Plotted	Job No. [illegible]	Division No. 10	F. B. 2310 Pg. 5
Date	Survey of Beach Erosion		
Chkd. Checked	Survey by Van Deren	Notes Van	Date 7-31-58
Date	Map No.	Indexed C. Johnson	

7-31-58

3.0 on Datum Line

Time check Gage time = 9.28

P. D. S. T. = 10.34

Standard Time	Reading	P. D. S. T.
5.00	0.7	6:00
5.30	1.1	6:30
6.00	1.6	7:00
6.30	2.3	7:30
7.00	3.0	8:00
7.30	3.6	8:30
8.00	4.00	9:00
8.30	4.4	9:30
9.00	4.7	10:00
9.30	4.7	10:30
10:00	4.8	11:00
10.30	4.8	11:30
11.00	4.6	12:00
11.30	4.3	12:30
12.0	3.9	1:00
12.30	3.5	1:30
1.00	3.0	2:00
1.30	2.9	2:30
2.00	2.5	3:00

Microfilmed April '86

Inst. Sign. At On | Depth # Rec. Adj. | Time Hor. Ang. | Remarks

76F309S CE #247—3-57

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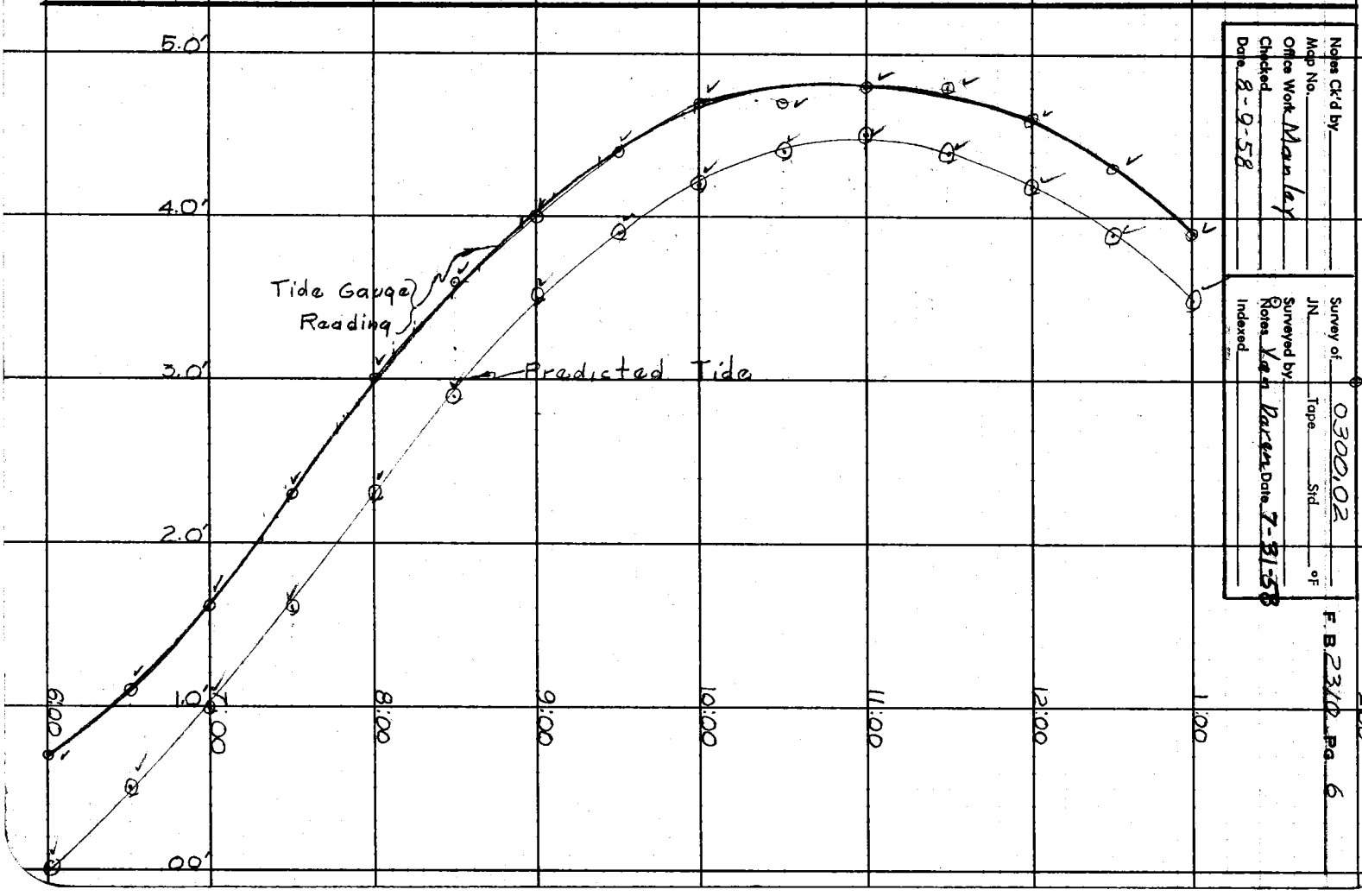

Notes Ck'd by
Map No.
Office Work Manley
Checked
Date 8-9-58

Survey of 0300.02
JN
Tape
Sid
°F
Surveyed by
Notes Van Parsen Date 7-31-58
Indexed

F. B. 2310 Pg. 6

76L298 307 8-53

5 80

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NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 40+00 Sight on 42+50 offset	
T.P.	7 14	23 96		16 82	CONT. FROM	Inshore
T.P.	10 95	32 45	246	21 50		42+50 S
B.M. 27-1	6 78	33 46	580	26 65 (68)	B.M. 27-1 (V-767) ELEV. 26.681 F.B. 2100-167 N.S.C.&G.S. BRASS DISC IN TOP STEP	
42+50			22	31 3	℄	
			53	28 2	5 FT RIGHT	
			65	27 0	31 " "	
			95	24 0	31 5 " "	
T.P.	3 49	20 35	16 60	16 86		
			31	17 2	70 FT. RIGHT	
			42	16 1	100 " "	
			53	15 0	145 " "	
			53	15 0	200 " "	
			59	14 4	275 " " TOP BRK	
			90	11 3	300 " " BOT "	
			83	12 0	390 " " TOP "	
			91	11 2	400 " "	
T.P.	0 9	6 8	144	5 9	435 " "	
			40	2 8	46°28' 479'	
			58	1 0	51°24' 529'	
			84	-1.6	56°28' 593'	

Cont. other side of Pg.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2310 Pg. 7
X-Sec. No. ____ Date ____ Date ____ Survey of Beck Erosion Sur.
Notes Chkd. ____ Checked ____ Survey by Dreier Notes G.E.D. Date 7-31-58
Date ____ Date ____ Map No. ____ Index [illegible] C. Johnson AUG 5 '58

F. B. 2310 Pg. 8 | 0300.02

Job No. ____ Division No. 10 Notes Red. ____ Plotted ____ Profile

Survey of Beach Erosion Sur. Date ____ Date ____ No. ____

Survey by Dreier Notes G.E.D. Notes Chkd. ____ Checked ____ X-Sec.

Index C. Johnson Date ____ Date ____ Date ____ No. ____

76L298 307 8-53

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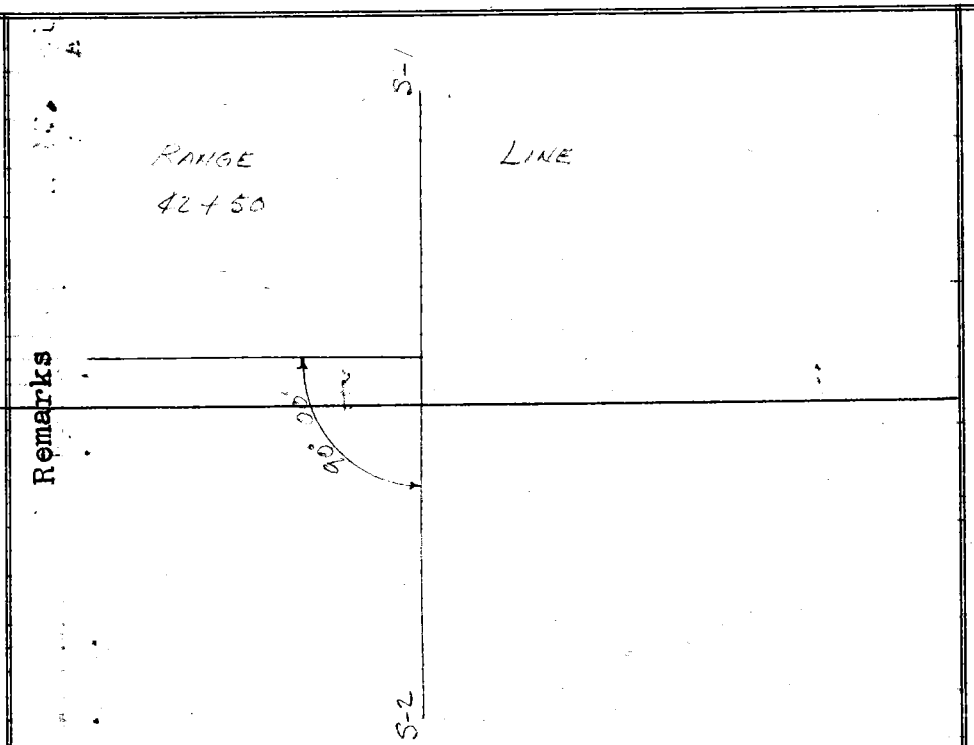
STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 40+00 Sighton 42+50 offset
		68'			
			10.5	-3.7	59°03' 633'
			13.1	-6.3	61°08' 670'
			15.5	-8.7	62°56' 705'
			17.3	-10.5	65°44' 771'

Profile	Notes Red.	Plotted	Job No. 0300.02	Division No. 10	F. B. 2310 Pg. 9
No.	Date	Date	Survey of [illegible] EROSION		
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.O.	Date 7-31-58
No.	Date	Date	Map No.	Indexed C. Johnson	



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	
42+50 S-2	1		7 20	90°00'	
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				

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76298 S & E #307—7-55

76298 S & E #307—7-55

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STATION		B. S.	H. I.	F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec. Adj.	Time	Hor. Ang.	Remarks	
42+50	S-2	21			90° 00		
		22			" "		
		23			" "		
		24			" "		
		25			" "		
		26			" "		
		27			" "		
		28			" "		
		29			" "		
		30			" "		
		31			" "		
		32			" "		
		33		7 21	" "		

F. B. 2310 Pg. 10

Job No. 03000 Division No. 10 Notes Red. Plotted

Survey of BEACH EROSION Date 7-31-58 Date

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked

Indexed C. Johnson Date Date Date

Profile No. X-Sec. No.

76298 S & E #307—7-55

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STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks	Boat	Zero	Tide	Total
		1	28.3	26.8	7:20	62° 40'	1935'	+1.0	-0.3	-2.2	= -1.5
		2	28.2	27.0		62° 05'	1887'	"	+0.0	-2.2	= -1.2
		3	—			61° 25'		"	+0.0	-2.2	= -1.2
		4	27.4	26.2		60° 21'	1757'	"	"	"	= "
		5	27.2	26.0		59° 43'	1712'	"	"	"	= "
		6	26.8	25.6		58° 51'	1655'	"	"	"	= "
		7	26.8	25.6		58° 16'	1617'	"	"	"	= "
		8	26.4	25.2		57° 34'	1574'	"	"	"	= "
		9	26.1	24.9		56° 41'	1521'	"	"	"	= "
		10	26.3	24.8		56° 13'	1495'	"	"	"	= "
		11	26.2	25.0		55° 35'	1460'	"	"	"	= "
		12	26.0	24.8		54° 57'	1426'	"	"	"	= "
		13	25.6	24.4		54° 13'	1387'	"	"	"	= "
		14	25.1	23.7		53° 12'	1337'	"	-0.2	"	= -1.4
		15	24.6	23.4		52° 22'	1297'	"	0.0	"	= -1.2
		16	24.4	23.2		51° 46'	1269'	"	0.0	"	= "
		17	24.1	22.2		51° 00'	1235'	"	-0.7	"	= -1.9
		18	23.5	21.2		49° 47'	1183'	"	-1.1	"	= -2.3
		19	22.8	21.5		48° 46'	1141' 52+50	"	-0.1	"	= -1.3
		20	22.6	21.0		47° 46'	1102'	"	-0.4	"	= -1.6

Cut in Line 42+50

Cut in Line 42+50

90°

90°

215.62 offset line

S-1

control line

52+50

S-1

Profile Notes Red. ____ Plotted ____ Job No. 3 Sec 02 Division No. 10 F. B. 2310 Pg. 11

No. ____ Date ____ Date ____ Survey of Beach Erosion Study

X-Sec. Notes Chkd. ____ Checked ____ Survey by Vanderen Notes R.T. Date 7-31-58

No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

76298 S & E #307—7-55

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F. B. 2310 Pg. 12 Job No. 8300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 7-31-58 Date No. Profile
Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

STATION Inst. At	Sight On	B. S. #	H. I. Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.		Boat Remarks	Zero	Tide	Total
		21	21.6	20.4		46° 27'	1052'	+1.0	0.0'	-2.2	= -1.2
		22	19.3	18.1		45° 06'	1004'	+1.0	0.0'	-2.2	= -1.2
		23	18.9	16.5		44° 25'	980'	+1.0	-0.3'	-2.2	= -1.5
		24	17.1	15.9		43° 42'	956'	"	0.0'	-2.2	= -1.2
		25	16.1	14.8		42° 58'	931'	"	-0.1'	-2.2	= -1.3
		26	15.8	13.7		42° 08'	905'	"	-0.9'	"	= -2.1
		27	15.3	13.6		41° 15'	877'	"	-0.5'	"	= -1.7
		28	14.1	11.4		40° 15'	847'	"	-1.5'	"	= -2.7
		29	13.1	11.9		39° 16'	818'	"	0.0'	"	= -1.2
52+50	S-1	30	12.4	11.2		38° 03'	783'	"	0.0'	"	= -1.2
		31	11.3	8.8		37° 20'	763'	"	-1.3'	"	= -2.5
		32	10.4	9.1		36° 01'	727'	"	-0.1'	"	= -1.3
		33	9.3	7.0	7:28	34° 35'	689'	"	-1.1'	"	= -2.3

Cut in Line 42+50

76L298 307 8-53

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Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 40+00	Sight on 37+50
T. P.	349	20 35		16 86	CONT. FROM MIDDLE PAGE, 42+50	Inshore 37+50 S
T. P.	484	19 74	5 45	14 90		
37+50			5 0	14 7	℄ OF 1958 CONTROL LINE	
			3 1	16 6	35 FT LEFT	
			0 0	19 7	85 " "	
			5 0	14 7	80 FT RIGHT	TOP BRK
			7 8	11 9	100 " "	BOT BRK
			8 9	10 8	125	
			7 5	12.2	185	TOP BRK
			9 1	10 6	200	
T. P	20	7 5	14 2	5 5	240	
			4 8	+2 7	48° 24' 498'	
			6 8	+0 7	52° 45' 545'	
			8 9	-1.4	56° 23' 592'	
			10 9	-3 4	59° 44' 645'	
			14 2	-6 7	62° 35' 698'	
			17 6	-10.1	65° 29' 764'	

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 13
X-Sec. No. ____ Date ____ Date ____ Survey of Beach Erosion Sur
Notes Chkd. ____ Checked ____ Survey by Dreier Notes E.L. Date 7-31-58
Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

76296 S & E #307—7-55

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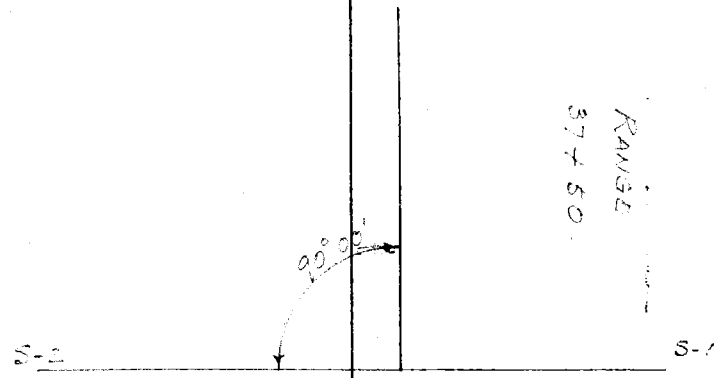
STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At / Sight On	#	Depth Rec. / Adj.	Time	Hor. Ang.		Remarks



Profile Notes Red. ____ Plotted ____ Job No. ____ Division No. ____ F. B. ____ Pg. 15

No. ____ Date ____ Date ____ Survey of ____ Notes ____ Date ____

X-Sec. Notes Chkd. ____ Checked ____ Survey by ____

No. ____ Date ____ Date ____ Map No. ____ Index C. Johnson

F. B. 2310 Pg. 16 | Job No. 030002 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 7-31-58 Date No.

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.

Index C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	Remarks

76298 S & E #307—7-58

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STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	Adj.	F. S. Time	ELEV. Hor. Ang.		Boat Zero Tide Total Remarks
		1	[illegible]	27.2	7:47	64° 47'	2124'	+1.0 -1.8 -2.8 = -3.6
		2	31.2	27.4		64° 10'	2066'	" -2.0 -2.8 = -3.8
		3	30.6	27.0		63° 33'	2010'	" -1.8 -2.8 = -3.6
		4	30.7	26.9		62° 43'	1939'	" -2.0 " = -3.8
		5	30.5	27.0		62° 04'	1886'	" -1.7 " = -3.5
		6	29.9	26.5		61° 24'	1834'	" -1.6 " = -3.4
		7	29.8	26.4		60° 20'	1756'	" -1.1 " = -3.4
47+50	S-1	8	29.7	26.3		59° 32'	1700'	" -1.6 " = -3.4
		9	29.6	26.1		58° 49'	1652'	" -1.7 " = -3.5
		10	29.5	25.8		57° 56'	1596'	" -1.9 " = -3.7
		11	28.8	25.1		57° 12'	1552'	" -1.9 " = -3.7
		12	28.7	25.2		56° 35'	1516'	" -1.7 " = -3.5
		13	28.8	25.2		55° 30'	1455'	" -1.8 " = -3.6
		14	26.6	25.0		54° 27'	1399'	" -1.8 " = -3.6
		15	25.5	24.2		53° 17'	1341'	" -2.0 " = -3.8
		16	27.1	23.3		51° 40'	1265'	" -2.0 " = -3.8
		17	26.8	22.7		50° 42'	1222'	" -2.3 " = -4.1
		18	26.1	22.0		49° 33'	1173'	" -2.3 " = -4.1
		19	25.6	21.6		48° 27'	1128' 47+50	-2.2 " = -4.0
		20	24.3	20.5		47° 10'	1079'	" -2.0 " = -3.8

Cut in Line 37+50

Cut in Line 37+50

90°

215.6 ± off set line S-1

90°

1128' Control line

Profile Notes Red ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 17

No. ____ Date ____ Date ____ Survey of Beach Erosion Study

X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes [illegible] Date 7-31-58

No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

76298 S & E #307—7-55

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STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.		Boat	Zero	Tide
								Remarks		
		21	23.7	19.9		46° 24	1050'	+1.0	-2.0	-2.8 = -3.8
		22	23.7	19.4		45° 38'	1022'	"	-2.0	-2.8 = -3.8
		23	21.7	17.6		44° 43'	990'	"	-2.3	-2.8 = -4.1
		24	20.8	16.8		43° 45'	957'	"	-2.2	-2.8 = -4.0
		25	19.0	14.8		42° 35'	919'	"	-2.4	-2.8 = -4.2
		26	17.6	13.8		41° 42'	891'	"	-2.0	-2.8 = -3.8
		27	15.7	12.5		40° 28'	853'	"	-1.4	-2.8 = -3.2
47+50		28	15.3	11.5		39° 11'	815'	"	-2.0	-2.8 = -3.8
	5-1	29	14.5	10.4		37° 50'	777'	"	-2.3	-2.8 = -4.1
		30	13.7	9.6		36° 45'	747'	"	-2.3	-2.8 = -4.1
		31	11.7	7.9		35° 30'	713'	"	-2.0	-2.8 = -3.8
		32	—		7:55	34° 18		"	-2.0	-2.8 = -3.8

Cut in Line 37+50

Boat = +1.0
zero =
Tide =

F. B. 2310 Pg. 18 Job No. 6300.02 Division No. 10 Notes Red. Plotted No. Profile
Survey of Beach Erosion Study Date 7-31-58 Date X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked No.
Indexed [illegible] Date Date Date

76L298 S & E #307 9-54

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Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 30+00	Sight on 32+50
T.P.	4 84	1974		1490	CONT. FROM LINE 2, 37+50	32+50
T.P.	3 38	19 [illegible]	365	1609	T.P. 30+00	Inshore
			37	158	℄ 1958 CONTROL LINE (215.62 OFFSET)	
			10	185	35 FT LEFT, EDISON CO. FENCE	
			50	145	30 FT RIGHT	
			48	14[illegible]	95 " " TOP BRK	
			55	140	100 " "	
			76	119	110 " " BOT BRK	
			82	113	140 " "	
			75	120	195 " " TOP BRK	
			79	11.6	200 " "	
T.P.	0 6	66	135	6.0	250 " "	
			36	3 0	49 °56 513'	
			63	-0 2	55 °04 574'	
			57	-2 1	58 °12 620'	
			114	-4 8	60 °51 664'	
			150	-5 4	63 °41 722'	
			[illegible]	-10 5	66 °02 779'	

Profile Notes Red. ____ Plotted ____ Job No. ____ Division No. 0300.02 10 F. B. 2310 Pg. 19
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd. ____ Checked ____ Survey by Dreier Notes Lamb Date 7-31-58
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

Profile No.	Notes Red.	Plotted	Job No. 030008	Division No. 10	F. B. 23[illegible] Pg. 21
	Date	Date	Survey of BEACH EROSION		
X-Sec. No.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.O.	Date 7-31-58
	Date	Date	Map No.	Indexed C. JOHNSON	

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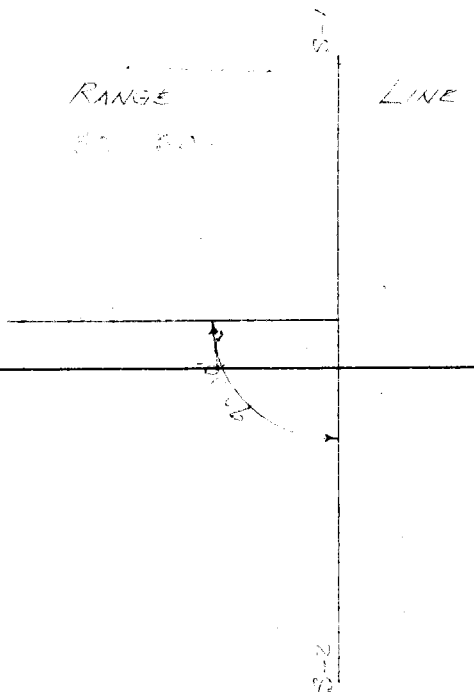
STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	



76298 S & E #307—7-55

F. B. 2310 Pg. 22 | Job No. 030002 Division No. 10 | Notes Red. | Plotted | Profile

Survey of BEACH EROSION | Date 7-31-58 | Date | No.

Survey by VAN DEREN Notes T. O. | Notes Chkd. | Checked | X-Sec.

Index [redacted] Date | Date | Date | No.

Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.	Remarks

STATION	B. S.	H. I.	F. S.	ELEV.

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76298 S & E #307—7-55

76298 S & E #307—7-55

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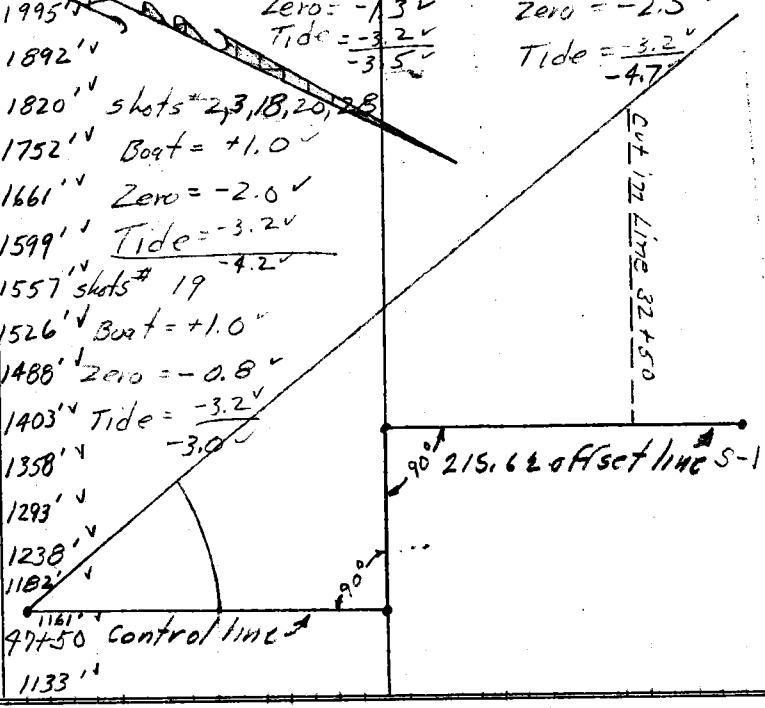
STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.		Remarks Boat	Zero	Tide	Total
		1	31.2	27.7	8:07	56° 21'	2253'				
		2	31.7	27.5		55° 19'	2168'	Cut in Line 32+50			
		3	31.3	27.1		54° 26'	2099'	shots # 1			shots - all others
		4	31.3	26.6		53° 46'	2048'	Boat = +1.0			Boat = +1.0
		5	31.2	26.5		53° 04'	1995'	Zero = -1.3			Zero = -2.5
		6	30.7	26.0		51° 35'	1892'	Tide = -3.2 / -3.5			Tide = -3.2 / -4.7
		7	30.8	26.1		50° 30'	1820'	shots # 2, 3, 18, 20, 28			
47+50	S-1	8	30.8	26.1		49° 26'	1752'	Boat = +1.0			
		9	30.2	25.5		47° 54'	1661'	Zero = -2.0			
		10	29.7	25.0		46° 50'	1599'	Tide = -3.2 / -4.2			
		11	29.8	25.1		46° 04'	1557'	shots # 19			
		12	29.7	25.0		45° 29'	1526'	Boat = +1.0			
		13	29.2	24.5		44° 46'	1488'	Zero = -0.8			
		14	29.2	24.5		43° 04'	1403'	Tide = -3.2 / -3.0			
		15	28.7	24.0		42° 08'	1358'				
		16	28.3	23.6		40° 45'	1293'				
		17	27.8	23.1		39° 32'	1238'				
		18	26.1	21.9		38° 15'	1182'				
		19	25.6	22.6		37° 44'	1161' 47+50	Control line			
		20	25.9	21.7		37° 03'	1133'				



Profile Notes Red. Plotted Job No. 2300.02 Division No. 10 F. B. 2310 Pg. 23
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 7-31-58
No. Date Date Map No. Indexed C. Johnson Date

76298 S & E #307—7-55

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STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.		Remarks
		21	25.4	20.7		36° 07'	1095'	
		22	24.9	20.2		35° 27'	1068'	Cut in Line 32+50
		23	24.2	19.5		34° 28'	1029'	
		24	23.1	18.4		33° 24'	989'	Boat = +1.0
		25	21.2	16.5		32° 36'	960'	Zero =
		26	19.8	15.1		31° 31'	920'	Tide =
		27	17.6	12.9		30° 39'	890'	
		28	17.1	12.9		29° 39'	851'	
47+50	S-1	29	16.5	11.8		28° 34'	816'	-4.7
		30	15.7	11.0		27° 53'	794'	
		31	14.3	9.6		26° 47'	758'	
		32	13.1	8.4		25° 38'	720'	
		33	10.3	5.6	8:15	24° 31'	684'	

F. B. 2310 Pg. 24 Job No. 0300.02 Division No. 10 Notes Red. Plotted Date 2-31-58 Date No. Profile
Survey of Beach Erosion Study Date 2-31-58 Date No. X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked
Index C. Johnson Date Date Date No.

76L298 S & E #307 9-54

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STATION	B. S.	H. I.	F. S.	ELEV.	Instr @ 30+00	Sight on 27+50
T.P	3 38	19 47		16 09	CONT. FROM LINE 2, 32+50	27+50 S
T.P.	4 24	21 62	2 09	17 38	T.P. 25+00	Inshore
27+50			3 7	17 9	℄ 1958 CONTROL	
			1 8	19 8	30 FT LEFT, EDISON CO.	
			6 0	15 6	50 FT RIGHT	
			8 8	12 8	100 " "	
			10 9	10 7	130 " " BOT. BRK	
			10 0	11 6	200 " "	
			9 7	11 9	225 " " TOP BRK	
			10 6	11 0	240 " " TOP "	
T.P.	1 6	8 0	15 2	6 4	270 " "	
			5 2	2 8	51° 29' 530'	
			6 5	1.2	51° 50' 571'	
			8 8	-0 8	55° 39' 582'	
			10 7	-2 7	60° 26' 657'	
			13 [illegible]	-5 8	63° 36' 720'	
			17 [illegible]	-9.6	65° 03' 756'	
			18 [illegible]	-10.0	66° 05' 780'	

Profile Notes Red. ____ Plotted ____ Job No. 030002 Division No. 10 F. B. 2310 Pg. 25
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd ____ Checked ____ Survey by Orsier Notes Landu Date 7-31-58
No. ____ Date ____ Date ____ Map No. ____ Inderfet C. Johnson Date ____

Profile No.	Notes Red.	Plotted	Job No. 03C002	Division No. 10	F. B. 2310 Pg. 27
	Date	Date	Survey of BEACH EROSION		
X-Sec. No.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes J.O.	Date 7-31-58
	Date	Date	Map No.	Indexed	Date

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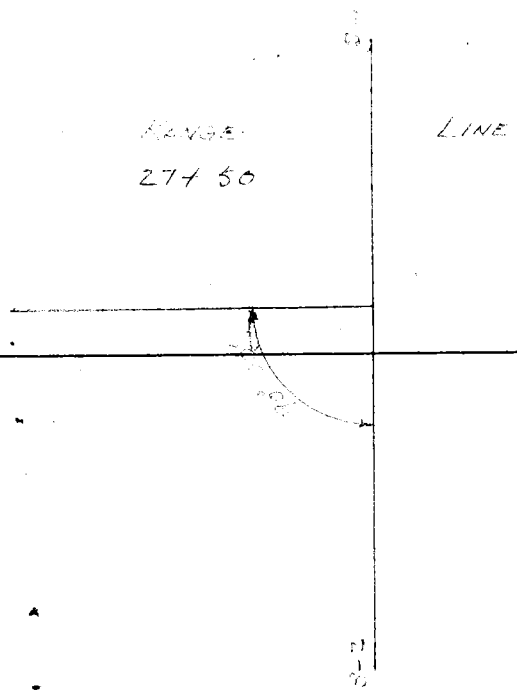
STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	



76298 S & E #307—7-55

F. B. 2310 Pg. 28 Job No. 030002 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 7-31-58 Date No.

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.

Indexed ~~L. O. Johnson~~ Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec. Adj.	Time	Hor. Ang.	Remarks

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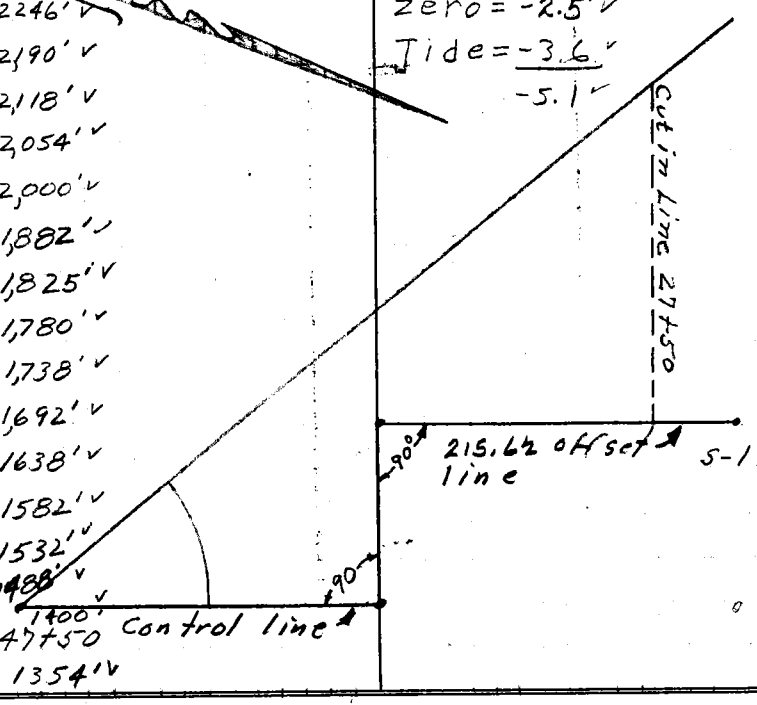
STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
47+50	S-1	1	33.6	28.5	8:29	52° 00'	2560'
		2	33.6	28.5		51° 22'	2502' Cut in Line 27+50
		3	33.4	28.3		50° 22'	2414'
		4	33.2	28.1		49° 21'	2330'
		5	32.7	27.6		48° 19'	2246'
		6	32.4	27.3		47° 35'	2190'
		7	32.2	27.1		46° 38'	2118'
		8	31.8	26.7		45° 45'	2054'
		9	31.4	26.3		45° 00'	2,000'
		10	—			43° 16'	1,882'
		11	30.6	25.5		42° 23'	1,825'
		12	30.5	25.4		41° 41'	1,780'
		13	30.5	25.4		41° 00'	1,738'
		14	30.4	25.3		40° 14'	1,692'
		15	30.3	25.2		39° 20'	1638'
		16	29.6	24.5		38° 20'	1582'
		17	29.4	24.3		37° 27'	1532'
		18	29.2	24.1		36° 38'	1488'
		19	29.2	24.1		35° 00'	47+50
		20	28.4	23.3		34° 05'	1354'



Boat = +1.0'
zero = -2.5'
Tide = -3.6'
-5.1'

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 29
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Vanderer Notes F.T. Date 7-31-58
No. Date Date Map No. Index C. Johnson

76298 S & E #307—7-55

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STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.		Remarks
		21	28.3	23.2		33° 32'	1326'	
		22	27.8	22.7		32° 47'	1288'	Cut in Line 27+50
		23	27.3	22.2		31° 54'	1244'	
		24	27.1	22.0		31° 02'	1204'	Boat = +1.0
		25	26.7	21.6		30° 24'	1174'	Zero = -2.5'
		26	26.4	21.3		29° 34'	1134'	Tide = -3.6
		27	25.8	20.7		28° 53'	1104'	-5.1
47+50		28	25.3	20.2		28° 09'	1070'	
	5-1	29	24.3	19.2		27° 31'	1042'	
		30	23.6	18.5		26° 42'	1006'	
		31	23.0	17.9		26° 09'	982'	
		32	21.2	16.1		25° 25'	950'	
		33	20.2	15.1		24° 32'	912'	
		34	18.4	13.3		23° 48'	882'	
		35	17.3	12.2		22° 56'	846'	
		36	16.7	11.6		22° 19'	820'	
		37	15.3	10.2		21° 30'	788'	
		38	14.3	9.2		20° 50'	762'	
		39	—			20° 07'	732'	
		40	—		8:39	19° 27'	706'	

F. B. 2310 Pg. 30 Job No. 0300.03 Division No. 10 Notes Red. Plotted No. Profile
Survey of Beach Erosion Study Date 7-31-58 Date X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked No.
Indexed Date Date

76L298 S & E #307 9-54

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STATION	B. S.	H. I.	F. S.	ELEV.	Instr ℄ [illegible] Smpt on 22+50		
T.P	4 24	2162		1738	CONT. FROM LINE 2, 27+50		22+50
T.P.	477	2509	130	2032			Inshore
22+50			45	208	℄ 1958 CONTROL LINE		
			38	213	26 FT. LEFT ON SAND AT BASE OF ROCK FILL		
			04	247	35 " " ON ROCK FILL		
			05	246	43 " " BASE OF EDISON CO. WALL		
			02	159	100 FT RIGHT		
			08	143	150 " "		
			24	127	175 " "	TOP	BRK
			40	111	190 " "	BOT	BRK
			140	111	200 " "		
			127	124	260 " "	TOP	BRK
			138	113	270 " "	TOP	"
~~T.P.~~							
T.P.	0.9	80	180	71	295 " "	T.P.	
			55	25	52° 06'	561'	
			56	1 2	58° 07'	618'	
			96	-16	60° 58'	667'	
			[illegible]	-36	63° 20'	714'	
			148	-68	65° 03'	753'	
			167	-87	66° 32'	792'	
			190	-110	68° 00'	835'	

Profile No. ____ Date ____ Notes Red ____ Plotted ____ Job No. ____ Division No. 10 F. B. 2310 Pg. 31
X-Sec. No. ____ Date ____ Notes Chkd ____ Checked ____ Survey of DEPTH EROSION SUR. Survey by CREW Notes Lander Date 7-31-58
Map No. ____ Indexed ____ Date ____ C. Job No. ____

Profile	Notes Red.	Plotted	Job No.	Division No.	F. B. 2310 Pg. 33
No.	Date	Date	Survey of BEACH EROSION		
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes	Date 7-31-58
No.	Date	Date	Map No.	Index G. Johnson	

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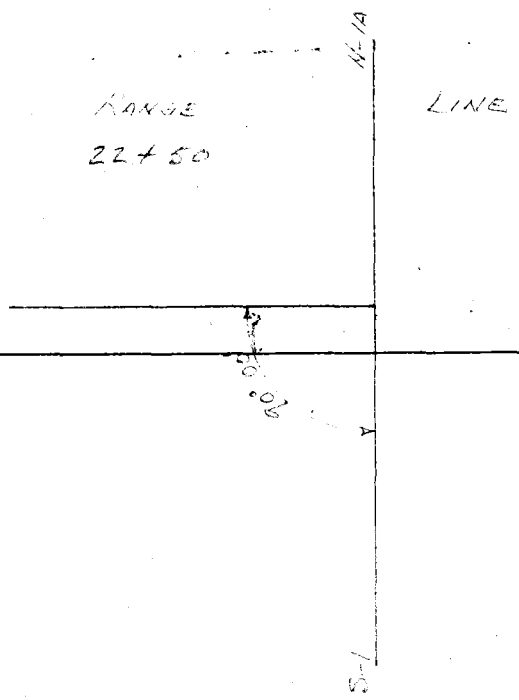
STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	



76298 S & E #307—7-55

F. B. 2310 Pg. 34 | Job No. 250003 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 7-31-58 Date No.

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.

Index L. C. Johnson Date Date Date No.

STATION	S. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.		Remarks
22-7-58						

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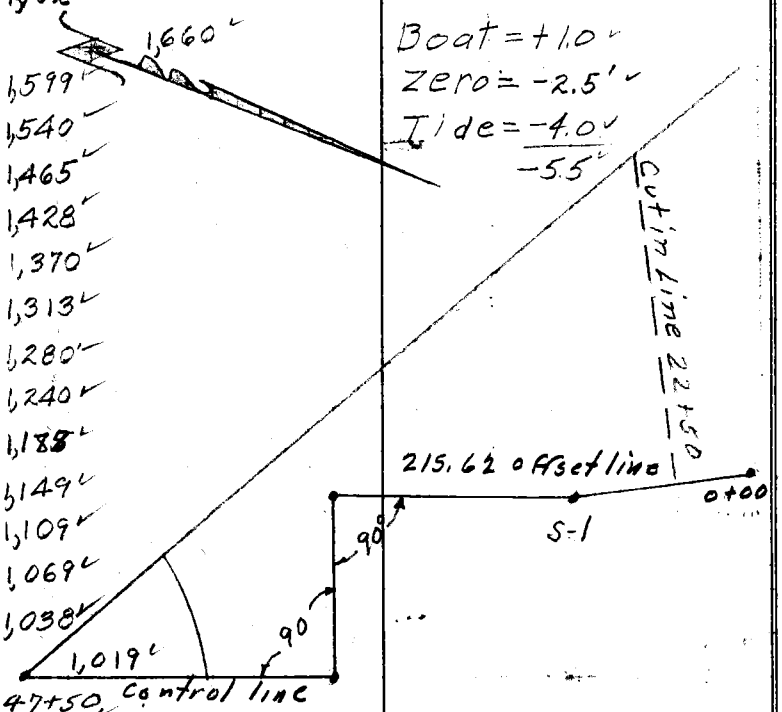
Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
47+50	S-1	1	31.0	25.5	8:55	36° 23'	1,810
		2	30.7	25.2		35° 29'	1,753
		3	30.3	24.8		34° 39'	1,702
		4	30.2	24.7		34° 00'	
		5	29.8	24.3		32° 58'	1,599
		6	—			32° 00'	1,540
		7	28.8	23.3		30° 43'	1,465
		8	28.4	22.9		30° 03'	1,428
		9	28.1	22.6		29° 03'	1,370
		10	27.5	22.0		28° 04'	1,313
		11	27.2	21.7		27° 25'	1,280
		12	26.4	20.9		26° 42'	1,240
		13	26.3	20.8		25° 40'	1,188
		14	25.5	20.0		24° 58'	1,149
		15	24.9	19.4		24° 12'	1,109
		16	24.3	18.8		23° 28'	1,069
		17	23.5	18.0		22° 50'	1,038
		18	22.7	17.2		22° 27'	
		19	22.0	16.5		22° 06'	47+50 1,000
		20	20.8	15.3		21° 34'	975

Cut in Line 22+50



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 35
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes 7-31-58 Date
No. Date Date Map No. Indexed C. Johnson Date

76298 S & E #307—7-55

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Do not extend notes this side of this line.

STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.	Remarks	
		21	19.8	14.2		21° 02'	949	
		22	19.1	13.5		20° 29'	922	Cut in Line 22+50
		23	18.3	12.7		20° 00'	898	
		24	17.6	12.0		19° 32'	875	Boat=+1.0'
		25	17.0	11.4		19° 02'	850	Zero=-2.5'
		26	—			18° 30'		Tide=-4.1
		27	—			18° 02'		-5.6
47+50	S-1	28	—			17° 27'		
		29	—			17° 15'		
		30	—			17° 17'		
		31	—			16° 29'		
		32	—		9:07	17° 24'		

F. B. 2310 Pg. 36 Job No. 0300.02 Division No. 10 Notes Red. Plotted Date 2-31-58 Date X-Sec. No.
Survey of Beach Erosion Study Notes Chkd. Checked Date
Survey by Van Deren Notes R.T. Date
Inspector C. Johnson Date

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 20+00	Sight on 17+50
T.P.	477	2509		2032	CONT. FROM LINE 2, 22+50	17+50
T.P.	248	2274	483	2026	T.P. 20+00	Inshore
17+50			41	186	℄ 1958 CONTROL LINE	
			14	213	100 FT LEFT	
			72	155	100 FT RIGHT	
			78	149	150 " "	
			77	150	190 " " TOP BRK	
			84	143	200 " "	
			112	115	225 " " BOT BRK	
			115	112	250 " "	
			103	124	290 " " TOP BRK	
			115	112	300 " "	
T.P.	06	81	152	75	322 " "	
			60	21	57°20' 606'	
			83	-02	60°25' 657'	
			103	-22	62°45' 702'	
			121	-40	65°23' 762'	
			165	-84	67°26' 818'	
			180	-99	68°16' 843'	

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 37
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd. ____ Checked ____ Survey by Dreier Notes Landa Date 7-31-58
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No. 030062	Division No. 10	F. B. 2301	Pg. 39
No.	Date	Date	Survey of BEACH EROSION			
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.D.	Date 7-31-58	
No.	Date	Date	Map No.	Index A. C. Johnson		

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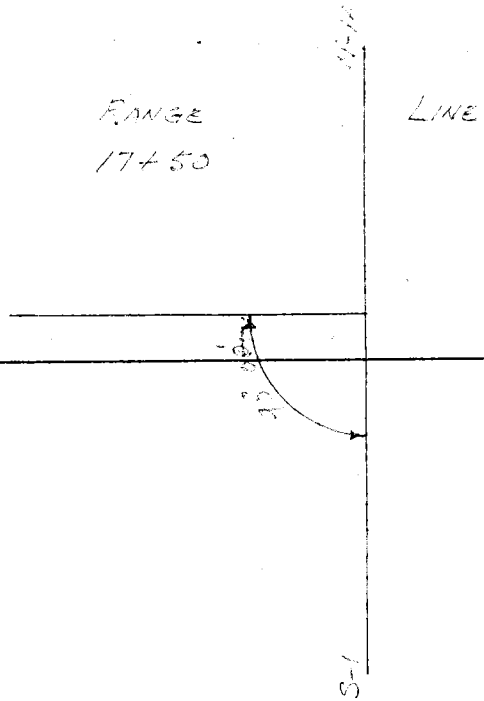
STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	
			9 23	10° 00'	



76298 S & E #307—7-55

F. B. 2310 Pg. 40 | Job No. 030002 | Division No. 10 | Notes Red. | Plotted | Profile

Survey of BEACH EROSION | Date 7-31-58 | Date | No.

Survey by VAN DEREN | Notes T.O. | Notes Chkd. | Checked | X-Sec.

Indexed C. Johnson | Date | Date | Date | No.

76298 S & E #307—7-55

PLEASE RETURN TO
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Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.		Remarks
17+50 3-1	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					

76298 S & E #307—7-55

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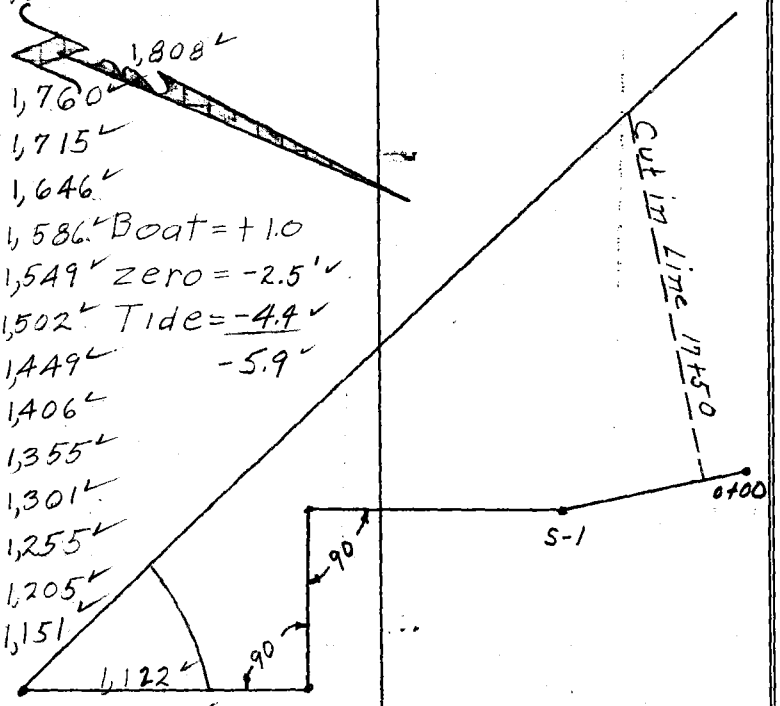
NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		1	32.2	26.3	9:23	35° 00'	2,060
		2	31.1	25.2		33° 26'	1,945 Cut in Line 17+50
		3	30.8	24.9		32° 16'	1,860
		4	30.4	24.5		31° 35'	1,808
		5	29.8	23.9		30° 52'	1,760
		6	29.7	23.8		30° 09'	1,715
		7	29.3	23.4		29° 10'	1,646
47+50	S-1	8	29.0	23.1		28° 17'	1,586 Boat = +1.0
		9	28.5	22.6		27° 43'	1,549 zero = -2.5'
		10	28.3	22.4		27° 00'	1,502 Tide = -4.4
		11	28.0	22.1		26° 11'	1,449 -5.9
		12	27.6	21.7		25° 29'	1,406
		13	27.5	21.6		24° 40'	1,355
		14	26.5	20.6		23° 48'	1,301
		15	26.3	20.4		23° 03'	1,255
		16	25.7	19.8		22° 15'	1,205
		17	25.4	19.5		21° 23'	1,151
		18	24.8	18.9		20° 53'	1,122
		19	24.1	18.2		20° 24'	47+50 1,097
		20	23.2	17.3		19° 54'	1,066



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 41
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes P.T. Date 2-31-58
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

76298 S & E #307—7-55

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Do not extend notes this side of this line.

STATION Inst. At	STATION Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
47+50	S-1	21	22.5	16.6		19° 32'	1,044
		22	21.4	15.5		19° 05'	1,016 Cut in Line 17+50
		23	20.5	14.6		18° 38'	992
		24	19.2	13.3		17° 55'	951 Boat=+1.0
		25	18.9	13.0		17° 48'	942 Zero=-2.5
		26	18.8	12.9		17° 41'	937 Tide= -4.4
		27	18.5	12.6		17° 33'	930 -5.9
		28	18.5	12.6		17° 30'	927
		29	18.2	12.3		17° 16'	914
		30	17.6	11.7		17° 01'	900
		31	16.6	10.7		16° 32'	871
		32	15.6	9.7		15° 49'	830
		33	14.8	8.9		15° 25'	810
		34	13.3	7.4		15° 04'	790
		35	11.6	5.7		14° 38'	765
		36	—		9:31	14° 26'	755

F. B. 2310 Pg. 42
Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 2-31-58 Date No.
Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

76L298 S & E #307 9-54

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STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 10+00	Sight on 12+50
T.P.	248	2274		2026	CONT. FROM LINE 2 17+50	12+50 S
T.P.	726	1790	1210	1064		Inshore
12+50			51	128	℄ 1958 CONTROL LINE	
			47	132	52 FT LEFT, SAND AT BASE OF BROKEN CONC FILL	
			52	127	100 FT. RIGHT	
			48	131	200 " "	
			46	133	240 " " TOP BRK	
			62	117	250 " " BOT "	
			55	124	300 " "	
			55	124	310 " " TOP BRK	
			67	112	320 " " " "	
		73	106	73	341 " " (AUX. T.P. -68 11.1 ELEV.)	
			61	+22	58°28' 624'	
			79	+04	61°21' 674'	
			98	-15	64°23' 738'	
			149	-66	67°16' 813'	
			195	-112	69°25' 882'	

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 43
X-Sec. No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
Notes Chkd. ____ Checked ____ Survey by Dreier Notes Lowry Date 7-31-58
Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile No.______ Notes Red.______ Plotted______ Job No.______ Division No.______ **F. B.** ______ **Pg.** 45

Date______ Date______ Survey of *Coast Erosion*

X-Sec. No.______ Notes Chkd.______ Checked______ Survey by *Van Deren* Notes ______ Date *7-31-58*

Date______ Date______ Map No.______ Index______ C. Johnson

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700 Los Angeles County Engineering Bldg.

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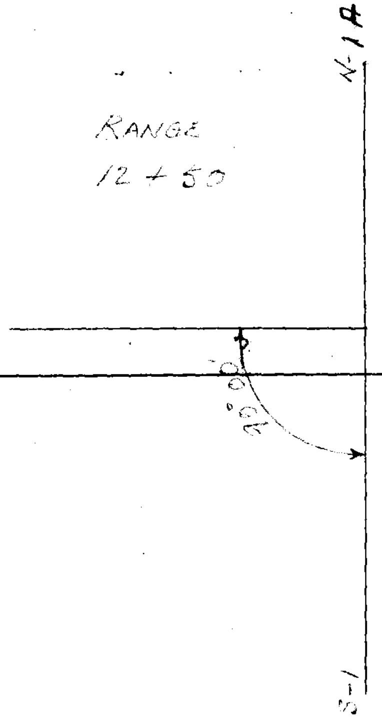
STATION	B.S.	H.I.	F.S.	ELEV.	
Inst. At / Sight On	#	Depth Rec. / Adj.	Time	Hor. Ang.	Remarks
12+50			*7 58*		



This line rerun
sounder broke

76298 S & E #307—7-55

76298 S & E #307—7-55

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700 LOS ANGELES COUNTY ENGINEERING BLDG.

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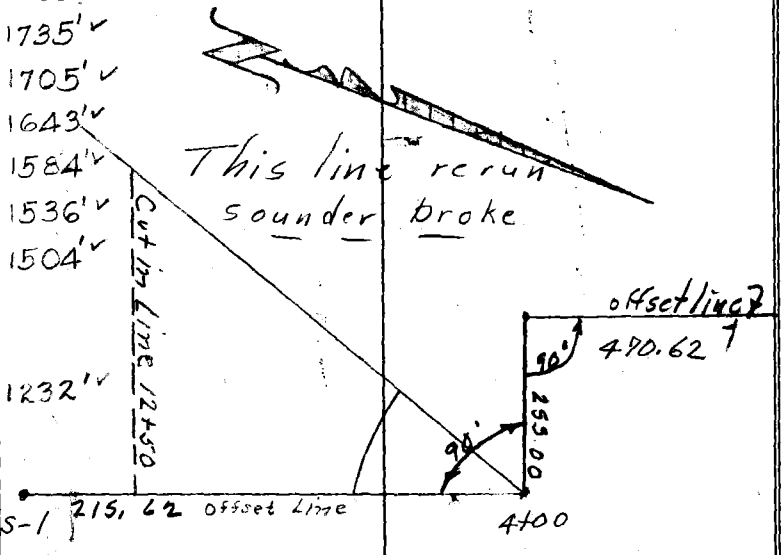
STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		1	29.6	25.8	9:58	63° 03'	1888'
		2	29.3	25.5		62° 15'	1832' Cut in Line 12+50
		3	28.8	25.0		61° 13'	1763'
		4	28.8	25.0		60° 46'	1735'
		5	28.8	25.0		60° 17'	1705'
		6	28.3	24.5		59° 13'	1643'
		7	27.8	24.0		58° 08'	1584'
		8	27.7	23.9		57° 13'	1536'
4+00 S.	S-1	9	27.2	23.4		56° 34'	1504'
		10	—			55° 47'	
		11	—			54° 12'	
		12	24.9	21.1		50° 05'	1232'
		13	—		10:02	49° 17'	
		14					
		15					
		16					
		17					
		18					
		19					
		20					



Boat = +1.0'
Zero = -0.1'
Tide = -4.7'
-3.8'

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 47
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 7-31-58
No. Date Date Map No. Indexed C. Johnson Date

76298 S & E #307—7-55

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Do not extend notes this side of this line.

STATION		B. S.	H. I.	F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec. Adj.	Time	Hor. Ang.	Remarks	
		21					
		22				Cut in Line 12+50	
		23					
		24				Boat = +1.0'	
		25				Zero = -0.1'	
		26				Tide = 4.7	
		27				-3.8	
4+00 S.	S-2	28					
		29					
		30					

F. B. 2310 PG. 48 Job No. 2300.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 7-31-58 Date No.
Survey by Van Deren Notes Rit. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

Profile No.	Notes Red.	Plotted	Job No. 0300.02	Division No. 10	F. B. 2310 Pg. 49
	Date	Date	Survey of Beach Erosion		
X-Sec. No.	Notes Chkd.	Checked	Survey by Van Deren	Notes Van	Date 8-1-58
	Date	Date	Map No.	Index	C. Johnson

8-1-58

3.0 on datum line

Time Check Gage time = —

P. D. S. T. = —

STATION	B. S.	H. I.	F. S.	ELEV.	Remarks	Standard Time	Reading	P. D. S. T.
Inst. Sight At On	Depth # Rec. Adj.		Time Hor. Ang.			5:00	+0.3	6:00
						5:30	+0.8	6:30
						6:00	1.2	7:00
						6:30	1.7	7:30
						7:00	2.2	8:00
						7:30	2.8	8:30
						8:00	3.5	9:00
						8:30	4.0	9:30
						9:00	4.3	10:00
						9:30	4.7	10:30
						10:00	4.7	11:00
						10:30	4.6	11:30

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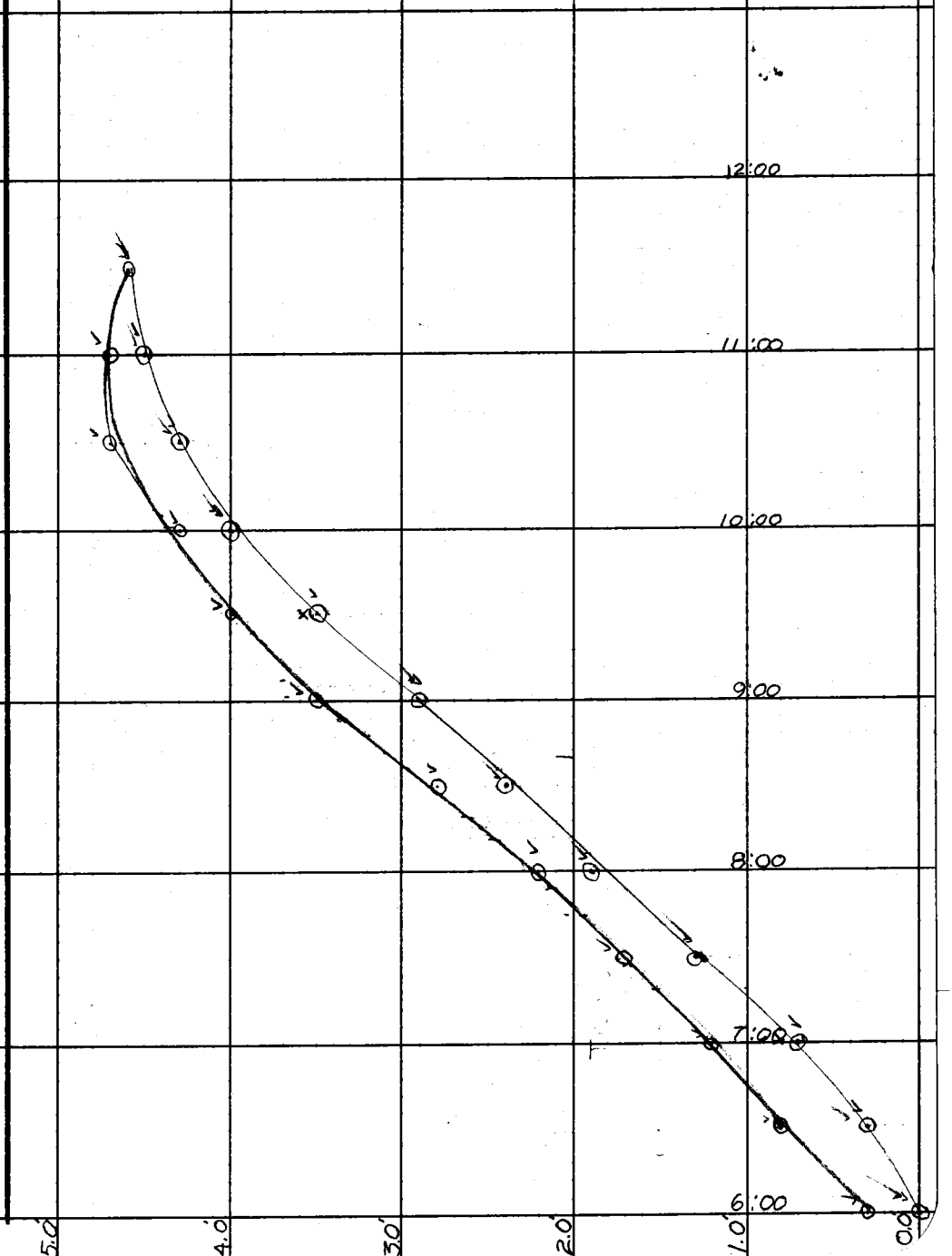
76298 S & E #307—7-55

Notes Ck'd by	Survey of 0300.02
Map No.	JN Tape Std °F
Office Work L. Manley	Surveyed by Van Daren
Checked J.S.H.	Notes Date 8-1-58
Date	Indexed

F.B. 2310 Pg. 50-A



Note: Any Additions or Changes on This Sheet Must be Made or Circled in Red Ink With Date and Name of Person Making Change.

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76F309S CE #247—3-57

Profile	Notes Red.	Plotted	Job No. 330002	Division No. 10	F. B. 2310 Pg. 51
No.	Date	Date	Survey of Beach Erosion		
X-Sec.	Notes Chkd.	Checked	Survey by [illegible]	Notes T.O.	Date 8-1-58
No.	Date	Date	Map No.	Indexed C. Johnson	Date

NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

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700 LOS ANGELES COUNTY ENGINEERING BLDG.

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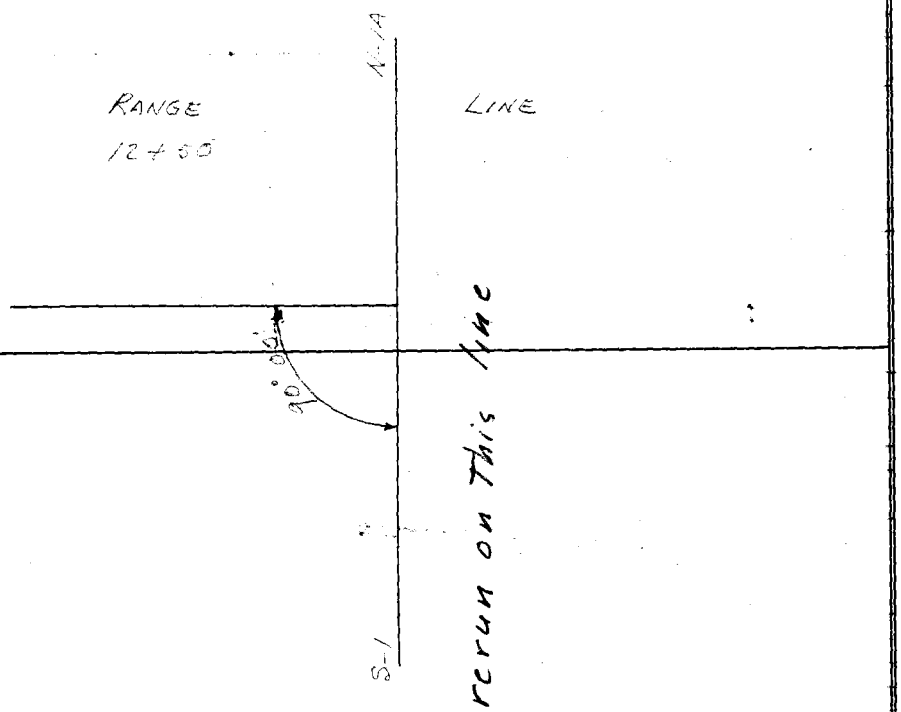
STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On 12+50 S-1	# 1	Depth Rec. Adj.	Time 7 19	Hor. Ang. 90° 00'	
	2			"	
	3			"	
	4			"	
	5			"	
	6			"	
	7			"	
	8			"	
	9			"	
	10			"	
	11			"	
	12			"	
	13			"	
	14			"	
	15			"	
	16			"	
	17			"	
	18			"	
	19			"	
	20			"	



76298 S & E #307—7-55

F. B. 2310 Pg. 52 Job No. 030002 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 8-1-58 Date No.

Survey ~~by~~ VAN DEREN ~~C. Johnson~~ Notes T.O. Notes Chkd Checked X-Sec.

Indexed Date Date Date No.

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STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.		Remarks
12+50 S-1	21			90° 00'		
	22					
	23		7 27			

76298 S & E #307—7-55

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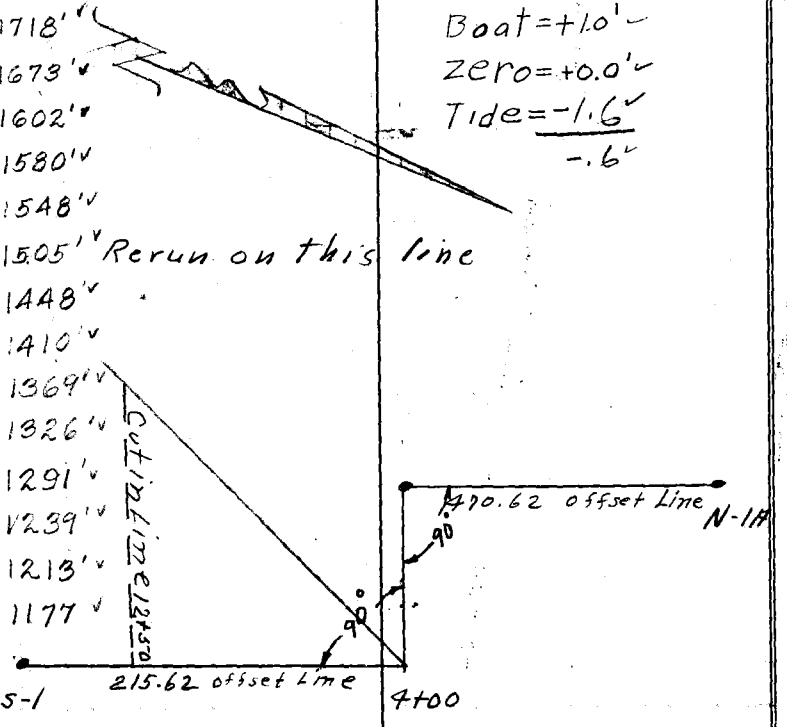
STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		1	—		7: 19	63° 51'	Rerun of
		2	26.7	26.1		62° 32'	1851' Cut in line 12+50
		3	26.3	25.7		61° 32'	1783'
		4	26.3	25.7		60° 30'	1718'
		5	25.9	25.3		59° 44'	1673'
		6	25.3	24.7		58° 28'	1602'
		7	24.9	24.2		58° 04'	1580'
		8	24.7	24.1		57° 27'	1548'
4+00 S.	S-1	9	24.2	23.6		56° 35'	1505' Rerun on this line
		10	23.6	23.0		55° 23'	1448'
		11	[illegible]	23.2		54° 39'	1410'
		12	23.3	22.7		53° 36'	1369'
		13	[illegible]	22.6		52° 33'	1326'
		14	22.5	21.9		51° 40'	1291'
		15	22.0	21.4		50° 17'	1239'
		16	21.8	21.2		49° 33'	1213'
		17	21.3	20.7		48° 29'	1177'
		18	—			47° 20'	
		19	—			44° 15'	
		20	—			42° 15'	

Boat = +1.0'
Zero = +0.0'
Tide = -1.6'
-.6'



Profile Notes Red. Plotted Job No. 0300-02 Division No. 10 F. B. 2310 Pg. 53
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Vanderen Notes R.L. Date 8-1-58
No. Date Date Map No. Indexed C. Johnson Date

76298 S & E #307—7-55

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Do not extend notes this side of this line.

STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.	Remarks	
		21	12.6	12.0		40° 28	941'	
		22	11.7	11.1		39° 06	907' Cut in Line 12+50	
		23	—		7: 27	38° 00'		
		24					Boat = +1.0'	
							Zero = +0.0'	
							Tide = -1.6'	
							-.6	
4+00 S	S-1							

F. B. 2310 Pg. 54 Job No. 0301.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 8-1-58 Date No.
Survey by Van Beren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

76L298 S & E #307 9-54

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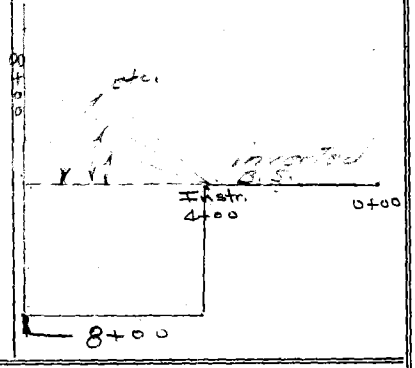
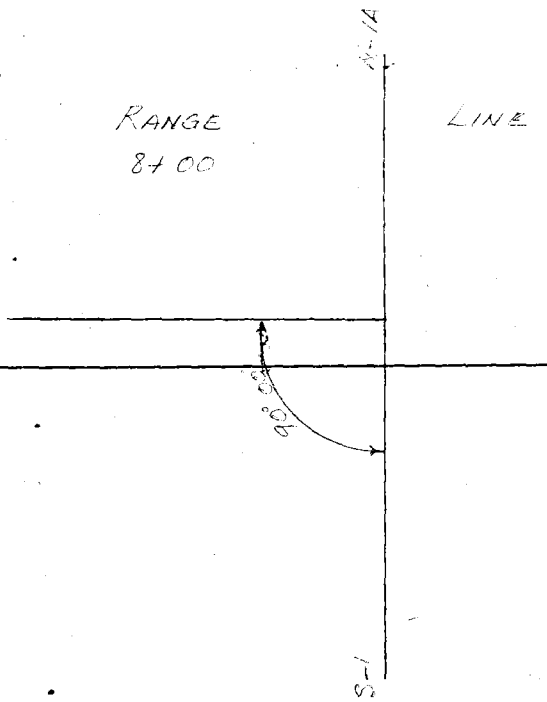
STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 4+00 S	Back Sighted on 0+00
T. P.	7 26	17 90		10 64	CONT. FROM LINE 2, 12+50	8+00 S
T. P.	13 99	31 19	0 70	17 20		Inshgre
B.M. 27-3	11 90	31 15	11 92	19 27	B.M. 27-3 ELEV 16.453 + 2.800 = 19.253 M.LL.W. H.S.C. & G.S. TIDAL 2, 1933 SEE F.B. 1393-7	
T. P.	0 30	[illegible]	13 99	17 16	T.P. "	
8+00 S.			1 5	16 0	ON 215.62 OFFSET W. (1958 CONTROL)	
			1 5	16 0	65 FT. LEFT OF 215.62 OFFSET LINE	
			+0 4	17 9	85 " " " " BASE OF ROCK & DIRT FILL	
			2 0	15 5	100 FT RIGHT OF 215.62 OFFSET LINE	
			2 3	15 2	200 " "	
			2 5	15 0	210 " " 70 BRK	
			6 0	11 5	250 " " 30	
			5 2	12 3	315 " " 70 BRK	
			5 8	11 .7	300 " "	
			9 5	8 0	315 " "	
T. P	28	62	[illegible]	3 4	360 " "	
			50	+12	19°58' 616'	
			69	-07	26°30' 671'	
			113	-51	36°20' 765'	
			161	-99	41°40' 827'	
			180	-118	45°50' 883'	



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 55
No. Date Date Survey of Board [illegible]
X-Sec. Notes Chkd. Checked Survey by [illegible] Notes [illegible] Date
No. Date Date Map No. Indexed C. Johnson Date

Profile No.	Notes Red.	Plotted	Job No. 0300.02	Division No. 10	F. B. 2310 Pg. 57
	Date	Date	Survey of BEACH EROSION		
X-Sec. No.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes TO	Date 8-1-58
	Date	Date	Map No.	Index K. C. Johnson	



STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
8+00	S-1	1		7 45	90° 00	
		2			"	
		3			"	
		4			"	
		5			"	
		6			"	
		7			"	
		8			"	
		9			"	
		10			"	
		11			"	
		12			"	
		13			"	
		14			"	
		15			"	
		16			"	
		17			"	
		18			"	
		19			"	
		20			"	

NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

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76298 S & E #307—7-55

76298 S & E #307—7-55

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700 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

STATION		B. S.	H. I.	F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec. Adj.	Time	Hor. Ang.	Remarks	
8+00	S-1	21			90° 00		
		22			" "		
		23			" "		
		24			" "		
		25			" "		
		26			" "		
		27			" "		
		28			" "		
		29			" "		
		30			" "		
		31			" "		
		32			" "		
		33		7 55	" "		

F. B. 2310 Pg. 58 Job No. 030002 Division No. 10 Notes Red. Plotted
Survey of BEACH EROSION Date 8-1-58 Date No.
Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

76298 S & E #307—7-55

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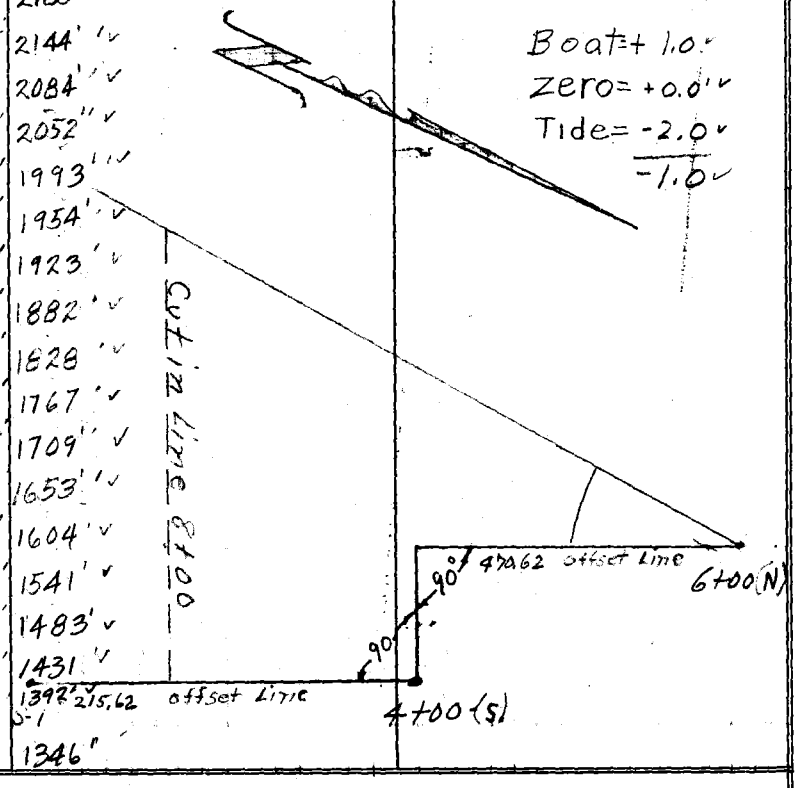
STATION Inst. At	STATION Sight On	B. S. #	H. I. Depth Rec.	H. I. Depth Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
6+00 (N)	S-1	1	28.6	27.6	7:45	54° 45'	2452'
		2	28.2	27.2		51° 50'	2252'
		3	28.1	27.1		50° 45	2185'
		4	28.1	27.1		50° 05'	2144'
		5	27.7	26.7		49° 02'	2084'
		6	27.5	26.5		48° 28'	2052'
		7	27.4	26.4		47° 23'	1993'
		8	27.0	26.0		46° 38'	1954'
		9	26.5	25.5		46° 03'	1923'
		10	26.6	25.6		45° 14'	1882'
		11	26.3	25.3		44° 06'	1828'
		12	26.2	25.2		42° 48'	1767'
		13	25.8	24.8		41° 28'	1709'
		14	25.7	24.7		40° 09	1653'
		15	25.6	24.6		38° 58'	1604'
		16	25.2	24.2		37° 23'	1541'
		17	25.2	24.2		35° 52'	1483'
		18	24.7	23.7		34° 28'	1431'
		19	24.7	23.7		33° 21	1392'
		20	24.3	23.3		32° 01	1346'



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F.B. 2310 Pg. 59
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 8-1-58
No. Date Date Map No. Indexed C. Johnson Date

76298 S & E #307—7-55

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STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.		Remarks
		21	—			30° 36'		
		22	—			29° 08'		Cut in Line 8+00
		23	23.1	22.0		28° 57'	1245'	
		24	22.8	21.7		28° 27'	1230'	Boat=+1.0'
		25	22.8	21.7		28° 07'	1219'	zero=+0.0'
		26	22.5	21.4		27° 46'	1209'	Tide=-2.1
		27	22.6	21.5		26° 55'	1182'	-1.1
6+00 (N)	S-1	28	—			25° 45'		
		29	—			24° 17'		
		30	—			20° 28'		
		31	—			16° 24'		
		32	10.7	9.6		14° 50'	842'	
		33	—		7:55	13° 25'		

F. B. 2310 Pg. 60 Job No. 2300.02 Division No. 10 Notes Red. Plotted No. Profile
Survey of Beach Erosion Study Date 8-1-58 Date X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked No.
Indexed C. Johnson Date Date Date

76298 S & E #307—7-55

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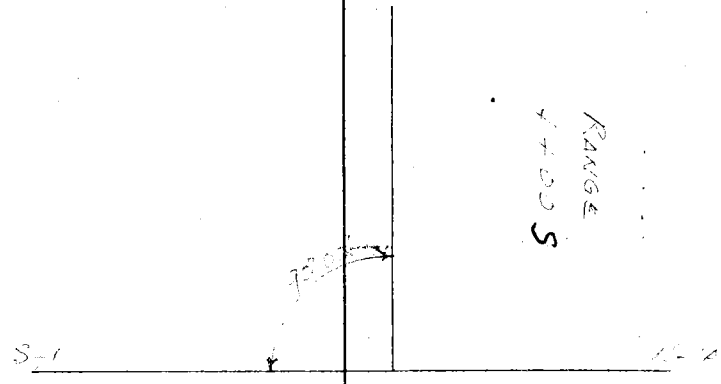
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	Instr @ 2+00 S	Sight on 4+00
T.P.	030	1746		1716	CONT. FROM LINE 2, 8+00S	
T.P.	451	19.62	235	1511	T.P.	INSHORE
4+00 S			57	139	ON 215.62 OFFSET W. (1958 CONTROL)	4+00 S.
					BASE OS SLOPE OF ± 10 FT FILL	
			55	141	35 FT LEFT OF 215.62 W. OFFSET	
			62	134	80 FT RIGHT	
			60	136	100 " "	
			54	142	200 " " TOP	BRK
			80	116	225 " " BOT	"
			80	116	280 " " TOP	BRK.
			113	83	300 " "	
T.P.	22	66	1520	442	333 " "	
			61	05	35°30' 614'	
			82	-16	45°44' 676'	
			96	-30	52°22' 730	
			152	-8.6	57°33' 785'	
			185	-11.9	62°11' 850'	

Profile Notes Red. ____ Plotted ____ Job No. 0309.02 Division No. ____ F.B. 2310 Pg. 61
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd. ____ Checked ____ Survey by Dreier Notes Landa Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____
E. Johnson



Profile	Notes Red.	Plotted	Job No. 030002	Division No. 10	F. B. 2310 Pg. 63
No.	Date	Date	Survey of BEACH EROSION		
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.O.	Date 8-1-58
No.	Date	Date	Map No.	Indexed C. Johnson	Date

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STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	
4+00 S					

RANGE 4+00 S

LINE

76298 S & E #307—7-55

F. B. 2310 Pg. 64 | Job No. 030002 Division No. 10 | Notes Red. | Plotted | Profile

Survey of BEACH EROSION | Date 8-1-58 | Date | No.

Survey by VAN DEREN C. Johnson | Notes T.O. | Notes Chkd. | Checked | X-Sec.

Index | Date | Date | Date | No.

STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	# Depth Rec. Adj.		Time	Hor. Ang.	

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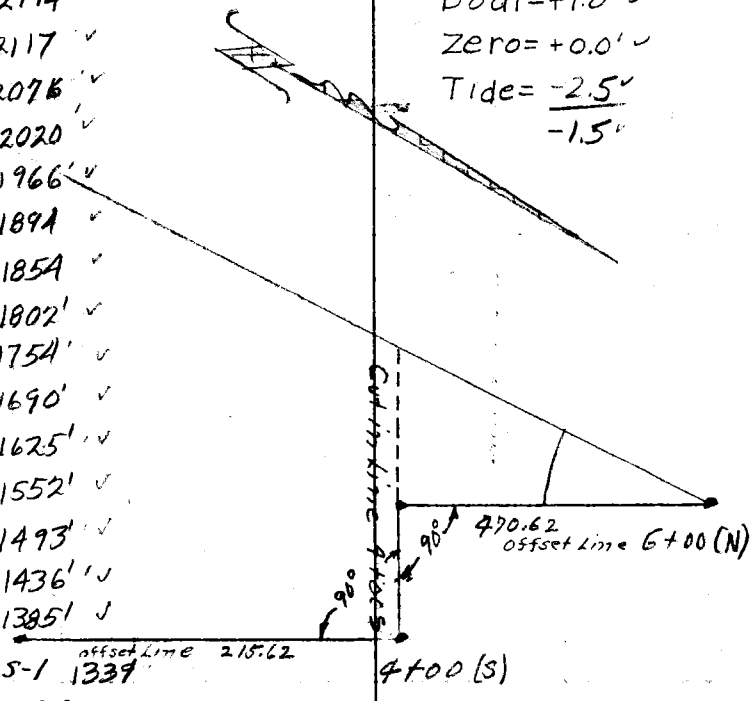
Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Depth Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
6+00 (N)	S-1	1	28.7	27.2	8:11	62° 07'	2361 ✓
		2	29.0	27.5		61° 00'	2275 ✓ Cut in Line 4+00(S)
		3	28.3	26.8		60° 23'	2230 ✓
		4	28.1	26.6		59° 35'	2174 ✓
		5	27.8	26.3		58° 43'	2117 ✓
		6	27.7	26.2		58° 04'	2076 ✓
		7	27.1	25.6		57° 09'	2020 ✓
		8	27.2	25.7		56° 13'	1966 ✓
		9	26.6	25.1		54° 54'	1894 ✓
		10	27.2	25.7		54° 08'	1854 ✓
		11	26.7	25.2		53° 05'	1802 ✓
		12	26.5	25.0		52° 04'	1754 ✓
		13	25.8	24.3		50° 38'	1690 ✓
		14	26.2	24.7		49° 06'	1625 ✓
		15	25.8	24.3		47° 14'	1552 ✓
		16	25.6	24.1		45° 37'	1493 ✓
		17	25.5	24.0		43° 58'	1436 ✓
		18	24.9	23.4		42° 25'	1385 ✓
		19	25.0	23.5		40° 57'	S-1 1339
		20	24.6	23.1		39° 16'	1289



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 65
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren ~~Note C.~~ ~~Date~~ 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

76298 S & E #307—7-55

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STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.		Remarks
		21	23.6	22.0		37° 25'	1236'	
		22	23.2	21.6		35° 33'	1186'	Cut in Line 4+00 (S)
		23	23.1	21.5		34° 09'	1149	
		24	22.7	21.1		33° 09'	1124	Boat = +1.0'
		25	21.7	20.1		31° 50'	1092'	Zero = +0.0'
		26	21.4	19.8		30° 57'	1071	Tide = -2.6
		27	20.8	19.2		30° 08'	1051	-1.6
6+00 (N)	S-1	28	20.3	18.7		29° 00'	1025	
		29	19.1	17.5		28° 05'	1005'	
		30	17.7	16.1		26° 34'	971	
		31	16.7	15.1		25° 20'	944'	
		32	15.7	14.1		23° 50'	913'	
		33	14.4	12.8		22° 25'	884'	
		34	13.4	11.8		21° 00'	855'	
		35	12.2	10.6	8:20	19° 35'	827	
		36						

F. B. 2310 Pg. 66 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 8-1-58 Date No. X-Sec.
Survey by Van Deren Notes P.T. Notes Chkd. Checked No.
Indexed C. Johnson Date Date Date

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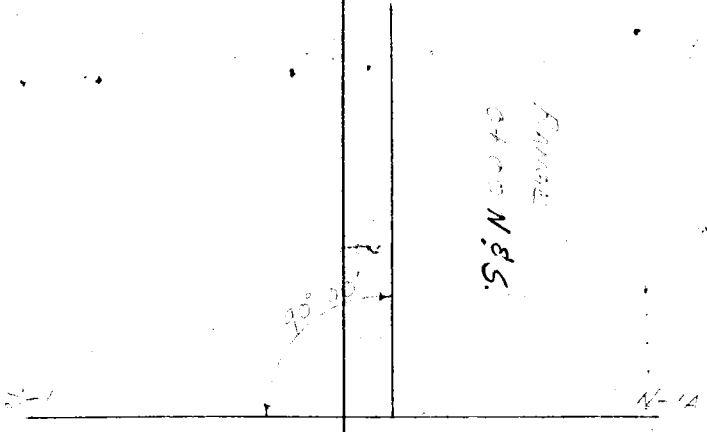
STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 2+00	Sight on 0+00
	4.51	19.62		15.11	CONT. FROM	
T.P.	4.82	17.09	7.35	12.27	T.P. (2+00 S.)	INSHORE 0+00 N & S
0+00 N & S			5.2	11.9	ON 215.6 + 255.3 = 470.62 OFFSET	
			5.2	11.9	30 FT TO E. OF 470.62 OFFSET	
			3.2	13.9	60 FT E. " "	TOE OF FILL
			4.0	13.1	65 " " " "	TOP OF SLOPE NOW UNDER CONST.
			4.6	12.5	20 FT. W. OF 470.62 OFFSET	TOP OF SLOPE
			13.2	6.9	60 " "	
T.P.	2.0	6.2	12.7	4.4	85 " "	
			6.2	0.0	34°50'	610'
			8.4	-2.0	44°09'	665'
			10.0	-3.6	51°19'	720'
			14.6	-8.2	56°32'	773'
			18.8	-12.4	60°24'	823'

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 67
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Dreier Notes Landon Date 8-1-58
No. Date Date Map No. Index C. Johnson Date

Profile	Notes Red.	Plotted	Job No. 330000	Division No. 10	F. B. 2310 Pg. 69
No.	Date	Date	Survey of BEACH EROSION		
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.O.	Date 8-1-58
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date

NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.



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STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	
0+00					

RANGE LINE
0+00 N & S.

76298 S & E #307—7-55

F. B. 2310 Pg. 70 | Job No. 030002 | Division No. 10 | Notes Red. | Plotted | Profile

Survey of BEACH EROSION | Date 8-1-58 | Date | No.

Survey by VAN DEREN | Notes T.O. | Notes Chkd. | Checked | X-Sec.

Indexed C. Johnson | Date | Date | Date | No.

76298 S & E #307—7-55

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STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At	Sight On	Depth # Rec. Adj.	Time	Hor. Ang.		Remarks
0+00	S-1			90° 00'		
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					

76298 S & E #307—7-55

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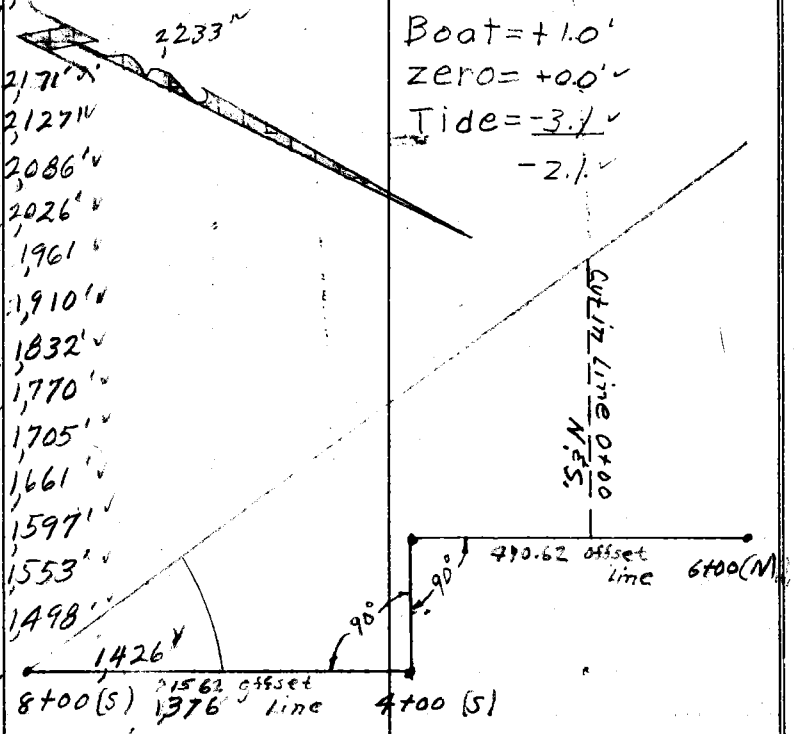
Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
8+00 (S)	4+00 (S)	1	29.6	27.5	8:41	69° 30'	2356"
		2	29.4	27.3		69° 15'	2328' Cut in Line 0+00
		3	29.4	27.3		68° 40'	2265"
		4	28.7	26.6		68° 22'	2233"
		5	28.8	26.7		67° 45'	2171'
		6	28.8	26.7		67° 17'	2127"
		7	28.4	26.3		66° 50'	2086'
		8	28.1	26.0		66° 09'	2026'
		9	27.8	25.7		65° 22'	1961'
		10	27.8	25.7		64° 43'	1910'
		11	27.3	25.2		63° 40'	1832'
		12	26.9	24.8		62° 46'	1770'
		13	27.1	25.0		61° 45'	1705'
		14	26.7	24.6		61° 02'	1661'
		15	26.5	24.4		59° 55'	1597'
		16	26.3	24.2		59° 06'	1553'
		17	26.2	24.1		58° 03'	1498'
		18	25.8	23.7		56° 32'	1426'
		19	25.3	23.2		55° 25'	8+00 (S) 1376 1562 offset line 4+00 (S)
		20	25.2	23.1		53° 40'	1304'



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 71
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes P.T. Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

76298 S & E #307—7-55

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STATION Inst. At	STATION Sight On	S. S. #	H. I. Depth Rec.	H. I. Depth Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		21	24.9	22.7		52° 13'	1248
		22	24.4	22.2		50° 55'	1202 Cut in Line 0+00
		23	23.9	21.7		49° 20'	1147
		24	23.0	20.8		48° 37'	1124 Boat = +1.0'
		25	22.3	20.1		45° 53'	1041 Zero = +0.0'
		26	21.4	19.4		44° 29'	1002 Tide = -3.2
8+00 (S)	4+00 (S)	27	20.5	18.3		43° 13'	968 -2.2
		28	19.1	16.9		42° 12'	941
		29	17.8	15.6		41° 27'	923
		30	—			39° 52'	
		31	—			38° 13'	
		32	—			36° 47'	
		33				36° 35'	
		34				35° 43'	
		35			8:53	34° 20'	

F. B. 2310 Pg. 72 Job No. 0300.02 Division No. 10 Notes Red. Date 8-1-58 Plotted Date No. Profile
Survey of Beach Erosion Study Notes R.T. Date No. X-Sec.
Survey by Van Deren Notes Chkd. Date Checked Date No.
Indexed C. Johnson Date

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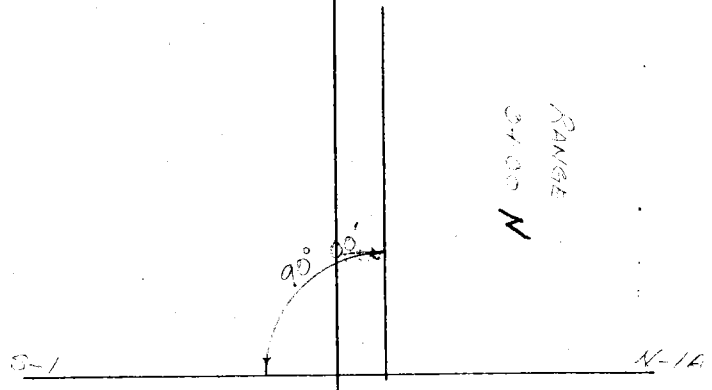
STATION		B. S.	H. I.	F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec. Adj.	Time	Hor. Ang.	Remarks	
0+00	S-1	1			90°		
		2					
		3					
		4					
		5					
		6					
		7					
		8					
		9					
		10					
		11					
		12					
		13					
		14					
		15					
		16					
		17					
		18					
		19					
		20					



Rerun on this line

Profile Notes Red. ____ Plotted ____ Job No. ____ Division No. ____ F. B. ____ Pg. 73

No. ____ Date ____ Date ____ Survey of ____ Notes ____ Date ____

X-Sec. Notes Chkd. ____ Checked ____ Survey by ____ Notes ____ Date ____

No. ____ Date ____ Date ____ Map No. ____ Indexed C. John Date

F. B. 2310 Pg. 74 Job No. 030002 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 8-1-58 Date No.

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76298 S & E #307—7-55

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Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.		Remarks
0400 8-7	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					

76298 S & E #307—7-55

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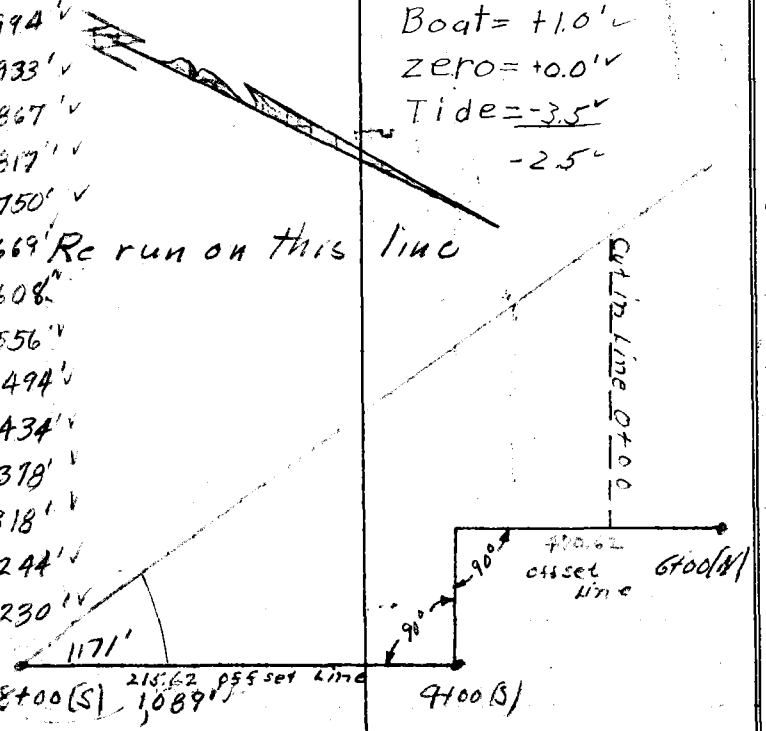
Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Depth Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		1	29.6	27.1	9:02	68° 11'	2,214' Rerun of
		2	29.2	26.7		69° 25'	2,139' Cut in Line 0+00
		3	28.6	26.1		66° 29'	2,054'
		4	28.2	25.7		65° 47'	1,994'
		5	28.0	25.5		65° 01'	1,933'
		6	27.5	25.0		64° 09	1,867'
		7	27.3	24.8		63° 27	1,817'
		8	27.2	24.7		62° 27	1,750'
		9	26.7	24.2		61° 10'	1,669' Re run on this line
		10	26.7	24.2		[illegible]	1,608'
		11	26.4	23.9		59° 10'	1,556'
		12	26.1	23.6		[illegible]	1,494'
		13	25.7	23.2		56° 43'	1,434'
		14	25.4	22.9		55° 27'	1,378'
		15	25.2	22.7		54° 01'	1,318'
		16	24.3	21.8		52° 08	1,244'
		17	23.4	20.9		51° 43	1,230'
		18	23.2	20.7		CWH 50° 03' 53° 03	
		19	22.6	20.1		47° 30	
		20	22.0	19.5		out	

Boat = +1.0'
zero = +0.0'
Tide = -3.5'
-2.5'



8+00 (S)

4+00 (S)

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 75
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____
C. Johnson

76298 S & E #307—7-55

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Do not extend notes this side of this line.

F. B. 2310 Pg. 76 | Job No. 0310.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 8-1-58 Date
Survey by Van Deren Notes 12.7 Notes Chkd. Checked
Indexed C. Johnson Date Date Date

Profile No. X-Sec. No.

STATION Inst. At	Sight On	B. S. #	H. I. Rec.	Depth Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		21	21.4	18.8		~~47° 57'~~	1,014'N
		22	20.3	17.7		49° 01'	989'V Cut in line 0+00
		23	18.9	16.3		42° 57'	961'V
		24	18.2	15.6		41° 95'	930'V Boat = +1.0'
		25	17.3	14.7		40° 50'	907'V Zero = +0.0'V
		26	16.7	14.1		39° 96'	882'V Tide = -3.6'V
8+00(S)	7+00(S)	27	14.1	11.5		38° 13'	846'V -2.6'V
		28	12.5	9.9		36° 99'	814'V
		29	11.8	9.2	9:08	35° 17'	782'V

76298 S & E #307—7-55

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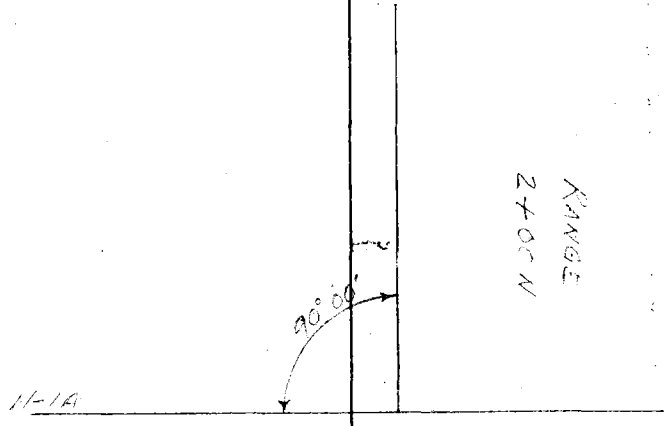
STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 4+00 N	Sight on 2+00 N
	4 82	17 09		12 27	CONT. FROM LINE 2, 0+00 N. S.S.	
2+00 N			50	121	ON 470.62 OFFSET W.	INSHORE 2+00 N.
			48	123	15 FT. RIGHT (E.) OF 470.62 OFFSET W.	
			12	15	40 " " " " "	" TOE OF NEW CONST. SLOPE
			+43	214	53 " " " " "	" TOP OF NEW CONST
			55	116	10 FT LEFT (W.) " "	" TOP BRK
			76	95	45 " " " " "	" TOP BRK
T.P.	1 8	6 8	121	50	86 " " " " "	" [illegible]
			50	+18	32°46' 599'	
			68	00	44°43' 669'	
			88	-20	49°10' 702'	
			106	-38	54°13' 748'	
			178	-110	59°44' 813'	

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 77
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd. ____ Checked ____ Survey by Dreier Notes Lundy Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No. 030004	Division No. 10	F. B. 2310 Pg. 79
No.	Date	Date	Survey of BEACH EROSION		
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN / ~~Notes~~ C. Johnson	Date 8-1-58	
No.	Date	Date	Map No.	Indexed	Date



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	
2+00 N	2		8 21	90°00'	RANGE LINE 2+00 N
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76298 S & E #307—7-55

F. B. 2310 Pg. 80 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 8-1-58 Date No.

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

76298 S & E #307—7-55

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Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.		Remarks
2+00N N. 1A	21			90° 00'		
	22			"		
	23			"		
	24			"		
	25			"		
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76298 S & E #307—7-55

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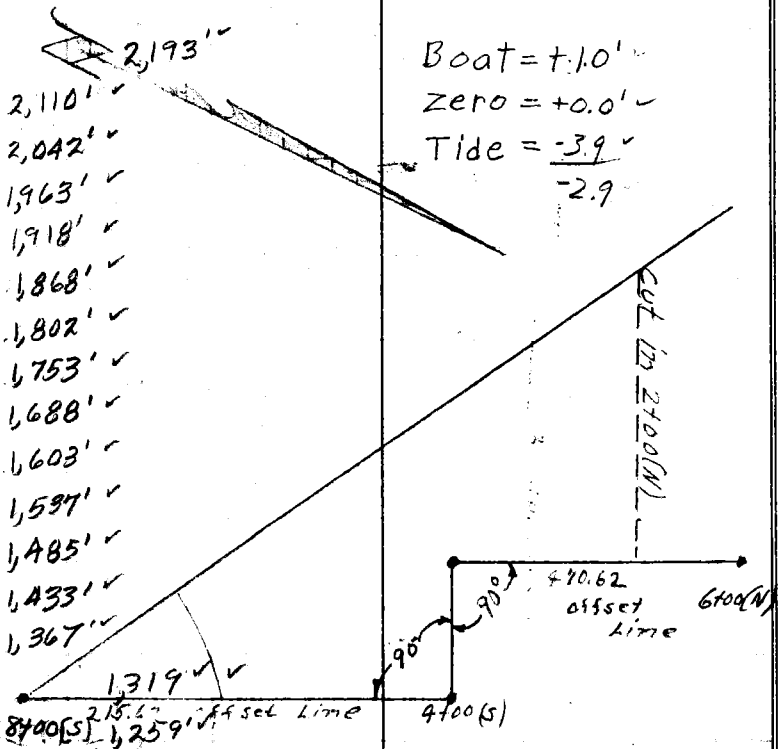
Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Depth Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		1	29.5	26.6			
		2	29.4	26.5			
		3	29.8	26.9			
		4	29.3	26.4		63° 10	2,193'
		5	28.9	26.0		62° 10	2,110'
		6	28.7	25.8		61° 18'	2,042'
		7	28.2	25.3		60° 13'	1,963'
8+00 (S)	4+08 (S)	8	27.7	24.8		59° 34	1,918'
		9	27.2	24.3		58° 49'	1,868'
		10	27.1	24.2		57° 46'	1,802'
		11	26.9	24.0		56° 57	1,753'
		12	26.8	23.9		55° 48'	1,688'
		13	26.3	23.4		54° 12'	1,603'
		14	25.9	23.0		52° 52'	1,537'
		15	26.2	23.3		51° 45'	1,485'
		16	26.0	23.1		50° 36'	1,433'
		17	26.8	23.9		49° 01	1,367'
		18	25.1	22.2		47° 48	
		19	24.6	21.7		46° 12'	1,259'
		20	24.3	21.4		44° 5[illegible]	1,213'

Cut in Line 2+00 N

Boat = +1.0'
Zero = +0.0'
Tide = -3.9
-2.9



Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 81
X-Sec. No. ____ Date ____ Date ____ Survey of Beach Erosion Study
Notes Chkd. ____ Checked ____ Survey by VanDeren Notes R.T. Date 8-1-58
Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

76298 S & E #307—7-55

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STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.		Remarks
		21	23.7	20.7		43° 10'	1,154'	
		22	23.3	20.3		41° 27	1,099'	Cut in Line 2+00(N)
		23	22.6	19.6		40° 18'	1,064'	
		24	21.8	18.8		39° 07	1,029'	Boat = +1.0'
		25	21.3	18.3		38° 07	1,001'	Zero = +0.0'
		26	19.9	16.9		36° 55	967'	Tide = -4.0
		27	18.8	15.8		36° 00'	943'	-3.0
8+00 (S)	4+00 (S)	28	18.0	15.0		39° 40	908'	
		29	16.7	13.7		33° 40	882'	
		30	15.4	12.4		31° 33	830'	
		31	14.5	11.5		31° 30	829'	
		32	13.2	10.2		30° 13	798'	
		33	10.4	7.4		29° 16	776'	
		34	6.6	3.6	9:30	28° 13	753'	
		35						

F. B. 2310 Pg. 82 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 8-1-58 Date No.
Survey by Van Dexen Notes R.T. Notes Chkd. Checked X-Sec.
Indexed Date Date Date No.

76298 S & E #307—7-55

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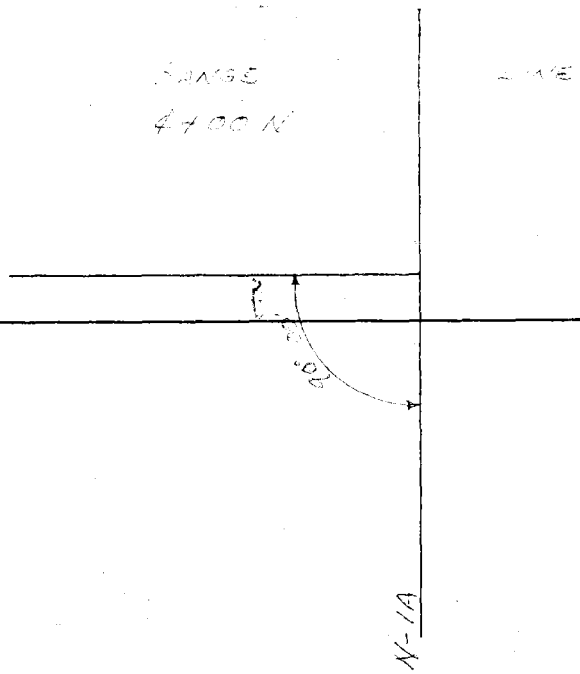
STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 2+00 N	Sight on 4+00 N
T.P.	4 82	17 09		12 27	CONT. FROM LINE 2 0+00 N.&S.	
T.P	726	19 77	4 58	12 51		IN SHORE 4+00 N
			73	12 5	ON 470.62 OFFSET TO W.	
			71	12 7	4 FT RIGHT (E.) OF 470.62 OFFSET	
			01	19 7	15 " " E. " "	
			93	10 5	25 FT LEFT (W.) " "	
			96	10 2	60 " "	TOP [illegible]
T.P.	29	78	149	4 9	100 " " (1×2)	
			59	+1 9	34°07' 606'	
			74	+0 4	40°03' 639'	
			89	-1 1	46°59' 685'	
			101	-2 3	52°10' 728'	
			119	-4 1	55°33' 762'	
			148	-7 0	58°51' 802'	
			188	-11 0	62°14' 850'	

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2310 Pg. 83
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd. ____ Checked ____ Survey by Dreier Notes Landau Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No. 030002	Division No. 10	F. B. 2370	Pg. 85
No.	Date	Date	Survey of BEACH EROSION			
X-Sec.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.O.	Date 8-1-58	
No.	Date	Date	Map No.	Indexed C. Johnson	Date	



STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	

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F. B. 2310 Pg. 86 | Job No. 030002 Division No. 10 Notes Red. Plotted Profile

Survey of BEACH EROSION Date 8-1-58 Date No.

Survey by VAN DEREN Notes T.O. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

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STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.		Remarks
4400N N-1A	21			90° 00'		
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					

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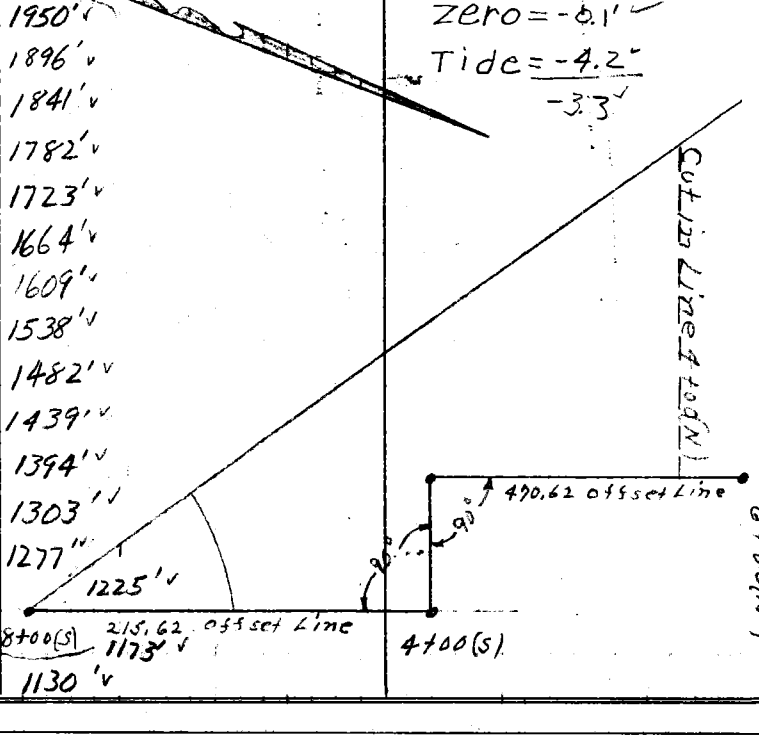
Profile Notes Red ____ Plotted ____ Job No. 0300-02 Division No. 10 F. B. 2310 Pg. 67
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Walt Devereux Notes C. A. Tenbrook 7-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

STATION Inst. At	Sight On	S. S. #	H. I. Rec.	Depth Adj.	F. S. Time	ELEV. Hor. Ang.		Remarks
		1	29.[illegible]	26.5	9:42	59° 08'	2224'v	
		2	29.[illegible]	26.0		58° 34'	2179'v	Cut in Line 4+00(N)
		3	29.2	25.9		57° 32'	2102'v	
		4	28.7	25.4		56° 27'	2028'v	
		5	28.9	25.6		55° 19'	1950'v	Boat = +1.0'
		6	28.7	25.4		54° 28'	1896'v	zero = -0.1'
		7	28.1	24.8		53° 33'	1841'v	Tide = -4.2'
		8	27.9	24.6		52° 32'	1782'v	-3.3'
	4+00(S)	9	27.8	24.5		51° 28'	1723'v	
		10	27.6	24.3		50° 21'	1664'v	
		11	26.8	23.5		49° 15'	1609'v	
		12	26.8	23.5		47° 46'	1538'v	
		13	26.8	23.5		46° 32'	1482'v	
		14	26.3	23.0		45° 33'	1439'v	
		15	25.3	22.2		44° 28'	1394'v	
		16	25.1	22.1		42° 10'	1303'v	
		17	25.2	21.9		41° 29'	1277'v	
		18	24.9	21.6		40° 03'	1225'v	
		19	23.7	20.4		38° 35'	1173'v	
		20	23.7	20.4		37° 17'	1130'v	



(S) 8+00

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F. B. 2310 Pg. 86 Job No. 2300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 8-1-58 Date No. Profile
Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
		21	—				
		22	21.3	18.0			1021' Cut in Lime 4+00 (N)
		23	20.2	16.9		32° 50'	990'
		24	18.9	15.6		31° 29'	951' Boat=+1.0'
		25	17.9	14.6		30° 29'	922' Zero=-0.1'
		26	16.3	13.0		29° 10'	886' Tide=-4.2
		27	15.3	12.0		27° 48'	848' -3.3
8+00 (S)	4+00 (S)	28	14.4	11.1		26° 55'	826'
		29	12.4	9.1		25° 15'	808'
		30	8.8	5.5	9:48	25° 17'	782'
		31	—				

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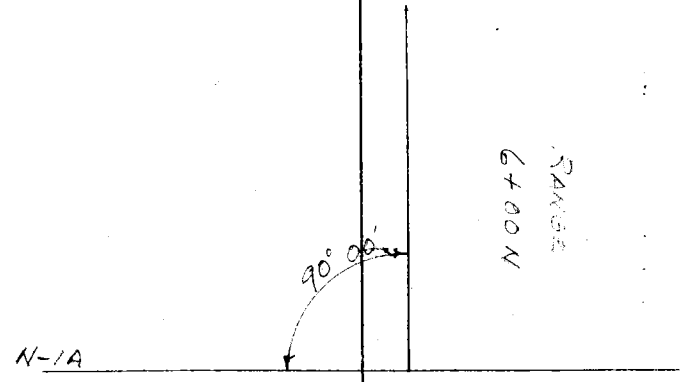
STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 4+00 N	Sight on ~~6+00 N~~
T. P.	726	1977		12.51	CONT. FROM LINE 2, 4+00 N (IN CONST. AREA)	INSHORE
5+65 N			5.4	14.4	ON 470.62 OFFSET W.	~~6+00 N~~
			3.3	16.5	20 FT LEFT (W.) TOP FILL (ON SAND BEACH)	5+65 N
			10.2	9.6	30 " " " BOT. FILL	S. SIDE OF GROIN
			12.0	7.8	75 " "	
			13.4	6.4	100 " "	
			15.4	4.4	120 " "	
T. P.	28	77	14.9	4.7	T.P. ([illegible] 4+00 N)	
			4.3	3.4	39°26' 606'	
			6.3	+1.4	47°50' 653'	
			8.3	-0.6	55°21' 709'	
			11.0	-3.3	59°36' 752'	
			11.0	-3.3	63°10' 797'	
			12.2	-4.5	64°16' 813'	
			14.3	-6.6	65°26' 832'	
			17.8	-10.1	67°28' 868'	

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 89
No. ____ Date ____ Date ____ Survey of Beach Erosion Sur.
X-Sec. Notes Chkd. ____ Checked ____ Survey by Dreier Notes Landa Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____



Profile No.	Notes Red.	Plotted	Job No. 030002	Division No. 10	F. B. 2310 Pg. 91
	Date	Date	Survey of BEACH EROSION		
X-Sec. No.	Notes Chkd.	Checked	Survey by VAN DEREN	Notes T.O.	Date 8-1-58
	Date	Date	Map No.	Indexed C. Johnson	Date

RANGE LINE

6+00 N

90°00'

N-1A

STATION	B. S.	H. I.	F. B.	ELEV.	Remarks
Inst. Sight At On	#	Depth Rec. Adj.	Time	Hor. Ang.	

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F. B. 2310 PG. 92 Job No. 03002 Division No. 10 Notes Red. Plotted Profile No.
Survey of BEACH EROSION Date 8-1-58 Date X-Sec. No.
Survey by VAN DEREN Notes T.3 Notes Chkd. Checked
Indexed E. C. Johnson Date Date Date

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At / Sight On	#	Rec. / Depth Adj.	Time	Hor. Ang.	Remarks	
6+00N / 11-1A	21			90		
	22			" "		
	23			" "		
	24			" "		
	25			" "		
	26			" "		
	27		10 37	" "		

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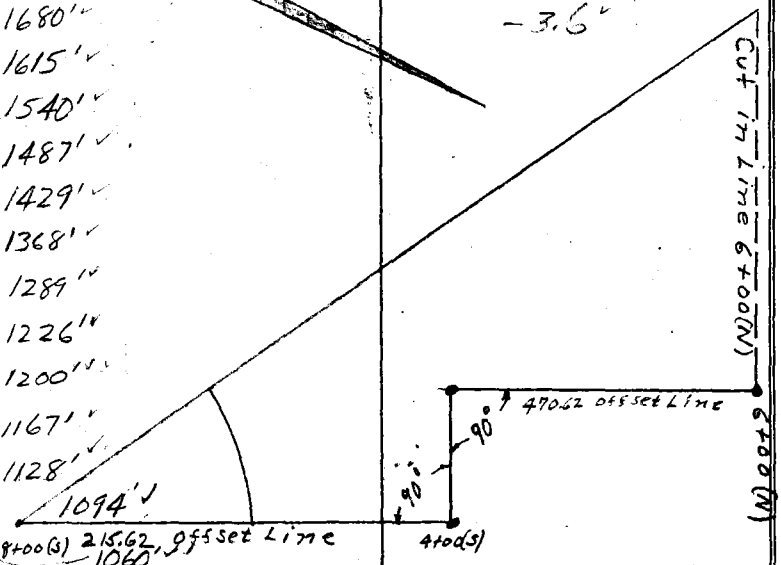
STATION Inst. At	Sight On	B. S. #	H. I. Depth Rec.	H. I. Adj.	F. S. Time	ELEV. Hor. Ang.	Remarks
8+00(S)	4+00(S)	1	29.6	26.0	10:01	53° 40'	2120'
		2	29.6	26.0		52° 32'	2043' Cut in Line 6+00(N)
		3	29.5	25.7		50° 55'	1941'
		4	28.1	24.5		49° 36'	1861'
		5	28.3	24.7		48° 34'	1802'
		6	27.8	24.2		47° 28'	1742'
		7	27.8	24.2		46° 17'	1680'
		8	26.9	23.3		44° 58'	1615'
		9	27.8	24.2		43° 24'	1540'
		10	26.7	23.1		42° 14'	1487'
		11	26.3	22.7		40° 55'	1429'
		12	26.1	22.5		39° 27'	1368'
		13				37° 28'	1289'
		14	25.0	21.4		35° 48'	1226'
		15	24.8	21.2		35° 06'	1200'
		16	23.5	19.9		34° 12'	1167'
		17	23.1	19.5		33° 05'	1128'
		18	22.9	19.3		32° 05'	1094'
		19	22.8	19.2		31° 05'	1060'
		20	21.7	18.1		30° 09'	1029'

Boat = +1.0
Zero = -0.2
Tide = -4.4
-3.6



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 93
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 8-1-58
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

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STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Depth Rec.	Adj.	Time	Hor. Ang.	Remarks	
		21	20.7	17.1		29° 12'	998'	
		22	19.2	15.6		28° 28'	975' Cut in Line	6+00(N)
		23	18.3	14.7		27° 31'	945'	
		24	16.3	12.7		26° 20'	909' Boat = +1.0'	
		25	13.9	10.3		24° 57'	867' zero = -0.2'	
		26	11.6	8.0		24° 30'	854' Tide = -4.4	
8+00 (S)	4+00 (S)	27	8.6	5.0	10:07	23° 27'	823' -3.6	
		28						
		29						
		30						

F. B. 2310 Pg. 99 Job No. 2300.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 8-1-58 Date No.
Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

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STATION	B. S.	H. I.	F. S.	ELEV.	Instr. @ 4+00 N	Sight on 6+00 N
T.P.	726	1977		125	CONT. FROM LINE 2, 4+00 N	
6+20 N			34	164	ON 470.62 OFFSET W. (UNDER CONST)	INSHORE 6+20 N
			03	195	35 FT LEFT (W.) OF 470.62 OFFSET TOP FILL	N. SIDE OF GROIN
			100	98	55 " " (W) BOT. FILL (SAND BEACH)	
			102	96	100 " "	
			138	60	160 " "	
[illegible]	14	84	128	70	165 " " ON ROCK	
			50	+3.4	38° 21' 645'	
			73	+1.1	43° 11' 677'	
			96	-12	45° 16' 693'	
			142	-58	52° 41' 759'	
			157	-73	56° 19' 801'	
			178	-94	58° 44' 833'	

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2310 Pg. 95

X-Sec. No. ____ Date ____ Date ____ Survey of Beach Erosion Sur

Notes Chkd. ____ Date ____ Checked ____ Survey by Dreier Notes Lauda Date 8-1-57

Map No. ____ Date ____ Indexed C. Johnson

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STATION	B. S.	H. I.	F. S.	ELEV.		
T.P.	726	1977		1251	CONT. FROM LINE 2, 4+00 N.	
T.P.	959	2490	446	1531		
T.P	1225	2729	986	1504		
B.M. 27-4			003	2726	B.M. 27-4 (B 768) ELEV. 27.253 F.B. 2100-167	
					U.S.C. & G.S. BRASS DISC IN N.E. COR. OF	
					STD. OIL SALT WATER PUMPING STA., 0.6	
					S.W. OF THE COR., STD DISC SET VERTICALLY	
					IN WALL 3' ABOVE GROUND	

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 030002 Division No. 16 F.B. 2310 Pg. 97
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION
Notes Chkd. ____ Checked ____ Survey by DREIER Notes DREIER Date 8-1-58
Date ____ Date ____ Map No. ____ Indexed ____ Date ____
C. Johnson

Notes Ck'd by K. R. KVAMMEN	Survey of Redondo Beach Breakwater
Map No. 100-3	J.N. 8300.02 Tape 140 Std 84 °F
Office Work K. R. KVAMMEN	Surveyed by M.A. VanDeren
Checked J. S. HALE	Notes V.B. Anderson Date 9-16-58
Date 9-23-58	Indexed K. C. Johnson 9-18-58

F. B. 2310 PG. 101

J.N. 0300.02

SURVEY SHOWING LOCATION
OF
REDONDO BEACH BREAKWATER

9-16-58
V.B. Anderson
J. Bazen
R. Turrill
T. Mc. Knight

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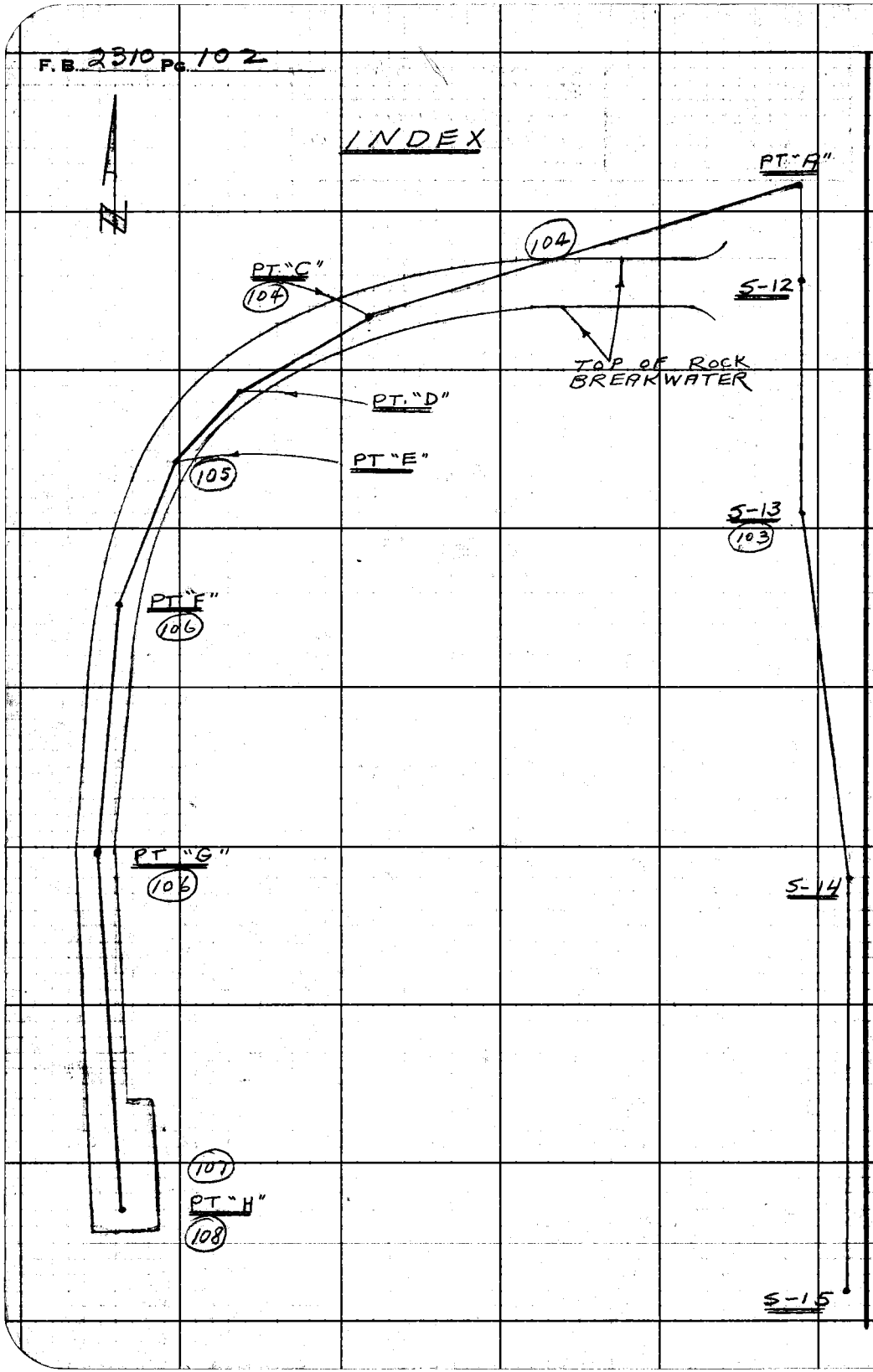
78F309S CE #247—3-57

F. B. 2310 Pg. 102



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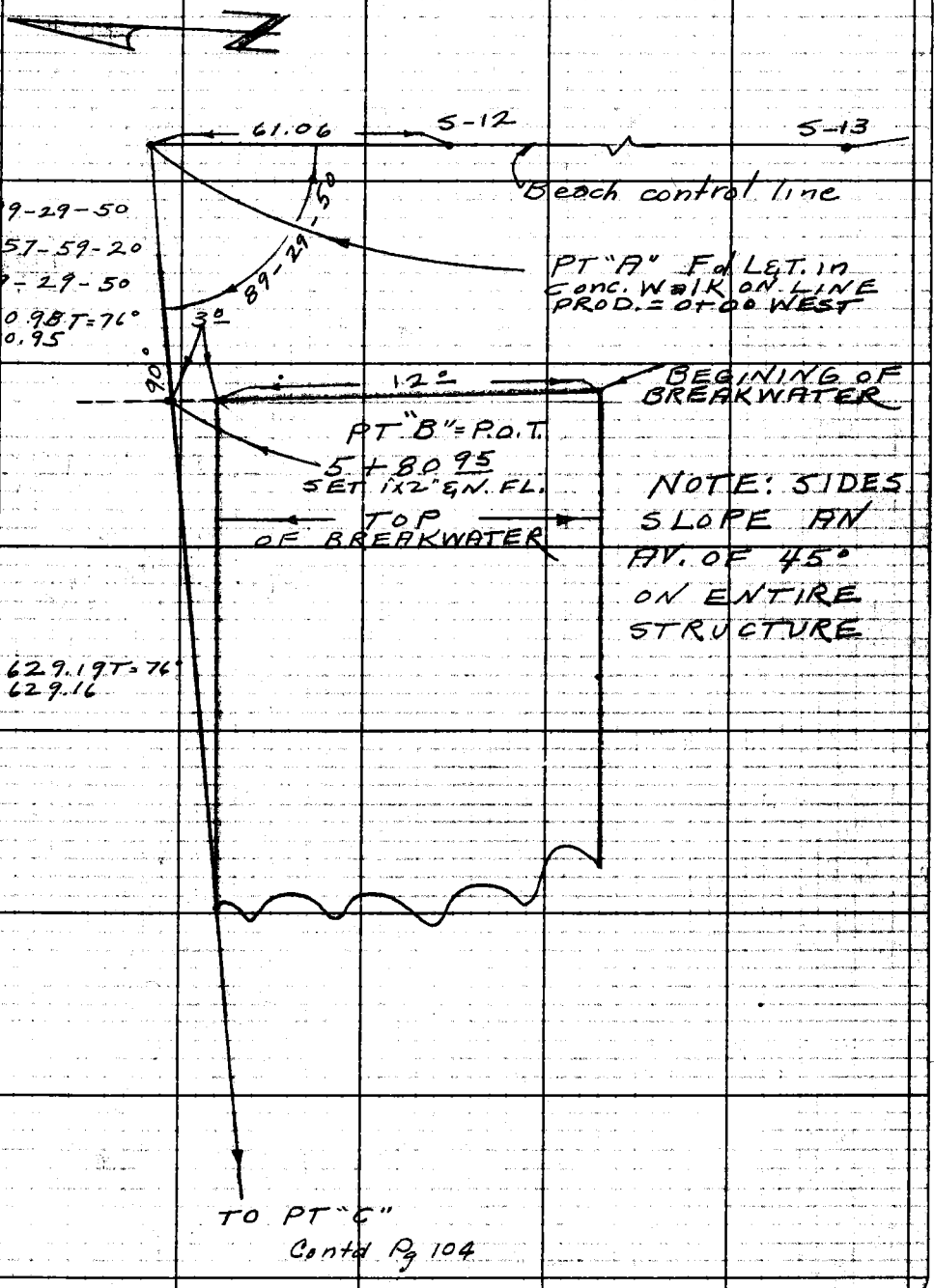
Notes Ck'd by K. R. KVAMMEN	Survey of Redondo Beach Breakwater
Map No. 100-3	IN P300.02 Tape 140 Std 84 °F
Office Work K. R. KVAMMEN	Surveyed by M. A. Van Deren
Checked J. S. HALE	Notes V. R. Anderson Date 9-16-58
Date 9-23-58	Indexed A. C. Johnson

F. B. 2310 Pg. 103



Contd Pg 104

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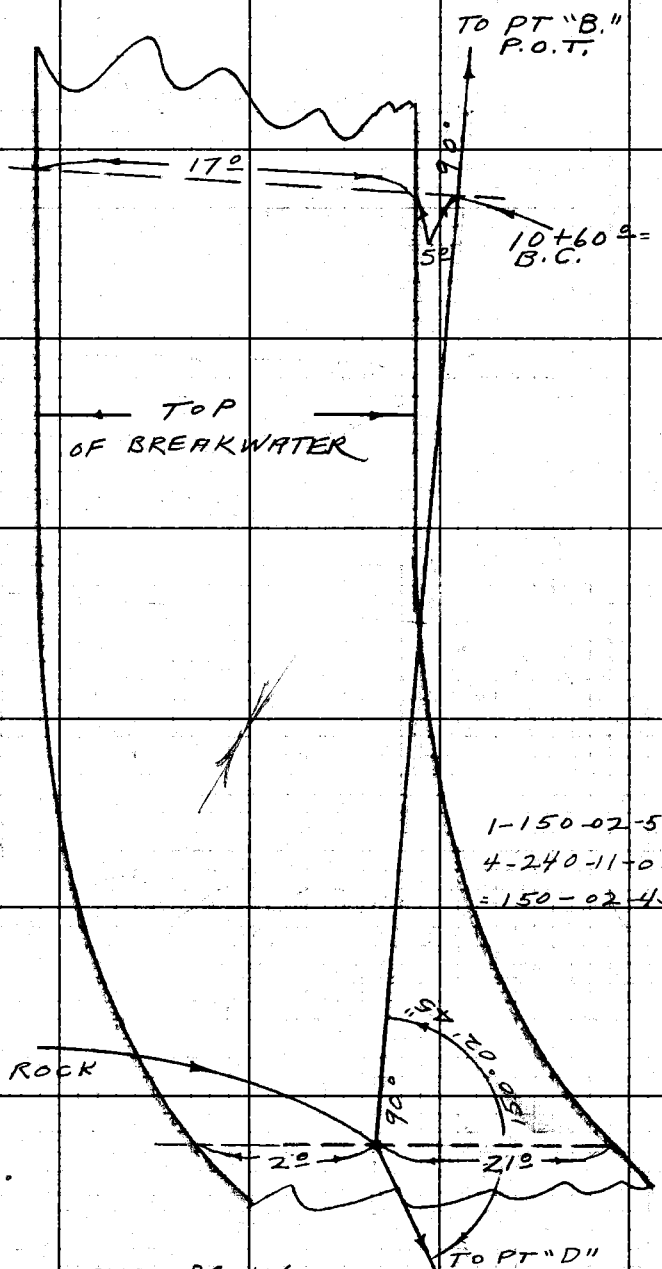
76F3099 CE #247—3-57

F. B. 2310 Pg. 104

CONT'D FM. PG 103



327.55 T-84°
= 327.55

TO PG 106

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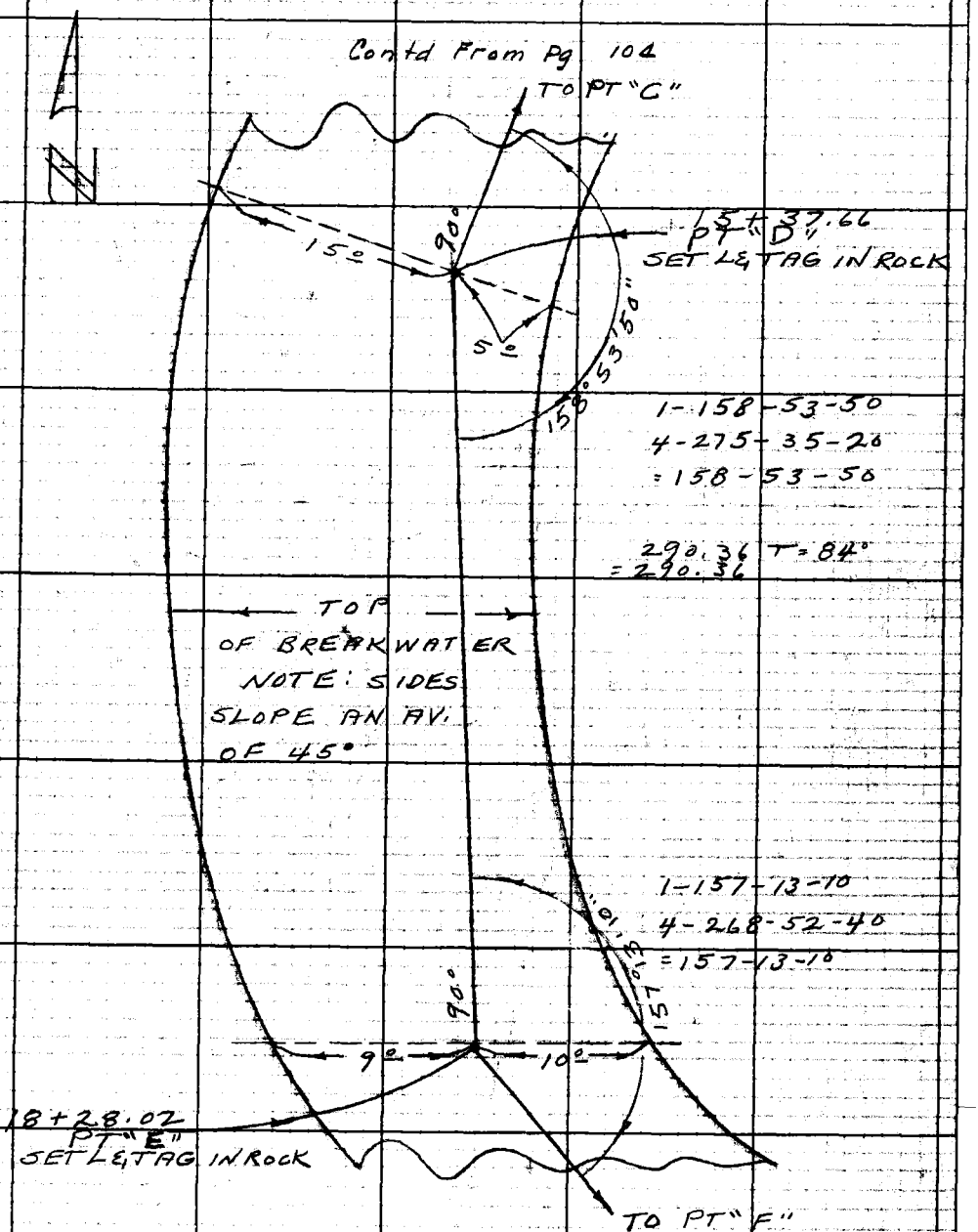
Notes Ck'd by K. R. KVAMMEN	Survey of Redondo Beach Breakwater	F.B. 2310 Pg. 105
Map No. 100-3	JN 0300.02 Tape 140 Std 84 °F	
Office Work K. R. KVAMMEN	Surveyed by M. A. Van Deren	
Checked J. S. HALE	Notes V. B. Anderson Date 9-16-58	
Date 7-23-58	Indexed K. C. Johnson	

Contd From Pg 104



Contd to Pg 106

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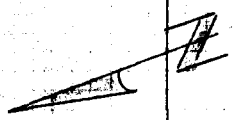
76F3098 CE #247—3-57

F.B. 2310 Pg. 106

Contd. to Pg. 107



To PT "H"

1-149-56-55
4-239-47-50
= 149-56-55

149-56-55

36+69.38 = X PT
PT "G"
Fd Lead

9°

9°

90°

1604.24 T=76°
= 1604.16

TOP
OF BREAKWATER

9°

20+65.22
PT "F"
Set L&T Tag in rock

9°

90°

166-02-50

1-166-02-50
4-304-11-20
= 166-02-50

237.26 T = 84°
= 237.26

To PT "E"

Contd From Pg 105

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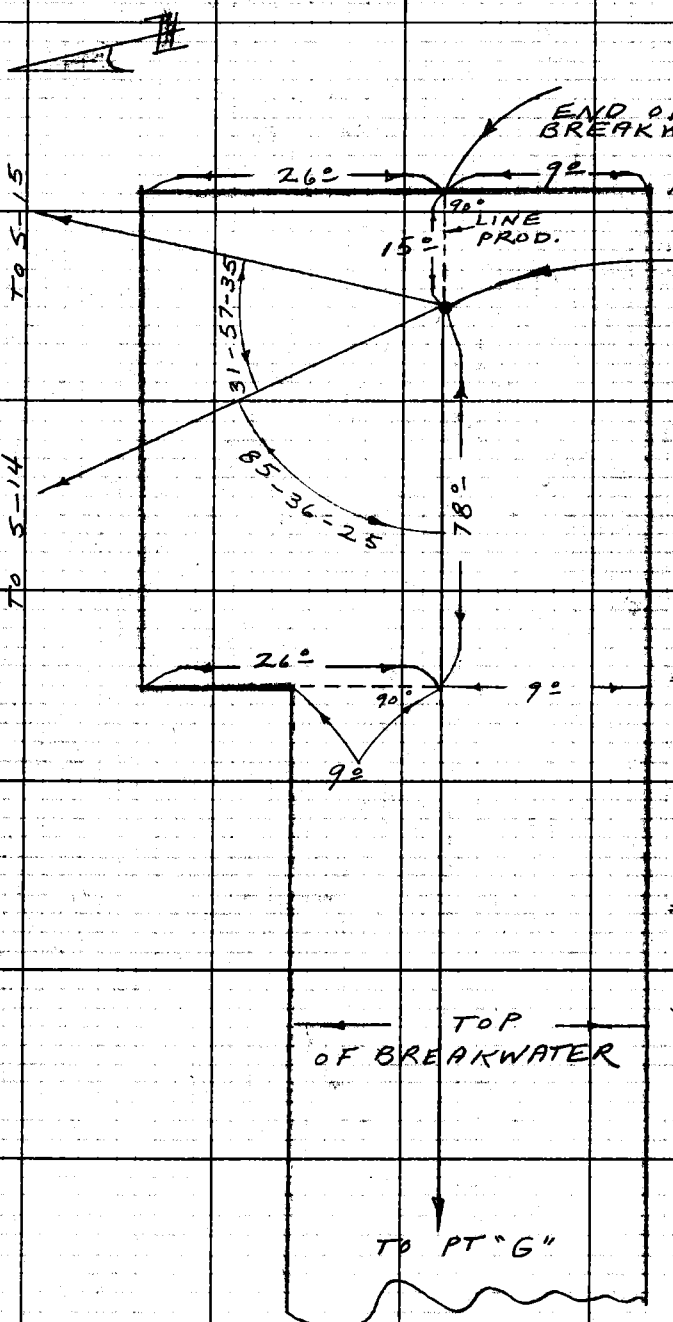
Notes Ck'd by K. R. KVAMMEN	Survey of Redondo Beach Breakwater	F. B. 2310 Pg. 107
Map No. 100-3	JN 0300.02 Tape 140 Std 84 °F	
Office Work K. R. KVAMMEN	Surveyed by M. A. Van Deren	
Checked J. S. HALE	Notes V. R. Anderson Date 9-16-58	
Date 9-23-58	Indexed A. C. Johnson	



NOTE: SIDES SLOPE AN AV. OF 45°

52 + 60.84 PT "H" SET L&TAG IN ROCK

NOTE: SIDES OF BREAKWATER HAVE AN AV. SLOPE OF 45°

1 - 31 - 57 - 40
4 - 127 - 50 - 20
= 31 - 57 - 35
1 - 85 - 36 - 20
4 - 342 - 25 - 40
= 85 - 36 - 25

1591.54 T = 76°
= 1591.46

Contd From Pg 106

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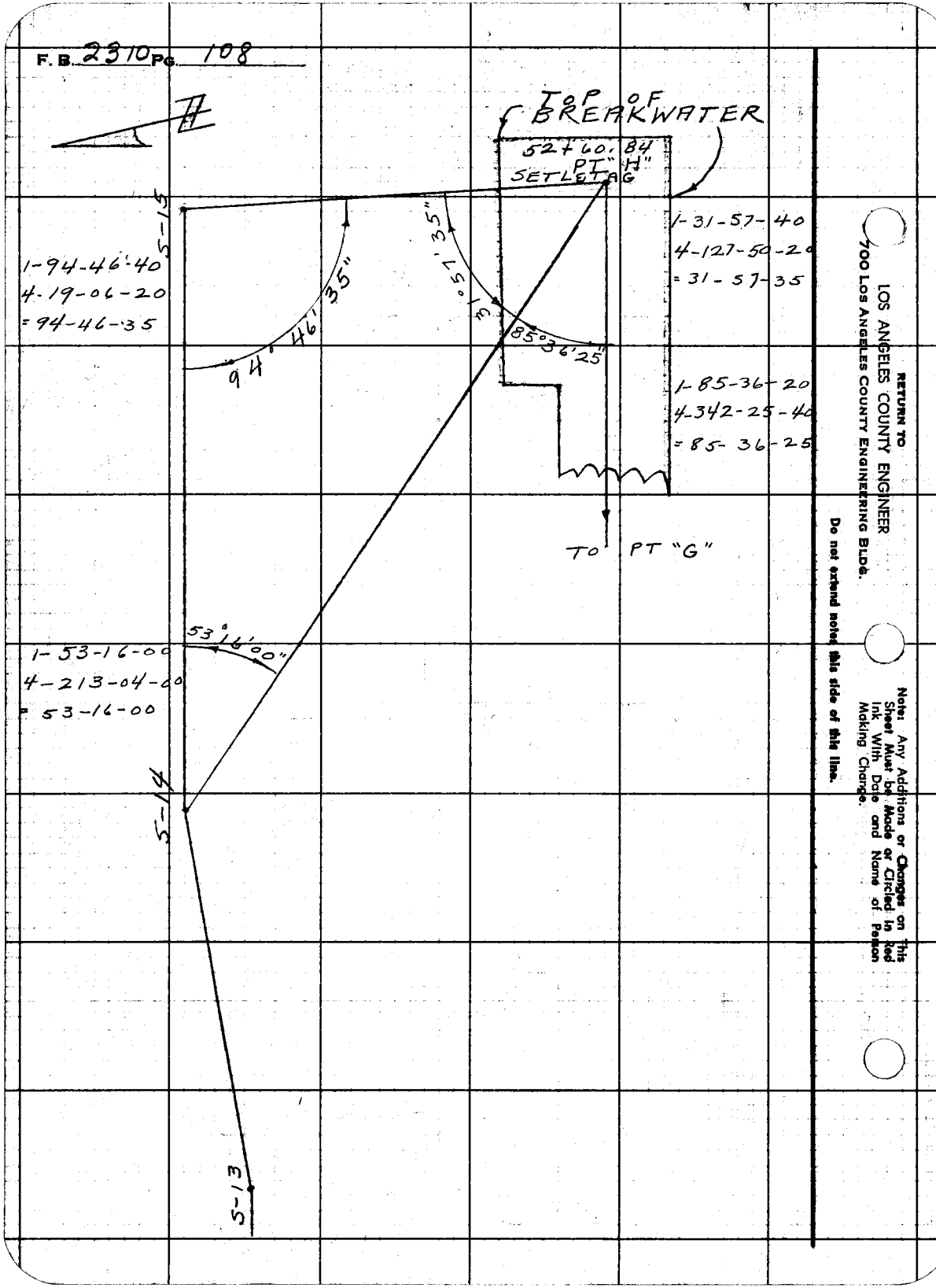
76F3093 CK #247—3-57

F. B. 2310 PG. 108



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Notes Ck'd by	Survey of Redondo Beach Breakwater
Map No.	JN 0300.02 Tape 0 to 5 Std. 67 °F
Office Work	Surveyed by M. R. Van Deren
Checked	Notes Van Date 12-22-58
Date	Indexed A. C. Johnson 12-23-58

F. B. 2310 PG. 109

J.N. 0300.02

SURVEY SHOWING LOCATION

OF

REDONDO BEACH BREAKWATER

12-22-58
Van Deren
Le Gault
Tarrill
Siemann

"Note" Side slope on Breakwater = 45°± Av

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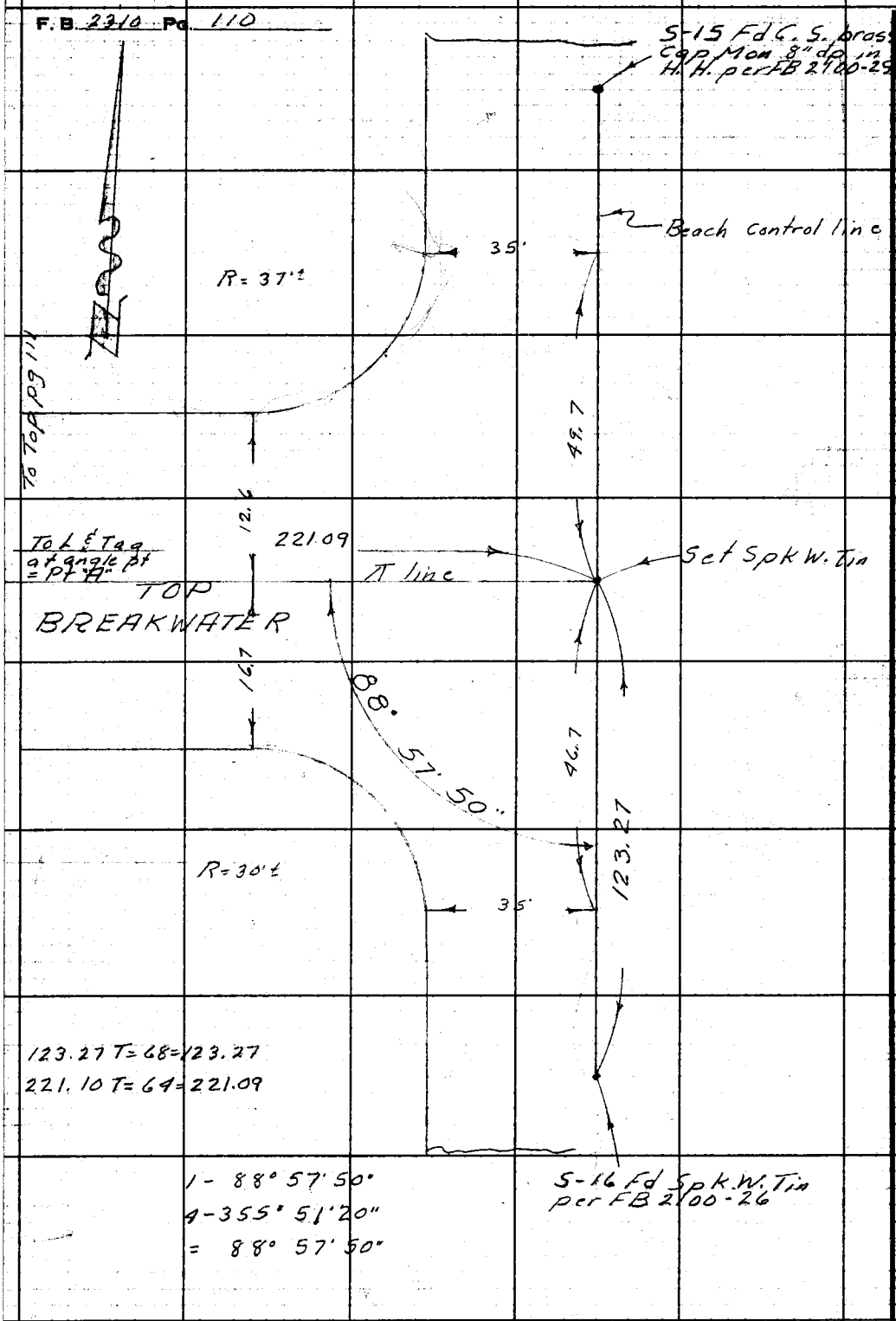
78FBOS CE #247—3-57

F.B. 2310 Pg. 110



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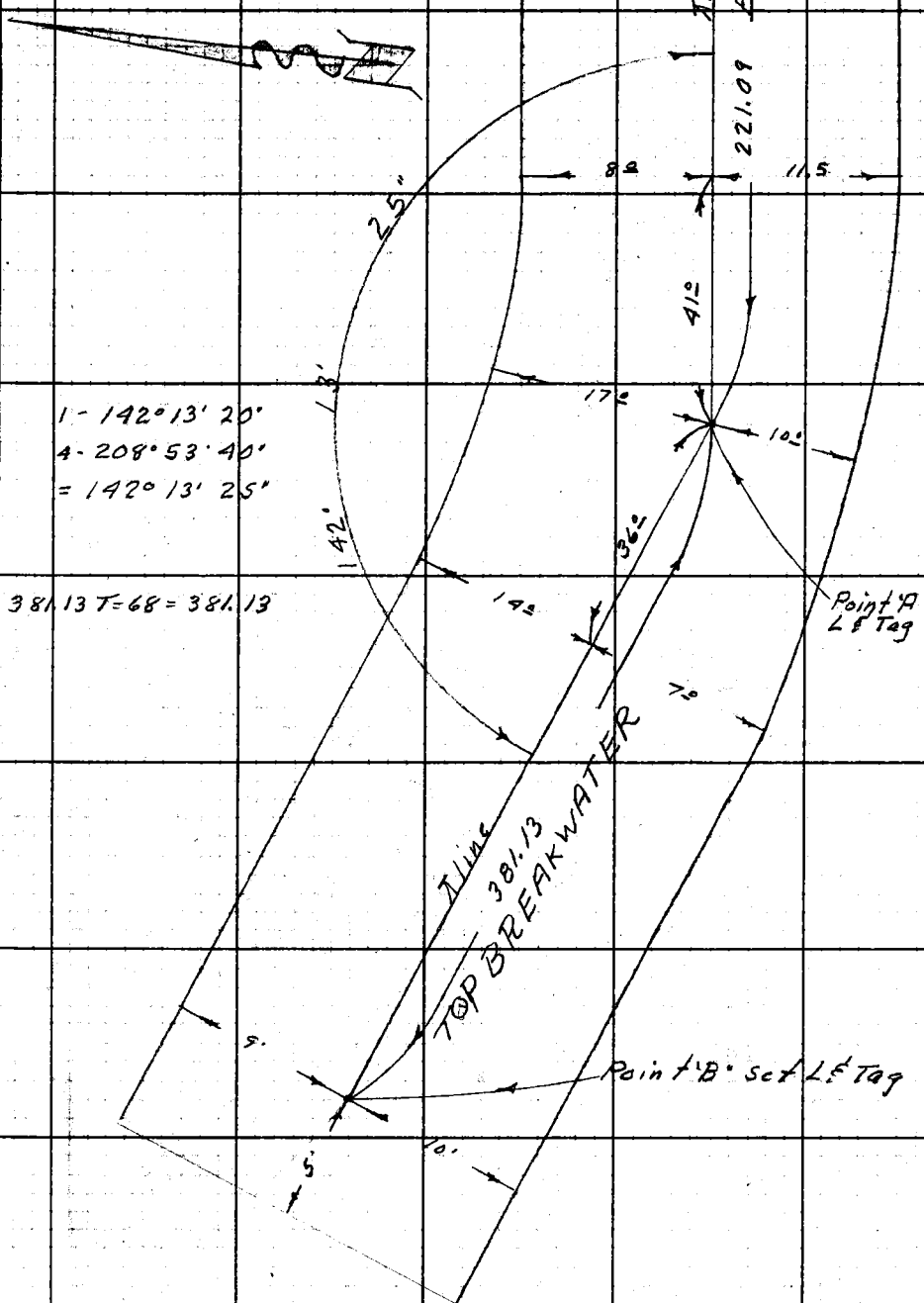
Notes Ck'd by
Map No.
Office Work
Checked
Date

Survey of Redondo Beach Breakwater
JN 034002 Tape 0145 Std 68 °F
Surveyed by M. A. Van Deren
Notes Van Date 12-22-58
Indexed C. Johnson

F. B. 2310 PG. 111
From Lt. pg 110



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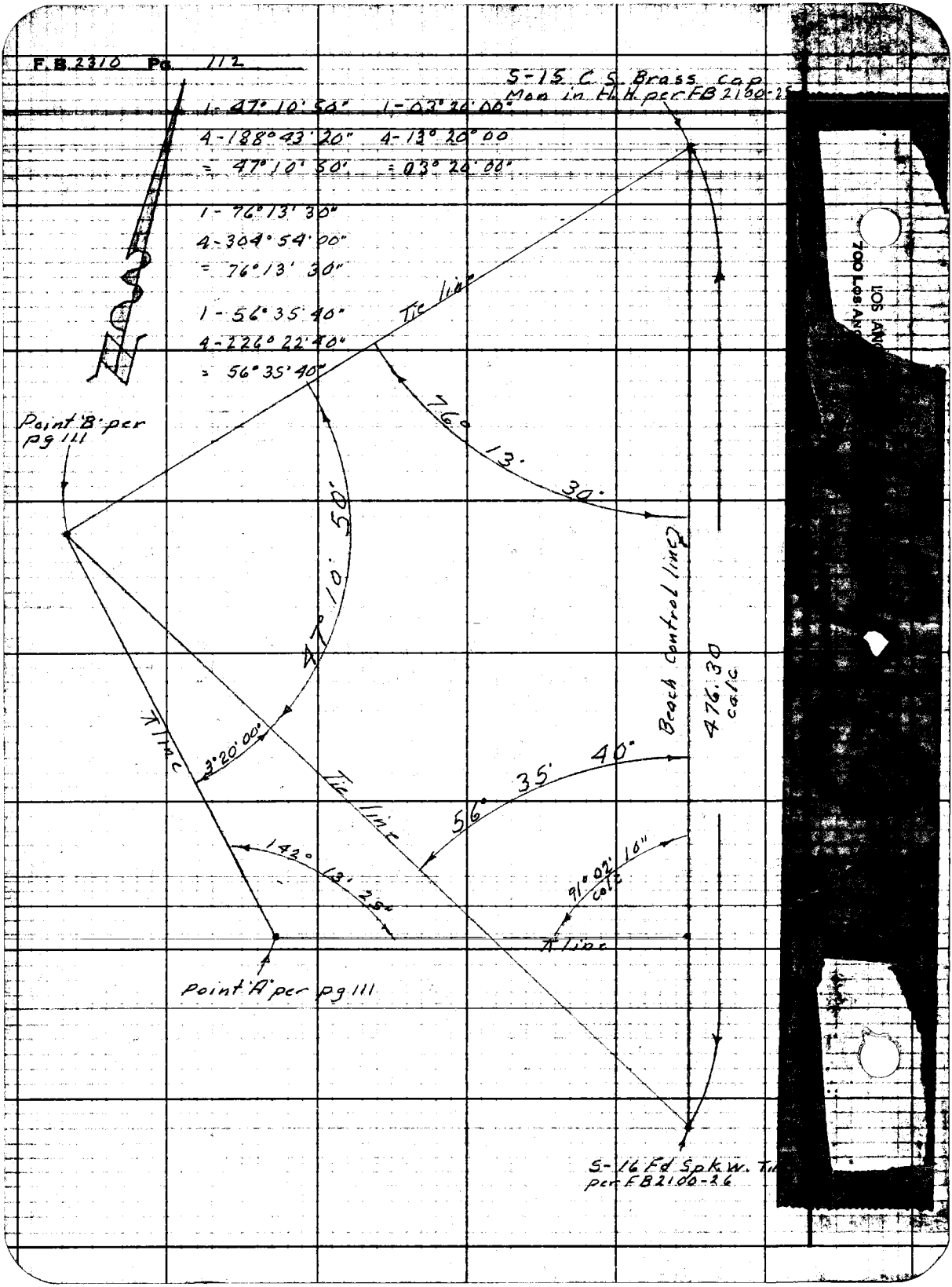
76F2098 CE #247 3-57

F.B. 2310 Pg. 112