

LINE	BEARING	DISTANCE	VARAS
L1	S 30°34'09" E	41.21'	14.84V
L2	S 81'39'41" E	78.05'	28.10V
L3	S 89'19'12" E	146.16'	52.62V
L4	S 89'29'13" E	70.49'	25.38V
L5	N 77'46'40" E	105.10'	37.84V
L6	N 89'32'55" E	107.81'	38.81V
L7	S 39'13'46" E	83.12'	29.92V
L8	S 51°36'59" E	64.31'	23.15V
LO L9	S 19'59'04" E	48.19'	17.35V
L10	S 58'52'12" E	86.50'	31.14V
L11	S 01°34'38" W	45.63'	16.43V
L12	N 62°52'52" E	146.02'	52.57V
L13	S 85'51'32" E	103.69'	37.33V
L14	S 36'48'04" E	100.33'	36.12V
L15	S 56'00'08" E	74.17'	26.70V
L16	N 73°29'34" E	109.79'	39.52V
L17	S 86'33'40" E	66.18'	23.82V
L18	N 32°41'16" E	43.99'	15.84V
L19	N 76°13'53" E	78.36'	
			28.21V
L20		79.25'	28.53V
L21	N 69°05'22" E	135.03'	48.61V
L22	S 64'43'39" E	53.14'	19.13V
L23	N 55°22'07" E	219.68'	79.09V
L24	S 81°29'30" E	71.19'	25.63V
L25	S 33'51'06" E	70.76'	25.47V
L26	N 68'04'29" E	150.59'	54.21V
L20	N 49'40'56" E	224.58'	80.85V
	N 4940 30 E		
L28	N 66°41'29" E	160.90'	57.92V
L29	S 77'41'03" E	76.50'	27.54V
L30	N 65'12'56" E	156.87'	56.47V
L31	N 39'50'54" E	147.57	53.13V
L32	N 61°41'44" E	96.26	34.65V
L33	S 73°53'21" E	158.17'	56.94V
L34	N 32'04'45" E	30.43'	10.96V
L34	N 20°11'44" W	48.41'	17.43V
L36	N 11°48'32" E	164.47'	59.21V
L37	S 70°46'18" E	133.07'	47.91V
L38	S 74°46'06" E	124.84'	44.94V
L39	N 30°52'13" W	44.03'	15.85V
L40	N 40°13'15" E	156.52'	56.35V
L41	S 65'18'11" E	101.23'	36.44V
L42	N 29'35'00" E	148.27'	53.38V
L43	N 43°16'46" E	177.34'	63.84V
L44	N 75°24'25" E	509.18'	183.30V
L45	N 43°13'08" E	132.42'	47.67V
L46	N 86°14'28" E	86.54'	31. 1 5V
L47	N 36'52'13" E	220.92'	79.53V
L48	N 78°55'11" E	113.67'	40.92V
L49	N 39'50'15" E	88.04'	31.69V
L50	S 88°45'52" E	179.10'	64.47V
L51	N 54°16'29" E	48.22'	17.36V
L52	N 10'08'57" E	193.18'	69.54V
L53		79.34'	28.56V
L54	N 29°35'54" E	145.63'	52.43V
L55	N 72°20'49" E	75.28'	27.10V
L56	N 17°05'22" E	69.07'	24.86V
L57	N 70°42'15" E	111.92'	40.29V
L58	S 71°06'58" E	73.27'	26.38V
L59	N 45'12'20" E	109.79'	39.53V
L60	N 77°19'14" E	133.84'	
			48.18V
L61	N 54°49'01" E	223.60'	80.50V
L62	N 68'24'18" E	100.32'	36.12V
L63	N 32°33'49" E	32.80'	11.81V
L64	N 28'42'39" W	99.68'	35.88V
L65	N 36'37'57" E	57.75'	20.79V
		80.78'	
L66			29.08V
	S 07°29'57" E	71.12'	25.60V
L67	11 Add + Ala - 11 - 1		EDDAY
L67 L68 L69	N 61°46'20" E N 20°24'19" W	141.49' 73.51'	50.94V 26.46V

● FOUND 3/4" IRON ROD • BENCHMARK

400

COASTAL BOUNDARY SURVEY OF THE LITTORAL REVISION BOUNDARY OF THE HASTINGS & EDITH JOHNSON PROPERTY BEING A PORTION OF THE JAMES HUGHSON SURVEY, A-23 ADJACENT TO MATAGORDA BAY AND STATE TRACTS 291 & 281 CALHOUN COUNTY, TEXAS DATE: AUG 2016 SCALE: 1"= 400 PLAN SHEET 1 OF 2 DWN. BY: JZG



LIJ	IN TO TO US L	10.00	20.214
L20	N 43°44'39" E	79.25'	28.53V
L21	N 69°05'22" E	135.03'	48.61V
L22	S 64*43'39" E	53.14'	19.13V
L23	N 55°22'07" E	219.68'	79.09V
L24	S 81'29'30" E	71.19'	25.63V
L25	S 33'51'06" E	70.76'	25.47V
L26	N 68'04'29" E	150.59'	54.21V
L27	N 49'40'56" E	224.58'	80.85V
L28	N 66'41'29" E	160.90'	57.92V
L29	S 77°41'03" E	76.50'	27.54V
L30	N 65'12'56" E	156.87'	56.47V
L31	N 39'50'54" E	147.57'	53.13V
L32	N 61°41'44" E	96.26'	34.65V
L33	S 73'53'21" E	158.17'	56.94V
L34	N 32°04'45" E	30.43'	10.96V
L35	N 20°11'44" W	30.43' 48.41'	17.43V
L36	N 11'48'32" E	164.47'	59.21V
L37	S 70°46'18" E	133.07'	47.91V
L38	S 74'46'06" E	124.84'	44.94V
L39	N 30°52'13" W	44.03'	15.85V
L40	N 30°52'13" W N 40°13'15" E	156.52'	56.35V
L41	S 65'18'11" E	101.23'	36.44V
L42	N 29'35'00" E	148.27'	53.38V
L43	N 43'16'46" E	177.34'	63.84V
L44	N 75'24'25" E	509.18'	183.30V
L45	N 43'13'08" E	132.42'	47.67V
L46	N 86'14'28" E	86.54'	31.15V
L47	N 36'52'13" E	220.92'	79.53V
L48	N 78°55'11" E	113.67'	40.92V
L49	N 39*50'15" E	88.04'	31.69V
L50	S 88'45'52" E	179,10'	64.47V
L51	N 54°16'29" E	48.22'	17.36V
L52	N 10°08'57" E	193.18'	69.54V
L53	N 81°50'50" E	79.34'	28.56V
L54	N 29'35'54" E	145.63'	52.43V
L55	N 72'20'49" E	75.28'	27.10V
L56	N 17'05'22" E	69.07'	24.86V
L57	N 70°42'15" E	111.92'	40.29V
L58	S 71*06'58" E	73.27'	26.38V
L59	N 45°12'20" E	109.79'	39.53V
L60	N 77°19'14" E	133.84'	48.18V
L61	N 54'49'01" E	223.60'	80,50V
L62	N 68°24'18" E	100.32'	36.12V
L63	N 32°33'49" E	32.80'	11.81V
L64	N 28°42'39" W	99.68'	35.88V
L65	N 36'37'57" E	57.75'	20.79V
L66	S 85°05'09" E	80.78'	29.08V
L67	S 07°29'57" E	71.12'	25.60V
L68	N 61*46'20" E	141.49'	50.94V
L69	N 20°24'19" W	73.51'	26.46V

DISTANCE

41.21

78.05

146.16

70.49

105,10

107.81

86.50

45.63

146.02

103.69

100.33'

74.17'

109.79'

66.18

43.99'

78.36'

64.31

VARAS

14.84V

28.10V

52.62V

25.38V

37.84V

38 81V

17.35V

31.14V

16.43V

52.57V

37.33V

36.12V

26.70V

39.52V

23.82V 15.84V

28.21V

TNRC Art. 33.136 Galhoun Co. Sketch 7, sht. 1 of 2 (aerial photo)

400

AUG 2016



I, JAMES M. NAISMITH, HEREBY STATE THAT THIS DRAWING REPRESENTS A SURVEY THAT IS CORRECT; IN ACCORDANCE WITH SECTION 21.042 TEXAS NATURAL RESOURCES CODE, WAS MADE ACCORDING TO LAW; WAS MADE IN THE FIELD UNDER MY DIRECT CONTROL AND SUPERVISION: WAS MADE UTILIZING METHODOLOGY APPROVED BY THE GLO; AND IS RECORDED IN

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

ARTIFICIAL ROCK FILL IS LOCATED WITHIN THE SURVEYED AREA. SEE FILL MAP SHEET 2 OF 2 AND FIELD NOTES FOR ARTIFICIAL FILL DATED AUG 2016 FOR MORE INFORMATION. NO RETAINING WALLS OR OTHER STRUCTURAL MODIFICATIONS HAVE BEEN PLACED ON OR ALONG THE LITTORAL BOUNDARY.

SURVEY PERSONNEL: JAMES M. NAISMITH J.Z. GIESSEL

TBM N:13,422,226.44 E: 2,814,521.37 ELEV: 6.3'

					1 16-6-6-	MAP
BOUNDARY PROP JAN ADJA	OF THE ERTY BE MES HUC CENT TO STATE T	HASTING ING A P HSON S MATAG RACTS 2	ORTI URVE ORDA	EDITH ON OF EY, A- A BAY & 281	JOHNS THE 23	
SCALE: 1"= 100' DWN. BY: JZG	PLAN	SHEET	2 (DF 2	DATE: AUG	2016
	BOUNDARY PROP JAI ADJA SCALE: 1"= 100'	BOUNDARY OF THE PROPERTY BE JAMES HUG ADJACENT TO STATE T CALHOU SCALE: 1"= 100'	BOUNDARY OF THE HASTING PROPERTY BEING A P JAMES HUGHSON S ADJACENT TO MATAG STATE TRACTS 2 CALHOUN COUN	BOUNDARY OF THE HASTINGS & PROPERTY BEING A PORTI JAMES HUGHSON SURVE ADJACENT TO MATAGORDA STATE TRACTS 291 CALHOUN COUNTY, SCALE: 1"= 100"	BOUNDARY OF THE HASTINGS & EDITH PROPERTY BEING A PORTION OF JAMES HUGHSON SURVEY, A- ADJACENT TO MATAGORDA BAY STATE TRACTS 291 & 281 CALHOUN COUNTY, TEXAS	CALHOUN COUNTY, TEXAS



TEXAS GENERAL LAND OFFICE GEORGE P. BUSH, COMMISSIONER

Surveying Division Coastal Boundary Survey Approval

Project: Schicke Point Shoreline Protection

Project No: SL20160038 GLO

Project Manager: Amy Nuñez, Manager, Corpus Christi-Lower Coast Texas General Land Office

Surveyor: James M. Naismith, Licensed State Land Surveyor

Description: Coastal Boundary Survey, dated July 12 & 20, 2016, by James M. Naismith, Licensed State Land Surveyor, delineating the line of Mean Higher High Water, along the northerly shore of Matagorda Bay, being a portion of the littoral boundary of the James Hughson Survey, Abstract 23, same line being the northerly boundary of Matagorda Bay Submerged Land Tracts 281 and 291, extending from Schicke Point, northeasterly approximately 1.25 miles and situated at coordinates N28°37'47" (N28.629890°) W96°21'15" (W96.354372°) WGS84, in Calhoun County.

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

Approval Filed as:

Tex.Nat.Res.Code Article 33.136 Calhoun County, Sketch No. 7

11, 2017

TEXAS GENERAL LAND OFFICE
Art. 33.136, Natural Resources Code
Co. Calhoun, SketchNo. 7
File Date 18 July 248by D.J.H.

1700 North Congress Avenue, Austin, Texas 78701-1495 P.O. Box 12873, Austin, Texas 78711-2873 512-463-5001 glo.texas.gov



Zac Giessel Naismith Marine Services, Inc. 2007 FM 3036 Rockport, TX 78382

January 2, 2017

Attn: Mr. David Pyle Texas General Land Office Survey Division 1700 N. Congress Ave. Austin, TX 78701

RE: Coastal Boundary Survey Map: Schicke Point, Calhoun County, Texas

Mr. David Pyle:

Please find enclosed an original signed and sealed Coastal Boundary Survey plat for the Schicke Point CBS in Calhoun County with county filing information and original endorsement. Please return the original Schicke Point plats that do not include Calhoun County filing information to the address above so that we may retain a physical copy for our records. Call or email if you have any questions. A shipping label is included for returning the other plats.

Thank you,

Justin ZAC Giessel Naismith Marine Services, Inc. zac@naismithmarine.com 361-920-0436

Encl. CBS map & fill map.

Naismith Marine Services, Inc. www.naismithmarine.com (361) 945-0248 FIRM #10078500



August 2016

COASTAL BOUNDARY SURVEY OF THE LITTORAL **BOUNDARY OF THE HASTINGS & EDITH JOHNSON** PROPERTY BEING A PORTION OF THE JAMES HUGHSON SURVEY, A-23 ADJACENT TO MATAGORDA BAY AND Art. 33.136. Natural Resources Code STATE TRACTS 291 & 281 CALHOUN COUNTY, TEXAS



This report accompanies a map of survey and field notes for artificial fill dated August, 2016.

SURVEY CONTROL: Survey along the Matagorda Bay shoreline was performed using survey grade RTK GPS base and rover: Hemisphere S320 receivers. Survey was conducted July 12 & 20, 2016 based on the NGS monument "CAMPO REF1 1934" (OPUS, N=13,433,535.07, E=2,815,309.20, Z=4.5' NAVD88) and U.S. Army Corps of Engineers benchmark "EO Y" (OPUS, N= 13,424,489.83, E= 2,817,141.65, Z = 2.0' NAVD88). An onsite temporary benchmark (TBM) (5/8" bolt, N=13,422,226.44, E=2,814,521.37) was used as an onsite reference and check point. Static GPS observations and OPUS solutions were used to compute coordinates in the South Central Zone of the Texas Coordinate System and NAVD88 orthometric height using geoid 2012b. Datum is NAD 83 (2011), US Feet.



Figure 1: NGS monument "CAMPO REF1 1934", left, was used as horizontal and vertical control for the coastal boundary survey along the Matagorda Bay shoreline; USACE benchmark "EO Y" was used to tie in onsite tide gauge, right.

STATE OWNERSHIP BOUNDARY: The boundary between state submerged land and private uplands was determined for a portion of the James Hughson Survey, A-23, surveyed 1830. The James Hughson Survey was surveyed pre-1840 and is subject to Spanish littoral boundary law which



Established tidal datums from the Port Lavaca TCOON control gauge were transferred onsite (station gauge) using the NOAA standard method which adjusts short term onsite observations for amplitude and water level height relative to established control gauge datums. Adjustments are calculated by comparing the amplitude, minimum, maximum, and mean observations of both station and control gauges over a short observation period (July 12-18, 2016). As referenced to this survey, the elevation of MHHW on the north shoreline of Matagorda Bay was 1.16' NAVD88.



Figure 2: On-site tide gauge setup on a fence post that extended out into Matagorda Bay at Carancahua Pass.

EXISTING FILL: Artificial rock fill exists along the western tip of Schicke Point which was authorized by the GLO under Coastal Easement #20070167. Aerial photography from 2007 was used to delineate the approximate location of the furthest landward reach of the MHHW line before the placement of rock fill. See Fill Map Sheet 2 of 2 of the map of survey dated AUG 2016 for more information.



Figure 3: Existing Fill exists as a rock revetment along the south shoreline of the west point of Schicke Point. A fill map is shown on Sheet 2 of 2 of the maps of survey dated AUG 2016.



Figure 4: An onsite TBM was used for local control and GPS RTK base setup, left; typical onsite vegetated shoreline and marsh landward of the MHHW line.

FIELD NOTES of the littoral boundary of the Hastings & Edith Johnson property being a portion of the James Hughson Survey, A-23 adjacent to Matagorda Bay State Tracts 291 & 281, Calhoun County, Texas. Distances, bearings, and coordinates are grid, North American Datum of 1983 (2011), South Central zone of the Texas Coordinate System;

Beginning at a point (N=13,422,106.39, E=2,813,844.06) on artificial rock fill and littoral boundary of a tract of 100.00 acre tract of land as described in exhibit A in an instrument recorded in volume 50, page 863 of the Official Public Records of Calhoun County, Texas (OPRCCTX) on the 2007 MHHW (Mean Higher High Water) line drawn from aerial photography on the north shoreline of Matagorda Bay, from which NGS monument "CAMPO REF1 1934" bears N 07°18'19" E a distance of 11,522.21' (4,148.00V); and onsite TBM (5/8" bolt) bears N 79°56'57" E a distance of 687.87' (247.63V);

thence S 30°34'09" E continuing along the littoral boundary of said 100.00 acre tract and the 2007 MHHW line of Matagorda Bay a distance of 41.21' (14.84V) and for the following courses:

thence S 81°39'41" E a distance of 78.05' (28.10V);

thence S 89°19'12" E a distance of 146.16' (52.62V) to a common point between the 2007 MHHW and the surveyed 2016 MHHW line;

thence S 89°29'13" E departing said 2007 MHHW continuing along the littoral boundary of said 100.00 acre tract and 2016 MHHW line of Matagorda Bay a distance of 70.49' (25.38V) and for the following courses;

thence N 77°46'40" E a distance of 105.10' (37.84V); thence N 89°32'55" E a distance of 107.81' (38.81V); thence S 39°13'46" E a distance of 83.12' (29.92V); thence S 51°36'59" E a distance of 64.31' (23.15V); thence S 19°59'04" E a distance of 48.19' (17.35V); thence S 58°52'12" E a distance of 86.50' (31.14V); thence S 01°34'38" W a distance of 45.63' (16.43V); thence N 62°52'52" E a distance of 146.02' (52.57V); thence S 85°51'32" E a distance of 103.69' (37.33V); thence S 36°48'04" E a distance of 100.33' (36.12V); thence S 56°00'08" E a distance of 74.17' (26.70V); thence N 73°29'34" E a distance of 109.79' (39.52V); thence S 86°33'40" E a distance of 66.18' (23.82V); thence N 32°41'16" E a distance of 43.99' (15.84V); thence N 76°13'53" E a distance of 78.36' (28.21V); thence N 43°44'39" E a distance of 79.25' (28.53V); thence N 69°05'22" E a distance of 135.03' (48.61V); thence S 64°43'39" E a distance of 53.14' (19.13V); thence N 55°22'07" E a distance of 219.68' (79.08V); thence S 81°29'30" E a distance of 71.19' (25.63V); thence S 33°51'06" E a distance of 70.76' (25.47V); thence N 68°04'29" E a distance of 150.59' (54.21V); thence N 49°40'56" E a distance of 224.58' (80.85V);

Schicke Point, Page 4

thence N $66^{\circ}41'29''$ E a distance of 160.90' (57.92V); thence S $77^{\circ}41'03''$ E a distance of 76.50' (27.54V); thence N $65^{\circ}12'56''$ E a distance of 156.87' (56.47V); thence N $39^{\circ}50'54''$ E a distance of 147.57' (53.13V); thence N $61^{\circ}41'44''$ E a distance of 96.26' (34.65V); thence S $73^{\circ}53'21''$ E a distance of 158.17' (56.94V); thence N $32^{\circ}04'45''$ E a distance of 30.43' (10.95V); thence N $20^{\circ}11'44''$ W a distance of 48.41' (17.43V); thence N $11^{\circ}48'32''$ E a distance of 164.47' (59.21V); thence S $70^{\circ}46'18''$ E a distance of 133.07' (47.91V); thence S $74^{\circ}46'06''$ E a distance of 124.84' (44.94V); thence N $30^{\circ}52'13''$ W a distance of 44.03' (15.85V);

thence N 40°13'15" E at 70.06' (25.22V) passing a point on the east line of said 100.00 acre tract and from which a found ¾" iron rod (N=13,423,280.08, E=2,816,638.55) bears N 32°00'00" W along said east line a distance of 712.99' (256.68V),

thence departing boundary of said 100.00 acre tract and continuing N 40°13'15" E along the littoral boundary of a 92.82 acre tract of land as described in Exhibit B-Tract 2 in an instrument recorded in volume 178, page 211 OPRCCTX and MHHW (Mean Higher High Water) line on the north shoreline of Matagorda Bay in all a distance of 156.52' (56.35V);

thence S 65°18'11" E continuing along boundary of said 92.82 acre tract and MHHW line of Matagorda Bay a distance of 101.23' (36.44V) and for the following courses; thence N 29°35'00" E a distance of 148.27' (53.38V);

thence N 43°16'46" E a distance of 177.34' (63.84V); thence N 75°24'25" E a distance of 509.18' (183.30V); thence N 43°13'08" E a distance of 132.42' (47.67V); thence N 86°14'28" E a distance of 86.54' (31.15V); thence N 36°52'13" E a distance of 220.92' (79.53V); thence N 78°55'11" E a distance of 113.67' (40.92V); thence N 39°50'15" E a distance of 88.04' (31.69V); thence S 88°45'52" E a distance of 179.10' (64.48V); thence N 54°16'29" E a distance of 48.22' (17.36V); thence N 10°08'57" E a distance of 193.18' (69.54V); thence N 81°50'50" E a distance of 79.34' (28.56V); thence N 29°35'54" E a distance of 145.63' (52.43V); thence N 72°20'49" E a distance of 75.28' (27.10V); thence N 17°05'22" E a distance of 69.07' (24.87V); thence N 70°42'15" E a distance of 111.92' (40.29V); thence S 71°06'58" E a distance of 73.27' (26.38V); thence N 45°12'20" E a distance of 109.79' (39.52V); thence N 77°19'14" E a distance of 133.84' (48.18V); thence N 54°49'01" E a distance of 223.60' (80.50V) to a point on the east line of said 92.83 acres

and west line of a 2,375.5 acre tract of land as described as Tract 1 in instrument number 142100 OPRCCTX and the MHHW line of Matagorda Bay; thence N 68°24'18" E continuing along the littoral boundary of said 2,375.5 acre tract and the MHHW line of Matagorda Bay a distance of 100.32' (36.12V) and for the following courses; thence N 32°33'49" E a distance of 32.80' (11.81V); thence N 28°42'39" W a distance of 99.68' (35.88V); thence N 36°37'57" E a distance of 57.75' (20.79V); thence S 85°05'09" E a distance of 80.78' (29.08V); thence S 07°29'57" E a distance of 71.12' (25.60V); thence N 61°46'20" E a distance of 141.49' (50.94V);

thence N 20°24'19" W a distance of 73.51' (26.46V) to the **end point** (N=13,424,400.58, E=2,819,676.47) from which NGS monument "CAMPO REF1 1934" bears N 25°33'10" W a distance of 10,124.82' (3,644.94V) and from which onsite TBM (5/8" bolt) bears S 67°07'58" W a distance of 5,594.82' (2,014.14V).

12/1/2016 James M. Naismith, RPLS, LSLS

Naismith Marine Services, Inc.

Naismith Marine Services, Inc.

www.naismithmarine.com (361) 945-0248 FIRM #10078500



August 2016

ARTIFICIAL FILL – FIELD NOTES (0.058 ACRE TRACT) PART OF A COASTAL BOUNDARY SURVEY OF THE LITTORAL BOUNDARY OF THE HASTINGS & EDITH JOHNSON PROPERTY BEING A PORTION OF THE JAMES HUGHSON SURVEY, A-23 ADJACENT TO MATAGORDA BAY AND Art. 33.136, Natural Resources Code STATE TRACTS 291 & 281 CALHOUN COUNTY, TEXAS

File Date <u>BJul, 2018</u> by <u>D.J.H.</u> This report accompanies a map of survey and coastal boundary survey report dated August, 2016.

EXISTING FILL: Artificial rock fill exists along the western tip of Schicke Point which was authorized by the Texas General Land Office (GLO) under Coastal Easement #20070167. Aerial photography from 2007 was used to delineate the approximate location of the furthest landward reach of the mean higher high water (MHHW) line before the placement of rock fill. See Fill Map (sheet 2 of 2) of survey dated AUG 2016 for more information.



Figure 3: Existing artificial fill exists as a rock revetment along the south shoreline of the west point of Schicke Point. A fill map is shown on sheet 2 of 2 on the map of survey dated AUG 2016.



EXTENT OF EXISTING ARTIFICIAL FILL (0.058 ACRE TRACT)

FIELD NOTES of existing artificial fill authorized by the GLO under Coastal Easement #20070167 along the southern shoreline of the west tip of Schicke Point, being part of Matagorda Bay State Tract 291, and being adjacent to the James Hughson Survey, A-23, Calhoun County, Texas. Distances, bearings, and coordinates are grid, North American Datum of 1983 (2011), South Central zone of the Texas Coordinate System;

Beginning at a point (N=13,422,106.39, E=2,813,844.06) on artificial rock fill and littoral boundary of a tract of 100.00 acre tract of land as described in exhibit A in an instrument recorded in volume 50, page 863 of the Official Public Records of Calhoun County, Texas (OPRCCTX) on the 2007 MHHW (Mean Higher High Water) line drawn from aerial photography on the north shoreline of Matagorda Bay, from which NGS monument "CAMPO REF1 1934" bears N 07°18'19" E a distance of 11,522.21' (4,148.00V); and onsite TBM (5/8" bolt) bears N 79°56'57" E a distance of 687.87' (247.63V);

thence S 30°34'09" E continuing along the littoral boundary of said 100.00 acre tract and the 2007 MHHW line of Matagorda Bay a distance of 41.21' (14.84V) and for the following courses:

thence S 81°39'41" E a distance of 78.05' (28.10V);

thence S 89°19'12" E a distance of 146.16' (52.62V) to a common point between the 2007 MHHW and the surveyed 2016 MHHW line;

thence S 89°29'13" E departing said 2007 MHHW continuing along the littoral boundary of said 100.00 acre tract and 2016 MHHW line of Matagorda Bay a distance of 70.49' (25.38V);

thence N 77°46'40" E continuing along the littoral boundary of said 100.00 acre tract and 2016 MHHW line of Matagorda Bay a distance of 6.55' (2.36V) the a point on the edge of existing rock fill and the MHHW line of Matagorda Bay;

thence S 11°38'22" W departing the MHHW line a distance of 1.57' (.57V) to the toe of rock fill; thence S 79°34'01" W along the bayward toe of rock fill a distance of 7.85' (2.83V) and for the following courses;

thence S 89°19'08" W a distance of 44.10' (15.88V); thence N 83°42'25" W a distance of 24.90' (8.96V); thence S 81°57'02" W a distance of 68.66' (24.72V); thence N 88°45'20" W a distance of 103.02' (37.09V); thence N 80°20'23" W a distance of 28.82' (10.38V); thence N 62°45'30" W a distance of 44.29' (15.94V); thence N 62°45'30" W a distance of 19.84' (7.14V); thence N 07°25'02" E a distance of 8.95' (3.22V); thence N 42°50'10" E a distance of 11.19' (4.03V) which is the **point of beginning**, having an area of 2,550 square feet, 0.058 acres.

12/1/2016

James M. Naismith, RPLS, LSLS Naismith Marine Services, Inc.

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