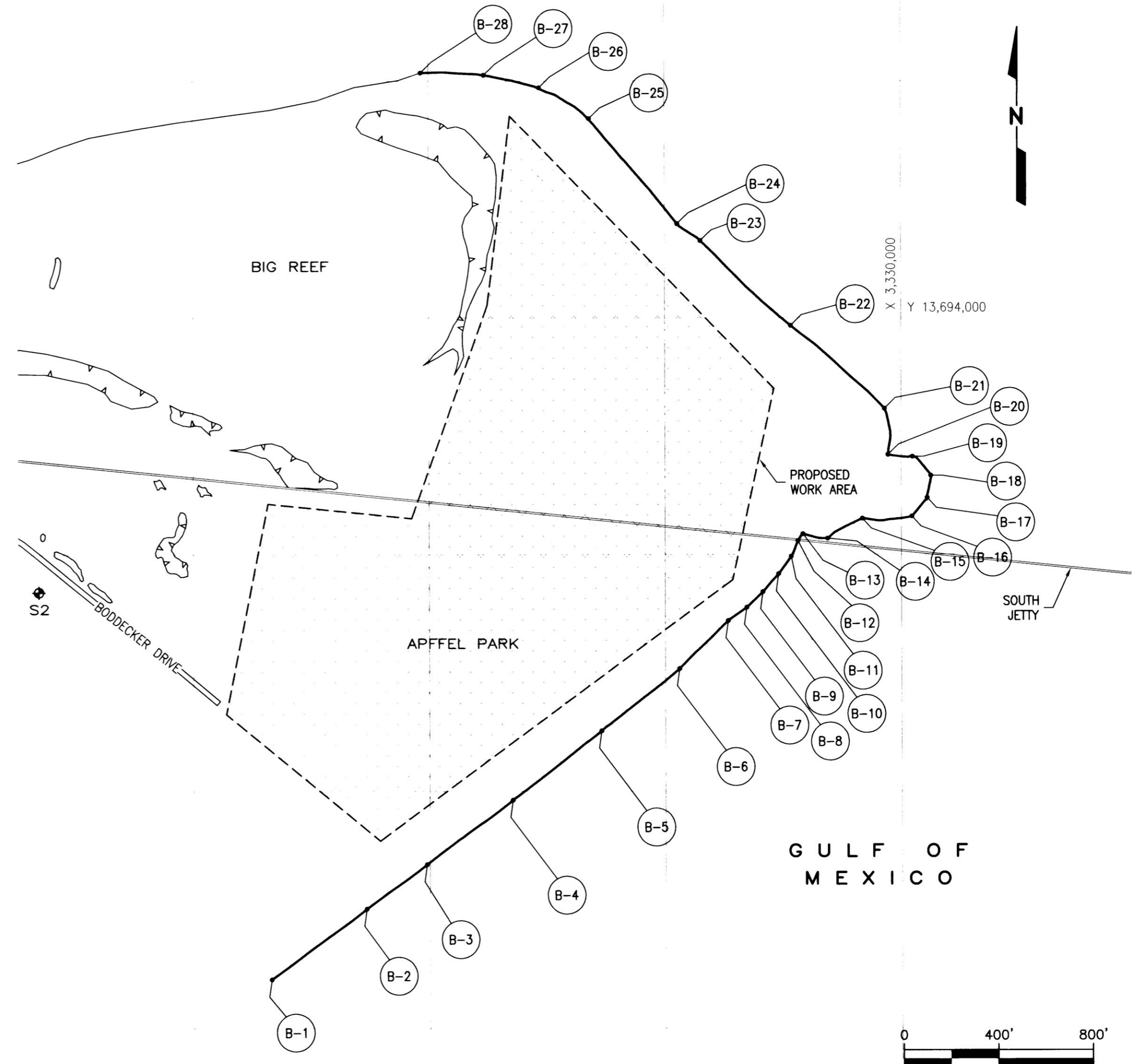


SCHEDULE: MHHW COORDINATES			
MHHW POINT	X-COORDINATE	Y-COORDINATE	ELEVATION (NAVD '88)
A-1	3,324,341	13,693,594	+1.4'
A-2	3,323,506	13,693,682	+1.4'
A-3	3,323,043	13,693,733	+1.4'
A-4	3,322,583	13,693,761	+1.4'
A-5	3,322,442	13,693,706	+1.4'
A-6	3,322,365	13,693,745	+1.4'
A-7	3,322,470	13,693,756	+1.4'
A-8	3,322,179	13,693,815	+1.4'
A-9	3,321,800	13,693,991	+1.4'
A-10	3,321,521	13,694,074	+1.4'
A-11	3,323,601	13,693,881	+1.4'
A-12	3,323,389	13,693,873	+1.4'
A-13	3,323,146	13,693,801	+1.4'
A-14	3,322,981	13,693,829	+1.4'
A-15	3,322,856	13,693,807	+1.4'
A-16	3,322,603	13,693,840	+1.4'
A-17	3,322,438	13,693,884	+1.4'
A-18	3,322,288	13,693,922	+1.4'
A-19	3,322,146	13,693,920	+1.4'
A-20	3,322,107	13,694,013	+1.4'
A-21	3,322,422	13,694,002	+1.4'
A-22	3,322,880	13,694,027	+1.4'
A-23	3,322,966	13,693,964	+1.4'
A-24	3,323,013	13,694,018	+1.4'
A-25	3,323,149	13,694,054	+1.4'
A-26	3,323,256	13,694,039	+1.4'

SCHEDULE: MHHW COORDINATES			
MHHW POINT	X-COORDINATE	Y-COORDINATE	ELEVATION (NAVD '88)
B-1	3,327,328	13,691,206	+1.4'
B-2	3,327,732	13,691,504	+1.4'
B-3	3,327,988	13,691,692	+1.4'
B-4	3,328,353	13,691,963	+1.4'
B-5	3,328,729	13,692,255	+1.4'
B-6	3,329,060	13,692,517	+1.4'
B-7	3,329,266	13,692,720	+1.4'
B-8	3,329,345	13,692,776	+1.4'
B-9	3,329,413	13,692,842	+1.4'
B-10	3,329,480	13,692,918	+1.4'
B-11	3,329,534	13,692,992	+1.4'
B-12	3,329,562	13,693,058	+1.4'
B-13	3,329,583	13,693,087	+1.4'
B-14	3,329,688	13,693,068	+1.4'
B-15	3,329,835	13,693,153	+1.4'
B-16	3,330,045	13,693,161	+1.4'
B-17	3,330,109	13,693,240	+1.4'
B-18	3,330,125	13,693,334	+1.4'
B-19	3,330,047	13,693,414	+1.4'
B-20	3,329,944	13,693,422	+1.4'
B-21	3,329,929	13,693,617	+1.4'
B-22	3,329,533	13,693,967	+1.4'
B-23	3,329,152	13,694,326	+1.4'
B-24	3,329,053	13,694,397	+1.4'
B-25	3,328,881	13,694,842	+1.4'
B-26	3,328,469	13,694,973	+1.4'
B-27	3,328,235	13,695,026	+1.4'
B-28	3,327,967	13,695,035	+1.4'



2 SURVEY PLAN - DREDGED MATERIAL PLACEMENT LOCATION
SCALE: GRAPHIC

NOTES:

- COORDINATES SHOWN ARE IN FEET BASED ON LAMBERT GRID, TEXAS SOUTH CENTRAL ZONE, NAD '83 (1993).
- ELEVATIONS AND CONTOURS SHOWN ARE IN FEET BASED ON NAVD '88.
- ALL SURVEYING WAS PERFORMED BY SHINER MOSELEY & ASSOCIATES, INC. WITH THE ASSISTANCE OF MICHAEL HAAS, LICENSED STATE LAND SURVEYOR, DURING JULY 2001, AUGUST 2001, AND APRIL 2002.

LEGEND:

- S1 SURVEY CONTROL POINT (SEE TABLE)
- PROPOSED WORK AREA
- PONDED AREA
- MHHW COORDINATES (SEE SCHEDULE)
- MHHW MEAN HIGHER HIGH WATER

SURVEY CONTROL					
No.	NAME	ELEVATION	NORTHING	EASTING	DESCRIPTION
S1	HGSD 63	2.33'	13,693,607.83	3,321,588.01	STAINLESS STEEL ROD
S2	TOWNSEND	4.60'	13,692,841.20	3,326,346.22	STAINLESS STEEL ROD

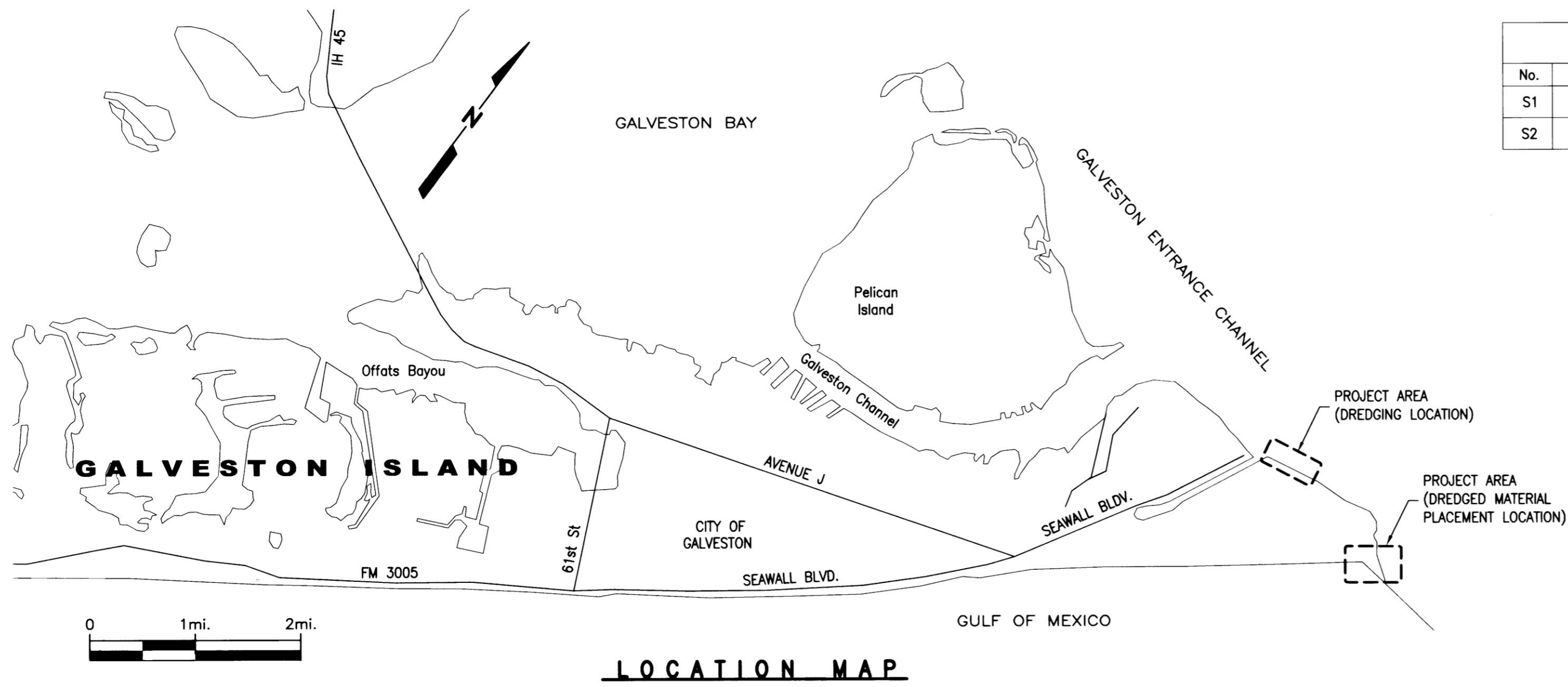
WE, SHINER MOSELEY AND ASSOCIATES, INC., WITH THE ASSISTANCE OF MICHAEL HAAS, LICENSED STATE LAND SURVEYOR IN THE STATE OF TEXAS, HEREBY STATE THAT THIS DRAWING REPRESENTS THE CONDITIONS THAT EXISTED AT THE TIME OF THE BEACH SURVEYS CONDUCTED ON JULY 2001, AUGUST 2001, AND APRIL 2002.

THIS SURVEY DOES NOT NOR IS IT INTENDED TO BE USED TO IDENTIFY, DELINEATE OR FIX THE LINE OF VEGETATION OR THE LANDWARD BOUNDARY OF THE PUBLIC BEACH.

NOTICE: THIS SURVEY WAS PERFORMED IN ACCORDANCE WITH SECTION 33.136, NATURAL RESOURCES CODE, FOR THE PURPOSE OF EVIDENCING THE LOCATION OF THE SHORELINE IN THE AREAS DEPICTED IN THIS SURVEY AS THAT SHORELINE EXISTED BEFORE COMMENCEMENT OF EROSION RESPONSE ACTIVITY ON THE PUBLIC BEACH, AS REQUIRED BY CHAPTER 33, NATURAL RESOURCES CODE. THE LINE DEPICTED ON THIS SURVEY FIXES THE SHORELINE FOR THE PURPOSE OF LOCATING A SHORELINE BOUNDARY, SUBJECT TO EROSION LANDWARD AS PROVIDED BY SECTION 33.136, NATURAL RESOURCES CODE.


George Rubalcaba
GEORGE RUBALCABA
REGISTERED PROFESSIONAL LAND SURVEYOR

Michael Haas
MICHAEL HAAS, RPLS
LICENSED STATE LAND SURVEYOR



LOCATION MAP

TEXAS GENERAL LAND OFFICE
Art. 33.136 Natural Resources Code
County Galveston, Sk. No. 12
File Date 4-12-2002 by DJH

APP		DESCRIPTION		ISSUED TO	GLO
REV	0	DATE	06-07-02		
DRJ		DATE	4/29/02		
CHK		DATE			
DATE		AS NOTED			
FILE		# 20093-02-C1.DWG			
NO.		200.20093.02			
 SHINER MOSELEY AND ASSOCIATES, INC. ENGINEERS & CONSULTANTS 555 North Carancahua Street, Suite 1650 Corpus Christi, Texas 78478					
TEXAS GENERAL LAND OFFICE	BEACH SURVEY AT BIG REEF AREA			TEXAS	SURVEY PLAN
SHEET					
C1					
OF 1 REV 0					

J:\SWACAD\Projects\20093\20093.dwg 02/20093-02-C1.dwg 06/07/2002 10:21:07 AM CDT



June 10, 2002

J200.20093.02

Mr. Ben Thomson
Texas General Land Office
1700 N. Congress Avenue
Austin, TX 78701-1495

**RE: BEACH SURVEY AT BIG REEF AREA, GALVESTON, TEXAS
(STATE COASTAL BOUNDARY SURVEY)**

Dear Mr. Thomson:


Enclosed is the tidal information from the Pleasure Pier Gauge, which was the basis for our surveys. We used Pleasure Pier data since you indicated that this data would be acceptable in our previous survey of West Galveston Island and this survey is in the same general area.

Based on our survey, and leveling from the benchmarks at Pleasure Pier to the various benchmarks along the scope of our project, the MHHW line was determined to be at elevation +1.40' NAVD '88. The main control used were NGS monuments "HGCSO 63" and "Townsend" as indicated on the drawing.

Thank you for your time and assistance on this and previous projects. Should you have any questions, just call.

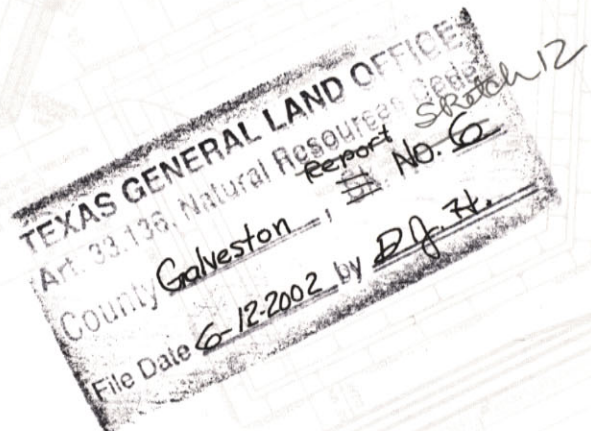
Sincerely,

SHINER MOSELEY & ASSOCIATES, INC.


George Rubalcaba, P.E., R.P.L.S.
Project Manager

Gr/djp

Enclosures: Tidal Datum's - NOAA



B

counter 61799



Conrad Blucher Institute
Division of Nearshore Research

Contact Us

10 Jun 2002 18:48 UTC

021: Galveston Pleasure Pier

Gulf of Mexico, Texas
29° 17.1' N 94° 47.3' W

GALVPL
87715101

Overview Datums Bench Marks Data Query Site Visit Daily QC Messages Attributes

Tidal Datums - NOAA

Station Information

Location: Gulf of Mexico, Texas

CBI 021 NOAA 87715101
Latitude: 29° 17.1' N NOAA Chart: 11323
Longitude: 94° 47.3' W USGS Quad: Galveston, TX

Elevations

These datums have been provided to TCOON by the National Ocean Service. Official values for this station should be retrieved from NOS directly (available [here](#)).

Status = NOAA
Date computed = 01-Jan-1970
Length of observations = 19 years
Time Period = 1960-78
Control Station = 1st Reduction (1960-1978)
Accuracy = unstated

Elevations of datums above station datum:

	Meters	Feet
Mean Higher High Water (MHHW)	1.691	5.55
Mean High Water (MHW)	1.620	5.31
Mean Tide Level (MTL)	1.406	4.61
Mean Sea Level (MSL)	1.401	4.60
Mean Low Water (MLW)	1.193	3.91
Mean Lower Low Water (MLLW)	1.042	3.42
Station Datum (STND)	0.000	0.00
NAVD '88		4.11

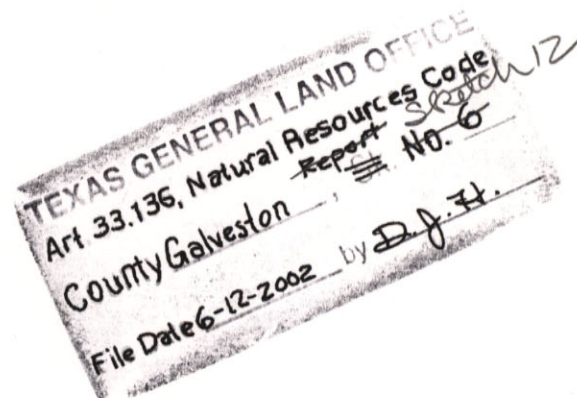
Bench mark elevations above datum:

Bench Mark Stamping	Meters above						
	MHHW	MHW	MTL	MSL	MLW	MLLW	STND
NO 43 1957	6.914	6.985	7.199	7.204	7.412	7.563	8.605
S 449 5	3.946	4.017	4.231	4.236	4.444	4.595	5.637
BM NO 10 1973	3.929	4.000	4.214	4.219	4.427	4.578	5.620
NO 44 1957	3.938	4.009	4.223	4.228	4.436	4.587	5.629
E 168 1936	3.959	4.030	4.244	4.249	4.457	4.608	5.650

Bench Mark Stamping	Feet above							NAVD '88
	MHHW	MHW	MTL	MSL	MLW	MLLW	STND	
NO 43 1957	22.68	22.92	23.62	23.64	24.32	24.81	28.23	24.12
S 449 5	12.95	13.18	13.88	13.90	14.58	15.08	18.49	14.39

<http://dnr.cbi.tamucc.edu/datum/021>

6/10/2002



<u>BM NO 10 1973</u>	12.89	13.12	13.83	13.84	14.52	15.02	18.44	14.33
<u>NO 44 1957</u>	12.92	13.15	13.85	13.87	14.55	15.05	18.47	14.37
<u>E 168 1936</u>	12.99	13.22	13.92	13.94	14.62	15.12	18.54	14.44

Bench Mark Descriptions

BENCH MARK STAMPING: NO 43 1957
 MONUMENTATION: Benchmark Disk
 AGENCY:


BENCH MARK STAMPING: S 449 5
 MONUMENTATION: Benchmark disk
 AGENCY:

BENCH MARK STAMPING: BM NO 10 1973
 MONUMENTATION: Benchmark Disk
 AGENCY:

BENCH MARK STAMPING: NO 44 1957
 MONUMENTATION: Benchmark Disk
 AGENCY:

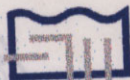
BENCH MARK STAMPING: E 168 1936
 MONUMENTATION: Benchmark Disk
 AGENCY:

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 Conrad Blucher Institute for Surveying and Science
 Division of Nearshore Research

 Texas A&M University-Corpus Christi
 The Island University
 6300 Ocean Drive, Corpus Christi, Texas 78412-5503

TEXAS GENERAL LAND OFFICE
 Art. 33.136, Natural Resources Code
 County Galveston, Report No. 6
 File Date 6-12-2002 by D. J. H.

B₂



SHINER MOSELEY AND ASSOCIATES, INC.
ENGINEERS & CONSULTANTS

555 N. Carancahua, Suite 1650, Corpus Christi, TX 78478
Phone: 361-857-2211 Fax: 361-857-7234
www.shinermoseley.com

SMA Job #200.20093
June 2002

inates.xls

IRON Co.
1.33.136
No. 6
12

POINTS
A-1 thru A-26
B-1 thru B-28

NRC Article 33.136
Galveston Sketch 12
Area: Big Reef
Counter 61798

Texas General Land Office
Beach Survey at Big Reef Area
Disk 1 of 1

GLO

Rcvd. 6-11-2002

Houston Office: 3300 S. Gessner, Suite 111, Houston, TX 77063
Phone: 713-975-0033 Fax: 713-975-9515

Co. 4- 61798