



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
7400-LEAKE AVENUE  
NEW ORLEANS, LOUISIANA 70118

MAR 08 2018

Operations Division  
Eastern Evaluation Section

SUBJECT: MVN-2014-2106-EPP

U.S. Fish & Wildlife Service  
61389 Louisiana Highway 434  
Lacombe, Louisiana 70445

Dear Gentlemen,

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Eastern Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

Sincerely,

Michael V. Farabee  
Chief, Eastern Evaluation Section

**DEPARTMENT OF THE ARMY PERMIT**

Permittee: U.S. Fish & Wildlife Service

MAR 08 2018

Permit No.: MVN-2014-2106-EPP

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**PROJECT DESCRIPTION:** Restoration of the North Breton Island, in accordance with the drawings enclosed in 16 sheets, dated July 2017.

**PROJECT LOCATION:** Located within the Breton Sound/Gulf of Mexico, Louisiana, in Plaquemines Parish.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on February 28, 2023. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions: Page 4**

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

Section 404 of the Clean Water Act (33 U.S.C. 1344).

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

X   
\_\_\_\_\_  
(PERMITTEE)

X 2/27/2018  
\_\_\_\_\_  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_

March 8, 2018  
\_\_\_\_\_  
(DATE)

Michael V. Farabee, Chief Eastern Evaluation Section

for Michael N. Clancy, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)

## **Special Conditions for: MVN 2014-2106-EPP**

7. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
8. The use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
9. Permittee must install and maintain, at permittee's expense, any safety lights, signs and signals prescribed by the US Coast Guard, through regulations or otherwise, on the authorized facilities.
10. If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, you are advised to notify the Eighth Coast Guard District, so that a Notice to Mariners, if required, may be prepared. Notification, with a copy of your permit approval and drawings, should be mailed to the Commander (dpw) Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2107.
11. Please be aware that you must comply with the enclosed: "STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES".
12. If the authorized project requires any additional work not expressly permitted herein, the permittee must apply for an amendment to this authorization.



GENERAL NOTES:


1. ALL AERIAL IMAGERY FROM AERIAL IMAGE FROM GOOGLE EARTH<sup>®</sup>, 2014 AND DIGITAL GLOBE IMAGE, OCTOBER 1, 2016 AND MAY NOT BE INDICATIVE OF CURRENT CONDITIONS.
2. PROBABLE PIPELINE INFORMATION AND LOCATIONS OBTAINED FROM THE OFFICE OF COASTAL MANAGEMENT OF THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES, 2008 & 2010 PIPELINE DATABASE.
3. ANY EXCAVATED MATERIAL WILL BE TO THE BEST OF KNOWLEDGE, FREE OF CONTAMINANTS AND/OR WILL BE DISPOSED OF IN AN APPROVED LANDFILL.
4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE, CONSTRUCTION PLANS, AND CONTRACT DOCUMENTS AND SHALL CONDUCT WORK IN STRICT ACCORDANCE WITH ALL PERMITS AND APPROVALS OBTAINED FOR THIS PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY ERRORS OR DISCREPANCIES IN THE PLANS PRIOR TO BIDDING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS AT TIME OF CONSTRUCTION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND MARKED.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING LOUISIANA ONE CALL SYSTEM (1-800-272-3020) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION (DIGGING, DREDGING, JETTING, ETC.) OR DEMOLITION ACTIVITY. THE CONTRACTOR SHALL ALSO NOTIFY PIPELINE AND UTILITY OPERATORS 72 HOURS PRIOR TO ANY EXCAVATION.
7. THE WATER BOTTOM SHALL NOT BE DISTURBED DURING ACCESS TO THE PROPOSED WORK LOCATION, OR BY THE AUTHORIZED ACTIVITIES WHETHER IT BE BY DREDGING, WHEEL WASHING, PROPWASHING, JETTING, MUCKING, FLOWING, BULL DOZING OR ANY MEANS OF MOVING BOTTOM MATERIAL, EXCEPT AS DEPICTED ON THE PERMIT SHEETS. POWERED VESSELS SHALL BE OPERATED SO AS NOT TO DISTURB THE WATER BOTTOM BY PROPELLER OR JET ACTION.
8. ALL MANMADE DEBRIS UNEARTHED DURING DREDGING OR FOUND WITHIN THE FILL TEMPLATE SHALL BE REMOVED TO AN APPROVED OFFSITE DISPOSAL AREA.
9. THE CONTRACTOR MUST INSTALL AND MAINTAIN ANY SAFETY LIGHTS, SIGNS, AND SIGNALS PRESCRIBED BY THE U.S. COAST GUARD, THROUGH REGULATIONS OR OTHERWISE ON THE AUTHORIZED FACILITIES.
10. ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAIRED BY THE CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
11. PIPELINES IN OPEN WATER AND/OR NAVIGABLE WATERS SHALL BE MARKED WITH BUOYS BY THE CONTRACTOR IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL MAINTAIN BUOYS DURING CONSTRUCTION OR HAVE ADEQUATE NAVIGATIONAL EQUIPMENT ON THE DREDGE TO AVOID DREDGING IN RESTRICTED AREAS.
12. THE PROPOSED PROJECT AND ANY FUTURE MAINTENANCE WORK INVOLVING THE USE OF FLOATING CONSTRUCTION EQUIPMENT (BARGE MOUNTED CRANES, BARGE MOUNTED PILE DRIVING EQUIPMENT, FLOATING DREDGE EQUIPMENT, DREDGE DISCHARGE PIPELINES, ETC.) IN FEDERAL WATERS, SHALL NOTIFY THE U.S. COAST GUARD SO THAT A NOTICE TO MARINERS, IF REQUIRED, MAY BE PREPARED. NOTIFICATION WITH A COPY OF THE PERMIT APPROVAL AND DRAWINGS, SHALL BE MAILED TO THE U.S. COAST GUARD, SECTOR NEW ORLEANS COMMAND CENTER, 201 HAMMOND HIGHWAY, METAIRIE, LOUISIANA 70005, 30 DAYS BEFORE COMMENCEMENT OF WORK.
13. THE OFFSHORE WORK AREAS SHALL CONSIST OF THE BORROW AREAS AND CONVEYANCE CORRIDORS. THE INSHORE WORK AREA IS DEFINED BY A 150' OFFSET FROM THE OUTER LIMITS OF THE ACCESS CHANNELS, TEMPORARY SIDECAST DISPOSAL AREAS, SECONDARY BORROW CHANNEL, AND THE GULF TOE OF THE BEACH FILL TEMPLATE. THE CONTRACTOR SHALL BE REQUIRED TO CONFINE HIS/HER PLANT, EQUIPMENT, AND OPERATIONS OF PERSONNEL WITHIN THE LIMITS OF THE WORK AREA, AREAS PERMITTED BY LAW, ORDINANCES, PERMITS, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER THE PREMISES WITH PLANT OR EQUIPMENT.
14. THE CONTRACTOR SHALL FOLLOW CONVEYANCE CORRIDORS, ACCESS CHANNELS, AND / OR FILL TEMPLATES, AND SHALL NOT, AT ANY TIME, TRAVEL ON EXISTING MARSH OR VEGETATED WETLANDS UNLESS SPECIFIED IN THE PERMIT OR THROUGH WRITTEN DIRECTION FROM ENGINEER.
15. THE CONTRACTOR SHALL WORK COOPERATIVELY WITH THE OWNER TO ADDRESS THE NOTIFICATION AND COORDINATION REQUIREMENTS WITH THE LANDOWNERS, UTILITY OPERATORS, AND PIPELINE COMPANIES.
16. AS-BUILT DRAWINGS AND/OR PLATS SHALL HAVE WRITTEN ON THEM THE DATE OF COMPLETION OF SAID ACTIVITIES AND SHALL BE SUBMITTED TO THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES, OFFICE OF COASTAL MANAGEMENT, P.O. BOX 44487, BATON ROUGE, LA 70804-4487 WITHIN 30 DAYS FOLLOWING PROJECT COMPLETION.
17. THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.

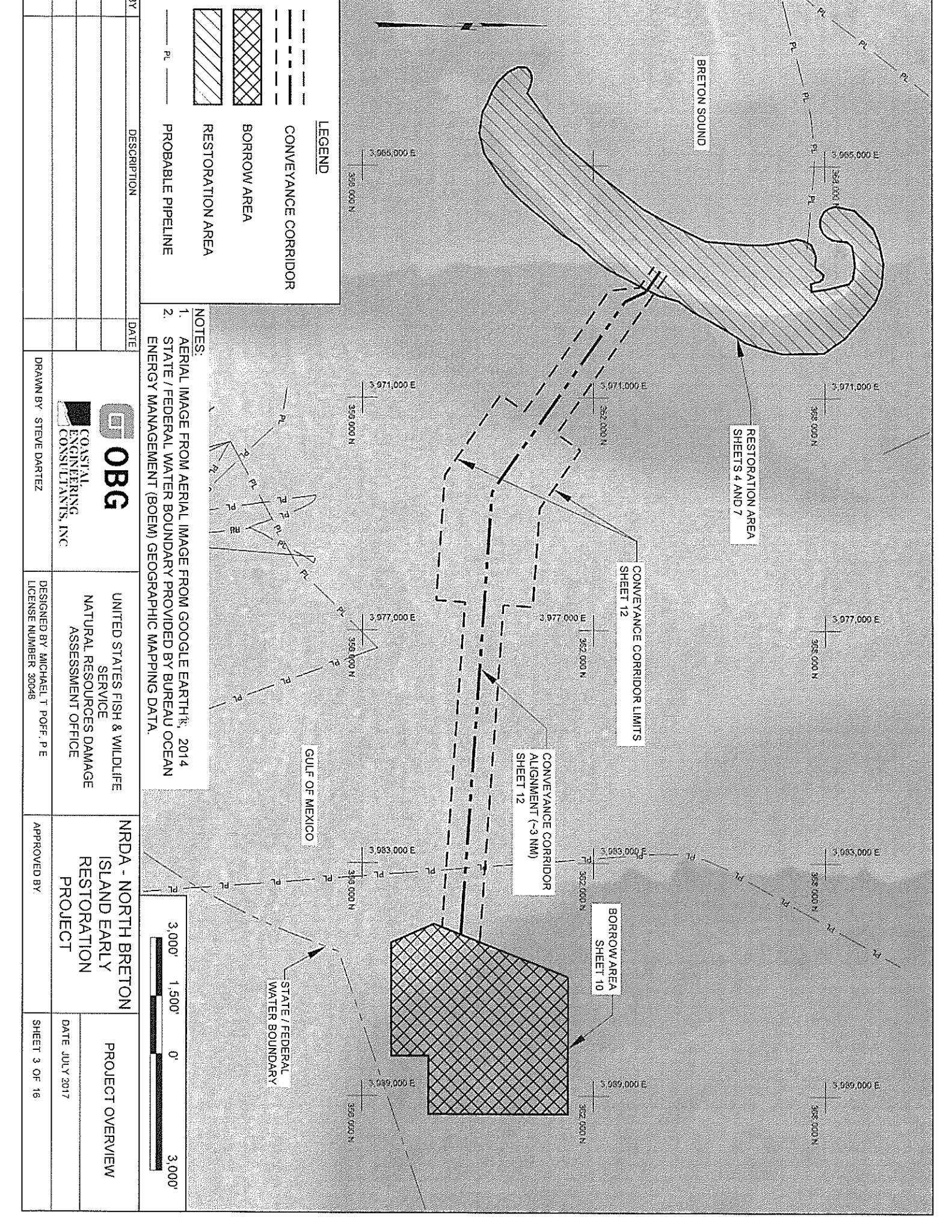
SURVEY NOTES:

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVVD88), GEOID 12A. U.S. SURVEY FEET. ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983, NAD 83 (2011) EPOCH 2010.00, LOUISIANA STATE PLANE SOUTH ZONE U.S. SURVEY FEET EXCEPT WHERE NOTED. ALL BEACH AND DUNE RESTORATION AREA ELEVATIONS ARE BASED ON SURVEY CONTROL MONUMENTS LOCATED ON BRETON ISLAND, LOUISIANA.

MONUMENTS		NORTHING	EASTING
BRET		367,953.66	3,967,491.06
BRT2		367,876.16	3,967,598.70
IR 1		367,406.33	3,968,133.25
IR 2		367,322.30	3,968,332.11
COE MONUMENT		367,949.46	3,967,578.06

2. BORROW AREA BATHYMETRIC SURVEYS PERFORMED BY EMC SURVEYS, INC. IN MAY 2016.
3. HEADLAND RESTORATION AREA SURVEY PERFORMED BY EMC SURVEYS, INC. IN SEPTEMBER 2015.
4. INFORMATION SHOWN HEREON REFLECTS CONDITIONS AS THEY EXISTED ON SURVEY DATE SHOWN AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
5. MEAN HIGH WATER (MHW) IS BASED ON INFORMATION OBTAINED FROM USGS OPEN FILE REPORT 2016-1039, ANALYSIS OF SHORELINE AND GEOMORPHIC CHANGE FOR BRETON ISLAND, FROM 1989 TO 2014. MEAN LOW WATER (MLW) WAS CALCULATED USING DATA OBTAINED FROM NOAA STATION 8747437, BAY WAVELAND YACHT CLUB, MISSISSIPPI.

BY	DESCRIPTION	DATE	UNITED STATES FISH & WILDLIFE SERVICE NATURAL RESOURCES DAMAGE ASSESSMENT OFFICE		NRDA - NORTH BRETON ISLAND EARLY RESTORATION PROJECT	GENERAL AND SURVEY NOTES
					DESIGNED BY MICHAEL T. POFF, P.E. LICENSE NUMBER 30048	APPROVED BY:








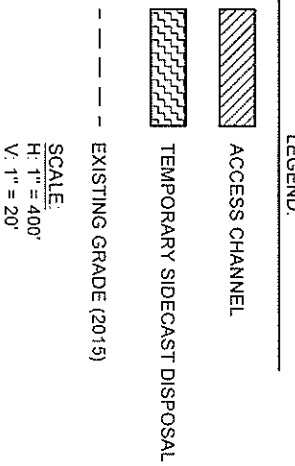
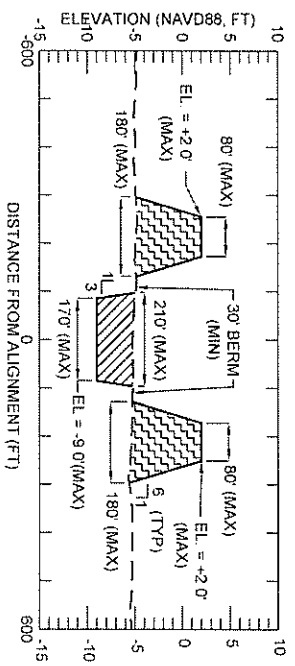




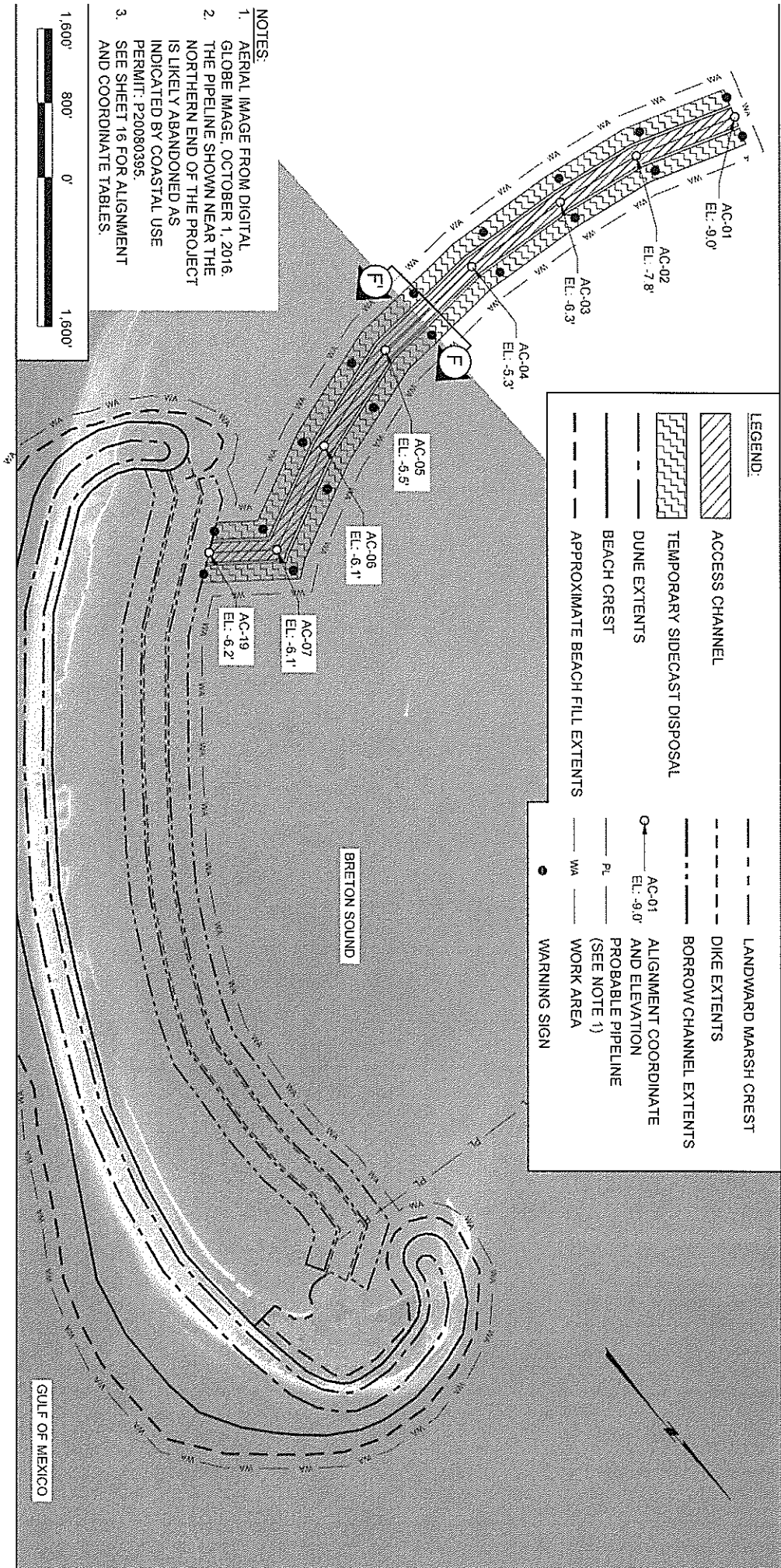




BY	DESCRIPTION	DATE	 <b>OBG</b> COASTAL ENGINEERING CONSULTANTS, INC.	UNITED STATES FISH & WILDLIFE SERVICE NATURAL RESOURCES DAMAGE ASSESSMENT OFFICE	NRDA - NORTH BRETON ISLAND EARLY RESTORATION PROJECT	RESTORATION AREA ACCESS CHANNEL - CONTAINED MARSH OPTION
			DRAWN BY BRETT BORNE E I	DESIGNED BY MICHAEL T POFF P E LICENSE NUMBER 30048	APPROVED BY	DATE JULY 2017 SHEET 9 OF 16



SCALE:  
 H: 1" = 400'  
 V: 1" = 20'

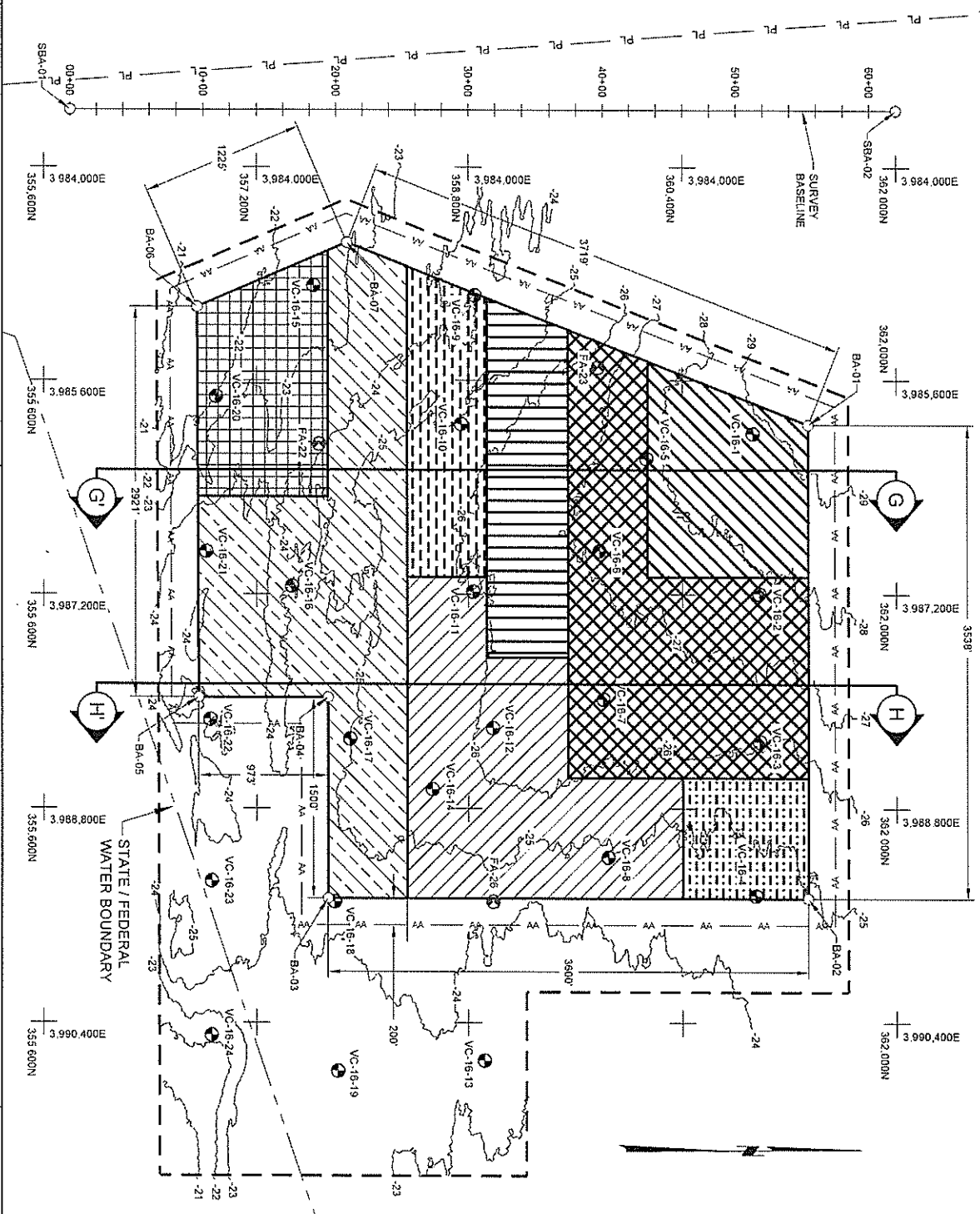


- NOTES:
1. AERIAL IMAGE FROM DIGITAL GLOBE IMAGE, OCTOBER 1, 2016.
  2. THE PIPELINE SHOWN NEAR THE NORTHERN END OF THE PROJECT IS LIKELY ABANDONED AS INDICATED BY COASTAL USE PERMIT: P20080395.
  3. SEE SHEET 16 FOR ALIGNMENT AND COORDINATE TABLES.

**LEGEND:**

- ACCESS CHANNEL
- TEMPORARY SIDECAST DISPOSAL
- DUNE EXTENTS
- BEACH CREST
- APPROXIMATE BEACH FILL EXTENTS
- LANDWARD MARSH CREST
- DIKE EXTENTS
- BORROW CHANNEL EXTENTS
- ALIGNMENT COORDINATE AND ELEVATION PROBABLE PIPELINE (SEE NOTE 1)
- WORK AREA
- WARNING SIGN

- NOTES:**
1. ALL COORDINATES ARE IN NAD 83 STATE PLANE - LOUISIANA SOUTH, U.S. SURVEY FEET.
  2. ELEVATIONS ARE SHOWN IN NAVD88 U.S. SURVEY FEET.
  3. BATHYMETRIC SURVEY PERFORMED BY EMC SURVEYS, INC. IN MAY 2016.
  4. GEOTECHNICAL INVESTIGATIONS PERFORMED BY THOMPSON ENGINEERING IN 2017 AND USGS IN 2014.
  5. SEE SHEET 16 FOR ALIGNMENT AND COORDINATE TABLES.



LEGEND	
	DESIGN CUT TOE
	DESIGN CUT -49FT
	MAX DISTURBANCE -52FT
	DESIGN CUT -47FT
	MAX DISTURBANCE -50FT
	DESIGN CUT -46FT
	MAX DISTURBANCE -49FT
	DESIGN CUT -45FT
	MAX DISTURBANCE -48FT
	DESIGN CUT -42FT
	MAX DISTURBANCE -45FT
	DESIGN CUT -36FT
	MAX DISTURBANCE -39FT
	DESIGN CUT -34FT
	MAX DISTURBANCE -37FT
	DESIGN CUT -32FT
	MAX DISTURBANCE -35FT
	BATHYMETRIC CONTOUR (EMC, 2016)
	GEOTECHNICAL VIBRACORE (THOMPSON, 2017)
	GEOTECHNICAL VIBRACORE (USGS, 2014)
	2016 SURVEY LIMITS
	BORROW AREA BASELINE COORDINATE
	BORROW AREA COORDINATE
	PROBABLE PIPELINE (EMC, 2016)
	ALLOWABLE ANCHOR AREA

BY	DESCRIPTION	DATE	OBG COASTAL ENGINEERING CONSULTANTS, INC.		UNITED STATES FISH & WILDLIFE SERVICE NATURAL RESOURCES DAMAGE ASSESSMENT OFFICE		NRDA - NORTH BRETON ISLAND EARLY RESTORATION PROJECT		BORROW AREA PLAN VIEW	
			DRAWN BY STEVE DARTIEZ		DESIGNED BY MICHAEL T. POFF, P.E. LICENSE NUMBER 300348		APPROVED BY		DATE JULY 2017 SHEET 10 OF 16	













NORTH BRETON ISLAND RESTORATION AREA EXTENTS			
PI NUMBER	NORTHING	EASTING	LONGITUDE
BI-01	369,034.51	3,967,524.73	29° 29' 49.11"
BI-02	359,745.92	3,963,231.64	29° 28' 17.97"

ISLAND SURVEY BASELINE ALIGNMENT			
PI NUMBER	NORTHING	EASTING	LONGITUDE
SNB-01	370,479.40	3,969,764.06	29° 30' 02.99"
SNB-02	367,488.77	3,969,527.14	29° 29' 33.44"
SNB-03	364,550.83	3,968,920.13	29° 29' 04.47"
SNB-04	362,327.17	3,967,777.62	29° 28' 42.67"
SNB-05	359,897.01	3,966,018.54	29° 28' 18.95"
SNB-06	356,073.87	3,960,761.77	29° 27' 42.08"


ACCESS CHANNEL ALIGNMENT			
PI NUMBER	NORTHING	EASTING	LONGITUDE
AC-01	361,190.49	3,956,028.54	29° 28' 33.59"
AC-02	360,833.71	3,957,099.44	29° 28' 29.86"
AC-03	360,684.19	3,958,043.72	29° 28' 28.21"
AC-04	360,591.38	3,959,220.19	29° 28' 27.07"
AC-05	360,674.61	3,960,503.52	29° 28' 27.66"
AC-06	361,028.28	3,961,669.49	29° 28' 30.95"
AC-07	361,538.47	3,962,778.28	29° 28' 35.80"
AC-08	362,112.86	3,963,558.79	29° 28' 41.34"
AC-09	362,865.39	3,964,450.08	29° 28' 48.62"
AC-10	363,379.60	3,965,058.97	29° 28' 53.60"
AC-11	363,994.51	3,965,608.34	29° 28' 59.58"
AC-12	364,759.09	3,966,188.89	29° 29' 07.04"
AC-13	365,240.98	3,966,513.78	29° 29' 11.75"
AC-14	365,815.78	3,966,660.81	29° 29' 17.41"
AC-15	366,515.43	3,966,648.98	29° 29' 24.34"
AC-16	366,639.67	3,966,632.08	29° 29' 26.57"
AC-17	367,152.27	3,966,562.36	29° 29' 30.66"
AC-18	366,700.87	3,968,062.10	29° 29' 25.91"
AC-19	361,090.90	3,963,349.45	29° 28' 31.26"

BORROW AREA COORDINATES (BOTTOM OF CUT)			
POINT NUMBER	NORTHING	EASTING	LONGITUDE
BA-01	361,339.69	3,985,932.20	29° 28' 29.47"
BA-02	361,338.04	3,989,470.00	29° 28' 28.77"
BA-03	357,738.05	3,989,470.00	29° 27' 53.14"
BA-04	357,738.05	3,987,970.00	29° 27' 53.43"
BA-05	356,765.23	3,987,970.00	29° 27' 43.80"
BA-06	356,754.78	3,985,048.69	29° 27' 44.26"
BA-07	357,981.09	3,984,566.11	29° 27' 55.50"

BORROW AREA SURVEY BASELINE ALIGNMENT			
PI NUMBER	NORTHING	EASTING	LONGITUDE
SBA-01	355,800.00	3,983,570.00	29° 27' 35.09"
SBA-02	362,000.00	3,983,570.00	29° 28' 36.46"

SETTLEMENT AND OVERWASH MONITORING SYSTEM COORDINATES			
NUMBER	NORTHING	EASTING	LONGITUDE
MS-01	368,451.32	3,966,550.15	29° 29' 43.52"
MS-02	369,027.31	3,967,688.04	29° 29' 49.01"
MS-03	367,908.64	3,968,511.12	29° 29' 37.78"
MS-04	367,077.98	3,967,813.62	29° 29' 29.69"
MS-05	365,466.32	3,968,218.38	29° 29' 13.66"
MS-06	363,998.58	3,967,299.52	29° 28' 59.31"
MS-07	362,580.51	3,967,024.23	29° 28' 45.32"
MS-08	362,214.69	3,965,700.37	29° 28' 41.95"
MS-09	359,987.92	3,965,012.40	29° 28' 20.03"
MS-10	360,081.89	3,963,773.51	29° 28' 21.19"

CONVEYANCE CORRIDOR AND SURVEY BASELINE ALIGNMENT			
PI NUMBER	NORTHING	EASTING	LONGITUDE
CC-01	358,577.56	3,984,845.54	29° 28' 02.34"
CC-02	359,379.37	3,973,431.55	29° 28' 12.44"
CC-03	362,816.75	3,968,513.79	29° 28' 47.38"
CC-04	363,356.07	3,968,265.68	29° 28' 52.77"
CC-05	363,737.82	3,967,719.52	29° 28' 56.65"

DESCRIPTION	DATE	 <b>OBG</b> COASTAL ENGINEERING CONSULTANTS, INC.	UNITED STATES FISH & WILDLIFE SERVICE NATURAL RESOURCES DAMAGE ASSESSMENT OFFICE	NRDA - NORTH BRETON ISLAND EARLY RESTORATION PROJECT	COORDINATE AND ALIGNMENT TABLES DATE JULY 2017
DRAWN BY STEVE DARTZ		DESIGNED BY MICHAEL T. POFF, P.E.	APPROVED BY		SHEET 16 OF 16
LICENSE NUMBER 30048					

## **STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES**

During in-water work in areas that potentially support manatees, all personnel associated with the project shall be instructed and aware of the potential presence of manatees, manatee speed zones, and the need to avoid collisions with, and injury to, manatee. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel shall be instructed not to attempt to feed or otherwise interact with the animal.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). To minimize potential impacts to manatees in areas of their potential presence, the permittee shall insure the following are adhered to:

- All work, equipment, and vessel operation shall cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- If a manatee(s) is sighted in or near the project area, all vessels associated with the project shall operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels shall follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers shall be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- Temporary signs concerning manatees shall be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½" X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second temporary sign measuring 8½" X 11" shall be posted at a location prominently visible to all personnel engaged in water-related activities and shall read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".
- Collisions with, injury to, or sightings of manatees shall be immediately reported to the U.S. Fish and Wildlife Service's, Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.