

Appendix H

Permits



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS LA 70118-3651

February 10, 2021

Operations Division
Central Evaluation Section

SUBJECT: MVN 2014-02026-CE

Louisiana Coastal Protection and Restoration Authority
Post Office Box 44027
Baton Rouge, Louisiana 70804

Dear Mr. Dobson:

Revised plans enclosed in twelve (12) sheets, furnished with your permit application dated April 2019 and January 2021, covering additional dredge and fill activities necessary to repair impacts caused by Hurricane Zeta to the construction of CWPPRA Project BA-0171 and BA-193, located on the Caminada Headland near Port Fourchon, Louisiana in Lafourche Parish, are approved and will be included in your plans for the work authorized by the Secretary of the Army in the permit dated June 13, 2019 and September 23, 2019 from the District Commander at New Orleans, Louisiana, to dredge and deposit earthen material to implement CWPPRA Project BA-0171 and BA-193 as described above. These drawings will supersede your original and subsequent modified permitted drawings.

The conditions to which the work is made subject, including the time limit for completion, remain in full force and effect.

A copy of this permit approval letter must be conspicuously displayed at the project site. Also, you must keep a copy of this signed letter, with attached drawings, at the project site until the work is completed.

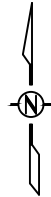
BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Martin S. Mayer
Chief, Regulatory Branch
for
Stephen F. Murphy
Colonel, U.S. Army
District Commander

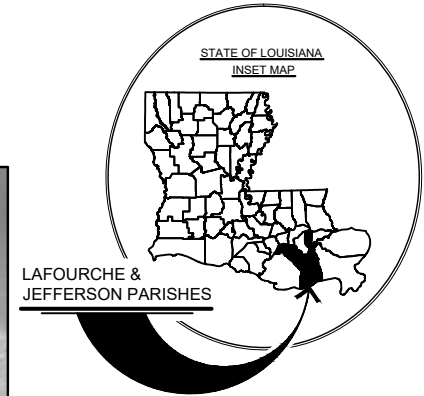
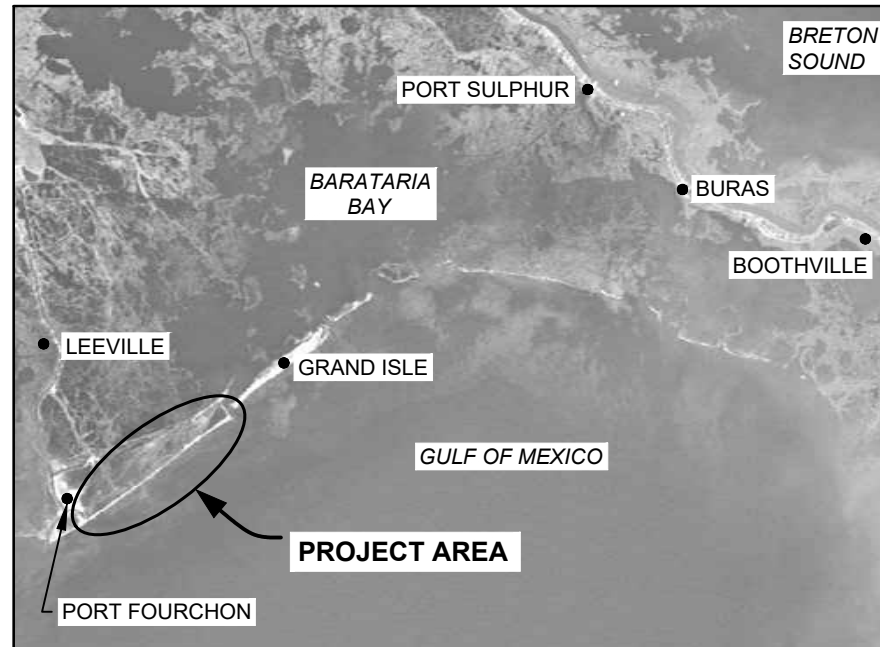
Enclosures

INDEX TO SHEETS

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1	TITLE SHEET
2	PROJECT LAYOUT
3	BORROW AREA LAYOUT
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5	BORROW AREA TYPICAL SECTIONS
6 - 6A	MARSH CREATION AREA TYPICAL SECTIONS
7	DEWATERING AREA TYPICAL SECTION & GEOTEXTILE DETAILS
8	PIPELINE CROSSING DETAIL
9	SETTLEMENT PLATE DETAILS
10	NOTES



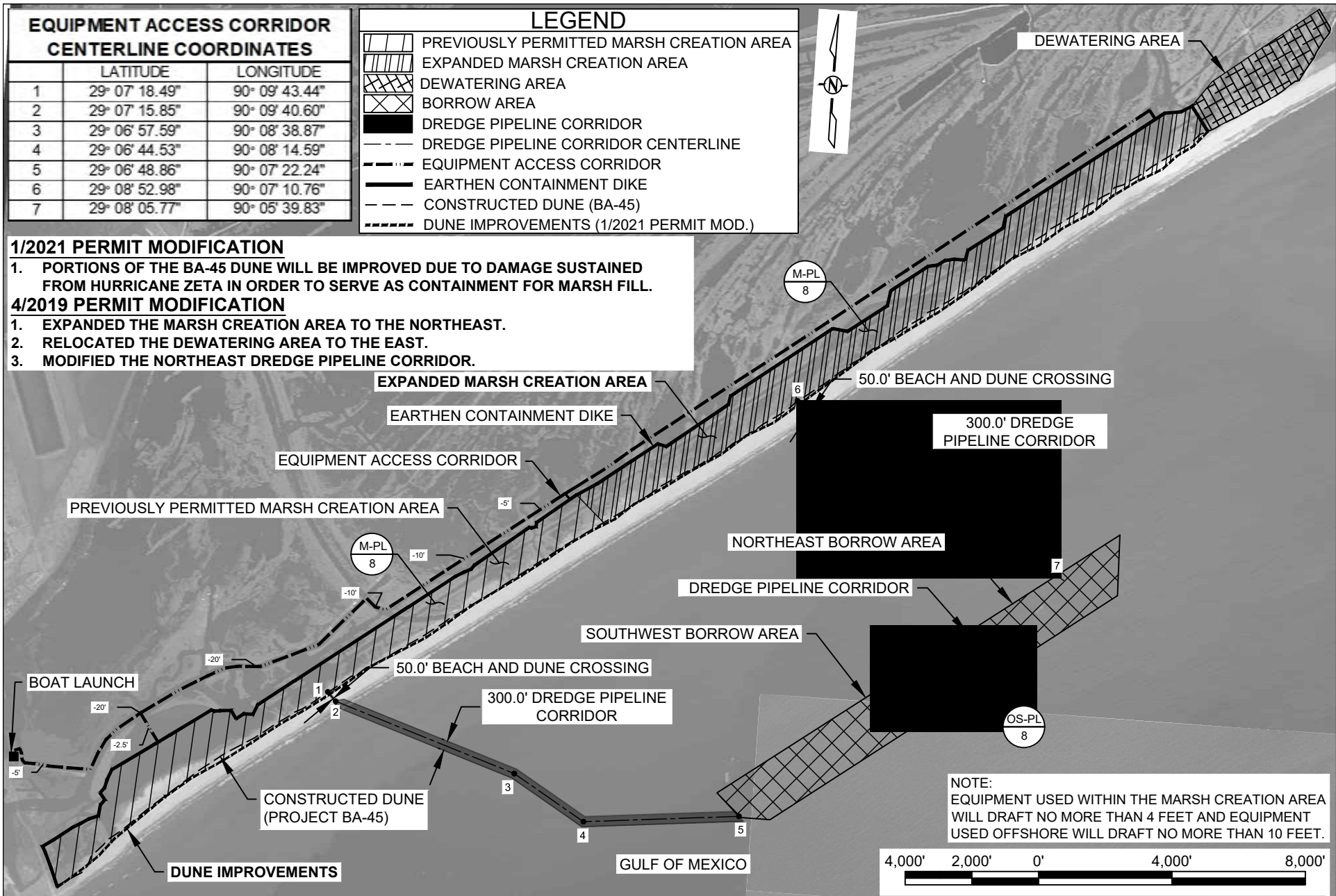
STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT BA-0171 LAFOURCHE AND JEFFERSON PARISH, LOUISIANA



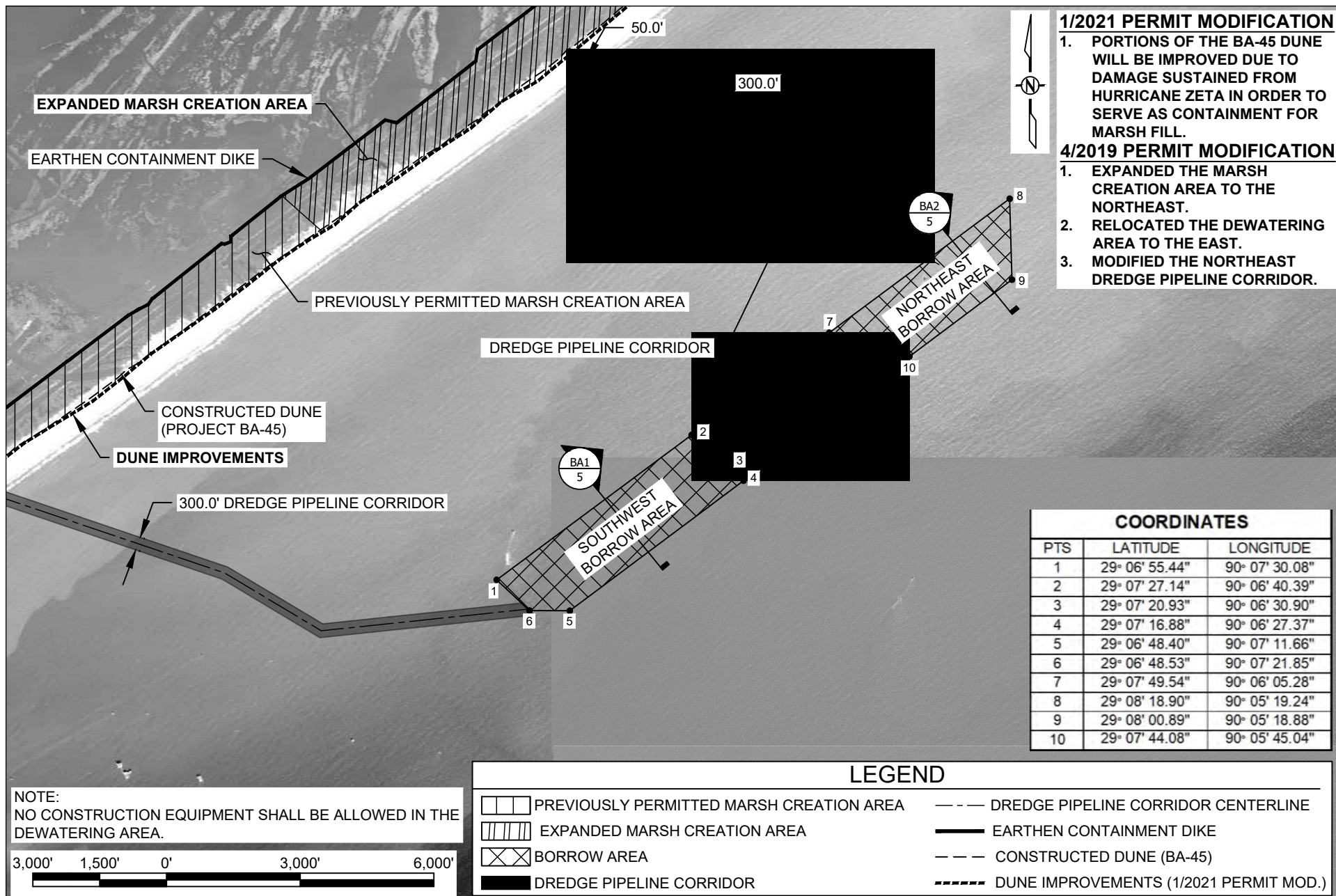
PERMIT MODIFICATION

- ADDED SHEETS 4A AND 6A TO THE SHEET INDEX.

<p>APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT</p>	<p>TITLE SHEET</p>
		<p>STATE PROJECT NUMBER: BA-0171</p>	<p>DATE: JUNE 2018 (REV. 4.2019)</p>
<p>DRAWN BY: K. CANTU</p>	<p>DESIGNED BY: A. TAYLOR, P.E. 041999</p>	<p>APPROVED BY: S. HAYNES, P.E.</p>	<p>SHEET 1 OF 10</p>













APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	<div style="text-align: center;"> COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802 </div>	<div style="text-align: center;"> CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT </div>	<div style="text-align: center;"> PROJECT LAYOUT </div>
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171 APPROVED BY: S. HAYNES, P.E.	DATE: JUNE 2018 (REV. 4.2019 & 1.2021) SHEET 2 OF 10



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	BORROW AREA LAYOUT
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171 APPROVED BY: S. HAYNES, P.E.	DATE: JUNE 2018 (REV. 4.2019 & 1.2021) SHEET 3 OF 10

LEGEND

-  PREVIOUSLY PERMITTED MARSH CREATION AREA
-  EXPANDED MARSH CREATION AREA
-  DREDGE PIPELINE ALIGNMENT
-  CONSTRUCTED DUNE (BA-45)
-  DUNE IMPROVEMENTS (1/2021 PERMIT MOD.)
-  DREDGE PIPELINE ALIGNMENT CENTERLINE
-  EARTHEN CONTAINMENT DIKE WITHOUT GEOTEXTILE FABRIC
-  EARTHEN CONTAINMENT DIKE WITH GEOTEXTILE FABRIC
-  EARTHEN CONTAINMENT DIKE BORROW AREA
-  EQUIPMENT ACCESS CORRIDOR

1/2021 PERMIT MODIFICATION

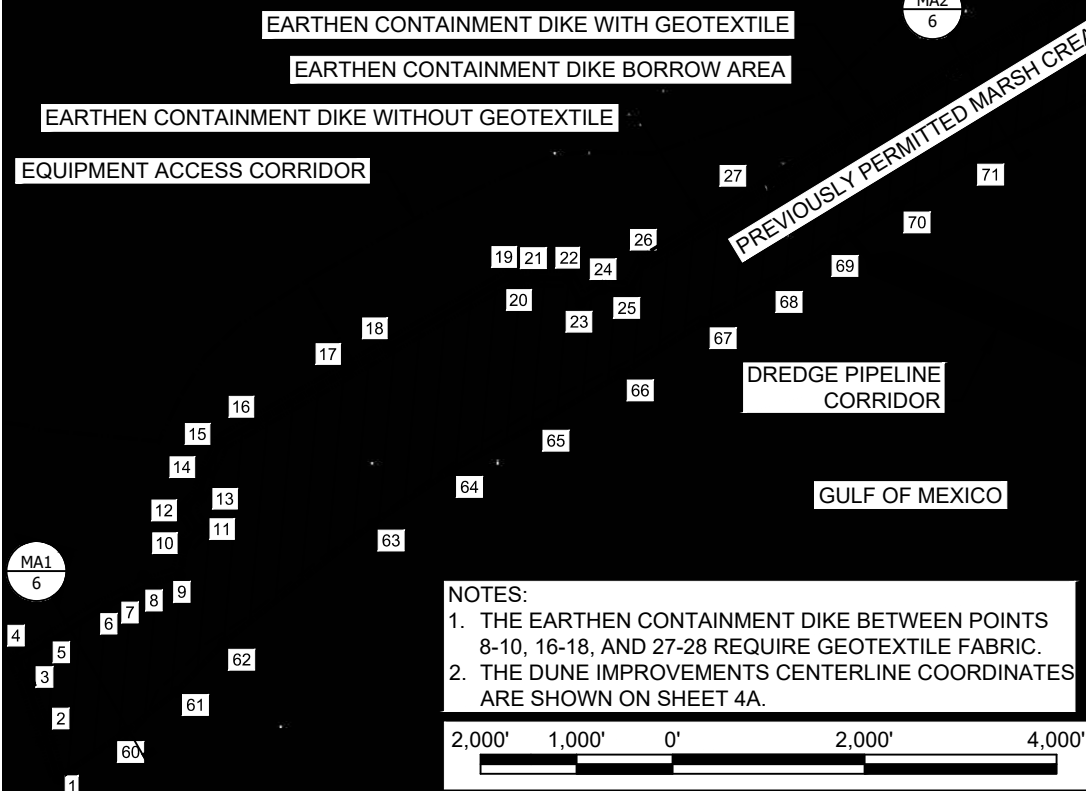
1. PORTIONS OF THE BA-45 DUNE WILL BE IMPROVED DUE TO DAMAGE SUSTAINED FROM HURRICANE ZETA IN ORDER TO SERVE AS CONTAINMENT FOR MARSH FILL.

11/2020 PERMIT MODIFICATION

1. EXTERIOR EARTHEN CONTAINMENT DIKE BORROW AREA ADDED TO THE EXPANDED MARSH CREATION AREA DUE TO DEGRADING OF DIKES FROM STORM DAMAGE.

4/2019 PERMIT MODIFICATION

1. EXPANDED THE MARSH CREATION AREA TO THE NORTHEAST.
2. RELOCATED THE DEWATERING AREA TO THE EAST.
3. MODIFIED THE NORTHEAST DREDGE PIPELINE CORRIDOR.



NOTES:

1. THE EARTHEN CONTAINMENT DIKE BETWEEN POINTS 8-10, 16-18, AND 27-28 REQUIRE GEOTEXTILE FABRIC.
2. THE DUNE IMPROVEMENTS CENTERLINE COORDINATES ARE SHOWN ON SHEET 4A.



EARTHEN CONTAINMENT DIKE CENTERLINE COORDINATES

PTS	LATITUDE	LONGITUDE	PTS	LATITUDE	LONGITUDE
1	29° 06' 15.81"	90° 11' 10.74"	21	29° 07' 11.04"	90° 10' 19.50"
2	29° 06' 21.25"	90° 11' 13.22"	22	29° 07' 11.28"	90° 10' 15.68"
3	29° 06' 26.20"	90° 11' 15.70"	23	29° 07' 08.89"	90° 10' 13.89"
4	29° 06' 27.65"	90° 11' 16.61"	24	29° 07' 10.49"	90° 10' 11.41"
5	29° 06' 29.71"	90° 11' 13.14"	25	29° 07' 10.55"	90° 10' 08.25"
6	29° 06' 33.94"	90° 11' 06.64"	26	29° 07' 13.46"	90° 10' 06.82"
7	29° 06' 35.14"	90° 11' 04.17"	27	29° 07' 21.04"	90° 09' 55.11"
8	29° 06' 36.60"	90° 11' 01.60"	28	29° 07' 45.06"	90° 09' 18.00"
9	29° 06' 37.68"	90° 10' 58.35"	29	29° 07' 55.08"	90° 09' 02.52"
10	29° 06' 40.96"	90° 10' 57.92"	30	29° 07' 56.31"	90° 09' 00.09"
11	29° 06' 42.56"	90° 10' 56.52"	31	29° 07' 57.42"	90° 08' 57.52"
12	29° 06' 44.56"	90° 10' 58.25"	32	29° 07' 58.63"	90° 08' 56.55"
13	29° 06' 46.17"	90° 10' 56.82"	33	29° 08' 10.80"	90° 08' 38.72"
14	29° 06' 48.50"	90° 10' 56.18"	34	29° 08' 10.65"	90° 08' 38.02"
15	29° 06' 51.64"	90° 10' 54.77"	35	29° 08' 11.17"	90° 08' 36.43"
16	29° 06' 53.92"	90° 10' 50.94"	36	29° 08' 12.39"	90° 08' 36.43"
17	29° 07' 00.10"	90° 10' 40.53"	37	29° 08' 21.28"	90° 08' 23.43"
18	29° 06' 02.82"	90° 10' 36.02"	38	29° 08' 24.95"	90° 08' 16.68"
19	29° 07' 11.07"	90° 10' 22.36"	39	29° 08' 37.84"	90° 07' 57.03"
20	29° 07' 10.76"	90° 10' 21.24"	40	29° 08' 37.21"	90° 07' 54.19"

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

COASTAL PROTECTION AND RESTORATION AUTHORITY

150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

MARSH CREATION
AREA LAYOUT

STATE PROJECT NUMBER: BA-0171

DATE: JUNE 2018

REV. 4/2019,
11/2020 & 1/2021

DRAWN BY: K. CANTU

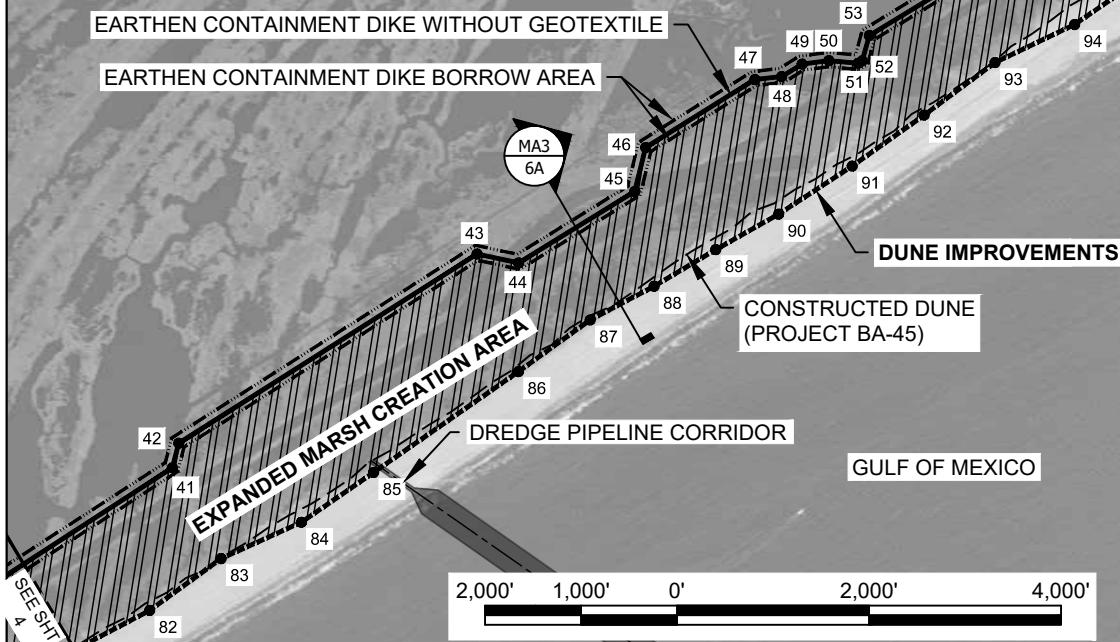
DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

SHEET 4 OF 10

DUNE IMPROVEMENTS CENTERLINE COORDINATES					
PTS	LATITUDE	LONGITUDE	PTS	LATITUDE	LONGITUDE
1	29° 06' 15.81"	90° 11' 10.74"	81	29° 08' 30.58"	90° 07' 44.96"
60	29° 06' 21.19"	90° 11' 03.30"	82	29° 08' 35.85"	90° 07' 35.39"
61	29° 06' 25.70"	90° 10' 57.63"	83	29° 08' 41.75"	90° 07' 27.48"
62	29° 06' 31.07"	90° 10' 52.62"	84	29° 08' 46.12"	90° 07' 18.41"
63	29° 06' 44.51"	90° 10' 36.22"	85	29° 08' 51.81"	90° 07' 10.40"
64	29° 06' 50.64"	90° 10' 27.52"	86	29° 09' 03.33"	90° 06' 54.34"
65	29° 06' 56.08"	90° 10' 17.82"	87	29° 09' 09.21"	90° 06' 46.41"
66	29° 07' 01.92"	90° 10' 08.40"	88	29° 09' 13.17"	90° 06' 39.22"
67	29° 07' 07.94"	90° 09' 59.18"	89	29° 09' 17.43"	90° 06' 32.32"
68	29° 07' 12.20"	90° 09' 51.79"	90	29° 09' 21.56"	90° 06' 25.28"
69	29° 07' 16.66"	90° 09' 44.54"	91	29° 09' 27.09"	90° 06' 17.10"
70	29° 07' 21.40"	90° 09' 37.51"	92	29° 09' 32.90"	90° 06' 09.13"
71	29° 07' 26.89"	90° 09' 29.32"	93	29° 09' 38.86"	90° 06' 01.29"
72	29° 07' 36.16"	90° 09' 11.67"	94	29° 09' 43.40"	90° 05' 52.31"
73	29° 07' 46.44"	90° 08' 56.93"	95	29° 09' 49.13"	90° 05' 44.22"
74	29° 07' 56.18"	90° 08' 40.73"	96	29° 09' 53.80"	90° 05' 35.35"
75	29° 08' 01.48"	90° 08' 32.43"	97	29° 09' 59.38"	90° 05' 28.33"
76	29° 08' 06.99"	90° 08' 24.35"	98	29° 10' 04.03"	90° 05' 20.50"
77	29° 08' 11.05"	90° 08' 17.35"	99	29° 10' 08.04"	90° 05' 12.30"
78	29° 08' 14.74"	90° 08' 10.06"	100	29° 10' 12.23"	90° 05' 07.56"
79	29° 08' 19.56"	90° 08' 03.79"	101	29° 10' 15.52"	90° 05' 02.11"
80	29° 08' 24.94"	90° 07' 54.18"	59	29° 10' 20.06"	90° 04' 57.59"

- 1/2021 PERMIT MODIFICATION**
1. PORTIONS OF THE BA-45 DUNE WILL BE IMPROVED DUE TO DAMAGE SUSTAINED FROM HURRICANE ZETA IN ORDER TO SERVE AS CONTAINMENT FOR MARSH FILL.
- 11/2020 PERMIT MODIFICATION**
2. EXTERIOR EARTHEN CONTAINMENT DIKE BORROW AREA ADDED TO THE EXPANDED MARSH CREATION AREA DUE TO DEGRADING OF DIKES FROM STORM DAMAGE.
- 4/2019 PERMIT MODIFICATION**
3. EXPANDED THE MARSH CREATION AREA TO THE NORTHEAST.
 4. RELOCATED THE DEWATERING AREA TO THE EAST.
 5. MODIFIED THE NORTHEAST DREDGE PIPELINE CORRIDOR.

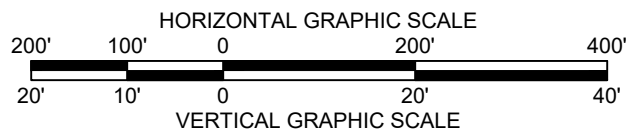
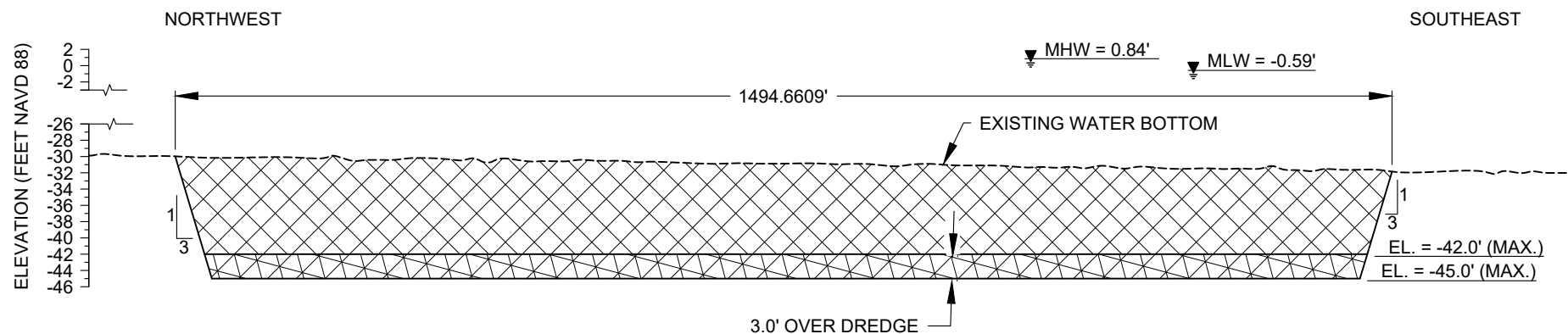
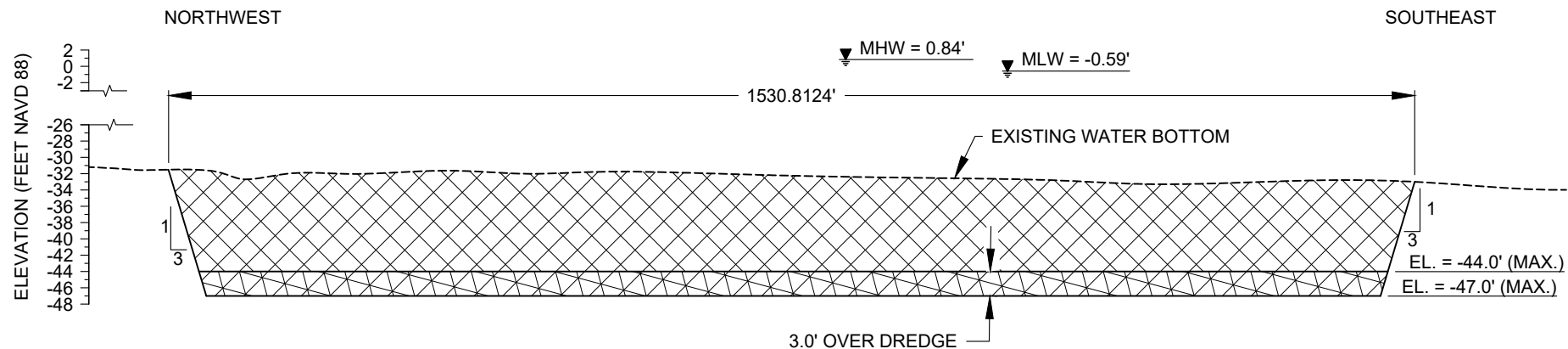


EARTHEN CONTAINMENT DIKE CENTERLINE COORDINATES					
PTS	LATITUDE	LONGITUDE	PTS	LATITUDE	LONGITUDE
41	29° 08' 50.71"	90° 07' 34.01"	51	29° 09' 37.71"	90° 06' 17.31"
42	29° 08' 53.28"	90° 07' 33.48"	52	29° 09' 38.00"	90° 06' 16.87"
43	29° 09' 15.09"	90° 07' 00.24"	53	29° 09' 40.66"	90° 06' 16.26"
44	29° 09' 14.50"	90° 06' 55.29"	54	29° 09' 47.84"	90° 06' 04.85"
45	29° 09' 22.77"	90° 06' 42.33"	55	29° 09' 51.40"	90° 06' 04.20"
46	29° 09' 27.37"	90° 06' 41.46"	56	29° 10' 24.74"	90° 05' 12.51"
47	29° 09' 35.23"	90° 06' 29.27"	57	29° 10' 25.42"	90° 05' 07.05"
48	29° 09' 35.74"	90° 06' 26.17"	58	29° 10' 27.31"	90° 05' 03.46"
49	29° 09' 37.19"	90° 06' 23.88"	59	29° 10' 20.06"	90° 04' 57.59"
50	29° 09' 37.75"	90° 06' 20.77"			

LEGEND

- EXPANDED MARSH CREATION AREA
- DEWATERING AREA
- DREDGE PIPELINE ALIGNMENT
- CONSTRUCTED DUNE (BA-45)
- DUNE IMPROVEMENTS (1/2021 PERMIT MOD.)
- DREDGE PIPELINE ALIGNMENT CENTERLINE
- EARTHEN CONTAINMENT DIKE WITHOUT GEOTEXTILE FABRIC
- EARTHEN CONTAINMENT DIKE BORROW AREA
- EQUIPMENT ACCESS CORRIDOR

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	
		STATE PROJECT NUMBER: BA-0171	DATE: APRIL 2019 (REV. 11/20 & 1/21)
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 4A OF 10



LEGEND	
	BORROW AREA
	OVER DREDGE
	EXISTING WATER BOTTOM

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

BORROW AREA
TYPICAL SECTIONS

STATE PROJECT NUMBER: BA-0171

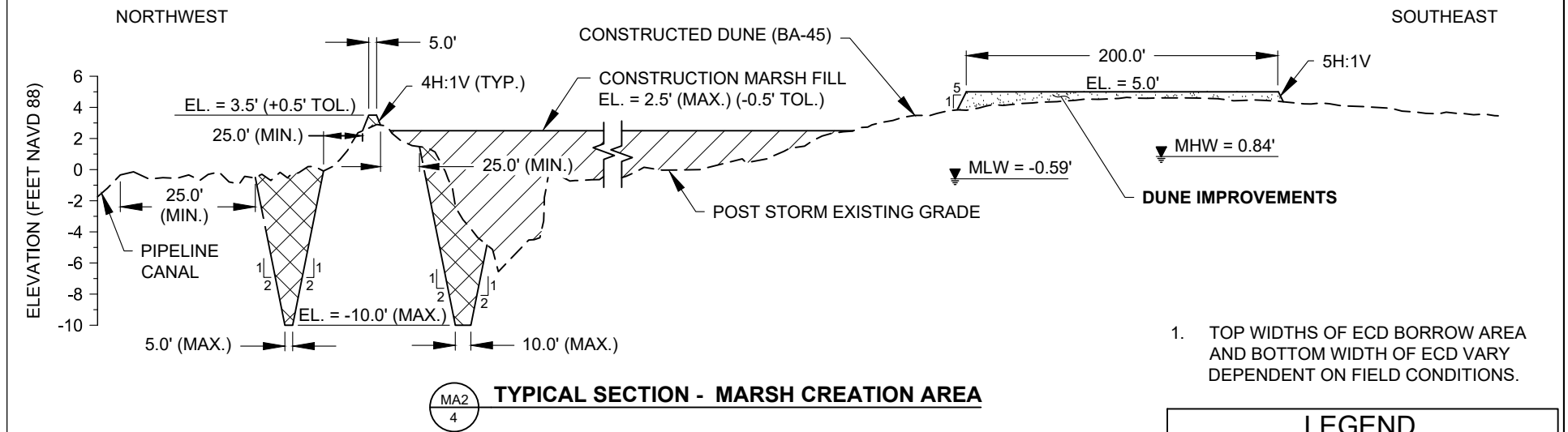
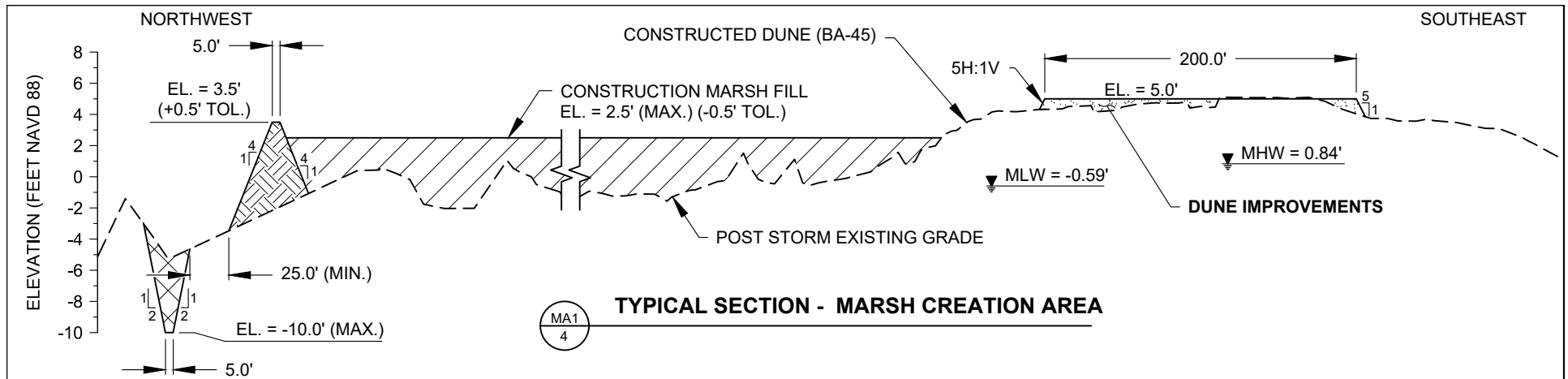
DATE: JUNE 2018

DRAWN BY: K. CANTU

DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

SHEET 5 OF 10



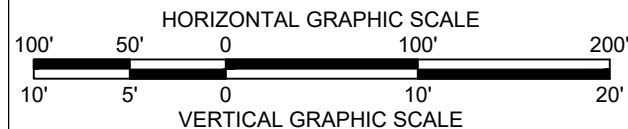
1. TOP WIDTHS OF ECD BORROW AREA AND BOTTOM WIDTH OF ECD VARY DEPENDENT ON FIELD CONDITIONS.

1/2021 PERMIT MODIFICATION

1. PORTIONS OF THE BA-45 DUNE WILL BE IMPROVED DUE TO DAMAGE SUSTAINED FROM HURRICANE ZETA IN ORDER TO SERVE AS CONTAINMENT FOR MARSH FILL. SAND DISPLACED LANDWARD OF THE DUNE WILL BE UTILIZED TO IMPROVE THE DUNE.

4/2019 PERMIT MODIFICATION

1. REVISED EARTHEN CONTAINMENT DIKE CROWN ELEVATION TO 3.5'.
2. REVISED CONSTRUCTION MARSH FILL ELEVATION TO 2.5'.



LEGEND	
	MARSH CREATION AREA
	EARTHEN CONTAINMENT DIKE
	EARTHEN CONTAINMENT DIKE BORROW AREA
	DUNE IMPROVEMENTS (1/2021 MOD.)
	GEOTEXTILE FABRIC
	EXISTING GROUND

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

MARSH CREATION AREA
TYPICAL SECTIONS

DRAWN BY: K. CANTU

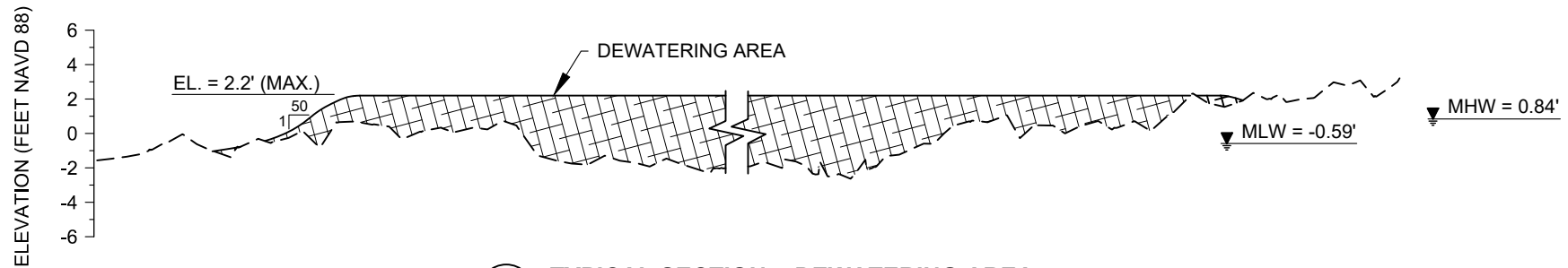
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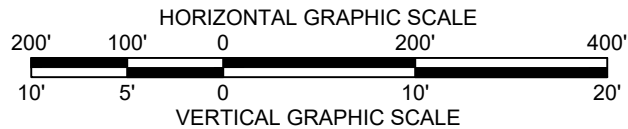
APPROVED BY: S. HAYNES, P.E.

SHEET 6 OF 10



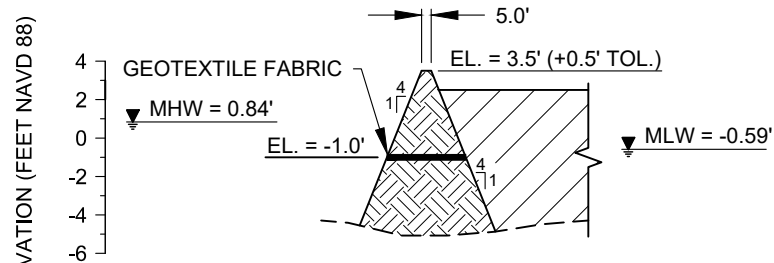
DA
4A

TYPICAL SECTION - DEWATERING AREA

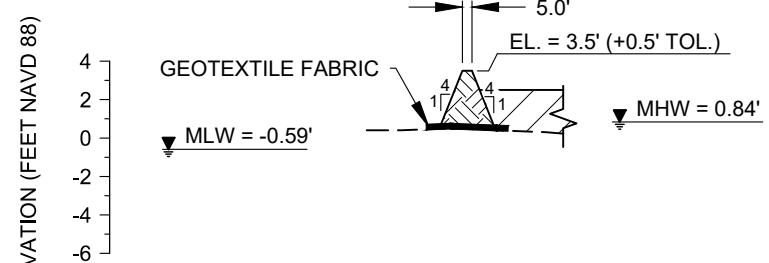


NOTE:

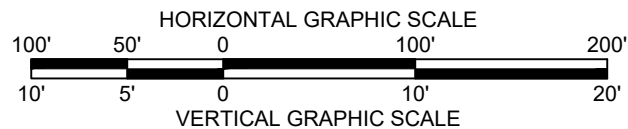
1. THE DEWATERING AREA SHALL BE PRIMARILY USED FOR DEWATERING WATER FROM THE MCA. NO CONSTRUCTION SHALL DIRECTLY OCCUR WITHIN THIS AREA.



DETAIL - GEOTEXTILE AT -1.0' ELEVATION



DETAIL - GEOTEXTILE AT EXISTING GRADE



PERMIT MODIFICATION

1. REVISED EARTHEN CONTAINMENT DIKE CROWN ELEVATION TO 3.5'.
2. REVISED CONSTRUCTION MARSH FILL ELEVATION TO 2.5'.

LEGEND	
	DEWATERING AREA
	MARSH CREATION FILL
	EARTHEN CONTAINMENT DIKE
	GEOTEXTILE FABRIC
	EXISTING GROUND

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

DEWATERING AREA
TYPICAL SECTION AND
GEOTEXTILE DETAILS

STATE PROJECT NUMBER: BA-0171

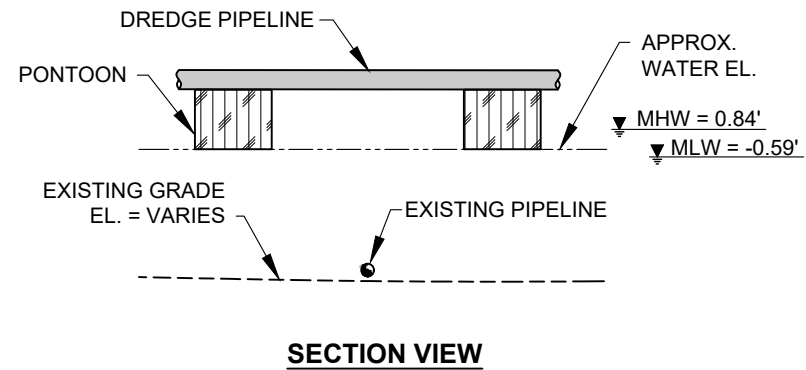
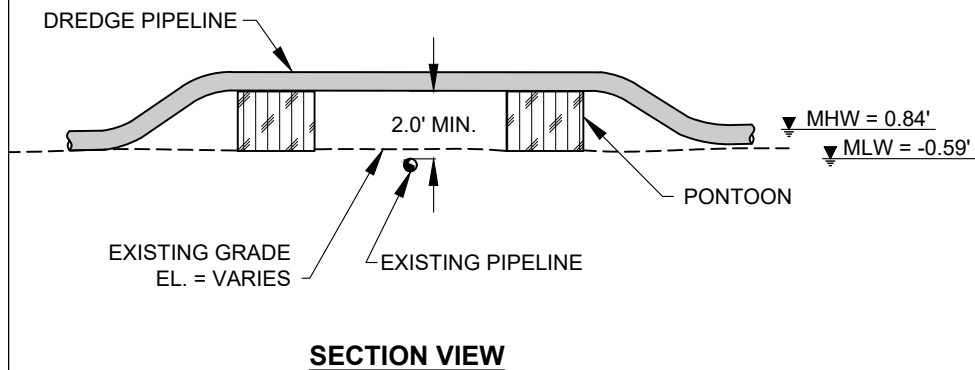
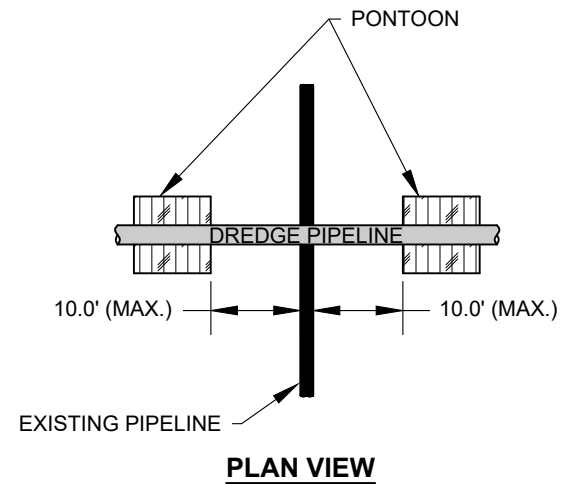
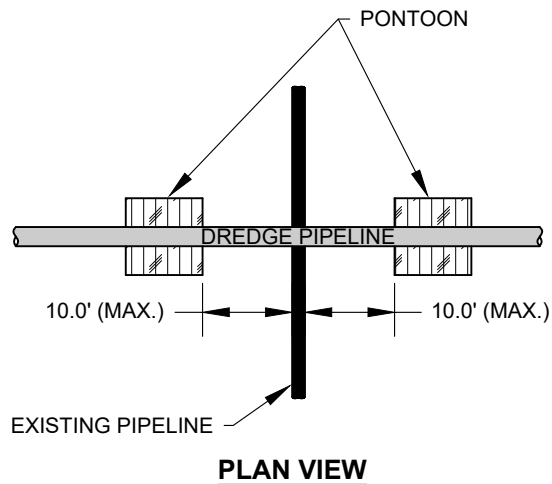
DATE: JUNE 2018 (REV. 4.2019)

DRAWN BY: K. CANTU

DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

SHEET 7 OF 10



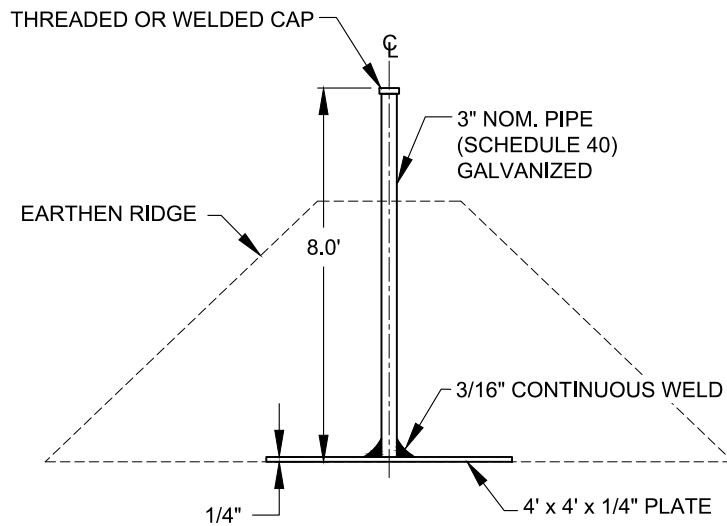
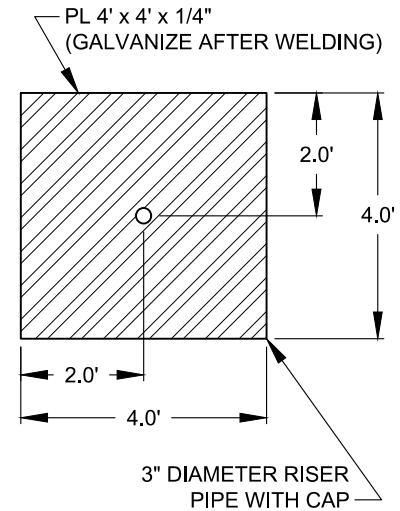
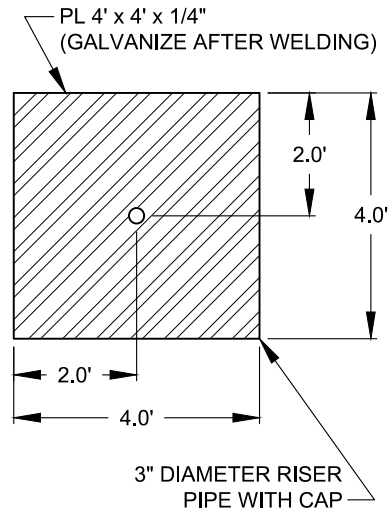
(M-PL 2) **MARSH PIPELINE CROSSING DETAIL**
N.T.S

(OS-PL 2) **OFFSHORE PIPELINE CROSSING DETAIL**
N.T.S

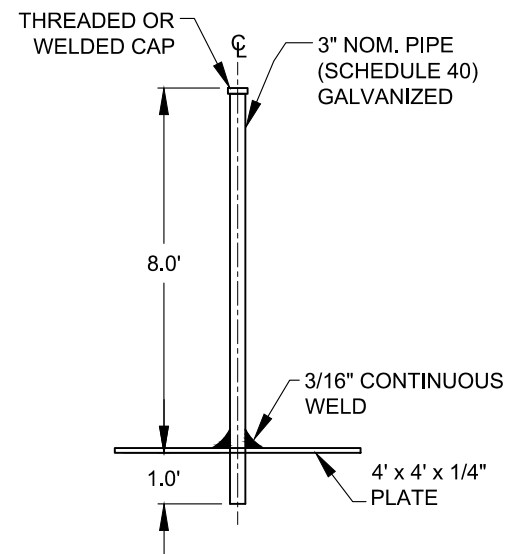
NOTES:
PONTOONS SHALL BE MOBILIZED TO MARSH FILL AREA VIA THE EQUIPMENT ACCESS ROUTES AND SHALL REMAIN FLOATING AT ALL TIMES WHILE EXTERIOR TO THE MARSH FILL AREA. THE PONTOONS SHALL NOT BE PLACED ON EXISTING WETLANDS EXTERIOR TO THE MARSH FILL AREA.

LEGEND	
	DREDGE PIPELINE
	PONTOON SUPPORT
	EXISTING GROUND

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	PIPELINE CROSSING DETAIL
		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 8 OF 10



**EARTHEN DIKE
SETTLEMENT PLATE**
NOT TO SCALE



**MARSH CREATION
SETTLEMENT PLATE**
NOT TO SCALE

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

SETTLEMENT PLATE
DETAILS

STATE PROJECT NUMBER: BA-0171

DATE: JUNE 2018

DRAWN BY: K. CANTU

DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

SHEET 9 OF 10

1. 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.
2. ALL STRUCTURES BUILT UNDER THE AUTHORIZATION AND CONDITIONS OF THIS PERMIT SHALL BE REMOVED FROM THE SITE WITHIN 120 DAYS OF ABANDONMENT OF THE FACILITIES FOR THE HEREIN PERMITTED USE, OR WHEN THESE STRUCTURES FALL INTO A STATE OF DISREPAIR SUCH THAT THEY CAN NO LONGER FUNCTION AS INTENDED. THIS CONDITION DOES NOT PRECLUDE THE NECESSITY FOR REVISING THE CURRENT PERMIT OR OBTAINING A SEPARATE COASTAL USE PERMIT, SHOULD ONE BE REQUIRED, FOR SUCH REMOVAL ACTIVITIES.
3. STRUCTURES MUST ALSO BE MARKED/LIGHTED IN ACCORDANCE WITH U.S. COAST GUARD REGULATIONS.
4. IN ORDER TO ENSURE THE SAFETY OF ALL PARTIES, THE PERMITTEE SHALL CONTACT THE 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.
5. TRACKED EQUIPMENT SHALL HAVE A MAXIMUM DIMENSION OF 34 FEET LONG AND 15 FEET WIDE.
6. THE CONTRACTOR SHALL DECANT SUPERNATANT WATER INTO THE DEWATERING AREA USING STRUCTURES SUCH AS WEIRS OR SPILL BOXES. THE LOSS OF FINE-GRAINED MATERIAL MAY BE FURTHER REDUCED THROUGH THE USE OF INTERNAL TRAINING DIKES, HAY BALES, OR SILT FENCES.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	NOTES
		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 10 OF 10

DEPARTMENT OF THE ARMY PERMIT

Permittee: Louisiana Coastal Protection and Restoration Authority

Permit No.: MVN-2014-02026-CE

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: Dredge and deposit earthen material for marsh renourishment and creation to implement CWPPRA Project BA-0171 (Caminada Headland Back Barrier Marsh Creation Project), in accordance with drawings attached in 10 sheets dated June 2018.

Project Location: Near Port Fourchon, Louisiana in Lafourche Parish, Latitude 29.127317 and Longitude -90.154439.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **May 31, 2024**. 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 one 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: SEE PAGES 4 AND 5.

Further Information:

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

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

(X) 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 Renee Bennett
(PERMITTEE)

x 6-6-19
(DATE)

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

John M. Herman

13 Jun 2019
(DATE)

John M. Herman, Chief, Central 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.

(TRANSFEEE)

(DATE)

SPECIAL CONDITIONS: MVN-2014-02026-CE

7. The permittee shall ensure that a copy of this Department of the Army permit is provided to all contractors, foremen, and/or on-site workers involved in construction activities so that they are aware of the conditions and restrictions associated with this approval.
8. Any excavated and/or fill material placed within wetlands must be free of contaminants, to the best of the permittee's knowledge.
9. Any changes in the project configuration as a result of local approvals must be documented and appropriate drawings provided to this District office for incorporation into the permit file.
10. Construction activities shall not cause more than minimal and temporal water quality degradation of any adjacent wetland, stream, or water body. Appropriate erosion and siltation controls must be utilized during construction to prevent sediment runoff into adjacent wetlands and waterways. Sediment control techniques could include but are not limited to the use of secured hay bales, sediment/silt fencing, wooden or vinyl barriers, and/or seeding or sodding of exposed or disturbed areas. These structures should be maintained in effective operating condition until sediments are stabilized by vegetation and other impervious surfacing.
11. The permittee shall limit clearing, excavation and the placement of fill material to areas essential to the project. The remainder of the property shall be left in its natural state. If the authorized project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.
12. Wetlands that are not part of the project site but that are disturbed during construction, including the temporary crossing of wetland areas, shall be restored to their preproject elevations and conditions, including replanting.
13. The project area has been identified as an area of interest for federally recognized Native American Tribes. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee shall cease work immediately and contact CEMVN. CEMVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
14. The permittee is aware that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.
15. The permittee shall adhere to the enclosed Standard Manatee Conditions for In-Water Activities as per the Standard Local Operating Procedure for Endangered Species in Louisiana (SLOPES), dated October 22, 2014, between the U.S. Army Corps of Engineers, New Orleans and U.S. Fish and Wildlife Service, Ecological Services Office.
16. The permittee must install and maintain, at the permittee's expense, any safety lights, signs, and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the permittee's authorized facilities.
17. The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

SPECIAL CONDITIONS: MVN-2014-02026-CE

18. 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.

19. 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 U.S. Coast Guard 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.

JUN 14 2019

Clune/lpc/1577

Operations Division
Central Evaluation Section

SUBJECT: MVN-2014-02026-CE

Louisiana Coastal Protection and Restoration Authority
P.O. Box 44027
Baton Rouge, LA 70804

Gentlement:

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: Central 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.

A copy of page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

John M. Herman
Chief, Central Evaluation Section

Enclosures



HERMAN
ODR-C

FILE COPY

MAY 10 2019

Operations Division
Central Evaluation Division

SUBJECT: MVN-2014-02026-CE

Louisiana Coastal Protection and Restoration Authority
P.O. Box 44027
Baton Rouge, LA 70804

Gentlemen:

We are forwarding a draft copy of a permit, subject as above, which will authorize work under the Department of the Army permit program, after signed by a responsible official of this office.

The unsigned, undated copy of the permit is enclosed. You must sign and date the permit, signifying acceptance of the terms and conditions therein, and return the signed permit to this office. Upon receipt of the permit, the permit will be signed by the responsible official and will be returned to you.

RETURN TO: U.S ARMY CORPS OF ENGINEERS, REGULATORY BRANCH, CENTRAL EVALUATION SECTION, 7400 LEAKE AVE, NEW ORLEANS, LA 70118-3651. If you have any questions regarding this draft permit, please contact Ms. Patricia Clune, Project Manager at (504) 862-1577.

YOU ARE ADVISED THAT YOU HAVE NO VALID PERMIT, AND NO WORK MAY BE PERFORMED UNTIL YOU RECEIVE THE ORIGINAL OF THE PERMIT SIGNED BY A RESPONSIBLE OFFICIAL OF THIS OFFICE

Before signing and returning the permit to this office, carefully consider the information contained in the permit. **ALSO, CAREFULLY CONSIDER THE INFORMATION CONTAINED IN THE ENCLOSED FORM "NOTIFICATION OF APPLICANT OPTION (NAO)" WHICH LISTS THE OPTIONS AVAILABLE TO YOU IN YOUR EVALUATION OF THE ENCLOSED PERMIT.**

IF YOU CHOOSE TO ACCEPT THE TERMS AND CONDITIONS OF THIS PERMIT, SIGN AND RETURN THIS PERMIT WITH THE DRAWINGS, WITHIN 60 DAYS OF THE DATE OF THIS LETTER. IF YOU FAIL TO DO SO, WE WILL ASSUME YOU NO LONGER PLAN TO DO THE WORK COVERED BY THE DRAFT PERMIT, AND YOUR APPLICATION WILL BE REMOVED FROM OUR FILES.

Sincerely,

Martin S. Mayer
Chief, Regulatory Branch

Enclosures


J. HERMAN
ODR-C

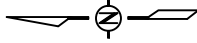
MAYER
ODR

FILE COPY

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
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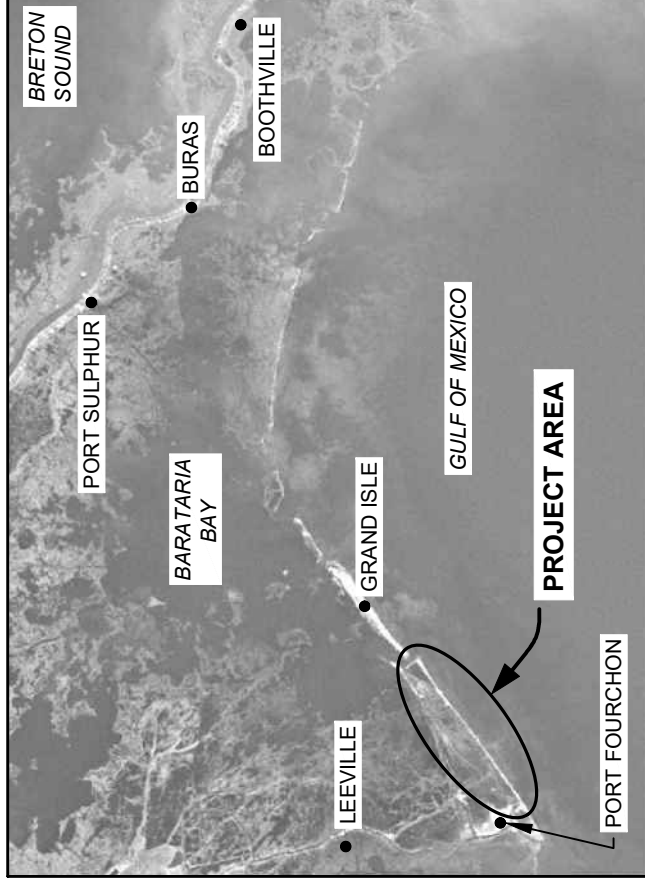
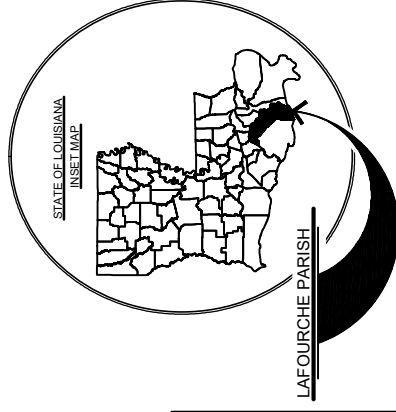
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|----|---|
| 1 | TITLE SHEET |
| 2 | PROJECT LAYOUT |
| 3 | BORROW AREA LAYOUT |
| 4 | MARSH CREATION
AREA LAYOUT |
| 5 | BORROW AREA |
| 6 | TYPICAL SECTIONS
MARSH CREATION AREA |
| 7 | TYPICAL SECTIONS
DEWATERING AREA TYPICAL
SECTION & GEOTEXTILE DETAILS |
| 8 | PIPELINE CROSSING DETAIL |
| 9 | SETTLEMENT PLATE DETAILS |
| 10 | NOTES |



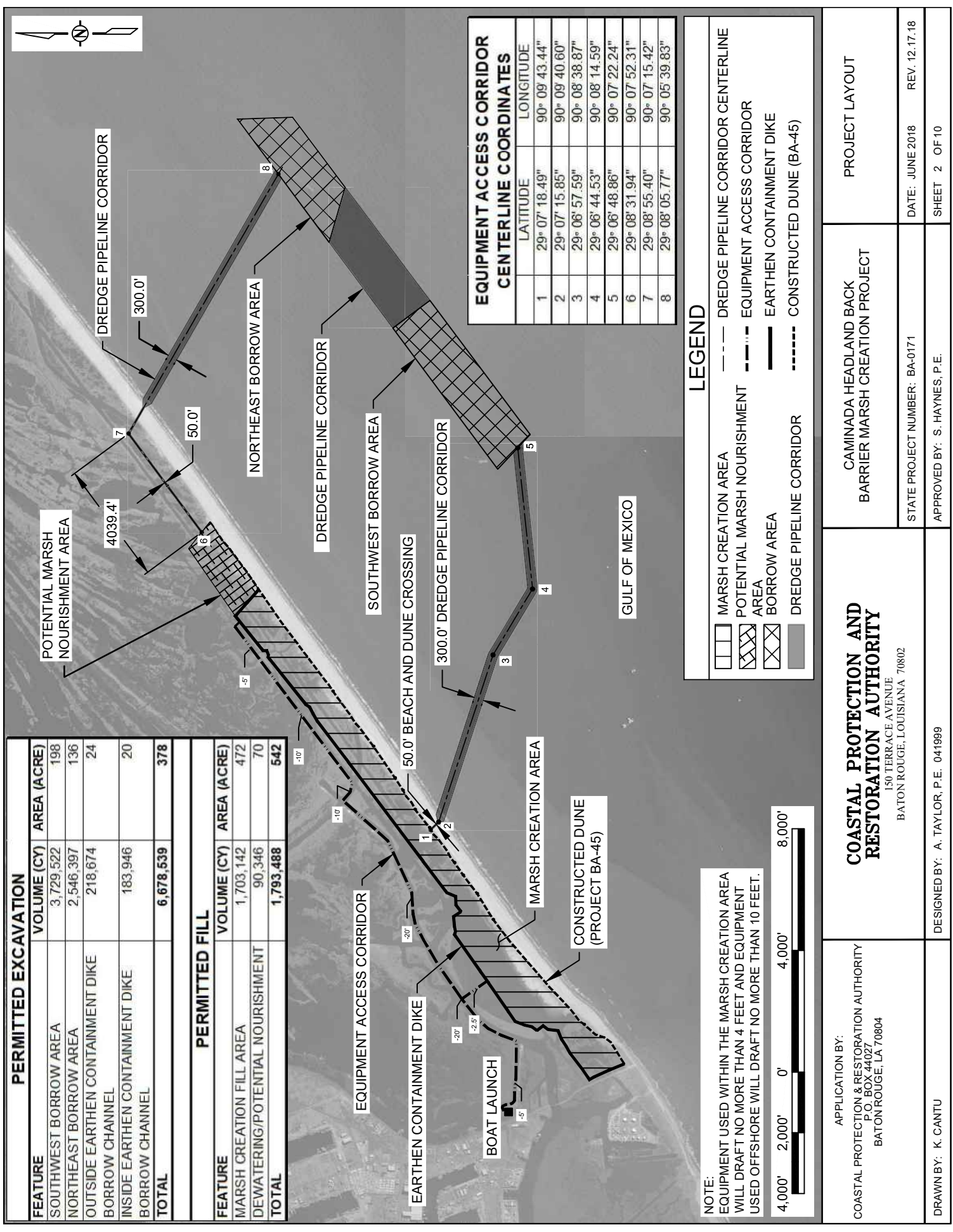
STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY

**CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT**





BA-0171
LAFOURCHE PARISH, LOUISIANA



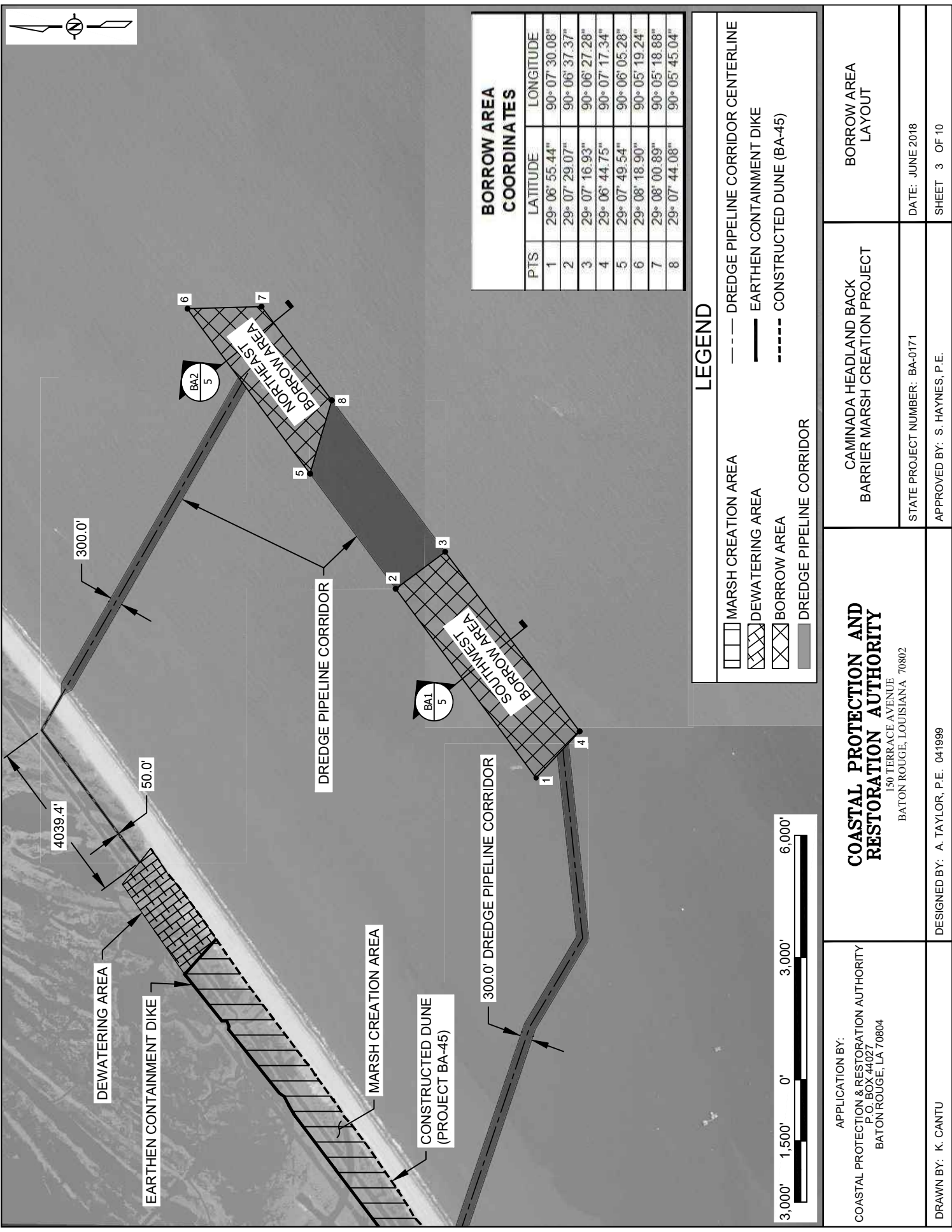
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802		CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	TITLE SHEET
	DESIGNED BY: A. TAYLOR, P.E. 041999		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
	DRAWN BY: K. CANTU		APPROVED BY: S. HAYNES, P.E.	SHEET 1 OF 10

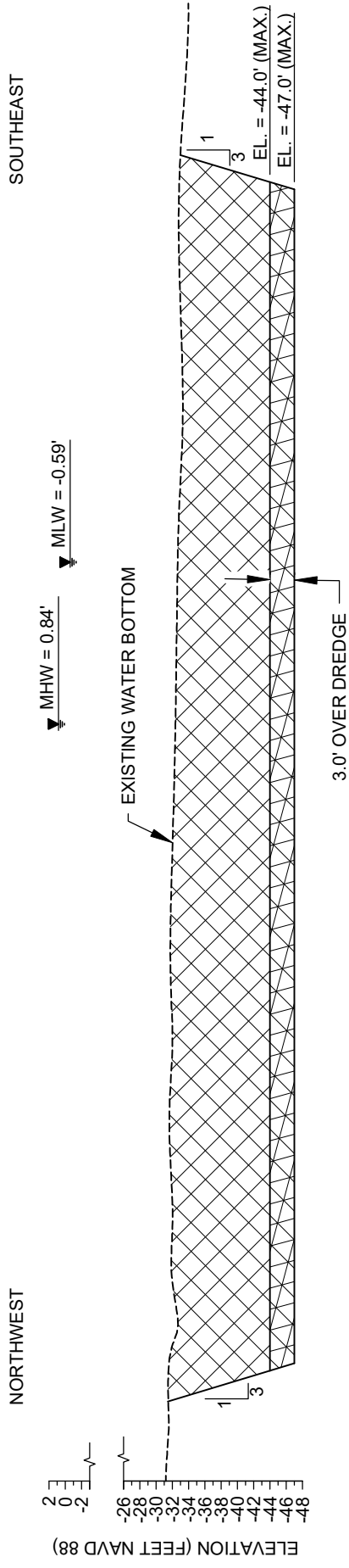


PERMITTED FILL		
FEATURE	VOLUME (CY)	AREA (ACRE)
MARSH CREATION FILL AREA	1,703,142	472
DEWATERING/POTENTIAL NOURISHMENT	90,346	70
TOTAL	1,793,488	542

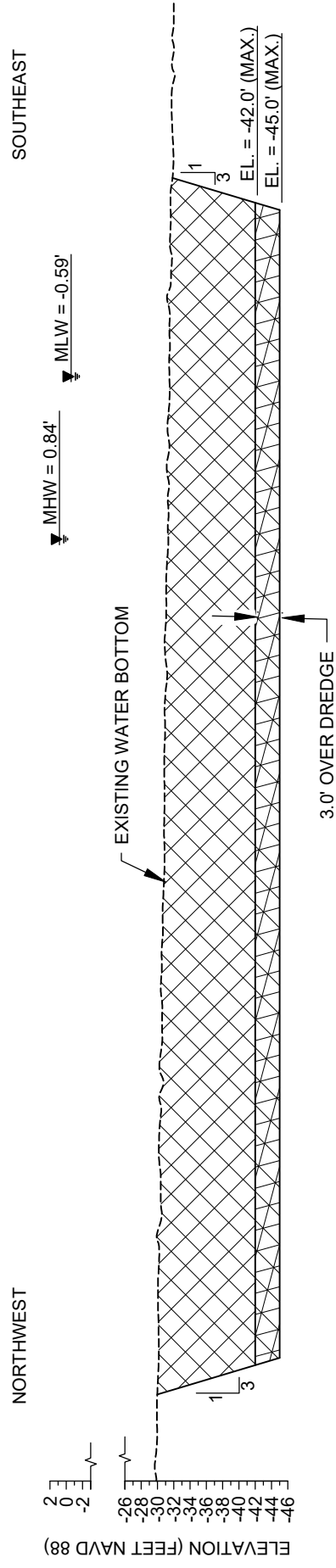
LEGEND	
	MARSH CREATION AREA
	POTENTIAL MARSH NOURISHMENT AREA
	BORROW AREA
	DREDGE PIPELINE CORRIDOR
---	DREDGE PIPELINE CORRIDOR CENTERLINE
- - - -	EQUIPMENT ACCESS CORRIDOR
————	EARTHEN CONTAINMENT DIKE
- - - - -	CONSTRUCTED DUNE (BA-45)

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	PROJECT LAYOUT
		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018 REV. 12.17.18
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 2 OF 10

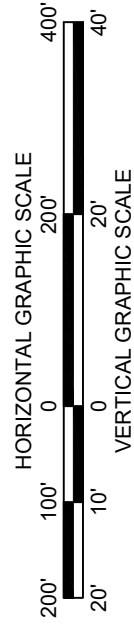




TYPICAL SECTION - BORROW AREA

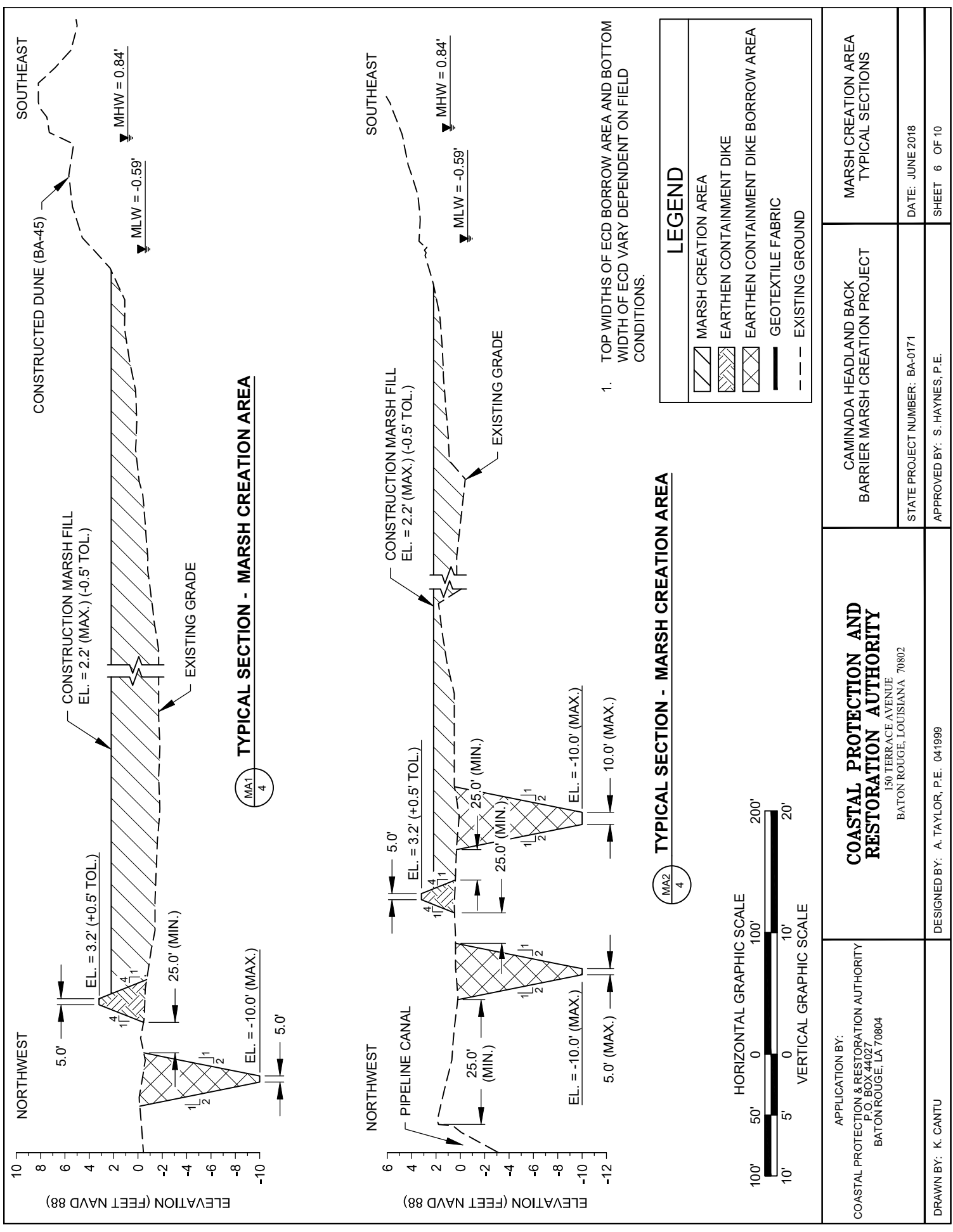


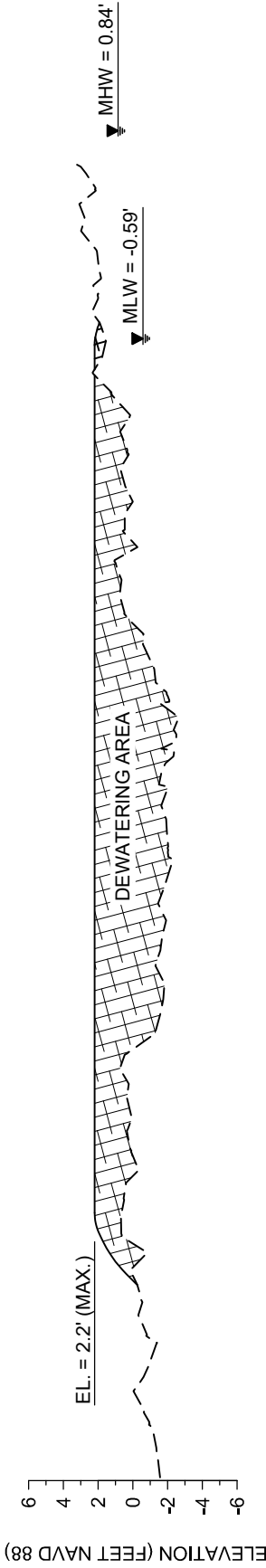
TYPICAL SECTION - BORROW AREA



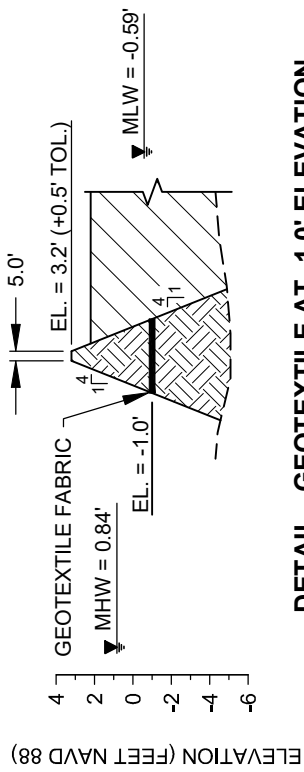
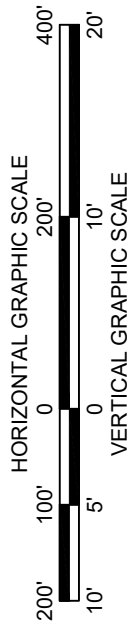
LEGEND	
	BORROW AREA
	OVER DREDGE
---	EXISTING WATER BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	BORROW AREA TYPICAL SECTIONS
		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 5 OF 10

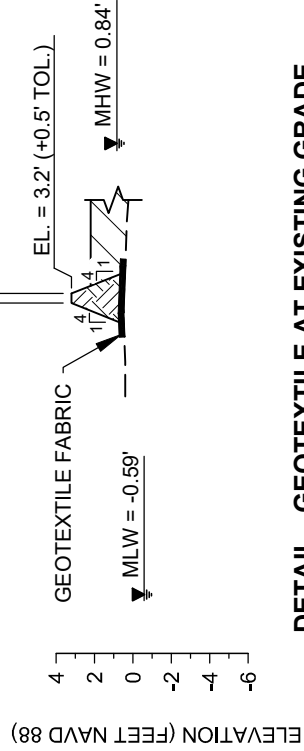




TYPICAL SECTION - DEWATERING AREA



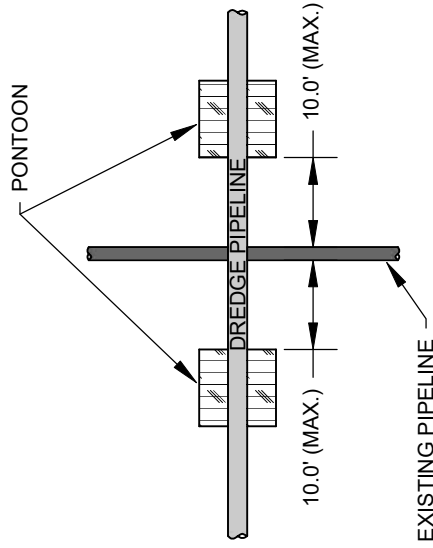
DETAIL - GEOTEXTILE AT -1.0' ELEVATION



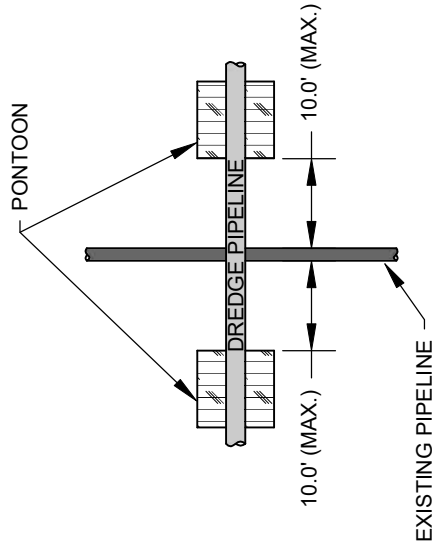
DETAIL - GEOTEXTILE AT EXISTING GRADE

LEGEND	
	DEWATERING AREA
	MARSH CREATION FILL
	EARTHEN CONTAINMENT DIKE
	GEOTEXTILE FABRIC
	EXISTING GROUND

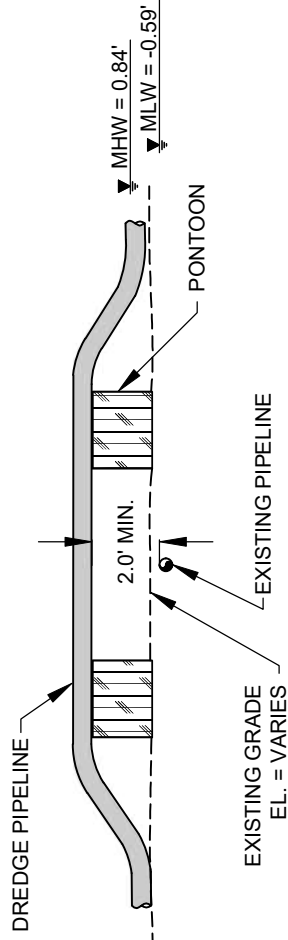
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	DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171 APPROVED BY: S. HAYNES, P.E.	DATE: JUNE 2018 SHEET 7 OF 10



PLAN VIEW

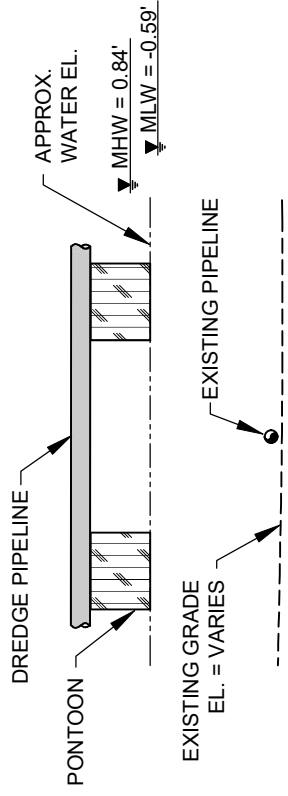


PLAN VIEW



SECTION VIEW

MARSH PIPELINE CROSSING DETAIL
N.T.S



SECTION VIEW

OFFSHORE PIPELINE CROSSING DETAIL
N.T.S

LEGEND	
	DREDGE PIPELINE
	PONTOON SUPPORT
	EXISTING GROUND

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802		CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	PIPELINE CROSSING DETAIL
	DESIGNED BY: A. TAYLOR, P.E. 041999		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
	DRAWN BY: K. CANTU		APPROVED BY: S. HAYNES, P.E.	SHEET 8 OF 10

<div data-bbox="89 1207 592 1575"> </div> <div data-bbox="89 367 592 745"> </div> <div data-bbox="673 1102 1193 1827"> </div> <div data-bbox="673 346 1226 840"> </div> <div data-bbox="1242 1365 1331 1638"> <p>EARTHEN RIDGE SETTLEMENT PLATE NOT TO SCALE</p> </div> <div data-bbox="1242 483 1331 756"> <p>MARSH CREATION SETTLEMENT PLATE NOT TO SCALE</p> </div>	<div data-bbox="1372 1564 1461 1995"> <p>APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804</p> </div> <div data-bbox="1372 913 1485 1554"> <p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p> </div> <div data-bbox="1372 441 1437 903"> <p>CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT</p> </div> <div data-bbox="1372 94 1437 430"> <p>SETTLEMENT PLATE DETAILS</p> </div> <div data-bbox="1518 1564 1542 1995"> <p>DRAWN BY: K. CANTU</p> </div> <div data-bbox="1518 913 1542 1554"> <p>DESIGNED BY: A. TAYLOR, P.E. 041999</p> </div> <div data-bbox="1477 441 1502 903"> <p>STATE PROJECT NUMBER: BA-0171</p> </div> <div data-bbox="1477 94 1502 430"> <p>DATE: JUNE 2018</p> </div> <div data-bbox="1518 94 1542 430"> <p>SHEET 9 OF 10</p> </div>
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1. 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.
2. ALL STRUCTURES BUILT UNDER THE AUTHORIZATION AND CONDITIONS OF THIS PERMIT SHALL BE REMOVED FROM THE SITE WITHIN 120 DAYS OF ABANDONMENT OF THE FACILITIES FOR THE HEREIN PERMITTED USE, OR WHEN THESE STRUCTURES FALL INTO A STATE OF DISREPAIR SUCH THAT THEY CAN NO LONGER FUNCTION AS INTENDED. THIS CONDITION DOES NOT PRECLUDE THE NECESSITY FOR REVISING THE CURRENT PERMIT OR OBTAINING A SEPARATE COASTAL USE PERMIT, SHOULD ONE BE REQUIRED, FOR SUCH REMOVAL ACTIVITIES.
3. STRUCTURES MUST ALSO BE MARKED/LIGHTED IN ACCORDANCE WITH U.S. COAST GUARD REGULATIONS.
4. IN ORDER TO ENSURE THE SAFETY OF ALL PARTIES, THE PERMITTEE SHALL CONTACT THE 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.
5. TRACKED EQUIPMENT SHALL HAVE A MAXIMUM DIMENSION OF 34 FEET LONG AND 15 FEET WIDE.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802		CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	NOTES
			STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
	DESIGNED BY: A. TAYLOR, P.E. 041999		APPROVED BY: S. HAYNES, P.E.	SHEET 10 OF 10



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS LA 70160-3651

JUN 14 2019

RECEIVED

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CPRA

Operations Division
Central Evaluation Section

SUBJECT: MVN-2014-02026-CE

Louisiana Coastal Protection and Restoration Authority
P.O. Box 44027
Baton Rouge, LA 70804

Gentlemen:

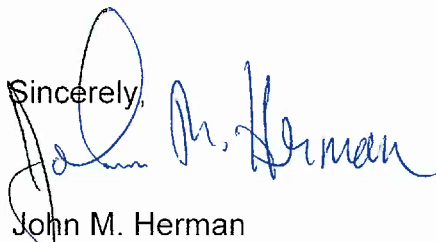
Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

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: Central 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.

A copy of page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

John M. Herman
Chief, Central Evaluation Section

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee: Louisiana Coastal Protection and Restoration Authority

Permit No.: MVN-2014-02026-CE

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: Dredge and deposit earthen material for marsh renourishment and creation to implement CWPPRA Project BA-0171 (Caminada Headland Back Barrier Marsh Creation Project), in accordance with drawings attached in 10 sheets dated June 2018.

Project Location: Near Port Fourchon, Louisiana in Lafourche Parish, Latitude 29.127317 and Longitude -90.154439.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **May 31, 2024**. 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 one 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: SEE PAGES 4 AND 5.

Further Information:

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

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

(X) 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 Renee Bennett
(PERMITTEE)

x 6-6-19
(DATE)

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

John M. Herman

13 Jun 2019
(DATE)

John M. Herman, Chief, Central 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: MVN-2014-02026-CE

7. The permittee shall ensure that a copy of this Department of the Army permit is provided to all contractors, foremen, and/or on-site workers involved in construction activities so that they are aware of the conditions and restrictions associated with this approval.
8. Any excavated and/or fill material placed within wetlands must be free of contaminants, to the best of the permittee's knowledge.
9. Any changes in the project configuration as a result of local approvals must be documented and appropriate drawings provided to this District office for incorporation into the permit file.
10. Construction activities shall not cause more than minimal and temporal water quality degradation of any adjacent wetland, stream, or water body. Appropriate erosion and siltation controls must be utilized during construction to prevent sediment runoff into adjacent wetlands and waterways. Sediment control techniques could include but are not limited to the use of secured hay bales, sediment/silt fencing, wooden or vinyl barriers, and/or seeding or sodding of exposed or disturbed areas. These structures should be maintained in effective operating condition until sediments are stabilized by vegetation and other impervious surfacing.
11. The permittee shall limit clearing, excavation and the placement of fill material to areas essential to the project. The remainder of the property shall be left in its natural state. If the authorized project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.
12. Wetlands that are not part of the project site but that are disturbed during construction, including the temporary crossing of wetland areas, shall be restored to their preproject elevations and conditions, including replanting.
13. The project area has been identified as an area of interest for federally recognized Native American Tribes. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee shall cease work immediately and contact CEMVN. CEMVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
14. The permittee is aware that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.
15. The permittee shall adhere to the enclosed Standard Manatee Conditions for In-Water Activities as per the Standard Local Operating Procedure for Endangered Species in Louisiana (SLOPES), dated October 22, 2014, between the U.S. Army Corps of Engineers, New Orleans and U.S. Fish and Wildlife Service, Ecological Services Office.
16. The permittee must install and maintain, at the permittee's expense, any safety lights, signs, and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the permittee's authorized facilities.
17. The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

SPECIAL CONDITIONS: MVN-2014-02026-CE

18. 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.

19. 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 U.S. Coast Guard 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.

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, although passively taking pictures or video would be acceptable.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

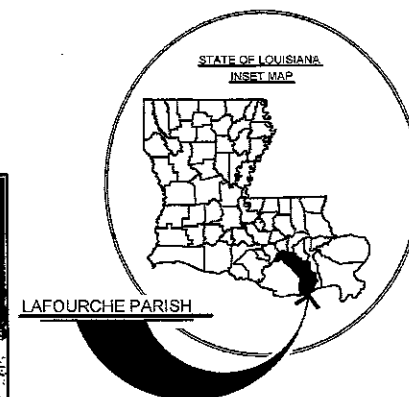
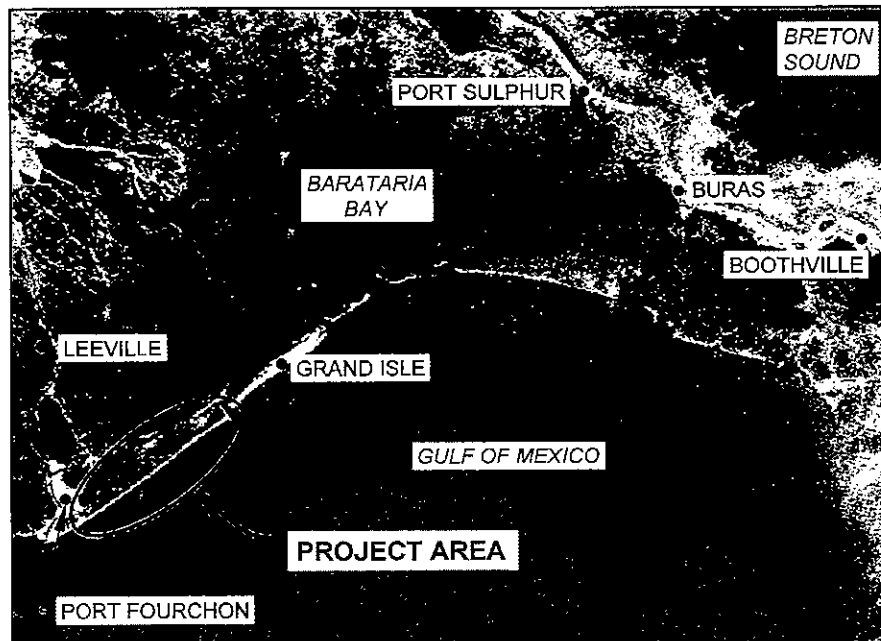
- All work, equipment, and vessel operation shall cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional 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.

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
3	BORROW AREA LAYOUT
4	MARSH CREATION AREA LAYOUT
5	BORROW AREA TYPICAL SECTIONS
6	MARSH CREATION AREA TYPICAL SECTIONS
7	DEWATERING AREA TYPICAL SECTION & GEOTEXTILE DETAILS
8	PIPELINE CROSSING DETAIL
9	SETTLEMENT PLATE DETAILS
10	NOTES



STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY **CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT** BA-0171 LAFOURCHE PARISH, LOUISIANA

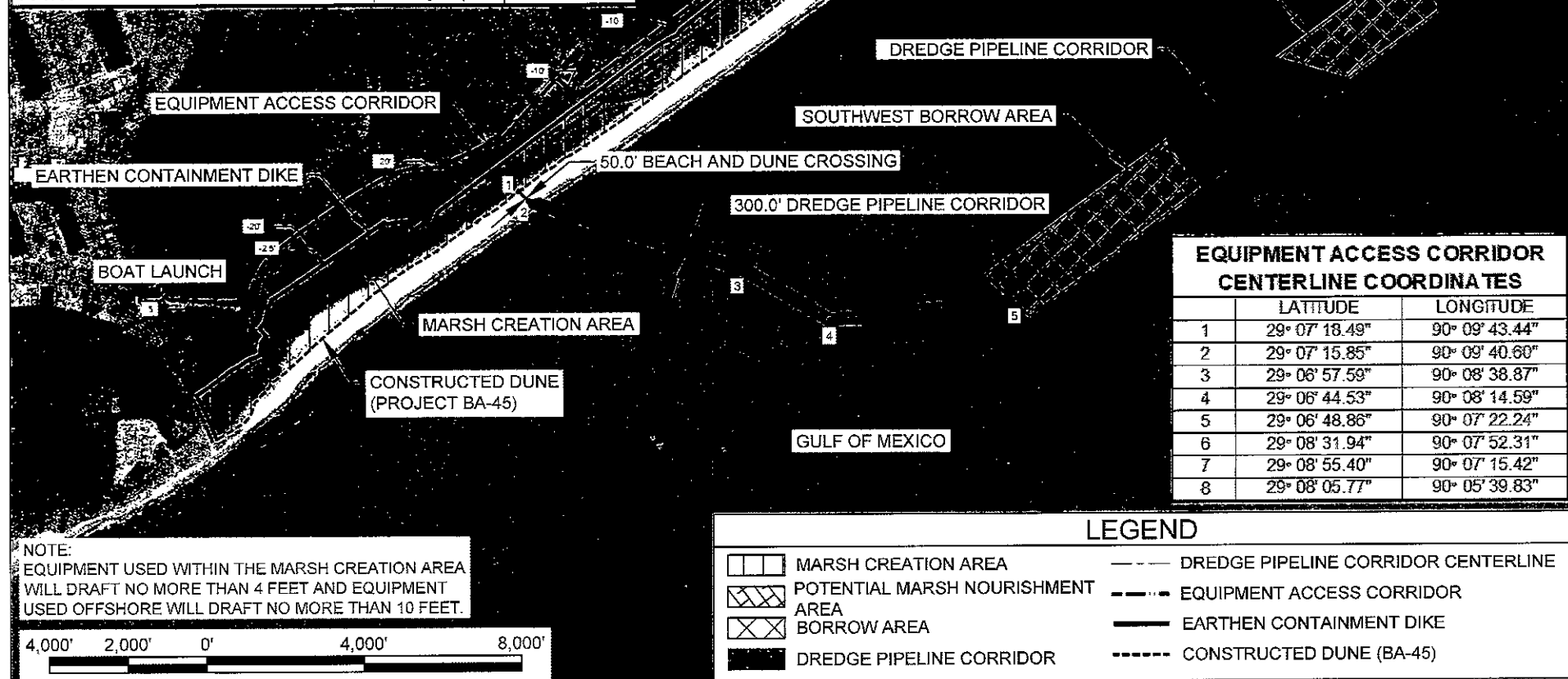


60,000' 30,000' 0' 60,000' 120,000'

<p>APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT</p>	<p>TITLE SHEET</p>
		<p>STATE PROJECT NUMBER: BA-0171</p>	<p>DATE: JUNE 2018</p>
<p>DRAWN BY: K. CANTU</p>	<p>DESIGNED BY: A. TAYLOR, P.E. 041999</p>	<p>APPROVED BY: S. HAYNES, P.E.</p>	<p>SHEET 1 OF 10</p>

PERMITTED EXCAVATION		
FEATURE	VOLUME (CY)	AREA (ACRE)
SOUTHWEST BORROW AREA	3,729,522	198
NORTHEAST BORROW AREA	2,546,397	136
OUTSIDE EARTHEN CONTAINMENT DIKE BORROW CHANNEL	218,674	24
INSIDE EARTHEN CONTAINMENT DIKE BORROW CHANNEL	183,946	20
TOTAL	6,678,539	378

PERMITTED FILL		
FEATURE	VOLUME (CY)	AREA (ACRE)
MARSH CREATION FILL AREA	1,703,142	472
DEWATERING/POTENTIAL NOURISHMENT	90,346	70
TOTAL	1,793,488	542



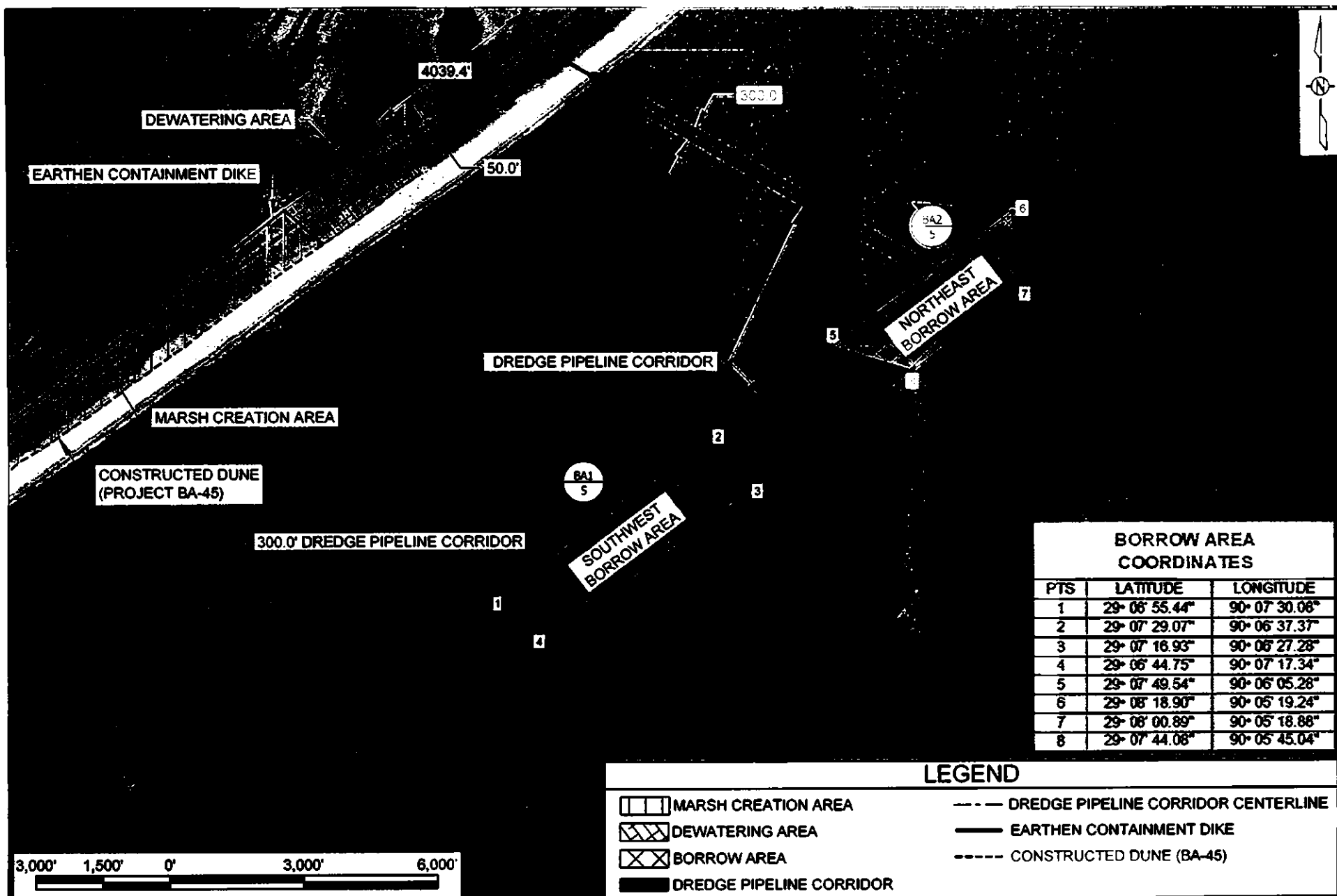
EQUIPMENT ACCESS CORRIDOR CENTERLINE COORDINATES		
	LATITUDE	LONGITUDE
1	29° 07' 18.49"	90° 09' 43.44"
2	29° 07' 15.85"	90° 09' 40.60"
3	29° 06' 57.59"	90° 08' 38.87"
4	29° 06' 44.53"	90° 08' 14.59"
5	29° 06' 48.86"	90° 07' 22.24"
6	29° 08' 31.94"	90° 07' 52.31"
7	29° 08' 55.40"	90° 07' 15.42"
8	29° 08' 05.77"	90° 05' 39.83"

NOTE:
EQUIPMENT USED WITHIN THE MARSH CREATION AREA
WILL DRAFT NO MORE THAN 4 FEET AND EQUIPMENT
USED OFFSHORE WILL DRAFT NO MORE THAN 10 FEET.












LEGEND	
	MARSH CREATION AREA
	POTENTIAL MARSH NOURISHMENT AREA
	BORROW AREA
	DREDGE PIPELINE CORRIDOR
	DREDGE PIPELINE CORRIDOR CENTERLINE
	EQUIPMENT ACCESS CORRIDOR
	EARTHEN CONTAINMENT DIKE
	CONSTRUCTED DUNE (BA-45)

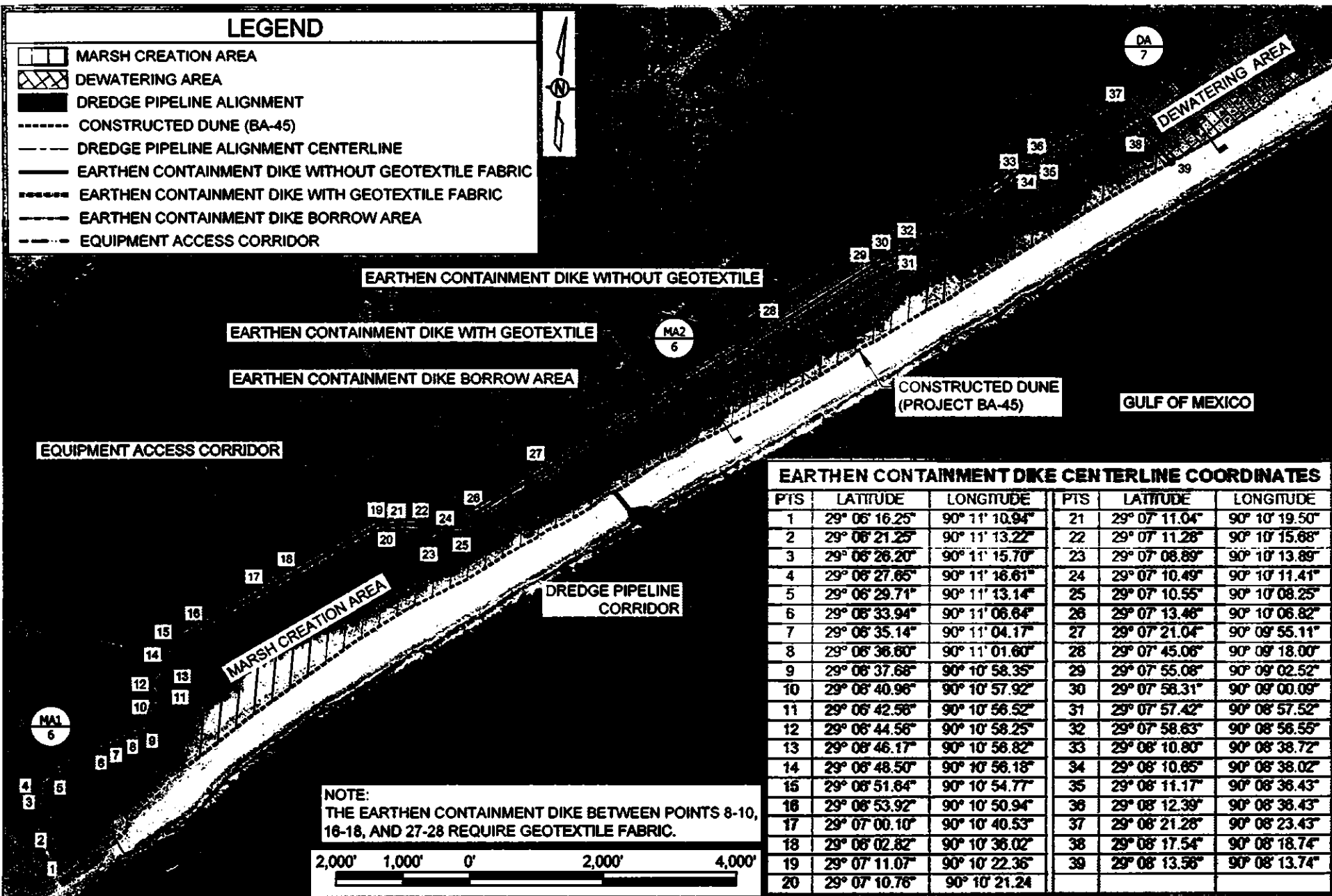
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	
		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018 REV. 12.17.18
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 2 OF 10



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT STATE PROJECT NUMBER: BA-01/1	BORROW AREA LAYOUT DATE: JUNE 2018
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 3 OF 10

LEGEND

-  MARSH CREATION AREA
-  DEWATERING AREA
-  DREDGE PIPELINE ALIGNMENT
-  CONSTRUCTED DUNE (BA-45)
-  DREDGE PIPELINE ALIGNMENT CENTERLINE
-  EARTHEN CONTAINMENT DIKE WITHOUT GEOTEXTILE FABRIC
-  EARTHEN CONTAINMENT DIKE WITH GEOTEXTILE FABRIC
-  EARTHEN CONTAINMENT DIKE BORROW AREA
-  EQUIPMENT ACCESS CORRIDOR



EARTHEN CONTAINMENT DIKE CENTERLINE COORDINATES

PTS	LATITUDE	LONGITUDE	PTS	LATITUDE	LONGITUDE
1	29° 06' 16.25"	90° 11' 10.94"	21	29° 07' 11.04"	90° 10' 19.50"
2	29° 06' 21.25"	90° 11' 13.22"	22	29° 07' 11.28"	90° 10' 15.68"
3	29° 06' 26.20"	90° 11' 15.70"	23	29° 07' 08.89"	90° 10' 13.89"
4	29° 06' 27.65"	90° 11' 16.61"	24	29° 07' 10.49"	90° 10' 11.41"
5	29° 06' 29.71"	90° 11' 13.14"	25	29° 07' 10.55"	90° 10' 08.25"
6	29° 06' 33.94"	90° 11' 06.64"	26	29° 07' 13.46"	90° 10' 06.82"
7	29° 06' 35.14"	90° 11' 04.17"	27	29° 07' 21.04"	90° 09' 55.11"
8	29° 06' 36.80"	90° 11' 01.60"	28	29° 07' 45.06"	90° 09' 18.00"
9	29° 06' 37.68"	90° 10' 58.35"	29	29° 07' 55.08"	90° 09' 02.52"
10	29° 06' 40.96"	90° 10' 57.92"	30	29° 07' 58.31"	90° 09' 00.09"
11	29° 06' 42.56"	90° 10' 56.52"	31	29° 07' 57.42"	90° 08' 57.52"
12	29° 06' 44.56"	90° 10' 58.25"	32	29° 07' 58.63"	90° 08' 56.55"
13	29° 06' 46.17"	90° 10' 58.82"	33	29° 08' 10.80"	90° 08' 38.72"
14	29° 06' 48.50"	90° 10' 58.18"	34	29° 08' 10.65"	90° 08' 38.02"
15	29° 06' 51.84"	90° 10' 54.77"	35	29° 08' 11.17"	90° 08' 36.43"
16	29° 06' 53.92"	90° 10' 50.94"	36	29° 08' 12.39"	90° 08' 36.43"
17	29° 07' 00.10"	90° 10' 40.53"	37	29° 08' 21.28"	90° 08' 23.43"
18	29° 06' 02.82"	90° 10' 36.02"	38	29° 08' 17.54"	90° 08' 18.74"
19	29° 07' 11.07"	90° 10' 22.36"	39	29° 08' 13.56"	90° 08' 13.74"
20	29° 07' 10.76"	90° 10' 21.24"			

NOTE:
THE EARTHEN CONTAINMENT DIKE BETWEEN POINTS 8-10,
16-18, AND 27-28 REQUIRE GEOTEXTILE FABRIC.



APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

COASTAL PROTECTION AND RESTORATION AUTHORITY

150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT

MARSH CREATION AREA LAYOUT

STATE PROJECT NUMBER: BA-0171

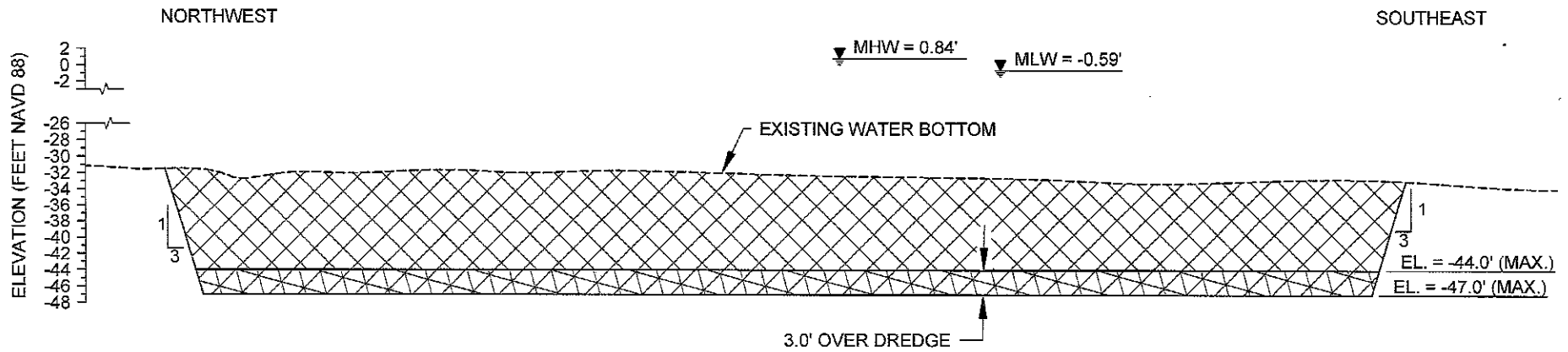
DATE: JUNE 2018

DRAWN BY: K. CANTU

DESIGNED BY: A. TAYLOR, P.E. 041900

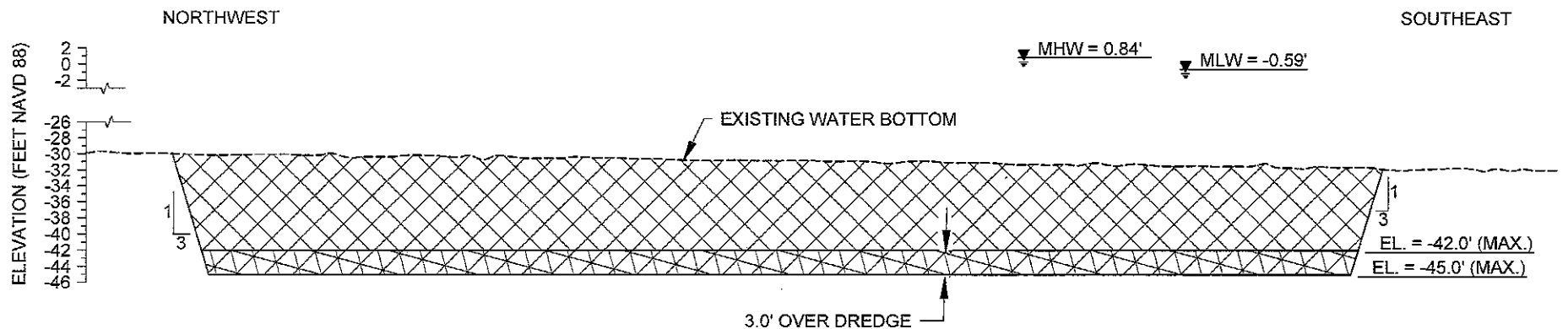
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SHEET 4 OF 10



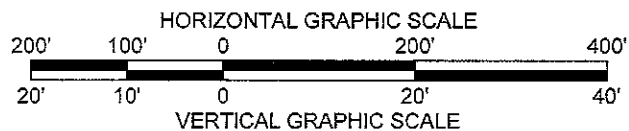
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TYPICAL SECTION - BORROW AREA



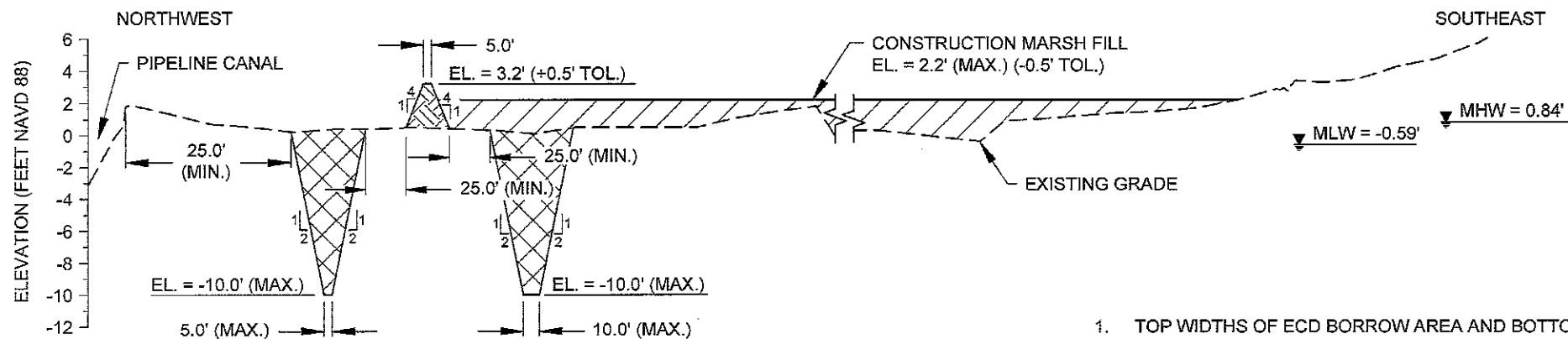
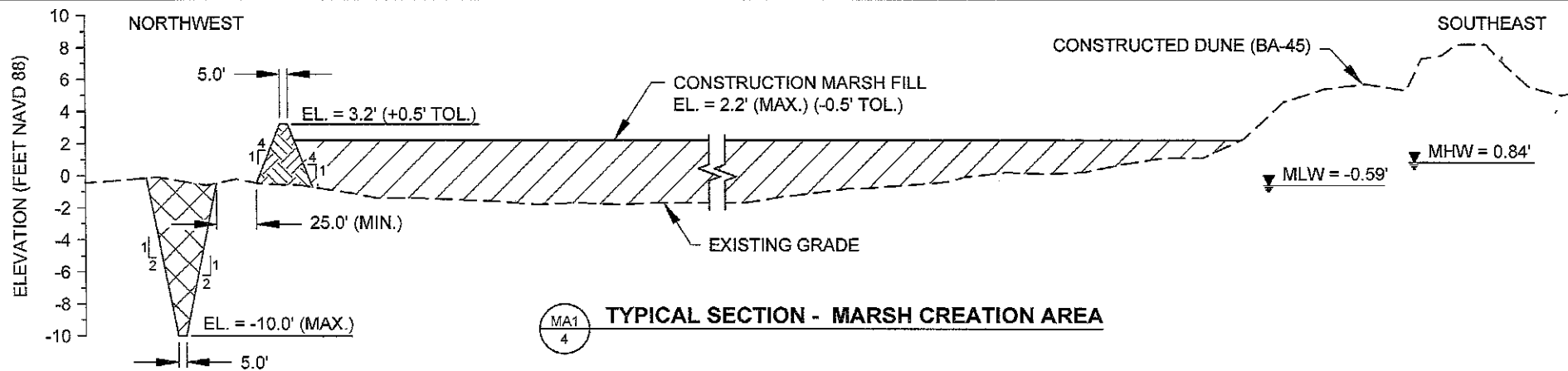
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TYPICAL SECTION - BORROW AREA



LEGEND	
	BORROW AREA
	OVER DREDGE
	EXISTING WATER BOTTOM

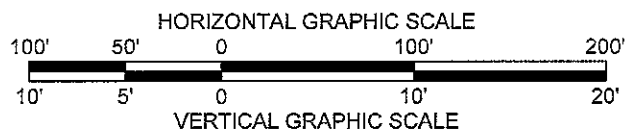
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	BORROW AREA TYPICAL SECTIONS
		STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.	SHEET 5 OF 10



1. TOP WIDTHS OF ECD BORROW AREA AND BOTTOM WIDTH OF ECD VARY DEPENDENT ON FIELD CONDITIONS.

LEGEND

	MARSH CREATION AREA
	EARTHEN CONTAINMENT DIKE
	EARTHEN CONTAINMENT DIKE BORROW AREA
	GEOTEXTILE FABRIC
	EXISTING GROUND



APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

MARSH CREATION AREA
TYPICAL SECTIONS

STATE PROJECT NUMBER: BA-0171

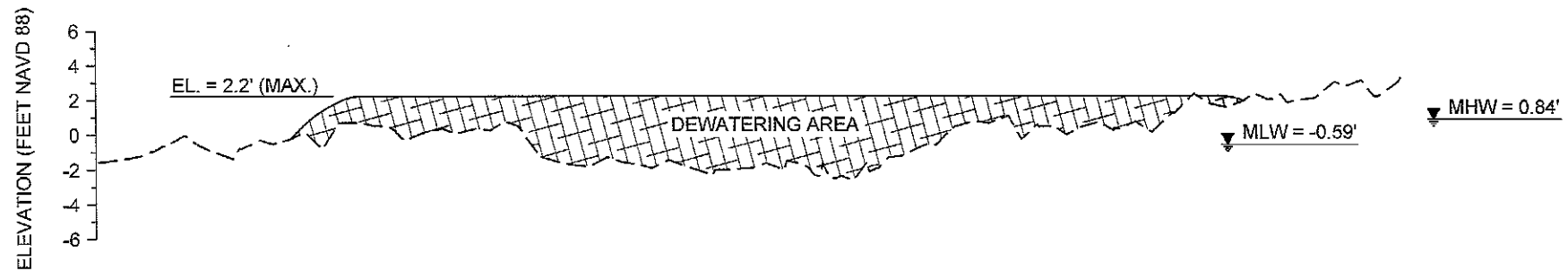
DATE: JUNE 2018

DRAWN BY: K. CANTU

DESIGNED BY: A. TAYLOR, P.E. 041999

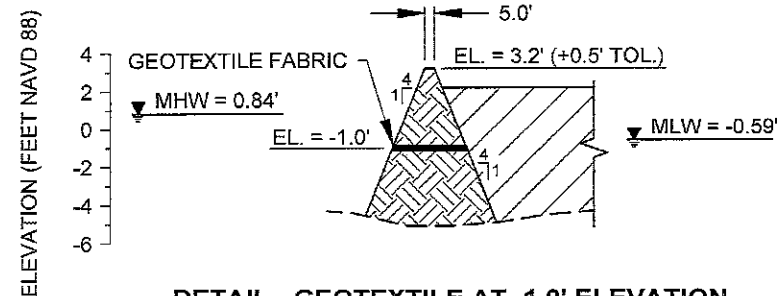
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SHEET 6 OF 10

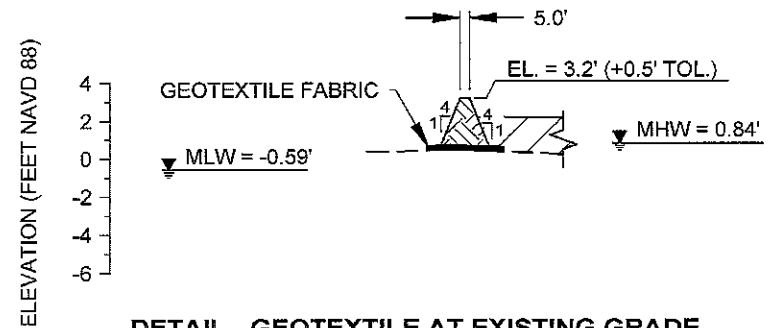


DA
4

TYPICAL SECTION - DEWATERING AREA



DETAIL - GEOTEXTILE AT -1.0' ELEVATION



DETAIL - GEOTEXTILE AT EXISTING GRADE

LEGEND	
	DEWATERING AREA
	MARSH CREATION FILL
	EARTHEN CONTAINMENT DIKE
	GEOTEXTILE FABRIC
	EXISTING GROUND

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

DEWATERING AREA
TYPICAL SECTION AND
GEOTEXTILE DETAILS

STATE PROJECT NUMBER: BA-0171

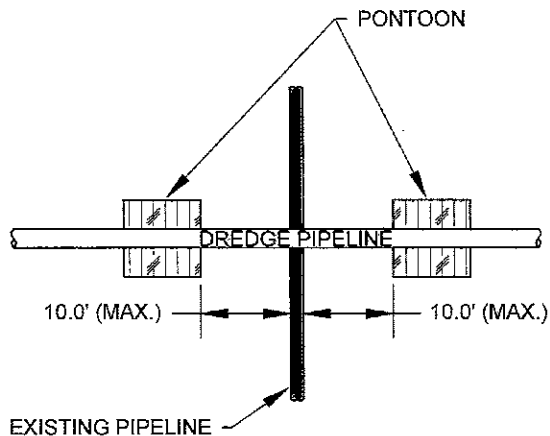
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DRAWN BY: K. CANTU

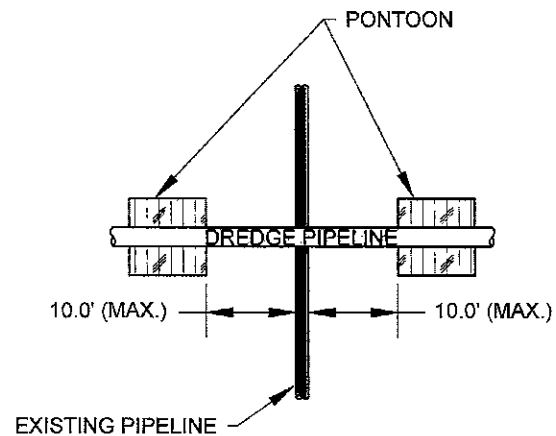
DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

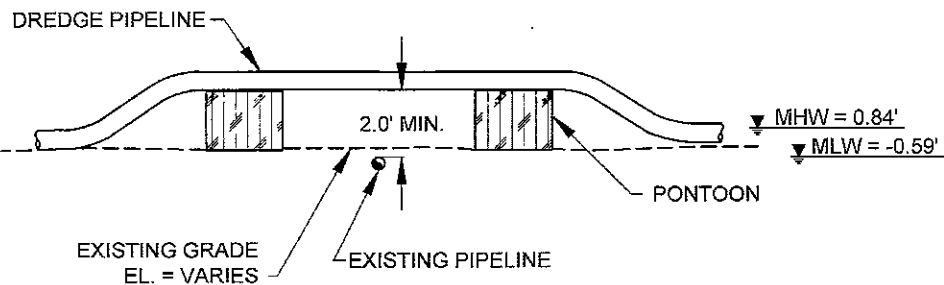
SHEET 7 OF 10



PLAN VIEW

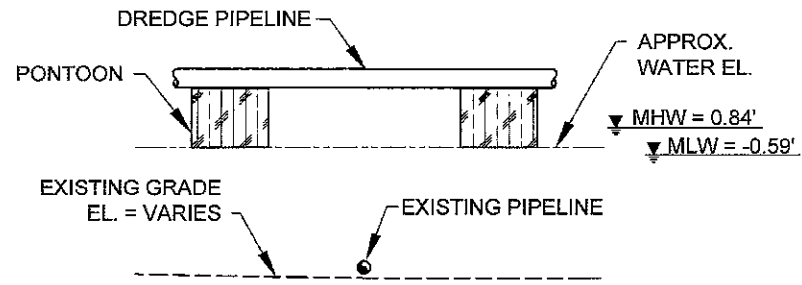


PLAN VIEW



SECTION VIEW

MARSH PIPELINE CROSSING DETAIL
N.T.S



SECTION VIEW

OFFSHORE PIPELINE CROSSING DETAIL
N.T.S

LEGEND	
	DREDGE PIPELINE
	PONTON SUPPORT
	EXISTING GROUND

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

PIPELINE CROSSING
DETAIL

STATE PROJECT NUMBER: BA-0171

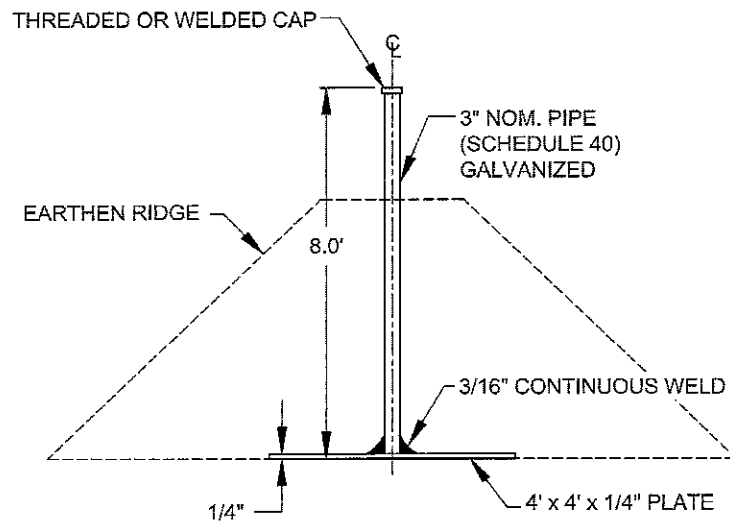
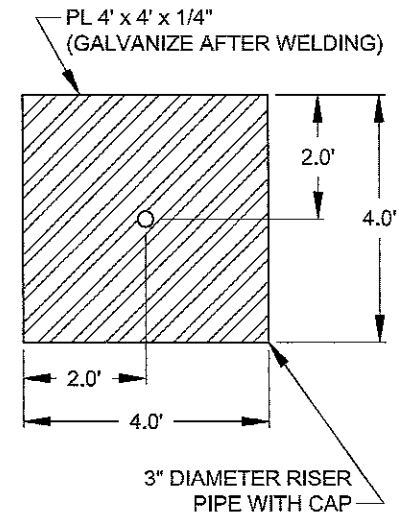
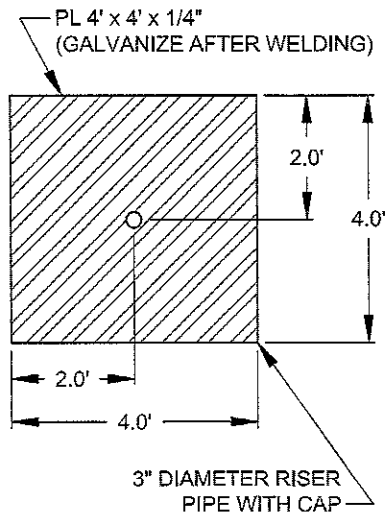
DATE: JUNE 2018

DRAWN BY: K. CANTU

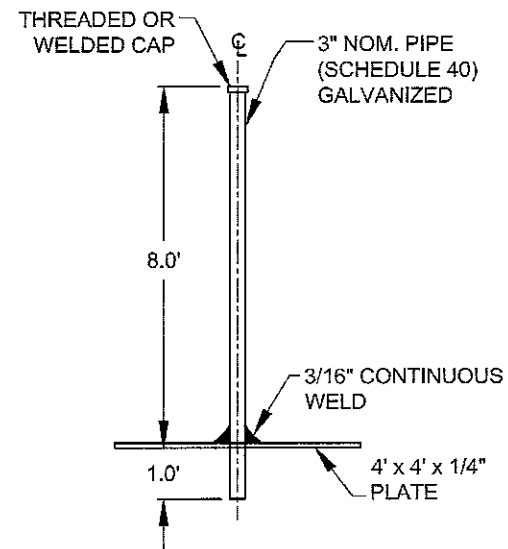
DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

SHEET 8 OF 10



**EARTHEN RIDGE
SETTLEMENT PLATE**
NOT TO SCALE



**MARSH CREATION
SETTLEMENT PLATE**
NOT TO SCALE

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA 70804

**COASTAL PROTECTION AND
RESTORATION AUTHORITY**
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70802

CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT

SETTLEMENT PLATE
DETAILED

STATE PROJECT NUMBER: BA-0171

DATE: JUNE 2018

DRAWN BY: K. CANTU

DESIGNED BY: A. TAYLOR, P.E. 041999

APPROVED BY: S. HAYNES, P.E.

SHEET 9 OF 10



**DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT**

P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487
(225)342-7591
1-800-267-4019

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No.: P20180717

C.O.E. No.:

NAME: LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY
c/o LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LA 70801
Attn: Sydney Dobson

LOCATION: Lafourche Parish, LA
Southern marsh creation point - Lat 29-06-16.25N / Long -90-11-10.94W, Northern marsh creation point - Lat 29-08-21.28N / Long -90-08-23.43W; Southern borrow area point - Lat 29-06-44.75N / Long -90-07-17.34W, Northern borrow area point - Lat 29-08-18.90N / Long -90-05-19.24W. Bay Champagne; Port Fourchon, LA.

DESCRIPTION: Proposed Caminada Headlands Back Barrier Marsh Creation CPRA project (BA-171); to create and/or nourish back barrier marsh by pumping sediment from an offshore borrow site. Approximately 6,678,539 cy of native material will be excavated via hydraulic dredge; 1,793,488 cy of native material will be placed onsite as fill.

In accordance with the rules and regulations of the Louisiana Coastal Resources Program and Louisiana R.S. 49, Sections 214.21 to 214.41, the State and Local Coastal Resources Management Act of 1978, as amended, the permittee agrees to:

1. Carry out, perform, and/or operate the use in accordance with the permit conditions, plans and specifications approved by the Department of Natural Resources.
2. Comply with any permit conditions imposed by the Department of Natural Resources.
3. Adjust, alter or remove any structure or other physical evidence of the permitted use if, in the opinion of the Department of Natural Resources, it proves to be beyond the scope of the use as approved or is abandoned.
4. Provide, if required by the Department of Natural Resources, an acceptable surety bond in an appropriate amount to ensure adjustment, alteration, or removal should the Department of Natural Resources determine it necessary.
5. Hold and save the State of Louisiana, the local government, the department, and their officers and employees harmless from any damage to persons or property which might result from the use, including the work, activity, or structure permitted.
6. Certify that the use has been completed in an acceptable and satisfactory manner and in accordance with the plans and specifications approved by the Department of Natural Resources. The Department of Natural Resources may, when appropriate, require such certification to be given by a registered professional engineer.
7. All terms of the permit shall be subject to all applicable federal and state laws and regulations.
8. This permit, or a copy thereof, shall be available for inspection at the site of work at all times during operations.
9. The applicant will notify the Office of Coastal Management of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Office of Coastal Management by entering a commencement date through the online system, or by mailing said information to OCM.
10. Unless specified elsewhere in this permit, this permit authorizes the initiation of the coastal use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was January 4, 2019. If the coastal use is not initiated within this two (2) year period, then this permit will expire and the applicant will be required to submit a new application. Initiation of the coastal use, for the purposes of this permit, means the actual physical beginning of the use of activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the coastal use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, the permittee must, in good faith, and with due diligence, reasonably progress toward completion of the project once the coastal use has been initiated.
11. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:
 - a. All logs, stumps and other debris encountered during dredging activities shall be removed from the site during or immediately after the activity and disposed of in accordance with all applicable laws and regulations.
 - b. That permittee shall insure that all sanitary sewage and/or related domestic wastes generated during the subject project activity and at the site, thereafter, as may become necessary shall receive the equivalent of secondary



treatment (30 mg/l BOD5) with disinfection prior to discharge into any of the streams or adjacent waters of the area or, in the case of total containment, shall be disposed of in approved sewerage and sewage treatment facilities, as is required by the State Sanitary Code. Such opinion as may be served by those comments offered herein shall not be construed to suffice as any more formal approval(s) which may be required of possible sanitary details (i.e. provisions) scheduled to be associated with the subject activity. Such shall generally require that appropriate plans and specifications be submitted to the Department of Health and Hospitals for purpose of review and approval prior to any utilization of such provisions.

- c. The area where the project is located is all part of the aboriginal homelands of the Chitimacha Tribe of Louisiana. As such, large villages, burial sites, and sacred sites were in place in that entire area. If at any time during the course of the work, any traditional cultural properties are discovered, Permittee shall immediately contact Kimberly S. Walden (Cultural Director) or Melanie Aymond (Research Coordinator) at (337) 923-9923 or (337) 923-4395. Office hours are Monday through Thursday from 7:30 A.M. - 5:00 P.M. and on Friday between 7:30 A.M. - 11:30 A.M. If traditional cultural properties are discovered on the weekend or after business hours, the notification shall be made the next business morning.
- d. All structures built under the authorization and conditions of this permit shall be removed from the site within 120 days of abandonment of the facilities for the herein permitted use, or when these structures fall into a state of disrepair such that they can no longer function as intended. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities.
- e. Structures must be marked/lighted in accordance with U. S. Coast Guard regulations.
- f. Applicant shall not discharge any drilling and/or workover effluent except for flocculated filtered water.

Applicant shall not discharge any human waste which does not meet or exceed the requirements of the Department of Health and Hospitals.

Applicant shall not discharge any produced waters.

Applicant is subject to all applicable state laws related to damages which are demonstrated to have been caused by this proposed action.

Applicant shall use any dredged material beneficially to create/restore emergent wetlands or place the material in open water in such a manner not to decrease the water depth greater than six inches.

Applicant shall provide to the LDWF a water bottom assessment (unless waived by LDWF) that meets LDWF protocol prior to commencement of the activity. A waiver request must be submitted to LDWF in writing and must state the justification for the request. Applicant may, at the request of LDWF and prior written approval of OCM, be required to modify the project if the proposed location unnecessarily impacts oyster reefs.

- g. The following conditions have been provided by the Louisiana Department of Wildlife and Fisheries.

The piping plover (*Charadrius melodus*) may occur within one mile of the project area. This species is federally listed as threatened with its critical habitat designated along the Louisiana coast. Piping plovers winter in Louisiana feeding at intertidal beaches, mudflats, and sand flats with sparse emergent vegetation. Primary threats to this species are destruction and degradation of winter habitat, habitat alteration through shoreline erosion, woody species encroachment of lake shorelines and riverbanks, and human disturbance of foraging birds. For more information on piping plover critical habitat, visit the U.S. Fish and Wildlife website: <http://endangered.fws.gov>.

The rufa subspecies of red knot (*Calidris canutus rufa*) may occur within one mile of the project area. Federally listed as threatened, the rufa red knot may be found in coastal Louisiana throughout the year, with the greatest number of



knots migrating through each spring. Red knots forage on intertidal beaches, mudflats, marsh edges, and sand flats with sparse emergent vegetation. Primary threats to this species are anthropogenic destruction and degradation of nonbreeding habitat and food resources, habitat loss from shoreline erosion and subsidence, and human disturbance of foraging birds. For more information on the rufa red knot, visit the U.S. Fish and Wildlife website: <http://endangered.fws.gov>.

Our database indicates an occurrence of Wilson's Plover (*Charadrius wilsonia*) and Snowy Plover (*Charadrius alexandrinus*) near your project area. These species are considered critically imperiled to imperiled in the state. These species are found year round in Louisiana, breeding along the Gulf coast and wintering in coastal Louisiana. These solitary nesters have a breeding season that begins in late March and extends into August, and are commonly found on beaches, sand flats, and fresh dredged-material. Threats to Wilson's Plover and Snowy Plover include habitat loss/degradation due to coastal development, beach stabilization and re-nourishment, sediment diversion, disturbance by humans, environmental contaminants, and un-naturally high populations of predators. We recommend that you take the necessary precautions to protect the breeding/wintering habitat of these species. If you have any questions or need additional information, please call Louisiana Natural Heritage Program at 225-763-3554.

h. The following conditions have been provided by the Louisiana Department of Wildlife and Fisheries.

Our database indicates the presence of bird nesting colonies within one mile of this proposed project. Please be aware that entry into or disturbance of active breeding colonies is prohibited by the Louisiana Department of Wildlife and Fisheries (LDWF). In addition, LDWF prohibits work within a certain radius of an active nesting colony.

Nesting colonies can move from year to year and no current information is available on the status of these colonies. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 1000 feet (2000 feet for Brown Pelicans) of the proposed project, no further consultation with LDWF will be necessary. If active nesting colonies are found within the previously stated distances of the proposed project, further consultation with LDWF will be required. In addition, colonies should be surveyed by a qualified biologist to document species present and the extent of colonies. Provide LDWF with a survey report which is to include the following information:

1. qualifications of survey personnel;
2. survey methodology including dates, site characteristics, and size of survey area;
3. species of birds present, activity, estimates of number of nests present, and general vegetation type including digital photographs representing the site; and
4. topographic maps and ArcView shapefiles projected in UTM NAD83 Zone 15 to illustrate the location and extent of the colony.

Please mail survey reports on CD to: Louisiana Natural Heritage Program
La. Dept. of Wildlife & Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

-For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, Roseate Spoonbills, Anhingas, or cormorants), all project activity occurring within 1000 feet of an active nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15).

-For colonies containing nesting gulls, terns, or Black Skimmers, all project activity occurring within 650 feet (2000 feet for Brown Pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

The Diamondback terrapin (*Malaclemys terrapin*) may also occur in your project area and is considered imperiled in Louisiana. It inhabits brackish water habitats, especially coastal marshes. The Diamondback terrapin may breed and nest from April to July with nest cavities dug at the sandy edges of marshes and dunes. Hatchlings usually emerge from nests during August and September but may overwinter in nests until the following spring. Primary threats to this



species include pollution, disturbed habitat, nest destruction near populated coastal sites, and coastal erosion. If project activities will be conducted during the nesting season, we recommend constructing a barrier fence, prior to nesting season and project activities to avoid enclosing hatchlings, that surrounds terrapin habitat in the project area and consists of corrugated plastic tubing at least 10 inches in diameter; cut in half, buried, and back-filled with sediment. All barrier fence material must be removed after project activities are completed. Nest searches should be conducted if project activities are initiated after the start of the nesting season without the use of a barrier fence. If nests are found at any time prior to and during project activities, the applicant must contact Keri Lejeune at 225-765-2809 for further guidance.

- i. This permit does not convey any property rights, mineral rights, or exclusive privileges; nor does it authorize injury to property.
- j. All fill material shall be clean and free of contaminants and shall not contain hazardous materials such as asbestos or asbestos residue, shingles, tires, oil/grease residue, exposed rebar, protruding objects, etc.
- k. Benefits to offset impacts are based on the proposed creation of marsh achieving 80% vegetative coverage and fisheries access re-established by year 3 of the project life, and shall be determined after the third full growing season (March 1 to November 1) following the completion of permitted activities. This assessment shall include both primary impacts and secondary impacts which may result from the permitted activities.

Permittee shall notify OCM of the date of completion of permitted activities within 5 working days of completion.

Should the permitted project not provide the anticipated benefits, OCM may determine that compensatory mitigation is required, permittee shall submit a compensatory mitigation plan for approval within 30 days of notification of the compensatory mitigation requirements by OCM. All necessary approvals shall be obtained for the compensatory mitigation plan and the plan shall be implemented as directed by OCM. Permittee should be aware that compensatory mitigation projects may be required to be maintained for as many as 20 years for marsh mitigation projects and 50 years for forested wetland mitigation projects. A processing fee will be assessed for the determination of compensatory mitigation requirements and evaluation of the proposed compensatory mitigation plan in accordance with LAC Title 43, Part I, Chapter 7, §724.D. This fee shall apply regardless of which compensatory mitigation option is selected and does not include the cost incurred to implement the required compensatory mitigation.

- l. With respect to the hydraulic dredge line - The requirement for compensatory mitigation for impacts to marsh habitat resulting from the referenced project will be determined after one full growing season (March 1 to November 1) following the completion of the permitted activities. This assessment shall include both primary impacts and secondary impacts which may result from the permitted activities. Permittee shall notify OCM of the date of completion of permitted activities within 5 working days of completion.

If OCM determines that compensatory mitigation is required, permittee shall submit a compensatory mitigation plan for approval within 30 days of notification of the compensatory mitigation requirements by OCM. All necessary approvals shall be obtained for the compensatory mitigation plan and the plan shall be implemented as directed by OCM. Permittee should be aware that compensatory mitigation projects may be required to be maintained for as many as 20 years for marsh mitigation projects and 50 years for forested wetland mitigation projects. A processing fee will be assessed for the determination of compensatory mitigation requirements and evaluation of the proposed compensatory mitigation plan in accordance with LAC Title 43, Part I, Chapter 7, §724.D. This fee shall apply regardless of which compensatory mitigation option is selected and does not include the cost incurred to implement the required compensatory mitigation.

- m. All equipment utilized to perform activities authorized under this permit shall stay within the access routes and work areas designated on the permit plats utilizing the least damaging route and/or open water areas. Where access routes traverse vegetated wetlands, marsh buggy/tracked equipment access shall be limited to one pass ingress and one pass egress and shall not fall within the same tracts.



- n. Wildlife Diversity Program: No impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project. The Wildlife Diversity Program (WDP) reports summarize the existing information known at the time of the request regarding the location in question. WDP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time WPD tracked species are encountered within the project area, please contact our biologist at 225-765-2643.
- o. Wildlife Diversity Program: No impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project. The Wildlife Diversity Program (WDP) reports summarize the existing information known at the time of the request regarding the location in question. WDP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time WPD tracked species are encountered within the project area, please contact our biologist at 225-765-2643.
- p. Permittee is subject to all applicable state laws related to damages which are demonstrated to have been caused by this action.
- q. Permittee shall allow representatives of the Office of Coastal Management or authorized agents to make periodic, unannounced inspections to assure the activity being performed is in accordance with the conditions of this permit.
- r. Permittee shall comply with all applicable state laws regarding the need to contact the Louisiana One Call (LOC) system (1-800-272-3020) to locate any buried cables and pipelines.
- s. This permit authorizes the initiation of the Coastal Use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was January 4, 2019. Initiation of the Coastal Use, for purposes of this permit, means the actual physical beginning of the use or activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated. If the Coastal Use is not initiated within this two (2) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (Title 43:I.723.D.). Please note that a request for permit extension MUST be made no sooner than one hundred eighty (180) days and no later than sixty (60) days prior to the expiration of the permit.

The expiration date of this permit is five (5) years from the date of the signature of the Secretary or his designee on the original permit which was January 4, 2019. If the Coastal Use is not completed within this five (5) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (LAC 43:I.723(D)).

Upon expiration of this permit, a new Coastal Use Permit will be required for completion of any unfinished or uncommenced work items and for any maintenance activities involving dredging or fill that may become necessary. Other types of maintenance activities may also require a new Coastal Use Permit.
- t. This determination does not eliminate the need to obtain a permit from the United States Army, Corps of Engineers or any other Federal, state or local approval that may be required by law. The drawings submitted with your referenced application are attached hereto and made a part of the record.

***** End of Conditions *****



By accepting this permit the applicant agrees to its terms and conditions.

I affix my signature and issue this permit this 4th day of January, 2019.

THE DEPARTMENT OF NATURAL RESOURCES

Karl L. Morgan, Administrator
Office of Coastal Management

This agreement becomes binding when signed by Administrator of
the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments



Final Plats:

1) P20180717 Final Plats 08/01/2018

cc: Martin Mayer, COE w/attachments
Dave Butler, LDWF w/attachments
Jessica Diez, OCM w/attachments
Kirk Kilgen, OCM/FI w/attachments
Lafourche Parish w/attachments

LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY w/attachments



JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES

JACK MONToucET
SECRETARY

May 3, 2021

Adam Ledet
Louisiana Coastal Protection and
Restoration Authority
Thibodaux Field Office
1440 Tiger Drive
Thibodaux LA 70301

Re: BA-171 Caminada Back Barrier Project

This permit allows the Louisiana Coastal Protection and Restoration Authority (CPRA) vehicular access to Elmer's Island Wildlife Refuge beach for construction of the Caminada Back Barrier Project. Access for equipment is allowed on the road, on the beach and over the dune at one location to be chosen based on minimizing disturbance to nesting birds. As stated by CPRA in communications to LDWF, the requested access will be limited and utilized only for mobilization of equipment in and out of the project area. CPRA or their contractors will follow Best Management Practices while mobilizing equipment on the beach, driving only in the areas above the water's edge or on or adjacent to the wet sand. This policy will minimize impacts to foraging, loafing, and nesting birds and other wildlife that use these areas. This policy also will protect dune vegetation and minimize impacts (e.g., increased erosion, reduce dune stability).

The access area over the dune will be surveyed for nesting colonies or other shorebirds by CPRA or their contractors (Don Norman Wildlife Consultants are on site for bird nesting monitoring). The crossover area will be marked and located in an area 400 meters away from any nesting sites. The letter of agreement between CPRA and LDWF dated June 4, 2019, describes the requirements for the Caminada Back Barrier project activity (see attached).

Prior to access on the Elmer's Island Wildlife Refuge road and beach, CPRA or their agent shall notify Julia Lightner by email at jlightner@wlf.la.gov.

This area has frequent occurrences of stranded marine mammals and sea turtles. Strandings of marine mammals and sea turtles should be reported; this includes skeletal remains, recent mortalities or live strandings. Report strandings to the Audubon Nature Institute at (504) 235-3005 or to Julia Lightner at (504) 286-4041.

This permit will be valid for a period of twelve (12) months from the date of this letter.

If you have any questions concerning this permit, please contact Julia Lightner of my staff at (504) 286-4041 or jlightner@wlf.la.gov.

Authorized by:


Jack Montoucet, Secretary



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202 - 2733

June 29, 2018

Mr. Joseph A. Ranson
Field Supervisor
U.S. Fish and Wildlife Service
Louisiana Ecological Services Office
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506



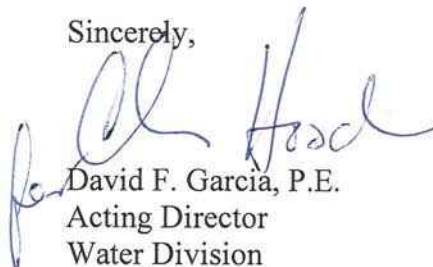
SUBJECT: Caminada Headlands Back Barrier Marsh Creation project (BA-171) funded by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA), Endangered Species Act, Section 7 Determination

Dear Mr. Ranson:

The Environmental Protection Agency Region 6 requests the U.S. Fish and Wildlife Service's concurrence on our determination that the Caminada Headlands Back Barrier Marsh Creation project (BA-171) "may affect, but is not likely to adversely affect" the West Indian manatee (*Trichechus manatus*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Loggerhead sea turtle (*Caretta caretta*), Red Knot (*Calidris canutus rufa*), and the Piping Plover (*Charadrius melodus*) or its designated critical habitat.

A description of the project, as well as information related to potential impacts to threatened/endangered species or critical habitat, is enclosed. If you require further assistance or have questions regarding our determination, please contact Dr. Sharon L. Osowski (214-665-7506; Osowski.sharon@epa.gov) of my staff.

Sincerely,


David F. Garcia, P.E.
Acting Director
Water Division

Enclosures

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
() Will have no effect on those resources
(X) Is not likely to adversely effect those resources

Joseph A. Ranson
Supervisor
Louisiana Ecological Services Office
U.S. Fish and Wildlife Service

Date

12 Jul 18

Project Description

BA-171 is a backbarrier marsh creation project funded through CWPPRA where EPA is the federal sponsor and CPRA is the State partner. The Caminada Headland is defined as the area south of Louisiana Highway 1 between Belle Pass and Caminada Pass (Figure 1). The project is located directly behind the Caminada headland beach covering areas in and around Bay Champagne and areas east of Bayou Moreau, in Lafourche Parish, Louisiana. The Caminada Headland consists of a sand dune, beach berm, barrier marshes, and chenier ridges interspersed with mangrove thickets, coastal dune shrub thickets, lagoons, and small bayous.

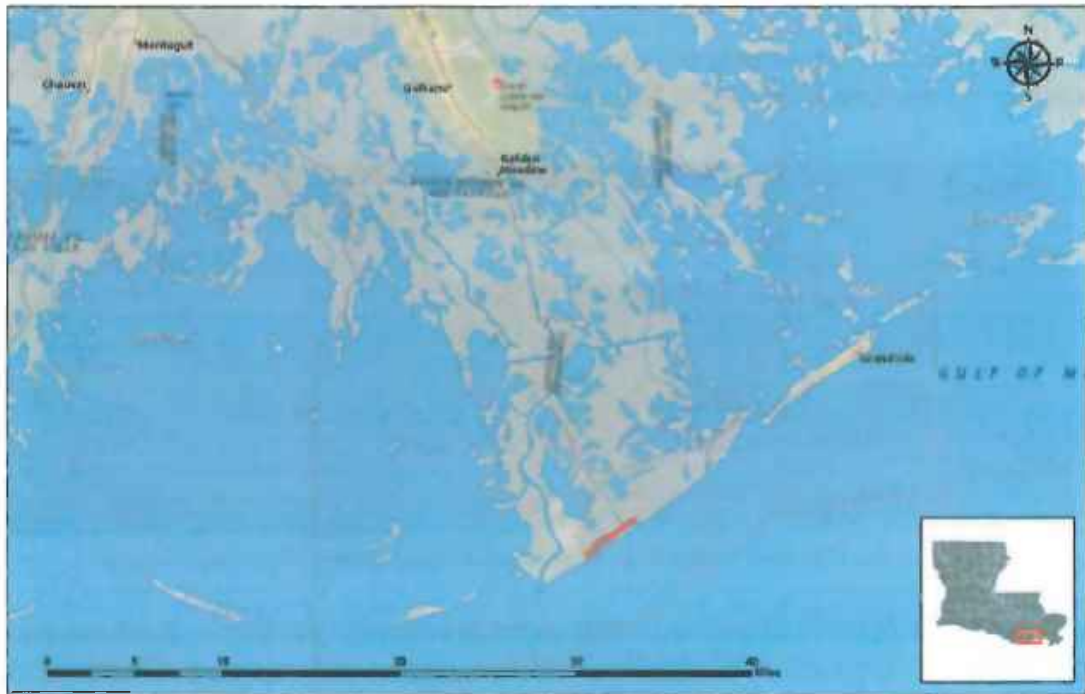


Figure 1. BA-171 project location.

Caminada Beach and Dune Restoration Increment 1 (BA-45), funded through a combination of State Coastal Impact Assistance Program (CIAP) and State surplus funds was completed in 2014. It is expected that the restored beach will greatly reduce the likelihood of breaching and reduce historical shoreline migration rates. BA-171 (Figure 2) is designed to work synergistically with BA-45 further decreasing the likelihood of breaches and improving the longevity of the shoreline.

BA-171 is located in an especially dynamic area of the Louisiana Coast. The landward shoreline migration of the beach will significantly impact the project area over the 20-year life of the project. Historic shoreline migration rates average 41.4 ft/year over the last century (Williams et al. 1992; Penland et al. 2005; and Martinez et al. 2009).

The Caminada Headland has experienced some of the highest shoreline retreat rates in Louisiana, measuring between 55 and 65 ft per year from 1998-2010. Historically the shoreline has migrated landward at about 40 ft per year (Penland et al. 2005). Between 2006 and 2011

shoreline migration increased dramatically, exceeding 80 ft per year near Bay Champagne and 110 ft per year in the Bayou Moreau area (CEC 2012). The increased losses occurred in the wake of Hurricanes Katrina and Rita in 2005 as the breaches remained open for an extended length of time (Figure 2). The losses were exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008 (CEC 2012; USACE 2012). Significant prolonged breaches greatly increase the net export of sediment from the headland (CEC 2012).

In addition to the shoreline migration, the area is also experiencing high loss rates of interior marshes. As the beach and dune continue to migrate landward, overwashed sediment will be lost into newly formed open water and land loss rates will increase. The subunit land loss rate is estimated at -1.47%/yr. The continued deterioration of Caminada Headland threatens thousands of acres of wetland habitat as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche levee system.



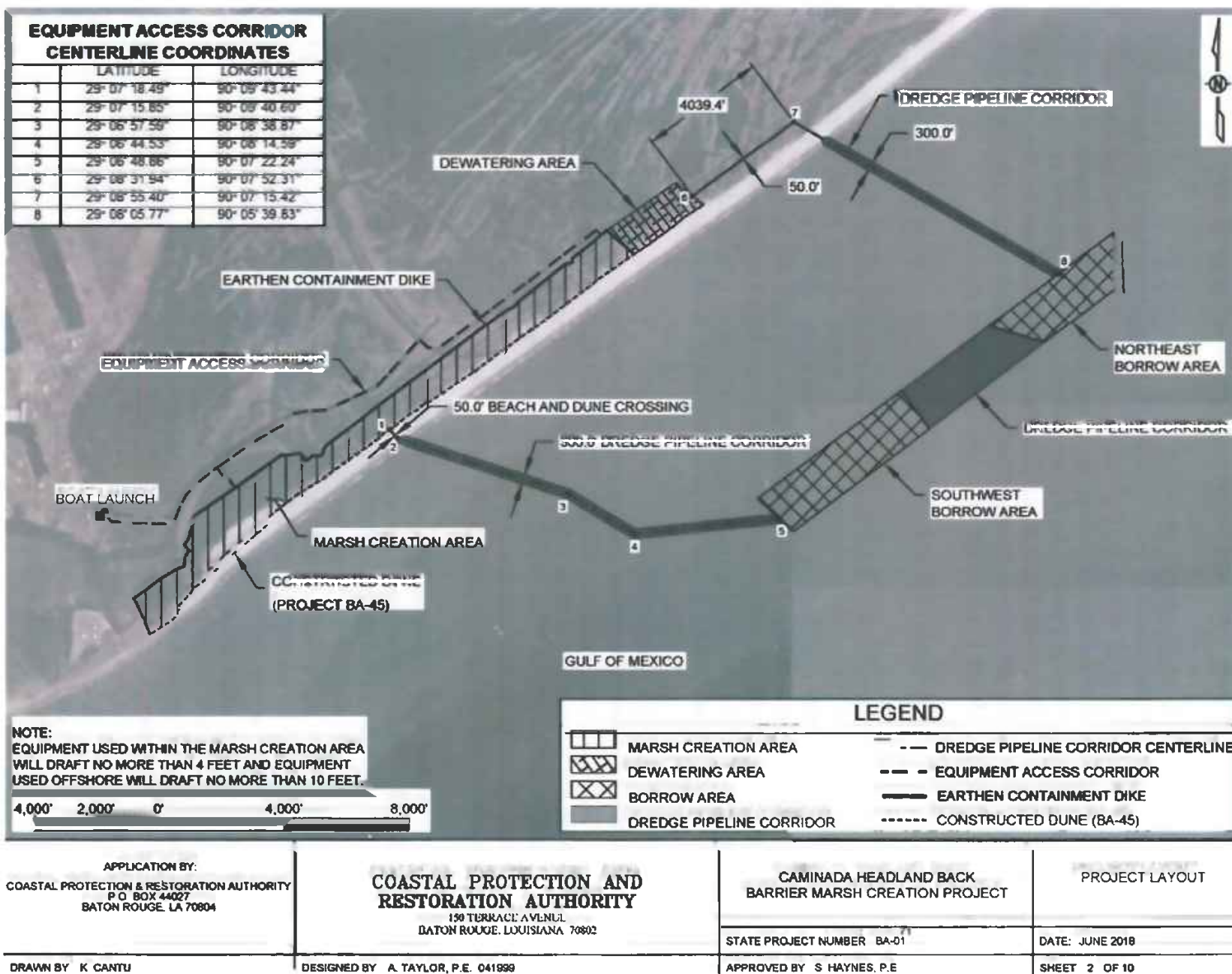
Figure 2. Areas of Caminada Headland breached by Hurricane Katrina.

The purpose of the BA-171 project is to restore the geomorphic function and unique critical and essential habitats of the Caminada Headland's barrier system and reverse the current trend of degradation on the Caminada Headland. Restoration efforts would target ecologically distinct, critical, high priority areas that would increase sustainability with essential form and function of the natural barrier ecosystem. The goals and objectives for the BA-171 project restoring the Caminada Headland back barrier marsh include:

- Create 248 acres and nourish 137 acres of emergent back barrier marsh by pumping sediment from a borrow site approximately 1.5 miles offshore
- Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, increasing the retention of overwashed sediment, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west.
- Slow the current trend of degradation in the headland.

The marsh creation and nourishment cells were designed to minimize impacts on existing marsh and mangroves. Assuming that there would be some natural recruitment, vegetative plantings are not planned until years 1 and 3 and will be at a density of 50%. Containment dikes will be degraded or gapped by year 3, as needed, to allow access for estuarine organisms. The marsh creation design was broken into four (4) components: the marsh creation fill area, the earthen containment dikes, the dredge borrow area, and the dredge pipeline alignments (Figure 3).

Figure 3. BA-171 Project layout, June 2018.



Potential Impacts Analysis to Threatened/Endangered Species or Critical Habitat

West Indian manatee (*Trichechus manatus*)

BA-171 includes both land and water activities, including dredging for fill material approximately 1.5 miles offshore in the Gulf of Mexico. EPA does not anticipate any impacts to manatees due to lack of foraging habitat and a freshwater source. Standard Manatee Conditions for In-water Activities will be included as part of the project design and should avoid and/or minimize potential impacts to any manatees that may enter the project area during the warmer months. Therefore, EPA has determined that BA-171 may affect, but is not likely to adversely affect, the West Indian manatee.

Kemp's Ridley sea turtle (*Lepidochelys kempii*) and Loggerhead sea turtle (*Caretta caretta*)

The dredge pipeline corridors are 50 ft wide and cross the beach and dune area of BA-45 to access the BA-171 marsh creation area from the borrow source. This corridor will be returned to existing conditions upon the completion of the BA-171 project. The area of potential impacts to sea turtle nesting is small, given the limited corridor for the dredge pipeline and that the turtles have access to other areas of the Caminada Headland. Currently, sea turtles do not nest in this location. Therefore, EPA has determined that BA-171 may affect, but is not likely to adversely affect, nesting sea turtles.

Red Knot (*Calidris canutus rufa*)

The BA-171 project consists of creating a marsh on the back side of the existing beach and dune habitat created by BA-45. BA-171 will not create additional beach or dune habitat, but is beneficial to those habitats by creating a platform for the beach and dune material to roll back on. Thus, the BA-45 beach and dune material is not lost to open water. Figure 4 depicts the proposed project area where open water areas would be converted to marsh with implementation of the project.

Suitable roosting and foraging habitat are located on the Gulf shoreline, and the only suitable habitat on the bayside of the headland is a relatively small mudflat area in the southwest portion of the project area (Figure 4) (less than 0.25 acres). The dredge pipeline corridors are 50 ft wide and cross the beach and dune area of BA-45 to access the BA-171 marsh creation area from the borrow source. That corridor will be returned to existing conditions upon the completion of the BA-171 project; thus, any impacts to suitable habitat on the Gulf shoreline would be temporary. In addition, a field visit to the area on May 11, 2018, shows that the habitat on the bayside of the created dune (along the length of marsh creation polygon) has vegetated so that it is currently in a successional stage that is not preferred by red knots. The small bayside mudflat would be the only permanently affected area of suitable habitat, which if avoided, would also eventually become vegetated and no longer suitable. Given the abundance of nearby suitable habitat along the Caminada Headland and at West Belle Pass, any birds utilizing the project area could disperse into nearby habitats that are located within normal daily movement patterns. The following conditions exist: 1) the pipeline corridor along the Gulf shoreline would be temporary, 2) the habitat along the bayside of the dune is in a non-preferred successional stage, 3) the small mudflat would eventually become

vegetated (and thus, unsuitable), and 4) birds would not be forced to disperse beyond normal daily movement patterns. Because of these listed conditions, EPA has determined that BA-171 may affect, but is not likely to adversely affect, the red knot.

Piping Plover (*Charadrius melodus*) or its designated critical habitat

The BA-171 project consists of creating a marsh on the back side of the existing beach and dune habitat created by BA-45. BA-171 will not create beach or dune habitat, but is beneficial to those habitats by creating a platform for the beach and dune material to roll back on. Thus, the BA-45 beach and dune material is not lost to open water. Figure 4 depicts the proposed project area where open water areas would be converted to marsh with implementation of the project.

Suitable roosting and foraging habitat are located on the Gulf shoreline, and the only suitable habitat on the bayside of the headland is a relatively small mudflat area in the southwest portion of the project area (Figure 4) (less than 0.25 acres). The dredge pipeline corridors are 50 ft wide and cross the beach and dune area of BA-45 to access the BA-171 marsh creation area from the borrow source. That corridor will be returned to existing conditions upon the completion of the BA-171 project; thus, any impacts to suitable habitat on the Gulf shoreline would be temporary. In addition, a field visit to the area on May 11, 2018, shows that the habitat on the bayside of the dune (along the length of marsh creation polygon) has vegetated so that it is currently in a successional stage that is not preferred by piping plovers. The small bayside mudflat would be the only permanently affected area of suitable habitat, which if avoided, would also eventually become vegetated and no longer suitable. Given the abundance of nearby suitable habitat along the Caminada Headland and at West Belle Pass, any birds utilizing the project area could disperse into nearby habitats that are located within normal daily movement patterns. The following conditions exist: 1) the pipeline corridor along the Gulf shoreline would be temporary, 2) the habitat along the bayside of the dune is in a non-preferred successional stage, 3) the small mudflat would eventually become vegetated (and thus, unsuitable), and 4) birds would not be forced to disperse beyond normal daily movement patterns. Because of these listed conditions, EPA has determined that BA-171 may affect, but is not likely to adversely affect, the piping plover.

The BA-171 project area occurs within Unit LA-5 of designated critical habitat for the piping plover. Piping plover critical habitat consists of primary constituent elements (PCEs) that provide for piping plover life-history processes and are essential for conservation of the species. PCEs of wintering piping plover critical habitat include sand or mud flats (or both) with no or sparse emergent vegetation. Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important PCEs for roosting piping plovers. PCEs of the beach/dune ecosystem include surf-cast algae, natural wrack, sparsely vegetated back beach and salterns, spits, and over-wash areas. Over-wash areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action.

As stated in the earlier paragraph, the only mudflat habitat within the project area is a small area (less than 0.25 acres) (Figure 4) in the southwest portion of the BA-171 marsh creation polygon where current conditions demonstrate that it is vegetating into a successional stage that is not preferred piping plover habitat. In addition, other areas of the polygon (as indicated by the earlier paragraph) are currently in transition to a successional stage of non-preferred habitat because of the increase in vegetation. In this case, the PCEs for piping plover habitat do not exist or are in such small amounts that piping plovers would move to other, more preferred areas of the beach and dune to roost and forage. Effects of the pipeline corridor on the Gulf shoreline would consist of the necessary equipment and personnel required to install the dredge pipeline, maintain it during construction, and then remove it post-construction. Disturbance to natural wrack would be kept to a minimum to maintain the beach in natural conditions. The pipeline corridor would then be returned to pre-project conditions to the maximum extent practicable. Thus, any impacts to the beach and dune would be temporary and would not disrupt or permanently affect the natural coastal processes that maintain PCEs of critical habitat. Therefore, EPA has determined that BA-171 may affect, but is not likely to adversely affect, designated critical habitat for the piping plover.

References

- Coastal Engineering Consultants, Inc. (CEC) 2012. Caminada Headland Beach and Dune Restoration (BA-45), Headland Restoration Template Alternatives Analysis Report. CPRA Contract No. 2503-10-16. Submitted to the Office of Coastal Restoration and Protection, Jan. 27, 2012.
- Martinez, L., S. O'Brien, M. Bethel, S. Penland, & M. Kulp. 2009. Louisiana Barrier Island Comprehensive Monitoring Program (BICM). Vol. 2: Shoreline Changes and Barrier Island Land Loss 1800's – 2005. USGS and Pontchartrain Institute for Environmental Sciences, University of New Orleans. 32 pp.
- Penland, S., P. F. Connor, Jr., A. Beall, S. Fearnley, & S. J. Williams. 2005. Changes in Louisiana's Shoreline: 1855 – 2002. *J. Coastal Research, Special Issue* (44): 7-39.
- U.S. Army Corps of Engineers. (USACE) 2012. "Integrated Construction Report and Final Environmental Impact Statement for the Barataria Basin Barrier Shoreline Restoration" Marsh (BBBS Report). 2012. p3-71
- Williams, S. J., S. Penland, & A. H. Sallenger, Jr., (eds.), 1992. Atlas of Shoreline Changes in Louisiana. Reston, Virginia. US Geological Survey, Miscellaneous 1-2150-A. 103 pp.



Figure 4. BA-171 Marsh Creation Polygon. The green circle indicates the approximate location of the mudflat under current conditions as of May 11, 2018.



Endangered Species Act (ESA) Project Review and Guidance for Other Federal Trust Resources Report

Instructions

Based on the information provided, this project requires further review. You may submit your project information to lafayette@fws.gov.

Please include the following information with your submission:

- a copy of this report
- project contact name and number
- project location in latitude and longitude, including staging areas if appropriate
- approximate date for project to begin and end
- full project description of work to be completed
- any other information that may be helpful for our review process

Contact the Louisiana Ecological Services Office at (337) 291-3100 for further assistance.

Project Description: Caminada Headlands Back Barrier Marsh Creation #1 (BA-171)

Requesting Agency: Environmental Protection Agency (EPA)

Project Coordinates: Latitude: Longitude:

Point of Contact: Sharon Osowski

Address: 1445 Ross Ave

City: Dallas

State: Texas **Zip Code:** 75202

Phone Number 1: 214-665-7506 **Phone Number 2:** _____

Email Address: osowski.sharon@epa.gov

Does the proposed action only involve telecommunication structure(s)?

No

Would the proposed action occur entirely within an existing footprint or rights-of-way (ROW)?

No

Would any portion of the proposed action occur within one of these areas of interest?

Yes

Red Knot

Would the proposed action involve human disturbance or ground disturbance (such as foot traffic, vehicles, tracked equipment, excavating, grading, placing fill material, etc.)?

Yes

Would the proposed action result in impacts to foraging habitat (sandy beaches, tidal mudflats, salt marshes, and peat banks) or roosting habitat (for example reefs, high sand flats, or sites protected from high tides)?

Yes

Would the proposed action result in long-term impacts (effects lasting up to 6 months or more) to foraging or roosting habitat?

Yes

Conclusion:

May affect, send project in for further review

West Indian Manatee

Does the proposed action fall within the manatee consultation zone, excluding the Mississippi River (see map), and involve in-water activities, with depths of at least 2 feet, during the months of June through November?

Yes

Is the proposed action's footprint entirely on land?

No

Would the proposed action involve in-water activities, with depths of at least 2 feet, during the months of June through November?

Yes

Would the following Standard Manatee Conditions for in-Water Activities be included within the project design?

Yes

Standard Manatee Conditions for In-water Activities

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should 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 should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

- All work, equipment, and vessel operation should 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 should 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 should follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers should 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 should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should 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" should be posted at a location prominently visible to all personnel engaged in water-related activities and should 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 should be immediately reported to the 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.

Conclusion:

We have determined that the proposed action is not likely to adversely affect the West Indian Manatee.

Project Representative

Date

Piping Plover

Would the proposed action involve human disturbance or ground disturbance (such as foot traffic, vehicles, tracked equipment, excavating, grading, placing fill material, etc.)?

Yes

Would the proposed action result in impacts to foraging habitat (intertidal beaches, sand, mud, or algal flats, between annual low tide and annual high tide) or roosting habitat (unvegetated or sparsely vegetated dune systems, sand, mud, or algal flats above high tide)?

Yes

Would all, or portions of, the proposed action be located in piping plover critical habitat (see map)?

Yes

Would the proposed action result in long-term impacts (effects lasting up to 6 months or more) to piping plover critical habitat?

Yes

Conclusion:

May affect, send project in for further review

Sea Turtles

Would the proposed action result in long-term impacts (effects lasting up to 6 months or more) to nesting habitat (sandy beaches)?

No

Would the proposed action be conducted during the sea turtle nesting season (April 15 – October 31)?

Yes

Conclusion:

May affect, send project in for further review

Migratory Bird Conservation Recommendations

Bald Eagle

The proposed project area may provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), which was officially removed from the List of Endangered and Threatened Species as of August 8, 2007. However, the bald eagle remains protected under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) and the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) The Louisiana Department of Wildlife and Fisheries (LDWF) has not collected comprehensive bald eagle survey data since 2008, and new active, inactive, or alternate nests may have been constructed within the proposed project area since that time.

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at:

<http://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf>

In southern Louisiana parishes, eagles typically nest in mature trees (e.g., baldcypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Bald eagles may also nest in mature pine trees near large lakes in central and northern Louisiana. If a bald eagle nest occurs or is discovered within 660 feet of the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at:

<https://www.fws.gov/southeast/our-services/eagle-technical-assistance>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

Colonial Waterbirds

In accordance with the Migratory Bird Treaty Act of 1918 (as amended), please be advised should the project area be located in or near wetland habitats which may be inhabited by colonial nesting waterbirds and/or seabirds, additional restrictions may be necessary.

Colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries. That database is updated primarily by (1) monitoring previously known colony sites and (2) augmenting point-to-point surveys with flyovers of adjacent suitable habitat. Although several comprehensive coast-wide surveys have been recently conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season because some waterbird colonies may change locations year-to-year. To minimize disturbance to colonial nesting birds please refer to our colonial nesting waterbird guidance on the LESO Webpage https://www.fws.gov/lafayette/Migratory_Birds/MigBird.html.

Additional Migratory Bird Conservation Recommendations

During the project impact analysis process developers should identify project-related impacts to migratory birds and the conservation measures that will be used to mitigate them. For additional Migratory Bird Conservation recommendations, guidance and tools to help reduce impacts to birds and their habitats please visit the LESO webpage https://www.fws.gov/lafayette/Migratory_Birds/MigBird.html and the Service's Migratory Bird Program Webpage (<https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>).

MEMORANDUM

DATE: July 03, 2018

TO: Caminada Headlands Back Barrier Marsh Creation (BA-171) Project File

FROM: Sharon L. Osowski, Ph.D.; Marine, Coastal, and Analysis Section (6WQ-EC)

SUBJECT: Determination Regarding Sea Turtles Near Water Operations for BA-171

The Environmental Protection Agency Region 6 has made the determination, that the Caminada Headlands Back Barrier Marsh Creation project (BA-171) “may affect, but is not likely to adversely affect the Kemp’s Ridley sea turtle (*Lepidochelys kempii*) and the Loggerhead sea turtle (*Caretta caretta*).

The Caminada Headlands Back Barrier Marsh Creation project proposes to restore the geomorphic function, essential habitats, and reverse the current trend of degradation. The goals and objectives for BA-171 include:

- Create 248 acres and nourish 137 acres of emergent back barrier marsh by pumping sediment from a borrow site approximately 1.5 miles offshore
- Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, increasing the retention of overwashed sediment, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west.
- Slow the current trend of degradation in the headland.

The marsh creation design was broken into four (4) components: the marsh creation fill area, the earthen containment dikes, the dredge borrow area, and the dredge pipeline alignments. This memo addresses potential impacts to sea turtles in or near the dredge borrow area and dredging operations (i.e., using hydraulic cutterhead dredges).

Our determination that BA-171 will not adversely affect the two species of sea turtles is based on information that hydraulic cutterhead dredges have never been implicated in sea turtles “takes” and information found in a NOAA Consultation and Biological Opinion (BO) from 2003 (Number F/SER/2003/01247). EPA believes that the proposed activities associated with BA-171 are consistent with the BO and the “may affect, not likely to adversely affect” determination.

The specific section of the BO that applies to the BA-171 project is found on page 36 of the Consultation/Biological Opinion and is cited below:

“The primary direct effect of the proposed action is hopper-dredging activities on sea turtles. Hydraulic cutterhead pipeline dredges have never been implicated in turtle takes, presumably because the slow moving cutterhead is readily discerned and easily avoided by these species. Additionally, numerous previous opinions issued by NMFS to the COE since 1991 in both the South Atlantic and Gulf of Mexico COE districts, hydraulic cutterhead pipeline dredge use has been determined to be unlikely to adversely affect any listed species under NMFS’ purview; therefore, hydraulic cutterhead dredges will not be considered further in this opinion. This opinion will only consider hopper-dredging effects on listed species potentially present during the Ship Shoal proposed action.”³

Footnote 3: “Hopper dredges, which are frequently used in ocean bar channels and sometimes in harbor channels and offshore sand mining areas, move relatively rapidly and can entrain and kill sea turtles, presumably as the drag arm of the moving dredge overtakes the slower moving turtle. In contrast to hopper dredges, pipeline dredges are relatively stationary, and therefore act on only small areas at any given time. In the 1980s, observer coverage was required by NMFS at pipeline outflows during several dredging projects deploying pipeline dredges along the Atlantic coast.

No turtles or turtle parts were observed in the outflow areas. Additionally, the COE’s South Atlantic Division (SAD) office in Atlanta, Georgia, charged with overseeing the work of the individual COE Districts along the Eastern Seaboard from North Carolina through Florida, provided documentation of hundreds of hours of informal observation by COE inspectors during which no takes of listed species were observed. Additional monitoring by other agency personnel, conservation organizations, and the general public has never resulted in reports of turtle takes by pipeline dredges (NMFS 1991a).”



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

May 17, 2019

Mr. Joseph A. Ranson
Field Supervisor
U.S. Fish and Wildlife Service
Louisiana Ecological Services Office
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506

RE: Modification to the Caminada Headland Back Barrier Marsh Creation project (BA-171) funded by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA), Endangered Species Act, Section 7 Determination

Dear Mr. Ranson:

On July 12, 2018 the U.S. Fish and Wildlife Service's concurred with the Environmental Protection Agency's determination that the Caminada Headland Back Barrier Marsh Creation project (BA-171) "may affect, but is not likely to adversely affect" the West Indian manatee (*Trichechus manatus*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Loggerhead sea turtle (*Caretta caretta*), Red Knot (*Calidris canutus rufa*), and the Piping Plover (*Charadrius melodus*) or its designated critical habitat. Since that date the BA-171 project area has been modified to include an additional 543 acres of back barrier marsh from the adjacent Caminada Headland Back Barrier Marsh Creation, Increment 2 project (BA-193) which currently does not contain any suitable habitat for red knots or piping plovers.

Effects of the pipeline corridor on the Gulf shoreline would consist of the necessary equipment and personnel required to install the dredge pipeline, maintain it during construction, and then remove it post-construction. Disturbance to natural wrack would be kept to a minimum to maintain the beach in natural conditions. The pipeline corridor would then be returned to pre-project conditions to the maximum extent practicable. Thus, any impacts to the beach and dune would be temporary and would not disrupt or permanently affect the natural coastal processes that maintain primary constituent elements of critical habitat. Therefore, the EPA has determined that the modified BA-171 project may affect, but is not likely to adversely affect, critical habitat for the Red Knot and the Piping Plover.

If you require further assistance or have questions regarding our determination, please contact Adrian Chavarria (214-665-3103; Chavarria.adrian@epa.gov) or Dr. Sharon L. Osowski (214-665-7506; Osowski.sharon@epa.gov) of my staff.

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act.) The project, as proposed,

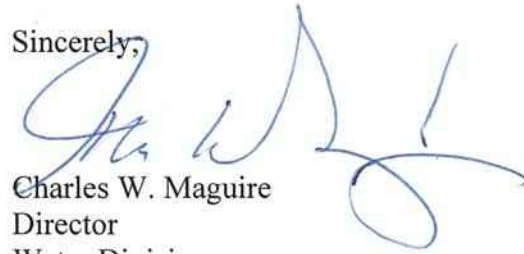
Is not Likely to adversely effect those resources

 20 May 19

Supervisor
Louisiana Ecological Services Office
U.S. Fish and Wildlife Service

Date

Sincerely,


Charles W. Maguire
Director
Water Division

From: [Daniel R. Ragle](#)
To: [Aldridge, Barbara](#)
Subject: RE: Caminada Headland Back Barrier March Creation
Date: Thursday, October 13, 2016 9:56:29 AM
Attachments: [image001.gif](#)
[image002.jpg](#)

Thank you for the correspondence regarding the above referenced project. Although this project has passed the 30 day response limit and may or may not have already been completed, we ask that our office be contacted if any Native American cultural materials or remains are encountered. If you have any questions, please contact me by email.

Daniel Ragle

Compliance Review Officer
Historic Preservation Dept.
Choctaw Nation of Oklahoma
(800) 522-6170 Ext. 2727
dragle@choctawnation.com
www.choctawnation.com
www.choctawnationculture.com



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United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.

Suite 400

Lafayette, Louisiana 70506

November 21, 2016



Ms. Barbara Aldridge
NEPA Coordinator
U.S. Environmental Protection Agency
Region 6, 6WQ-EC
1445 Ross Avenue
Dallas, Texas 75202

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Dear Ms. Aldridge:

The Fish and Wildlife Service (Service) received the Environmental Protection Agency's (EPA) October 3, 2016, Solicitation of Views notice on October 11, 2016, regarding the preparation of a draft Environmental Assessment (EA) for the Caminada Headland Back Barrier Marsh Creation – Increment II project (BA-193) in Lafourche Parish, Louisiana. That project is authorized and funded under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) (104 Stat. 4779; 16 U.S.C. 3951 et seq.). The proposed project would involve creating and nourishing 444 acres of marsh north of and adjacent to approximately 4.5 miles of the Caminada Headland Beach and Dune Restoration Project – Increment II using sediment dredged from an offshore borrow source. The Service has reviewed the information provided and offers the following comments in accordance with the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Coastal Barrier Resources Act of 1982 (CBRA) (96 Stat. 1653, as amended; 16 U.S.C. 3501 et seq.).

The recently constructed Caminada Headland Beach and Dune Restoration Project – Increments I and II has created habitat that supports federally listed species and nesting migratory birds. The Service recommends that the forthcoming draft EA for the subject marsh creation project include a thorough discussion of potential impacts to federally listed threatened and endangered species, migratory birds, and wetlands, as well as any compensatory mitigation and minimization measures that would be implemented for those resources. The Service provides the following information to aid the EPA in preparing their discussion of potential effects (both unfavorable and beneficial) to those resources.

Federally Listed Species

West Indian manatee

The endangered West Indian manatee (*Trichechus manatus*) is known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams. It also can be

found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. Manatees may also infrequently be observed in the Mississippi River and coastal areas of southwestern Louisiana. Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should 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 should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable.

- All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:
- All work, equipment, and vessel operation should 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 should 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 should follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers should 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 should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should 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 CONSRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second

temporary sign measuring 8½ " X 11" should be posted at a location prominently visible to all personnel engaged in water-related activities and should 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 should be immediately reported to the 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.

Should a proposed action directly or indirectly affect the West Indian manatee, further consultation with this office will be necessary.

Piping Plover

Both the threatened piping plover (*Charadrius melodus*) and its designated critical habitat occur along the Caminada headland within and/or in the vicinity of the proposed project area. The piping plover is a small (7 inches long), pale, sand-colored shorebird that winters in coastal Louisiana and may be present for 8 to 10 months annually. Piping plovers arrive from their northern breeding grounds as early as late July and remain until late March or April. They feed on polychaete marine worms, various crustaceans, insects and their larvae, and bivalve mollusks that they peck from the top of or just beneath the sand. Piping plovers forage on intertidal beaches, mudflats, sand flats, algal flats, and wash-over passes with no or very sparse emergent vegetation. They roost in unvegetated or sparsely vegetated areas, which may have debris, detritus, or micro-topographic relief offering refuge to plovers from high winds and cold weather. They also forage and roost in wrack (i.e., seaweed or other marine vegetation) deposited on beaches. In most areas, wintering piping plovers are dependent on a mosaic of sites distributed throughout the landscape, because the suitability of a particular site for foraging or roosting is dependent on local weather and tidal conditions. Plovers move among sites as environmental conditions change, and studies have indicated that they generally remain within a 2-mile area. Major threats to this species include the loss and degradation of habitat due to development, disturbance by humans and pets, and predation.

On July 10, 2001, the Service designated critical habitat for wintering piping plovers (Federal Register Volume 66, No. 132); a map of the seven critical habitat units in Louisiana can be found at <http://criticalhabitat.fws.gov/crithab>. Their designated critical habitat identifies specific areas that are essential to the conservation of the species. The physical and biological features (PBFs) for piping plover wintering habitat are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support those habitat components. The PBFs are found in geologically dynamic coastal areas that contain intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. Important components of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. Adjacent

unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting plovers.

Further consultation with this office will be necessary if the proposed action may directly or indirectly affect the piping plover and/or its designated critical habitat.

Red Knot

The threatened red knot (*Calidris canutus rufa*) also occurs along the Caminada headland within and/or adjacent to the proposed project area. The red knot is a medium-sized shorebird about 9 to 11 inches in length with a proportionately small head, small eyes, short neck, and short legs. The black bill tapers steadily from a relatively thick base to a relatively fine tip; bill length is not much longer than head length. Legs are typically dark gray to black, but sometimes greenish in juveniles or older birds in non-breeding plumage. Non-breeding plumage is dusky gray above and whitish below. The red knot breeds in the central Canadian arctic but is found in Louisiana during spring and fall migrations and the winter months (generally September through May).

During migration and on their wintering grounds, red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks. Observations along the Texas coast indicate that red knots forage on beaches, oyster reefs, and exposed bay bottoms, and they roost on high sand flats, reefs, and other sites protected from high tides. In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Coquina clams (*Donax variabilis*), a frequent and often important food resource for red knots, are common along many gulf beaches. Major threats to this species along the Gulf of Mexico include the loss and degradation of habitat due to erosion, shoreline stabilization, and development; disturbance by humans and pets; and predation.

If implementation of the proposed action has the potential to directly or indirectly affect the red knot or its habitat, further consultation with this office will be necessary.

Sea Turtles

There are five species of federally listed threatened or endangered sea turtles that forage in the near shore waters, bays, and estuaries of Louisiana. The National Marine Fisheries Service (NMFS) is responsible for aquatic marine threatened or endangered species that occur in the marine environment. Please contact Kelly Shotts (727-824-5312) at the NMFS Regional Office in St. Petersburg, Florida, for information concerning those species in the marine environment.

When sea turtles leave the marine environment and come onshore to nest, the Service is responsible for those species. Two species, the threatened loggerhead sea turtle (*Caretta caretta*) and the endangered Kemp's ridley (*Lepidochelys kempii*) could potentially nest in Louisiana during the summer months (i.e., May through November). Historical records indicate that loggerheads nested on the Chandeleur Islands and recent data indicate rare nesting attempts along Fourchon Beach in Lafourche Parish. The Kemp's ridley is known to nest in coastal Texas and Alabama; thus, nesting attempts could possibly occur in Louisiana as that species achieves recovery. The primary threats to nesting beaches include coastal development and construction,

placement of erosion control structures and other barriers to nesting, beachfront lighting, vehicular and pedestrian traffic, sand extraction, beach erosion, beach nourishment, beach pollution, removal of native vegetation, and planting of non-native vegetation (Service 2007). We recommend that you contact this office if your activities would occur on coastal beaches during the summer months (i.e., May through November).

Migratory Birds

In accordance with the MBTA, please be advised that the project area is located adjacent to and contains habitats which are commonly inhabited by colonial nesting waterbirds and/or seabirds. Colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries. That database is updated primarily by (1) monitoring previously known colony sites and (2) augmenting point-to-point surveys with flyovers of adjacent suitable habitat. Although several comprehensive coast-wide surveys have been recently conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season because some waterbird colonies may change locations year-to-year. To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

1. For colonies containing nesting brown pelicans, all activity occurring within 2,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 15 through March 31). Nesting periods vary considerably among Louisiana's brown pelican colonies, however, so it is possible that this activity window could be altered based upon the dynamics of the individual colony. Brown pelicans are known to nest on barrier islands and other coastal islands in St. Bernard, Plaquemines, Jefferson, Lafourche, and Terrebonne Parishes, and on Rabbit Island in lower Calcasieu Lake, in Cameron Parish.
2. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present).
3. For colonies containing nesting gulls, terns, and/or black skimmers, all activity occurring within 650 feet of a rookery should be restricted to the non-nesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present).

In addition, we recommend that on-site contract personnel be trained to identify colonial nesting birds and their nests, and avoid affecting them during the breeding season (i.e., the time period outside the activity window).

Given the nature of the project and potential issues with timing and logistics, the Service realizes that the EPA may not be able to ensure that the nesting season is avoided during project construction. If that situation occurs the EPA should develop an abatement plan, in coordination with the Service, to discourage birds from nesting in proposed construction areas. Please note

that the abatement measures would need to begin prior to the nesting season and/or as soon as breeding behaviors are noticed (generally prior to February 15).

Wetlands

While the Service supports the proposed project and marsh creation using dredged material in general, we recommend that every effort be made to minimize impacts to nearby wetlands to the maximum extent practicable when planning the design and location of pipeline corridors, access corridors, and staging areas for construction equipment and personnel. Should unavoidable impacts to wetlands be anticipated, we recommend that the EPA include in the draft EA a discussion of how those unavoidable impacts would be mitigated, whether through additional project acreage onsite or through other methods.

CBRA

The CBRA is intended to protect fish and wildlife resources and habitat, prevent loss of human life, and preclude the expenditure of Federal funds that may induce development on coastal barrier islands and adjacent near-shore areas. The proposed project area would be located in CBRA Caminada Unit S03. We recommend that the EPA submit a request for our determination as to whether the proposed project would qualify for an exemption under the CBRA. The results of that determination should be included in the draft and/or final EA.

We appreciate the opportunity to provide scoping comments on the proposed project, and we look forward to continuing to work with the EPA as the NEPA process continues. If you have any question regarding the content of this scoping letter, please contact Ms. Brigitte Firmin (337-291-3108) of the Service's Louisiana Ecological Services Office.

Sincerely,



Jeffrey D. Weller
Program Supervisor
Alabama, Arkansas,
Louisiana, and Mississippi

cc: NMFS, St. Petersburg, FL (Attn: Kelly Shotts)
NMFS, Baton Rouge, LA (Attn: Rick Hartman)
LDWF, Baton Rouge, LA (Attn: Kyle Balkum)
LDWF, Natural Heritage Program, Baton Rouge, LA (Attn: Beau Gregory)
CPRA, Baton Rouge, LA (Attn: Renee Bennett)

Literature Cited

U.S. Fish and Wildlife Service (Service). 2007. Loggerhead sea turtle (*Caretta caretta*) 5 year review: summary and evaluation. Jacksonville, FL.



State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

January 20, 2021

Sydney Dobson
Coastal Protection and Restoration Authority
150 Terrace Avenue
Baton Rouge, LA 70802
Via email: Sydney.Dobson@LA.GOV

RE: **C20190105 mod 01**, Coastal Zone Consistency
U.S. Environmental Protection Agency
Direct Federal Action
Caminada Headland Back Barrier Marsh Creation CWPPRA Project BA-171: Modification to use exterior borrow on the landward side for retention dike construction, and to expand the project footprint seaward and use overwash material to restore beach dune elevations for slurry retention
Lafourche and Jefferson Parishes, Louisiana

Dear Mr. Dobson:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP.

Please note that the conditional consistency concurrence for the project as originally submitted remains applicable.

If you have any questions concerning this determination please contact Jeff Harris of the Consistency Section at (225) 342-7949 or jeff.harris@la.gov.

Sincerely,

/S/ Charles Reulet
Administrator
Interagency Affairs/Field Services Division

CR/MH/jdh

cc: Renee Bennett, CPRA
Dave Butler, LDWF
Kirk Kilgen, OCM
Jason Smith, Jefferson Parish
Megan Dufrene, Lafourche Parish

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LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

FILL MATERIALS LICENSE

LICENSE NUMBER: WLF2022005

In consideration of a royalty paid to the Department of Wildlife and Fisheries by the applicant, this license solely for the removal of fill material from water bottoms of the State of Louisiana, is issued to:

Licensee:

Coastal Protection and Restoration Authority
150 Terrace Avenue
Baton Rouge, LA 70802

Location: Gulf of Mexico

City/Town: Port Fourchon

Latitude: 29.118482

Parish: Lafourche

Longitude: 90.11617583

Class D License: Exempt

Rate: 00¢ per cubic yard

Corps Permit Number: MVN-2014-02026-CE

CUP Number: C20190105

Volume: 1,433,687 Cubic Yards

Project Description: Dredge material for the creation of 498 acres of intertidal marsh and 430 acres of emergent marsh behind 8 miles of Caminada Headland Beach. (BA-0171)

Initiate: November 29, 2021

Expiration: December 31, 2022

In the event that licensee reaches the amount applied for prior the December 31, 2022, the license will expire at that time.

The use of the fill material authorized for removal by this license is subject to the following provisions. All provisions of this license shall be adhered to.

- 1. The Department of Wildlife and Fisheries shall be notified at dbutler@wlf.la.gov or 504-286-4173 prior to removal of the material and again upon completion of the project.**
- 2. This license shall be posted in a conspicuous place at the project site during construction activities.**
- 3. The licensee will acquire all other federal and state permits required for the licensed activity prior to commencement of work.**

Randell S. Myers, Assistant Secretary, Wildlife Division

JOHN BEL EDWARDS
GOVERNOR



CHUCK CARR BROWN, PH.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

JAN 16 2019

Mr. Sydney Dobson
Louisiana Coastal Protection and Restoration Authority
P.O. Box 44027
Baton Rouge, Louisiana 70804

AI No.: 195425
Activity No.: CER20180002

RE: Louisiana Coastal Protection and Restoration Authority
Caminada Headlands Back Barrier Marsh Creation (BA-171)
Water Quality Certification WQC 180822-01
Corps of Engineers Permit MVN-2014-02026-CE
Coastal Use Permit P20180717
Lafourche Parish

Dear Mr. Dobson:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to dredge and place spoil to restore Caminada Headlands back barrier marsh off of LA-3090 in Port Fourchon, Lafourche Parish.

The information provided in the application and the additional information received January 9, 2019, has been reviewed in terms of compliance with State Water Quality Standards, the approved Water Quality Management Plan and applicable state water laws, rules and regulations. LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concludes that the deposit of spoil will not violate water quality standards as provided for in LAC 33:IX.Chapter 11. Therefore, LDEQ hereby issues Louisiana Coastal Protection and Restoration Authority Water Quality Certification, WQC 180822-01.

Should you have any questions concerning any part of this certification, please contact Jace Hood at (225) 219-2743 or by email at jace.hood@la.gov. Please reference Agency Interest (AI) number 195425 and Water Quality Certification 180822-01 on all future correspondence to this Department to ensure all correspondence regarding this project is properly filed into the Department's Electronic Document Management System.

Sincerely,


Scott Gulliams
Administrator
Water Permits Division

c: IO-W
Corps of Engineers – New Orleans District
Coastal Management Division

RECEIVED
119 JAN 22 1 P 2:02
CPRA

STATE OF LOUISIANA
PARISH OF LAFOURCHE

EXCLUSIVE RIGHT OF WAY AGREEMENT

BE IT KNOWN, that on the dates hereinafter set forth before the undersigned Notaries Public, each duly commissioned and sworn for his respective jurisdiction, and in the presence of the respective subscribing witnesses, hereinafter named and undersigned:

THIS Exclusive Right-of-Way Agreement is made and executed by and between:

CAILLOUET LAND, LLC , a Limited Liability Company organized under the Louisiana Limited Liability Company Law, with Articles of Organization filed in the Office of the Secretary of State for the State of Louisiana, its present mailing address being 500 West Third Street, Thibodaux, Louisiana 70301 with its mailing address at P.O. Box 292, Thibodaux, Louisiana 70301 (sometimes herein called OWNER or LESSOR), represented by James L. Caillouet, its duly authorized manager/President; (GRANTOR)

AND

GREAT LAKES DREDGE & DOCK COMPANY, LLC OF LOUISIANA, (referred to as GLDD) A Limited Liability Company authorized to do and doing business in the State of Louisiana, having its domicile and principal place of business in at 2122 York Road, Oak Brook, Illinois 60523, (sometimes herein referred as Lessee) represented by William G. Daisey, its duly authorized agent, by the Limited Liability Certification attached hereto and made a part here of. (GRANTEE)

Said right of way is to be on, over, and upon a portion of the land situated in the Parish of Lafourche, State of Louisiana, identified on **Exhibit "A"** together with the said Ariel Map, identified as **Exhibit "B"** which is the access route along LA Highway 3090 to *the Edward J. Wisner Foundation Tract*.

The consideration for this Exclusive Right of Way Agreement shall be a deposit fee of \$3,000.00 which must be paid to GRANTOR by GRANTEE at the time of execution of the agreement. The monthly consideration shall be the sum of \$3,000.00 per month based upon a daily rate of \$100.00 a day. Payment must be paid by the 1st day of each month. As further consideration, GRANTEE shall be charged \$3,000.00, at the end of the said Right of Way Agreement for the purpose of conducting an inspection of said premises by Leonard Chauvin or any other engineer employed by Caillouet Land, LLC.

The said exclusive Right of Way Agreement shall commence May 1, 2021 and continue on a month to month basis until Grantee notifies Grantor in writing by the 20th day of the existing month to cancel the agreement at the end of the said month: otherwise the Grantee shall be responsible for the next month's rent.

Failure to pay said rent within 5 days of due date and after five (5) days written notice by Grantor to Grantee of said non-payment subsequent to the 5 day grace period, addressed to the Grantee at the above address, shall, at the option of Grantor, operate as an immediate cancellation and annulment of this Right of Way Agreement or shall make immediately due and payable the full remaining monthly installments now contemplated to be received as rental during the term of this Agreement.

It is specifically understood and agreed that should it ever be necessary for Grantor, his heirs, successors or assigns, to resort to legal proceedings for any purposes under this agreement, including the recovery of any rental due under the term of this agreement, there shall be paid, in addition to the rent adjudged to be due and owing, attorney fees to be set by the Court.

Grantor makes no warranties whatsoever with respect to the property or Grantee's access thereto and/or use thereof. Prior to access, Grantee shall inspect the property and areas adjacent thereto for the purpose of determining safety to its personnel and property, as well as suitability for the intended use and/or activities. If Grantee, believes there are any safety or suitability problems whatsoever, it shall notify Grantor immediately and shall not proceed with any such access, use or activities. If such conditions cannot be changed by mutual agreement such as to assure safety and suitability to the satisfaction of both parties, this agreement shall be deemed voluntarily terminated and Grantee shall promptly withdraw its personnel and property from the Property. Similarly, if safety or suitability problems develop Grantee shall immediately cease all use of and/or activities at the right of way and notify and cooperate with Grantor to resolve the problem. If the problem cannot be resolved to both parties' satisfaction, this Agreement shall be deemed voluntarily terminated and Grantee, shall promptly withdraw its personnel from the right of way. Upon any access to, use of and/or activities at the right of way whatsoever, or any continuation thereof, the Property shall be deemed to have been thoroughly inspected by Grantee, and accepted by Grantee as being both safe and suitable.

Grantee shall be responsible for ensuring that its personnel obey all of owner's safety rules, whether handed out, posted or advised verbally, and shall comply with all applicable federal, state and local regulations, statutes and laws. Grantee shall be responsible for ensuring that its personnel do not interfere with operations of Grantor or others on the right of way or create any damage or safety hazard at the right of way.

That Grantee, shall not have the right to make any structural permanent improvements on the right of way without the prior written consent of Grantor. Grantee shall return the vacant piece of property to its pre-existing condition once Grantee leaves the premises.

Prior to termination or upon cancellation of this Right of Way Agreement, Grantee is hereby obligated to cause removal, as its sole costs and expense, of all things and property, whether movable or immovable, which have been placed in or upon the Right of Way Property by Grantee whether or not with the consent of Grantor, and to return the Right of Way Property in the same or similar condition as it existed on May 1, 2021, except for reasonable wear and tear.

That the granting of the right of way shall be conditioned upon the Grantee assuming the obligation of maintaining said right of way in a reasonably good condition.

As further consideration, Grantee agrees that except as limited herein, its access to, use of and/or activities at the right of way shall be at its own risk. Grantee assumes responsibility for, and agrees to indemnify and hold Grantor harmless of and from all claims for illness, injury, death or property damage sustained by Grantee, or by employees, invitees, contractors, or subcontractors of Grantee. In addition, Grantee agrees to indemnify and hold Grantor harmless of and from (including legal fees and costs), all loss, damage, expense, claim, liability, suit, fine and/or penalty arising out of or relating to its access to, use of or activities of the right of way. In furtherance of Grantee's agreement above, Grantee waives any exclusivity of remedy afforded it pursuant to any workers' compensation or similar law.

Grantee Agrees to Procure and Maintain, at its Sole Costs and Expense (Including All Deductibles and Premiums):

1. Commercial General Liability Insurance with limits of liability of not less than \$1,000,000 each accident (\$2,000,000 aggregate) and specifically including coverage for contractual defense and indemnity obligations assumed by Grantee under this Agreement.
2. Contractors Pollution Legal Liability Insurance with limits of \$1,000,000 per occurrence covering against clean up costs arising out of pollution conditions caused by Grantee's operations at the premises. The coverage shall include bodily injury, property damage, environmental damages as well as associated clean up costs and to include broad from contractual liability assumed under an insured contract.
3. Said insurance shall name owner as additional insured, waive subrogation against owner and be primary to any insurance maintained by owner.
4. Grantee shall provide a certificate of insurance evidencing the insurances required, attaching policy endorsements adding owner as additional insured with waiver of subrogation.

It is further understood that this grant is not a conveyance of ownership of the property herein described and the parties herein specifically agree that the right of way may only be used by Grantee, its agents, or employees, for the operations of its business and is not intended as servitude of passage for the general public.

This Right of Way Agreement shall be governed by the laws of the State of Louisiana and any proceedings to enforce such agreement shall be brought in the 17th Judicial District Court, Parish of Lafourche, Louisiana.

Each individual executing this Right of Way Agreement or its counterpart, on behalf of the respective party, warrants that he is authorized to do so and that this Right of Way Agreement constitutes the legally binding obligation of such party. This Right of Way Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute a single instrument. If any evidence of execution (e.g. signature, initial) is delivered by facsimile transmission or by e-mail deliver of a "pdf" format data file, it shall be a valid and binding obligation of the party executing (or on whose behalf it is executed) with the same force and effect as if such facsimile or "pdf" page were an original. This Right of Way Agreement shall not be recorded except by the consent of both parties, but an abstract of the Right of Way Agreement may be recorded.

IN WITNESS WHEREOF, the GRANTOR has hereunto signed his name this 30th day of April, 2021, together with the undersigned competent witnesses, in Lafourche Parish, Louisiana.

WITNESSES

Christina Long
print name: Christina Long
Jennifer D. Legendre
print name: Jennifer D. Legendre

CAILLOUET LAND, L.L.C., GRANTOR

James Caillouet
BY: JAMES CAILLOUET PRESIDENT
DATE: 4-30-2021

NOTARY PUBLIC

Print name: STEPHEN E. CAILLOUET
Bar roll #/NP#: 03773
Commission expires: AT DEATH

IN WITNESS WHEREOF, the GRANTEE has hereunto signed his name this _____
day of _____, 2021, together with the undersigned competent witnesses,
in the _____ County, State of _____.

WITNESSES:

**GREAT LAKES DREDGE & DOCK COMPANY,
LLC, GRANTEE**

print name: _____

BY: _____

Date _____

print name: _____

NOTARY PUBLIC
Print name: _____
Bar roll #/NP#: _____
Commission expires: _____

**LEGAL DESCRIPTION
OF
ACCESS RIGHT OF WAY
FOR
GREAT LAKES DREDGE & DOCK COMPANY, LLC
ACROSS PROPERTY BELONGING TO
CAILLOUET LAND, LLC
LAFOURCHE PARISH, LOUISIANA**

COMMENCING AT A POINT LOCATED AT THE WESTERLY EDGE OF LA. 3090 EXT. AND THE INTERSECTION OF THE CENTERLINE OF A PROPOSED 50' WIDE ACCESS RIGHT OF WAY SAID POINT BEING THE POINT OF BEGINNING;

THENCE, N59°35'14"E A DISTANCE OF 125.68 FEET TO A POINT;

THENCE, N45°47'45"E A DISTANCE OF 65.18 FEET TO A POINT;

THENCE, N47°31'54"E A DISTANCE OF 436.78 FEET TO A POINT;

THENCE, N55°22'54"E A DISTANCE OF 250.29 FEET TO A POINT;

THENCE, N57°43'27"E A DISTANCE OF 41.33 FEET TO A POINT;

THENCE, N31°38'04"E A DISTANCE OF 243.86 FEET TO THE END OF PROPOSED 50' WIDE ACCESS RIGHT OF WAY;

DESCRIBED ABOVE IS THE CENTERLINE OF A PROPOSED 50' ACCESS RIGHT OF WAY AS INDICATED ON A MAP SHOWING ACCESS RIGHT OF WAY FOR GREAT LAKES DREDGE AND DOCK COMPANY, LLC ACROSS PROPERTY BELONGING TO CAILLOUET LAND, LLC, LAFOURCHE PARISH LOUISIANA AS PREPARED BY LEONARD CHAUVIN P.E., P.L.S., INC.



COORDINATE DATA				
PT. NO.	EASTING	NORTHING	BEARING	DISTANCE
P.O.B. 1	564728.04	23184.79		
2	564727.43	23184.41	PW 23° 17' E	12.68
3	564718.18	23183.86	N 15° 47' 45" E	85.18
4	564712.33	23200.85	N 87° 21' 54" E	256.39
5	564712.33	23200.85	N 87° 21' 54" E	256.39
6	564712.33	23200.85	N 87° 21' 54" E	256.39
7	564712.33	23200.85	N 87° 21' 54" E	256.39

VERTICAL CURVE: 1000' 10" 10"
HORIZONTAL CURVE: 1000' 10" 10"
COMPUTED BY: JUNE 1998

IMAGE BASE IS 2019 GOOGLE IMAGE.

LEONARD CHAUVIN P.E., P.L.S., INC.
CIVIL ENGINEER - LAND SURVEYOR
427 JACKSON ST. THIBODAO, LA.

DATE: APR. 26, 2021

DESIGNED	CHECKED	INCHES
DATE	DATE	DATE

PROJECT: 21-2710

REVISION	
NO.	DESCRIPTION
1	BY

MAP SHOWING
ACCESS, RIGHT OF WAY FOR
GREAT LAKES BRIDGE & DOCK COMPANY, LLC
ACROSS PROPERTY BELONGING TO
CALLOUET LAND, L.L.C.
LAFOURCHE PARISH, LOUISIANA

SHEET
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