Notes Ck'd by	Survey of Beach Erosion
Map No.	W. Of Tape No. — St'd. — °F
Office Work	Surveyed by Van Deren
Checked	Notes Van Date 5-22-56
Date	Indexed B. C. Johnson 5-28-56

F.B. [illegible] PG. 3

J.N. 0300.02

BEACH EROSION STUDIES

&

SOUNDINGS

May 22-56 To May 25-56

From Station 296+65 S To 428+19-S

M. A. Van Deren
K. Kramman
Richards
Bozen
Turrill

Microfilmed Jan 86

2304 7

F. B. _____ Pg. _____

Notes Ck'd by _____	Survey of Beach Erosion Stud.
Map No. _____	W. O. 0300.02 Tape No. _____ St'd. _____ °F
Office Work _____	Surveyed by Van Deren
Checked _____	Notes W. D. BAY Date 5-22-56
Date _____	Indexed A. C. Johnson

TIDE GUAGE U.S.C. & G.S.
SANTA MONICA PIER
5-22-'56

	STD. TIME	TIDE
	6:00 A.M.	+ 2.8
	6:30 "	+ 3.3
	7:00 "	+ 3.6
	7:30 "	+ 3.95
	8:00 "	+ 4.05
	8:30 "	+ 4.0
	9:00 "	+ 3.75
	9:30 "	+ 3.65
	10:00 "	+ 3.4
	10:30 "	+ 3.1
	11:00 "	+ 2.7
	11:30 "	+ 2.4
NOON	12:00	+ 2.1

W. D. Bay

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.

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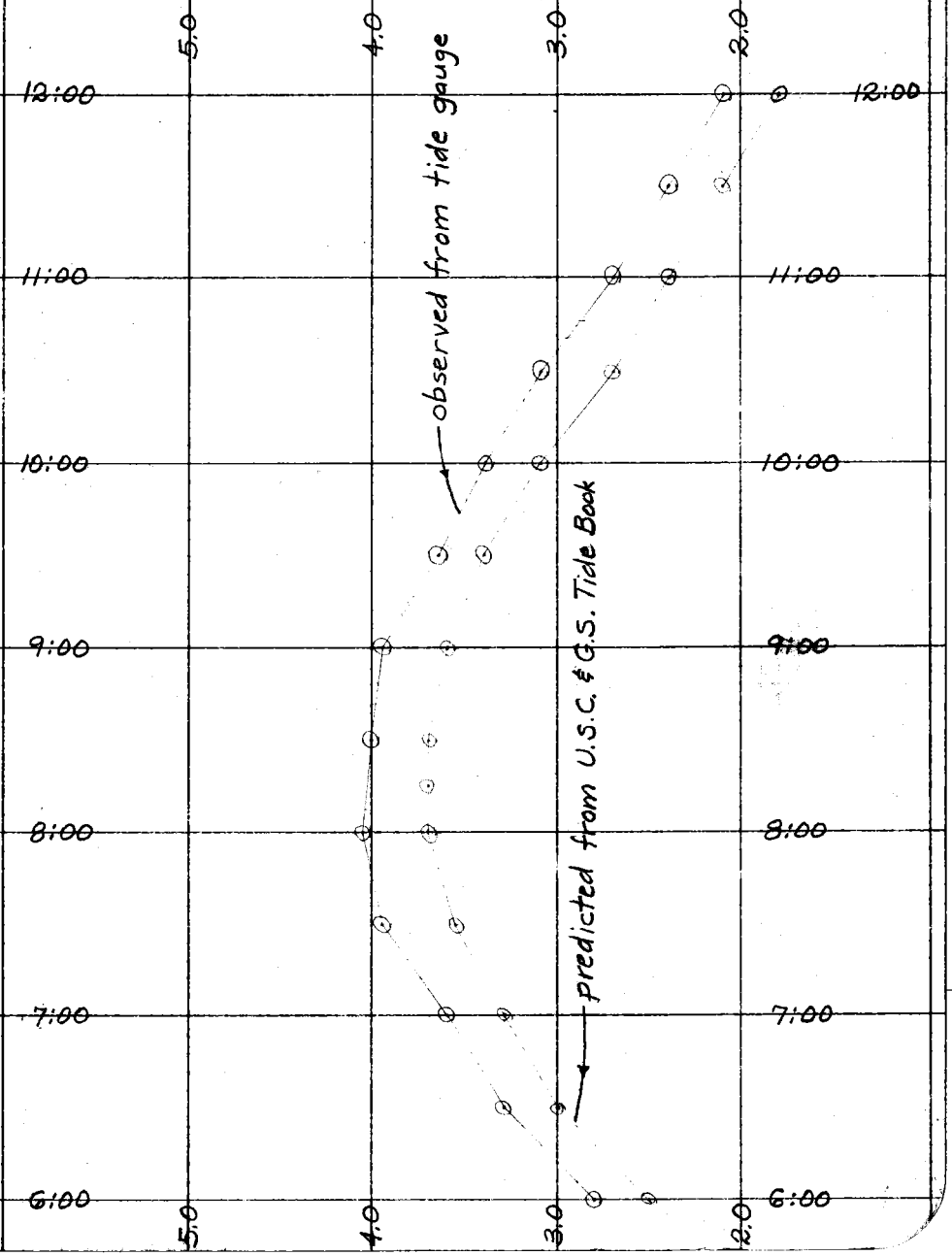
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY
ENGINEERING BLDG.

76F3095 S&E #247. 8-54

Notes Ck'd by	Survey of Beach Erosion
Map No.	JN Tape Std °F
Office Work	Surveyed by
Checked	Notes Date
Date	Indexed

F. B. 2304 PG.

May 22, 1956



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700 LOS ANGELES COUNTY ENGINEERING BLDG.

7673095 SBE #247 1-56

76298 S & E #307—7-55

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Do not extend notes this side of this line.

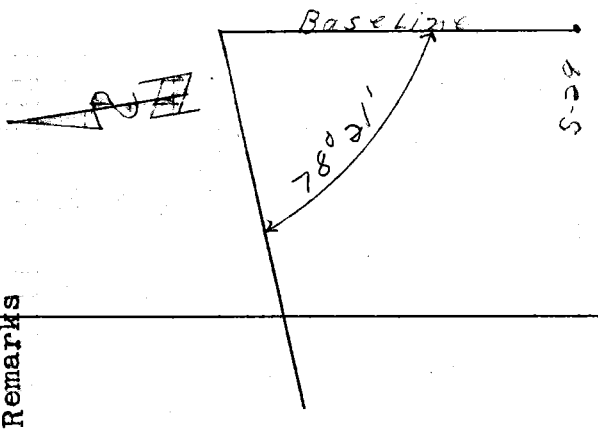
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 425+65	Sight on 428+19
5-28	4 33	14 48		10 15	5-28, el. = 10.147 M.L.L.W.	
428+19	0 01	8 44	6 05	8 43 (T.P.)	1 x 2, ground el. = (-) 0.50' = 7.9	
			+04	8 8	12' L., B.B.	
			4 3	4 1		30' R.
			5 9	2 5		14° 37' 72
			7 5	0 9		26 44 147
			8 8	-0 4		35 52 221
			9 9	-1 5		41 35 283
			11 0	-2 6		45 21 331
			12 3	-4 9		48 47 389
			15 0	-6 6		52 11 457
			16 6	-8 2		52 41 470
			17 0	-8 6		55 09 530
T.P.	0 00	9 71	3 23	4 71		
5-28		+	53	10 0		

Inshore
428+19 S.
Time: 1:00 P.M.

Profile Notes Red ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 9
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd ____ Checked ____ Survey by English Notes Ed. Date 5-21-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 11
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Vanderen	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 428+19-S



STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At Ch	#	Color	Time	Hor. Ang.	
	1.		7 11	78° 21'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-29

428+19-S

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

Fr. B. 2304 Pg. 12 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-22-56 | Date | No.

Survey by M.A. van Dexen | Notes PH. | Notes Chkd. | Checked | X-Sec.

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

Station	B.S.	H.I.	F.S.	Elev.	Remarks
428+19-S					
S-29					
Inst. Sight At	#	Color	Time	Hor. Ang.	
	2.16				
	2.22				
	2.32				
			7 15	78° 21'	
					Range 428+19-S

76L298 307 8-53

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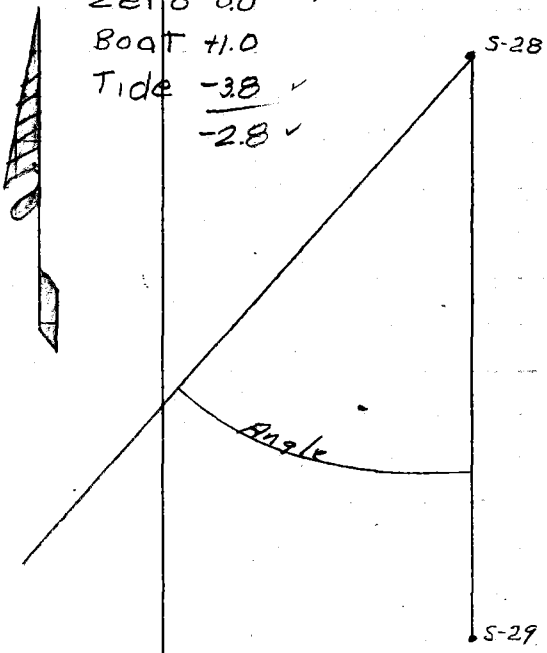
Do not extend notes this side of this line.

STATION Inst. At	Sight On	B. S. #	H. I. Color		F. S. Time	ELEV. Hor. Ang.		Remarks
S-28	S-29	1	29.4 ✓	26.6 ✓	7:11	60° 07'	1581 ✓	Cut in line 428+19
		2	28.0 ✓	25.2 ✓		59° 22'	1510 ✓	Zero 0.0 ✓
		3	26.3 ✓	23.5 ✓		58° 44'	1456 ✓	Boat +1.0
		4	25.2 ✓	22.4 ✓		57° 47'	1377 ✓	Tide -3.8 ✓
		5	24.1 ✓	21.3 ✓		57° 00'	1318 ✓	-2.8 ✓
		6	23.6 ✓	20.8 ✓		56° 29'	~~1315~~ 1281	
		7	22.7 ✓	19.9 ✓		55° 39'	1219 ✓	
		8	21.7 ✓	18.9 ✓		54° 58'	1173 ✓	
		9	20.4 ✓	17.6 ✓		53° 46'	1107 ✓	
		10	19.4 ✓	16.6 ✓		52° 52'	1059 ✓	
		11	18.5 ✓	15.7 ✓		51° 38'	996 ✓	
		12	17.0 ✓	14.2 ✓		50° 39'	951 ✓	
		13	16.1 ✓	13.3 ✓		49° 10'	886 ✓	
		14	15.2 ✓	12.4 ✓		47° 48'	832 ✓	
		15	14.3 ✓	11.5 ✓		46° 09'	774 ✓	
		16	13.1 ✓	10.3 ✓		44° 26'	718 ✓	
		17	11.8 ✓	9.0 ✓		43° 03'	676 ✓	
		18	~~11.7~~ 10.5	7.7 ✓		41° 06	621 ✓	
		19	11.2 ✓	8.4 ✓		39° 01	568 ✓	
		20	10.5 ✓	7.7 ✓		36° 55	519 ✓	



Profile No. ____ Notes Red ____ Plotted ____ Job No. ____ Division No. ____ F. B. 2304
X-Sec. No. ____ Date ____ Notes Chkd. ____ Date ____ Checked ____ Date ____ Survey of ____ Survey by ____ Map No. ____ Indexed ____ Notes ____ Date 5-24-56 Pg. 13

F.B. 2304 PG. 14 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed ~~A. C. Johnson~~ Date Date Date No.

76L298 307 8-53

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STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. At	Sight On	#	Color	Time	Hor. Ang.
S-28					34° 42'
S-29					32° 95'
					30° 08'

472' Cut in line 428+19

434'

385'

76298 S & E #307—7-55

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Do not extend notes this side of this line.

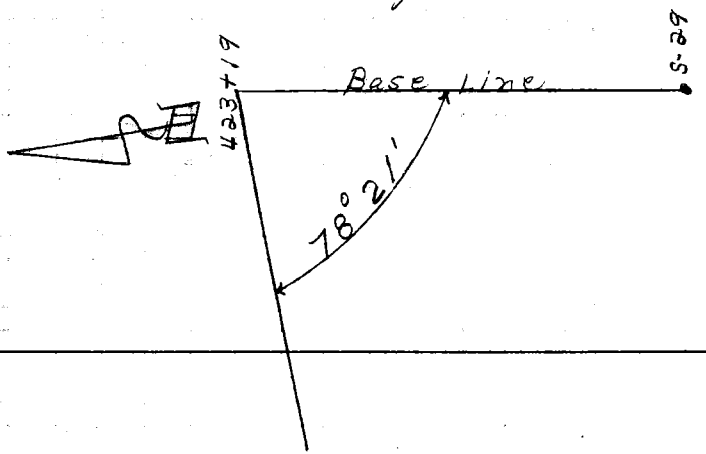
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 425+65	Right on 423+19
B.M. S-28	1 19	11 34		10 15	S-28 ELEV 10.147 M.L.L.W.	
423+19			2 1	9 2		
18' R.			4 8	6 5		
T.P. 27' R.	2 63	8 48	5 49	5 85		
			4 9	3 6	15° 23' 65	
			6 2	2 3	25 10 107	
			7 2	1 3	34 41 152	
			8 6	-0 1	47 09 220	
			10 2	-1 7	57 11 294	
			11 0	-2 5	61 22 330	
			13 2	-4 7	65 35 380	
			16 4	-7 9	68 34 420	

Inshore
423+19 S.
Time: 7:00 AM.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 15
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by English Notes Ed. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 17
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Doren	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 423+19-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		7 32	78° 21'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-29

423+19-S

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76L298 307 8-53

F.B. 2304 PG. 18 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-22-56 Date No.

Survey by M.A. Van Deren Notes P. H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
423+19-S						
S-29						
		2/	22	7 35	78° 21'	Range 423+19-S

76L298 307 8-53

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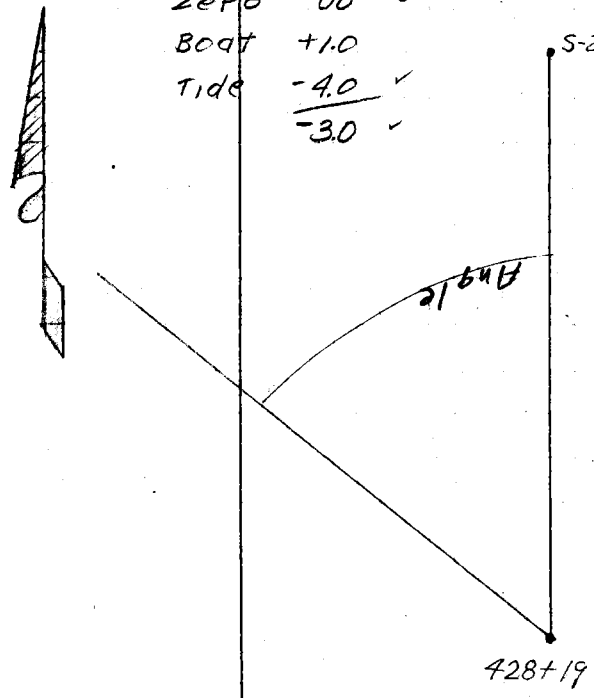
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks
	1	27.9 ✓ 24.9	7:32	82° 47'	1541
	2	26.8 ✓ 23.8		82° 03'	1489
	3	25.9 ✓ 22.9		81° 05'	1417
	4	25.3 ✓ 22.3		80° 12'	1352
	5	24.1 ✓ 21.1		79° 13'	1298
	6	22.8 ✓ 19.8		78° 06'	1233
	7	23.3 ✓ 20.3		76° 50'	1162
428+19 S-28	8	22.4 ✓ 19.4		75° 40'	1110
	9	21.0 ✓ 18.0		74° 09'	1047
	10	20.4 ✓ 17.4		72° 45'	994
	11	19.1 ✓ 16.1		71° 04'	934
	12	17.4 ✓ 14.4		69° 13'	878
	13	16.1 ✓ 13.1		67° 02'	815
	14	14.7 ✓ 11.7		64° 33'	750
	15	13.5 ✓ 10.5		62° 36'	705
	16	12.4 ✓ 9.4		60° 27'	661
	17	12.2 ✓ 9.2		58° 03'	618
	18	11.4 ✓ 8.4		55° 22'	570
	19	9.9 ✓ 6.9		52° 33'	527
	20	8.7 5.7		49° 50'	487

Cut in line 423+19
Zero 00 ✓
Boat +1.0
Tide -4.0 ✓
-3.0 ✓



Profile Notes Red. Plotted Job No. Division No. 10 F. B. Pg. 19
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Dorn Notes RT Date 5-22-56
No. Date Date Map No. Indexed C. Johnson

F.B. 2304 PG. 20 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

76L298 307 8-53

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STATION	B.S.	H.I.	F.S.	ELEV.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
	21 27	4.7		77 21	454	Cut in line 423+19
	22 20	9.0	7.35	78 28	406	

428+19

S-28

76L298 307 8-53

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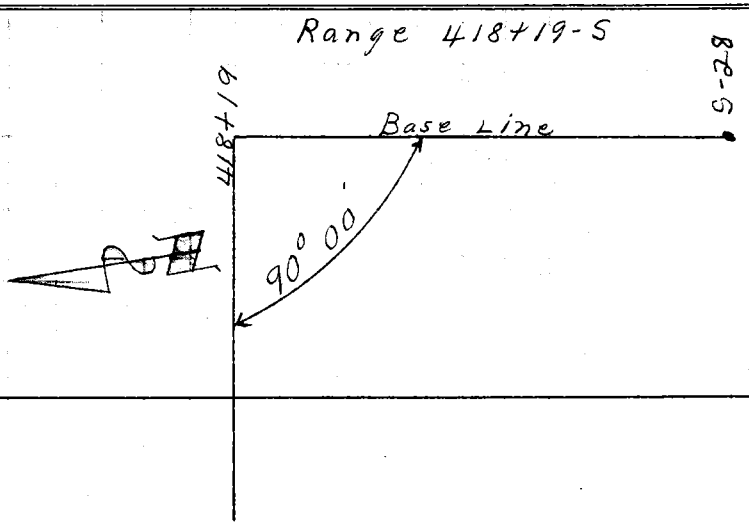
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 415+69	Sight on 418+19 S.
B.M. S-28	1 19	11 34		10 15	S-28	
T. P.	4 34	12 26	3 42	7 92		
418+19			4 5	7 8		
9' LEFT			3 1	9 2	TOE OF CUT BANK	
11' "			0 9	11.4 ~~11 3~~		
15' "			0 0	12 3	BOTTOM OF BRK	
T.P. 30' RIGHT	3 38	8 78	6 86	5 40	T.P. ON CONC. FLUSH WITH SAND	
			3 9	- 9	8° 48' 36	
			5 9	2 9	17 22 78	
			6 [illegible]	1 [illegible]	23 28 109	
			7 8	1 0	29 18 140	
			8 6	0 2	35 52 181	
			7 3	-0 5	41 59 225	
			9 8	-1 0	45 15 252	
			10 5	-1 7	50 04 299	
			12 0	-3 2	53 51 342	
			14 5	-5 7	58 40 411	

Inshore
418+19 S.
Time
7:30 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 2300.02 Division No. 10 F. B. 2304 Pg. 11
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER, ENGLISH Notes SP. & Ed. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 23
No.	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Von Dere	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson		



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		7 51	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-28

418+19S

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76L298 307 8-53

F. B. 2304 Pg. 29 | Job No. | Division No. | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-22-56 | Date | No.

Survey by M.A. van Deren | Notes P.H. | Notes Chkd. | Checked | X-Sec.

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

STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
418+19-S					
S-28					
Inst. Sight At	#	Color	Time	Hor. Ang.	
	21				
	22		7 55	90° 00'	
					Range 418+19-S

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76L298 307 8-53

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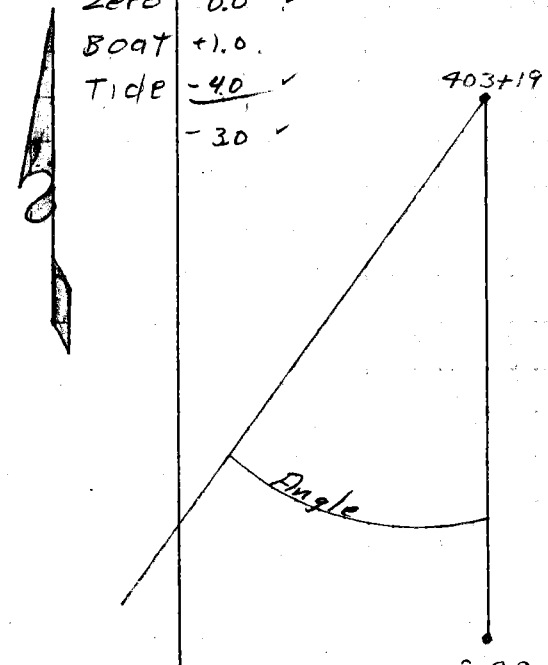
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At / Sight On	#	Color	Time	Hor. Ang.		Remarks
	1	28.5 25.5	7:51	45° 04'	1503	Cut in line 418+19
	2	27.9 24.9		43° 35'	1428	Zero 0.0
	3	27.5 24.5		42° 19'	1366	Boat +1.0
	4	26.5 23.5		40° 36'	1286	Tide -4.0
	5	25.6 22.6		39° 06'	1219	-3.0
	6	24.0 21.0		37° 40'	1158	
	7	22.9 19.9		36° 12'	1098	
	8	22.4 19.4		34° 42'	1039	
S-28	9	20.8 17.8		33° 00'	974	
	10	18.5 15.5		31° 11'	908	
	11	17.5 14.5		29° 52'	861	
	12	16.6 13.6		28° 35'	817	
	13	15.8 12.8		26° 39'	753	
	14	14.9 11.9		25° 00'	699	
	15	13.8 10.8		23° 23'	649	
	16	12.7 9.7		21° 58'	605	
	17	11.9 8.9		20° 10'	551	
	18	11.4 8.4		18° 48'	511	
	19	10.4 7.4		17° 17'	467	
403+19	20	9.4 6.4		16° 02'	431	



Profile Notes Red ____ Plotted ____ Job No. 0300-02 Division No. 10 F. B. 2304 Pg. 25
No. ____ Date ____ Date ____ Survey of Sta. 403+19 to Sta. 418+19
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Dell & Notes R.T. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

F.B. 2304 PG. 16 Job No. 6300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

PLEASE RETURN TO

LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
		21	8.5 ✓ 5.5		14° 35'	390
		22	7.4 ✓ 4.4	9:55	13° 28	359

Cut in line 418+19

403+19

S-28

76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. at 418+69	Sight on 413+19
2nd LINE T.P. 418+19	4 34	12 26		7 92		
T.P.	4 80	14 17	2 89	9 37		
413+19			4 3	9 9	TOE OF SLOPE	
13' LEFT			0 0	14 2	ON SLOPE	
T.P. 30' RIGHT	2 34	8 54	7 77	6 20	1X2 FLUSH WITH SAND	
			6 6	1 9	16 14 73	
			8 5	0 0	25 12 118	
			9 5	-1 0	37 28 192	
			10 1	-1 6	45 33 255	
			11 5	-3 0	51 20 312	
			13 5	-5 0	57 41 395	
			15 1	-6 7	62 49 487	
			16 3	-7 8	67 17 597	

Inshore 413+19 S.

7 mi. 8:00 A.M.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 27

X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES

Notes Chkd. ____ Checked ____ Survey by PREFERISH Notes G.D. & Ed. Date 5-29-56

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

76L298 307 8-53

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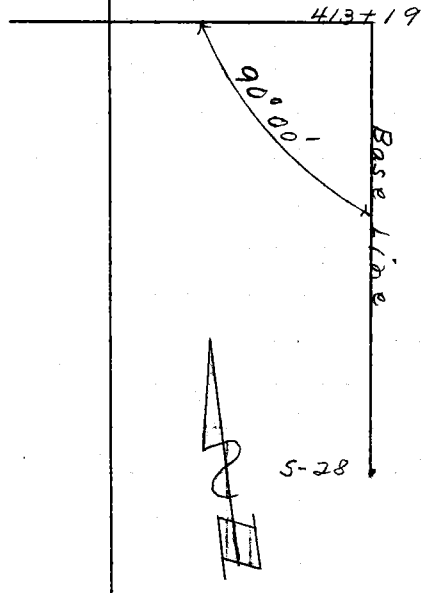
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
	1.		8 08	90° 00'		
	2.			" "		
	3.			" "		
	4.			" "		
	5.			" "		
	6.			" "		
	7.			" "		
	8.			" "		
	9.			" "		
413+19.5 5-28	10.			" "		
	11.			" "		
	12.			" "		
	13.			" "		
	14.			" "		
	15.			" "		
	16.			" "		
	17.			" "		
	18.			" "		
	19.			" "		
	20.			" "		



Range 413+19-5

Profile Notes Red ____ Plotted ____ Job No. ____ Division No. 10 F. B. 2304 Pg. 29
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by MS Van Dyke Notes PH Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

F.B. 2304 PG. 30 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Stubies Date 5-22-56 Date No.

Survey by M.A. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
413+19-S		21.			" "	
		22.			" "	
		23			" "	
		24			" "	
		25.			" "	
		26.			" "	
		27.			" "	
		28.			" "	
		29.		8 14	90° 00'	
						Range 413+19-S

76L298 307 8-53

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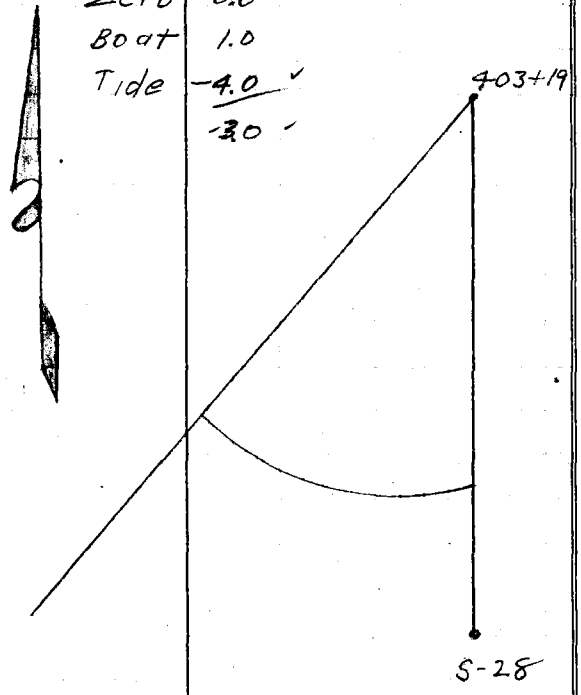
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	37.0 ✓	34.0 ✓	8:08	64° 17'	2076	Cut in line 413+19
		2	36.5 ✓	33.5 ✓		[illegible]	1991	Zero 0.0 ✓
		3	36.0 ✓	33.0 ✓		62° [illegible]	1910	Boat 1.0
		4	35.4 ✓	32.4 ✓		[illegible]	1802	Tide -4.0 ✓
		5	34.2 ✓	31.2 ✓		[illegible]	1722	-3.0 ✓
		6	32.3 ✓	29.3 ✓		[illegible]	1622	
		7	30.1 ✓	27.1 ✓		[illegible]	1528	
		8	28.1 ✓	25.1 ✓		[illegible]	1421	
403+19	S-28	9	26.7 ✓	23.7 ✓		[illegible]	1305	
		10	25.6 ✓	22.6 ✓		[illegible]	1215	
		11	24.8 ✓	21.8 ✓		79° 06'	1154	
		12	23.4 ✓	20.7 ✓		47° 11'	1079	
		13	22.5 ✓	19.5 ✓		75° 30'	1018	
		14	20.4 ✓	17.4 ✓		43° 12'	939	
		15	19.1 ✓	16.1 ✓		41° 36'	887	
		16	18.4 ✓	15.4 ✓		39° 37'	828	
		17	17.3 ✓	14.3 ✓		37° 41'	772	
		18	16.4 ✓	13.4 ✓		35° 25'	711	
		19	14.9 ✓	11.9 ✓		33° 40'	666	
		20	13.4 ✓	10.4 ✓		31° 56'	624	



Profile Notes Red. ✓ Plotted ____ Job No. 0300-02 Division No. 10 F. B. 2304 Pg. 31
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Doren Notes R.T. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed X C. Johnson Date ____

76L298 307 8-53

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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks	
		21	12.9 ✓ 9.9 ✓		30° 00'	580	Cut in line 413+19
		22	11.8 ✓ 8.8 ✓		28° 40'	547	
		23	11.4 ✓ 8.4 ✓		26° 47'	505	
		24	10.8 ✓ 7.8 ✓		[illegible]	479	
		25	9.9 ✓ 6.9 ✓		23° 40'	438	
		26	8.9 ✓ 5.9 ✓		22° 30'	416	
		27	7.7 ✓ 4.7 ✓		21° 20'	393	
		28	6.8 ✓ 3.8 ✓		20° 00'	364	
403+19	S-28	29	6.0 ✓ 3.0 ✓	8:14	18° 05'	327	

F.B. 2304 Pg. 32 Job No. 0300.01 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 5-22-56 Date No.
Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. at 405+69	Sight on 408+19
413+19 T.P. LINE #2	4 80	14 17		9 37		
T.P. 410+69	5 50	14 65	5 02	9 15		
408+19			64	8 2		
15' LEFT			44	10 2	BRK	
40 "			20	12 6	TOE SLOPE	
60 "			+07	15 3	ON SLOPE	
T.P. 35' RT.	3 64	9 57	8 72	5 93	1X2 FLUSH WITH SAND.	
			6 0	3 6	12 22 64	
			8 0	1 6	22 41 105	
			8 8	0 8	30 09 145	
			9 7	-0 1	35 42 180	
			10 5	-0 9	39 52 209	
			11 0	-1 4	46 56 267	
			11 5	-1 9	50 49 307	
			13 0	-3 4	54 21 349	
			14 1	-4 5	56 44 381	
			17 1	-7 5	60 37 444	

Inshore 408+19 S.

Time: 8:20 A.M.

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 33

No. Date Date Survey of BEACH EROSION STUDIES

X-Sec. Notes Chkd. Checked Survey by DREIER ENGLISH Notes C.D.&Fd. Date 5-22-56

No. Date Date Map No. Indexed C. Job Dated

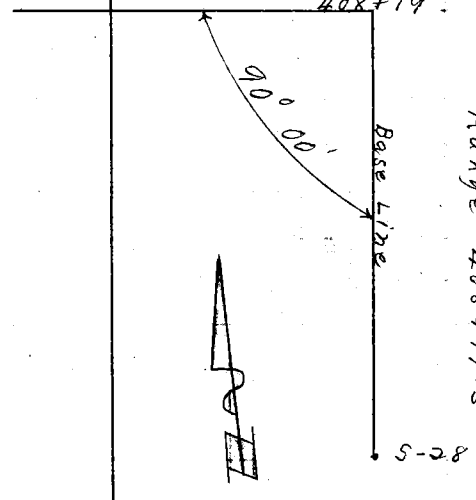
76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At / Sight On	#	Color	Time	Hor. Ang.	Remarks	
	1.		8 24	98 00		
	2.			" "		
	3.			" "		
	4.			" "		
	5.			" "		
	6.			" "		
	7.			" "		
	8.			" "		
	9.			" "		
408+19-S / S-28	10.			" "		
	11.			" "		
	12.			" "		
	13.			" "		
	14.			" "		
	15.			" "		
	16.			" "		
	17.			" "		
	18.			" "		
	19.			" "		
	20.			" "		



Range 408+19-S

Profile Notes Red ____ Plotted ____ Job No. ____ Division No. 10 F. B. 2304 Pg. 35
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by M. Van Deren Notes PH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed E. C. Johnson

Fr. Bk. 2304 Pg. 36 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-22-56 | Date | No.

Survey by M.A. Van Dexen | Notes P.H. | Notes Chkd. | Checked | X-Sec.

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

STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At	#	Color	Time	Hor. Ang.	
408+19-S					
S-28					
	21			" "	
	20			" "	
	23			" "	
	24		8 28	90° 00'	Range 408+19-S

Do not extend notes this side of this line.

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-33

76L298 307 8-53

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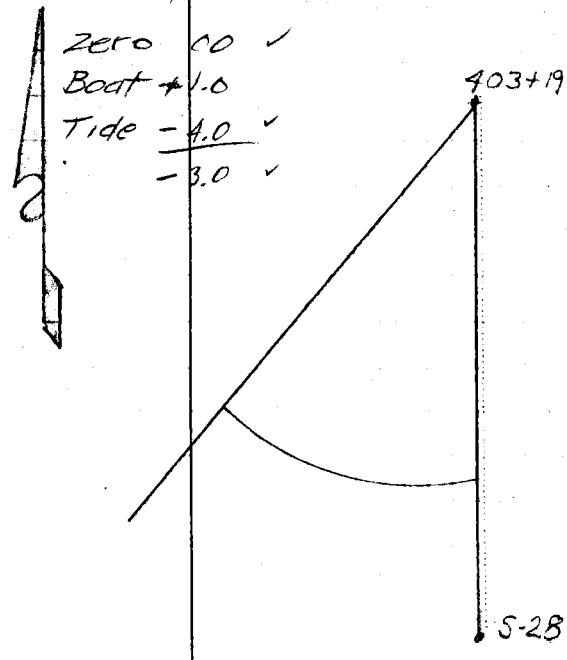
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	32.9 ✓	29.9	8:24	73° 11'	1654	Cut in line 408+19
		2	31.7 ✓	28.7		72° 05'	1546	
		3	30.5 ✓	27.5		71° [illegible]	1467	Zero 00 ✓
		4	28.3 ✓	25.3		[illegible]	1380	Boat +1.0
		5	27.4 ✓	24.4		68° 56'	1298	Tide -4.0 ✓
		6	26.9 ✓	23.9		67° 38'	1215	-3.0 ✓
		7	24.1	21.1		[illegible]	1126	
403+19	S-28	8	22.8 ✓	19.8		[illegible]	1055	
		9	22.0 ✓	19.0		63° 21'	996	
		10	21.1 ✓	18.1		[illegible]	927	
		11	20.4 ✓	17.4		60° [illegible]	870	
		12	19.7 ✓	16.7		[illegible]	803	
		13	18.5 ✓	15.5		[illegible]	750	
		14	16.5 ✓	13.5		59° [illegible]	703	
		15	15.2 ✓	~~13.2~~ 12.2		[illegible]	649	
		16	14.2 ✓	11.2		[illegible]	608	
		17	13.1 ✓	10.1		[illegible] 46'	570	
		18	12.4 ✓	9.4		47° 10'	539	
		19	11.1 ✓	8.1		44° 44'	495	
		20	12.8 ✓	7.8		43° 03'	467	



Profile Notes Red. ____ Plotted ____ Job No. [illegible] Division No. 10 F. B. [illegible] Pg. 37
No. ____ Date ____ Date ____ Survey of [illegible]
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Dorn Notes P.T. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

F. B. 2304 PG. 38 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Dexen Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
		21	10.1 ✓ 7.1		43 51	432 Cut in line 403+19
		22	8.5 ✓ 5.5		38 [illegible]	398
		23	6.9 ✓ 3.9		[illegible]	359
		24	6.0 ✓ 3.0	8:28	[illegible]	335

403+19

S-28

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

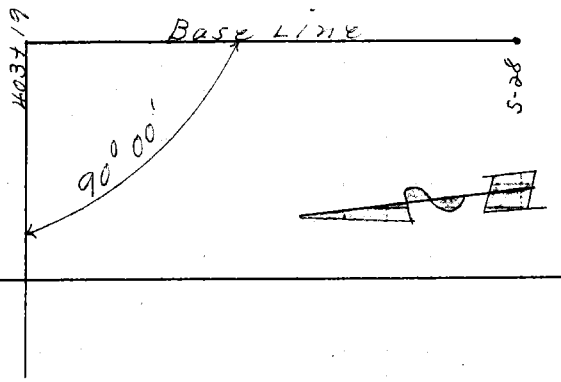
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 405+69	Sight on 403+19
408+19 T.P. LINE 2	5 50	14 65		9 15		
T.P. 405+69	9 62	18 59	5 68	8 97		
403+19			9 4	9 2		
16' LEFT			7 1	11 5		
74' "			+1 7	20 3	ON SAND AT EDGE OF CONC.	
74' "			+2 4	21 0	ON EDGE OF CONC. AT END OF RAMP.	
T.P. 40' RIGHT	2 86	9 03	12 42	6 17	1 X 2 FLUSH	
			5 9	3 1	18 24 83	
			7 5	1 5	25 50 121	
			8 5	0 5	32 37 160	
			9 3	-0 3	37 39 193	
			10 2	-1 2	42 08 226	
			10 8	-1 8	44 41 247	
			11 2	-2 2	49 05 288	
			11 6	-2 6	53 17 335	
			12 3	-3 3	55 17 361	
			14 6	-5 6	59 33 425	

Inshore
403+19 S.
Time: 8:50 AM.

Profile Notes Red. ____ Plotted ____ Job No. 030602 Division No. 10 F. B. 2304 Pg. 39
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER ENGLISH Notes C.D.&B. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ~~X~~ C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 41
No.	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Deren	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed C. Johnson		

Range 403+19-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		8 43	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			8 46	" "

S-28

403+19-S

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

761.298 307 8-53

F.B. 2304 PG. 42 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-22-56 Date No.

Survey by M.A. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At	#	Color	Time	Hor. Ang.		Remarks
403+19-S						Range 403+19-S
S-28						

76L298 307 8-53

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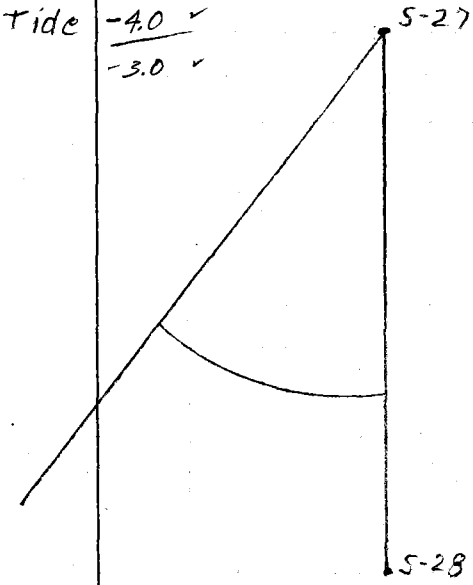
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	30.6	27.6	8.43	41° 45'	1339	Cut in line 403+19
		2	29.0	26.0		40° 18'	1272	Zero 00
		3	26.4	23.4		37° 53'	1166	Boat 1.0
		4	25.3	22.3		35° 55'	1086	Tide -4.0
		5	23.9	20.9		34° 12'	1019	-3.0
		6	22.8	19.8		32° 19'	949	
		7	21.8	18.8		30° 22'	879	
		8	20.6	17.6		28° 25'	812	
S-27	S-28	9	19.3	16.3		26° 26'	746	
		10	18.1	15.1		24° 30'	694	
		11	16.8	13.8		23° 23'	649	
		12	14.9	11.9		21° 35'	593	
		13	14.3	11.3		20° 28'	560	
		14	14.0	11.0		19° 00'	516	
		15	11.5	8.5		17° 46'	481	
		16	10.3	7.3		16° 50'	454	
		17	9.5	6.5		15° 48'	424	
		18	8.9	5.9		14° [illegible]	400	
		19	7.4	4.4	8.46	13° 55'	372	



Profile Notes Red. Plotted Job No. Division No. F. B. 2304 Pg. 43
No. Date Date Survey of
X-Sec. Notes Chkd. Checked Survey by Notes Date
No. Date Date Map No. Indexed C. Johnson

F. B. 2304 Pg. 44 | Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Deron Notes N.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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

Do not extend notes this side of this line.

PLEASE RETURN TO
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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-53

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

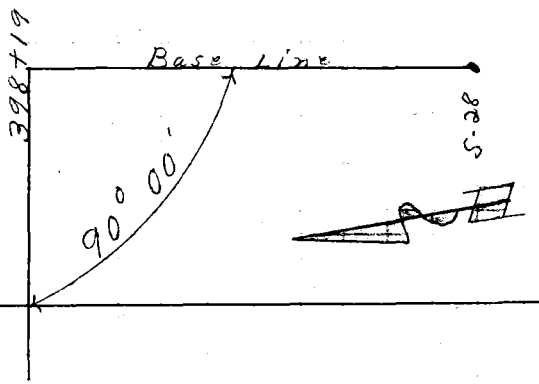
STATION	B. S.	H. I.	F. S.	ELEV.	[illegible] 395+69	sight on 398+19
T.P. 405+69	9 62	18 59		8 97	LINE 2 403+19	
T.P.	3 67	20 78	1 48	17 11		
398+19			10 1	10 7	TOP BRK	
46 FT. LEFT			4 8	16 0	TOE BANK	
52 " "			1 1	19 7	TOP. "	
90 " "			+8 2	29 0	ON SLOPE	
T.P. 40' RT.	1 96	8 7	14 04	6 74	1X2 FLUSH	
			[illegible]	[illegible]	[illegible] 67 ✓	
			6 9	2 3	20 31 94 ✓	
			8 3	0 4	26 23 124 ✓	
			9 4	-0 7	37 02 189 ✓	
			10 9	-2 2	43 47 240 ✓	
			14 1	-5 4	51 02 309 ✓	

Inshore
398+19 S.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. Pg. 46
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER ENGLISH Notes G.P. Ed. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 47
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA Van Deren	Notes PH.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson		

Range 398+19-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		8 56	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-28

398+19-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

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F.B. 2304 Pg. 98 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-22-56 Date No.

Survey by MA. van Deren Notes P. H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. Sight At	#	Color	Time	Hor. Ang.	Remarks
3.98+19-5										
S-28										
						21				
						22				
						23				
						24				
			9 00							
										Range 398+19-5

76L298 307 8-53

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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.

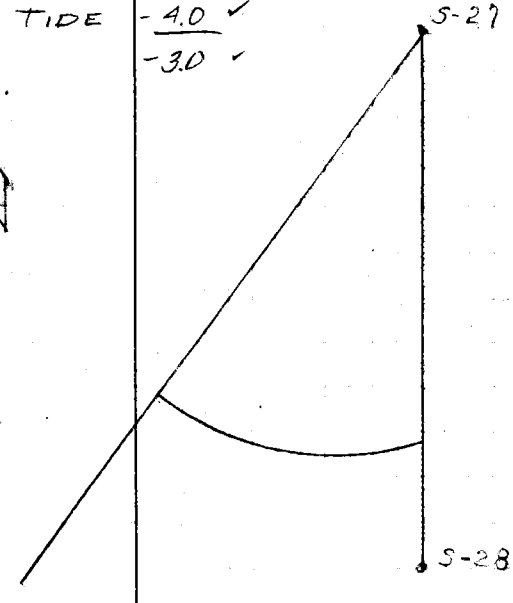
Do not extend notes this side of this line.

STATION		B. S.	H. I.		F. S.	ELEV.	
Inst. At	Sight On	#	Color		Time	Hor. Ang.	
		1	33.8 ✓	30.8	8:56	58° 15'	1616
		2	33.0 ✓	30.0		56° 50'	1530
		3	31.7 ✓	28.7		55° 50'	1473
		4	31.3 ✓	28.3		54° 48'	1418
		5	30.3 ✓	27.3		53° 51'	1369
		6	29.8 ✓	26.8		52° 37'	1309
		7	29.4 ✓	26.4		51° 33'	1259
		8	28.8 ✓	25.8		50° 14'	1202
S-27	S-28	9	28.1	25.1		49° 00'	1154
		10	26.9 ✓	23.9		47° 36'	1095
		11	25.7 ✓	22.7		45° 34'	1020
		12	24.5 ✓	21.5		43° 55'	963
		13	23.4 ✓	20.4		42° 18'	910
		14	22.1	19.1		40° 18'	848
		15	20.9 ✓	17.9		38° 30'	795
		16	19.3 ✓	16.3		36° 04'	728
		17	18.5 ✓	15.5		34° 23'	684
		18	17.1 ✓	14.1		32° 28'	636
		19	16.3 ✓	13.3		31° 03'	602
		20	15.7 ✓	12.7		29° 31'	566

Remarks

Cut in line 398+19

Zero	0.0 ✓
Boat	+1.0
TIDE	-4.0 ✓
	-3.0 ✓



Profile Notes Red. ____ Plotted ____ Job No. 2300 #2 Division No. 10 F.B. 2304 Pg. 49
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ~~K.~~ C. J. Robinson

F.B. 2304 PG. 50 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Dercr Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
S-27					
S-26					
	21	13.4 ✓ 10.4		517	Cut in line 398+19
	21	11.9 ✓ 8.9		479	
	23	10.5 ✓ 7.5		445	
	24	—	9:00	406	

761298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

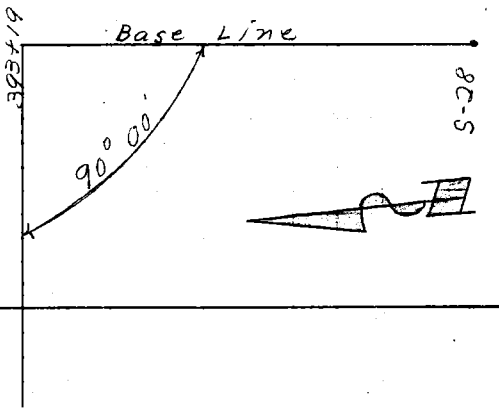
STATION	B. S.	H. I.	F. S.	ELEV.	Inst at 395+69	Sight on 393+19
398+19 T.P. LINE 2	3 67	20 78		17 11		
T.P.	7 06	19 13	8 71	12 07	1X2 395+69	
393+19			6 3	12 8		
26 FT LEFT			3 6	15 5	TOE OF STEEP SLOPE	
22 " RIGHT			7 3	11 8	TOP BRK	
T.P. 60 FT. "	2 47	8 62	12 98	6 15	1X2 FLUSH	
			6 3	2 3	29 38 99	
			8 3	0 3	21 56 101	
			8 9	-0 3	34 57 175	
			9 3	-0 7	39 47 208	
			10 6	[illegible]	47 31 274	
			11 5	-2 0	51 19 312	
			12 8	-4 2	54 40 353	
			13 9	-5 3	56 51 383	
			15 0	-6 4	54 51 430	

Inshore
393+19 S.
Time: 9:40 A.M.

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 51
No. Date Date Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. Checked Survey by DREIER ENGLISH Notes G.D. & Ed. Date 5-22-56
No. Date Date Map No. Indexed C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 53
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA van Deren	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed C. Johnson	Date	

Range 393+19-S



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

S-28

393+19 S

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F.B. 2304 PG. 54 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-22-56 Date No.

Survey by M.A. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
393+19	21.		9 14	90° 00'	Range	393+19-S
S-28	22.					

76L298 307 8-53

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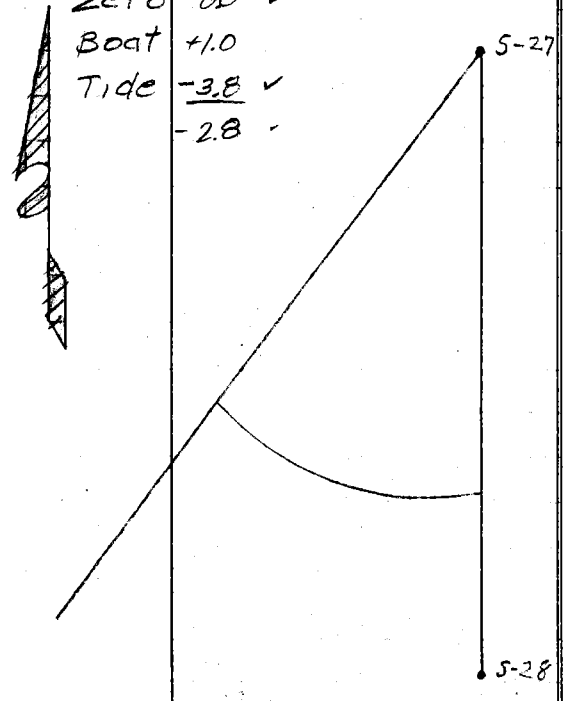
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	35.6	32.8	9 10	73°36'	1699	Cut in line 393+19
		2	34.2	31.4		72°50'	1619	zero 00
		3	32.6	29.8		71°10'	1466	Boat +1.0
		4	31.7	28.9		70°13'	1390	Tide -3.8
		5	30.3	27.5		68°58'	1300	-2.8
		6	28.6	25.8		67°32'	1209	
		7	25.8	23.0				
		8	24.5	21.7		61°50'	934	
S-27	S-28	9	22.9	20.1		59°30'	849	
		10	20.9	18.1		56°52'	766	
		11	20.1	17.3		55°17'	722	
		12	18.6	15.8		53°08'	667	
		13	17.3	14.5		51°35'	630	
		14	16.3	13.5		49°53'	593	
		15	14.2	11.4		47°50'	552	
		16	13.2	10.4		45°53'	516	
		17	11.9	9.1		44°15'	487	
		18	11.5	8.7		42°18'	455	
		19	10.0	7.2		40°05'	421	
		20	9.3	6.5		38°16'	394	



Profile Notes Red. Plotted Job No. 030002 Division No. 10 F. B. 2304 Pg. 55
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes RT Date 5-22-56
No. Date Date Map No. Indexed C. Johnson Date

F.B. 2304 PG. 56 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Date Date No.

Survey by Notes Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
S-28		21	8.3' 5.5'	914	35°25' 356'	Cut in 393+19
S-27		22	6.6 38		34°30' 344	

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

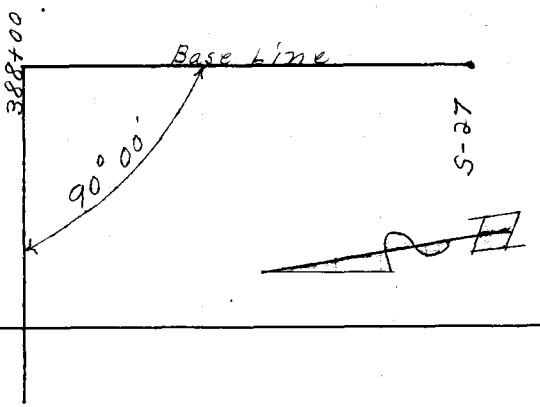
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 385+50	Sight on 388+00
393+19 T.P. LINE #2	7 06	19 13		12 07	1X2 395+69	
T.P.	3 85	16 98	6 00	13 13		
B.M.S-27	6 60	19 05	4 58	12 ~~40~~ 45	B.M. S-27 ELEV. 12.45	
388+00			5 0	14 0		
32 FT. LEFT			1 4	17 6	BOTTOM ST. FILL SLOPE	
42 FT RIGHT			9 5	9 5	BRK	
T.P. 70 FT RT.	2 0	7 8	13 22	5 83	1X2 FLUSH	
			5 2	2 6	21° 11' 97	
			7 8	0 0	26 10 123	
			8 5	-0 7	33 07 163	
			8 9	-1 1	38 04 196	
			9 2	-1 4	45 22 253	
			~~9 7~~	~~-1 9~~		
			9 7	-1 9	49 04 288	
			~~10 6~~	~~-2 8~~		
			10 9	-3 1	52 28 325	
			11 6	-3 8	52 47 329	
			12 1	-4 3	54 18 348	
			13 9	-6 1	57 21 390	

Inshore 388+00 S.
Time: 11:10 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 12 F. B. 2309 Pg. 57
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by Richard English Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 59
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Deren	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 388+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	STD. Time	Hor. Ang.	
	1		9:33	90° 00'	
	2			" "	
	3			" "	
	4			" "	
	5			" "	
	6			" "	
	7			" "	
	8			" "	
	9			" "	
	10			" "	
	11			" "	
	12			" "	
	13			" "	
	14			" "	
	15			" "	
	16		9:36	" "	

S-27

388+00-S

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F.B. 2304 PG. 60 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-22-56 | Date | No.

Survey by M.A. Van Deren | Notes P.H. | Notes Chkd. | Checked | X-Sec.

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

STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
388+00-S					Range 388+00-S
S-27					

Inst. Sight At # Color Time Hor. Ang.

Do not extend notes this side of this line.

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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.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1	32.6 ✓ 30.0	9:33	35° 33'	1469
	2	31.9 ✓ 29.3		33° 50	1377
	3	30.8 ✓ 28.2		31° 58	1283
	4	29.6 ✓ 27.0		30° 26'	1207
	5	28.1 ✓ 25.5		28° 44	1127
	6	26.5 ✓ 23.9		26° 43'	1034
	7	25.2 ✓ 22.6		24° 50'	951
S-26 S-27	8	23.2 ✓ 20.6		22° 30'	851
	9	22.0 ✓ 19.4		20° 40'	775
	10	20.1 ✓ 17.5		19° 10'	714
	11	18.2 ✓ 15.6		17° 35'	651
	12	17.4 ✓ 14.8		16° 10'	596
	13	15.4 ✓ 12.8		15° 28'	569
	14	14.2 ✓ 11.6		14° 16'	523
	15	12.9 ✓ 10.3		13° 27'	491
	16	11.3 ✓ 8.7	9:36	12° 08'	442

Remarks

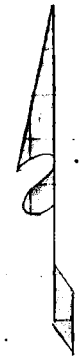
Cut in line 388+00

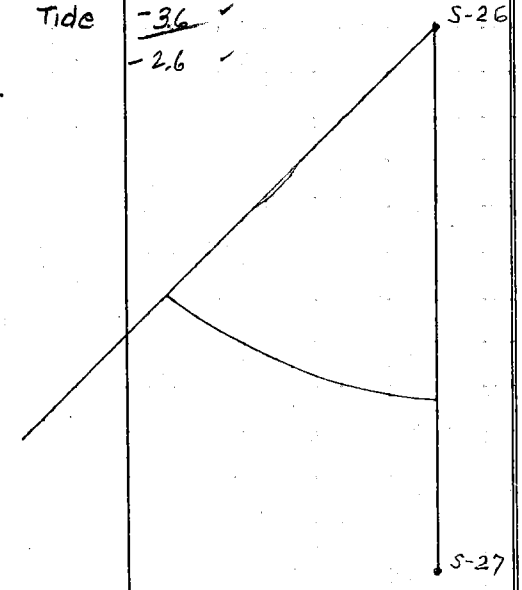
Zero 00 ✓

Boat +1.0

Tide -3.6 ✓

-2.6 ✓





Profile Notes Red. ____ Plotted ____ Job No. 0300 Division No. 10 F. B. 2304 Pg. 61

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

X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-22-56

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

F. B. 2309 PG. 62 | Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. sight At	#	Color	Time	Hor. Ang.	

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

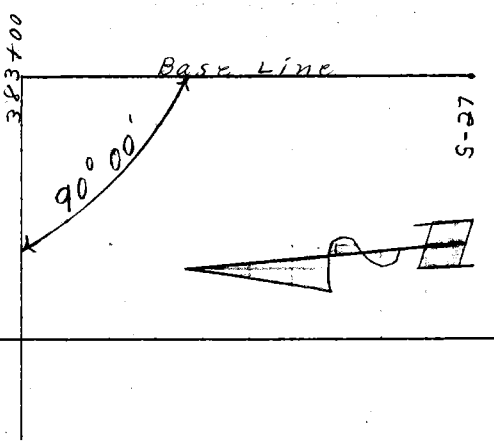
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 385+50	Sight on 383+00
B.M. S-27	6 60	19 05		12 45	B.M. S-27 ELEV. 12.45	
T.P.	6 22	20 00	5 27	13 78	1X2 385+50	
383+00			7 3	12 7	BRK.	
20' LEFT			5 3	14 7	BRK	
52' "			3 0	17 0	TOE OF STREET	FILL SLOPE
13' RIGHT			9 4	10 6	BRK	
T.P. 60 FT. "	2 8	7 8	15 05	4 95	1X2 FLUSH	
			6 7	1 1	22° 04' 101	
			7 9	-0 1	29 52 144	
			10 3	-2 5	43 05 234	
			10 7	-2 9	48 04 278	
			11 2	-3 4	51 05 310	
			12 3	-4 5	54 06 345	
			14 7	-6 9	57 49 397	

Inshore
383+00 S.
Time: 11:30 A.M.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 63
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-22-56
Date ____ Date ____ Map No. ____ Indexed ____ Notes C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 65
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA. VanDeren	Notes P.H.	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 383+00 - S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At Ch	#	Color	Time	Hor. Ang.	
	1.		9 47	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.		9 50	" "	

S-27

383+00

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 2304 PG. 66

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

Survey of Beach Erosion Studies Date Date No.

Survey by M.A. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
383+00					Range 383+00-S	
S-27						

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

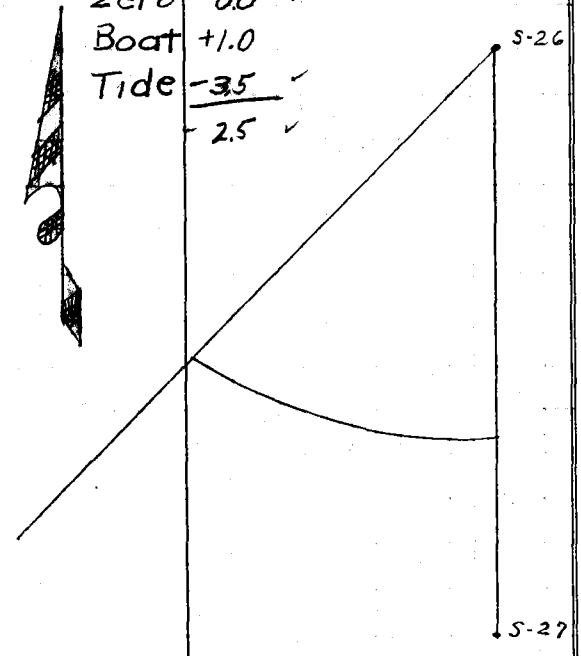
Do not extend notes this side of this line.

STATION		B. S.	H. I.		F. S.	ELEV.	
Inst. At	Sight On	#	Color		Time	Hor. Ang.	
		1	32.5 ✓	30.0 ✓	9:47	41° 09'	1359
		2	31.7 ✓	29.2 ✓		39° 40'	1289
		3	30.6 ✓	28.1 ✓		38° 05'	1219
		4	30.4 ✓	27.9 ✓		36° 20'	1144
		5	28.8 ✓	26.3 ✓		34° 38'	1074
		6	27.4 ✓	24.9 ✓		33° 05'	1013
		7	26.7 ✓	24.2 ✓		31° 20'	947
		8	25.5 ✓	23.0 ✓		29° 35'	883
		9	24.3 ✓	~~22.8~~ 21.8		27° 49'	820
S-26	S-27	10	23.1 ✓	20.6 ✓		26° 15'	767
		11	21.2 ✓	18.7 ✓		24° 37'	712
		12	20.0 ✓	17.5 ✓		22° 53'	656
		13	18.0 ✓	15.5 ✓		21° 04'	599
		14	16.4 ✓	13.9 ✓		19° 49'	560
		15	15.4 ✓	12.9 ✓		18° 38'	524
		16	14.5 ✓	12.0 ✓		17° 31'	491
		17	12.9 ✓	10.4 ✓		16° 46'	468
		18	12.0 ✓	9.5 ✓		15° 47'	440
		19	9.6	7.1	9:50	14° 45'	409
		20					

Remarks

Cut in line 383+00

Zero 0.0 ✓
Boat +1.0
Tide -3.5 ✓
-2.5 ✓



Profile Notes Red. ____ Plotted ____ Job No. 0300-02 Division No. 10 F. B. 2304 Pg. 67
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes P.T. Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

F. B. 2304 Pg. 68 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-55 Date No.

Survey by Van Doren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. Sight At	#	Color	Time	Hor. Ang.	Remarks

Do not extend notes this side of this line.

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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761.298 307 8-53

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. at 375+50	Sight on 378+00
T.P. LINE 2 383+00	6 22	20 00		13 78	1X2 AT 385+50	
T.P.	9 38	20 07	9 31	10 69	1X2 AT 380+50	
378+00			8 2	11 9		
30 FT. LEFT			5 5	14 6	BRK	
70 " "			2 0	18 1	BOTTOM OF STREET	FILL SLOPE
30 " RIGHT			11 2	8 9		
T.P. 55 FT. "	2 62	~~8 15~~ 8 25	14 44	~~5 53~~ 5 63	1X2 FLUSH	
			6 3	1 9	18° 34' 84	
			8 0	~~+0 1~~ +0.2	21 20 98	
			9 7	-1 5	23 52 111	
			8 6	-0 4	31 55 156	
			9 1	-0 9	37 56 195	
			9 6	-1 4	41 33 222	
			10 8	-2 6	46 51 267	
			11 2	-3 0	49 39 294	
			13 3	-5 1	55 14 360	
			14 6	-6 4	55 46 367	

Inshore
378+00
Time: 11:45 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 69
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREVER & ENGLISH Notes ____ Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ C. Johnson Date ____

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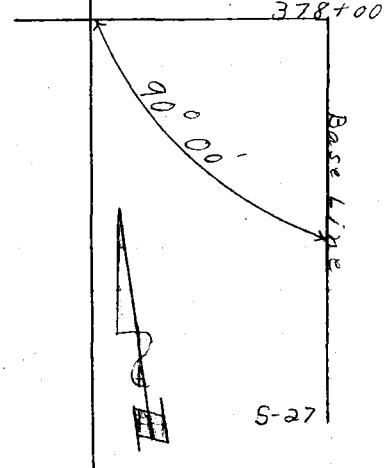
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At Ch	#	Color	Time	Hor. Ang.		Remarks
	1.		10 17	90° 00'		
	2.			" "		
	3.			" "		
	4.			" "		
	5.			" "		
	6.			" "		
	7.			" "		
	8.			" "		
	9.			" "		
378+00 S-27	10.			" "		
	11.			" "		
	12.			" "		
	13.			" "		
	14.			" "		
	15.			" "		
	16.			" "		
	17.			" "		
	18.			" "		
	19.		10 20			



Range 378+00-S

Profile Notes Red. Plotted Job No. Division No. 10 F. B. 3304 Pg. 71
No. Date Date Survey of Beach Erosion Studies
X-Sec. Notes Chkd. Checked Survey by Mackenzie Notes PH Date 5-22-56
No. Date Date Map No. Indexed C. Johnson Date

F.B. 2304 Pg. 72 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-22-56 Date No.

Survey by M.A. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
378+00						
S-27						
					Range 378+00-S	

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

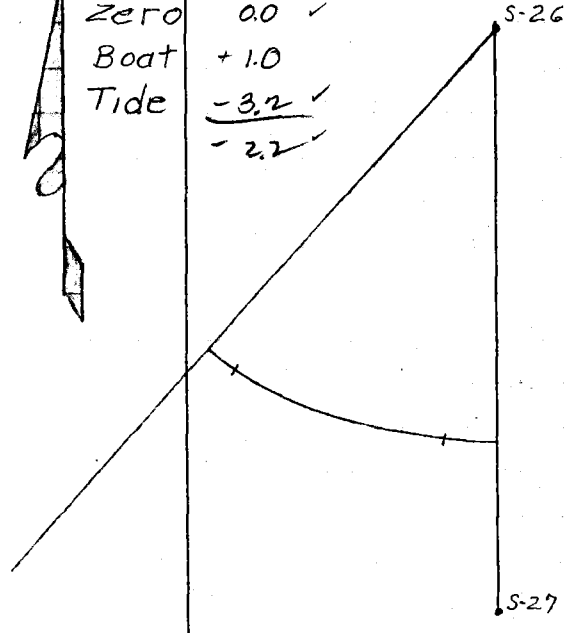
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At Ch	#	Color	Time	Hor. Ang.		Remarks
	1		10:04	47° 00'		NG Cut in line 378+00
	2			43° 57'		
	3			41° 50'		
	4			39° 37'		
	5			37° 28'		
	6			35° 22'		
	7			33° 09'		
	8			31° 41'		
	9			29° 48'		
	10			28° 15'		
			10:06	24° 44'		
		Re run				
	1	28.8 ✓ 26.6	10:17	46° 56'	1129	
	2	28.2 ✓ 26.0		45° 40'	1080	
	3	27.1 ✓ 24.9		43° 44'	1009	
	4	26.5 ✓ 24.3		42° 05'	953	
	5	25.0 ✓ 22.8		40° 15'	893	
	6	24.3 ✓ 22.1		38° 22'	835	
	7	23.1 ✓ 20.9		36° 47'	789	
	8	22.3 ✓ 20.1		35° 18'	747	

Void Void Void Void Void Void Void

S-26 S-27

Zero 0.0 ✓
Boat +1.0
Tide -3.2 ✓
-2.2 ✓



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 73
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes P.T. Date 5-22-55
No. Date Date Map No. Indexed C. Johnson

76L298 307 8-53

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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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.	Remarks	
		9	20.9 ✓	18.7		34° 03'	713	Cut in line 378+00
		10	19.7 ✓	17.5		32° 43'	678	
		11	19.0 ✓	16.8		31° 23'	644	
		12	18.0 ✓	15.8		29° 52'	606	
		13	16.6 ✓	14.4		28° 33'	574	
		14	15.3 ✓	13.1		26° 53'	535	
		15	13.7	11.5		25° 18'	499	
		16	12.4 ✓	10.2		23° 37'	461	
S-26	S-27	17	11.5 ✓	9.3		22° 31'	437	
		18	10.0 ✓	7.8		20° 33'	395	
		19	8.9	6.7	10:20	19° 52'	381	

F.B. 2304 Pg. 74 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile
Survey of Beach Erosion Study Date 5-22-56 Date No.
Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.
Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

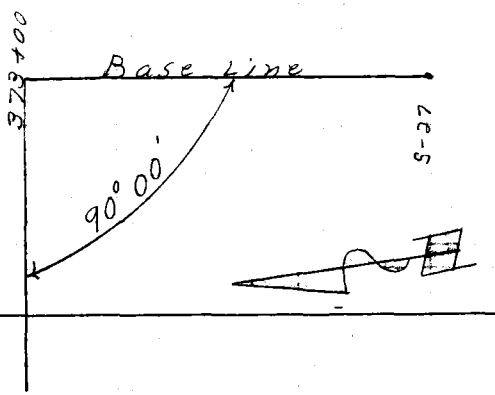
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 375+50	Sight on 373+00
378+00 T.P LINE 2	9 38	20 07		10 69		
T.P.	7 98	20 10	7 95	12 12	1X2 375+50	
373+00			7 4	12 7		
10 FT. LEFT			7 2	12 9	BRK.	
30 " "			5 1	15 0	BRK.	
72 " "			3 3	16 8	TOE OF STEET SLOPE	
20 " RIGHT			7 9	12 2	BRK	
T.P. 60' "	2 18	8 50 ~~8 40~~	13 78	6 32	1X2 FLUSH	
			6 8	1.7 ~~1.6~~	20° 32' 94	
			9 2	-0.7 ~~-0.8~~	23 55 111	
			10 1	-1.6 ~~-1.7~~	26 54 127	
			9 9	-1.4 ~~-1.5~~	34 20 171	
			9 6	-1.1 ~~-1.2~~	41 58 225	
			11 2	-2.7 ~~-2.8~~	48 22 281	
			12 2	-3.7 ~~-3.8~~	51 02 309	
			14 1	-5.6 ~~-5.7~~	55 04 358	

Inshore
373+00 S.
Time: 12:10 P.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 15 F. B. 2502 Pg. 75
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Notes C. JOHNSON Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 77
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA. van Deren	Notes PH	Date 5-22-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 373+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		10 28	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-27

373+00

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F. B. 2304 PG. 78 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-22-56 Date No.

Survey by M.A. Van Deren Notes P. H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks
373+00	21		10 31	" "	
S-27	22			90° 00'	

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	
Inst. At	Sight On	#	Color		Time	Hor. Ang.	
		1	33.5 ✓	31.4	10:28	68° 45'	1427
		2	31.9 ✓	29.8		67° 28'	1338
		3	31.2	29.1		66° 30'	1276
		4	30.4 ✓	28.3		65° 10'	1199
		5	29.6 ✓	27.5		63° 53'	1132
		6	28.4 ✓	26.3		62° 37'	1071
		7	26.5 ✓	24.4		60° 42'	989
		8	25.3 ✓	23.2		59° 04'	926
S-26	S-27	9	24.8 ✓	22.7		57° 28'	870
		10	23.2 ✓	21.1		55° 34'	810
		11	21.6 ✓	19.5		53° 07'	740
		12	20.2 ✓	18.1		50° 52'	682
		13	19.0 ✓	16.9		49° 18'	645
		14	18.0 ✓	15.9		47° 45'	611
		15	16.8 ✓	14.7		46° 10'	578
		16	15.4 ✓	13.3		44° 11'	539
		17	13.7 ✓	12.6		42° 25'	507
		18	12.9 ✓	10.8		40° 17'	470
		19	11.4 ✓	9.3		38° 55'	448
		20	10.4 ✓	8.3		37° 33'	427

Remarks

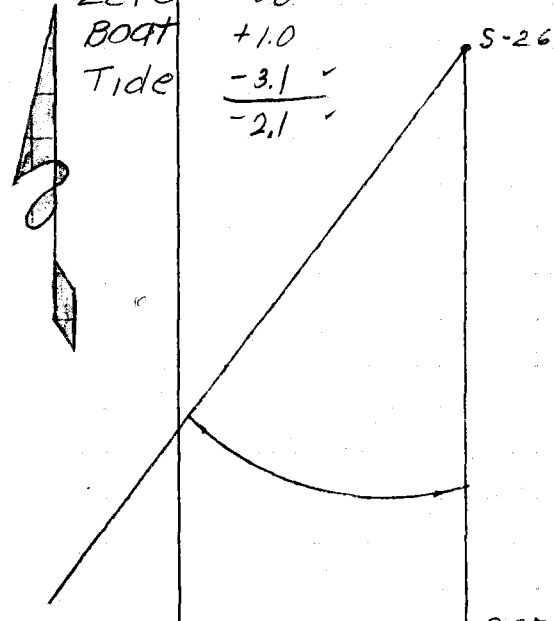
Cut in line 373 + 00

Zero 00 ✓

Boat +1.0

Tide -3.1 ✓

-2.1 ✓



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 79

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

X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-22-56

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

F. B. 2309 Pg. 80 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-22-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
		21	8.2 ✓ 7.1		34° 31'	382 Cut in line 373+06
		22	8.0 ✓ 5.9	10:31		

S-26

S-27

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. at 370+50	Sight on 368+00
T.P. LINE 2 373+00	7 98	20 10		12 12	1 x 2 375+00	
T.P.	8 03	21 63	6 50	13 60		
368+00			53	16 3		
30 FT. LEFT			47	16 9	BOTTOM STREET SLOPE	
10 FT RIGHT			58	15 8	BRK	
25 " "			7 6	14 0	BRK	
50 " "			9 1	12 5	BRK	
B.M. S-26	7 86	21 58	7 86	13 ~~77~~ 72	B.M. S-26 ELEV. 13.72	
T.P. 90 FT RT.	1 32	8 45	14 45	7 13	1 x 2 FLUSH	
			~~7 6~~	~~[illegible]~~		
			9 7	-1 2	28 03 133	
			9 5	-1 0	30 07 145	
			10 1	-1 6	36 26 185	
			11 1	-2 6	43 02 233	
			12 0	-3 5	48 34 283	
			12 9	-4 4	54 55 356	

Inshore
368+00 S.
Time: 12:25 P.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2369 Pg. 81
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-22-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

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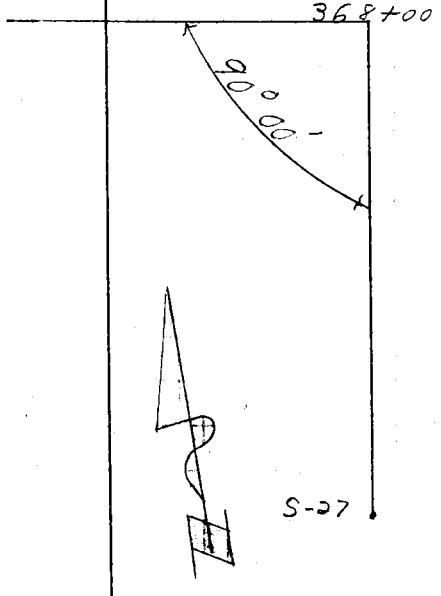
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
	1.		10 41	90° 00'		
	2.			" "		
	3.			" "		
	4.			" "		
	5.			" "		
	6.			" "		
	7.			" "		
	8.			" "		
	9.			" "		
	10.			" "		
368+00 S-27	11.			" "		
	12.			" "		
	13.			" "		
	14.			" "		
	15.			" "		
	16.			" "		
	17.			" "		
	18.			" "		
	19.		10 44			



Range 368+00-S

Profile Notes Red. ____ Plotted ____ Job No. ____ Division No. 10 F. B. 3304 Pg. 83
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by Valuation Notes P.H. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson

F.B. 3304 Pg. 84 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-22-56 | Date | No.

Survey by M.A. Van Deren | Notes P.H. | Notes Chkd. | Checked | X-Sec.

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

Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
368+00						
	S-27					
						Range 368+00-S

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

Do not extend notes this side of this line.

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-53

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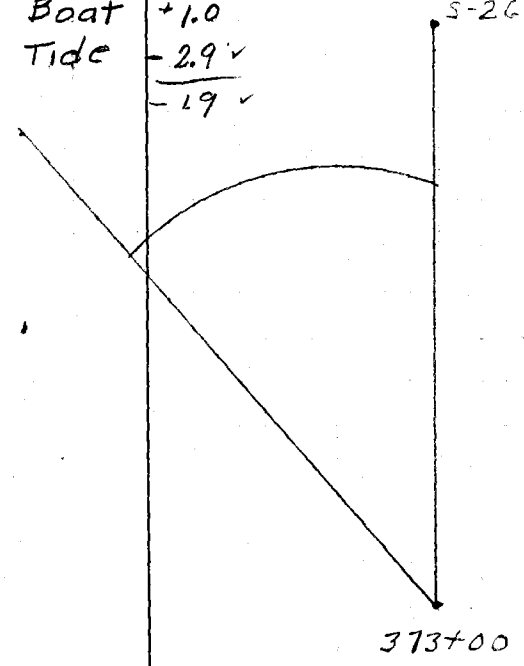
NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

Do not extend notes this side of this line.

STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	32.1	30.2	10:41	69° 55'	1368	Cut in 368+00
		2	31.3	29.4		68° 59'	1301	Zero 0.0
		3	30.3	28.4		67° 58'	1235	Boat +1.0
		4	28.7	26.8		66° 41'	1160	Tide -2.9
		5	27.4	25.5		65° 02'	1074	-1.9
		6	26.2	24.3		63° 03'	983	
		7	24.9	23.0		62° 06'	944	
		8	23.4	21.5		60° 21'	878	
		9	22.0	20.1		58° 28'	815	
373+00	S-26	10	20.8	18.9		56° 30'	755	
		11	19.1	17.2		54° 38'	692	
		12	17.6	15.7		52° 00'	640	
		13	16.2	14.3		50° 07'	598	
		14	14.9	13.0		48° 19'	562	
		15	13.4	~~11.7~~ 11.5		46° 53'	~~554~~ 534	
		16	12.8	10.9		45° 01'	500	
		17	11.0	9.1		42° 48'	463	
		18	9.7	7.8		41° 20'	441	
		19	8.4	6.5	10:44	39° 09'	407	
		20						



Profile Notes Red. Plotted Job No. 2300.02 Division No. 10 F. B. 2309 Pg. 85
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Wm. Dorer Notes R.T. Date 5-22-56
No. Date Date Map No. Indexed A. C. Johnson Date

F. B. 2304 PG. 86 | Job No. _____ Division No. _____ Notes Red. _____ Plotted _____ Profile

Survey of _____ Date _____ Date _____ No. _____

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

Indexed _____ Date _____ Date _____ Date _____ No. _____

76L298 307 8-53

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STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At OR	#	Color	Time	Hor. Ang.		Remarks

F. B. 2304 PG. 87

Notes Ck'd by	Survey of Beach Erosion
Map No.	W. O. 2304.02 Tape No. St'd. °F
Office Work	Surveyed by Van Deren
Checked	Notes W. D. BAY Date 5-23-56
Date	Indexed A. C. Johnson

TIDE GUAGE

U.S.C. & G.S.
SANTA MONICA pier
5-23-56

STD. TIME		TIDE
5:00	A.M.	+ 0.8
5:30	"	+ 1.4
6:00	"	+ 2.1
6:30	"	+ 2.5
7:00	"	+ 3.1
7:30	"	+ 3.5
8:00	"	+ 3.7
8:30	"	+ 3.9
9:00	"	+ 3.95
9:30	"	+ 3.9
10:00	"	+ 3.7
10:30	"	+ 3.5
11:00	"	+ 3.2

W. D. Bay

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.

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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY
ENGINEERING BLDG.

76F309S S&E #247. 8-54

76F309S S&E #247 1-56

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700 LOS ANGELES COUNTY ENGINEERING BLDG.

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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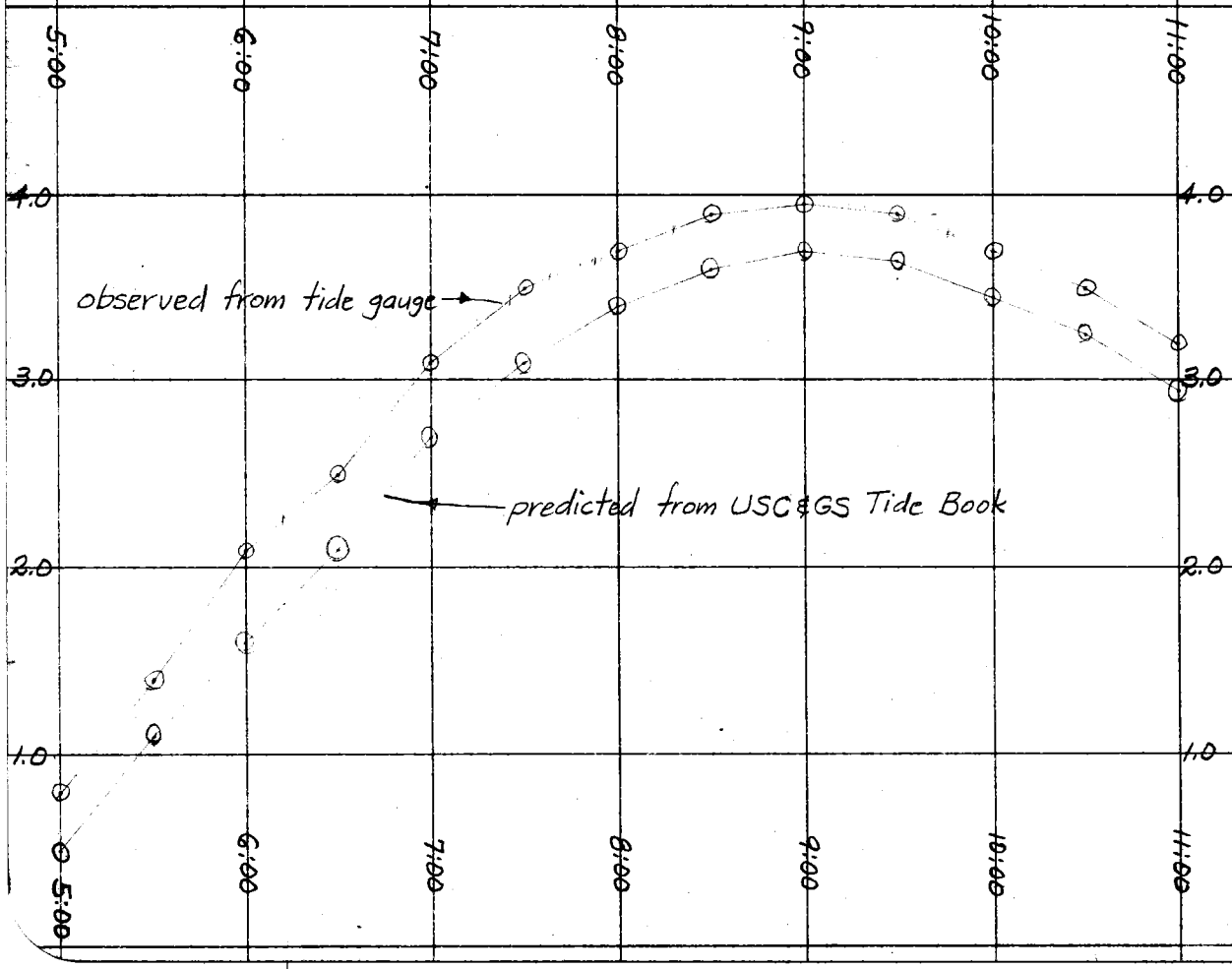

Notes Ck'd by
Map No.
Office Work
Checked
Date

Survey of Beach Erosion
JN Tape Std °F
Surveyed by
Notes Date
Indexed

May 23, 1956

F. B. 2304 Pg.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

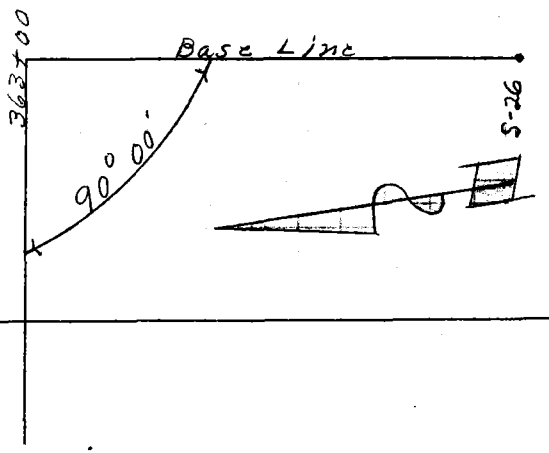
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 362+50	Sight on 363+00
B.M. 5-26	6 13	19 85		13 72	B.M. 5-26 ELEV. 13.722	
T. P.	7 47	199 2	7 40	12 45	1 X 2 363+00	
363+00			50	14 9		
27 FT LEFT			40	15 9	TOE OF SLOPE	
38 " RIGHT			74	12 5	BRK.	
T.P. 82' RT.	2 17	8 16	1393	5 99	1 X 2 FLUSH	
		8 [illegible]	6 3	1 9	24° 30' 113	
			8 5	-0 3	27 48 132	
			8 7	-0 5	33 27 165	
			9 0	-0 8	39 05 203	
			9 6	-1 4	43 00 233	
			10 4	-2 2	47 04 269	
			11 8	-3 6	51 10 311	
			13 0	-4 8	53 35 339	
			14 7	-6 5	56 46 332	
			17 0	-8 8	60 22 439	

Inshore
363+00 S.
Time: 6:50 A.M.

Profile Notes Red ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 23-04 Pg. 89
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Notes A. C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 91
No.	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec.	Notes Chkd.	Checked	Survey by MA Van Deren	Notes R.H.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 363+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		6 18	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.		6 21	" "	

S-26

363+00-S

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76L298 307 8-53

F. B. 2304 Pg. 92 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-23-56 Date No.

Survey by M.A. Van Deren Notes P. H Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

363+00

S-26

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
					Range 363+00-S	

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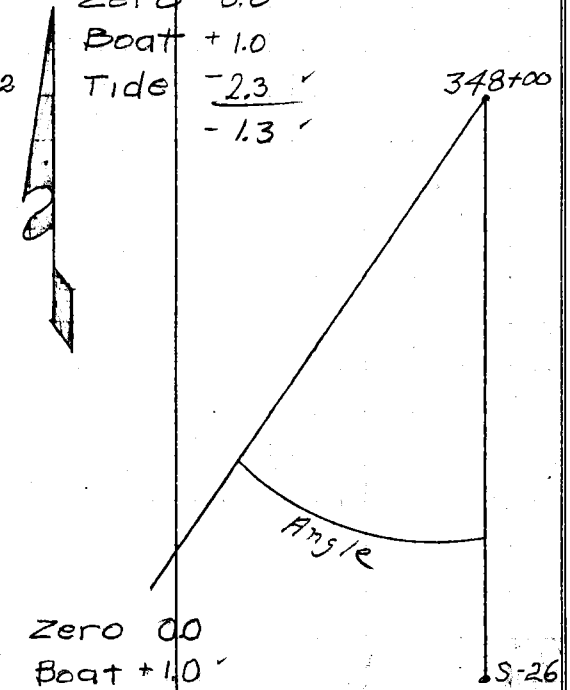
Profile No.____ Date____ Notes Red____ Date____ Plotted____ Date____ Job No. 2.2.2.2 Division No. 10 F. B. 2304 Pg. 93
X-Sec. No.____ Date____ Notes Chkd.____ Date____ Checked____ Date____ Survey of Beach Erosion Study Survey by Van Deren Notes RT Date 5-23-56 Map No.____ Indexed A. C. Jones Date____

STATION	B. S.	H. I.		F. S.	ELEV.		Remarks
Inst. Sight At Ch	#	Color		Time	Hor. Ang.		
	1	32.1	30.9	6:12	41° 28'	1326	Cut in line 363+00
	2	30.3	29.0		38° 56'	1212	zero 0.0
	3	28.1	26.8		36° 27'	1108	Boat +1.0
	4	26.0	24.7		34° 00'	~~1018~~ 1012	Tide -2.3
	5	24.3	23.5		31° 16'	911	-1.3
	6	22.9	21.6		28° 57'	830	
	7	20.5	19.2		26° 04'	734	
	8	18.4	17.1		23° 29'	652	
	9	16.9	Two Shots Missed				
	10	15.3					
	11	13.2	11.9		18° 57'	515	
	12	11.9	10.6		17° 13'	465	
	13	9.4	8.1		16° 03'	432	
	14	8.8	7.5	6:15	14° 31'	388	
	Re run						
							Zero 0.0
	1	28.2	26.8	6:18	37° 05'	1134	Boat +1.0
	2	26.6	25.2		35° 09'	1055	Tide -2.4
	3	25.2	23.8		32° 17'	948	-1.4
	4	23.5	22.1		29° 40'	854	



348+00 S-26

F.B. 2304 Pg. 94 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-23-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed A. C. Johnson Date _____ Date _____ Date _____ No. _____

76L298 307 8-53

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STATION	B.S.	H.I.	F.S.	ELEV.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
348+00	5	21.7 20.3		26° 53'	760	Cut in 363+00
5-26	6	19.9 17.9		24° 26'	681	
	7	17.7 16.3		22° 28'	620	
	8	15.4 14.0		20° 40'	566	
	9	14.0 12.6		19° 22'	527	
	10	12.9 11.5		18° 30'	502	
	11	11.4 10.0		17° 13'	465	
	12	10.4 9.0		16° 13'	436	
	13	9.0 7.6		15° 00'	402	
	14	7.6 6.2	6:21	14° 12'	380	

76L298 307 8-53

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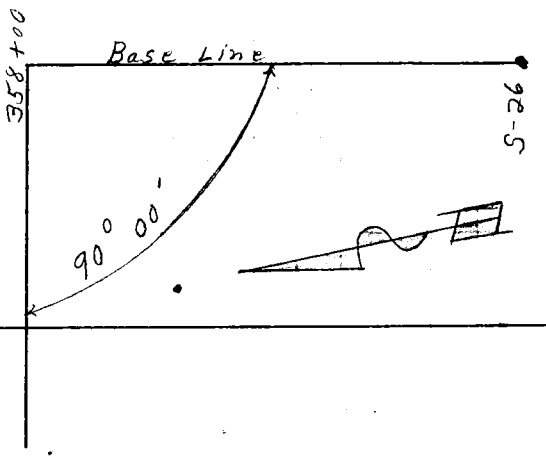
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 360+50	Sight on 358+00
T.P. LINE 2 363+00	7 47	19 92		12 45	1X2 363+00	
T.P.	4 79	19 49	5 22	14 70	1X2 10 FT E. OF	360+50
358+00			57	13 8		
10 FT. LEFT			4 4	15 1		
30 " "			3 1	16 4	TOE OF SLOPE	
25 " RIGHT			8 6	10 9	BRK	
T.P. 60 FT "	1 56	8 48	12 57	6 92	1X2 FLUSH	
		8 5	7 7	0 8	23° 45' 1 0	
			10 0	-1 5	36 46 167	
			10 1	-1 6	41 04 218	
			12 0	-3 5	49 59 298	
			14 2	-5 7	54 40 353	
			15 9	-7 4	56 28 377	

Inshore
358+00 S.
Time: 7:15 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. ____ F. B. 2304 Pg. 95
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date ____
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____ C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 97
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA Van Deren	Notes P.H.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson		

Range 358+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		6 31	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			6 35	

S-26

358+00-S

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761.298 307 8-53

F. B. 2304 PG. 98 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-23-56 Date No.

Survey by MA. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
						Range 358+00-S

358+00

S-26

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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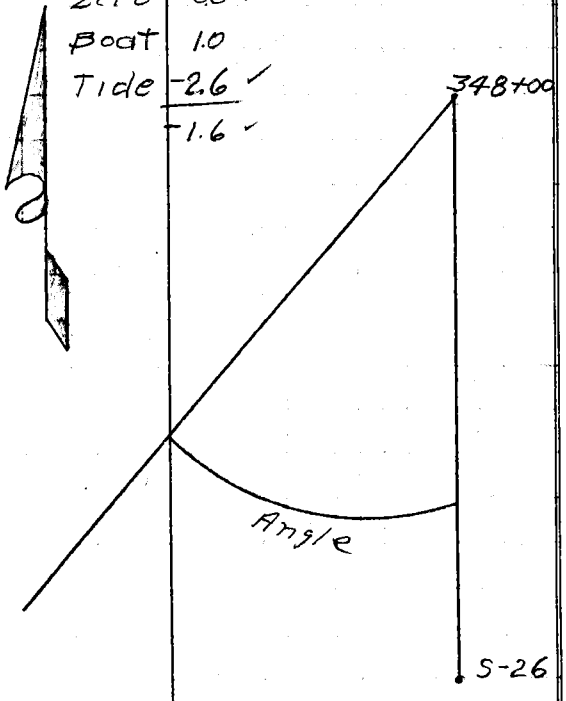
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.			
Inst. At / Sight On	#	Color	Time	Hor. Ang.			Remarks
	1	34.1 32.5	6:31	54° 28'	1400		Cut in line 358+00
	2	32.2 30.6		52° 17'	1293		Zero 00
	3	30.3 28.7		50° 08'	1197		Boat 1.0
	4	28.6 27.0		47° 48'	1103		Tide -2.6
	5	27.0 25.4		44° 57'	998		-1.6
	6	25.2 23.6		42° 13'	907		
	7	23.4 21.8		39° 55'	837		
348+00 S-26	8	22.0 20.4		37° 20'	763		
	9	20.7 19.1		35° 50'	722		
	10	19.2 17.6		34° 15'	681		
	11	18.0 16.4		32° 53'	647		
	12	17.2 15.6		31° 30'	613		
	13	16.4 14.8		30° 20'	585		
	14	15.3 13.7		28° 45'	549		
	15	14.6 13.0		27° 40'	524		
	16	13.1 11.5		26° 30'	499		
	17	12.5 10.9		24° 45'	461		
	18	11.1 9.5		23° 38'	438		
	19	9.9 8.3	6:35	22° 22'	411		



Profile Notes Red ____ Plotted ____ Job No. 230002 Division No. 10 F. B. 2304 Pg. 19
No. ____ Date ____ Date ____ Survey of Beach Erosion study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes RT Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed H. C. Johnson

F. B. 2304 Pg. 100 | Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-23-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed _____ Date _____ Date _____ Date _____ No. _____

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight At	#	Color	Time	Hor. Ang.		Remarks

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

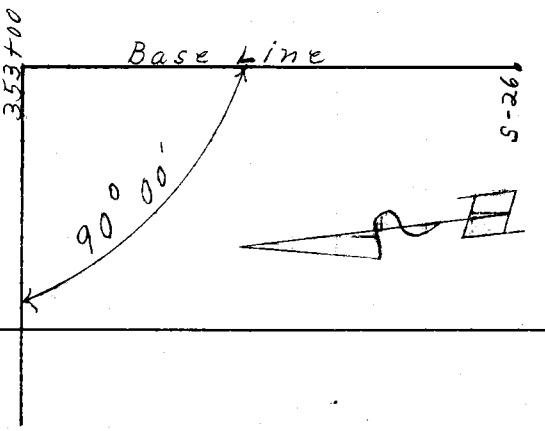
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 350+50	Sight on 353+00
T.P. LINE 2 358+00	4 79	19 49		14 70	1X2 360+50 10' E.	
T.P.	5 45	18 70	6 24	13 25		
353+00			4 9	13 8		
13 FT LEFT			2 8	15 9	TOE OF SLOPE	
30 FT RIGHT			7 9	10 8	BRK	
T.P. 65 FT. "	3 36	[illegible] 33	12 73	5 97	1X2 FLUSH	
			6 9	2 4	19° 53' 90 ✓	
			10 0	-0 7	23 29 109 ✓	
			12 5	-1 2	31 14 ~~[illegible]~~ 152	
			16 5	-1 2	32 23 191 ✓	
			11 1	-1 8	42 02 225 ✓	
			13 1	-3 8	50 33 304 ✓	
			16 3	-7 0	[illegible] 384 ✓	

Inshore
353+00 S.
Time: 7:35 A.M.

Profile Notes Red ____ Plotted ____ Job No. 0300.03 Division No. 10 F. B. 2304 Pg. 101
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd ____ Checked ____ Survey by DREIER & ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Notes C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 23CH	Pg. 103
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deven	Notes P.H.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 353+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		6 [illegible]	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.		6 47	" "	

S-26

353+00-S

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

76L298 307 8-53

F.B. 3304 PG. 104 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-23-56 | Date | No.

Survey by MA van Deren | Notes P.H. | Notes Chkd. | Checked | X-Sec.

Indexed | Date | Date | Date | No.

STATION	B.S.	H.I.	F.S.	ELEV.	Inst. Sight On / At	#	Color	Time	Hor. Ang.	Remarks
353+00-S										Range 353+00-S
S-26										

Do not extend notes this side of this line.

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

76L298 307 8-53

76L298 307 8-53

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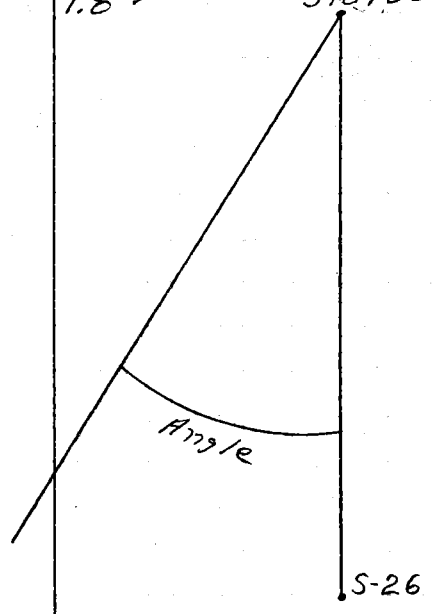
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	29.8 ✓	28.0	6:44	67° 03'	1181 ✓	Cut in line 353+00
		2	27.9 ✓	26.1		65° 15'	1085 ✓	zero 00 ✓
		3	26.0 ✓	24.2		63° 33'	1005 ✓	Boat +1.0
		4	25.5 ✓	23.7		62° 12'	948 ✓	Tide -2.8 ✓
		5	24.4 ✓	22.6		60° 40'	890 ✓	-1.8 ✓
		6	23.3 ✓	21.5		58° 50'	827 ✓	
		7	21.0 ✓	19.2		56° 18'	750 ✓	
348+00	S-26	8	20.2 ✓	18.4		54° 27'	700 ✓	
		9	18.5 ✓	16.7		52° 47'	658 ✓	
		10	17.6 ✓	15.8		51° 06	620 ✓	
		11	16.3 ✓	14.5		48° 52'	573 ✓	
		12	14.8 ✓	13.0		47° 03'	537 ✓	
		13	13.7 ✓	11.9		45° 05'	501 ✓	
		14	12.4 ✓	10.6		42° 38'	460 ✓	
		15	10.8 ✓	9.0	6:47	40° 27'	426 ✓	



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 105
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

F.-B. 2304 PG. 106 | Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-23-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed _____ Date _____ Date _____ Date _____ No. _____

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At OR	Sight #	Color	Time	Hor. Ang.		Remarks

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 S & E #307 9-54

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

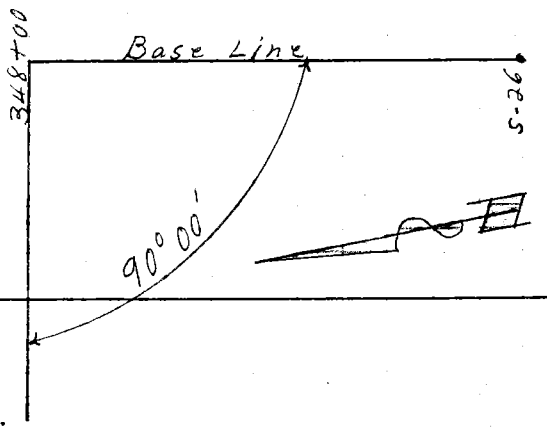
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 350+00	Sight on 348+00
T.P. LINE 2 353+00	5 45	18 70		13 25		
T.P.	5 57	18 73	5 54	13 16	1X2 AT 350+50	
348+00			55	13 2		
18 FT. LEFT			35	15 2	TOE OF SLOPE	
22 " RIGHT			75	11 2	BRK.	
T.P. 60 FT. "	3 08	[illegible]	12 45	6 28	1X2 FLUSH	
		[illegible]	9 5	-0 1	24 57 93	116
			10 2	-0 8	25 32 98	122
			11 5	-1 1	32 10 127	158
			11 8	-2 4	36 57 150	188
			12 2	-2 8	42 10 182	227
			12 5	-3 [illegible]	48 27 226	282
			14 2	-4 8	55 36 271	339
			16 4	-7 0	56 36 303	379

INSHORE
348+00 S.
Time: [illegible] A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 107
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 109
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA. van Dorn	Notes PH.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed ~~H. C. Johnson~~	Date	

Range 348+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		6 58	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
				7 01	

S-26

348+00-S

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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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 2304 Pg. 110 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-27-56 | Date | No.

Survey by M.A. van Doren | Notes P.H. | Notes Chkd. | Checked | X-Sec.

Indexed | Date | Date | Date | No.

761.298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Remarks
348+00-S					Range 348+00-S
S-26					

Inst. Sight At OR # Color Time Hor. Ang.

76L298 307 8-53

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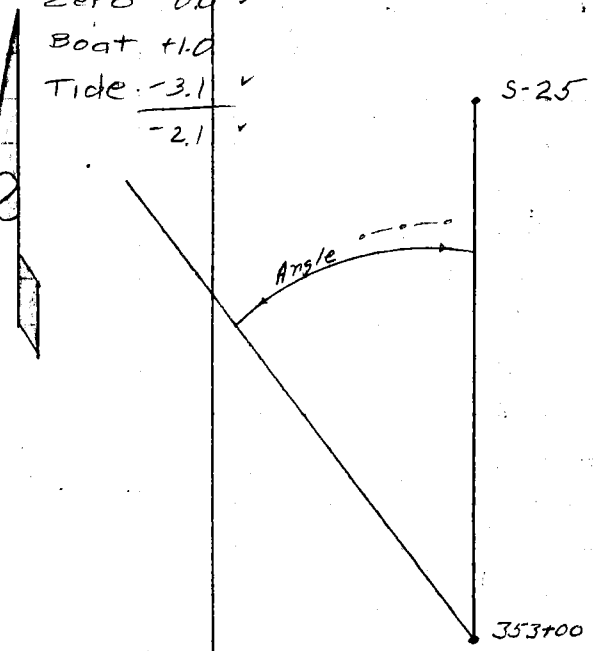
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.	Remarks	
		1	30.4 ✓	28.3	6:58	67° 50'	1227	Cut in line 348+00
		2	29.3 ✓	27.2		66° 25'	1145 ✓	Zero 0.0 ✓
		3	27.3 ✓	25.2		64° 45'	1060 ✓	Boat +1.0
		4	25.3 ✓	23.2		62° 50'	974 ✓	Tide -3.1 ✓
		5	24.4 ✓	22.3		61° 32'	922 ✓	-2.1 ✓
		6	22.7 ✓	20.6		59° 33'	851 ✓	
		7	20.8 ✓	18.7		57° 16'	778 ✓	
353+00	S-25	8	19.5 ✓	17.4		54° 33'	702 ✓	
		9	18.5 ✓	16.4		52° 35'	654 ✓	
		10	17.1 ✓	15.0		50° 40'	610 ✓	
		11	15.8 ✓	13.7		48° 17'	561 ✓	
		12	15.1 ✓	13.0		46° 45'	532 ✓	
		13	14.0 ✓	11.9		45° 20'	506 ✓	
		14	12.8 ✓	10.7		43° 10'	469 ✓	
		15	11.6 ✓	9.5		41° 03	435 ✓	
		16	10.4 ✓	8.3		38° 46'	402 ✓	
		17	8.4	6.3		35° 38'	358 ✓	
		18	7.1 ✓	5.0	7:01	34° 07'	339 ✓	



Profile Notes Red. ____ Plotted ____ Job No. 0300002 Division No. 10 F. B. 2304 Pg. 111
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed K. C. Johnson

F. B. 2304 PG. 112 Job No. 2300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-23-56 Date No.

Survey by Van Deren Notes K.T. Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks

76L298 S & E #307 9-54

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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

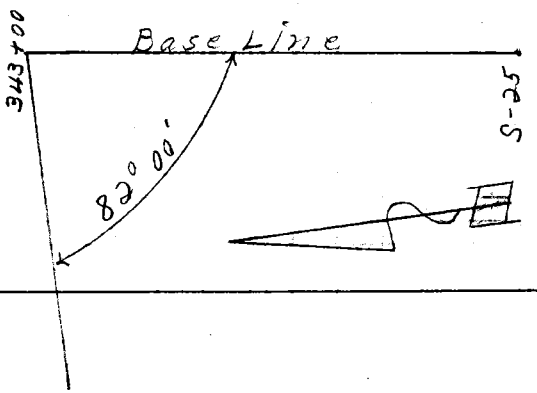
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 340+00	Sight on 343+00
T.P. LINE 2 348+00	5 57	18 73		13 16	1X2 AT 350+50	
T.P.	3 60	17 77	4 56	14 17		
B.M. S-25	10 33	21 20	6 94	10 ~~83~~ 87	B.M. S-25 ELEV.	10.875 F.B. 2100-156
343+00			5 6	15 6		
30 FT. LEFT			3 6	17 6	MEAN TOE SLOPE	
52 " "			3 1	18 1	BOTTOM OF CUT BANK	
25 " RIGHT			7 6	13 6	BRK.	
T.P. 65' RIGHT	2 18	9 25	13 53	7 67	1X2 FLUSH	
			1 1	2 [illegible]	17° 13' 100	
			[illegible] 1	-1 2	26 07 162	
			12 0	-2 1	[illegible] 205	
			14 0	-4 1	35 15 240	
			15 1	-5 2	41 37 309	

INSHORE
343+00 S.
Time: 3:45 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 113
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Notes Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

Profile No.	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 3304	Pg. 115
	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec. No.	Notes Chkd.	Checked	Survey by MA. van Perren	Notes PH.	Date 5-23-56	
	Date	Date	Map No.	Indexed	C. Johnson	

Range 343+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight On	#	Color	Time	Hor. Ang.	
	1.		7 15	82° 00'	
	2.			"	
	3.			"	
	4.			"	
	5.			"	
	6.			"	
	7.			"	
	8.			"	
	9.			"	
	10.			"	
	11.			"	
	12.			"	
	13.			"	
	14.			"	
	15.		7 18	"	
At					

S-25

343+00-S

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 Los Angeles County Engineering Bldg.

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761.298 307 8-53

F.B. 2304 Pg. 116 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-23-56 Date No.

Survey by MA. van Deren Notes PH. Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
						Range 343+00-S

343+00-S

S-25

76L298 307 8-53

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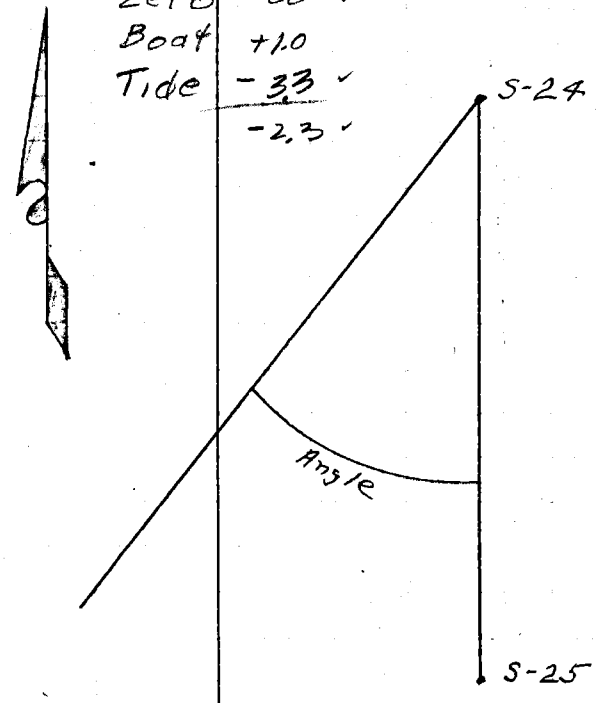
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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. Color		F. S. Time	ELEV. Hor. Ang.		Remarks
		1	28.0	25.7	7:15	56° 10'	1120	Cut in line 343+00
		2	27.6	25.3		54° 40'	1040	Zero 00
		3	25.6	23.3		52° 47'	956	Boat +1.0
		4	24.9	22.6		51° 18'	898	Tide -3.3
		5	23.4	21.1		49° 35'	833	-2.3
		6	22.5	20.2		47° 48'	772	
		7	20.4	18.1		45° 55'	716	
S-24	S-25	8	18.4	16.1		43° 47'	656	
		9	17.3	15.0		42° 13'	614	
		10	15.9	13.6		40° 30'	573	
		11	14.3	12.0		38° 58'	540	
		12	13.5	11.2		36° 45'	492	
		13	12.2	9.9		35° 13'	463	
		14	11.2	8.9		33° 16'	425	
		15	9.6	7.3	7:18	31° 50'	402	
		16						
		17						



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 117
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

F.B. 2304 Pg. 118 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-23-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

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

Do not extend notes this side of this line.

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-53

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

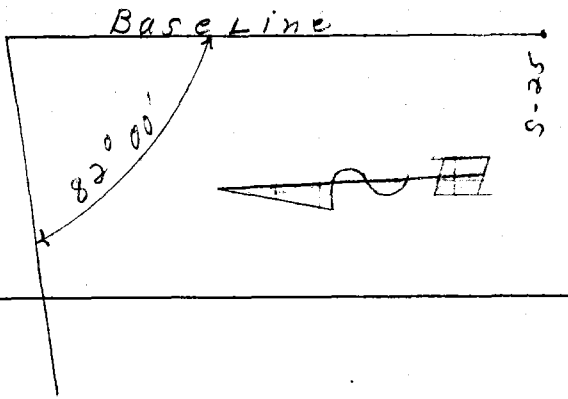
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 338+00	Sight on 340+00
B.M. S-25	10 33	21 20		10 87	B.M. S-25 ELEV. 10.875 F.B. 2100-156	
T.P.	7 06	22 50	5 76	15 44		
340+00			1 7	20 8	SAND 1 FT W. OF ROADWAY CURB	
24 FT. LEFT			1 39	21 11	PAVEMENT AT BOTTOM OF 45" WALL	
8 FT. RIGHT			2 1	20 4	BRK	
27 " "			6 0	16 5	BRK.	
70 " "			10 1	12 4	BRK	
100 " "			13 9	8 6		
T.P. 115 FT. RT.	3 25	9 87	15 88	6 62	1x2 FLUSH	
			6 1	3 8	30 01 31	130
			9 1	0 8	35 33	161
			11 6	-1 7	39 39	191
			11 0	[illegible]	44 29	231
			11 6	-1 7	47 29	259
			13 1	-3 2	51 09	300
			14 3	-4 4	[illegible]	330
			15 4	-6 5	[illegible]	379

IN SHORE
340+00 S.
TUNG 1 [illegible]

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 118
Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. No. ____ Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Notes Date 5-23-56
Date ____ Date ____ Map No. ____ Indexed K. C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. S. 2304	Pg. 121
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by [illegible]	Notes [illegible]	Date 5-23-56	
No.	Date	Date	Map No.	Indexed C. Johnson		

Range 340+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At Ch	#	Color	Time	Hor. Ang.	
	1.		7 26	82° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	
				7 30	

S-25

340+00-S

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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LOS ANGELES COUNTY SURVEYOR
726 Los Angeles County Engineering Bldg.

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76L298 307 8-53

F. B. 2304 PG. 122 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-23-56 Date No.

Survey by MA. van Deren Notes RH. Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

76L298 307 8-53

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LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
340-00-S						
S-25						
						Range 340+00-S

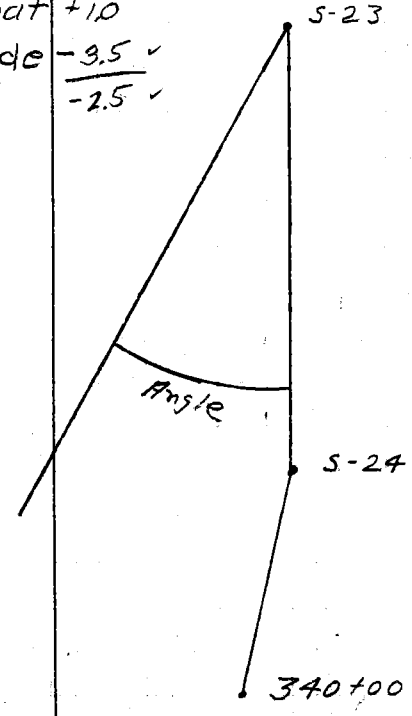
76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		1	31.4 ✓	28.9 ✓	7:26	58° 46'	1132 ✓	Cut in line 340+00
		2	29.5 ✓	27.0 ✓		57° 53'	~~1109~~ 1090	zero 0.0 ✓
		3	28.6 ✓	26.1 ✓		56° 28'	1027 ✓	Boat +1.0
		4	27.0 ✓	24.5 ✓		55° 04'	968 ✓	Tide -3.5 ✓
		5	25.9 ✓	23.4 ✓		53° 50'	934 ✓	-2.5 ✓
		6	24.9	22.4 ✓		52° 16'	868 ✓	
		7	23.8	21.3 ✓		50° 37'	814 ✓	
S-23	S-24	8	22.5 ✓	20.0 ✓		49° 13'	770 ✓	
		9	20.9 ✓	18.4 ✓		47° 07'	710 ✓	
		10	19.5 ✓	17.0 ✓		45° 28'	664 ✓	
		11	18.1 ✓	15.6 ✓		44° 53'	650 ✓	
		12	16.7 ✓	14.2 ✓		42° 17'	590 ✓	
		13	15.4 ✓	~~13.9~~ 12.9		40° 33'	553 ✓	
		14	14.5 ✓	12.0 ✓		39° 18'	527 ✓	
		15	13.2 ✓	10.7 ✓		38° 22'	508 ✓	
		16	12.4 ✓	9.9 ✓		37° 01'	481 ✓	
		17	11.0 ✓	8.5 ✓		35° 46'	458 ✓	
		18	10.4 ✓	7.9 ✓		34° 25'	432 ✓	
		19	9.7 ✓	7.2 ✓		33° 13'	411 ✓	
		20	9.3 ✓	6.8 ✓	7:30	31° 38'	385 ✓	



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 123
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

F. B. 2304 Pg. 129 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-23-56 Date _____ No. _____

Survey by Van Dereu Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed _____ Date _____ Date _____ Date _____ No. _____

STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At	#	Color	Time	Hor. Ang.	

Do not extend notes this side of this line.

PLEASE RETURN TO

LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

761.298 307 8-53

76L298 S & E #307 9-54

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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. Inshore 338+

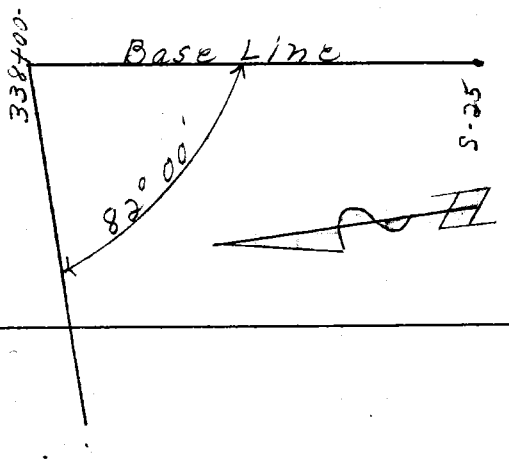
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 340+00	Sight on 338+00
T.P. LINE 2 340+00	7 06	22 50		15 44 ~~15 47~~		
T.P.	5 61	23 77	4 34	18 16		
338+00			1 45	22 32	APPROX CENTER OF ROADWAY	
6' LEFT			1 44	22 33	BASE OF 45" WALL	
6.5 FT. RIGHT			1 20	22 57	ON TOP 4" CURB - SAND FLUSH WITH CURB	
11 " "			16	22 2	TOP OF BRK	
25 " "			70	16 8 ~~16 7~~	BOT OF BRK	
70 " "			103	13 5	BRK	
100 " "			137	10 1		
T.P. 130 " "	2 32	10 00	16 09	7 68	NO FLUSH	
			6 4	3 6	41 48	161
			10 0	0 0	50 45	212
			11 3	-1 3	55 43	245
			12 2	-2 2	55 57	248
			11 2	-1 2	61 24	294
			12 1	-2 1	64 40	330
			13 2	-3 2	67 28	362
			14 6	-4 6	68 42	380
			16 6	-6 6	70 56	416

INSHORE
338+00 S.
Time: 10:40 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. S. 2304 Pg. 125
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Notes ____ Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 127
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by MA. van Deren	Notes P.H.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 338+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		7 38	82° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.		7 41	" "	

S-25

338+00-S

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 2304 Pg. 128 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-23-56 Date No.

Survey by MA. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

STATION	B.S.	H.I.	F.S.	ELEV.		
Inst. Sight At OH	#	Color	Time	Hor. Ang.		Remarks
338+00-S						Range 338+00-S
S-25						

Do not extend notes this side of this line.

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-53

76L298 307 8-53

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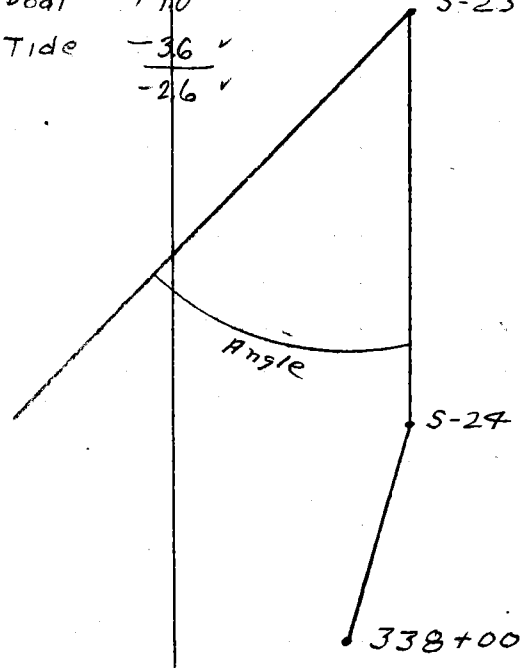
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.			
Inst. At	Sight On	#	Color		Time	Hor. Ang.			Remarks
		1	30.7	28.1	7:38	68° 23'	1292		Cut in line 338+00
		2	29.9	~~27.5~~ 27.3		67° 26'	1221		Zero 00
		3	28.8	26.2		66° 02'	1141		Boat +1.0
		4	27.4	24.8		64° 37'	1060		Tide −3.6
		5	25.6	23.0		63° 07'	981		−2.6
		6	24.2	21.6		61° 57'	931		
		7	23.2	20.6		60° 18'	865		
		8	21.5	18.9		58° 42'	808		
S-23	S-24	9	19.5	16.9		57° 02'	753		
		10	18.0	15.4		55° 07'	695		
		11	16.8	14.2		53° 22'	648		
		12	15.5	13.2		52° 05'	617		
		13	14.9	12.3		50° 50'	588		
		14	13.6	11.0		49° 13'	555		
		15	12.0	9.4	7:41	47° 06'	510		
		16	8.4	5.8	7:41	42° 44'	433		



Profile Notes Red. Plotted Job No. 2300.02 Division No. 10 F. B. 2304 Pg. 129
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes P.T. Date 5-23-56
No. Date Date Map No. Indexed C. Johnson

F. B. 2304 PG. 130 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-23-56 Date _____ No. _____

Survey by Van Dexen Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed _____ Date _____ Date _____ Date _____ No. _____

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. Sight On	#	Color	Time	Hor. Ang.		Remarks

761298 307 8-53

PLEASE RETURN TO

LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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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.

78L298 S & E #307 9-54

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

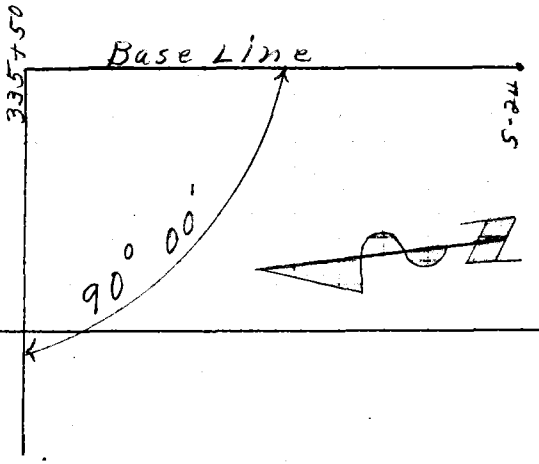
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 5-23	Sight on 335+50
T.P. 338+00 LINE 2	5 61	23 77		18 16		
B.M. S-24	1 55	23 46	1 85	21 92	B.M. S-24 ELEV. 21.910 F.B. 2100 -156	
335+50			2 27	21 19	APPROX CENTER OF ROADWAY	
6 FT. LEFT			2 17	21 29	BASE OF 3½' WALL	
6½ " RIGHT			2 10	21 36	TOP OF 4" CURB, SAND FLUSH WITH TOP CB	
13 " "			2 7	20 8	TOP BRK.	
32 " "			7 1	16 4	BRK	
58 " "			8 4	15 1	TOP BRK	
84 " "			12 2	11 3	LITTLE BRK	
100 " "			13 0	10 5	BRK	
T.P. 135' RT.	2 74	8 85	17 35	6 11	1 X 2 FLUSH	
			7 3	1 6	38° 11'	164
			9 9	-1 0	44 38	205
			10 5	-1 6	48 10	232
			10 5	-1 6	54 57	297
			2	-2 3	57 28	326
			12 1	-3 2	59 35	354
			13 6	-4 7	61 57	390
			15 0	-6 1	63 54	425

IN SHORE
335+50 S.
TIME: 10:45 A.M.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.07 Division No. 10 F. B. 2304 PG. 131
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Date ____ Checked ____ Date ____ Survey by DREIER & ENGLISH Date 5-23-56
Map No. ____ Date ____ Indexed ____ Date ____ Noted A. C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 133
No.	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec.	Notes Chkd.	Checked	Survey by MA. van Deren	Notes PH.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 335 +50-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		7 52	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.		7 55	87° 47'	

S-24

335+50-S

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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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 5304 PG. 139 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-23-56 | Date | No.

Survey by MA van Deren | Notes P.H. | Notes Chkd. | Checked | X-Sec.

Indexed | Date | Date | Date | No.

STATION	B.S.	H.I.	F.S.	ELEV.	Inst. Sight At	#	Color	Time	Hor. Ang.	Remarks
335+50-S										
S-24										
										Range 335+50-S

Do not extend notes this side of this line.

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-53

76L298 307 8-53

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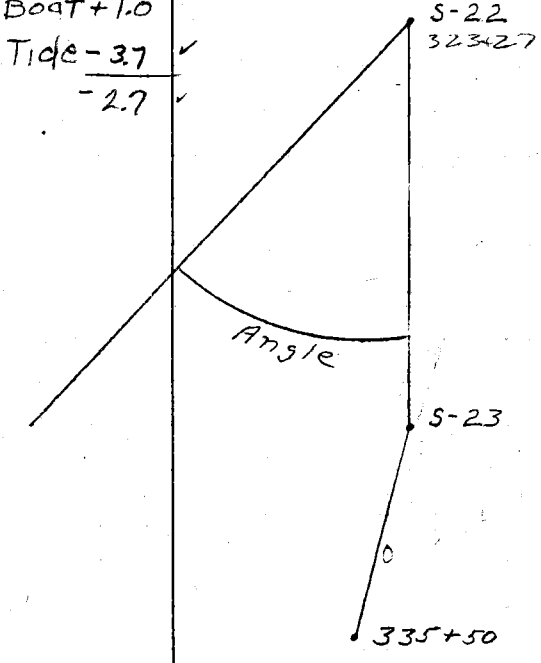
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
	1	30.9 ✓ 28.2	7:52	47° 01'	1240	Cut in line 335+50
	2	29.6 ✓ 26.9		45° 15'	1170	Zero 0.0 ✓
	3	[illegible] ✓ 25.1		43° 29'	1100	Boat + 1.0
	4	26.6 ✓ 23.9		41° 27'	1030	Tide - 3.7 ✓
	5	25.2 ✓ 22.5		38° 58'	949	- 2.7 ✓
	6	23.6 ✓ 20.9		37° 12'	888	
	7	22.1 ✓ 19.4		35° 02'	822	
S-22 S-23	8	20.5 ✓ 17.8		32° 43'	756	
	9	19.3 ✓ 16.6		30° 40'	698	
	10	17.0 ✓ 14.3		28° 18'	635	
	11	15.8 ✓ 13.1		27° 17'	610	
	12	14.9 12.2		25° 58'	574	
	13	13.8 ✓ 11.1		25° 14'	555	
	14	12.6 9.9		23° 29'	512	
	15	10.6, 10.9 7.9 ~~8.1~~ 8.2	7:55	21° 33'	465	



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 135
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes P.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

F.B. 2304 Pg. 136 | Job No. 2300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-23-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed _____ Date _____ Date _____ Date _____ No. _____

STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At OR	#	Color	Time	Hor. Ang.	

761298 307 8-53

PLEASE RETURN TO

LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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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.

76L298 S & E #307 9-54

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

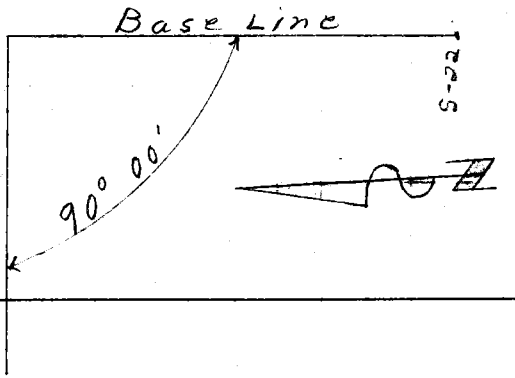
STATION	B. S.	H. I.	F. S.	ELEV.	List at 328+30 Sight on 333+00	
B.M. S-24	1 55	23 46		21 91	B.M. S-24 ELEV. 21.910 F.B. 2100-156	
B.M. S-23	2 60	22 66	3 40	20 06	B.M. S-23 ELEV. 20.060 F.B. 2100-157	
333+00			2 60	20 06	APPROX CENTER ROADWAY	
5 FT. LEFT			2 54	20 12	BASE OF 3E WALL	
6 " RIGHT			2 40	20 26	TOP OF 4" CURB	
15 " "			2 4	20 3	TOP BRK	
35 " "			8 0	14 7	BOTTOM BRK	
100 " "			1 46	8 1		
T.P. 110 " "	2 06	9 92	1580	6 86	1 X 2 FLUSH	
			10 2	-0 3	17° 42'	150
			10 4	-0 5	20 26	175
			10 4	-0 5	22 30	195
			[illegible]	-1 1	26 11	231
			12 1	-2 2	30 22	275
			13 2	-3 3	32 31	300
			15 0	-5 1	37 00	354

IN SHORE
333+00 S.
TIME: 11:00 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 PG. 137
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Notes

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 139
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Vanderen	Notes P.H.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A C Johnson		

Range 333+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		8 09	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-23

333+00-S

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 Los Angeles County Engineering Bldg.

Do not extend notes this side of this line.

76L298 307 8-53

F.-B. 2304 Pg. 140 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-23-56 Date No.

Survey by MA. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

761298 307 8-53

LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

PLEASE RETURN TO

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.		Remarks
Inst. Sight OH	#	Color	Time	Hor. Ang.		
333+00-S	21.			"		
	22.			"		
5-23	23.			"		Range 333+00-S
	24.			"		
	25.			"		
	26.			"		
	27.			"		
	28.			"		
	29.			"		
	30.			"		
	31.			"		
	32.			"		
	33.			"		
	34.			"		
	35.		8 18	9° 36'		

76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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. Color		F. S. Time	ELEV. Hor. Ang.	
S-22	S-23	1	50.9	48.1	8:09	69° 27'	2595
		2	49.3	46.5		68° 40'	2491
		3	47.5	44.7		67° 55'	2398
		4	46.0	43.2		67° 13'	2317
		5	44.6	41.8		66° 22'	2224
		6	44.4	41.6		65° 34'	2142
		7	42.0	39.2		64° 17'	2020
		8	40.8	38.0		63° 10'	1923
		9	39.3	~~37.5~~ 36.5		61° 30'	1792
		10	37.9	35.1		59° 44'	1667
		11	36.5	33.7		58° 12'	1569
		12	35.1	32.3		56° 20'	1461
		13	33.2	30.4		53° 57'	1337
		14	31.3	28.5		51° 44'	1233
		15	29.9	27.1		49° 43'	~~1133~~ 1148
		16	27.8	25.0		47° 08'	1048
		17	25.6	22.8		44° 01'	940
		18	24.2	21.4		41° 45'	868
		19	22.8	20.0		39° 35'	804
		20	21.6	18.8		38° 07'	763

Remarks

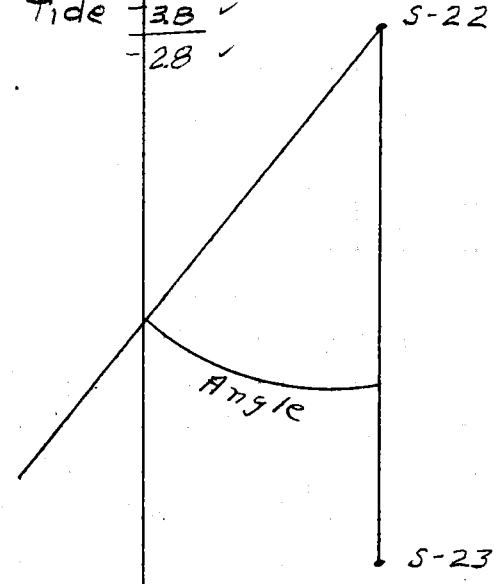
Cut in line 333+00

Zero 0.0

Boat +1.0

Tide -3.8

-2.8



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 141

No. Date Date Survey of Beach Erosion Study

X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 5-23-56

No. Date Date Map No. Indexed C. Johnson

76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		21	20.6 ✓	17.8 ✓		36° 53	730 ✓	Cut in line 333+00
		22	20.3 ✓	17.5 ✓		35° 53'	704 ✓	
		23	19.4 ✓	~~16.2~~ 16.6		34° 37'	672 ✓	
		24	18.9 ✓	16.1 ✓		33° 44'	650 ✓	
		25	17.8 ✓	15.0 ✓		32° 33'	621 ✓	
		26	17.0 ✓	14.2 ✓		31° 17'	591 ✓	
		27	16.4 ✓	13.6 ✓		30° 13'	567 ✓	
5-22	5-23	28	15.5	12.7 ✓		29° 03'	540 ✓	
		29	14.4 ✓	11.6 ✓		27° 56'	516 ✓	
		30	13.4 ✓	10.6 ✓		26° 25'	483 ✓	
		31	12.3 ✓	9.5 ✓		25° 02'	454 ✓	
		32	11.2 ✓	~~8.5~~ 8.4		24° 05'	435 ✓	
		33	9.9 ✓	7.1 ✓		22° 22'	400 ✓	
		34	8.6 ✓	5.8 ✓		20° 53'	371 ✓	
		35	7.1 ✓	4.3 ✓	8:18	19° 20'	341 ✓	

F.B. 2304 Pg. 142 Job No. 0300.02 Division No. 10 Notes Red. Plotted No. Profile
Survey of Beach Erosion Study Date 5-23-56 Date X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked No.
Indexed C. Johnson Date Date Date

76L298 S & E #307 9-54

PLEASE RETURN TO
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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

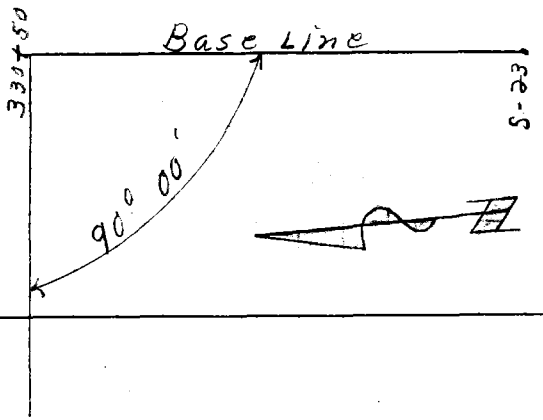
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 328+30	Sight on 330+50
B.M. S-23	2 60	22 66		20 06	B.M. S-23 ELEV 20.060 F.B. 2100-157	
T.P.	2 50	22 32	2 84	19 82		
330+50			2 24	20 08	ON ROADWAY	
4½ FT. LEFT			2 13	20 19	AT BASE OF 3½ FT WALL	
7 " RIGHT			1 95	20 37	TOP 4" CURB, SAND FLUSH	
14 " "			1 5	20 8	TOP BRK.	
34 " "			9 3	13 0	BRK	
70 " "			12 4	9 9	BRK	
T.P. 90 " "	[illegible]	9 40	15 12	7 20	1 X 2 FLUSH	
			5 9	3 5	26 40 110 ✓	
			8 3	1 1	31 02 132 ✓	
			10 1	-0 7	36 10 161 ✓	
			11 4	-2 0	42 06 199 ✓	
			11 1	-1 7	48 16 247 ✓	
			12 5	-3 1	53 08 293 ✓	
			14 7	-5 3	56 41 335 ✓	
			16 1	-6 7	63 14 385 ✓	

INSHORE
330+50 S
Time: 11:10 AM

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. ____ F.B. 2304 Pg. 143
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Notes ____ Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 145
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deren	Notes P.H.	Date 5-23-56	
No.	Date	Date	Map No.	Indexed C. Johnson		

Range 330+50-S



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

S-23

330+50-S

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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76L298 307 8-53

F.B. 3304 PG. 146 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-23-56 Date No.

Survey by M.A. van Deren Notes RH. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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STATION	B.S.	H.I.	F.S.	ELEV.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
330+50-S						
S-23						
		2/				
		22				
		28				
				9 20		
						Range 330+50-S

76L298 307 8-53

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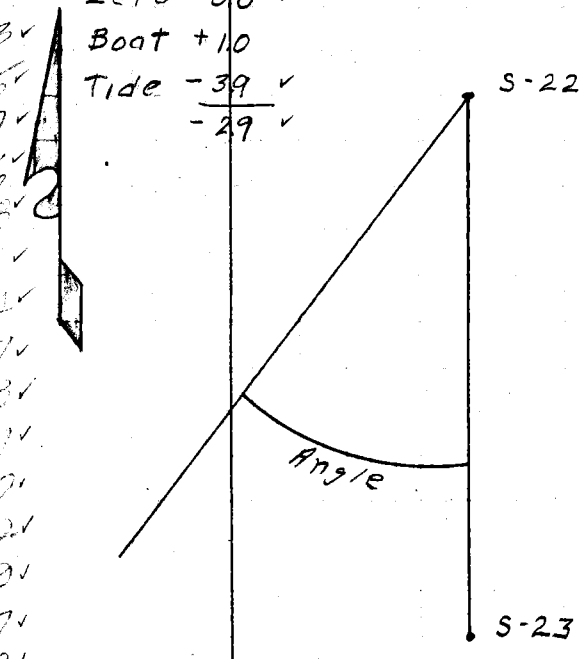
Do not extend notes this side of this line.

STATION		B. S.	H. I.		F. S.	ELEV.	
Inst. At	Sight On	#	Color		Time	Hor. Ang.	Remarks
		1	51.3 ✓	48.4 ✓	9:15	73° 52'	2499 ✓ Cut in line 330+50
		2	48.7 ✓	45.8 ✓		72° 40'	2317 ✓ zero 00 ✓
		3	45.3 ✓	42.4 ✓		71° 31'	2163 ✓ Boat +1.0
		4	42.6 ✓	39.7 ✓		69° 48'	1965 ✓ Tide -39 ✓
		5	40.5 ✓	37.9 ✓		68° 18'	1817 ✓ -29 ✓
		6	39.0 ✓	36.1 ✓		66° 17'	1646 ✓
		7	37.3 ✓	34.4 ✓		64° 23'	1508 ✓
S-22	S-23	8	36.0 ✓	33.1 ✓		62° 12'	137[illegible] ✓
		9	33.8 ✓	30.9 ✓		59° 26'	1[illegible] ✓
		10	30.6 ✓	27.7 ✓		56° 08'	1077 ✓
		11	27.4 ✓	24.5 ✓		52° 14'	933 ✓
		12	24.8 ✓	21.9 ✓		48° 30'	[illegible] ✓
		13	21.7 ✓	18.8 ✓		44° 52'	720 ✓
		14	19.5 ✓	16.6 ✓		40° 43'	622 ✓
		15	18.0 ✓	15.1 ✓		37° 42'	559 ✓
		16	15.8 ✓	12.5 ✓		35° 02'	507 ✓
		17	14.1 ✓	11.2 ✓		33° 28'	478 ✓
		18	13.1 ✓	10.2 ✓		32° 20'	458 ✓
		19	11.7 ✓	8.8 ✓		30° 07'	419 ✓
		20	10.4 ✓	7.5 ✓		28° 17'	389 ✓



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 147
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes P.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

76L298 307 8-53

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F.B. 2304 Pg. 108 Job No. 0300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 5-23-56 Date No. X-Sec.
Survey by Van Deren Notes P.T. Notes Chkd. Checked
Indexed L. C. Johnson Date Date Date No. Profile

STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		21	9.4 ✓	6.5		26° 10'	355 ✓	Cut in line 330+50
		22	7.9 ✓	5.9 ✓		24° 16'	326 ✓	
		23	6.4 ✓	3.5	9:20	21° 52'	290 ✓	
S-22	S-23							

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 330+50	Sight on 328+44
T.P. LINE 2 328+30	51	2281		2130		
328+44			153	2128		
34 FT LEFT			147	2134	BASE OF 35 WALL	
86 FT, RIGHT			132	2142	TOP OF 4" CURB	
17 " "			13	2154	TOP BRK.	
25 " "			64	1644	BOT. BRK	
50 " "			100	1258	BRK	
60 " "			130	981	BRK	
90 " "			173	581		
T.P. 90	220	906	1595	686	T.P. ON ROCK BY MARKER	
			70	~~2.6~~ 2.1	30° 33'	122 ✓
			94	~~-0 4~~ -0 3	34 11	140 ✓
			110	~~-2 9~~ -1 9	39 22	169 ✓
			118	~~-2 8~~ -2 7	45 37	210 ✓
			122	~~-3 2~~ -3 1	51 27	259 ✓
			130	~~-7 3~~ -3 9	57 25	322 ✓
			164	~~-7 4~~ -7 3	60 55	370 ✓

IN SHORE
328+44 S.
TIME: 11:20 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 03000 Division No. 10 F. B. 2304 Pg. 145
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ASSOC. Noted ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ C. JOHNSON

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.

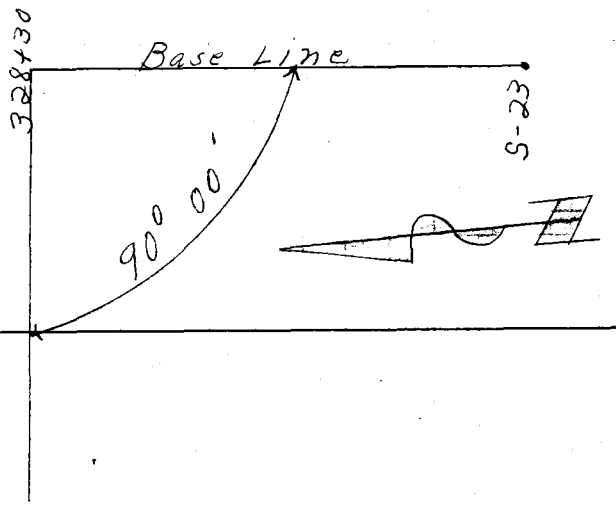
STATION	B. S.	H. I.	F. S.	ELEV.		
T.P. LINE 2 330+50	2 50	22 32		19 82 ~~19 76~~		
T.P.	1 51	22 81	1 02	21 30		
328 + 30 S			1 46	21 35		
3½ FT. LEFT			1 45	21 36	BASE OF 3½' WALL	
8½ " RIGHT			1 25	21 56	TOP OF 4" CURB	
17 " "			1 3	21 5	TOP BRK	
25 " "			5 7	17 1	BOT. BRK	
40 " "			7 1	15 7		
56 " "			10 6	12 2	BEGINNING OF ROCK GROIN	
95 " "			11 6	11 2	TOP ROCKS	
100 " "			12 0	10 8	" "	
125 " "			16 4	6 4	" "	
135 " "			16 6	6 2	" "	

IN SHORE
328+30 S.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. ____ F. B. 1304 Pg. 157
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 153
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Vanderen	Notes [illegible]	Date 5-23-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson		

Range 328+30-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		9 36	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-23

328+30-S

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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76L298 307 8-53

F.B. 2304 PG. 154 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-23-56 Date No.

Survey by M.A. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
328+30-S		21.			"	
S-23		22.			"	Range 328+30-S
		23.			"	
		24.			"	
		25.			"	
		26.			"	
		27.			"	
		28.			"	
		29.			"	
		30.			"	
		31.			"	
		32.			"	
		33.			"	
		34.			"	
		35.			"	
		36.			"	
		37.			"	
		38.			"	
		39.			"	
		40.		9 46	"	

76L298 307 8-53

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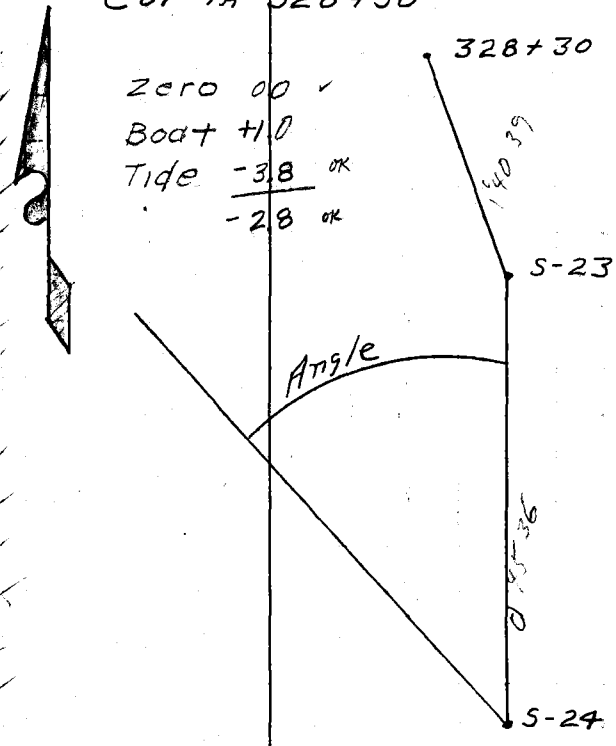
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
	1	–	9:36	76° 35'		Cut in 328+30
	2	–		75° 20'		
	3	10.0 60.0 ~~57.1~~ 57.2		74° 02'	2660	Zero 00 ✓
	4	9.4 56.4 ~~55.5~~ 52.6		73° 14'	2540	Boat +1.0
	5	8.8 52.8 ~~49.9~~ 50.0		72° 31'	2438	Tide -3.8 ok
	6	8.3 49.8 ~~46.9~~ 47.0		71° 40'	2330	-2.8 ok
	7	7.8 46.8 ~~43.9~~ 44.0		70° 49'	2230	
S-24 S-23	8	46.4 ~~43.5~~ 43.6		69° 55'	2130	
	9	45.6 42.8 ~~42.7~~		69° 12'	2065	
	10	43.9 41.1 ~~41.0~~		68° 04'	1952	
	11	43.3 40.5 ~~40.4~~		66° 43'	1837	
	12	42.2 39.4 ~~39.3~~		65° 31'	1747	
	13	41.4 38.6 ~~28.5~~		63° 57'	1635	
	14	40.8 38.0 ~~37.9~~		62° 22'	1531	
	15	40.5 37.7 ~~37.6~~		60° 35'	1429	
	16	39.4 36.6 ~~36.5~~		59° 03'	1350	
	17	38.2 35.4 ~~35.3~~		57° 05'	1254	
	18	36.0 33.2 ~~33.1~~		54° 42'	1150	
	19	33.9 31.1 ~~31.0~~		52° 23'	1062	
	20	32.1 29.3 ~~29.2~~		50° 21'	990	
		30.0 27.2 ~~27.1~~				



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 153
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____

76L298 307 8-53

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STATION		B. S.	H. I.		F. S.	ELEV.	-2.8	
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		21	28.4 ✓	25.6 ~~25.5~~		48° 21'	922	Cut in line 328+30
		22	26.3 ✓	23.5 ~~23.4~~		46° 06'	855	
		23	24.6 ✓	21.8 ~~21.7~~		43° 36'	787	
		24	22.9 ✓	20.1 ~~20.0~~		41° 23'	727	
		25	21.8 ✓	19.0 ~~18.9~~		39° 37'	682	
		26	20.1 ✓	17.3 ~~17.2~~		37° 58'	645	
		27	18.6 ✓	15.8 ~~15.7~~		36° 10'	605	
S-24	S-23	28	18.0 ✓	15.2 ~~15.1~~		34° 51'	575	
		29	16.7 ✓	13.9 ~~13.8~~		33° 45'	552	
		30	15.8 ✓	13.0 ~~12.9~~		32° 31'	525	
		31	14.7 ✓	11.9 ~~11.8~~		31° 11'	498	
		32	13.7 ✓	10.9 ~~10.8~~		29° 52'	472	
		33	12.9 ✓	10.1 ~~10.0~~		28° 30'	445	
		34	11.5 ✓	8.7 ~~8.6~~		27° 17'	422	
		35	10.6	7.8 ~~7.7~~		25° 47'	396	
		36	9.8 ✓	7.0 ~~6.9~~		24° 22'	371	
		37	8.4 ✓	5.4 ~~5.3~~		22° 57'	344	
		38	6.5 ✓	3.7 ~~3.6~~		21° 08'	312	
		39	6.3 ✓	3.5 ~~3.4~~		19° 46'	291	
		40	6.2	3.4 ~~3.3~~	9:46	18° 04'	261	

F.B. 2304 PG. 156

Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-23-56 Date No. X-Sec.

Survey by Van Deren Notes R.T. Notes Chkd. Checked

Indexed C. Johnson Date Date No.

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.	Inst. at 330+50	Sight on 328+16
T. P. LINE 328+30	1 51	22 81		21 30		
328+16 S			1 38	21 43		
3½ FT LEFT			1 35	21 46	BASE OF 3½ FT. WALL	
9½ " RIGHT			1 17	21 64	TOP OF 4" CURB	
17 " "			1 3	21 5	TOP BRK	
25 " "			6 0	16 8	BOT. BRK	
37 " "			6 6	16 2	TOP BRK	
55 " "			13 4	9 4	BOT BRK	
100 " "			18 3	4 5		
T.P. 100 " "	3 10	8 60	17 31	5 50	ON ROCK BY MARKER	
			4 0	4 6	22° 53' 99	
			7 1	1 5	26 38 117	
			9 0	-0 4	31 48 145	
			9 7	-1 1	35 38 168	
			10 3	-1 7	38 21 185	
			11 0	-2 4	41 08 204	
			12 0	-3 4	46 47 249	
			12 3	-3 7	50 06 280	
			14 9	-6 3	52 34 306	

INSHORE
328+16 S.
Time: 11:30 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 157
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-23-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson

Notes Ck'd by	Survey of BEACH EROSION ST.
Map No.	W. O. 0300.02 Tape No. St'd. °F
Office Work	Surveyed by Van Deren
Checked	Notes W. D. BAY Date 5-24-56
Date	Indexed C. Johnson

F. B. 2304 : 199 Pg.

U.S. C. & G. S.
SANTA MONICA PIER
5-24-56

TIDE	GUAGE
STD. TIME	TIDE
6:00 A.M.	+ 1.3
6:30 "	+ 1.9
7:00 "	+ 2.5
7:30 "	+ 2.95
8:00 "	+ 3.3
8:30 "	+ 3.7
9:00 "	+ 3.9
9:30 "	+ 4.0
10:00 "	+ 3.9
10:30 "	+ 3.9
11:00 "	+ 3.7

W. D. Bay

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726 LOS ANGELES COUNTY
ENGINEERING BLDG.

76F309S S&E #247. 8-54

76F309S S&E #247 1-56

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700 LOS ANGELES COUNTY ENGINEERING BLDG.

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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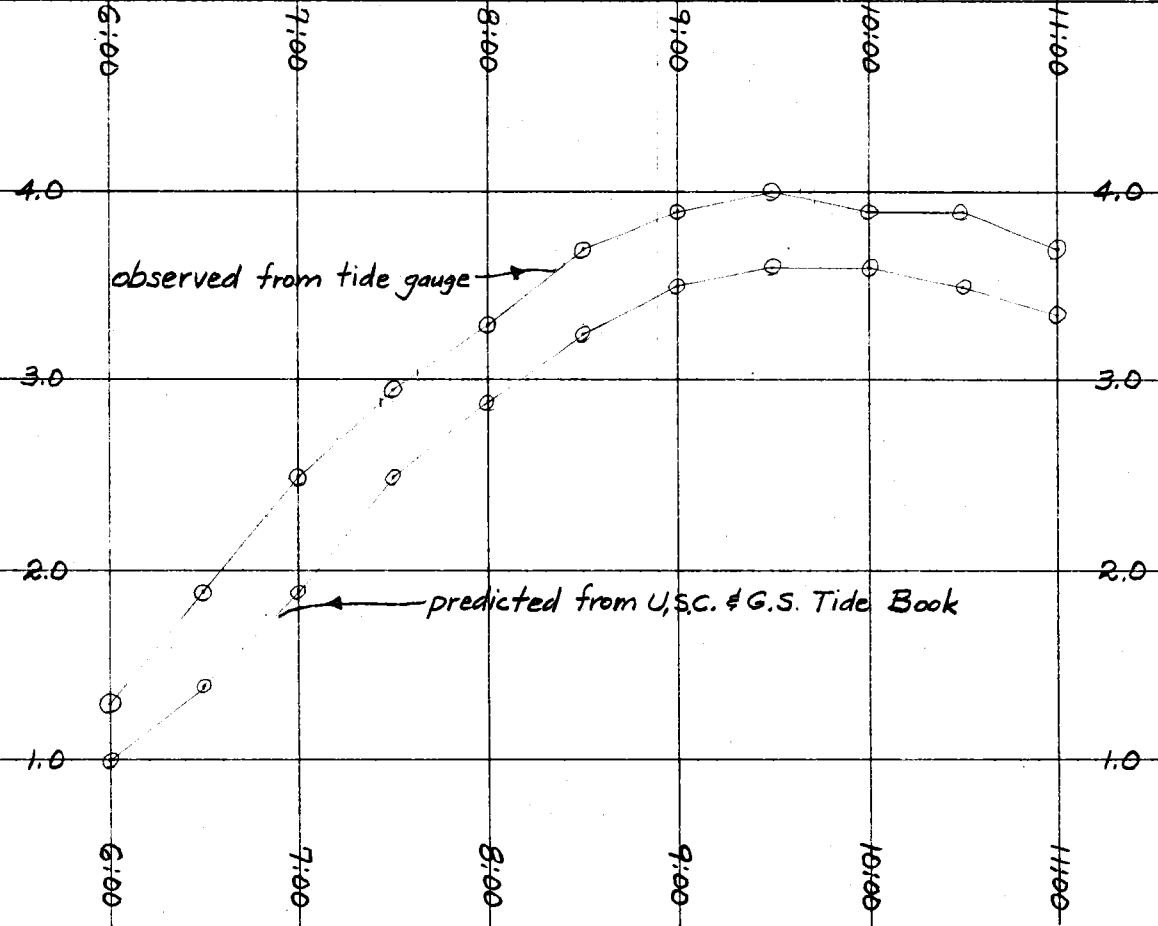


May 24, 1956

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

Survey of
JN Tape Std °F
Surveyed by
Notes Date
Indexed

F. B. 2304 PG.

76L298 S & E #307 9-54

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

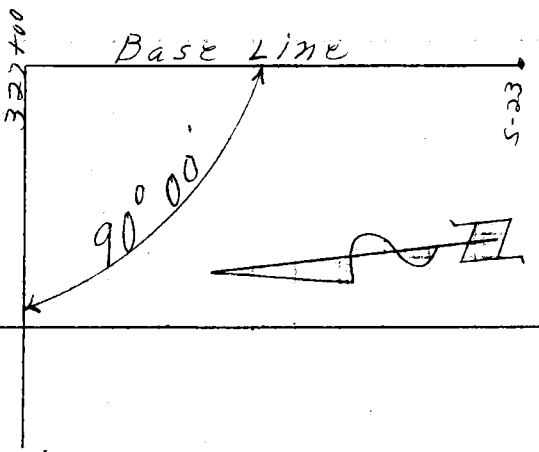
STATION	B. S.	H. I.	F. S.	ELEV.	Inst at S-22	Sight on 327+00
T.P. LINE	1 51	22 81		21 30		
T.P. 327+00	1 07	23 08	0 80	22 01		
4 FT LEFT			0 99	22 09	BASE OF 3½ FT WALL	
8 " RIGHT			0 89	22 19	TOP 4" CURB, SAND FLUSH	
17 " "			1 2	21 9	TOP BRK	
34 " "			9 8	13 3	BOT. BRK	
54 " "			13 7	9 4	BOT "	
70 " "			15 1	8 0	TOP BRK	
TOP 90 " "	2 77	8 08	17 77	5 31	1 X 2 FLUSH	
			5 7	2 4	10° 56' 72	
			7 9	0 2	17 46 120	
			8 7	-0 6	21 45 148	
			8 7	-0 6	26 35 187	
			9 0	-0 9	30 08 217	
			9 4	-1 3	32 40 239	
			11 8	-3 7	39 16 305	
			14 1	-6 0	43 41 356	
			17 3	-9 2	48 41 424	

INSHORE
327+00 S.
Time: 7:45 AM

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 161
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-24-56
Date ____ Date ____ Map No. ____ Indexed C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 163
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Deren	Notes P.H.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 327+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		6 47	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-23

327+00-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 2304 PG. 164 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-24-56 Date No.

Survey by M.A. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed ~~A. C. Johnson~~ Date Date Date No.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
327+00-S	21			"	Range	327+00-S
S-23	22			"		
	23			"		
	24			"		
	25			"		
	26			"		
	27			"		
	28		6 52	"		

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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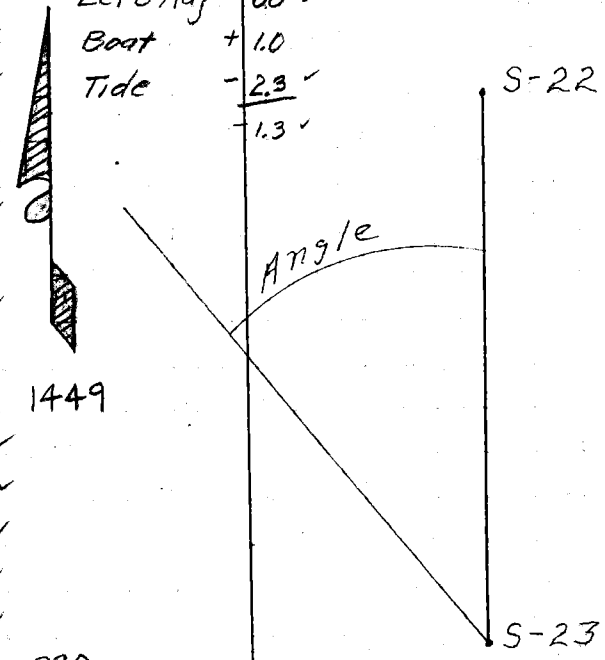
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.		
	1	—	6:47	76° 52'		Cut in line 327+00
	2	—		76° 17'		zero Adj 00 ✓
	3	9.3 ✓ 55.8 54.5		75° 33'	2491 ✓	Boat + 1.0
	4	8.7 ✓ 52.2 50.9		74° 48'	2363 ✓	Tide − 2.3 ✓
	5	7.8 ✓ 46.8 45.5		73° 31'	2170 ✓	− 1.3 ✓
	6	7.4 ✓ 44.4 43.1		72° 21'	2018 ✓	
	7	7.2 ✓ 43.2 41.9 / 43.2 41.9 ✓		71° 14'	1889 ✓	
S-23 S-22	8	43.4 ✓ 42.1		70° 18'	1793 ✓	
	9	43.3 42.0		69° 22'	1705 ✓	
	10	42.3 41.0		67° 55'	1582 ✓	
	11	40.8 ✓ 39.5		66° 06'	~~1489~~ 1449	
	12	38.6 ✓ 37.3		64° 04'	1320 ✓	
	13	36.9 ✓ 35.6		62° 53'	1254 ✓	
	14	34.0 ✓ 32.7		60° 34'	1138 ✓	
	15	31.1 ✓ 29.8		57° 42'	1016 ✓	
	16	27.6 ✓ 26.3		54° 57'	915 ✓	
	17	25.1 ✓ 23.8		52° 16'	~~840~~ 830	
	18	22.4 ✓ 21.1		49° 07'	742 ✓	
	19	20.8 ✓ 19.5		47° 11'	693 ✓	
	20	19.1 ✓ 17.8		45° 16'	648 ✓	



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 165
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes P.T. Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

F.B. 2304 Pg. 166 Job No. 0300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 5-24-56 Date No. Profile
Survey by Van Deren Notes Chkd. Checked X-Sec.
Indexed L. C. Johnson Date Date Date No.

STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.	Remarks	
		21	17.7 ✓	16.4		43° 47'	615 ✓	Cut in line 327+00
		22	16.4 ✓	15.1		42° 05'	580 ✓	
		23	14.8 ✓	13.5		40° 03'	540 ✓	
		24	13.6 ✓	12.3		37° 53'	499 ✓	
		25	12.4 ✓	11.1		35° 52'	464 ✓	
		26	11.1 ✓	9.8		33° 56'	432 ✓	
		27	10.3 ✓	9.0		32° 27'	408 ✓	
S-23	S-22	28	8.5 ✓	7.2	6:52	30° 25'	377 ✓	

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

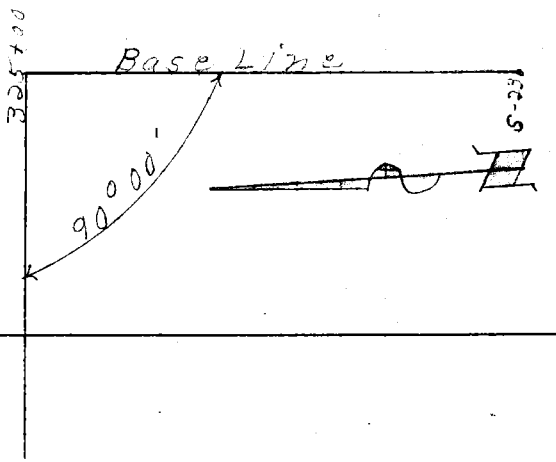
STATION	B. S.	H. I.	F. S.	ELEV.	Instat 327+00	Sight on 325+00
T.P. LINE 2 327+00	1 07	23 08		22 01	327+00	
T.P.	1 04	22 32	1 80	21 28	ON STA. 325+00	
325+00			1 04	21 28	ON ROADWAY	
7 FT LEFT			0 92	21 40	BASE OF 6"	
5 FT RIGHT			0 90	21 43	TOP 4" CURB,	SAND FLUSH
8 " "			1 5	20 8	TOP BRK	
26 " "			9 1	13 2	BOT. "	
42 " "			12 6	9 7	BOT "	
60 " "			13 7	~~8 6~~ 7 6	TOP "	
T.P. 85 " "	3 00	8 02	17 30	5 02	1 x 2 FLUSH	
			1 2	-0 2	34° 38'	138
			8 4	-0 4	39 00	162
			9 0	-1 0	42 29	183
			10 0	-2 0	48 09	223
			11 1	-3 1	54 59	285
			12 0	-4 0	56 10	298
			14 3	-6 3	59 07	334
			16 6	-8 6	63 00	394

IN SHORE
325+00 S.
TIME: 7:50 A.M.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 167
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Date ____ Checked ____ Date ____ Survey by DRE, FR & ENGLISH Date 5-24-56
Map No. ____ Date ____ Indexed ____ Notes ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 169
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by [illegible]	Notes [illegible]	Date [illegible]	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 325+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At	#	Color	Time	Hor. Ang.	
	1.		7 06	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-23

325+00-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F.B. 2304 Pg. 170 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-24-56 Date No.

Survey by MA. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
325+00-S	21.			"		
S-23	22.			"		
	23.			"		
	24.			"		
	25.			"		
	26.			"		
	27.			"		
	28.			"		
	29.		7 17	"		
						Range 325+00-S

76L296 307 8-53

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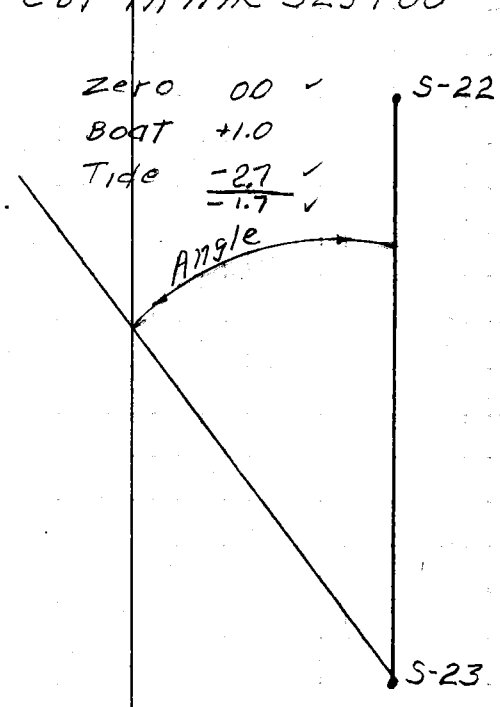
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

Profile No.____ Notes Red.____ Date____ Plotted____ Date____ Job No. 0300.02 Division No. 10 Survey of Beach Erosion Study F. B. 2304 Pg. 171
X-Sec. No.____ Notes Chkd.____ Date____ Checked____ Date____ Survey by Ken Deren Notes R.T. Date 5-24-56
Map No.____ Indexed A. C. Johnson

STATION Inst. At	Sight On	B. S. #	H. I. Color		F. S. Time	ELEV. Hor. Ang.		Remarks
		1	—		7:06	73° 33'		Cut in line 325+00
		2	—			72° 3'		
		3	13.4 80.4	78.7		71° 54'	2576	Zero 00
		4	10.2 61.2	59.5		71° 06'	2459	Boat +1.0
		5	9.6 57.6	55.9		70° 23'	2362	Tide -2.7
		6	9.2 55.2	53.5		69° 30'	2252	-1.7
		7	8.9 53.4	51.7		68° 26'	2130	
		8	8.7 52.2	50.5		67° 07'	1995	
S-23	S-22	9	8.5 51.0	49.3		65° 37'	1858	
		10	8.4 50.4	48.7		64° 03'	1730	
		11	8.3 49.8	48.1		62° 18'	1604	
		12	8.2 49.2	47.5		60° 01'	1459	
		13	7.9 47.4	45.7		57° 38'	1329	
		14	48.1	46.4		56° 02'	~~1240~~ 1250	
		15	45.1	44.0 ~~44.7~~		54° 07'	1164	
		16	40.9	38.7		52° 36'	1101	
		17	37.7	36.0		51° 14'	~~1040~~ 1048	
		18	36.0	34.3		49° 19'	979	
		19	33.1	31.4		46° 37'	891	
		20	29.0	27.3		44° 31'	828	
			25.9	24.2				



F.B. 2304 Pg. 172 | Job No. 0300.02 | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion Study | Date 5-24-56 | Date | No.

Survey by Van Deren | Notes R.T. | Notes Chkd. | Checked | X-Sec.

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

STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight On					
S-23					
S-22					
At	#	Color	Time	Hor. Ang.	
	21	24.0	22.3	42° 20'	767 Cut in line 325+00
	22	22.5	20.7	40° 15'	714
	23	19.1	12.4	36° 35'	625
	24	17.2	15.5	34° 03'	569
	25	15.6	13.9	32° 07'	529
	26	14.9	12.6	29° 58'	485
	27	11.7	10.0	27° 18'	435
	28	10.6	8.9	25° 08'	395
	29	9.2	7.5	23° 33'	367
			7.17		

-.17

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761.298 307 8-53

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76L298 S & E #307 9-54

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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.

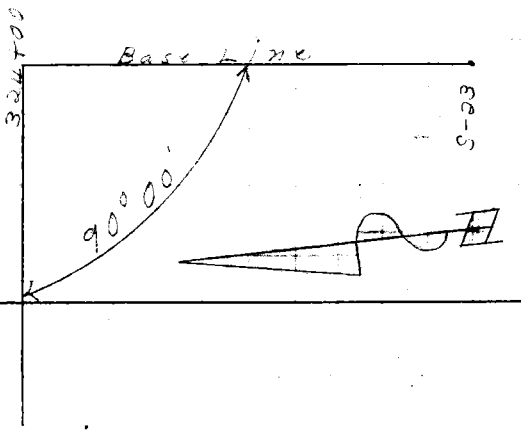
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 327+00	Sight on 324+00
T.P. LINE 2 325+00	1 04	22 32		21 28	ON STATION 325+00	
324+00			1 38	20 94	ON ROADWAY	
8 FT LEFT			1 21	21 11		
4 " RIGHT			1 11	21 21	TOP 4" CURB	SAND FLUSH
7 " "			1 4	20 9	TOP BRK	
25 " "			10 0	12 3	BRK	
44 " "			132	9 1	BOT BRK	
60 " "			14 9	7 4	TOP BRK	
T.P. 80 " "	3 16	7 62	17 86	4 46	1x2 FLUSH	
			6 1	1 5	18° 25' 100	
			8 3	-0 7	24 11 135	
			8 5	-0 9	27 19 155	
			8 7	-1 1	32 16 189	
			9 3	-1 7	37 18 229	
			11 0	-3 4	42 50 278	
			12 8	-5 2	46 44 319	
			14 3	-6 7	49 35 352	

INSHORE
324+00 S.
Time: 8:15 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 PG. 173
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by English & Drexler Notes ____ Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 175
No.	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deren	Notes P.H.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 324+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At	#	Color	Time	Hor. Ang.	
	1.		726	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-23

324+00-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F.B. 2304 Pg. 176 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion Studies | Date 5-24-56 | Date | No.

Survey by MA. van Deren | Notes RH | Notes Chkd. | Checked | X-Sec.

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

STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At OR	#	Color	Time	Hor. Ang.	
324+00-S					
S-23					
	21.			"	
	22.			"	
	23.			"	
	24.			"	
	25.			"	
	26.			"	
	27.			"	
	28.			"	
	29.			"	
	30.			"	
	31.			"	
	32.			"	
	33.			"	
	34.			"	
	35.		7 37	90° 33'	
					Range 324+00-S

Do not extend notes this side of this line.

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

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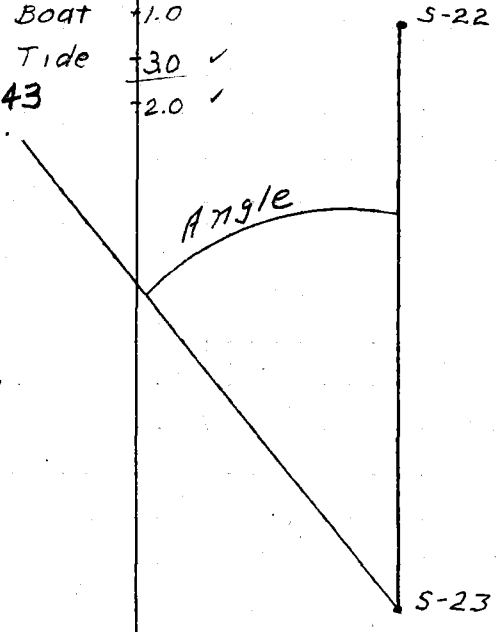
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		Remarks
Inst. At	Sight On	#	Color	Time	Hor. Ang.		
		1	—	7:26	72° 18'	2952	Cut in line 324+00
		2	—		71° 24'	2799	zero 0.0
		3	13.5 81.0 79.0		69° 53'	2572	Boat +1.0
		4	11.8 70.8 68.8		68° 55'	2443	Tide +3.0
		5	10.8 64.8 ~~62.6~~ 62.8		68° 06'	~~2347~~ 2343	+2.0
		6	10.7 64.2 62.2		67° 11'	2239	
		7	11.0 66.0 64.0		65° 45'	2091	
		8	10.8 64.8 62.8		64° 35'	1982	
S-23	S-22	9	10.7 64.2 62.2		63° 10'	1862	
		10	10.4 62.4 60.4		61° 22'	1725	
		11	9.9 59.4 57.4		58° 27'	1534	
		12	9.7 58.2 56.2		56° 09'	1405	
		13	9.2 55.2 53.2		52° 43'	1237	
		14	7.7 46.2 44.2		49° 35'	1106	
		15	45.0 43.0		47° 25'	1025	
		16	42.5 40.5		45° 37'	963	
		17	38.2 36.2		44° 16'	918	
		18	33.4 31.4		42° 54'	875	
		19	30.0 28.0		41° 54'	845	
		20	28.0 26.0		40° 46'	812	
			26.0 24.0				



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 177
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

F.B. 2304 Pg. 178 Job No. 0300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 5-24-56 Date No. X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked
Indexed A. C. Johnson Date Date Date No.

STATION		B. S.	H. I.		F. S.	ELEV.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.	Remarks	
		21	24.6	22.6		39° 08'	766 ✓	Cut in line 324+00
		22	22.7	20.7		37° 25'	721 ✓	
		23	21.7	19.7		36° 28'	696 ✓	
		24	20.7	18.7		35° 04'	661 ✓	
		25	19.2	17.2		33° 34'	625 ✓	
		26	17.8	15.8		32° 02'	589 ✓	
		27	16.7	14.7		30° 32	556 ✓	
S-23	S-22	28	15.3	13.3		28° 30'	511 ✓	
		29	13.8	11.8		27° 01'	480 ✓	
		30	12.6	10.6		25° 16'	445 ✓	
		31	11.4	9.4		23° 44'	414 ✓	
		32	10.4	8.4		22° 18'	386 ✓	
		33	9.4	7.4		20° 36'	354 ✓	
		34	8.2	6.2		19° 30'	334 ✓	
		35	7.4	5.4	7:37	18° 05'	308 ✓	

76L298 S & E #307 9-54

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Do not extend notes this side of this line.

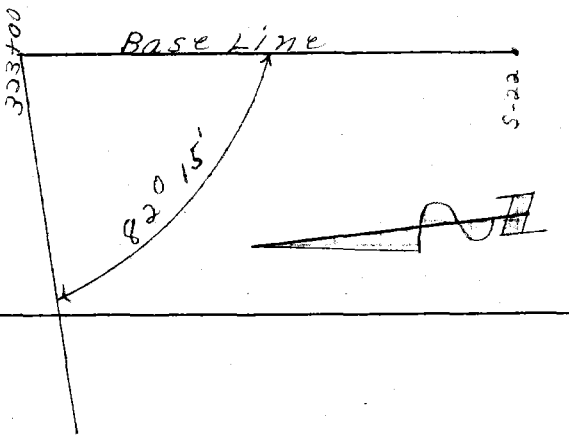
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 320+50	Sight on 323+00
T.P. LINE 2 325+00	1 04	22 32		21 28	ON STA. 325+00	
B.M. S-22	1 08	21 69	1 68	20 64	B.M. S-22 ELEV. 20.610	F.B. 2100-157
323+00			1 19	20 50	ON ROADWAY	
8 FT LEFT			0 96	20 73	BASE OF 3½ FT WALL	
4 FT RIGHT			1 02	20 67	ON TOP 4" CURB	SAND 0.3 LOWER
8 " "			1 5	20 2	TOP BRK	
17 " "			7 5	14 2	TOP PLANK RET. WALL	
18 " "			10 2	11 5	SAND AT BOT. "	" "
37 " "			12 9	8 8	BOT BRK	
54 " "			14 7	7 0	TOP BRK	
T.P. " "	3 62	8 01	17 30	4 39	1x2 FLUSH	
		8 0	6 0	2 0	18 59 92	
			9 4	-1 4	23 16 115	
			9 3	-1 3	25 16 125	
			9 4	-1 4	27 51 143	
			9 1	-1 1	33 12 180	
			10 3	-2 3	39 46 233	
			13 3	-5 3	46 33 310	
			16 0	-8 0	50 12 363	

INSHORE
323+00 S.
Time: 8:40 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 179
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____
Notes C. Johnson

Profile No.	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 181
	Date	Date	Survey of Beach Erosion Studies			
X-Sec. No.	Notes Chkd.	Checked	Survey by MA-Vandeman	Notes P.H.	Date 5-24 56	
	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 323+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		8 04	82° 15'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-22

323+00-S

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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76L298 307 8-53

F.B. 5304 PG. 182 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion studies Date 5-24-56 Date No.

Survey by M.L. van Deven Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
323+00-S	21.			" "		
S-22	22.			" "		
	23.			" "		
	24.			" "		
	25.		8 11	83° 30'		
					Range 323+00-S	

76L298 307 8-53

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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.	
Inst. At	Sight On	#	Color		Time	Hor. Ang.	
		1	-		8:04	59° 09'	
		2				54° 57'	
		3				51° 36'	
		4	9.5 57.0 54.6			47° 58'	1160
		5	9.5 57.0 54.6			45° 54'	1073
		6	9.4 56.4 54.0			43° 10'	971
		7	37.7	35.3		40° 37'	880
		8	33.4	31.0		39° 15'	830
S-20	S-21	9	30.0	27.6		38° 00'	797
		10	26.9	24.5		36° 45'	760
		11	24.6	22.2		35° 12'	710
		12	23.0	20.6		34° 00'	675
		13	20.8	18.4		32° 10'	628
		14	19.4	17.0		30° 38'	585
		15	17.9	15.5		29° 24'	555
		16	16.5	14.1		27° 56'	519
		17	15.4	13.0		26° 23'	480
		18	13.6	11.2		24° 32'	435
		19	12.0	9.6		22° 59'	400
		20	10.9	8.5		21° 48'	375

Remarks

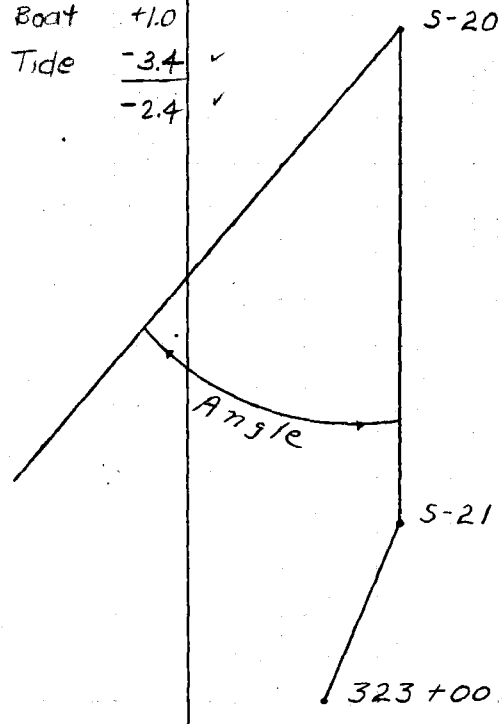
Cut in line 323+00

Zero 0.0 ✓

Boat +1.0

Tide -3.4 ✓

-2.4 ✓



Profile No. ____ Notes Red. ____ Plotted ____ Job No. 03000.02 Division No. 10 F. B. 2304 Pg. 183

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

Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-24-56

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

F.B. 2304 Pg. 184 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-24-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
S-20	21	10.0 ✓ 7.6		20° 56'	355	Cut in line 323+00
S-21	22	9.0 ✓ 6.6		19° 43'	328	
	23	8.0 ✓ 5.6		18° 29'	302	
	24	6.8 ✓ 4.4		17° 32'	281	
	25	5.6 ✓ 3.2	8:11	16° 30'	259	

76L298 S & E #307 9-54

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Do not extend notes this side of this line.

323+00

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at S-21	Sight on 320+50
B.M. S-22	1 08	21 69		20 61	B.M. S-22 ELEV. 20.610	F.B. 2100-157
T.P	0 89	21 01	1 57	20 12		
320+50			1 51	19 50		
3 FT. LEFT			1 47	19 54	BASE OF 3 FT RET. WALL	
9 FT. RIGHT			1 38	19 63	TOP 4" CURB. SAND FLUSH	
13 " "			1 7	19 3	TOP BRK	
18 " "			4 4	16 6	BOT. "	
48 " "			12 3	8 7	BOT "	
62 " "			12 5	8 5	TOP BRK	
T.P. 90 " "	[illegible]	8 23	16 38	4 63	1 x 2 FLUSH	
			5 5	2 7	19 52 103	
			9 2	-1 0	24 16 130	
			10 2	-2 0	23 52 127	?
			10 2	-2 0	31 12 180	
			11 0	-2 8	35 10 213	
			10 8	-2 6	40 18 268	
			12 8	-4 6	42 46 299	
			15 2	-7 0	46 04 346	

INSHORE
320+50 S.
Time: 8:50 A.M.

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 185
No. Date Date Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. Checked Survey by DREIER & ENGLISH Notes Date 5-24-56
No. Date Date Map No. Indexed A. C. Johnson Date

76L298 307 8-53

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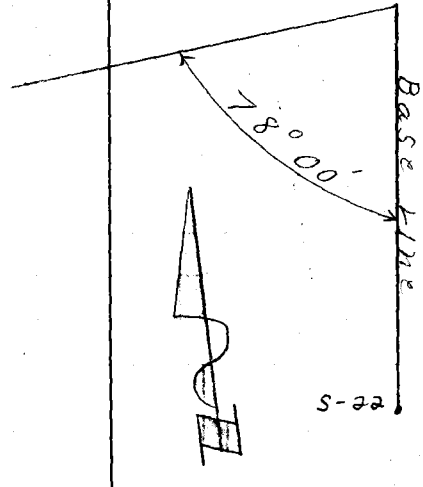
NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At / Sight On	#	Color	Time	Hor. Ang.	Remarks	
	1.		8 21	78° 00'		
	2.			" "		
	3.			" "		
	4.			" "		
	5.			" "		
	6.			" "		
	7.			" "		
	8.			" "		
	9.			" "		
	10.			" "		
320+50-S / S-22	11.			" "		
	12.			" "		
	13.			" "		
	14.			" "		
	15.			" "		
	16.			" "		
	17.			" "		
	18.			" "		
	19.			" "		
	20.			" "		



Range 320+50-S

Profile Notes Red ____ Plotted ____ Job No. ____ Division No. 10 F. B. 2304 Pg. 187
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by ~~[illegible]~~ Notes Pth Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ~~[illegible]~~ C. Johnson

F.B. 2304 PG. 188 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-24-56 Date No.

Survey by Ma. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
320+50-S		2/		8 27	" "	Range 320+50-S
S-22		22				

76L298 307 8-53

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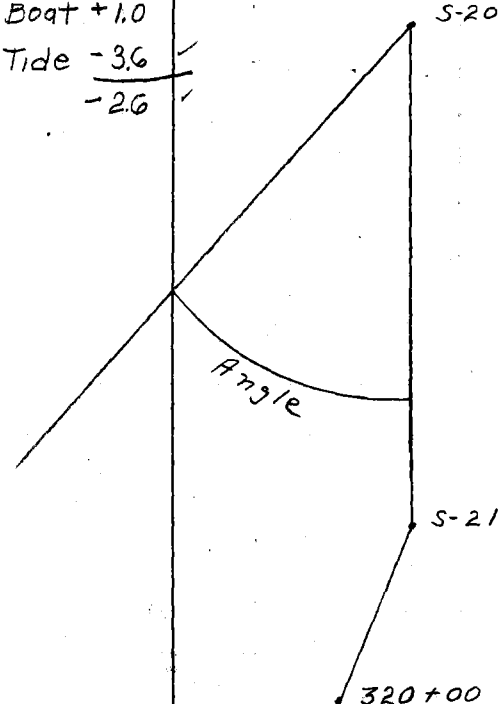
NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks
		void			
	1	—	8:21	58° 59'	Cut in line 320+50
		void			
	2	—		56° 44'	Zero 0.0
		12.0 72.0 69.4			
	3	—		54° 12'	1285 Boat +1.0
		14.0 84.0 81.4			
	4	—		52° 00'	1175 Tide -3.6
		14.3 85.8 83.2			
	5			49° 53'	1080 -2.6
		13.4 80.4 77.8			
	6			47° 57'	997
		11.9 71.4 68.8			
	7	—		45° 43'	912
		8.2 49.2 46.6			
S-20 S-21	8	42.7 40.1		43° 09'	822
	9	35.9 33.3		41° 19'	769
	10	28.9 ~~25.3~~ 26.3		38° 52'	695
	11	27.0 24.4		37° 48'	665
	12	24.4 21.8		36° 16'	629
	13	21.9 19.3		34° 46'	590
	14	20.1 17.5		33° 17'	555
	15	18.5 15.7		32° 08'	524
	16	17.1 14.5		30° 58'	500
	17	15.6 13.0		29° 21'	465
	18	14.4 11.8		28° 04'	438
	19	12.5 9.9		26° 28'	405
	20	11.0 8.4		24° 45'	372



Profile Notes Red. ____ Plotted ____ Job No. 2300.02 Division No. 10 F. B. 2304 Pg. 184
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deven Notes R.T. Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

F.B. 2304 PG. 190 Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-24-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
S-20	21	97 ✓ 7.1 ✓		23° 14'	343
S-21	22	86 ✓ 6.0 ✓	8:27	22° 09'	322

.2.6

Cut in line 320+50

76L298 S & E #307 9-54

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Do not extend notes this side of this line.

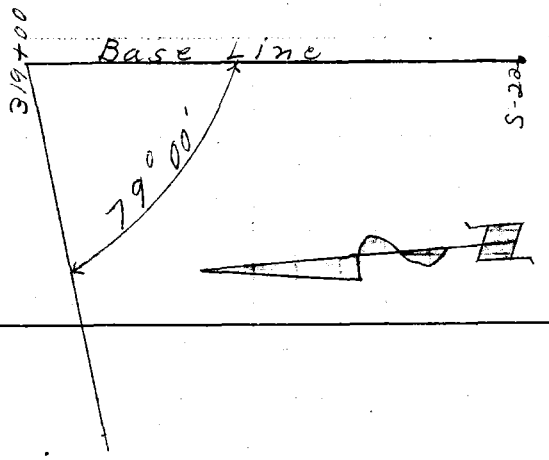
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 322+00	Sight on 319+00
T.P. LINE 2 320+00	0 89	21 01		20 12		
T.P. 319+00	1 66	20 61	2 06	18 95	ON ROADWAY	
5 FT. LEFT			1 65	18 96	BASE OF 3³ RET. WALL	
7 FT RIGHT			1 53	~~18 08~~ 19 08	TOP OF 4" CURB, SAND FLUSH	
20 " "			2 0	18 6	TOP BRK	
32 " "			8 4	12 2	BOT. BRK	
48 " "			11 4	9 2	BOT. BRK	
60 " "			12 2	8 4	TOP BRK	
T.P. 80 " "	3 65	9 80	14 46	6 15	1x2 FLUSH	
			8 1	1 7	22° 45' 117	
			11 5	-1 7	27 55 146	
			11 8	-2 0	35 05 189	
			12 0	-2 2	42 16 232	
			14 2	-4 4	48 53 286	
			16 0	-6 2	49 50 292	

INSHORE
319+00 S
TIME: 9:15 A.M.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 191
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-24-56
Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 193
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deren	Notes PH.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 319+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		8 36	79° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			78° 15'	
	15.			79° 00'	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			77° 45'	

S-22

319+00-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F.B. 2304 Pg. 194 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion STUDIES Date 5-24-56 Date No.

Survey by M.Van Deren Notes P. H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. Sight At OR	#	Color	Time	Hor. Ang.	Remarks
319+00-S										
S-22										
						21.			77° 45'	
						22.			77° 45'	
						23.			78° 00'	Range
						24.			"	
						25.			"	
						26.		8 42	78° 45'	319+00-S

Do not extend notes this side of this line.

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

76L298 3C7 8-53

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

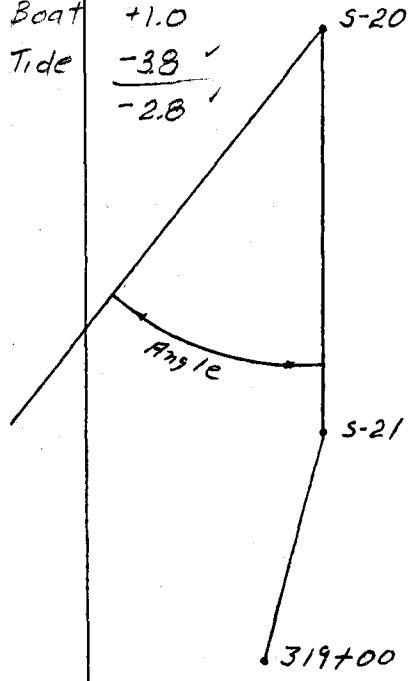
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	
Inst. Sight At / On	#	Color	Time	Hor. Ang.	
		void			
	1	19.0 114.0 111.2	8:36	59° 28'	
	2	16.5 99.0 96.2		57° 08'	1186
	3	14.4 86.4 83.6		55° 07'	1090
	4	12.5 75.0 72.2		52° 47'	991
	5	10.0 60.0 57.2		50° 11'	892
	6	7.4 44.4 41.6		47° 46'	812
	7	47.5 44.7		45° 15'	740
S-20 S-21	8	43.4 40.6		43° 19'	683
	9	35.6 32.8		42° 13'	658
	10	30.0 27.2		41° 04'	633
	11	26.6 23.8		39° 53'	603
	12	24.3 21.5		38° 58'	582
	13	21.8 19.0		37° 44'	555
	14	20.0 17.2		36° 13'	522
	15	18.1 15.3		34° 45'	492
	16	16.6 13.8		33° 37'	470
	17	15.5 12.7		32° 12'	444
	18	13.9 11.1		30° 46'	418
	19	12.9 10.1		29° 14'	392
	20	11.5 8.7		27° 50'	369

Remarks

Cut in line 319+00

Zero 0.0
Boat +1.0
Tide -3.8
-2.8



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 195
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by VanDeren Notes P.T. Date 5-24-56
No. Date Date Map No. Indexed A. C. Johnson Date

76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

F.B. 2304 Pg. 146 Job No. 0300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 5-24-56 Date No. X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked
Indexed K. C. Johnson Date Date Date No. Profile

STATION	B. S.	H. I.	F. S.	ELEV.	-2.8	
Inst. At / Sight On	#	Color	Time	Hor. Ang.		Remarks
	21	10.6 - 7.8		26° 40	349	Cut in line 319+00
	22	9.7 - 6.9		25° 48'	332	
	23	9.2 - 6.4		25° 07'	323	
	24	8.4 - 5.6		24° 11'	310	
	25	7.4 - 4.6		23° 06	291	
	26	6.6 - 3.8	8:42	21° 37	270	
S-20 / S-21						

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

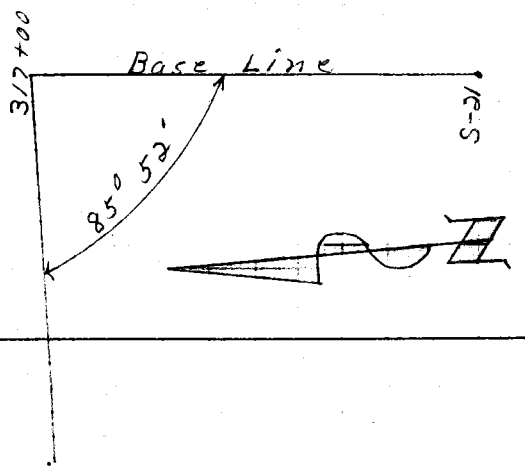
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 314+65	Sight on 317+00
T. P. LINE 2 319+00	1 66	20 61		1895	ON STA. 319+00	
B.M. S-21	134	19 84	2 10	18 51	B.M. S-21 ELEV. 18.500 F.B. 2100-158	
317+00			1 70	18 14	ON ROAD	
4.5 FT. LEFT			1 70	18 14		
7.5 FT. RIGHT			1 66	18 18	TOP 4" CURB	
14 " "			1 6	18 2	TOP BRK	
23 " "			7 2	12 6	BOT. BR	
40 " "			10 3	9 5	" "	
50 " "			10 8	9 0	TOP BRK	
T.P. 12 " "	3 98	9 55	1337	6 47	1X2 FLUSH	
			6 8	2 8	21 23	15
			7 6	0 0	24 30	110
			10 3	-0 7	29 25	139
			11 5	-1 9	34 56	172
			12 3	-2 7	40 23	211
			14 1	-4 5	44 32	249
			17 2	-7 6	49 43	304

IN SHORE
317+00 S.
TIME: 10:00 A.M.

Profile Notes Red ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2364 PG. 177
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed K. C. JOHNSON

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 199
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deren	Notes R.H.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 317+00-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		8 53	85° 52'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-21

317+00-S

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76L298 307 8-53

F.B. 2304 Pg. 200 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-24-56 Date No.

Survey by M.A. Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

761.298 307 8-53

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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.	Remarks
At Inst. Sight OR	#	Color	Time	Hor. Ang.	
317+00-S					
S-21					
	21.				
	20.				
	23.				
			8 59		
					Range
					317+00-S

76L298 307 8-53

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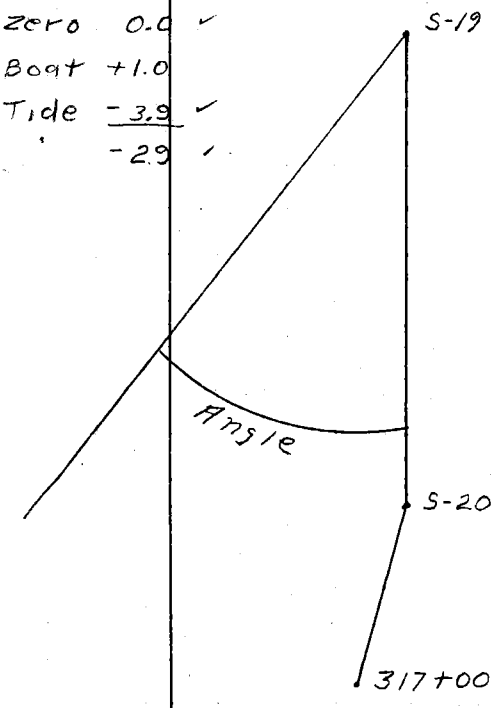
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
	1	void –	8:53	46° 13'		Cut in line 317+00
	2	void –		40° 56'		
	3	11.0 66.0 63.1		38° 01'	843	zero 0.0
	4	8.5 51.0 48.1 49.3 46.4		35° 42'	772	Boat +1.0
	5	46.5 43.6		34° 30'	736	Tide -3.9
	6	39.8 36.9		33° 23'	703	-2.9
	7	35.0 32.1		32° 20'	676	
S-19 S-20	8	31.4 28.5		31° 10'	643	
	9	28.4 25.5		30° 00'	612	
	10	26.3 23.4		29° 06'	590	
	11	24.5 21.6		28° 08'	563	
	12	22.5 19.6		26° 59'	532	
	13	20.5 17.6		25° 47'	507	
	14	19.2 16.3		24° 44'	481	
	15	17.8 14.9		23° 39'	457	
	16	16.7 ~~13.6~~ 13.8		22° 31'	430	
	17	15.6 12.7		21° 25'	403	
	18	14.6 11.7		20° 30'	384	
	19	13.6 10.7		19° 29'	361	
	20	12.9 10.0		18° 33'	340	



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 201
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed C. Johnson Date ____

F.B. 2304 PG. 202 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-24-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed A. C. Johnson Date _____ Date _____ Date _____ No. _____

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
S-19	21	118 ✓ 8.9 ✓		17° 27'	~~307~~ 315 Cut in 317+00	
S-20	22	10.5 ✓ 7.6 ✓		16° 35'	299 ✓	
	23	9.3 ✓ 6.4	8:59	15° 37'	277 ✓	

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

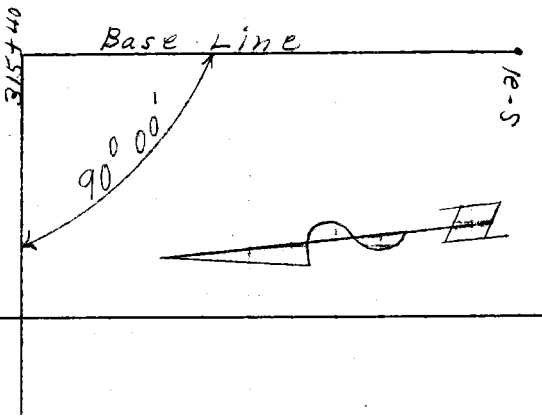
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at S-21	Sight on 315+40
B.M. S-21	1 34	19 84		18 50	B.M. S-21 ELEV. 18.500	F.B. 2100-158
315+40			2 35	17 49	ON ROADWAY	
2.5 FT. LEFT			2 30	17 54	BASE OF 3.3 FT WALL	
9.5 " RIGHT			2 31	17 53	TOP 4" CURB	SAND FUSH
17 " "			24	17 4	TOP BRK	
22 " "			51	14 7	BOT. "	
35 " "			74	12 4	TOP "	
44 " "			103	9 5	BOT "	
67 " "			124	7 4	TOP "	
T.P. 84 FT. "	2 23	8 68	13 39	6 45	ON ROCK BY	MARKER
			6 4	2 3	22° 18' 105 ✓	
			8 7	0 0	25 44 124 ✓	
			10 2	-1 5	30 35 152 ✓	
			10 7	-2 0	33 48 172 ✓	
			11 2	-2 5	37 56 200 ✓	
			11 6	-2 9	42 24 235 ✓	
			14 4	-5 7	46 50 274 ✓	
			15 8	-7 1	49 24 300 ✓	

INSHORE
315+40 S
Time: 10:15 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 030002 Division No. 10 F.B. 2304 Pg. 203
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Notes Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed E. C. JOHNSON Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 205
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deren	Notes P.H.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 315+40 -S



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

S-21

315+40 -S

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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F.B. 2304 PG. 206 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-24-56 Date No.

Survey by MA. Van Deren Notes PH. Notes Chkd. Checked X-Sec.

Indexed E. C. Johnson Date Date Date No.

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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	#	Color	Time	Hor. Ang.	Remarks	
315+40 -S	21.				Range 315+40-S	
S-21	22.					
	23.					
	24.					
	25.		9 16			

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

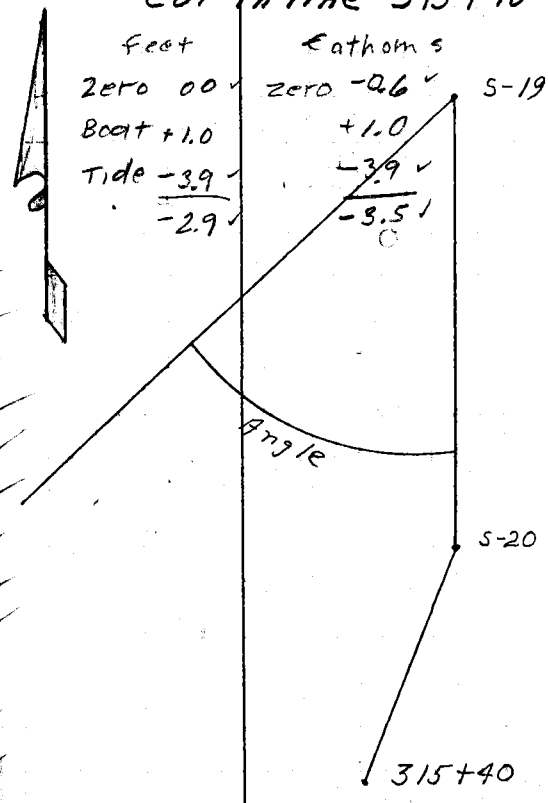
NOTE: ANY ADDITIONS OR CHANGES ON THIS SHEET MUST BE MADE OR CIRCLED IN RED INK, WITH DATE AND NAME OF PERSON MAKING CHANGE.

Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks
	1	void —	9:10	54° 27'	Cut in line 315+40
	2	void —		51° 17'	
	3	void —		48° 20'	
	4	void —		44° 29'	
	5	9.4 56.4 52.9		39° 40'	737
	6	9.2 55.2 51.7 50.2 47.3		36° 26'	653
	7	44.6 41.7		34° 28'	612
	8	36.6 33.7		33° 24'	588
	9	31.1 28.2		32° 17'	562
	10	28.0 25.1		31° 21'	542
	11	24.0 21.1		29° 52'	513
	12	21.7 18.8		28° 34'	483
	13	19.8 16.9		27° 11'	457
	14	18.2 15.3		26° 20'	440
	15	17.5 14.6		25° 31'	424
	16	16.9 14.0		24° 54'	411
	17	15.7 12.8		23° 50'	392
	18	14.6 11.7		22° 58'	376
	19	13.5 10.6		21° 53'	354
	20	12.1 9.2		20° 35'	331

S-19 S-20

Feet	Fathoms
Zero 00	Zero -0.6
Boat +1.0	+1.0
Tide -3.9	-3.9
-2.9	-3.5



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 207
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 5-24-56
No. Date Date Map No. Indexed C. Johnson

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks	
		21	10.8 ✓ 7.9		19° 28'	310	Cut in line 315+40
		22	9.9 ✓ 7.0		18° 27'	292	
		23	8.5 ✓ ~~6.6~~ 5.6		17° 20'	272	
		24	7.9 ✓ 5.0		16° 17'	254	
		25	7.2 ✓ 4.3	9:16	15° 38'	241	
S-19	S-20						

F. B. 2304 PG. 208 Job No. 0300.02 Division No. 10 Notes Red. Plotted
Survey of Beach Erosion Study Date 5-24-56 Date No.
Survey by Van Deren Notes P.T. Notes Chkd. Checked X-Sec.
Indexed C. Johnson Date Date Date No.
Profile

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. at S-21	Sight on 315+10
B.M. S-21	1 34	19 84		18 50	B.M. S-21 ELEV. 18.500	F.B. 2100-158
315+10			2 49	17 35	ON ROADWAY	
25 FT LEFT			2 48	17 36	BASE OF 3' WALL	
9.5 " RIGHT			2 45	17 39	TOP 4"	
17 " "			2 3	17 5	TOP BRK	
24 " "			6 5	13 3	BOT "	
36 " "			8 3	11 5	TOP "	
44 " "			10 6	9 2	BOT "	
65 " "			13 2	6 6	TOP "	
T.P. 85 " "	2 27	7 63	14 45	5 39	ON ROCK BY MARKER	
			8 0	-0 4	22 59 121	
			8 8	-1 2	28 19 155	
			9 7	-2 1	32 34 183	
			10 4	-2 8	35 01 201	
			11 6	-4 0	36 58 ~~207~~ 216	
			14 7	-7 1	45 21 290	

INSHORE
315+10 S
TIME: 10:15 AM.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 209
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Checked ____ Survey by DREIER & Notes ENGLISH Date 5-24-56
Date ____ Date ____ Map No. ____ Indexed ____ Date ____

76L298 S & E #307 9-54

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Do not extend notes this side of this line.

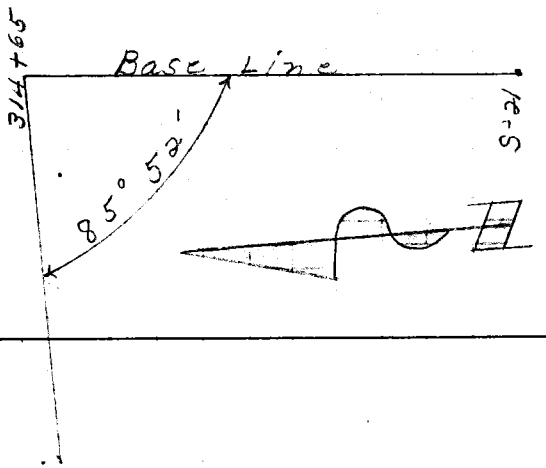
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 317+00	Sight on 314-65
B.M. S-21	1 34	19 84		18 50	B.M. S-21 ELEV. 18.500 F.B. 2100-158	
314+65			2 57	17 27	ON ROADWAY	
2^3 FT LEFT			2 57	17 27	AT BASE OF 3^3 FT RET. WALL	
10 " RIGHT			2 81	17 03	TOP 4" CURB SAND FLUSH	
16 " "			2 4	17 4	TOP BRK.	
20 " "			6 5	13 3	BOT BRK	
38 " "			9 9	9 9	BOT "	
60 " "			12 3	7 5		
T.P. 85' "	2 85	8 24	14 45	5 39	ON ROCK AS PER 315+10	
			5 3	2 9	21° 07' 89	
			8 3	-0 1	25 13 108	
			9 1	-0 9	30 35 132	
			9 5	-1 3	38 29 177	
			10 8	-2 6	45 18 220	
			13 5	-5 5	50 59 265	
			16 0	-7 8	57 30 331	

INSHORE
314+65 S
Time 10:30 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 211
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 213
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Deren	Notes P.H.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed C. Johnson		

Range 314+65-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		9 24	85° 52'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-21

314+65-S

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76L298 307 8-53

F.B. 2304 Pg. 214 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-24-56 Date No.

Survey by M.A. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks	
314+65-S	21			" "	Range	314+65-S
S-21	22			" "		
	23			" "		
	24			" "		
	25			" "		
	26		9 30	" "		

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

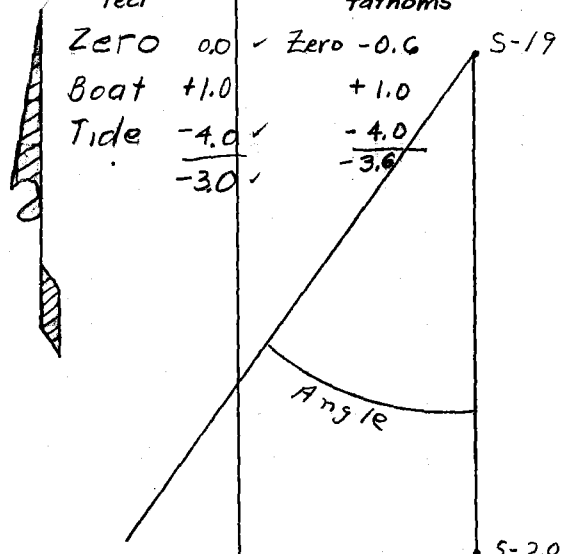
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.
Inst. At / Sight On	#	Color	Time	Hor. Ang.
	1	void —	9:24	54° 12'
	2	void —		51° 13'
	3	void —		47° 52'
	4	10.6 63.6 ~~6.06~~	60.0	42° 48'
	5	9.9 ~~61.6~~ 59.4	~~58.6~~ 55.8	39° 54'
	6	8.1 48.6 39.9 30.5	~~46.6~~ 45.0 ~~36.9~~	34° 43'
	7		27.5	32° 21'
S-19 / S-20	8	27.0	24.0	31° 21'
	9	24.1	21.1	30° 13'
	10	22.2	19.2	29° 23'
	11	20.6	17.6	28° 28'
	12	19.4	16.4	27° 43'
	13	17.8	14.8	26° 33'
	14	16.4	13.4	25° 37'
	15	15.0	12.0	24° 44'
	16	14.2	11.2	24° 03'
	17	13.2	10.2	23° 08'
	18	12.6	9.6	22° 32'
	19	11.7	8.7	21° 57'
	20	11.3	8.3	21° 00'

Remarks

Cut in line 314+65

	feet	fathoms
Zero	0.0	Zero -0.6
Boat	+1.0	+1.0
Tide	-4.0	-4.0
	-3.0	-3.6



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 215
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 5-24-56
No. Date Date Map No. Indexed C. Johnson

76L298 307 8-53

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color		Time	Hor. Ang.		Remarks
		21	10.3 ✓	7.3 ✓		20° 02'	307 ✓	Cut in line 314+65
		22	9.4 ✓	6.4 ✓		19° 14'	291 ✓	
		23	8.5 ✓	5.5 ✓		18° 13'	273 ✓	
		24	7.6 ✓	4.6 ✓		17° 35'	263 ✓	
		25	7.5 ✓	4.5 ✓		16° 47'	250 ✓	
		26	6.0 ✓	3.0 ✓	9:30	15° 48'	234 ✓	
S-19	S-20							

F. B. 2304 Pg. 216 Job No. 0300.02 Division No. 10 Notes Red. Plotted No.
Survey of Beach Erosion Study Date 5-24-56 Date X-Sec.
Survey by Van Deren Notes R.T. Notes Chkd. Checked No.
Indexed A. C. Johnson Date Date Date

76L298 S & E #307 9-54

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

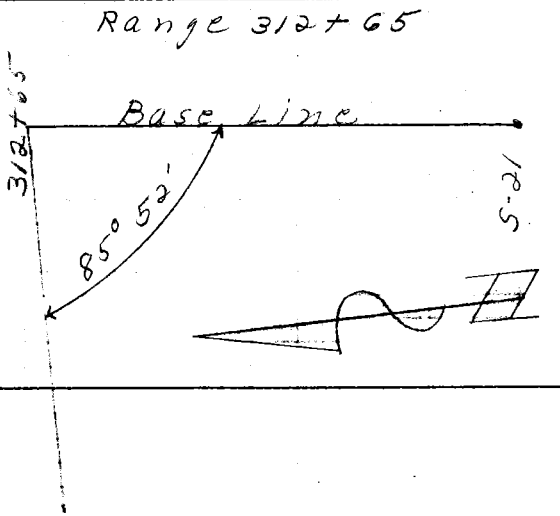
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 317+00	Sight on 312+65
B.M. S-21	1 34	19 84		18 50	B.M. S-21 ELEV. 18.500	F.B. 2100-158
T.P.	1 12	18 39	2 57	17 27	ON STA 314+65	
312+65			1 25	17 14	ON ROADWAY	
3.5 FT. LEFT			1 23	17 16	EDGE PAVEMENT	
8.5 FT RIGHT			1 14	17 25	TOP 4" CURB	
9 " "			18	16 6	SAND OUTSIDE OF CURB	
14 " "			36	14 8	TOP PLANK RETAINING WALL	
15 " "			50	13 4	Bottom " " "	
34 " "			89	9 5	BOT. BRK	
47 " "			94	9 0	TOP BRK	
T.P. 70 " "	2 44	8 24	12 59	5 80	1X2 FLUSH	
		8				
			8 5	-0 3	14 07 112	
			9 4	-1 2	18 07 145	
			10 3	-2 1	23 11 192	
			11 2	-3 0	26 48 229	
			13 8	-5 6	31 11 275	
			15 1	-6 9	35 13 322	

INSHORE
312+65 S
Time: 10:45 A.M.

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 217
No. Date Date Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. Checked Survey by DREIER & ENGLISH Notes Date 5-24-56
No. Date Date Map No. Indexed A. C. Johnson Date

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 219
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deven	Notes P.H.	Date 5-24-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		9 39	85° 52'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.		9 43	" "	Re Run
	1			" "	
	2			" "	
	3			" "	
	4			" "	
	5			" "	
	6			" "	
	7			" "	

S-21

312+65-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F.B. 2304 PG. 120 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-24-56 Date No.

Survey by M.A. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed R. C. Johnson Date Date Date No.

76L298 307 8-53

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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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
		8		9 50	" "	Range 312+65-S

312+65-S

S-21

76L298 307 8-53

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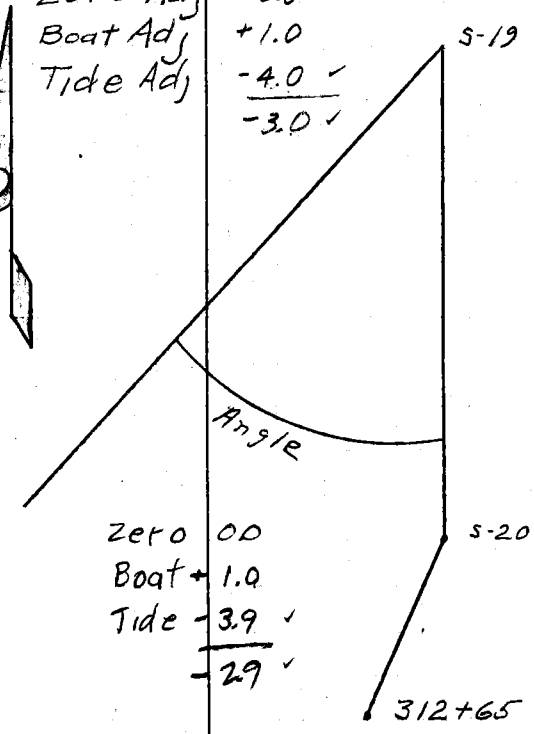
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.		
		void				
	1	—	9:39	56° 00'		Cut in line 312+65
	2	void —		48° 58'		Zero Adj 0.0 ✓
	3	void —		40° 43'		Boat Adj +1.0
	4	23.1 ✓ 20.1 ✓		34° 56'	478 ✓	Tide Adj -4.0 ✓
	5	18.1 ✓ 15.1 ✓		31° 19'	417 ✓	-3.0 ✓
	6	16.3 ✓ 13.3 ✓		29° 38'	389 ✓	
	7	15.2 ✓ 12.2 ✓		28° 14'	368 ✓	
S-19	8	13.6 ✓ 10.6 ✓		26° 55'	347 ✓	
S-20	9	12.9 ✓ 9.9 ✓		26° 07'	334 ✓	
	10	12.0 ✓ 9.0 ✓		25° 13'	320 ✓	
	11	10.8 ✓ 7.8 ✓		24° 07'	304 ✓	
	12	8.8 ✓ 6.8 ✓		22° 26'	280 ✓	
	13	8.5 ✓ 5.5 ✓	9:43	20° 37'	255 ✓	
		Rerun				
	1	32.4 ✓ 29.5 ✓	9:48	39° 01'	555 ✓	Zero 00
	2	28.8 ✓ 25.9 ✓		37° 43'	528 ✓	Boat +1.0
	3	25.2 ✓ 22.3 ✓		36° 12'	501 ✓	Tide -3.9 ✓
	4	22.7 ✓ 19.8 ✓		34° 40'	473 ✓	-2.9 ✓
	5	20.0 ✓ 17.1 ✓		33° 14'	449 ✓	
	6	18.5 ✓ 15.6 ✓		31° 47'	424 ✓	



Profile Notes Red ____ Plotted ____ Job No. 6209.02 Division No. 10 F. B. 2304 Pg. 22
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Dexen Notes R.T. Date 5-24-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ C. Johnson

F. B. 2304 Pg. 22 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-24-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed A. C. Johnson Date _____ Date _____ Date _____ No. _____

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. Sight At	#	Color	Time	Hor. Ang.	Remarks
S-19										
S-20										
					OR	7	16.9 ✓ 14.0 ✓		38° 08'	398 ✓ Cut in line 312+65
						8	15.2 ✓ 12.3 ✓	9:50	28° 43'	375 ✓

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

Notes Ck'd by	Survey of BEACH EROSION STUD.
Map No.	W. O. 0300.02 Tape No. St'd. °F
Office Work	Surveyed by Van Doren
Checked	Notes W.D. BAY Date 5-25-56
Date	Indexed C. Johnson

F. B. 2304 Pg. 223

TIDE GUAGE

U.S.C.&G.S.
SANTA MONICA PIER
5-25-56

STD. TIME		TIDE
6:00	A.M.	+0.7
6:30	"	+1.2
7:00	"	+1.65
7:30	"	+2.2
8:00	"	+2.7
8:30	"	+3.1
9:00	"	+3.5
9:30	"	+3.7
10:00	"	+3.9
10:30	"	+3.8

W.D. Bay

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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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY
ENGINEERING BLDG.

76F3095 S&E #247. 8-54

76F3096 S&E #247 1-56

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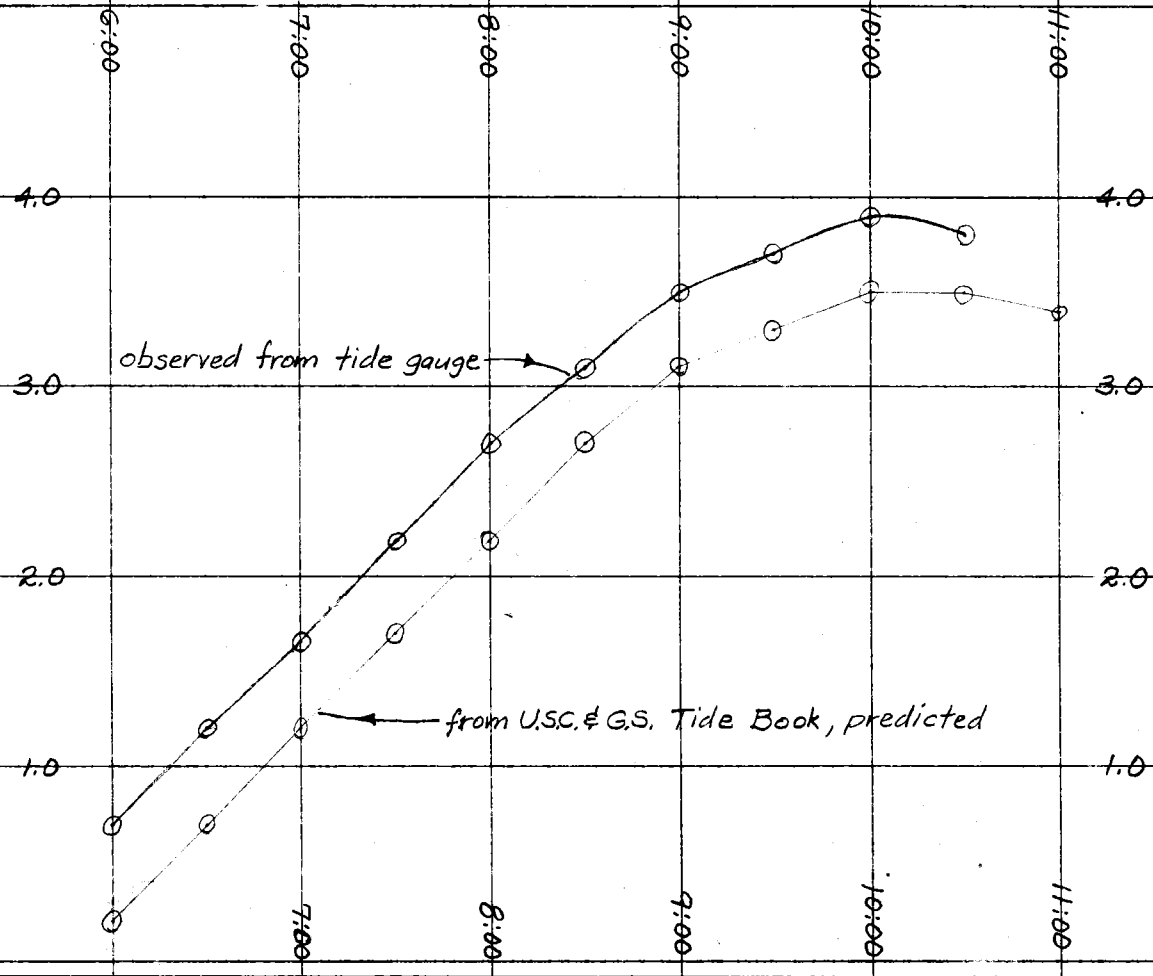

Notes Ck'd by
Map No.
Office Work
Checked
Date

Survey of Beach Erosion
JN Tape Std °F
Surveyed by
Notes Date
Indexed

May 25, 1956

F. B. 2304 Pg.

76L298 S & E #307 9-

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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.

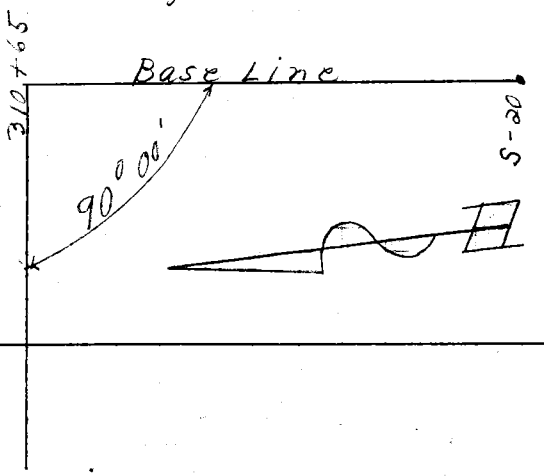
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 306+65	Sight on 310+65
T.P. LINE 2 312+65	1 12	18 39			ON STA. 312+65	
B.M. S-20	2 22	19 62	1 00	17 39	B.M. S-20 ELEV. 17.400	F.B. 2100 - 158
310+65			1 60	18 02	ON ROADWAY	
6' FT LEFT			1 60	18 02	BASE OF 3 3 FT RET. WALL	
6 " RIGHT			1 51	18 11	TOP 4" CURB, SAND FLUSH WITH TOP	
13 " "			0 9	18 7	TOP BRK	
35 " "			9 0	10 6	BOT. "	
65 " "			12 9	6 7	TOP OF SLIGHT BRK	
T.P. 83 " "	3 73	7 93	15 42	4 20	1X2 FLUSH	
			7 0	0 9	10° 23' 73	
			9 0	-1 1	18 04 130	
			9 5	-1 6	23 21 173	
			10 4	-2 5	25 43 193	
			11 4	-3 5	28 25 216	
			14 6	-6 7	33 51 268	

INSHORE
310+65 S
TIME: 8:00 A.M.

Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 225
No. Date Date Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. Checked Survey by DREIER & ENGLISH Date 5-25-56
No. Date Date Map No. Indexed H. C. Johnson Date

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 227
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by [illegible]	Notes P.H.	Date 5-25-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson		

Range 310+65-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		6 52	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-20

310+65-S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F.B. 2304 Pg. 228 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-25-56 Date No.

Survey by MA-van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
310+65-S		21.			" "	
S-20		22.			" "	
		23.			" "	
		24.			90° 59'	
		25.			90° 59'	
		26.		6 57	90° 00'	
						Range 310+65-S

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

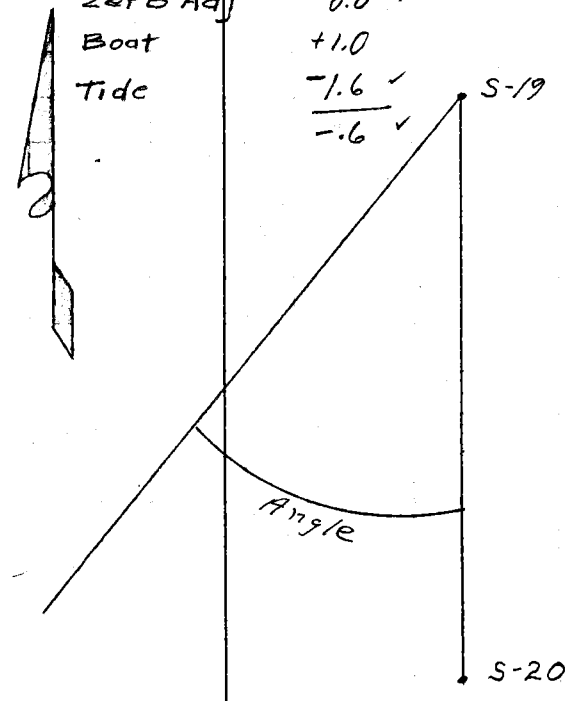
Do not extend notes this side of this line.

STATION	B. S.	H. I.		F. S.	ELEV.	
Inst. Sight At On	#	Color		Time	Hor. Ang.	
	1	void		6:52	68° 13'	
	2	void			63° 59'	
	3	void			59° 22'	
	4	void			53° 53'	
	5	void			50° 27'	
	6	void			48° 31'	
	7	27.5 ✓	26.9 ✓		46° 43'	522 ✓
	8	24.8 ✓	24.2 ✓		45° 37'	503 ✓
S-19 S-20	9	22.3 ✓	21.7 ~~26.7~~		44° 32'	484 ✓
	10	20.8 ✓	20.2 ✓		43° 37'	469 ✓
	11	19.9 ✓	19.3 ✓		43° 05'	460 ✓
	12	18.6 ✓	18.0 ✓		42° 18'	448 ✓
	13	18.1 ✓	17.5 ✓		41° 37'	437 ✓
	14	17.1 ✓	16.5 ✓		41° 13'	431 ✓
	15	16.0 ✓	15.4 ✓		40° 29'	420 ✓
	16	15.0	14.4 ✓		39° 35'	407 ✓
	17	14.2	13.6 ✓		38° 40'	394 ✓
	18	13.5 ✓	12.9 ✓		37° 55'	383 ✓
	19	12.6 ✓	12.0 ✓		36° 50'	369 ✓
	20	12.0 ✓	11.4 ✓		35° 55'	356 ✓

Remarks

Cut in line 310+65

zero Adj	0.0 ✓
Boat	+1.0
Tide	-1.6 ✓
	-.6 ✓



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 227
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ~~A.~~ C. Johnson

76L298 307 8-53

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F.B. 2304 Pg. 130 Job No. 0302.02 Division No. 10 Notes Red. Plotted Profile No.
Survey of Beach Erosion Study Date 5-25-56 Date X-Sec. No.
Survey by Van Deren Notes R.T. Notes Chkd. Checked
Indexed A. C. Johnson Date Date Date

STATION	B. S.	H. I.	F. S.	ELEV.		
Inst. At / Sight On	#	Color	Time	Hor. Ang.	Remarks	
	21	11.4 ✓ 10.8		35° 15'	398 ✓	Cut in line 310+65
	22	11.2 ✓ 10.6		34° 33'	339 ✓	
	23	10.5 ✓ 9.9		33° 47'	329 ✓	
	24	9.6 ✓ 9.0		32° 52'	318 ✓	
	25	8.9 ✓ 8.3		31° 32'	302 ✓	
	26	7.7 ✓ 7.1	6:57	29° 47'	282 ✓	
5-19						
5-20						

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

S-10 308+65

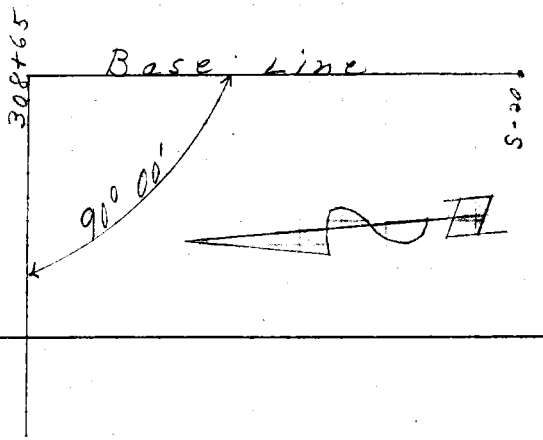
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 306+65	Sight on 308+65
B.M. S-20	2 22	19 62		17 40	B.M. S-20 ELEV. 17.400	F.B. 2100-158
T.P	7 35	20 92	6 05	13 57		
308+65			1 91	19 01	ON ROADWAY	
8. FT. LEFT			1 34	19 08	AT BASE OF STEPS	
6 " RIGHT			1 76	19 16	TOP 4" CURB,	SAND FLUSH
14 " "			1 6	19 3	TOP BRK	
35 " "			8 6	12 3	BOT. BRK	
65 " "			12 3	8 6	TOP BRK	
T.P. 98 " "	3 44	7 93	16 43	4 49	1 X 2 FLUSH	
			6 1	1 8	29° 25' 113	
			7 9	-0 0	32 53 129	
			8 5	-0 6	36 18 147	
			9 5	-1 6	40 19 170	
			9 5	-1 6	42 38 184	
			12 0	-4 1	51 01 247	
			14 2	-6 3	55 42 293	
			15 5	-7 6	57 37 315	
			17 2	-9 3	60 49 358	

INSHORE
308+65 S.
TIME: 8:15 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 1304 Pg. 231
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. O. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 233
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Deren	Notes P. 11	Date 5-25-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 308+65-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		7 09	90° 00'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-20

308+65-S

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 2304 PG. 234 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-25-56 Date No.

Survey by Marvan Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
308+65-S		21.			" "	
S-20		22.			" "	
		23.			" "	
		24.			" "	
		25.			" "	
		26.		7 14	" "	
						Range 308+65-S

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

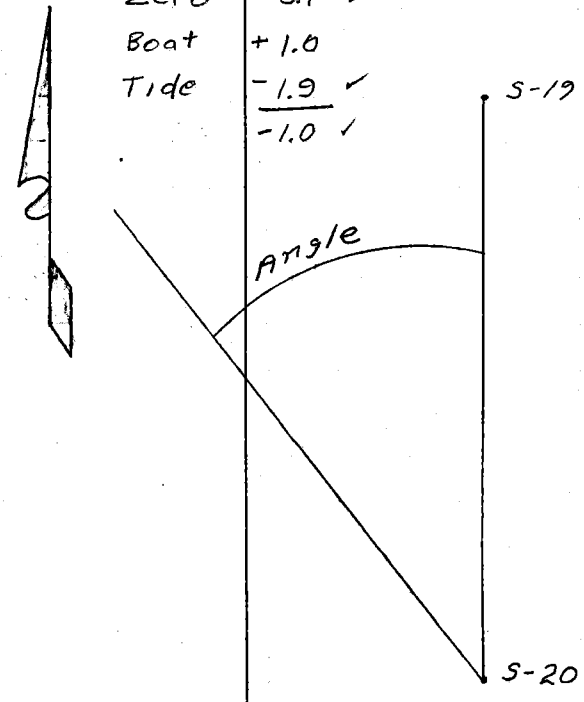
Do not extend notes this side of this line.

STATION	B. S.	H. I.	F. S.	ELEV.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1	void -	7:09	70° 30'	
	2	-		68° 27'	
	3	-		65° 29'	
	4	-		62° 40'	
	5			61° 20'	
	6	void -		60° 20'	
	7	32.3 31.3		59° 09'	564
S-20 S-19	8	28.6 ✓ 27.6		57° 39'	532
	9	26.0 ✓ 25.0		57° 25'	527
	10	24.5 ✓ 23.5		56° 58'	518
	11	23.2 ✓ 22.2		56° 15'	504
	12	21.9 ✓ 20.9		55° 31'	491
	13	21.4 ✓ 20.4		55° 05'	483
	14	20.0 ✓ 19.0		54° 27'	472
	15	19.0 ✓ 18.0		53° 50'	461
	16	18.1 ✓ 17.1		53° 13'	451
	17	17.4 ✓ 16.4		52° 27'	438
	18	15.8 ✓ 14.8		51° 18'	421
	19	15.0 ✓ 14.0		50° 04'	403
	20	14.0 ✓ 13.0		48° 35'	382

Remarks

Cut in Line 308+65

Zero	-0.1 ✓
Boat	+1.0
Tide	-1.9 ✓
	-1.0 ✓



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 235
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 5-25-56
No. Date Date Map No. Indexed C. Johnson Date

F. B. 2304 PG. 234 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-25-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed C. Johnson Date _____ Date _____ Date _____ No. _____

761.298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. Sight At #	Color	Time	Hor. Ang.	Remarks
5-20									
5-19									
					21	12.5	11.5	47° 34'	369
					22	10.7	9.7	45° 58'	349
					23	9.4	8.4	43° 45'	323
					24	8.4	7.4	41° 52'	302
					25	6.5	5.5	38° 11'	265
					26	5.3	4.3	36° 20'	249
							7.14		

Cut in Line 308+65

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

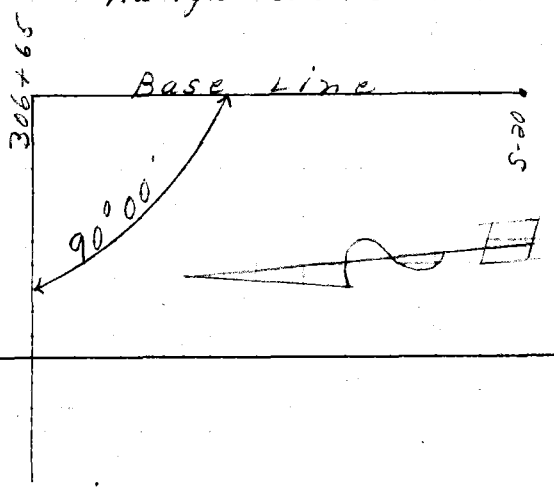
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at 308+65	Sight on 306+65
T.P. Line 2 308+65	7 35	20 92		13 57		
T.P.	1 72	22 42	0 22	20 70		
306+65			1 51	20 91		
6 FT. LEFT			1 50	20 92	BASE OF 3 3/4 FT RET. WALL	
6 " RIGHT			1 42	21 00	TOP 4" CURB SAND FLUSH	
13 " "			1 4	21 0	TOP BRK	
52 " "			10 7	11 7	BOT. BRK.	
70 " "			13 1	9 3	TOP BRK	
T.P. 95 " "	3 09	9 26	16 25	6 17	1 X 2 FLUSH	
		9 [illegible]	7 0	2 5	50° 42' 119	
			10 4	-1 1	35 37 143	
			10 6	-1 3	39 53 167	
			11 5	-2 2	49 50 199	
			14 5	-5 2	52 02 256	
			18 0	-8 7	57 39 315	

Inshore
306+65 S
Time: 8:45 A.M.

Profile Notes Red ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 1309 Pg. 137
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed E. C. Johnson Date ____

Profile No.	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 237
	Date	Date	Survey of Beach Erosion studies			
X-Sec. No.	Notes Chkd.	Checked	Survey by M. Van Deren	Notes PH.	Date 5-25-56	
	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 306+65-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight On	#	Color	Time	Hor. Ang.	
	1.		7.24	90°00'	
	2.			"	
	3.			"	
	4.			"	
	5.			"	
	6.			"	
	7.			"	
	8.			"	
	9.			"	
	10.			"	
	11.			"	
	12.			"	
	13.			"	
	14.			"	
	15.			"	
	16.			"	
	17.			"	
	18.			"	
	19.			"	
	20.			"	
S-20					
306+65-S					

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

761298 307 8-53

F.B. 2304 PG. 240 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-25-56 Date No.

Survey by M.A. van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
306+65-S						
S-20						
	21.					
	22.					
	23.					
	24.					
	25.					
	26.		7 31			
						Range 306+65-S

76L298 307 8-53

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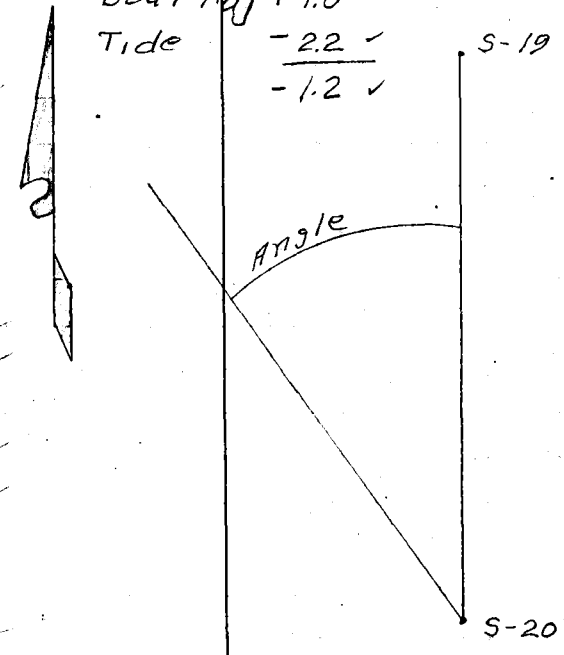
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. Sight At On	#	Color	Time	Hor. Ang.		Remarks
		void				
	1	—	7:24	63° 56'		Cut in Line 306+65
		14.0 84.0 82.8				
	2	—		61° 10'	975	Zero Adj 00 ✓
		11.5 69.0 67.8				
	3	—		58° 58'	893	Boat Adj +1.0
		9.9 59.4 58.2				
	4			57° 14'	834	Tide −2.2 ✓
		7.9 47.4 46.2				
	5			55° 04'	769	−1.2 ✓
		7.6 45.6 44.4				
	6	47.8 46.6		54° 08'	743	
	7	47.3 ✓ 46.1		53° 19'	721	
S-20 S-19	8	45.0 ✓ 43.8		52° 54'	710	
	9	41.9 40.7		52° 13'	693	
	10	39.4 ✓ 38.2		51° 44'	681	
	11	34.4 ✓ 33.2		50° 47'	658	
	12	32.9 ✓ 31.7		50° 18'	647	
	13	30.9 ✓ 29.7		49° 34'	630	
	14	28.4 ✓ 27.2		48° 35'	609	
	15	26.8 ✓ 25.6		47° 58'	596	
	16	24.9 ✓ 23.7		46° 58'	575	
	17	23.4 ✓ 22.2		45° 56'	555	
	18	21.4 ✓ 20.2		44° 28'	527	
	19	19.7 ✓ 18.5		42° 35'	494	
	20	17.2 ✓ 16.0		40° 40'	461	



Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Page
X-Sec. No. ____ Date ____ Date ____ Survey of Beach Erosion Study
Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-25-56
Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

2304 PG. 24

Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-25-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed ~~K. C. Johnson~~ Date Date Date No.

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
S-20	21	15.8 ✓ 14.6		38° 25'	426 Cut in Line 306+65
S-19	22	14.5 ✓ 13.3		36° 22'	395
	23	12.9 ✓ 11.7		34° 22'	367
	24	11.6 ✓ 10.4		32° 20'	340
	25	10.1 ✓ 8.9		30° 05'	311
	26	8.6 ✓ 7.4	7:31	28° 00'	286
	27				

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

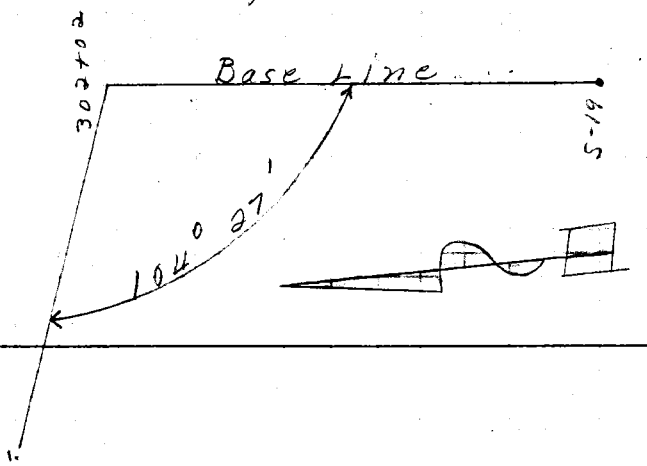
STATION	B. S.	H. I.	F. S.	ELEV.	Inst. at S-19	Sight on 302+02
B.M. S-19	3 16	24 72		21 56	B.M. S-19 ELEV	
T.P.	4 06	16 22	12 56	12 16		
302+17			7 3	8 9	TOP BRK	
16 FT LEFT			6 9	9 3	BOT "	
23 " "			6 0	10 2	TOP "	
65 " "			4 2	12 0	" "	
92 " "			3 8	12 4	BESIDE BLDG.	
30 " RIGHT			11 7	4 5		
T.P. 32 FT. RT.	4 34	8 9	11 65	04 57	ON ROCK (N'ly side of grain)	
			8 3	+0 6	10° 14' 70	

INSHORE
302+17 S
Time 9:15 A.M.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2309 Pg. 243
No. ____ Date ____ Date ____ Survey of Beach Erosion Studies
X-Sec. Notes Chkd. ____ Checked ____ Survey by English & Dreier Notes ____ Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 245
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. van Dorn	Notes P.H.	Date 5-25-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 302+02 -S



STATION	B.S.	H.I.	F.S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		7 42	104° 27'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-19

302+02± -S

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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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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76L298 307 8-53

F. B. 2304 PG. 246 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-25-56 Date No.

Survey by MA. van Deren Notes P. H. Notes Chkd. Checked X-Sec.

Indexed A. C. Johnson Date Date Date No.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
302+02 -S						
S-19		21	22	7 48	" "	Range 302+02 -S

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

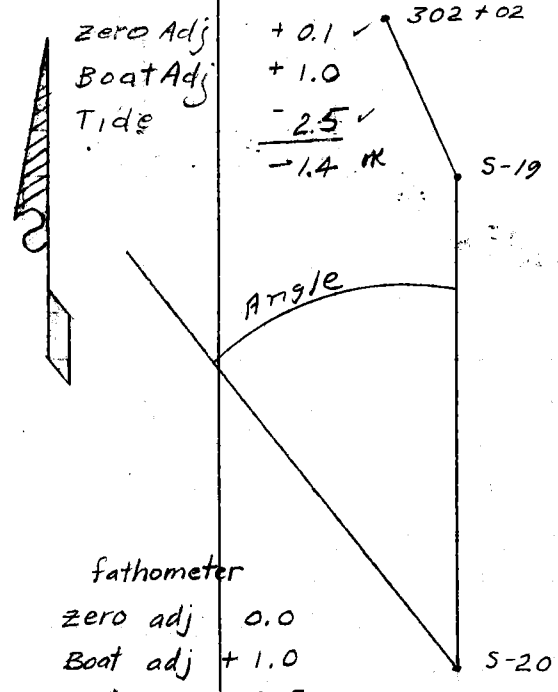
STATION	B. S.	H. I. CD	H. I. AD	F. S.	ELEV.	
Inst. Sight At / On	#	Color		Time	Hor. Ang.	
		void				
	1.	—		7:42	60° 44'	
		void				
	2	—			57° 51'	
		void				
	3	—			51° 30'	
		12.5	75.0	73.5		
	4				47° 43'	751
		8.5	51.0	49.5		
	5				41° 54'	608
		7.6	45.6	44.1		
	6				39° 24'	552
	7	33.4	32.0		37° 28'	511
S-19 / S-20	8	28.5	27.1		35° 46'	477
	9	25.6	24.4		34° 40'	455
	10	23.6	22.2		33° 47'	437
	11	21.7	20.3		32° 57'	420
	12	20.5	19.1		32° 05'	403
	13	19.2	17.8		31° 20'	388
	14	17.9	16.5		30° 12'	364
	15	16.7	15.3		29° 08'	347
	16	15.1	13.7		27° 35'	317
	17	13.5	12.1		26° 09'	291
	18	11.9	10.5		24° 36'	263
	19	10.7	9.3		23° 27'	242
	20	9.4	8.0		21° 46'	211

Remarks

Cut in Line 302+02

feet

zero Adj	+ 0.1
Boat Adj	+ 1.0
Tide	- 2.5
	- 1.4



fathometer

zero adj	0.0
Boat adj	+ 1.0
Tide	- 2.5
	- 1.5

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 147

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

Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-25-56

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

F.B. 2304 Pg. 248 Job No. 0300.02 Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Study Date 5-25-56 Date _____ No. _____

Survey by Van Deren Notes R.T. Notes Chkd. _____ Checked _____ X-Sec.

Indexed A. C. Johnson Date _____ Date _____ Date _____ No. _____

76L298 307 8-53

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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.		
Inst. At	Sight On					
S-20						
S-19						

#	Color	Time	Hor. Ang.	Remarks
21	7.5 ✓ 6.1		20° 30	191 ✓ Cut in Line 302+02
22	5.6 ✓ 4.2	7:48	19° 07	166 ✓
23				
24				

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	Inst. at S-19	Sight on 302+02
T.P. (LINE 2 306+65)	1 72	22 42		20 70		
T.P.	2 07	23 48	1 01	21 41		
B.M. S-19	3 16	24 72	1 82	21 ~~66~~ 56	B.M. S-19 ELEV. 21.565	F.B. 2100-158
T.P.	4 06	16 22	12 56	12 16	L&T. 302+02	
301+90			8 7	7 5		
25 FT. LEFT			5 5	10 7	TOP BRK	
83 " "			3 8	~~13 4~~ 12 4	NEXT TO BLDG.	
31 FT. RIGHT			13 0	3 2		
T.P. 31 FT. RT.	2 97	8 14	11 05	5 17	ON ROCK (S'ly. side of grain)	
			8 3	-0 2	9° 24' 69	
			8 8	-0 7	12 07 91	
			10 0	-1 9	15 38 120	
			10 2	-2 1	17 18 135	
			11 3	-3 2	21 14 172	
			13 1	-5 0	24 37 ~~210~~ 207	
			15 2	-7 1	29 19 262	

301+~~90~~ 87 S

Time: 9:00 A.M.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F.B. 2304 Pg. 149

X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES

Notes Chkd. ____ Checked ____ Survey by DREIER & ENGLISH Date 5-25-56

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

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

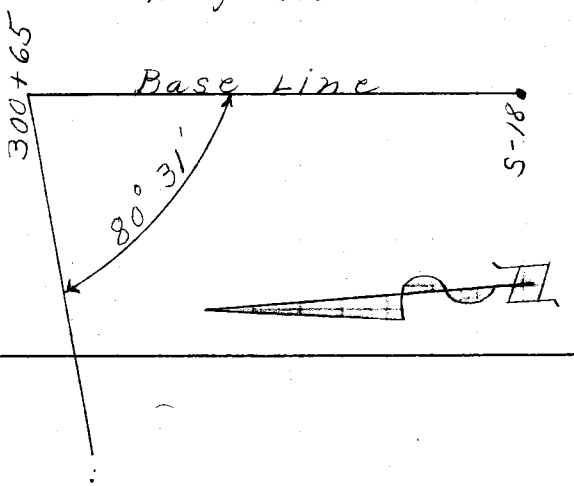
STATION	B. S.	H. I.	F. S.	ELEV.		
B.M. 21-47	5 09	24 61		19 52	B.M. 21-47 ELEV.	16.716 PER F.B. 1391-47 2.800 19.516 M.L.L.W
T.P.	5 00	24 51	5 10	19 51		
S-17	0 87	20 17	5 21	19 30	DECK OF PARKING AREA APPEARS TO HAVE	SUNK AROUND S-17
300+65			0 24	19 93	ON PARKING LOT DECK	
10 FT. LEFT			5 9	14 3	MEAN TOP OF ROCK SEA WALL	
30 " "			17 1	3 1	ON SAND AT BASE OF SEA WALL	
T.P.	4 98	24 89	0 26	19 91		
B.M. S-16			6 48	18 41	B.M. S-16 ELEV. 18.396 F.B. 2100-159	

INSHORE
300+65 S.

Profile No. ____ Notes Red. ____ Plotted ____ Job No. C300.02 Division No. ____ F.B. 2304 Pg. 251
X-Sec. No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
Notes Chkd. ____ Checked ____ Survey by DREIER Notes G.E.D. Date 5-25-56
Date ____ Date ____ Map No. ____ Indexed A. C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 253
No.	Date	Date	Survey of Beach Erosion STUDIES			
X-Sec.	Notes Chkd.	Checked	Survey by MAVANDEVEN	Notes P.H.	Date 5-25-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson		

Range 300+65 -S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At On	#	Color	Time	Hor. Ang.	
	1.		8 05	80° 31'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
			8 08	" "	

S-18

300+65-S

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.-B. 2304 Pg. 254 | Job No. | Division No. 10 | Notes Red. | Plotted | Profile

Survey of Beach Erosion STUDIES | Date 5-25-56 | Date | No.

Survey by M. Van Dexen | Notes R. H. | Notes Chkd. | Checked | X-Sec.

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

Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks	STATION	B. S.	H. I.	F. S.	ELEV.
300+65-S	S-18										
						Range 300+65-S					

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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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.

76L298 307 8-53

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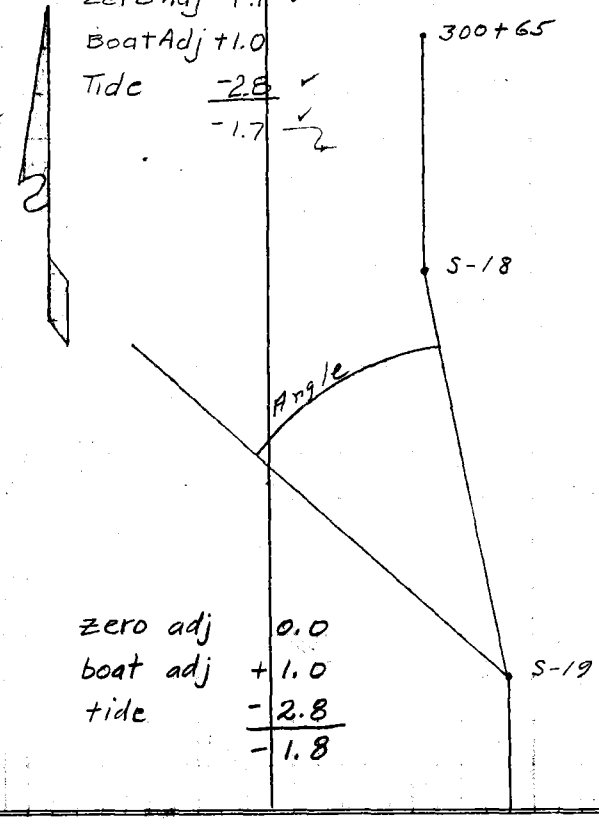
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

Profile Notes Red ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 155
No. ____ Date ____ Date ____ Survey of Beach Erosion Study
X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Dyken Notes R.T. Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed K. C. Johnson

STATION	B. S.	H. I.	F. S.	ELEV.		Remarks
Inst. Sight At Ch	#	Color	Time	Hor. Ang.		
		void				
	1	—	8:05	59° 50'		Cut in Line 300+65
		void				
	2	—		55° 16'		zero Adj +.1 ✓
		void				
	3	—		52° 01'		Boat Adj +1.0
		8.9 53.4 51.6				
	4	—		46° 33'	618 ✓	Tide -2.8 ✓
		5.8 34.8 33.0				
	5	34.5 ✓ 32.8 ✓		42° 16'	528 ✓	-1.7 ✓
	6	29.9 ✓ 28.2 ✓		40° 22'	491 ✓	
	7	26.9 ✓ 25.2 ✓		38° 46'	461 ✓	
	8	24.6 ✓ 22.9 ✓		37° 13'	438 ✓	
	9	22.2 ✓ 20.5 ✓		35° 47'	416 ✓	
	10	20.5 ✓ 19.1 ✓		34° 32'	398 ✓	
	11	18.6 ✓ 16.9 ✓		32° 13'	365 ✓	
	12	17.5 ✓ 15.8 ✓		30° 54'	348 ✓	
	13	16.0 ✓ 14.3 ✓		29° 32'	328 ✓	
	14	14.2 ✓ 12.5 ✓		27° 41'	307 ✓	
	15	13.3 ✓ 11.6 ✓		26° 12'	287 ✓	
	16	12.5 10.8 ✓		24° 31'	268 ✓	zero adj 0.0
	17	11.2 ✓ 9.5 ✓		23° 00'	250 ✓	boat adj +1.0
	18	10.0 ✓ 8.3 ✓		20° 16'	220 ✓	tide -2.8
	19	8.4 6.1 ✓	8:08	17° 10'	188 ✓	-1.8



61-S 19

S-18

F. B. 2304 Pg. 256 | Job No. 0300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-25-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. Sight At	#	Color	Time	Hor. Ang.	Remarks
S-19										
S-18										Cut in line 300+65

Do not extend notes this side of this line.

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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

76L298 307 8-53

76L298 307 8-53

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726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

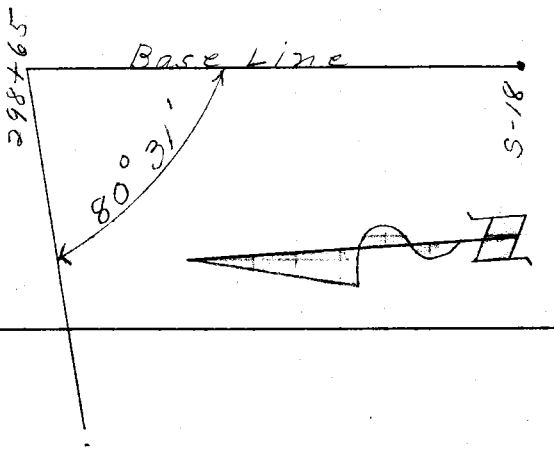
STATION	B. S.	H. I.	F. S.	ELEV.		
B.M. 21-47	509	24.61		1952	B.M. 21-47 ELEV.	16.716 PER. F.B. 1391-47 2.800 19.516 M.L.L.W.
T.P.	500	2451	510	1951		
S-17	087	2017	521	1930		
298+65			026	1991	ON PARKING LOT DECK	
4 FT RIGHT			60	~~12 2~~ 14.2	ON RUBBLE BELOW DECK	
14 " "			58	144	APPROX. MEAN TOP OF SEA WALL	
32 " "			181	21	SAND AT BASE OF ROCK SEAWALL	
T.P.	498	2489	026	1991		
B.M. S-16			648	1841	B.M. S-16 ELEV. 18.396 F.B. 2100-159	

INSHORE
298+65 S.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. ____ F.B. 2304 Pg. 257
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER Notes C.E.D. Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ Date ____
C. Johnson

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 259
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Deren	Notes P.H.	Date 5-25-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 298+65-S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At	#	Color	Time	Hor. Ang.	
	1.		8 21	80° 31'	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			8 25	

S-18

298+65-S

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

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

Do not extend notes this side of this line.

76L298 307 8-53

F.B. 2304 PG. 260 Job No. _____ Division No. 10 Notes Red. _____ Plotted _____ Profile

Survey of Beach Erosion Studies Date 5-25-56 Date _____ No. _____

Survey by MA. Van Deren Notes P. H. Notes Chkd. _____ Checked _____ X-Sec.

Indexed A. C. Johnson Date _____ Date _____ Date _____ No. _____

76L298 307 8-53

PLEASE RETURN TO

LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
						Range 298+65-S

298+65-S

S-18

76L298 307 8-53

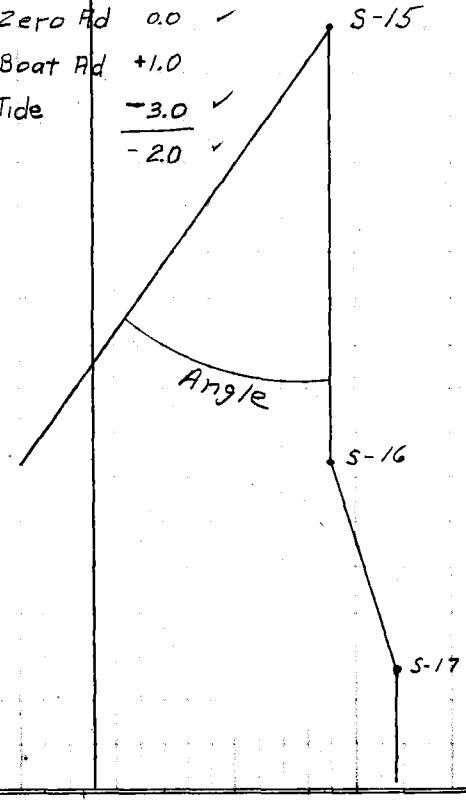
PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.	
Inst. Sight At On	#	Color	Time	Hor. Ang.	Remarks
		void			
	1	–	8:21	35° 15'	Cut in 298+65
		11.9 71.4 69.4			
	2			31° 47'	792
		9.8 58.8 56.8			
	3			29° 56'	731
		8.5 51.0 49.0			
	4	43.5 41.5		27° 13'	653
	5	37.2 35.2		25° 37'	610
	6	32.3 30.3		24° 34'	582
	7	30.5 28.5		24° 00'	568
	8	27.5 25.5		23° 04'	542
S-15 S-16	9	26.0 24.0		21° 59'	516
	10	23.6 21.6		20° 45'	489
	11	21.9 19.9		19° 52'	468
	12	20.9 18.9		19° 03'	448
	13	20.3 18.3		18° 07'	428
	14	19.3 17.3		17° 11'	410
	15	18.5 16.5		16° 14'	388
	16	18.1 16.1		15° 20'	370
	17	18.1 16.1		13° 50'	334
	18	14.6 12.6		12° 00'	301
	19	13.1 11.1		09° 59'	260
	20	11.6 9.6	8:25	08° 45'	236

Zero Ad 0.0
Boat Ad +1.0
Tide −3.0
−2.0



Profile Notes Red. Plotted Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 261
No. Date Date Survey of Beach Erosion Study
X-Sec. Notes Chkd. Checked Survey by Van Deren Notes R.T. Date 5-25-56
No. Date Date Map No. Indexed X C. Johnson Date

F. B. 2304 Pg. 262 Job No. 2300.02 Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Study Date 5-25-56 Date No.

Survey by Van Deren Notes R.T. Notes Chkd. Checked X-Sec.

Indexed Date Date Date No.

STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At	#	Color	Time	Hor. Ang.	

76L298 307 8-53

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LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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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.

76L298 307 8-53

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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

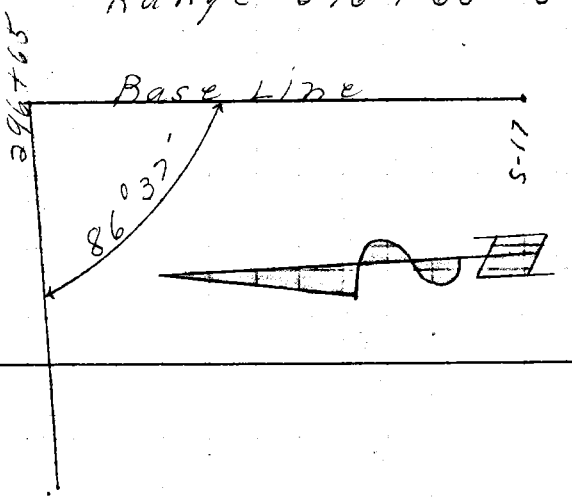
STATION	B. S.	H. I.	F. S.	ELEV.		
B.M. 21-47	5 09	24 61		19 52	B.M. 21-47 ELEV.	16.716 PER F.B. 1391-47 2.800 19.516 M.L.L.W.
T.P.	5 00	24 51	5 10	19 51		
S-17	0 87	20 17	5 21	19 30		
T.P.	4 98	24 89	0 26	19 91	ON STA. 298+65	
296+65			4 99	19 90	ON PARKING LOT DECK	
"			1 80	~~5 9~~ 6 9	ON SAND AT E'LY EDGE OF ROCK SEA WALL BELOW PARK LOT	
10 FT. RIGHT			10 4	14 5	APPROX. MEAN OF TOP OF ROCK SEA WALL	
34 " "			21 0	3 9	SAND AT W'LY BASE OF SEA WALL	
B.M. S-16			6 48	18 41	B.M. S-16 ELEV. 18.396 F.B. 2100-159	

IN SHORE
296+65 S.

Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. ____ F.B. 2304 Pg. 263
No. ____ Date ____ Date ____ Survey of BEACH EROSION STUDIES
X-Sec. Notes Chkd. ____ Checked ____ Survey by DREIER Notes C.E.D. Date 5-25-56
No. ____ Date ____ Date ____ Map No. ____ Indexed ____ C. Johnson Date ____

Profile	Notes Red.	Plotted	Job No.	Division No. 10	F. B. 2304	Pg. 265
No.	Date	Date	Survey of Beach Erosion Studies			
X-Sec.	Notes Chkd.	Checked	Survey by M.A. Van Dere	Notes P.H.	Date 5-25-56	
No.	Date	Date	Map No.	Indexed A. C. Johnson	Date	

Range 296 + 65 - S



STATION	B. S.	H. I.	F. S.	ELEV.	Remarks
Inst. Sight At CH	#	Color	Time	Hor. Ang.	
	1.		8 40	86°37	
	2.			" "	
	3.			" "	
	4.			" "	
	5.			" "	
	6.			" "	
	7.			" "	
	8.			" "	
	9.			" "	
	10.			" "	
	11.			" "	
	12.			" "	
	13.			" "	
	14.			" "	
	15.			" "	
	16.			" "	
	17.			" "	
	18.			" "	
	19.			" "	
	20.			" "	

S-17

296 + 65 - S

PLEASE RETURN TO
LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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.

76L298 307 8-53

F.B. 2304 PG. 266 Job No. Division No. 10 Notes Red. Plotted Profile

Survey of Beach Erosion Studies Date 5-25-56 Date No.

Survey by Ma Van Deren Notes P.H. Notes Chkd. Checked X-Sec.

Indexed C. Johnson Date Date Date No.

296+65-S

S-17

STATION	B.S.	H.I.	F.S.	ELEV.		
Inst. At	Sight On	#	Color	Time	Hor. Ang.	Remarks
		21	22	8 43		Range 296+65-S

76L298 307 8-53

PLEASE RETURN TO

LOS ANGELES COUNTY SURVEYOR

726 LOS ANGELES COUNTY ENGINEERING BLDG.

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Do not extend notes this side of this line.

76L298 307 8-53

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LOS ANGELES COUNTY SURVEYOR
726 LOS ANGELES COUNTY ENGINEERING BLDG.

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 Ch	B. S. #	H. I. Color		F. S. Time	ELEV. Hor. Ang.	
		1	46.5 ✓	44.2	8:40	35° 49'	717
		2	41.2 ✓	38.9		35° 01'	694
		3	36.1	33.8		34° 00'	666
		4	31.5	29.2		32° 50'	633
		5	29.7 ✓	27.4		31° 44'	605
		6	26.6 ✓	24.3		30° 17'	570
		7	24.7	22.4		29° 00'	537
		8	23.1	20.8		27° 37'	506
S-15	S-16	9	21.6	19.3		25° 47'	468
		10	20.2	17.9		24° 33'	442
		11	20.0 ✓	17.7		23° 43'	423
		12	19.3 ✓	17.0		22° 43'	402
		13	19.0 ✓	16.7		21° 38'	382
		14	17.8 ✓	15.5		20° 38'	367
		15	16.4 ✓	14.1		19° 22'	339
		16	15.7 ✓	13.4		18° 07'	318
		17	15.5 ✓	13.2		17° 13'	302
		18	14.2 ✓	11.9		15° 53'	281
		19	13.0 ✓	10.7		14° 12'	253
		20	12.3 ✓	10.0		13° 04'	235

Remarks

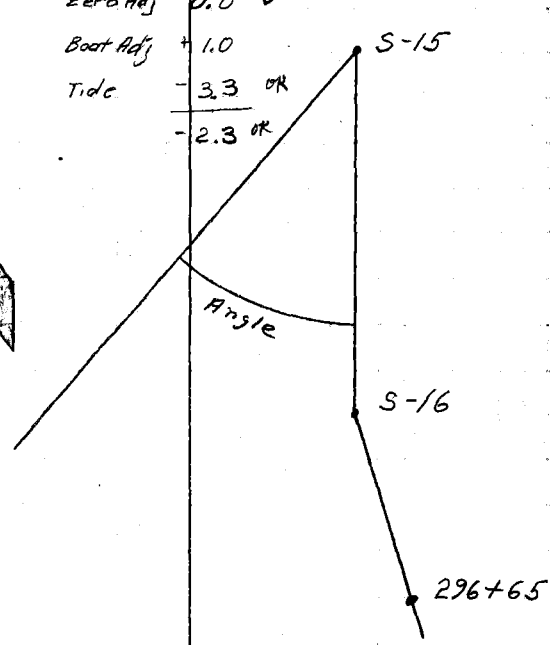
Cut in Line 296+65

Zero Adj 0.0 ✓

Boat Adj +1.0

Tide -3.3 OK

-2.3 OK



Profile Notes Red. ____ Plotted ____ Job No. 0300.02 Division No. 10 F. B. 2304 Pg. 267

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

X-Sec. Notes Chkd. ____ Checked ____ Survey by Van Deren Notes R.T. Date 5-25-56

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

F. B. 2304 Pg. 268 Job No. 0300.02 Division No. 10 Notes Red. Plotted. Profile

Survey of Beach Erosion Study Date 5-25-56 Date

Survey by Van Deren Notes R.T. Notes Chkd. Checked

Indexed A. C. Johnson Date Date Date

STATION	B. S.	H. I.	F. S.	ELEV.	Inst. Sight At OR #	Color	Time	Hor. Ang.	Remarks
5-15									
5-16									
					21	11.4 v. 9.1		11° 36'	214
					22	10.6 v. 8.3	8:43	10° 00'	190

Cut in line 296+65