<u>27 E</u>		5.1	12.0
46 W		4.3	12.8
70 W		3.4	13.7
122 W		5.3	11.8
198 W		4.9	12.2
232 W		5.4	11.7
276 W		4.6	12.5
313 W		5.7	11.4
323 W		8.2	8.9
370 W		8.6	8.5
376 W		11.5	5.6
<u>404 W</u>		11.9	5.2

Inst. at 89+50

£	4.9	17.3	12.4
412 W		12.0	5.3

Inst. at 89+50 (contd)

390 W	17.3	11.9	5.4
378 W		8.9	8.4
340 W		8.6	8.7
328 W		5.7	11.6
273 W		4.9	12.4
238 W		5.9	11.4
183 W		4.7	12.6
117 W		5.7	11.6
63 W		4.3	13.0
<u>38 W</u>		4.1	13.2
70 E		4.7	12.6
150 E		4.8	12.5
160 E		11.7	5.6
<u>222 E</u>		13.4	3.9

Inst. at Sta. 89+00

♀	4.9	17.2	12.3
206 E		13.0	4.2
138 E		17.3	4.9
126 E		4.1	13.1
<u>106 E</u>		5.1	12.1
67 W		4.3	12.9
113 W		5.1	12.1
193 W		4.1	13.1
248 W		5.3	11.9

Inst. at 89 Contd.

17.2

3-26-46

19

300' W	5.1	12.1
342 W	5.8	11.4
353 W	4.7	12.5
364 W	8.0	9.2
383 W	10.2	7.0
462 W	11.8	5.4

Inst. at Sta. 88450

5.0 17.0

Q		12.0
485 W	11.4	5.6
388 W.	10.1	6.9
374 W.	5.0	12.0
333 W	5.6	11.4
270 W	5.6	11.4
188 W	3.8	13.2
121 W	4.7	12.3
64 W.	4.2	12.8
54 E	5.6	11.4
98 E	3.3	13.7
110 E	11.5	5.5
189 E	13.3	3.7

X-SECTIONS CONTD.

3-28-46

20.

STA. + H.I. - ELEV.

B.M. 11.39

U.S.C. & G.S. Coaster

2.20 13.59

T.B.M. 1.50 12.09

Inst. at 87450 (950'E)

± 2.90 14.99 3.8 11.2

7' W 8.7 6.3

54' W 9.5 5.5

10' E 4.0 11.0

81 E 2.9 12.1

110' E 2.7 12.3

170 E 3.4 11.6

256 E 1.0 14.0

443. E 3.1 11.9

480 E 1.6 13.4

490 E 9.6 5.4

600 E 11.7 3.3

Inst. at 87400 (950' out)

± 3.88 15.97 4.9 11.1

560' E 12.8 3.2

457' E 10.3 5.7

450' E 2.8 13.2

3-28-46

16.85

(21)

Inst. at 87+00 (Cont) (900 Out)
16.0166 E
174 E

13.1

3.8

152

41.7

430' E	4.3	11.7
270' E	1.8	14.2
221' E	2.1	13.9
163' E	4.0	12.0
<u>97' E</u>	2.8	13.2
23' W	5.3	10.7
29' W	4.3	11.7
37' W	10.0	6.0
94' W	10.8	5.2

Inst. @ 88+00 (1397 Out)

4.76	16.85	5.0	11.9
458' W		11.0	5.9
420' W		10.3	6.6
410' W		4.7	12.2
398' W		5.3	11.6
350' W		4.6	10.3
270' W		5.5	11.4
192' W		3.2	13.7
98' W		4.8	12.1
<u>54' W</u>		4.2	12.7
38' E		5.2	11.7
68' E		3.4	13.5
84' E		11.3	5.6 →

Inst. at 86450 (950 o.s. line)

	4.05	16.14		12.09	
Q			4.7	11.4	TP 341 E
410 E			3.0	13.1	383 E
422 E			10.8	5.3	470 E
512 E			13.1	3.0	
394 E			4.6	11.5	
300 E			3.0	13.1	
238 E			2.0	14.1	
161 E			4.0	12.1	
91 E			3.0	13.1	
46 W			5.8	10.3	
48' W			4.0	12.1	
66' W			10.4	5.7	
122' W			11.1	5.0	
177' W			11.1	5.0	

Inst. at 86 (950 o.s. line)

	4.12	16.21		12.09	
Q			4.3	11.9	
210 W			10.5	5.7	
98' W			10.7	5.5	
87' W			4.0	12.2	
82' W			6.1	10.1	
52' E			2.7	13.5	
84 E			3.0	13.2	
143 E			4.5	11.7	
254' E			3.0	13.2	
354' E			4.8	11.4	

162

3-28-46

(22)

37 12.5

11.1 5.1

13.1 3.1

Inst at 85+50 (950' O.S. line)

3.82

15.91

12.09 TP.

15.5

3-28-46

(23)

R

4.3

11.6

372 E

12.4

3.1

325 E

2.9

13.0

338 E

9.4

6.5

440 E

13.0

2.9

308 E

4.6

11.3

Sta. 84+50

6.0

9.5

774 E

3.8

12.1

134 E

4.7

11.2

50 E

3.5

12.4

121' W

6.2

9.7

130' W

4.1

11.8

142' W

9.2

6.7

167' W

9.6

6.3

233' W

9.3

6.6

Inst at Sta 85

R

4.7

15.5

5.1

10.8

286 W

8.3

7.2

188 W

7.8

7.7

178 W

4.1

11.4

171 W

6.1

9.4

74' W

5.4

10.1

61 E

4.8

10.7

112 E

4.9

10.6

170 E

4.2

11.3

243 E

4.3

11.2

280 E

2.7

12.8

292

10.2

5.3

Inst at Sta. 84450 3-28-46
(950' O.S.E.)

(24)

£	4.3	13.8		9.5
57 E			4.0	9.8
118 E			3.5	10.3
185 E			3.2	10.6
213 E			1.4	12.4
230 E			8.5	5.3
328 E			11.0	2.8
43 W			4.5	9.3
123 W			4.6	9.2
211 W			4.9	8.9
241 W			1.9	12.8
253 W			5.1	8.7
311 W			5.7	8.1
413 W			7.0	6.8
522 W			7.3	6.5

428

X-SECTIONS CONTD.

4-1-46

25

STA.	+	H.I.	-	ELEV.
B.M.				11.39
	3.50	14.89		

U.S.C. & G.S. Coaster

0		5.0	9.9
23 E		4.5	10.4
60 E		4.2	10.7
158 E		3.5	11.4
246 E		3.2	11.7
306 E		5.4	9.5
480 E		6.5	8.4
690 E		5.9	9.0
900 E		6.0	8.9
1000 E		1.9	13.0
1020 E		8.7	6.2

T At B.L. Sta 83+50

Inst at Base Line Sta. 82+72

	5.00	16.39		11.39
Kesterly 0+60			5.0	11.4
+26			5.3	11.1
+30			6.2	10.2
+73			4.3	12.1
1+64			4.6	11.8
2+80			5.7	10.7
4+00			7.8	8.6
6+48			6.8	9.6

U.S.C. & G.S. Coaster

16.39

7+32	8.3	8.1
8+20	7.8	8.6
8+60	3.6	12.8
8+84	9.7	6.7
9+40	11.2	5.2

Inst. @ 83+00 Base Line

4.70 16.09 11.39

0.0	5.1	11.0
13 E	5.9	10.2
84 E	3.9	12.2
136 E	3.8	12.3
170 E	6.8	9.3
190 E	5.0	11.1
224 E	5.0	11.1
300 E	7.0	9.1
395 E	7.4	8.7
690 E	8.6	7.5
853 E	7.8	8.3
890 E	3.7	12.4
910 E	10.3	5.8
950 E	10.8	5.3

(26)

Inst on Base Line @ 83472

Easterly	3.46	14.85	5.2	11.39
1030			1.6	9.7
1040			8.9	13.3
1070			10.5	6.0
1000			6.2	4.4
820'			6.0	8.7
690			5.7	8.9
656			7.3	9.2
628			5.7	7.6
603			7.3	9.2
442			5.8	7.6
342			5.6	9.1
203			3.3	9.3
170			1.3	11.6
163			3.5	13.6
136			2.8	11.4
50			4.0	12.1
28			5.7	10.9
20			5.0	9.2
				9.9

110
591

Sta. 84+00
14.85

0	5.0	9.85
15	5.2	9.7
44	8.5	6.4
72	10.6	4.3
101	11.4	3.5
126	10.6	4.3
144	11.7	3.2
170	11.0	3.9
187	9.9	5.0
226	9.2	5.7
278	9.1	5.8
358	7.5	7.4
410	6.2	8.7
557	3.5	11.4
636	7.1	7.8
712	5.8	9.1
782	6.0	8.9
962	5.4	9.5
1034	5.7	9.2
1088	1.7	13.2
1100	8.5	6.4
11.60	11.1	3.8

Sta. 82+50 (Base Line)

(29)

4.87 16.26

11.39

Coaster

0400

5.1

11.2

816

10.8

5.5

730

8.9

7.4

690

4.8

11.5

690

9.2

7.1

556

4.4

11.9

556

9.6

6.7

454

8.5

7.8

380

11.2

5.1

318

10.9

5.4

218

11.5

4.8

156

10.6

5.7

48'

9.8

6.5

34

6.3

10.0

27

5.1

11.2

Sta 82+00 (Base line)

4.46 15.85

11.39

Coaster

29E

4.6

11.2

38E

8.7

7.1

52E

9.8

6.0

148E

10.8

5.0

232E

12.3

3.5

260E

11.7

4.1

310E

11.8

4.0

334E

12.0

3.8

380E

11.2

4.6

Sta. 82+00

Rad	HI	Rad	El.
+	15.85	-	

397E		10.3	5.5
403E		10.5	5.3
432E		9.6	6.2
460E		10.0	3.8
500E		9.6	6.2
562E		9.9	5.9
670E		10.8	5.0
730E		10.4	5.4
850E		11.6	4.2
900E		11.5	4.3

Sta. 81+50 Baseline

4.71	16.20		11.39
------	-------	--	-------

533E		10.8	5.4
486E		10.4	5.8
426E		10.4	5.5
363E		12.1	4.1
340E		13.3	2.9
280E		14.2	2.0
200E		15.2	1.0
174E		13.5	2.7
150E		11.9	4.3
90E		11.0	5.2
49E		10.3	5.9
30E		9.0	7.2
16E		5.2	11.0
0		5.0	11.2

STA	+	H.I	-	ELEV.
		16.20		
84+50			11.7	4.5
	4.7	9.2		
	▲ STA 84+50 B/L.			
0		9.2	4.7	4.5
10E			3.9	5.3
52E			5.9	3.3
146E			7.3	1.9
110E			7.3	1.9
195E			6.4	2.8
210			5.0	4.2
308			4.1	5.1
402			2.9	6.3
449			2.7	6.5

ELEV.		
10.3	-1.1	
11.0	-1.8	-11.0
13.2	-4.0	13.2

4-15-46

BORROW PIT SOUNDINGS OF
MISSION BAY AREA IN ROCK FORMATIONT AT STA. 93+00 ON COASTER ECG. TO
KINGSTON B/A. ASSUMED 0° AZ. ON COASTER ECG.

DIST	AZIM	TIDE	ROD	ELEV.
300	276°44'	+2.8	6.5	-3.7
430	275°55'	@ 1:15 P.M.	6.0	-3.2
560	273°42'		4.8	-2.0
600	273°25'		6.7	-3.9
740	270°05'		10.8	-8.0
720	263°30'		9.6	-6.8
640	263°55'		10.4	-7.6
590	262°	2.7	9.0	-6.3
540	262°20'		8.2	-5.5
510	262°25'		7.3	-4.6
480	261°05'		4.9	-2.2
450	258°46'		4.4	-1.7
410	257°35'		2.9	-0.2
385	257°45'		1.5	+1.2
360	257°50'	2.6	1.7	+0.9
340	256°50'		2.0	+0.6
310	250°43'		2.0	+0.6
280	254°30'		1.9	+0.7
235	252°07'		2.5	+0.1
210	248°15'		4.0	-1.4
200	245°26'		4.5	-1.9

(32)

DIST	AZIM	TIDE	ROD	ELEV	T. ALLEN
160	239°50'	2.5	5.5	-3.0	H.M. CROOKER
150	230°30'		6.8	-4.3	T. STAMPER
255	269°45'		6.8	-4.3	
385	267°25'		6.1	-3.6	
460	266°22'		4.8	-2.3	
540	268°20'		7.0	-4.5	
620	269°45'		11.0	-8.5	
		1.55			
		2.4			

BASELINE FOR FINAL
X-SECTIONS OF MISSION BAY AREA
NEAR VENTURA PLACE

Inst. @ 92+50 (1350' out)

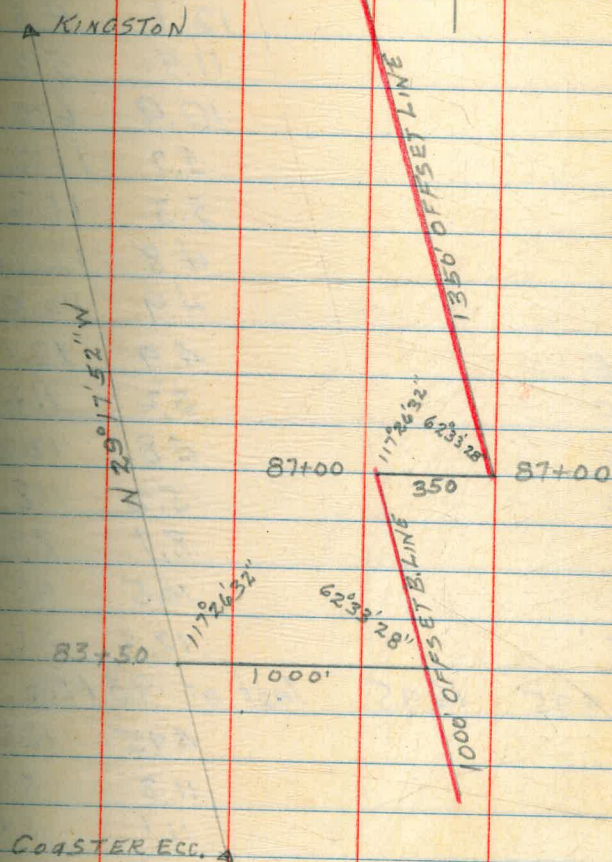
±	16.7	4.9	11.8 ✓
384 E		14.0	2.7 ×
350 E		12.2	4.5 ×
316 E		10.9	5.8 ×
303 E		10.1	6.6 ×
250 E		5.2	11.5 ×
210 E		4.5	12.2 ×
128 E		5.2	11.5 ×
<u>60 E</u>		4.8	11.9 ×
35 W		5.0	11.7 ×
104 W		4.6	12.1 ×
153 W		4.7	12.0 ×
206 W		4.9	11.8 ×
246 W		5.6	11.1 ×
277 W		8.0	8.7 ×
313 W		10.4	6.3 ×
350 W		12.1	4.6 ×

4-23-46

T. ALLEN
H.M. CROOKER
T. STAMPER

WARM

OVERCAST



INDEXED

JUL 16 1953

4/27/66

Inst. @ 93+00			
♀	16.95	4.95	12.0x
353 W		12.1	4.8x
331 W		11.7	5.2x
313 W		10.9	6.0x
254 W		5.7	11.2x
227 W		5.3	11.6x
150 W		4.8	12.15x
70 W		4.9	12.0x
East, 70 E		4.9	12.1x
132 E		5.2	11.8x
184 E		4.8	12.2x
250 E		5.2	11.8x
282 E		8.1	8.9x
312 E		10.5	6.5x
370 E		12.4	4.6x
♀	4.95	16.95	Inst at 93+50
♀		4.95	12.0x
352 E		11.8	5.2x
315 E		11.1	5.9x
253 E		5.3	11.7x
222 E		4.8	12.2x
176 E		4.6	12.4x
146 E		5.0	12.0x
101 E		4.6	12.4x

16.95

33 E	4.9	12.1 ^x
53 W	4.6	12.4 ^x
123' W	4.7	12.3 ^x
196' W	4.7	12.3 ^x
230' W	4.9	12.1 ^x
260' W	5.3	11.7 ^x
297 W	8.5	8.5 ^x
328' W	11.7	5.3 ^x
360' W	12.4	4.6 ^x

Inst. at Sta. 94

♀	4.8	17.1	12.3 ^x
332 W	12.7	4.4 ^x	
313 W	12.2	4.9 ^x	
281 W	8.2	8.9 ^x	
253 W	5.9	11.2 ^x	
218 W	5.2	11.9 ^x	
152 W	5.2	11.9 ^x	
90 W	4.9	12.2 ^x	
20' W	4.8	12.3 ^x	
31 E	5.2	11.9 ^x	
67 ✓	5.3	11.8 ^x	
112 ✓	4.6	12.5 ^x	
190 ✓	5.1	12.0 ^x	
212 ✓	5.0	12.1 ^x	
258 ✓	5.6	11.5 ^x	
312 ✓	10.8	6.3 ^x	

4/23/46

(35)

→ 359E

12.5

4.6^x

Inst. at 94150

£	4.90	16.9		12.0*
354'E			12.2	4.7*
334'E			11.4	5.5*
313 E			10.6	6.3*
282E			7.4	9.5*
260 E			5.7	11.2*
150 E			4.5	12.4*
110 E			4.8	12.1*
48'E			4.9	12.0*
<u>52'W</u>			4.9	12.0*
122 W			5.0	11.9*
182 W			5.2	11.7*
226'W			5.4	11.5*
281'W			11.5	5.4*
310 W			12.0	4.9*

Inst at 95100

£	5.0	16.9		11.9*
278 W			11.8	5.1*
250'W			11.4	5.5*
183'W			5.6	11.3*
96'W			5.1	11.8*
26'W			5.1	11.8*
<u>51 E</u>			5.1	11.8*
100 E			5.0	11.9*
146			4.5	12.4*

16.9

200 E	4.7	12.2 ^x
260 E	5.1	11.8 ^x
298 E	9.0	7.9 ^x
322 E	11.1	5.8 ^x
352 E	12.1	4.8 ^x

Inst at 95450

♀	4.9	16.6	11.7 ^x
353 E	12.5	2.1 ^x	
318' E	11.4	5.2 ^x	
215' E	5.1	11.5 ^x	
172 E	4.5	12.1 ^x	
129' E	5.0	11.6 ^x	
92 E	4.7	11.9 ^x	
30' E	4.8	11.8 ^x	
35' W	5.0	11.6 ^x	
82' W	5.1	11.5 ^x	
120' W	5.5	11.1 ^x	
168' W	9.1	7.5 ^x	
191' W	11.0	5.6 ^x	
228' W	11.6	5.0 ^x	

Inst at Sta. 96400 (1350' out)

♀	4.9	16.4	11.5 ^x
197 W	11.7	4.7 ^x	
158' W	10.4	6.0 ^x	
128' W	10.6	5.8 ^x	
22' W	5.0	11.4 ^x	

4/27/66

(36)

16.4

4/27/46

(37)

58'E		4.6	11.8
124 E		4.5	11.9
200'E		4.6	11.8
250'E		7.6	8.8
293'E		11.2	5.2
343'E		12.2	4.2

Inst at 96 + 50 (1350 Out)

☒	4.7	11.8	7.1
290' E		6.5	5.3
270 E		6.6	5.2
265 E		7.7	4.1
243 E		6.3	5.5
188'E		4.2	7.6
145'E		3.5	8.3
104'E		3.1	8.7
<u>54'E</u>		3.5	8.3
24 W		5.6	6.2
49 W		6.4	5.4
100' W		7.0	4.8

FINAL X-SECTIONS OF DREDGE
 FILL MISSION BAY AREA
 NEAR VENTURA PLACE

A-23-46

TOM ALLEN

H.M. CROOKER

TOM STAMPER

WEATHER - OVERCAST
 &
 WARM

STA	+	H.I.	-	ELEV
B.M.				11.39
	5.05	16.44		
83	+50			4.88 11.56
84				4.7 11.7
	+50			4.7 11.7
85				4.5 11.9
	+50			4.6 11.8
86				4.1 12.3
	+50			4.5 11.9
87				5.0 11.4
T.P.	4.87	16.96	4.35	12.09
87				5.4 11.6
	+50			5.1 11.9
88				4.5 12.5
	+50			4.4 12.6
89				4.5 12.5
	+50			4.4 12.6
90				4.4 12.6
	+50			4.8 12.2
91				4.5 12.5
	+50			4.9 12.1
92				5.2 11.8

U.S.C. & G.S. Coaster

1000' out ^(E) from Base line

1350' out (E)

17.00

92+50	5.2	11.8
93	5.0	12.0
+50	5.0	12.0
94	4.7	12.3
+50	5.0	12.0
95	5.1	11.9
+50	5.3	11.7
96	5.5	11.5
+50	9.9	7.1
97	12.0	5.0

Inst at Sta. 91+50 (1350 Out)

E	17.00	4.9	12.1
70 E		5.2	11.8
156 E		4.9	12.1
218 E		4.8	12.2
242 E		5.2	11.8
310 E		12.2	4.8
<u>72 W</u>		5.1	11.9
163 W		4.7	12.3
243 W		5.5	11.5
309 W		11.4	5.6
300 W		10.9	6.1
342 W		11.9	5.1

4/23/46 39

4/23/46 40

Inst. @ 92+00		16.6	
♀		4.8	11.8
351 W		11.8	4.8
313 W		11.3	5.3
303 W		11.1	5.5
241 W		5.4	11.2
177 W		4.4	12.2
103 W		4.4	12.2
47 W		4.7	11.9
<u>30</u> E		5.1	11.5
100 E		5.3	11.3
163 E		4.6	12.0
221 E		4.6	12.0
248 E		5.0	11.6
273 E		6.9	9.7
300 E		10.1	6.5
328 E		11.7	4.9
383 E		13.7	2.9

Inst. @ 91			
♀	4.7	19.2	12.5
88' E		5.1	12.1
161 ✓		4.8	12.4
203		4.7	12.5
230 ✓		5.4	11.8

Sta 91				Inst. at Sta 90 + 50 (1350 out)		4/23/46 41	
	17.2			4.9	17.5		
280'E		10.5	6.7x	£			12.6x
303'E		11.8	5.4x	214'E		12.2	5.3x
363'E		14.4	2.8x	234 ✓		9.4	8.1x
67 W.		5.1	12.1x	191 ✓		5.5	12.0x
136' ✓		4.7	12.5x	163 ✓		4.8	12.7x
200' ✓		5.1	12.1x	112 ✓		5.0	12.5x
243' ✓		5.5	11.7x	51 ✓		5.4	12.1x
310' ✓		11.6	5.6x	36 W		5.0	12.5x
343' ✓		11.8	5.4x	137 W		5.5	12.0x
	Inst at 90 + 50			206 ✓		5.3	12.2x
£	5.0	17.2		245 ✓		4.9	12.6x
363' W.		12.0	5.3x	258 ✓		5.4	12.1x
314' ✓		11.2	6.0x	312 ✓		11.6	5.9x
288' ✓		9.8	7.4x	352 ✓		12.3	5.2x
246' ✓		5.3	11.9x		Inst at 89 + 50		
175 ✓		4.8	12.4x	£	4.90	17.50	12.6x
92 ✓		5.2	12.0x	316' W		12.4	5.1x
20' ✓		4.7	12.5x	228' W		11.8	5.7x
48' E		5.1	12.1x	213 ✓		5.5	12.0x
110 ✓		4.7	12.5x	243 ✓		5.3	12.2x
163' ✓		4.7	12.5x	208 ✓		5.5	12.0x
203 ✓		4.7	12.5x	184 ✓		6.0	11.8x
222 ✓		5.9	11.3x	151 ✓		5.5	12.0x
266 ✓		10.7	6.5x	84 ✓		5.2	12.3x
290 ✓		11.8	5.4x	31 ✓		5.2	12.3x
340 ✓		13.4	3.8x	34 E		5.1	12.4x

89+50

17.50

4/23/46

42

88 E		4.8	12.7 ^x
136 ✓		5.0	12.5 ^x
172 ✓		5.6	11.9 ^x
211 ✓		9.5	8.0 ^x
250 ✓		12.8	4.7 ^x

Inst. at Sta. 89+00

⊕

5.0 17.50

12.5^x

229' E		12.6	4.9 ^x
243' E		13.7	3.8 ^x
191' E		9.6	7.9 ^x
156 ✓		5.9	11.6 ^x
100 ✓		5.2	12.3 ^x
58' ✓		5.5	12.0 ^x
22 ✓		4.9	12.6 ^x
19 W		4.9	12.6 ^x
113 ✓		5.2	12.3 ^x
148 ✓		5.3	12.2 ^x
201 ✓		6.0	11.5 ^x
260 ✓		5.3	12.2 ^x
293 ✓		5.9	11.6 ^x
317 ✓		7.8	9.7 ^x
343 ✓		11.4	6.1 ^x
372 W		11.8	5.7 ^x

1/23/46

73

Inst. @ 88450

z	17.6	5.0	12.6 ^x
400' W		12.0	5.6 ^x
376 ✓		11.5	6.1 ^x
350 ✓		10.0	7.6 ^x
310 ✓		6.0	11.6 ^x
262 ✓		6.0	11.6 ^x
198 ✓		5.9	11.7 ^x
153 ✓		5.9	11.7 ^x
125 ✓		5.1	12.5 ^x
44 W		5.6	12.0 ^x
<u>14 E</u>		5.0	12.6 ^x
56 ✓		5.5	12.1 ^x
92 ✓		6.0	11.6 ^x
130 ✓		6.4	11.2 ^x
158 ✓		8.7	8.9 ^x
200 ✓		12.7	4.9 ^x
240 E		13.7	3.9 ^x
258 E		15.1	2.5 ^x

Inst. @ 88400

z	17.4	4.9	12.5 ^x
228' E		15.6	1.8 ^x
213 ✓		13.4	4.0 ^x
173 ✓		12.9	4.5 ^x

12.6

88+00

17.4

154' E	11.4	6.0
100 ✓	6.3	11.1
64 ✓	5.5	11.9
33 ✓	5.4	12.0
<u>26' W</u>	5.3	12.1
65 ✓	5.2	12.2
125 ✓	4.9	12.5
176 ✓	5.5	11.9
234 ✓	5.5	11.9
303 ✓	5.5	11.9
338 ✓	5.8	11.6
367 ✓	8.8	8.6
390 ✓	11.4	6.0
440 W.	12.1	5.3

Inst. @ 87+50 (1350 Oct)

16.9

4	5.0	11.9
450' W.	11.5	5.4
423 ✓	11.2	5.7
412 ✓	10.6	6.3
388 ✓	7.1	9.8
363 ✓	5.3	11.6
2 310 ✓	5.3	11.6
2 280 ✓	5.0	11.9
1 230 ✓	5.0	11.9

44

87450

16.9

139' W	4.2	12.7
94 ✓	4.8	12.1
32 ✓	4.6	12.3
<u>28' E</u>	5.2	11.7
67 ✓	5.4	11.5
83 ✓	7.3	9.6
117 ✓	10.8	6.1
144 ✓	12.4	4.5
168 ✓	13.1	3.8
194 ✓	13.1	3.8
213 E	14.9	2.0

Inst. @ 87400 (1350 out)

16.5

4	4.9	11.6
173' E	14.9	1.6
158' ✓	12.7	3.8
105 ✓	11.7	4.8
90 ✓	10.5	6.0
74 ✓	9.4	7.1
34 E	5.2	11.3
15' E	4.8	11.7
<u>48' W.</u>	4.6	11.9
76 ✓	4.0	12.5
128 ✓	4.4	12.1
172 ✓	4.2	12.3

87+00 (1350 out)
16.5

228' W.	4.5	12.0
292 ✓	4.5	12.0
347 ✓	5.0	11.5
390 ✓	5.0	11.5
410 ✓	6.3	10.2
440 ✓	9.6	6.9
449 ✓	10.5	6.0
468 ✓	11.3	5.2

Inst. @ 86+50 (1000' out)

‡	16.8	4.9	11.9
174' W		11.8	5.0
146 ✓		11.9	4.9
131 ✓		11.0	5.8
104 ✓		7.7	9.1
80 ✓		5.7	11.1
56 ✓		5.6	11.2
<u>49</u> E		4.5	12.3
84 ✓		4.8	12.0
150 ✓		4.5	12.3
190 ✓		4.9	11.9
227 ✓		4.6	12.2
268 ✓		4.5	12.3
282 ✓		5.3	11.5
283 ✓		5.1	11.7

86+50 (1000 Out)
46.8

283' E	5.1	11.7
342 ✓	5.5	11.3
379 ✓	8.8	8.0
415 ✓	12.4	4.4
457 ✓	13.1	3.7
472 ✓	14.5	2.3

Inst @ 86+00 (1000' Out)

♀	17.3	5.0	12.3
436' E		14.8	2.5
409 ✓		13.6	3.7
383 ✓		13.4	3.9
365 ✓		12.1	5.2
304 ✓		5.9	11.4
259 ✓		5.8	11.5
202 ✓		5.1	12.2
146 ✓		5.2	12.1
90 ✓		5.4	11.9
15 ✓		5.0	12.3
20' W		5.0	12.3
30 ✓		5.5	11.8
82 ✓		6.0	11.3
115 ✓		5.8	11.5

85 Conteli
16.8

48

86+00
17.3

337 E

130' W

6.9 10.4

288 ✓

14.4 + 2.4 x

163 ✓

10.8 6.5

242 ✓

11.6 5.2 x

180 -

11.8 5.5

213 ✓

7.9 8.9 x

210 -

12.0 5.3

168 ✓

5.6 11.2 x

109 ✓

5.1 11.7 x

4.9 11.9 x

Inst. @ 85+50 (1000' Out)

68 ✓

5.0 11.8 x

♀

16.8

5.0 11.8 x

46 ✓

5.6 11.2 x

266' W

11.4 5.4

22 ✓

5.1 11.7 x

228 ✓

11.1 5.7

46 W

4.6 12.2 x

210 -

9.8 7.0

108 ✓

4.7 12.1 x

186 ✓

7.3 9.5

180 ✓

4.8 12.0 x

168 -

5.5 11.3 x

211 ✓

4.9 11.9 x

130 -

5.5 11.3

248 ✓

8.4 8.4 x

73 ✓

4.7 12.1

288 ✓

10.7 6.1 x

47 ✓

4.6 12.2

320 ✓

11.0 5.8 x

70 E

5.0 11.8 x

Inst at 84+50

146 ✓

4.7 12.1

♀

5.0 16.7

11.7 x

275 ✓

5.2 11.6

400 W

9.9 6.8 x

262 ✓

5.6 11.2

357 ✓

8.6 8.1 x

288 ✓

8.0 8.8

315 ✓

6.9 9.8 x

322 ✓

11.5 5.3

282 ✓

4.5 12.2 x

374 ✓

13.9 2.9

230 ✓

4.5 12.2 x

Inst at 85+00 (1000' Out)

153 ✓

4.5 12.2 x

♀

4.9 16.8

12.6 4.2

78 ✓

4.7 12.0 x

300' E

12.6 4.2

25

4.6 12.1 x

84+50 Contal. (1000' cont.)

16.7

24 E	4.9	11.8*
70 ✓	5.1	11.6*
122 ✓	4.7	12.0*
158 ✓	5.3	11.4*
193 ✓	9.1	7.6*
226 ✓	11.6	5.1*
270 ✓	13.1	3.6*
290 ✓	14.4	2.3*

$$\begin{array}{r} 16.5 \\ 4.9 \\ \hline 11.6 \end{array}$$

Inst at Sta 84+00 (1000' cont.)

R.	4.8	16.5	11.7*
242' E			14.0
199 ✓			2.5*
162 ✓			12.7
118 ✓			3.8*
77 ✓			12.0
5A ✓			4.5*
71' W			8.8
158 ✓			7.7*
209 ✓			5.1
243 ✓			11.4*
314 ✓			4.7
408 ✓			11.8*
462 ✓			4.8
			11.7*
			4.6
			11.9*
			4.8
			11.7*
			4.4
			12.1*
			4.8
			11.7*
			4.6
			11.9*
			5.9
			10.6*

49

Inst. 83+72 (1000 Out)

±	16.5	4.9	11.6 ^x
492' W		4.6	11.9 ^x
442' ✓		4.6	11.9 ^x
380 ✓		4.5	12.0 ^x
295 ✓		4.5	12.0 ^x
215 ✓		4.9	11.6 ^x
132 ✓		4.9	11.6 ^x
48 ✓		5.0	11.5 ^x
<u>29</u> E		4.9	11.6 ^x
53 ✓		6.8	9.7 ^x
77 ✓		9.4	7.1 ^x
112 ✓		12.3	4.2 ^x
161 ✓		13.1	3.4 ^x
185 ✓		14.7	1.8 ^x

Inst. @ 83+50 (1000 Out)

±	16.4	4.8	11.6 ^x
161' E		14.6	1.8 ^x
142' ✓		13.3	3.1 ^x
68 ✓		12.1	4.3 ^x
26 ✓		9.9	6.5 ^x
10 ✓		4.8	11.6 ^x
<u>98</u> W		5.2	11.2 ^x
147 ✓		4.9	11.5 ^x

83+50 (1000 Out)
-16.4

185' W	5.1	11.3x
242 ✓	4.9	11.5x
324 ✓	4.5	11.9x
382 ✓	4.6	11.8x
410 ✓	4.2	12.2x
464 ✓	4.4	12.0x

Inst at Base Line Sta. 83+50

✱	14.98	5.0	10.0x
510' E		3.0	12.0x
410 ✓		3.0	12.0x
340 ✓		2.8	12.2x
268 ✓		3.1	11.9x
183 ✓		3.2	11.8x
130 ✓		3.6	11.4x
76 ✓		3.8	11.3x
28		4.0	11.0x

Inst at Sta. 83+72 (Base Line)

Base line	4.75	14.6	9.8x
2A E		5.1x	9.5x
36 E		3.5	11.1x
65 E		3.1	11.5x
115 E		3.2	11.4x
192 ✓		2.9	11.7x
256		2.6	12.0x
352		2.5	12.1x

51

1139
359

1498

5.2

98 + 83+72°

98 = Sta 84

89 = 6' Sta 84+50

83+72 crutch
14.6

52

423 E		2.6	12.00 ^x	15.8		
493 E		2.6	12.0 ^x		4.5	11.3

Inst. at Base line Sta. 84+00

Base line	4.8	14.6		9.8		
504 E			4.5	10.1 ^x		
428 E			4.9	9.7		
297 E			5.4	9.2 ^x		
210 E			5.6	9.0 ^x		
135 E			5.7	8.9		
67 E			5.9	8.7		
30 E			7.0	7.6		
12 E			4.7	9.9		

Inst at Base Line Sta. 84+50

Base line	4.70	10.8		6.1		
28 E			5.6	5.2		
61 E			5.3	5.5		
81 ✓			6.5	4.3		
143 ✓			5.8	5.0		
198 ✓			5.1	5.7		
216 ✓			6.6	4.2		
290 ✓			5.9	4.9		
390 ✓			4.8	6.0		
439 ✓			4.4	6.4		

Inst at 83+00 (Base line)

	4.38	15.77		11.39		
£			4.8	11.0		

Sta. 83+00 (cont'd.)

15.8

14 E	5.6	10.2
19 ✓	4.9	10.9
46 ✓	4.9	10.9
128 ✓	4.4	11.4
235 ✓	4.0	11.8
363	3.9	11.9
463	3.6	12.2
675'	3.8	12.0
780'	4.1	11.7
888	4.2	11.6
895	8.1	7.7

Inst at Sta. 82+72 (Base line)

Base line	5.1	16.4	11.3
830' E	4.5	11.9	
843' ✓	8.7	7.7	
874' ✓	11.2	5.2	
980 ✓	11.6	4.8	
770 ✓	5.3	11.1	
603 ✓	6.3	10.1	
478 ✓	5.8	10.6	
343 ✓	4.4	12.0	
194 ✓	4.9	11.5	
58 ✓	5.1	11.3	

53

16.4

5.1

11.3

Int. @ 82+50

Base Line	16.4	5.1	11.3 ^x
22' E		5.4	11.0 ^x
33' ✓		5.9	10.5 ^x
37' ✓		9.0	7.4 ^x
42' ✓		9.6	6.8 ^x
57' ✓		9.2	7.2 ^x
83' ✓		9.1	7.3 ^x
120' ✓		8.1	8.3 ^x
143' ✓		6.5	9.9 ^x
167' ✓		6.5	9.9 ^x
206' ✓		8.6	7.8 ^x
248' ✓		8.9	7.5 ^x
261' ✓		9.8	6.6 ^x
300' ✓		11.0	5.4 ^x
395' ✓		11.2	5.2 ^x
420' ✓		9.9	6.5 ^x
523' ✓		8.9	7.5 ^x
565' ✓		9.5	6.9 ^x
603' ✓		9.4	7.0 ^x
660' ✓		9.9	6.5 ^x
690' ✓		9.0	7.4 ^x
748' ✓		9.3	7.1 ^x
765' ✓		10.4	6.0 ^x

82+50

16.4

820 E	10.9	5.5 ^x
<hr/>	<hr/>	<hr/>
842 ✓	11.1	5.3 ^x
1020	12.2	4.2 ^x
1040 ✓	13.3	3.1 ^x

11.79

6.40

15.79

Inst. @ 82+00

Base Line	15.8	4.8	11.0 ^x
965 E		12.9	2.9 ^x
845 ✓		11.3	4.5 ^x
800 ✓		10.1	5.7 ^x
760 ✓		10.4	5.4 ^x
696 ✓		10.2	5.6 ^x
605 ✓		10.2	5.6 ^x
530 ✓		9.7	6.1 ^x
457 ✓		10.0	5.8 ^x
420 ✓		9.5	6.3 ^x
380 ✓		11.1	4.7 ^x
330 ✓		11.9	3.9 ^x
220 ✓		10.3	5.5 ^x
200 ✓		10.7	5.1 ^x
133 ✓		7.6	8.2 ^x
98 ✓		9.2	6.6 ^x
93 ✓		8.6	7.2 ^x

8200

15.8

36' E	9.4	6.4 ^x
26' E	4.7	11.1 ^x
18' E	4.5	11.3 ^x

11.39

4.67

15.06

Inst. @ 81450

Base Line	15.1	4.9	10.2 ^x
7' E		4.9	10.2 ^x
21' ✓		5.9	9.2 ^x
24' ✓		10.2	4.9 ^x
33' ✓		10.5	4.6 ^x
65' ✓		10.3	4.8 ^x
108' ✓		10.9	4.2 ^x
148' ✓		10.7	4.4 ^x
194' ✓		11.0	4.1 ^x
281' ✓		12.2	2.9 ^x
288' ✓		13.1	2.0 ^x

In Water

344' ✓	13.2	1.9 ^x
365' ✓	12.2	2.9 ^x
394' ✓	11.5	3.6 ^x
140	10.6	4.5 ^x

~~11.1~~

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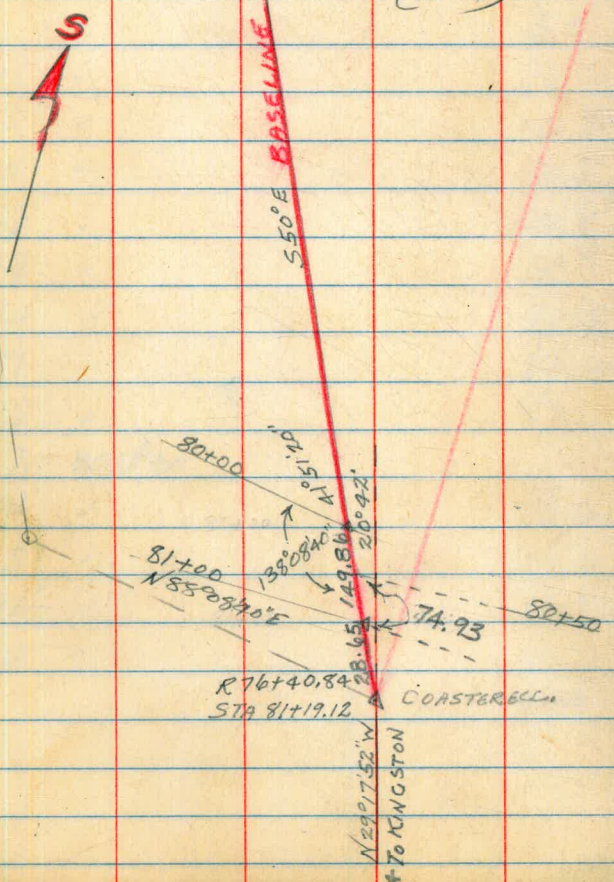
5-26-46

BASE LINE FOR MAY ESTIMATE
OF MISSION BAY PROJECT 4-"A" FOR
X-SECTIONS SOUTH OF COASTER EGG.

NOTE: ALL SECTIONS TAKEN FROM COASTER EGG
NORTH ARE TAKEN ALONG COASTER EGG
TO KINGSTON BASELINE SEE
BASELINE (PG. 7)

INDEXED

JUL 16 1953



5-26-44
MAY ESTIMATE OF
MISSION BAY PROJECT 4-"A"

STA + H.I. - ELEV.
8.5

	5.3	13.8		
84+00			4.1	9.7
+50			7.8	6.0
85+00			10.5	3.3
86+00			7.1	6.7
87+00			5.3	8.5
88+00			5.3	8.5
89+00			5.3	8.5

89+00	13.8			
3'E			5.3	8.5
18E			5.6	8.2
60E			5.6	8.2
106E			9.2	4.6
147E			11.8	2.0
155E			12.8	1.0

NOTE: THESE SECTIONS ARE
TAKEN ALONG COASTER ECC.
TO KINGSTON BASELINE

TOM ALLEN
TOM STAMPER
FAIR-WARM

PICTURED

JUL 16 1951

E SIDEWALK

WATER

STA	H	H.I	ELEV
			8.5

5.4	13.9		
-----	------	--	--

T94100			
--------	--	--	--

3E		7.8	6.1
----	--	-----	-----

54E		8.7	5.2
-----	--	-----	-----

111E		9.5	4.4
------	--	-----	-----

141E		12.4	1.5
------	--	------	-----

T93100			
--------	--	--	--

8.5

5.4	13.9		
-----	------	--	--

3E		6.0	7.9
----	--	-----	-----

58E		6.0	7.9
-----	--	-----	-----

82E		8.3	5.6
-----	--	-----	-----

130E		9.6	4.3
------	--	-----	-----

152E		12.4	1.5
------	--	------	-----

T88100			
--------	--	--	--

8.5

4.9	13.4		
-----	------	--	--

3W		4.9	8.5
----	--	-----	-----

42E		5.1	8.3
-----	--	-----	-----

98E		8.5	4.9
-----	--	-----	-----

140E		11.7	1.7
------	--	------	-----

STA	+	H.I	-	ELEV
T87+00	5.0	13.5		8.5
33 W			5.0	8.5
38 E			5.6	7.9
64 E			8.7	4.8
89 E			10.9	2.6
98 E			12.5	1.0

T86+00	4.9	11.6		6.7
11 W			3.6	8.0
53 W			3.4	8.2
84 W			3.4	8.2
16 E			5.9	5.7
58 E			9.3	2.3
68 E			10.8	0.8

T85+00	5.2	8.5		3.3
41 E			10.5	-2.0
23 E			6.9	1.6
56 W			1.2	7.3
140 W			0.5	8.0

STA	-	H.I	-	ELEV
T84450	5.0	11.0		6.0
33 W			3.6	7.4
67 W			2.4	8.6
113 W			2.3	8.7
170 W			3.4	8.6
25 E			6.1	4.9
85 E			7.0	4.0
146 E			7.5	3.5
203 E			6.9	4.1

T84400	4.9	14.6		9.7
13 E			5.4	9.2
48 E			5.7	8.9
147 E			5.7	8.9

FINAL X-SECTIONS OF
MISSION BAY PROJECT 4-"A"

STA	+	H.I.	-	ELEV.
B.M.	2.89	14.28		11.39
84			4.75	9.53
	+50		8.3	6.0
85			9.7	4.6
	+50		8.8	5.5
86			7.3	7.0
	+50		6.1	8.2
87			5.6	8.6
	+50		5.9	8.4
88			5.9	8.4
	+50		5.8	8.5
<hr/>				
π 84		14.3	4.75	9.5
48 E			5.2	9.1
74 E			5.3	9.0
<hr/>				
π 84+50		11.0	5.0	6.0
70 E			7.2	3.8
<u>32 E</u>			6.3	4.7
28 W			3.9	7.1
83 W			2.2	8.8
126 W			2.6	8.4
168 W			3.1	7.9
172 W			3.9	7.1

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NOTE SECTIONS taken
along Coaster E.C.C. - Kingston
Base Line.

TOM ALLEN
GEO. WILLIAMS
TOM STAMPER

U.S.C. & G.S. COASTER

π 85+00	9.2	4.6	4.6
142 W		1.3	7.9
136 W		1.1	8.1
86 W		1.1	8.1
<u>60 W</u>		1.7	7.5
8 E		6.2	3.0
<hr/>			
π 85+50	10.2	4.7	5.5
18 E		7.0	3.2
42 W		2.3	7.9
110 W		2.1	8.1
<hr/>			
π 86+00	11.8	4.8	7.0
84 W		4.0	7.8
<u>32 W</u>		3.7	8.1
18 E		6.3	5.5
43 E		8.9	2.9

π 86+50	13.0	4.8	8.2
64 E		9.3	3.7
34 E		7.4	5.6
18 E		5.8	7.2
55 W		4.8	8.2

π 87+00	13.7	5.1	8.6
33 W		5.4	8.3
11 E		5.2	8.5
28 E		5.6	8.1
50 E		8.0	5.7
76 E		10.1	3.6

π 87+50	13.3	4.9	8.4
98 E		9.6	4.7
70 E		8.0	5.3
32 E		4.6	8.7
15 W		4.9	8.4

π 88+00	13.2	4.8	8.4
2 W		4.8	8.4
50 E		5.0	8.2
72 E		6.7	6.5
114 E		9.4	3.8

π 88+50	13.9	5.4	8.5
116 E		9.9	4.0
61 E		5.9	8.0
30 E		5.4	8.5

89+00	13.9	5.4	8.5
3 E		5.4	8.5
60 E		5.9	8.0
84 E		7.9	6.0
120 E		10.0	3.9

90+00	13.9	5.4	8.5
125 E		10.0	3.9
90 E		8.6	5.3
51 E		5.5	8.4
3 E		5.7	8.2

91+00	13.9	5.4	8.5
3 E		5.4	8.5
45 E		5.7	8.2
68 E		7.0	6.9
114 E		10.0	3.9

92+00	13.9	5.4	8.5
111 E		9.8	4.1
85 E		8.6	5.3
58 E		5.6	8.3
3 E		5.4	8.5

93+00	13.8	5.3	8.5
3 E		5.3	8.5
46 E		5.8	8.0
65 E		6.6	7.2
90 E		8.6	5.2
130 E		9.8	4.0

94+00	13.9	5.4	8.5
115 E		9.9	4.0
65 E		9.0	4.9
30 E		7.9	6.0
3 E		6.5	7.4

7794+50	13.9	5.4	8.5
3 E		7.4	6.5
38 E		9.2	4.7
76 E		8.7	5.2
110 E		10.2	3.7

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π 95+00	13.9	5.4	8.5
90 E		9.7	4.2
60 E		9.1	4.8
27 E		9.2	4.7
7 E		7.8	6.1

FINAL SOUNDINGS OF
MISSION BAY PROJECT 4 "A"

0+00 = COASTER E.C. TO KINGSTON B/L.

STATION 85+00

DIST	SOUND	(3.2)	DIST	SOUND
85+00 ^{10'}	0.3	+2.9	220	6.7 -3.4
20	1.0	+2.2	230	7.0 -3.7
30'	3.2	0.0	240	7.0 -3.7
40'	5.2	-2.0	250	8.0 -4.7
50'	5.7	-2.5	260	8.0 -4.7
60	4.5	-1.3	270	7.2 -3.9
70	5.2	-2.0	280	6.8 -3.5
80	6.0	-2.8	290	6.3 -3.0
90	6.8	-3.6	300	6.5 -3.2
100	6.3	-3.1	310	7.0 -3.7
110	6.0	-2.8	320	7.0 -3.7
120 (3.3)	6.0	-2.7	330	6.3 -3.0
130	6.0	-2.7	340	6.0 -2.7
140	6.0	-2.7	350	5.6 -2.3
150	5.5	-2.2	360	5.4 -2.1
160	5.6	-2.3	370	4.9 -1.6
170	5.8	-2.5	380	4.8 -1.5
180	5.8	-2.5	390	7.0 -3.7
190	5.9	-2.6	400	6.0 -2.7
200	6.3	-3.0	410	5.5 -2.3
210	6.7	-3.4	420	6.0 -2.7

INDEXED

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DAILY 16 1953
Sound

Dist Sound

430	6.2	-2.9	86+00	10:00 AM.	(36)
440	5.0	-1.7			
450	5.5	-2.2	41	00	+3.5
460	5.8	-2.5	50	1.0	+2.5
470	6.8	-3.5	60	1.0	+2.5
480	6.2	-2.9	70	2.0	+1.5
490	6.0	-2.7	80	3.2	+0.3
500	6.0	-2.7	90	5.0	-1.5
510	6.4	-3.1	100	6.8	-3.3
520	5.2	-1.9	110	7.0	-3.5
530	5.5	-2.2	120	7.2	-3.7
540	5.2	-1.9 (3.5)	130	8.2	-4.7
550	4.2	-0.9	140	8.2	-4.7
560	3.3	0.0	150	12.0	-8.5
(3A) 570	4.2	-0.8	160	12.3	-8.8
580	5.0	-1.6	170	12.3	-8.8
590	4.3	-0.9	180	12.3	-8.8
600	4.3	-0.9	190	12.3	-8.8
610	4.0	-0.6	200	12.3	-8.8
620	5.3	+1.1	210	12.3	-8.8
630	1.0	+2.4	220	13.0	-9.5
640	0.7	+2.7	230	13.0	-9.5
650	0.5	+2.9	240	12.7	-9.2
			250	12.7	-9.2
			260	12.0	-8.5

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Dist	Sound	Dist	Sound	Dist	Sound	Dist	Sound
86400	10:05 AM.	10:10 AM.		250	6.0 -2.4	87400	Contd.
270	12.0 -8.4	510	12.0 -8.4	760	5.0 -1.4	230	12.8 -9.1
280	(mi) 11.7 -8.1	520	(mi) 12.0 -8.4	770	4.6 -1.0	240	13.6 -9.9
290	(mi) 11.3 -7.7	530	(mi) 11.8 -8.2	780	3.0 +0.6	250	14.0 -10.3
300	11.3 -7.7	540	11.0 -7.4	790	(mi) 0.8 +2.8	260	15.0 -11.3
310	11.3 -7.7	550	10.4 -6.8	800	(mi) 0.3 +3.3	270	15.0 -11.3
320	11.0 -7.4	560	11.8 -8.2	10:12 AM.		280	15.0 -11.3
330	10.8 -7.2	570	12.0 -8.4			290	14.5 -10.6
340	12.3 -8.7	580	12.0 -8.4			300	13.0 -9.3
350	12.5 -8.9	590	11.8 -8.2	87400	(3.7)	310	12.9 -9.2
360	12.2 -8.6	600	11.5 -7.9	10:22 AM.		320	12.5 -8.8
370	12.0 -8.4	610	12.0 -8.4	90	1.2 +2.5	330	12.4 -8.7
380	11.8 -8.2	620	12.7 -9.1	100	(mi) 3.7 +0.0	340	12.3 -8.6
390	12.7 -9.1	630	12.0 -8.4	110	(mi) 5.0 -1.3	350	12.6 -8.9
400	12.8 -9.2	640	10.0 -6.4	120	6.2 -1.5	360	13.1 -9.4
410	12.5 -8.9	650	10.0 -6.4	130	6.3 -1.6	370	13.7 -10.0
420	12.2 -8.6	660	10.3 -6.7	140	7.0 -3.3	380	(mi) 13.8 -10.1
430	12.4 -8.8	670	11.0 -7.4	150	7.0 -3.3	390	(mi) 13.0 -9.3
440	12.0 -8.4	680	11.3 -7.7	160	6.7 -3.0	400	13.0 -9.3
450	12.1 -8.5	690	11.8 -8.2	170	6.5 -2.8	410	13.0 -9.3
460	11.7 -8.1	700	11.6 -8.0	180	10.3 -6.6	420	12.9 -9.2
470	11.7 -8.1	710	11.3 -7.7	190	12.2 -8.5	430	12.7 -9.0
480	12.0 -8.4	720	10.6 -7.0	200	12.0 -8.3	440	12.7 -9.0
490	12.0 -8.4	730	10.0 -6.4	210	11.9 -8.2	450	12.5 -8.8
500	12.0 -8.4	740	9.7 -6.1	220	11.7 -8.0	460	12.8 -9.1

8/15/66

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Dist. Sound

Dist. Sound

Dist. Sound

Dist. Sound

87+Cont'd

710 11.8 -8.0

88+00

470 12.3 -8.5

720 11.5 -7.7

10:45 am

340 12.3 -8.4

480 12.2 -8.4

730 11.8 -8.0

115 0.0 +3.9

350 12.1 -8.2

490 12.7 -8.9

740 12.0 -8.2

120 0.2 +3.7

360 12.0 -8.1

500 12.5 -8.7

750 11.9 -8.1

130 1.0 +2.9

370 12.1 -8.2

510 12.4 -8.6

760 11.5 -7.7

140 1.8 +2.1

380 12.1 -8.2

520 12.5 -8.7

770 11.3 -7.5

150 2.3 +1.6

390 12.2 -8.3

530 12.3 -8.5

780 11.0 -7.2

160 5.0 -1.1

400 12.4 -8.5

540 12.0 -8.2

790 11.2 -7.4

170 5.4 -1.5

410 12.5 -8.6

550 12.1 -8.3

800 11.6 -7.8

180 5.9 -2.0

420 12.7 -8.8

560 12.4 -8.6

810 11.0 -7.2

190 6.1 -2.2

430 12.8 -8.9

570 12.5 -8.7

820 10.1 -6.3

200 6.2 -2.3

440 12.8 -8.9

580 12.9 -9.1

830 9.0 -5.2

210 7.3 -3.4

450 12.9 -9.0

590 14.3 -10.5

840 7.0 -3.2

220 9.9 -6.0

460 15.1 -11.2

600 14.7 -10.9

850 3.4 +0.4

230 11.7 -7.8

470 13.5 -9.6

610 14.3 -10.5

860 2.0 +1.8

240 11.8 -7.9

480 13.8 -9.9

620 13.9 -10.1

870 0.7 +3.1

250 11.7 -7.8

490 13.1 -9.2

630 13.3 -9.5

878 0.0 +3.8

260 11.8 -7.9

500 12.3 -8.4

640 13.0 -9.2

10:35 am

270 11.8 -7.9

510 12.3 -8.4

650 13.5 -9.7

280 11.7 -7.8

520 12.3 -8.4

660 14.0 -10.2

290 11.9 -8.0

530 12.1 -8.2

670 13.5 -9.7

300 11.5 -7.6

540 12.2 -8.3

680 13.0 -9.2

310 11.9 -8.0

550 12.0 -8.1

690 12.3 -8.5

320 12.0 -8.1

560 11.7 -7.8

700 12.0 -8.2

330 12.4 -8.5

570 11.8 -7.9

Dist. Sound

88400 Cont'd

10:50 am

580	11.8	-7.8
590	11.8	-7.8
600	12.0	-8.0
610	12.1	-8.1
620	12.2	-8.2
630	12.2	-8.2
640	12.2	-8.2
650	12.2	-8.2
660	12.2	-8.2
670	12.0	-8.0
680	11.8	-7.8
690	11.8	-7.8
700	12.0	-8.0
710	12.8	-8.8
720	12.9	-8.9
730	12.8	-8.8
740	12.7	-8.7
750	12.5	-8.5
760	12.5	-8.5
770	12.4	-8.4
780	12.2	-8.2
790	12.2	-8.2
800	11.9	-7.9

Dist. Sound

810	12.5	-8.4
820	12.6	-8.5
830	12.3	-8.2
840	12.3	-8.2
850	12.5	-8.4
860	12.0	-7.9
870	11.7	-7.6
880	11.4	-7.3
890	9.4	-5.3
900	6.2	-2.1
910	2.5	+1.6
920	1.0	+3.1
925	0.0	+4.1
10:55 am		
<u>89400</u>		
11:00 am		
120	0.0	+4.1
130	0.8	+3.3
140	1.7	+2.4
150	2.8	+1.3
160	3.4	+0.7
170	4.2	-0.1
180	4.9	-0.8

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Dist. Sound

89400 Cont'd

190	5.9	-1.7
200	6.2	-2.0
210	10.0	-5.8
220	11.0	-6.8
230	11.9	-7.7
240	11.7	-7.5
250	11.7	-7.5
260	11.5	-7.3
270	11.3	-7.1
280	11.8	-7.6
290	12.8	-8.6
300	13.0	-8.8
310	13.1	-8.9
320	12.8	-8.6
330	12.7	-8.5
340	13.0	-8.8
350	13.3	-9.1
360	13.3	-9.1
370	13.2	-9.0
380	13.0	-8.8
390	12.8	-8.6
400	12.5	-8.3
410	12.3	-8.1
420	12.2	-8.0

Dist. Sound

11:10 am

430	12.0	-7.8
440	12.2	-8.0
450	12.3	-8.1
460	12.6	-8.4
470	12.6	-8.4
480	12.7	-8.5
490	12.3	-8.1
500	12.2	-8.0
510	12.0	-7.8
520	12.0	-7.8
530	12.3	-8.1
540	12.8	-8.6
550	12.8	-8.6
560	12.8	-8.6
570	12.8	-8.6
580	12.5	-8.3
590	12.4	-8.2
600	12.3	-8.1
610	12.3	-8.1
620	12.2	-8.0
630	12.5	-8.3
640	12.8	-8.6
650	12.4	-8.2
660	12.2	-8.0

Dist. Sound
89+00 Contd.

11:15 AM
670 12.7 -8.4
680 12.3 -8.0
690 (M) 12.4 -8.1
700 (V) 12.3 -8.0
710 12.3 -8.0
720 12.3 -8.0
730 12.9 -8.6
740 13.4 -9.1
750 13.2 -8.9
760 13.3 -9.0
770 13.4 -9.1
780 13.2 -8.9
790 13.1 -8.8
800 12.7 -8.4
810 12.4 -8.1
820 12.3 -8.0
830 11.8 -7.5
840 12.5 -8.2
850 12.5 -8.2
860 12.7 -8.4
870 13.0 -8.7
880 13.0 -8.7
890 13.0 -8.7

Dist. Sound

900 12.8 -8.5
910 12.2 -7.9
920 12.0 -7.7
930 10.2 -5.9
940 ~~7.0~~ -2.7
950 2.7 +1.6
960 (M) 2.0 +2.3
970 (V) 1.0 +3.3
978 (V) 0.0 +4.3
11:20 AM
(4.3)

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Dist. Sound
91+00 (46)

12:35 PM
106 0.0 +4.6
110 (V) 0.3 +4.3
120 (V) 0.6 +4.0
130 1.0 +3.6
140 2.0 +2.6
150 3.2 +1.4
160 5.0 -0.4
170 6.3 -1.7
180 7.1 -2.5
190 8.1 -3.5
200 ^{8.8} 9.8 -4.2
210 9.0 -4.4
220 9.5 -4.9
230 9.8 -5.2
240 9.8 -5.2
250 10.0 -5.4
260 9.8 -5.2
270 9.9 -5.3
280 10.2 -5.6
290 10.9 -6.3
300 11.2 -6.6
310 12.0 -7.4
320 12.8 -8.2

Dist. Sound

(71)
12:50 13.5 -9.0
330 13.7 -9.2
340 (M) 13.7 -9.2
350 (V) 13.7 -9.2
360 13.0 -8.5
370 12.8 -8.3
380 12.8 -8.3
390 13.1 -8.6
400 13.2 -8.7
410 12.8 -8.3
420 14.5 -10.0
430 13.9 -9.4
440 13.5 -9.0
450 13.2 -8.7
460 13.1 -8.6
470 13.0 -8.5
480 12.6 -8.1
490 12.7 -8.2
500 12.4 -7.9
510 12.5 -8.0
520 12.6 -8.1
530 12.9 -8.4
540 13.0 -8.5
550 13.2 -8.7
560 13.2 -8.7

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Dist.	Sound	Dist.	Sound
91400 Contd. 1:00 PM			
570	13.0 -8.6	810	13.1 -8.7
580	13.1 -8.7	820	13.0 -8.6
590	12.9 -8.5	830	12.9 -8.5
600	12.8 -8.4	840	12.7 -8.3
610	12.4 -8.0	850	12.5 -8.1
620	12.3 -7.9	860	12.9 -8.5
630	12.0 -7.6	870	12.8 -8.4
640	13.0 -8.6	880	12.7 -8.3
650	12.8 -8.4	890	12.1 -7.7
660	13.0 -8.6	900	11.8 -7.4
670	12.9 -8.5	910	12.1 -7.7
680	12.8 -8.4	920	12.3 -7.9
690	12.8 -8.4	930	12.3 -7.9
700	12.6 -8.2	940	11.8 -7.4
710	12.9 -8.5	950	11.3 -6.9
720	12.5 -8.1	960	11.3 -6.9
730	12.3 -7.9	970	9.4 -5.0
740	14.0 -9.6	980	8.1 -3.7
750	14.1 -9.7	990	4.8 -0.8
760	13.8 -9.4	1000	4.2 +0.2
770	13.3 -8.9	1010	2.8 +1.4
780	13.1 -8.7	1020	0.8 +3.6
790	13.2 -8.8	1:05 PM	
800	13.2 -8.8		

Dist.	Sound	Dist.	Sound
90400 1:15 PM			
		340	12.3 -7.9
115	0.0 +4.4	350	12.9 -8.5
120	0.2 +4.2	360	12.6 -8.2
130	0.5 +3.9	370	12.6 -8.2
140	1.0 +3.4	380	12.2 -7.8
150	2.0 +2.4	390	11.8 -7.4
160	3.4 +1.0	400	11.3 -6.9
170	5.2 -0.8	410	11.3 -6.9
180	6.8 -2.4	420	13.0 -8.6
190	7.5 -3.1	430	13.1 -8.7
200	7.3 -2.9	440	13.1 -8.7
210	8.0 -2.6	450	12.9 -8.5
220	9.4 -5.0	460	12.9 -8.5
230	11.3 -6.9	470	12.9 -8.5
240	11.2 -6.8	480	12.7 -8.3
250	11.2 -6.8	490	12.2 -7.8
260	11.6 -7.2	500	12.0 -7.6
270	11.9 -7.5	510	12.0 -7.6
280	12.5 -8.1	520	12.1 -7.7
290	13.2 -8.8	530	12.0 -7.6
300	13.8 -9.4	540	12.1 -7.7
310	13.3 -8.9	550	12.2 -7.8
320	13.1 -8.7	560	12.8 -8.4
330	12.5 -8.1	570	12.9 -8.5

8/15/46

Dist.	Sound		Dist.	Sound	
90+00	Contd	1:20 PM.			
580	12.8	-8.5	820	12.5	-8.2
590	12.2	-7.9	830	12.2	-7.9
600	12.0	-7.7	840	12.2	-7.9
610	12.0	-7.7	850	12.0	-7.7
620	12.0	-7.7	860	12.0	-7.7
630	12.2	-7.9	870	12.1	-7.8
640	12.7	-8.4	880	12.6	-8.3
650	13.1	-8.8	890	12.5	-8.2
660	13.0	-8.7	900	12.5	-8.2
670	12.9	-8.6	910	12.2	-7.9
680	12.7	-8.4	920	12.1	-7.8
690	12.7	-8.4	930	11.3	-7.0
700	12.4	-8.1	940	11.5	-7.2
710	12.3	-8.0	950	11.1	-6.8
720	12.3	-8.0	960	10.7	-6.4
730	12.3	-8.0	970	9.8	-5.5
740	12.7	-8.4	980	6.8	-3.5
750	12.7	-8.4	990	4.9	-0.6
760	12.8	-8.5	1000	1.8	+2.5
770	12.5	-8.2	1010	0.8	+3.5
780	12.2	-7.9	1018	0.0	+4.3
790	12.8	-8.5			
800	12.8	-8.5			
810	12.5	-8.2			

1:25 PM.

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(73)

Dist	Sound		Dist	Sound	
92+00	1:40 PM.				
			340	7.3	-3.1
			350	7.4	-3.2
			360	7.5	-3.3
			370	7.9	-3.7
			380	7.8	-3.6
			390	7.7	-3.5
			400	7.8	-3.6
			410	7.8	-3.6
			420	8.5	-4.3
			430	9.5	-5.3
			440	12.3	-8.1
			450	12.3	-8.1
			460	11.5	-7.3
			470	11.5	-7.3
			480	11.2	-7.0
			490		
			500	10.9	-6.7
			510	10.9	-6.7
			520	10.9	-6.7
			530	11.0	-6.8
			540	11.5	-7.3
			550	12.0	-7.8
			560	12.0	-7.8
			570	12.1	-7.9

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Dist	Sound	Dist.	Sound
92+00	Contd.	1:50 Pm.	
580	12.0 -7.8	820	12.7 -8.6
590	11.7 -7.5	830	13.0 -8.9
600	11.9 -7.7	840	12.9 -8.8
610	12.3 -8.1	850	12.8 -8.7
620	12.5 -8.3	860	13.1 -9.0
630	12.4 -8.2	870	13.4 -9.3
640	11.1 -6.9	880	13.2 -9.3
650	13.2 -9.0	890	12.5 -8.4
660	12.8 -8.6	900	12.3 -8.2
670	12.9 -8.7	910	13.0 -8.9
680	12.5 -8.3	920	13.0 -8.9
690	11.4 -7.2	930	12.8 -8.7
700	11.3 -7.1	940	12.0 -7.9
710	11.5 -7.3	950	11.9 -7.8
720	11.3 -7.1	960	10.6 -6.5
730	11.2 -7.0	970	9.9 -5.8
740	11.1 -6.9	980	7.4 -3.3
750	11.2 -7.0	990	4.3 -0.3
760	13.2 -9.0	1000	3.9 +0.2
770	13.8 -9.6	1010	1.3 +2.8
780	13.5 -9.3	1018	0.0 +4.1
790	13.0 -8.8	1:53 Pm.	
800	12.8 -8.6	3.9	
810	12.3 -8.1		

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(74)

Dist	Sound	Dist.	Sound
93+00	(2.3)		
8:40 AM		380	5.1 -2.7
150	0.0 +2.3	390	5.0 -2.6
160	1.0 +1.4	400	5.0 -2.6
170	2.8 -0.4	410	4.8 -2.4
180	3.1 -0.7	420	6.0 -3.6
190	4.1 -1.7	430	5.9 -3.5
200	4.7 -2.3	440	6.5 -4.1
210	5.3 -2.9	450	6.0 -3.6
220	5.8 -3.4	460	5.8 -3.4
230	5.8 -3.4	470	5.8 -3.4
240	5.5 -3.1	480	5.8 -3.4
250	5.3 -2.9	490	5.5 -3.1
260	5.3 -2.9	500	5.8 -3.4
270	5.6 -3.2	510	5.6 -3.2
280	5.9 -3.5	520	6.4 -4.0
290	6.1 -3.7	530	6.3 -3.9
300	5.9 -3.9	540	6.4 -4.0
310	5.3 -2.9	550	6.2 -3.8
320	5.8 -3.4	560	6.4 -4.0
330	5.4 -3.0	570	6.1 -3.7
340	5.7 -3.3	580	6.2 -3.8
350	5.2 -2.8	590	5.5 -3.1
360	5.2 -2.8	600	5.4 -3.0
370	5.1 -2.7	610	5.6 -3.2

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Dist.	Sound	Dist.	Sound
93400	Contd.	8:50 am	
620	5.6 -3.4	860	10.2 -7.8
630	11.8 -9.4	870 ^T	9.9 -7.5
640	12.0 -9.6	880 ^N	10.9 -8.5
650	12.0 -9.6	890	11.1 -8.7
660	11.4 -9.0	900	11.1 -8.7
670	10.6 -8.2	910	10.7 -8.3
680	10.2 -7.8	920	10.3 -7.9
690	10.2 -7.8	930	10.0 -7.6
700	10.0 -7.6	940	8.6 -6.2
710	9.8 -7.4	950	7.6 -5.2
720 ^T	9.5 -7.1	960	5.4 -3.0
730 ^N	9.4 -7.0	970	2.3 +0.1
740 ^N	9.4 -7.0	980 ^N	1.6 +0.8
750	9.4 -7.0	990 ^N	0.0 +2.4
760	9.5 -7.1	1000	—
770	9.1 -6.7	8:55 AM.	
780	11.1 -8.7	————	
790	11.1 -8.7		
800	11.4 -9.0	94+00	
810	11.1 -8.7	9:05 AM	
820	10.5 -8.1	125	0.0 +2.6
830	10.8 -8.4	130 ^N	1.0 +1.6
840	10.2 -7.8	140 ^N	3.3 -0.7
850	10.1 -7.7	150	4.3 -1.7

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(75)

Dist.	Sound	Dist.	Sound
160	5.0 -2.4	9:15 AM.	
170	5.0 -2.4	410	7.8 -5.1
180	5.4 -2.8	420 ^T	7.2 -4.5
190	5.8 -3.2	430 ^N	6.5 -3.8
200	5.8 -3.2	440	6.1 -3.4
210	6.0 -3.4	450	5.8 -3.1
220	6.3 -3.7	460	5.2 -2.5
230	6.2 -3.6	470	5.6 -2.9
240	5.9 -3.3	480	5.1 -2.4
250	7.0 -4.4	490	5.3 -2.6
260	7.1 -4.5	500	5.6 -2.9
270 ^N	7.2 -4.6	510	5.8 -3.1
280 ^N	7.3 -4.7	520	6.2 -3.5
290	7.8 -5.2	530	6.5 -3.8
300	7.9 -5.3	540	6.1 -3.4
310	8.0 -5.4	550	6.0 -3.3
320	8.0 -5.4	560	6.2 -3.5
330	7.6 -5.0	570	6.0 -3.3
340	7.4 -4.8	580	6.0 -3.3
350	7.6 -5.0	590	6.1 -3.4
360	7.8 -5.2	600	6.1 -3.4
370	7.4 -4.8	610	6.2 -3.5
380	7.0 -4.4	620	5.9 -3.2
390	7.7 -5.1	630	6.1 -3.4
400	8.2 -5.6	640	7.2 -4.5

Dist.	Sound	Dist.	Sound
9400	Contd.		
9:17 AM		880	11.5 -8.7
650	8.2 -5.4	890	11.9 -9.1
660	7.5 -4.7	900	11.8 -9.0
670	7.8 -5.0	910	11.3 -8.5
680	7.3 -4.5	920	11.0 -8.2
690	8.2 -5.4	930	10.6 -7.8
700	9.0 -6.2	940	10.7 -7.9
710	9.0 -6.2	950	10.2 -7.4
720	9.0 -6.2	960	10.0 -7.2
730	9.6 -6.8	970	8.9 -6.1
740	9.9 -7.1	980	7.1 -4.3
750	10.0 -7.2	990	2.9 -0.1
760	11.5 -8.7	1000	2.8 0.0
770	12.1 -9.3	1010	0.9 +1.9
780	12.1 -9.3	1016	0.0 +2.8
790	11.9 -9.1	9:23 AM	
800	11.6 -8.8		
810	11.5 -8.7		
820	11.4 -8.6		
830	11.4 -8.6	95700	
840	11.2 -8.4	9:32 AM	
850	11.0 -8.2	98	0.0 +2.9
860	10.8 -8.0	100	1.0 +1.9
870	10.8 -8.0	110	3.6 -0.7

76

5/16/46

Dist.	Sound	Dist.	Sound
120	5.0 -2.1	9:45 AM	
130	6.2 -3.3	370	6.4 -3.4
140	6.4 -3.5	380	6.7 -3.7
150	6.5 -3.6	390	7.1 -4.1
160	6.5 -3.6	400	8.0 -5.0
170	6.2 -3.3	410	8.2 -5.2
180	6.1 -3.2	420	8.3 -5.3
190	6.8 -3.9	430	8.5 -5.5
200	6.0 -3.1	440	8.3 -5.3
210	5.8 -2.9	450	8.1 -5.1
220	5.9 -3.0	460	7.8 -4.8
230	5.3 -2.4	470	7.6 -4.6
240	4.9 -2.0	480	7.2 -4.2
250	4.7 -1.8	490	7.3 -4.3
260	4.1 -1.2	500	6.9 -3.9
270	4.0 -1.1	510	6.5 -3.5
280	4.8 -1.9	520	6.1 -3.1
290	5.2 -2.3	530	5.3 -2.3
300	5.8 -2.9	540	5.7 -2.7
310	6.2 -3.3	550	5.7 -2.7
320	6.5 -3.6	560	5.6 -2.6
330	6.5 -3.6	570	6.1 -3.1
340	6.6 -3.7	580	6.3 -3.3
350	6.5 -3.6	590	6.6 -3.6
360	6.5 -3.6	600	6.4 -3.4

Dist.	Sound	Dist.	Sound
95-100 Contd.			
9:42 am			
610	6.0	840 ^{9.1}	11.8
620	6.0	850 ^{13.0}	11.9
630	6.0	860	11.8
640	6.2	870	11.4
650	6.9	880	11.2
660	7.0	890	11.0
670	7.7	900	12.9
680	8.7	910	13.0
690	8.9	920	12.7
700	9.0	930	12.3
710	9.1	940	12.5
720	9.8	950	12.5
730	13.2	960	12.1
740	14.0	970	12.3
750	7.6	980	11.9
760	7.5	990	12.0
770	13.7	1000	12.8 - 9.8
780	7.0	1010	12.1 - 9.1
790	7.5	1020	11.1 - 8.1
800	12.9 ^{9.0}	1030	9.2 - 6.2
810	12.0 ^{9.2}	1040	7.0 - 4.0
820	11.9 ^{9.2}	1050	4.3 - 1.3
830	12.0 ^{9.3}	1060	3.4 - 0.4
		1070	2.2 + 0.8

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10:00 AM			
DIST	SOUND	DIST	SOUND
650	6.0	900	13.1
660	5.8	910	12.4
670	6.5	920	12.0
680	7.0	930	12.1
690	7.0	940	12.3
700	6.9	950	12.2
710	6.7	960	12.1
720	6.7	<u>10:05 AM</u>	
730	6.5	<u>10:32 AM</u>	
740	6.5		
750	7.1	500	6.9 - 3.3
760	7.6	510	6.6 - 3.0
770	7.9	520	6.3 - 2.7
780	9.0	530	6.0 - 2.4
790	8.3	540	6.4 - 2.8
800	9.2	550	6.3 - 2.7
810	9.2	560	6.5 - 2.9
820	9.3	570	6.4 - 2.8
830	9.6	580	6.0 - 2.4
840	9.9	590	6.9 - 3.3
850	13.0	600	6.8 - 3.2
860	13.1	610	6.2 - 2.6
870	13.2	620	6.4 - 2.8
880	14.2	630	6.5 - 2.9
890	13.6	640	6.373 - 3.7

(78)

8/16/46

Dist	Sound	Dist	Sound
		10:40	
650	7.9 - 4.3	880	11.9 - 8.2
660	8.2 - 4.6	890	11.5 - 7.8
670	9.1 - 5.5	900	13.3 - 9.6
680	9.2 - 5.6	910	13.2 - 9.5
690		920	13.0 - 9.3
700	9.1 - 5.5	930	13.0 - 9.3
710	9.5 - 5.9	940	13.0 - 9.3
720	10.0 - 6.4	950	12.9 - 9.2
730	10.1 - 6.5	960	12.5 - 8.8
740	12.5 - 8.9	970	12.0 - 8.3
750	14.1 - 10.5	980	12.0 - 8.3
760	13.8 - 10.2	990	13.0 - 9.3
770	15.0 - 11.4	1000	13.0 - 9.3
780	14.2 - 11.6	(3.9)	
790	13.6 - 10.0	10:42 am.	
800	13.5 - 9.9		
810	13.0 - 9.4		
820	12.7 - 9.1		
830	13.0 - 9.4		
840	12.6 - 9.0		
850	12.3 - 8.6		
860	12.1 - 8.5		
870	12.0 - 8.4		

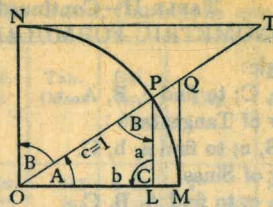


TABLE II

TRIGONOMETRIC FORMULAE

$$\angle A = \angle MOP \quad \angle B = \angle PON = \angle OPL$$

$$c = OP = OM = ON = 1$$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$$

$$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B$$

$$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B$$

$$\text{vers-A} = \frac{LM}{OP} = LM = \text{covers B}$$

$$\text{covers A} = \frac{OP - LP}{OP} = OP - LP = \text{vers B}$$

$$\text{exsec A} = PQ = \text{coexsec B}$$

$$\text{coexsec A} = PT = \text{exsec B}$$

$$\sin \frac{1}{2}A = \sqrt{\frac{1 - \cos A}{2}} \quad \cos \frac{1}{2}A = \sqrt{\frac{1 + \cos A}{2}}$$

$$\sin 2A = 2 \sin A \cos A \quad \cos 2A = \cos^2 A - \sin^2 A$$

$$\text{Law of Sines} \quad \frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

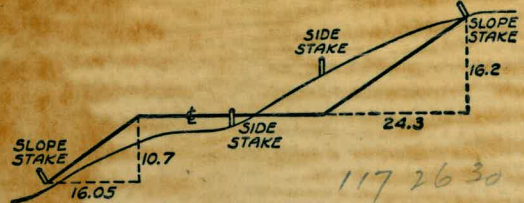
$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$$

112
 22
 896
 274
 37.36

855
 15.9
 51
 10.8

83+50
 83+72



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

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/4 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.