MICROFILMED

177 177
133 365
50 482
388
177
565

418
177
595

FB. 138

THIS BOOK INDEXED 2-13-62

$$\frac{(\sin A)(\sin C)}{\sin B} = \frac{2\,\text{Area}}{b^2}$$

X-Section For RipRAP Sunset Point - 35

13-0
70
(60')

88.75

88.7
1 7 5
406 2

Ref FB Nº 97 For B/L

9-08-60

Ref FB 126

SOUNDINGS CRESCENT BAY FOR PROPOSED DREDGING

STA. N. 135+00; 0+00 = W. 20,380; SOUND EAST

Dist	Sound Elev	Dist	Sound Elev
0+00			
(58)	0.5	+5.3	
	1.9	+3.9	
12'55	3.1	+2.7	50
	3.9	+1.9	
50	4.5	+1.3	
	5.2	+0.6	
	6.3	0.5	
	8.9	3.1	3+00
	10.0	4.2	
1+00	10.9	5.1	
	11.3	5.5	
	12.0	6.2	
	15.0	9.2	
	15.0	9.2	
50	15.0	9.2	
	15.3	9.5	
	15.1	9.3	
	15.2	9.4	
	15.0	9.2	
2+00	15.1	9.3	

Ref FB Nºs 139 & 140 For Shore Sec's

Elmore Hecht

Stamper Wentworth

①

STA. N. 136+00; 0+00 = W. 20,380; SOUND EAST

Dist	Sound Elev	Dist	Sound Elev
0+00			
(57)	1.4	+4.3	
1:00	2.8	+2.9	
	3.8	+1.9	
50	4.4	+1.3	
	5.2	+0.5	
	6.8	1.1	
	10.0	4.3	
	11.7	6.0	
1+00	12.2	6.5	
	12.8	7.1	
	14.3	8.6	
	15.0	9.3	
	15.0	9.3	
50	14.9	9.2	
	14.9	9.2	
	14.9	9.2	
	14.9	9.2	
	14.9	9.2	
2+00	15.0	9.3	

9-08-60

STA. N. 137+00 0+00 = W. 20,370; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00					
(5.7)	0.6	+5.1	50		
	1.4	+4.3			
1:05	2.8	+2.9			
	3.6	+2.1			
50	4.0	+1.7			
	4.8	+0.9			
	5.4	+0.3			
	6.1	1.0			
	8.4	2.7			
1+00	9.6	3.9			
	10.0	4.3			
	10.4	4.7			
	10.5	4.8			
	10.7	5.0			
50	13.9	8.2			
	14.6	8.9			
	13.5	7.8			
	13.7	8.0			
	13.7	8.0			
2+00	13.8	8.1			

2

STA. N. 138+00; 0+00 = W. 20,380; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00				5.7	0.1
(5.6)			50	5.3	+0.3
	1.0	+4.6		5.2	+0.4
1:10	1.9	+3.7		5.8	0.2
	2.5	+3.1		6.7	1.1
50	2.9	+2.7		9.2	3.6
	3.4	+2.2	3+00	10.9	5.3
	3.9	+1.7		12.9	7.3
	4.1	+1.2		13.3	7.7
	4.5	+1.1		13.9	8.3
1+00	4.6	+1.0		14.2	8.6
	4.9	+0.7	50	13.0	7.4
	5.0	+0.6			
	4.9	+0.7			
	5.0	+0.6			
50	5.2	+0.4			
	5.8	0.2			
	5.9	0.3			
	5.9	0.3			
	6.0	0.4			
2+00	6.0	0.4			
	5.8	0.2			
	5.8	0.2			
	5.7	0.1			

9-08-60

STA. N. 139+00; 0+00 = 20,390; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	1.8	+3.7	5,5	4.9	+0.6
55	1.8	+3.7	50	4.9	+0.6
	2.1	+3.4		4.8	+0.7
1;20	2.6	+2.9		4.8	+0.7
	2.8	+2.7		4.9	+0.6
50	2.9	+2.6		5.0	+0.5
	3.0	+2.5	3+00	5.0	+0.5
	3.2	+2.3		4.9	+0.6
	3.4	+2.1		4.9	+0.6
	3.7	+1.8		5.0	+0.5
1+00	3.9	+1.6		5.0	+0.5
	3.9	+1.6	50	5.0	+0.5
	3.9	+1.6		5.1	+0.4
	4.0	+1.5		5.6	0.1
	4.1	+1.4		5.6	0.1
50	4.2	+1.3		5.8	0.3
	4.4	+1.1	4+00	6.0	0.5
	4.9	+0.6		6.9	1.4
	4.9	+0.6		7.1	1.6
	4.9	+0.6		12.3	6.8
2+00	4.9	+0.6		13.1	7.6
	4.8	+0.7	50	13.9	8.4
	4.9	+0.6		13.2	7.7
	4.9	+0.6		13.6	8.1
				13.3	7.8
				13.1	7.6
			5+00	13.4	7.9

STA. N. 140+00; 0+00 = W 20,330; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			54	4.8	+0.6
54			50	4.8	+0.6
	0.5	+4.9		4.7	+0.7
1;30	1.9	+3.5		4.6	+0.8
	2.7	+2.7		4.4	+1.0
50	3.4	+2.0		4.7	+0.7
	3.9	+1.5	3+00	4.8	+0.6
	4.1	+1.3		4.9	+0.5
	4.9	+0.5		5.0	+0.4
	5.0	+0.4		5.2	+0.2
1+00	5.2	+0.2		5.1	+0.3
	5.3	+0.1	50	5.2	+0.2
	5.5	0.1		5.4	0.0
	5.6	0.2		5.6	0.2
	5.6	0.2		5.7	0.3
50	5.0	+0.4		5.3	+0.1
	4.9	+0.5	4+00	5.5	0.1
	4.9	+0.5		5.5	0.1
	5.0	+0.4		5.8	0.4
	5.0	+0.4		5.8	0.4
2+00	5.0	+0.4		5.9	0.5
	5.2	+0.2	50	6.0	0.6
	5.0	+0.4		12.0	6.6
	4.9	+0.5		13.1	8.3

STA. N. 140+00 - EAST 9-08-60

Dist	Sound	Elev
54	14.7	9.3
	14.7	9.3
5+00	14.9	9.5

STA. W. 203+00. 0+00 = N 14,030; SOUND SOUTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00					
53					
			50		
	0.2	+5.1			
1135	0.7	+4.6			
	0.9	+4.4			
50	2.1	+3.2			
	2.7	+2.6	3+00		
	2.9	+2.4			
	3.1	+2.2			
	3.1	+2.2			
1+00	3.2	+2.1			
	3.1	+2.2			
	3.1	+2.2			
	3.1	+2.2			
	3.1	+2.2			
50	3.2	+2.1			
	3.1	+2.2			
	3.2	+2.1			
	3.5	+1.8			
	3.6	+1.7			
2+00	3.6	+1.7			

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STA. W. 202+00; 0+00 = N. 14,110; SOUND SOUTH

Dist	Sound	Elev
0+00		
(5)	0.4	+4.7
	1.4	+3.7
1:45	2.3	+2.8
	3.3	+1.8
50	3.9	+1.2
	4.7	+0.4
	5.8	0.7
	5.9	0.8
	5.9	0.8
1+00	5.6	0.5
	5.3	0.2
	5.0	+0.1
	4.9	+0.2
	4.9	+0.2
50	4.8	+0.3
	4.6	+0.5
	4.3	+0.8
	4.5	+0.6
	4.6	+0.5
2+00	4.5	+0.6
	4.7	+0.4
	4.5	+0.6
	4.4	+0.7

Dist	Sound	Elev
(5)	4.4	+0.7
50	4.4	+0.7
	4.4	+0.7
	4.6	+0.5
	4.8	+0.3
	4.6	+0.5
3+00	4.8	+0.3
	5.3	0.2
	6.2	1.1
	6.6	1.5
	7.2	2.1
50	7.9	2.8
	8.2	3.1
	9.1	4.0
	9.4	4.3
	12.4	7.3
4+00	13.2	8.1

STA. W. 201+00; 0+00 = N 14,180; SOUND SOUTH

Dist	Sound	Elev
0+00		
(5.0)	0.0	+5.0
	1.3	+3.7
1:55	2.8	+2.2
	3.3	+1.7
50	3.9	+1.1
	5.3	0.3
	6.0	1.0
	6.2	1.2
	6.0	1.0
1+00	5.0	0.0
	4.2	+0.2
	4.1	+0.9
	4.0	+1.0
	4.0	+1.0
50	4.1	+0.9
	4.2	+0.8
	4.3	+0.7
	4.3	+0.7
	4.5	+0.5
2+00	4.5	+0.5
	4.4	+0.6
	4.7	+0.3
	4.4	+0.6

Dist	Sound	Elev
(5.0)	4.5	+0.5
50	4.4	+0.6
	4.7	+0.3
	4.3	+0.7
	4.3	+0.6
	4.4	+0.6
3+00	4.3	+0.7
	4.5	+0.5
	4.4	+0.6
	4.4	+0.6
	4.4	+0.6
50	4.4	+0.6
	4.9	+0.1
	5.5	0.5
2:00	9.0	4.0
	11.2	6.2
4+00	12.0	7.0
	12.2	7.2
	12.9	7.9
	12.5	7.5
	12.8	7.8
50	13.5	8.5

9-08-60

STA. W. 200+00 OHOO = N 14,240 ; SOUND SOUTH

Dist	Sound	Elev
0+00		
(48)	0.0	+4.8
	1.0	+3.8
2:10	2.0	+2.8
	2.7	+2.1
50	3.1	+1.7
	3.9	+0.9
	5.0	0.2
	5.5	0.7
	5.8	1.0
1+00	5.9	1.1
	6.0	1.2
	5.9	1.1
	5.2	0.4
	4.8	0.0
50	4.7	+0.1
	4.9	0.1
	4.6	+0.2
	4.7	+0.1
	4.8	0.0
2+00	4.4	+0.4
	4.8	0.0
	4.6	+0.2
	4.8	0.0

Dist	Sound	Elev
(48)	4.8	0.0
50	4.5	+0.3
	4.6	+0.2
	4.5	+0.3
	4.7	+0.1
	4.8	0.0
3+00	4.9	0.1
	4.8	0.0
	4.7	+0.1
	4.8	0.0
	4.7	+0.1
50	4.9	0.1
	5.0	0.2
	5.4	0.6
	10.9	6.1
	12.7	7.9
4+00	12.6	7.8
	12.6	7.8
	12.6	7.8
	12.7	7.9
	13.8	9.0
50	13.0	8.2

STA. W. 199+00 OHOO = N 14,300 ; SOUND SOUTH

Dist	Sound	Elev
0+00		
(46)	0.0	+4.6
	0.9	+3.7
2:20	1.8	+2.8
	2.1	+2.5
50	2.9	+1.7
	3.2	+1.4
	3.9	+0.7
	5.3	0.7
	6.1	1.5
1+00	6.9	2.3
	7.0	2.4
	7.2	2.6
	7.0	2.4
	7.0	2.4
50	6.2	1.6
	5.5	0.9
	4.5	+0.1
	4.3	+0.3
	4.0	+0.6
2+00	3.9	+0.7
	4.0	+0.6
	4.0	+0.6
	3.9	+0.7

Dist	Sound	Elev
(46)	4.2	+0.4
50	4.3	+0.3
	4.4	+0.2
	4.4	+0.2
	4.6	0.0
	4.8	0.2
3+00	4.9	0.3
	4.9	0.3
	5.0	0.4
	5.2	0.6
	8.0	3.4
50	12.3	7.7
	12.5	7.9
	12.4	7.8
	12.1	7.5
	12.1	7.5
4+00	12.0	7.4
	12.5	7.9
	12.5	7.9
	12.9	8.3
	12.9	8.3
50	12.9	8.3

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STA W. 198+00 S 0+00 = N 14,380 ; Sound South					
Dist	Sound	Elev	Dist	Sound	Elev
0+00			(4,3)	4.0	+0.3
(4,4)			50	4.1	+0.2
	0.5	+39		4.3	0.6
2:30	1.3	+3.1		4.7	0.4
≈	1.9	+2.5		7.0	2.7
50	2.3	+2.1		8.0	3.7
	2.8	+1.6	3+00	12.1	7.8
	3.1	+1.3		13.0	8.7
	4.0	+0.4	2:35	13.3	9.0
	5.8	1.4	=	13.0	8.7
1+00	6.3	1.9		12.3	8.0
	6.7	2.3	50	13.0	8.7
	6.4	2.0			
	6.5	2.1			
	6.0	1.6			
50	5.3	0.9			
	4.3	+0.1	4+00		
	3.8	+0.6			
	3.5	+0.9			
	3.9	+0.5			
2+00	3.8	+0.6			
	3.5	+0.9			
	3.8	+0.6			
	3.9	+0.5			

STA W. 197+00 S 0+00 = N 14,460 ; Sound South					
Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.0	+4.1	(4,1)	5.2	1.1
(4,1)	0.8	+3.3	50	8.0	3.9
	1.2	+2.9		11.3	7.2
2:45	1.9	+2.2		12.0	7.9
≈	2.4	+1.7		12.3	8.2
50	3.0	+1.1		12.8	8.7
	3.6	+0.5	3+00	12.9	8.8
	4.5	0.4		13.0	8.9
	5.5	1.4		13.0	8.9
	6.0	1.9		13.0	8.9
1+00	6.0	1.9		13.0	8.9
	6.0	1.9	50	13.0	8.9
	5.8	1.7			
	5.1	1.0			
	4.6	0.5			
50	3.0	+1.1			
	3.0	+1.1			
	3.0	+1.1			
	3.0	+1.1			
	3.3	+0.8			
2+00	3.5	+0.6			
	3.9	+0.2			
	4.0	+0.1			
	4.4	0.3			

9-08-60

STA. W. 196+00 S = N. 14,610 ; SOUND SOUTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00			3	8.8	
3			50	10.2	
	0.0			10.0	
2:55	0.8			10.1	
	1.5			10.2	
50	2.0			10.9	
	2.7		3+00	11.0	
	3.2			11.7	
	3.8		3:00	11.7	
	4.5			12.2	
1+00	5.0			12.6	
	5.2		50	12.9	
	5.6			13.1	
	5.9			13.0	
	5.9			13.1	
50	6.0			12.7	
	5.8		4+00	13.1	
	5.3				
	4.6				
	3.0				
2+00	3.0				
	3.4				
	3.9				
	5.8				

WRONG STA

STA. W. 195+00 S 0+00 = N/A ; SOUND SOUTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00					
			50		
50					
			3+00		
1+00					
			50		
50					
			4+00		
2+00					

See page 9

CRESENT BAY AREA - 9-9-60

STA W 196+00; 0+00 = N14,800 - SOUND SOUTH

STA	SOUND	ELEV	DIST	SOUND	ELEV
0	0 0	+4.5	10;00	4 7	0.1
9:55	0 9	+3.6	50	4 8	0.2
45	1 0	+3.5	4.6	5 0	0.4
	1 5	+3.0		7 2	2.6
	1 8	+2.7		11 4	6.8
50	1 8	+2.7		11 9	7.3
	1 4	+3.1	3+00	11 3	6.7
	1 8	+2.7		11 1	6.5
	2 0	+2.5		11 1	6.5
	2 2	+2.8		11 3	6.7
1+00	3 2	+1.3		11 8	7.2
	4 1	+0.4	50	12 0	7.4
	5 2	0.7		12 2	7.6
	5 8	1.3		12 4	7.8
	5 9	1.4		12 8	8.2
50	5 8	1.3		13 0	8.4
	5 9	1.4	4+00	13 1	8.5
	6 0	1.5			
	6 0	1.5			
	6 2	1.7			
2+00	6 5	2.0			
	6 2	1.7			
	6 2	1.7			
	5 1	0.6			

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CRESENT BAY AREA

SOUND SOUTH

STA W 195+00; 0+00 = 14,730

STA	SOUND	ELEV	STA	SOUND	ELEV
0	0 9	+4.4	54	7 0	1.6
10;55	1 2	+4.1	50	6 9	1.5
53	1 8	+3.5		6 9	1.5
	1 9	+3.4		7 0	1.6
	2 1	+3.2		6 7	1.3
50	2 3	+3.0	11;00	6 6	1.2
	2 5	+2.8	3+00	6 0	0.6
	2 8	+2.5		5 4	0.0
	3 0	+2.3		5 4	0.0
	3 5	+1.8		6 0	0.6
1+00	4 0	+1.3		10 1	4.7
	4 3	+1.0	50	12 4	7.0
	4 8	+0.5		12 4	7.0
	5 0	+0.3		12 4	7.0
	5 0	+0.3		13 0	7.6
50	5 1	+0.2		13 2	
	6 0	0.7	4+00	13 5	
	6 2	0.9		13 7	
	6 8	1.3		13 9	
	6 8	1.3		14 0	
2+00	7 0	1.7		14 0	
	6 9	1.6	50	14 2	
	7 0	1.7			
	7 0	1.7			

9-9-60

NLY CRESENT BAY-

STA W 194+00; 0+00 = N 14,770

STA	SOUND	ELEV	STA	SOUND	ELEV
0			52	6 2	1.0
10:45	0 7	+4.5	50	6 2	1.0
	1 8	+3.4		6 2	0.8
52	2 4	+2.8		6 0	0.8
	3 0	+2.2		6 3	1.1
50	3 7	+1.5		5 9	0.7
	4 4	+0.8	3+00	5 7	0.5
	5 4	0.2		5 7	0.5
	6 1	0.9		5 8	0.4
	6 2	1.0		6 8	1.6
1+00	6 2	1.0		9 9	4.7
	6 1	0.9	50	11 5	6.3
	6 1	0.9		12 0	6.8
	6 2	1.0		12 2	7.0
	6 3	1.1		12 2	7.0
50	6 1	0.9		12 5	7.3
	6 1	0.9	4+00	12 5	7.3
	6 3	1.1		12 7	7.5
	6 5	1.3		12 7	7.5
	6 3	1.1		12 7	7.5
2+00	6 4	1.2		12 7	7.5
	6 5	1.3	50	12 6	7.4
	6 2	1.0			
	6 1	0.9			

SOUND SOUTH

9-9-60

IVEY CRESENT BAY

(11)

STA 1+N 193+00; 0+00=N 14780					SOUND SOUTH
STA	SOUND	ELEV	STA	SOUND	ELEV
0	0 8	+4.3	5.1	5 9	0.8
10;35	1 0	+4.1	50	5 9	0.8
5.1	1 9	+3.2		5 6	0.5
	2 8	+2.3		4 8	+0.3
	3 3	+1.8		4 9	+0.2
50	3 9	+1.2		5 6	0.5
	4 9	+0.8	3+00	7 6	2.1
	5 8	0.7		11 3	6.2
	5 9	0.8		12 1	7.0
	5 9	}		12 3	7.2
1+00	5 9	}		12 9	7.8
	6 3	1.2	50	13 0	7.9
	6 1	1.0		13 0	}
	6 1	1.0		13 0	}
	6 0	0.9		13 0	}
50	6 0	}		13 0	}
	6 0	}	4+00	13 0	}
	6 1	1.0			
	6 0	0.9			
	5 8	0.7			
2+00	6 0	0.8			
	6 0	0.8			
	6 2	1.1			
	6 0	0.9			

9-9-60
-CRESENT BAY-

SOUND SOUTH

STAW 192+00; 0+00 = N14,740

STA	SOUND	ELEV	STA	SOUND	ELEV
0	0 9	+4.0	49	12 9	8.0
10;20	2 0	+2.9	50	12 9	8.0
	3 0	+1.9		12 9	8.0
49	3 8	+1.1		12 9	8.0
	4 6	+0.3		13 0	8.1
50	5 5	0.6	10;25	13 2	8.3
	5 9	1.0	3+00	13 2	8.3
	5 9	1.0		13 2	
	5 8	0.9		13 1	
	5 9	1.0		13 0	
1+00	5 9	1.0		13 0	
	6 0	1.1	50	13 0	
	5 9	1.0		13 0	
	5 9	1.0		13 0	
	5 8	0.9		13 2	
50	5 7	0.8		13 5	
	5 7	0.8	4+00	13 8	
	5 5	0.6			
	5 2	0.3			
	4 5	+0.4			
2+00	4 3	+0.6			
	4 9	0.0	50		
	6 2	1.3			
	10 1	5.8			

9-9-60
NLY CRESENT BAY-

STA W 190+00; 0+00 = N 14,770

STA	SOUND	ELEV	STA	SOUND	SOUND SOUTH ELEV
0	0 5	+5.4	55	12.0	6.1
1:00	1 7	+4.2	50	12 2	6.3
	2 9	+3.0		12 4	6.5
56	3 4	+2.5		12 8	6.9
	4 0	+1.9		12 9	7.0
50	4 4	+0.5		12 9	7.0
	5 5	+0.4	3+00	13 0	7.1
	6 1	0.2		13 0	7.1
	6 3	0.4		12 1	7.2
	6 3	0.4		13 8	7.9
1+00	6 5	0.6		14 0	8.1
	6 4	0.5	50	14 1	
	6 3	0.4		14 0	
	6 1	0.2		13 8	
	6 0	0.1		14 0	
50	6 0	}	1:05	14 7	
	6 0	}	4+00	14 8	
	5 7	+0.2			
	5 0	+0.9			
	5 0	+0.9			
2+00	5 3	+0.6			
	6 0	0.1	50		
	8 9	3.0			
	11 7	5.8			

9-9-60
NLY CRESENT BAY

STA W 190+00; 0+00 = N 14,800 -

STA	SOUND	ELEV	STA	SOUND	SOUND SOUTH ELEV
0	0 2	+5.6	57	12 7	7.0
1:10	1 8	+4.0	50	12 9	7.2
	3 0	+2.8		13 0	7.3
58	3 6	+2.2		13 0	}
	4 1	+1.7		13 0	}
50	4 2	+1.6		13 2	7.5
	4 7	+1.1	3+00	13 5	7.8
	5 0	+0.8	1:15	13 9	8.2
	5 1	+0.7		13 8	8.1
	5 2	+0.6		13 8	8.1
1+00	5 1	+0.7		13 2	
	5 5	+0.3	50	13 5	
	6 2	0.4		13 9	
	6 2	0.7		13 9	
	6 3	0.5		14 1	
50	6 2	0.4		14 1	
	5 9	0.1	4+00	14 1	
	4 2	+1.6			
	4 0	+1.8			
	4 2	+1.6			
2+00	4 9	+0.9			
	5 7	+0.1			
	6 9	1.1			
	11 1	5.3			

9-9-60
NLY CRESENT BAY

STA W/ 189+00; 0+00 = N 14,820 SOUND SOUTH

STA	SOUND	ELEV	STA	SOUND	ELEV
0			5.7	11.4	5.7
1:20	0 7	+5.0	50	13 0	7.3
	2 1	+3.6		13 0	
(5.7)	3 1	+2.6		13 1	
	3 9	+1.8		13 0	
50	5 0	+0.7		13 0	
	6 3	0.6	3+00	13 0	
	6 9	1.2		13 3	7.6
	7 0	1.3		13 2	
	6 4	0.7		13 2	
1+00	6 2	0.5	1:25	13 0	
	6 3	0.6	50	13 0	
	6 2	0.5			
	6 2	0.5			
	6 0	0.3			
50	6 1	0.4			
	5 8	0.1	4+00		
	5 2	+0.5			
	4 9	+0.8			
	4 9	+0.8			
2+00	4 9				
	4 9				
	5 5	+0.2			
	6 8	1.1			

9-9-60
NLY CRESENT BAY-

(10)

STA W/ 188+00; 0+00 = N 14,830

STA	SOUND	ELEV	STA	SOUND	ELEV.
0			56	13 0	7.4
1:30	0 4	+4.3	50	13 1	7.5
	1 9	+3.8		13 0	7.4
(5.7)	2 7	+3.0		12 9	7.3
	3 1	+2.4		13 0	7.4
50	3 7	+2.0		13 1	
	4 6	+1.1	3+00	13 2	
	6 2	0.5		13 5	
	6 4	0.7		13 7	
	6 2	0.5		13 8	
1+00	6 6	0.9		13 9	
	6 1	0.4	50	13 9	
	5 6	+0.1		13 9	
	4 1	+1.6			
	3 9	+1.8			
50	3 9	+1.8			
	4 0	+1.7	4+00		
	4 0				
	4 0				
	4 0				
2+00	4 3	+1.4			
	4 9	+0.8			
	5 9	0.2			
	7 9	2.2			

9-9-60
NLY CRESENT BAY -

STA W 187+00; 0+00 = N 14,830 SOUND SOUTH

STA	SOUND	ELEV	STA	SOUND	ELEV
0	+0 2	+5.3	55	8 4	7.9
1;40	1 1	+4.4	50	13 2	7.7
~	2 2	+3.3		13 3	7.8
55	2 9	+2.6		13 4	7.9
	3 5	+2.0		13 6	8.1
50	4 9	+0.6		13 8	
	6 0	0.5	3+00	13 9	
	6 1	1.2		13 9	
	6 3	0.8		13 9	
	6 2	0.7		13 9	
1+00	5 6	0.1		13 7	
	4 3	+1.2	50	13 9	
	3 9	+1.6			
	3 9				
	3 9				
50	3 9				
	3 9		4+00		
	4 0	+1.5			
	4 0	+1.5			
	4 1	+1.4			
2+00	4 1				
	4 1				
	4 9	+0.6			
	5 9	0.4			

9-9-60
N.LY CRESENT BAY (15)

STA W 186+00; 0+00 = N 14,840 SOUND SOUTH

STA	SOUND	ELEV	STA	SOUND	ELEV
0			55	5 9	0.4
1:50	0 4	+5.1	50	9 3	3.8
~~55~~	1 5	+4.0		12 8	7.3
55	2 7	+2.8		13 2	7.7
	3 1	+2.4		13 9	8.4
50	3 9	+1.6		13 9	}
	5 5	0.0	3+00	13 9	
	6 0	0.5		14 0	8.5
	6 2	0.7		14 0	8.5
	6 4	0.9		14 0	8.5
1+00	6 2	0.7		14 1	8.4
	5 7	0.2	50	14 1	8.6
	4 2	+1.4			
	3 9	+1.6			
	3 8	+1.7			
50	3 8	+1.7			
	3 9	+1.6	4+00		
	3 9				
	3 9				
	3 9				
2+00	4 0	+1.5			
	4 2	+1.3	50		
	4 2	+1.3			
	5 0	+0.5			

9-9-60
NLY CRESENT BAY

STA W 1855+00; 0+00 = N 14,840 - SOUND 2 SOUTH

STA	SOUND	ELEV	STA	SOUND	ELEV
0			(53)	6.0	0.7
2:00	0.5	+4.9	5.0	10.4	5.1
(54)	1.7	+3.7		12.9	7.6
	2.6	+2.8		12.9	7.6
	3.1	+2.3		13.0	7.7
5.0	3.8	+1.6		13.0	7.7
	5.7	0.3	3+00	13.1	
	6.0	0.6	2:05	13.5	
	6.5	1.1		13.5	
	6.4	1.0		13.7	
1+00	6.2	0.8		13.7	
	5.2	+0.2	5.0	13.9	
	4.0	+1.4			
	3.8	+1.6			
	3.5	+1.9			
+50	3.8	+1.6			
	3.8	}	4+00		
	3.8				
	3.9	+1.5			
	3.9	+1.5			
2+00	3.8	+1.6			
	3.9	+1.5			
	4.5	+0.9			
	5.2	+0.2			

9-9-60
NLY CRESENT BAY

(15)

STA W 1844+00; 0+00 = N 14,830 - SOUND SOUTH

STA	SOUND	ELEV	STA	SOUND	ELEV
0	0.3	+4.9	(52)	5.9	0.7
2:15	0.7	+4.5	5.0	10.2	5.0
(52)	1.9	+3.3		12.6	7.4
	2.7	+2.5		12.8	7.4
	3.0	+2.2		12.2	7.0
5.0	4.5	+0.7		12.2	7.0
	6.0	0.8	3+00	12.7	7.5
	6.2	1.0		12.8	
	6.4	1.2		12.9	
	6.0	0.8		12.9	
1+00	4.9	+0.3		13.1	
	4.0	+1.2	5.0	13.1	
	3.2	+2.0		13.1	
	3.2	+2.0			
	3.1	+2.1			
+50	3.2	+2.0			
	3.2	+2.0	4+00		
	3.4	+1.8			
	3.7	+1.5			
	3.9	+1.3			
2+00	3.8	+1.4			
	3.9	+1.3			
	4.3	+0.9			
	5.0	+0.2			

NLY CRESENT BAY
9-9-60

STAW183 +00; 0+00 = N14,820 —

STA	SOUND	ELEV	STA	SOUND	ELEV
0	0 2	+4.9	(3,51)	11 9	6.8
	0 6	+4.5	50	12 1	7.0
2:25	1 4	+3.7		12 5	7.4
(51)	2 4	+2.7		12 8	7.7
	3 0	+2.1		12 8	7.7
50	4 4	+0.7		12 9	7.8
	5 9	0.8	3+00	12 9	7.8
	6 3	1.2		13 0	7.9
	6 5	1.4		13 0	7.9
	5 7	0.6		13 0	7.9
1+00	4 3	+0.8		13 1	8.0
	3 4	+1.7	50	13 1	8.0
	3 2	+1.9			
	3 1	+2.0			
	3 1	+2.0			
50	3 3	+1.8			
	3 4	+1.7	4+00		
	3 5	+1.6			
	3 7	+1.4			
	3 4	+1.7			
2+00	3 9	+1.2			
	4 2	+0.4			
	5 2	0.1			
	9 4	4.3			

NLY CRESENT BAY
9-9-60

STAW182 +00; 0+00 = N14,810

STA	SOUND	ELEV	STA	SOUND	ELEV
0	0 4	+4.6	(4,9)	12 0	7.1
2:35	0 9	+4.1	50	12 3	7.4
(50)	1 6	+3.4		12 3	7.4
	2 2	+2.8		12 3	7.4
	2 9	+2.1		12 2	7.3
50	4 8	+0.2		12 1	7.2
	5 8	0.8	3+00	12 7	7.8
	6 0	1.0	2:40	12 7	7.8
	5 9	0.9		12 8	7.9
	5 7	0.7		12 8	7.9
1+00	5 0	0.0		12 8	7.9
	3 8	+1.2	50	13 0	8.1
	3 0	+2.0		13 2	8.3
	3 0	+2.0		13 0	8.1
	3 0	+2.0		/	
50	3 0	+2.0		/	
	3 0	+2.0	4+00	/	
	3 0	+2.0			
	3 2	+1.8			
	4 0	+1.0			
2+00	4 7	+0.3			
	5 7	0.7			
	10 2	5.2			
	11 8	6.8			

NLY CRESENT BAY
9-9-60

STA W 181+00; 0+00 = N14,800

STA	SOUND	ELEV
0	8 0	+4.7
2;50	0 4	+4.3
4.7	1 0	+3.7
	1 9	+2.8
	2 1	+2.6
50	2 9	+1.8
	5 1	0.4
	5 9	1.2
	6 0	1.3
	5 9	1.2
1+00	5 2	0.5
	3 9	+0.8
	2 9	+1.8
	2 9	+1.8
	3 0	+1.7
50	3 0	+1.7
	3 0	+1.7
	2 9	+1.8
	3 1	+1.6
	3 9	+0.8
2+00	4 3	+0.4
	5 1	0.4
	7 8	3.1
	13 9	9.2

STA	SOUND	ELEV
4.7		
50		
3+00		
+50		
4+00		

STA	SOUND	ELEV
0	15 0	10.3
50	14 5	9.8
	14 2	9.5
	14 1	9.4
	14 0	9.3
	14 2	9.5
3+00	14 2	9.5

NLY CRESENT BAY
9-9-60

18

STA W 180+00; 0+00 = N14,770 -

STA	SOUND	ELEV
0	0 2	+4.4
3;00	1 0	+3.6
4.6	1 8	+2.8
	2 2	+2.4
	3 5	+1.1
50	4 6	0.0
	5 3	0.7
	5 8	1.2
	5 2	0.6
	4 7	0.1
1+00	3 2	+0.7
	2 1	+1.7
	2 9	+1.7
	2 9	+1.7
	2 8	+1.8
50	2 9	+1.7
	3 0	+1.6
	2 9	+1.7
	3 2	+1.4
	4 1	+0.5
2+00	4 9	0.3
	7 9	3.3
	12 1	7.5
	13 1	8.5

STA	SOUND	ELEV
4.6		
50		
3+00		
50		
4+00		

SOUND	ELEV
13 0	8.4
13 0	8.4
12 9	8.3
12 6	8.0
12 0	7.4
11 9	7.3
12 1	7.5
12 1	7.5
12 2	8.1
12 2	7.6
12 2	7.6
12 2	7.6
12 1	7.5

NLY CRESENT BAY
9-9-60

W 179+00 ; 0+00 = N 14,750 -

STA	SOUND	ELEV
0	0 0	+4.4
3;10	0 7	+3.7
(4.4)	1 3	+3.1
	1 9	+2.5
	2 2	+2.2
50	2 9	+1.5
	3 1	+1.3
	2 9	+1.5
	2 9	+1.5
	2 8	+1.6
1+00	2 9	+1.5
	2 8	+1.6
	2 6	+1.8
	2 6	
	2 6	
50	2 6	
	2 8	+1.6
	2 8	+1.6
	2 9	+1.5
	3 1	+1.3
2+00	3 9	+0.5
	4 5	0.1
	6 9	2.5
	10 7	6.3

STA	SOUND	SOUTH ELEV
(44)	11 6	7.2
50	11 8	7.4
	11 9	7.5
	11 9	7.5
	11 6	7.2
	11 9	7.5
3+00	11 9	7.5
	11 8	7.4
	11 5	7.1
	11 5	7.1
	11 9	7.5
50	12 1	7.7
	12 2	7.8
	12 7	8.3
	12 6	8.2
3;15	12 6	8.2
4+00	13 0	8.6

9-10-60

STA. W. 178+00 ; 0+00 = N. 14,730 ;

Dist	Sound	Elev
0+00		
(31)		
8;30		
	0.1	+3.0
50	0.4	+2.7
	0.9	+2.2
	1.0	+2.1
	1.1	+2.0
	1.1	+2.0
1+00	1.0	+2.1
	1.0	+2.1
	1.2	+1.9
	1.1	+2.0
	1.2	+1.9
50	1.1	+2.0
	1.3	+1.8
	1.2	+1.9
	1.3	+1.8
	2.1	+1.0
2+00	3.1	0.0
	5.2	2.1
	9.7	6.6
	10.0	6.9

SOUND SOUTH

Dist	Sound	Elev
(31)	10.0	6.9
50	10.1	7.0
	10.9	7.8
	11.0	7.9
	11.1	8.0
	11.0	7.9
3+00	10.9	7.8
	10.7	7.6
	10.4	
	10.6	
	10.4	
50	10.3	
	10.8	
	11.9	
	11.2	
	11.1	
4+00	11.1	
	11.7	
	11.9	
	11.9	
	11.9	
50	12.0	
	12.0	

9-10-60

STA. W. 177+00; 0+00 = N. 14,700 ; SOUND SOUTH

Dist	Sound	Elev
0+00		
(3.2)		
8:40		
	0.0	+3.2
50	0.6	+2.6
	1.1	+2.1
	3.2	0.0
	3.9	0.7
	4.0	0.8
1+00	4.1	0.9
	4.0	0.8
	3.9	0.7
	2.6	+0.6
	1.6	+1.6
50	1.7	+1.5
	1.7	+1.5
	1.7	+1.5
	1.8	+1.4
	1.7	+1.5
2+00	1.8	+1.4
	2.4	+0.8
	3.0	+0.2
	3.6	0.4

Dist	Sound	Elev
(3.2)	6.7	3.5
50	9.8	6.6
	10.9	9.7
	10.9	7.7
	11.2	8.0
	11.4	8.2
3+00	12.0	8.8
	12.1	8.9
	12.2	9.0
	12.6	9.4
	12.9	9.7
50	12.9	9.7
	13.0	9.8
	12.9	9.7
	12.9	9.7
	12.9	9.7
4+00	12.8	9.6
	12.7	9.5
	12.9	9.7
	13.0	9.8
	12.9	9.7
50	12.8	9.6

RAIN

STA. W. 176+00; 0+00 = N. 14650 ; SOUND SOUTH

Dist	Sound	Elev
0+00		
(3.5)		
9:00		
	0.0	+3.5
50	0.5	+3.0
	1.2	+2.3
	1.9	+1.6
	3.7	0.2
	4.1	0.6
1+00	4.2	0.7
	4.5	1.0
	4.6	1.1
	4.1	0.6
	2.8	+0.7
50	2.0	+1.5
	1.9	+1.6
	2.0	+1.5
	1.9	+1.6
	2.0	+1.5
2+00	2.1	+1.4
	2.9	+0.6
	2.6	+0.9
	4.3	0.8

Dist	Sound	Elev
(3.5)	8.9	5.4
50	13.4	9.9
	13.7	10.2
	13.8	10.3
	13.2	9.7
	12.9	9.4
3+00	12.2	8.7
	12.1	8.6
	12.3	9.8
	13.0	9.5
	13.2	9.7
50	13.0	9.5
	13.0	9.5
	13.2	9.7
	14.0	10.5
	13.9	10.4
4+00	13.6	10.1

9-10-60

STA. W. 175+00; 0+00 = N. 14,580

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(36)	11.3	7.7
(3.6)			50	11.8	8.2
				11.9	8.3
9:10	0.1	+3.5		12.4	8.8
	0.7	+2.9		12.7	9.1
50	1.3	+2.3		12.4	8.8
	1.9	+1.7	3+00	13.5	9.9
	2.9	+0.7		13.2	9.6
	4.4	0.8		13.8	10.2
	5.1	1.5		13.8	10.2
1+00	5.1	1.5		13.0	9.4
	5.1	1.5	50	13.0	9.4
	5.1	1.5		11.3	7.7
	5.0	1.4		11.0	7.4
	3.8	0.2		11.0	7.4
50	2.8	+0.8		11.3	7.7
	2.6	+1.0	4+00	11.4	7.8
	2.0	+1.6		11.7	8.1
	2.3	+1.3		12.0	8.4
	2.9	+0.7		13.0	9.4
2+00	3.5	+0.1		13.3	9.7
	5.0	1.4	50	13.1	9.5
	9.2	5.6			
	11.2	7.6			

STA. W. 174+00; 0+00 = N. 14,510

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(38)	8.0	4.2
(3.8)			50	10.0	6.2
				11.0	7.2
9:20				11.0	7.2
	0.4	+3.4		10.9	7.1
50	1.0	+2.8		11.1	7.3
	1.3	+2.5	3+00	11.0	7.2
	1.9	+1.9		11.1	7.3
	3.0	+0.8		11.4	7.6
	2.7	+1.1		11.3	7.5
1+00	5.0	1.2		11.3	7.5
	5.3	1.5	50	11.8	8.0
	5.6	1.8		11.9	8.1
	5.0	1.2		11.9	8.1
	4.6	0.8		11.9	8.1
50	3.1	+0.7		11.9	8.1
	2.5	+1.3	4+00	11.9	8.1
	2.0	+1.8		11.8	8.0
	2.7	+1.1		12.2	8.4
	3.0	+0.8		12.0	8.2
2+00	3.1	+0.7		12.3	8.5
	3.8	0.0	50	12.7	8.9
	4.1	0.3			
	6.0	2.2			

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STA. W. 173+00; 0+00 = N. 14,430; SOUND SOUTH

Dist	Sound	Elev
0+00		
30		
9:30	0.2	+3.7
	0.6	+3.3
	1.2	+2.7
50	1.5	+2.4
	1.9	+2.0
	2.1	+1.8
	3.4	+0.5
	4.3	0.4
1+00	5.0	1.1
	5.1	1.2
	5.1	1.2
	5.1	1.2
	4.4	0.5
50	3.5	+0.4
	2.3	+1.6
	2.0	+1.9
	2.1	+1.8
	2.8	+1.1
2+00	3.3	+0.6
	3.8	+0.1
	4.7	0.8
	6.9	3.0
30	9.4	5.5
50	11.4	7.5
	11.2	7.3
	11.2	7.3
	10.9	7.0
	11.3	7.4
3+00	11.2	7.3
	11.3	7.4
	11.0	7.1
	11.0	7.1
	10.9	7.0
50	11.0	7.1
	11.9	8.0
	11.8	7.9
	12.7	8.8
	12.4	8.5
4+00	13.0	9.1
	13.4	9.5
	13.7	9.8
	13.6	9.7
	13.7	9.8
50	13.8	9.9

STA. W. 172+00; 0+00 = N. 14,350; SOUND SOUTH

Dist	Sound	Elev
0+00		
40		
9:40	0.1	+3.9
	0.3	+3.7
50	0.7	+3.3
	1.1	+2.9
	1.9	+2.1
	3.0	+1.0
	3.9	+0.1
1+00	3.9	+0.1
	3.7	+0.3
	3.7	+0.3
	4.5	0.5
	4.7	0.7
50	3.9	+0.1
	2.8	+1.2
	1.9	+2.1
	2.0	+2.0
	1.9	+2.1
2+00	2.3	+1.7
	2.9	+1.1
	3.0	+1.0
	3.2	+0.8
40	3.9	+0.1
50	4.6	0.6
	6.9	2.9
	9.2	5.2
	11.1	7.1
	11.6	7.6
3+00	11.1	7.1
	11.0	7.0
	11.0	7.0
	11.0	7.0
	11.0	7.0
50	11.0	7.0
	11.0	7.0
	11.5	7.5
	11.9	7.9
	11.8	7.8
4+00	11.9	7.9
	11.9	7.9
	11.9	7.9
	12.0	8.0
	12.1	8.1
50	12.1	8.1

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STA. W. 170+00; 0+00 = N. 14,250; SOUND SOUTH

Dist	Sound	Elev
0+00		
(#1)	0.2	+3.9
	0.4	+3.7
9:50	0.9	+3.2
	1.0	+3.1
50	1.7	+2.4
	2.0	+2.1
	3.1	+1.0
	4.0	+0.1
	4.9	0.8
1+00	5.0	0.9
	5.1	1.0
	5.0	0.9
	5.1	1.0
	5.0	0.9
50	4.8	0.7
	3.9	+0.2
	2.6	+1.5
	2.0	+2.1
	2.0	+2.1
2+00	2.1	+2.0
	2.0	+2.1
	2.1	+2.0
	2.1	+2.0
(#1) 50	2.0	+2.1
	2.1	+2.0
	2.4	+1.7
	2.8	+1.3
	3.0	+1.1
	3.5	+0.6
3+00	3.9	+0.2
	4.1	0.0
	5.2	1.1
	6.8	2.7
	8.7	4.6
50	11.0	6.9
	11.9	7.8
	11.9	7.8
	11.6	7.5
	11.3	7.2
4+00	11.2	7.1
	11.8	7.7
	11.4	7.3
	11.2	7.1
	11.7	7.6
50	11.4	7.3
	11.5	7.4
	11.8	7.7
	11.1	7.0
	11.2	7.1
5+00	14.0	9.9

STA. W. 170+00; 0+00 = N. 14,140; SOUND SOUTH

Dist	Sound	Elev
0+00		
(#2)	0.0	+4.2
	0.3	+3.9
10:00	0.5	+3.7
	0.9	+3.3
50	1.0	+3.2
	1.3	+2.9
	1.9	+2.3
	2.1	+2.1
1+00	3.0	+1.2
	3.9	+0.3
	4.9	0.7
	5.0	0.8
	5.1	0.9
50	5.3	1.1
	5.6	1.4
	5.9	1.7
	5.5	1.3
	5.3	1.1
2+00	5.2	1.0
	5.0	0.8
	4.9	0.7
	4.9	0.7
(#2) 50	4.7	0.5
	4.1	+0.1
	3.3	+0.9
	2.6	+1.6
	2.7	+1.5
	2.7	+1.5
3+00	2.8	+1.4
	2.6	+1.6
	2.6	+1.6
	2.8	+1.4
	2.9	+1.3
50	2.9	+1.3
	3.2	+1.0
	3.8	+0.4
	3.9	+0.3
	4.1	+0.1
4+00	4.6	0.4
	5.2	— 1.0
	5.9	— 1.7
	5.9	— 1.7
	6.1	— 1.9
50	8.0	— 3.8
	9.3	— 5.1
	9.6	— 5.4
	11.3	— 7.1
	11.1	— 6.9
5+00	11.1	— 6.9
	11.2	— 7.0
	10.8	— 6.8
	10.9	— 6.7
	10.9	— 6.7
50	11.0	— 6.8
	11.6	— 7.4

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STA N. 140+00; 0+00 = W. 16,930'; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			43	11.8	7.5
43	0.2	+4.1	50	11.7	7.4
	0.5	+3.8		11.1	6.8
10:10	1.0	+3.3		11.5	7.2
	1.9	+2.4		11.5	7.2
50	2.8	+1.5		11.8	7.5
	4.1	+0.2	3+00	12.0	7.7
	5.1	0.8		12.1	7.8
	5.7	1.4		12.2	7.9
	5.7	1.4		12.8	8.5
1+00	5.2	0.9		13.0	8.7
	4.4	0.1	50	13.6	9.3
	2.7	+1.6		13.9	9.6
	2.3	+2.0		13.9	9.6
	2.4	+1.9		14.0	9.7
50	2.4	+1.9		14.2	9.9
	2.4	+1.9	4+00	14.3	10.0
	2.4	+1.9			
	2.8	+1.5			
	3.3	+1.0			
2+00	3.9	+0.4			
	4.2	+0.1	50		
	5.1	0.8			
	8.7	4.4			

STA N. 139+00; 0+00 = W. 16,890'; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			44	12.1	7.7
44	0.3	+4.1	50	12.1	7.7
	1.0	+3.3		12.0	7.6
10:20	1.7	+2.7		12.0	7.6
	2.3	+2.1		12.1	7.7
50	3.6	+0.8		12.2	7.8
	5.0	0.6	3+00	12.4	8.0
	5.8	1.4		12.9	8.5
	6.0	1.6		13.0	8.6
	6.0	1.6		13.2	8.8
1+00	5.8	1.4		13.2	8.8
	5.0	0.6	50	13.5	9.1
	2.9	+1.5		13.9	9.5
	2.6	+1.8		13.9	9.5
	2.7	+1.7		13.9	9.5
50	2.7	+1.7		13.9	9.5
	3.2	+1.2	4+00	13.9	9.5
	3.8	+0.6			
	4.2	+0.2			
	6.2	1.8			
2+00	9.2	4.8			
	12.2	7.8			
	12.2	7.8			
	12.3	7.9			

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STA. N. 138+00; 0+00 = W. 16,850; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(45)	11.9	7.4
(45)	0.3	+4.2	50	11.9	7.4
	1.0	+3.5		12.0	7.5
10:30	1.6	+2.9		12.1	7.6
	2.0	+2.5		12.1	7.6
50	2.9	+1.6		12.2	7.7
	4.2	+0.3	3+00	12.3	7.8
	5.8	1.3		12.7	8.2
	6.1	1.6		12.9	8.4
	6.0	1.5		13.0	8.5
1+00	5.9	1.4		13.2	
	5.1	0.6	50	13.8	
	4.1	+0.4		13.7	
	2.9	+1.6		13.9	
	2.8	+1.7		13.9	
50	2.9	+1.6		14.0	
	3.1	+1.4	4+00	14.2	
	3.8	+0.7			
	4.1	+0.4			
	4.9	0.4			
2+00	6.8	2.3			
	10.9	6.4			
	11.8	7.3			
	11.7	7.2			

STA. N. 137+00; 0+00 = W. 16.800; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.0	+4.6		15.0	10.4
(46)	0.5	+4.1	50	15.0	
	1.0	+3.6		15.0	
10:40	1.9	+2.7		15.0	
	2.2	+2.4		15.0	
50	3.1	+1.5		15.1	10.5
	4.9	0.3	3+00	15.1	10.5
	6.0	1.4			
	6.1	1.5			
	6.4	1.8			
1+00	5.8	1.3			
	4.7	0.1	50		
	3.3	+1.3			
	3.4	+1.2			
	3.2	+1.4			
50	3.3	+1.3			
	3.9	+0.7	4+00		
	4.3	+0.3			
	5.1	0.5			
	9.0	4.4			
2+00	14.0	9.4			
	15.1	10.3			
	15.0	10.4			
	14.9	10.3			

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STA. N. 136+00; 0+00 = W. 16790; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.0	+4.7	(47)	11.8	7.1
(47)	0.5	+4.2	50	11.9	7.2
	1.1	+3.6		11.9	
10:45	1.7	+3.0		11.9	
	2.1	+2.6		12.0	7.3
50	3.0	+1.7		12.2	7.5
	4.2	+0.5	3+00	12.0	7.3
	6.0	1.3		12.1	7.4
	6.7	2.0		12.3	7.6
	6.4	1.7		12.7	8.0
1+00	5.9	1.2		12.6	
	4.6	+0.1	50	13.0	
	3.6	+1.1		13.0	
	3.2	+1.5		13.2	
	3.2	+1.5		13.0	
50	3.8	+0.9		13.1	
	4.3	+0.4	4+00	13.0	
	5.0	0.3		13.0	
	6.1	1.4		12.9	
	9.9	5.2		12.9	
2+00	11.3	6.6		12.9	
	11.2	6.5	50	12.9	
	11.3	6.4		12.9	
	11.7	7.0		12.9	
				12.9	
			5+00	12.9	

STA. N. 135+00; 0+00 = W. 16760; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.1	+4.6	(48)	12.2	7.4
(48)	0.6	+4.2	50	12.0	7.2
	1.1	+3.7		12.0	7.2
10:55	1.8	+3.0		12.2	7.4
	2.1	+2.7		12.6	7.8
50	2.9	+1.9		12.4	7.6
	4.0	+0.8	3+00	12.5	7.7
	5.9	1.1		12.6	7.8
	6.6	1.8		12.6	7.8
	6.3	1.5		12.6	7.8
1+00	6.1	1.7		12.7	7.9
	5.0	0.2	50	12.7	7.9
	3.9	+0.9		12.9	8.1
	3.0	+1.8		13.9	9.1
	3.0	+1.8		13.5	8.7
50	3.1	+1.7		13.1	8.3
	3.8	+1.0	4+00	13.1	8.3
	4.3	+0.5			
	5.1	0.3			
	7.9	3.1			
2+00	10.4	5.6			
	11.6	6.8	50		
	11.6	6.8			
	11.9	7.1			

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STA. N 134+00; 0+00 = W 16,730; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.1	+4.8	4+00	11.7	6.8
49	0.5	+4.4	50	11.8	6.9
	1.2	+3.7		12.0	7.1
11:00	1.7	+3.2		14.2	9.3
	2.1	+2.8		14.0	9.1
50	2.8	+2.1		13.6	8.7
	3.7	+1.2	3+00	13.6	8.7
	5.8	0.9		13.7	8.8
	6.7	1.8		13.7	8.8
	6.9	2.0	11:05	13.9	9.0
1+00	6.4	1.5		13.9	9.0
	5.2	0.3	50	14.0	9.1
	4.2	+0.7		14.0	9.1
	3.1	+1.8		14.0	9.1
	3.1	+1.8		14.0	9.1
50	3.1	+1.8		14.0	9.1
	3.3	+1.6	4+00	14.0	9.1
	3.8	+1.1			
	4.2	+0.7			
	4.9	0.0			
2+00	5.9	1.0			
	9.0	4.1			
	11.2	6.3			
	11.6	6.7			

STA. N 133+00; 0+00 = W 16,700; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			50	11.9	6.9
50	0.2	+4.8	50	12.0	7.0
	0.9	+4.1		12.0	7.0
11:10	1.4	+3.6		12.1	7.1
	1.8	+3.2		12.1	7.1
50	2.3	+2.7		12.3	7.3
	3.0	+2.0	3+00	12.1	7.1
	3.8	+1.2		12.7	7.7
	6.1	1.1		13.8	8.8
	6.8	1.8		13.8	8.8
1+00	6.5	1.5		13.7	8.7
	5.8	0.8	50	13.7	8.7
	4.6	+0.4			
	3.3	+1.7			
	3.2	+1.8			
50	3.5	+1.5			
	3.8	+1.2	4+00		
	4.2	+0.8			
	5.0	0.0			
	5.6	0.6			
2+00	8.0	3.0			
	10.9	5.9			
	11.6	6.6			
	11.9	6.9			

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STA. N. 132+00, 0+00 = W. 16670; SOUND WEST

Dist	Sound	Elev
0+00		
(51)	0.0	+5.1
	0.4	+4.7
11:20	1.1	+4.0
	1.6	+3.5
50	2.0	+3.1
	2.7	+2.4
	3.5	+1.6
	4.3	+0.8
	5.6	0.5
1+00	6.7	1.6
	6.6	1.5
	6.1	1.0
	5.8	0.7
	4.8	+0.3
50	4.8	+0.3
	4.8	+0.3
	5.0	+0.1
	5.9	0.8
	8.6	2.5
2+00	11.0	5.9
	11.3	6.2
	11.6	6.5
	12.0	6.9
(5)	12.0	6.9
50	12.1	7.0
	12.1	7.0
	12.3	7.2
	12.4	7.3
	12.4	7.3
3+00	12.5	7.4
	12.2	7.1
	12.1	7.0
	12.1	7.0
	12.0	6.9
50	12.0	6.9
	12.5	7.4
	13.8	8.7
	14.1	9.0
	14.3	9.2
4+00	14.2	9.1

STA. N. 131+00, 0+00 = W. 16,640; SOUND WEST

Dist	Sound	Elev
0+00		
(52)	0.0	+5.2
	0.5	+4.7
11:30	1.0	+4.2
	1.8	+3.4
50	1.9	+3.3
	2.3	+2.9
	2.9	+2.3
	3.6	+1.6
	4.1	+1.1
1+00	5.0	+0.2
	6.1	6.9
	6.9	1.7
	6.9	1.7
	6.8	1.6
50	6.4	1.2
	5.7	0.5
	5.2	0.0
	5.6	0.4
	6.2	1.0
2+00	8.9	3.7
	10.9	5.7
	11.7	6.5
	11.8	6.6
(52)	12.0	6.8
50	12.2	7.0
	12.0	6.8
	12.1	6.9
	12.3	7.1
	12.7	7.5
3+00	12.8	7.6
	12.9	7.7
	12.8	7.6
	12.9	7.7
	12.9	7.7
50	13.0	7.8
	12.9	7.7
	13.0	7.8
	13.0	7.8
	13.3	8.1
4+00	13.6	
	14.0	
	14.6	
	14.8	
	14.7	
50	14.9	

See FB No 126 (57-60) Soundings Thru. N 122+00
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STA. N. 130+00; 0+00 = W 16,610; Sound West

Dist	Sound	Elev
0+00		
(53)	0.1	+5.2
	0.8	+4.5
11:40	1.0	+4.3
	1.4	+3.9
50	2.0	+3.3
	2.5	+2.8
	2.7	+2.6
	2.9	+2.4
	3.3	+2.0
1+00	3.9	+1.4
	4.2	+1.1
	5.0	+0.3
	5.8	0.5
	6.1	0.8
50	6.8	1.5
	7.1	1.8
	6.6	1.3
	6.4	1.1
	7.0	1.7
2+00	9.6	4.3
	12.0	6.7
	11.9	6.6
	12.0	6.7
(53,) 50	12.0	6.7
	12.0	6.7
	12.1	6.8
	12.4	7.1
	12.4	7.1
	12.5	7.2
3+00	12.2	6.9
	12.1	6.8
	12.1	6.8
	12.1	6.8
50	12.8	7.5
	13.0	7.7
	13.0	7.7
	13.1	7.8
	13.2	7.9
4+00	13.6	8.3
	13.9	8.6
	14.0	8.7
	14.7	9.4
	14.4	9.1
50	14.7	9.4

NOTE: See B/L in back of Book
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STA. N. 121+00; 0+00 = W 16,450; Sound West

Dist	Sound	Elev
0+00		
(51)	0.5	+4.6
	1.1	+4.0
10:00	1.7	+3.4
	2.1	+3.0
50	2.6	+2.5
	3.1	+2.0
	3.7	+1.4
	4.0	+1.1
	4.6	+0.5
1+00	5.2	0.1
	5.9	0.8
	6.1	1.0
	7.0	1.9
	11.3	6.2
50	13.4	8.3
	13.4	8.3
	13.4	8.3
	13.9	8.8
	14.1	9.0
2+00	14.2	9.1
	14.1	9.6
	15.2	10.1
	15.2	10.1
(51) 50	15.2	10.1
	15.2	10.1
	15.2	10.1
	15.4	10.3
	15.4	10.3
3+00	15.4	10.3
	15.4	10.3
	15.1	10.0
	15.0	9.9
	15.0	9.9
50	15.0	9.9
	15.0	9.9
10:05	15.0	9.9
	13.0	7.9
	13.0	7.9
4+00	13.2	8.1
	12.9	7.8
	12.4	7.3
	12.1	7.0
	12.3	7.2
50	12.5	7.4
	12.5	7.4
	12.8	7.7
	12.8	7.7
	12.8	7.7
5+00	12.8	7.7

11-08-60

STA. N. 120+00; 0+00 = W. 16,440; SOUND WEST

DIST	Sound	Elev	DIST	Sound	Elev
0+00	0.6	+4.6	5.2	14.5	9.3
5.2	1.3	+3.9	50	15.0	9.8
	1.2	+4.0		14.9	9.7
10:10	2.0	+3.2		15.0	9.8
	2.2	+3.0		15.3	10.1
50	2.6	+2.6		15.8	10.6
	2.9	+2.3	3+00	15.8	10.6
	3.4	+1.8		15.6	10.4
	4.0	+1.2		15.6	10.4
	4.8	+0.4		15.7	10.5
1+00	5.4	0.2		15.9	10.7
	7.1	1.9	50	15.8	10.6
	12.1	6.9		15.9	10.7
	14.0	8.8		15.8	10.6
	13.9	8.7		14.0	8.8
50	14.1	8.9		14.1	8.9
	14.3	9.1	4+00	14.3	9.1
	14.5	9.3		14.7	9.5
	14.8	9.6	10:15	14.1	8.9
	14.1	8.9		13.9	8.7
2+00	13.9	8.7		13.9	8.7
	13.9	8.7	50	13.9	8.7
	14.1	8.9		13.9 —	8.7
	14.4	9.2		13.6 —	8.4
				13.0 —	7.8
				12.8 —	7.6
			5+00	13.0 —	7.8

STA. N. 119+00; 0+00 = W. 16420; SOUND WEST

DIST	Sound	Elev	DIST	Sound	Elev
0+00	0.3	+4.9	5.2	15.1	9.9
5.2	0.8	+4.4	50	15.3	10.1
	1.3	+3.9		15.0	9.8
10:20	1.6	+3.6		15.0	9.8
	1.9	+3.3		15.4	10.2
50	2.3	+2.9		15.9	10.7
	2.9	+2.3	3+00	16.0	10.8
	3.2	+2.0		16.1	10.9
	4.0	+1.2		16.2	11.0
	4.5	+0.7		16.1	10.9
1+00	5.1	+0.1		15.9	10.7
	8.2	3.0	50	14.1	8.9
	12.1	6.9		14.0	8.8
	13.3	8.1		14.0	8.8
	13.6	8.4		14.3	9.1
50	13.4	8.2		14.4	9.2
	14.0	8.8	4+00	14.9	9.7
	14.0	8.8		15.0	9.8
	14.8	9.6	10:25	15.3	10.1
	14.1	8.9		15.1	9.9
2+00	14.4	9.2		14.6	9.4
	14.7	9.5	50	14.6	9.4
	14.9	9.7		14.6	9.4
	15.1	9.9		14.1	8.9
				14.5	9.3
				14.2	9.0
			5+00	14.2	9.0

11-08-60

STA. N. 118+00; 0+00 = W. 16,400; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.1	+5.1	53	14.5	9.2
52	0.8	+4.4	50	14.8	9.5
	1.3	+3.9		14.8	9.5
10:30	1.6	+3.6		14.7	9.4
≈	1.9	+3.3		14.7	9.4
50	2.1	+3.1		14.7	9.4
	2.8	+2.4	3+00	14.5	9.2
	3.2	+2.0		14.4	9.1
	3.8	+1.4		14.5	9.2
	4.3	+0.9		14.6	9.3
1+00	4.9	+0.3		14.6	9.3
	5.6	0.4	50	14.6	9.3
	7.8	2.6		13.9	8.6
	12.6	7.4		13.9	8.6
	14.5	9.3		13.9	8.6
50	14.9	9.7		14.1	8.8
	14.9	9.7	4+00	13.3	8.0
	14.1	8.9		13.1	7.8
	14.1	8.9		13.6	8.3
	14.1	8.9	10:35	13.5	8.2
2+00	14.0	8.8	≈	13.6	8.3
	14.1	8.9	50	13.8	8.5
	14.2	9.0		13.6	8.3
	14.4	9.2		13.8	8.5
		5+00		13.7	8.4
				13.6	8.3
				13.9	8.6

STA. N. 117+00; 0+00 = W. 16,390; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.5		53	13.2	
53	1.3		50	13.1	
	1.9			13.0	
10:40	2.4			13.1	
≈	2.6			13.1	
50	2.8			13.3	
	3.4		3+00	13.6	
	3.7			13.6	
	4.2			13.5	
	4.9			13.8	
1+00	5.5			14.1	
	8.6		50	14.4	
	12.1			14.3	
	12.6			14.3	
	12.7			14.3	
50	12.6			14.2	
	12.7		4+00	14.1	
	12.8			14.1	
	12.8			14.0	
	12.9		10:45	14.0	
2+00	12.9		≈	14.2	
	13.0		50	14.1	
	13.4			14.2	
	13.2			14.4	
				14.5	
				13.9	
			5+00	13.9	

11-08-60

STA. N. 116+00 ; 0+00 = W 16,360 ; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.6		(5.3)	13.9	
(5.3)	1.0		50	13.6	
	1.7			13.0	
10:50	2.1			12.9	
	2.6			12.7	
50	2.9			12.6	
	3.3		3+00	12.7	
	3.8			13.2	
	4.3			14.4	
	4.9			14.1	
1+00	5.3			14.0	
	6.7		50	14.1	
	10.7			14.0	
	12.5			14.1	
	13.0			14.2	
50	13.0			14.1	
	13.3		4+00	14.0	
	13.2			13.9	
	13.3			13.9	
	13.2			14.0	
2+00	13.2			14.2	
	13.4		50	14.2	
	13.3			14.1	
	13.5			14.3	
				14.4	
			5+00	14.1	
				14.3	

STA. N. 115+00 ; 0+00 = W 16,330 ; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	1.0		(5.3)	13.9	
(5.3)	1.4		50	13.2	
	1.5			13.0	
10:55	2.0			12.9	
	2.5			12.5	
50	3.0			12.3	
	3.4		3+00	12.7	
	4.1			12.8	
	4.5			13.0	
	5.1			13.9	
1+00	6.3			14.2	
	9.9		50	14.3	
	12.3			14.4	
	13.2			14.5	
	13.3			14.7	
50	13.4			14.8	
	13.4		4+00	14.7	
	13.4			14.3	
	13.3		11:00	14.2	
	13.3			14.2	
2+00	13.5			14.3	
	13.5		50	14.3	
	13.8			14.3	
	14.0			14.3	
				14.3	
				14.4	
			5+00	14.3	

11-08-60

STA. N. 114+00; 0+00 = W. 16,300 ; SOUND WEST

Dist	Sound	Elev
0+00	0.9	
(53)	1.7	
	1.9	
11:05	2.0	
	2.6	
50	3.2	
	3.6	
	4.1	
	4.6	
	5.1	
1+00	5.9	
	7.2	
	9.2	
	9.7	
	13.0	
50	13.4	
	13.5	
	14.1	
	13.8	
	13.7	
2+00	13.7	
	13.5	
	13.6	
	13.8	

Dist	Sound	Elev
(53)	13.4	
50	13.4	
	13.4	
	13.2	
	13.2	
	13.0	
3+00	13.1	
	12.8	
	12.7	
	12.8	
	13.4	
50	14.4	
	14.5	
	14.4	
	14.4	
	14.5	
4+00	14.2	
	14.1	
11:10	14.0	
	14.1	
	14.1	
50	14.2	
	14.3	
	14.3	
	14.2	
	14.4	
5+00	14.3	

STA. N. 113+00; 0+00 = W. 16,280 ; SOUND WEST

Dist	Sound	Elev
0+00	1.0	
(53)	1.8	
	2.0	
11:15	2.7	
	3.2	
50	3.8	
	4.2	
	4.9	
	5.6	
	6.3	
1+00	9.0	
	9.9	
	9.8	
	10.2	
	12.7	
50	13.9	
	14.0	
	13.9	
	13.9	
	13.9	
2+00	14.0	
	13.9	
	14.0	
	13.9	

Dist	Sound	Elev
(53)	13.8	
50	13.7	
	13.4	
	13.3	
	13.3	
	13.2	
3+00	13.3	
	13.3	
	13.4	
	13.5	
	13.8	
50	13.5	
	13.5	
	13.6	
	13.5	
	13.3	
4+00	13.4	
	13.3	
	13.3	
11:20	13.4	
	13.4	
50	13.4	
	13.3	
	13.3	
	13.4	
	13.2	
5+00	13.0	

11-08-60

STA. N. 112+00; 0+00 = W. 16,260; SOUND WEST

DIST	Sound Elev
0+00	
(43)	0.5
	1.4
1:40	1.9
	2.8
50	3.3
	4.0
	4.5
	5.8
	7.3
1+00	9.0
	8.7
	9.4
	11.2
	12.1
50	12.8
	12.8
	12.8
	12.8
	12.8
2+00	12.8
	12.8
	12.8
	12.8

DIST	Sound Elev
(42)	12.8
50	12.8
	12.4
	12.4
	12.1
	12.6
3+00	12.0
	12.0
	12.2
	12.7
	12.8
50	12.7
	12.8
	13.0
	13.0
	13.0
4+00	13.0
	13.0
1:45	12.7
	12.3
	12.3
50	12.3
	12.1
	12.0
	12.0
	11.9
5+00	11.9

(Contd. Pg. 54)

STA. N. 111+00; 0+00 = W. 16,230; SOUND WEST

DIST	Sound Elev
0+00	
(42)	0.4
	1.3
1:50	1.9
	2.8
50	3.4
	4.0
	4.9
	6.9
	7.9
1+00	8.4
	8.8
	9.1
	9.0
	10.4
50	11.3
	12.3
	12.0
	12.1
	12.3
2+00	12.3
	12.3
	12.6
	12.5

DIST	Sound Elev
(41)	13.1
50	12.5
	12.9
	12.7
	12.3
	12.1
3+00	12.1
	12.1
	12.4
	12.5
	12.8
50	12.9
	12.8
	12.8
	12.8
	12.2
4+00	12.1
	12.0
	11.8
1:55	11.8
	13.0
50	13.0
	12.9
	13.1
	13.0
	12.9
5+00	12.9

FOR B/L SKETCH & Orig SECTIONS SEE X-SECTION FOR PROPOSED RIP RAP - SUN-

FOR Details of L. Ramps, Drain Chutes BLdg etc etc See FB 81-

FB MB 123 Pg ① X-Sec 9/23/60 (35)

SET POINT + OAHU BASIN

	LT				BASE LINE	RT			
	$-9\frac{3}{130}$	$-8\frac{3}{120}$	$-6\frac{5}{110}$						
1+50	$-3\frac{1}{100}$	$-0\frac{1}{90}$	$0\frac{4}{80}$	$0\frac{5}{70}$	$0\frac{9}{60}$	$1\frac{1}{50}$	$1\frac{6}{40}$	$2\frac{7}{30}$	$3\frac{7}{20}$	$6\frac{8}{5}$ H_2O	$7\frac{5}{10}$	$9\frac{9}{20}$	$9\frac{9}{30}$
			$-9\frac{2}{130}$			$-4\frac{9}{120}$	$-4\frac{9}{110}$	$-1\frac{4}{100}$					
1+00		$-0\frac{9}{90}$	$-0\frac{4}{80}$	$0\frac{3}{70}$	$0\frac{5}{60}$	$0\frac{5}{50}$	$0\frac{5}{40}$	$0\frac{5}{30}$	$0\frac{5}{20}$	$2\frac{5}{10}$	$3\frac{9}{}$	$6\frac{7}{14}$	$10\frac{3}{20}$	$10\frac{4}{30}$
				$-9\frac{3}{130}$		$-6\frac{9}{120}$	$-4\frac{5}{110}$	$-1\frac{2}{100}$					
SPLIT OF 8° L Section taken on 0+75 = L: IN B/L		$-0\frac{8}{90}$	$-0\frac{7}{80}$	$-0\frac{3}{70}$	$0\frac{0}{60}$	$-0\frac{1}{50}$	$0\frac{1}{40}$	$0\frac{4}{30}$	$0\frac{8}{20}$	$1\frac{9}{10}$	$3\frac{9}{}$	$6\frac{2}{16}$ H_2O	$10\frac{8}{19}$	$10\frac{8}{30}$
			$-10\frac{1}{130}$	$-9\frac{2}{120}$	$-7\frac{0}{110}$	$-4\frac{3}{100}$	$-2\frac{0}{90}$	$-1\frac{0}{80}$					
Rock RIP Rap OF EXISTING 0+00 = ELY END		$-1\frac{1}{70}$	$-1\frac{1}{60}$	$-0\frac{9}{50}$	$-0\frac{8}{40}$	$-0\frac{7}{30}$	$-0\frac{5}{20}$	$4\frac{1}{10}$	$6\frac{3}{4}$ H_2O	$8\frac{1}{}$ ON Rock RIP RAP	$10\frac{6}{6}$ TO P OF RIP RAP	$10\frac{9}{30}$	$11\frac{1}{50}$

SEE FB MB 123-Pg #1 FOR BASE LINE SKETCH

X-SECTION FOR RIP RAP STUDY

			-9 7/150	-8 0/140		
5+00	-0 6/90	-0 4/80	0 1/70	0 3/60	-1 2/50	
		-9 6/150	-8 5/140	-7 4/130		
4+00	-0 7/90	-0 4/80	0 0/70	0 1/60	0 6/50	
				-11 3/140		
3+00	-1 5/100	-1 1/90	-0 9/80	-0 9/70	-0 6/60	-0 3/50
2+00	-2 5/100	-1 5/90	-1 4/80	-0 5/70	1 5/60	1 8/50

SUNSET POINT

BASE LINE

-6 5/130	-5 5/120	-4 2/110	-2 7/100			10 4/31	10 7/50		
1 3/40	1 9/30	2 7/20	3 0/10	3 3			6 1/21 H_2O	9 6/30	
-6 2/120	-4 2/110	-1 7/100							
0 6/40	1 4/30	2 1/20	2 6/10	3 4	6 2/20 H_2O	6 9/22	10 1/26	10 3/30	10 6/50
-8 3/130	-6 9/120	-4 2/110				10 0/33	10 5/50		
0 1/40	0 7/30	1 5/20	2 1/10	2 7		6 0/24 H_2O	6 9/27	8 5/30	
-9 7/130	-7 6/120	-5 5/110							
2 8/40	3 2/30	3 4/20	6 0 H_2O			7 8/13	10 0/18	10 0/30	

X-SECTION FOR RIP RAP STUDY, SUNSET POINT

Sections 9-23-60 (Soundings)

	LT			BASE LINE	RT			
			−7.7 / 160	−7.0 / 150	−6.4 / 140	−1.9 / 130	0.6 / 120	
7+74.75 = EC Def = 53°30'	0.9 / 110	1.0 / 100	1.2 / 90	1.3 / 80	1.8 / 70	2.0 / 60	2.4 / 50	6.4 / 8	9.0 / 2	9.0	10.1 / 30
			−8.3 / 160	−8.6 / 150	−6.6 / 140	−4.5 / 130	−1.6 / 120			10.0 / 50	
7+28.07 Def = 40°07'30"	−0.8 / 110	0.1 / 100	0.2 / 90	0.7 / 80	1.1 / 70	1.5 / 60	2.0 / 50	2.2 / 40	2.5 / 30	6.2 / 7 H2O	7.6 / 15	9.2 / 23	9.8 / 30
			−8.2 / 160	−8.4 / 150	−8.4 / 140	−7.2 / 130	−6.2 / 120			9.8 / 35	10.0 / 50		
6+81,38 Def = 26°45'	−4.3 / 110	−1.7 / 100	−0.4 / 90	−0.1 / 80	0.3 / 70	0.7 / 60	1.5 / 50	2.1 / 40	2.4 / 30		6.6 / 24 H2O	8.2 / 30	
				−9.6 / 150	−9.2 / 140	−8.6 / 130	−8.0 / 120			9.9 / 50			
Conc Drainchute 6+34.69 − Def = 13°22'30"		−7.0 / 110	−5.7 / 100	−4.0 / 90	−1.4 / 80	0.0 / 70	0.7 / 60	1.5 / 50	2.0 / 40	2.5 / 30	5.8 / 8 H2O	8.2 / 19	9.0 / 30
			−10.0 / 150	−8.8 / 140	−7.2 / 130	−6.8 / 120	−5.1 / 110			10.2 / 50			
Sections to Ken Radial 5+88.00 = BC	−3.8 / 100	−2.1 / 90	−0.7 / 80	−0.1 / 70	0.8 / 60	1.0 / 50	1.8 / 40	2.6 / 30	3.3 / 20		6.2 / 19 H2O	9.6 / 30	

SEE SKETCH OF CURVE FB MB123 Page 76

X-SECTION FOR RIP RAP STUDY — SUNSET POINT

BM = LWTK in SLY CURB MOST WLY L RAMP
FB 123 - 9 = 9.23.

LT | BASE LINE | RT

9+00 — d = 1°05.53' - CL = 15.25

-7^{1}	-6^{8}	-6^{0}	-5^{6}	-5^{0}	-3^{4}	0^{9}	2^{8}	3^{5}	3^{8}	4^{8}	7^{8}	9^{1}	9^{8}
150	140	130	120	110	100	90	80	70	60	27 H_2O		15	30

Sections Taken Radial

SEE B/L sketch Pg 47-

Rate = 4.297183'

R = 400' - Δ = 231°

-7^{1}	-6^{8}	-6^{6}	-6^{1}
160	150	140	130

8+84.75 = BC

-5^{4}	-3^{3}	-2^{1}	1^{7}	2^{4}	3^{2}	3^{7}	4^{0}	4^{8}	6^{0}	8^{3}	9^{7}
120	110	100	90	80	70	60	50	32 H_2O	19		30

8+50 SKIP

-7^{2}	-5^{3}	-4^{1}	-1^{0}
160	150	140	130

8+00

1^{2}	1^{3}	1^{4}	1^{8}	1^{9}	2^{5}	2^{7}	3^{0}	3^{4}	3^{9}	4^{8}	5^{8}	6^{1}	9^{7}	9^{6}
120	110	100	90	80	70	60	50	40	30	6 H_2O		2	8	30

X-SECTS 9-26-60. SOUNDINGS -9-27-60

X-SECT FOR RIP RAP STUDY

SUNSET POINT

BASE LINE

LT

RT

-7 0 / 120

-6 2 / 110 -3 9 / 100 -3 3 / 90

11+00

d = 12° 24.97

0 1 / 80 1 0 / 70 2 1 / 60 2 3 / 50 2 7 / 40

3 7 / 30 4 1 / 20 4 6 / 12 H2O 5 3 / 6 7 3 / 1 7 8 / 5 10 1 / 30 10 2

-7 7 / 140

-7 3 / 130 -7 1 / 120 -6 7 / 110

10+50

d = 11° 50.11'

-5 9 / 100 -4 1 / 90 0 0 / 80 2 0 / 70 2 3 / 60 2 9 / 50

3 3 / 40 4 0 / 30 4 7 / 17 H2O 6 2 / 3 7 2 / 5 10 2 / 30

-7 9 / 140 -7 1 / 130

10+00

d = 8° 15.25'

-7 0 / 120 -6 2 / 110 -4 9 / 100 -0 1 / 90 2 0 / 80 2 6 / 70

2 9 / 60 3 2 / 50 3 7 / 40 4 7 / 21 H2O 6 1 / 5 6 5 / 12 9 1 / 30 10 0

-7 4 / 150 -7 1 / 140 -7 0 / 130

9+50

d = 4° 40.39' ℄ = 49.97'

-6 5 / 120 -5 3 / 110 -1 2 / 100 1 7 / 90 2 0 / 80

3 1 / 70 3 5 / 60 3 9 / 50 4 7 / 33 H2O 6 4 / 7 5 / 17 9 5 / 20 10 5 / 40

T13N 11 = 6.42 - HUB AT STA 9+50

X-SECTION FOR RIP RAP STUDY

SUNSET POINT

BASE LINE

RT

13+00
d = 29°44.41

$-7\frac{5}{130}$ $-6\frac{8}{120}$ $-6\frac{1}{110}$ $-5\frac{1}{100}$ $-3\frac{9}{90}$ $-1\frac{5}{80}$ $1\frac{2}{70}$

$1\frac{9}{60}$ $2\frac{4}{50}$ $3\frac{4}{40}$ $4\frac{0}{30}$ $4\frac{5}{18\ H_2O}$ $6\frac{1}{7}$ $6\frac{7}{7}$ $10\frac{6}{14}$ $10\frac{0}{30}$

$-7\frac{5}{120}$ $-6\frac{8}{110}$

12+50
d = 26°09.55

$-8\frac{4}{100}$ $-4\frac{2}{90}$ $-2\frac{8}{80}$ $0\frac{6}{70}$ $2\frac{3}{60}$ $2\frac{5}{50}$

$3\frac{1}{40}$ $3\frac{8}{30}$ $4\frac{3}{20}$ $4\frac{6}{14\ H_2O}$ $5\frac{9}{5}$ $6\frac{5}{5}$ $10\frac{7}{12}$ $10\frac{2}{30}$

$-7\frac{6}{130}$

$-7\frac{2}{120}$ $-7\frac{0}{110}$ $-6\frac{1}{100}$

12+00
d = 22°34.69

$-4\frac{0}{90}$ $-1\frac{2}{80}$ $1\frac{1}{70}$ $1\frac{4}{60}$

$1\frac{8}{50}$ $2\frac{8}{40}$ $3\frac{8}{30}$ $4\frac{6}{12\ H_2O}$ $5\frac{7}{5}$ $6\frac{7}{5}$ $10\frac{2}{10}$ $10\frac{0}{30}$

$-7\frac{3}{130}$

$-7\frac{1}{120}$ $-6\frac{9}{110}$ $-5\frac{9}{100}$

11+50
d = 18°59.83

$-3\frac{9}{90}$ $-0\frac{8}{80}$ $1\frac{1}{70}$ $1\frac{9}{60}$ $2\frac{2}{50}$

$2\frac{8}{40}$ $3\frac{7}{30}$ $4\frac{4}{20}$ $4\frac{6}{9\ H_2O}$ $5\frac{4}{2}$ $5\frac{8}{2}$ $7\frac{0}{7}$ $9\frac{6}{12}$ $10\frac{0}{30}$

X-SECT FOR RIP-RAP STUDY

SUNSET LT POINT

BASE LINE

RT

12+00
d = 44°03.85

$-7\frac{2}{120}$ $-7\frac{3}{110}$ $-6\frac{1}{100}$ $-4\frac{1}{90}$ $-2\frac{4}{80}$ $-0\frac{6}{70}$

$0\frac{5}{60}$ $2\frac{3}{50}$ $2\frac{4}{40}$ $3\frac{6}{30}$ $4\frac{5}{21}$ H_2O $7\frac{3}{}$ $10\frac{8}{8}$ $10\frac{6}{30}$

$-6\frac{9}{130}$ $-6\frac{8}{120}$

13+50
d = 40°28.99

$-6\frac{5}{110}$ $-5\frac{8}{100}$ $-4\frac{7}{90}$ $-2\frac{9}{80}$ $0\frac{2}{70}$ $0\frac{9}{60}$

$1\frac{3}{50}$ $2\frac{3}{40}$ $3\frac{3}{30}$ $4\frac{3}{20}$ $4\frac{5}{13}$ H_2O $6\frac{7}{}$ $6\frac{9}{1}$ $10\frac{4}{10}$ $10\frac{2}{30}$

$-6\frac{9}{130}$ $-6\frac{8}{120}$ $-6\frac{0}{110}$

14+00
d = 36°54.13'

$-5\frac{1}{100}$ $-3\frac{3}{90}$ $-1\frac{9}{80}$ $0\frac{3}{70}$ $1\frac{1}{60}$ $1\frac{3}{50}$

$2\frac{2}{40}$ $3\frac{4}{30}$ $4\frac{1}{20}$ $4\frac{6}{11}$ H_2O $5\frac{7}{}$ $6\frac{8}{5}$ $9\frac{8}{11}$ $10\frac{0}{30}$

$-7\frac{0}{120}$ $-6\frac{8}{110}$ $-6\frac{1}{100}$

14+50
d = 33°19.27

$-3\frac{9}{90}$ $-0\frac{9}{80}$ $1\frac{2}{70}$ $1\frac{9}{60}$ $2\frac{3}{50}$

$3\frac{1}{40}$ $3\frac{8}{30}$ $4\frac{3}{20}$ $4\frac{5}{11}$ H_2O $5\frac{3}{}$ $5\frac{9}{5}$ $10\frac{2}{14}$ $10\frac{0}{30}$

X-SECTION FOR RIP RAP STUDY SUNSET POINT

LT — BASE LINE — RT

17+00
d=58°23.29

-7^{6}	-7^{4}	-6^{6}
130	120	110

-5^{0}	-0^{9}	1^{6}	2^{4}	2^{6}	3^{1}	3^{4}	4^{1}	4^{2}	8^{0}	9^{0}	10^{2}	10^{4}
100	90	80	70	60	50	40	30	28 H_2O		1	15	30

16+50
d=54°48.43

-7^{2}	-7^{0}
120	110

-5^{9}	-4^{0}	0^{1}	2^{0}	2^{9}	3^{0}	3^{9}	4^{3}	4^{4}	7^{5}	8^{5}	9^{1}	10^{3}	10^{5}
100	90	80	70	60	50	40	30	29 H_2O	2		1	14	30

16+00
d=51°13.57'

-7^{2}	-6^{9}
120	110

-6^{3}	-4^{5}	-2^{5}	0^{2}	1^{5}	2^{9}	3^{4}	4^{3}	4^{4}	7^{7}	8^{8}	10^{2}	10^{7}
100	90	80	70	60	50	40	30	28 H_2O		4	16	30

-7^{9}	-7^{1}
120	110

15+50
d=47°38.71

-6^{1}	-4^{1}	-2^{7}	-0^{8}	0^{5}	2^{0}	3^{1}	4^{1}	4^{5}	7^{5}	10^{0}	10^{8}
100	90	80	70	60	50	40	30	25 H_2O		17	30

X-JECT FOR RIP-RAP STUDY — SUNSET POINT

BASE LINE

FB 81
BE Theseetry
Gotten Details
Juke Tom has
Ramps - Jam
Conc Launching
Near Beginning of

19+00
d = 72°42.73

−7.5	−5.7	−5.2
130	120	110

−3.3	0.3	0.6	0.7	2.3	3.4	4.0	4.3	6.6	8.4	9.7	10.2
100	90	80	70	60	50	40	34 H2O	15		18	30

−7.6	−6.5
120	110

18+50
d = 69°07.87'

−2.7	0.7	1.2	1.4	1.7	2.0	2.8	4.0	4.3	7.0	8.9	10.4	10.2
100	90	80	70	60	50	40	30	25 H2O		11	20	30

−7.5	−6.7
120	110

18+00
d = 65°33.01

−4.5	0.7	1.4	1.6	1.7	2.4	3.1	3.7	4.2	7.1	10.2	10.4
100	90	80	70	60	50	40	30	22 H2O		18	30

−7.2	−6.9	−5.7
130	120	110

17+50
d = 61°58.15'

−3.0	1.3	1.6	2.4	2.6	3.0	3.6	4.4	4.4	6.6	8.6	8.9	10.0	10.4
100	90	80	70	60	50	40	30	27 H2O	8	1		12	30

X-SECT FOR RIP-RAP STUDY

SUNSET POINT

BASE LINE

Fence
4° RT = 6° Chain Link
21+00
d = 87°02.17

−2.5	0.6	0.8	1.5	1.8	2.2
90	80	70	60	50	40

3.0	3.5	4.3	6.4	11.0	11.3	11.5
30	20	17 H2O	4		4	30

−7.2	−6.7	−5.7
120	110	100

−6.6	−6.4	−5.0
120	110	100

4.3 RT = 6° Fence
20+50 -
d = 83°27.31

−1.4	0.6	1.2	1.6	2.2	2.6
90	80	70	60	50	40

3.4	3.9	4.3	6.4	9.8	10.8	11.2
30	20	16 H2O	4		5	30

−7.2
140

−6.8	−6.4	−5.6
130	120	110

Begin 6' high Chain Link Fence
20+14 - 6° RT =

20+00
d = 79°52.45'

−4.2	−1.1	0.4	0.8	1.9
100	90	80	70	60

3.2	3.7	4.1	6.0	7.7	9.2	9.7	10.6
50	40	31 H2O	12		6	25	40

−7.5	−6.7
150	140

−4.9	−5.3	−3.7
130	120	110

Launching Ramp
19+50 = ON Conc
d = 76°17.59'

−2.8	−2.7	−0.7	0.5	1.5
100	90	80	70	60

3.2	4.3	4.3	6.6	7.6	9.2	10.3
50	40	39 H2O	18		25	40

X-SECT FOR RIP RAP STUDY

6° HIGH CHAIN LINK FENCE
23+23-9.5 LT. END

FENCE
6.5 LT = 6° CHAIN LINK
23+00
d = 101° 31.61

Boats, Piers, Docks

-4.6	-2.5	0.1	0.8	1.0	1.4
100	90	80	70	60	50

2° LT = 6° Fence
22+50
d = 97° 52.75

Boats, Piers Docks

-4.6	-1.3	0.6	1.0	1.7
90	80	70	60	50

Fence
2.8 RT = 6° Cham Link
22+00
d = 94° 11.89'

-1.2	0.5	0.9	1.4	1.9
80	70	60	50	40

-7.4
130

8° RT = 6° Fence
21+50
d = 90° 37.03

-4.4	0.3	0.7	0.9	1.5
90	80	70	60	50

SUNSET POINT

LT			BASE LINE		RT	
2.0	3.6	4.0	6.8	11.3	11.3	11.5
40	30	23	13	7		30
		H_2O				

2.1	2.8	3.9	7.0	11.6	11.1	11.7
40	30	20	8	4		30
		H_2O				

-7.3	-6.4	-4.5
110	100	90

2.7	3.7	4.0	7.0	10.3	11.1	11.3	11.3
30	20	16	4		2	5	30

-7.2	-6.8	-6.9
120	110	100

1.9	2.6	3.3	4.0	6.4	6.8	11.0	11.1	11.1
40	30	20	14		3	6	10	30
			H_2O					

X-SECT FOR RIP RAP STUDY

TBM - 11[00] L+DK IN FUEL DOCK WALK - N W

Slab
BROKEN CONC
MADE WITH
= Begin RIPRAP
24+97.43 = EC
d = 115°30' - ch = 47.40

	-0[1]	0[1]	0[2]	0[8]	0[9]	1[6]	3[5]	5[4]	10[0]	10[0]	10[1]	10[7]
	80	70	60	50	40	30	18 H2O	12	7		14	30

24+50
d = 112°06.19'

Boats, Piers, Docks	-0[1]	0[1]	0[2]	0[8]	0[9]	1[6]	1[9]	3[7]	7[1]	9[5]	9[8]		11[0]
	100	90	80	70	60	50	40	33 H2O	18	11			30

CORNER STUCCO Bldg
23+85[5] - 12[5] LT = NWly

24+00
d = 108°31.33

Boats, Piers, Docks →	-1[6]	-0[2]	0[2]	0[8]	1[4]	1[5]	1[8]	3[0]	3[7]	6[8]	8[5]	10[0]		11[2]
	110	100	90	80	70	60	50	40	35 H2O	24	20			30

SWly Corner Stucco Bldg.
23+57[5] - 6[0] LT =

ON conc Launching Ramp
23+50
d = 105°06.47'

Boats, Piers, Ramps →	-1[2]	0[3]	1[3]	1[8]	2[8]	4[1]	3[9]	6[5]	9[0]	9[9]	10[7]
	90	80	70	60	50	40	33 H2O	20		9	25

SUNSET POINT

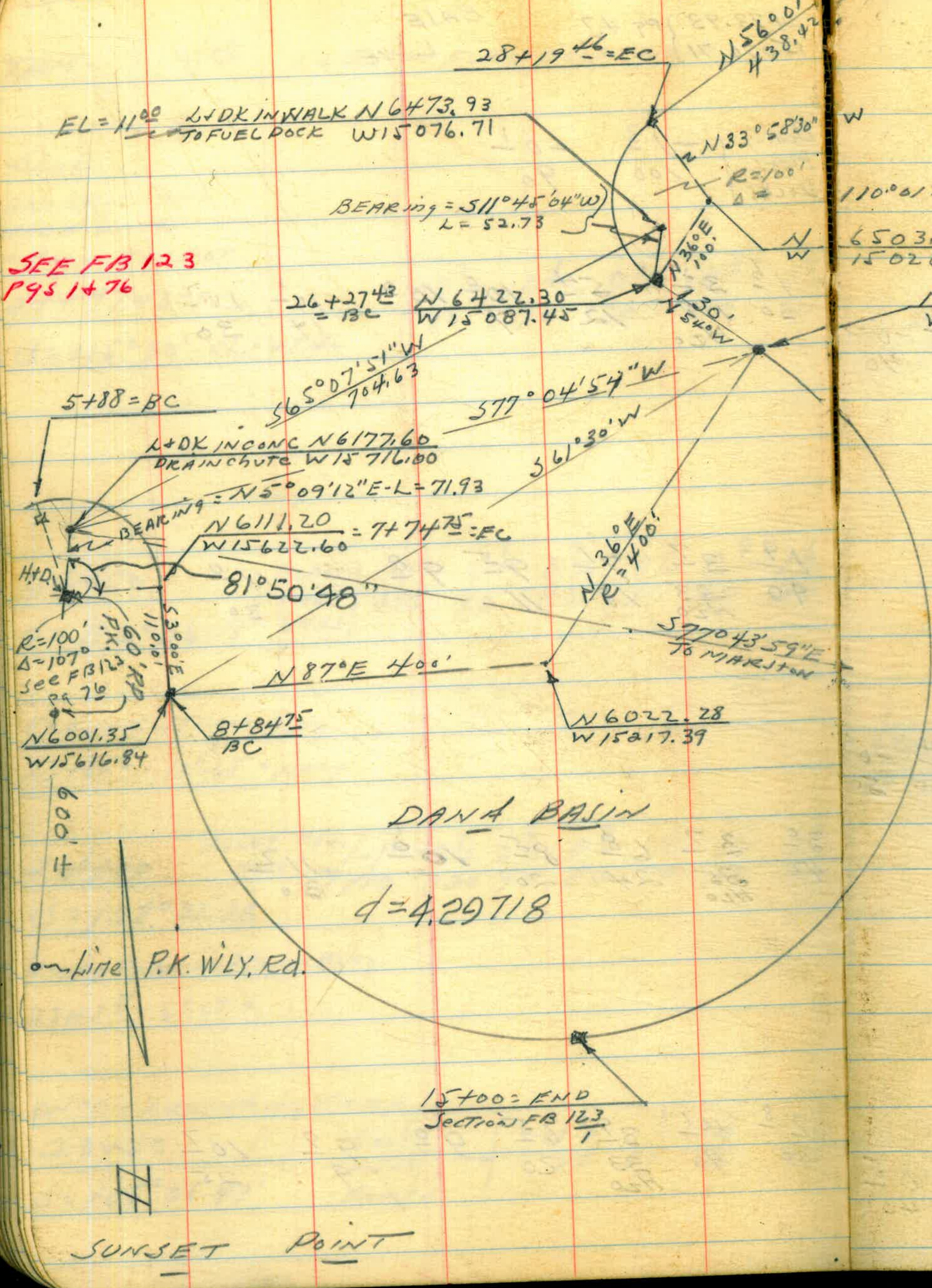
6473.93 } Pg 47
15076.71 }

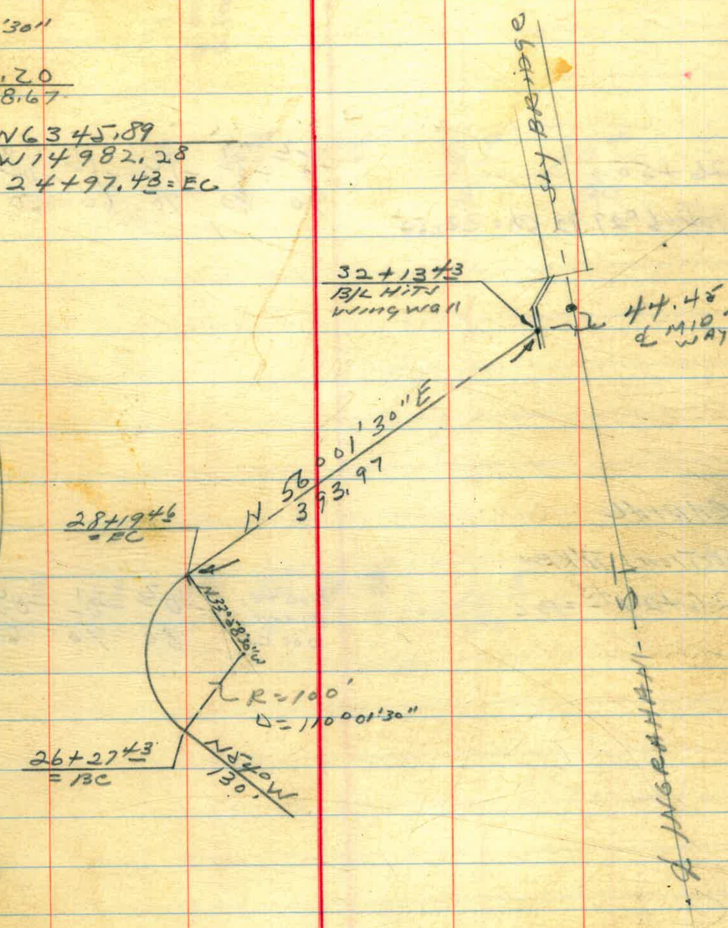
BASE LINE

Boats, Piers, Docks	-1[3]	-0[1]
	100	90

	1[6]	3[5]	5[4]	10[0]	10[0]	10[1]	10[7]
	30	18 H2O	12	7		14	30

DETAIL - See Sketch FB123 - Pg (1) (76)





X-SECT FOR RIP RAP STUDY

SUNSET POINT

48

LT | BASE LINE | RT

-6 8/100

26+50

Def = 6°27.92 Ch = 22.55

-5 2/90 -3 1/80 -1 2/70 -1 1/60 -0 8/50 -0 2/40

0 2/30 1 7/20 3 3/13 H2O 9 4/2 9 4/ 9 9/5 10 4/30

RADIAL

SECTIONS TAKEN

26+27 4/3 = BC

Boats, Piers docks | -0 2/80 -0 1/70 -0 4/60 -0 3/50

0 0/40 0 9/30 3 0/20 3 3/11 H2O 8 9/2 9 3/ 10 5/30

20+20 Boats, Piers, Docks | -1 1/90 -0 4/80 -0 5/70 -0 3/60 -0 1/50 0 5/40

0 8/30 1 6/20 3 3/10 H2O 8 8/3 9 3/ 10 9/30

X-sect 9/28/60

X-SECT FOR RIP RAP STUDY — SUNSET POINT

BASE LINE

28+00
Def = 49° 26'

-7^{2}	-6^{2}	-5^{4}	-3^{1}	-1^{0}	-0^{7}	0^{1}	1^{8}	3^{5}	7^{5}	9^{6}	10^{2}
90	80	70	60	50	40	30	20	13	-	7	30

27+50
DEF = 35° 06.64

-6^{9}	-6^{1}	-4^{4}	-2^{0}	-0^{9}	-0^{9}	-0^{5}	0^{7}	2^{8}	3^{5}	6^{9}	9^{5}	9^{8}
100	90	80	70	60	50	40	30	20	17 H_2O		8	30

-6^{0}	-5^{9}
110	100

27+00
CHORD = 49.48
DEF 20° 47.28'

-5^{3}	-3^{7}	-2^{3}	-1^{0}	-0^{7}	-0^{2}	0^{7}	3^{6}	3^{6}	8^{0}	9^{8}	10^{4}
90	80	70	60	50	40	30	20	16	8^{0}		30

X-SECT FOR RIP RAP STUDY

SUNSET POINT

(57)

30+00

$-6\frac{3}{120}$ $-5\frac{2}{110}$ $-4\frac{3}{100}$ $-3\frac{1}{90}$ $-1\frac{0}{80}$ $-0\frac{2}{70}$ $0\frac{2}{60}$ $0\frac{8}{50}$ $1\frac{0}{40}$ $3\frac{7}{30}$ $9\frac{5}{10}$ $10\frac{3}{20}$ $11\frac{4}{30}$

H_2O

29+00

$-6\frac{2}{110}$ $-5\frac{5}{100}$ $-4\frac{4}{90}$ $-2\frac{3}{80}$ $-1\frac{0}{70}$ $-0\frac{4}{60}$ $0\frac{2}{50}$ $1\frac{0}{40}$ $3\frac{7}{30}$ $6\frac{0}{20}$ $10\frac{1}{10}$ $10\frac{2}{20}$ $11\frac{5}{30}$

H_2O

28+19.46 = EC

Chord = 18.90

Def = 55° 00' 45"

$-7\frac{6}{100}$ $-6\frac{4}{90}$ $-5\frac{1}{80}$ $-4\frac{0}{70}$ $-1\frac{3}{60}$ $-1\frac{0}{50}$ $-0\frac{1}{40}$ $0\frac{2}{30}$ $2\frac{6}{20}$ $3\frac{5}{17}$ $8\frac{73}{HVB}$ $9\frac{4}{4}$ $10\frac{3}{30}$

H_2O 9K Stone

9-28-60

X-SECT FOR RIP RAP STUDY — SUNSET POINT

SEE FB MB 123 - Pgs 21 + etal For add'l information Near Bridge

BASE LINE

= Sta 8+00 FB 123 - 21

32+27^5

Elev.	5^{0}	14^{78}	14^{70}	13^{1}	13^{3} (base line)	12^{77}
Offset	9 ground	9^{0} Top of wing	7^{5} Top wing wall	7		16 Top of cb

Elev.	-8^{6}	-7^{9}	-7^{2}
Offset	120	110	100

℄ in wingwall

32+15 - Sec on

Elev.	-6^{5}	-4^{0}	-0^{6}	-0^{2}	0^{5}	0^{8}	1^{5}	3^{1}	10^{81}	11^{0}	11^{4} (base line)	12^{3}
Offset	90	80	70	60	50	40	30	19	4^{0} Top wing	4 gr		30

32+00

Elev.	-8^{2}	-7^{2}	-6^{3}	-5^{3}	-2^{5}	-0^{6}	-0^{3}	0^{7}	0^{8}	2^{8}	3^{7}	11^{2}	11^{3}	12^{3}
Offset	120	110	100	90	80	70	60	50	40	30	22 H_2O	6	–	30

31+92± - 25^{0} LT = N'ly End of 15" CI Drain

Elev.	3^{45}
Offset	25^{0} IE

Elev.	-6^{3}
Offset	130

31+00

Elev.	-6^{2}	-5^{4}	-4^{9}	-3^{0}	-1^{2}	-0^{6}	-0^{2}	0^{4}	0^{6}	2^{4}	3^{6}	9^{7}	10^{0}	11^{5}
Offset	120	110	100	90	80	70	60	50	40	30	24 H_2O	10	–	30

CHECK ON LAUNCHING RAMP DANA
BASIN W.O. 64014

Sta		Elev	Grade
0+88.75 = End Precast Slab		2.38	2.00
0+70		4.16	4.25
0+55	E.C.V.C.	5.63	6.05
0+45	Mid Point	Conc. → 6.61	7.07
0+35	B.C.V.C.	Conc → 7.70	7.70
0+29 = (Begin Conc. As built)		Conc. → 8.21	
0+28		Sub-Grade → 8.01	8.00
0+14		Sub Grade → 8.36	8.63
0+00		Sub Grade → 8.76	9.25
B.M.		9.43	

53.4' Wide (2301-D: L-St Ramp Ely.) (FB-84)

10-28-60

129.92
8875
41.17

NOTE: For Loc. of Ely Ramp See FB 149/69

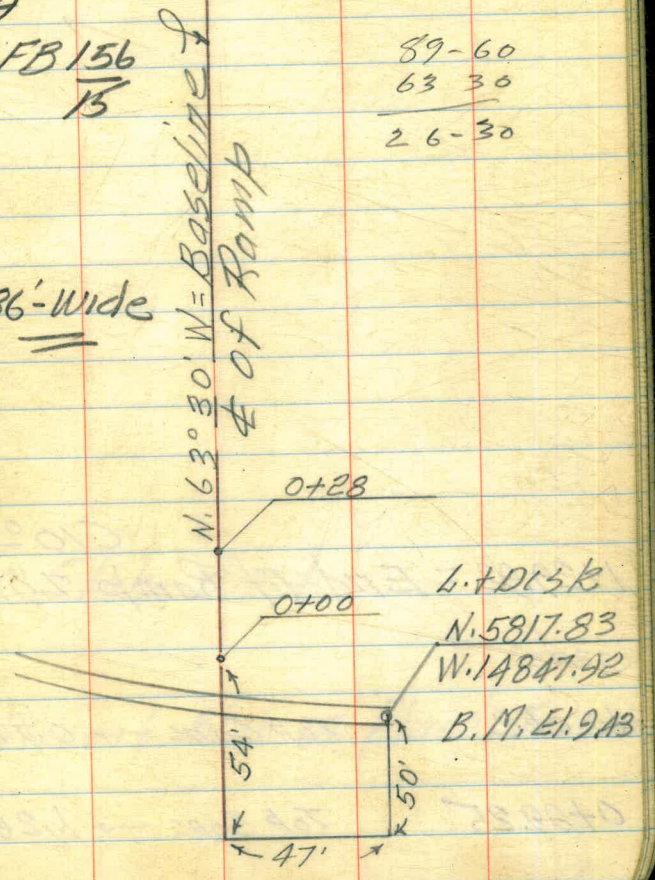
See Ties FB 156/13

Stamper Wentworth Elmore Hecht

1+29.92 = End of Ramp

89-60
63 30
26-30

36'-Wide



Sta.	Elev Grade		
	C10 07		
1+29.92 = End of Ramp	7.07	-3.00	Set 2x2" Stake on ℄
(23.72)			
1+06.2	Top Conc → 0.77	-0.12	End of Precast Slab in Place To-Date
0+99.25	Top Conc → 1.26	0.18	
0.5			

(Cont'd from pg. 34) 11-08-60

STA. N. 1/0+00; 0+00 = W. 1.6.190; SOUND WEST

Dist	Sound	Elev
0+00		
(41)	0.4	
	1.3	
2;00	1.7	
	2.4	
50	2.9	
	3.3	
	4.2	
	5.0	
	7.0	
1+00	8.1	
	8.9	
	9.0	
	9.1	
	10.0	
50	11.5	
	12.0	
	12.0	
	12.1	
	12.0	
2+00	12.0	
	12.0	
	12.0	
	12.1	
(40)	12.2	
50	12.1	
	12.1	
	12.1	
	12.1	
	12.4	
3+00	12.0	
	11.9	
	11.9	
	12.0	
	11.8	
50	12.8	
	12.9	
	13.0	
	12.9	
	12.9	
4+00	12.6	
	12.9	
2;05	12.9	
	12.9	
	12.7	
50	12.3	
	12.0	
	12.0	
	12.0	
	12.2	
5+00	12.1	

11-10-60

CHECH ON DANA BASIN LAUNCHING RAMP FOR SETTLEMENT OR UPHEAVEL

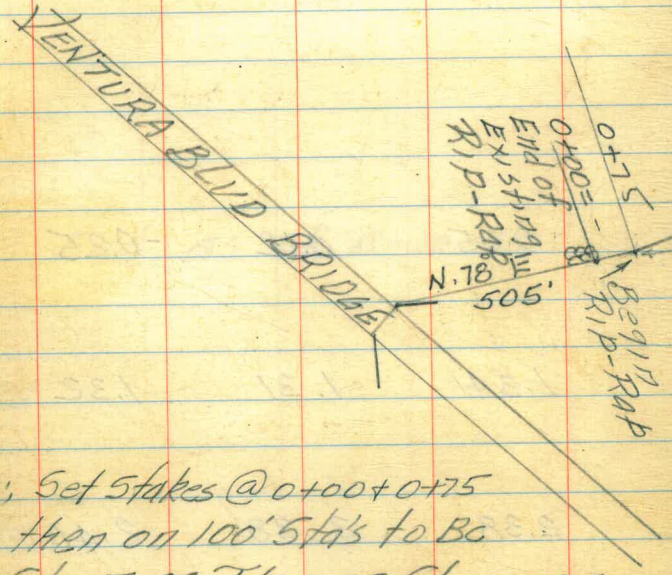
STA	Elev GRADE
1+10 End AS Of 11-10-60	
0+99.25	
0+88.75	
0+70	
B.M.	9.43

Lt. W'LY & Rt. E'LY. Stamper

NOTE: (See Sketch Pg. 52)

0.05	0.12	-0.25
1.34	1.31	1.32
2.38	2.38	2.40
4.10	4.16	4.15

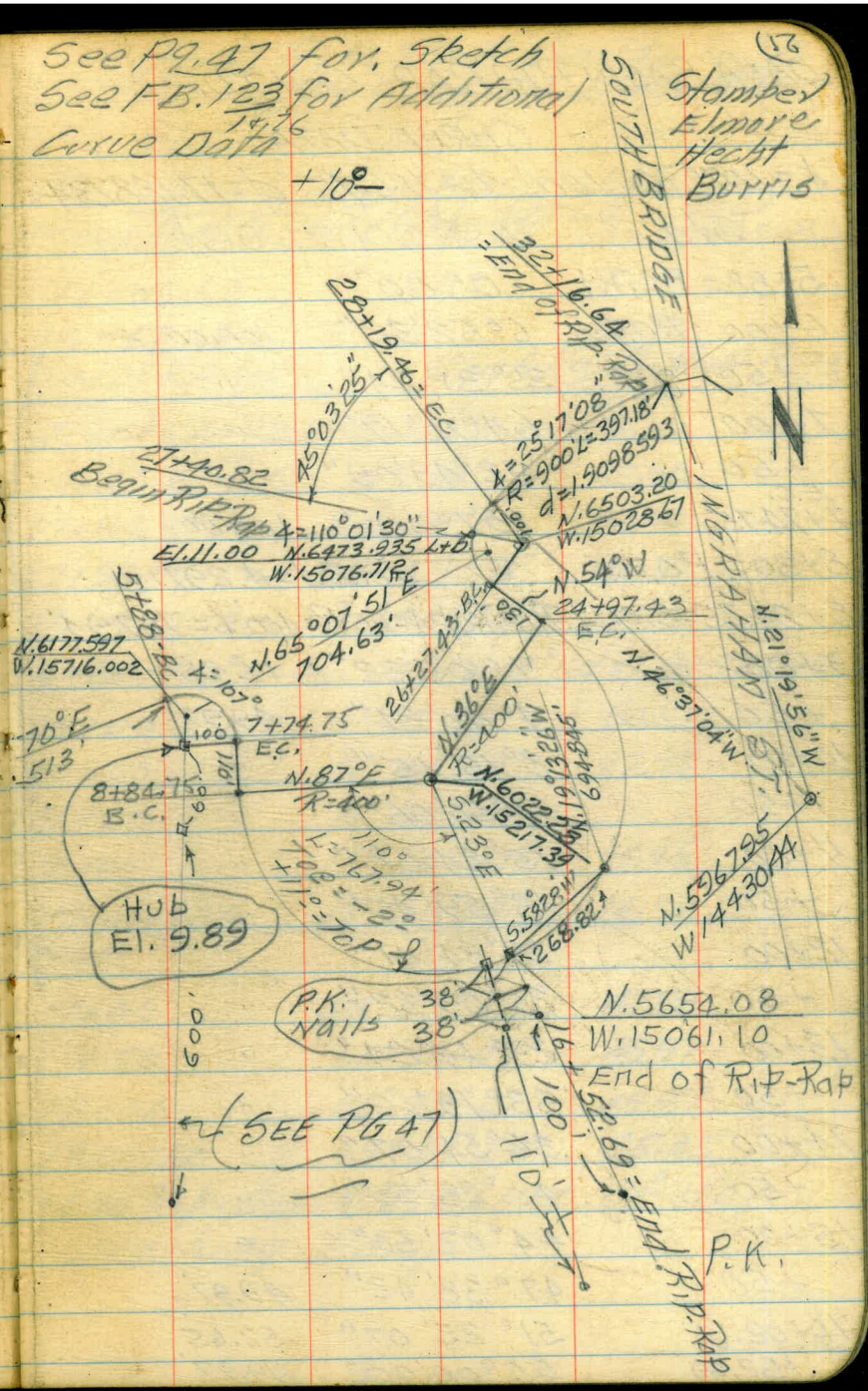
RIP-RAP ALIGNMENT & GRADE
DANA BASIN + VICINITY W.O. 64730



NOTE: Set Stakes @ 0+00 + 0+75
then on 100' Sta's to BC
Sta. 5+88 Then as Shown on
Curve data Pg. 57

See Pg. 47 for Sketch
See FB. 123 for Additional
Curve Data

+10°



DANA BASIN RIPRAP CONT'D.

CURVE DATA

Δ=107° R=100' L=186.75. d=17.188734

Sta	Δ @ ctr.	Dist.
5+88 = B.C.R.↑	0°00'	
6+00 P.O.C.	6°52'32"	100.00
+50 "	35°31'24"	"
7+00	64°10'17"	"
+50	92°49'09"	"
E.C. 7+74.75	107°00'	100.00
8+30 = P.O.T.	400' Rd = 4.29718	
8+84.75 = B.C. Lt. Rip-Rap	Δ=110° R=400' L=767.94'	
9+00	1°05'32"	15.25
+50	4°40'24"	49.97'
10+00	8°15'15"	"
+50	11°50'06"	"
11+00	15°24'58"	"
+50	18°59'49"	"
12+00	22°34'41"	"
+50	26°09'32"	"
13+00	29°44'24"	"
+50	33°19'16"	"
14+00 515.25	36°54'07"	"
+50	40°28'59"	"
15+00	44°03'50"	"
+50	47°38'42"	49.97'
16+02.69	51°25'07"	52.65'
+52.69	55°00'00"	49.97'

NOTE: RIP-RAP CONT'D TO (27) WLY SIDE OF L. RAMPS.

Sta	Def↓	Chord
℄ @ 16+02.69	Radial = 141°25'07"	38.00'
℄ @ 16+02.69 = R = 438	Δ = 1°09'43"	d = 3.924368
16+06.69	0°15'42"	4.00
16+52.69 =	3°34'51"	50.72

TRANSITION DELETED

End of Rip-Rap Cont'd @ Bottom Page

		Dist.
℄ @ ctr. Δ = R. Rap = 45°03'25"	R = 100'	L = 78.64
27+40.82 = P.O.C.	0°00'	62.00
27+84.37 "	24°57'05"	62.00
27+90.82 "	28°38'53"	100.00
28+19.46 = P.C.C.	45°03'25"	100.00
Δ = 25°17'08" R = 900'	L = 397.18"	d = 1.9098593
29+00	2°33'49"	80.51'
30+00	5°44'48"	99.95'
31+00	8°55'48"	"
32+00	12°06'47"	99.95'
32+16.64 = E.C.	12°38'34"	16.64'

← CONT'D.

17+00	58°23'18"	47.28
+50	61°58'09"	49.97
18+00	65°33'01"	49.97
18+55.50	69°31'29"	55.45'

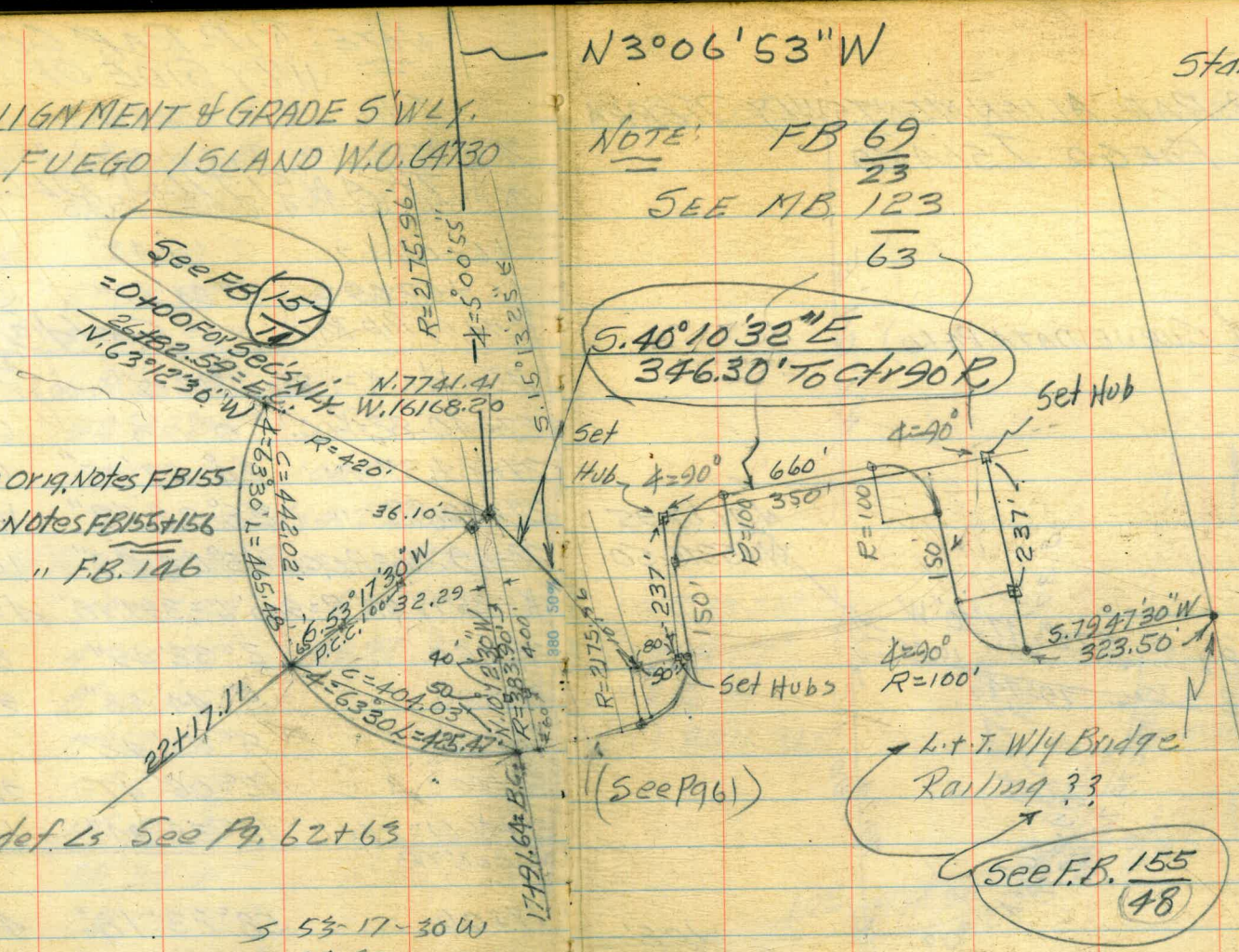
= End Rip-Rap @ W'ly Line of W'ly. Launching Ramp

Stamper

RIP-RAP ALIGNMENT & GRADE S'WLY.
TIERRA DEL FUEGO ISLAND W.O. 64730

N 3°06'53" W

NOTE: FB 69/23
SEE MB 123/63



NOTE: For def. Δ's See Pg. 62+63

179-60
63-30
116 30
58-15

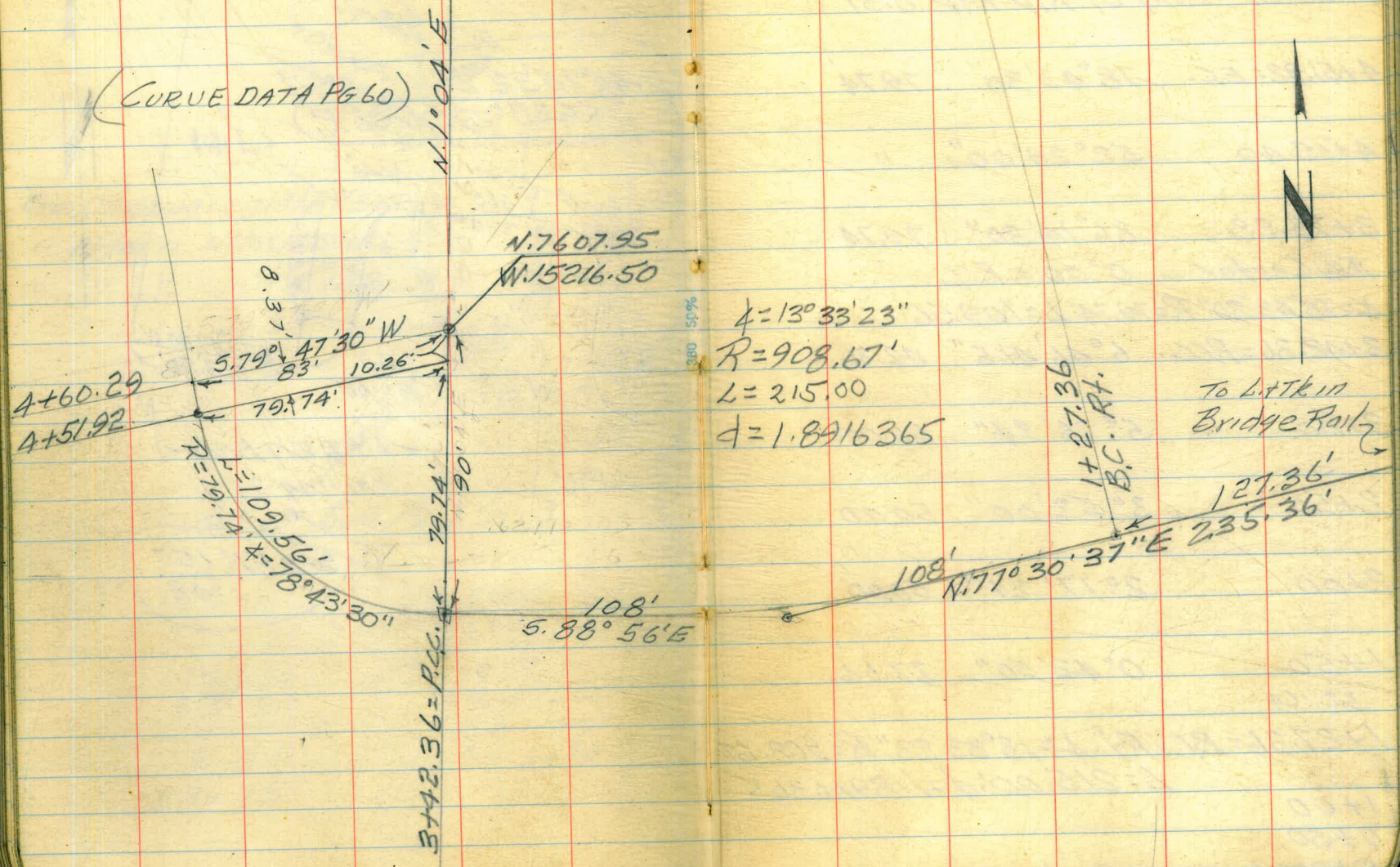
S 53-17-30 W
63-30
179 59 60
116 47-30
N 63-12-30 W

RIP-RAP ALIGNMENTS W'LY TIERRA DEL FUEGO ISLAND

Ref. N.B. 123/63

Stamper

(CURVE DATA PG 60)



TIERRA DEL FUEGO S'WLY.

Sta	Def ∠	Chord
4+60.29 = End of Rip-Rap		8.37'
4+51.92 = E.C.	78°43'30"	79.74'
4+15.40	52°29'00"	"
3+78.88	26°14'30"	79.74
℄ @ Center	0°00' = P.C.C.	
Δ = 78°43'30" R = 79.74' L = 109.56		
3+42.36 = P.C.C.	6°46'41.5"	42.36'
3+00	5°26'34"	50.00'
2+50	3°52'00"	50.00'
2+00	2°17'24"	50.00'
1+50	0°42'50"	22.64'
22.64		
1+27.36 = B.C. Rt. Δ = 13°33'23" R = 908.67'. L = 215.00; d = 1.891636 5		
1+00		
0+50		
0+00 = L. & Tk. of Bridge Railing		

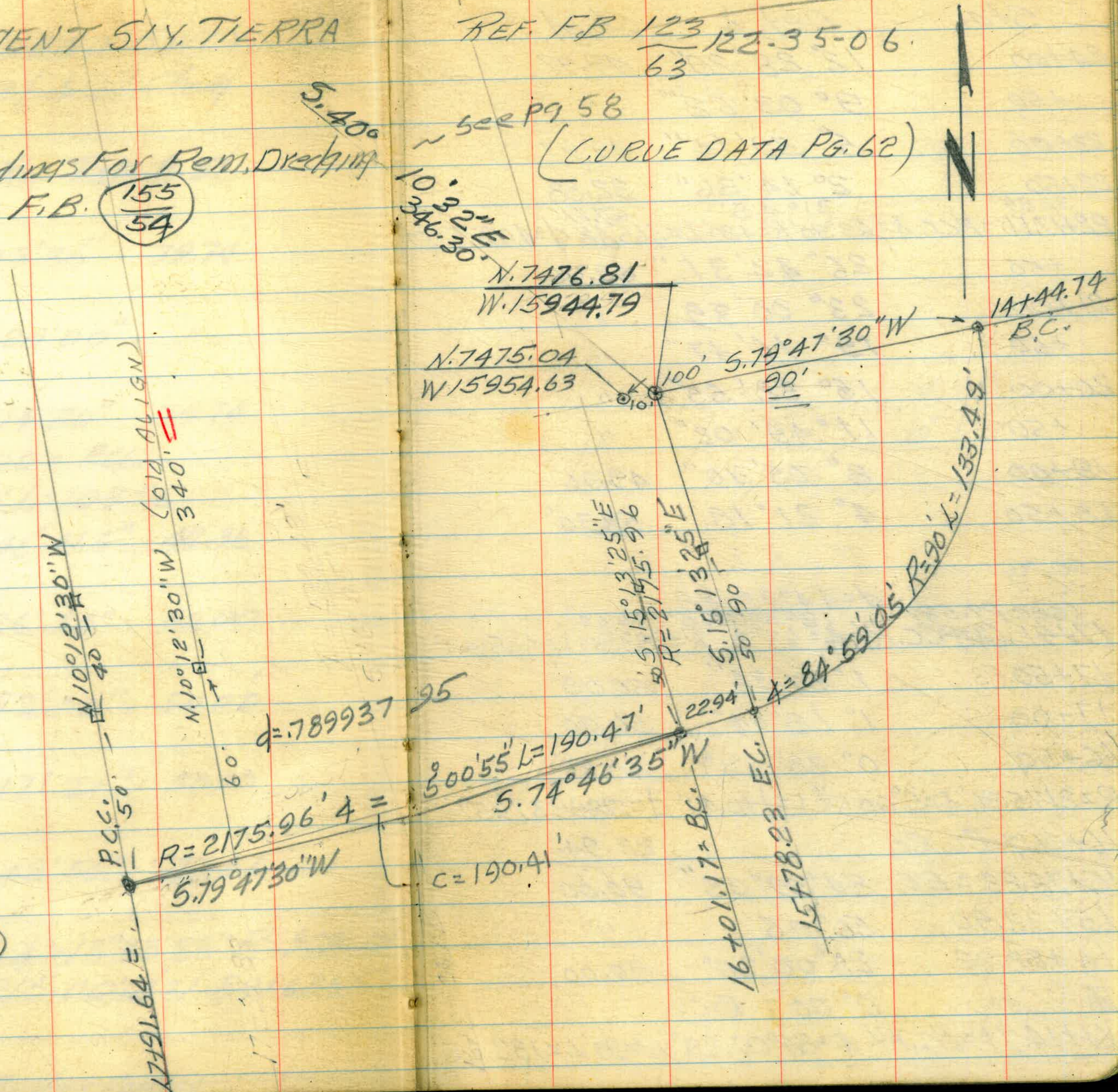
42-47-36
79-47-30

Stamper

RIP-RAP ALIGNMENT S'LY. TIERRA DEL FUEGO

NOTE: See Soundings For Rem. Dredging This Area F.B. (155/54)

170 59 60
122-35-06
57-24-54



(See Pg. 58)

RIP RAP ALIGNMENT & GRADE
SLY TIERRA DEL FUEGO

Sta.	Def. ∠	Chord
24+00	12° 28' 29"	49.97
+50	9° 03' 52"	"
23+00	5° 39' 14"	49.97
22+50	2° 14' 36"	32.88
32.89	31° 45'	67.11'
22+17.11 = P.C.C.	∠ = 63°30' R = 420' L = 465.48	d = 4.0925557
+50	26° 44' 31"	49.96
21+00	23° 00' 39"	"
+50	19° 16' 47"	"
20+00	15° 32' 55"	"
+50	11° 49' 02"	"
19+00	8° 05' 10"	49.96
18+50	4° 21' 18"	58.30'
58.36		
(see P9.58)	d = 4.47 73988	
17+91.64 = PCC. Rt.	∠ = 63°30' 20° 30' 27.5"	41.64'
	R = 383.90' L = 425.47'	
17+50	1° 57' 34"	50.00'
17+00	1° 18' 04"	50.00'
16+50	0° 38' 34"	48.83'
R = 2175.96'	∠ = 5° 00' 55" L = 190.47'	d = .78993795'
16+01.17 = BC. Rt.		22.94
15+78.23 = E.C.	84° 59" 05"	90.00
15+32.90	56° 05'	"
14+88.82	28° 02' 30"	90.00
℄ @ Ctr.	0° 00' = B.C.	
14+44.74 = BC. Rt.	∠ = 84° 07' 28"	R = 90' L = 132.25'

767.8

5-00-29

.79

6) 39 5 / 6
36
35

7899
50
394950

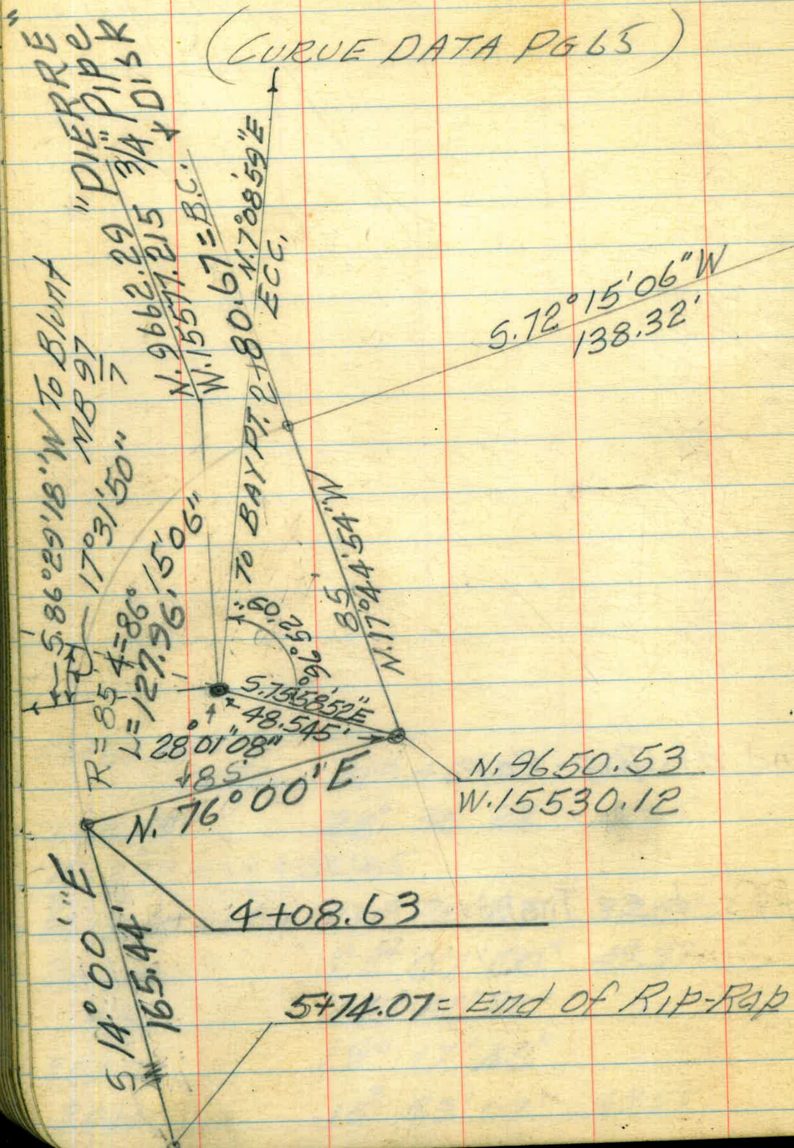
1.19
0° 59

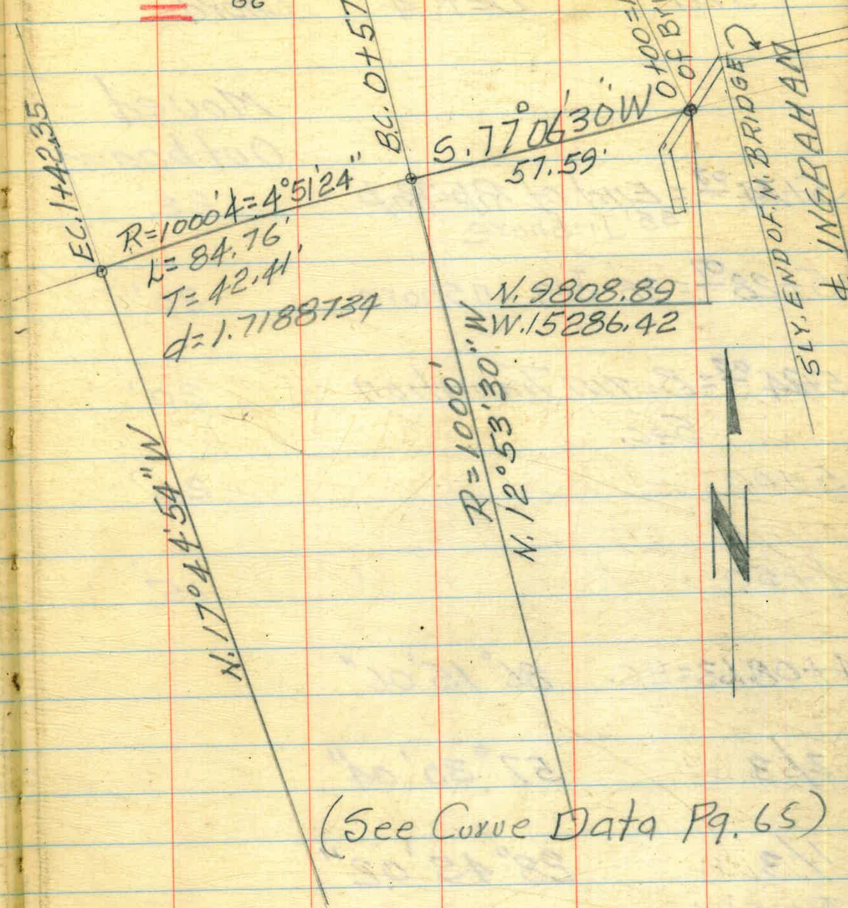
RIP-RAP ALIGNMENT S'LY. TIERRA

Sta.	Def ∠	Chord	
26+82.59 = E.C.	31° 45' 00"	41.46'	End of Rip-Rap
26+36.59	28° 38 22"	4.00'	
R = 382' d = 4.499685 Begin Transition 26+32.59 Section	28° 20' 23"	32.69'	offset. 38' Inshore
26+00	26° 07' 00"	49.97	
+50	22° 42' 22"	"	
25+00	19° 17' 45"	"	
24+50	15° 53' 07"	49.97	

RIP RAP ALIGNMENT N'WLY. TIERRA DEL FUEGO

ORIG. ALIGNMENT Ref. M.B. 135/66 Stamper





RIPRAP ALIGNMENT N'WLY TIERRA

Sta	Def 4	Chord	Moved Outboard
5+74.07 = End of Rip-Rap 38' Inshore			22'
5+28.07 = 38' Jog Inshore			20'
5+24.07 = Begin Transition Sec.			20'
5+00			20'
4+50			15'
4+08.63 = E.C.	86°15'06"		
2/3	57°30'04"		
1/3	28°45'02"		

℄ @ Ctr

2+80.67 = BC Lt. Δ = 81°41'02" R = 85' L = 121.18'

2+00

1+42.35 = E.C. 2°25'42"

1+00 1°12'51"

BC. 0+57.59; Δ = 4°51'24" R = 1080' L = 84.76'

RIP-RAP ALIGNMENT VENTURA POINT

2-09-61

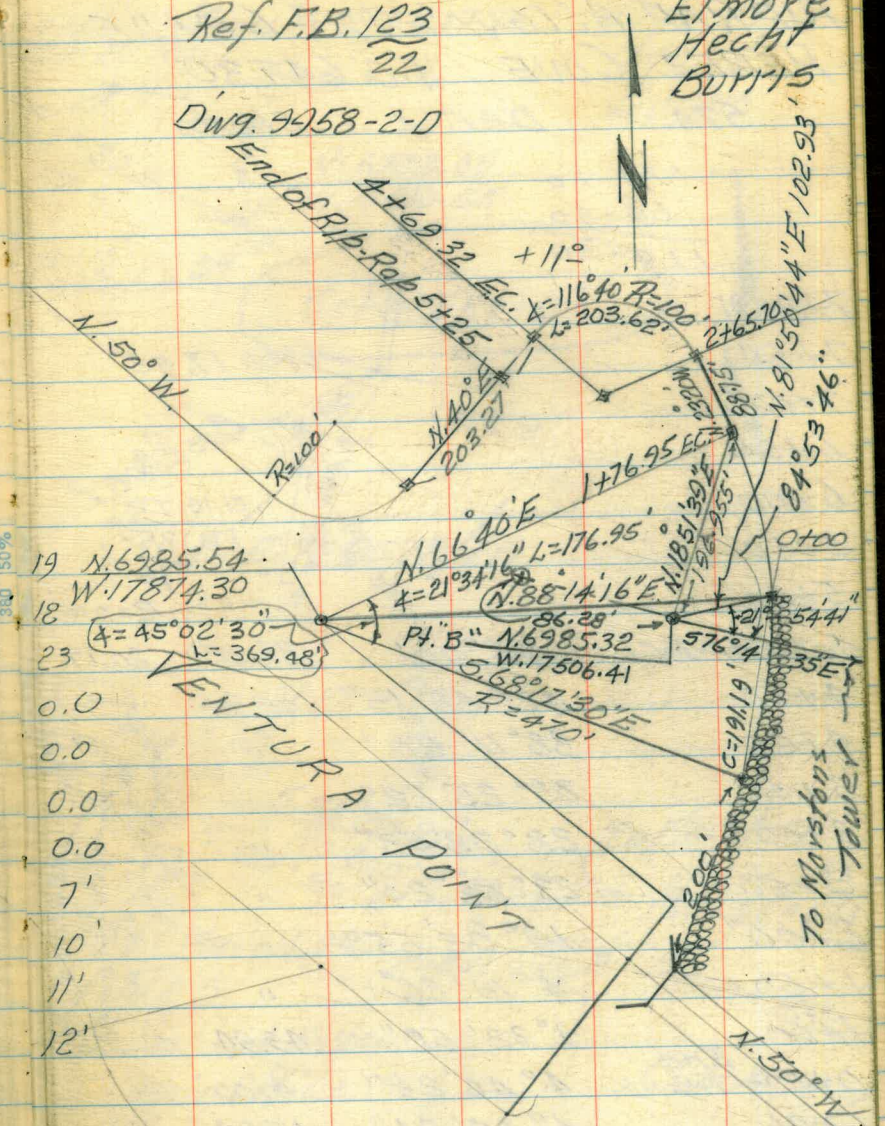
Ref. F.B. 123/22

Dwg. 9958-2-D

Stamper
Elmore
Hecht
Burris

STA	DEF ∠	CHORD	
B.M.		10.38	Stub @ 2+50
B.M.		13.30	P.K. NE Wing-Wall Ventura Bridge
5+25 = End of Rip-Rap		55.68'	out ~~14~~
4+69.32 E.C.	116° 40'	100'	out ~~28~~ 380 50%
5/6	97° 13' 20"	"	out ~~28~~
2/3	77° 46' 40"	"	out ~~17~~
1/2	58° 20'	"	out ~~18~~
1/3	38° 53' 20"	"	out ~~25~~
1/6	19° 26' 40"	100'	out ~~14~~
2+65.70 = B.C. ∠ = 116° 40' R = 100' ℄ @ Center			in 2'
2+21.32	P.O.T.		in 6'
1+76.95 = E.C.	10° 47'	26.95	in 6'
1+50	9° 08' 35"	49.98	in ~~10~~
1+00	6° 05' 43"	"	in 10'
0+50	3° 02' 51"	49.98	in ~~16~~ 6' 8'
0+00	0° 00'		in 8'

∠ = 21° 34' 16" R = 470' L = 176.95' d = 3.6571774

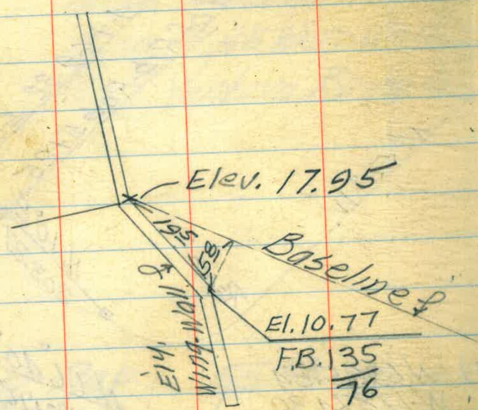


RIP RAP ALIGNMENT & GRADE
PEREZ COVE W.O. 64730

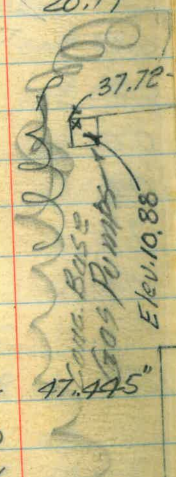
Ref. F.B. 126/75, 135/71 2-27-61

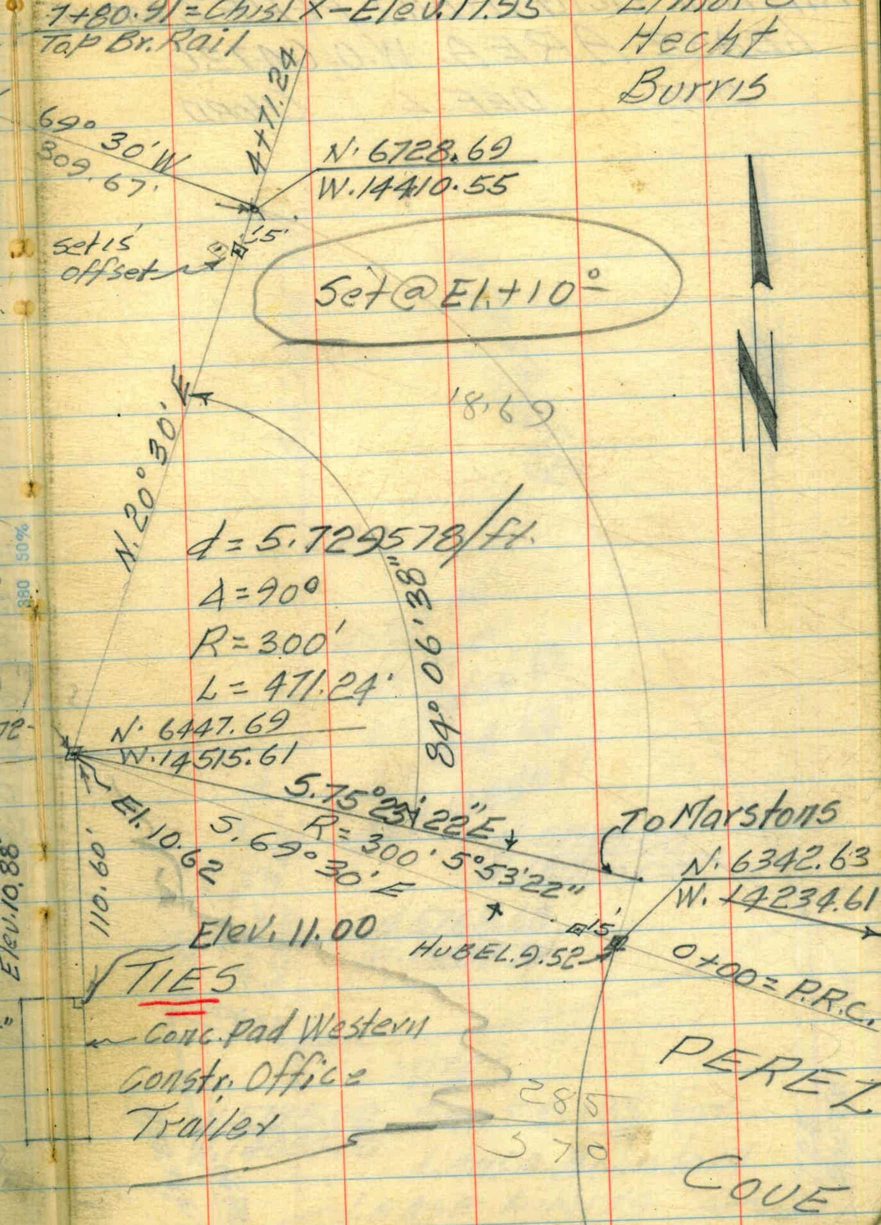
Stamper
Elmore
Hecht
Burris

179 60
69-30
110-30



STA.		DEF. ∠	CHORD	R=285
7+80.91				
7+50				
7+00				
6+50				
6+00				
5+50				
5+00				
4+71.24	= E.C.	45°00'	21.22	20.17'
4+50		42°58'19"	49.94	
4+00		38°11'50"	"	
3+50		33°25'22"	"	
3+00		28°38'53"	"	
2+50		23°52'24"	"	
2+00		19°05'55"	"	
1+50		14°19'26"	"	
1+00		9°32'58"	49.94	47.445"
0+50	= End Trans.	4°46'29"	4.00	
0+46		4°23'34"	45.96	
0+00	= Trans. Sec.			

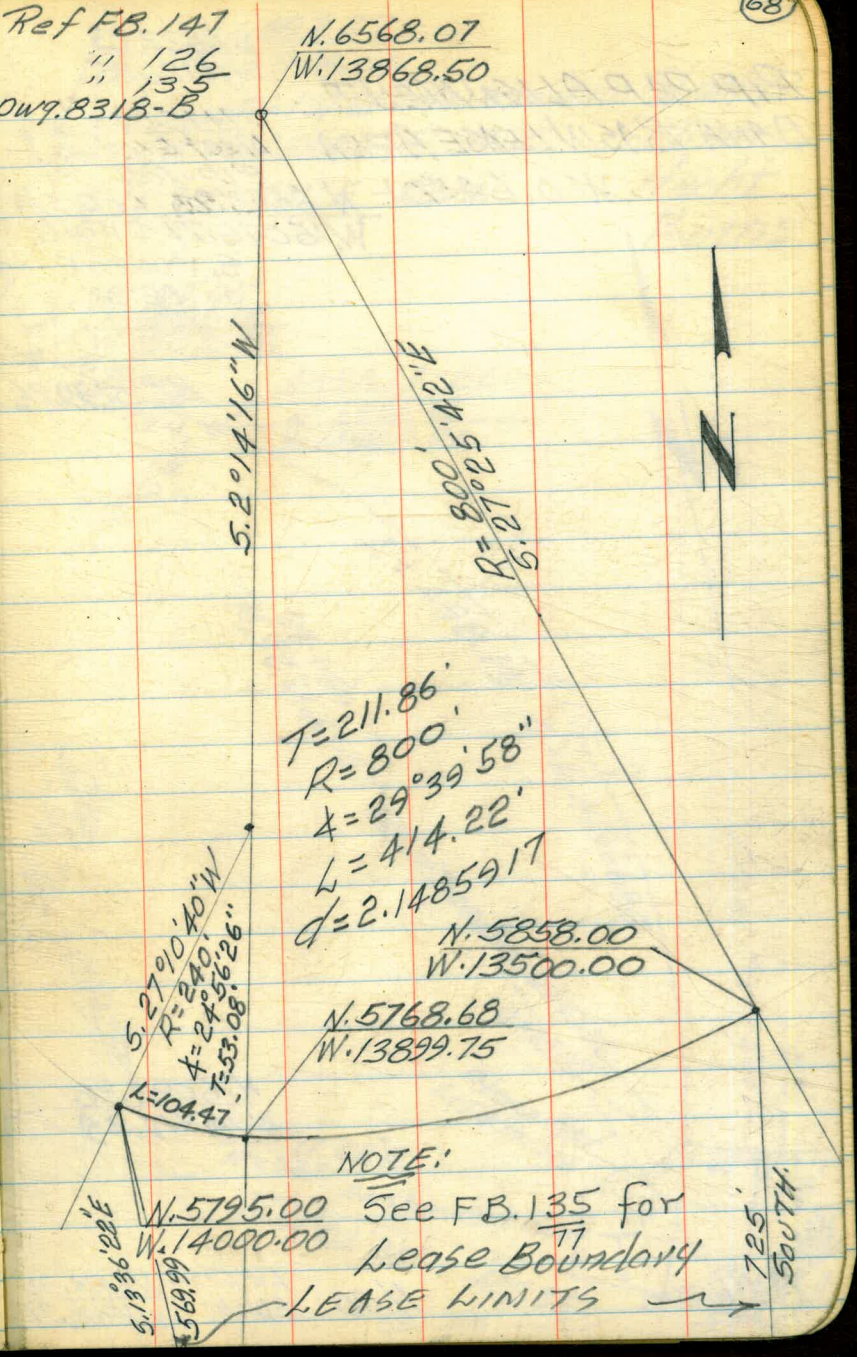




RIP RAP ALIGNMENT PEREZ COVE LEASE AREA. W.O. 64730

STA.	DEF ∠	CHORD

Ref FB. 147
" 126
" 135
Dwg. 8318-B



RIP RAP ALIGNMENT
DANA BASIN LEASE AREA
W.O. 64501

N 6522.23
W 15126.85

748.04 = Meet Existing Rip-Rap.

N. 6473.93 L+Disk
W. 15076.71 ℄ Walk
S. 1°04'20" E
82.82'

B.C. 5+99.26

N. 6497.27
W. 14998.04
R = 131.21' - d = 13,100'70
Δ = 64°58'04" L = 148.78'
N. 73°28'31" E - 82.06'

Stamper
Elmore
Hecht
Burris

18°09'06"
N. 6391.12
W. 15075.16
N. 54° W
101.13'

4+98.13 - E.C.
N. 6331.32
W 14992.86

52°55'40"

L = 498.13', D = 11.499685

+10°

N. 19°13'28" E 694.85'

End of Transition 0+27.35
0+25.35
0+00 = Set L+Tk. in Curb

Transition Sec. +0

N. 36° E
R = 382'
Δ = 74°42'52"

N. 6022.28
W. 15217.39

S. 69°17'08" E
R = 382'

Existing Boat Ramp

40'
28'

N. 6°02'30" W 422.26'

N. 5817.83
W. 14847.32
L+T Disk

40.26'

Set P.K

B.M. 11.00 L+Disk N 6473.93
℄ Walk W 15076.71

ALIGNMENT RIP-RAP DANA BASIN LEASE AREA. W.O. 64501

STA	DEF ∠	CHORD		GRADE		
Meet 7+48.04	32° 29' 02"	23.01		10.00		
7+25	27° 27' 13"	24.96				
7+00	21° 59' 43"	"				
6+75	16° 32' 12"	"				
6+50	11° 04' 42"	24.96				
6+25 = Bc. Rt. 5+99.26 P.O.T 5+50	5° 37' 12"	25.70				
E.C. 4+98.13	37° 21' 26"	48.10				
4+50	33° 44' 51"	49.96				
4+00	29° 59' 52"	"				
3+50	26° 14' 53"	"				
3+00	22° 29' 54"	"				
2+50	18° 44' 55"	"				
2+00	14° 59' 56"	"				
1+50	11° 14' 57"	"				
1+00	7° 29' 58"	49.96	✓			
0+50	3° 44' 59"	22.65				
0+27.35	2° 03' 04"	2.00	= End of Transition Trans. 40' Ely.	10.00		
0+25.35 =	1° 54' 04"	25.35		9.00	9.98	CO 98
0+00	= 0+00 - Ahead 4° 07' 19"	54.95	= Begin Transition Sec.	9.00	9.40	CO 4

Tie From L.S.T. (See Sketch)

6-14-61

BENCH LEVELS ELY CABRILLO ISLAND

Sta	+	H.I	-	Elev
B.M.				16.45
	4.60	21.05		
TP			3.70	17.35
	2.18	19.53		
T.B.M			6.62	12.91
	5.69	18.60		
T.B.M.			5.14	13.46
	5.48	18.94		
T.B.M.			5.88	13.06
	6.73	19.79		
T.B.M.			6.07	13.72

MON. N. Bridge

MON. "MUCK"

MON. "HECHT"

MON. "LLOYD"

MON. "TOM"

6-14-61

CROSS SECTIONS OF E'LY CABRILLO ISLAND. 0+00 = W9250. W/O #64501

STA N96+00 0+00 = W9250

STA	+	H.I.	−	ELEV	
T.B.M				13.72	MON. "TOM" N9602, W9252
	4.77	18.49			
0+00			4.8	13.7	
E 61 (TP)			1.26	17.23	
	4.73	21.96			
E 76			3.0	19.0	
E 155			3.8	18.2	
E 177			0.7	21.3	
TP			0.48	21.48	
	4.40	25.88			
E 242			3.5	22.4	
E 245			4.6	21.3	
E 350			6.3	19.6	
E 477			7.5	18.4	
E 482			9.6	16.3	
E 565			13.5	12.4	TOP OF SHOULDER
E 595			13.2	12.7	

6-14-61

STA. N 100+00 0+00 = W 9250

STA	+	H.I.	−	ELEV.	
T.B.M				13.72	MON. "TOM"
	12.05	25.77			
0+00			5.0	20.8	
W 110			6.1	19.7	
W 215			7.4	18.4	
W 345			8.3	17.5	
E 40			3.4	22.4	
E 150			6.7	19.1	
E 335			7.1	18.7	
E 470			7.9	17.9	
E 628			8.4	17.4	
E 636			9.5	16.3	
E 660			12.0	13.8	TOP OF SHOULDER
E 686			16.1	9.7	

6-14-61

STA	N. 104+00	0+00 = W 9250		
STA	+ H.I.	-	ELEV	
T.B.M.			1372	MON TOM
	12.05 25.77			
T.P		7.62	18.15	B/L N 104 W
	4.80 22.95			
0+00		5.0	17.9	
W 96		5.0	17.9	
W 188		4.8	18.1	
W 242		4.5	18.4	
W 300		2.9	20.0	
W 360		4.3	18.6	
W 455		4.5	18.4	
E 92		5.2	17.7	
E 178		5.2	17.7	
E 262		5.5	17.4	
E 358		5.3	17.6	
E 453		5.3	17.6	
E 464		6.7	16.2	
E 482		7.7	15.2	TOP OF SHOULDER
E 510		13.7	9.2	

380 50%

8-01-61

SOUNDINGS THROUGH MID-SPAN OF N'LY. INGRAHAM ST. BRIDGE FOR CHECK ON PROJ DEPTH

0+00 = E'LY SIDE OF BRIDGE

SEC. ON S'LY. SIDE OF SPAN

DIST	SOUND ELEV.	DIST	SOUND ELEV.
0+00 = 90' = E'LY. SIDE OF BRIDGE			
0+00	16.2		
5.5	11.4		
	11.5		
	12.5		
	12.9		
50	15.0		
	17.9		
2+45	20.2		
≈	20.8		
	20.3		
1+00	20.5		

SEC. 10' N'LY.

DIST	SOUND	ELEV	DIST	SOUND	ELEV
0+00 = 90'					
0+00	17.6				
55	14.5				
2+50	15.0				
≈	14.2				
	15.0				
50	14.1				
	14.0				
	16.0				
	19.1				
	20.8				
1+00	20.5				

8-01-61

SEC. 20' NLX.

0+00 = 100'

Dist	Sound	Elev	Dist	Sound	Elev
0+00	16.0				
55	15.7				
	15.3				
	14.8				
	15.3				
50	14.2				
2:50	13.2				
	17.0				
	19.8				
	20.1				
1+00	20.1				

SEC. 30' NLX.

0+00 = 90'

Dist	Sound	Elev	Dist	Sound	Elev
0+00	16.6				
55	16.5				
	16.0				
	16.2				
	15.8				
50	13.9				
2:55	14.2				
	19.1				
	20.3				
	20.1				
1+00	19.8				

8-01-61

SEC. 40' NLY.

0+00 = 90'

Dist	Sound	Elev	Dist	Sound	Elev
0+00	16.1				
5.4	16.0				
	15.0				
	15.1				
	15.8				
50	15.9				
3:00	13.0				
	15.9				
	19.0				
	19.5				
1+00	19.5				

SEC. 50' NLY.

0+00 = 100'

Dist	Sound	Elev	Dist	Sound	Elev
0+00	15.5				
5.4	13.6				
	13.2				
	14.0				
	13.8				
50	13.0				
3:00	11.9				
	16.5				
	18.5				
	19.0				
1+00	18.8				

8-01-4

SEC. 60 N/L X = N. SIDE OF SPAN

0+00 = 100'

DIST	SOUND	ELEV
0+00	17.5	
54	14.0	
	11.6	
	8.5	
	8.8	
50	9.5	
3:05	10.2	
	13.3	
	16.5	
	18.5	
1+00	18.5	

STA 26+00 0+00 = 10' OUT BOARD

DIST	SOUND	ELEV
0+00	5/16/62	
3:05	0.2	+1.4
1.6	1.2	+0.4
	2.4	0.8
0+50	2.6	1.0
	2.9	1.3
	2.9	1.3
	3.0	1.4
	3.1	1.5
1+00	3.0	1.4

DIST	SOUND	ELEV
	3.9	2.3
	7.1	5.5
	8.3	6.7
	9.9	8.3
1+50	10.5	8.9
	11.0	9.4
	11.3	9.7
	11.6	10.0
	11.9	10.3
2+00	12.0	
	12.0	
	12.0	
	12.1	
	12.1	
2+50	12.1	
0	8.4	
7 IN	11.6	
6 OUT	4.8	

5/16/62

X-SECT & SOUNDINGS OF SW TIERRA PRIOR TO REMEDIAL DREDGING. CONT FROM FB 155/77.

STA 26+36.52 0+00 = 10' OUTBOARD (P.O.C.)

DIST	SOUND	ELEV
0+00		
3:10	1.2	+0.4
	2.3	0.7
1.6	2.7	1.1
0+50	2.8	1.2
	2.8	1.2
	2.9	1.3
	3.1	1.5
	3.0	1.4
1+00	3.1	1.5
	3.1	1.5
	5.5	3.9
	7.7	6.1
	9.0	7.4
1+50	9.8	8.2
	10.5	8.9
	11.2	
	11.1	
	11.4	
2+00	11.7	

DIST	SOUND	ELEV
	11.8	
	12.0	
	12.0	
	12.0	
2+50	11.8	
0	6.2	
2 IN	10.7	
10 OUT	4.8	

5/16/62

EC END OF RIPRAP
STA 26+82.52 0+00=10' OUTBOARD

DIST	SOUND	ELEV	DIST	SOUND	ELEV
0+00				11.5	
			2+50	11.3	
3:15	0.8	+0.9			
(1.7)	1.3	+0.4			
	1.6	+0.1			
0+50	2.2	0.5			
	2.5	0.8			
	2.6	0.9			
	2.7	1.0			
	2.8	1.1			
1+00	2.7	1.0			
	3.0	1.3			
	3.1	1.4			
	5.4	3.7			
	8.2	6.5			
1+50	9.4	7.7	-0	-	
	10.3	8.6	10 IN	4.3	
	10.7	9.0	32 IN	6.8	
	11.1		44 IN	10.9	
	11.3				
2+00	11.3				
	11.2				
	11.4				
	11.5				

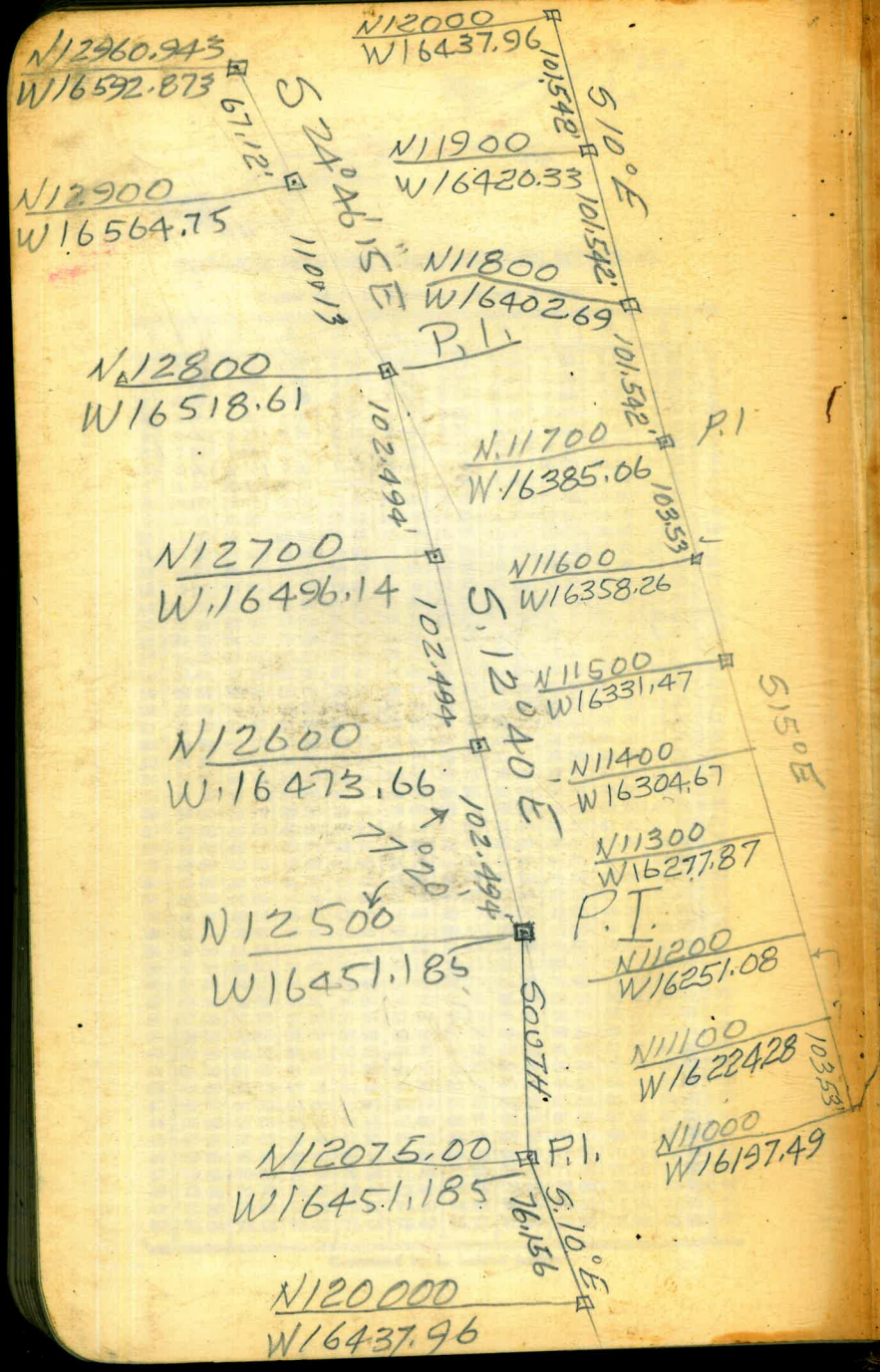
IMPROVED TABLES AND INFORMATION

HORIZONTAL STADIA CORRECTIONS

2°—00′	— 0.1	21°—00′	— 12.8	33°—00′	— 29.7
3°—00′	— 0.3	21°—30′	— 13.4	33°—15′	— 30.1
4°—00′	— 0.5	22°—00′	— 14.0	33°—30′	— 30.5
5°—00′	— 0.8	22°—30′	— 14.7	33°—45′	— 30.9
6°—00′	— 1.1	23°—00′	— 15.3	34°—00′	— 31.3
7°—00′	— 1.5	23°—30′	— 15.9	34°—15′	— 31.7
8°—00′	— 1.9	24°—00′	— 16.5	34°—30′	— 32.1
9°—00′	— 2.5	24°—30′	— 17.2	34°—45′	— 32.5
10°—00′	— 3.0	25°—00′	— 17.9	35°—00′	— 32.9
10°—30′	— 3.3	25°—30′	— 18.6	35°—15′	— 33.3
11°—00′	— 3.6	26°—00′	— 19.2	35°—30′	— 33.7
11°—30′	— 4.0	26°—30′	— 19.9	35°—45′	— 34.1
12°—00′	— 4.3	27°—00′	— 20.6	36°—00′	— 34.6
12°—30′	— 4.7	27°—30′	— 21.3	36°—15′	— 35.0
13°—00′	— 5.1	28°—00′	— 22.0	36°—30′	— 35.4
13°—30′	— 5.5	28°—30′	— 22.8	36°—45′	— 35.8
14°—00′	— 5.9	29°—00′	— 23.5	37°—00′	— 36.2
14°—30′	— 6.3	29°—30′	— 24.3	37°—15′	— 36.6
15°—00′	— 6.7	30°—00′	— 25.0	37°—30′	— 37.1
15°—30′	— 7.2	30°—15′	— 25.4	37°—45′	— 37.5
16°—00′	— 7.6	30°—30′	— 25.8	38°—00′	— 37.9
16°—30′	— 8.1	30°—45′	— 26.2	38°—15′	— 38.3
17°—00′	— 8.5	31°—00′	— 26.5	38°—30′	— 38.7
17°—30′	— 9.0	31°—15′	— 26.9	38°—45′	— 39.1
18°—00′	— 9.5	31°—30′	— 27.3	39°—00′	— 39.6
18°—30′	— 10.1	31°—45′	— 27.7	39°—15′	— 40.0
19°—00′	— 10.6	32°—00′	— 28.1	39°—30′	— 40.5
19°—30′	— 11.2	32°—15′	— 28.5		
20°—00′	— 11.7	32°—30′	— 28.9		
20°—30′	— 12.3	32°—45′	— 29.3		

Chains to Feet	
1	66
2	132
3	198
4	264
5	330
6	396
7	462
8	528
9	594
10	660

Feet to Chains	
100	1.515
200	3.030
300	4.545
400	6.060
500	7.575
600	9.090
700	10.606
800	12.121
900	13.636
1,000	15.151



~~32+45.43 = x~~

~~3 2 + 35 . 43~~

Tom =

Chain 32+36.09

Tom make it 32+35.43

1.76.60

17°12'

32+15

3 / 19 / 1420

11° / 4

11 / B.L.

AC 4-3341

Geo Moore

36-56'20"

N1.

73.17

N11067.84

W16169.97

NB97

25

73.31

N22°44'50"E

57

3 40

4 50

8'30