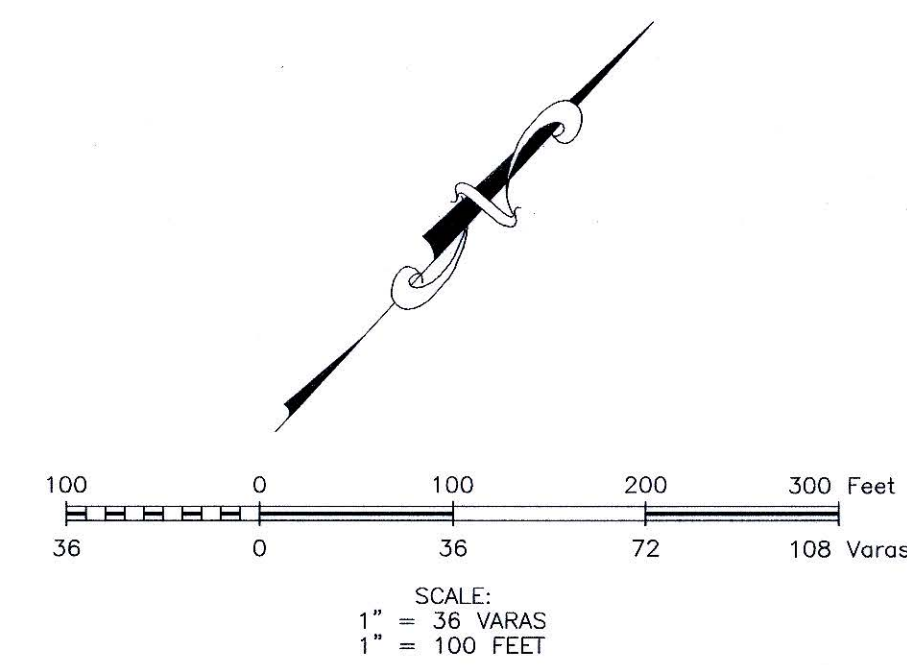
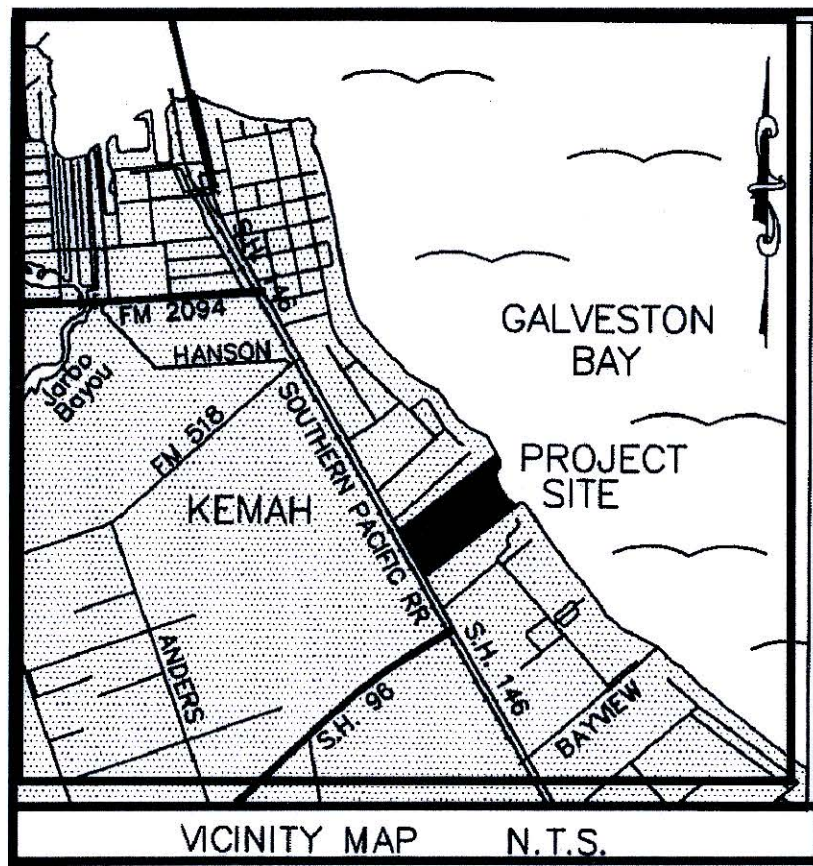


A SURVEY OF THE LINE OF
MEAN HIGHER HIGH WATER ALONG
A PORTION OF GALVESTON BAY ADJACENT
TO THE M. MULDOON TWO LEAGUE GRANT
ABSTRACT NUMBER 18
GALVESTON COUNTY, TEXAS



FIELD NOTE DESCRIPTION (MAINLAND AREA)

Being the line of Mean Higher High Water of Galveston Bay State Submerged Tract No. 302, along a portion of the Miguel Muldoon Two League Grant, Abstract Number 18, Galveston County, Texas. The meander line of said Mean Higher High Water being more particularly described as follows (coordinates and bearings are grid values referenced to the Texas Coordinate System of 1983, South Central Zone and NGS Monuments "HCSD 53" and "HCSD 50". Distances shown are surface distances unless noted and may be converted to grid distances by multiplying by a scale factor of 0.999875000):

COMMENCING at NGS Monument "HCSD 53" which has grid coordinates of N=13,774,702.40 feet (4,958,892.864 varas) and E=3,233,162.51 feet (1,165,938.504 varas), from which NGS Monument "HCSD 50" bears North 15°34'03" East;

THENCE, South 20°06'25" East, a grid distance of 12,059.28 feet (4,341.340 varas) to a point on the line of Mean Higher High Water of Galveston Bay and the easterly line of said Miguel Muldoon Two League Grant for the POINT OF BEGINNING and northerly end of said meander line, having grid coordinates of N=13,763,378.10 feet (4,954,816.115 varas) and E=3,237,308.15 feet (1,165,430.933 varas);

THENCE, in a generally southerly direction, along said meander line of Mean Higher High Water of Galveston Bay the following thirty-four (34) courses:

- (L1) South 24°54'40" East, a distance of 2.36 feet (0.848 varas) to a point;
- (L2) South 47°57'20" West, a distance of 19.29 feet (6.945 varas) to a point;
- (L3) South 32°08'48" West, a distance of 9.25 feet (3.331 varas) to a point;
- (L4) South 13°12'27" East, a distance of 15.29 feet (5.504 varas) to a point;
- (L5) South 10°41'11" West, a distance of 20.05 feet (7.219 varas) to a point;
- (L6) South 62°06'44" West, a distance of 18.30 feet (6.586 varas) to a point;
- (L7) South 13°46'01" West, a distance of 20.16 feet (7.256 varas) to a point;
- (L8) South 11°25'56" East, a distance of 31.68 feet (11.406 varas) to a point;
- (L9) South 28°23'06" East, a distance of 46.12 feet (16.604 varas) to a point;
- (L10) South 04°00'47" East, a distance of 49.30 feet (17.750 varas) to a point;
- (L11) South 09°44'10" East, a distance of 16.79 feet (6.045 varas) to a point designated as Point "A";
- (L12) South 29°10'12" West, a distance of 46.54 feet (16.754 varas) to a point;
- (L13) South 47°43'37" West, a distance of 54.91 feet (19.796 varas) to a point;
- (L14) South 32°33'13" West, a distance of 39.94 feet (14.377 varas) to a point;
- (L15) South 08°05'11" West, a distance of 43.56 feet (15.882 varas) to a point;
- (L16) South 05°21'28" East, a distance of 45.13 feet (16.248 varas) to a point;
- (L17) South 07°07'42" East, a distance of 48.87 feet (17.593 varas) to a point;
- (L18) South 12°31'34" East, a distance of 23.61 feet (8.500 varas) to a point;
- (L19) South 15°52'49" East, a distance of 50.94 feet (18.339 varas) to a point;
- (L20) South 22°47'25" East, a distance of 52.64 feet (18.951 varas) to a point;
- (L21) South 27°09'47" East, a distance of 49.00 feet (17.640 varas) to a point;
- (L22) South 27°51'16" East, a distance of 49.04 feet (17.655 varas) to a point;
- (L23) South 30°52'53" East, a distance of 48.29 feet (17.383 varas) to a point;
- (L24) South 34°12'09" East, a distance of 52.69 feet (18.969 varas) to a point;
- (L25) South 35°57'29" East, a distance of 52.67 feet (18.960 varas) to a point;
- (L26) South 39°40'00" East, a distance of 47.87 feet (17.233 varas) to a point;
- (L27) South 86°35'40" East, a distance of 13.51 feet (4.865 varas) to a point;
- (L28) North 71°44'31" East, a distance of 20.63 feet (7.427 varas) to a point;
- (L29) North 54°05'46" East, a distance of 11.47 feet (4.128 varas) to a point;
- (L30) North 87°36'44" East, a distance of 23.44 feet (8.439 varas) to a point;
- (L31) South 83°04'35" East, a distance of 17.37 feet (6.252 varas) to a point;
- (L32) South 88°38'25" East, a distance of 32.65 feet (11.754 varas) to a point;
- (L33) North 85°15'51" East, a distance of 18.90 feet (6.805 varas) to a point;
- (L34) South 51°19'58" East, a distance of 3.29 feet (1.184 varas) to the end of said meander line, having grid coordinates of N=13,762,545.40 feet (4,954,516.342 varas) and E=3,237,554.53 feet (1,165,519.631 varas).

FIELD NOTE DESCRIPTION (REMNANT AREA)

Being the line of Mean Higher High Water of Galveston Bay State Submerged Tract No. 302, along a remnant portion of the Miguel Muldoon Two League Grant, Abstract Number 18, Galveston County, Texas. The meander line of said Mean Higher High Water being more particularly described as follows (coordinates and bearings are grid values referenced to the Texas Coordinate System of 1983, South Central Zone and NGS Monuments "HCSD 53" and "HCSD 50". Distances shown are surface distances unless noted and may be converted to grid distances by multiplying by a scale factor of 0.999875000):

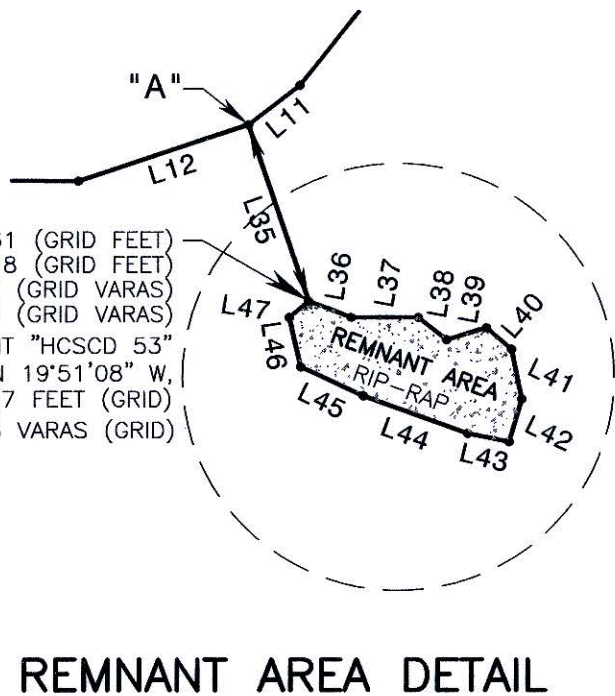
COMMENCING at the point designated as Point "A" referenced above;

THENCE, (L35) South 61°07'14" East, a distance of 48.73 feet (17.542 varas) to a point on the line of Mean Higher High Water of Galveston Bay for the POINT OF BEGINNING and northwesterly corner said remnant area of the Miguel Muldoon Two League Grant, having grid coordinates of N=13,763,131.61 feet (4,954,727.381 varas) and E=3,237,340.18 feet (1,165,442.465 varas);

THENCE, in an easterly, southerly, westerly and northerly direction, along said meander line of Mean Higher High Water of Galveston Bay the following twelve (12) courses:

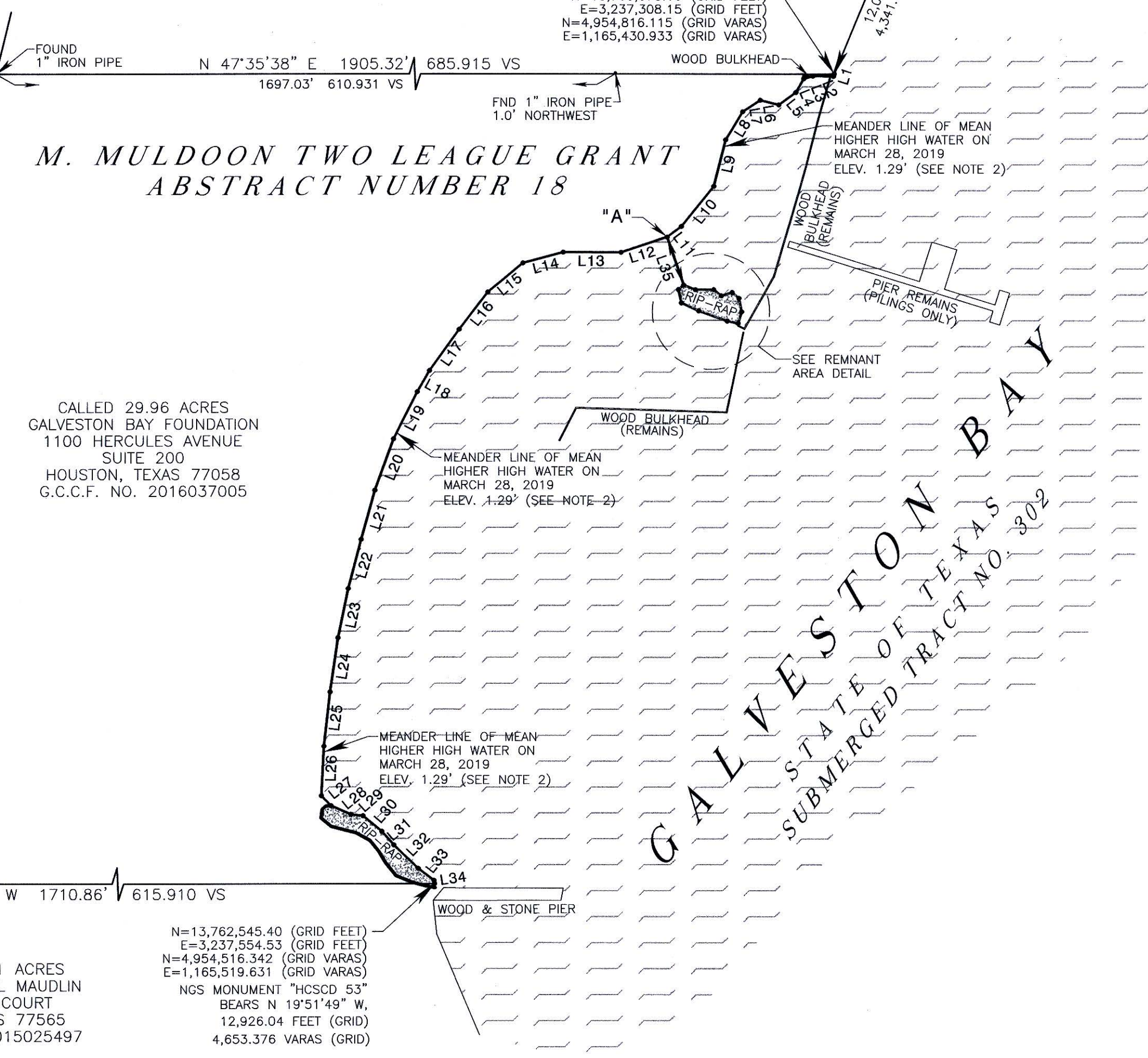
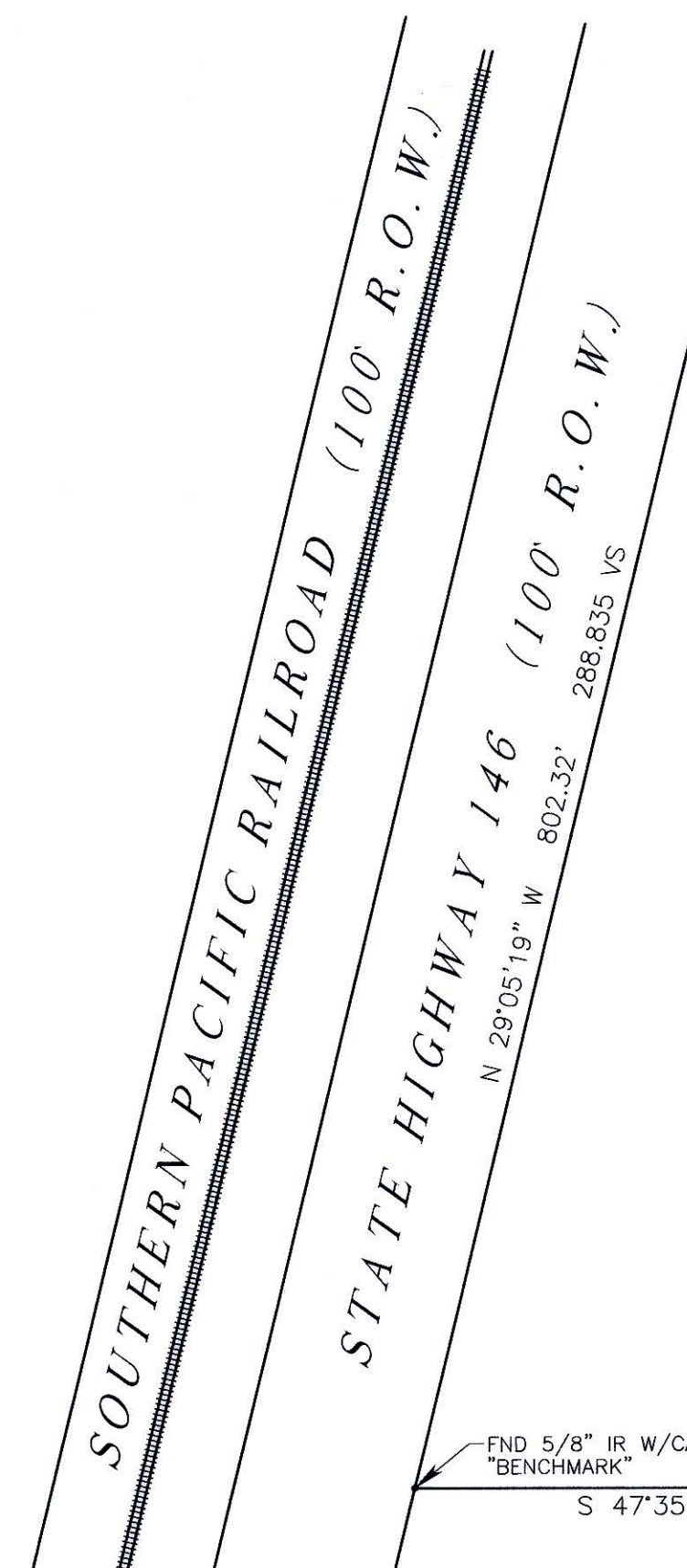
- (L36) North 68°39'21" East, a distance of 11.90 feet (4.283 varas) to a point;
- (L37) North 47°34'34" East, a distance of 17.30 feet (6.227 varas) to a point;
- (L38) North 86°17'23" East, a distance of 9.30 feet (3.346 varas) to a point;
- (L39) North 30°20'08" East, a distance of 10.73 feet (3.864 varas) to a point;
- (L40) North 88°24'39" East, a distance of 8.88 feet (3.123 varas) to a point;
- (L41) South 53°53'40" East, a distance of 13.27 feet (4.777 varas) to a point;
- (L42) South 25°43'06" East, a distance of 11.64 feet (4.190 varas) to a point;
- (L43) South 59°06'43" West, a distance of 10.87 feet (3.913 varas) to a point;
- (L44) South 67°33'28" West, a distance of 28.65 feet (10.315 varas) to a point;
- (L45) South 72°47'25" West, a distance of 17.96 feet (6.467 varas) to a point;
- (L46) North 55°23'32" West, a distance of 13.24 feet (4.765 varas) to a point;
- (L47) North 07°39'16" East, a distance of 6.58 feet (2.367 varas) to the POINT OF BEGINNING.

LINE	BEARING	DIST. FEET	DIST. VARAS
L1	S 24°54'40" E	2.36	0.848
L2	S 47°57'20" W	19.29	6.945
L3	S 32°08'48" W	9.25	3.331
L4	S 13°12'27" E	15.29	5.504
L5	S 10°41'11" W	20.05	7.219
L6	S 62°06'44" W	18.30	6.586
L7	S 13°46'01" W	20.16	7.256
L8	S 11°25'56" E	31.68	11.406
L9	S 28°23'06" E	46.12	16.604
L10	S 04°00'47" E	49.30	17.750
L11	S 09°44'10" W	16.79	6.045
L12	S 29°10'12" W	46.54	16.754
L13	S 47°43'37" W	54.91	19.766
L14	S 32°33'13" W	39.94	14.377
L15	S 08°05'11" W	43.56	15.682
L16	S 05°21'28" E	45.13	16.248
L17	S 07°07'42" E	48.87	17.593
L18	S 12°31'34" E	23.61	8.500
L19	S 15°52'49" E	50.94	18.339
L20	S 22°47'25" E	52.64	18.951
L21	S 27°09'47" E	49.00	17.640
L22	S 27°51'16" E	49.04	17.655
L23	S 30°52'53" E	48.29	17.383
L24	S 34°12'09" E	52.69	18.969
L25	S 35°57'29" E	52.67	18.960
L26	S 39°40'00" E	47.87	17.233
L27	S 86°35'40" E	13.51	4.865
L28	N 71°44'31" E	20.63	7.427
L29	N 54°05'46" E	11.47	4.128
L30	N 87°36'44" E	23.44	8.439
L31	S 83°04'35" E	17.37	6.252
L32	S 88°38'25" E	32.65	11.754
L33	N 85°15'51" E	18.90	6.805
L34	S 51°19'58" E	3.29	1.184
L35	S 61°07'14" E	48.73	17.542
L36	N 68°39'21" E	11.90	4.283
L37	N 47°34'34" E	17.30	6.227
L38	N 86°17'23" E	9.30	3.346
L39	N 30°20'08" E	10.73	3.864
L40	N 88°24'39" E	8.88	3.123
L41	S 53°53'40" E	13.27	4.777
L42	S 25°43'06" E	11.64	4.190
L43	S 59°06'43" W	10.87	3.913
L44	S 67°33'28" W	28.65	10.315
L45	S 72°47'25" W	17.96	6.467
L46	N 55°23'32" W	13.24	4.765
L47	N 07°39'16" E	6.58	2.367



REMNANT AREA DETAIL

SCALE:
1" = 18 VARAS
1" = 50 FEET



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 area depicted in this survey as that shoreline existed before commencement of erosion response activity, 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 movement landward as provided by Section 33.136, Natural Resources Code.

NOTES:

- 1) All coordinates and bearings shown hereon are grid values referenced to the Texas Coordinate System of 1983, South Central Zone - NAD 83(1983) and NGS Monument "HCSD 53". All distances shown hereon are surface distances unless noted and may be converted to grid distances by multiplying by a scale factor of 0.999875. Mapping angle for this project is 01°56'58".
- 2) The elevation of Mean Higher High Water for this site is 1.29' as tied to NGS Monument "HCSD 53" having an elevation of 8.17' NAVD 88, 2001 Adjustment (TSARP). Mean Higher High Water was determined by on-site tide gauge readings referenced to the NOAA Eagle Point Tide Gauge.
- 3) Upland boundary information was provided by Terra Surveying Company, Inc. Project Number 0355-0801-X01.
- 4) This project is an update of a previous Coastal Boundary Survey filed under Galveston County NRC Article 33.136 Sketch 38, Map/ Document No. 83079
- 5) This is Project Number SL20190031, a marsh habitat creation project with possible breakwater construction and revegetation.

I, William E. Merten, Licensed State Land Surveyor in and for the State of Texas, do hereby certify that on March 28, 2019, I have located the natural contour line of Mean Higher High Water in accordance with methodology approved by the General Land Office, on the ground, according to law and with the personnel stated, and that the meanders of said contour line are true and correct as shown hereon. To the best of my knowledge, no artificial fill or any development, other than as shown hereon, that would cause alteration to said contour line has occurred within the area surveyed.

Field Personnel - Derek Higgins
Daniel Meneses
William E. Merten
Licensed State Land Surveyor



TEXAS GENERAL LAND OFFICE
Art. 33.136, Natural Resources Code
Co. Galveston, S.K. No. 8a
File Date 11-22-2019 by K. S. K. K.

GLO PROJECT NO. SL20190031
FOR GENERAL LAND OFFICE USE ONLY

THIS SURVEY HAS BEEN FILED FOR RECORD AND DULY RECORDED THIS 28TH DAY OF August, 2019, IN BOOK I PAGE 254, OF THE COUNTY SURVEYORS RECORDS, GALVESTON COUNTY, TEXAS.

CobbFendley
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040
713.462.3242 | fax 713.462.3262 | www.cobfen.com

SCALE: 1" = 100' (36 VARAS) PROJECT NO.: 1902-032-01
DATE: APRIL 15, 2019



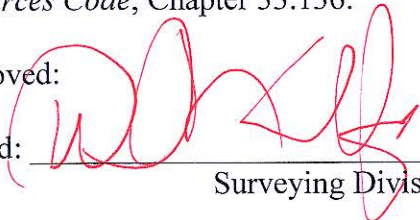
TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

Surveying Division
Coastal Boundary Survey Approval

Project: Galveston Bay Foundation, Marsh Creation
Project No: SL20190031, General Land Office
Project Manager: Dianna Ramirez, Upper Coast Regional Manager
Surveyor: William E. Merten, Licensed State Land Surveyor

Description: A Coastal Boundary Survey, dated March 28, 2019, by William E. Merten, Licensed State Land Surveyor. The survey delineates the line of Mean Higher High Water of Galveston Bay State Submerged Tract No. 302, along a portion of the Miguel Muldoon Two League Grant, Abstract Number 18. The survey is associated with the Texas General Land Office Lease SL20190031. Situated approximately 1730 feet easterly from the intersection of State Highway 146 with Cien Road and the coordinates of its midpoint being N 29° 31' 57", W 95° 00' 33", WGS84 in the City of Kemah, Galveston County. A copy of the survey has been recorded in Book I, Page 254, of the Galveston County Surveyors Records in the Galveston County Engineering Department.

A Coastal Boundary Survey for the above-referenced project has been reviewed and accepted; upon completion of public notice requirements, the survey will be filed in the Texas General Land Office, Archives and Records, in accordance with provisions of the *Texas Natural Resources Code*, Chapter 33.136.

Approved: 
Signed: _____
Surveying Division

11/19/2019
Date

Approval Filed as:

Tex. Nat. Res. Code Article 33.136, Galveston County, Sketch No. 89 **TEXAS GENERAL LAND OFFICE**
Art. 33.136, Natural Resources Code
Co. Galveston, SK No. 89
File Date 11-22-2019 by K. Schreiber