CORONADO. BEACH.

FIELD BOOK.

330 N.

F.B. 44

44

Return to City Engineers Office
City Hall, San Diego, Cal.

MICROFILMED
DEC 4 1964

44

J. M. Shaw -
Licensed Surveyor -
San Diego, Cal -

Return to City Engineers Office
City Hall, San Diego, Cal.

INDEX

Iron Foundry on Coronado Beach 2-7
Orange Ave Motor line on Coronado Beach 9-30

Saturday
May 28th 1892.

Field Notes of
Survey of Portion of Coronado Beach
Between 3d St & Soledad Place

From S.E. corner of Block No 148
ran at right angles north, 300
feet set tack head. 340 feet set
tack head. Thence

Sta 1 R. Ang. 90° 80 feet
" " " 235 " to high bank.

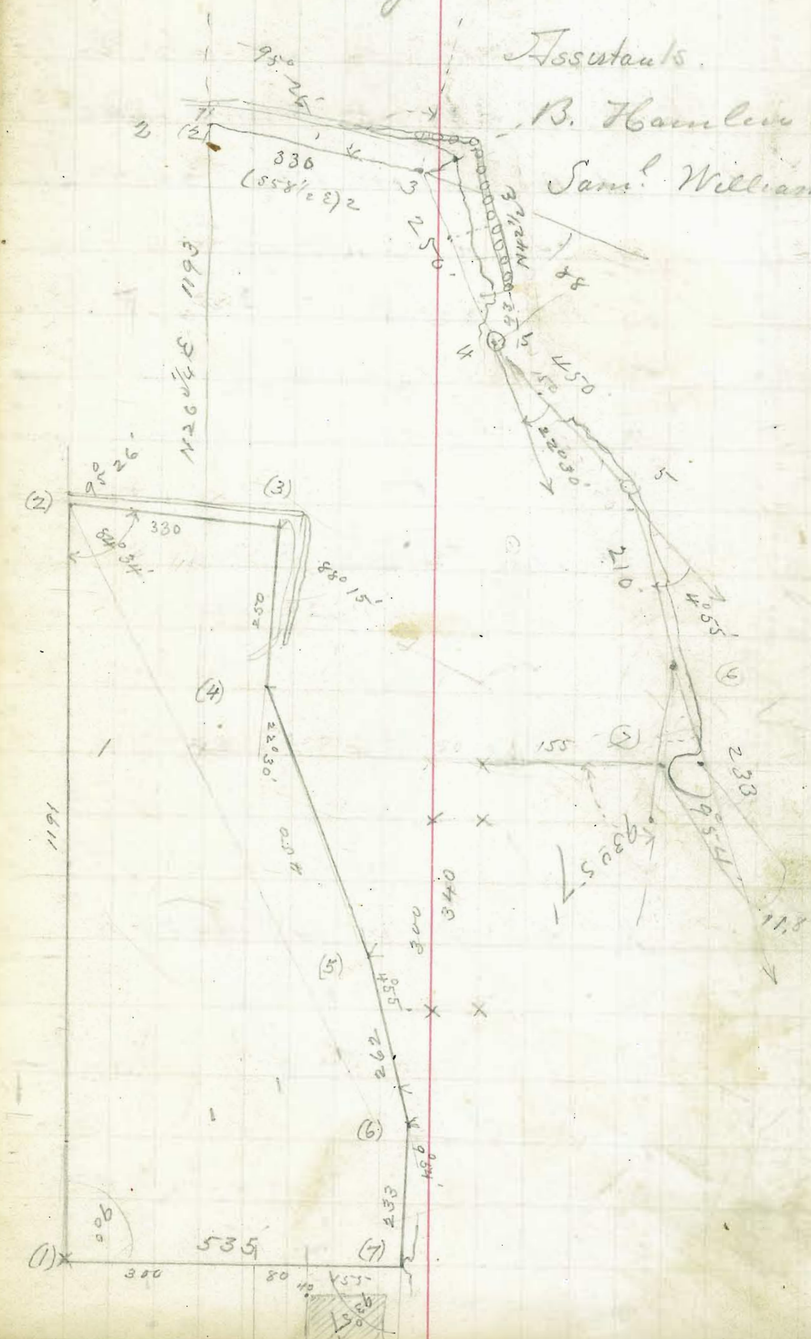
Again Begin from tack head
S.W. corner of Block 148 - measure
at right angles from 3d Street
300 ft set tack head
N26¼E. 340 ft " "

Continue by same course 1193
feet to tack head on levee. & Bay. 7 ft.
from Bulkhead.

Sta 2 R Ang 95°26' 123 ft to foot edge
S58¾E 9 feet distant. property out 121 feet and
62 feet wide. bearing N27¼E
330 ft to No 3
2015 feet from Bulkhead

Benj. McLeran

Assistants.
B. Hamlin
Saml. Williams



May 28th 1892

3	R. Ang 88° 15° Offset 44 ft.
S 29½ W	at 100 feet offset Left 20 ft to bank
	" 200 " " "
	" 250 "
4	L. Ang 22° 30'
S 7¾ W	450 feet to 5
	Markers at 100 + 300 feet
5	R. Ang. 40° 55' 210
S 12½ W	
6	R Ang 9° 54' 233 feet
S 21¾ W	
7	
N 64¼ W	R. Ang. 93° 57 W 155

Sta.	Ang.	Course	Dist. feet	Corrected Course	N	S	E	W	Double Meridian Distance	Northing	Southing
1	00.00	N26¼ E	1193.0	N26° 15' E	1068.2	—	526.7	—	526.7	562.620.9	
2	R. 95° 26'	S54¼ E	330.	S58° 19' E	—	173.3	280.8	—	1333.4	—	231.078.2
3	R 88° 15	S29½ W	250.	S29° 56' W	—	216.7	—	124.7	1490.3	—	322.948.0
4	L 22° 30'	S7¾ W	450	S7° 26' W.	—	446.2	—	58.2	1307.4	—	583.361.9
5	R. 4° 55'	S12½ W	260	S12° 21' W	—	253.9	—	55.6	1193.6	—	304.055.0
6	R 9° 54	S21¾ W	233	S22° 15' W.	—	215.6	—	88.2	1049.8	—	226.336.9
7	R. 93° 57'	N64¼ W	535	N63° 48' W	237.2	—	—	481.0	481.0	114.093.2	

1305.4 807.5 1667780.0
1305.7 807.7 676714.1
2) 991.065.9
43580 495.532.9
11.35 Acres

Coronado Beach

Level Notes connecting Govt. B.M. with Shore Line East of Prospect Place

0 St	Gov. nt. BM	B. S.	In.	F. S	Eln
		5.517			27.470
1	T.p.	5.785	32.987	4.276	28.717
2	T.p.	5.542	34.496	3.881	30.615
3	"	3.943	36.157	4.973	31.184
4	"	3.594	35.127	11.211	23.916
5	"	4.897	27.510	10.3[illegible]	17.200
6	"	6.988	22.097	4.066	18.031
7	"	2.338	25.019	4.994	20.025
8	"	6.632	22.363	7.089	15.274
9	"	2.287	21.906	5.822	16.084
a	Prospect Place		18.371	4.287	14.084
Stake 7		4.785	"	3.545	14.826
Intermediate St.			19.611	5.250	14.361
Stake 6			"	4.780	14.831
T. peg in bank (a)			"	9.824	9.787
Inter. Stake			"	6.600	13.0
Stake 5			"	3.675	16.0
Intermediate 300 feet from (4)			"	7.2002	12.4

Notes by
Benj. McLeran
B. Hamlin. assistant.
June. 1st 1892

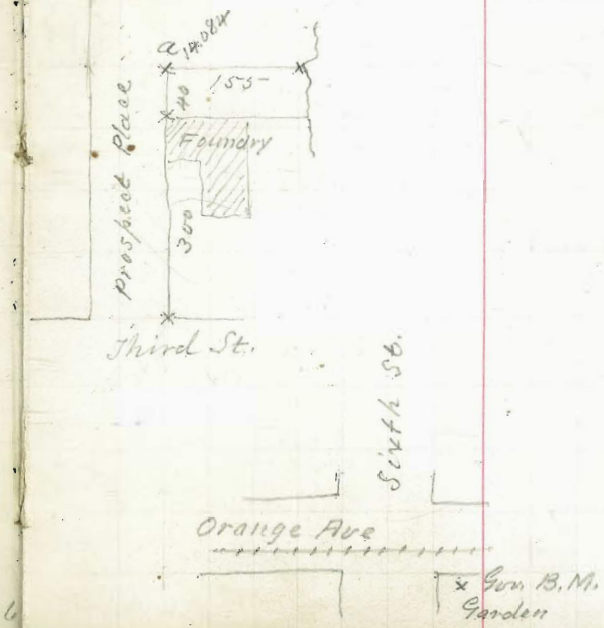
Sta.	B. S.	In	F. S.	Elev
Fp. g. (a)	1.516			9.787
" brick	3.697	11.303	5.840	5.463
Sta. 7 (1) 7		9.160	1.400	7.8
46 (2)		"	4.800	4.4
50 (3)		"	6.100	3.1
Sur. water (1:15 pm)			6.500	2.660
Sta. 7 13 Intermediate (1)		"	2.400	6.8
47 (2)		"	5.300	3.9
39 (3)		"	5.900	3.3
Sta. 6 5 (1)		"	2.400	6.8
44 (2)		"	5.100	4.1
37 3			6.000	3.2
St. 6+50 brick	3.898			5.463
10 (1)		9.361	2.8	6.5
43 2			5.4	3.9
35 3			5.9	3.4
Sta. 5 10 (1)			2.7	6.6
47 (2)			5.4	3.9
28 3 ?			5.9	3.4
Sta. 5+ 4 (1)			2.9	6.4
35 (2)			4.8	4.5
36 (3)			6.1	3.2

Benj. McLeran
June 1st 1892.

sta 5 + (1)		9.361	3.6	5.7	
31					
(2)		"	4.8	4.5	
34					
(3)		"	6.0	3.3	
BM pile	5.598	"	3.297	6.064	
Sta 4 (1)		11.662	4.900	6.7	
44					
2		"	7.1	4.5	
20					
at 2.35 p.m. 3 w.s.		"	8.350	3.312	
top of pile		"	3.095	8.567	

Check Levels

Sp. (a)	8.043			14.084	
" 2	8.342	22.127	6.860	15.267	
" 3	3.270	23.609	3.342	20.267	
" 4	2.069	23.537	5.905	17.632	
" 5	8.505	19.701	8.562	11.139	
" 6	11.448	19.644	0.635	19.609	
" 7	7.510	30.457	1.186	29.271	
" 8	4.057	36.781	6.353	30.428	
" 9	3.780	34.485	5.628	28.857	
" 10 Govt. B.M.		32.637	5.006	27.631	(27.47) .16



Elevation of Grade

N.E	10th and Orange Avenue	23.35
N.W	"	23.35
S.E	"	23.35
S.W	"	23.35
	+ 0.272 : 100'	
S.E	B and Orange	25.77
N.W	Lorna " "	25.77
	+ 0.215 : 100'	
S.E	Adella and Orange	27.21
S.W	Ada " "	27.31

100
65.4
34.6

A Line Radius 50' chords 1st curve I 79° 10'

N line of 10th cent. of Orange avenue BC 14° Left l.c. 565.4 Δ. P.R.C. 12° Right l.c. 441.7' P.R.C 12° Left. 2nd curve I 53° 0'

79° 10
39° 35

~~N line of 10th St center of Orange B.C. 14° P.R.C 12° curve to Right L.C. to left~~ ~~Left L.C. 565.4 I Angle 87° 22' to I Angle 55° 06' P.R.C 12° Curve~~

Sta. North line of 10th center of Orange 14° to L Length 565.4 Intersection angle 79° 10' P.R.C 12° curve to Right Intersection angle 53° 0' Length 441.7' P.R.C " " " Left

(14°) Rod 404.3

Set points 6' East of track center Chord for D 3° 30' = 49.36

Chord for D 15.28

Tang for Rod of 404.3 I angle 79° 10' = 334.27'

(12°) I angle 53° 0'

Set Points 6' East Rod 484.3, Tang 241.46' Chord for 2° 05' = 35.32

Chord for D 3° = 50.7' Chord for D of 26' = 7.32'.

Grades on Orange ave R.R. Coronado Beach June 28 1892 Hamlin & Party

Station	+	HI	Grade	Rod	Elev
B.M.	5.48	27.84			22.36
0			23.35	4.49	✓
+50			23.35	4.49	✓
+80			23.35	4.49	✓
1			.05 23.40	.05 4.44	✓
+50			.13 23.53	.13 4.31	✓
2			.14 23.67	.14 4.17	✓
+50			.13 23.80	.13 4.04	✓
3			.14 23.94	.14 3.90	✓
+50 #	5.37	29.44	.13 24.07	.13 3.77	✓ 24.07
4			24.21	5.23	✓
+50			24.34	.13 5.10	✓
5			24.48	.14 4.96	✓
+50			24.61	.13 4.83	✓
6			24.74	.13 4.70	✓
+50			24.88	.14 4.56	✓
7			25.01	.13 4.43	✓
+50 #	4.81	29.96	25.15	.14 4.29	25.15

× .2688 − 100

10 th & Orange ave.

27.84
4.57
23.27 B.M. Park place & Orange ave.

29.44 = H.I.
3.68 − Rod
25.76 Elev B.M. C & ~~elev~~ Orange

Station		HI	Grade	Rod	Elev		
8		29.96	25.28	4.68			
				.14			
+50			25.42	4.54			
				.14			
9			25.56	4.40		.2 high	
				.13			
+50			25.69	4.27		.2 low	
					set		
+80			25.77	4.19		4' Low	
					not set		
10			25.82	4.14			
				.13			
+50			25.95	4.01		.9 Low	
				.13			
11 #	3.87	29.95	26.08	3.88	26.08	.8 Low	
+50			26.21	3.74			
				.13			
12			26.34	3.61		1.0 Low	
				.13			
+50			26.47	3.48			
				.13			
13			26.60	3.35		0.7 Low	31.48
							4.91
+50			26.73	3.22			26.57 B.M. Adelia & Orange Ave
				.13			
14			26.86	3.09		1.0 Low	31.48
				.13			2.99
+50			26.99	2.96			28.49
				.14			
15			27.13	2.82			
				.13			
+50 #	4.22	31.48	27.26	2.69	27.26		
16			27.33	4.15			

31.48
3.39
28.09

Station	+	HI	Grade	Rod	Elev.	
16		31.48	27.40	4.08	✓	0.1 Low
				.07		
17			27.47	4.01	✓	
				.07		
+50			27.54	3.94	✓	
18			27.61	3.87	✓	
+50			27.68	3.80	✓	
19 # X	5.06	32.81	27.75	3.73	✓ 27.76 X	Sta 19 about 40' west of Platform
+50			27.85	4.86	✓	
20			28.15	4.66	✓	
				.2		
+50			28.35	4.46	✓	
				.2		
21			28.55	4.26	✓	Lush stake
+50	X		28.75			

Check Levels from Sta 21 to Initial BM

Sta	+	HI	−	Elev	
Sta 21	4.26	32.81		28.55	
# 17+50	2.54	30.08	5.27	27.54	
# 9	3.81	22.36	4.53	25.55	
B.M. #	6.05	28.39	7.02	22.34	
#	5.28	31.16	2.51	25.88	
#	4.84	32.34	3.66	27.50	
#	5.11	32.46	5.05	27.29	
B.M.			4.86	27.54	27.47

Grade Elev

10th & Orange

Initial B.M. in Park:

Levels over center line of Orange Ave from Park to ferry office

Sta	+	HI	−	Elev	Grade	cap
B.M.	4.80	32.27		27.47		Initial B.M.
6			3.8	28.5	27.87	South line of 6th St
0			3.5	28.8	27.99	North " " "
1			3.5	28.8		
2			3.3	29.0		
#	5.11	34.05	3.33	28.94		
3			4.7	29.3		
4			4.0	30.0		
5			3.5	30.5	29.29	South line of 5th St
B.M.			2.62	31.43		5th & Orange N.W. cap Tuck in water table
0			3.1	30.9	29.50	North line of 5th St
1			2.7	31.3		
2			2.3	31.7		
#	4.93	36.58	2.40	31.65		
3			4.5	32.1		
4			4.2	32.4		
5			3.7	32.9	32.00	South line of 4th St
0			3.6	33.0	32.00	North " " "
B.M.			2.72	33.86		N.W. S.E. bolt Electric light mast 5th & Orange

Sta	+	HI	–	Elev	Grade	Cut	
1		36.58	3.6	33.0			
2			4.0	32.6			
#	1.61	34.07	4.12	32.46			
3			2.2	31.9			
4			3.1	31.0			
5			4.1	30.0	27.60		South line of 2nd St
0			5.3	28.80	27.35	+ 1.45	North " " "
B.M.			6.40	27.67			3rd & Orange N.E. on blk cor Plg
1			6.6	27.50	26.15	+ 1.35	
2			8.0	26.10	24.95	+ 1.15	
#	0.33	26.05	8.35	25.72			
3			1.4	24.60	23.75	+ 0.85	
4			2.5	23.50	22.55	+ 0.95	
5			3.4	22.60	21.35	+ 1.25	South line of 2nd St
0			4.0	22.00	21.10	+ 0.90	North " " "
B.M.			4.67	21.38			2nd & Orange S.W. plg at cor
1			4.6	21.40	20.79	+ 0.61	
2			5.0	21.00	20.48	+ 0.52	
3			5.3	20.70	20.17	+ 0.53	
#	2.67	23.15	5.57	20.48			

Sta	+	HI	−	Elev	Rmk	cut	
4		23.15	2.8	20.40	19.86	+0.54	
5			3.2	20.00	19.55	+0.45	South line of 1st St
0			4.0	19.10	19.30	−0.20	North " " " "
B.M.			2.51	20.64			S.W. tack top of square foot of hydt
+40			4.4	18.8			P.T. curve 300' Rwd to wharf
1			5.1	18.1			
2			6.5	16.7			
3			8.0	15.2			
+52			9.80	13.35			Edge of wharf
4			10.40	12.8			
+72			11.04	12.11			End of line
B.M.			11.02	12.13			s/k in wharf near SW Cor of office
B.M.	0.33	20.97		20.64			
			2.31	18.66			
3+52			7.70	13.27			Edge of Wharf check

Sta	+	HI	−	Elev	Grade	Cut
B.M.	4.94	32.41		27.47 ✓		
5			3.9	28.5 ✓		
4			4.1	28.3 ✓		
3			4.4	28.0 ✓		
2			4.5	27.9 ✓		
1			4.7	27.7 ✓		
0			4.3	28.1 ✓		
5			4.0	28.4 ✓		
#	3.36	31.57	4.20	28.21 ✓		
B.M.			3.30	28.27 ✓		
4			3.1	28.5 ✓		
3			3.0	28.6 ✓		
2			3.0	28.6 ✓		
#	4.08	32.37	3.20	28.37		
1			3.9	28.5 ✓		
0			3.8	28.6 ✓		
5			3.8	28.6 ✓		
B.M.			4.59	27.78 ✓		
4			4.1	28.3 ✓		

Initial B.M.
South line of 6th St.

North line of 7th St.
South " " "

Orange & 7th S.E. plug & cor.

North line of 8th St.
South " " "
Orange & 8th S.W. plug at blk cor.

Sta	+	H.I.	−	Elev	Grade	cut
3		32.37	4.5	27.9		
2			4.8	27.6		
#	1.75	29.12	5.00	27.37		
1			2.0	27.1		
0			2.4	26.7		North line of 9th St
5			2.8	26.3		South " " "
B.M.			4.33	24.79		SW. cor. Orange & 9th on Bldg
4			3.20	25.9		
3			3.6	25.5		
2			4.3	24.8		
#	3.27	27.89	4.50	24.62		
1			3.6	24.3		
0			4.0	23.9		North line of 10th St
B.M.			5.60	22.29		Orange & 10th N.W. Bldg.
+50			3.9	24.0		Curved track South of 10th St stationed
1			3.8	24.1		continuously without regard to
+50			3.7	24.2		intersecting streets
2			3.7	24.2		
+50			3.6	24.3		

Sta	+	HO	–	Elev	Grade	Rod
3		27.89	3.5	24.4 ✓		
+50			3.3	24.6 ✓		
4			3.2	24.7 ✓		
#	4.94	29.81	3.02	24.87 ✓		
+50			4.8	25.0 ✓		
5			4.6	25.2 ✓		
+50			4.6	25.2 ✓		
6			4.5	25.3 ✓		
+50			4.4	25.4 ✓		
B.M.			4.13	25.68 ✓		C to Orange N.E. cor
7			4.3	25.5 ✓		
+50			4.3	25.5 ✓		
8			4.2	25.6 ✓		
+50			4.2	25.6 ✓		
#	3.14	28.90	4.05	25.76 ✓		
9			3.5	25.4 ✓		
+50			3.7	25.2 ✓		
10			4.0	24.9 ✓		
+50			3.9	25.0 ✓		

Sta	+	HO	−	Elev	Remarks	
11		28.90	3.9	25.0 ✓		cuf
+50			3.8	25.1 ✓		
12			3.6	25.3 ✓		
+50			3.3	25.6 ✓		
13			3.2	25.7 ✓		
#	5.30	31.195	3.01	25.89 ✓		
+50			5.4	25.8 ✓		
14			5.3	25.9 ✓		
+50			5.2	26.0 ✓		
15			4.9	26.3 ✓		
+50			4.5	26.7 ✓		
16			4.3	26.9 ✓		
B.M			4.67	26.52 ✓		Adelia & Orange
17			3.7	27.5 ✓		
18			3.1	28.1 ✓		
19			3.1	28.1 ✓		
#	4.74	32.75	3.18	28.01 ✓		
20			4.7	28.0 ✓		
21			5.0	27.8 ✓		
B.M.			4.31	28.44		

Sta	+	HI	Grade	Mod	
	2.37	23.01			20.64
0			13.65		
+50					
1					
+50					
2					
+53			17.95	5.06	✓
				.33	
+77			18.28	4.73	✓
				.34	
3+02			18.62	4.39	✓
				.34	
+27			18.96	4.05	✓
				.34	
+52			19.30	3.71	✓
				13	
+92			19.43	3.58	✓
				12	
0			19.55	3.46	✓
+50			19.87	3.14	
				.12	
1			20.19	2.82	
B M	3.40	24.04			20.64
			19.55	4.49	✓
				12	
			19.43	4.61	✓
				.2	
			19.30	4.74	
			18.96	5.08	

2.37

23.01
2.80
20.21

19.86
33
20.19

Edge of wharf.

20.24
20 24
40 48
20 24
70 12
2 18
90 30

E C

B.C. North line of 1st St
Centre line of 1st

20.19
19.55
2).64
.32
.33
20.37

19.87
32
20.19

South line of 1st

Curve at 1st to wharf.

Sta	Half Tang	
BC.		
3+52	2° 24	
+27	4° 48	
3+02	7° 12'	
+77	9° 30	
+53		19° 6'

N line of 1st

Prod. 304.3

EC

Sta	+	HI	Grade	Rod	Elev	
B.M.	3.21	23.85			20.64	1st & Orange
0			19.88	3.97		South line of 1st St
+50						
1						
+50						
2						
+50						
3						
+50						
4						
+50						
5 B.M.	4.92	26.30	21.43	4.87	21.38	North line of 2nd St
				.13		
+40			21.56	4.74		Center line of 2nd St
				.12		
0			21.68	4.62		South line of 2nd St
+50						
1						
+50						

19.30
.33
19.63

20.64
3.57
24.21
19.88
4.33

20.64
3.54
24.18
19.63
4.55

Note track lowered 4" at South line of 1st and 2" 50' South of 1st otherwise as shown

Sta	+	HI	Grade	Rod	Elev	
2						
+50						
3						
+50						
4						
+50 B.M.	5.07 3.36	32.74 32.85		3.25	27.67 29.49	
5 #			27.68	5.17		North line of 2nd St
+40			27.81	5.04		Centre line of 2nd St
0			27.93	4.92		South line " "
+50						
1						
+50						
2						
+50						
3						
+50						
4						

27.93
4.13
32.06
27.68
4.38

32.06
27.81
4.25

Sta	+	HI	Grade	Rod	Elev	
+50						
5 B.M.	2.56	36.42	32.33	4.09	33.86	North line of 4th.
+40			32.33	4.09		Center " " "
0			32.33	4.09		South " " "
+50						
1						
+50						
2						
+50						
3						
+50						
4						
+50						
5 B.M.	2.92	34.35	29.83	4.52	31.43	North line of 5th St
+40			29.73	4.62		Center " " " "

2.80
33.86
36.66
32.33
4.33

29.83
32.33
5) 2.60
.60

Sta	+	HI	Grade	Rod	Elev	
0		34.35	27.62	4.73		South line of 6th St.
+50						27.
1						29.62
+50						28.32
2						6 1.3
+50						.26
3						
+50						
4						
+50 BM	5.02	32.49			27.47	
	4.52	32.25		4.76	27.73	
5 #			28.32	3.93		North line of 5th St
				.02		
+40			28.26	3.99	✓	Centre line of " "
				.06		
0			28.20	4.05	✓	South " " " "
+50						
1						
+50						
2						

Sta	+	H I	Grade	Rod	Elev
+50					
3					
+50					
4					
+50					
5. B.M.	4.10	32.37	27.50	4.87	28.27
+40			27.50	4.87	
0			27.50	4.87	
+50					
1					
+50					
2					
+50					
3					
+50					
4					
+50					

28.20
27.50
3) .70
.14
265
405

North line of 7th St.

Centre " " "

South " " "

4.28
28.27
32.55
27.50
5.05

Sta	+	HI	Grade	Rod	Elev	
5 BM	4.26	32.04	27.50	4.54	27.78	N line of 8th
+90			27.50	4.54		Center " "
0			27.50	4.54		South " "
+50						5)1.2
1						.24
+50						
2						
+50						
3						
+50						
4						
+50						
5 B.M.	3.67	28.46	26.30	2.16	24.79	North line of 9th St
+ 40			26.20	2.26		Center " " "
0			26.11	2.35		South " " "

24.79
5.43
30.22
26.30
3.92

Sta	+				
		120	Marble	Rod	
1 50					
1					
1 50					
2					
1 50					
3					
1 50					
4					
1 50					
5 B.M.	4.85	27.14	23.68	3.46	22.29
1 40					
0					

26.11
23.68
5) 2.43
.486

22.29
4.64
26.93
23.68
3.25

North line of 16th St

Sta	Dist	Def	Index	Deflg.	
+50		3° 0'	31° 10'		
8		3° 0'	28° 10'		
+50		3° 0'	25° 10'	27° 10'	
7		3° 0'	11 05		
+50		3° 0'	8° 05'		
6	34.6'	3° 0'	5° 05'		
+ 65.4		2° 05'			P.R.C
+50					
5		3° 30	10° 30		
+50		3° 30	7° 0		
4		3° 30	3° 30	21° 0'	
+50		3° 30'	10° 30		
3		3° 30'	7°		
+50		3° 30	3° 30	21° 0'	
2		3° 30'	10° 30		
+50		3° 30'	7° 0'		
1		3° 30'	3° 30'	14°	
+50	50	3° 30'	7° 0'		
0	50	3° 30' 0			

B.C. 14° curve to left on north line of 10 ft center of drainage set points 6' east of track

Sta	Hist	Def	Index	Temp	
+35			45° 0'		E.C.
13	1° 04	34° 05'			
+50	2° 51'	32° 01			
12	2° 57'	29° 04			I 21° 50' Semi Temp 23.6
+50	2° 57	26° 07'	23° 10'		P.C.C 11° 40' C h
11	3° 0'	17° 10'			
+50	3° 0'	14° 10'	11° 10'		
+07.1		6° 35'	53° 0'		P.R.C
10	0° 25	37° 35'			
+50	3° 0'	37° 10'			
9	3° 0'	34° 10'			

Grades on Orange Ave Morton Line South of 10th St

Sta	+	HI	Grade	Rod	Elev
B M	5.88	28.17			22.29
0			23.68	4.49	✓
				.06	
+25			23.74	4.43	✓
				.05	
+50			23.79	4.38	✓
				.06	
+75			23.85	4.32	✓
				.06	
1			23.91	4.26	✓
				.06	
+25			23.97	4.20	✓
				.06	
+50			24.03	4.14	✓
				.05	
+75			24.08	4.09	✓
2			24.14	4.03	✓
				.06	
+25			24.19	3.97	✓
				.06	
+50			24.26	3.91	✓
				.05	
+75			24.31	3.86	✓
				.06	
3			24.37	3.80	✓
				.06	
+25			24.43	3.74	✓
				.06	
+50			24.49	3.68	✓
				.05	
+75			24.54	3.63	✓
				.06	
4 #	4.81	29.41	24.60	3.57	✓ 24.60
+25			24.66	4.75	

North line of 10th St

Rate .05773 - 25'

+50		29.41	24.72	4.69		
				.06		
+75			24.78	4.63		
				.05		
5 #	5.79	30.62	24.83	4.58	24.83	
+25			24.89	5.73		
+50			24.95	5.67		
+65			24.98	5.64		P.R.C
+75			25.01	5.61		
BM				4.91	25.71	C & O Ry C
6			25.07	5.55		
+25			25.12	5.50		
+50			25.18	5.44		
+75			25.24	5.38		
7			25.29	5.33		
+25			25.35	5.27		
+50			25.41	5.21		
+75			25.47	5.15		
8			25.53	5.09		
+25			25.59	5.03		
+50			25.64	4.98		
+75			25.70	4.92		
9			25.76	4.86		

24.83
24.47
.36

Sta	+	HO	Grade	rod	Elev	
+25		30.62	25.82	4.80		
+50			25.87	4.75		
				.06		
+75			25.93	4.69		
				.06		
10			25.99	4.63		
+0.7			26.00	4.62		P.R.C
+25			26.04			
+50			26.10	4.52		
+75			26.16	4.46		
11 #	3.53	29.75	26.22	4.40	26.22	
+25			26.28	3.47		
+50			26.34	3.41		
+75			26.40	3.35		
12			26.45	3.30		
				.06		
+25			26.51	3.24		
				.06		
+50			26.57	3.18		
+75			26.63	3.12		
13			26.68	3.07		
+25			26.74	3.01		
+50			26.80	2.95		
+75			26.86			
+85			26.89	2.86		P.R.C.

Sta	+	HI	Grade	Rod	Elev
14		29.75	26.91		
+25			26.97		
+50			27.02		
+75			27.08		
15			27.14		
+25			27.20		
+50 ×			27.26	2.49	27.06
+75			27.29		
16			27.33		
+25			27.37		
+50			27.40		
+75			27.44		
17			27.47		
+25			27.51		
+50			27.54		
+75			27.58		
18			27.61		
+25			27.65		
+50			27.68		

Set with grade

26.80
3.54
30.34
26.89
3.44

29.75

29.75
27.26
2.49

Sta	+	HI	Grade	Rod	Elev
+75			27.72		
19 X	4.17	32.55	27.75	4.80	28.38 X
+50			27.95	4.60	
20			28.15	4.40	
+50			28.35	4.20	
21			28.55	4.00	
+50 X			28.75		X

4.17
28.38
32.55
27.75
4.80

19.00
15.50
3.50

22.61

29.75
27.75
2.00

28.72
27.06
1.66

27.06

	+	HI	−	Rod	Grade	
BM	3.87	32.09			28.22	Elev.
15+50				5.02	27.06	
16				4.79	27.30	
+50				4.56	27.53	
17				4.32	27.77	
+50				4.09	28.00	
18				3.84	28.25	
+50				3.59	28.50	
19				3.34	28.75	

Soundings for outlet Sewer from S.H. Elec St Ry Co's Power House at E & Cal

Sewer laid to center of Att. Set up at a point on the West line of Att. St 8' South of North line B.S. to a point 8' South of N line of Cal Produced line west and took following Elevs

Sta	+	HI	−	Elev
B.M.	2.60	8.15		5.55
#	4.45	6.23	6.37	1.78
#	4.80	0.61	10.42	−4.19
−0.24			2.9	−2.3
−0.12			3.9	−3.3
0			4.7	−4.1
+12			5.8	−5.2
+24			7.2	−6.6 ✓
+36			7.5	−6.9 ✓
+48			7.8	−7.2 ✓
+60			7.9	−7.3 ✓
+72			8.0	−7.4 ✓

Elev of Plug. 1.53 / 61 / −0.92

Cal & E

West line of Att.

Stu	+	HO	−	Elev	
0 +84		0.61	8.5	−7.9	✓
+96			8.8	−8.2	✓
1.1 08			8.9	−8.3	✓
+20			9.0	−8.4	✓
+32			9.0	−8.4	✓
+44			9.0	−8.4	✓
+56			9.0	−8.7	✓
+68			9.6	−9.0	✓
+80			9.9	−9.3	✓
+92			10.2	−9.6	✓
2+04			10.3	−9.7	✓
				Sound	Elev
+16			5.8	4.7	−9.5 ✓
+28			5.7	5.0	−10.1 ✓ +
+40			5.7	5.3	−10.4 ✓
+52			5.7	5.7	−10.8 ✓
+64			5.7	6.1	−11.2 ✓
+76			5.7	6.2	−11.3 ✓
+86			5.7	6.5	−11.8 ✓

Sta	+	HO	−	Sound		
3+00		0.61	5.7	6.7	−11.8	✓
+12			5.7	6.7	−11.8	✓
+24			5.7	6.8	−11.9	✓
+36			5.7	6.9	−12.0	✓
+48			5.7	7.1	−12.2	✓
+60			5.7	7.2	−12.3	✓
+72			5.7	7.4	−12.5	✓
+84			5.7	7.6	−12.7	✓
+96			5.7	7.6	−12.7	✓
4+08			5.7	7.9	−13.0	✓
+20			5.7	7.9	−13.0	✓
+32			5.7	8.2	−13.3	✓
+44			5.7	8.5	−13.6	✓
+56			5.7	8.5	−13.6	✓
+68			5.7	8.5	−13.6	✓
+80			5.7	8.4	−13.5	✓
+92			5.7	8.6	−13.7	✓
5+04			5.7	8.7	−13.8	✓
+16			5.7	8.7	−13.8	✓

Sta	+	HI	−	Elev
B.M.	2.18	7.73		5.55
#	4.47	6.13	6.07	1.66
			7.13	−1.00

6.13
.92
7.05

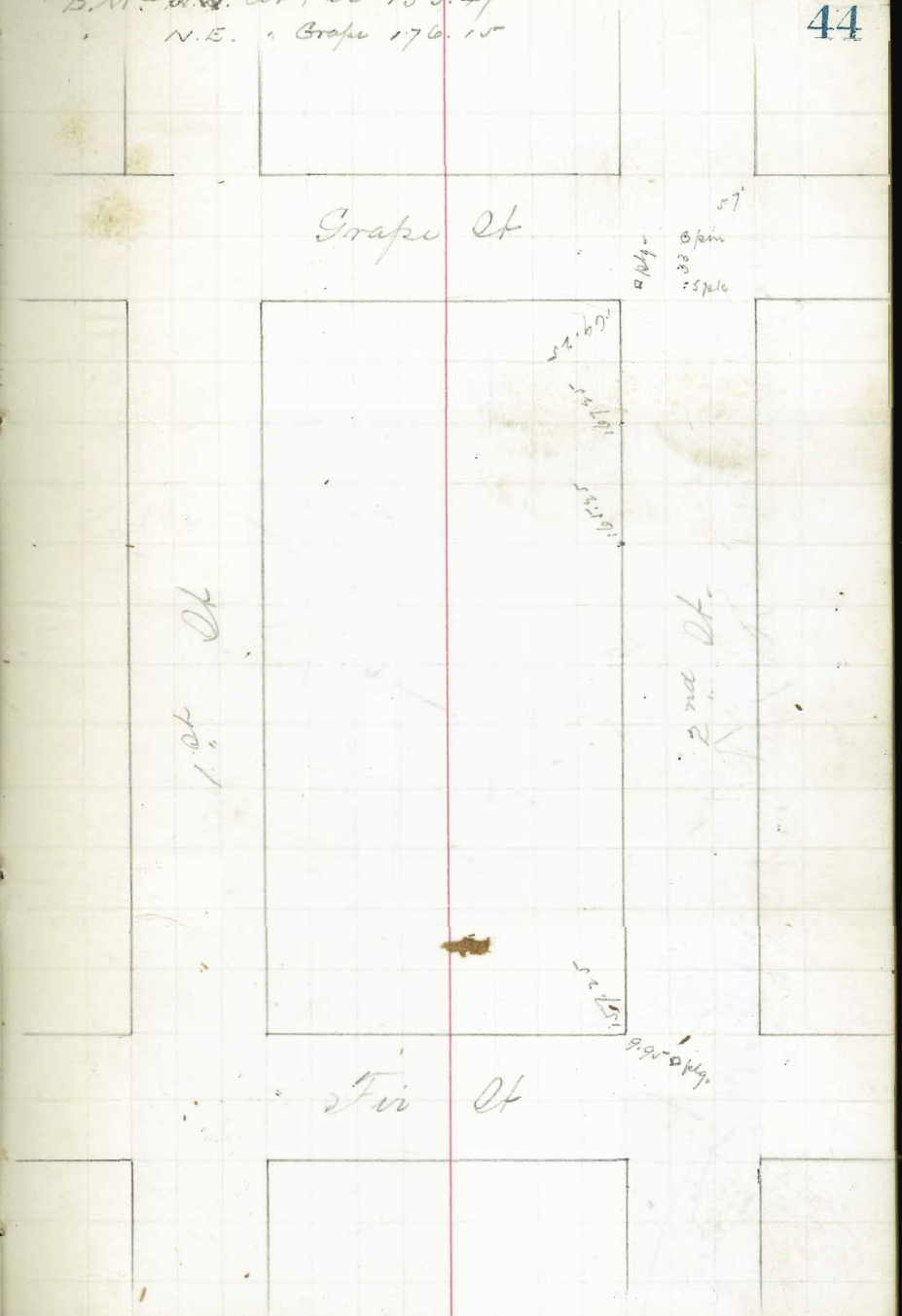
Arctic & Cal.

Left grade of Sta 0 West line Alt
& ditto of 0+24

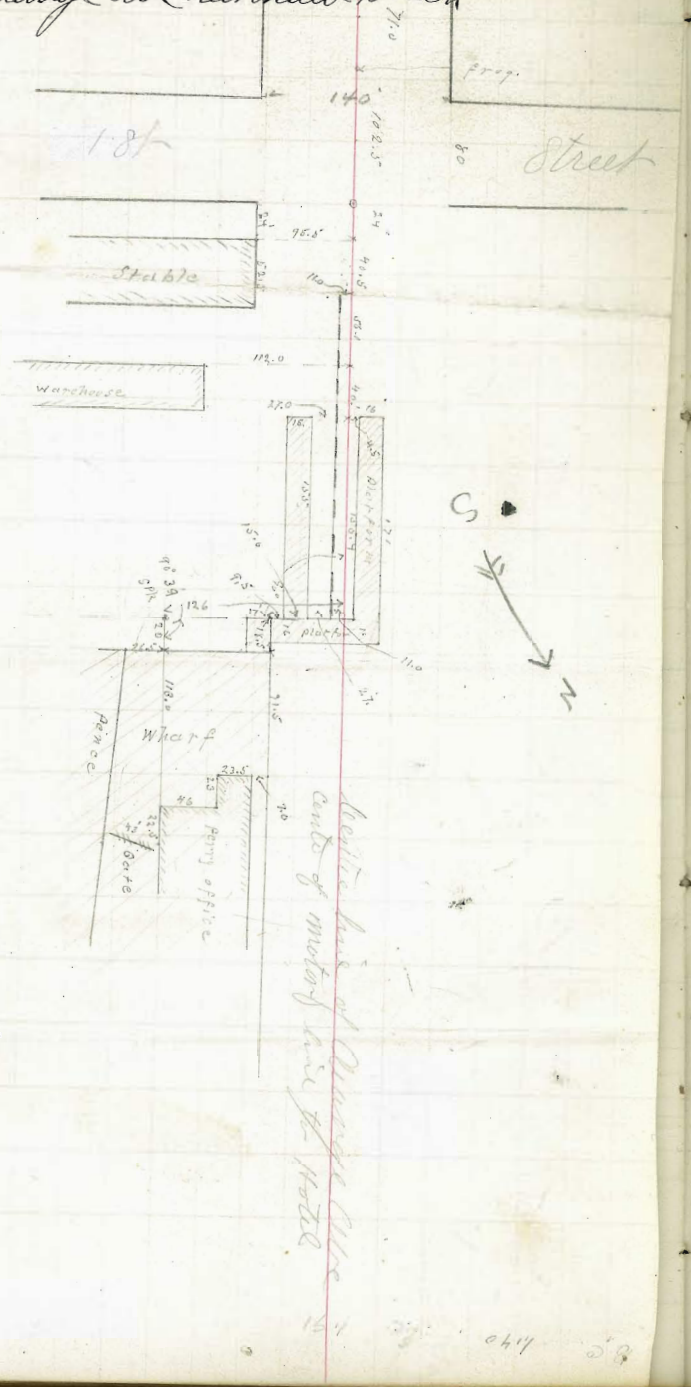
Oct. 24th 1892 — Shaw Level, Crowell Road

	+	H.I.	−	Elev	S.W. Cor Fir
B.M.	10.16	163.63	1.32	162.31	153.47
	8.86	171.17			
Property			Rod 5.92	165.25	
			3.92	167.25	
Curb			6.17	165.00	
			4.17	167.00	
X			1.46	169.71	
	8.46	178.17			
				153.47	
	10.01	163.48			
	8.36	171.21	0.63	162.85	
Curb			6.21	165.00	
			4.21	167.00	
	10.31	180.49	1.03	170.18	
B.M.			4.37	176.12	

B.M. – S.W. cor Fir 153.47
N.E. " Grape 176.15



Sketch of Wharf and Platforms at north end of Orange ave Coronado Beach



	NW	NE	SW	SE
1st	19.30	19.30	19.55	19.55
2nd	21.10	21.10	21.35	21.35
3rd	27.35	27.35	27.60	27.60
4th	32.00	32.00	32.00	32.00
5th	29.50	29.50	29.29	29.29
6th	27.99	27.99	27.87	27.87
7th	27.17	27.17	27.17	27.17
8th	27.17	27.17	27.17	27.17
9th	25.97	25.97	25.78	25.78
10th	23.35	23.35	23.35	23.35
	33			
	23.68			

NW cor Sidewalk (south side post) 18.98

NW cor plug 18.63 SW cor 18.91

SW " " 21.40

NW cor plug 30.74

SW cor plug 27.37

NE cor. 27.457 SW cor plug 27.83

25.97
33
26.30
11
19

25.78
33
26.11

Curve at 5th & Orange

Sta	Def	Tang
+35	6° 53	20° 40'
1+10	6° 53'	
+85	6° 53'	
+60	6° 53	14° 42'
0	7° 21	

Sta 0 B.C. 24° 30' C. to Right I 14° 42' PI

Not set 47.08' to point of frog.

Tied out as shown.

Plg Def from 75' 20° 40'

P.C.C 54° 50' C to R

Rad 104.5'

Stake 20 — tack in plank walk

Poles — Pole

"Bench Marks"
Coronado
South Island

BM in Park		27.47	
S.E.		28.27	
N.W. cor Orange and 7th		26.71	
		(27.78)	
S.W. " " " 8th		27.83	
S.W. " " "		(24.75)	
N.W. " " " 9th		24.99	
		(22.25)	
N.W. " " " 10th		22.36	
N.E. " " " 8th		27.45	
S.W.		24.79	
S.E. " " " 9th		25.51	
S.W. " " " Park Plaza		23.24	
N.E. " " " Ave.		25.77	(25.68)
N.W. " " " Adillo		26.58	(26.52)
		28.22	(28.38)
N.W. " 5th St		31.43	
N.W. " 4th "		33.86	
N.E. " 3rd "		27.67	
S.W. " 2nd		21.38	
S.E. " 1st		20.64	
On Wharf		13.27	

Plug at blk cor
Park sidewalk alongside of fire

Block plug-
" "
" "

" "

" "

" "
" "
" "

East drift bolt Elec. mast *

Plug-
S.W. cor Block 4
Plug W. side of sidewalk Roadway to Hotel -
Tack in water table of store
S.E. bolt of Elec light mast.
Plug at blk cor
" " " "
Tack top of guard post by hydt.
" in floor of wharf near S.E. cor of Ferry office

Coronado Official B.M.

The Coronado Official bench mark is set 4 ft. from the Block line and 25 ft from the South Westerly corner of Orange avenue and sixth Street in the Park: the top is 2" above ground. It is marked "C" on top, BM on north side and 1891 on South side - a granite stone, dressed 6" square on top with copper plug in centre.

The Elevation is (27.47) twenty seven and forty seven one hundreths above datum plane of mean lower low waters and is identical with the U.S. Bench Mark at La Playa, San Diego Bay.

To be platted on Scale of 50 ft to inch.

		h	m.	feet
Sat. 28th -	L.	4	57	1.2
	H.	11	51	4.3
	Lu.	16	24	2.9

27.06 +50
24
27.30 16
23
27.53 +50
24
27.77 17
23
28.00 +50
27
28.25 18
23
28.50 +50
25
28.75 19

474
237

Return to City Engineers Office
City Hall, San Diego, Cal.

Return to City Engineers Office
City Hall, San Diego, Cal.

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TABLE I.—Minutes in Decimals of a Degree.

1′	.0167	**11′**	.1833	**21′**	.3500	**31′**	.5167	**41′**	.6833	**51′**	.8500
2	.0333	**12**	.2000	**22**	.3667	**32**	.5333	**42**	.7000	**52**	.8667
3	.0500	**13**	.2167	**23**	.3833	**33**	.5500	**43**	.7167	**53**	.8333
4	.0667	**14**	.2333	**24**	.4000	**34**	.5667	**44**	.7333	**54**	.9000
5	.0833	**15**	.2500	**25**	.4167	**35**	.5833	**45**	.7500	**55**	.9167
6	.1000	**16**	.2667	**26**	.4333	**36**	.6000	**46**	.7667	**56**	.9333
7	.1167	**17**	.2833	**27**	.4500	**37**	.6167	**47**	.7833	**57**	.9500
8	.1333	**18**	.3000	**28**	.4667	**38**	.6333	**48**	.8000	**58**	.9667
9	.1500	**19**	.3167	**29**	.4833	**39**	.6500	**49**	.8167	**59**	.9833
10	.1667	**20**	.3333	**30**	.5000	**40**	.6667	**50**	.8333	**60**	1.0000

TABLE II.—Inches in Decimals of a Foot.

1–16	3–32	⅛	3–16	¼	5–16	⅜	½	⅝	¾	⅞
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729

1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

TABLE III.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid. Ord.	Tan. Def.	Chd. Def.	Def. for 1 Foot	Deg.	Radius	Mid. Ord.	Tan. Def.	Chd. Def.	Def. for 1 Foot
0°10′	34377.	.036	.145	.291	0.05′	**7°**	819.0	1.528	6.105	12.21	2.10′
20	17189.	.073	.291	.582	0.10	20′	781.8	1.600	6.305	12.79	2.20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13 08	2.25
40	8594.4	.145	.582	1.164	0.20	40	747 9	1.673	6.685	13.37	2.30
50	6875.5	.182	.727	1.454	0 25	**8**	716.8	1.746	6.976	13.95	2.40
1	5729.6	.218	.873	1.745	0.30	20	638.2	1.819	7.236	14.53	2.50
10	4911.2	.255	1.018	2.036	0.35	30	674.7	1.855	7.411	14.82	2.55
20	4297.3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2.60
30	3819.8	.327	1.309	2.618	0.45	**9**	637.3	1.965	7.846	15.69	2.70
40	3437.9	.364	1.454	2.909	0.50	20	614.6	2.037	8.136	16.27	2.80
50	3125.4	.400	1.600	3.200	0 55	30	603.8	2.074	8.281	16.56	2 85
2	2864.9	.436	1.745	3.490	0.60	40	593.4	2.110	8.426	16.85	2 90
10	2644.6	.473	1 891	3.781	0.65	**10**	573.7	2.183	8.716	17.43	3.00
20	2455.7	.509	2.036	4.072	0.70	30	546.4	2.292	9.150	18.30	3.15
30	2292.0	.545	2.181	4.363	0.75	**11**	521.7	2.402	9.585	19.16	3.30
40	2148.8	.582	2.327	4.654	0.80	30	499.1	2.511	10.02	20.04	3 45
50	2022.4	.618	2.472	4.945	0.85	**12**	478.3	2.620	10.45	20.91	3.60
3	1910.1	.655	2.618	5.235	0 90	30	459.3	2.730	10.89	21.77	3.75
10	1809.6	.691	2.763	5.526	0.95	**13**	441.7	2.839	11.32	22.64	3.90
20	1719.1	.727	2.908	5.817	1 00	30	425.4	2.949	11.75	23.51	4.05
30	1637.3	.764	3.054	6.108	1.05	**14**	410.3	3.058	12.18	24.37	4.20
40	1562.9	.800	3.199	6.398	1.10	30	396.2	3.168	12.62	25.24	4.35
50	1495.0	.836	3.345	6.689	1.15	**15**	383.1	3.277	13.05	26.11	4.50
4	1432.7	.873	3.490	6.980	1.20	30	370.8	3 387	13.49	26.97	4.65
10	1375.4	.909	3.635	7.271	1.25	**16**	359.3	3.496	13.92	27.84	4.80
20	1322.5	.945	3.718	7.561	1.30	30	348.5	3.606	14.35	28.70	4.95
30	1273.6	.982	3.926	7.852	1.35	**17**	338.3	3.716	14.78	29.56	5.10
40	1228.1	1.018	4.071	8.143	1.40	**18**	319.6	3 935	15.64	31.29	5.40
50	1185.8	1.055	4.217	8.433	1 45	**19**	302.9	4.155	16.51	33.01	5.70
5	1146 3	1.091	4.362	8.724	1 50	**20**	287.9	4.374	17.37	34.73	6.00
10	1109.3	1.127	4.507	9.014	1 55	**21**	274.4	4.594	18.22	36.44	6.30
20	1074.7	1.164	4.653	9.305	1.60	**22**	262 0	4 814	19.08	38.16	6.60
30	1042.1	1.200	4.798	9.596	1.65	**23**	250.8	5.035	19.94	39.87	6.90
40	1011.5	1.237	4.943	9.886	1.70	**24**	240.5	5.255	20.79	41.58	7 20
50	982.6	1.273	5.088	10.18	1.75	**25**	231.0	5.476	21.64	43.28	7.50
6	955.4	1.309	5.234	10.47	1 80	**26**	222.3	5.697	22.50	44.99	7.80
10	929.6	1.346	5.379	10.76	1.85	**27**	214 2	5.918	23.35	46.69	8.10
20	905.1	1.382	5.524	11.05	1.90	**28**	206.7	6.139	24.19	48.38	8.40
30	881.9	1.418	5.669	11.34	1.95	**29**	199.7	6.360	25.04	50 07	8.70
40	859.9	1.455	5.814	11.63	2.00	**30**	193.2	6 583	25.88	51.76	9.00